



The  
**PENNSYLVANIA  
AVENUE**  
INITIATIVE

Urban Design  
**ANALYSIS**

September 2017

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The Executive Committee acknowledges and thanks the U.S. Commission of Fine Arts, the DC Office of Planning, and the State Historic Preservation Office for their collaborative efforts in the preparation of this analysis, including the DC Office of Planning's 2016 Pennsylvania Avenue Pedestrian Life Study.

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#### KEY TERMS AND ASSUMPTIONS

The Urban Design Analysis uses some technical terms and assumptions that are specific to Pennsylvania Avenue and helpful to clarify. These include:

- › **Civic Activity** | refers to parades, public assemblies, special events, races, and festivals on the Avenue.
- › **Daily Activity** | refers to informal activities that occur throughout the week, such as running errands, dining, shopping, meeting friends or family, and sightseeing.
- › **Public Space** | also known as open space, public realm; refers to the sidewalks, parks, plazas and roadway. These components form urban rooms along the Avenue and change based on daily or civic activity use.
- › **Cartway** | space from curb to curb that is used for vehicular and bicycle traffic. This area is typically referred to as a roadway.
- › **Right-of-Way/1974 Right-of-Way (ROW)** | the current cartway and sidewalk area located between building walls along Pennsylvania Avenue, inclusive of the historic L'Enfant Plan Right-of-Way and the build-to line setback.
- › **Historic Right-of-Way (Historic ROW)** | the 160-foot right-of-way as defined by the historic L'Enfant Plan.
- › All streets referenced are located in the Northwest (NW) quadrant of Washington, DC, unless otherwise noted.
- › All photos and graphics are provided by the National Capital Planning Commission, unless otherwise noted.

A full glossary is provided in the report's Appendix.

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# Introduction

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*The U.S. Navy Memorial at Market Square, looking north towards the National Portrait Gallery/Smithsonian American Art Museum.*

# Introduction

The National Capital Planning Commission (NCPC), the General Services Administration (GSA), the National Park Service (NPS), and the District of Columbia government undertook the Pennsylvania Avenue Initiative. Through shared stewardship roles, the agencies are considering how to improve Pennsylvania Avenue between the White House and U.S. Capitol.

The Initiative's first phase will assess and determine the urban development issues within the study area. This assessment will help generate shared urban development goals and objectives, and identify potential near and long-term strategies to improve the Avenue's economic performance, physical conditions, and pedestrian experience. These goals, objectives, and potential strategies will help determine how to bring new life to the Avenue so that it will serve the current and future needs of Washington as a capital city.

To identify the urban development issues, the Executive Committee directed that a market study and an urban design analysis be prepared. This urban design analysis builds on and complements the 2016 market analysis.

## THE URBAN DESIGN ANALYSIS

**Purpose:** The urban design analysis summarizes the study area's development history and analyzes its current physical conditions to:

- › Understand the programmatic and spatial relationships between land uses, transportation modes, urban form, and placemaking elements;
- › Identify land use, mobility, and urban design issues, including both strengths and challenges;
- › Provide a framework for development of shared urban development objectives and potential near- and long-term strategies; and
- › Provide a basis for future comparative analysis of urban development visions/development scenarios.

**Organization:** The urban design analysis consists of an introduction chapter and a five-chapter technical analysis.

**Chapter 1: Introduction.** Includes the Executive Committee's key findings and issues, a summary of the technical analysis, and a high-level overview of the Avenue's development history and changing conditions.

**Chapter 2: Land Use & Activity.** Evaluates use relationships among buildings, their ground floors, and public spaces and how they influence daily and civic activities. It also examines how these uses and activities contribute to the Avenue's identity and role in the capital city.

**Chapter 3: Mobility & Access.** Evaluates the study area's multi-modal transportation network. It also examines how the transportation modes serve and connect the study area to the region, the Avenue's general vehicular and pedestrian traffic volume and capacity, and where connectivity remains an issue.

**Chapter 4: Urban Form, Placemaking, & Infrastructure.** Evaluates the spatial, visual, and functional relationships among buildings, landscapes, and public spaces and how these elements contribute to the Avenue's character. Urban Form establishes the physical framework in which urban space is experienced. Placemaking describes the experience of place, such as the smaller scale details and qualities of buildings and landscapes that shape the Avenue's character, express meaning, evoke history, engender memory, encourage enjoyment, and attract stewardship. Infrastructure identifies several functional elements of buildings and the public realm that make spaces universally accessible and resilient.

**Chapter 5: Capital Street Case Studies.** Examines three streets from other capital cities to compare land use, mobility, urban form, and placemaking characteristics. These streets face similar challenges and opportunities as Pennsylvania Avenue, and may provide insight for future improvements.

**Chapter 6: Character Areas.** Identifies five geographic areas—defined by their physical relationships between buildings and public spaces—and examines their physical characteristics, connectivity, activation, and user experience.

- › West End Parks & Plazas (13th-15th Streets, north)
- › Federal Triangle West (12th-14th Streets, south)
- › Central Corridor (9th-13th Streets)
- › Market Square Area (6th-9th Streets)
- › East End Institutions (3rd- 6th Streets)

**Chapter 7: Appendix.** Includes a list of resources, glossary, and supplemental materials referenced throughout the analysis.



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*January 2017 Inauguration procession*

# Study Area

The study area consists of approximately 180 acres, including a 1.2-mile segment of Pennsylvania Avenue between the White House and the U.S. Capitol, which serves as the physical and symbolic connection between the nation's executive and legislative branches of government. It also includes the Federal Triangle complex to the south, portions of Downtown Washington to the north, and lies within the Pennsylvania Avenue National Historic Site, established in 1965.

The study area, except for the Federal Triangle, is part of the 1974 Pennsylvania Avenue Plan developed and administered by the Pennsylvania Avenue Development Corporation (PADC) from 1972 until 1996. This quasi-federal agency, an early public-private partnership model, managed the area's redevelopment, maintenance, and public improvements. Congress dissolved the PADC in 1996 and delegated its responsibilities to GSA, NPS, and NCPC.

**Study Area Description:** The Avenue is part of Downtown Washington, but also defines the edge of the federal monumental core.\* This location has distinct urban design characteristics examined throughout the analysis, which are influenced by the following:

- › The approximately 1,500 residents living in the study area are part of a larger downtown neighborhood of approximately 10,000 residents;
- › The federal government's role as the primary employer in the study area. Its presence, especially in the Federal Triangle, contributes to the Avenue's civic character;
- › A number of cultural destinations in and adjacent to the study area, including the White House, U.S. Capitol, Old Post Office Tower, the Newseum, the National Archives, Smithsonian museums, and the National Mall;
- › Access to a number of public transit options, including Metrorail, Metrobus, and Capital Bikeshare;
- › The use of a proportional development ratio to shape the street walls and establish an open, horizontal frame to the Capitol dome; and
- › An extensive public space network of streetscapes, parks, and plazas designed to function as outdoor rooms for daily and civic activities. The wide right-of-way and public space network provide ample space for local and nationally significant events including festivals, demonstrations, and parades.

Today, the Avenue falls short of its reputation as the most significant street in the capital city. The Initiative's Executive Committee wants to improve the Pennsylvania Avenue experience for everyone visiting, working, and living on Washington's most famous street. The Initiative will identify near and long-term strategies for improvements that the federal and local agencies responsible for Pennsylvania Avenue's stewardship can implement. These improvements will enhance the Avenue and strengthen its important role and identity.

## STUDY AREA STATISTICS

Pennsylvania Avenue - 1.2 miles  
1974 Plan Area - 116 Acres  
Federal Triangle - 64 Acres  
TOTAL STUDY AREA = 180 Acres

\* The monumental core includes the general area encompassed by the U.S. Capitol grounds, the National Mall, the Washington Monument grounds, the White House grounds, the Ellipse, West Potomac Park, East Potomac Park, the Southwest Federal Center, the Federal Triangle area, President's Park, the Northwest Rectangle, Arlington Cemetery, the Pentagon area, and Joint Base Myer-Henderson Hall.



**Legend**

- INITIATIVE BOUNDARY
- PADC BOUNDARY

- |   |  |  |   |   |  |  |
|---|--|--|---|---|--|--|
| <ul style="list-style-type: none"> <li>1 Department of Treasury Building</li> <li>2 W Hotel</li> <li>3 The Willard Hotel</li> <li>4 Marriott Hotel</li> <li>5 National Theatre</li> <li>6 Sherman Plaza</li> <li>7 Pershing Park</li> </ul> | <ul style="list-style-type: none"> <li>8 Freedom Plaza</li> <li>9 Herbert C. Hoover Building (Department of Commerce) White House Visitor Center</li> <li>10 John A. Wilson Building (District of Columbia Government)</li> <li>11 Ronald Reagan Building and International Trade Center</li> <li>12 1201 Pennsylvania Avenue</li> </ul> | <ul style="list-style-type: none"> <li>13 1111 Pennsylvania Avenue (Evening Star Building)</li> <li>14 1001 Pennsylvania Avenue</li> <li>15 J. Edgar Hoover Building (Federal Bureau of Investigation)</li> <li>16 Wilson Plaza</li> <li>17 William J. Clinton Building (Environmental Protection Agency)</li> </ul> | <ul style="list-style-type: none"> <li>18 Trump International Hotel (formerly Old Post Office Building and Tower)</li> <li>19 Internal Revenue Service Building (IRS)</li> <li>20 Robert F. Kennedy Building (Department of Justice)</li> <li>21 505 9th Street</li> <li>22 Hotel Monaco (formerly General Post Office Building)</li> </ul> | <ul style="list-style-type: none"> <li>23 401 9th Street &amp; 400-422 8th Street</li> <li>24 405-435 8th Street &amp; 406-480 7th Street</li> <li>25 407-425 7th Street</li> <li>26 601 D Street &amp; 600 E Street</li> <li>27 801 Pennsylvania Avenue (Residences at Market Square)</li> </ul> | <ul style="list-style-type: none"> <li>28 701 Pennsylvania Avenue (Residences at Market Square)</li> <li>29 625 Indiana Avenue &amp; 325 7th Street</li> <li>30 U.S. Navy Memorial</li> <li>31 601 Pennsylvania Avenue (The Pennsylvania Residences)</li> <li>32 601 Pennsylvania Avenue South Building</li> </ul> | <ul style="list-style-type: none"> <li>33 National Archives</li> <li>34 Federal Trade Commission Building</li> <li>35 Newseum and Residences</li> <li>36 Embassy of Canada</li> <li>37 John Marshall Park</li> <li>38 E. Barrett Prettyman Courthouse (U.S. District Court)</li> </ul> |
|---|--|--|---|---|--|--|



# Key Findings & Issues

The urban design analysis assesses the spatial and programmatic relationships between land use and activity, mobility and access, and urban form and placemaking to identify strengths and challenges faced by Pennsylvania Avenue. The following is a summary of the Executive Committee's key findings and issues.

## KEY FINDINGS

- › The Avenue has a strong civic identity and character, but does not provide a consistently engaging experience for daily users.
- › The Avenue is well-served by multiple modes of transportation but suffers from a lack of connectivity to surrounding areas.

## KEY ISSUES

A range of issues support the two key findings; some are strengths, and others are challenges.

1. The Avenue has a strong civic identity and character reinforced by the following factors.
  - A. The Avenue's grandeur and its vista, formed by its strong axis, monumental buildings, green frame, open sky, and generous public space network.
  - B. Federal Triangle's cohesive and expressive architecture; the Avenue's representation of architectural eras; the linear tree canopy that unifies each side of the street and frames the reciprocal vista between the U.S. Capitol and President's Park/U.S. Treasury Department; and the high quality and durable architectural materials that express strength, stability, and endurance.
  - C. The concentration of federal office, cultural, and entertainment uses; commemorative elements; and civic activities establish the Avenue as an important federal workplace and a national visitor destination.
  - D. The ability to accommodate small and large civic activities for local and national events because:
    - › i. The closure of E Street and Pennsylvania Avenue at the White House has reduced traffic, making it easier to coordinate closure of the Avenue's cartway for civic activities.
    - › ii. The parks and plazas offer a range of sizes, design characteristics, and settings for a variety of civic activities.
    - › iii. Civic uses usually take place when offices are closed, so that crowds do not interfere with business and government activities.
2. The Avenue does not provide a consistently engaging experience for daily users.
  - A. The closure of Pennsylvania Avenue and E Street at the White House eliminated their functions as city thoroughfares, diverting vehicular traffic and pedestrians to other routes. There is no longer a reason for people to use the Avenue to pass through the area, and no significant draw for people to come and linger there on a daily basis.
  - B. The large monumental buildings; the composition of buildings and public spaces; and the width of the Avenue's roadway and sidewalks, coupled with poor allocation of sidewalk uses, causes it to lack pedestrian scale, interest, and comfort.
  - C. Many of the parks and plazas, such as John Marshall Park and Freedom Plaza, are isolated and not connected to adjacent buildings. They have weak design programs, little or no activity programming, and maintenance backlogs.
  - D. The predominance of federal offices and cultural uses hinders the ability to generate activity during the evenings and on weekends. The federal and cultural buildings:
    - › i. Have limited or no weeknight hours and generate little evening or weekend activity unless there are programmed events.
    - › ii. Provide interior cafeterias, restaurants, retail, or other services, discouraging occupants from leaving the building during the day to seek services.
    - › iii. Are located in large buildings without well-marked entrances and visible ground floors, discouraging pedestrians from entering them.

3. The Avenue is well-served by multiple modes of transportation and provides good city and regional access.

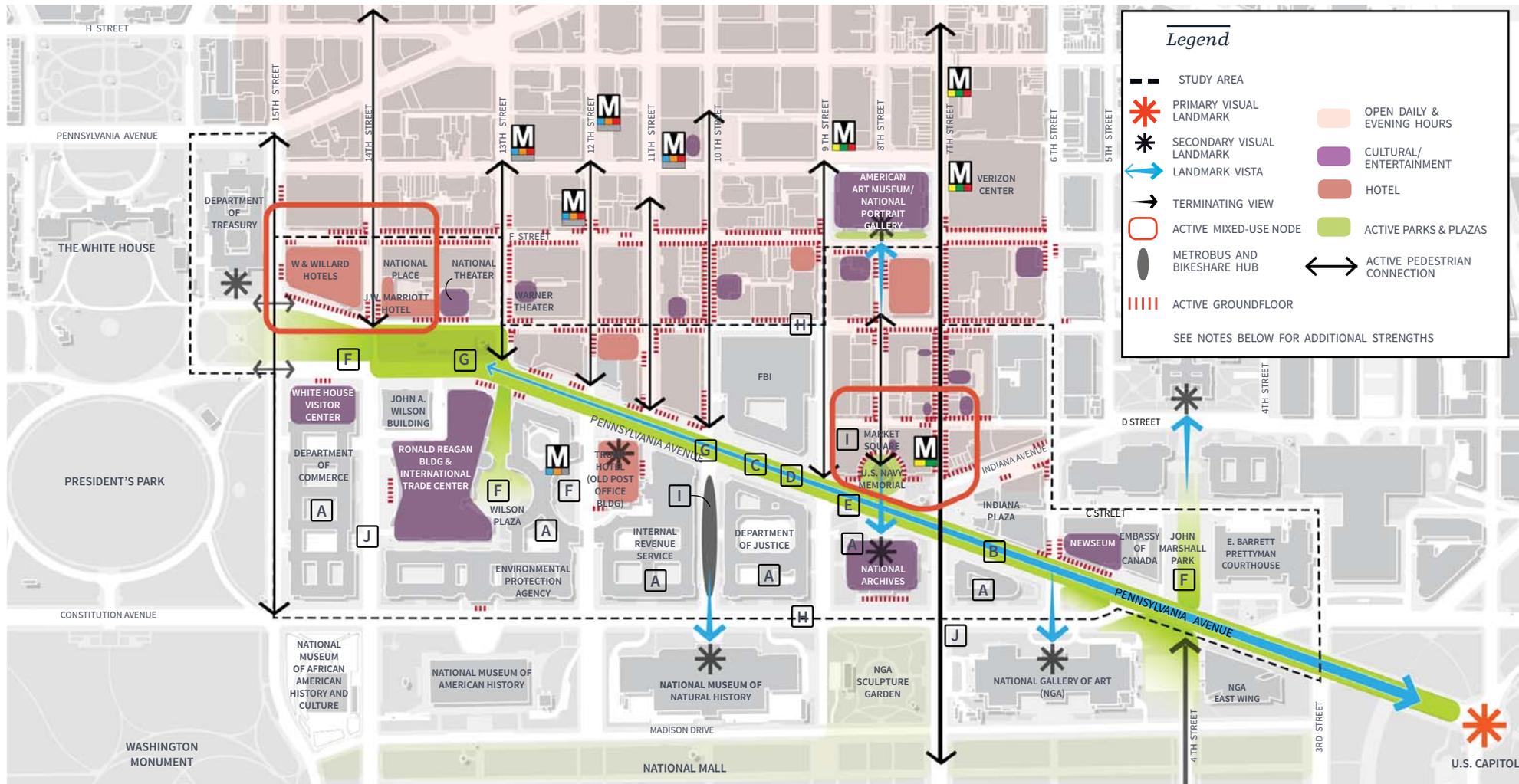
- A. Metrorail stations are located in and near the study area; highway access is convenient; and local, commuter, and tourist-related bus services support offices and visitor attractions.
- B. Half of the streets crossing the Avenue are accessible by bicycle. The Avenue's central median cycletrack provides convenient east-west bicycle access along with excellent views of the U.S. Capitol.
- C. 7th and 14th Streets have the strongest pedestrian connections between downtown and the National Mall.
- D. The Avenue's traffic capacity is greater than the current demand.

4. **The Avenue suffers from a lack of connectivity to surrounding areas.**

- A. On both sides of the Avenue, block-long single-use buildings, predominately filled with offices, discourage pedestrians from walking between President's Park and the Capitol Grounds.
  - › i. To the north, the distance between mixed-use nodes, length of inactive building frontages (with uses such as lobbies, financial institutions and day care use), and the lack of streetscape amenities affects east-west connectivity.
  - › ii. To the south, the absence of publicly accessible ground floors, restricted entries, security guards and barriers, and sidewalks with areas of low lighting affects east-west connectivity.

B. Pedestrian connectivity varies between downtown and the National Mall.

- › i. North of the Avenue, north-south connectivity is stronger because:
  - › a. The diversity of uses, presence of ground floor retail, and condition of the streetscape generally enhances the quality of the pedestrian experience.
  - › b. The southward views on 6th–8th, 10th, and 14th Streets terminate at important civic buildings or the National Mall, providing interesting views to draw people across the Avenue.
- › ii. To the south, connections through the Federal Triangle are weaker because each block consists of a large single office building with few publicly accessible ground floors and limited or restricted entries. The pedestrian experience varies depending on the:
  - › a. Block length, streetscape use and conditions, and wayfinding;
  - › b. Ventilation grates or other impediments;
  - › c. Maintenance of building yards and the tree canopy;
  - › d. Presence of security guards and barriers, except where security was well-integrated into the streetscape, such as at the Herbert C. Hoover Building (U.S. Department of Commerce Headquarters) along 14th and 15th Streets; and
  - › e. Obstructed views to the National Mall, such as at 9th and 12th Streets.

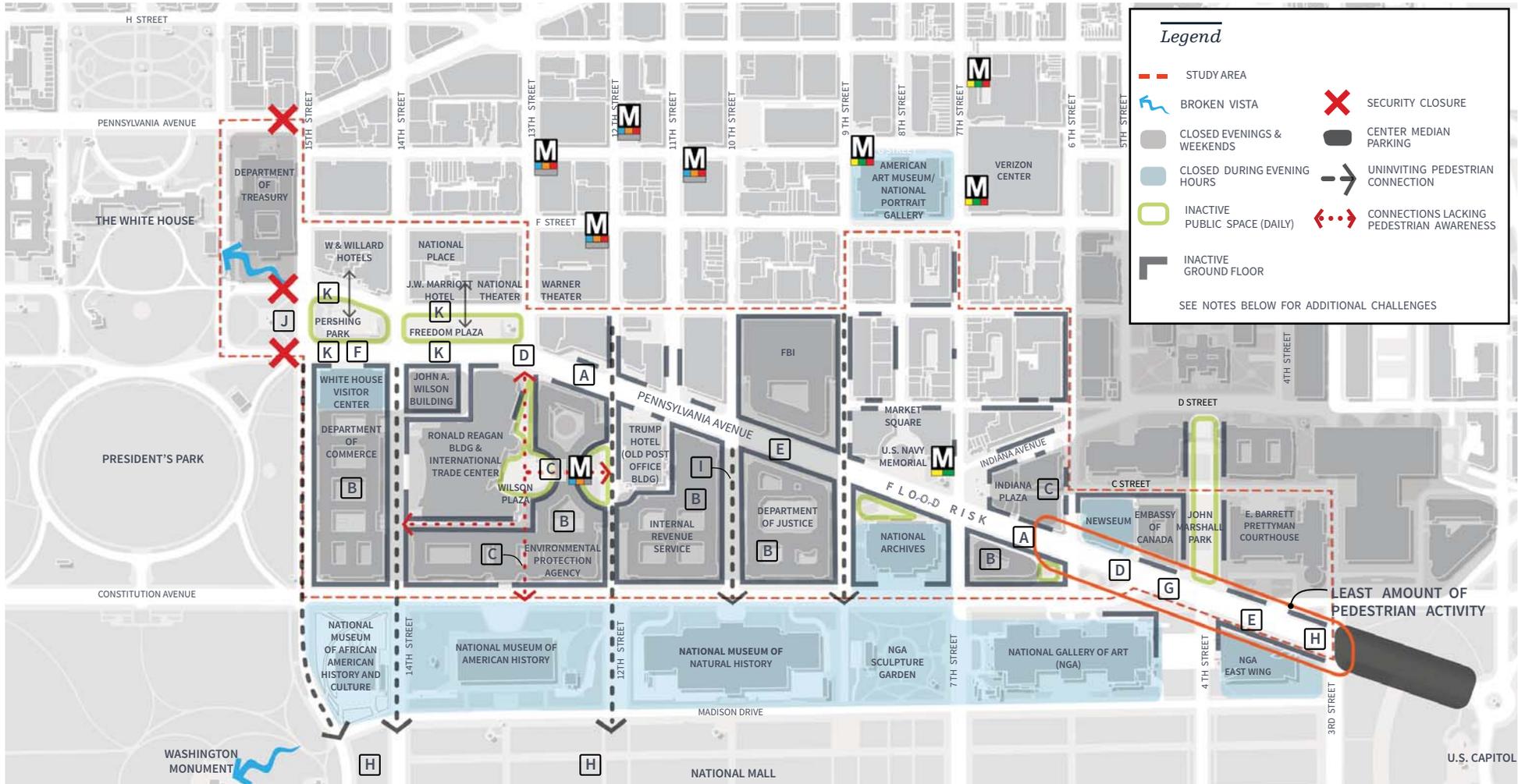


- A** The Federal Triangle has exceptional architectural interest and a unified character.
- B** The Avenue, with its strong axis and iconic vista, is well positioned between major destinations.
- C** The cohesive landscape provides linear continuity, formality, and a defining character.
- D** The generous width and openness of the right-of-way constitutes public space that contributes to the Avenue's unique form, building scale, and character.
- E** The flexible open space network accommodates small and large local and national civic activities.

- F** Ample public space exists, connecting and helping to activate ground floor uses.
- G** Daily sidewalk capacity is available to accommodate current volumes of pedestrians.
- H** Reduced traffic volume provides cartway flexibility for traffic and pedestrians.
- I** The Avenue is well-served by all modes of transportation and serves as an important local and regional transit corridor.
- J** 7th Street is the strongest north-south connection between downtown and the Mall. 14th Street is also a strong connection.



5 MINUTE WALK



- A** Different building characters reinforce a north-south division between downtown Washington and the monumental core.
- B** Federal Triangle building scale, ground floor design, and security is a barrier to circulation.
- C** Little awareness of pedestrian walks and passages throughout the Federal Triangle and along C Street at Indiana Plaza.
- D** Due to the Avenue's width, north-south pedestrian crossing is challenging.
- E** Building frontage at the ground floor has no interaction at the street level.
- F** Pedestrian activity at the White House Visitor Center is limited, due in part to minimal signage and limited visibility from the sidewalk into the ground floor space.

- G** The Avenue's east end has the least amount of pedestrian activity.
- H** The bicycle network lacks adequate connections to the Mall and Capitol Hill.
- I** The 10th St. bus hub is isolated with no amenities for commuters.
- J** Security at E Street and Pennsylvania Avenue has severed a primary thoroughfare, reducing traffic volumes on the Avenue and impacting connectivity.
- K** Parks and plazas are isolated with weak relationships to adjacent buildings.



# Technical Analysis Summary | *Land Use & Activity*

## A. Building Uses | Building Uses & Hours of Operation

1. The concentration of federal office and cultural uses contributes to the area's civic identity in the capital city.
2. Similar hours of operation between office and cultural uses limit evening activity throughout the week and on weekends. Office uses support some workweek daily activity during lunch, dinner, morning and evening commutes; cultural uses support daytime activity seven days a week.
3. The most active areas along the Avenue which contribute to daily and evening activity are those with a mix of uses, such as hotels, cultural, entertainment, and retail uses with expanded or no defined hours of operation; or those areas with active public spaces and a direct relationship to adjoining building(s). The least active areas are those that consist of single use office buildings with limited operating hours or areas with little or no retail related activity.
4. The most active destinations are the Willard and W Hotels and Market Square areas; the use mix with accessible and active ground floors is popular throughout the week and into the evening. 7th Street is the most active pedestrian connection between Downtown Washington and the National Mall because of the land use diversity, expanded hours of operation, and engaging ground floor uses.
5. On the Avenue's north side, restaurants with outdoor dining anchor most street corners but do not fully activate the public space because larger areas of inactive uses, such as office lobbies, separate them. This spacing, and the concentration of retail and restaurant uses north of the study area, disperses pedestrian activity and diminishes daily activity along the Avenue.
6. On the Avenue's south side, the Federal Triangle's concentration of office uses and lack of public ground floor uses (with the exception of the White House Visitor Center) creates a barrier between downtown and the National Mall, and deters pedestrian activity.

## B. Public Space | Daily Activity

1. The study area does not provide community-based amenities for residential buildings, hotels, and schools, such as playgrounds and dog parks. Comfort amenities, such as seating and bathrooms, are not generally available for public use other than for retail customers or business clients.
2. Free public access to rooftops offering views of Washington's skyline is limited. The Old Post Office Tower and the roof of the National Gallery of Art's East Wing offer access free of charge during hours of operation. Access to other rooftops requires patronage or employee access.
3. The active areas are typically in close proximity to a diverse mix of uses and include site design programs that incorporate public space amenities for pedestrian comfort and interest, such as shade, seating, fountains, commemorative elements; and outdoor eating, resting, or cultural programs.
4. The Navy Memorial Plaza at Market Square is the most active public space along the Avenue because of its cultural programs, landscape amenities, fountains, interpretive features, and use mix.
5. Park and plaza use is limited by poor relationships between buildings and public spaces unless there is a strong design program with amenities, active daily programming, or is planned for civic activity to activate the public space.
6. Inactive parks and plazas, such as John Marshall Park and Freedom Plaza, have poor relationships with adjacent uses caused by site barriers, such as elevation changes, streets and parking, or inaccessible building frontages.

### C. Public Space | Civic Activity

1. Pennsylvania Avenue's location, vista, historic significance, and proximity to the National Mall contribute to its civic identity and make it a highly desirable destination in the capital city.
2. The linear streetscape, parks, and plazas offer a flexible space for a variety of small and large civic activities. When combined with a full or partial street closure, the Avenue offers more publicly usable space than other downtown areas. The public space network provides the ability to locate civic activities along the Avenue where they are best suited.
3. The Avenue's civic identity and its scale, flexible public space network, paved surfaces, low traffic volumes, and access to public transit provide the infrastructure conditions needed for civic activities, as are alternative to the National Mall. These activities can be contained within the study area, thereby minimizing impacts to other neighborhoods.
4. Cultural uses and civic activities activate the Avenue on weekends and holidays, attracting large audiences. The Inaugural Parade and events like the Papal visit draw national and international attention, while events like Bike to Work Day and the National Capital Barbecue Battle attract high local and regional attendance.
5. Civic activities often have operational requirements (street closures and noise) that can negatively affect pedestrian and vehicular circulation, as well as access to, and use of, adjoining or neighboring uses. The office uses within the study area are the most compatible with the civic activities because the offices are closed during the times the civic activities typically occur.



600 Block of Pennsylvania Avenue

## A. Public Transit Network | Metrorail & Bus

1. The study area is well-served by Metrorail and local and regional bus services. It is a regional network with stations, stops, and shelters conveniently located near office and cultural buildings to connect users to their destinations.
2. The areas west of 14th Street and east of 4th Street are outside the five-minute Metrorail station walkshed. However, these areas are well-served by the bus network.
3. The Federal Triangle Metro station entries are not easily accessible because of their location within the Federal Triangle, and minimal signage.
4. The bus users' experience is diminished because the commuter bus hub at 10th Street is isolated from retail services and amenities and bus shelters do not consistently provide orientation or navigational information.
5. The study area is well-served by sightseeing buses, with hop-on/hop-off stops dispersed along the Avenue at key destinations.
6. Charter and sightseeing bus loading operations can contribute to traffic congestion and disrupt pedestrian flow on some sidewalks. For example, this sometimes occurs along 15th Street and at the Willard and W Hotels.

## B. Street & Sidewalk Network | Vehicle Level of Service & Parking

1. Pennsylvania's Avenue's wide cartway is designed to accommodate multiple modes of transportation. Since the closure of E Street and Pennsylvania Avenue at the White House for security purposes, the Avenue no longer serves as a thoroughfare and carries lower traffic volumes than was designed to accommodate; east-west traffic flow has been disrupted.
2. East-west vehicular circulation north and south of the Avenue is disrupted by the combination of squares for large block development.
3. The study area is well-connected to the city and region, north to south. For example, access to I-295 and I-395 via 9th and 12th Streets, and the access to US1 via the 14th Street bridge. These are the areas with the greatest traffic congestion during morning and evening commute times, and have the greatest potential for vehicular-pedestrian conflicts.
4. Garage parking is available north of the Avenue and south of the National Mall; the Reagan Building is the only public parking garage south of the Avenue near the Mall. The limited parking supply in this area, and availability of parking to the north, increases the likelihood that visitors will experience the Avenue on their way to or from the National Mall.
5. On the south side of the Avenue security restrictions prohibit on-street parking in front of federal buildings; in other locations, on-street parking is reserved for specific users or restricted to certain days and hours.
6. At the Avenue's eastern end in front of the Capitol, parking in the center median interrupts pedestrian connectivity along the corridor, creating confusing circulation movements for bicyclists and motorists.

### C. Street & Sidewalk Network | Pedestrian Volumes & Connectivity

1. The closure of E Street and the combined blocks and large buildings negatively impact walkability and connectivity throughout the area. Unless there is a special event on the Avenue, east-west pedestrian traffic is lower than other downtown areas, affecting activity and causing the area to feel desolate.
2. The Avenue's sidewalks are less active than in other downtown areas; most of the sidewalks can accommodate more pedestrian foot traffic than they carry.
3. User conflicts sometimes occur in the center medians because of pedestrian use caused by the width of the street, traffic signal timing, and use of the cycle tracks, combined with the location of traffic bollards and signage.
4. The majority of the study area's signals and sidewalks do not comply with the 2010 Americans with Disabilities Act Standards for Accessible Design. The study area's uphill elevation change to the north is a disadvantage for some pedestrians.

### D. Bicycle Network

1. Closing E Street to bicycles and pedestrians impacts the seamless connections between destinations east and west of the White House.
2. The bicycle network connections south of the Avenue across the National Mall are limited to the sidewalk along 15th Street, or bike lane along 4th Street. More of the northern streets have bicycle lanes.
3. Bikeshare capacity is limited. Several Bikeshare stations are a short walk from the Avenue, but none are directly on it.
4. The Pennsylvania Avenue cycle track is unique, and is one of the

most heavily used in Washington. The width of the street, turn lanes, and pedestrians cause bicyclist conflicts within the median at intersections.

5. The study area's north-south elevation change is a disadvantage for some cyclists and impacts Bikeshare's ability to balance the system throughout the day.

### E. Wayfinding

1. NPS and GSA provide smartphone technology to distribute wayfinding information to users throughout the monumental core.
2. Wayfinding signage focuses on cultural destinations and Metrorail stations; other downtown or neighborhood destinations are not well-identified.
3. The various wayfinding programs are not well-coordinated to function as a comprehensive and efficient system. Signage content is not regularly updated to reflect changing destinations or public amenities, making it challenging for visitors.
4. Wayfinding gaps exist along the north side of the Avenue from 3rd to 14th Street.
5. Physical conditions related to building scale, land use patterns, and visual cues can hinder wayfinding between downtown, the Federal Triangle, and the National Mall.

# Technical Analysis Summary | *Urban Form, Placemaking, & Infrastructure*

## A. Urban Form | Streets & Blocks

1. The Avenue's width and scale of blocks and buildings contribute to its sense of grandeur and civic character, elevating its identity in the capital city.
2. Parcel aggregation and building location decisions have closed streets and obscured vistas to prominent civic buildings or structures.
3. South of Pennsylvania Avenue, blocks are larger and generally longer north-south than east-west. Blocks are usually occupied by a single lower building, set back from the street, creating a more open experience. North of Pennsylvania Avenue, blocks are smaller than to the south. Blocks are often occupied by multiple taller buildings, constructed at the property line, creating a denser urban experience.

## B. Urban Form | Street Walls

1. To the north, the varied build-to lines weaken the Avenue's street wall; however, the larger setbacks of newer buildings differentiate the facades of historic structures that sit at the historic ROW. Along the Avenue's south side, a relatively consistent build-to line creates a strong street wall.
2. Overall, the scale of the right-of-way and location of build-to lines provide a public space with a width that can accommodate a streetscape that unifies the varied street walls north and south of the Avenue.
3. The unified streetscape and the primary parks link and define five distinct urban rooms with their own character that provides a diversity of experiences along the Avenue.
4. The 1910 Height Act allows for the tallest buildings in the city along Pennsylvania Avenue's north side, elevating its significance and symbolism.
5. Generally, Square Guidelines are slightly more restrictive than the 1974 Plan. While development north of the Avenue typically conforms

to the Square Guidelines, most, but not all development reaches the maximum height and density allowed by the 1974 Plan. Therefore, redevelopment potential is limited. Redevelopment of the Federal Triangle may not be practical because the height can only increase 10 feet per the 1910 Height Act, nor feasible due to its historic designation.

6. The Avenue's linear nature, distances between buildings, across wide streets and large blocks of open spaces, particularly on the eastern and western ends of the Avenue, break down the area's spatial definition, lack pedestrian interest and comfort, and disconnect pedestrians from adjacent neighborhoods.

## C. Urban Form | Vistas

1. The 1974 Plan building height-to-setback ratios balance the varying street walls on each side of the Avenue to preserve the unobstructed view, open sky, and horizontal frame to the Capitol.
2. The vista to the Capitol is a dominant asset to the Avenue, serving as a primary character-defining feature. The center median and southern sidewalks offer the best views. However, signals, signage, and zebra cones clutter the center median, distracting from the vista.
3. The bucolic setting of President's Park anchors the western terminus, transitioning the Avenue's urban streetscape to an open landscape that provides the setting for the vista towards the Treasury Building and White House. At the eastern terminus, parking in the Avenue's median mars the importance of the Capitol vista.
4. Several secondary vistas connect the Avenue to other important destinations and landmarks, such as Smithsonian museums and the National Mall.

#### D. Placemaking | Architecture

1. The mix of prominent and historically significant building eras and styles illustrates the Avenue's evolution and diversity of cultural expression, and building materials provide a unifying characteristic along the Avenue. However, the different architectural styles on either side of the Avenue contribute to the perception of an edge between downtown and the monumental core.
2. To the north, except for the Victorian era buildings which have frequently spaced ground-level entries and windows that engage pedestrians, most modern building frontages deter street activity. This is because the prevalence of generic modernist building styles with minimal details creates a monotonous and sterile character. While the facades vary in materials and patterns, the façade elements are spaced too far apart along the block long building walls. Some buildings also have recessed entrances and opaque windows, and minimal signage can affect pedestrian walkability.
3. To the south, the Federal Triangle's architectural style and details unify its character, convey a sense of time and civic purpose, and provide pedestrian interest. However, the building design and campus setting affects connectivity with adjacent neighborhoods. The Neoclassical building facade materials, patterns, and details are spaced closer together and provide visual interest, but are monotonous and lack transparency along the long building walls with limited and restricted building entrances. Building yards and light wells separate pedestrians from the buildings and perimeter security further deters pedestrian activity.
4. The Federal Triangle's narrow floorplates provide workspaces with access to daylight and air. Modern office buildings offer larger, flexible floorplates, but sacrifice workspace quality.

#### E. Placemaking | Landscape Architecture

1. The PADC era streetscape design creates a civic quality unlike any other street in the city; it is easily programmable for regional and national civic activities. While the Avenue's north and south sides distribute sidewalk space differently to respond to adjacent conditions, collectively the landscape forms a streetscape that unifies and visually balances the north and south sides. The Avenue's formal, multi-row tree canopy frames views to the Capitol, unifies the different setbacks and sidewalk widths, and connects the Modern and Postmodern parks and plazas, mitigates the diverse architectural styles, and hosts an array of special features. The tree canopy also creates a ceiling enclosure for pedestrians and dappled shade and shadow for interest and delight.
2. The Avenue's wide northern sidewalks provide space for tree plantings, pedestrian paths, furnishings, café space, and civic uses. However, the café program separates the retail frontage from the flow of pedestrians and the current site design program results in the sidewalks seeming too large for its use. Areas with narrow sidewalks constrain pedestrian movement and do not provide adequate room to meet the Avenue's landscape, activity, and civic use needs. Both situations result in low-quality pedestrian experiences further exacerbated by lack of pedestrian amenities, such as public seating.
3. The location of parks and plazas respond to historic plans and conditions, creating a rhythm of open spaces, each with an individual design expression and style. The openness and flexibility of these spaces is conducive to hosting a variety of civic activities. However, these spaces do not offer a diversity of landscape features, such as seating, shade, and fountains for daily pedestrian comfort, engagement, or interest.
4. Several of the primary parks have elevation grade changes, site walls, parking areas, and streets at their edges that disconnect the public space from adjacent uses. The spaces do not have direct or easy access to building frontages, causing them to feel isolated from adjacent uses, such as Pershing Park and Freedom Plaza.

5. Deferred maintenance of trees and custom furnishings negatively affects the Avenue and does not accommodate user needs. Deficient maintenance, an inadequate design program, and lack of activity programming deters park use.
6. Unless regulated properly, signage and advertisements conflict with the Avenue's historic design character and there is not a signage program to balance the Avenue's historic character with business visibility needs.
7. The custom furnishings and materials differentiate it from other streets. The palette provides a neutral, unobtrusive setting that elevates architectural elements, memorials, and the Capitol vista. These elements have held up relatively well given their age, level of use, and minimal maintenance. However, deferred maintenance of trees and furnishings negatively affects the Avenue and does not accommodate user needs. Many street furnishings are no longer available.
8. The Avenue lacks a cohesive narrative. It consists of Neoclassical, Modern, and Postmodern parks and plazas, and a number of commemorative features that cover a wide range of subject matters.
9. The Avenue acts as an edge between downtown and the National Mall, unable to blend the varied characteristics into a unified destination. The differences in land use, topography, urban form, views, traffic, security measures, and streetscape materials affect north-south connections. The physical condition of sidewalks and infrastructure also affects walkability.

## **F. Infrastructure | Accessibility, Perimeter Security, & Stormwater Management**

1. Some building entry and exit points with limited signage, grade transitions to parks and plazas, and streetscape materials pose universal accessibility challenges. To comply with current ADA standards, most Avenue intersections need tactile warning strips at curb ramps and crosswalk signals with audible alerts.
2. Existing perimeter security elements, mostly temporary, create an introverted character within the Federal Triangle and convey a campus-like quality to the federal workplace. The Department of Commerce recently integrated perimeter security while minimizing impacts to the public realm. However, there is no consistent and integrated perimeter security and urban design solution for the Avenue. When the FBI site redevelops, the security requirements for the site will change and most likely reduce.
3. The 17th Street closure and Potomac Park levee system mitigates riverine and coastal flooding risks to the study area. Since the study area is at a low point in the watershed, it is at risk of interior flooding. Implementation of building specific stormwater management improvements has reduced flooding impacts to individual buildings. However, there is no holistic, area-wide stormwater management approach for the study area.



*Pennsylvania Avenue looking east from Freedom Plaza*

# Avenue Development Eras

Washington has a rich, multi-layered planning and cultural history. From its inception through the nineteenth century, Washington's planning, architecture and landscapes were informed by European influences. As Washington matured, first as the capital of a new nation and then as a world power, so has Pennsylvania Avenue's identity and character. At a grand scale, the Avenue's strong civic and symbolic roles have endured. However, at the human scale, the pedestrian experience has transformed as changing social, economic, and environmental issues influenced planning principles and development patterns. Its evolution generally spans five development eras over more than two centuries.

A general summary of the five eras and their influence on the Avenue's physical form and pedestrian experience follows. The Urban Form, Placemaking, and Infrastructure chapter contains additional details.

## The L'Enfant Era: 1800–1850

Pierre L'Enfant's visionary Baroque Plan, refined and implemented by Andrew Ellicott, established a clear monumental and symbolic framework for a growing capital city in a new democracy. The plan's structure of streets, blocks, and federal reservations for public space and civic institutions reflect a hierarchical formality. Presidents Washington and Jefferson deemed Pennsylvania Avenue the "Grand Avenue" due to its strong axial relationship connecting the People's House (Capitol) with the President's House (White House). It was envisioned that the two classically inspired buildings, each within a landscape setting, would be connected by a carriageway flanked by continuously aligned footpaths shaded by an allé of canopy trees and modest wooden and brick structures at the building line.

Because of its unique position between the Capitol and the White House, the Avenue became Washington's first "Main Street," serving as a cartway and promenade for engaging in the affairs of the new nation and daily life. As adjacent development grew organically throughout the early 1800s, the cartway was paved to reduce dust and dirt. Businesses north of the Avenue supported lodging, commerce, and business needs, while proximity to Tiber Creek slowed development to the south.

## The Civil War/Victorian Era: 1850–1900

After the Civil War, the city aspired to make Washington a worthy capital by repairing wartime damage and improving infrastructure and public spaces

with amenities and tree plantings. Civic design rules provided for landscaping rights-of-way, the creation of park reservations along the avenues, and allowed controlled building projections into public space. This shaped the character of the public space and street walls along thoroughfares, and created development that engaged users at an intimate scale.

As the nation developed, businesses and commerce grew, drawing residents and visitors to an increasingly active and bustling Avenue. Widening the Avenue allowed pedestrians, bicycles, horses, carriages, and horse-drawn streetcars to share a street now punctuated by landscape squares and triangular parklets. The federal government acquired an entire block for construction of the Post Office building, completed in 1899. Four to eight story buildings predominantly lined the rest of the Avenue. Victorian era, exuberant, asymmetrical buildings with towers, turrets, and ornamental details were built on triangular blocks, and parklets were adorned with statues or other elements. During this time, an evolution of architectural styles began to contribute to the Avenue's main street character.

## The McMillan Era: 1900–1950

With the city's centennial celebration as the seat of the federal government in mind, the Senate Park Commission developed the McMillan Plan to reinforce the importance of the L'Enfant Plan. Flooding and poverty contributed to the physical and social decline of the Avenue, impacting its stature. The federal government began planning expansion south of the Avenue, replacing deteriorated housing and businesses with federal office buildings within the area now known as the Federal Triangle.

The Federal Triangle is a notable feature of the McMillan Plan. Inspired by the City Beautiful Movement—and building on the grandeur but deviating from the L'Enfant Plan—the McMillan Plan aggregated squares and eliminated streets to build a composition of freestanding Beaux Art buildings that reinforced the strength and growing influence of the American government. As these buildings were generally taller than most at the time, the structures were set back from the building line within a landscaped building yard to respect the open vista of the Capitol building. New private development to the north generally consisted of classical buildings on aggregated lots. Cars and motorized streetcars replaced horses and shared the cartway with people and bikes. Business, commerce, and entertainment generated activity on the Avenue until a period of decline toward the end of World War II.



*Historic image of Avenue looking east, with downtown buildings to north and Federal Triangle to the south.*

## Post WWII/PADC Era: 1950–1996

After the war, suburban migration resulted in a nine-to-five downtown with acres of parking lots and a decline in the city’s economic stability. In 1964 and 1968, Presidential Councils prepared successive plans to revitalize the Avenue’s economic health and restore its grandeur and beauty. These vision plans focused on redeveloping the Avenue’s north side and unifying it with the south side. These plans informed the 1974 Plan that continues to guide development today.

The Pennsylvania Avenue Development Corporation released the 1974 Plan to adapt the L’Enfant and McMillan Plan principles to post-war urban development. The 1974 Plan aspired to reinforce the Avenue’s role as a physical and symbolic link between the Capitol and White House, to bridge downtown and the National Mall, increase the mix of uses, and infuse new economic life. With the federal government expected to grow, the 1974 Plan proposed grand public spaces and superblock buildings with a mix of residential, office, commercial, and cultural uses.

Planning future buildings with taller heights north of the Avenue, the PADC adopted guidelines to set buildings back and step them up to protect L’Enfant’s open vista of the Capitol. PADC also made efforts to preserve historic buildings and introduce the best of contemporary architecture. The plan provided for a network of public spaces and generous sidewalks that could host a range of activities. To unify the varying building setbacks and the Avenue’s variety of architectural styles, PADC established a simple custom-designed streetscape palette with a formal multi-row tree-planting scheme.

## The Legacy Era: 1996–today

The 1974 Plan is still applicable today. The PADC achieved many of its goals—attracting businesses and visitors back to the Avenue, reintroducing downtown residential living, and jumpstarting the revitalization of Downtown Washington—before Congress dissolved the corporation in 1996.

During this time, several circumstances had differing degrees of impact or influence on the Avenue. The most significant impact began with the 1995 Oklahoma City bombing and the September 11, 2001 attacks, which caused the closure of Pennsylvania Avenue and E Street at the White House. These closures eliminated two significant cross-town thoroughfares, rerouted traffic, and increased congestion on other streets. These street closures on the west, which effectively terminate on the east at the U.S. Capitol Grounds, isolate this important 1.2-mile segment from the city’s street grid. These changes affected vehicle and pedestrian volume and use, and creating physical and economic challenges not addressed by the 1974 Plan.

During this time, Downtown Washington began its resurgence and expanded to the southeast and southwest. The Avenue is now competing with emerging neighborhoods throughout the city.

This same year the PADC was dissolved, NCPC was seeking public comment on *Extending the Legacy: Planning America’s Capital for the 21st Century* (Legacy Plan), the third generation plan for the capital city. Approved in 1997, the Legacy Plan reinforces the value of Washington’s monumental core, recognized as one of the world’s finest examples of civic art. However, its core premise asserts and affirms that for Washington to evolve as a capital city, there should be more integration of the federal and local city, both within mixed-use districts and in the same buildings.

With the intention to expand the identity of central Washington as the seat of the nation’s government to a great capital city, the Legacy Plan’s five planning themes guide future development:

- › Build on the historic L’Enfant and McMillan Plans, the foundation of modern Washington.
- › Unify the city and the monumental core, with the Capitol at the center.
- › Use new memorials, museums, and other public buildings to stimulate economic development throughout the city.
- › Integrate the Potomac and Anacostia Rivers into the city’s public life and protect the Mall and the adjacent historic landscape from future building.
- › Develop a comprehensive, flexible, and convenient transportation system that eliminates barriers and improves movement within the city.

Building on the Legacy Plan, NCPC approved the *Memorials and Museums Master Plan* (2M Plan) and the *Monumental Core Framework Plan* (Framework Plan) for more specific guidance on where and how to achieve the Legacy Plan’s aspirations. The Framework Plan emphasizes the opportunities along Pennsylvania Avenue for a new mix of office, culture, and hotel uses; and to improve the pedestrian experience integrating diverse aspects of Washington life by increasing its appeal to workers and visitors; strengthening the Avenue as a preeminent boulevard; and establishing a welcoming, lively, and beautiful street.



*Pennsylvania Avenue looking east*

CREDIT: AGNOSTICPREACHERSKID

## Moving Forward on the Avenue | *Changing Conditions*

Each of the past development eras and their respective plans and regulations contributed to shaping the nationally recognized character of Pennsylvania Avenue, reflecting the evolution of social, economic, and environmental conditions. Many of the planning principles that shaped the Avenue through each of these eras remain inherent parts of the city's unique development legacy. However, there are new issues confronting urbanism in our time, and new principles may help address them. It is important to look at the conditions along Pennsylvania Avenue critically and with the benefit of hindsight to understand what contributions 21st century urbanism can bring to the Avenue.

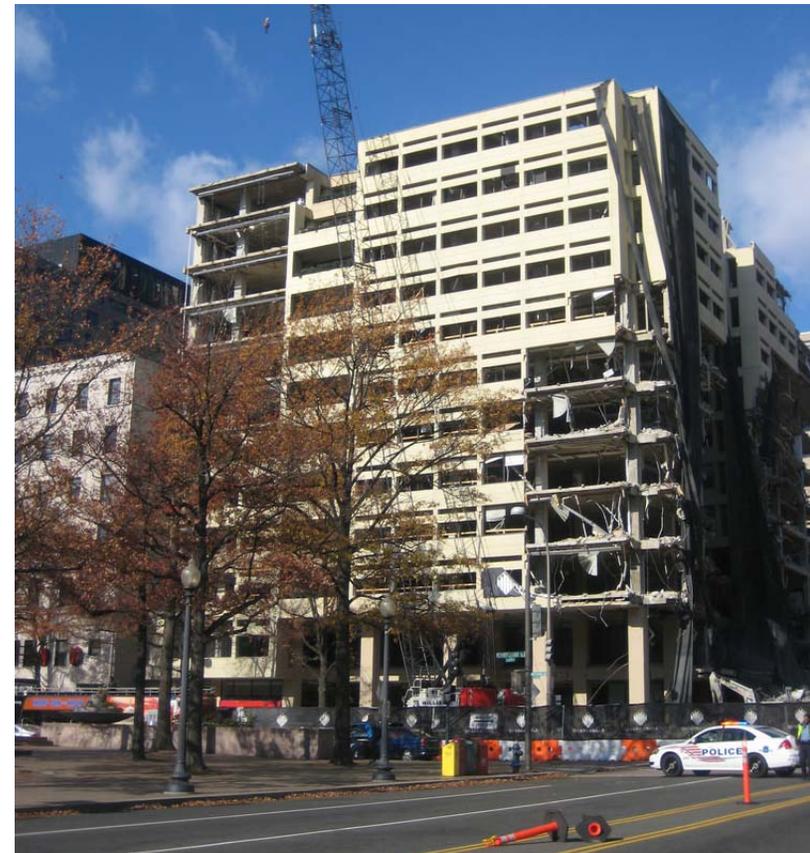
To create a city that is authentic and unique, federal and local collaboration and coordinated solutions are necessary. Today, local and federal agencies use the *Comprehensive Plan for the National Capital*, as well as various vision and sector plans as their primary planning guidelines. The following documents, along with others including the District of Columbia's adopted planning documents, should guide Pennsylvania Avenue's future:

- › *The Plan of the City of Washington (L'Enfant and McMillan Plans)*
- › *The Comprehensive Plan for the National Capital: Federal and District Elements*
- › *Extending the Legacy: Planning America's Capital for the 21st Century*
- › *Monumental Core Framework Plan*
- › *Memorials and Museums Master Plan*

In addition to shared stewardship as a best planning practice; these documents address contemporary best practices, such as:

- › Respect for traditional urbanism in the form of mixed-use districts and walkability instead of single-use auto-oriented development
- › Preservation of a sense of place, historic buildings, landscapes, and character of a place or community
- › Sustainability, resiliency, green infrastructure, and incorporation of nature into the city
- › Expression of contemporary architectural forms and materials

- › New preferences for working and living, often driven by technology, that are changing space use
- › Preference for diversity and social equity
- › Security protections for man-made and natural threats
- › Use and benefits of smart technology
- › Use of regulatory tools to achieve planning and development goals
- › Use of public-private partnerships to manage and sustain vital public interest and civic activities



1301 Pennsylvania Avenue

## Changing Conditions

Several development projects that are recently completed, underway, or planned, continue to evolve the Avenue's character and identity. While some project impacts are not fully evident, it is important to note their significance and the opportunities they present along the Avenue. The following projects are intended to provide an overview of changes, and do not represent a full list of development projects. They are either located in the study or the vicinity.

### Projects within the Study Area

#### 1. J. Edgar Hoover Building (FBI Headquarters) Site

In February 2017, the General Services Administration accepted Square Guidelines developed and approved by NCPD. The guidelines will inform the future redevelopment of the J Edgar Hoover building site, Squares 378 and 379 on Pennsylvania Avenue. The guidelines establish the framework for a mixed-use development that will generate new economic, social, and cultural activity to bring new life to the Avenue and support the Avenue's role as a significant capital city destination.

#### 2. Old Post Office/Trump International Hotel

In October 2016, a new 263-room hotel opened in the Old Post Office building. The hotel also includes a bar, restaurant, spa, outdoor cafe spaces, and conference center. The Old Post Office tower, managed by the National Park Service, reopened to the public in 2017. The 315-foot tower offers some of the best publicly accessible views of Washington.

#### 3. 1301 Pennsylvania Avenue

Redevelopment of the site into a 13-story office building that will include roof terraces, a glass facade, fitness center, parking garage, and ground floor retail.

#### 4. Herbert Hoover Building (U.S. Department of Commerce Headquarters)

The General Services Administration is modernizing the building and integrating building perimeter security features into the public realm.

#### 5. Pershing Park/National World War I Memorial

Home to the General Pershing Memorial, the park was designated in 2015 as the National World War I Memorial. The memorial is currently in the design phase, and memorial sponsors plan to break ground in 2019.

#### 6. National Gallery of Art's Andrew W. Mellon Fountain

The National Park Service transferred the Mellon Fountain to the National Gallery of Art, which completed the first phase of restoration of the fountain and the triangle park in 2016 to celebrate the museum's 75th anniversary. The second phase was completed in the summer of 2017. The National Gallery of Art also recently completed restoration of its East Wing.

# Moving Forward on the Avenue | *Changing Conditions*

## Projects near the Study Area

### 7. National Museum of African American History and Culture

Opened in November 2016 and located across Constitution Avenue from the Federal Triangle, the museum set attendance records for Smithsonian Institutions.

### 8. National Mall Plan Implementation

The 2010 *National Mall Plan* focuses on improving park designs, infrastructure, and programming to enhance the user experience for over 25 million people that visit the National Mall each year. Two phases of turf restoration are complete, the first between 3rd and 7th Streets in 2012 and between 7th and 14th Streets in 2016. To protect the new lawn, NPS vets event programming thoroughly and uses new rules to control the locations of tents, foot traffic, and stages. Additional improvements include better wayfinding signage, electric car charging stations, and new design concepts for Constitution Gardens.

### 9. 17th Street Levee closure

Completed in 2015, the 17th Street Levee closure protects the National Mall and Federal Triangle areas from river flooding. A system of metal plates can be installed across 17th Street near Constitution Avenue within hours, attaching to permanent floodwalls to protect low-lying areas to the south and east. This system replaces the earlier design that relied on sandbags to close the levee.

### 10. Smithsonian Institution

The Smithsonian Institution is preparing a new South Campus Master Plan to improve and expand visitor services and education, to create clear entrances and connections between the museums and gardens, and to replace aging building mechanical systems that have reached the end of their lifespan. The Smithsonian is also making access, landscape and cladding improvements to the National Air and Space Museum.

### 11. Martin Luther King Jr. Memorial Library

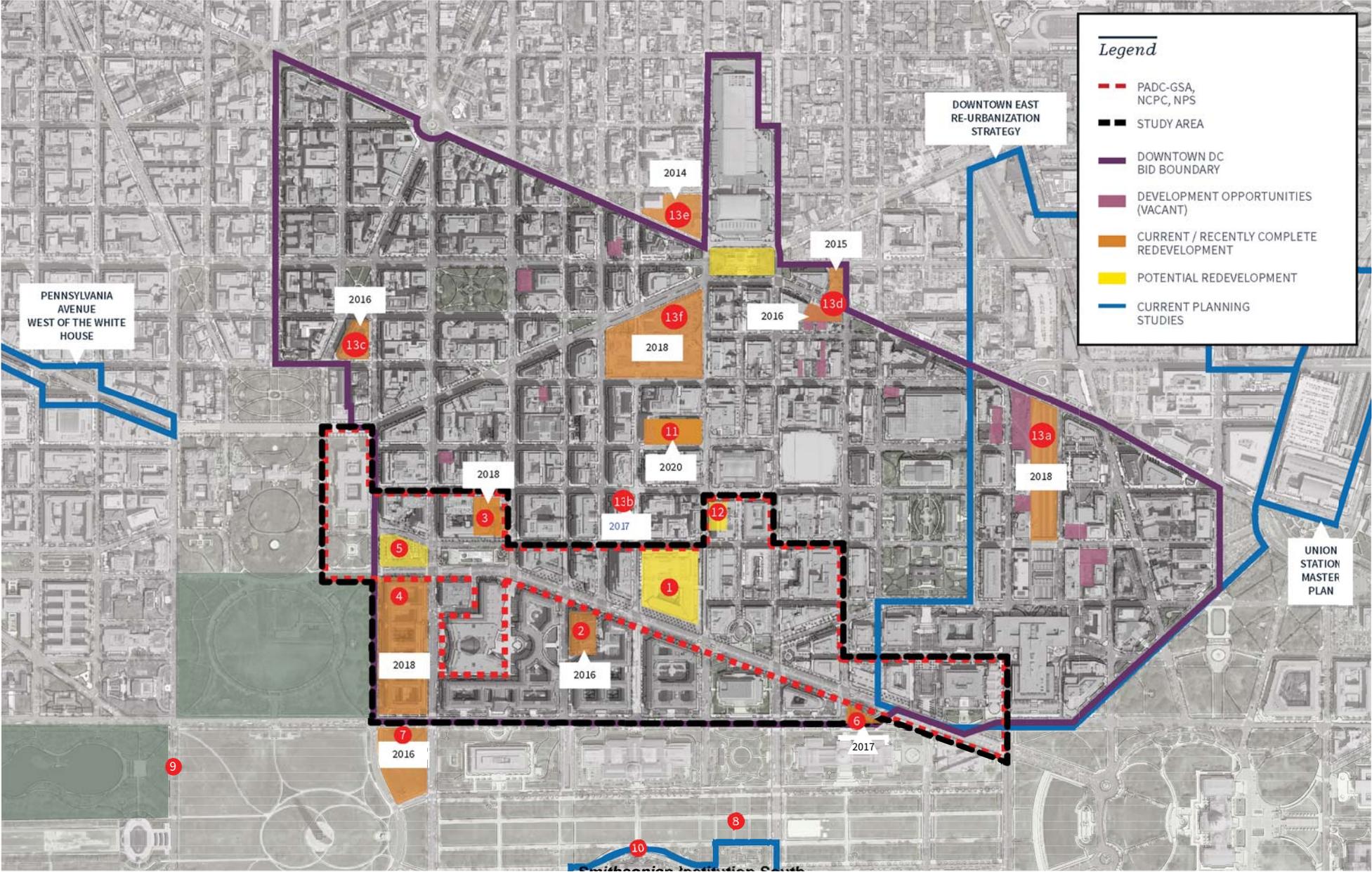
The only library designed by Ludwig Mies van der Rohe, and his only building in Washington, DC, is currently under renovation. The modernized library, located three blocks north of the Avenue, will reopen to the public in 2020.

### 12. The International Spy Museum

Currently located in Penn Quarter, the popular museum will soon move to a larger location at L'Enfant Plaza .

### 13. Other Downtown Development

New office and mixed-use construction is occurring beyond the study area throughout downtown Washington. The largest projects include Capitol Crossing (13a), 1000 F Street (13b), the new Fannie Mae Headquarters (13c), 600 Mass Ave (13d). City Center's hotel is also under construction (13f). This additional development will add 450 additional residents, and residential-serving retail.





# 2

## Land Use & Activity

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- 40 Public Space
- 52 Summary

## Introduction

The Land Use and Activity analysis evaluates land use relationships among buildings and public spaces. It focuses on how land uses contribute to the level of activity and influence the Avenue's identity and character. The analysis identifies issues to inform objectives and potential strategies that will improve the economic conditions and liveliness of the public space to enhance the experience of the Avenue. This chapter addresses two primary types of uses:

**Building Uses** examines the primary land use(s) of an individual building or collection of buildings, the type and location of ground floor uses, and general hours of operation.

**Public Space** examines the daily use and civic use of parks, plazas, and the linear streetscape. For the purpose of this analysis daily use of public space refers to day-to-day activities such as running errands, accessing public transit, eating outdoors, or resting in a park. Civic use refers to a range of activities such as small and large parades, public assemblies, festivals, gatherings, and other special events that reach local, national, and international audiences.

Building uses and public space uses affect the amount, diversity, and duration of activity in the area at any given time. This activity fluctuates throughout the week, seasonally, and annually. It directly influences the Avenue's identity within the city, its character, and the everyday experiences of users that work, live, and visit the area.

Pennsylvania Avenue's first role was as a rural carriageway linking the executive and legislative branches of government. The Avenue soon became a ceremonial corridor for nationally significant celebrations and grew into the city's bustling commercial area, with a central market and business center that integrated federal and local Washington. As time passed, conditions deteriorated south of the Avenue and the federal government planned to build offices in the area. As envisioned in the 1901 McMillan Plan, the Avenue's identity and character began to change with the construction of the Federal Triangle and the Smithsonian Museums to the south. The concentration of federal offices and cultural uses gave shape to the monumental core. Downtown Washington, just north of the Avenue, developed into an office hub and mixed-use entertainment district. Together, these areas strengthen Washington's image as a capital city.

The Avenue's civic identity is defined by its proximity to the nation's highest government offices, cultural institutions, and the National Mall, along with its vista and open space network. These characteristics elevate the Avenue as a prestigious address for businesses, residences, and civic activities. However, its scale, land use, and of transportation infrastructure creates an edge and barrier between Downtown Washington and its civic core, failing to sustain engaging daily activity. This divides neighborhoods, businesses, and commercial areas from the nation's civic and cultural institutions, thereby weakening the area's contributions to the capital city.

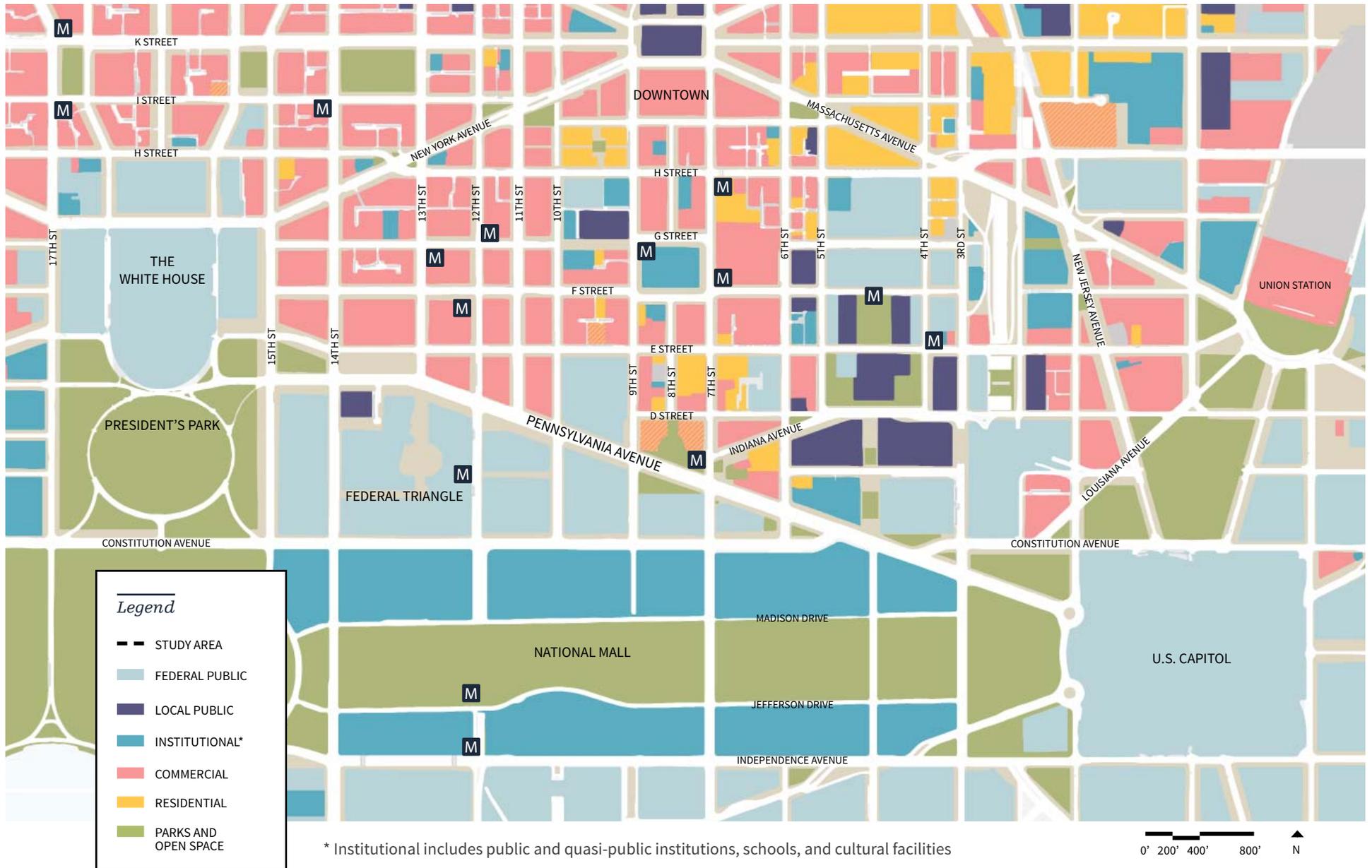
This analysis complements the 2016 Pennsylvania Avenue Real Estate Market Analysis. The Market Analysis focuses on economic strengths and weaknesses related to land use, including how market conditions affect investment, development, and prospects for the near and long term land use mix. This Land Use and Activity Analysis address the use, location, and program relationships among land uses.

The General Ownership Map shows the distribution of private and public lands, illustrating the division between local and federal Washington along the Avenue.

**North of the Avenue**, the private lands include a mix of commercial and mixed-use properties, and city and federal public lands. Development is denser, comprising 52 percent of the development but only using 42 percent of the land area.

**South of the Avenue**, the large enclave of public lands include federal offices, parks, and open space. The Federal Triangle comprises 47 percent of the development, but uses 57 percent of the land area.

# General Ownership & General Existing Land Use



# Building Uses

## Introduction

**Building uses** among neighboring buildings influence the variety and number of users frequenting an area. This analysis examines how the relationships among three characteristics related to building uses support daily activity, thereby contributing to the Avenue's identity and character.

**Primary Building Uses** examines the type, location, and relationship between uses and their effect on daily activity.

**Ground Floor Uses** examines the type, location, and relationship between interior primary and ground floor uses, and exterior public space and amenities. Ground floor uses may include primary building uses. Other retail and service uses may include drug stores, banks, day cares, and various food service types with a range of price-points.

**Hours of Operation** examines the general time and duration of weekday and weekend activities. These include typical business hours and extended evening hours. The building uses and operating hours affect the concentration and duration of street-level activity.





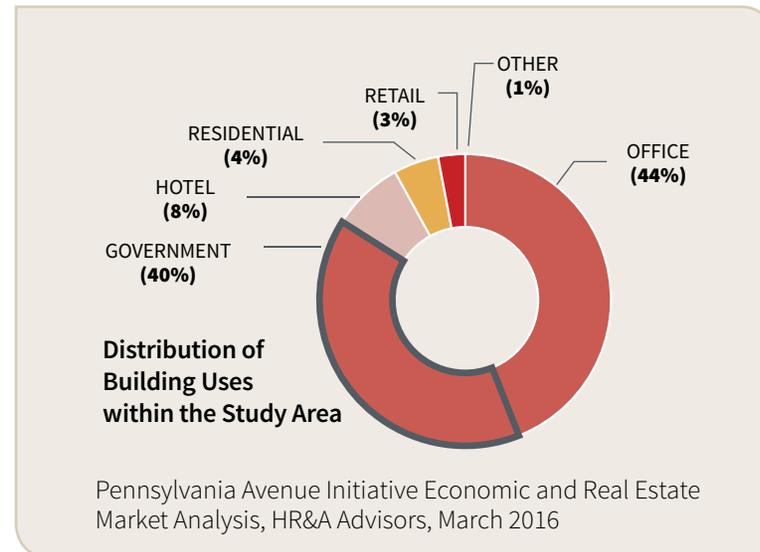
## Introduction

**Primary Building Uses:** The amount, location, and relationship among primary building uses affect activity along the Avenue, which shapes its identity and character.

## Context

**Primary Building Use Mix:** The concentration of government and private offices (84 percent of the use mix) compared to hotel and residential uses (12 percent), largely defines the corridor as a workplace. The office uses support the government sector or affiliated professional services. Retail comprises about three percent of the ground floor use.

The study area contains several cultural and entertainment venues and is located between a concentration of art, culture, theater, and arena-related uses within Downtown Washington and on the National Mall. According to the Downtown DC Business Improvement District, the National Archives and the American Art Museum/National Portrait Gallery were the most visited museums in the study area, bringing close to 2.5 million visitors in 2016. Performing arts venues in the Downtown BID area comprise nine percent of the region's total performance space (Arlington, Fairfax, Montgomery, and Prince George's counties); 25 percent of theater seats in the city are located within the Downtown BID, which is in or adjacent to the Pennsylvania Avenue Initiative study area. Together, these uses attracted more than 20 million visitors in 2015; market projections expect this number to continue to grow. These uses support the area's hospitality uses, such as hotels and restaurants.

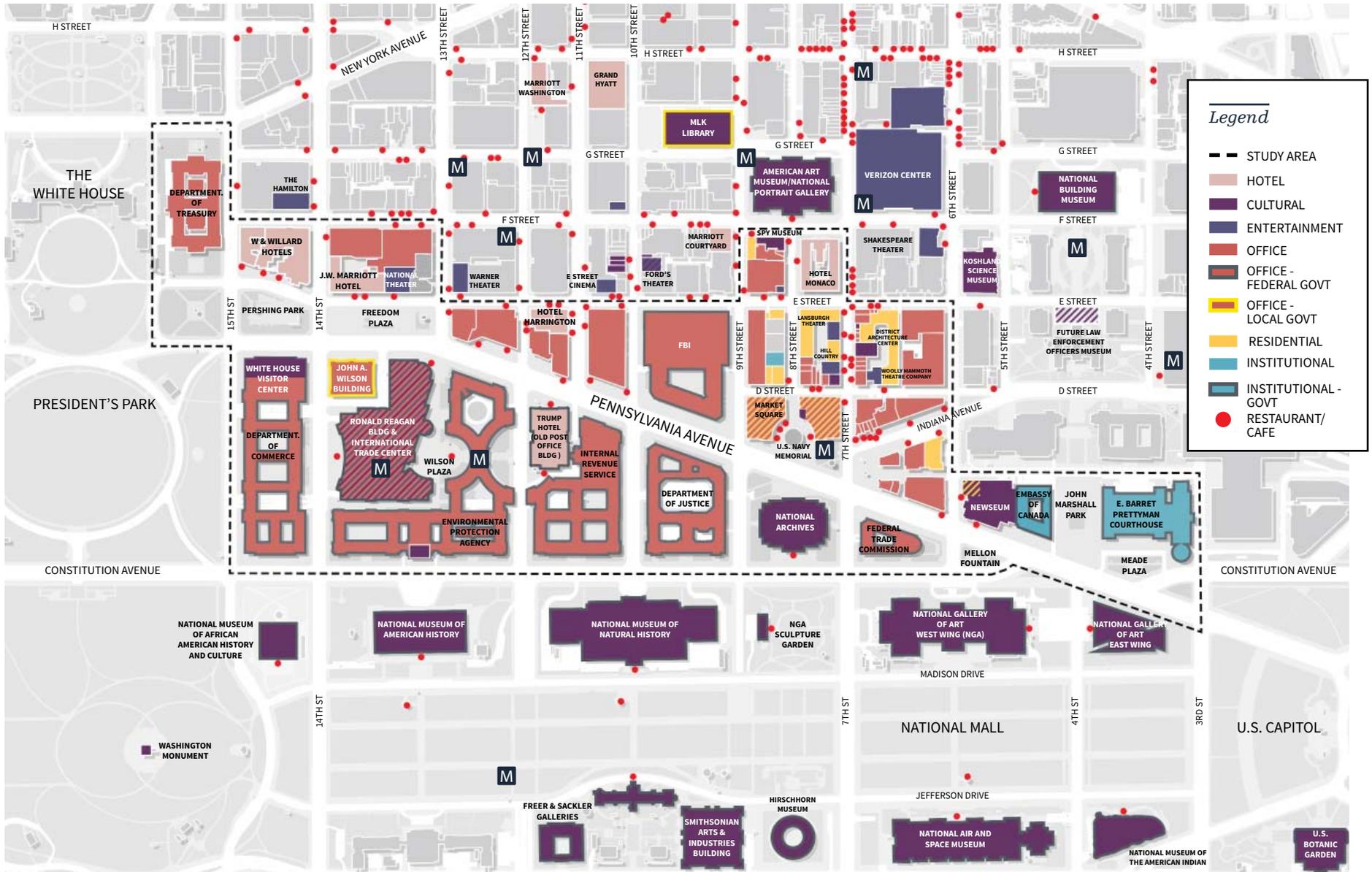


Building Use	Study Area	Downtown	NoMa
Office	84%	82%	59%
Residential	4%	8%	30%
Hotel	8%	9%	2%
Retail	3%	.5%	3%
Other	1%	.5%	6%

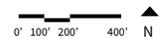
The land use mix within the study area is similar to a 12-hour downtown business district, versus a mixed-use 18-hour live-work neighborhood, like NoMa.

DowntownDC and NOMA BIDs

# Expanded Arts & Culture Sub-Area - Primary Building Uses



Pennsylvania Avenue Initiative Economic and Real Estate Market Analysis, HR&A Advisors, March 2016



# Building Uses | *Primary Building Uses*

## Analysis

Building uses contribute to the activity level; together these uses and their associated activity levels inform the Avenue's identity and character.

**Building Use and Avenue Identity:** The concentration of federal government offices contribute to the Avenue's national identity and the cultural and entertainment venues establish it as a visitor destination in the capital city. Together with the Capitol vista, these uses contribute to the Avenue's strong civic identity and character. However, the low percentage of retail and residential uses on the Avenue dilutes and weakens its ability to sustain daily activity.

**Primary Buildings Uses and Activity:** The most active areas along the Avenue are those with a mix of uses offering extended hours or programmed public spaces with a direct relationship to adjoining buildings. The most and least active areas are summarized north and south of the Avenue. (For additional information, see the Character Areas Chapter.)

### North of the Avenue:

- › Areas west of 9th Street support a mix of office and hotel uses. The area between 9th and 13th Streets is a stretch of single-use office buildings with limited daily activity. The Willard Hotel at the 14th Street node is an active mixed-use area.
- › Areas east of 9th Street support office uses with a concentration of residential, cultural, and institutional uses; activity dwindles heading east.
  - » The 7th Street node flanked by Market Square and the Indiana Avenue corridor is an active mixed-use area and visitor destination.
  - » Except for the Newseum, there is little activity east of 6th Street outside of typical daytime hours. John Marshall Park is underused, and its lack of activity deters visitors.
  - » While the two most visited museums in the study area, the National Archives and the Portrait Gallery/American Art Museum, are located two blocks apart on the 8th Street axis, the area between them lacks life due to a power plant wall and limited commercial and retail uses.

### South of the Avenue:

- › Daily activity in the Federal Triangle between 6th and 15th Streets is relatively low due to the concentration of government offices without external public or commercial uses.
- › The East Wing of the National Gallery of Art offers programming in the evening, but adjacent buildings have limited hours of operation. Further to the south, the cultural uses and open spaces on the National Mall are more active during daytime and on weekends.

In addition, on the north and south sides of the Avenue, the federal government is repositioning some of its assets to improve space utilization and maximize asset value. The Old Post Office is now a hotel with outdoor seating, creating an active site east of 12th Street. The J. Edgar Hoover Building (FBI) may redevelop in the future, providing an opportunity to establish a destination with a diversity of uses and significantly improve connections and daily activity.

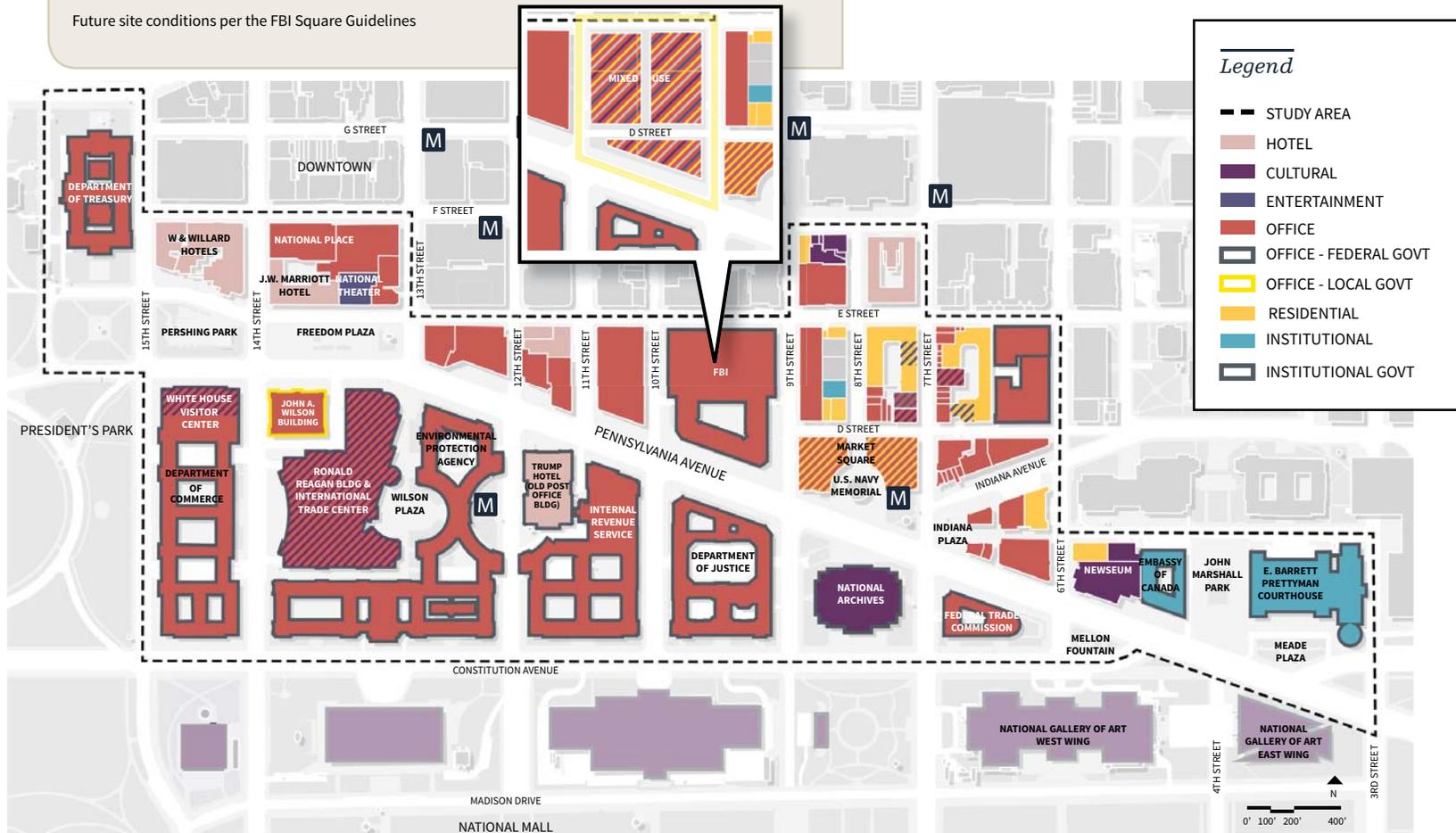
There is a concentration of art, culture, and entertainment uses just off the Avenue to the north and south (downtown and the National Mall, respectively). While these uses encourage people to cross the Avenue, downtown's concentration of activity and the many dining, shopping, and entertainment options, often pulls pedestrian activity away from the Avenue.

## Issues

- The concentration of federal office and cultural uses contributes to the area's civic character and capital city identity.
- The most active areas along the Avenue are those with a mix of uses; the least active areas are areas that consist of single use office buildings or areas with little or no retail related activity.
- Hotels, cultural, and entertainment uses contribute to daily and evening activity.

**FBI Note:** The Square Guidelines encourage a mix of uses on the Avenue to maximize day, evening, and weekend activity to attract locals and visitors. This, combined with a mix of uses on adjacent streets, is essential to furthering a “Living Downtown.”

Future site conditions per the FBI Square Guidelines



# Building Uses | *Ground Floor Building Uses*

**Ground Floor Building Uses:** The location, quantity, and relationship between primary and ground floor building uses, and their respective operating hours, affect the overall diversity of uses along the Avenue and influence the level and duration of daily activity.

## Context

**Amount of Active Ground Floor Building Uses:** According to the 2016 Market Analysis, the study area supports about three percent publicly accessible retail uses that generate public space activity along the Avenue's north side. This retail use primarily includes food service with a range of price points, and a limited amount of convenience retail (drug store) and neighborhood services (day care).

The amount and diversity of retail along the Avenue is limited by the dominant office use; the more remote location of cultural and entertainment uses; the small amount of hotel and residential uses; and the internal, employee-only cafeterias and other services in six of the federal buildings.

## Analysis

**North of the Avenue:** To the north, approximately 35 percent of the Avenue's building frontages support publicly accessible uses, such as retail and restaurants; and, about 65 percent supports limited access businesses, such as offices, lobbies, and a day care facility. (For more information, see 'Access to Active Building Frontage' pages 148-149)

The most active areas are the two mixed-use nodes, near the Willard Hotel and the 7th Street intersection at Market Square and Indiana Avenue. These areas support ground floor uses, primarily quick serve restaurants, restaurants with outdoor dining, or active hotel lobbies that create inviting destinations and provide connections to other nearby attractions.

Between these two nodes, 9th and 13th Streets, the dominant use is office with outdoor cafes, which do not fully activate the public space because larger areas of inactive uses (such as office lobbies) separate them.

The least active area is east of 7th Street, NW. The Newseum's Daily Newspaper Display is the only activating feature on either side of the Avenue.

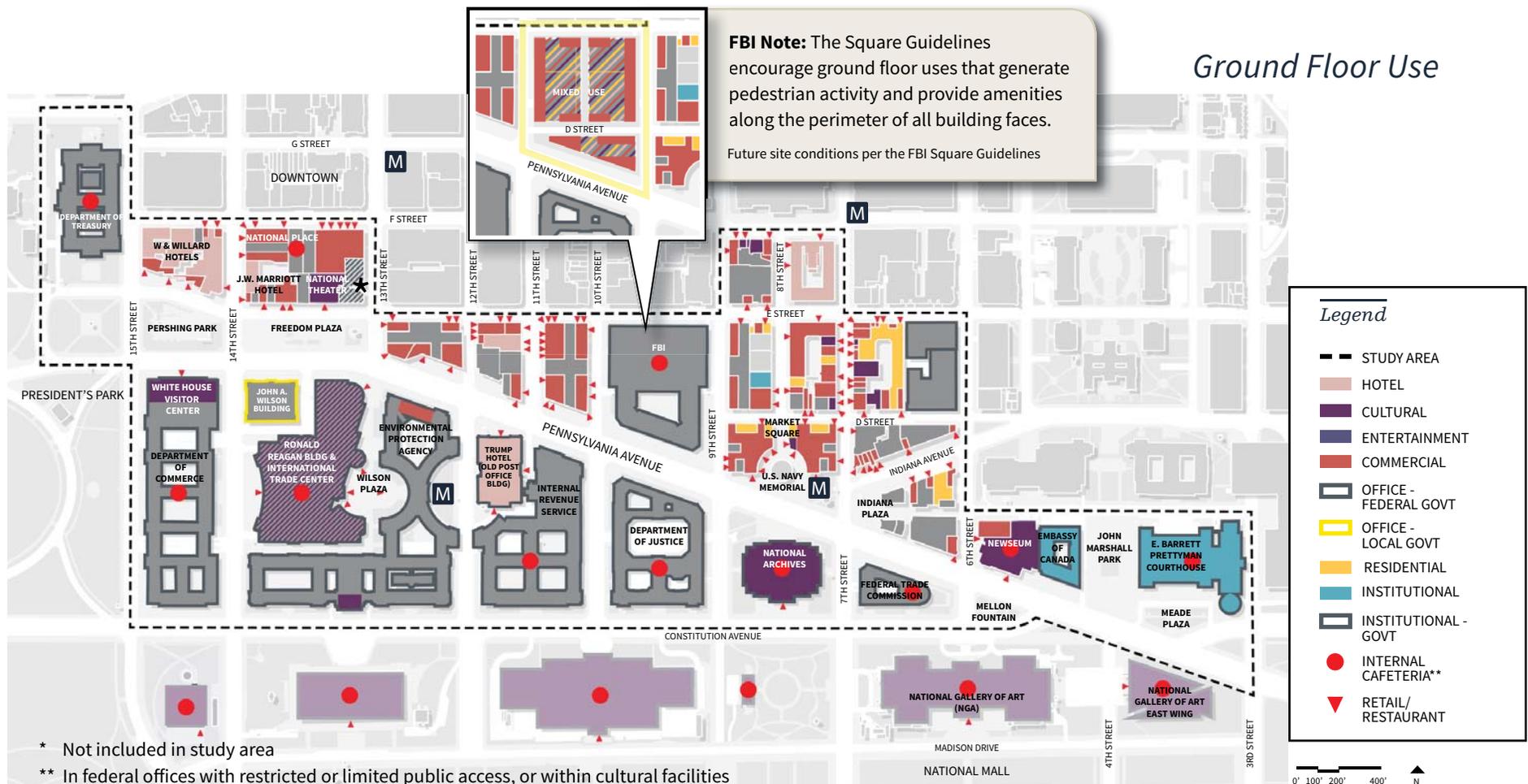
The Canadian Embassy, National Gallery of Art (NGA) West Wing, and the U.S. District Court have weak relationships with the Avenue due to setbacks, elevations changes, blank walls, or minimal windows and entrances along the street.

