

Understanding The South Capitol Street Corridor and its Potential

The opportunities for improving the South Capitol Street Corridor are great, but so are the constraints. This urban design study seeks to identify how to pursue some of these opportunities by establishing a set of urban design principles to be followed in the formulation of any redevelopment plan for the corridor. The study also suggests - through three distinct urban design scenarios - how these principles might be achieved.

While not definitive alternatives, each of the three urban design scenarios focus on three fundamental components of any revitalization strategy:

1. The scale, location and character of public open spaces throughout the South Capitol Street corridor
These address the connection between the Mall and the Anacostia Riverpark system, how the axis from the Capitol might be resolved at the Anacostia riverfront, how wide the public space of South Capitol Street should be, and the potential along this corridor to create meaningful sites and settings for memorials, monuments and civic institutions.
2. The mixture of land uses - both civic and privately developed - that should be distributed in the South Capitol Street corridor
An overarching assumption is that if properly planned, this corridor can become a distinguished new address in the District of Columbia for civic, residential and business uses.
3. The nature of transportation improvements that should be undertaken in the South Capitol Street Corridor.
This component includes analysis of how much through traffic South Capitol Street should carry while better serving its immediate surroundings and fulfilling its role as an important approach to the Nation's Capital from the south. Tunnel options, location of future bridges, best use of the street grid, increased transit choices, and enhanced pedestrian amenities are among the variables.

The following chapter describes the study boundaries, existing open spaces, land uses / zoning, and transportation. This provides base data from which the scenarios that follow emerge.

General Description of the Study Area

The study area is generally bounded by Independence Avenue on the north, I-295 and the Suitland Parkway on the south, 2nd Street SE on the east and 3rd Street SW on the west. For the purpose of this report, the South Capitol Street study area is divided into five smaller subareas (p. 17). The divisions of the study areas follow natural and infrastructure boundaries that currently exist along the overall corridor, including I-395, M Street, Potomac Avenue, the Anacostia River and I-295 are such boundaries to be removed.

While this study focuses primarily on the South Capitol Street Corridor and the important crossing of the Frederick Douglass Bridge, it also takes into account the adjacent neighborhoods on both sides of the River. Taken together, the study area encompasses approximately 950 acres. The length of the South Capitol Street Corridor, approximately two miles from the Capitol to the I-295 interchange, is roughly equivalent to the distance between the Capitol and the Lincoln Memorial, and the same as the distance between the Capitol and RFK Stadium. In sheer size, it is comparable to the scale of other great urban spaces such as Commonwealth Avenue in Boston, between the Common and the Fens, or the Champs Elysees in Paris, between the Tuilleries and the Etoile.

The character of South Capitol Street varies greatly, encompassing residential neighborhoods, major highways and bridges, local neighborhood parks, industrial uses, and auto-oriented retail. Important planning efforts such as the Legacy Plan and the Anacostia Waterfront Initiative have highlighted the great potential of the corridor and its intersection with the waterfront. These studies, and the improvements taking place along M Street, the Southeast Federal Center and the Navy Yard, along with the eventual replacement of the Frederick Douglass Bridge, set the stage for significant change within the study area. Increasingly important connections to the south, along the Suitland Parkway and I-295, amplify the perception of this part of the city as an important gateway to the original l'Enfant City.



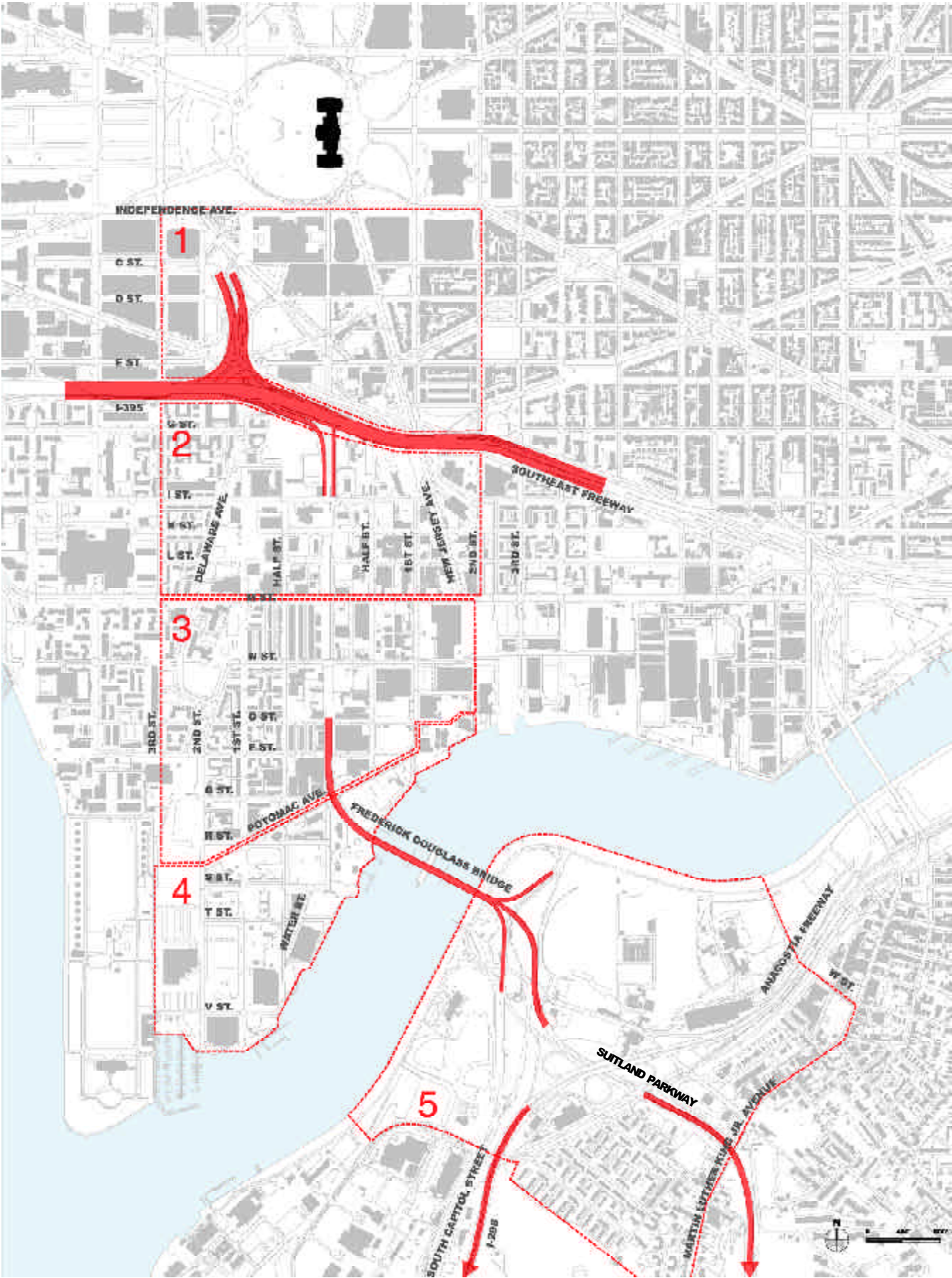
I-395 Overpass



Carrollsburg Place



Pedestrian walkway on Frederick Douglass Bridge



South Capitol Street study areas

Existing Open Space

In a city that is characterized by an abundance of beautiful parks, gardens and parkways, the South Capitol Street study area represents a notable exception. However, several regional and local open spaces exist at the edges of the study area, or in the case of Poplar Point, within the study area. These existing open spaces are described in greater detail below and highlighted on the plan on the following page.

Regional parks

The Capitol Grounds and the National Mall

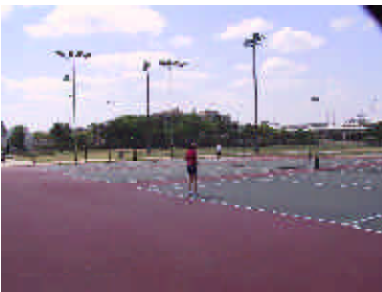
Directly north of the study area are the grounds of the Capitol and, to the west, the beginning of the National Mall. The grounds of the Capitol provide a beautifully manicured and grandly appointed landscape designed by Frederick Law Olmsted. The Capitol Grounds are mostly ceremonial, and public access is partially limited for security concerns.

Poplar Point

The condition of the open spaces within the 100 acres of Poplar Point vary greatly. Along the water's edge a small park road and minimal maintenance provide at least a publicly accessible green space that connects to the more actively used Anacostia Park to the east. Site contamination exists on non-accessible parts of Poplar Point as well as on some areas currently considered wetlands. Poplar Point is generally cut off from the surrounding neighborhoods by I-295 and the Anacostia Freeway. Open spaces adjacent to the Frederick Douglass Bridge are mostly the remains of land carved out for exit ramps and access roads.



Parking lots and landscaping at D Street SW



Randall Playground



Parkland at Poplar Point

Small scale neighborhood parks

Garfield Park

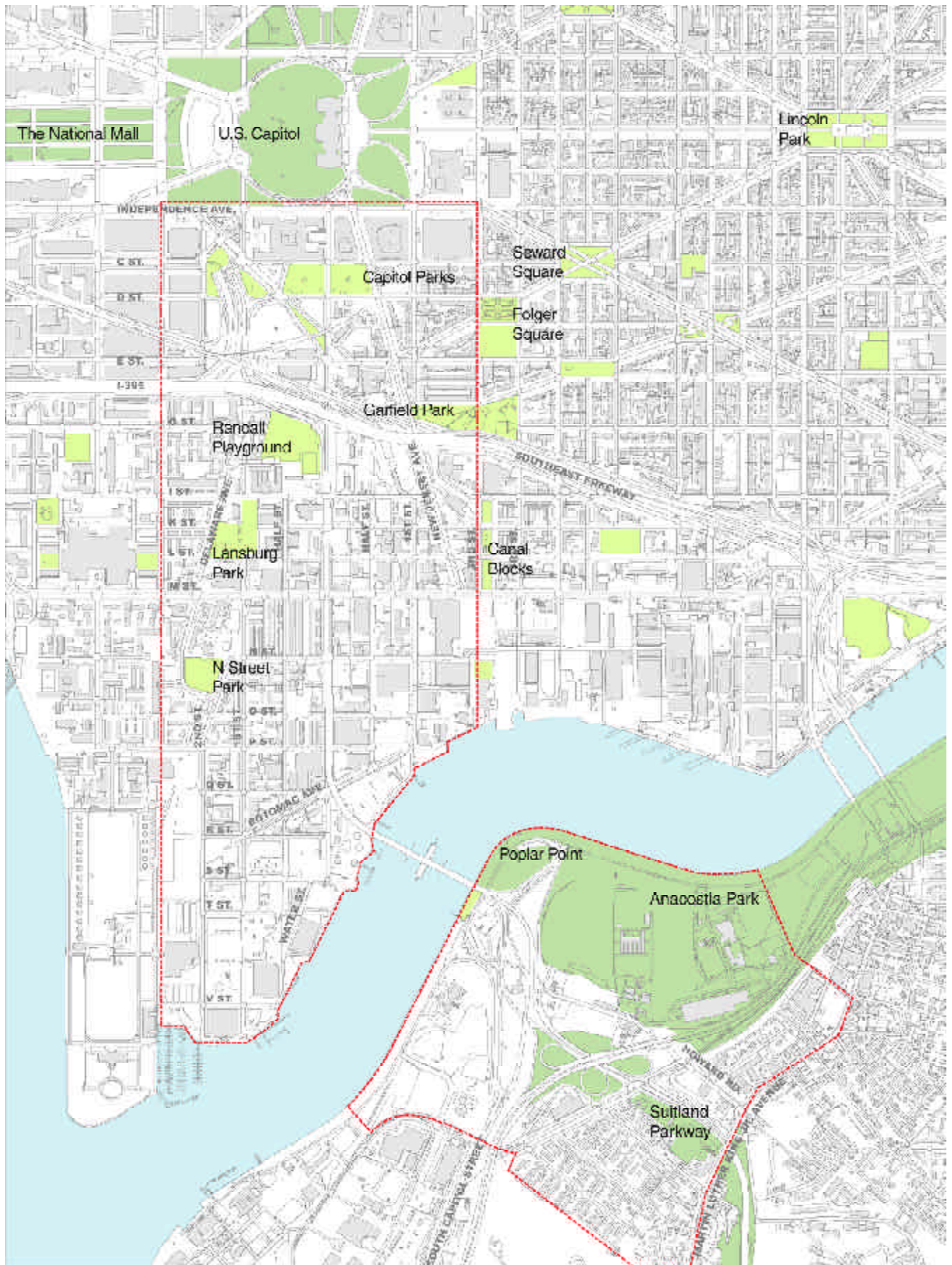
This park of approximately 8 acres is typical of the small neighborhood parks located along the great diagonal avenues set out by L'Enfant as a way of providing relief to the urban fabric. Parks such as these are plentiful in the residential areas to the east of Capitol Hill. Garfield Park is however severely compromised by the Southeast/Southwest freeway, constructed directly on top of its southern edge. Nevertheless, it is widely used by local residents, and provides running paths and landscaped open spaces.

Randall Playground

This community park provides local neighbors with venues for active recreation. Tennis courts, a swimming pool, basketball courts, and two softball fields enjoy active use as conditions permit. While these active recreational areas appear to be well maintained, the paved open space along I Street does not. While this park is easily accessible from the neighborhoods to the southwest, both the exit ramp from the Freeway and the width of South Capitol Street preclude access from the north and east.

N Street Park

Defined on two sides by streets that were previously canals, this 3.3-acre park contains tennis courts and open space for adjacent neighbors.



