

Summary of Planning Study and Overview of Reasoning and Purpose for the Proposed Plan Amendments

Purpose Statement

Two large area studies evaluated land uses for the areas around the Silver Line Metrorail stations from Wiehle-Reston East to Innovation Center Station in anticipation of the opening of these stations. The Wiehle-Reston East station is anticipated to open at the end of 2013 and the Reston Town Center, Herndon, and Innovation Center stations are expected to open in 2018. The two planning studies are the Reston Master Plan Special Study (Reston) and Route 28 Station – South Study (Route 28). For purposes of evaluating the transportation impacts and for the transportation study attached to the VDOT submittal, they have been combined into one analysis, called the Dulles Corridor Study. The planning studies were conducted to evaluate existing Comprehensive Plan land use guidance and identify appropriate changes, particularly with regard to transit-oriented development. The proposed Plan amendments seek to make the planned uses and Comprehensive Plan guidance more consistent with County Transit Oriented Development (TOD) policies adopted in 2007.

The Route 28 Station- South Study focused on the land area generally bounded by the Dulles Toll Road to the north and Frying Pan Road to the south, and Sully Road (Route 28) to the west and Centreville Road to the east. The commercial area located to the east of Centreville Road and south of Sunrise Valley Drive also is part of the study area. (The north side of Innovation Center Station was previously evaluated and resulted in adoption of a Plan amendment 2010.) The proposed Plan amendment focuses growth within walking distance of the station to create a mix of uses in an urban form. A working group consisting of community members is reviewing the Comprehensive Plan for the study area and will make recommendations to the Fairfax County Planning Commission and Board of Supervisors.

The Reston Master Plan Special Study is also underway and includes transit-station areas along the Reston-Dulles Corridor including Wiehle-Reston East, Reston Town Center and Herndon Metrorail station. A task force has been working with staff to review the Comprehensive Plan for the three transit-station areas. The proposed recommendations better reflect the community's desire, as expressed through the recommendations of the community Task Force, to facilitate the evolution of the areas closest to the station into true mixed-use, walkable, transit-oriented areas. The Task Force will make recommendations to the Fairfax County Planning Commission and Board of Supervisors.

Background

The Board of Supervisors authorized the Reston Master Plan Special Study on May 18, 2009 and directed staff to initiate Phase 1 of the study, which is a review of the Comprehensive Plan recommendations pertaining to the areas around the three Reston transit stations. A companion study was authorized in July 2009 to evaluate transit-related Plan recommendations for Land Unit A of the Dulles Suburban Center, located on the south side of Innovation Center station, the fourth station along the Dulles Corridor.

Reston Master Plan Special Study

In the fall of 2009, a community Task Force was appointed by the Board of Supervisors, comprised of representatives of Reston resident groups, owners of commercial property at the stations and individuals with relevant experience. The Task Force was charged with working with County staff to evaluate existing Plan recommendations and identify changes to better guide future TOD development in the vicinity of the three Reston stations.

The Task Force and several sub-committees of the full Task Force met regularly from 2010 through 2012 to develop an approach to furthering TOD development at the stations. In November 2012, the Task Force concurred with staff's recommendation to study a future land use scenario, Scenario G, for impact analysis. In May 2013, the Task Force received the final impact analysis results related to Scenario G. This proposed Plan amendment is based on the development potential in Scenario G.

Route 28 Station – South Study

In the spring of 2010 a community working group was appointed by Supervisor Catherine Hudgins, which was formed of community stakeholders including residents and land owner representatives. The Work Group met over the course of a year to review land use planning for the study area. The intent was to conduct a comprehensive evaluation of the existing Comprehensive Plan and identify appropriate changes to help guide future development in the vicinity of the proposed Innovation Center Metro Station.

In May of 2011 the Route 28 Station – South Study Working Group recommended a planning scenario for the entire study area to be analyzed by County staff. The scenario is for a mix of uses and includes a range of intensities, 2 – 3 FAR within the one-quarter mile radius of the metro station platform and a range of 1 – 2 FAR within the one-half mile radius of the metro station platform. In June of 2012 the Working Group was expanded and reconvened by Supervisor John Foust to review the impact analyses of the planning scenario and develop land use recommendations. The proposed Plan amendment is based on those ranges of development intensity as reflected in Scenario G.

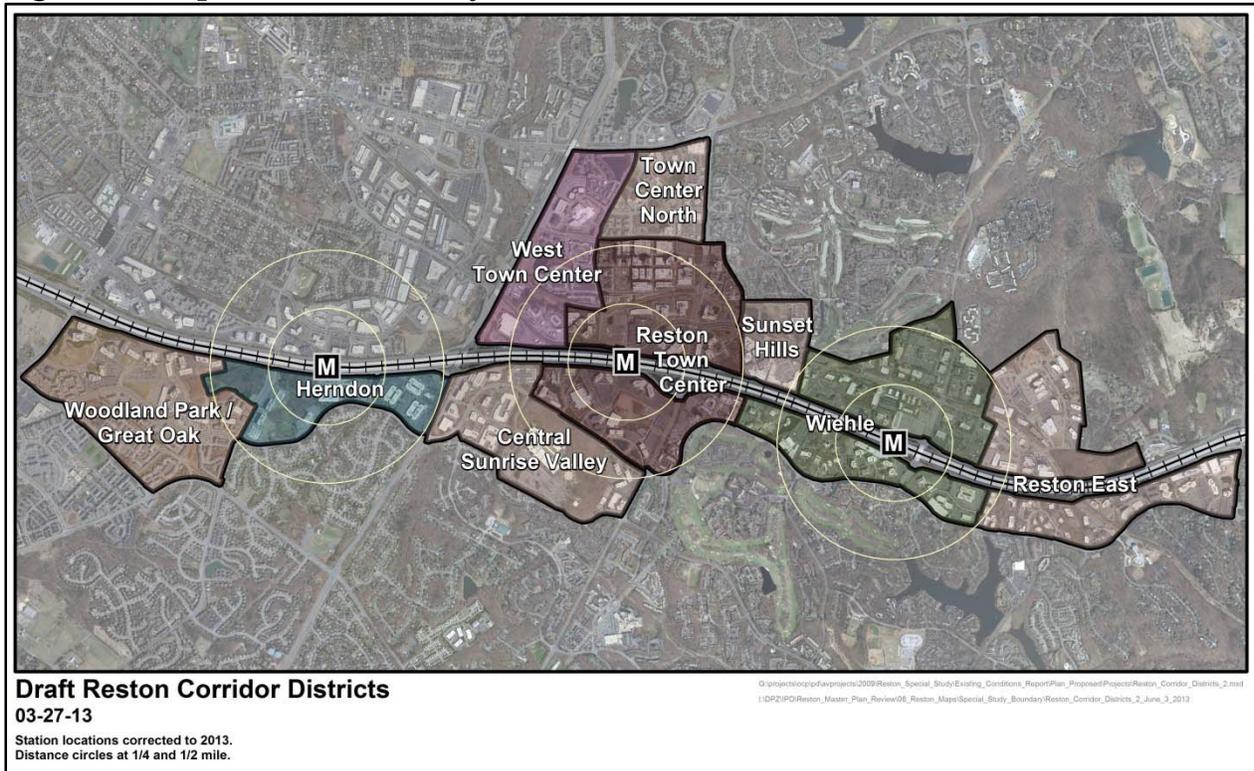
The remainder of the proposed Comprehensive Plan Summary will keep the Reston Master Plan Special Study and Route 28 Station – South Study areas separate as they are two different plan amendments that will be going to the Planning Commission for a recommendation and the Board of Supervisors for adoption. The local assessment of the transportation impact of the plan amendments is combined as they were evaluated together. For actual plan text, the relevant transportation recommendations will be separated into the respective plan amendment areas.

