PRINCE WILLIAM COUNTY

Innovation Park

Small Area Plan

Adopted December 15, 2020

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INTRODUCTION AND BACKGROUND

In the mid-1990s, Prince William County began to conduct a series of studies on future development throughout the county that included input from citizen advisory committees. This process developed a plan creating a coordinated development district with a town center and university as the central focus called the Innovation Sector Plan. In 2004, the County commissioned a master plan for the Innovation area. The Innovation Sector Plan study area was designated to facilitate and enhance the continued success of the Innovation Business Park in partnership with George Mason University (GMU) – Science and Technology Campus. In 2009, the County joined a team to investigate the further development of a town center to enhance and create a sense of place for the Innovation community. Prince William County, along with George Mason University and private property owners, funded a market study and planning effort to encourage development of the future town center. These efforts were reassessed in 2011 to further test the economic viability of the proposed town center. The culmination of these efforts resulted in the completion of the Innovation Sector Plan, which was adopted in 2012.

In addition to the Innovation Sector Plan, Prince William County has conducted additional studies of the area over the years. These studies focused on further assessing how to stimulate development by introducing planning concepts and regulatory standards needed to assist the growth of the Innovation Park area in both a County and a regional context. Several of these efforts include the Mixed-Use & Multimodal Connectivity in Innovation Park & Gainesville Study, updates of the Fire, Police, Schools, Parks, and Transportation Chapters of the Comprehensive Plan, the VRE Gainesville-Haymarket Extension Study, the Technology Overlay District (TeOD), a Targeted Industry Study and the Data Center Opportunity Overlay District. These studies helped create, shape, and inform future development in Innovation Park, while mitigating impacts to historical, cultural, and environmental resources in the plan area. The county also conducted cultural resource surveys and evaluation studies to identify and evaluate significant cultural resources and plan for their preservation or mitigation.

The Innovation Park Small Area Plan intends to build upon the previous Innovation @Prince William Science and Technology Sector Plan and capitalize on the County's major investment in the Innovation Business Park in partnership with George Mason University to create a successful advanced technology business and academic environment core for Prince William County. The Small Area Plan has been prepared to further the economic development goals of the County to provide opportunities for high-quality employment, integrated with a mixed-use Town Center that will foster local and regional economic opportunities. The primary focus of the Innovation Park Small Area Plan is to create a sustainable advanced science & technology academic and business community anchored around George Mason University (GMU) – Science and Technology Campus while also preserving existing natural resources.

An analysis of the present conditions is used to highlight opportunities to grow, the potential challenges to growth or implementation are identified, and the relationship of each section to the larger goal of the Small Area Plan is stated. By aligning these sections, this plan will build upon existing development while creating new opportunities for this area and the county. By understanding and reevaluating the existing conditions, the area will be better suited to be shaped into a mixed-use community that is both livable and workable. Additionally, by planning to improve and expand the multimodal transportation network, the town center will naturally form around the mixed-use development, targeted industries, and within the context of the larger expanded area and assets. The potential in the Small Area Plan is strengthened by continued efforts to enhance Innovation Park's desirability as an advanced technology and business setting and academic center.

This plan recommends strategies to streamline the layers of regulations within the Innovation Park study area to facilitate development of a wider range of uses, incorporating a mixed-use town center and residential, entertainment, hospitality, and other uses to create a cohesive sense of place and location for multimodal transportation opportunities. In the future, Innovation Park will be much more than a successful business park; it will be an advanced technology business environment located in a multifaceted community.

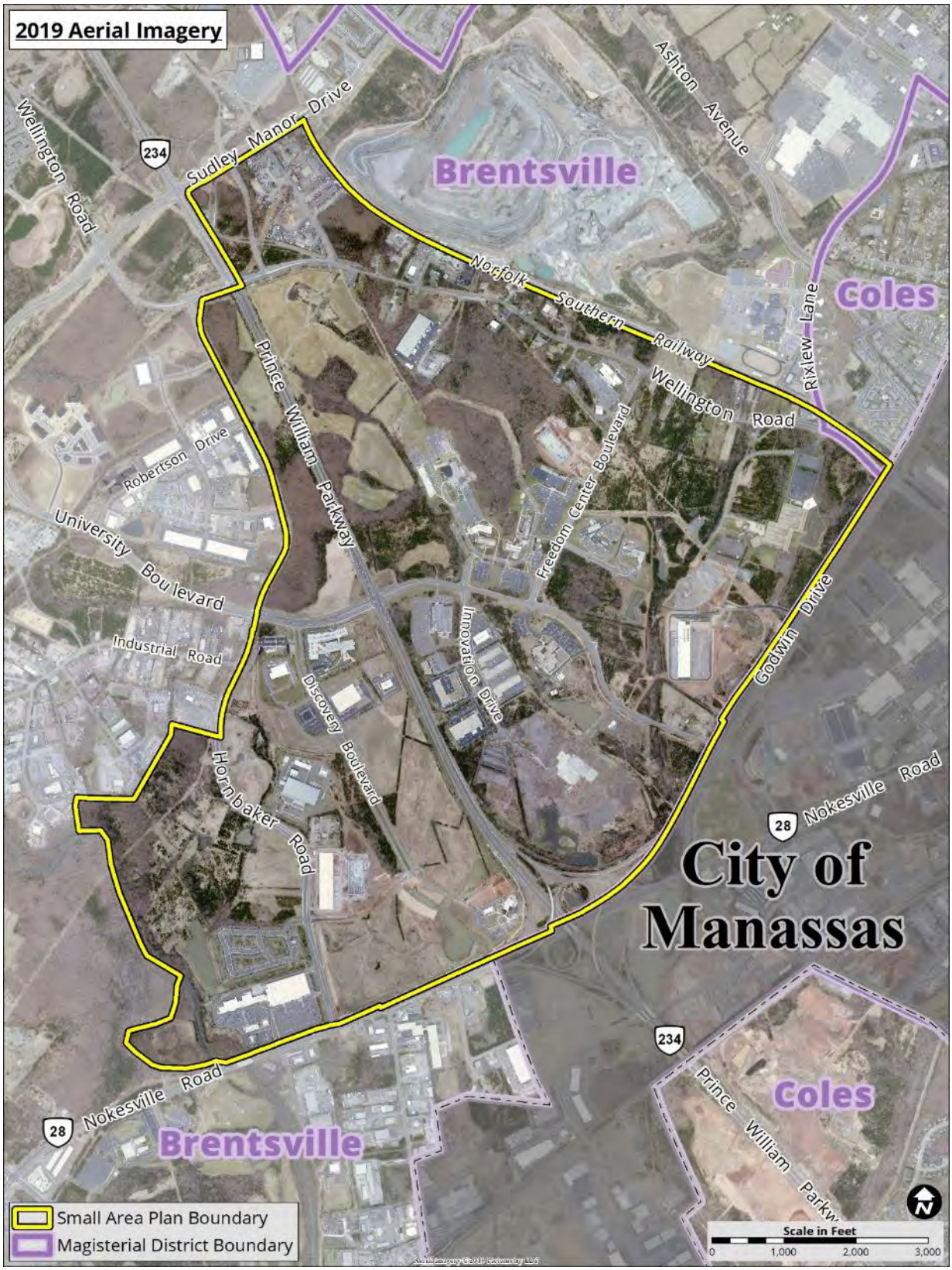


Figure 1: Innovation Park Boundary

PURPOSE AND USE OF SMALL AREA PLAN

The Plan serves as a basis for the long-term vision for future growth in the study area. The Plan will replace the existing Innovation @Prince William Science and Technology Plan, a current Sector Plan in the Comprehensive Plan. The need to reevaluate the Innovation Sector Plan arose from several factors including regional changes in the marketability of office development, new state laws affecting the proffer system and a desire to see a new vision for Innovation Park. The purpose of the Innovation Park Small Area Plan is to rebrand the area into a sustainable and economically viable community that builds upon the strengths of the previous Innovation Park Sector Plan. The vision and goals of the Plan will be realized through the implementation of the action items established in this Plan. The Small Area Plan process included research, stakeholder and public engagement, visioning, and the development of a final plan.

This plan serves as an extension of the Comprehensive Plan and defines a vision for future development within the Innovation Park study area. While this plan does not grant or ensure subsequent rezonings, special use permits, or other development applications, it serves as the basis for determining the consistency of future rezoning or special use permit requests for the properties which are located within the plan area. The vision and goals of the small area plan are realized through the completion of the action items established in this plan. The Innovation Park Small Area Plan will provide a guide to developing a mixed-use environment supplemented by a multimodal system with transit that creates a place in which people will live, learn, work and play.

Areas of Transformational Change

The Plan provides a mechanism to help realize the development potential of the area. Within the Small Area Plan are several existing targeted industries and businesses including healthcare, life sciences, federal government contracting, and information communication technology (ICT). To closely address these specific targeted industries, the Small Area Plan is divided into three districts. These districts include the Employment Center, Technology Center, and University Center. The purpose of delineating these districts is to identify which areas would benefit from and expand upon certain industries that are most compatible with the current and long-range land use. For example, within the Small Area Plan is the George Mason University's Science & Technology campus, which provides the benefits of expanding technology industries while giving students and employers opportunities to coordinate research efforts and create professional development networks.

The transformational changes within the Innovation Park Small Area Plan are focused on the University Center with support from and connectivity to the Technology Center and the Employment Center. Within the University Center is the Town Center which focuses on capitalizing on the proximity of the University providing a walkable street grid attracting students from the campus. Student housing will be located closest to the campus to provide convenient pedestrian access with a shuttle network providing

access to the nearby VRE, the GMU Campuses in Fairfax and Arlington, and other desirable locations. The greatest amount of density will be focused around the GMU campus with additional density across from the potential Innovation VRE Station.

The County recognizes the need for multimodal levels of service through the Strategic Plan's Mobility Goal to "have an accessible, comprehensive, multimodal network of transportation infrastructure that supports local and regional mobility." One of the objectives to achieve this goal recognizes the need to build a robust economy and to provide more job opportunities within the County to help reduce commute times and congestion. In order to implement the goals of the Innovation Park Small Area Plan, the County needs new performance measures to measure accessibility, economic development, sustainability and livability. This requires less reliance on achieving a specific Level of Service on roads and at intersections and more reliance on creating a sense of place with measures related to economic, social and environmental outcomes, where people live, work and recreate in the same geographic area.

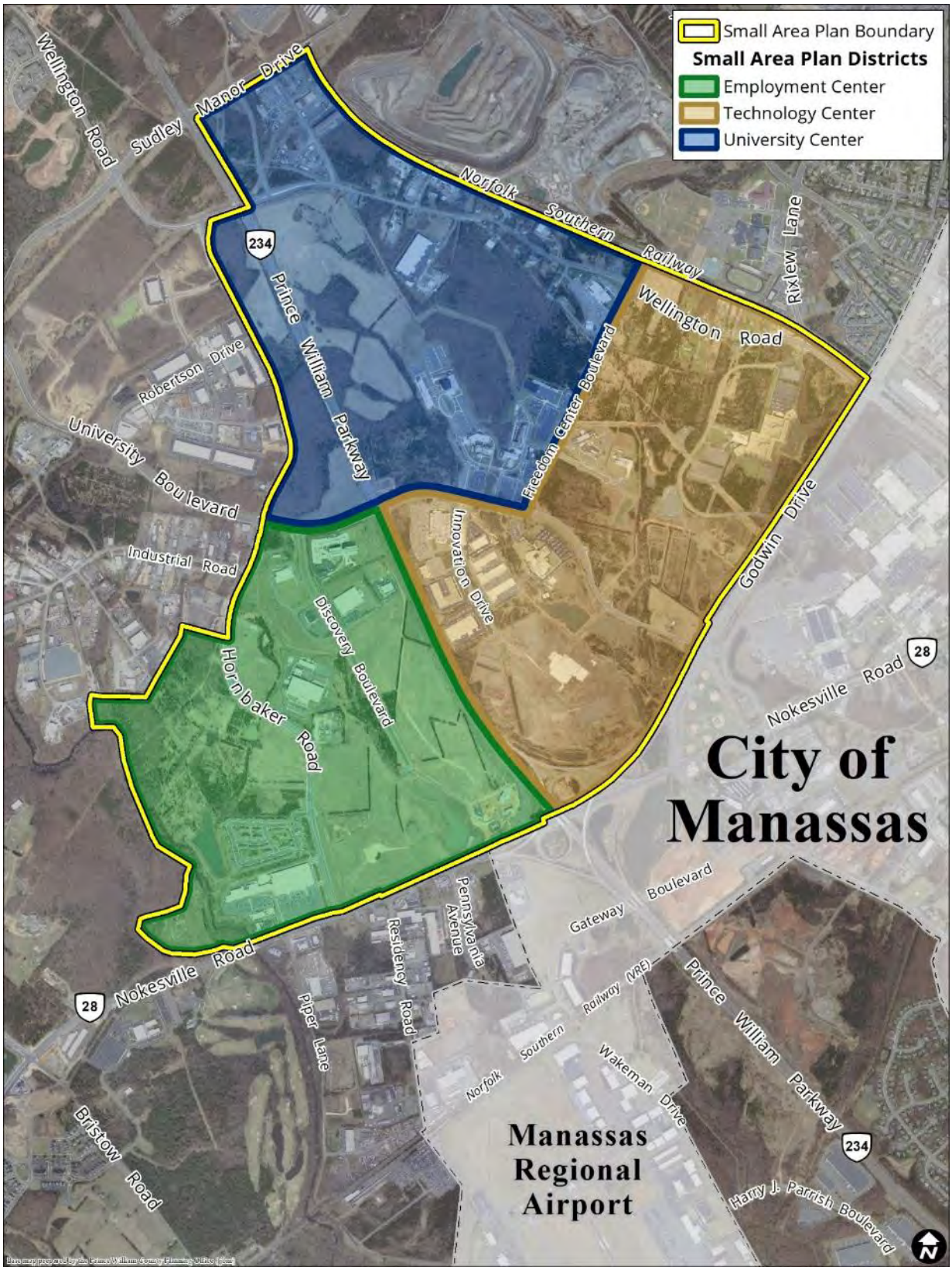


Figure 2: Innovation Districts

Organization of the Small Area Plan

The Small Area Plan consists of eight major components which are identified below and will follow an extensive existing conditions and data analysis that sets the foundation upon which the plan is built (See Figure 3).

1. **Vision and Thematic Principles** – Establishes the long-term vision and supporting goals for the creation and guidance of The Innovation Park Small Area Plan.
2. **Placetypes** – Consists of a land use plan with development standards including density, form, and layout. The transect identifies the relationship between density and mobility. An illustrative plan demonstrates visually the full-build out of the plan.
3. **Design Guidelines** – Outlines design standards for pedestrian-scaled private and public development with graphic precedents to ensure high-quality design within the Small Area Plan.
4. **Mobility Plan** - Plans for multimodal mobility with dense, mixed-use development to take advantage of this symbiotic relationship.
5. **Green Infrastructure Plan** – Ensures that open space, active recreation, and passive recreation is supported in the plan. With additional density of people living, working, and playing in the Small Area Plan, there will be a demand for outdoor spaces and a requirement for environmental protection.
6. **Cultural Resources Plan** – Plans for the identification and preservation of architectural and archaeological sites, historic districts, cemeteries, battlefields, cultural landscapes, museum objects, and archival materials in the study area.
7. **Economic Development Plan** – Encourages the attraction and retention of diverse high-quality businesses and services that strengthen the economic vitality of this area.
8. **Level of Service Plan**– As Innovation Park changes and grows over the next 20 years, it is necessary to ensure that infrastructure improvements that provide the County's levels of service are programmed in the plan.

The action strategies and infrastructure projects recommended by the Plan are summarized in the **Implementation Plan.** This plan is a matrix that identifies the action strategies and establishes how and when they will be implemented in the short, mid, long term, and ongoing time frames to ensure the plan is actualized by 2040. Additionally, a summary of the proposed infrastructure and facilities are outlines at the end.

Figure 3: Organization of the Plan

EXISTING CONDITIONS AND DATA ANALYSIS

Site Location

Innovation Park in Prince William County is in the Washington D.C. Metropolitan area. The Innovation Park Small Area Plan is located approximately 30 miles southwest of the Nation's capital. Geographically, this Small Area Plan is located on the southern edge of the National Capital area and is located near the center of Prince William County, adjacent to the western boundary of the City of Manassas. The study area is bisected by Route 234/Prince William Parkway and is roughly bounded by Sudley Manor Road to the north, Godwin & Nokesville Road to the south, Norfolk Southern Railway to the east and portions of Hornbaker Road in the northwest and the Broad Run to the west.

The Innovation Park Small Area Plan benefits from its proximity to Route 234 and Route 28 which provide connectivity to the Manassas Regional Airport and Dulles International Airport. The multimodal connectivity includes access to two nearby VRE Stations (Manassas and Broad Run) and two Interstate highways, one located in the eastern part of the County (I-95) and the other approximately 3 miles north of the study area (I-66). Broad Run VRE Station is located south of the study area near Manassas Regional Airport. It provides commuter rail connections between the major employment centers of downtown Washington, the Pentagon, Crystal City, Tysons Corner, Alexandria, and Mark Center.

The study area is also surrounded by a diverse and educated workforce with a low unemployment rate. These factors coupled with an existing successful academic institution, and industries and businesses within and just outside this study area make for an ideal place for attracting new targeted industries that will spur opportunities for economic growth.

The study area covers approximately 1,760 acres and includes a range of government contractors, research centers, and retail businesses, residential as well as significant undeveloped land.

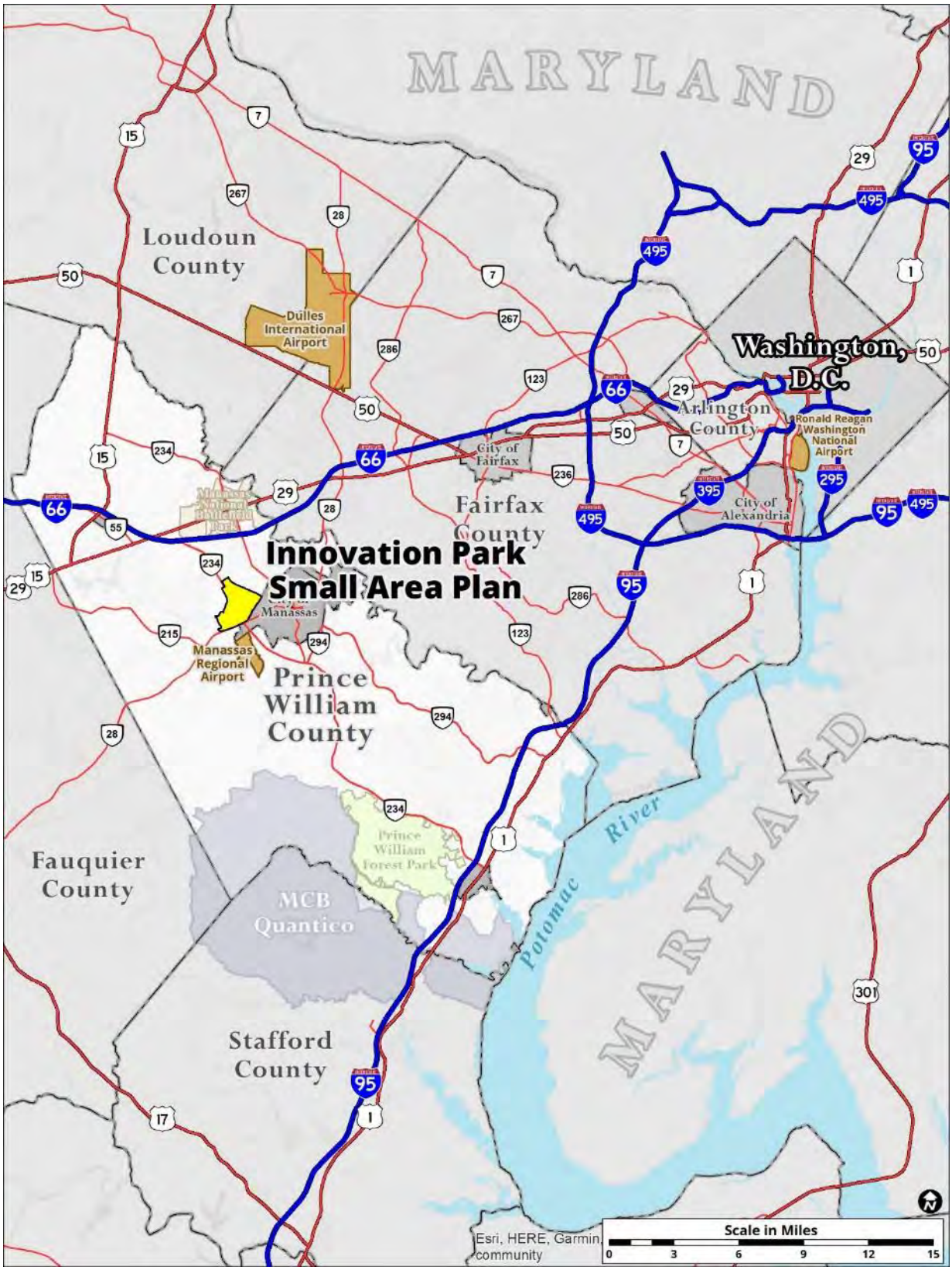


Figure 4: Innovation Park in the Region

Historic Context

Historic contexts are used in preservation to evaluate a resources significance. The county uses the following historic context as a base on which to develop policies and action strategies. This historic context is not intended to be a history, which is beyond the scope of a comprehensive plan.

Pre-Contact Period

In Virginia, pre-contact history is subdivided into three major periods Paleo-Indian, Archaic and Woodland (earliest to latest). The Archaic and Woodland periods are in-turn subdivided into early, middle and late sub-periods. Most recorded pre-contact activity was recorded along Broad Run and its tributaries (VCRIS last accessed February 10, 2020) [1]. Evidence of pre-contact occupation and land use is abundant in the plan area. Unfortunately, agricultural farming, particularly sod farming, during the middle to late twentieth century, severely damaged all the pre-contact archaeology sites found to date. Pre-contact archaeology sites, identified so far, fall into two categories, possible short-term occupation camps and stone tool manufacture or re-sharpening sites. Archaeologists were able to discern two specific periods, the Middle Archaic from 8500 – 5000 before present and the Late Archaic from 5000 to 3200 years before present [2, 3]. These date ranges were based on the few dateable artifacts, projectile points, recovered during excavations. Archaic people were generally hunter-gatherers taking advantage of the climatic change that started 10,000 years ago at the end of the last ice age and the beginning of the Holocene. Warmer drier air and climate led to greater diversity in plants and animals. Archaic people took advantage and exploited these resources. Evidence suggests the societies morphed into larger bands of 30 persons during part of the year and then to dispersed micro-bands of a single family or two during other seasons. [4]

Although no evidence has been found of sites dating to the Woodland period, it is highly likely Woodland and Late Woodland people traversed and camped within the plan area. Large settlements, such as those found along the Dan, Rappahannock and

[1] Virginia Cultural Resource Information System (VCRIS), 2020 Virginia Department of Historic Resources, 2801 Kensington Avenue, Richmond, VA 23221

[2] Friedman, Janet L.; Heather Crowl, David Rotenstein, Susan Travis, Richard Vidutis, 2002 *Prince William Innovation Phase I Archaeological Survey, Architectural History Reconnaissance Survey, of the PWC Innovation Business Park.* Prepared for Prince William County Planning, James McCoart Building, 1 County Complex Court, Woodbridge, VA 22192. Prepared by URS Corporation, 7101 Wisconsin Avenue, Suite 700, Bethesda, MD 20814.

[3] Dutton, David, Cara Metz, Arthur Striker, 2016 *Phase I Cultural Resources Survey of the 42 Hectare (106 acre) Wellington Road (Innovation Town Center) Property*. Prepared for Miller and Smith, 8401 Greensboro Drive, Suite 450, McLean, Virginia 22102. Prepared by Dutton + Associates, LLC 1115 Crowder Drive, Midlothian, Virginia 23113.

[4] Ibid

James River drainages, are unlikely but cannot be ruled out.[5] Many native Americans were driven out of Virginia's Piedmont, which includes the plan area (if they were there at the time), by the Albany Treaty of 1722. The remainder were driven out by force "either by relocation or the extermination of groups."[6]

Historic Period

Settlement to Society 1650-1750

Prince William County was formed in 1730 with its boundaries reduced to its present size by 1759. Unfortunately, maps drawn in the first half of the 1700s are large scale and do not contain sufficient detail to show settlements in the County except for Occoquan and Dumfries and taverns along Old Carolina Road. Archaeology found evidence of colonial settlement. Archaeology "Site 44PW1199 appears to be a domestic quarter occupied by enslaved African Americans during the mid-eighteenth and into the late eighteenth century. [it was located west of Hornbaker Road and east of Discovery Boulevard] It may be associated with the Catsby Cocke, William Powell, or Charles Ewell periods of land ownership. The site appears to have included a post-in-ground structure approximately 13 by 10 feet with a stick and daub chimney… A possible outbuilding or second small dwelling was…" also found "…separate from the main dwelling. The site occupants relied heavily on locally produced colonoware ceramics and were of low socio-economic status. It is likely that the site represented a domestic occupation of enslaved field hands or slaves of tenant farmers of modest means."[6]

[5] Hantman, Jeffrey L., and Michael J. Klein, 1992 "Middle and Late Woodland Archaeology in Piedmont Virginia," in *Middle and Late Woodland Research in Virginia: A Synthesis*. Edited by Theodore R. Reinhart and Mary Ellen N. Hodges. Special Publication No. 29 of the Archeological Society of Virginia. The James Deetz Press, Richmond, Virginia.

[6] Crowl, Heather, 2006 *Archaeological Data Recovery at site 44PW1199, Innovation Property*. Prepared for Prince William County Historic Preservation Division, 4092 Merchant Plaza, Suite B, Woodbridge, VA 22192. Prepared by Heather Crowl, M.A. URS Corporation, 200 Orchard Ridge Drive, Suite 1010, Gaithersburg, MD 20878. Report on file Prince William County Planning Office.

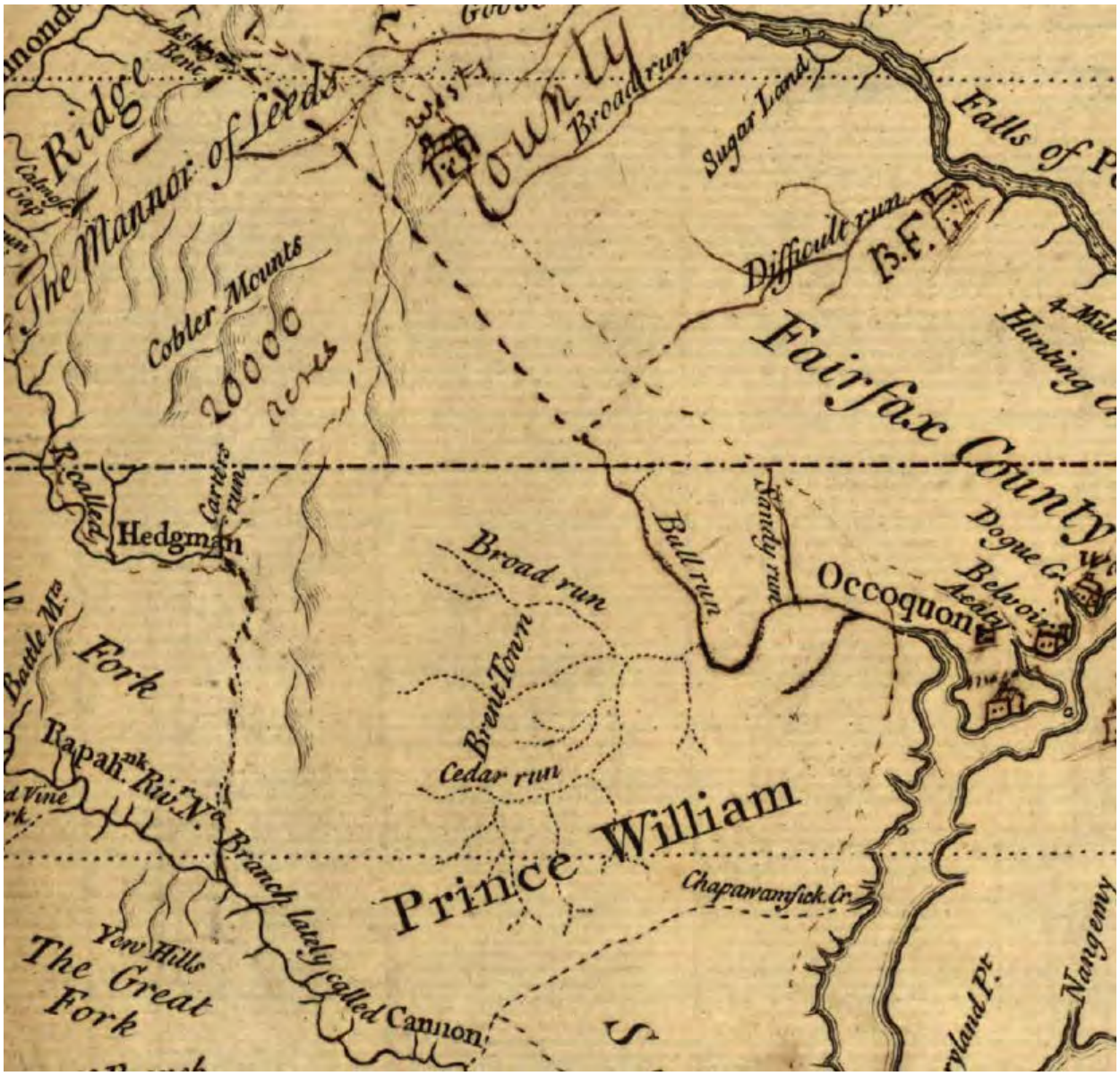


Figure 5: A portion of the 1737 Warren Map, a 1736 & 1737 survey of lands belonging to the Rt. Honourable Thomas Lord Fairfax Baron Cameron.

Digital image on file in the Geography and Map Division of the Library of Congress. [7]

[7] Warren, John L., 1737 *A survey of the northern neck of Virginia, being the lands belonging to the Rt. Honourable Thomas Lord Fairfax Baron Cameron, bounded by & within the Bay of Chesapoyocke and between the rivers Rappahannock and Potowmack: With the courses of the rivers Rappahannock and Potowmack, in Virginia, as surveyed according to order in the years 1736 & 1737*. Digital image on file in the Geography and Map Division of the Library of Congress.

Colony to Nation 1750 – 1789; Early National Period 1789-1830; Antebellum 1830 - 1860

Throughout the above time periods, there was a gradual and continuous transition from a tobacco focused agricultural economy towards diversified agricultural and livestock farming. As the population slowly increased, their need for land increased land and brokering farmland also became a component of the economy. The growth of smaller farmsteads and the increasing population necessitated expanding the system of roads. This growth connected farms in the plan area to larger towns and communities.

With evidence of slave domestic site found on Innovation, its likely tobacco was grown or was the dominant agricultural crop during the 1700s in the plan area. Other crops would also have been harvested but their purpose would likely be more subsistence and tobacco more for profit.[8] However, unlike the Tidewater regions of Virginia, tobacco was being replaced by the late 1700s by diversified agriculture, such as wheat and corn and other grains, in order to fulfill England's quest for finished flour product. Evidence of this economic change is manifested in the building of Milford Mill on Broad Run. Agricultural row crop cultivation along with livestock farming continued through the Early National and Antebellum periods and up to the Civil War. Quaker migrants from New York and New Jersey purchased land in the plan area from earlier landholders. These new farmers brought new techniques and were not slave holders.

Civil War 1861 - 1865

Different portions of the small plan area lie within two Civil War battlefields. Troops from both armies crossed through the area leading up to, during and after the second battle of Manassas. A primary road during second Manassas was Wellington Road and Bethlehem Road. These maneuvers were primarily flanking and probing maneuvers, attempting to find weaknesses in their opponent, or rearguard movements to sustain the primary area of engagement area on what is now Manassas National Battlefield Park. Although these actions may not have resulted in intense exchanges of fire for long periods, nonetheless the greatly influenced the outcome of the battle.

A small portion of the plan area in the south, was the scene of opening salvos of the Battle of Bristoe Station. It is where Confederate general A.P. Hill arrived on the hills, south or west of Broad Run, saw retreating Union troops on the north bank of Broad Run in the area of Milford Mill. Hill wrongly interpreted these troops as the tail of the Union Army and committed artillery and infantry in attempt to draw them into battle. In reality, almost an entire corps of the Union army was behind the Norfolk Southern Railroad (during the Civil War it was the Orange and Alexandria) embankment. A.P. Hill also assumed that Confederate reinforcements were close behind his corps and would

[8] Reeves, Matthew B. and Jennifer L. Moran, 1998 *An Archeological and Historical Investigation of Sudley Post Office (44PW294)*. Study submitted by the Center for Heritage Resource Studies to the National Park Service. College Park, MD: University of Maryland.

arrive momentarily on the battlefield. As more than 100,000 soldiers entered the battle, the main engagement area migrated out of the small plan area to where Bristoe Road crossed the Norfolk Southern Railroad tracks. A.P. Hill was successful in initiating the battle but unsuccessful in his assessment of the situation, the terrain and the strength of the Union forces and was defeated. Confederate casualties numbered 1,300 and Union casualties' number 600. This Confederate campaign ended with the Battle of Bristoe Station.

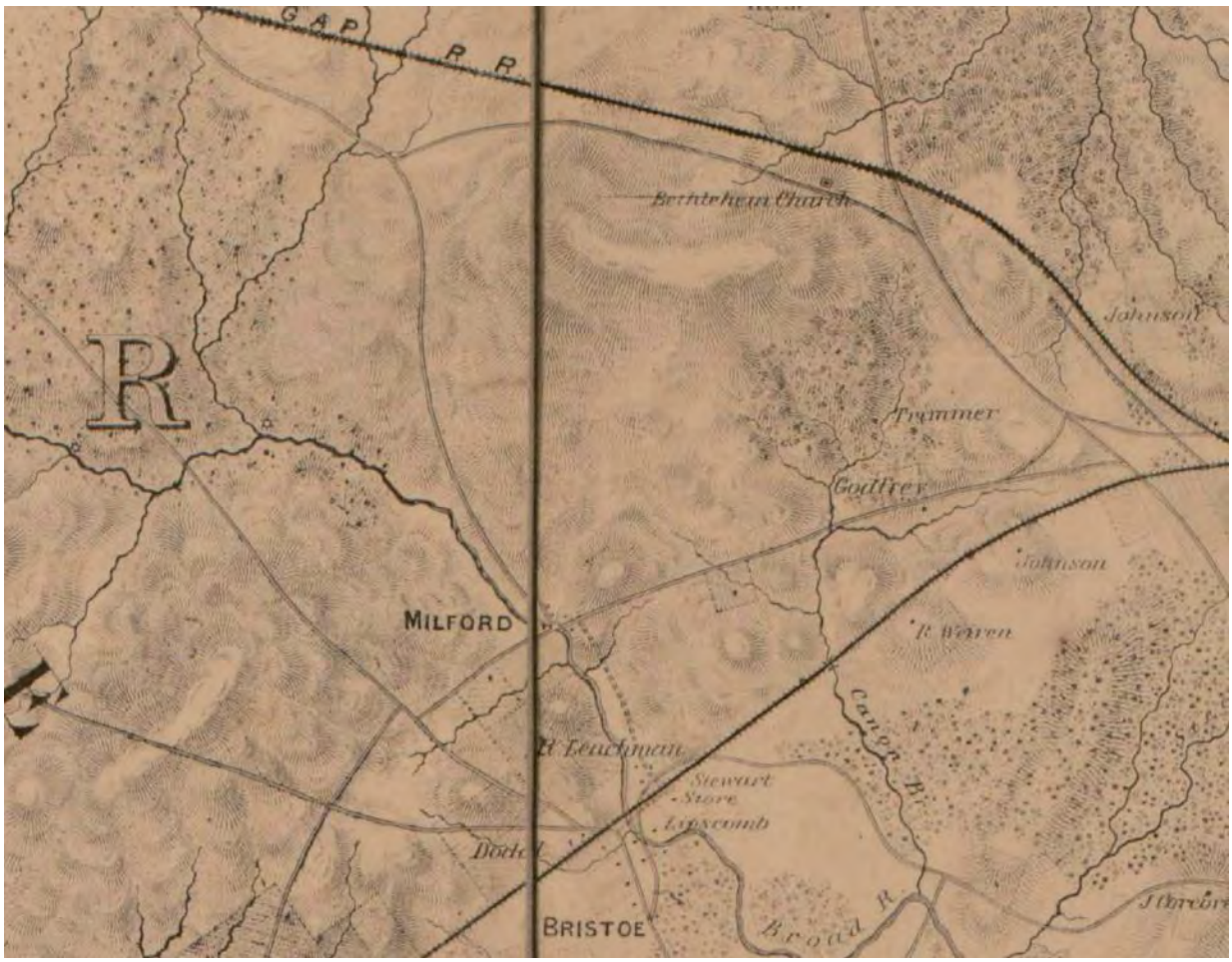


Figure 6: A portion of McDowells 1862 Civil War Map showing the Innovation Park Area[9]

[9] McDowell, Irvin and J. Schedler, 1862 *Map of N. Eastern Virginia and Vicinity of Washington* [Washington, D.C.]: United States War Department, Corps of Topographical Engineers, Digital image on file in the Geography and Map Division of the Library of Congress.

Reconstruction and Growth 1865 – 1917; World War I and World War II 1917 – 1945; New Dominion 1946 – Present

The growth of post-Civil War farms, dotting the landscape of Innovation, reflects the return to the County's agricultural heritage. It also reflects the subdivision of, and the dissolution of large plantations based on slave labor. Farms consisted both of small subsistence operations with lower outputs to commercial markets, and also the growth of large farmsteads some of which focused on dairy farming. The transplant of farmers from northern states such as New York and New Jersey, that started before the Civil War, continued and supported these larger dairy operations. "Dairy farming was the center of 20th century agriculture in Prince William. It was the second largest industry in Prince William County by 1971, with seventy-seven farms producing milk at a cumulative value of over one million dollars" … Prince William County formed part of the "Washington Milkshed," the area that supplied milk to Washington, D.C. Most suppliers were members of the Maryland and Virginia Milk Producers Association."[10] Maps from 1901 and 1904 and 1923 confirm the agrarian nature of the plan area. The refurbishment and up-grade of grain grinding equipment in Milford Mill and its continued operation well into the Twentieth century was a result of the diversified agriculture and dairy operations.

The focus on dairy farming continued through both world wars and into the last quarter of the twentieth century. During the late twentieth century a combination of factors caused many dairy farm operations to shutter, such as decreasing milk prices, increased competition, a shortage of farm laborers, and growing suburbanization. In the Innovation plan area, many dairy farms converted to sod farms. These sod farms operations continued up until the time the land was purchased and aggregated into Innovation by Prince William County.

Evidence of the rural agrarian economy exists in the preserved Thomasson Barn complex, now Two Silos Brewery, and the Birkett Barn, now Sweeney Barn. Both of these barns were milking barns, with milking stalls on the ground floor and large haylofts above. The unique architecture supporting the roof of each hayloft was replicated in other barns in Prince William County and has also been observed in Madison County, Virginia. Additional evidence of rural farmstead living is the remains of the Gaskins Cemetery, just south of Wellington Road.

[10] Needham, Samantha, 2015 *The Way It Was, 20th Century Agriculture in Prince William County*. Prepared by Samantha Needham, Intern from the Institute of Public History, University of Virginia. Prepared for and sponsored by the Prince William County Historical Commission, Prince William County Archaeologist and the Prince William County Historic Preservation Division

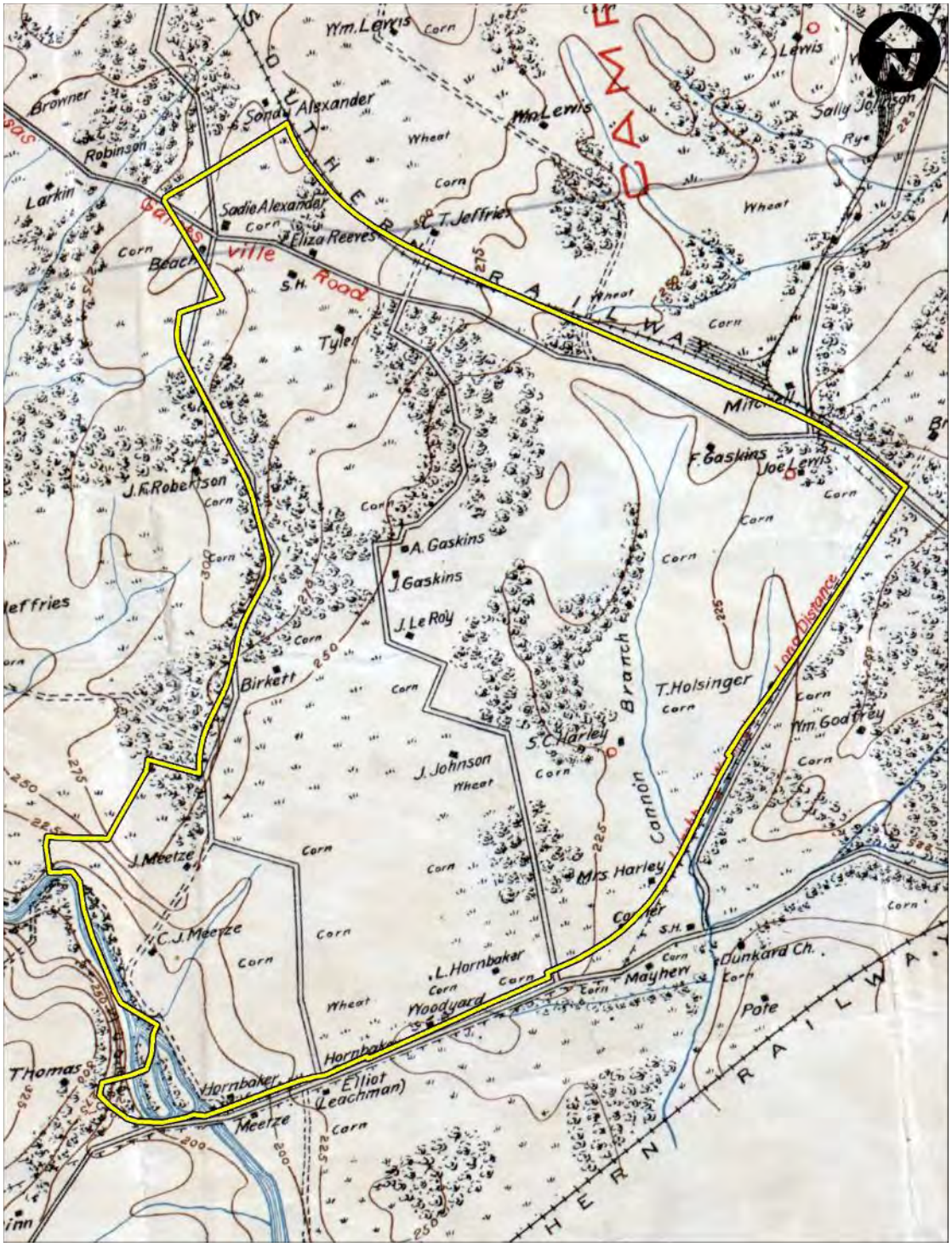


Figure 7: A portion of the 1904 Burr Map, not to scale [11]

[11] Burr, Major Edward, 1904 *Maneuver Grounds, Prince William and Fairfax Counties, Va*. Digital image on file in the Geography and Map Division of the Library of Congress.

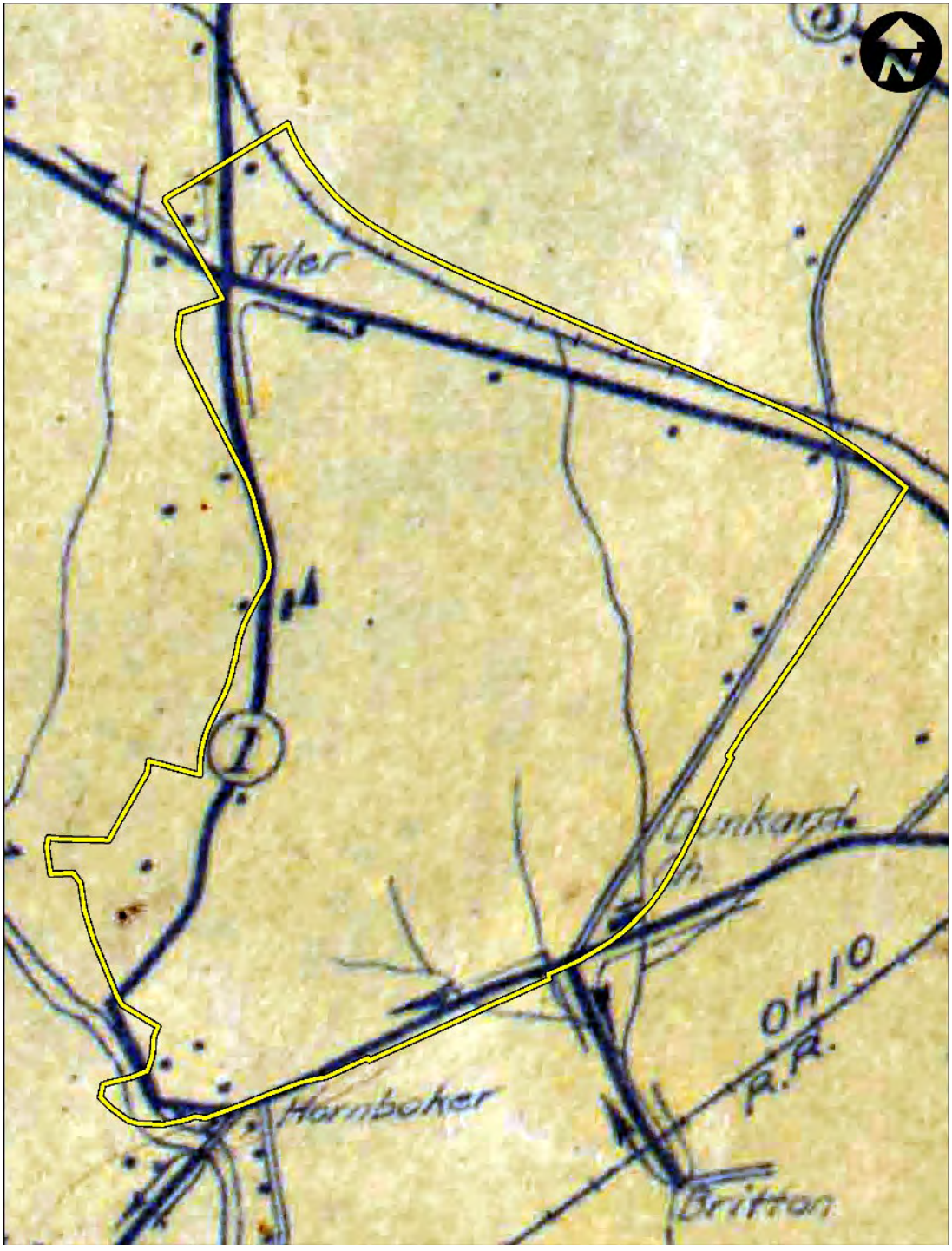


Figure 8: A portion of the 1923 Post Office Map, not to scale [12]

[12] United States Post Office Department (USPOD), 1923 *Prince William County, VA*. United States Post Office Department. Digital image on file in the Geography and Map Division of the Library of Congress.