Existing open spaces

Existing Land Uses

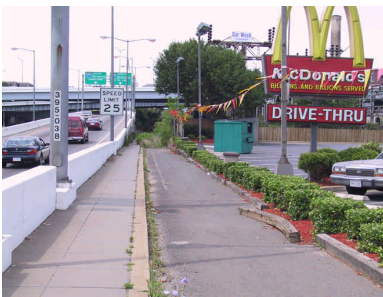
Land uses along the South Capitol Street Corridor vary greatly. North of I-395, a number of large underutilized properties front the street. A few residential units are located to the east and the edge of the Southwest Federal Center office buildings are located to the west of the corridor, beyond the open ramps of I-395 north. South of I-395 to the Anacostia River, light industrial and auto-oriented uses are established east of South Capitol Street and along the waterfront. Southwest residential neighborhoods lie directly west of South Capitol Street between M and P Streets. Most of the open space is found on Poplar Point between I-295 and the water. Inland of I-295 the blocks of the historic Anacostia neighborhood begin.

The South Capitol Street study area is one of the few sectors of the city that allows industrial uses, an important component of the economic diversity found in the District. Typically the uses are low density and can be relocated, but only if other suitable areas in the city are identified. Long-term planning for industrial and service-oriented uses for the District of Columbia must take place in order for significant change to occur in the South Capitol Street Corridor. Each of the land uses within the study area is described below and reflected on the land use map on the following page:
Commercial Uses

- Along South Capitol Street, fast food and gas stations are a predominant feature, typically with substantial paved areas and surface parking lots.
- Small-scale neighborhood services including liquor stores, hair salons, and convenience shopping stores are located in the blocks adjacent to the residential area between M and P Streets.
- Long- and short-term storage facilities in older, previously industrial buildings are present near P Street.
- Auto repair and storage facilities are located throughout the study area.
- Nightclubs and adult entertainment establishments are present east of South Capitol Street in the largely industrial areas.
- A commercial district exists along Martin Luther King, Jr. Avenue in the neighboring Anacostia community.



South Capitol and D Streets



South Capitol and I Streets



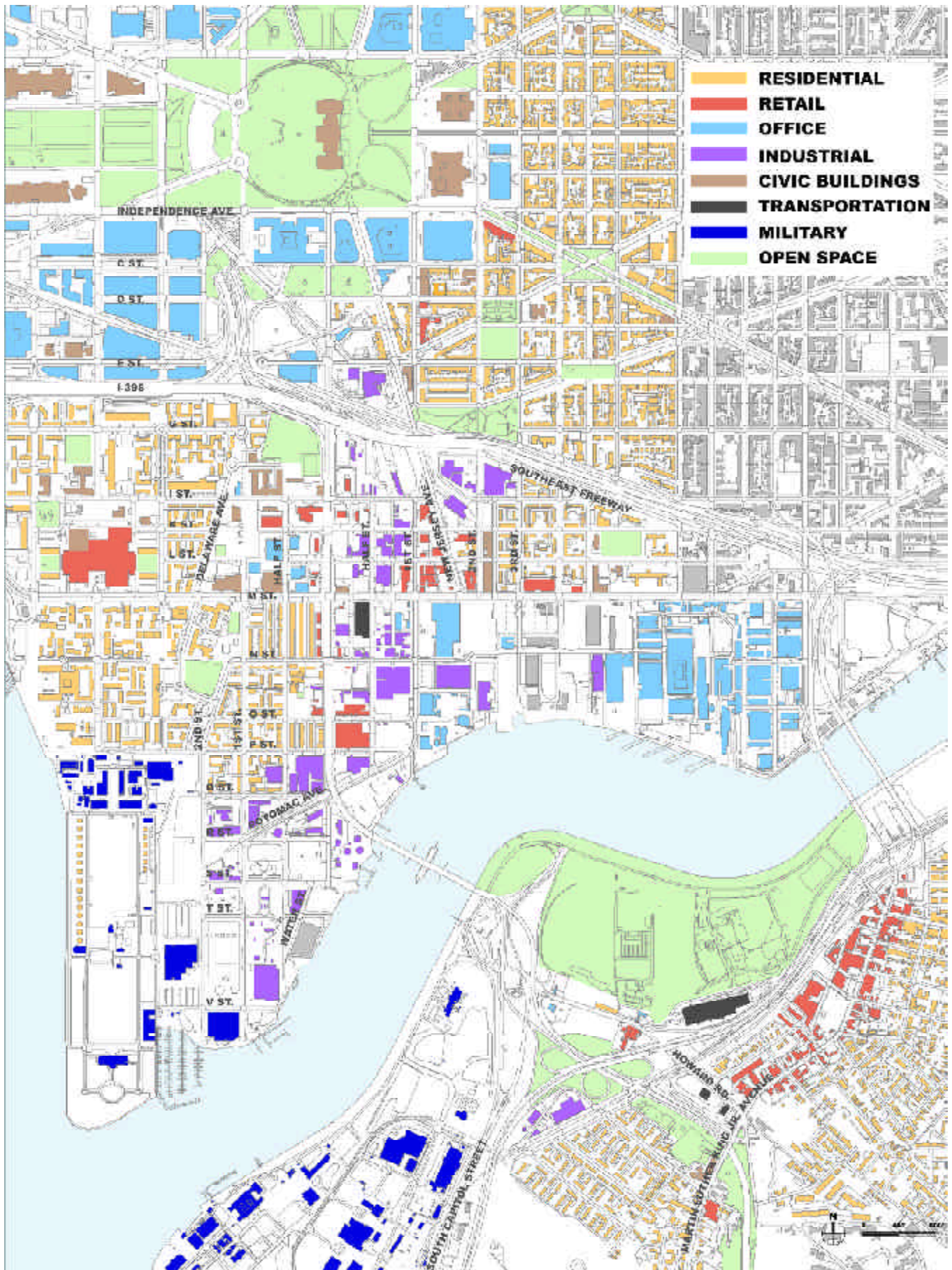
South Capitol and N Streets

Industrial Uses

- Light industrial uses found throughout the blocks east of South Capitol Street and along the waterfront include auto-servicing and repair, small-scale manufacturing, concrete crushing, gravel yards, bus storage, city salt storage facilities, and oil storage.
- A Pepco Power station is located south of Potomac Avenue adjacent to Fort McNair.

Residential Uses

- North of I-395 and along New Jersey Avenue, the Capitol Hill neighborhood is a low-density residential neighborhood that has seen a significant increase in new and rehabilitated housing.
- Between M and P Streets, the residential area that extends from the southwest is predominantly low-income with a significant number of subsidized housing units. While residential units along South Capitol Street suffer from exposure to high volumes of traffic, units located on the next blocks, such as Carrollsburg Place, are well maintained and fully occupied. Rowhouses and low-density apartments are typically found in this area.
- The historic neighborhood of Anacostia borders the southern portion of the study area east of the Suitland Parkway and is also a low-income neighborhood with a significant share of subsidized housing. West of the Suitland Parkway are the Barry Farms Homes owned and operated by the DC Housing authority.



Existing Land Uses

Existing Transportation

More than any other aspect of the study corridor, transportation issues predominate. Future land uses and open space configurations will be the result of decisions made about transportation enhancement in this corridor. Given the current South Capitol Street ROW and expected future increases in vehicular volumes, little open space is possible without significant changes to the way in which vehicles, pedestrians, and transit moves through the corridor. The Gateway Study currently in progress will evaluate various options for transportation improvements on South Capitol Street and the Frederick Douglass Bridge. Key transportation aspects are described in greater detail in the Transportation section of this report.

Regional Network

South Capitol Street functions as an integral part of a larger highway system including I-295, the Anacostia Freeway, the Southeast/Southwest Freeway, Barney Circle, I-395 and the Frederick Douglass Bridge. The Suitland Parkway joins this network and connects to South Capitol Street at the I-295 interchange. Traffic volumes across the entire interchange are approximately 100,000 cars daily. The Southeast/Southwest Freeway, I-395 and their attendant exit ramps to and from South Capitol Street are a significant feature within the study area.

Transit

The study area is served by several Metrorail stations along the green line. North of the Anacostia River the Navy Yard and Waterfront-Southeast University stations are located along M Street. South of the River, the Anacostia Metrorail Station and Metrobus facility are located adjacent to the I-295 interchange. The Anacostia Station serves as a park and ride stop, with a large capacity garage. Because of its location and the existing access roads, this station is difficult to access both for pedestrians and drivers. Existing Metrobus service along South Capitol Street provides the only means of public transit for many residents of the study area.



