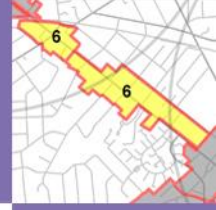


6. Mobility & Accessibility

Introduction

The West Broad Street area provides a high level of automobile access, but access for other modes of transportation (pedestrian, bicycle, and transit) are limited. West Broad Street (State Route 7) is the most used road in the City, carrying over 29,000 car trips per day. In contrast, safe crossings for pedestrians and bicyclists to cross West Broad Street are limited. Because transit riders are also pedestrians, their access is also limited.

In order to achieve this Plan's vision of developing the West Broad Street POA as a vibrant, walking, bicycle friendly area, mobility projects will have to focus on increasing pedestrian, bicycle, and transit access. Because of the high use of automobiles in the City and the region, changes in the transportation network should maintain automobile accessibility.

This chapter describes existing conditions for each mode of travel and strategies for increasing accessibility. This chapter does not discuss specific streetscape elements. Those elements are described in the chapter titled "Character & Design".

Pedestrian

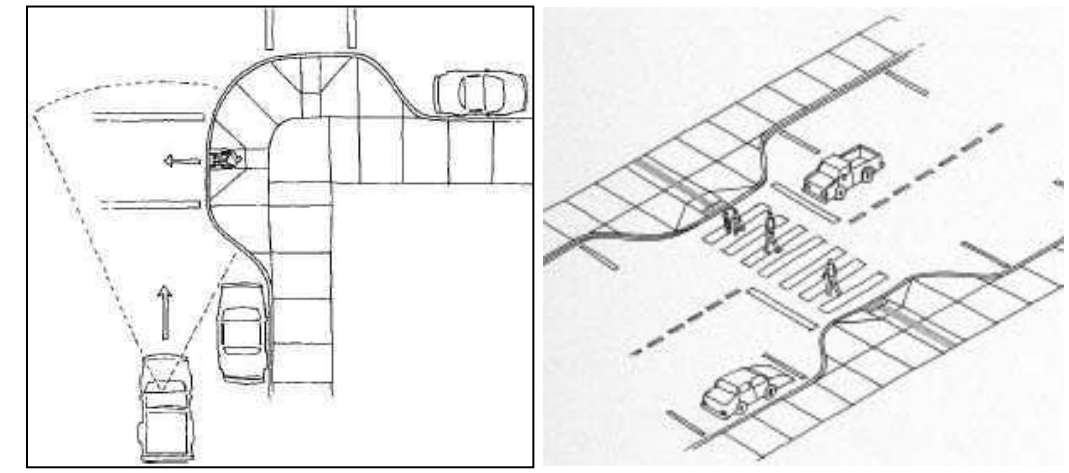
Sidewalks are generally present on both of sides of the street throughout the area. However, pedestrian accessibility in the POA is limited by a lack of adequate sidewalks, sidewalk obstructions, aging crosswalks, numerous curb-cuts, and wide thoroughfares. A map of sidewalk obstructions and deficiencies is shown on page 6-3.

Sidewalk Widths

The City's Design Guidelines call for sidewalks widths of 10 feet in commercial areas. A sidewalk width of 5 feet is the minimum needed to allow 2 adults to comfortably walk side by side. Within the POA, many sidewalks do not meet these guidelines.

Strategy: Sidewalks in the area should be widened to allow at least 6 feet of pedestrian space.

Above: Various sidewalk obstructions including utility poles, decorative street lamps, and gaps in the streetscape.



Above: Illustrations of a curb extension (Top Left) and a mid-block crossing (Top Right), and an example of a HAWK Signal (Bottom) from the Federal Highway Administration.

Sidewalk Obstructions

Many sidewalks in the area are obstructed by utility poles, street lights, and other infrastructure. These obstructions reduce sidewalk width and, in some cases, conflict with ADA requirements.

Strategy: Sidewalk obstructions should be removed or relocated.

Safe Crossings

Best practices in pedestrian planning call for safe crossings every 300 to 400 feet. However, in the downtown area, safe pedestrian crossings of West Broad Street can be separated by as much as 0.5 miles (more than 6 times the recommended distance).

Strategy: Additional pedestrian crossings should be added to provide a safe crossing every 300 to 400 feet. This could include crossings at intersection and midblock crossings.

Intersection Geometry

Except for West Broad Street, most streets in the area provide on-street parking. On-street parking provides a safety barrier for sidewalk users and, as such, increases pedestrian safety. However, near intersections, parallel parked cars limit visibility and parking lanes increase the distance a pedestrian must cover to cross the street.

Strategy: Curb extensions should be incorporated into intersections to prevent people from parking too close to intersections and to shorten the distance pedestrians need to walk to cross the street.

