

**TECHNICAL MEMORANDUM**

To: Reynolds Allen EDENS

From: Rob Schiesel, P.E.
Peter Kauffmann, E.I.T.
Daniel VanPelt, P.E., PTOE

Date: August 29, 2012

Subject: 550 Penn at Union Market Transportation Impact Statement

Executive Summary

This memorandum discusses the proposed renovation of the existing warehouse space at 550 Penn Street, NE in Washington, DC. This structure is located within the traditionally commercial Florida Avenue Market/Union Market area and anchors the northeast corner of this light industrial and wholesale distribution district roughly bounded by New York Avenue, Florida Avenue, and 6th Street/Brentwood Parkway. As a part of the broader Florida Avenue Market/Union Market revitalization project, 550 Penn at Union Market will be renovated from its existing use as a warehouse into a light industrial kitchen with on-site food preparation and small-scale wholesale food sales.

Given the anticipated uses of the project and the similarity in transportation characteristics between the renovated 550 Penn and what has historically been generated by the site, this project will not have an adverse impact on the local transportation network. This statement finds that all of the site's transportation needs can easily be handled by the existing roadway, public transit infrastructure, and available on street parking. Specifically, this statement demonstrates that the site will generate no new vehicular trips or parked cars compared to previous conditions, the available on-street parking supply will continue to adequately handle parking demand, and that loading and delivery activities can be accommodated in a safe manner and in accordance with the historical character of the Florida Avenue Market/Union Market without disrupting street operations along Penn Street.

Site Overview

550 Penn at Union Market is located at the northern end of the Florida Avenue Market/Union Market at 550 Penn Street, NE, as shown in Figure 1. Florida Avenue Market/Union Market has traditionally been a commercial and industrial area featuring wholesale shops, retailers, dining, and light industrial uses and is generally bordered by New York Avenue, Florida Avenue, and 6th Street/Brentwood Parkway. Gallaudet University, Brentwood Park, and the District of Columbia Public Schools' Hamilton Center are located immediately to the east across 6th Street/Brentwood Parkway, while the National Park Service's Brentwood Maintenance Facility borders the northern edge of the Florida Avenue Market/Union Market. The neighborhood has historically served commercial distribution and light industrial facilities and continues to do so today. As such, trucks and commercial vehicles make up a high percentage of traffic in the neighborhood and many loading activities take place on street in public space as is often characteristic of these types of established market districts.

The neighborhood's characteristics and long-term goals for the redevelopment of the Florida Avenue Market/Union Market are discussed in further detail in the DC Office of Planning's *Florida Avenue Market Study* small area plan (FAMS SAP). In general this document concludes that the proposed reuse of 550 Penn as a light industrial kitchen fits within the historic character of the Florida Avenue Market/Union Market and the future goals of the area as a walkable commercial hub.

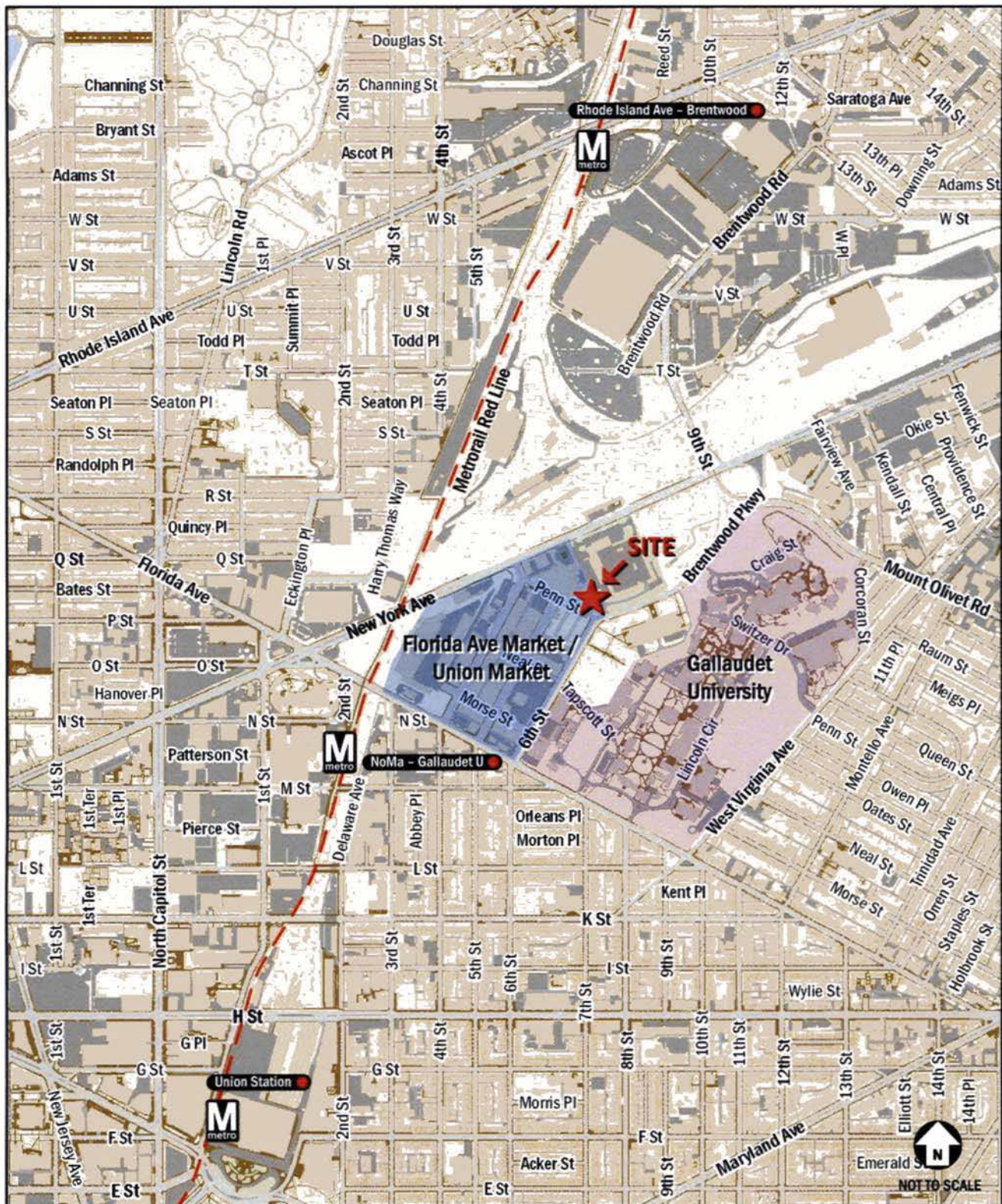


Figure 1: Site Location within Washington, DC

Existing Conditions

550 Penn Street is a 26,251 square foot (sf) parcel that is improved with a single story warehouse building that covers nearly 100% of the lot. Although 550 Penn is currently unoccupied, the building was used as a warehouse and distribution center for the Metropolitan Florists Delivery Cooperative (MFDC) until as recently as November 2011. Other past tenants include food service uses like the Rock Creek Ginger Ale Company, a beverage distributor. Three loading entrances supported the operations of these former tenants, and are located along the southern side of the building facing Penn Street, as shown in Figure 2. An existing conditions plan is also included on page 22 of the Appendix. These operations are consistent with the loading procedures in place at the adjacent Maurice Electrical Supply Co. and at other locations throughout the Florida Avenue Market/Union Market area, especially along 4th and 5th Streets, as shown in Figure 3.