South Capitol Street below I-395



Channelized traffic on South Capitol and M Streets



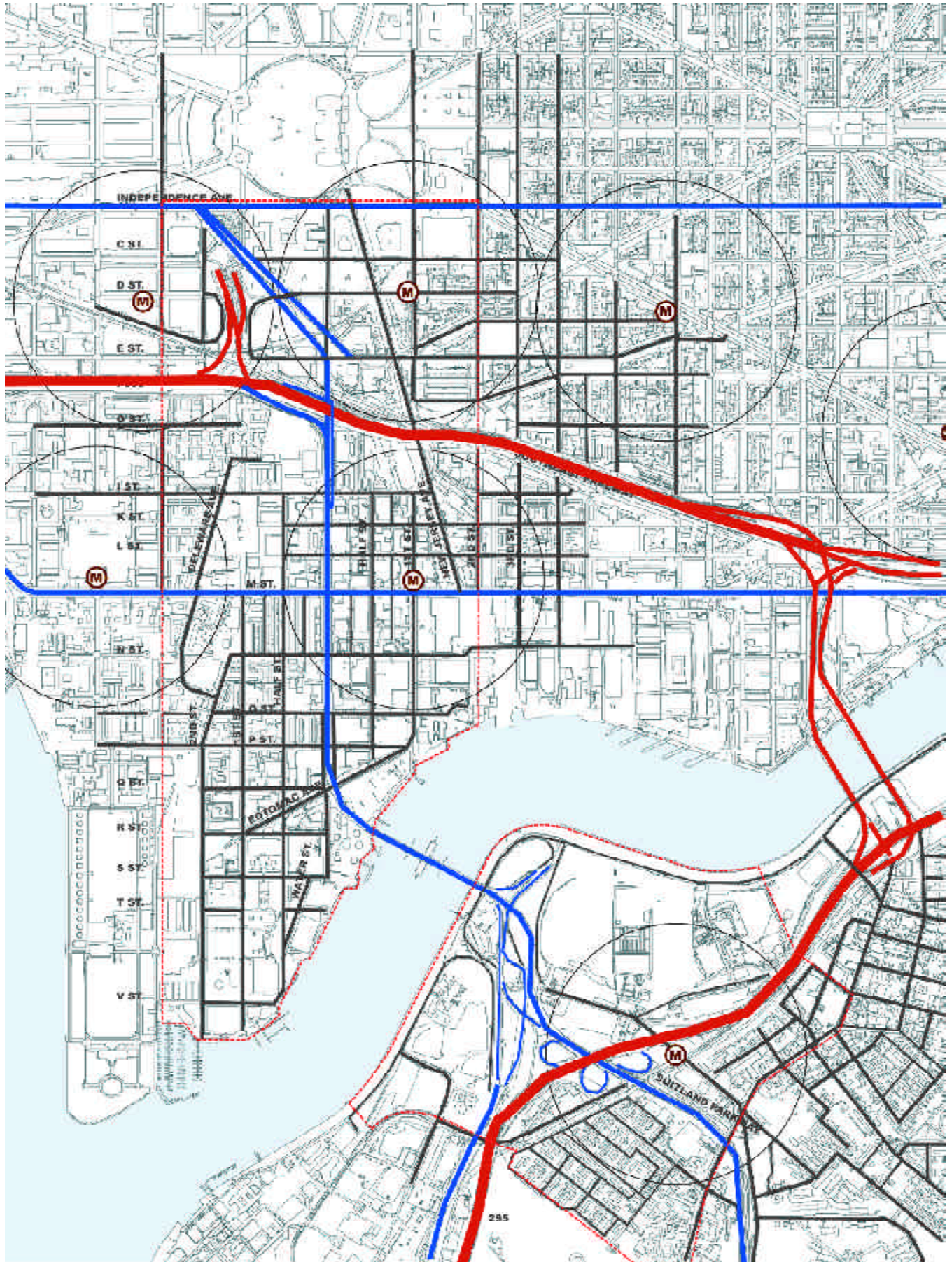
Bridge ramps at Poplar Point

Vehicular Transportation

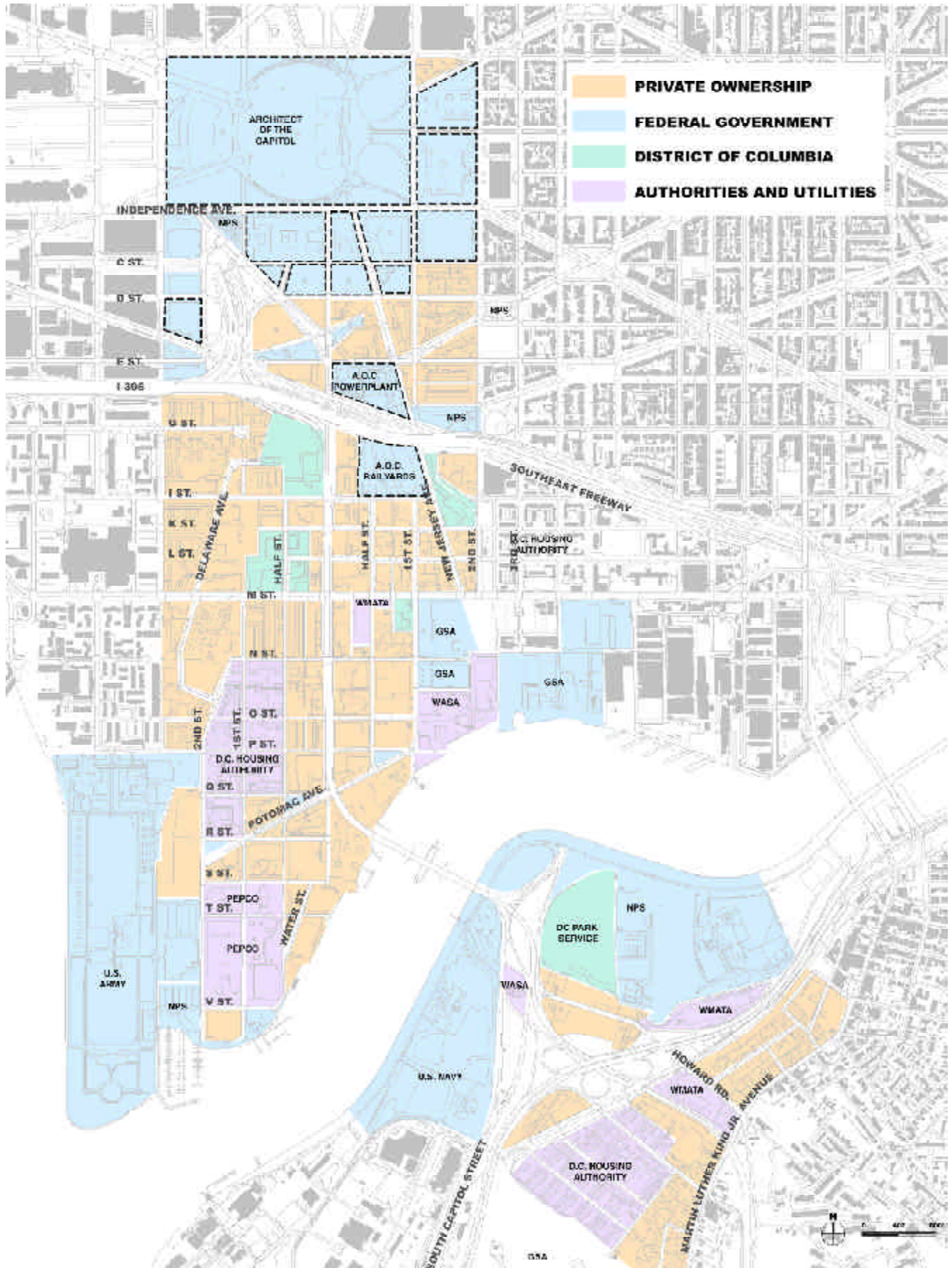
The existing 130 foot South Capitol Street ROW contains eight vehicular lanes of traffic and medians which together account for approximately 110 feet of the total ROW. Four center lanes are channelized by concrete barriers into a high-speed throughway. The Frederick Douglass Bridge contains five lanes of traffic, two south-bound and three north-bound. Traffic along South Capitol Street moves unimpeded from the Suitland Parkway until a signalized intersection at I Street. A grade separation at M Street allows through traffic to maintain highway speeds. Frontage roadways on each side of the high-speed lanes access local streets and provide on-street parking. There are no designated bicycle lanes along South Capitol Street and pedestrian amenities are few.

Local Connections and Pedestrian Conditions

A few local streets, including I Street, M Street, and P Street connect across the South Capitol Street corridor. Crossing is difficult by car, foot or bicycle. Of these east-west crossings, M Street carries significant traffic from the Navy Yard to the Southwest Waterfront. Roadway improvements and development incentives are underway along M Street. Along the South Capitol Street Corridor sidewalks are narrow, typically 10 feet wide. There are few street trees and minimal landscaping. Narrow pedestrian paths on each side of the Frederick Douglass Bridge are inadequate and dangerous. Pedestrian conditions improve only at the northernmost blocks of the study area, a few blocks south of the Capitol grounds.



Street hierarchies and Metro stations, circles indicate 5-minute walking radius.



Existing ownership plan

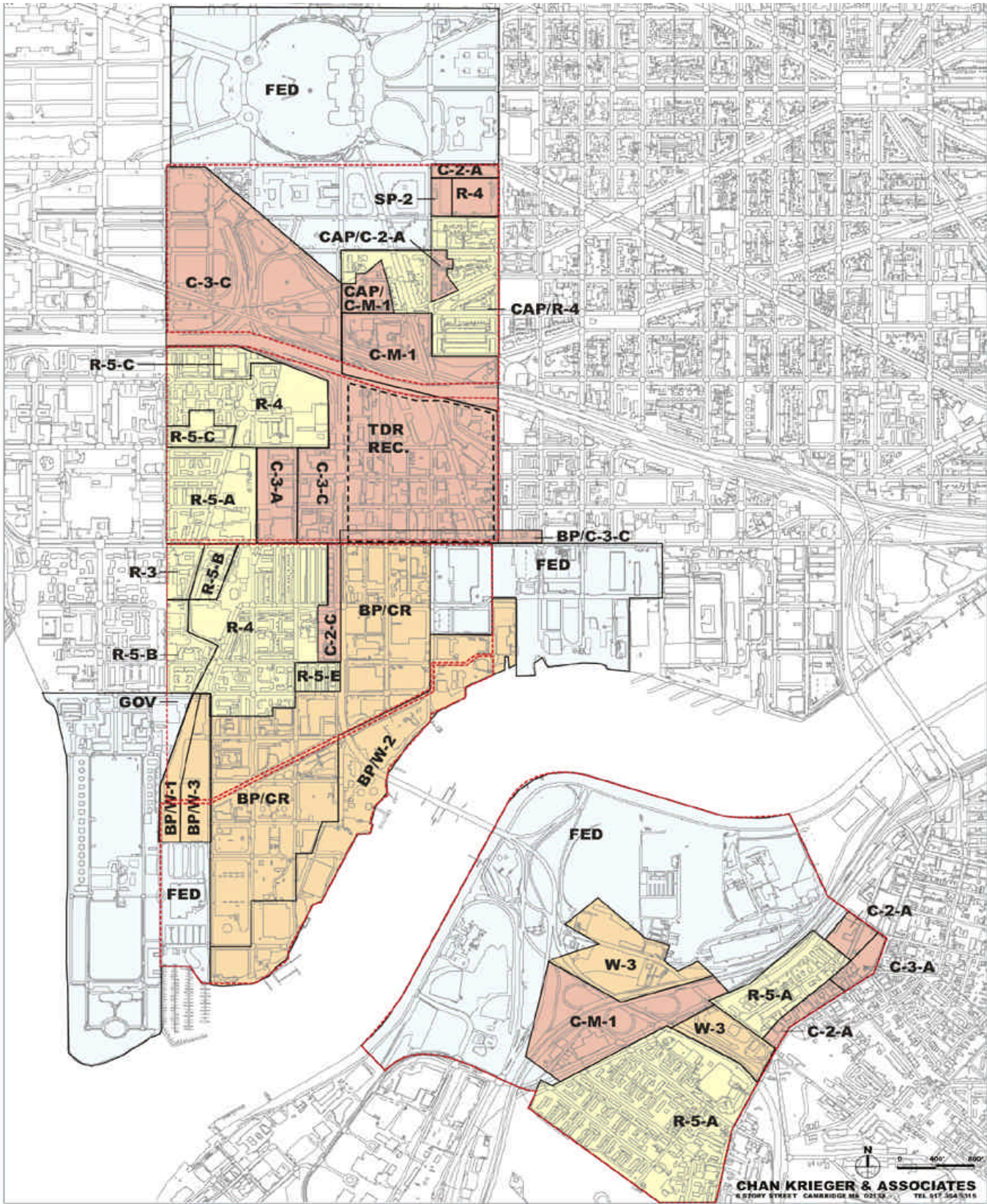
Existing Zoning

Existing zoning varies a great deal within the study area. Recent zoning changes include the Buzzard Point/Capitol Gateway Area overlay district that allows for the continuation of existing industrial uses, but prohibits the expansion of these industrial uses, and promotes residential and mixed-use development. Other visitor-related uses such as retail, service, entertainment, cultural and hotel and inn uses are also encouraged under the new zoning guidelines. Key aspects of the existing zoning are described below. Existing zoning districts are shown on the accompanying table and map.

- In the blocks outside of the Buzzard Point/Capitol Gateway Area (indicated by the BP prefix) zoning reflects existing land use patterns.
- Blocks zoned for residential uses exist largely to the west of South Capitol Street south of M Street. Among these, zoning districts along South Capitol Street have greater floor-area-ratios (FARs), allowing a higher density of development.
- Commercial uses are encouraged in the large district areas northwest and southeast of I-395. Along M Street, current zoning allows for high-density commercial development east of South Capitol Street.
- The Transfer of Development Rights (TDR) receiving zone located north of M Street, compensates for development areas limited elsewhere in the city. Currently this area has the highest FARs, 9 and 10, of the study area.
- A mixture of uses is permitted in the Buzzard Point/Capitol Gateway Area overlay blocks that extend adjacent to South Capitol Street and along the waterfront. In these districts, residential FARs are higher than those for other uses in order to provide incentives for housing development.
- Federal land is not subject to local zoning requirements.

Throughout the study area, lot occupancy requirements range from 75% to 100% ensuring a relatively dense urban fabric. Height restrictions are consistently 90', typical for D.C., with the exception of important transitional zones. At the waterfront, heights are reduced to 60' in the interest of providing views and reducing bulk. Heights are reduced in C-3-A and BP/W-1 to provide a transition to lower rise buildings at Fort McNair and Greenleaf Town Houses, respectively, and at the C-M-1 area at Poplar Point to preserve significant views of the city from the Suitland Parkway. A 75' setback from the water's edge is required in the BP/W-2 district to allow continuous public access along the waterfront.

DISTRICT	USE	FAR RES.	FAR OTHER	LOT OCCUP.	HEIGHT
BP/W-1	residential, commercial, industrial	2.5	1	80%	40 max.
BP/W-2	residential, commercial, industrial	4	2	75%	60 max.
BP/W-3	residential, commercial, industrial	8	5	75%	90 max.
C-2-C	office, retail, residential	8	2	80%	90 max.
C-3-A	retail, office	4	2.5	75%	65 max.
C-3-C	office, retail, housing, mixed use	6.5	6.5	100%	90 max.
C-3-C (TDR REC)	office, retail, housing, mixed use	6.5	9	100%	90 max.
BP/C-3-C (TDR REC)	office, retail, housing, mixed use	6.5	10	100%	90 max.
BP/CR	residential, commercial, industrial	6	3	75%	90 max.
C-M-1	commercial, manufacturing	0	3	100%	40 max.
FED	-	-	-	-	-
R-5-E	residential, commercial, industrial	8	5	75%	90 max.
W-3	residential, commercial, industrial	8	5	75%	90 max.



Zoning Map

2. Open Space

Understanding Potential of Civic Open Spaces Along The South Capitol Street Corridor

L'Enfant's vision of graceful boulevards and commodious green spaces still characterizes major parts of the nation's capital. The introduction of gracious open spaces into the South Capitol Street setting along one of the major axes of the city should be an important objective. The scale, configuration and use of these spaces will surely define the future character of this corridor.

The three urban design scenarios presented in this report explore a variety of open space configurations and scales. Four distinct open space typologies are presented:

1. a Suitland Parkway extension
2. a waterfront promenade and South Capitol Street terminus
3. a linear park for monuments and memorials
4. a great urban boulevard

Each of these typologies forms the basis for a particular South Capitol Street future. One of the principal reasons for improving South Capitol Street is to provide a better civic connection between the National Mall and the 1,600 acres of open space along the Anacostia River. It is such a continuity of landscape that characterizes the best public realm qualities of Washington, D.C.

1. Suitland Parkway Extension

Beginning in Maryland east of the study area, the Suitland parkway continues uninterrupted as a well-landscaped parkway for nearly nine miles only to end in the ramps leading to the Frederick Douglass Bridge. The Suitland Parkway is a limited access roadway that serves commuters approaching the nation’s capital from the east and those traveling between Andrews Air Force Base in Prince George’s County, Maryland, to Bolling Air Force Base, and to the monumental core. It is a dual-lane roadway used by visitors and commuters. The White House frequently uses the Parkway along with congressional and military personnel, as well as foreign dignitaries who fly into and out of Andrews Air Force Base. The Parkway corridor is often the first physical image foreign heads of state form of the United States. The Parkway is listed on the National Register of Historic Sites.



Suitland Parkway

NPS Photo

Visitors to the nation’s capital often remark upon the abundance of graceful landscapes woven throughout the city at its monumental core, its many parks and plazas, along its waterways and along its busy avenues, streets and parkways. While Poplar Point, the Anacostia Park, and the Suitland Parkway contribute to this experience, areas along South Capitol Street north of the Anacostia River do not. An abrupt change in the visual environment currently occurs as one travels from one side of the river to the other.

A revitalized South Capitol Street corridor should provide a continuity of experience from the Suitland Parkway to the monumental core, reflecting the transition from the Maryland suburbs to the higher density urban corridor. A generously planted urban boulevard stretching the length of South Capitol Street, and a more graceful, less highway-like Frederick Douglass Bridge would provide such continuity, and also transform South Capitol Street into a landscaped corridor more characteristic of Washington, D.C.



Development of an urban boulevard enables a continuity of experience from the Suitland Parkway to the Monumental Core

2. Waterfront Promenade and South Capitol Street Terminus

The Anacostia Waterfront Initiative (AWI) describes in detail the new Anacostia Riverpark, through which South Capitol Street and the Frederick Douglass Bridge pass. Ample open space will abut the seven-mile stretch of the Anacostia Riverpark. From the natural setting of Kingman Island and the National Arboretum at the northern reaches of the river to Poplar Point, landscaped green space will abound. In contrast, Buzzard Point, the Southeast Federal Center, and the Navy Yard provide an opportunity for an urban waterfront. Like Alexandria and Georgetown, these areas could be some of the special places where the city meets the river. A 75 foot wide promenade is mandated by the zoning code in these areas, and the AWI recommends suitable programming. Similar promenades offer one of the defining characteristics of the best known waterfronts in cities throughout the world. Active uses enliven such edges as these, providing sweeping views of the water and amenities close at hand.

As a spatial counterpoint to the urban promenade, the terminus of the Capitol axis at South Capitol Street can offer a landscaped opening and an invitation to travel further inland along a greenway. Such a variety of spatial and programmatic diversity is found in the best waterfronts, including Chicago's Grant Park on Lake Michigan and New York's Battery Park City. Linear urban promenades, marinas and plazas, residential pocket parks, and large recreational spaces all occur along Battery Park's three-quarter-mile stretch.

