
2: History and Cultural Resources

2. BROOKLAND HISTORY AND CULTURAL RESOURCES

Brookland is a vital neighborhood with a long, rich history that dates back nearly 120 years. While the pattern of Brookland’s development is typical, the neighborhood that was created is unique. Brookland stands apart from other Washington neighborhoods because of its civic strength – fostered at the turn of the century by a close association with the institutions of the Catholic Church and advanced into the twentieth century through the common causes of neighborhood integration, main street economic development, and the preservation of cultural resources. Brookland’s historic resources – nineteenth- and twentieth-century public buildings, residential architecture, religious and educational facilities, and a main street commercial corridor – are linked to the traditional ideals of home and family life that have made it a viable neighborhood for over a century.

When the District of Columbia was established as the new capital, it was a sparsely populated and largely undeveloped region. In the early decades of the nineteenth century as the City of Washington grew, the outlying land that comprised the remainder of the District remained rural in character. Of the many small farms and estates located in this rural landscape, the most important to the history of Brookland was that of Colonel Jehiel Brooks whose 150-acre estate was located in the northeast quadrant of the District. Brooks’ Greek-Revival style mansion (still extant today), which he called “Bellair,” was built ca. 1840 and was surrounded by orchards and gardens.

The Civil War had a role in shaping the land that would become Brookland. In anticipation of a possible Confederate attack on the capital city, the Union Army constructed a system of forts that, linked together, formed a 37-mile-long defensive chain around the city. One of these forts – Fort Bunker Hill – was located in close proximity to the Brooks Mansion. The fort was an exception, however, as most mid-century development in the area involved public institutions and amenities. The rural elevations outside the city were highly regarded as being healthier and more sanitary than the densely populated urban area. One such rural retreat was the Old Soldiers’ Home (the current Armed Forces Retirement Home) which was established in 1851 on a 256-acre farm two miles north of the city to provide residential, recreational, and medical facilities to veterans and disabled soldiers. Later, in 1889, the Catholic University of America opened on a 70-acre tract of land adjacent to the Old Soldier’s Home and south of Fort Slemmer, another



Baist Map from 1887 showing location of the Baltimore & Ohio Railroad’s Brook Station before it burned down. The map illustrates the character of the area before the development of the Brookland subdivisions. (Source: Historical Society of Washington, D.C., Kiplinger Library)



Photograph of the Ridgeway House at 3413 13th Street (1895), illustrating the rural conditions of Brookland during the late nineteenth century. (Source: Mc Daniel & Pearce, Image of Brookland)

Civil War defense site. This set a precedent for other Catholic institutions to locate in the area and had a profound effect on shaping the character of Brookland's population.

The development of the northeast quadrant of the District reached a turning point in 1865 with the establishment of the Metropolitan Branch of the Baltimore & Ohio Railroad. Tracks of the branch line ran along the western edge of the Brooks estate, and Brooks Station was constructed nearby to serve the area. It took the introduction of the electric-powered street railway, however, to significantly alter the character of Brookland. In 1888, Congress granted a charter for the Eckington and Soldiers' Home Railway, the city's first electric streetcar line. The streetcar opened up new opportunities for residents, allowing them to leave the overcrowded city, relocate to rural settings, and commute to work. A house in the suburbs captured the imagination of many, promising cottage-like homes on large lots in bucolic surroundings. It was under these circumstances that Brookland was established.

Brookland was developed gradually over a span of 23 years, between 1887 and 1910, on the land comprised of the Brooks estate and adjoining farms. In 1887, real estate brokers Benjamin F. Leighton and Richard E. Pairo purchased most of the estate once owned by Brooks and set about creating a new subdivision which they called Brookland. The first wave of property owners in Brookland were mainly the educated well-to-do who could afford commuting by train to their jobs on a daily basis. Many of the earliest residences constructed in the area were built in the Queen Anne style. The development of streetcar lines made suburban neighborhoods like Brookland accessible to a broader sector of the District's residents, and the formation of building and loan associations made them affordable. Thus, it did not take long for the city's expanding middle class to populate the area. Each time the streetcar track was extended, it brought greater access, and over the years Brookland evolved into a flourishing neighborhood of middle-income families.

Since the earliest period of Brookland's development, the community has been unique among the city's suburbs in that it has served as home to a high concentration of religious institutions – including colleges, religious orders, and service organizations – that were drawn to the area by the strong presence of Catholic University. Examples include Trinity College, which was founded in 1897 by the Sisters of Notre Dame as a Catholic liberal arts college for women, and the Franciscan Monastery, dedicated in 1899. Thus, concurrent with the platting of Brookland, the neighborhood became an important center of institutional Catholicism. As a result, many residents of the Catholic faith of various ethnic backgrounds took up residence in Brookland – a trend that continued into the twentieth century.

The homes of Brookland represent a variety of architectural styles. The vernacular Victorian, Colonial Revival, bungalow, foursquare, and Modernist are some of the styles and forms one can find along the neighborhood's hilly, shaded streets. Residential building in Brookland occurred as individual construction projects rather than tract development, and the building stock represents the work of many Washington architects and architectural firms. While some are recognized names,

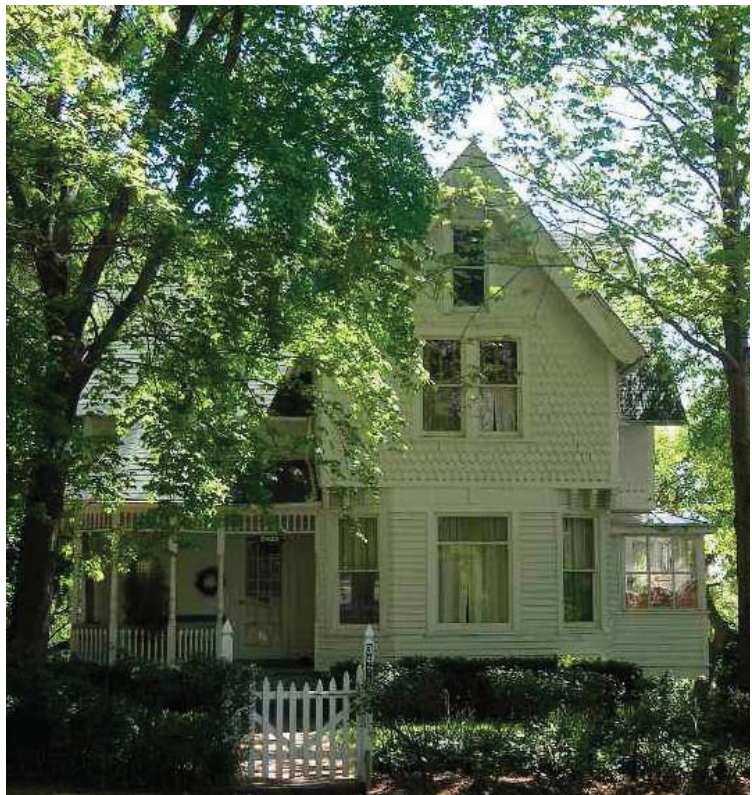


Photo of a Victorian cottage located on 14th Street between Lawrence and Monroe Streets.

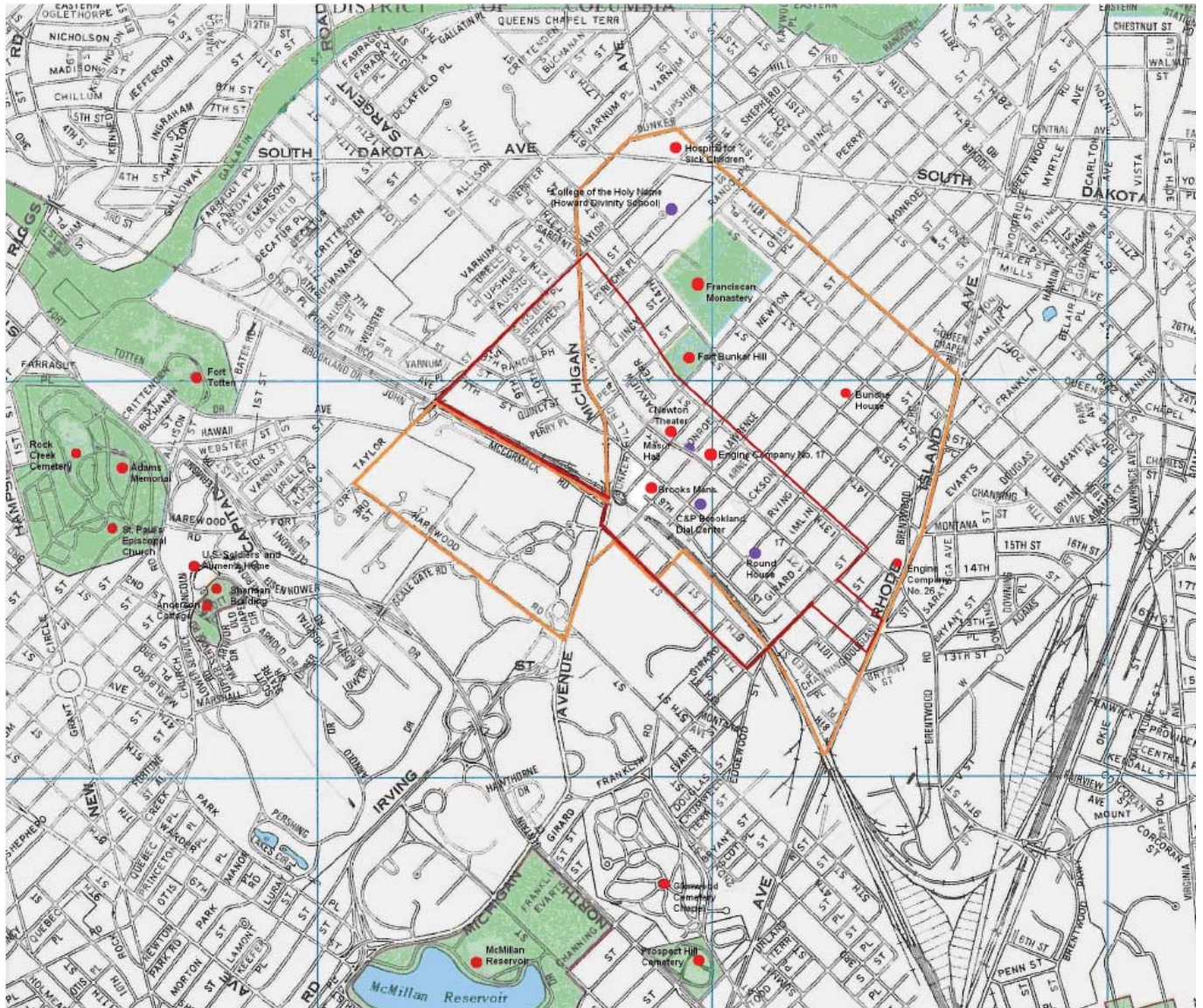


Fig. 11 Map showing the historic resources in and around Brookland



Legend

- Brookland/CUA Metro Station Area Plan project boundaries
- Brookland Cultural Resources Survey study area
- Properties listed in the National Register of Historic Places and the District of Columbia Inventory of Historic Sites
- Properties identified in the Brookland Cultural Resources Survey as eligible for the National Register or of potential eligibility



St. Anthony Church, located at 1029 Monroe Street, N.E., was designed by local architect Fred Murphy, a professor of architecture at Catholic University.



The Franciscan Monastery, north of Fort Bunker Hill Park, was listed in the National Register of Historic Places in 1992.



The Art Deco-style Newton Theater was designed by John J. Zink, one of the most prolific theater architects in the mid-Atlantic states.