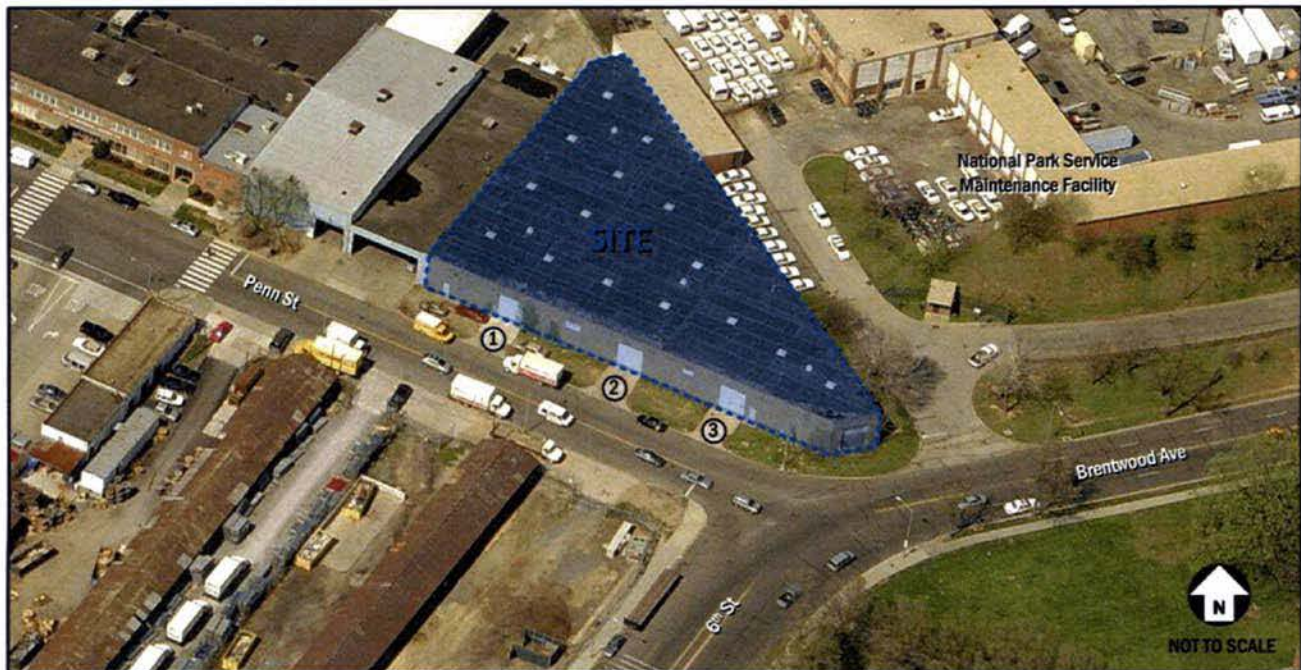


Figure 2: 550 Penn Building Footprint and Existing Loading Facilities

Imagery Source: Bing Maps



Figure 3: Loading Activities along 4th Street, Looking North from Morse Street

Proposed Renovation

550 Penn will be converted to a light industrial kitchen to provide space for food preparation and to support distribution operations for several tenants. The project will serve as off-site kitchens for several restaurant operations located throughout the District. Foods such as cured meats, baked goods, chocolate, and juices will be prepared on site and distributed to local restaurants on a daily basis. Some tenants may also feature limited accessory wholesale retail spaces that are open to the public like other existing businesses within the Florida Avenue Market/Union Market. To accommodate multiple tenants, the interior of the building will be partitioned into a total of five interior spaces. The proposed tenant layout is shown in Figure 6. Full site plans are included on page 23 of the Appendix.

As can be seen in this site plan, the existing loading facilities will be reconfigured in order to fit with the new internal demising of the 550 Penn building. Although two of the existing driveways will be relocated, the renovated building will still only be accessed from three curb cuts as shown in Figure 6. Since the existing structure covers nearly 100% of the lot and is not served by a public alley, loading operations serving the various driveways will continue to be conducted by backing in off of Penn Street. This style of loading operation has been the typical condition for the existing building for many years. In this way, delivery vans and small trucks will each be accommodated within the loading docks. A proposed on-street loading space, shown in Figure 6, will serve as a loading area for the two smaller tenants that do not have dedicated off-street loading facilities.

Future tenants of 550 Penn are expected to conduct loading and distribution operations using commercial cargo vans with some supplementary service using refrigerated box trucks. Examples of delivery and cargo vans currently used in the District are shown in Figure 4. Typical models of these cargo vans include the Ford E-series (formerly known as the Econoline van) and the Mercedes-Benz/Freightliner Sprinter (formerly sold under the Dodge brand). These cargo vans are sold in a variety of configurations, but even high roof models like the Sprinter van shown in Figure 4 still have a maximum vehicle envelope of 6'8" wide, 8'5" high, and 19'5" long and are therefore able to fit within the proposed 25' loading berths of 550 Penn that are shown on Figure 6. Each tenant is expected to generate between 2 and 3 round-trip cargo van operations per day depending on the configuration of their prepared food distribution routes.

