

Building 6: Borden Pavilion, 1997

This structure of recent construction used to provide a large volume of office space for the former Walter Reed campus. Although not having high architectural merit or historic significance, it may be worth retaining due to its good condition, size, and adaptability.



Figure 3-62: All above – Building 6. Source: Oehrlein & Associates Architects.

Buildings 2 and 4:

Hospital & Parking Garage, 1977

Constructed between 1972 and 1977, Building 2 is the largest structure on the campus and served as the main hospital facility at WRAMC until the installation closure. It is an exposed concrete structure designed under the brutalist architectural style of the 1960's and 1970's. The building was made using approximately 110,000 cubic yards of reinforced concrete.

The completed building had 5,500 rooms and had 1,280 patient beds. In 2002, the number of patient beds was down to 250 due to a diversion of space for outpatient clinics, administration and other support functions.

Unique features of the building include interstitial floors that included air conditioning, heating, electrical, plumbing and life support systems. Many of these systems have become obsolete, even after piecemeal renovations that occurred over time.

The adjacent parking garage has two levels below grade topped by a landscaped roof. It supports parking for over 1,000 cars.



Figure 3-63: Building 2 and the west end building 4 which is the green roof of the parking garage. Source: Perkins+Will.



Figure 3-64: Parking access ramp on Georgia Avenue side of the garage. Source: Perkins+Will.



Figure 3-65: Parking garage interior. Source: Perkins+Will.



Building 2A: Military Advanced

Training Center, 2007

This is a relatively small building appearing to be a steel structure clad in an exterior insulated finished system.

This center opened in 2007 to offer rehabilitating soldiers the latest in cutting edge equipment to help with their recovery. The facility is designed for ease of use and has the latest in computer and video monitoring systems and prosthetics to help enhance amputee and patient care.



Figure 3-66: Building 2A with building 2 in the background



Figure 3-69: Rear of Building 2A with building 2 on the right.

Buildings 88: Recreation Center, 1941

Most of this building was not in use at the time of WRAMC closure. The unused portion was a natatorium and gymnasium, and the smaller portion was used as a child day care center.



Figure 3-67: View of the entrance to the Child Development on the east end of building 88.