As one of the prime sites identified in the *Memorials and Museums Master Plan*, the Capitol axis terminus of South Capitol Street at the Anacostia River provides a rare opportunity for a monument, memorial or civic feature of national significance. As important as the Lincoln Memorial is in terminating the west axis from the Capitol, the Capitol axis terminus at the Anacostia River should serve as a gateway to the Monumental Core from points south. A wide range of options exists for the form of this terminus. Like the Mall, many sites along the South Capitol Street axis can be appropriate for memorials. At the terminus, a waterfront space that relates to the larger Anacostia Park trail system can complement an architecturally significant bridge structure further south that reflects at night in the water. A significant feature should engage the open space at the water's edge, taking priority over roadways and infrastructure; and it should be a place of celebration and remembrance as is appropriate for its prominent location. Design excellence should be promoted through the entire corridor and especially at this important civic site. The best designers should be called upon to create structures and landscapes of beauty and significance, appropriate for the Nation's Capital in the 21st century.

The ensemble of open spaces along the length of the Anacostia River should provide a variety of different yet complementary experiences. Memorial opportunities, active recreation, tranquil parks, and busy marinas all should be found along its shores. Thus, the waterfront park proposed for the terminus of South Capitol Street should complement, but not replicate, the proposed re-uses of Poplar Point.



Boston's esplanade along the Charles River



Washington Harbour

Waterfront trail system and open spaces proposed by the AWI Framework Plan, "Heritage Basin" indicated by dashed circle



3. Linear Park for Monuments and Memorials

There is a scarcity of landscaped, public open space within the South Capitol Street study area north of the Anacostia River. As the area redevelops and becomes more dense, additional open space will be needed. Throughout much of Washington, green spaces promote gracious and stable neighborhoods. It is important to achieve a similar condition in this area. The South Capitol Street Corridor should better connect two significant open space systems: the National Mall and the Anacostia Riverpark. To provide a suitably scaled connection, green space for the adjoining neighborhoods, and sites for future museums and memorials, a significant open space corridor is desirable, most likely requiring an expansion of the existing right-of-way (described later in this chapter).



Dupont Circle

A green connection from the Mall to the waterfront accessible to joggers, strollers and bicyclists would be a welcome benefit to the city. At the local scale, this public space could provide a substantial amenity for additional development investment in the area. To complement this linear park, smaller neighborhood parks located several blocks east and west of South Capitol Street would enhance the adjoining neighborhood. These smaller parks would be appropriate for dog runs, playgrounds and local celebrations.



Meridian Hill Park in Northwest Washington, D.C. is a 12 acre park west of 16th Street NW, similar in width to the proposed linear park

4. A Great Urban Boulevard

The L'Enfant Plan is relatively silent in describing the urban characteristics of the southeastern quadrant of the city and in particular South Capitol Street. Productive canals traversed this district south of the Capitol for several blocks, characterizing the site's history as an industrial sector. Unlike East Capitol and North Capitol Streets, South Capitol Street was never developed as one of the District's great avenues. These great diagonal avenues, such as Pennsylvania and Massachusetts, have right-of-ways (ROW) of 160 feet (the ROW is the distance between property lines, including sidewalks, roadways, and planting areas). North Capitol Street and East Capitol Street also have a 160 foot ROW, but South Capitol Street has a narrower ROW of 130 feet. Grid streets in the District, the numbered and lettered streets, typically have a 95 foot ROW.

Compared with East Capitol Street, South Capitol Street has twice as many vehicular lanes and an ROW narrower by 30 feet. The goal is to transform South Capitol Street into a great urban boulevard that maintains the vitality of an active street within a landscaped realm. Three kinds of boulevards are described on the following pages:

- A boulevard within the existing 130 foot South Capitol Street right-of-way,
- A center median boulevard with an expanded 220 foot right-of-way, and
- A boulevard combined with an adjoining linear park in an expanded 325 foot right-of-way

The characteristics of the street may even change along the 1.5-mile distance from the Anacostia River to the Capitol. But whichever is ultimately selected, it must meet the often conflicting needs of vehicular circulation and a landscaped setting suitable for a public corridor of national significance.

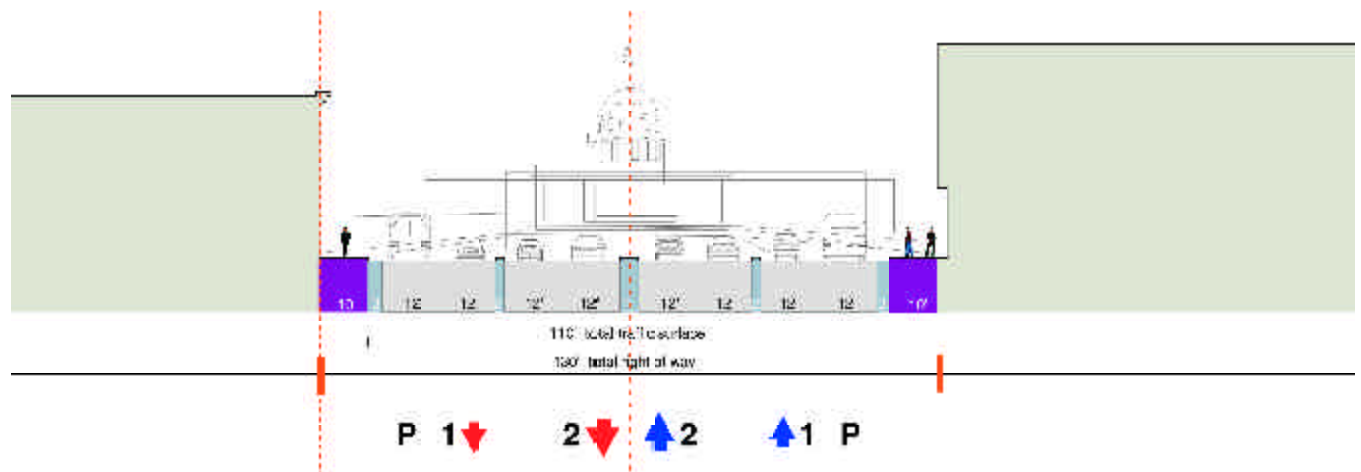
Each of these roadways distributes traffic and open space differently across increasingly wider ROWs. While the first typology would require a substantial reduction of traffic capacity in the corridor without requiring an expanded ROW, the two other roadway types require a greatly expanded ROW, resulting in a substantial increase in landscaped open space. Precedents of other great boulevards in Washington and other cities form the basis for the three configurations described on the following pages.



La Via Julia, Barcelona

KEY TO SECTIONS

- TRAFFIC LANES-**
NUMBER OF LANES:
DIRECTION:
RED- SOUTHBOUND
BLUE-NORTHBOUND
- P** PARKING LANE
- T** FUTURE TRANSIT LANE
- CT** CENTER LEFT TURN LANE



Existing South Capitol Street section

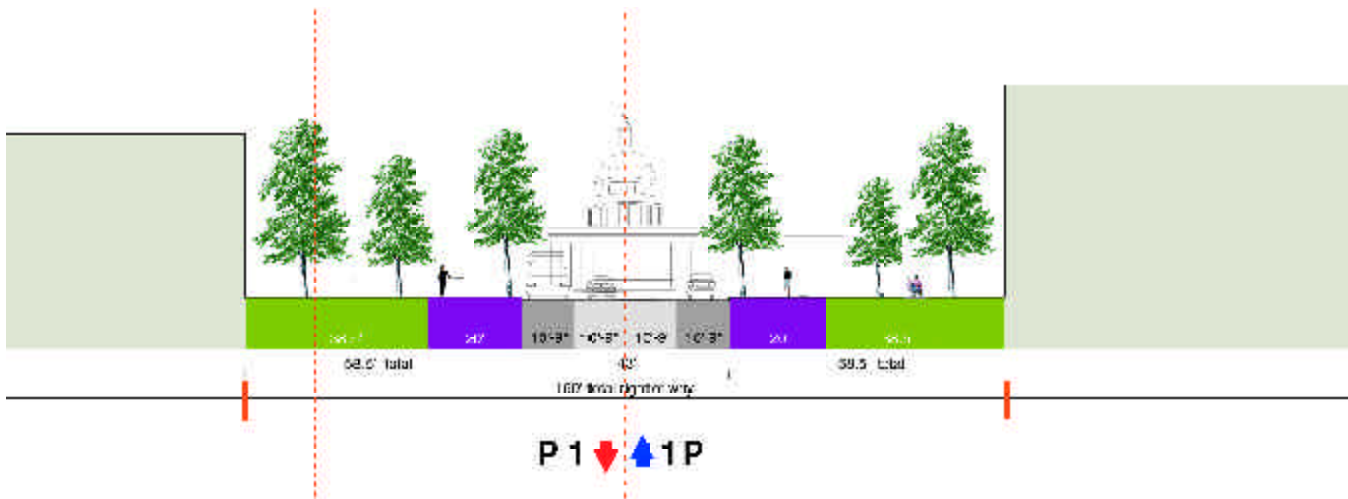
Boulevard Within the Existing 130 foot Right-of-Way



Aerial view of East Capitol Street

With an ROW of 160 feet, East Capitol Street provides a local, historically sympathetic precedent for a possible transformation of South Capitol Street. Here a 43 foot wide roadway contains four lanes of traffic on axis with the Capitol. Generous 20 foot wide sidewalks flank the roadway and 38 foot wide building yards (required by setback, yet privately owned) extend to the building faces. While this example provides a precedent developed in the L'Enfant Plan, two exceptions to its direct application to South Capitol Street exist. First, the scale of the roadway, while appropriate for a residential precinct, is too small. For commercial development to be feasible along South Capitol Street, this report recommends a minimum of three lanes in each direction, in addition to transit. Thus landscaping would have to be significantly reduced even in the 160 foot ROW, compromising its qualities as a boulevard. Second, the landscaped building yards, again appropriate for residences, would not function with ground floor retail. Individual property owners are largely responsible for the maintenance of these yards, leaving the quality and character of the landscaping to chance. This may not be appropriate or helpful to the expanded public realm of a nationally significant gateway.

The cross-sections shown on the bottom of the next page indicate the application of this typology to the South Capitol Street corridor. Here the existing ROW of 130 feet is maintained, the number of roadway lanes reduced to six with a center left turn lane, and the sidewalks are expanded to 30 feet. This wider sidewalk area could accommodate a wider range of activities and uses appropriate for high density commercial and residential uses, as well as a planting strip adjacent to the roadway. Sites for memorials could occur at intersections or traffic circles in this scenario, yet not along the widened sidewalks. The application of this typology within the existing ROW provides a greener, more quiet boulevard, and does not require land takings. While it may be the most historically appropriate configuration, in the manner of other streets in the Capital, the scale may be inconsistent with the larger aspirations for the corridor.



Precedent: East Capitol Street section

Open Space

M Street

N Street



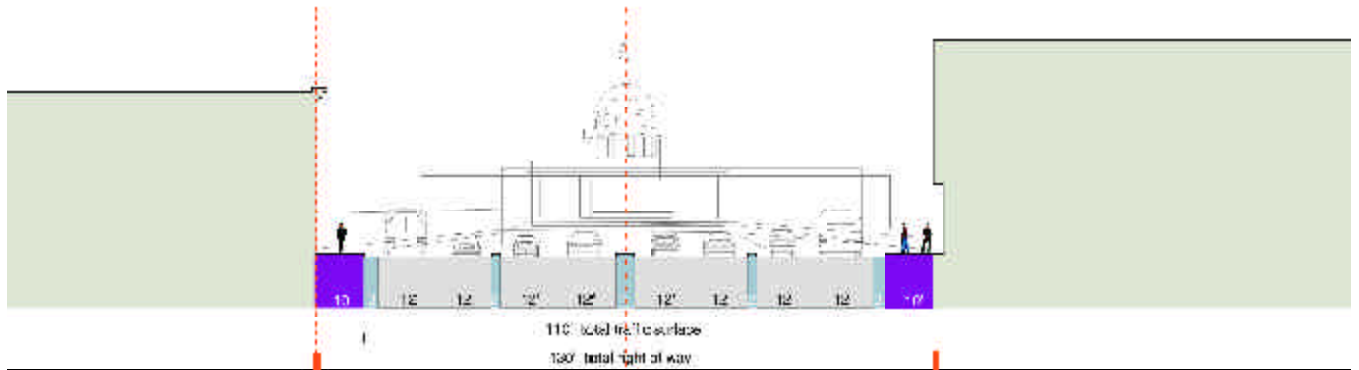
Existing South Capitol Street plan



South Capitol Street as Boulevard Street plan

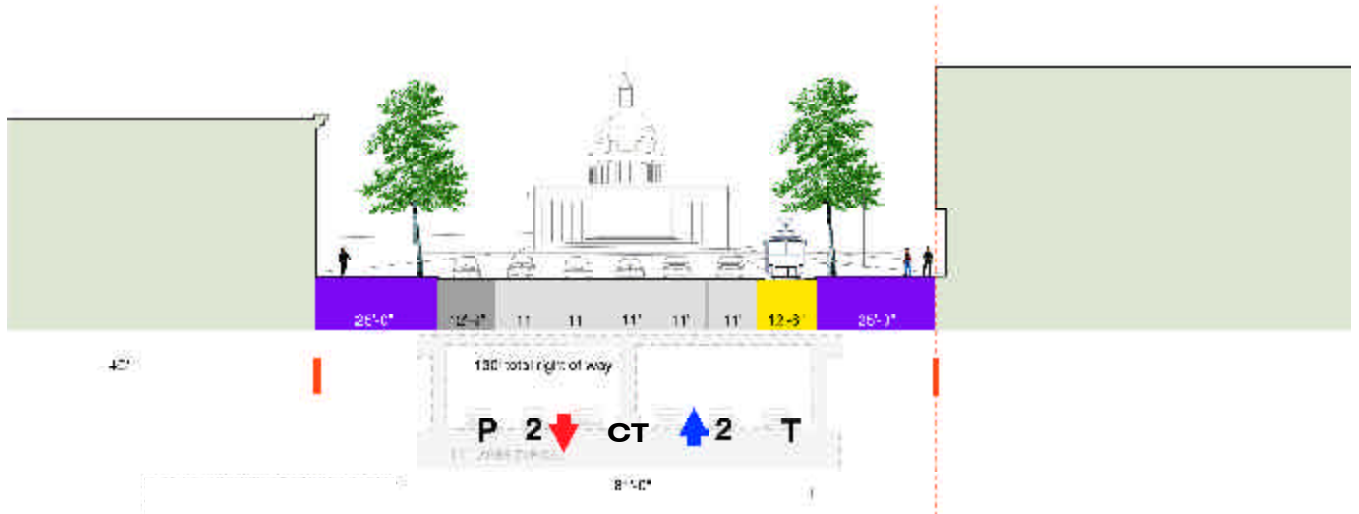
(yellow and blue represent potential residential and commercial development, respectively).

