

The public realm is a vital aspect of the built environment that helps to give a city its identity. It primarily consists of the roadways, sidewalks, parks, plazas, and other open spaces that comprise the arteries and focal points of the urban framework. It is the main space where civic interaction occurs and is often defined in contrast to private property.

A well designed public realm balances the mobility and access needs for all users and contributes to the efficient functioning of a city and its sense of place. The quality of our public realm is at the heart of how we experience and relate to the surrounding environment. Therefore, it is important that the public realm is safe, sustainable, and enriching.

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF TRANSPORTATION



Office of the Director

I am pleased to introduce the Public Realm Design Handbook, a comprehensive resource guide for the city's public Right-of-Way. This handbook conveys the specific standards and materials to be used within our public realm to further enhance the aesthetics of our diverse city. This is a resource for both the public and private sector to ensure consistent and predictable standards.

Our public realm consists of the roadways, sidewalks, tree canopy, planting areas, and other open spaces that form the backbone of our urban environment and help define the character of many of our neighborhoods. This guide will assist in the improvement and continued maintenance of our Right-of-Way within the public realm.

As the District of Columbia continues to experience citywide development, it is imperative that these physical improvements follow a specified standard that reflects and enhances the unique qualities of our city and its neighborhoods. This is a terrific resource to facilitate development while enhancing the physical image of our city.

Sincerely,



Emeka Moneme
Director

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The public realm is one of the most critical components of any urban environment; it is a critical element in defining how an urban area looks and feels and provides the backdrop for all public interaction. This Public Realm Design Handbook has been developed by the District Department of Transportation as a resource for property owners, developers, architects, planners, landscape architects, and engineers involved with the design, permitting, and construction of improvements located within the public realm. The public realm in this handbook refers to all the key elements in the city's public right-of-way, including roadways, sidewalks, planting areas, intersections, alleys, plazas, and other open spaces throughout Washington, DC.

As the District continues to develop, the provision of public realm standards is needed to achieve the vision for a well-balanced urban environment. The condition of the public realm is important for creating the desired image and identity of the District and to provide a unified streetscape and canvas for the design of various public projects and private investments in the city. A well-designed public realm balances the mobility needs of pedestrians, cyclists, transit patrons, and non-motorized vehicles with access needs for vehicular traffic; including commuters, visitors, and goods movement providers. With any new construction, development or substantial renovation of a property that affects public space, it is required that the property owner upgrade all streetscape elements along the frontage of that property to current DC standards.

This document provides an overview of the materials and design elements to be included in the public realm and proposes a standard way of defining the public realm along a typical street so that a common vocabulary of design can be referenced when discussing improvements in the public realm. In addition, this handbook helps to explain coordination processes and provides references to many planning studies, design guidelines, and the District of Columbia Municipal Regulations that already address design within the public realm. Through reference to this handbook, a consistent approach with a selected palette of materials can be used to enhance the overall quality of the public realm within the District.



PURPOSE OF HANDBOOK

This handbook identifies public realm design elements within the various districts in DC. It is not the intent of the handbook to provide specific street geometric design standards but rather to lay out the policies for design-oriented treatments of the street environment and make clear how the public realm should look in terms of materials, visual quality, and landscaping and to define some standard guidance for enhancing the public realm overall within the city. This handbook also is intended to summarize the vast amount of information prepared by the District of Columbia concerning design within the public realm.

The Public Realm Design Handbook documents policies, procedures and guidelines for how private developers and the City should implement improvements within the public realm in publicly-owned right-of-way and on public property. This Handbook attempts to provide an overview of the procedures, standards, and guidelines that govern design in the public realm. Many of these standards and guidelines are incorporated by reference, rather than attempting to re-create all of the applicable information in this resource. Two key resources govern design in the public realm, the District of Columbia Municipal Regulation (DCMR), also known as the Code which includes several titles that govern design issues, and the District of Columbia Design and Engineering Manual, which provide specific design criteria and guidance on construction and implementation of some of the elements located within the public realm.

This handbook supplements those documents and presents additional guidance, where needed for areas within the city that do not currently have public realm design guidelines. The guidelines included in this handbook will be implemented in an evolutionary fashion along with future road construction and streetscape projects. This handbook strives to present clear policy regarding what treatments are recommended and/or permitted in public space. It is the expectation that these criteria will be applied strictly in the review and permitting process.



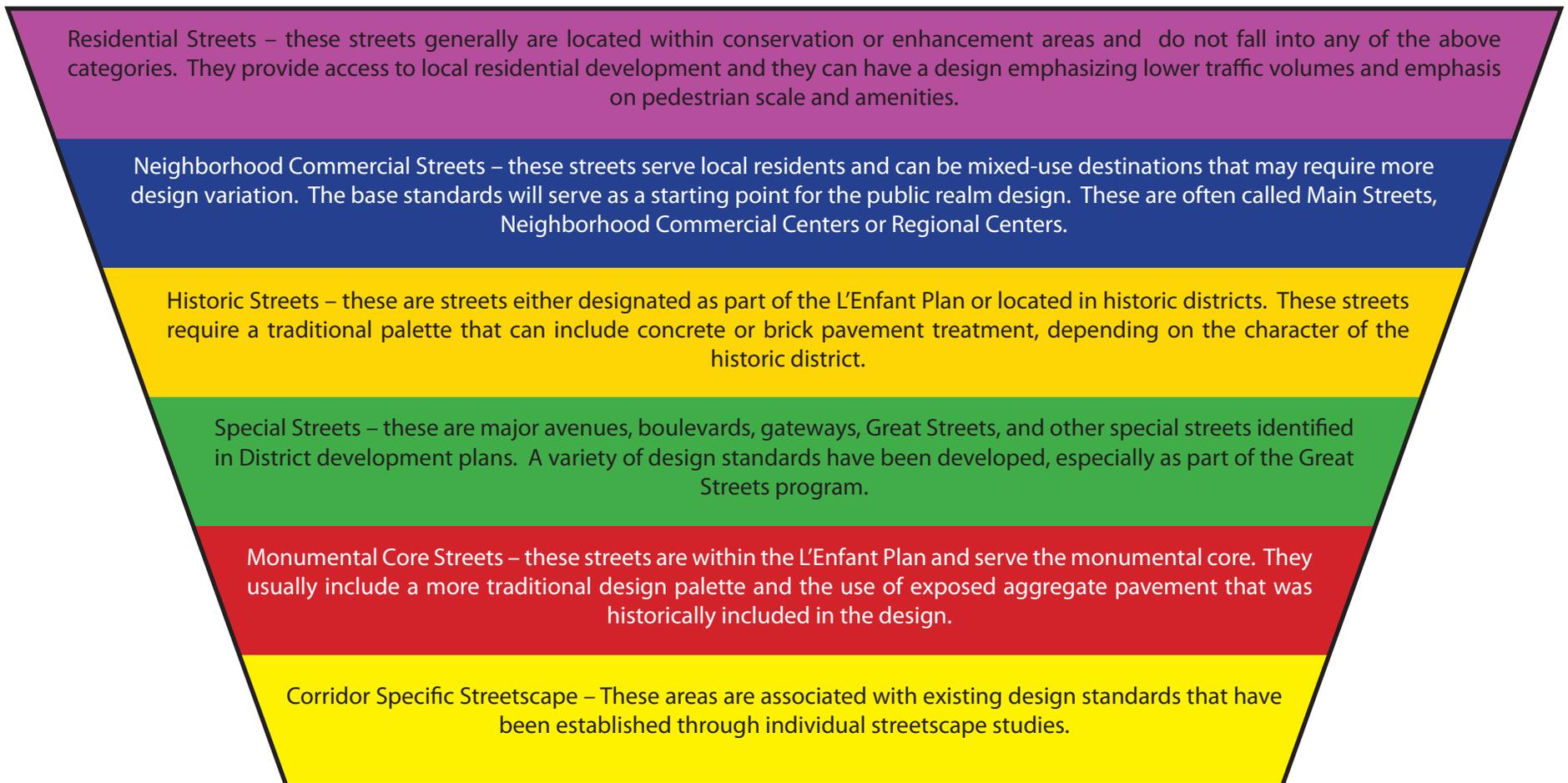
ELEMENTS OF THE PUBLIC REALM

The public realm includes all public spaces and gathering places within the District of Columbia, a city recognized for its boulevards, monumental streets, public open spaces, and pedestrian environments. Since the development of the historic L'Enfant Plan, elements of the public realm have helped to create the unique character of Washington DC. Elements that populate the public realm are traditionally assessed as part of streetscape design efforts, since the urban street provides connections between almost all elements of the public and private realm. Thus, for this handbook, the materials and design elements to be included in standard streetscapes and along streets form a large portion of defining the public realm and receive special emphasis. But the public realm also includes other elements, such as plazas and gathering places, open space reservations, trails, buffer zones, parking areas, parks, and other facilities that are not held in private ownership. Although some of these spaces are not specifically addressed in detail, the palette of materials for paving, lighting, and furnishings would apply to them as well to create a consistent look for the public realm. However, since plazas, open spaces, and other neighborhood-specific public realm spaces will vary tremendously depending on context, land use and architectural settings, these areas should have the greatest level of flexibility in terms of the use of varying materials, patterns, and design elements – including the incorporation of custom-designs for public art, plaza pavements, and lighting that is unique to the space being considered.