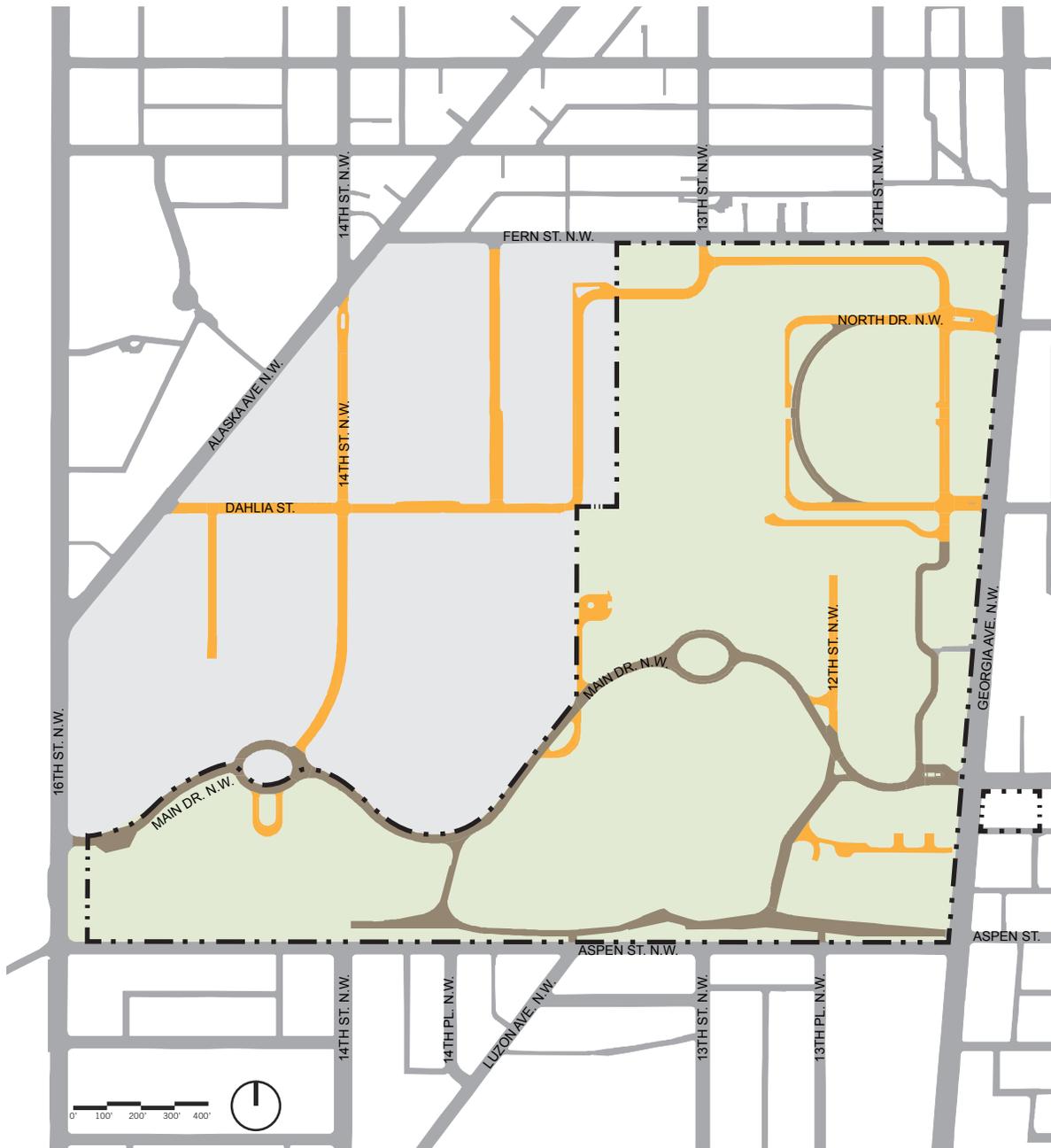


Figure 3-68: View of the former gymnasium and natatorium in building 88

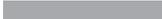
ENDNOTES

1. *Walter Reed Army Medical Center Centennial: A Pictorial History, 1909-2009*, Washington, DC: Borden Institute, 2009, p. 168.





STREET PATTERN

-  LRA Boundary
-  Surrounding Street Pattern
-  Site Orthogonal Street
-  Street Responding to Topography

The former WRAMC Site has a remarkably different street pattern from the surrounding context and the rest of the City in general. The District's predominant grid street pattern does not carry through the Site, although Dahlia Street originally did. The Site instead has narrow curved roads, few parallel routes or intersections, and numerous dead ends.

An urban street grid typically provides increased connectedness; multiple parallel routes allow traffic overflow providing greater flexibility and capacity. However a street grid tends to ignore topography rather than conforming to landscape contours. Main Drive, the former campus' primary street, follows the site topography providing scenic views of both the landscape and key buildings. Other routes on the Site weave around buildings. While the street grid pattern dominates the rest of the city, on the Walter Reed Site the topography and placement of buildings tends to dominate.

Exhibit 3-70: Street Pattern



Open Space

The north-south and east-west axes from Building 1 together with the alignment of Main Drive, form the organizational basis for the entire campus. Hoff Memorial Fountain sits at a location where the building arrangements meet the topographic forms of the Site. Building 1's front lawn is of a simple design including both lawn and tree plantings. The landscape inside the Hoff Fountain circle is slightly more formal. The fountain itself is a historic site feature and further enhances the Site by providing the refreshing sight and sound of water, and visual character.

The Great Lawn, surrounded by Main Drive to the north and east, Building 14 to the west, and the Rose Garden to the south, is the paramount landscape feature on the property. In the past the lawn has served as a natural amphitheater focused on the historic bandstand and has been used for graduations, Easter services, and other functions. This space contains some of the most significant specimen trees on the campus. The lawn is the largest and most usable of the public open spaces on the property.

Located just south of the Bandstand (Building 45), at the edge of the Great Lawn, is the Rose Garden. Although not all of the components of the garden are original, the Rose Garden retains the fundamental design it has had for more than 80 years. This area is often used for relaxation and contemplation, because of the seating areas and the abundance of shade in warm summer months. The sound and cooling effect of the water greatly contribute to the comfort of this spot. The fountain is at the transition from the Rose Garden to a wooded ravine, and acts as a gateway to this space.

Of all the open spaces at the Site, the wooded ravine south of the Rose Garden retains the most natural vegetation and character. The setting has

been heavily altered over time, with ornamental trees added and allowed to grow untrimmed, and concrete retaining walls and stone steps added. Although it provides a quiet and shaded space on the campus, the location is secluded, and not very visible.



Figure 3-71: Hoff Memorial Fountain. Source Perkins+Will.



Figure 3-72: The Great Lawn. Source Perkins+Will.



Figure 3-73: The Great Lawn. Source Perkins+Will.



Figure 3-74: The Rose Garden in the Great Lawn. Source Perkins+Will.