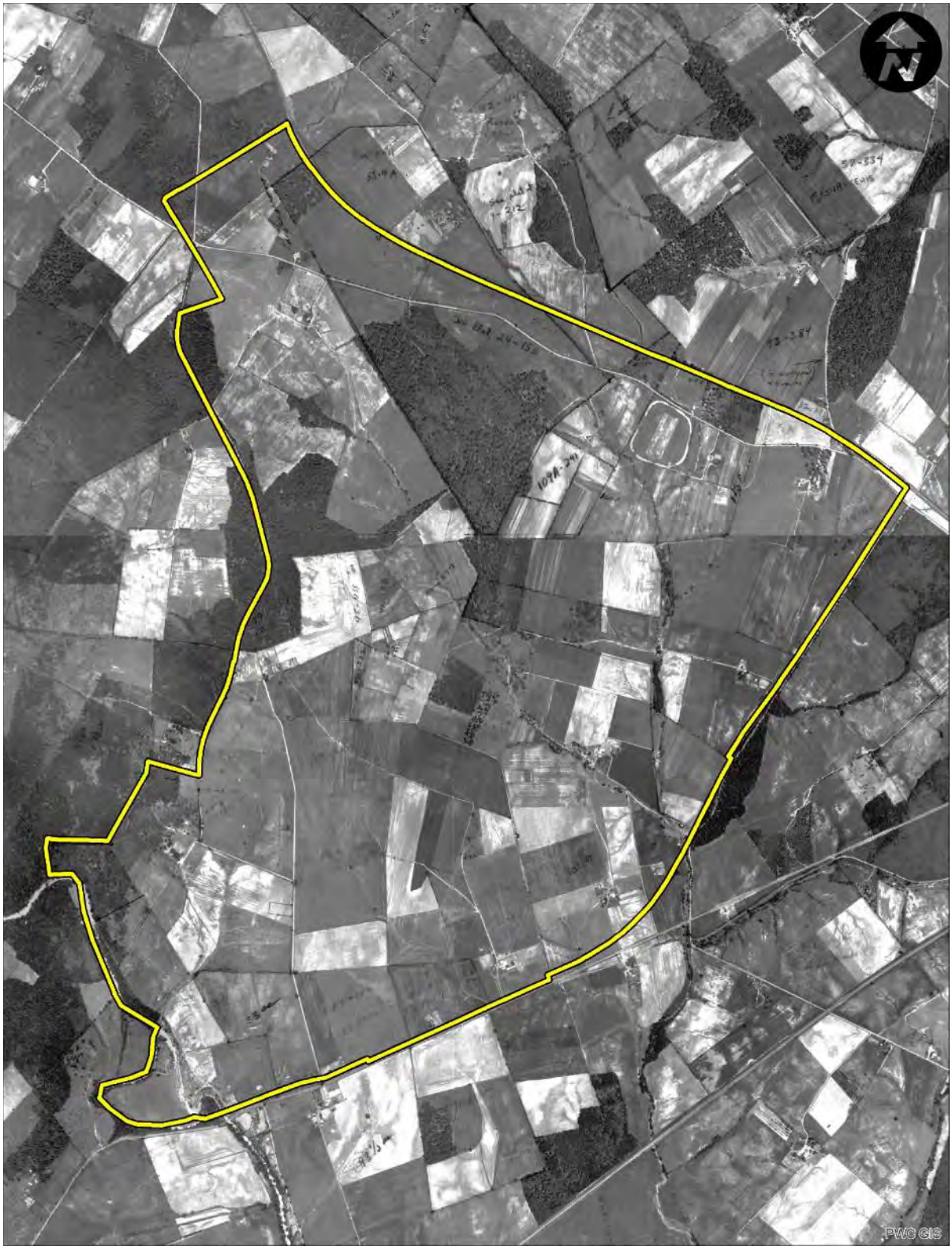


Figure 9: 1937 Aerial Photograph, Soil Conservation Service, Not to Scale

Source: United States Soil Conservation Service (USSCS), 1937 Aerial Photography

Water Powered Grist Milling

Cultural resource surveys during the early 2000s and again in 2019 during a rezoning case, found evidence of the Milford Mill complex (mill dam, mill race and mill site) on Broad Run. The Milford mill complex was documented in land sales as early as 1781 but it is likely it was built prior to that land transfer. It was first owned by Valentine Peyton, then Henry Peyton (Valentine's son) and then willed to Timothy Peyton. It passed out of the Peyton family to Charles Ewell in 1794, where the mill complex stayed in the Ewell family until his death. It was purchased in 1837 by William Meir and remained in operation through part of the Civil War until it was damaged and rendered unusable. It was sold to John R. Hornbaker in 1866 and it is assumed that during its restoration it was converted from a waterwheel operation to a water powered turbine mill. This mill remained in operation until the first quarter of the twentieth century. [13, 14, 15] It is presence and near continuous operation from the late 1700s well into the twentieth century is evidence of the importance of the agricultural economy in this area.

[13] Crowl, Heather, David Rotenstein, Amy Barnes, Stephanie Berg, Sharon Moose, 2002, *Prince William Innovation Phase II Archaeological Evaluation, Intensive Historic property Documentation, PWC Innovation Business Park*. Prepared for Prince William County Planning, James McCoart Building, 1 County Complex Court, Woodbridge, VA 22192. Prepared by URS Corporation, 7101 Wisconsin Avenue, Suite 700, Bethesda, MD 20814.

[14] Cain, Charlotte, 2005 "Milford Mill – The Lost Landmark." *Prince William Reliquary* 4 (3): 49 - 55. On file in the RELIC room, Bull Run Regional Library, Manassas, Virginia.

[15] Patton, Justin, N.D. Field notes from survey of Milford Mill Dam. Notes on file in the Prince William County Planning Office.

Overview of Study Area Today

The major focus of the Small Area Plan is to continue to support the County's targeted industries program while enhancing and supporting the growing community. The Innovation Park area has already attracted many such businesses, as well as become a home to the science and technology campus of George Mason University, including a major performing arts center and aquatic fitness center.

According to the Council of Government (COG) projection, the population within the Innovation Park small area plan is projected to be approximately 8,000 people by 2040, based on the build-out of the existing Innovation Sector Plan. The projected employment in 2040 within the Innovation Park is 16,222 employees.

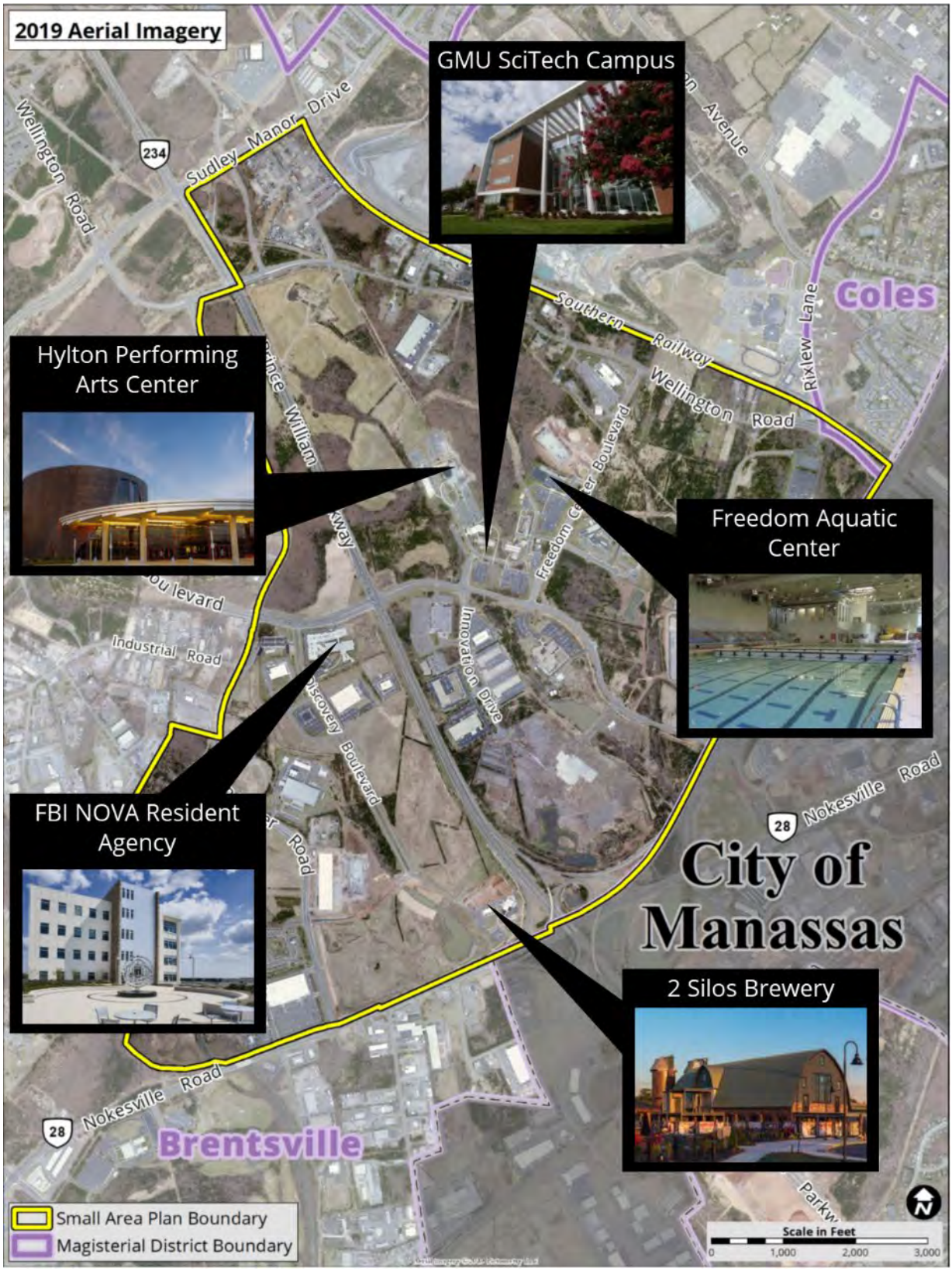


Figure 10: Innovation Park Study Area Today

Existing Land Use

The George Mason University (GMU) Science and Technology (SciTech) Campus is a key feature which is centrally located within the Innovation Park study area. The GMU campus with the Hylton Performing Arts Center and the Freedom Aquatics and Fitness Center, make this area a focal point for education, culture, and fitness. These facilities make this section of Innovation Park desirable for a Town Center which could help draw the community together not only as a place to live and work, but also as a center for learning and employment.

On both sides of Route234/Prince William Parkway to the south University Drive, a regional activity center featuring advanced technology uses has developed. These include several business and light industrial uses including software companies, data centers, a web hosting company and research facilities. Government uses are also found in this zone, including the Virginia Department of Forensic Science on Freedom Center Boulevard and a Federal Bureau of Investigation facility on Discovery Boulevard. These clustered commercial and industrial uses are primarily focused in the Employment and Technology Sectors of the Small Area Plan.

Just outside of the northwestern portion of the Innovation Park area features a variety of construction yards, automotive uses, and contractor yards, including the Broad Run Industrial Park. These commercial land uses could assist in drawing similar uses to, within, and around the study area. A shopping center located in the southwest border at Hornbaker Road and Nokesville Road is the study area's main retail feature. The Broad Run VRE station is a commuter rail station adjacent to the Manassas Airport that is 0.5 miles south of the planning area. The potential "Innovation" VRE station on Wellington Road in the northeast portion of the Small Area Plan could aid in bringing further multimodal connectivity to the area and alleviate road congestion.

Overall, the study area includes few residential uses, and has an existing resident population of 696 people. The main source of housing within the study area is the Regency apartment complex located off Hornbaker Road behind a shopping center. In addition, there are a few single-family homes scattered along Wellington Road and Hazel Circle Drive, which are planned for future non-residential uses. The GMU campus also includes some student housing which supports the student population of around 150 students.

The majority of the acreage in the study area is industrial, institutional, commercial, vacant land, agricultural or open space. Commercial property is primarily located on the north side of Route 28 and west of Hornbaker Road. There is approximately 238 acres of industrial land and 750 acres of undeveloped land. Residential housing is a mix of densities and comprises three percent of the land area. The high-density residential housing is located on Hornbaker Road and is composed of apartments. The nexus of uses would be in the GMU campus area.

Current Land Use	Land Area (± Acres)	Share of Use (± %)
Agricultural Lands	147.7	8%
Commercial	109.9	6%
Industrial	238.1	14%
Institutional	135.0	8%
Undeveloped	749.9	43%
Recreational	9.3	1%
Residential – High Density	25.8	1%
Residential – Medium Density	6.1	0%
Residential – Low Density	28.6	2%
Federal	91.6	5%
Utility	11.6	1%
State	28.7	2%
Public Right-of Way	178.8	10%
Total	**1,761.1**	**100%**

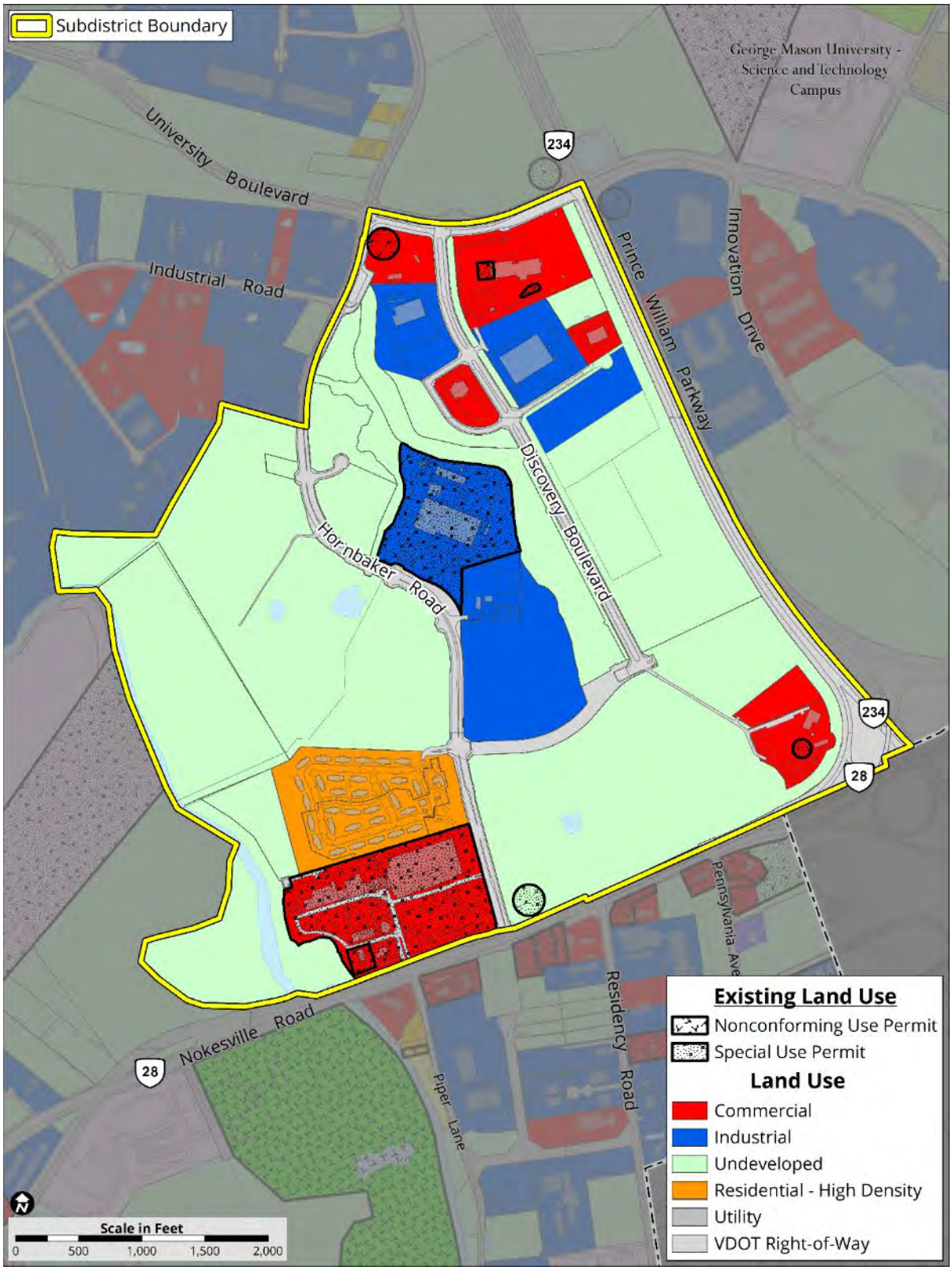


Figure 11: Existing Land Use - Employment Center

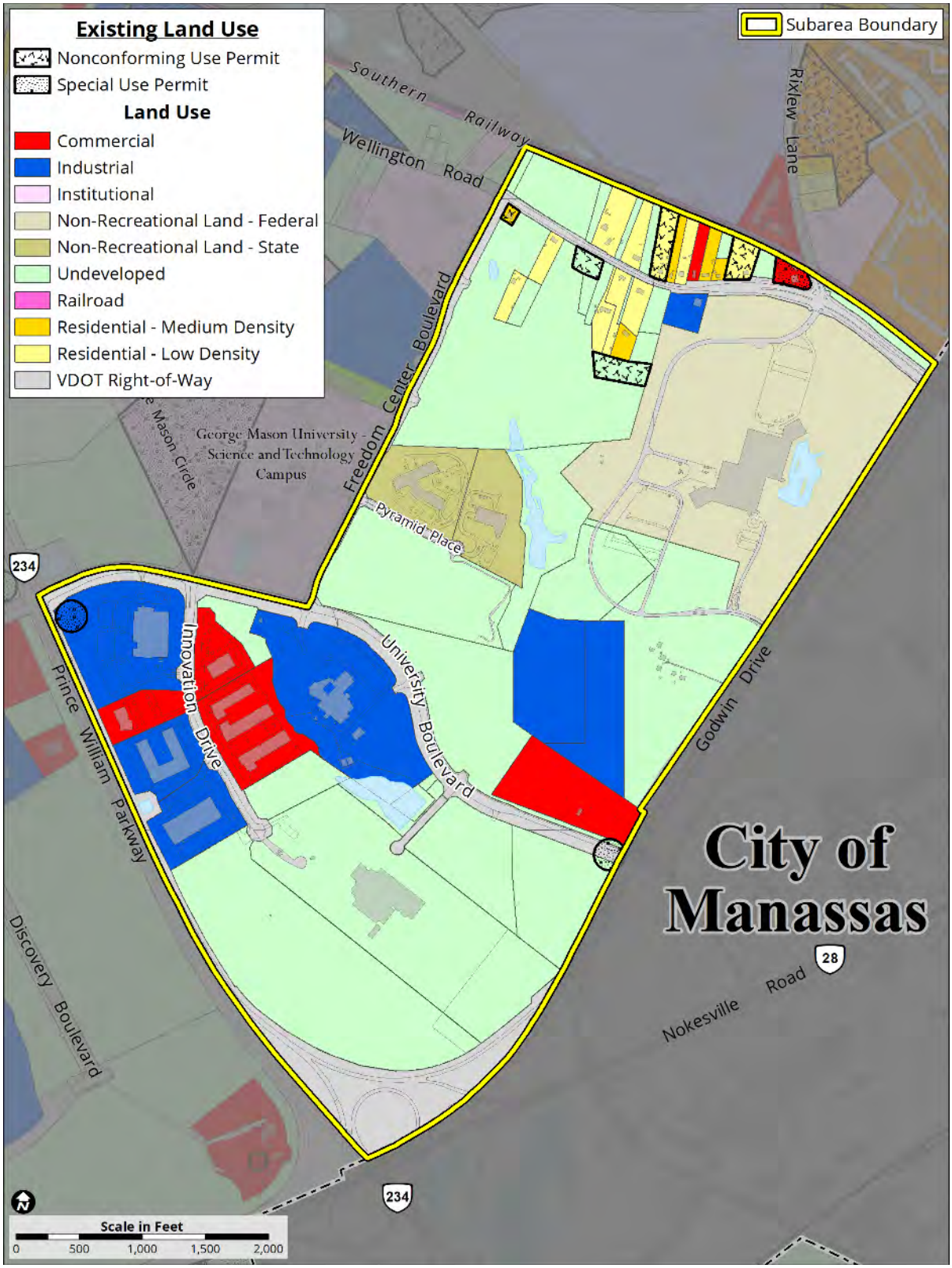


Figure 12: Existing Land Use - Technology Center

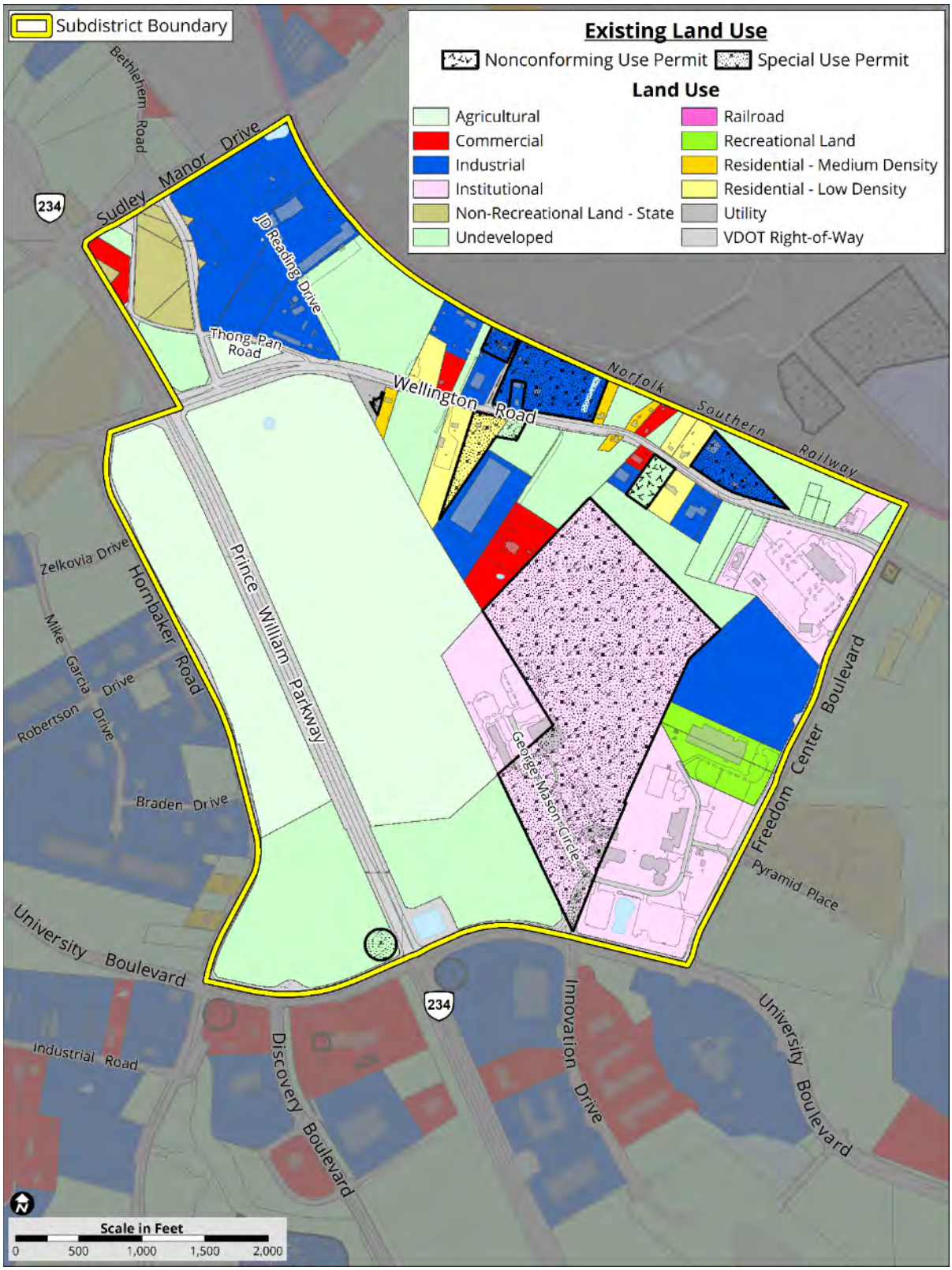


Figure 13: Existing Land Use – University Center

Existing Zoning

The Zoning Ordinance for Prince William County consists of text and a map that classifies all land into zoning districts. The Zoning Ordinance is subject to periodic revisions upon action by the Board of County Supervisors.

The study area is bounded by the Route 28 on the south and lies on both sides of the Prince William County Parkway, State Route 234, which runs north/south bisecting the Small Area Plan. Sudley Manor Drive provides the boundary to the north, Norfolk Southern Railroad provides the eastern boundary, and Hornbaker Road provides the western boundary. This Small Area Plan is comprised of approximately 1761 acres with seven different zoning designations ranging from agricultural to heavy manufacturing. There are also four existing zoning overlay districts that impact the development of this study area,

The most significant overlay district is the Technology Overlay District (TeOD) which covers both the existing Innovation Sector Plan and the Innovation Park Small Area Plan. The existing Innovation Land Use Sector Plan serves as a guide to the current physical development of Innovation. The plan is implemented by the Technology Overlay District (TeOD) in the Zoning Ordinance. This district is intended to promote harmonious development which is conducive to establishing and maintaining collaborative public-private research partnerships. The district was designed to promote those nonresidential uses that support and enhance the activities of the major public institution and that respond to the County's targeted industries program. In addition, the district was designed to provide for residential dwelling units for people primarily associated with the targeted industries and the major public institution. The district also provides for compatible nonresidential service uses needed to support the overall public-private research environment.

The district is specifically intended to provide for primary employment uses consistent with the County's targeted industry program. These primary employment uses include research facilities, offices, prototype production facilities, and other light manufacturing operations that require the continual or recurrent application of advanced research.

The existing zoning map reflects both the zoning designation and the TeOD sub-district designations.

For the purposes of achieving the purpose and intent, as set forth in Section 32-506.01, the following overlay zone subdistrict designations are established to act as subdistricts within the overall overlay district.

> *Town Center Mixed Use (TM)* —In addition to providing for primary employment uses consistent with the County's targeted industry program, the TM subdistrict is intended to provide for an integrated mix of supporting uses that create a central focus and land use anchor for the TeOD. These supporting

uses may include public, retail, lodging, conference center and multifamily residential uses.

Commerce Office/R&D High Profile (CH) —The CH subdistrict is intended to provide primary employment uses including office, office-oriented R&D, and labs.

Commerce Office/R&D (CO) —The CO subdistrict is intended to provide primary employment uses including office, office-oriented R&D, and labs.

Higher Education Office/R&D (HO) —The HO subdistrict is intended to provide university-related office, office-oriented R&D, and labs.

Employment Center Office/R&D High Profile (EH) —The EH subdistrict is intended to provide primary employment uses including office, office-oriented R&D, and labs.

Employment Center Office/R&D (EO) —The EO subdistrict is intended to provide primary employment uses including office, office-oriented R&D, and labs.

Employment Center R&D/Light Manufacturing (EL) —The EL subdistrict is intended to provide primary employment uses including industrially-oriented R&D, flexible use space, light manufacturing, office-oriented R&D, and office.

Employment Center R&D/Manufacturing (EM) —The EM subdistrict is intended to provide primary employment uses including industrially-oriented R&D, manufacturing, light manufacturing, office-oriented R&D, and office.

Employment Center Data Center (ED) —The ED subdistrict is intended to provide primary employment uses including data centers and computer services, and office. 0.30 FAR minimum to 0.50 FAR maximum.

Commercial Retail (CR) —The CR subdistrict is intended to provide retail uses including retail, hotel, and office. Maximum building of 70 feet and 0.40 FAR maximum. For a hotel or motel, the FAR can be increased to a 0.80 maximum.

Residential Multifamily (RM) —The RM subdistrict is intended to accommodate existing multifamily residential uses.

Public Facilities (PF) —The PF subdistrict is intended to provide public facilities uses that support the TeOD such as police stations, fire and rescue stations, and libraries.

Commerce Transit Station (CT) —The CT subdistrict is intended to provide a transit facility and other uses that are compatible with a transit facility.

Zoning designations within the Small Area Plan planning area include Planned Business District (PBD), allowing a mix of commercial, research and development, and office uses on large parcels, additionally there exists retail, residential, manufacturing, and agricultural zoning. Portions of the planning area are also affected by four overlay

zoning districts including the Technology Overlay District (TeOD), Data Center Opportunity Zone Overlay District, the Airport Safety Overlay District and Highway Corridor Overlay Districts, each designed to address specific opportunities or conditions within the area.

Over the years the County has coordinated or participated in numerous planning efforts for the Innovation Park study area. On January 10, 2012, the County adopted the Innovation Park Sector Plan which has helped develop an advanced technology business environment. Prince William County has also participated in the 2009 GMU Innovation Study which included a market analysis and planning efforts to encourage development of a future University Center. Most recently, Prince William County commissioned a 2017 study which analyzes the mixed-use potential and multimodal connectivity in the vicinity of a potential Virginia Railway Express (VRE) station in the Innovation area.

This Small Area Plan is intended to synthesize previous planning efforts as well as present recommendations to streamline regulations within the Innovation Park study area and encourage development to realize the desired University Center, Technology Center, and Employment Center with a common goal of creating a multimodal, interconnected community with a strong sense of place.

A key strategy to realize the vision of the Small Area Plan is to provide redevelopment incentives to spur desired development. The current zoning does not serve to promote the central vision for the study area. The challenge for the Innovation Park is to use its zoning regulations to promote a sense of place in each of the proposed five transect areas. Well-defined districts help residents and visitors navigate their surroundings which support local businesses and strengthen the multimodal transportation network.

The focus of transformational change for this Small Area Plan is the planned University Center. The area proposed for the University Center is a mixture of properties zoned A-1, Agricultural, B-1, General Business, M-1 and M-2, Heavy and Light Manufacturing respectively and PBD, Planned Business District. The numerous large tracts in this area are prime candidates for focusing redevelopment, in part, due to a prevalence of vacant or underutilized properties.

The General Business District, B-1, is intended to provide areas for community-scale retail, office, and institutional uses in appropriate areas. The B-1 district provides for a wide range of commercial uses, many of which would not be compatible with a mixed-use, pedestrian-oriented place.

The Planned Business District, PBD, a mixed-use zoning district designation provides a single zoning district that promotes an integrated business community intended to provide for the flexibility of design necessary to implement the economic development goals and objectives of the County as set forth in the comprehensive Plan. More specifically, it is intended to implement the regional employment center, office, and flexible use employment center land use classifications of the Comprehensive Plan.

Current development guidelines for PBDs encourage development which will produce a campus/park atmosphere or an integrated center of commerce and industry, by establishing development standards for building setbacks, lot coverages, and permitted uses and encourage designs which will promote pedestrian access to support facilities, preserve trees and other environmental amenities. This district promotes an efficient use of utilities, infrastructure, and transportation systems to develop the site that promotes economical and efficient land use, an enhanced level of amenities, and a variety in physical development and creative design.

There is a substantial amount of M-1, Heavy Industrial, and M-2, Light Industrial, zoning in the Small Area Plan largely in the Technology Center and University Center areas of the Plan. The manufacturing districts do not align with the goals and visions for the University Center Area. These zoning districts are more aligned with the Tech/Flex areas designated on the Land Use Plan of the Small Area Plan, largely along the perimeter of the Small Area Plan.

The residential zoning, within the study area boundaries, is in two areas. A ± 26-acre R-16, (residential at 16 dwelling units per acre) parcel at the southwest corner of the Small Area Plan generally lies north of Route 28 and west of Hornbaker Road. Numerous residential parcels, zoned A-1, lie along both sides of Wellington Road in the eastern portion of the study area.

The Data Center Opportunity Zone Overlay District (DCOZ), which covers the majority of the study area, was created for the purpose of promoting development of data centers within areas of the County where there is existing infrastructure that could adequately support the proposed use. This District continues the County's efforts to attract and advance high-tech industrial development while limiting negative impacts to communities. This District overlays the existing zoning district. The regulations and requirements of the underlying zoning district and the Data Center Opportunity Zone Overlay District both apply, provided however, that when the regulations applicable to the Data Center Opportunity Zone Overlay District conflict with the regulations of an underlying zoning district, the Data Center Opportunity Zone Overlay District regulations shall apply. Data centers shall be prohibited in agricultural, residential, PMR, B-2, B-3, and V districts. The Data Center use is not a preferred use in the University Center where the desire is to create a mixed use, multimodal, pedestrian friendly community.

Route 28, Nokesville Road is in the Highway Corridor Overlay District (HCOD). This zoning overlay designation limits some uses, reduces the size and height of signage, requires landscape buffers and screening along the street, and limits direct access.

The Innovation Park Small Area Plan is largely falls within the Airport Safety Overlay District which is established in recognition of airport related hazards which may endanger lives and property; obstructions which effectively reduce air space required for aircraft take-off, landing, and maneuvering which reduce the utility of the Manassas Regional Airport and the public investment therein. This district shall be in addition to

and shall overlay all other zoning districts where it is applied so that any parcel of land lying in the airport impact overlay district shall also lie in one or more of the other zoning districts provided for by this ordinance. The effect is to create a new district which has the characteristics and limitations of the underlying district, together with the characteristics and limitations of the overlay district. It is the intent of this overlay district to regulate vertical encroachment obstructions within the airport protection area.

There exists 5,362,861 of non-residential, gross floor area in square feet, and an estimated 5,418 employees in the study area. Under the current approved zoning, the table below shows 5,107,012 gross floor area in square feet of approved non-residential remaining to be built. None of this approved zoning has been built, leaving 5,107,012 of non-residential gross floor area in square feet remaining to be built. There are 311 existing residential units in the study area. There are currently no approved residential units remaining to be built.

Major Zoning Case/Project Name	Approved Building Area	Remaining to be built
8534 Wellington Road Rezoning	45,614 SF GFA	45,614 SF GFA
Alliance Moving	29,000 SF GFA	29,000 SF GFA
Broadview Center	409,927 SF GFA	409,927 SF GFA
Earl's Autobody	49,400 SF GFA	49,400 SF GFA
Eli Lilly	189,055 SF GFA	189,055 SF GFA
Eli Lilly at Innovation	1,147,720 SF GFA	1,147,720 SF GFA
Gaskins	52,262 SF GFA	52,262 SF GFA
IBM	356,185 SF GFA	356,185 SF GFA
Innovation at PW	2,126,327 SF GFA	2,126,327 SF GFA
Innovation Executive Center	14,872 SF GFA	14,872 SF GFA
Mauck	71,302 SF GFA	71,302 SF GFA
Moore	146,362 SF GFA	146,362 SF GFA
Sarah Center	21,600 SF GFA	21,600 SF GFA
USTA at Innovation	307,000 SF GFA	307,000 SF GFA
Virginia Crane Rental, Inc.	70,486 SF GFA	70,486 SF GFA
Wellington Square	19,900 SF GFA	19,900 SF GFA
Wellington Station	50,000 SF GFA	50,000 SF GFA
Total	**5,107,012 SF GFA**	**5,107,012 SF GFA**

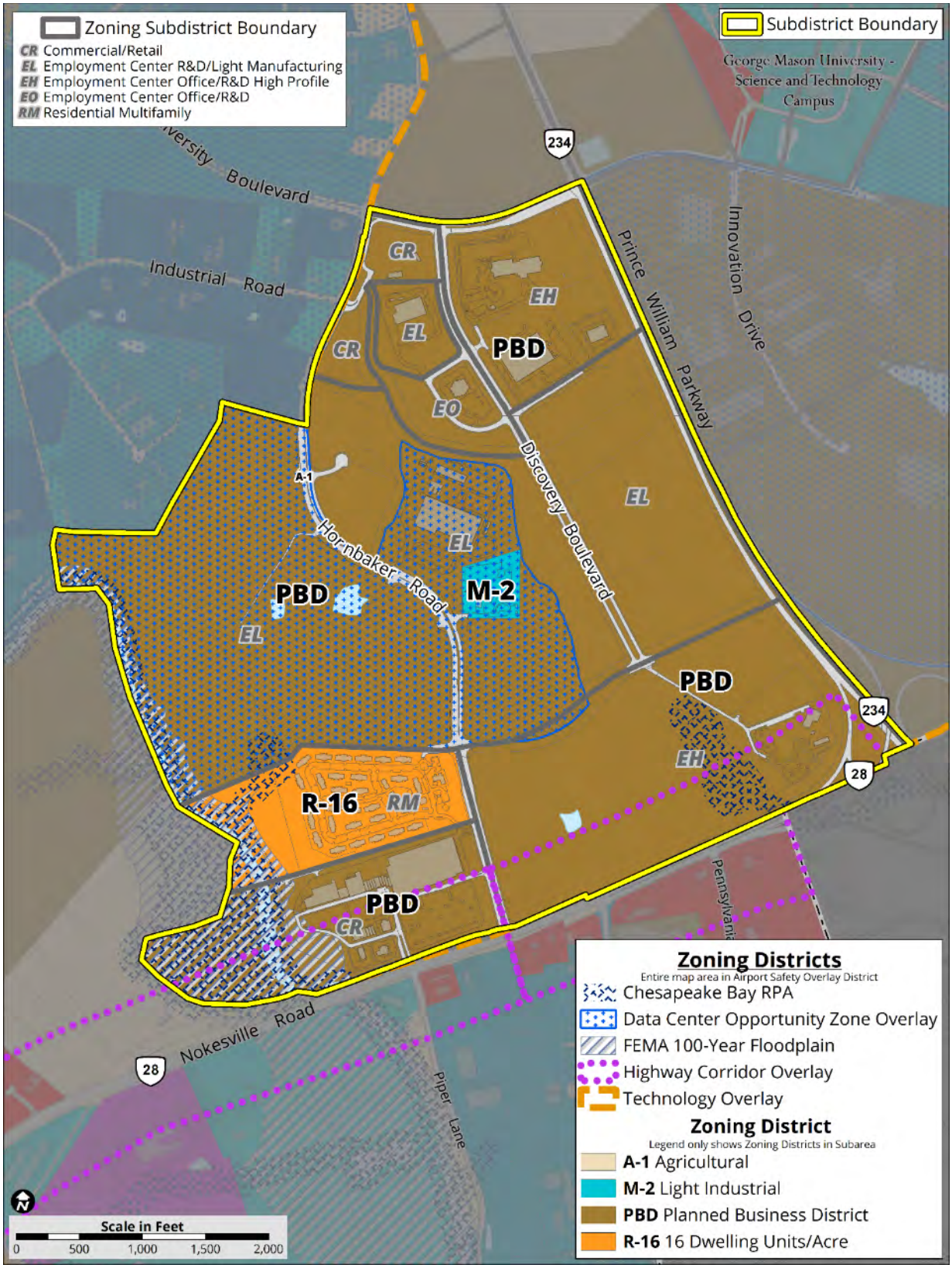


Figure 14: Existing Zoning - Employment Center

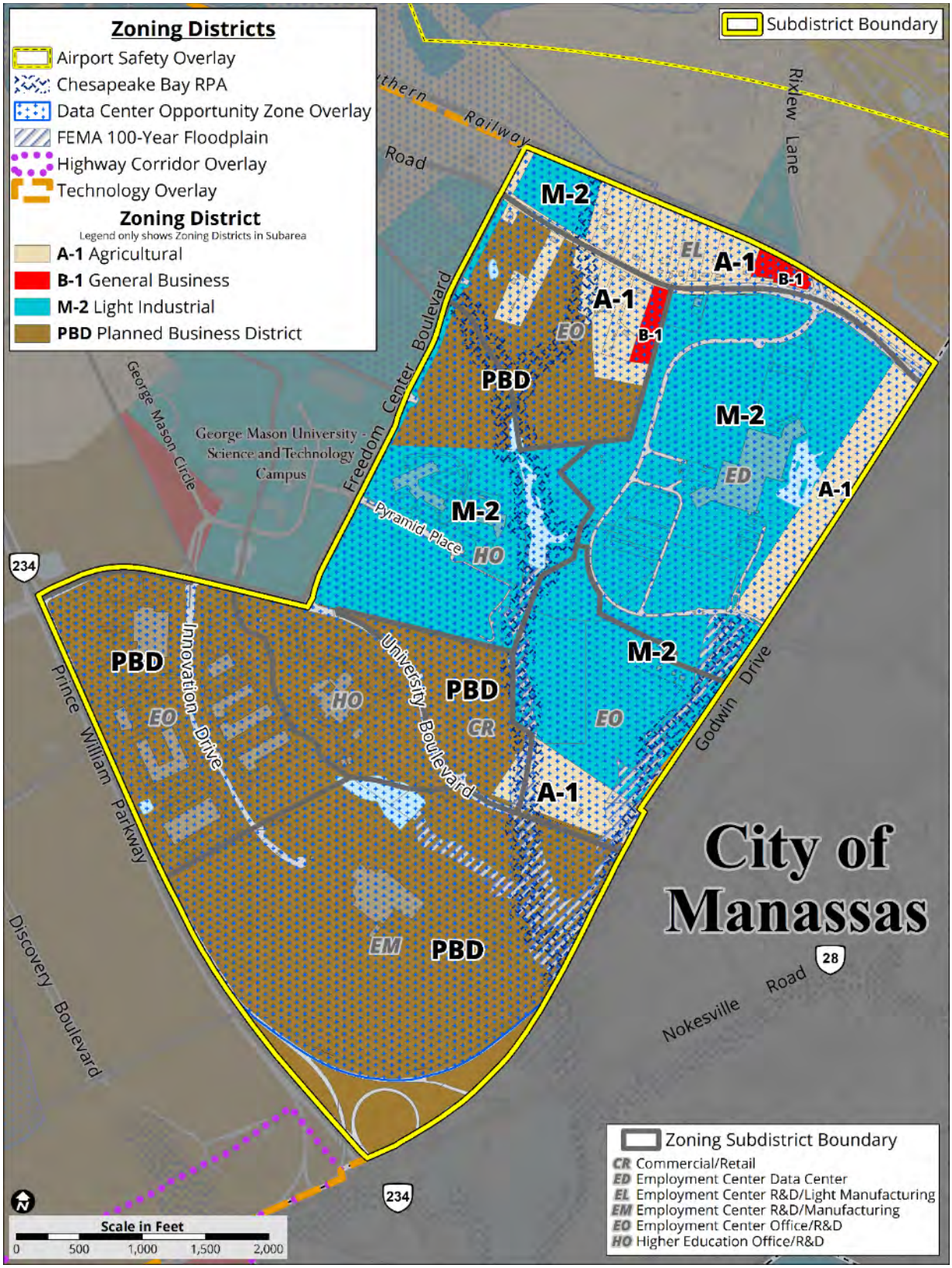


Figure 15: Existing Zoning – Technology Center

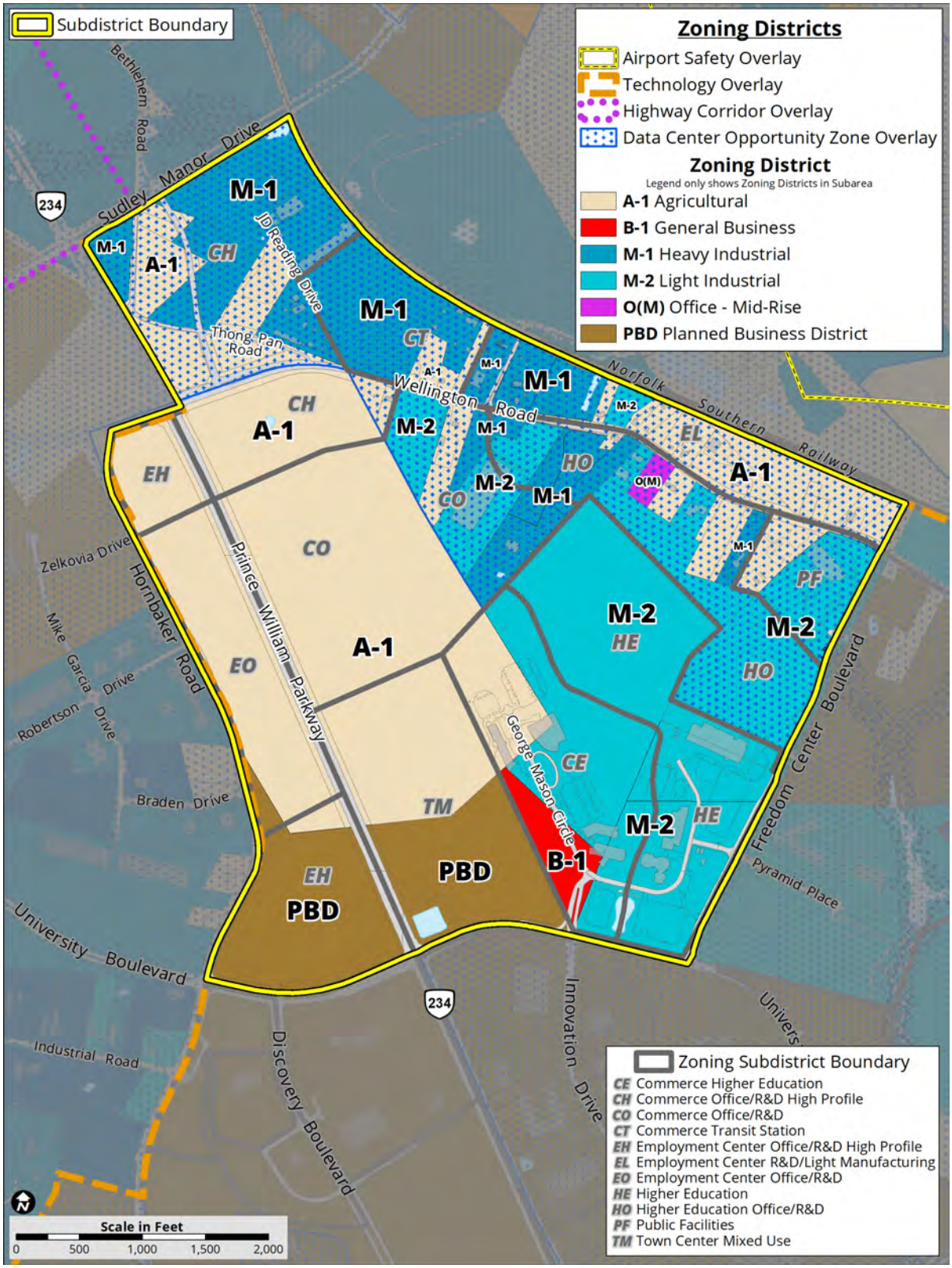


Figure 16: Existing Zoning – University Center

Existing Mobility

The Mobility Plan in the Innovation Park Small Area Plan consists of a hierarchy of roads, pedestrian and bicycle facilities, transit, and commuter services. Innovation Park currently consists primarily of large facilities on large parcels and is decidedly automobile- oriented. However, multimodal transportation infrastructure does exist.

Road and Highway Network

The County's comprehensive plan provides a hierarchical street classification system that distinguishes streets based on their ability to move automobile traffic and provide access to adjacent properties. It identifies five types of roadways based on access, the number of lanes, right of way width, speed, and bike and pedestrian facilities. Roads are classified as freeway/interstate, parkways, principal arterials, minor arterials, and major collectors. Local roads are not included in the roadway classification. Local streets primarily exist in residential areas. They are typically low- speed roads with low traffic volume that support safe travel for pedestrians and bicyclists.

The County's Design and Construction Standards Manual's (DCSM) roadway classifications help dictate vehicular throughput and speed. The collector and minor arterial roadways have the most access points with relatively lower speeds than other classifications. The major collectors and minor arterials connect residential and commercial areas. Major collectors include Freedom Center Boulevard and Hornbaker Road. The minor arterials are University Blvd., Wellington Road, and Sudley Manor Drive. The principal arterials have fewer access points, but more vehicular throughput and higher speeds. Prince William Parkway and Route 28 are principal arterials. The local, major collector and minor arterial roads have the greatest potential to promote the local identity and reflect a sense of place through context sensitive design.

Route 234/Prince William Parkway bisects the study area and provides intra-County connections to the employment areas of the Innovation Park study area as well as connections to the City of Manassas. Within the study area, Route 234 is a four-lane divided parkway. In addition to serving local traffic needs, Route 234 also provides an important regional connection between I-95 and I-66 located outside of the study area.

University Boulevard intersects with Route 234 and provides access to the GMU campus as well as the industrial and commercial areas in Innovation Park. University Boulevard to the east of Route 234 is a two-lane roadway while the section to the west of Route 234 is a four-lane divided minor arterial.

Wellington Road also provides connections within the study area. Throughout most of the study area, Wellington Road is one lane in each direction and provides access to residential lots and industrial areas as well as connections to Route 234 and the City of Manassas. The table below provides the latest available traffic count information for key roads in the study area:

Road	Classification	2019 VDOT Annual Average Daily Traffic Counts
Route 234 (Prince William Parkway) from Dumfries Road to Nokesville Road (Route 28)	Principal Arterial	43,000
Route 234 (Prince William Parkway) from Nokesville Road (Route 28) to Wellington Road	Principal Arterial	43,000
Freedom Center Blvd. (Route 842) from Wellington Road to University Boulevard	Major Collector	4,300
Hornbaker Road (Route 660) from Nokesville Road to Wellington Road	Major Collector	6,000
Nokesville Road (Route 28) from Piper Lane to WCL of Manassas	Principal Arterial	40,000
Sudley Manor Drive (Route 1566) from Ashton Avenue to Route 234	Minor Arterial	30,000
Wellington Road (Route 674) from Route 234 to Rixlew Lane	Minor Arterial	12,000
Wellington Road (Route 674) from Rixlew Lane to WCL Manassas	Minor Arterial	18,000

The roadway network within the study area helps to disperse traffic and create a sense of place. However, as development continues, the network will benefit from improved connectivity and Urban Street typical sections.

