Exhibit 6

TAKOMA

METRORAIL STATION ACCESS ANALYSIS TECHNICAL MEMORANDUM

Washington Metropolitan Area Transit Authority

Office of Real Estate & Station Planning
September 2013

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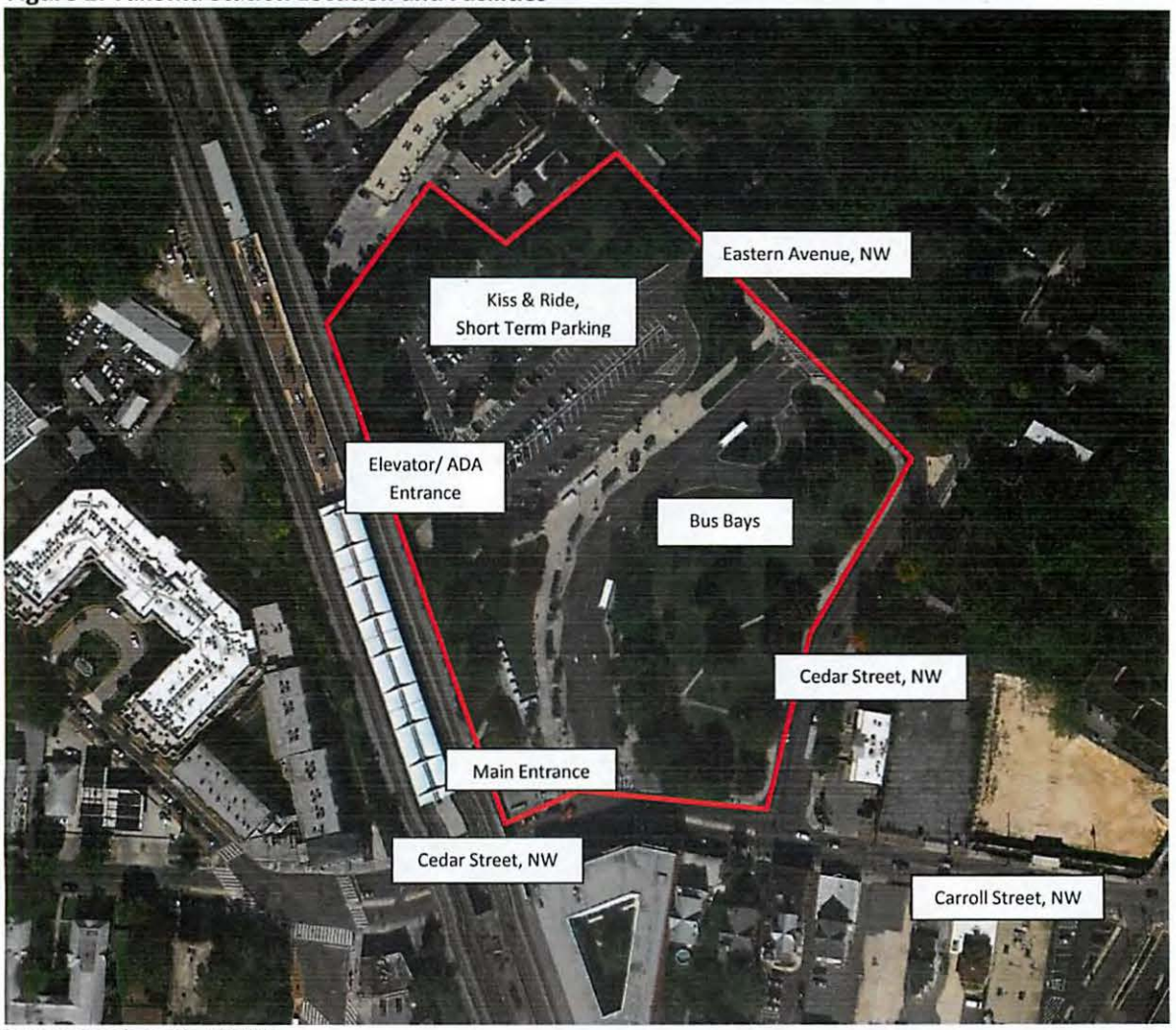
Existing Station Area Characteristics

The Takoma Metrorail Station is located on the eastern leg of the Red Line in the District of Columbia, just west of the Eastern Avenue boundary with Maryland (**Figure 1**). The station is among the older tier in the Metrorail system, opening in February 1978 as part of the intermediate Red Line extension to Silver Spring.

Figure 1: Takoma Station Location and Facilities



Source: Google Earth, WMATA

The elevated station platform, just west of Eastern Avenue, NW at Cedar Street, NW, is arranged in a center platform configuration with two access points at ground level. The main entrance is on the south end of the station on Cedar Street under the elevated rail tracks, and contains three escalators up to the platform level with four standard faregates and one ADA faregate (**Figure 2**). The elevator/ADA entrance is on the north end of the station, adjacent to the Kiss & Ride lot, with its own tunnel access point. The

tunnel is not large enough to accommodate faregates and a fare vending machine, so this equipment is located on the platform, which is atypical for the Metrorail system (**Figure 3**).