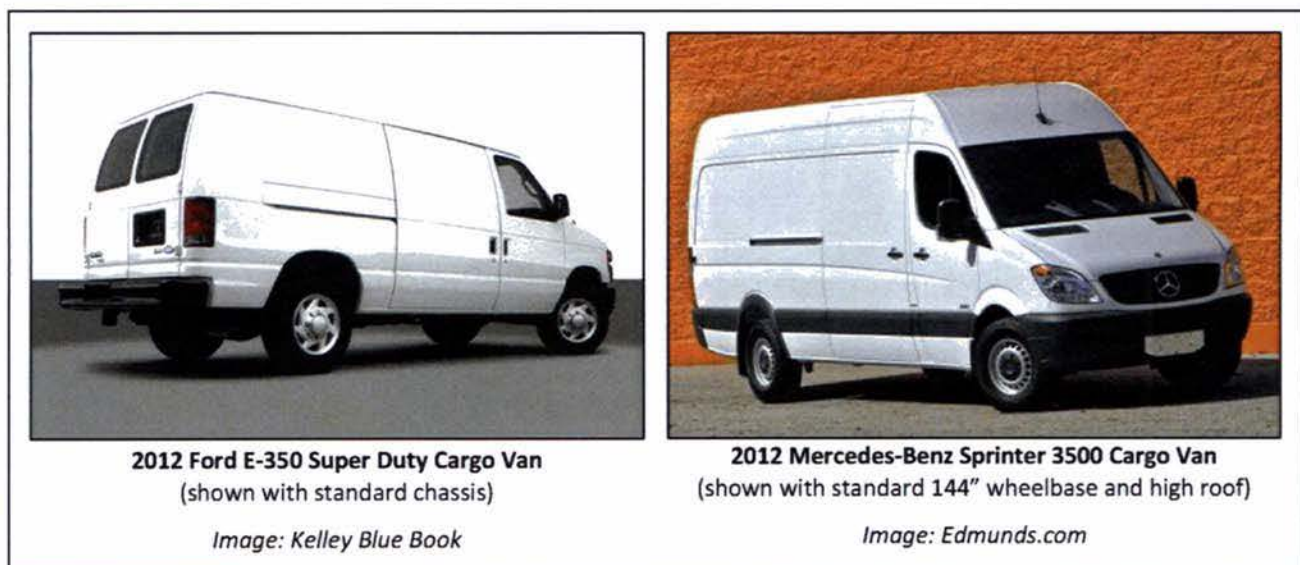


Figure 4: Examples of Cargo Vans That Will Serve 550 Penn

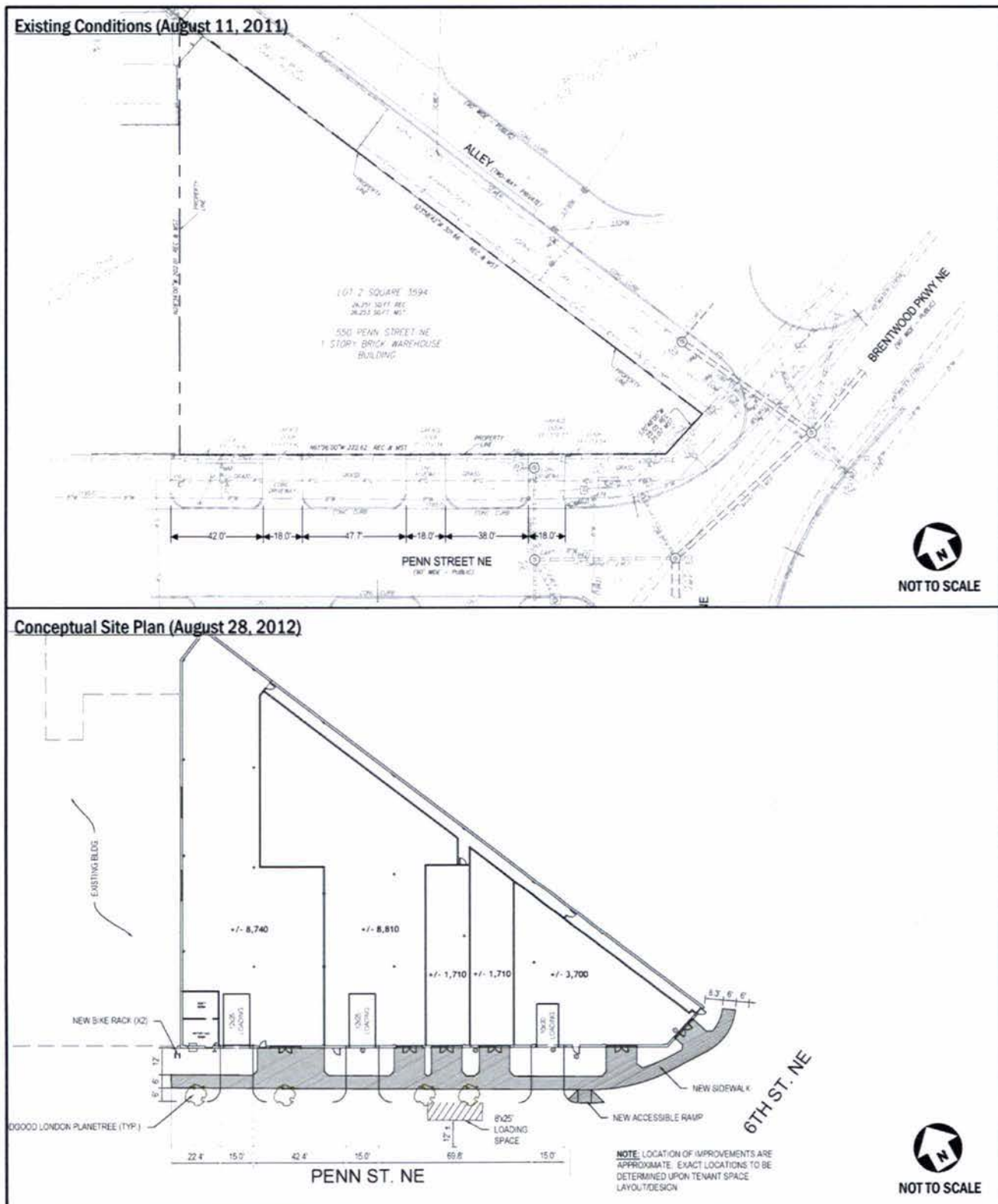
There will also be some supplementary deliveries by larger refrigerated box trucks between 22' and 24' in length. The entire site is expected to generate approximately 1 to 2 deliveries per day by vehicles in this class. However, these vehicles are small enough to be accommodated within the site's internal loading docks. An example model of this type of vehicle is shown in Figure 5.



Figure 5: Example Refrigerated Box Truck That Will Serve 550 Penn

Although backing maneuvers into loading facilities and loading within public space are typically avoided within the District of Columbia, these operations are common within the Florida Avenue Market/Union Market area and contribute to the area's "sense of place." According to the *Florida Avenue Market Study* small area plan (FAMS SAP), conducting backing maneuvers and loading operations within public space lets "visitors know they're in a unique place, a working place" and contributes to the "authenticity" of the Florida Avenue Market/Union Market itself¹. To this end, the FAMS SAP does not propose reducing loading activities or eliminating backing maneuvers; instead, it proposes improving the pedestrian experience while still allowing commercial activities to continue in an efficient and safe manner. A review of proposed pedestrian improvements by the renovation is included later in this statement. The FAMS SAP recommends that existing warehouse and distribution activities be consolidated at the northern end of the Florida Avenue Market/Union Market area, along Penn Street. Therefore, proposed loading plan for 550 Penn fits within the context of both the existing Florida Avenue Market/Union Market and the proposed redevelopment plans put forth in the FAMS SAP. The impacts of the proposed loading operations on Penn Street will be discussed further in the Impacts section, below.

¹ *Florida Avenue Market Study, "Small Area Plan – Volume 1", DC Office of Planning, June 2009, pp. 50*



Future Transportation Demand

Standard transportation engineering practice in determining the expected trip generation for a site is to use commonly accepted trip generation rates published by the Institute of Transportation Engineers (ITE). These rates, published in *Trip Generation, 8th Edition*, allow for the amount of traffic generated by the building at 550 Penn Street to be determined based on the intensity of land use at the site. Historically, 550 Penn was occupied by a variety of tenants like the MFDC and the Rock Creek Ginger Ale Company that were described previously. Small-scale storage, distribution, and food preparation facilities are classified as “light industrial” uses by ITE, and based on the square footage that was occupied by these uses under the previous tenancy the level of transportation demand that was previously generated by 550 Penn was calculated and is shown in the upper portion of Table 1.

The 550 Penn at Union Market renovation will also utilize the entirety of the building at 550 Penn Street. The food preparation facilities that will be contained in the renovated building are also classified by ITE as a “light industrial” use, so the projected trip generation based on this use and the known square footage can similarly be calculated using ITE procedures. As shown in Table 1, 550 Penn is only expected to generate 19 peak hour trips in the morning and 20 in the evening based on ITE rates after including a 20% non-auto reduction to account for the use of public transit, bicycles, and other non-automotive travel modes. However, because the intensity of use is not changing compared to the past occupancy at 550 Penn, this represents no net change in trip generation compared to previous conditions.

Parking demand for the previous 550 Penn tenants was accommodated on-street, and since there is no space available for off-street parking within the 550 Penn Street parcel due to the fact that the existing structure occupies nearly 100% of the site this practice will not change. Generally, on-street parking is the standard practice throughout the Florida Avenue Market/Union Market area. Approximately 500 public curbside parking spaces exist within the Florida Avenue Market/Union Market area on weekdays, expanding to approximately 600 spaces on weekends when the block faces along 6th Street switch from parallel to perpendicular parking to accommodate visitors to the DC Farmers’ Market. Parking occupancy observations indicate that dozens of open spaces are available within a few blocks of the site on weekdays to serve 550 Penn. On-street parking availability will be discussed further in the Impacts section below.

According to ITE’s *Parking Generation, 4th Edition*, a small industrial use such as the proposed 550 Penn site is expected to have a minimal parking demand. Including a 20% reduction for the use of non-auto modes, the 26,097 sf light industrial use of 550 Penn is only expected to generate a peak demand for 16 spaces over the course of a standard weekday. Again, since the intensity of use between conditions in the past and those at the future renovated 550 Penn complex is not changing this represents no net change compared to prior conditions.

Table 1: Expected Trip Generation and Parking Demand

Land Use	ITE Land Use Code <i>Trip Generation, 8th Ed.</i>	Quantity	AM Peak Hour			PM Peak Hour			Parking Demand
			In	Out	Total	In	Out	Total	
Previous Tenancy (Nov. 2011)	110 Light Industrial	26,097 sf	21	3	24	3	22	25	20
<i>Non-Auto Reduction</i>		-20%	-4	-1	-5	-1	-4	-5	-4
Previous Condition Trips			17	2	19	2	18	20	16
550 Penn at Union Market	110 Light Industrial	26,097 sf	21	3	24	3	22	25	20
<i>Non-Auto Reduction</i>		-20%	-4	-1	-5	-1	-4	-5	-4
Future Condition Trips			17	2	19	2	18	20	16
Net Change			0	0	0	0	0	0	0