The Ralph Bunche house was designed by Hilyard Robinson and completed in 1941. It is listed in the National Register of Historic Places

others are less well-known. Many of Brookland’s residences were created by vernacular builders who replicated and adapted plans taken from a wide variety of sources, including mail order suppliers. The majority of the residential building stock in Brookland is freestanding one- or two-story frame structures dating from between the 1890s and the 1940s. For the most part – except for a period in the 1920s when the neighborhood experienced a building boom that resulted in the construction of over 800 buildings – development happened slowly.

Brookland started to become an integrated neighborhood in the 1930s, when African-American families began to move into the neighborhood. Most of the early African-Americans who took up residence were of the educated middle class, and many had some association with nearby Howard University. Some of these residents commissioned prominent local African-American architects – such as Hilyard Robinson and Howard H. Mackey – to design their new homes. The racial composition of Brookland would not become predominantly African-American until the post-World War II era.

Commercial development in Brookland occurred primarily on 12th Street, along the streetcar line, in the late 1910s to early 1930s. The buildings along this street are characteristic of commercial main street architecture. A few buildings stand out, including the Newton Theater, the Masonic Hall, and the Chesapeake and Potomac Telephone Company Dial Center.

By the 1960s, Brookland’s residents organized a civic association that over the years has been active in promoting responsible development in the area. For example, the group was successful in their fight against the proposed development of the North Central Freeway through the neighborhood. Civic pride was also manifest when residents came together to support the preservation of the Brooks Mansion, and later to help revitalize the 12th Street commercial corridor.

Brookland is a neighborhood with a remarkable past that has been home to generations of Washingtonians. Within the neighborhood and its immediate environs are many historic resources that have been both informally acknowledged and formally recognized in the National Register of Historic Places and/or in the District of Columbia Inventory of Historic Sites. Brookland’s historically interesting resources are an attraction to both local and out-of-town visitors. Furthermore, they enrich the experience of living in the neighborhood and provide a sense of connection to past generations.

For the full text of this portion of the report, please refer to the Brookland/ CUA Metro Station Area Plan Neighborhood History and Inventory of Existing Historic and Cultural Resources report, prepared by Robinson and Associates.

3: Existing Land Uses and Zoning



3. Existing Land Uses and Zoning

Land Use

Brookland has a diversity of interdependent land uses, characteristic of a pleasant, low-density, pedestrian-scale residential community. The predominant land uses found in the study area are low-density residential, retail, institutional, transportation/right-of-way, light industrial (PDR)/Commercial and parks/open space. In addition, pockets of medium-density residential and cultural uses are found. These uses are supported by the Brookland/CUA Metro station transit node.

Residential

Low-density residential is the principal residential land use. Brookland is characterized by its many single-family detached homes, especially its early 20th century bungalows with front porches, and Colonial and Victorian homes. Medium-density residential is also found in Brookland, consisting mainly of row houses and low-rise apartment buildings. No high-density residential is found in the study area.

Commercial/Office

Office space in Brookland is primarily Class B and C office space. This space is home to non-profit organizations, small professional users such as architects, accountants and doctors, offices supporting PDR and institutional uses. Offices tend to be located in small, one-story, or low-rise office buildings and converted row houses.

Retail

Retail in Brookland is concentrated mostly along 12th Street, between Kearny and Otis Streets, while other retail is dotted along the remainder of 12th Street. It consists primarily of small shops, cafes, restaurants, and neighborhood services. A small strip shopping center is located along 11th Street between Michigan Avenue and Perry Street. A pocket of restaurants and other retail lies along Monroe Street, near the Metro station.

Cultural

Although the current DC Land Use Map considers most cultural uses (such as museums and performing arts centers) as institutional, it is worth noting that Brookland has numerous cultural amenities. Some are located in the commercial/industrial zones within the study area. In addition, the nearby universities provide cultural opportunities to the public on their campuses.

Institutional

Institutional uses within the study area include local schools, religious organizations and University-related organizations. Immediately west of the study area, the predominant land use is institutional, namely Catholic University's educational buildings and student housing.

Commercial/Industrial

Industrial zones in Brookland are located along the Metro/CSX tracks, north and south of the Brookland/CUA Metro Station. These areas contain light industrial, commercial and cultural establishments. The District of Columbia currently has 200 acres of land for light industrial, municipal, and PDR (Production, Distribution and Repair) uses of which Brookland has 55.34 acres. As in Brookland, many of these uses lie near or along transit lines. According to the March 2006 draft of *Industrial Land in a Post-Industrial City: District of Columbia Industrial Land Use Study*, these areas are often subject to development and rezoning pressure, as the District has a need to expand land areas for these uses. The study finds that existing PDR businesses in the Brookland neighborhood are viable and active, and recommends that those areas north and south of the Metro station be preserved. At the same time, the study recommends that the industrial areas immediately around the Metro station be redeveloped.

Parks and Open Spaces

Turkey Thicket Community Center, Noyes Park and Fort Bunker Hill are the most significant park spaces in and around the study area. There are other green areas in the neighborhood including some along the Metro tracks, and a number of small garden spaces developed by the Greater Brookland Garden Club.



Fig. 12 Existing Land Use Map (Source: D.C. Office of Planning, 2006)

Zoning

The predominant zoning in the Brookland study area is commercial and residential. The following describe the restrictions of the zones affecting the study area:

Commercial Zones**C-1**

This zoning applies to the areas along 12th Street north of Otis and south of Monroe, and a couple of areas with commercial uses along Monroe Avenue. It permits matter-of-right neighborhood shopping and low density development to a maximum lot occupancy of 60% for residential use, a maximum FAR of 1.0, and a maximum height of three (3) stories/forty (40) feet.

C-2-A

This zone is located on the two most heavily-retail blocks along 12th Street, between Monroe Avenue and Otis Street, as well as the commercial area that includes the small strip shopping center north of the Metro Station along Michigan Avenue. Permits matter-of-right low density development, including office, retail, and all kinds of residential uses to a maximum lot occupancy of 60% for residential use, a maximum FAR of 2.5 for residential use and 1.5 FAR for other permitted uses, and a maximum height of fifty (50) feet.

C-M-1

The C-M-1 zoning governs the commercial/industrial/cultural areas north and south of the Metro Station, along the rail tracks, as well as a portion of the Metro Station. It permits development of low bulk commercial and light manufacturing uses to a maximum FAR of 3.0, and a maximum height of three (3) stories/forty (40) feet with standards of external effects and new residential prohibited.

Residential Zones**R-2**

This zone is the predominant residential zone in and around the study area. It includes the portion of the Brookland Metro Station with the bus bays and "Kiss 'n Ride". R-2 permits matter-of-right development of single-family residential uses for detached and semi-detached structures, with a minimum lot width of 40 feet and lot area of 4000 square feet for detached structures, and 30 feet and 3000 square feet for semi-detached structures; a maximum lot occupancy of 60% for church and public school use and 40% for all other structures, and a maximum height of three (3) stories/forty (40) feet.

Other residential zoning classifications not in the study areas but surrounding them include R-4 and R-5-A which govern single-family residential, churches, and schools.

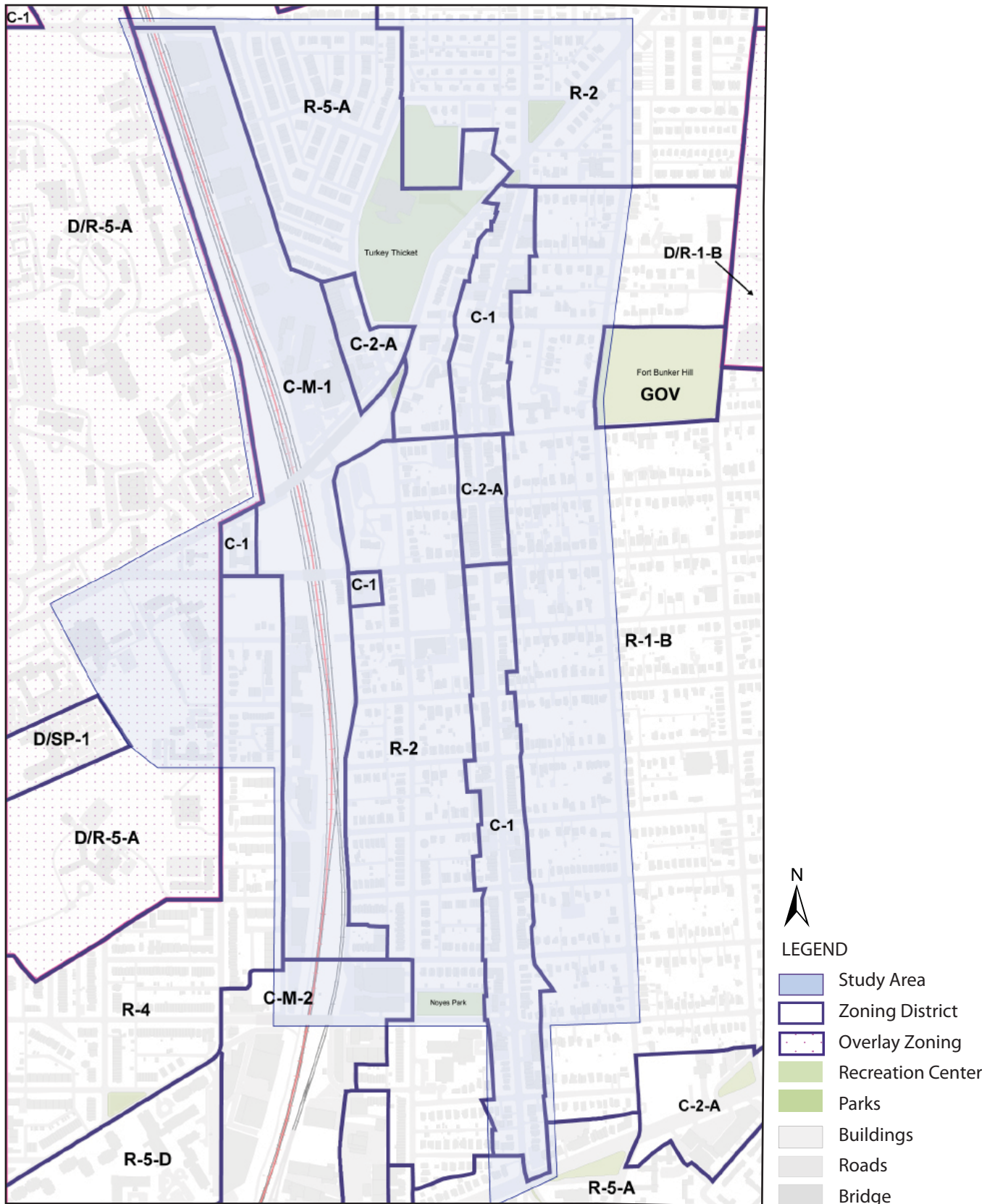


Fig. 13 Existing Zoning Map (Source: D.C. Office of Zoning, 2006)

4: Existing Urban Design

*Buildings, Streets, Open Space,
Streetscape, Landscape,
and Environment*

4. URBAN DESIGN

Urban design elements contributing to the character and quality of places include the buildings, streets, open spaces, landscape, and the environment affecting the place and its surroundings. In addition, the intangible elements of access, connectivity, views, and relationships among the various elements add another layer to the understanding of the place. All of these elements are interconnected and together contribute to the overall success of the place. Analyzing these elements leads to a deeper understanding of the issues and opportunities that the neighborhood is facing.

Urban design character is determined by buildings: their significance, massing and scale, quality and condition, their relationship to each other, to the street and public realm and to neighboring areas; streets: their condition and quality, materials, streetscaping, accessibility and connectivity, as well as traffic, cycling and parking conditions; open spaces: sidewalks and the condition of streetscape and amenities, pedestrian paths and trails, connectivity, and public spaces; streetscape: including lighting, street furnishings, plantings, paving, and storefront design; and landscape: the condition and quality of parks, trees and other vegetation, as well as local stream corridors.