South Capitol Street



Existing South Capitol Street section

P 1 ↓ 2 ↓ ↑ 2 ↑ 1 P



South Capitol Street as a Boulevard within the existing 130 foot right-of-way

P 2 ↓ CT ↑ 2 T

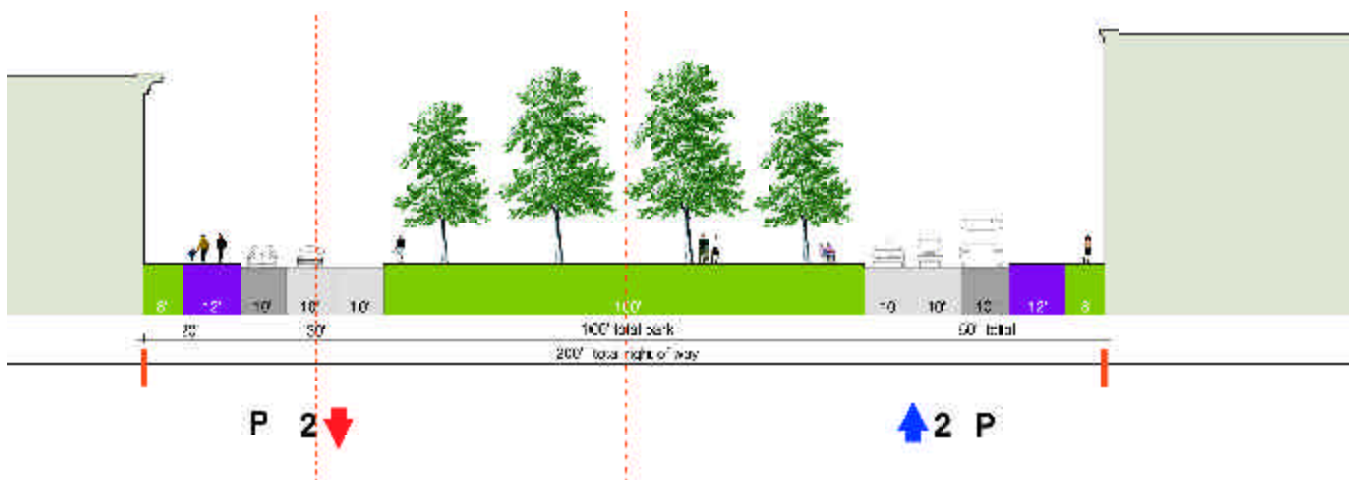
Center Median Boulevard with an Expanded 220 foot Right-of-Way



Commonwealth Avenue, Boston

Commonwealth Avenue in Boston is a densely planted, center median boulevard, located in a late 19th-century residential neighborhood. A 100 foot wide linear greenway occupies the center of the 200 foot ROW on Commonwealth Avenue. Three cartways, two travel lanes, and one parking lane are located on each side of the center median, with sidewalks and small building yards extending to the building face. Given that the Commonwealth Avenue ROW is 70 feet wider than South Capitol Street, and has fewer traffic lanes, substantial open space is possible in this typology. A balance between landscaped open space and vehicular movement is evident. The relatively wide ROW allows for a commodious greenspace suitable for quiet recreation. In addition, this central median is occupied by small-scale memorials and commemorative sites. This makes it an appropriate model for South Capitol Street, which would benefit from additional memorial sites. Both traffic and a generous landscaped area are graciously accommodated in this typology.

Applied to South Capitol Street the ROW is expanded by approximately 45 feet on each side of the present South Capitol Street. A 100 foot wide landscaped median would result along the central axis with three lanes of traffic located on each side. Sidewalks are expanded to 25 feet - six inches, a dimension that adequately accommodates street trees and a generous pedestrian realm. At 100 foot wide, the central median would be a suitable location for small-scale memorials and passive recreation, as well as generous landscaping. While the precedent is located in a largely residential area, it can work equally well as a mixed-use or commercially oriented boulevard. Hardscaping within the central median may increase to accommodate this transformation. Notable examples include the Via Julia and the Ramblas Catalunya in Barcelona.



Precedent: Commonwealth Avenue section

M Street

N Street

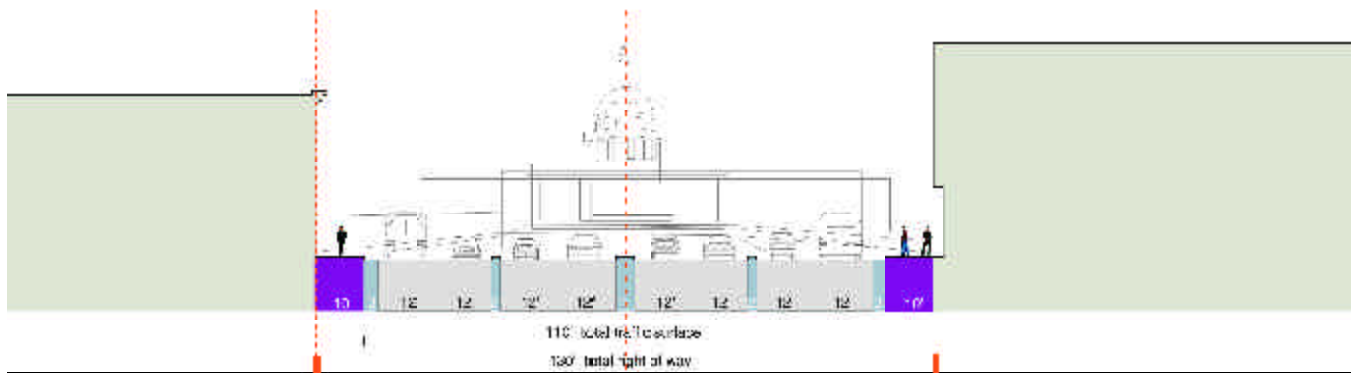


Existing South Capitol Street plan



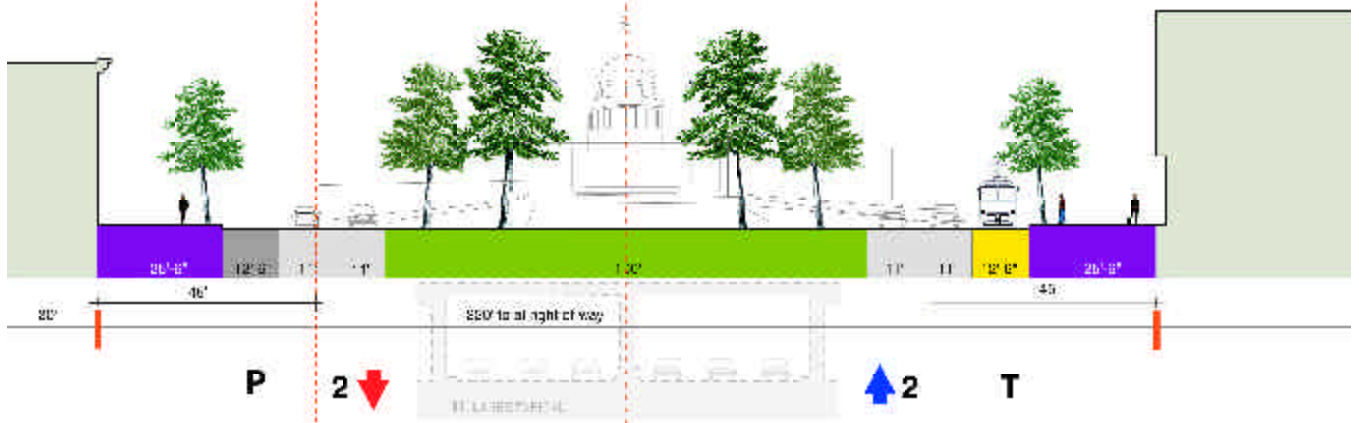
South Capitol Street as Median Boulevard plan

**South
Capitol
Street**



Existing South Capitol Street section

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South Capitol Street as Center Median Boulevard with and expanded 220 foot right-of-way

M Street

N Street

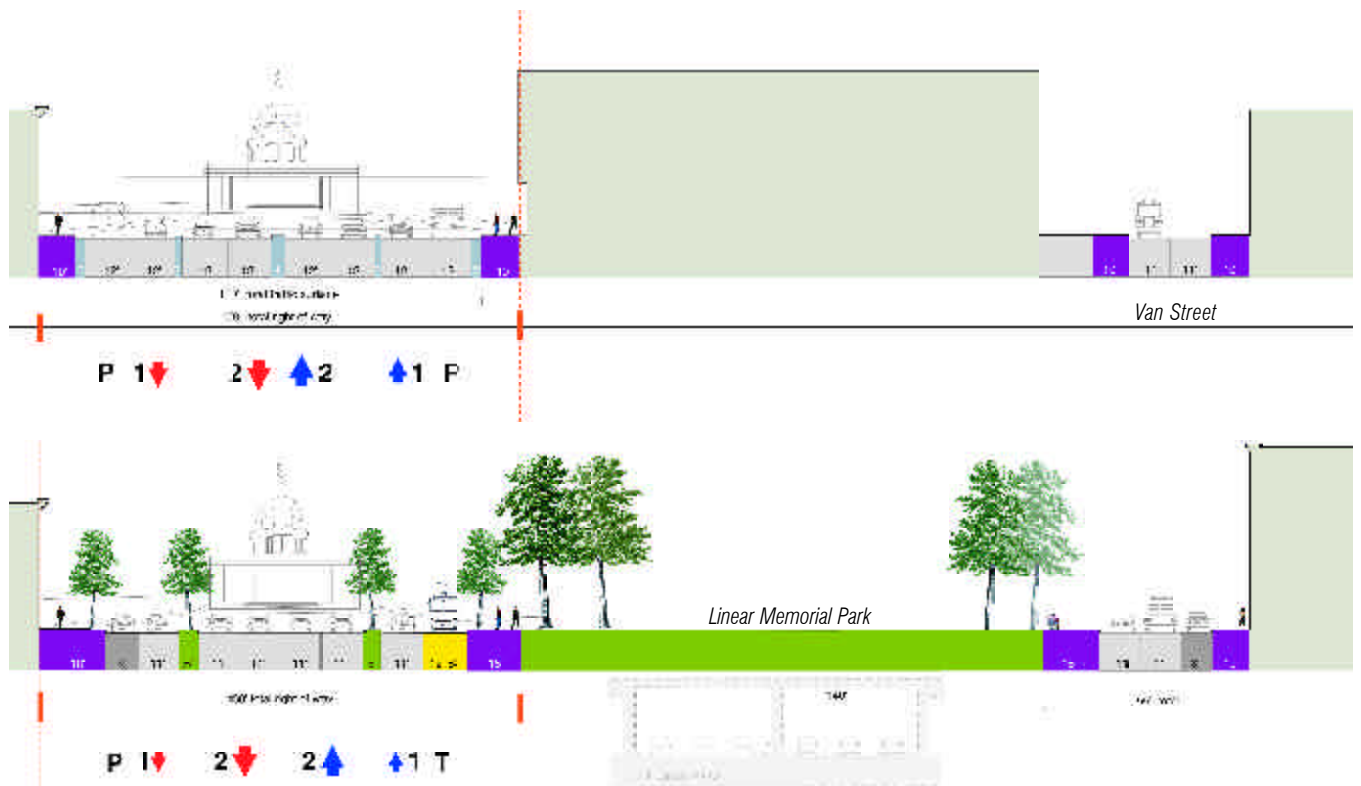


Existing South Capitol Street plan



South Capitol Street as Boulevard Street plan

**South
Capitol
Street**

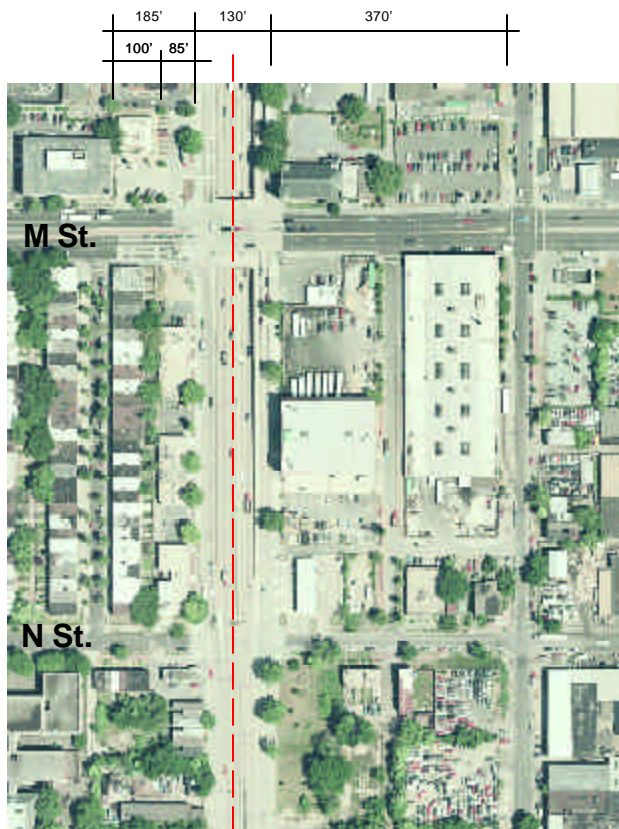


South Capitol Street as Boulevard, with adjoining linear park, right-of-way expanded to 325 feet

Impact on Developable Parcels

Block Size

The three boulevard typologies illustrated in the preceding pages impact the configurations of adjacent blocks in different ways. In order to assess the development potential that each of the scenarios promotes or precludes, it is important to look at these development sites. The accompanying illustrations depict blocks along a typical segment of the corridor to compare the impact of the three sections. These diagrams indicate blocks at the intersection of M Street and South Capitol Street. The real estate demand analysis, included in the appendix, identifies the potential for Class A office space in the study area. An ideal floor plate (or footprint) of 40,000 square feet is required for this use. While this number represents the minimum square footage desirable for Class A office space, larger floorplates appropriate for federal agencies or museums can be accommodated on most of the larger blocks. Closing streets to provide larger block size for such uses is not recommended in any scenario.