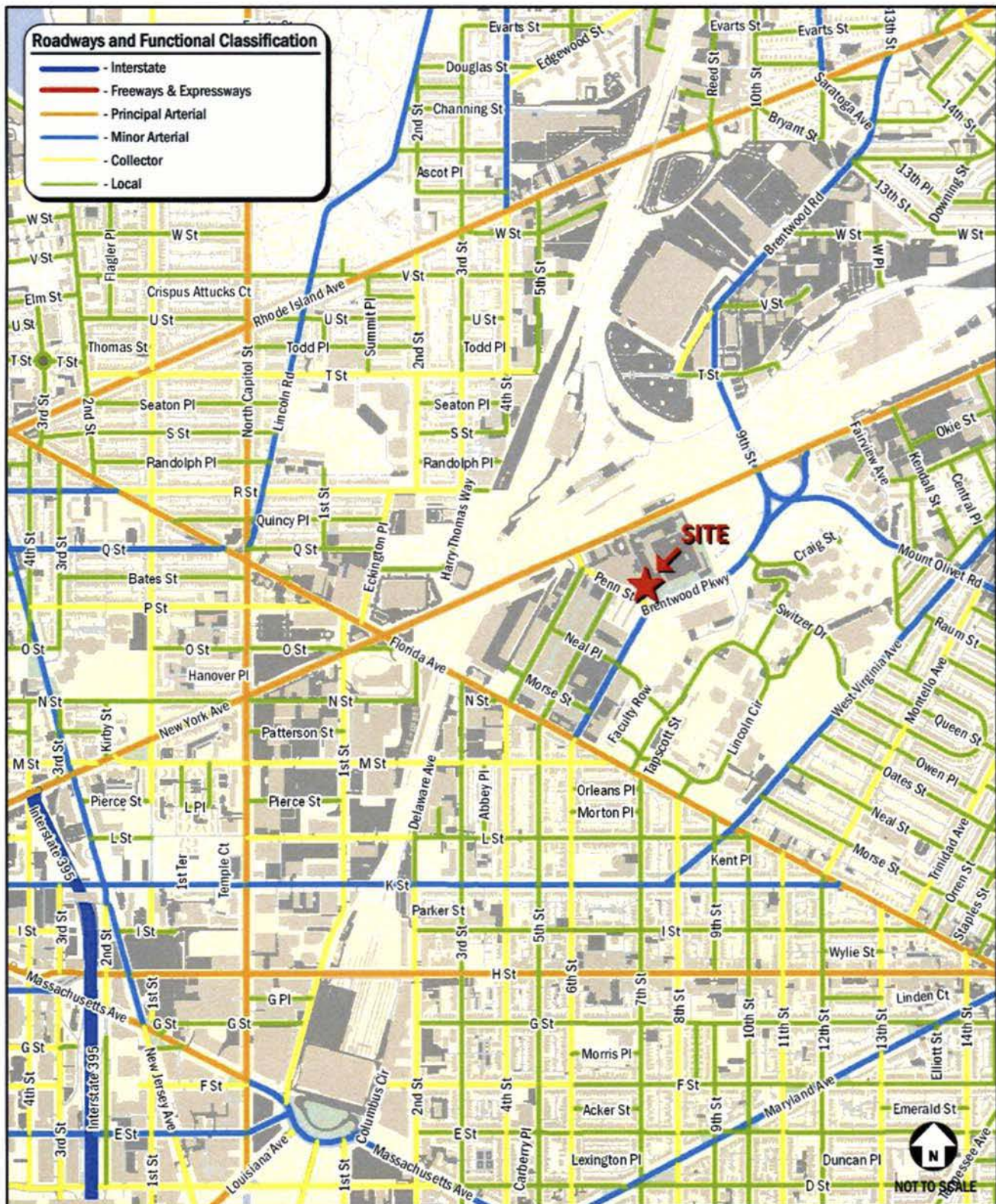
Adequacy of Transportation Infrastructure

In this section, the details of the proposed 550 Penn at Union Market renovation are used to determine the impact of car-based and non-automotive travel on the transportation infrastructure in and around the Florida Avenue Market/Union Market area.

Roadway Capacity

The trip generation created by 550 Penn is not high enough to merit a complete capacity analysis given the fact that the proposed renovation does not represent an increase in the intensity of land use over the previous tenancy conditions. The District of Columbia Department of Transportation (DDOT) *Design and Engineering Manual* states that a full traffic impact study (TIS) is not required if daily trip generation is less than 300 vehicles and the number of peak hour trips in the peak direction are less than 25 vehicles. In this case, the daily trip generation is expected to be 146 vehicles based on ITE rates and the number of peak hour trips in the peak direction is expected to be 18, as was shown in Table 1. Again, these quantities represent no net increase in trips over the previous tenancy of 550 Penn due to the fact that the intensity of the land use is remaining constant. DDOT agrees that this project does not require a full transportation study based on the scoping document submitted to DDOT on July 27, 2012 and DDOT's acceptance of the document on August 1, 2012.

Despite the fact that a full TIS is not required, the adequacy of the existing roadway network and the ability of these roads to handle local and regional vehicular traffic should still be considered. Regional vehicular access to the site will be unchanged from previous conditions. The site's connection to surrounding roadways and the classification of these roadways according to the DDOT Functional Classification System is shown in Figure 7. 550 Penn is accessed primarily from New York Avenue, Florida Avenue, and 6th Street/Brentwood Parkway. Penn Street itself is classified as a collector roadway and is generally uncongested according to DDOT 2009 average annual daily traffic (AADT) volume data, serving only 3,100 vehicles per day. Similarly, 6th Street/Brentwood Parkway is classified as a minor arterial and serves an AADT of 10,400 vehicles per day directly south of the site. Both of these roadways have ample capacity to continue to convey the small amount of site traffic that is attributable to 550 Penn to nearby principal arterial roadways like New York and Florida Avenues. In the vicinity of the Florida Avenue Market/Union Market, New York Avenue is designated as US Route 50 in the National Highway System and provides the best connection to Interstate 395 to the west and the Capital Beltway (I-495) to the east for trips into and out of the metropolitan area.



On-Street Parking

Businesses within the Florida Avenue Market/Union Market area generally do not provide on-site parking for employees or customers. There are a few parking lots located throughout the market, but these parking lots are private and reserved for use by specific businesses and organizations. Because there is currently no on-site parking in the existing building or a practical location to provide off-street parking within the building, the limited amount of vehicular parking expected at 550 Penn will be accommodated by the 500-600 on-street parking spaces available in the vicinity of the site.

To help judge the adequacy of on-street parking, an inventory of on-street parking availability within a 2-block walk of 550 Penn was conducted. The results of this study are shown in Figure 8. The vast majority of parking within the 550 Penn walkshed is unrestricted. These unrestricted areas, marked in blue on Figure 8, are either unsigned or posted only as "No Idling – 3 minute limit (5 minute limit if below freezing)". Along the unrestricted block faces, parking is permitted for extended periods making these areas appropriate for use by employees. Some high-demand areas are signed with 1- or 2-hour parking limits that would be appropriate for use by customers of 550 Penn's accessory retail facilities. Parking is partially restricted along roadways with multiple travel lanes like Brentwood Parkway and along block faces with numerous curb cuts like the southern side of Penn Street and the western side of 4th Street.

Observations of parking occupancy throughout the Florida Avenue Market/Union Market at various times during business hours indicate that available parking spaces can be found on several of the unrestricted block faces, as indicated in Figure 8. Depending on the time of day, there were between 20-35 available unrestricted parking spaces, which is more than enough supply to handle the expected parking demand.

Other future redevelopment projects within the Florida Avenue Market/Union Market neighborhood are anticipated to provide off street parking consistent with their needs. These projects will increase the overall inventory of parking spaces available within the area in accordance with the FAMS SAP.