Long-term sustainability is also a key element of good urban design. A neighborhood's physical response to its environment contributes to determining the quality of the urban place, to the comfort of the user, and to the delightfulness or memorable sense of place. Design of buildings in response to solar orientation and winds, together with sustainable stormwater systems management are ways a neighborhood can contribute to the long-term viability of the environment.

Figure 14 is a figure-ground diagram of Brookland. It shows the neighborhood fabric, grain and scale of structures and their relationships to the open areas, the grid of streets and blocks, and the increase in footprint of buildings around and near the Metro station. Figure 15 depicts the green infrastructure of the neighborhood. There are large and small parks in the immediate neighborhood as well as large green open areas at Catholic University and Trinity College. Brookland's streets are lined with trees of varying type and quality. While there appears to be a significant amount of Open Space in the neighborhood as a whole, there also appears to be a lack of smaller localized pocket parks, playgrounds, and the distinct lack of a community public space within the main community public realm of 12th Street.

The following pages look at the character and quality of the urban design elements in and around the specific study areas. Observations made are based on site visits, fieldwork, walking tours and discussions with members of the community, as well as examination of current studies undertaken by the City on Brookland.



Fig. 14 Figure-ground Diagram of Brookland (Source: D.C. GIS, 2006)





Fig. 15 Green Infrastructure of the Neighborhood (Source: D.C. GIS, 2006)

12th Street Study Area

Buildings

Buildings along the 12th Street study area are generally 1-3 story structures or converted row homes. The building edge is continuous from Monroe to Otis Streets, but discontinuous elsewhere. Most buildings sit immediately along the sidewalk while some are slightly set back. Building materials, quality and upkeep vary. Storefront quality and signage vary in size, style and graphics. The proportion of buildings to street is generally agreeable. Additions of one or two stories to the one story-buildings, as well as infill along 12th Street where there are gaps, could create a more unified street while providing additional residential, office or retail opportunities.

Street

12th Street is a two-way, two-lane street, with metered parallel parking on either side. Residents feel that there is an overall lack of parking to support the retail establishments. Crosswalks are denoted only by lines painted across the asphalt. 12th Street is fairly central to Brookland and connected to neighboring residential areas via cross-streets. Street signs are numerous, but there is little clear wayfinding to the Metro Station. A bicycle route is proposed for 12th Street but is not yet in place. For a detailed description of transportation issues, please see Section 5, Transportation.



View of 12th Street looking north toward the Brookland Hardware Store



Storefronts along 12th Street



Streetscape along 12th Street



1-story retail storefronts along 12th Street



Storefronts including a church, retail and food establishments along 12th Street

Open Space & Streetscape

12th Street has a pleasant proportion of buildings to street, with good visibility across. This promotes a pedestrian-friendly public realm and easy cross-shopping. Sidewalks are narrow in many places. Paving varies in material and is uneven and not well-maintained in many areas. 12th Street lacks a unifying public gathering space, symbolic of the neighborhood. Utility poles and lines are visually very prominent and obtrusive, and take up a lot of sidewalk space. Streetlights are standard city light fixtures and not unique to Brookland. They light the overall street but do not provide adequate lighting for storefronts, buildings and the sidewalk. Sidewalk furnishings are inconsistent in existence, location, quality, upkeep, and design. DDOT has proposed a number of streetscape improvements through its *Brookland Multi-modal Transportation and Streetscape Study*.

Landscape

12th Street is lined with street trees, although their age, condition and maintenance are not consistent from block to block. Planters are located occasionally along the block, but this too is not continuous. Grass strips are found inconsistently along the sidewalks. The Greater Brookland Garden Club has created neighborhood Open Spaces along 12th Street at Monroe Street and Newton Street.



Storefronts and streetscape along 12th Street



Brookland Day, 2006



Neighborhood Open Space and Brookland sign



CVS in the old Newton Theater



Sidewalk activity on 12th Street



View looking north along 12th Street from Otis Street

Metro Station Study Area

Buildings

The Brookland/CUA Metro Station is primarily an open area with the station platform above ground. The entrance to the station on the CUA side is well delineated by the overhead canopy. No canopy exists over the eastern entrance. The area surrounding the Station is residential to the east, Monroe Street with retail and residential properties to the south, a large open space and the Michigan Avenue overpass to the north, and Catholic University buildings and properties to the west.

Streets

The station is readily accessible to pedestrians, but no clear pedestrian paths or wayfinding are delineated. Monroe Street is the primary frontage of the station. This street is wide and has considerable traffic, while its sidewalks are narrow making pedestrian movements difficult. Buses access the station from Monroe Street. The vehicular access point into and out of the short-term parking and “Kiss ‘n Ride” drop-off at the station is from 10th Street to Newton Street adjacent to residences. A drop-off/pick-up area for shuttle services to local employment centers including the Washington Hospital Center, is located under



Brookland/CUA Metro Station entrance from the east



Bus traffic along Monroe Street



Bus drop-off and pick up areas at the Metro Station



Wide roadway and narrow sidewalks along Monroe Street



Brooks Mansion on Monroe Street



Catholic University-owned property along Monroe Street

the Michigan Avenue overpass. No clear and defined space or signage is delineated for these services, causing people to wait along the the curb, or right on the street. This drop-off area is adjacent to parking lots for commercial uses.

Open Space & Streetscape

The Metro station and bus transit area is a wide open space with a lot of impervious surface area. Pedestrian paths and sequences of spaces are not well delineated with paving. Street furnishings are limited to bus shelters, lighting, newspaper dispensers, and trash receptacles. There is a lack of a good transition to or buffer from the residential areas across 10th Street, and lack of a clear sequence of spaces and connectivity to 12th Street retail. There are beautiful views of the Shrine at Catholic University from the station and streets to the east.

Landscape

There is a lot of landscaping in and around the Metro station, including trees, bushes and grassy areas near the Michigan Avenue overpass, the "Kiss 'n Ride" and Brooks Mansion. The condition and maintenance of landscaping in these areas is generally good.



Area under Michigan Avenue bridge



Shuttle drop-off and pick up area



Area adjacent to Michigan Avenue bridge



Green area in the Metro Station



Green area south of the Michigan Avenue bridge



Sidewalk, street furnishings, and entrance to the Metro Station

Commercial Areas

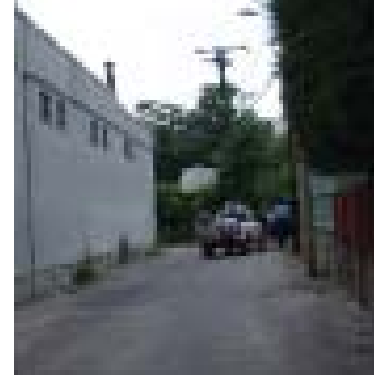
Area North of Metro Station

Buildings

Buildings in the area north of the Metro Station are warehouses and commercial establishments. They are generally large in footprint and 1-2 stories in height, and are surrounded by surface parking. Most structures are made of brick or block.



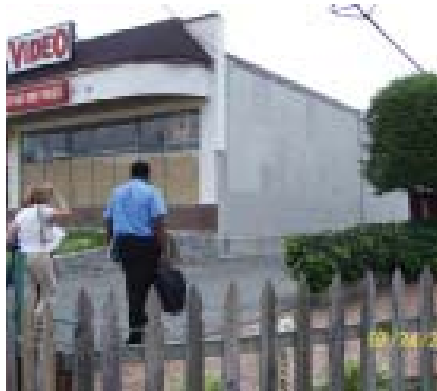
Residential street abutting commercial area



Alley accessing commercial area

Streets

This area is accessed both from Taylor Street, a major thoroughfare, and alleys adjacent to residential areas. Truck traffic in and out of this zone is in conflict with residential traffic.



Entrance to alley accessing commercial area



General view of commercial area

Open Space & Streetscape

Businesses often occupy considerable land area, and most of this area is used as parking for service vehicles. There is a lack of a strong buffer or screening between residential and commercial areas. There is a lack of streetscape in this area detracting from its walkability and negatively affecting neighboring residences.



General view of commercial area

Landscape

Most businesses in the industrial zones lack landscaping around them, or have landscape which is not well-maintained. Landscape is not used to provide screening or as a visual buffer to the residential areas which are immediately adjacent. A neighborhood greenspace and sign for Brookland are located at Michigan and 10th Street.



View of strip shopping center

Area South of Metro Station

Buildings

Buildings in the area north of the Metro Station are small businesses, cultural and arts establishments, as well as warehouses, and light industrial (PDR) users. Buildings are generally 1-2 stories in height and made of brick, block or metal.

Streets

8th Street provides access both to this commercial area and to residences west of 8th Street. Trucks and service vehicles share the roadway with residential traffic and pedestrians. There is a lack of good wayfinding and pedestrian connectivity to the Metro Station and 12th Street.

Open Space and Streetscape

There is a distinct difference between the east and west sides of 8th Street in this area. A pleasant residential streetscape is found on the west side, while inconsistent urban design character and streetscape characterizes the east side, where most of the commercial uses are located.

Landscape

Most businesses in this area are not well-landscaped. Maintenance of vegetation is inconsistent and detracts from the residential neighborhood across 8th Street. The residential areas are generally landscaped with grass and plantings of varying types.



View of 8th Street looking south



Residential on west side of 8th Street



Dance Place



Local business



Industrial/commercial businesses



Brookland Studios

Appendix C: Transportation
Brookland / CUA Metro Station
Area Plan
Washington D.C.



APPENDIX C TRANSPORTATION

Introduction

This memorandum assesses the existing transportation conditions within and affecting the study area for the Brookland/CUA Metro Station Area Plan. Specifically, the purpose of this document is to present an overview of the access, circulation, and parking situation within the study area, which is bounded generally by Taylor Street to the north, 12th Street to the east, Franklin Street to the south, and 7th Street to Michigan Avenue to John McCormack Road to the west. This effort highlights key transportation opportunities and constraints, which would provide the background and context for the evaluation of alternative land use concepts to be developed in a subsequent phase of the planning process. That assessment would form the basis for the development of a “Facilities and Parking Management Strategy” for the subject plan.

The existing transportation conditions assessment is based primarily on field observations and related analyses conducted as part of this planning process, as well as relevant information extracted from planning studies prepared previously for the Brookland/CUA sub-area. These studies include the District Department of Transportation’s (DDOT) Brookland Transportation and Streetscape Study (2006), the draft Turkey Thicket/Catholic University of America Area Parking Study Report (2005), and the DC Office of Planning (DCOP) Draft Comprehensive Plan (2006) for the District of Columbia.

Accessibility

Regional access to the study area is provided by a number of arterial roadways. These include the Michigan Avenue-Queens Chapel Road corridor, Rhode Island Avenue, the South Dakota Avenue-John Hanson Highway (US 50) connection as well as the North Capitol Street-New Hampshire Avenue connection.

The key roadways providing local access within the study area are Franklin Street, Taylor Street, 12th Street, Michigan Avenue and Monroe Street, which are all classified as minor arterials on the City’s Functional Roadway System Classification Map (2003). Local access is also provided by 7th Street and John F. McCormack Road, which are classified as collectors. The other roadways within the study area are classified as local streets. All local roadways provide a single travel lane in each direction, except for Michigan Avenue, which provides two (2) travel lanes in each direction, and Newtown Street which is one-way westbound.

Figure 16 shows the location of the study area from a regional perspective. The local area roadway network is illustrated in Figure 17. Figure 18 shows the functional classification and Average Daily Traffic (ADT) volumes for the study area roadways. Figure 19 shows area lane configurations and the traffic control devices provided at the area intersections.