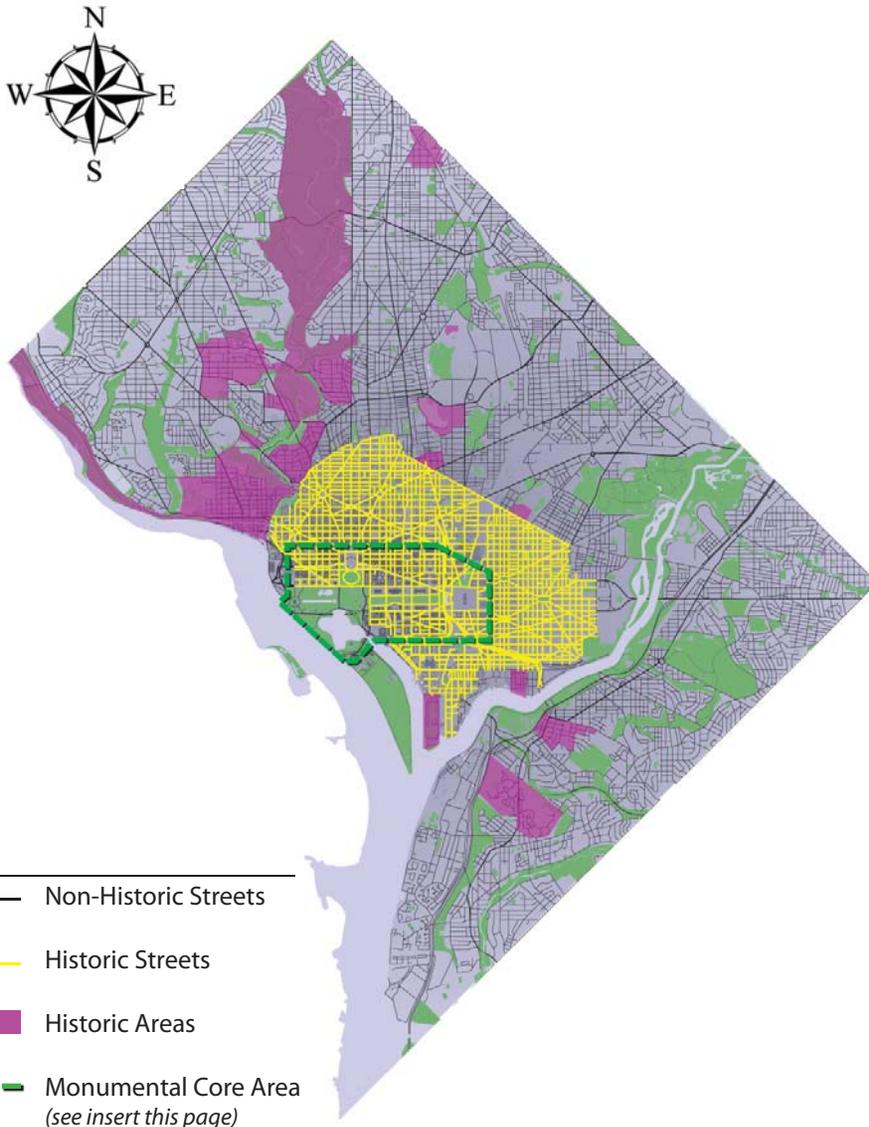
TYPES OF STREETS - HIERARCHY

The recommendations for the public realm are made for all neighborhoods in general; however, areas within the District may have their own regulations as part of local planning initiatives or their designation within a Business Improvement District or as part of their designation as a historic, monumental, or special street. All previously adopted local plans and designations will carry forward as planned. The following pages provide a separate discussion for some of these special designations. If a corridor is located within several overlapping planning areas or districts, any public realm recommendations from a previously approved local plan or District approved plan will take priority. If no specific local area plan has been adopted for elements of the public realm, and a corridor is located within either the monumental core or is designated as a historic street or special street (as defined and identified in the following pages), then those standards shall apply for the public realm. If no specific plans exist, then these standards shall apply, but may vary depending on the adjacent land use present. As discussed on pages 12 and 14, the elements of the public realm will vary depending on whether the area is located within a Residential or Commercial Street.



TYPES OF STREETS - HISTORIC AND MONUMENTAL CORE

The streets in the city can be broadly classified into two groups – historic and non-historic. As the name implies, historic streets need to preserve the tradition of the city in terms of the design of the public realm. The historic streets, shown below, are defined to include the road network within the designated historic areas and other streets designated as historic (i.e., in non-historic areas). Streets that serve the monumental core are also shown below and are known as Monumental Core Streets. These designations are consistent with previously adopted regulations, such as the District of Columbia Streetlight Policy and Design Guidelines.

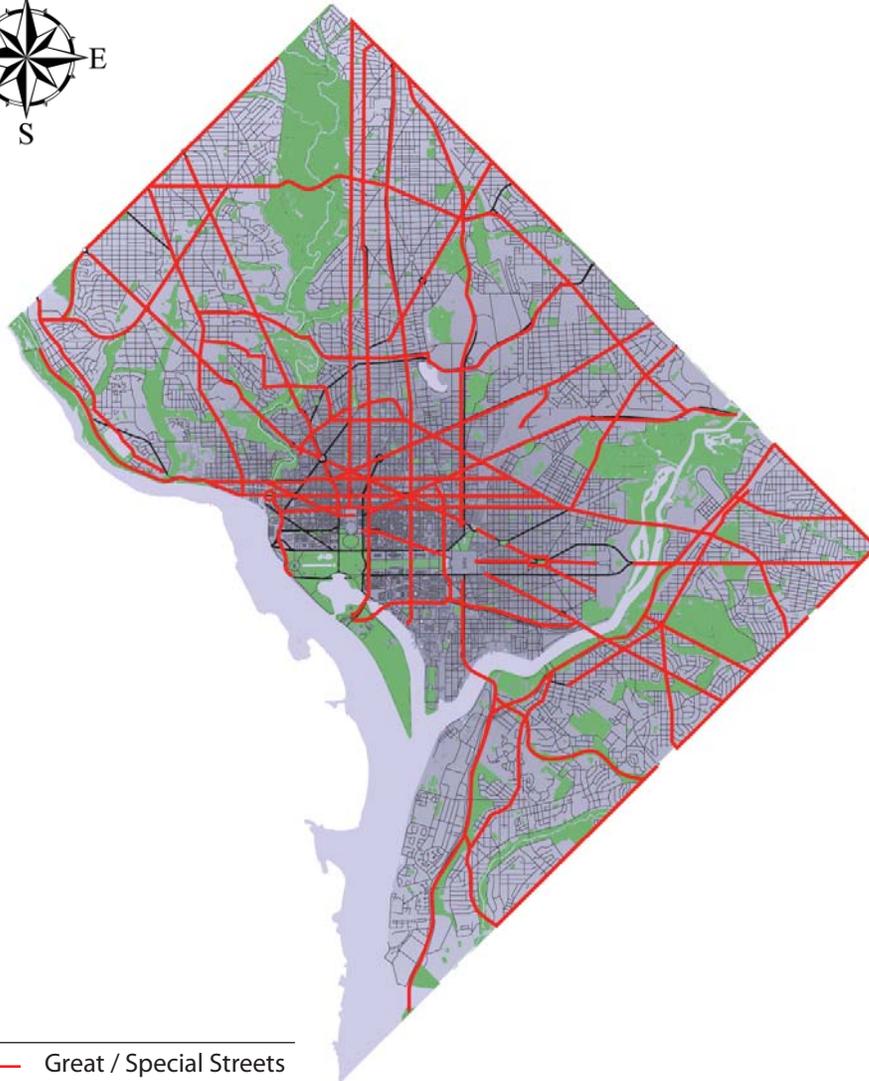


MONUMENTAL CORE STREETS



TYPES OF STREETS - GREAT/SPECIAL STREETS

Another factor for the design of the public realm is the significance of the street. A set of streets has been designated as Special Streets, as shown below and in the table. The list includes roads playing a significant role in carrying motorists and tourists in and out of the City as well as several streets belonging to the historic L'Enfant Plan. The Special Streets have been designated to have Washington signature streetlight treatment and many of them are included in the Great Streets Initiative. The specific elements of these adopted plans will apply for the public realm located along these streets.



