



# PROPOSED COMPREHENSIVE PLAN AMENDMENT

ITEM: PA 2017-III-DS1  
November 1, 2018

**GENERAL LOCATION:** North of Dulles Toll Road and Airport Access Highway, East of the Loudoun County border, generally west of Dulles Greene Drive and Innovation Avenue / Rock Hill Road.

**SUPERVISOR DISTRICT:** Dranesville

**PLANNING AREA:** Area III

**SPECIAL PLANNING AREA:**  
Dulles Suburban Center, Land Units L-1 and L-2

**PARCEL LOCATION:**  
15-2 ((1)) 4, 5, 15, 16 and 17

**PLANNING COMMISSION PUBLIC HEARING:**  
November 15, 2018 @ 7:30 PM

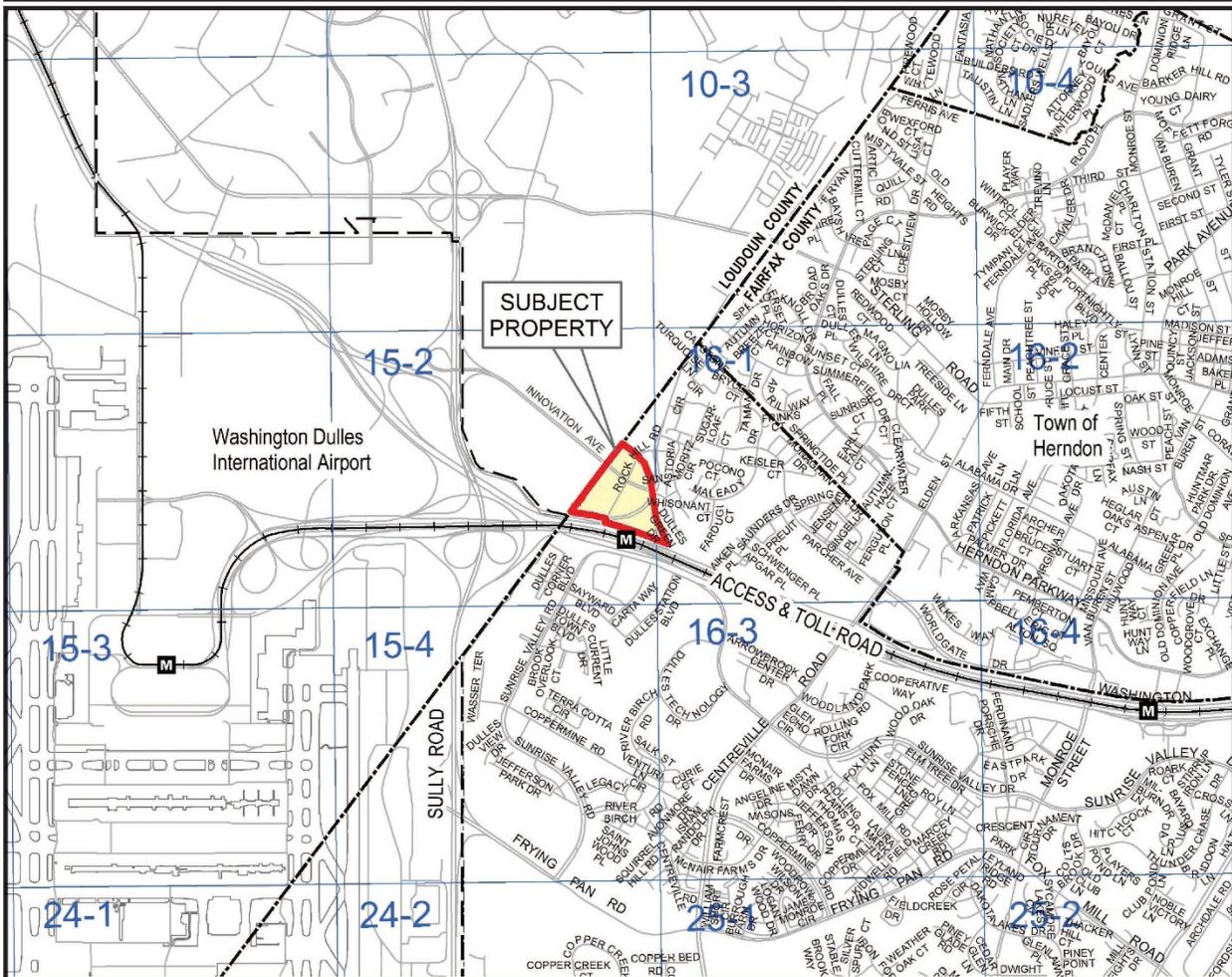
**BOARD OF SUPERVISORS PUBLIC HEARING:**  
December 4, 2018 @ 4:30 PM

**PLANNING STAFF DOES RECOMMEND THIS ITEM FOR PLAN AMENDMENT**



Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.

For additional information about this amendment call (703) 324-1380.



3000 FEET

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS  
Innovation Center Station (North), Dulles Suburban Center, Land Units L-1 and L-2



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**CURRENT PLAN AND PROPOSED CHANGE**

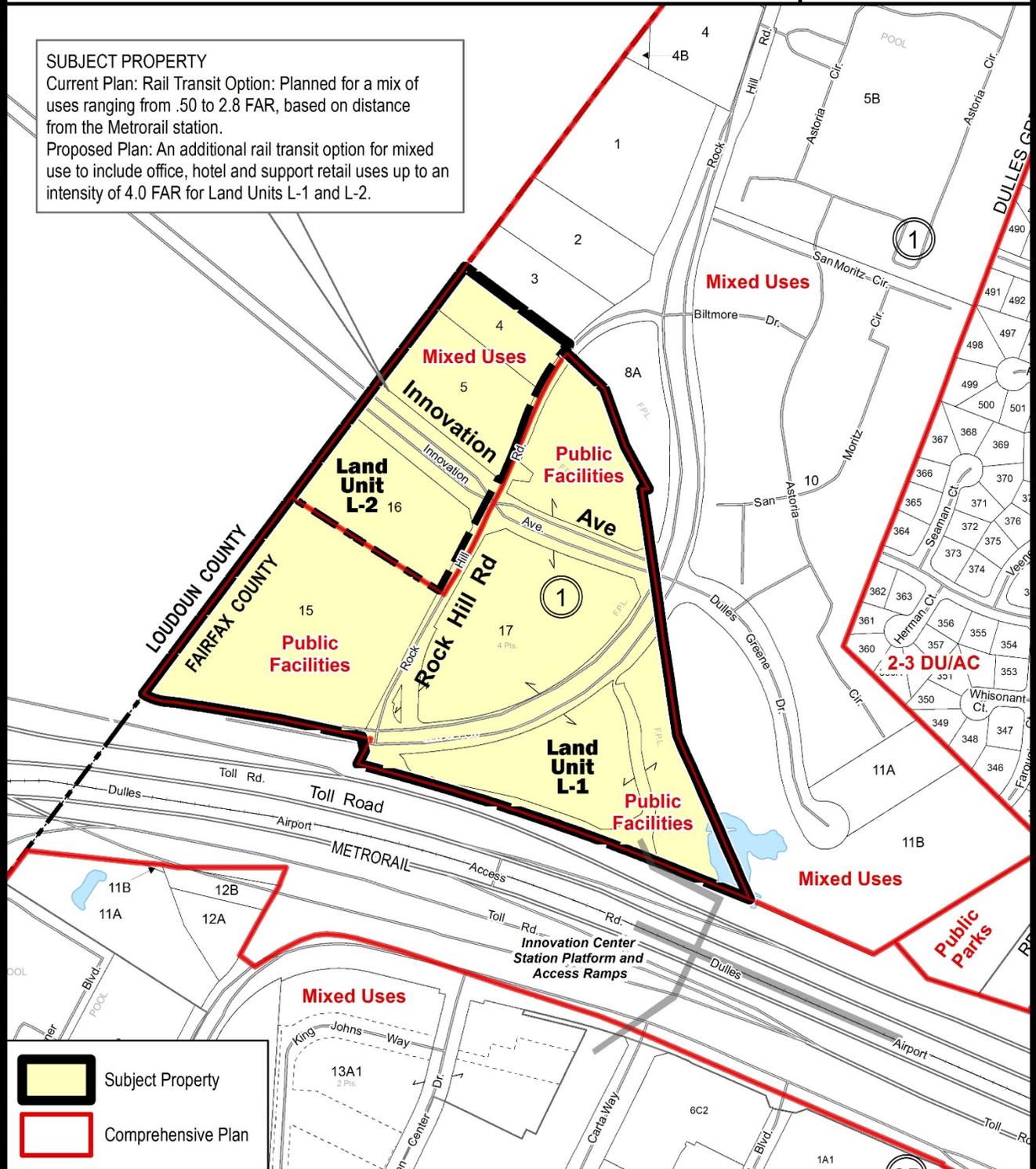
PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

**ITEM:  
PA 2017-III-DS1**

**SUBJECT PROPERTY**

Current Plan: Rail Transit Option: Planned for a mix of uses ranging from .50 to 2.8 FAR, based on distance from the Metrorail station.

Proposed Plan: An additional rail transit option for mixed use to include office, hotel and support retail uses up to an intensity of 4.0 FAR for Land Units L-1 and L-2.



**Legend**

- Subject Property
- Comprehensive Plan

400 FEET

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS  
PARCEL INFORMATION CURRENT TO FEBRUARY 2018  
G:\projects\loc\pd\OTPA\_GRAPHICS - Innovation Center Station (North), Dulles Suburban Center, Land Units L-1 and L-2



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## **STAFF REPORT FOR PLAN AMENDMENT 2017-III-DS1**

### **BACKGROUND**

On October 24, 2017 the Fairfax County Board of Supervisors (Board) authorized Plan Amendment (PA) 2017-III-DS1 for Land Units L-1 and L-2 of the Dulles Suburban Center, (Tax Map Parcels 15-2((1)) 4, 5, 15, 16 and 17) in the Dranesville Supervisor District. The Board authorized staff to consider the following for the subject area:

- Consider an increase in the current recommended FAR (floor area ratio) limits in the "Core Area" (see Figure 1). The FAR limits considered should be consistent with maximum intensity levels at other Silver Line Metrorail stations in the Reston-Dulles corridor.
- Evaluate a land use mix option that includes office as the predominant use, and to identify needed improvements to public facilities in the area, including fire, police, schools, recreation, and transportation.
- Expedite and complete the review and processing of this Plan Amendment within eight to ten months, and to work closely with Loudoun County and the Virginia Department of Transportation to ensure that the transportation and land use planning are compatible with approved and planned developments in Loudoun County.

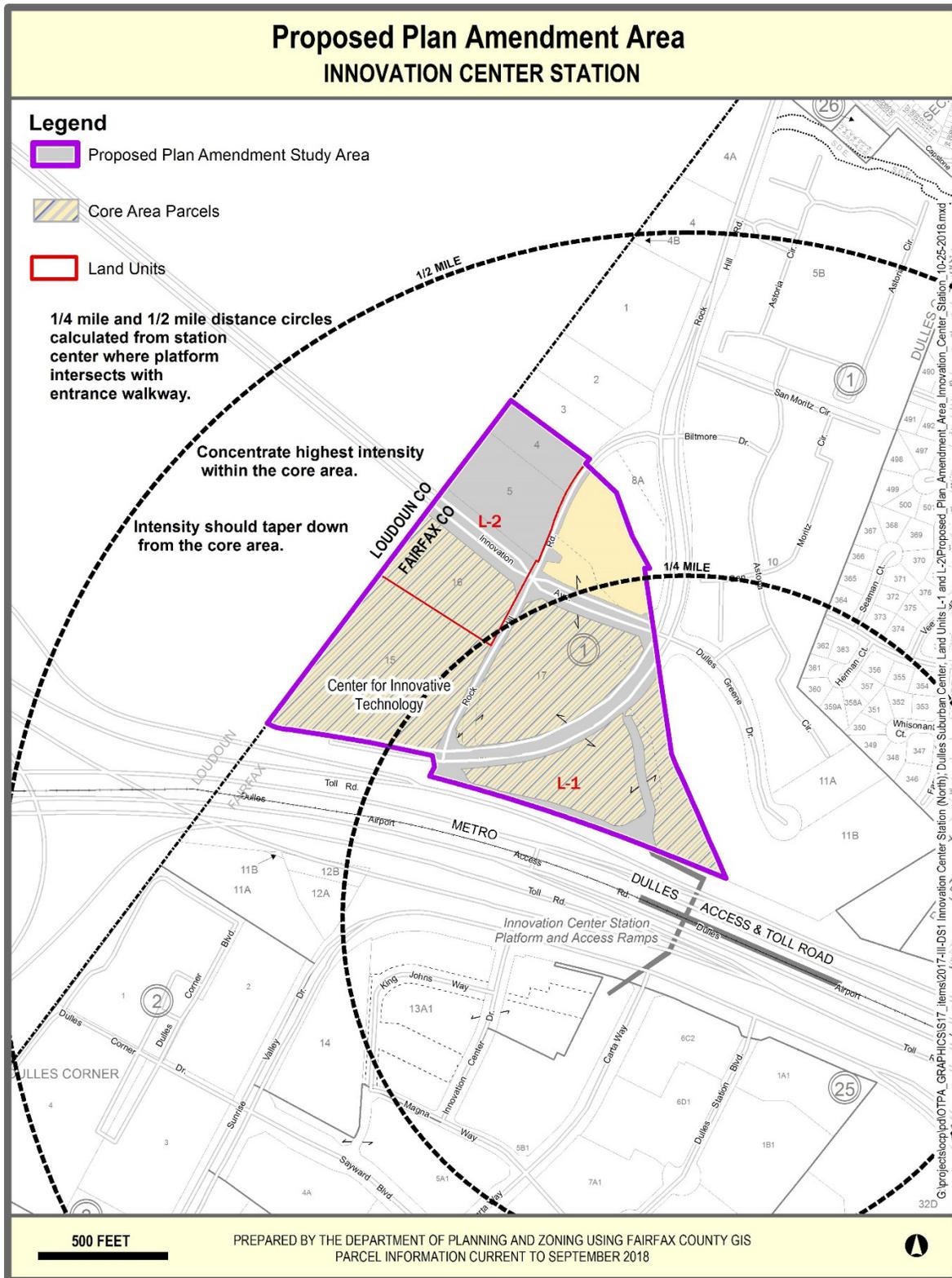
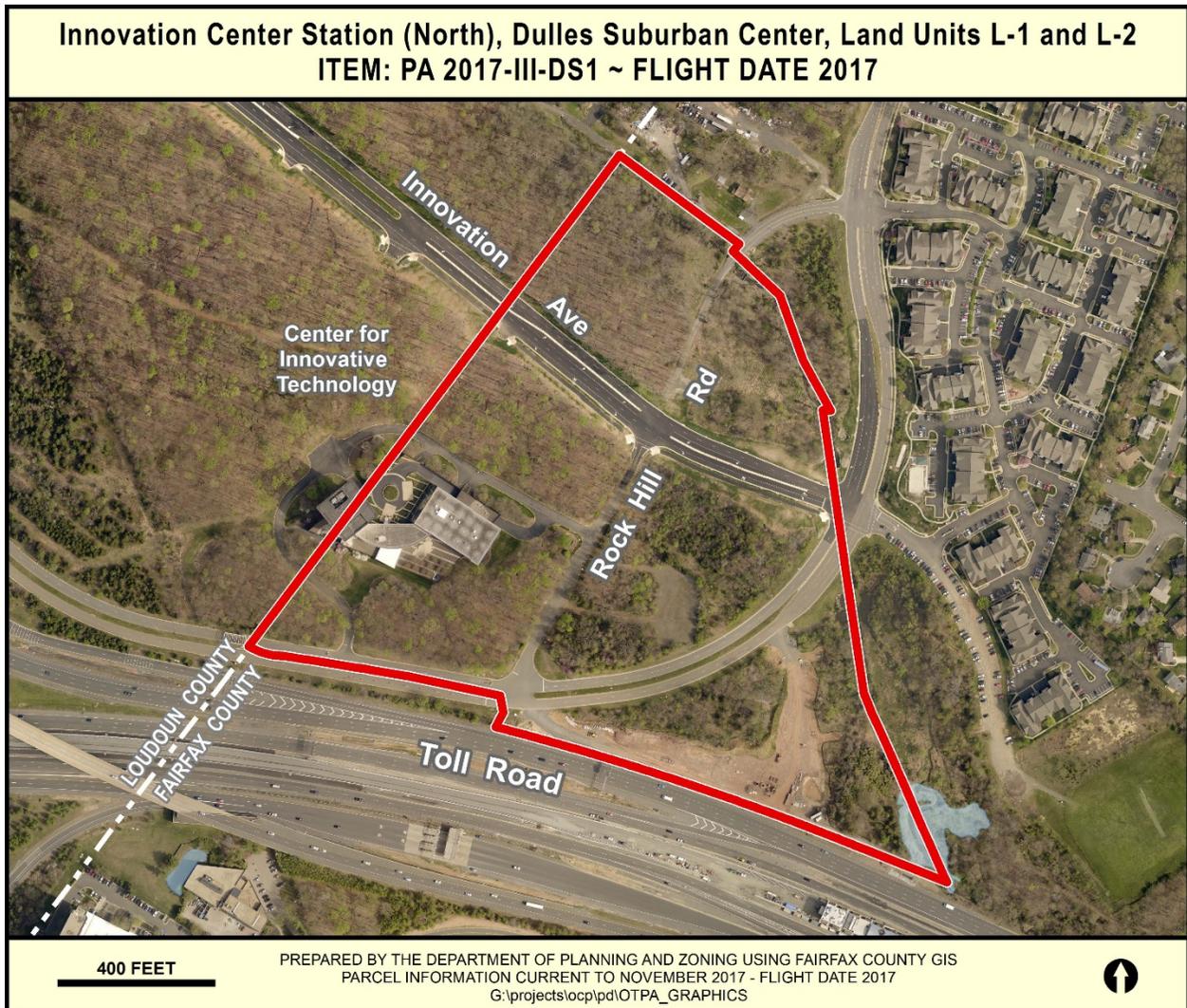


Figure 1: Proposed Plan Amendment Area

**CHARACTER OF THE SITE**

The subject area, consisting of Land Units L-1 and L-2, is immediately north of the Innovation Center Metrorail Station. The area is approximately 28.3 acres and is shown in Figure 1. The Innovation Center Metrorail Station is one of six stations that are part of Phase II of the Silver Line, scheduled to open in 2020.

The site is developed with the Center for Innovative Technology (CIT) as shown in Figure 2. The CIT building is 147,384 square feet with seven stories and was completed in 1989 to house a state-supported research and development consortium of state universities and colleges. The Commonwealth of Virginia is the sole property owner in Land Unit L-1. Land Unit L-2 is undeveloped. The northern two parcels of Land Unit L-2, Tax Map parcels 15-2((1)) 4 and 5, are within a Resource Protection Area (RPA). The subject area is bisected by Innovation Avenue and Rock Hill Road.



**Figure 2: Aerial View of Subject Area**

## CHARACTER OF THE AREA

Land Unit L contains four subunits: L-1, L-2, L-3 and L-4 (Figure 3).

**North and West:** The area to the north and west is largely undeveloped and is located in Loudoun County. Existing development includes a stone quarry and a residential property with multiple structures. The area is zoned R-1 Single Family Residential and PD-RDP Planned Development- Research and Development Park and planned for business use. There are two approved mixed-use developments in Loudoun County, The Hub and Waterside, adjacent to and north of the subject area.

**North and East:** Land Unit L-3 is to the north and contains two single-family homes as well as vacant parcels. Land Unit L-4 is to the north and east and is developed with the Dulles Greens apartment community. It is planned for residential use at 16-20 dwelling units per acre (du/ac) and zoned PDH-20. Directly to the east of the CIT property is a parcel, 16-1 ((1)) 11B, owned by Fairfax County, which is zoned PDH-20 and planned for transit facilities associated with the Innovation Center Metrorail Station.

**South and West:** The Dulles Toll Road and Airport Access Highway, the Silver Line Metrorail line, and the Innovation Center Metrorail Station are located to the south. To the southwest of the area is Dulles International Airport. The nearest vehicular crossings to development to the south in Land Unit A are located on Route 28 to the west and Centreville Road to the east.

