

TECHNICAL MEMORANDUM

To: Ali Khavari
City of Falls Church Dept. Public Works

From: Kevin Sitzman, P.E.
Jerome Gonzalez

Date: February 18, 2020

Subject: Broad & Washington Redevelopment – Transportation Demand Management (TDM) Program

Introduction

The proposed Broad and Washington mixed-use development is planned to be located in the Downtown/City Center area of the City of Falls Church, at the intersection of E Broad Street and N Washington Street. The development, which is planned to consist of up to 13,400 square feet of retail/restaurant space, 56,600 square feet of grocery store use, a 100-seat live theater, 350 apartments, and publicly available parking, is anticipated to be complete in 2024. The development is situated in close proximity to four major commuter corridors: I-66, Route 7, Route 29, and Route 50. The proposed Broad and Washington redevelopment is located approximately 0.75 miles away from the East Falls Church Metrorail Station as the crow flies. The walking distance from the Metro station to the subject site is approximately 1 mile using the Washington & Old Dominion Trail and North Washington Street. Also, the site is served by three existing local bus routes, one of which features a bus stop adjacent to the site at the intersection of E Broad Street and N Washington Street.

Transportation Demand Management

Transportation Demand Management (TDM) is the establishment of measures to influence travel behavior by mode, frequency, time, route, or trip length in order to achieve a maximally efficient use of transportation facilities. These strategies could be traditional or technology-based services to help people choose transit, ridesharing, walking, biking, etc. instead of solo driving.

Purpose

The City's Comprehensive Plan establishes a vision of providing a transportation network that offers choices in travel modes. The Plan also includes a strategy of meeting increased travel demand within, from, and through the City via non-automobile modes. To that end, the City expects redevelopment activity to use Transportation Demand Management (TDM) and Parking Management Techniques that provide a range of transportation options and reduce the reliance on automobiles.

The Comprehensive Plan identifies TDM as a means to reduce the region's solo driving and has set two goals to increase the use of alternative modes of transportation within and to the City. The City of Fall Church's report on Transit-Oriented Design Within and Beyond the Quarter-Mile outlines the 2030 Performance Targets as:

- *"Achieve a commute mode share of 50 percent non-single occupancy vehicle (SOV) by the year 2030 for City of Falls Church residents.*
- *Achieve a commute mode share of 40 percent non-SOV by the year 2030 for City of Falls Church workers."*

As per the City of Fall Church's report on Transit-Oriented Design Within and Beyond the Quarter-Mile, a full TDM program is recommended for mixed-use developments in excess of 40,000 square feet in area. Hence, a TDM plan was requested for this development in the associated traffic impact study's Scoping Document. The guidelines contained herein provide a variety of strategies that can be incorporated into a TDM plan and a Parking Management Plan for the site to align with the City's vision for the region.

Goals

This TDM and the Parking Management Plan that will be finalized at the time of site plan are designed to achieve the following goals:

1. A 25 percent reduction in single-occupancy vehicle use, as compared with industry-standard Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition projections.
2. Accommodation within the on-site garage of the parking demand for the uses in the building during typical operating hours.

Plan Flexibility

This TDM and the Parking Management Plan strategies recognize that travel behavior may change over time. For that reason, this plan uses a strategy of adaptive management – monitoring performance and updating the strategies applied as necessary to achieve the stated goals. The success of this TDM and Parking Management Plan will be reviewed periodically and updated as needed to deliver on the goals listed above.

TDM Elements

To this effect, the TDM plan includes strategies that are categorized as below. A description of these categories is presented in the following section.