**South of the Avenue:** To the south, approximately 12 percent of the Avenue's building frontages support publicly accessible uses, such as hotel, retail, cultural, or governmental services; and about 88 percent supports uses with restricted public access, such as government offices, or cultural uses with limited or no entry points on the Avenue. Public space activity is sparse, limited to business or commuter related activity. Together, these characteristics create a psychological barrier between the Avenue and the National Mall. (For more information, see 'Access to Active Building Frontage' pages 148-149)

Most activity is related to daily work-related trips, or tourists walking north-south between visitor destinations. Overall, the south side is not active because the ground floors of the Federal Triangle's Neoclassical office buildings consist of long facades with minimal entrances, and are set back and separated from the sidewalk by building yards and lightwells. Additionally, from west to east:

- › The White House Visitor Center and Ronald Reagan Building and International Trade Center are open to the public, but their entries are not readily visible.
- › The John A. Wilson Building (DC's City Hall) is open to the public during business hours; however, foot traffic is minimal.
- › Areas of the Ronald Reagan Building and International Trade Center, like the food court and comedy theater, are open in the evening, but are difficult to access.
- › Security at the Trump International Hotel prevents use of the front entry or plaza on the Avenue.
- › The National Gallery of Art East Wing has no accessible building frontage on the Avenue, essentially turning away from the Avenue.

## Ground Floor Use



### Issues

- The most active destinations are the W and Willard Hotels and Market Square areas; the use mix with accessible and active ground floors is popular throughout the week and into the evening.
- Seventh Street is the most active pedestrian connection between Downtown Washington and the National Mall because of the land use diversity, expanded hours of operation, and engaging ground floor uses along the street.
- On the Avenue's north side, restaurants with outdoor dining anchor most street corners but do not fully activate the public space because larger areas of inactive uses, such as office lobbies, separate them.
- To the south, the Federal Triangle's concentration of office uses and lack of public ground floor uses (with the exception of the White House Visitor Center) deters pedestrian activity.
- The spacing of retail uses along the Avenue and the concentration of retail and restaurant uses north of the study area disperses pedestrian activity to adjacent neighborhoods. This causes pedestrians to take other routes or pass through the area, diminishing daily activity.
- Federal Triangle and the east of the Avenue are the least active because of the large single use buildings with building yard setbacks, long facades, and/or minimal entrances.
- The concentration of federal offices and lack of ground floor activity creates a barrier between downtown and the National Mall.

# Building Uses | *Hours of Operation*

**Hours of Operation:** This section illustrates how the operating hours of the primary building and ground floor uses directly affects levels and duration of activity along the Avenue.

## Context

The primary and ground floor building uses generally follow these operating hours, except for special seasonal activities or events.

- › **Office** uses operate daily between 8:00 am until 6:00 pm, Monday through Friday.
- › **Cultural** uses operate generally between 10:00 am until 5:00 pm seven days a week.
- › **Entertainment** and hospitality uses, such as restaurants and bars, have extended operating hours until midnight or later throughout the week.
- › **Hotels** and residential uses have no defined hours.

## Analysis

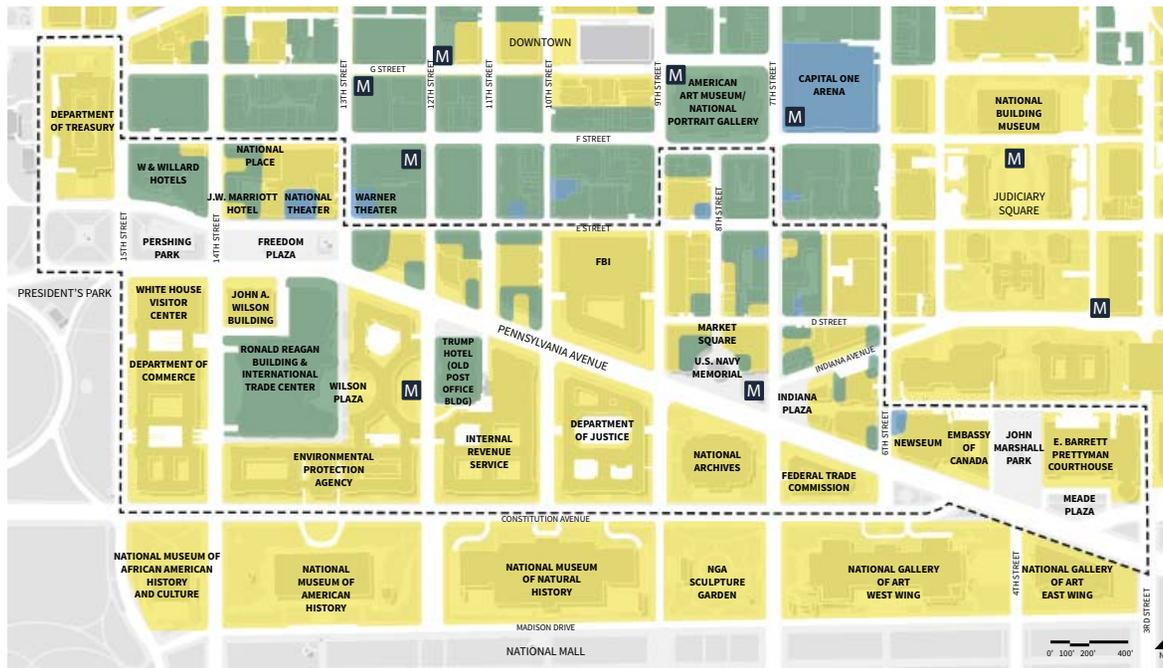
The use mix and associated operating hours significantly influences the level of activity within the study area at any given time during the week.

- › During the workweek, at lunch and at morning and evening commuting times, workers and visitors generate activity and support area retail and restaurants.
- › Many users generally vacate the study area around 6:00 pm when the offices and museums close, causing activity to become sparse in the evenings and at night.
- › During weekends and holidays, hotel visitors, residents, and theatergoers generate activity and support the restaurants. However, because of the high percentage of office and cultural uses, evening and nighttime activity is minimal.
- › The concentration of hospitality and entertainment uses north of E Street often draws visitors, residents, and workers downtown north of the Avenue where they have food service choices and can experience local culture.

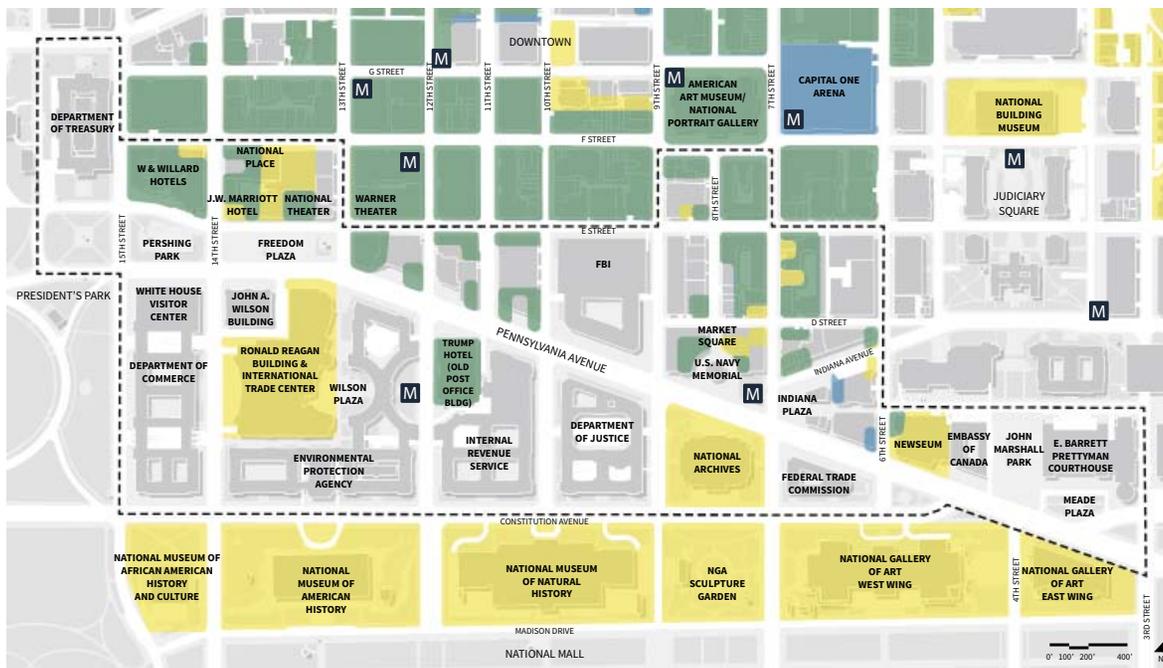
## Issues

- Similar hours of operation between office and cultural uses limit evening activity throughout the week and on weekends. Office uses support some workweek daily activity during lunch, dinner, and morning and evening commutes. Cultural uses support daytime activity seven days a week.
- The most active areas throughout the day and week are those with diverse land uses, expanded hours of operation, and retail and restaurant uses.

## Weekday Hours of Operation



## Weekend Hours of Operation



# Public Space | Introduction

**Public Space:** Pennsylvania Avenue serves a dual role for the city and nation. Its grand scale, vista, and prominent location are the setting for the Avenue’s many civic activities, such as national parades, processions, public assemblies, celebrations, festivals, gatherings, and other special events.

Pennsylvania Avenue is also a city street and its public spaces have changed as the Avenue has evolved. Today’s public spaces are a result of efforts to improve traffic efficiency and create an open space network for the new residential and visitor populations envisioned in the 1974 Pennsylvania Avenue Plan. The experience of the Avenue is an important contribution to the capital city’s image.

This section examines public space and its relationships with adjacent uses to determine how these public spaces contribute to the Avenue’s identity and character and supports its daily and civic activities. For the purposes of this analysis, daily and civic activities are defined as follows:

**Daily Activity** is defined as the ability to serve the daily public space needs of workers, residents, and visitors. For example, these activities may include running errands, accessing public transit, eating outdoors, or relaxing in a park.

**Civic Activity** is defined as the ability to accommodate civic activities, such as small and large parades, public assemblies, festivals, gatherings, and special events that reach local, national, and international audiences.

## Context

Public space serves the daily needs of residents and workers and accommodates a range of civic activities that draw local, regional, and national audiences. Two sections examine how public space is used for daily and civic activities.

**Types of Public Space:** The Avenue’s public space consists of parks and plazas, a linear streetscape, and the cartway. The analysis examines how different types of public space support daily and civic activities.

- › Primary parks and plazas are larger stand-alone spaces framed by buildings, sidewalks, streetscape, and the cartway. The design of each

park or plaza is specific to its individual use, character, and experience.

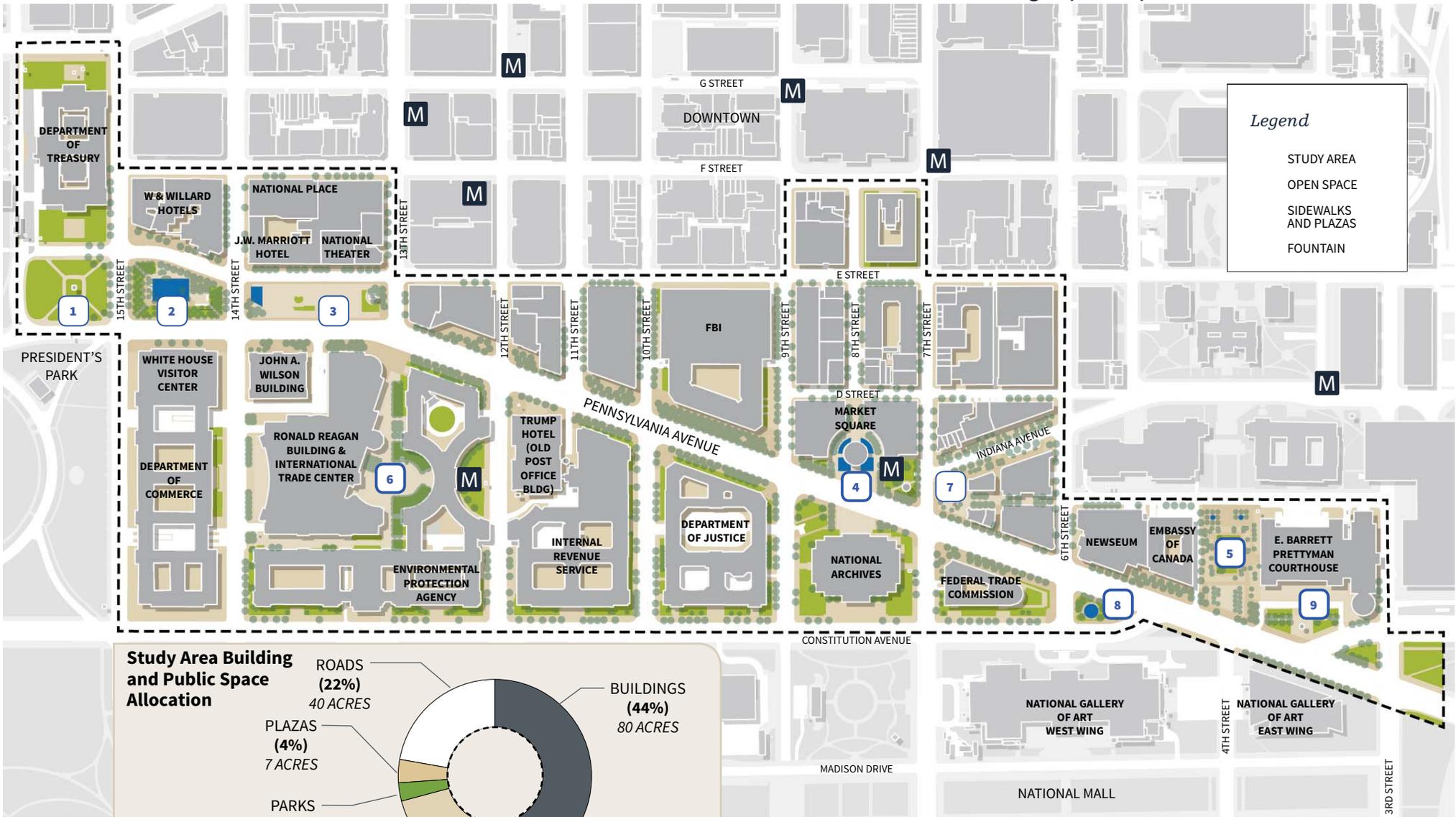
- › Secondary parks and plazas are smaller spaces at prominent locations in or near building yards, or open spaces located within a publicly accessible courtyard.
- › The linear streetscape includes the sidewalks, trees, pathways, and programmable space that connect the parks and plazas. All of the linear streetscape elements are part of a custom design ensemble, commissioned by the Pennsylvania Avenue Development Corporation to unify the Avenue.
- › The cartway includes the area between the curbs along the Avenue.

**Amount of Public Space:** Pennsylvania Avenue’s public spaces form a network that is gracious and flexible. Public space, including all parks, plazas, sidewalks, and roads, comprise 78 acres (43 percent) of the study area, based on data from the District of Columbia Geographic Information System. Parks and plazas (excluding sidewalks and roads), comprise 13 acres (7 percent) of the total study area. Buildings, their alley service areas, and building yards, comprise an additional 100 acres (57 percent) of the study area.

	Primary Parks and Plazas	Acreage	Ownership	Use
1	Sherman Park	2.0	NPS	Controlled
2	Pershing Park	1.6	NPS	Daily/Event
3	Freedom Plaza	1.7	NPS	Daily/Event
4	Market Square/ U.S. Navy Memorial	1.75	NPS	Daily/Event
5	John Marshall Park	2.1	NPS	Daily/Event

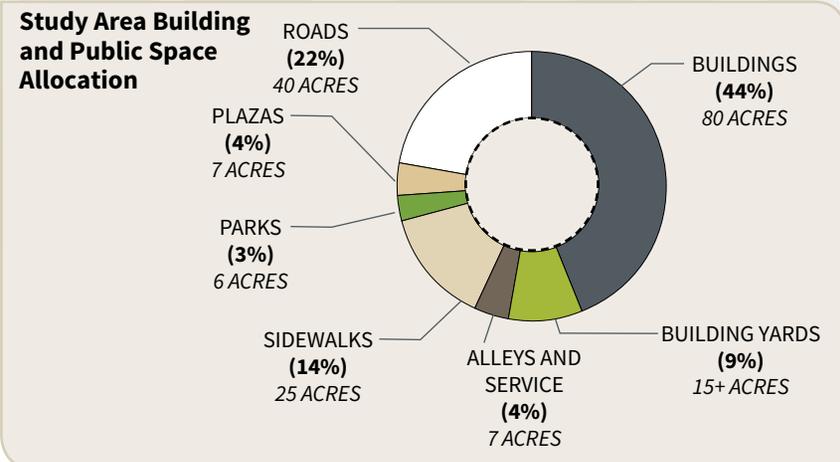
	Secondary Parks and Plazas	Acreage	Ownership	Use
6	Moynihan Place/ Wilson Plaza	1.9	GSA	Daily/Event
7	Indiana Plaza	0.5	NPS	Daily
8	Mellon Fountain	0.3	NGA	Daily
9	Meade Plaza	0.75	NPS	Daily

# Existing Open Space & Amenities

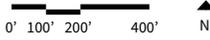


*Legend*

- STUDY AREA
- OPEN SPACE
- SIDEWALKS AND PLAZAS
- FOUNTAIN



Study Area Building and Public Space Allocation  
 Calculations generated from CAD files based on DC OCTO GIS



# Public Space | *Daily Activity*

**Daily Activity:** The primary and secondary parks and plazas, and linear streetscape, serve some of the daily public space needs of workers, residents, and visitors within the study area.

## Context

Daily use of public space depends on the site's size, design character, and use, as well as the site's relationship to its surroundings, including building uses and hours of operations. These factors influence pedestrian use, affecting the vibrancy and the experience of the public space.

## Analysis

This analysis generally examines the level of daily use of the Avenue's public space network.

**Use of Public Space:** Overall, the Avenue's parks, plazas, and linear spaces allow for enjoyment of daily activities, such as outdoor dining or exploring a commemorative element. However, these spaces do not provide areas to serve other daily needs of nearby residents, day care centers, or schools such as playgrounds, ball courts, or dog walks.

Many rooftops provide open space opportunities that serve as amenities, particularly where there are commanding views. The only free, publicly accessible locations on the Avenue are the Old Post Office Tower in the Trump International Hotel, and at the East Wing of the National Gallery of Art. The rooftop of the Newseum is accessible with admission.

Access to comfort services, such as bathrooms and water fountains, are generally only available to patrons of the retail establishments, or are free at the museums.

**Active Public Spaces:** Public spaces with the most daily activity are adjacent to buildings with active ground floors and extended operating hours, or near work centers. For example, these activities include running errands, accessing public transit, or eating outdoors.

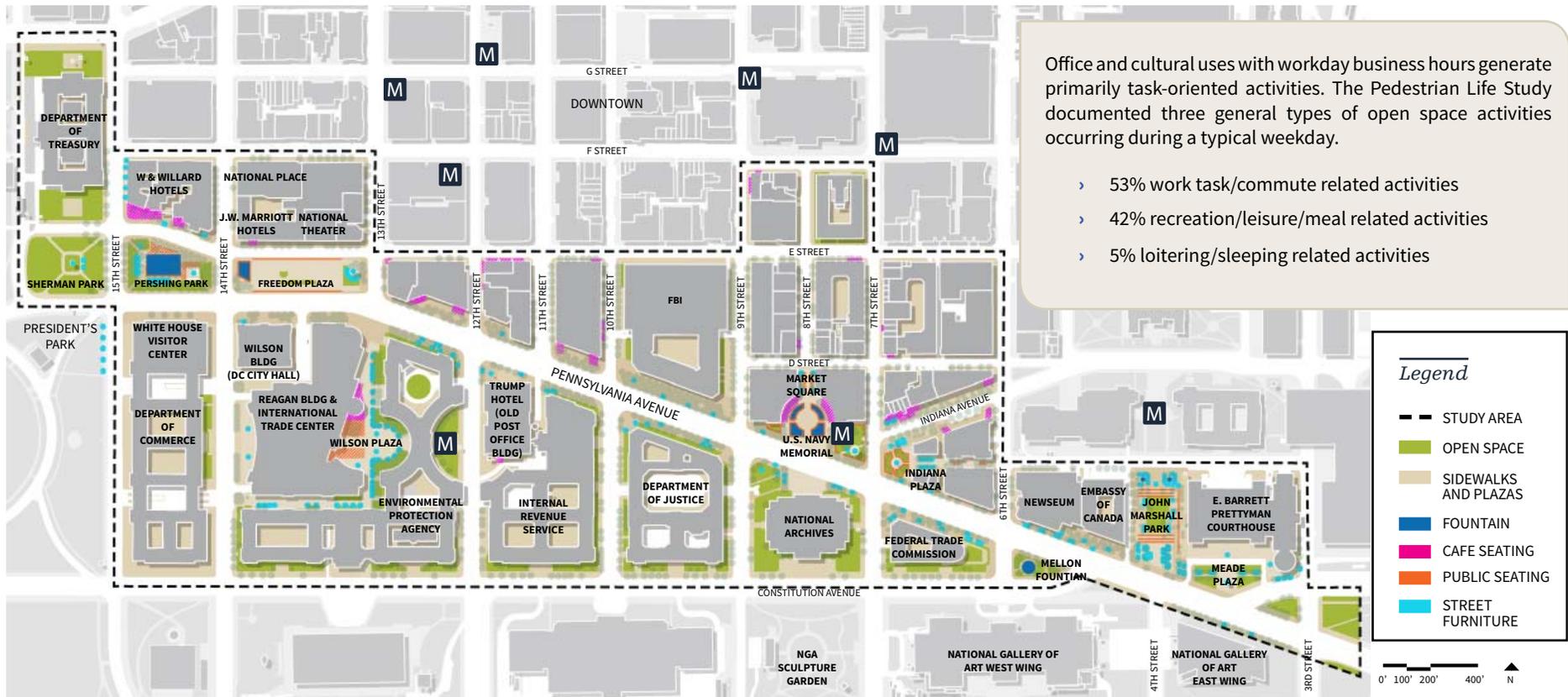
The public space network supports varying degrees of daily activity based on the day of the week, time of day, the site design program, and activity programming. For example:

- › The U.S. Navy Memorial Plaza at Market Square is the most active public space on a daily basis. It draws from nearby residential, office and visitor attractions to its cultural programs, landscape amenities, fountains, free public seating, and restaurants.
- › Daily use of Indiana Plaza increases on weekends and during civic activities. It benefits from its proximity to Market Square, the Indiana Street retail corridor, and the 7th Street NW corridor that links downtown and the National Mall.
- › Building owners and tenants use portions of the linear streetscape for outdoor dining. Free public seating areas are located in a few areas within the streetscape.

**Inactive Public Spaces:** The parks and plazas that are least active on a daily basis have poor relationships to adjacent buildings and/or weak site design programs. In many cases, this is a result of building walls with minimal or no entrances, excessive setbacks, and inaccessible building yards. These conditions require extensive activity programming to activate the public spaces.

- › John Marshall Park's north-south orientation, absence of accessible building frontages, lack of amenities to draw users, and loitering make it feel uninviting and desolate.
- › The Environmental Protection Agency Hemicycle is a large open space with proximity to Metro, but fails to sustain activity because of the surrounding inaccessible ground floors, lack of amenities, or activity programming.
- › Freedom Plaza is open, exposed, noisy, and hot in the summer with limited seating choices. Its elevation change, site walls, and adjacent streets and parking isolate it from adjoining uses that could help to activate the space. Skateboarders often use the space, but their activity can deter other users.

## Existing Open Space & Amenities



### Issues

- The study area does not provide community-based amenities for residential buildings, hotels, and schools, such as playgrounds and dog parks. Comfort amenities, such as seating and bathrooms, are not generally available for public use other than for retail customers or business clients.
- Free public access to rooftops offering views of Washington's skyline is limited. The Old Post Office Tower and the roof of the National Gallery of Art's East Wing offer access free of charge during hours of operation. Access to other rooftops requires patronage or employee access.
- The U.S. Navy Memorial Plaza at Market Square is the most active public space along the Avenue because of its cultural programs, landscape amenities, fountains, interpretive features, and use mix.
- The active areas are typically in close proximity to a diverse mix of uses and include site design programs that incorporate public space amenities for pedestrian comfort and interest, such as shade, seating, fountains, commemorative elements, and, outdoor eating, resting or cultural programs.
- Park and plaza use is limited by poor relationships between buildings and public spaces unless there is a strong design program with amenities, active daily programming, or an area for civic activity.
- Inactive parks and plazas, such as John Marshall Park and Freedom Plaza, have poor relationships with adjacent uses caused by site barriers or inaccessible building frontages.

**Civic Activity:** Pennsylvania Avenue is one of the most prominent locations in the capital city for a wide range of civic activities that reach and attract local, regional, national, and even international audiences. Its grand scale, iconic vista, land use mix, and physical characteristics provide a flexible setting for numerous activities and events.

Over the years, use of the National Mall for civic activities has increased in popularity. However, National Park Service policy and efforts are encouraging dispersal of activities to protect the National Mall from overuse. There are several areas within the monumental core, such as 10th Street, SW and Pennsylvania Avenue west of the White House, which are suitable for events requiring paved surfaces. However, the Avenue between the White House and Capitol will likely remain the most prominent and popular location for civic activities, especially large national events.

## Context

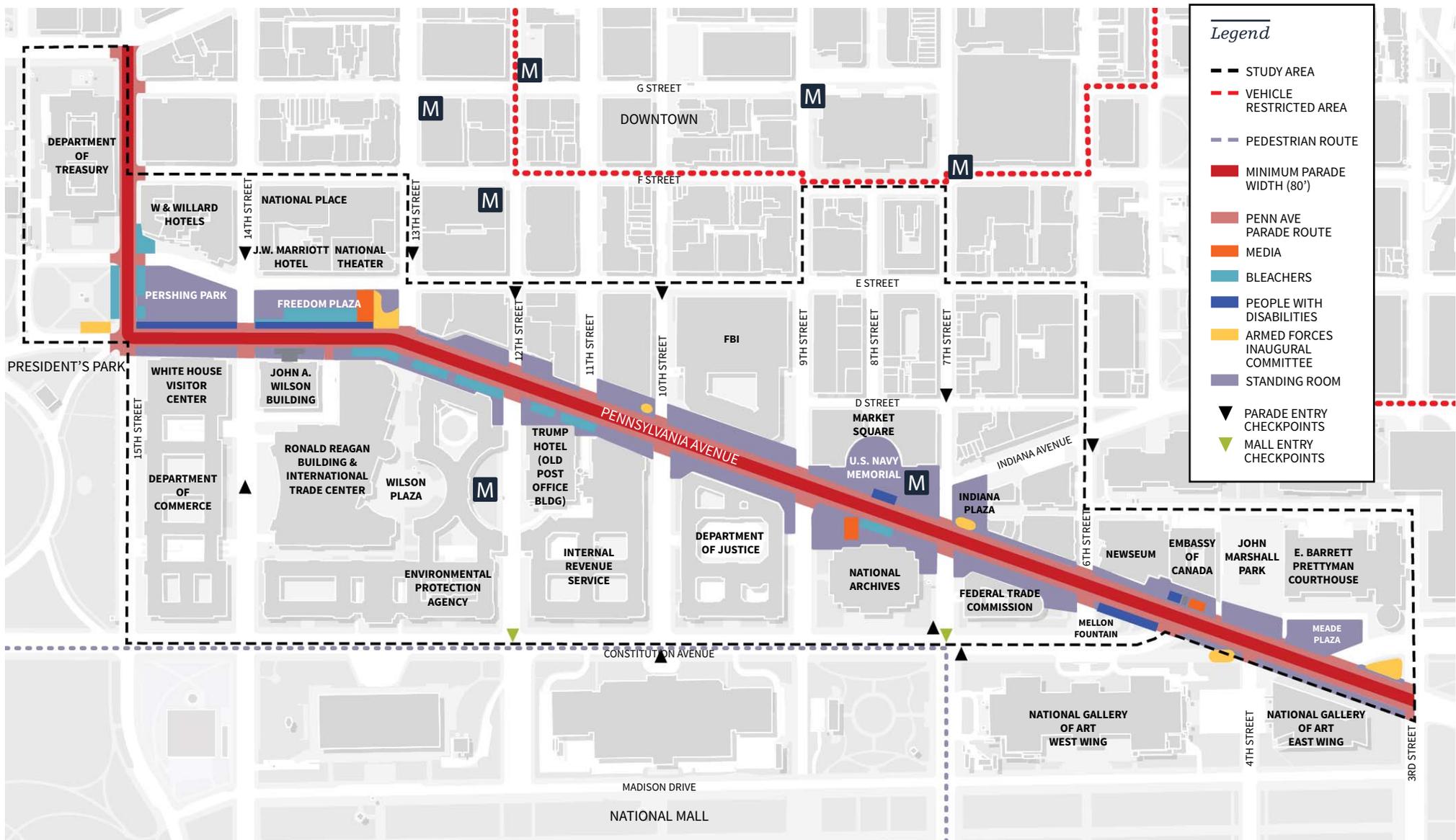
**Types of Civic Activity:** Pennsylvania Avenue has been a venue for civic activities for more than two centuries. Some are clearly intended for a national audience or participants, others for regional or local audiences or participants. While some events are traditionally local, they do attract a larger audience and increased significance because they take place in the nation's capital and on the Avenue.

**Nationally,** Pennsylvania Avenue hosts the quadrennial Presidential Inaugural Parade, the most traditional and notable event to occur on it. Since the mid-nineteenth century, it has been a venue for military parades, civil rights marches, and public assemblies. The Avenue is also a place where ceremonial, celebratory, or commemorative processions occur to honor an important event or person.

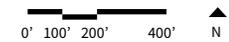
- › **Inaugural Parade:** Since 1809, the Avenue has hosted the Presidential Inaugural Parade that attracts a national audience and international attention.
  - › The basic parade parameters are codified in Code of Federal Regulations, Title 36, Section 7.96. Parade Operations are coordinated through the President-Elect's Inaugural Committee, the Joint Congressional Committee's Joint Task Force-National Capital Region, the Military District of Washington, and the National Park Service.
  - › According to The Military District of Washington, the smallest roadway width for the parade is 80 feet. Each Inaugural Committee decides, within parameters, the type of elements to be in the parade and the location and arrangement of viewing stands. Currently, the stands are primarily located or oriented so that attendees are not viewing the parade into the afternoon sun.
- › **Public Assembly, Parades, and Marches:** Discussed on page 46.

**Locally,** the Avenue hosts many activities that attract residents from throughout the city and region. These events typically celebrate Washington's culture, diverse heritage, or common interests such as Bike to Work Day, Earth Day, or World Cup viewings.

# 2017 Inaugural Parade Route



Note: This layout is updated regularly between Inaugural Parades. Checkpoint and entry locations per the DC Metropolitan Police Department and DC Homeland Security and Emergency Management Agency in 2017. Updated policies are included in 36 CFR 7.96.



**Type and Number of Civic Activities:** The type and number of activities can vary year to year based on national and local current events, cultural, political, and social factors. These factors influence if the civic activities attract a local or national audience (or both) to the Avenue. In 2015, the Avenue hosted more than 114 small and large events. Of the 114 permitted activities, the number of national and local events included:

- › Thirty-nine national events, including the Papal visit, which attracted an international audience. Twenty-two of these national events were associated with the U.S. Navy Memorial.
- › Sixty-eight local/regional events, such as festivals, races, or other public assemblies.
- › Seven locally sponsored or organized events, but drawing upon a national interest or cause, such as the Avon Breast Cancer walk and the National Kidney Foundation walk.

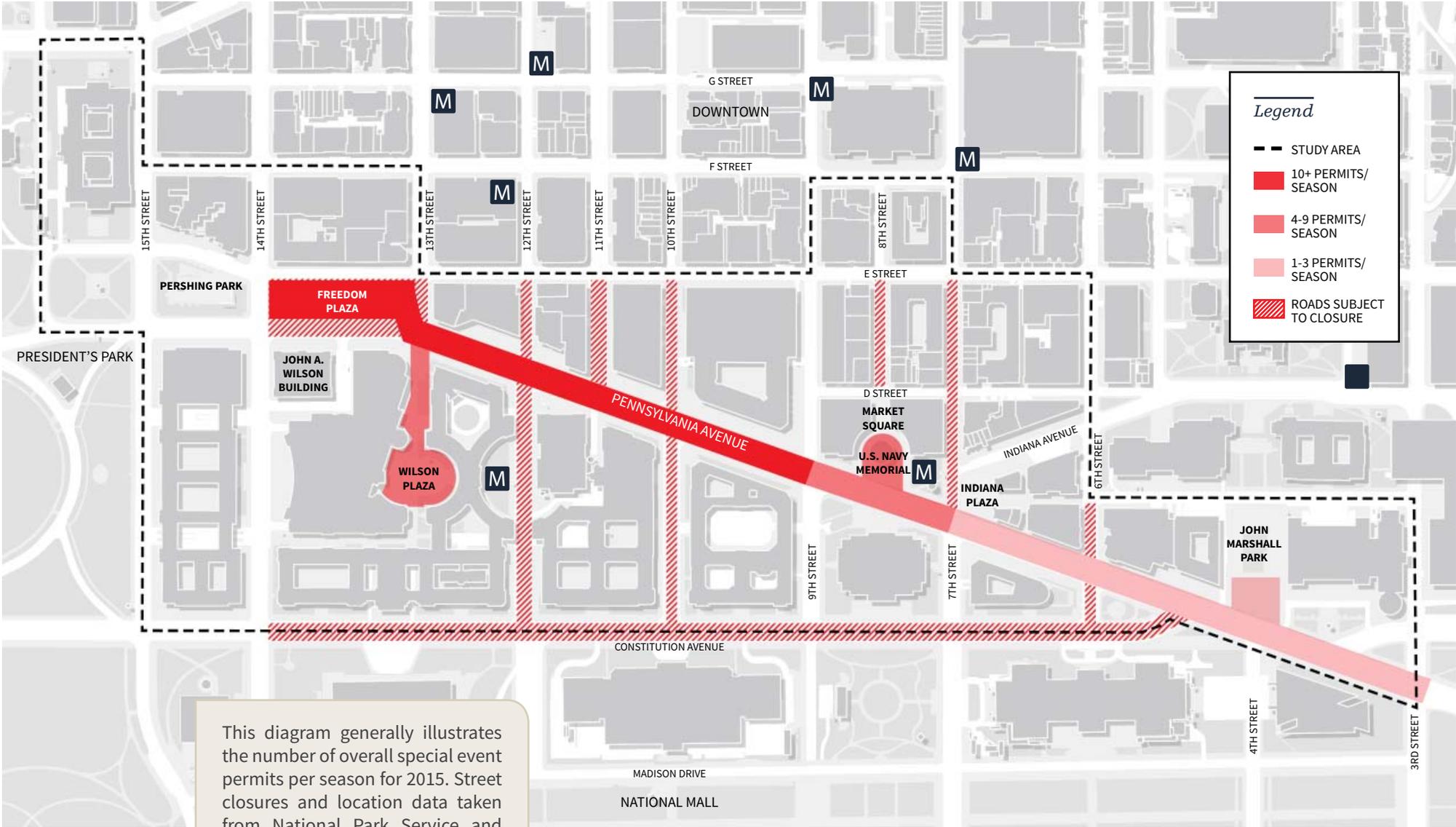
**Civic Activity Season and Crowd Size:** Events take place throughout the year. While most occur on weekends, some occur on weekdays. During 2015, events attracted a range of groups, from less than 100 people to more than 10,000 people. Over the years, the Avenue has hosted a wide range of civic activities, some with attendance in the hundreds of thousands. Inaugural years, current events, and other factors influence activity levels and crowd size.

**Use of Public Space:** Pennsylvania Avenue's 100-foot wide cartway with relatively low traffic volumes, its sidewalks, and adjacent parks and plazas are generous and provide flexibility to accommodate a variety of civic activities. Civic activities typically occur in the primary parks and plazas; the larger events use the Avenue's cartway and segments of the north-south streets to accommodate the event program and crowds. The diagrams on pages 47-49 summarize the distribution of events by season, based on number of permits, the day(s) of the week, and size of event.

**Amount and configuration of Public Space:** The primary parks and plazas range in size, shape, and character. Depending on the type and size of the event, civic activities typically use Freedom Plaza, the U.S. Navy Memorial, and John Marshall Park. These public spaces range in size between one and three-quarters acre to two acres. Their capacity can substantially increase if an adjacent segment of the Avenue's 12-acre cartway is closed for public use. When these spaces are full, Indiana, Meade, or Mellon Plazas often become expansion areas. Together, these parks and plazas comprise 13 acres. Their capacity can increase up to 19 acres (accounting for traffic movement across the Avenue) if the entire cartway is closed. This range, in conjunction with the relative ease of closing segments of the Avenue due to low traffic volumes, allows multiple ways to configure the public space.

**Operations:** Operational requirements for civic activities depend on the event type, size, duration, and location. Requirements range from event permitting, staging setup and dismantle logistics, traffic and pedestrian planning, security, sanitation, and emergency services. Event organizers must seek or obtain approval from multiple entities with jurisdictional responsibilities. For example:

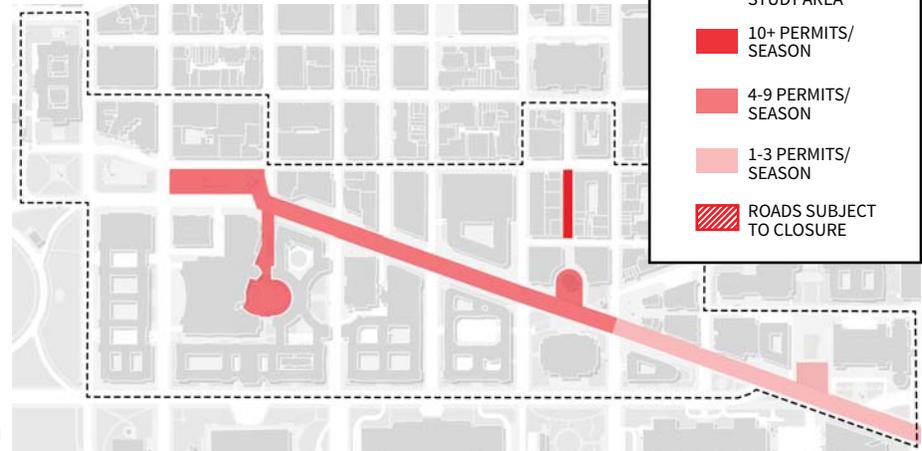
- › The Advisory Neighborhood Council 2C advises on potential neighborhood impacts such as noise, circulation, and access to area residences and businesses.
- › The Mayor's Special Event Task Force, an interagency coordination body, ensures event organizers plan for a safe and secure environment, with minimal impact on the surrounding communities.
- › The District Department of Transportation approves street closures; many events close all or a part of the Avenue and one or more numbered streets between 3rd and 15th Streets.
- › The National Park Service approves use of sidewalks and public spaces.



This diagram generally illustrates the number of overall special event permits per season for 2015. Street closures and location data taken from National Park Service and the DC Homeland Security and Emergency Management Agency permits.

0' 100' 200' 400' N

# Public Space | Civic Activity | Seasonal Comparison



**Legend**

- STUDY AREA
- 10+ PERMITS/ SEASON
- 4-9 PERMITS/ SEASON
- 1-3 PERMITS/ SEASON
- ▨ ROADS SUBJECT TO CLOSURE

## Special Events - SPRING 2015

- › 48 permitted events
- › 68% of events included at least one weekend day
- › 31 events at and around Freedom Plaza
- › Event Volume (people)
  - › Small (1-99): 12 permits
  - › Medium (100-999): 16 permits
  - › Large (1,000-9,999): 8 permits
  - › Extra Large (10,000+): 2 permits

## Special Events - SUMMER 2015

- › 16 permitted events
- › 81% of events scheduled on a weekday
- › Most events located at Freedom Plaza (8) or the U.S. Navy Memorial (7)
- › Event Volume (people)
  - › Small (1-99): 5 permits
  - › Medium (100-999): 8 permits
  - › Large (1,000-9,999): 2 permits

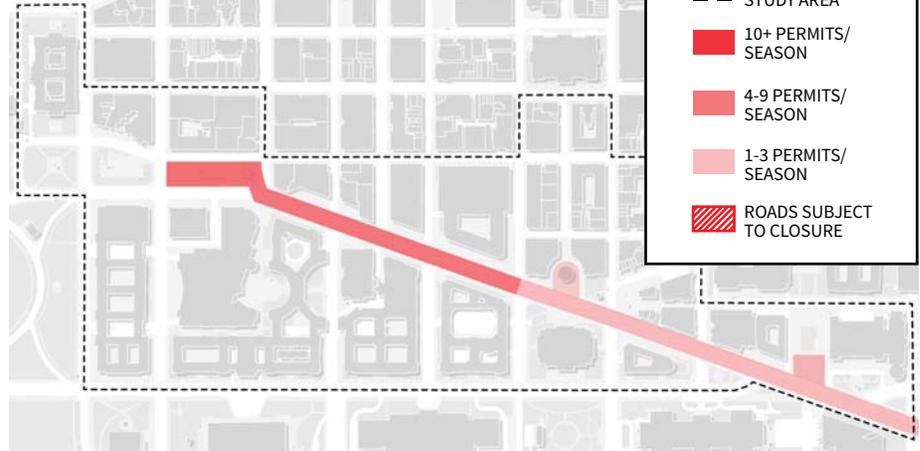


These diagrams generally illustrates the number of overall special event permits per season for 2015. Street closure and location data taken from National Park Service and the DC Homeland Security and Emergency Management Agency permits.



#### Special Events - FALL 2015

- › 34 permitted events
- › Events evenly split between weekend and weekday
- › 22 events at or around Freedom Plaza
- › Event Volume (people)
  - › Small (1-99): 10 permits
  - › Medium (100-999): 6 permits
  - › Large (1,000-9,999): 7 permits
  - › Extra Large (10,000+): 2 permits



#### Special Events - WINTER 2015

- › 9 permitted events
- › 77% of events scheduled on a weekday
- › Most events located at Freedom Plaza (5) or U.S. Navy Memorial (3)
- › Event Volume (people)
  - › Small (1-99): 4 permits
  - › Medium (100-999): 4 permits
  - › Large (1,000-9,999): 1 permit

**Legend**

- STUDY AREA
- 10+ PERMITS/ SEASON
- 4-9 PERMITS/ SEASON
- 1-3 PERMITS/ SEASON
- ▨ ROADS SUBJECT TO CLOSURE



## Analysis

This analysis generally examines the location and intensity of civic activity and its relationship to and potential effects on surrounding uses.

**Highest Levels of Civic Activity:** Most civic activities occur in the spring and fall.

- › Freedom Plaza is used most for civic activities, primarily during the weekends. The U.S. Navy Memorial Plaza at Market Square is used a little less often, and primarily during the workweek.
- › The Avenue's west end, between 9th and 14th Streets closes most often for civic activities, eight or more times each season in 2015.
- › The Avenue's east end, between 3rd and 9th Streets, closes most often in the spring for civic activities, up to nine times each season in 2015.
- › All four of the extra-large events (more than 10,000 people) occurred during spring or fall in 2015.

The greatest number of events occurs where the Avenue is best suited to accommodate the activity. For example, Freedom Plaza's openness accommodates crowds and its raised elevation functions as a stage, making it conducive for a range of events. Additionally, west of 9th Street, office uses dominate and are closed when most of the events take place, minimizing land use conflict.

**Lowest Levels of Civic Activity:** Winter and summer are the seasons with the least amount of civic activity. Events during these times are usually during the weekday at either Freedom Plaza or, less so, at the U.S. Navy Memorial at Market Square. In 2015, most events were under 100 people; however, a few events reached up to 10,000 people.

The east end of the Avenue only closes, on average, three times per season. This end of the Avenue is where the performance stages typically locate because the size and configuration of the public space network can accommodate large crowds.

**Effect of Civic Activity on the Avenue:** The space and operational needs of civic activity is dependent on the type, size, and duration of the event. While many civic activities need paved surfaces, some types of small activities may not need a lot of physical space or operational support. However, other small activities and bigger activities—which require a larger amount of public space—often require extensive operational requirements to address vehicular and pedestrian circulation, security, visitor comfort and sanitation, emergency services, and stage and equipment setup. For example, large events may need the entire Avenue to set up multiple stages, spacing them to accommodate crowds and buffer sound, and also need space for loading and parking operations.

These operational requirements can disrupt pedestrian mobility and vehicular traffic and limit access to neighboring businesses and offices; the events can generate noise that impact residents and workers. This can be disruptive to neighboring uses. Therefore, these operations are coordinated through permitting by city and federal agencies.

The concentration of office uses and their hours of operation are not typically affected by the noise, activity, and street closures associated with various civic activities that occur mostly on weekends. While cultural uses have similar operating hours as civic activities, there are fewer impacts because these uses are located off the avenue and less affected by street closures.

Together, the Avenue's location within the city, its land use mix, and flexible public space network is conducive to civic activities. Containing these activities within the monumental core minimizes the impact and disruption to surrounding streets and neighborhoods, or other areas throughout the city. However, the attributes that make the Avenue's public spaces desirable for civic activities are the same characteristics that prevent these spaces from consistently generating daily activity and serving the needs of local residents and workers. More information about activity is in the Character Areas Chapter.



## Issues

- Pennsylvania Avenue's location, vista, historic significance, and proximity to the National Mall contribute to its civic identity and make it a highly desirable destination.
- The linear streetscape, parks, and plazas offer a flexible space for a variety of small and large civic activities. When combined with a full or partial street closure, the Avenue offers more publicly usable space than other downtown areas. The public space network provides the ability to locate civic activities along the Avenue where they are best suited.
- The Avenue's scale, public space network, low traffic volumes, and paved surfaces accommodate access and infrastructure for civic activities as an alternative to the National Mall.
- Cultural uses and civic activities activate the Avenue on weekends and holidays, attracting large audiences. The Inaugural Parade and events like the Papal visit draw national and international attention, while events like Bike to Work Day and the National Capital Barbeque Battle attract high attendance from the local and regional community.
- The noise, activity, and street closures associated with some civic activities do not typically affect the office uses because they are usually closed when the civic activities occur. The concentration of office uses with limited hours of operation is most compatible with weekend civic activities.
- Civic activities often have operational requirements that can negatively affect pedestrian and vehicular circulation, as well as access to and use of adjoining or neighboring uses. The Avenue's civic identity, flexible public space, access to public transportation, and overall land use mix makes it an ideal location in the city for civic activities, minimizing the impacts to other neighborhoods.

### A. Building Uses

- 1) The concentration of federal office and cultural uses contributes to the area's civic identity in the capital city.
- 2) Similar hours of operation between office and cultural uses limit evening activity throughout the week and on weekends. Office uses support some workweek daily activity during lunch, dinner, and morning and evening commutes; cultural uses support daytime activity seven days a week.
- 3) The most active areas along the Avenue which contribute to daily and evening activity are those with a mix of uses, such as hotels, cultural, entertainment, and retail uses with expanded or no defined hours of operation; or those areas with active public spaces with a direct relationship to adjoining building(s). The least active areas are those that consist of single use office buildings with limited operating hours or areas with little or no retail related activity.
- 4) The most active destinations are the W and Willard Hotels and Market Square areas; the use mix with accessible and active ground floors is popular throughout the week and into the evening. 7th Street is the most active pedestrian connection between Downtown Washington and the National Mall because of the land use diversity, expanded hours of operation, and engaging ground floor uses.
- 5) On the Avenue's north side, restaurants with outdoor dining anchor most street corners but do not fully activate the public space because larger areas of inactive uses, such as office lobbies, separate them. This spacing, and the concentration of retail and restaurant uses north of the study area, disperses pedestrian activity and diminishes daily activity along the Avenue.
- 6) On the Avenue's south side, the Federal Triangle's concentration of office uses and lack of public ground floor uses (with the exception of the White House Visitor Center) creates a barrier between downtown and the National Mall and deters pedestrian activity.

## B. Public Space | *Daily Activity*

- 1) The study area does not provide community-based amenities for residential buildings, hotels, and schools, such as playgrounds and dog parks. Comfort amenities, such as seating and bathrooms, are not generally available for public use other than for retail customers or business clients.
- 2) Free public access to rooftops offering views of Washington's skyline is limited. The Old Post Office Tower and the roof of the National Gallery of Art's East Wing offer access free of charge during hours of operation. Access to other rooftops requires patronage or employee access.
- 3) The active areas are typically in close proximity to a diverse mix of uses and include site design programs that incorporate public space amenities for pedestrian comfort and interest, such as shade, seating, fountains, commemorative elements; and outdoor eating, resting, or cultural programs.
- 4) The U.S. Navy Memorial Plaza at Market Square is the most active public space along the Avenue because of its cultural programs, landscape amenities, fountains, interpretive features, and use mix.
- 5) Park and plaza use is limited by poor relationships between buildings and public spaces unless there is a strong design program with amenities, active daily programming, or is planned for civic activity to activate the public space.
- 6) Inactive parks and plazas, such as John Marshall Park and Freedom Plaza, have poor relationships with adjacent uses caused by site barriers, such as elevation changes, streets and parking, or inaccessible building frontages.

## C. Public Space | *Civic Activity*

- 1) Pennsylvania Avenue's location, vista, historic significance, and proximity to the National Mall, contribute to its civic identity and make it a highly desirable destination in the capital city.
- 2) The linear streetscape, parks, and plazas offer a flexible space for a variety of small and large civic activities. When combined with a full or partial street closure, the Avenue offers more publicly usable space than other downtown areas. The public space network provides the ability to locate civic activities along the Avenue where they are best suited.
- 3) The Avenue's civic identity and its scale, flexible public space network, paved surfaces, low traffic volumes, and access to public transit provide the infrastructure conditions needed for civic activities, and are an alternative to the National Mall. These activities can be contained within the study area, thereby minimizing impacts to other neighborhoods.
- 4) Cultural uses and civic activities activate the Avenue on weekends and holidays, attracting large audiences. The Inaugural Parade and events like the Papal visit draw national and international attention, while events like Bike to Work Day and the National Capital Barbeque Battle attract high local and regional attendance.
- 5) Civic activities often have operational requirements (street closures and noise) that can negatively affect pedestrian and vehicular circulation, as well as access to, and use of, adjoining or neighboring uses. The office uses within the study area are the most compatible with the civic activities because the offices are closed during the times the civic activities typically occur.





# 3

## Mobility & Access

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## Introduction

This chapter examines how effectively the transportation network serves the study area and connects it to adjoining neighborhoods, the city, and region. It includes three sections:

- › **Public Transit Network** examines the Metrorail and bus systems that serve local and regional transit needs.
- › **Street and Sidewalk Network** addresses three primary transportation modes that use the Avenue and adjoining streets. It includes a summary of the following three topics:
  - » Vehicular Network & Parking examines the level of vehicular service (based on a 2012 District Department of Transportation (DDOT) vehicular data) in relationship to the Avenue's cartway, as well as parking conditions in and near the study area.
  - » The Pedestrian Network analyzes the pedestrian use of sidewalks, crossings, and other public spaces (based on the 2016 DC Office of Planning (DCOP) Pedestrian Life Study).
  - » The Bicycle Network examines how the Avenue serves as an east-west bicycle connection through downtown Washington.
- › **Wayfinding** examines navigational signage primarily serving pedestrians between downtown and the National Mall.

## Context

The National Capital Region (NCR) has a dynamic multi-modal transportation system. As a result, the local and regional area has a variety of transportation options and possesses some of the lowest automobile ownership rates in the United States. A strong bicycle and walking culture, robust public transit system, as well as car share and ride-hailing services provide multiple transportation options that help reduce single occupant vehicle use.

Pennsylvania Avenue and E Street were primary east-west downtown thoroughfares until portions closed to traffic in the 1990s and early 2000s to improve security around the White House. These street closures rerouted traffic from the Avenue to other east-west streets like Constitution Avenue, H, and I Streets. While this lowers traffic volumes along the Avenue and reduces street closure impacts during civic activities, it also diminishes Pennsylvania Avenue's role, function, and visibility as a primary traffic route.

This analysis uses 2012 vehicular data from DDOT and 2016 pedestrian data from DCOP's Pedestrian Life Study, unless otherwise noted. DDOT updated Pennsylvania Avenue vehicular counts in late 2016 and collected pedestrian counts to use in a new traffic study, which will be complete in 2017. The study is examining transportation and space allocation needs to assess if reallocation of space within Pennsylvania Avenue's cartway is feasible.

*Note: All streets are presumed to be "NW" unless otherwise noted.*



## Introduction

**Metrorail and a multi-jurisdictional bus network** serving Washington, Maryland, and Virginia are the foundation of one of the most extensive public transit networks in the nation. This section assesses how Metrorail and various bus lines function within and serve the study area.

- › **Metrorail** assesses the city's rail transit system and its function within the study area.
- › **Buses** address how local and express buses, commuter buses, and tour buses serve the study area.





# Public Transportation Network | Metrorail

## Introduction

**Metrorail** serves the National Capital Region; this analysis assesses general ridership and walksheds, as well as how station locations serve the study area.

## Context

Metrorail was constructed in the early 1970's and is operated by the Washington Metropolitan Area Transit Authority (WMATA). Annual Metrorail provides six routes throughout the region. It averages 120 passenger loads per train car, operating 6-8 train cars per trip, with a 118-mile reach. Metrorail ridership has decreased from approximately 206,000,000 in 2015 to 179,700,000 in 2016. The decrease in ridership is likely due in part to the 2016-17 Safetrack maintenance program (WMATA's Metro Facts 2016/17).

Two passenger stations and three entries are located within the study area, providing access to five of the six lines. The sixth line (Red) is located just north of the study area at one of three nearby stations.

The two Metrorail stations in the study area, Archives-Navy Memorial-Penn Quarter and Federal Triangle, primarily serve commuters that work in the offices concentrated in this area. Tourists also use the stations when visiting downtown, the Avenue, the National Mall, and the museums.

Ridership at these stations is lower than highest ridership entries north of the study area at Gallery Place-Chinatown and Metro Center, which are transfer stations.

The Archives-Navy Memorial-Penn Quarter Metro entrance at 7th Street and Pennsylvania Avenue is in an open and visible area. The Federal Triangle Metro entrance is located below the Environmental Protection Agency Building with two signs mid-block on 12th Street and at Wilson Plaza. The station is also accessible from inside the Ronald Reagan Building and International Trade Center.

## Analysis

The Avenue's connectivity to the city and region is bolstered by the five Metrorail stations within and surrounding the study area. The majority of the study area is within a five-minute walk (an ideal walk in an urban area) of the two Metrorail stations, except the western and eastern ends, which are within a 10-minute walk (an acceptable walk in an urban area). However, some Metrobuses serve these areas.

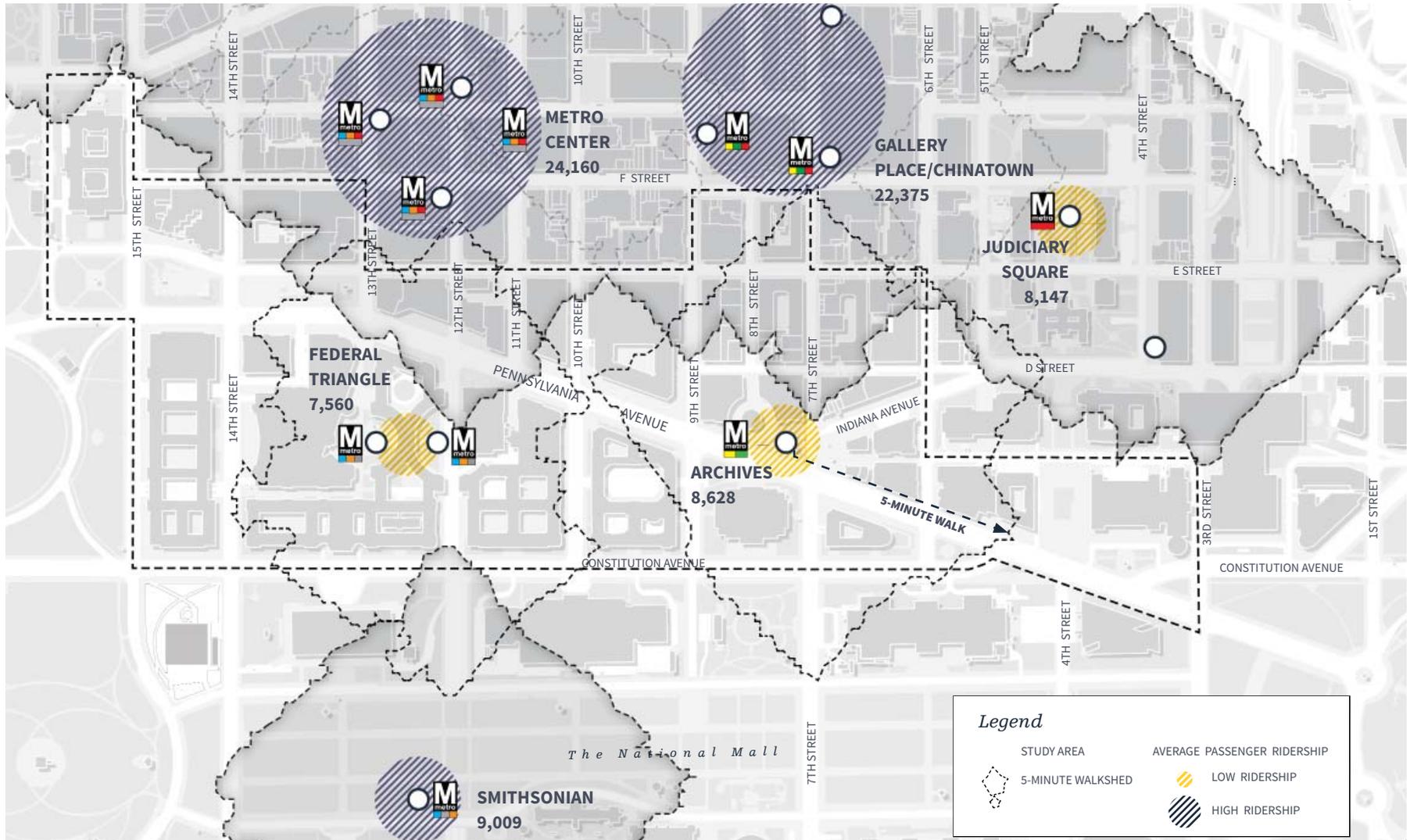
Four Metrorail stations with nine entry points, located outside of the study area, are within a 10-minute walk from the Avenue.

The Federal Triangle Metrorail station entries are difficult to locate because one is within the EPA building breezeway and the other is inside the Reagan Building; signage is not highly visible from either Pennsylvania or Constitution Avenues, the primary pedestrian routes. The Archives-Navy Memorial-Penn Quarter Metro entrance at 7th Street and Pennsylvania Avenue is visible and easily accessible from the U.S. Navy Memorial Plaza, Pennsylvania Avenue, and the 7th Street Corridor.

**Study Area and Vicinity Metrorail Ridership**

Station	Average Weekday Boarding		
	2014	2015	2016
Archives	9,099	9,220	8,628
Federal Triangle	8,498	8,411	7,560
Metro Center	27,883	27,058	24,160
Gallery Place	25,780	25,820	22,375
McPherson Square	16,212	15,635	13,658
Smithsonian	10,911	10,684	9,009
Judiciary Square	8,960	8,778	8,147

# Metrorail Station Walkshed & Accessibility



0' 100' 200' 400' N

Counts are based on the 2016 Downtown West Transportation Planning Study, conducted by DDOT. Present conditions may not be consistent.

## Issues

- The study area is well-served by Metrorail.
- The areas west of 14th Street and east of 4th Street are outside the five-minute Metrorail station walkshed.
- The Federal Triangle Metro Station entries are not easily accessible to visitors because of their location within the Federal Triangle, and minimal signage.

# Public Transportation Network | *Buses*

## Introduction

**The bus network** includes regional commuter buses, Metrobus, the DC Circulator, and tour buses. While the Metrobus and DC Circulator bus services are public, the tour buses and charter buses are privately run operations. These services connect Pennsylvania Avenue and Downtown Washington with the regional transit network. Metrobus routes through the study area primarily serve commuters.

## Context

**Metrobus** is the primary public bus service providing local and regional access to the city through a dense network of local and express buses. Fifteen Metrobus lines serve the study area, typically with a stop every 2-3 blocks; a Metrobus stop is within a five-minute walk from anywhere in the study area. Consistent with other bus shelters throughout Washington, bus shelters in the study area provide two panels of advertisement. Some bus shelters offer navigation or orientation information, others do not.

**Metrobus ridership** decreased from approximately 134,000,000 annual riders in 2015 to 123,700,000 in 2016. The decrease in ridership is likely due to the 2016-17 Safetrack maintenance program (WMATA's Metro Facts 2017).

**Regional commuter buses** bridge the gaps in the Metro system, serving employees who live outside the city. These include Virginia's OmniRide and the Loudoun County Connector, and Maryland's MTA Commuter Bus.

**DC Circulator** is an affordable bus system that also bridges the gap in the Metro system. It serves Washington's employment and service centers and cultural attractions. There are six routes, including one to Rosslyn, Virginia. The Circulator's National Mall route crosses the Avenue's eastern area at 3rd Street, connecting Union Station to the National Mall.

**Tour buses:** Washington hosted more than 21 million tourists in 2015. Many tourist visit as part of a tour group. Two types of tour buses are found on the Avenue.

**Charter buses** service private organized tour groups that often load/unload all passengers at one time. This results in longer loading/unloading times than sightseeing buses. Charter buses often stop in front of the museums and food courts that accommodate large groups along the Avenue, Constitution Avenue, and 10th and 14th Streets. While charter buses and vendors support Washington's strong tourism economy, the

volume of people exiting or waiting for the bus can create congestion along some sidewalks.

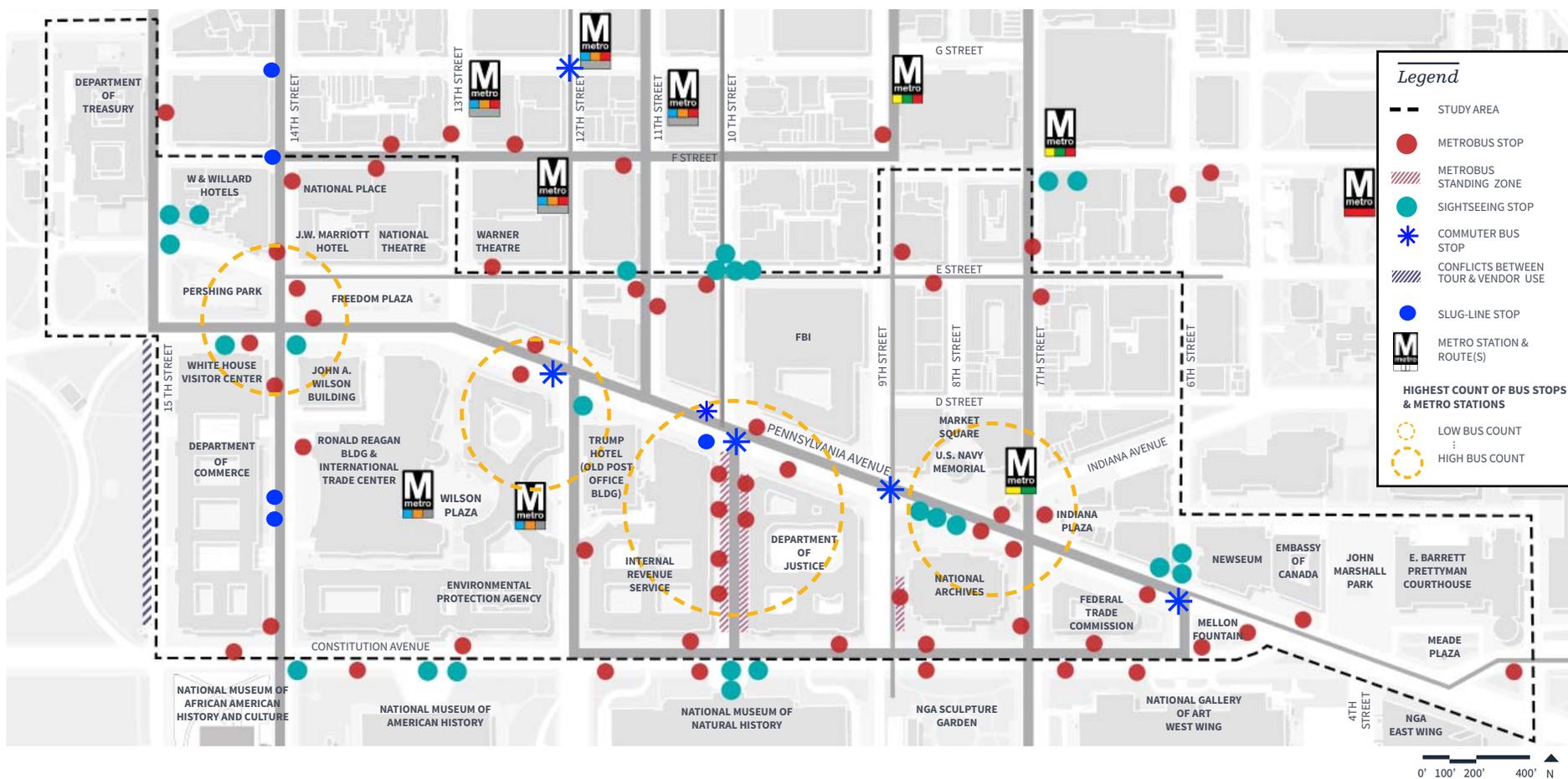
**Sightseeing buses** offer the public hop-on and hop-off service to tourist destinations, and offer fixed sightseeing routes with designated stops permitted by the city. All major sightseeing bus routes traverse the Avenue. They do not fully load/unload at each stop, resulting in shorter stays at stops. Tenth and E Streets near the Lincoln Theater, just north of the study area, serves as a sightseeing bus headquarters offering tour ticketing, a pick-up point, and a tourist destination.

## Analysis

The study area is well-served by a network of local and regional bus operators. While bus service is provided in the east end, it is limited between 3rd and 6th Streets, except for the DC Circulator that crosses the Avenue at 3rd Street between Union Station and the National Mall.

Bus stops and shelters are distributed throughout the study area; some provide navigational signs to help orient the commuter and pedestrians. Some shelters on the Avenue include advertisements, which were not contemplated by the 1974 Plan. The Metrobus stops and layover locations on 10th Street serve as a major commuter bus hub. While it is well located to serve employees and minimize traffic impacts on adjacent streets it is isolated from amenities to serve the commuters.

Tour bus activity north of the Avenue is significant along 10th Street between the bus headquarters and Pennsylvania Avenue. Bus activity is also noteworthy along Constitution Avenue between 7th and 15th Streets, on 14th Street south of Pennsylvania Avenue, and along 15th Street between F Street and Constitution Avenue. Charter bus loading/unloading and idling, sometimes mixed with food vendor stands, can cause vehicular and pedestrian conflicts in congested areas such as the west side of 15th Street between Pennsylvania and Constitution Avenues. Sightseeing buses that stop to point out a tour attraction, or drop off and pick up passengers, create traffic and sidewalk congestion at locations such as the area in front of the Willard and W Hotels.



## Issues

- The study area is well-served by local and regional bus services.
- The bus users' experience is diminished because the commuter bus hub at 10th Street is isolated from retail services and amenities.
- The study area is well-served by sightseeing buses, with hop-on/hop-off stops dispersed along the Avenue at key destinations.
- The concentrations of charter or sightseeing buses can add to traffic congestion and pedestrian sidewalks congestion, such as 15th Street and the Willard and W Hotels.
- Bus shelters do not consistently offer orientation or navigational information.

# Street & Sidewalk Network | Introduction

## Introduction

**The street and sidewalk networks** have the capacity to move goods and people through the study area and connect to city neighborhoods. Development activities throughout the twentieth century and the closure of sections of Pennsylvania Avenue and E Street around the White House for security purposes changed the pedestrian and vehicular circulation patterns within the study area. This section assesses the vehicular, pedestrian, and bicycle networks and the ability to move within and through the area in relation to these changed conditions. The Urban Form, Placemaking and Infrastructure Chapter includes information about the form, character, and quality of the pedestrian experience along the Avenue and streets between downtown and the National Mall.

- › Vehicular Network & Parking examines the level of vehicular service in relationship to the cartway and parking in and near the study area.
- › The Pedestrian Network analyzes pedestrian use and movement daily and for civic events, as well as sidewalk and public space dimensions along the Avenue.
- › The Bicycle Network examines how the Avenue serves as a unique east-west bicycle connection through Downtown Washington.

## Context

**Evolution of the Avenue:** As illustrated in the Urban Form and Placemaking Chapter, the physical form and character of Pennsylvania Avenue has always been an important link between in the city's street network; however, it has evolved throughout several development eras. Beginning in the early 1800s, the Avenue's layout consisted of a wide cartway and narrow sidewalk. During construction of the Federal Triangle in the early 1900's, consolidation of blocks and development of large federal office buildings disrupted the street grid between the Avenue and the National Mall.

In accordance with the 1974 Pennsylvania Avenue Plan (1974 Plan), blocks to the north were consolidated, closing segments of C and D Streets, and the cartway redesigned. Whereas, previously, the cartway aligned on the diagonal between 3rd and 15th Streets, the Avenue was re-routed around the newly formed Freedom Plaza and Pershing Park between 13th and 15th Streets.

The right-of-way's (ROW) current physical dimensions, as envisioned by the 1974 Plan, consists of a 100-foot cartway with eight traffic lanes, four in each direction, with a 16-foot center median. At some intersections, one lane becomes a left turn only lane. Today, the center median serves as a two-way cycle-track, a popular place to wait for a signal change to cross the wide street, or snap a photo of the U.S. Capitol. The northern sidewalks were widened and range from approximately 27 feet to 81 feet.

The Avenue served as an important east-west thoroughfare until 1995 when security issues closed the Avenue in front of the White House and E Street across President's Park. While traffic continues to cross the Avenue north and south, the security closures significantly changed east-west traffic patterns in central Washington, re-routing traffic to nearby streets such as Constitution Avenue and H and I Streets. These closures significantly reduced traffic on the Avenue, changing the Avenue's daily function as a primary east-west city thoroughfare.

**Intersection Traffic Volumes:** DDOT conducted a 2012 Traffic Survey to document vehicular, pedestrian, and bicycle volumes at intersections along the Avenue. This section examines the relationship between volumes of vehicles and pedestrians at intersections in the morning between 9:00 and 9:15 am and in the evening between 5:00 to 5:15 pm. These volumes help reveal service issues and potential pedestrian/vehicular conflicts at the Avenue's intersections.

The map to the right shows the current street and sidewalk network, including one-way and two-way streets. It shows connections to and from I-395 and US1, as well as where streets are restricted or permanently closed often for security purposes. Most closures restrict only vehicular traffic, though some temporary closures near the White House also restrict pedestrian and bicycles access.

# Street & Sidewalk Network



**Legend**

- STUDY AREA
- ONE-WAY
- UNDERPASS
- TWO-WAY
- PEDESTRIAN / CLOSED TO VEHICLES
- LOW VEHICULAR TRAFFIC

NOTE: ASSUME ALL SIDEWALK PATHS FRAME EACH BLOCK



# Street & Sidewalk Network | Vehicular & Pedestrian Network

## Vehicles

During morning and evening commutes:

- › 9th, 12th, and 14th Streets carry the heaviest vehicular traffic, likely due to highway access.
- › 12th Street carries the heaviest vehicular traffic, traveling from the highway to downtown.
- › 14th Street vehicular traffic is consistent, morning and evening.

During the morning commute, the area between 10th and 12th Streets has the greatest volume of vehicular traffic.

Throughout the day:

- › The area between 7th and 9th Streets carries the heaviest vehicular traffic along the Avenue.
- › The area east of 6th Street carries consistently moderate vehicular traffic along the Avenue, including the dogleg intersection at 4th Street and Constitution Avenue.
- › 3rd Street carries the lowest vehicular traffic.

During evening commutes, the area between 7th and 9th Streets has the greatest vehicular traffic, with 9th Street carrying the highest vehicular traffic from downtown to Interstates I-295 and I-395.

## Pedestrians

During the morning commute:

- › 10th and 12th Streets carry the greatest pedestrian traffic.
- › 11th Street carries a significantly high volume of pedestrian traffic.

Throughout the day:

- › The area west of 7th Street generally carries the most pedestrian traffic along the Avenue.
- › The area east of 6th carries the lowest pedestrian traffic along the Avenue, less than half of the volume as the areas to the west.

During morning and evening peak rush hours, 14th Street pedestrian traffic is consistent.

During the afternoon:

- › High volumes of pedestrian activity occur at the 7th and 9th Street intersections with the Avenue.

## Analysis

According to a 2017 study of vehicular and pedestrian crash records from 2009-2015, the highest number of incidents in the city occurred in the downtown area (Chinatown, Penn Quarter, Mount Vernon Square, and a segment of North Capitol Street). Over the seven year period, 333 incidents occurred in that area, but no fatalities were recorded.

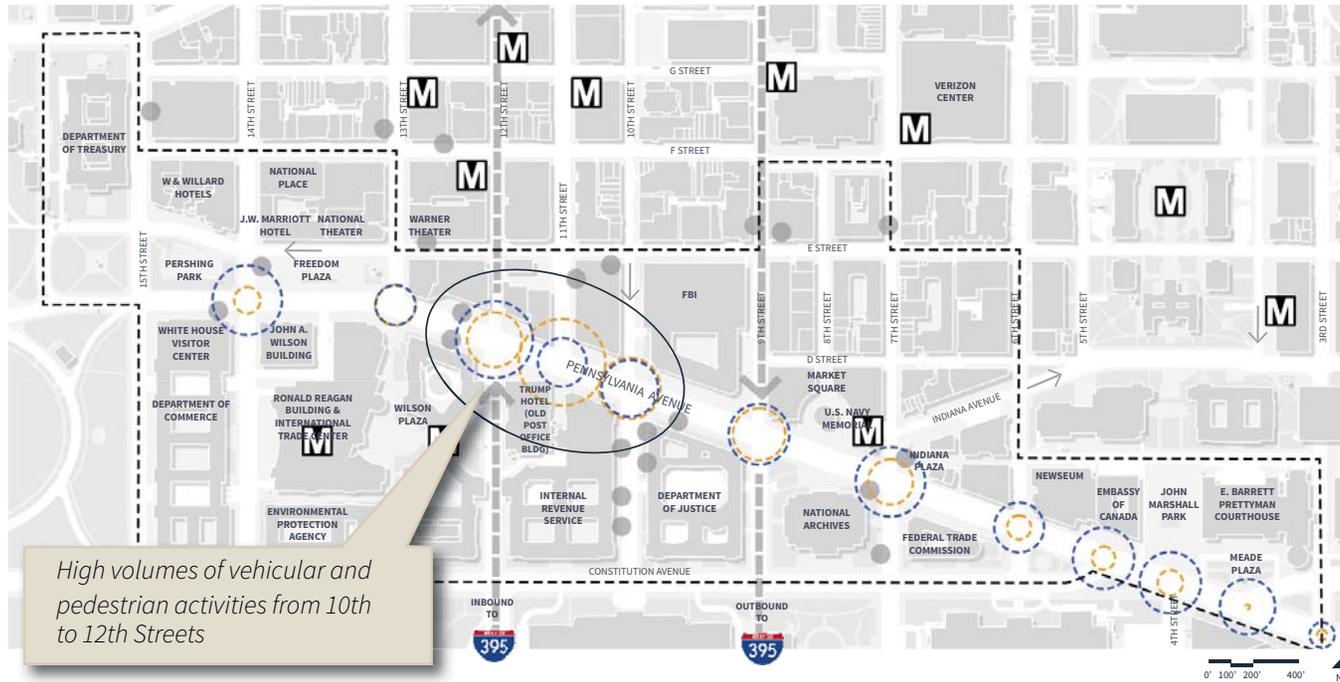
Within the study area along Pennsylvania and Constitution Avenues, vehicle and pedestrian accidents were reported at several intersections. The most incidences were reported at the 12th Street and Pennsylvania Avenue intersection, with seven collisions and 13 injuries. The study's relative scale suggests that the second highest number of incidents occurred on 14th Street, at the intersections of both Pennsylvania and Constitution Avenues, followed by intersections on the Avenue at 11th, 10th, and 9th Streets.

## Issues

- The highest vehicle and pedestrian incidents occur where the highest vehicle volumes occur during the AM and PM commutes.

# AM Vehicular & Pedestrian Volumes

9:00 to 9:15 AM



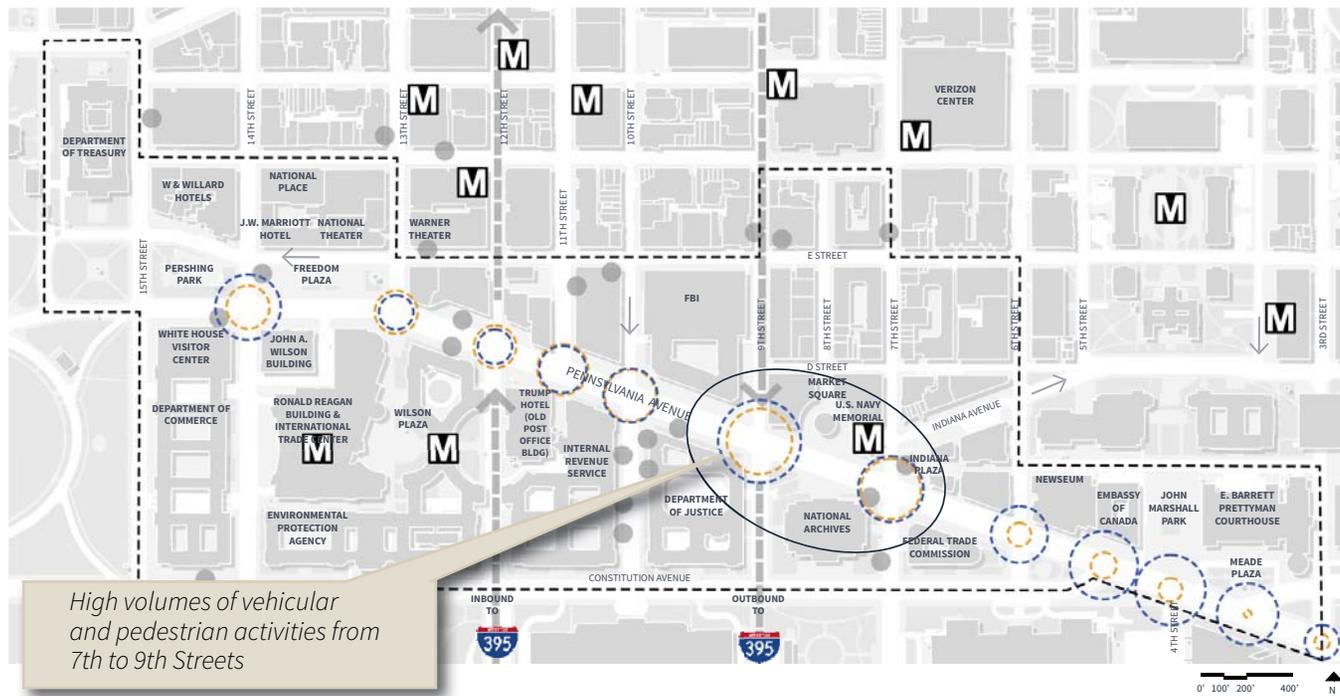
High volumes of vehicular and pedestrian activities from 10th to 12th Streets

**Legend**

- STUDY AREA
- VEHICULAR VOLUME
  - HIGH VOL.
  - LOW VOL.
- PEDESTRIAN VOLUME
  - HIGH VOL.
  - LOW VOL.

# PM Vehicular & Pedestrian Volumes

5:00 to 5:15 PM



High volumes of vehicular and pedestrian activities from 7th to 9th Streets

**Legend**

- STUDY AREA
- VEHICULAR VOLUME
  - HIGH VOL.
  - LOW VOL.
- PEDESTRIAN VOLUME
  - HIGH VOL.
  - LOW VOL.

Source: Jan 2012 District Department of Transportation Traffic Survey

# Street & Sidewalk Network | *Level of Service*

## Introduction

This section examines how the study area accommodates all types of vehicles, including buses, personal vehicles, and vehicles for hire. It studies traffic volumes and flow using Level of Service (LOS) as a quantitative measure, and assesses traffic service and impacts. It also examines vehicle parking in and near the study area.

## Context

**Level of Service** is a quantitative transportation performance measure used to assess a road's traffic flow, volume, and capacity. LOS rankings range from A–F, and rankings often fluctuate throughout the day.

- › 'A' means the street has low volumes and free-flowing traffic.
- › 'F' means volumes are high, typically resulting in traffic jams.

For the purposes of this study, the acceptable urban condition is LOS 'C'. This study only assesses vehicular average queuing lengths, and delays through particular intersections, not approach to the intersection, for the AM Peak and PM commute periods.

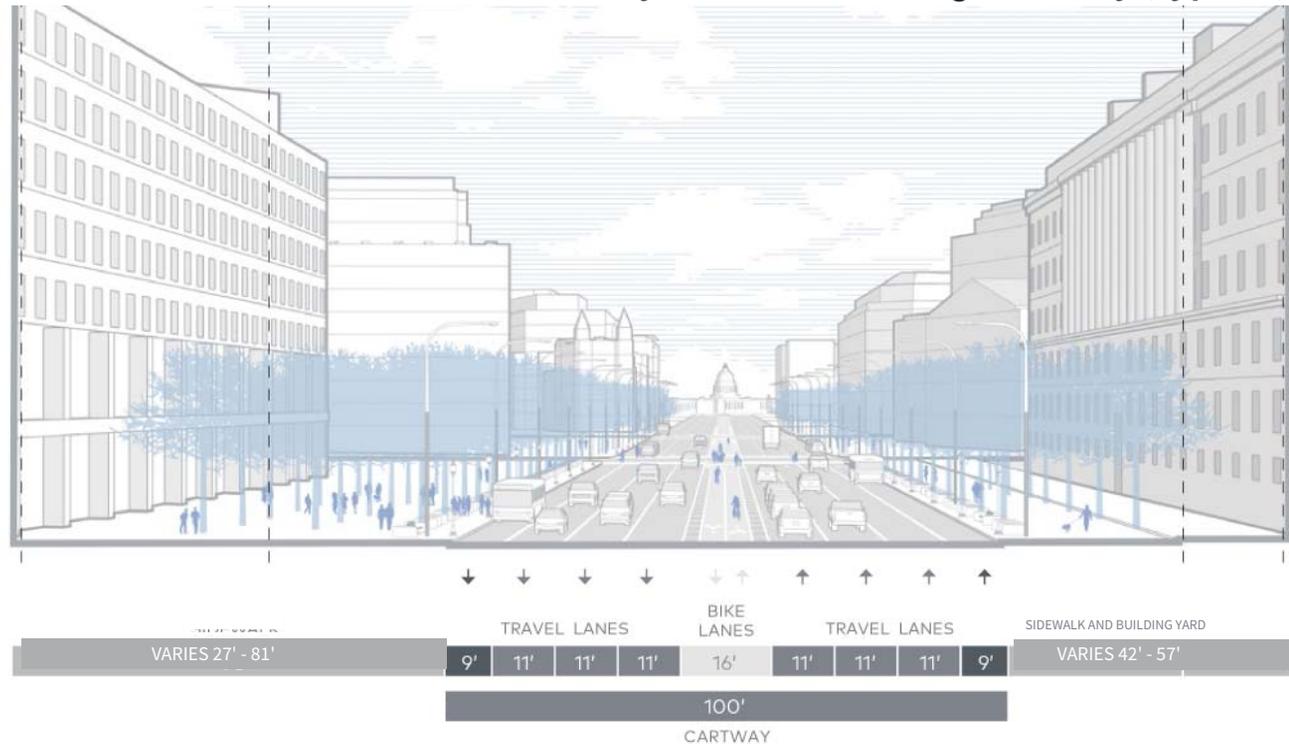
Based on DDOT's 2012 Traffic and Pedestrian Count Data, peak period vehicular LOS was calculated and found to be much lower than typical urban streets. These volumes have declined since the subsequent security related street closures.

Volume-to-Capacity ratios are very low throughout the corridor. The peak-hour LOS 'A' and 'B' at intersections and their individual approaches along the Avenue indicate excess vehicular capacity. When tested at two lanes (rather than the existing four) in each direction, including existing turning lanes, a 'B' to 'C' LOS was maintained. These results generally show that Pennsylvania Avenue's four lanes in each direction provide more capacity than needed.

## Issues

- The wide cartway is designed to accommodate multiple modes of transportation.
- The study is well-connected to the city and region, north to south, for example access to I-295 and I-395 via 9th and 12th Streets and access to US1 via 14th Street bridge.
- Peak morning and evening congestion occurs at the following intersections: I-395 and US1 at 9th, 12th, and 14th Streets along the Avenue.
- Since the closure of E Street and Pennsylvania Avenue at the White House for security purposes, the Avenue no longer serves as a thoroughfare and carries lower traffic volumes than it was designed to accommodate.
- East-west vehicular circulation north and south of the study area is disrupted by the combining of squares for large block development, as well as the closure of Pennsylvania Avenue and E Street near the White House.

## Pennsylvania Avenue Right of Way (typical)

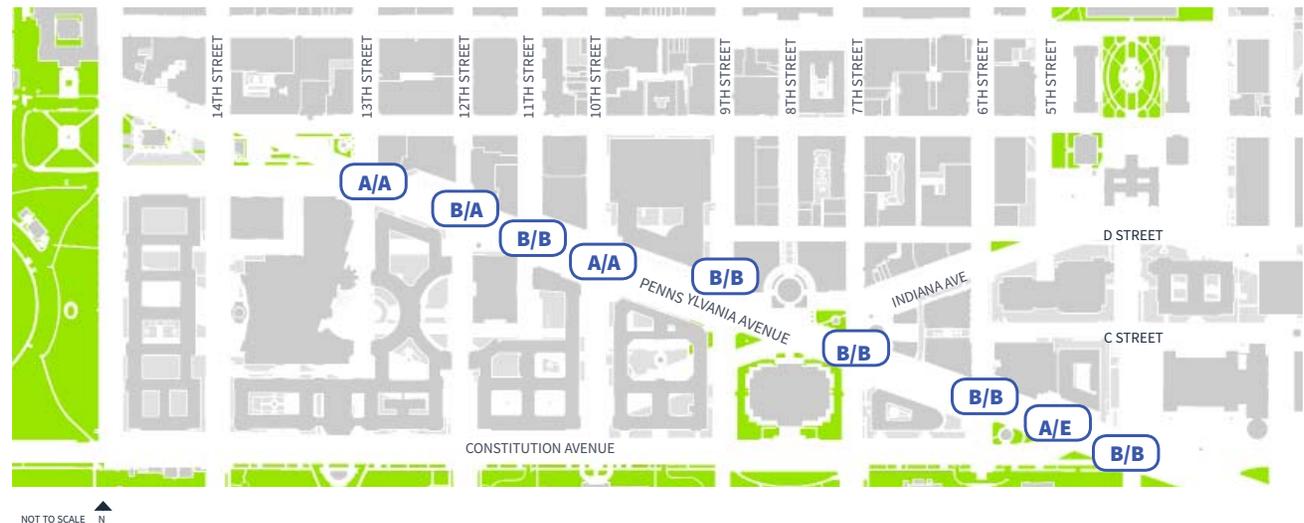


**Level of Service** is a quantitative transportation performance measure used to assess a road's traffic flow, volume, and capacity. LOS rankings range from A–F, and rankings often fluctuate throughout the day.