Reston Master Plan Special Study

Location and Existing Conditions

The subject area for the Plan Amendment generally includes the areas around the three planned Metrorail stations within Reston as shown on Figure 1. The Reston Study area is bounded by Hunter Mill Road on the east, Sunrise Valley Drive on the south, Centreville Road on the west, and the Town of Herndon/Baron Cameron Avenue/Sunset Hills Road on the north. The Wiehle-Reston East station area is bounded on the east by Hunter Mill Road, on the north by Sunset Hills Road, Lake Fairfax Park and Hidden Creek Golf Course, on the west by existing commercial development and on the south by Sunrise Valley Drive. The Reston Town Center station area is partially bounded by Reston Parkway on the east, Baron Cameron Avenue on the north, Fairfax County Parkway on the west and residential areas on the south. The Herndon station area is bounded on the east by Fairfax County Parkway, on the north by the Dulles Airport Access and Toll Road, on the west by Centerville Road and on the south by Sunrise Valley Drive and Fox Mill Road. The Plan Amendment addresses land use, urban design and streetscape and transportation changes in the Study Area.

Figure 1 - Proposed Reston Study Area Plan Districts



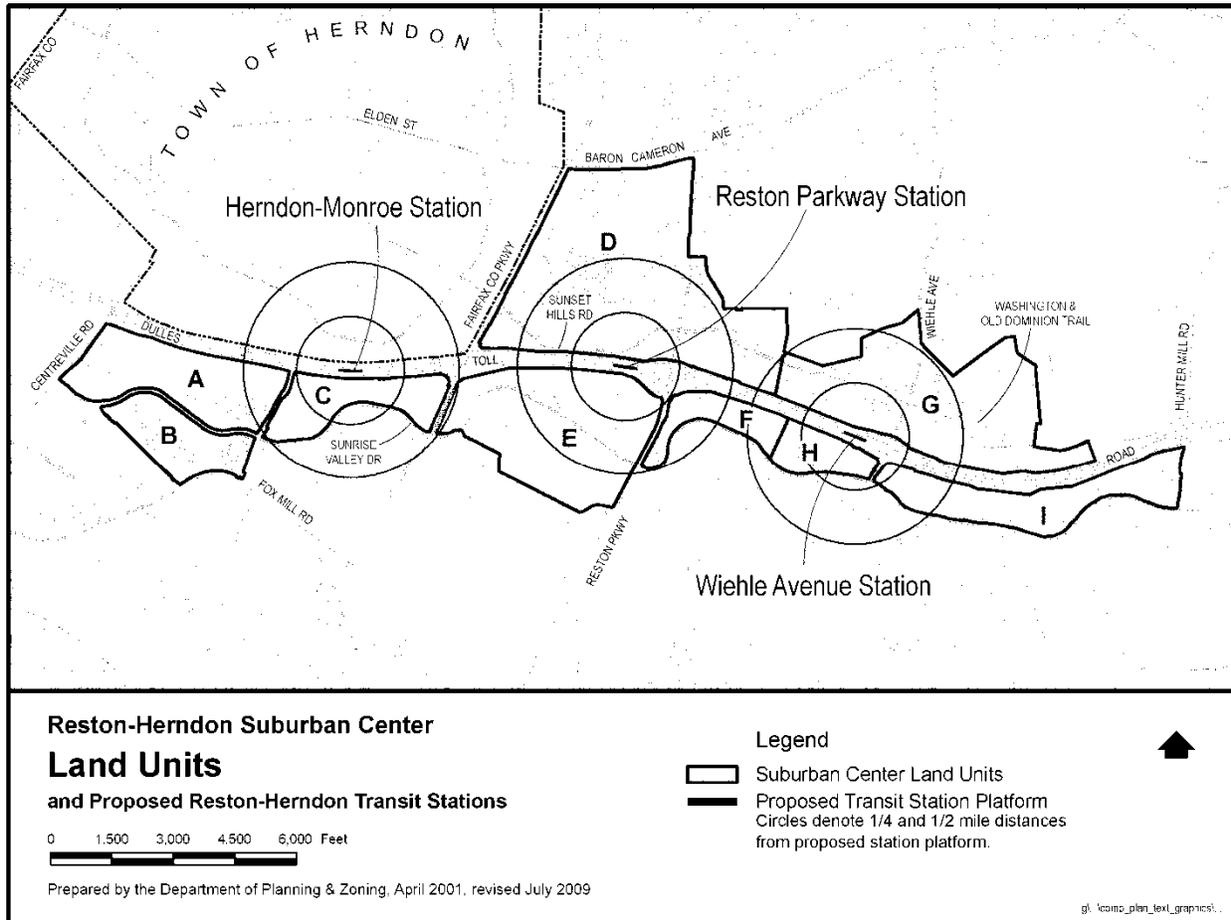
Current Comprehensive Plan for the Reston-Herndon Suburban Center

The current Comprehensive Plan designates the Study Area as the Reston -Herndon Suburban Center, one of eight Suburban Centers throughout the County. This designation is applied to areas that are employment centers located along major arterials. These areas are evolving to include mixed-use cores such as transit station areas and town centers that are more urban in character. The core areas are generally surrounded by transitional areas of lesser intensity.