West Broad Street

Connecting Falls Church

Existing Pedestrian Conditions

Surface

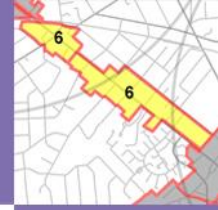
- Surface Parking / Drive
- Roads
- Buildings
- Sidewalks

Sidewalk Deficits

- Damaged
- Guy Wire
- Obstacle
- Uneven

Crosswalks

- Brick
- Ladder
- Parallel Line
- Zebra
- Signalized Intersection



Pedestrian Improvements

- Brick Sidewalk
- Enhanced / Decorative Crosswalk
- Mid-Block Crosswalk
- Curb Extension

No curb extensions into West Broad Street

Map Based on 2013 Aerial Imagery for City of Falls Church

Transit - Metrobus

Bus service in the area is provided by the Washington Metropolitan Area Transit Authority (WMATA) Metrobus system. Service runs along West Broad Street. Buses arrive approximately every 15 to 20 minutes during rush hour and approximately every 30 minutes to an hour outside of rush hour.

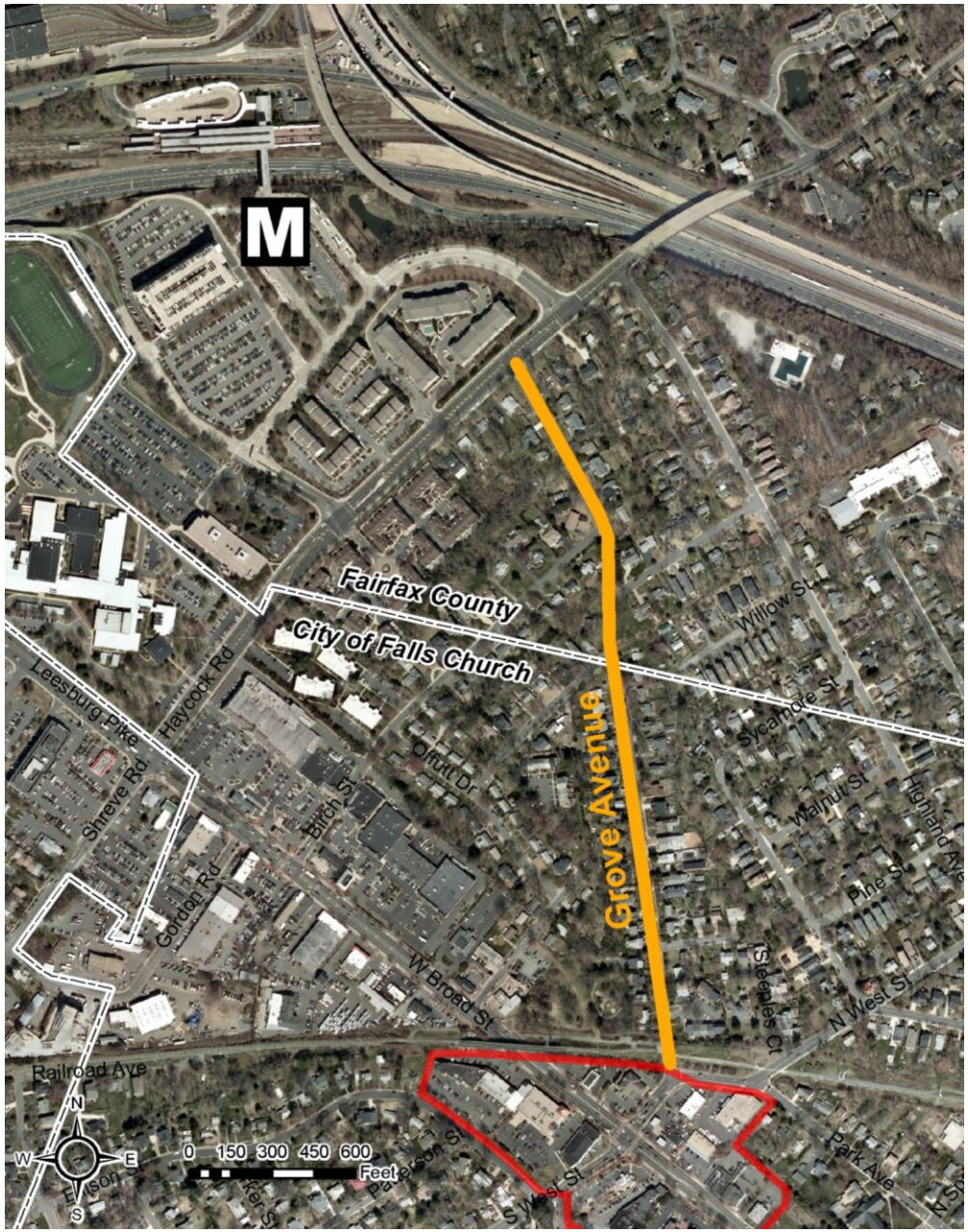
Route	West Terminus	East Terminus	Frequency
28A	Tysons Corner Metro Station	King St – Old Town Metro Station	20-30 min
Extra 28X (rush hour)	Tysons Corner Center	Mark Center Transit Station	15 min
3T	East Falls Church Metro Station	McLean Metro Station	20-60 min

There are fourteen bus stops in the West Broad Street POA, eight westbound and six eastbound. All bus stops in the POA are positioned along West Broad Street and most are marked with a simple sign. Some stops include benches, and the bus stops in front of The Byron and at the northeastern corner of the intersection with Virginia Avenue have full shelters. All properties in the West Broad Street POA are within 1/8 mile of a bus stop, which is less than a five minute walk.