Figure 2: Takoma Main Station Entrance

Source: WMATA

Figure 3: Takoma Station Elevator/ADA Entrance

Source: WMATA

The 6.8-acre station-area footprint lies east of the platform and tracks and is bounded by Cedar Street, NW to the east and south and Eastern Avenue, NW to the north. Takoma Station's nine bus bays serve eight Metrobus routes and seven Ride On routes. Access to the bus bays is on Cedar Street, NW on the southern side of the station, and on Eastern Avenue, NW on the northern side. The Kiss & Ride/ parking lot contains 160 parking spaces: six ADA reserved spaces, three motorcycle spaces, five "A-spaces" (reserved for waiting motorists), five carsharing spaces, and 141 short-term metered spaces. Vehicular access to the Kiss & Ride lot is on Eastern Avenue, NW. Informal drop off and pick up also occurs on Cedar Street, NW adjacent to the station entrance, though it is signed as a no-standing or parking zone during peak periods. There are 52 bicycle racks with two spaces each, totaling 104 bicycle parking spots. There are also 60 bicycle lockers available for reserved, covered bicycle parking.

Station Area Planning Context

Station Area Plans

The current plan for the surrounding neighborhood is the Takoma Central District Plan, approved by the District of Columbia Council on June 4, 2002 through Resolution 14-460. The plan is available on the District's website at the following location:

http://dc.gov/DC/Planning/In+Your+Neighborhood/Wards/Ward+4/Small+Area+Plans+&+Studies/Takoma+Central+District+Plan

Station Layout and Access

The Takoma station is an elevated station, with the mezzanine, faregates, and station manager's kiosk on ground level. The elevated platform is a standard center platform configuration, with access to the main entrance connecting to the southern end of the platform. The elevator is located approximately in the middle of the platform, and it has its own faregates and fare machines.

Metrorail Ridership

Peak period service along the inner portion of the Red Line (between Silver Spring and Grosvenor) is offered at three-minute headways, while non-peak service is offered at six-, twelve-, or fifteen-minute headways.

Table 1 summarizes typical rail frequencies at Takoma Station for weekday and weekend time periods. Currently, about 50% of the trains operate as 8-car trains, with the other 50% operating as 6-car trains. Fifty percent of the trains terminate at Silver Spring (eastbound) and Grosvenor (westbound), while the other 50% operate along the full length of the Red Line between Glenmont and Shady Grove.

Table 1: Metrorail Frequency at Takoma Station

Day	Period	Headway (minutes)
Weekday	Morning Peak	3
	Mid-day	6
	Afternoon Peak	3
	Early evening	6
	Late evening	12-15
Weekend	Morning to evening	6
	Evening	15

Source: WMATA

Takoma Station averaged 6,186 entries and 6,032 exits per weekday during October 2012, a nine percent decline from the station's highest recorded ridership in 2009 with 6,811 entries. Peak hours of ridership occur from 7:45 to 8:45 AM in the morning and 5:30 to 6:30 PM in the afternoon (Table 2).

Table 2: Average Weekday Metrorail Ridership (October 2012)

Time Period		Entries	Exits	Total
Daily		6,186	6,032	12,218
Morning Peak Hour	7:45 to 8:45 AM	1,488	235	1,723
Afternoon Peak Hour	5:30 to 6:30 PM	242	1,281	1,524