The current Plan encourages transit-oriented, mixed-use development that is more urban in character and pedestrian and bicycle-friendly for areas in the Suburban Center that are within ½ mile of the planned rail stations. Near the Wiehle-Reston East station, areas within the Suburban Center that are greater than ½ mile from the stations are planned to continue as locations for low-density office uses with a more suburban form. Near the Reston Town Center station, the areas within the Suburban Center that are greater than ½ mile from the station on the north side of the Toll Road are planned for higher density, mixed-use development that is more urban in form and function while the areas on the south side that are greater than ½ mile from the station are planned for low-density office use. The areas that are greater than ½ mile from the Herndon station are planned for either moderate density mixed-used development, including office, retail, residential and hotel or for moderate density residential uses (single family detached, attached and apartments).

The current Plan includes overall land use, urban design, streetscape, and transportation recommendations for the entire Suburban Center. In addition, the Reston-Herndon Suburban Center is divided into "land units" for the purpose of organizing land use recommendations for specific subsections of the Suburban Center. Figure 2 shows the current Comprehensive Plan land units for the Reston-Herndon Suburban Center. All of the land units are under study for this Plan Amendment.

Figure 2: Current Comprehensive Land Units for Reston-Herndon Suburban Center



Proposed Comprehensive Plan Amendment

Concept

This Comprehensive Plan Amendment proposes to eliminate the Reston-Herndon Suburban Center designation and organize the Plan recommendations within three Transit Station Areas located to the north and south of the Wiehle-Reston East and Reston Town Center stations and to the south of the Herndon station (the north side of this station area is subject to planning and zoning within the Town of Herndon). The revised Plan guidance should better promote the creation of more urban, mixed-use, transit-oriented and walkable activity centers at the three rail station. These activity centers are envisioned to be compact, accessible and attractive places where people live, work, shop and play in a pedestrian and bicycle-friendly environment with

an appropriate mix of land uses around the transit stations to promote and facilitate greater transit usage.

The proposed Comprehensive Plan guidance includes the following:

- The land use concept for each Transit Station Area (TSA) divides the TSA into a Transit-Oriented Development (TOD) District (up to ½ mile of the station platform but only within the boundaries of the TSAs) and one or more Non-TOD Districts. The three TOD Districts are planned for the highest intensities within each TSA and are envisioned to become vibrant neighborhoods.
- The Plan envisions a change for the TOD Districts from the current pattern of low to medium density office parks to a mixed-use pattern that balances office, residential, retail, civic, and institutional uses in a compact, pedestrian and bicycle-friendly environment. The Non-TOD Districts will, for the most part, be planned for existing and currently zoned uses and intensities.
- A range of high-quality transportation facilities – including roads, bridges, tunnels, sidewalks, bikeways, trails, strengthened and expanded bus and shuttle services, and Metro - will link the larger Reston residential community and resident workers to the TOD activity centers, which will include employment, residences and recreational facilities. Robust transportation demand management strategies will also help reduce reliance on the automobile while increasing community mobility.
- A key element in creating a more urban fabric in the TSAs will be the introduction of new streets to provide additional links in the road network to enhance pedestrian, bicycle and vehicular circulation around the stations.
- The new Plan will include an urban design framework for the Reston TSAs to guide design and decision-making with regard to the public realm, including the streets, open spaces, setbacks, massing and building types.

Proposed Transit Station Area Districts

The proposed Comprehensive Plan Amendment divides the three Reston Transit Station Areas (TSAs) into nine “districts” that replace the land units that are currently used in the Comprehensive Plan. Three of the districts are Transit-Oriented Development (TOD) districts and are described below. More specific information regarding intensity in these districts is found in the *Proposed Development Potential* section.

The **Wiehle District, Reston Town Center District and Herndon District** will be the TOD Districts and as such, will be the areas within the three TSAs with the maximum development potential, to include new office development primarily focused within ¼ mile of the station platforms, and a focus on new residential development and non-office commercial uses such as hotel and retail in the areas between a ¼-½ mile from the station platforms to complement existing office uses.

The **Wiehle District** is planned to redevelop into a medium-intensity mixed-use neighborhood with a robust residential component. There will be two sub-districts, with the North Sub-district (north of the Toll Road) having higher intensity and a key roadway link as Reston Station Boulevard is extended to the east and west from Wiehle Avenue to run parallel to Sunset Hills Road. The South Sub-District (south of the Toll Road) will have slightly lower intensity in recognition of the low-density residential character along the south side of Sunrise Valley Drive.

The **Reston Town Center District** will be the highest intensity district and have two sub-districts: the North Sub-district (north of the Dulles Toll Road) is planned to be a continuation of the high-density, taller urban character of the Reston Town Center core. It is planned to improve connectivity, particularly for pedestrians and bicyclists, to the Reston Town Center core. The South Sub-district (south of the Dulles Toll Road) is planned to develop in a manner that is complementary to the Town Center to the north of the Toll Road but not as a continuation of the Town Center. Consequently, it is envisioned to develop with a somewhat lower overall intensity in the planning horizon of this Plan.

The **Herndon District** is located on the south side of the Herndon Transit Station platform. It is planned to be a more moderate-intensity neighborhood with a goal of preserving the existing wetlands area along Sunrise Valley Drive.