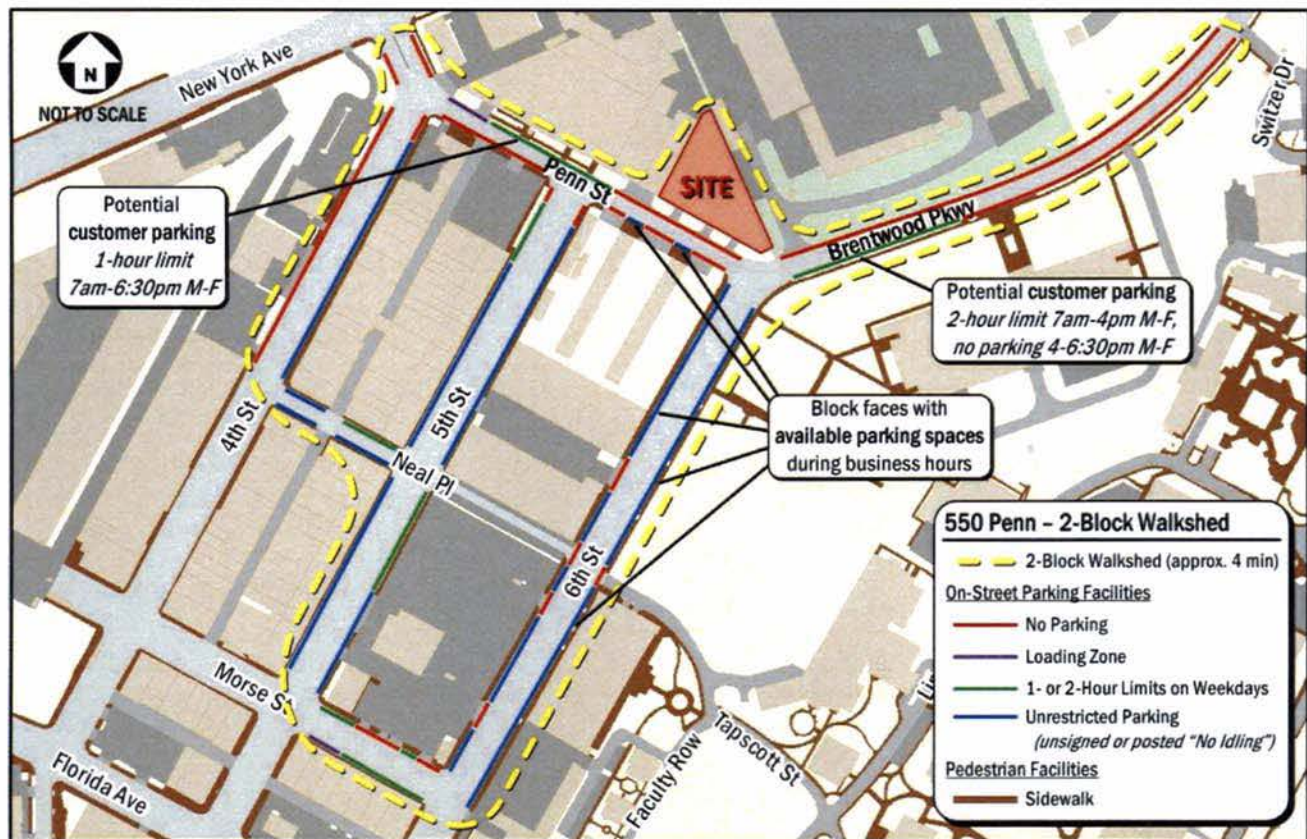


Figure 8: Parking and Pedestrian Facilities within a 2-Block Walkshed of 550 Penn

Loading Operations

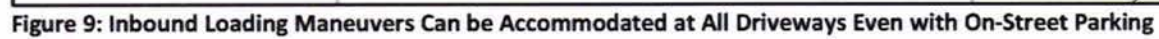
Deliveries and other loading operations within the Florida Avenue Market/Union Market area have historically been conducted within public space. Most trucks and vans making deliveries throughout the area typically park on-street while a few back in to loading docks from the roadways that pass through the site where dedicated loading facilities are available. This style of loading is a unique feature of established market districts within Washington, DC and helps contribute to the historic character and “sense of place” of the Florida Avenue Market/Union Market area, as discussed previously. Visitors to the Florida Avenue Market/Union Market expect to encounter this level of vehicular activity, and so drivers and pedestrians that come upon on-street loading or backing maneuvers occurring within public space are prepared to react accordingly to these operations. Therefore, the market-like style of loading operations that have occurred previously at the 550 Penn site and throughout the Florida Avenue Market/Union Market area do not present a safety concern.

The existing 550 Penn building is served by three loading berths, each with a dedicated curb cut as shown in Figure 2. Because the site is directly abuts the National Park Service’s Brentwood maintenance facility to the north, there are no public alleys that serve the site. Therefore, the building will continue to be served by three curb cuts after the proposed renovation, although as shown in Figure 6 some of these curb cuts will be shifted to match the proposed internal building partitions. The two western curb cuts will provide a 25’ loading berth for cargo vans and other service vehicles like those shown in Figure 4, while the eastern curb cut will provide a 20’ loading berth that will serve as an interior parking space for a refrigerated cargo van that will be operated by the tenant at that end of the building.

Because of the limited site geometry, vehicles using these loading berths will back in from Penn Street. This setup is in accordance with how operations were conducted under the previous tenants of 550 Penn Street and with the general style of loading operations throughout the Florida Avenue Market/Union Market. As shown in Figure 9, the 40’ cross-section of Penn Street is sufficient such that cargo vans and other service vehicles can maneuver into any of the three proposed loading berths without encroaching on vehicles parked along the curbside and without crossing into the opposing travel lane.

Figure 9 also shows that an on-street loading space can be provided next to 550 Penn without impeding loading activities or vehicular through traffic. As discussed in the Proposed Renovation section, above, the site plan calls for an on-street loading space to accommodate deliveries and loading for the smaller tenant spaces that do not have dedicated loading areas inside their spaces. Again, since conducting loading operations within public space is a well-established practice within the Florida Avenue Market/Union Market the applicant will apply for a public space permit to conduct curbside loading operations in this location.

The inclusion of an on-street loading space may also serve as a beneficial traffic calming measure. Currently, vehicles heading from 6th Street/Brentwood Avenue to New York Avenue via Penn Street are presented with 20’ wide travel lanes along Penn Street, which could indirectly encourage high vehicular travel speeds and poor conditions for pedestrians and cyclists. By reducing the effective lane width to 12’, on-street parking in this location would likely reduce the number of speeding vehicles and improve safety for all road users including cyclists, pedestrians, and persons performing loading or unloading operations in the on-street loading space.



Pedestrian Facilities

The proposed renovation will include the construction of a sidewalk and curb ramp in public space along the north side of Penn Street adjacent to the 550 Penn site. There is currently no sidewalk in this location, so this construction will greatly enhance the pedestrian environment in the Florida Avenue Market/Union Market by expanding and improving the sidewalk network in the area. Therefore, these improvements will benefit the public realm while remaining faithful to the historic character of the Florida Avenue Market/Union Market area.

Elsewhere in the Florida Avenue Market/Union Market, good pedestrian paths are provided to all surrounding destinations. The existing sidewalk network in the vicinity of the site is shown in brown on Figure 8. Wide and well-maintained sidewalk facilities are present along 6th Street, as shown on Figure 10. Shade-giving trees are present along portions of the east side of 6th Street, marking the border between the Florida Avenue Market/Union Market to the west and Brentwood Park and Gallaudet University to the east. The 6th Street sidewalks stretch south from Penn Street, connecting the site to transit services, commercial developments, and residential areas along Florida Avenue and within the Near Northeast neighborhood.



Figure 10: Sidewalk on the West Side of 6th Street, Looking North from Morse Street

Once out of the Florida Avenue Market/Union Market area, generally good pedestrian facilities are present along Florida Avenue, including well-maintained sidewalks and accessible curb ramps at all intersections. These sidewalks connect the site to numerous local destinations, including the NoMa – Gallaudet University Metro station.

Public Transit

The nearest Metrorail station to 550 Penn is the NoMa – Gallaudet University Station on the Red Line. NoMa – Gallaudet University station is located 0.6 miles to the southwest of the site by foot, which is only a 12 minute walk. The Red Line is the busiest of the Metro lines and provides frequent service to downtown Washington and destinations in Montgomery County, Maryland like Bethesda, Rockville, and Silver Spring. Connections to, Amtrak, VRE and MARC commuter rail services, and many intercity and regional buses are available at Union Station, one stop to the south, with transfers to other Metro lines located a few stops away at Metro Center, Gallery Place, or Fort Totten.

Bus service is also available within walking distance of the site. A stop at Florida Avenue and 5th Street is served by the 90, 92, 93, and X3 Metrobus routes, and a stop along Mt. Olivet Road just west of Brentwood Parkway serves the D8 Metrobus route. Detailed information about these transit services is included in Table 2, and a map showing these routes is shown in Figure 11. The local bus network is supplemented by several other nearby services, including the X1, X2, and D-series Metrobus routes, all of which are shown on Figure 11.

The presence of high-quality transit services like the 90s Metrobus routes along Florida Avenue within a 1/3 mile walk of the site will increase the attractiveness of commuting to 550 Penn via non-auto transportation modes. The 90s buses are one of the top five Metrobus routes in terms of ridership, serving an average daily ridership of 12,616 passengers in 2011². Because of this popularity, the 90s buses provide high-frequency service during the day, at 7-8 minute intervals adjacent to the site, while also providing service throughout the night unlike most bus routes in the Washington area.