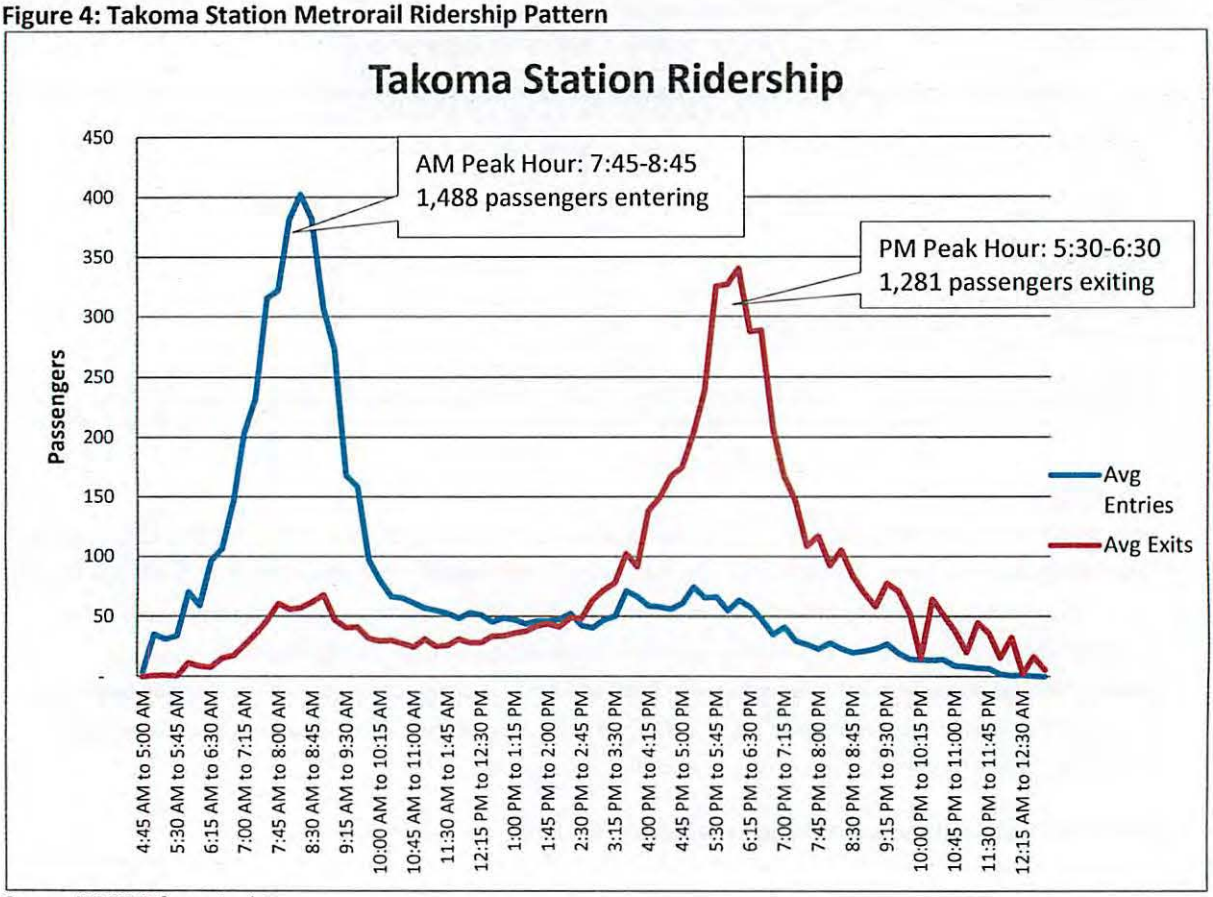
Source: WMATA faregate data

A large imbalance between entries and exits is observed during peak periods at Takoma Station (Figure 4), which is indicative of heavy use by daily commuters. Morning and afternoon peaking is very pronounced, with most people entering the station in the morning and exiting in the afternoon—an indication of few jobs in the area. During the general Metrorail systemwide morning peak period (5:00 to 9:30 AM), approximately eight passengers enter the station per every exiting passenger. Conversely,

almost four passengers exit the station per every entering passenger during the afternoon systemwide peak period (3:00 to 7:00 PM).

Midday entries remain relatively stable following the morning peak period until about 6:00 PM where they begin to decline. Exits slowly increase throughout the morning and midday periods, but greatly accelerate at 2:00 PM. Following the afternoon peak period, passenger exits inconsistently decline until closing time.

Figure 4: Takoma Station Metrorail Ridership Pattern



Source: WMATA faregate data

Future Station Travel Demand

Metro estimates that a joint development project with between 210 and 255 multifamily units could potentially generate between 440 and 750 daily Metrorail trips, with only 8% of those occurring in the AM peak hour, and 10% of those occurring in the PM peak hour. This estimate is based on Metro's ridership model for development proposals, which uses inputs from the Institute of Transportation Engineers (ITE)'s trip generation rates, along with Metro's 2005 Development Survey for Metrorail mode choice. Metro does not have a model for estimating the ridership impact on bus service.

Station Area Demographics

Assessment of Vertical Circulation and Faregate Capacity

Station Access

To access the station the majority (55%) of passengers walk, while 29% arrive by bus, 8% drive and park, 6% are dropped off, and 2% arrive by bicycle, according to the *2012 Metrorail Passenger Survey* (**Table 3**).

Table 3: Access and Egress at Takoma Station (All-Day)

	2012 Mode Shares	2012 Mode Shares Applied to Oct. 2012 Passenger Totals	
Mode	Access	Access	Egress
Walk	55%	3,421	3,318
Bicycle	2%	118	121
Bus	29%	1,775	1,749
Kiss & Ride	6%	365	362
Park & Ride (drivers and passengers)	8%	495	483
Other (taxi, shuttle, incomplete surveys)	0%	12	8
Total	100%	6,186	6,032

Source: 2012 Metrorail Passenger Survey and WMATA faregate data. Note: Totals may not sum due to rounding.

Pedestrian

Safe and efficient pedestrian access to Takoma Station is vital, as more than half of Metrorail passengers access the station on foot. The sidewalk network in the neighborhoods surrounding the station is largely intact and provides good connectivity, with existing crosswalks at key locations. There are two main pedestrian desire lines in the station area (shown by the yellow arrows in **Figure 5** below) which are not currently served by sidewalks. The first desire line cuts across the grassy area east of the bus bays to the intersection of Eastern Avenue and Cedar Street, and the second cuts roughly across the parking lot from the bus bays to the northern entrance to the parking lot.

Figure 5: Pedestrian Desire Lines and Existing Bike Parking

Source: Google Earth, WMATA Pedestrian and Bicycle Element of 2012-2017 Capital Improvement Program

Based on current conditions, a sidewalk along the northern side of the Kiss & Ride/ parking lot would be useful (see **Figure 6**). Accordingly, since this is the site of a potential joint development, pedestrian improvements will be incorporated into the design of the site to better accommodate this desire line.

Figure 6: Takoma Sidewalks along Eastern Avenue

Source: WMATA

Bicycle

Current demand for bicycle parking is very high, with Takoma being the second-highest level of bike parking in the Metro system during the 2012 bike parking census. The station has a bicycle rack parking capacity of 104 (52 racks with two spaces each) and 60 bicycle lockers are located near the station entrance. The heaviest bicycle and pedestrian flow to the station is from the east along Carroll Avenue/

Carroll Street between the station and downtown Takoma Park, MD; however, many patrons also access the station from the northeast using Cedar Street and the north using Eastern Avenue. All bicycle and pedestrian access routes from the southwest, west and northwest funnel on to Cedar Street and pass under the tracks to the station entrance on the east side.

The 2013 WMATA bicycle parking census counted 83 bikes parked at the station, which is the second-highest observed in the Metrorail system. The trend from the recent years has shown high bicycle ridership at Takoma Station (**Table 4**).