The remaining six districts are Non-TOD Districts. The Non-TOD Districts vary in both character and the mix of uses present within each. The proposed Plan guidance for the Town Center North and Sunset Hills Districts has modest additional development potential. The proposed guidance for the remaining four Non-TOD Districts does not change the development potential and land uses within the Districts but it will include guidance to connect these areas the TOD Districts by streetscape elements. The six Non-TOD Districts are briefly described below, from east to west.

Reston East District: This district is currently developed almost exclusively with low-density office parks. In the new Plan, this district will continue to serve as a transition to low-density residential neighborhoods to the south of Sunrise Valley Drive and east of Lake Fairfax Business Park and Hunter Mill Road.

Sunset Hills District: This district is located between the Wiehle and Reston Town Center TOD Districts on the north side of the Dulles Toll Road and includes the Plaza America office and retail center as well as office development north of Sunset Hills Road. It is envisioned that this area will serve as a transition between the two adjacent TOD Districts. Limited redevelopment and new infill development is planned with a focus on new development adding residential uses.

Town Center North District: This district is situated to the north of the Reston Town Center core and south of Baron Cameron Drive. It currently includes a mix of government, residential and institutional uses. The new Plan guidance proposes to add the opportunity for significant new residential development and a moderate amount of new non-residential uses (including civic and cultural uses) to complement the existing and planned public uses and the concentration of employment in the Reston Town Center. This future land use pattern should also allow for a transition from the urban core of the Town Center to the low density

commercial use along the north side of Baron Cameron Drive and the adjacent residential neighborhoods.

West Town Center District: This district contains a variety of residential and commercial uses to the west of the Town Center core, including Reston Hospital, two residential neighborhoods and a concentration of automobile-oriented retail uses along Sunset Hills Road. This district is planned to continue to have largely the same uses and intensities over the planning horizon of this Plan.

Central Sunrise Valley Drive District: This district includes areas to the north and south of Sunrise Valley Drive between Fairfax County Parkway on the west and Reston Parkway on the east. Current uses include several office parks with 2-5 story buildings, a mini-storage facility, and a data center. The Plan guidance does not propose to change the development potential or uses for this district.

Woodland Park/Great Oak: This district is at the western boundary of the Herndon Transit Station Area and includes Woodland Park, a major mixed use development with office, hotel, retail uses (including a grocery store) and multi-family residential development. It also includes the Great Oak neighborhood, the largest residential area within the three Transit Station Areas, which consists of a variety of housing types, including single family detached units, townhouses and multi-family condominiums and apartments. No changes in development potential or land uses are proposed in the Plan Amendment.

Proposed Development Potential

A specific amount of planned future development for the three TOD Districts will be identified in the Plan. The total amount of non-residential development planned (including existing, zoned and planned) is 35 million square feet, of which 27.5 million square feet (s.f.) is planned as office use, 3 million s.f. is planned as hotel use and 1.6 million s.f. is planned as retail with the balance as planned as institutional, civic and cultural uses. The total amount of residential development planned is 24,500 dwelling units (approximately 29 million s.f.) for an overall total of 64 million square feet of development (existing, zoned and planned). The resulting jobs:household ratio for the three TSAs is projected to be approximately 4:1.

The planned development is based on a range of floor area ratios (FARs) with the highest FARs available to the parcels closest to the transit station platforms and the low end to mid-point of the FAR range available to the parcels located further away from the platforms. In addition, for parcels in the TOD Districts that are within $\frac{1}{4}$ mile of the platform, the mix of uses planned includes new office and non-office commercial uses as well as new residential. For parcels in the TOD Districts that are between $\frac{1}{4}$ - $\frac{1}{2}$ mile from the platform, the mix of uses includes primarily existing office (with very limited opportunity for new office uses), new residential uses and new non-office commercial uses primarily retail and hotel. To calculate the amount of development potential specified in the proposed Plan text for each TOD District, the mid-point of the FAR range in each sub-district was used.

The FAR range in the Wiehle North Sub-district is varies from 1.5-3.0 and in the South Sub-district from 1.5-2.5. In the Reston Town Center North Sub-district, the ranges is 3.0-4.0 FAR and in the South Sub-district, it varies from 1.5-3.0. The Herndon TOD District is planned for 0.5-2.5 FAR.

The following tables show for each TSA the amount of Existing Development, the development potential under the current Comprehensive Plan, and the development potential under the proposed Comprehensive Plan Amendment by land use type.

For Existing Development, the actual number of units was counted and then a factor of 1,000 SF per dwelling unit was applied to generate the Residential Square Foot (SF) number. For the Current Plan and the Proposed Plan, the Residential SF number was calculated based on the specific FARs planned for the TOD Districts and a mix of uses based on Plan objectives. This number was multiplied by a factor of 1,200 SF to generate the number of dwelling units. This unit size was selected based on the expectation that there will be some urban townhouse development in the TSAs in addition to multi-family units.

Table 1: Planned Development Potential: Reston-Herndon Suburban Center

Land Use	2010 Development	2030 COG Round 8 ¹	Proposed Plan
Residential (units)	5,860	16,382	24,559
Residential (sf)	5,860,000	19,658,400	29,470,800
Office (sf)	20,982,169	22,612,598	27,321,826
Retail (sf)	1,094,476	999,118	1,632,657
Industrial (sf)	841,957	704,700	512,930
Institutional (sf)	2,096,840	1,744,200	2,094,300
Hotel (sf)	936,782	1,537,105	2,997,703
Total Nonresidential	25,952,224	27,597,721	53,549,945
Total Development	31,812,224	47,256,121	79,068,345

Note 1: 2030 COG Round 8 is the current Comprehensive Plan build out by 2030

The above table shows the 2010 development, the 2030 COG Round 8 (current Comprehensive Plan build out by 2030), and the proposed plan.

Proposed Streetscape

The proposed streets will incorporate context sensitive design principles and elements of complete streets. A connected network of streets will be developed. All streets will be accompanied by sidewalks, and will be designed to assist in creating an appropriate sense of place. Elements that contribute to this objective include trees and planting strips, rain gardens, special paving materials and coordinated street furniture, lighting and signage and public art. The streets will be considered a part of a connective open space network, providing attractive connections within and between districts.