Bus Stop Amenities and Bus Shelters

Most stops in the area are marked by a simple pole. The City's *Bus Stop and Bus Shelter Master Plan* calls for consolidation and enhancement of bus stops along West Broad Street. Bus stop consolidation will increase travel speeds for transit riders. Bus stop enhancements, such as shelters, benches, trash cans,

Above: Illustrations of enhanced bus stops from the *Bus Stop and Bus Shelter Master Plan* and the *Mobility for All Modes* chapter of the Comprehensive Plan.



and maps will improve rider comfort and make riding the bus a more attractive travel choice.

Strategy: Complete the bus stop and bus shelter enhancements identified in the City's *Bus Stop and Bus Shelter Master Plan*.

Bus Frequency

Bus service in the corridor arrives approximately every 15 minutes during rush hour. During non-peak travel times, service frequency drops to every 30 minutes. This low level of service means that travel by bus is not time competitive with other modes. To make bus travel more competitive with other travel options, the City's *Mobility for all Modes* plan calls for increasing bus service frequency to 15 minutes throughout the day.

Strategy: Work with WMATA and other service providers to provide 15 minute service throughout the day.

Strategy: Continue to work with the Northern Virginia Transportation Commission (NVTC) and neighboring jurisdictions on the Route 7 Transit Alternatives Analysis to plan meaningful, cost-effective transit solutions, like Bus Rapid Transit (BRT).

Transit - Metrorail

The POA is located within 3/4 of the East Falls Church Metro Station (Orange Line and Silver Line) at the easternmost end of the POA, and 2/3 of a mile from the West Falls Church Metro Station (Orange Line) at the westernmost end of the POA.

