

ULI WASHINGTON TECHNICAL ASSISTANCE PANEL BRIEFING BOOK

Metrorail Service District Study



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Department of Planning

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ULI WASHINGTON
TECHNICAL ASSISTANCE PANEL
BRIEFING BOOK

Metrorail Service District Study

Introduction

Loudoun County has been planning for the arrival of Metrorail Service for decades and soon extension of the Silver Line into the County will become a reality. The County has land use plans for the future Metrorail Stations that were conceived with the Toll Road Plan in 1995 and refined with the adoption of the Revised General Plan in 2001. The County also adopted a land use plan in March 2011 for the area just west of the Fairfax County, Route 28/CIT Station with approval of the Route 28 Corridor Plan Comprehensive Plan Amendment.

Profile of Loudoun County

Loudoun County is located 25 miles west of Washington, DC, in the Washington Metropolitan Area (see Figure 1). The County is approximately 520 square miles in size and includes several incorporated towns and residential communities as shown in Figure 2. Loudoun County was first settled between 1725 and 1730. For more than two centuries, agriculture was the dominant way of life in Loudoun County, which had a relatively constant population of about 20,000. That began to change in the early 1960s, when Washington Dulles International Airport (Dulles Airport) was built in the southeastern part of the County. Following the construction of the airport, new business and residential development have dominated growth in the County's historically agricultural economy.

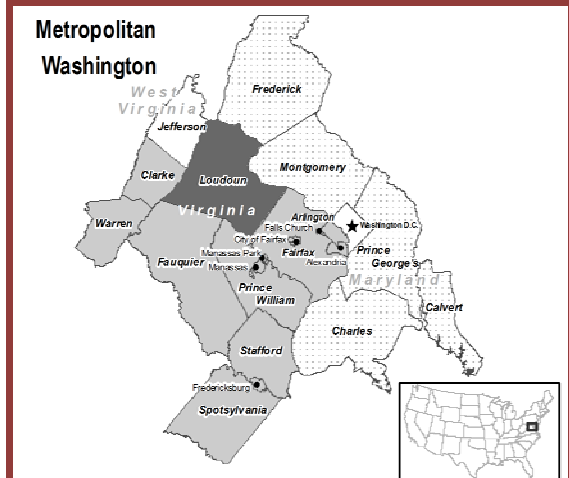
The County estimates the 2013 population to be 340,112. The eastern portion of the County is developing rapidly as a result of its proximity to Dulles Airport, Washington D.C., the rest of the Washington metropolitan area, and its suburban land use pattern. The western portion of the County, bordered by the Blue Ridge Mountains to the west and the Potomac River to the north, maintains a rural and historical environment, and is designated to remain primarily rural per the County's Revised General Plan land use policies. The County's economy continues to grow, and is responsible for a considerable share of Northern Virginia's job growth during the past few years. Several major companies in the telecommunications, information and airline industries are located in the County.

Project Overview

On December 5, 2012 the Board of Supervisors established a Dulles Metrorail Service District (see Figure 3), which is a tax district created to help fund construction costs associated with Metrorail operations which are anticipated to begin in 2018. Given the establishment of this Tax District, the Loudoun County Board of Supervisors initiated a Silver Line/ Metrorail Tax District Comprehensive Plan Amendment on October 16, 2013 to evaluate the development potential of the Dulles Metrorail Service District. The purpose of the Comprehensive Plan Amendment is to evaluate the existing Planned Land Uses around the future Metrorail Stations and to ensure that they strike the desired balance between 1) Prompt



The Dulles Corridor Metrorail (Silver Line) will run in the median of the Dulles Greenway.



Loudoun County is located approximately 25 Miles West of Washington, DC.

realization of tax revenues to support future Metrorail operations, 2) Maximizing future employment generation, 3) Achieving the desired land use pattern, and 4) Minimizing demands on the County's transportation infrastructure.

The land closest to the planned Route 772 Station has already been rezoned for transit-related development with approval of ZMAP 2001-0003 (Moorefield Station) and ZMAP 2002-0005 (Loudoun Station). No major development has been formally proposed surrounding the planned Route 606 Station but the county has recently approved a rezoning close to the Route 28/CIT Station (ZMAP 2008-0018 Dulles World Center). Each of these station areas and development plans surrounding the district are discussed in further detail below.

This briefing book is intended to inform the Technical Assistance Panel (TAP) of existing conditions in the Study Area and policy and regulatory documents currently in place. In addition, previous efforts pertaining to the study and factors that can potentially influence the overall implementation of Metrorail are summarized. A resources section at the end of this Briefing Book provides links to more detailed discussion of the issues and to the complete studies and documents referenced throughout this briefing book.

The Assignment

Given the Planned Land Use defined in the County's plans which already envisions the arrival of Metrorail, Loudoun County is seeking the assistance of a Technical Assistance Panel to provide a "reality check" to ensure that the County's Policy and regulatory documents enable the balance described above. Loudoun County envisions the TAP as an opportunity to gather experts from various disciplines to discuss the current Planned Land Uses in the context of today's market conditions and cutting edge trends in land development. The goal of the TAP is to identify the areas, if any, where the County's policy documents, regulatory documents, or infrastructure have shortcomings with respect to achieving the balances described above. Any shortcomings specifically identified by the TAP would help position the County to develop a more refined scope of work to address those issues in a subsequent effort.

Specifically, Loudoun County is seeking the assistance of a ULI TAP to determine if the County's Revised General Plan provides a Planned Land Use mix within the Metrorail Service District that strikes a desired and beneficial balance between 1) Prompt realization of tax revenues to support future Metrorail operations, 2) Maximizing future employment generation, 3) Achieving the desired land use pattern, and 4) Minimizing demands on the County's transportation infrastructure. As such, the County is seeking insight on the following questions.

Market Realities

1. To what extent is Loudoun County positioned to capture new commercial growth that has not been previously considered?
2. Given local and regional conditions, what is a reasonable timeframe to anticipate significant build-out of the Study Area?
3. To what extent does the planned Metrorail Service and proximity to Washington Dulles International Airport offer significant competitive advantages compared to other areas in the County?
4. Do the existing plans, policies, and/or regulations inadvertently constrain opportunities to capture a new mix of uses? If so, how can this be remediated?
5. What strategies can the County employ to achieve expeditious realization of tax revenues to support Metrorail operations?



Infrastructure

6. To what extent does the planned infrastructure meet the needs of the future market demand?
7. Are there unplanned capital facilities that the County should anticipate? If so, what strategies should the County implement to accommodate these facilities?

Transit-Oriented Development

8. To what extent does the planned transportation network adequately and efficiently serve the Planned Land Use?
9. To what extent does the network and Planned Land Use encourage use of Metrorail?
10. To what extent does the network and Planned Land Use encourage pedestrian and bicycle circulation?

Existing Land Use

11. To what extent do existing land uses within the Study Area affect achievement of the overall vision for the Study Area?

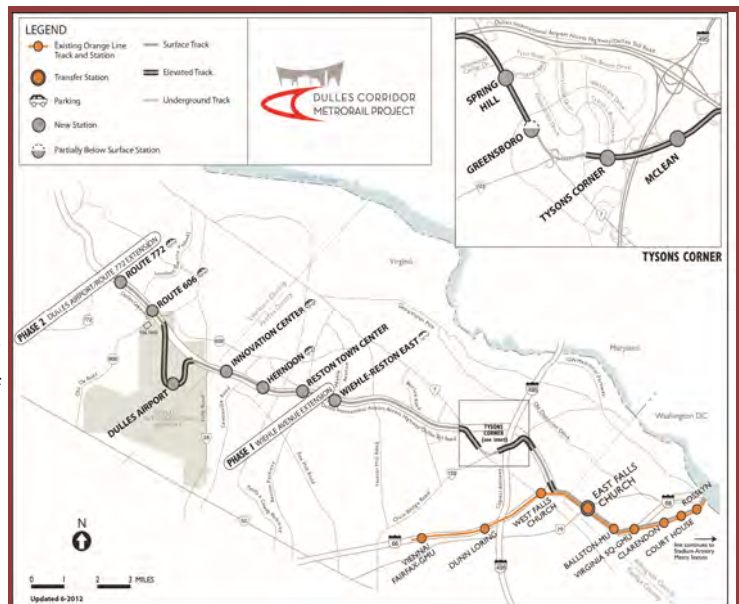
Planned Land Use

12. Is the County's Planned Land Use realistic given projected market conditions, infrastructure availability, TOD efforts, and the existing land use pattern? If not, what are some strategies the County can implement to achieve the overall vision for the Study Area?

The Silver Line

The Metropolitan Washington Airports Authority (MWAA) is constructing a 23-mile extension of the existing Metrorail system. This extension which will be known as the Silver Line and will run from the existing East Falls Church Station through Washington Dulles International Airport, to Ashburn (See Figure 4). The project is being built in two phases. Phase One will run from East Falls Church to Wiehle Avenue in Reston and is expected to be completed in 2014. Phase 2 will run from Wiehle Avenue to Ashburn in eastern Loudoun County and will terminate at the proposed Route 772 Station. Phase 2 is scheduled to be completed in 2019.

Loudoun County has been a longtime supporter of the extension of Metrorail to Washington Dulles International Airport and Loudoun County. The County has been actively planning for the extension of Metrorail to the Dulles Corridor for over 30 years. Detailed planning for Metrorail expansion first appeared in County documents in the 1995 Toll Road Plan and 1995 Countywide Transportation Plan. The current 2001 Revised General Plan contemplates transit nodes at the Route 772 and 606 Stations and refines these plans. Plans for these transit nodes were refined in the 2001 Revised General Plan.



The Dulles Corridor Metrorail (Silver Line) will run from Route 772 in Loudoun County to East Falls Church and continue into Washington, DC.

Study Area

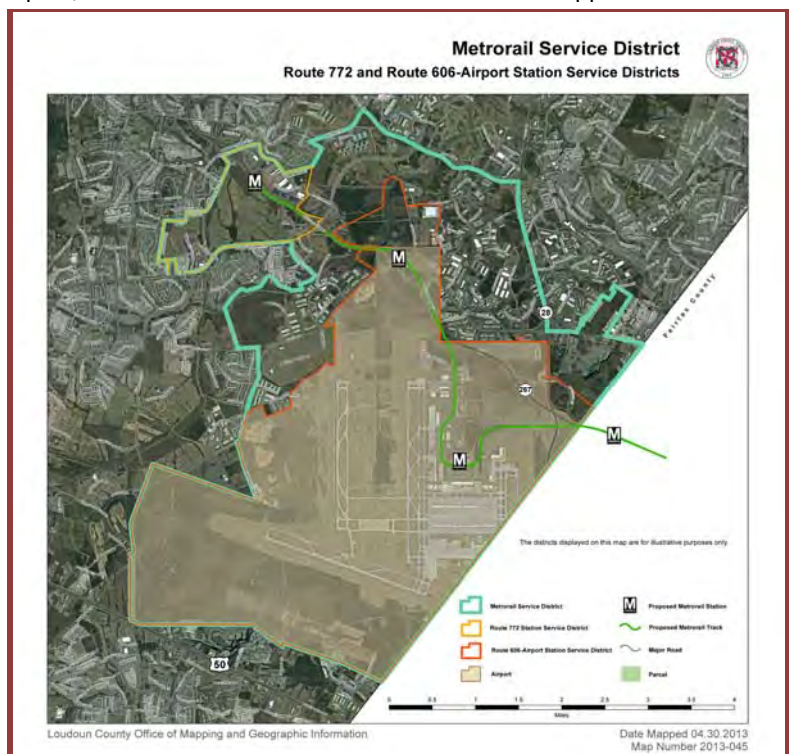
The Loudoun County Board of Supervisors established a Metrorail Service District on December 5, 2012 to help fund construction of the future rail service. That district is the Study Area for this project (see Figure 3). In some instances, the Metrorail Service District is also referred to as the Metro Tax District, Silver Line Tax District, Silver Line CPAM area, and similar names but these terms generally all refer to the same geographical area of the “Metrorail Service District” as formally adopted.

The District was established for the purpose of providing public transportation systems serving each station. Revenue is used specifically for the construction of any related facilities and structures including parking facilities; a rail yard; vehicular and pedestrian access; electrical facilities and equipment; studies, assessments and analysis of environmental and other impacts; local, state and federal government approvals; environmental preservation and mitigation; acquisition of real property or easements; rail lines; relocation of roadways; and engineering and legal costs related to the Metrorail project.

As shown in Figure 3, the district encompasses 641 parcels and 14,328 acres including the Washington Dulles International Airport Property which is the largest property in the district. The district is located along the Dulles Greenway Corridor which is a privately funded and operated toll road serving Loudoun County. The median of the Dulles Greenway will also provide the right-of-way for the future Silver Line Metrorail Service. In addition to the Metrorail Service District, portions of the Study Area fall within a Route 28 Tax District intended to fund highway transportation improvements along Route 28.

With the Metrorail Service District, supplemental real property taxes are assessed (as of 2013) on parcels within the boundaries at an effective rate not to exceed \$0.20 per \$100 of assessed value exclusive of all other applicable taxes and are collected by the County Treasurer in the same manner the county-wide real property tax is administered.

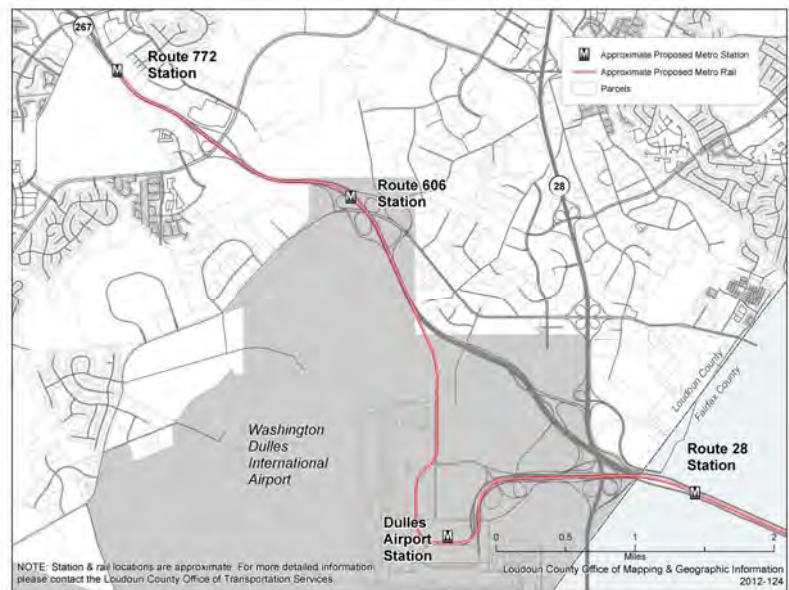
The County also adopted a Route 606 – Airport Stations Service Tax District and Route 772 Station Service District to provide funding for operational costs and public transportation systems serving the Districts. These districts were adopted with the Metrorail Service District currently in place but rates are not yet assessed. Like the Metrorail Service District, supplemental real property taxes will be assessed on parcels within the boundaries at an effective rate not to exceed \$0.20 per \$100 of assessed value. The intent is for these districts to have minimal effective rates until the term of the Metrorail Service District expires. The 606 and 772 districts are intended to provide revenue continuing beyond the term of the Metrorail Service District for the purpose of funding the ongoing payments to the Washington Metropolitan Area Transit Authority (WMATA) to provide Metrorail transit service to the stations.



The Metrorail Service District covers land in close proximity to the planned Silver Line Metrorail stops (see detail in Figure 3).

Adoption of the districts came after an extensive public process, including public information sessions attended by representatives from the County's Department of Management and Financial Services, the Office of Transportation Services, and the Public Affairs and Communications Division, along with representatives from the Washington Metropolitan Area Transit Authority and the Metropolitan Washington Airports Authority.

As shown in Figure 5, there are three Metrorail Stations proposed in Loudoun County and a fourth station at the Loudoun/Fairfax County Border in Fairfax County that also serves Loudoun County. Each of the stations have a unique history and provide a



There are 3 Metrorail Stations planned within Loudoun County (see detail in Figure 5).

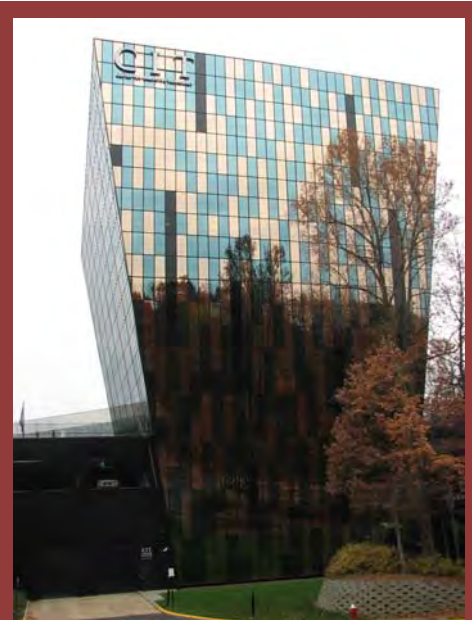
unique set of opportunities and constraints for development surrounding the stations. The discussion below provides an overview of the factors affecting each station and discussion throughout this report provides further details.

Route 28/CIT Station

The Route 28/CIT Station will be located in Fairfax County but land in the eastern most portion of Loudoun County will be roughly 0.5 to 0.75 miles from the Station. The Revised General Plan, and more specifically the Route 28 Corridor Plan envisions the area surrounding the station as a Mixed-Use Office Center. Concurrent with adoption of the Route 28 Corridor Plan, the area closest to the station was also approved for a rezoning request (Dulles World Center, ZMAP 2008-0018). This rezoning allows for 4.1 million square feet of non-residential office and retail space and 1,265 multi-family residential units. The Route 28 Corridor Plan was adopted in March 2011 based on significant stakeholder involvement and interjurisdictional discussion.

Dulles International Airport Station

The Dulles Airport Station will be located on Washington Dulles International Airport property and is primarily intended to serve the terminal building of the airport for arriving and departing passengers. Due to the airport location, Loudoun County does not have land development jurisdiction over the station or land surrounding the station. It should be noted that the Airport first opened in 1962 and that it has been expanding ever since with 22.6 million passengers served in 2012. At full build-out, the airport is planned to serve up to 55 million passengers with an additional runway and expanded concourses planned. As such, the planned Metrorail Station plays an important role in future airport operations.



A proposed Metrorail stop will be located at The Center for Innovative Technology Building along Route 28 and the Dulles Toll Road in Fairfax County

Route 606 Station

The Route 606 Station is also proposed to be located on Washington Dulles International Airport Property. However, land immediately adjacent to the station north of the Dulles Greenway is under the jurisdiction of Loudoun County. Nearby, land is currently used as a commuter park and ride lot given its convenient access to the Dulles Greenway and Washington, DC. There are several factors that have driven land use plans for the 606 Station. An especially unique factor affecting development near the Route 606 Station is noise associated with the airport flight path located directly above the station. Figure 6 shows the Ldn noise contours associated with the current and planned airport runways that have been incorporated into Loudoun County Planning Documents and the Zoning Ordinance. Specifically, the county has policies and a zoning overlay district that prohibits residential development within the Ldn 65 area. Details of Planned Land Use and the zoning overlay for the 606 Station is discussed in detail below.

Route 772 Station

The Route 772 Station has been planned for Transit-Oriented Development (TOD) since adoption the 1995 Toll Road Plan. TOD plans for the Route 772 Station are also detailed in the 2001 Revised General Plan which superseded the Toll Road Plan. Land on either side of the planned Metrorail Station has been rezoned through developer driven initiatives to allow for future TOD development but the majority of this land lies undeveloped today. The two most notable rezonings surrounding the Route 772 Station are Loudoun Station (ZMAP 2002-0005) on the north side of the station and Moorefield Station (ZMAP 2001-0003) on the south side of the station which are described in detail below.



The Silver Line will stop at Dulles Airport which is planned to serve up to 55 Million Passengers.



The Route 606 Station will be located in the Median of the Dulles Greenway near the Route 606 interchange and the existing County owned park and ride lot.



The Route 772 Station will be located in the Median of the Dulles Greenway. In general, the land immediately surrounding the proposed station location is currently undeveloped.

While these two rezonings have been approved, relatively little of the land area has been developed to date. Some development has occurred on the north side at Loudoun Station but the area closest to the station with the highest proposed densities remains undeveloped. Construction activity is expected to increase in the coming years as the opening of the Silver Line approaches.

Proposed Land Use

Details of the County's Comprehensive Plan, the Revised General Plan, are discussed below. However, for context, it should be generally noted that the Planned Land Use discussion in the Plan contemplates two unique transit nodes at the Route 606 and Route 772 Stations. The two nodes are very different, in terms of their function and design, and as such are denoted as a Transit-Oriented Development (TOD) and a Transit-Related Employment Center (TREC).

The TOD is targeted to the areas within one-half mile of the Route 772 Station. Areas outside the TOD are planned for business and employment uses located along the Dulles Greenway Corridor.

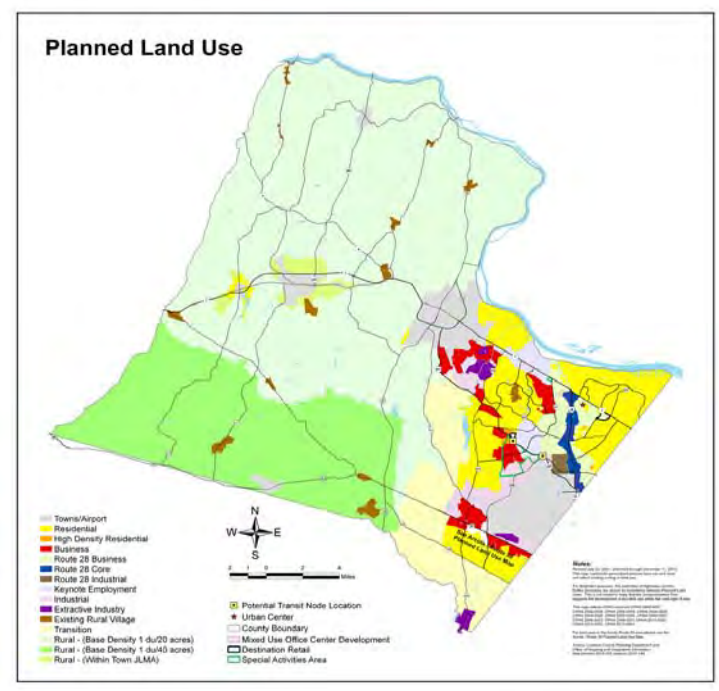
The TREC is planned to be located to the north of the Dulles Greenway, north and west of the Route 606 Station. The TREC is planned for concentrated employment use or a Special Activity use without a residential component because of the constraints of the Dulles Airport 65 Ldn and the Dulles North Transit Center. TREC policies also recognize the importance of preserving the natural environment around the Broad Run.

The Revised General Plan also includes the Route 28 Corridor Plan which was a March 2011 amendment to the Revised General Plan. The Route 28 Plan envisions Route 28 as a major employment center with a core of premier office development focused along the corridor itself. Other employment focused business uses are planned

outside the core. Another key component of the Route 28 Plan is allowance for three Mixed-Use Office Centers that allow for compact, high-density residential development which is otherwise not envisioned in the Route 28 corridor. The approved Dulles World Center development (discussed in detail below) is near the Route 28/CIT Station and falls under the Mixed-Use Office Center designation. The two other mixed-use office center areas are not within the Study Area.

Major Land Uses/Landmarks

Given the relatively short history of major development activity in Loudoun County, there are still several vacant areas scattered among the pockets of developed land. Figure 9 provides an aerial photograph that demonstrates the overall land development pattern. The area in Loudoun County surrounding the proposed Route 28/CIT Station is largely vacant. Nearby uses include an active rock quarry and airport parking areas. West of the proposed station, near the intersection of Route 606 and Pacific Boulevard there are some office buildings which represent some of the only Class A office buildings currently in the Study Area.