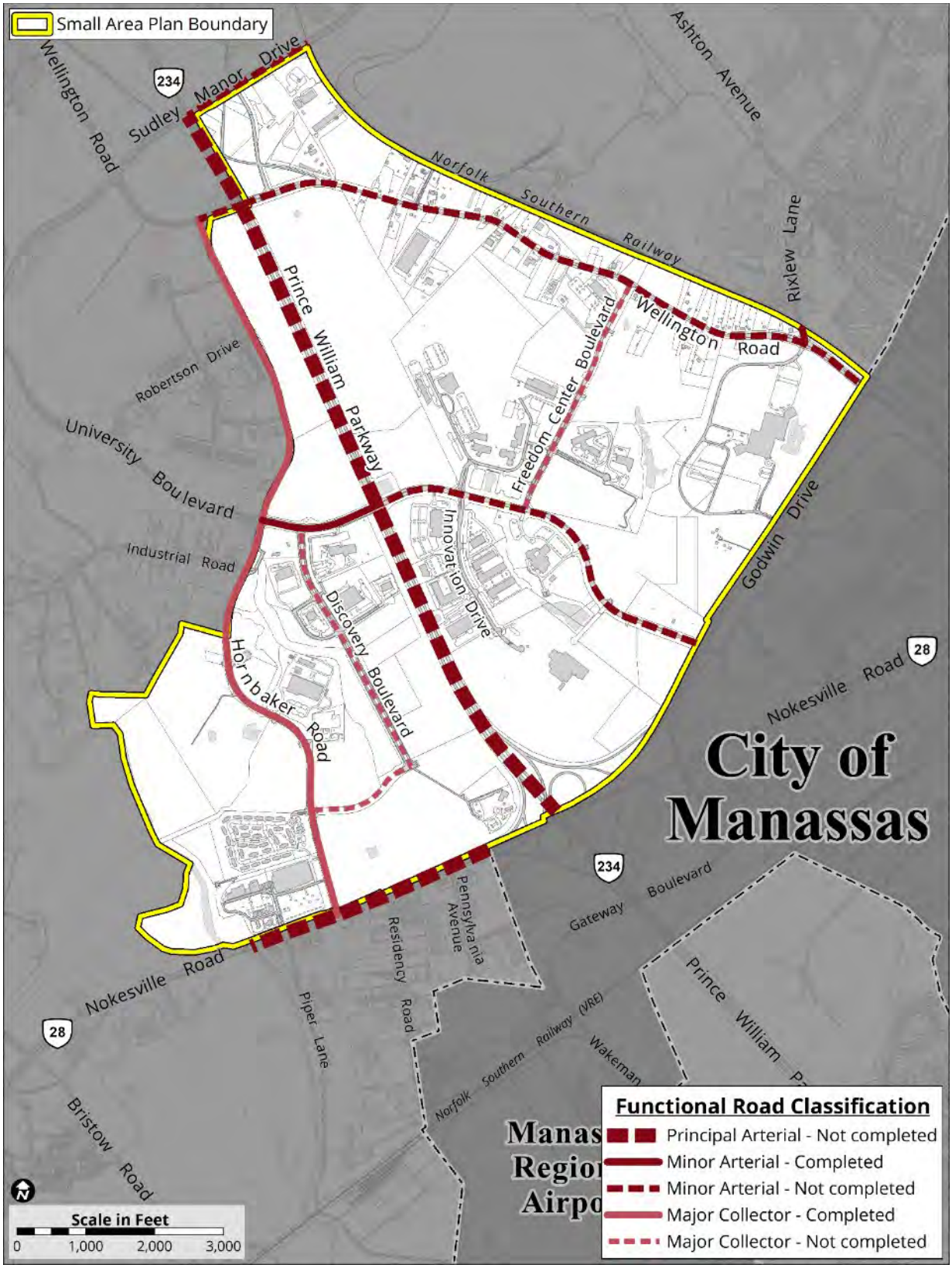


Figure 17: Existing Road and Highway Network

Transit and Commuter Parking Network

The study area is not directly served by local or commuter bus service, commuter parking facilities, rail or commuter rail (Virginia Rail Express-VRE). However, transit and commuter parking is located nearby.

Commuter rail is available at the Broad Run and Manassas VRE stations. The closest station is the Broad Run station approximately 0.5 miles south of the Small Area Plan. This station is the western terminus of the VRE Manassas Line, and offers commuter train service during the morning and afternoon peak hours to and from employment areas in eastern Fairfax County, the City of Alexandria, Crystal City and Washington, D.C. The station is not currently accessible to pedestrians or bicyclists and is not near existing neighborhoods, but serves commuters arriving by car. The majority of the Manassas Line operates on a portion of the Norfolk Southern Railroad and any new use must accommodate freight rail use. The VRE System Plan 2040, adopted by the VRE Operations Board in 2014, recommended expansion of VRE service to serve a broader market than its current commuter focus including more frequent peak period, peak direction service, additional midday service, and bi-directional/reverse peak service. More information on the System Plan is on the VRE website at https://www.vre.org/development/system-enhancements/20401/.

VRE is pursuing the System Plan service goals in partnership with DRPT, focused on advancing the expansion of the Long Bridge across the Potomac River, a capacity expansion critical to realizing expanded VRE operations. In 2019 the Commonwealth of VA entered in-to an agreement with CSXT, who owns the existing Long Bridge and adjacent rail corridor, to purchase 350 miles of ROW within the CSXT Virginia system and expand rail capacity in the CSXT corridor including 37 miles of 3rd/4th track and a new two-track Long Bridge over the Potomac River. VRE will gain the ability to expand service towards achieving the vision outlined in the System Plan, including greater frequency peak service and weekend service, upon completion of the rail infrastructure improvements outlined in the agreement. The following link provides information on the agreement: http://www.drpt.virginia.gov/rail/transforming-rail-in-virginia/.

The Potomac and Rappahannock Transportation Commission (PRTC) is a multi-jurisdictional agency representing Prince William County, City of Manassas, Manassas Park, Stafford and Spotsylvania Counties and the City of Fredericksburg. The first three members listed financially support bus and rail services, while the remaining three support rail services only. PRTC provides commuter bus service along I-95 to points north through its OmniRide service. OmniRide's goal is to provide safe, reliable, and flexible transportation options while helping to reduce congestion and pollution in one of the region's fastest growing areas. OmniRide's headquarters are located about 25 miles southwest of Washington, D.C. OmniRide service from the commuter lots terminates at points in Washington, D.C., the Springfield – Franconia Metro Station, the Pentagon, the Vienna Metro Station, Rosslyn, and Ballston. PRTC offers local bus

services in Prince William County and the cities of Manassas and Manassas Park through its OmniRide & Cross County Connector services. Access to these transit services are available less than 1 mile to the east on Ashton Avenue and Sudley Road.

There are five large existing commuter lots in the vicinity of the Innovation Small Area Plan as shown on the following table.

Commuter Lot	Parking Spaces (Total)	Accessible Spaces	% Accessible spaces	Transit Service	Bicycle Accommodations
Broad Run/Airport Commuter Rail Lot	1080	27	2.5	Yes	Bike Racks
Cushing Road Commuter Lot	433	13	3.0	Yes	Bike Racks
University Boulevard Commuter Lot*	1,000	31	3.1	Yes	Bike Racks
Manassas Mall Commuter Lot	216	0	0	Yes	None
Portsmouth Road Commuter Lot	632	11	1.7	Yes	Bike Racks

*The University Boulevard Commuter Lot is currently under construction with 1,000 spaces in operation. The lot is projected to be completed in 2022 with a total of 2,050 spaces with 35 accessible spaces.

These commuter lots provide transit access to I-66, Route 28 and Route 234, slugline staging areas and OmniRide bus service

Transit options provide more alternatives for commuters that could increase local economic productivity and reduce traffic congestion. The limited transit opportunities within the Small Area Plan could prove a barrier to realizing the goals. As the study area continues to develop, it should seek to improve its transit connectivity and access.

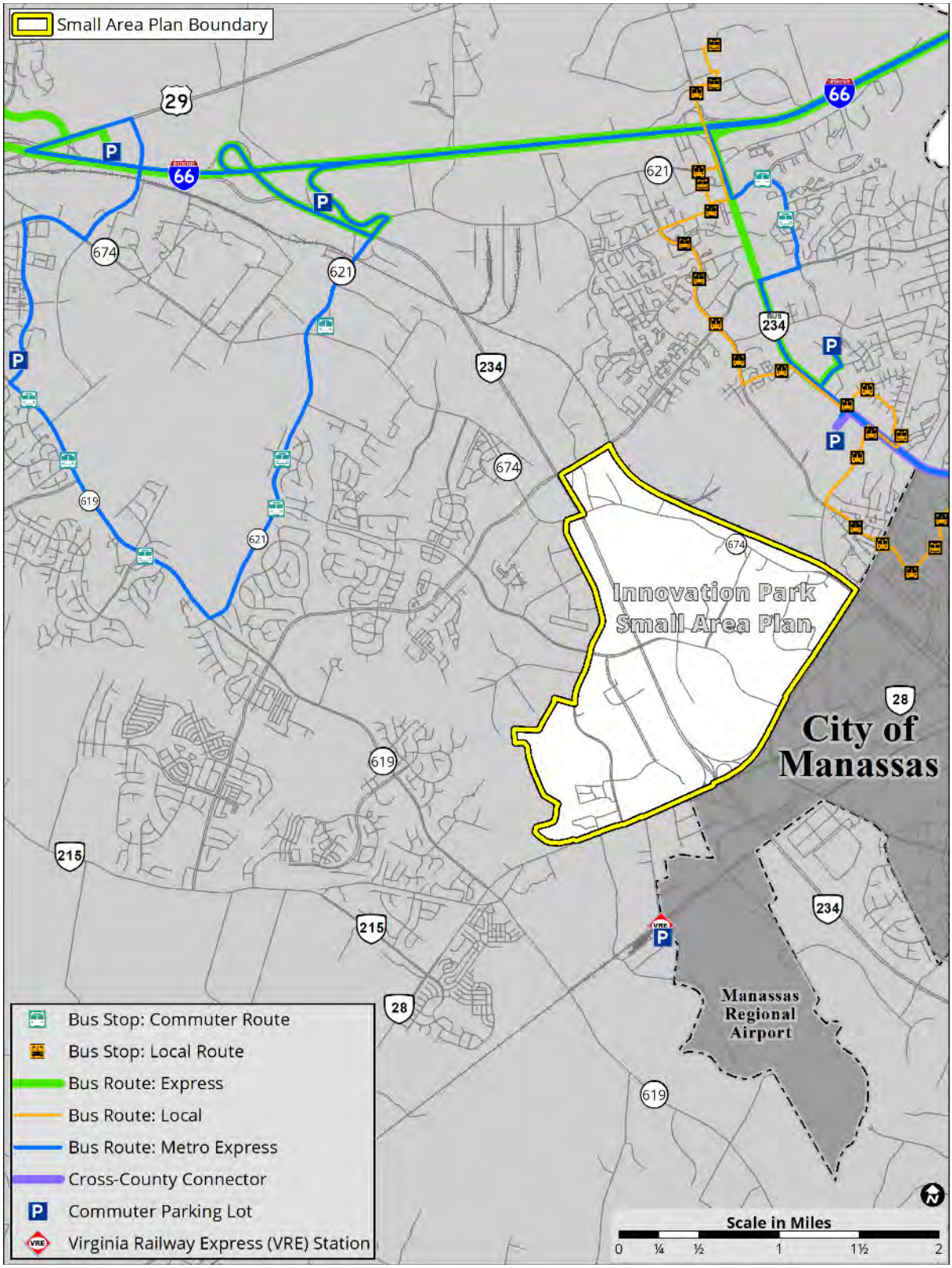


Figure 18: Existing Transit and Commuter Parking Network

Bicycle and Pedestrian Network

The County's Bicycle Gap Analysis map reflects the need for shared use and bicycle infrastructure along all roads that are classified as collectors and above. Shared use paths are typically planned as 10-foot wide asphalt paths providing access for both pedestrians and bicyclists separate from vehicular traffic. Existing bike trails in the Innovation Park Small Area Plan are shown in Figure 19. They are currently located along the:

- West side of Freedom Center Boulevard.
- West side of Hornbaker Road between Thomasson Road and Route 28.
- North side of University Boulevard between Hornbaker Road and Prince William Parkway.
- South side of University Boulevard between Prince William Parkway and Innovation Drive.

Sidewalk facilities are currently in place or under construction along the:

- West side of Hornbaker Road between Wellington Road and Thomasson Road.
- South side of University Boulevard between Hornbaker Road and Prince William Parkway.
- North side of University Boulevard between Prince William Parkway and Route 28.
- East side of Freedom Center Boulevard between Pyramid Place and University Boulevard.
- West side of Discovery Boulevard between University Boulevard and Asset Loop.
- West side of Innovation Drive.
- Route 28 between Piper Lane and Pennsylvania Avenue

There are numerous gaps in the pedestrian network in the study area. Additionally, pedestrian crossings are challenging for pedestrians crossing Prince William Parkway and Route 28.

Multimodal connectivity is an important element in transportation equity. The provision of bicycle and pedestrian facilities along with robust and dependable transit can help improve access to jobs, educational institutions, and other resources for low income communities. The challenge is providing further connections as the area develops and re-develops.

The County's 2008 Comprehensive plan includes action strategies aimed at incorporating and promoting the use of Crime Prevention Through Environmental Design (CPTED) concepts in the design of all transportation projects including, but not limited to, linear parks, greenways, bike and pedestrian paths, and mass transit sites. In support of these action strategies, several entities have worked together to establish a connected bicycle and pedestrian network.

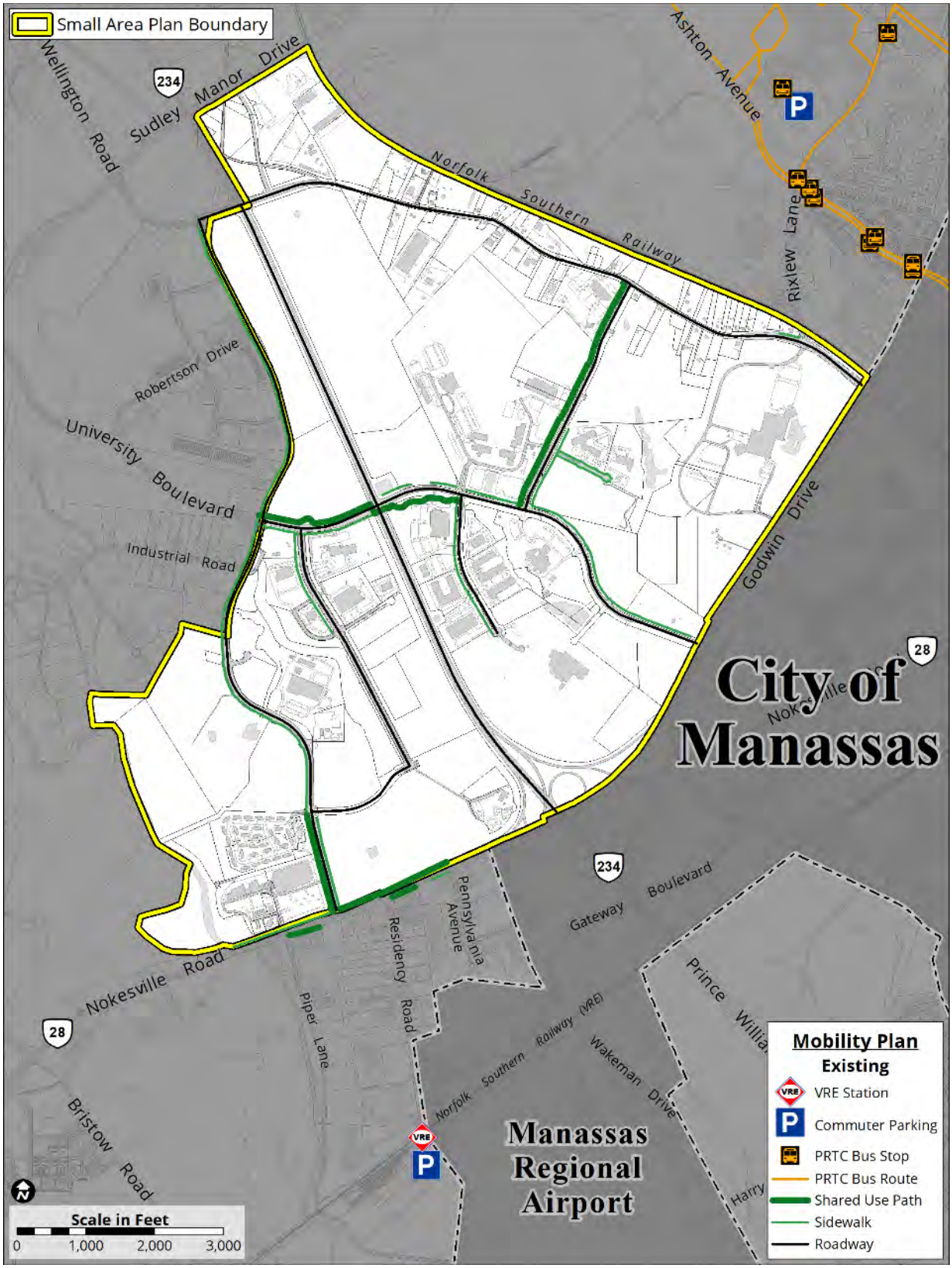


Figure 19: Existing Mobility Network

Manassas Regional Airport

The Manassas Regional Airport is located at 10600 Harry Parrish Boulevard in Manassas, Virginia and includes 889 acres consisting of 156 hangers and 141 tiedowns for aircraft. The airport is the busiest General Aviation (GA) Airport in the Commonwealth of Virginia because of its over 400 based aircraft, 230 daily operations, and over 85,000 annual aircraft operations. Since its opening in 1932, the Manassas Regional Airport has been a key contributor to the local economy and contributes over $375 million annually to include1,351 jobs and $117,438,000 in wages.

The airport is reported to be one of the 84 National General Aviation airports by the Federal Aviation Administration (FAA) The airport is designated as a general aviation reliever airport in the 2019-2023 National Plan of Integrated Airport Systems (NPIAS) and is designed in part to provide capacity relief for the heavily congested airspace around Reagan-National and Dulles International Airports. This category also represents the funding category for the distribution of Federal aid.

Manassas Regional Airport is owned by the City of Manassas, Virginia, which is governed by a council-manager system of government. The Manassas Regional Airport Commission serves as the elected governing body that is responsible for legislative functions such as establishing policy, passing local ordinances, voting appropriations, and developing an overall vision. The Commission is comprised of ten appointed members. A total of eight members are nominated and appointed by the City of Manassas City Council, and two members are nominated by the Prince William County Board of Supervisors and appointed to the Commission by City Council. The Airport Commission also appoints a professional director to oversee the administrative operations.

Manassas Regional Airport Strategic Plan

The City of Manassas has the vision to create a community that takes pride in history, neighborhoods, schools, and the economy. The Manassas Regional Airport contributes to that vision and provides facilities and services for both business and general aviation in the area. The 2019 Manassas Regional Airport Strategic Plan Draft focuses on safe, modern facilities, financial self-sufficiency, actively engaging stakeholders, and managing environmental impacts. The Commission is also seeking to explore options for potential future hangar expansion to include the Northeast and Southside Hangars.

Marketing Plan

The Commission working on a Marketing Plan update with the Business objective to increase aircraft operation to over 100, 000 in 5 years to included 60% of operations to be transient and 40% to be local. Marketing expansion goals have been set to educate the market on the benefit of the Airport. Marketing efforts will include digital ads, print ads, social media, media plans, and the addition of a new LOVE sign. The sign is intended to encourage people to learn about airplanes and airplane parts as well as share in the love of aviation.

Existing Utility Infrastructure

The connectivity of public utilities in and around the Innovation Park planning area is reflected on Figures 19-21 which show the connection between high voltage transmission lines, and service authority sewer and water lines.

The action strategies of the Comprehensive Plan aim to have all new development in the Development Area connected to public sewer and all existing development to be adequately phased to connect to public sewer as needed. Similarly, all future development will size the extension and expansions of public water facilities to serve the demand created.

Public utility infrastructure provides electricity, drinking water and sewer services for residential and commercial uses, and communications networks. Within the study area, water distribution is provided through the Prince William County Service Authority facilities. Countywide, there are 22 water towers and 15 water booster stations. There are no water towers or water booster stations in the study area. The majority of the water and sewer infrastructure is dispersed throughout the study area.

There are two high voltage electrical transmission line corridors in the Small Area Plan, one in the Technology district and one in the University Center district. There are electrical distribution lines through the study area providing service to residential and commercial customers. NOVEC is the provider for the northern area and Dominion Virginia Power is the provider of electrical service for the southern portion of the study area. The high voltage electric transmission lines are shown on Figures 20-22.

Stormwater runoff control and compliance with Chesapeake Bay regulations is accomplished through a system of collection, conveyance, and temporary impoundment pond infrastructure. Chesapeake Bay stormwater regulations are focused on reducing siltation and meeting Total Maximum Daily Load for the tributaries of the Occoquan and Potomac Rivers, as these rivers ultimately feed into the Chesapeake Bay. Stormwater impacts tributaries to the rivers, the rivers and the Bay's water quality. In the undeveloped portions of the plan (over 40%) new construction needs to meet TMDL requirements.

> A Total Maximum Daily Load (TMDL) is a "pollution diet" that identifies the maximum amount of a pollutant a waterway can receive and still meet applicable water quality standards. A TMDL is the sum of waste load allocations for point sources, load allocations for nonpoint sources, and a margin of safety to account for uncertainty. Point sources include sewage treatment plants, stormwater discharges, industrial discharges, etc. Nonpoint sources include pollutants carried by rainfall runoff from forests, agricultural lands, atmospheric deposition, abandoned land mines, etc. (Source EPA.gov).

There are three telecommunication facilities in the study area and four that are within 0.5 mile of the study area's boundary.

The existing infrastructure and utility systems accommodate the current demands within the study area. Additional infrastructure may be required as new developments are constructed.

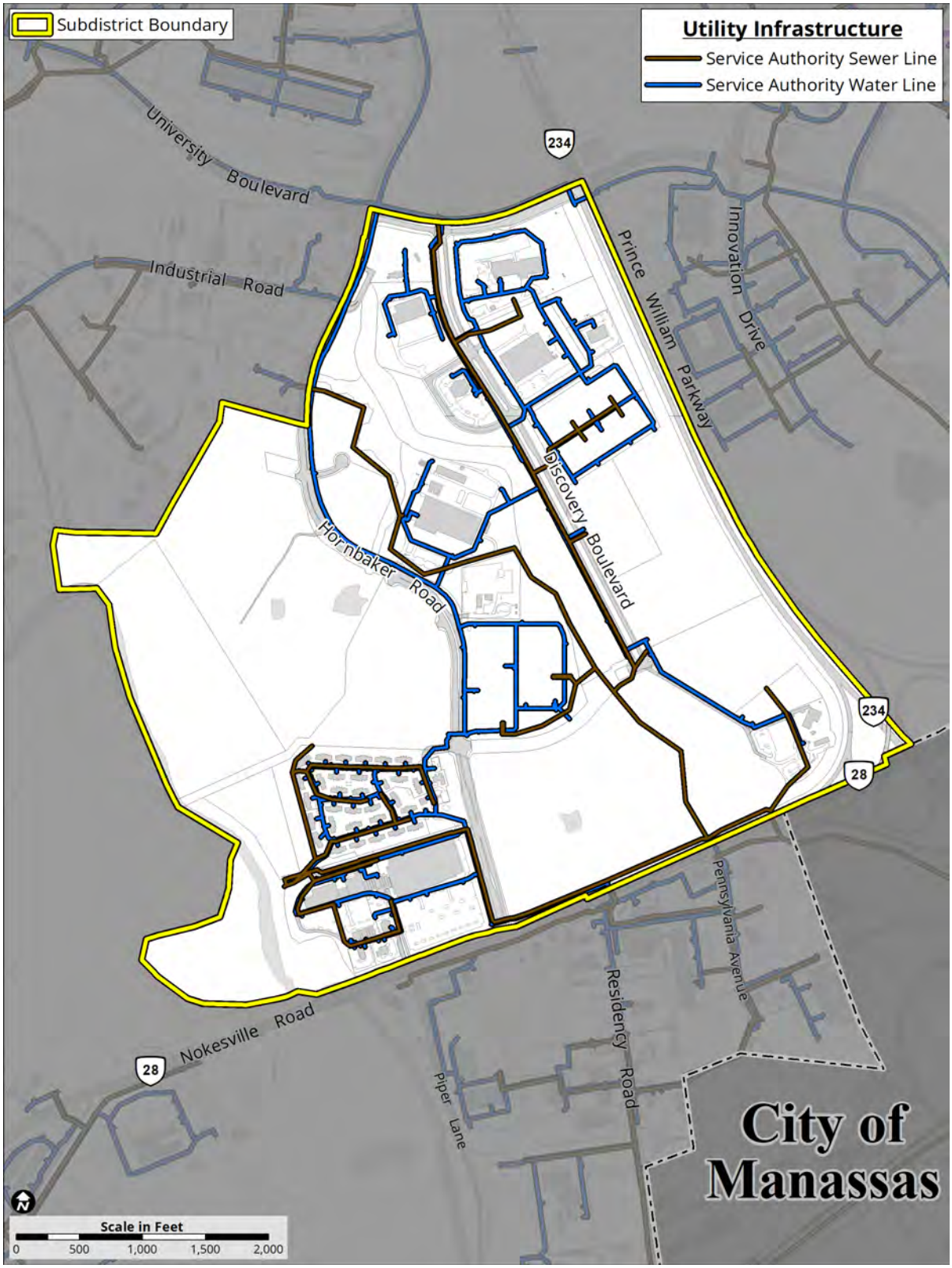


Figure 20: Existing Utility Infrastructure – Employment Center

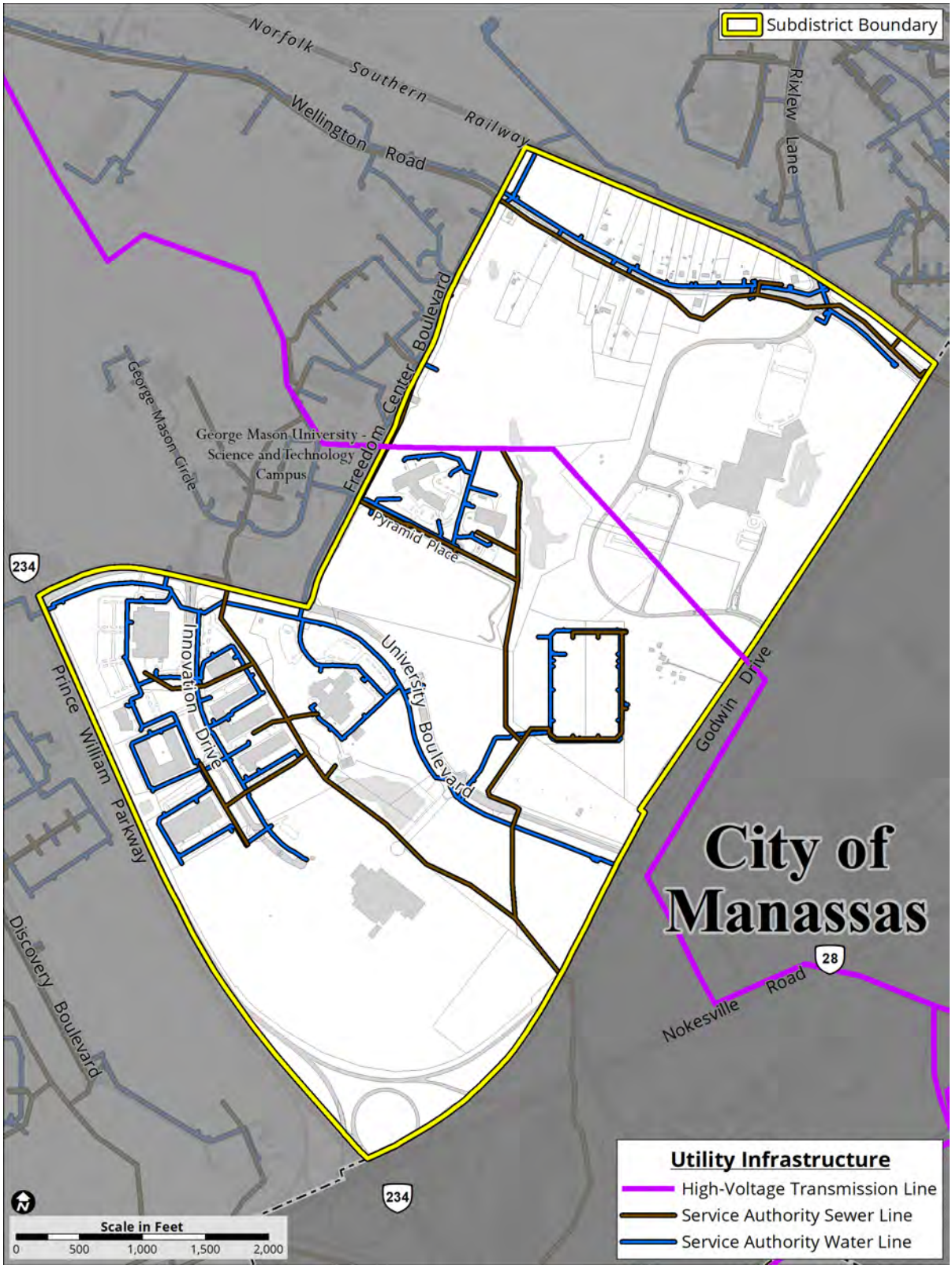


Figure 21: Existing Utility Infrastructure – Technology Center

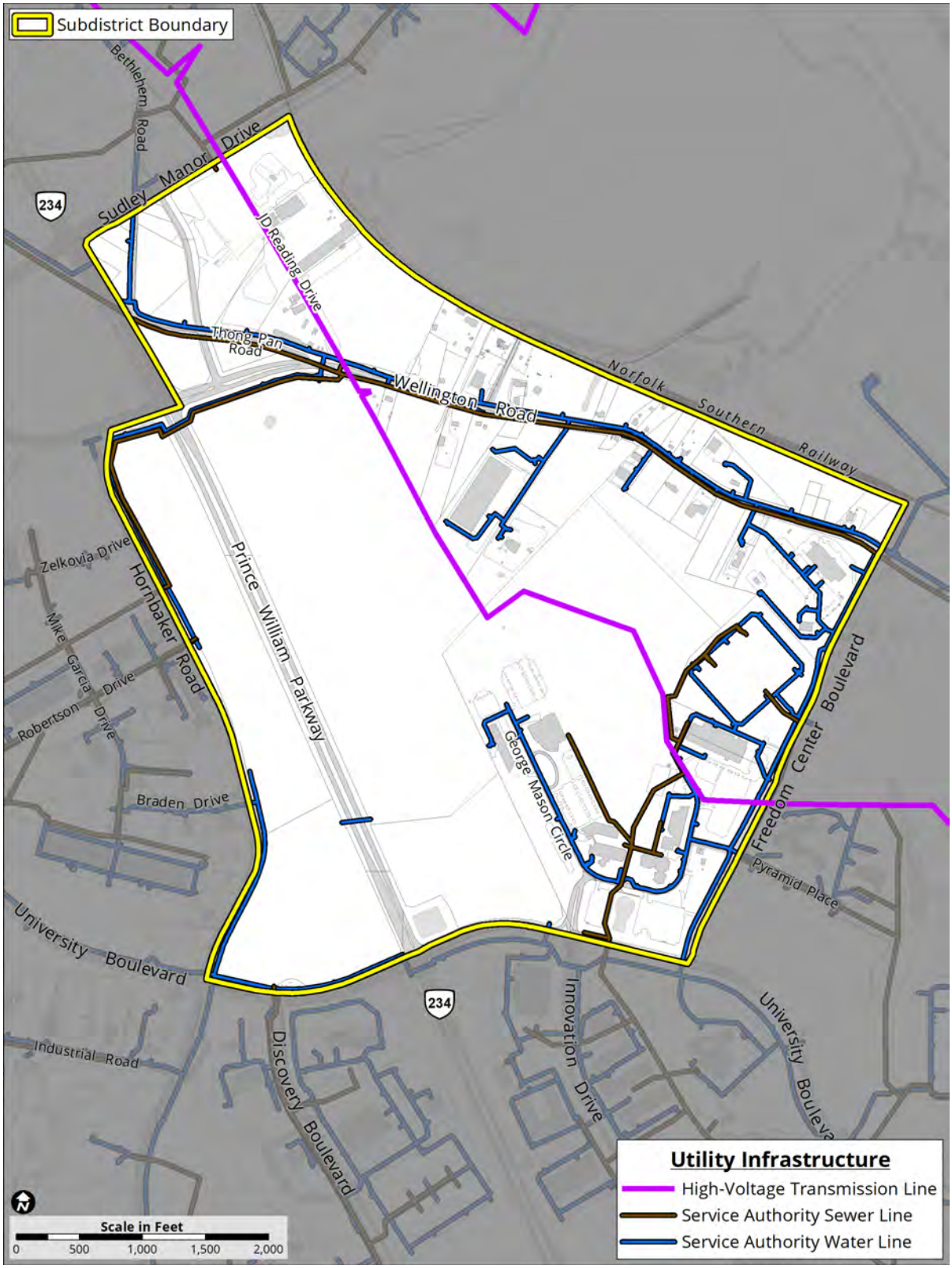


Figure 22: Existing Utility Infrastructure – University Center

Existing Environmental Conditions

The study area encompasses approximately 1761 acres and is bounded by Sudley Manor Drive to the north, Norfolk Southern Railway on the east, Godwin Drive and Route 28 on the southeastern boundary, and the western boundary zigzags in and out along Broad Run, and Hornbaker Road lies along the northwestern boundary.

The Innovation Park study area includes a wealth of environmental features, including forested areas, wetland areas, ponds, streams, flood zones, and Chesapeake Bay Resource Protection Areas (RPAs). There are numerous ponds scattered throughout the southern half of the study area. Prominent environmental features include Broad Run along the area's western boundary and Cannon Branch east of Freedom Center Boulevard. Both streams include areas designated as FEMA 100-year flood zones and Chesapeake Bay RPA zones. Most of the woody vegetation lies in the northern portion of the study area near George Mason University Science and Technology Campus. These features add to the overall aesthetics of the Innovation Park area while creating some constraints to future development. New development should be located and designed to enhance the sensitive natural resource areas avoiding all negative impacts.

The Web Soil Survey (WSS) operated by the United States Department of Agriculture (USDA), can be utilized to run reports to identify the soil composition, farmland classification, the erodibility factors, and the feasibility of small commercial buildings in the study area. The study suggests that the area consists of a variety of silt loams including Aden silt loam, Arcola silt loam, Dulles silt loam, Reaville silt loam, and Waxpool silt loam. Approximately 43.2% of the study area includes "prime farmland," 6.3% of "farmland of statewide importance," and 50.5% of "not prime farmland." Most of the land deemed "not prime farmland" is in the portion of the Small Area Plan where mixed-use development would primarily occur. The study area was also analyzed to determine the erosion factor or K factor. The values of K range from 0.02 to 0.69 from least susceptible to most susceptible, respectively. The highest rating in the entire study area was 0.49 indicating that the soil is moderately susceptible to erosion. Overall, the finding of these soil reports indicated that any future development in this area should consider the impacts on existing soil and environmental condition.

Elevations range from 300 feet AMSL at its highest to 180 feet AMSL at its lowest in the Employment Center. Elevations range from 230 feet AMSL at its highest to 200 feet AMLS at its lowest in the Technology Center. Elevations range from 310 feet AMSL at its highest to 220 feet AMLS at its lowest in the University Center.

Broad Run and Cannon Branch east are streams that include areas designated as FEMA 100-year flood zones and Chesapeake Bay RPA zones. There are ± 66.89-acres of recorded FEMA 100-year floodplain and there are ±100.45 acres of Chesapeake Bay Resource Protection Area (RPA). There are stands of forest in the undeveloped portions of the area, as well as non-forest cover (shrubs, grassy and bare areas) and impervious surfaces. The table below gives the acreage for each element listed.

Environmental Area	Acres
RPA	100.45
FEMA 100-year floodplain	66.89
Forested (tree canopy)	637.3
Non-Forest	1123.7
Impervious Area	311.61

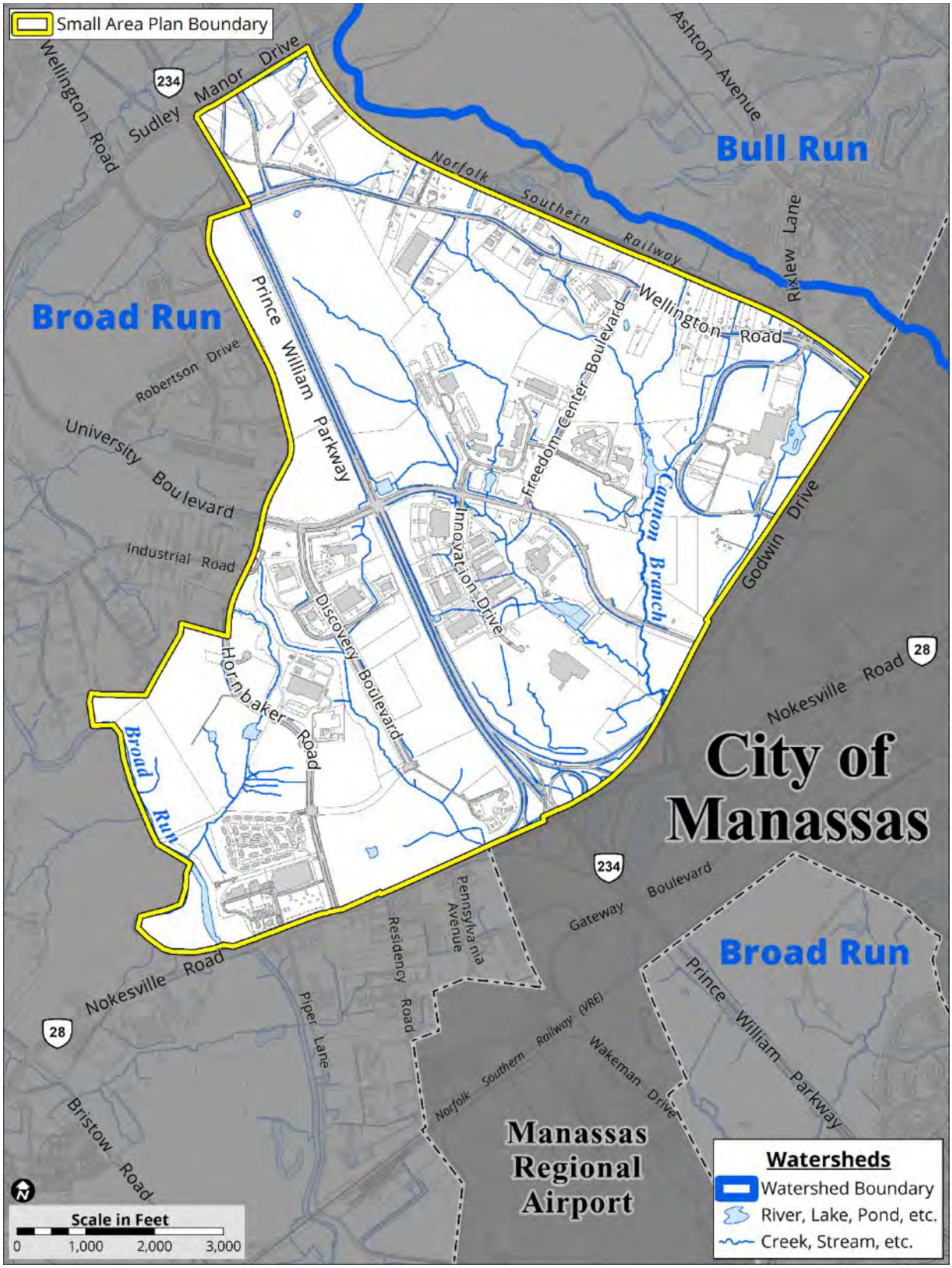


Figure 23: Existing Subwatershed Map

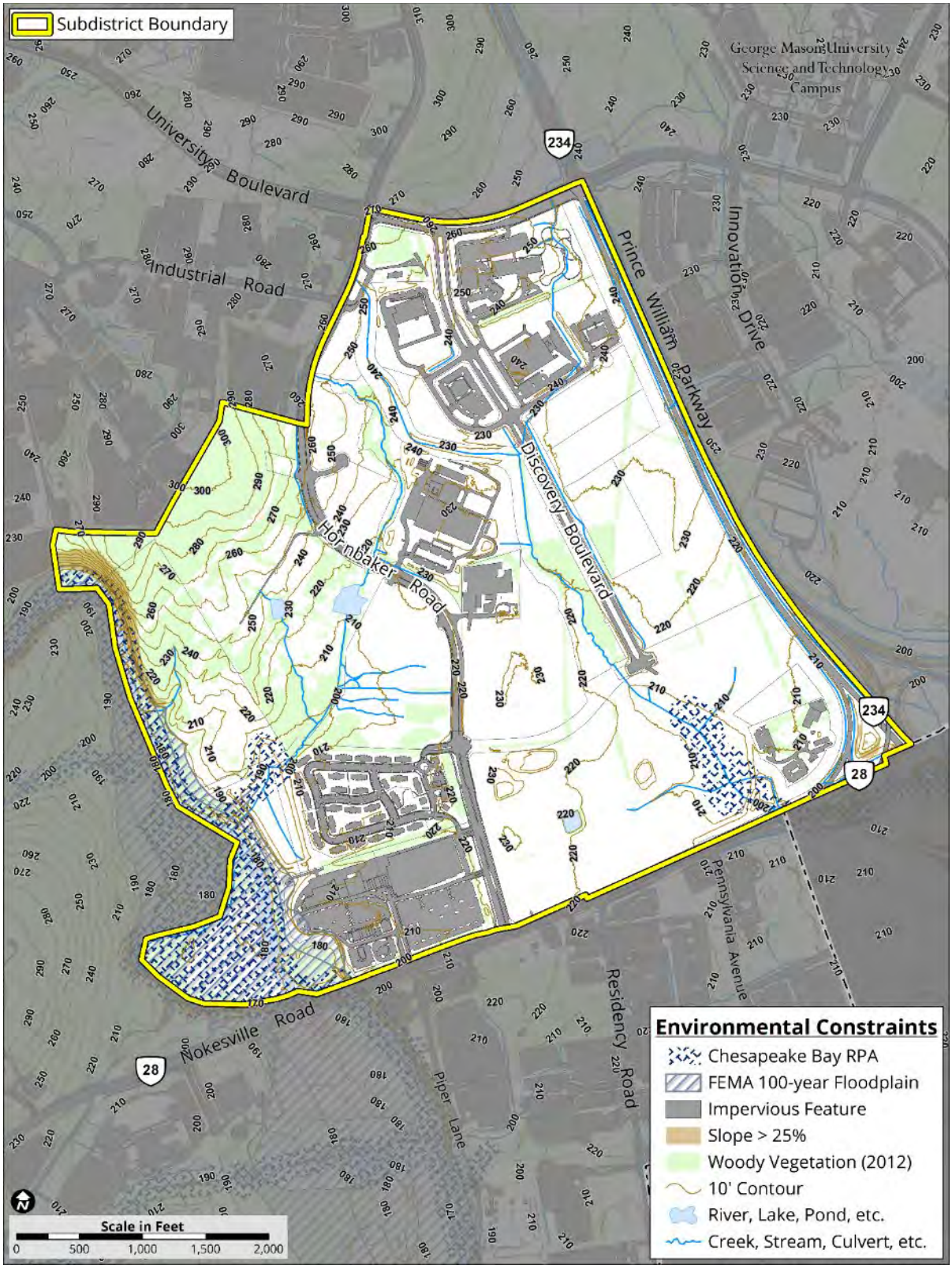


Figure 24: Existing Environmental Constraints – Employment Center

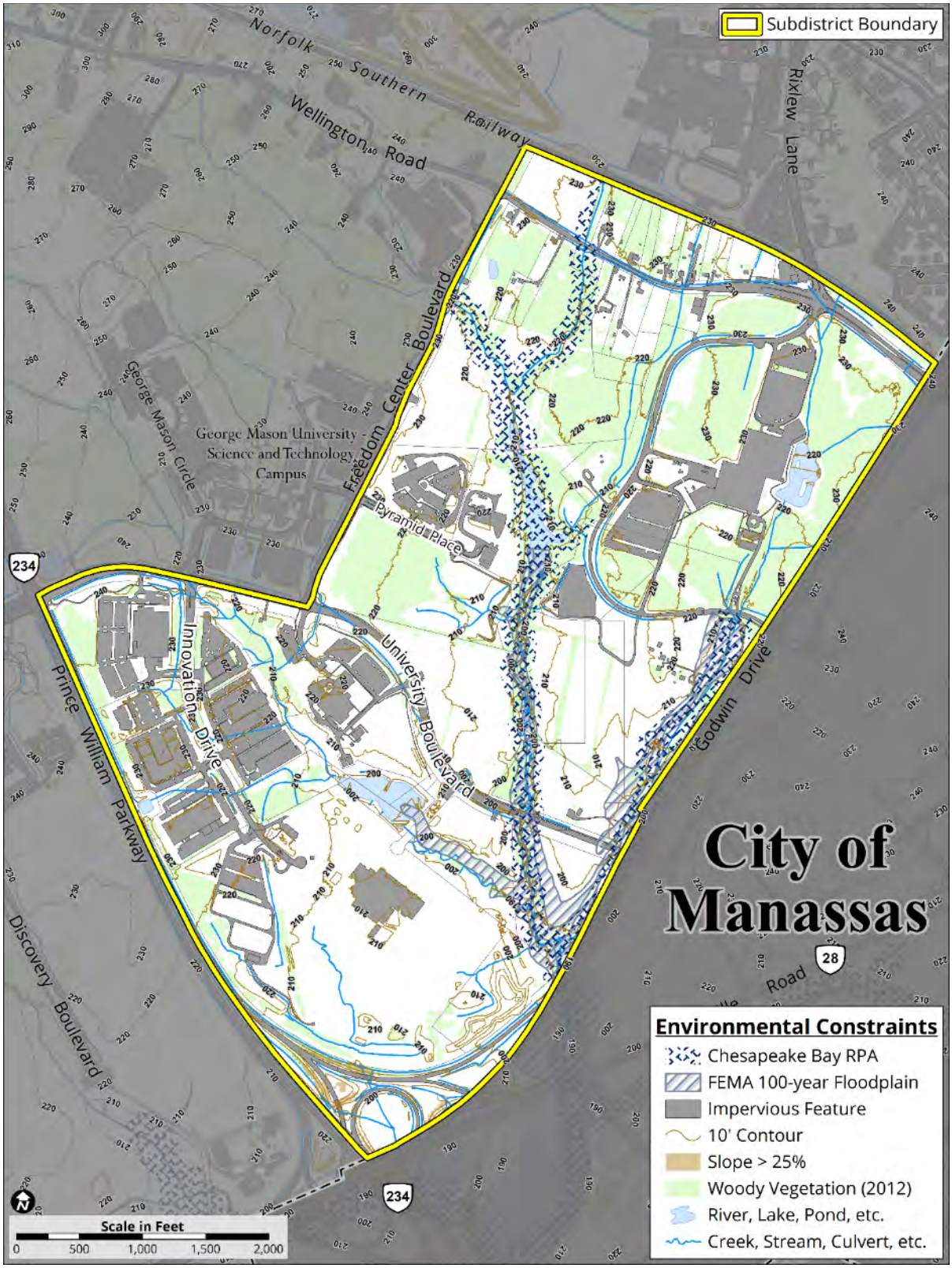


Figure 25: Existing Environmental Constraints – Technology Center

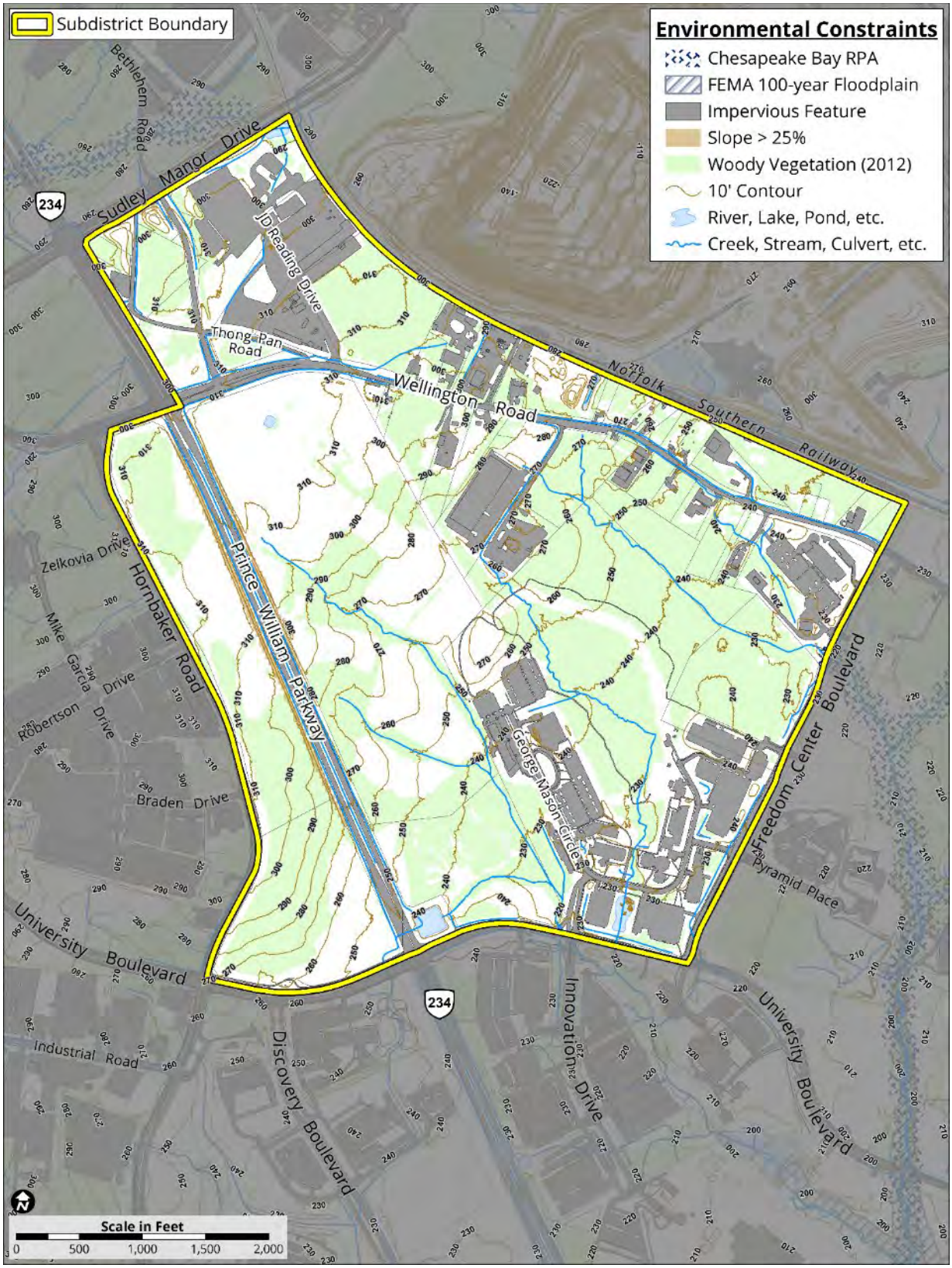


Figure 26: Existing Environmental Constraints – University Center

Existing Green Infrastructure Conditions

Innovation Small Area Plan is located in Park Planning District 4 (PPD 4) which contains 103.4 acres of managed park land (see PPD4 map and associated report card below). This park planning district is served by neighborhood parks Rosemount Lewis Park, Ellis L. Barron Park, as well as the Broad Run Linear Park and Broad Run Greenway, and the Old Manassas Courthouse Historic Site. Of these, only the Broad Run Linear Park and Greenway are physically located within the small area plan. Accessibility, especially from the proposed town center area and George Mason University, is poor. Currently, the small area plan is not served by a neighborhood park however it is within the service area of several community parks. The Innovation Small Area Plan is on the edge of the service areas but given the distance and barriers to bicycle and pedestrian connectivity, like Routes 28 and Route 234, the community parks are, from a practical standpoint, only accessible by automobiles.