Fig. 16 Regional context - Brookland/CUA Metro Station

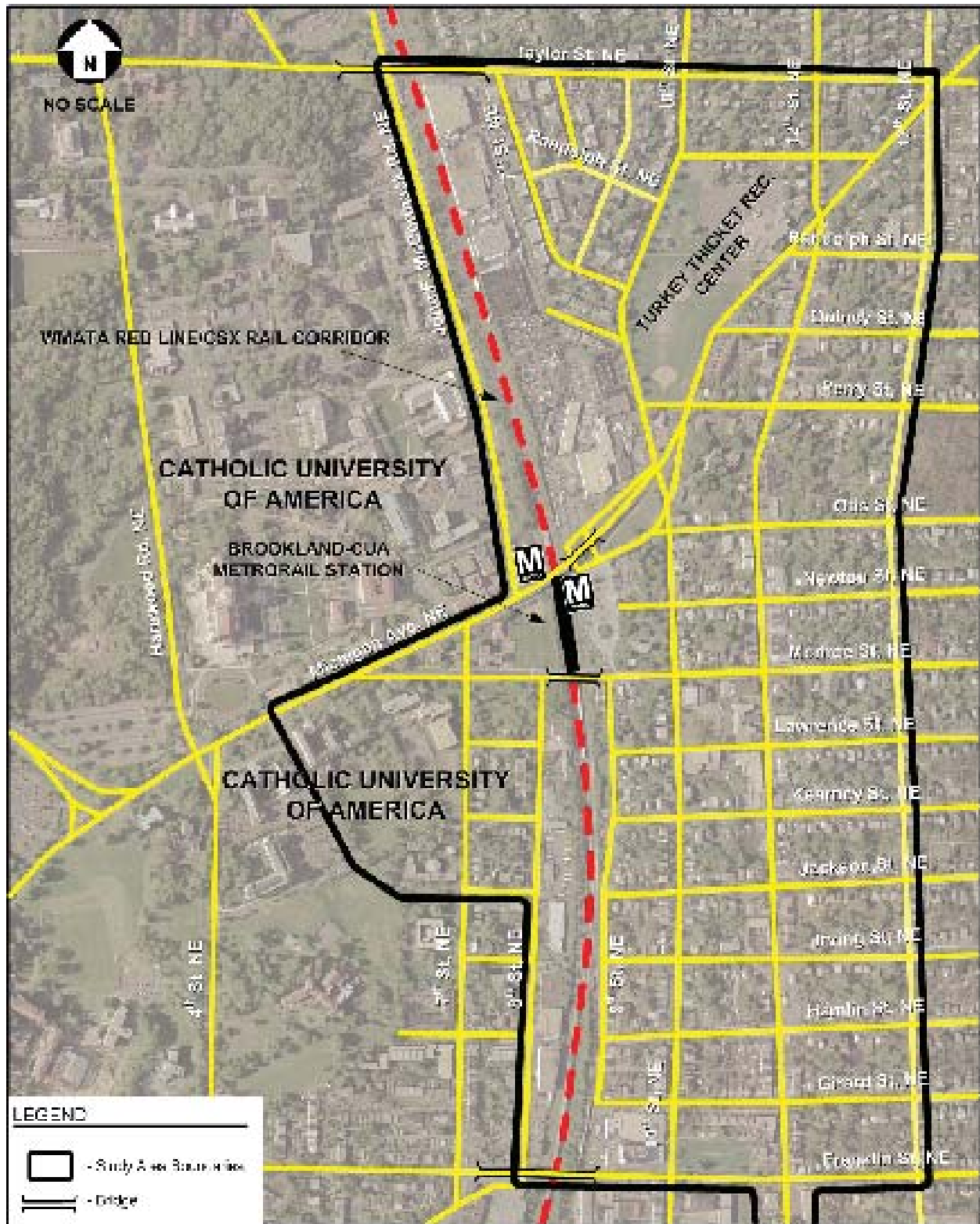


Fig. 17 Local study area road network

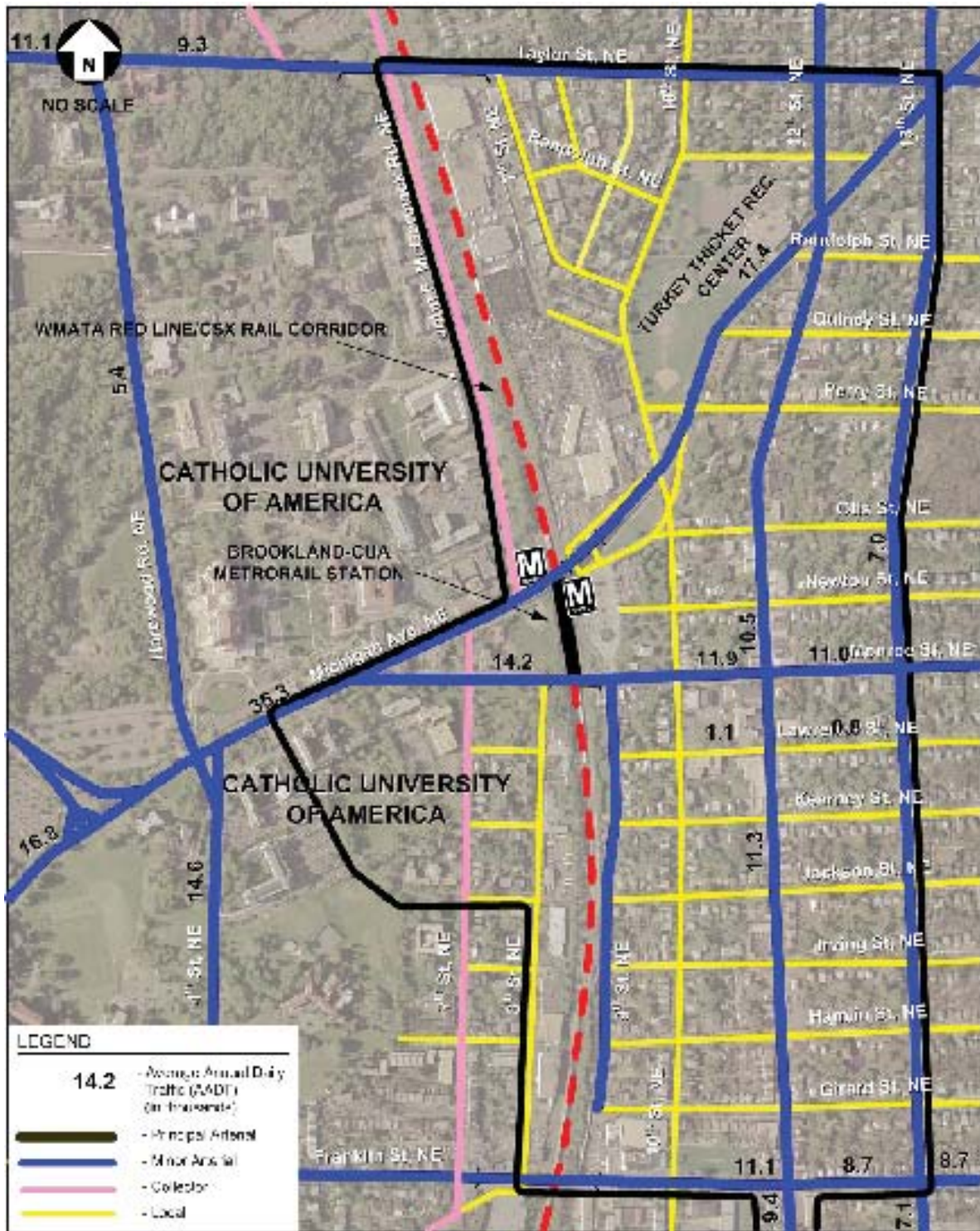


Fig. 18 Roadway functional classification and Average Daily Traffic Volume (AADT)

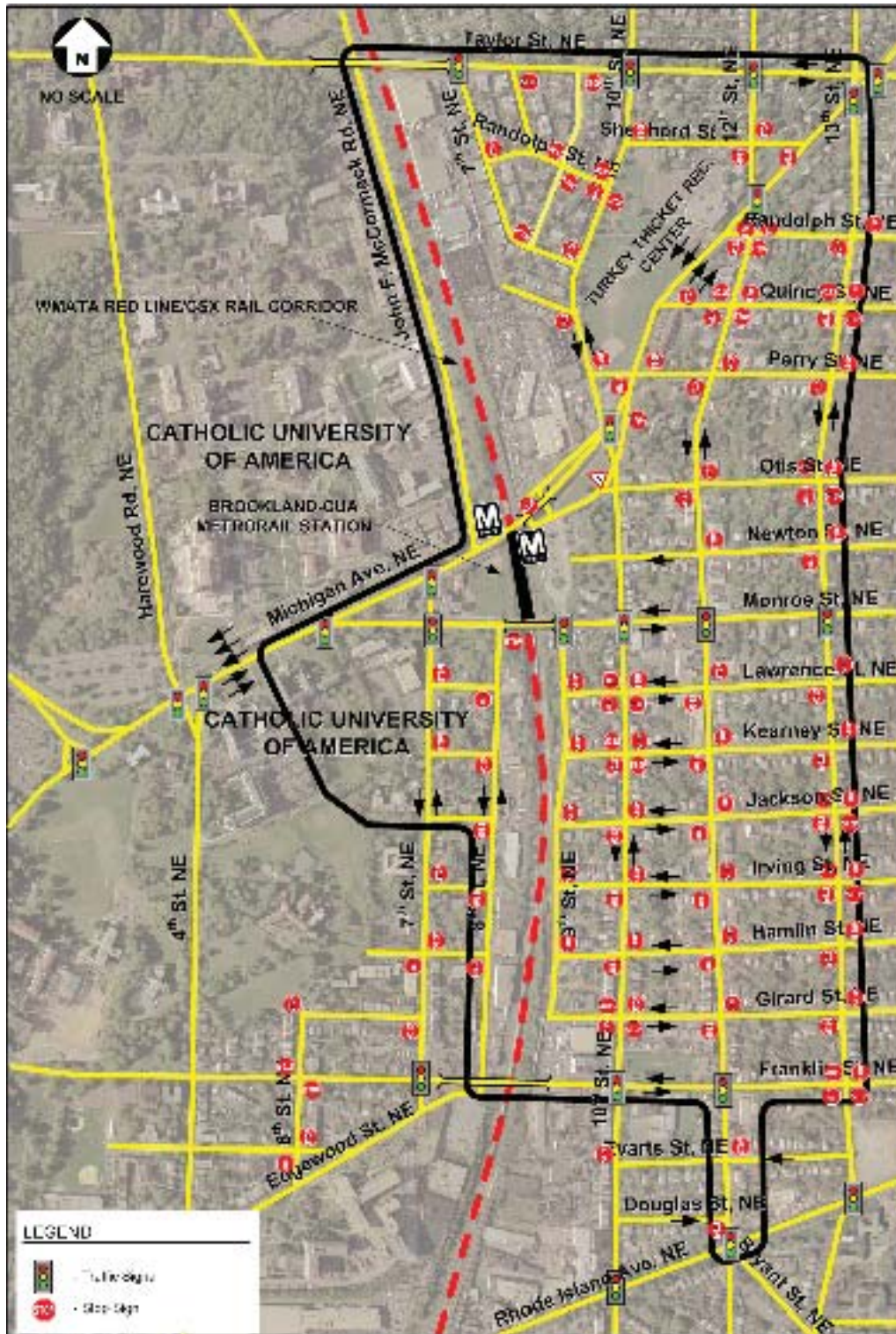


Fig. 19 Existing roadway lane configuration and traffic control devices

Access and Circulation Patterns

The dominant access and circulation patterns, within the study area, were identified based on field observations and information presented in the previous planning studies. It was determined that those patterns were strongly related to the following factors:

The grid configuration of the study area roadway network provides advantages pertaining to access, circulation and connectivity.