Table 4: WMATA Bicycle Parking Census Results – Takoma Station

Year (May)	Number of Bicycles Parked
2011	70
2012	87
2013	83

Figure 7: Takoma Station Bicycle Racks

Takoma has 60 bicycle lockers for reservation, with 22 being rented in 2013.

Figure 8: Takoma Bicycle Lockers

Source: WMATA

The Metropolitan Branch Trail (MBT) is an 8-mile trail that runs from Union Station in the District of Columbia to Silver Spring in Maryland. Following the Metropolitan Branch Line of the Baltimore and Ohio (B&O) Railroad and along the Red Line, the current trail route connects to Takoma Station along the east using an on-street alignment along Cedar Street, NW and Eastern Avenue. However, the MBT is being designed to have a portion of its alignment on the west side of the rail tracks (**Figure 8**).

Figure 9: Future Metropolitan Branch Trail Alignment Design West of Takoma Station

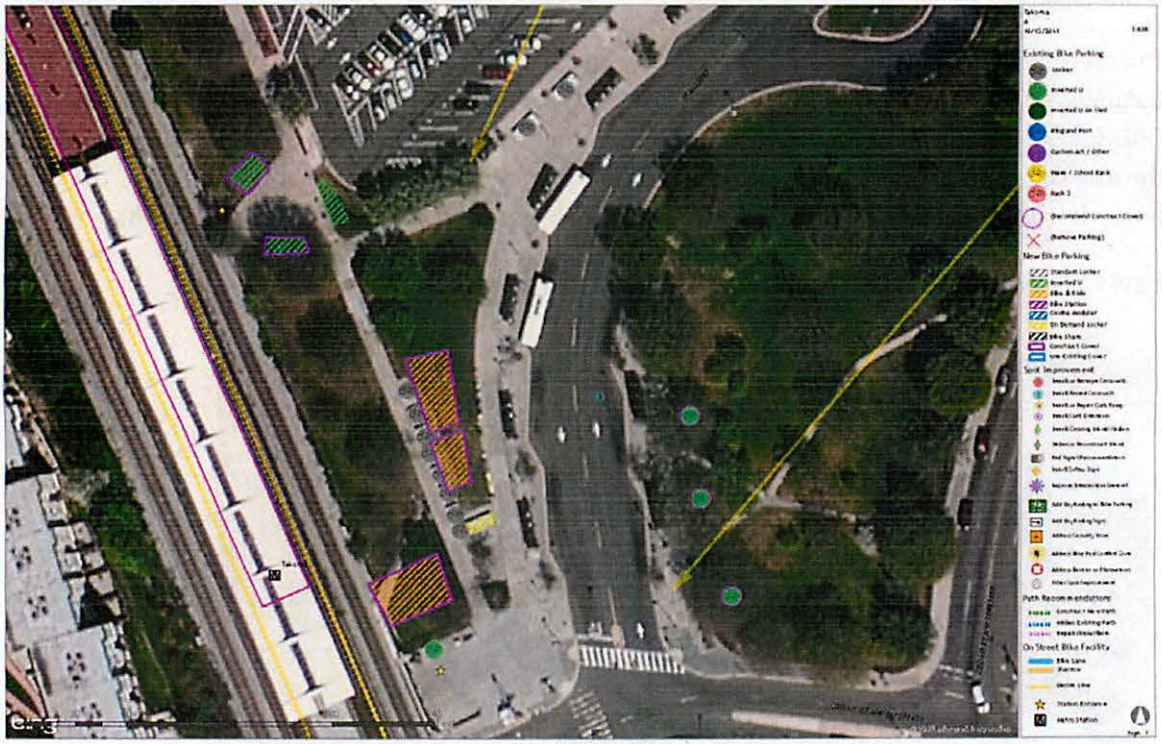
Source: WMATA

The projected need for bike parking at the Takoma station is high relative to current capacity and other stations in the system. The Takoma station is an ideal pilot for a bicycle station that incorporates green elements in the design that may help WMATA deal with drainage issues at the station. Any joint development concept will be designed to provide sufficient space for all station activities, including projected 2030 bike parking capacity needs.

Consideration should also be given to the following items, also shown in **Figure 10**:

- Locating a small number of uncovered Inverted-U Racks near the drop-off space at the end of the Kiss & Ride Loop. Bikes are often seen parked on the existing railing at this entrance.
- Covering the existing Inverted-U Racks on the east side of the bus bays, adjacent to the green space.

Figure 10: Potential Sites for Additional/Enhanced Bicycle Parking at Takoma Station



Note: Some elements could be placed in different locations as the planning process advances.
Source: Google Earth, WMATA Pedestrian and Bicycle Element of 2012-2017 Capital Improvement Program.