Site Design, Infrastructure, and Options	<ul style="list-style-type: none">▪ Bike racks and storage provided for retail employees, residents and visitors▪ Bikeshare program space reserved▪ Sidewalks improved along property frontage to include landscaping and street furniture to match with the character of the area▪ Crosswalks upgraded along N Washington street and E Broad Street at the intersection of N Washington Street/S Washington Street and E Broad Street/W Broad Street to change from zebra crossing to brick paved transverse type crosswalk so as to match the new crosswalk design adopted by the City▪ Existing bus stop improved along E Broad Street at the intersection of N Washington Street and E Broad Street to mimic other bus shelters in the City. Another similar bus shelter proposed along the western frontage of property.▪ The development will contain two pedestrian routes and one public plaza▪ Parking spaces reserved for car/vanpool▪ Retail employees and residents of the development enrolled in programs such as Commuter Connection’s Guaranteed Ride Home (GRH)▪ Parking spaces reserved for carshare options such as <i>Zipcar</i>▪ Dedicated electric vehicle charging stations provided on each level of parking
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<p>Promotion, Education, and Incentives</p>	<ul style="list-style-type: none"> ▪ Information kiosk/shared screen placed in the common space with information on transit options, bike routes, and walking routes; as well as contact information for Commuter Connections, WMATA, etc. ▪ Website and/or mobile app created for the use of residents with similar information ▪ Common area Wi-fi, copy machine and other business amenities provided to aid the residents who choose to work from home ▪ Retail employees, who may ride the local transit system, enrolled in <i>SmartBenefits</i> program, new lessee/owner provided with pre-loaded <i>SmartTrip</i> card to use in WMATA services ▪ Unbundling of parking fees with unit/lease
<p>Monitoring and Enforcement</p>	<ul style="list-style-type: none"> ▪ TMP coordinator appointed to oversee implementation and marketing of TDM strategies ▪ Surveys conducted to assess the mode split, travel attitudes and willingness to switch modes ▪ Car and bike parking occupancy surveys conducted to assess the success and need of improved infrastructure ▪ The development will submit “TDM Performance Report” starting one year from the initial occupancy at one-year intervals, for five years ▪ Parking barrier gate arm placed at the entrance of parking garage used by residents
<p>Adaptive Management</p>	<ul style="list-style-type: none"> ▪ Taking the findings of the TDM Performance Report, appropriate modification to the existing strategies will be made ▪ If existing strategies are found to be insufficient, new strategies will be implemented

Implementation Timeframe

1. *Site Design, Infrastructure, and Options*

These options will be provided when the project is opened for operation. The options include provision of bicycle accommodations, car-share program, pedestrian facilities, and electric vehicle charging stations.

2. *Promotion, Education, and Incentives*

These options will be provided while the project is in operation. The options include provision of interactive resources for residents/customers/visitors, rideshare matching, infrastructure to support safer public transportation, transit program incentives, and unbundling of residential parking with leases. Active marketing of transportation strategies will also be undertaken.

3. *Monitoring, Enforcement and Adaptive Management*

These techniques will be used to measure performance of the implemented strategies, ensure compliance, and assess whether the strategies applied are meeting the goals of the plan. The tasks will include appointing a transportation management plan (TMP) coordinator and conducting transportation surveys at regular intervals. Additional techniques will be used if the implemented strategies are not sufficient to meet the goals of the plan. Note that this list is not exhaustive. Other strategies as needed will be used to meet the performance goals.

Site Design, Infrastructure, and Options

Bicycle Accommodations

As of May 2019, a Capital Bikeshare station exists along Park Place, near the intersection of N Washington Street. Additionally, bicycle racks will be installed along the sidewalk adjacent to the site's street frontage and secure bicycle storage facilities will be provided for the residents within the building. At minimum, a total of 90 indoor bicycle parking spaces and 6 outdoor spaces will be provided within the building and parking garage in accordance with City of Alexandria bicycle parking guidelines, currently in use by the City of Falls Church. The resident spaces will be located in a secure room or enclosed area, where they will be assigned on an individual basis to residents free of charge. Bike racks for visitors will be located in proximity to the pedestrian entrances to the building and will be distributed across the street frontage to maximize convenience to the users. The physical layout of the bicycle facilities, including, but not limited to, type of bike rack, placement of racks, and spacing of racks, will adhere to the City's Standards.

The City's Comprehensive Plan, in its chapter on transportation, mentions establishing a 'City Bike Route' as depicted in blue in Figure 1.

Figure 2 illustrates the future bikeshare corridors in the City. Washington Street corridor, marked in yellow, lies adjacent to the development's western frontage.