Taylor Street, Michigan Avenue, Monroe Street, and Franklin Street provide east-west access across the WMATA/CSX railroad “barrier,” as well as to principal/regional arterials serving Downtown Washington, DC and suburban areas within and outside of the City.

Taylor Street, 12th Street, Michigan Avenue, Monroe Street, and Franklin Street are classified as minor arterials, which serve through trips and the abutting land uses.

The predominant land use type within the study area is residential. The greater proportion of vehicular trips generated by the study area is therefore oriented outward to various employment areas during the morning peak period, with the reverse occurring during the afternoon peak period.

Significant land uses, such as the Catholic University of America and the Brookland-CUA Metrorail Station are located within or adjacent to the study area.

Based on the above, the major peak period traffic flows occur along Taylor Street, Michigan Avenue, 12th Street, Monroe Street and Franklin Street. The dominant movements are to the west and south during the morning peak period and in the reverse direction during the afternoon peak period. The Turkey Thicket/Catholic University of America Area Parking Study Report and field observations indicate that “cut-through” movements occur in that area to and from the Metrorail Station. Principal roadways used for such movements are 7th Street/Quincy Street, and 10th Street.

Roadway Capacity

The capacity and operational efficiency of the study area roadway network was determined based on field observations and the results of analyses undertaken for several intersections as part of the previous planning studies. Figure 20 shows the Level of Service (LOS) for the morning and afternoon peak periods at key intersections. LOS is a scale that measures the amount of traffic that can be accommodated on a roadway segment or at an intersection. Traffic levels of service range from A to F, with A representing the highest Level of Service with minimal limitation of movement and F the lowest.

Figure 20 shows that several intersections operate at capacity or are approaching capacity. The intersections operating at capacity and their contributory factors are presented in Table 1.

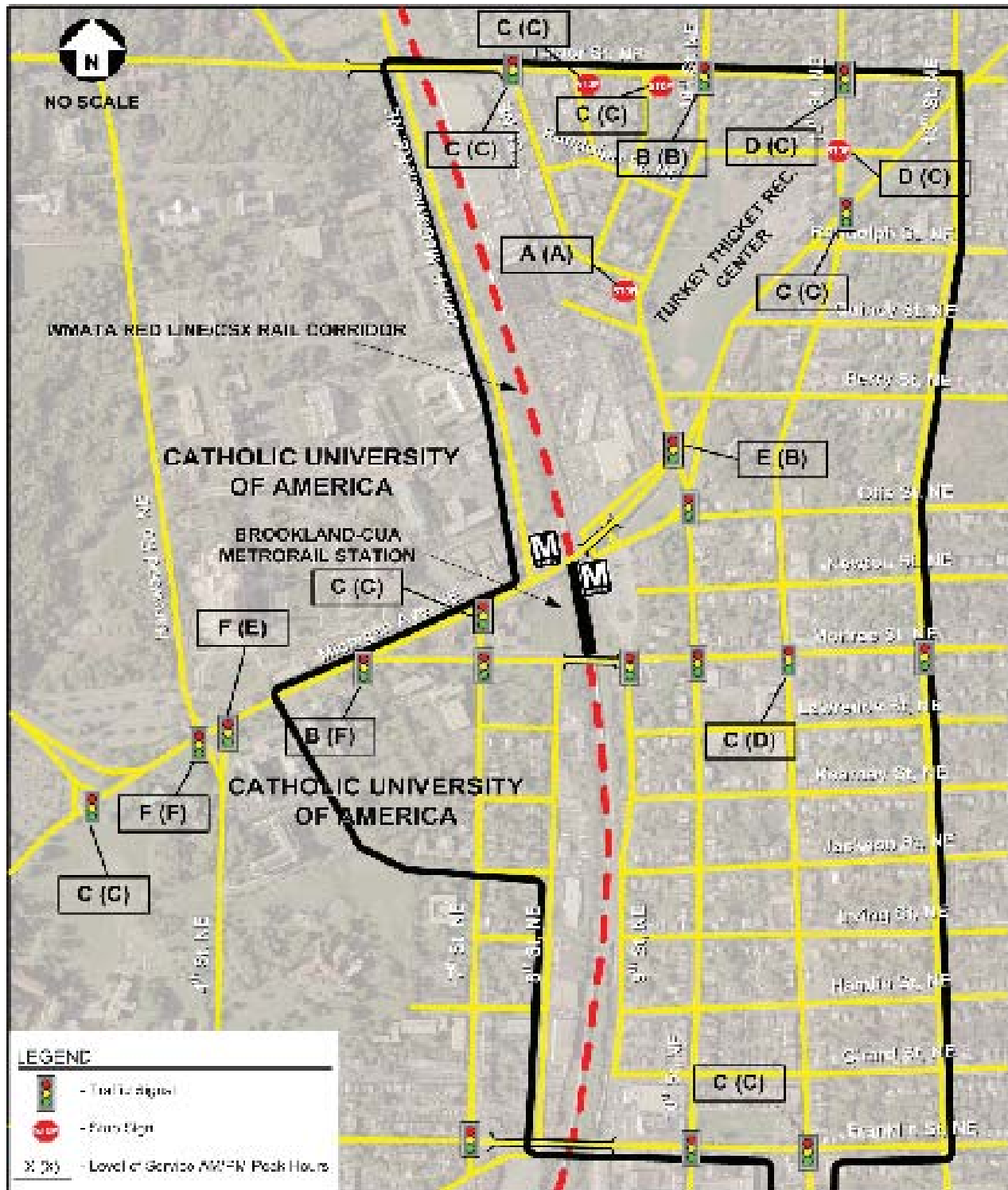


Fig. 20 Level of Service results - Key intersections

Intersection Truck Movement Restrictions	Contributing Factors
<p>Michigan Avenue at 10th Street</p>	<p>Within the study area, signage prohibiting through heavy truck movements are located along 7th Street between Randolph and Taylor Streets, 9th Street between Monroe and Girard Streets, 10th Street, 12th Street,</p> <ul style="list-style-type: none"> - Five-approach intersection - Four approaches provided with traffic signal control and the minor approach (Service Road) is stop-sign controlled. - Erratic and conflicting movements occur from and onto Service Road - Michigan Avenue eastbound approach is at the bottom of a viaduct/bridge across the CSX/WMATA Railroad - Separate lane is not provided for significant left-turn volumes from westbound approach of Michigan - Inefficient signal timing/phasing
<p>Michigan Avenue at Monroe Street</p>	<ul style="list-style-type: none"> - Significant conflicting traffic volumes. - Inefficient lane configuration and signal timing/phasing.

Table 1 – Failing intersections and contributory factors

9th Street between Monroe and Girard Streets, Newton Street, and Otis Street. Further, signs prohibiting heavy truck movements through Taylor Street westbound are in place at the Michigan Avenue/Taylor Street intersection. Finally, through trucks are not allowed to access Franklin Street from 12th Street.

Accident Patterns

The accident data and analysis presented in the two planning studies cited earlier were reviewed for the purpose of assessing the roadway safety situation within the study area. Safety deficient locations warranting remedial measures are generally those with an accident rate of one (1) or more accidents per million entering vehicles, with respect to a particular year. None of the local area intersections satisfy this criterion based on accident data presented in the previous planning studies. However, for the purposes of this planning effort and to dem-

onstrate sensitivity to community safety, intersections with five (5) or more accidents per year were identified for further consideration and potential remediation. Table 2 lists those locations and related analysis elements.

Pedestrian Circulation

The reviewed studies and field observations indicate that the highest pedestrian activity occurs along Michigan Avenue and Monroe Street, particularly in the vicinity of the Brookland-CPA Metrorail station.

The major desire lines and areas of pedestrian-vehicular conflicts are shown in Figure 21.

Intersection	Average Yearly Accidents	Possible Causes
Michigan Avenue at 10 th Street, NE	9	<ul style="list-style-type: none"> - Michigan Avenue eastbound approach slopes downward from bridge. - No left-turn lane along Michigan Avenue eastbound approach. - Stop sign control for Service Road approach conflicts with signalized operations for the other approaches. - Inefficient signal phasing/timing
Michigan Avenue at Franklin Street, NE	6	<ul style="list-style-type: none"> - Inefficient signal operations.
12 th Street at Monroe Street, NE	6	<ul style="list-style-type: none"> - Inefficient signal operations. - Left-turning deficiencies.
12 th Street at Newton Street, NE	5	<ul style="list-style-type: none"> - Left-turning deficiencies.
Monroe Street at Michigan Avenue, NE	5	<ul style="list-style-type: none"> - Inefficient signal operations. - Left-turning deficiencies.
Michigan Avenue at Franklin Street, NE	12	<ul style="list-style-type: none"> - Inefficient signal operations.

Table 2 – Candidate accident remediation intersections

Virtually all of the local area roadways are provided with sidewalks and other amenities. Countdown pedestrian signals and highly visible zebra crosswalks are installed at a number of study area intersections experiencing significant vehicular-pedestrian conflicts. However, pedestrian circulation is constrained and made unsafe by several deficiencies.

Several crossing areas are not outfitted with curb-cuts or handicapped ramps. Many crosswalks are poorly marked and are not highly visible to approaching motorists. There are also a few locations where utility poles in the middle of sidewalks obstruct movements by pedestrian, bicyclist or wheelchair-bound individuals, as well as visibility to approaching motorists. In some areas, the sidewalk is in poor condition. Some advance pedestrian warning crossing signs are also blocked by trees.

Bicycle Facilities

The study area currently has limited on- and off-street bicycle facilities. The only existing study area facility besides signed official bicycle routes is the partially-completed Metropolitan Branch Trail which runs from Silver Spring to Union Station along the west side of the CSX/WMATA rail right-of-way. Within the study area, the trail is located on the east sidewalk of John F. McCormack Road. Immediately west of the study area, the sidewalks of Michigan Avenue and Irving Street serve as a Multi-Use Trail.



Poorly marked crosswalks – Otis at 12th Street



Poorly maintained sidewalk – 10th Street south of Michigan Avenue



Fig. 21 Major pedestrian routes and vehicular conflict points

DDOT plans to provide several improvements to the study area's on- and off- road bicycle network. See Figure 22 for improvement location and type.

These include:

Completion of the Metropolitan Branch Trail to connect Union Station and Downtown Washington, DC to Silver Spring in Maryland, including grade-separating trail crossings under Michigan Avenue and Monroe Street;

Provision of pedestrian safety measures at at-grade intersection crossings benefiting bicyclists;

Provision of bicycle lanes along Monroe Street between 12th Street and Michigan Avenue, on 12th Street north of Michigan Avenue, and on 4th Street just west of the study area; and

Designation of several study area roadways as signed official bicycle routes with wayfinding signage.