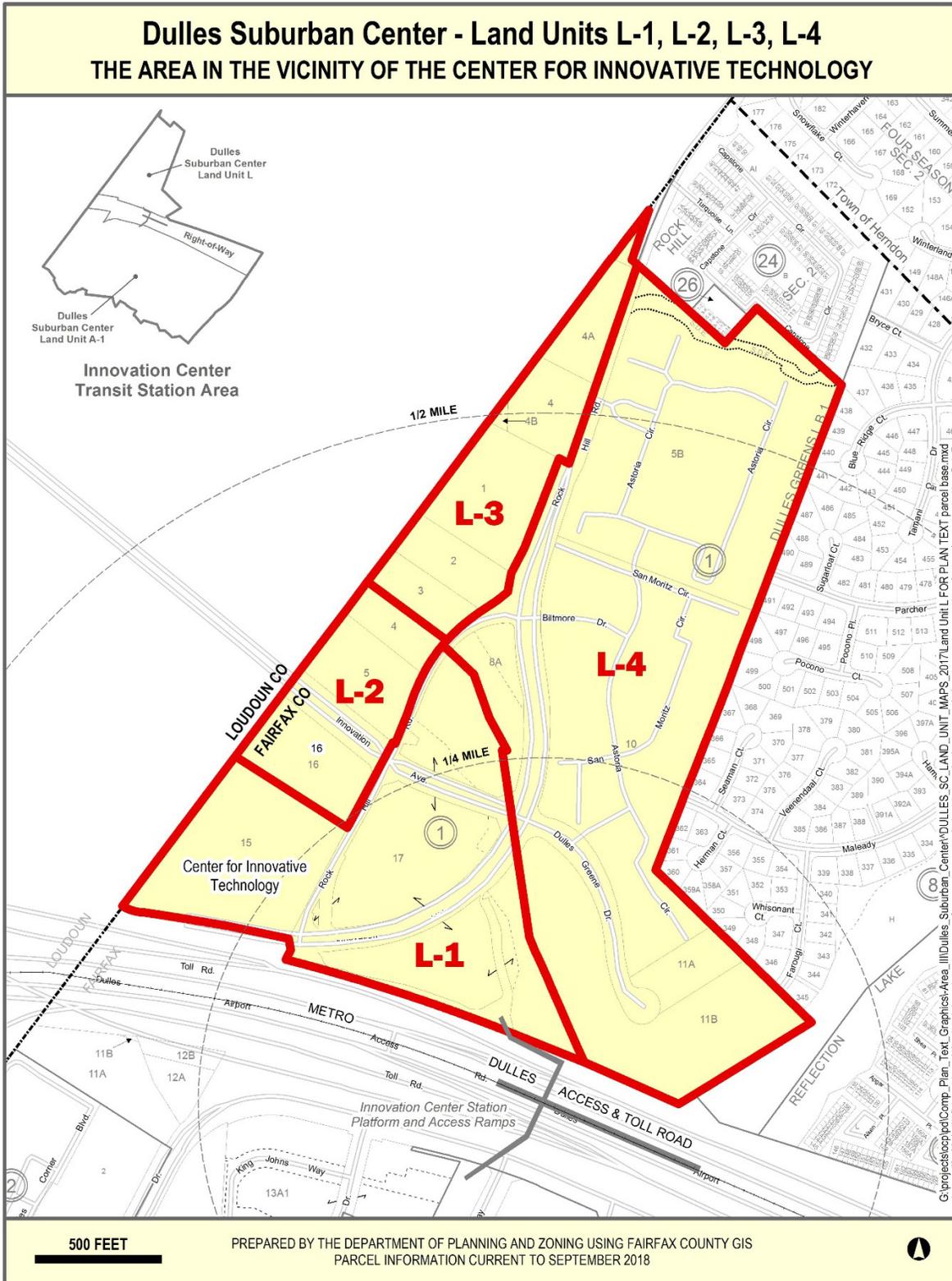


Figure 3: Land Unit L

## PLANNING HISTORY

On November 16, 1998, the Board of Supervisors authorized a special study of the Dulles Corridor to examine areas around proposed transit stations including the station near the CIT site. The Reston-Herndon Transit Station Study resulted in land use recommendations intended to support the proposed transit system. The Board of Supervisors adopted Plan Amendment 2000-01 (S98-CW-4CP), which added a higher intensity mixed use options for Land Units L-1, L-2 and L-3 (formerly Land Units A and B) and updated Plan guidance for urban, transit-oriented uses and added urban design guidelines.

The current Plan recommendations for the subject area resulted from the 2008-2009 Area Plans Review (APR) process adopted by the Board on July 27, 2010. During the 2008-2009 APR process, the county received three nominations for the subject area, APR #08-III-7UP, 08-III-11UP and 08-III-12UP, which proposed transit-oriented development at an intensity up to 2.0 and 2.17 FAR.

In 2017, as part of Plan Amendment 2016-CW-3CP to include the entirety of all Metrorail Stations within their respective small area plans, staff noted that the Innovation Center TSA guidance was contained in two small area plans. The Plan recommendations for the subject area (Innovation Center Station (North)) were within the Upper Potomac Planning District, UP4-Greater Herndon Community Planning Sector, while the recommendations for the Innovation Center Station Center (South) were within the Dulles Suburban Center. Because both areas orient to the Metro station, the Plan Amendment relocated the Plan guidance for the subject area to the Dulles Suburban Center in a new land unit, Land Unit L. The area-wide guidance for Upper Potomac Planning District still applies to Land Unit L. No changes to land use or intensities were made.

## ADOPTED COMPREHENSIVE PLAN TEXT

The Comprehensive Plan Map identifies Land Unit L-1 as planned for Public Facilities, Government and Institutional uses and Land Unit L-2 as planned for mixed use. Land Units L-1 and L-2 are within the Innovation Center Transit Station (North) Area and planned for transit-oriented development (TOD). The adopted Plan provides an option for a mix of uses ranging from .50 to 2.8 FAR, based on distance from the Metrorail station. This option is transit-supportive and includes multifamily residential, office, hotel, as well as retail uses designed to serve the TOD community. Below are excerpts from the Plan. The full text can be found in Attachment 1.

**Fairfax County Comprehensive Plan, 2017 Edition, Area III, Dulles Suburban Center, as amended through July 31, 2018, Dulles Suburban Center Land Unit Recommendations, Land Unit L, pages 141-158:**

Baseline recommendations (pp. 141-143):

“Land Unit L-1: Land Unit L-1 (Parcels 15-2((1)) 15 and 17) is developed as the Center for Innovative Technology, a state-supported research and development consortium of state universities and colleges. Land Unit L-1 at the baseline is planned for this existing institutional use.”

“Land Unit L-2: Land Unit L-2 (Parcels 15-2((1)) 4, 5, 16) is planned for a maximum intensity of .50 FAR. A hotel or conference center use up to .50 FAR which would appropriately complement the CIT is also appropriate in Land Unit L-2. Community-serving retail use incorporated on the ground level of buildings is desirable and appropriate.”

Rail Transit Option (p. 143):

“Consistent with Transit Oriented Development (TOD) policy, this plan provides an option for a mix of uses ranging from .50 to 2.8 FAR, based on distance from the Metrorail station.

...

This option is transit-supportive and includes multifamily residential, office, hotel, as well as retail uses designed to serve the TOD community.

...

Within the Innovation Center Transit Station Area, the highest concentration of development should be closest to the planned Metro station.”

### **PROPOSED PLAN AMENDMENT**

The proposed Plan Amendment considers a new option that would allow for an increase in the recommended FAR from 2.8 to 4.0 in the "Core Area" (Figure 1) for Land Units L-1 and L-2. Beyond the “Core Area”, the intensities proposed would remain as currently planned at up to 2.8 FAR within a ¼ mile of the Metro station and 1.6 FAR within ¼ to ½ mile of the Metro station. The option would also include a mix of uses that would be predominantly office use, up to 90 percent, with the remaining uses planned for hotel and support retail. The following table (Figure 4) quantifies the existing development, the adopted Plan recommendation, and the proposed Plan Amendment scenario that was analyzed.

		Total
<b>Existing Development:</b>	Tax Map Parcel	Building Sq. Ft.
	15-2((1))4	N/A- Vacant Land
	15-2((1))5	N/A- Vacant Land
	15-2((1))15	147,384 sq. ft (.45 FAR)
	15-2((1))16	N/A- Vacant Land
	15-2((1))17	N/A- Vacant Land
		<b>147,384 sq. ft.</b>
<p><b>Adopted Plan*:</b>                      2.8 FAR within ¼ mile of Metro station;                      1.6 FAR within ¼ to ½ mile of Metro station</p> <p>*Based on maximum non-residential scenario for Land Units L-1 and L-2</p>	Office: 1,619,141 sq. ft. Retail: 67,904 sq. ft. Hotel: 140,145 sq. ft. Residential: 1,223 DU	Non-residential: <b>1,827,190 sq. ft.</b> Residential: <b>1,223 DU</b>
<p><b>Proposed Plan Amendment Maximum office potential:</b></p> <p><b>Core Area-</b>                      4.0 FAR</p> <p><b>Outside Core Area-</b>                      2.8 FAR within ¼ mile of Metro station;                      1.6 FAR within ¼ to ½ mile of Metro station</p>	Office: 3,778,047 sq. ft. (90%) Retail: 233,422 sq. ft.(5.6%) Hotel: 186,362 sq. ft. (4.4%)	Non-residential: <b>4,197,830 sq. ft.</b>

**Figure 4: Quantification Table**

**TASK FORCE**

Supervisor John W. Foust, Dranesville District, appointed a task force to review the proposed Plan Amendment and to consider recommendations to address public facility needs and amenities based on the proposed intensity and use. The TOD guidelines found in the Policy Plan volume of the Comprehensive Plan encourage the use of a citizen task force in the planning process.

*“Strive to achieve a broadly inclusive, collaborative, community participation process when evaluating TOD plans that propose substantial changes in use, intensity or density for existing or new transit station areas planning efforts.”*

The task force, comprised of eleven community members, met five times between August 2, 2018 and October 4, 2018. Staff provided the task force with information about the current Plan and anticipated public facility and transportation impacts from the proposed Plan Amendment.

The task force also heard from surrounding jurisdictions and county staff regarding approved development in Loudoun County, the Town of Herndon and Fairfax County. Staff and the task force worked together to draft Plan text for the proposed amendment. The task force recommendation will be forwarded under separate cover.

## ANALYSIS

### Land Use

Land Units L-1 and L-2 are planned for transit-oriented development with mixed-use to include residential office, hotel and support retail with intensities ranging from 1.6 to 2.8 FAR. The proposed Plan Amendment would add an on option for predominantly office use at an intensity up to 4.0 FAR. Land Units L-1 and L-2 represent an opportunity to consider flexibility in Plan options as the property is mostly undeveloped and adjacent to the Innovation Center Metrorail Station. The proposed Plan Amendment would introduce an additional development option while recommending certain conditions to address impacts associated with the proposed use and level of intensity.

County policy has focused higher density and land use intensity close to rail transit stations in order to accommodate sustainable employment and residential growth within the County. The proposed option, with its predominate office use, has the potential to provide employment growth around a transit station, supporting TOD guidance aimed at concentrating growth around existing and planned transit station areas. The proposed new Rail Transit Option also supports TOD guidance with the potential to create an employment base by introducing a concentration of office use in a TOD area. Employees within this area would be well served by transit and would realize the benefits of transit use.

TOD areas are also intended to be compact, pedestrian oriented, mixed-use communities focused around current and planned rail transit stations. Policy Plan Guidelines for TOD includes guidance to:

*“Focus and concentrate the highest density or land use intensity close to the rail transit station, and where feasible, above the rail transit station.”*

The adopted Comprehensive Plan recommendations for the Silver Line TOD areas within the Reston-Herndon corridor support this policy. The table below (Figure 5) lists the adopted intensities under the redevelopment options for the other Silver Line TOD areas within the Reston-Herndon corridor.

Metro Station	Intensity Range
Wiehle Station TOD District (North)	1.5 to 3.0 FAR
Wiehle Station TOD District (South)	1.5 to 3.55 FAR
Reston Town Center Station TOD District (North)	1.5 to 4.0 FAR
Reston Town Center Station TOD District (South)	1.5 to 3.0 FAR
Herndon Station	1.5 to 2.5 FAR
Herndon Station (Town of Herndon)	Up to 4.3 FAR
Innovation Center Station 9(South)	.75 to 3.0 FAR
<i>Proposed Innovation Center Station (North)</i>	1.6 to 4.0 FAR

**Figure 5: Adopted Comprehensive Plan Intensities**

The most intense uses are generally located closest to the station and intensity decreases as distance from the station increases. The TOD guidance in the Policy Plan defines the TOD area as generally  $\frac{1}{4}$  mile radius from the station platform with density and intensity tapering to within  $\frac{1}{2}$  mile radius from the station platform, subject to site-specific conditions. The intensity range for the proposed Plan Amendment is 1.6 to 4.0 FAR, which is consistent with the above intensity ranges for other Silver Line stations. The Plan Amendment proposes to concentrate higher development closest to the Metrorail station, within the “Core Area”, and have the less intense uses further from the metro station to maintain compatibility with the existing residential uses to the north and east. Outside the Core Area, Land Units L-1 and L-2 would be planned at an intensity up to 2.8 FAR within a  $\frac{1}{4}$  mile radius of the rail transit platform and up to an intensity of 1.6 FAR between the  $\frac{1}{4}$  to  $\frac{1}{2}$  mile radius of the rail transit platform.

The Plan Amendment proposes to add a second rail transit option for Land Units L-1 and L-2 that would allow for predominantly office use, up to ninety percent office with the remaining uses split between hotel and support retail. This option does not include residential uses, which is typically encouraged in TOD districts to promote a balanced mix of uses. However, the surrounding land units are planned for mixed-use with residential or residential use alone. The Policy Plan also provides guidance to address station-specific flexibility and to consider existing and planned uses in the surrounding area.

*“Examine the unique characteristics and needs of a particular station area when evaluating TOD principles to ensure the appropriate development intensity and mix of land uses relative to the existing and planned uses for the surrounding areas.”*

The chart below (Figure 6) shows the planned residential uses in the surrounding land units.

Land Unit	Planned Residential
L-3	Mixed-use- <ul style="list-style-type: none"> <li>• ¼ mile- ½ mile radius from the Metro station: 50-60 percent residential up to a 1.6 FAR</li> <li>• Beyond ½ mile: Residential use at 16-20 du/a, at an overall intensity up to .50 FAR</li> </ul>
L-4	16-20 dwelling units per acre (du/ac)
Innovation Center Station (South)- Land Unit A-1	Mixed Use- <ul style="list-style-type: none"> <li>• Within ¼ mile radius from the Metro station: Residential use at approximately 50 percent or more of total development with an overall intensity between 1.0 to 2.0 FAR.</li> <li>• ¼ mile- ½ mile: Residential use at approximately 50 percent or more of total development with an overall intensity between 2.0 to 3.0 FAR.</li> <li>• Beyond ½ mile: Residential use at approximately 45 percent or more of total development with an overall intensity between .75 to 1.5 FAR.</li> </ul>

**Figure 6: Planned Residential Uses**

In addition to these planned residential uses in Fairfax County, two approved mixed-use developments in Loudoun County include residential uses. These approved developments are within a ½ mile of the subject area. The Hub, which is located directly to the west of the CIT property in Loudoun County, south of Innovation Avenue and east of Sully Road (Rt. 28), includes 1,265 residential units. To the north of Innovation Avenue and east of Sully Road, the Waterside development is approved for 2,595 residential units. These approved projects in Loudoun County, and the planned and existing residential uses surrounding the subject area, provide a unique opportunity to add an option for a predominantly non-residential use, while also meeting TOD guidelines in the Policy Plan related to mix of uses around transit.

*“Promote a mix of uses to ensure the efficient use of transit, to promote increased ridership during peak and off-peak travel periods in all directions, and to encourage different types of activity throughout the day.”*

This guidance also addresses the need to determine the appropriate mix of uses in the Area Plans by examining the unique characteristics and needs of each station, which is also a TOD goal.

Additionally, the proposed new Rail Transit Option with its predominantly office use supports the Economic Benefits TOD guideline by concentrating employment uses near transit.

The proposed new Plan option includes conditions meant to ensure an active environment that provides amenities and adequate public facilities to support future development. The intention is encourage common ownership or coordinated development that integrates the Metro Station into its design and planning and provides a high-quality atmosphere for employees while being compatible with surrounding neighborhoods. Parcel consolidation or coordinated development would facilitate a comprehensive approach to site design, building design, and open space that could lead to a high-quality development that functions well internally and integrates well with the surrounding neighborhoods and road network.

The proposed Plan Amendment conditions also encourage urban parks that are right-sized to the level of development and should serve office workers as well as the surrounding community with both passive and active recreational facilities. Urban parks also have the possibility of attracting activity to the area beyond traditional office hours. Additionally, the protection of the Environmental Quality Corridors provide further opportunities for passive recreation and enhancement of the overall design of the development.

## **Transportation**

A transportation analysis was conducted to assess a second rail transit option land use alternative and identify appropriate mitigations, as needed, in order to support the proposed land use. The transportation analysis evaluated the transportation network, with a focus on the road network. A second assessment was done to evaluate the pedestrian and bicycle network to ensure that appropriate infrastructure was recommended to support the future land use. The analysis tool used to evaluate the road network was the Metropolitan Washington Council of Governments (MWCOG) Travel Demand Forecasting Model.

### Goals, Objectives, and Measures of Effectiveness

The goal when evaluating the proposed land use is to ensure that the transportation network would function the same or better than the adopted rail transit option for this area. In order to determine if the goal was being achieved, Measures of Effectiveness (MOEs), which are quantitative and qualitative measurements, were developed to assess how the proposed land use alternative was impacting the transportation network, and what mitigations should be recommended to ensure that the MOEs showed that the goal was being met. The MOE for the 2017-III-DS1, Innovation Center Station (North) Plan Amendment transportation analysis was link level volume-to-capacity (V/C) ratios. In this case, link refers to roadway. The capacity is how many vehicles a particular link in the road network was designed to carry. The volume (referring to vehicles) was an output of the model that was based on land uses that exist and those that are forecast to be in place by a select horizon year, in this case 2040. Based on the capacity of the road and the forecasted volume, it could be determined if a particular link in the road network was operating worse than the approved Comprehensive Plan. Based on the V/C ratio, mitigations were able to be derived that brought the V/C to an acceptable level as determined by the MOE.

### Modeling Approach

The transportation models used for the analysis include a multi-step review:

- Travel demand forecasting model
- Traffic operations model

The *travel demand forecasting model* was used to predict changes in travel patterns based on expected future land use changes (including population and jobs), and to analyze transportation network characteristics by roadway link (including number of lanes, posted speed, area type). These traffic volumes were assessed against the capacity of the road to create a V/C ratio. This ratio was then turned into a level of service (LOS)<sup>1</sup> with anything above 1.0 representing a LOS F, which is a failing condition. A *traffic operations model* was used to analyze intersection operations, traffic queues, LOS at the intersections, and intersection capacity.

Numerous inputs were used to prepare the travel demand forecasting and traffic operations models. Data collected included traffic counts at numerous intersections in the study area and relevant demographics of the area. Preparing the models involved field checking the existing roadway network, conducting an existing conditions analysis, and calibrating the regional and county transportation models. Calibrating the travel demand models for PA 2017-III-DS1, Innovation Center Station (North) Plan Amendment was done to replicate current conditions to best predict future conditions.

Two land use scenarios for the year 2040 were evaluated as part of the transportation analysis: (1) the Baseline scenario, which is the current Comprehensive Plan buildout for the Plan Amendment land use study area along with the current Metropolitan Washington Council of Governments (MWCOG) 2040 cooperative land use forecast (Round 9.0) as background development; and (2) the Build scenario, which is the proposed Plan Amendment option. The year 2040 was used as a reasonable point in time when the full build-out of the land use option may be achieved. These 2040 models were used to identify mitigation needed to address traffic impacts associated with the Build scenario.

### Future Transportation Network

The transportation analysis assumed a 2040 future year roadway network based on planned transportation improvements that are anticipated to be completed without the Comprehensive Plan Amendment at Innovation Center Station (North). These transportation improvements were assumed as they are in the MWCOG's financially Constrained Long Range Plan (CLRP). This 2040 baseline transportation network was assumed to be in place for both the Baseline scenario and the Build scenario. Improvements are shown in Figure 7.

The following transportation improvements were included in the baseline transportation network:

- 1) Innovation Center Metrorail Station along with two additional stations in Fairfax County and three to the west, with one at Dulles Airport and two in Loudoun County are operational.

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<sup>1</sup> Level of Service (LOS) rated on an A-F scale, based on level of congestion, with LOS A representing free flow conditions and LOS F with unstable, "stop and go" flow.

- 2) A 4-lane bridge (Davis Drive extended) crossing of Dulles Toll Road connecting Innovation Avenue in Loudoun County to Sunrise Valley Drive in Fairfax County.
- 3) Multiple Route 28 improvements<sup>2</sup>:
  - a. Widening to four lanes in each direction between Route 7 and Route 267 (note that the recent southbound improvements between Waxpool Road and Route 267 were not included in the base year conditions since the fourth travel lane was not open to travel yet).
  - b. Widening to four lanes (three general purpose and one HOV) in each direction between Route 267 and Westfields Boulevard (note that the recent southbound improvements between Route 267 and Route 50 were not included in the base year conditions since the fourth travel lane was not open to travel yet).
  - c. Widening to five lanes (four general purpose and one HOV) in each direction between Westfields Boulevard and I-66.
- 4) Frying Pan Road widening to two lanes in each direction between Sunrise Valley Drive and Fox Mill Road.
- 5) Fairfax County Parkway (Route 286) widening to one additional lane (for HOV) in each direction between the Route 267 and I-66.
- 6) The Dulles Greenway widening to three lanes in each direction between the main toll plaza and the Dulles Toll Road through the Route 28 interchange (Loudoun County).
- 7) Old Ox Road (Route 606) widening to two lanes in each direction between Loudoun County Parkway and its current four-lane section east of the Dulles Greenway (Route 267) (Loudoun County). This is now under construction and is anticipated to be completed by the end of 2018.
- 8) A new four-lane roadway between Loudoun County Parkway and Route 28 (Loudoun County). This roadway is a combination of Shellhorn Road and Sterling Boulevard.
- 9) Prentice Drive will be extended as a four-lane roadway from Lockridge Road to Shellhorn Road (Loudoun County).
- 10) A new four-lane roadway between Old Ox Road and Loudoun County Parkway south/west of the Dulles Greenway (Loudoun County). This road is the future Westwind Drive.