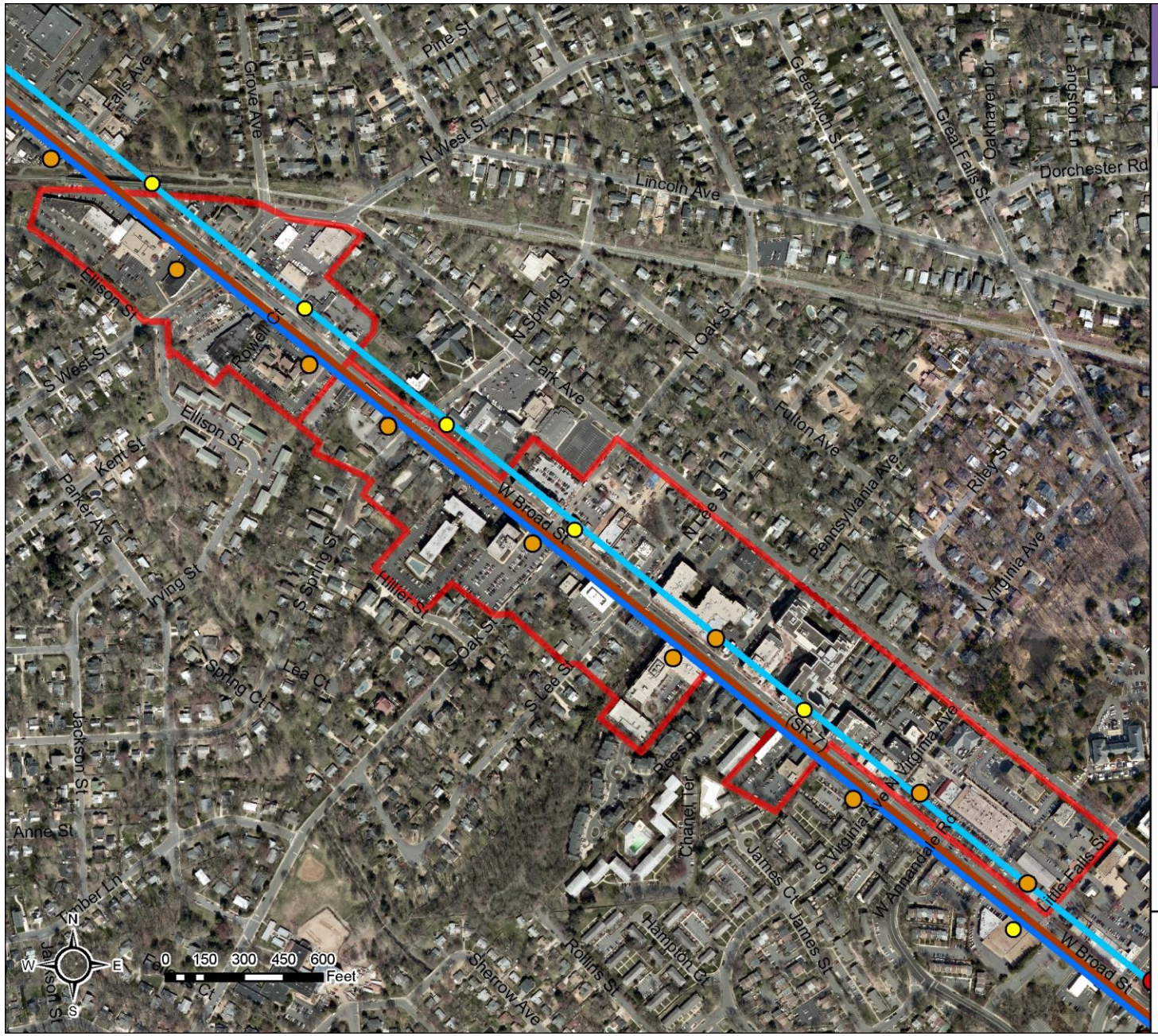
Connecting to Metro

Grove Avenue provides a nearly direct connection between the western edge of the POA, the W&OD Trail, and the West Falls Church Metro Station.

Strategy: Increase pedestrian and bicycle accessibility and safety along Grove Avenue to provide a strong connection between the POA and the West Falls Church Metro Station.

West Broad Street

Connecting Falls Church



Existing Bus Infrastructure

West Broad Street POA

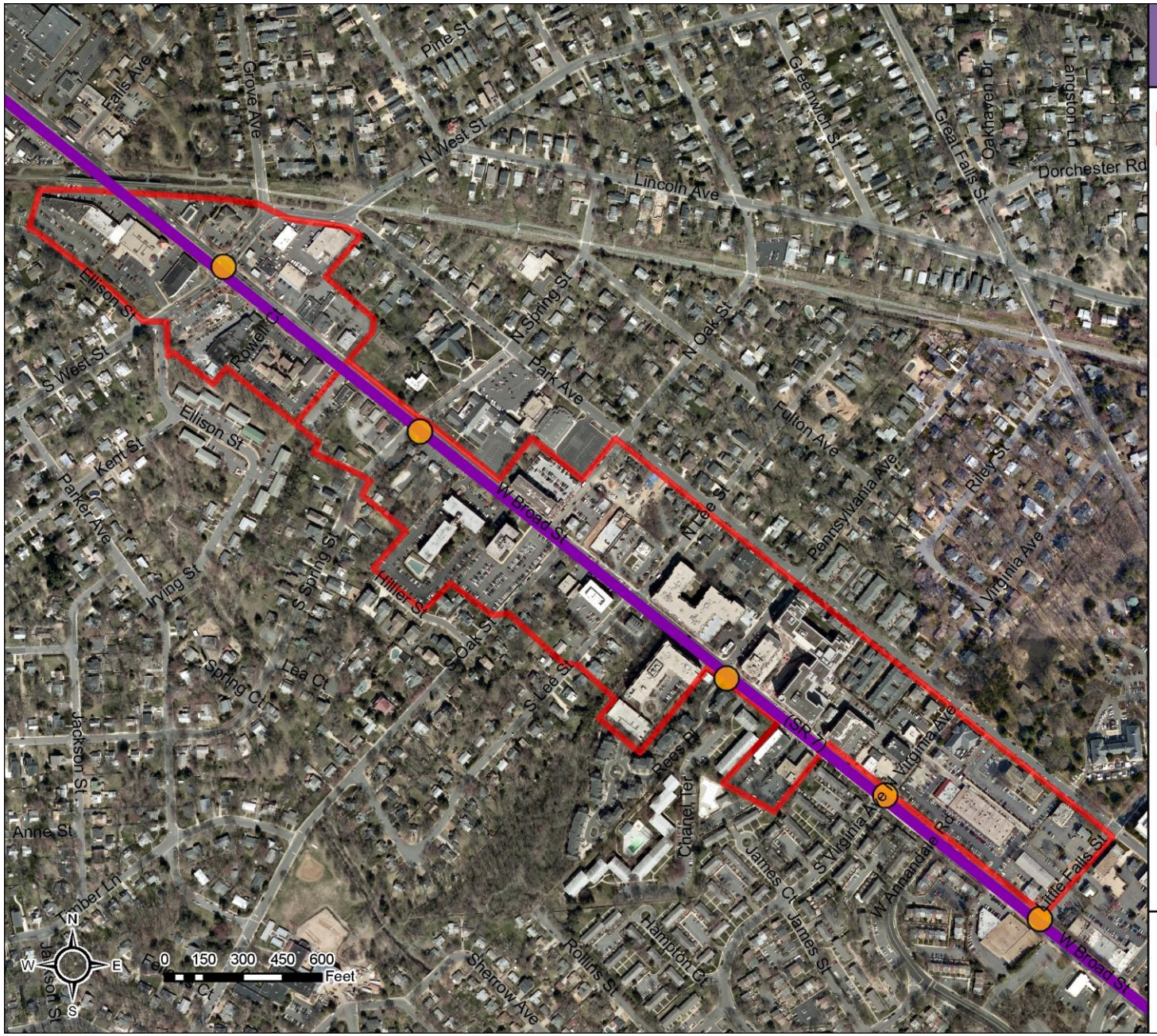
Existing Bus Stops (Boardings/Day)