'A' means the street has low volumes and free-flowing traffic.  
'F' means volumes are high, typically resulting in traffic jams.

Notes: Counts contained anomalies and potential errors, including: 12th Street: AM and mid-day volumes show no southbound traffic; PM volumes show no northbound traffic. PM eastbound volumes shown as identical (for vehicles, trucks, pedestrians and bicycles) at 13th Street and 12th Street 9th Street: AM southbound counts show 184 lefts/620 thru traffic; PM southbound show 184 lefts/1620 through traffic. All volumes entered in the Synchro modeling program as shown in counts.

## AM/PM Vehicular Level of Service



Source: 2012 Department of Transportation (DDOT) Vehicular Data. The 2017 transportation analysis under development by DDOT is forthcoming.

# Street & Sidewalk Network | *Level of Service*

## Introduction

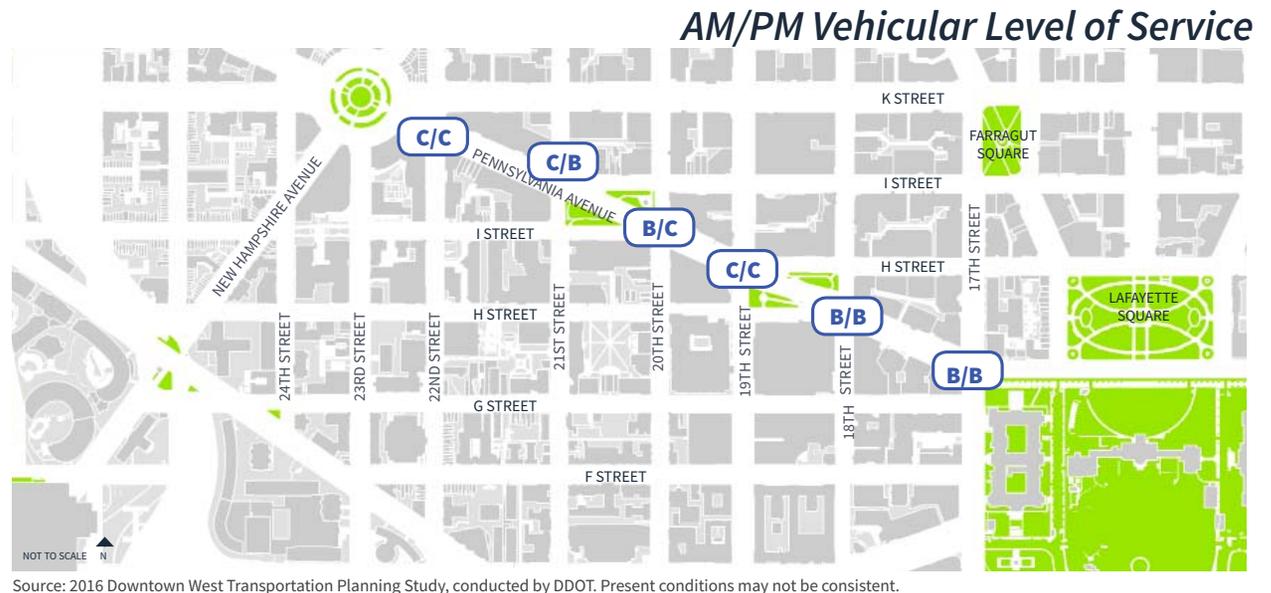
To understand how the current Level of Service (LOS) on Pennsylvania Avenue compares with other downtown streets, here are LOS studies for four streets with similar characteristics and functions. The comparisons for the streets are summarized below. The Avenue within the study area generally shows less traffic congestion than the four downtown streets with some similar characteristics.

All LOS comparison studies were conducted in 2016, except for Pennsylvania Avenue west and K Street, which were prepared in 2012 and 2013, respectively.

### PENNSYLVANIA AVENUE WEST—BETWEEN GEORGE WASHINGTON CIRCLE & 17TH STREET

The LOS for Pennsylvania Avenue west of the White House shows a more stable vehicular flow than typically found along most urban streets. This condition is similar to the LOS, queuing length, and delay throughout the Pennsylvania Avenue corridor. Congestion increases towards the west end near Washington Circle.

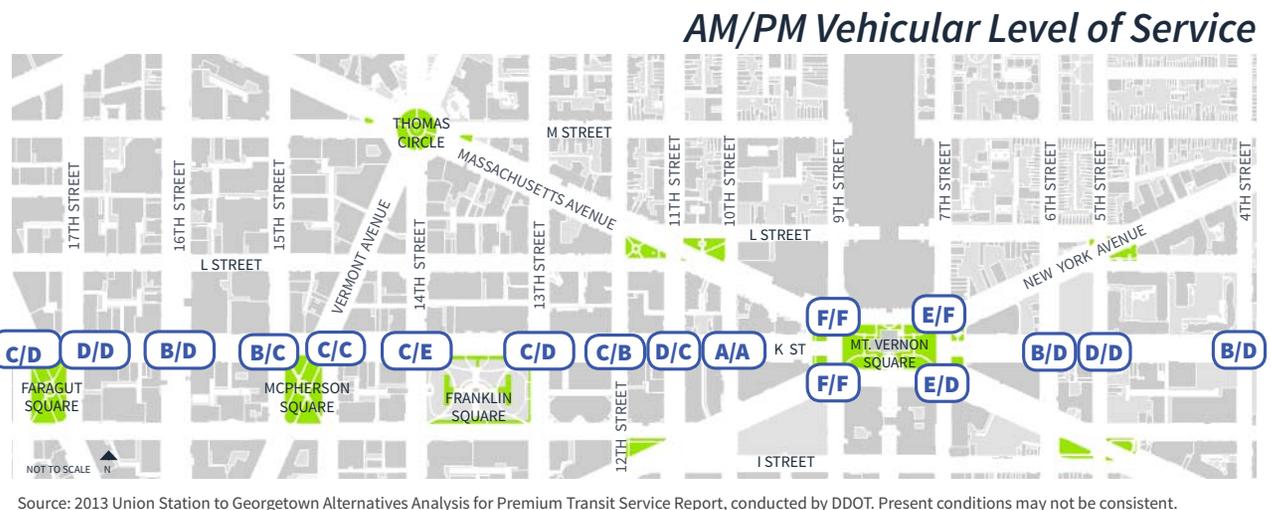
The LOS results for the west side are similar to Pennsylvania Avenue between 3rd and 15th Streets due to the closure of Pennsylvania Avenue, between 17th Street and 15th Street at the White House. Like the Avenue between 3rd and 15th Streets, its west end is experiencing a reduction in east-west travel demand.



### K STREET—BETWEEN CONNECTICUT AVENUE & 6TH STREET

The LOS for K Street at intersections between Connecticut Avenue and 4th Street indicates more congestion during the afternoon commute than during the morning commute. Therefore, congestion occurs more often during the weekday evening rush hours.

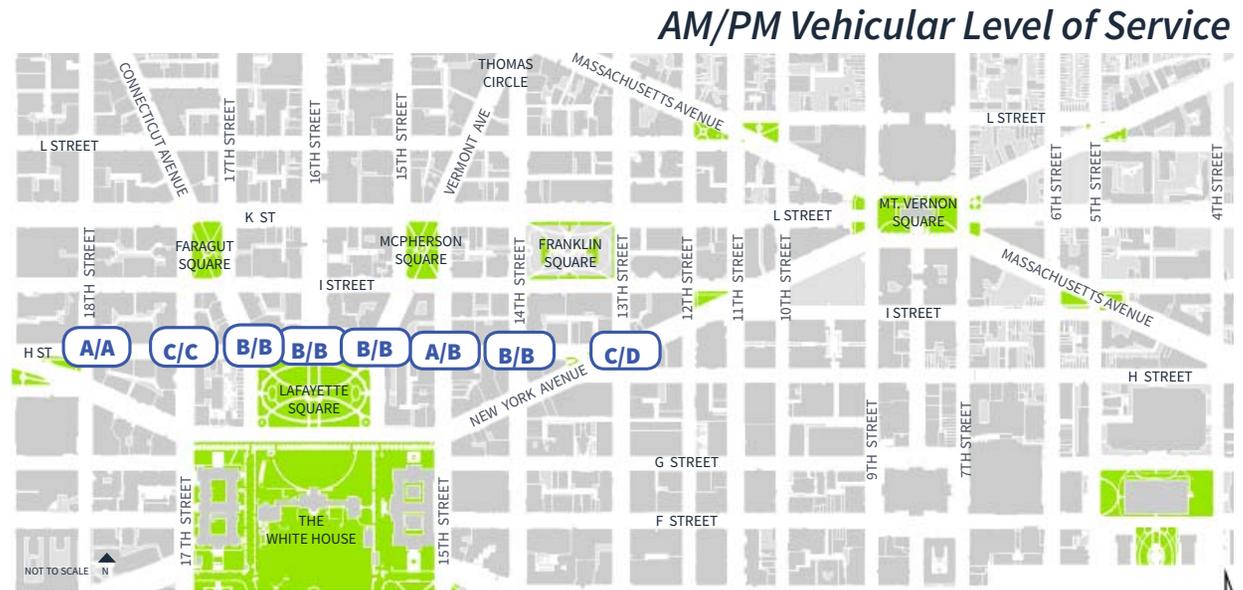
The LOS along this section of K Street indicates more access and demand than along the Avenue. The areas of increased congestion may reflect K Street's unique square and diagonal road composition. The worst LOS occurs around Mount Vernon Square, where congestion is present throughout the day and evening.



### H STREET—BETWEEN 13TH STREET & 18TH STREET

The LOS study for H Street indicates stable traffic flow at all intersections in the morning peak period, with an exception at the intersection of 13th and H Streets during the afternoon peak period.

Most of the conditions on H Street are similar to the LOS, queuing length, and delay along Pennsylvania Avenue between 3rd and 15th Streets, resulting in fewer delays than other east-west connections like K Street.



Source: 2016 Downtown West Transportation Planning Study, conducted by DDOT. Present conditions may not be consistent.

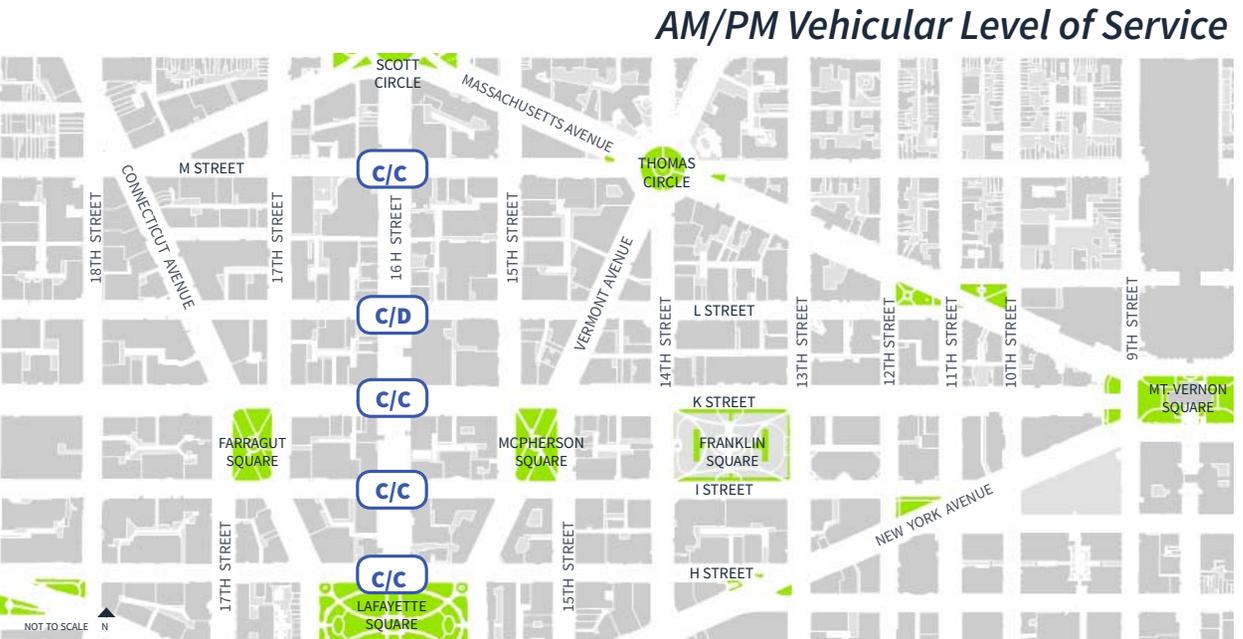
### 16TH STREET—BETWEEN SCOTT CIRCLE & LAFAYETTE SQUARE

The 16th Street LOS study indicates stable traffic flow at all intersections in the morning peak period. With exception of L Street, all intersections show a stable traffic flow and minor delays during the afternoon peak period.

Compared to Pennsylvania Avenue between 3rd and 15th Streets, 16th Street experiences heavier traffic throughout the day.

### Analysis

All LOS comparisons illustrate a similar level of congestion, if not more, than the Avenue within the study area. There is greater traffic capacity along the Avenue when compared to Pennsylvania Avenue West, H Street, K Street, and 16th Street.



Source: 2015 16th Street NW Transit Priority Planning Study, conducted by DDOT. Present conditions may not be consistent.

# Street & Sidewalk Network | *Parking*

## Introduction

The city and the private sector provide a range of parking services for daily use and events. This section examines the two types of parking systems that serve the study area: on-street parking and privately owned, publicly accessible parking garages. Private parking garages for building residents or employees are not included in the analysis.

## Context

**On-Street Parking:** While on-street parking exists within and near the study area, along the Avenue parking is restricted or by permit only.

- › **Restricted Parking:** Perimeter building security concerns restrict on street parking adjacent to federal, institutional, and cultural buildings along the Avenue. Some spaces are reserved for authorized staff and security personnel.
- › **Permit Parking:** Most of the on-street parking along the Avenue requires a permit.
  - » **U.S. Capitol:** Between 1st and 3rd Streets, within the center median, the parking spaces are authorized for use by the Capitol's Sergeant at Arms and Doorkeeper.
  - » **City Hall:** Between 13 1/2 and 14th Streets on the south side of the Avenue, parking is authorized for DC Councilmembers.
- › **Metered Parking:** Metered two-hour on-street parking is available on many north-south streets in the study area, including those in the Penn Quarter neighborhood and around the National Mall.

To the north, a portion of the Penn Quarter neighborhood, bounded by E, 3rd, H, and 11th Streets, is the first pilot site in Washington to test a performance-based fee system for on-street parking. It adjusts rates based on real-time parking demands, with five-price points ranging from \$1.50 to \$3.25 per hour.

**Garage Parking:** Parking garages within and around the study area are privately managed and serve as the primary parking facilities.

North of the Avenue, employees generally use parking garages during the workweek. Parking garages near the Capital One Arena typically charge extra during weeknight arena events. Weekday prices average approximately \$25/day, with specials often available during the week. Many garages are used by visitors on the weekends because of their proximity to National Mall and other destinations to the south.

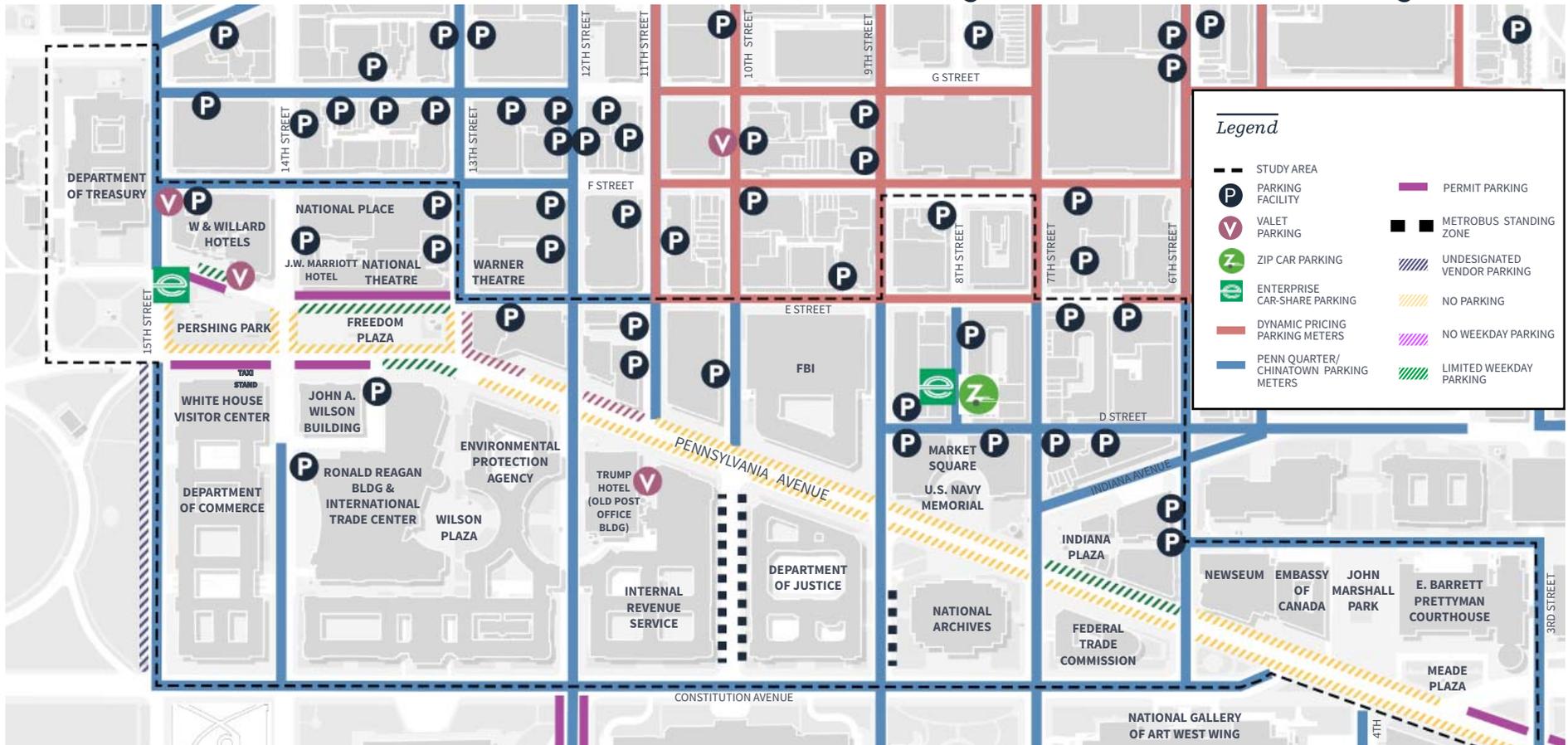
South of the Avenue, parking is limited, except for the Reagan Building parking garage. It is the study area's largest garage, and has approximately 2,000 parking spaces. Recent NPS research found parking supply at the garage often exceeds demand and could help alleviate the pressure around the National Mall for additional parking spaces.

South of the National Mall, garage and surface parking around L'Enfant Plaza is also available for National Mall visitors.

## Analysis

Parking availability in the study area varies block to block. On-street parking along the Avenue is restricted to specific users. North of the Avenue metered parking and parking garage parking is available. The parking garages serve office workers during the week and visitors during weeknights and weekends. The location of downtown parking increases the likelihood that National Mall visitors will experience Pennsylvania Avenue on their way to and from their destination.

## Parking Facilities & On-Street Parking Locations



### Issues

- Low parking supply at the National Mall and availability of downtown parking increases the likelihood that visitors will experience the Avenue on their way to and from the National Mall.
- The lack of parking south of the Avenue encourages use of other transportation modes.
- Parking is often available in the Ronald Reagan Building and International Trade Center when supply exceeds demand.
- On-street parking along the Avenue is prohibited, limited, or restricted adjacent to federal, institutional, and cultural uses. In other locations, on-street parking is reserved for specific users or restricted to certain days and hours.
- At the east end of the Avenue, near the U.S. Capitol, parking in the center median of the Avenue interrupts pedestrian connectivity and creates confusing circulation patterns for bicyclists and motorists traversing the area.

# Street & Sidewalk Network | *Sidewalk Network*

## Introduction

**This section examines the pedestrian network** that connects neighborhoods, buildings, and attractions within and surrounding the study area with a focus on the sidewalks.

## Context

Overall, pedestrian traffic is lower in the study area than in other parts of downtown Washington. The Avenue's 2016 DCOP pedestrian counts show low volumes compared to the overall sidewalk capacity along Pennsylvania Avenue. Combined with a lack of programming as discussed in the Land Use and Urban Form, Placemaking, and Infrastructure chapters, this creates a desolate feeling along the Avenue's sidewalks.

Combined, the cartway, sidewalks, and building yards form the Avenue's 1974 Plan right-of-way. The design of most segments of the Avenue's sidewalks serve various needs by including a streetscape program of pedestrian pathways, multiple tree rows, café space, kiosks, street furniture, parade viewing stands, and other civic activity uses.

Sidewalk widths vary, ranging from 27 to 80 feet. Commercial sidewalks throughout downtown vary in width, but are typically about 16 feet wide. Avenues throughout downtown range between 25-55 feet wide, with an average of 42 feet. While the Avenue's sidewalks can be wider than typical downtown avenues in some areas, their width and relationship with the cartway is designed to provide a special civic space and accommodate streetscape amenities unique to the Avenue. In addition to its daily role as a transportation route, the Avenue must also accommodate activities of various scales.

Segments of the study area require upgrades to comply with the 2010 Americans with Disabilities Act Standards for Accessible Design. For more information see the Universal Accessibility section in the Urban Form, Placemaking, and Infrastructure Chapter. North of the Avenue, the study area gains elevation, creating a more challenging experience for some pedestrians and cyclists.

The permanent closure of the Avenue and its sidewalks to the public in front of the White House and E Street reroutes pedestrian traffic south to Constitution Avenue, or north towards Lafayette Square, and diminishes the pedestrian connectivity and experience.

## Analysis

The overall sidewalk and road width create an environment that is not comfortable for pedestrians. The sidewalks are designed to accommodate pedestrian circulation, trees, street furniture, and event space. However, absence of programming causes the sidewalks to underperform. Variation in sidewalk widths make narrower sections feel constrained.

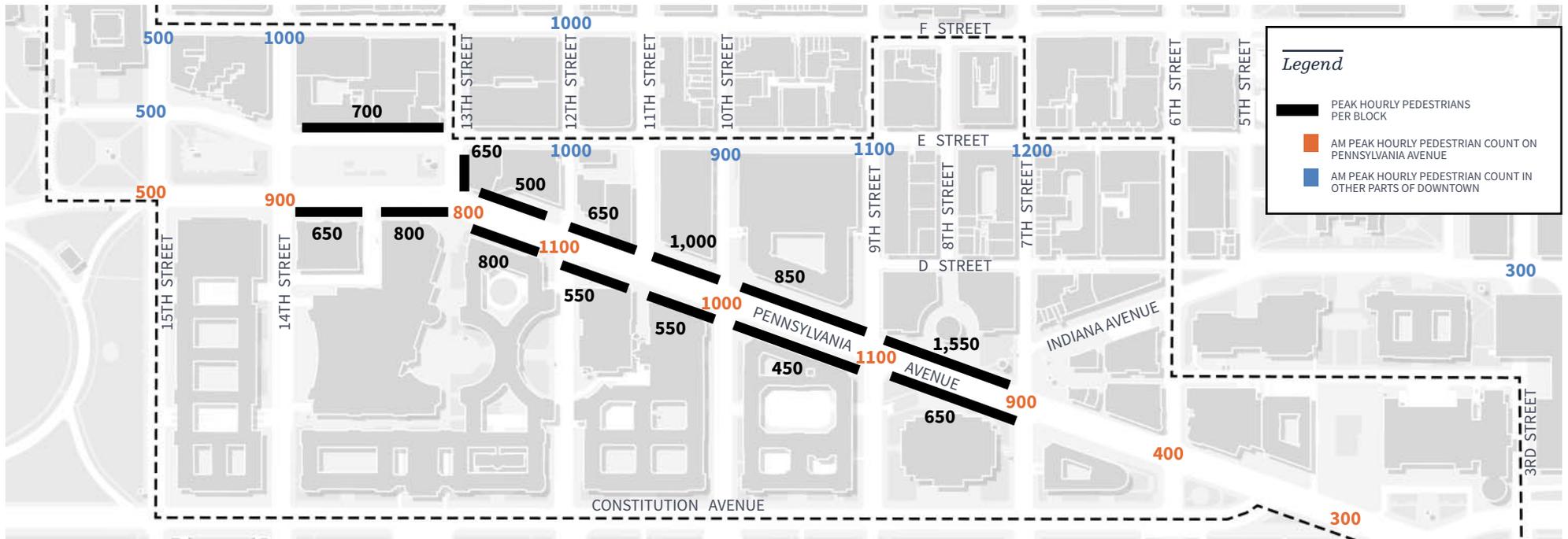
Current pedestrian volumes along the sidewalks are lower than the capacity it was designed to carry. While the sidewalk accommodates current pedestrian volumes and a number of civic activities, its low daily use diminishes its sense of place. The Urban Form, Placemaking and Infrastructure chapter discusses these issues in more detail.

The lack of a seamless pedestrian connection along the Avenue from east-west impacts the pedestrian use and activity. The closure of E Street impacts pedestrian mobility and experience; pedestrians must walk north of the Treasury Building to Pennsylvania Avenue, or south to Constitution Avenue, to cross to the west side of the White House.

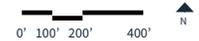
## Issues

- The Avenue's sidewalks are less active than in other downtown areas; most of the sidewalks can accommodate more pedestrian foot traffic than they currently carry.
- The majority of the study area's signals and sidewalks do not comply with the 2010 Americans with Disabilities Act Standards for Accessible Design. The study area's uphill elevation change to the north is a disadvantage for some pedestrians.
- The closure of E Street impacts pedestrian mobility and experience.

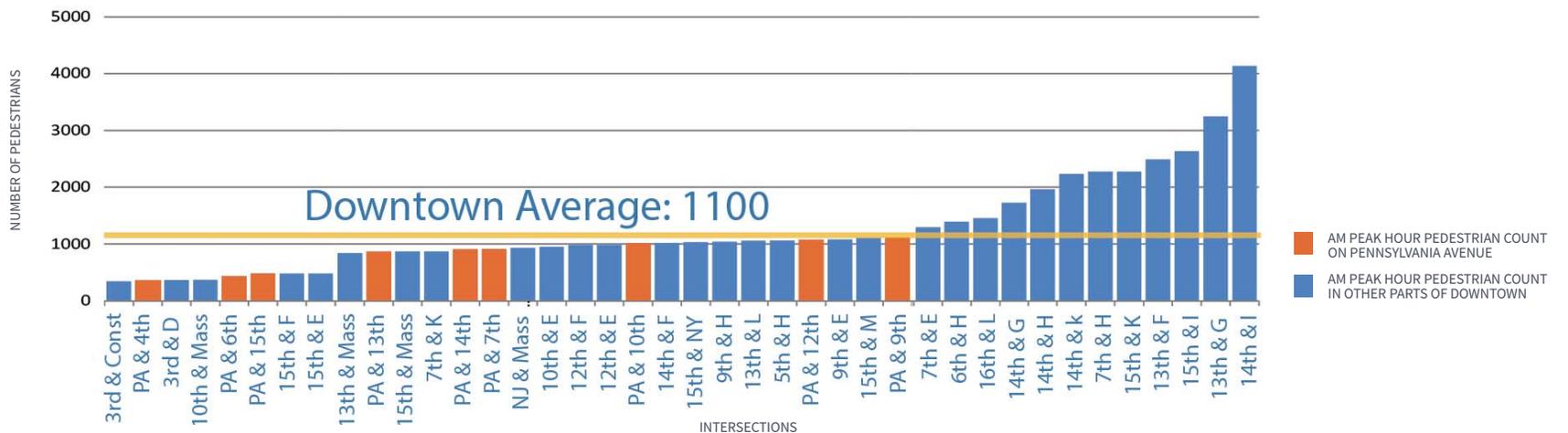
# Market Study Pedestrian Count-Weekday Peak Hourly Pedestrians Per Block-Pennsylvania Avenue



Pedestrian counts from July 2015. Study area includes Pennsylvania Avenue between 7th and 14th Streets. Pennsylvania Avenue Market Study. HR&A Advisors, 2016.



## AM Weekday Peak Hourly Pedestrians Per Intersections-Pennsylvania Avenue & Downtown



People on Penn: Pennsylvania Avenue Pedestrian Life Study. DC Office of Planning, 2016.

# Street & Sidewalk Network | *Bicycle Network*

## Introduction

The study area provides bicycle lanes and cycle tracks that connect with surrounding bicycle networks. This section examines the bicycle networks including Capital Bikeshare (Bikeshare) stations in the study area, as well as current bicycle volumes along Pennsylvania Avenue.

## Context

The study area's bicycle network consists of the following components:

- › One-way northbound bicycle lane along 12th Street;
- › One-way southbound bicycle lanes along 9th and 10th Streets;
- › Two-way bicycle lanes along 15th Street, north of the Avenue;
- › Two-way bicycle lanes along 4th Street, south of the Avenue; and
- › Two-way, 16-foot cycle track in the Avenue's center median.

As the cycle track has become a feature of the Avenue and an important link in the District's bicycle network, the role of bicycling as an alternative transportation in and around the study area continues to grow. The cycle track became a primary east-west cycling route through Downtown Washington soon after installation in 2010. It serves cyclists, pedicabs, and Segway users. Cycle tracks are effective at attracting and improving safety for cyclists.

The cycle track location differs from the rest of the city and typical bicycle standards advocated by transportation organizations like the National Association of City Transportation Officials. The three-foot buffer on either side of cycle track includes physical safety components, such as the raised zebra barriers and painted lane lines. All physical components, including streetscape light fixtures and bollards, are removed for the Presidential Inaugural Parade.

At intersections along the Avenue, the cycle track overlaps with vehicular turn lanes and at-grade pedestrian medians. The medians are not intended to serve as pedestrian refuges, although pedestrians will use the median to wait for walk signals to change, to photograph the Capitol, or enjoy the view. The medians offer great vantage points and are used to photograph the Capitol, which often causes conflicts between bicyclists, pedestrians, and other users, especially at intersections.

Beyond Pennsylvania Avenue, the bicycle network connects to nearby neighborhoods and attractions through one-way and separated bicycle lanes.

The on-street bicycle lanes along 4th Street connect the Avenue to the southwest waterfront; the bicycle lanes along 11th Street connect north to the Shaw neighborhood; 9th and 10th Street bicycle lanes connect downtown and the Avenue; and although the lanes now stop, an extension is planned to the southwest waterfront along 15th Street. The elevation rise south to north adversely affects the bicycling experience from the Avenue to downtown for some cyclists.

Capital Bikeshare is a flexible, active transportation mode improving connectivity throughout Washington. There are three Bikeshare stations in the study area and three just beyond. Based on the 2016 *Capital Bikeshare Development Plan*, downtown is one of the neighborhoods with the highest frequency of ridership, with up to 400 total daily trips. The 2016 Development Plan indicates plans to increase the number of Bikeshare stations downtown, including in the study area.

## Analysis

Bicycle traffic volumes were analyzed as part of the street and sidewalk volume analysis. Some of the most heavily used lanes in Washington's bicycle network are on the Avenue within the study area.

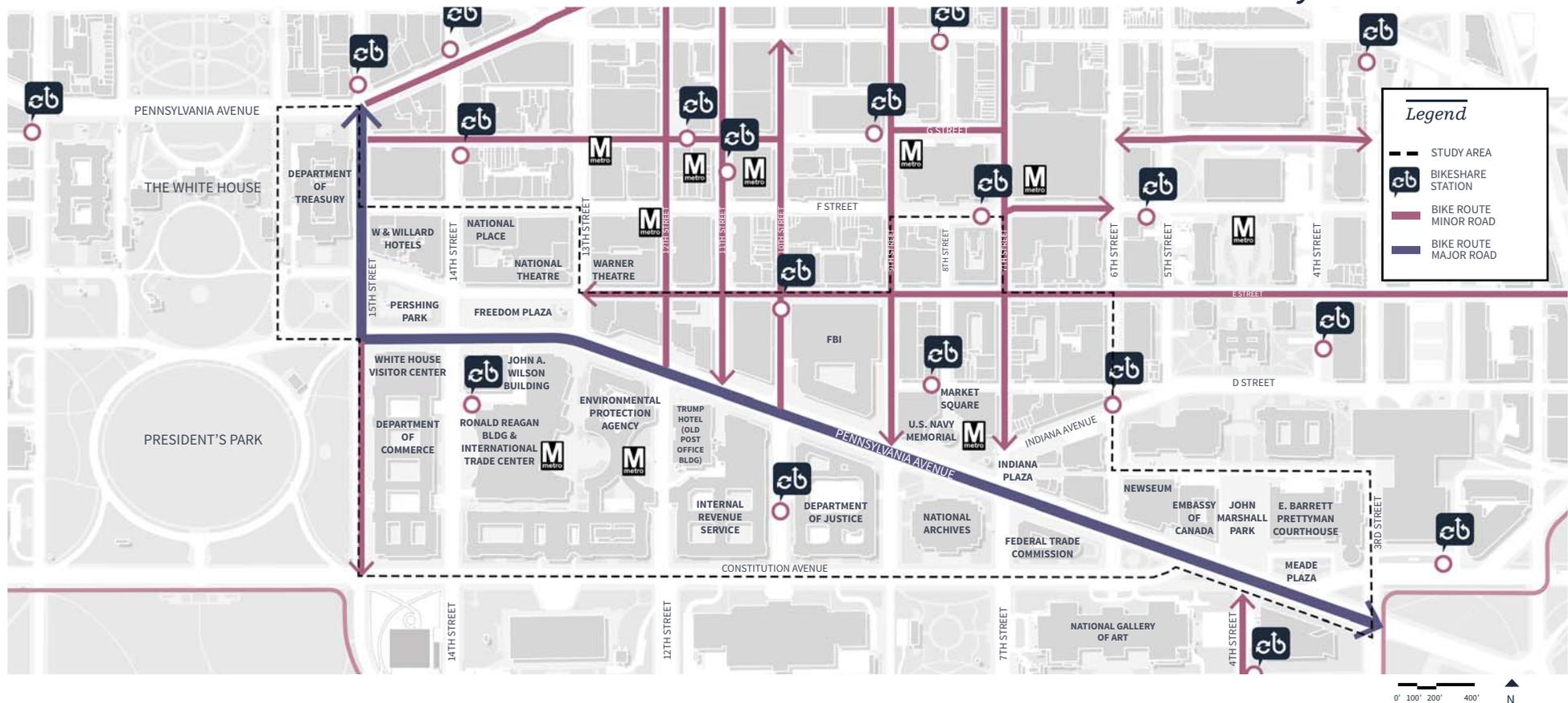
During work hours approximately 400 bicycles cross each intersection. Bicycle peak hour volumes along the Avenue increased over 250 percent between April 2010 and June 2012. For comparison, citywide volumes increased only 32 percent during this same period. (*Evaluation of Innovative Bicycle Facilities in Washington, DC – DDOT, City of Oakland, Portland State University*)

Despite the increase in cyclists, the closure of E Street has affected the connections between destinations east and west of the White House.

- › Bicycle volume is heaviest at the east end of the Avenue, near 4th and 3rd Streets.
- › During morning peak rush hours, bicycle traffic is busy at all the Avenue's intersections, except 14th Street.
- › During the noon peak period, bicycle traffic is at its lowest, except for Constitution Avenue at 3rd and 4th Streets.

Throughout the study area, connections north to Union Station and south to the National Mall have heavy bicycle volumes.

## Bicycle Network



### Issues

- The bicycle network has limited connections south of the Avenue across the National Mall. Cyclists may ride on the sidewalk at 15th Street south of the Avenue, or on a bike lane at 4th Street.
- Bikeshare capacity is limited. Several Bikeshare stations are a short walk from the Avenue, but none are directly on it.
- The Pennsylvania Avenue cycle track is unique, and one of the most heavily used in Washington.
- The width of the street, turn lanes, bicycles, and volume of pedestrians contribute to user conflicts at intersections within the Avenue's median.
- The study area's north-south elevation change is a disadvantage for some cyclists and impacts Bikeshare's ability to balance the system throughout the day.
- Closing E Street to bicycles and pedestrians impacts the seamless connections between destinations east and west of the White House.
- There are no bike racks along the Avenue and few within the study area.

# Wayfinding

## Introduction

This section examines the primary wayfinding resources for pedestrians, with some consideration for Metrorail.

## Context

Many organizations provide vehicular, bicycle, and pedestrian-oriented wayfinding signage throughout the study area that includes directional, identification, and map signs.

**District Department of Transportation** provides and maintains bicycle and pedestrian wayfinding signs throughout the study area. DDOT also maintains the blue wayfinding signage throughout Washington. The Downtown DC Business Improvement District developed the signs in the study area; their content primarily relates to cultural destinations. The signs have a subtle north arrow at their base to orient users to Washington's street grid.

**Cultural Tourism DC** developed two Heritage Trails through the study area that are now managed by DDOT. The Federal Triangle and Downtown Heritage Trails are self-guided tours that combine stories, historic photos, and maps on the interpretive signs. Maps are included on the signage, serving both as a historical trail marker and a wayfinding tool.

**The National Park Service** and **Smithsonian Institution** signage are primarily located south of the Avenue, near the National Mall. It provides wayfinding signage to navigate to and from park and museum-related destinations. However, few signs are present north of the Avenue to help visitors navigate their way to the National Mall. NPS also provides pedestrian and bicycle wayfinding maps in and around the National Mall that also help orient toward Metrorail stops and downtown. The Smithsonian provides wayfinding maps geared to museums.

**General Services Administration** provides wayfinding signage, both digital and constructed, for all federal facilities in and around the study area.

**Smart Phone Technology** is widely popular as a wayfinding and navigational tool. Some organizations, such as GSA and NPS, are embracing this technology and developing apps to support the visitor experience around their facilities, including wayfinding support to traverse the area. Apps require consistent updates and maintenance to ensure compatibility with operating systems and provide up-to-date content.

**WMATA** provides wayfinding markers for their stations, pocket Metro maps, and maps posted inside each ticket machine space in the stations. WMATA is also exploring navigational technology and applications in the urban environment.

## Analysis

Although Pennsylvania Avenue sits between Downtown Washington, the National Mall, the White House, and the U.S. Capitol, it feels isolated from its neighbors. Visitors often ask for directions to help orient themselves. The lack of visual cues can be problematic on the Avenue's north side, which lacks clear wayfinding signage.

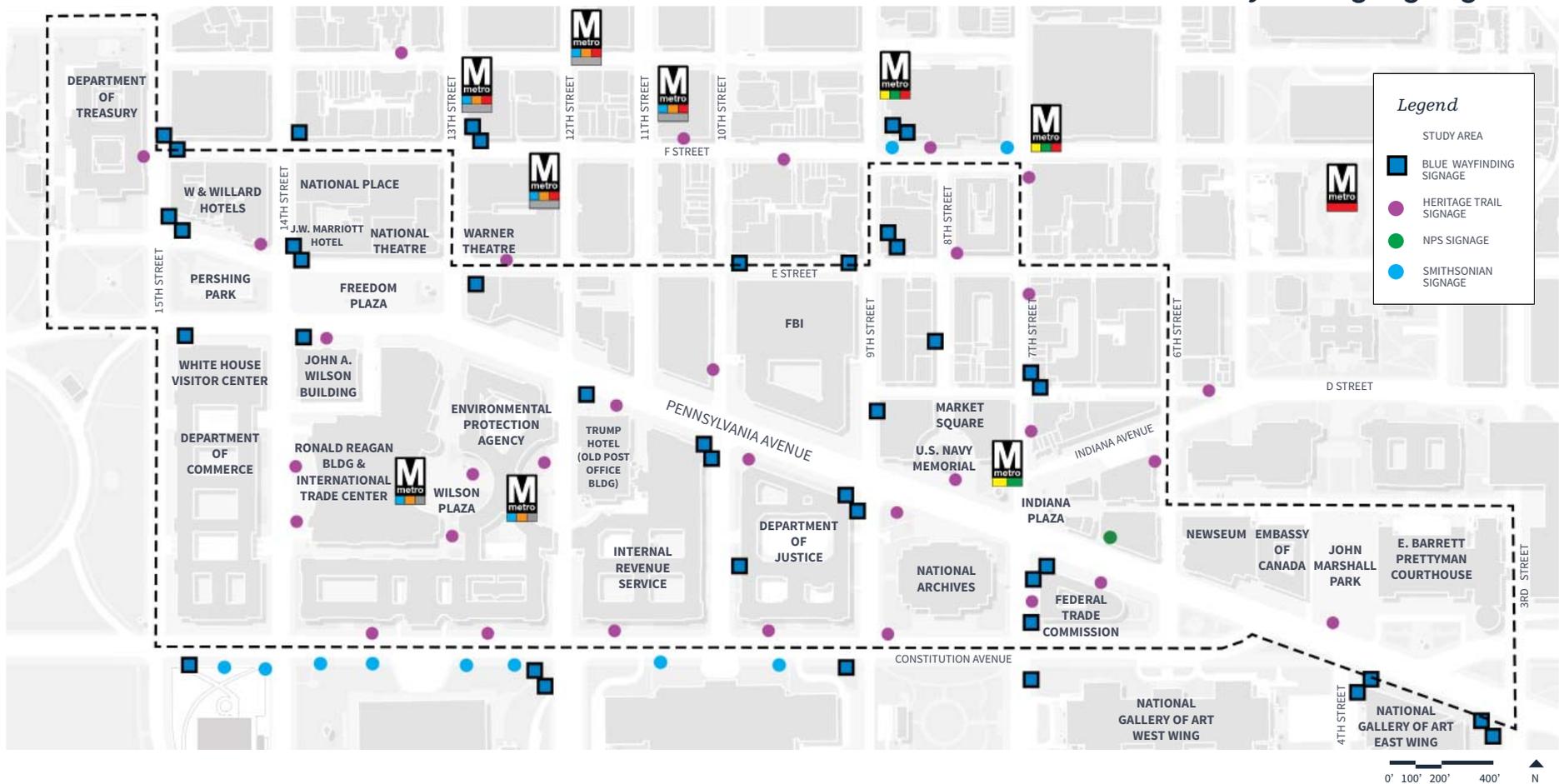
The land use and development patterns related to building scale, configuration, or design in the Federal Triangle and along the Avenue, make orientation challenging for visitors. This challenge exists despite the various signage programs and the cultural landmarks, such as the Capitol and the Old Post Office Tower, which can serve as physical wayfinding markers.

Wayfinding sources from multiple organizations serve the area, but they are not well-coordinated to provide a comprehensive communication system for all users.

Some wayfinding signage in the study area, like DDOT's blue signs, need regular maintenance and management to remain current and address typical wear.

Wayfinding signage primarily provides directions to tourist destinations. It does not direct people to other neighborhoods or destinations. These signage programs do not map public comfort services, like restrooms and water fountains.

## Wayfinding Signage



### Issues

- NPS and GSA provide smartphone technology to distribute wayfinding information to users throughout the monumental core.
- Wayfinding is challenging for visitors since signage content is not updated regularly to reflect changing destinations or public amenities. Wayfinding signage focuses on cultural destinations and Metrorail stations; other downtown or neighborhood destinations are not well-identified.
- The various wayfinding programs are not well-coordinated to function as a comprehensive and efficient system.
- The wayfinding signage within the study area reflects limited maintenance and management.
- Wayfinding gaps exist along the north side of the Avenue from 3rd to 14th Streets.
- Physical conditions related to building scale, land use patterns, and visual cues can hinder wayfinding between downtown, the Federal Triangle, and the National Mall.

### A. Public Transit Network | *Metrorail & Bus*

- 1) The study area is well-served by Metrorail and local and regional bus services. It is a regional network with stations, stops, and shelters conveniently located near office and cultural buildings to connect users to their destinations.
- 2) The areas west of 14th Street and east of 4th Street are outside the five-minute Metrorail station walk-shed. However, these areas are well-served by the bus network.
- 3) The Federal Triangle Metro station entries are not easily accessible because of their location within the Federal Triangle, and minimal signage.
- 4) The bus users' experience is diminished because the commuter bus hub at 10th Street is isolated from retail services and amenities, and bus shelters do not consistently provide orientation or navigational information.
- 5) The study area is well-served by sightseeing buses, with hop-on/hop-off stops dispersed along the Avenue at key destinations.
- 6) Charter and sightseeing bus loading operations can contribute to traffic congestion and disrupt pedestrian flow on some sidewalks. For example, this sometimes occurs along 15th Street and at the W and Willard Hotels.

### B. Street & Sidewalk Network | *Vehicle Level of Service & Parking*

- 1) Pennsylvania's Avenue's wide cartway is designed to accommodate multiple modes of transportation. Since the closure of E Street and Pennsylvania Avenue at the White House for security purposes, the Avenue no longer serves as a thoroughfare and carries lower traffic volumes than were designed to accommodate; east-west traffic flow has been disrupted.
- 2) East-west vehicular circulation north and south of the Avenue is disrupted by the combination of squares for large block development.
- 3) The study area is well-connected to the city and region, north to south. For example, access to I-295 and I-395 via 9th and 12th Streets and the access to US1 via the 14th Street bridge. These are the areas with the greatest traffic congestion during AM and PM commute times, and have the greatest potential for vehicular-pedestrian conflicts.
- 4) Garage parking is available north of the Avenue and south of the National Mall; the Reagan building is the only public parking garage south of the Avenue near the Mall. The limited parking supply in this area, and availability of parking to the north, increases the likelihood that visitors will experience the Avenue between on their way to or from the National Mall.

## B. Street & Sidewalk Network | *Vehicle Level of Service & Parking*

- 5) On the south side of the Avenue security restrictions prohibit on-street parking in front of federal buildings; in other locations, on-street parking is reserved for specific users or restricted to certain days and hours.
- 6) At the Avenue's eastern end near the Capitol, parking in the center median interrupts pedestrian connectivity along the corridor, creating confusing circulation movements for bicyclists and motorists.

## C. Street & Sidewalk Network | *Pedestrian Volumes & Connectivity*

- 1) The closure of E Street and the combined blocks and large buildings negatively impact walkability and connectivity throughout the area. Unless there is a special event on the Avenue, east-west pedestrian traffic is lower than other downtown areas, affecting activity and causing the area to feel desolate.
- 2) The Avenue's sidewalks are less active than in other downtown areas; most of the sidewalks can accommodate more pedestrian foot traffic than they carry.
- 3) User conflicts sometimes occur in the center medians because of pedestrian use caused by the width of the street and traffic signal timing and use of the cycle tracks, combined with the location of traffic bollards and signage.
- 4) The majority of the study area's signals and sidewalks do not comply with the 2010 Americans with Disabilities Act Standards for Accessible Design. The study area's uphill elevation change to the north is a disadvantage for some pedestrians.

## D. Street & Sidewalk Network | *Bicycle Network*

- 1) Closing E Street to bicycles and pedestrians impacts the seamless connections between destinations east and west of the White House.
- 2) The bicycle network connections south of the Avenue across the National Mall are limited to the sidewalk along 15th Street, or bike lane along 4th Street. More of the northern streets have bicycle lanes.
- 3) Bikeshare capacity is limited. Several Bikeshare stations are a short walk from the Avenue, but none are directly on it.
- 4) The Pennsylvania Avenue cycle track is unique, and is one of the most heavily used in Washington. The width of the street, turn lanes, and pedestrians cause bicyclist conflicts within the median at intersections.
- 5) The study area's north-south elevation change is a disadvantage for some cyclists and impacts Bikeshare's ability to balance the system throughout the day.

## E. Wayfinding

- 1) NPS and GSA provide smartphone technology to distribute wayfinding information to users throughout the monumental core.
- 2) Wayfinding signage focuses on cultural destinations and Metrorail stations; other downtown or neighborhood destinations are not well-identified.
- 3) The various wayfinding programs are not well-coordinated to function as a comprehensive and efficient system and signage content is not regularly updated to reflect changing destinations or public amenities, making it challenging for visitors.
- 4) Wayfinding gaps exist along the north side of the Avenue from 3rd to 14th Street.
- 5) Physical conditions related to building scale, land use patterns, and visual cues can hinder wayfinding between downtown, the Federal Triangle, and the National Mall.





# 4

## Urban Form, Placemaking, & Infrastructure

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## Introduction

The Urban Form, Placemaking, and Infrastructure analysis evaluates the relationships between Pennsylvania Avenue’s physical, spatial, visual, and functional qualities and how they contribute to its identity, character, and experience of place. The analysis is organized into three sections.

**Urban Form** establishes the smaller-scale spatial relationships among buildings and landscapes, and the larger-scale urban context. This section summarizes the Avenue’s historic evolution and examines the key urban design components that inform the quality, function, and experience of its space, including:

- › Street and block structure
- › Street walls, including build-to lines and building heights
- › Pennsylvania Avenue’s urban rooms and vistas

**Placemaking**, for this analysis, describes the experience of place, such as the smaller scale details and qualities of buildings and landscapes, which contribute to character, express meaning, evoke history, engender memory, encourage enjoyment, and attract stewardship. These details and qualities inform the character and experience of Pennsylvania Avenue. This section summarizes the Avenue’s location and its historic context, and examines key placemaking components that enrich the area’s meaning and contribute to its character. It includes:

- › Historic districts, sites, structures, and cultural landscape.
- › Architectural style, floorplates, façade detail and pattern, and the relationship between building ground floors and public space.
- › Landscape architecture framework, including parks, plazas, the linear landscape, special features, and amenities.

**Infrastructure** identifies several functional elements of buildings and the public realm that make spaces universally accessible and resilient.

- › Universal accessibility considers how effectively people of all ages and abilities can use buildings and public space.
- › Perimeter security explores the impacts of current security requirements on building exteriors, sometimes extending into the public space.
- › Stormwater and flood management examines environmental threats from interior, riverine, and coastal flooding.

The purpose of this analysis is to assess and identify advantages and disadvantages in the physical and spatial conditions of buildings and landscapes to inform objectives and potential strategies for improvement to enhance the Avenue’s quality, character, and experience.

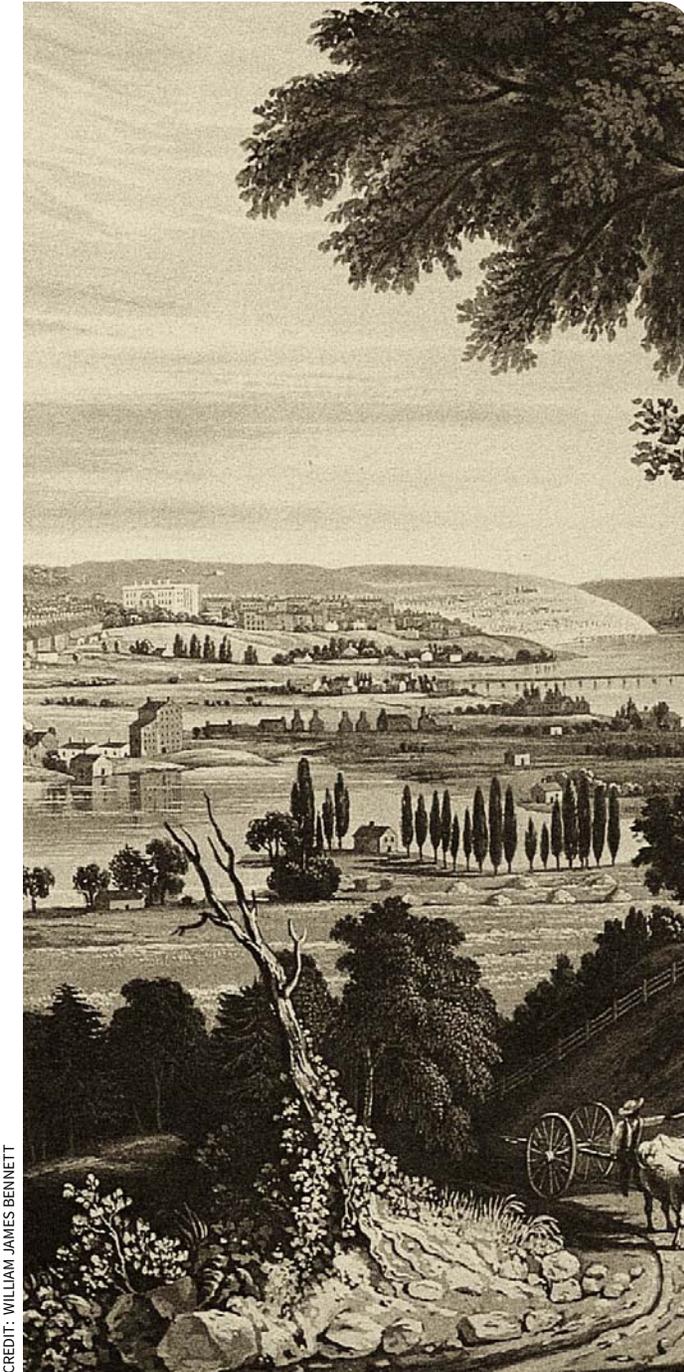
Urban form, placemaking, and infrastructure elements collectively contribute to the Avenue’s identity and character and help define the study area. These elements also contribute to defining the five distinct Character Areas, which provide various experiences along the Avenue. See the Character Areas Chapter for more details.

### Foundational Documents

The Avenue’s urban form reflects the city’s historic plans, past planning practices, the 1974 Pennsylvania Avenue Plan, and the 2016 Square Guidelines. This analysis examines the Avenue’s existing conditions and the influence of past and current plans. It also considers the findings from the National Park Service’s (NPS) Cultural Landscape Inventory and the DC Office of Planning’s (DCOP) Pennsylvania Avenue Pedestrian Life Study.







CREDIT: WILLIAM JAMES BENNETT

## The L'Enfant Era: 1800–1850

From its inception through the nineteenth century, Washington's planning, architecture, and landscapes were influenced by European style. Pierre L'Enfant's visionary Baroque Plan, refined and implemented by Andrew Ellicott, established a monumental, symbolic framework for the new democracy's capital city. The plan's structure of streets, blocks, and federal reservations for public space and civic institutions reflect a hierarchical formality.

As the strongest axial relationship connecting the People's House (U.S. Capitol) and the President's House (White House), Presidents Washington and Jefferson deemed Pennsylvania Avenue the "Grand Avenue." Sitting within a landscape setting, the classically inspired buildings were envisioned to be connected by a carriageway, flanked by continuously aligned footpaths, and shaded by an allée of canopy trees and modest wooden and brick structures at the street wall. In a 1791 letter to President Washington, L'Enfant laid out his intent for the street plan: "These avenues I made broad, so as to admit of their being planted with trees leaving 80 feet for a carriage way, 30 feet on each side for a walk under a double row of trees, and 10-feet between the trees and the buildings."

The L'Enfant Plan's fundamental organizing principles most relevant to the study area include:

- › Reciprocal vistas that provide orientation, establish commanding views to and from civic places, and symbolize the structure of civic and community life.
- › Avenues that connect major buildings, monuments, and public places.
- › A continuous street grid to maintain the scale of the city's development pattern, that encourages pedestrian circulation, supports commerce, and preserves an open visual character.
- › A hierarchical system of avenues, streets, and open spaces that form blocks with strong street walls and circles, squares, or parks with free-standing civic landmarks and buildings that reinforce the reciprocal and terminating vistas.

As the city grew, Federalist Era government landmarks were sited to occupy the focal points of L'Enfant's vistas, exemplifying the balanced classical design ideals adopted during the republic's early years. Private building developed in continuous rows flanking street right-of-way (ROW) edges. At a modest height of 40 to 70 feet, federal building cornice heights established the building scale, allowing for pediments and domes above.

The Avenue served as a promenade for engaging in the new nation's affairs and the capital city's daily life. Growing organically throughout the early 1800s, the cartway was paved to reduce dust and dirt. While businesses north of the Avenue supported lodging, commerce, and business needs, proximity to Tiber Creek slowed development to the south.



CREDIT: LIBRARY OF CONGRESS

Photograph of Pennsylvania Avenue looking west from President's Park, circa 1900.

## The Civil War/Victorian Era: 1851-1900

To repair wartime damage after the Civil War, the city aspired to make Washington a worthy capital by improving infrastructure and public spaces with new civic amenities and tree plantings throughout the city. The District's governing Commissioners adopted Public Space Regulations, a system for landscaping the L'Enfant rights-of-way, creating park reservations along the avenues, and allowing controlled building projections into the public space. These Victorian Era-inspired regulations focused development at a finer grain and intimate scale, providing public amenities that shaped the landscape's character and the street walls along public thoroughfares.

As the nation rebuilt, businesses and commerce grew, drawing residents and visitors to the active and bustling Avenue. The Avenue was widened for pedestrians, bicycles, horses, carriages, and horse-drawn streetcars to share the street, which was punctuated by landscaped squares and triangular parklets. Through the 1800s, the Avenue's form and scale stood as a counterpoint to the more naturalistic National Mall and the White House Grounds, designed by Andrew Jackson Downing.

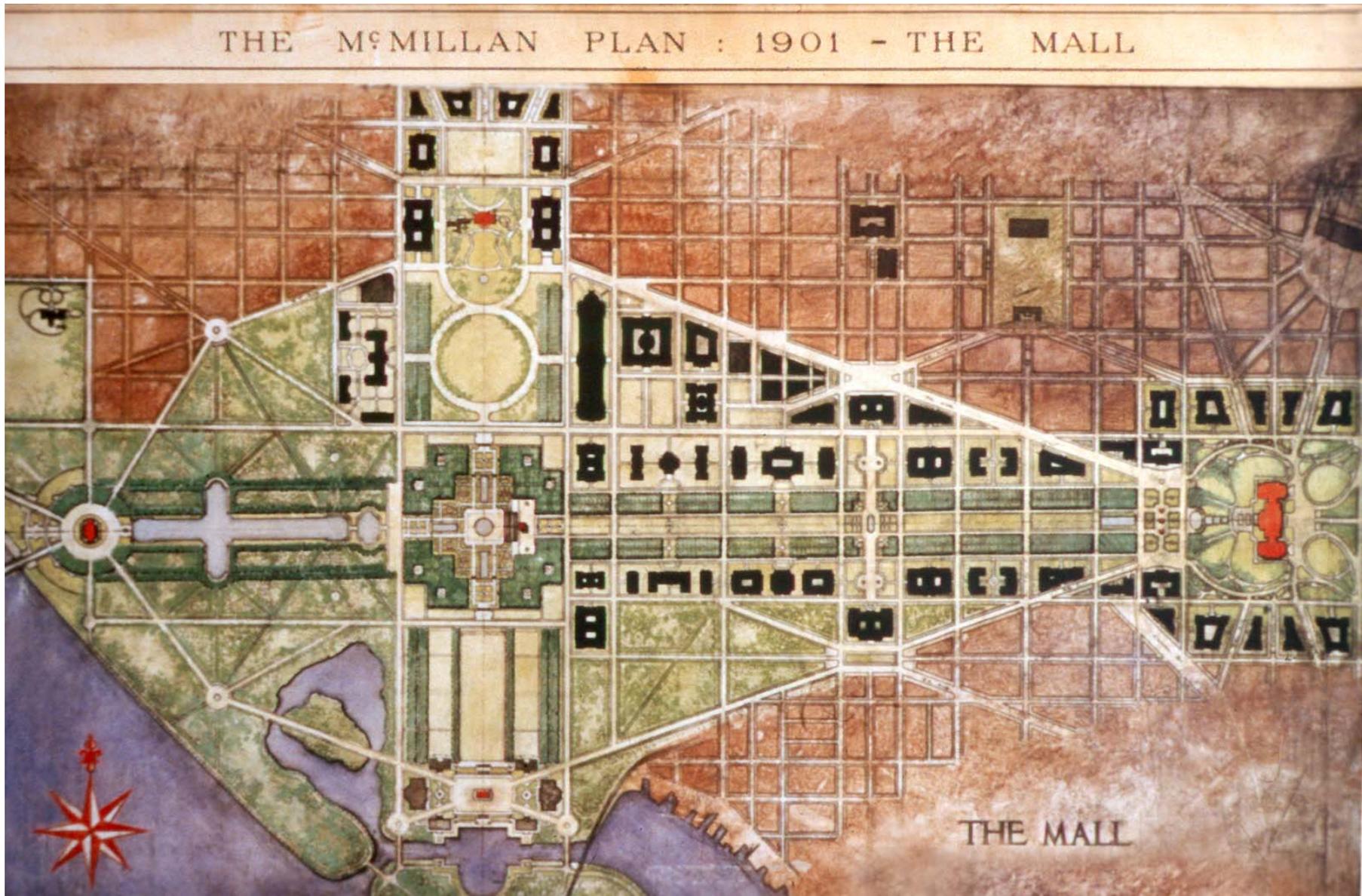
During this time, dominated by Victorian Era development, an evolution of architectural styles began to contribute to the Avenue's main street character. Primarily 40- foot to 80-foot buildings lined the Avenue, except for an entire block the federal government acquired for a new post office building. Exuberant, asymmetrical buildings, with towers, turrets, and ornamental details, were built on triangular blocks, and statues or other elements adorned parklets.

The primary principles of Victorian Era planning include:

- › Introducing continuous green lawns and landscaping along Washington's streets and avenues in spaces not needed for public sidewalks.
- › Enhancing the major public parks with landscaping, statuary, and public amenities.
- › Developing minor federal reservations along the avenues as a series of parklets with similar civic monuments and landscape amenities.
- › Enhancing building layout, commercial activity, and the character of street façades through a controlled system of projections into public space.
- › Emphasizing the L'Enfant Plan's unique character by allowing sculptural building form to accentuate the angled building lots created by the diagonal avenues.
- › Providing opportunities for private commercial and residential structures to contribute to the city's image, through displays of civic and commercial pride that complemented major public buildings.

Victorian Era development is characterized by vertical design expression and irregular skylines accentuated by towers and turrets. Government buildings such as the Old Post Office were constructed as free-standing structures. Private development (such as the cluster of buildings still standing at Indiana Plaza) reinforced street walls at the ROW, but punctuated them with projecting storefront windows, bays, and accentuated corner towers to provide an intimate scale and visual interest for pedestrians. The heights of Victorian Era buildings are taller and more expressive than the earlier Federalist Era. The cornice height establishes the building scale, with towers soaring above.

The Old Post Office is among the most assertive of the city's architectural landmarks. Its cornice line establishes the street scale at 123 feet; its 169-foot mansard roofline accentuates its height from a distance, and its 315-foot tower features prominently on the city's skyline.



McMillan Kite Plan, 1901.

## The McMillan Era: 1901-1950

By 1900, floods, physical decay, and social decline had taken their toll on the Avenue. In 1900, with the city's centennial celebration as the seat of the federal government in mind, the development of the McMillan Plan sought to improve Washington. It reinforced the importance of the L'Enfant Plan and reclaimed Pennsylvania Avenue's stature as a grand boulevard punctuated by landscaped parklets.

Government buildings of the City Beautiful era sited civic buildings as freestanding structures within a green landscape or building yard, and the McMillan Era buildings asserted a new American order by following this mantra. Informed in part by City Beautiful planning and the French Beaux-Arts concept of the tapis-vert (green carpet) upon which dignified buildings sit, the McMillan Plan implemented the principle of planning for the city's future development as a work of civic art. The plan placed majestic civic monuments and buildings in park-like settings or within building yards, enhancing the capital's beauty and dignity. The McMillan Plan inspired the federal government to plan expansion south of the Avenue, replacing deteriorated housing and businesses with federal office buildings in the area now known as the Federal Triangle.

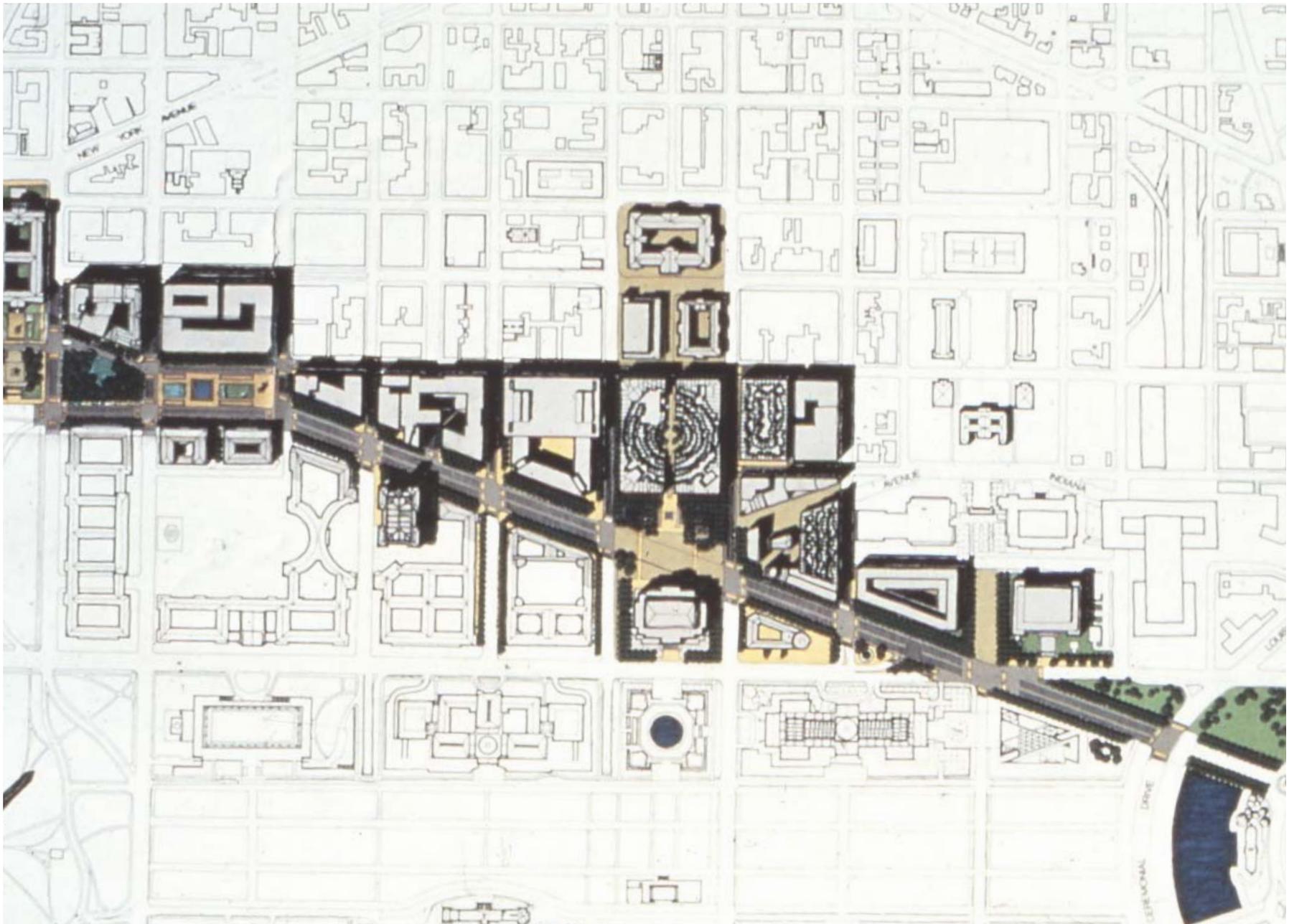
The Federal Triangle is a notable feature of the McMillan Plan. Inspired by the City Beautiful movement, and building on the grandeur but deviating from the L'Enfant Plan, the McMillan Plan aggregates squares and eliminates streets to build a composition of grand, free-standing Beaux Art buildings that reinforce the strength and growing influence of the American government. As these buildings were generally taller than most at the time, the structures were set back from the ROW within a landscaped building yard to respect the open vista of the Capitol building. New private development to the north generally consisted of classical buildings on aggregated lots. Cars and motorized streetcars replaced horses and shared the cartway with people and bikes. Business, commerce, and entertainment generated activity on the Avenue until the decline toward the end of World War II.

Largely in reaction to the perceived disorder of 19th century industrial cities, and in keeping with the City Beautiful Movement, key McMillan Era design principles include:

- › Comprehensive urban planning.
- › Designs that evoke civic pride and enhance the city's appearance.
- › Grand uniform neoclassical buildings and majestic civic monuments often set in a park-like setting or within building yards.
- › A distinct separation of land uses and limiting building heights.
- › Siting and configuring structures to create order, balance, and harmonious compositions.

The Federal Triangle, south of the Avenue, is the largest example of a City Beautiful civic complex in the nation. Built over several existing L'Enfant rights-of-ways, Federal Triangle's assertive Neoclassical Façades established controlled regularity set apart from the commercial context on the Avenue's north side. They are classical in form, with fewer projections and generally flat roofs, with mansards or setback attics.

Commercial buildings on the north side, such as the Evening Star and Willard Hotel, created a regular street wall along the Avenue with fewer projections than their Victorian Era predecessors. Their Beaux-Arts designs have strong vertical expression, in part due to their relatively narrow frontages on the Avenue. The lower, larger, horizontal Federal Triangle buildings counter the taller, smaller, vertical Victorian Era buildings. The Federal Triangle's cornice height is most important in establishing the building scale at approximately 100 feet. The shallower slopes of the hipped roofs are less visually prominent.



*Sketch of the PADC Plan, circa 1974.*

## Post WWII/PADC Era: 1951-2000

After the war, suburban migration resulted in a nine to five downtown with acres of parking lots and a decline in economic stability in the city. In 1964 and 1968, two Presidential Temporary Commissions prepared successive plans to revitalize the Avenue's economic health and restore its grandeur and beauty. These vision plans focused on redeveloping the Avenue's north side, unifying the north with the south side, and incorporating office, residential, and cultural uses. These plans informed the Pennsylvania Avenue Development Corporation's (PADC) work that continues to guide the Avenue's development.

Formed in 1972, the PADC released the 1974 Plan to adapt the L'Enfant and McMillan Plans principles to urban redevelopment trends. The 1974 Plan reinforces the Avenue's role as a physical and symbolic link between the Capitol and White House, to bridge downtown and the National Mall, increase the mix of uses, and infuse new economic life as "America's Main Street."

Anticipating that future buildings would be higher north of the Avenue, the PADC adopted guidelines to set buildings back and step them up to protect L'Enfant's open vista of the Capitol. PADC also made efforts to preserve historic buildings and introduce the best of contemporary architecture through general and square guidelines. The plan also provided for a network of public spaces, including a proposal for a large National Square at the west end, now known as Pershing Park and Freedom Plaza. Generous sidewalks accommodated a range of activities, unifying the varying building setbacks and the variety of architectural styles along the Avenue. PADC established a simple custom-designed streetscape palette with a formal multi-row tree-planting scheme, reminiscent of European promenades.

The 1974 Plan sought to achieve an improved pedestrian environment along Pennsylvania Avenue while accommodating vehicular traffic volumes typical for that time. The plan reallocated the Avenue's ROW to better balance multi-modal transportation and pedestrian needs, eliminating the streetcar tracks, advocating for dedicated bicycle and bus lanes, and anticipating future Metrorail station access.

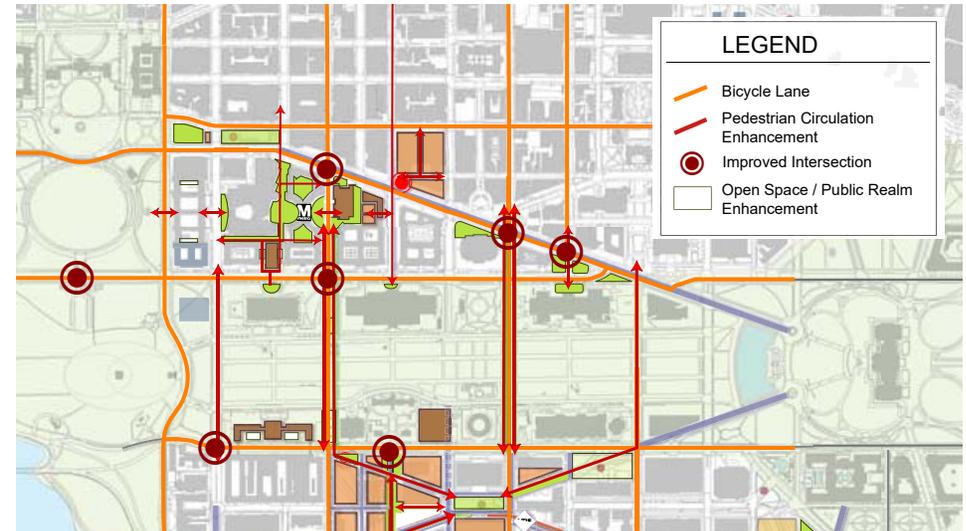
The primary principles of the 1974 Plan and its amendments that are most relevant to the study area include:

- › Reinforce the symbolic link between White House and Capitol.
- › Bridge the monumental core and downtown.
- › Stimulate street life with commercial and cultural activities.
- › Diversify land uses, provide places to live, and accommodate needs and amenities for residents and visitors.
- › Preserve historic structures and the continuity of city fabric through infill development.
- › Foster economic life and maximize the tax base.

The 1974 Plan originated the Modernist era architectural and landscape design style on the Avenue, which was popular at the time. Both government (such as the FBI Headquarters) and private buildings were set back from the Avenue on consolidated blocks. Over time, the architectural style transitioned from Modernism to contextual Postmodernism, based on infill development and a renewed interest in traditional urbanism. Examples north of the Avenue include 1001 Pennsylvania Avenue (1986) and Market Square (1990). The height of modern buildings are taller than the Victorian Era structures and the flat roofs with simple upper-story setbacks make the building height and scale simpler to register.



Artist's rendering of Federal Triangle enlivened by sidewalk cafes and art exhibits, Legacy Plan, 1997.



Public Realm Opportunities, Monumental Core Framework Plan, 2009.

## The Legacy Era: 1996-Today

The PADC achieved many of its goals, including attracting businesses and visitors back to the Avenue, reintroducing downtown residential living, and kick starting the revitalization of downtown Washington. The 1974 Plan is still applicable today, despite different conditions. The most significant change began more than 20 years ago with the closure of Pennsylvania Avenue and E Street at the White House for security purposes. These closures eliminated two significant cross-town thoroughfares, rerouted traffic, and increased congestion on other streets. These street closures on the west, which effectively terminate on the east at the U.S. Capitol Grounds, isolate this important 1.2-mile segment from the city's street grid. These changes affected vehicle and pedestrian volume and use, and create physical and economic challenges that require new solutions. In addition, infill development has revitalized Downtown Washington, and it has grown and expanded to the southeast and southwest. The Avenue is now competing with emerging neighborhoods throughout the city.

In 2016, the National Park Service's Cultural Landscape Inventory deemed the Pennsylvania Avenue Development Corporation's and the Presidential Commissions' work in community planning, development, and landscape architecture as historically significant. This includes the Avenue's cultural landscape, which retains its integrity to its period of significance from 1791-1996. The PADC's work retains the Avenue's historic framework, its symbolism linking and separating the branches of government, and dignity as a ceremonial route, while integrating the physical streetscape with modernistic principles uniting social, economic, and political issues.

Each of the preceding eras and their respective plans and development contributed to the nationally recognized character of Pennsylvania Avenue. Many planning principles from each era, as ideas and through their impact on the Avenue's built form, remain important today. There are, however, new issues and new approaches for 21st century urbanism addressing social, environmental, and design considerations. Therefore, it is important to consider how these approaches can contribute to future planning for the study area.

Today, the *Comprehensive Plan for the National Capital*, as well as several local and federal historic, vision, or sector planning documents guide development within the capital city. Some of the primary documents include:

- › *The Plan of the City of Washington* (includes the L'Enfant and McMillan Plans)
- › *Extending the Legacy: Planning America's Capital for the 21st Century*
- › *Monumental Core Framework Plan*
- › *Memorials and Museums Master Plan*
- › The District's adopted planning documents, including the Zoning Regulations and other standards

Contemporary federal planning guidance, advocates for Pennsylvania Avenue as one of Washington's most prominent civic spaces. The 1997 Legacy Plan developed five themes:

- › Build on the historic L'Enfant and McMillan Plans, which are the foundation of modern Washington.
- › Unify the city and the monumental core, with the Capitol at the center.
- › Use new memorials, museums, and other public buildings to stimulate economic development throughout the city.
- › Integrate the Potomac and Anacostia Rivers into the city's public life and protect the Mall and the adjacent historic landscape from future building.
- › Develop a comprehensive, flexible, and convenient transportation system that eliminates barriers and improves movement within the city.

The Framework Plan builds upon the Legacy themes, encouraging new destinations along the Avenue to enhance the public realm. It emphasizes the opportunity to integrate diverse aspects of Washington life by increasing its appeal to workers and visitors, and strengthens its role as America's preeminent ceremonial boulevard. The Comprehensive Plan also supports the Legacy themes, addressing contemporary policies and best practices relevant to the Avenue.

More recent building additions to the Avenue include the Newseum (2008) and several interior renovations of private office spaces (1301 and 1201 Pennsylvania Avenue). The proliferation of glass-box architecture in Washington provoked reconsideration for how to accommodate desirable office spaces that also provide pedestrian amenities and visual interest within the Avenue's historic context.

The Avenue continues to evolve, layering new ideas in architecture, landscape architecture, and planning over the existing framework that reaches back to the early 1800's. Some of the eras described above have divergent components present along the Avenue today, such as different building setbacks and façade styles. While varied, these components coexist and support the Avenue's unique role and identity in the capital city. As improvements are considered, the ability to create an engaging pedestrian experience while accommodating the civic needs of the capital city remains the biggest challenge. Contemporary best practices in planning and design related to infrastructure and urban development must be considered as changes are made.

## Introduction

**Streets & Blocks:** Pennsylvania Avenue’s planning evolution reflects the compact, historic, and hierarchical L’Enfant grid as well as the larger, consolidated blocks redeveloped during the 20th century, which reinforced the Avenue’s elevated role in the city’s monumental core.

The L’Enfant Plan’s hierarchy of streets, avenues, blocks, and public spaces provide the framework for the layout and disposition of buildings throughout the city. The downtown area has a continuous urban fabric because the buildings align with the street network. This relatively even texture serves as a backdrop for many of the major public spaces and civic buildings that characterize the city’s urban design form.

## Context

Washington’s system of gridded streets and diagonal avenues, many consistent with the original L’Enfant plan, establishes a hierarchy of roads and public spaces. Narrower streets typically have ROW widths between 70 and 110 feet, while avenues have ROW widths between 120 and 160 feet. The avenues wider widths often frame key vistas to prominent civic buildings, landscapes, and commemorative elements.

Many changes to the city’s plans and development patterns occurred since the 1791 L’Enfant Plan. The construction of the Treasury Building blocked western views to the White House. The McMillan Plan initiated the vision for the Federal Triangle, creating larger development blocks that altered the street grid, and set buildings back from the ROW within the building yard, affecting the legibility of the street wall on the Avenue’s south side.

The 1974 Plan also modified the Avenue by constructing taller buildings with larger setbacks on the Avenue’s north side, and altered the northern street grid (re-opening C Street and closing D Street) to create a larger development parcel. The 1974 Plan also realigned Pennsylvania Avenue to redistribute public spaces and improve traffic operations. The Landscape Section and Mobility Chapter discuss the Avenue’s realignment in more detail.

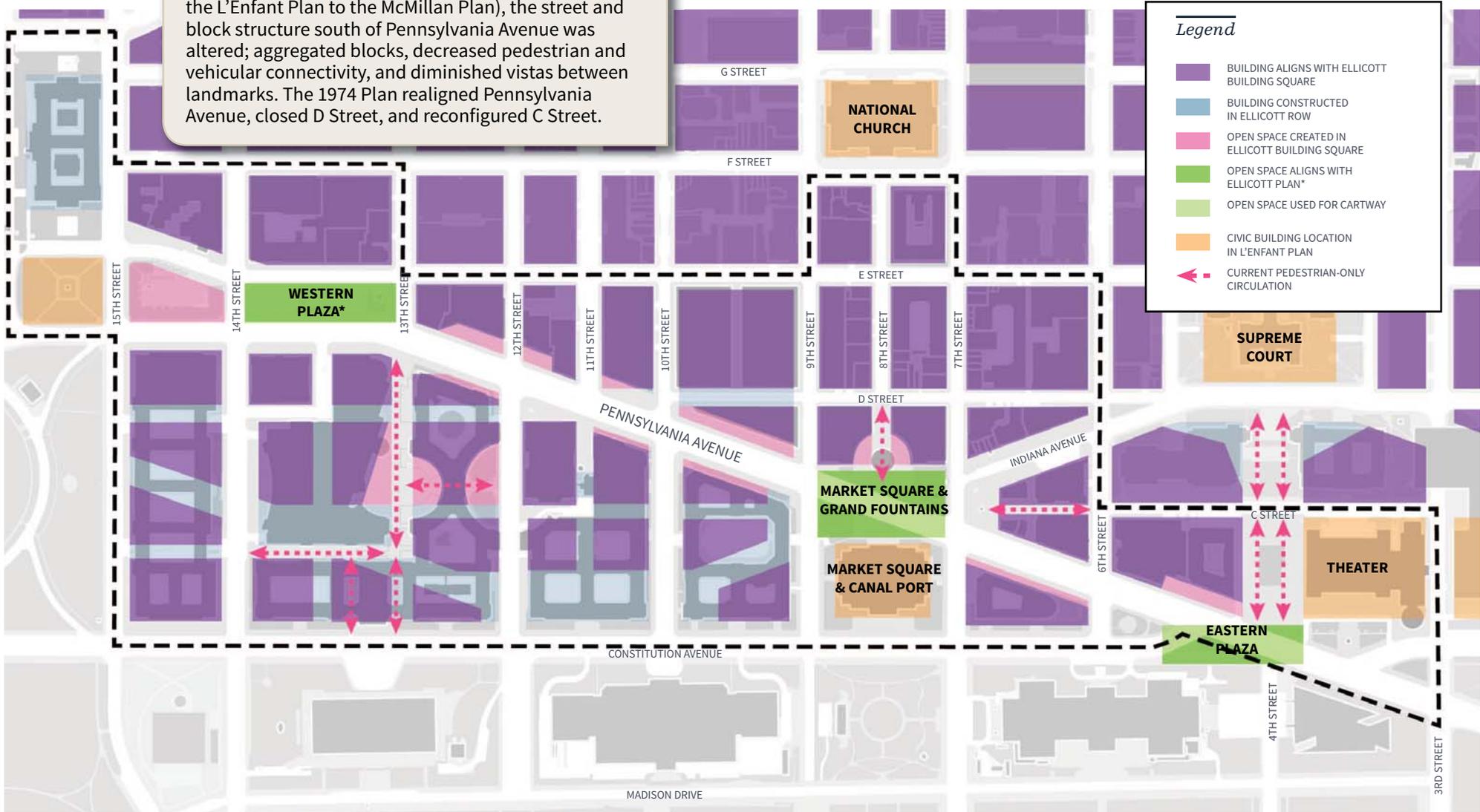
## Analysis

Over time, development from different planning eras altered the street and block structure, primarily south of the Avenue. The current street system reflects both the compact, historic, and hierarchical L’Enfant grid as well as the larger, consolidated blocks redeveloped during the 20th century. This resulted in altering the Avenue alignment, aggregating blocks, decreasing vehicular and pedestrian connections, and diminishing vistas of some landmarks.

However, even with changes made over time, the exceptional width and openness of the ROW remains a defining characteristic of the Avenue. Pennsylvania Avenue remains a cohesive symbolic and physical link between the White House and Capitol. The changes have provided significant public space for a variety of civic uses, as it has for centuries. The siting and scale of adjacent buildings contributes to the Avenue’s unique character and preeminence over other city streets. This scale provides spaces for large gatherings and inspiring civic activities and experiences, but is not conducive to everyday pedestrian activities and experiences.

# Comparing Ellicott's Plan to Existing Conditions

As city plans changed and developed over time (from the L'Enfant Plan to the McMillan Plan), the street and block structure south of Pennsylvania Avenue was altered; aggregated blocks, decreased pedestrian and vehicular connectivity, and diminished vistas between landmarks. The 1974 Plan realigned Pennsylvania Avenue, closed D Street, and reconfigured C Street.



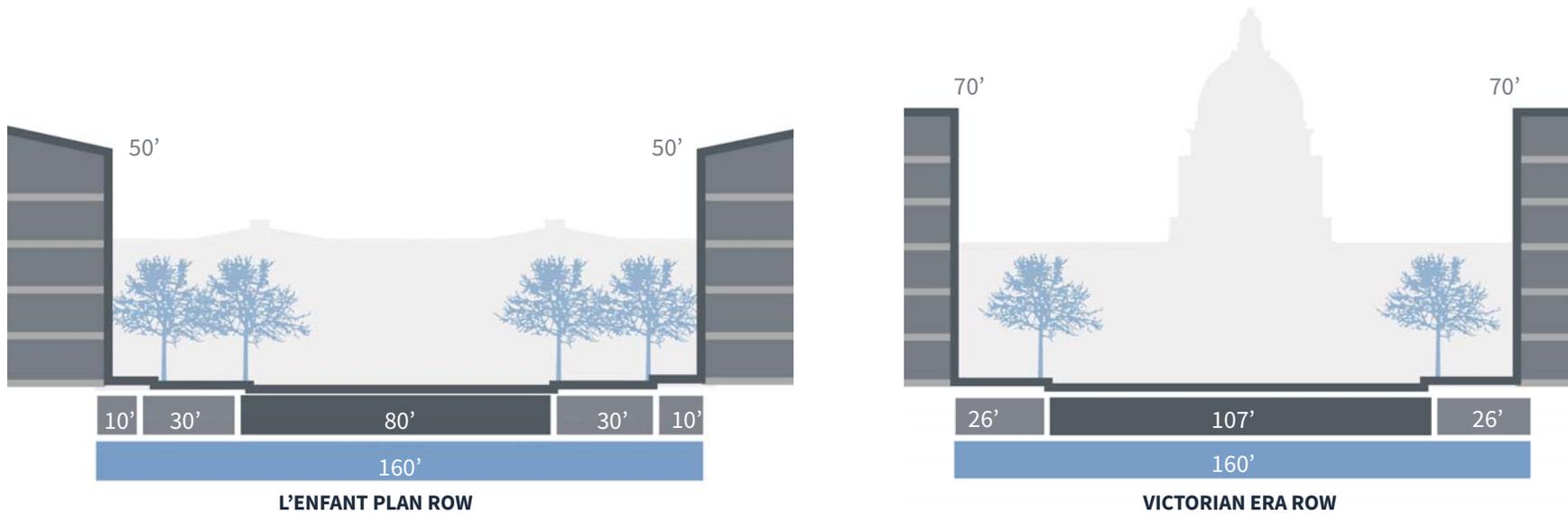
\* Today, Pennsylvania Avenue does not interrupt Western Plaza/Freedom Plaza. Historic plans show the Avenue, plaza, and open spaces as a continuous linear corridor.