Two developments, the Hub (formerly Dulles World Center) and Waterside were also factored into the 2040 baseline network as they are located within the project study area. The developments, both located in Loudoun County, are assumed to add the following transportation improvements to the baseline network based on approved proffers:

- 11) Shaw Road will be a new four-lane roadway between its current terminus at Old Ox Road (Route 606) and Innovation Avenue. This roadway is shown in the Loudoun County Countywide Transportation Plan (CTP) network.
- 12) Davis Drive will be a new four-lane roadway between Old Ox Road (Route 606) and Innovation Avenue. This roadway is also shown in the Loudoun County CTP network. This road is assumed to continue to the south of Innovation Avenue as the new bridge crossing of the Dulles Toll Road at Innovation Center Station described previously (Davis Drive extended). Note that the Loudoun County CTP network also shows Davis Drive

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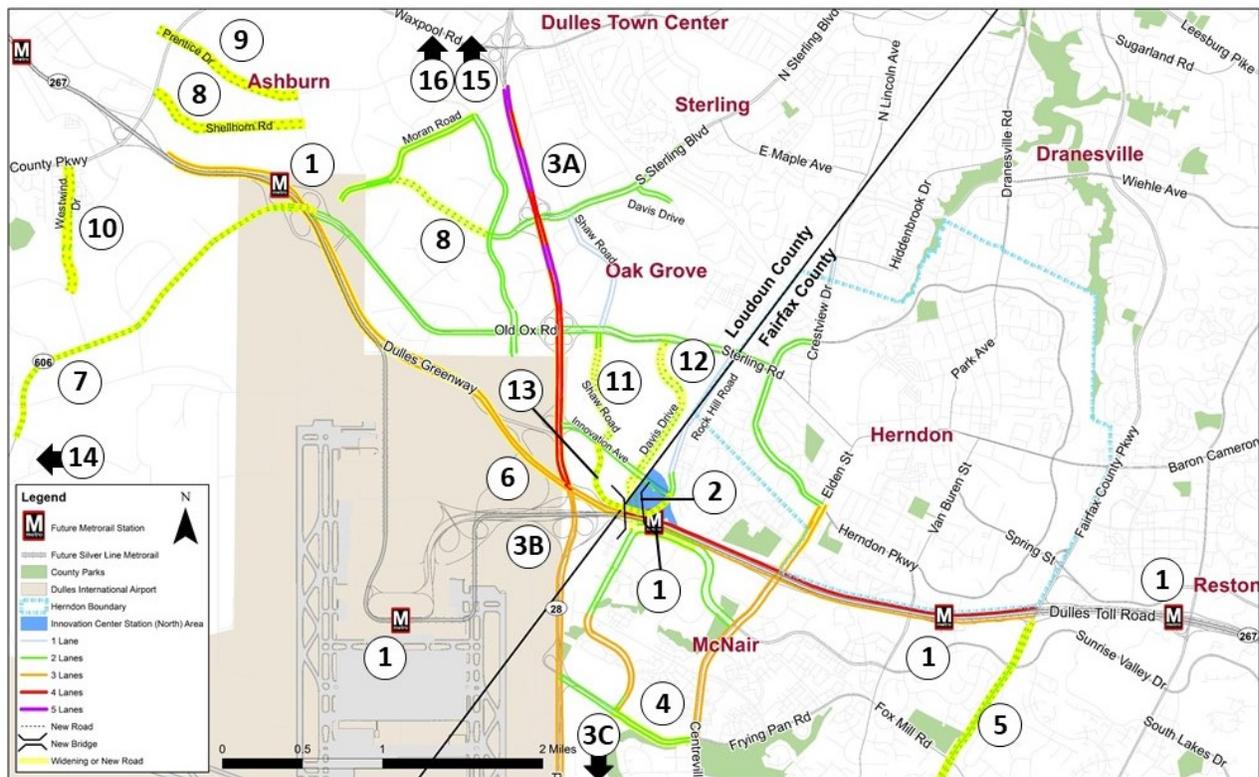
<sup>2</sup>Note: Some of these transportation improvements are currently in place. Since the transportation analysis was calibrated to the year 2015, this list represents improvements beyond the 2015 transportation network.

north of Old Ox Road connecting to its present terminus south of Sterling Boulevard; this segment is not assumed to be included under baseline conditions.

- 13) A two-lane local collector road was coded in the travel demand model network to the south of Innovation Avenue along its previous alignment. This road is assumed to continue south of the intersection of Shaw Road and Innovation Avenue, turn east and run under the proposed new crossing of the Dulles Toll Road, and then turn north to terminate at the intersection of Innovation Avenue and Rock Hill Road.

Several additional network improvements are expected to be in place that are not within the immediate vicinity of the site, but have the potential to influence travel patterns within the study area:

- 14) Loudoun County Parkway widening to three lanes in each direction between Old Ox Road and Route 50 (Loudoun County).
- 15) Pacific Boulevard will be a new four-lane roadway between Gloucester Parkway and Russell Branch Parkway (Loudoun County).
- 16) Gloucester Parkway will be a new four-lane roadway between Loudoun County Parkway and Pacific Boulevard (Loudoun County). This project is complete.



**Figure 7: Planned Transportation Improvements**

Mitigation

Volume to Capacity (V/C) ratios and LOS were evaluated with the goal of achieving acceptable results on the transportation network. As part of the transportation analysis scoping with the Virginia Department of Transportation (VDOT), it was agreed that the Build scenario link level analysis (V/C ratios) should result in network performance better than V/C ratio of 1.0 or

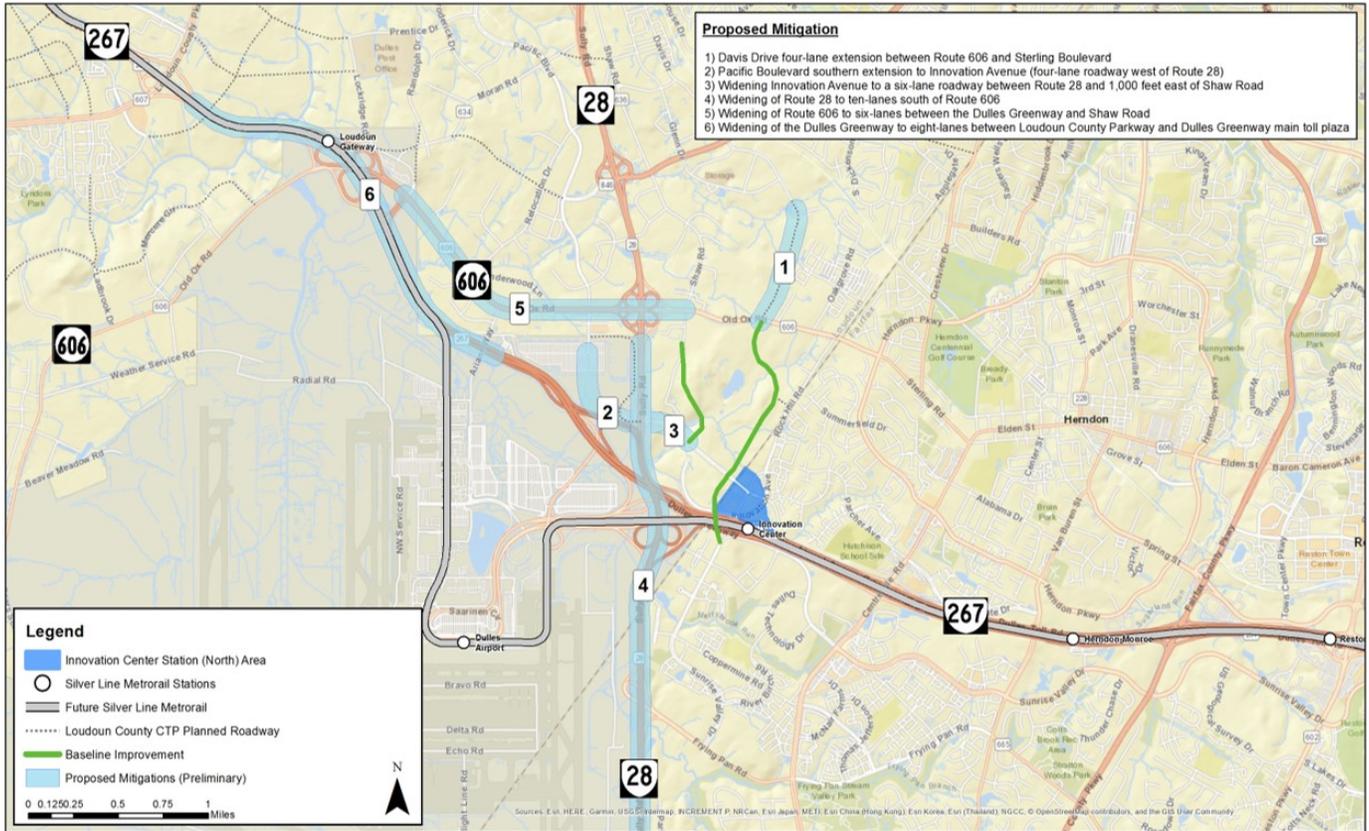
comparable to the Baseline scenario. Specifically, the following criteria were established:

- For roadways where the Baseline scenario V/C ratio is less than or equal to 1.0, Build scenario roadways should achieve a V/C ratio of 1.0 or less.
- For roadways where the Baseline scenario V/C ratio is greater than 1.0, Build scenario roadways should achieve have a V/C ratio equal to or better than the Baseline V/C ratio.

Mitigation strategies and measures were developed and tested to determine whether the land use scenario could ultimately achieve an acceptable V/C ratio based on the criteria noted above, with a total of 16 mitigation scenarios evaluated. Mitigation strategies ranged from increasing the TDM commitments for higher trip reductions for office-related uses to roadway widening and new roadway network connections.

After the improvements described in the *Future Transportation Network* section were included, a mix of additional network improvements were identified that resulted in V/C ratios that meet the established criteria. They are as follows and are shown in Figure 8:

- 1) Davis Drive four-lane extension between Old Ox Road (Route 606) and Sterling Boulevard
- 2) Pacific Boulevard southern extension to Innovation Avenue (four-lane roadway west of Route 28) that connects at the interchange.
- 3) Widen Innovation Avenue to a six-lanes between Route 28 and Shaw Road. The recommendation is for the widening to go further to the east to Davis Drive as this would better help with transition of travel lanes.
- 4) Widening of Route 28 to ten lanes between Old Ox Road (Route 606) and Westfields Boulevard.
- 5) Widening of Route 606 to six lanes between the Dulles Greenway and Shaw Road. The recommendation is for the widening to go further to the east to Davis Drive as this would better help with transition of travel lanes.
- 6) Widening of the Dulles Greenway to eight lanes between Loudoun County Parkway and the Dulles Greenway main toll plaza.
- 7) A TDM commitment of a 45% trip reduction for the office uses within ¼ mile and a 40% trip reduction within half mile of the Metrorail station (not shown in Figure 8).



**Figure 8: Proposed Mitigation**

All the mitigation items recommended for the Build scenario are consistent with the Fairfax County Comprehensive Plan and the Loudoun County Countywide Transportation Plan but are not included in the CLRP.

Analysis Findings

Implementation of the recommended mitigations for the Build scenario returns the roadway link V/C ratios back to or below the Baseline scenario for the AM, PM, or daily periods. All other segments in the Build scenario with mitigation had a V/C ratio below 1.0; if not, they were less than or equal to the V/C ratio under the Baseline scenario. At the time of development review, transportation studies should be done to determine which improvements, as identified in the Comprehensive Plans for Fairfax and Loudoun Counties, are needed to mitigate conditions associated with any proposed implementation of Rail Transit Option 2.

VDOT Chapter 870 Transportation Impact Analysis Submittal

These analysis and findings were submitted to VDOT as a Chapter 870 traffic impact analysis submittal and review. VDOT determined that the Chapter 870 traffic impact analysis and submittal was acceptable.

**Public Facilities**

The proposed Plan Amendment should include a condition for the new Rail Transit Option to address public facilities, which include fire, police, schools, parks and recreation, transportation

and other public facilities. The proposed condition would state that public facilities analysis be conducted in conjunction with any development application. The specific analysis would guide the necessary improvements and commitment needed as part of the development process to provide adequate public facilities to service the development and maintain current service levels.

### Water Service

Water service to the study area is provided by Fairfax Water. Customers north of the Dulles Toll Road and west of Centreville Road are supplied by distribution water mains ranging in size from three to 12 inches in diameter. Transmission is furnished through a single 16-inch diameter water main, crossing the Toll Road along the Centreville Road corridor. Proper waterworks design dictates that an additional transmission main crossing of the Dulles Toll Road is needed to provide a highly reliable water supply.

Capacity of the existing 16-inch diameter main is not sufficient to meet increased demands associated with the adopted Plan. Construction of a second transmission water main crossing the Dulles Toll Road, between Sunrise Valley Drive and Innovation Avenue, would provide the necessary capacity to meet water demands for all redevelopment scenarios at Innovation Center Station. Intensities proposed with the Plan Amendment will require that these facilities be constructed sooner than under the adopted Plan. Local distribution requirements will be addressed concurrent with site development.

### Fire and Rescue

Emergency response coverage to the proposed development site is primarily provided by the Herndon Fire and Rescue Station 4 located at 680 Spring Street and the Frying Pan Fire and Rescue Station 36 located at 2660 West Ox Road in Herndon, Virginia. Through mutual aid agreements, the Loudoun County Fire Department and the Metropolitan Washington Airport Authority may provide additional support.

A new two-story Herndon Fire Station was constructed and became operational in March of 2017. The larger fire station houses Engine 404, Medic 404 and was built with capacity for an additional emergency response unit if needed in the future. The Frying Pan Fire Station currently houses Engine 436, Medic 436, and Truck 436. The Frying Pan station lacks space for additional units but is planned for future expansion or replacement in the long-term forecast of the adopted FY2019 – FY2023 Capital Improvement Program.

The proposed Plan Amendment of 4,197,830 square feet of non-residential use will increase the number of emergency calls. Any additional need for fire and rescue facilities will need to be addressed in conjunction with any development application.

### Police

The Reston District Station, located at 1801 Cameron Glen Drive, Reston, services this area. The station has a staff of 137, which includes sworn officers and civilian staff and serves 56 square miles. The proposed Plan Amendment will be considered in future police planning and specific service needs will be evaluated during the development review process.

## **Parks and Recreation**

As stated in the Comprehensive Plan and *Great Parks, Great Communities*, the Upper Potomac Planning District is deficient in parkland and public recreational opportunities. Existing nearby parks (Hutchison School Site, Dulles Rock Hill, Alabama Drive Park, and others) meet only a portion of the demand for parkland generated by residential development in the service area of the nomination. In addition to parkland, the recreational facilities in greatest need in the Upper Potomac Planning District include diamond and rectangular fields, playgrounds, multiuse sport courts, and trails.

Residential development is the primary generator of urban parkland need; these needs decrease under the proposed non-residential scenario. Nonetheless, employees and visitors will still require access to quality, onsite urban parks. With the proposed option for all non-residential use, urban parks have the potential to generate activity beyond the typical work day and on the weekends. Under the proposed land use mix, there is a need for 1.34 acres of onsite urban parks. Urban parks should be developed using the Comprehensive Plan's Urban Parks Framework.

With increased demand on nearby parkland resulting from this new commercial development, acquisition of new parkland is appropriate. Accordingly, all adopted Plan language supporting such acquisition and dedication should be retained. The adopted future land use recommendations providing for public park use or environmental conservation should also be retained as appropriate. The Park Authority will consider land and/or recreational facility dedications at the time of a proposed zoning action or development plan review; final authority for such acquisitions rests with the Park Authority Board.

The Comprehensive Plan specifies certain parks and recreation service level standards for various amenity types (Policy Plan, Parks and Recreation element). Although the primary metric for these standards is the residential population, employees and visitors will need, and the Comprehensive Plan supports, access to onsite recreation. Future development should consider these needs. While the adopted Plan recommendations detail a need for active recreation and athletic fields, the need for specific facility types and their appropriateness for the site should be determined at the time of zoning application or development plan submission. Regardless, Plan language supporting the development of appropriate active and passive recreation amenities should be retained. If proposed development is predominantly office use, recreational amenities associated with the development also have the opportunity to encourage activity outside of traditional office hours during the evening and weekends.

### Natural Resources:

The adopted Plan recommendations cite the need to protect the area's natural resources, and all such recommendations should be retained. At the time of zoning application or development plan submission, regardless of the use recommended by the Comprehensive Plan, steps should be taken to avoid adverse impacts to the stream valley corridors and their associated natural resources; this is particularly true in areas designated as future parkland or for environmental conservation. If landscaping is proposed for the new development, it should consist of only

locally common native plant species, not include any invasive species, and use non-native non-invasive species only when there are no suitable native plant alternatives.

The adopted Plan recommendations also describe environmentally sensitive areas suitable for protection via dedication to the Park Authority or other appropriate conservation organization or mechanisms. These recommendations should be retained. As stated above, the Park Authority will consider land dedications for such purpose at the time of a proposed zoning action or development plan review.

#### Cultural Resources:

Land Units L-1 and L-2 have been reviewed previously. The parcels underwent archaeological survey in 1997. One site, 44FX2233, was found in the current area. The site was dated to the early 20<sup>th</sup> century. It was determined at that time that the site was not significant due to various disturbances and paucity of artifacts. No additional archaeological work is warranted; however, if federal funding or permitting are required in the course of future development, staff recommends consultation with the Virginia Department of Historic Resources under Section 106 of the National Historic Preservation Act.

#### Trails:

The adopted Plan language details the importance of trails and multimodal connectivity within Land Units L-1 and L-2 and to the surrounding area. Trails between the new development and surrounding stream valley should be considered as a means to facilitate future connectivity.

### **Affordable Housing**

The proposed Plan Amendment does not propose any residential use, but has the potential to generate employees who require housing. Typically, the provision of affordable and workforce housing has been provided with proposals for residential uses through regulatory and policy approaches. In recent years, the Comprehensive Plan guidance in areas such as Tysons, Reston and the Dulles Suburban Center have also included guidance related to a contribution to affordable and workforce housing for non-residential uses. It would be appropriate for guidance for this Plan Amendment to be similar to that found in Land Unit A of the Dulles Suburban Center, which is directly to the south of the Innovation Center Station. The guidance recommends a contribution of \$3.00 per non-residential square foot to support affordable and workforce housing near Metrorail stations.

### **Environment**

The northern edge of the subject area contains 8.57 acres of Resource Protection Area (RPA) located in the Horsepen Creek Watershed. It is likely that an Environmental Quality Corridor (EQC) is present on the property within the RPA. Site assessment may be necessary if the area is developed. The proposed Plan Amendment includes guidance to protect EQCs through dedication to the Fairfax County Park Authority or other land conservation entity, or through other conservation mechanisms that protect the open space in perpetuity.

Any development in this location is likely to be impacted by transportation noise from the Dulles Toll Road and Airport Access Highway, Metrorail, Dulles International Airport and the quarry nearby. Hotel use is considered a noise sensitive use. Any proposed development that includes this use should include a noise study to determine appropriate measures for mitigation.

### **Stormwater**

The adopted Plan guidance for the current Rail Transit Option contains recommendations to address stormwater design through Low Impact Development (LID) techniques and attainment of the Leadership in Energy and Environmental Design (LEED) credits relating to stormwater management. The proposed Plan guidance should update the adopted LEED credit guidance for existing and any new Rail Transit Option to reflect the current LEED program reference and would add additional guidance for the new proposed option.

For the new proposed Rail Transit Option 2, the proposed Plan guidance would provide a three-tiered approach that more recent Area Plan studies, beginning with Reston, have applied. This allows for flexibility in the approach development may take when designing stormwater facilities, with high levels of stormwater control recommended given the increased intensity proposed under the new option. Under the three-tiered approach, there would be the choice to: attain the most current LEED Rainwater Management credit or equivalent; follow a more prescriptive approach with specific performance targets; or design using a developer-presented alternative proposal that would optimize site-specific stormwater management and/or stream protection/ restoration efforts, consistent with the applicable watershed management plan for this watershed.

The prescriptive targets for Rail Transit Option 2 would apply a recommendation for retention of the first inch of rainfall, which has been applied in Tysons. In addition, a second prescriptive target, which is similar to guidance that applies to larger projects in the Dulles Suburban Center (Land Units A-K) is proposed here. It addresses the need to reduce erosive potential of runoff to maintain stream quality.

### **Heritage Resources**

The architecture firms of Ward/Hall Associates and Arquitectonica International designed the CIT buildings and surrounding campus in the late 1980s for Virginia's then newly-established consortium of state universities to support research in high-tech industries for economic growth and development. Completed in 1989, the CIT won the Award for Excellence in Architecture, from both Virginia's and Florida's American Institute of Architects, as well as the Merit Award for Design from the Virginia Exceptional Design Awards Program, Fairfax County.

The property is not listed in the Fairfax County Inventory of Historic Sites, the Virginia Landmarks Register or the National Register of Historic Places, nor is it within a Historic Overlay District, or given any other official historic designation. However, the CIT building is noted as an iconic structure in the current plan. Prior to development, evaluation of the building's iconic significance should be conducted by a professional(s) who meets the Secretary of Interior's professional qualifications for history, architectural history or historic architecture. As

an iconic structure, the CIT building could serve as a focal point for the development of the area and has the potential to be considered for preservation and reuse.

## **CONCLUSION**

Given the close proximity of the subject property to the Innovation Center Metrorail Station, Dulles International Airport, and the large amount of land available for redevelopment, the area represents a unique opportunity for a coordinated design supported by appropriate public facilities and amenities. The proposed Plan Amendment intensity is consistent with intensities at other Silver Line Metrorail stations in the Reston-Herndon corridor. The proposed guidance includes conditions for a new Rail Transit Option 2 that are designed to provide an active, urban environment adjacent to the Metrorail Station and provide needed amenities and public facilities.

A goal of the county's Economic Success Plan is to further diversify the county's economy by cultivating and embracing new business areas and grow the county's brand as a location for innovation and dynamic thinking. The proposed Plan Amendment adds an option, which would allow for flexibility for a transit-oriented development that could provide office space in a strategic location.

## **RECOMMENDATION**

Staff recommends that the Comprehensive Plan be modified as shown in Attachment 2.

### **COMPREHENSIVE LAND USE PLAN MAP:**

The Comprehensive Land Use Plan Map will not change.

### **COUNTYWIDE TRANSPORTATION PLAN MAP:**

The Countywide Transportation Plan Map will not change.

**Fairfax County Comprehensive Plan, 2017 Edition, Area III, Dulles Suburban Center, as amended through July 31, 2018, Dulles Suburban Center Land Unit Recommendations, Land Unit L, pages 141-160:**

**LAND UNIT L**

Land Unit L consists of approximately 103 acres and is located east of the Loudoun County boundary, bounded on the south by the Dulles Airport Access Road (DAAR), on the east by the Reflection Lake community and on the north by the Town of Herndon (see Figure 39). Land Unit L makes up the northern portion of the Innovation Center Transit Station Area (TSA) while the southern portion is located in Land Unit A-1. A portion of the area is planned for transit oriented development (TOD) focused on the planned Innovation Center Metrorail Station. Land use options in support of TOD follow the baseline recommendations.

Note that other Plan guidance in the Dulles Suburban Center Overview, Area-Wide, Land Unit, and Design Guidelines does not apply to Land Unit L. For area-wide guidance for Land Unit L, please refer to the Upper Potomac Planning District.

**Baseline Recommendations for Land Units L-1, L-2 and L-3**

Land Unit L-1 is developed as the Center for Innovative Technology (CIT), a state-supported research and development consortium of state universities and colleges. Land Unit L-1 at the baseline is planned for this existing institutional use.

Land Units L-2 and L-3 are located west of Rock Hill Road and are planned at the baseline for office and research and development uses. Tax map parcels 15-2((1))3, 4, 5 and 16-1((1))4A contain extensive Resource Protection Areas, Environmental Quality Corridors (EQCs) and floodplain. The development potential of these parcels is severely constrained. The restoration, as may be needed, and dedication of these properties to the Fairfax County Park Authority or other land conservation entity as part of a zoning action would address several goals, including preservation of environmentally fragile and valuable land and habitat, and providing open space amenities.