The County's Planned Land Use Map guides the general land development pattern in the County (see Figures 7 and 8) .

Just west, near the intersection of Route 606 and Ariane Way, there are a variety of light to heavy industrial uses which include warehousing and trucking operations, manufacturing, flex uses, and a concrete plant. This land use pattern continues along Route 606 to its intersection with the Dulles Greenway and is largely reflective of the underlying industrial zoning and Planned Land Use surrounding Washington Dulles International Airport.

At the Route 606/Dulles Greenway Interchange, there is a County-owned and operated commuter park and ride facility that provides bus service to Washington DC. This park and ride lot is located east of the planned Route 606 Station. Areas north and east of the station are generally vacant or developed with light industrial uses.



Office Space at Route 606 and Pacific Boulevard.



The Route 606 corridor has an industrial character west of the Dulles Greenway Interchange.



The Mercure Industrial Park contains a wide range of light to medium industrial uses with high quality design.

West of the interchange along Route 606, there is additional light industrial development known as the Mercure Industrial Park. This area is characterized by a generally more modern industrial design and consistent feel in comparison to the development east of the interchange.

Much of the area along the Dulles Greenway west of the Route 606/Dulles Greenway interchange also lies vacant and is somewhat constrained by floodplain areas. Exceptions include data centers in the northwest quadrant of the Dulles Greenway and Loudoun County Parkway and a mix of hotels, gas stations, and residential development in the southwest quadrant. Just west of the data centers on the north side of



Much of the land surrounding the future Route 606 Station is currently vacant.

the Dulles Greenway, is the site of the future Loudoun Station development which will be on the north side of the Route 772 Station. There is some active construction associated with this development. West of Loudoun Station, there is a retail development known as Ryan Park Center which includes a Giant grocery store, Home Depot, and smaller strip retail uses. Some professional office uses are also located along the western edge of Ryan Park Center. The land on the south side of the Dulles Greenway near the proposed Route 772 Station is currently vacant but comprises the planned Moorefield Station development. The western most portion of the Study Area in the southwest part of Moorefield Station is currently being developed with mixed-use development and is intended to be part of the “transit-supportive area” for the TOD. This area provides mixed use development at lower intensity than the inner and outer TOD areas.



Land at Loudoun County Parkway and the Dulles Greenway is developed with hotels and a gas station.



Existing and under construction data centers at Loudoun County Parkway and Shellhorn Road. The Route 772 Metrorail Station and Loudoun Station development is located just behind these data centers.



Construction activity at the Loudoun Station development adjacent to the planned Route 772 Metrorail Station.



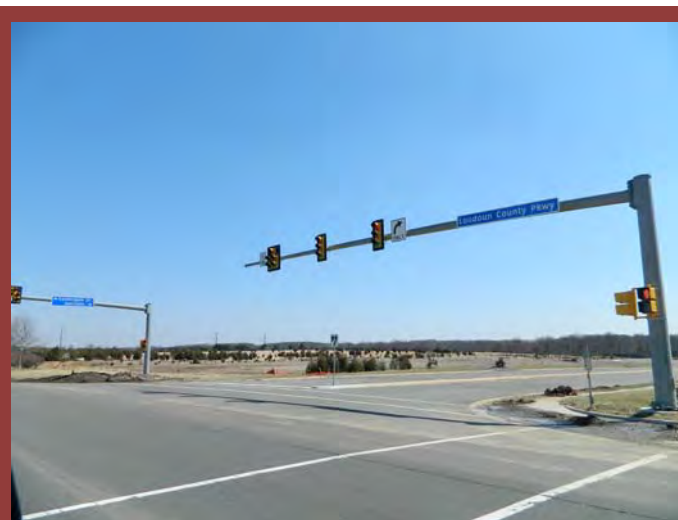
Ryan Park Center just west of the Route 772 Station at the intersection of Shellhorn Road and Ashburn Village Boulevard provide strip retail development and professional office space.



Moorefield Village is a mixed-use development in the western most part of the Study Area at Loudoun County Parkway and Mooreview Parkway. This development is part of the "Transit Supportive Area" associated with the Moorefield Station rezoning described below.

Vacant Land

While there are significant areas of land that appear vacant, it is important to note that much of this land is controlled by a small number of landowners and has already been rezoned and contemplated for future development. These rezoning applications are discussed below. Another significant area of land that appears vacant is controlled by Washington Dulles International Airport. While this land does have some development potential, it is outside the County's jurisdiction. Figure 10 shows the vacant land within the Study Area that has been rezoned since 2001. It is generally assumed that the land rezoned later than 2001 will be developed according to the Concept Development Plan (CDP) on file for that rezoning.



Land Associated with the Loudoun Parkway Center Development (ZMAP 1990-0015) at the corner of Loudoun County Parkway and Barrister Street was approved for commercial development and roadways were built in the area but that land lies vacant.

It is, however, important to note that other rezonings were approved in the Study Area prior to 2001 and that those properties can still develop according to their approved CDP. For example, Loudoun Parkway Center (ZMAP 1990-0015) was approved for 1,010 dwelling units and between 2.7 and 3.4 million square feet non-residential development. The World Com Rezoning (ZMAP 1998-0003) was approved for up nearly 4.7 million square feet of non-residential development. In both cases, only a small amount of the approved development has actually been built.

Environmental Constraints

As shown in Figure 11, areas of floodplain associated with Broad Run, Horsepen Run, and their tributaries represent the most notable environmental constraints in the Study Area. There are also some areas of wetlands and potential wetlands but these constraints do not significantly limit development potential. Other environmental features include forested areas and areas of steep slopes. While Plan policies call for preservation of quality forested areas, there are few regulatory requirements for doing so and efforts to preserve them would largely depend on their quality. As shown in Figure 11, areas of steep slopes are limited in the Study Area and do not pose significant development constraints.



The Broad Run and associated floodplains and tributaries comprise the biggest development constraint near the Route 606 Station.

Additional Considerations

Airport Impact Overlay

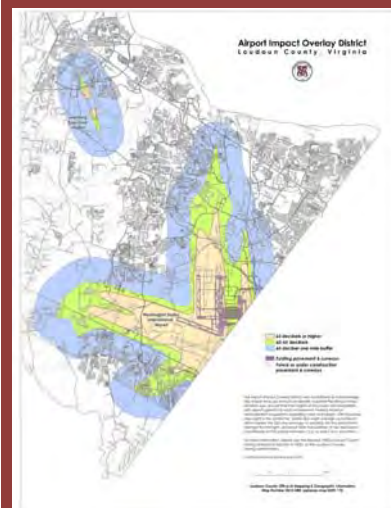
The Airport Impact (AI) Overlay District was established to protect Washington Dulles International Airport as an economic engine by ensuring land use compatibility.

The district recognizes the unique land use impacts of airports, regulates the siting of noise sensitive uses, ensures that the heights of structures are compatible with airport operations, and complements Federal Aviation Administration regulations regarding noise and height.

The County established the AI district boundaries on the 60 and 65 Ldn noise contours as well as an area that extends one (1) mile beyond the 60 Ldn contours in 1993. In Airport Noise Impact areas of Ldn 65 or higher, residential units are not be permitted. However, dwelling units and additions to existing dwellings may be allowed if they were permitted prior to establishing the AI district. Figure 6 depicts the AI district boundaries in the Study Area.

Parking Garages

The County anticipates that three parking garages will be in operation prior to the start of Metrorail operations into Loudoun County. There will be one parking facility at the

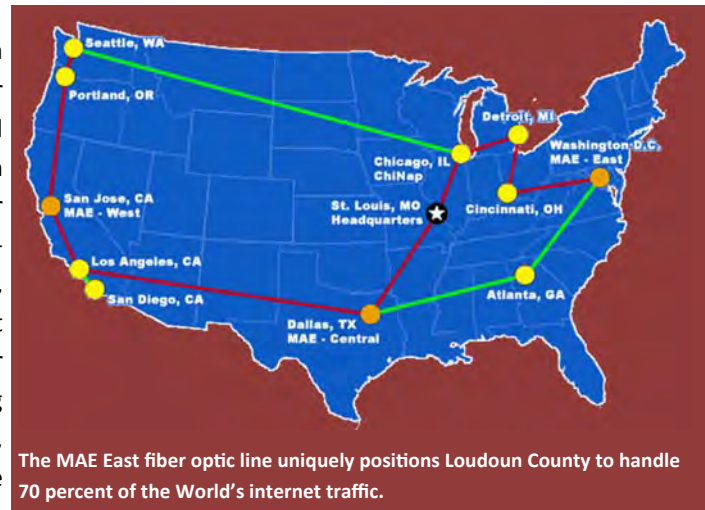


The Airport Impact Overlay district is intended primarily to limit development of noise sensitive uses within noise contours of current and planned aircraft flight paths (see Figure 6).

Route 606 Metrorail Station with 1,965 parking spaces. A second parking facility will be located at Loudoun Station on the north side of the Route 772 Station with 1,433 spaces. The third station will be located at Moorefield Station on the south side of the Route 772 Station with 1,540 spaces. The exact financing, ownership, and operational structure for these parking garages is currently being finalized, but the County is committed to having these garages open for the start of Metrorail operations. The County has a website dedicated to information pertaining to these facilities which is listed in the resources list.

Fiber Lines

The Study Area is home to the Metropolitan Area Exchange-East (MAE-East), a significant crossroads of fiber optic cable that provides large amounts of broadband capacity for Internet users. In addition, there is an extensive fiber optic network, which provides superior high-speed voice, video, and data transmission. High-speed fiber optics technology enables businesses, government, defense electronics, and others to transmit large amounts of data safely and securely. The fiber infrastructure within the Study Area is crucial to providing connectivity to other companies and networks worldwide, providing the area with a national market advantage. The MAE-East line is one of the primary reasons for the large number of data centers in the Study Area.



Approved Projects

Figure 12 shows the major projects that have been approved since 2001 with a rezoning application. Some of these projects are currently under construction or partially built while others have seen no development activity.

Moorefield Station (ZMAP 2001-0003)

The Moorefield Station rezoning application was approved in 2002. The property straddles the south side of the Dulles Greenway and includes a portion of the planned TOD area. The TOD portion of the property utilized the Planned Development—Transit Related Center (TRC) zoning district. This is the largest project currently planned in the Study Area. The project contemplates a mix of 6,000 residential detached, attached, and multi-family dwelling units and 9.75 million square feet of non-residential space. The property is approximately 582 acres in size and is located south of the Dulles Greenway (Route 267) and on the north side of Loudoun County Parkway (Route 607). The project includes an inner core, outer core, inner transit-supportive area, and outer transit-supportive area based on walkability and distance from the Metrorail Station.

The inner core consists of 69 acres and will have the most intense urban form allowing building heights up to or exceeding 100 feet and includes a 12 acre site dedicated to the County for transit-supportive uses. The outer core consists of 79 acres and surrounds the inner core. It represents the maximum reasonable distance that a person would walk to the transit stop. The Inner Transit Design Supportive Area consists of 244 acres and serves as a transitional area for much of the development separating other planned and developed suburban development from Moorefield Station. This area has the greatest amount of lower density residential dwellings. The Outer Transit Design Supportive Area consists of 98 acres and is the most physically separated portion of the project extending north and west of existing Ryan Road. The east and

west boundaries are buffered by existing vegetated stream corridors. The northern third of the Outer Transit Design Supportive Area is to be a dedicated use dedicated site of about 80 acres. This property is planned to accommodate natural stream corridors, limited park uses and allow for public schools. The remainder of the Outer Transit Design Supportive Area is to be developed with a variety of residential dwellings (detached, duplex, townhouse, apartments) and an urban retail center (with a grocery store anchor) and will include a homeowner's association recreation center.

Loudoun Station (ZMAP 2002-0005)

Loudoun Station straddles the northern side of the Dulles Greenway and is located within the planned TOD surrounding the future transit station. It was rezoned to PD-TRC and approved in 2003 for up to 1,514 multi-family residential dwelling units and 1.9 million square feet of office, hotel, theater and retail uses. There is some construction activity occurring at Loudoun Station and several retail spaces and residential units have already been occupied.

Digital Loudoun (ZMAP 2011-0006)

There are several data center buildings in the Study Area in the vicinity of the planned Route 772 Station. Digital Loudoun has developed many of these data center sites and ZMAP 2011-0006 was approved in 2012 to allow for additional data center buildings and an electrical substation. The rezoned site will have a total of four building envelopes for data centers which will supplement the six data center buildings that currently exist adjacent to the Loudoun Station development.

Dulles Parkway Center II (ZMAP 2005-0041)

Dulles Parkway Center is a 40.25 acre site on the southern side of the Dulles Greenway. The western most part of the project is within the planned TOD. It was rezoned to PD-TRC in November 2007 and will provide up to 624 multi-family residential units and 600,000 square feet of office and retail uses. Some residential, retail, and hotel development has already occurred along Centergate Drive but the majority of land planned for office space has not been developed.

West Dulles Station (ZMAP 2005-0021)

West Dulles Station was approved in June 2006. The rezoning consists of 28.45 acres which were rezoned to PD-IP. The proposal calls for up to 485,760 square feet of flex and office uses. In addition, the proposal would accommodate 1,895 parking spaces. No development has occurred on the site since its approval.

Dulles World Center (ZMAP 2008-0018)

Dulles World Center was approved in March 2011 concurrent with the adoption of the Route 28 Corridor Plan. Subsequently, in January 2014, a concept plan amendment was approved to modify the phasing and accelerate some residential development. The project consists of 81.68 acres and was rezoned to the Planned Development – Town Center zoning district. A total of 4.1 million square feet of non-residential development and 1,265 residential units are contemplated.

Revised General Plan and Zoning

Revised General Plan Background

The Revised General Plan is the foundation of the County's Comprehensive Plan adopted by the Loudoun County Board of Supervisors. The basic purpose of a Comprehensive Plan is established in the Code of Virginia, Volume 3A, paragraph 15.2-2223, which states: "The Comprehensive Plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity, and general welfare of the inhabitants."



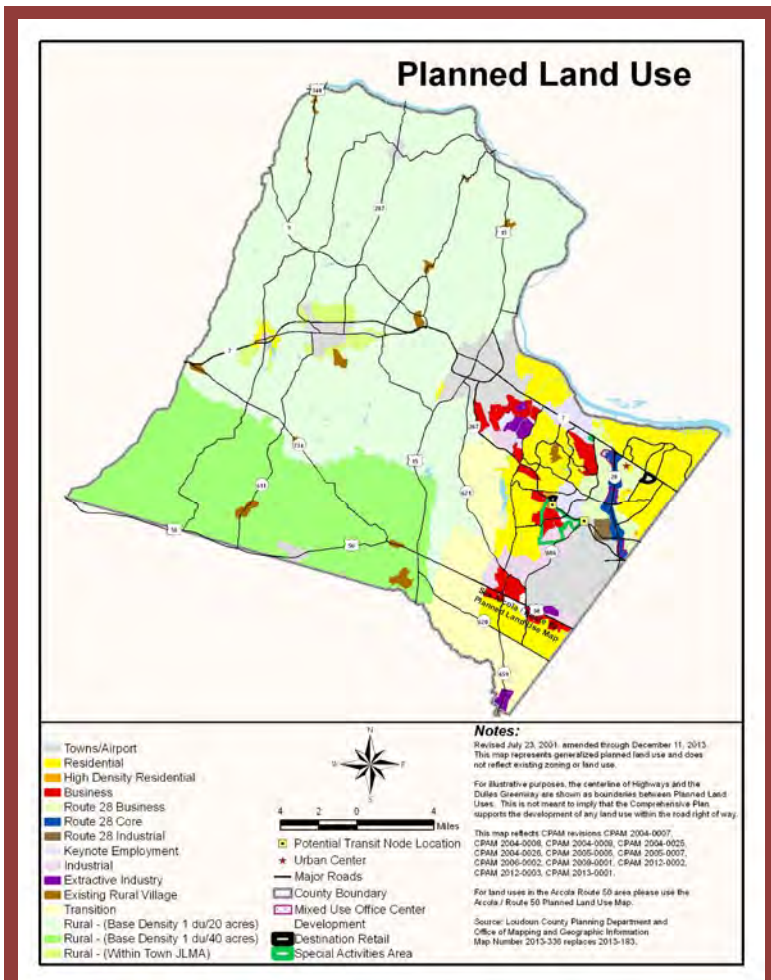
The County has sought to offset the “costs” of residential development by encouraging a fiscally favorable balance between residential and non-residential development. The Plan supports phasing growth based on the availability of adequate public facilities and distributing the costs of growth more equitably. Over the years and to this end the County has implemented an integrated approach to fiscal and land use planning. The strategy begins with the Comprehensive Plan, which includes the Revised General Plan, Countywide Transportation Plan and associated documents. The Plan establishes the development potential of the County by planning the residential and non-residential uses of the land to ensure that Loudoun County remains a well-served community with a high quality of life and an economic balance to allow an affordable tax rate.

State case law envisions strong links between a Comprehensive Plan, zoning and subdivision regulations and the capital improvements program that establishes the location, financing and timing of local public facilities (Section 15.2-2239 et. Seq. Va. Code Ann.). This integrated planning approach is expected to provide a growth-management strategy that will sustain local jurisdictions as they grow.

There are several distinct components of the Revised General Plan that provide the policy guidance for land development decisions. For summary purposes, Planned Land Use in the Study Area can be distilled down to four specific governing areas of the Plan providing a range of options for development served by Metrorail. First, the Planned Land Use Map divides the County into several distinct community types ranging from rural to industrial. Each of the community types have a specified land use mix and set of policies that are used to evaluate land development proposals. Within portions of the Study Area, the Route 28 Corridor Plan, Transit Node policies, and Special Activity Area designations provide additional development options and policies for certain areas as shown in Figure 8. These policies within the Plan recognize the strategic location of the planned Metrorail Stations and unique aspects of the Route 28 Corridor in order to provide development opportunities tailored to infrastructure in place.

Planned Land Use

The Revised General Plan Planned Land Use Map is shown in Figure 7. Figure 8 shows detail of the Planned Land Use within the Study Area. The Planned Land Uses generally found within the Study Area include High-Density Residential, Business, Keynote, and Industrial. Table 1, on the following page summarizes the purpose of designation and provides permitted densities. Within the Route 28 Corridor, there are additional Planned Land Use designations also discussed below and shown in Table 1. Specific policies related to transit nodes that work in conjunction



The Revised General Plan Planned Land Use Map is the foundation for land planning decisions in the County (see Figures 7 and 8).



Table 1—Study Area Planned Land Use Designations

Planned Land Use	Definition/Typical Uses	Density		
Residential	Mixed-type housing neighborhoods. Allows for mix of residential supportive uses.	Residential: 1.0 to 4.0 dus/acre		
High-Density Residential	Single-family attached and multi-family housing. Allows for mix of residential and supportive cases.	Residential: 8.0-16.0 dus/acre 8.0-24.0 dus/acre in Toll Road corridor		
Town Center	A “downtown” or “Community Core”. Mixed-use with emphasis on pedestrian movement (vs. vehicular).	Res: 8.0-16.0 dus/acre Non-Res. to 0.4 FAR		
Urban Center	Intensive, large-scale mixed-use. Rectilinear layout with public greens & squares with landscaped streets & pedestrian-oriented buildings.	Phase w/Roads w/Bus w/Rail	<u>Res. dus/acre</u> 8.0-16.0 to 24.0 to 24.0	<u>Non-Res. FAR</u> to 0.4 0.4-1.0 1.0-2.0
Transit Node: Transit-Oriented Development (TOD)	Compact mixed-use development at densities to support transit. Streetscapes and building frontages that are pedestrian scale.	Phase w/Roads w/Bus w/Rail	<u>Res. dus/acre</u> 8.0-24.0 to 32.0 to 50.0	<u>Non-Res. FAR</u> to 0.6 0.6 to 1.0 1.0 to 2.0
Transit Node: Transit-Related Employment Center (TREC)	Compact employment-based development at densities to support transit. Streetscapes and building frontages that are pedestrian scale. No residential component, where limited by airport Ldn.	Phase w/Roads w/Bus w/Rail	<u>Res. dus/acre</u> N/A	<u>Non-Res. FAR</u> to 0.6 0.6 to 1.0 to 2.0 (2.0 net cap)
Keynote Employment	100% office or research & development centers supported by ancillary retail & services. Corporate headquarters/premiere office development, heavily landscaped and visually impressive.	Res: N/A Non-Res. FAR: 0.40 to 1.0		
Regional Office	Mixed-use development supports a variety of office with some high-density residential and supportive services and retail.	Res: 8.0-24.0 dus/acre Non Res. FAR 0.40-1.00		
Light Industrial	Lowrise (primarily 2-story or less) development, includes flex/warehouse, small-scale manufacturing. Compatible with office commercial and residential-no outdoor storage or emissions.	Res: 8.0-24.0 dus/acre Non-Res. FAR 0.30-0.40		
General Industrial	Labor intensive industrial & commercial uses. Buffered and separated from residential. Outdoor storage, noise, & emissions.	Res: N/A Non-Res. FAR: 0.30-0.40		

Table 1 Continued—Study Area Planned Land Use Designations

Planned Land Use	Definition/Typical Uses	Density
<p>Route 28 Core:</p> <p>Route 28 Office Cluster</p> <p>Route 28 Mixed-Use Office Center (MUC)</p>	<p>Office Clusters;</p> <p>Mixed Use Office Centers</p> <p>Mix of highly integrated uses and employment supportive uses; encourage vertically mixed buildings with commercial storefronts on ground level;</p> <p>no residential uses allowed;</p> <p>may include custom campuses;</p> <p>predominately Office, limited Commercial Retail and Services; Public and Civic uses</p> <p>Mix of mutually supportive uses including: business, retail, restaurants, personal services, hotels, for-sale and rental housing, civic, public, cultural and entertainment uses; 27/7 amenity-rich developments; vertically integrated mixed use buildings; “urban feel” with pedestrian-oriented building facades; high-density, multi-family residential dwellings only.</p>	<p>Between 0.6 and 1.0 FAR contingent on transportation improvements</p> <p>1.0 FAR up to 1.5 FAR with incentives for the northern and central MUC areas;</p> <p>1.5 FAR up to 2.0 FAR with incentives for the southern MUC area</p>
Route 28 Business	<p>Low to mid-density Office and Flex uses; includes secure office campuses and R&D; supportive Commercial Retail and Services up to 10% of FAR; no residential uses; no Flex adjacent to major roadways; no outdoor storage; Large scale Public and Civic uses allowed.</p>	<p>Between 0.4 and 1.0 FAR;</p> <p>lower FARs in Flex developments</p>
Route 28 Industrial	<p>Up to 100% Heavy Industrial, Light Industrial, Flex uses with supportive Commercial Retail and Services limited to 10% of FAR; Includes: warehousing, distribution, manufacturing; outdoor storage of materials and equipment allowed.</p>	<p>Between 0.2 and 0.4 FAR</p>

with these Planned Land Uses are also discussed. Each of these designations have policy guidance for a specific land use mix. The County reviews all legislative applications against the policies of the Revised General Plan. County Staff provide recommendations to the Planning Commission and Board of Supervisors based on the extent to which a project meets the policies of the Revised General Plan.

There are several areas of high density residential development with 8 to 16 dwelling units per acre in close proximity to the planned Route 772 Metrorail Station.