For ease of comparison, the diagram illustrates existing conditions as they relate to the historic Ellicott's 1792 drawing of the L'Enfant Plan. Ellicott made several substantial changes to L'Enfant's plan. Notably, Ellicott shifted the Western Plaza (today known as Freedom Plaza) one block to the west and modified the block structure south of Pennsylvania Avenue (today's Federal Triangle). Notably, the National Register of Historic Places nomination for L'Enfant's *Plan of the City of Washington*, District of Columbia includes a period of significance spanning from 1790 to 1942 and captures physical planning transformations of the original L'Enfant Plan until WWII.

# Urban Form | Historic Evolution | Avenue & Setback

## Context

**Avenue & Setback:** These sections illustrate how the Avenue's cartway, building heights, and setbacks evolved over time (for illustrative purposes only). As with other cities, changes to building construction, transportation modes, and land use influenced the Avenue's physical and programmatic structure.

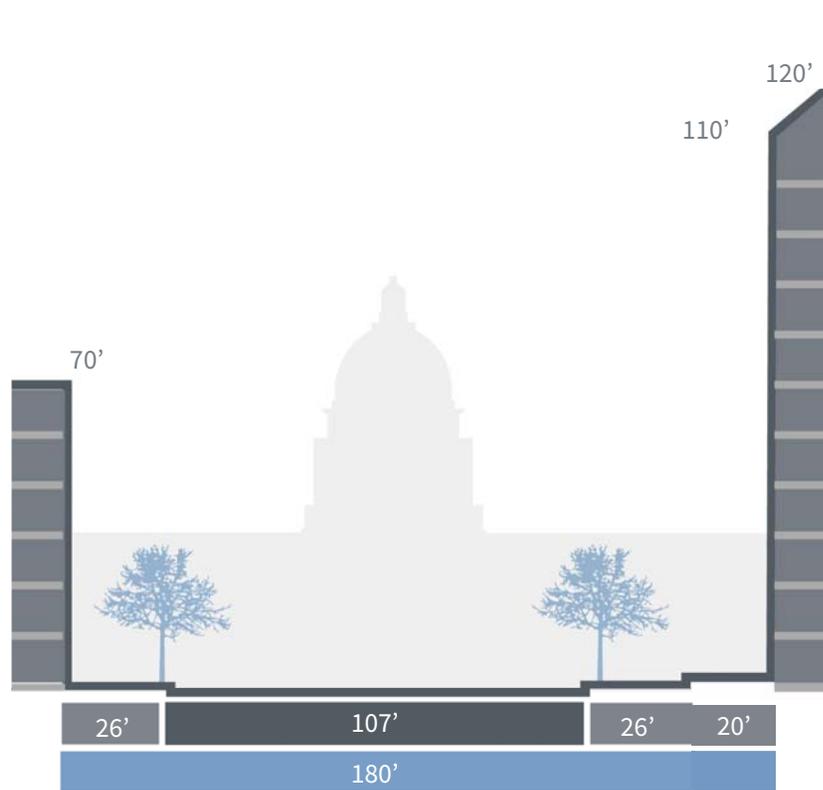


1800 - 1850

1851 - 1900

**L'Enfant Era:** L'Enfant intended Pennsylvania Avenue to be a magnificent street with a strong visual axis connecting the Capitol and the White House. He designed the Avenue, as an important carriageway for people, horses, and buggies; it was to be 160 feet wide with an 80-foot cartway and two 30-foot walks, planted with a double row of trees and a 10-foot clear zone along the buildings. Buildings were roughly 50 feet tall and built on the right-of-way line. The year 1826 marked the completion of the first distinctive Capitol dome, designed by Charles Bulfinch.

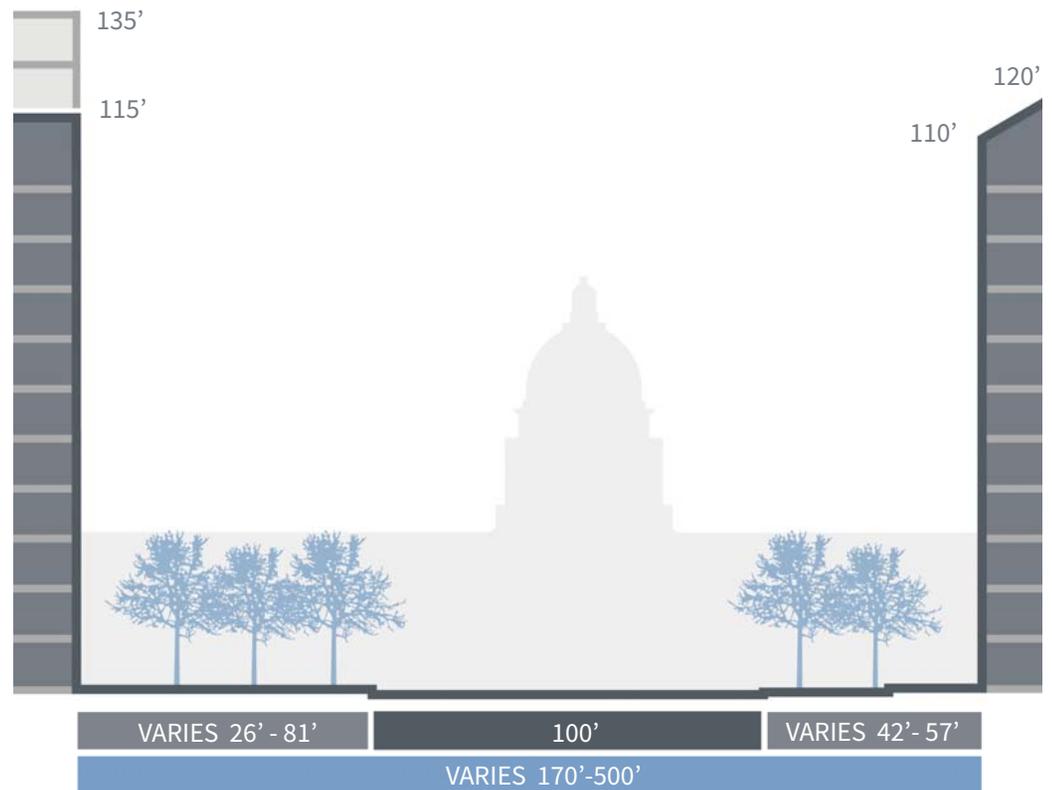
**Civil War/Victorian Era:** The late 1800s were a time of economic growth. The year 1863 marked the completion of the second Capitol dome by Thomas Walter, which added height and fireproofing. By 1888, the city introduced streetcars to the Avenue. Stores were located on the Avenue and adjoining neighborhoods were a mix of residences, business, and hotels. The cartway was 107 feet with 26 foot wide sidewalks. Some buildings reached over 70 feet in height with advancements in steel construction. However, social and physical conditions began to deteriorate in the late 1800s, which the McMillan Plan would later address.



**MCMILLAN PLAN ROW**

1901 - 1950

**McMillan Era:** The McMillan Plan, inspired by the City Beautiful movement, was notable for the Federal Triangle development, which transformed the Avenue's south side between 6th and 15th Streets. While grand civic buildings were taller (110 to 120 feet in height), they were set back from the Avenue within landscaped building yards, maintaining the openness of the Capitol vista. As popularity of the automobile grew, vehicles became a dominant transportation mode on the Avenue.



**1974 PENNSYLVANIA AVENUE PLAN ROW**

1951 - 2000

**Post WWII/PADC Era:** The 1974 Plan narrowed the cartway to 100 feet in width, to increase public space and accommodate a double row of trees on the Avenue's south side. To balance building massing on both sides of the Avenue, new taller buildings to the north (with initial heights ranging from 115 to 135 feet) were set back 50 feet, establishing a new build-to line, resulting in a range of sidewalk widths with one to three rows of trees. In 2010, a center cycle track was installed.

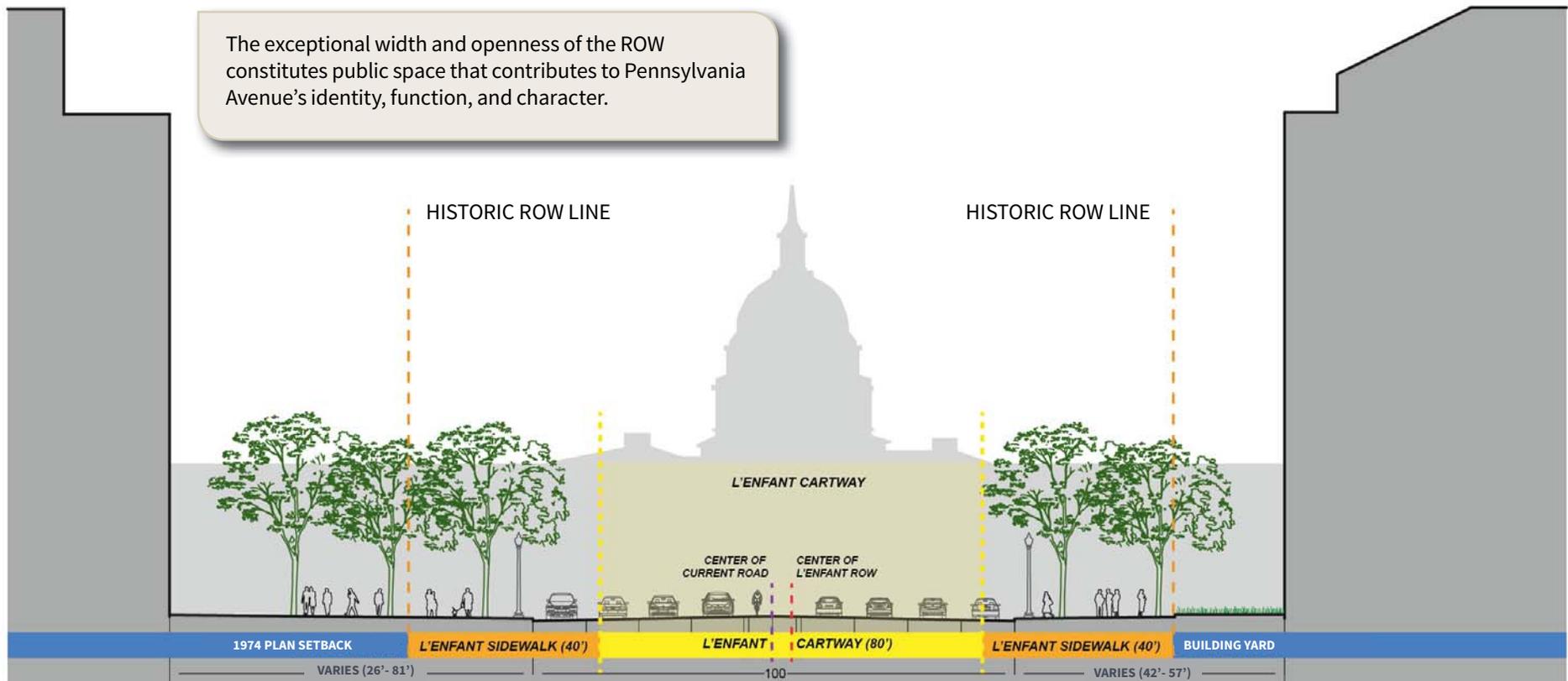
# Urban Form | Streets & Blocks | Existing Street

## Context

**Existing Street:** The Pennsylvania Avenue cartway is 100 feet wide, and it is one of the widest streets in the city. It contains eight traffic lanes and a center cycle track. The Mobility Chapter provides details on the Avenue's transportation infrastructure and function.

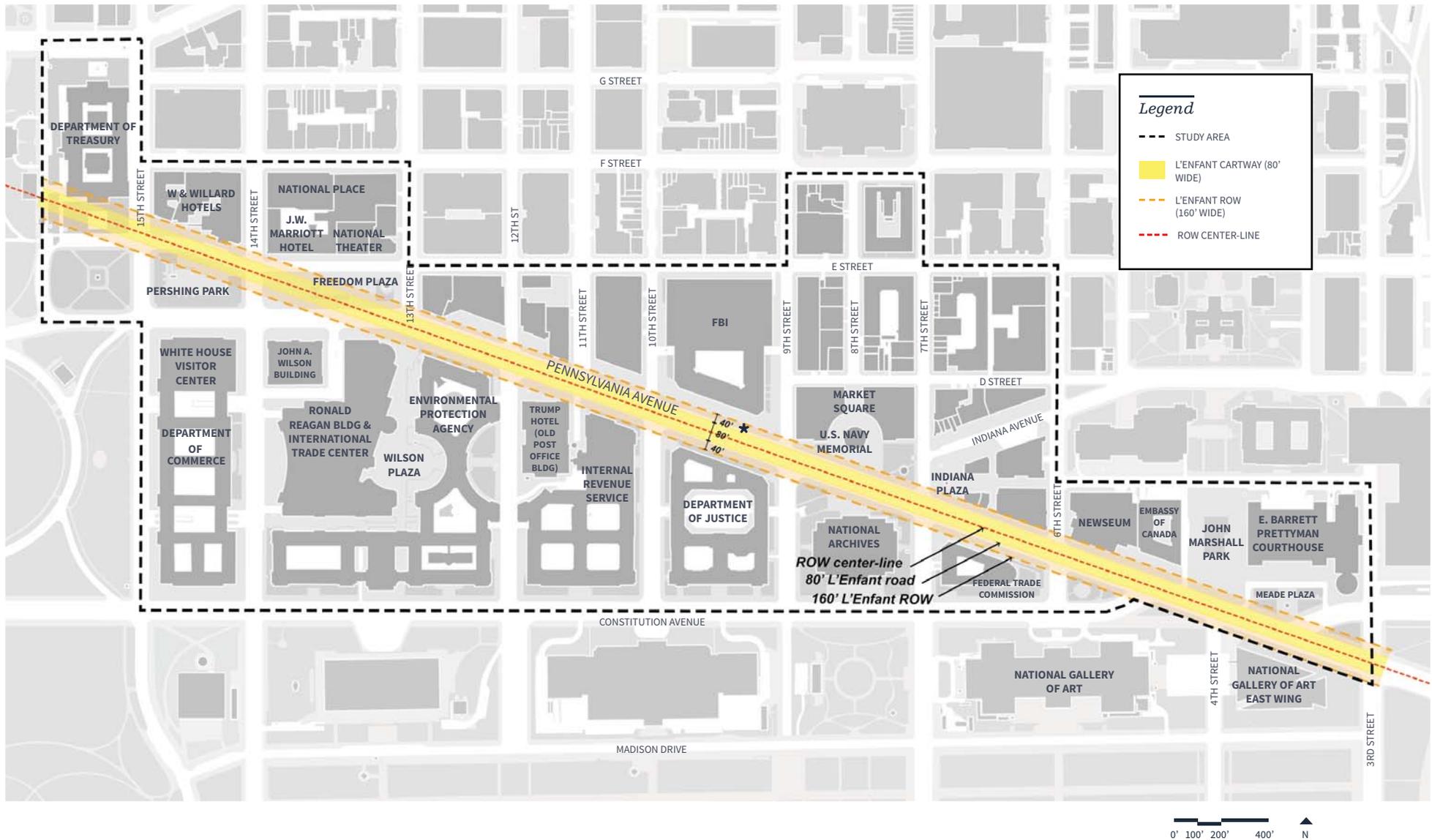
The cartway center shifted approximately four feet north with the 1974 Plan realignment of Pennsylvania Avenue. This realignment added 7.5 feet of additional sidewalk space to the south side of the Avenue to balance the public space provided on each side and accommodate a double row of trees

Illustrative street section comparing existing and historic ROWs



The DDOT Designated Street Distribution Card for Pennsylvania Avenue states that sidewalk widths are 26.25' on the north side and 33.67' on the south side. The existing sidewalk along the north side varies between 26' - 81'. The sidewalk along the south side varies between 42' - 57'.

# Existing & L'Enfant ROWs



\* The current center line is 4' north of the L'Enfant centerline.

## Introduction

**Existing Blocks:** In the District of Columbia, the term ‘square’ is the term used to identify the location of real property; it is synonymous with the term ‘block,’ which is typically used to locate real property throughout the United States. For the purpose of this analysis, the term block is used and comprises the area of land between curbs, including the sidewalk and any other public or privately-held land between the curbs.

## Context

The McMillan and 1974 Plans aggregated the L’Enfant Plan’s smaller city blocks to create larger city blocks for development. This disrupted L’Enfant’s finer interconnected street network.

Block sizes within the study area vary greatly; therefore, this analysis examines the block lengths. The blocks fronting Pennsylvania Avenue vary dramatically in length, ranging between 200 and 730 feet in length; the average is approximately 510 feet in length. The north-south block frontages range between 160 feet to 1,160 feet in length. While block dimensions throughout Washington also vary, the average is about 350 feet by 330 feet.

## Analysis

Overall, block sizes in the study area are up to five times larger than elsewhere in Washington because the blocks have been combined, closing streets and creating larger buildings parcels. There are 15 blocks fronting the Avenue between the Capitol and the White House, which average 500 feet in length. On average, these blocks are 1.4 times longer than typical Downtown Washington streets. Most blocks fronting the Avenue contain one or two building parcels. This affects east-west connectivity. At 1.2 miles long, the overall distance between can be daunting. The spatial, physical, and functional relationships that affect this east-west connectivity are further examined in the Placemaking and Character Areas sections.

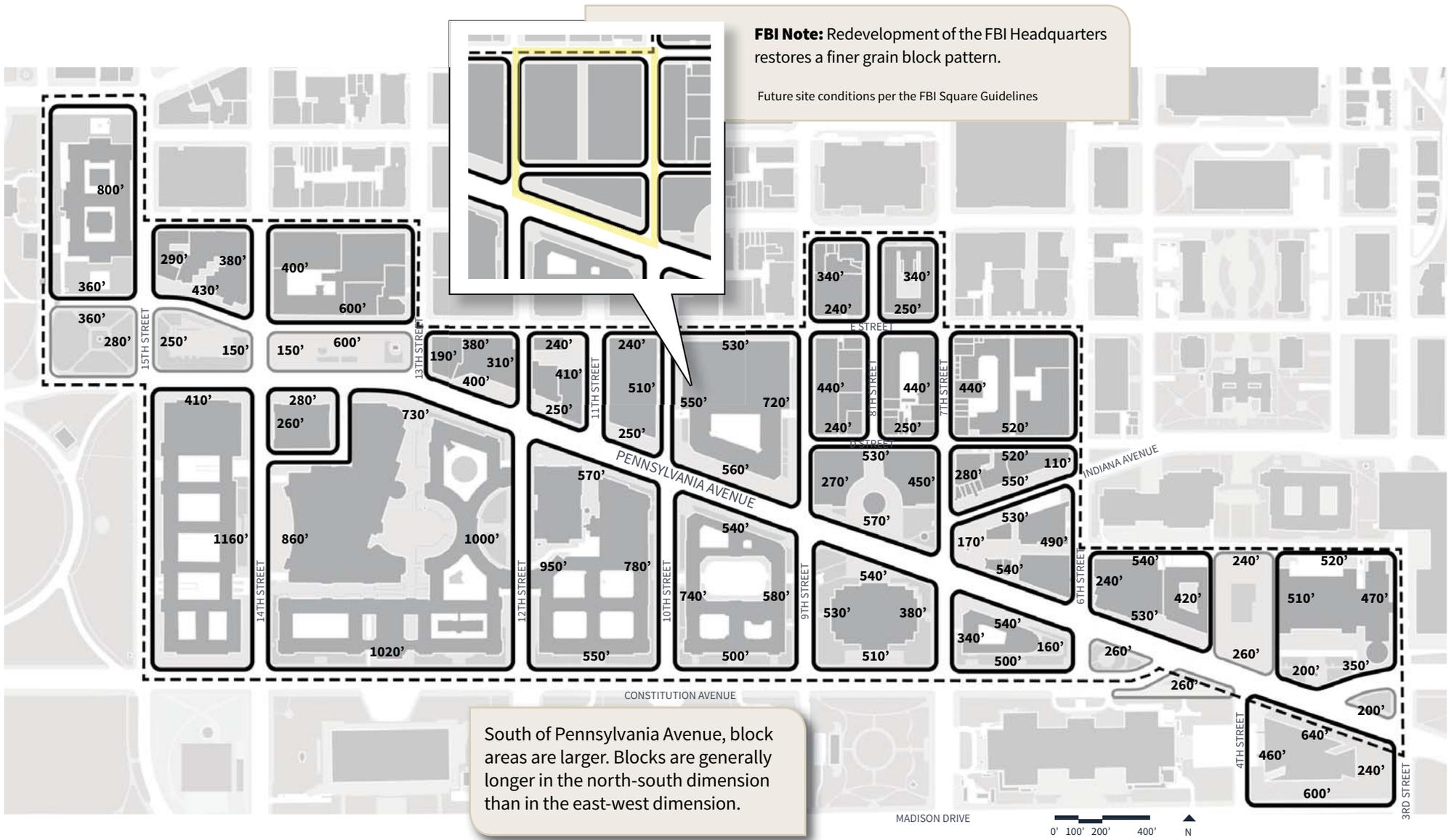
North of the Avenue, all but two of the north-south blocks reflect typical block sizes found throughout the city. The FBI block and the block between 6th and 7th Street were combined. However, nine of the north-south block faces in the

Federal Triangle are 1.5 to three times longer than typical downtown streets. Many of the north south streets contain one long building parcel, resulting in unusually long buildings compared to other downtown Washington streets.

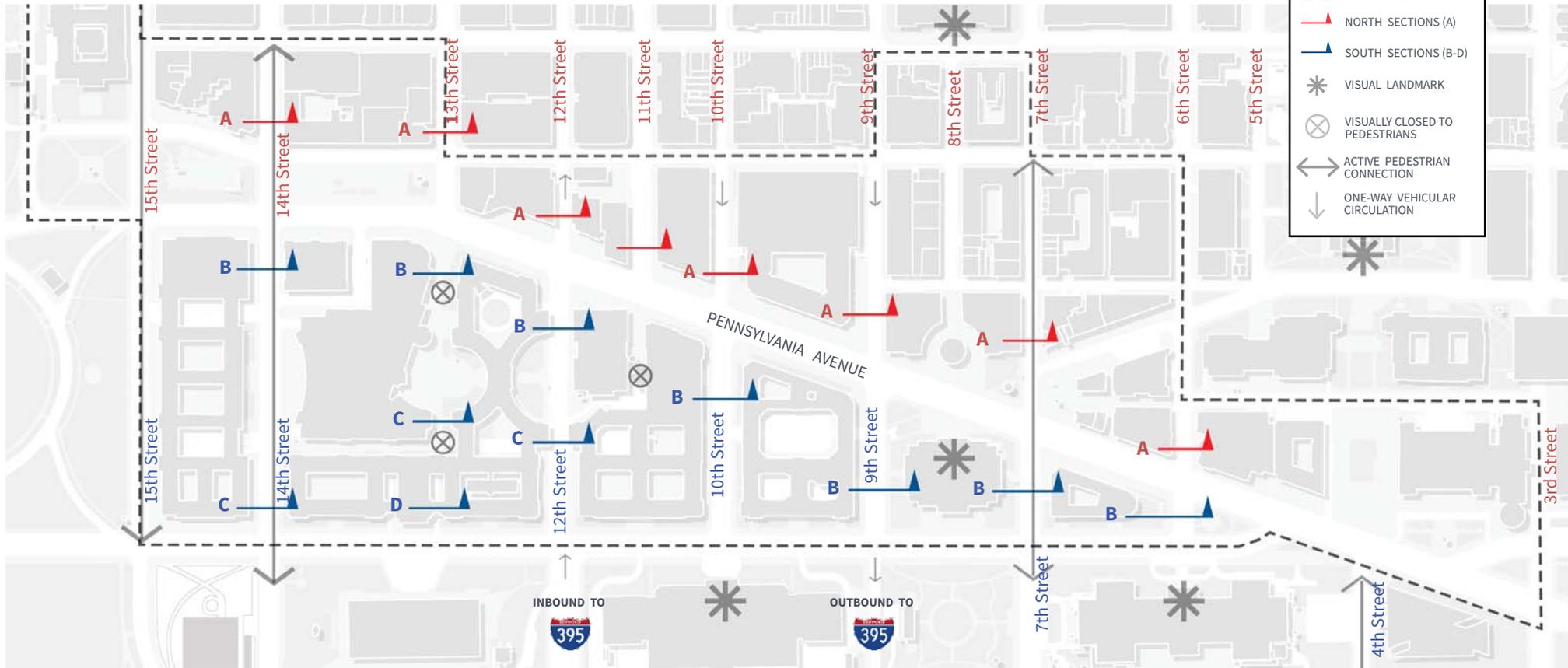
The block’s larger scale compared to other downtown blocks reinforces the Avenue’s monumental character. However, these large combined blocks create real and perceptual barriers between downtown and the National Mall. They limit or block important views, hinder connectivity, particularly through the Federal Triangle, making connections between the National Mall and Pennsylvania Avenue challenging.

## Issues

- The Avenue’s width and scale of blocks and buildings contribute to its sense of grandeur and civic character, elevating its identity in the capital city.
- Parcel aggregation and building location decisions closed streets and obscured vistas along these corridors to prominent civic buildings or structures.
- South of Pennsylvania Avenue, block areas are larger. Blocks are generally longer north-south than east-west and occupied by a single building. North of Pennsylvania Avenue, blocks are slightly smaller and often occupied by multiple buildings.



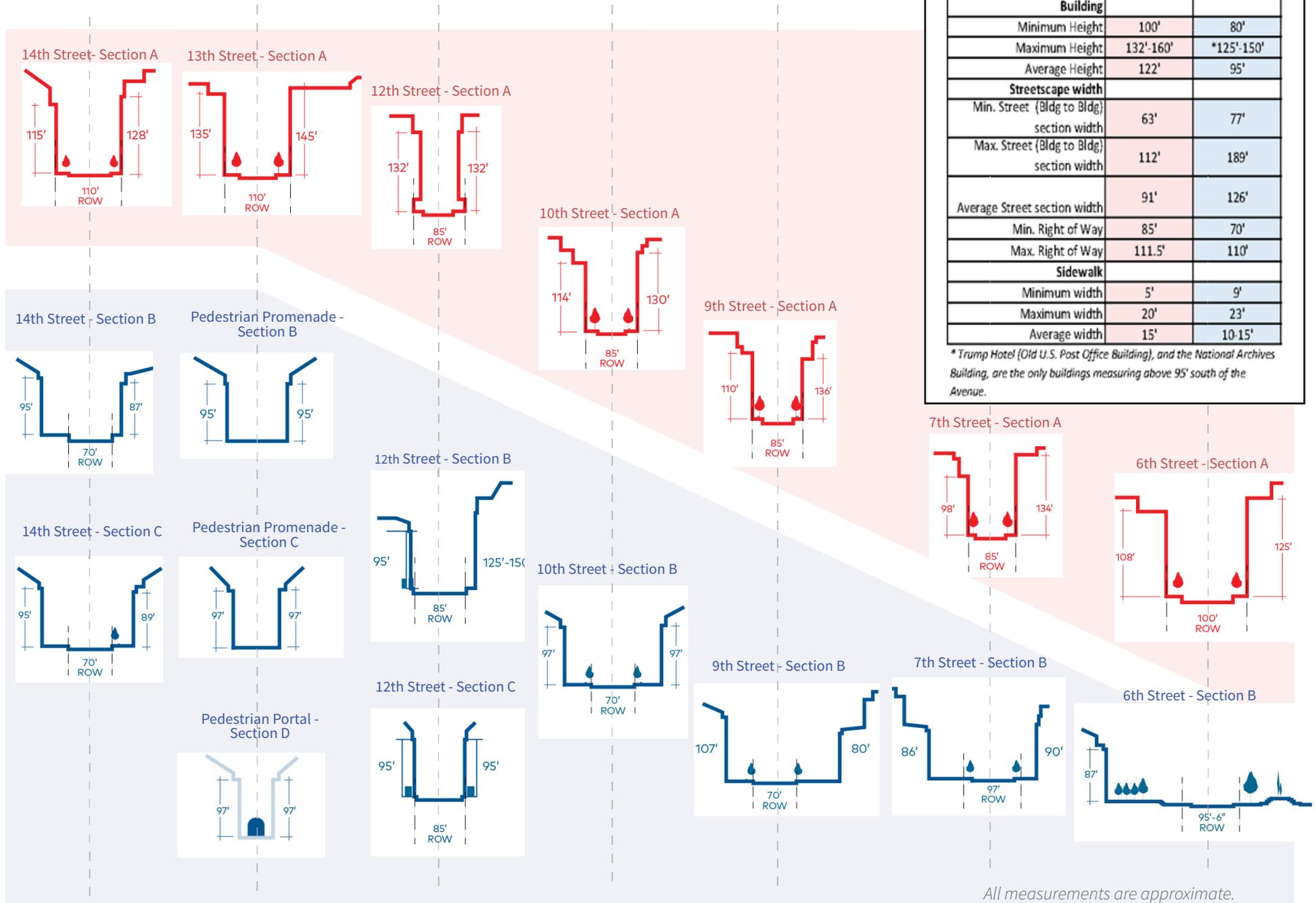
North & South Streetscape Key



Introduction

Washington’s numbered streets form north-south connections between downtown and the National Mall, varying in scale and configuration north and south of Pennsylvania Avenue. This section identifies changes to the urban form as streets cross the Avenue. For more information on how north-south connectivity impacts the Avenue’s character and pedestrian experience, please see the Placemaking Section on pages 172-179.

# North & South Streetscape Comparison



NORTH & SOUTH STREETSCAPE COMPARISON		
	North Streets	South Streets
<b>Building</b>		
Minimum Height	100'	80'
Maximum Height	132'-160'	*125'-150'
Average Height	122'	95'
<b>Streetscape width</b>		
Min. Street (Bldg to Bldg) section width	63'	77'
Max. Street (Bldg to Bldg) section width	112'	189'
Average Street section width	91'	126'
Min. Right of Way	85'	70'
Max. Right of Way	111.5'	110'
<b>Sidewalk</b>		
Minimum width	5'	9'
Maximum width	20'	23'
Average width	15'	10-15'

*\* Trump Hotel (Old U.S. Post Office Building), and the National Archives Building, are the only buildings measuring above 95' south of the Avenue.*

All measurements are approximate.

## Context

Pennsylvania Avenue sits between two areas of Washington with different physical configurations. To the north, downtown development patterns form street sections with a narrower ROW, taller buildings, and a smaller public realm. Block distances also tend to be shorter. To the south, the Federal Triangle and National Mall form street sections with a wider ROW, landscaped building yards, shorter buildings, and a larger public realm. Given the larger building configurations, block distances tend to be longer than the north.

Some streets were closed and built over or converted to pedestrian-only areas. Interruptions to the north-south street grid occur at 8th, 5th, and 4th Streets north of the Avenue. To the south, 13th, 11th, 8th, and 5th Streets are interrupted.

## Analysis

The urban form of numbered streets changes significantly as they cross the Avenue. These differences reinforce the challenge of merging physical characteristics of downtown and the monumental core into a unified destination along Pennsylvania Avenue. The Avenue acts as an edge between the two places, unable to blend the characteristics of the north and south areas into a unified destination.

Initial building heights, on average, are lower south of Pennsylvania Avenue. Where average initial building heights are 95 feet; to the north, they average 122 feet. The Old Post Office building (now the Trump International Hotel) and the National Archives are the only buildings taller than 95 feet south of the Avenue. Heights to the south are typically lower due to the Federal Triangle's uniform design standards and Neoclassical architectural style. To the north, the Pennsylvania Avenue Development Corporation's 1974 Plan and Square Guidelines allow for taller buildings that align more closely with downtown development patterns. Most areas are zoned to allow for heights of 110–130 feet, and some buildings may achieve up to 160 feet fronting the Avenue per the 1910 Height of Buildings Act if zoning and square guidelines criteria are met.

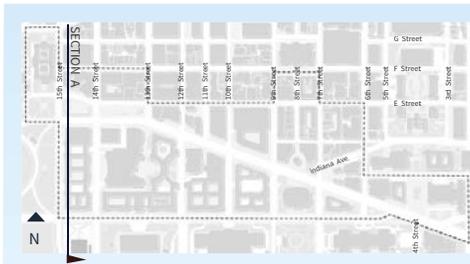
Streetscape widths, the distance from building face to building face, also vary between the north and south sides. To the north, the average street sections are 91 feet. To the south, they average 126 feet. This is due in part to building setbacks south of the Avenue, which provides space for landscaped building yards. This development style is not followed north of the Avenue, where buildings are constructed at the property line.

Compared to building heights and streetscape widths, sidewalk widths remain relatively consistent north and south of the Avenue. North of the Avenue, the average width is 15 feet, with a maximum width of 20 feet along 7th Street. To the south, they average between 10 and 15 feet, with a maximum width of 23 feet along 6th Street.

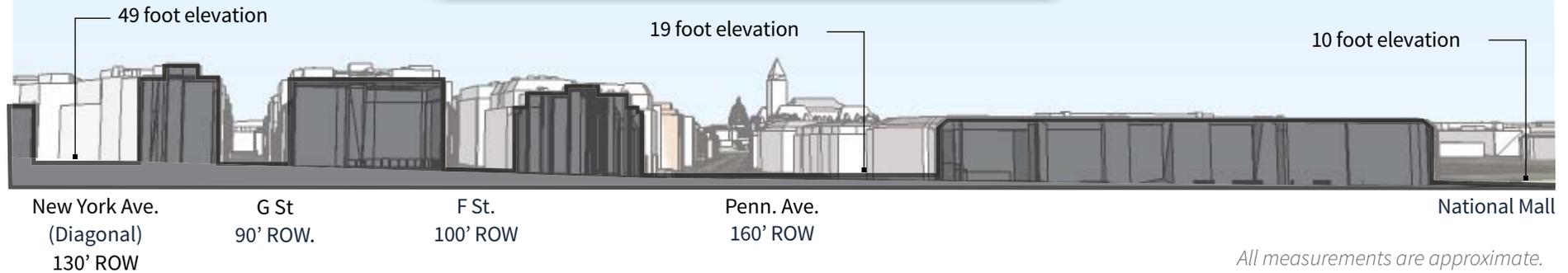
## Issues

- North of the Avenue, the building form, height, and relationship to street width and streetscape reflect a denser urban downtown experience.
- South of the Avenue, building heights are lower and lower set back further from the street, providing an open views and a park-like experience.

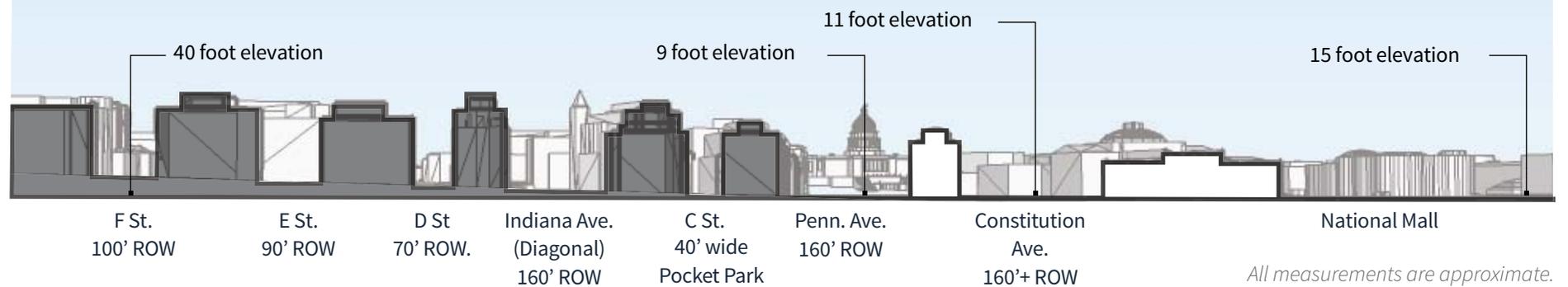
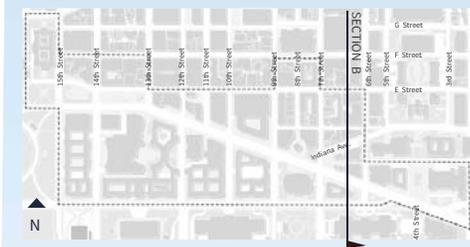
## North-South Section A



North of the Avenue, downtown development patterns emphasize shorter block lengths, taller buildings, and less public space. South of the Avenue, the Federal Triangle follows a horizontal development pattern with longer block lengths, lower buildings, and space that is more public. These physical differences, along with elevation changes, are noticeable along the north-south transect across the Avenue.



## North-South Section B



# Urban Form | Street Walls | Introduction

## Introduction

**Street Walls** are important because they are influential in shaping the character and experience of a place. The scale, design, and relationships among street walls form edges or enclose public spaces. Street walls are comprised of individual building walls. Building walls influence building location relative to public space and a parcel's developable area.

Street walls and their relationship among each other are created by:

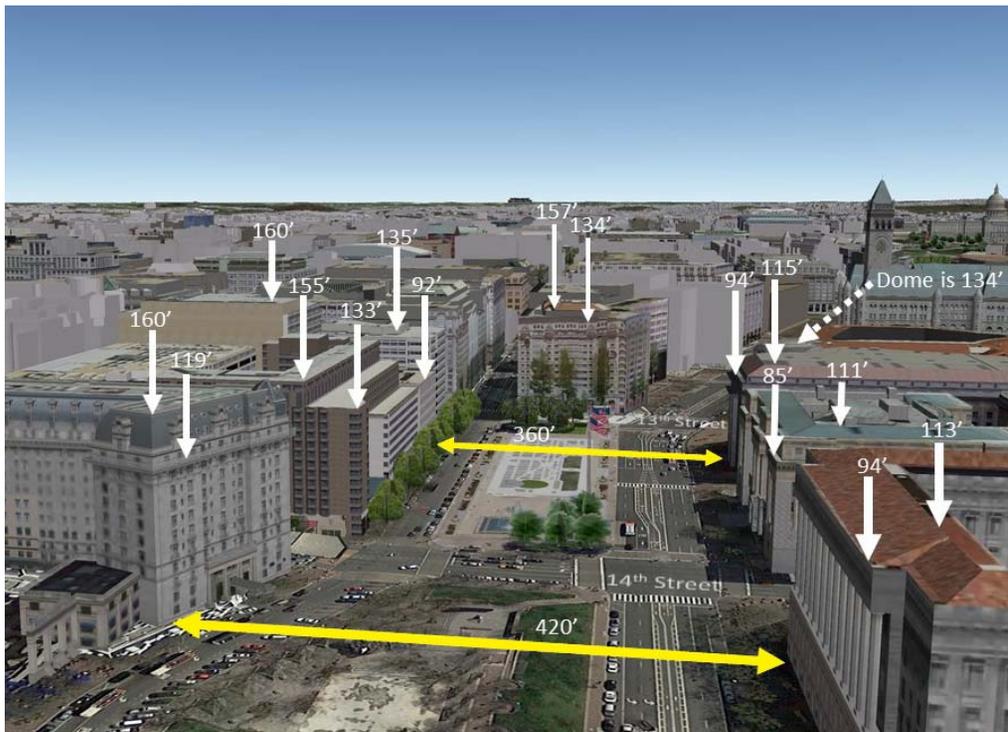
- › **Build-to Lines**, which establish where the exterior wall of a building is required to locate.
- › **Building Heights**, which are first measured at an initial height, with one or more upper-story setbacks, before reaching a maximum height. The architectural style of a building can influence its apparent height, often perceived differently from different viewpoints.

This section examines several urban design components influenced by street walls:

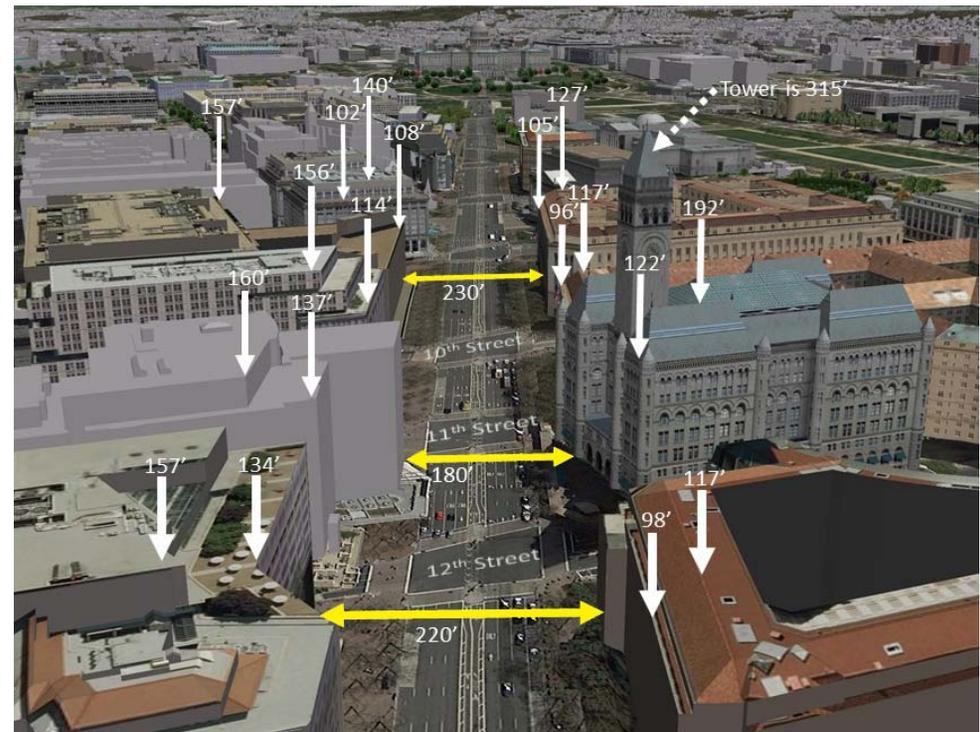
- › **Urban Rooms**, discusses the spaces shaped by the street walls and public space and how their relationship creates a sense of enclosure or openness within the Avenue's public space network.
- › **Capitol Vista**, Frame and Building Wall Measuring Point, discusses how the street wall frames and focuses on vistas to the Capitol
- › **Vistas**, discusses how the street walls shape long views of an urban corridor or an open landscape.

The illustrations below depict the general spatial relationships of the building heights and ground plane.

EXISTING DIMENSIONS, 15TH-13TH STREETS



EXISTING DIMENSIONS, 13TH-10TH STREETS



## Context

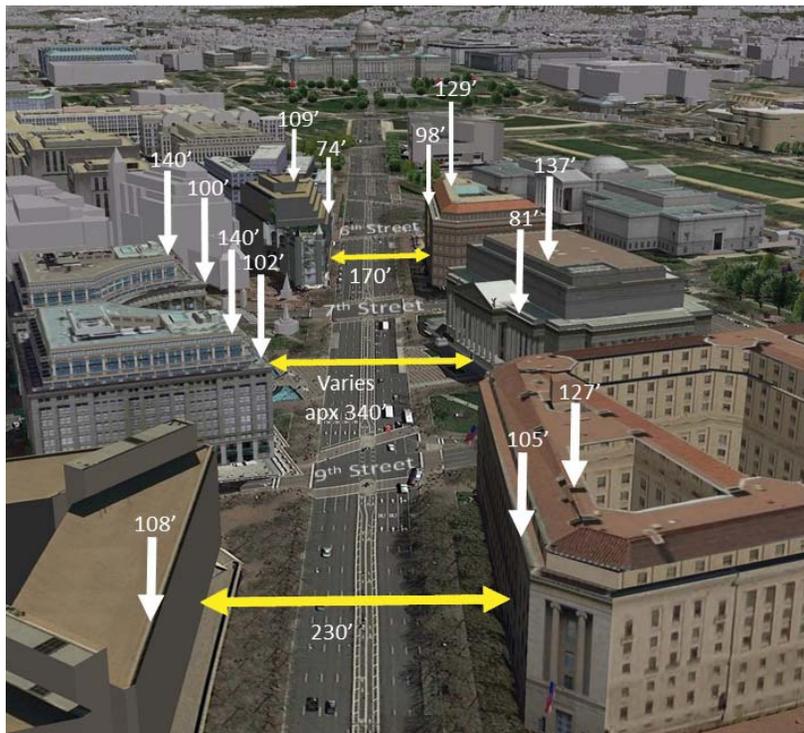
The widest ground plane (the distance between north and south street walls) on the Avenue occurs at the 1400 block. Here, the distance between buildings ranges from 400 to 500 feet. The Avenue's ground plane width varies greatly block-to-block due to different build-to lines and the presence of plazas or parks, creating widths varying from about 170 to 500 feet.

To the south, building heights are lower, generally averaging 120 feet. To the north, building heights are taller, reaching a maximum height of 160 feet. The tallest building element on the Avenue is the Old Post Office Tower, reaching 315 feet.

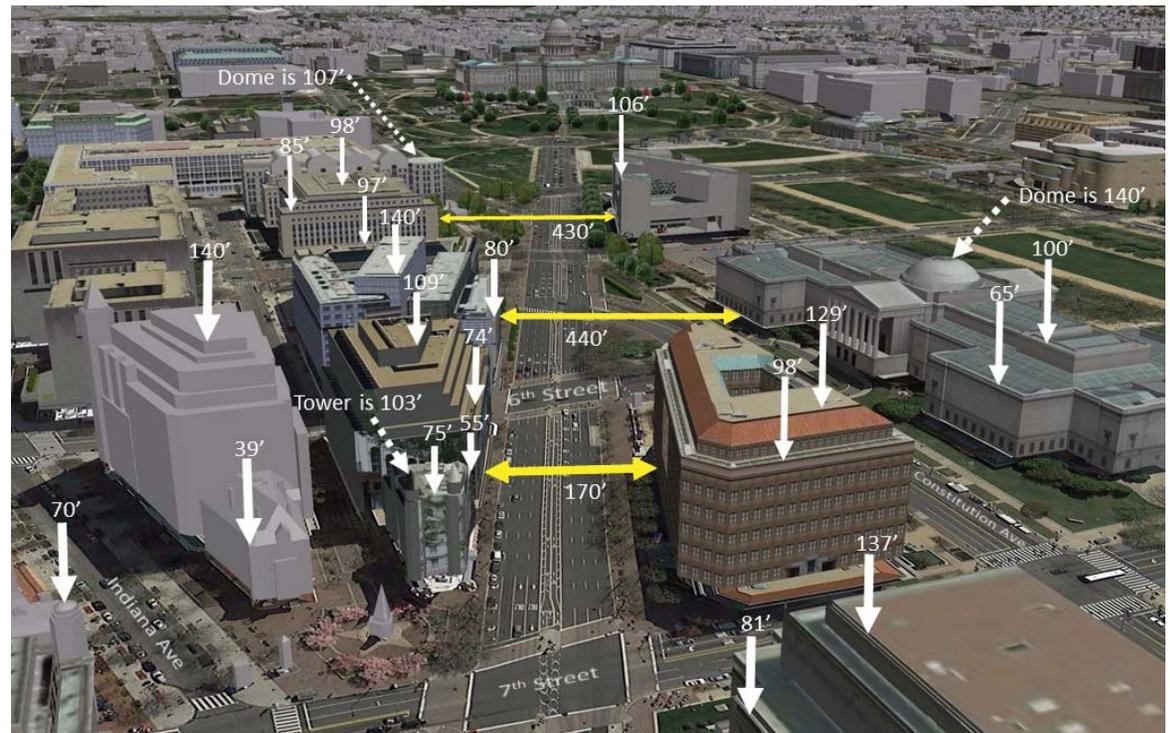
Several regulatory documents control the shape of street walls along the Avenue. These include the 1910 Height of Buildings Act, as amended, the 1974 Plan and Square Guidelines, zoning regulations, and building codes. The Square Guidelines incorporate urban planning and design best practices to provide additional guidance that supports the 1974 Plan. The site-specific guidelines respond to the site's context, ensuring that future development is compatible with and contributes to protecting and enhancing Pennsylvania Avenue's historic, symbolic, and ceremonial character and its iconic vista to the U.S. Capitol. The square guidelines identify each site's build-to line and initial and maximum building heights, as well as other important site development guidance, such as land use, gross floor area, site and building design, and roof structures, for example.

Square guidelines for the current FBI headquarters site (Squares 378 and 379) propose changes to the site's build-to line and height. More information on the FBI Square Guidelines is in the Executive Summary, in the Changing Conditions Section.

EXISTING DIMENSIONS, 10TH-6TH STREETS



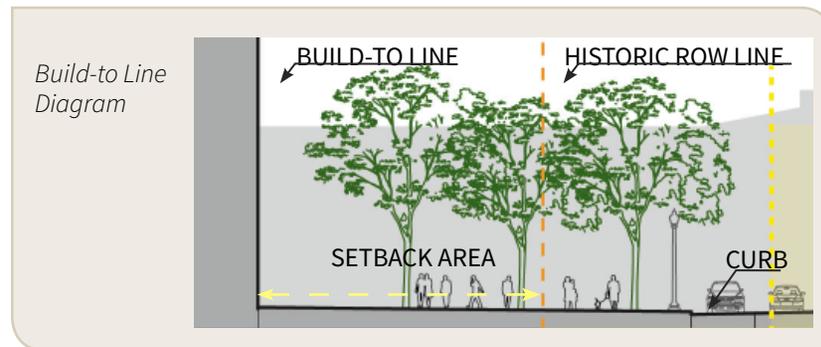
EXISTING DIMENSIONS, 7TH-3RD STREETS



## Context

**Build-to Lines** identify the point to which a building must be built. Build-to lines are important because they influence a site's development area, how building frontages align with one another, the amount of sidewalk space for public activities, and the public realm's quality and function.

Typically, build-to lines coincide with the right-of-way or property line. Pennsylvania Avenue is unique because the 1974 Plan regulates build-to lines along the Avenue. The Plan established a build-to line setback of 50 feet (50 feet from the historic ROW or 75 feet from curb) for new development on the north side of the Avenue. This results in an inconsistent building wall and sidewalks varying from 26 to 80 feet wide (see Appendix for more information). When considered in addition to the ground floor uses explained on page 34, this allows for a range of potential activities along the Avenue.



## Analysis

The Avenue's build-to lines are noticeably different on the north and south sides, but the continuous streetscape unifies them.

To the north, build-to lines are highly variable with setbacks ranging between 0 and 50 feet, creating a weak building wall. PADC-era buildings are setback further from the ROW, creating large sidewalks with room for three rows of trees and outdoor public space, but separate pedestrians from the buildings' ground floor.

Historic buildings are built on the historic right-of-way. However, historic structures usually have narrower façades (typically 100 feet long) and lower building heights (with the exception of the Evening Star Building).

To the south, build-to lines are generally consistent and create a strong building wall. The Federal Triangle development is set back approximately 20 feet from the historic ROW within landscaped building yards (building setbacks vary between 8 and 24 feet). The 1974 Plan extended the southern sidewalks into the cartway by 7.5 feet in order to expand tree planting and pedestrian space.

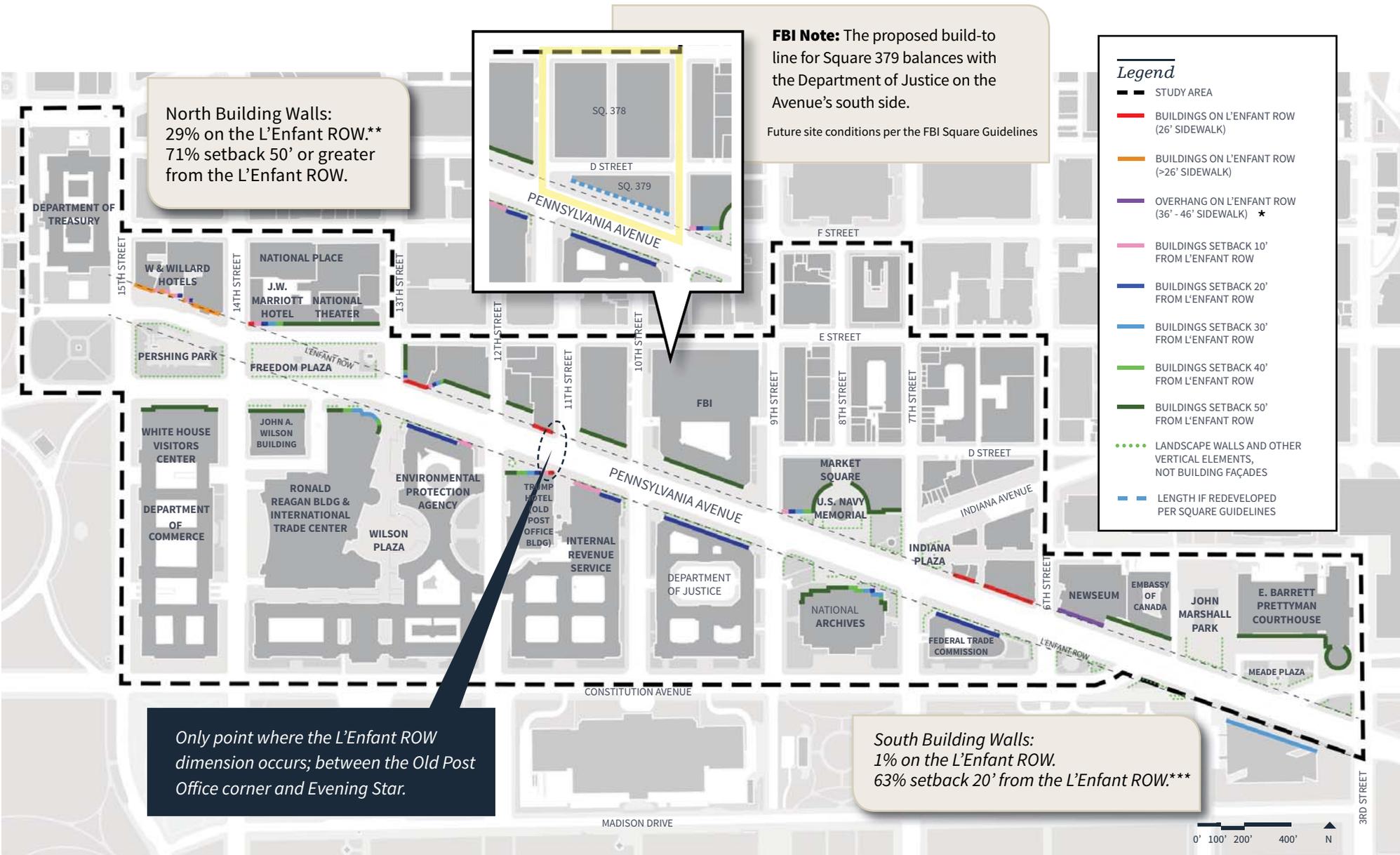
Variations in the building wall establish important public spaces and major civic parks and plazas. These variations align with the L'Enfant Plan locations for Western Plaza, Market Square, and Eastern Plaza.

For additional detail and analysis of the setbacks from the property line, sidewalk widths, and tree canopy for both sides of the Avenue, refer to Appendix.

## Issues

- To the north, the larger setbacks of newer buildings highlight and distinguish the façades of historic structures that sit at the historic ROW; however, the varied build-to lines weakens the northern street wall. Along the Avenue's south side, a relatively consistent build-to line creates a strong street wall.
- Overall, the build-to lines are located to accommodate the public space width for a linear streetscape that unifies the varied street walls north and south of the Avenue, which is a character-defining feature.

# Build-to Line Distance from the L'Enfant ROW



Source: NCPD

\* The Newseum's ground floor angles away from the sidewalk to align with adjacent build-to lines.

\*\* The W and Willard Hotels are constructed on the historic build-to line, but the sidewalk area is enlarged in this area because of the cartway function.

\*\*\* The 1974 Plan extended southern sidewalks into the ROW. This results in approximately 50-foot wide southern sidewalks.



## Context

**Building Heights** establish the initial and maximum heights to which a building may rise. Building heights and build-to lines establish the individual building walls and collective street walls, which contribute to the urban form and frame the vistas along street corridors.

The 1910 Height Act regulates building heights throughout Washington. The Act permits the north side of the Avenue, between 1st and 15th Streets, the tallest buildings in the city, to a height of 160 feet, reinforcing the Avenue's uniqueness. The 1974 Plan further regulates building heights. The Plan requires buildings reaching 160 feet to step back 100 feet north of the historic

ROW (50 feet from the build-to line) to balance the visual frame established by the Federal Triangle to the south. This maintains a sense of proportion and openness for the Capitol vista.

**Development Area:** Together, the build-to lines and building heights shape building mass and inform the amount of available development area along the Avenue.

## Analysis

This analysis examines the issues related to build-to lines and building heights, as well as their impact on development area.

**Building Heights:** Similar to the Avenue’s build-to lines, building heights differ between the north and south sides. To the north, building heights are taller and variable, while buildings heights within the Federal Triangle are relatively consistent and lower.

Most buildings located on the Avenue’s north side start with an initial lower height, ranging from 55 to 135 feet, with upper-story setbacks that reach the extreme or maximum height of 160 feet (including penthouses). However, this maximum height can create challenging height-to-street ratios on the grid streets north of the Avenue.

South of the Avenue, Federal Triangle buildings are generally the same overall height, averaging 120 feet. Initial building heights range from approximately 80 to 120 feet. The tallest building element is the Old Post Office Clock Tower at 315 feet. The table in the Appendix on page 262 summarizes the surrounding heights and setbacks of buildings fronting the Avenue.

The 1974 Plan and supplemental square guidelines establish build-to lines and building height for new development that generally balances the building heights between the north and south sides of the Avenue. These guidelines created a generally proportional open and horizontal frame within the Capitol vista along the Avenue. This proportional relationship is generally a 1:1 ratio between the initial building height and the distance measured horizontally from the ROW centerline to the build-to line. The Capital Vista Frame section illustrates the height to cartway relationships and effects on the vista (also see Appendix, page 262).

**Development Area:** Most buildings are constructed to the maximum height as allowed by development controls, which equates to the 1:1 ratio. In accordance with the 1974 Plan’s objective to limit heights east of 9th Street, eastern buildings do not reach their maximum development potential.

The 1910 Height Act permits buildings south of the Avenue, within the Federal Triangle, to rise to 130 feet. However, these structures are currently at a height of 120 feet. Given the historic designation of these buildings and the minimal ability to increase the height, the feasibility of adding development capacity is low to unlikely.

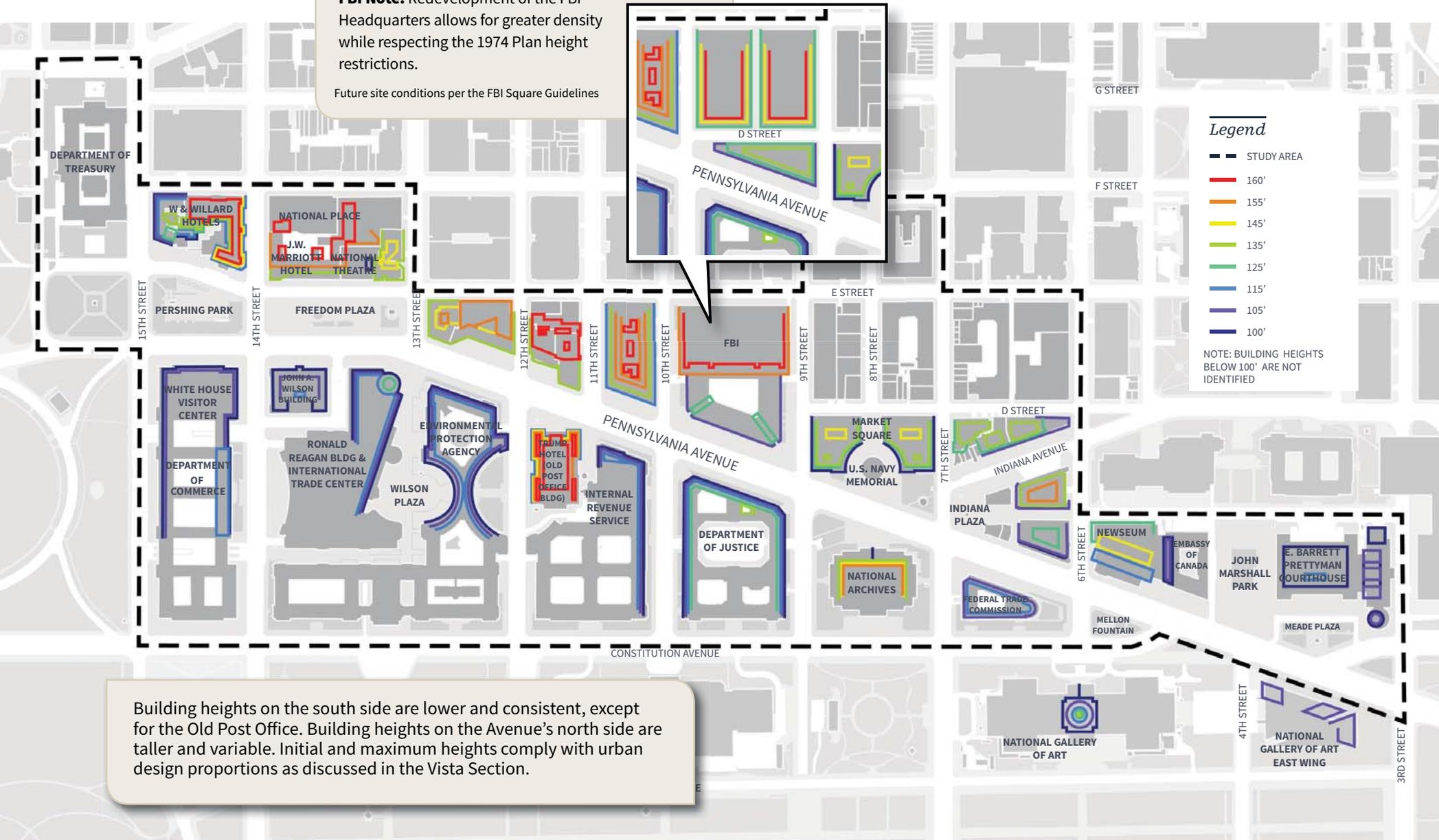
Development capacity on the north side may be available. While this report does not analyze the available square footage for new development, factors to consider if a future analysis occurs include:

- › Current build-to lines and height controls
- › Potential impacts on the reciprocal views between the Capitol and the Avenue’s public realm
- › The Avenue’s public realm character and identity, and its functional role for daily and civic activities

## Issues

- The 1910 Height Act allows for the tallest buildings in the city along Pennsylvania Avenue’s north side, elevating its significance and symbolism. Most buildings achieve the maximum height, following the Pennsylvania Avenue Development Corporation’s Square Guidelines.
- Not all buildings on the north side are built to their full capacity; the 1974 Plan’s 1:1 building height-to-setback ratio requires lower initial building heights to frame the vista to the Capitol, which affects development capacity.
- Due to the Federal Triangle’s historic designation and limited ability to add significant height, it is unlikely that the south side will add development capacity.

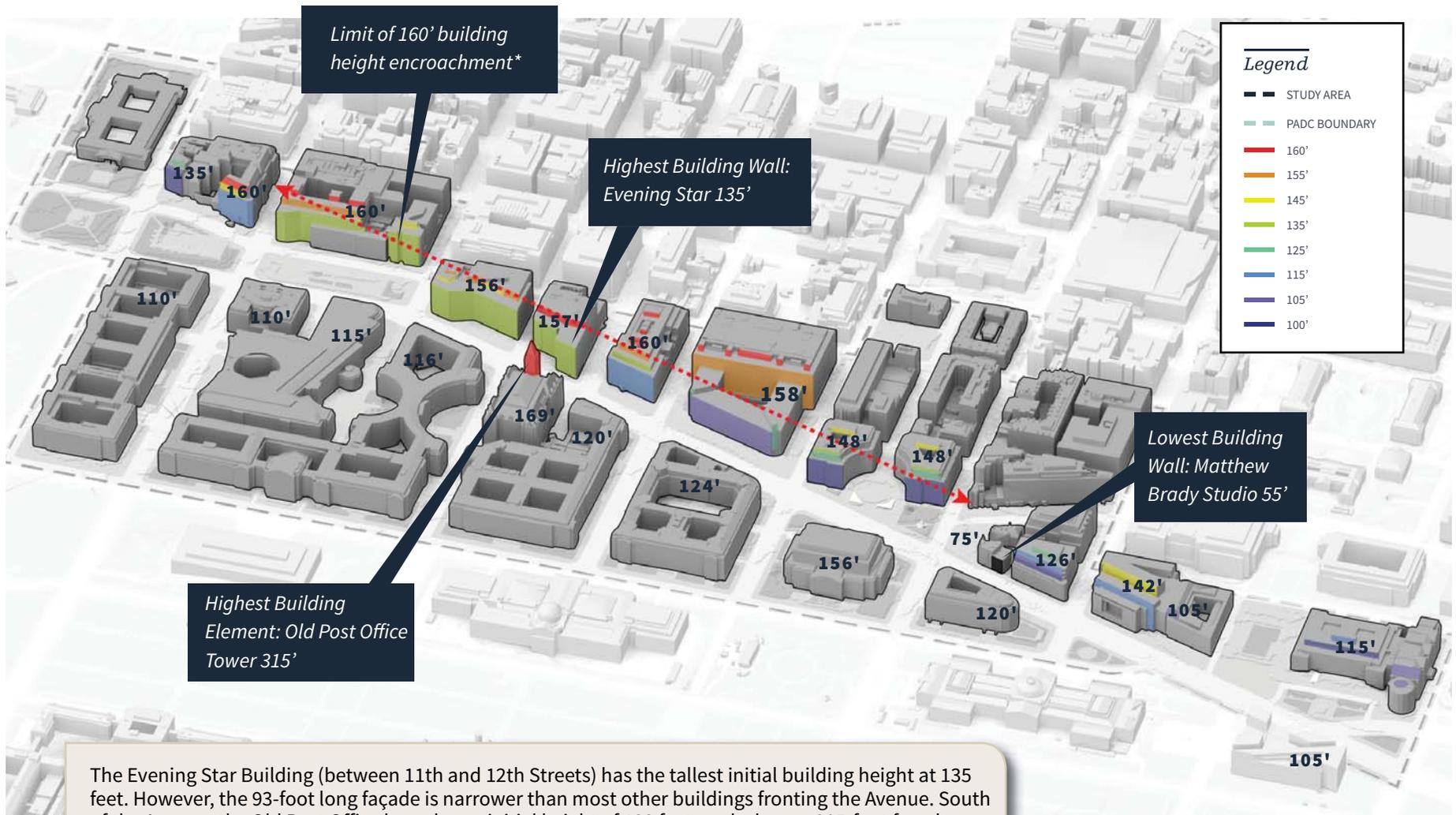
**FBI Note:** Redevelopment of the FBI Headquarters allows for greater density while respecting the 1974 Plan height restrictions.  
 Future site conditions per the FBI Square Guidelines



Source: NCPG



## Three Dimensional View of Existing Building Heights



\* Buildings reach a height of 160' at a point 100' north of the property line/ROW line per the 1974 Plan. Square guidelines regulate this as 50' from the new building line, which is setback 50' north of the property line/ROW line. The extreme height includes penthouses, circulation enclosures, and mechanical equipment spaces.

\*\* Most of the Federal Triangle building's initial heights are approximately 110', stepping back to a maximum height of approximately 120'.



## Introduction

**Urban Rooms:** Street walls and the configuration of the public space's ground plane, including the sidewalks, plazas, and parks along it, define the Avenue's urban rooms. While the Avenue possesses a unified streetscape palette of hardscape and landscape materials, variations in the street walls shape the public spaces along the Avenue into smaller urban rooms. The Avenue's smaller rooms have unique characteristics that differentiate them from one another. Each room has its own sense of enclosure or openness and can be experienced independent of the other, depending on the destination. However, during events of national and international importance, such as the Inaugural Parade, the perception is that the Avenue is one unified room. The Character Areas chapter provides more detail on five urban rooms:

- › West End Parks and Plazas (13th–15th Streets, north)
- › Federal Triangle West (12th–14th Streets, south)
- › Central Corridor (9th–13th Streets)
- › Market Square Area (6th–9th Streets)
- › East End Institutions (3rd–6th Streets)

## Context

The L'Enfant Plan established three plazas (Western Plaza, Market Square, and Eastern Plaza) along the Avenue. Today these spaces (Pershing Park and Freedom Plaza to the west, and Mellon Fountain and Meade Plaza to the east) are gateways to the White House and Capitol respectively, linked by the Avenue's linear corridor. The plazas and parks create a diverse pedestrian experience along the corridor, because of the varied sequence of spaces, some are tightly framed and some loosely framed by street walls.

## Analysis

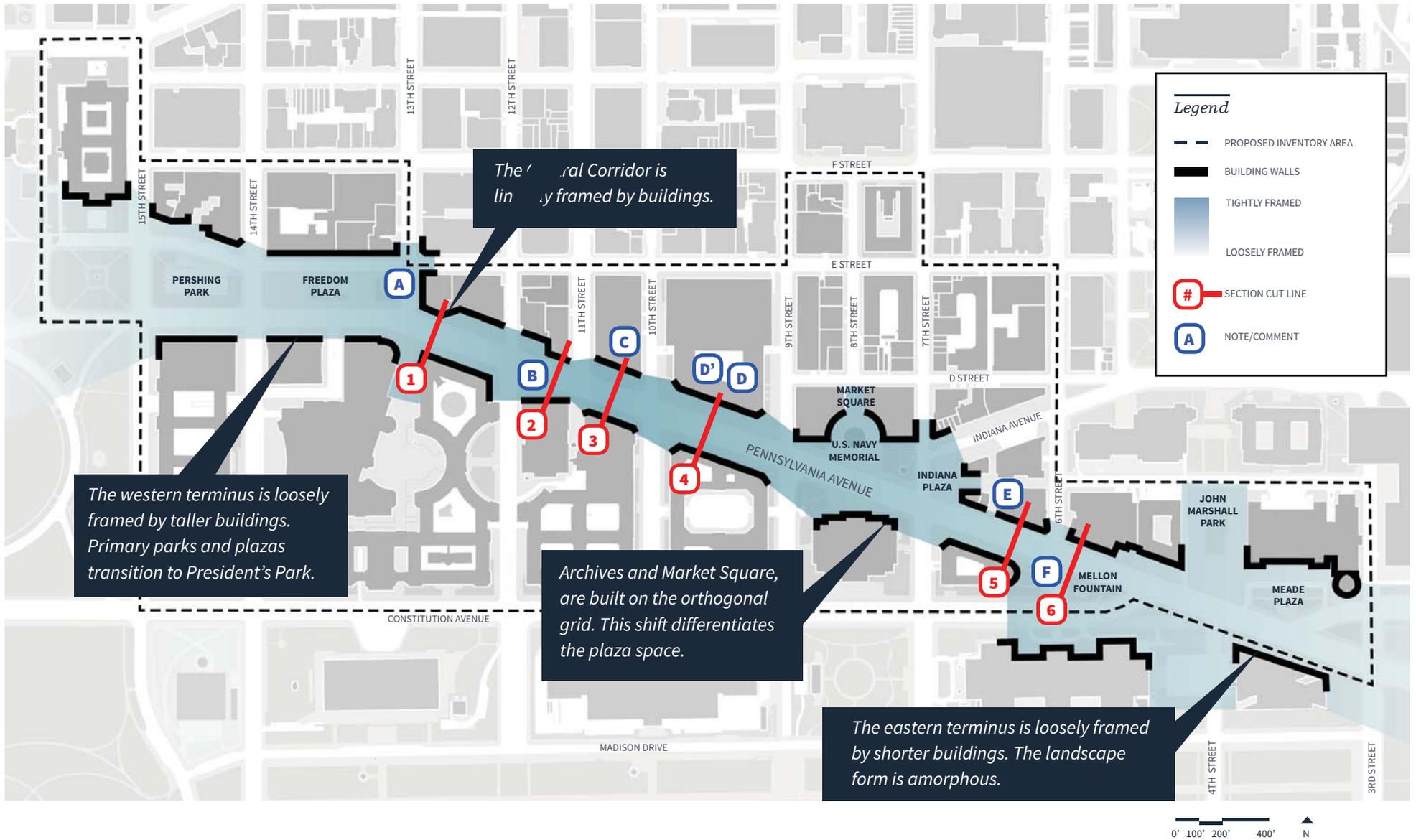
The experience from room to room varies significantly. The Avenue's linear nature, the varying build-to lines, distances between buildings, and large block(s) of open spaces lack pedestrian interest and comfort. On the eastern and western ends of the Avenue, the area's spatial definition break down because of the configuration of multiple wide street(s) and open spaces, disconnecting the pedestrians from adjacent neighborhoods. However, these large spaces are ideal for large public gatherings and civic events.

While the spatial experience along the Avenue varies; the view to the Capitol, which is framed by the street walls, is a unifying characteristic. To achieve this, the 1974 Plan uses a unifying development ratio to balance the street wall on the Avenue's north side with the Federal Triangle's street wall on the south side.

## Issues

- The relationship of the Avenue's street walls and public spaces creates five distinct urban rooms with unique character.
- The distances between buildings, wide street(s) and large open spaces, particularly on the eastern and western ends of the Avenue, break down the area's spatial definition, lack pedestrian comfort, and disconnect pedestrians from adjacent neighborhoods.

# Urban Room - Building Walls Framing Public Space



The plan shows locations of the following section diagrams. Sections are generally taken from the middle of the building façade.

# Urban Form | Street Walls | Capitol Vista Frame & Development Ratio

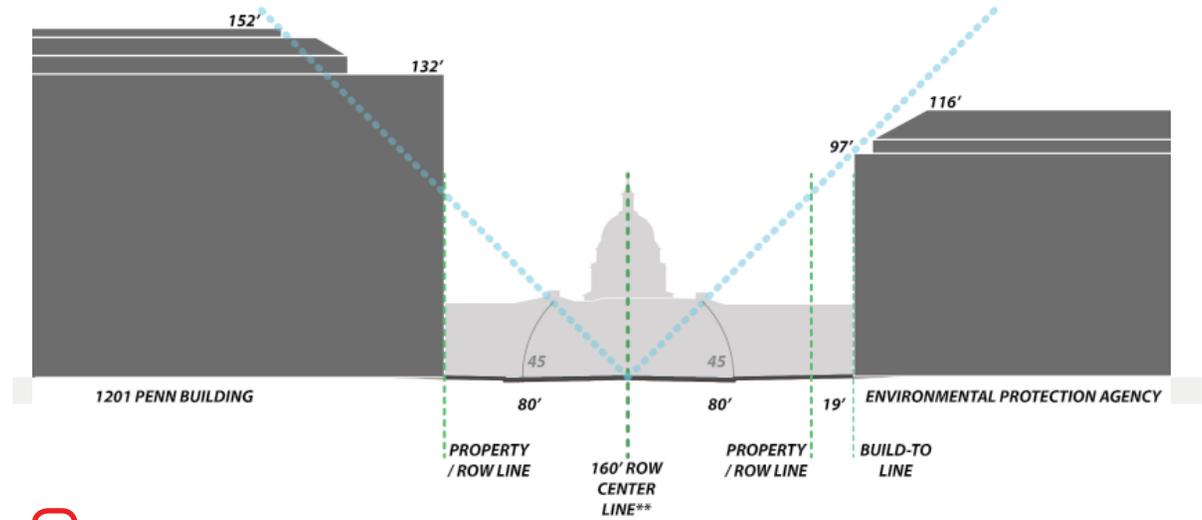
## Capitol Vista Frame and Development Ratio:

The 1974 Plan uses a unifying development ratio to balance the street wall on the Avenue's north side with the Federal Triangle's street wall on the south side. This development ratio takes its cues from classical design proportions to shape the street walls and establish an open, horizontal frame to the Capitol dome. The proportional development ratio is a 1:1 relationship between:

- › The initial vertical rise of the building wall (initial building height).
- › The horizontal distance measured from the centerline of Pennsylvania Avenue, on center with the Capitol, to the build-to line along the Avenue.

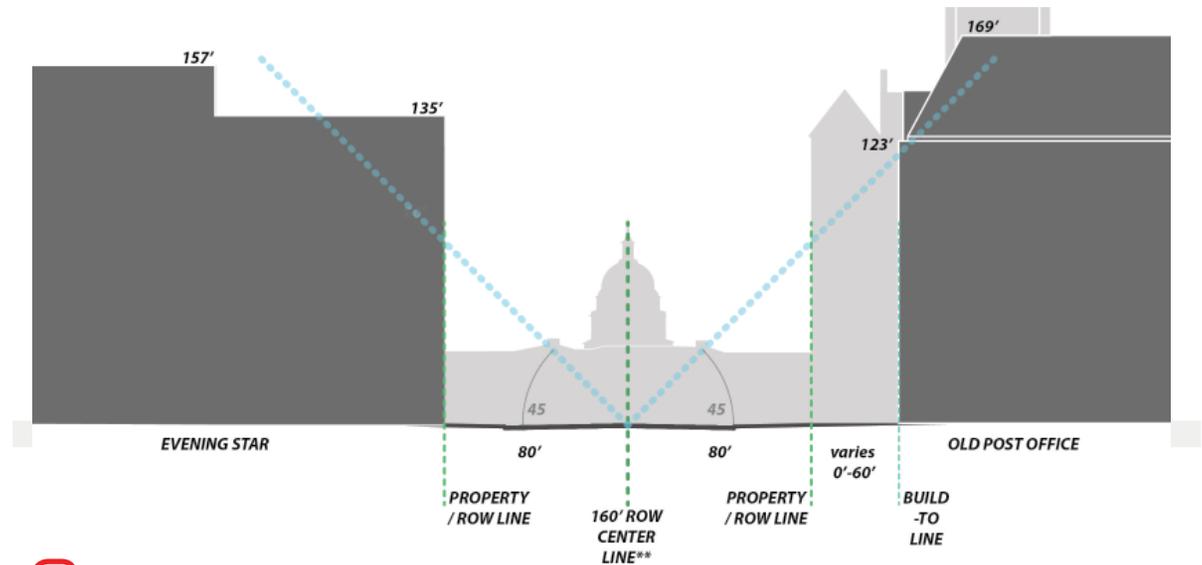
## Analysis

Overall, the proportional development ratio regulates the Avenue's street walls and establishes a horizontal rather than vertical frame to the Capitol vista. This ratio is consistent along the length of the Avenue except at the occurrence of parks, plazas, or historic structures. From 15th to 3rd Streets, 88 percent of the north street wall and 93 percent of the south street wall (including building frontages at parks and plazas) does not exceed the development ratio. The different street walls—between the historic buildings and the 1974 Plan buildings—disrupt the balance, creating an inconsistent building frame. The Evening Star and Old Post Office buildings, on the Avenue's north side, are built on or close to the historic ROW and have higher initial heights. Their location, narrow profile, and similar architectural styles create a uniquely tight frame to the Capitol at a narrow point along the Avenue. As mentioned in the Build-To Line Section, historic structures typically have narrower façades, less than 100 feet long.



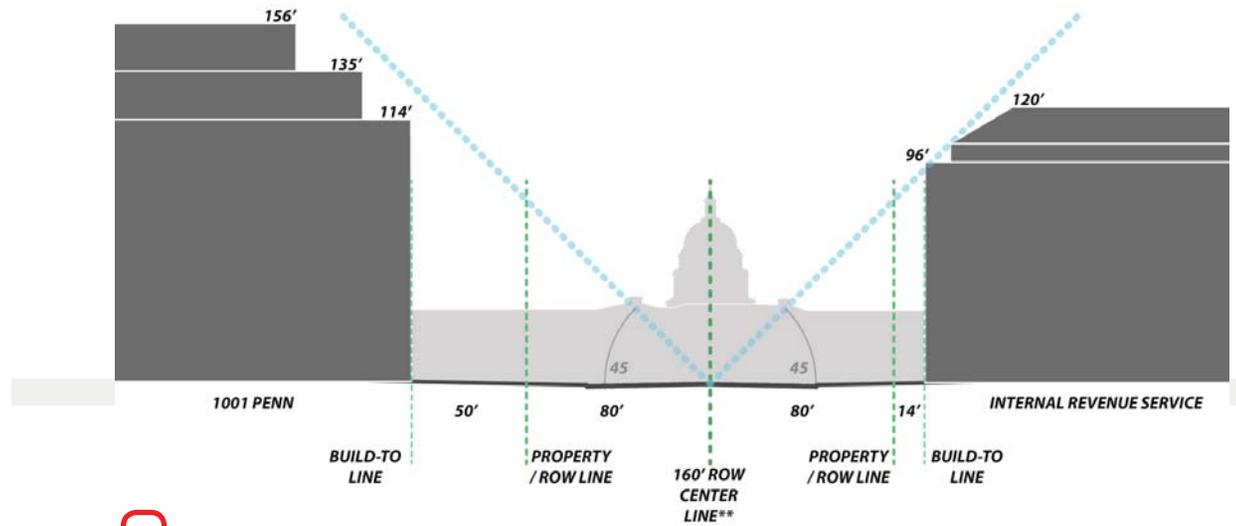
1 1201 PENN BUILDING AND ENVIRONMENTAL PROTECTION AGENCY

- A The taller height of the Pennsylvania Building, constructed on the historic ROW, helps to frame the open space at Freedom Plaza.



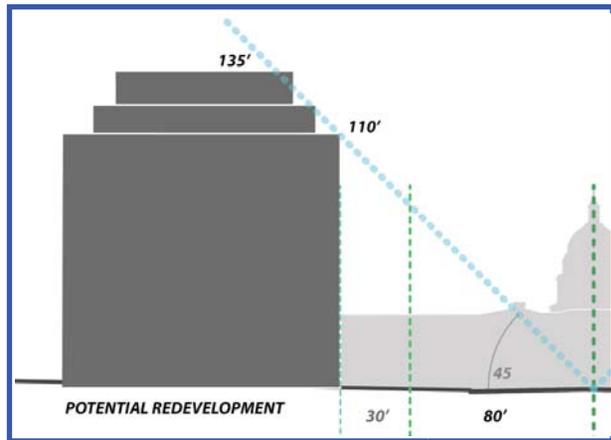
2 EVENING STAR AND OLD POST OFFICE

- B The narrow façade of the Evening Star and angled façade of the Old Post Office, shown in the distance, provide a narrow frame to the Capitol vista. See the Build-to Line Section on page 112.



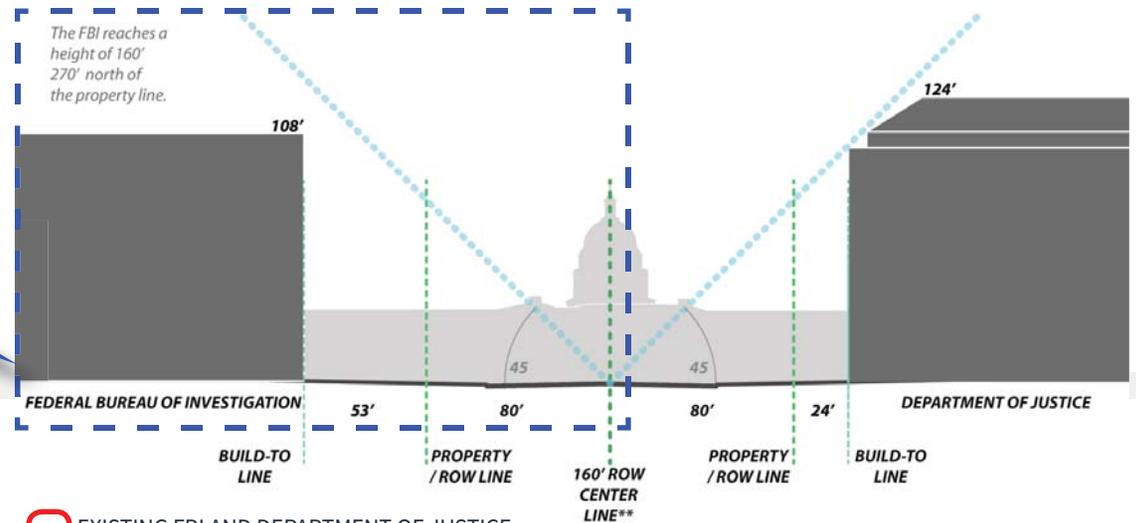
**3** 1001 PENN AND INTERNAL REVENUE SERVICE

**C** The 1001 Penn Building has upper-story setbacks that comply with the 1:1 ratio.



**D'** FBI Square Guidelines

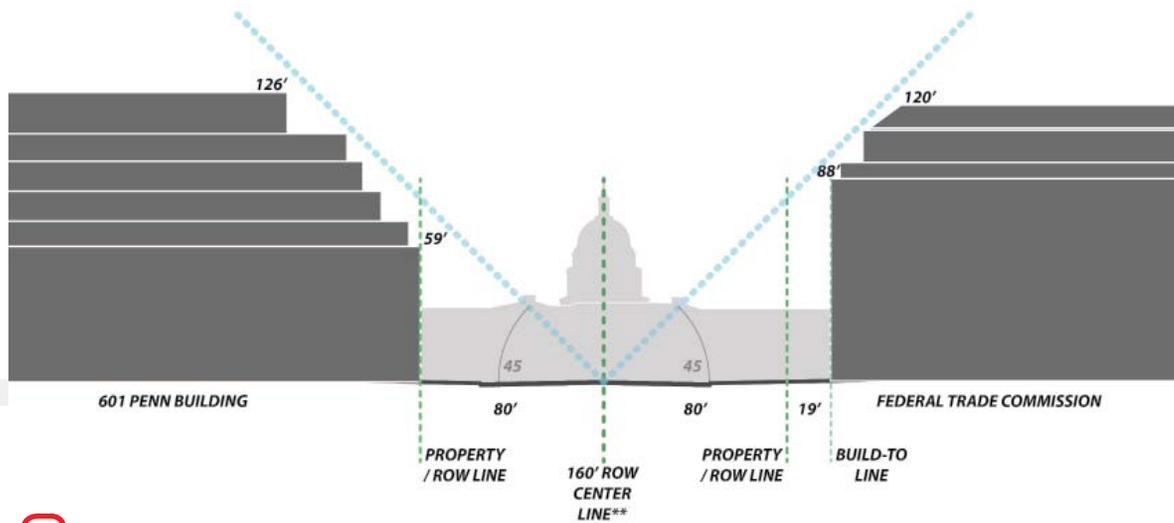
The FBI Square Guidelines decrease the setback and allow more height, without obstructing the Capitol vista.