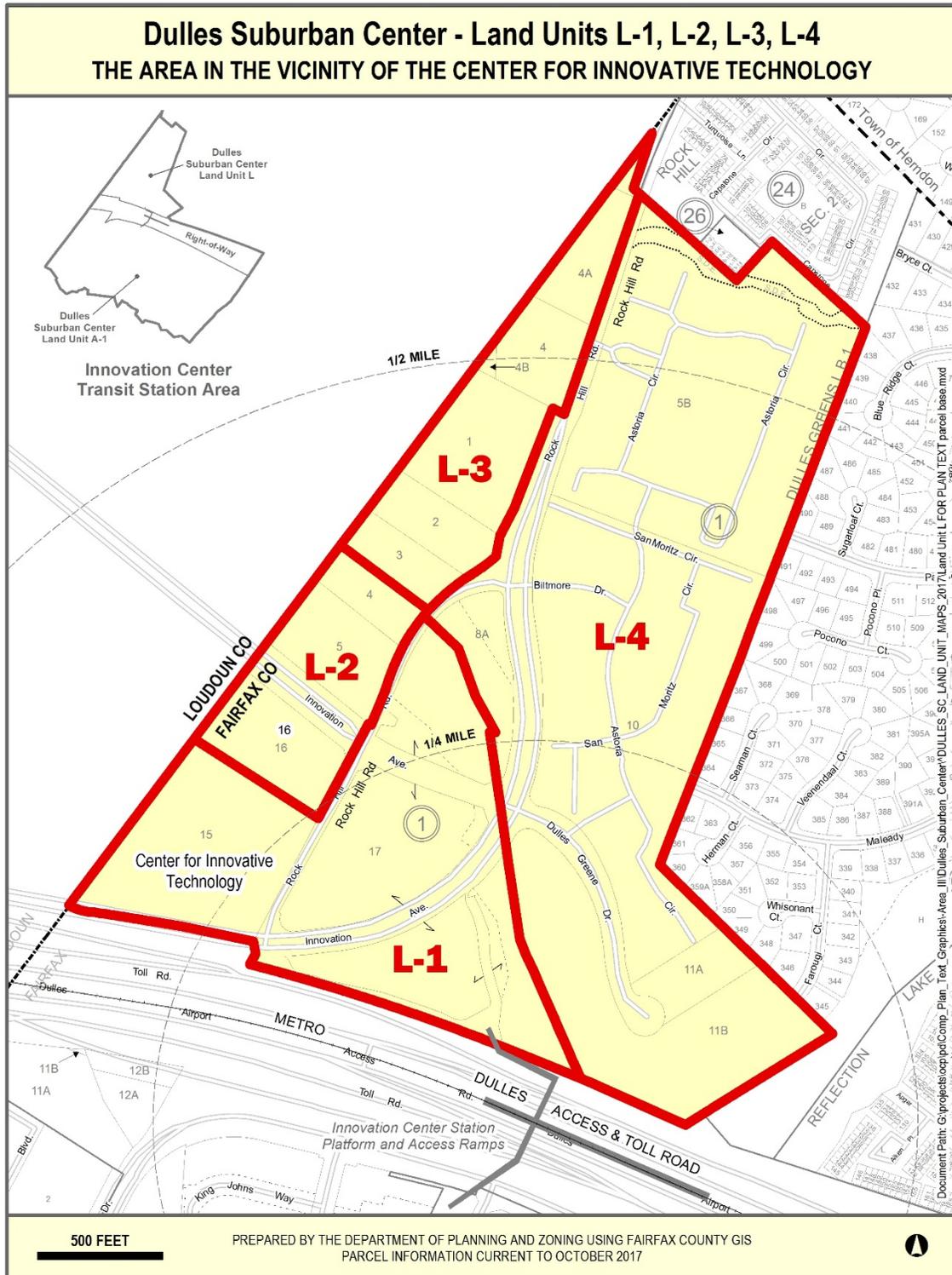
Land Unit L-2 (Parcels 15-2((1))4, 5, 16) is planned for a maximum intensity of .50 FAR. A hotel or conference center use up to .50 FAR which would appropriately complement the CIT is also appropriate in Land Unit L-2. Community-serving retail use incorporated on the ground level of buildings is desirable and appropriate.

Land Unit L-3 (Parcels 15-2((1))1, 2, 3 and 16-1((1))4, 4A) is planned for office and research and development use at a maximum intensity of .25 FAR at the baseline. Community-serving retail use on the ground level of office structures may be appropriate to serve employees.

Only a portion of the parcels that make up Land Units L-2 and L-3 are located in Fairfax County. Consolidation of land or parcels should occur such that the development results in well-designed, high-quality uses that are functionally and visually integrated into the larger mixed use area planned in Loudoun County. Proposed development should be part of a project that incorporates a substantial and contiguous area in Loudoun County and is compatible with the uses and intensities planned by Loudoun County. All development proposals should demonstrate that any unconsolidated parcels within a land unit can be developed in a manner that complements the

proposed development and is consistent with the recommendations of the Plan and at a minimum includes environmentally constrained land.

Public facilities analyses, including fire, police, schools, recreation, and transportation are performed in conjunction with any development application. The results of these analyses should identify necessary improvements, the phasing of these improvements with new development, and appropriate measures to mitigate other impacts. In addition, development of these land units should



**FIGURE 39**

result in uses that are designed to be visually compatible with the residentially developed area of Land Unit L-4. Finally, active recreation areas for employees and residents should be provided.

### **Rail Transit Option for Land Units L-1, L-2 and L-3**

Consistent with TOD policy, this plan provides an option for a mix of uses ranging from .50 to 2.8 FAR, based on distance from the Metrorail station. The Innovation Center Transit Station Area (TSA) includes Land units L-1, L-2 and L-3. The TSA is planned for a mixture of interrelated residential and nonresidential uses. The rail transit option may be considered once the provisions pertaining to Phase 2 rail improvements contained in the “Agreement to Fund the Capital Cost of Construction of Metrorail in Fairfax County” are accepted by the Fairfax County Board of Supervisors. Specifically, the terms and conditions of the 100% preliminary engineering cost estimate for Phase 2 must be approved by the Fairfax County Board of Supervisors, and the affirmative decision to participate in financing must be transmitted to MWA.

This option is transit-supportive and includes multifamily residential, office, hotel, as well as retail uses designed to serve the TOD community. This mix of uses will allow the creation of a center of activity that is focused toward the planned Innovation Center Station. In addition the recommendations take advantage of the proximity of the CIT complex, Dulles Airport, the Dulles Access and Toll Road, to provide future employment opportunities and housing in the vicinity of Sully Road.

Within the Innovation Center Transit Station Area, the highest concentration of development should be closest to the planned Metro station. The mix of uses should create a critical mass of pedestrian activity as people live, work and recreate in this area. Existing residential communities in Fairfax County and the Town of Herndon create a transition to the planned higher intensity transit oriented development centered around the planned Metro station.

The goals for this area include the following:

- Achieve a compact, high-quality transit and pedestrian-oriented, mixed use community with the highest land use intensity focused within ¼ mile of the planned Innovation Center Station.
- Create a safe pedestrian environment that is visually diverse and stimulating. Provide for public pedestrian access between the transit station and employment and residential destinations within and adjacent to the area. Any potential conflicts between non-pedestrian and pedestrian circulation are to be resolved in favor of the pedestrian right of way.
- Create functional, well coordinated, visually appealing roads, paths and trails that provide linkages within the TSA and to adjacent residential areas within Fairfax County, Loudoun County, and the Town of Herndon.
- Link future development to the provision of appropriate multi-modal transportation improvements for all land units in this area and as indicated in the Plan text and as shown on Figures 22 through 25 in the Upper Potomac Planning District section of the Comprehensive Plan.
- Provide open space for active recreation (including athletic fields), passive recreation and visual relief.

- Protect and enhance environmental resources.
- Encourage parcel consolidation to realize the benefit of comprehensive urban design and circulation/access principles and environmental protection.
- Link development to the provision of needed public facilities.
- Protect adjacent residential neighborhoods from the visual impact of development through use of building tapering, and/or landscaping features, maintaining a high standard for architectural quality, and minimizing noise, glare and traffic intrusion.
- Establish a mechanism for interjurisdictional collaboration to monitor and assure that a TOD land use, transportation, and public facilities balance is achieved and maintained in all development phases.

### **General TOD Guidance**

The vision of the Innovation Center Transit Station Area is to create an inter-connected multi-modal place that benefits surrounding areas. The proximity of a mix of uses to one another should be combined with easy access to multiple modes of transportation, particularly transit (including bus), walking and bicycling that is part of a larger area wide network.

The following urban design, transportation, noise, stormwater, and affordable and workforce housing recommendations apply to all development proposals.

### **Urban Design**

The TSA guidance establishes an environment that thrives around mass transit, minimizes the need for the single-occupant automobile, and fosters a vibrant pedestrian atmosphere. Compact, mixed-use development with the highest densities/intensities closest to transit station platforms, as well as opportunities to move safely, conveniently and enjoyably about the community by foot or bicycle are defining elements.

The protection of environmentally valuable areas is essential. Consolidation with parcels containing environmentally sensitive areas such as streams and wetlands should be supported in order to achieve dedication and ultimate preservation. These areas can provide needed passive open space and contribute to creating a pleasing mix of hardscape elements and natural landscapes.

Creating high-quality, built environments that result in a uniquely identifiable place is strongly encouraged. With respect to the CIT building, harmonious architectural and other design features to celebrate this iconic structure are encouraged throughout the TSA.

### **Buildings**

Buildings should be designed at a scale that encourages pedestrian and street activity. The buildings should create an enjoyable, attractive, and safe environment to walk, bike, dine, relax and ride public transit. In order to accomplish these goals, building design placement and orientation should encourage activity both at the street level and in above-ground plazas. Architectural design features such as façade variations of window or building details are encouraged.

Ground-floor retail uses are encouraged in office, hotel and residential buildings, as well as parking structures to activate the street. These uses should be designed to complement the surrounding style. Free-standing or drive-through retail establishments are discouraged. Faux windows or storefronts should be used only when necessary, and long expanses of blank walls or facades should be avoided. If retail uses cannot be integrated into the first-floor facades, these facades should be decorated with store-front windows, awnings, and/or vegetated walls.

Buildings should be oriented to and frame the street or the plaza on which the building is located. Buildings should have minimal setbacks. Any building setback should be used for features that contribute to the pedestrian environment, such as plazas, or entrance features. High-rise buildings are envisioned to maximize open space and take maximum advantage of proximity to transit. However, given the proximity of Dulles International Airport, review by the Federal Aviation Administration may be required for high-rise buildings.

### Urban Parks and Open Space

Urban parks in the form of plazas, courtyard or mini-parks should be incorporated into the designs of buildings and/or building complexes to serve the daily needs of residents, local employees, and visitors. These parks should be highly visible and easy to access from areas with most of the pedestrian traffic. Features may include trail connections, water features and short-term informal activities and programmed events intended to foster social interactions among users. These open spaces should be appealing places to gather with seating, lighting, landscaping and other amenities. These spaces should be integrated purposefully into the overall design of the development, and not merely be residual areas left over after buildings and parking lots are sited. Public art/sculpture should be incorporated into all open spaces. Opportunities for passive open space are present adjacent to streams and wetlands located throughout the area.

### Streetscape, Sidewalk, Trail and Road Features

A coordinated streetscape design should be developed to contribute to the identity of the CIT area. In addition to the roadway elements of on-street parking, bike lanes, travel lanes, and medians, the streetscape design should provide frontage of sufficient width to create a pedestrian zone to safely separate pedestrian activity from the roadway. Within the pedestrian zone, the space between the sidewalk and the building façade should be determined by the use of the adjacent building and should be used for outdoor cafés, seating, or browsing store windows. Wide sidewalks are encouraged to support the anticipated increase in pedestrian traffic and street furniture throughout the development area. The use of texture, pattern, and materials should be encouraged to make the setting interesting. Finally, a landscape amenity panel should be located next to the curb and may include streetlights, tree grates, planting beds, planters, paving, bus shelters, bicycle racks, public art, and benches.

This safe and attractive pedestrian and bicycle circulation system should unify the area, provide for well integrated connections to the Metro Station, adjacent residential neighborhoods, Fairfax County, the Town of Herndon, and adjacent Loudoun County. These sidewalks and trails should be integrated with active and passive open space and promote pedestrian access to all uses.

Streetscape improvements may be provided on a combination of publicly owned right-of-way and private property. When the public right-of-way is utilized to provide streetscape improvements, commitments should be made by the property owner or business organization to maintain the streetscape area. In addition, when the sidewalk is not entirely within the right-of-way, a public access easement will need to be provided for the portion of the sidewalk located on private property.

Existing vegetation, especially the large specimen trees should be preserved and incorporated into the site as much as possible. Landscaping should be provided that is attractive in all seasons, and provides shade to seating areas and pedestrian paths/sidewalks during summer months.

Roads should include features that create a high quality, attractive, functional and safe environment for the pedestrian, bicyclist, transit rider, or other non-motorized vehicle user. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities should be able to safely move along and across streets. Safe and convenient pedestrian crossings such as raised crosswalks, mid-block crossings and sidewalks should be provided to enhance pedestrian movement, reduce pedestrian and vehicular conflicts and improve accessibility. The design should be employed continuously and contain uniform or similar elements to make a cohesive circulation network.

### Parking

Parking should be consolidated into structures and integrated into the streetscape. Except for on-street parking, surface parking should be avoided other than as allowed and needed on an interim basis to support occurring development.

Parking structures should be designed as integrated building features. The treatment of the structures, which can include retail as a ground floor use, should contribute to the visual appeal and vitality of the streetscape. Façades should be attractive and inviting from both pedestrian and vehicular perspectives and should incorporate features such as architectural elements or trees and other landscaping to provide visual interest.

To encourage transit use, shared parking for uses which have different peak demand periods, instituting paid parking, or other parking reduction techniques and commitment to parking maximums are recommended. This will reduce trips and more efficiently organize and utilize the area.

### Street Furniture, Bicycle Facilities, Lighting and Other Elements

Street furniture selections, such as benches, water fountains, bus shelters, covered trash receptacles and bike racks, should be included in a streetscape plan and be consistent with the area. This may include details such as the model, size, and finish of the street furniture. Bicycle features should be covered and security should be provided. Bus shelters should be provided at transit stops that protect patrons from the weather, are safe, easy to maintain, and relatively vandal-proof. A coordinated signage plan is essential to emphasize identity and provide a harmonious appearance.

Street lighting should maintain the overall character and quality of the area, providing adequate lighting levels that ensure public safety without creating glare or light spillage. Light fixtures should be full cutoff and use energy-saving technology in order to minimize the occurrence of glare, light trespass, and urban sky glow. Street lights should be located so as to not conflict with street trees at their projected maturity.

### Street and Median Planting

Street trees and other landscaping in the planting strips should be planted in an environment that promotes healthy root growth. Vegetation within the planting strips could include ornamental shrubs, ground cover, flowering plants, and grasses. These plantings should occur in areas that are clear of vehicles parked on the street, and they should incorporate hardscaped pedestrian access

points.

Where medians are provided, they should be planted with attractive landscaping. Consideration should be given to the use of Low Impact Development techniques, and using native plants that are drought tolerant, low in maintenance, and resistant to disease, pollution and heat.

## **Transportation**

The strategy to accomplish and maintain a transportation and land use balance is based on six components:

- Partnering with other jurisdictions to identify and implement regional solutions to multi-modal transportation issues.
- Cooperating with other jurisdictions to identify and implement a coherent pattern or grid of “walkable” streets and safe, attractive bicycle facilities throughout the areas.
- Phasing transportation infrastructure, including a grid pattern of streets in the TSA in addition to major road links to the west and north. Development should be phased in such a way that effective transportation measures will be in place or substantially completed before proceeding to future development phases.
- Providing a realistic transportation demand management (TDM) plan to reduce single occupant vehicle trips.
- Achieving vehicle trip reduction goals contained in the TDM plan.
- Monitoring the TDM plan outcome to ensure an adequate multi-modal transportation system.

Transportation solutions for the area are based on the timely provision of transit (including bus), pedestrian and bicycle ways, road improvements and TDM measures. Collaboration among Fairfax County, Loudoun County, the Town of Herndon, and the Metropolitan Washington Airport Authority (MWAA) can bring about the implementation of a regionally-oriented approach that will benefit residents, employees and through-travelers. This cooperative effort should involve representatives of Fairfax County, the Town of Herndon, Loudoun County, and MWAA that can share information on a timely basis and devise approaches and strategies to meet transportation needs.

The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be used in the evaluation of development proposals.

Specific transportation recommendations are contained in the District-Wide Recommendations for the Upper Potomac Planning District, and in the Transportation Recommendations for the Greater Herndon Community Planning Sector (UP4). In addition, the following transportation recommendations should be addressed for any development proposal:

### Innovation Center Station Access

Direct pedestrian access from the Innovation Center Station to any proposed development is

encouraged. If public facilities (fire, police, recreation) are constructed on parcel 16-1((1))11B, then separate direct pedestrian and bicycle access to them is also encouraged.

### Planned Roadway Improvements

The planned roadway improvements in and around the Innovation Center Transit Station Area must be phased as needed to support development. Within the Innovation Center Transit Station Area, it is critical to provide a grid system of streets that achieves internal connectivity and, if feasible, links to areas beyond.

Roadways in this area are congested and, in some cases, under severe strain. Increased vehicle trips to and from the TSA will compound traffic congestion within the 1/2 mile ring radius and, potentially, on vicinity roadways in Western Fairfax County and the Town of Herndon. At least four cumulative lanes will be needed from the station area north to Route 606 and at least six cumulative lanes will be needed west toward the Route 28/Innovation Avenue interchange to accommodate vehicle traffic attributable to the TSA.

As addressed under the Phasing and Monitoring section, these improvements are essential to ensure continued functioning of road networks in the TSA. Studies should be performed to identify the breadth of impact on vicinity roads.

Road improvements required to mitigate traffic impact on transportation facilities will extend beyond the Fairfax County Border. These improvements will be necessary to support each phase of development. To construct these roads will require multi-jurisdictional cooperation, and authorization as well as VDOT approval. The width, alignment and location of roads constructed to fulfill this requirement should complement the planned non-SOV-oriented character. Additional guidance about these major improvements is detailed next:

- North-South Road(s) – Four cumulative lanes are needed from the transit station area north to Route 606. They will serve as a major entrance to the area. A new four lane road should be constructed to the west of the existing Rock Hill Road. In addition, existing Rock Hill Road should be improved to a standard two-lane local access road. In its current alignment, Rock Hill Road should not serve as a primary access road to the TSA. The new four lanes to the west of Rock Hill Road should be the primary north-south access to the Innovation Center Transit Station Area.

If only two lanes can be constructed at this western access point, improved Rock Hill Road could serve as a second two lane north-south access to the transit station area.

It is the intent of this Plan that the existing Rock Hill Road should not be improved to four lanes. However, in the event that Loudoun County does not authorize other alternatives for north south access and these alternatives are determined to be infeasible, then as a last resort, existing Rock Hill Road could be improved to four lanes as a north-south access. This last alternative should only be considered provided that the neighborhood character of the existing communities along Rock Hill Road is protected. All manner of providing new access lanes to the west of Rock Hill Road should be pursued to avoid this alternative.

- East-West Road(s) – This road(s) will serve as a primary route for traffic arriving from and going to Sully Road. Six lanes are needed to support the transit station area. The lanes should be configured to create a non-SOV-oriented environment, and divided into smaller roads, with at least two connection points on the west side of the transit station area. A feature to be considered is signalization to balance vehicular and pedestrian flows. In addition,

pedestrian and bicycle safety and connectivity enhancements should be addressed through applying urban design guidelines such as narrowed travel lanes, the addition of bike lanes and providing at-grade pedestrian crossings.

- Grid of Streets – A grid of streets should be implemented in the area that connects future and existing development in Fairfax County and if feasible, to adjacent future development in Loudoun County. The grid should create multiple points of access to Innovation Avenue to lead traffic to the west to Sully Road or north along the new north-south road(s) to Route 606. A hierarchy of streets should be delineated to lead traffic exiting and entering the transit station area to higher capacity roads intended to handle the traffic. To the extent that Innovation Avenue establishes a grid of streets across the County line, the road should be realigned.
- East-West Connector Parallel Road to the Dulles Toll Road – A road within the existing Dulles Toll Road right-of-way that would connect Centreville Road to the transit station area should be studied for feasibility and implementation. If the road cannot be accommodated within the existing Dulles Toll Road right-of-way, other connections could be examined that would also contain other modes of transportation. Regardless, multi-modal connections should be implemented from the developments to the east of the transit station area and the Centreville Road/ Elden Street corridor to the TOD area.
- North-South Connector Bridge – Land for right-of-way should be reserved and contributions for construction should be apportioned until a new alignment is adopted. The right-of-way that is reserved north of the Dulles Toll Road should be to the west and outside the core TOD area and could cross the county line. The bridge should be coordinated with adjacent development areas so that all multi-modal connections are maintained within the TOD. Other transportation improvements should be re-evaluated if this bridge is implemented as it may impact transportation studies.

### Traffic Level of Service

Applicants requesting consideration of the rail-oriented options, which allow the highest intensities of the optional recommendations, shall demonstrate that the transportation system is kept in balance throughout the phasing of development. Consistent with adopted policy on Transit Oriented Development (TOD), a lower level of service may be acceptable within this TOD area. This performance-based approach requires applicants to provide improvements or other guarantees to maintain certain performance levels. These levels would be measured by levels of service or critical movement volumes or other measures as deemed appropriate by the Fairfax County Department of Transportation. Projects may be phased to coincide with the achievement of specific non-SOV (single occupancy vehicle) mode split or trip reduction objectives.

Remedies should be considered at locations where an acceptable level of service cannot be attained or maintained, as described below.

### Circulation and Access

As stated in the urban design section, an interconnected network of local streets with wide sidewalks on both sides of streets, delineated pedestrian pathways, and pedestrian crossings should be provided. Logical pathways should connect to external crossing points. Pedestrian movement and safety should be facilitated, in association with implementation of a wayfinding signage plan.

A coordinated pedestrian circulation system plan should be developed that demonstrates how interior portions of the transit station area will be connected to destinations and places within and surrounding the property.