Currently, bus riders and other people walking to the station have only one designated location to cross the bus facility, at Cedar Street, NW/ Carroll Street. Based on clear evidence of regular pedestrian movements, a second crossing with a crosswalk should be considered that would better serve the

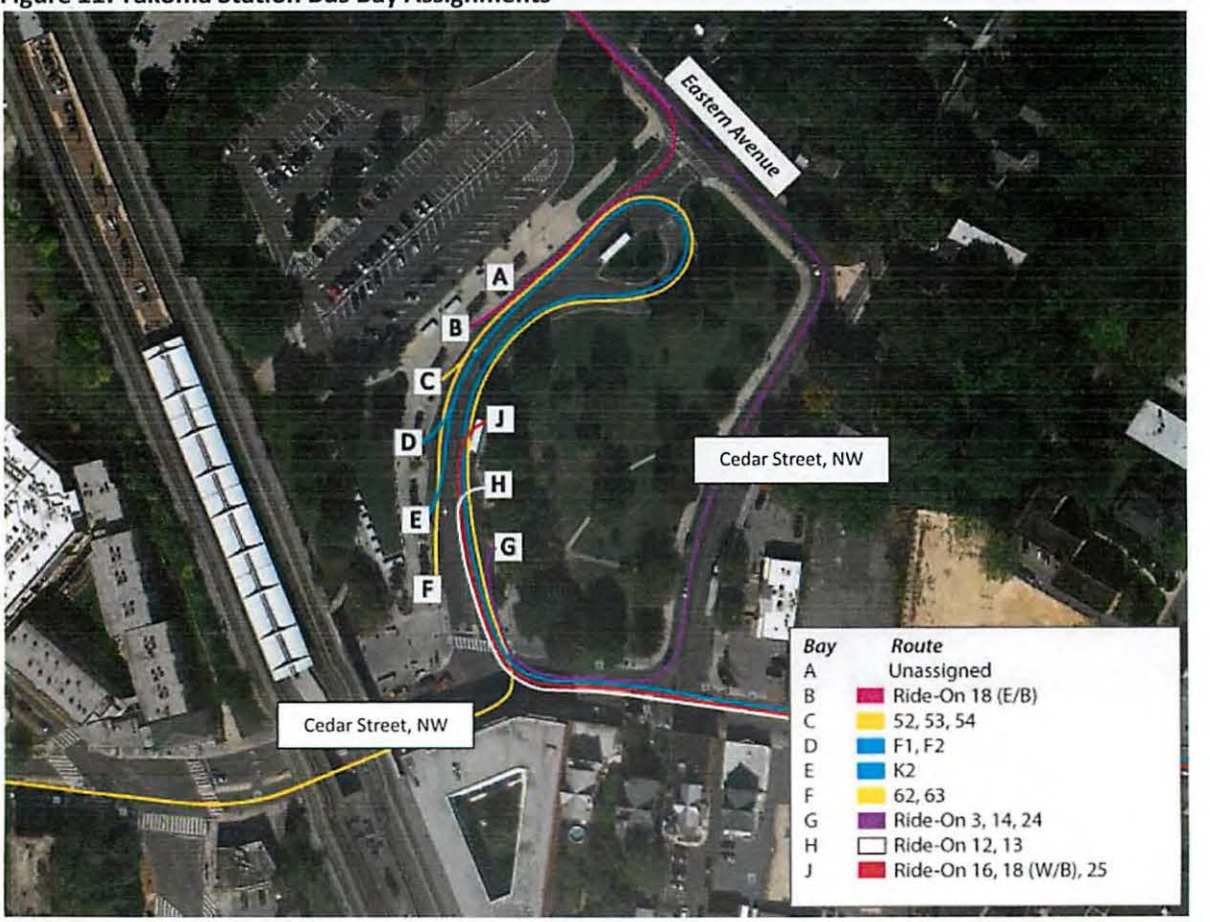
pedestrian desire lines across the bus facility, especially in the direction of the elevator/ADA entrance. This concept is predicated on sufficient space being available between bus bays to accommodate the crosswalk as well as operational considerations.

Consideration should also be given to adding additional lighting and security cameras in the tunnel leading to the elevator on the northeast side of the station.

Bus

Takoma Station is served by WMATA's Metrobus and Montgomery County's Ride On Bus service (**Figure 11**), with 36 and 37 buses arriving during the AM peak hour (7:45 to 8:45 AM) and PM peak hour (5:30 to 6:30 PM), respectively. Metrobus routes 52, 53, 54, F1, F2, K2, 62, and 63 and Ride On routes 3, 12, 13, 14, 16, 18, 24 and 25 directly serve the station's eight saw-tooth bus bays. Bus bay A is currently not assigned. Bays G and J, which are utilized by Ride On routes 3, 14, 24, 16, 18 and 25, are the most frequently served bays at Takoma Station, with each bay serving eight buses during the AM peak hour and eight during the PM peak hour. All bus bays are large enough to accommodate the standard 40-42 foot buses.