KEY

— Great / Special Streets

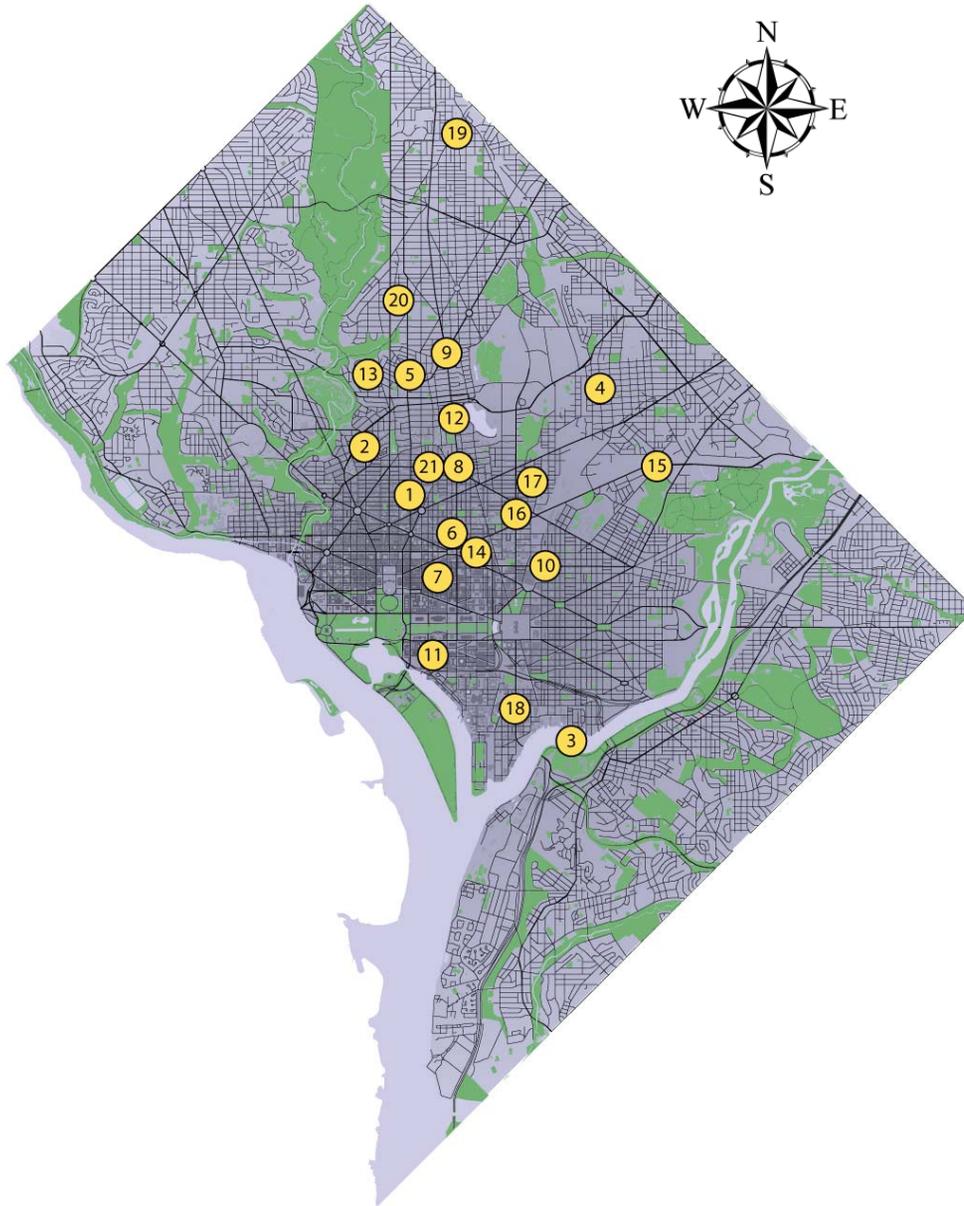
TABLE OF SPECIAL STREETS

Special Streets	Start (See Note 1)	End (See Note 1)
14th Street	14th Street Bridge, SW	DC Line, NW
16th Street	H Street, NW	DC Line, NW
Benning Road	H Street, NE	DC Line, SE
Bladensburg Road	H Street, NE	DC Line, NE
Blair Road	DC Line, NW	Hamilton Street, NE
Branch Avenue	Randle Circle, SE	DC Line, SE
Brentwood Road (See Note 2)	T Street, NE	Rhode Island Avenue, NE
Canal Road	Chain Bridge, NW	M Street, NW
Connecticut Avenue	H Street, NW	DC Line, NW
Dalecarlia Parkway	DC Line, NW	Loughboro Road, NW
East Capitol Street	1st Street, NE/SE	DC Line, NE/SE
Eastern Avenue	16th Street, NW	Southern Avenue
Florida Avenue	P Street, NW	Benning Road, NE
Georgia Avenue – 7th Street	Maine Avenue, SW	DC Line, NW
H Street (See Note 2)	Virginia Avenue,	15th Street, NE
Interstate 295-Anacostia Freeway-Kenilworth	DC Line, SE	DC Line, NE
Interstate 395	14th Street Bridge, SW	New York Avenue, NE
Southeast-Southwest Freeway	I-395, SW	Pennsylvania Avenue, SE
Interstate 66	Ohio Dr., NW (Approx.)	26th Street, NW (Approx.)
K Street (See Note 2)	Wisconsin Avenue, NW	Florida Avenue, NE
Laurel Street	Blair Road, NE	DC Line, NE
Loughboro Road	McArthur Boulevard, NW	Foxhall Road, NW
M Street (See Note 2)	Canal Road, NW	Florida Avenue, NE
MacArthur Boulevard	DC Line, NW	Foxhall Road, NW
Massachusetts Avenue	DC Line, NW	DC Line, SE
Military Road	DC Line, NW	16th Street, NW
Missouri Avenue	16th Street, NW	North Capitol Street
Nebraska Avenue	Foxhall Road, NW	Oregon Avenue, NW
New Hampshire Avenue	Park Road, NW	DC Line, NE
New York Avenue	14th Street, NW	DC Line, NE
North Capitol Street	D Street, NE/NW	Blair Road, NE/NW
Pennsylvania Avenue	M Street, NW	DC Line, SE
Rhode Island Avenue	Connecticut Avenue, NW	DC Line, NE
South Capitol Street	DC Line, SE/SW	Independence Avenue, SE/SW
Southern Avenue	South Capitol Street, SE	Eastern Avenue, NE
Suitland Parkway	South Capitol, SE	DC Line, SE
Western Avenue	Massachusetts Avenue, NW	Oregon Avenue, NW
Whitehurst Freeway	M Street, NW	K Street, NW
Wisconsin Avenue	DC Line, NW	South of K Street, NW (Up to Potomac River)

Notes:

1. No limits are assigned to the Special Streets and generally, the designations end at the physical ends of the roadways or at the DC line. Therefore, the "start" and "end" do not represent any limits, but the actual physical ends of the roadways.
2. There are other short segment(s) of the roadway beyond the start and end points. However, these segments have different contexts and therefore, are not included as Special Streets. The streetlight designs for these segments will be based upon their contexts.

TYPES OF STREETS - CORRIDOR SPECIFIC STREETSCAPES



CORRIDOR SPECIFIC STREETSCAPES*

- 1 14th Street Transportation and Streetscape Study
- 2 Adams Morgan/18th Street Transportation and Parking Study
- 3 Anacostia Waterfront Transportation Architecture Design Standards
- 4 Brookland Transportation and Streetscape Study
- 5 Columbia Heights/Mount Pleasant Transportation Study
- 6 Convention Center Area Strategic Development Plan
- 7 Downtown DC Business Improvement District Streetscape Study
- 8 Duke - Greater Shaw and U Street Redevelopment Plan
- 9 Georgia Ave - Petworth Metro Station Area and Corridor Plan
- 10 H Street NE Corridor Transportation and Streetscape Study
- 11 L'Enfant Promenade Urban Planning Study
- 12 Lower Georgia Avenue Transportation and Streetscape Study
- 13 Mount Pleasant Transportation Study
- 14 Mount Vernon Triangle Transportation and Public Realm Design Project
- 15 New York Avenue Corridor Study
- 16 North Capitol Street Transportation / Truxton Circle Study
- 17 North of Massachusetts Avenue Vision Plan and Development Strategy
- 18 South Dakota Avenue Transportation and Streetscape Study
- 19 Takoma Transportation Study
- 20 Traffic Calming Study for 15th Street, NW
- 21 U Street/Shaw/Howard University Transportation and Parking Study