2.4 Transportation

As a part of its transition from serving the medical needs of the United States Army to becoming a mixed-use destination within the District of Columbia, the former WRAMC campus and the surrounding transportation facilities are undergoing repurposing and reconfiguration. This section details the current state of transit services, pedestrian environment, bicycle facilities, and roadway conditions in and around the former WRAMC campus and discusses future improvements proposed as a part of the Small Area Plan (SAP) surrounding the former WRAMC campus.

As part of the Reuse Planning process, an in depth transportation analysis of the Site and surrounding street network was completed. The SAP takes into consideration the Transportation Impact Study (TIS) analysis and highlights those recommendations in the Transportation Recommendations Section. The full TIS report can be found in Appendix C.

Overview of Regional Access

The existing WRAMC is situated in Northwest Washington, DC. Regional mobility and site access are provided by bus and rail transit, principal arterials, and regional multi-use bicycle trails. The Site is within a 15 minute walk of the regional Metrorail system and is directly served by an express bus network. These transit services link the Site with downtown Washington, DC, major population centers in Maryland and Virginia, national rail service, and the region's three airports: Ronald Reagan Washington National Airport, Washington Dulles International Airport, and Baltimore/Washington International Thurgood Marshall Airport.

A trip between the Site and downtown Washington, DC takes approximately 25 minutes by

Metrobus. Traveling by Metrorail would require a similar amount of time due to the time required to travel between the Site and the Takoma Metrorail station, which is the station located nearest to the Site; once at the station, the rail trip takes approximately 15 minutes. These time estimates, including those listed below, were developed using GIS mapping and routing software. Estimated travel times are based on travel between the intersection of Dahlia Street and Georgia Avenue and the Metro Center Metrorail station located at 13th Street and G Street.

The adjacent roadways provide connections between the Site and the regional and national network. 16th Street and Georgia Avenue, which border the Site to the west and east, respectively, are principal arterial roadways in the District and link the Site with downtown Washington, DC to the south and Silver Spring and the Capital Beltway to the north. A private vehicle trip from the Site to downtown Washington, DC, which is approximately 5 miles, takes 15 minutes. A trip between the Site and the nearest Capital Beltway access point, which is located approximately 3 miles from the Site, takes 8 minutes.

The Site is located within cycling distance of a regional network of multi-use trails, including the Metropolitan Branch Trail and the Capital Crescent Trail. These trails are commuter and recreational corridors that provide mobility throughout the study area and the region. There are on-street bicycle facilities in the study area that provide access to the multi-use trails and regional destinations. A bicycle trip between the Site and downtown Washington, DC via the on-street bicycle network takes approximately 30 minutes.

Because of these connections to the regional street network and to nearby multi-use trails, there are no major barriers to site mobility and accessibility throughout the Washington, DC region. However, although the Site is well-

connected to the adjacent roadway network via the local street grid, east-west connectivity with Chevy Chase and other neighborhoods to the west is limited due to the finite number of connections through Rock Creek Park, which is located immediately adjacent to the Site on the west side of 16th Street.

Overview of Local Access

The existing WRAMC is located adjacent to the Brightwood, Takoma, and Shepherd Park neighborhoods. These neighborhoods are predominantly residential with some pockets of commercial activity. Neighborhood mobility is provided by local transit service, arterial and local roadways, sidewalks and crosswalks, and signed bike routes and on-street bike lanes. The Site is bound by Georgia Avenue, Fern Street, 16th Street, and Aspen Street.

The local transit network consists of bus service along 16th Street, 14th Street, Alaska Avenue, Georgia Avenue, 5th Street, Blair Road, Aspen Street, and Butternut Street. These bus routes have stops located immediately adjacent to the Site and every few blocks along each bus route. Bus service links the Site with the Takoma Metrorail Station, Silver Spring, and downtown Washington, DC. Several stops near the Site have shelters, route information, and seating.

The study area¹ roadway network consists of principal arterials, minor arterials, collector roads, and local roads. The network surrounding the Site is laid out in a grid pattern with a few avenues and roadways that bisect the network diagonally. Intersections are located at regular intervals and most streets located in the study area are two-way except portions of 8th Street NW, Van Buren Street, and Hemlock Street. The roadway network provides good traffic circulation throughout the study area, allowing for multiple



routing options for drivers and dispersing vehicles throughout the roadway network.

Access to the existing WRAMC was provided through several gates, which are located along the periphery of the campus. However, several of these gates have been closed following the relocation of the Hospital. Currently, the gate located at 16th Street and Main Drive is the only gate that still provides access to the remaining on-site uses.²

Travel through the study area by vehicles, pedestrians, and bicyclists are obstructed by the WRAMC due to the site security. It cuts off direct north-south and east-west traffic traveling through the study area because the roadways are blocked by the now closed campus gates and do not connect through the Site. North-south travel along 13th and 14th Streets is impeded, as well as east-west travel along Dahlia Street, Butternut Street, and Elder Street. However, the impact to east-west travel is not as great as to north-south travel due to Rock Creek Park, which provides an additional barrier to east-west movements in the study area. Vehicles, pedestrians, and bicyclists traveling on these study area roadways must circulate around the Site or take alternate routes through the study area. However, with the proposed redevelopment of WRAMC, these access points will be fully operational.