#### Transit, Pedestrian, and Bicycle Connectivity

Transit, pedestrian, and bicycle connectivity improvements are major elements of the transportation guidance supporting this Plan option. Transportation modes, other than single-occupancy vehicles, are preferred to support the increased density and mix of uses at the optional level of development. Transit, pedestrian, and bicycle connectivity will achieve the objectives of increasing transit usage, and creating a walkable and bike-able area. Pedestrian and bicycle enhancements relating to streets might include delineated crosswalks, bicycle lanes, signal re-timings, intersection sidewalk extensions (bulb-outs), mid-block crossings, street medians, reduced turning radii and other features designed into the street section with the goal of reducing conflicts with vehicles and improving safety, as allowed by VDOT.

#### Transportation Demand Management (TDM)

The establishment of a Transportation Demand Management (TDM) program to encourage the use of transit (including bus), and non single occupancy vehicle transportation, will be needed. This program should utilize a variety of measures (see below) to achieve essential reductions in automobile trips to the TSA. TDM measure originating from commitments at rezoning will be components of the overall TDM program for this TDA. TDM recommendations adopted by the interjurisdictional program will be given favorable consideration as possible components.

The goal of the TDM program will be to achieve specified trip reduction targets attached to various phases of development. It should ultimately be maintained and funded by residents and business owners once development is completed. The TDM program should be designed to work in conjunction with, and enhance, the transit, pedestrian and bicycle connectivity improvements. TDM measures employed should facilitate and complement these physical improvements and urban design features.

The TDM program adopted should identify a full set of measures that could be implemented including alternative transportation services, support facilities and/or programs, and pricing measures. It should include enforcement, evaluation and penalty provisions in the event trip reduction thresholds are not achieved.

Transit ridership, in combinations with the TDM program should result in specified trip reduction levels identified for phases of development. The following minimum levels of trip reductions should be achieved:

- Within ¼ mile – minimum 30 percent trip reduction for residential and office
- Within ½ mile – minimum 25 percent trip reduction for residential, 20 percent for office
- Beyond ½ mile – to be determined with a TDM study

These reductions should occur in the peak hour at site build out, with lower levels of trip reduction expected in the interim phases of development. In addition to the goal of achieving the minimum trip reductions stated above, a TDM study and a parking study should be done at the time of rezoning. The intent of the parking study is to determine if parking reductions can be applied to help achieve the overall TDM trip reduction goal.

Further, the county should review parking requirements of the Zoning Ordinance to consider the full range of parking management strategies and other TDM strategies. The implementation of a successful comprehensive interjurisdictional TDM program will require cooperation so that property owners in the greater RT28/CIT area also participate, not just those within the transit station area. Precautions should be taken to ensure that inappropriate use of residential parking areas, including neighborhood street parking, in the adjacent areas does not occur. An interjurisdictional program may include paid parking, transit subsidies, ridesharing matching services, preferential treatment of carpool/vanpools, shuttle bus services to nearby transit stations, guaranteed ride home programs, marketing of commuter assistance programs, and other related measures designed to lessen use of single-occupant vehicles and boost HOV usage during peak commuting periods. A fuller list of TDM measures that could be considered are shown next.

## **EXAMPLES OF TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES**

### **Individual Employer TDM Measures**

#### Alternative Transportation Services

- Shuttle Bus(es)
- Company Vanpools
- Telecommuting

#### Support Facilities/Programs

- On-Site Transportation Coordinator
- Employer Ridematching Services
- Preferred HOV Parking Locations
- Flexible Work Hours
- Guaranteed Ride Home Program

#### Pricing Programs

- Parking Management/Pricing Programs
- Subsidies for Use of HOV Modes

#### Implementation

- CEO and Board of Directors Commitment
- Proffers/Negotiated Agreements
- Participation in Transportation Management Association

### **Areawide TDM Measures**

#### Alternative Transportation Options/Services

- Expand Transit Services (peak hours)
- Expand Transit Services (off peak & midday)
- Carpools
- Vanpools
- Shuttle Bus(es)

#### Support Facilities/Programs

- Transit Center
- Park & Ride Lots
- HOV Lanes
- Preferred Parking Locations

- Multi-Employer Ridematching Services
- Guaranteed Ride Home Program

#### Mixed-Use Development

- Mixed-use developments to include residential, commercial, support retail, hotel and institutional uses
- Development design should maximize pedestrian convenience and accessibility to on-site services

#### Pricing Programs

- Road/Congestion Pricing Programs
- Parking Management/Pricing Programs
- Transportation Allowances

#### Implementation

- Employer Trip Reduction Ordinance
- Parking Management Ordinance
- Site Design Controls
- Proffers/Negotiated Agreements
- TMA Coordination

### Phasing and Monitoring

As stated in the Transportation Strategy section, “Development should be phased in such a way that effective transportation measures will be in place or substantially completed before proceeding to future development phases.” Although phasing of the ultimate development should be flexible, a grid of local streets should be established in the initial phase of each development. The design should create a dynamic streetscape and promote pedestrian safety and activity. The initial phase should begin to substantially create multi-modal and pedestrian connections to the metro station landing. Establishing this grid pattern in the early phases of redevelopment should establish the identity of the place as a walkable, pedestrian-scaled, mixed-use area. In addition to establishing a grid of local streets, major road improvements should be phased to mitigate the impacts of each level of development

To ensure the transportation impacts of proposed development are fully addressed, the satisfactory preparation of an overall transportation study by the developer as part of a rezoning application is required. The study should demonstrate that impacts to traffic could be mitigated by phasing development in such a way that effective transportation improvements will be approved and funded including TDM measures, bus, Metro rail service and road improvements before proceeding with proposed development. The study should include alignment and phasing of an internal circulation system and submission of detailed transportation studies. The transportation study should evaluate existing transportation conditions and analyze the impacts of the traffic associated with the overall development. The recommendations of this study should include a TDM program to reduce trips. The results will be taken into consideration by the county in determining the timing of construction of improvements, initiation of TDM measures and/or contributions for off-site improvements. Additional roadway improvements in Fairfax County, Loudoun County or the Town of Herndon may be required based on the findings of the development’s traffic study. These improvements may be in addition to the transportation improvements currently cited in the adopted county transportation plans for Loudoun County, Town of Herndon or Fairfax County.

If the development is phased, detailed studies of development proposed for each subsequent phase should be provided at specified intervals (for example with each Final Development Plan) and follow the methodology described above. In any event, assurances will be expected that the transportation facilities and services assumed to be operational in the study will in fact be provided as stated. The transportation monitoring and evaluation program will be conducted at specified intervals acceptable to the Fairfax County Department of Transportation. The monitoring and evaluation program will include an analysis of the success of the transportation demand management program. Items will include evaluation of trip reduction and mode split; and secondly, an assessment of the performance of site entrances and signalized intersections, as determined by the Fairfax County Department of Transportation in cooperation with Loudoun County and the Town of Herndon.

If it is determined by the county during interim review that adverse impacts have not or cannot be successfully mitigated, the amount of development should be reduced to a level that can be adequately supported by transportation infrastructure. Should development phases be delayed or halted because the impacts have not been mitigated based on the TDM program targets, the developer will be responsible for providing other necessary transportation improvements. Failing that, appropriate contributions to a fund for eventual mitigation may be requested. The total level of development may be restored upon demonstrating that adequate infrastructure capacity is available.

### **Noise**

Proposed residential uses, outdoor activity areas and other noise sensitive areas may be affected by proximity to the Dulles Toll Road. Portions of the area are also located within one-half mile of the DNL 60 noise contour for Washington Dulles International Airport. Furthermore some of the area may be affected by noise from the quarry located to the northwest in Loudoun County.

Noise studies may be required to demonstrate that these impacts will be addressed. Provision should be made to notify future residents of the area that they may be impacted by quarry operations. The use of planted terraces, maintenance of tree canopy through the areas under consideration, the use of planted roof gardens and planted sound absorption walls have been found effective management techniques for developments near airports.

### **Stormwater Design**

Environmentally-friendly stormwater design should be an integral design principle that should be part of the conceptual stage of site development for all projects, recognizing that stormwater management measures may be phased with development. The stormwater design should first seek to minimize the effect of impervious cover, followed by the application of stormwater reuse, retention, detention, extended filtration and, where soils and infrastructure allow, infiltration to improve downstream waters. Coordination of stormwater management controls among multiple development sites may also be effective in achieving stormwater management goals in an efficient manner.

Stormwater management and water quality controls for development and redevelopment should be designed to return water into the ground where soils are suitable or reuse it, where allowed, to the extent practicable. Reduction of stormwater runoff volume is an important stormwater design objective. Reduction could occur through techniques that use plants and soils via landscaping measures, through techniques that reuse harvested rainwater in a variety of ways, and/or through approaches that infiltrate water into the ground to replenish aquifers and provide summer base flows to local streams, where soils and infrastructure allow.

The following are recommended for all new development and redevelopment:

- Stormwater quantity and quality control measures should be optimized with the goal of reducing the total runoff volume and/or significantly delaying its entry into the stream system. The emphasis should be on Low Impact Development (LID) techniques that evapotranspire water, filter water through vegetation and/or soil, return water into the ground or reuse it.
- LID techniques of stormwater management should also be incorporated into new and redesigned streets, as well as parking lots, where allowed and practicable.
- At a minimum, stormwater management measures should be provided that are sufficient to attain both the stormwater design-quantity control and
- Stormwater design-quality control credits[1] of the most current version of the LEED-NC or LEED-CS rating system (or the equivalent of these credits should be provided). If, on a given site, the attainment of the stormwater design LEED credits (or equivalent) is demonstrated to not be achievable, all available measures should be implemented to the extent possible in support of this goal.

## Green Buildings

All new buildings should receive green building certification under an established rating system such as the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. The green building rating system used should be based on individual building certification, such as LEED-NC (New Construction) or LEED-CS (Core and Shell).

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1. These credits, as set forth in LEED 2009 for New Construction and Major Renovations, are as follows:

### **SS Credit 6.1: Stormwater Design-Quantity Control:**

- For sites that have greater than 50% impervious cover in the existing condition, the total volume of runoff released from the site in the post-developed condition for the 2-year, 24-hour storm should be at least 25% less than the total volume of runoff released in the existing condition for the same storm. Furthermore, the peak runoff rate for the 2-year, 24-hour storm in the post-developed condition should be at least 25% less than the existing condition peak runoff rate for the same storm.
- For sites that have 50% or less impervious cover in the existing condition, the total volume of runoff released as well as the peak release rate for the 1- and 2-year, 24-hour storm in the post-developed condition should be equal to or less than the total runoff volume and peak release rate in the existing condition for the same storm. Alternately, a stormwater management plan that protects receiving stream channels from excessive erosion, including stream channel protection and quantity control strategies, may be pursued.

### **SS Credit 6.2: Stormwater Design-Quality Control:**

- Stormwater runoff associated with the development should be controlled such that the first one (1) inch of rainfall is reused, infiltrated or treated in a manner through which 80% of the average annual post-development total suspended solids (TSS) are removed.
- Equivalent approaches may incorporate coordinated stormwater management on multiple development sites and/or off-site controls. Additional stormwater management efforts should be encouraged.

LEED Silver certification, or the equivalent, is the minimum expectation for nonresidential development. Residential development should be guided by the Policy Plan objectives on Resource Conservation and Green Building Practices.

### **Affordable Housing and Universal Design**

All development should conform to county policies on affordable and workforce housing to encourage a diverse population of residents. Per county policy, any residential use should provide at least 12 percent of new units as affordable housing. The residential components should accommodate a variety of age groups, interests, and needs. The units should be accessible for those without cars, meet ADA requirements, and accommodate universal design.

### **Parks and Recreation**

A more compact, urban style of development is planned within ½ mile of the planned Innovation Center Station. As such, the urban parkland service level standards adopted by the Fairfax County Park Authority Board apply a service level standard of 1.5 acres of land per 1,000 new residents and 1 acre per 10,000 employees. The maximum level of redevelopment will generate the need for approximately 6 acres of publicly accessible urban parkland which should be integrated with development on this site.

Urban parks within the Transit Station area support the goals of creating a critical mass of pedestrian activity centered around the planned Metro station. Urban park facilities such as pocket parks could include gathering areas, outdoor cafes, fountains or other focal points of interest and small performance spaces. The inclusion of other urban parks, such as off-leash dog areas, community garden plots, water features, tot lots, fitness courses and trails and plazas would allow a greater range of recreational facilities and amenities. Urban park sites should be publicly accessible and within walkable distance of most residential and mixed use areas.

The Upper Potomac Planning District is highly deficient in active recreation facilities, especially athletic fields. Little public parkland is available to support active recreation facility development. To offset the impacts of development on park and recreation service levels, land development projects should contribute land, facilities and/or funds to provide active recreation facilities, preferably on-site or near the development.

The area includes large sections of RPA and other natural resources, whose preservation and protection are Fairfax County goals. Dedication of these areas to the Fairfax County Park Authority or other conservation entity as part of a zoning action would address the goals of preserving environmentally valuable land and providing open space amenities.

### **Information and Communications Technology (ICT)**

The Innovation Center TSA should include ICT infrastructure. Strategies and programs should be developed to ensure that all residential, commercial and public use structures in the TSA are designed and equipped to enable such information and communications networking.

### **Land Use**

Development should be guided by the TOD guidance set forth in the Policy Plan volume of the Comprehensive Plan. Consistent with that guidance, appropriate intensity should be governed by the distance from the rail transit platform based on concentric rings:

- ¼ mile: mixed use including office, research and development, hotel, retail and residential

uses at an intensity up to 2.8 FAR

- ¼ to ½ mile: mixed use including office, hotel, retail and residential uses at an intensity up to 1.6 FAR
- beyond ½ mile: 16-20 dwelling units per acre, at an overall intensity of approximately .50 FAR.

Maximum intensity within each ring will be evaluated based on the considerations that development proposals give to TOD principles, road improvements, recreational facilities, and public service facilities, such as fire and police. Intensities apply to residential and nonresidential (retail commercial, office, institutional) uses. Projects that include areas of different intensity recommendations should have an overall intensity that is based on the proportion of land area associated with each intensity recommendation. The resulting development pattern should generally conform to the goal of locating the highest intensities closest to transit. Proposed intensities should be consistent with the urban scale and character that is envisioned for the area.

Tax map parcels 15-2((1))3, 4, 5 and 16-1((1))4A contain extensive Resource Protection Areas, Environmental Quality Corridors and floodplain. The development potential of these parcels is severely constrained. As an incentive to preserve open space, the planned development potential associated with these parcels may be applied as bonus intensity to a developable parcel within the TOD area as part of a zoning action, provided the entire encumbered parcel is dedicated to the Fairfax County Park Authority or another conservation entity. For example, assuming a parcel has a planned development potential of 10,000 square feet, this amount of development would be the bonus to be added to the receiving parcel provided that the resulting development demonstrates that building scaling, massing and open space are in accord with underlying site specific plan guidance and TOD principles and respect Resource Protection Areas, Environmental Quality Corridors and floodplain.

Ring 1: Within ¼ mile: Mixed residential and nonresidential uses at an intensity up to up to 2.8 FAR

The Center for Innovative Technology, a state-supported research and development consortium of state universities and colleges, constitutes this area. The mixed-use recommendations that follow seek to establish parameters for future development by suggesting a minimum, a maximum, or a range of percentages for residential and nonresidential uses. These percentages are meant to be guides and they may need to be adjusted on a case by case basis in order to further other planning objectives. For example, a mixed-use project that contains an institutional use recommended in the Plan may not be able to achieve the minimum percentage of office use or may exceed the maximum for nonresidential use. Development under this option is subject to the following conditions:

- Bus bays, the Kiss and Ride and pedestrian bridge pavilion associated with the northern portion of the Metro station should be implemented and integrated into the development
- Public facilities analyses, including fire, police, schools, recreation, and transportation are performed in conjunction with any development application. The results of these analyses should identify necessary improvements, the phasing of these improvements with new development, and appropriate measures to mitigate other impacts.
- Although phasing of the ultimate development should be flexible, establishment of the pedestrian-scaled, mixed use character of the area should be established in the initial phase

of development. This phase should include a grid street pattern, plazas and usable open space vertically-integrated land uses with ground-floor retail and other activity generating uses located along the street.

- A high quality living environment should be created through the provision of well-designed mixed-use projects that provide active recreation, entertainment and other site amenities. The mixed-use development should have a residential component that is at least 35 percent but no more than 45 percent of the total gross floor area of the development. Each residential development should include on-site affordable housing that is well integrated and dispersed throughout the development.
- The nonresidential component of the area within the ring should include office, hotel, and support retail uses. The current institutional use (CIT) is planned to remain and serves as a focal point for future development. The office component, which may include space for research and development activities should be at least 40 percent of the development, but not exceed 50 percent of the total gross floor area. Support retail uses, to be located in office, hotel or residential buildings, should be at least 2 percent, but not exceed 5 percent of the total gross floor area. Retail should support the residents' daily needs so as to minimize trips to neighboring communities. Hotel uses are encouraged and should be at least 5 percent but not exceed 15 percent of the total gross floor area.
- Consistent with the Transportation recommendations for the Rail Option, vehicular access is provided through Loudoun County.
- Environmental Quality Corridors should be dedicated to the Fairfax County Park Authority or other land conservation entity.
- Total parcel consolidation should be achieved.

Ring 2: Within ¼ -½ mile: Mixed residential and nonresidential uses at an intensity up to 1.6 FAR

Ring 3: Beyond ½ mile: Residential use at 16-20 dwelling units per acre, at an overall intensity up to .50 FAR

The proposed development in Ring 2 and Ring 3 should be oriented toward the transit station area. In addition, appropriate transitions should be made to residential development in Fairfax County through tapering of building heights, substantial landscaping and other techniques as necessary.

Tax map parcels 15-2((1))3, 4, 5 and 16-1((1))4A contain extensive Resource Protection Areas, Environmental Quality Corridors and floodplain. The development potential of these parcels is severely constrained. The restoration, as may be needed, and dedication of these properties to the Fairfax County Park Authority or other land conservation entity as part of a zoning action would address several goals, including preservation of environmentally fragile and valuable land and habitat, and providing open space amenities.

Only a portion of the parcels in these areas are located in Fairfax County. Consolidation of land or parcels should occur such that the development results in well-designed, high-quality uses that are functionally and visually integrated into the larger mixed use area planned in Loudoun County.

Proposed developments should be part of a project that incorporates a contiguous area in

Loudoun County and is compatible with the uses and intensities planned by Loudoun County. All development proposals should demonstrate that any unconsolidated parcels within a land unit can be developed in a manner that complements the proposed development in Loudoun County, is consistent with the recommendations of the Plan, and at a minimum includes environmentally constrained land.

The mixed-use recommendations that follow seek to establish parameters for future development by suggesting a minimum, a maximum, or a range of percentages for residential and nonresidential uses. These percentages are meant to be guides and they may need to be adjusted on a case by case basis in order to further other planning objectives. For example, a mixed-use project that contains an institutional use recommended in the Plan may not be able to achieve the minimum percentage of office use or may exceed the maximum for nonresidential use. Development under these options is subject to the following conditions:

- Although phasing of the ultimate development should be flexible, establishment of the pedestrian-scaled, mixed use character of the area should be established in the initial phase of development. This phase should include a grid street pattern, plazas and usable open space vertically-integrated land uses with ground-floor retail or other activity generating uses located along the street.
- A high quality living environment should be created through the provision of well-designed mixed-use projects that provide active recreation, entertainment and other site amenities. The mixed-use development should have a residential component that is at least 50 percent but no more than 60 percent of the total gross floor area in total, with residential becoming the primary use as distance from the platform increases. Each residential development should include on-site affordable housing that is well integrated and dispersed.
- The nonresidential component of the area within the ring should include office, hotel, and support retail uses. The office component should be at least 40 percent of the development, but not exceed 50 percent of the total gross floor area. Support retail uses, to be located in office, hotel or residential buildings, should not exceed 2 percent of the total gross floor area. Retail should support the residents' and employees daily needs so as to minimize trips to neighboring communities. Hotel uses are encouraged and may comprise between 5 to 15 percent of the total gross floor area.
- Consistent with the Transportation recommendations for the Rail Options, vehicular access is provided through Loudoun County.
- Environmental Quality Corridors should be dedicated to the Fairfax County Park Authority or other land conservation entity
- Development should result in uses that are designed to be visually compatible with the residentially developed area east of Rock Hill Road.
- Active recreation areas should be provided for employees and residents.

In addition, public facilities analyses, including fire, police, schools, recreation, and transportation are performed in conjunction with any development application. The results of these analyses should identify necessary improvements, the phasing of these improvements with new development, and appropriate measures to mitigate other impacts.

#### **Area East of Rock Hill Road (Land Unit L-4)**

The portion of the Dulles Transition Area located east of Rock Hill Road, Land Unit L-4, is planned for multifamily residential use. In order to meet the planning objectives of the Dulles Transition Area it is necessary that new development be responsive to site-specific conditions that are outlined below for the land unit.

#### Land Unit L-4

Land Unit L-4 is planned for residential use at 16-20 dwelling units per acre. Office, retail and other uses, such as a daycare center, designed to serve the residential community are also appropriate. These nonresidential uses should total a minimum of 5,000 square feet including a daycare center. Office and retail uses should be incorporated into the ground floor of residential structures, while a daycare center may be in a free-standing structure. A mix of building types to include low-rise garden style and mid-rise structures is encouraged as a way to facilitate a visual transition. A safe, attractive pedestrian circulation system should be provided. This system of sidewalks and trails should be integrated with passive and active open space and promote pedestrian access to all uses, elements and land units of the area and provide for connections to the existing residential community and to the planned countywide trails system.

The southern portion of Land Unit L-4 has been identified as the location for commuter facilities that would support Metrorail in the Dulles corridor. A development plan should be submitted that shows the area planned for residential use but noting that a portion of the site may be used for commuter facilities. In order to preserve the option for transit facilities in this location, development of Land Unit L-4 should be phased to progress from north to south so that the southern portion of the land unit remains vacant for as long as possible. In no case should units proposed for the southern portion of the site be transferred to the northern portion.

Once a site for a park-and-ride facility has been dedicated to the county, opportunities for joint public-private development of the site for transit parking and support retail uses should be explored. Pedestrian walkways should be provided to facilitate circulation from the transit station area and parking facility to adjacent uses and should connect to existing or planned walkways in adjacent land units and existing sidewalks or trails along major streets in or around the land unit. The development should be in conformance with the Urban Design and Placemaking section for the Transit Station Areas in the Dulles Corridor, located in the Reston Transit Station Areas section of the Plan.