Existing condition

Boulevard within the existing 130 foot right-of-way

Here the blocks on either side of South Capitol Street remain unchanged. The 40,000-square-foot floor plate necessary for Class A commercial use can be accommodated twice within the depth of the blocks east of South Capitol Street. In comparison, the WMATA bus storage facility shown on the existing diagram below, at the southeast corner of M Street and Half Street SE, is approximately 70,000 square feet. To the west of South Capitol Street, multi-family residential units can be developed along South Capitol Street without impacting the existing homes on Carrollsburg Place. The total 185 foot block depth between Carrollsburg Place and South Capitol Street allows two back-to-back residential uses (each requiring approximately 85 feet resulting in a minimum required block depth of 170 feet).



Boulevard within the existing 130 foot right-of-way

Open Space

Center Median Boulevard, right-of-way expanded to 220 feet

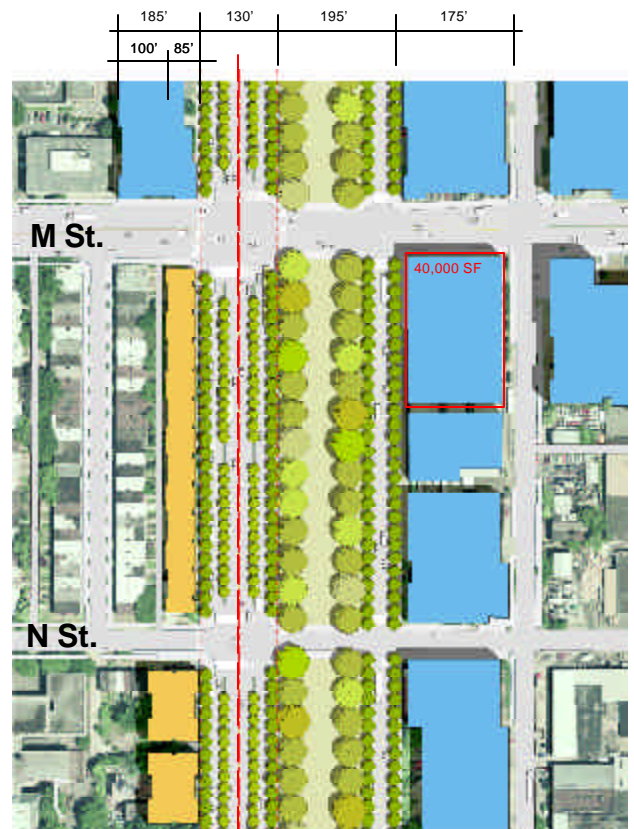
With this typology an expanded ROW impacts blocks on either side of South Capitol Street. To the east, the resulting 280 foot block depth can easily accommodate two 40,000-square-foot floor plates and a central service alley. To the west, block size may be significantly impacted. A ROW expansion of 45 feet to the west reduces the overall block depth to 140 feet, less than the minimum dimension of 170 feet required for two back-to-back residential lots. This block depth would be appropriate for larger residential buildings that may replace existing residences along Carrollsburg Place.

Boulevard with adjoining linear park, right-of-way expanded to 325 feet

In this configuration, the ROW is expanded to the east. Blocks adjacent to the linear park are approximately 175 feet deep and can accommodate single depth 40,000-square-foot floorplates. Elsewhere in the District, such commercially developed narrow blocks of a similar width are located between 5th and 6th and 11th and 12th Streets NW. In this section, there is no impact to blocks west of South Capitol Street; the existing 185 foot depth is maintained, providing sufficient space for two back-to-back residential uses. Existing homes along Carrollsburg Place remain.



Center Median Boulevard, right-of-way expanded to 220 feet



Boulevard with adjoining linear park, right-of-way expanded to 325 feet

Land Assembly

Each of the ROWs described on the prior pages, as well as in the scenarios presented later in the report, would require land acquisition in order to accommodate the proposed changes. This will be an important consideration in the subsequent public planning process. While the impact on parcels is very different in each of the scenarios according to the recommended ROWs, the number of waterfront properties that will be assembled depends upon the preferred realignment of the Frederick Douglass Bridge. It is anticipated that substantial changes will occur at these waterfront blocks; existing uses such as oil storage and structures such as the building at Water Street (previously leased by the FBI) must be removed for significant change to occur.

Boulevard within the existing 130 foot ROW

Here the 130 foot ROW is maintained and land acquisitions (approximately 22 acres total) would be necessary only at waterfront blocks required by the possible realignment of the Frederick Douglass Bridge.

Center median boulevard with and expanded 220 foot ROW

This configuration would impact the greatest number of properties on both sides of South Capitol Street. In order to expand the ROW as indicated, substantial land acquisition (approximately 49 acres total) would be necessary.

Boulevard combined with a linear park in an expanded 325 foot ROW

This configuration reduces land acquisition (approximately 38 acres total) along South Capitol Street by expanding only to the east, avoiding impacts on residential areas to the west.



Required land assembly in the corridor for each of the Boulevard configurations

Open Space Goals

- Achieve a South Capitol Street corridor equivalent in character and scale to other prominent Avenues in the Capital.
- Create a beautiful, clear, ceremonial “gateway” to the Monumental Core from points south, including Maryland along the Suitland Parkway, I-295 and the Anacostia Freeway.
- Create and distribute appropriate public spaces throughout Buzzard Point.
- Use public open spaces as catalysts to support redevelopment throughout Buzzard Point and the adjacent neighborhoods.
- Identify and establish appropriate sites for future memorials and commemoration along the South Capitol Street corridor.
- Create an appropriate ceremonial terminus at the intersection of the South Capitol Street axis and the Anacostia Riverwalk.
- Establish direct pedestrian connections from the South Capitol Street corridor to the Riverwalk and Anacostia Riverparks.
- Along the South Capitol Street corridor, complement but do not replicate civic or recreational uses programmed for Poplar Point.

Anticipating and Directing Land Use Changes in the South Capitol Street Corridor

Land uses within the study area can be expected to change significantly in the upcoming years, as zoning changes take effect and as the revitalization of the Southwest waterfront and Southeast Federal Center continues. The improvements along the Anacostia being proposed by the Anacostia Waterfront Initiative will also attract investments. It is difficult to predict with absolute accuracy how the local and regional markets will affect development patterns in the study area; however several key recommendations can be made, based on the desired urban design character and on forecasted demand. These are outlined below and incorporated into the land use scenarios.

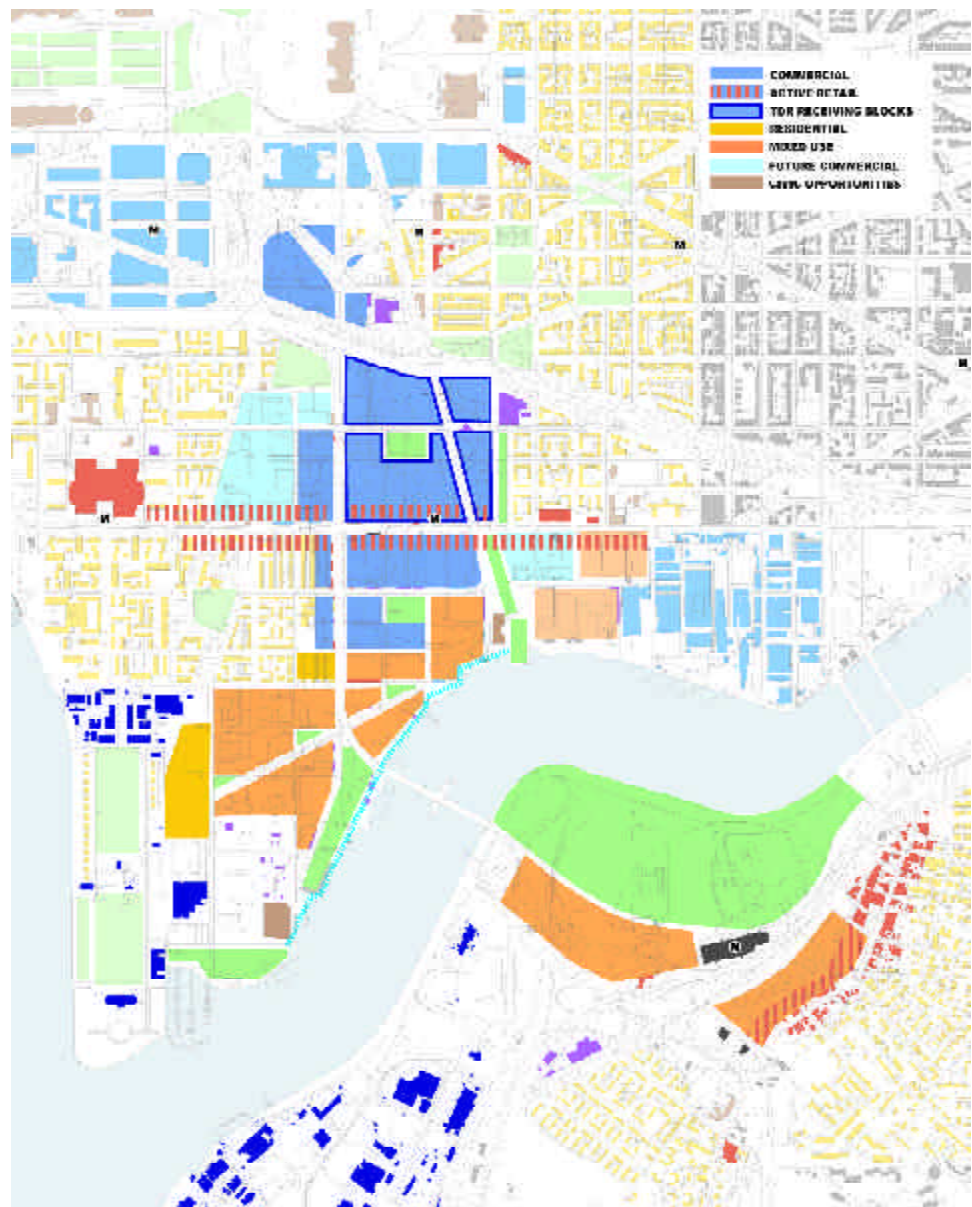
- The principal commercial node of the corridor should be centered at the intersection of M and South Capitol Streets, and adjacent to the existing Metrorail station.
- The bulk of high-density commercial redevelopment should be targeted on the blocks along South Capitol and M Streets.
- Mixed-use development is encouraged throughout the study area.
- Commercial/office oriented uses should be located close to M Street, mostly east of South Capitol Street, to extend the emerging employment centers of the Navy Yard and the Southeast Federal Center.
- Retail uses should be encouraged along M Street and Martin Luther King, Jr. Avenue, consistent with current planning initiatives.
- Strengthen existing residential areas by adding services and open space, and a broader range of housing choices.
- Residential uses should be located in areas closer to the water and along avenues and streets that can be developed as green boulevards such as Potomac Avenue, New Jersey Avenue and near a new segment of the Anacostia Park Road being proposed for Poplar Point.
- Each new residential area should have its own associated neighborhood open spaces similar in scale to other neighborhood parks in the District.
- Civic uses such as museums, memorials, and prominent private buildings are encouraged and should be clustered along the South Capitol Street Corridor and near the river's edge.

Two hypothetical land use scenarios, a commercial-oriented and residential-oriented scenario, are presented on the following pages. These are based on demand projections for the South Capitol Street corridor study area set forth in the Economics Research Associates (ERA) report. (See Appendix for a detailed summary of the ERA report and the capacity analysis.)

Commercial-oriented Scenario

The diagram below shows proposed land use in a scenario that maximizes commercial development within the study area. The blocks shown in blue represent commercial and office space uses, while orange and yellow represent residential and mixed-use development. This scenario reflects current zoning patterns within the study area. Areas that are zoned for commercial use for example, are shown below as having commercial development. Blocks within the Transfer Development Right Receiving Zone (TDRRZ) are shown as commercial. The TDRRZ provides development rights for landowners unable to maximize development on parcels elsewhere in the city. The TDRRZ accounts for a large portion of the total commercial/office space in the corridor and represents substantial concentration of commercial development for the corridor as well as the entire District. Analysis of anticipated office demand indicates that this capacity for development exceeds demand.

Both M Street and Martin Luther King Jr. Avenue are indicated as retail-oriented streets, and blocks along Potomac Avenue are shown here as mixed-use. On Poplar Point, a mixed-use residential community could be developed on land that is made available by the relocation of the Frederick Douglass Bridge. This follows preliminary designs advanced by the AWI Poplar Point target area plans.