High-Density Residential

High-Density Residential uses accommodate a scale of human activity that is needed to develop viable, mixed-use communities and to implement key County objectives including the development of mass transit, provision of affordable housing, preservation of open space, and efficient use of public facilities and services. High-Density Residential uses are planned in a limited number of locations that include designated areas along the Dulles Greenway, within the County's Urban Center, in Town Centers, and as a component of mixed-use Business land use areas. High-density residential areas are intended to comprise between 8 and 24 dwelling units per acre with the highest densities in the Dulles Greenway corridor where transit is anticipated.

Land Use Category	Minimum Required	Maximum Permitted
a. High Density Residential	40%	60%
b. Office, Light Industrial	0%	20%
c. Public & Civic	10%	No Maximum
d. Public Parks & Open Space	30%	No Maximum

Revised General Plan land use mix guidance for High-Density Residential Communities

Business

Business land use policies address the location and character of large-scale office and light-industrial uses in the Suburban Policy Area. The County encourages a mix of uses in most of its office and light-industrial business developments. In addition to offices, Business land uses generally may feature housing and/or commercial/retail uses, and all of the uses have a component of public/civic uses and parks and open space. The mix of uses is intended to create an environment where individuals not only can work, but where they can live and have convenient access to services, shops, and recreation. The Business land use designations envision development as Regional Office and/or Light Industrial Communities.

Land Use Category	Minimum Required	Maximum Permitted
a. High Density Residential	15%	25%
b. Regional Office	50%	70%
c. Commercial Retail & Services*	0%	10%
d. Light Industrial/Flex	0%	20%
e. Overall Commercial & Light Industrial (c plus d)	0%	20%
f. Public & Civic	5%	No Maximum
g. Public Parks & Open Space	10%	No Maximum

Revised General Plan land use mix guidance for Business Communities (Regional Office Communities)



Land Use Category	Minimum	Maximum
a. High Density Residential	0%	25%
b. Commercial Retail &	0%	10%
c. Regional Office	0%	40%
d. Overall Business Uses (b	0%	40%
e. Light Industrial/Flex	45%	85%
f. Public & Civic	5%	No Maximum
g. Public Parks & Open Space	10%	No Maximum

Revised General Plan land use mix guidance for Business Communities (Light Industrial Communities)

Keynote

Keynote Employment Centers are envisioned as 100-percent premier office or research-and-development centers supported by ancillary retail and personal services for employees. They do not envision a residential component. Keynote Employment centers have high visibility along major corridors, their structures accented with heavily landscaped greens and tree-lined boulevards, and reflect the County's growing prominence as a global crossroads for business. Keynote Employment Centers house headquarters for businesses such as America Online, Raytheon, and Verizon. The preferred location for Keynote Employment Centers is along Route 7 and the Dulles Greenway.



Keynote employment uses outside the Route 28 Corridor.

Land Use Category	Minimum Required	Maximum Permitted
a. Regional Office	70%	85%
b. Commercial Retail & Services	0%	10%
c. Public & Civic	5%	No Maximum
d. Public Parks & Open Space	10%	No Maximum

Revised General Plan land use mix guidance for Keynote Communities

Industrial

Industrial Centers are intended to accommodate the continued operation and expansion of major industrial uses which represent a significant portion of the County's tax base and employment. This land use designation provides a degree of protection for industrial uses from other incompatible land uses. Primary land uses in these industrial areas are General Industry and Heavy Industry. The majority of industrial communities are focused near Washington Dulles International Airport.

General Industrial uses are predominantly labor-intensive industrial and commercial uses. Their outdoor storage requirements, noise levels, and emissions present difficult design issues and make them incompatible with residential development. Associated activities also make them incompatible with residential and other business areas. Such developments are best located away from major roads, accessed from within an industrial park, and limited to a minor portion of a larger development.

Heavy Industry is not conducive to mixed-use development. Heavy industrial sites generally are limited to land within the Airport Impact Overlay Zone or where residential development is otherwise undesirable. Quarries are an example of heavy industrial uses in the County. The County requires that industrial uses provide adequate buffers and protection to mitigate negative impacts on surrounding uses.

Route 28 Corridor Plan

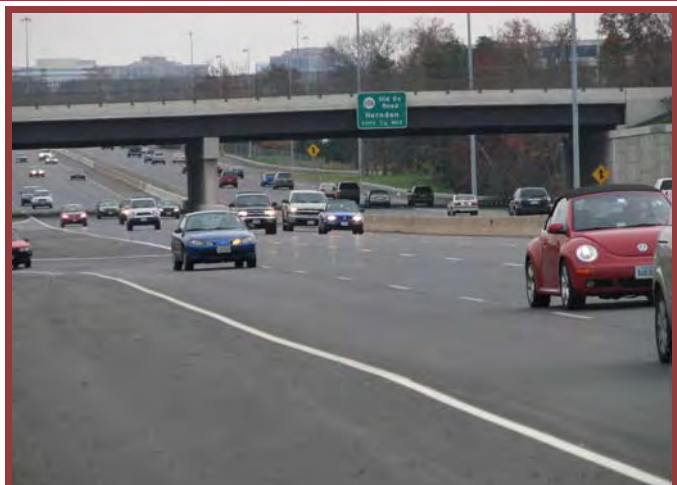
The *Route 28 Corridor Plan* was a March 2011 amendment to the Revised General Plan. Policies in the Plan build upon the significant amount of data and public input gathered through various Route 28 Corridor activities and initiatives since January 2008. These efforts included public input sessions, interviews, targeted questionnaires, and research to develop several reports, including the Route 28 Business Outreach Results Report; Belfort Park Task Force Final Report; the Route 28 Tax District Existing Conditions Report; and the Route 28 Corridor Analysis of Development Potential for Class A Office Space.



Industrial uses in the Mercure Industrial Park along Route 606

Land Use Category	Minimum Required	Maximum Permitted
a. Residential	0%	0%
b. Commercial Retail & Services	0%	10%
c. Office	0%	20%
d. Light Industrial	0%	20%
e. Industrial	70%	90%
f. Public & Civic	0%	No Maximum
g. Public Parks & Open Space	10%	No Maximum

Revised General Plan land use mix guidance for Industrial Communities



The Route 28 Corridor is a major highway in the eastern portion of the Study Area. The corridor has been planned for major employment uses on either side of the roadway.

The basis for the Route 28 Corridor Plan stems from the desire to create more opportunities for Class A office space and other employment generating uses given the proximity of the corridor to a major international airport.

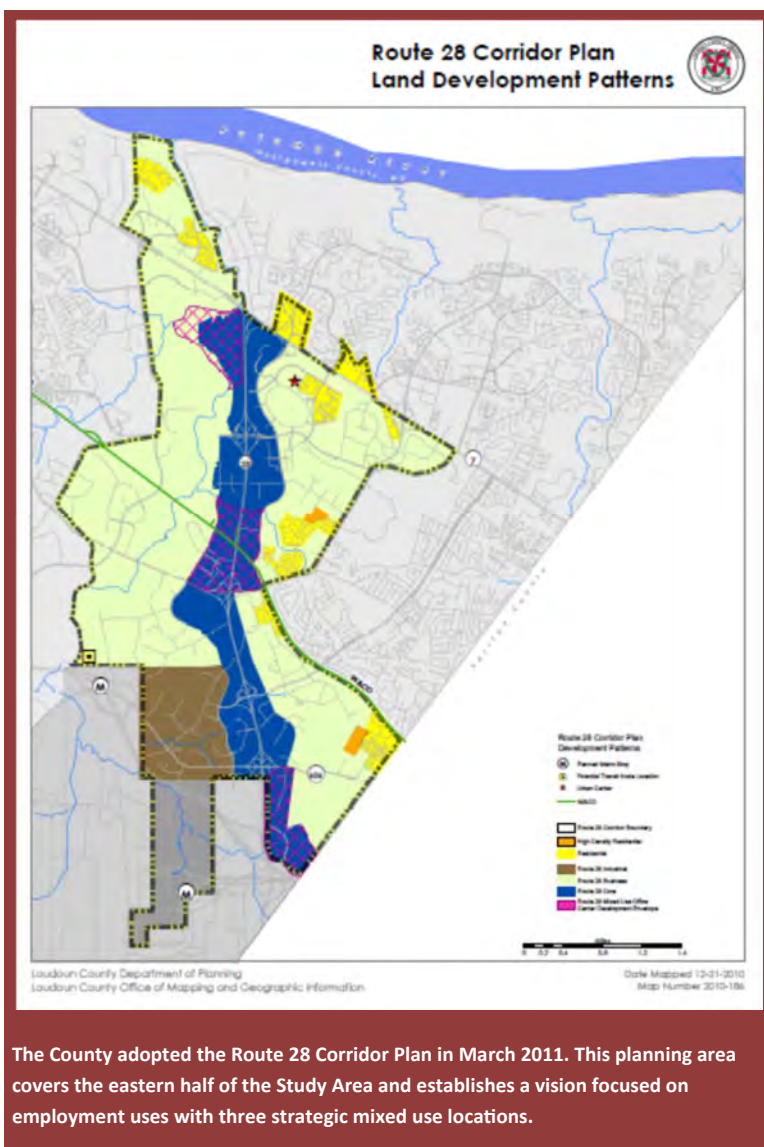
Landowners within the corridor recognized that timely transportation improvements were logical and vital to its economic development. As such, the Route 28 Highway Improvement Transportation District ("Route 28 Tax District") was formed in 1987 in partnership with Fairfax County to help fund transportation improvements including conversion of Route 28 into a limited access highway. However, due to statutory requirements of the Route 28 Tax District, property owners are vested in zoning districts in place at the time the District was formed (see Zoning discussion below). This results in three different zoning ordinances that govern the district and an unpredictable development pattern. A major goal of the Route 28 Corridor Plan was to identify incentives to encourage property owners to convert to the most recent zoning ordinance.

The result of the Plan was development of policy language and associated maps that provide a specific plan and vision for the Route 28 Corridor. Other policies of the Comprehensive Plan continue to apply as appropriate.

The Route 28 Corridor Plan promotes the growth of the commercial tax base, helps improve the revenue balance between commercial and residential, offsetting the greater costs of services for residential development, helping to meet or exceed the ability of the County to pay Route 28 Tax District bonds, and relieving the tax pressure on County residents by maintaining an affordable real property tax rate.

The County envisions the Route 28 Corridor as an airport-anchored gateway into Loudoun County offering a positive and welcoming business environment that supports significant job growth and economic activity in varied settings. The County also envisions the corridor evolving into a premier location for regional, national, and international businesses with a high-quality image that offers employees vibrant centers of activity and highly-integrated pedestrian and transit-friendly employment developments. This vision reinforces the County's commitment to the continued commercial growth of the corridor that in turn contributes to the overall fiscal health and economy of the County.

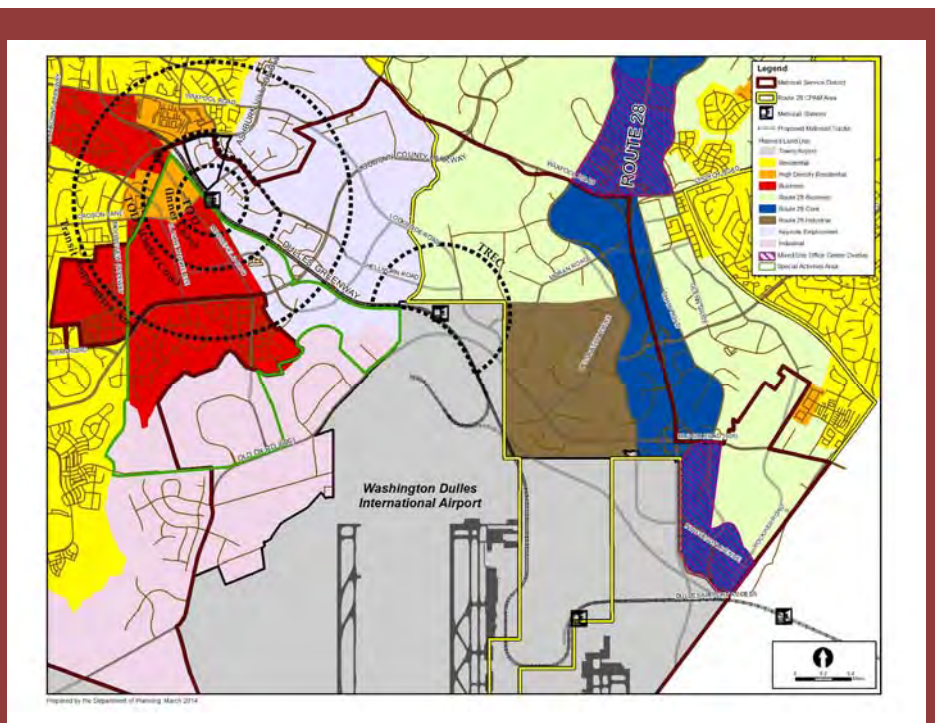
Implementation efforts for the Route 28 Corridor Plan are ongoing. On December 4, 2013 the Board of Supervisors approved a zoning amendment that established new optional zoning districts for the Route 28 Corridor that provide incentives to convert to the most recent zoning ordinance. The County is currently undertaking efforts to map these



The County adopted the Route 28 Corridor Plan in March 2011. This planning area covers the eastern half of the Study Area and establishes a vision focused on employment uses with three strategic mixed use locations.

Transit Nodes

The County expects that property owners will work together with the public sector (the County, Washington Metropolitan Area Transit Authority, Metropolitan Washington Airport Authority, State Department of Rail and Public Transportation, etc.) to ensure that adequate transit facilities and connections for all modes are in place to support maximum use of the transit system. This type of joint public-private partnership is required in the planning of the Transit Nodes, and all property owners are encouraged to work together in designing a unified development plan for the Transit Nodes.



The Revised General Plan establishes transit nodes surrounding the Route 606 and 772 Stations based on areas of walkability (see detail in Figure 8).

mass” needed to support bus and rail transit; to provide a development alternative that promotes the separation of automobile-oriented land uses from transit-oriented land uses; and to maintain the efficient operation of the Dulles Greenway. The two Transit Nodes are both transit-oriented, but serve several different functions.

The TREC will be located to the north of the Dulles Greenway, north and west of the Route 606 interchange and the Dulles North Regional Transit Center, a regional park-and-ride facility. Because of the constraints of the Dulles Airport 65 Ldn Land the Regional Transit Center, the TREC is planned for concentrated employment use or Special Activity use without a residential component. This location is also envisioned to remain a major transit hub in the County.

The other Transit Node is planned as a TOD consisting of a mix of high-intensity land uses ranging from high-density residential uses, regional offices, entertainment and cultural centers, and other business and support services. The TOD straddles the Dulles Greenway between the Loudoun County Parkway and Route 772 interchanges and comprise a mixed-use development.

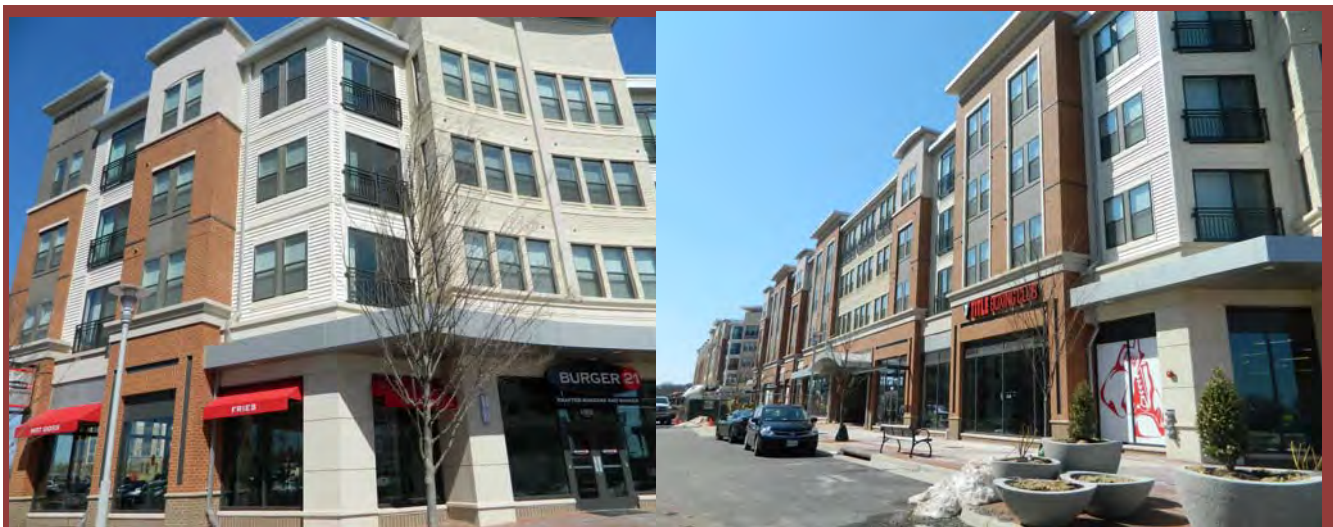
Transit-Oriented Development (TOD)

Land straddling the Dulles Greenway at the Route 772 Station is envisioned as the site of a compact Transit-Oriented Development that will have densities to support a balanced mix of jobs, transportation, and high-density housing. The TOD is intended to provide pedestrian-scale development with a mix of residential, commercial, public, and employment uses. Pedestrian circulation is envisioned to be enhanced by short blocks arranged in a rectilinear grid-street pattern. The TOD is planned to have an “urban feel” with pedestrian-oriented building facades, ground-floor shops, and distinctive public spaces.

The TOD is comprised of an inner core (1/4-mile radius) and an outer core (1/2-mile radius). The inner core should have the most “urban-feel” with a vertical mix of uses, such as ground-floor shops and upper story residences, and public gathering places. The TOD is planned to encompass an area no greater than that defined by the 1/2-mile radius from the TOD edge to the transit stop. Land uses will diminish in intensity as they increase in distance from the transit stop, although they will continue the same grid pattern. The TOD will be surrounded by a transit-supportive area, providing for a complementary density and design transition from the intense TOD to the less-intense development outside the TOD.

Density within the TODs is phased according to availability of transit service. The density for the TOD when served only by roads only is up to 16 dwelling units per acre for residential development and up to a 0.6 Floor Area Ratio (FAR). When bus service and facilities are planned, scheduled, designed and fully funded to serve the TOD, residential densities may increase to 32 dwelling units per acre and a non-residential FAR up to 1.0. When rail transit and facilities are planned, scheduled, designed, and fully funded to serve the TOD, residential densities can increase above 32 dwelling units per acre, up to 50 dwelling units per acre, and a non-residential FAR between 1.0 and 2.0 is permitted.

As discussed above, the County has already approved the Loudoun Station, Moorefield Station, and Dulles Parkway Center rezonings which are within the TOD for the Route 772 Station. These projects are anticipated be developed in accordance with the phasing referenced above.



Initial phases of development at Loudoun Station that will part of the Route 772 TOD. Higher densities closer to the Metrorail stop are anticipated in later phases.

Transit-Related Employment Center (TREC)

A Transit-Related Employment Center (TREC) or Special Activity destination is planned north and west of the Route 606 Station. Originally, in the 1995 Toll Road Plan, the Route 606 Station was designated as a Regional Transit Center. However, with the adoption of the 2001 Revised General Plan the vision for the Route 606 Station was expanded and the current TREC policies were added. The TREC is planned for concentrated compact employment use and may be appropriate for a special activity such as a sports stadium or exhibition facility. The TREC is envisioned to encompass an area no larger than 1/2-mile north of the station. This area is limited by the Dulles Airport property and the existing transit facility to the southeast, and the Route 606/Dulles Greenway interchange to the south.

Densities envisioned in the TREC are dependent on the availability of transit services. With roads only, the TREC supports non-residential densities up to a 0.6 FAR. With bus and rail transit facilities, densities in the TREC are envisioned to reach non-residential FARs of 1.0 and 2.0 respectively. The highest densities also require a range of roadway improvements to ensure that access to the transportation facilities is not encumbered.

In general, FARs west of the Broad Run are limited to 0.4, but higher densities can be considered when acceptable levels of services are demonstrated on nearby roadways, environmental impacts are minimized, access to the transit center is not hampered, and pedestrian linkages are provided.

Land uses and densities in the TREC were planned with careful consideration of the constraints of the Dulles Airport 65 Ldn, constraints imposed by the Federal Aviation Administration, environmentally sensitive floodplain areas associated with the Broad Run, and the regional park and ride facility. Any development in the TREC is envisioned to reflect these considerations.



Areas near the Route 606 Metrorail Station (TREC) are currently developed with agricultural uses.

Special Activity Uses

Special Activity uses are single uses or activities that may not be compatible with the mixed-use communities in the Suburban Policy Area due to their scale. Special Activity uses include professional sports stadiums, conference facilities, and theme parks. While economic benefit would be derived from the use and from ancillary development spurred by its existence, the Special Activity use substantially could affect surrounding land uses.

Loudoun County's unique amenities increase its potential to attract Special Activity uses that would serve the region. The Washington Dulles International Airport, the Dulles Greenway, and future transit make certain areas within the Suburban Policy Area especially attractive.

The County encourages the development of Special Activity uses in designated areas and will evaluate Special Activity use proposals on a set of criteria to ensure the selection of the best site and the mitigation of potentially adverse impacts. The Land Use Map identifies areas for possible Special Activity use.

Zoning Districts

There are 51 different zoning district designations in the Loudoun County Zoning Ordinance. This section summarizes the stated purpose of the zoning districts most commonly found in the Study Area and most appropriate for future rezonings within the Study Area. Residential zoning districts are not discussed but the zoning ordinance does contain several residential zoning districts for various densities. Figure 13 provides the existing zoning map for the Study Area.

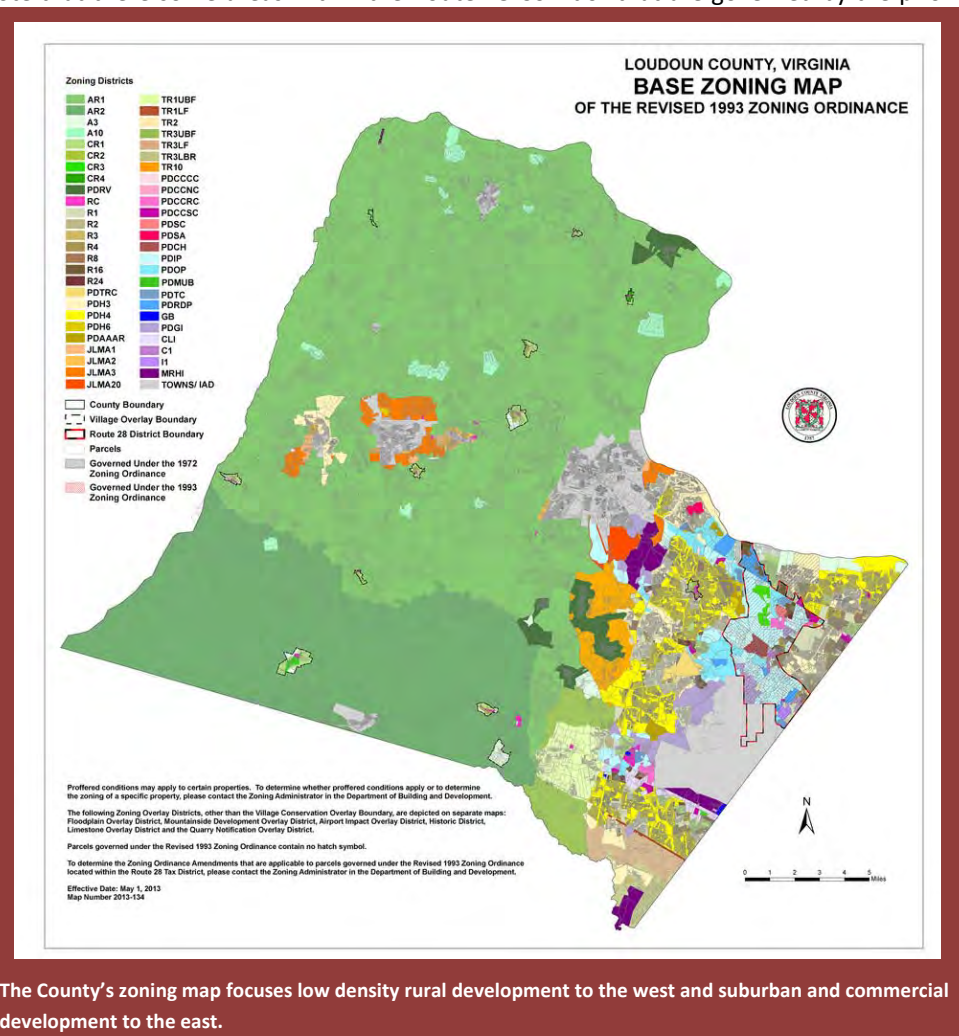
Loudoun County's current Zoning Ordinance was written in 1993 with numerous amendments made since its original adoption. It is also important to note that there are some areas within the Route 28 Corridor that are governed by the prior 1972 zoning ordinance due to formation of a Tax District which protects property owner's vested rights. Those property owners have an option to convert to the current 1993 Zoning Ordinance. For summary purposes, the discussion below considers only the 1993 Zoning Ordinance but it should be noted that uses and bulk requirements vary somewhat between the 1993 and 1972 ordinances. The general intent of the district is the same between 1972 and 1993.