The existing Freedom Aquatics Center offers active recreation opportunities.

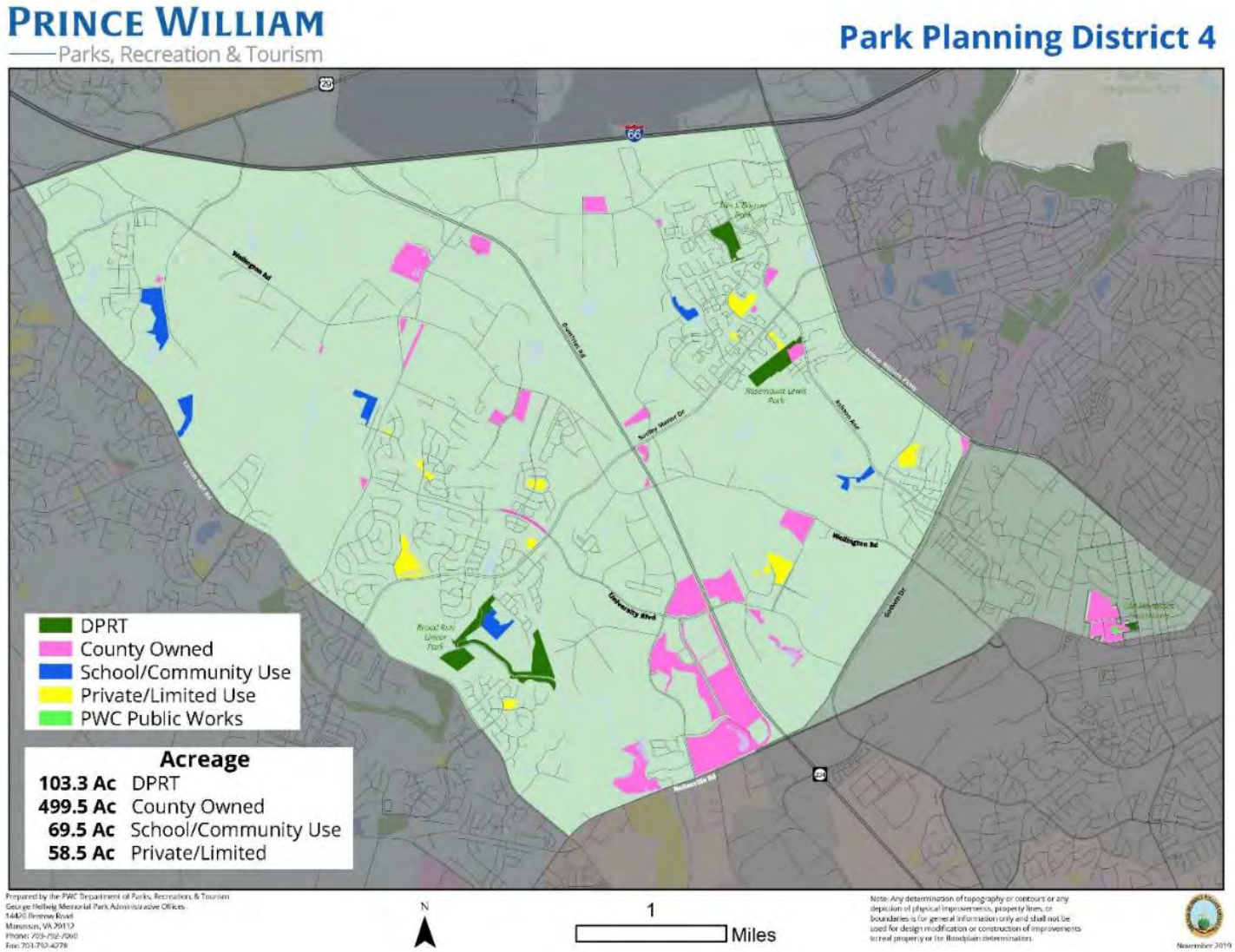


Figure 27: Park Planning District 4

PWC PARKS Planning District 4	Soccer	Football	Baseball	Softball	Little League	Tball	Open Play	Basketball	Tennis	Volleyball	Playground	Pavilion	Trail (Miles)	Restroom (Permanent)	Restroom (Portable)	Parking	Parking (HC)	Recreation Center	Community/Activity Ctr.	Historic Prop./Programs	Pool	Waterpark	Bathhouse	Marina	Boat Launch	Stream/Lake Access	Batting Cage	Horseshoe Pits	Amphitheater	Golf (holes)	Skate Park/Skate Area	Equestrian Ring	Library	Other	Acres	LOS Quality Score	LOS Letter Grade
NEIGHBORHOOD PARKS																																				
Ellis L. Barron Park *7625 Aaron Lane*							Y	2	2	1	1	2			Y	32																			15.3	0.60	C
Rosemount Lewis Park *1100 Crestwood Drive*							Y	1	1		1	1	0.5																						22.1	0.71	B
COMMUNITY PARKS																																				
None																																				
REGIONAL PARKS																																				
None																																				
LINEAR/GREENWAY PARKS																																				
Broad Run Linear Park (partial) *12940 Hunting Cove Place*											1	1	1	N	N	34	1									Y								63.7	0.60	C
NATURAL/CULTURAL RES. PARKS																																				
Old Manassas Courthouse *9248 Lee Avenue*																Y				Y															2.3	n/a	n/a
SCHOOL/COMMUNITY-USE SITES*																																				
Chris Yung ES	1						Y	Y			Y																								9.4		
Ellis ES	1						Y	Y			Y																								6.4		
Gainesville MS	1T +1	1	1	1				Y	4								1																		24.7		
George P. Mullen ES	1							Y			Y																								6.3		
Piney Branch ES							Y	Y			Y																								10.3		
Victory ES	1		1					Y			Y																								12.4		

**School rectangle and diamond fields quantified by scheduled use, they may not be standard dimensions; access may be restricted; inventory can fluctuate w/school construction*

Figure 28: Park Planning District 4 Report Card

Existing Cultural Resources

Cultural resources are those tangible elements of our shared history left behind by previous inhabitants. They are found in individual architectural and archaeological sites, historic districts, cemeteries, battlefields, cultural landscapes, museum objects, and archival materials.

As discussed above, the plan area Is divided into three subareas: University Center, Technology Center, and the Employment Center. This existing conditions' analysis will look at cultural resources in each mode.

University Center

Within this node are three historic archaeology sites: the Woodward Turn Farm, an unnamed farmstead, and an artifact scatter. There are 12 architectural sites of which 9 are houses located along Wellington Road. One is the Woodward Turf Farm. Another is a Manassas Pentecostal Church on Wellington Road and the remaining is a portion of Second Manassas battlefield. No cemeteries are recorded in this node. There are no classified County Registered Historic Sites, Prehistoric High-Sensitive or Historic High-Sensitivity areas in this node.

Technology Center

Within this node are two historic archaeology sites, the Gaskins Cemetery and one farmstead; and two prehistoric lithic workshops. There are 19 architectural sites of which 11 are houses on Wellington Road and 2 are houses on Godwin Drive, including the Kline House (farm). One was the Connor farm, and another was the Hersch Farm. Two are portions of the First and Second battles of Manassas. One is the WKDV Transmitter site and the last architectural site records the Gaskins Cemetery, which is also listed on the County's register of cemeteries. There are no classified County Registered Historic Sites, Prehistoric High-Sensitive or Historic High-Sensitivity areas in this node.

Employment Center

Within this node are 26 archeology sites of which 14 are pre-contact sites. Ten of the 14 pre-contact sites did not possess diagnostic artifacts. The remaining sites date to the Middle or Late Archaic periods (8500 – 3201 BP). The 12 historic sites consist of six single dwellings, two farmsteads, a blacksmith shop, a mill and mill race, and a trash pit. Four of the archaeology sites contained both pre-contact and historic artifacts. Within this node are five architectural sites: the Milford Mill Site, the Sowder Farm, the Birkett Farm, the Thomasson Barn (farm) and a house on Nokesville Road. Also, a portion of this node is in the Core Ground of Bristoe Station Battlefield. No cemeteries were recorded in this node. There is one County Registered Historic Site, the Thomasson Barn. The Broad Run stream valley and a portion of the bluff parallel to the stream valley is designated Prehistoric High-Sensitivity. There is also a portion of the designated Historic High-Sensitivity.

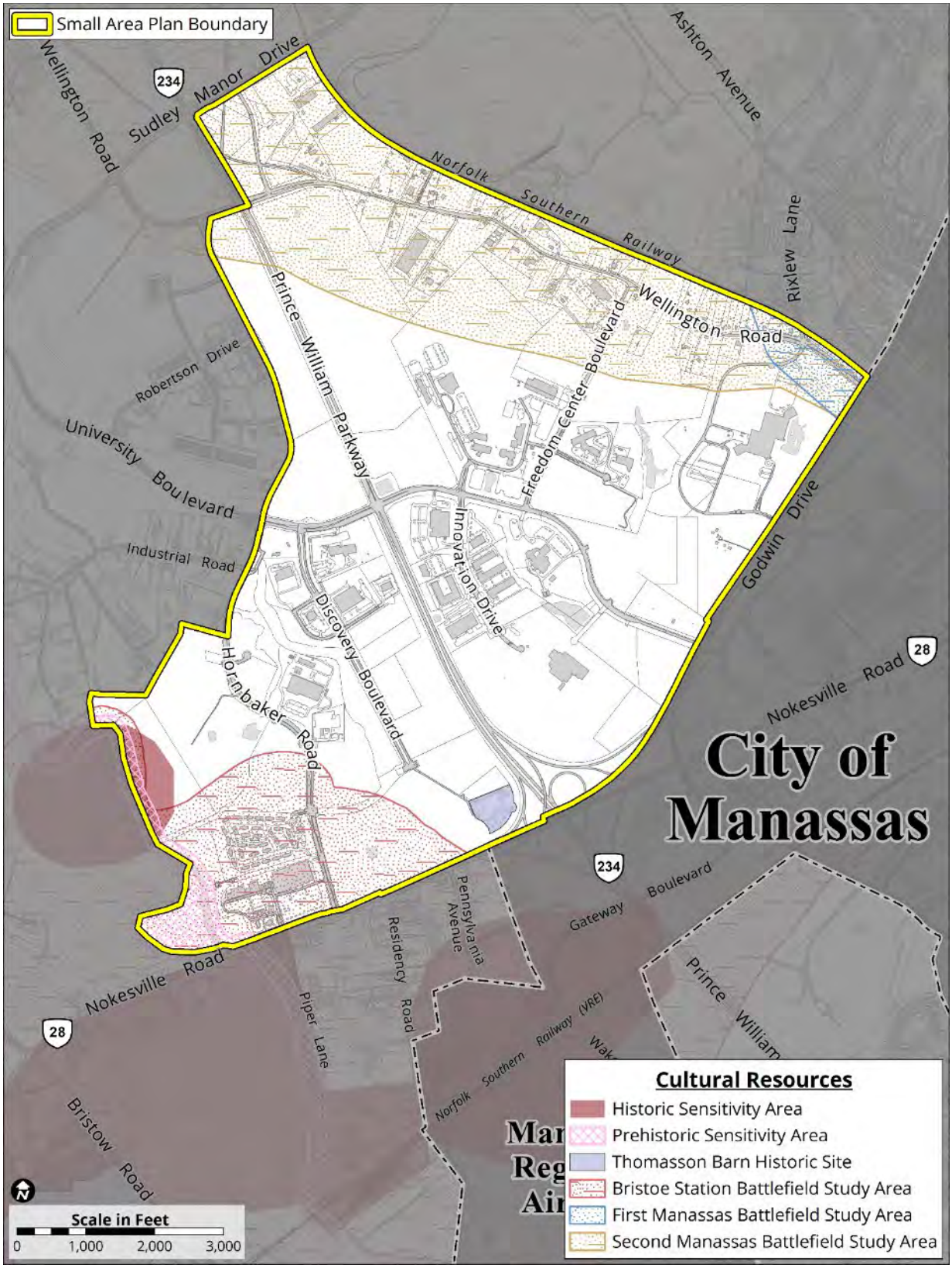


Figure 29: Existing Cultural Resources

Existing Schools

There are four Prince William County public school boundaries serving the study area including two elementary schools, one middle school, and one high school. The study area is bisected by the Ellis Elementary and Victory Elementary school boundaries. The entire study area is currently served by Marsteller Middle School and Unity Reed High School formerly Stonewall Jackson High School.

Existing School Inventory 2020-2021				
Elementary Schools				
School Name	**Program Capacity**	**Portable Classrooms**	**Students**	**% Utilized**
Ellis ES	492	3	487	98.9
Victory ES	874	0	688	75.5
Middle Schools				
Student Capacity	**Student Capacity**	**Portable Classrooms**	**Students**	**% Utilized**
Marsteller MS	1,233	5	1,264	102.5
High Schools				
Student Capacity	**Student Capacity**	**Portable Classrooms**	**Students**	**% Utilized**
Unity Reed HS*	2,409	7	2,701	112.1

*The approved boundary for the Gainesville High School (formerly known as 13th High School is anticipated to relieve student enrollment at Unity Reed High School (formerly known as Stonewall Jackson High.

In addition, the Governor's School at Innovation Park is a collaborative STEM initiative of City of Manassas, Manassas Park, and Prince William County Public Schools with George Mason University. The two-year program is designed for high school students in grades 11 and 12 who attend school in the participating districts. This school program is located at the George Mason University SciTech Campus, 10900 University Boulevard, Manassas, VA 20110.

Commercial Community Indicators

Community indicators are numeric tools that help governments, citizens or businesses understand the health and vitality of their communities, alert them to problems and help them recognize what to do to fix those problems. This section reflects major economic indicators related to current employment in the Innovation Park Small Area Plan. The data was calculated from census tract 9014, block group 9.[16]

As of 2017, the study area had an estimated population of 634 residents and a median age of 30.4. The percent of ethnicities within the study area include White residents (54.0%), Hispanic residents, -of any race (13.7%), Black residents (15.6%), Asian and Pacific Islander residents (8.9), and 26 residents identified as "Other" (0.5%).

Education and training play a large role in producing the local labor force. According to Census estimates, 94.2% of the residents earned at least a high school diploma; which is higher than both the state of Virginia (89.3%), and the national average (87.3%). Strong graduation rates can relate to a robust workforce. Also, 75.8% the local working age population is employed.

[16] U.S Census American Fact Finder, 2017 5-yr ACS data estimates, 2019

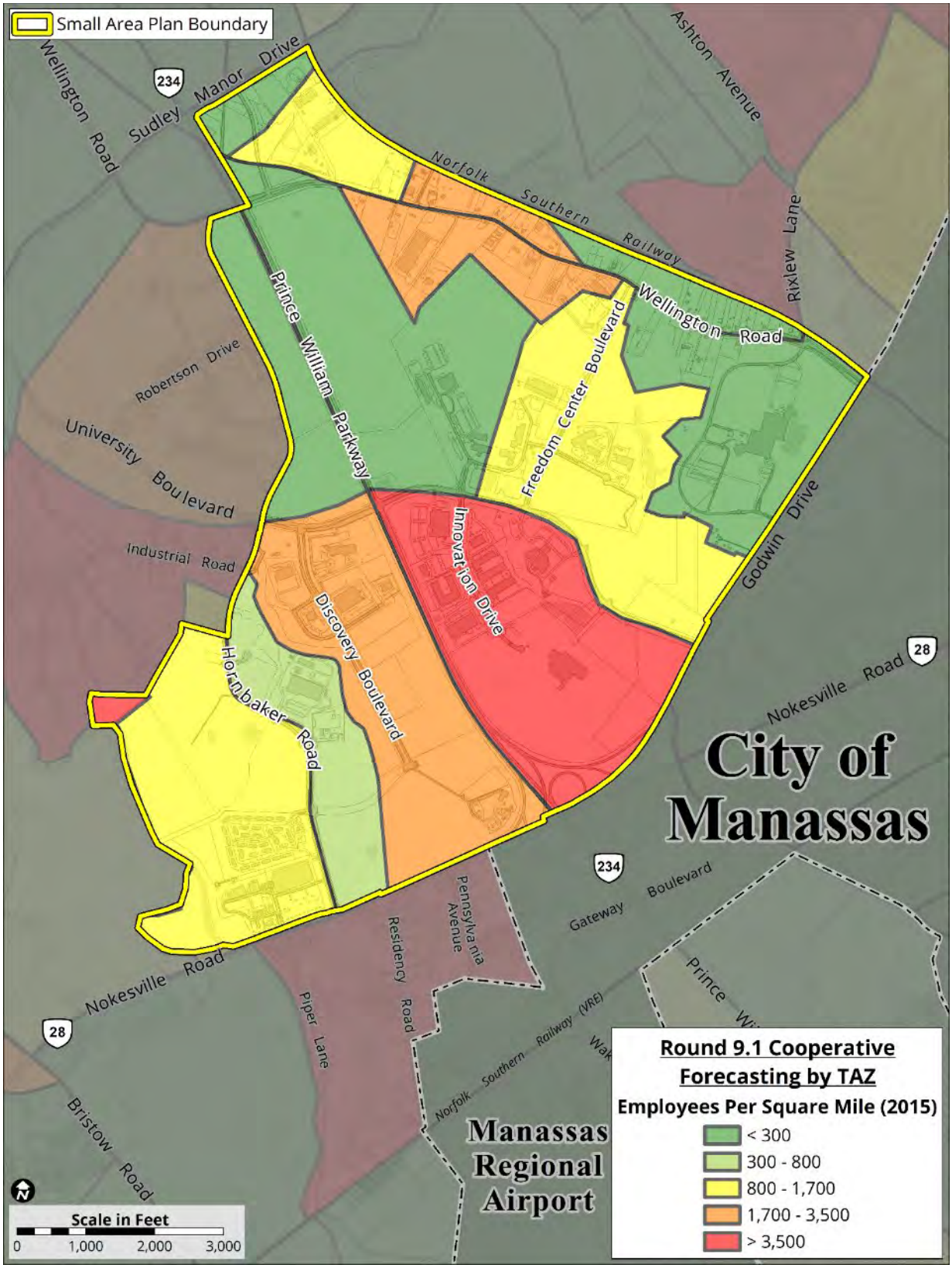


Figure 30: Employees per Square Mile

Residential Community Indicators

As of 2017, the median property value for the study area was $418,009 which is higher than the state average of $255,800. The homeownership rate is 72.0%, which is higher than the state average of 66.2%. Renters make up 28.0% of local households; median rents are $1,675 per month. These data were calculated from block groups 1 and 2 within census tract 901409.[17]

[17] U.S Census American Fact Finder, 2017 5-yr ACS data estimates, 2019

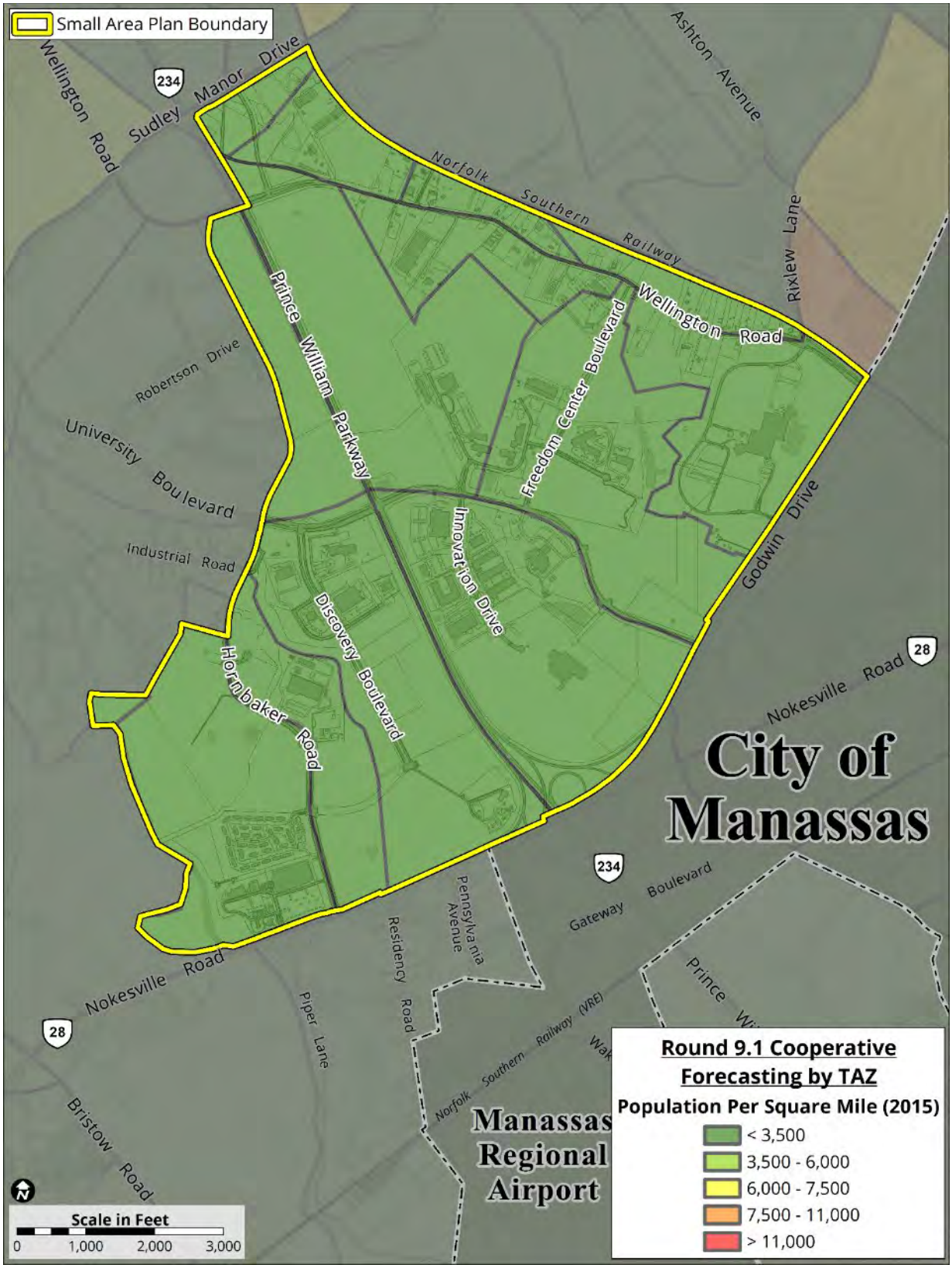


Figure 31: 2015 Population per Square Mile

Prior Planning Efforts

The Innovation Sector plan was adopted by the Board of County Supervisors on January 10, 2012. Additional planning efforts include:

1. Technology Overlay District (TeOD) and Map
2. Data Center Opportunity Overlay District and Map
3. Innovation Study 2009
4. TLC Study 2017
5. VRE Gainesville-Haymarket Extension (GHX) study
6. Comprehensive Plan
7. George Mason University Master planning efforts
8. Innovation Design Guidelines

Public Participation Process

The Innovation Small Area Plan benefitted from extensive public participation including:

- Three Stakeholder meetings:
    - June 7, 2017 (Agency Stakeholder Meeting),
    - June 14, 2017 (Director's Stakeholder Meeting),
    - November 28, 2017 (Community Stakeholder Meeting).
- Participants discussed recent and future projects, challenges in the three study areas, service and infrastructure needs, transportation connectivity and its effects on economic development, recreational and tourist attractions and housing needs. Breakout tables included discussions on Economic Development/Land Use, Infrastructure/Level of Service, Cultural Resources/Green Infrastructure and Transportation.
- A community charrette was held on March 10, 2018 from 9 a.m. to 4 p.m. at Patriot High School with three breakout sessions to focus on design elements. Participants in each group considered strategies that would leverage the area's strengths and address weaknesses.
- Community Conversations Meetings (4) on October 30, 2018, November 13, 2018, November 14, 2018, and February 6, 2019.

Figure 32: Charrette Activity, March 10, 2018

VISION AND THEMATIC PRINCIPLES

The vision for Innovation Small Area Plan will be implemented through a series of goals and action strategies that are introduced in the following paragraphs and woven throughout the Small Area Plan recommendations.

Vision Statement

Create a community of three interconnected districts with an established culture of scientific and technological achievement, capitalizing on the world-renowned George Mason University and focusing on high quality and innovative design to create a distinct sense of place and attract and incentivize economic development.

Small Area Plan Goals and Action Strategies

Figure 33 identifies the goals for each functional area of the Small Area Plan, providing thematic principles for achieving the Small Area Plan vision and guiding the Small Area Plan recommendations.

Within the following pages, these Goals are further elaborated upon and supported by specific Action Strategies. The Action Strategies are summarized in matrix form in the Implementation chapter of the Small Area Plan.

Innovation Park Thematic Principles

VISION: Create a community of three interconnected districts with an established culture of scientific and technological achievement, capitalizing on the world-renowned George Mason University and focusing on high quality and innovative design to create a distinct sense of place and attract and incentivize economic development.

PLACETYPES: Create a well-designed distinctive community of three interconnected districts providing a balanced mix of residential and employment uses integrated with the George Mason University's SciTech campus.

DESIGN: Develop high-quality design guidelines that will ensure a well-designed pedestrian-scaled community that incorporates elements of access, architecture, visibility, security, sustainability, and innovation to develop a distinctive yet cohesive community.

MOBILITY: Establish a multi-modal transportation network connecting the three districts through a network of walkable urban streets, sidewalks, trails, bikeways, and transit opportunities.

GREEN INFRASTRUCTURE: Ensure a robust and connected system of greenways, blueways, trails, open space and corridors that provide a benefit to the environment, community and local wildlife.

CULTURAL RESOURCES: Identify and protect Prince William County's significant historical, archaeological, architectural, and other cultural resources, including those significant to the County's minority communities, for the benefit of all the County's citizens and visitors.

ECONOMIC DEVELOPMENT: Incentivize economic development to attract and retain targeted industries and capitalize on the significant impact of the George Mason University's SciTech campus as a springboard for building an interconnected, innovative community.

LEVEL OF SERVICE: Identify public facility needs in order to meet expected demand and ensuring the health, safety, and wellbeing of the community.

Figure 33: Thematic Principles

PLACETYPES

Goal: Create a well-designed distinctive community of three interconnected districts providing a balanced mix of residential and employment uses integrated with the George Mason University SciTech campus.

This Small Area Plan establishes the Innovation Park area as a hub for residential, commercial, industrial, and institutional uses, supplied with all necessary transportation, recreation, and physical infrastructure.

In addition. the Innovation Small Area Plan is to be a sustainable, pedestrian friendly, transit-oriented, vertical mixed-use Town Center-anchored by the University Village overlay district. The Town Center incorporates a mix of commercial, institutional and student residential uses designed to support George Mason. These components will foster both local and regional economic opportunities.

Recognizing the importance of this Small Area Plan in context of the relationship with the surrounding jurisdiction of the City of Manassas, a critical goal is to build upon and enhance partnerships with the City of Manassas by exploring the shared border areas for land use planning and zoning that addresses joint land use goals, promotes connectivity of a multimodal transportation network, and addresses overlapping environmental impacts.

This section of the Plan is integral in the development, vision, and implementation of this goal.

This land use plan refers to the characteristics of density, diversity, and design present for a specific geography. A small area plan informs the linkages between several land use types and presents an overarching goal for the identity of these spaces. The framework for developing this Small Area Plan includes creating an equitable transportation network that supports mixed-use development and a high quality of life.

Framework of Districts

To better provide for a host of new, dense land uses, that acknowledge existing employment uses and transportation barriers like Route 234/Prince William Parkway, the Land Use, Mobility, and Green Infrastructure components of the Small Area Plan are further divided into three districts. The University Center, Technology Center, and Employment Center districts vary in their use and density but contribute to the overall vitality of an Innovation Park hub activity (see Figure2 on page 6).

The University Center district includes the existing George Mason Science and Technology Campus and points north. The study area contains a potential future VRE station and is planned for the Town Center and other mixed-use land uses. The Technology Center district in the southeast zone of the planning area is positioned to take advantage of existing technology uses while respecting

existing environmental conditions. The Employment Center district in the southwest zone of the planning area takes advantage of existing retail, entertainment and residential uses and increased connectivity to locate employment uses.

Transect and Activity Density Framework

The framework of this plan utilizes the core concepts of Transect and Activity Density. The Transect is a way to describe the range of natural and built environments from the countryside to the center of the city as a set of bands of uniform density called Transect Zones (See Figure 34). Each Transect Zone defines a consistent scale of density and intensity of development and the entire complement of streets, buildings, and open space that goes along with that level of intensity. Figure 35 is a standard table of Transect Zone densities defined for all of Virginia using Activity Densities. This table of Transect Zone densities and typical characteristics was developed through an analysis of real Virginia places, ranging from large urban downtowns to rural village centers. Figure 36 provides a 3-dimensional illustration of the form, layout, intensity, and type of transit technology that typically supports each of the Transect Zones.

Activity Density is simply a way to combine the density of existing or future population and jobs in an area to allow them to be classified more simply. Activity Density for an area is the sum of people and jobs in the area divided by the acreage, yielding a total density of jobs plus people per acre. The Transect is a relatively common way of describing density and intensity of development in the urban planning profession.

This Plan identifies specific Transect densities for Innovation and has been used to define the types and surrounding contexts of both Multimodal Centers or Districts and Multimodal Corridors. The Activity Densities for each Transect Zone reflect both existing and future densities, although the future, planned land uses and densities are the primary consideration in the development of the Mobility and Level of Service sections of this Plan.

Figure 34: Transect Zones

TRANSECT ZONE INTENSITY			
Transect Zone	Activity Density (Jobs + people/acre)	Gross Development FAR (residenial + non-residential)	Net Development FAR (residenial + non-residential)
T-1	1 or less	0.01 or less	0.02 or less
T-2	1 to 10	0.01 to 0.15	0.02 to 0.23
T-3	10 to 25	0.15 to 0.37	0.23 to 0.57
T-4	25 to 60	0.37 to 0.9	0.57 to 1.38
T-5	60 to 100	0.9 to 1.49	1.38 to 2.3
T-6	100 or more	1.49 or more	2.3 or more

Figure 35: Transect Zone Intensity Measures,

Source: Virginia Department of Rail and Public Transportation Multimodal System Design Guidelines, March 2020.

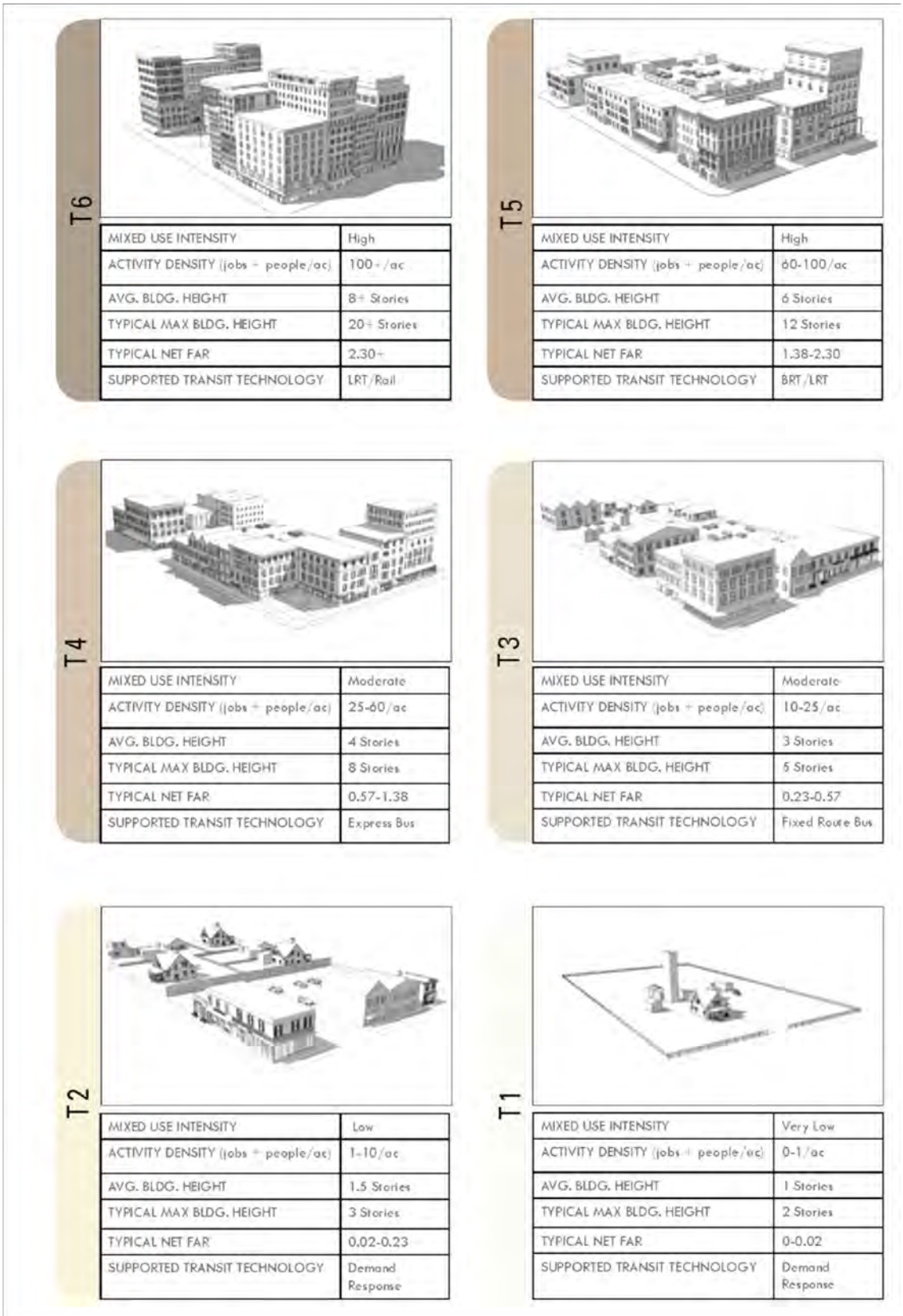


Figure 36: Transects for Future Planned Land Uses

Figure 37 identifies the transects for the future planned land uses and densities for Innovation Park. A walkshed walking radius of a quarter mile and half mile is utilized in the development of the transect to ensure the relationship between land use, density, and access to transit is considered.

The T-6/T-5 Transect in Innovation Park is located adjacent to GMU which is central to this regional activity center. A proposed bus route through this area which will be supported by a potential VRE station/transit center nearby. This area is selected as the heart of the Town Center focused on providing a mix of uses arranged in a pedestrian - friendly form next to George Mason University.

The T-5/T4 Transect is located adjacent to the potential VRE station/transit center to ensure easy walking distance. This area capitalizes on the adjacent transit but is a step down in intensity to the University Village.

The T-4 Transect is located adjacent to the T-5/T-6 and T-5/T-4 Transects and provides a transition in mixed-use intensity to a moderate level. The T-4 Transect along the perimeter acts as a transition from the urbanity of the Town Center to represent a neighborhood scale of intensity. Most of the T-4 is around George Mason University with portions just south of University Boulevard and across the Prince William Parkway.

T-3 Transect makes up most of the land area within the Small Area Plan and is located to the east, south and west of the T-4 and east, north and west of the Town Center to provide for lower intensity uses such as described in the Technology /Flex Designation.

The T-1 Transect is in various pocket locations of the Small Area Plan to provide areas for the lowest level of development such as parks and open space passive areas.

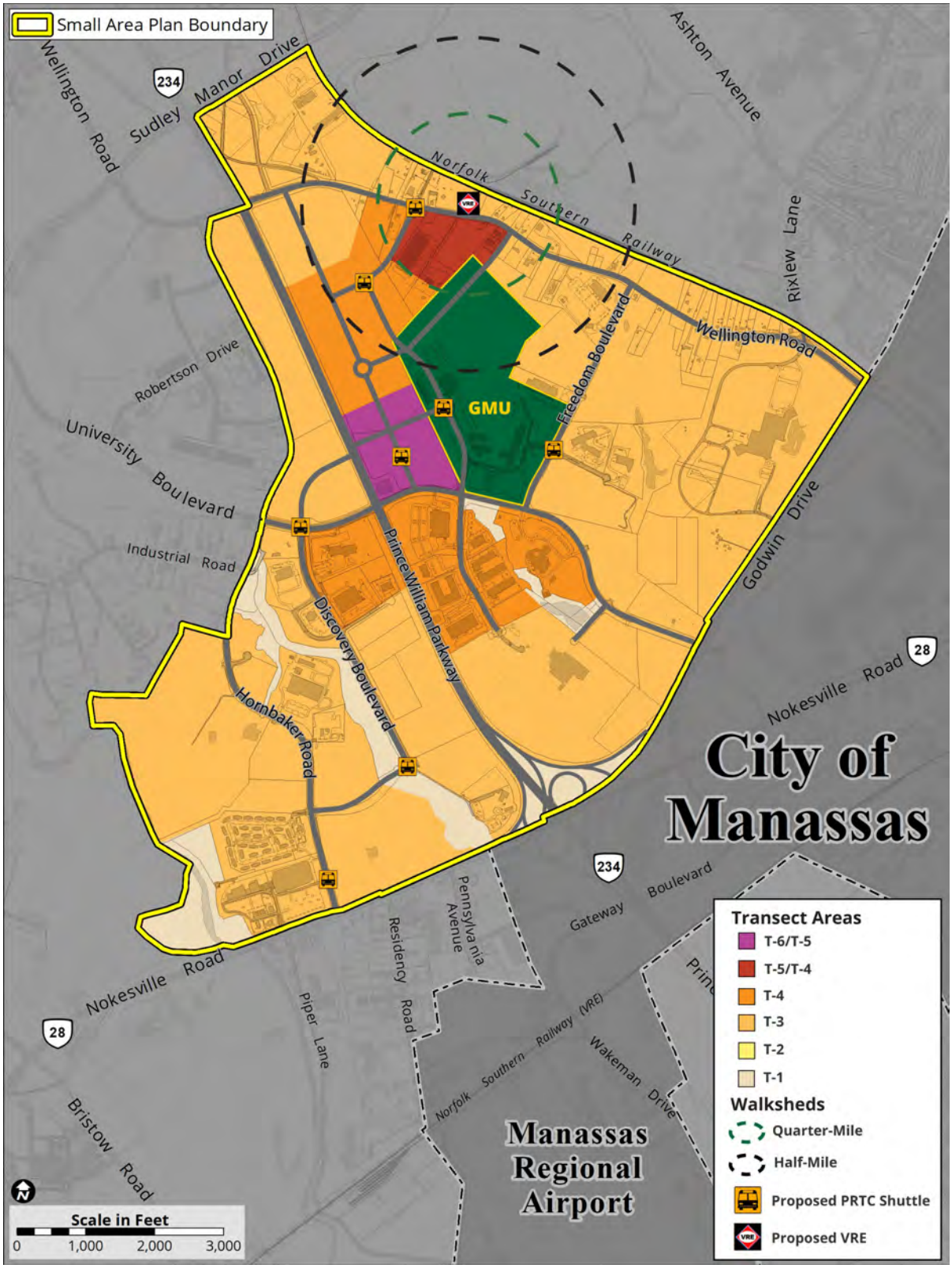


Figure 37: Overall Transect Diagram

Future Land Use

The Innovation Park Small Area Plan establishes a regional employment center featuring advanced technology and research and development industries surrounding a core consisting of a vibrant, pedestrian-oriented, mixed-use development in a Town Center. The Town Center is intended to enhance and support the George Mason University's SciTech Campus.

There are three districts established with the Innovation Park Small Area Plan. The three respective districts each provide distinctive land uses that focus on supporting an academic community, attracting targeted industries, and expanding employment uses (See Figure 2 on page 6).

At the core of the study area in the University Center District, a vibrant, pedestrian-oriented, mixed-use area with a Town Center (TC) is proposed. A portion of the Town Center is anchored by academic buildings, with plans for expanded medical and science programs, retail, offices, and student housing opportunities.

New connections are proposed throughout this area which link existing George Mason University with the Town Center area and provide connectivity to a proposed VRE Station. The Technology Flex (TF) area between Wellington Road and the Norfolk Southern Railroad includes the proposed VRE Station. Adjacent to the Technology Flex (TF) and north of the Town Center is a section of Community Mixed-Use (CMU) area and further north is an Office Mixed-Use (OMU) with a Transit District overlay that allows multifamily residential. The last portion of this district is Industrial Employment (EI) which is located north of Wellington Road.

The second district is the Technology Center District which consists of land areas south of Freedom and University Boulevards and bound by Godwin Drive in the south and Prince William Parkway in the west. This district mostly consists of a blend of Office Mixed-Use (OMU) and Technology Flex (TF) to build upon the existing uses which creates an ideal area for targeted industries related to science, technology, and research and development facilities. There is also a Community Mixed Use (CMU) area located along Godwin Drive and on the west side of University Boulevard.

The last district is the Employment Center District which is the land area west of Prince William Parkway and south of University Boulevard. The proposed land use for this area is mostly Office Mixed-Use (OMU) along the Prince William Parkway towards Discovery Boulevard and south of Thomasson Barn Road with a small section of Technology Flex (TF) along both sides of Discovery Boulevard. In addition, there are two areas within the Employment Center District that contain an Arts & Entertainment overlay. The first is east of Hornbaker Road from Nokesville Road to the intersection with Thomasson Barn Road which the underlying land use is Community Mixed-Use (CMU). The second area is on the parcel containing Sweeney Barn. The remainder of the area along Hornbaker Road is designated Technology Flex (TF). There are a few pockets of Parks & Open Space Passive (POSP) throughout the study area.

Figure 38 illustrates the proposed Long-Range Land Use classifications for the Innovation Park Small Area Plan. New long-range land use designations are proposed to implement the vision and goal of the plan to create a sense of place with a mixed-use Town Center. The proposed land use designations aligned with the designated transects provide a complete picture for future development. The Zoning Ordinance will require a review and a likely update to ensure that these proposed land uses can be realized including reevaluation of the Technology Overlay District.

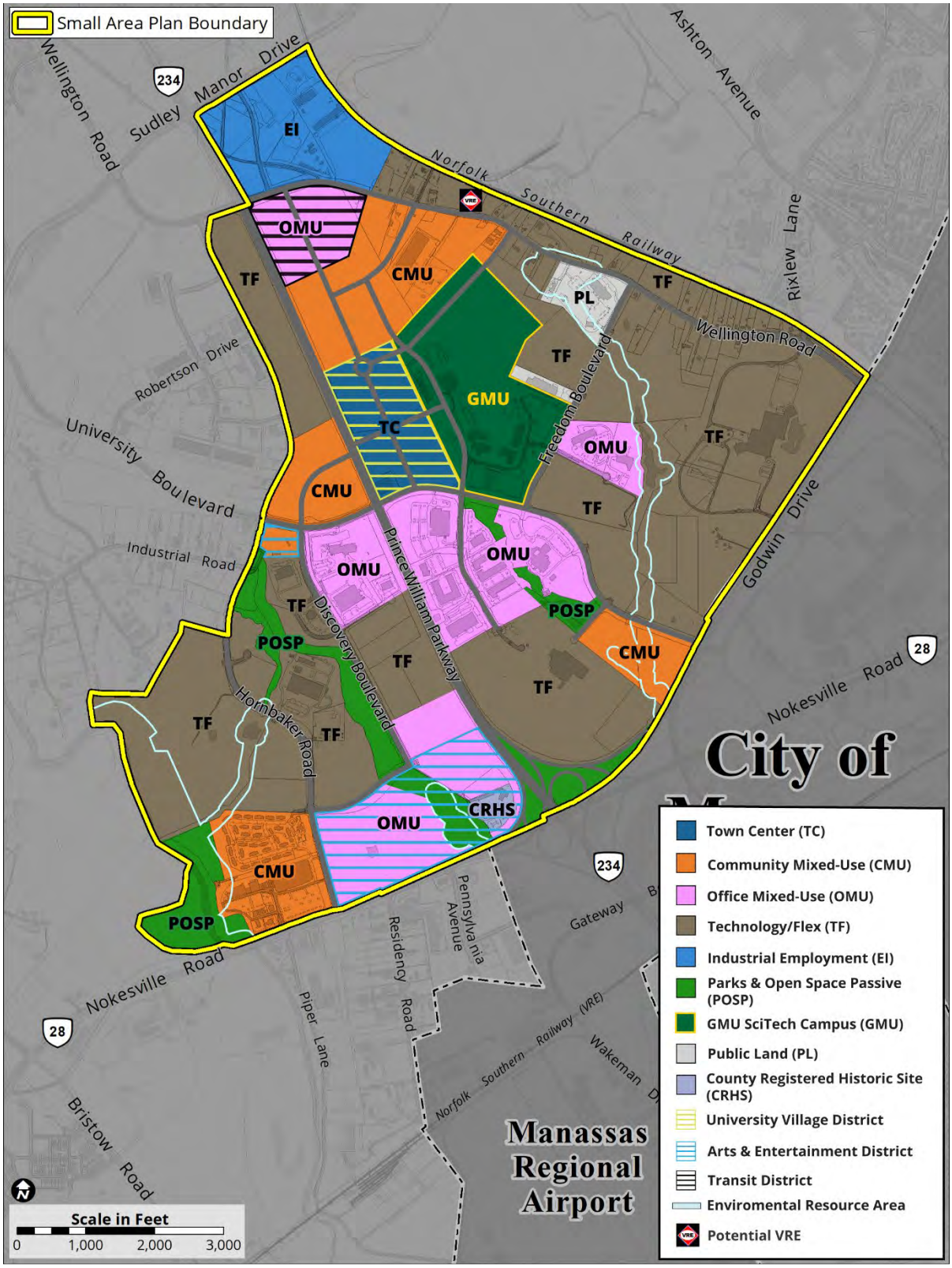
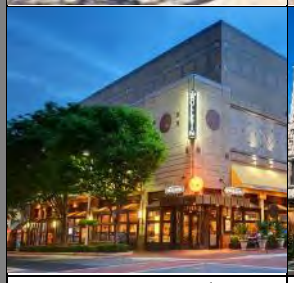
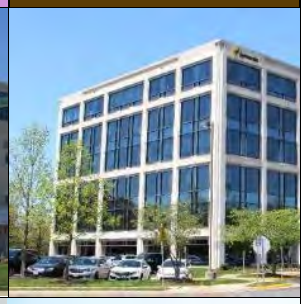


Figure 38: Proposed Long-Range Land Use Classification

	Town Center	Community Mixed Use	Office Mixed Use	Technology/Flex
DESCRIPTION	 	 	 	 
	Town Centers provide a mix of uses arranged in a pedestrian-friendly urban form. These centers are locations for regional commercial and entertainment destinations as well as access to amenities for adjacent residential and employment centers. Streets are interconnected and multimodal with parking located behind buildings. Short blocks with shallow setbacks and on-street parking are appropriate.	Mixed-Use live work centers include both residential and commercial uses arranged in a pedestrian-friendly form. These centers are locations for community commercial, entertainment destinations, and public facilities directly accessible to surrounding neighborhoods. Streets are interconnected and serve cars, cyclists, and pedestrians. These mixed-use centers should be connected by bus transit to nearby destinations and to nearest rail transit.	The purpose of this classification is to provide for areas of low- to high-rise, offices or research and development activities. Projects developed in this classification shall be for office use, with retail and retail service uses discouraged as a stand-alone structure. Office development areas is encouraged to be in accordance with the Illustrative Guidelines for Office Development, provided as a supplement to the Community Design Plan chapter of the Comprehensive Plan.	Technology/Flex Industrial areas provide opportunities for production, flex office/warehouse space, and warehousing uses that do not require large outdoor storage or produce nuisances such as noise, dust, or vibration. They are less hazardous and limited impacts on surrounding areas compared to heavy manufacturing. Buildings in this area have medium to deep setbacks and larger block sizes. Surface parking is acceptable.