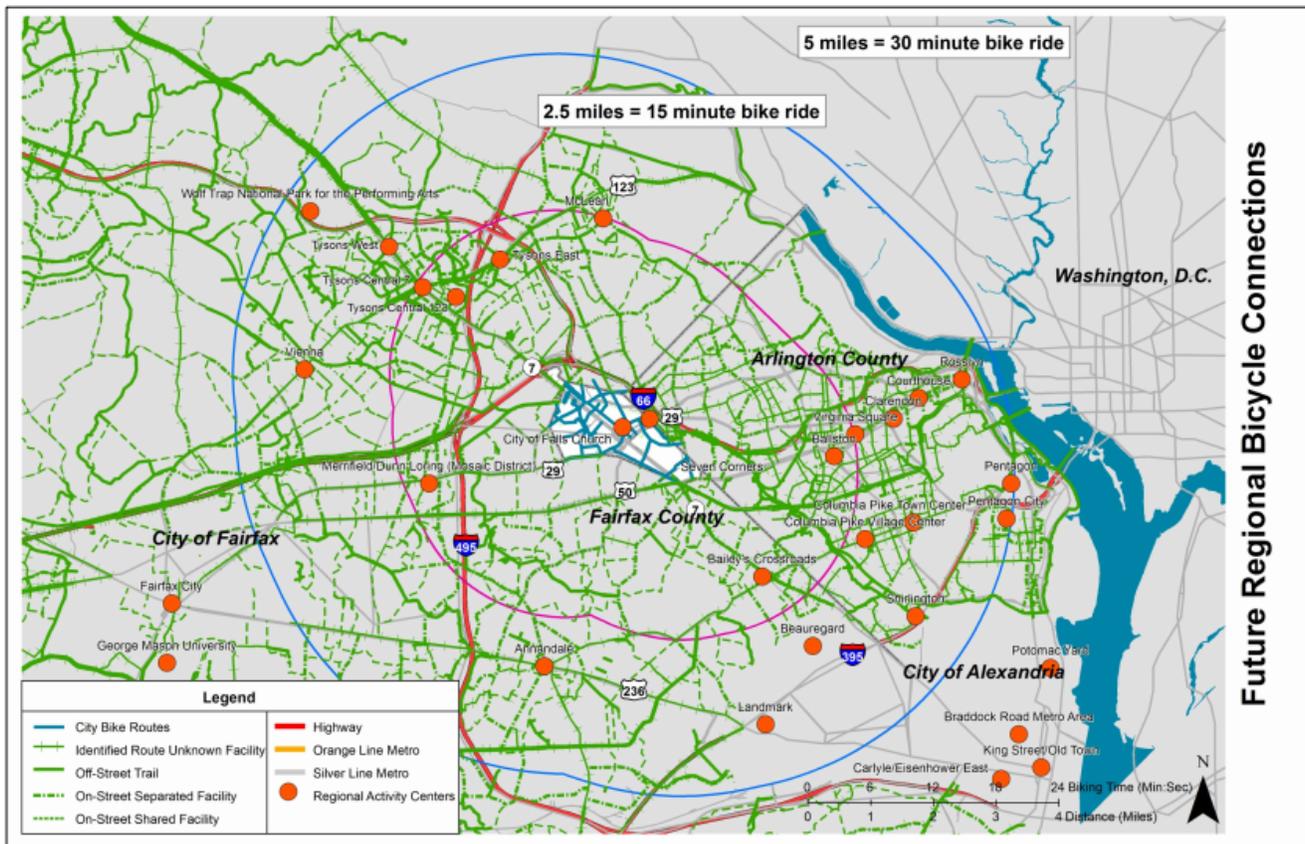


Figure 1: Future Bicycle Routes in the City of Falls Church (Source: Bicycle Master Plan, City of Falls Church, Virginia)