- Fewer than 15
- Fewer than 50
- 50 or More

Existing Bus Routes

- 28A, 28X
- 3T

Map Based on 2013 Aerial Imagery for City of Falls Church



Bus Enhancement

West Broad Street POA

Consolidated Bus Stops

High Frequency Bus Service and Possible Future High Capacity Transit

Map Based on 2013 Aerial Imagery for City of Falls Church

Bicycle

There are currently no dedicated City bicycle lanes or off-street trails within the West Broad Street POA. However, the W&OD Trail, a major regional trail runs just outside the POA, and the City recently marked Park Avenue as a designated bicycle route with shared-lane markings ("sharrows") and wayfinding signs. This route directly connects the POA to the W&OD Trail.

Bicycle Routes

The City recently adopted a *Bicycle Master Plan*, which identifies future bicycle routes throughout the entire City. Several of those future routes run through the POA. Once completed, the routes will provide better bicycle access.

Strategy: Complete the bicycle routes identified in the City's *Bicycle Master Plan*.

Bike-Share

The City recently adopted the *Bicycle Master Plan*, which identifies future corridors for bike-share and a timeline for installing the system. Bike-share is a good tool for increasing bike accessibility by making the bikes themselves more available. Bike-sharing systems are becoming more and more common in both urban and suburban areas throughout the country.

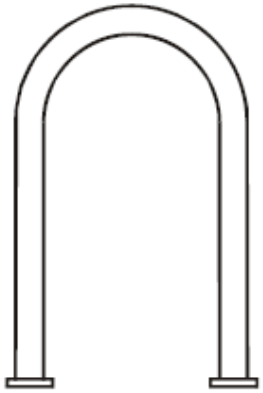
Strategy: Install bike-share along the corridors identified in the City's *Bicycle Master Plan*.

Bicycle Parking

Several bicycle racks exist along West Broad Street within the POA, and some have been built into the streetscape in front of the Flower Building and The Spectrum. Easy to find bike racks are an important part of bicycle accessibility. People who choose to bike need a safe and secure way to lock their bikes while in the area.

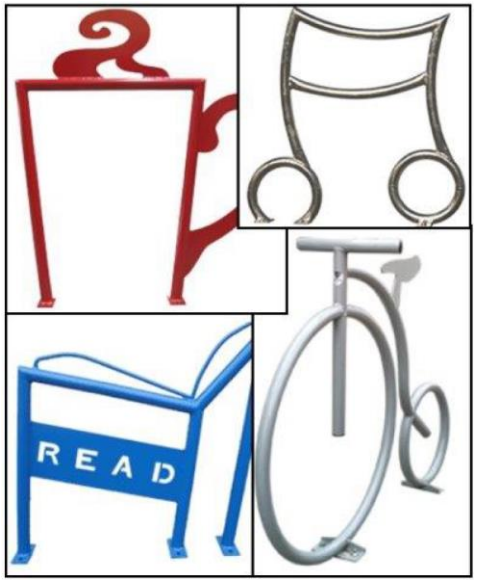
Above: Bicycle sharrows and wayfinding signage installed along Park Avenue in Summer 2014.

Below: "Ribbon Rack" style bicycle racks are incorporated into the streetscape along West Broad Street in front of The Flower Building (Left) and The Spectrum (Right).



Inverted "U"