	Town Center	Community Mixed Use	Office Mixed Use	Technology/Flex
Primary Uses	• Retail & Service Commercial • Office • Multi-Family Residential • Government Contracting • Hotel • Conference Center	• High-Density Townhouses • Multi-Family Residential • Retail & Service Commercial • Healthcare • Life Science • Government Contracting	• Offices • Business Schools, Colleges • Computer and Network Services • Hotel • Medical or Dental Office • Package or Courier Services • Research & Development • Government Contracting	• Data Centers • Healthcare • Life Sciences • Federal Government Contracting • Research & Development • Flex Space • Light Industrial • Warehousing & Logistics • Advanced Manufacturing
Secondary Uses	• Civic, Cultural, Community • Parking	• Active Adult Retirement Communities • Office • Hotel • Institutional • Parking	• Adult Daycare • Recreational Facility • Restaurant • Parking	• Retail & Service Commercial • Office • Institutional • Public Facilities/Utilities
Use Pattern	Based on Street Typology	Based on Street Typology	Based on Street Typology	Based on Street Typology
Target Residential Density	T-6: 50-100 du/acre T-5: 20-50 du/acre T-4: 8-24 du/acre	T-5: 20-50 du/acre T-4: 8-24 du/acre T-3: 4-12 du/acre	N/A	N/A
Target Non-Residential FAR	T-6: 2.30-3.00 FAR T-5: 1.38-2.30 FAR T-4: 0.57-1.38 FAR	T-5: 1.38-2.30 FAR T-4: 0.57-1.38 FAR T-3: Up to 0.57 FAR	T-4: 0.57-1.38 FAR T-3: Up to 0.57 FAR	T-3: Up to 0.57 FAR
Target Land Use Mix	Residential: 40-80% Non-Residential: 10-60% Civic: 5%	Residential: 30-60% Non-Residential: 30-60% Civic: 10%	Non-Residential: 95-100% Residential: 0% Civic: 5%	Residential: 0% Non-Residential 100% Civic: 0%
Target Building Height	T-6: 8-20 stories T-5: 6-12 stories T-4: 4-8 stories	T-5: 6-12 stories T-4: 4-8 stories T-3: 3-5 stories	T-4: 4-8 stories T-3: 3-5 stories	T-3: 3-5 stories

	Town Center	Community Mixed Use	Office Mixed Use	Technology/Flex
Minimum Open Space	10% of site	20% of site	10% of site	20% of site
Implementing Zoning District	PMD PMR PBD R-U B-2 O(L)	PMD PMR PBD R-16 B-2 O(L)	PBD PMD O(M) O(H)	PBD O(F) M-2
General Block Dimensions	200’ – 660 in length	200’ – 660 in length	Flexible Dimensions based on circulation patterns and access to buildings and parking areas.	Flexible Dimensions based on circulation patterns and access to buildings and parking areas.

	Town Center	Community Mixed Use	Office Mixed Use	Technology/Flex
General Building Placement	A build-to line should be established from the edge of the curb or right-of-way. Three distinct zones should be developed along the streetscape areas – Landscape Planting Area/Amenity Zone (minimum 8'), Sidewalk Through Zone (6'-8') and the Building Zone (ranges from zero to 6', depending on activity spaces along the street). Building placement guidelines should be based on overall Transect), and recommendations as mentioned within Guidelines section b: "Active Ground Floors and Street Wall Conditions."	A build-to line should be established from the edge of the curb or right-of-way. Three distinct zones should be developed along the streetscape areas – Landscape Planting Area/Amenity Zone (minimum 8'), Sidewalk Through Zone (6'-8') and the Building Zone (ranges from zero to 6', depending on activity spaces along the street). Building placement guidelines should be based on overall Transect), and recommendations as mentioned within Guidelines section b: "Active Ground Floors and Street Wall Conditions."	At major street intersections and in areas with higher levels of activity, it is recommended that at least 50% of each building's frontage should occupy the street frontage along designated build-to lines. The main entrances of buildings should be located along primary streets or facing key intersections. As these uses are primarily located in suburban areas, appropriate green buffers are recommended along roadways. The placement of a building in relationship to streets should be consistent with that of adjacent existing buildings, in order to establish a cohesive street wall and visual character along the street. When existing buildings are set back further from the street, new buildings may establish a precedent for a new build-to line closer to the street, specifically at major intersections or in areas with higher levels of activity.	At major street intersections and in areas with higher levels of activity, it is recommended that at least 50% of each building's frontage should occupy the street frontage along designated build-to lines. The main entrances of buildings should be located along primary streets or facing key intersections. As these uses are primarily located in suburban areas, appropriate green buffers are recommended along roadways. The placement of a building in relationship to streets should be consistent with that of adjacent existing buildings, in order to establish a cohesive street wall and visual character along the street. When existing buildings are set back further from the street, new buildings may establish a precedent for a new build-to line closer to the street, specifically at major intersections or in areas with higher levels of activity.
Street Type	Urban Street sections	Urban Street sections	Urban Street sections	Urban Street sections

	Town Center	Community Mixed Use	Office Mixed Use	Technology/Flex
Pedestrian and Bicycle Circulation	8' minimum sidewalk width on all non-local street types. 5' minimum sidewalk width on local streets. 10' shared use paths/trails connecting to natural areas	8' minimum sidewalk width on all non-local street types. 5' minimum sidewalk width on local streets. Sharrow or protected bike lane. 10' shared use paths/trails connecting to natural areas.	5' minimum sidewalk width. 10' shared use paths and/or trails connecting to natural areas.	5' minimum sidewalk width. 10' shared use paths and/or trails connecting to natural areas.
Parking	Prioritize on-street parking; off-street parking (garage, lots) should be located within block interiors or in rear yards. Require appropriate screening for off-street parking areas fronting primary streets. Access to off-street parking areas is recommended from secondary streets only to limit interruptions along primary street building frontages.	Prioritize on-street parking; off-street parking (garage, lots) should be located within block interiors or in rear yards. Require appropriate screening for off-street parking areas fronting primary streets. Access to off-street parking areas is recommended from secondary streets only to limit interruptions along primary street building frontages.	Landscapes screening required for off-street parking areas that has frontage on primary or secondary roads. Refer to "General Building Placement" above for "teaser parking" placement.	Prioritize on-street parking; off-street parking (garage, lots) should be located within block interiors or in rear yards. Require appropriate screening for off-street parking areas fronting primary streets. Access to off-street parking areas is recommended from secondary streets only to limit interruptions along primary street building frontages.
Access to Parking	Limited vehicular access from primary streets. Consolidated vehicular access points are recommended to simplify traffic patterns, limit streetscape interruptions, and minimize conflicts among pedestrians, bicyclists, and motorists. Residential driveways should be located behind the primary façade of the unit; rear alley access is preferred.	Limited vehicular access from primary streets. Consolidated vehicular access points are recommended to simplify traffic patterns, limit streetscape interruptions, and minimize conflicts among pedestrians, bicyclists, and motorists.	Parking and service access from secondary streets is preferred; access from primary streets should be limited. Pedestrian connections to the sidewalk and/or trail network are recommended	Parking and service access from secondary streets is preferred; access from primary streets should be limited. Pedestrian connections to the sidewalk and/or trail network are recommended.

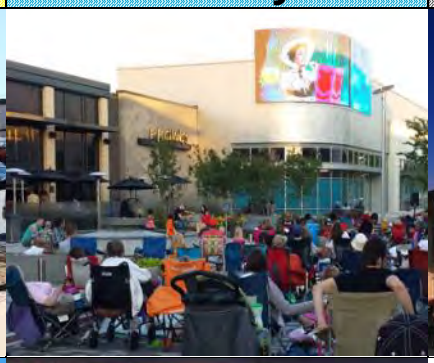
	Industrial Employment	Public Land	Parks & Open Space Passive	County Registered Historic Site
DESCRIPTION	 	 	 	 
	The purpose of the Industrial Employment classification is to provide for areas of economic base industries that must be screened and buffered from major transportation corridors and adjacent land uses. These screening and buffering requirements shall be as contained in the Zoning Ordinance and DCSM.	The purpose of identifying public lands in the Comprehensive Plan is to provide an indication of existing and planned public facilities, institutions, or other government installations such as but not limited to detention/correctional facilities, government centers, judicial centers, and related facilities. The appropriate Comprehensive Plan should be consulted for a more complete presentation regarding these public facilities.	The purpose of this classification is to designate existing and projected parks and recreational areas of the County. Passive uses generally require or result in little or no alteration of the landscape and produce little or no light, noise, or visual intrusion on their surroundings.	This classification is designed to protect important cultural resources. Cultural resources include architectural, archaeological, and historical resources. CRHS designations that are mapped on the Long-Range Land Use Plan Map include existing sites and districts that have a preservation easement or are either listed, pending, or deemed eligible for listing on the National Register of Historic Places or Virginia Historic Landmarks Register.

	Industrial Employment	Public Land	Parks & Open Space Passive	County Registered Historic Site
Primary Uses	• Manufacturing • Industrial parks, • Wholesale/distribution facilities warehouses • Certain public facilities and utilities • Other industrial uses.	• Public Facilities • Institutions • Government Center • Judicial Centers • Transit Centers • Commuter lots	• Passive recreation • Trails, hiking, bicycles • Fishing • Canoeing, kayaking	In this designation, development that would potentially impact these resources shall occur in accordance with the standards and criteria set forth in the Cultural Resources Plan.
Secondary Uses	Retail and/or retail service uses shall represent no greater than 25 percent of the total EI gross floor area of the project.	N/A	N/A	N/A
Use Pattern	Based on Street Typology	Based on Street Typology	Based on Street Typology	Based on Street Typology
Target Residential Density	N/A	N/A	N/A	T-3: 4-12 du/acre
Target Non-Residential FAR	T-3: 0.23-0.57 FAR	T-3: 0.23- 0.57 FAR	N/A	T-3: 0.23-0.57 FAR
Target Land Use Mix	Non-Residential: 100%	Civic: 100%	Civic: 100%	Varies
Target Building Height	T-3: 3-5 stories	T-3: 3-5 stories	N/A	T-3: 3-5 stories
Minimum Open Space	20% of site	20% of site	90-100%	20% of site
Implementing Zoning District	M-1 M-2 MT	N/A	N/A	N/A

	Industrial Employment	Public Land	Parks & Open Space Passive	County Registered Historic Site
General Block Dimensions	Flexible dimensions based on circulation patterns and access to buildings and parking areas	Flexible dimensions, based on circulation patterns and access to buildings and parking areas.	Flexible dimensions based on circulation patterns and access to buildings and parking areas.	Flexible dimensions based on circulation patterns and access to buildings and parking areas
General Building Placement	Appropriate green buffers are recommended along roadways. Buildings should be placed behind the landscaped buffer areas. Main entrances of buildings should be located along primary streets or facing key intersections. Outdoor storage shall be limited and located where appropriate screening is provided from ROW and other significant viewpoints.	Appropriate green buffers are recommended along roadways. Buildings should be placed behind the landscaped buffer areas. Main entrances of buildings should be located along primary streets or facing key intersections	Appropriate green buffers are recommended along roadways. Buildings should be placed behind the landscaped buffer areas.	Appropriate green buffers are recommended along roadways. Buildings should be placed behind the landscaped buffer areas. Main entrances of buildings should be located along primary streets or facing key intersections
Street Type	Standard street sections	Standard street sections	Standard street sections	Standard street sections
Pedestrian and Bicycle Circulation	5' minimum sidewalk width. 10' shared use paths and/or trails connecting to natural areas.	5' minimum sidewalk width. 10' shared use paths and/or trails connecting to natural areas	5' minimum sidewalk width. 10' shared use paths and/or trails connecting to natural areas.	5' minimum sidewalk width. 10' shared use paths and/or trails connecting to natural areas.
Parking	N/A	Off-street parking is allowed in front, side, and rear yards on all street types. Landscaped buffers are recommended for front yard parking along primary streets. Drop-off zones are permitted at the rear, side, or front of buildings	N/A	N/A

	Industrial Employment	Public Land	Parks & Open Space Passive	County Registered Historic Site
Access to Parking	Consolidated vehicular access along primary streets. Pedestrian connections to the sidewalk and/or trail network is recommended.	Consolidated vehicular access along primary streets. Pedestrian connections to the sidewalk and/or trail network is recommended.	Consolidated vehicular access points are recommended to simplify traffic patterns, limit streetscape interruptions, and minimize conflicts among pedestrians, bicyclists, and motorists.	Consolidated vehicular access along primary streets. Pedestrian connections to the sidewalk and/or trail network is recommended.

Figure 39: Description & Uses of Proposed Long-Range Land Use Classifications

	University Village Overlay	Arts & Entertainment Overlay	Transit District Overlay
DESCRIPTION	 	 	 
	The University Village overlay district provides a mix of uses arranged in a pedestrian-friendly form adjacent to a University or College. The village centers are locations for commercial, institutional, and residential uses to support GMU and nearby employment centers. Streets are interconnected and multimodal with parking located behind buildings. Short blocks with shallow setbacks and on-street parking are appropriate.	The Arts & Entertainment District overlay district provides opportunities for a pedestrian friendly access to arts, cultural and entertainment venues supported by retail, dining, creating, and exploring opportunities. Buildings in this area have medium to deep setbacks and block sizes to accommodate public art sculptures or displays, performances, and promenades.	The Transit District overlay provides opportunities for residential uses within an underlying zoning district that does not offer residential as primary or secondary uses. This overlay district is only applicable in the districts indicated on the Long-Range Land Use classification map of the respective small area plan.

	University Village Overlay	Arts & Entertainment Overlay	Transit District Overlay
Primary Uses	In addition to the underlying district uses, the University Village district allows the following primary uses: • Healthcare • Science and Technology • Residential/Dorms • Academic support facilities	In addition to the underlying district uses, the Arts & Entertainment district allows the following primary uses: • Cultural Arts Center • Theaters • Music store and education venue • Academy for Performing Arts • Art Galleries • Dance/Yoga Studio • Museum • Art studio (lessons, painting, pottery, etc.)	Primary uses are defined by the underlying district. In addition to the underlying district primary uses, the Transit district allows the following secondary uses: • Multifamily residential • Attached residential
Secondary Uses	In addition to the underlying district secondary uses, the University Village district allows the following secondary uses: • Civic, Cultural, Community • Parking • Hotel • Conference Center	In addition to the underlying district secondary uses, the Arts & Entertainment district allows the following secondary uses: • Restaurant • Brewery/Distillery • Retail • Café	In addition to the underlying district secondary uses, the Transit district allows the following secondary uses: • Flexible Commercial
Use Pattern	Based on Street Typology	Based on Street Typology	Based on Street Typology
Target Residential Density	T-6: 50-100 du/acre T-5: 20-50 du/acre T-4: 8-24 du/acre	N/A	T-4: 8-24 du/acre T-3: 4-12 du/acre
Target Non-Residential FAR	T-6: 2.30-3.00 FAR T-5: 1.38-2.30 FAR T-4: 0.57-1.38 FAR	T-3: 0.23-0.57 FAR	T-4: 0.57-1.38 FAR T-3: 0.23-0.57 FAR
Target Land Use Mix	Residential: 40-80% Non-Residential: 10-60% Civic: 5%	Residential: 0% Non-Residential: 95% Civic: 5%	Allows for up to 60% residential
Target Building Height	T-6: 8-20 stories T-5: 6-12 stories	T-3: 3- 5 stories	T-4: 4-8 stories T-3: 3-5 stories

	University Village Overlay	Arts & Entertainment Overlay	Transit District Overlay
Minimum Open Space	10% of site	10% of site	10% of site
Implementing Zoning District	PMD PMR PBD R-U B-2 O(L)	PBD O (M) B-1	O(H) O(M) O(F) PBD PMR
General Block Dimensions	200' – 660 in length *Subject to VDOT spacing requirements and access Management Regulations.	200' – 660' in length *Subject to VDOT spacing requirements and access Management Regulations.	200' – 660' in length *Subject to VDOT spacing requirements and access Management Regulations.
General Building Placement	A build-to line should be established from the edge of the curb or right-of-way. Three distinct zones should be developed along the streetscape areas – Landscape Planting Area/Amenity Zone (minimum 8'), Sidewalk Through Zone (6'-8') and the Building Zone (ranges from zero to 6', depending on activity spaces along the street). Building placement guidelines should be based on overall Transect), and recommendations as mentioned within Guidelines section b: "Active Ground Floors and Street Wall Conditions."	A build-to line should be established from the edge of the curb or right-of-way. Three distinct zones should be developed along the streetscape areas – Landscape Planting Area/Amenity Zone (minimum 8'), Sidewalk Through Zone (6'-8') and the Building Zone (ranges from zero to 6', depending on activity spaces along the street). Building placement guidelines should be based on overall Transect), and recommendations as mentioned within "Active Ground Floors and Street Wall Conditions."	A build-to line should be established from the edge of the curb or right-of-way. Three distinct zones should be developed along the streetscape areas – Landscape Planting Area/Amenity Zone (minimum 8'), Sidewalk Through Zone (6'-8') and the Building Zone (ranges from zero to 6', depending on activity spaces along the street). Building placement guidelines should be based on overall Transect), and recommendations as mentioned within "Active Ground Floors and Street Wall Conditions."
Street Type	Urban Street sections	Urban Street sections	Urban Street sections
Pedestrian and Bicycle Circulation	10' shared use paths and/or trails connecting to natural areas 5' minimum sidewalk width on local streets. Bike Lanes	10' shared use paths and/or trails connecting to natural areas 5' minimum sidewalk width on local streets.	10' shared use paths and/or trails connecting to natural areas 5' minimum sidewalk width on local streets.

	University Village Overlay	Arts & Entertainment Overlay	Transit District Overlay
Parking	Prioritize on-street parking; off-street parking (garage, lots) should be located within block interiors or in rear yards. Require appropriate screening for off-street parking areas fronting primary streets. Access to off-street parking areas is recommended from secondary streets only to limit interruptions along primary street building frontages.	Access to off-street parking areas is recommended from secondary streets only to limit interruptions along primary street building frontages.	Access to off-street parking areas is recommended from secondary streets only to limit interruptions along primary street building frontages.
Access to Parking	Limited vehicular access from primary streets. Consolidated vehicular access points are recommended to simplify traffic patterns, limit streetscape interruptions, and minimize conflicts among pedestrians, bicyclists, and motorists. Residential driveways should be located behind the primary façade of the unit; rear alley access is preferred.	Limited vehicular access from primary streets. Consolidated vehicular access points are recommended to simplify traffic patterns, limit streetscape interruptions, and minimize conflicts among pedestrians, bicyclists, and motorists	Limited vehicular access from primary streets. Consolidated vehicular access points are recommended to simplify traffic patterns, limit streetscape interruptions, and minimize conflicts among pedestrians, bicyclists, and motorists

Figure 40: Description & Uses of Proposed Land Use & Overlay Districts

Prince William County is implementing multimodal planning using the methodology developed by the Department of Rail and Public Transportation (DRPT). The *Multimodal System Design Guidelines (2013)* established a process to facilitate the coordination of integrated multimodal transportation systems throughout Virginia. This process includes analysis of existing and future population and employment density, designation of multimodal districts and corridors, determination of modal emphasis, and ultimately, the planning for specific street cross sections within activity centers. Although this plan is not intended to be reviewed under the DRPT system, by using the guidelines future incorporation of the plan into a Multimodal System should be seamless. The DRPT Multimodal Design Guidelines define **Activity Density** as (jobs + people)/acre. Prince William County will determine the activity density for each small area plan district by calculating the potential number of jobs and population expected with planned residential and non-residential development of the planning area. The table below provides detail on the activity density for the Innovation Park Small Area Plan (a multimodal district) consistent with the Transect Zones, Future Land Use map, and Design Guideline Zones/Clusters. The planned activity density for the Innovation Park Small Area Plan is between 15 and 28 activity units per acre, which corresponds on the high end to a P4 Large Town or Suburban Center type according to the DRPT Multimodal System Design Guidelines. These numbers include existing and zoned but not built non-residential gross floor area, jobs, dwelling units, and people.

District (Small Area Plan)	**Innovation Park Small Area Plan Estimates**		
	Low	Medium	High
Non-residential (Potential Gross Floor Area)	10,964,449	14,639,804	18,315,158
Jobs	19,917	29,155	38,392
Dwelling Units	2,392	3,196	3,997
People	5,385	7,207	9,022
Activity (Jobs + People)	25,302	36,362	47,414
Total Land Area (acres)	1,761.1		
Activity Density (Jobs + People)/Acre	14	21	27
Density Classification	P-4	P-4	P-4

MULTIMODAL CENTER INTENSITY			
Center Type	Activity Density (Jobs + people/acre)	Gross Development FAR (residential + non-residential)	Net Development FAR (residential + non-residential)
P-6 Urban Core	70.0 or more	1.0 or more	1.6 or more
P-5 Urban Center	33.75 to 70.0	0.5 to 1.0	0.8 to 1.6
P-4 Large Town or Suburban Center	13.75 to 33.75	0.21 to 0.5	0.3 to 0.8
P-3 Medium Town or Suburban Center	6.63 to 13.75	0.10 to 0.21	0.15 to 0.3
P-2 Small Town or Suburban Center	2.13 to 6.63	0.03 to 0.10	0.05 to 0.15
P-1 Rural or Village Center	2.13 or less	0.03 or less	0.05 or less
SP Special Purpose Center	Varies	Varies	Varies

Figure 41: Multimodal Center Intensity

Source: Virginia Department of Rail and Public Transportation Multimodal System Design Guidelines, March 2020.

Illustrative Plan

The Town Center represents the geographic core of the Innovation Park Small Area Plan. The Town Center will include a street grid based on urban and walkable blocks of 200'-660'. The Town Center will be divided by two main intersecting streets. The main street will be the primary east-west spine, with the GMU Campus to the east and Prince William Parkway to the west and is designed to integrate closely with the GMU campus drawing students towards a pedestrian oriented Plaza where both residents and students will find opportunities for dining, shopping and entertainment. The main street will also provide the main spine of commercial/retail opportunities integrated into the first floor of vertical mixed-use residential buildings. The north-south connector will intersect University Boulevard to the South and a roundabout moving traffic to the east towards the potential Innovation VRE station and north towards the proposed residential/office opportunities. The roundabout offers a unique opportunity to offer a distinct landmark showcasing the spirit of Innovation. Capitalizing on the opportunity to provide housing for the GMU campus student housing opportunities will be located on the east side of the Town Center, closest to the GMU campus, to provide the greatest level of walkability and convenience. To increase transit opportunities an intra-shuttle network will provide convenient access to the existing Broad Run VRE Station and the potential Innovation VRE station to the north. Office and other employment opportunities will be focused along Prince William Parkway to create a distinct identity and showcase Innovation Park as a premier economic center.

Figure 42: Town Center Illustrative Plan

Figure 43: Town Center Streetscape

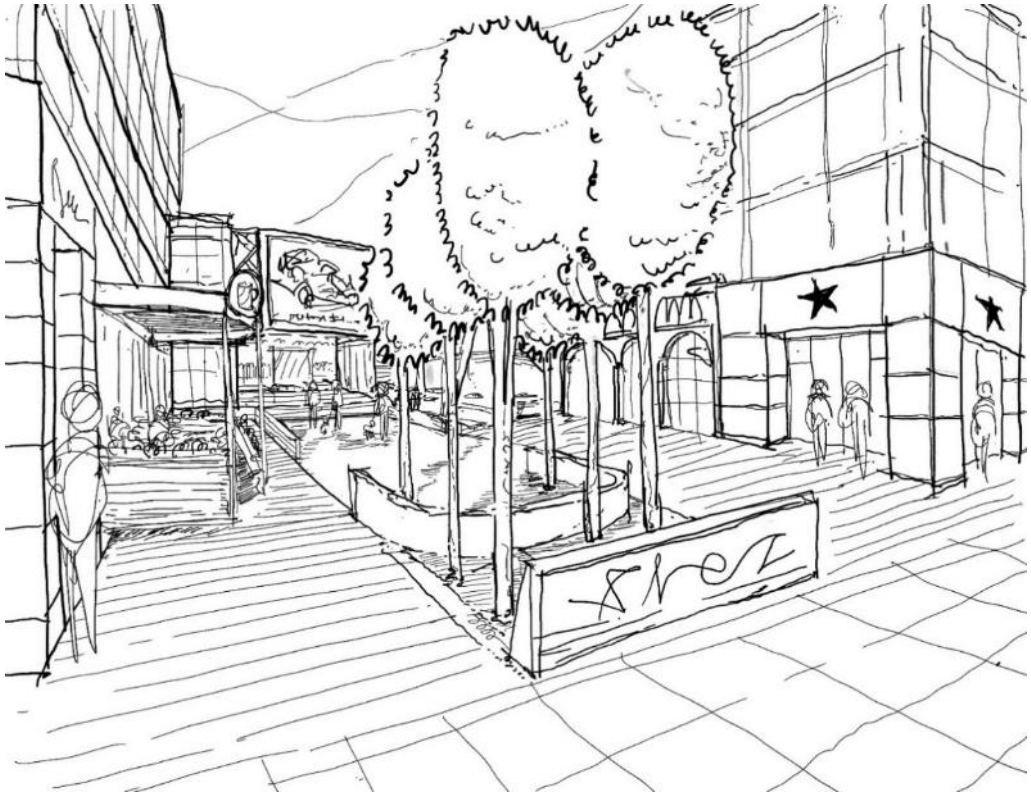


Figure 44: Pedestrian Plaza Character

DESIGN GUIDELINES

Purpose

Goal: Develop high-quality design guidelines that will ensure a well-designed pedestrian-scaled community that incorporates elements of access, architecture, visibility, security, sustainability, and innovation to develop a distinctive yet cohesive community.

A goal of the guidelines is to assist property owners, developers, and designers in the creation of project proposals. While the above place type charts identify many of the design standards of the Innovation Park Small Area Plan including density, height, and parking, the following guidelines create a baseline of minimum design expectations for both new development and modifications to existing land uses in the Innovation Park Small Area Plan.

The design guidelines focus on Urban Design aspects of the overall vision for Innovation Park as well as establish a unique character for Town Center (TC), Office Mixed Use (OMU), Community Mixed Use (CMU) and Technology/Flex (TF).

Innovation Park Small Area Plan will be implemented through various underlying County regulations and the following design guidelines.

Buildings

Character

1. Buildings should be designed to provide human scale, interest, and variety while maintaining an overall sense of relationship with adjoining or nearby buildings and the surrounding neighborhood.

- **1.1** Encourage a combination of architectural elements that lend the building a human scale. Examples include arcades, balconies, bay windows, roof decks, trellises, landscaping, awnings, cornices, friezes, art concepts, and courtyards.
- **1.2** Incorporate tighter, more frequent rhythm of spacing of columns, bays, or other vertical articulation, subdividing the building façade into smaller, more human scaled elements.
- **1.3** Incorporate fenestration techniques that indicate the scale of the building (e.g., size, location, and number of windows in an urban setting create a sense of interest that relies on a subtle mixture of correct ratios, proportions, and patterns).

2. Buildings should possess an architectural character that respects traditional design principles, such as:

- **2.1** Variation in the building form such as recessed or projecting bays or other architectural elements.
- **2.2** Expression of architectural or structural modulations and details. Encourage vertical modulation on multi-story buildings to add variety and to make large buildings appear to be an aggregation of smaller buildings. Encourage a variety of horizontal modulation techniques to reduce the architectural scale of the building and add visual interest.
- **2.3** Avoidance of repetitive modulation techniques, which may not be effective when viewed from distance.
- **2.4** Diversity of window size, shape or patterns that relate to interior functions.
- **2.5** Emphasis of building entries through projecting or recessed forms, detail, color, or materials.
- **2.6** Variations of material, modulation techniques, expressed joints and details, surface relief, color, and texture to scale.

Human scale is a term generally used to indicate a building's size relative to a person, but the actual size of a building or room is often not as important as its perceived size.

Use of fenestration techniques that help indicate the scale of the building.

Use of vertical and horizontal modulations in buildings.

Buildings – Character (cont.)

3. All buildings should be designed specifically for the context and character of the corridor and the neighborhood in which they are located.

3.1 Individual buildings should contribute to the overall character and imageability of the street and neighborhood in which they are located.

3.2 Iconic building design is encouraged at identified gateway and landmark locations.

3.3 Art integrated into building façades or forms, and/or specially designed architectural ornament is encouraged.

4. Corner buildings at primary project entrances or high traffic internal nodes, whether free-standing or developed as part of a block, should be designed to visually accentuate the vehicular and pedestrian experience (e.g. Iconic or statement building with clipped/angled corner treatment to increase the line of site at the intersection and provide a safer landing zone for pedestrians at these intersections). These elements should be designed to support the overall architectural character and theme of the development and are not intended to be developed as signage or to promote retail brand architectural elements that are retail tenant specific.

5. Buildings for different uses should utilize different architectural techniques to highlight their function, while maintaining visual interest within the context of surrounding character of the built environment.

5.1 A variety of techniques should be used for multi-tenant retail buildings to emphasize individual storefronts.

5.2 Buildings for residential uses should provide horizontal modulations based on individual unit size. Larger residential buildings will require greater horizontal modulation techniques to provide appropriate architectural scale.

5.3 Mixed-used buildings should be designed to express the individual uses internal to the building. For example, the architectural façade should clearly define the retail portion of the building through architectural embellishments such as awnings. If the upper floors are residential, they should be defined through differences in architectural features and color.

5.4 Office buildings should apply design techniques to break up long continuous walls. A combination of horizontal building modulation, change in fenestration, and/or change in building materials should be used to accomplish this.

Iconic building and corner treatment

Use of horizontal modulation to emphasize size of units in residential buildings

Definition of retail portion of a mixed-use building through use of architectural embellishments such as awnings

Buildings

Form

1. At prominent intersections, new development should create occasional special building forms that terminate views, create a unique roofline, and aid in wayfinding of landmarks.
2. Building form should emphasize important components of a building, such as an entry, or a special internal space.
3. Building form should take advantage of site conditions to maximize energy efficiency and take advantage of local microclimate conditions.
    - 3.1. Lower building heights or upper level step backs are encouraged on the south or east side of the street or public open space in order to provide greater sun penetration to the ground level.
4. Taller buildings adjacent to lower buildings should establish scale relationships with lower, neighboring buildings through methods such as: compatible horizontal alignment of architectural features and fenestration, and height and form transitions from one building to another.
5. Employ 360-degree architecture where appropriate. Building form should employ a uniform level of quality on all sides of the building.

Building forms that terminate views

360-degree architecture providing equal consideration of all sides of building(s)

Example of upper-level step backs

Buildings

Façade

9. Multi-story buildings should generally have three vertical divisions: bases, middles, and tops

9.1 Each base should be composed of the first floor or first two floors of the building and should be designed to give the appearance of greater height than any floor of the middle.

9.2 The top of buildings above four stories may have a cap set back above the lower stories, which is distinctive in shape and smaller than the previous floor.

10. Building design should create varied roof parapet and cornice lines in order to create interesting and human scale rooflines (Note: this applies to all roofline types).

10.1 The design of roofscape elements of buildings over three stories should relate directly to the building walls.

11. Building façades should be designed to provide human scale, detail, and articulation to avoid large areas (i.e., no more than 30 percent) of undifferentiated or blank façades. Typical techniques include:

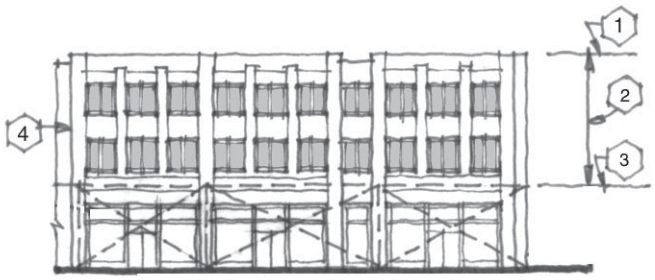
11.1 Provide architectural techniques, including horizontal modulation and different building materials and/or color, that add visual interest at a pedestrian scale.

11.2 Install trellises with climbing vines or other plant materials to cover the surface of the wall. For long walls, a trellis or trellises should be combined with other design treatments to avoid monotony.

11.3 Provide appropriate artwork, in consultation with the Planning Office, on wall surfaces.

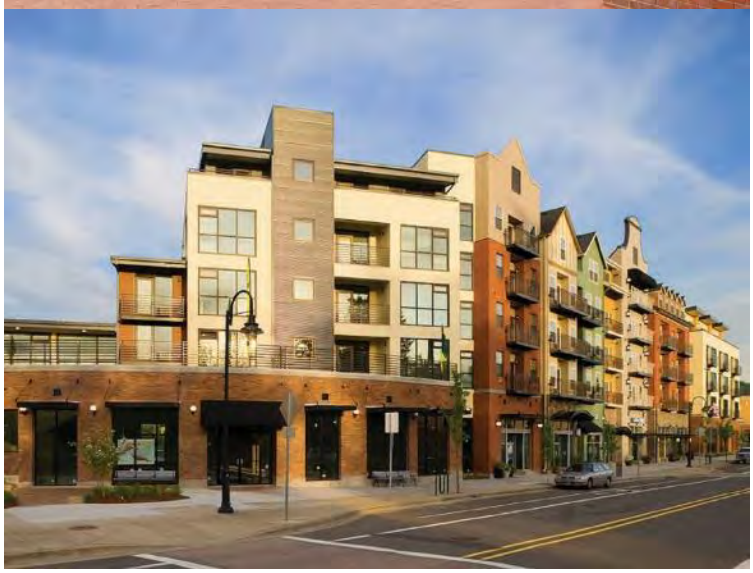
11.4 Other treatments may be proposed that meet the intent of the guidelines.

Typical components of a building façade



1. TOP OF PARAPET, CORNICE, EAVE OR FACADE
2. UPPER FLOOR FACADE HEIGHT
3. FIN FL. OF 2nd FLOOR OF THE OCCUPANCY ABOVE THE GROUND FLOOR TENANT
4. FACE OF WALL OR SIGNIFICANT BREAK IN THE FACADE

Example of treatments to distinguish base, middle, and top of building



Vertical articulation of buildings

Buildings. – Façade (cont.)

12. Building façade(s) oriented to the street or public space should provide architectural variety and scale. This can be achieved through the use of such elements as: expressions of building structure; patterns of window, door or other openings that provide surface variation through change of plane, change in color; change in texture; change in material module or pattern; art or ornament integral with the building.

12.1 Primary building façades should provide vertical expression of architectural or structural bays through a change in plane that create interest through the interplay of light and shadow. Change in plane should be at a minimum of 18 inches in width for single story structures and a minimum of 24 inches in width for all structures exceeding two stories.

12.2 Distinctive corner, entry treatments and other architectural features designed to interact with contextual features may be designed differently than the base, middle, and top of the building. This difference would allow the addition of vertical emphasis at significant architectural points along the building façade.

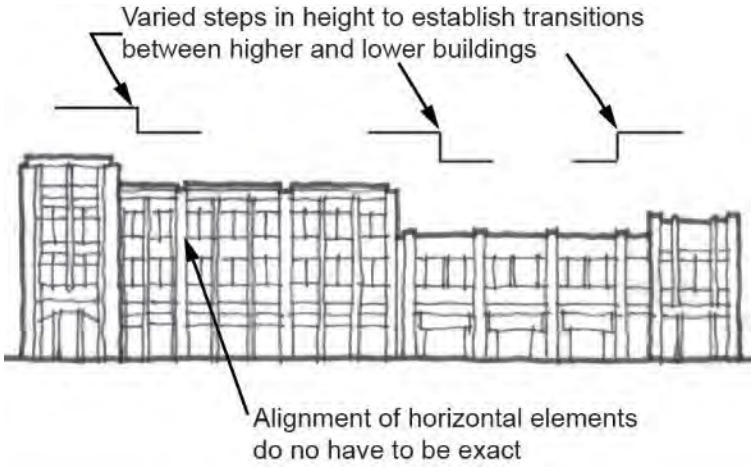
12.3 The architectural treatment of the building top should be designed to create a sense of distinctly completing the dominant architectural theme of the middle of the building. This architectural completion may be accomplished by such strategies as: change in the window rhythm, change in apparent floor height, setback, use of other materials, or a combination of these elements.

13. Buildings should use materials and colors that possess and convey a sense of quality and attention to detail and are compatible with materials of adjacent buildings.

13.1 Development should use lasting materials that weather well, need little maintenance, and resist vandalism.

13.2 Building materials should maintain a uniform level of quality on all sides of the building.

13.3 Materials and/or detailing at retail frontages should distinguish between the structural parts of a building (columns, walls, and beams), and the infill parts of a building (wall panels, frames, windows and doors). Infill materials should have a non-structural appearance.



Varied steps in height

Primary façade that provide change in plane that create interest through the interplay of light and shadow

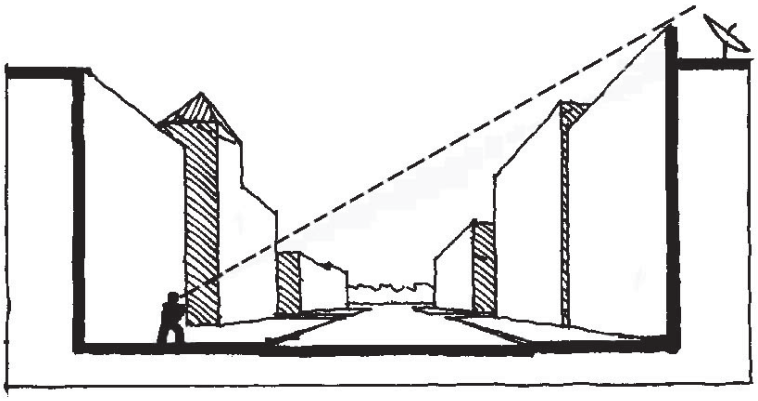
High-quality materials should be used to distinguish between structural and infill parts of a building

Buildings

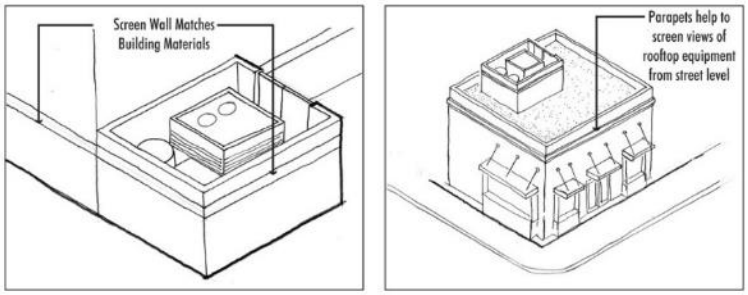
Rooftop Design

1. Rooftop design should retain integrity of architecturally designed building tops and help create interesting and varied skylines.
2. Encourage a variety of roofline modulation techniques (e.g., hipped or gabled rooflines and modulated flat rooflines). As a general rule, the larger the building or unbroken roofline, the bigger the modulation should be.
3. In mixed-use development, if residential uses are located near mechanical equipment, care should be taken to mitigate the impacts of noise and odors.
4. All roof-mounted mechanical and electrical equipment, communication antennae or dishes should be enclosed, screened, organized, designed, and/or located as part of the architectural expression and should not be visible from the public right-of-way. Any equipment should be covered or screened to its full height.
    - 4.1. Antennae that extend over five feet above the roof line are encouraged to have screening techniques applied such as color and material to minimize visibility.

Variations in rooftop design help create interesting skylines



Rooftop mechanical devices should be screened from view from the street or public sidewalk



Screening of rooftop mechanical equipment

Buildings

Transparency-applicable in Town Center, OMU and CMU Districts

1. The façade of the building base (ground level of the building) should provide a high level of transparency. Transparency refers to the degree to which people can view activities inside the buildings, retail goods for sale, or display lighted windows related to these activities. Physical elements that influence transparency include walls, windows, doors, fences, landscaping, and openings into midblock spaces.

1.1 Where functionally appropriate, the ground floor, street- facing façade should be made of transparent materials. Generally, buildings at grade should have anywhere from 70-90 percent glazing to include doors/windows. People are reluctant to walk due to the lack of transparency in places with 10 percent or less glazing.

1.2 When transparency is not functionally appropriate, other means should be used to provide activity along the street- facing façade such as public art; architectural ornament or detailing; or material, texture, or color patterns.

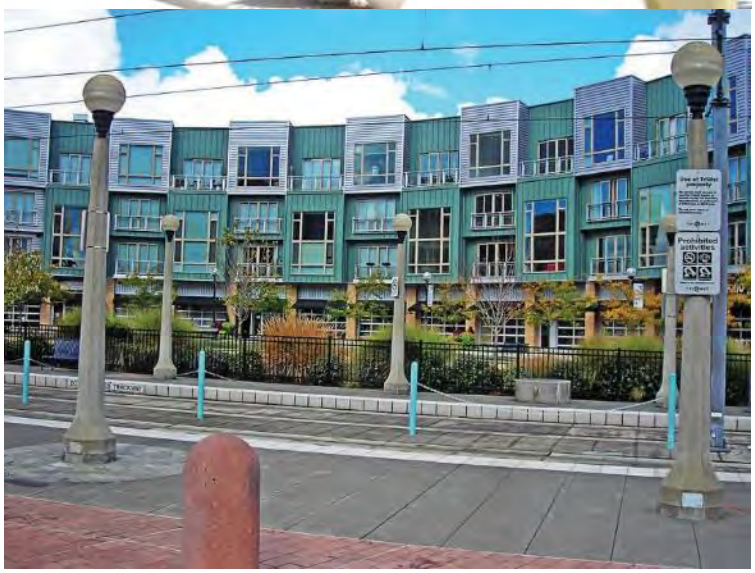
1.3 For non-retail glazing, reflective glass should be used sparingly, if at all, to reduce glare, reduce the opacity or blankness of the façade. Coated or tinted glass may be considered to reduce heat gain, particularly on west and south façades. In no case should highly reflective glass be used.

1.4 Glass without coatings or tints should be used for all retail glazing.

1.5 The base should have a greater level of transparency than the middle or top along the building's primary façade.

Building that exhibits a high degree of transparency

Base should have greater level of transparency than the middle or top



Upper level transparency should vary from transparency in base and middle

BUILDINGS

Entry

1. Primary building entrances should be oriented toward streets, parks or pedestrian plazas. In general, ground floor uses with exterior exposure should each have an individual public entry directly located on a public sidewalk along a street, or on a sidewalk or plaza leading directly to a street.
2. Weather protection should be provided along the primary entrance of all businesses, residential units, and other buildings.
   - **2.1** Covering treatments include covered porches, overhangs, awnings, canopies, marquees, recessed entries, or other similar features.
3. Pedestrian entries to buildings should promote security on a street or public open space through frequent points of access and sources of activity.
4. Building entrances should be highly visible and clearly articulated in the building architecture.
   - **4.1** Each multi-story building should have one clearly identifiable front door that addresses the street. In addition to this front door, a building facing multiple streets should include a highly visible entrance along each block face.
   - **4.2** Primary building entries should be oversized, and generally break the storefront/ground floor façade pattern, particularly for commercial and mixed-use buildings.
   - **4.3** Detailed and elaborate entries should be used as another way to create street level interest and architectural variety.
   - **4.4** Major building entries should be emphasized through such design devices as changes in plane, differentiation in material and/or color, greater level of detail, enhanced lighting, ornament, art, and/or building graphics.
5. Each block face in a development should have multiple entries.
   - **5.1** Mixed-use buildings with residential units should provide at least one separate entrance to access the residential units.
   - **5.2** All secondary building entries should be well lit and directly connected to the street.

Detailed and elaborate building entry

Primary building entry oriented towards street

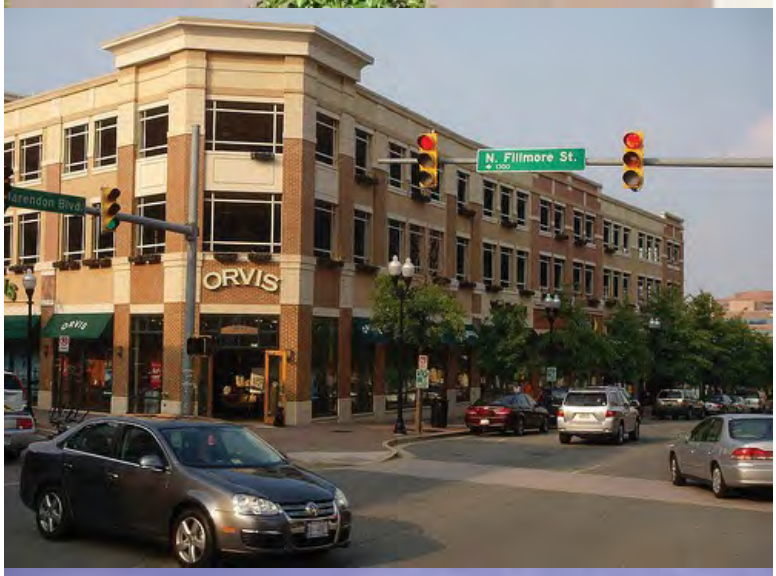
Emphasis on building entry visible from parking area

BUILDINGS

Parking Structures

1. The exterior of parking structures should be wrapped with mixed-use space in order to minimize the visual impact of parking on the pedestrian experience and the street environment, and to increase pedestrian activity and interest along the street by locating active uses at the street level of parking garages.
2. Garage façades visible from public streets and open spaces should be compatible in character and quality with adjoining buildings.
    - **2.1.** The façade of a parking structure facing a street should exhibit the same high level of quality in design, detailing, and materials as is provided in the adjoining buildings.
3. Parking structures should create visually interesting façades that provide human scale and detail while avoiding large areas of undifferentiated or blank façades.
4. Street-oriented façades should conceal or effectively reduce the impact of parked cars and light sources from the exterior view for the full height of the structure.
5. Multi-story parking structures (three levels or more) with façades facing public streets should provide commercial, live-work, residential and/or institutional space for not less than 50% of the garage's ground level street facing frontage, or the design and structure of the ground floor street frontage should be able to accommodate in the future one of the above listed uses.
6. Sloping ramps should not be visible within the street façade of any parking structure.

Opening of parking structures should be vertically and horizontally aligned with surrounding structures



Ground level retail use wrap and compatible façade on upper stories of parking structure

Garage façades create visually interesting façades compatible in character and quality with adjoining buildings, while concealing the impact of parked cars

BUILDINGS

Lighting

1. Building lighting should accentuate important architectural components of the building, such as entries, towers or roof elements, or repetitive columns or bays, and include decorative lighting.
2. Building lighting should provide indirect or direct lighting for adjoining sidewalks and open spaces.

   2.2 Building façades in pedestrian areas should provide lighting to walkways and sidewalks through building mounted lights, canopy- or awning-mounted lights, and display window lights.
3. Primary building entries should be externally lit to promote a more secure environment at the door, emphasize the primary point of entry into the building, and provide sufficient lighting for efficient access into the building.
4. Steps and/or ramps at or leading to a primary building entry should be illuminated sufficiently for safe access.
5. Entry lighting should complement the building's architecture. Standard security lighting such as wallpacks should not be allowed.

Lighting accentuating architectural features of the building

Building lighting providing indirect lighting for pedestrian areas

Site Design and Access

Building Orientation

1. The front façades and main entries of buildings should be oriented toward streets and plazas. When multiple streets are available, orientation should be towards the street with the highest potential pedestrian volumes and lowest vehicular traffic speeds.
2. Buildings should be sited to create active outdoor spaces where possible, such as plazas or seating where appropriate.
3. Building orientation should provide views of adjoining publicly accessible streets and open spaces in order to provide passive viewing for safety.
4. Buildings façades should define the street or public open space to which they are oriented and create a sense of enclosure.
5. Buildings should be located to promote sun and sky exposure to public streets and plazas and take advantage of local microclimatic conditions.
6. Buildings should use the full width of the lot for the primary structure and/or active outdoor space.
7. Buildings should line a street at the public right-of-way line or build-to line to the greatest extent possible. Exceptions include entry-plazas, forecourts, and side yard parking strips.
8. All buildings located at or near street corner should incorporate special architectural elements that add visual interest and provide a sense of human proportion and scale. This could include a raised roofline, corner balconies, bay windows, special awning or canopy design, and/or distinctive use of building materials.

Façades and entries oriented towards the street

Façades and entries oriented towards plaza

Creation of new perpendicular street/access drive to achieve adequate building orientation objectives

Site Design and Access

Vehicular Access

1. Uninterrupted pedestrian-ways should be maximized, and curb cuts limited in order to improve walkability.
2. Access points, including alleys, and driveways should be located to promote the safe and efficient movement of vehicles, pedestrians, and bicyclists.
3. Access points should meet the VDOT access management requirements.
4. The number and width of driveways and curb cuts should be minimized to reduce the overall impact of vehicular access across sidewalks and other pedestrian facilities.
5. Driveways and ramps should be perpendicular or generally perpendicular to the street and properly spaced.
6. Sharing of driveways between adjacent lots or among clustered buildings or developments is strongly encouraged.
7. Access for service vehicles should be provided via alleys or rear parking areas.