Table 2: Transit Route Information

Route ID	Route Name	Major Destinations	Service Hours at Nearest Stop	Headway
90, 92, 93 Bus	U Street-Garfield Line	Adams Morgan, U Street, Capitol Hill, Eastern Market, Anacostia, Congress Heights	24 hours	Weekday: 7-8 min Weekend/Off-Peak: 10-20 min Late Night: 30-75 min
X3 Bus	Benning Road Line	Minnesota Ave Metro, U Street, Woodley Park	Weekday AM: 6:15-8:45am Weekday PM: 4:15-6:20pm	20-35 min
D8 Bus	Hospital Center Line	Washington Hospital Center, Rhode Island Ave Metro, Union Station	Mon-Thu: 5:30am-12:50am Friday: 5:30am-2:20am Weekend: 6:35am-12:50am	Weekday: 15-20 min Late Night: 30 min Weekend: 15-30 min
Metrorail Red Line	Shady Grove-Glenmont	Downtown DC, Union Station, Silver Spring, Bethesda, Rockville	Mon-Thu: 5:11am-12:12am Friday: 5:11am-3:12am Saturday: 7:11am-3:12am Sunday: 7:11am-12:12am	Peak Hour: 3 min Off-Peak: 6-15 min Weekend: 6-15 min

² "FY 2011 Metrobus Weekday Average Ridership", Washington Metropolitan Area Transit Authority.
http://www.wmata.com/pdfs/planning/FY11_Average_Weekday_Bus_Ridership.pdf

Bicycle Facilities

The local and collector roadways (Figure 7) near the site provide lower vehicle speeds and generally safe conditions for bicycles. The 2011 *District of Columbia Bicycle Map* indicates that the roadways within the Florida Avenue Market/Union Market all rate as having “good” bicycle conditions.

Nearby roadways to the south of Florida Avenue also provide good conditions for cycling, including dedicated bicycle facilities like the southbound and northbound bike lanes on 4th and 6th streets, respectively. A map of dedicated bicycle facilities near the site is shown on Figure 12. These bike lanes provide a quality connection that extends south from the Florida Avenue Market/Union Market to Capitol Hill, with connects to various east-west routes to destinations like The Mall, the Navy Yard, and Southwest DC. The Metropolitan Branch Trail, an elevated, paved, mixed-use trail located approximately 0.6 miles away from 550 Penn at Union Market, provides an excellent connection from Union Station and Downtown DC north into Silver Spring and Montgomery County, Maryland. The nearest access point to the Metropolitan Branch Trail is off of M Street across from the southern entrance to the NoMa-Gallaudet University Metro station and can be reached from the site by bike in around 3 minutes via a combination of local streets and the bike lanes on 4th and 6th Streets.

The renovation of 550 Penn will also include new bicycle racks in anticipation of employees commuting via bicycle, as will be discussed in the Transportation Demand Management Measures section, below.

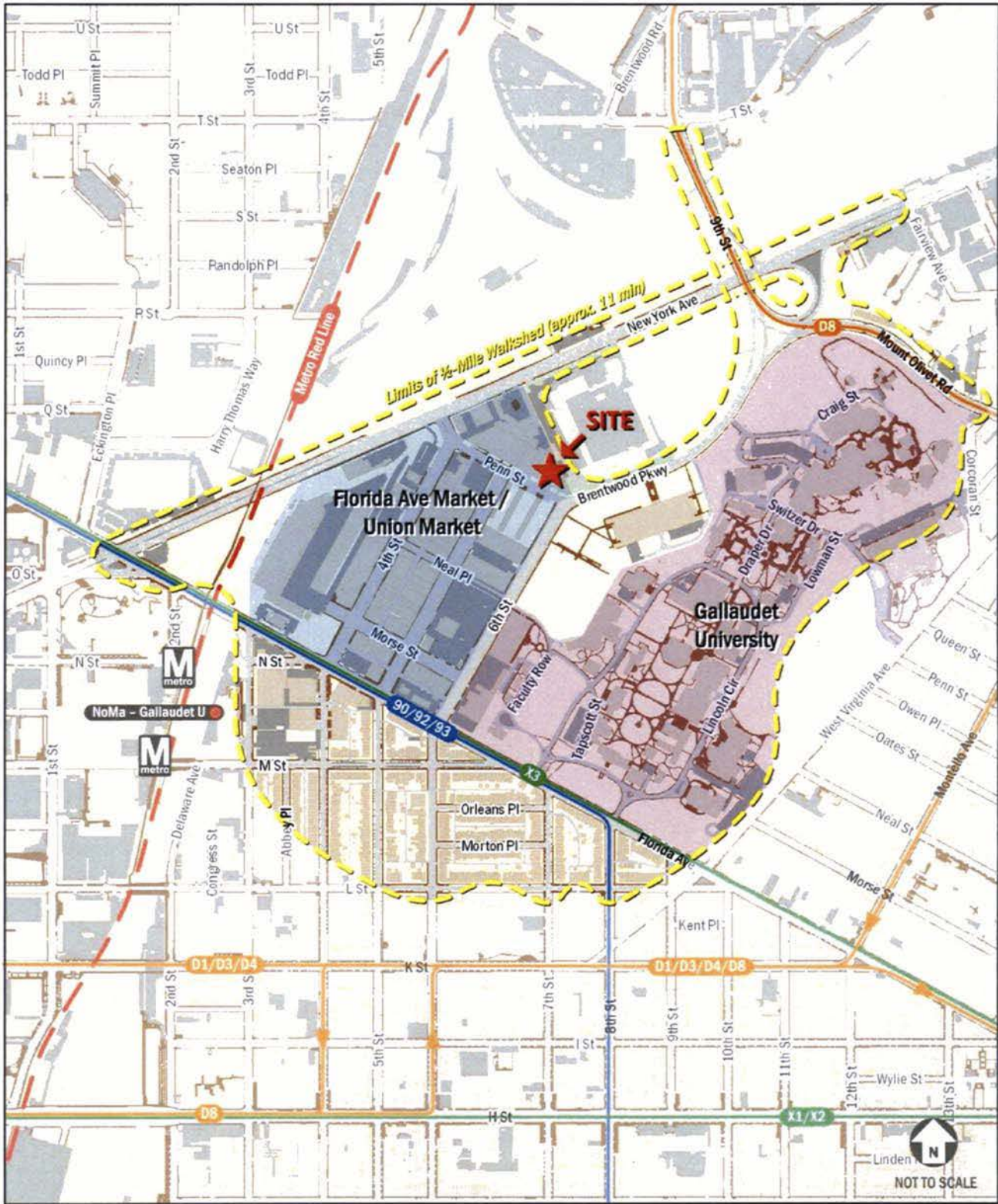


Figure 11: Transit Services near the Florida Avenue Market/Union Market and 1/2-Mile Walkshed from 550 Penn