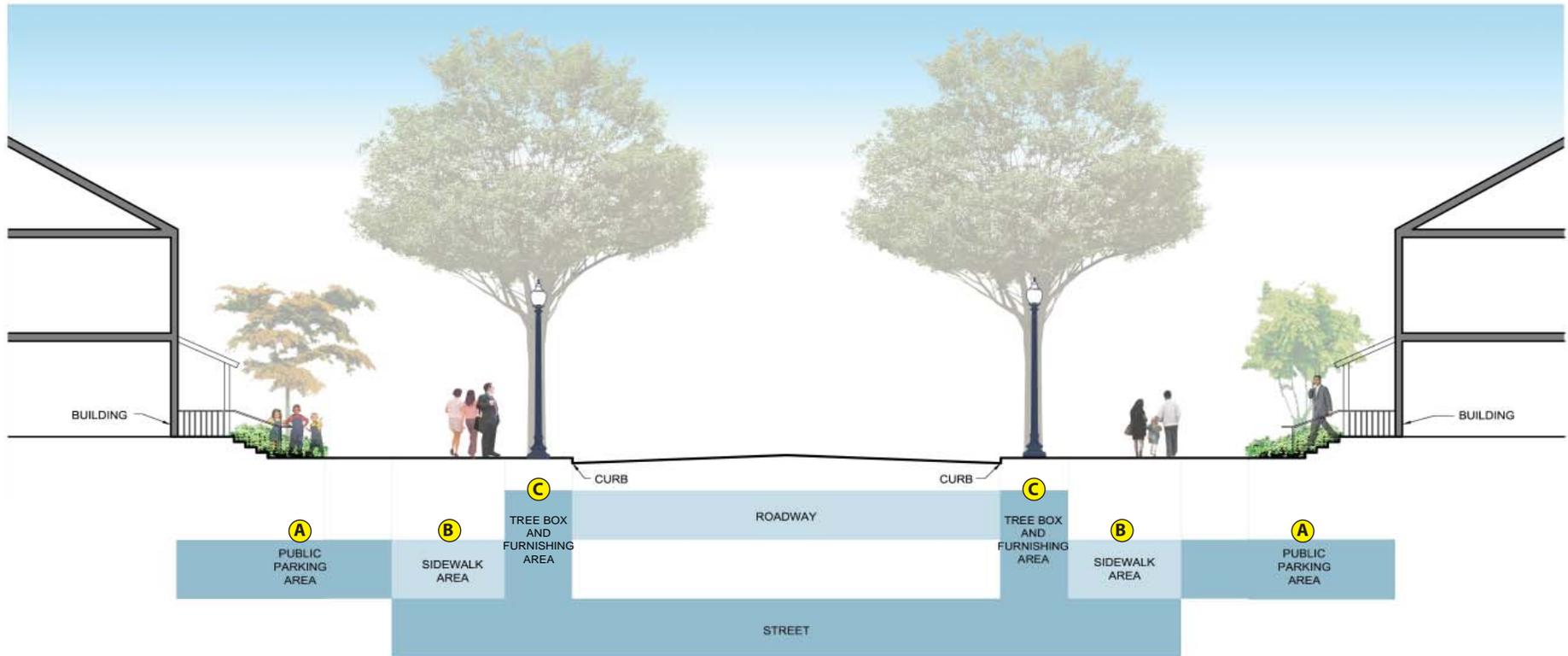
KEY

- 1 Corridor Specific Streetscapes

* Additional information can be obtained on DDOT's website: <http://www.ddot.dc.gov/ddot/cwp/view,a,1249,q,561095,ddotNav,|32399|.asp>

PUBLIC REALM ZONES - RESIDENTIAL

In residential areas, the public realm often includes narrower sidewalk areas than in commercial areas. There are often continuous planting strips on both sides of the sidewalk. In contrast to commercial areas, residential areas should have minimal amounts of paving and be predominately landscaping.



TYPICAL RESIDENTIAL STREET

There are several zones located within the public realm. The following should be addressed as part of designs within the public realm.

A PUBLIC PARKING AREA

This area includes the distance between the sidewalk area and the residences or private property line. It often includes areas that appear to be front yards, private landscaping which create park-like settings on residential streets.

B SIDEWALK AREA

Sometimes known as Pedestrian Clear Zone – this is the walking zone on the sidewalk that must remain clear, both horizontally and vertically.

C TREE BOX/FURNISHING AREA

The area of the roadside that provides a buffer between the pedestrian and vehicles, which contains primarily landscaping in residential areas, such as a continuous planting strip.

PUBLIC REALM ZONES - RESIDENTIAL

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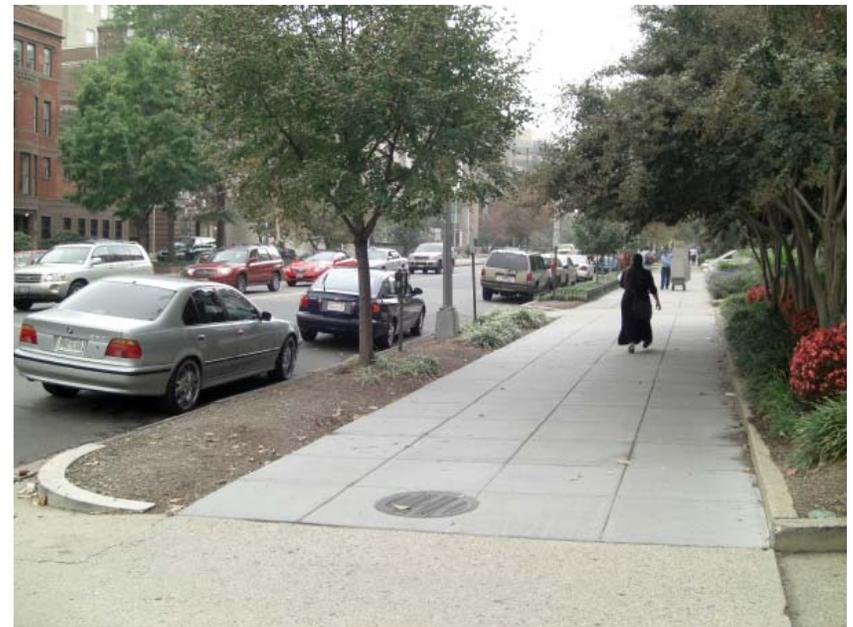
Opportunity to create spaces for residences to plant and maintain



Use large shade trees to create canopy along streets



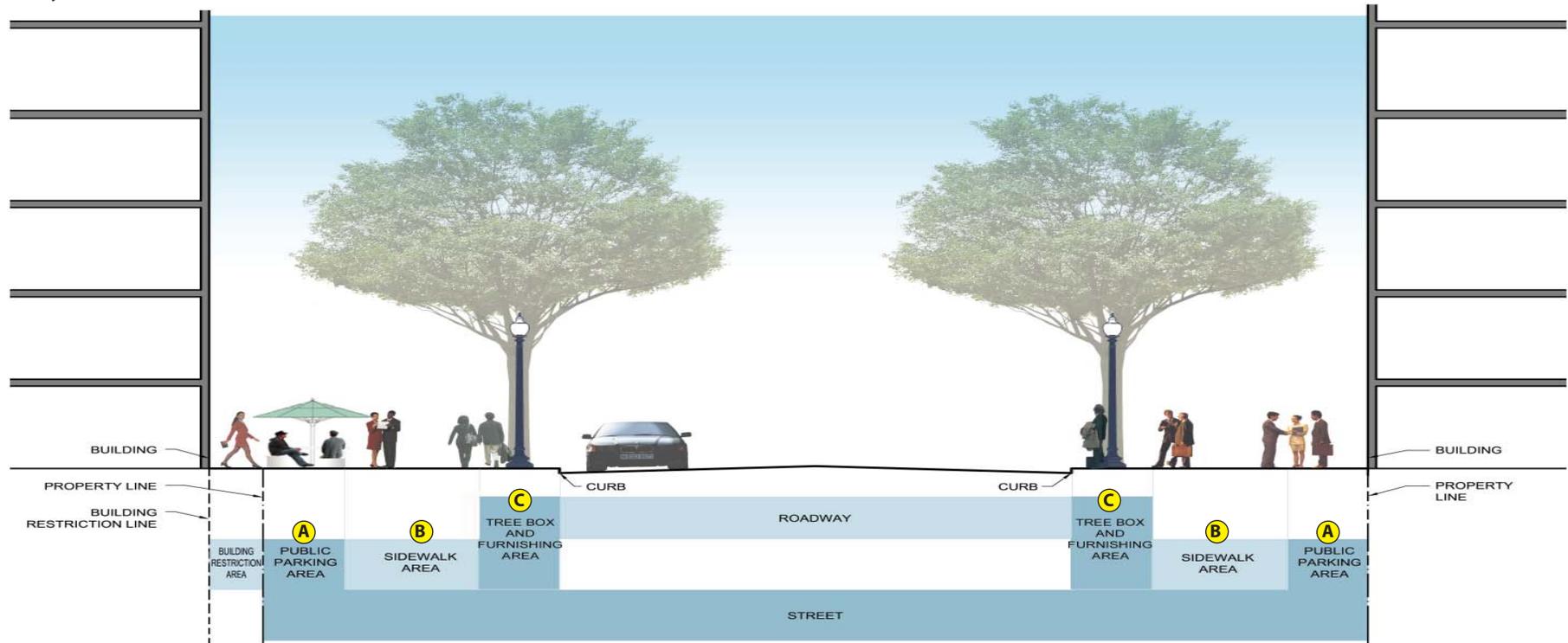
Incorporate traffic calming measures where possible



Incorporate LID design into streetscape

PUBLIC REALM ZONES - COMMERCIAL

The public realm within the commercial areas often serves many uses and should include space for street furniture, plantings, sidewalk cafes, and other amenities and may have a more urban character than residential streets.



TYPICAL COMMERCIAL STREET

There are several zones located within the public realm. The following should be addressed as part of designs within the public realm.

A PUBLIC PARKING AREA

This area includes the distance between the sidewalk area and the building front or private property line that is used to buffer pedestrians from window shoppers, appurtenances, and doorways. Most features in this area require special permits. This zone is sometimes referred to as the Tenant Zone, Spill Zone or Shy Zone.

B SIDEWALK AREA

Sometimes known as the Pedestrian Clear Zone – this is the walking zone on the sidewalk that must remain clear, both horizontally and vertically. The sidewalk area, including its pavement design, should continue through driveways and curb cuts along the block face.

C TREE BOX/FURNISHING AREA

The area of the roadside that provides a buffer between the pedestrian and vehicles, which contains landscaping, site amenities, transit shelters, public signage, furniture, lighting and utilities. This zone is sometimes referred to as the Planting Zone or Furnishing Zone and it includes the area between the face of the curb and the Furnishings Zone and is a required clearance between parked vehicles or the travel lanes and appurtenances and landscaping.