Driveway across sidewalk identified by material change

Access for service vehicles provided via alleys or rear parking areas

Service lane should be treated with equal consideration as front of building

Site Design and Access

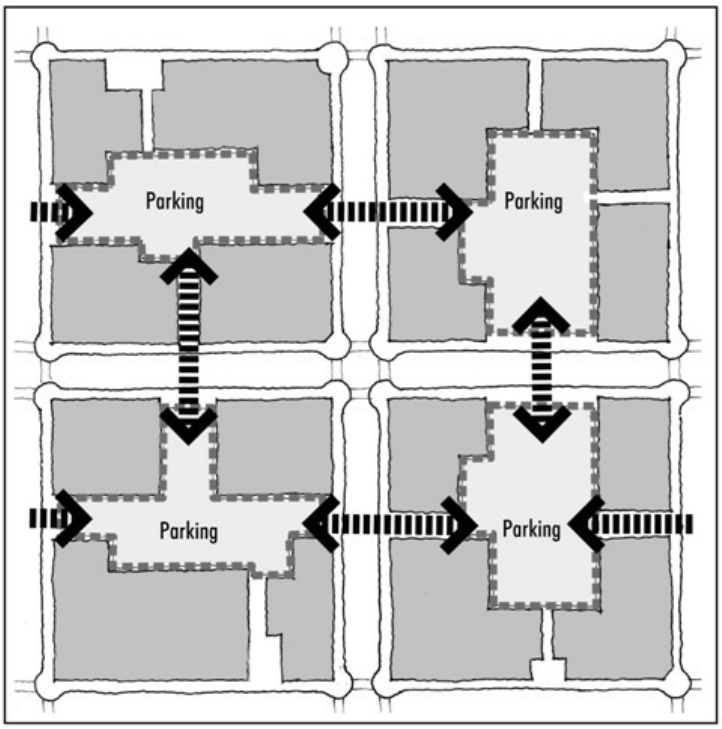
Parking

1. Buildings should be located to minimize the visual impact of parked vehicles within lots and structures.
2. Parking lot location should minimize the impact of (1) parked vehicles along active commercial, mixed use, and/or residential frontages; (2) the visual impact of parked vehicles; and (3) vehicle noise and headlights from parking areas onto adjacent residential neighborhoods.
    - **2.1.** Surface parking areas should be located at the side or rear of buildings fronting active street corridors. No more than one single-loaded row of parking shall be placed in the front of the building.
    - **2.2.** Parking lots and structures should be sited internally to the block so that parking lots or structure street frontages are avoided. If internal siting is not feasible, then the parking lot or structure should be oriented so that the shortest dimension fronts the street.
    - **2.3.** A landscaped buffer or architectural screening should be provided between parking lots or structures and residential buildings.
    - **2.4.** Parking structures with exposed street frontage should not be oriented toward residential uses.
3. Parking lots design should utilize green infrastructure and low impact development techniques to the extent possible to reduce surface water runoff and the heat island effect. Design should create meaningful open spaces not just grass strips and/or stormwater facilities.
4. The scale and overall amount of surface parking should be minimized.
5. Parking should be shared between adjacent lots or among clustered buildings or developments wherever possible.
6. Developers should pursue options such as shared parking, satellite parking for big shopping days, transit-oriented development, and other strategies that would allow for reductions in overall parking spaces.

On-street parallel parking

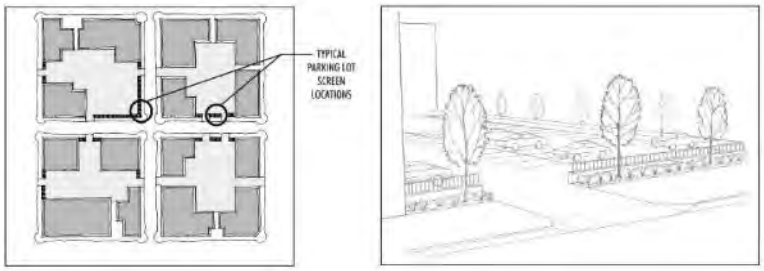
On-street diagonal parking

Surface parking areas located at rear of buildings fronting active street corridors



Parking shared between adjacent lots or clustered developments

Walkway design to access parking facilities



Parking lot screen

Landscape, Streetscape, Public Space

Plazas, Parks, and Open Space

1. Quality publicly accessible places to rest, meet, and gather for residents and employees should be provided as a part of the planned development.
2. Public open space should front onto or be connected to public streets with entrances that are clear, legible, and accessible.
    - **2.1.** Public open spaces and plazas should be located on major internal circulation routes, close to bus stops or strong pedestrian flows on neighboring sidewalks.
3. Transitional zones along building edges should be used to allow for outdoor eating areas and a planted buffer.
4. Building organization and placement should be designed to create internal pedestrian courtyards, green spaces, plazas, or other functional gathering spaces. For large sites, development should be configured to create a focal plaza or plazas.
    - **4.1.** Open spaces should be designed to support the pedestrian environment.
    - **4.2.** Storefronts, street vendors, or other pedestrian-oriented uses, to the extent possible, should front on at least three sides around the perimeter of the plaza.
5. Private open space may be fenced with wrought iron, masonry, or comparable decorative fencing and/or controlled for security.
6. All public and private open space not used for recreation should be attractively landscaped with three-level planting and hard surfaces.
    - **6.1.** Landscaping elements that add color and seasonal interest should be used. This can include trees, shrubs planting beds, potted plants, trellises, and hanging plants.
7. The solar orientation and the wind patterns in the design of the open space and choice of landscaping should be considered.

Public space suitable for passive recreation by multiple user groups

Open space accessible to the general public

Three-level planting (ground cover, shrub, and trees)

Landscape, Streetscape, Public Space

Hardscape

1. Hardscape design, including surface parking lots, should provide a quality of paving materials and patterns consistent with the quality of the surrounding architecture and open spaces and provide safe and accessible paving conditions for all persons.
2. Hardscape design should create interest and variation within paved surfaces that includes but is not limited to public art, coloring, or materials.
3. Special paving should be carefully chosen for structural capability and durability in the Northern Virginia climate and approved by VDOT. Concrete, colored concrete, brick, hydraulically- pressed concrete unit pavers or stone is recommended.
4. Special paving patterns and materials should be used to emphasize important building entries, provide interest and variation, and differentiate between sidewalks, plazas, medians, driveways, parking access, and crosswalks.
5. Sidewalks should be separated or buffered from vehicle travel lanes by street/pedestrian lights and street trees in grates or in a tree lawn.

Trees and Other Plant Materials

1. Street trees are an integral part of the streetscape; conditions should be created that allow them to thrive.
    - 1.1. Large tree pits or landscaped buffer (curbside planting strip) that allow for a broader canopy trees are preferred over typical street trees. Ornamental trees should not be used in a street right of way.
    - 1.2. Tree grates or curbside planting strips should be used in paved areas to prevent excessive soil compaction.
    - 1.3. Curbside planting strips should be a minimum of 6 feet in width, measured from the back of curb to the edge of the sidewalk and street trees should be centered within the planting strip.

Variety in sidewalk paving materials

Hardscape consistent with quality of surrounding architecture and open spaces

Special paving material and pattern used for sidewalk and crosswalk paving*
(*May require crosswalk studies.)

Trees and landscaping creating a strong sense of identity.

Planting appropriate to the site context and conditions

Low impact development (LID) curbside planting strips creating a buffer between the roadway and the sidewalk

Landscape, Streetscape, Public Space

Street Furniture and Sidewalk Amenities

1. Ample comfortable seating that encourages lingering and social interaction should be provided on active streets and in all public spaces.
   - **1.1** Seating should be durable, comfortable, attractive, securely anchored, and easy to maintain.
   - **1.2** Seating should include designs that make them smaller so that it discourages sleeping.
   - **1.3** Street amenities such as railing and benches should be designed to prevent them being used for skateboard "sliding".
   - **1.4** Seating, trash receptacles, and other amenities should be located to be accessible and convenient to active uses, but not interfere with pedestrian movement along sidewalks and through plazas or other open space.
   - **1.5** Trash receptacles should be located at areas where high pedestrian activity is anticipated.
2. Trash receptacles should relate in appearance and color to other street furniture. They should be firmly attached to paving to avoid vandalism. Covered tops and sealed bottoms should be included to keep the contents always dry and out of sight .
3. Bicycle parking facilities such as bike racks should be placed near entrances or gathering places, but out of pedestrian and bicycle traffic areas where they may create tripping or other safety hazards. If possible, locate racks where parked bicycles are visible from the inside of adjacent buildings.

Lighting

1. Lighting should provide a safe and secure environment for motorists, bicyclists, and pedestrians.
2. Lighting should create an identity for the development and/or special streets.
3. Lighting should enhance the quality of streets in the commercial core through the design of the light poles, bases, fixtures, and attachments.
4. Street and/or pedestrian light poles should be aligned with and centered between street trees.
5. Canopy trees and landscaping should not, at planting or maturity, interfere with or obstruct lighting.
6. Where the light source is directly visible, the luminaries should be designed to incorporate elements to reduce glare, such as translucent, internal refracting

surfaces to direct light down and away from adjoining private property; lower height poles; lower wattage or pole location.

Durable and comfortable seating

Bicycle parking facilities placed near entrances or gathering places

Lighting directed down and away from adjoining private property

Landscape, Streetscape, Public Space

Public Art

1. Public art should engage the community and express community identity. Developers are encouraged to integrate public art.
2. Art should provide shade structures at appropriate locations, particularly on the north side of the street.
3. Commissioned works should exhibit superior craftsmanship and design, and be fabricated of durable, low maintenance materials using proven technologies. A range of signature pieces should include integrated urban design elements, architectural detailing, and interactive features.
4. Art should be sited to create areas of emphasis within the urban fabric while supporting the social function of each space.
5. Selected artworks should include interactive elements allowing residents and visitors to walk through, play, sit on, and otherwise physically interact with the finished work.
6. Artwork, where appropriate, should be integrated into infrastructure and site furnishings (i.e., hardscape/landscape elements, building façades, tree gates, wayfinding devices, seating, etc.).
7. All plaza areas should include public art.
8. Artwork should be designed and sited to correlate with surrounding activity patterns.

Artwork exhibiting superior craftsmanship and design, creating experience for humor and play

Artwork integrated into infrastructure and site furnishing

Public art as focal point of plaza area

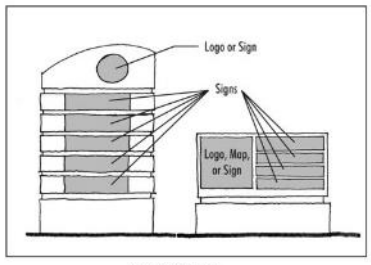
Signage

1. Signs should be located, sized, and designed for single or multiple uses to eliminate conflicts, predict the impact and effects of the signs on adjoining properties, avoid clutter, and achieve the desired character of their application.
2. The size of signs should be related to the location and speed of movement of a pedestrian viewing the sign.
3. Signs should not be located within the residential portion of the façade of any mixed-use building (except on ground floor entry).
4. Window, awning, and projecting signs should not be allowed above ground floor.
5. Wall signs:
   - **5.1.** Should not be located higher than two stories.
   - **5.2.** Signs located on the side wall of a building that faces a side property line, alley, or parking area (including a side property line along a street) should not be lighted above the ground floor.
6. Projecting signs:
   - **6.1.** Each use by right should be limited to one projecting sign for each of the use's street frontage.
   - **6.2.** All projecting sign structures on a building should be located at the same height as the other sign structures.
   - **6.3.** Should be located above or below non-signed awnings, but not in line with the awnings.
7. Awning signs:
   - **7.1.** Should not extend beyond a building's or storefront's individual bays.
   - **7.2.** Should be located primarily on the awning valence that faces the street, not on a valence that is generally perpendicular to the street.
8. Free-standing signs:
   - **8.1.** Only one monument or street frontage sign should be allowed per building.
   - **8.2.** Should have no more than one sign cabinet or backing panel.
9. Gateway signs:
   - **9.1.** Façade materials and wording consistent with other gateway signs at entrances into the study area.
10. Wayfinding Signs:

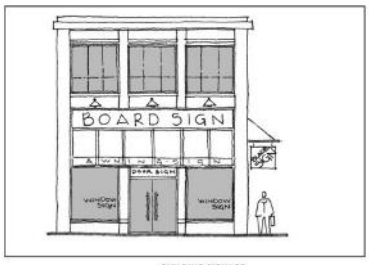
    10.1 Materials and design must be consistent throughout the plan area. (Requires VDOT approval on public roads.)

Wall sign

Projecting sign



MONUMENT SIGNAGE



BUILDING SIGNAGE

Signage examples

Design Guidelines for Franchise Developments

Franchise developments include large scale retails, drive-through, drive-up or drive-in establishments, gas stations and convenience stores, and/or other chain commercial developments. These guidelines apply specifically to franchise developments, in addition to the general design guidelines presented under Sections 2 and 3.

Buildings

1. Alternative designs to standardized franchise or corporate architecture, and bright or highly contrasting color schemes are encouraged.

1.1. New buildings should be designed to be compatible and sensitive to surrounding context and should consider the planned context.

1.2. On sites where no build form context exists, new proposals should establish a high-quality public realm.

1.3. Prototypical and/or prefabricated buildings should be avoided. Instead unique building types and expressions should be developed to address individual site conditions and these design guidelines.

2. The parapet wall section of the façade may not be used to convey identity of a particular commercial branded business through corporate color, materials, or logo identification.

3. Make walls along the street face visible from the street; use with windows, doors, and other forms of transparent building materials to maximize views in and out of the building and the relationship between interior and exterior.

4. Where possible, stand-alone buildings and/or structures should be avoided and building and drive-through facility should be incorporated into larger, multi-use buildings.

4.1. Structures including weather protection devices, canopy, carwash, and cashier's booth on the site should be designed with consistent materials, architectural details, and design elements as the main structure to ensure a cohesive project.

5. Uses that support the street should be located along the public sidewalk (such as restaurant seating or offices).

Use of alternative designs to standardized franchise or corporate architecture or color scheme

Commercial building design using features to be compatible with surrounding context

Commercial buildings reflecting actual floors within the building use

Access and Entries

1. At corner location, the main entrance door should be located at the corner or on the higher pedestrian volume street.
2. Incorporate a customer building entryway on all sides of the building that directly face or abut a public street or public parking area.
3. Change in grade (slope) greater than four percent between the public sidewalk and adjacent uses should be avoided. This will maintain direct pedestrian access to the building and site and not detract from visual access between the building interior or site's pedestrian amenities and public realm.
4. Drive-through facilities should employ the following to achieve a high-quality public realm:
   - **4.1.** Locate buildings at street edge.
   - **4.2.** Locate main entrances at the street with a direct route from the public sidewalk.
   - **4.3.** Separate vehicular and pedestrian traffic.
   - **4.4.** Locate stacking lanes, driveways, parking utilities, and services away from the street (non-street side of building).
   - **4.5.** Do not locate stacking lanes or driveways between the building and the street.
   - **4.6.** Multiple windows servicing a single stacking lane (e.g., order window, payment window, pick-up window) should be considered to promote reduced idling.
   - **4.7.** Drive-through elements (food ordering and pick-up areas, menu boards, etc.) and other structures (e.g., canopies should be integrated into the building and site designs, rather than having them appear to be "stuck-on" the building or placed as unrelated stand-alone elements.
5. Curb cuts should be minimized to allow for uninterrupted, safe, and inviting pedestrian access to multiple store fronts.
6. The service entry, trash enclosure, and drive-through should be screened from street-view.

Entries to commercial buildings should be clearly defined

Integration of drive-through elements into the building and site design

Public Space

1. A central area or feature, such as a patio/seating area, pedestrian plaza with benches, outdoor playground, water feature, and/or other such deliberately designated area or focal point should be provided. All such areas should be designed with materials compatible with the building and remainder of the site.
2. Outdoor seating areas play areas and equipment, and perimeter fencing should be compatible and integrated with the main building architecture.
3. Pedestrian safety, amenity, and circulation.

   3.1 To ensure pedestrian safety and comfort, sites with drive-through facilities should be organized so that it is not necessary for pedestrians to cross stacking lanes, driveways, or parking when accessing the site from adjacent streets.

   3.2 The design of the site, building, and landscape should provide barrier-free accessibility from the public sidewalk to the building interior.
4. Paved areas should be minimized. Water-permeable surfaces and soft landscaped areas should be maximized to contribute to the appearance and environmental sustainability of the site and its larger context by increasing water penetration into the water table, reducing pollution of local water features and runoff demand on local infrastructure.

Provision of functional outdoor area as focal point of the development

Outdoor area and provided amenities should be compatible and be integrated into the main building's architecture

Site design providing barrier free access to the commercial development from the public space or pedestrian circulation area

Glossary of Terms

360-degree architecture: building design that gives equal consideration to all sides of building.

Articulation: (architecture) the method of styling, commonly, the exterior façade of the building.

Typically, it refers to the façade detail and architectural elements, which creates human scale patterns or rhythm, and adds visual interest, depth, and character along the street wall. These elements contribute to the walking experience and help maintain the pedestrian's interest.

Awning signs: attached or printed on a canopy protects people from the sun and the elements.

Block face: length of one block.

Building Character: overall architectural style, look and feel of a building

Building Form: Massing or height, volume, and general shape of a building, including setbacks.

Cap: (architecture) the top element in a division or structure.

Context-sensitive design: designs that incorporate solutions which are compatible or respect the context of the surrounding build and natural environments.

Cornice: typically, a horizontal decorative element or molding that projects along the top of a building wall or other structural elements.

Vertical articulation of buildings

Cornice

Curb cut: a cut in the curb associated with a driveway to provide access for vehicles into a parking area, alley, or loading zone.

Eaves: describes the edge of the roof that typically extends beyond the building wall as protection from precipitation.

Façade: is one of the exterior sides of the building, typically representing the front building wall and incorporated architectural features.

Free-standing signs: typically, self-supportive by a post or posts mounted into the ground.

Frontage: length of the property or building measured alongside the road that the property or building fronts.

Human scale: the degree to which the size, texture, and articulation of physical elements match the size and proportions of the human body and correspond to the speed at which humans walk.

Gateway: a distinctive element which marks the entrance of a district.

Iconic: (architecture) a building that expresses unique or inspiring design that help establish a distinctive identity of place.

Imageability: the quality of a physical object, which gives an observer a strong, vivid image; a city or a place with high imageability would contain very distinct parts and would be instantly recognized by people.

Joint: (architecture) the junction of two or more members of a building or structure's framing.

Eaves

Sample Free-standing sign

Landmark: readily identifiable objects or locations which serve as reference points for a location.

Median: the portion of the roadway which separates opposing traffic streams, preferably designated with curb, gutter, and trees, shrubs or other plantings.

Modulation (vertical/horizontal): use of step backs, projections, and other architectural elements on sections of the building façade as a way to break up potentially monotonous street walls.

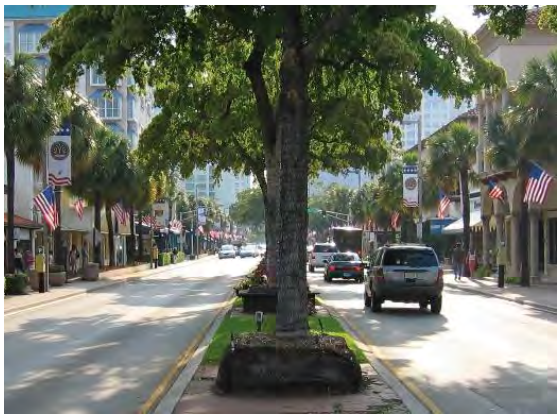
Parapet: a portion or continuation of the building wall or of another architectural that extends above the edge of the roof, terrace, balcony, or other structure.

Projecting signs: typically attached to a building and cantilever horizontally over the sidewalk.

Public art: art located in the public realm such as in a plaza or as a part of the streetscape.

Public right of way: the composite public area dedicated exclusively to circulation-both physical and social-including the roadway and pedestrian area.

Roofline: the profile and/or outline created by the architectural elements of the roof.



Median

Parapet

Roofscape: a scene or view of roofs, especially when considered in terms of its aesthetic or architectural appeal.

Street furniture: elements typically located in the public right-of-way for use by pedestrians such as benches, trash receptacles, and bike racks.

Streetscape: the entire system of streets, sidewalks, landscaping, street furniture, and open spaces, by which people circulate through and experience the corridor.

Tree grate: a metal covering for a tree pit in the sidewalk.

Tree lawns (planting strips): landscaped strip between the back of curb and sidewalk in which street trees may be located.

Trellis: generally, a frame supporting a lattice structure that is used as a screen that can also be used for vines or plants can grow on.

Wallpack: Standardized lightboxes typically mounted on the exterior of buildings.

Wall signs: typically flat signs fixed to a building façade.

Window signs: typically silk screened, back- painted, metal-leafed, or sandblasted onto a glass window.

Wayfinding: a system of directional public signs that helps lead pedestrians and vehicles to destinations.

Tree lawns or planting strips

Trellis

Active Ground Floors & Street Wall Conditions

University Center

To create a vibrant Town Center streetscape environment, a diverse range of build-to lines are proposed. High percentage build-to lines create a more vibrant and pedestrian friendly experience by requiring buildings and accompanying facilities to be constructed close to the projects lot line. High percentage build-to lines eliminate more traditional suburban setback requirements, helping to create a sense of enclosure and place.

Focal point street corners/intersections should be defined by buildings at build-to lines, along with design elements such as entrances that open directly onto the street; windows, storefronts, and related openings that provide façade transparency; and, special paving to highlight building entrances. Street corners may be expanded with curb extensions, thereby connecting continuous sidewalk areas to street corners and crosswalks.

The main intersection of Town Center is envisioned as 100% corners at the core of the Town Center area. The core of Town Center is recommended to have 100% of building edges along the build-to line. This will help achieve the goal of creating an active ground floor. This includes all of Town Center Grid (1) and part of Town Center Grid (2) as shown in the Figure 43 (Active Ground Floors & Street Wall).

Areas outside of the core Town Center with frontage on public roads are recommended to have a minimum build-to-line of 75%. This will help provide a consistent, bounded street wall. Build-to-lines should be understood in conjunction with building heights, as additional controls will indicate step-backs in height required from the build-to-line for buildings over a certain number of stories (refer below).

Other areas, including around the traffic circle and along Boulevard A are recommended to have at least 50% of building frontage along the build-to lines.

Stepbacks and Ground Floor Features

For taller buildings greater than 3 floors in height, it is recommended that the upper floors of buildings include at least one step back of the building façade to provide better articulation of the ground floor building envelope. The bottom, middle and top sections of buildings should be emphasized by treating the façades with a combination of materials and massing. For buildings 3 floors or less, such articulation can be achieved through application of different materials between ground floors and upper floors.

Ground floor areas should include canopies and projections to define the pedestrian-scale environment. Openings such as doors and windows should be spaced appropriately to create a rhythm along the street. Within residential areas, entrances should be highlighted with canopies and grade changes.

Active ground floors requirements primarily apply to the University Center area; such requirements do not apply to other development clusters, such as school and recreation areas, new residential communities, and business park and light industrial areas.

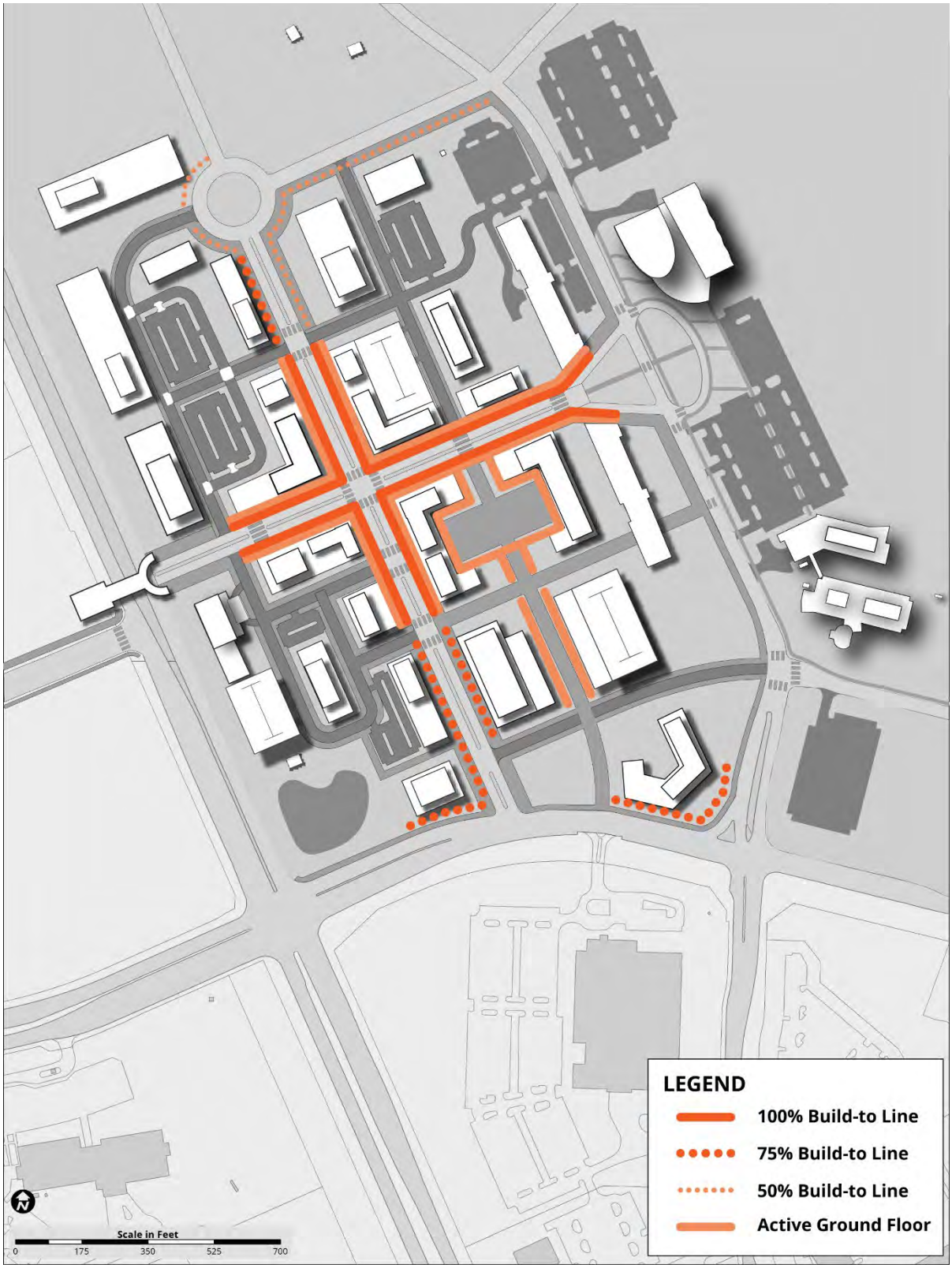


Figure 45: Active Ground Floors & Street Wall

MOBILITY

Goal: Establish a multimodal transportation network connecting the three districts through a network of walkable urban streets, sidewalks, trails, bikeways, and transit opportunities.

Prince William County is implementing multimodal planning in the Innovation Small Area Plan area using a combination of the non-urban designated street classification and the Urban Street sections in the Design and Construction Standards Manual (DCSM), Section 600. The street sections may be amended depending on traffic impact analyses or site constraints, but streets identified for modal emphases in the Small Area Plan should prioritize adequate infrastructure for emphasized modes.

This document provides information on the Innovation Small Area Plan, with the University Center as the core capitalizing on George Mason University and the potential VRE extension. The densest development will occur within the Town Center and adjacent to the potential VRE, with a transition to lower density transect zones with distance away from the cores.

The primary theme of the mobility plan is to support multimodal access to and from the Town Center and the potential VRE station, with access to the existing Broad Run VRE Station. Key elements of the transportation plan include:

- Creating a grid network to improve mobility throughout the Small Area Plan, specifically the Town Center.
- Enhancing transit service and last-mile connections to transit.
- Creating safe bicycle and pedestrian connections.

Proposed Road and Highway Network

The University Center contains a Town Center where a future road network is anticipated in addition to proposed roadway extensions that link the study area to its surrounding area.

- The Town Center area is planned for an urban road network that creates block lengths of 200’ – 660’. This range of block length creates the urban transportation environment that facilitates a balance in mode share along roadways.
- The Town Center will include a grid network and new roads (numbers 1-6 in Figure 46) that would connect the Hylton Center on the George Mason University campus to a right-in/right-out access on Prince William Parkway.
- To create a sense of place in the Town Center, roadways will be evaluated based on traffic generation using mixed-use and transit-oriented development forecasts. The internal trip capture will be calculated by a method approved by VDOT and the County Department of Transportation.

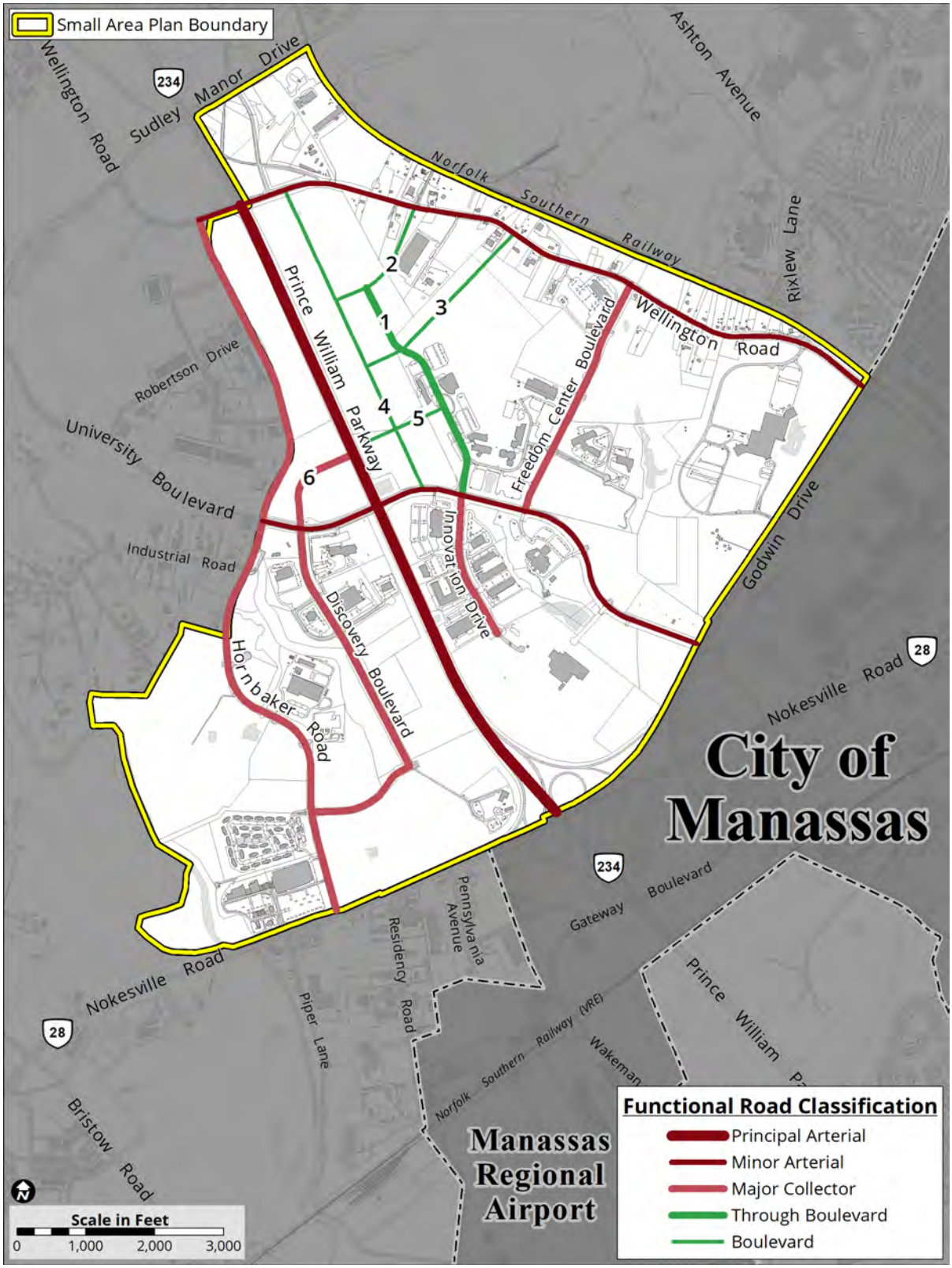


Figure 46: Proposed Road and Highway Network

Transit and Commuter Parking Network

Enhancing the transit opportunities within the Small Area Plan is a crucial component to achieve the vision proposed in the plan. The size of the study area creates a significant barrier to achieving the vision of an interconnected community. To increase connectivity and access an expanded transit network is proposed:

- New bus service is proposed throughout the Small Area Plan, forming a loop with potential and existing VRE service, the Town Center, and the GMU campus.
- OmniRide plans to restructure routes in the vicinity of the Innovation SAP with the primary focus on serving downtown Manassas and the Manassas VRE station. This may include a route that connects the GMU campus and/or the Town Center sector of the Innovation District to downtown Manassas to facilitate commuter bus service to employment centers throughout the region.
- A new commuter parking lot would be collocated at the potential Innovation VRE Station and provide express commuter bus service from it and the Town Center to facilitate commuter service to employment centers throughout the region.
- A new shuttle service for lunch, dinner, and recreation throughout the plan area to enhance the vibrancy and connectivity of Innovation Park.
- VRE anticipates expansion of the Broad Run station to include additional parking totaling 1,400 spaces, yard expansion, the addition of a third mainline track, and a platform shift. The addition of 1,700 available seats on the VRE could help mitigate traffic congestion on I-66 corridor. For more information about VRE's long-range planning see the VRE System Plan 2040.
- Potential Extension of VRE service approximately 11 miles west of Manassas to Gainesville and Haymarket. This line would be parallel to I-66 and serve high growth suburban areas. It would also serve the Innovation Park Small Area Plan. A list of commuter lots available to serve the study area can be found in the following table.

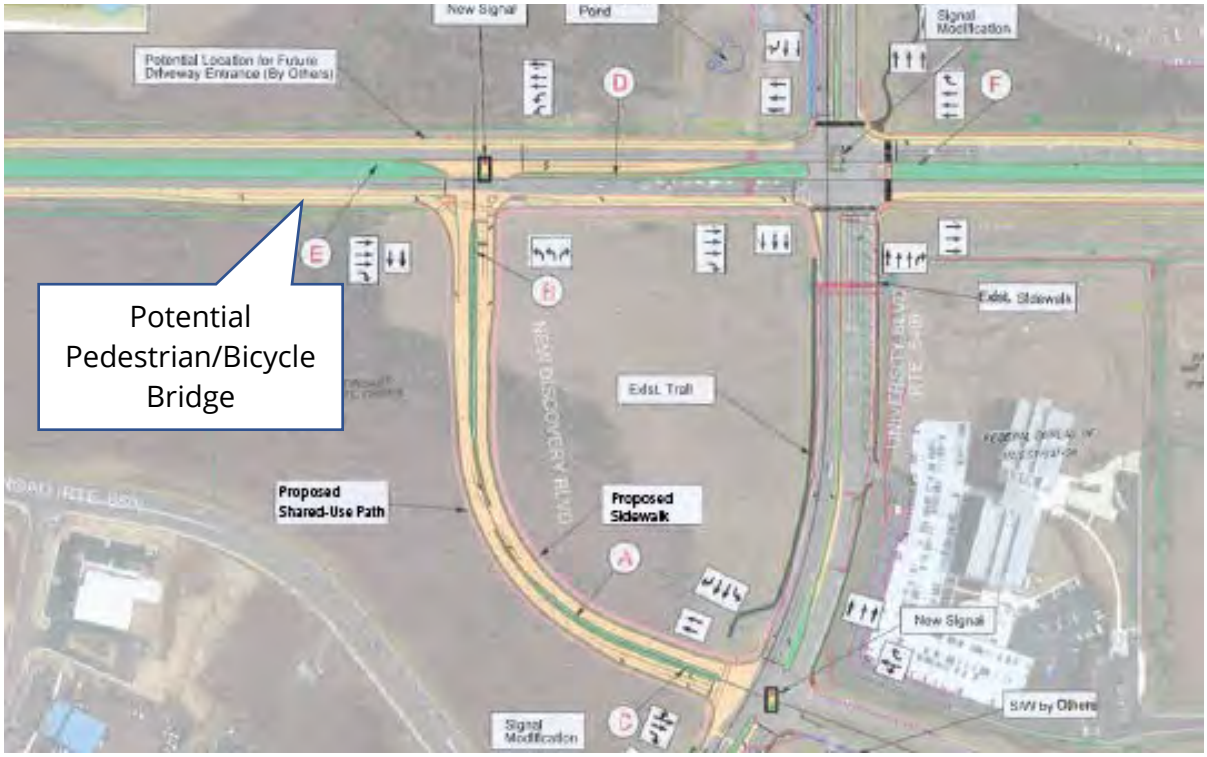
Commuter Lot	Parking Spaces (Total)	Accessible Spaces	% Accessible spaces	Transit Service	Bicycle Accommodations
Future VRE Station & Commuter Parking lot (Wellington Rd.)	TBD	TBD	TBD	TBD	Bike Racks
Broad Run/Airport Commuter Rail Lot	1407	25	1.8	Yes	Bike Racks
Cushing Road Commuter Lot	433	13	3.0	Yes	Bike Racks
University Boulevard Commuter Lot	1,000	31	3.1	Yes	Bike Racks
Manassas Mall Commuter Lot	216	0	0	Yes	None
Portsmouth Road Commuter Lot	632	11	1.7	Yes	Bike Racks

Proposed Bicycle and Pedestrian Network

The proposed bicycle and pedestrian network within the Innovation Park Small Area Plan boundary attempts to maximize through connectivity across the study area. The proposed network strives for comfortable separation on higher volume roadways. Bicycle lanes are proposed as intermediate connections designed to connect the shared use path spines. It is understood that all local streets will be bicycle-friendly due to street design elements that limit vehicle speed and volume.

Shared use paths, which are 10' wide, are planned to be constructed separately and parallel to high volume roads. Shared use paths are proposed on all major roads in the study area including Route 28, Prince William Parkway, Wellington Road, University Boulevard, Sudley Manor Drive, Hornbaker Road, Freedom Center Boulevard, Discovery Boulevard, and Innovation Drive. In most cases, sidewalks are anticipated on the opposite side of these facilities. These facilities will also connect with planned park trail networks in environmental corridors including the Broad Run Trail at the southwestern portion of the Innovation Park Small Area Plan.

- The proposed pedestrian network includes constructing sidewalks on both sides of all streets, except where shared-use paths are existing or proposed and including high-visibility crosswalks at appropriate intersections within and at the periphery of the Town Center.
- Shared use paths are the preferred facility for longer pedestrian links across the Small Area Plan.
- Proposed bike lanes connect the Town Center to Wellington Road.
- Evaluate a potential bicycle and pedestrian crossing on Wellington Road connecting development to the potential VRE station.
- Construct a bicycle and pedestrian bridge if feasible across Prince William Parkway just north of the planned University Blvd. Quadrant Intersection.
- Ensure the proposed network will provide access points for connectivity with pedestrian networks outside the small area plan and continuity through the study area.



Proposed Trail Network

The proposed trail network focuses on providing additional connectivity to the surrounding area, protecting environmentally sensitive areas and ensuring adequate access to future trail networks such as the Broad Run Recreation Corridor. The proposed trail network identifies three trails within natural resource areas to create a circular loop offering both connectivity and recreational opportunities.

- Cannon Branch Trail – Provides recreational opportunities along Cannon Branch creek
- Broad Run Recreation Corridor Connections – Branching recreational trail running southwest from University Boulevard to the planned Broad Run Recreation Trail and parallel to Discovery Boulevard to Nokesville Road providing a potential connection to the Broad Run VRE through the Residency Road pedestrian improvements.
- University Village Trail – Recreation trail running between GMU and the Town Center northwest connecting to the shared-use path running along Prince William Parkway.

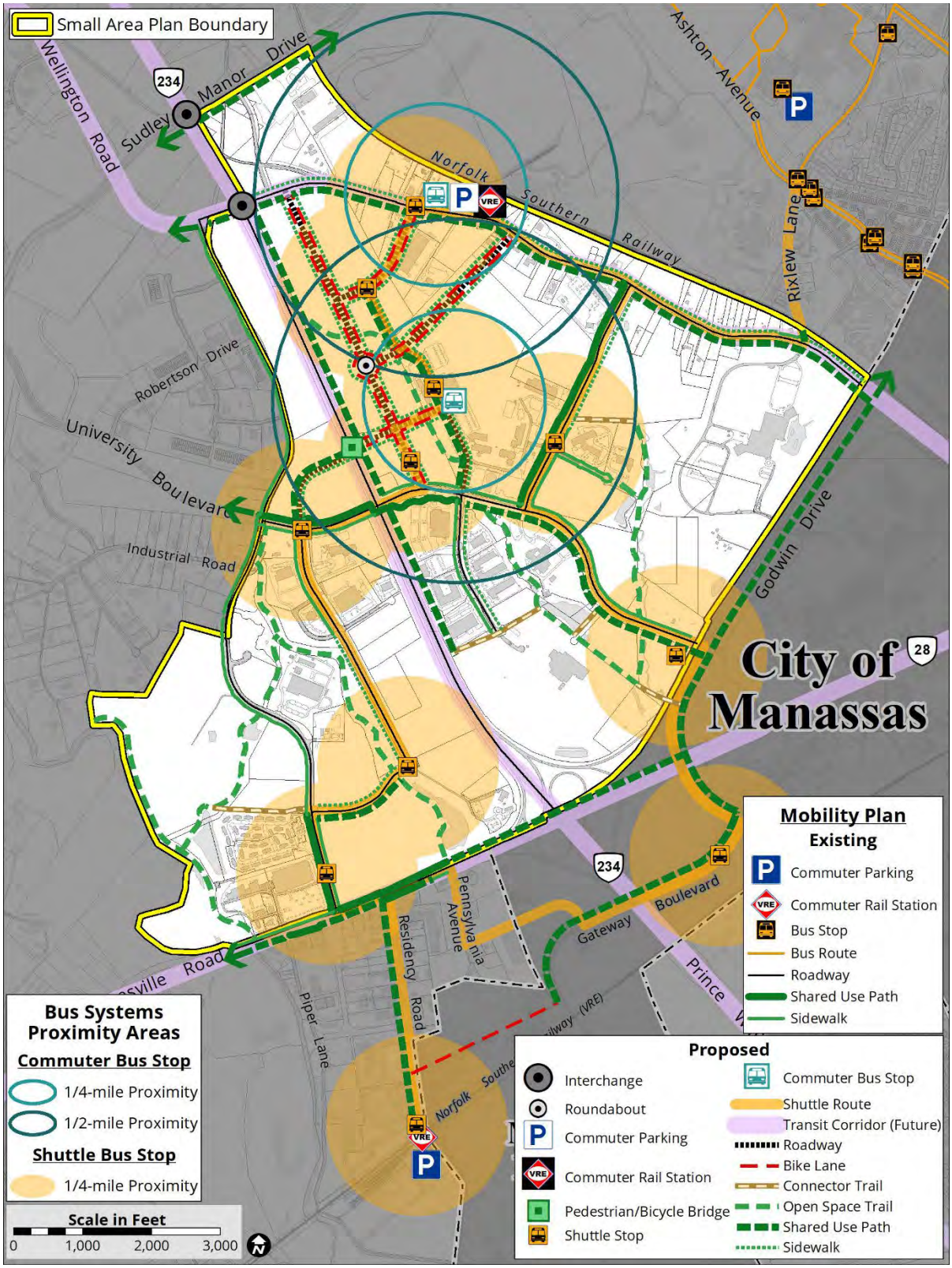


Figure 47: Proposed Mobility Network

Example Bicycle and Pedestrian Facility Images

Shared Use Path - Shared Use Paths are 10' wide trails designed for walking, jogging, and bicycling. They are often constructed with asphalt, but may also be concrete, boardwalk, or crushed stone. Shared use paths may be located adjacent to a roadway or separated, near a stream, wetland, or other natural areas. Shared use paths are considered one of the most comfortable bicycle facilities, suitable for riders of all skill levels.

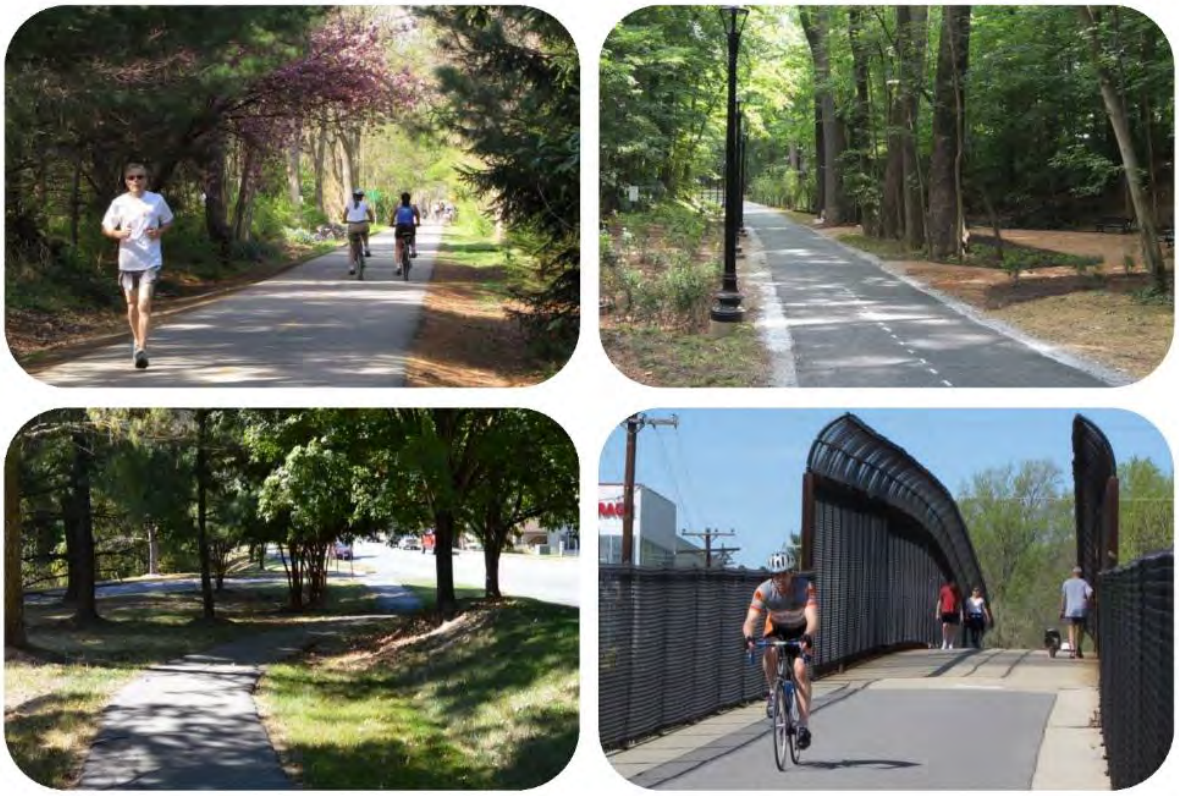


Figure 48: Images of Shared Use Paths

Bike Lanes - Bike lanes are exclusive on-road bicycle facilities, most suitable for roads with less than 3,000 vehicles per day and speed limits of 30 mph or less. Bicycle lanes increase bicyclist comfort and confidence on busy streets, and the separated lane provides defined road space for bicyclists. Lanes increase the predictability of bicyclist and motorist positioning and interaction and visually reminds motorists of bicyclists' legal right to the street. Buffered bike lanes are exclusive on-road bicycle facilities, with a striped designated buffer space between the motor vehicle lane and the bike lane. This type of bike lane provides increased comfort for cyclists.

Figure 49: Images of Bike Lanes

Mobility Plan Summary

The Prince William County Thoroughfare Plan highlights the major roadways (interstates, parkways, arterials, and collectors) and provides information concerning their typical sections, right of way requirements, lane requirements, termini points, and functional classifications. The following table provides specific information about each roadway included in the study area. The following graphics depict urban street sections. No changes are planned for existing roads that are not classified as Urban Streets.

Facility	Route #	Termini/Location	Functional Class	Typical Section	Number of Lanes	Bike/Pedestrian Facility
Prince William Pkwy.	234	Rt. 28 to Sudley Manor Drive	Principal Arterial	PA-2	6	Shared use path/east
Nokesville Road	28	Piper Lane to Wellington Road	Principal Arterial	PA-1	4	Shared use path/Sidewalk
Sudley Manor Drive	1566	Prince William Pkwy. to Norfolk Southern RR	Minor Arterial	MA-1	4	Shared use path/sidewalk
Wellington Road	674	Hornbaker Rd. to Prince William Pkwy.	Minor Arterial	MA-1	4	Shared use path/sidewalk
Wellington Road	674	Prince William Pkwy. to Godwin Drive	Minor Arterial	MA-1	4	Shared use path/sidewalk
University Blvd.	840	Hornbaker Rd. to Godwin Drive	Minor Arterial	MA-1	4	Shared use path/sidewalk
Freedom Center Blvd.	842	University Blvd. to Wellington Rd.	Major Collector	MC-1	4	Shared use path/sidewalk
Hornbaker Rd.	660	Wellington Rd. to Rt. 28	Major Collector	MC-1	4	Shared use path/sidewalk
Innovation Dr.[18]	3978	University Blvd. to cul-de-sac	Local	RL-2	2	Sidewalks
Discovery Blvd.	3248	Prince William Pkwy. to Thomasson Barn Rd.	Major Collector	MC-1	4	Sidewalk

[18] This portion of Innovation Drive is downgraded from a 4-lane Major Collector as shown in the Thoroughfare Plan, 2016

Facility	Route #	Termini/Location	Functional Class	Typical Section	Number of Lanes	Bike/Pedestrian Facility
Thomasson Barn Road		Discovery Blvd. to Hornbaker Road	Major Collector	MC-1	4	Shared use path/sidewalk
Thorough Boulevard (1)		Sudley Manor Drive to University Blvd.	Thorough Blvd.	UTB-1	4	Shared use path/sidewalk
Boulevard (2)		Wellington Rd. to North South Connector	Boulevard	UB-1	2	Bike lanes / Sidewalks/Parking
Boulevard (3)		Wellington Rd. to Roundabout	Boulevard	UB-1	2	Bike lanes / Sidewalks/Parking
University Village Boulevard (4)		University Blvd. to Roundabout	Boulevard	UB-1	2	Bike lanes / Sidewalks/Parking
University Village Boulevard (5)		Prince William Pkwy to North South Connector	Boulevard	UB-1	2	Bike lanes / Sidewalks/Parking

Transit Network	Location
Broad Run VRE Station	South end of Residency Road
Potential Innovation VRE Station	Between Wellington Road and the Norfolk Southern Railway

Infrastructure Improvements	Location
Construct Road/Pedestrian Network	New roads within Town Center
Roundabout	Town Center
Bicycle and Pedestrian Bridge	Across Prince William County Parkway north of the Discovery Boulevard intersection
Bicycle and Pedestrian Crossing	Potential at-grade/bridge/tunnel crossing Wellington Boulevard connecting to the potential VRE station
Trail Connections	New trails within environmental features
Sudley Manor/ Wellington Road Innovative Intersections/Interchange	Grade separated structure at Sudley Manor Drive and Prince William Parkway including innovative Intersection at Wellington Road/Prince William Parkway
University Blvd. Quadrant Intersection (Discovery Blvd. Extended)	Extension of Discovery Boulevard to Prince William Parkway

Street Sections

Functional classification is the process by which streets and highways are grouped together into systems according to the character of service they provide or are intended to provide. Street designs are based on traffic generation, existing and projected future traffic and providing adequate levels of service.