Figure 11: Takoma Station Bus Bay Assignments



Source: Google Earth, WMATA

Figure 12: Takoma Bus Operations

Source: WMATA

Table 5: Bus Bay Assignments

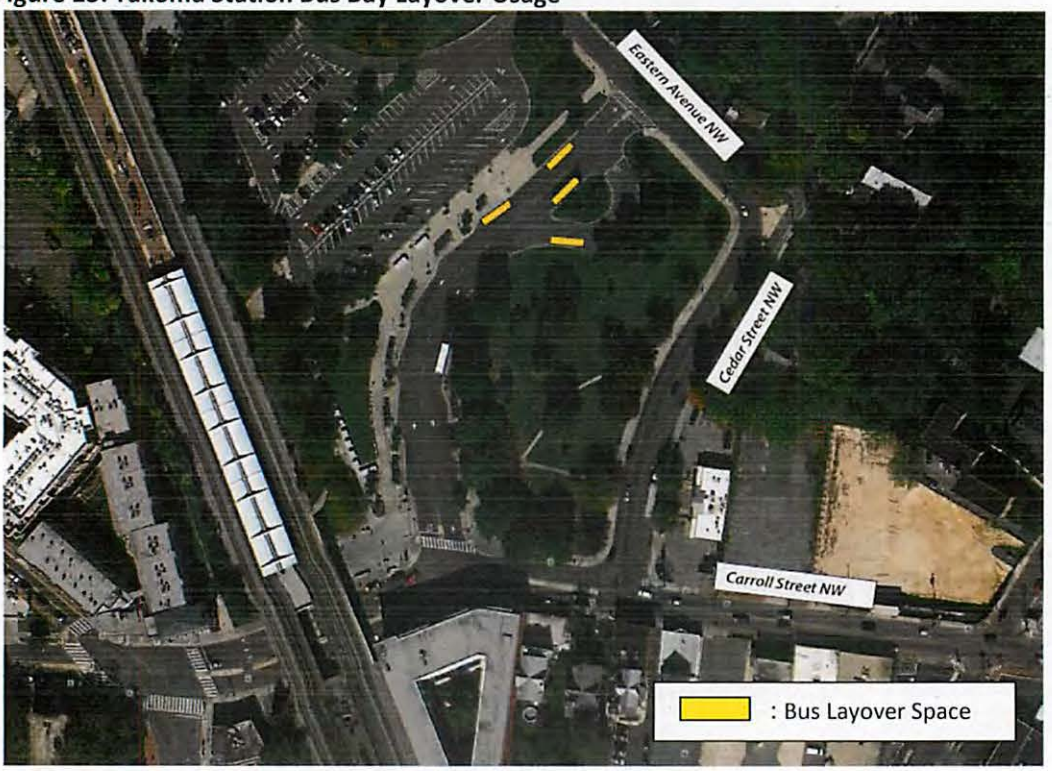
Bay	Route	Destination	Serving	Operator	AM Peak	Mid-day	PM Peak
A	Unassigned						
B	18 EB	Langley Park	Carroll Ave, Maple Ave, Carroll Ave, Langley Pk Shopping Ctr	Ride On	30	30	30
	25	Langley Park	Maple Ave, Sligo Creek Pkwy, Flower Ave, Carroll Ave	Ride On	30	30	30
C	52	L'Enfant Plaza Sta	14th St NW, Independence Ave, D St SW.	WMATA	-	-	-
	53	McPherson Sq Sta	14th St NW, K St NW, 13th St NW	WMATA	15	24	15
	54	L'Enfant Plaza Sta	14th St NW, Penn Ave, 7th St NW	WMATA	-	-	-
D	F1	Cheverly Sta	Chillum Rd., W. Hyattsville Sta., Eastern Ave., Mt. Rainier, Bladensburg, P. G. Hospital, Tuxedo Industrial Park	WMATA	20	40-60	20
	F2	Cheverly Sta	Chillum Rd., W. Hyattsville Sta., Mt. Rainier (local streets), Bladensburg, P. G. Hospital, Tuxedo Industrial Park	WMATA	-	-	-
E	K2	Fort Totten Sta	Eastern Ave, North Capitol St, Kansas Ave	WMATA	20	-	20
F	62	Georgia Ave-Petworth Sta	5th St, Kansas Ave, Georgia Ave	WMATA	-	15	-
	63	Federal Triangle Sta	5th St, Kansas Ave, Georgia Ave, Sherman Ave, Vermont Ave, 13th St, 11th St	WMATA	10	-	10
G	3	Silver Spring Sta	Piney Branch Rd., Dale Dr., Montgomery Hills, 16th St.	Ride On	33-40	-	35-37
	14	Silver Spring Sta	Piney Branch Rd., University Blvd., Franklin Ave., Colesville Rd.	Ride On	30	30	30
	24	Hillandale	Piney Branch Rd., Northwest Park, N. H. Ave., Hillandale	Ride On	30	-	30
H	12	Silver Spring Sta	Carroll Ave., Flower Ave., Wayne Ave.	Ride On	30	30	30
	13	Silver Spring Sta	Carroll Ave., Flower Ave., Manchester Rd., Sligo Creek Pkwy., Colesville Rd.	Ride On	25	-	25
J	16	Silver Spring Sta	Carroll Ave., Ethan Allen Ave., N. H. Ave., Piney Branch Rd., Sligo Ave., Fenton St.	Ride On	-	-	30
	18 WB	Silver Spring Sta	Montgomery College, Eastern Ave., 16th St.	Ride On	30	30	30

Source: WMATA. Note: some routes only serve Takoma Station at off-peak times (52, 54, F2).

Buses access Takoma Station bus bays primarily from Cedar Street, NW. Bays are located along both the west side (station) and east side (green space) of the bus facility (**Figure 11**) with the bays serving Metrobus on the west side and bays serving Ride On buses primarily on the east side. There is a bus loop within the facility allowing buses to turn around to access the west side bays, however, it does not provide for bus recirculation. Recirculation happens on Eastern Avenue and Cedar Street, NW. Up to four buses can layover within the bus facility using the unassigned Bay A and three unofficial curb spaces (**Figure 13**). In addition, up to three Ride On buses can layover on Cedar Street, NW using unofficial curb spaces.

There is a stop sign for buses exiting the facility onto Cedar Street, NW permitting left turns into and out of the facility. Station observations revealed that bus drivers do not experience any significant delay when exiting the facility at this location during peak hours.