PUBLIC REALM ZONES - COMMERCIAL



Pavement design can help define building entrances or special areas



Pavement design to define the space



Need for wide open spaces in areas of high pedestrian volume



Opportunity for intimate spaces in areas of low pedestrian volume

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FEATURES OF THE PUBLIC REALM - STANDARD PAVING MATERIALS



Furnishing Zone - Tumble-Finished
4"x4" pavers, Warm Buff Tone to
Complement Sidewalk

Gutter - Concrete

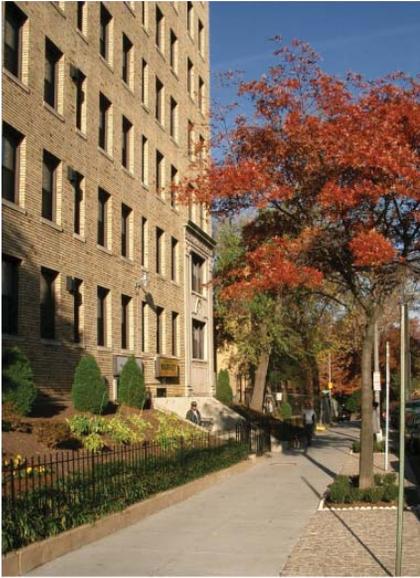
Public Parking
Area - Poured-in-
Place
Concrete, Buff
Color

Sidewalk Area -
Poured-in-Place
Concrete, Buff
Color

Curb - Granite

Access Ramp -
Colored Concrete with
Truncated Domes

FEATURES OF THE PUBLIC REALM - STANDARD PAVING MATERIALS



Base Material:
Buff colored Poured-In-Place Concrete



Base: Colored Concrete with Truncated Domes



Base: LID Tumble finish cobble



Base: Granite curb with concrete gutter

As shown on Page 16, the base paving material is buff-colored poured-in-place concrete. DDOT will develop several color options, including a warm tone that correlates to the buff color shown here, as well as a cooler tone that correlates to a grey or charcoal color base. Samples will be developed and maintained for use in matching color. There is no adopted standard for pavement scoring patterns, as long as the color palette is consistent as part of the public realm design process. Traditionally, scoring patterns include 3' by 3' square patterns and the London Bond pattern using 2' by 3' rectangular off-set patterns.

As shown on Page 16, the base paving material for the Sidewalk Area is poured-in-place buff-colored concrete. In commercial areas, Public Parking Area shall be solid surface of poured-in-place concrete or approved pavers. It may vary from the Sidewalk Zone to differentiate use and place. The materials for the Sidewalk Area should continue across curb cuts and driveways to emphasize the priority of maintaining pedestrian movements along sidewalks.

The Public Parking Area, in residential areas, should be a landscaped or planted area that abuts housing units. Concrete is discouraged. Curbs, gutters, and access ramps would be the same base material as shown.

The base material for gutters will be concrete, curbs will be granite, and access ramps will be concrete with contrasting concrete truncated domes. Paving options that are approved as part of other plans are discussed on page 14 and base materials and options for pavers within the Treebox/Furnishing Zone are shown on page 15.

FEATURES OF THE PUBLIC REALM - SPECIAL PAVEMENT CONDITIONS

An alternative to poured-in-place concrete is the use of unit pavers, such as London Pavers, as long as they are within the color palette and approved. Also available are pavers with specialized finishes, patterns and colors but these too must be approved. The use of unit pavers, London Pavers and specialized pavers may require maintenance by others as negotiated during the approval process. For Historic Streets, brick pavers are the base material and should be replaced in-kind. Specific designs exist for Georgetown, Chinatown, and other historic areas. New brick sidewalks outside of historic streets and areas are discouraged. Exposed aggregate is standard pavement material within the Monumental Core.

Alternative materials for curbs approved within the District include concrete and Bluestone located within historic areas of Georgetown. Under special conditions, gutters may be constructed of bricks (as in historic districts) or asphalt as alternative material choices. As noted previously, these options are either previously approved or required based on the street classification or local plans, or options that could be presented for approval by DDOT as alternative design treatments.

Vaults located in the public right-of-way shall not detract from the quality of the public realm or interfere with the District's infrastructure. Open grates in public space are prohibited. Vaults shall be located on private property. This requirement can only be modified upon application for a public space permit by the property owner. The application must be accompanied by a written statement explaining why the vault cannot be located on private property. The statement and application shall include site plan(s) displaying the proposed construction and the adjacent public space.

The application may only be approved if the vault will be installed immediately adjacent to the applicant's property and one of the following conditions are met:

1. The vault is located adjacent to ground floor retail in a commercial building and has a solid cover that is flush with the surrounding surface and matches the adjacent paving material.
2. The vault is located in the public parking zone adjacent to a residential building and is concealed on all sides facing the right-of-way by a landscaped buffer.
3. The vault is located in an alley and complies with all building code requirements.

Detailed provisions on vault encroachments into public space are located in the District of Columbia Municipal Regulations Title 12: Building Code and Title 24: Public Space and Safety.



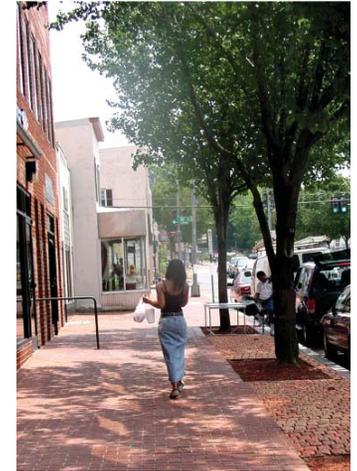
*Option: Exposed Aggregate
(Monumental Streets)*



*Option: Granite Curb with Brick
Gutter*



Sidewalk Option: Concrete Pavers



Option: Brick (Historic Streets)



Option: Specialized Unit Pavers

FEATURES OF THE PUBLIC REALM - PAVEMENT OPTIONS



Option: Brick Unit Paver



Option: Pervious Concrete Paver



Option: Low Impact Design (LID) - Tumbled Finish Unit Paver

The pavement materials discussed on pages 17 and 18 refer primarily to the main public parking areas and sidewalk zones. There are several options for materials within the tree box / furnishing zone, depending on the context of the street being considered. As shown on Page 16, the base material for the Furnishing Zone within commercial zones where a 10-foot sidewalk can be achieved is 4"x4" tumble-finished concrete pavers that create a pervious surface for rainwater. Any pedestrian amenities such as benches, newspaper corrals, or other facilities should be aligned close enough to the sidewalk area so that minimal walking on the cobbles will be required. An alternative for the cobbles, such as pervious concrete pavers or pervious bricks, could be used for areas where pedestrian movements are to be encouraged to provide a flatter walking surface. A smooth path from the sidewalk to the curb across the furnishing zone should be provided every 60 to 80 feet.

In commercial areas where sidewalks are constrained to less than 10-feet (excluding the Furnishing Zone), tree boxes separated by poured-in-place concrete over structural soil are appropriate.

For residential areas, the tree box / furnishings zone will most likely consist of a continuous open planting strip.

As shown in the options on this page, there are several alternative palette choices for the furnishings zone. These include LID cobblestones and LID unit pervious pavers. Use of these will require approval. Other choices may also become available as the District continues to develop sustainable design options.

FEATURES OF THE PUBLIC REALM - LANDSCAPING AND STREET TREES



Approved Street Trees

FEATURES OF THE PUBLIC REALM - LANDSCAPING AND STREET TREES

SMALL TREES (less than 35 feet tall; good for planting under wires)

Recommended Spacing: 20 to 25 feet for small trees under wires.

Scientific Name	Common Name
Acer buergeranum	Trident maple
Acer campestre	European hedge maple
Acer ginnala	Amur maple
Amelanchier laevis	Allegheny serviceberry
Cercis canadensis	Redbud
Crataegus phaenopyrum	Washington hawthorn - thornless variety only
Halesia carolina	Carolina silverbell
Koelreuteria paniculata	Golden raintree
Lagerstroemia indica (varieties)	Crape myrtle
Malus species (varieties)	Crabapple - only recommended for median strips
Prunus cerasifera	Cherry plum
Prunus serrulata 'Kwanzan'	Kwanazan cherry
Prunus yedoensis	Yoshino cherry
Syringa reticulata	Japanese tree lilac

MEDIUM TREES (between 40 - 60' tall)

Recommended Spacing: 35-40 feet for medium sized trees

Scientific Name	Common Name
Cercidiphyllum japonicum	Katsura
Cladrastis lutea	Yellowwood
Koelreuteria bipinnata	Flame tree
Liquidambar rotundiloba	Sterile sweetgum
Ostrya virginiana	Hophornbeam
Phellodendron amurense	Amur corktree
Pistacia chinensis	Chinese pistache
Quercus Nuttallii	Nuttall oak
Tilia cordata 'Gleneven'	Gleneven linden
Tilia cordata 'Greenspire'	Greenspire linden
Tilia euchlora	Crimean linden
Tilia tomentosa	Silver linden
Zelkova serrata 'Green Vase'	Green Vase zelkova
Zelkova serrata 'Village Green'	Village Green zelkova
Quercus 'Darlington'	Darlington oak
Liquidambar styraciflua	Sweetgum - sterile variety only

LARGE TREES (between 60 to 80 feet tall)

Recommended Spacing: 35 to 40 feet for large sized trees

Scientific Name	Common Name
Acer rubrum	Red maple
Acer rubrum columnare	Columnar red maple
Acer rubrum 'October Glory'	October Glory red maple
Acer saccharum	Sugar maple
Acer saccharum columnare	Columnar sugar maple
Acer saccharum 'Green Mountain'	Green Mountain maple
Acer saccharum 'Seneca Chief'	Seneca Chief maple
Aesculus carnea	Red horsechestnut
Carya (species)	Hickory
Catalpa bignonioides	Catalpa
Celtis occidentalis	Hackberry
Ginkgo biloba (male)	Ginkgo (male)
Metasequoia glyptostroboides	Dawn redwood
Platanus acerifolia	London planetree
Platanus acerifolia 'Bloodgood'	Bloodgood planetree
Quercus alba	White oak
Quercus bicolor	Swamp white oak
Quercus falcata	Southern red oak
Quercus imbricaria	Shingle oak
Quercus laevis	Turkey oak
Quercus macrocarpa	Bur oak
Quercus montana	Chestnut oak
Quercus nigra	Water oak
Quercus phellos	Willow oak
Quercus prinus	Basket oak
Quercus robur	English oak
Quercus shumardi	Shumard oak
Quercus velutina	Black oak
Quercus virginiana	Live oak
Ulmus parvifolia	Chinese elm
Ulmus americana	American elm - Only Princeton, Valley Forge, and Chinese varieties, until further studies have been conducted

Vegetation, especially trees, softens the public realm and adds contrast to the hardscape quality of the thoroughfare and thereby increases comfort and distinguishes an area's identity. Trees are frequently the most visibly significant public realm element, if properly selected, planted and maintained. They provide shade from the sun, intercept stormwater and buffer pedestrians from passing vehicle traffic.