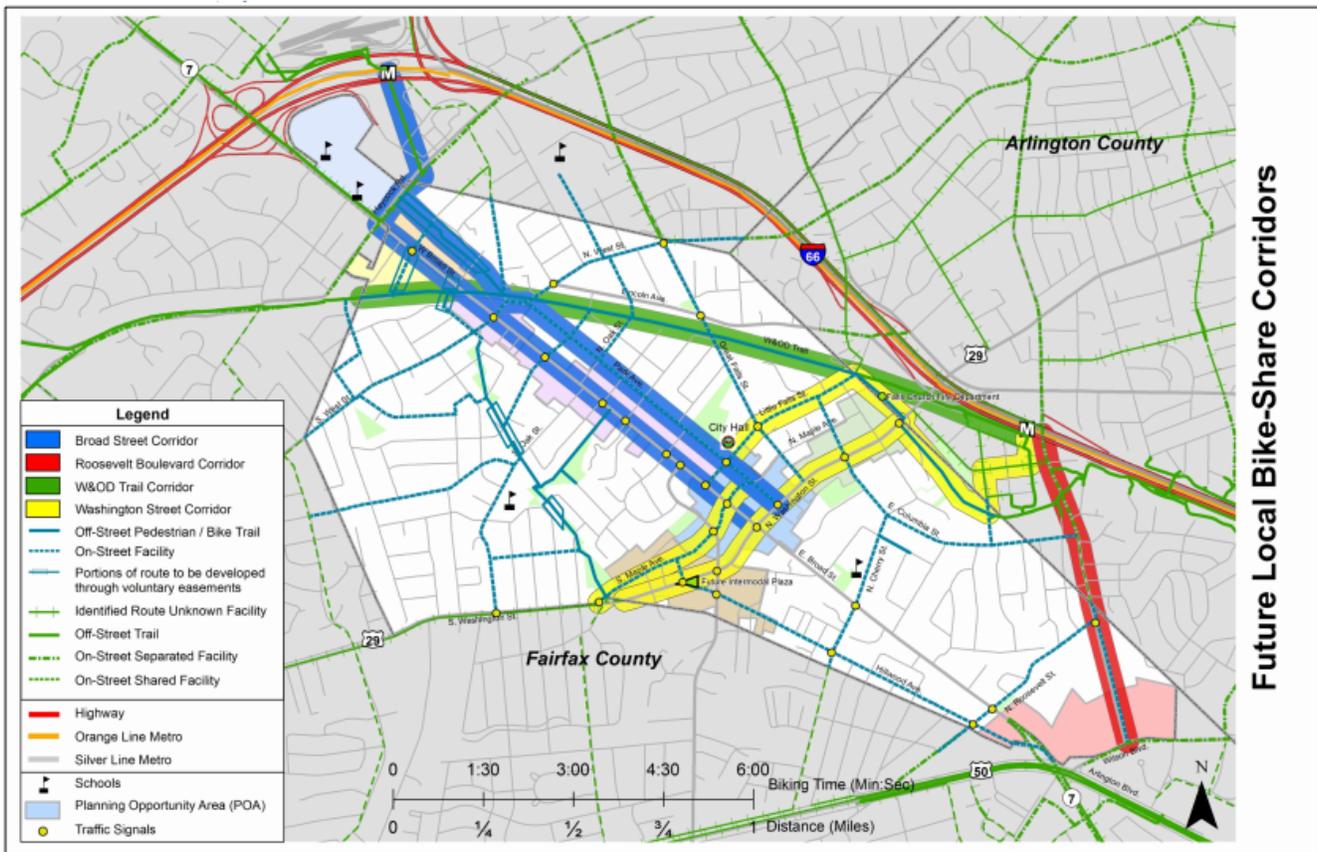


Figure 2: Future Local Bike-Share Corridors in the City of Falls Church (Source: City of Falls Church, Virginia Bicycle Master Plan, Connecting Communities)

Pedestrian Amenities

The redevelopment will improve the crosswalks along N Washington street and E Broad Street at the intersection of N Washington Street/S Washington Street (Washington Street) and E Broad Street/W Broad Street (Broad Street), to match the City’s vision in it Comprehensive Plan. The crosswalks are currently in the form of painted zebra crossings and will be updated to have special paving blocks.

The redevelopment will also improve the sidewalks along the periphery of the development. Wide and specially paved sidewalks with landscaping, equipped with street furniture, will provide for an attractive and inviting space for pedestrians using the ground level restaurants and shops.

In addition, the redevelopment is also planned to include two pedestrian connectivity routes. The first pedestrian route connects Washington Street to the City’s Public Parking Lot just north of the redevelopment. This pedestrian route will also be accessible to the pedestrians using the public plaza that is planned at the northeast corner of the intersection of Washington Street and Broad Street. The other pedestrian route is planned to connect Lawton Street and Broad Street to the public parking, north of the site, via a walkway along the northern frontage of the site.