Figure 13: Takoma Station Bus Bay Layover Usage



Source: Google Earth, WMATA

Eight of the nine bus bays are used for revenue service with five occupied at a rate of 67% or more during the daily peak hour (**Table 6**). The bus bays serving Ride On routes are the most heavily utilized. Based on a capacity of six buses per hour per bus bay, an additional eight buses could be accommodated in the existing bay configuration and an additional six buses could be accommodated if Bus Bay A were utilized. This indicates that some additional capacity is available for bus service expansion. However, at this time there are no definitive plans to add any bus service.

Table 6: Bus Bay Utilization during the Daily Peak Hour

Route	Provider	Bus Bay	Buses per Peak Hour	Total Time at Bay (minutes)	Bay Utilization
Unassigned		A			
18 EB, 25	Ride On	B	4	40	67%
52/53/54	WMATA	C	4	32	53%
F1/F2	WMATA	D	3	18	30%
K2	WMATA	E	3	15	25%
62/63	WMATA	F	6	48	80%
3,14,24	Ride On	G	7	56	93%
12,13	Ride On	H	6	48	80%
16, 18 WB	Ride On	J	8	50	83%

Roughly the same number of passengers board and alight buses at Takoma station. As shown in **Table 7**, bus ridership encompasses approximately 22% of total weekday transit ridership at the station.

Table 7: Typical Weekday Station Activity

Mode	Daily Entries	Daily Exits
Metrorail	6,186	6,032
All Buses	1,786	1,749
Total	7,972	7,781

Note: Values are approximate. Metrorail and bus counts are from 2013
Sources: WMATA and Ride On

Station observations revealed some level of bus-to-bus transfers across the bus facility (i.e. Metrobus to Ride On). It was also observed that Bay G is sometimes used as an unassigned drop-off bay when it is not occupied by designated Ride On buses. However, most drivers were observed using the assigned bay for drop-off and pick-up.

Consideration should be given to designate Bay G as a dedicated drop-off bay given its proximity to the main station entrance, and construct a new bus bay north of Bay J to serve Ride On routes 3, 14, and 24 (or to otherwise optimize bay assignments for Ride On).

DC Streetcar

The District Department of Transportation is initiating an Alternatives Analysis (AA) to study DC streetcar service in a proposed 9-mile north-south corridor through the District. The proposed line would run from the southwest Waterfront, cross the National Mall, travel up 14th Street, follow Georgia Avenue, and eventually terminate at the Takoma Metro station. The AA will finalize the route and terminus for this line. How the streetcar would interface at Takoma will be an important aspect of the AA. There is not enough capacity in the existing bus bay facility to accommodate the streetcar. The streetcar could operate on the existing street network or on part of the existing Metro owned green space redesigned to accommodate a streetcar stop and turnaround.

Shuttle

No private shuttles currently provide service to the Takoma Station. As summarized in WMATA's *Shuttle Services at Metro Facilities* study (2011), Metrorail stations that are served by private shuttles are most often close, but beyond a reasonable walking distance (about 1/2 mile), to high-density offices and apartment or condominium buildings. The current lack of private shuttle service at Takoma is indicative of a lack of similar activity centers near the station. However, this may change with the redevelopment of the Walter Reed campus which may well include the type of development that shuttles support. Any joint development at the Takoma station should include spaces for shuttle access.