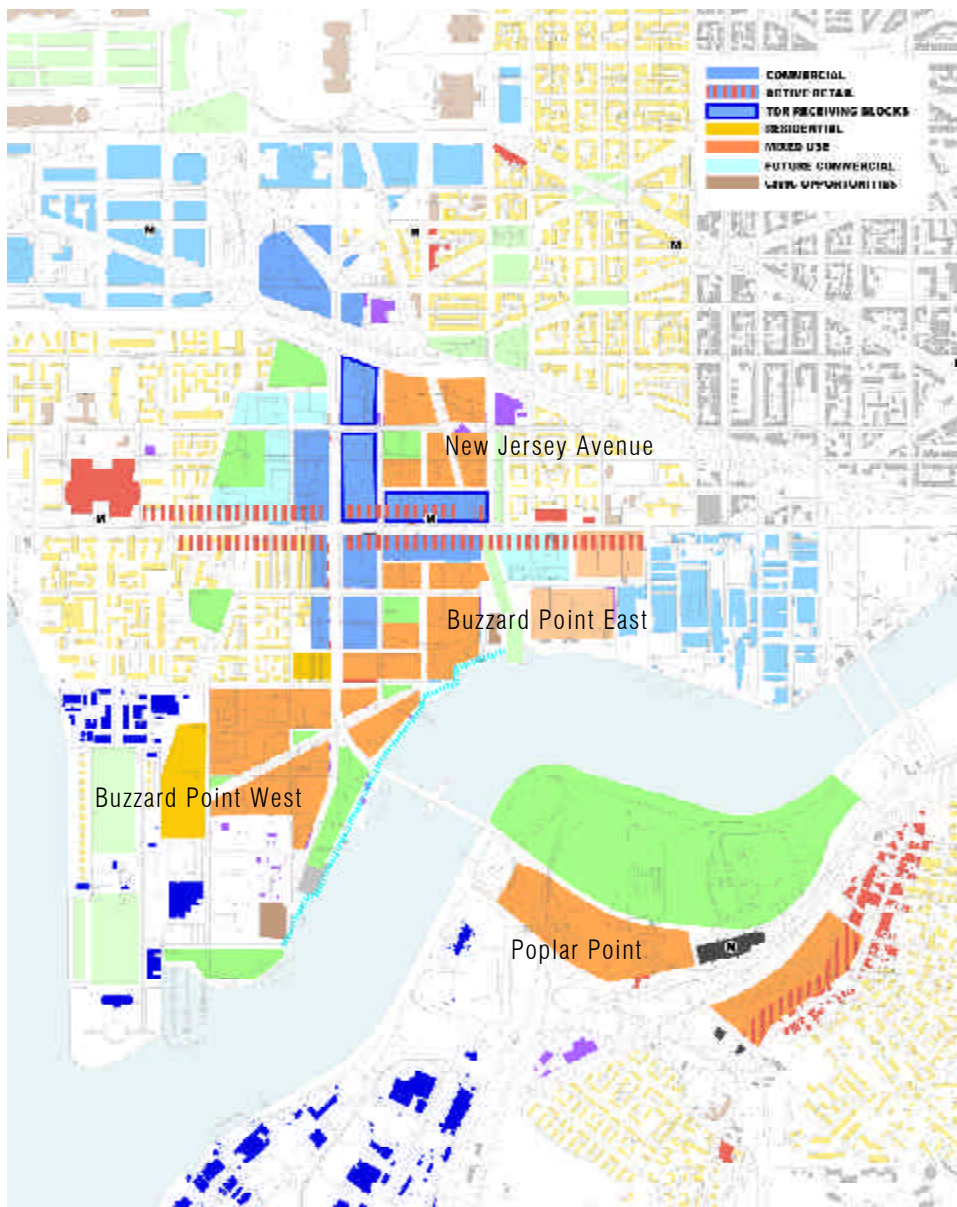


Commercial Oriented Scenario

Residential-oriented Scenario

Forecasting a greater demand for residential development (as outlined in the ERA report), this scenario outlines several mixed-use residential neighborhoods. Here, commercial office development is concentrated primarily along the South Capitol Street and M street corridors, and New Jersey Avenue is depicted as a green neighborhood street. The TDRRZ is also shown as a neighborhood of residential and commercial uses that would require modification to existing zoning. This new neighborhood would extend both south from the Capitol Hill residential areas, and west from the Arthur Capper/Carrollsborg Dwellings. Mixed-use residential areas elsewhere (waterfront neighborhoods) are similar for the two scenarios.

With an emphasis on new neighborhoods, open space becomes increasingly important. Along with neighborhood scaled parks as indicated for each of the proposed neighborhoods, and the ample open space proposed for Poplar Point, the need for additional open space along South Capitol Street is clear. In both the commercial-oriented and residential-oriented scenarios, civic monuments, museums and memorials should be located close to prominent open spaces and along significant axes.



Residential oriented Scenario

Highlights of the Market Analysis *(refer to Appendix for the complete ERA report)*

A densely developed, high profile urban corridor will be highly dependent upon public transportation to bring workers from throughout the metropolitan region. Office development will tend to concentrate within walking distance of the new Navy Yard Metro station to maximize regional access. Residential development can then fill the southern portion of the corridor toward the Anacostia River, with intensity of development dependent upon the quality of transportation access.

In addition to image, aesthetics, amenities and commuter accessibility, practical concerns such as efficient office layouts, and building servicing need to be addressed. Larger floorplates are increasingly sought by employers, since they allow for a more flexible and interactive workspace. Additionally, a construction cost premium is added for each floor required to accommodate building square footage. Typical new office floorplates in an urban setting are 40,000 – 50,000 square feet, while suburban office park floorplates can be significantly larger.

Under a premier office and high-density mixed-use/residential scenario, retail development along South Capitol can be geared toward supporting the office workers and residents in the area. This will bring people to the sidewalk, potentially creating a critical mass to become a destination for such context-sensitive uses as restaurants and theaters.

Site capacity and real estate demand

Residential demand within the District over the next 20 years is expected to be approximately 44 million square feet, and commercial demand to be approximately 15 million square feet.

While the South Capitol Street corridor will have to compete with other developing areas in the city to attract this development, the greater need for residential uses endorses the residential-oriented scenario. While demand for office space is expected to remain strong in Washington D.C., the demand for convenient, transportation-accessible rental apartments geared toward those seeking a vibrant urban lifestyle will require the creation of new urban neighborhoods. Surrounded by ample open spaces and supported by good schools and service oriented retail, such neighborhoods could thrive in the four targeted areas of New Jersey Avenue, Buzzard Point East and West, and Poplar Point.

Land Use Goals

- Modify existing zoning to achieve high density, mixed-use districts centered on South Capitol Street and M Street corridors.
- Ensure that future land uses must be complementary to neighboring uses such as the Southeast Federal Center, Navy Yard, and Southwest Waterfront.
- Concentrate density near public transportation and along main boulevards: South Capitol Street, M Street, Potomac Avenue & Martin Luther King Jr. Avenue.
- Encourage residential uses along or near the river's edge and along "green streets."
- Strengthen existing residential areas by adding services and open space, and a broader range of housing choices.
- Use institutions, memorials and monuments to enhance the public realm along South Capitol Street, and the open spaces along the Anacostia.
- Use open spaces, institutions and memorials as catalysts to support adjoining redevelopment.
- Take advantage of any public takings necessary for transportation improvements to support identified principles.

Understanding The Demands and Effects of Transportation on The South Capitol Street Corridor

A major purpose of this report is to develop urban design principles in advance of and in coordination with the more detailed South Capitol Street Gateway and Improvement Study (the Gateway Study) that will identify specific improvements for the corridor. Transportation investments will likely lead the revitalization effort for the South Capitol Street Corridor. Therefore, these must be selected with the following city-making criteria in mind:

- Creating an environment for private reinvestment and civic institutions throughout the South Capitol Street District
- Rationalizing the movement of vehicles by expanding options - including a tunnel and other crossings - rather than further concentrating traffic on South Capitol Street
- Greatly enhancing pedestrian open space amenities along the corridor
- Accommodating ample options for future transit improvements throughout the corridor
- Improving north/south connectivity between the Mall and the Anacostia River, and east/west connectivity across the South Capitol Street Corridor
- Activating more of the streets in the study area to function as an integrated system to disperse traffic
- Achieving the goal of an enhanced approach to the Capital from the south for residents and visitors alike

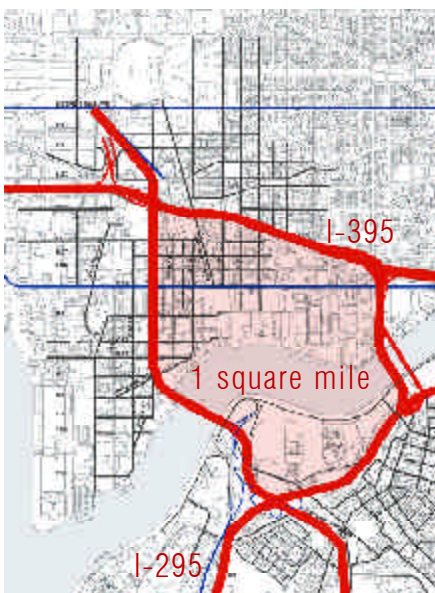
With these goals kept foremost, the Gateway Study will make wiser long-term proposals for traffic volumes and roadway and transit configurations for the corridor.

District-wide Arterial Network

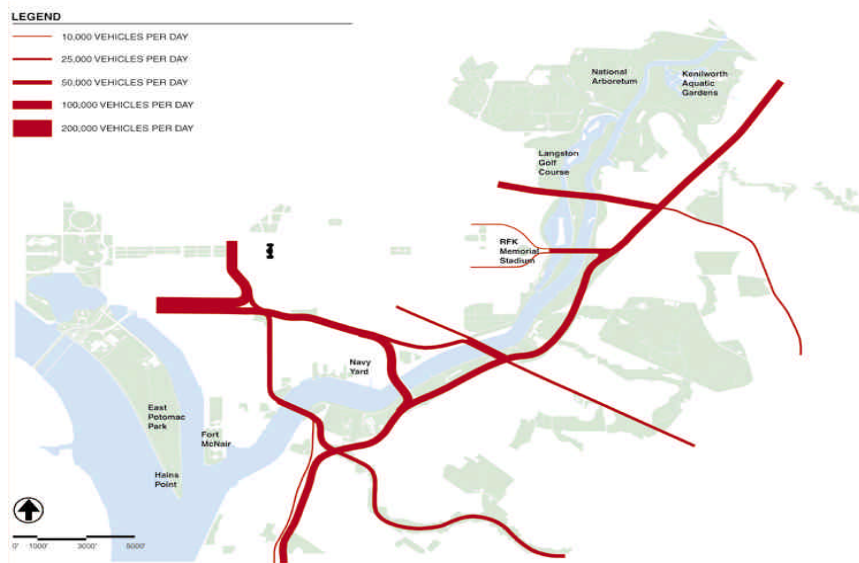
The diagram at the lower left indicates the unique position that South Capitol Street holds relative to the arterial highway system in Washington, D.C. It is part of a larger loop connecting I-295 and the Suitland Parkway with I-395. In a sense it is a segment of an enormous highway interchange that includes the Southeast/Southwest Freeway, the 11th and 12th Street Bridges and the Anacostia Freeway. This interchange encompasses approximately one square mile.

Because it is part of the arterial network, current traffic volumes on South Capitol Street are high. Estimates reflected on the map below indicate the movement of approximately 100,000 cars a day across this corridor. With anticipated growth in the southern areas of Prince George's County, and viable employment centers at Buzzard Point, area traffic volumes will increase in the near future, even with the addition of multi-modal transportation options, such as light rail transit lines.

In accordance with the goal of increasing community access to the water's edge, it is recommended that the interchange itself be changed. To eventually reduce the barriers that the current system presents to the neighborhoods which are cut off from the water, it is proposed that the majority of vehicular traffic be carried from I-295 to I-395 via a tunnel in the South Capitol Street corridor. This would enable the replacement for the present Frederick Douglass Bridge to accommodate more local traffic, a better ceremonial route from Bolling Air Force Base, a future transit line and higher pedestrian and bicycle usage.