Public Transportation

The Brookland Area is served by the rail and bus transit systems of the Washington Metropolitan Area Transit Authority (WMATA). The Brookland-CUA Station on WMATA's Red Line is situated within the center of the study area (see Figure 23). Most of the area's residents are located within a half-mile or 10-minute walk from the station. The current average daily boardings are in the range of 6,300, which represent an increase of 12.9% over the last ten (10) years. Discussions with WMATA planning staff indicate no station or system capacity deficiencies. However, the Catholic University of America and local citizens have expressed concerns regarding the unavailability of access facilities for physically challenged persons on the west (university) side of the station. The study area is served by 10 Metrobus routes. These include two routes (H8 and H9) along Taylor Street and 10th Street, three routes (B51, B52 and B53) along 12th Street, two routes (H6 and R4) along Michigan Avenue and three routes (G8, H8 and H9) along Monroe Street. All of those routes provide connections to the Brook-

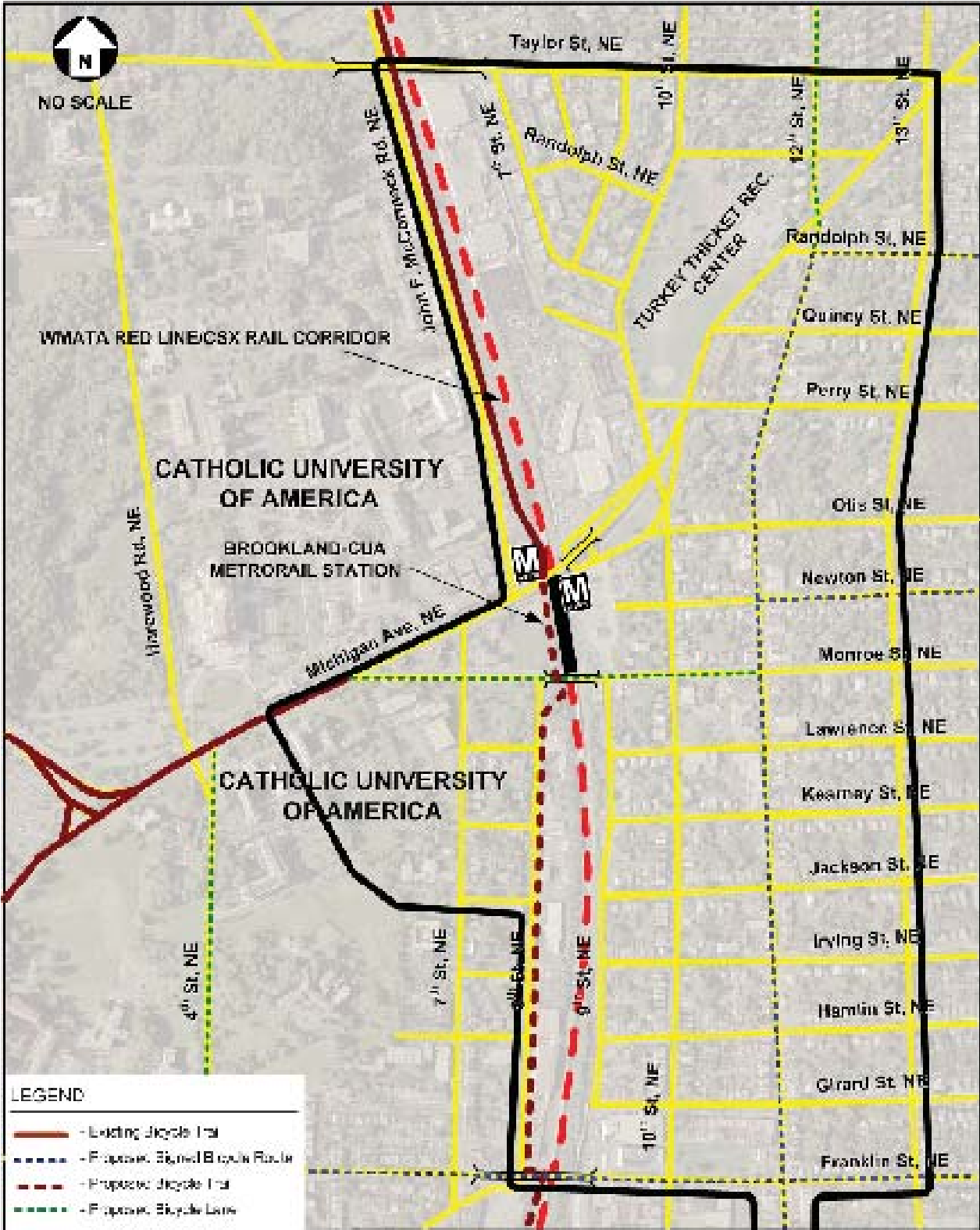


Fig. 22 Existing and planned bicycle facilities

land CUA Metrorail Station. These routes provide headways ranging from 15 to 30 minutes during the morning and afternoon peak periods. High-quality, user-friendly bus route maps have recently been installed on the Metrobus shelters within the Metrorail station bus waiting area as well as within the Metrorail station concourse. Figure 23 illustrates the transit facilities and services provided within the study area.

Private Shuttle Services

Shuttle buses are provided between the Brookland-CUA Metrorail Station and a number of institutions located in proximity to the study area. These include the Washington Hospital Center, the Veterans’ Administration, the Hospital for Sick Children, Providence Hospital, and Trinity College. The buses generally provide 15-minute headways during the morning and evening peak travel periods and every half-hour during the intervening period. Hours of service range from around 6:30 AM to 7:00 PM on weekdays only, with the exception of the shuttle serving Trinity College which also operates on weekends.

The shuttle buses queue to pick-up and drop-off passengers on the south side of Bunker Hill Road adjacent to the station’s east pedestrian portal. Queues of up to five buses occur frequently, but this is not much of an issue as the impacted roadway is very lightly used by other traffic accessing the station or the land uses along the adjacent service road.

Parking

Field observations and related information obtained from the previous planning studies indicate that the following types of on-street parking zones are provided within the study area:

No Parking Anytime: This prohibition is provided primarily along both sides of Michigan Avenue, as well as in some areas along Taylor Street, 10th Street and 12th Streets.

Time Restricted Parking: This regulated unmetered parking is provided primarily along the streets serving the area’s residential land uses; and therefore constitutes the bulk of the parking provided within the study area. This parking is governed by the City’s Residential Parking Permit (RPP) Program, and its usage is three-hour or four-hour periods, except for Zone 5 residents.



Shuttle buses at Metro Station

restricted to two-hour,

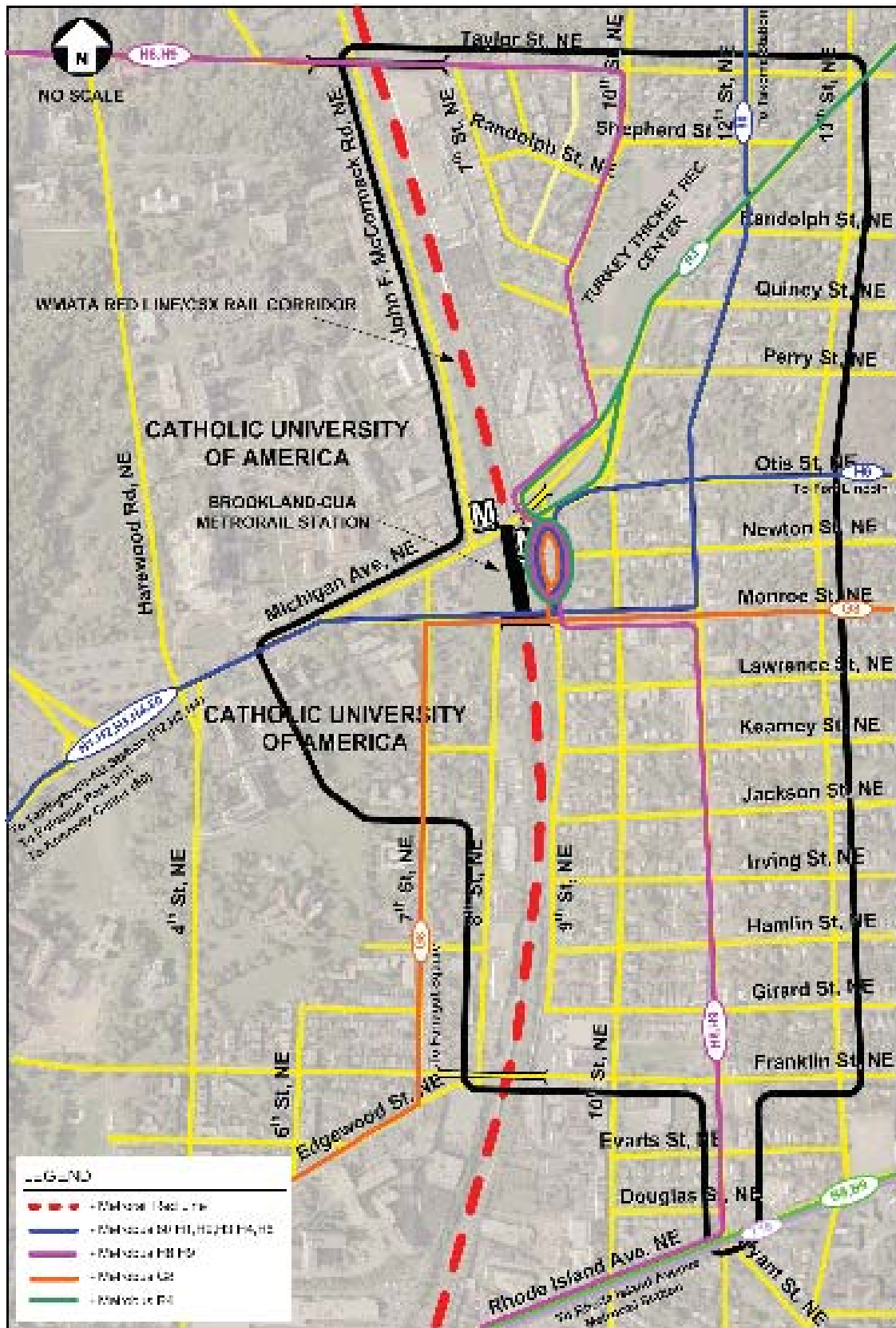


Fig. 23 Public transportation

Unrestricted Street Parking: This unmeted parking is available on Sigsbee Street, as well as along segments of 12th Street and Taylor Street, within the northeast section of the study area.

Metered Parking: Within the study area, this is provided along 12th Street, primarily between Otis Street and Monroe Street.

7:00 PM; and long-term parkers during the period 8:30 AM - 3:30 PM and 7:00 PM - 2:00 AM. Use of the spaces is prohibited between 2:00 - 8:30 AM.

(See Figure 24 for a study area parking locations)

Parking Utilization

According to the Turkey Thicket/Catholic University of America Area Parking Study Report (2005) and field observations, the hourly parking demand, observed over the period 6:00 AM - 8:00 PM, varies in accordance with the operational characteristics of the abutting land uses. The parking directly serving residential land uses has its highest usage generally between 6:30 PM and 7:30 AM, and its lowest during the period 9:30 AM - 3:00 PM. The parking directly serving commercial/retail uses has its lowest demand in the morning period, and its highest during the afternoon and early evening period.

Field observations from the Turkey Thicket/Catholic University of America Area Parking Study Report indicate that none of the study area roadways was observed to experience parking demand, which equated or exceeded the parking supply, at anytime during the survey period.

Summary of Key Opportunities and Issues

The Brookland/CUA Metrorail Station Area has been the subject of two (2) DDOT transportation planning studies and is considered as a special planning sub-area in the currently proposed draft Comprehensive Plan (2006). The foregoing data, discussions, and analysis are based on a review of those planning documents and information obtained through supplemental field observations and research undertaken as part of the current master plan study process. The key findings identified are summarized below under the headings "Opportunities" and "Issues" to facilitate the development and evaluation of zoning and land use options within the next master plan study phase.

Opportunities

The study area is traversed by several arterial facilities which provide both regional and local connectivity and mobility.

Several arterials provide east-west connection across the CSX/WMATA railroad "barrier."

The local area roadways are part of the city's grid network and therefore provide efficient circulation and connectivity internally as well as to adjacent arterial roadway facilities.

The study area is served by a major rail transit station on the WMATA Red Line, with Metrobus and shuttle bus connections to various locations within the Washington Metropolitan Area.