Site-specific development conditions for Land Unit L-4 include the following:

- All parcels within the land unit are consolidated and developed as part of a unified development plan. However, it is recognized that the development of a possible transit facility is consistent with this condition;
- Development of this land unit should result in well-designed, high quality uses and should be integrated with the adjacent land units;
- Visual impacts on existing low-density residential neighborhoods are minimized through height control, building setback, and transitional screening. Garden apartment structures should be located adjacent to the Reflection Lakes community and heights of these structures should not exceed 40 feet. Any mid-rise structures should not exceed 65 feet in height and should be located to front on Rock Hill Road and will not be adjacent to the Reflection Lake community. Any structure should be controlled by a fifty (50) degree angle of bulk plane as determined from the rear lot line of the adjacent single-family homes;

- A substantial buffer, 75 feet wide as far as practicable but 50 feet wide at a minimum, is provided next to the Reflection Lake community. This buffer should incorporate existing vegetation and be supplemented with additional landscaping as appropriate to screen the higher density residential areas from the existing single-family detached houses. If a commuter parking facility is developed on the southern portion of the site, a 75-foot buffer to the Reflection Lake community must be provided and the height of the structure should not exceed the height of any adjacent residence. Noise barrier measures should be incorporated into the garage design;
- Provision is made for affordable housing either through compliance with the Affordable Dwelling Unit ordinance, if applicable, or an appropriate proffer of units or land for affordable housing as defined by the ordinance;
- Active recreation uses should be provided to adequately serve the residents of the development;
- Preservation and protection of the Environmental Quality Corridors;
- All residential structures should incorporate noise attenuation measures as appropriate to meet the Interior Noise Level Standard P3, to achieve an interior noise level not to exceed 45 dBA Ldn; and
- To prevent cut-through traffic, vehicle access to the area should be via existing and realigned Rock Hill Road and Innovative Avenue only, as shown on Figure 25 of the Upper Potomac Planning District. No connection from Rock Hill Road shall be made to Farougi Court, Maleady Drive or Parcher Avenue. A vehicle turn-around should be provided at the terminus of Parcher Avenue and elsewhere as appropriate.

Upon completion of the extension of Rock Hill Road across the Dulles Airport Access and Toll Road, mixed-use development up to a 1.0 FAR may be appropriate for the area within ¼ mile of the transit station platform, subject to the following conditions:

- This option may be considered at such time as a funding agreement for Bus Rapid Transit (BRT) or rail, as described in the Land Use section in the Suburban Center Areawide Recommendations, is reached.
- A high quality living environment can be created through the provision of well-designed residential and mixed-use projects which provide active recreation, entertainment and other site amenities. Each residential development should include on-site affordable housing that is well integrated and dispersed throughout the development.
- The mixed-use development should have a residential component that is at least 35% but no more than 50% of the total gross floor area of the development.
- In the nonresidential component of the development, office uses should not exceed 50% of the total gross floor area and support retail uses, to be located in office, hotel or residential buildings, should not exceed 15% of the total gross floor area. Hotel uses are encouraged.
- Retail uses located on the ground floor should have direct public access and display windows oriented to pedestrian walkways and where appropriate, vehicular drives and/or streets.

- Pedestrian walkways should be provided to facilitate circulation throughout the land unit and should connect to walkways in adjacent land units and existing sidewalks or trails along major streets in or around the land unit.
- The development should be in conformance with the Urban Design and Placemaking section located in the Reston Transit Station Areas section of the Plan.

## LAND UNIT L

**MODIFY:** Fairfax County Comprehensive Plan, 2017 Edition, Area III, Dulles Suburban Center, as amended through July 31, 2018, Dulles Suburban Center Land Unit Recommendations, Land Unit L, pages 141-158:

Land Unit L consists of approximately 103 acres and is located east of the Loudoun County boundary, bounded on the south by the Dulles Airport Access Road (DAAR), on the east by the Reflection Lake community and on the north by the Town of Herndon (see Figure 39). The Transit Station Area (TSA) includes Land Units L-1, L-2 and L-3 within ½ mile of the center of the station platform area. Land Unit L makes up the northern portion of the Innovation Center ~~Transit Station Area (TSA)~~ TSA while the southern portion is located in Land Unit A-1. A portion of ~~the area~~ Land Unit L is planned for transit oriented development (TOD) focused on the ~~planned~~ Innovation Center Metrorail Station. Land use options in support of TOD follow the baseline recommendations.

~~Note that other~~ Plan guidance in the Dulles Suburban Center Overview, Area-Wide, Land Unit, and Design Guidelines does not apply to Land Unit L. For area-wide guidance for Land Unit L, please refer to the Upper Potomac Planning District.

### Baseline Recommendations for Land Units L-1, L-2 and L-3

Land Unit L-1 is developed as the Center for Innovative Technology (CIT), a state-supported research and development consortium of state universities and colleges. Land Unit L-1 at the baseline is planned for this existing institutional and office use.

Land Units L-2 and L-3 are located west of Rock Hill Road and are planned at the baseline for office and research and development uses. Tax map parcels 15-2((1))~~3~~, 4, 5 and 16-1((1))~~4A~~ contain extensive Resource Protection Areas, Environmental Quality Corridors (EQCs) and floodplain~~-, so the~~ ~~The~~ development ~~potential~~ of these parcels is will be severely constrained. The restoration, as may be needed, and dedication of these properties to the Fairfax County Park Authority or other land conservation entity as part of ~~a zoning action~~ future development would address several goals, including preservation of environmentally fragile and valuable land and habitat, and providing open space amenities.

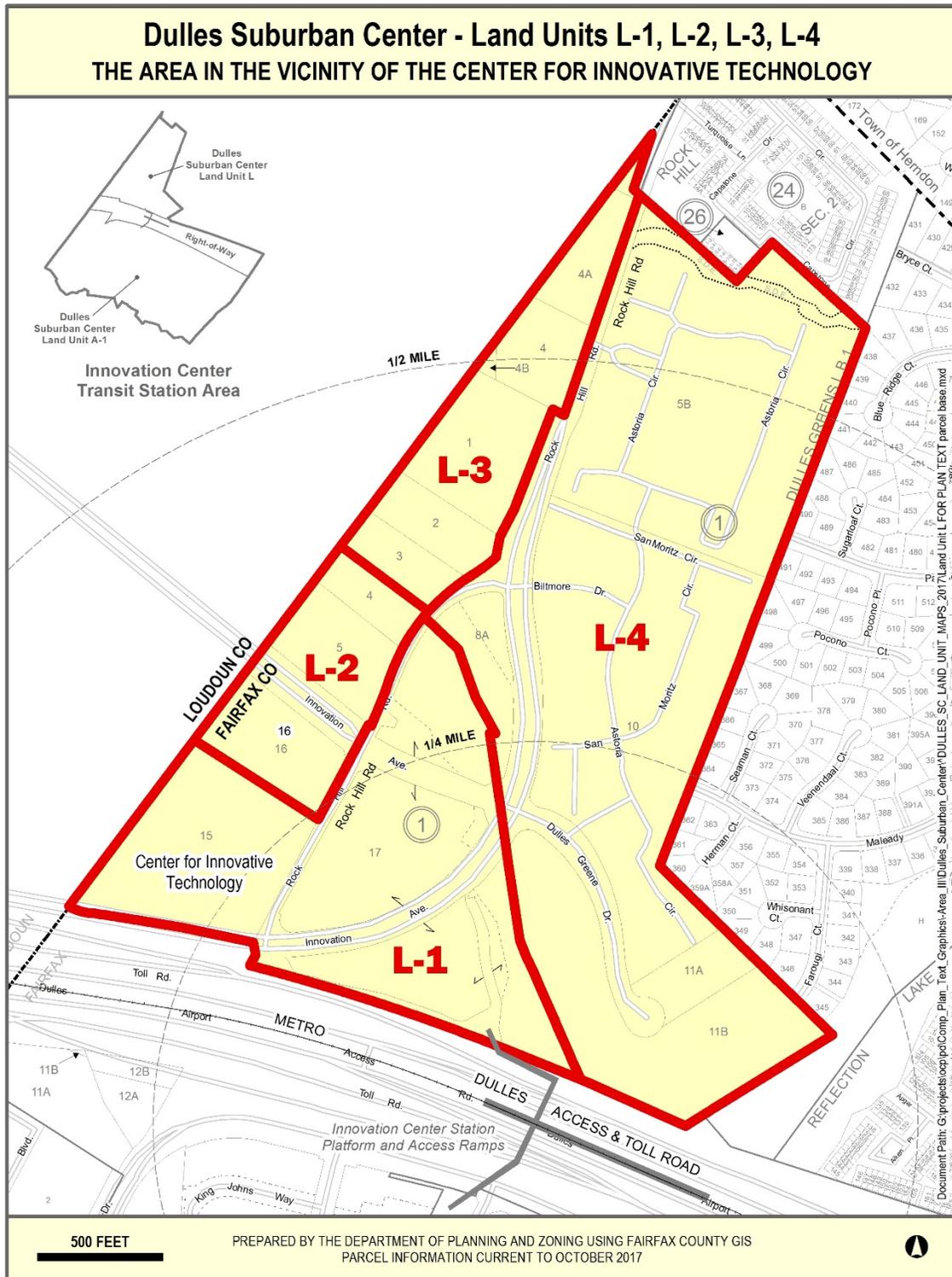
Land Unit L-2 (Parcels 15-2((1))4, 5, 16) is planned for a maximum intensity of .50 FAR. A hotel or conference center use up to .50 FAR which would appropriately complement the CIT is also appropriate in Land Unit L-2. Community-serving retail use incorporated on the ground level of buildings is desirable and appropriate.

Land Unit L-3 (Parcels 15-2((1))1, 2, 3 and 16-1((1))4, 4A) is planned for office and research and development use at a maximum intensity of .25 FAR at the baseline. Community-serving retail use on the ground level of office structures may be appropriate to serve employees.

Only a portion of the parcels that make up Land Units L-2 and L-3 are located in Fairfax County. Consolidation of land or parcels should occur such that ~~the~~ development results in well-designed, high-quality uses that are functionally and visually integrated into the larger mixed use area planned in Loudoun County. Proposed development should be part of a project that

incorporates a substantial and contiguous area in Loudoun County and is compatible with the uses and intensities planned by Loudoun County. All development proposals should demonstrate that any unconsolidated parcels within a land unit can be developed in a manner that complements the proposed development and is consistent with the recommendations of the Plan and at a minimum includes environmentally constrained land.

Public facilities analyses, including fire, police, schools, recreation, and transportation are performed in conjunction with any development application. The results of these analyses should identify necessary improvements, the phasing of these improvements with new development, and appropriate measures to mitigate other impacts. In addition, development of these land units should result in uses that are designed to be visually compatible with the residentially developed area of Land Unit L-4. Finally, active recreation areas for employees and residents should be provided.



**FIGURE 39**

### **Rail Transit Options for Land Units L-1, L-2 and L-3**

Consistent with TOD policy, this plan provides ~~an~~ two options for a mix of uses ranging from .50 to ~~2.8~~ 4.0 FAR, based on distance from the Metrorail station. ~~The Innovation Center Transit Station Area (TSA) Option 1 includes Land Units units L-1, L-2 and L-3. Option 2 includes Land Units L-1 and L-2. The TSA is planned for a mixture of interrelated residential and nonresidential uses. The rail transit option may be considered once the provisions pertaining to Phase 2 rail improvements contained in the “Agreement to Fund the Capital Cost of Construction of Metrorail in Fairfax County” are accepted by the Fairfax County Board of Supervisors. Specifically, the terms and conditions of the 100% preliminary engineering cost estimate for Phase 2 must be approved by the Fairfax County Board of Supervisors, and the affirmative decision to participate in financing must be transmitted to MWAA.~~

~~This Both options is~~are transit-supportive and includes multifamily residential, office, hotel, as well as retail uses designed to serve the TOD community. ~~This mix of uses will allow for the creation of a center of activity that is focused toward the planned Innovation Center Station. In addition the recommendations provide for future employment and housing opportunities that take advantage of the proximity of the CIT complex, Dulles Airport, and the Dulles Access and Toll Road, to provide future employment opportunities and housing in the vicinity of Sully Road.~~

Within the Innovation Center Transit Station Area, the highest concentration of development should be closest to the planned Metro station. The mix of uses should create a critical mass of pedestrian activity as people live, work and recreate in this area. Existing residential communities in Fairfax County and the Town of Herndon create a transition to the planned higher intensity transit oriented development centered around the planned Metro station.

The goals for this area include the following:

- Achieve a compact, high-quality transit and pedestrian-oriented, mixed use community with the highest land use intensity focused within ¼ mile of the planned Innovation Center Station or as otherwise indicated under the Rail Transit Options.
- Create a ~~safe~~ pedestrian environment that is visually diverse and stimulating. Provide for public pedestrian access between the transit station and employment and residential destinations within and adjacent to the area. Any potential conflicts between non-pedestrian and pedestrian circulation are to be resolved in favor of the pedestrian right of way. Consideration should be given to bicycle facilities in balancing the conflicts.
- Encourage uses and amenities that promote activity within the TSA beyond typical work hours, including weekends.
- Create functional, well-coordinated, visually appealing roads, paths and trails that provide linkages-connections within the TSA and to adjacent residential areas within Fairfax County, Loudoun County, and the Town of Herndon.
- Link future development to the provision of appropriate multi-modal transportation improvements for all land units in this area and as indicated in the Plan text, ~~and~~ as shown on Figures 22 through 25 in the Upper Potomac Planning District section of the Comprehensive Plan, and on the Trails Plan Map, and the Bicycle Network Plan Map, or as stated in the Herndon Metrorail Station Access Management Study (HMSAMS).

- Provide open space for active recreation (including athletic fields), passive recreation and visual relief.
- Protect and enhance environmental resources.
- Encourage parcel consolidation to realize the benefit of comprehensive urban design and circulation/access principles and environmental protection.
- Encourage compatible development with existing and proposed development in surrounding land units and Loudoun County.
- Link development to the provision of needed public facilities.
- Protect adjacent residential neighborhoods from the visual impact of development through use of building tapering, and/or landscaping features, maintaining a high standard for architectural quality, and minimizing noise, glare and traffic intrusion.
- Establish a mechanism for interjurisdictional collaboration to monitor and assure that a TOD land use, transportation, and public facilities balance is achieved and maintained in all development phases.

### **General TOD Guidance**

The vision of the Innovation Center Transit Station Area is to create an inter-connected multi-modal place that benefits surrounding areas. The proximity of a mix of uses to one another should be combined with easy access to multiple modes of transportation, particularly transit (including bus), walking and bicycling that is part of a larger area wide network.

The following urban design, transportation, noise, stormwater, and affordable and workforce housing recommendations apply to all development proposals.

### **Urban Design**

The TSA guidance establishes an environment that thrives around mass transit, minimizes the need for the single-occupant automobile, and fosters a vibrant pedestrian atmosphere. Compact, mixed-use development with the highest densities/intensities closest to transit station platforms, as well as opportunities to move safely, conveniently and enjoyably about the community by foot or bicycle are defining elements.

The protection of environmentally valuable areas is essential. Consolidation with parcels containing environmentally sensitive areas such as streams and wetlands should be supported in order to achieve dedication and ultimate preservation. These areas can provide needed passive open space and contribute to creating a pleasing mix of hardscape elements and natural landscapes.

Creating high-quality, built environments that result in a uniquely identifiable place is strongly encouraged. ~~With respect to the CIT building, harmonious~~ Harmonious architectural and other design features to ~~celebrate~~ acknowledge the CIT building ~~this iconic structure~~ are encouraged throughout the TSA.

### **Buildings**

Buildings should be designed at a scale that encourages pedestrian and street activity. The buildings should create an enjoyable, ~~and~~ attractive, ~~and~~ safe environment to walk, bike, dine, relax and ride public transit. In order to accomplish these goals, building design placement and orientation should encourage activity both at the street level and in above-ground plazas. Architectural design features such as façade variations of window or building details are encouraged.

Ground-floor retail uses are encouraged in office, hotel and residential buildings, as well as parking structures to activate the street. These uses should be designed to complement the surrounding style. Free-standing or drive-through retail establishments are discouraged. Faux windows or storefronts should be used only when necessary, and long expanses of blank walls or facades should be avoided. If retail uses cannot be integrated into the first-floor facades, these facades should be decorated with store-front windows, awnings, and/or vegetated walls.

Buildings should be oriented to and frame the street or the plaza on which the building is located. Buildings should have minimal setbacks. Any building setback should be used for features that contribute to the pedestrian environment, such as plazas, or entrance features. High-rise buildings are envisioned to maximize open space and take maximum advantage of proximity to transit. However, given the proximity of Dulles International Airport, review by the Federal Aviation Administration may be required for high-rise buildings.

#### Urban Parks and Open Space

Publicly accessible urban parks in the form of plazas, courtyard or mini-parks should be incorporated into the designs of buildings and/or building complexes as appropriate to serve the daily needs of residents, local employees, and visitors. The form, quantity and quality of the urban park network should be guided by the park typologies and design criteria of the Urban Parks Framework. These parks should be highly visible and easy to access from areas with most of the pedestrian traffic. Features may include trail connections, water features and short-term informal activities and programmed events intended to foster social interactions among users. These ~~open spaces~~ urban parks should be appealing places to gather with seating, lighting, landscaping and other amenities. Active recreational features, which may include athletic fields, sports courts, splash pads, playable art, and similar amenities appropriate to the development, should be provided. These spaces should be integrated purposefully into the overall design of the development, and not merely be residual areas left over after buildings and parking lots are sited. Public art/sculpture should be incorporated into all urban parks ~~open spaces~~. Opportunities for passive ~~open park spaces~~ are present adjacent to streams and wetlands located throughout the area. If non-residential is the predominant use on site, the urban parks should be designed and appropriately sized to incorporate facilities and amenities that meet the non-residential user needs in order to promote activity within the TSA beyond work hours and on weekends.

#### Streetscape, Sidewalk, Trail and Road Features

A coordinated streetscape design should be developed to contribute to the identity of the CIT area. In addition to the roadway elements of on-street parking, bike lanes, travel lanes, and medians, the streetscape design should provide frontage of sufficient width to create a pedestrian zone to safely separate pedestrian activity from the roadway. Within the pedestrian zone, the space between the sidewalk and the building façade should be determined by the use of the adjacent building and should be used for outdoor cafés, seating, or browsing store windows or other uses that activate the space. Wide sidewalks are encouraged to support the anticipated increase in pedestrian traffic and street furniture throughout the development area. The use of texture, pattern, and materials should be encouraged to make the setting interesting. Finally, a landscape amenity

panel should be located next to the curb and may include streetlights, tree grates, planting beds, planters, paving, bus shelters, bicycle racks, public art, and benches.

This ~~safe and attractive~~ pedestrian and bicycle circulation system should unify the area, provide for well-integrated connections to the Metro Station, as well as to adjacent existing and future residential neighborhoods, in Fairfax County, the Town of Herndon, and adjacent Loudoun County. These network of sidewalks and trails should be integrated with active and passive open space and promote pedestrian access to all uses.

Streetscape improvements may be provided on a combination of publicly owned right-of-way and private property. When the public right-of-way is utilized to provide streetscape improvements, commitments should be made by the property owner or business organization to maintain the streetscape area. In addition, when the sidewalk is not entirely within the right-of-way, a public access easement will need to be provided for the portion of the sidewalk located on private property.

Existing vegetation, especially the large specimen trees should be preserved and incorporated into the site as much as possible. Landscaping should be provided that is attractive in all seasons, and provides shade to seating areas and pedestrian paths/sidewalks during summer months.

Roads should include features that create a high quality, attractive, functional and safe environment for the pedestrian, bicyclist, transit rider, or other non-motorized vehicle user. Pedestrians, bicyclists, motorists and ~~bus transit~~ riders of all ages and abilities should be able to safely move along and across streets. ~~Safe Enhanced~~ and convenient pedestrian crossings such as raised crosswalks, mid-block crossings and sidewalks should be provided to ~~enhance improve~~ pedestrian movement, reduce pedestrian and vehicular conflicts and improve accessibility. The design should be employed continuously and contain uniform or similar elements to make a cohesive circulation network.

### Parking

Parking should be consolidated into structures and integrated into the streetscape. Except for on-street parking, surface parking should be avoided other than as allowed and needed on an ~~interim~~ temporary basis to support ~~occurring~~ interim development.

Parking structures should be designed as integrated building features. The treatment of the structures, which can include retail as a ground floor use, should contribute to the visual appeal and vitality of the streetscape. Façades should be attractive and inviting from both pedestrian and vehicular perspectives and should incorporate features such as architectural elements or trees and other landscaping to provide visual interest.

~~To encourage transit use, To minimize the supply of parking adjacent to a regional transit facility and to encourage the use of transit and non-motorized transportation, parking should be optimized to the greatest extent possible. Techniques such as shared parking is encouraged for uses which have different peak demand periods, instituting paid parking, or other parking reduction techniques and commitment to parking maximums are recommended. This will reduce trips and The intent is to more efficiently organize and utilize the area.~~

### Street Furniture, Bicycle Facilities, Lighting and Other Elements

Street furniture selections, such as benches, water fountains, bus shelters, covered trash receptacles and bike racks, should be included in a streetscape plan and be consistent with the area.

This may include details such as the model, size, and finish of the street furniture. Bicycle features should be covered and security should be provided. Bus shelters should be provided at transit stops that protect patrons from the weather, are safe, easy to maintain, and relatively vandal-proof. A coordinated signage plan is essential to emphasize identity and provide a harmonious appearance.

Street lighting should maintain the overall character and quality of the area, providing adequate lighting levels that ensure public safety without creating glare or light spillage. Light fixtures should be full cutoff and use energy-saving technology in order to minimize the occurrence of glare, light trespass, and urban sky glow. Street lights should be located so as to not conflict with street trees at their projected maturity.

### Street and Median Planting

Street trees and other landscaping in the planting strips should be planted in an environment that promotes healthy root growth. Vegetation within the planting strips could include ornamental shrubs, ground cover, flowering plants, and grasses. These plantings should occur in areas that are clear of vehicles parked on the street, and they should incorporate hardscaped pedestrian access points.

Where medians are provided, they should be planted with attractive landscaping. Consideration should be given to the use of Low Impact Development techniques, and using native plants that are drought tolerant, low in maintenance, and resistant to disease, pollution and heat.