The County is also working to establish optional overlay districts within the Route 28 Corridor. The optional overlay districts would provide an alternative method of development that allows higher Floor Area Ratio (FAR) and lot coverage, along with process streamlining and other regulatory incentives coupled

with design controls and provision of amenities. This initiative, which is in the final phase of implementation, is summarized on the Route 28 Corridor Zoning Ordinance Update webpage.

PD-TRC (Planned Development – Transit Related Center)

The PD-TRC district is intended to provide a compatible mixture of commercial, cultural, institutional, governmental, recreational, and high density housing uses in compact, pedestrian and transit-oriented developments and transit-designed supportive areas serving as focal points for nearby related activity centers and residential areas. Planned rail and bus facilities are integral to this mixed-use concept and density increases are considered with availability of roads, bus and



rail service. Higher intensity, mixed-use development projects under this zoning district are intended to promote linkage of employment and residential uses.

Specific objectives of such districts include a pedestrian-scale development; a town center at an intensity of development that can be supported by multi-modal transportation and other services; pedestrian and bicycle connectivity; the use of mass transit to reduce the number of peak hour vehicle trips; high-quality design; and well-configured plazas, squares, greens, landscaped streets, and parks woven into the pattern of the transit-oriented development and dedicated to collective social activity, recreation, and visual enjoyment.

Uses permitted by right in the PD-TRC district include residential, convenience stores, hotels, offices, restaurants, and retail sales. Larger facilities like colleges, performing arts centers, and hospitals are permitted by special exception. With rail service, FARs of up to 2.0 are permitted in the PR-TRC district. Otherwise FARs of up to 0.6 and 1.0 are permitted without bus and with bus service respectively.

PD-TREC (Planned Development – Transit Related Employment Center)

The PD-TREC District was established to provide for a mix of compatible uses in a high-density, pedestrian-oriented, transit-oriented, and compact employment center or Special Activity center. The district regulations are designed to accommodate high-intensity employment or a Special Activity use and supporting uses appropriate to a district location that is: (1) within the 65 Ldn noise contours associated with Dulles Airport, (2) impeded by significant floodplain (Broad Run) and highway right-of-way (Dulles Greenway, Routes 606 and 789), and (3) adjacent to planned rapid bus and rail transit lines.

Specific objectives of this district include providing the opportunity for a high intensity mix of development that is supportive of and served by mass transit service; encouraging development that is compatible within the 65 Ldn noise contours of Washington Dulles International Airport; providing for pedestrian, bicycle and vehicle connections between and within the development and nearby transit; reducing the number of peak hour vehicle trips; providing for a mix of supporting commercial retail and service uses to serve the shopping and service needs of district employees, visitors, and commuters; encouraging the development of public spaces; ensuring high quality design; taking advantage of the future rail connection to the Washington Dulles International Airport; and taking advantage of the viewshed of the Washington Dulles International Airport. Currently, the PD-TREC district is not mapped anywhere in Loudoun County because property owners must rezone to the district as part of a rezoning application.

In general, the PD-TREC district permits the same urban downtown type uses as the PD-TRC district exclusive of residential dwellings. FARs of up to 2.0 are permitted with rail service.

PD-OP (Planned Development – Office Park)

The PD-OP district is intended primarily for administrative, business, and professional offices and necessary supporting accessory uses and facilities. For example, retail uses like banks, fitness centers, printing facilities, and day-care centers are permitted by right in addition to offices. Other uses like restaurants, hotels, and dance studios are permitted with special exceptions. The district is intended to be designed with a park-like atmosphere and environmentally sensitive design to accommodate and complement existing natural features including extensive landscaping, low ground coverage by buildings, buildings of moderate height, and careful attention to such aesthetic considerations as location and size of signs, lighting, parking and service areas and the like. The PD-OP district permits a by right FAR of 0.6 and a 2.0 with special exception.

PD-IP (Planned Development - Industrial Park)

The PD-IP district is established for light and medium industrial uses, office uses, and necessary supporting accessory uses and facilities, designed with a park-like atmosphere to complement surrounding land uses by means of appropriate siting of buildings and service areas, attractive architecture, and effective landscape buffering. Uses like distribution facilities, offices, wholesale trade, banks, printing services, and carry-out restaurants are permitted by right. The PD-IP district permits a by right FAR of 0.4 and a 0.6 with special exception. Special exception uses include car washes, automotive service stations, and contractor service areas.

PD-GI (Planned Development - General Industry)

This district is established primarily for medium industrial uses with a public nuisance potential, and necessary accessory uses and facilities, built in a well coordinated and attractive manner to be compatible with surrounding land uses. By right uses in the PD-GI district include distribution facilities, heavy equipment sales and repair, manufacturing, and storage facilities. High intensity uses like, junk yards, bulk fuel storage, and concrete mixing plants are special exception uses. The maximum FAR in the PD-GI district is 0.4.

PD-TC (Planned Development - Town Center)

The PD-TC district was established to provide for a compatible mixture of commercial, cultural, institutional, governmental, and residential uses in compact, pedestrian oriented, traditional town centers. The PD-TC district is intended to be used in specific areas consistent with the Comprehensive Plan such that development can serve as a focal point for surrounding residential areas.

Specific objectives include dwellings, shops, and workplaces generally located in close proximity to each other; generally rectilinear patterns of streets and blocks; a hierarchy of public and/or private streets with facilities for automotive vehicles, public transit, bicycles and pedestrians; well configured public spaces; civic buildings for assembly, or for other civic purposes, that act as landmarks, symbols, and activity centers for community identity; and on-street parking and centralized parking facilities to collectively support principle uses in the Town Center.

Uses permitted by right in the PD-TC district include restaurants, pharmacies, banks, dance studios, and offices. Special exception uses include hospitals, hotels, and automotive service stations. There are no FAR limitations in the PD-TC zoning district.

Transportation

Loudoun County is actively engaged in expanding and enhancing its transportation network. Several roadway improvement projects are underway and additional improvements are being identified and accelerated on a continuous basis. For the last two years, the Board of Supervisors has also dedicated \$0.02 of the tax rate to fund missing links in the transportation network.

While there are several key documents guiding transportation improvements in the County, the dynamic state of transportation planning has resulted in even the most recent documents becoming somewhat dated, especially as they relate to planning around the proposed rail stations. Current transportation documents include the 2010 Countywide Transportation Plan (CTP), 2011 Loudoun County Transit Development Plan, and the Bicycle & Pedestrian Mobility Master Plan. The CTP is currently being updated to reflect changes to the planned roadway network including some roadways in the Study Area.



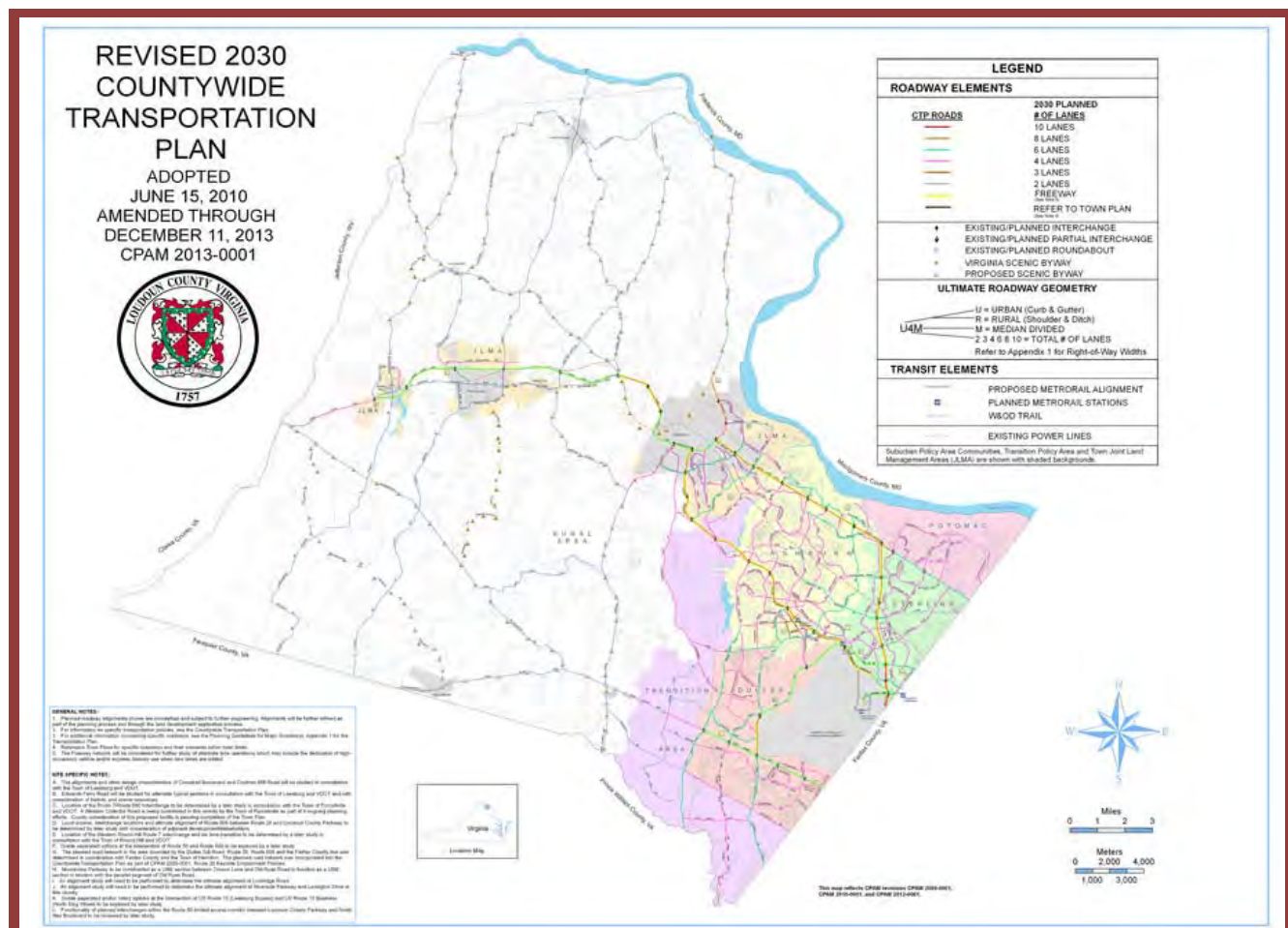
2010 Countywide Transportation Plan

The 2010 Countywide Transportation Plan (CTP) is a companion document to the Revised General Plan. It serves as a guide for future transportation infrastructure investment to be financed by Federal, State, and local dollars as well as private sector contributions.

Planned Improvements

A number of Metrorail-Related road improvements in the Dulles Greenway (VA Route 267) Corridor are contemplated by the CTP. These improvements would complete the planned road network between and proximate to the two planned Metrorail Stations along the Dulles Greenway at Route 606 and at Route 772 (the planned Metrorail extension into Loudoun County is discussed in greater detail in Chapter 3 of the CTP). It is anticipated that these roadways will be constructed in conjunction with future development in the area. Among the planned road improvements in this area are:

1. Widening of the Dulles Greenway (VA Route 267) to eight lanes from the main toll plaza westward
2. Construction of Lockridge Road (VA Route 789 Extended) from the vicinity of the current Dulles North Transit Center at the intersection of Lockridge Road (VA Route 789) and Moran Road (VA Route 634) (site of the future Route 606 Metrorail Station) northwest across Broad Run and Loudoun County Parkway (VA Route 607) to



The Countywide Transportation Plan sets planned road configurations for major roadways in the County. Figure 14 provides the CTP roadway network for the Study Area.

Waxpool Road (VA Route 625)/Faulkner Parkway/Broadlands Boulevard (VA Route 640) (Note: Planned updates to the CTP may affect this recommended improvement.)

3. Completion of Croson Lane (VA Route 645) as a continuous four-lane roadway between Belmont Ridge Road (VA Route 659) and the Moorefield Station development
4. Construction of the Greenway Transit Connector within the Moorefield Station and Loudoun Station developments (site of the future Route 772 Metrorail Station) between Moorefield Boulevard and Shellhorn Road (VA Route 643), including a bridge over the Dulles Greenway (VA Route 267) (Note: Planned updates to the CTP may affect this recommended improvement.)
5. Construction of Moorefield Boulevard within the Broadlands South and Moorefield Station developments between Mooreview Parkway (VA Route 2298) and Loudoun County Parkway (VA Route 607) (opposite Westwind Drive (VA Route 645 Extended))
6. Completion of Claude Moore Avenue within the Moorefield Station development from Old Ryan Road (VA Route 772) (opposite the Greenway East-West Connector (Wynridge Drive)) to Loudoun County Parkway (VA Route 607)
7. Construction of the Greenway Loop Road from Lockridge Road (VA Route 789 Extended) over the Dulles Greenway (VA Route 267) and across Loudoun County Parkway (VA Route 607) through the Dulles Parkway Center development to Moorefield Boulevard in the Moorefield Station development.

Figure 14 provides the 2010 Countywide Transportation Plan Map for the Study Area and demonstrates the proposed roadway network serving the planned Metrorail Stations. It should be noted that minor revisions to the CTP are currently proposed to facilitate relocation of the transit connector bridge over the Dulles Greenway near the Route 772 Station. In addition, the County has initiated a Plan amendment to extend alignment of Prentice Drive to Loudoun County Parkway to replace the Lockridge Road alignment currently shown on the CTP.

Transit

The County is actively engaged in planning for transit around and to the Metrorail Stations. Chapter 3 of the 2010 Countywide Transportation Plan pertains to Transit and Other Mobility Options. Additional transit planning is provided in the November 2011 Loudoun County Transit Development Plan and July 2013 Transportation Prioritization Study. In addition, the Board of Supervisors participated in a “Transit Summit” on March 10, 2014 to further guide transit planning in the County.

In general, the CTP provides general guidance for transit planning and other Travel Demand Management (TDM) and recognizes the Route 606 and Route 772 Stations as transit nodes. The CTP also discusses bus service and the extent to which some bus service can be replaced by Metrorail Service.

With regard to Metrorail Service specifically, the CTP states that the Dulles Corridor Metrorail Project is one of the County’s and Region’s priority transportation projects. Phases II and III of a three phase transit plan included in the CTP pertain specifically to transit to serve the Phase 1 and Phase 2 Metrorail Stations. The transit plan contemplates a Pacific Circulator to run



Loudoun County currently operates several commuter bus routes to Washington, DC, Tysons Corner and the West Falls Church Metrorail Station

along Pacific Boulevard on the west side of Route 28 and a Loudoun County Parkway Circulator which would connect Metrorail to the employment centers and transfer points along Loudoun County Parkway from the Dulles Greenway to Route 7. Plans in place have routes that temporarily serve the Wiehle Avenue Station in Reston once Phase 1 of Metrorail Service is operational.

With completion of Phase 2 of the Metrorail extensions, Phase III of transit implementation begins with reorienting the Loudoun County Parkway Circulator to the Route 772 Station and reorienting the Atlantic and Pacific circulators to the Route 606 Station. A new circulator to be known as the Dulles South Circulator will connect the Arcola area to the Route 606 Station. The County is continuing refinement of transit planning as arrival of Metrorail Service draws closer through the Transit Development Plan and other initiatives.

Bicycle and Pedestrian Mobility Master Plan

The County's Bicycle and Pedestrian Mobility Master Plan, adopted by the Board of Supervisors in 2003, provides the basis for County policy on non-motorized transportation.

The Department of Transportation and Capital Infrastructure (DTCI) has prepared a baseline map that identifies the existing, programmed, and planned but not programmed ("missing") bicycle and pedestrian facilities along the CTP roads in the County (See Bicycle & Pedestrian Circulation Map, p. 75). This information is being used to develop a prioritized list of bicycle and pedestrian projects, which when built, will improve the bicycle and pedestrian connectivity such as sidewalks and trails between several key locations within the County, including major employment and retail centers, schools, parks, and future Metrorail Stations. Accordingly, the following "missing links" around the proposed Route 772 Metrorail Station have been recommended to be included in the countywide prioritized list:

Within 1-mile radius of Route 772 Station (highest priority):

- Shellhorn Road – between Ashburn Village Boulevard and Loudoun Station; between Loudoun Station and Loudoun County Parkway
- Ashburn Village Boulevard – between Shellhorn Road and Waxpool Road
- Loudoun County Parkway – between Dulles Greenway and Shellhorn Road; between Dulles Greenway and Greenway Loop

Outside 1-mile radius of Route 772 Station:

- Farmwell Road - between Ashburn Village Boulevard and Smith Switch Road
- Ashburn Road - on either side of W&OD Trail
- Claiborne Parkway - along the interchange with Dulles Greenway
- Gloucester Parkway - between Smith Switch Road and Ray Muth Sr. Memorial Park
- Belmont Ridge - on either side of the interchange with Dulles Greenway
- Ryan Road - between Belle Terra Drive and Forest Manor Drive

Demographics

Forecasts of local and regional population, households, and employment are developed through a cooperative process involving Loudoun County staff, Loudoun County's Fiscal Impact Committee, and the Metropolitan Washington Council of Governments (MWCOG) and its member jurisdictions. Loudoun County's forecasts take into consideration historical and



recent trends, market conditions, approved projects, the adopted Revised General Plan and area plans that constitute development policies, and transportation improvements, including the proposed Metro extension.

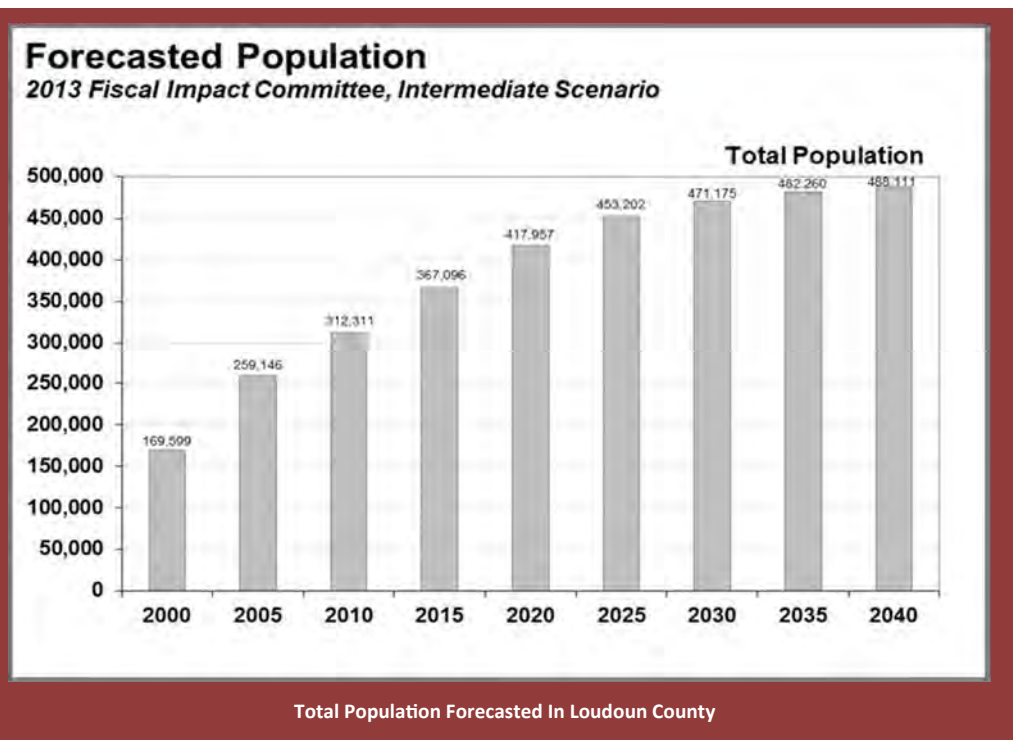
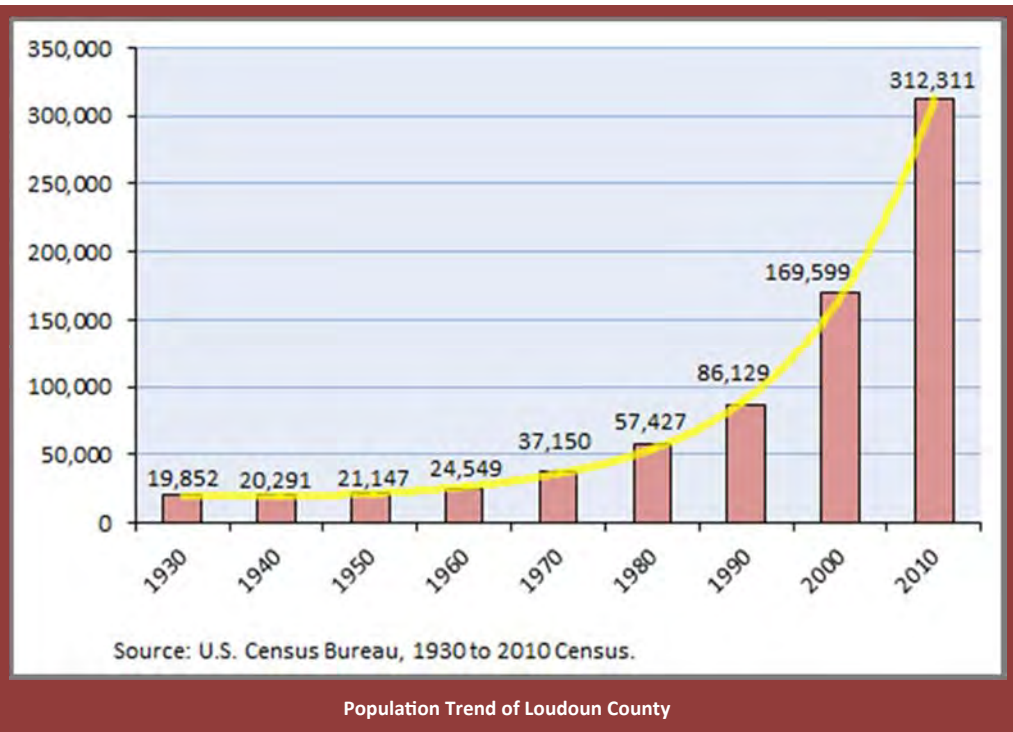
The County level forecasts that follow are sourced from the 2013 Fiscal Impact Committee forecast series that was adopted by the committee on December 12, 2013 and are currently before the Board of Supervisors for approval. Further information on the Fiscal Impact Committee process, the roll of the committee, and methodologies can be found in the

2013 *Fiscal Impact Committee Guidelines* document. The 2013 Fiscal Impact Committee Guidelines formed the basis for the Loudoun County Round 8.3 COG Cooperative Forecasts Traffic Analysis Zone (TAZ) that were released by the County on March 7, 2014. The Round 8.3 TAZ data were used to compile the forecast data for the Study Area that follows.