For plantings, all new tree plantings should include the following unless otherwise approved:

- *Minimum 6 feet wide both for continuous root zone and tree box locations, wider if possible, maintaining minimum sidewalk width of 10 feet in commercial areas and 4 feet in residential areas.*
- *Recommend LID pavers with drainage feeding the tree box.*
- *Selection of trees from the approved species list administered by the Urban Forestry Administration with changes from the list allowed in specific areas, as approved.*
- *Large canopy trees as the first choice for the main framework with smaller trees used in interior areas.*
- *Structural soil used as the soil medium for all Furnishing Zone areas or some form of underground structural framework which allows the use of proper loamy soil.*
- *A six-foot pervious landing zone provided between every other tree to provide access to parking along the street right-of-way.*

FEATURES OF THE PUBLIC REALM - STANDARD SITE AMENITIES



Bicycle Rack - Inverted U
Color: Black

**Parking Meter -
Multi-Space Style**

Bench - Traditional Style
Color: Black

Waste Receptacle - Traditional Style
Color: Black

**3-Sided 18" High Ornamental
Fence at all Tree Boxes**
Color: Black

FEATURES OF THE PUBLIC REALM - STANDARD SITE AMENITIES

Furnishings provide amenities to the public realm and should be part of a coordinated design theme. For consistency of design, all materials within a specific zone should match in color and palette choice, with the base for the traditional palette being black in color and the base for the contemporary palette being stainless steel in color. The base choice for parking meters in the District's public space is the Multi-Space Meter. One Multi-Space Meter should be provided for eight to ten parallel spaces or fifteen to eighteen angled spaces. The base choice for bicycle racks within the District is the inverted U, as shown, however other options may be considered as well. The inverted U rack, or other approved variation, should be installed perpendicular to the street and in commercial areas there is a preference for six per block. The bike rack should not interfere with the preferred six foot pedestrian clear zone or sidewalk area. The base choice for all tree boxes will be a three (3) sided, 18" high ornamental iron fence, especially in areas of high pedestrian volumes. The tree box should be located at the back of the curb and ground plantings are discouraged, mulch is preferred.



Base: Traditional - Color: Black



Base: Traditional - Color: Black



Base: Traditional - Color: Black



Base: Inverted U - Color: Black



Base: Multi-Space Parking Meter

FEATURES OF THE PUBLIC REALM - STANDARD SITE AMENITIES

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Wayfinding / Signage,
Color: Blue Sign, Black
Post

Newspaper Boxes -
Corral or Consolidated
Color: Black

Bus Shelter
Clear Channel® Only Option
Color: Black/Silver

FEATURES OF THE PUBLIC REALM - STANDARD SITE AMENITIES

District bus shelters are provided and maintained by Clear Channel. Permits for their renewal and replacement must be coordinated through DDOT and with Clear Channel contractors. A variety of signing options have been approved within the District as shown below. These include informational signs and wayfinding signs. Banners and neighborhood identifiers require review, approval and special permits.

NEWSPAPER BOXES



Consolidated Option



Corral Option

BUS SHELTER



Clear Channel® Only Option

WAYFINDING / SIGNAGE



Information Sign



Neighborhood Identifier Sign



Wayfinding Sign

FEATURES OF THE PUBLIC REALM - STREET LIGHTING

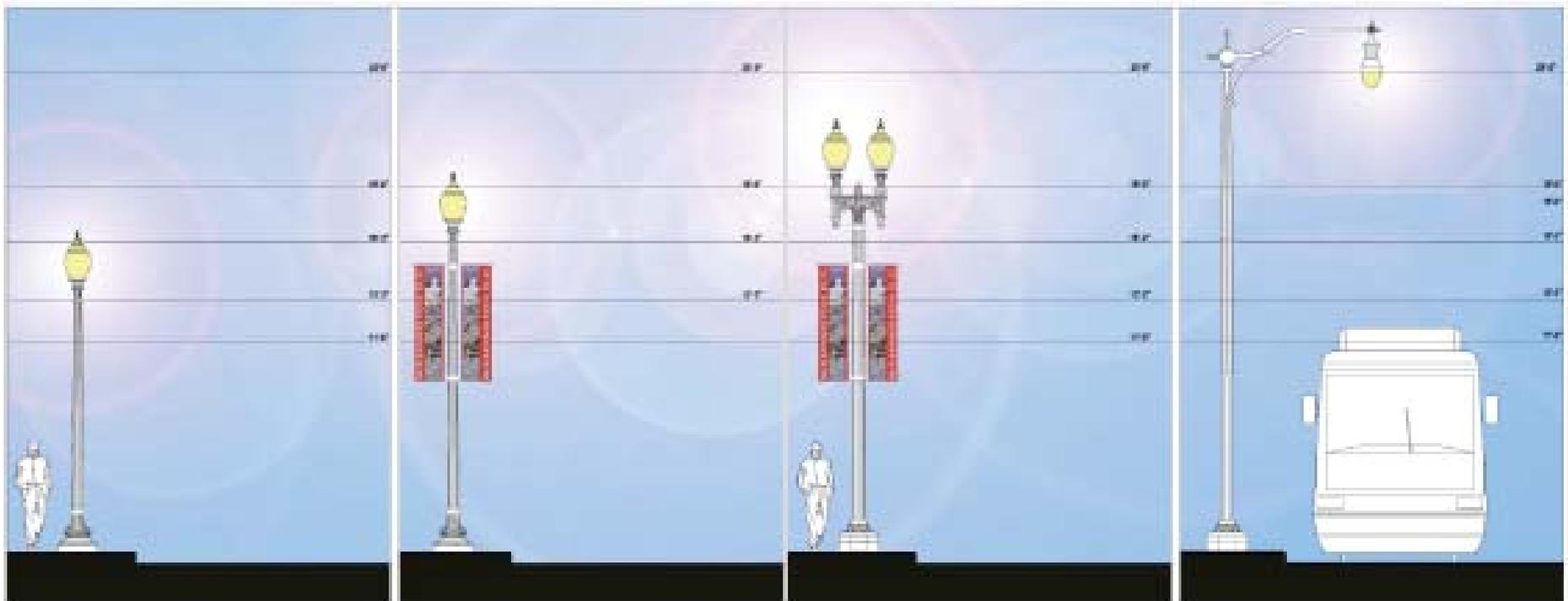


Street Lighting -
Traditional Style
Color: Federal
Chip # Grey 16099

FEATURES OF THE PUBLIC REALM - STREET LIGHTING

Good outdoor lighting can create and encourage a pedestrian friendly environment, which is especially beneficial to neighborhood business districts. Pedestrian lighting improve walkway illumination for pedestrian traffic and enhance community safety and business exposure. Lighting for pedestrians is especially important as a component of the public realm. The recommendations for lighting follow the recently completed study, *District of Columbia Streetlight Policy and Design Guidelines* which provides information on lighting standards. The basic lighting choices are either a traditional palette or contemporary palette. The color should match the other furnishings within the public realm and be either black, grey or stainless steel in appearance.

Base: Traditional Style



Washington Globe
Single - 14, 16, 18
(Optional Hanging Basket - not shown)

Washington Globe
Twin - 20

Teardrop

FEATURES OF THE PUBLIC REALM - MATERIALS IN ROADWAY

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Parking Lanes

Bicycle Lanes shall follow DDOT Bicycle Facility Design Guide

Transit Lanes with designated Transit Stops

FEATURES OF THE PUBLIC REALM - MATERIALS IN ROADWAY

Most of the design of elements within the roadway bed are governed by the DDOT Design and Engineering Manual and Standard Specifications so that standards can be met for safe operating conditions on the roadways. But there are several elements that can be part of a comprehensive streetscape design that will enhance the public realm. These include specific pavement treatments for crosswalks, bicycle lanes, transit lanes, or parking lanes, and median treatments. In addition, design for access to property can also be part of the public realm – most notably curb cuts and access points. The following public realm recommendations are suggested.

TRANSIT STOPS

Concrete pads are used in transit stop areas. Transit lanes are still a rarity in the District and proper treatment is still being determined.