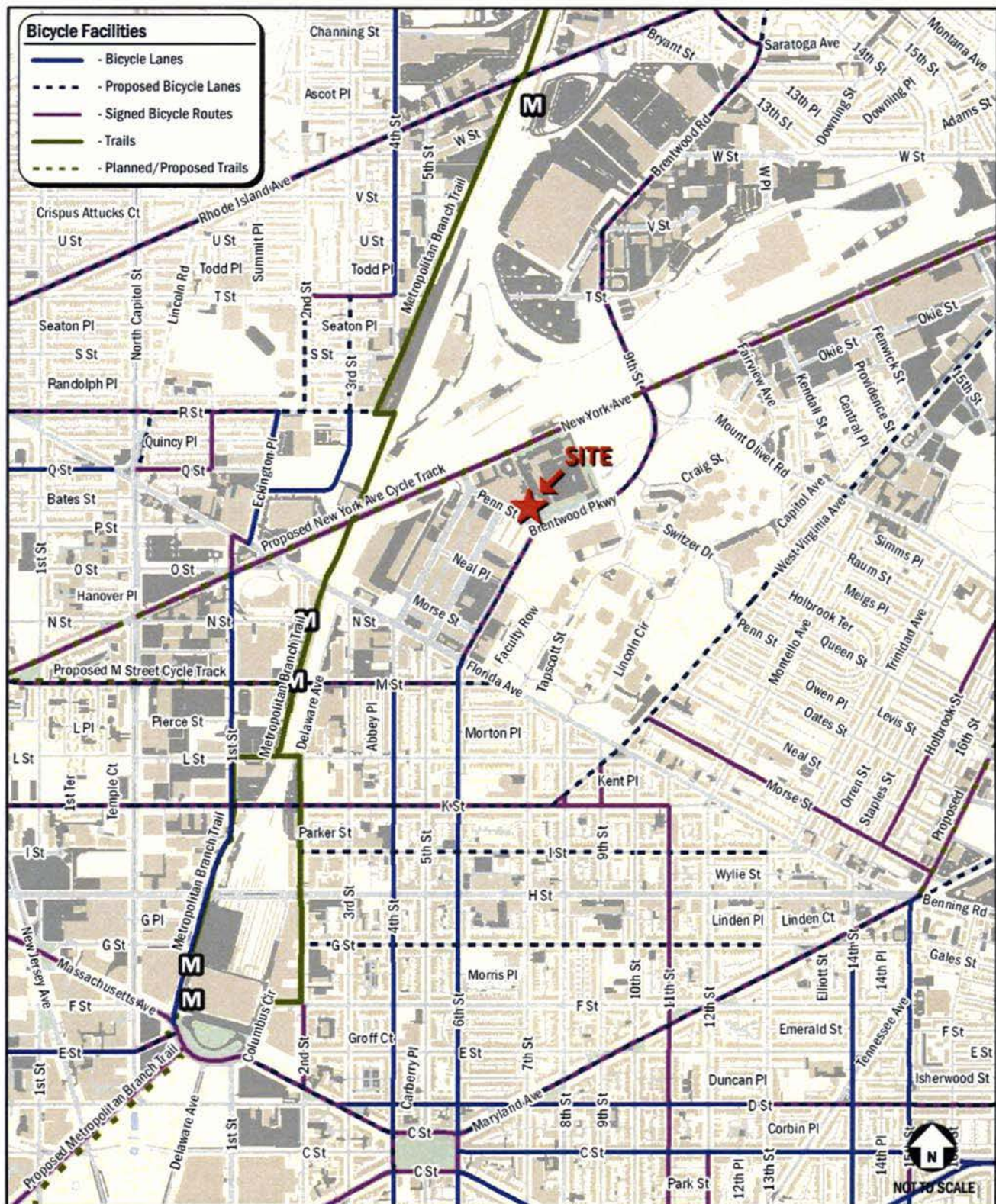


Figure 12: Regional Bicycle Facilities

Transportation Demand Management Measures

In order to provide transportation improvements at 550 Penn at Union Market, the applicant is proposing to implement several transportation demand management (TDM) measures.

Transportation Coordinator

The property manager will serve as coordinator for transportation issues and will act as the **point of contact for DDOT**.

The coordinator will be available to explain parking restrictions to employees and will **observe on-street parking** by employees to confirm that it is done in accordance with District guidelines.

The coordinator will **observe loading operations** to confirm that they do not block the traffic flow and to confirm that they meet all District regulations including the limit on vehicle idling time set forth in DCMR Title 20, Chapter 9, Section 900 (Engine Idling). The coordinator will also direct tenants to the regulations set forth in DDOT's Freight Management and Commercial Vehicle Operations document and the primary access routes listed in the DDOT Truck and Bus Route System.

The coordinator will explain and provide information regarding carsharing, ridesharing, bicycling, transit, and other travel modes as needed. The coordinator will **provide transit materials for display in employee break areas** within 550 Penn and will **prepare a welcome packet for distribution to new hires** giving all transportation options.

The coordinator will help **facilitate ride matching** where applicable and will provide carpoolers with information about Commuter Connections' Guaranteed Ride Home Program.

Pedestrian Accommodations

The public space along Penn Street will be improved during the renovation process, including the **construction of a sidewalk** along the Penn Street frontage of the property and the **addition of curb ramps** where appropriate. Although the existing geometry of the site will still require delivery vans and small trucks to back in across the new sidewalk, the loading areas within the building will be designed in such a way that parked vehicles within the loading driveways do not block the new sidewalk.

Bicycle Amenities

The renovated 550 Penn complex will include 2 inverted "U" bicycle parking racks in public space, providing **4 bicycle parking spaces** for use by employees and visitors. This will increase the appeal of cycling in accordance with the broader goals of the *Florida Avenue Market Study* small area plan, demonstrating the commitment of the applicant to encouraging use of non-auto travel modes.

Conclusions

The proposed 550 Penn at Union Market project will renovate the existing 26,097 sf building at 550 Penn Street, NE in the Florida Avenue Market/Union Market area from a flower warehouse into a light industrial kitchen providing food preparation and distribution services to restaurants throughout the greater Washington area. This proposed use fits within the existing character of the traditionally commercial Florida Avenue Market/Union Market area, meets the guidelines set forth in the *Florida Avenue Market Study* small area plan, and advances the goals of the broader Florida Avenue Market/Union Market revitalization project.

550 Penn at Union Market is expected to produce the same number of vehicular trips as existed previously during the tenancy of businesses like the Metropolitan Florists Delivery Cooperative and the Rock Creek Ginger Ale Company since neither the footprint of the 550 Penn building nor the "light industrial" land use will change during this renovation. The planned pedestrian and bicycle facility improvements at the site and the availability of transit services within walking distance will also ensure that vehicular usage at 550 Penn at Union Market represents no net increase over the level that existed in the past. Therefore, the number of vehicular trips that are expected to be generated by 550 Penn at Union Market will remain at or below the amount that the surrounding transportation network has historically supported.

Similarly, the availability of attractive public transit services in the area and the addition of bicycle and pedestrian amenities as a part of this project will enable 550 Penn at Union Market to only generate a peak parking demand of 16 vehicles. This low demand will easily be accommodated by the more than ample supply of on-street parking spaces within two blocks of the site out of the approximately 550 spaces available on-street throughout the Florida Avenue Market/Union Market area.

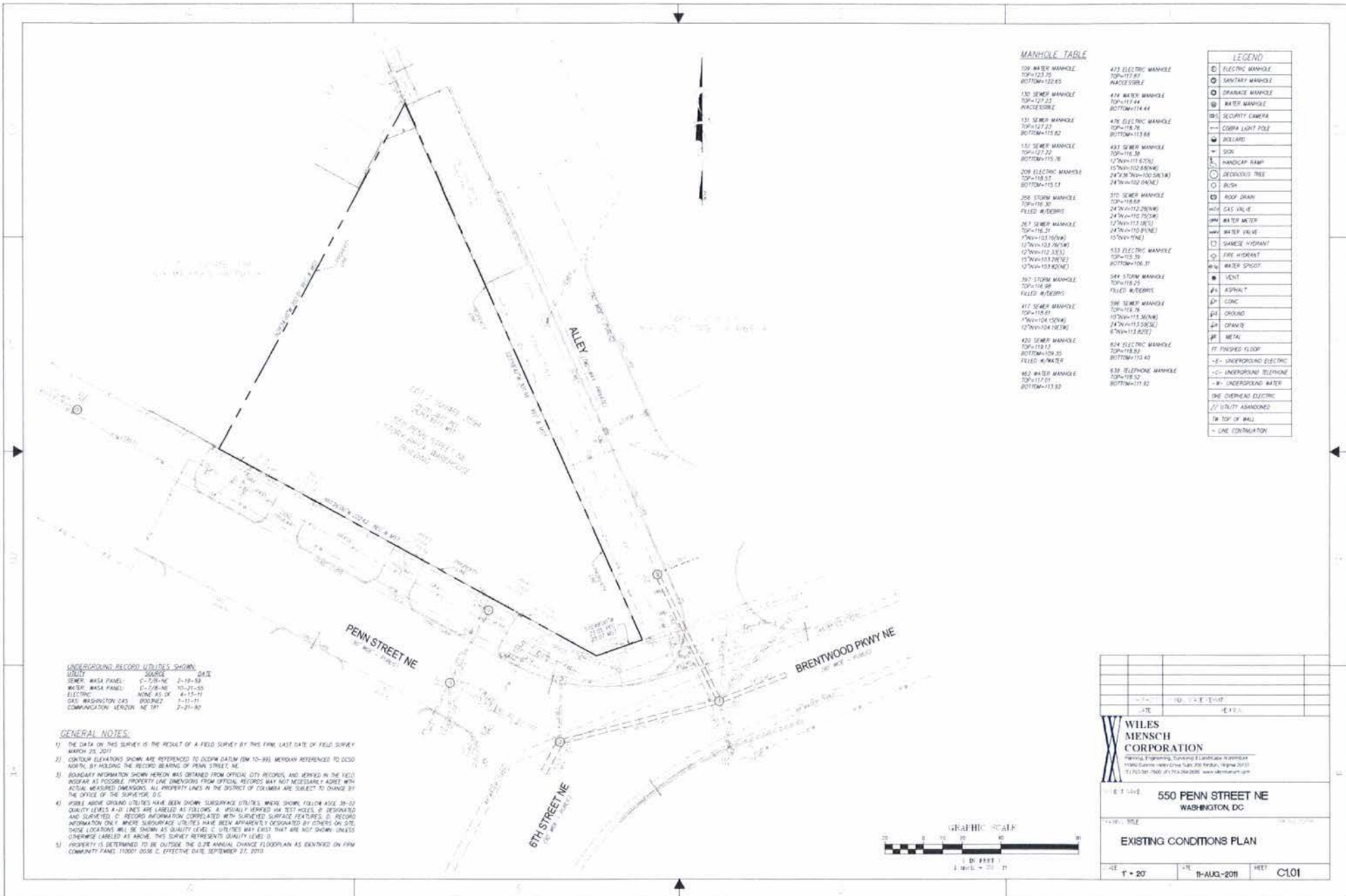
In order to ensure that the level of vehicular travel and automobile parking demand remains low, the 550 Penn at Union Market renovation will include several TDM measures meant to encourage the use of non-auto travel modes like bicycling and public transit. These mitigation measures include having a designated transportation coordinator for the building, improving pedestrian facilities along Penn Street, and constructing a number of bicycle parking spaces at the site.