The study area includes and is adjacent to significant land uses such as the Brookland Elementary School, the Turkey Thicket Recreational Center, Catholic University of America, retail uses, and other institutional facilities. This land use relationship encourages the use of alternative travel modes, including walking

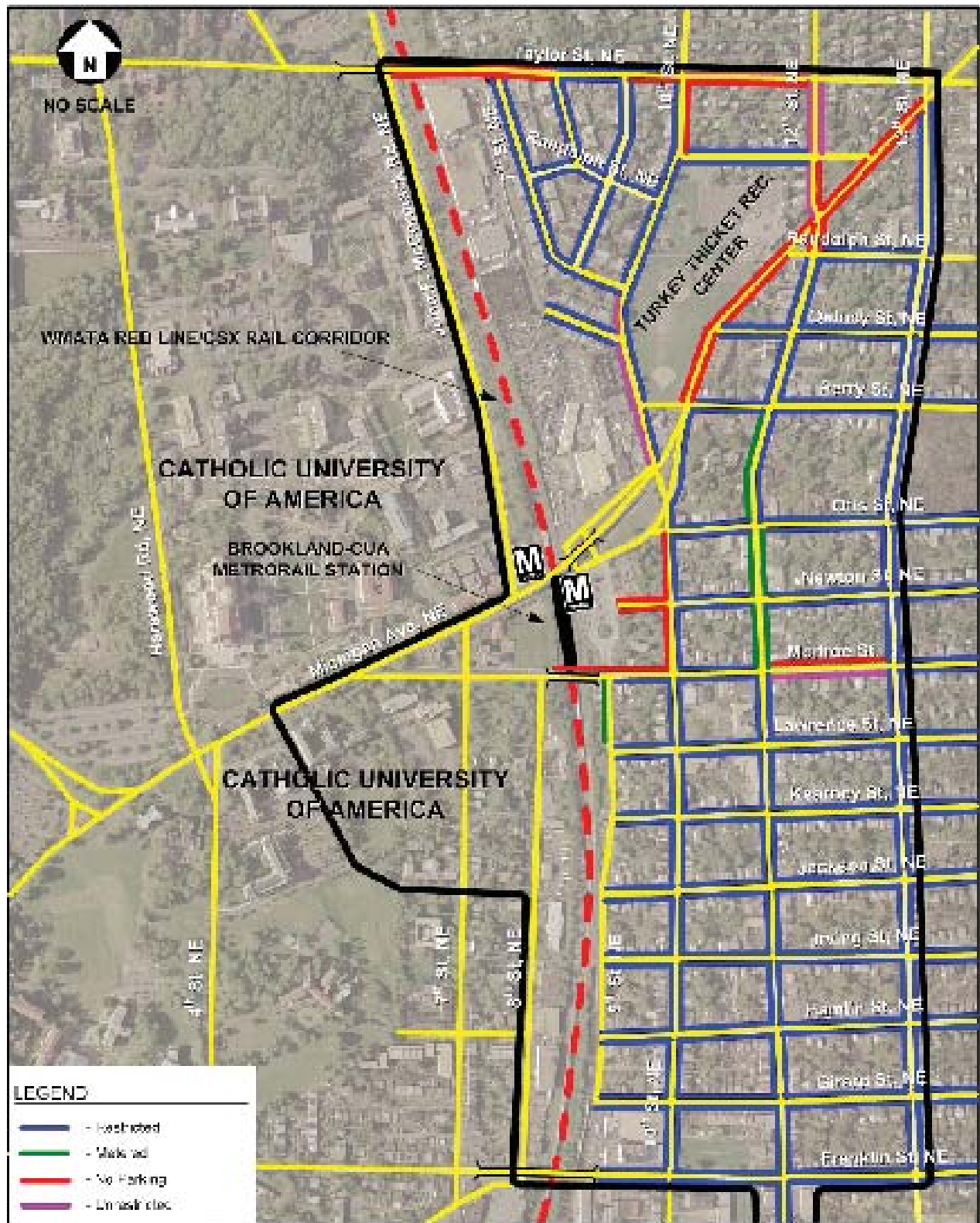


Fig. 24 On-street parking by category

and cycling.

Issues

Several study area intersections currently operate at, or are approaching capacity during either the morning or afternoon peak hour. A noteworthy location is the Michigan Avenue/10th Street intersection, which provides primary access to the Metrorail Station, other existing land uses and potential redevelopment areas along the along the railroad.

Significant safety deficiencies also exist at several intersections based on the reported accident records of the city.

Pedestrian access between the Turkey Thicket and Brookland areas is somewhat constrained by traffic conditions along the Michigan Avenue corridor. This is noted partially in the area of the Brookland Elementary School and Turkey Thicket Recreational Center. Pedestrian circulation is also constrained in other areas due to traffic volumes, inadequate sidewalks, crosswalks and other amenity deficiencies.

Significant vehicle-pedestrian conflicts occur at the 12th Street/Lawrence Street intersection, which is the primary access point for the adjacent St. Anthony Catholic School.

Parking is quite limited for the retail sector along 12th Street. This results in illegal parking and intrusion within the neighborhood.

Appendix D: Market Analysis
Brookland / CUA Metro Station
Area Plan
Washington D.C.



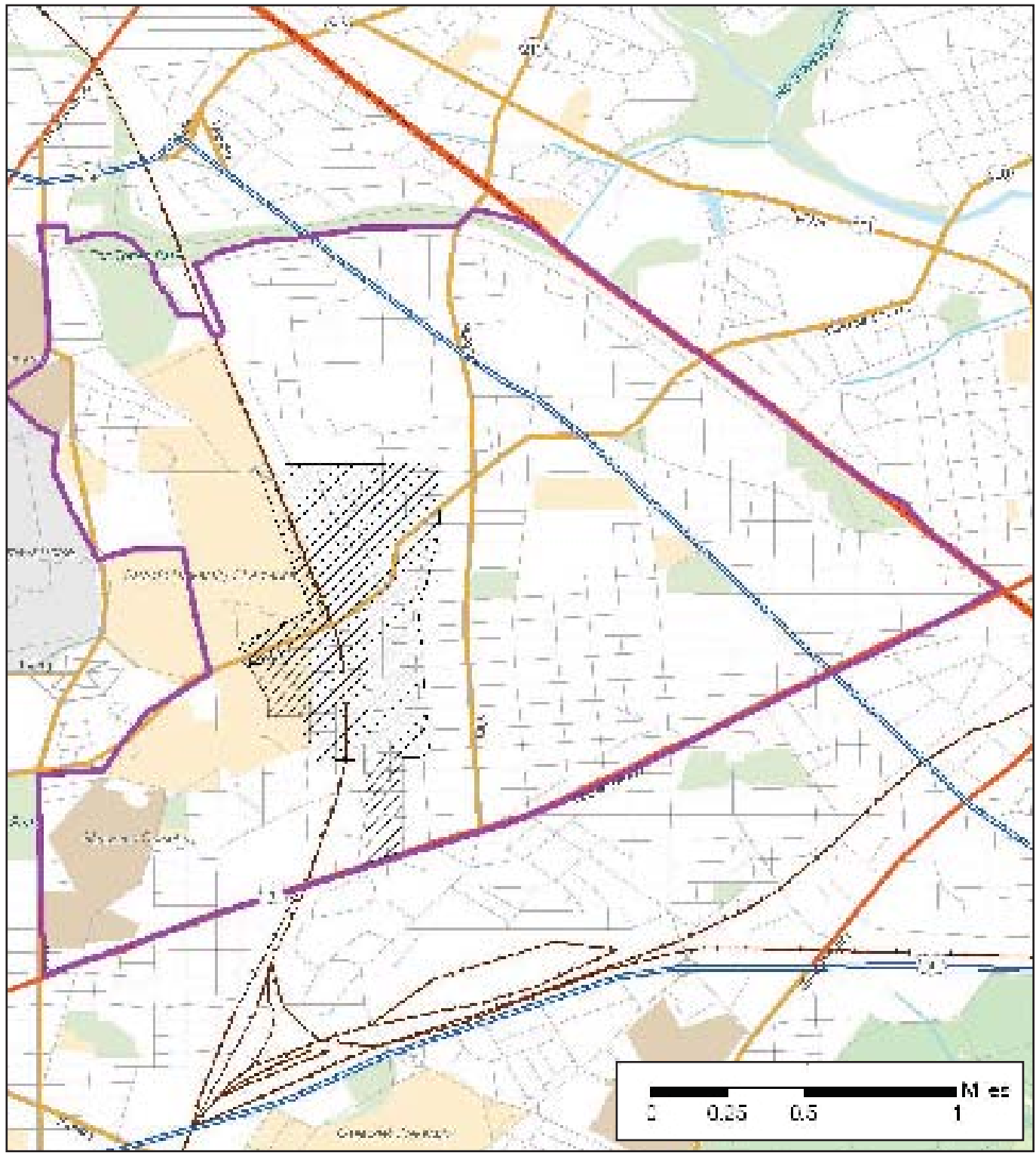
APPENDIX D: MARKET ANALYSIS

A comprehensive market analysis was prepared to review current demographic and economic information related to population, housing and employment for the Brookland Market Area (defined in the Appendix) and the District of Columbia. It also examined the nature of nearby competitive residential and commercial supply and demand, including absorption pace.

The Brookland Market Area contains a total of 27,394 residents and 10,871 households in 2006. Over the past 16 years (1990–2006), a steady loss in population and households occurred primarily due to smaller households replacing larger ones that moved to another location. Senior householders (age 65 years or older) represented the highest percentage of householders at 29.6 percent followed by mature householders (45 to 55 years) at 21.5 percent. The prevalence of older householders in the Market Area makes it somewhat vulnerable to future decline as residents age and their need to downsize to smaller units increases. A wide variety of family structures exists in the Market Area, as female householders double that of males and two-thirds of married couples have no children under 18 years. Owners outnumber renters (58.2 to 41.8 percent) with the majority of homeowners owning their homes since 1979. The Market Area's 2006 median household income (\$48,966) exceeded the pace of inflation over the past six years, evidencing the strength of the community's earning power. More than one-third (35.7 percent) of Market Area households earned between \$35,000 and \$74,999 annually in 2006 compared to 30.3 percent of District households. The District held a larger cumulative percentage of households earning in excess of \$75,000 (32.4 percent) than the Market Area (28.2 percent). Lastly, the majority of Brookland's housing stock consisted of single-family homes built prior to 1970.

The many features of Brookland heavily influence its residential market. Due to its large and continuous transient population, its rental market is quite strong with all managed properties performing at a 96 percent occupancy rate or better. To some extent, however, the recent wave of rental properties converting into condominiums during the last five years tightened the existing rental supply in the Market Area. The prevalence of individual property owners renting out their housing units provides some relief to rental market demand. The private rental arena offers comparable rents and square footages and tends to include utilities, more personal space and a better amenity package. Brookland's for-sale residential market revealed steady sales activity for existing properties of all housing types (condominiums, townhouses and single-family homes). Median sale prices ranged from \$189,500 for smaller condominiums to \$385,000 for larger single-family homes. Due to its built-out nature, the neighborhood experienced very little new construction since 2001. Much of the Brookland's planned or proposed residential properties are either components of moderate- to high-density, mixed-use developments, condominiums conversions or new townhouse construction on a small assembly of lots. Since late Fall 2005, the momentum of the residential market has slowed tremendously, particularly for condominiums. Many of the condominiums featured in this report revealed monthly absorption rates of two to three units with sale periods lasting up to a year or more. Brookland's residential market is challenged by limited land available for new housing stock, rising mortgage interest rates and the decline of the housing market boom seen in recent years. Any residential development in the Brookland project area is recommended to be rental in nature and include basic amenities (washer/dryer in unit, secured access, cable/internet readiness, etc.) and limited parking. A newly-constructed rental property within good walking distance (less than 15 minutes) to the Brookland Metro station and area anchors (the Turkey Thicket community center, Catholic University, Providence Hospital, area schools, etc.) and small ground floor retailers could demand a premium in rental rates.