One rack element supports two bikes

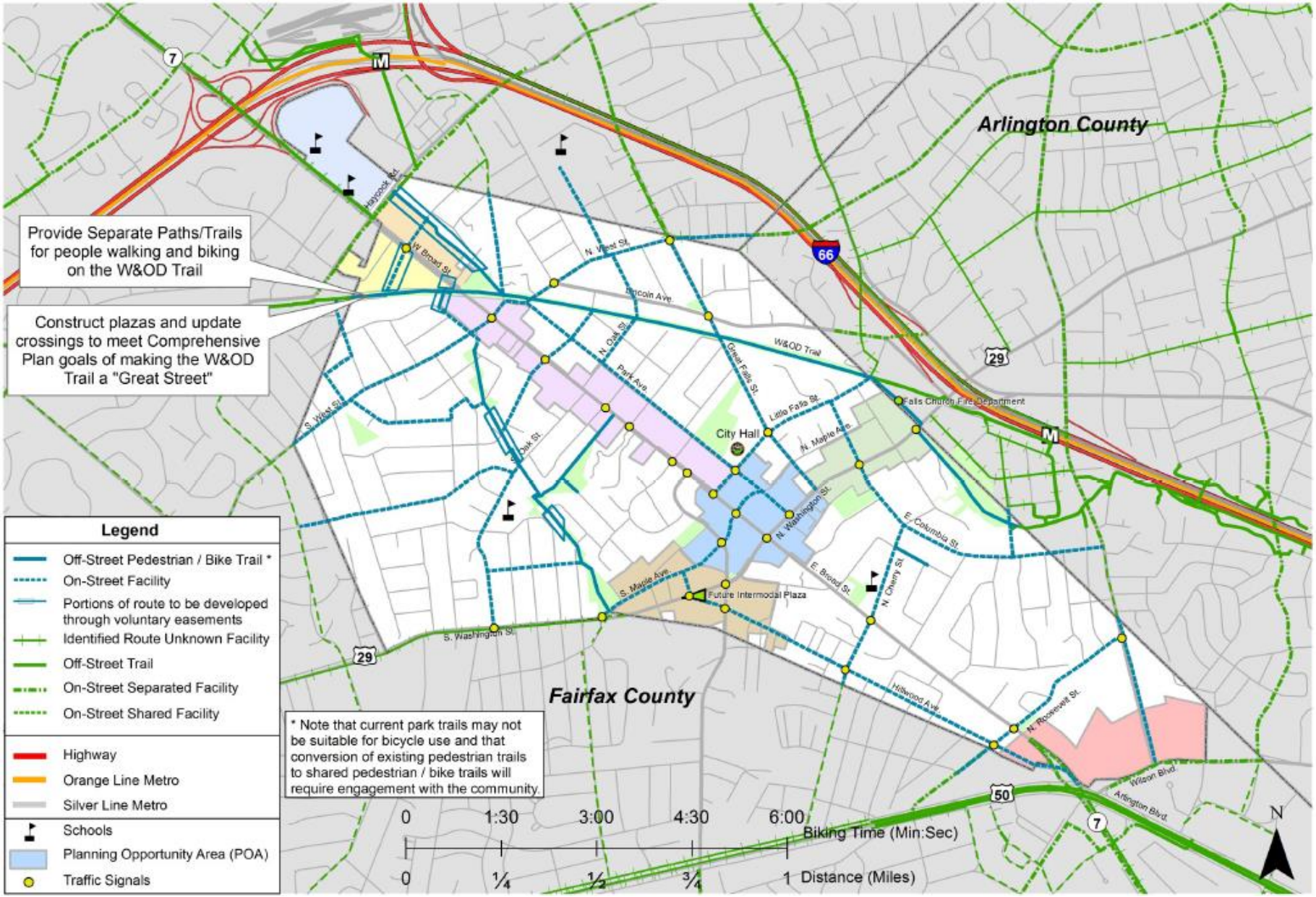


Above: An illustration of a standard Inverted "U" bicycle rack from the FHWA website (Left) and examples of custom bicycle racks manufactured by Dero that can add visual interest to the streetscape (Right).