The proposed street sections will be designed as compact streets that allow for all modes of transit while reducing the walking distance at intersections and the distance between building streetwalls. These streets will allow access by all manner of emergency and service vehicles at speeds responding to the street context.

The following street categories are proposed for the three Reston TSAs. These categories including goals for each street type with the intent to create “human-scaled” streets that can comfortably accommodate a variety of pedestrian and vehicular uses. It should be noted that these street classifications are for planning and street design purposes only and do not affect their roadway classification. The two major east-west streets in the study area cross more than one TSA and are listed separately. The north-south streets are grouped according to the TSA that they cross.

Sunset Hills Road (Avenue): Sunset Hills will remain a minor arterial and is currently shown on the Transportation Plan Map as planned to be widened or improved. Streetscape improvements along Sunset Hills Road from Lake Fairfax Business Center Drive on the east to the Herndon town line on the west should respond to the variety of conditions found along its length. Pedestrian and bicycle facility improvements should be a high priority as redevelopment occurs.

Sunrise Valley Drive (Avenue): Sunrise Valley Drive is envisioned as a minor arterial with the possibility of a varied streetscape as it passes through the different TSAs. In the Wiehle-Reston East TSA and the Herndon TSA, the north side of the street may be lined with new residential uses or mixed-use commercial buildings along the edge of the transit-oriented mixed-use environment while the south side is planned to continue in its current form as the vegetated edge of residential neighborhoods. In the Reston Town Center TSA, wide planting strips/stormwater management areas may be preserved to buffer the pedestrian-oriented sidewalks from the traffic lanes. In all sections, pedestrian and bicycle facility improvements should be provided as redevelopment occurs.

Wiehle-Reston East TSA

Wiehle Avenue (Avenue): Wiehle Avenue will remain a minor arterial. Streetscape improvements from Crestview Drive to Sunrise Valley Drive will respond to the variety of conditions found along its length.

Hunter Mill Road (Collector): Hunter Mill Road will continue to be a minor arterial and remain a major north-south connector east of the TSA. It connects the Oakton area on the south to Baron Cameron Avenue on the north. No adjustments to the road are planned as a part of this Plan Amendment.

Future Soapstone Road extension (Collector): This planned crossing of the Dulles Airport Access and Toll Road (which is shown on the Fairfax County Transportation Plan Map) improve connectivity in the Wiehle-Reston East TSA for all modes of transportation. It is a key new link in the enhanced street network to be created as a part of future TOD development.

Future South Lakes Drive extension (Collector): This proposed crossing of the Dulles Airport Access and Toll Road is planned to be added to the Fairfax County Transportation Plan Map via this Plan Amendment. It will enhance connectivity for all modes into the Wiehle-Reston East TSA from areas to the south.

Reston Town Center TSA

Reston Parkway (Boulevard): Reston Parkway is a minor arterial that will continue to be a major north-south connector across the DAAR. It is designed to carry a sizeable volume of traffic and connects the Fairfax Center area on the south via West Ox Road to Route 7 on the north. Streetscape improvements along Reston Parkway between Sunrise Valley on the south and Baron Cameron Drive on the north will respond to the variety of conditions found along those segments.

Future Town Center Parkway extension (Collector): This planned crossing of the Dulles Airport Access and Toll Road (which is currently shown on the Fairfax County Transportation Plan Map) enhance connectivity in the Reston Town Center TSA for all modes of transportation. It may be faced with new mixed-use development in the segment between Bluemont Way on the north and the DAAR on the south and is planned to become a mixed-use, pedestrian-oriented street on the south side of the DAAR to Sunrise Valley Drive.

Herndon TSA

Centreville Road (Through Corridor): Centreville Road is on the periphery of the Herndon TSA. It is planned to be improved according to the Transportation Plan Map and the Countywide Bicycle Master Plan. If this road is improved, pedestrian and bicycle facilities should be provided, along with streetscape improvements.

Monroe Street (Collector): Monroe Street is a minor arterial and is currently shown on the Transportation Plan Map as planned to be widened or improved. Streetscape improvements from Sunrise Valley Drive on the south to the DAAR on the north should respond to the variety of conditions found along this segment. Pedestrian and bicycle facility improvements should be a high priority as redevelopment occurs.

Route 28 Station - South Study

Location and Existing Conditions

The study area includes Land Unit A which consists of approximately 645 acres located south of the Innovation Center Metrorail station and small commercial portion of Land Unit B. It is bounded on the north by the Dulles Airport Access Road and Toll Road (DAAR, Route 267), on the east by Centreville Road, on the south by Frying Pan Road, and on the west by Route 28, Washington Dulles International Airport and the Loudoun County boundary. The majority of the land unit is located in the Route 28 Highway Improvements and Phase 2 Dulles Rail Transportation Improvements Tax Districts. The study evaluated existing commercial uses on the west side of Centreville Road; however the Plan amendment only proposes changes in planned land use or intensity for Land Unit A which is shown in Figure 3.

There is approximately 10 million square feet of existing development in Land Unit A which includes a mix of office, multi-family and townhouse residential, hotel and retail uses.

Institutional uses include several churches and the Coates Elementary School. There remain areas of vacant land, some of which are located near the Metrorail station and over 75 acres located along Frying Pan Road. The Merrybrook Run Stream Valley traverses the land unit and represents a constraint upon development and a natural open space and park amenity for the area.

Current Comprehensive Plan for Land Unit A

The Comprehensive Plan for Land Unit A of the Dulles Suburban Center recommends a mix of land uses to include office, hotel and support retail at an intensity of .50 to 1.0 FAR. Optional residential uses are encouraged as part of mixed-use developments. Plan guidance further recommends that the core transit station area be planned for mixed-use with intensities up to 1.5 FAR within a quarter mile and 1.25 FAR within a half mile of the station. There is a second option for intensity up to 3.5 FAR within $\frac{1}{4}$ mile with conditions that include transfer of development potential. Plan text of the land use recommendations for Dulles Suburban Center Land Unit A is provided as Attachment #1.

The Fairfax County Concept for Future Development designates most of Land Unit A as a Transit Station Area. These areas are planned to promote a land use pattern that supports Metrorail by encouraging a mix of uses in a compact, pedestrian-friendly urban form within walking distance of the rail station.