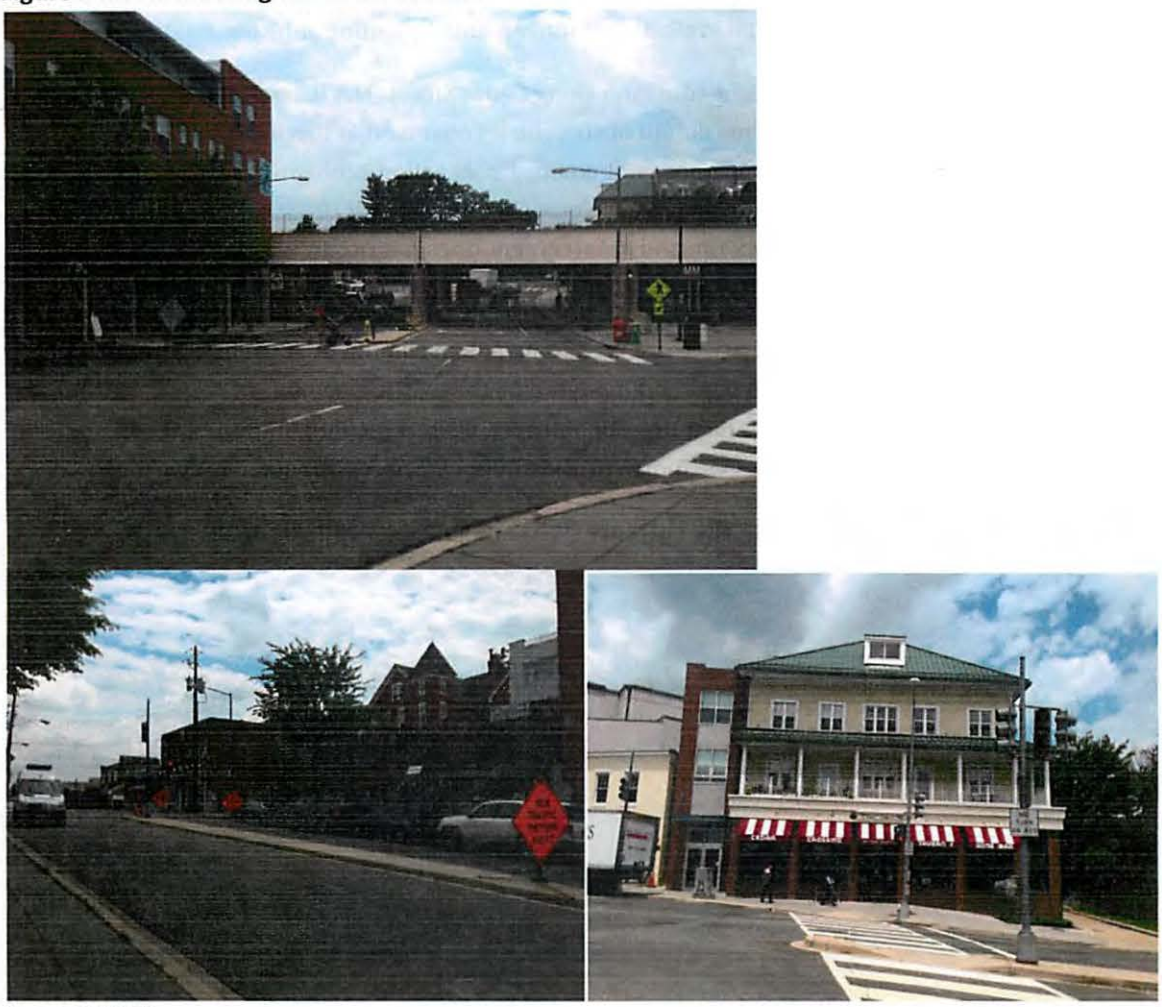
Vehicular Access

Nearby Roadways

The streets around Takoma Station are primarily neighborhood-serving streets that do not experience a high level of congestion. Crosswalks are generally available at key crossing points and intersections. In the immediate vicinity of the station, there is a good coverage of street-level retail, including food service, neighborhood-serving retail, and residential uses (**Figure 14**).

To the east, Cedar Street, NW becomes Carroll Street, NW, which then becomes Carroll Avenue after crossing into Maryland, and this connects to downtown Takoma Park, MD. To the west of the station, Cedar Street, NW connects with several roadways providing north-south connectivity, including Blair Road, NW and Piney Branch Road, NW. These roads connect to North Capitol Street and Georgia Avenue, NW, respectively, which serve a higher level of traffic flow.

Figure 14: Takoma Neighborhood Context



Source: WMATA

Kiss & Ride/ Parking

The Takoma Station Kiss & Ride lot includes 160 general-access spaces: 141 7-Hour metered spaces, 6 ADA-reserved spaces, 5 carsharing spaces, 5 "A-spaces" (attended waiting spaces), and 3 motorcycle spaces. Typically, the metered parking is about 50% full on weekdays. During the PM peak period, when the greatest incidence of motorists waiting to pick up rail passengers typically takes place, it was observed that drivers tend to wait in the A-spaces and queue along the curb closest to the elevator/ADA station entrance. Informal pick up of passengers also occurs on Cedar Street, NW/ Carroll Street in front of the main station entrance, though this area is signed as a no-standing/parking zone during peak periods.

Accordingly, during field observations congestion was not observed to be a problem. Motorists waiting for passengers generally use the curb lane closest to the station ADA entrance (**Figure 15**), though during the PM peak period, they also use the A-spaces as designed as well as the taxi spaces along the

curb. During the PM peak period, a maximum of 14 cars were waiting along the curb and in the A-spaces, though the drive aisles were still available for movements by exiting vehicles.

Motorists also wait informally in the right-turn lane along Cedar Street, NW/Carroll Street, NW adjacent to the station's main entrance, with a maximum of six vehicles observed at this location (**Figure 16**). Though waiting at this location is illegal, it does not create a congestion problem along Cedar/Carroll, since peak traffic flows are not high enough to cause queuing. However, if this location should experience a growth in demand for pick-up, and enforcement does not occur, it is possible that vehicles could block the crosswalk and/or bus bay access roadway.

Overall, demand for Kiss & Ride pick-up was observed to be at a maximum of 20 vehicles during the peak of the PM peak. This demand can be accommodated by the existing number of A-spaces combined with available queuing spaces. If future joint development results in a reconfiguration of the Kiss & Ride lot, it would be an improvement to provide more curbside queuing space for passenger pick-up.

Figure 15: Kiss & Ride Queuing nearest the entrance (left) and looking north along the curb (right)

Source: WMATA

Figure 16: Informal Pick-Up along Cedar Street, NW/Carroll Street, NW

Source: WMATA

Takoma Station's parking capacity is relatively small and the hourly availability of spaces is constrained. The station's surface lot north of the station entrance has a total of 141 metered spaces. These spaces are available at a rate of $1.00 per hour in two separate hourly restrictions. Spots in Section B are available from 8:30AM – 3:30PM, and again from 7PM – 2AM (parking is not permitted during other hours). Spots in Section D are available from 10AM – 2AM daily (parking from 2AM – 10AM is not permitted). Parking was observed to be utilized at about 50% of its capacity, though it is noted that the parking hourly restrictions are likely to have an effect on how the spaces are used. Since all-day parking for a standard 8-hour workday is not permitted, it is more likely that the spaces are utilized for shorter periods or later in the day, and have a higher turnover rate than standard all-day Park & Ride spaces (**Figure 17**).

Figure 17: Takoma Station Parking Lot

Source: WMATA