More information on the COG process can be found in the *MWCOG Growth Trends to 2040* and Demographic Estimates and Forecasts resources provided in the resources section at the end of this document.

Population

Prior to 1960, Loudoun County had a relatively constant population of 20,000. Following the construction of Washington Dulles International Airport in the early 1960's the population and number of non-residential uses increased rapidly. Loudoun County was the fifth fastest growing county in the United States between 2000 and 2010 with its population



increasing 84 percent. Loudoun County continues to be one of the fastest growing counties, currently ranking fifteenth in the nation. The County's 2013 population is 340,112 according estimates by the County, an increase of 8.9% since 2010. The County's population is expected to be 417,957 by 2020 and 488,111 by 2040, increases of 23% and 44% from 2013 respectively according to the Loudoun County 2013 Fiscal Impact Committee and Department of Planning.

Much of the Study Area remains undeveloped or developed with non-residential uses. The 2010 population of Loudoun County was 312,311 according to the U.S. Census Bureau Decennial Census. Only 501 people resided within the Study Area in 2010, or 0.2% of the County's population.

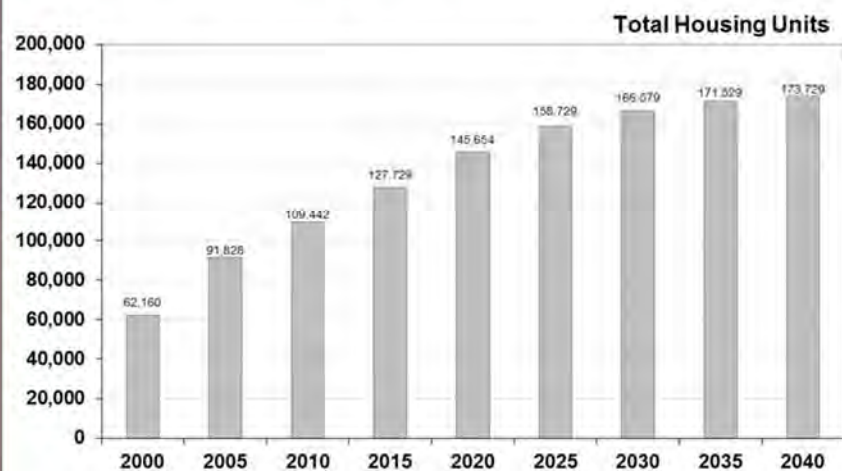
The future population within the Study Area will be able to reside in the approved communities of Moorefield Station, Loudoun Station, Dulles Parkway Center, and Dulles World. All the residential components of the approved developments in the Metrorail District are expected to be built-out by 2040. According to the Loudoun County Round 8.3 forecasts, the Study Area is forecasted to have a population of 8,004 in 2020, 15,961 in 2030, and 18,862 in 2040. The share of the County's population residing in the Study Area is expected to increase to 1.9% in 2020, 3.4% in 2030, and 3.9% by 2040. The location of where and how much new population growth will occur within the Study Area between 2010 and 2040 is shown on the population growth map shown in Figure 15.

Housing Units

According to the U.S. Census Bureau Decennial Census, the number of housing units in 2010 in Loudoun County was 109,442 with only 220 (0.2%) of those in the Study Area. According to the Loudoun County Round 8.3 forecasts, Loudoun County as a whole is forecasted to have 62,502 new housing units

Forecasted Housing Units

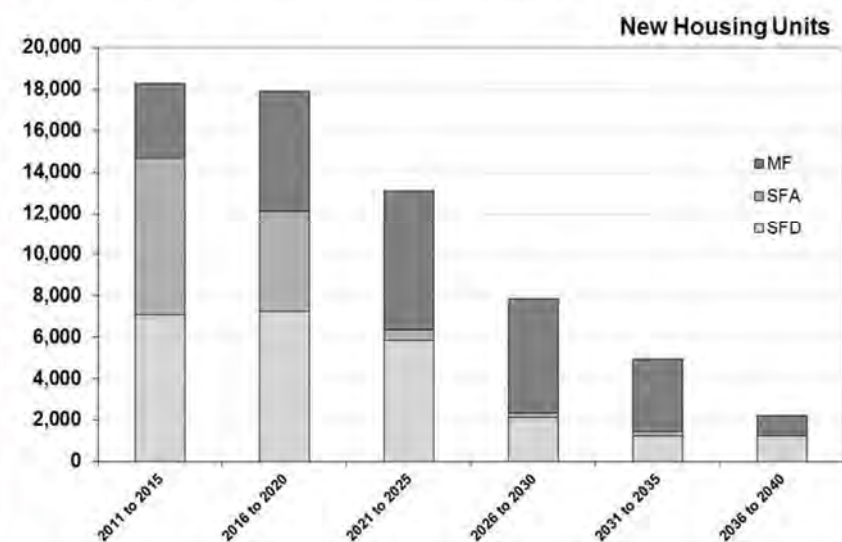
2013 Fiscal Impact Committee, Intermediate Scenario



Total Housing Units Forecasted In Loudoun County

Forecasted New Housing Units by Type

2013 Fiscal Impact Committee, Intermediate Scenario



Forecasted New Housing Units by Type in Loudoun County



constructed between 2010 and 2040, and the service district is forecasted to have 9,238 constructed in the same time frame.

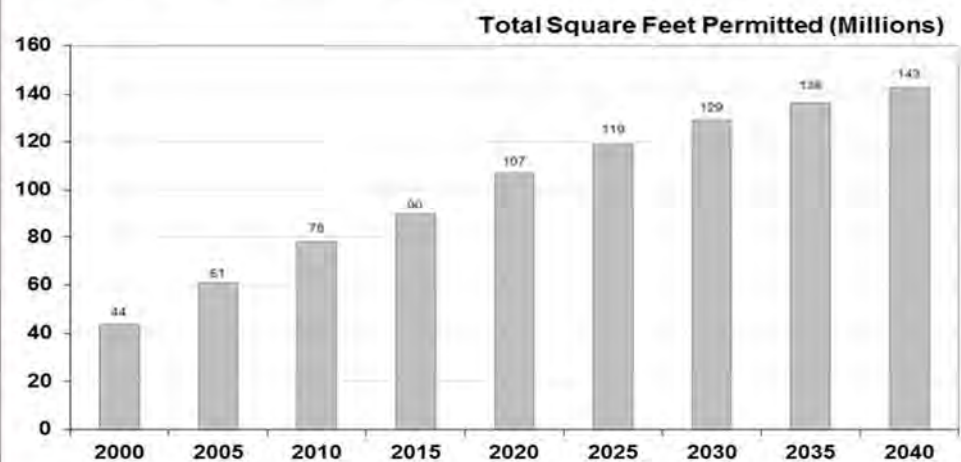
The Study Area is forecasted to grow substantially to 3,666 housing units in 2020, 7,875 in 2030, and 9,458 in 2040. The share of the County's housing units located in the Study Area is expected to increase to 2.5% in 2020, 4.8% in 2030, and 5.5% by 2040. The majority of these units will come with construction of the Moorefield Station, Loudoun Station, Dulles Parkway Center, and Dulles World Center developments as discussed above. The Study Area will consist of 14.7% of Loudoun County's new housing unit growth through 2040. The majority of these new units will be in multi-family developments.

Non-Residential Development

The County has many non-residential commercial projects approved but not yet fully developed. Many of these projects are in the Study Area as discussed above. The non-residential square footage in 2010 in Loudoun County totaled 78 million. It is forecasted to increase to 143 million by 2040, an increase of 65 million or 83%.

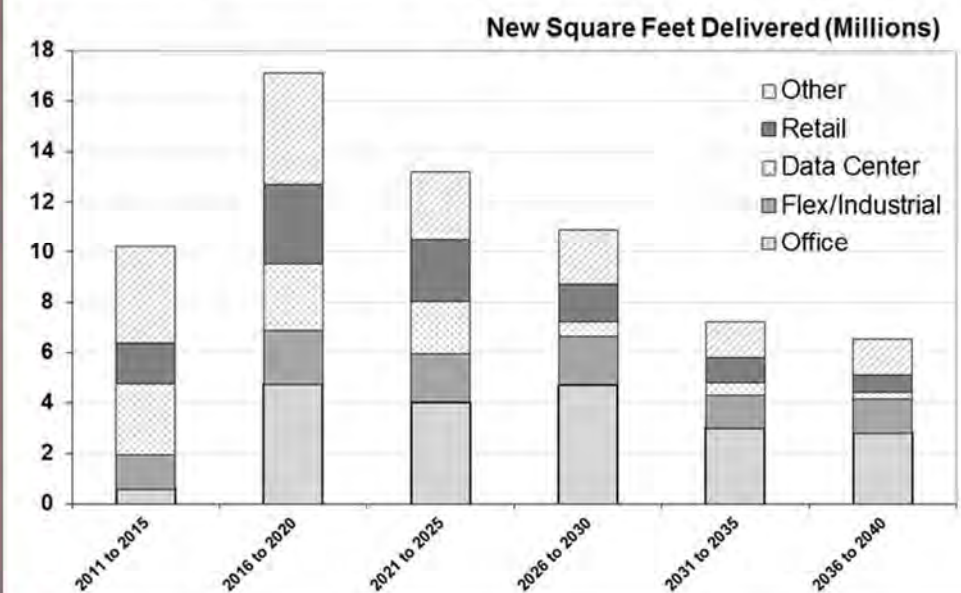
Excluding new non-residential square feet at the Washington Dulles Airport terminal and cargo facilities, the Study Area's non-residential square footage is forecasted to

Forecasted Nonresidential Square Feet *2013 Fiscal Impact Committee, Intermediate Scenario*



Total Non-Residential Development Forecast of Loudoun County

Forecasted New Nonresidential Square Feet by Type *2013 Fiscal Impact Committee, Intermediate Scenario*



Total Non-Residential Development by Type in Loudoun County



increase by more than 6 million square feet between 2011 and 2020, an additional 5.7 million square feet from 2021 to 2030, and an additional 3.9 million square feet from 2031 to 2040. The Study Area represents 24% of Loudoun County's non-residential growth. In the long term, a sufficient supply of land will continue to be available in the Study Area and Countywide after 2040 for non-residential development, based on the County's current land use plan.

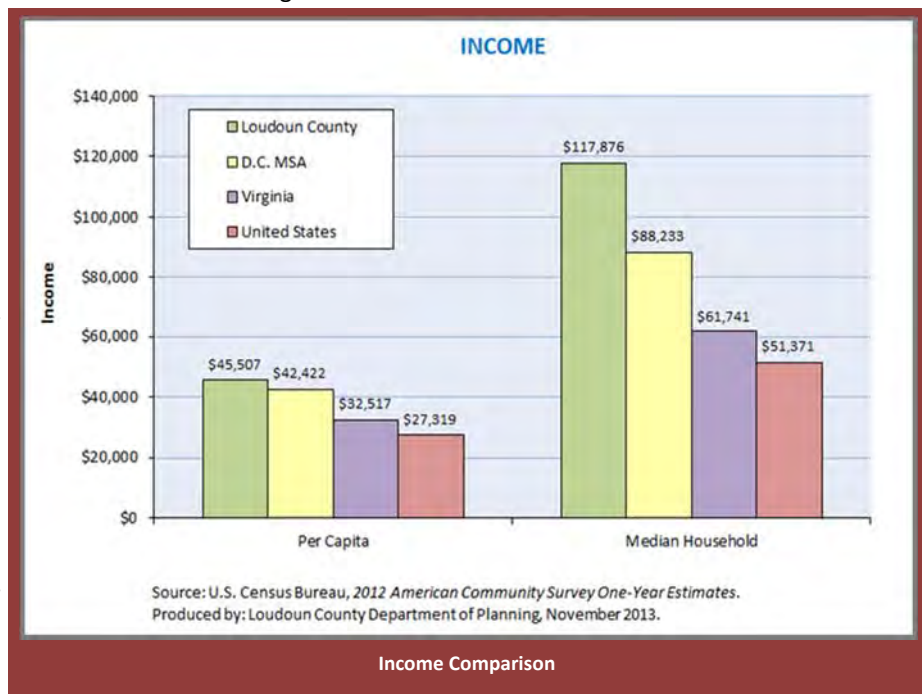
Employment

There were an estimated 145,083 jobs located in Loudoun County in 2010 according to Loudoun County Government estimates. The Study Area had 35,594 jobs in 2010, or 21.4% of the County's jobs.

The Study Area's employment, inclusive of Washington Dulles International Airport, is forecasted to increase to 50,355 in 2020, 66,093 in 2030, and 76,142 in 2040. The location of where and how much new employment growth is likely to occur within the service district between 2010 and 2040 is shown in Figure 16.

Income

Incomes in Loudoun County are among the highest in the nation. Loudoun County's median household income was ranked second in the nation out of all jurisdictions according to the U.S. Census Bureau's 2008-2012 American Community Survey five-year averages. Loudoun County's median household income has ranked highest in the nation since 2007 among jurisdictions with populations above 65,000 according to the U.S. Census Bureau's American Community Survey one-year estimates. In 2012, Loudoun's median was \$117,876, more than twice the national median of \$51,371,



and nearly twice Virginia's median of \$61,741. Compared to the Washington, D.C. Metropolitan Statistical Area's (MSA) median of \$88,233, Loudoun was 34% higher. Loudoun's high median household income is largely due to the county's highly-educated workforce and the availability of high-wage jobs in the region.

Loudoun County's 2012 per capita income of \$45,507 was 67% higher than the national per capita income of \$27,319, 40% higher than Virginia's \$32,517, and 7% higher than the Washington D.C. MSA's \$42,422. Loudoun County's per capita income was ranked 19th in the nation out of all jurisdictions according to the U.S. Census Bureau's 2008-2012 American Community Survey five-year averages. Among jurisdictions with populations above 65,000, Loudoun County's per capita income ranks 14th according to the U.S. Census Bureau's 2012 American Community Survey one-year estimates.

Education

Loudoun County has a highly-educated workforce. Educational attainment levels in Loudoun County are among the highest in the nation. The share of the County's population age 25 and over holding a bachelor's or graduate/professional degree was ranked ninth in the nation out of all jurisdictions according to the U.S. Census Bureau's 2008-2012 American Community Survey five-year averages. The share of Loudoun County's population age 25 and over holding a bachelor's or

graduate/professional degree was 57.5%, ranking 7th highest in the nation in 2012 among jurisdictions with populations above 65,000 according to the U.S. Census Bureau's American Community Survey one-year estimates.

As one of the most highly-educated locales in the U.S., Loudoun and the Washington, D.C. metro area offer a wealth of employees for information and communications technology companies, federal government contractors and other knowledge-intensive industries. Loudoun employers also have access to world class educational resources throughout the Washington, D.C. metro area. These universities, including George Washington University, George Mason University, and Northern Virginia Community College, provide workforce training as well as significant research and development assets.

Employment by Industry Sectors

The positive job growth in Loudoun County can be attributed in part to its diverse business base. Loudoun County's proximity to Washington, D.C. and the federal government, educated population, abundant fiber access and presence of Washington Dulles International Airport are significant drivers of the County's business activity. Based on these strengths, a 2012 cluster analysis of Loudoun County's economy points to a number of important sectors for Loudoun County, including:

- Data Centers
- Information & Communications Technology
- Aerospace and Aviation
- Transportation, Warehousing and Logistics

These clusters are represented in the following graph under the sector labels:

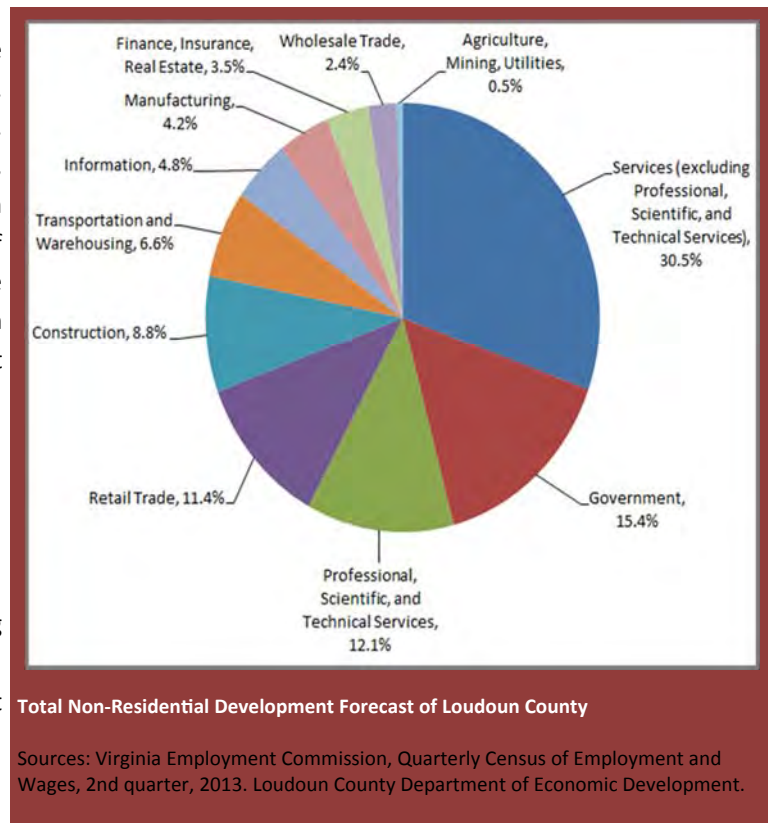
- Professional, Scientific and Management Services
- Information
- Manufacturing
- Transportation and Warehousing

In addition, employment in Loudoun County is also driven in part by Loudoun's significant population increase over the past decade. Population dependent sectors include:

- Services
- Retail Trade
- Construction

Major Employers in the Study Area

Loudoun County and the Study Area's major employers demonstrate the business environment diversity that exists. The 20 largest employers in Loudoun County, excluding retail and local government industry sector employers, are listed in the table that follows. The yellow highlighted records indicate those employers that are located within the Study Area.



Employer	Industry	Number of Employees (2Q 2013)
AOL Inc.	Information	1,000 - 4,999
INOVA Loudoun Hospital	Health Care and Social Assistance	1,000 - 4,999
M.C. Dean Inc.	Construction	1,000 - 4,999
Orbital Sciences Corporation	Manufacturing	1,000 - 4,999
Raytheon Company	Manufacturing	1,000 - 4,999
U.S. Department Of Homeland Security	Public Administration	1,000 - 4,999
United Airlines Inc.	Transportation and Warehousing	1,000 - 4,999
Verizon	Information	1,000 - 4,999
Air Services Corp.	Transportation and Warehousing	500 - 999
Club Demonstration Service Inc.	Professional, Scientific, and Technical Services	500 - 999
Dobbs International Service	Accommodation and Food Services	500 - 999
J K Moving & Storage Inc.	Transportation and Warehousing	500 - 999
Loudoun Medical Group	Health Care and Social Assistance	500 - 999
Metro Washington Airports Authority	Public Administration	500 - 999
National Electronics Warranty Corp.	Finance and Insurance	500 - 999
Neustar Inc.	Professional, Scientific, and Technical Services	500 - 999
Swissport Usa Inc.	Transportation and Warehousing	500 - 999
Toll Brothers Inc.	Construction	500 - 999
U.S. Dept. Of Transportation	Public Administration	500 - 999
US Airways Express	Transportation and Warehousing	500 - 999
Study Area Employer		
Non-Study Area Employer		

Sources: Virginia Employment Commission, Quarterly Census of Employment and Wages, 2nd quarter, 2013; Loudoun County Department of Economic Development.

Previous Studies

RCLCO Market and Fiscal Impact Analysis of the Phase 2 Metrorail Extension to Loudoun County

Robert Charles Lesser & Co. (RCLCO) was originally retained by Loudoun County to analyze the economic impact of completion of Phase 2 of the Silver Line in 2010. In April 2012, RCLCO prepared a Market and Fiscal Impact Analysis to update work previously presented in April 2011. The updated study considered factors such as the Route 28 Plan Amendment adopted in March 2011, the development potential on MWAA land at the proposed 606 Station, and current economic conditions. The study found that total office development through 2040 would increase by 6.5% (1,403,000 square feet) with extension of Metrorail Service into Loudoun County. At the station areas specifically, office development is expected to be between 56% and 74% greater than without Metrorail. The amount of retail development was also forecasted to be 54% greater with extension of Metrorail Service.

Another key point to note is that the study found that Loudoun County would capture 7.5% of total office development that would otherwise locate in Reston/Herndon as a result of the Phase 2 Silver Line extension. The full study provides a range of detailed analyses, figures, and findings regarding the market and fiscal environment and is available through the link in the resources section at the end of this briefing book.



Eastern Loudoun Transportation Study

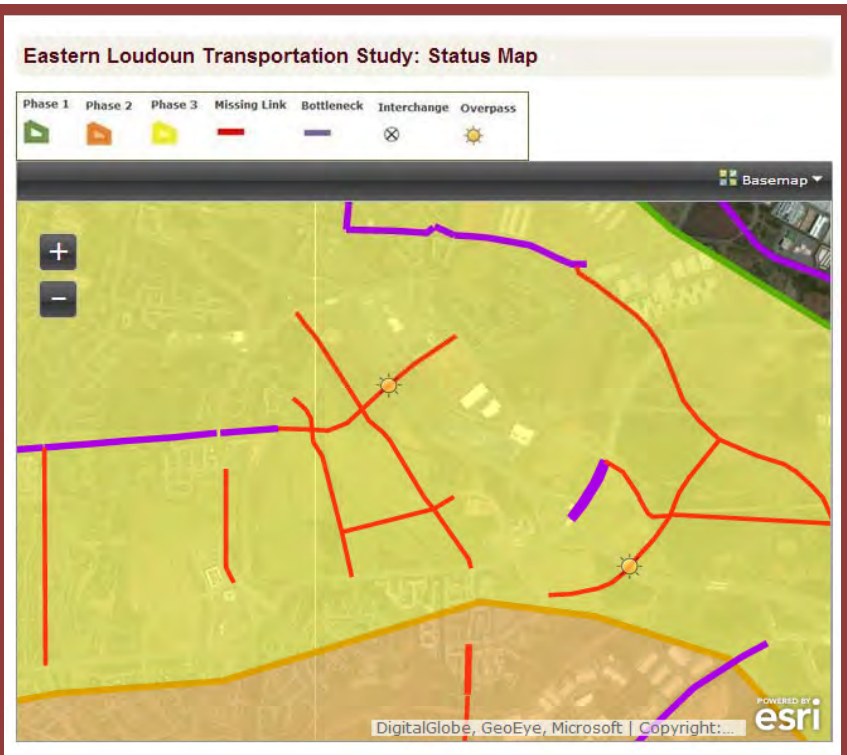
In 2012, the Board of Supervisors directed staff to undertake a study of the road network in Eastern Loudoun County. The purpose of the study was to provide information relating to the Countywide Transportation Plan (CTP) road network to include:

1. Network deficiencies;
2. Missing links;
3. Cost estimates to build the interim condition;
4. Development proffers/conditions related to the missing links and network deficiencies;
5. The proffer/condition triggers;
6. Right of way availability; and
7. Potential funding sources if the projects are not funded wholly or in part through proffers/conditions.