Pedestrian facilities are provided throughout the study area, including sidewalks, curb ramps, crosswalks, and pedestrian signals. Conditions are acceptable for pedestrians, shade is provided by mature trees, sidewalks are buffered from traffic by a planting strip and on-street parking, and traffic speeds are low along most collector and local roads. However, the following roadways do not have continuous sidewalks on both sides of the street, Aspen Street, Luzon Avenue, Geranium Street, and Blair Road. Pedestrian volumes are highest along Georgia Avenue near

bus stops and between the Site and the Takoma Metrorail station, which is approximately one-half to three-quarters of a mile from the future Town Center of the Site. The 2009 DDOT Pedestrian Master Plan identified Georgia Avenue as a high hazard corridor due to high traffic speeds and volumes.

On-street bicycle lanes are provided along 14th Street south of Aspen Street and on Piney Branch Road between Butternut Street and Underwood Street. Beach Drive, 8th Street, and Piney Branch Road are signed bike routes. Riding bicycles on sidewalks is permitted in the study area. The DDOT 2011 Bicycle Map indicates that cycling conditions are fair to poor along 16th Street and Georgia Avenue due to traffic speeds, traffic volumes, and roadway conditions. There is limited bicycle parking throughout the study area, and cyclists frequently use street signs or other objects to secure their bicycles.

The existing WRAMC obstructs north-south bicycle traffic along 14th Street. This is not a major obstruction for regional bicycle traffic because bicyclists must use 16th Street or Georgia Avenue north of the Site. However, the Site does impact local traffic between the residential uses north and south of the Site along 14th Street. Bicycling is possible along most local roads in the study area. Within the Site, there are no bicycle facilities, but low traffic speeds and wide street widths allow cyclists on the Site to ride along all Site roadways. These cyclists are currently required to access the Site via the only available driveway at 16th Street and Main Drive.

On-street parking is provided throughout the study area along all streets, including 16th Street, Georgia Avenue, and others. Most study area parking spaces require residential parking permits, though some spaces are metered or unregulated. The remaining areas prohibit

parking during peak periods and are unregulated during off-peak periods.

Vehicular Access and Circulation

Travel by privately-owned vehicles is common in the outer sections of the District of Columbia in the vicinity of the WRAMC campus. As such, the campus is well-suited to vehicular travel owing to its location between major north-south commuter roadways like Georgia Avenue and 16th Street, which directly border the campus to the east and west, respectively. This section provides an overview of conditions along the external and internal roadways, vehicular connections between the Site and the surrounding street network.

External Roadways

The Site is bordered on the east and west by Georgia Avenue and 16th Street, respectively, both major north-south roadways connecting the Site with major regional destinations like downtown Washington, DC to the south and Silver Spring and the Capital Beltway to the north. These routes serve highly directional commuter traffic volumes of around 30,000 vehicles per day, largely due to their design as major commuter arterial roadways and how the existing street network and local barriers like Rock Creek Park serve to concentrate traffic along these corridors.

East-west traffic around the former WRAMC campus is more local in nature. The residential character of the east-west streets through the surrounding neighborhoods limits traffic speeds, while the presence of Rock Creek Park to the west and CSX and Washington Metropolitan Area Transit Authority (WMATA) railroad tracks to the east presents a barrier to long-distance east-west travel. Therefore, east-west traffic in the vicinity of the former WRAMC campus is distributed across the street grid and the campus' security



perimeter does not present a significant impediment to vehicular mobility.

Security Perimeter and Internal Conditions

As with the other travel modes, the closure of the former WRAMC campus has limited vehicular site access. The former WRAMC campus was closed to through traffic throughout the time it was operating as a hospital; the redevelopment will finally allow the Site to be open. When the Site was open as a hospital there were five (5) gates into campus, the only access now available to travelers is through the Main Drive gate along 16th Street. While this single security gate limits the convenience of access to the former WRAMC campus, the fact that this gate is located along 16th Street, a major arterial roadway for traffic traveling into and out of DC means that the low volumes using the campus are generally well-served by the current access scheme.