### **Transportation**

The strategy to accomplish and maintain a transportation and land use balance is based on ~~six~~ four components:

- Partnering with other jurisdictions to identify and implement regional solutions to multi-modal transportation issues.
- Cooperating with other jurisdictions to identify and implement a coherent pattern or grid of “walkable” streets ~~and safe, attractive~~ with coordinated and seamless bicycle facilities throughout the areas.
- Phasing transportation infrastructure, including a grid pattern of streets in the TSA in addition to major road links to the west and north. Development should be phased in such a way that effective transportation measures will be in place or substantially completed before proceeding to future development phases.
- Providing a ~~realistic~~ transportation demand management (TDM) plan to reduce single occupant vehicle trips that achieves the trip reductions goals in the TDM plan. The TDM plan should be monitored to ensure that the multi-modal transportation system is functioning appropriately to meet the demands in the area and that the reduction goals are being met.
- ~~Achieving vehicle trip reduction goals contained in the TDM plan.~~
- ~~Monitoring the TDM plan outcome to ensure an adequate multi-modal transportation system.~~

Transportation solutions for the area are based on the timely provision of transit (including bus), pedestrian and bicycle ways, road improvements and TDM measures. Collaboration among

Fairfax County, Loudoun County, the Town of Herndon, the Virginia Department of Transportation (VDOT), and the Metropolitan Washington Airport Authority (MWAA) can bring about the implementation of a regionally-oriented approach that will benefit residents, employees and through-travelers. This cooperative effort should involve representatives of Fairfax County, the Town of Herndon, Loudoun County, VDOT, and MWAA that can share information on a timely basis and devise approaches and strategies to meet transportation needs.

The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be used in the evaluation of development proposals.

Specific transportation recommendations are contained in the District-Wide Recommendations for the Upper Potomac Planning District, and in the Transportation Recommendations for the Greater Herndon Community Planning Sector (UP4). In addition, the following transportation recommendations should be addressed for any development proposal:

#### Innovation Center Station Access

Direct pedestrian access from the Innovation Center Station to any proposed development is encouraged. If public facilities (fire, police, recreation) are constructed on parcel 16-1((1))11B, then separate direct pedestrian and bicycle access to them is also encouraged.

#### Planned Roadway Improvements

The planned roadway improvements in and around the Innovation Center Transit Station Area must be phased as needed to support development. Within the Innovation Center Transit Station Area, it is critical to provide a grid system of streets that achieves internal connectivity and, ~~if feasible,~~ links to areas beyond.

~~Roadways in this area are congested and, in some cases, under severe strain. Increased vehicle trips to and from the TSA, associated with development, are likely to increase will compound~~ traffic congestion within the 1/2 mile ring radius and, potentially, on vicinity roadways in Western Fairfax County and the Town of Herndon. At least four cumulative lanes will be needed from the station area north to Route 606 and at least six cumulative lanes will be needed west toward the Route 28/Innovation Avenue interchange to accommodate vehicle traffic attributable to the TSA.

~~As addressed under the Phasing and Monitoring section, these improvements are essential to ensure continued functioning of road networks in the TSA. Studies should be performed to identify the breadth of impact on vicinity roads.~~

Road improvements required to mitigate traffic impact on transportation facilities will extend beyond the Fairfax County Border. These improvements will be necessary to support each phase of development. To construct these roads will require multi-jurisdictional cooperation, and authorization, as well as VDOT approval. The width, alignment and location of roads constructed to fulfill this requirement should complement the planned non-SOV-oriented character. Additional guidance about these major improvements is detailed next:

- North-South Road(s) –Four cumulative lanes are needed from the transit station area north to Route 606. They will serve as a major entrance to the area. A new four lane road should be constructed to the west of the existing Rock Hill Road. In addition, existing Rock Hill Road should be improved to a standard two-lane local access road. In its current alignment, Rock Hill Road should not serve as a primary access road to the TSA. The new four lanes to

the west of Rock Hill Road should be the primary north-south access to the Innovation Center Transit Station Area leaving existing Rock Hill Road as a neighborhood serving street that also accommodates pedestrian and bicycle activity to and from the TSA.

If only two lanes can be constructed at this western access point, improved Rock Hill Road could serve as a second two lane north-south access to the transit station area.

It is the intent of this Plan that ~~the~~ existing Rock Hill Road should not be improved to four lanes. However, in the event that Loudoun County does not authorize other alternatives for north south access and ~~these other~~ alternatives are determined to be infeasible, then as a last resort, existing Rock Hill Road could be improved to four lanes as a north-south access. This last alternative should only be considered provided that the neighborhood character of the existing communities along Rock Hill Road is protected. All manner of providing new access lanes to the west of Rock Hill Road should be pursued to avoid this alternative.

- Rock Hill Road – In addition to the guidance above regarding north-south roads, Rock Hill Road should serve ~~is~~ as a primary pedestrian and bicycle route to and from the TSA to the north. Sidewalks should be provided on both sides of the road with a minimum eight-foot wide sidewalk on the east side where feasible minimizing impacts to the residential community to the east. A separated bicycle facility that accommodates two-way travel should be provided on the west side of the road. The facilities should be constructed avoiding, to greatest extent possible, impacts to the residential communities on the east side of the road.
- East-West Road(s) – This/~~These~~ road(s) will serve as a primary route for traffic arriving from and going to Sully Road (Route 28). Six lanes are needed to support the transit station area. The lanes should be configured to create a non-SOV-oriented environment, and divided into smaller roads, with at least two connection points on the west side of the transit station area. ~~A feature to be considered is signalization to balance vehicular and pedestrian flows. In addition,~~ Pedestrian and bicycle safety and connectivity enhancements should be addressed through applying urban design guidelines such as narrowed travel lanes, the addition of bike lanes and providing ~~at-grade appropriate~~ pedestrian crossings.
- Grid of Streets – A grid of streets should be implemented in the area that connects future and existing development in Fairfax County and, if feasible, to adjacent future development in Loudoun County. The grid should create multiple points of access to Innovation Avenue to lead traffic to the west to Sully Road or north along the new north-south road(s) to Route 606. A hierarchy of streets should be delineated to lead traffic exiting and entering the transit station area to higher capacity roads intended to handle the traffic. ~~To the extent that Innovation Avenue establishes a grid of streets across the County line, the road should be realigned.~~
- East-West Connector Parallel Road to the Dulles Toll Road – A road within the existing Dulles Toll Road right-of-way that would connect Centreville Road to the transit station area should be studied for feasibility and implementation. If the road cannot be accommodated within the existing Dulles Toll Road right-of-way, other connections could be examined that would also contain other modes of transportation. Regardless, multi-modal connections should be implemented from the developments to the east of the transit station area and the Centreville Road/ Elden Street corridor to the TOD area.
- North-South Connector Bridge – An alignment for this overpass has been coordinated with Loudoun County. On the north side of the Dulles Toll Road, the bridge alignment is to the west and outside of the TOD area in Loudoun County. South of the Dulles Toll Road, the

bridge will connect to Sunrise Valley Drive mainly within the existing Sunrise Valley Drive right-of-way. Contributions for construction of the bridge should be provided by any development in TSA, as well as any right-of-way or easements that may be needed. Land for right-of-way should be reserved and contributions for construction should be apportioned until a new alignment is adopted. The right-of-way that is reserved north of the Dulles Toll Road should be to the west and outside the core TOD area and could cross the county line. Additionally, the bridge should be coordinated with and any adjacent developments should be coordinated areas so that all multi-modal connections are maintained within the TOD. Other transportation improvements should be re-evaluated if this bridge is implemented as it may impact transportation studies.

### Traffic Level of Service

Applicants requesting consideration of the rail-oriented options, which allow the highest intensities of the optional recommendations, shall demonstrate that the transportation system is kept in balance throughout the phasing of development. Consistent with adopted policy on Transit Oriented Development (TOD), a lower level of service may be acceptable within this TOD area. This performance-based approach requires applicants to provide improvements or other guarantees to maintain certain performance levels. These levels would be measured by levels of service or ~~critical movement volumes delay~~, or other measures as deemed appropriate by the Fairfax County Department of Transportation. Projects may be phased to coincide with the achievement of specific non-SOV (single occupancy vehicle) mode split or trip reduction objectives.

Remedies should be considered at locations where an acceptable level of service cannot be attained or maintained, as described below.

### Circulation and Access

As stated in the urban design section, an interconnected network of local streets with wide sidewalks on both sides of streets, delineated pedestrian pathways, and pedestrian crossings should be provided. Logical pathways should connect to external crossing points. Pedestrian movement and safety should be facilitated, in association with implementation of a wayfinding signage plan.

A coordinated pedestrian circulation system plan should be developed that demonstrates how interior portions of the transit station area will be connected to destinations and places within and surrounding the property.

### Transit, Pedestrian, and Bicycle Connectivity

Transit, pedestrian, and bicycle connectivity improvements are major elements of the transportation guidance supporting this Plan option. Transportation modes, other than single-occupancy vehicles, are preferred to support the increased density and mix of uses at the optional level(s) of development. Transit, pedestrian, and bicycle connectivity will achieve the objectives of increasing transit usage, and creating a walkable and bike-able area. ~~Pedestrian and bicycle enhancements relating to streets might include delineated crosswalks, bicycle lanes, signal timings, intersection sidewalk extensions (bulb-outs), mid-block crossings, street medians, reduced turning radii and other features designed into the street section with the goal of reducing conflicts with vehicles and improving safety, as allowed by VDOT.~~

Multi-jurisdictional cooperation is encouraged to identify and provide dedicated and direct bicycle facilities, within the public right-of-way, to the Washington & Old Dominion Trail.

Facility design should protect users and provide low-stress conditions appropriate to the planned traffic volume and speed of the adjacent roadway.

As noted above, Rock Hill Road should be improved with a bi-directional separated bicycle facility and a continuous and connected sidewalk on the west side. Innovation Avenue should have either a bi-directional separated bicycle facility on the south side of the road or bike lanes. Coordination with Loudoun County is encouraged to determine an appropriate and seamless facility for Innovation Avenue.

Within the TSA, sidewalks should be provided on both sides of the road and be a minimum of eight-feet. If a sidewalk is on the same side as a bi-directional separated bicycle facility, a narrower facility could be considered if it abuts residential uses.

Secure and convenient bicycle parking should be provided to encourage bicycling to the Innovation Center Metrorail Station and other destinations. See the Fairfax County Bicycle Parking Guidelines for the quantity and design of bicycle parking facilities.

Pedestrian connections to Innovation Avenue and Rock Hill Road from neighborhoods to the east should be studied and, if feasible, implemented.

Other pedestrian and bicycle enhancements relating to streets might include delineated crosswalks, signal re-timings, intersection sidewalk extensions (bulb-outs), mid-block crossings, street medians, reduced turning radii and other features designed into the street section with the goal of reducing conflicts with vehicles and improving safety, as allowed by VDOT.

#### Transportation Demand Management (TDM)

The establishment of a Transportation Demand Management (TDM) program to encourage the use of transit (including bus), and non single occupancy vehicle transportation, will be needed. This program should ~~utilize~~ use a variety of measures as outlined in the Policy Plan (~~see below~~) to achieve essential reductions in automobile trips to the TSA. TDM measures originating from commitments at ~~rezoning~~ entitlements will be components of the overall TDM program for this ~~TSA/TDA~~. TDM recommendations adopted by the interjurisdictional program will be given favorable consideration as possible components.

The goal of the TDM program will be to achieve specified trip reduction targets attached to various phases of development. It should ultimately be maintained and funded by residents and business owners once development is completed. The TDM program should be designed to work in conjunction with, and enhance, the transit, pedestrian and bicycle connectivity improvements. TDM measures employed should facilitate and complement these physical improvements and urban design features.

~~The TDM program adopted should identify a full set of measures that could be implemented including alternative transportation services, support facilities and/or programs, and pricing measures. It should include enforcement, evaluation and penalty provisions in the event trip reduction thresholds are not achieved.~~

Transit ridership, in combinations with the TDM program, should result in specified trip reduction levels identified for phases of development. Trip reduction goals should be tailored to each development and can be adjusted from the recommendations below with supporting documentation. The following minimum levels of trip reductions should be achieved:

- Within ¼ mile – ~~minimum 30~~ 45 percent trip reduction for residential and office
- Within ½ mile – ~~minimum 25~~ 40 percent trip reduction for residential, ~~20 percent for~~ and office
- Beyond ½ mile – ~~to be determined with a TDM study~~ 25 percent trip reduction for residential, and 35 percent reduction for office

The implementation of a successful comprehensive interjurisdictional TDM program will require cooperation so that property owners in the greater Route 28/Innovation Center Station area also participate, not just those within the transit station area. An interjurisdictional program may include paid parking, transit subsidies, ridesharing matching services, preferential treatment of carpool/vanpools, shuttle bus services to nearby transit stations, guaranteed ride home programs, marketing of commuter assistance programs, and other related measures designed to lessen use of single-occupant vehicles (SOV) and boost non-SOV usage during peak commuting periods.

~~These reductions should occur in the peak hour at site build out, with lower levels of trip reduction expected in the interim phases of development. In addition to the goal of achieving the minimum trip reductions stated above, a TDM study and a parking study should be done at the time of rezoning. The intent of the parking study is to determine if parking reductions can be applied to help achieve the overall TDM trip reduction goal.~~

~~Further, the county should review parking requirements of the Zoning Ordinance to consider the full range of parking management strategies and other TDM strategies. The implementation of a successful comprehensive interjurisdictional TDM program will require cooperation so that property owners in the greater RT28/CIT area also participate, not just those within the transit station area. A parking study should be submitted at the time of rezoning to right-size the parking supply by evaluating a full range of parking management strategies. Precautions should be taken to ensure that inappropriate use of residential parking areas, including neighborhood street parking in the adjacent areas does not occur. An interjurisdictional program may include paid parking, transit subsidies, ridesharing matching services, preferential treatment of carpool/vanpools, shuttle bus services to nearby transit stations, guaranteed ride home programs, marketing of commuter assistance programs, and other related measures designed to lessen use of single-occupant vehicles and boost HOV usage during peak commuting periods. A fuller list of TDM measures that could be considered are shown next.~~

## **~~EXAMPLES OF TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES~~**

### **~~Individual Employer TDM Measures~~**

#### ~~Alternative Transportation Services~~

- ~~• Shuttle Bus(es)~~
- ~~• Company Vanpools~~
- ~~• Telecommuting~~

#### ~~Support Facilities/Programs~~

- ~~• On-Site Transportation Coordinator~~
- ~~• Employer Ridematching Services~~
- ~~• Preferred HOV Parking Locations~~
- ~~• Flexible Work Hours~~
- ~~• Guaranteed Ride Home Program~~

**Pricing Programs**

- ~~— Parking Management/Pricing Programs~~
- ~~— Subsidies for Use of HOV Modes~~

**Implementation**

- ~~— CEO and Board of Directors Commitment~~
- ~~— Proffers/Negotiated Agreements~~
- ~~— Participation in Transportation Management Association~~

**Areawide TDM Measures**

**Alternative Transportation Options/Services**

- ~~— Expand Transit Services (peak hours)~~
- ~~— Expand Transit Services (off peak & midday)~~
- ~~— Carpools~~
- ~~— Vanpools~~
- ~~— Shuttle Bus(es)~~

**Support Facilities/Programs**

- ~~— Transit Center~~
- ~~— Park & Ride Lots~~
- ~~— HOV Lanes~~
- ~~— Preferred Parking Locations~~
- ~~— Multi-Employer Ridematching Services~~
- ~~— Guaranteed Ride Home Program~~

**Mixed-Use Development**

- ~~— Mixed-use developments to include residential, commercial, support retail, hotel and institutional uses~~
- ~~— Development design should maximize pedestrian convenience and accessibility to on-site services~~

**Pricing Programs**

- ~~— Road/Congestion Pricing Programs~~
- ~~— Parking Management/Pricing Programs~~
- ~~— Transportation Allowances~~

**Implementation**

- ~~— Employer Trip Reduction Ordinance~~
- ~~— Parking Management Ordinance~~
- ~~— Site Design Controls~~
- ~~— Proffers/Negotiated Agreements~~
- ~~— TMA Coordination~~

Phasing and Monitoring

As stated in the Transportation Strategy section, “Development should be phased in such a way that effective transportation measures will be in place or substantially completed before proceeding to future development phases.” Although phasing of the ultimate development should be flexible, a grid of local streets should be established in the initial phase of each development. The design should create a dynamic streetscape and promote pedestrian safety and activity. The

initial phase should begin to substantially create multi-modal and pedestrian connections to the metro station ~~landing~~. Establishing this grid pattern in the early phases of redevelopment should establish the identity of the place as a walkable, pedestrian-scaled, mixed-use area. In addition to establishing a grid of local streets, major road improvements should be phased to mitigate the impacts of each level of development

To ensure the transportation impacts of proposed development are fully addressed, the satisfactory preparation of an overall transportation study by the developer as part of a rezoning application ~~is required should be performed, if deemed needed at the time of rezoning or other entitlement phase~~. The study should demonstrate that impacts to traffic could be mitigated by phasing development in such a way that effective transportation improvements will be approved, ~~and funded, and open to the public, including TDM measures, bus, Metro rail service, pedestrian and bicycle facilities, transit and associated facilities, and road improvements~~ before proceeding with proposed development. ~~This also includes the implementation of TDM measures, as well as pedestrian, and bicycle, and transit facilities~~. The study should include alignment and phasing of an internal circulation system ~~and submission of detailed transportation studies~~. The transportation study should evaluate existing transportation conditions and analyze the impacts of the traffic associated with the overall development. The recommendations of this study should include a TDM program to reduce trips. The results will be taken into consideration by the county in determining the timing of construction of improvements, initiation of TDM measures and/or contributions for off-site improvements. Additional roadway improvements in Fairfax County, Loudoun County or the Town of Herndon may be required based on the findings of the development's traffic study. These improvements may be in addition to the transportation improvements currently cited in the adopted county transportation plans for Loudoun County, Town of Herndon or Fairfax County.

If the development is phased, detailed studies of development proposed for each subsequent phase should be provided at specified intervals (for example with each Final Development Plan) and follow the methodology described above. In any event, assurances will be expected that the transportation facilities and services assumed to be operational in the study will in fact be provided as stated. The transportation monitoring and evaluation program will be conducted at specified intervals acceptable to the Fairfax County Department of Transportation. The monitoring and evaluation program will include an analysis of the success of the ~~transportation demand management~~ TDM program. Items will include evaluation of trip reduction ~~and mode split~~; and secondly, an assessment of the performance of site entrances and signalized intersections, as determined by the Fairfax County Department of Transportation in cooperation with Loudoun County and the Town of Herndon.

If it is determined by the county during interim review that adverse impacts have not or cannot be successfully mitigated, the amount of development should be reduced to a level that can be adequately supported by transportation infrastructure. Should development phases be delayed or halted because the impacts have not been mitigated based on the TDM program targets, the developer will be responsible for providing other necessary transportation improvements. Failing that, appropriate contributions to a fund for eventual mitigation may be requested. The total level of development may be restored upon demonstrating that adequate infrastructure capacity is available.

## Noise

Proposed residential uses, outdoor activity areas and other noise sensitive areas may be affected by proximity to the Dulles Toll Road. Portions of the area are also located within one-half mile of the DNL 60 noise contour for Washington Dulles International Airport. Furthermore some

of the area may be affected by noise from the quarry located to the northwest in Loudoun County.

Noise studies may be required to demonstrate that these impacts will be addressed. Provision should be made to notify future residents of the area that they may be impacted by quarry operations. The use of planted terraces, maintenance of tree canopy through the areas under consideration, the use of planted roof gardens and planted sound absorption walls have been found effective management techniques for developments near airports.

## Stormwater Design

Environmentally-friendly stormwater design should be an integral design principle that should be part of the conceptual stage of site development for all projects, recognizing that stormwater management measures may be phased with development. The stormwater design should first seek to minimize the effect of impervious cover, followed by the application of stormwater reuse, retention, detention, extended filtration and, where soils and infrastructure allow, infiltration to improve downstream waters. Coordination of stormwater management controls among multiple development sites may also be effective in achieving stormwater management goals in an efficient manner.

Stormwater management and water quality controls for development and redevelopment should be designed to return water into the ground where soils are suitable or reuse it, where allowed, to the extent practicable. Reduction of stormwater runoff volume is an important stormwater design objective. Reduction could occur through techniques that use plants and soils via landscaping measures, through techniques that reuse harvested rainwater in a variety of ways, and/or through approaches that infiltrate water into the ground to replenish aquifers and provide summer base flows to local streams, where soils and infrastructure allow.

The following are recommended for all new development and redevelopment:

- Stormwater quantity and quality control measures should be optimized with the goal of reducing the total runoff volume and/or significantly delaying its entry into the stream system. The emphasis should be on Low Impact Development (LID) techniques that evapotranspire water, filter water through vegetation and/or soil, return water into the ground or reuse it.
- LID techniques of stormwater management should also be incorporated into new and redesigned streets, as well as parking lots, where allowed and practicable.
- ~~At a minimum, stormwater management measures should be provided that are sufficient to attain both the stormwater design quantity control and~~
- ~~At a minimum, stormwater~~ Stormwater management measures should be provided that are sufficient to attain the Rainwater Management credit design quality control credits<sup>[1]</sup> of the most current version of the LEED-NC or LEED-CS rating system (or

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1. These credits, as set forth in LEED 2009 for New Construction and Major Renovations, are as follows:

### ~~SS Credit 6.1: Stormwater Design-Quantity Control:~~

- ~~For sites that have greater than 50% impervious cover in the existing condition, the total volume of runoff released from the site in the post-developed condition for the 2-year, 24-hour storm should be at least 25% less than the total~~

the equivalent of these credits should be provided). If, on a given site, the attainment of the Rainwater Management stormwater design LEED credits (or equivalent) is demonstrated to not be achievable, all available measures should be implemented to the extent possible in support of this goal.

In addition, for Rail Transit Option 2, the following are recommended as options to the LEED guideline above:

- At a minimum, the first inch of rainfall should be retained on-site through infiltration, evapotranspiration and/or reuse. If, on a given site, the retention on-site of the first inch of rainfall is demonstrated not to be fully achievable, all available measures should be implemented to the extent possible in order to support this goal and achieve partial retention of the first inch of rainfall.
- Stormwater discharges leaving the site should be reduced to levels that will minimize stream erosion through the use of the energy balance method (based on forested existing conditions or an improvement factor of 0.7) or any equivalent methodology.