Figure 17 provides the results of this study and demonstrates missing links and bottlenecks identified by the study within the Silver Line Study Area. The report accompanying the study also reviewed recent and ongoing efforts to address network deficiencies and missing links in the CTP road network; provided an existing conditions inventory of the deficiencies and provided a cost estimate to build out the CTP road network to the interim condition; and offered a funding outlook of non-proffer funding sources.

The study was divided into three phases covering specific areas in the County. The County has a webpage dedicated to this study. That webpage, which is included as a listed resource at the end of this study, provides links to all the reports detailing conditions for each link. In addition, an interactive map identifying the various missing links is identified provided as a resource.

In summary, the Study Area contains roughly 15 missing links. Many of those links are located within the Moorefield Station and Loudoun Station developments and will be built as proffered improvements when development occurs.



The Eastern Loudoun Transportation Study provides an online mapping tool for identifying the status of portions of the roadway network that have not been constructed.

Fulton Research - Route 28 Corridor Analysis of Development Potential for Class A Office

The Route 28 Corridor Analysis of Development Potential for Class A Office was prepared in August 2009 prior to adoption of the Route 28 Corridor Plan. The study concluded that existing land use policies and zoning regulations in place at the

time would result in haphazard development of 2 million square feet through 2040. The study also recognized the important role of Washington Dulles International Airport as a significant economic development engine and the increased cargo capacity for international freight transport to reach 798,453 metric tons, a 129 percent increase over the 2007 level of 348,043 metric tons. The key outcome of the study demonstrated that there was market demand for a variety of Class A office, Class A mixed-use space, and Class A secure campus development. The study ultimately recommended changes to be made to the County policies to allow these various types of office development to be better captured in the County.

Government

The various levels of government play an important role in shaping the future of the Study Area. The Federal Government comes into play as a result of Washington Dulles International Airport and the land ownership and leasing agreements associated with the airport. The State plays an important role given powers granted to the County under the “Dillon Rule” and the proffer system. The Primary role of the County within the scope of this study is to develop a Comprehensive Plan and zoning to achieve the desired land use vision and to implement a Capital Improvements Program to provide the infrastructure and services necessary to support Metrorail operations and future residents and visitors.

Federal

The Federal government plays a major role in shaping the Metrorail Service District due to the fact that two of three Silver Line Stations in Loudoun County are located on Washington Dulles International Airport property. Washington Dulles International Airport property is owned by the US Department of Transportation but leased to the Metropolitan Washington Airports Authority (MWAA). MWAA is an independent airport authority, created by the Commonwealth of Virginia, the State of Maryland, and the District of Columbia with the consent of the United States Congress to oversee management, operations, and capital development of Washington, D.C.'s two major airports.

Washington Dulles International Airport was transferred to the Airports Authority in 1987 under a 50-year lease authorized by the Metropolitan Washington Airports Act of 1986, Title VI of Public Law 99-500. The Airports Authority is responsible for capital improvements at the airport and for managing the Dulles Corridor Metrorail Project.

Given this leasing arrangement, the Federal Government and MWAA in effect have control over the land development on airport property which comprises a significant component of the Study Area. While significant land development potential exists on airport property, the land use decision making process ultimately lies outside of Loudoun County's jurisdiction.

State

Dillon Rule

An important aspect of this study is understanding the role that Virginia Government plays in the County. Virginia operates under the “Dillon Rule” which gives local governments limited authority. Local governments have only those powers that are specifically conferred on them by the Virginia General Assembly; those powers that are necessarily or fairly implied from a specific grant of authority; and those powers that are essential to the purposes of government -- not simply convenient but indispensable. The Dillon Rule also states that a power has only been conferred on a local government when there is no reasonable doubt as to whether it has been conferred. In contrast, most other states have some form of “home rule” provisions that permit governmental functions that are not specifically precluded by the laws of the state.

Proffer System

Loudoun County and other jurisdictions in Virginia have the authority to accept proffers in conjunction with development rezonings. Proffers are voluntary commitments that a developer makes to the County to offset the impacts of a proposed development and which assist, among other things, in improving the public infrastructure needed to serve new residents



or users of his/her development. The proffer system is one of the tools used by the County to secure the public infrastructure needed to support new development. Proffers are provided in accordance with County policies and guidelines expressed in the Revised General Plan through the rezoning process.

Proffers include monetary contributions toward capital facilities such as schools, parks, libraries, roads and other public facilities. Proffers also may include dedication of property for the future siting of schools, parks, trails, roads, and other facilities, commitments to design, and/or agreements to construct public facilities and to have them in place to serve future development. The developer submits the proffers in writing when applying for the rezoning. Once the County approves the rezoning request, the proffer agreement becomes an enforceable zoning regulation and runs with the land until a subsequent rezoning. The County holds the signed agreement and reviews it for implementation during and after the site plan and subdivision processes preceding actual development.

The proffer system has advantages and disadvantages. The key advantages are that it is voluntary and flexible, which allows contributions to be tailored to specific capital needs at the time. A disadvantage is that proffers are reactive and based on the market and on development decisions made by individual landowners leading to uncertainties about what, when, and if proffers will actually be realized.

County

The Revised General Plan is the foundation of the County's Comprehensive Plan and an official public document adopted by the Loudoun County Board of Supervisors. The basic purpose of a Comprehensive Plan is established in the Code of Virginia, Volume 3A, paragraph 15.2-2223, which states: "The Comprehensive Plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity, and general welfare of the inhabitants."

The Revised General Plan provides the basis for evaluating land-development proposals. The Plan is the foundation for amendments to the Zoning and Subdivision ordinances to ensure that the County's goals are implemented through the regulatory process. Ordinances and documents are intended to be updated so that they comply with the revised Plan policies.

The County is also responsible for managing its Capital Improvement Program (CIP). The County's Revised General Plan calls for the development of a ten-year Capital Needs Assessment (CNA) every two years, and the development and adoption of a six-year CIP by the Board of Supervisors annually. The CNA is unique to Loudoun County and provides a bridge between the short-term CIP and the Revised General Plan. This planning process attempts to address the County's projected capital needs associated with new development. Forecasting the County's highest priority capital projects over a six-year period provides an extended look at facilities recommended for development and appropriation to the Board of Supervisors.

As a planning and development tool, the CIP ensures that capital improvements are coordinated and well-timed to maximize the County's financial resources. Typically, only projects that have first been identified in the CNA are considered for inclusion in the CIP. The CNA helps determine what projects should be considered for funding consideration in the CIP based upon population and demographic trends in relation to the County's Capital Facility Standards. The CIP then helps prioritize these requests for new facilities in relation to Department service planning, opportunities for co-location, availability of funding and land sites, and the demonstrated need for new facilities.



Private Sector Involvement

There are roughly 10 to 15 property owners with significant tracts of developable land within the Study Area. Many other smaller properties have development and redevelopment potential but the land use pattern and character of areas with existing development potential will be somewhat fixed until redevelopment opportunities become more financially viable.

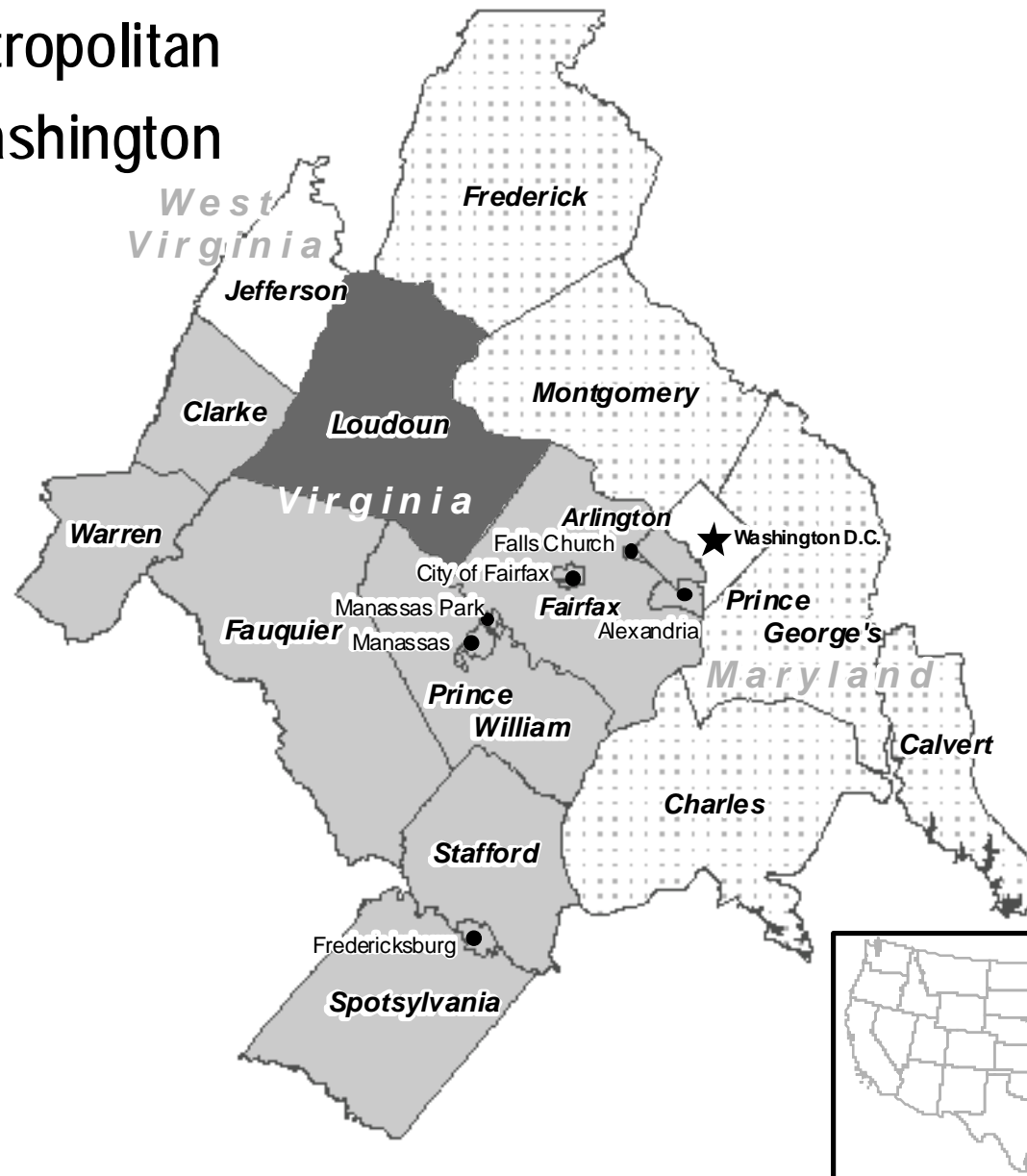


Resources

1. Loudoun County Revised General Plan—<http://www.loudoun.gov/index.aspx?NID=1066>
2. Airport History - <http://www.metwashairports.com/dulles/661.htm>
3. Airport Flight Stats - <http://www.metwashairports.com/dulles/653.htm>
4. RCLCO Market and Fiscal Impact Analysis of the Phase 2 Metrorail Extension to Loudoun County
<http://www.loudoun.gov/DocumentCenter/View/61055>
5. 2010 Countywide Transportation Plan - <http://www.loudoun.gov/DocumentCenter/Home/View/70764>
6. Eastern Loudoun Transportation Study - <http://www.loudoun.gov/index.aspx?NID=2902>
7. Eastern Loudoun Transportation Study Map - <http://www.loudoun.gov/index.aspx?nid=2815>
8. Loudoun County Transit Development Plan - <http://www.loudoun.gov/DocumentCenter/Home/View/57543>
9. Transit Prioritization Study - http://www.loudoun.gov/documents/11/1336/11058/11562/Item%20%20-%20Transportation%20Prioritization%20Study%20for%20Area%20Surrounding%20the%20New%20Metrorail%20Stations%20COMBINED_201307121457057765.pdf
10. Parking Facilities - <http://www.loudoun.gov/index.aspx?NID=2948>
11. Route 28 Corridor Zoning Ordinance Update - <http://www.loudoun.gov/index.aspx?NID=2566>
12. Revised 1993 Zoning Ordinance - <http://www.loudoun.gov/DocumentCenter/View/99645>
13. Route 28 Corridor Analysis of Development Potential for Class A Office - <http://www.loudoun.gov/documentcenter/view/27129>
14. Fiscal Impact Committee Guidelines - <http://www.loudoun.gov/DocumentCenter/View/98599>
15. Demographics - <http://www.loudoun.gov/Demographics>
16. MWCOG, Growth Trends to 2040 –
<http://www.mwco.org/uploads/pub-documents/oV5fV1o20110120090230.pdf>
17. Demographic Estimates and Forecasts - <http://www.loudoun.gov/index.aspx?NID=1913>
18. Capital Needs Assessment - <https://va-loudouncounty.civicplus.com/DocumentCenter/Home/View/32634>



Metropolitan Washington



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METRORAIL SERVICE DISTRICT STUDY

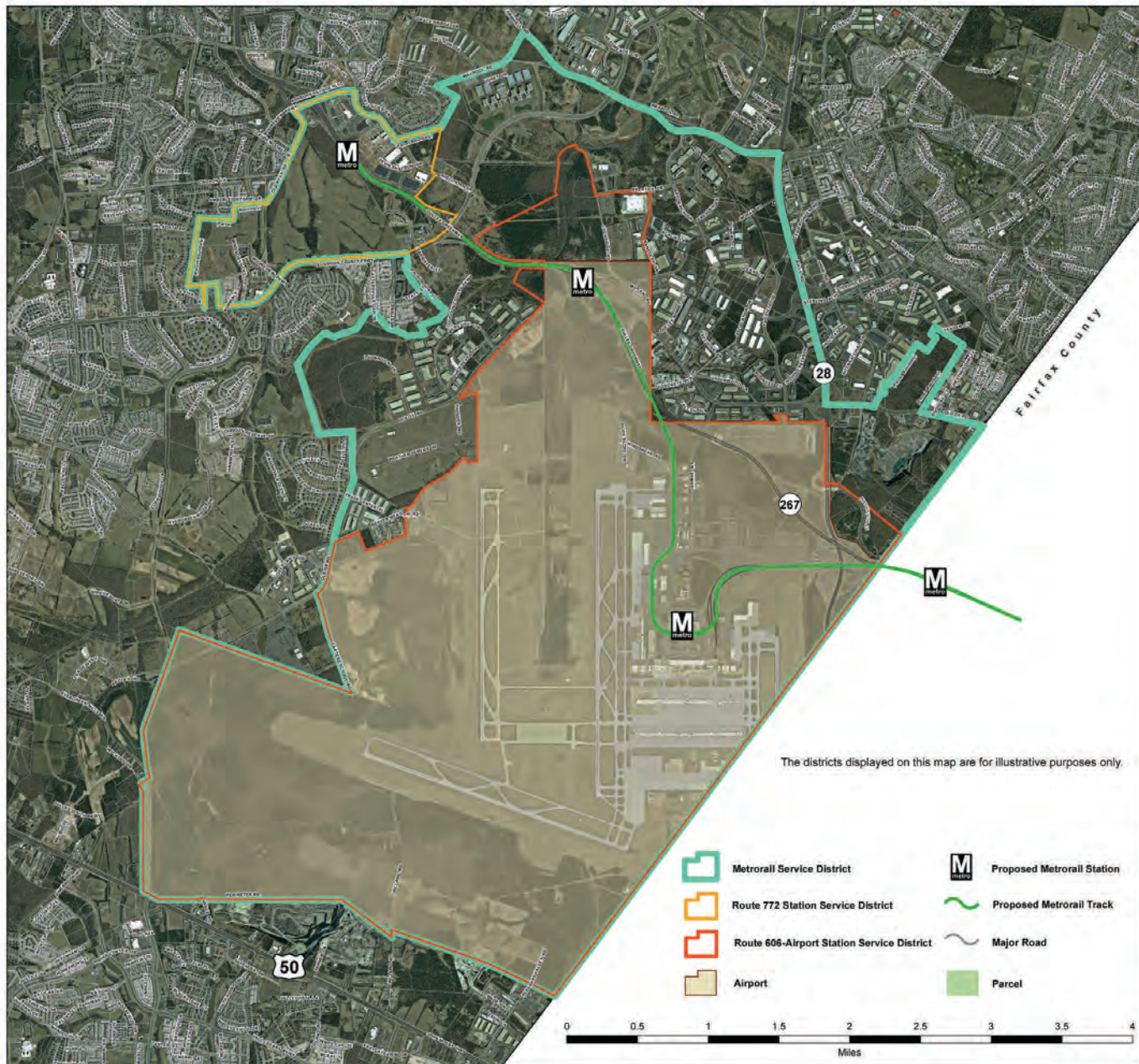
Figure 1
Regional Location



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Figure 2
Towns and Communities











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METRO RAIL SERVICE DISTRICT STUDY

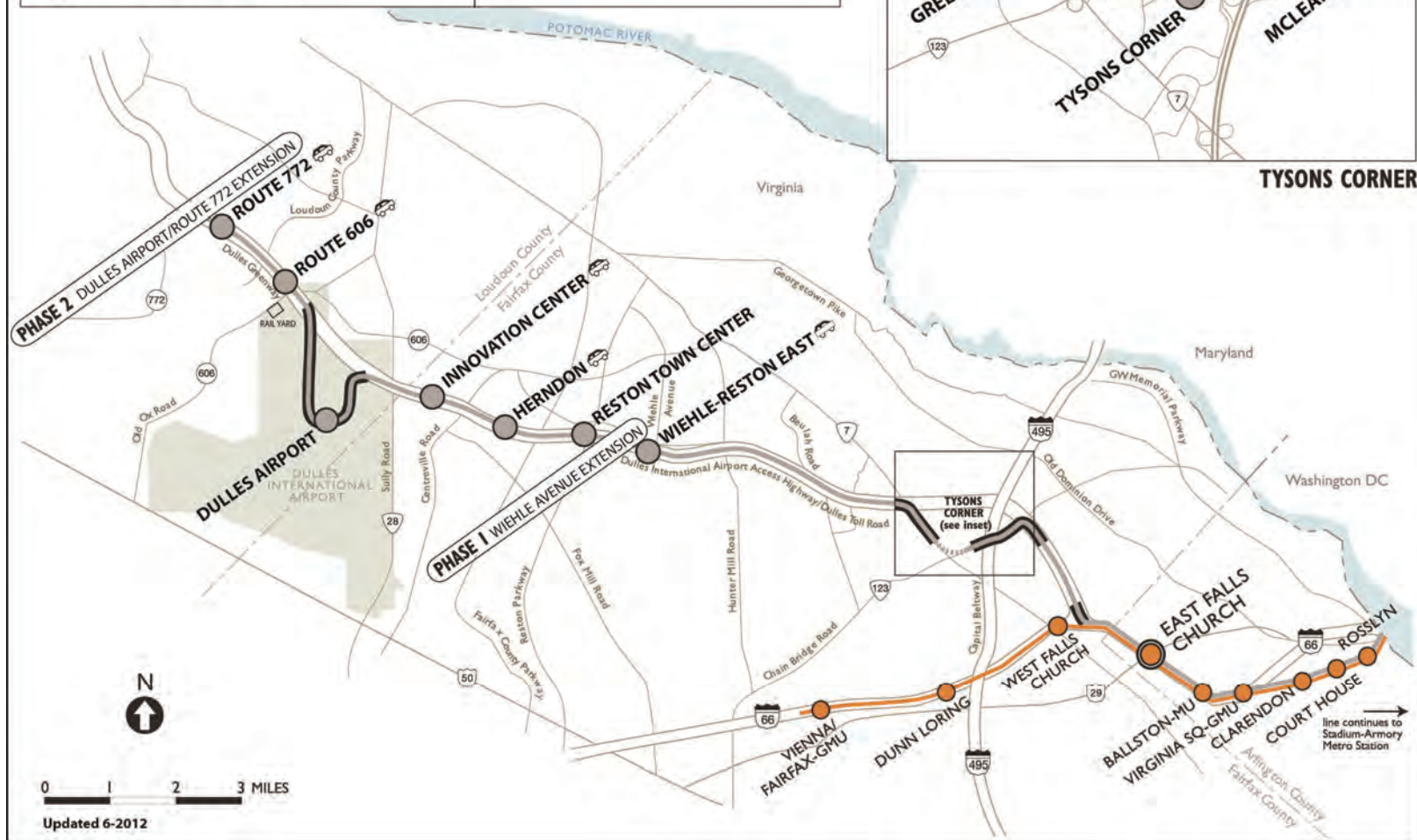
Figure 3
Metrorail Service District
(Study Area)

LEGEND

-  Existing Orange Line Track and Station
-  Transfer Station
-  Parking
-  New Station
-  Partially Below Surface Station
-  Surface Track
-  Elevated Track
-  Underground Track