Proposed Comprehensive Plan amendment

Consistent with the Concept for Future Development and County Transit Oriented Development policies, Land Unit A is proposed to encompass the highest planned intensities in the Dulles Suburban Center and is planned to be served by a multi-modal transportation system. The proposed land use pattern focuses most future growth within walking distance of the future Metrorail station which is generally considered to be within $\frac{1}{4}$ and $\frac{1}{2}$ mile from the station. Intensities will be highest in areas with close proximity to the station, tapering down to lower density areas in the rest of the land unit. The land use recommendations are organized by land unit as shown in Figure 3.

Within each land unit, the Plan provides recommendations for planned use and intensity. Land unit A1 is the area north of the Merrybrook Run Stream Valley and is in the Innovation Center Transit Station Area (TSA) where a mix of uses in an urban form is encouraged within walking distance from the station. The land units south of the Merrybrook Run Stream Valley, A-2, A-3 and A-4, have been developed with a mix of office, hotel and residential uses and are planned to maintain their existing character, uses and intensities. Land unit A5 is a large area of vacant land north of Frying Pan Road that is also planned for a mix of uses.

The Plan includes provision of transportation improvements such as transit and a road network that accommodates all modes of transportation. Transportation recommendations include provisions for regular monitoring of development and transportation system effectiveness at least every 5 years. In addition, the proposed Comprehensive Plan includes urban design guidelines that emphasize creating a high-quality urban environment that is walkable and pedestrian-friendly.

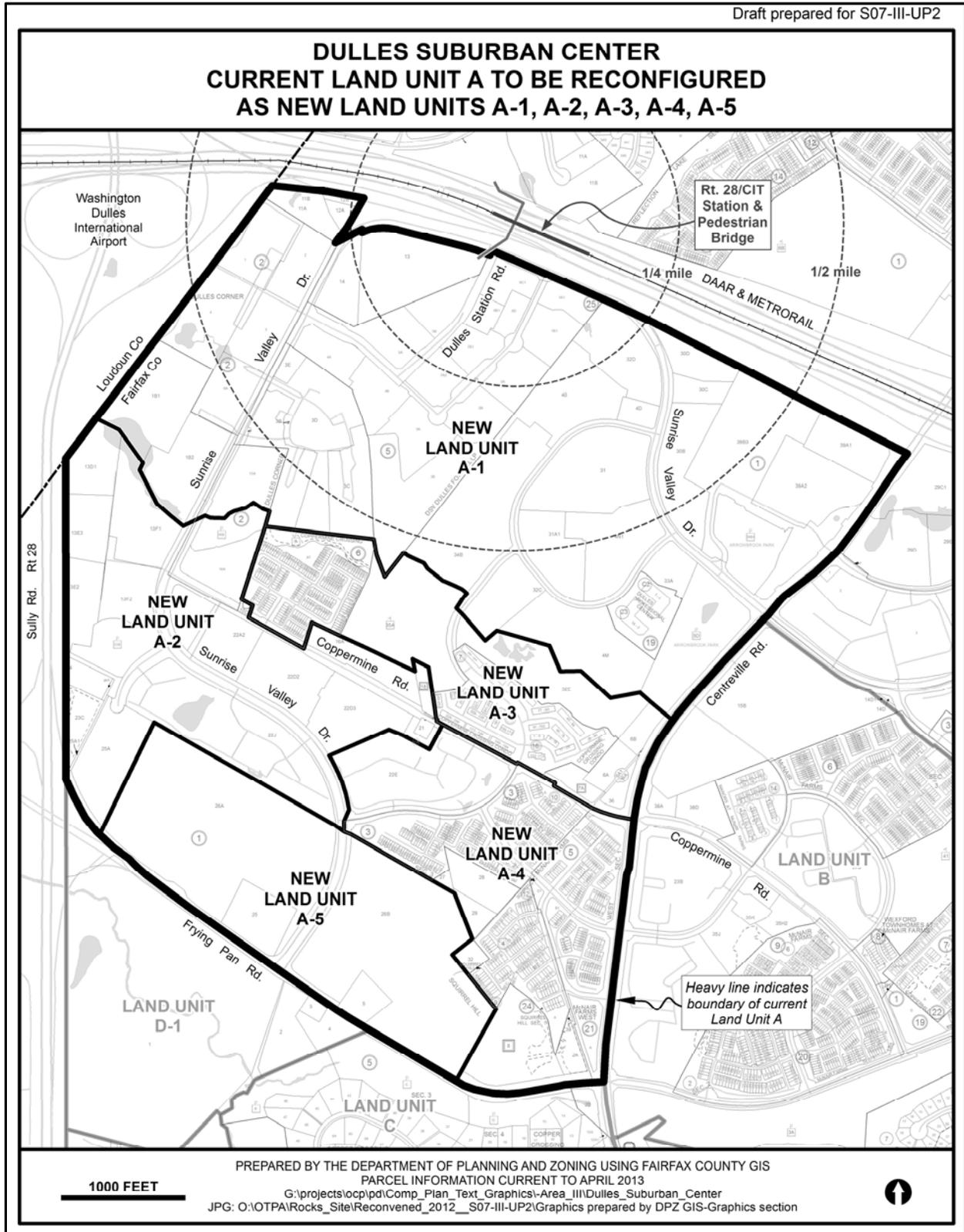
Proposed Land Use

Land Unit A1 is planned for the greatest intensities to focus growth within walking distance of the Metrorail station. To provide guidance on how intensity should gradually decrease with distance from the station, the land unit is divided into three areas as shown on the table below. For purposes of tiered planned intensity, the ¼ mile and ½ mile radius is measured from the center of the platform where it meets the pedestrian access bridge.

Table 2: Route 28 Station South - Land Unit A1 - Tiered Planned Intensity

Distance from Metrorail Station	Range of Intensity (FAR)
Tier 1: Within 1/4 mile	2.0 to 3.0 FAR
Tier 2: 1/4 to 1/2 mile	1.0 to 2.0 FAR
Beyond 1/2 mile	0.75 to 1.5 FAR

Figure 3: Route 28 Study Area - Proposed New Land Units for Land Unit A



A comparison of Land Unit A existing land use, the 2030 COG Round 8 (current Comprehensive Plan build out by 2030), and that of the proposed Plan is provided in the Table 3 below. It is based on quantification of the land use recommendations.