Once inside the security perimeter, traffic circulation occurs along a network of two-lane, two-way roadways including Main Drive, 12th Street, Service Road (13th Street), Dahlia Road and North Road. The numbered streets accommodate north-south movements while Main Drive, Dahlia Road, and North Road accommodate east-west movements. Although this network provides sufficient means to access all buildings and facilities within the former WRAMC campus, the existing configuration restricts overall site circulation because of the limited number of north-south connections across the Site.

Main Drive is the primary east-west link between the 16th Street gate and the currently closed gates along Georgia Avenue. Traffic calming measures are in place along the length of Main Drive, including speed humps, relatively narrow travel lanes, and two traffic circles. However, throughout the former WRAMC campus all inter-

nal intersections are stop-controlled and the posted speed limit is 15 mph.

Transit Service Access and Circulation

Metrorail and Metrobus services connect the Site with other District neighborhoods and the Washington-Metropolitan region. The WRAMC is primarily serviced by the WMATA express and local bus service along the 16th Street and Georgia Avenue corridors.

Metrobus

The former WRAMC Campus is serviced by five major Metrobus lines in the study area, as shown on “Table 3-74: Nearby Transit Services”. Stops for these services are located along streets adjacent to the Site, including 16th Street, Alaska Avenue, Aspen Street, and Georgia Avenue. Two of these services, the Georgia Avenue Metro Extra Line and the 16th Street Express provide high-quality, limited-stop service between the Site, Metrorail,

and major regional destinations. Other bus lines in the area compliment these express lines by providing service around the clock.

Metrorail

Metrorail service is provided via Takoma station on the Metrorail Red Line, approximately ¾-mile from southeastern corner of the former WRAMC campus. To the north, the Red Line connects the WRAMC Site to Silver Spring and Glenmont in Montgomery County, Maryland, while to the south the Red Line provides service to downtown, Union Station, Gallery Place/Chinatown, and Metro Center before swinging north through Chevy Chase into Bethesda in Montgomery County.

The station entrance is located at Cedar Street/Carroll Street just west of Eastern Avenue. The station provides a limited amount of short-term metered parking spaces along with a number of bicycle racks and lockers and 9 carsharing

Route #	Route Name	Destinations	Service Hours	Headway
52, 53, 54	14th Street Line	Takoma, U Street, Columbia Heights, L'Enfant Plaza	Monday-Saturday: 24-hour service Sunday: 4:30 AM - 2:30 AM	Weekday: 10-30 min Saturday: 15-30 min Sunday: 20-40 min
70	Georgia Ave - 7th Street Line	Silver Spring, Petworth, Chinatown	Monday-Saturday: 24-hour service Sunday: 4:45 AM - 2:45 AM	Weekday: 10-30 min Saturday: 10-40 min Sunday: 12-30 min
79	Georgia Avenue Metro Extra Line	Silver Spring, Petworth, Chinatown	Weekday: 6:00 AM - 7:00 PM No service on weekends	7-12 min
52, 54	16th Street Line	Silver Spring, Columbia Heights, Metro Center	Monday-Saturday: 24-hour service Sunday: 4:45 AM - 2:15 AM	Weekday: 5-30 min Weekend: 15-40 min
59	16th Street Express	Silver Spring, Columbia Heights, McPherson Square	Weekday: 6:30-10:30 AM, 3:00-7:00 PM No service on weekends	10 min
Metrorail Service from Red Line	Service from Takoma Station	Silver Spring, Shady Grove, Bethesda, Downtown DC	First Train: 5:12 AM (7:12 AM Sat/Sun) Last Train: 12:21 AM (3:21 AM Fri/Sat)	Weekday: 3-6 min Weekend: 6-15 min Evening: 10-15 min

Table 3-75: Nearby Transit Services. Source: Gorove/Slade



spaces in the immediate vicinity. 9 bus bays provide connections to the local public transportation network.

There is generally good connectivity between the Site and the Takoma station for pedestrians and cyclists, although improvements are possible. This station is slightly beyond the ideal walking distance for transit access, but it is ideally suited for bicycle access from the former WRAMC campus. There is adequate auto access and some parking to accommodate those arriving by car. The Metrobus 14th Street Line also provides an efficient alternative for accessing the Metrorail system.

Between the various Metrobus services adjoining the former WRAMC campus and the multiple options available for accessing Metrorail service at Takoma station, the level of transit service provided around the campus results in generally high transit usage.

Truck Access and Circulation

Prior to the closing of WRAMC, the campus accommodated truck access only at the 16th Street and Main Drive gate. Since the 16th Street entrance is the only security gate that continues to provide access to the Site, all vehicular access must now share this location as well.