In conclusion, the nature of the 550 Penn site means that vehicular travel and parking demand from the renovated site will be low and will represent no net increase over past conditions. The site provides excellent connections to the local pedestrian, bicycle, and public transit networks, making these travel modes an attractive alternative to driving, especially in the context of the proposed TDM measures. Vehicular trips to the site will be accommodated by the local roadway network and by the ample supply of on-street parking throughout the Florida Avenue Market/Union Market, while loading operations will be well accommodated by the proposed on-site loading facilities and the supplementary on-street loading space. Because of these factors, the renovation of 550 Penn at Union Market will not have any negative impact to the surrounding transportation network and will in fact improve the conditions for the area, particularly for pedestrians and bikers.

APPENDIX

Page 22: Existing Conditions (August 11, 2011)

Page 23: Conceptual Site Plan (August 28, 2012)



MANHOLE TABLE

109 WATER MANHOLE TOP=122.75 BOTTOM=122.45	473 ELECTRIC MANHOLE TOP=117.87 INACCESSIBLE	493 SEWER MANHOLE TOP=116.38 12" DIA (11.675") 15" DIA (14.625") 24" DIA (23.625") 24" DIA (23.625")
130 SEWER MANHOLE TOP=127.22 INACCESSIBLE	474 WATER MANHOLE TOP=117.84 BOTTOM=114.44	510 SEWER MANHOLE TOP=116.38 12" DIA (11.675") 15" DIA (14.625") 24" DIA (23.625")
131 SEWER MANHOLE TOP=127.23 BOTTOM=115.82	476 ELECTRIC MANHOLE TOP=116.76 BOTTOM=113.66	513 ELECTRIC MANHOLE TOP=115.39 BOTTOM=106.31
151 SEWER MANHOLE TOP=127.22 BOTTOM=115.76		544 STORM MANHOLE TOP=116.25 FILLED W/DEBRIS
209 ELECTRIC MANHOLE TOP=118.57 BOTTOM=115.17		596 SEWER MANHOLE TOP=116.38 12" DIA (11.675") 15" DIA (14.625") 24" DIA (23.625")
258 STORM MANHOLE TOP=116.30 FILLED W/DEBRIS		624 ELECTRIC MANHOLE TOP=116.87 BOTTOM=113.43
267 SEWER MANHOLE TOP=116.31 12" DIA (11.675") 15" DIA (14.625") 15" DIA (14.625") 15" DIA (14.625") 15" DIA (14.625")		630 TELEPHONE MANHOLE TOP=116.52 BOTTOM=111.82
307 STORM MANHOLE TOP=116.30 FILLED W/DEBRIS		
417 SEWER MANHOLE TOP=116.31 12" DIA (11.675") 15" DIA (14.625") 24" DIA (23.625")		
420 SEWER MANHOLE TOP=119.11 BOTTOM=109.35 FILLED W/WATER		
462 WATER MANHOLE TOP=117.01 BOTTOM=113.93		

LEGEND

○	ELECTRIC MANHOLE
○	SEWER MANHOLE
○	DRAINAGE MANHOLE
○	WATER MANHOLE
○	SECURITY CAMERA
○	CORRA LIGHT POLE
○	BOLLARD
○	SOB
○	HANDICAP RAMP
○	DECEASED TREE
○	BUSH
○	ROOF DRAIN
○	GAS VALVE
○	WATER METER
○	WATER VALVE
○	SHARED HYDRANT
○	FIRE HYDRANT
○	WATER SPOUT
○	VENT
○	ASPHALT
○	CONC
○	GROUND
○	DRAIN
○	METAL
○	FINISHED FLOOR
○	UNDERGROUND ELECTRIC
○	UNDERGROUND TELEPHONE
○	UNDERGROUND WATER
○	OVERHEAD ELECTRIC
○	UTILITY ABANDONED
○	TOP OF WALL
○	LINE CONTINUATION

UNDERGROUND RECORD UTILITIES SHOWN:
DATE: 2-19-10
SOURCE: 2-19-10
WATER: WASA PANEL: 2-19-10
ELECTRIC: NONE AS OF 4-15-11
GAS: WASHINGTON GAS: 2-11-11
COMMUNICATION: VERIZON: 2-21-10

GENERAL NOTES:

- 1) THE DATA ON THIS SURVEY IS THE RESULT OF A FIELD SURVEY BY THIS FIRM, LAST DATE OF FIELD SURVEY: MARCH 25, 2011.
- 2) CONTOUR ELEVATIONS SHOWN ARE REFERENCED TO CGD83 DATUM (NN 10-99). MERIDIAN REFERENCES TO CGD83 NORTH, BY HOLDING THE RECORD BEARING OF PENN STREET, NE.
- 3) BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM OFFICIAL CITY RECORDS, AND VERIFIED IN THE FIELD INsofar AS POSSIBLE. PROPERTY LINE DIMENSIONS FROM OFFICIAL RECORDS MAY NOT NECESSARILY AGREE WITH ACTUAL MEASURED DIMENSIONS. ALL PROPERTY LINES IN THE DISTRICT OF COLUMBIA ARE SUBJECT TO CHANGE BY THE OFFICE OF THE SURVEYOR, D.C.
- 4) VISIBLE ABOVE GROUND UTILITIES HAVE BEEN SHOWN. SUBSURFACE UTILITIES, WHERE SHOWN, FOLLOW ASSE 35-02 QUALITY LEVELS A-D. LINES ARE LABELED AS FOLLOWS: A: USUALLY VERIFIED VIA TEST HOLES; B: DESIGNATED AND SURVEYED; C: RECORD INFORMATION CORRELATED WITH SURVEYED SURFACE FEATURES; D: RECORD INFORMATION ONLY. MORE SUBSURFACE UTILITIES HAVE BEEN APPARENTLY DISGUISED BY OTHERS ON SITE. THOSE LOCATIONS WILL BE SHOWN AS QUALITY LEVEL C. UTILITIES MAY EXIST THAT ARE NOT SHOWN UNLESS OTHERWISE LABELED AS ABOVE. THIS SURVEY REPRESENTS QUALITY LEVEL D.
- 5) PROPERTY IS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS DETERMINED ON FIRM COMMUNITY PANEL 110001 0508 C, EFFECTIVE DATE: SEPTEMBER 27, 2010.



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DATE: 11-AUG-2011

BY: CLO1

550 PENN STREET NE
WASHINGTON, DC

EXISTING CONDITIONS PLAN

SCALE: 1" = 20'

DATE: 11-AUG-2011

SHEET: C1.01