**4** EXISTING FBI AND DEPARTMENT OF JUSTICE

**D** The existing FBI Building does not fill the building wall and weakens the vista frame.

# Urban Form | Street Walls | Measuring Point



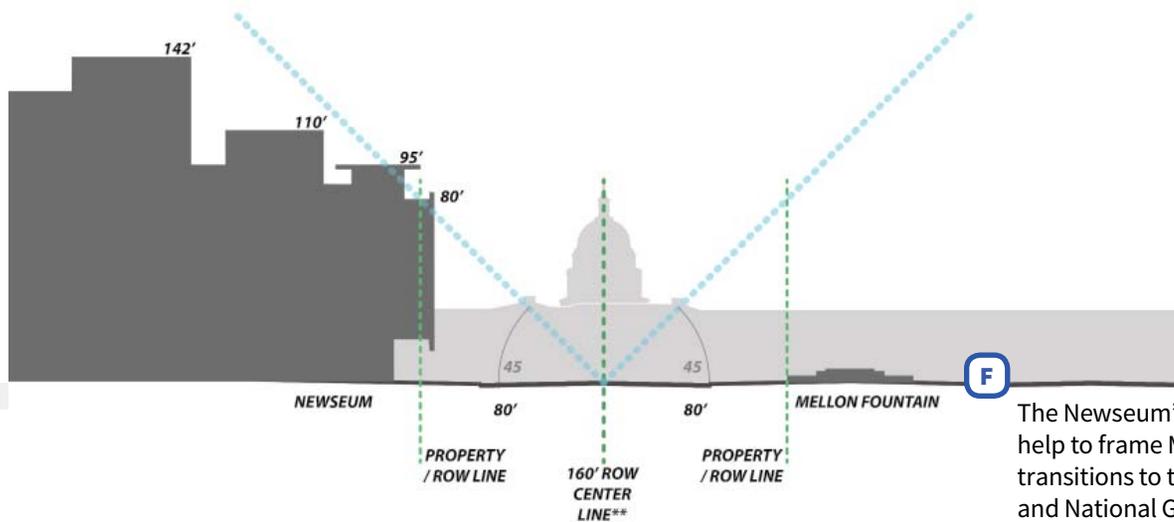
## Measuring Point:

**The Pennsylvania Avenue Centerline** serves as the primary measuring point for the Avenue. Based on the 1974 Plan's proportional development ratio, a building's height is typically less than or equal to the building's distance from the historic ROW centerline.

The Pennsylvania Avenue ROW dimensions changed over time, increasing from 80 feet per the L'Enfant Plan to 107.5 feet by the 1900s. The 1974 Plan added 7.5 feet of sidewalk to the south, reducing the cartway to 100 feet. This shifted the cartway centerline about four feet (3.71 feet) north of the historic ROW centerline. While this shift is barely perceptible to the eye, it is significant when measuring distances to examine build-to line to building height ratios.

**5** 601 PENN AND THE FEDERAL TRADE COMMISSION

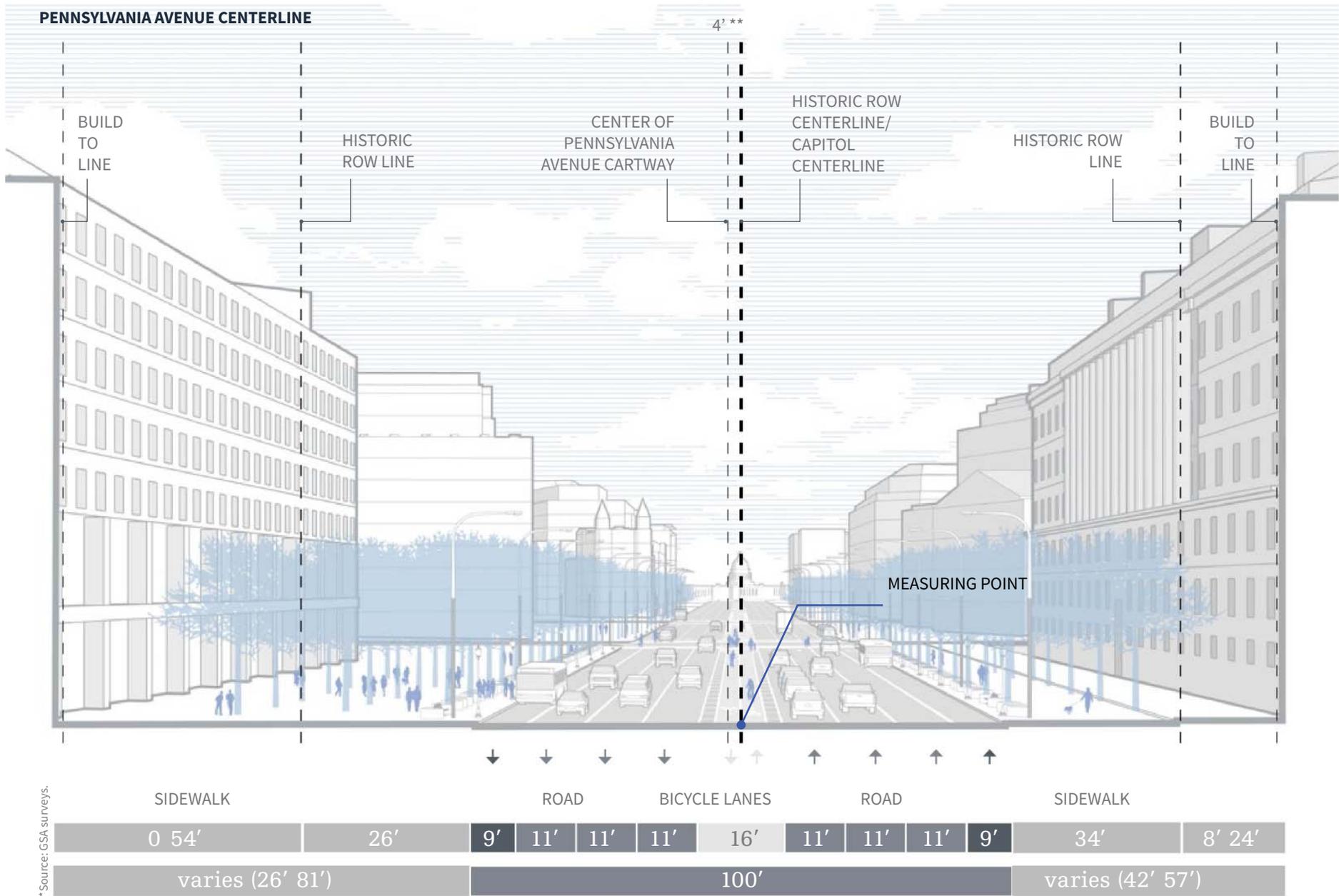
**E** The 601 Penn Building has upper-story setbacks that comply with the 1:1 ratio.



**F**

The Newseum's projecting tablet help to frame Mellon Park which transitions to the National Mall and National Gallery of Art further to the south.

**6** NEWSEUM AND MELLON FOUNTAIN



\*Source: GSA surveys.

\*\* The Pennsylvania Avenue cartway centerline is offset approximately 4 feet (3.71 feet) to the north of the ROW centerline. This is because 7.5 feet was added to the south sidewalk to extend tree planting and public realm space.

# Urban Form | *Vistas* | *Capitol Vista*

## Introduction

**The Capitol Vista** is the signature experience of Pennsylvania Avenue. Informed by the L'Enfant, McMillan, and 1974 Plans, this one-of-a-kind vista makes the Avenue one of the most popular civic activity spaces in Washington. The Avenue's center median and cycle track are a popular location to view the Capitol.

## Analysis

An eye-level visual analysis documents the range and extent of motorist and pedestrian views to the Capitol and White House. It reveals the following issues:

- › Views of the Capitol contribute to the Avenue's character. Motorists and pedestrians can view the Capitol along the length of the Avenue, as far west as 15th Street.
- › The Treasury Building is the visual western terminus of the Avenue. The White House, within the pastoral setting of President's Park, is only visible from 13th to 15th Streets.
- › From the sidewalks, the south side of the Avenue provides clearer and more consistent views of the Capitol than the north side because of the more consistent street wall.
- › Depending on the viewpoint from the existing sidewalks, building walls constructed on the historic ROW and the tree canopy obstructs some views of the Capitol.
- › The center median offers the most clear and unobstructed views to the Capitol. A continuous linear tree canopy and balanced proportional street walls, punctuated by buildings sitting on the historic ROW, provide a horizontal, unobstructed frame to the Capitol.
- › Freedom Plaza's higher elevation and axial relationship offer an exceptional view of the Capitol for pedestrians, but the stage-like plaza can be uncomfortably hot in the summer and cold in winter.
- › Traffic signals and signs clutter the center median.
- › Vehicles parked in the Avenue's eastern terminus, beyond the study area in front of the Capitol, detract from the vista experience at the eastern end.

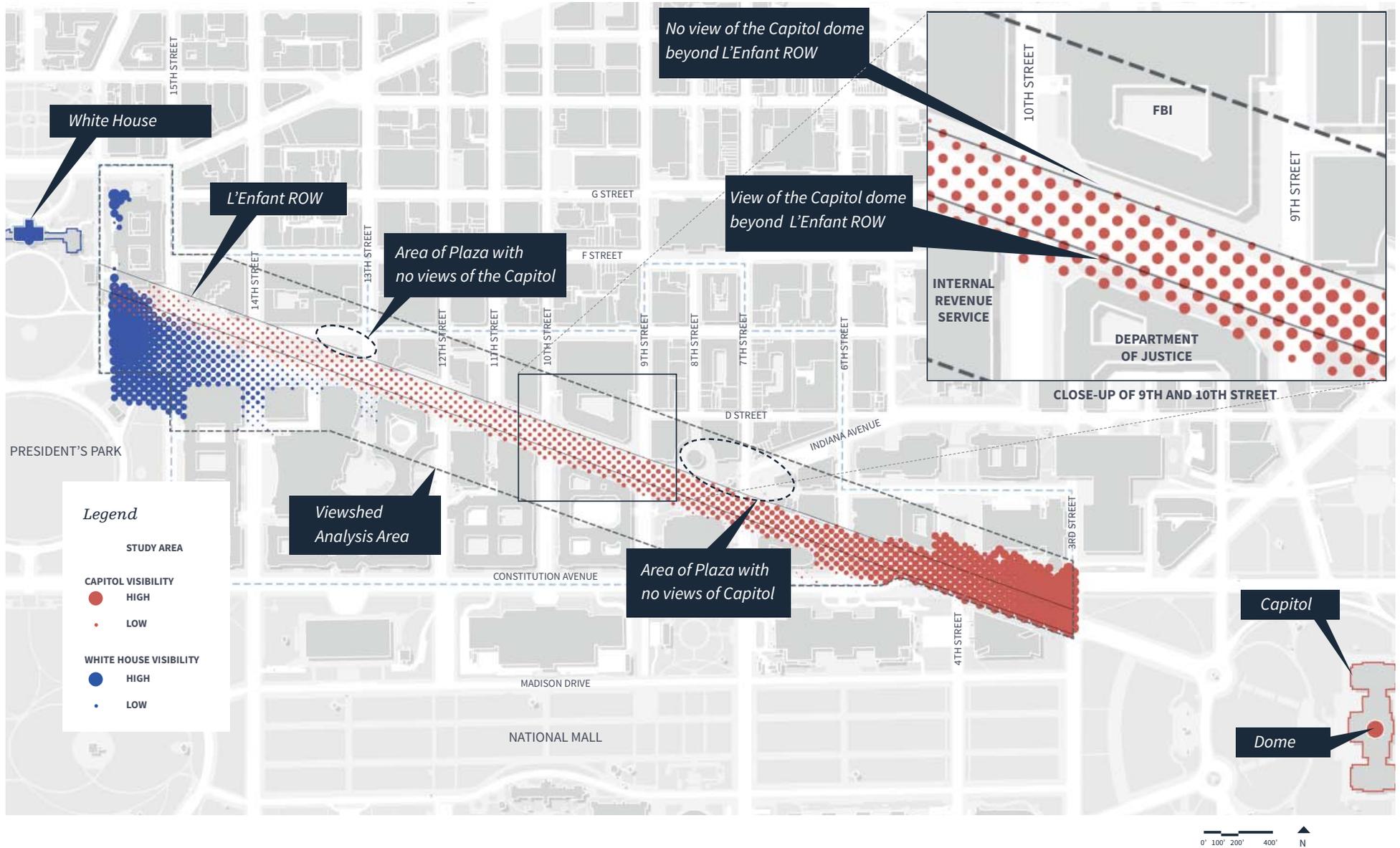


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## Issues

- The vista to the Capitol is a dominant asset to the Avenue, serving as a primary character-defining feature. The center median and southern sidewalks offer the best views.
- President's Park, a bucolic setting and transition from the Avenue's urban streetscape, anchors the western vista towards the Treasury Building and White House.
- Parking in the Avenue's median at its eastern terminus mars the importance of the Capitol vista.
- The center median is cluttered with signals, signage, and zebra cones, impacting the primary vista.

# Eye-Level Views of the Capitol Dome & White House





1 Eastern vista between the Capitol the White House from the Pennsylvania Avenue cycle track

## Context

**Other Vistas:** Secondary views between major civic buildings and cross axes that visually connect Downtown Washington to the National Mall, Potomac River, and other natural features are partially intact today.

Vistas are classified as Radiating Avenues, Orthogonal Avenues, Major Cross-Axes, Tangential, Frontal, and Axial Streets.\*

## Analysis

The Treasury Building blocks the primary reciprocal vista between the White House and Capitol. Andrew Ellicott's changes to L'Enfant's Plan disrupted the view south from Western Plaza down 12th Street.

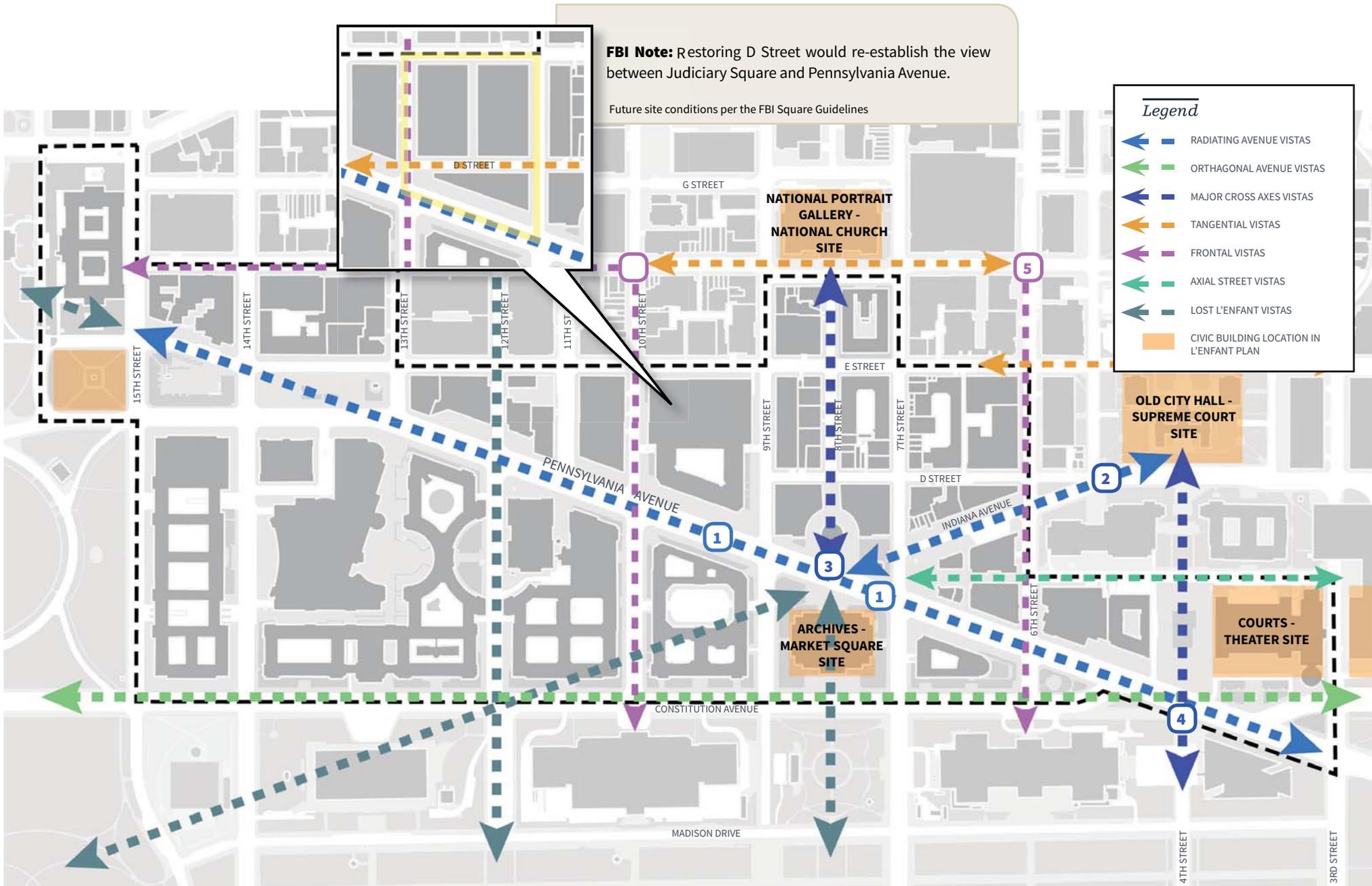
The Federal Triangle blocks vistas between the District of Columbia Superior Court Building at 4th and D Streets (formally known as the Old City Hall

Building) and the Washington Monument, and the Smithsonian American Art Museum and National Portrait Gallery at 8th and F Streets (formally the Old Patent Office Building) and views south. Nineteenth century institutional buildings on the south side of the National Mall previously blocked southern views of the Potomac River.

Despite these lost vistas, many special vistas remain important to today's experience of Pennsylvania Avenue and its surroundings, including several views to Smithsonian Institution buildings and other civic sites. Today's vista conditions are described in further detail on the following pages.

## Issues

- Secondary vistas connect the Avenue to other important destinations and landmarks, such as Smithsonian museums and the National Mall.



**FBI Note:** Restoring D Street would re-establish the view between Judiciary Square and Pennsylvania Avenue.

Future site conditions per the FBI Square Guidelines

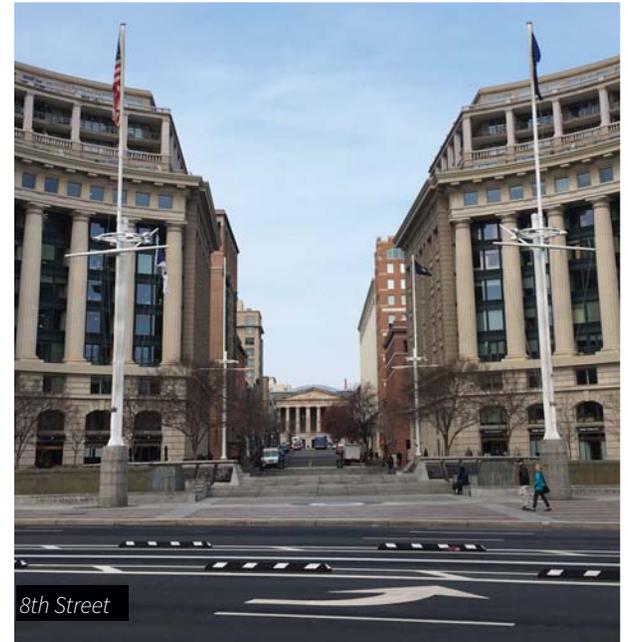
**Legend**

- RADIATING AVENUE VISTAS
- ORTHOGONAL AVENUE VISTAS
- MAJOR CROSS AXES VISTAS
- TANGENTIAL VISTAS
- FRONTAL VISTAS
- AXIAL STREET VISTAS
- LOST L'ENFANT VISTAS
- CIVIC BUILDING LOCATION IN L'ENFANT PLAN

\* Vista classifications are according to the National Register of Historic Places nomination for the L'Enfant Plan of the City of Washington, District of Columbia.



# Urban Form | Vistas | Other Vistas



**1** *Western vista between Capitol & White House obstructed by the Department of Treasury from Pennsylvania Avenue*

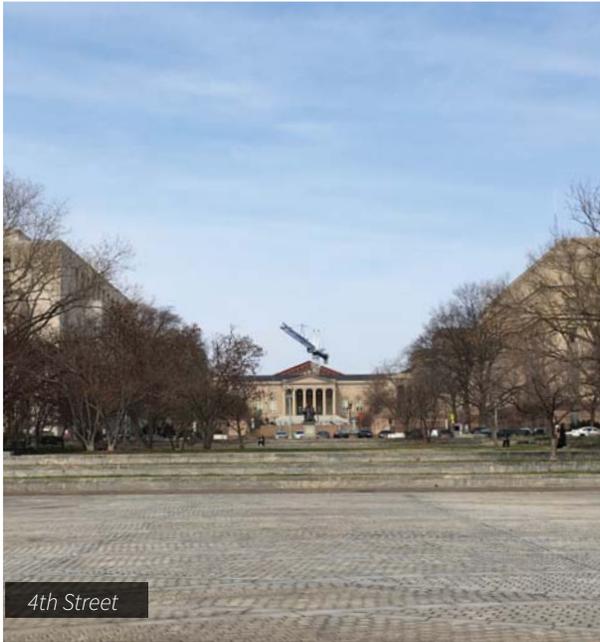
On axis with the Capitol, Pennsylvania Avenue symbolically separates and connects the legislative and executive branches of the government. This creates a prime vista that make the Avenue and surrounding area one of the most-photographed locations in the city. While the White House is not directly visible, the view toward the President's Park is an important transition between the urban Avenue and the bucolic park setting at the western terminus.

**2** *Southwestern vista between the Supreme Court site (Old City Hall) and the Washington Monument along Indiana Avenue*

The axial vista along Indiana Avenue is important and symbolic, connecting Judiciary Square to the Washington Monument. The Old City Hall (1820-83) was built on this vantage point, and is now the E. Barrett Prettyman U.S. Courthouse (Prettyman Courthouse). There are commanding views of the city in several directions from this point.

**3** *Northern vista to the Portrait Gallery from Archives Plaza along 8th Street (L'Enfant intended views southward down the Potomac)*

8th Street marks the mid-point of the Avenue and L'Enfant intended it to provide views from the National Church south to the Potomac River. Today, the Smithsonian American Art Museum and National Portrait Gallery is the northern terminus of this cross-axial vista. As a dramatic counterpoint, the National Archives punctuates the southern terminus.



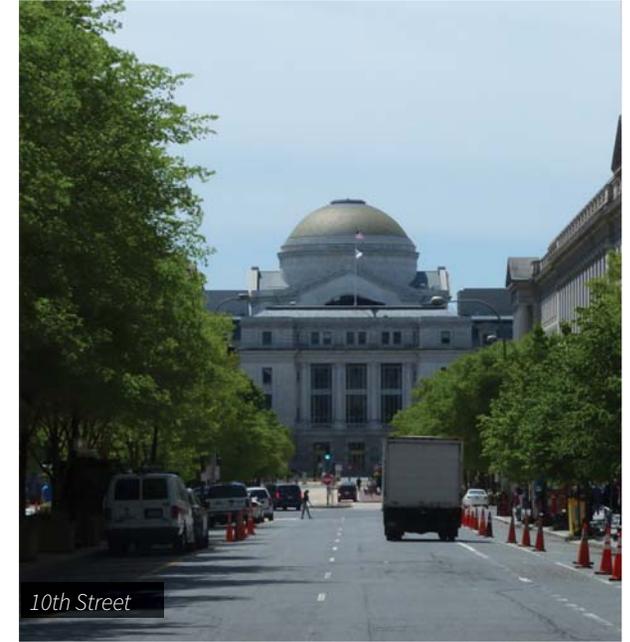
**4** Northern vista to the Old City Hall (Prettyman Courthouse) and Pension Building (National Building Museum) along 4th Street

4th Street, on the Avenue's eastern end, provides a visual connection to the Prettyman Courthouse (formerly Old City Hall) and National Building Museum (former Pension Building) beyond. Also from this location, views to the Capitol Grounds are visible along Constitution Avenue, an Orthogonal Avenue vista.



**5** Southern vista to the National Gallery of Art along 6th Street

Views from downtown to the National Mall are important. 6th Street has a notable frontal vista to the National Gallery of Art's dome. 10th Street also provides a frontal vista to the National Museum of Natural History's dome.



**6** Southern vista to the National Museum of Natural History along 10th Street

A number of other critical vistas exist within the study area, including tangential views to the Smithsonian American Art Museum and National Portrait Gallery (located at 8th and F Streets) and Judiciary Square (located at 4th and F Streets). North-south axial streets provide vistas to small parks or plazas. The view west on C Street is framed by the corner pavilion on the Department of Justice Building. Views to the Old Post Office and Tower are also important.



View of the U.S. Capitol during the National Capital Barbecue Battle, June 2016

## Introduction

**Placemaking** describes the experience of place, such as the smaller scale details and qualities of buildings and landscapes, which contribute to character, express meaning, evoke history, engender memory, encourage enjoyment, and attract stewardship. These details and qualities inform the character and experience of Pennsylvania Avenue. This section summarizes the Avenue's unique location and its historic context, and examines key placemaking components that enrich the area's meaning and contribute to its character. Pennsylvania Avenue is listed on the National Register of Historic Places and has a multi-layered planning and cultural history. The Avenue is associated with a historic district and site and contains many historic structures important to our local and national history. Additionally, the Avenue's streetscape and planning history were recently determined historically significant as documented in the National Park Service (NPS) Cultural Landscape Inventory.

The Placemaking Section identifies historically significant features, and describes and analyzes the Avenue's unique building and landscape characteristics. The Placemaking Section includes the following topics:

**Historic Context:** Identifies the Avenue's historic districts and structures.

**Architecture:** Discusses architectural style, floorplates, façade detail and patterns, and access to active building frontages.

**Landscape Architecture:** Discusses topics related to the function and style of the Avenue's public space network, which includes:

- › Parks and plazas (including sun/shade)
- › Special features
- › Unified streetscape and sidewalk use allocation (including sidewalks, healthy trees, furnishing zones, pedestrian & activity space, and pedestrian activity)
- › North-south connectivity



## Context

**Historic Districts & Sites:** The symbolic and ceremonial character of Pennsylvania Avenue and the commercial character of the city's historic downtown both contribute to the historic significance of the Pennsylvania Avenue National Historic District, which is listed in the DC Inventory of Historic Sites and the National Register of Historic Places.

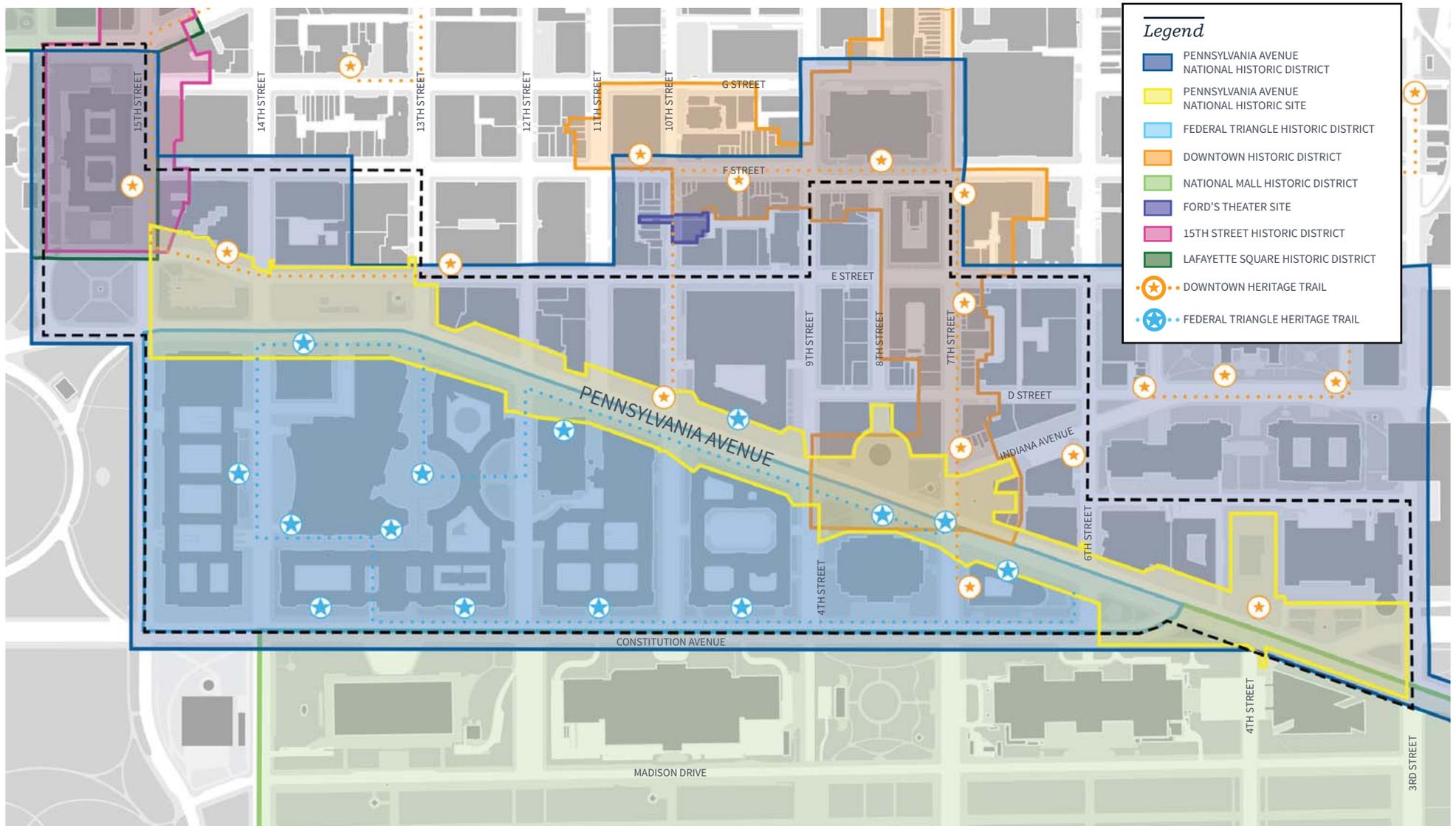
Pennsylvania Avenue's character defining features, history, and evaluation of integrity are also documented in the National Park Service's 2016 Cultural Landscape Inventory, which determined its period of significance to extend from 1791 to 1996.

The *Plan of the City of Washington*, which includes both the L'Enfant and McMillan Plans, is a historic landmark listed in the DC Inventory and National Register. The plan is considered eligible for designation as a National Historic Landmark.

Within the vicinity of the study area are seven Historic Districts and Sites, including:

- › Pennsylvania Avenue National Historic District and Site
- › Federal Triangle Historic District
- › Downtown Historic District
- › National Mall Historic District
- › Ford's Theater Site
- › 15th Street Historic District
- › Lafayette Square Historic District

The Federal Triangle Historic District is listed in the DC Inventory of Historic Sites and the National Register of Historic Places.



**Legend**

- PENNSYLVANIA AVENUE NATIONAL HISTORIC DISTRICT
- PENNSYLVANIA AVENUE NATIONAL HISTORIC SITE
- FEDERAL TRIANGLE HISTORIC DISTRICT
- DOWNTOWN HISTORIC DISTRICT
- NATIONAL MALL HISTORIC DISTRICT
- FORD'S THEATER SITE
- 15TH STREET HISTORIC DISTRICT
- LAFAYETTE SQUARE HISTORIC DISTRICT
- ★ DOWNTOWN HERITAGE TRAIL
- ★ FEDERAL TRIANGLE HERITAGE TRAIL



## Context

**Historic Structures:** There are many historic landmarks and structures within and around the study area. Notable historic structures are listed according to development eras.

### L'Enfant Era: 1800 to 1850

1. The U.S. Capitol (1793–1962)
2. The U.S. Department of the Treasury (1836–1869)
3. The Old Patent Office (1836–67, now the American Art Museum/National Portrait Gallery)
4. The General Post Office (1839–66, now Hotel Monaco)
5. Old City Hall (1820–83, now DC Superior Court)

### Civil War/Victorian Era: 1850 to 1900

6. The Old Post Office (1891–99, now Trump International Hotel)
7. Ford's Theatre (1863) and Petersen House (1849), where Abraham Lincoln died
8. LeDroit Block (1875–1892)
9. National Bank of Washington (1889)
10. Central National Bank (1887, now national headquarters of the National Council of Negro Women)
11. The cluster of historic buildings at Market and Indiana Squares, including, Matthew Brady Studio (1850s), Firemen's Insurance Company (1882), adjacent commercial buildings (about 1818–1826), and the Temperance Fountain

### McMillan Era: 1900 to 1950

12. The Hotel Washington (1918, now the W Hotel)
13. The Willard Hotel (1901)
14. The District Building (1904–08, John A. Wilson Building, now DC City Hall)
15. The Federal Triangle (1927–38); each of the Federal Triangle buildings is considered eligible for separate recognition as an historic landmark
16. The Evening Star Building (1898)
17. U.S. Court of Military Appeals (1910)

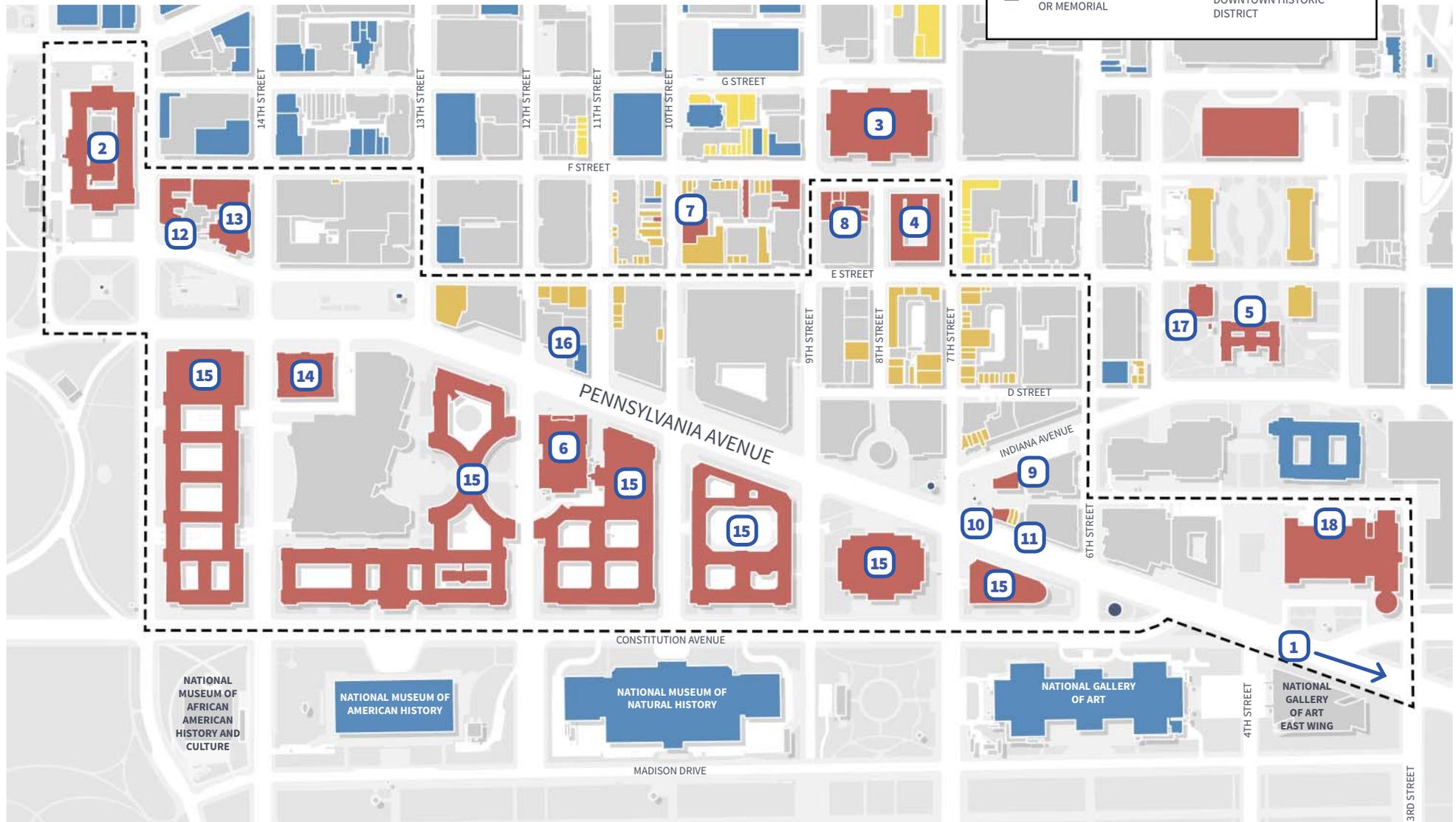
### Post WWII/PADC Era: 1950 to 1996

18. E. Barrett Prettyman Federal Courthouse (1949)

# Historic Structures

## Legend

- NATIONAL REGISTER
- DC INVENTORY
- STATUE, FOUNTAIN, OR MEMORIAL
- CONTRIBUTING TO THE PENNSYLVANIA AVENUE NATIONAL HISTORIC DISTRICT
- CONTRIBUTING TO THE DOWNTOWN HISTORIC DISTRICT



0' 100' 200' 400' N

## Introduction

**Architecture:** For the purposes of organizing and describing architectural qualities and details, this analysis examines the Avenue's architecture based on the following components:

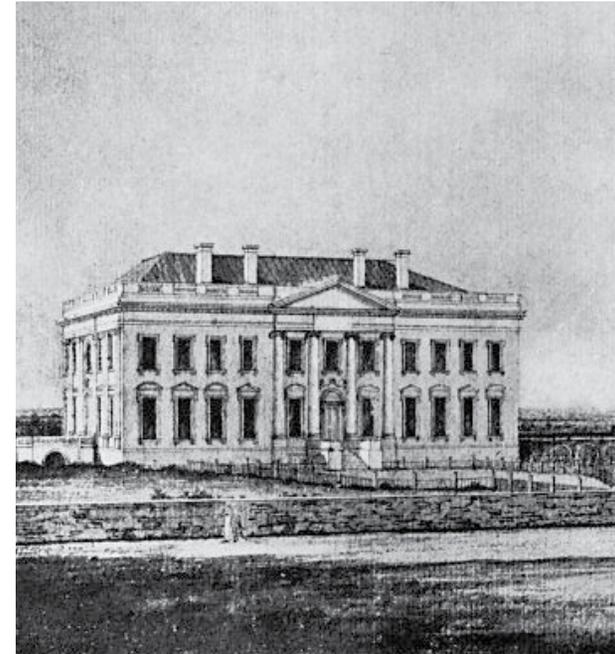
- › Architectural style
- › Floorplate
- › Façade detail
- › Façade pattern
- › Ground floor & accessible frontage

## Introduction

**Architectural Style:** The Avenue's architectural character developed over time and includes major examples of the Federalist, Victorian, City Beautiful, Modernist, and Postmodernist eras. The mixture of prominent and historically significant urban structures from each of these eras conveys a sense of historic evolution and diversity of cultural expression in a democracy. At the same time, the diversity presents a design challenge, especially for building frontage on the Avenue's north side. Both the McMillan and 1974 Pennsylvania Avenue Plans sought to address the Avenue's lack of architectural coherence.

## Context

For the purposes of this analysis, the Avenue's architectural style, or form and character, is described concurrently with building uses, cultural movements, and historic events. A stylistic overview, in chronological evolution, follows.



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*Etching of the White House around 1811*

**L'Enfant Era: 1800 to 1850** The remaining Federalist era landmarks that occupy the vantage and focal points of L'Enfant's vistas exemplify the balanced classical design ideals adopted during the early years of the republic. These elements include the original White House and portions of the Capitol.



CREDIT: PADC

*National Council of Negro Women at Indiana Plaza*

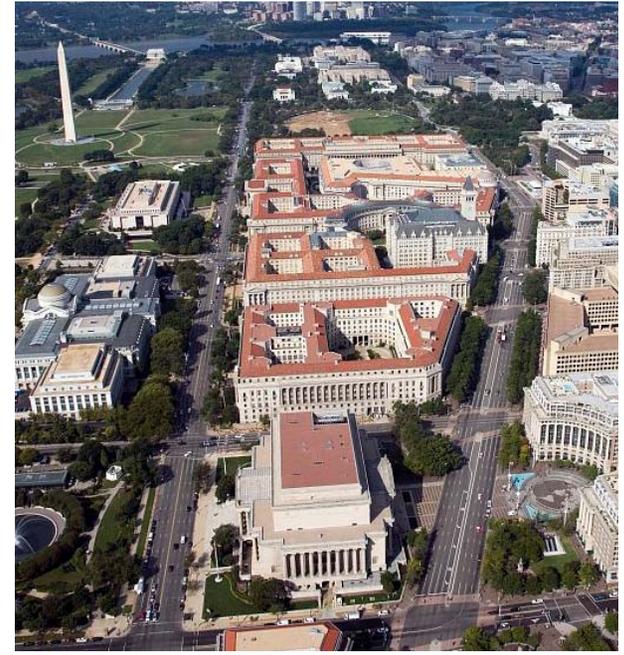
**Civil War/Victorian Era: 1850 to 1900** Victorian era landmarks exhibit a picturesque, largely vertical design expression creating irregular skylines of towers and turrets. These include the three bank and insurance buildings facing Market Square. The bank buildings exemplify the Victorian era's celebration of the irregular corner lots that are typical in L'Enfant's city plan. The Old Post Office is among the most assertive of the city's architectural landmarks, with its tower featuring prominently on the skyline.



CREDIT: LIBRARY OF CONGRESS

*Evening Star at 11<sup>th</sup> and Penn*

**McMillan Era: 1900 to 1950** The City Beautiful era landmarks, both commercial and governmental, stand in contrast to the Victorian era structures. Early commercial buildings include the Willard Hotel and Evening Star Building, constructed in the Beaux-Arts style. Although distinct from their Classical predecessors, these two tall buildings also have a strong vertical expression, exaggerated by their relatively narrow frontages on the Avenue.



*Federal Triangle*

The Federal Triangle is the largest example of a City Beautiful civic center complex in the nation, and one of the crowning achievements of the McMillan Plan. Occupying nearly the entire south side of the Avenue, the Federal Triangle buildings along with the earlier District Building represent the conscious rejection of Victorian era architectural design ideals and the assertion of a new American order. Their strongly horizontal cornice lines and assertive Neoclassical façades establish a controlled regularity that does not characterize either the earlier landmarks or the newer commercial context on the Avenue's north side.



Federal Bureau of Investigation



1001 Pennsylvania Avenue



Market Square

CREDIT: PADC

**Post WWII/PADC Era: 1950 to 1996** Modernism, the architectural style informing the 1974 Pennsylvania Avenue Plan, rejected both monumental classicism and Victorian era eclecticism in favor of large architectural expression. The 1974 Plan was not implemented precisely how it was envisioned, as a line of large, uniform modern buildings opposite the Federal Triangle. Changes occurred to accommodate historic structures, ownership, and changing economic conditions. Of the two office structures built to the 1974 Plan's Modern design, one was renovated, and the other, the Brutalist FBI building, is expected to be replaced. The Postmodernist style came of age during the PADC era. Adoption of the 1977 Historic Preservation Plan, and the 1982 amendments to the Eastern Sector development area, shifted architectural style to a contextual approach based on infill development and was

more sympathetic to traditional urbanism. 1001 Pennsylvania Avenue (1986) is a pioneering example of preserving modest commercial façades in large-scale new construction. It incorporates five building façades and fragments into a larger new building, using an innovative approach of building massing to evoke an irregular traditional streetscape, while maintaining solidity and presence on Pennsylvania Avenue. Another example is Market Square (1990), which responds strongly to the monumental classicism of the Federal Triangle with its massive colonnade, while also reflecting the transition to downtown with commercial-style office façades capped by terraced apartments.

## Analysis

The different architectural styles and characters emphasize the north-south division between Downtown Washington and the monumental core.

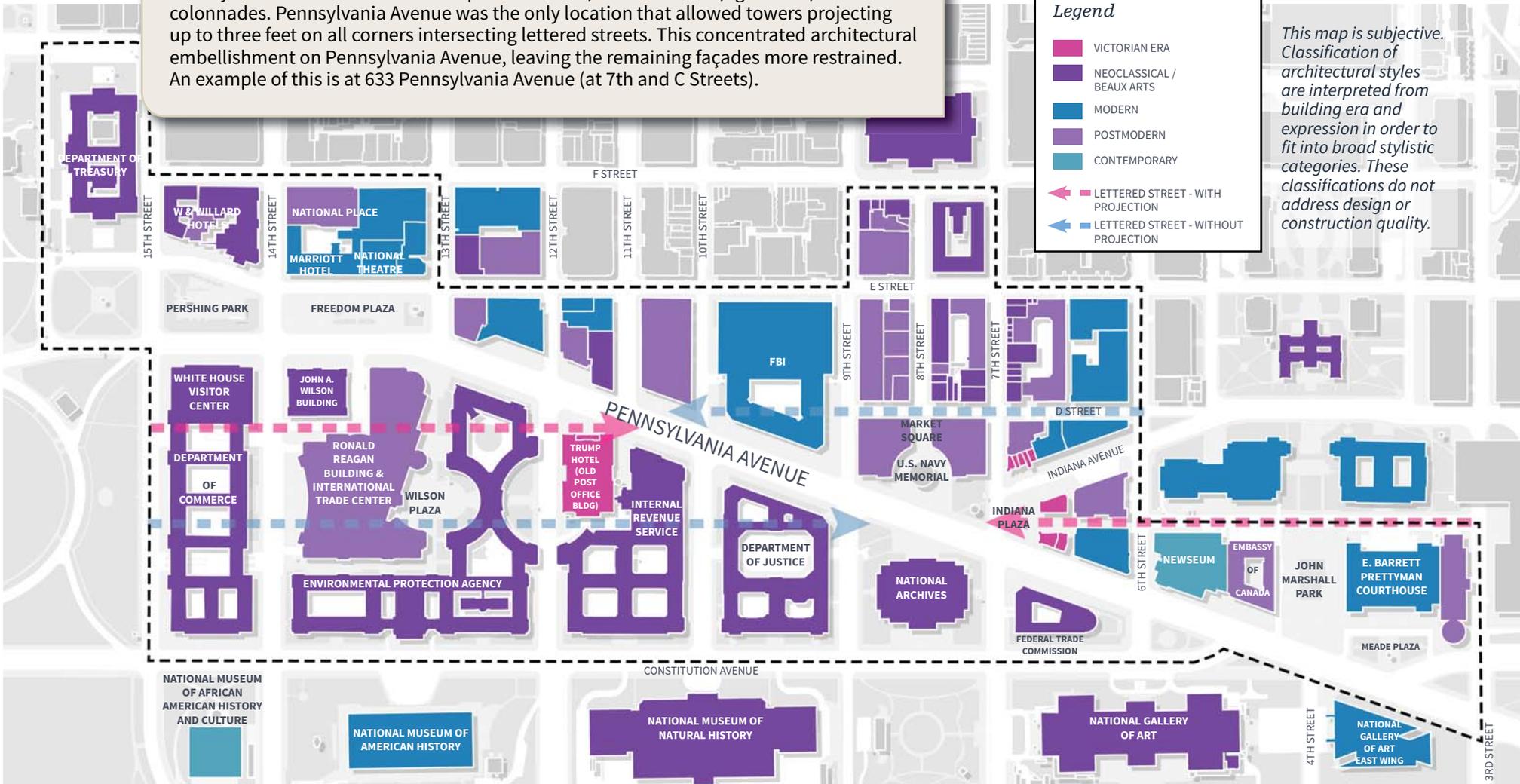
South of the Avenue, Federal Triangle has a strong unified character that provides visual interest with sculptural detailing. North of the Avenue, architectural styles are diverse. Historic buildings differ in character from Modern buildings with simple forms and minimal detailing contributing to a generic and sterile character on the Avenue.

City regulations from the late 1800s and early 1900s limited building projections on Pennsylvania Avenue west of the Capitol to towers, show windows, light wells, and colonnades. Pennsylvania Avenue was the only location that allowed towers projecting up to three feet on all corners intersecting lettered streets. This concentrated architectural embellishment on Pennsylvania Avenue, leaving the remaining façades more restrained. An example of this is at 633 Pennsylvania Avenue (at 7th and C Streets).

**Legend**

- VICTORIAN ERA
- NEOCLASSICAL / BEAUX ARTS
- MODERN
- POSTMODERN
- CONTEMPORARY
- LETTERED STREET - WITH PROJECTION
- LETTERED STREET - WITHOUT PROJECTION

*This map is subjective. Classification of architectural styles are interpreted from building era and expression in order to fit into broad stylistic categories. These classifications do not address design or construction quality.*



## Issues

- The mix of prominent and historically significant building eras and styles illustrates the evolution and diversity of cultural expression.
- Federal Triangle’s architectural style and details unify its character, provide visual interest, and convey a sense of time and civic purpose.
- The different architectural styles contribute to the perception of an edge between downtown and the monumental core.

# Placemaking | Architecture | Floorplate



Old Post Office atrium with steel structure



Federal Triangle Apex building in 1937

CREDIT: LIBRARY OF CONGRESS

## Introduction

**Floorplate:** Each stylistic era employs construction materials and details informed by the era's technologies and resources. This section discusses the architectural floorplates found along the Avenue categorized according to their stylistic eras. See the Architectural Style section for more information.

## Context

**Civil War/Victorian Era: 1850 to 1900** Victorian era buildings were constructed before city building codes mandated that dwelling units have access to daylight and fresh air. During this period, shanty or alley dwellings were becoming a problem in the city because of their impacts on health and sanitation.

Wood-framing and brick and masonry construction limited the spans of building bays and floorplates, as well as building heights. One exception is the Old Post Office, which was one of the first structural steel framed buildings in Washington.

**McMillan Era: 1900 to 1950** Neoclassical buildings within Federal Triangle are based on a courtyard typology. Typically, 60-foot wide double-loaded corridors wrap internal open-air courtyards. The courtyard typology spans across multiple blocks, creating mega-blocks. These buildings are steel construction, clad with limestone masonry exteriors.

**Post WWII/PADC Era: 1950 to 1996** Modern buildings utilize larger floorplates (100 to 200 feet wide), made possible by steel and reinforced concrete structures as well as the advancement of central heating and air conditioning.

This makes mega-block development possible without requiring internal open-air courtyards. Interior circulation often occurs within ground-level lobbies and interior building atria.

## Analysis

Victorian era buildings have smaller structural spans and floorplate areas, with more frequently spaced windows and door entryways.

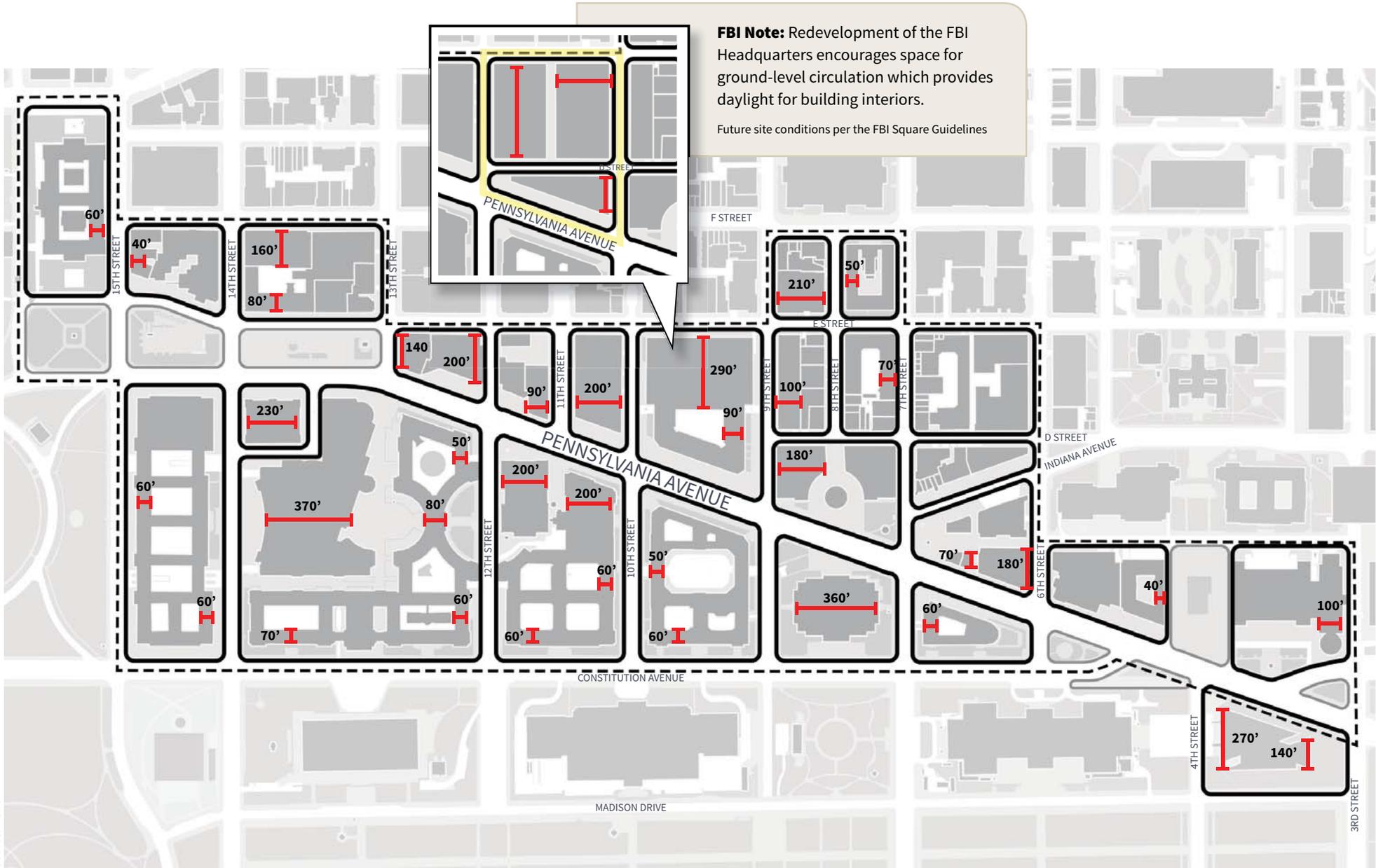
The Federal Triangle offices use narrower building dimensions and more generously sized internal open-air courtyards than their Modern office-building counterparts. Federal Triangle buildings have excellent quality office spaces, with most offices having access to daylight and fresh air. This is recognized as an asset for building occupant health (LEED and other rating systems score this positively).

Modern buildings have wider structural spans and larger floorplates enabled by advances in building technology, but do not provide as much access to light and air. Interior offices can be dark and have limited or no exterior views.

## Issues

- Federal Triangle's narrower floorplates provide excellent workspaces with access to daylight and air. Modern office buildings offer larger, flexible floorplates, but sacrifice workspace quality.

# Floorplate Dimensions



Source: NCPC

# Placemaking | Architecture | Façade Detail



Trump International Hotel at the Old Post Office



Herbert C. Hoover Building (Department of Commerce)

## Introduction

**Façade Detail:** The architecture along the Avenue has unique forms, construction materials and techniques, and façade treatments. This section discusses the architectural façade details found along the Avenue according to three broad stylistic eras. Each stylistic era has distinguishable characteristics expressed in façade details. See the Architectural Style Section for more information on building style.

## Context

**Civil War/Victorian Era: 1850 to 1900** Victorian era building examples include the Old Post Office and bank buildings at Indiana Plaza. Many of the Avenue's Victorian era buildings use Romanesque details including rounded arches and rusticated masonry at the bases of buildings. This contributes to the expression of bulk, mass, and weight that anchors the buildings, which often have strong vertical elements such as towers and turrets.

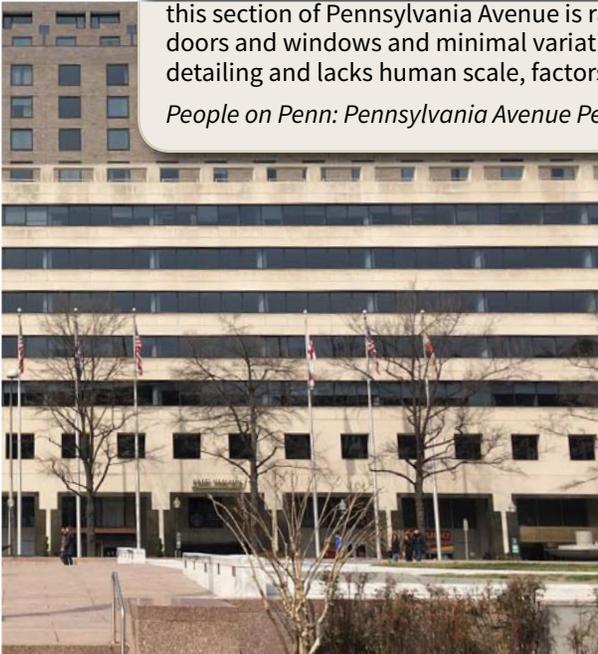
**McMillan Era: 1900 to 1950** Neoclassical and Beaux Arts building style dominates the Avenue's south side. City Beautiful era buildings as well as Postmodern buildings such as Market Square and the Ronald Reagan Building and International Trade Center employ Neoclassical principles, including tripartite (three tiered façades) with a rusticated masonry base, ornamented mid-level with rhythmic rows of columns, and a finely articulated upper level completed with entablatures and pediments. Neoclassical design balances the horizontal tripartite structure (which historically reflected the building's use) with vertical, rhythmic columns.

**Post WWII/PADC Era: 1950 to 1996** Modern buildings are located on the Avenue's north side and feature austere geometric forms, use of concrete, and ribbon window glazing which appear as horizontal bands across the building façade.

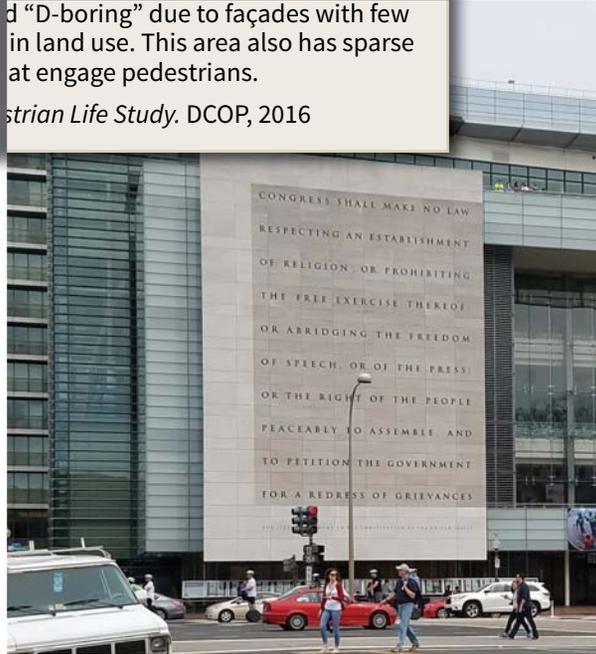
Newer buildings typically have larger footprints and structural spans. This leads to larger floorplates and longer façades with less frequently spaced building entryways. Many newer buildings along the Avenue have recessed entryways or glass lobbies servicing office uses on the upper floors.

this section of Pennsylvania Avenue is rated “D-boring” due to façades with few doors and windows and minimal variation in land use. This area also has sparse detailing and lacks human scale, factors that engage pedestrians.

*People on Penn: Pennsylvania Avenue Pedestrian Life Study. DCOP, 2016*



*Modern office*



*The Newseum's limestone tablet façade*



*Example of 1980s development with glass ground level lobby and ribbon office windows*

## Analysis

Regardless of style, building materials serve as a unifying characteristic of the Historic District. Masonry is the dominant façade material along the Avenue and surrounding streets. Limestone is the most commonly used stone, with occasional use of granite, marble, and sandstone. Brick is the typical material of the smaller commercial buildings. When Postmodern buildings replicate Neoclassical façades, the material quality and construction is often diminished in quality and execution.

The Civil War/Victorian era buildings with smaller structural spans tend to have frequently spaced building entryways and storefront windows, which appeal to pedestrians. The massive building bases at the ground floor of the McMillan Era buildings (Federal Triangle) deter pedestrians because of lack of transparency and ground-level engagement. Restricted access to government office buildings exacerbates this problem.

While Market Square, a Postmodern building, uses Neoclassical detail, the transparent ground floor and retail use with sidewalk cafes better engages pedestrians. The Neoclassical façades provide more visual interest to pedestrians, particularly south of the Avenue where mega-blocks create long building façades. Modern buildings utilize more window glazing than historic buildings, and can often have simple details, which feel boring and sterile to pedestrians.

## Issues

- Building materials are a unifying characteristic in the Historic District.
- To the north, the prevalence of generic Modern building styles with minimal detail creates a monotonous and sterile character.
- To the south, Neoclassical building façade details are engaging, but are monotonous and lack transparency.

## Introduction

**Façade Patterns:** The Avenue's various architectural façade details have unique patterns, or standard dimensions between façade elements such as columns and pilasters that work in concert with structural bay spacing and window location.

This section discusses the architectural façade patterns found along the Avenue and quantitatively analyzes their similarities and differences as well as their effect on the visual quality of the Avenue and the pedestrian experience. According to research by Gehl Studios, pedestrians have a visual range of about 15 feet above ground level when they are three feet away from a façade; thereby diminishing perception of upper floors at sidewalk proximity. This analysis is based on façade patterns detectable to a pedestrian at sidewalk level. See the Façade Detail Section for more information on façade style and design.

## Context

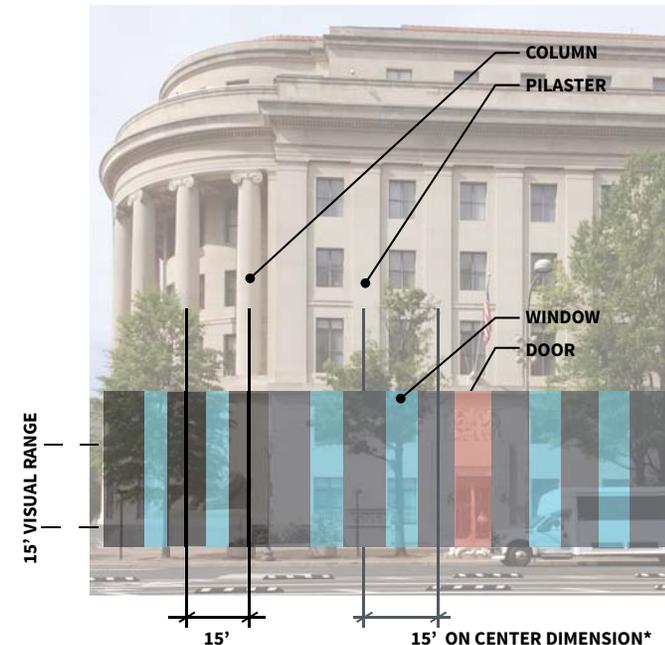
Façades have various stylistic compositions, based on their architectural style and development era. However, basic components of the Avenue's façades can be broken down into the following elements:

- › Arch (singular or multiple, which creates an arcade)
- › Column (free-standing and engaged)
- › Pilaster (engaged rectangular column)
- › Window and Door (may include overhanging canopy)

The spacing of these elements reveals the standard dimensions or façade patterns. The façade patterns inform the façade composition and the pedestrians' experience of rhythm along the Avenue's street wall.

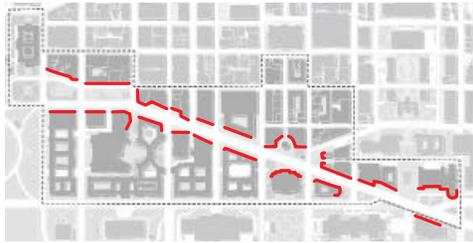
According to research by Gehl Studios, walking pedestrians perceive and process sensory impressions at just over three miles per hour or four to five feet per second. Humans need stimuli about once every four seconds. Therefore, walking pedestrians desire visual stimuli every 16 to 20 feet. As a general principle, façades elements that vary and are closer together provide more visual interest to pedestrians.

### FAÇADE ELEMENTS KEY



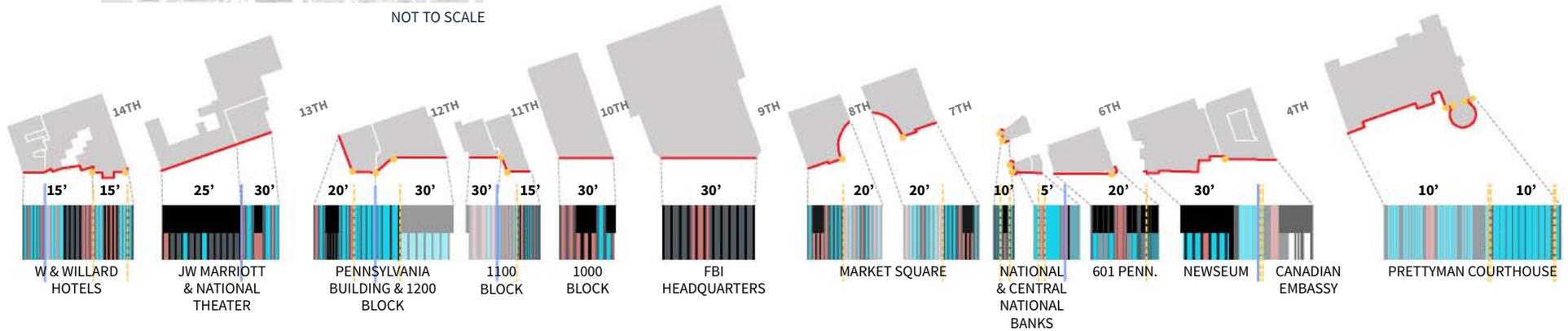
*Façade rhythm at the Federal Trade Commission Building*

\* 'On center' dimension is the distance from the middle of one element to the middle of the next.

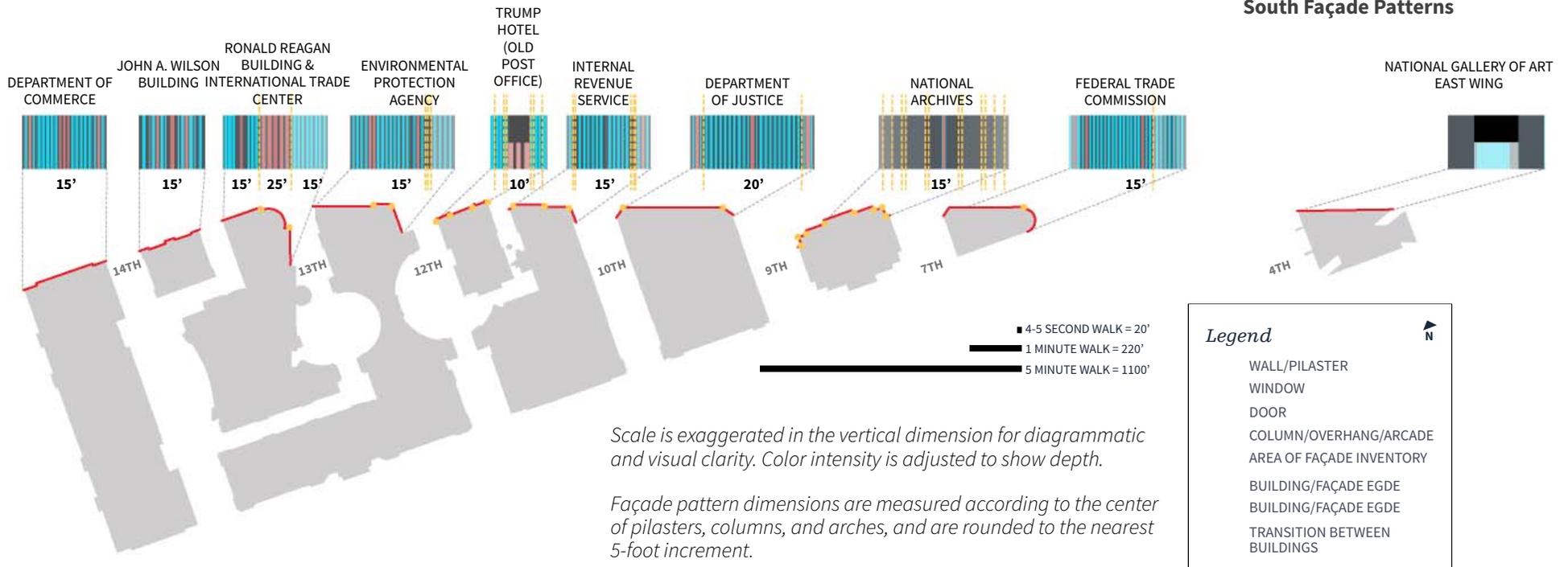


NOT TO SCALE

## North Façade Patterns



## South Façade Patterns



## Analysis

**North of the Avenue:** The rhythm of the façades is irregular. Historic structures with façade patterns as small as five feet on center are adjacent to Modern office buildings with façade patterns as large as 30 feet on center.

McMillan era buildings designed in the Beaux-Arts style, such as the Evening Star and Willard Hotel, have relatively narrow façade patterns of approximately 15 feet on center between columns or windows, which engage pedestrians.

Victorian era buildings such as the Matthew Brady Studio and National Bank of Washington have the narrowest façade patterns at five feet and 10 on center, respectively. These structures have frequently spaced windows and doorways, which engage pedestrians. Historic building façade materials include stone and glass, and generally have less ground floor transparency than Modern buildings. Because of their small spacing between façade elements, historic structures meet the Gehl criteria for providing visual interest to pedestrians.

Modern buildings have larger structural spans, demarcated by reinforced concrete columns generally spaced 20 to 30 feet on center. Ground floor ceiling heights vary from building to building and overhangs and arcades vary the projection and depth of the building façade elements. Modern building façade materials include large quantities of glass, concrete, and occasionally stone, applied in simple façade patterns. Because of their larger spacing and simple, unarticulated façades, Modern buildings do not meet the Gehl criteria for providing visual interest to pedestrians. Postmodern buildings also have larger structural spans; however, there is more complexity and variation in the façade pattern than in Modern or Neoclassical buildings.

**South of the Avenue:** Federal Triangle buildings have regular rhythmic façades with columns generally spaced 15 to 20 feet on center. Limestone columns express this rhythm most strongly on the upper stories (floors three through five), the rhythm continues down to the building base, but expressed through window placement. Windows are deeply set within heavy limestone masonry walls, which generally have less ground floor transparency than Modern buildings. The façade composition of columns above a monolithic base is indicative of Neoclassical architectural style.

Federal Triangle buildings are typically set back from the street 15-20 feet and separated from sidewalks by building yards and light wells; this reduces pedestrians' perception of façade pattern and rhythm. The Federal Triangle buildings fall within the Gehl criteria for providing visual interest to pedestrians. Yet, the regularity of column and window spacing and the consistency of material add to the monotony of the façades.

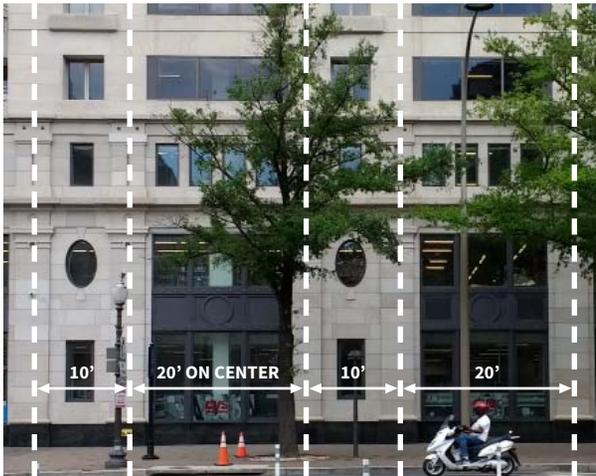
The Old Post Office is an exception to this general rule. Towers, typical of Victorian era architecture, bracket the east and west ends of the building. The center has three large stone archways behind which grand staircases lead to the building entry. Therefore, the Old Post Office adds diversity of style and pattern to the southern street wall.

## Issues

- The Avenue's north side fosters an unsuccessful pedestrian experience because façade elements are widely spaced, despite greater variation in pattern and material.
- The Avenue's south side is unsuccessful because building yards and light wells separate pedestrians from building façades, and the façade pattern and material is highly regular and monotonous, despite closer spacing between façade elements.

## North Façade Patterns

**PENNSYLVANIA BUILDING**



The Pennsylvania Building has more variation and complexity in façade pattern. Large windows at the ground level provide transparency and visual interest.

**FBI HEADQUARTERS**



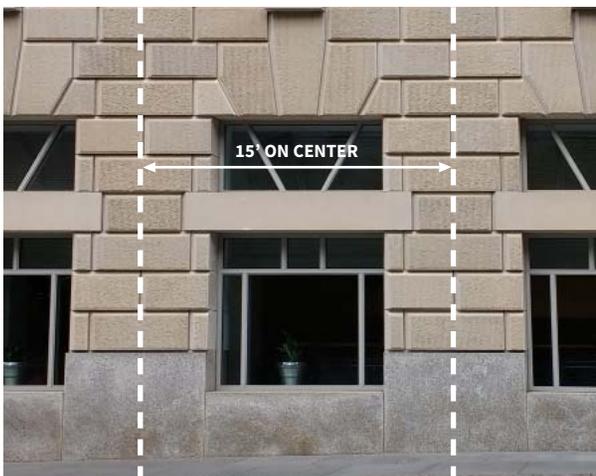
Large bays with concrete columns impose a regular pattern on the FBI Headquarter's opaque, dark granite façade. The long spacing and simple detail do not capture pedestrian interest.

**NATIONAL COUNCIL OF NEGRO WOMEN**



The National Council of Negro Women Building has the shortest façade pattern on the Avenue. Large storefront windows provide transparency and visual interest. Spacing meets Gehl criteria for desired frequency of visual stimuli.

**RONALD REAGAN BUILDING AND INTERNATIONAL TRADE CENTER**



The regular pattern and monotonous material palette is not visually interesting. While there is transparency at the ground level, activities inside the building do not activate the façade.

**NATIONAL ARCHIVES**



The National Archives is opaque at the ground level, and blank, except for bas-reliefs and sculptures. This plinth supports regularly spaced columns and windows, but both are elevated, and above pedestrian visual range.

## South Façade Patterns

**ENVIRONMENTAL PROTECTION AGENCY**



Smaller windows are elevated from the ground level, and covered with blinds. The façade is separated from the sidewalk by the building yard and lightwell. The regular pattern and monotonous material palette is less visually interesting.

Appearance of measurements is based on proximity of the viewer to the building façade.

# Placemaking | Architecture | Access to Active Building Frontage

## Introduction

**Access to Active Building Frontage:** Architectural design influences the function, performance, and physical relationships between buildings and public space. A collection of buildings with well-designed ground floors and access to active building frontages directly affects the variety and number of users who frequent the area, whether they are visitors, workers, or residents. It influences people's choices and behavior, such as travel distance, time spent on the street, walk speed, and if people linger or are destination bound. Active areas have the most access to building frontages; these are primarily where there is a strong programmatic and physical relationship between the building frontage and public space.

## Context

For the purposes of this analysis, the phrase 'access to building frontage' refers to the ease of building entry for a pedestrian.

When examining access, one must also consider whether building frontages are active and include a variety of ground floor uses that offer the public multiple things to do and encourage activity. While not absolute, it is desirable to be near amenities, such as transit nodes, points of interest, shaded seating, or other activities. Physical characteristics that promote access to building frontages include:

- › Orientation of building front and entrances aligning with public space
- › Ground floor connection to public space
- › Short façade length and high transparency to provide visual depth
- › Architectural detailing or interest at the pedestrian level
- › Multiple, legible, and easy access to building entrances
- › Clear building signage that communicates public interior uses such as retail

## Analysis

The most dynamic and active nodes at 7th Street (near Market Square) and 14th Street (near the Willard Hotel) have access to active building frontages. Each includes a diverse mix of uses with ground floors that front on the street.

Retail signage balances legibility with preservation of historic character. These active nodes are located near visitor destinations, transit, and public amenities.

To the north, between 9th and 14th Streets, there is little diversity of uses. While many building frontages are transparent, their ground floors are relatively inactive. Retail/service uses are limited and their intermittent spacing diminishes the perception of street activity. Restaurants with seasonal outdoor seating are typically located at building corners. The modern building frontages are long and lack detail or architectural interest. Building entrances are recessed, and signage is limited. To the south, the Federal Triangle's large blocks, long building frontages, restricted access, and perimeter security features create real and perceived barriers along and across the Avenue and between the National Mall and downtown. While architectural detail provides visual interest, the lack of ground floor uses and access causes pedestrians to take another route or to bypass the area.

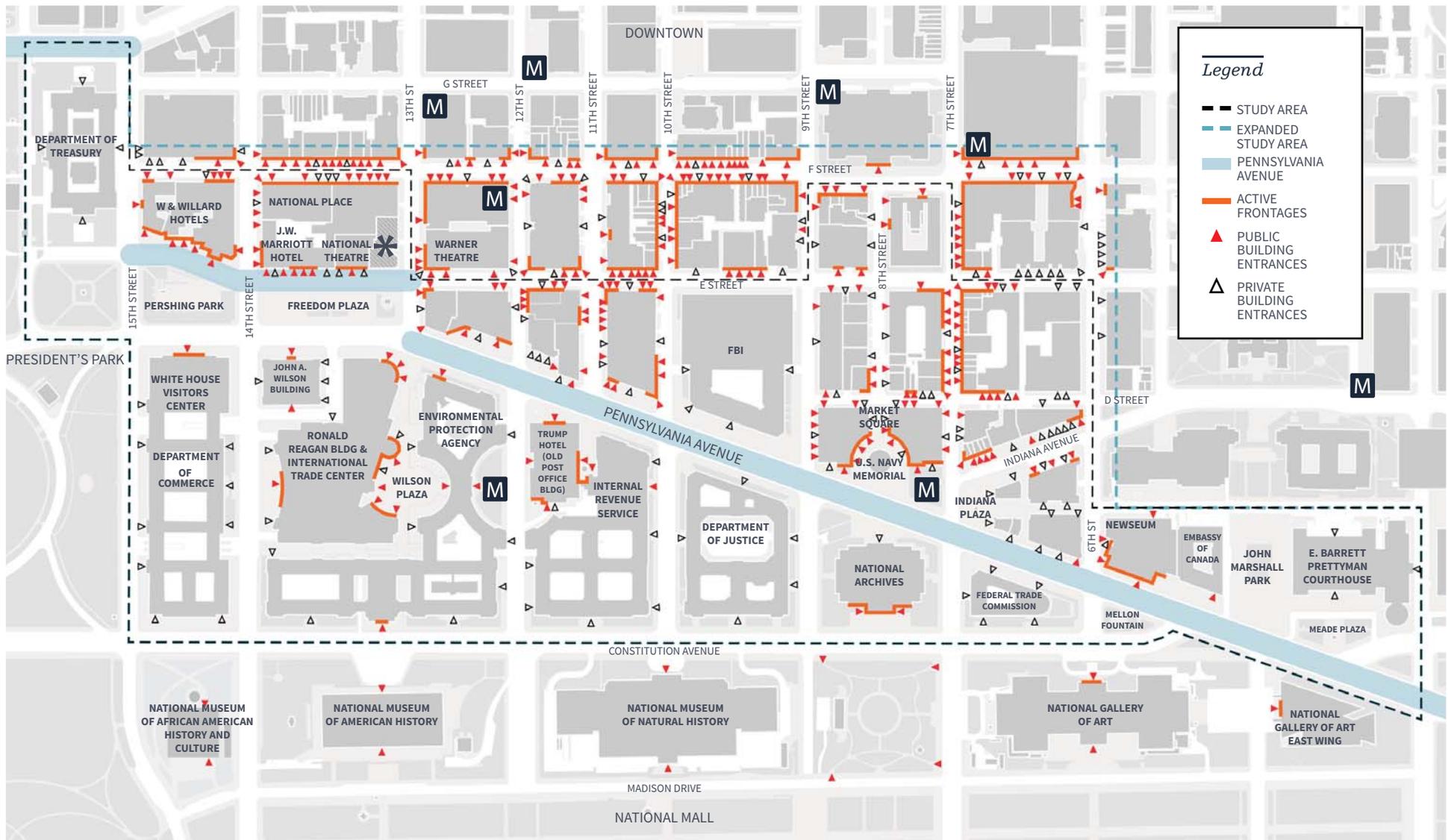
Building orientation is a challenge to activation in several locations. Parks and plazas are difficult to activate because there is no access to active building frontage along them. For example, Marshall Park has no direct public access to the Prettyman Federal Courthouse or the Canadian Embassy. In addition, the benefit of some major destinations (such as National Archives and National Gallery of Art) is diluted because they do not have active building frontages on the Avenue.

The Avenue does not have a building signage program for retail and commercial use that effectively balances the Avenue's historic character with businesses' visibility needs.

## Issues

- To the north, long building frontages, recessed entrances, opaque windows, and lack of architectural detail and building signage prevent active ground floor access and deter pedestrian activity.
- To the south, building design and block configuration affects connectivity. The long building frontages, limited and restricted building entrances, limited interior public use, and perimeter security deters pedestrian walkability and activity.

# Access to Active Building Frontage



\* NOT INCLUDED IN STUDY AREA



Location of building entrances and areas of accessible frontages based on winter 2017 field observation.

## Introduction

**Landscape Architecture:** A rich set of planning legacies shapes Pennsylvania Avenue’s urban landscape. L’Enfant designed the Avenue as an important physical and symbolic connection between the President’s House and the Peoples House. Embraced by the country’s leaders, L’Enfant’s vision of a magnificent avenue provided the framework evolving it into the grand civic space that it is today.

Subsequent plans have honored the principles of the L’Enfant Plan to preserve its character defining qualities. The Federal Triangle, the largest example of a City Beautiful civic complex in the nation, is one of the crowning achievements of the McMillan Plan. The monumental government complex sets buildings within yards to respect the Capitol vista. The 1974 Pennsylvania Avenue Plan aspired to revitalize this area of the city by reinforcing key L’Enfant Plan principles, responding to the monumentality of the Federal Triangle, and unifying the composition of the Avenue with a magnificent landscaped boulevard reminiscent of European promenades. More information about how planning legacies shaped Pennsylvania Avenue’s landscape architecture is located in the Historic Evolution Section.

The foundation of the 1974 Plan’s landscape includes a unified streetscape design—inclusive of custom designed pavers and furnishings—that link five parks and plazas, each with their own individual character. The NPS 2016 Cultural Landscape Inventory identified that the important aspect of the Avenue’s cultural landscape character is the ‘unified’ streetscape. In particular, the streetscape unifies the Avenue’s varied sidewalk and building conditions and links the Avenue’s parks and plazas. These parks and plazas provide a spatial sequence that breaks the regularity of the streetscape, creating a rhythm along the Avenue.

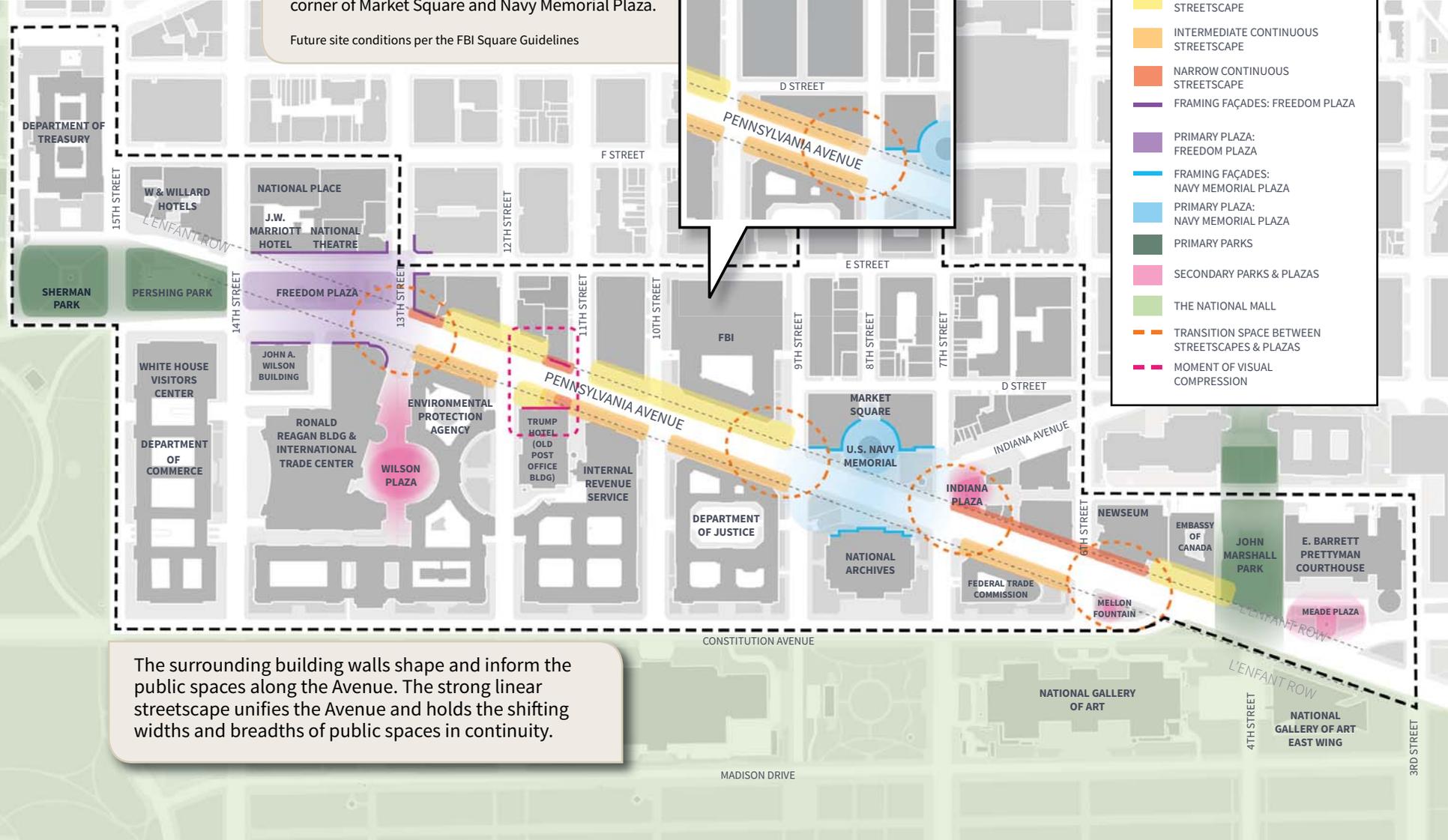
**Landscape Framework:** The landscape’s qualities and details are organized by the following elements:

- › *Primary Parks & Plazas* are larger stand-alone spaces framed by buildings. The design of each park or plaza reflects its individual design and use.
- › *Secondary Parks & Plazas* are smaller open spaces located at prominent locations in or near building yards, or open spaces located within a publicly accessible courtyard.
- › *Special Features & Amenities* include commemorative elements, fountains, and amenities such as public seating.
- › *Unified Streetscape* includes the sidewalks, trees, furnishings, pathways, and programmable space that connect the parks and plazas.
- › *North-South Connectivity* analyzes the Avenue’s relationship to the intersecting numbered streets through changes in its character and quality.