The Main Drive gate has two ingress lanes. The southernmost lane is used to channel and screen trucks entering the Site. Once on site, trucks may circulate freely, but most truck traffic is concentrated along 14th Street, Dahlia Street, and North Road since most building loading facilities are located along these streets. However, following the closing of the WRAMC, vehicular and truck volumes have dropped significantly due to the non-operational nature of the Site.

Pedestrian Access and Circulation

A range of pedestrian facilities are provided throughout the area surrounding the former WRAMC campus, including sidewalks, curb ramps, crosswalks, and pedestrian signal heads with countdown displays. Conditions are acceptable for pedestrians: shade is provided by mature trees, sidewalks are buffered from traffic by plant boxes and on-street parking, and traffic speeds are low along most collector and local roads. Nearly all streets in the study area feature planted buffers between sidewalks and the curb in addition to on-street parking that helps to provide an additional buffer between pedestrians and vehicular traffic.

Interface with Surrounding Neighborhood

Pedestrian volumes around the former WRAMC campus are highest along Georgia Avenue, near bus stops, and between the Site and the Takoma Metrorail station, approximately $\frac{3}{4}$ mile away. Because of the concentrated level of pedestrian activity in this area stemming from retail availability and transit accessibility, the 2009 DDOT Pedestrian Master Plan identified Georgia Avenue as a high hazard corridor due to high traffic speeds and volumes.

Routes between the Site and the Takoma Metrorail station have generally good walking conditions. Sidewalks are provided along both sides of the street along all major routes between the Site and the Takoma station, although the longer-than-ideal walking distance and moderate topographical changes along the route may discourage some users from walking between the site and the rail station. These users may choose to access the station via bicycle or the Metrobus 14th Street Line.

Surrounding the former WRAMC campus, existing sidewalks provide connectivity to the adjacent neighborhood excluding Aspen Street. Side-

walks connecting the former WRAMC campus to the community currently do not exist along the northern edge of Aspen Street between Georgia Avenue and 16th Street.

Pedestrian Connectivity

As previously mentioned, existing security restrictions in place around the former WRAMC campus currently restrict site access to only the Main Drive gate off of 16th Street. This location is not close to major pedestrian destinations, and the high vehicular traffic volumes and speeds along 16th Street do not present favorable pedestrian conditions.

However, the single access location means that despite the less than ideal conditions all pedestrians within the Site must enter and exit via the 16th Street gate. This gate is over $\frac{1}{2}$ mile from the Georgia Avenue commercial corridor. Therefore, it is likely that pedestrian access at the 16th Street gate will consist largely of bus arrivals.

Finally, as stated previously the former WRAMC campus security restrictions interfere with external pedestrian circulation by causing pedestrians to divert around the campus in order to reach their desired destination.

Internal Pedestrian Facilities

Once inside the WRAMC Site, moderate travel speeds and low traffic volumes create generally favorable conditions for pedestrians. Main Drive and Dahlia Street serve as the main pedestrian access routes and feature sidewalks along both sides of the street, curb ramps, and striped crosswalks. Signs along these roadways identify roadway crossings and instruct drivers to yield to pedestrians. Additionally, traffic calming measures such as speed humps, narrow travel lanes, and traffic circles are located throughout the Site to limit traffic speeds and improve pedestrian safety.



Although some missing or poor pedestrian facilities can be found on the periphery of the Site, the majority of on-site pedestrian activity occurs between buildings within the central campus and between buildings and parking facilities, therefore largely avoiding the outlying roadways with substandard sidewalk facilities.

North-south access on the former WRAMC campus is served by a network of sidewalks and paved pathways, most notably along 12th Street. However, this route is also limited by elevation change, frequent driveways and curb cuts, and incomplete crosswalks south of Main Drive, contributing to the generally discontinuous nature of pedestrian pathways along the edges of the Site. It should be noted that some of the internal pedestrian facilities do not meet DDOT standards.

Bicycle Access and Circulation

The Site is located within cycling distance of a number of existing regional multi-use trails, including the Metropolitan Branch Trail, Beach Drive and Rock Creek Park trails, and the Capitol Crescent Trail. These trails are commuter and recreational corridors that provide mobility throughout the greater Washington region. There are also a variety of on-street bicycle facilities around the former WRAMC campus that provide access to regional destinations.

On-street bicycle lanes are provided along 14th Street south of Aspen Street, directly adjoining the former WRAMC campus to the south and stretching south to Columbia Heights. Limited facilities also exist along Piney Branch Road between Butternut Street and Underwood Street, connecting a signed bicycle route that stretches between the Metropolitan Branch Trail at the Takoma Station and downtown DC via Columbia Heights. 8th Street also provides a signed bicycle route stretching south to Petworth.