Table 3: Planned Development Potential: Land Unit A – Dulles Suburban Center

Land Use	2010 Development	2030 COG Round 8 ¹	Proposed Plan
Residential (units)	3,309	7,002	9,289
Residential (sf) ¹	3,971,000	8,402,400	11,146,800
Office (sf)	4,755,000	5,419,357	8,379,847
Retail (sf)	4,000	205,146	785,960
Industrial (sf)	35,000	0	0
Institutional (sf)	150,000	281,100	149,173
Hotel (sf)	858,000	694,181	1,181,269
Total Nonresidential	5,802,000	6,599,784	12,401,784
Total Development	9,773,000	15,002,184	24,775,184

Note 1: 2030 COG Round 8 is the current Comprehensive Plan build out by 2030

Proposed Streetscape

A proposed streetscape for example roads in the study area is included below.

Table 4: Urban Design Functional Classifications (Land Unit A Street Types)

Fairfax County Roadway Functional Classification	Urban Design Functional Classification	Land Unit A Examples
Minor Arterial - Type A	Through Corridor	Centreville Road
Minor Arterial - Type B	Avenue	Sunrise Valley Drive
Collector Street	Collector	Sayward Boulevard
Local Street	Local	McNair Farms Drive

Local Assessment of the Potential Impact on the Transportation System

The Reston and Route 28 Station South study areas are traversed by the Dulles Toll Road, which is a major regional road providing access to Route 28, I-66, and the National Capital Beltway (I-495). In addition there are major north-south roads that run through the study areas or adjacent to them. They are Route 28, Centreville Road, Fairfax County Parkway, Reston Parkway, Wiehle Avenue, and Hunter Mill Road. A majority of the access to the study area will occur from Sunrise Valley Drive (on the south from Frying Pan Road to Hunter Mill Road) and Sunset Hills Road (on the north from the Town of Herndon to Hunter Mill Road), which are minor arterials that traverse the entire study area. As stated in the purpose and need section, the intent of the plan amendments are to evaluate the current Comprehensive Plan and identify and recommend changes, where appropriate, to ensure that the planned uses and Comprehensive Plan guidance are more consistent with County Transit Oriented Development (TOD) policies adopted in 2007.

To evaluate the impact of a change in the land use in the Comprehensive Plan, the Fairfax County Department of Transportation (FCDOT) had intersection counts collected at 21 intersections in the Reston Study Area. It was later determined that the Route 28 Study Area should be added to the transportation analysis since these two Plan Amendments were adjacent to each other; therefore, three additional intersections were included to evaluate impacts from the Route 28 Station South proposed land uses changes, increasing the total number of intersections analyzed to 24. The 24 intersections became the basis for evaluating the impacts of proposed land uses on the transportation network.

FCDOT presented the existing conditions to the Reston Task Force in May 2010 and the future base year (2030) land use conditions in October 2010. This same information was presented to the Route 28 Working Group in June 2010 (existing conditions) and in October 2010 (future base year land use conditions). Over the next two and half years FCDOT gave multiple presentations to both community groups and updated the future base year land use from 2030 COG Round 7.2 to 2030 COG Round 8. The 2030 COG Round 8 is the County's current Comprehensive Plan build out by 2030.

FCDOT analyzed four different future land use scenarios in the Dulles Corridor Study. The first land use scenario, Scenario E, had a higher nonresidential component, mainly office, compared to the scenario that is included in this report. The second land use scenario, Scenario F, tested a much higher residential component to understand the impacts of a more balanced jobs-to-household ratio. The third scenario, Scenario E Modified, looked at the impact of shifting land uses from locations in the study area where the transportation network had significant delays to locations where the transportation network could accommodate more traffic. Scenario E Modified plus a more balanced jobs-to-household ratio (the office land use was lowered and the residential land use was increased) is the basis for the proposed land changes shown in the above sections for the Reston Master Plan Special Study and Route 28 Station – South Study.

The future year background land use has been increased for the proposed land use (beyond COG Round 8 land use for areas outside the study area) to account for the Town of Herndon's recent Metro Plan adoption by the Town Council in 2012 and for the increase in development associated with the Tysons Corners Comprehensive Plan development

The attached transportation analysis uses traffic counts from 2010, when the study was first started. The intersection counts have been factored up to 2013 using 3% growth over three years. These intersection counts are the basis for the analysis from, which future conditions are projected, using the National Capital Region Transportation Planning Board (TPB) model to forecast future year impacts from the proposed change in land use. The attached transportation report also contains an assessment of where and how travel occurs in the study area, a detailed intersection analysis that is the basis for recommendations, the transit ridership information by Metro station, and roadway volume-to-capacity ratios that are included in the Appendix.

Fairfax County's policy is to create a multimodal, walkable environment particularly in TOD locations. Using this policy, an overall intersection level of service (LOS E) was the acceptable standard used for intersections within a half-mile of a Metro Station, which is a TOD area. This proposed change in the LOS standard (currently LOS D) is for the area located within the Dulles Corridor Study. The County is moving towards a LOS E standard for all TOD areas within the County to promote slower speeds and encourage the use of alternative transportation modes other than an automobile.

The following approach was used to evaluate and recommend improvements to be added to the Comprehensive Plan based on the transportation study results. A tiered approach was used when mitigation problem traffic movements at intersections resulting from the intersection analyses. The reason for applying the tiered approach is to first apply and exhaust mitigation measures with the lowest cost and impact. If problems still persist, further mitigation measures are applied. The following sequential steps were applied in the tiered approach:

1. Signal Optimization: Before turn lanes were added or other improvements considered, the phasing of signals were optimized.
2. Lane Function: Using the existing right-of-way and approach lanes at an intersection, the lane configuration was evaluated to see if changing the approach lanes could alleviate a failing intersection or a severely failing movement at an intersection.
3. Intersection Control: The intersection control was evaluated to see if an unsignalized intersection can be signalized to mitigate problem movements. However, all the intersections analyzed were signalized so this step in the tiered approach was not applied.
4. Additional Lanes: If the first three steps did not mitigate a failing intersection, then the addition of one or more exclusive turn lanes were evaluated for inclusion. At some intersections, particularly those close to Metro stations, not all turn lanes that could alleviate a failing intersection were added as mitigation measures. The reason is to maintain a balance between walkability and the movement and speed of vehicles and to accommodate all modes of transportation.
5. If an intersection is still failing, another approach that will be evaluated is the addition of links of the grid of streets which might be able to divert some traffic away from the problematic intersection by creating alternative paths for vehicles. The conceptual grids of streets in the study area will be further analyzed and

finalized in a finer grain study which will be conducted after the adoption of the plan amendment.