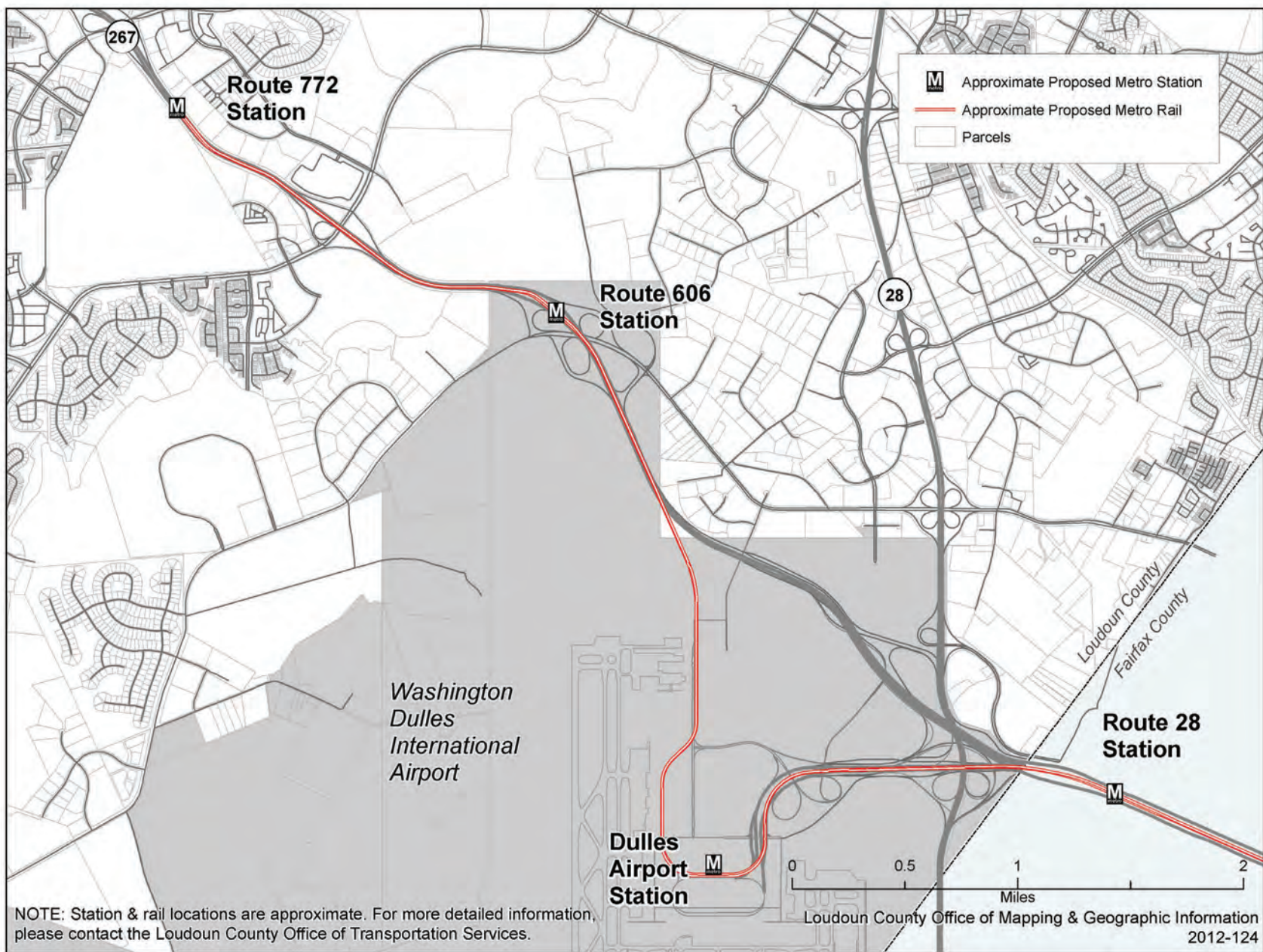
DULLES CORRIDOR
METRORAIL PROJECT



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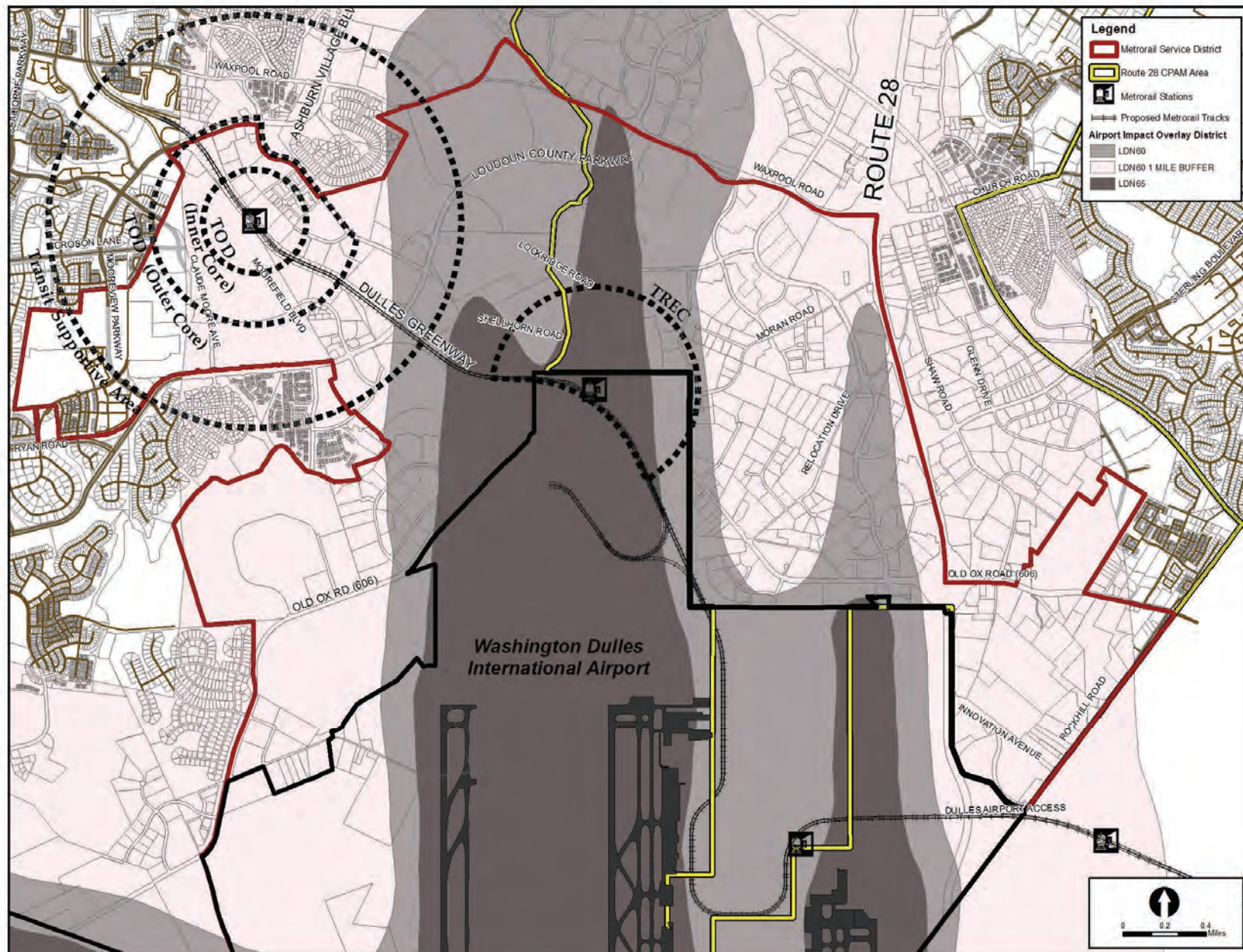
Figure 4
Proposed Silver Line Route



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Figure 5
Proposed Station Locations



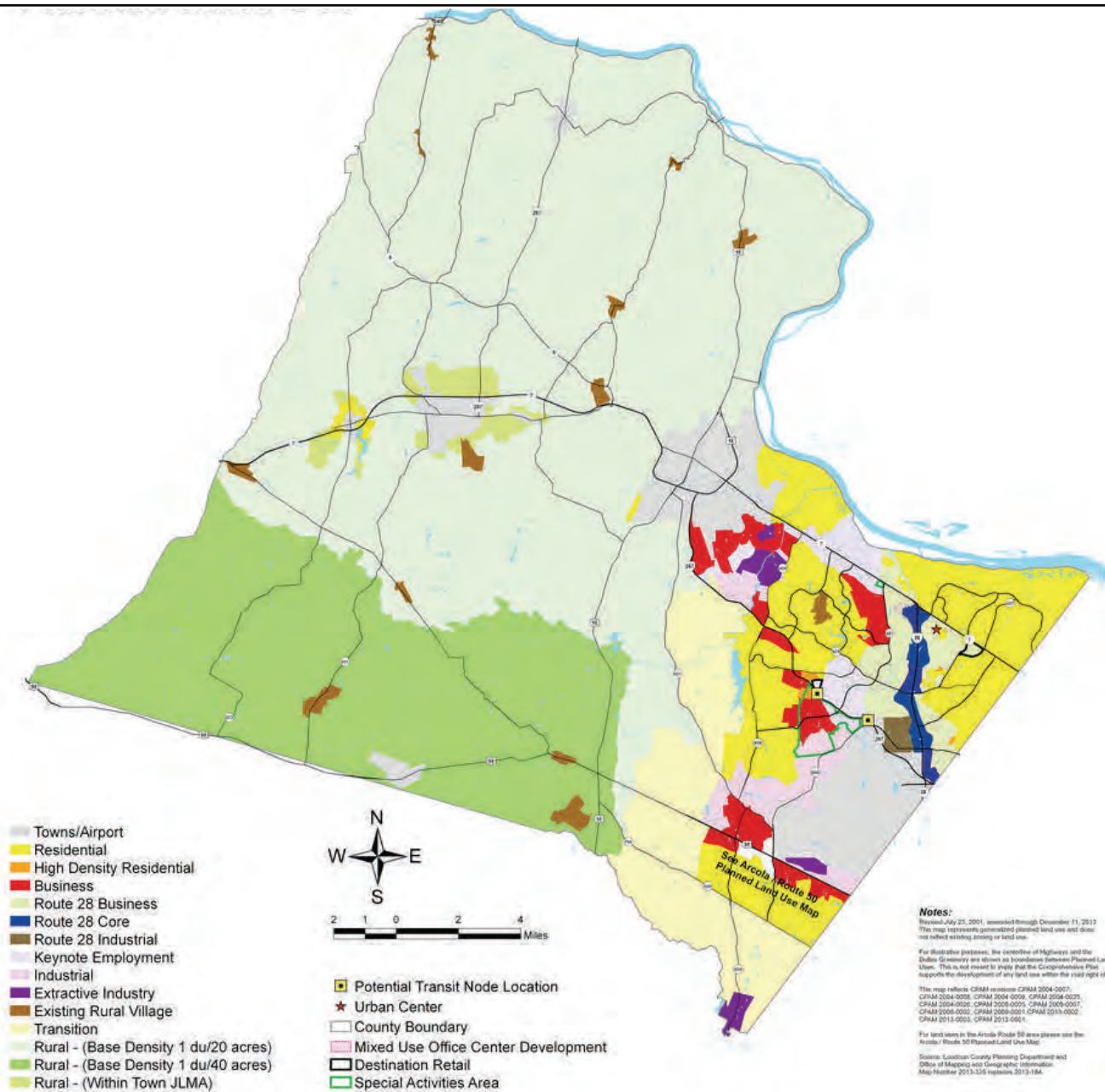
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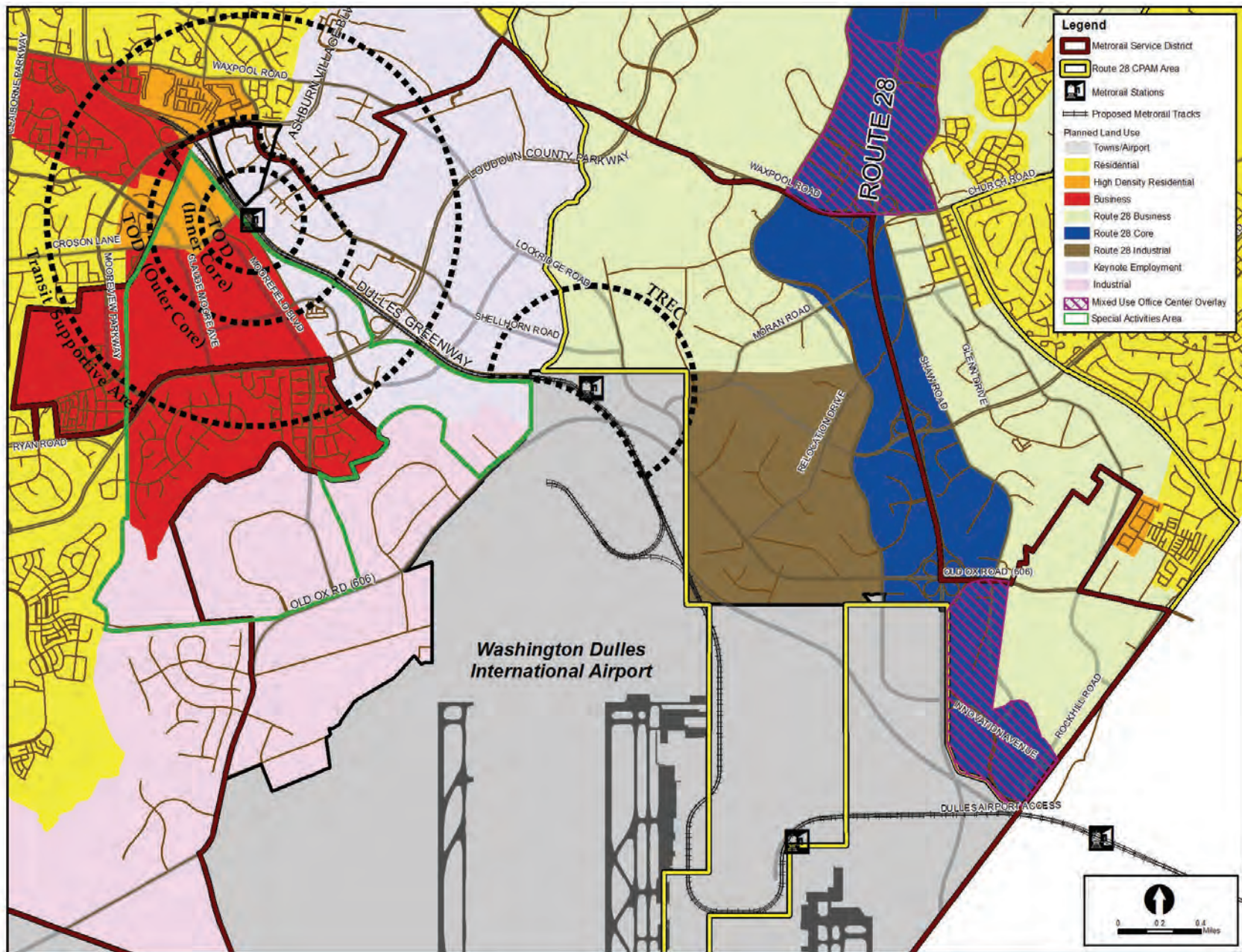
Figure 6
Airport Impact Overlay District



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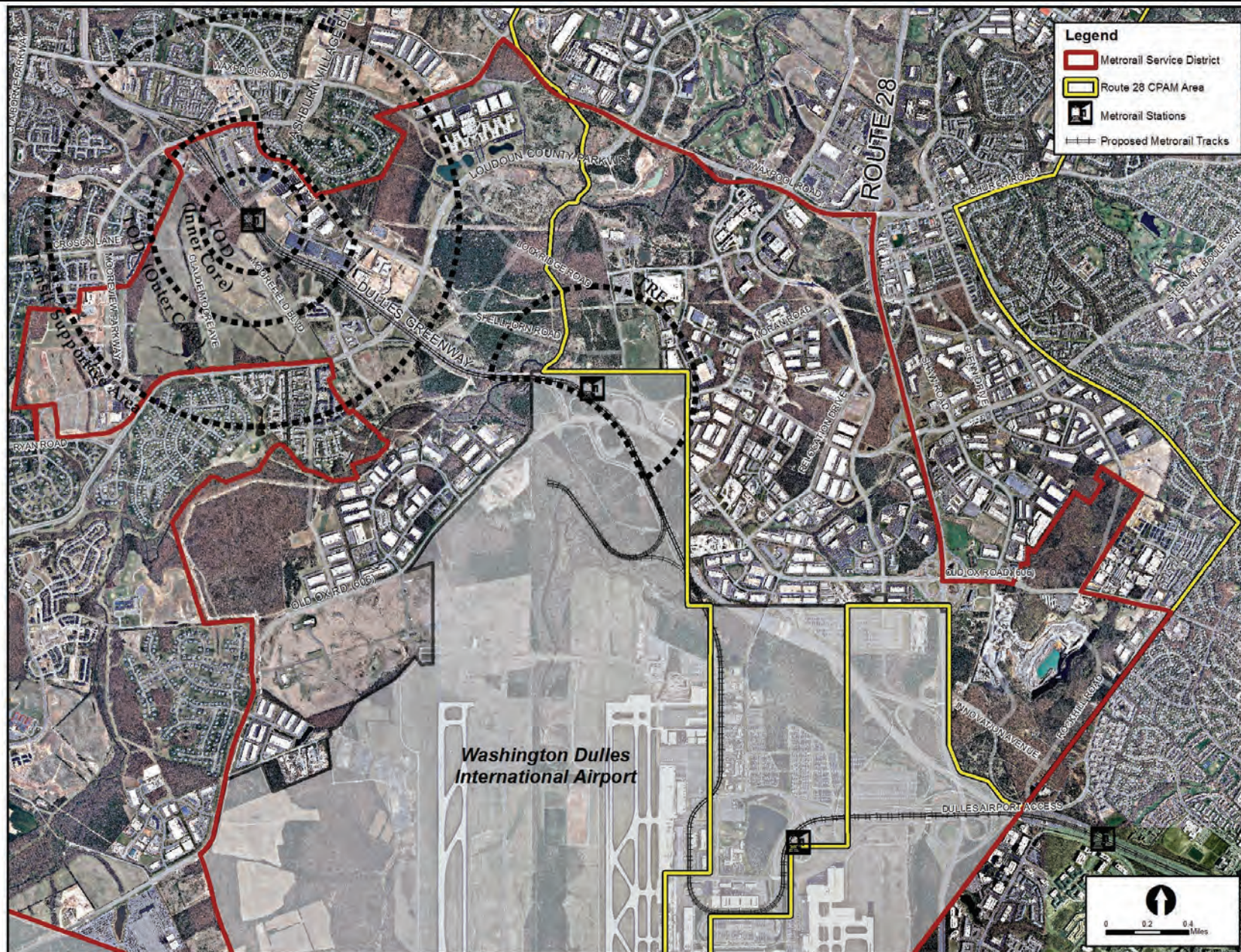
Figure 7
Planned Land Use
(Countywide)



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Figure 8
Study Area Planned Land Use



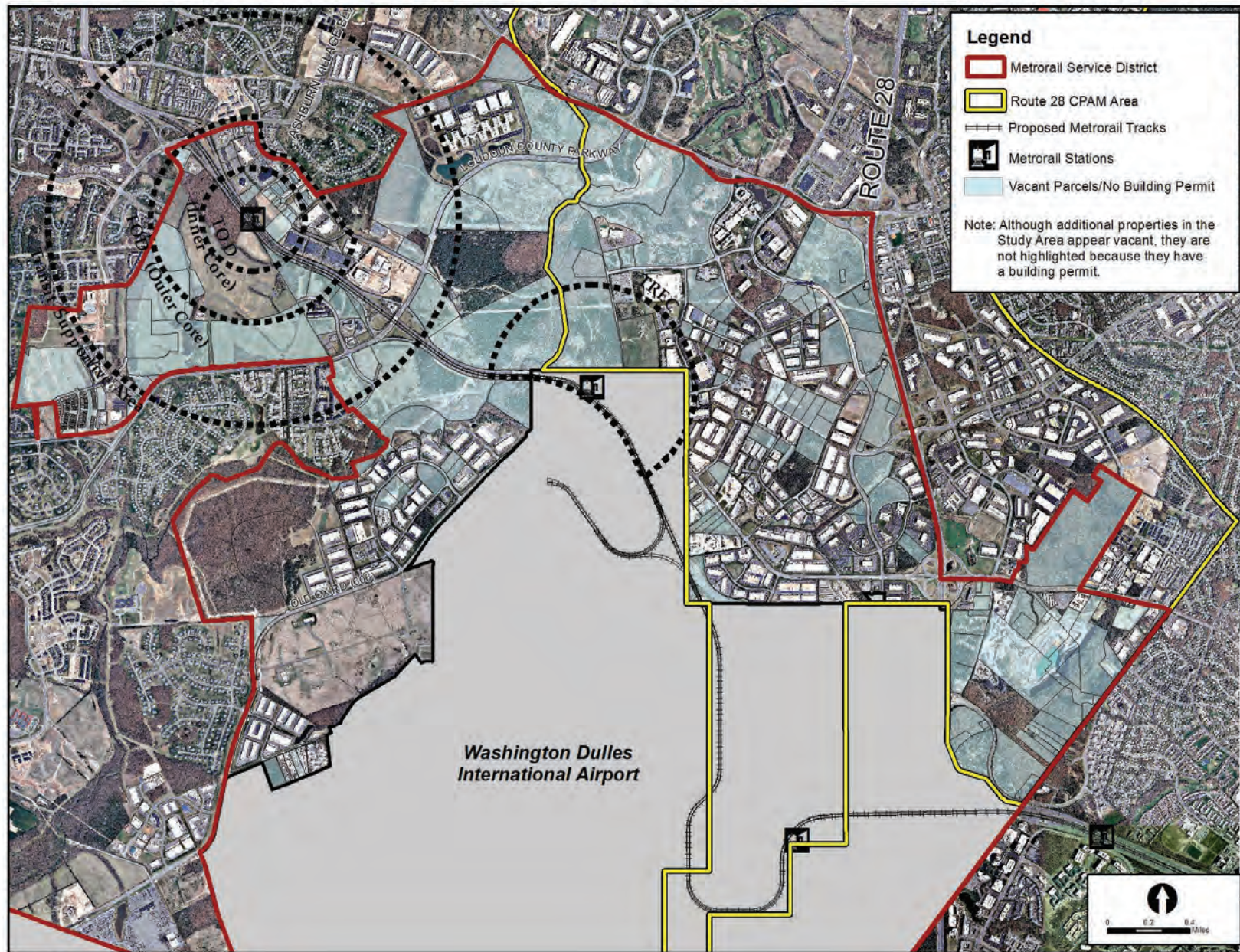
Prepared by the Department of Planning, March 2014



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Figure 9
Study Area Aerial Photograph



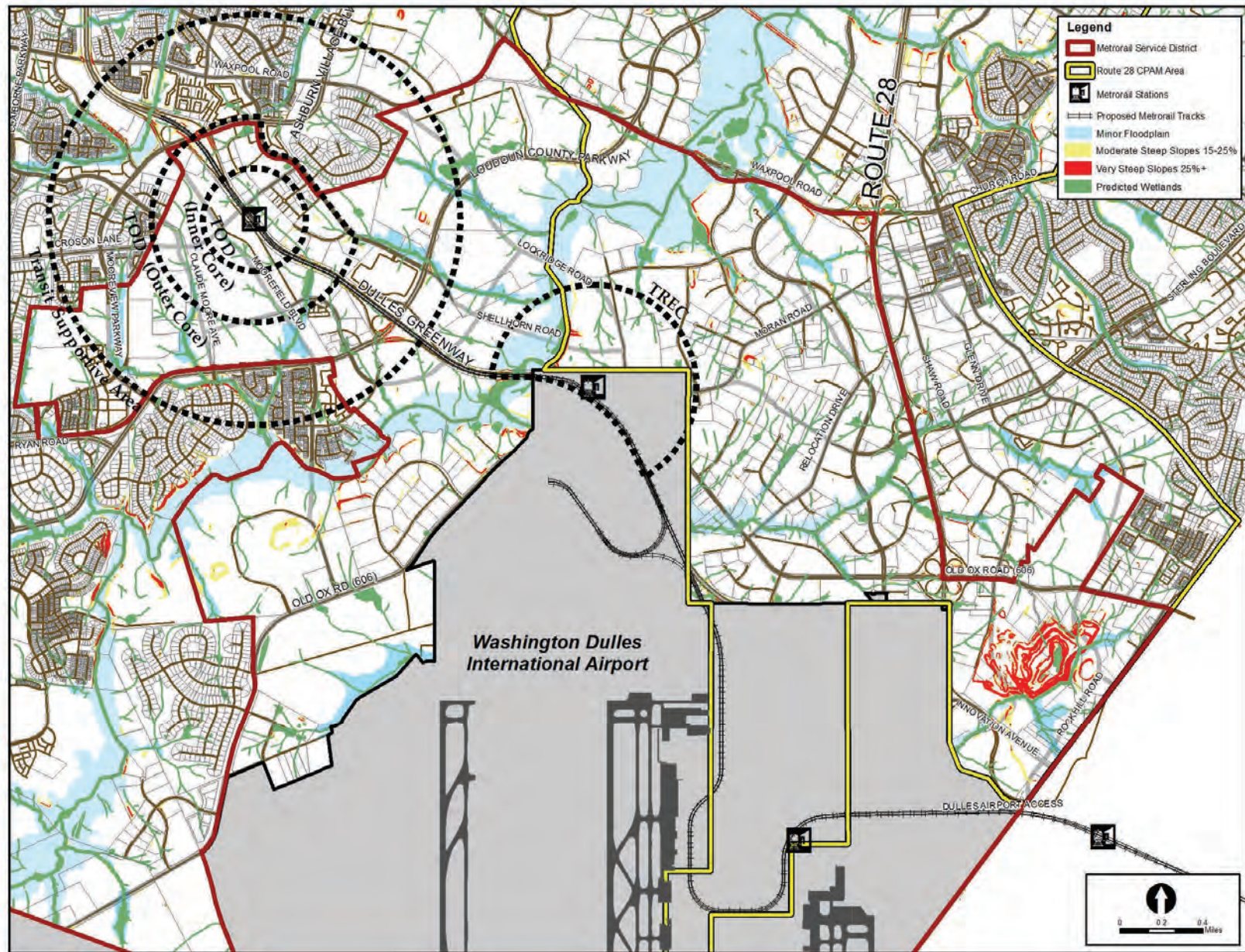
Prepared by the Department of Planning, March 2014