- Local Street: A local street represents the lowest category of the functional classification system. Its primary function is to provide direct access to individual abutting parcels. Its traffic is local in nature and extent, rather than intracounty, intercounty, or regional. Generally, traffic volume should not exceed seven thousand (7,000) vehicles per day.
- Major Collector Street: A major collector street has the primary function to provide intra-neighborhood linkages and aggregate traffic, carrying it to the arterial system. It may also traverse a neighborhood, distributing trips to ultimate destinations and, in rare instances, provide direct access to individual abutting parcels. Generally, traffic volume should range from seven thousand one (7,001) vehicles per day to fifteen thousand (15,000) vehicles per day.
- Arterial Street: An arterial street is designed to convey major movements of traffic within or through the County. It interconnects the principal traffic generators within the County and, in extremely rare instances, provides direct access to individual abutting parcels. There are three (3) types of arterial classifications:
    - Minor Arterial: A street designed for intracounty circulation and designation of neighborhood boundaries. It generally does not penetrate identifiable neighborhoods. Access to neighboring development is achieved by good design and the appropriate intersection spacing established in this section. Generally, traffic volumes exceed fifteen thousand one (15,001) vehicles per day.
    - Principal Arterial: A street designed primarily for through traffic and intra and intercounty movement. Access to the abutting land is minimized and is consolidated into service roads, shared accesses and designated intersections. Almost all fully and partially controlled access facilities are part of this functional class. Principal arterials also include a sidewalk/shared-use path for non-motorized traffic. Generally, traffic volume exceeds fifteen thousand (15,000) vehicles per day.
- Parkway: A street designed primarily for through traffic and intracounty movement. Access to abutting land is achieved at designated intersections, rather than curb cuts, travelways and entrances. This facility is designed as a scenic urban linear park containing a wide grass median with landscape plantings and/or woodland conservation areas on each side. The landscape design is intended to be consistent along its route to define and enhance the visual integrity of the roadway. The facility

also includes a sidewalk/shared-use path for non-motorized traffic. Generally, traffic volume exceeds fifteen thousand (15,000) vehicles per day.

Urban Streets: Streets that are designed to create safe movement for all users including transit, motor vehicles, bicycles, and pedestrians within urban centers of the County. All urban streets in urban centers shall be designed to accommodate the needs of users who want to access or pass through the community, neighborhood, surroundings or areas planned as urban centers (Town Centers).

- Boulevard: A Boulevard has the highest density of destinations, activity, and mix of modes. Because of the close proximity of destinations, pedestrians and street activity are common. The Urban Boulevard is intended to have on-road bicyclists and pedestrian crossings; therefore, traffic should move at a lower speed than on a Through Boulevard.
- Private Side Street: A Private Side Street is intended for urban residential areas with on-street parking and choker islands for landscaping. These streets will not be maintained by VDOT.
- Alleyway: a privately maintained travelway primarily designed to provide a secondary access to the side or rear of properties whose primary frontage is on another street. Alleys may be allowed on single-family residential, multi-family, townhouse/single-family attached, and commercial uses of town center developments. These alleys will not be maintained by VDOT.

Through Boulevard (UTB-1): A Through Boulevard is the street type of highest multimodal capacity. It has higher speeds, medians, and street trees. It is intended to move traffic at a high level of service in urban centers.

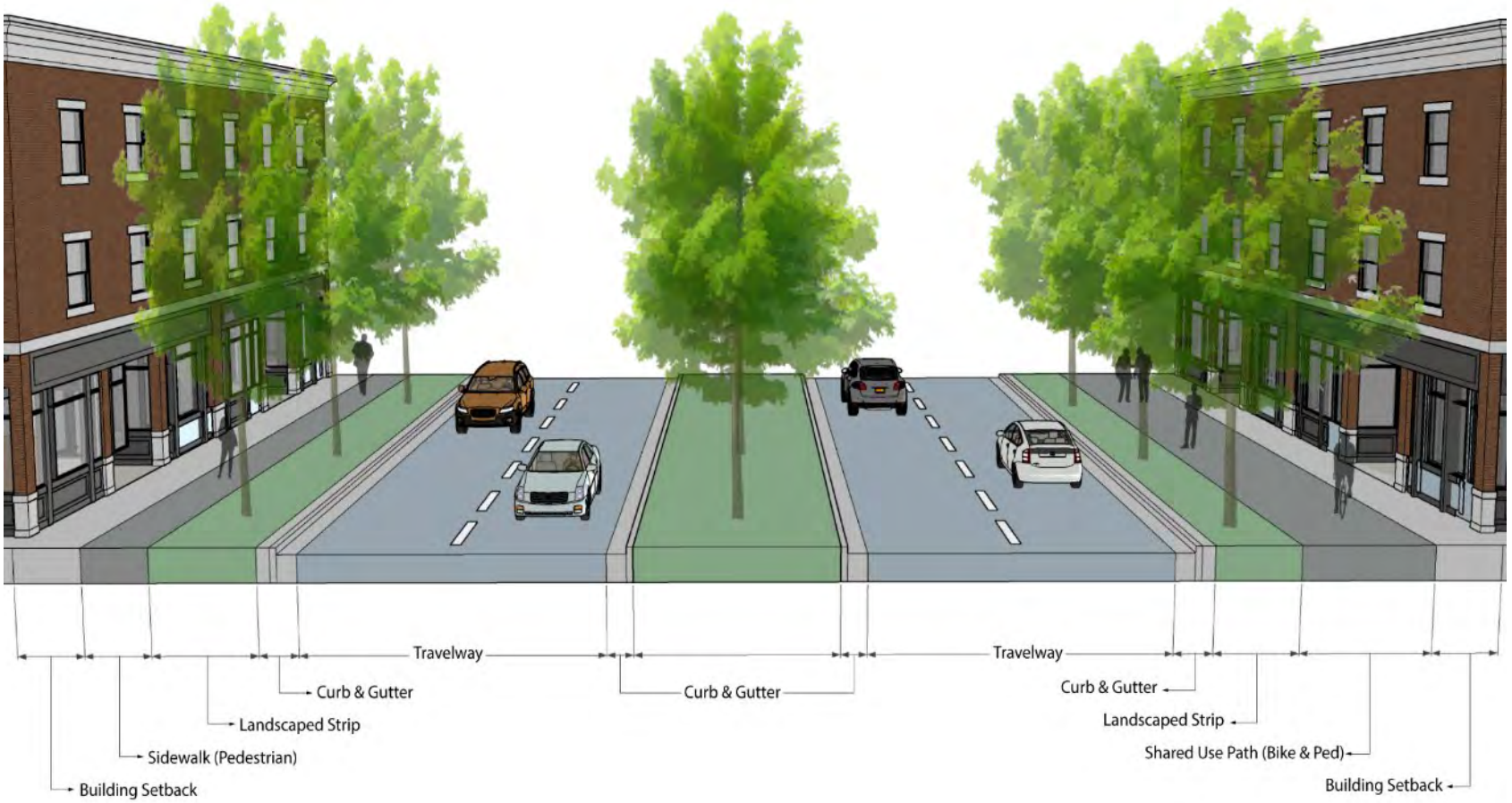


Figure 50: Through Boulevard (UTB-1)

Boulevard (UB-1): A Boulevard has the highest density of destinations, activity, and mix of modes. Because of the close proximity of destinations, pedestrians and street activity are common. It is intended to have on-road bicyclists and pedestrian crossings; therefore, traffic should move at a lower speed than on a Through Boulevard. (median optional, 16'-36')

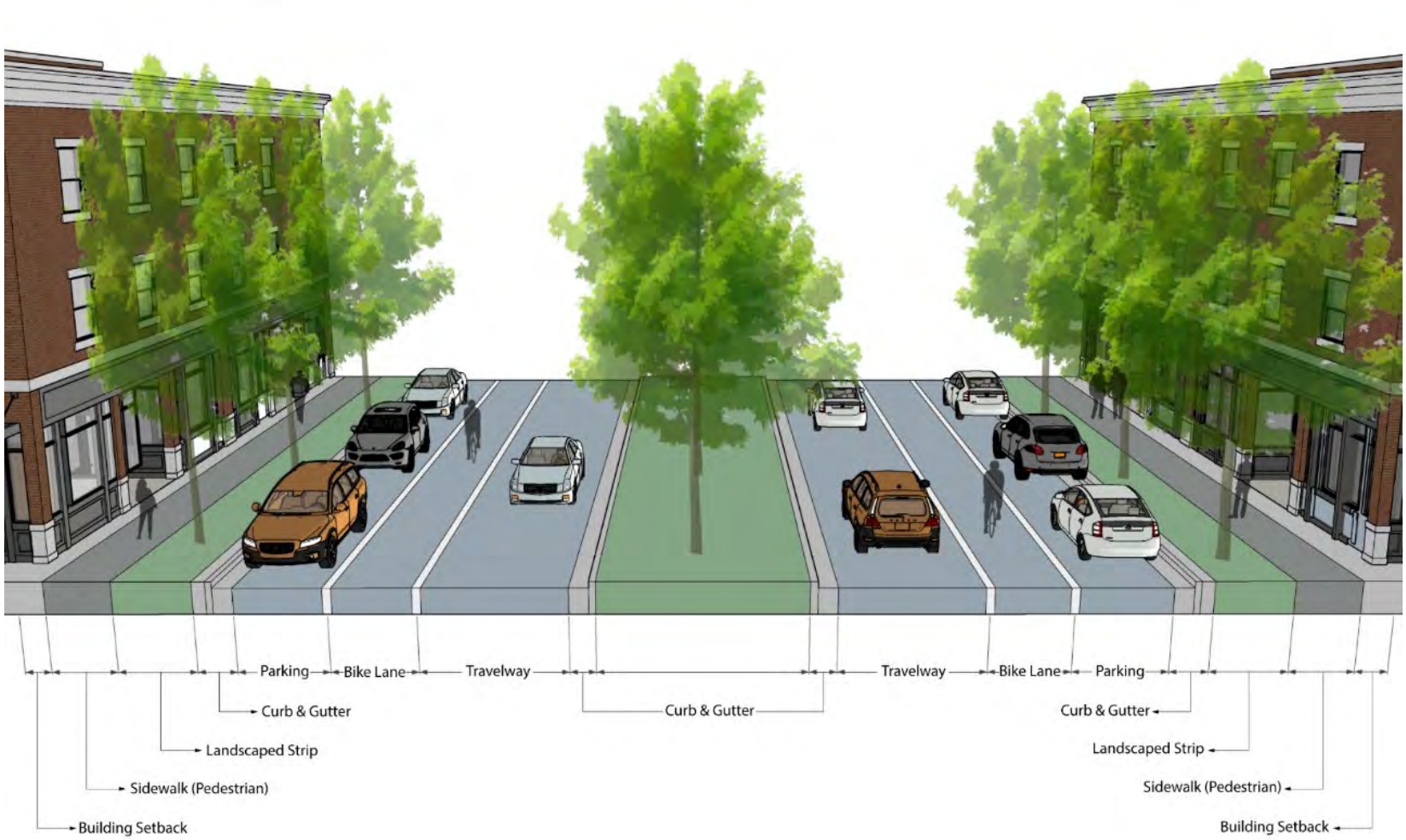


Figure 51: Boulevard (UB-1)

Private Side Street (UPS-1): A Private Side Street is intended for urban residential areas with on street parking and choker islands for landscaping.

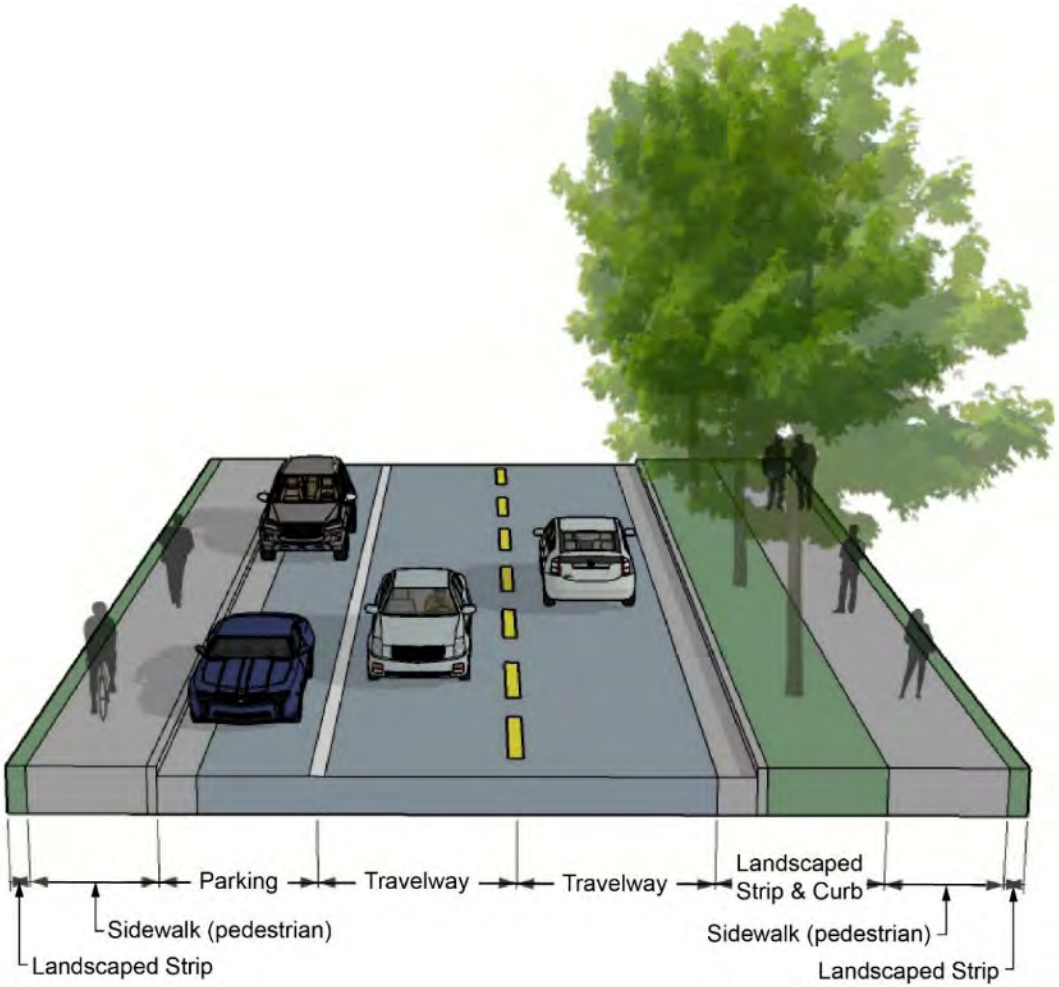


Figure 52: Private Side Street – Optimal Street Section

Private Alley (UA-1): A Private Alley is intended to serve the rear of properties providing access to parking and service areas as well as to provide an easement for utilities.

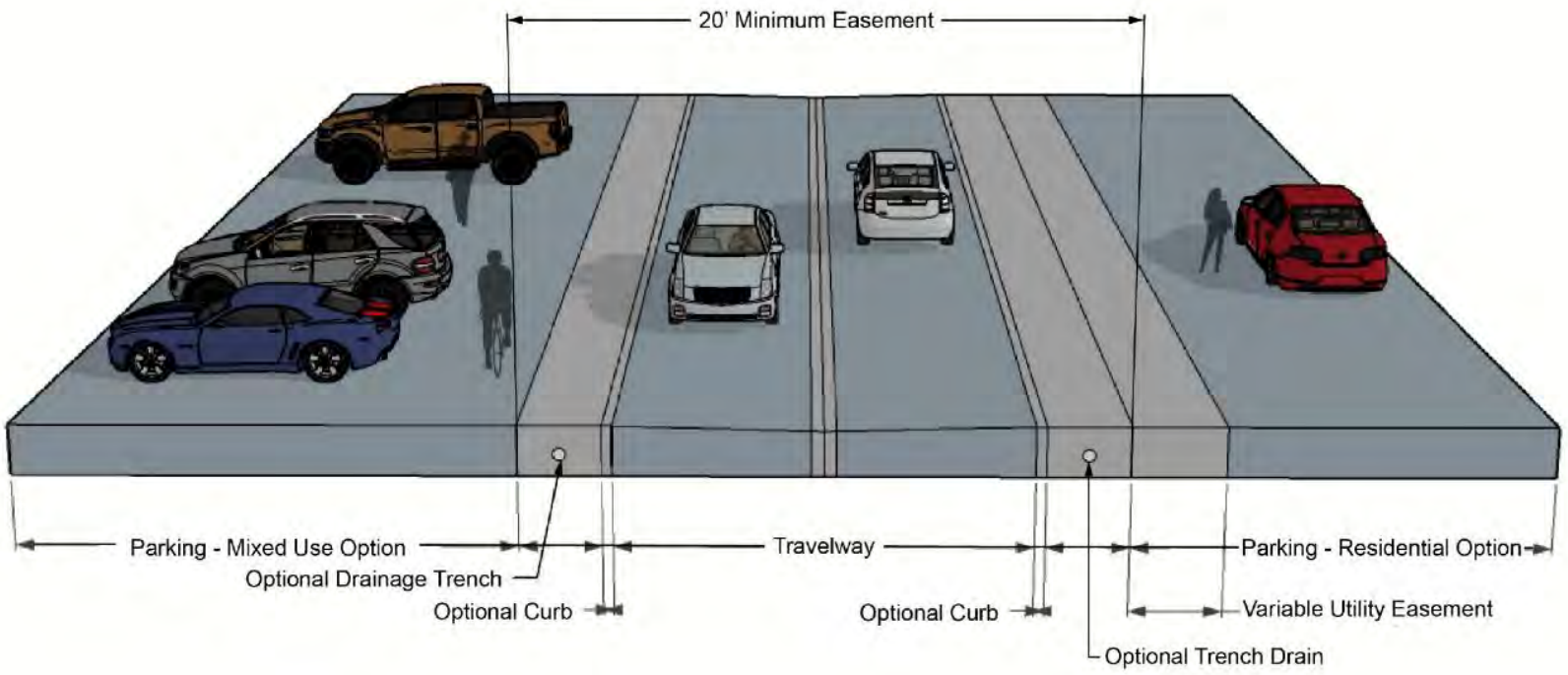


Figure 53: Private Alley (UA-1)

GREEN INFRASTRUCTURE

Goal: Ensure a robust and connected system of greenways, blueways, trails, open space, and corridors that provide a benefit to the environment, community, and local wildlife. While Innovation Park will be home to a dense mix of future development, the protection of the County's environment and the provision of recreational opportunities for residents are strategic goals for the entire community.

Green infrastructure planning provides an opportunity to evaluate, prioritize, and manage the landscape as a connected and interdependent system. Green infrastructure is important for the protection of species and increasing biodiversity. Innovation Park's green infrastructure is made up of the area's existing and future trails, public and private open space, stream corridors, and trees. The purpose of this section is to protect the environmental features of this area and develop policies to address how these will be protected, enhanced, and integrated into the study area once it is fully implemented. This Green Infrastructure Plan is general and will be subject to final site engineering, but provides pedestrian, open space, and habitat linkages. The establishment of a green infrastructure network of interconnected areas, parks, and green streets recognizes the value of nature for a healthy, resilient, and prosperous community.

All future development within Innovation Park will be required to designate a percentage of open space within the project consistent with the Description & Uses of Proposed Long-Range Land Use Classifications table. All developments throughout the Small Area Plan area will be expected to commit to incorporate greenways, trails, and natural open space areas into an overall trail plan as shown in Figure 53.

Coordination efforts with the GMU campus are desirous to ensure that the campus greenways, trails, and natural open space areas connect with those of the larger Innovation Park Small Area Plan and specifically with those amenities in the Town Center portion of the Plan. Green/open spaces and public plazas can be natural, landscaped or hardscaped and will contribute to the enhancement of sense of place and quality of life. There should be harmony between natural and built environments by adding transitions between higher and lower density areas.

The plan has been broken down to provide direction for four functional areas to help ensure a robust and connected system of green infrastructure with a commitment to planning healthy, sustainable, and inclusive communities for all. The four functional areas are:

- Natural Resource Areas
- Parks, Plazas and Open Space Areas
- Streetscape Areas and
- Recreation Field Areas

Natural Resource Areas

Resource Protection Areas (RPA) are the County's most sensitive environmental areas. They are made up of 100-year floodplains identified by the Federal Emergency Management Agency (FEMA) and areas identified by the County as containing hydrologic features such as streams and wetlands. These areas are essential to the environmental health of the County and must not be disturbed or modified by future development. These areas include the stream corridors, riparian buffer areas (RPAs), floodplains, wooded/forested areas, and areas with steep slopes. While most of the natural resource areas are within privately owned land, it is recommended that these areas be preserved in their natural conditions, without any new development. This will allow for smarter growth in the study area, where development is clustered around the natural resource areas with provisions for connections to these preserved areas via trails and multi-use paths for passive outdoor recreation opportunities. Encourage stream valley corridors to be managed by the County's park and open space program to increase community access to these areas.

Future treatments of the existing natural resource areas should adhere to the following:

- Maintain, preserve and/or increase appropriate riparian buffers/easements along stream corridors, wetlands, and floodplains, integrating trails and passive recreation opportunities in an environmentally-sound manner where appropriate and in accordance with County standards.
- Green space should be incorporated wherever practical, and disturbance of existing natural features, such as mature trees, should be minimized.
- No development should be allowed in the natural resource areas.
- Promote alternative connections to enhance access to natural areas via trails and multi-use paths for access to outdoor recreation opportunities.
- Outdoor recreation opportunities should be carefully explored and should not result in disturbance of natural conditions. Examples of outdoor recreation might include bird watching, nature trails, potential boardwalks in low-lying and wetland areas, etc.
- Pedestrian bridges at strategic locations are recommended to enable safe crossings of existing stream corridors and to provide continuous connections between the three districts of the Innovation Park Small Area Plan and destinations through the natural resource areas.
- Encourage conservation easements and other programs that protect sensitive environmental areas, such as wetlands, floodplains, stream buffers, and steep slopes, to maintain and enhance the beneficial ecosystem services that these areas provide.

- Proactively work to improve water quality in Broad Run and Cannon Branch and their tributaries.
- Encourage stream valley corridors to be managed by the County's park and open space program to increase community access to these areas.
- Woodland strips and buffers of existing trees along proposed roadways shall be preserved to the maximum extent possible based upon accepted engineering practices and road design.

Parks, Plazas, and Open Spaces

Open space areas extend beyond designated floodplains and Resource Protection Areas, following topographic and hydrologic features. Open space areas are intended to buffer stream corridors, provide for outdoor recreation and transportation through shared use paths and trails, and corridors for wildlife. These areas may be modified by development site plans, but the integrity and continuity of these areas should be maintained.

Shared use paths and trails within passive open spaces that follow natural water and terrain features can connect areas within Innovation Park but can also be used to connect to other regional amenities. At the southwest edge of the Innovation Park, area trails can be connected to the proposed Broad Run Trail and Linear Park, allowing Innovation Park residents access to a larger network of passive open space and recreational trails. Utilizing these open space corridors for sustainable trail development to facilitate bike/pedestrian connectivity within the Small Area Plan will support the community-identified need for passive recreation experience and provide connectivity to public parks and plazas. Together these elements foster a sense of connectivity and more importantly a sense of community allowing residents alternatives for outdoor opportunities in a safe, attractive, pedestrian friendly environment.

- Plazas, parks, and related open spaces should be designed to provide buffers from automobile travel lanes for safety. Parking lanes, landscape planting areas with trees, shrubs, public art, etc. are examples of elements to visually and physically buffer pedestrians.
- Variety and flexibility of amenities and programming should be accommodated to provide a range of experiences to the users of these public spaces. These may include passive amenities, such as open lawns, and high-activity amenities, such as outdoor performance stages.
- Provide appropriate levels of seating, lighting, shade, etc. to make the spaces desirable and extend the amount of time spent in these spaces.
- Design of these spaces should be context-compatible with adjoining uses with considerations such as provision of outdoor dining along restaurants and coffee

shops. In some cases, there is an opportunity to provide a seamless connection between indoor and outdoor spaces, such as entrance plazas.

- Plazas and open spaces should be public and accessible to users of all ages and abilities. As such, they should be highly visible and should incorporate clear wayfinding signage as well as interpretive elements for educational purposes.
- Incorporation of public art is encouraged. Such public art should reflect the context of the area, including historical and cultural references.
- Focal point spaces, such as the linear park connecting the GMU campus to the Town Center could include water features, play areas, and community-oriented activities.
- Integrate campus greenways, trails, and natural open space areas with the Innovation Park open space and trail network.

Streetscape

While trees should be preserved and planted within passive open space and RPA areas, right of way will be planted with street trees to continue Innovation's green infrastructure throughout all areas of future development. Street trees provide a measure of real and perceived safety for pedestrians walking near automobile traffic, promote clean air, beautify dense urban spaces, and provide crucial shade to pedestrians during hot weather. Street trees should be a feature of all streets regardless of subdistrict, land use, or density. Along with street trees, right of way setbacks should be supplied with pedestrian amenities and street furniture as appropriate, especially in the University Center district.

A robust streetscape and public realm have been envisioned that provide connections to, and integration with residential communities, commercial spaces, industrial projects, and natural resource areas. The University Center district will incorporate urban features while the rest of the study area streetscape is recommended to provide comfortable streetscape features.

At build-out the planned Innovation Park Small Area Plan will be a dense area of commercial and residential development. To avoid the aesthetic and environmental impacts of density, right of way setbacks from streets will prevent both buildings and parking from being located too close to street edges and will provide a pedestrian and landscape zone that makes all streets a part of the area's green infrastructure. Setbacks range from 100 feet along the Prince William Parkway to 25 feet along minor streets as prescribed by the Green Infrastructure Plan.

Urban streetscapes will include the following:

- Landscape planting area and amenity zone: Located along the edge of the curb, these areas should be a minimum of 8' wide and should include trees,

understory planting with flowering plants, pedestrian amenities such as benches, trash cans, bike racks, kiosks, lighting (both higher street lights to illuminate roads and lower pedestrian-scale lighting). Low Impact Development (LID) and stormwater features such as raingardens should be incorporated along this zone. Durable and low-maintenance materials are recommended. Appropriate lighting should be placed centrally between each tree spacing.

- Sidewalk Through Zone: This area should provide uninterrupted connectivity along all development blocks and is recommended to have a minimum width of 5 feet.
- Additionally, building zones (the area between the edge of the sidewalk and build-to lines) should be utilized for outdoor dining, sandwich boards, planters, public art, etc. to create a functional and vibrant pedestrian environment.

Suburban streetscapes will include the following:

- Landscape planting area and amenity zone: Located along the edge of the curb, these areas should be a minimum of 10’ wide and should include trees and understory landscaping to create a parkway feel. Incorporation of stormwater management features is recommended.
- Sidewalk zone: This sidewalk through-zone should have a minimum width of 8’ and should connect residential communities with destinations.

Pedestrian Bridge:

Route 234, Prince William Parkway, bisects the Small Area Plan. In order to increase connectivity an above grade pedestrian bridge is proposed. The proposed bridge will provide pedestrian and bicycle connectivity between the Town Center and the western half of the Small Area Plan.

Recreation Fields

Active recreation spaces are those areas outside of environmentally sensitive areas that may be set aside for athletic fields or the construction of indoor recreation spaces. Recreation spaces are essential to the health of future residents of Innovation Park. Active recreation space ensures that usable open space is provided as a part of proposed developments, not just open space on low-lying or otherwise unbuildable land at the margins of sites. Active recreation space should be provided in the planned mixed-use areas to provide a balance between active and passive recreation within the Plan. While such space should be provided, the exact design and location of active recreation areas within future developments will be left to the developers of these projects and should be specified at the time of site planning.

Innovation Park is home to existing active recreation spaces including the Freedom Aquatic and Fitness Center, located on the GMU campus, and the proposed USTA, United States Tennis Association. The Freedom Aquatic and Fitness Center facility is an

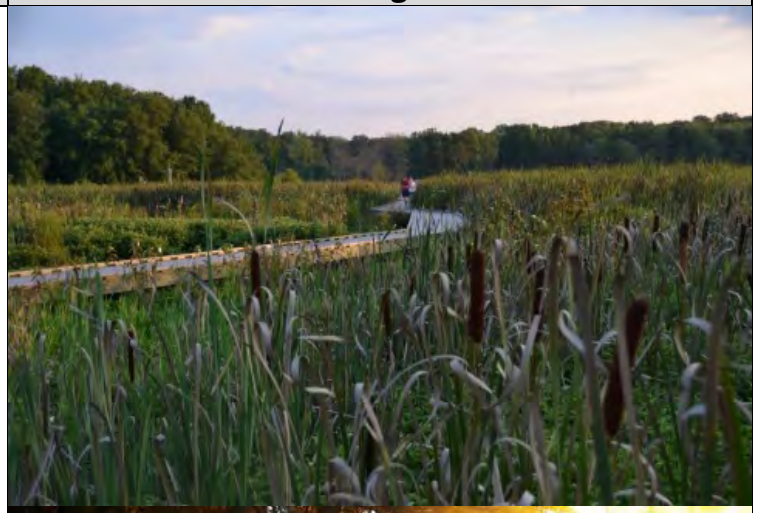
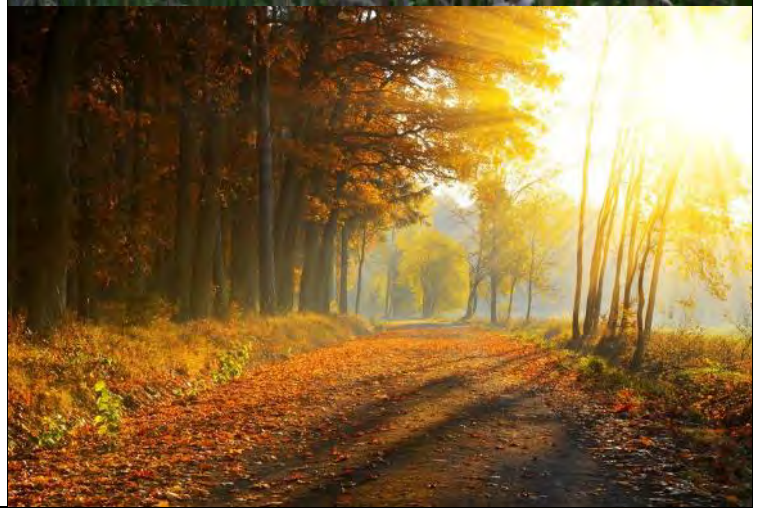
innovative partnership between GMU, Prince William County and the City of Manassas and is considered a national model for Public/Private partnership endeavors. The facility opened in 1999 and remains one of the largest aquatics and fitness centers in the region. The proposed USTA facility is planned on the South side of Freedom Center Boulevard and is approved to allow for indoor and outdoor tennis courts, health and fitness clubs, a research and development center, and a hotel.

Additionally, there are two park features on the GMU campus, the George Mason Team challenge area of approximately ½ acre and the GMU Schofield Rec Area on approximately 1.34 acres.

Additional areas within Innovation Park should be designated and planned as recreation areas. Given the mix of uses, results of the Community Needs Assessment, and projected demographics of the small area, a focus on adult and young adult age groups is appropriate, with active recreation elements of any community park focused on facilities such as intramural fields, open play fields, outdoor exercise equipment, pavilions, bike/skatepark elements, and programmable flex space such as plazas, pavilions, and lawns to facilitate community events and collaboration with local restaurants and breweries are considered appropriate.

Recommended Implementation Strategies

The following six graphics provide recommendations/alternatives to address and support the goals of the green infrastructure section. These tools are designed to create an environmentally sensitive community.

Green Infrastructure		
Tools	**Description**	**Image**
Open Space Preservation	Open space preservation retains areas of existing open and green space by prioritizing infill and redevelopment over greenfield development. Wooded areas, riparian zones and areas otherwise less suitable for development should be preserved, wherever feasible.	 

Green Infrastructure		
Tools	**Description**	**Image**
Green Roofs	Green roofs reduce stormwater runoff from commercial, industrial, and residential buildings. They act as a stormwater management system by absorbing and storing initial precipitation, thereby reducing overall peak flow discharge to a storm sewer system. They can reduce discharge of pollutants such as nitrogen and phosphorous due to soil microbial processes and plant uptake. Green roofs also increase thermal insulation for the underlying structure, enhance energy efficiency, and reduce the urban heat island effect.	 

Green Infrastructure		
Tools	**Description**	**Image**
Porous Pavement	Porous pavement is a permeable pavement surface that is built with underlying stone aggregate that temporarily stores surface runoff before allowing it to infiltrate fully into the subsoil. Porous pavement replaces traditional pavement, allowing stormwater runoff from surface parking areas to directly infiltrate and undergo water quality treatment. Porous pavement should be used in low- to medium-traffic areas, such as residential roads, overflow and special event parking, driveways, and alleyways. Types of porous pavement include porous surfaces, including porous asphalt, pervious concrete, and grass or permeable pavers.	 

Green Infrastructure		
Tools	**Description**	**Image**
Bioretention Facilities	Bioretention facilities are landscaping features adapted to provide temporary storage and on-site treatment of stormwater runoff. They are commonly located in parking lot islands or within small pockets of residential land uses but can also be adapted for urban areas.	 

Green Infrastructure		
Tools	**Description**	**Image**
Vegetated Swales	Vegetated Swales are wide, shallow channels that are filled with a variety of plants, shrubs, and/or grasses. These features typically line large impervious surface areas, such as parking lots, and convey large amounts of stormwater naturally—in some instances replacing pipes.	
Naturalized Infiltration Basins	Naturalized Infiltration Basins are structures created either by impounding a natural depression or by excavation. In addition to creating a buffer between existing vegetation and facilities, such as roads, these features provide temporary storage and infiltration of stormwater runoff in areas of transition between higher and lower activity. Native plantings such as wildflowers and seasonal grasses can be added to existing basins to provide wildlife habitats and aid infiltration.	

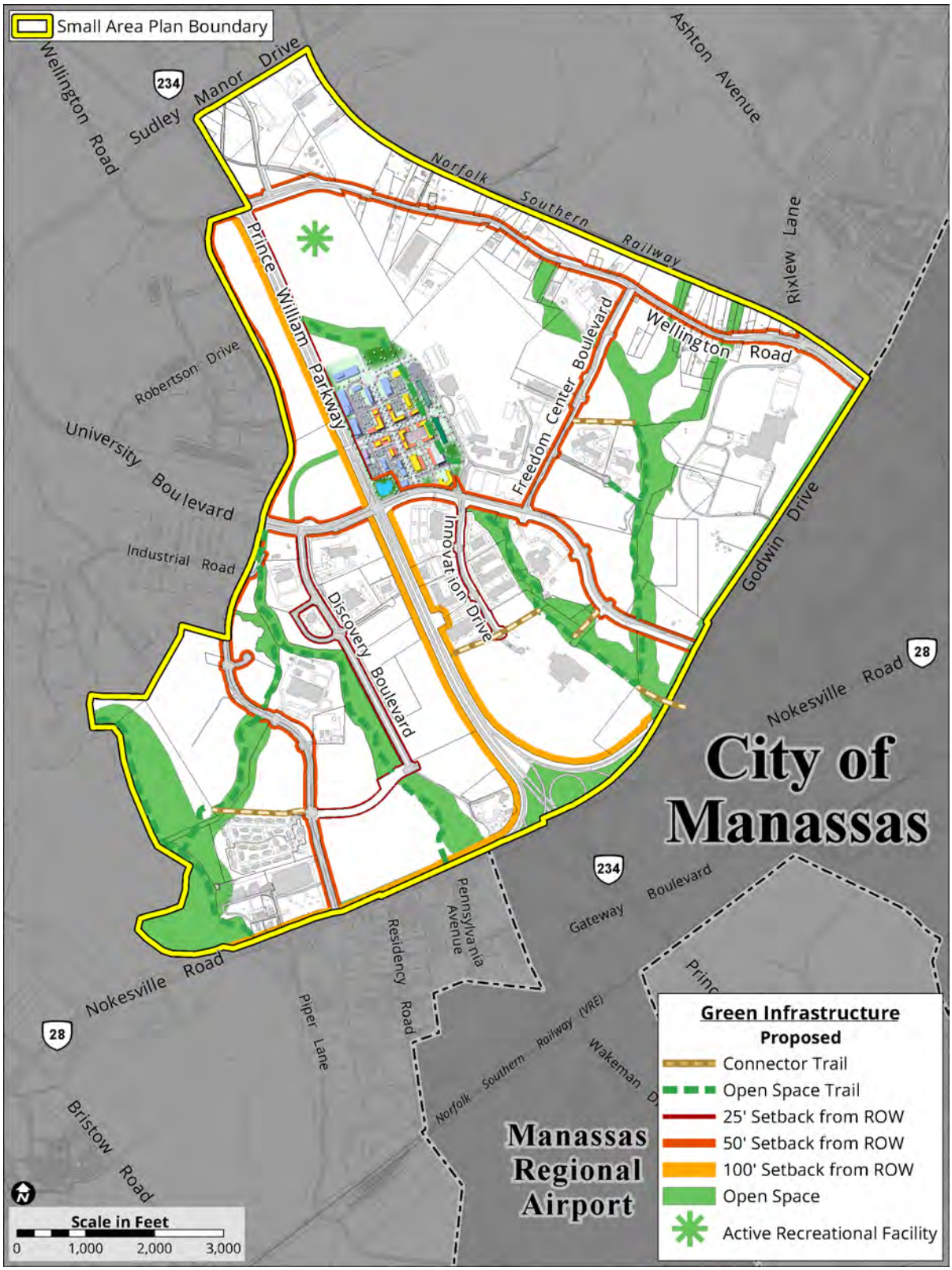


Figure 54: Public Space & Green Infrastructure

CULTURAL RESOURCES

Cultural resources are those tangible elements of our shared history left behind by previous inhabitants. They are found in individual architectural and archaeological sites, historic districts, cemeteries, battlefields, cultural landscapes, museum objects, and archival materials. The intent of this section is to facilitate the identification, research, preservation or documentation, and interpretation of the history of this Small Area Plan.

Based on aerial photography, the Innovation plan area was very rural in nature until the late 1990s. By 2000 the first major development was the George Mason University campus. After the adoption of the Innovation Sector Plan, the pace of development quickened. As part of the preparation of the Sector Plan, the County sponsored several different cultural resource studies. Additional studies were completed by private development in accord with proffers or purchase agreements and when required for rezoning or special use permit applications.

Eleven cultural resource surveys in the plan area, recorded a total of 34 archaeology sites: 17 were pre-contact sites and 17 were historic sites; of the 34, three sites were multi-component (containing both pre-contact and historic artifacts). All the pre-contact sites were either lithic scatters, short-term campsites and stone tool manufacture or stone tool maintenance sites.

Cultural resource surveys also recorded 35 architectural sites: 24 were houses, most of which were located along Wellington Road, one was a church on Wellington Road, one was the WKDV Transmitter site, one was the Milford Mill Site, two were battlefields (portions of the first and second Manassas) one was the Gaskins Cemetery, the remaining five architectural resources were farms or farm complexes (Sowder Farm, Birkett Farm, Conner Farm, Hersch Farm, Thomasson Barn)

The county's survey for cemeteries registered one cemetery, the Gaskins cemetery in the plan area.

Cultural resources survey and subsequent research is still necessary on undeveloped portions of the Small Area Plan. Efforts to link and interpret cultural resources within the small plan area have not started, however, there are proffers that require interpretation of some of the resources.

Goal: Identify and protect Prince William County's significant historical, archaeological, architectural, and other cultural resources, including those significant to the County's minority communities, for the benefit of all the County's citizens and visitors.

Policies and Action Strategies

Policy - Identify, document or preserve, and interpret pre-contact Native American archaeology sites, and historic archaeology sites.

- Require, on undeveloped land in the Small Area Plan Phase I cultural resource surveys to search for evidence of pre-contact and contact period sites. Due to the rarity of these site types Phase II evaluation should strongly be considered on all sites found. Sites recommended as significant should be subject to Phase III Data Recovery or avoidance to allow County archaeological research at some point in the future.
- Preserve human burials in-situ in accord with section 32-250.110 Preservation of Existing Cemeteries, or, if proposed for exhumation and reburial, secure a burial permit from the Virginia Department of Historic Resources.
- Where appropriate, restore historic structures and use as landmarks within proposed development.
- Identify funding sources such as grants (matching or fully funded) to fund cultural resource surveys. Cultivate private and public partnerships to conduct cultural resources research.
- Conduct archival and archaeological research on the location of the water powered mill on Broad Run and on the location of Milford Mill. If identified conduct data recovery.
- Consider graduate internships to complete cultural resource action strategies in this plan. Cultivate partnerships with graduate colleges and universities.
- Partner with the Historical Commission, the Architectural Review Board, and the Department of Parks, Recreation and Tourism on internship programs and projects.

Policy - Interpret the Small Area Plan's history to citizens and visitors.

- Continue to conduct research and install historical markers and interpretive kiosks. Where possible collocate with planned open space and parks.
- Where appropriate, partner with developers and property managers to install historical markers and interpretive kiosks in consultation with the Historical Commission, the Planning Office and the Historic Preservation Division.
- Include interpretation of the Small Area Plan's history in planned open spaces.
- Prepare and distribute, through various interpretive media, the Small Area Plan's history.
- Where technology reduces cost and increases efficiency, employ technology to bring historical interpretation to the public.
- Require developers to use the Plan Area's history in placemaking.
- Prepare a history or histories of the Innovation Park Small Area Plan area.
- Where appropriate, plan and install interpretive trails and connect trails to commercial and residential areas outside of the Small Area Plan.

Policy - Use the Broad Run trail as a tourist attraction.

- As development occurs build access points and multimodal parking areas. Identify, research, prepare and install interpretive markers and kiosks along the trail.

- Build connector trails to the Broad Run Trail as development or re-development occurs.

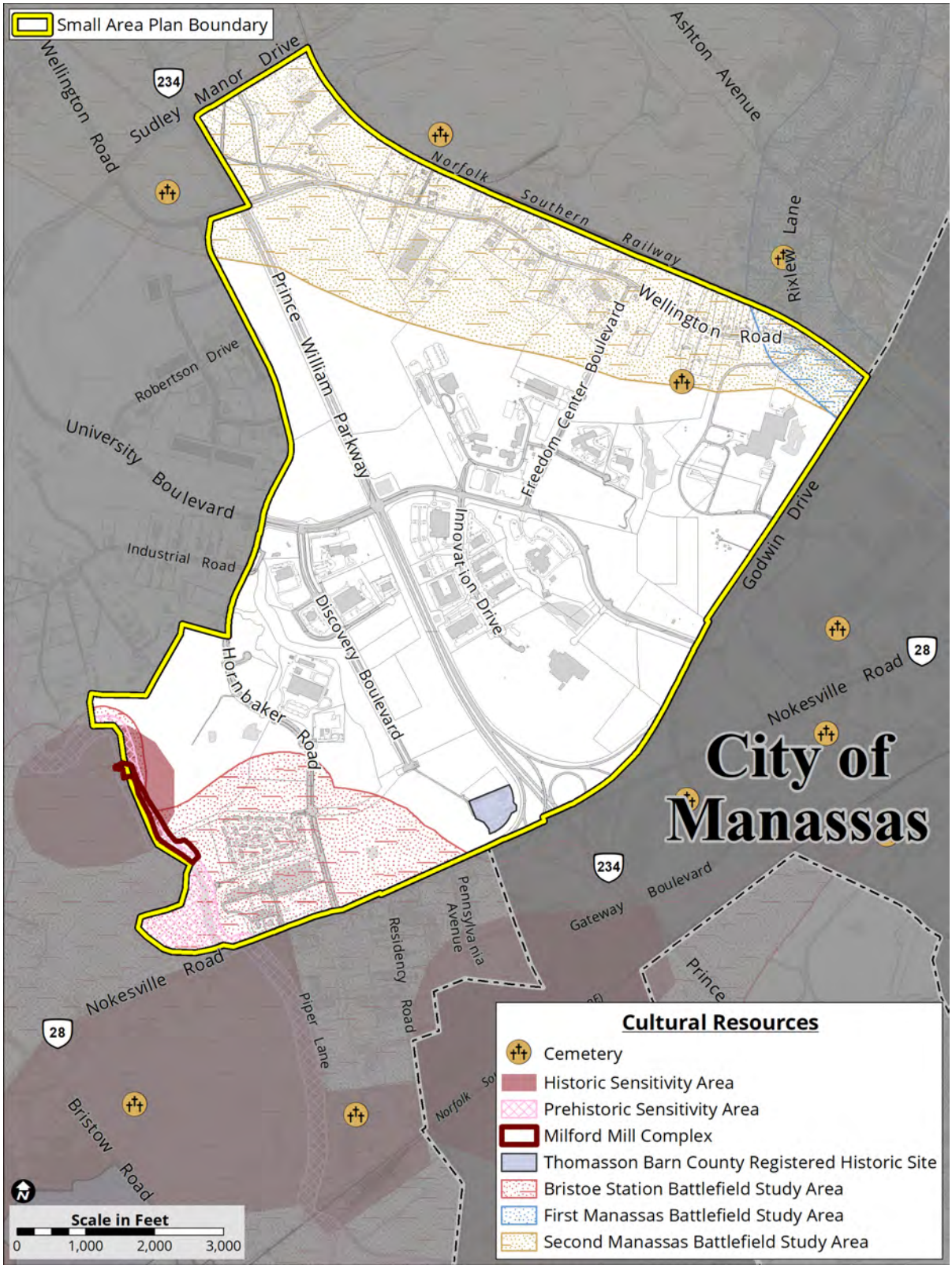


Figure 55: Cultural Resources

ECONOMIC DEVELOPMENT

Introduction

Goal: Incentivize economic development to attract and retain targeted industries and capitalize on the significant impact of the George Mason University's SciTech Campus as a springboard for building an interconnected, innovative community.

The Innovation Park Small Area Plan captures the elements necessary for transforming the area into a vibrant, transit-oriented University Center that celebrates and protects cultural resources and natural features, while leveraging assets for economic growth and a high quality of life. A primary focus of Innovation Park Small Area Plan is to capitalize on its access to Prince William Parkway and Route 28.

Innovation Park area is one of six designated regional activity centers in the County and is an area targeted to accommodate desired economic development. This area is designated as an Emerging Employment Center and is 4.2 square miles (2,688 acres). As indicated in the table below, the Round 9.1 forecasts for economic development, maintained by the Metropolitan Washington Council of Governments (MWCOG), indicate that the region will experience substantial growth during the next two decades with population growing by about one-fourth and employment growing by about one-third. Over the next two decades the Countywide population growth is expected to increase about one-third and the employment to increase about two-thirds.

	Regional (Round 9.1, Year 2040)	**Countywide (Round 9.1, Year 2040)**	**Innovation Park and Vicinity (Round 9.1, Year 2040)**
2015 Population	5,387,300	441,600	804
2040 Population	6,712,600	569,500	7,806
Growth 2015-2040	1,325,300	127.900	7,002
Percent Increase	24.6%	29.0%	971%
2015 Employment	3,160,900	143,100	4,188
2040 Employment	4,116,000	240,900	16,222
Growth 2015-2040	955,100	97,800	12,034
Percent Increase	30.2%	68.3%	387%

According to the Targeted Industry Study, the number of young families with children is steadily increasing. Based on these shifting demographics, the demand for occupations and services within the county will aid the expansion of targeted industries. Specifically, growth in the healthcare sector presents opportunities to create synergies between different clustered industries that require research and development (R&D) spaces, commercial zoning land uses, and benefit from high-density population areas. By identifying both the target industries and the needs of these industries, the County can facilitate growth in Innovation Park using land use planning, zoning, land sales, and public/private partnerships. The demands for commercial and research spaces will impact the need for connected, multimodal transportation and vice versa. The relationship between land use and mobility will continue to shape the small area plan.

Within the region, there are two military institutions Fort Belvoir and Marine Corp Base Quantico. Since 2007, the number of jobs in the County within the military industry has grown, adding over 2,150 jobs. In the Innovation Park Small Area Plan, the Virginia Department of Forensic Science and the Federal Bureau of Investigation both have facilities. The proximity of other military infrastructure, available commercial zoning uses, and international and regional airport access helps facilitate the potential for other federal government contracting uses in the Small Area Plan. Innovation Park has a strong network of infrastructure that can continue to be expanded upon.

Due to the geographic location of Prince William County relative to the D.C. Metropolitan Area, the proximity of Dulles International Airport and Manassas Regional Airport to the study area, the location George Mason University Science and Technology Campus within the study area boundary, and both the growing population and demand for housing, the Innovation Park Small Area Plan is a prime location to cluster and promote economic growth and development.