Public Transportation

As part of the proposed Broad and Washington Redevelopment, two bus shelters are being proposed which will include appropriate signage, shelter, and landing pad amenities, such as bus schedule and real-time route information if available. The first bus shelter location will be the existing bus stop situated along the westbound approach at the intersection of Broad Street

and Washington Street. Currently, only a pole with Metrobus sign and route number exists at the bus stop location. The style of bus stop will be selected by the City and will mimic other bus shelters in the City. The second proposed bus shelter will be located along the western frontage of the proposed development along N Washington Street. This facility will provide a level of safety and protection to riders in case of inclement weather and encourage ridership at such times. The Metrobus route map is shown in Figure 3. An image of a typical bus shelter as shown in the City's Bus Stop and Bus Shelter Master Plan is shown in Figure 4.

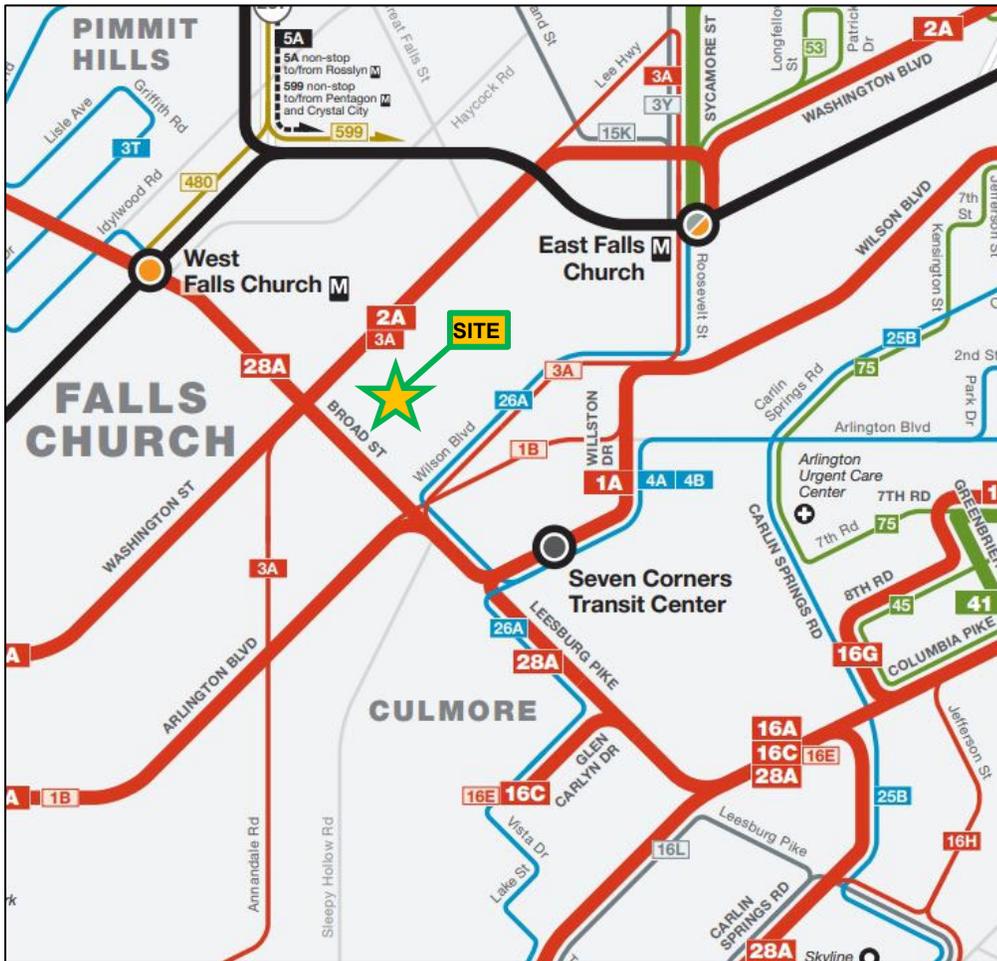


Figure 3: Existing Transit Service in the Vicinity of the Proposed Development



Figure 4: Typical Bus Shelter Described in the City's Bus Stop and Bus Shelter Master Plan (Source: Chapter 7: Mobility for All, City of Falls Church Comprehensive Plan)

Ridesharing Marketing

Various methods will encourage and promote rideshare matching and incentives for car/vanpooling for both residents and (non-resident) employees using the proposed development. Three parking spaces for carpool/vanpool vehicles will be reserved on the second level of parking closest to the elevators. If residents or workers in the buildings join a vanpool and they park the van onsite, parking spaces shall be reserved near the garage entrance/exit at no cost. The intent is to make it easy for the van driver to navigate the garage.