The DDOT 2011 Bicycle Map indicates that high travel speeds, traffic volumes, and on-street conditions contribute to poor cycling conditions along 16th Street and Georgia Avenue. This leads to many bicyclists riding on the sidewalk on these streets.

By contrast, fair to good bicycling conditions exist along the east-west streets connecting the former WRAMC campus to the Takoma Metrorail station. The residential character of these streets and the generally low travel speeds and traffic volumes that exist within the Takoma neighborhood makes bicycling an attractive means of connecting to the Metrorail system.

As with the pedestrian network within the former WRAMC campus, the interface between external bicycle paths and the internal bicycle network is limited by the closed nature of the former WRAMC campus as it currently exists. The former WRAMC campus presents an impediment to regional bicycle travel external to the Site by requiring cyclists to circulate around the campus due to its restricted security perimeter. Furthermore, the 16th Street entrance at the Main Drive gate does not present favorable conditions for bicycle access due to vehicular traffic along 16th Street itself in conjunction with the lack of connections between the gate and formal bicycle facilities.

Within the Site itself, there are no dedicated bicycle facilities. Currently, the generally narrow two-lane roadway cross-sections with low volumes within the Site keep vehicular travel speeds low and therefore allows cyclists to ride along all site roadways in relative safety. However, there is limited bicycle parking throughout the study area and cyclists were observed using street signs or other objects to secure their bicycles because of this deficiency.

Parking

The existing WRAMC campus includes a total of 4,508 parking spaces, with 2,341 of these spaces located within the LRA boundary which includes on and off street parking. The majority of these spaces are located within existing parking structures below Abrams Hall (Building 14) and the Heaton Pavilion (Building 2). These facilities are largely unused, due to the campus being previously closed off, but are potentially available for future reuse.

ENDNOTES

1. *The study area encompasses all of the intersections included in the TIS (Appendix C), which is an area of nearly 2.0 square miles. The overall general boundaries are the DC boundary line, 16th Street, Military Road/Missouri Avenue, Georgia Avenue and Eastern Avenue.*
2. *At the time of the drafting of the Reuse Plan and the Small Area Plan the only gate open to the public was the gate on Georgia Avenue and 16th Street; however, as long as the Army is the owner of the property they may change which gate or gates are open. Once the property has been moved from Army ownership to District government and ultimately private ownership, all the streets will become part of the city's grid rather than being limited access gates.*



2.5 Market Analysis

Demographics

The Site is situated in Ward 4 in Northwest Washington, DC, among five very stable neighborhoods: Brightwood, Shepherd Park, Colonial Village, Takoma, and Manor Park. In 2000, there were approximately 25,000 people within 1-mile of the site. While this Ward experienced a slight population increase of 594 persons or 0.8% between 2000 and 2010, the area within a 1-mile radius of the site grew at a faster rate. In 2010, the population within the 1-mile radius of the study area was 26,300 which translates into an annual growth rate of 0.51% between 2000 and 2010. (See “Table 3-76: Population Growth Trends”).

The District has now reversed its negative population growth rate prior to Census 2000 and has experienced a rapid population increase of 5.2% from 2000 to 2010. Due to an even more significant population increase from 2010 to 2011 of 16,273 people or 2.7% in just one year, the next decade is expected to reflect an aggressive population growth that will most likely impact positively on urban redevelopment.

The market analysis conducted for the Reuse Plan looked at the projected growth rate for the study area, as well as projected growth rates for the District and the region. The market study assessed the impact of a range of growth scenarios for the study area. Using this average annual growth rate for the region (0.9%) suggests that the population within 1-mile of the site is expected to grow to 30,000 by 2020. Assuming a growth rate that is more similar to the fastest-growing county in the region, Fairfax County (1.1% per annum growth rate), the population within 1-mile of the site could grow as high as 31,200 in 2020. However, if the population in

this area were to grow at the 2.7% rate, which the District as a whole recently experienced from 2010 to 2011, the population would be as high as 38,500 in 2020.

The population within 1-mile of the Site had a median household income of \$55,500 in 2010, which is slightly lower than the District’s overall median household income of \$60,900. (See “Table 3-75: Median Household Income Trends (2010 Dollars)”). The closest central business district to the study area is Silver Spring. While its median household income is \$71,606 (higher than the 1-mile area of the Site), the study area does contain pockets of higher-income households, such as Shepherd Park and northwest portions of Takoma, which have a median income of \$61,055. (See the Walter Reed Army Medical Center Re-Use - Market Study in Appendix B for more information).