Existing Economic Development Assets

The Economic Development plan is focused on creating place opportunity that is attractive to today and future workforce in order to attract county-targeted industries to Innovation Park. Innovation Park established a solid foundation for increased economic growth due to its availability of commercially zoned areas and tracts of undeveloped parcels, its relationship with George Mason University's Science and Technology campus, and its geographic proximity to the D.C. Metropolitan Area and the City of Manassas.

Existing businesses, businesses for expansion, and businesses for relocation

Innovation Park currently consists of light industrial uses, research facilities, data centers, federal government contracting uses, and the George Mason University Science and Technology campus. Over the years the area has successfully attracted several light industrial uses including software companies, engineering firms, data centers, and research facilities within the center of Innovation Park. Along both sides of Route 234/Prince William Parkway there are pockets of clustered commercial development and office spaces, which are surrounded by open space. Due to the current existence of Information Communications Technology (ICT), Federal Agencies, and Life Sciences, the Innovation Park area is well suited to expand the aforementioned targeted industries. The positive correlation between expanding targeted industries and housing demands will only increase the necessity for multi-family housing units as these industries grow. The geographic center of Innovation Park will become a vital asset when facilitating the expansion of target industries to include mixed-use development and multi-family housing to create a livable, University Center District. The changing needs of the Innovation Park community will only continue to strengthen as demands for transportation connectivity, housing, and entertainment increases. By continuing to attract these targeted industries, Innovation Park will grow into a flourishing community containing workspaces, an urban neighborhood, and entertainment.

At the northeastern edge of the Small Area Plan, along Wellington Road, there are a few light industrial uses and services. This area acts as a natural buffer between industrial uses and higher-density uses allowing for flexible mixed-uses. Industrial zoning, infrastructure capacity, and accessible transportation make Innovation Park an optimal location for Advanced Manufacturing. Additionally, to the west of the area boundary is the Broad Run Industrial Park, which further contains several office spaces and light industrial uses. Innovation Park has the potential to expand these existing assets while also helping to create growth in the surrounding areas of the County. Outside the Innovation Park boundary there is significant manufacturing in the ICT and Government Contracting sectors.

Opportunities to expand surrounding industries in technology and research and development (R&D) are optimal if parcels are properly zoned for mixed, commercial, and light industrial uses. Growth in existing industries can continue if Innovation Park

expands concentrated areas of retail services, light industrial production uses, data centers, and research and development spaces. By providing available office space, utilizing commercial and industrial zoning, and leveraging highway transportation, target industries in Advanced Manufacturing, Healthcare, ICT, Life Sciences, and Government Contracting can flourish. Utilizing separate or vertical mixed-use patterns can promote consistency across a variety of uses and create a sense of place and community. Allowing for flexible land-use mixes can further aid in creating vibrant technology and employment centers within the Innovation Park Small Area Plan.

Inventory of Ideal Retail Spaces

There are existing retail spaces inside the southern boundary of the Innovation Park Small Area Plan. This retail space, called Center at Innovation, is adjacent to The Regency Apartment Homes and provides convenient shopping and foodservice uses. To the south of Nokesville Road, there are additional retail, food, office space, and government uses. Further north, outside of the Innovation Park area boundary, is the Manassas Mall. Manassas Mall has a number of retail stores, fitness, entertainment, and food services just off of Sudley Road. With a large portion of the Innovation Park study area being open space, there are substantial opportunities to cultivate desired retail and service uses within the area. The proposed Town Center District at the heart of Innovation Park would be an ideal opportunity for mixed-use development, including retail and food service uses, entertainment, and housing spaces, especially in areas to support the goals and vision for the Town Center area.

Vacant Parcels with Development Potential

There are many parcels of open space throughout the Innovation Park area. Several small parcels between Broad Run Industrial Park and existing development along Discovery Boulevard could act as a transition space between the Innovation Park Small Area Plan and surrounding areas of the County. There is a small pocket of commercial and residential uses at the southwest border of the study area. Along both sides of Route 234/Prince William Parkway, there are several large parcels of open space that border George Mason University's Science and Technology Campus. There is also open space between Freedom Center Boulevard and Godwin Drive, which could be zoned for a variety of uses. These pockets of open spaces could expand to build on existing office spaces and draw employment opportunities in several targeted industries.

Figure 56: GMU's Science and Technology Campus is a critical asset for the development of Innovation Park

Surrounding Uses

The area adjacent to Innovation Park includes significant industries with significant employment, for example Micron (Advanced Manufacturing) with 1500 employees, Lockheed Martin (Defense Contracting) and BAE (Defense Contractor) with 400 employees all lie in the immediate vicinity and will benefit from and support new developments in Innovation Park.

Additionally, the Manassas Regional Airport is located at 10600 Harry Parrish Boulevard in Manassas. With over 400 based aircraft and over 85,000 annual aircraft operations, Manassas Regional Airport is the busiest General Aviation (GA) Airport in the Commonwealth of Virginia. Since its opening in 1932, the Manassas Regional Airport has been a key contributor to the local economy. In 2016, an economic impact study was conducted; and it was determined that the airport contributed more than $375 million to its local economy, 1,351 jobs and wages of $117,438,000. In 2012, Manassas Regional Airport was identified as one of 84 National General Aviation (GA) airports by the FAA.

Tools & Incentives

Prince William County already offers competitive incentives to attract target industries and businesses to the county. These include competitive tax rates, the Prince William County Economic Development Opportunity Fund and Low Business Tangible Personal Property Tax Rates on computer equipment. While Innovation Park is not currently part of a Targeted Revitalization Zone, HUB Zone or Opportunity Zone, the County can leverage other powerful tools and incentives to encourage and to shape re/development in the Innovation Park Small Area Plan. The focus on incentives and tools should be to catalyze and connect re/development within the small area. The County should focus on public intervention and capital improvements to catalyze more intensive mixed-use and walkable development, support existing uses, attract complementary uses, and strengthen accessibility. Assistance in sharing the costs of new and upgraded public infrastructure such as open space and structured parking are examples of improvements that the County can facilitate through the Innovation Enterprise Fund, tax increment financing, business improvement districts, and other programming. Other tools exist and may be options to aid the development of Innovation Park, however the following tools are available now and present the best opportunities for supporting economic growth within the Small Area.

Available Tools, Incentives, and Programs

Tax Increment Financing

Tax increment financing (TIF) is a way to set aside, for a limited period of time, all or part of the presumed increment of new taxes generated by new development, to invest in public improvements. New and improved roads, expanded sewer and water systems, undergrounding of utilities, streetscapes, as well as public parking structures and park space, are some of the potential uses of TIF revenue. Projects can be accomplished on a pay-as-you-go basis or through the issuance of general obligation bonds. Another approach is to create a 'virtual TIF' where the County would participate on a case-by-case basis through diversion or abatement of incremental taxes via a development agreement with private sector partners.

Business Improvement Districts

The County can establish by ordinance a business improvement district (BID) in a defined area within which property owners pay an additional tax on real estate in order to fund improvements or services within the district's boundaries. Taxes generated by BIDs can be used for district maintenance, security, capital improvements, marketing and promotion, facilities operation and staffing, and more. The services provided by a BID would be supplemental to those already provided by the County.

Innovation Park is identified as a Regional Activity Center by the Metropolitan Washington Council of Government (MWCOG). Regional Activity Centers were identified and studied in MWCOG's 2014 Place + Opportunity report. Activity Centers are identified as "the places that will accommodate much of the region's growth in the coming decades—attract residents, businesses, and visitors to the area, and are critical to ensuring the region's future competitiveness and success." The strategies, and tools enumerated to achieve the development of these Activity Centers are reflected in this Small Area Plan.

Industrial Revenue Bonds

The County can issue tax-exempt or taxable industrial revenue bonds (IRBs) on behalf of qualified companies to finance the construction of buildings and related infrastructure (including parking). Examples of qualifying projects are construction of corporate headquarters and facilities for nonprofit corporations, such as trade associations.

Strategic Rezoning

Zoning tools play a critical role in accommodating and encouraging development, and in facilitating desired land use mix and densities. Having appropriate zoning is particularly important to the success of transit stations, such as the VRE.

Public/Private Partnerships

The strength and growth of Prince William County's Economic Development is deeply embedded in the diversity and strength of its State and Local partnerships. The Prince William County Economic Development Department already maintains a host of state and local partnerships to promote cooperative economic development in the County. The complete list can be found here: http://www.pwcecondev.org/state-local-partners

The county has used public/private partnerships to develop Innovation Park, including: ATCC's headquarters; FBI Northern Virginia Residency, and Farm Brew Live @ Innovation. These partnerships have taken many forms from leasing land to building infrastructure. Realizing the full potential of Innovation Park will require more public/private partnerships. Potential opportunities for such partnerships include the town center, shared parking structures, and the proposed USTA Northern Virginia headquarters facility. Additionally, the county must further their partnership with George Mason University. In particular, the two organizations must collaborate to develop joint marketing opportunities to enhance the reputation of Innovation not only as a technology center but also as a desirable area for a University Center District development. Efforts should be focused on building brand awareness to attract businesses to Innovation. Additionally, the county must continue to assist in the maturation of the Innovation Property Owners Association. The County will encourage adjacent property owners to join the Association as it assumes greater responsibility for the operation and maintenance of Innovation common areas, signage, and identity programs.

Partnerships with the private sector are key to attaining the goals of the plan, The Prince William County Department of Economic Development works to attract businesses in all industries to expand capital investment and increase high-wage jobs. The department announced $1.53 billion in capital investment and 227 new jobs in Fiscal Year 2019, stemming from 13 targeted industry projects. The results marked yet another twelve-month period within which the County has logged over half a billion dollars in economic development projects.

GoVirginia Support and Grant Programs

Prince William County is part of the GoVirginia Region 7. GO Virginia supports programs to create more high-paying jobs through incentivized regional collaboration between business, education, and government to diversify and strengthen the economy in every region of the Commonwealth. The organization maintains a database of grants programs and administers grants regionally.

State-Level Grant Programs and Incentives

The Commonwealth of Virginia through the Virginia Economic Development Partnership (VEDP) offers a catalogue of incentives to promote economic development throughout the commonwealth. These incentives include grants for localities, direct financial assistance to businesses, tax incentives for businesses, infrastructure support and training programs. The most applicable programs are listed below. The full list is available at: https://www.vedp.org/incentives

Discretionary Incentives

The Commonwealth of Virginia offers an array of discretionary incentives for competitive projects evaluating a Virginia location, providing financial inducements that make good fiscal sense for all parties. Performance-based incentives target the needs of companies as well as the development plans of localities and the Commonwealth.

Commonwealth's Development Opportunity Fund (COF)

A discretionary financial incentive established to support projects that create new jobs and investment in accordance with certain criteria established by state legislation. Grants are made to the community and may be used for such things as site acquisition and development; transportation access; public or private utility extension or capacity development; construction or build-out of publicly or privately-owned buildings or training.

Economic Development Access Program

A state-funded incentive to assist localities in providing adequate road access to new and expanding manufacturing and processing companies, research and development facilities, distribution centers, regional service centers, corporate headquarters, government installations, and other basic employers with at least 51% of the company's revenue generated from outside the Commonwealth. The program is administered by the Virginia Department of Transportation (VDOT).

Innovation Enterprise Fund

Prince William Board of County Supervisors (BOCS) adopted Land Bank Policies for Innovation Park with Resolution Number (Res. No.) 97-228 and these policies provide for the reinvestment of Innovation Park land sale proceeds to provide infrastructure intended to promote the development of Innovation Park. These funds are to finance capital infrastructure improvements and development within the Innovation Business Park.

Transportation Partnership Opportunity Fund (TPOF)

Awarded at the discretion of the Governor in the form of grants, revolving loans, or other financial assistance to an agency or local government of the Commonwealth for activities associated with eligible transportation projects. The Virginia Department of Transportation (VDOT) administers TPOF. Projects developed with monies from TPOF do not become private property, but rather become or remain public property following completion. The transportation improvements have to be accomplished according to VDOT standards and specifications and have to be maintained by the appropriate public entity pursuant to relevant agreements.

Opportunities for Target Industries

The following table analyzes the Innovation Park Small Area in terms of suitability and opportunity within each of the county's six targeted industry types. Innovation Park is well suited through existing zoning, infrastructure and land characteristics to support all of the County's target industries. However, in looking at market forces and trends, Healthcare, Life Science and Information Communication Technology emerge as the highest opportunity growth sectors for Innovation Park. Designated Targeted Industries may receive expedited plan review, especially those sites in the plan area that have infrastructure in place.

Technology Zones

The County, under Virginia law, can establish a Technology Zone for Innovation Park to attract growth in targeted industries. Qualified technology business locating or expanding in the Technology Zone may receive local permit fee waivers, local tax incentives, and special zoning treatment. The County can design and administer the program to targeted technology companies in life sciences, information and communication technology, and government contracting.

Target Industry	Existing Business Presence	General Requirements	Opportunity Ranking	Supportive Actions to Grow Industry within Small Area
Advanced Manufacturing	• Nikon • Metrology • ZESTRON	• Industrial zoning • Water/sewer • infrastructure and capacity • Access to transportation • Electricity infrastructure • (multiple phases) • Natural gas infrastructure • Existing buildings with high ceilings • Fast Track permitting process • Land with little due diligence concerns • Broadband infrastructure	**Medium** With industrial zoning, infrastructure capacity, transportation access, and land without many environmental concerns, Innovation Park would, physically, be a good location for businesses in the Advanced Manufacturing cluster. However, the lack of existing buildings that meet industry requirements; competition for land from other industries; the lack of an existing, trained workforce; and the relatively small job generation capacity relegates Advanced Manufacturing to a supportive role in the economic development of Innovation Park.	• Focus on marketing to recruit Advanced Manufacturing businesses that support higher priority industries such as Healthcare, Life Sciences and ICT.

Target Industry	Existing Business Presence	General Requirements	Opportunity Ranking	Supportive Actions to Grow Industry within Small Area
Government Contracting	**Medium,** but with several cross over businesses • Progeny Systems Corp. • NAL, Research Corp. • COPT, Data Center Solutions	• Proximity to military infrastructure/installations and nearby market, anchor companies, and supply chain • Commercial zoning • Class A and B office space • Major underutilized assets like airfields, and ports • Information technology infrastructure • International airport access	**Medium** The area does have commercial zoning, IT infrastructure, and relatively easy airport access. However, with only limited access to military infrastructure, and the GSA policy of locating facilities near metro stops, Innovation Park may not be a top location choice for companies that are involved with Federal Government Contracting.	• Focus on marketing to recruit Federal Government Contractors that supports higher priority industries such as Life Sciences and ICT.

Target Industry	Existing Business Presence	General Requirements	Opportunity Ranking	Supportive Actions to Grow Industry within Small Area
Healthcare	**Limited**, but with several cross-over businesses	• Proximity to major health and education institutions • Commercial zoning • Proximity to market – high population density	**High** With access to major institutions within the area, commercial zoning, and proximity to a potential high-population market with the new University Center, Innovation Park would be an attractive location for the Healthcare industry. Furthermore, the presence of quality healthcare facilities is a boon when recruiting other industry types that value quality of life amenities when selecting sites.	• Pursue partnership with GMU and other education institutions to refine and promote training and career pathways that lead to employment at local health care facilities. • Support the growth, expansion, and viability of health care providers through development/permitting process support. • Promote the health care system as a quality of life strength when working on other business recruitment and attraction efforts. • Implement strategies to support the development of the Innovation University Center District - A diverse region with transportation access and walkable quality of life will appeal to and attract professionals and a highly educated STEM workforce.

Target Industry	Existing Business Presence	General Requirements	Opportunity Ranking	Supportive Actions to Grow Industry within Small Area
Information Communication Technology (ICT)	**Strong**	• Resilient and affordable power Commercial zoning Telecommunication infrastructure – fiber • Existing water capacity	**High** The current characteristics of Innovation Park align well with the ICT cluster, including commercial zoning, a Data Center Overlay Zone, infrastructure capacity, and educational and entrepreneurial assets.	• Plan for electrical and telecom infrastructure required to support existing and planned data centers in Innovation Park. • Promote and develop cross –sector opportunities for business recruitment and development in ICT and other target industries.

Target Industry	Existing Business Presence	General Requirements	Opportunity Ranking	Supportive Actions to Grow Industry within Small Area
Life Sciences	**Strong**	• Existing cluster related companies and workforce • Commercial zoning and R&D zoning • Proximity to education and pure • research institutions • Abundant water for pharmaceutical manufacturing • Access to an integration with healthcare services • Available space, including lab space • International air service	**High** Innovation Park is well suited for the Life Sciences cluster, including strong existing cluster businesses, appropriate zoning, proximity to a potential high-population market with the new University Center District, and capacity for water. The only challenge is limited availability of space, including lab space.	• Continue to promote and develop partnership with GMU for the establishment of Research and Development. • Collaborate with George Mason University for creation and use of additional lab space for commercial opportunities. • Coordinate as necessary with developers who are working regionally on similar projects and pursue public/private partnerships. • Implement strategies to support the development of the Innovation University Center District - A diverse region with transportation access and walkable quality of life will appeal to and attract professionals and a highly educated STEM workforce.

Target Industry	Existing Business Presence	General Requirements	Opportunity Ranking	Supportive Actions to Grow Industry within Small Area
Logistics	**None**	• Larger parcels of affordable land • Industrial zoning • Easy access to highway and transportation infrastructure with limited congestion • Arterial roads upgraded to support trucking	**Low** The relatively lower paying jobs available through the Logistics cluster; competition for land from other industries; and the presence of cheaper land west of the county means that Innovation may not be the most competitive location for all business in the Logistics industry	• Focus on "last-mile" logistics investments serving the same day delivery market. • Finalize Zoning Text Amendment to update zoning classifications for e-commerce distribution facilities. • Promote and develop cross – sector opportunities for business recruitment and development. • Establish career pathways and training that cross both the ICT and Logistics sectors.

CIP Projects That Contribute to Economic Development

Figure 57: Recently completed CIP project construction of Thomasson Barn Road

Capital Improvement Plan

The Prince William County financial and program planning ordinance requires that the County Executive prepare a capital plan annually. The development of the Capital Improvement Program (CIP) is guided by the Board of County Supervisors' (BOCS) adopted Strategic Plan, Comprehensive Plan, and Principles of Sound Financial Management. The CIP incorporates the actions and goals of the Strategic Plan, identifies revenue sources for each project, meets the County's financing policies per the Principles of Sound Financial Management (PSFM), and integrates the County's government and school projects into one detailed plan in order to prioritize capital improvements throughout the County. The following projects are programmed FY2021-FY2026 in the Innovation Small Area Plan or in the near vicinity:

- **Rt. 28 Phase III (Linton Hall Road to Pennsylvania Avenue** - This projcet includes widening Rt. 28 from a four lane undivided facility to a six lane divided highway. The project includes a shared use trail and a sidewalk. This project spans approximately 1.5 miles and is scheduled for completion in spring 2022.

It also includes a shared use path on Residency Road for access to the new north parking lot for the Broad Run VRE Station. The City of Manassas is installing a traffic signal at Rt. 28 and Pennsylvania Avenue and widening Rt. 28 from Pennsylvania Avenue to Godwin Drive**.**

- **University Boulevard Extension** – This project, located north of the Innovation Park Small Area Plan, will extend University Boulevard from its current terminus at Edmonston Drive to Sudley Manor Drive. The new section of University Boulevard will be two lanes wide with the total length of the project being approximately 1.25 miles. The project will also include the construction of a10-foot-wide shared used path on the south side of University Boulevard for the entire length of the project. A sidewalk on the north side of the project will also be constructed. Construction is anticipated to be completed in December 2022. This improvement will enhance the traffic circulation in the area.
- **Intersection Improvements at Prince William Parkway and University Blvd**.

  This project consists of constructing intersection improvements at Prince William Parkway and University Boulevard. The project will be constructed as a quadrant roadway intersection, also known as an innovative intersection by VDOT. This project includes a quadrant loop in the northwest quadrant of the intersection so that left turns will be prohibited at the Prince William Pkwy/University intersection but will be accommodated at an intersection approximately 800 feet north of the intersection at an R-cut intersection. Construction is anticipated to be completed by January 2022.
- **Innovation Pedestrian Improvements** –This project includes a comprehensive sidewalk and shared use path improvements to enhance the walkability and recreational capabilities in Innovation Park. It consists of three separate improvements:
  - **Discovery Boulevard** will be enhanced with a 5-foot sidewalk on the east side for approximately 1,600 feet.
  - **Innovation Drive** will be enhanced with an 8 to 10-foot multi-use shared-use path on the east side for approximately 2,700 feet.
  - **University Boulevard** will be enhanced with a 5-foot sidewalk on the north side for approximately 1,300 feet.

  Construction is scheduled to begin in summer 2020 with completion in summer 2021.
- **Fire Station 22** – While not located in Innovation Park, the Groveton Fire & Rescue Station (7500 Century Park Drive), will improve response times and ease the burden on emergency responders. The project is scheduled for occupancy in March 2021.

There are several additional CIP projects in the surrounding areas that will impact the Innovation Park Small Area Plan. Transportation CIP projects include the Rt. 234/Balls Ford Road Interchange, the Balls Ford Road Widening, and the Route 28 Phase 3 projects. These transportation CIP projects will alleviate congestion and improve safety. There are also funds set aside for stormwater capital improvement projects that could include stream restoration, best management practices (BMPs), stormwater management facility retrofits, culvert modifications, channel improvements, and drainage improvements. There are currently no projects in the Bull Run District in Innovation Park. However, if the need arises, the Innovation Park area could receive funding for stormwater management practices. The Small Area Plan abuts the City of Manassas who also has ongoing infrastructure and facility improvements including pedestrian and bicycle facilities along Route 28, Godwin Drive, and Gateway Boulevard.

LEVEL OF SERVICE PLAN

Goal: Identify public facility needs in order to meet expected demand and ensuring the health, safety, and wellbeing of the community.

This section of the Small Area Plan provides an assessment of public facility needs to address the anticipated buildout proposed in the Plan. Each of these level of service needs is addressed from a high-level approach, considering the changes in development anticipated through the year 2040, based on the projected densities in the Land Use Plan. The level of service standards for the County are currently undergoing review and may be updated after adoption of the Plan. The standards used to project facility needs in this section will be updated as the level of service standards are adopted.

The Innovation Park Small Area Plan seeks to ensure adequate public facilities to meet the projected growth proposed in the Plan and ensure they are integrated into the needs of the surrounding area. Appropriate public services such as schools and parks should be incorporated within the Small Area Plan to provide the greatest proximity to residential density. Incorporating public facilities into the mixed-use areas also helps create “third places” for community activities and passive congregation (i.e. not work or home but places such as churches, cafes, clubs, public libraries, or parks). The plan objective would be to integrate public facility uses into projects as redevelopment occurs.

Safe and Secure Community

Fire and Rescue

The level of service standards for fire and rescue services are measured as travel times and workload capacity. This Small Area Plan is primarily located between three stations: Fire Station 25, Fire Station 11, and the City of Manassas Fire Station 21. The Small Area Plan is currently not within the four-minute travel time for fire suppression and basic life support (BLS) standard for any of the three stations. Station 25 and Station 11 provide adequate coverage for eight-minute travel time for advanced life support (ALS) standard. The Safe and Secure Community Chapter of the Comprehensive Plan identifies Station 35 to provide increased service. The proposed densities within the Plan will increase the need for this station. Additionally, Station 22 is currently under construction and will further relieve the systems overall capacity in the area.

Projected Fire and Rescue Facility by Existing and Projected Population		
Fire and Rescue Stations	Existing (2019)	Additional Need by 2040
Total	3	1

Police

The primary need for police force expansion and the facilities to house them relates to population growth. The Small Area Plan is currently served by the Western District Police Station which is located within the boundaries of the Plan. The proposed population growth would translate to a need for about 14 new police officers. The growth in the Plan may contribute to increased station demands which could be alleviated by public safety satellite field office in Commercial/Mixed-Use area of the Town Center. Animal Control and Training facilities needs projected within the Small Area Plan will be incorporated into expansion of existing countywide facilities.

Projected Police Facility Needs by Existing and Projected Population		
Facility Type	Existing (2019)	Additional Need by 2040
Police Station	1	5%
Satellite Field Offices	0	1
Administrative Support Facilities	0	1,505 sq. ft.
Animal Control	0	368 sq. ft.
Public Safety Training Center	0	1,780 sq. ft.

Criminal Justice

The level of service standards for criminal justice primarily address the need for adequate space for the PWC Sheriff's Office. The proposed population growth would translate to a need for 1 new sheriff deputies. The facility demand generated by the proposed plan should be incorporated into future expansion of Sheriff's Office facilities. Additionally, current policy encourages public safety satellite field offices in Commercial/Mixed-Use areas, as a ground floor use in a vertically mixed-use building, to increase public safety and sheriff visibility. It is recommended that a public safety satellite field office (for Police and/or Sheriff) be located in the Town Center.

Projected Criminal Justice Facility Needs by Existing and Projected Population		
Facility Type	Existing (2019)	Additional Need by 2040
Sheriff's Office	0	237 sq. ft.
Satellite Field Offices	0	1
Administrative Support Facilities	0	54 sq. ft.

Community Education

Schools

The primary need for new or improved schools relates to the number of students generated by new residential development. The number of projected students varies between different housing unit types, for example single-family houses typically generate more students than multi-family units. Each housing type has a Student Generation Factor that can be applied to predict the number of students that will be generated. This Small Area Plan lies within four current school districts: two elementary schools, one middle school, and one high school. Based on current school design standards the growth in residential population through 2040 indicates an increase in student generation that would equate to the need for fourty-seven percent of an elementary school, thirteen percent of a new middle school, and eight percent of a new high school. The projected student generation warrants the need to evaluate a new Elementary school potentially utilizing an DPPO- Densely populated pedestrian-oriented developments elementary school design in or adjacent to the Town Center. The current School's CIP does show that an additional elementary school (Rosemont Lewis) is scheduled for 2023-2024 that may offer some relieve of the capacity at Ellis Elementary. Additionally, the school's CIP shows classoom additions at Marsteller Middle school. Gainesville High School 's boundary will relieve some of the capacity for Unity Reed *(formerly Stonewall Jackson)* High which will primarily serve the Small Area Plan. The Plan currently identifies the potential for a portion of the proposed residential housing to be student housing for the GMU campus which may cause a significant reduction in demand for school facilities proposed in the plan.

Projected School Facility Needs by Existing and Projected Population		
Type of School	Existing (2019)	Additional Need by 2040
Elementary	2	46%
Middle	1	13%
High	1	8%

Libraries

The need for library space is based on several operating criteria related to materials circulation, as well as a planning criterion related to facility size per capita. The Innovation Park Small Area Plan is primarily served by the Bull Run Regional Library. The forecast Small Area Plan growth would suggest a need for additional Library facilities equivalent to a Neighborhood or community sized Library and/or expansion of current facilities by 2040.

Projected Library Facility Needs by Existing and Projected Population		
Library Needs	Existing (2019)	Additional Need by 2040
Sq. Ft. per Capita	0	3,296 sq. ft.
Books per Capita	0	13,735 (estimated cost $412,000)

Parks, Recreation and Tourism

Level of service for parks in Prince William County is assessed through park acreage as a percent of county land area, park quality, accessibility, level of development, and equitable distribution of park resources. To that end, the Comprehensive Plan has established park planning districts to analyze the park system at a sub-magisterial district level, and Innovation Park is within Park Planning District 4. Full explanation of the Level of Service methodology for Parks can be found beginning in Appendix A of the Parks, Recreation and Tourism Chapter of the Comprehensive Plan.

Innovation Park Small Area Plan proposes an increase in residential density that together with the increased employees will generate the need for parks and recreation facilities. The existing Freedom Aquatics Center and the proposed USTA site will offer robust active recreation opportunities. The environmental resource areas offer the opportunity to preserve natural resources and provide a robust trail system connecting to the surrounding area. The Town Center area will create the need for walkable urban parks and open space resources, such as pocket parks and linear promenades. These amenities be incorporated into and refined through rezoning and site plan applications.

Linear/Greenway Parks

The dominant feature of the existing park system in the study area is the Broad Run Linear Park and Broad Run Greenway, a trail and open space corridor between Lake Manassas to Lake Jackson, planned to connect neighborhoods, parks, and nodes of activity with an inviting, accessible multi-use trail. The greenway passes through the southwest corner, and connections to the corridor are shown in Figure 54 Public Space & Green Infrastructure. A critical level of service metric for Innovation Park Small Area Plan will be defined accessibility to the greenway corridor from all developed sites, quality of the trail itself, and connectivity of trails and green space within the Small Area Plan as a part of the larger greenway system. Contributions towards improvements to the greenway corridor, including proffer funds for trail improvements within the corridor, land dedications, and access trails, will be considered enhancements to the level of service provided by the Broad Run Greenway.

Additionally, Cannon Branch Trail is identified as an opportunity to provide recreational opportunities along the Cannon Branch Creek.

Neighborhood Parks

Innovation Park Small Area Plan is not within the service area of any existing neighborhood parks. Additional neighborhood parks are a need identified as a high community priority in the 2018 *Community Needs Assessment* and highlighted by the park service area analysis in in Appendix A of the Parks, Recreation and Tourism Chapter of the Comprehensive Plan. Therefore, development of high-quality neighborhood parks and public spaces is critical to adequately addressing level of service for parks within the study area. The Comprehensive Plan recommends a

development standard for Neighborhood Parks of 75% active space and 25% passive (see page A-7 of the Parks, Recreation and Tourism chapter for details) to facilitate the development of context-specific, flexible neighborhood parks, plazas and public spaces within walkable and bikeable distances of residences and workplaces. Contributions of proffer funds towards turnkey development of new neighborhood parks, land dedication to facilitate future park development, and other enhancements to public spaces and interstitial connectors, like public walkways to facilitate connectivity to neighborhood park sites from other nodes of activity within the study area, will be considered enhancements to the level of service provided by the neighborhood park system, provided they meet community design standards and support the goals for the park system expressed in the Comprehensive Plan and Parks and Open Space Master Plan.

Community Parks

Though the Small Area Plan is within the drive-time based service area of several community parks, defined in Appendix A of the Parks, Recreation and Tourism Chapter as a 20 -minute drive, there is not a community park within the small area plan boundary or in Park Planning District 4. Additionally, none of the community parks, in adjacent park planning districts, are within the walk or bike service area. (defined in Appendix A as a 10-15-minute trip). With the addition of an estimated 7,837 residents and the concentration of compatible uses including the town center, George Mason, and proposed commercial developments, a community park, or network of smaller community parks, geared towards providing active recreation opportunities for residents, employees, and visitors would enhance the level of service provided by the park system not only in the small area plan, but in Park Planning District 4 as a whole. The Comprehensive Plan recommends a development standard for Community Parks of 50% active space and 50% passive (see page A-7 of the Parks, Recreation and Tourism chapter for details) to facilitate the development of context-specific, flexible parks.

To the extent permitted by law, contributions of proffer funds towards turnkey development of new community parks, land dedication to facilitate future park development, and other enhancements to public spaces and interstitial connectors like public walkways to facilitate connectivity to community park sites from other nodes of activity within the study area will be considered enhancements to community park level of service, provided they meet community design standards and support the goals for the park system expressed in the Comprehensive Plan and Parks and Open Space Master Plan.

Park Quality

Lastly, as the existing conditions of the study area show a dearth of park space, all new park elements must be able to meet a quality level of service A, as defined in the Park and Facility Quality section of the Parks, Recreation and Tourism chapter. Quality will be

assessed by DPRT and Planning Office staff post construction of new public facilities to be dedicated, but before Applicants are off bond.

Projected Park Facilities		
Type	**Name**	**Description**
Community	University Area	Active recreation opportunities needed in or near the Town Center
Linear	Cannon Branch Trail	Cannon Branch Trail to provide recreational opportunities along Cannon Branch creek.
Trail	Bike & Pedestrian Bridge	Bridge providing access across Prince William Parkway just north of the planned Discovery Boulevard loop ramp.
Linear	Broad Run Recreation Corridor Connections	New Broad Run Recreation Corridor Connections to provide service to the area
Trail	University Village Trail	Recreation trail running between GMU and the Town Center northwest connecting to the shared use path running along Prince William Parkway.

Broadband Needs and Wireless Communications Gaps

Large portions of the Small Area Plan are currently undeveloped providing opportunities to incorporate improved broadband and wireless communications infrastructure as development occurs. Throughout the study area, new development provides an opportunity to ensure that wireless communication infrastructure implementation follows Section 15.2 -2316.3 et seq. of the Virginia Code.

Mobility

Implementation of the Small Area Plan mobility recommendations will require a combination of public and private sector participation. The public sector participation will occur through the County Capital Improvement Program, a variety of local and state funding sources, and the opportunity for federal and institutional grants. The private sector participation will occur through development approvals identifying and accommodating multimodal transportation demands of each new development. Together, the public and private sectors will implement the planned transportation system incrementally and in a phased process linked to changing consumer needs. The Implementation Matrix identifies the need for the most significant transportation

projects associated with an assessment of near-term or longer-term needs and practical implementation schedules.

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
Short-Term	Cultural Resources	Partner with the Historical Commission, the Architectural Review Board, and the Department of Parks, Recreation and Tourism on internship programs and projects.		
Short-Term	Cultural Resources	Prepare a history of the Innovation small area plan area.	PWC	
Short-Term	Design Guidelines	Develop high-quality design guidelines that will ensure a well-designed pedestrian-scaled community that incorporates elements of access, architecture, visibility, security, sustainability, and innovation to develop a distinctive yet cohesive community.	PWC	
Short-Term	Economic Development	Develop a mixed-use zoning district in order to develop a Village Center that would be attractive to higher education office and research and development, arts and entertainment, and public facilities.	PWC and Private Partners	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
Short-Term	Economic Development	Within the light industrial area of the small area plan – support efforts to consolidate properties to better attract companies in the Logistics Cluster and the Advanced Manufacturing Cluster in order to capitalize on the proximity and good access to transportation infrastructure. Evaluate current industrial/manufacturing zoning districts and amend districts as needed to accommodate targeted industries.	PWC	
Short-Term	Economic Development	Partner w/GMU, City of Manassas, and Innovation Owners Association to create a Sci-Tech University Technology District to promote the area and increase University and Business research partnerships.	Economic Development	
Short-Term	Economic Development	Identify opportunities for public private partnerships and entertain a wide range of proposals from the development community for public private partnership ideas.	PWC and Private Partners	
Short-Term	Green Infrastructure	Explore outdoor recreation opportunities which do not result in disturbance of natural conditions. Examples of outdoor recreation might include bird watching, nature trails, potential boardwalks in low-lying and wetland areas, etc.	PWC	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
Short-Term	Green Infrastructure	Create focal point spaces, such as the linear park along "Main Street," incorporating water features, play areas, and related family-oriented activities.	PWC and Private Partners	
Short-Term	Level of Service	Create active recreation opportunities in or near the University Center	PWC	
Short-Term	Level of Service	Provide service to area through a recreation corridor	PWC	
Short-Term	Level of Service	Support new Fire & Rescue Station 35 to provide increased service to the area.	PWC	
Short-Term	Mobility	Create a grid network to improve mobility throughout the Small Area Plan, specifically the University Village.	PWC	
Short-Term	Mobility	Enhance transit service by providing access to a dedicated express shuttle route to the Broad Run VRE.	PWC and Private Partners	
Short-Term	Mobility	Create block lengths of 200' – 660' within the University Village.	PWC and Private Partners	
Short-Term	Mobility	Include a grid network within the University Village.	PWC and Private Partners	
Short-Term	Mobility	Provide adequate parking in the Town Center and use structured parking to minimize surface parking footprint.	PWC and Private Partners	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
Short-Term	Mobility	Connect Hylton Center on the George Mason University Campus to right in/right out access on Prince William Parkway.	PWC and Private Partners	
Short-Term	Placetypes	Develop a well-designed distinctive community of three interconnected districts providing a balanced mix of residential and employment uses integrated with the George Mason University's SciTech campus.	PWC	
Short-Term	Land Use	Ensure no future conflict with preexisting plans or zoning ordinances	PWC	Review/Amend Technology Overlay District, Data Center Opportunity Zone Overlay District, Innovation Architecture Review Board Standards, Etc..
On Going	Cultural Resources	Require, on undeveloped land in the small area plan Phase I cultural resource surveys to search for evidence of pre-contact and contact period sites. Due to the rarity of these site types Phase II evaluation should strongly be considered on all sites found. Sites recommended as significant should be subject to Phase III Data Recovery or avoidance to allow County archaeological research at some point in the future.	PWC	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Cultural Resources	Preserve human burials in-situ in accord with section 32-250.110 Preservation of Existing Cemeteries or, if proposed for exhumation and reburial, secure a burial permit from the Virginia Department of Historic Resources.	PWC and Private Partners	
On Going	Cultural Resources	Where appropriate, restore historic structures and use as landmarks within proposed development.	PWC and Private Partners	
On Going	Cultural Resources	Consider graduate internships to complete cultural resource action strategies in this plan. Cultivate partnerships with graduate colleges and universities.	PWC and Private Partners	
On Going	Cultural Resources	Continue to conduct research and install historical markers and interpretive kiosks. Where possible co-locate with planned open space and parks.	PWC and Private Partners	
On Going	Cultural Resources	Where appropriate, partner with developers and property managers to install historical markers and interpretive kiosks in consultation with the Historical Commission, the Planning Office and the Historic Preservation Division.	PWC and Private Partners	
On Going	Cultural Resources	Include interpretation of the small area plan's history in planned open spaces.	PWC and Private Partners	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Cultural Resources	Where technology reduces cost and increases efficiency, employ technology to bring historical interpretation to the public.	PWC and Private Partners	
On Going	Cultural Resources	Require developers to use the Plan Area's history in placemaking.	PWC and Private Partners	
On Going	Cultural Resources	Where appropriate, plan and install interpretive trails and connect trails to commercial and residential areas outside of the small area plan.	PWC and Private Partners	
On Going	Cultural Resources	As development occurs build access points and multimodal parking areas. Identify, research, prepare and install interpretive markers and kiosks along the trail.	PWC and Private Partners	
On Going	Cultural Resources	Build connector trails to the Broad Run Trail as development re-development occurs.	PWC and Private Partners	
On Going	Economic Development	Each legislative application (such as a rezoning, proffer amendment or special use permit), should consider and address the extent to which the application contributes to furthering the economic development goal of the Innovation Park Small Area Plan.	PWC	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Economic Development	Retain and attract economic development of targeted industries within the Innovation Park Small Area Plan	PWC	Incentivize economic development to attract and retain targeted industries
On Going	Economic Development	Applications should include a diversity of housing types and include affordable housing components to attract a wide range of potential employees to meet the needs of new employers.	PWC and Private Partners	
On Going	Economic Development	Support needs for Federal Government Contracting, Information Communications Technology, and Research and Development companies to increase Class A office space within the plan area.	PWC	
On Going	Green Infrastructure	Maintain, preserve and/or increase appropriate riparian buffers/easements along stream corridors, wetlands, and floodplains, integrating trails and passive recreation opportunities in an environmentally-sound manner where appropriate and in accordance with County standards.	PWC and Private Partners	
On Going	Green Infrastructure	Incorporate, wherever practical, green space and minimize disturbance of existing natural features, such as mature trees.	PWC and Private Partners	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Green Infrastructure	Disallow development in the natural resource areas. If possible, work with property owners to transfer development rights to targeted growth areas, as shown in the conceptual illustrative plan.	PWC	
On Going	Green Infrastructure	Promote alternative connections to enhance access to natural areas via trails and multi-use paths for access to outdoor recreation opportunities.	PWC and Private Partners	
On Going	Green Infrastructure	Encourage conservation easements and other programs that protect sensitive environmental areas, such as wetlands, floodplains, stream buffers, and steep slopes, to maintain and enhance the beneficial ecosystem services that these areas provide.	PWC	
On Going	Green Infrastructure	Design plazas, parks and related open spaces to provide buffers from automobile travel lanes for safety.	PWC and Private Partners	Parking lanes, landscape planting areas with trees, shrubs, public art, etc. are examples of elements to visually and physically buffer pedestrians.

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Green Infrastructure	Accommodate variety and flexibility of amenities and programming to provide a range of experiences to the users of these public spaces. Provide appropriate levels of seating, lighting, shade, etc. to make the spaces desirable and extend the amount of time spent in these spaces.	PWC and Private Partners	Include passive amenities, such as open lawns, and high-activity amenities, such as outdoor performance stages.
On Going	Green Infrastructure	Design of these spaces should be context-compatible with adjoining uses with considerations such as provision of outdoor dining along restaurants and coffee shops. In some cases, there is an opportunity to provide a seamless connection between indoor and outdoor spaces, such as entrance plaza and lobby at the arts and entertainment building.	PWC and Private Partners	
On Going	Green Infrastructure	Provide accessibility in plazas and open spaces for users of all ages and abilities.	Private Partners	Create highly visible and clear wayfinding signage as well as interpretive elements for educational purposes.
On Going	Green Infrastructure	Encourage the incorporation of public art that reflects the context of the area, including historical and cultural references.	PWC and Private Partners	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Green Infrastructure	Provide adequate parking and appropriate access to open spaces and plaza areas.	PWC and Private Partners	
On Going	Green Infrastructure Urban Streetscape	Locate parking areas behind buildings along primary streets.	Private Partners	
On Going	Green Infrastructure Urban Streetscape	Locate an 8' (minimum) wide landscape planting area and amenity zone along the edge of the curb incorporating Low Impact Development (LID) and stormwater features such as raingardens.	Private Partners	This should include trees, understory planting with flowering plants, pedestrian amenities such as benches, trash cans, bike racks, kiosks, lighting (both higher streetlights to illuminate roads and lower pedestrian-scale lighting). It is recommended that trees are located at 30' on-center. Appropriate lighting should be placed centrally between each tree spacing.
On Going	Green Infrastructure Urban Streetscape	Create a 5' (minimum) wide uninterrupted sidewalk zone providing uninterrupted connectivity along all development blocks.	PWC and Private Partners	Non-slip materials should be utilized.

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Green Infrastructure Urban Streetscape	Utilize building zones (the area between the edge of the sidewalk and build-to lines) for outdoor dining, sandwich boards, planters, public art, etc. to create a functional and vibrant pedestrian environment.	Private Partners	
On Going	Green Infrastructure Suburban Streetscape	Locate a 10' (minimum) wide landscape planting area and amenity zone along the edge of the curb and incorporate stormwater management features.	Private Partners	This should include trees and understory landscaping to create a parkway feel.
On Going	Green Infrastructure Suburban Streetscape	Create a 6' (minimum) wide sidewalk zone providing the connection of residential communities with destinations.	Private Partners	
On Going	Green Infrastructure	Prioritize infill and redevelopment over greenfield development to preserve open space.	PWC and Private Partners	
On Going	Green Infrastructure	Preserve wooded areas, riparian zones and areas otherwise less suitable for development wherever feasible.		
On Going	Green Infrastructure	Reduce stormwater runoff from commercial, industrial, and residential buildings, reduce discharge of pollutants, reduce urban heat island effect, and increase energy efficiency by promoting green roofs.	PWC and Private Partners	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Green Infrastructure	Replace traditional pavement with porous pavement in low to medium traffic areas, such as residential roads, overflow and special event parking, driveways, and alleyways.	PWC and Private Partners	
On Going	Green Infrastructure	Provide temporary storage and on-site treatment of stormwater runoff using bioretention facilities as landscaping features.	PWC and Private Partners	
On Going	Green Infrastructure	Convey stormwater naturally using vegetated swales.	PWC and Private Partners	Vegetated Swales are wide, shallow channels that are filled with a variety of plants, shrubs, and/or grasses. These features typically line large impervious surface areas, such as parking lots, and convey large amounts of stormwater naturally—in some instances replacing pipes.

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
On Going	Green Infrastructure	Provide temporary storage and infiltration of stormwater runoff in areas of transition between higher and lower activity using Naturalized Infiltration Basins. Provide native plantings such as wildflowers and seasonal grasses to existing basins to provide wildlife habitats and aid infiltration.	PWC and Private Partners	
On Going	Mobility	Create safe bicycle and pedestrian connections.	PWC and Private Partners	Prioritize funding from the Innovation Enterprises Fund
On Going	Mobility	Evaluate roadways based on traffic generation using mixed use and transit-oriented development forecasts within the University Center.	VDOT/PWC	Create a sense of place.
On Going	Mobility	Support pedestrian and bicycle improvements outside of the study area that encourage connectivity with the mobility plan of the Innovation Park Small Area Plan	VDOT/PWC	
Medium-Term	Cultural Resources	Identify funding sources such as grants (matching or fully funded) to fund cultural resource surveys. Cultivate private and public partnerships to conduct cultural resources research.	PWC	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
Medium-Term	Cultural Resources	Conduct archival and archaeological research on the location of the water powered mill on Broad Run and on the location of Milford Mill. If identified conduct data recovery.	PWC	
Medium-Term	Cultural Resources	Prepare and distribute, through various interpretive media, the small area plan's history.	PWC	
Medium-Term	Green Infrastructure	Enable safe crossing of existing stream corridors by locating pedestrian bridges at strategic locations to provide continuous connections between the three sub areas of the Innovation Park Small Area Plan and destinations through the natural resource areas.	PWC	
Medium-Term	Level of Service	A new Public Safety Satellite Field Office within Town Center or Commercial Mixed-Use areas.	PWC	
Medium-Term	Level of Service	New Elementary School to serve projected student population generated by new residential development.	PWC	
Medium-Term	Level of Service	A new neighborhood or community sized library to service the area.	PWC	

IMPLEMENTATION PLAN				
Timeframe	**Goal**	**Action Item**	**Coordination Agencies**	**Implementation Strategies**
Medium-Term	Level of Service	A new shuttle service for lunch, dinner, and recreation throughout the plan area to enhance the vibrancy and connectivity of Innovation Park	PWC/Private	
Medium-Term	Mobility	New Commuter Parking lot	PWC/PRTC	
Medium-Term	Mobility	Pedestrian/Bicycle Bridge over Rt. 234 (if feasible)	PWC/Private Partners	
Medium-Term	Mobility	Proposed roundabout at Hornbaker Road and Wellington Road	PWC/VDOT	
Long-Term	Mobility	Proposed VRE Transit Station (If demand supports need and VRE approves)	VRE	
Long-Term	Mobility	Evaluate a bicycle and pedestrian crossing across Wellington Boulevard connecting to the potential VRE station	Transportation	

INFRASTRUCTURE AND FACILITY PLAN			
Facility	**Description**	**Coordination Agencies**	**Timeframe**
Fire & Rescue Station 35	New Fire & Rescue Station to provide service to the area	PWC Fire & Rescue	Short-Term
New Innovative Intersection	Prince William Parkway and University Boulevard. The project will be designed and constructed as a quadrant roadway intersection, also known as an innovative intersection.	VDOT, PWC	Short-Term
Sudley Manor/ Wellington Road Innovative Intersections/ Interchange	Grade separated structure at Sudley Manor Drive and Prince William Parkway including innovative Intersection at Wellington Road/Prince William Parkway	VDOT, PWC	Short-Term
Proposed Bike Lanes	Various Locations	PWC /Private Partners	On Going
Pedestrian Improvements	This project includes a comprehensive sidewalk and shared use path improvement to enhance the walkability and recreational capabilities at Innovation Park. Discovery Boulevard, Innovation Drive and University Boulevard	PWC	On Going
New Neighborhood Library or Expansion	New Neighborhood or Community Library to meet proposed LOS.	PWC Library	Medium-Term
Elementary School	New Elementary (DPPO)School to provide service to the area	PWCPS	Medium-Term
Public Safety Satellite Field	New Public Safety Satellite Field to provide service to the area	PWC Police	Medium-Term
Cannon Branch Trail	Cannon Branch Trail to provide recreational opportunities along Cannon Branch creek.	PWC /Private Partners	Medium-Term

INFRASTRUCTURE AND FACILITY PLAN			
Facility	**Description**	**Coordination Agencies**	**Timeframe**
Bike & Pedestrian Bridge	Bridge providing access across Prince William Parkway just north of the planned Discovery Boulevard loop ramp.	PWC /Private Partners	Medium-Term
Broad Run Recreation Corridor Connections	New Broad Run Recreation Corridor Connections to provide service to the area	PWC /Private Partners	Medium-Term
University Village Trail	Recreation trail running between GMU and the Town Center northwest connecting to the shared use path running along Prince William Parkway.	PWC /Private Partners	Medium-Term
Thorough Boulevard (1)	Sudley Manor Drive to University Blvd.	PWC /Private Partners	Medium-Term
Boulevard (2)	Wellington Road to Roundabout	PWC /Private Partners	Medium-Term
Boulevard (3)	Wellington Road. to Roundabout	PWC /Private Partners	Medium-Term
University Village Boulevard (4)	University Blvd. to Roundabout	PWC /Private Partners	Medium-Term
University Village Boulevard (5)	Prince William Parkway to North South Connector	PWC /Private Partners	Medium-Term
New Roundabout	Connecting Boulevards 2,3,4.	PWC/Private Partners	Medium-Term
New Roundabout	Hornbaker Road & Wellington Road	VDOT/PWC	Medium-Term
Commuter Parking lot	Commuter as an interim use at the potential VRE Station	VRE	Medium-Term
GMU Schofield Rec Area	GMU Schofield Rec Area on approximately 1.34 acres.	Private Partners	Medium-Term

INFRASTRUCTURE AND FACILITY PLAN			
Facility	**Description**	**Coordination Agencies**	**Timeframe**
GMU Team Challenge	George Mason Team challenge area of approximately ½ acre	Private Partners	Medium-Term
Innovation VRE Station	Potential VRE Station between Wellington Road and the Norfolk Southern Railway	VRE, PWC	Long-Term