Other strategies include transportation fairs, distribution of ridesharing marketing material to residents and employees, and displaying informational material, such as posters, brochures, etc., in common areas like hallways, elevators, restrooms, water fountains, building management offices, and public space notice boards.

A reason often cited to not participate in ridesharing arrangements is the need to have a personal vehicle at hand for emergency situations. A number of innovative programs, such as Commuter Connection's Guaranteed Ride Home (GRH), have been developed to provide emergency transportation to one's home or child's school or daycare, and will be made available to residents and visitors of the development.

Car Share Programs

Two parking spaces for a car sharing program, such as *Zipcar*, will be reserved in the parking garage, providing a convenience for residents who don't own an automobile and others who use car sharing as an occasional method of transportation to maintain a car-free lifestyle. Space shall be set aside for signs to direct pedestrians to the car sharing spaces in the event a company like *Zipcar* uses the spaces.

Electric Vehicle Charging Stations

At least two parking spaces on each floor will be served by an electric vehicle charging station with two 400-volt ports, one for each space, to enable fast battery re-charging times ranging from 1 to 3 hours. These spaces will be restricted to electric vehicle use only and will be signed accordingly.

Promotion, Education, and Incentives

Active Marketing

The TMP coordinator will serve as the focal point for all commuter transportation initiatives. The TMP coordinator's name and contact information will be posted in employee break areas, the rental leasing company website, and other locations within the proposed buildings and parking garage. Additionally, the TMP coordinator will establish a calendar of events, provide regular employee and renter communications, conduct targeted vanpool and transit marketing and other outreach to keep commuting at the forefront of the resident environment. The TMP coordinator will also support bicycling efforts by sponsoring events such as "Bike to Work" and encourage participation in "Air Quality Action Days".

Interactive Internet Resources

As appropriate, an information kiosk/shared screen will be set up in the common space to be shared by the regular users (residents and retail workers) and restaurant/retail visitors. This screen will provide commuting information such as transit options, bus arrival times, bike routes, and walking routes, and links to external transportation services such as Commuter Connections may be installed. A website/mobile app will be developed for residents and may also be extended to the occasional users of the space including similar information as on the shared screen. Links to websites, such as Commuter Connections (<http://www.commuterconnections.org>), on the website/app will serve as the platform in which the residents can interact for the purpose of setting up carpools. Links to websites for the local transit opportunities, such as Metro (<http://www.wmata.com>) can also be included. In addition, to support the residents who may choose to work from home, a business center with free Wi-Fi, copy machine and other business services shall be provided and maintained.

Transit Program

Transit subsidy programs will include incentives to utilize the regional Metrorail/Metrobus system. The property management company and retail tenants with employees who either ride transit or vanpool will be encouraged to enroll in a *SmartBenefits* pre-tax benefits program to help them take advantage of available automated and convenient tax savings on their transit costs. During initial lease up of the project, new tenants will be provided with a *SmartTrip* Card with \$20 pre-loaded. This program will encourage the use of Metrorail and Metrobus, with East Falls Church Metro station being only a mile's walking distance from the site location.

Monitoring and Enforcement of TDM Strategies

Appoint Transportation Management Plan (TMP) Coordinator

Designate a member of the Broad & Washington building management or leasing office to serve as the TMP coordinator. The TMP coordinator will function as the primary point of contact with the City and will undertake the implementing, coordinating, and managing of all TDM obligations. Additionally, the TMP coordinator will oversee the enforcement and monitoring of the strategies included in the TDM plan.