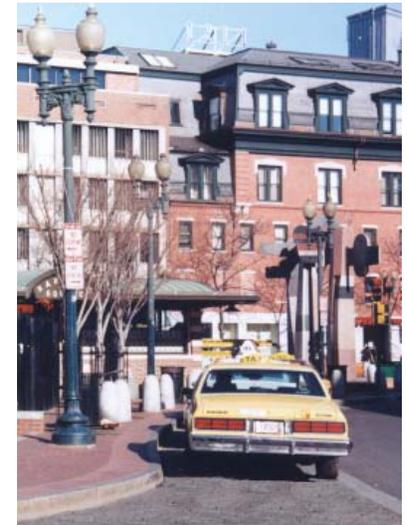
BICYCLE LANES

Refer to the DDOT Bicycle Facility Design Guide for comprehensive guidance on all striping elements at mid-block locations, intersections, standard markings, stormwater grate design, standard signs, trail cross-sections, and trail intersections. In general, all markings for cyclists should consist of the following: Striping should be white thermoplastic on asphalt and high contrast tape on concrete; while symbols on asphalt pavement should be white preformed thermoplastic symbols and symbols on concrete pavement should be high contrast tape symbols. The use of color painted epoxy for lanes should be used only in high-conflict areas as approved by the DDOT Bicycle Coordinator.



PARKING LANES

Parking lanes will generally be asphalt, but in some locations an alternative treatment will be pervious unit pavers used in conjunction with LID design. The use of alternative materials creates a calming effect on the roadway by visually limiting the overall through-lanes in width, and must be explicitly applied.



FEATURES OF THE PUBLIC REALM - MATERIALS IN ROADWAY

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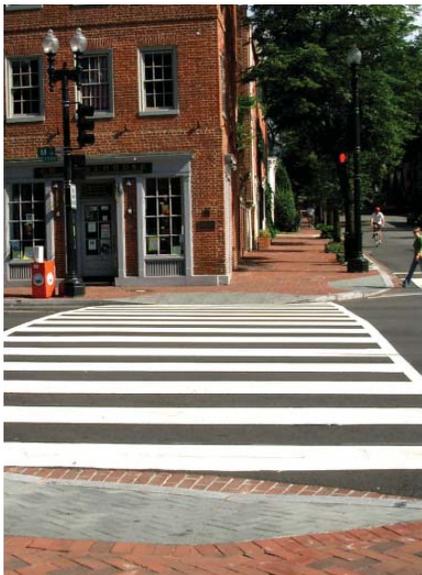
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Crosswalks -
Thermal Plastic Piano Striping
(For High-Volume Crossings)

CROSSWALKS

Materials are suggested for three levels of crosswalks within the District. First, for low-volume or standard crossing locations the delineation of the crosswalk using two thermo-plastic perpendicular white lines is the standard. The second level design will be the Piano / Ladder Bar - Thermal Plastic for crossings with higher pedestrian volumes and higher vehicular volumes. For intersections of significant interest designed as part of a comprehensive public realm initiative or other corridor initiatives, concrete unit pavers are possible. Concrete unit pavers must be solid interlocking paving units complying with ASTM C 936 and resistant to freezing and thawing when tested according to ASTM C 67, made from normal-weight aggregates. Pavers are to be set on concrete with neoprene, not on sand. Such alternative designs should be used selectively, but these alternative designs should not be over-used so that vehicular traffic knows that their presence signifies a unique zone or neighborhood. Alternative palette choices include slip-resistant stamped concrete, cobblestones, custom-designed thermoplastic patterns, and raised crosswalks on residential streets only.



Base: Thermo-Plastic Piano Striping (High-Volume Pedestrian Crossings)



Option: Decorative Pavement to match Sidewalk



Base: Thermo-plastic Perpendicular White Lines (Low-Volume Pedestrian Crossings)



Option: Patterned Crosswalk

FEATURES OF THE PUBLIC REALM - LOW IMPACT DEVELOPMENT PRINCIPLES

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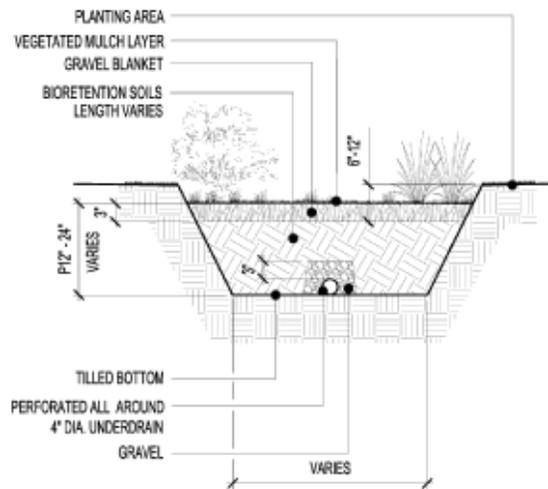
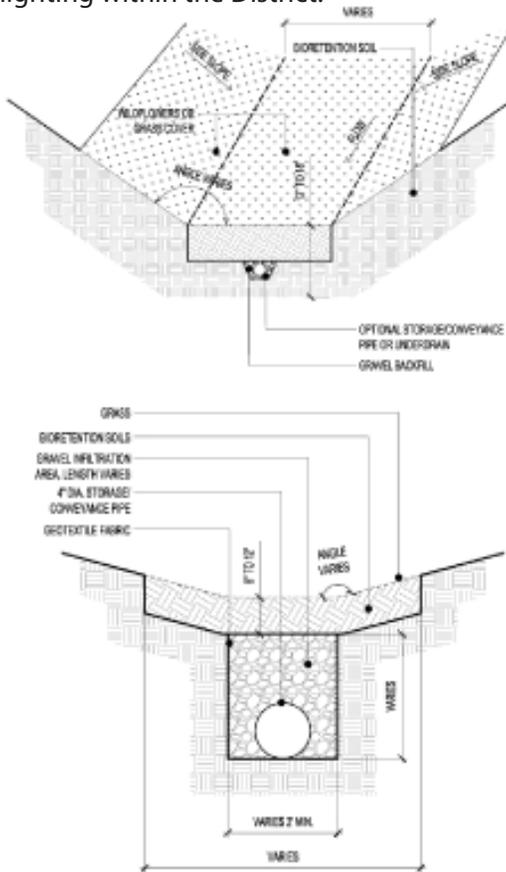
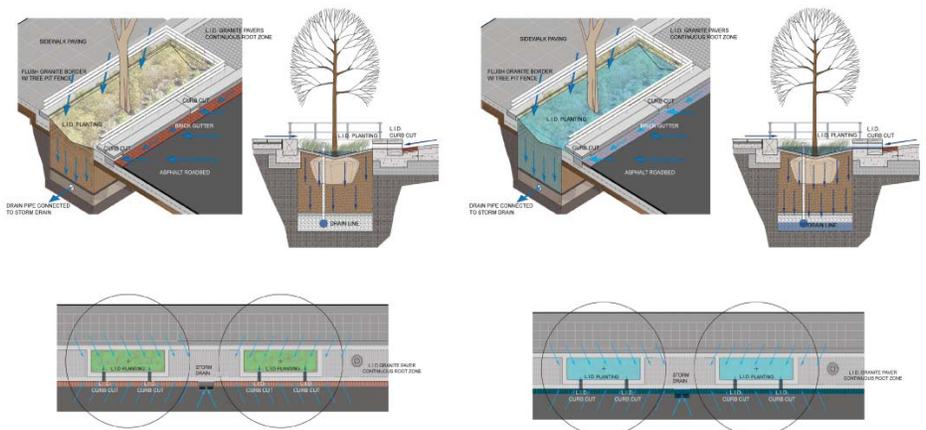
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Tree Box/Furnishing Area is a potential area for Low Impact Design

FEATURES OF THE PUBLIC REALM - LOW IMPACT DEVELOPMENT PRINCIPLES

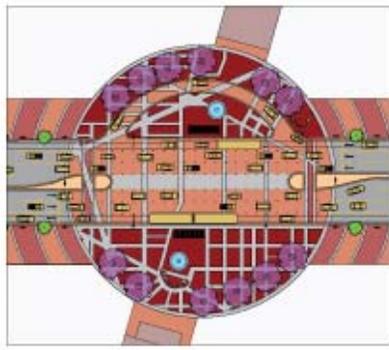
Design within the public realm should work with the natural systems as much as possible including limiting water run-off quantity, improving water quality and creating improved growing environments. Focus should also be given to reducing energy consumption and minimizing the urban heat island effect. DDOT encourages the use of natural drainage systems and the use of more energy-efficient lighting. The following drainage improvements are suggested as part of the design within the public realm, in addition to the consistent use of LID cobbles and pavers within the Furnishing Zone. For alternative palette choices, the most comprehensive resource is the Anacostia Waterfront Transportation Architecture Design Standards which includes a variety of other treatments. As LED technology becomes more advanced, these bulbs should replace more traditional lighting within the District.



LID Tree Pit

When designing within the public realm, special attention should be given to the type of tree pit that is installed. Sunken LID Tree Pits can significantly reduce the amount of stormwater runoff that enters the city sewer system. LID Tree Pits are installed below grade at the curb line and located upstream of standard curb inlets to reduce runoff volume, reduce peak discharge rate, improve water quality for small, frequently-occurring storms and potentially reduce maintenance costs for existing stormwater infrastructure. For low to moderate flows, stormwater enters through the tree box's inlet, filters through the soil, and exits through an underdrain into the storm drain. For high flows, stormwater bypasses the tree box filter if full and flows directly to the downstream curb inlet.