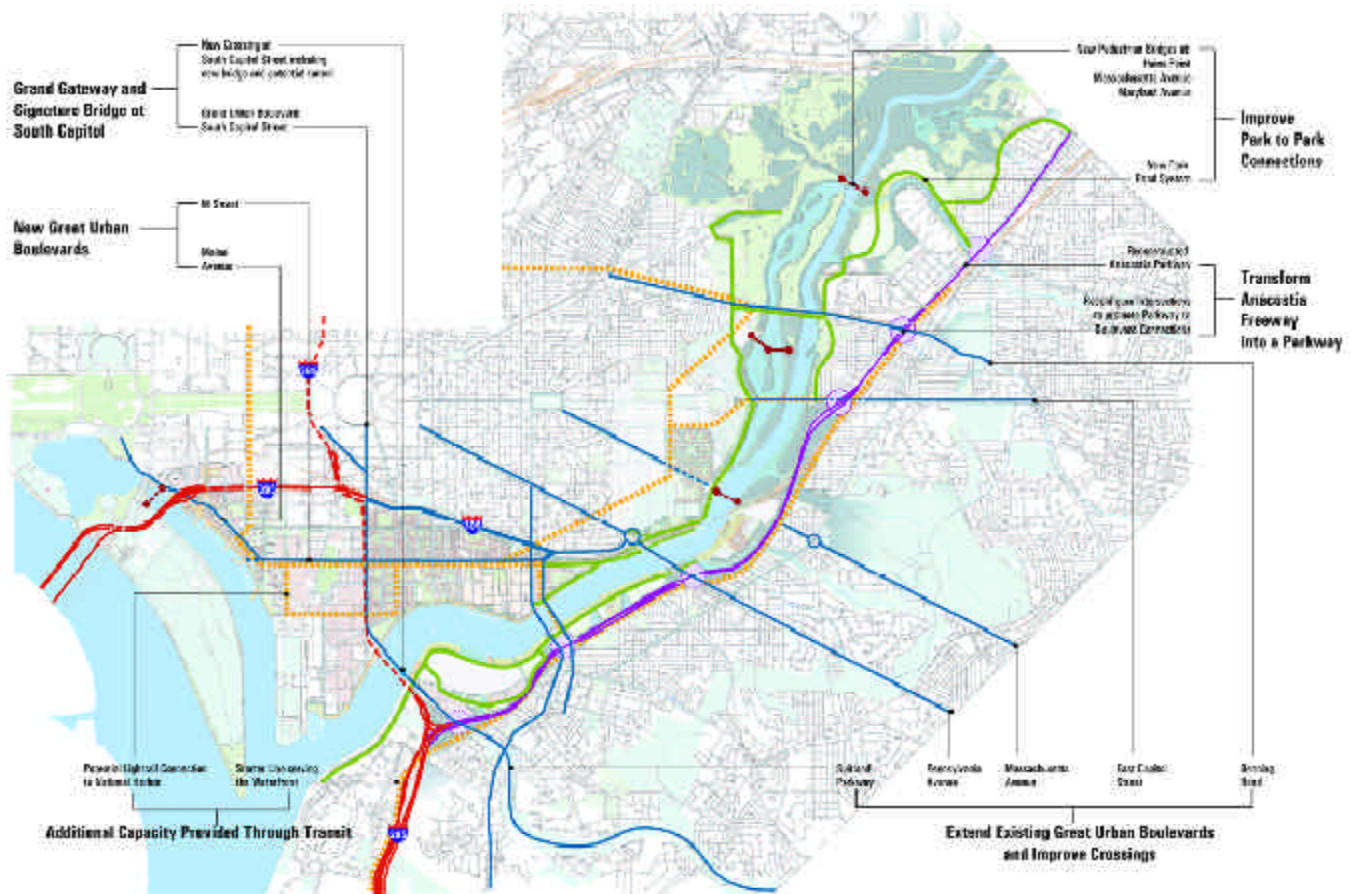
I-295, I-395 Interchange



Vehicular volumes affecting study areas

The plan below identifies some of the major transportation recommendations made in the AWI plan, including modifications to the South Capitol Street Corridor. The 11th and 12th Street Bridges can also be modified in the future to provide better pedestrian paths, transit lines, and fewer cars. The long-term planning and high costs of a tunnel may be combined with shorter-term modifications of street widths, signalization, and even the construction of new crossings while such planning occurs.

The Gateway Study will assess various crossing alternatives including bridge and tunnel options. More significant changes to the network may occur over a much longer time frame. In the immediate future, change may occur along the corridor on both sides of the river that will positively impact neighborhoods and land values.



AWI transportation diagram

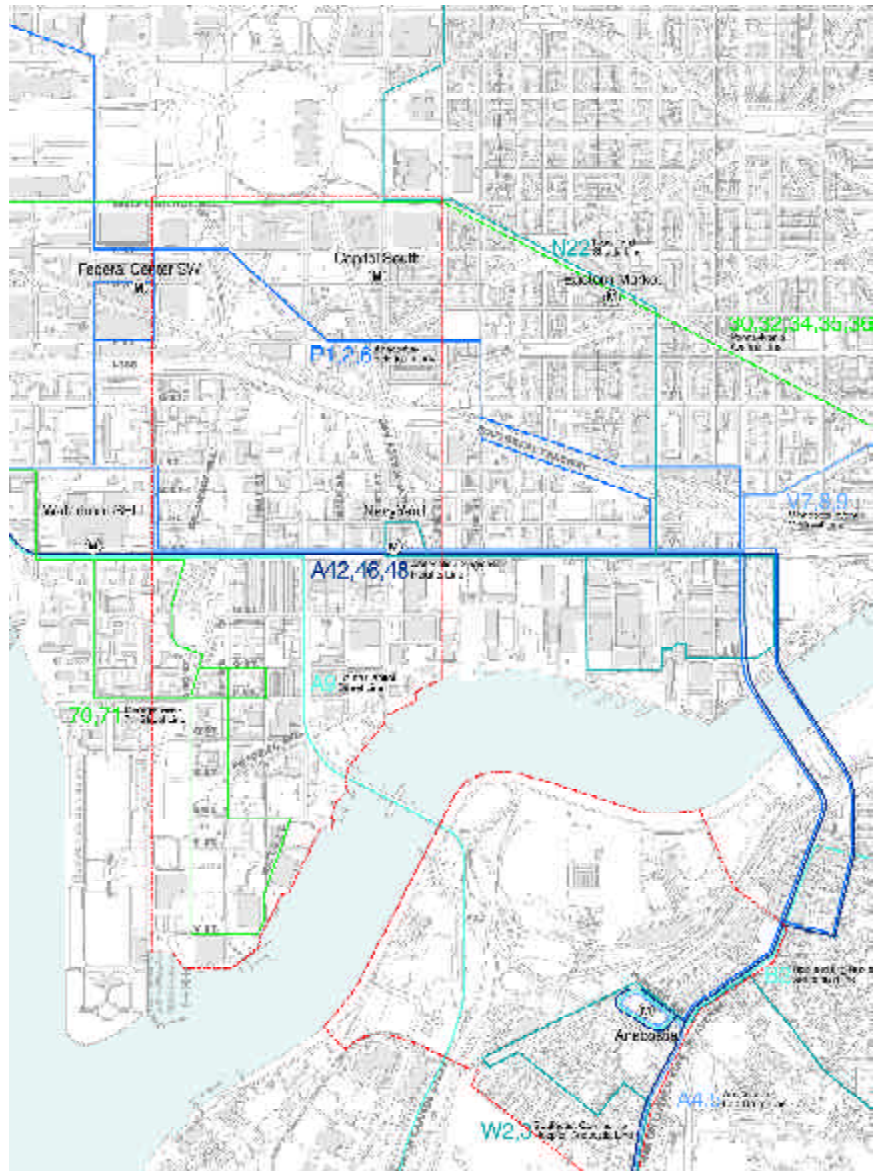
Transit

Although the Green Line Metrorail and Metrobus run through the South Capitol Street Corridor, significant areas such as the South Capitol Street terminus and waterfront, and areas west of the corridor remain well beyond a five-minute walk, as the lower left plan on the facing page indicates. New development will be severely constrained without significant improvements to the public transportation system in the South Capitol Street Corridor. Making sure that future transit corridors are provided for is one of the most important recommendations of this study.

The Department of Transportation is committed to increasing transit options throughout the District. Future plans for the South Capitol Street study area include light rail with starter lines located within the study area and future connections much farther south. Typically, commuters will tolerate transferring between transit modes once per journey to or from work. Commuters can be expected to use both Metrobus and Metrorail, or commuter rail and Metrorail, during a one-way trip. Additional mode splits are not recommended. Employment centers will be most attractive near existing Metrorail stations, and residential development more appropriate in areas well served by Metrobus or somewhat farther away from Metrorail.



Future Light Rail corridors under study

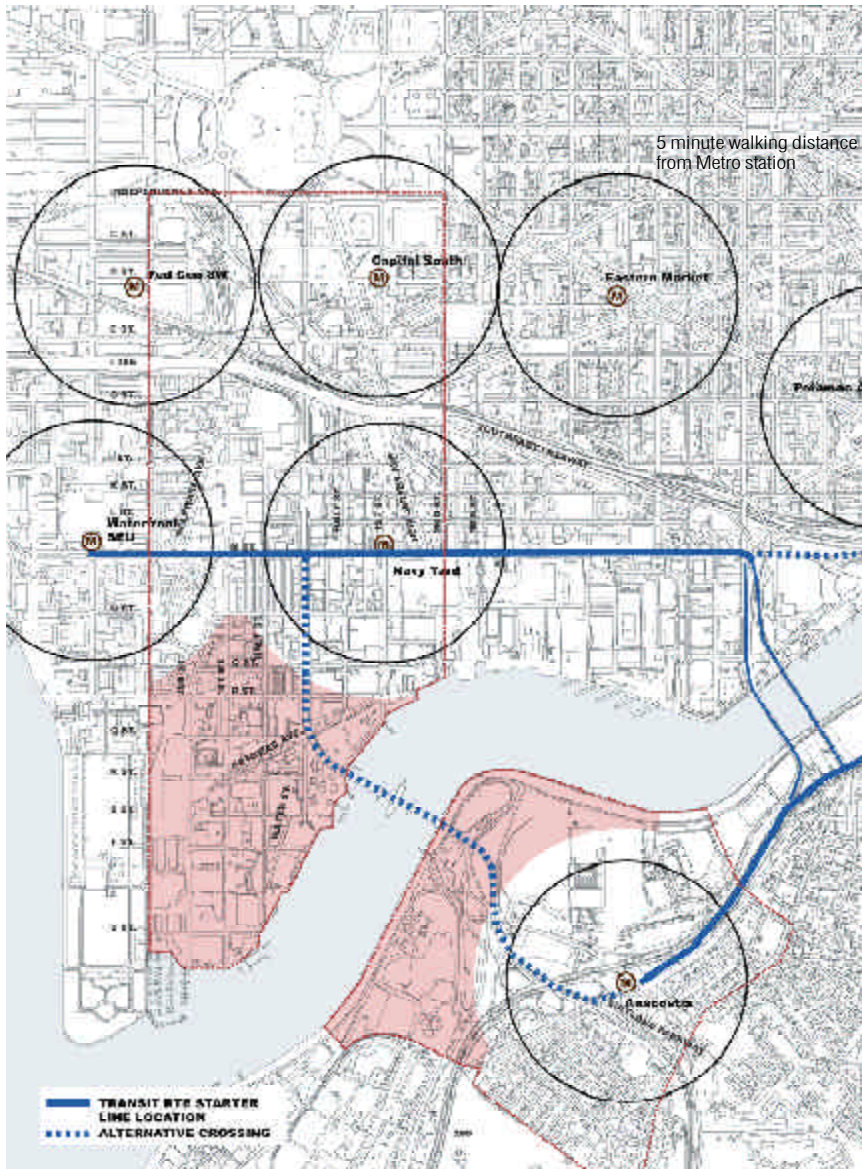


Metrobus routes within the study area

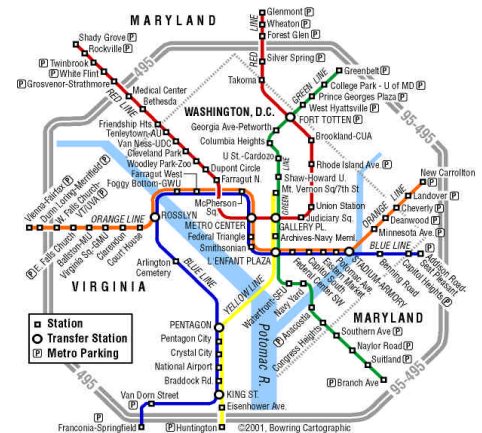
Transportation

The Metrorail Orange and Blue lines serve the northern part of the study area at the Federal Center SW Station and the Capitol South Station. There are no new stations planned for this line. A five-minute walking distance from Metrorail stations is shown in the diagram below to the left. Farther south, the Green line serves the Navy Yard and Waterfront SEU stations. Here a five-minute walking radius from the Navy Yard station covers areas along South Capitol Street and east. No new stations are planned for this line. None of the stations described above have substantial parking associated with them. South of the river, the Green line serves the Anacostia Station, a multi-modal stop with a 1,148-car capacity parking lot, and a Metrobus station south of the Suitland Parkway. This Metrobus station serves parts of Anacostia that are not within walking distance of the Metrorail. This parking facility is typically full on weekdays. It serves as an access point to the District for suburban commuters.

Plans for light rail lines in the project area are underway. After a review of several alignment options in the city, four starter line locations were selected by transportation officials and planners. This surface rail system, sometimes with a dedicated lane, has been proposed for M Street, Martin Luther King Jr. Avenue, South Capitol Street and the 11th and 12th Street Bridge crossings. Future plans extend lines farther south toward the Capital Beltway to accommodate growth in Maryland. A light rail system such as this could transform South Capitol Street into a transit corridor. The capacity to accommodate a future transit line must be one criteria for any replacement of the Frederick Douglass Bridge. Slope requirements favor a lower bridge height that would better accommodate light rail and greatly decrease ramp lengths.



Metrorail locations and proximities; red hatched areas indicate poor access by Metro



Metrorail system map

Transportation

that terminates in the Anacostia Freeway. South of the interchange the Barry Farms housing complex follows an isolated grid. Major roads that collect and distribute local traffic in this study area include Martin Luther King Jr. Avenue and Howard Road. Currently, vehicles can travel from the Anacostia Freeway southbound onto the Frederick Douglass Bridge, via a two-lane extension of Howard Road. This extension merges with an entrance for the Anacostia Metrorail station, and park roads owned by DC Parks and Recreation.

Recommendations for this area include consolidation of access ramps and infrastructure along with construction of a new Frederick Douglass Bridge south of its present location. New development along Poplar Point should ideally connect to Howard Road, which is the only connection the Anacostia neighborhood has to the waterfront. A new Anacostia Park Road, proposed by the AWI Framework Plan should connect to this area as well.

Pedestrian Environment

The pedestrian environment of South Capitol Street suffers greatly due to the predominance of vehicular traffic. The roadway has been expanded and channelized at the expense of sidewalks and tree planting. Sidewalks are narrow and poorly maintained along the entire length of the corridor. Street trees are scarce. Pedestrian crossings are infrequent and highly dangerous. There are no designated bicycle lanes on South Capitol Street.

Along the ramps and access road of the I-295 and Frederick Douglass Bridge interchange, pedestrian and bike routes are minimal and often discontinuous. Although sidewalk conditions are reasonable on Martin Luther King, Jr. Avenue and Howard Road, any extension of Howard Road should include infrastructure improvements leading into the Anacostia neighborhood.



Crossing analysis of existing conditions; x indicates no current continuity across South Capitol Street