**FBI Note:** The intermediate streetscape transitions between the wide streetscape and the western corner of Market Square and Navy Memorial Plaza.

Future site conditions per the FBI Square Guidelines

- Legend**
- STUDY AREA
  - WIDE CONTINUOUS STREETScape
  - INTERMEDIATE CONTINUOUS STREETScape
  - NARROW CONTINUOUS STREETScape
  - FRAMING FAÇADES: FREEDOM PLAZA
  - PRIMARY PLAZA: FREEDOM PLAZA
  - FRAMING FAÇADES: NAVY MEMORIAL PLAZA
  - PRIMARY PLAZA: NAVY MEMORIAL PLAZA
  - PRIMARY PARKS
  - SECONDARY PARKS & PLAZAS
  - THE NATIONAL MALL
  - TRANSITION SPACE BETWEEN STREETScapeS & PLAZAS
  - MOMENT OF VISUAL COMPRESSION



The surrounding building walls shape and inform the public spaces along the Avenue. The strong linear streetscape unifies the Avenue and holds the shifting widths and breadths of public spaces in continuity.



Source: NCPD

# Placemaking | Landscape Architecture | Park & Plaza Style



Pershing Park - Modern



John Marshall Park - Modern



Freedom Plaza - Postmodern



Navy Memorial - Postmodern

## Introduction

**Primary Parks & Plazas:** Primary parks and plazas are distinguished by their larger size, strong urban frame formed by street walls, unique use, character, experience, and frontage on Pennsylvania Avenue.

Primary Parks and Plazas designed or re-designed during the PADC era are:

- › Pershing Park
- › Freedom Plaza
- › U.S. Navy Memorial Plaza
- › John Marshall Park

## Context

The parks and plazas planned and built during the 1970s to 1980s have distinct design expressions and styles:

Modern landscapes such as Pershing Park (1979-1981) and Marshall Park (1983) anchor the Avenue's west and east ends, roughly marking the locations of the original L'Enfant Plan's Western and Eastern Plazas. Their style is comprised of strong, simple geometric landscape forms, which transition

grades and mark distinct spaces within and connecting to adjoining public spaces, for example, Pershing Park transitions to Sherman Park to the west and Freedom Plaza to the east. Marshall Park transitions to Judiciary Square to the north.

Postmodern landscape architecture seeks a pluralistic approach embracing multiple users and often integrating architecture, landscape, and public art. For example, Freedom Plaza (1980-1982) is designed to replicate a portion of L'Enfant's plan for Washington, DC in miniature. Reconstructing cultural references from the past is a fundamental Postmodern expression. The design is best comprehended from an elevated view, such as from the Old Post Office Tower.

The U.S. Navy Memorial Plaza (1987) is an example of a more traditional public space designed in conjunction with the Market Square development, which curved the building façades to form and cradle a central public space. Landscape walls and fountains separate spaces, create seat walls, and provide a canvas for bas-relief sculptures depicting naval operations as part of the U.S. Navy Memorial.



*Mellon Fountain - Neoclassical*



*Grand Army of the Republic Memorial at Indiana Plaza*



*Ben Franklin Statue at the Old Post Office*



*Wilson Plaza - Postmodern*

## Introduction

**Secondary Parks & Plazas** are smaller in scale, located at prominent settings in or near buildings yards, open spaces located within a publicly accessible courtyard, or are removed further off the Avenue. Secondary parks and plazas include:

- › Wilson Plaza
- › Ben Franklin Plaza
- › Indiana Plaza
- › Mellon Park & Fountain
- › Meade Plaza

## Context

The secondary parks and plazas have distinct design expressions and styles.

Neoclassical landscape style is exemplified at Mellon Park. Although built in 1952, its design is compatible with Federal Triangle's architecture. PADC later renovated the landscape. In 2017, the National Gallery of Art restored the fountain and landscaping. Popular during the City Beautiful era, the Neoclassical reflects a formal geometry defined by hedges, linear allées, and walls. Fountains and seating relied upon symmetry, balance, and elegance of detail.

Modern landscapes include several small plazas renovated during the 1970s and 1980s to provide places for respite with shade trees, seating, and monuments just off the Avenue. For example, Indiana Plaza (1987-1990) closed C Street and relocated monuments to shape spaces and views. Meade Plaza, located in front of the U.S. Courthouse, contains a monument of Major General George C. Meade.

Postmodern landscape design is found in front of the Old Post Office. A special pavement design by Aleksandra Kasuba (1981) and a relocated statue of Ben Franklin are key features in this small plaza. Wilson Plaza (1998) is another example of a Postmodern design that links the historic Federal Triangle buildings and the new Ronald Reagan Building and International Trade Center.

More information about primary and secondary parks and plazas is in the Chapters on Land Use and Character Areas and in the Pedestrian Life Study.

## Issues

- The Avenue's mix of Modern and Postmodern landscapes and cultural expression is not as diverse as the Avenue's architectural expression.
- The Avenue's streetscape physically unifies the differently styled parks and plazas, which provide respite and diversity along the Avenue's length.

# Placemaking | Landscape Architecture | Park & Plaza Design & Use



Navy Memorial



John Marshall Park



Freedom Plaza



Pershing Park

## Introduction

The Avenue's parks and plazas have different designs, influencing their character, use, and performance as public spaces. The following analysis describes and assesses the design and use of the primary and secondary parks and plazas. Sun and shade addresses how the pedestrian use and experience changes seasonally due to shifts in temperature, daylight, and weather.

## Analysis

**Primary Parks & Plazas:** Overall, the Avenue's primary parks and plazas are generously sized, provide relief from the urban environment, and offer public spaces that function well for civic activities.

The U.S. Navy Memorial at Market Square is part of a mixed-use development, near a Metrorail station, with restaurants with outdoor dining along the northern edge, and other public amenities and services. The diverse uses, access to active building frontages, and programmed activities, keep the plaza activated throughout the day and evening and over multiple seasons.

Several primary parks and plazas have less successful relationships between their public spaces and adjacent building uses and orientation. Adjacent uses are often governmental office or civic institutions, which are only open during work hours. Limited hours of operation and closed-off relationships

to public spaces lead to inactive parks and plazas on nights and weekends, and limited pedestrian circulation and activity. For example, John Marshall Park is underused because surrounding courthouse and embassy entrances are located elsewhere, there are no public ground floor uses, and adjacent buildings only have daytime operations.

Freedom Plaza's expansive hardscaped plinth provides no shade or sense of enclosure. This stage-like plaza receives heavy use for special events and skateboarding, but is otherwise vacant. The Downtown Business Improvement District is strengthening Freedom Plaza's weeknight programming to increase park use to attract and engage pedestrians.

In the past, hotel patrons, visitors, and office workers came to Pershing Park because of its quiet contemplative character, with features that connected users to nature such as water elements and a diverse plant palette, and other amenities like ice skating and concessions. Today, Pershing Park's features are deteriorating and the lack of programming is leading to inactivity. Pershing Park is authorized as the site for the future National World War I Memorial, an opportunity to improve the urban park.



Wilson Plaza



Indiana Plaza



Meade Plaza

**Secondary Parks & Plazas:** Overall, the Avenue's secondary parks and plazas provide relief from the urban environment, and offer public spaces that function well for civic activities, but lack activity on a daily basis.

Visitors do not use Wilson Plaza, located adjacent to the Ronald Reagan Building and International Center, on a regular basis. Wilson Plaza's physical relationships to its surroundings exacerbate its inactivity, such as its distance from the Avenue and lack of connections to the Mall on its southern edge. Programmed events such as farmers markets help to draw activity on occasion. However, its primary use is as a lunch place for government office workers. In addition, the restaurant space facing the plaza is often vacant.

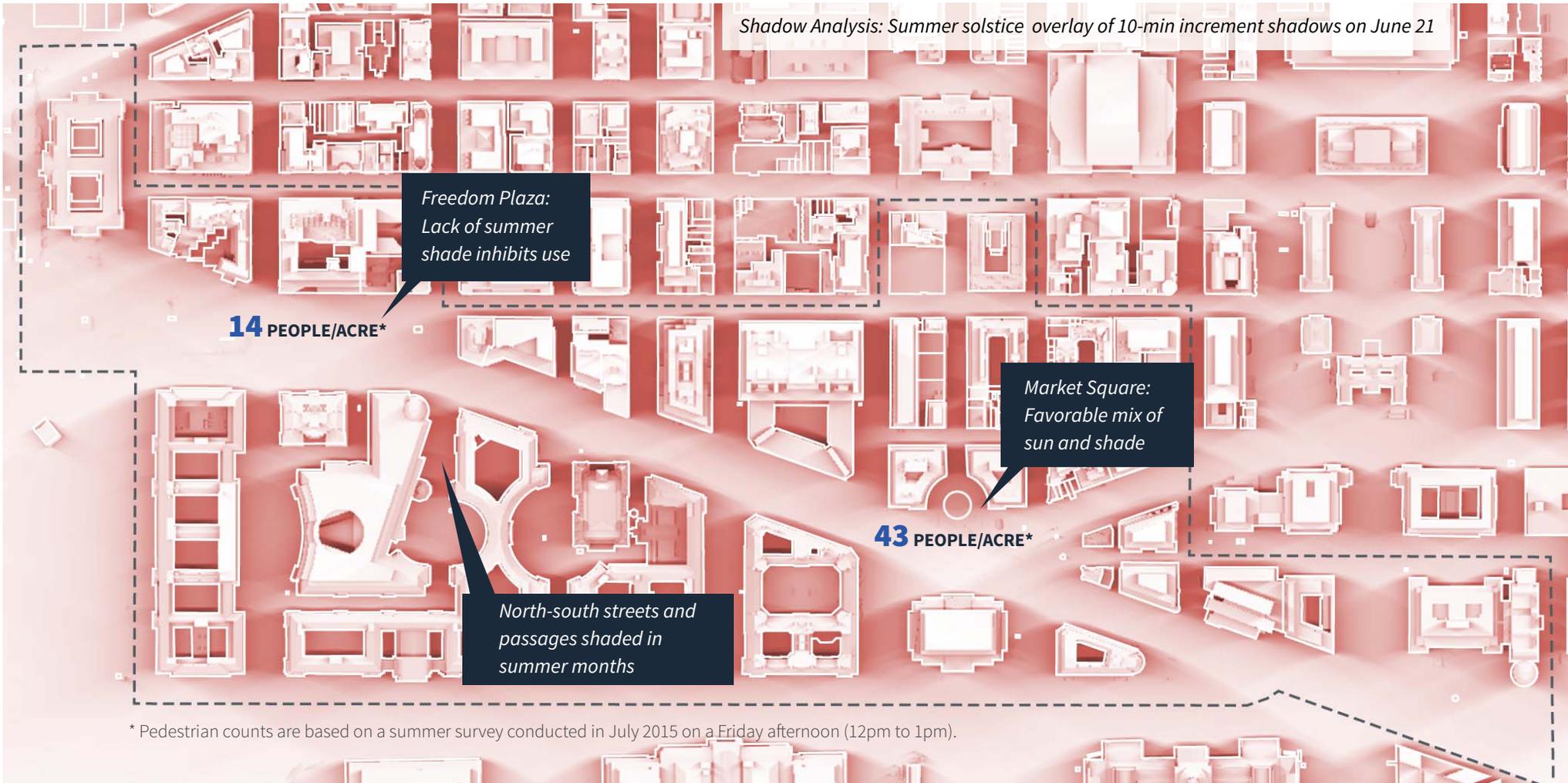
Indiana Plaza has many commemorative features, but minimal pedestrian activity on a daily basis. Meade Plaza is extremely underused; the courthouse uses and perimeter building security deter pedestrians on the Avenue from using the plaza.

The Land Use and Character Areas Chapters further describe related issues for the Avenue's parks and plazas.

## Issues

- The location of parks and plazas respond to historic plans and conditions, creating a rhythm of public spaces, each with a distinct design expression and style.
- The openness and flexibility of parks and plazas is conducive to a variety of civic activities.
- Several of the parks and plazas lack pedestrian activity on a daily basis, such as John Marshall Park and Meade Plaza, which have poor relationships to adjacent buildings, lacking access to active building frontages or ground floor uses.
- The combination of elevation changes, landscape walls, streets, and parking areas disconnect Freedom Plaza from adjacent uses. Insufficient seating and shade for pedestrian comfort discourages daily use.
- Lack of maintenance and programming deters use of Pershing Park.

# Placemaking | Landscape Architecture | Sun & Shade



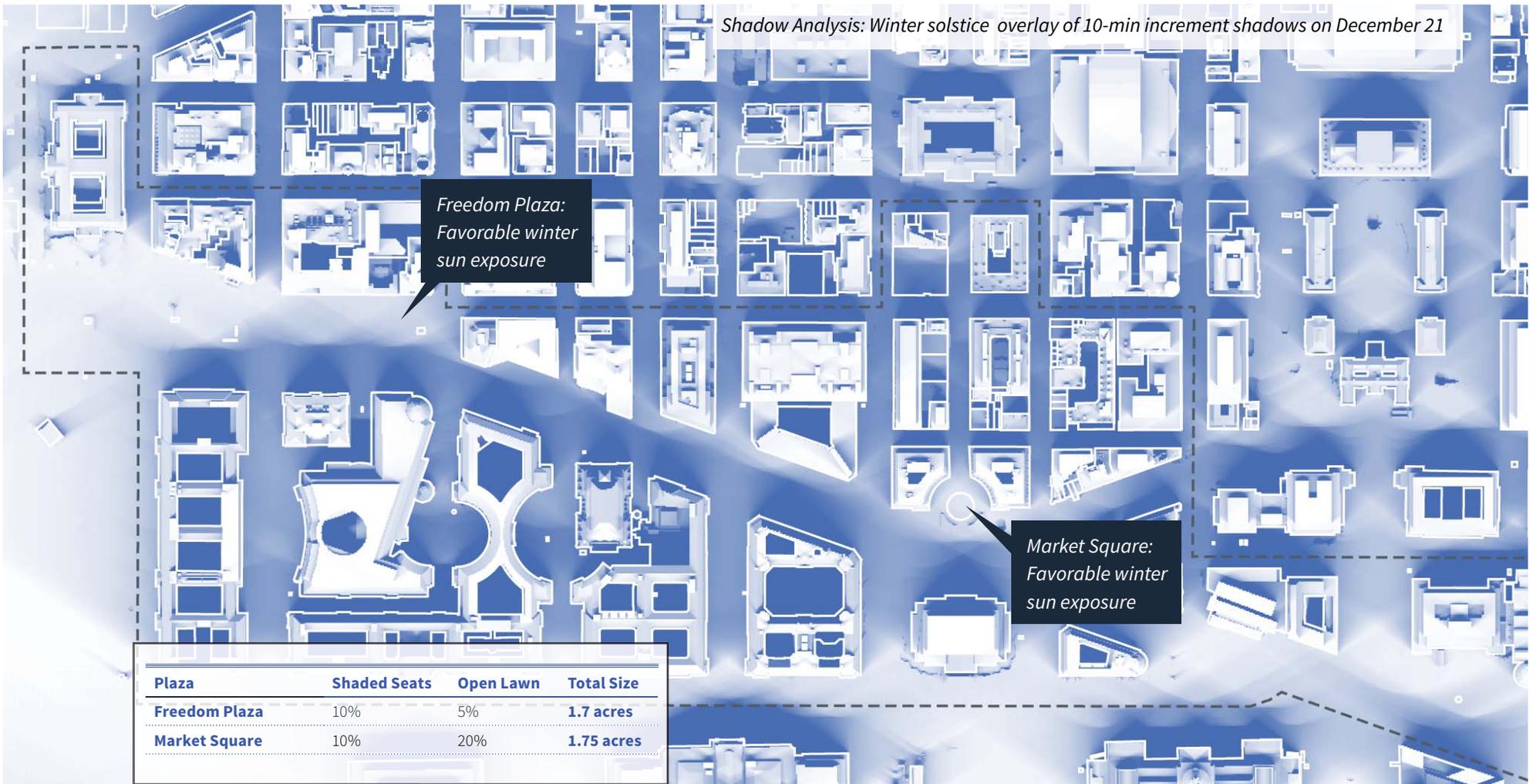
## Context

**Sun & Shade:** Sun and shade is important for creating welcoming and comfortable spaces for pedestrians in parks and plazas. Sun and shade along the Avenue's sidewalks is important for providing a comfortable pedestrian environment. This micro-climate can be created by canopy trees, building shadows, and umbrellas, or other similar structures.

## Analysis

Among the variety of the primary parks and plazas, sun and shade is available to comfort the user at different times of year. However, the general design of the individual parks and plazas do not offer an optimal balance of sun and shade for users. For example, Freedom Plaza has limited areas to sit in the shade during the hot summer months. Whereas Pershing Park and Navy Memorial Plaza offer some shady seating choices. Secondary parks and plazas adjacent to the Avenue, such as Wilson Plaza, provide pockets of sun and shade and create diversity and interest along the Avenue's sidewalks.

Shadow Analysis: Winter solstice overlay of 10-min increment shadows on December 21



Freedom Plaza:  
Favorable winter  
sun exposure

Market Square:  
Favorable winter  
sun exposure

Overall, the Avenue’s sidewalks provide the shade necessary for pedestrian comfort. Generally, the north side of the Avenue is sunnier and more welcoming because of the ample sunshine. It is more comfortable in the cooler months; however, it is often too hot during the summer months, except for the locations where there are multi-rows of canopy trees and cafe umbrellas that can offer relief. The Avenue’s south side sits within the shadow of the buildings and under the canopy of trees. The sidewalk is in dense shade, which is more desirable during the summer heat. The south side’s darkness can sometimes feel uninviting, especially when streetlights aren’t maintained and there are few pedestrians present.

### Issues

- Some of the Avenue’s parks, plazas, and sidewalks do not have an optimal seasonal balance of sun and shade.



Temperance Fountain in Indiana Plaza



Ceremony at Navy Memorial Plaza



Sculpture of Man Controlling Trade at FTC building

## Introduction

**Special Features & Amenities** are critical to placemaking, activating public space, providing interest and character, and creating destinations for visitors. Many features relate to the Avenue's special role as a capital city symbol of strength, culture, and democracy.

## Context

Special features within parks and plazas display commemoration and history, enliven spaces with elements such as fountains, and provide public amenities such as seating and shade. The following map and table inventory the special features and commemorative works within the study area.

## Analysis

The Avenue has a wealth of individual commemorative features that convey national history and meaning. However, the Avenue lacks a unifying theme that tells a cohesive narrative.

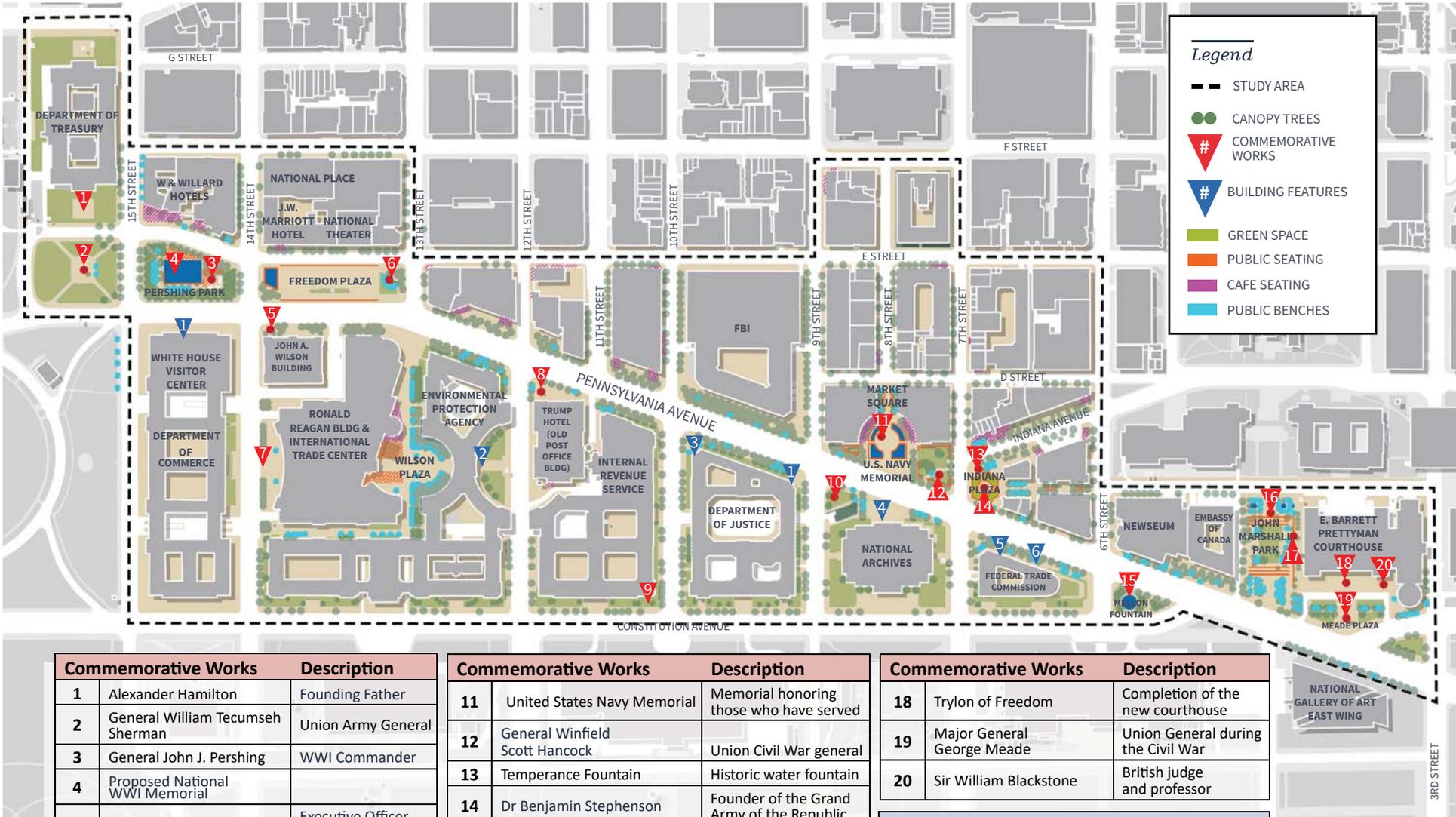
Many Federal Triangle buildings have elaborate sculptures, bas-reliefs, and inscriptions within building yards or on building façades. These special features contribute to the historical narrative along the Avenue. In addition, within Federal Triangle buildings, WPA-era sculptures and murals depict defining influences and historical events that shaped our nation's history.

The Avenue's sidewalks, parks, and plazas need more public amenities such as drinking fountains, restrooms, fixed and moveable seating, and shade to better support daily and civic activities.

## Issues

- The Avenue has an array of individual special features, but the Avenue lacks a cohesive narrative and public amenities to support use of the public realm.

# Special Features & Amenities



Commemorative Works	Description
1	Alexander Hamilton Founding Father
2	General William Tecumseh Sherman Union Army General
3	General John J. Pershing WWI Commander
4	Proposed National WWI Memorial
5	Alexander Robey Shepherd Executive Officer - Public Works
6	Count Casimir Pulaski Polish Nobleman
7	Oscar Strauss First Career Diplomat
8	Benjamin Franklin Founding Father
9	Captain Nathan Hale Revolutionary War Army Officer
10	President Franklin Delano Roosevelt 32nd President of the United States

Commemorative Works	Description
11	United States Navy Memorial Memorial honoring those who have served
12	General Winfield Scott Hancock Union Civil War general
13	Temperance Fountain Historic water fountain
14	Dr Benjamin Stephenson Founder of the Grand Army of the Republic
15	Andrew Mellon Memorial Fountain Industrialist, financier, philanthropist, ambassador
16	Chief Justice John Marshall American statesman
17	The Chess Players Favorite pastime of John Marshall

Commemorative Works	Description
18	Trylon of Freedom Completion of the new courthouse
19	Major General George Meade Union General during the Civil War
20	Sir William Blackstone British judge and professor

Building Features	Description
1	Commerce Building inscription
2	EPA Building sculpture and bas relief
3	Justice Building inscription and bas relief
4	Past & Prologue Allegorical sculptures
5	Commerce-themed sculptures Bas reliefs
6	Man Controlling Trade Allegorical sculptures



Source: NCPC

## Introduction

**Unified Streetscape:** Today, the unified streetscape and Capitol vista are the defining characteristics of the Pennsylvania Avenue streetscape experience. The Avenue's unified streetscape, radiating on axis from the Capitol, creates a civic quality and scale unlike any other street in the city.

The unifying streetscape elements, including the allées of large willow oak trees, create a grand scale, provide ample shade, and frame views to the Capitol.

NPS's 2016 Cultural Landscape Inventory documents the original streetscape vocabulary as consisting of a suite of custom-design street furniture, multiple rows of willow oak trees, decorative and concealed lighting, and sidewalks paved with brown square pavers laid on a diagonal and edged with a soldier course. In concert with the NPS Cultural Landscape Inventory, the 2014 NPS Management Plan describes how to care for this unique landscape. For more information, see the Resources Section in the Appendix.

This section will describe and analyze the Avenue's streetscape program or allocation of sidewalk uses, including:

- › Healthy trees (and buffer space)
- › Furnishings
- › Pedestrian paths
- › Daily and civic activity zones

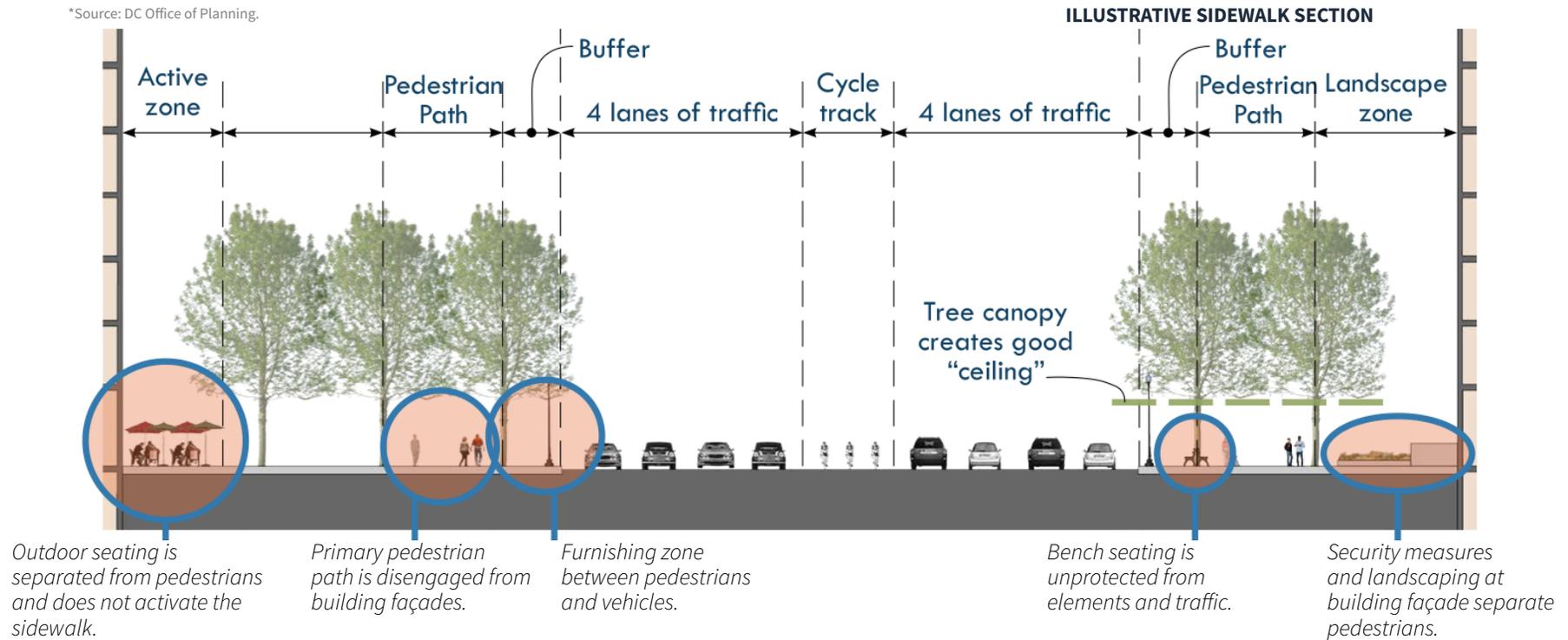
The following pages provide detailed descriptions of these elements.



*Avenue streetscape and tree canopy*

# Placemaking | Landscape Architecture | Sidewalks

\*Source: DC Office of Planning.



## Context

**Sidewalks:** The Avenue’s sidewalks vary in width, between approximately 26 feet and 80 feet. The majority of the Avenue’s sidewalk widths are between 42 and 57 feet wide. The widest sidewalks occur on the Avenue’s north side where the 1974 Plan established a 50-foot setback from the historic ROW. The narrowest sidewalks occur where historic buildings are constructed on the historic ROW.

## Analysis

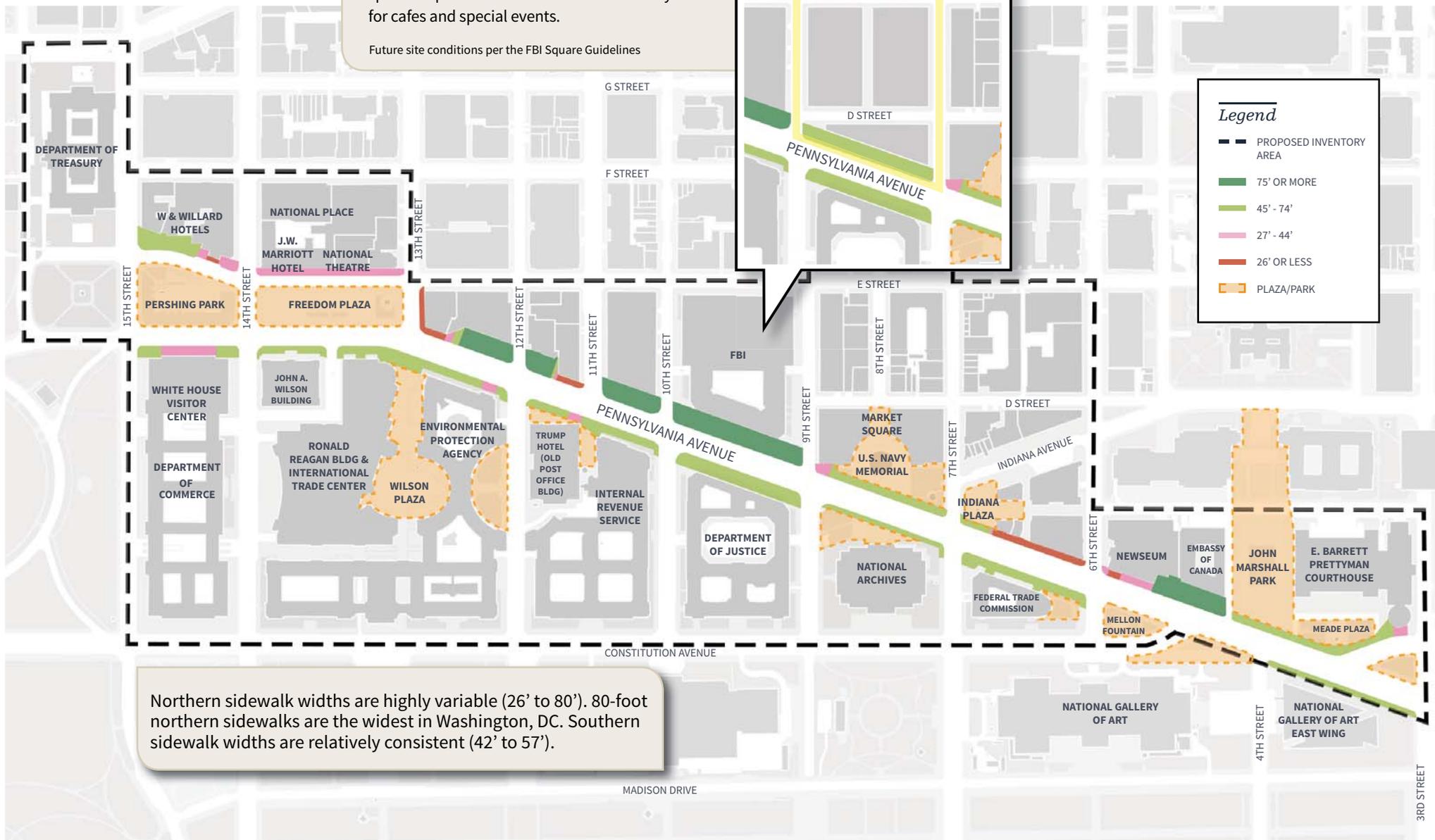
Even though the Avenue has different sidewalk widths, it maintains a strong unified character due to its consistent palette of custom designed streetscape elements.

Overall, the Avenue’s generous sidewalks provide space for trees, furnishings, pedestrian circulation, daily activities, and large special events, and contribute to the Avenue’s character and walkability. However, not all sidewalk widths (such as the 26-foot wide sidewalks) can accommodate these streetscape elements, uses, and activities.

The widths of the northern sidewalks are more variable in size and character than the southern sidewalks. The widest sidewalks (approximately 80 feet wide) accommodate the streetscape’s program elements, but lack spatial definition and ground level enclosure for pedestrians, resulting in the sidewalks seeming too large for its use. The excessive distance between pedestrian zones and building façades hinders pedestrian engagement and deters interest.

**FBI Note:** The Square Guidelines maintain sidewalk space for pedestrian circulation and activity zones for cafes and special events.

Future site conditions per the FBI Square Guidelines

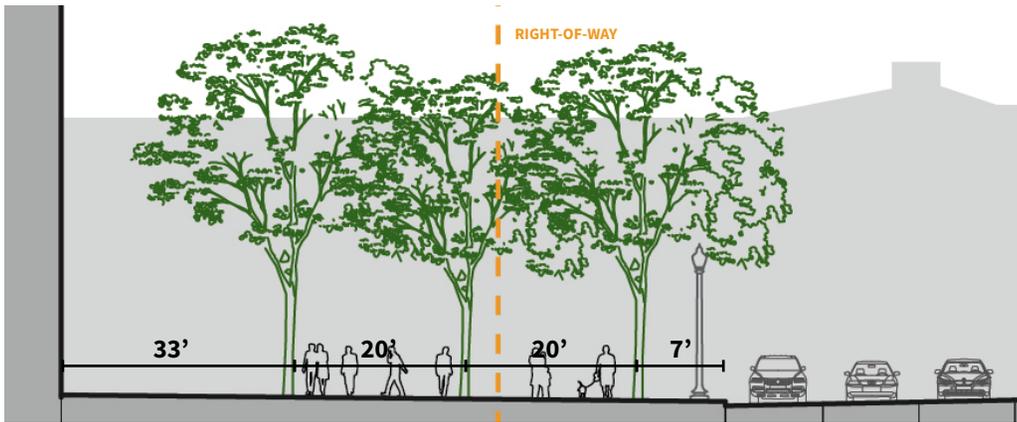


Northern sidewalk widths are highly variable (26' to 80'). 80-foot northern sidewalks are the widest in Washington, DC. Southern sidewalk widths are relatively consistent (42' to 57').

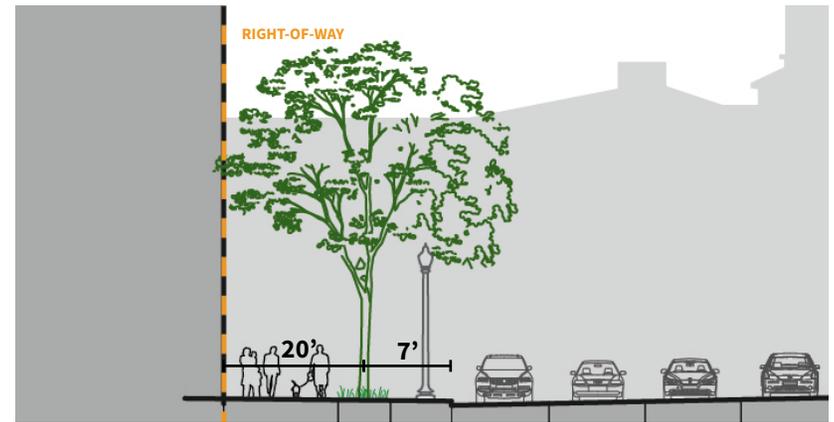
Sidewalks adjacent to plazas and parks are shown as the perceived pedestrian width. Dimensions are based on GIS data.



# Placemaking | Landscape Architecture | Healthy Trees



Fifty-foot setbacks on the north side of the Avenue create space for three rows of trees, spaced 20 feet on-center.



Curbside row of street trees located seven feet from the curb edge to promote canopy growth and minimize vehicle conflicts.

## Context

**Healthy Trees:** The linear arrangement of willow oak trees are a defining feature of the Avenue's landscape which unifies the street, frames the Capitol vista, and builds on L'Enfant's intent for double rows of trees lining the Avenue.

The original PADC design planted more than 500 trees on the Avenue. Depending on the buildings' distance either from the curb, one row, or up to three staggered rows of trees were planted, spaced 20 feet on-center. The tree row adjacent to the cartway is setback seven feet from the curb to support healthy canopy growth and parade viewing. Trees are large, relatively healthy, and reaching maturity, but replacements with small young trees are noticeably different.

The allees of willow oaks provide dappled shade with the overhanging canopy creating a gentle ceiling enclosing pedestrians along the sidewalk. While at one time linden trees were considered, the willow oaks provide a broader, more cathedral-like canopy cover for sidewalks; an "arbor-cade" intended to be 10 feet high. Willow oaks have a fine, narrow, willow-like, or spear-shaped leaf structure that provides a lighter feathery feel to the canopy. They also have a strong central-leading trunk, which provides a colonnade-like effect. The trees are planted in staggered rows to provide sufficient density and mass. At night, the lights shine on the tree canopy foliage to create a luminous plane.

When planted, tree grates were installed, which were designed to be removed. Over time as the trees grew, some grates that were not removed began to choke the base of the tree; many of the grates have been removed. Below grade, the tree pits provide a larger space for root growth than was typical in the 1980's, though the space is impacted by more than three decades of compaction and root growth. New willow oak replacements must live within the roots of the old tree, as a process was never developed for proper removal.

## Analysis

The Avenue's tree canopy provides pedestrians with a comfortable, intimate sense of scale.

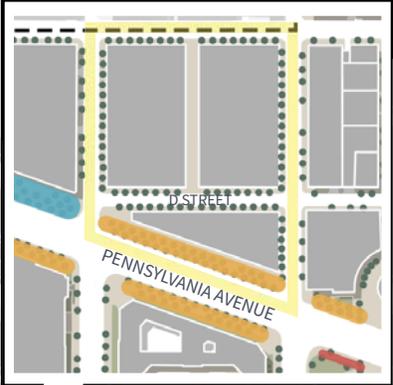
Sidewalks with a single row of trees, such as in front of the Evening Star building and 600 block do not provide a sense of enclosure as compared to areas with multiple tree rows. Sidewalks with a single row of trees, typical of most Washington streets, would not set the Avenue apart.

The PADC streetscape design relies on the tree canopy to frame vistas uniformly.

The north side is more welcoming and comfortable, with sun filtering through the tree canopy. The south side can be dark and too shady because of shade cast by buildings. The planted building yards limit the continuity of the paved public space.

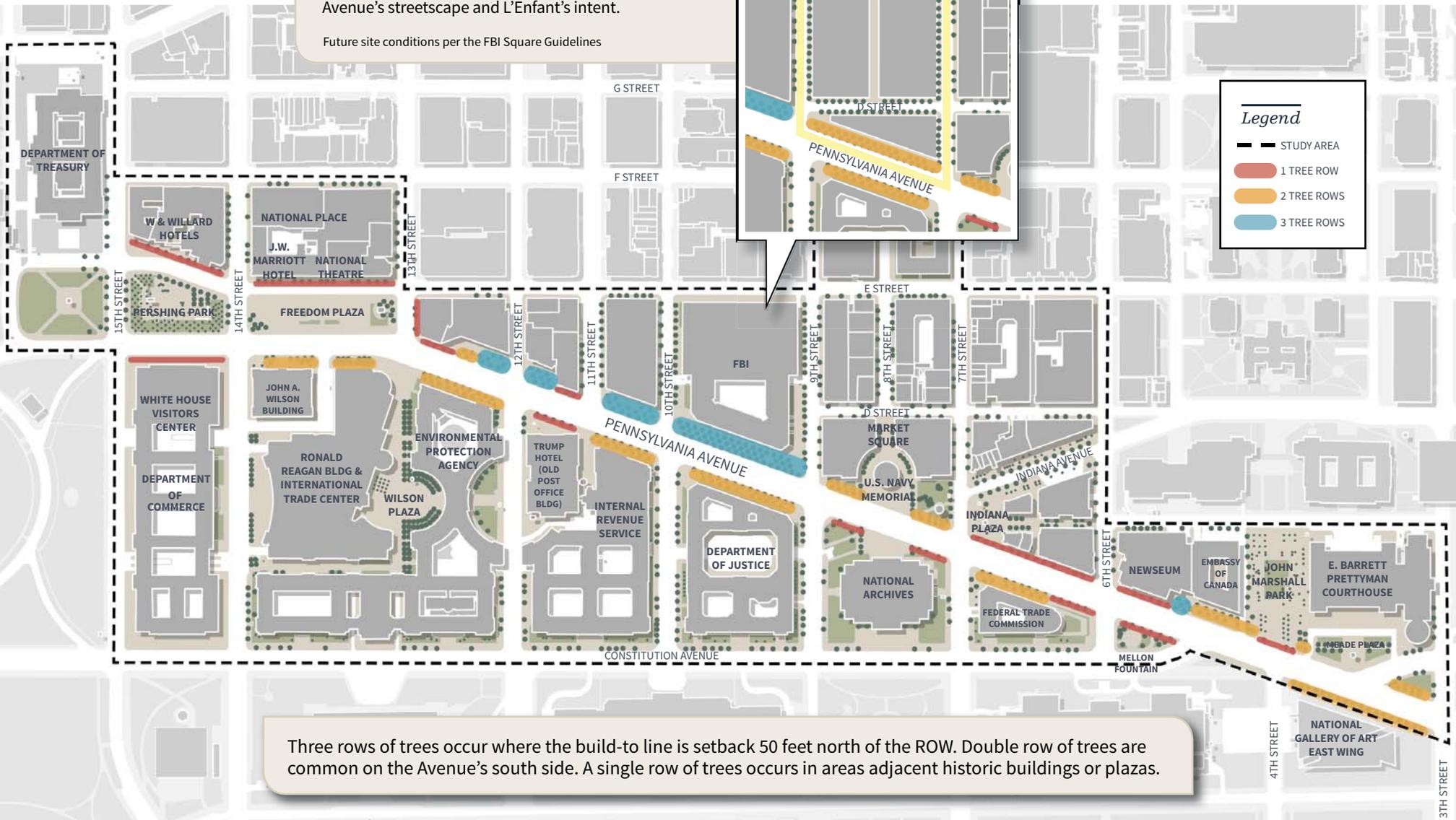
**FBI Note:** The Square Guidelines maintain at least a double row of mature trees, to be consistent with the Avenue's streetscape and L'Enfant's intent.

Future site conditions per the FBI Square Guidelines



**Legend**

- STUDY AREA
- 1 TREE ROW
- 2 TREE ROWS
- 3 TREE ROWS



Three rows of trees occur where the build-to line is setback 50 feet north of the ROW. Double row of trees are common on the Avenue's south side. A single row of trees occurs in areas adjacent historic buildings or plazas.



# Placemaking | Landscape Architecture | Furnishing



Brown square pavers and typical wooden bench



Tree grate and metal bench



Pedestrian scale light fixture and eagle-topped Washington globe



Water fountain

## Context

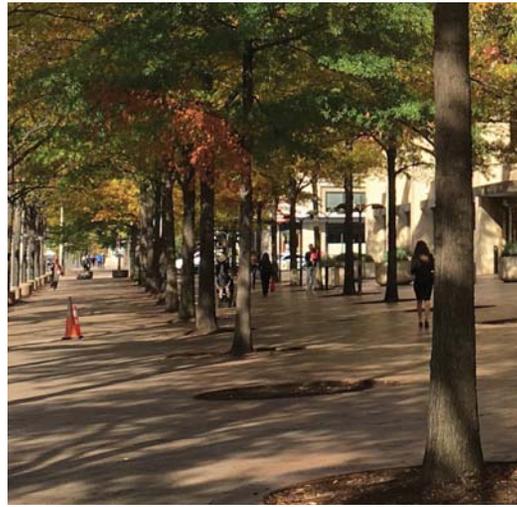
**Furnishing:** The suite of custom furnishing, lights, and paving provide a unique character to the Avenue's palette of materials.

The PADC developed custom-designed furnishings, which included:

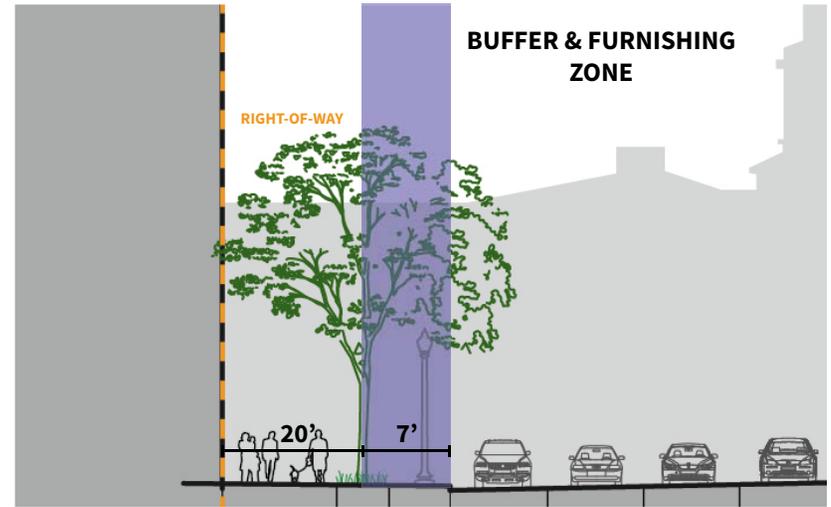
- › Benches, fire hydrants, emergency call boxes, newspaper stands, bus shelters, and telephone stands designed by Sasaki and Associates.
- › Tree grates with removable concentric rings designed by craftsman Albert Paley.
- › Water fountains and trash cans designed by PADC staff.
- › The cast iron furnishings were painted in three basic colors, brownish gray, deep brown, and bronze to define their design family.

**Lighting:** The PADC design for the light fixtures was meant to be a cascading "necklace of lights" from the taller vehicular cobra lights and decorative globe streets lights down to lower pedestrian lights, designed by Raymond Grenald Associates.

**Paving:** The design intent for the Avenue's paving was to establish a clear and extensive understory hardscape. The pavers, positioned on a diagonal, were to mitigate the appearance of an orthogonal grid line and intense perspective caused by viewing mortar joints. The diagonal paver orientation reinforces a seamless quality on the ground plane. Brick soldier courses at curb and tree-grate edges provide cleanly detailed edges.



The Avenue's furnishing falling into disrepair; broken lights, missing pavers, and missing trees.



The furnishing zone typically occurs within seven feet from the curb.

## Analysis

The quality of the Avenue's streetscape has suffered over the years due to deferred maintenance and diminished attention to preserving streetscape element continuity. A recent inventory of the streetscape includes the following elements and quantities:

- › One to three rows of willow oak trees, with more than 300 fronting the Avenue
- › 200 benches in nine different styles (originally two custom styles)
- › Roughly 220 round, ornate, tree grates still intact
- › Approximately 100 trash containers of varying styles (PADC and a mix of city standards)
- › Various perimeter security features, including include round and rectangular planters, retractable and fixed bollards, hydraulic barriers, and guard booths
- › Approximately 50,000 square feet of brown, square, brick paving (no longer manufactured)
- › Various light fixtures that include PADC-designed tiered lighting, including distinctive eagle-topped Washington globes
- › Roughly 10 bus shelters (installed according to city standards)

## Issues

- While streetscape furnishings and light fixtures have held up relatively well over time, they show age and wear, and custom design elements are no longer available. Many benches were removed due to lack of maintenance, use, and prevalence of overnight loitering. Remaining benches are not configurable or comfortable for individual or group seating. None of the Avenue's drinking fountains are operational. Though thoughtfully designed, light fixtures do not reflect the latest technology or meet sustainability standards. Newly installed bus shelters are not consistent with the historic landscape character.
- The carpet of brown pavers creates a clear, unobstructed, and unified ground plane that functions well for civic activities.
- Wayfinding and storefront signage is minimal given the area's historic designation. This is a challenge for the Avenue's visitors.

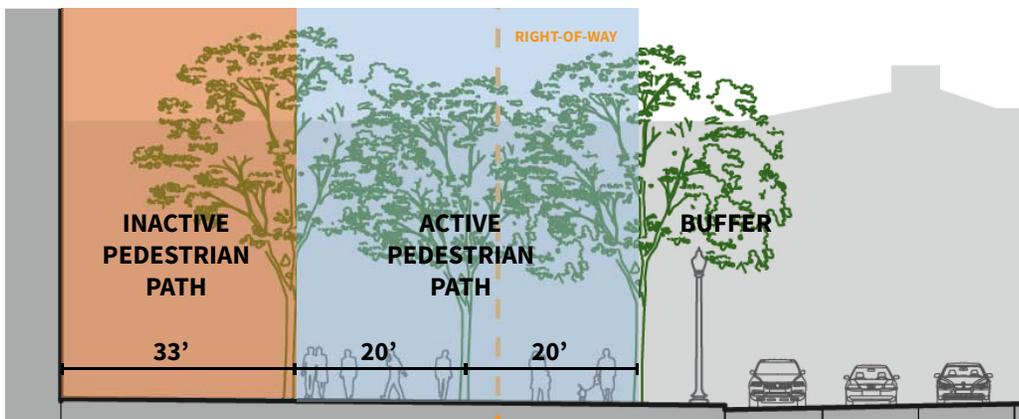
# Placemaking | Landscape Architecture | Pedestrian Path & Activity Zones



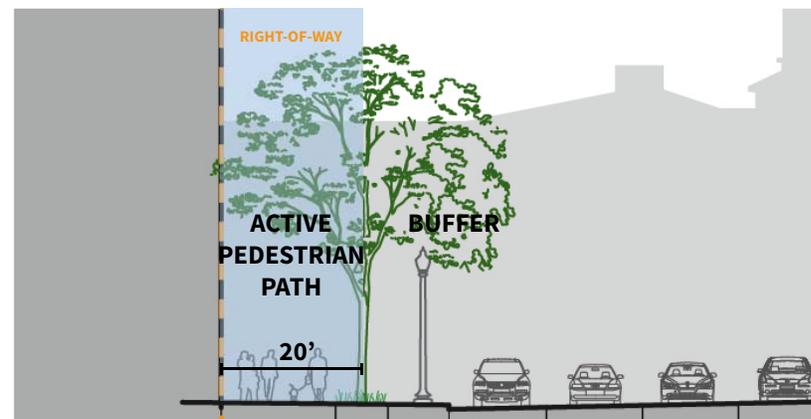
Wide sidewalks provide too much space for pedestrians on a daily basis, but function well during special events.



Areas with the narrower L'Enfant setback little room for pedestrians.



Fifty-foot setbacks on the north side of the Avenue create 70 feet of pedestrian circulation space.



Without a setback, pedestrian circulation space narrows to 20 feet, not including encumbrances of tree pits and building entries.

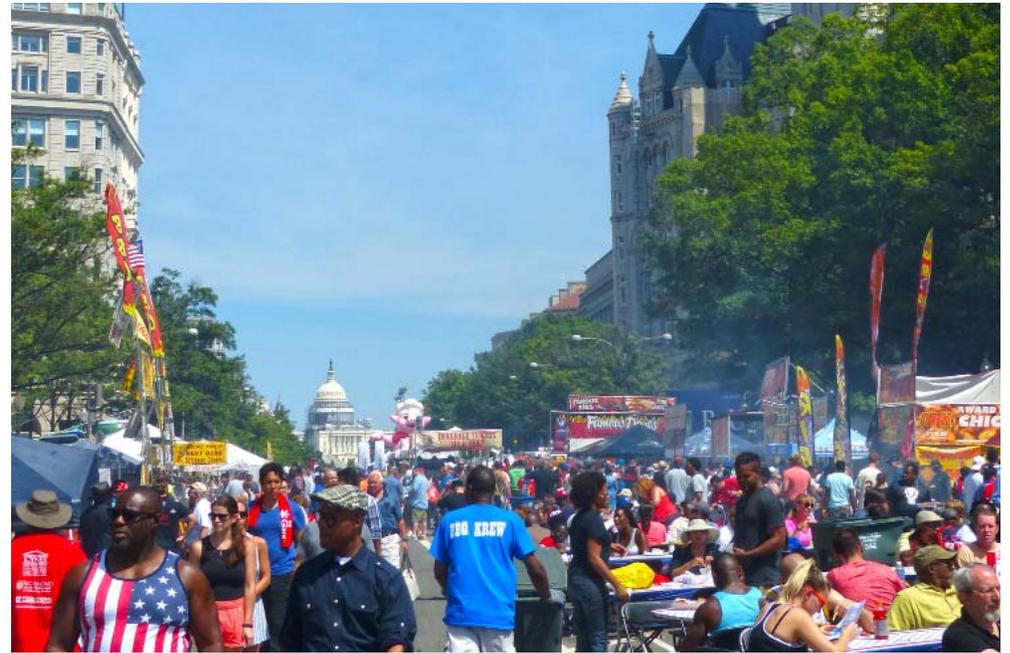
## Context

**Pedestrian Path:** Trees, furnishing zones, perimeter security, building yards, and other features reduce the available pedestrian space on sidewalks. On much of the north side, between 20 and 70 feet of pedestrian circulation space is available beneath a generous canopy of double-row or triple-row street trees. Adjacent to historic buildings pedestrian space decreases to about 20 feet between the building frontage and street trees, and these spaces are encumbered with tree pits and building entries.

To the south, sidewalks are adjacent to building yards, some furnishing zones, and perimeter security elements, leaving pedestrians 20 feet of circulation space between the building yard and street trees.



*Central's sidewalk cafe*



*National Capital Barbecue Battle*

## Analysis

As currently programmed, the widest sidewalks areas seem too large on a daily basis, but function well during civic activities. In locations with narrow sidewalks, pedestrian circulation can be constrained and encumbered by the placement of street trees, furnishings, and perimeter security.

## Context

**Activity Zones:** As described in the Land Use Chapter, the Avenue hosts both daily and civic activities. This analysis focuses on the activity zones, or space allocated on the Avenue's sidewalks, for these pedestrian oriented activities.

**Daily Activity Zone:** Sidewalk dining is available daily on the Avenue, although only on a seasonal basis. Fifteen sidewalk cafes are located on the north side and their size is dependent upon the interior area of restaurants. The sidewalk café zone extends 15 to 40 feet from the building frontage into the adjoining public space.

**Civic Activity Zone:** As discussed in the Land Use Chapter, the Avenue hosts more than 100 special events per year, which occupy the Avenue's parks, plazas, sidewalks, and cartway, depending on the type and size of event.

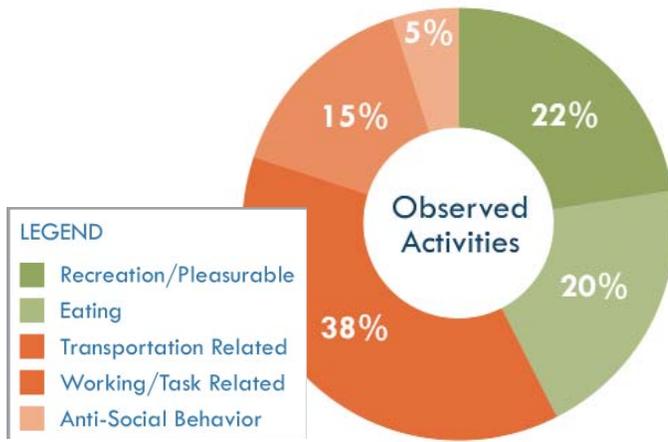
## Analysis

**Daily Activity Zone:** Market Square maintains a critical mass of successful outdoor cafe areas, buffered from the Avenue by the Navy Memorial. Along the Avenue's widest northern sidewalks, sidewalk cafes are dispersed and are too far away from the primary pathways to engage pedestrians. The wide sidewalks and relatively narrow storefronts can lead to awkwardly shaped outdoor cafe layouts. For example, Cafe Central's sidewalk café zone is about 40 feet deep and 20 feet wide.

**Civic Activity Zone:** The Avenue's generous sidewalks and open ground plane provide a relatively unobstructed civic activity zone to accommodate civic activities with large numbers of people.

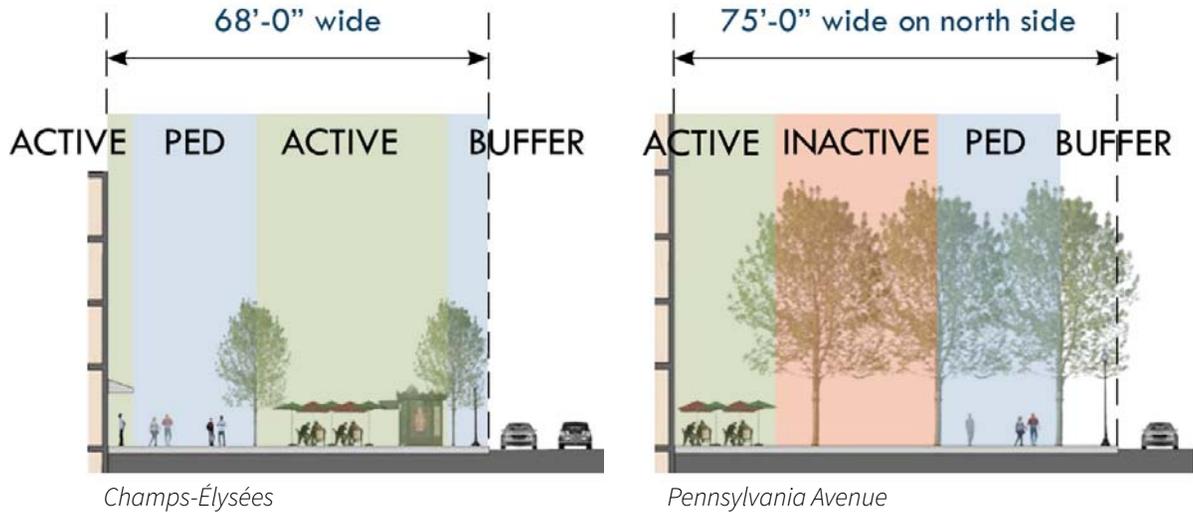
# Placemaking | Landscape Architecture | Pedestrian Activity

## OBSERVED ACTIVITIES ON THE AVENUE



\*Source: DC Office of Planning.

## ILLUSTRATIVE SIDEWALK SECTIONS



## Context

**Pedestrian Activity:** Building upon the Pedestrian Path and Activity Zone section, which focuses on how space is allocated, this Pedestrian Activity section examines the use of the space. Sidewalks with abundant seating in sun and shade, public amenities, variety of programmed activities, and active ground floor building uses are significantly more pleasant to pedestrians. Pedestrians tend to linger and reduce their walk speed and distance traveled when experiencing a streetscape that offers a variety of ground floor uses with easy access to building frontages.

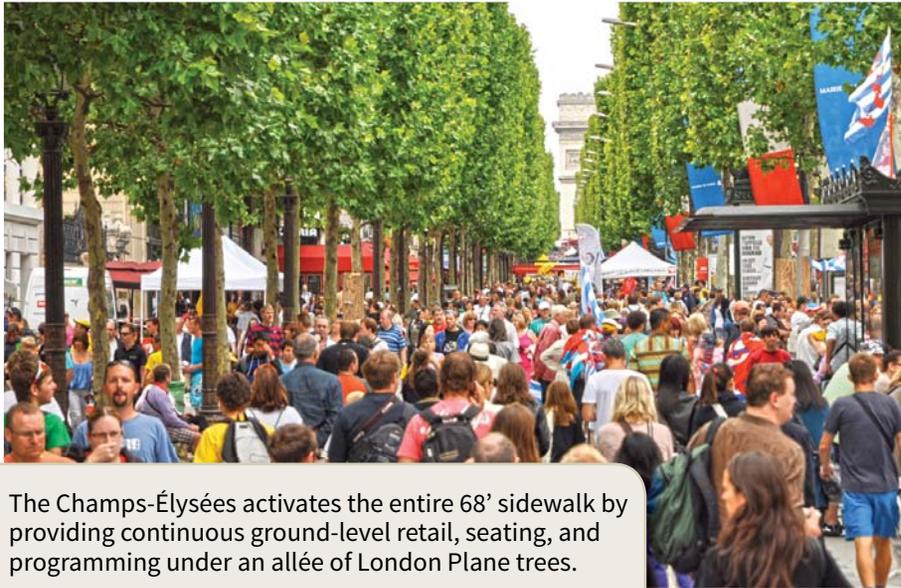
Pedestrian activity is documented in the Pedestrian Life Study. See the Land Use and Activity, and Mobility and Access Chapters for more information.

## Analysis

Despite its generous sidewalks, allées of mature trees, and network of parks and plazas, the Avenue does not provide the key components that make a lively and inviting place for pedestrians. This analysis describes pedestrian activity issues as they relate to:

- › Land uses
- › Ground floor uses and building façades
- › Sidewalk zones
- › Programmed activities
- › Seating and amenities

**Land Uses:** As the Land Use Chapter discusses, the Avenue's north side is generally more active at night than the south side because of the type of land uses and hours of operation. The contrast in activity reinforces the perceptual divide between the Avenue's north and south sides. Since programs and destinations along the Avenue operate during limited periods (typically only during the workday), pedestrian activity along the Avenue is primarily task-oriented: work, transportation related, or loitering.



The Champs-Élysées activates the entire 68' sidewalk by providing continuous ground-level retail, seating, and programming under an allée of London Plane trees.



The Avenue's wide sidewalks have limited retail frontage, and relinquish the entire sidewalk to pedestrians without dedicating zones of the sidewalks for active programming.

**Ground Floor Uses & Building Façades:** Ground floor uses and retail activity should spill out to the sidewalks and streets to enliven public space. Pennsylvania Avenue's museums and cultural institutions miss the opportunity to engage and activate sidewalks due to limited hours of operation or lack of Avenue frontage with access to building entries.

The ground floors and building façades are not open, accessible, or welcoming, particularly on the south side of the Avenue. Limited building signage and advertising hinders pedestrian engagement with retail and other public uses, particularly on the Avenue's north side.

**Sidewalk Zones:** A comparison study between the Avenue and the Champs Elysees in Paris shows that active ground floors with a critical mass of retail and well-zoned streetscape activities closely correlate with active sidewalks.

Pennsylvania Avenue's wide sidewalks currently separate pedestrians from building ground floors, creating a dead zone along the buildings. In contrast, the Champs Elysees engages pedestrians with ground floor retail and maintains an active programmed zone in the center of the sidewalk, with a buffer at the street edge. Pedestrians have activities to either side creating an engaging or highly active pedestrian zone. More information about the Champs Elysees and other capital city streets is located in the Capital City Case Study Chapter.

**Programming Activities Façades:** Weekend events bring public life to Pennsylvania Avenue. However, the Avenue does not have enough weekday or weeknight programmed activities to engage pedestrians who work or live in the area. The Downtown DC BID started providing weeknight programming targeted towards local residents and employees at Freedom Plaza, but additional programming could be accommodated along the Avenue.

**Seating & Amenities:** Public seating is an important sidewalk-activating element. Proper seating, furnishings, and management can support longer "dwell time," as pedestrians seek moments of rest and observation. Little to no public seating is available along the Avenue. Out of the 26 blocks fronting the Avenue, only eight offer public seating (i.e. benches, planter walls, or steps). All of these blocks include parks, but most of the seating is not highly visible or suffers from exposure to hot sunlight.

Sidewalks lack adequate pedestrian amenities such as public water fountains, restrooms, lighting, food, and vending that provide options for activities and things to do. Vending is limited on the Avenue because obtaining permits is challenging.

## Introduction

**North-South Connectivity:** Washington’s numbered streets provide connections between downtown and the National Mall. Generally, the streets to the Avenue’s north differ in scale and configuration from the streets to the Avenue’s south. This analysis assesses the form, character, and quality of these streets and each street’s influence on the pedestrian experience.

The Urban Form Section on pages 106–109 includes more information on the spatial dimensions of numbered streets. The Mobility and Access Chapter includes information about vehicular, bicycle, and pedestrian use of these streets and the Character Areas Chapter includes more information about their quality and feel.

## Context

The numbered streets and adjacent buildings differ in character, form, and experiential quality across Pennsylvania Avenue. To the Avenue’s north, streets and buildings reflect an urban form and character typical of downtown areas. Characteristics include buildings constructed at the ROW/property line without landscaped yards, higher floor-to-area ratios (FAR), narrower sidewalks, single rows of street trees, and higher volumes of pedestrian and vehicular traffic.

To the Avenue’s south, streets and buildings reflect the civic urban design principals of the McMillan Plan and National Mall. Characteristics include buildings set back from the sidewalk with landscaped yards, shorter building heights, and lower FAR.

## Analysis

The differences in character and pedestrian experience reinforce the Avenue’s challenge merging elements of the downtown and the monumental core. The Avenue acts as an edge between the two places, unable to blend the varied characteristics areas into a unified destination.

**Streets & Blocks:** Streetscape widths (distance from building face to building face) to the north are narrower than the south, and represent a more intimate urban character with less sunlight penetrating down to the sidewalk. The streetscape widths to the south are wider, and provide the sense of openness and sun exposure that reinforces the transition from downtown and the Federal Triangle to the National Mall.



*15th Street - North: The sidewalks promote pedestrian activity with street amenities and ground floor retail.*



*15th Street - South: The congestion along the west side of 15th Street due to charter buses and vendors crowding diminishes the pedestrian experience.*



*14th Street - North: In some areas the paving patterns and material application are inconsistent.*



*13th Street - North: The street provides a variety of ground floor programs, such as theaters and retail, and streetscape amenities to embrace a more human scaled experience.*



*14th Street - South: The lack of pedestrian interaction along the street level, and minimal streetscape engagement, results in a sense of isolation.*



*13th Street - South: Promenade, at Constitution Avenue: The pedestrian promenade lacks pedestrian awareness at its entrance.*

# Placemaking | Landscape Architecture | North-South Connectivity

The block distances to the north are shorter than the south and provide a framework that offers more choices in direction and experiences. The block distances in Federal Triangle are generally longer, and as a result more cumbersome to experience.

**Elevation:** There is about a 32-foot elevation change between the north boundary of the study area and Pennsylvania Avenue and a four-foot drop from the Avenue to the south boundary of the study area. This elevation change provides long views from the higher elevations, which increases visual interests north to south. While the downhill topography from north to south may be convenient for bicyclists and pedestrians, the reverse has resulted in less interest in Capital Bikeshare return trips towards downtown, according to the *Capital Bikeshare Development Plan*.

**Land Use:** Buildings north of the Avenue present visual variety and interest with active ground floors. The vertical mix of uses invites pedestrians to linger during the day and night. Streets to the north have a greater selection of amenities to affirm the pedestrian experiences at the street level, such as street trees, lighting, planters, and benches. Buildings south of the Avenue are primarily singular office or cultural uses with limited operating hours, which minimizes street level activity. The southern streets also lack the quantity and quality of streetscape amenities offered to north, such as reliably locating litter receptacles and benches.

**Building Frontage:** Street level treatments north of the Avenue, such as overhanging “urban verandas” and garage entrances separate pedestrians from the building’s frontage, deterring pedestrian activity. South of the Avenue, limited public entrances to buildings deter pedestrian activity.

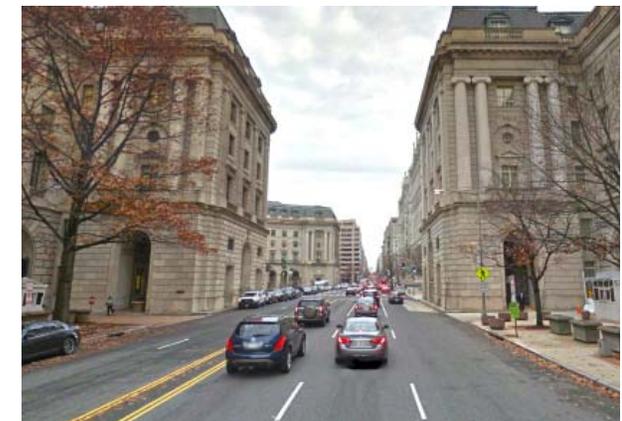
**Security:** Perimeter security is rare north of the Avenue, but prominent to the south. Through the Federal Triangle, the majority of the Avenue’s south side has more perimeter security measures, such as large dense planter pots, bollards, driveway barricades, and security personnel. Their consistent presence narrows the sidewalks, creates an implied wall, and diminishes the pedestrian experience. The Herbert C. Hoover Building (Commerce) is completing construction of security features integrate into the streetscape.

Regarding personal safety, to the north day and evening activities generate pedestrian activity; more eyes on the street increases pedestrians’ sense of security.

**Sidewalk Materials:** Sidewalk pavement patterns and material applications are not consistent along numbered streets, nor coordinated between the Avenue’s north and south sides. North of the Avenue, streets use downtown streetscape standards and materials, while streets south of the Avenue use standards and materials similar to the National Mall.



*12th Street - North: Buildings form overhangs, or “urban verandas,” creating a dark and compressed sense of enclosure.*



*12th Street - South: Block distances in the western end of Federal Triangle, such as 12th Street, are longer than a typical city block, or blocks to the north.*

Photos by Google Earth



*11th Street–North: The bike lanes, two-way traffic, streetscape furniture, and street trees reinforce the human-scale and role along the streetscape.*



*10th Street–North: 10th Street creates an impression of faster vehicular flows that does not help maximize the pedestrian experience and streetscape appeal.*



*11th Street–South: 11th Street terminates with the Trump International Hotel drop off.*



*10th Street–South: The building ground floor use along 10th Street offers little to no interaction with passersby, and diminishes pedestrian interest to linger.*

# Placemaking | Landscape Architecture | North-South Connectivity

**Mobility:** One-way streets, such as 9th, 10th, and 12th Streets, create an impression of faster vehicular flows, which pedestrians may perceive as unsafe. The tunnels located at 9th and 12th Streets create physical, visual, and psychological barriers to pedestrians. The pedestrian experience along 9th, 12th, and 14th Streets is diminished by heavy vehicular traffic during peak service hours. 10th Street primarily serves as a bus hub, yet lacks pedestrian amenities and activation. Charter buses and vendors crowd the west side of 15th Street, diminishing the pedestrian experience.

**Vistas:** The vistas along 4th, 6th, 8th, and 10th Streets terminate at civic structures, providing strong visual connections to draw pedestrians to destinations. However, the pedestrian experience on route to destinations can lack interest and engagement.

- › Fourth Street looking north provides a terminating vista to the District Columbia Court of Appeals, with John Marshall Park connecting the Avenue to the Court of Appeals. South of the Avenue, it provides bike lanes and sidewalks connecting through the Mall to neighborhoods further south.
- › Sixth Street looking south terminates with a vista to the National Gallery of Art (NGA). However, on route to the NGA, the Federal Trade Commission's security planters, steps, and a fenced in playground deter pedestrian interaction. Mellon Fountain to the east supports a more park-like transition to the Mall.
- › Eighth Street frames the reciprocal vista between the National Portrait Gallery, to the north, and the U.S. Navy Memorial Plaza and the National Archives, to the south. Ground level retail activates portions of the street and its corners.
- › 10th Street looking south provides a terminating vista to the National Museum of Natural History. However, the J. Edgar Hoover Building's (FBI Building) security measures at the street level deter pedestrian interest. South of the Avenue, the bus hub, which lacks pedestrian amenities, further deters pedestrian interest.

**Pedestrian Experience:** The Avenue's northern sidewalk widths foster a typical downtown experience. Sidewalks between 6th through 15th Streets are between five to 20 feet in width. Most of these walks provide comfortable and safe spaces, with amenities, such as clear pedestrian paths, street trees, and lighting at pedestrian scale. South of the Avenue, the lack of ground floor interest, retail, and porosity through Federal Triangle buildings diminishes the pedestrian experience. The sidewalks between 6th through 15th Streets range from nine to 23 feet in width. Many pedestrians are unaware of the 13th Street pedestrian promenade, which connects the Avenue to Mall. Security planters and the seemingly dead-end space of Wilson Plaza deter pedestrians from entering promenade's northern end. The Environmental Protection Agency's sally port covers the promenade's south entry passage, which appears private and auto-oriented because the sidewalks are approximately five feet wide and security bollards line the entry.



*9th Street–North: 9th Street's west side and 10th Street's west side convey a sense of isolation along the east side, with the J. Edgar Hoover Building's security and service measures.*



*9th Street–South: The buildings and security planters along the west side of 9th street form a heavy wall that deters pedestrian interaction and interest at the street level.*

Photos by Google Earth



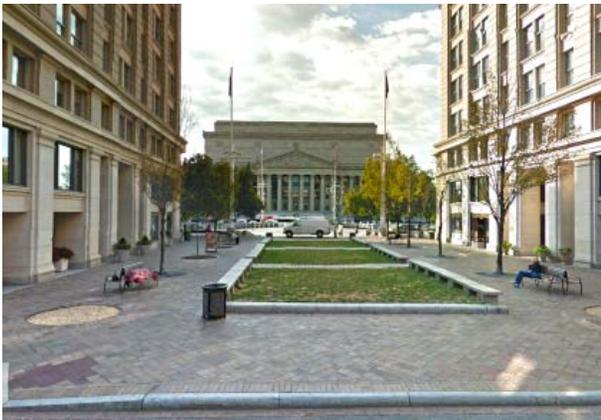
*8th Street-North: The sidewalks north of the Avenue provide comfortable and safe streetscape amenities such as sidewalks, street trees, lighting, and litter receptacles.*



*7th Street-North: The bike lanes, two-way traffic, streetscape furniture, and street trees with tree guards, reinforce the pedestrian's role.*



*6th Street-North: While 6th Street offers the least amount of street level interaction in the study area, it offers more than any street south of the Avenue.*



*8th Street-South: 8th Street terminates with the National Archives, providing a strong vista and destination to draw pedestrians down to the National Mall.*



*7th Street-South: Buildings are set back from the ROW/property line. The street widths to the south are wider, reinforcing the openness and transition from downtown and the Federal Triangle to the National Mall.*



*6th Street-South: The Federal Trade Commission Library's and public space are surrounded by security planters and fencing, appearing to discourage the public from entering.*

Photos by Google Earth

## Issues

- **Streets and Blocks:** The urban form north of the Avenue can create compressed and shady streetscapes, but offers a more connected pedestrian and vehicular network. South of the Avenue, the urban form creates a sunny park-like streetscape, but is less walkable due to larger distances.
- **Elevation & Vistas:** The steep topographic change from north to south is a disadvantage for some bicycles and pedestrians traveling north. However, the higher elevations to the north provide better vantage points and views to civic structures and destinations located downhill.
- **Land Use & Building Frontage:** While destinations are attractive to pedestrians, ground floor uses and building frontages connecting destinations are inactive and diminish pedestrian interest to linger.
- **Security:** Streets to the south of the Avenue use many perimeter security measures, such as planters, bollards, and fewer streetscape amenities, such as benches and litter receptacles, impeding walkability.
- **Sidewalk Materials:** Sidewalks are continuous along the Avenue, but the streetscape standards including paving patterns, material selection, and treatment are different between the north and south. Materials on the southern streets are not consistent among the streets. In addition, grates and manholes that support Metrorail steam tunnels and utility infrastructure disrupt walkability along some streets.
- **Mobility:** Heavy one-way southbound traffic on 9th and 12th Streets intimidates pedestrians, and tunnels along these streets create visual and physical barriers. 10th Street primarily serves as a bus hub, yet lacks pedestrian amenities and activation. Charter buses and vendors crowd the west side of 15th Street, diminishing the pedestrian experience.
- **Pedestrian Experience:** North of the Avenue, sidewalks provide a comfortable and navigable pedestrian experience. South of the Avenue sidewalks lack pedestrian interest, pedestrian-oriented uses and amenities, and porosity through Federal Triangle. Particularly, pedestrians are unaware of the pedestrian promenade that connects the Avenue to the National Mall.



*4th Street–North: 4th Street terminates with John Marshall Park, providing a strong vista and park connection to the DC Court of Appeals.*



*3rd Street–North: The east sidewalk of 3rd Street is narrower than other streets, and bounded by a garage wall.*



*4th Street–South at the National Gallery of Art East Wing: The lack of trees, increased vehicular programming, and scarce sense of human-scale, deters pedestrians from lingering.*



*3rd Street–South: The temporary construction fence and blank walls of the National Gallery of Art East Wing form a visual and physical wall that deters pedestrian interaction and interest.*

The unified streetscape was designed to minimize the impact of the Avenue's diverse architectural forms and create a distinguished identity for the Avenue. Today, the monumental buildings, street scale, and full canopy that lines the Avenue contributes to its civic character. The Avenue's uninterrupted ground plane makes it an optimal space for civic activities including parades, festivals, public assemblies, and special events. However, the public spaces along the Avenue lack the ambiance and amenities needed to attract pedestrians, such as human-scale spaces and comfort amenities.

## Issues

- The PADC era unified streetscape design and use creates a civic quality unlike any other in the city. It unifies the Avenue's sidewalks, parks, and plazas; its custom furnishings and materials differentiate it from other streets; it is programmable for regional and national civic activities.
- The Avenue's formal, multi-row tree canopy frames views to the Capitol, unifies diverse architectural styles, provides enclosure for pedestrian scale, and provides dappled shade and shadow for comfort and delight.
- The palette of custom furnishings and materials provides a neutral, unobtrusive setting that elevates architectural elements, memorials, and the Capitol vista. These elements have held up relatively well given their age, level of use, and minimal maintenance. However, deferred maintenance of trees and furnishings negatively affects the Avenue and does not accommodate user needs. Many street furnishings are no longer available.
- To the north, most of the sidewalks provide space for tree plantings, pedestrian pathways, street furnishings, kiosks, café space, and civic uses. To the south, the sidewalks are used differently from the north, but are designed to visually balance with the north side. While the north and south sides use and distribute space differently to respond to their adjacent conditions, collectively the streetscape forms a cohesive linear landscape that unifies the Avenue's north and south sides.
- The wide northern sidewalks and lack of programming separate the limited retail frontage from the flow of pedestrians. Areas with narrow sidewalks constrain pedestrian movement and do not provide adequate room to meet the Avenue's landscape, activity, and civic use allocation. Both situations result in low-quality pedestrian experiences further exacerbated by a lack of comfort amenities, such as public seating.
- Business signage, bus shelters, and advertising are challenging due to the Avenue's historic design character. There is not a signage program to balance the Avenue's historic character with business visibility needs.



CREDIT: CAROL M. HIGHSMITH

## Introduction

**Infrastructure** identifies elements of buildings and streetscapes that could make spaces along the Avenue universally accessible and resilient. The Avenue currently has many urban infrastructure elements, such as energy, water, and waste services, which meet the basic needs of workers, residents, and visitors. This section focuses on the infrastructure elements that most effect the surface design of the urban environment, including:

- › **Universal Accessibility** identifies current challenges at buildings, parks, and streetscapes.
- › **Perimeter Security** examines the impacts of security requirements in building yards and public space.
- › **Stormwater and Flood Management** identify environmental threats from interior, riverine, and coastal flooding.

In addition to the issues identified in this analysis, the NPS Management Plan identifies guidance for simple and collaborative management of the Avenue.

## Context

**Universal Accessibility** encourages all spaces to be accessible to all users regardless of age, mobility, visual, auditory, or mental ability. Universal accessibility informs American Disabilities Act (ADA) and Architectural Barriers Act Accessibility Standard (ABAAS) guidelines for modifying the built environment to meet the accessibility needs of many different people. The existing public space and building conditions prevent the Avenue from being universally accessible to all.

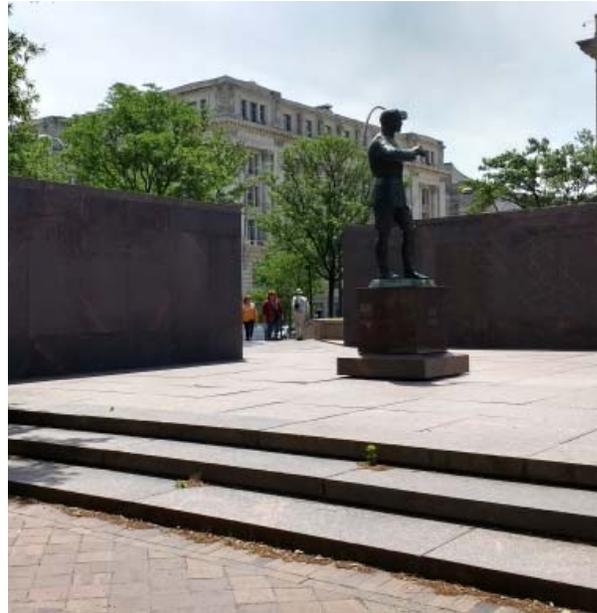
- › Buildings with grand stair entryways along Pennsylvania Avenue have accessible entrances that are not always clearly marked.
- › Ramps are often located at secondary entrances from the streets off Pennsylvania Avenue.
- › In some locations, tree roots are buckling pavement and requiring tree grate removal. Some pavers are buckled or missing.
- › Curb ramps at intersection crosswalks do not have tactile warning strips.



*From the Avenue's sidewalk, steps lead into Marshall Park.*



*Monumental stairs are not universally accessible. Accessible entries are located at building entries off the Avenue.*



*From the Avenue's sidewalk, steps lead into Pershing Park.*



*Tree roots are buckling pavers.*

## **Analysis**

Building entry and exit points, landscape transitions to parks and plazas, and some streetscape materials pose universal accessibility challenges.

To upgrade Pennsylvania Avenue sidewalks to comply with current universal accessibility standards, 93 curb ramps need tactile warning strips installed and 56 pedestrian crosswalk signals need to be upgraded to include vibrotactile arrows, braille signs, and audible beacons.

The following photos show existing pedestrian signals and curb ramps as well as improvements needed to meet accessibility standards.



Image of non-ADA-compliant signal; no pedestrian signal button, tactile arrow, braille signs, vibrotactile button, or audible beacon.



Image of pedestrian signal button with tactile arrow.



Image of non-ADA-compliant curb ramp without tactile strip.

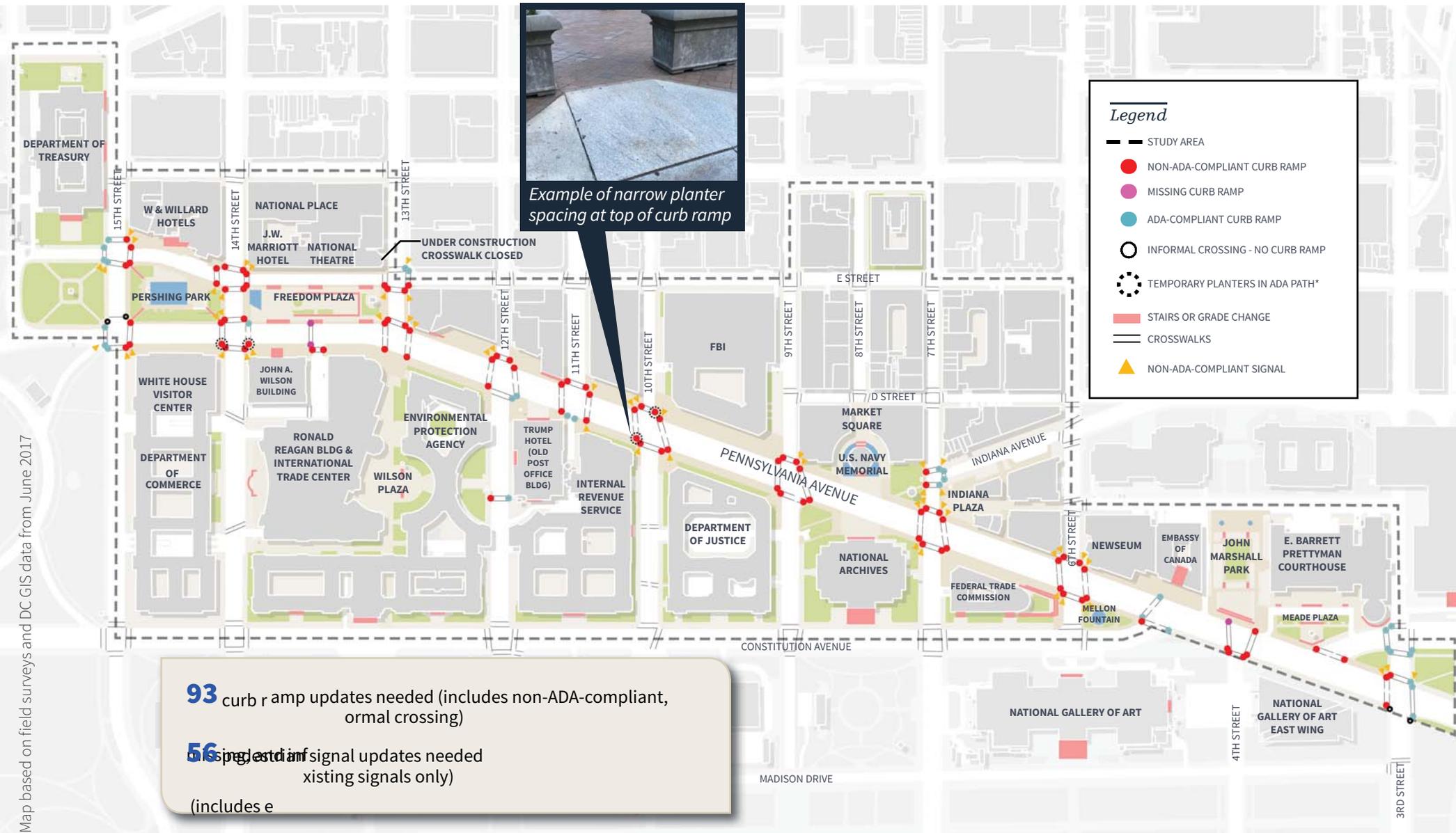


Image of ADA-compliant curb ramp with tactile strip.