FEATURES OF THE PUBLIC REALM - PLAZAS AND OPEN SPACES



Plazas and open spaces provide the greatest opportunities for design variations in terms of materials, patterns, lighting and furnishings. The following examples illustrate some of the variety of materials and designs being considered. Underground utilities and maintenance must be taken into account in plaza design and location. Plazas are ideally located to minimize the potential for utility cuts intruding on the plaza.



FEATURES OF THE PUBLIC REALM - INCORPORATING PUBLIC ART

Pedestrian improvements within the public realm can create opportunities to implement public art. On a large scale, public art has the ability to identify a district or contribute to a design theme. It can be an effective means of encouraging pedestrian travel and creates community identity. The redesign of thoroughfares creates opportunities for the implementation of public art as part of an urban design or streetscape plan.

There are basic types of public art that may be considered in the public realm and these include:

- *Integrated: an upgrade to a standard treatment, or a custom design of, a functional element of the roadside.*
- *Semi-integrated: integrated into a functional element of the roadside, but includes stand-alone art that is not a functional element of the roadside.*
- *Discrete: stand-alone art and is not integrated with any functional element of the roadside.*

Public art includes art installations that have a functional component and art that is purely aesthetic. Some types of street furnishings such as automated paytoilets, public kiosks and other atypical amenities are referred to as 'Unique Objects' because they require special location and design considerations. All public art will be coordinated with and approved by the DC Commission on the Arts and Humanities.

Integrated artwork provides the opportunity to customize various streetscape elements, including tree grates, bus shelters, and sidewalks. Integrated artworks should be widely and evenly dispersed and include the following examples:

- *Bus shelter images and text (roof, back panel, and/or in pavement)*
- *Custom seating and sidewalk treatment at one special intersection*
- *Tree boxes*
- *Tree grates*
- *Metal and/or fabric banners on streetlight poles*
- *Sidewalk patterns at special intersections*
- *Light Rail Transit stops (in pavement)*

Like other types of street furnishings, public art should be located outside the Pedestrian Zone unless it is integrated into the walking surface. Public art can be incorporated into a variety of components of the thoroughfare, including medians, roadside and adjacent property. Public art must be accompanied by a signed maintenance agreement.



FEATURES OF THE PUBLIC REALM - COORDINATION IN THE PUBLIC REALM

The District Department of Transportation (DDOT) has management and oversight responsibility for the use and occupancy of the public space. The goal of Public Space Management is to achieve and maintain safe and beautiful streets. Public Space is defined as all the publicly owned property between the property lines on a street and includes, but is not limited to, the roadway, tree spaces, sidewalks and alleys.

The Transportation Planning and Policy Administration (TPPA) Permits Branch manages all permits for design within the public realm. Coordination will also be required with the Infrastructure and Project Management Administration (IPMA) and Transportation Operations Administration (TOA), and other parties to ensure that all designs meet DDOT standards and national standards. Any plantings are to be approved by the Urban Forestry Administration.

TPPA's Office of Policy Strategic Planning analyzes, develops, implements and manages programs and regulations that affect public space. The work of this office is to design public space policies that will improve the quality of life for residents, while generating revenue for the District. TPPA is the public space policy liaison between stakeholders and the DDOT. The Public Space Committee meets monthly to review a variety of types of permit applications for the use and occupancy of the public rights-of-way.

Refer to the following resource list for more details on the specific requirements for the areas within the Public Realm:

- *District of Columbia Municipal Regulation (DCMR), also known as the Code*
- *DDOT Design and Engineering Manual*
- *DDOT Specifications for Highways and Structures*
- *Anacostia Waterfront Transportation Architecture Design Standards*
- *District of Columbia Streetlight Policy and Design Guidelines – Final Report*
- *Downtown Streetscape Regulations (part of the District of Columbia Municipal Regulations)*

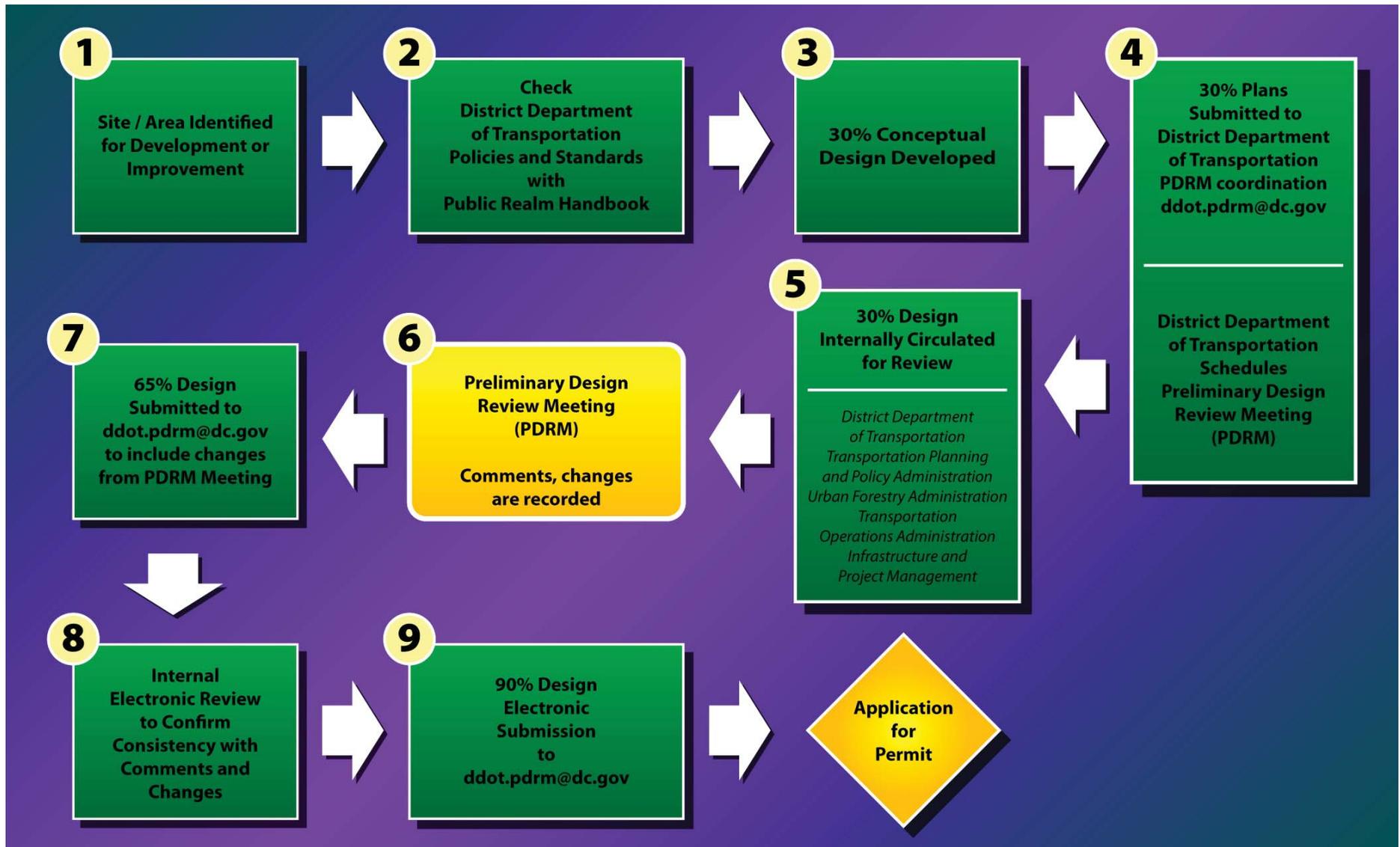
- *Duke - Greater Shaw and U Street Redevelopment Plan*
- *Georgia Ave - Petworth Metro Station Area and Corridor Plan*
- *Convention Center Area Strategic Development Plan*
- *www.ddot.dc.gov (under studies)*

Work within the public realm should address all of the elements discussed in this handbook, including the preparation of a public realm improvement plan that identifies the elements of the public realm being improved, the four zones along any streets being affected, and a plan that illustrates the base materials to be used in paving, planting and defines the selection of furnishings and lighting to be included. By using this standard palette of materials, a consistent public realm design can be achieved within the District of Columbia.

New projects for design within the public realm will be coordinated by DDOT and follow a standard procedure. These projects may be the result of actions by other government agencies such as the Office of Surveyor, Office of Planning, Office of Zoning, and the Building and Land Regulation Administration. Reviews for designs within the public realm may also be needed as part of Public Space Permit applications and as a result of DDOT projects for corridors or areas within the District.

All design reviews will be processed by the Plan Review and Compliance Division (PRCD) of TPPA at DDOT. PRCD is responsible for confirming the project materials are complete, coordinating reviews within DDOT, and consolidating and finalizing comments. The review process is shown in the following flowchart.

FEATURES OF THE PUBLIC REALM - COORDINATION IN THE PUBLIC REALM



** There are two basic procedures for sending projects for review and comment – the Electronic Scanning System (ESS) and the Preliminary Design Review Meeting (PDRM). The ESS is used when projects are smaller in scope and are largely consistent with DDOT design standards and does not include complex or unique uses of public space. The PDRM is used for more complex applications. Additional details of this process are available from the Public Space Policy Branch within DDOT.