Transportation Surveys

Surveys are useful in determining commuting patterns, mode split, average commute distance and travel times, employee and resident attitudes, needs, and willingness to switch modes. In order to set objectives and monitor performance, resident and (non-resident) employee transportation surveys would be conducted on a bi-yearly basis. The data is useful in developing successful transportation programs, such as transit subsidies, and car and vanpool programs. In addition to the travel survey,

the TMP coordinator would conduct counts of car and bicycle parking usage and deliver them to the City. The counts for car parking would be broken down by the various areas nested within the garage. The developer would submit a "TDM Performance Report" beginning one year from the initial occupancy and at one-year intervals for five years. This would help to assess the success of the existing TDM efforts and the need for new or improved strategies to meet the goals.

Adaptive Management of TDM Strategies

As mentioned above, a TDM Performance Report will be submitted to the City annually. This will include a summary of transportation and parking occupancy surveys to help assess the effectiveness of the TDM efforts and the need for new or improved strategies to meet the goals. If the TDM or parking goals are not met during the prior year, the TMP coordinator will meet with City staff to determine if additional monitoring or alternate strategies are appropriate. If alternate measures are deemed necessary, these will be determined cooperatively between City staff and the TMP coordinator and will be outlined in a written update to this TDM plan, along with implementation timeframes and any associated modification of TDM goals.

Parking Management Strategies

Managed Parking

The proposed Broad and Washington Redevelopment will be served by approximately 600 parking spaces within a three-level parking garage. Of those parking spaces, approximately 360 will be dedicated to residential use and 240 for retail use. Effective directional signage will be provided to direct residents, visitors, and customers to the appropriate locations in the parking garage.

Residential parking spaces will not be bundled with units and leases. Unbundling parking from leases reduces parking demand because individuals are less likely to pay for and use parking when they know the cost and have alternative travel options. Parking spaces will be available for a separate fee.

In addition, the site may choose to participate or lead the development of a parking plan for the area, for example being part of a local *SpotHero* program. This plan will help visitors to the retail establishments locate spaces, anticipate the parking costs and reserve parking spots in nearby parking garages in advance of their visit.

A formal Parking Management Plan will be submitted to City staff for review prior to the approval of the site plan. This Parking Management Plan will provide details of:

- The numbers and locations of parking spaces allocated for, or shared between, the various uses in the buildings.
- The numbers and locations of reserved parking spaces in the garage, including accessible spaces and short-term reserved pick-up/drop-off areas.
- The hours of operation of the parking garage dedicated for the various uses in the buildings.
- The operation and management of the spaces, including access and revenue control equipment, employee parking, towing enforcement, and hours of operation.
- Planned event management strategies, including communication with adjacent retail and event operators.

Truck Access Management

Truck delivery, trash collection, and service functions will be actively managed to minimize adverse operation and safety impacts to the adjacent land uses and users of the local area roadway network.

The Parking Management Plan will also provide details of the operational hours and management of the residential move-in/move-out, retail and grocery deliveries, and trash removal operations.

Conclusion

The proposed Broad and Washington mixed-use development will implement a variety of strategies in a Transportation Demand Management (TDM) plan for the site to align with the City's vision for the region.

TDM strategies suggested in this program have been broken down in the following categories:

1. *Site Design, Infrastructure, and Options*

These options will be provided when the project is opened for operation. The options include provision of bicycle accommodations, car-share program, pedestrian facilities, electric vehicle charging stations.

2. *Promotion, Education, and Incentives*

These options will be provided while the project is in operation. The options include provision of interactive, intra/internet resources for residents/customers/visitors., rideshare matching, infrastructure to support safer public transportation, transit program incentives, unbundling of residential parking with units and leases. Active marketing of transportation strategies will also be undertaken.

3. *Monitoring, Enforcement and Adaptive Management*

These techniques will be used to measure performance of the implemented strategies, ensure compliance, and assess whether the strategies applied are meeting the goals of the plan. The tasks will include appointing a transportation management plan (TMP) coordinator and conducting transportation surveys at regular intervals.

Implementation and regular monitoring and updating of these strategies would maximize the use of available transportation alternatives. These actions would significantly limit the number of single-occupancy vehicle trips and help the City achieve its goal of making the Downtown area a vibrant, economically viable, diverse, walkable, bike friendly destination to truly become the "Heart of the City."