Fairfax County’s policy is to create a multimodal, walkable environment particularly in TOD locations. Tiered approach #5 will be the basis for the next steps when FCDOT conducts a detailed analysis of the grid of streets to address the intersections that are still failing but can possibly be mitigated with additional street connections.

It should be noted that as part of the analysis, the signalized intersections were optimized through Synchro analysis, as noted in the first step under the tiered approach. The transportation analysis assumed four levels for the road network. The first is the existing network, the second is transportation improvements shown on Fairfax County’s Transportation Plan Map, the third is transportation improvements that could occur due to others (Metropolitan Washington Airports Authority (MWAA) improvements at the Dulles Toll Road on/off ramps), and the fourth are transportation improvements that would be needed to mitigate the increase density in the proposed Plan Amendments.

The Transportation Plan Map currently shows the following improvements:

- Route 28 - 10 lanes with HOV. One HOV lane per direction is included within the ten-lane proposed width.
- Rock Hill Road Overpass
- Extend Sunrise Valley south of Frying Pan Road to Park Center Road
- Frying Pan Road - 6 lanes between Route 28 and Centreville
- Fairfax County Parkway - 6 lanes with HOV
- Fox Mill Road - 4 lanes from Reston Parkway to Monroe Street
- West Ox Road - 4 lanes from Lawyers Road to Centreville Road
- Monroe Street - 4 lanes from West Ox Road to the Town of Herndon
- Town Center Parkway Underpass
- Reston Parkway – 6 lanes from Sunrise Valley Drive to Baron Cameron Avenue
- Overpass (4-lane bridge) across the Dulles Toll Road from Sunset Hills Road to Sunrise Valley Drive approximately at Soapstone Drive. Referred to as the Soapstone Overpass

These transportation improvements are recommended to remain on the County’s Transportation Plan map to support the proposed development proposed with the two Plan Amendments. These are the second level of transportation improvements noted above. The third level of transportation improvements are Dulles Toll Road on/off ramp improvements. They are included in the analysis and will be included as “intersection improvements” in the transportation recommendations.

The fourth and final set of transportation improvements are those needed to mitigate the proposed increase in density associated with Plan Amendments as well as the background traffic. A map showing the intersection improvements is included as Attachment #5. The

proposed land use scenario associated with the Plan Amendments is labeled as Scenario G. The impacts and mitigations measures are described in more detail in the attached transportation analysis.

Transportation Recommendations to be added to the Comprehensive Plan and the Transportation Plan Map

Reston 28 Study Area

- Grade separation at Fairfax County Parkway and Sunrise Valley Drive. An alternative improvement can be considered as identified through a more detailed study.
- Town Center Parkway Underpass (4-lane tunnel) from Town Center Parkway and Sunset Hills Road to Sunrise Valley Drive west of Edmund Halley Drive – alignment and number of lanes refined
- Extend Pinecrest Road from South Lakes Drive to Sunrise Valley Drive
- Reston Parkway – 6 lanes from Sunrise Valley Drive to South Lakes
- Overpass (4-lane bridge) across the Dulles Toll Road from Sunset Hills Road to Sunrise Valley Drive approximately at South Lakes Drive. Referred to as the South Lakes Overpass

Route 28 Study Area

- Extend River Birch Road from Sunrise Valley Drive to Frying Pan Road
- Rock Hill Road Overpass (4-lane bridge) from realigned Innovation Avenue in Loudoun County to the intersection of Sunrise Valley Drive and Sayward Boulevard in Fairfax County – alignment and number of lanes refined

Reston and Route 28 Study Areas

- Grid of Streets in the Reston and Route 28 Study areas, as shown in Figure 4. Figure 4 also shows the other improvements recommended to be added to the Comprehensive Plan and the improvements to be retained.
- Intersection improvements using the tiered approach
- Adopt an overall level of service E for intersections located within the Transit Oriented Development area, defined as a half mile from the Metrorail station.
- Trip Reduction Goals using the Table 5 shown below
- Guidelines for context-sensitive design of streets, pedestrian and bicycle improvements, and other multi-modal improvements that will be included in the Comprehensive Plan Amendments.

Table 5 - Trip Reduction Goals

Development		TOD Locations		Non-TOD Locations (More than 1/2 Mile)
		0 to 1/4 Mile from the Station	1/4 to 1/2 Mile from the Station	
Office	Baseline*	30%	25%	20%
	TDM Goal**	45%-35%	40%-30%	35%-25%
Residential	Baseline	30%	25%	15%-10%
	TDM Goal	45%-35%	40%-30%	25%-15%

*Baseline refers to the inherent reduction from ITE trip rates observed in Fairfax County without any formal TDM program elements in place. These reductions include the following: vehicle trip reduction due to transit use, peak hour spreading and existing TDM activities (prior to a formal TDM program)

**Use of the higher end of the reduction range should be considered especially for developments in areas of high existing or planned urban accessibility, located close to and with easy and convenient pedestrian access to transit stations (<1/4 mile for rail, <1/8 mile for bus service), and in a walkable, mixed-use environment. Mixed-use development supports higher levels of vehicle trip reduction due to internal trip capture and as well as to walk and bicycle trips within the development or to adjacent developments. A project with TDM that is part of a larger mixed-use development may, therefore, support greater vehicle trip reductions than a smaller, single-use, stand-alone project that implements the same site-level TDM measures.

Figure 4 - Transportation Improvements for the Reston and Route 28 Studies