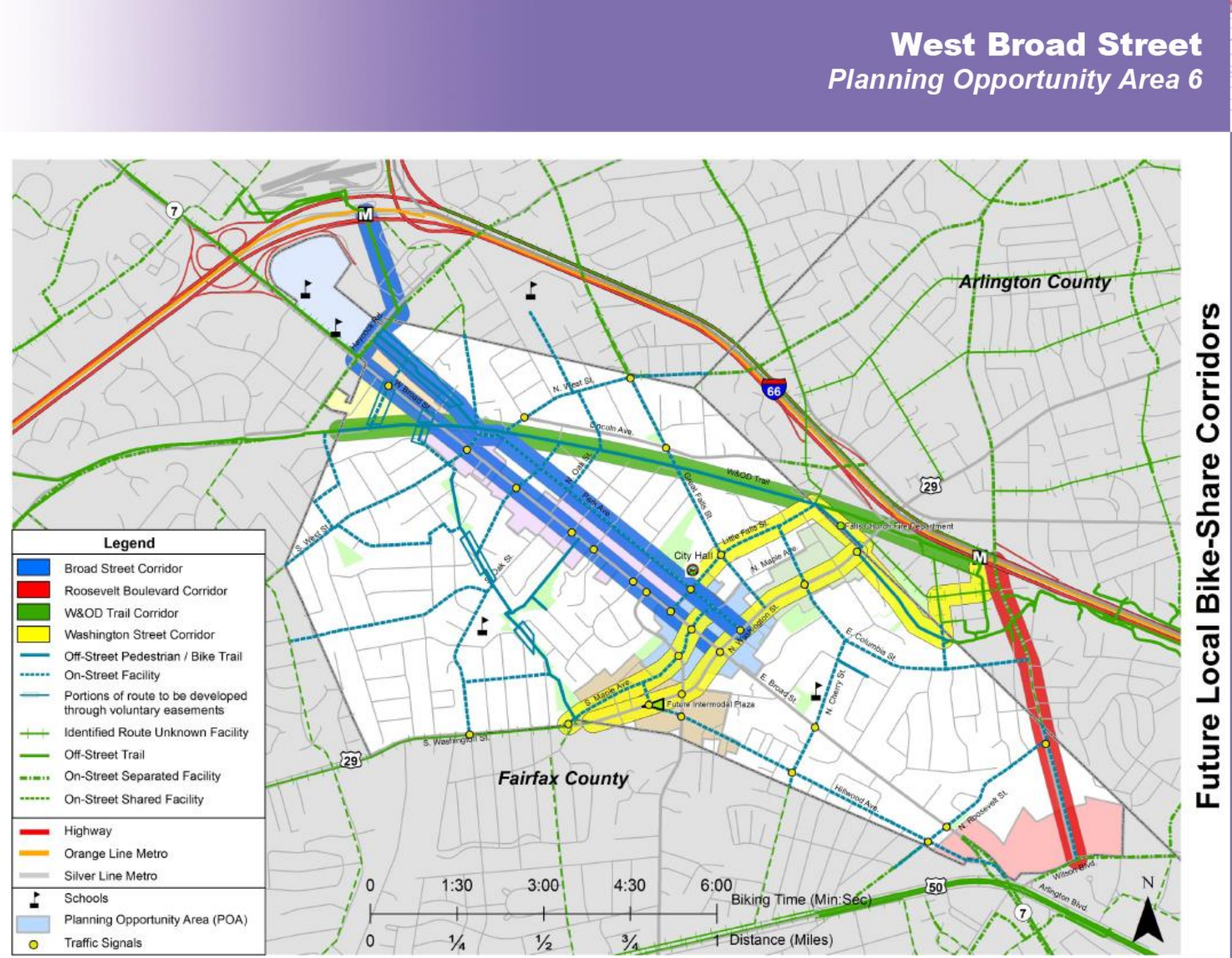
Below: An example of a simple bicycle corral in an on-street parking space.

Outdoor bicycle parking can be provided with bike-racks. Traditionally bike racks are installed as part of the streetscape. Communities in the U.S. have also begun providing bicycle parking in "bike corrals". Corrals are often located at the corner of intersections or within a space previously used for automobile parking. Bicycle corrals are installed within the street rather than on the sidewalk. This can be advantageous in areas where there is not enough space on the sidewalk to provide bicycle parking, or where extra bicycle parking is needed to supplement what is available on the sidewalk. Bicycle corrals can also be used near the corner of intersections in lieu of a curb extension or in locations where a standard on-street automobile parking space will not fit. The use of bollards or planters surrounding the corral will inform automobile drivers that the spot is unavailable for parking and will also reduce potential conflicts between automobile drivers and cyclists.

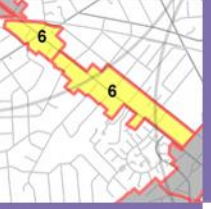
West Broad Street
Connecting Falls Church



Future Local Bicycle Connections



Future Local Bike-Share Corridors



Automobile

West Broad Street is the most travelled roadway in the City, with Annual Average Daily Traffic (AADT) exceeding 29,000 vehicles. It is designated by the City as a Major Arterial and is four lanes wide. West Broad Street is part of State Route 7, a regional roadway that runs from Alexandria, VA to Tysons Corner and beyond via the City of Falls Church.

Regional Travel Patterns

West Broad Street is heavily affected by regional development patterns. Redevelopment activity is ongoing or planed in several areas around the City, including Tysons Corner, Seven Corners, Merrifield/Mosaic District, and the Roslyn-Ballston Corridor. This development will likely increase travel demand regionally (including in and through the City).

The City is also affected by freight and truck travel patterns. Truck restrictions on nearby Route 50 push truck traffic onto Route 7. This situation is inconsistent with recent development activity, which has seen Route 7 become a more walkable environment in the City.

Strategy: Increase options for non-automotive travel to limit increases in automobile travel.

Strategy: Work with regional partners to update highway signs and directional information to help through travelers make use of alternate routes.

Strategy: Work with regional neighbors and the Virginia Department of Transportation to reverse existing truck restrictions so that trucks are permitted on Route 50 and restricted from Broad Street.

Access Management and Curb Cuts

Properties in the area generally have one or more curb cuts each. The frequency of curb cuts disrupts both pedestrian and automobile traffic.

Strategy: Position curb cuts on side streets, as opposed to West Broad Street and Park Avenue to limit conflicts.

Strategy: Develop inter-parcel connectivity and shared parking arrangements to limit the number of times drivers have to enter and exit individual lots.

West Broad Street

Lane widths along West Broad Street vary, but they are typically 12 feet wide. Recent research shows that wide lanes actually decrease safety by encouraging people to drive faster. Lane widths of 11 feet or less have been shown to reduce the frequency, number, and severity of crashes. Eleven foot lanes are wide enough to support travel by buses, emergency vehicles, and trucks.