	1 mile radius: Median Household Income	Annual % Change
1990	\$62,600	
2000	\$58,100	- 7.0%
2010	\$55,500	- 4.5%

Table 3-76: Median Household Income Trends (2010 Dollars)

	1 mile radius: Population	Annual % Change
2000	25,000	
2010	26,300	0.51%
2015	28,700	0.9%
2020	30,000	0.9%

Table 3-77: Population Growth Trends



Market Analysis

An assessment of reuse opportunities for the Site, established during the Reuse Planning process, explored two potential market-based programs for the Site:

1. Demand-Supported Development Program; and
2. Contingent Development Program

Demand-Supported Development Program

This program is an assessment of existing site and market conditions. The Demand-Supported Program reflects a mix of uses which are primarily driven by revenues and expenses, and for which projected market demand is assumed to drive locational decisions of users. These uses include traditional market sectors – retail, residential, commercial office, and hospitality.

Demand-Supported Development Program Projections

The demand-supported development program uses ten-year economic and demographic projections for the study area and the region, and takes into account the anticipated development pipeline. The analysis assumes that the Department of State (DOS) will control a 43.57 acre portion of the Walter Reed Site to the west of the District's parcel. The DOS anticipates a Foreign Mission Center (FMC) to include offices and embassies that support foreign missions in the United States; the FMC is only roughly planned at this stage.

Trends in the real estate market of the surrounding area projects changes in market demand for housing, retail, office space and hotel. Pipeline development and comparable sales and project

information were considered in the projection of demand for multiple building types. NOI Uses were incorporated into the Demand-Supported program. The consultant team also used the following three additional tools to fully vet the potential of the Site:

- Developer Focus Groups: Roundtable discussions with more than 20 development firms were held by the LRA to identify development opportunities and constraints, as well as key implementation considerations;
- Development Case Studies of Comparable Sites: An analysis of local and national development projects with characteristics similar to Walter Reed helped identify program opportunities and implementation considerations.
- Request for Ideas (RFI) for Building 1: Solicitation to a wide range of industry and non-profit organizations, released by the LRA, helped determine interest in and ideas for a corporate or institutional re-use of Building 1 (the original hospital building).

Contingent Development Program

This program identifies certain conditions, or “demand drivers,” that would allow for increased programming of particular land uses. The following three contingent demand drivers have the potential to significantly increase demand for each land use on site:

- Accelerated timing for operational streetcar service: Moving the streetcar operational service date forward to the year 2015 would increase short-term residential demand for the Walter Reed campus due to the enhanced access it would provide residents to downtown DC;
- Destination retail anchor: Attracting a destination retail anchor would draw consumers from a larger market from throughout the DC area, increasing retail traffic on the Site and attracting strong demand for other retailers to locate nearby;
- Corporate, academic, or medical anchor tenant: Attracting a large office-use tenant could significantly increase demand for office space, possibly establishing the Site as an office location and attracting related office demand.



Figure 3-78: Demand-supported program



Contingent Development Program Projections

Coordinated community and government efforts in key areas could expand the Demand-Supported Program recommendation. The analysis considered what the potential impact would be if the District could attract a commercial office and destination retail tenant, and accelerate implementation of streetcar development. These outcomes, if occurring simultaneously, could result in the recommended Contingent Program. The impact of the three incremental demand drivers would include the following:

- **Impact of accelerated timing for operational streetcar service:** Streetcar is defined as an operational streetcar line that connects Walter Reed to the Metrorail system or to employment centers in Silver Spring, Maryland and downtown Washington, DC. The Demand-Supported Program assumes streetcar service to Walter Reed is operational in 2020. The Contingent Program assumes that operational date is at least five years sooner. Increase the Demand-Supported residential program by 1,130 units for a total of 2,110 units;
- **Impact of a destination retail anchor:** A retailer that draws customers from beyond a two-mile radius and therefore increases capture rates of retail demand. Destination retailers may include department stores (e.g. Kohl's), wholesalers (e.g. Costco) and large-format specialty stores (e.g. Harris Teeter). Increase in the Demand-Supported retail program by 75,000-100,000 square feet for a total of 150,000-200,000 square feet;
- **Impact of a corporate, academic, or medical anchor tenant:** A single user or a cluster of cooperative users that have an immediate or planned need for more than the 200,000 SF

offered in Building 1, catalyzing demand for at least an additional 50,000 - 200,000 SF of new office space of complementary office users; Increase the Demand-Supported office program by 50,000-200,000 square feet for a program total of 620,000-770,000 square feet.

The impact of a destination retail anchor on this area of the city would be significant. There are few destination retail areas in the city overall and the area around Walter Reed in particular has less retail than many other areas. Having a destination retailer would draw both visitors from the immediate surrounding neighborhoods but also from a wider catchment area – helping to draw a stronger retail tax base for the city.



Figure 3-79: Contingent Program Summary