As an alternative to the LEED guideline and two bullets above, stormwater management measures and/or downstream improvements may be pursued to optimize site-specific stormwater management and/or stream protection/restoration efforts, consistent with the adopted watershed management plan for the Horsepen Creek watershed. Such efforts should be designed to protect downstream receiving waters by reducing stormwater runoff volumes and peak flows from existing and proposed impervious surfaces to the maximum extent practicable, consistent with watershed plan goals. Consideration may be given to other stormwater runoff-related factors such as soil conditions, groundwater conditions, downstream flooding, drainage complaints, character and condition of downstream channels, and identified stream impairments.

## **Green Buildings**

~~All new buildings should receive green building certification under an established rating~~

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~~volume of runoff released in the existing condition for the same storm. Furthermore, the peak runoff rate for the 2-year, 24-hour storm in the post-developed condition should be at least 25% less than the existing condition peak runoff rate for the same storm.~~

- ~~For sites that have 50% or less impervious cover in the existing condition, the total volume of runoff released as well as the peak release rate for the 1- and 2-year, 24-hour storm in the post-developed condition should be equal to or less than the total runoff volume and peak release rate in the existing condition for the same storm. Alternately, a stormwater management plan that protects receiving stream channels from excessive erosion, including stream channel protection and quantity control strategies, may be pursued.~~

### ~~SS Credit 6.2: Stormwater Design Quality Control:~~

- ~~Stormwater runoff associated with the development should be controlled such that the first one (1) inch of rainfall is reused, infiltrated or treated in a manner through which 80% of the average annual post-development total suspended solids (TSS) are removed.~~
- ~~Equivalent approaches may incorporate coordinated stormwater management on multiple development sites and/or off-site controls. Additional stormwater management efforts should be encouraged.~~

~~system such as the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. The green building rating system used should be based on individual building certification, such as LEED-NC (New Construction) or LEED-CS (Core and Shell). LEED Silver certification, or the equivalent, is the minimum expectation for nonresidential development. Residential development should be guided by the Policy Plan objectives on Resource Conservation and Green Building Practices. Residential development Development should be guided by the Policy Plan objectives on Resource Conservation and Green Building Practices. LEED Silver certification, or the equivalent, is the minimum expectation for nonresidential development.~~

### **Affordable Housing and Universal Design**

All development should conform to county policies on affordable and workforce housing to encourage a diverse population of residents. Per county policy, any residential use should provide at least 12 percent of new units as affordable housing. The residential components should accommodate a variety of age groups, interests, and needs. The units should be accessible for those without cars, meet ADA requirements, and accommodate universal design. Non-residential uses recommended under Rail Transit Option 2 should provide a contribution to support affordable and workforce housing as specified in that section.

### **Parks and Recreation**

A more compact, urban style of development is planned within ½ mile of the planned Innovation Center Station. As such, the urban parkland service level standards adopted by the Fairfax County Park Authority Board apply a service level standard of 1.5 acres of land per 1,000 new residents and 1 acre per 10,000 employees. If non-residential use is the predominant use on site, it is appropriate to adequately size and design the park spaces to include amenities that promote activity during non-work hours and on weekends. The maximum level of redevelopment will generate the need for approximately 6 acres of publicly accessible urban parkland which should be integrated with development on this site.

Urban parks within the Transit Station area support the goals of creating a critical mass of pedestrian activity centered around the planned Metro station. Urban park facilities such as pocket parks could include gathering areas, outdoor cafes, fountains or other focal points of interest and small performance spaces. The inclusion of other urban parks, such as off-leash dog areas, community garden plots, water features, tot lots, fitness courses and trails and plazas would allow a greater range of recreational facilities and amenities. Urban park sites should be publicly accessible and within walkable distance of most residential and mixed use areas.

The Upper Potomac Planning District is highly deficient in active recreation facilities, especially athletic fields. Little public parkland is available to support active recreation facility development. To offset the impacts of development on park and recreation service levels, land development projects should contribute land, facilities and/or funds to provide active recreation facilities, preferably on-site or near the development. The facilities should serve all uses within the TSA.

The area includes large sections of RPA and other natural resources, whose preservation and protection are Fairfax County goals. Dedication of these areas to the Fairfax County Park Authority or other conservation entity as part of a zoning action would address the goals of preserving environmentally valuable land and providing open space amenities.

## **Information and Communications Technology (ICT)**

The Innovation Center TSA should include ICT infrastructure. Strategies and programs should be developed to ensure that all residential, commercial and public use structures in the TSA are designed, constructed, and equipped to enable such information and communications networking. ICT infrastructure should be forward thinking and incorporate smart infrastructure technology.

## **Land Use**

### Rail Transit Option 1 for Land Units L-1, L-2 and L-3

Development should be guided by the TOD guidance set forth in the Policy Plan volume of the Comprehensive Plan. Consistent with that guidance, appropriate intensity should be governed by the distance from the rail transit platform based on concentric rings:

- ¼ mile: mixed use including office, research and development, hotel, retail and residential uses at an intensity up to 2.8 FAR
- ¼ to ½ mile: mixed use including office, hotel, retail and residential uses at an intensity up to 1.6 FAR
- beyond ½ mile: 16-20 dwelling units per acre, at an overall intensity of approximately .50 FAR.

Maximum intensity within each ring will be evaluated based on the considerations that development proposals give to TOD principles, road improvements, recreational facilities, and public service facilities, such as fire and police. Intensities apply to residential and nonresidential (retail commercial, office, institutional) uses. Projects that include areas of different intensity recommendations should have an overall intensity that is based on the proportion of land area associated with each intensity recommendation. The resulting development pattern should generally conform to the goal of locating the highest intensities closest to transit. Proposed intensities should be consistent with the urban scale and character that is envisioned for the area.

Tax map parcels 15-2((1))\_3, 4, 5 and 16-1((1))\_4A contain extensive Resource Protection Areas, Environmental Quality Corridors and floodplain. The development potential of these parcels is severely constrained. As an incentive to preserve open space, the planned development potential associated with these parcels may be applied as bonus intensity to a developable parcel within the TOD area as part of a zoning action, provided the entire encumbered parcel is dedicated to the Fairfax County Park Authority or another conservation entity. For example, assuming a parcel has a planned development potential of 10,000 square feet, this amount of development would be the bonus to be added to the receiving parcel provided that the resulting development demonstrates that building scaling, massing and open space are in accord with underlying site specific plan guidance and TOD principles and respect Resource Protection Areas, Environmental Quality Corridors and floodplain.

### Ring 1: Within ¼ mile: Mixed residential and nonresidential uses at an intensity up to up to 2.8 FAR

The Center for Innovative Technology, a state-supported research and development consortium of state universities and colleges, constitutes this area. The mixed-use recommendations that follow seek to establish parameters for future development by suggesting a

minimum, a maximum, or a range of percentages for residential and nonresidential uses. These percentages are meant to be guides and they may need to be adjusted on a ~~case-by-case~~ case-by-case basis in order to further other planning objectives. For example, a mixed-use project that contains an institutional use recommended in the Plan may not be able to achieve the minimum percentage of office use or may exceed the maximum for nonresidential use. ~~Development under this option is subject to the following conditions:~~

Development under this option is subject to the following conditions:

- Bus bays, the Kiss and Ride and pedestrian bridge pavilion associated with the northern portion of the Metro station should be implemented and integrated into the development
- Public facilities analyses, including fire, police, schools, recreation, ~~and transportation, and other public facilities~~ are performed in conjunction with any development application. The results of these analyses should identify necessary improvements, the phasing of these improvements with new development, and appropriate measures to mitigate other impacts.
- Although phasing of the ultimate development should be flexible, establishment of the pedestrian-scaled, mixed use character of the area should be established in the initial phase of development. This phase should include a grid street pattern, plazas and usable open space vertically-integrated land uses with ground-floor retail and other activity generating uses located along the street.
- A high-quality living environment should be created through the provision of well-designed mixed-use projects that provide active recreation, entertainment and other site amenities. The mixed-use development should have a residential component that is at least 35 percent but no more than 45 percent of the total gross floor area of the development. Each residential development should include on-site affordable housing that is well integrated and dispersed throughout the development.
- The nonresidential component of the area within the ring should include office, hotel, and support retail uses. ~~The current institutional use (CIT) is planned to remain and serves as a focal point for future development.~~ The office component, which may include space for research and development activities should be at least 40 percent of the development, but not exceed 50 percent of the total gross floor area. Support retail uses, to be located in office, hotel or residential buildings, should be at least 2 percent, but not exceed 5 percent of the total gross floor area. Retail should support the residents' daily needs so as to minimize trips to neighboring communities. Hotel uses are encouraged and should be at least 5 percent but not exceed 15 percent of the total gross floor area.
- Given the iconic nature of the CIT building, its architectural and cultural significance should be evaluated prior to development and if found significant, preservation or adaptive reuse should be considered. If preservation is not feasible, then the CIT building should be thoroughly documented and recognized in the design of the development or through other interpretative measures.
- Consistent with the Transportation recommendations for the Rail Option, vehicular access is provided through Loudoun County.
- ~~Environmental Quality Corridors should be dedicated to the Fairfax County Park Authority or other land conservation entity.~~ Environmental Quality Corridors should be protected via dedication to the Fairfax County Park Authority or other land conservation entity. Other

conservation mechanisms may be considered provided the land is maintained as protected open space in perpetuity.

- Total parcel consolidation should be achieved.

Ring 2: Within ¼ -½ mile: Mixed residential and nonresidential uses at an intensity up to 1.6 FAR

Ring 3: Beyond ½ mile: Residential use at 16-20 dwelling units per acre, at an overall intensity up to .50 FAR

The proposed development in Ring 2 and Ring 3 should be oriented toward the transit station area. In addition, appropriate transitions should be made to residential development in Fairfax County through tapering of building heights, substantial landscaping and other techniques as necessary.

Tax map parcels 15-2((1))3, 4, 5 and 16-1((1))4A contain extensive Resource Protection Areas, Environmental Quality Corridors and floodplain. The development potential of these parcels is severely constrained. The restoration, as may be needed, and dedication of these properties to the Fairfax County Park Authority or other land conservation entity as part of a zoning action would address several goals, including preservation of environmentally fragile and valuable land and habitat, and providing open space amenities.

Only a portion of the parcels in these areas are located in Fairfax County. Consolidation of land or parcels should occur such that the development results in well-designed, high-quality uses that are functionally and visually integrated into the larger mixed use area planned in Loudoun County.

Proposed developments should be part of a project that incorporates a contiguous area in Loudoun County and is compatible with the uses and intensities planned by Loudoun County. All development proposals should demonstrate that any unconsolidated parcels within a land unit can be developed in a manner that complements the proposed development in Loudoun County, is consistent with the recommendations of the Plan, and at a minimum includes environmentally constrained land.

The mixed-use recommendations that follow seek to establish parameters for future development by suggesting a minimum, a maximum, or a range of percentages for residential and nonresidential uses. These percentages are meant to be guides and they may need to be adjusted on a case by case basis in order to further other planning objectives. For example, a mixed-use project that contains an institutional use recommended in the Plan may not be able to achieve the minimum percentage of office use or may exceed the maximum for nonresidential use. Development under these options is subject to the following conditions:

- Although phasing of the ultimate development should be flexible, establishment of the pedestrian-scaled, mixed use character of the area should be established in the initial phase of development. This phase should include a grid street pattern, plazas and usable open space vertically-integrated land uses with ground-floor retail or other activity generating uses located along the street.
- A high-quality living environment should be created through the provision of well-designed mixed-use projects that provide active recreation, entertainment and other site amenities. The mixed-use development should have a residential component that is at least 50 percent but no more than 60 percent of the total gross floor area in total, with residential becoming the

primary use as distance from the platform increases. Each residential development should include on-site affordable housing that is well integrated and dispersed.

- The nonresidential component of the area within the ring should include office, hotel, and support retail uses. The office component should be at least 40 percent of the development, but not exceed 50 percent of the total gross floor area. Support retail uses, to be located in office, hotel or residential buildings, should not exceed 2 percent of the total gross floor area. Retail should support the residents' and employees daily needs so as to minimize trips to neighboring communities. Hotel uses are encouraged and may comprise between 5 to 15 percent of the total gross floor area.
- Consistent with the Transportation recommendations for the Rail Options, vehicular access is provided through Loudoun County.
- Environmental Quality Corridors should be dedicated to the Fairfax County Park Authority or other land conservation entity
- Development should result in uses that are designed to be visually compatible with the residentially developed area east of Rock Hill Road.
- Active recreation areas should be provided for employees and residents.

In addition, public facilities analyses, including fire, police, schools, recreation, and transportation are performed in conjunction with any development application. The results of these analyses should identify necessary improvements, the phasing of these improvements with new development, and appropriate measures to mitigate other impacts.

**ADD:** Fairfax County Comprehensive Plan, 2017 Edition, Area III, Dulles Suburban Center, as amended through July 31, 2018, Dulles Suburban Center Land Unit Recommendations, Land Unit L, Rail Transit Option 2 for Land Units L-1 and L-2, pages 158-160:

### **Rail Transit Option 2 for Land Units L-1 and L-2**

The core area of Land Units L-1 and L-2 as shown on Figure 40 is planned for a mix of uses to include office, hotel and support retail uses at an intensity up to 4.0 FAR. Outside of the core area, Land Units L-1 and L-2 are planned at an intensity up to 2.8 FAR within a ¼ mile radius of the rail transit platform and up to an intensity of 1.6 FAR between the ¼ to ½ mile radius of the rail transit platform.

Maximum intensity under this option will be evaluated based on the considerations that development proposals give to TOD principles, road improvements, recreational facilities, and public service facilities, such as fire and police. The resulting development pattern should generally conform to the goal of locating the highest intensities closest to transit. Proposed intensities should be consistent with the urban scale and character that is envisioned for the area.

The recommendations that follow seek to establish parameters for future development by suggesting a maximum percentage for nonresidential uses. These percentages are meant to be guides, and they may need to be adjusted on a case-by-case basis in order to further other planning

objectives.

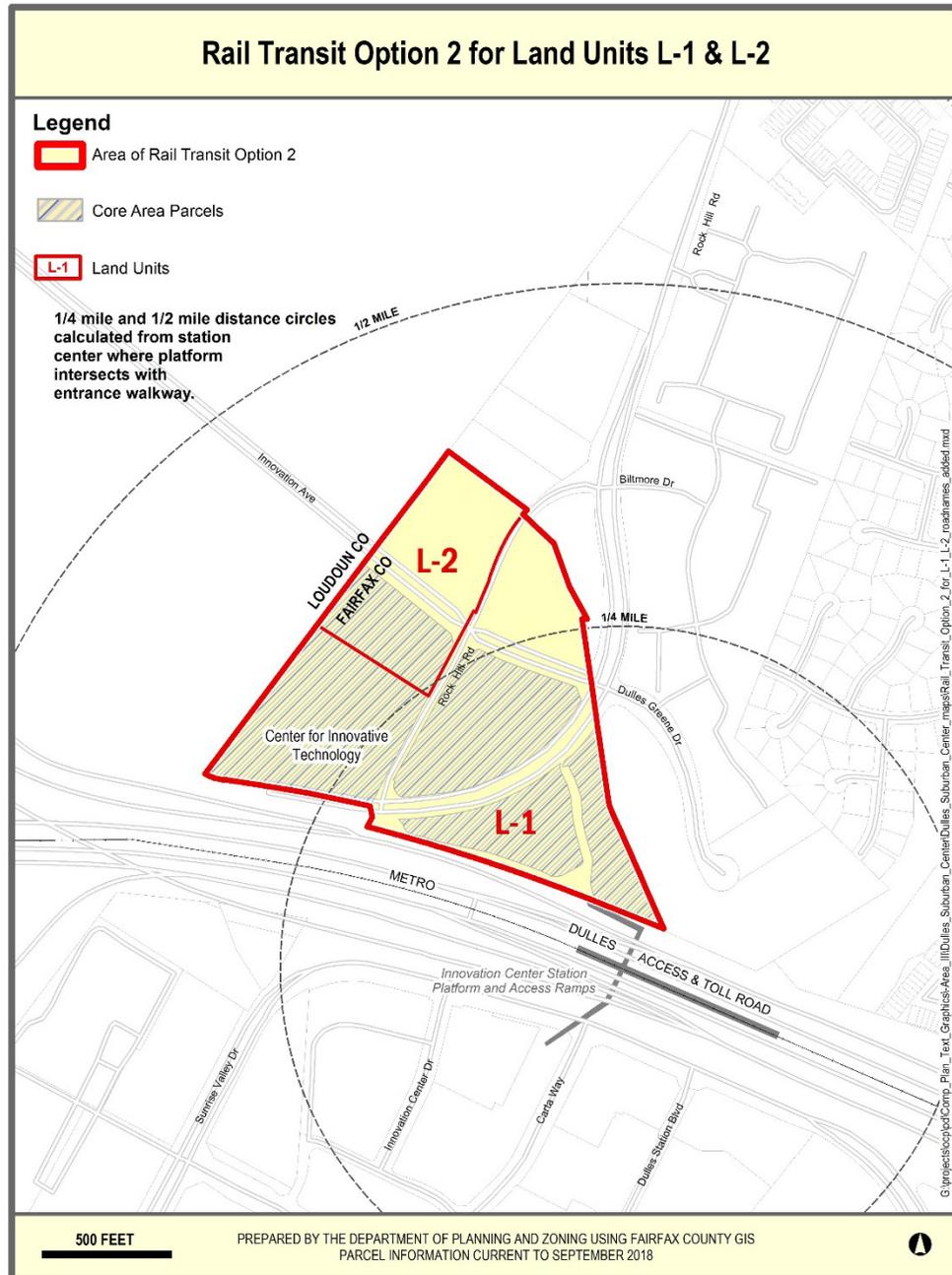
Tax map parcels 15-2((1)) 4 and 5 in L-2 contain extensive Resource Protection Areas, Environmental Quality Corridors and floodplain. The development potential of these parcels is severely constrained. As an incentive to protect open space, the planned development potential associated with these parcels may be applied as bonus intensity to a developable parcel within the TOD area as part of a zoning action, provided the entire encumbered parcel is dedicated to the Fairfax County Park Authority, other public body or dedication or granting of a conservation easement in perpetuity to an appropriate conservation entity or land trust. For example, assuming a parcel has a planned development potential of 10,000 square feet, this amount of development would be the bonus to be added to the receiving parcel provided that the resulting development demonstrates that building scaling, massing and open space are in accord with underlying site specific plan guidance and TOD principles and respect Resource Protection Areas, Environmental Quality Corridors and floodplain.

Development under this option is subject to the following conditions:

- The office component is planned for a maximum of 90 percent of the total gross floor area. Retail and other support uses such as private recreational facilities, daycare facilities, educational use and service uses should be incorporated to encourage pedestrian activity, provide needed services for employees and encourage activity outside of working hours. Clustering of retail and other support uses may be appropriate to create a synergy among uses and to make the area more attractive at varying times of the day.
- Hotel uses are encouraged to support the office use and to encourage activity beyond office hours.
- Consideration should be given to the establishment of an educational/cultural facility that may operate through a public/private partnership that would serve employees and the community as well.
- Total parcel consolidation should be achieved. Where total parcel consolidation cannot be achieved, coordinated development plans may be an alternative to parcel consolidation. Coordinated development plans refer to two or more concurrent and contiguous development applications that demonstrate coordination of site design, building locations, urban design, open space amenities and signage, inter-parcel access where appropriate, roadway realignment or improvements, and parking facilities.
- Bus bays and the Kiss and Ride facilities should be integrated into the development. The pedestrian bridge associated with the northern portion of the Metro station should be constructed and integrated into the development.
- Public facilities analyses, including fire, police, schools, and other public facilities are performed in conjunction with any development application. The results of these analyses should identify the most efficient and effective way to provide services and guide necessary commitments to improvements, the phasing of these improvements with new development, and appropriate measures to address impacts.
- Phasing of any development should allow for flexibility. To the extent possible, the initial phase of development should establish a grid street pattern, plazas and usable open space and buildings designed to activate the street to create a place where people want to walk.

- Urban parks should be designed and appropriately sized to incorporate facilities and amenities that meet the non-residential user needs in order to promote activity within the TSA beyond work hours and on weekends.
- Public art should be a component of any future development. Developers should work with artists and arts organizations early in the design process to successfully integrate the arts into the development.
- Environmental Quality Corridors should be protected via dedication to the Fairfax County Park Authority or other land conservation entity. Other conservation mechanisms may be considered provided the land is maintained as protected open space in perpetuity.
- Proposed development should provide appropriate transitions to and minimize visual impacts on adjacent residential neighborhoods.
- Given the iconic nature of the CIT building, its architectural and cultural significance should be evaluated prior to development and if found significant, preservation or adaptive reuse should be considered. If preservation is not feasible, then the CIT building should be thoroughly documented and recognized in the design of the development or through other interpretative measures.
- Non-residential development in the TSA should contribute \$3.00 per non-residential square foot to support affordable and workforce housing near Metrorail stations unless superseded by Board of Supervisors action on a countywide policy. This amount is to be adjusted annually based on the Consumer Price Index and may be contributed to a housing trust fund that will be used to create affordable and workforce housing opportunities near Metrorail stations. The contribution may be made over a period of time to be determined at the time of rezoning but not less than 25 cents per non-residential square foot each year. Such developments may provide an equivalent contribution of land or affordable units in lieu of a cash contribution. Non-residential contributions could also be used to fund affordable housing opportunities in the TSA through a partnership. Ground level retail should not be included when calculating the contribution amount nor should space dedicated for governmental or public facility uses.
- In addition to the transportation improvements identified for Rail Option 1, additional transportation improvements to support this option are shown on the Transportation Plan Maps for Fairfax County and Loudoun County. At the time of rezoning, a transportation study should be done to identify which improvements are needed to support the development, as well as the phasing of when the improvements would be needed based on development levels.

**ADD FIGURE:** Fairfax County Comprehensive Plan, 2017 Edition, Area III, Dulles Suburban Center, as amended through July 31, 2018, Dulles Suburban Center Land Unit Recommendations, Land Unit L, Rail Transit Option 2 for Land Units L-1 and L-2, Figure 40, Rail Transit Option 2 for Land Units L-1 and L-2, page 161:



**FIGURE 40**

**COMPREHENSIVE LAND USE PLAN MAP:**

The Comprehensive Land Use Plan Map will not change.

**COUNTYWIDE TRANSPORTATION PLAN MAP:**

The Countywide Transportation Plan Map will not change.