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Figure 10
Vacant and Undeveloped Properties



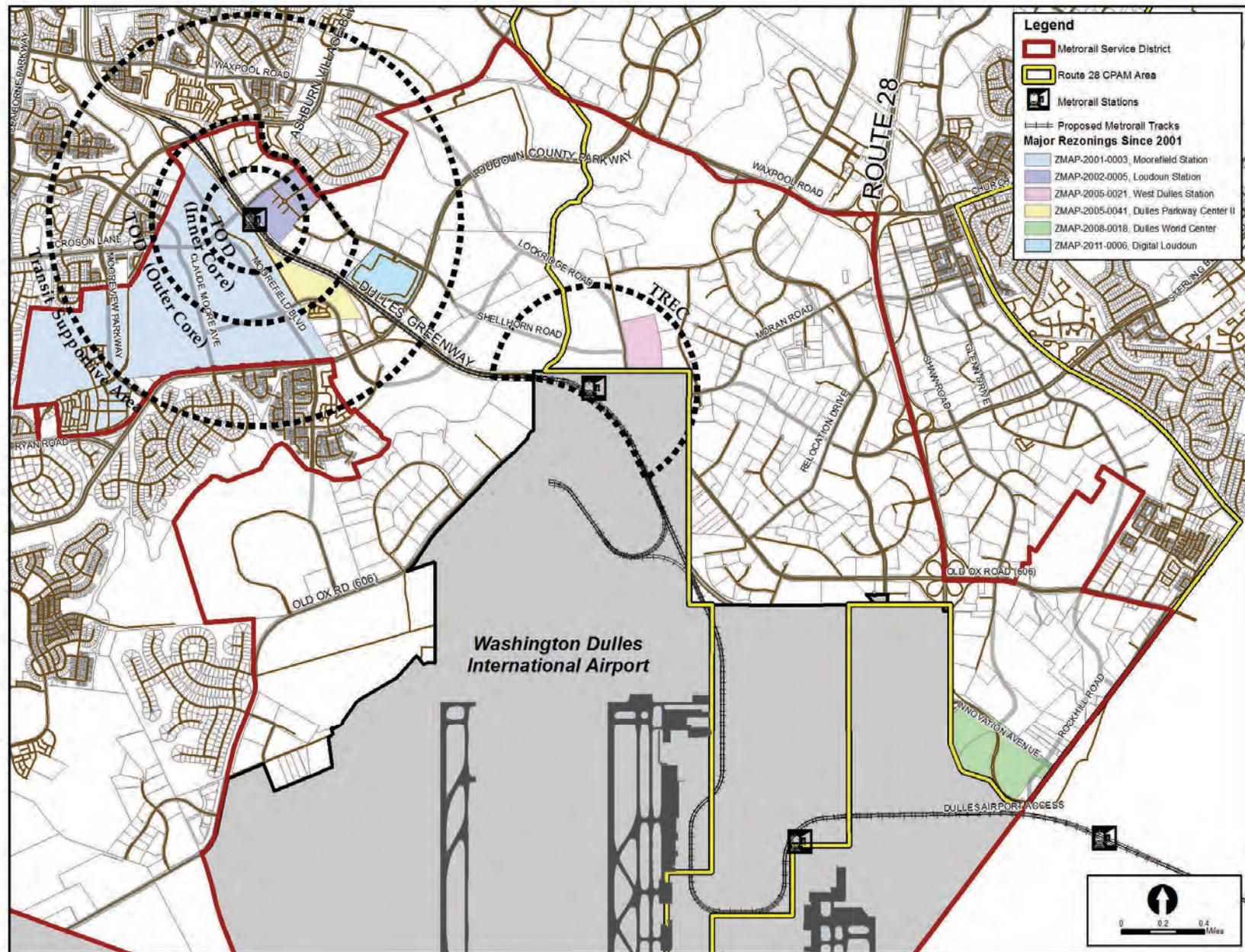
Prepared by the Department of Planning March 2014



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Figure 11
Environmental Constraints



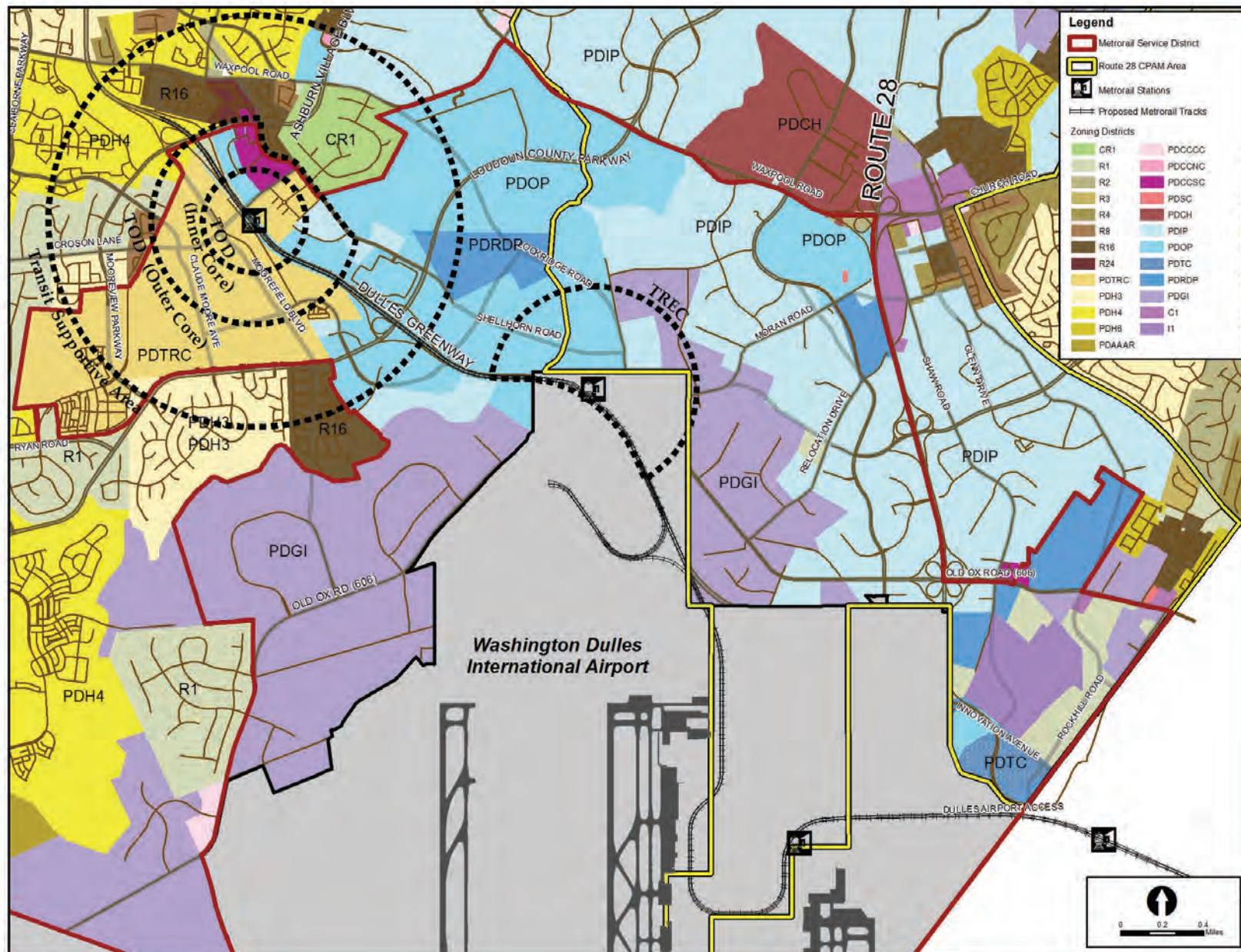
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Figure 12
Approved Projects



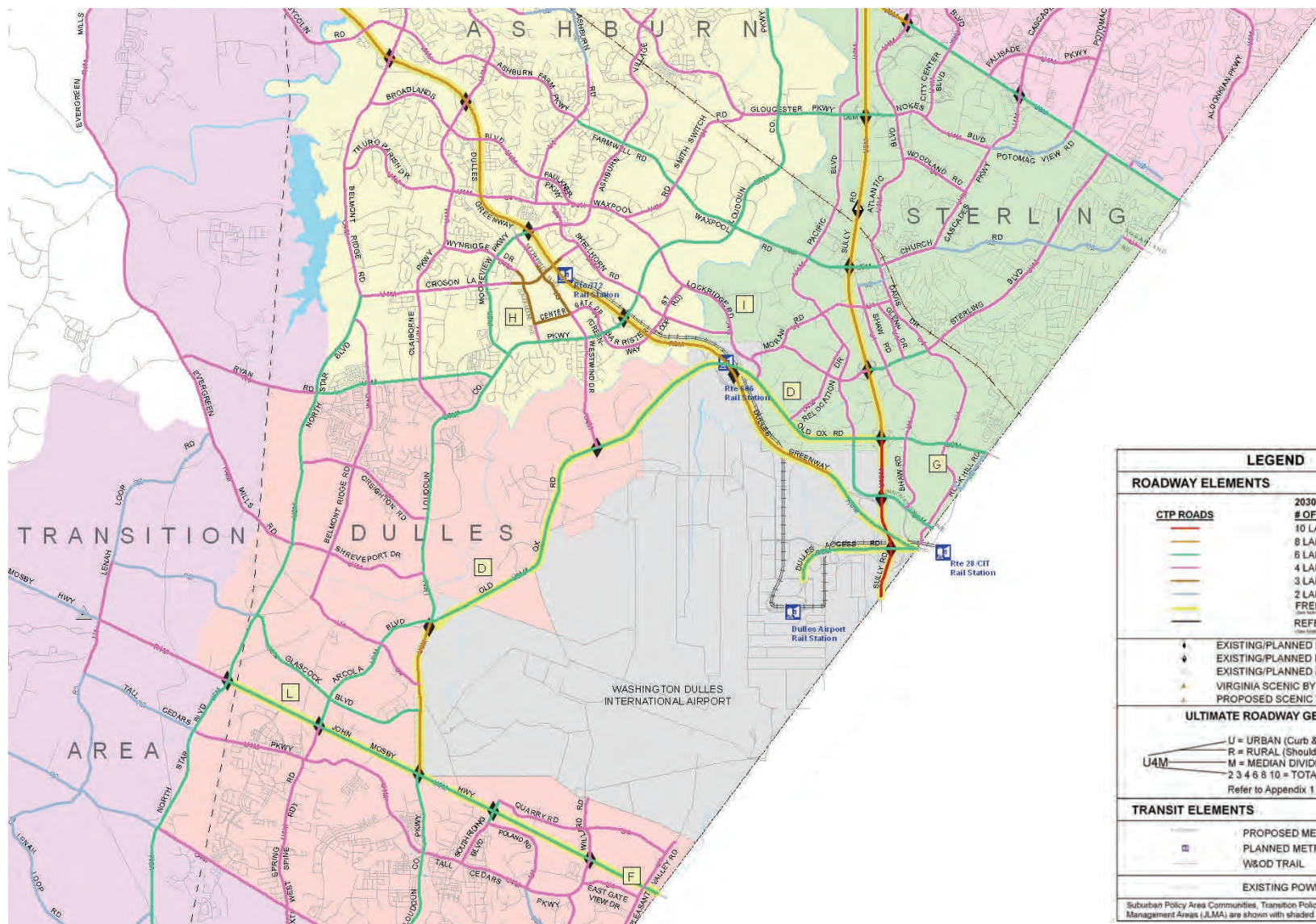
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Figure 13
Study Area Zoning Districts



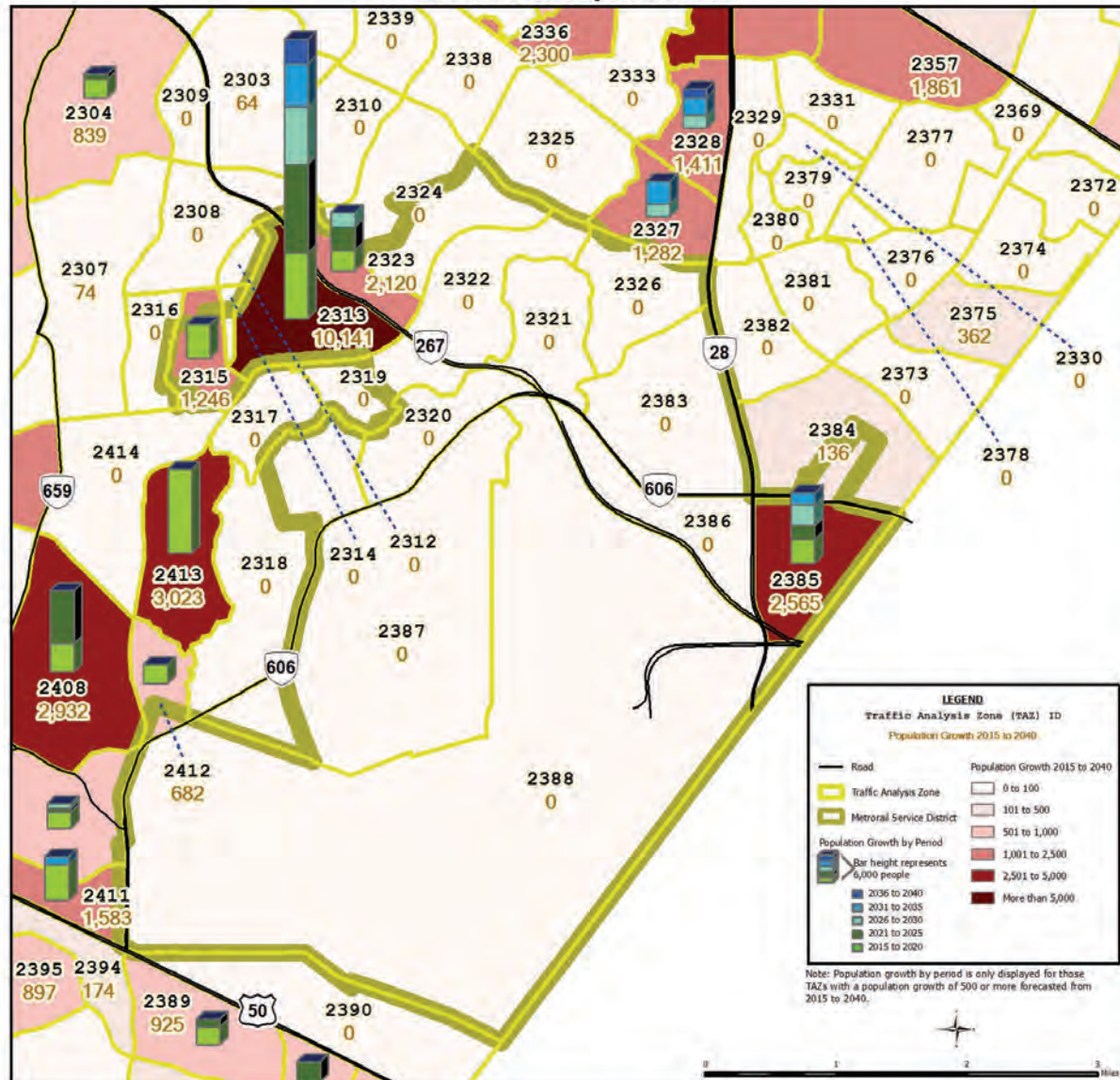
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Figure 14
Study Area
Countywide Transportation Plan Roads

Population Growth Forecasted From 2015 to 2040

Loudoun County Round 8.3



Produced By: Loudoun County Department of Planning, April 2, 2014.
Map Number 2014-123.

Source: Loudoun County Department of Planning, COG Round 8.3
Cooperative Forecasts, March 7, 2014.



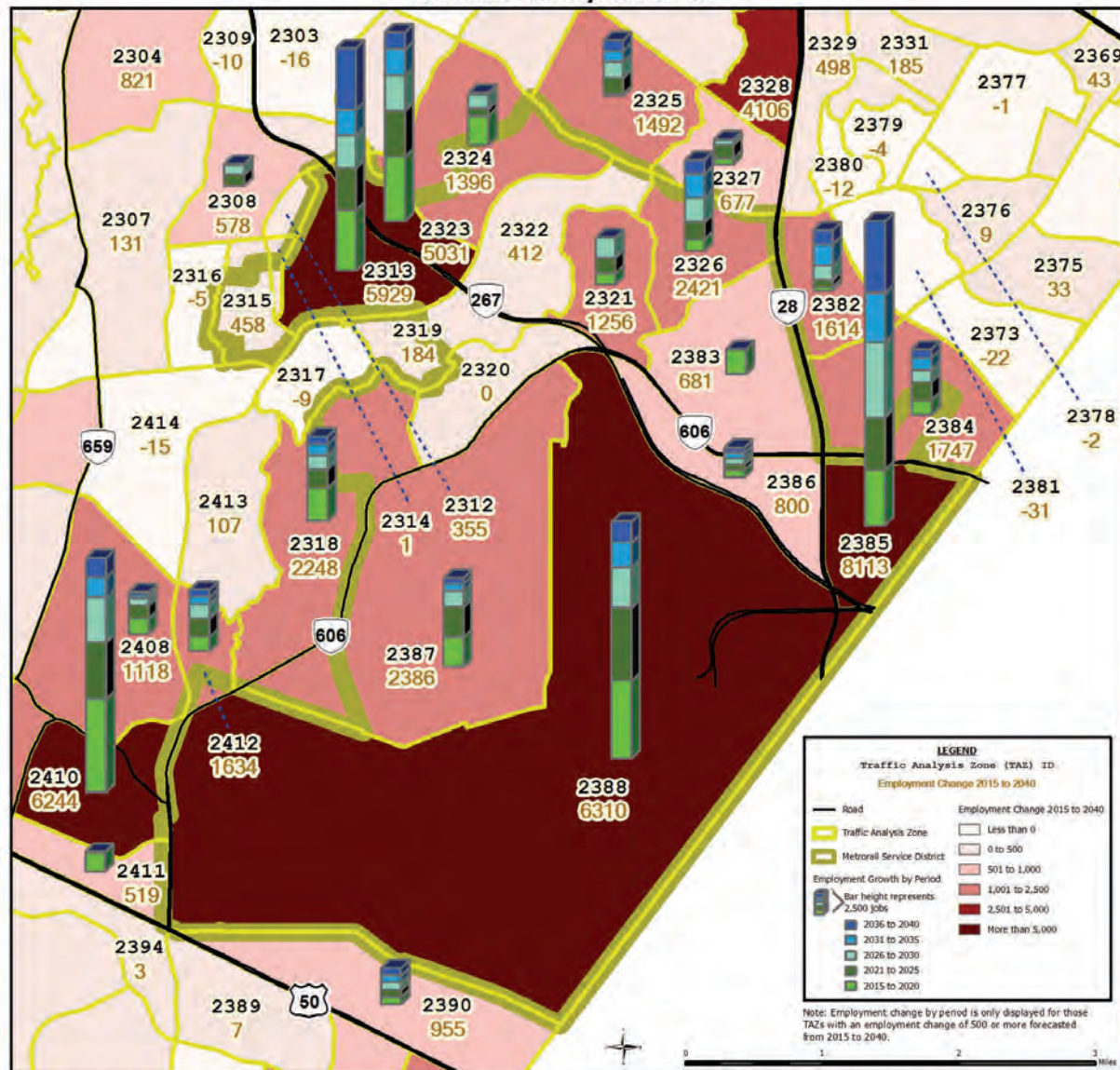
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Department of Planning

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Figure 15
Population Growth

Employment Change Forecasted From 2015 to 2040

Loudoun County Round 8.3



Produced By: Loudoun County Department of Planning, March 31, 2014.
Map Number 2014-124.

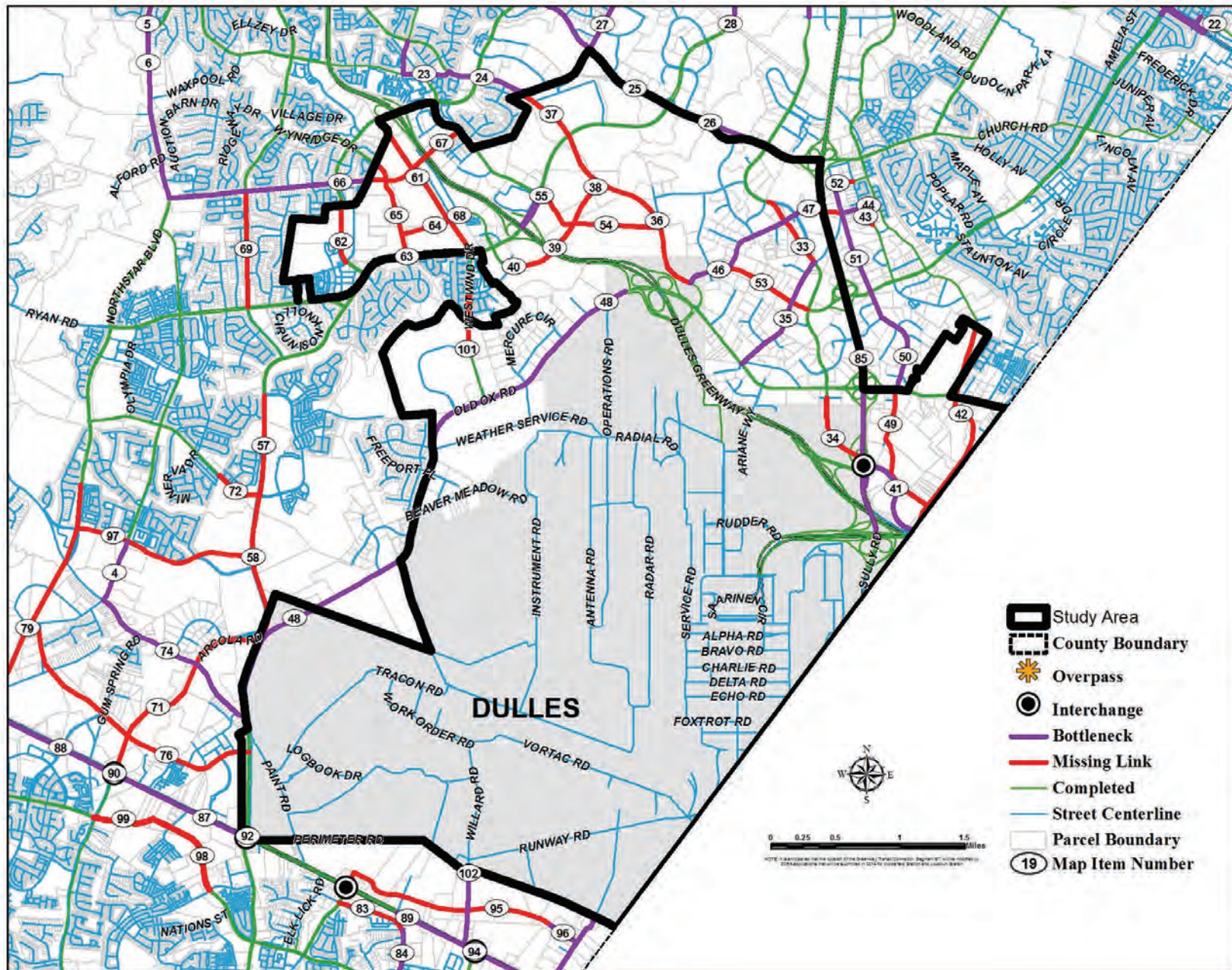
Source: Loudoun County Department of Planning, COG Round 8.3
Cooperative Forecasts, March 7, 2014.



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Figure 16
Employment Change



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Figure 17
Eastern Loudoun Transportation Study
Missing Links Analysis