Numerous traffic signals dot West Broad Street. Synchronized traffic signal timing would decrease wait time at signals. Updated timing could also increase the amount of time available for pedestrians to cross the street.

As demand for travel along West Broad Street increases, the City may have to explore more space-efficient travel options. Communities throughout the U.S, including nearby Alexandria, VA, convert some travel lanes to High Occupancy Vehicle (HOV) lanes during rush hour. This temporary conversion allows communities to maintain accessibility for all travelers while also increasing the capacity of the road to carry more people.

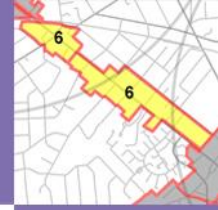
Strategy: Reduce lane widths on West Broad Street to 11 feet.

Strategy: Reevaluate signal timings and signal progressions to reduce wait times for both motorists and pedestrians.

Strategy: Explore the use of HOV lanes during rush hour.

Park Avenue

The City's *Mobility for all Modes* plan identifies Park Avenue as a "Civic Great Street". The Concept Chapter of this Plan utilizes Park Avenue as a transition between the residential and



Above: The Kaiser Permanente parking garage has a masonry façade and is screened by trees and landscaping along Park Avenue (Top) and North Maple Avenue (Bottom).

commercial areas of the City. Park Avenue should focus on serving local trips.

Strategy: Develop Park Avenue as a "Neighborhood Greenway" to reduce travel speeds, reduce non-local automobile traffic, and increase pedestrian and bicycle accessibility. Note that neighborhood greenway design encourages inclusion of on-street parking.

Left Turn Signals

Most traffic signals lack dedicated left turn phases. This can lead to frustration and stress as people try to negotiate left turns across oncoming traffic. Use of left turn signals may reduce the "throughput" of intersections, but the savings in stress may warrant the change.

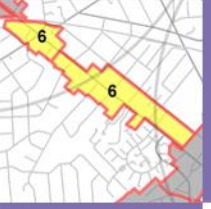
Strategy: Explore the use of dedicated left turn phases for traffic signals along West Broad Street.

Automobile Parking

Parking in the West Broad Street POA is a mixture of private surface parking lots and private structured parking. More structured parking exists in this area than other POAs due to the concentration of newer, dense, mixed-use structures. No off-street public parking is located within the POA.

Approximately 20 acres, or 35 percent, of the total land area in the West Broad Street POA is currently used for surface parking. Assuming a standard size of 300 square feet per space, this means there more than 2,000 surface parking spaces in the POA.

There are five private parking structures in the West Broad Street POA. These structures are located at the newer structures in the POA: The Spectrum, The Byron, The Broadway, The Flower Building, and the Hilton Garden Inn. In combination, these buildings contain more than 1,110 parking spaces.



Shared Parking

This area has more than 3,000 parking spaces. However, visitors and business patrons often report insufficient parking and/or being towed. Shared parking agreements among property owners and opening up business parking lots after business hours could dramatically increase the available parking supply.

The City recently partnered with Kaiser Permanente and George Mason Square to make parking in their garages available to the general public after business hours. These agreements provide a framework for the City to work with private property owners.

Two existing properties within the area already share their parking supply. The Hilton Garden Inn allows office workers at the nearby Flower Building to use the first 25 spaces in their garage.

Strategy: Develop open parking agreements to allow the general public to use parking after business hours.

Strategy: Share parking across sites to reduce the need to build additional parking spaces.

Public Parking Structures

As a means to promote infill development and adaptive reuse of existing buildings, several communities in the U.S. have constructed publically financed parking structures. Drivers can benefit from these structures by being able to park once, and then walk to all of the destinations within a given area.

Strategy: Explore options to construct public parking facilities. Given that structured parking can cost $30,000 per space or more, this option should be explored last in light of parking supply already available in the area.

On-Street Parking

On-street parking is available throughout the POA and generally within the residential neighborhoods adjacent to the POA. Where parking within the POA should generally be available to support area businesses, parking in the adjacent residential neighborhoods should be reserved primarily for residential use.

Strategy: Explore options for metered on-street parking to deter long-term parking and thereby increase access to area businesses. Meter revenue could be used to help fund streetscape improvements and other local amenities in the area.

Spillover Parking

Members of the community have voiced concerns regarding parking for commercial areas spilling over into neighborhood streets. The *Mobility for All Modes* chapter of the Comprehensive Plan includes language regarding neighborhood parking. It mentions the need to "review and update the City's parking restrictions to respond to growing concerns about overflow parking adjacent to commercial areas. Any restrictions should consider accessibility needs, such as accommodating vehicles that are transporting people with disabilities."

Strategy: Establish residential parking programs, on a case-by-case basis, to address concerns about spillover parking related to redevelopment. Note this is also called for in the City's *Mobility for all Modes* plan.