## Issues

- Some older buildings, parks, and plazas are not universally accessible, and not well signed, retrofitted, or maintained. To comply with current ADA standards, tactile warning strips at curb ramps and crosswalk signals with audible alerts are needed at most intersections.

# Non-ADA-Compliant Curb Ramps & Signals



Map based on field surveys and DC GIS data from June 2017

\* Better coordination is needed at curb ramps to provide ADA clearance between temporary planters





Perimeter security measures were added to the streetscape in an ad hoc manner.



Perimeter security is a concern for federal buildings within the project site. The Department of Commerce's new perimeter security design is well integrated with the streetscape.

## Context

**Perimeter Security:** Since the 1995 Oklahoma City bombing and September 11 attacks, layers of ad hoc perimeter security measures have encumbered public space, both the building yards and the streetscape. Tightly spaced security planters create divided, inaccessible, or uninviting spaces along the Avenue. At times perimeter security elements bisect the sidewalk and make pedestrian movement difficult during special events. Use of the building yard as the secure perimeter can effectively separate pedestrians from building faces by 20 feet. Many building entrances that were once open to the public are now closed or restricted to employees only.

In current practice, the line of security is no longer along the curb line. Newer sites with permanent security use the building yard's edge instead. A new streetscape and security plan for the U.S. Department of Commerce, currently under construction, demonstrates how to integrate security measures effectively with the streetscape.

## Analysis

Many public entryways now have closed doors, restricted access, and active security guards, creating the appearance and perception that interior public spaces, such as the Ronald Reagan Building attractions and amenities, are off-limits.

While other street furnishings and lighting fixtures are consistent along the Avenue, no consistent standard for perimeter security measures exists.

## Issues

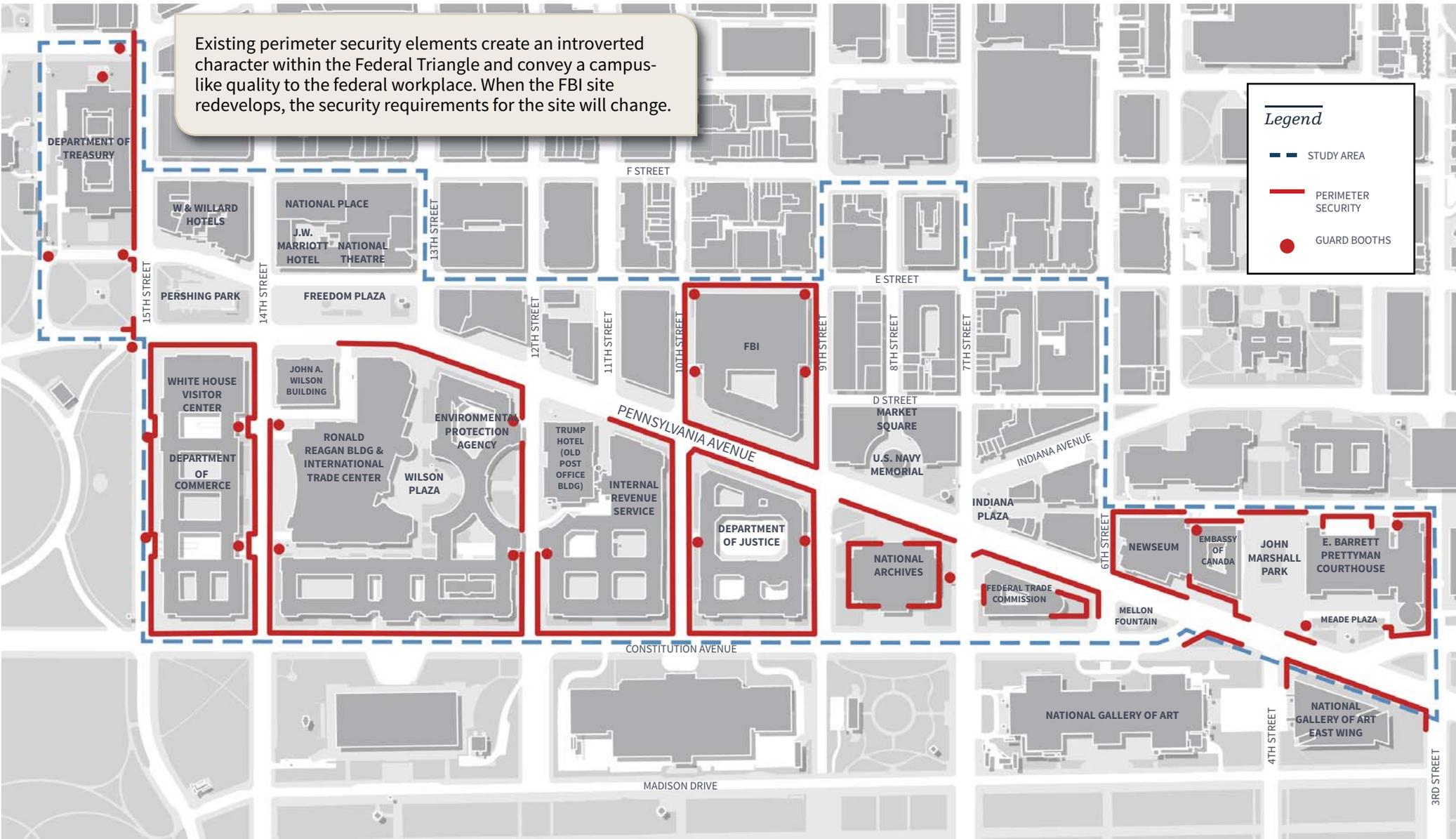
- The U.S. Department of Commerce recently integrated permanent perimeter security while minimizing impacts to the public realm. Other agencies along the Avenue rely on temporary perimeter security measures. There is no consistent, integrated perimeter security and urban design solution for the Avenue.
- Existing perimeter security elements for the Federal Triangle convey an isolated, campus-like quality to the federal workplace.
- When the FBI site redevelops, the security requirements for the site will change and most likely reduce.

# Existing Perimeter Security Elements

Existing perimeter security elements create an introverted character within the Federal Triangle and convey a campus-like quality to the federal workplace. When the FBI site redevelops, the security requirements for the site will change.

*Legend*

- STUDY AREA
- PERIMETER SECURITY
- GUARD BOOTHS





## Context

**Stormwater & Flood Management:** The Avenue manages stormwater from typical rainfall events with engineered pipes and catch basins, which collect and divert water to a combined sewer overflow system. This stormwater management method is also known as a ‘gray’ stormwater system. The ‘gray’ system is in contrast with the ‘green’ system, which relies on vegetation for stormwater collection and absorption.

The Avenue’s current stormwater management system functions well under typical rainfall events. However, during extreme rainfall events the Avenue is subject to interior flooding. Interior flooding is caused by unabsorbed stormwater runoff collecting and pooling in topographic low points. Pennsylvania Avenue sits at the lowest elevation between the National Mall and downtown, receiving a large quantity of stormwater runoff from uphill neighborhoods. Interior flooding periodically affects buildings, landscapes, and infrastructure.

Several building locations within the study area including the National Archives, Old Post Office, and EPA Headquarters have addressed interior flood risks. These improvements can prevent flooding within buildings. The Commerce Building’s perimeter security improvements do not protect the building from flooding, but absorb local stormwater runoff by incorporating bioretention elements.

In addition to interior flooding, riverine and coastal flooding on the Potomac River could affect the Avenue. In 2014, the 17th Street Levee was completed

at the National Mall. The Potomac Park Levee system protects against flooding from the Potomac River to varying degrees, but does not address interior flooding.

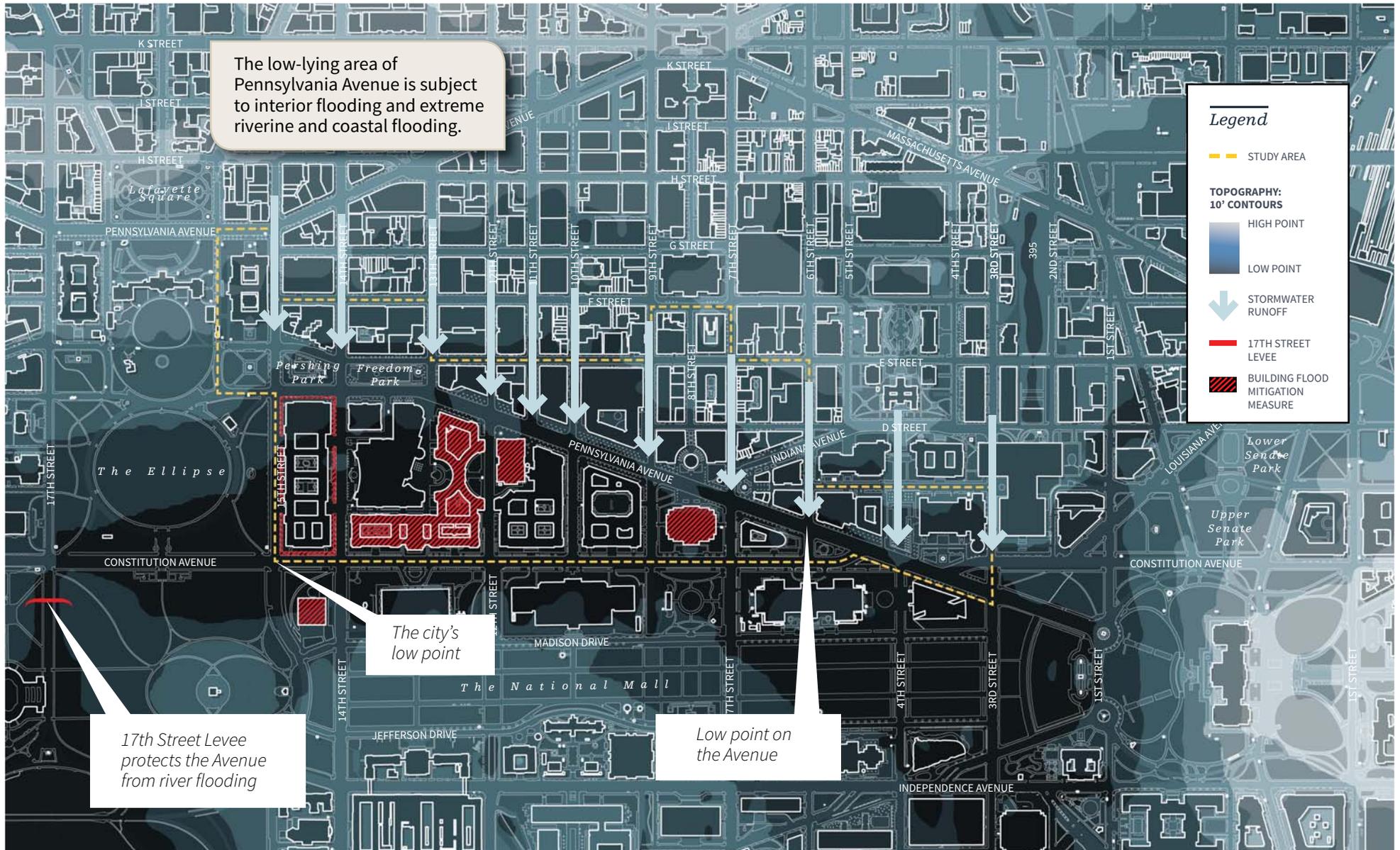
WMATA is currently completing permanent flood protection around its vent shafts throughout the study area, all of which are located in public space. Temporary measures are used to protect flooding via station entrances.

## Analysis

Many, but not all buildings and public spaces were retrofitted to handle interior flooding. Federal Triangle and the surrounding area lack a holistic approach to mitigating impacts from interior flooding.

## Issues

- The Potomac Park Levee system protects the study area from extreme riverine and coastal flooding. Implementation of more rigorous stormwater management requirements has reduced flooding impacts to the study area.
- There is no holistic, district-wide flood management approach for the Avenue. As a low point in the watershed, buildings, landscape, and infrastructure in the study area are at risk of interior flooding during extensive storm events.



## A. Urban Form | *Streets & Blocks* | *Existing Blocks*

- 1) The Avenue's width and scale of blocks and buildings contribute to its sense of grandeur and civic character, elevating its identity in the capital city.
- 2) Parcel aggregation and building location decisions have closed streets and obscured vistas to prominent civic buildings or structures.
- 3) South of Pennsylvania Avenue, blocks are larger and generally longer north-south than east-west. Blocks are usually occupied by a single lower building, set back from the street, creating a more open experience. North of Pennsylvania Avenue, blocks are smaller than to the south. Blocks are often occupied by multiple taller buildings, constructed at the property line, creating a denser urban experience.

## B. Urban Form | *Street Walls*

- 1) To the north, the varied build-to lines weaken the Avenue's street wall; however, the larger setbacks of newer buildings differentiate the façades of historic structures that sit at the historic ROW. Along the Avenue's south side, a relatively consistent build-to line creates a strong street wall.
- 2) Overall, the scale of the right-of-way and location of build-to lines provide a public space with a width that can accommodate a streetscape that unifies the varied street walls north and south of the Avenue.
- 3) The unified streetscape and the primary parks link and define five distinct urban rooms with their own character that provides a diversity of experiences along the Avenue.
- 4) The 1910 Height Act allows for the tallest buildings in the city along Pennsylvania Avenue's north side, elevating its significance and symbolism.
- 5) Generally, square guidelines are slightly more restrictive than the 1974 Plan. While development north of the Avenue typically conforms to the square guidelines, most, but not all development reaches the maximum height and density allowed by the 1974 Plan. Therefore, redevelopment potential is limited. Redevelopment of the Federal Triangle may not be practical because the height can only increase 10 feet per the 1910 Height Act, nor feasible due to its historic designation.
- 6) The Avenue's linear nature, distances between buildings, across wide street and large block of open spaces, particularly on the eastern and western ends of the Avenue, break down the area's spatial definition, lack pedestrian interest and comfort, and disconnect pedestrians from adjacent neighborhoods.

## C. Urban Form | *Vistas*

- 1) The 1974 Plan building height-to-setback ratios balance the varying street walls on each side of the Avenue to preserve the unobstructed view, open sky, and horizontal frame to the Capitol.
- 2) The vista to the Capitol is a dominant asset to the Avenue, serving as a primary character-defining feature. The center median and southern sidewalks offer the best views. However, signals, signage, and zebra cones clutter the center median, distracting from the vista.
- 3) The bucolic setting of President's Park anchors the western terminus, transitioning the Avenue's urban streetscape to an open landscape that provides the setting for the vista towards the Treasury Building and White House. At the eastern terminus, parking in the Avenue's median mars the importance of the Capitol vista.
- 4) Several secondary vistas connect the Avenue to other important destinations and landmarks, such as Smithsonian museums and the National Mall.

## D. Placemaking | *Architecture*

- 1) The mix of prominent and historically significant building eras and styles illustrates the Avenue's evolution and diversity of cultural expression and building materials provide a unifying characteristic along the Avenue. However, the different architectural styles on either side of the Avenue contribute to the perception of an edge between downtown and the monumental core.
- 2) To the north, except for the Victorian era buildings which have frequently spaced ground-level entries and windows that engage pedestrians, most modern building frontage's deters street activity. This is because the prevalence of generic modernist building styles with minimal details creates a monotonous and sterile character. While the façades vary in materials and patterns, the façade elements are spaced too far apart along the block long building walls. Some buildings also have recessed entrances and opaque windows, and minimal signage can affect pedestrian walkability.
- 3) To the south, the Federal Triangle's architectural style and details unify its character, convey a sense of time and civic purpose, and provide pedestrian interest. However, the building design and campus setting affects connectivity with adjacent neighborhoods. The Neoclassical building façade materials, patterns, and details are spaced closer together and provide visual interest, but are monotonous and lack transparency along the long building walls with limited and restricted building entrances. Buildings yards and light wells separate pedestrians from the buildings and perimeter security further deters pedestrian activity.
- 4) The Federal Triangle's narrow floorplates provide workspaces with access to daylight and air. Modern office buildings offer larger, flexible floorplates, but sacrifice workspace quality.

## E. Placemaking | *Landscape Architecture*

- 1) The PADC era streetscape design creates a civic quality unlike any other street in the city; it is easily programmable for regional and national civic activities. While the Avenue's north and south sides distribute sidewalk space differently to respond to adjacent conditions, collectively the landscape forms a streetscape that unifies and visually balances the north and south sides. The Avenue's formal, multi-row tree canopy frames views to the Capitol, unifies the different setbacks and sidewalk widths, and connects the Modern and Postmodern parks and plazas, mitigates the diverse architectural styles, and hosts an array of special features. The tree canopy also creates a ceiling enclosure for pedestrians and dappled shade and shadow for interest and delight.
- 2) The Avenue's wide northern sidewalks provide space for tree plantings, pedestrian paths, furnishings, café space, and civic uses. However, the café program separates the retail frontage from the flow of pedestrians and the current site design program results in the sidewalks seeming too large for its use. Areas with narrow sidewalks constrain pedestrian movement and do not provide adequate room to meet the Avenue's landscape, activity, and civic use needs. Both situations result in low-quality pedestrian experiences further exacerbated by lack pedestrian amenities, such as public seating.
- 3) The location of parks and plazas respond to historic plans and conditions, creating a rhythm of open spaces, each with an individual design expression and style. The openness and flexibility of these spaces is conducive to hosting a variety of civic activities. However, these spaces do not offer a diversity of landscape features, such as seating, shade, and fountains for daily pedestrian comfort, engagement, or interest.
- 4) Several of the primary parks have elevation grade changes, site walls, parking areas, and streets at their edges that disconnect the public space from adjacent uses. Many of the spaces do not have direct or easy access to building frontages, causing them to feel isolated from adjacent uses, such as Pershing Park and Freedom Plaza.
- 5) Deferred maintenance of trees and custom furnishings negatively affects the Avenue and does not accommodate user needs. Deficient maintenance, an inadequate design program, and lack of activity programming deter park use.
- 6) Unless regulated properly, signage and advertisements can conflict with the Avenue's historic design character and there is not a signage program to balance the Avenue's historic character with business visibility needs.
- 7) The custom furnishings and materials differentiate it from other streets. The palette provides a neutral, unobtrusive setting that elevates architectural elements, memorials, and the Capitol vista. These elements have held up relatively well given their age, level of use, and minimal maintenance. However, deferred maintenance of trees and furnishings negatively affects the Avenue and does not accommodate user needs. Many street furnishings are no longer available.
- 8) The Avenue lacks a cohesive narrative. It consists of Neoclassical, Modern, and Postmodern parks and plazas, and a number of commemorative features that cover a wide range of subject matters.
- 9) The Avenue acts as an edge between downtown and the National Mall, unable to blend the varied characteristics into a unified destination. The differences in land use, topography, urban form, views, traffic, security measures, and streetscape materials affect north-south connections. The physical condition of sidewalks and infrastructure also affects walkability.

## **F. Infrastructure** | *Accessibility, Perimeter Security, & Stormwater Management*

- 1) Some building entry and exit points with limited signage, grade transitions to parks and plazas, and streetscape materials pose universal accessibility challenges. To comply with current ADA standards, most Avenue intersections need tactile warning strips at curb ramps and crosswalk signals with audible alerts.
- 2) Existing perimeter security elements, mostly temporary, create an introverted character within the Federal Triangle and convey a campus-like quality to the federal workplace. The Department of Commerce recently integrated perimeter security while minimizing impacts to the public realm. However, there is no consistent and integrated perimeter security and urban design solution for the Avenue. When the FBI site redevelops, the security requirements for the site will change and most likely reduce.
- 3) The 17th Street closure and Potomac Park levee system mitigates riverine and coastal flooding risks to the study area. Since the study area is at a low point in the watershed, it is at risk of interior flooding. Implementation of building specific stormwater management improvements has reduced flooding impacts to individual buildings. However, there is no holistic, area-wide stormwater management approach for the study area.





# 5

## Character Areas

- 196** Introduction
- 200** West End Parks & Plazas  
(13th-15th Streets, north)
- 208** Federal Triangle West  
(12th-14th Streets, south)
- 216** Central Corridor (9th-13th Streets)
- 224** Market Square Area (6th-9th Streets)
- 232** East End Institutions (3rd-6th Streets)

## Introduction

This chapter will examine site-scale urban design elements that shape the Avenue, highlighting some of its defining characteristics. This is not an exhaustive examination, but a supplement to provide additional information related to the Land Use, Mobility, and Urban Form, Placemaking, and Infrastructure chapters.

## Context

Pennsylvania Avenue's distinction rests on its symbolic value and identity as the "Grand Avenue of the Nation." Animated by civic and community life since the 1790s, these activities continue to inform the Avenue's character and identity to this day. There are a number of character-defining narratives to pull from this rich history to reinforce its authenticity and frame its future.

The Avenue's history, when combined with its urban form, vista, and streetscape, work together as one holistic and memorable experience, unlike that of any other street in the city or nation.

*"In a democratic society, it is usually a public place rather than a building that stands for the commonweal. Ancient Athens had its Agora, Rome its Forum, and Paris its Place Bastille. In such places did nations experience their moments of glory and sorrow. In the United States a great avenue serves this purpose."*

*National Park Service,  
The Pennsylvania Avenue District in United States History, 1965*

Pennsylvania Avenue serves as the nation's public place to celebrate and recognize America's rich social, cultural, and political moments and events. The Avenue was the widest street in the city and first to be paved to celebrate Thomas Jefferson's presidential inauguration. It was where the nation mourned the loss of Presidents, like Abraham Lincoln and John F. Kennedy, who lost their lives leading the country.

The Avenue once served as the community's social promenade, where diplomats, congressional representatives, and even the President would mingle with shopkeepers, farmers, and their families. It was home to the city's first and largest marketplace, Center Market, and "Newspaper Row," a bustling retail and press corridor that covered the political stories from the White House and U.S. Capitol. The National Archives and the J. W. Marriott Hotel now occupy these former sites. The Willard Hotel withstood years of celebrity, neglect, and transition to retain a position of prestige and renown on the Avenue.

The Avenue reflects the City Beautiful and Urban Renewal movements' efforts to reshape it, while the 1974 Pennsylvania Avenue Plan (1974 Plan) re-imagined its public spaces and building form. It also experienced the ebb and flow of uses, from a more mixed hotel and residential character in the 1800s, to an entertainment district in the early 1900s, to today's mixed office and cultural atmosphere.

With the passage of time and events, the Avenue reflects on the evolution of the nation's culture and values, from its diversity and civic pride to its passion to explore and innovate. While the National Mall has evolved to become the capital city's public park and central garden, the Avenue remains the physical and symbolic bridge between a government and its people, the nation's public place.



*Pennsylvania Avenue looking east towards the Capitol.*

## Framework for Analysis

While the Avenue's land use mix, building siting, and smaller scale architectural details create varied pedestrian experiences between the White House and the Capitol, the landscape materials and design are unifying elements, providing a consistent overall streetscape for the Avenue.

**Physical Characteristics** include land use and building mass, open space and the streetscape, building materials, public amenities, and accessible frontage. These factors affect how design accommodates uses, and the relationship between buildings and public space programs.

**Connectivity** describes circulation and access; within each character area, north-south between Downtown Washington and the National Mall, as well as east-west along the Avenue. This examination prioritizes pedestrian experience, including visual and physical barriers.

**Urban Quality** is evaluated using Gehl Architects 12 Urban Quality Criteria, based on staff site observation. These 12 points rate user experience of factors contributing to protection, comfort, and enjoyment.

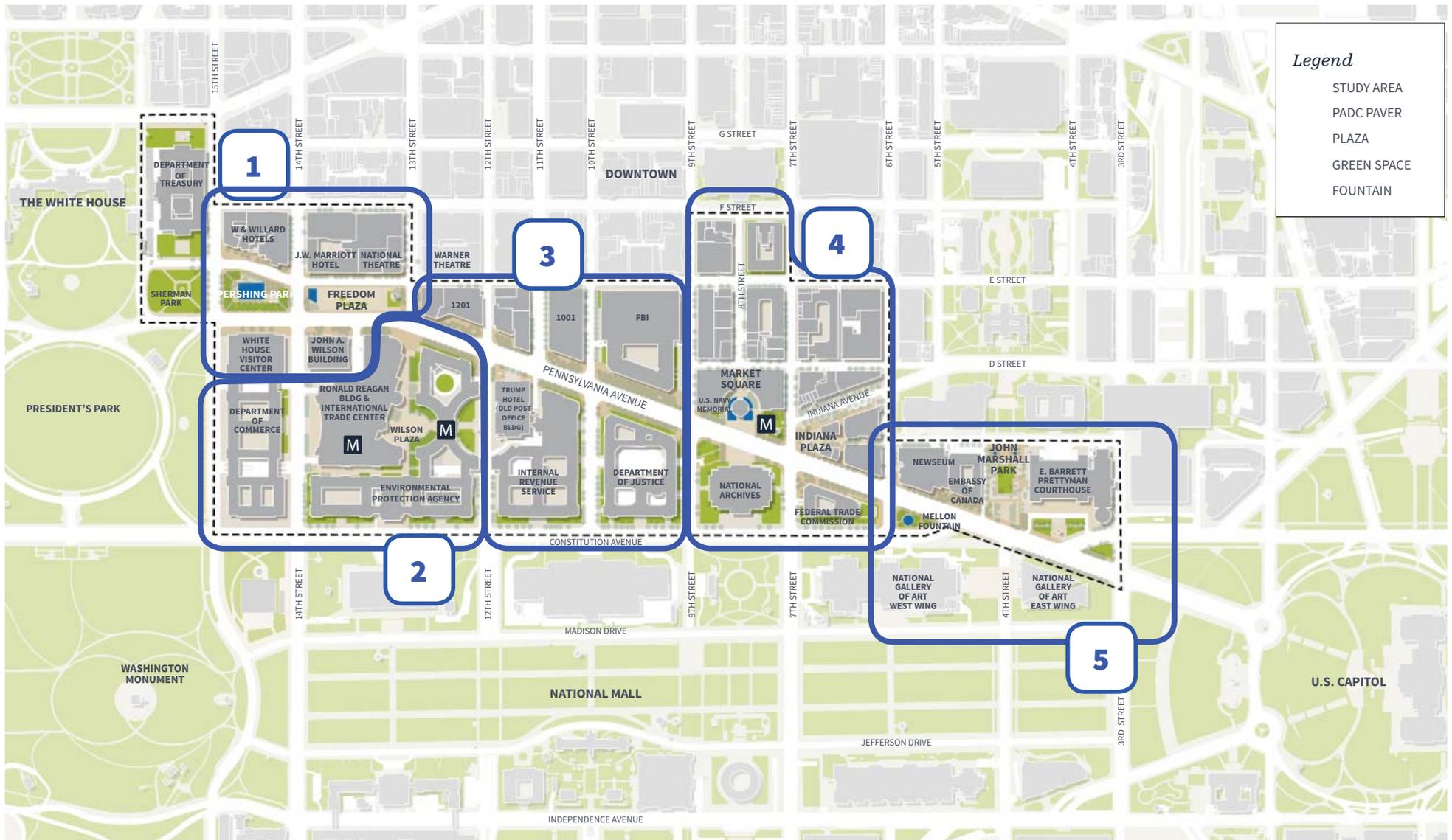
**Activation** includes ground floor building uses and their relationship to the street, and public space activity programming—from nationally prominent cultural celebrations, to smaller, local, civic events. These considerations include the ability to accommodate daily activities, and specific amenities that enhance or detract from the Avenue's identity, character, and pedestrian experience.

# Introduction

Five character areas along Pennsylvania Avenue are distinguished by differences in physical characteristics and activation. The relationship between buildings, open space, streetscape, ground floor uses, and activity programming contributes to each area's unique function and character, quality of place, and user experience. The five areas are as follows:

- 1 West End Parks & Plazas (13th-15th Streets, north):** A series of urban parks, close to visitor destinations, landmarks, hotels, and restaurants, shape this portion of the Avenue. The configuration of roadway and public space creates a wide, open area. This initial sequence of parks and plazas begins the transition from President's Park lawn to plazas and the downtown streetscape anchored by the Capitol vista.
- 2 Federal Triangle West (12th-14th Streets, south):** Developed as a government center during the City Beautiful Era, the Neoclassical campus frames internal open space through a series of interconnected plazas. Together with the postmodern Ronald Reagan Building and International Trade Center, the cohesive architecture creates a unified zone, associated with the federal workforce.
- 3 Central Corridor (9th-13th Streets):** Office use is dominant in this area, between two active and programmed plazas (Freedom Plaza and the U.S. Navy Memorial Plaza at Market Square). The street wall and streetscape are relatively consistent, framing the Capitol vista, and contributing to the pedestrian experience along this portion of the Avenue.
- 4 Market Square Area (6th-9th Streets):** Market Square is a central destination, with strong connections north and south of the Avenue. Buildings oriented on the orthogonal grid open views onto the Avenue and the National Archives to the south, and enclose the plaza to the north, reinforcing the 8th Street cross-axis. The axis is anchored by a diverse mix of uses including residences, museums, and restaurants. With proximity to Metrorail, Market Square is the most active part of the Avenue.
- 5 East End Institutions (3rd-6th Streets):** As the streetscape nears the Capitol, intersecting streets and wide setbacks establish an open character. The street walls are spaced far apart, causing the urban room to lose its definition. A concentration of civic institutions create a quieter zone, as the Avenue transitions again from paved downtown street to the Capitol lawn.

# Public Realm Character Areas



# West End Parks & Plazas | Overview

## 13th-15th Streets, north

This area is close to visitor destinations such as President's Park, the White House Visitor Center, and the National Mall. Theaters, hotels, and other hospitality uses are predominant on the north. Three parks create a gateway to the Avenue, formally transitioning from the lawn at President's Park to an urban downtown street. Buildings to the north, south, and east frame the large public space. While the wide cartway and open plazas can support special events and large volumes of visitors, they lack human scale and pedestrian comfort to sustain consistent daily activity.

### Physical characteristics

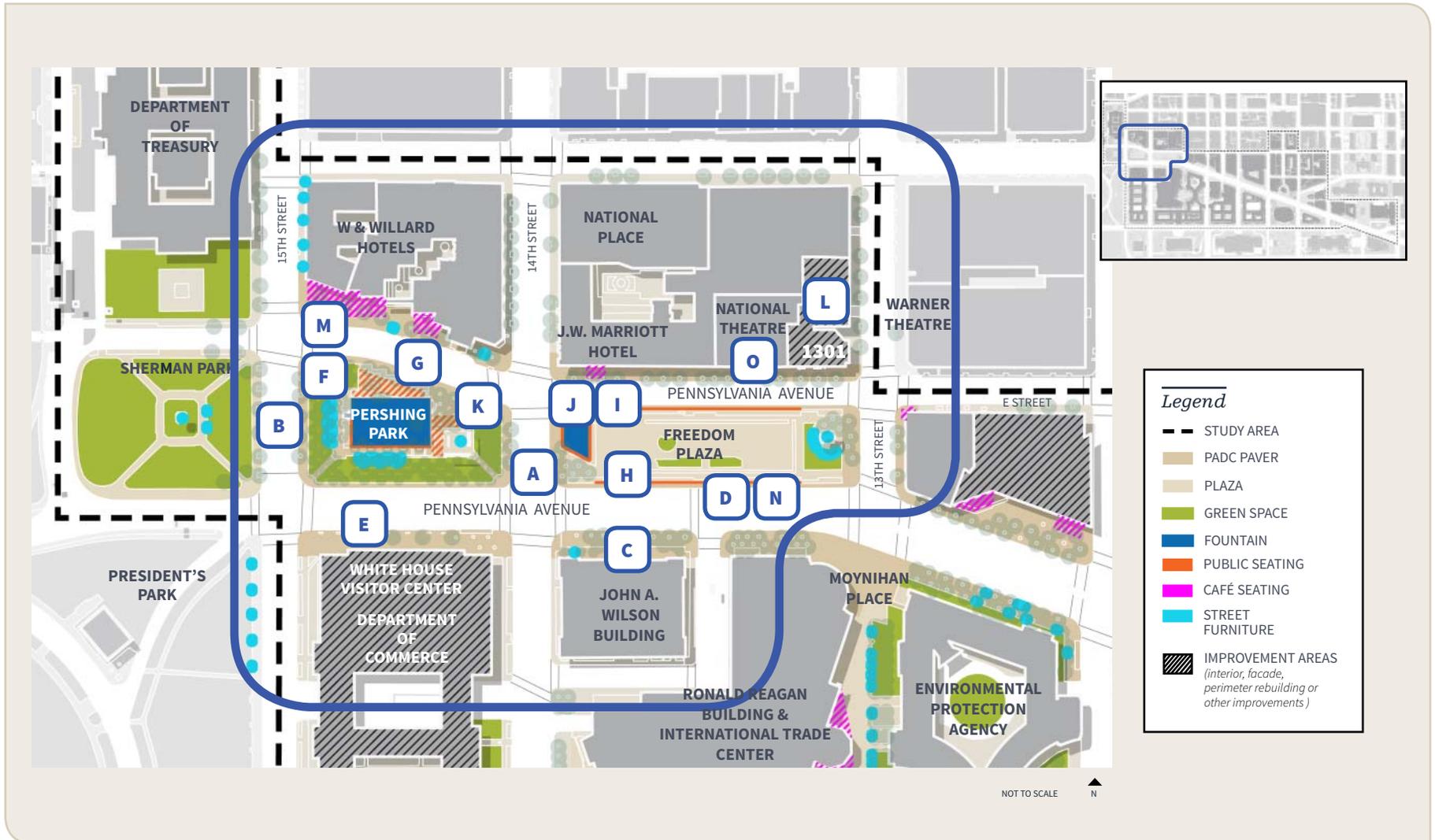
- A** This end of the Avenue is a point of connection between a variety of visitor and local destinations. There is no clear circulation pattern, and the configuration of the streets and open spaces provide numerous choices for pedestrians. Parks and plazas serve as alternate circulation through the area. The nearest Metrorail station is beyond a five minute walk, but the area is well served by Metrobus.
  - B** At over 500 feet, the greatest distance across the Avenue is between the Willard Hotel and the Herbert C. Hoover Building (U.S. Department of Commerce). The streetscape does not break down the scale. The location of Pershing Park reinforces the division between north and south of the Avenue.
  - C** The main entrance to the John A. Wilson Building, the District of Columbia's City Hall, is across from Freedom Plaza, which often functions as the city's civic space. The plaza's design does not establish a strong visual or physical relationship to the building entrance, and placement of crosswalks on either side of the building prevent a direct connection.
  - D** Visually, the spatial definition of Freedom Plaza is dominated by the strong horizontal ribbon windows on the building facades to the north, and the horizontal pavement striping to the south. See page 207.
- › **E-J** see pages 202-203

### Activation

- K** Redevelopment at Pershing Park will include a future National World War I Memorial. Future activity programming must align with the memorial's program and National Park Service regulations, which may limit the type of permitted activities and amenities.
  - L** Redevelopment at 1301 Pennsylvania Avenue provides an opportunity to reintroduce ground floor uses that encourage street activity.
- › **M-O** see page 206

# West End Parks & Plazas | Overview

## 13th-15th Streets, north



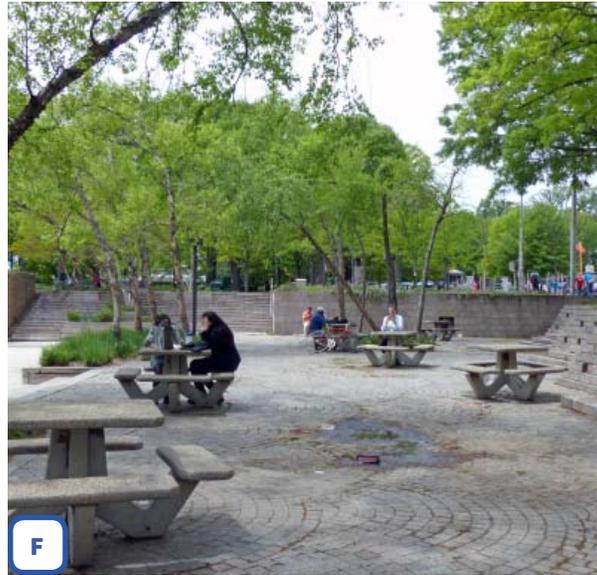
## West End Parks & Plazas | Physical Characteristics

### 13th-15th Streets, north



*White House Visitor Center entrance, looking west*

**The White House Visitor Center** is a popular visitor destination, but its presence on the Avenue is understated and its entrance location at the Department of Commerce is not well marked. Berms at the south side of Pershing Park obscure views of the entrance from the Avenue's north side.



*Pershing Park seating and pavers, looking northeast*

**Pershing Park's berms and sunken topography** intended to provide a quiet space, buffered from traffic, with ample seating and shade. Maintenance has lapsed, the fountain no longer functions, the colorful plants are gone, and the space lacks vibrancy. Without amenities to create a destination, these characteristics isolate it from the Avenue and adjacent buildings such as the White House Visitor Center and the John A. Wilson Building. Future improvements to the site, including the National World War I Memorial, may improve access and provide attractions for visitors.



*View southeast to the Capitol from the north side of Pershing Park*

**Sidewalks along Pershing Park's northern side** provide axial views to the Capitol, but angled parking at the edge of Pershing Park creates a barrier, disconnecting the park from the hotels and cafés to the north. This emphasizes the park's introverted form, and creates a barrier. As a result, the park does not benefit from active frontage despite its orientation toward the Willard Hotel.

## West End Parks & Plazas | Physical Characteristics 13th-15th Streets, north



**H**  
*Entrance to the Wilson Building from Freedom Plaza*

**The stately main entrance to the Wilson Building** is elevated from the street, signifying its importance. This is the main public entry for visitors to the building, but the monumental stairs are not universally accessible. Access to other building entrances lacks clear signage, and is not obvious.



**I**  
*View of the Capitol from the northwest side of Freedom Plaza*

**Freedom Plaza's large, elevated, and paved open space** is good for special events and offers framed views of the Capitol. The buildings along the eastern side frame the plaza and form the urban room. However, the plaza lacks enclosure, shade, diverse seating options, and other amenities to support daily use and pedestrian comfort. During the summer, there is no shade to provide relief from the hot sun.

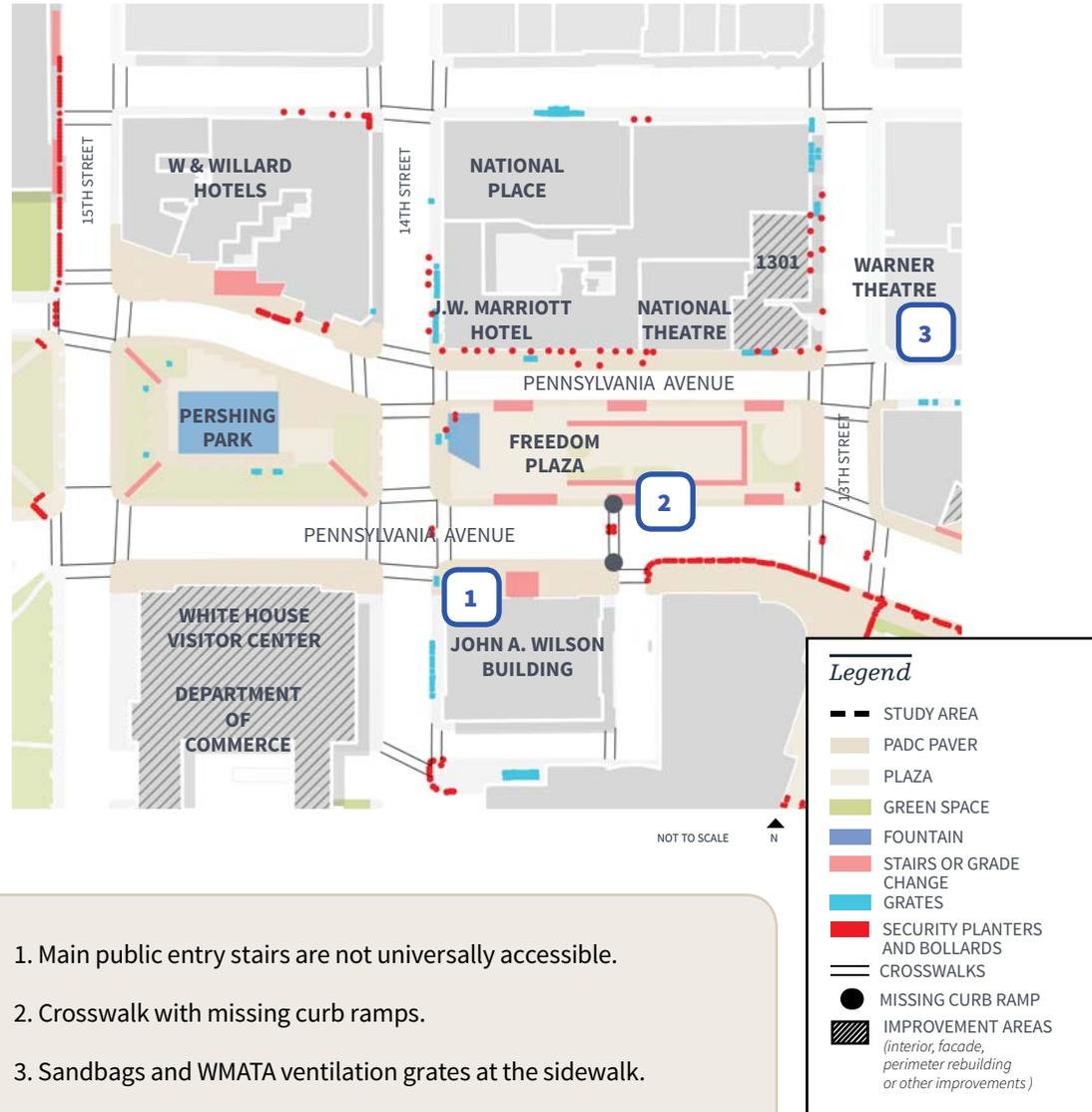
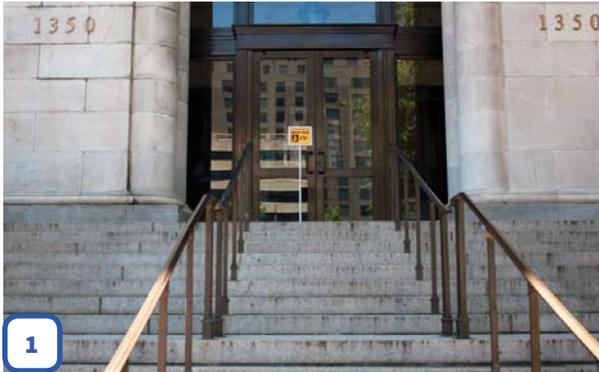


**J**  
*View east from the north side of Freedom Plaza and Pennsylvania Avenue*

**Freedom Plaza's elevation** becomes a visual and physical barrier to the sidewalk and building entrances to the north and south. The plaza divides the Avenue, although destinations such as the National Theatre, National Place, and the Willard Hotel have Pennsylvania Avenue addresses, they have no relationship with the rest of the Avenue. Recessed entrances along the plaza's north side further hinder ground floor activity.

# West End Parks & Plazas | Barriers

## 13th-15th Streets, north



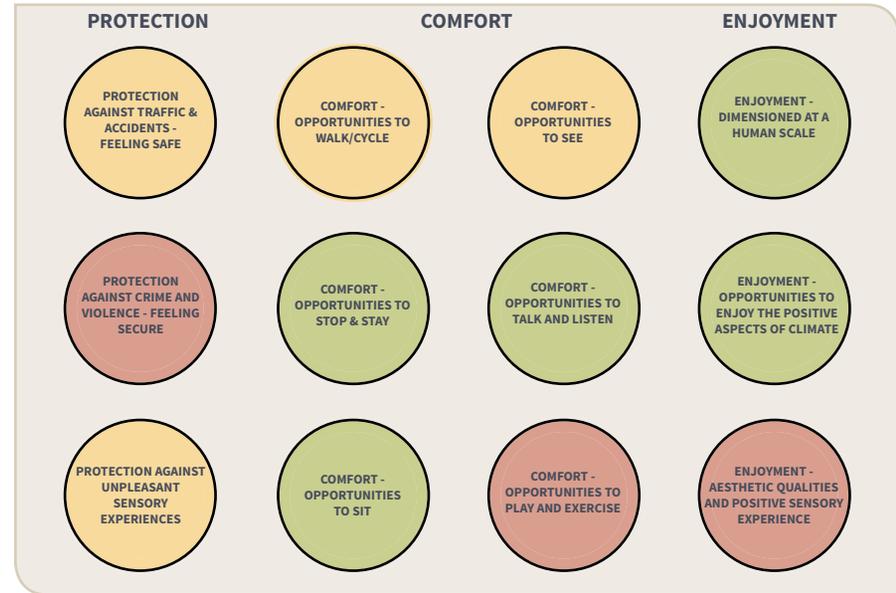
1. Main public entry stairs are not universally accessible.
2. Crosswalk with missing curb ramps.
3. Sandbags and WMATA ventilation grates at the sidewalk.

# West End Parks & Plazas | Urban Quality Evaluation

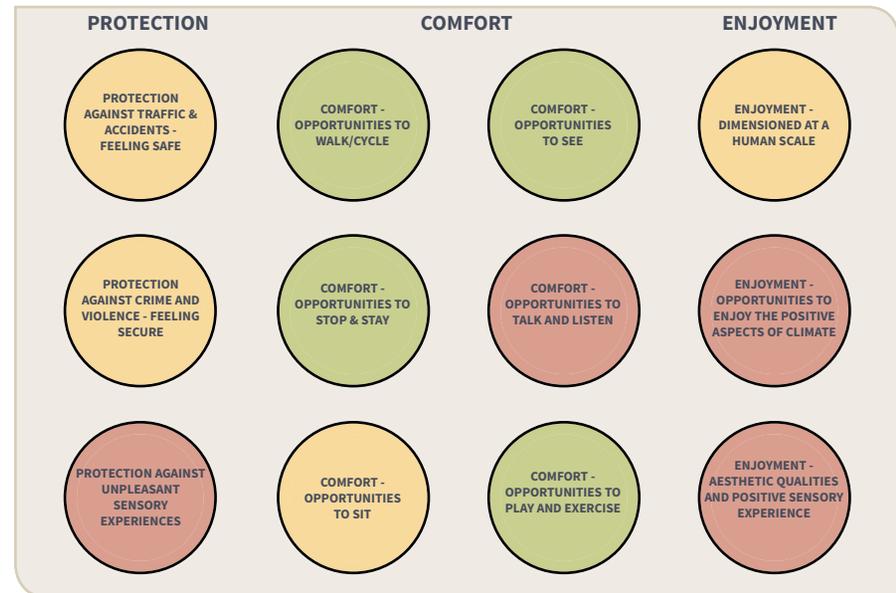
## 13th-15th Streets, north



PERSHING PARK



FREEDOM PLAZA



DATA BASED ON SITE OBSERVATION  
 MAY 19, 2017 - 12:45 PM - 92 DEGREES, SUNNY  
 EVALUATION BASED ON GEHL ARCHITECTS 12 QUALITY CRITERIA

● GOOD ● AVERAGE ● POOR

# West End Parks & Plazas | Activation

## 13th-15th Streets, north



Café at the Willard Hotel

**Outdoor café spaces, hotel lobby entrances, and guest and tour bus drop-off zones** activate the sidewalk north of Pershing Park. This activity causes the relatively narrow sidewalks to become crowded.



World Cup spectators at Freedom Plaza

**Freedom Plaza** often hosts events throughout the year. During non-event times, the space is frequently empty and uninviting. Impromptu recreational activities like skateboarding deter some pedestrians from using the space.



National Theatre entrance

**Hotels and entertainment venues** such as the National and Warner Theaters on the north side have extended hours of operation, activating this area of the Avenue during evenings and weekends.



### Hours of Operation

*Legend*

- EXTENDED HOURS ALL DAYS
- EXTENDED HOURS WEEKDAYS ONLY
- BUSINESS HOURS ALL DAYS
- BUSINESS HOURS WEEKDAYS ONLY

NOT TO SCALE



### 2015 Civic Activities - West End Parks & Plazas

Volume (people)	Spring	Summer	Fall	Winter	Total
Small (1-99)	7	1	5	1	14
Medium (100-999)	10	4	3	3	20
Large (1,000-9,999)	5	2	5	1	13
Extra Large (10k+)	2	0	2	0	4
<b>Total</b>	24	7	15	5	51

2015 permits issued for the western side of Pennsylvania Avenue. Data from National Park Service and DC HSEMA



D

View north from south side of Freedom Plaza (see page 200)

# Federal Triangle West | Overview

## 12th-14th Streets, south

Federal Triangle's Neoclassical campus was built as a statement of strength, symbolic of the federal government's expansion. The Ronald Reagan Building and International Trade Center (Reagan Building), opened in 1998, is a Postmodern building intended to complement Federal Triangle's architectural style. A series of arcades and secondary plazas connect Moynihan Place and Wilson Plaza to 13th Street, Pennsylvania, and Constitution Avenues. The area's controlled style and regularity anchors the Avenue's south side, and clearly distinguishes it from the surrounding areas, contributing to the capital city identity.

### Physical characteristics

- A** It is difficult for visitors to distinguish between the official government buildings with restricted entries and areas and passages open to the public. An absence of wayfinding, multiple security barriers, and a sequence of narrowing spaces deter foot traffic through the area.
- B** A proposed crosswalk at Constitution Avenue and the pedestrian extension of 13th Street will increase pedestrian flow to the National Museum of American History and the National Museum of African American History and Culture to the south.
- C** Further south on 12th Street, the expressway exit dominates the view and creates a visual and physical barrier to the National Mall.
- D** Blocks in this area are the longest in the study area. Buildings lack publicly accessible ground floor uses, making the pedestrian experience tedious and unpleasant. These conditions reinforce the difference in pedestrian experiences between the Federal Triangle and Downtown Washington.
- E** Sidewalk materials on the Avenue's south side are not commensurate with adjacent architectural materials. The exposed aggregate pavement—typical of recreation or temporary use—contrasts with the refined, stately buildings of Federal Triangle. Utility boxes, sandbags, and security planters mar the streetscape near the Hemicycle. See page 215.

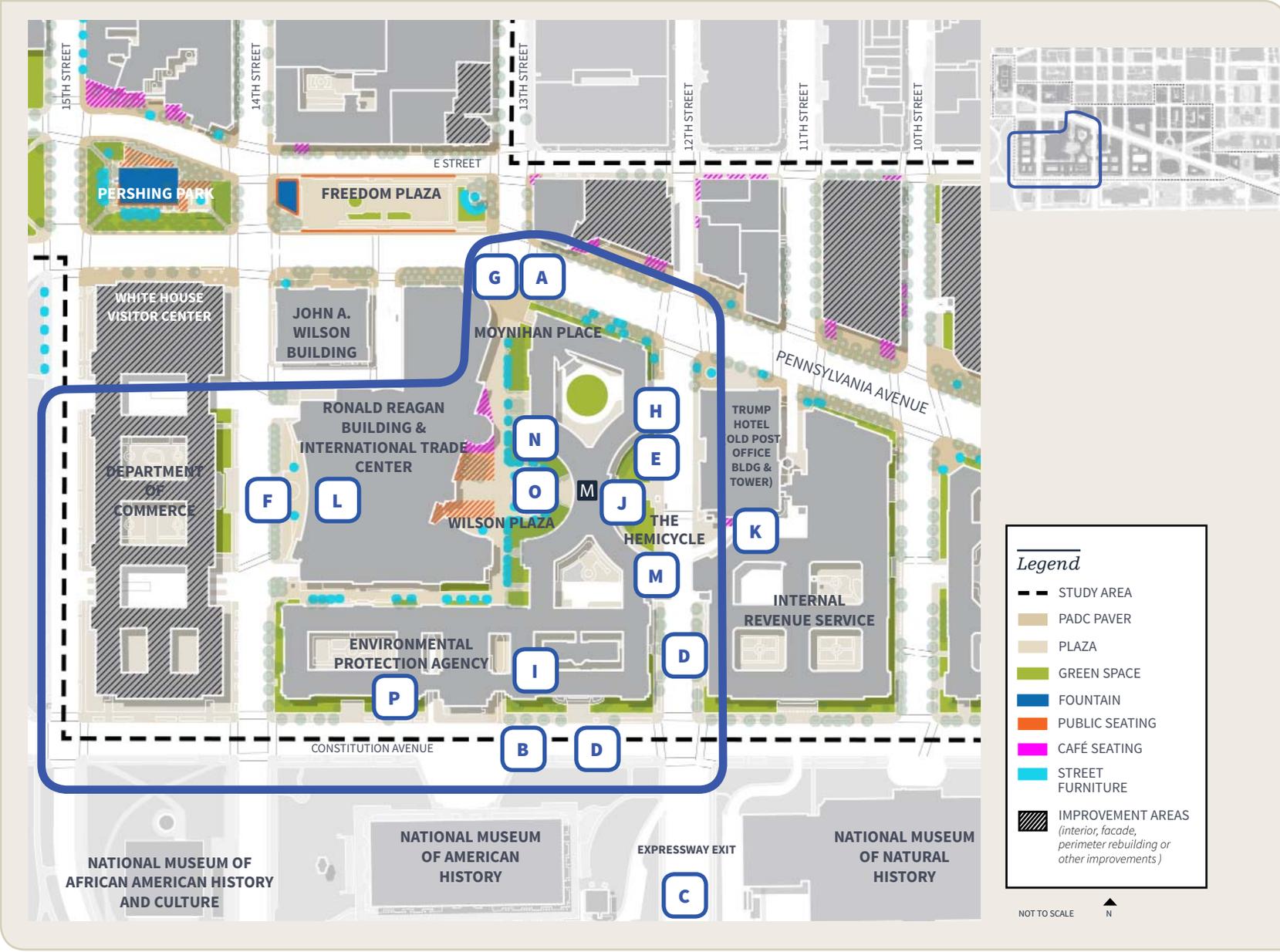
› **F-K** see pages 210-211

### Activation

- L** The Ronald Reagan Building hosts a public food court, event spaces, and other educational and civic attractions, but these programs are not highly visible from the street or plaza, and access is not clearly marked. Security screening is required for entry.
- M** The Hemicycle and Environmental Protection Agency building arcade are directly adjacent to the Metrorail entrance. The large public space can be desirable for occasional events or gatherings, but lacks seating, active ground floor uses, programming, and other amenities for it to be a destination, or support daily use.

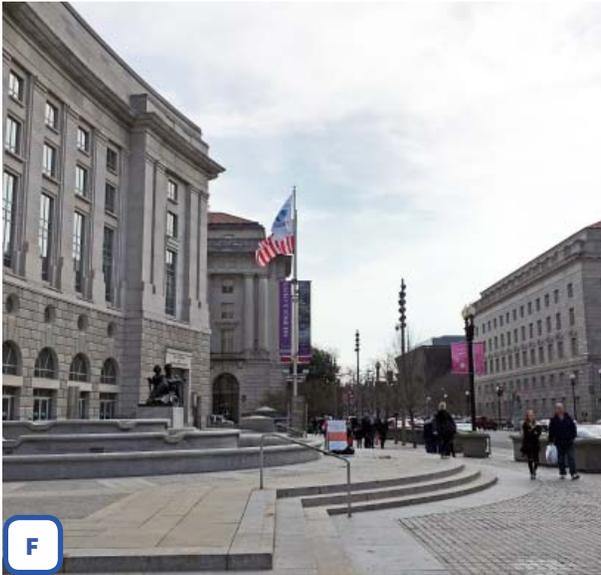
› **N-P** see page 214

Federal Triangle West | Overview  
 12th-14th Streets, south



# Federal Triangle West | Physical Characteristics

## 12th-14th Streets, south



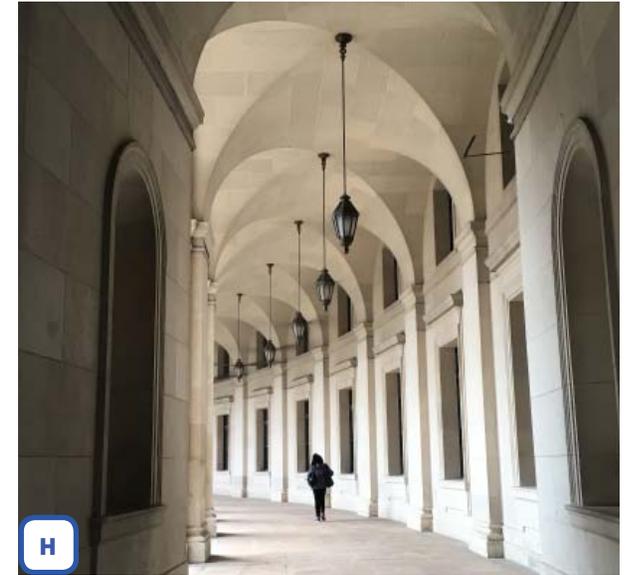
**F**  
*Entrance to the Reagan Building, looking south on 14th Street*

**The 14th Street entrance** to the Reagan Building is in scale with the building, but overscaled for the amount of public space. The multi-level plaza constricts a narrow sidewalk next to high vehicle traffic volume. Multiple entrances with restricted access are confusing.



**G**  
*Entrance to the Reagan Building from Pennsylvania Avenue*

**The Reagan Building's main public entrance** is on 14th Street, even though its entrance on the Avenue is prominently positioned. Multiple doors with restricted access and inconsistent signage makes locating the public entrances from the Avenue confusing. The entry is not orientated toward Freedom or Wilson Plazas, and consequently does not have a direct relationship with either.



**H**  
*Arcade passage to Wilson Plaza through the EPA Building*

**A sequence of plazas and arcades** provides an intimate, elegant, and visually interesting internal connection between 12th and 14th Streets. It creates a unique and beautiful experience, but does not offer seating or other amenities. Lacking foot traffic or cues to invite the public in, many pedestrians think these areas are inaccessible or do not know they exist.

## Federal Triangle West | Physical Characteristics 12th-14th Streets, south



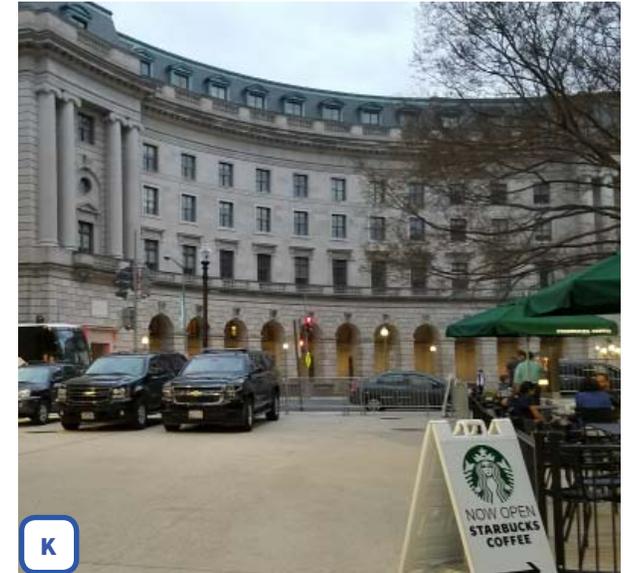
*Constitution Avenue entrance to Wilson Plaza through the EPA sally port*

**Wilson Plaza and Moynihan Place** offer a pedestrian passage to 13th Street between Pennsylvania and Constitution Avenues. The passage is removed from traffic and the plazas offer seating and shade. However, the entrance at the Environmental Protection Agency sally port is not highly visible, and limited wayfinding on either side deters pedestrian travel through the area.



*View west from 12th Street to the Federal Triangle Metrorail at the Hemicycle*

**The Federal Triangle Metrorail Station** entrances at the Ronald Reagan Building and Wilson Plaza are not well marked from 12th Street, Pennsylvania, or Constitution Avenues. The arched entrance is open and stately, but no visual cues indicate public Metrorail access within the block of office buildings.

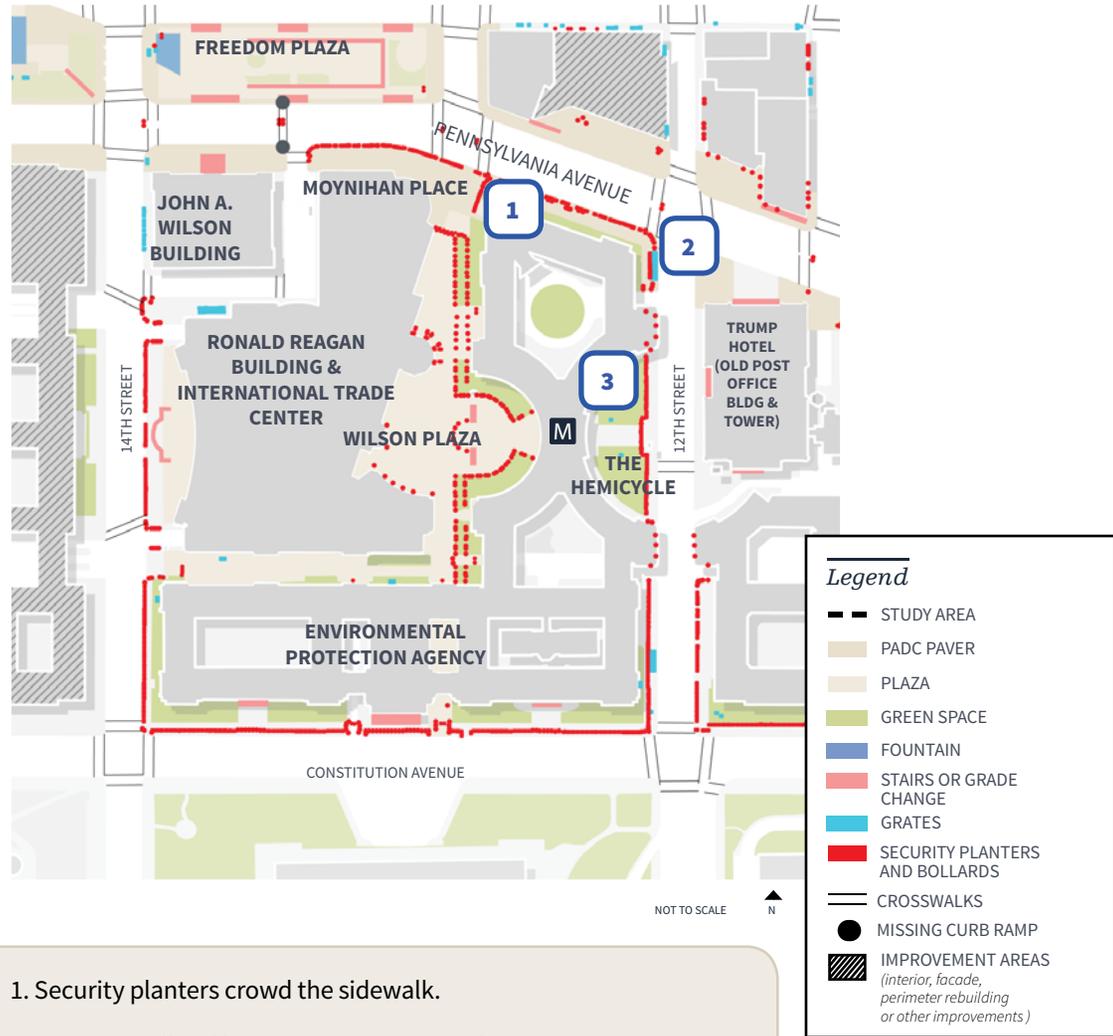


*View west toward the hemicycle from the entrance to the Old Post Office Tower*

**The visitor entrance to the Old Post Office Tower**, across from the Hemicycle, is blocked by security and parking/loading. The entrance is not well marked from 12th Street, the Avenue, or the front of the hotel.

# Federal Triangle West | Barriers

## 12th-14th Streets, south



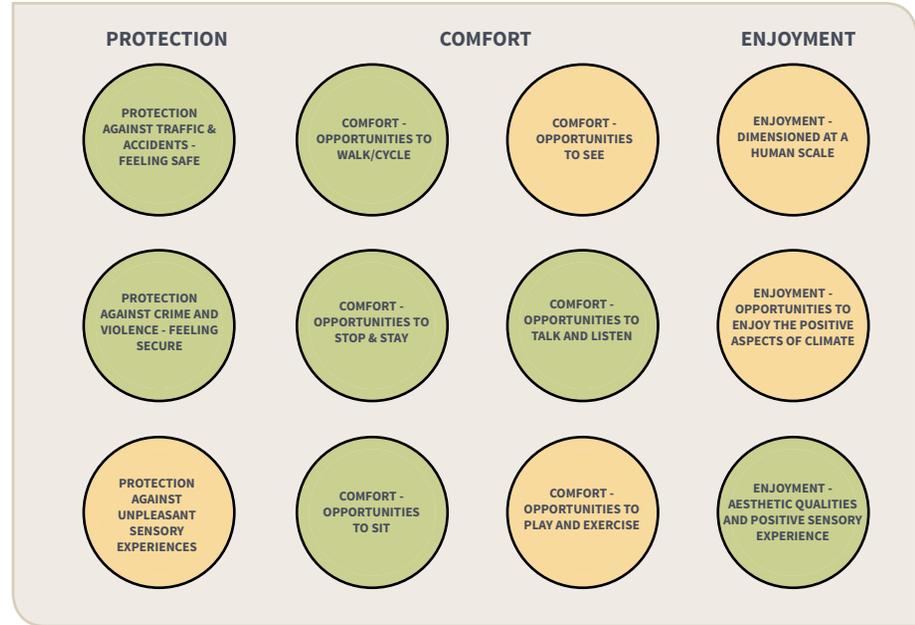
1. Security planters crowd the sidewalk.
2. Temporary flood barriers at WMATA ventilation grates.
3. Security planters and sandbags for flood protection.

# Federal Triangle West | Urban Quality Evaluation 12th-14th Streets, south



DATA BASED ON SITE OBSERVATION  
**MAY 18, 2017 - 1:40 PM - 88 DEGREES, PARTLY CLOUDY**  
 EVALUATION BASED ON GEHL ARCHITECTS 12 QUALITY CRITERIA

**WILSON PLAZA**



● GOOD    ● AVERAGE    ● POOR

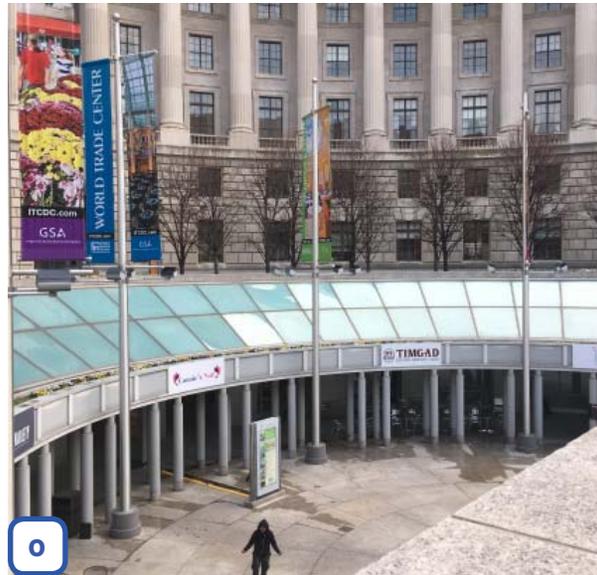
# Federal Triangle West | Activation

## 12th-14th Streets, south



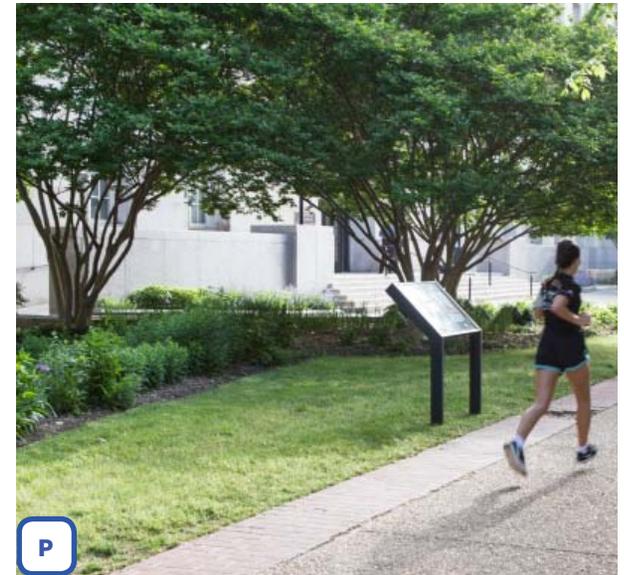
Capital Harvest Farmer's Market at Wilson Plaza

**Wilson Plaza** hosts large events, mostly on weekdays, including concerts and farmer's markets that are free and open to the public.



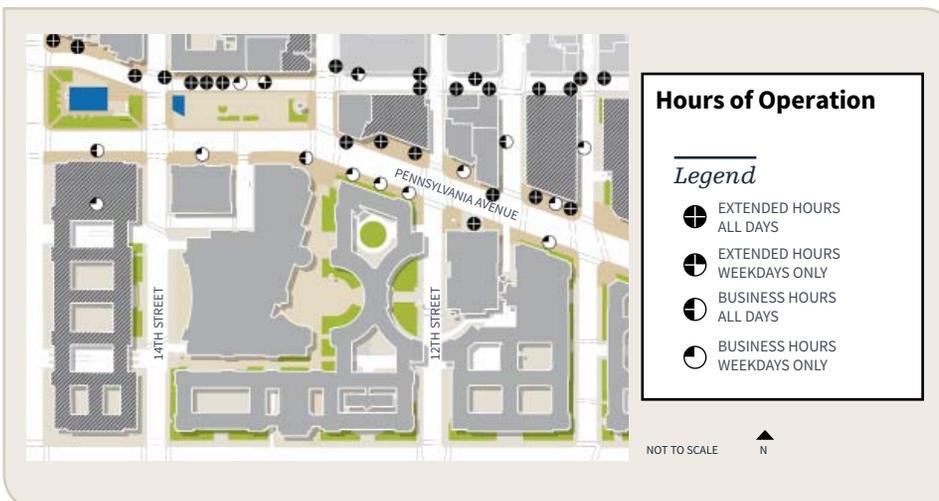
Sunken concourse at Wilson Plaza

**The sunken lower concourse at Wilson Plaza** separates pedestrian activity from the main plaza above, creating a large inactive zone between EPA's Hemicycle and the Reagan Building.



Demonstration garden on Constitution Avenue at EPA

**Building yards** planted with demonstration/ educational gardens add beauty, contribute to pedestrians' enjoyment, and break down the scale of larger blocks. Examples at EPA along Constitution Avenue have informative signage, but the landscape design does not provide the variation or interest (texture, color, scale) to have a significant visual impact.





E

*View north on 12th Street from the east side of the Hemicycle (see page 208)*

# Central Corridor | Overview

## 9th-13th Streets

This linear corridor consists of a relatively consistent street wall and streetscape with substantial tree canopy. This establishes a strong green frame that reinforces the axis and vista to the Capitol. This east-west connectivity weakens at the pedestrian scale. Long blocks, a concentration of office use, and lack of use allocation programming at the ground level deters street activity. Newspaper stands and flower kiosks once drew activity in this part of the Avenue, but have since been removed. Wide sidewalks on the north side accommodate crowds during periods of high volume use and civic activity, but seem oversized for daily use.

### Physical Characteristics

- A** The relationship between build-to lines and building heights creates a consistent proportional frame to the Capitol vista. Minimal architectural facade lighting and unobtrusive building signage emphasize views of the Capitol, particularly at night.
- B** North-south connectivity is weak as the streetscape transitions through Federal Triangle between Pennsylvania Avenue and the National Mall. Long blocks and minimal accessible frontage create an abrupt transition in character.
- C** Redevelopment at 1001 Pennsylvania Avenue, 1201 Pennsylvania Avenue, and the FBI site may include future ground floor and architectural improvements that increase interest along the street.
- D** The Federal Triangle Metrorail station to the west, and the Archives-Navy Memorial-Penn Quarter Metrorail station to the east, generate pedestrian activity through the area during commute times.

› **E-J** see pages 218-219

### Activation

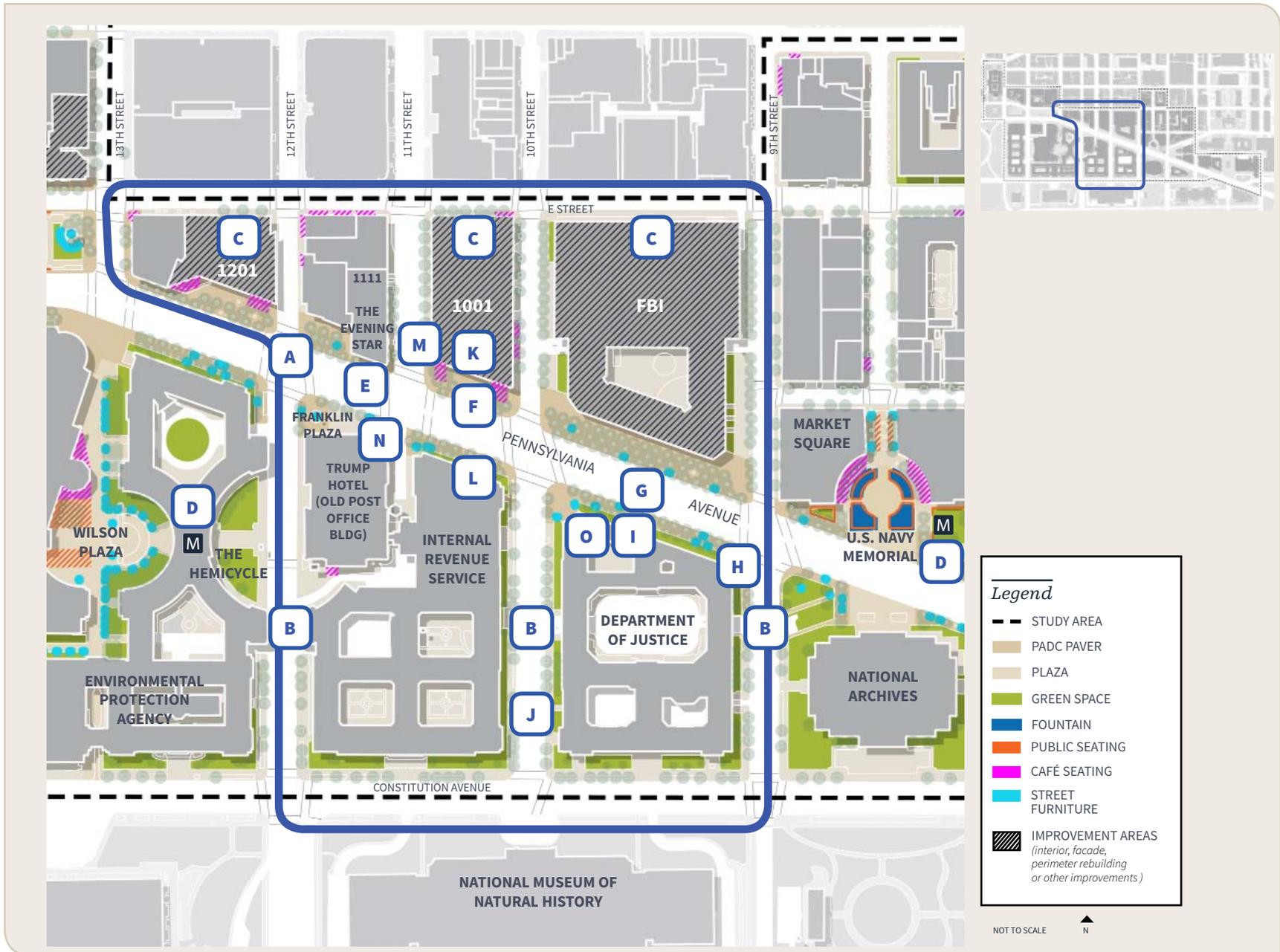
**K** Outdoor cafés on the north side do not fully activate the public space because they operate seasonally and are separated by larger areas of inactive lobby space. See page 223.

**L** Daily and overnight loitering occurs in this area along the south side of the Avenue.

› **M-O** see page 222

# Central Corridor | Overview

## 9th-13th Streets



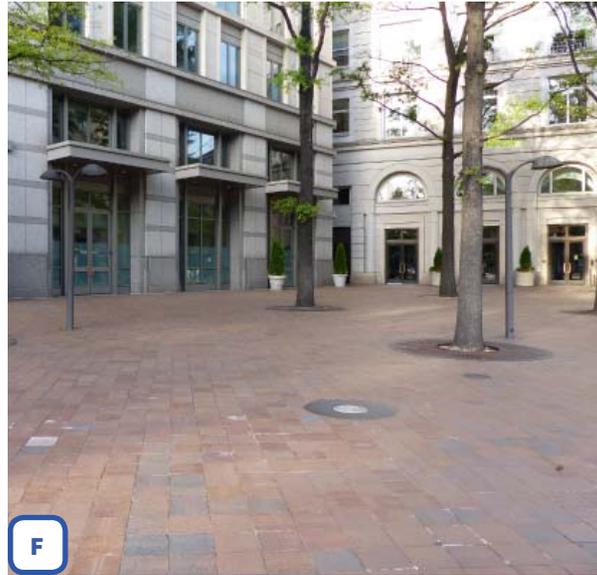
# Central Corridor | Physical Characteristics

## 9th-13th Streets



**E** Capitol vista from the 1200 block of Pennsylvania Avenue

**The historic Old Post Office and Evening Star buildings** are built at the historic Right-of-Way (historic ROW), forming the narrowest point on the Avenue. Their narrow profiles provide a slender frame for the Capitol vista from the western end of the Avenue. Strong cornice lines highlight the intricate architectural detail representative of Victorian era and Neoclassical/Beaux Arts expressions, respectively.



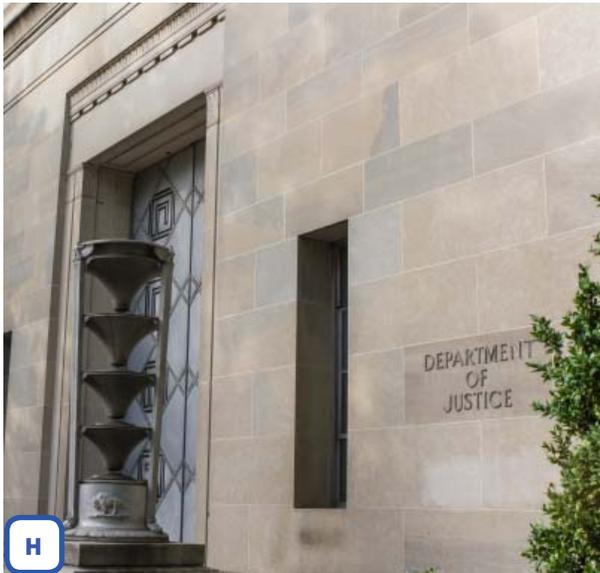
**F** Setback on the north side of the 1100 block of the Avenue

**On the Avenue's north side**, long walls of office lobbies and other private uses, recessed building entries, minimal signage, and dispersal of retail and impacts pedestrian connectivity. Larger open areas created by building setbacks can contribute a proportional, intimate scale for pedestrian enjoyment, but are not used to their potential when adjacent to ground floors that contain uses with limited public access, and no amenities, such as seating.



**G** View east from center median

**Some of the Avenue's best views of the Capitol** are from the center median. However, the view is interrupted by multiple levels of signage, traffic signals, bollards, and bike lane protection.



**H**  
*Detail at the Department of Justice*

**The Avenue's south side** is more cohesive in style. Federal Triangle buildings with interesting architectural detail, art, and inscription express societal values, and convey government mission and purpose.



**I**  
*Security planters at Department of Justice*

**Perimeter security features**, such as concrete planters, often occupy part of the public space creating obstacles to pedestrian mobility. The placement of planters affects the quality of space, detracting from the continuity of the streetscape. The U.S. Department of Commerce provides a good precedent for integrating perimeter security into the streetscape in Federal Triangle.

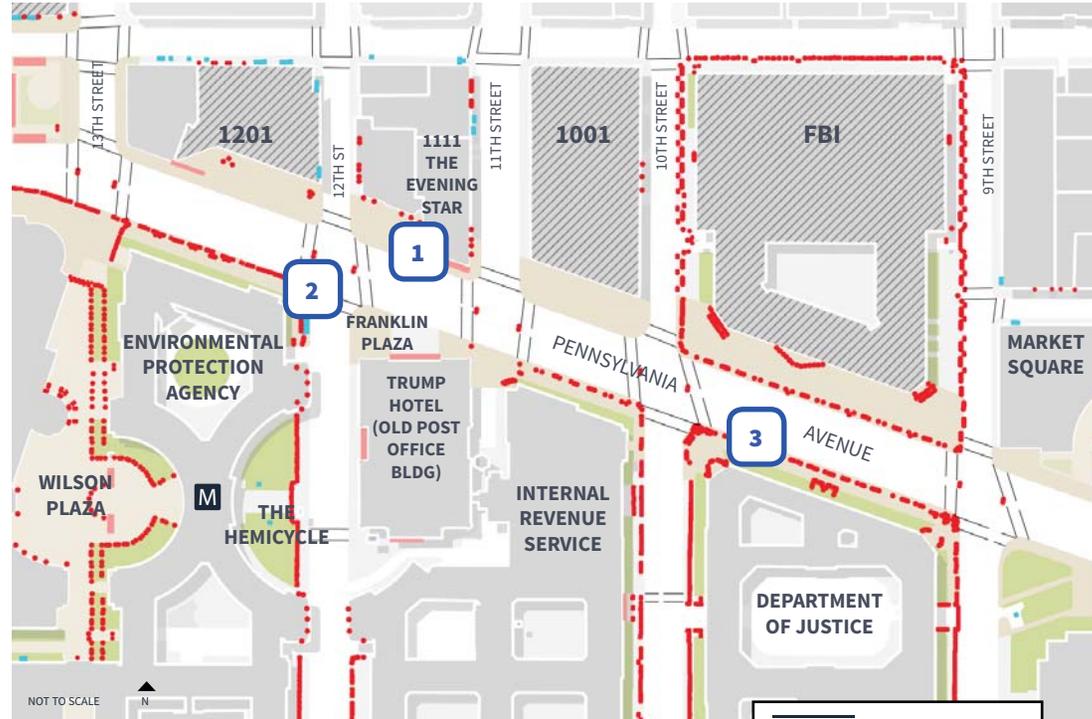


**J**  
*View south on 10th Street toward the National Museum of Natural History*

**10th Street** is a strong north-south connection between visitor destinations, but prioritizes bus and vehicular traffic. While the section through Federal Triangle is a Metrobus hub and hosts a Capital Bikeshare location, it is not bicycle or pedestrian friendly. There is a strong visual connection to the National Museum of Natural History, but shifting traffic lanes mar the public space and deter pedestrian mobility.

# Central Corridor | Barriers

## 9th-13th Streets



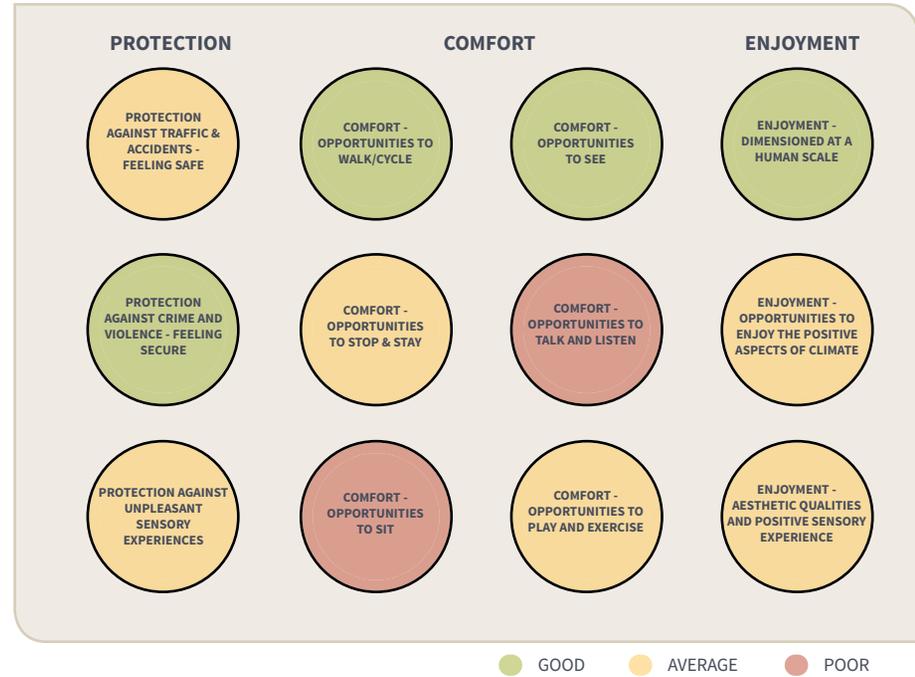
1. Tree placement reduces the usable area of the sidewalk.
2. Metal bollards at the center median.
3. Security planters crowd the sidewalk.

*Legend*

- STUDY AREA
- PADC PAVER
- PLAZA
- GREEN SPACE
- FOUNTAIN
- STAIRS OR GRADE CHANGE
- GRATES
- SECURITY PLANTERS AND BOLLARDS
- CROSSWALKS
- MISSING CURB RAMP
- IMPROVEMENT AREAS  
*(interior, facade, perimeter rebuilding or other improvements)*



FRANKLIN PLAZA



DATA BASED ON SITE OBSERVATION  
**MAY 18, 2017 - 1:25 PM - 88 DEGREES, PARTLY CLOUDY**  
 EVALUATION BASED ON GEHL ARCHITECTS 12 QUALITY CRITERIA

# Central Corridor | Activation

## 9th-13th Streets



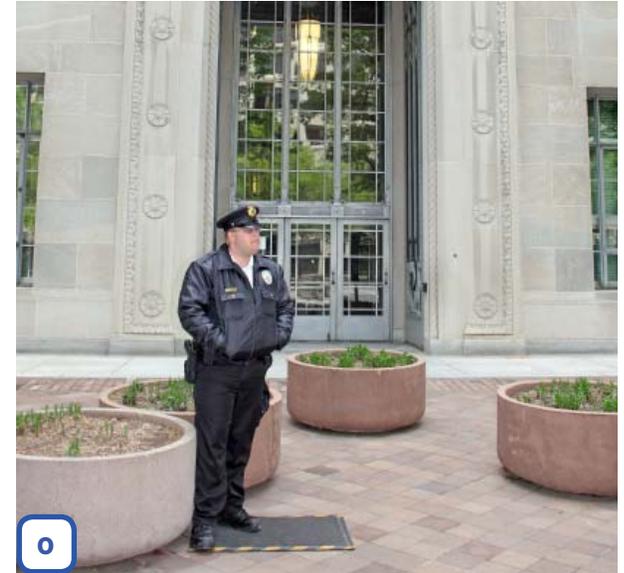
**M** Outdoor restaurant seating at 1001 Pennsylvania Avenue

**Restaurants and cafés** draw people between the Avenue and the arts and the entertainment area to the north. Due to the street configuration, these blocks are the shortest between the Avenue and downtown, making the walk convenient.