The potential for new retail development within any neighborhood depends primarily on income levels and spending patterns of the residents to be served. Other factors include the strength of nearby existing and proposed competition and the ability to capture inflow expenditures from visitors, commuters and passers-by. Based on an analysis of supportable retail and service space and an understanding of local competition in the



LEGEND

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|----------------------|---------------------------|-----------------|
| Market Area Boundary | Study Area | River or Stream |
| Limited Access | Railroads | Cemetery |
| Highway | Park or Recreational Area | State Boundary |
| Major Road | Educational Institution | |
| Local Road | Military Installation | |

Fig. 25 Brookland Market Area

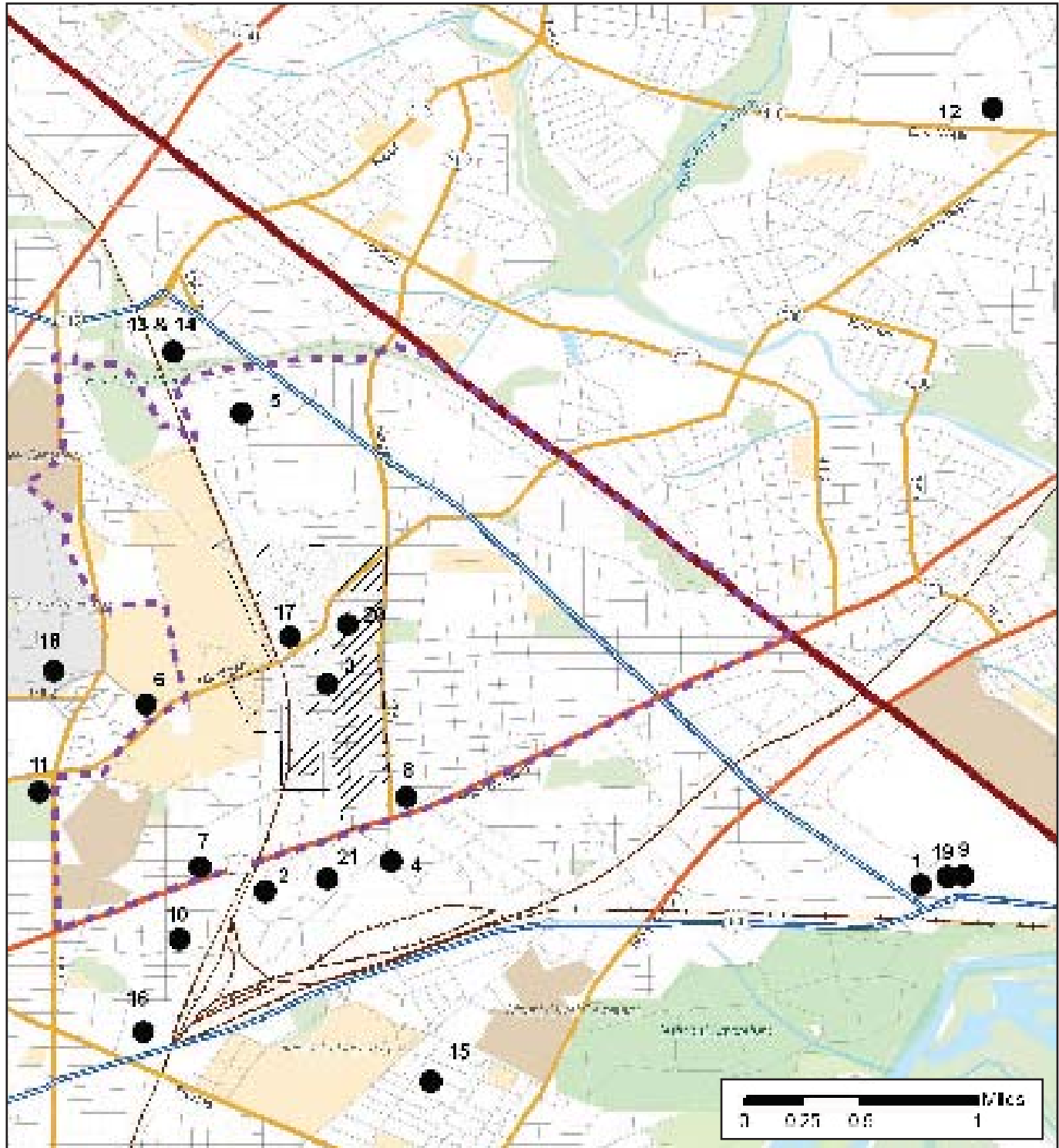
Market Area, the key local retail opportunities for Brookland include a small music retailer, music equipment seller or electronic store (2,000 to 3,500 SF each), a small bookseller (1,500 to 2,500 SF), a health and personal care store (5,000 square feet), a furniture or home furnishings store (2,500 to 3,500 SF), and a quality, sit-down restaurant (3,500 SF). Though our analysis recognizes a very small demand for a grocer, it considers Market Area demand only. There is likely demand for a grocer for the broader community. Due to the nature of sites in this portion of the District, the McMillan Sand Filtration site or the Old Soldiers Home redevelopment site represent the best candidates for any new grocer in the area.

There are several commercial projects planned or proposed near the Market Area (see full market analysis in the Appendix) that will impact its ability to support additional retail space for selected sites near the Brookland/ CUA Metro Station. This is mainly due to the extensive regional draw of big-box retailers, the appeal of new stores and clustered retail to prospective shoppers, and the competition of existing and future retailers in Prince George's County. Capturing dollars spent by students living on CUA's campus (a population limited by income and transportation) as well as faculty, staff and visitors will assist in the success of any new retail stock. Additional advantages for new retailers on selected sites include visibility and accessibility to a main arterial, by offering a selection of convenience goods and services (items not as prone to comparison shopping) such as quality, sit-down restaurants, merchandise directly related to university subjects. Additionally unique entertainment options appealing to residents, students and visitors alike would fair well.

The nature of available sites has a major impact regarding potential retail tenants. The limited number of large sites, greater than 3 acres and suitable for tenants filling unmet retail needs limits retail alternatives to small infill retailers consisting of 2,000 to 5,000 square feet in size.

As a mainly residential community with minimal office, primarily Class B and C office stock serving the local community and an absence of competitive features to attract new office development, Brookland is not well positioned to attract Class A office users. Large corporate office tenants such as lawyers, engineers, and other consultants look for business park locations and/or Class A office buildings with prominent locations, excellent access to transit and transportation corridors, nearness to high-quality retail and supportive services, state-of-the-art building systems and high quality standard finishes. The majority of the Brookland's office tenant mix consists of supportive office space for CUA and Trinity College, small non-profit organizations, neighborhood-related users (doctors, accountants, and insurance agents) and supportive office space for light industrial and manufacturing tenants. These office tenants depend on good access to their primary clientele, are often more price sensitive than larger corporations and tend to remain at these locations for long periods of time.

The strength of neighboring submarkets in both the District and Prince George's County as well as a small number of available sites compromise the neighborhood's ability to attract additional growth from the corporate clientele. Sites such as the Old Soldier's Home and McMillan Sand Filtration would likely capture more of the hospital-generated and institutional office demand. The low vacancy rate of Brookland's office market is more attributable to a small, obsolete office supply than a stable office market environment. The sustainability of Brookland's existing office market indicates consistent local demand for neighborhood-serving and university-related office users and small nonprofit organizations in need of more affordable office space near their clientele.



LEGEND

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|------------------------|-----------------------------|-------------------|
| ● Market Area Boundary | ▭ Market Area Boundary | ▨ Study Area |
| — Limited Access | — Railroads | — River or Stream |
| — Highway | — Park or Recreational Area | — Cemetery |
| — Major Road | — Educational Institution | — State Boundary |
| — Local Road | — Military Installation | |

Fig. 26 Brookland New Development

Existing Conditions Summary

- Population: 27,394; Households: 10,781
- Steady loss in population and households primarily due to smaller households replacing larger ones since 1990
- Better mix of working-age (25 to 44 years) households needed
- Prevalence of small households in Market Area (two-thirds are of one to two persons)
- Good distribution of all family structures exists in the Market Area
 - Even mix of family and non-family households
 - Female householders double that of males
 - Two-thirds of married couples do not have children
- Owners outnumber renters (58.2 percent compared to 41.8 percent)
- Brookland is a deeply rooted community; more than half of Market Area residents owned homes prior to 1979
- Median Household Income in 2006: \$48,966
- Top Employment Sectors:
 - Education, health and social services (22.4 percent)
 - Public Administration (15.6 percent)
- Sixty percent of Market Area residents work elsewhere in the District
- Half of Market Area workers live in Prince George's or Montgomery counties
- Majority of housing stock consisted of single-family detached and attached homes
- Due to historic nature of neighborhood, a prevalence of older, pre-1970 construction exists

Residential Market

Rental

- Tight supply of rental units due to recent condominium conversions
- Managed communities show occupancy rates of 96 percent or better
- Rent rates and square footages:
 - Studios: \$675 - \$1,175 450-600SF
 - 1BR: \$700 - \$1,300 500-700SF
 - 2BR: \$950 - \$1,550 775-1,000SF
 - 3BR: \$1,800 - \$1,850 1,100-1,200SF
- An active private rental market exists due to large transient population

For-Sale

- For-sale inventory represents 325 sales during 12-month period (August 2005 to August 2006)
- Condominiums: 16.1 percent of Market Area housing sales
- Townhouses: 24.5 percent of Market Area housing sales
- Single-family: 59.4 percent of Market Area housing sales
- By comparison, District-wide average sales prices in 2004 and 2005 are much higher than that of average home sale prices in Brookland

Housing Type	Median Sale Price	Average Sale Price	Average Square Feet	Average Price per Square Feet
Condominiums	\$189,500	\$206,688	665	\$311
Townhouses	\$345,000	\$341,104	2,318	\$147
Single-family	\$385,500	\$389,404	2,639	\$148

Table 3 2005 - 2006 Sales specs for housing types in the market area (Source: First American Real Estate Services; BAE, 2006)

- Very little newly built units (2001 or later) built in Market Area
- The large majority of newly built units were condominiums built in 2002, which have appreciated approximately 1.5 times the original sales price

Current, Planned and Proposed Projects

- Due to its built-out nature, the Market Area experienced little new residential development in recent years
- Many of the new residential properties are components of moderate- to high-density, mixed-use developments, condominium conversions or new construction on a small assembly of lots
- Projects tend to have modern day amenities such as hardwood floors, granite countertops, stainless steel appliances, a fireplace and special finishes
- Specs for new for-sale development:

Condos:

- o Studios: mid-\$100,000s or mid-\$200,000s 500SF
- o 1BR: high-\$100,000s to upper-\$200,000s 600-775SF
- o 2BR: mid- to upper-\$200,000s 700-800SF
- o 2BR lofts: mid-\$300,000s 1,000-1,200SF

Townhouses:

- o 3BR: mid- to upper-\$200,000s 1,900-2,000SF

Commercial Market

Retail

- Retail and services inventory contains five shopping centers with more than 500,000 square feet of space as well as myriad freestanding retailers
- Existing shopping centers operate fully occupied and demand an average lease rate of \$25.00 per square foot
- *Rhode Island Place* near the metro will deliver an additional 55,000 square feet of miscellaneous store retailers by the Fall 2006
- Prince George’s County shopping centers (specifically University Town Center and The Mall at Prince George’s) compete for Brookland residents’ disposable income
- Pryzbyla Center on Catholic University’s (CUA) campus also competitor for student dollars

Office

- Limited supply contains 11 Class B and C office buildings (183,279 total SF)
- Long-standing tenant base that is price-conscious and depends on good access to primary clientele
- Tenant mix includes supportive office space for are universities, small non-profit organizations, neighborhood services (doctors, accountants, and insurance agents) and supportive office space for light industrial and manufacturing tenants
- Rents are low compared to office stock in Downtown D.C. and neighboring Prince George’s County