**N** View west toward Franklin Plaza at the Trump International Hotel (Old Post Office)

**The Trump International Hotel (Old Post Office)** operates at all hours, and has the potential to activate Franklin Plaza in front. The restaurant offers seasonal outdoor seating with lights and music. However, the hotel's Pennsylvania Avenue entrance remains blocked by temporary security measures.



**O** Security planters and personnel at the Department of Justice

**The Avenue's south side** has a heavy concentration of government office uses with restricted access. Perimeter security measures and security personnel are intimidating, and discourage street activity. Hours of operation are generally limited to weekday business hours, generating little activity during the evening and on weekends.





**K** *Outdoor café seating at 1201 Pennsylvania Avenue (see page 216)*

# Market Square Area | Overview

## 6th-9th Streets

The Market Square area at the intersection of 8th Street, Indiana and Pennsylvania Avenues, is an important cross axis on the orthogonal grid between the American Art Museum/National Portrait Gallery and the National Archives. The area supports a mix of uses; residential, office, restaurants, and institutional (courts), and generates significant activity. The U.S. Navy Memorial Plaza is a public space surrounded by mixed-use development that successfully balances dual roles of an active urban park and place of ceremony and celebration (U.S. Navy Memorial). A variety of restaurants, public space amenities, and programmed activities attract workers, residents, and visitors to the plaza and surrounding area. The plaza does not provide public space amenities to serve residents and schools, such as a dog park, ball courts, or play equipment.

### Physical Characteristics

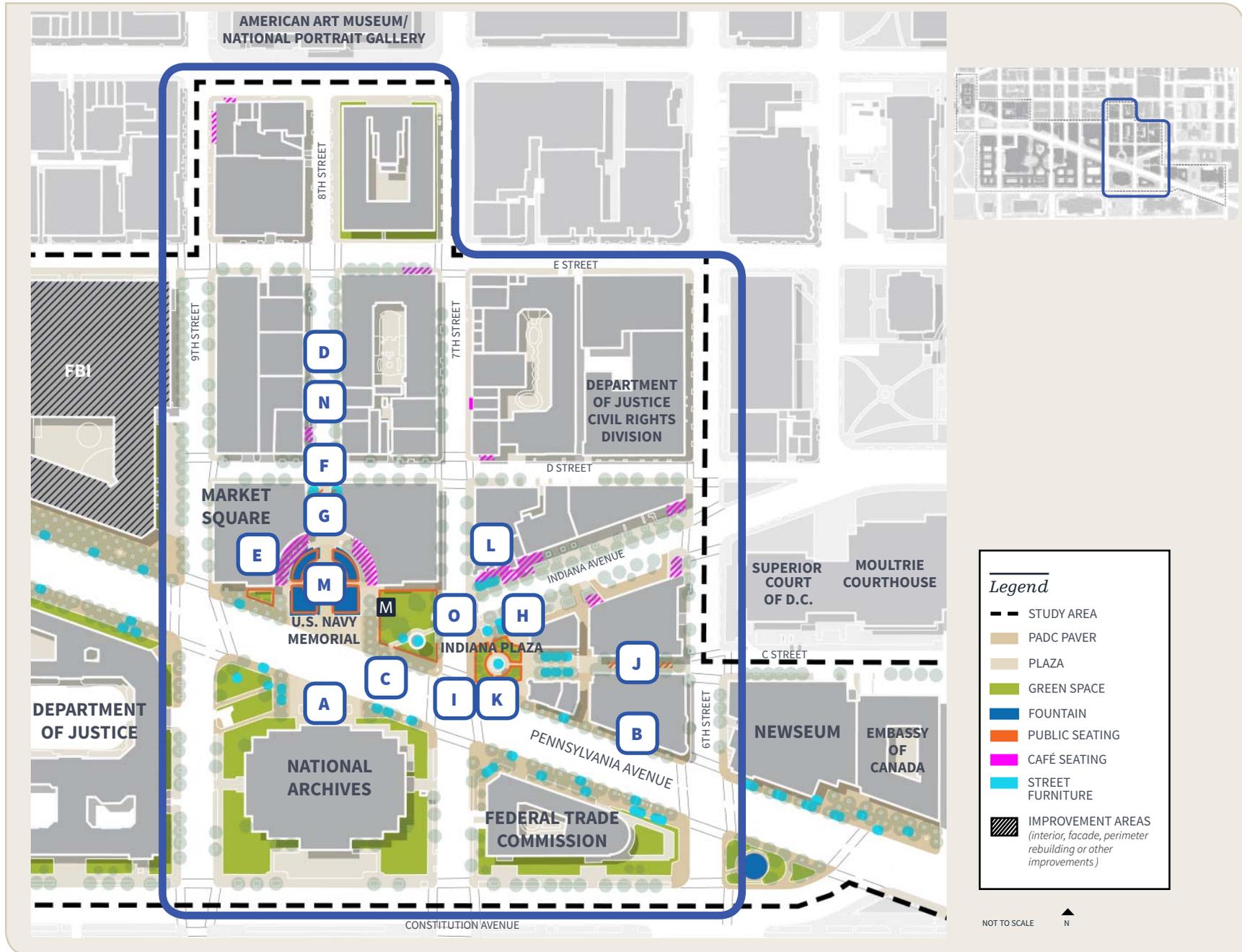
- A** The National Archive's main public entrance is on Constitution Avenue and its Pennsylvania Avenue entry is restricted. The plaza facing Pennsylvania Avenue is proportional to the building, but does not offer site design or activity programming, and consequently seems oversized and empty most times.
- B** On the Avenue's north side between 6th and 7th Streets buildings are open to the public, but covered windows and doors make the buildings seem unwelcoming and abandoned.
- C** Jaywalking across the Avenue occurs regularly between Market Square and the National Archives.
- D** 8th Street offers a strong visual connection between the American Art Museum/National Portrait Gallery and the National Archives. However, retail uses are limited and it does not offer a strong pedestrian connection because many of the building frontages are not accessible or engaging.

› **E-J** see pages 226-227

### Activation

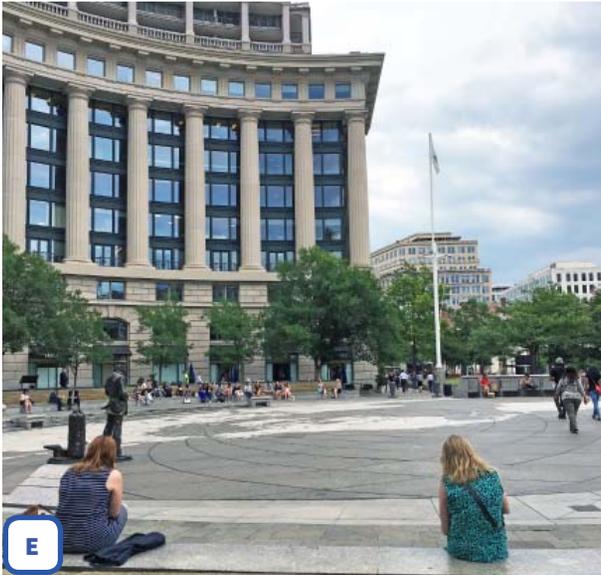
- K** Indiana Plaza lacks activity, programming, and connections to adjacent building uses; consequently, it has less foot traffic than neighboring Market Square.
- L** On the north side of Indiana Avenue, near 7th Street, cafés with outdoor seating are lively, contributing to both Market Square and Indiana Plaza activity, but building uses to the east (courts) limit evening and weekend activity.

› **M-O** see page 230



# Market Square Area | Physical Characteristics

## 6th-9th Streets



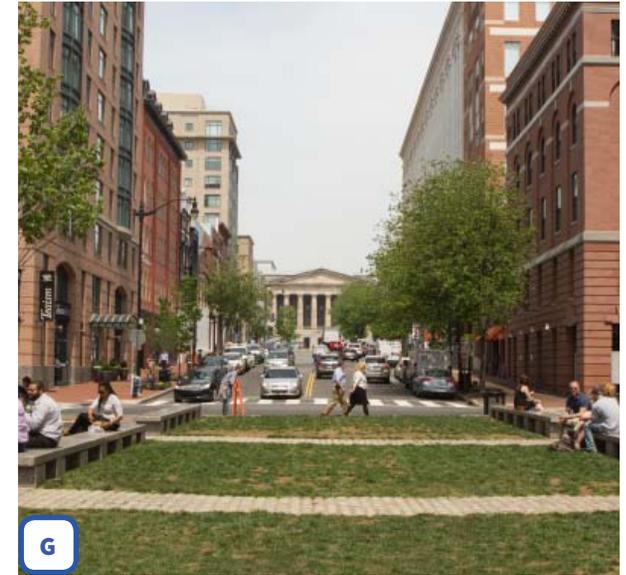
*U.S. Navy Memorial from the northwest side of Market Square*

**The U.S. Navy Memorial Plaza** offers a variety of seating options (private cafés, benches, and sculpted ledges), with water and pavement features. It lacks green space and shaded seating choices. See page 231.



*View south from 8th Street through Market Square to the National Archives*

**Buildings oriented on the orthogonal grid** frame the U.S. Navy Memorial Plaza, and open views south across the Avenue to the National Archives.

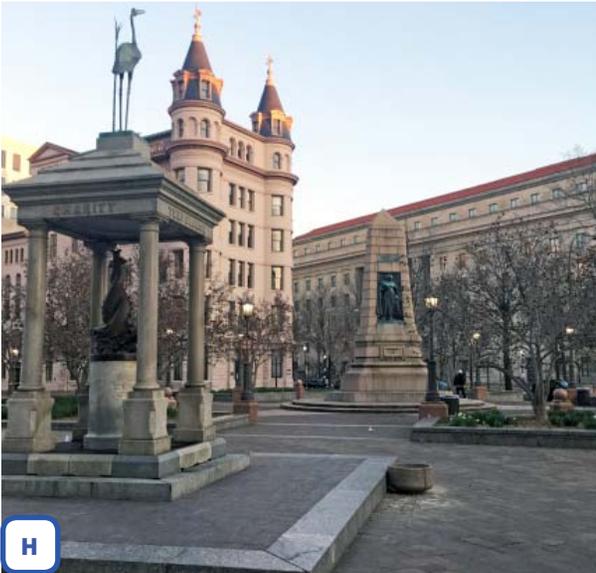


*View north along 8th Street through Market Square to the American Art Museum/National Portrait Gallery*

**The building wall narrows to the north**, reinforcing the 8th Street cross-axis, emphasizing the plaza as a central feature, and framing a reciprocal vista to the north, to the American Art Museum/National Portrait Gallery.

## Market Square Area | Physical Characteristics

### 6th-9th Streets



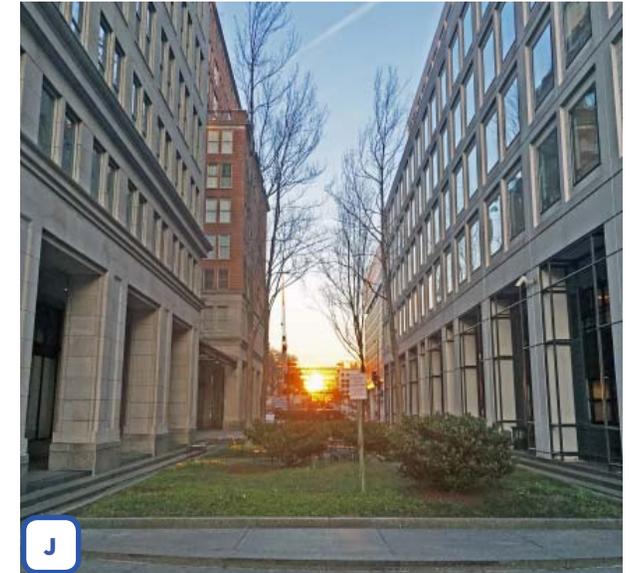
**H**  
*Commemorative elements at Indiana Plaza*

**Indiana Plaza** has several commemorative elements and some seating, but lacks regular maintenance. Its form does not provide a sense of enclosure. Seating was removed to discourage daytime and overnight loitering.



**I**  
*View toward Market Square and Indiana Plaza from 7th Street on the southeast side of the Avenue*

**7th Street** serves as a transit hub for several bus routes and connects the Avenue to the Penn Quarter entertainment district to the north. Its short distance through the Federal Triangle offers one of the strongest connections between downtown and the National Mall. The only entrance/exit to the Archives-Navy Memorial-Penn Quarter Metrorail station is located between Market Square and Indiana Plaza. It is a popular stop for access to the National Archives and the National Mall, and generates substantial foot traffic in and around the area.



**J**  
*View east through the C Street pedestrian alley*

**C Street** extends west between 6th and 7th Streets as a pedestrian alley. The space is narrow with recessed building entrances, and is not well lit at night. The arcade does not seem like a public connection, and causes the sunken gardens to function more as a courtyard. North-south alleys also connect Pennsylvania and Indiana Avenues across the C Street pedestrian alley, but gates and parked cars make the space unwelcoming.

# Market Square Area | Barriers

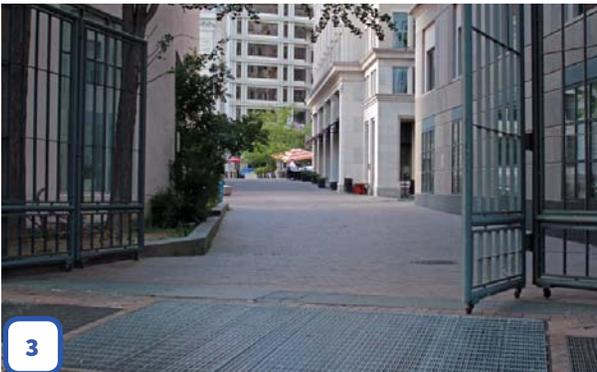
## 6th-9th Streets



1



2



3



NOT TO SCALE



1. WMATA ventilation and tree grates at the sidewalk.
2. Security planters and bollards.
3. Gates and grates with no amenities.

**Legend**

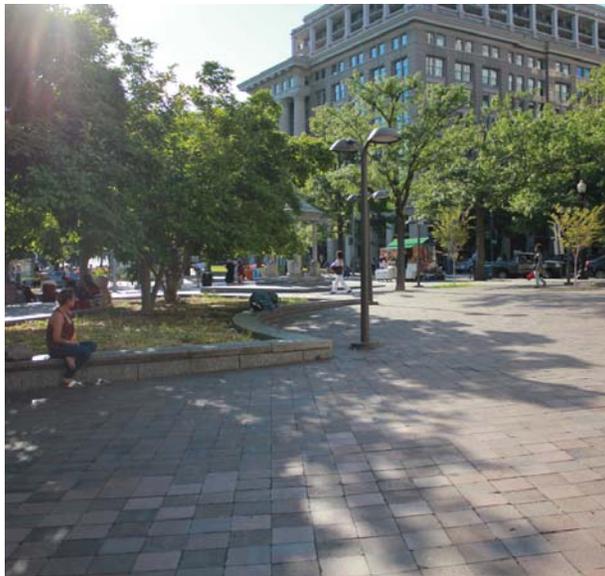
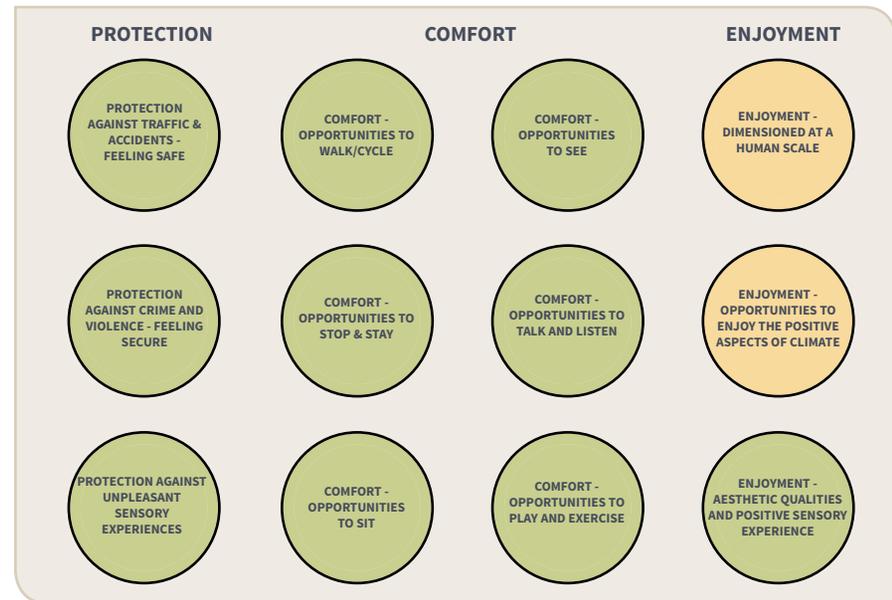
- STUDY AREA
- PADC PAVER
- PLAZA
- GREEN SPACE
- FOUNTAIN
- STAIRS OR GRADE CHANGE
- GRATES
- SECURITY PLANTERS AND BOLLARDS
- CROSSWALKS
- MISSING CURB RAMP
- IMPROVEMENT AREAS (interior, facade, perimeter rebuilding or other improvements)

# Market Square Area | Urban Quality Evaluation

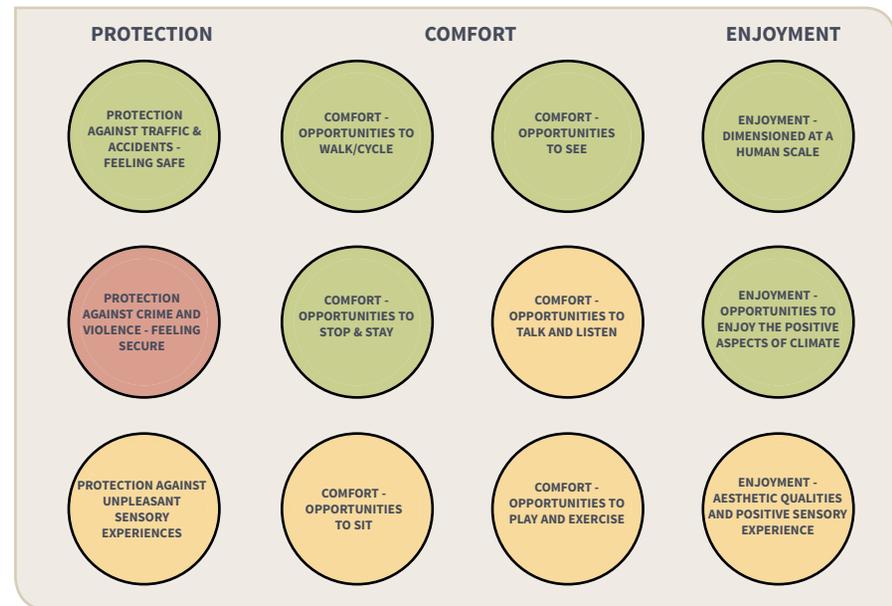
## 6th-9th Streets



U.S. NAVY MEMORIAL PLAZA



INDIANA PLAZA

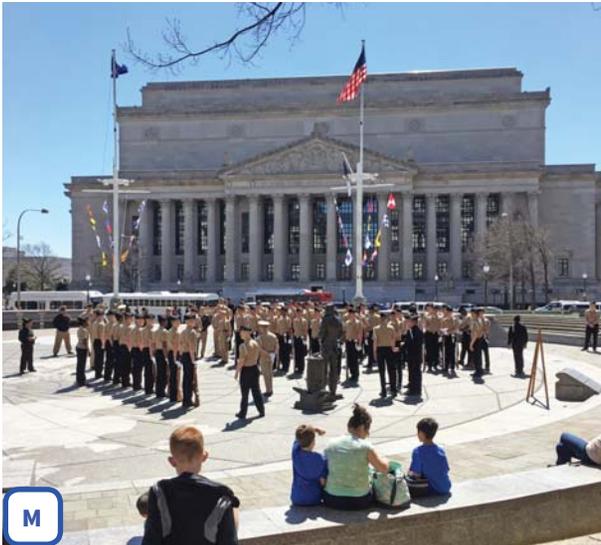


DATA BASED ON SITE OBSERVATION  
 MAY 19, 2017 - 11:45 AM - 87 DEGREES, SUNNY  
 EVALUATION BASED ON GEHL ARCHITECTS 12 QUALITY CRITERIA

● GOOD ● AVERAGE ● POOR

# Market Square Area | Activation

## 6th-9th Streets



U.S. Navy Memorial from the northwest side of Market Square

**Ceremonial events** frequently activate the U.S. Navy Memorial Plaza.



View south from 8th Street across Market Square to the National Archives

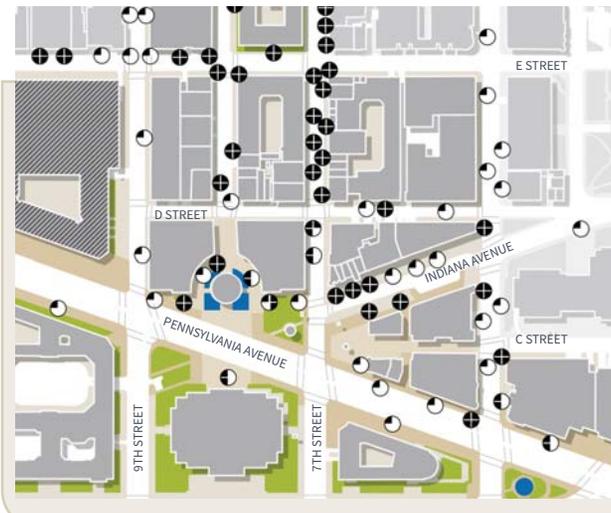
**A farmers' market operates weekly** (from April through November) on 8th Street\*, creating an active pedestrian zone between D and E Streets.

*\*Spring 2017, relocated to F Street*



View toward Market Square from Indiana Plaza

**Both Indiana Plaza and the U.S. Navy Memorial Plaza** are in position to absorb pedestrian flow from large events in this area of the Avenue or on the Mall, because of their proximity to 7th Street and the National Mall.



### Hours of Operation

#### Legend

- ⊕ EXTENDED HOURS ALL DAYS
- ⊕ EXTENDED HOURS WEEKDAYS ONLY
- ⊖ BUSINESS HOURS ALL DAYS
- ⊖ BUSINESS HOURS WEEKDAYS ONLY

### 2015 Civic Activities - Market Square Area

Volume (people)	Spring	Summer	Fall	Winter	Total
Small (1-99)	3	4	5	2	14
Medium (100-999)	4	3	3	1	11
Large (1,000-9,999)	0	0	1	0	1
Extra Large (10k+)	0	0	0	0	0
<b>Total</b>	7	7	9	3	26

*2015 permits issued for the central part of Pennsylvania Avenue. Data from National Park Service and DC HSEMA*



**E** Steps at the north side of Market Square (see page 226)

# East End Institutions | Overview

## 3rd-6th Streets

The relationship of intersecting streets to buildings on Pennsylvania and Constitution Avenues at the Capitol grounds establishes wide setbacks and contributes to the open character of the area. The large scale of open spaces with a lack of site design programming, and poor relationship to inaccessible building frontages with restricted access, leads to inactive public space. Land use concentrations shift from office and commercial to civic and cultural, as the Avenue transitions to the Capitol grounds.

### Physical Characteristics

- A** The Andrew W. Mellon Fountain is an attractive public amenity and important feature on the Avenue.
- B** John Marshall Park's open space is clearly defined, and provides an open space option with grass and shade. However, it is isolated by the inaccessible building frontages surrounding it and lacks diverse seating options and other park amenities.
- C** John Marshall Park is well located to connect to plazas around the National Gallery of Art and the U.S. District Court, but lacks adequate lighting to provide safe and well lit pedestrian circulation at night.
- D** Meade Plaza is located at the intersection of Pennsylvania and Constitution Avenues, and is adjacent to John Marshall Park, but is isolated by security bollards and planters. Lack of site design programming fails to create a public amenity or destination.
- E** This area has the most direct connection between the Capitol grounds and the National Mall (at 3rd and 4th Streets); it is the shortest compared to the rest of the Avenue. See page 239.

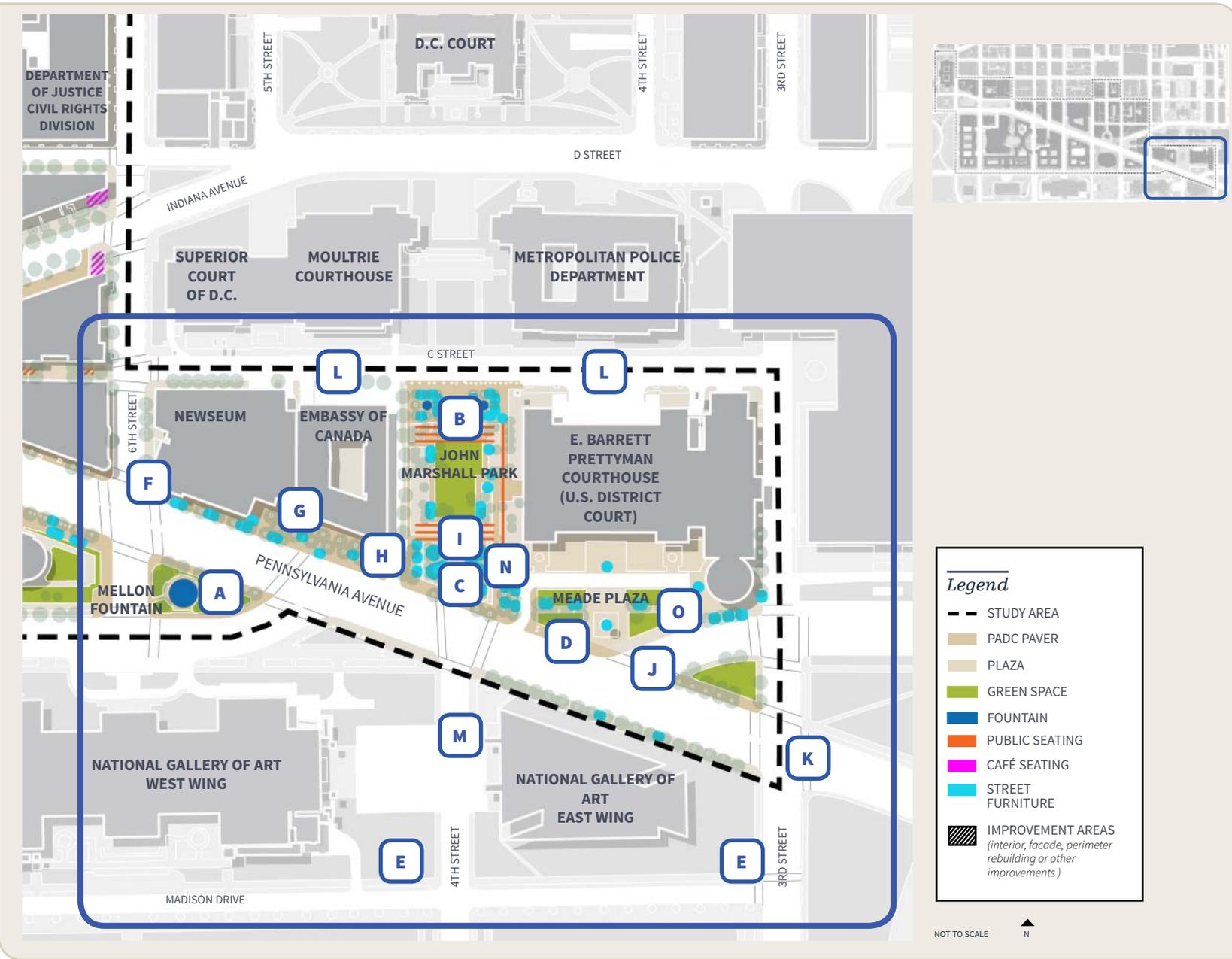
› **F-K** see pages 234-235

### Activation

- L** The courts, the Canadian Embassy, and museums establish a strong civic character in this area. However, hours of operation in this area generally conclude at 5:00 PM, limiting street activity in the evening.

› **M-O** see page 238

East End Institutions | Overview  
 3rd-6th Streets



**Legend**

- STUDY AREA
- PADC PAVER
- PLAZA
- GREEN SPACE
- FOUNTAIN
- PUBLIC SEATING
- CAFÉ SEATING
- STREET FURNITURE
- IMPROVEMENT AREAS (interior, facade, perimeter rebuilding or other improvements)

NOT TO SCALE



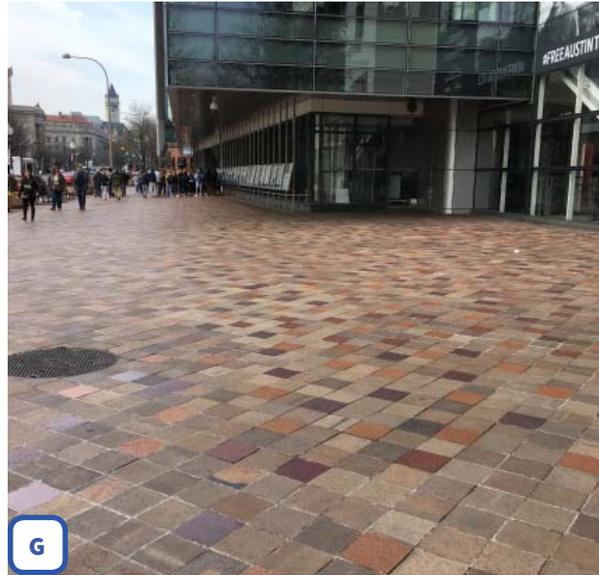
# East End Institutions | *Physical Characteristics*

## 3rd-6th Streets



*Overhang and exterior display at the Newseum*

**The permanent exterior display** in front of the Newseum activates the street and invites pedestrians to linger. The overhang departs from typical massing along the rest of the Avenue, impeding the vertical frame to the Capitol vista from the sidewalk.



*Sidewalk pavers at the Newseum*

**The streetscape elements** dissipate along this block. Tree rows are inconsistent with other segments of the Avenue, and pavers do not match the original color. Many of the canopy trees were removed on the Avenue's north side between 6th and 4th Streets. Infrastructure below the sidewalk inhibits the growth of street trees.



*Security planters at the Canadian Embassy*

**Several of the buildings**, such as the National Gallery of Art, lack accessible frontage, have long facades, or turn their back to the Avenue. Many have restricted access and perimeter security, such as the Canadian Embassy, Metropolitan Police Department, and courthouses.



**I**  
*View north through John Marshall Park*

**Vegetation** obscures north-south axial views and encloses John Marshall Park at its northern edge, impeding visual connection north to the court houses and the National Building Museum. The large paved area, and the adjacent Meade Plaza, support civic activity but do not offer amenities or functions for daily use.



**J**  
*Intersection of Constitution and Pennsylvania Avenues seen from the roof of the National Gallery of Art*

**A confluence of intersections**, bike lanes, and parking complicates pedestrian crossings. Pedestrian counts are consistent throughout the day, but are lower than other areas of the Avenue.



**K**  
*View toward the Capitol from 3rd Street and Pennsylvania Avenue*

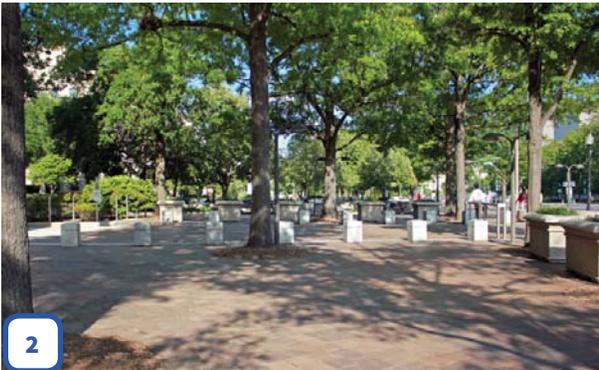
**Surface parking, security barriers**, and inconsistent signage interrupts the visual and physical connectivity as Pennsylvania Avenue transitions to the Capitol complex.

# East End Institutions | Barriers

## 3rd-6th Streets



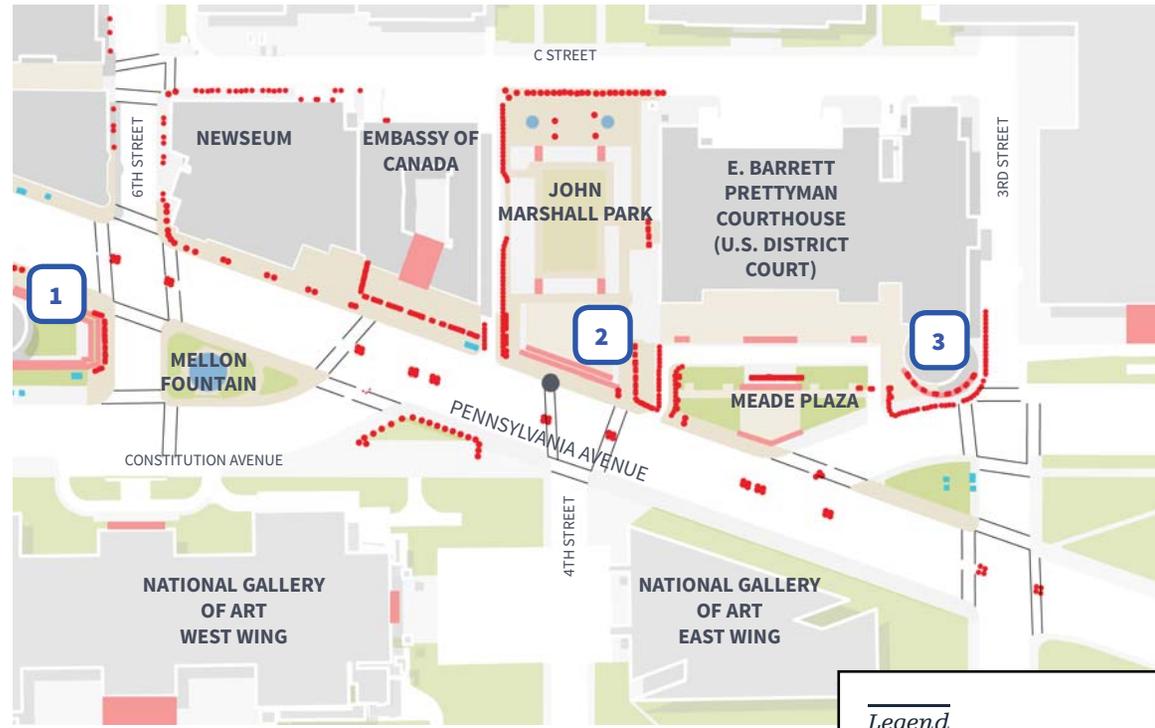
1



2



3



NOT TO SCALE

**Legend**

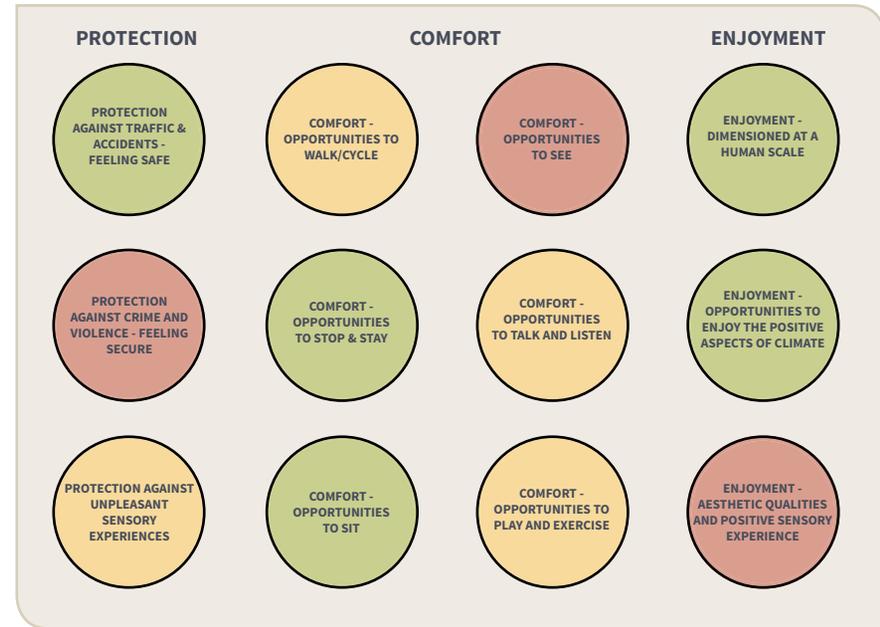
- STUDY AREA
- PADC PAVER
- PLAZA
- GREEN SPACE
- FOUNTAIN
- STAIRS OR GRADE CHANGE
- GRATES
- SECURITY PLANTERS AND BOLLARDS
- CROSSWALKS
- MISSING CURB RAMP
- IMPROVEMENT AREAS (interior, facade, perimeter rebuilding or other improvements)

1. Security planters block the stairs.
2. Bollards and security planters crowd the sidewalk.
3. Steps, ledges, security planters, and bollards create an edge.

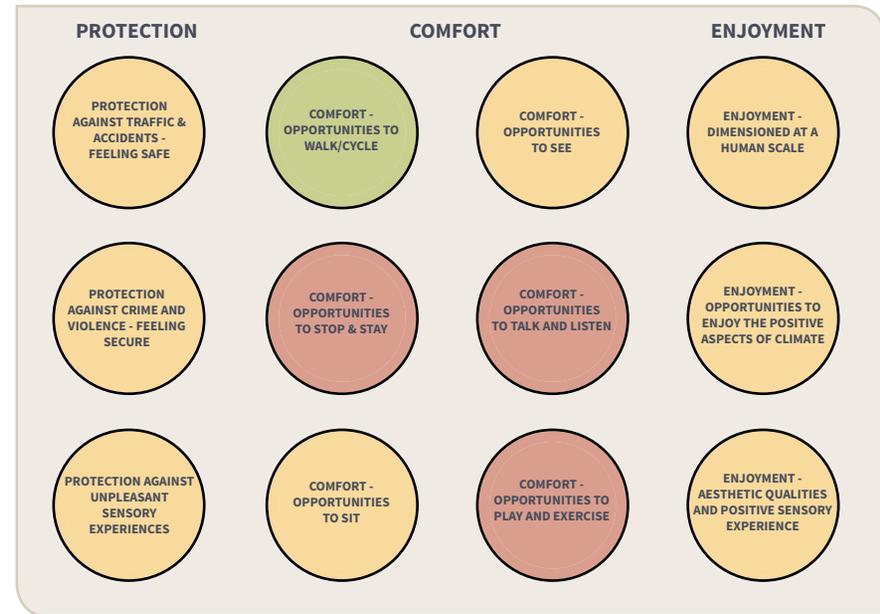
East End Institutions | Urban Quality Evaluation  
3rd-6th Streets



JOHN MARSHALL PARK



4TH STREET PLAZA AT THE NATIONAL GALLERY OF ART

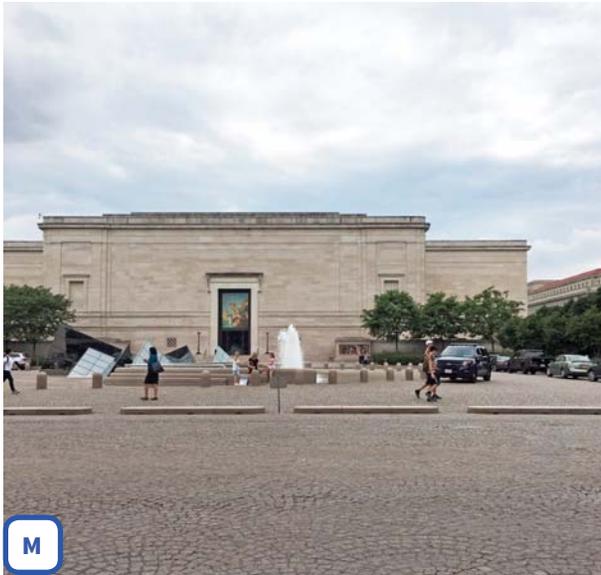


DATA BASED ON SITE OBSERVATION  
MAY 23, 2017 - 12:00 PM - 67 DEGREES, CLOUDY  
EVALUATION BASED ON GEHL ARCHITECTS 12 QUALITY CRITERIA

GOOD AVERAGE POOR

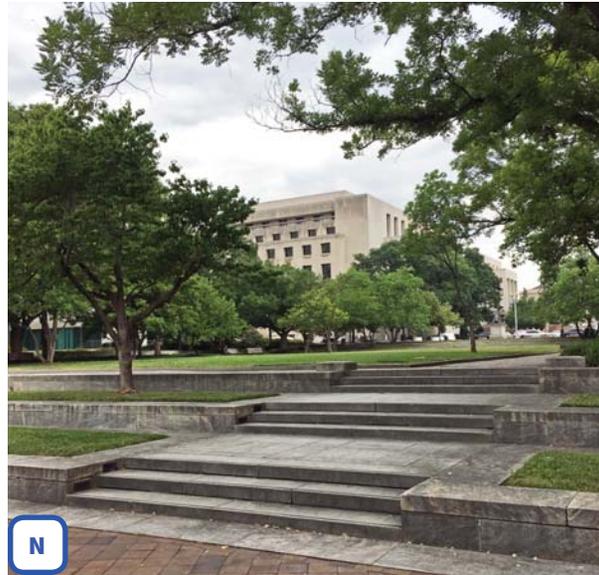
# East End Institutions | Activation

## 3rd-6th Streets



**M**  
View toward the east entrance of the National Gallery of Art from 4th Street

**The National Gallery of Art** draws visitors, but their main entrances are on 4th Street or from the National Mall. The plaza is monitored by security personnel. Although both museums offer evening events, their orientation does not engage the Avenue.



**N**  
Steps at the southeast side of John Marshall Park

**John Marshall Park** has capacity for large events, but has less programmed activity than other areas of the Avenue and is frequently empty, leading to increased daily and overnight loitering.



**O**  
View east toward Meade Plaza

**Meade Plaza** can capture excess pedestrian flow from large scale events at the Avenue's east end of the Avenue or from the National Mall. It lacks consistent daily use, and skateboarders sometimes use the steps and ledges.



### Hours of Operation

#### Legend

- EXTENDED HOURS ALL DAYS
- EXTENDED HOURS WEEKDAYS ONLY
- BUSINESS HOURS ALL DAYS
- BUSINESS HOURS WEEKDAYS ONLY

NOT TO SCALE



### 2015 Civic Activities - East End

Volume (people)	Spring	Summer	Fall	Winter	Total
Small (1-99)	2	0	0	1	3
Medium (100-999)	0	1	0	0	1
Large (1,000-9,999)	1	0	0	0	1
Extra Large (10k+)	0	0	0	0	0
<b>Total</b>	3	1	0	1	5

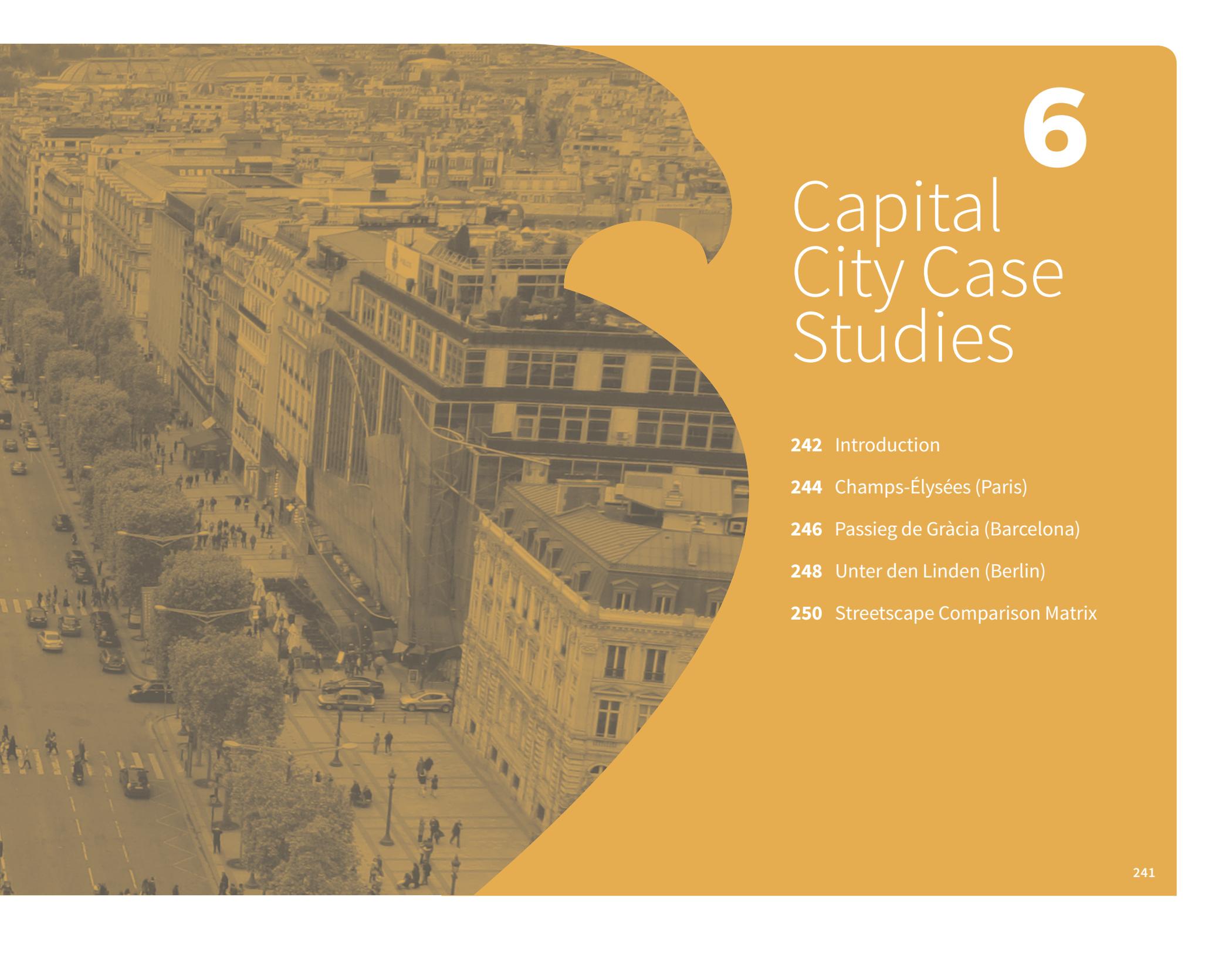
2015 permits issued for the eastern part of Pennsylvania Avenue. Data from National Park Service and DC HSEMA



E

Approach to the Capitol from the 300 Block of Pennsylvania Avenue (See page 232)



An aerial photograph of a city street, likely Paris, showing a wide boulevard with multiple lanes of traffic, sidewalks with trees, and multi-story buildings. A large, semi-transparent yellow graphic shape is overlaid on the right side of the image, containing the chapter title and table of contents.

# 6

## Capital City Case Studies

**242** Introduction

**244** Champs-Élysées (Paris)

**246** Passieg de Gràcia (Barcelona)

**248** Unter den Linden (Berlin)

**250** Streetscape Comparison Matrix

# Capital City Case Studies

## Introduction

Many capital cities around the world typically have prominent streets that serve a dual role; both a local role and that of a capital city—destinations where businesses carry out their work; visitors come to explore, learn, or shop; and citizens gather to commemorate, celebrate, honor, or pay respect to their country's progresses or losses.

Prominent capital city streets face similar challenges and opportunities. Like Pennsylvania Avenue, these streets strive to balance the needs of the city and the nation. While these inimitable streets illustrate a wide range of conditions, they each possess four unique qualities that elevate them above other city streets:

- › **Symbol of the city and nation.** These streets serve as a destination for commemorative elements, special events, and other cultural components highlighting the essence of the city and nation. They may also serve as a hub for government headquarters, private businesses, educational facilities, or other uses for which the city and nation are well known.
- › **Equitable mobility options and connections.** These streets balance multiple transportation options and connect to surrounding neighborhoods, ensuring that all residents, visitors, and workers can easily access the street. Connectivity along the street itself is strong, providing pedestrians a barrier-free experience block to block.
- › **Comfortable social spaces.** Many of the streets accommodate a variety of activities to enhance the pedestrian experience and engage a variety of residents, visitors, and workers. These range from daily errands and small, spontaneous gatherings to highly coordinated special events for large international audiences.
- › **High quality design.** Whether designed organically or methodically, the urban form and streetscape create a custom structure and palette superior to other streets in the city. This is expressed in a variety of ways, from small-scale pavement details to large-scale monuments.

This section summarizes three Capital City Street Case Studies:

- › Champs-Élysées in Paris, France
- › Passeig de Gràcia in Barcelona, Spain (the capital of Catalonia)
- › Unter den Linden in Berlin, Germany

While the other capital city streets do not directly compare to Pennsylvania Avenue, comparing the different street sections, public spaces, land use mixes, and activities helps to evaluate the use, function, and character of the Avenue and can provide inspiration for future improvements. All measurements in this study are approximate. Each case study summarizes street conditions and issues related to the following:

- › Symbolic character
- › Design improvements and updates
- › Street length and width
- › Typical block size
- › Ground floor frontage
- › Anchor destinations
- › Adjacent public parks and plazas
- › Transportation modes
- › Pedestrian activity (including daily and civic activities)
- › Streetscape amenities (including street furnishings, hardscape and landscape materials)

Champs-Élysées, Paris, France



Photo: Jackie Ick

Passeig de Gràcia, Barcelona, Spain



Photo: Xavier Caballe

Unter den Linden, Berlin, Germany



Photo: L and Berlin/Gläser

## Context

**Symbolic Character:** Champs-Élysées is a world-class shopping and dining avenue that connects major civic landmarks. Its identity embodies and reflects Paris' culture and character, however, its retail supply has evolved to resemble New York City's Fifth Avenue.

**Design Updates:** A 1990 Revitalization Plan directed a \$45 million effort to plant new rows of trees, widen sidewalks, eliminate parking lanes, and add bus stops and street lamps.

By 2025, Paris proposes to improve the streetscape and address its identity by reducing the travel lanes to become a narrower central band, redistributing space for cycle paths, widening the sidewalk, and accommodating a tram and electric buses. Businesses will undergo aesthetic policing, and the side streets will be semi-pedestrianized to compliment the transitions.

**Length:** 6,336 feet (1.2 miles) **Width:** 230 feet  
**Sidewalks:** 70 feet wide **Roadway:** 90 feet wide

**Typical Block Size:** 400 feet x 500 feet

**Ground Floor Frontage:** 20–50 feet wide

**General Land Uses:** Commercial, cultural, and residential

**Anchor Destinations:** Northern anchor—memorial (commemorative monument); Southern anchor—memorial (commemorative plaza)

**Active Timeframes:** Weekday and weekends – day and night

**Adjacent Public Parks & Plazas:** More than three parks/plazas located approximately every 1,600 feet.



**Street Activating Events:** Grande Parade; Bastille Day Military Parade; Tour de France

**Transportation Modes:** 10 travel lanes—the two outer lanes, closest to curbs are reserved for bus, taxi, and service. No metered parking; Metro stops; and 20+ bus stops; No designated bike lanes.

**Pedestrian Activity:** High

**Streetscape Amenities:** Streetscape furniture is predominantly located within the first 10 feet from the face of curb. Retail kiosks (10 feet x 20 feet) are located every 600 feet on average. Other amenities include taxi pickup/dropoff locations, seating, litter receptacles, bollards, and a limited amount of bicycle racks.

**Street Trees:** Two rows of street trees on either side of the street reinforce the street's hierarchy with surrounding streets, and unifies all of the streetscape programs, adjoining uses, and experiences.

**Ground Level Landscape:** 20 percent softscape

**Lighting:** Approximately two types of streetscape lighting reflect designs of various eras. One type of street light is scaled for pedestrian use.

**Signage:** Advertisement stands are located every 200 feet on average, in every bus shelter, and on light poles.

Plan



# Capital City Case Studies | *Passeig de Gràcia, Barcelona*

Plan

## Context

**Symbolic Character:** Passeig de Gràcia is a major avenue within the primary shopping and business district of Barcelona. Its width, service drives, and type of anchor destinations resemble K Street, between George Washington Circle and Mount Vernon Square.

**Design Updates:** The Passeig de Gràcia reconstruction improves the pedestrian and bicycle presence along the street.

In 2016, the government started a pilot project to reclaim road space in order to further prioritize the pedestrian's role along the avenue, and reduce pollution. The proposed superblocks comprise nine city blocks that will prohibit through traffic and on-street parking; cars are permitted, but at a speed limit of 6 mph to embrace the pedestrian-oriented use.

Barcelona is currently introducing a greening program to improve the balance between landscape and cityscape throughout the city. The improvements will include planting more street trees.

**Length:** 4,200 feet (.8 mile) **Width:** 200 feet  
**Sidewalks:** 60-65 feet wide **Roadway:** 68-70 feet wide

**Typical Block Size:** 440 feet x 440 feet

**Ground Floor Frontage:** 20-50 feet wide

**Land Uses:** Commercial and residential

**Anchor Destinations:** Northern anchor-cultural (plaza); southern anchor-cultural (parks and plazas surrounded by mixed-use with ground floor retail)

**Active Timeframes:** Weekday and weekends-day and night

**Adjacent Public Parks & Plazas:** One park/plaza about every 2,800 feet



**Street Activating Events:** Gràcia Festival; protests and demonstrations

**Transportation Modes:** Six lanes—two lanes closest to curbs are for taxi and buses; Metro stops, bus stops, and currently no designated bike lanes.

**Pedestrian Activity:** High

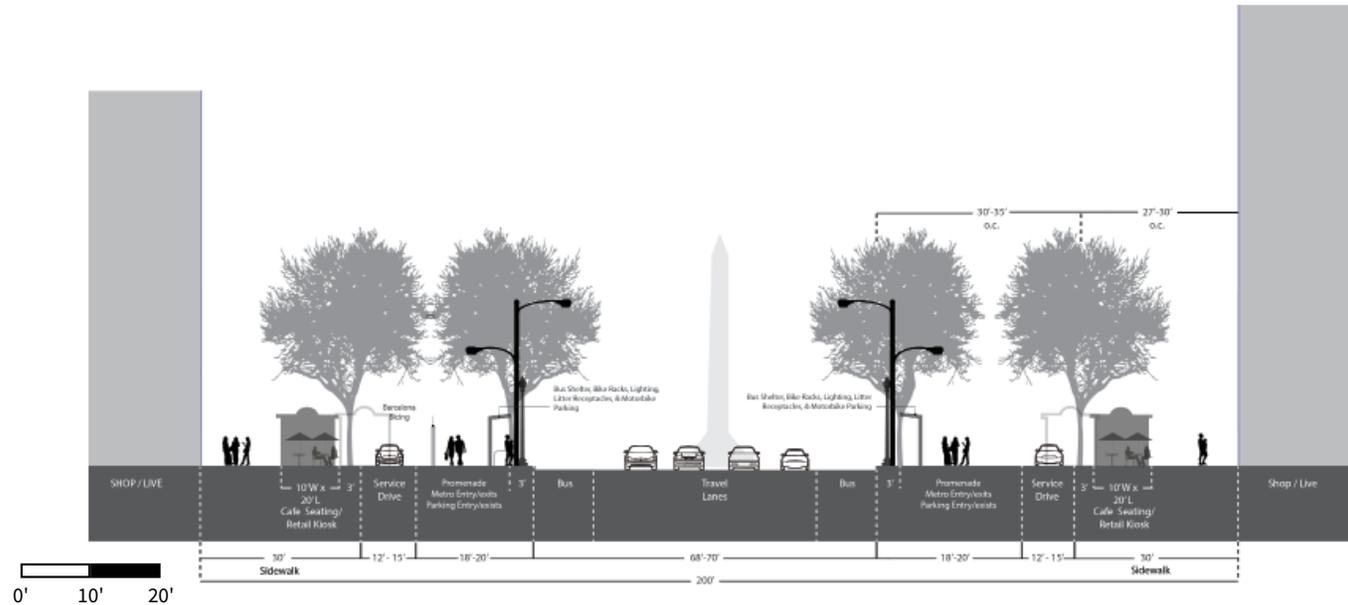
**Streetscape Amenities:** Streetscape furniture is predominantly located within the first 10 feet from the face of curb. Retail kiosks (10 feet x 20 feet) are located every 600 feet on average. Other amenities include bike stations, bike racks, motorbike parking, seating, and litter receptacles.

**Street Trees:** Two rows of street trees on either side of the street scales the building heights and street width to enhance the pedestrian's experience, and its constant presence unifies the entire avenue, block by block.

**Ground Level Landscape:** 10 percent softscape

**Lighting:** Approximately four types of streetscape lighting reflect designs of various eras. Three types of street-light are scaled for pedestrian use.

**Signage:** Advertisement stands are every 200 feet on average.



## Issues

- The avenue simultaneously symbolizes the nation, city, and neighborhood. It supports main street attractions, such as local retail, national/international activities, design showcases, visitor destinations, heritage assets, and national commerce. A range of sculpture, from formal statures to satiric public art, which symbolizes the region, is located along the avenue; citizens have branded and activated the corridor as a cutting-edge area for art and culture.
- The redesign of the avenue's service drives demonstrates the city's intent to strengthen the pedestrian's role in activating the streetscape.
- The good vertical land use mix and pedestrian-scale sidewalks create an active pedestrian street. Broad areas of paved surfaces support large demonstrations and marches. Spaces for large and small gatherings, suitable for a variety of events, are located along and adjacent to the avenue.
- Passeig de Gràcia introduces richly detailed aesthetic streetscape features—sculptural trees, intricate street furnishings, retail kiosks, ornamental street lighting and furniture, art, cafe seating, and varied architectural character with interesting features, such as balconies and urban verandas.
- Special illumination for specific events illustrates how lighting can elegantly transform and activate an avenue.
- Plantings and pervious surface are limited and the pervasiveness of motorcycle parking, and utilitarian structures like waste containers, signage, and parking garage entrances, diminish the aesthetic and functional quality of the streetscape.

**Symbolic Character:** Unter den Linden is the central focus of Germany’s capital city, Berlin. Lined with monuments, embassies, museums, libraries, and two opera houses, the avenue consists of a boulevard median framed by an allée of linden trees.

**Design Updates:** The avenue’s planning and design evolution resulted in a grand scale and character versus a pedestrian scale, creating a stately but austere appearance. Future improvements will create a more park-like setting that will draw pedestrian life to and along the avenue.

In 1993, the “Development Measure for the Capital Berlin—Parliament and Government District” was created to improve the character and establish a new identity for Berlin. Some of these changes include renaming streets and establishing a 72-foot uniform building height.

By 2019, no private vehicles will be allowed to use the avenue; buses, taxis, and bikes will continue to use it. A redesign plan will decrease the cartway, increasing space for cycle tracks, greenery, and additional rows of Linden trees.

**Length:** 3,000 feet (.57 mile) **Width:** 200 feet

**Sidewalks:** 25 feet **pedestrian median:** 55–60 feet

**Typical Block Size:** 250 feet x 600 feet

**Ground Floor Frontage:** 40-50 feet wide

**Land Use Character:** Institutional, cultural, governmental, and commercial

**Active Timeframes:** Weekday and weekends—day and night

**Anchor destinations:** Western anchor—monument (plaza); eastern Anchor—cultural (Berlin State Opera, Berlin Cathedral, and the Berlin City Castle)



**Adjacent Public Parks & Plazas:** One park/plaza about every 3,000 feet

**Transportation Modes:** Three travel lanes are located on either side of the median, with one lane for parking in each direction; Metro stops (U-Bahn and S-Bahn, with an additional U-Bahn stop under construction), and bus stops. There are no designated bike lanes.

By 2019 Unter den Linden will prohibit private vehicles. It will only allow buses, taxis, and bikes.

**Pedestrian Activity:** Moderate

**Street Activating Events:** Carnival Parade, Berlin Marathon, Christmas tree lighting, ceremonies, and demonstrations.

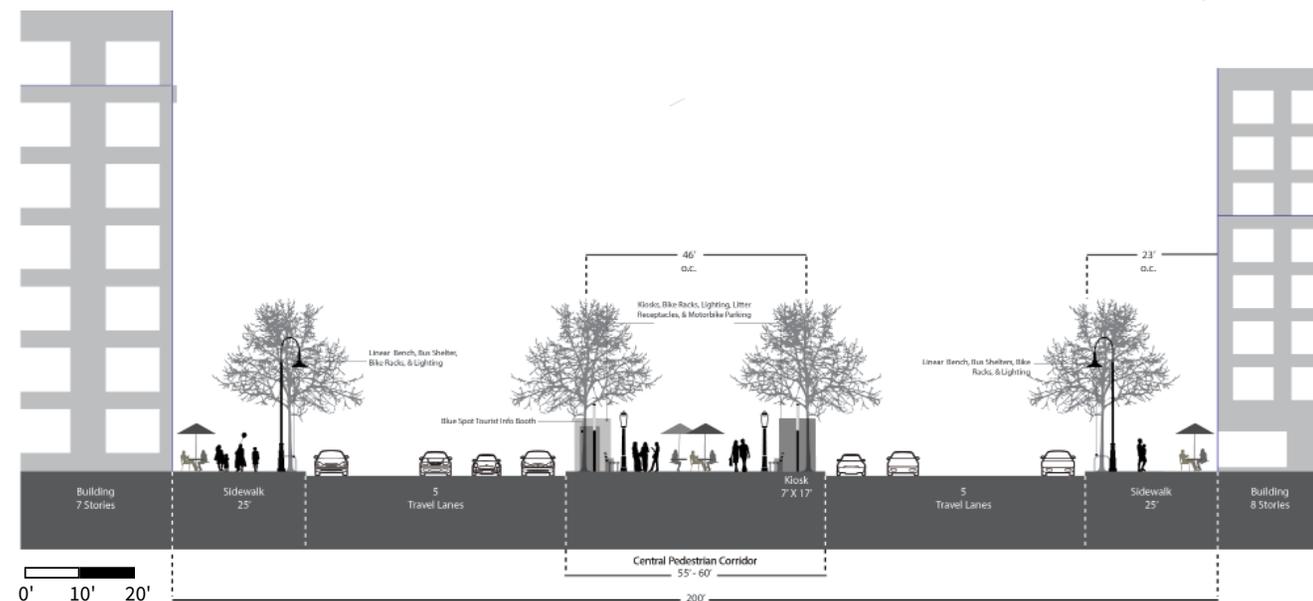
**Ground level Landscape:** 20 percent softscape

**Streetscape:** One constant row of street trees highlights the sidewalks, and a double row of trees

frame the median. Both serve to reinforce the street’s grand role and hierarchy with surrounding streets, as well as scale each block, and unify the entire avenue.

**Streetscape Amenities:** On-street parking is currently permitted in some areas along the avenue. Streetscape furniture is predominantly located within the first 10 feet from the face of curb, along all curbsides. Retail kiosks (7 feet x 17 feet) are spaced every 200 feet to 600 feet on average; Blue Post tourist info booths are located every 200 feet on average, in every bus shelter, and on light poles. Other streetscape features include bathroom stands, bike racks, benches, and a limited distribution of litter receptacles.

**Lighting:** Approximately four streetlights reflect designs of various eras. Two streetlight designs are scaled for pedestrian use.



## Issues

- The Prussian and German state influence on the architectural character and planning evolution of the avenue resulted in a grand but austere appearance.
- A mix of public and private land uses makes a successful destination for both local and civic activities. The future expansion of pedestrian walks and bicycle tracks will enhance the connection to nearby areas.
- A high proportion of public spaces established a unified, central public forum that is symbolically important for the city and nation. Large, minimally landscaped open spaces offer excellent settings for various types of events.
- Connections between buildings and public spaces are generally unsuccessful; buildings tend to lack a hospitable entry for lingering, to meet others, or rest. Mostly tourists visit Unter den Linden, aside from area workers. Locals choose to visit other areas with more communal scale amenities.
- Simple streetscape character is austere but dignified, flexible, functional, and needs minimal maintenance. The alleé of trees help to buffer the pedestrian activity from the vehicular activity along the street. In conjunction with the lighting, the trees help to reduce the scale of the buildings and street to the pedestrian level. Dense canopy inhibits undergrowth and impacts the pedestrian experience by providing shade. The tree canopy blocks visual connections, including views of the Brandenburg Gate and diminishes a sense of openness and connection to the surrounding area.
- By 2019 Unter den Linden will prohibit private cars. Only buses, taxis, and bikes will be permitted in the cartway.
- Extensive investment and quality of materials offer an attractive environment to highlight the capital city and enhance the visitor experience.

# Capital City Case Studies | Streetscape Comparison Matrix

	ChampsElysees	Passeig de Gracia	Unter den Linden	Pennsylvania Avenue
Character	Cultural / Ceremonial / Entertainment	Cultural / Entertainment	Cultural / Ceremonial	Cultural / Ceremonial / Civic
Land Uses	Commercial / Cultural / Residential	Commercial / Residential	Commercial / Institutional / Governmental	Office / Cultural / Commercial / Residential
Active Hours	Day / Night	Day / Night	Day / Night	Day
Block Size	400' x 500'	440' x 440'	250' x 600'	400' x 500'
Groundfloor Frontages	20' - 50'	25' -	40' - 50'	20' - 50'
Pedestrian Activity	High	High	Moderate	Low
ROW Width	230'	200'	200'	230'
Anchor Destinations (West - East)	Monument - Government	Monument - Cultural(Park)	Monument - Cultural(Opera)	Government - Government
Transportation Modes	10 travel lanes, no bike lanes	6 travel lanes, shared service drive & bike lanes	6 travel lanes	8 travel lanes, cycle track
Boulevard with Median Promenade	—	—	Yes	cycle track
<b>Streetscape Amenities</b>				
Sidewalk Width	57'	60'	25' -55'	26' - 81'
Travel Lanes	Planned reduction of travel lanes	Planned reduction of travel lanes	Planned reduction of travel lanes	—
Rows of Street Trees	Double rows of trees (1991)	Double rows of trees (with future additional rows)	Double rows of trees (with future additional rows)	Double rows of trees in some parts
Retail Kiosks	600' on avg.	600' on avg.	200' -600' on a vg.	—
Streetlight Types at Pedestrian Scale	2	2	1	2
Seating	Moveable & stable	Moveable & stable	Moveable & stable	stable
Litter Receptacles	160' on average	All corners of each intersection	75' - 100' on average	Few
Bicycle Share Program	Yes	Yes	—	Yes
Bicycle Racks	Yes	Yes	Yes	None
Art in Public Place	Mixed	Mixed	Mixed	Monuments
Groundlevel Softscape	20%	10%	20%	15%
Tree Canopy Coverage	Moderate	Minimal	High	High
<b>Consumer Review</b>				
Online Ranking - Trip Advisor	●●●●○	●●●●●	●●●●○	—
Online Ranking - Yelp	●●●○○	●●●○○	●●●○○	—
<b>Proposed Design Updates</b>				
Groundfloor Amenity Improvements	Yes	—	Yes	TBD
Reallocating Cartway	No	Yes	Yes	TBD
Additional Trees and/or Landscaping	2025	2018-2019	2019	1974

All measurements are approximate





# 7

## Appendix

- 254** Resources
- 256** Glossary
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A variety of resources were used to support the work of the urban design analysis.

## Primary resources:

Pennsylvania Avenue Market Study. HR&A Advisors, 2016.  
(Available upon request - URL to be added later)

People on Penn: Pennsylvania Avenue Pedestrian Life Study.  
DC Office of Planning, 2016.  
[https://issuu.com/emilyperson/docs/pa\\_ave\\_ped\\_life\\_report\\_-\\_final\\_0405](https://issuu.com/emilyperson/docs/pa_ave_ped_life_report_-_final_0405)

## Supporting resources:

2015 State of the Downtown Report. Downtown DC BID, 2016.  
<http://www.downtowndc.org/reports/state-downtown-2015>

2016 State of the Downtown Report. Downtown DC BID, 2017.  
<http://www.downtowndc.org/reports/state-downtown-2016>

Capital Bikeshare Development Plan. DDOT, 2016.  
[https://www.scribd.com/document/331416467/Bikeshare-Development-Plan#from\\_embed](https://www.scribd.com/document/331416467/Bikeshare-Development-Plan#from_embed)

Close Encounters With Buildings. Jahn Gehl, Lotte Johansen Kaefer,  
and Solveig Reigstad, 2006.  
[https://www.gsa.gov/graphics/pbs/JanGehl\\_UrbanDesign\\_article.pdf](https://www.gsa.gov/graphics/pbs/JanGehl_UrbanDesign_article.pdf)

Cultural Landscape Inventory—Pennsylvania Avenue, NW—White House to  
the Capitol. National Mall and Memorial Parks—L’Enfant Plan Reservations.  
National Park Service, 2016.  
<https://go.ncpc.gov/87hdxU>

Downtown West Transportation Planning Study. DDOT, 2016.  
(Available upon request - URL to be added later)

FBI Square Guidelines Analysis. National Capital Planning Commission,  
2016 and 2017.  
October 2016: <https://go.ncpc.gov/87hdvE> January 2017: <https://go.ncpc.gov/87hdzE>

National Mall and Memorial Parks Tour Bus Study.  
National Park Service, June 2015.  
<https://go.ncpc.gov/87hdAI>

Pennsylvania Avenue Initiative Existing Conditions Maps.  
National Capital Planning Commission, 2015.  
(Available upon request - URL to be added later)

Pennsylvania Avenue National Historic Site Management Plan.  
National Park Service, 2014.  
[https://www.nps.gov/nationalmallplan/Documents/Penn/PAAV\\_Management\\_Plan\\_5-14-2014.pdf](https://www.nps.gov/nationalmallplan/Documents/Penn/PAAV_Management_Plan_5-14-2014.pdf)

Pennsylvania Avenue National Register of Historic Places Nomination.  
National Park Service, 2007.  
[https://www.nps.gov/nationalmallplan/Documents/Penn/66000865\\_PennsylvaniaAveNHD.pdf](https://www.nps.gov/nationalmallplan/Documents/Penn/66000865_PennsylvaniaAveNHD.pdf)

Pennsylvania Avenue Plan (as amended). Pennsylvania Avenue Development  
Corporation, 1974, 1990.  
[https://www.nps.gov/nationalmallplan/Documents/Penn/PADC\\_PennAvePlan1974.pdf](https://www.nps.gov/nationalmallplan/Documents/Penn/PADC_PennAvePlan1974.pdf)  
<https://parkplanning.nps.gov/document/cfm?parkID=427&projectID=47303&documentID=53318>

Pennsylvania Avenue Streetscape Dimensions Study. National Capital  
Planning Commission, 2016.  
(Available upon request - URL to be added later)

The Public Life Diversity Toolkit 2.0. Gehl Institute, 2016.  
[https://issuu.com/gehlinstitute/docs/20160128\\_toolkit\\_2.0](https://issuu.com/gehlinstitute/docs/20160128_toolkit_2.0)

Station Access Capacity Study. WMATA, 2008.

[https://www.wmata.com/initiatives/plans/upload/Final-Report\\_Station-Access-Capacity-Study-2008-Apr.pdf](https://www.wmata.com/initiatives/plans/upload/Final-Report_Station-Access-Capacity-Study-2008-Apr.pdf)

Traffic Counts. DDOT, 2012.

(Available upon request - URL to be added later)

Union Station to Georgetown Alternatives Analysis for Premium Transit Service Report. DDOT, 2013.

[http://media.rkk.com/usgt/\\_files/aaStudy/00\\_USGT\\_AA\\_book\\_093013.pdf](http://media.rkk.com/usgt/_files/aaStudy/00_USGT_AA_book_093013.pdf)

# Glossary | *List of Terms*

**1974 Plan** In 1974, the Pennsylvania Avenue Development Corporation created a plan to guide redevelopment of the Avenue between 3rd and 15th Streets, NW, as well as additional parcels to the north, encompassing approximately 116 acres.

**Avenue** Pennsylvania Avenue between 3rd and 15th Streets, NW, including the cartway and sidewalks.

**Building frontages** The building wall's interface with the sidewalk.

**Build-to line** A line with which the exterior wall of a building in a development is required to coincide. Minor deviations from the build-to line for such architectural features as weather protection, recesses, niches, ornamental projections entrance bays, or other articulations of the façade are permitted, unless otherwise prohibited by the applicable Square Guidelines or the District of Columbia's codes and regulations.

**Capital City** Refers to the unique identity of Washington, blending the local and national character and roles of the city's neighborhoods, culture, and people.

**Cartway** Space from curb to curb that is used for vehicular and bicycle traffic. This area is typically referred to as a roadway.

**Chapter** Identifies the Land Use, Mobility, and Placemaking Chapters.

**Civic Activity** Refers to parades, public assemblies, special events, races, and festivals on the Avenue.

**Cycle Track** Refers to the unique central cycle track on the Avenue that has two lanes (each lane in a different direction) and is protected by a buffer.

**Daily Activity** Refers to informal activities that occur throughout the week, such as running errands, dining, shopping, meeting friends or family, and sightseeing.

**District** Refers to the local District of Columbia government.

**Floor to Area Ratio (FAR)** The ratio of a building's total floor area to the parcel area. A higher FAR means that the building has achieved a higher amount of square footage on the parcel, typically through a larger building footprint with less open space and/or a greater number of floors.

**Height of Buildings Act** In response to the construction of the 164-foot Cairo Hotel in 1894, the Height of Buildings Act was established in Washington, DC. This law, enacted in 1910 as 36 Stat. 452, is key to establishing and assuring the horizontal character of the national capital by setting maximum building heights that are generally controlled by street widths. The height limit on residential streets is 90 feet. In business areas, the building height is generally limited to the width of the adjacent street plus 20 feet. In addition, there is a general height limit of 130 feet, extended to 160 feet along certain portions of Pennsylvania Avenue.

**Landscape** A composition of living features, such as trees, shrubs, and herbaceous plants, intentionally placed to enhance a place. Landscapes are often designed as a component of parks, plazas, building yards, and streetscapes.

**L'Enfant Plan** Developed in 1791 and further refined by Andrew Ellicott, the Plan provides the physical framework of the nation's capital. It identifies road alignments, the location of public spaces and buildings, and highlights key vistas connecting character-defining elements throughout the city. Physically expressing the ideas of federalism and the separation of powers, the Plan located the U.S. Capitol on the highest point between the Potomac and Anacostia Rivers, and envisioned broad avenues—named after states—connecting important public buildings. The Plan is listed on the National Register of Historic Places and continues to influence planning, design, and development decisions throughout the capital city.

**McMillan Plan** Washington, DC's 100th anniversary prompted the formation of the Senate Park Commission, under the chairmanship of James McMillan, to restore the grandeur of L'Enfant's vision to the capital. The 1901 McMillan Plan proposed eliminating the Victorian landscaping of the National Mall and replacing it with a simple expanse of grass, narrowing the Mall, and permitting the construction of low, Neoclassical museums and cultural centers along the Mall's east-west axis. The plan proposed constructing major memorials on the western and southern anchors of the Mall's two axes, reflecting pools on the southern and western ends, and massive granite and marble terraces and arcades around the base of the Washington Monument. The plan also proposed tearing down the existing railroad passenger station on the National Mall and constructing a large new station north of the Capitol building. Additionally, the McMillan Plan contemplated the construction of clusters of tall, Neoclassical office buildings around Lafayette Square and the Capitol building, as well as an extensive system of neighborhood parks and recreational facilities throughout the

city. Major new parkways would connect these parks as well as link the city to nearby attractions. The 1901 McMillan Plan made a distinctive imprint that endures today in the city's architecture and public spaces, particularly in the open greenway of the National Mall, the monumental core of federal buildings, and the comprehensive public park system.

**Monumental Core** The general area encompassed by the U.S. Capitol grounds, the National Mall, the Washington Monument grounds, the White House grounds, the Ellipse, West Potomac Park, East Potomac Park, the Southwest Federal Center, the Federal Triangle area, President's Park, the Northwest Rectangle, Arlington Cemetery, the Pentagon area, and Fort Myer and Henderson Hall. (See Federal Urban Design Element, B.4 – The Monumental Core, p. 29)

**National Capital** Washington, DC and territory the federal government owns in the environs.

**National Capital Planning Act, or Planning Act** Established NCPC as the central planning agency for the federal government in the NCR. The Planning Act provides for the agency's essential functions, including development of a Comprehensive Plan for the NCR; review of federal and some District proposed developments and projects; review of District zoning amendments; annual review of the Federal Capital Improvements Program and the District Capital Improvements Program; and the development of special planning projects.<sup>ii</sup>

**National Capital Planning Commission (NCPC)** Serves as the central federal planning agency for the unique concentration of federal activities and interests in the NCR. NCPC includes both

the Commission, who reviews and approves projects during Commission meetings, and the staff, who coordinate the review of development plans and projects submitted by applicants. One of NCPC's principal responsibilities is to coordinate development activities of federal and District agencies in the NCR. These agencies must submit project and development proposals to the Commission for review by following the process laid out in the agency's Submission Guidelines.

**National Capital Region (NCR)** Encompasses Washington DC; Montgomery and Prince George's Counties in Maryland; Arlington, Fairfax, Loudoun, and Prince William Counties in Virginia; and the incorporated cities of Alexandria, Falls Church, Fairfax, and Manassas. The NCR is about 2,500 square miles (6,475 sq. km).<sup>i</sup>

**National Environmental Policy Act (NEPA)** The National Environmental Policy Act, as amended (42 U.S.C. 4321, et seq.) requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions.

**NEPA Document** A Categorical Exclusion (CATEX) determination, an Environmental Assessment (EA), an Environmental Impact Statement (EIS), or other environmental documents identified in the Council on Environmental Quality (CEQ) Regulations at 40 CFR 1508.10.

**National Historic Preservation Act (NHPA)** National Historic Preservation Act, (P.L.89-665 as amended) requires federal agencies to consider the effects of their undertakings on historic properties in the United States.

**Open Space Network** See Public Space

**Parks and Open Space** Any open piece of undeveloped land (has no buildings or other built structures) and is accessible to the public. Parks and open space includes green space (e.g. parks, community gardens, and cemeteries), schoolyards, playgrounds, public seating areas, public plazas, and vacant lots.

**Programming/Programmed** The act of planning and designing activities to occur in public space

**Public Space** (also known as open space, public realm) Refers to the sidewalks, parks, plazas and roadway. These components form urban rooms along the Avenue and change based on daily or civic activity use.

**Retail** Businesses that sell goods directly to the public from a street-accessible entrance. These are classified as a specific land use.

**Retail, Interior** Businesses that sell goods to the public, but not have a street-accessible entrance.

**Right-of-Way, Historic** The 160-foot right-of-way as defined by the historic L'Enfant Plan.

**Right-of-Way, 1974** The cartway and sidewalk area located between building walls along Pennsylvania Avenue, inclusive of the historic L'Enfant Plan right-of-way and the build-to line setback.

**Section** Identifies a part of a chapter e.g. the Public Transportation Network Section within the Mobility Chapter.

**Section 106** Section 106 of the National Historic Preservation Act of 1966 requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford

# Glossary | *List of Terms*

the Advisory Council on Historic Preservation a reasonable opportunity to comment. A wide variety of federal projects, ranging from the construction, rehabilitation, or demolition of roads, facilities, buildings, and dams to projects which require the issuance of federal licenses and permits, or loans and grants that might affect historic properties are subject to Section 106 review. Properties listed on or eligible for listing on the National Register of Historic Places, a list maintained by the National Park Service, must be considered under the requirements of Section 106. Section 106 encourages, but does not mandate, preservation outcomes. The process provides for the consideration of alternatives that promote preservation and offers the public and stakeholders the opportunity to influence federal decision making.

**Sense of Enclosure** Refers to the degree to which streets and other public spaces are visually defined by buildings, walls, trees, and other vertical elements. Spaces where the height of vertical elements is proportionally related to the width of the space between them have a room-like quality. This is an important urban design element that helps create the experience of being in a city and in a place that is comfortable for pedestrians.

**Sidewalk Use Allocation** (as in site design program or building program) Broadly addresses the use of space and the incumbent physical and spatial requirements of those uses.

**Streetscape** The composition of hardscape and landscape elements, vistas, plazas, roadways, building facades, and other horizontal and vertical elements in the public space.

**Study Area** Refers to the geographic area captured in the Penn Ave Urban Design Analysis.

**Urban Room** The sense of enclosure within the Avenue's public space that is shaped by building walls and the landscaped ground plane.

**View** To see, within range of sight or prospect of a landscape, etc.

**Viewshed** A geographical area that is visible from a location, including all surrounding points that are within the line-of-sight and excludes points that are obstructed.

**Vista** A view or prospect, especially one seen through a long, narrow avenue or passage, as between rows of trees or houses; such an avenue or passage, especially when formally planned.

<sup>1</sup> <http://urbanland.uli.org/industry-sectors/infrastructure-transit/eight-qualities-of-pedestrian-and-transit-oriented-design/>

<sup>2</sup> <https://www.ite.org/css/online/DWUT04.html>

<sup>3</sup> See 40 U.S.C. § 8702(2).

<sup>4</sup> See 40 U.S.C. § 8701.

# Glossary | *Acronyms and Abbreviations*

**AOC** Architect of the Capitol

**BID** Business Improvement District

**CFA** U.S. Commission of Fine Arts

**Comprehensive Plan or Federal Elements** *Comprehensive Plan for the National Capital: Federal Elements*

**District Elements** *Comprehensive Plan for the National Capital: District Elements*

**DCOP** DC Office of Planning

**DCHSEMA** DC Homeland Security and Emergency Management Agency

**DDOT** District Department of Transportation

**DHS** U.S. Department of Homeland Security

**DOD** U.S. Department of Defense

**DOI** U.S. Department of the Interior

**DOJ** U.S. Department of Justice

**EPA** Environmental Protection Agency

**FBI** Federal Bureau of Investigation

**FEMA** Federal Emergency Management Administration

**FHWA** Federal Highway Administration

**FMBZA** Foreign Missions Board of Zoning Adjustment

**FTC** Federal Trade Commission

**GIS** Geographic Information System

**GSA** U.S. General Services Administration

**IRS** Internal Revenue Service

**MNCPPC** Maryland National Capital Park and Planning Commission

**MWCOG** Metropolitan Washington Council of Governments

**NCPC** National Capital Planning Commission

**NGA** National Gallery of Art

**NCR** National Capital Region

**NIH** National Institutes of Health

**NPS** National Park Service

**OCTO** Office of the Chief Technology Officer (DC)

**OMB** Office of Management and Budget

**OPO** Old Post Office

**State Department** U.S. Department of State

**USDA** U.S. Department of Agriculture

**USDOT** U.S. Department of Transportation

**VDOT** Virginia Department of Transportation

**WMATA** Washington Metropolitan Area Transit Authority

**Table 1: Pennsylvania Avenue North Street Wall Analysis**

<b>NORTH OF THE AVENUE: SETBACKS &amp; STREETScape</b>			
<b>Buildings (proceeding west to east)</b>	<b>Setback from Property Line</b>	<b>Sidewalk Width (curb to build-to line)</b>	<b>Rows of Trees</b>
1200 block at 13th Street	0'	24'	1
1200 block at 12th Street	52'	77'	3
1100 block at 11th Street	54'	79'	3
Evening Star	0'	24'	1
1000 block	49'	75'	3
Existing FBI	53'	80'	3
Market Square at 9th Street	10'	36'	2
Market Square at 7th Street	182'	208'	2 within sidewalk(additional trees in park/plaza)
600 block at 6th Street	0'	24'	1
Canadian Embassy	49'	76'	2-3
<b>Conclusion:</b>	New development is setback 50' with the exception of Market Square which sits on an orthogonal grid.	Sidewalks on the north side vary in width, between 24' and 77', excluding plazas.	The Avenue's north side has 3 rows of trees, except where there are historic buildings.

Setback Measurements are based on OCTO's GIS data and may have inaccuracies of several feet. Dimensions are rounded to the nearest foot for readability and clarity. Measurements less than 0.5 are rounded down. Measurements 0.5 and greater are rounded up to the nearest whole foot.

**Table 2: Pennsylvania Avenue South Street Wall Analysis**

<b>SOUTH OF THE AVENUE: SETBACKS &amp; STREETScape</b>			
<b>Buildings (proceeding west to east)</b>	<b>Setback from Property Line</b>	<b>Sidewalk Width (curb to build-to line)*</b>	<b>Rows of Trees</b>
EPA at 13th Street	18'	52'	2
EPA at 12th Street	8'	42'	2
Old Post Office	Varies (0' to 65')	Varies (32' to 97')	1
IRS at 11th Street	12'	45'	2
IRS at 10th Street	19'	53'	2
DOJ**	23'	57'	2
Archives	Varies (19' to 133')	Varies (51' to 165')	1
FTC	19'	52'	2
<b>Conclusion:</b>	Federal Triangle buildings' setbacks vary between 8' and 23'. DOJ has a larger setback of 23'-24'. OPO and Archives are not parallel to the Avenue.	Sidewalks on the south side vary in width, between 42' and 57', excluding plazas.	Federal Triangle has 2 rows of trees. OPO and Archives are exceptions and have 1 row of trees adjacent to plazas.

\*Includes building yards.

\*\*GSA's survey shows DOJ with a 23.75' setback.

Setback Measurements are based on OCTO's GIS data and may have inaccuracies of several feet. Dimensions are rounded to the nearest foot for readability and clarity. Measurements less than 0.5 are rounded down. Measurements 0.5 and greater are rounded up to the nearest whole foot.

**Table 3: Existing Building Heights and Upper-Story Setbacks on Pennsylvania Avenue**

<b>BUILDING HEIGHTS AND UPPER-STORY SETBACKS</b>			
<b>Building Location / Name (proceeding west to east)</b>	<b>Initial Height</b>	<b>Maximum Height (including penthouses)</b>	<b>Upper-Story Setback Ratio (run:rise)</b>
Pennsylvania Avenue (north side)			
1201 Penn (office)	132'	156'	~ 2:1
Evening Star	135'	157'	~ 5:1
1001 Penn (office)	114'	160'	~ 1.2:1
Existing FBI	108'	160'	~ 5:1
Market Square (office/residential)	100'	135'	~ 0.6:1
601 Penn (office)	59'	126'	~ 0.9:1
Pennsylvania Avenue (south side)			
EPA	97'	116'	~1.7:1
OPO	123'	169'	~ 0.6:1
IRS	96'	120'	~ 1.6:1
DOJ	102'	124'	~ 1.5:1
Archives	80'	156'	~ 0.8:1
FTC	88'	120'	~ 1:1

*Setback Measurements are based on OCTO's GIS data and may have inaccuracies of several feet. Dimensions are rounded to the nearest foot for readability and clarity. Measurements less than 0.5 are rounded down. Measurements 0.5 and greater are rounded up to the nearest whole foot.*

