

Stamford Mill River Corridor



DESIGN GUIDELINES

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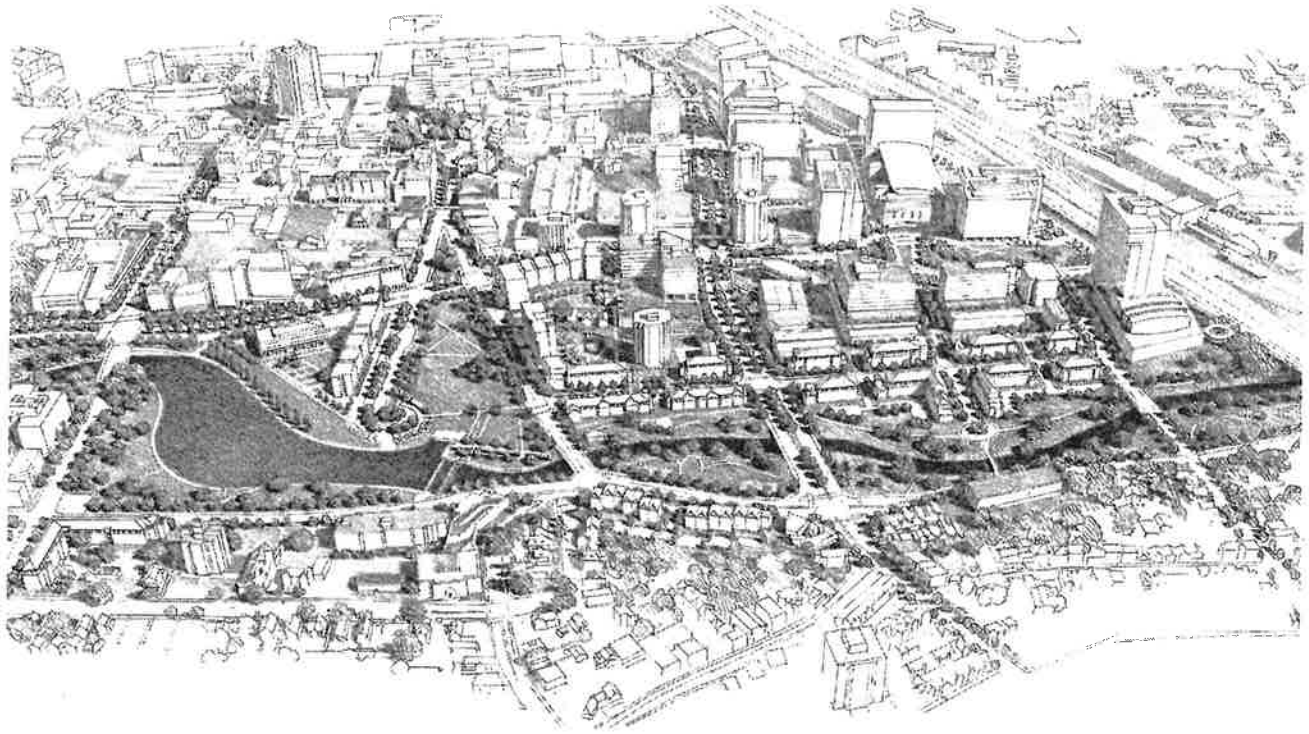
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Urban Redevelopment Commission

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1. INTRODUCTION

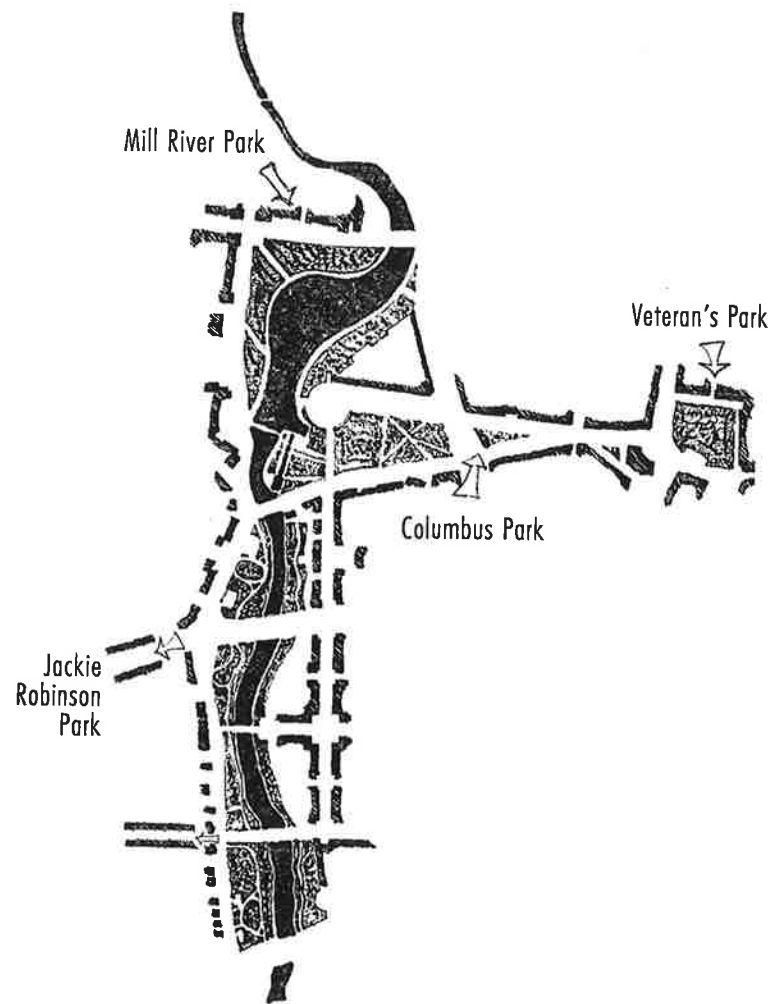
The Design Guidelines for the Mill River Corridor District provide an overall framework for development, including land use, development standards, and site and architectural design criteria. These guidelines recognize that private developments will be implemented within this framework. They are intended to ensure that the specific developments within the district are consistent with each other and contribute positively to the public open space, to the life of the streets within the corridor, and to the surrounding districts.

1.1 Purpose and Objectives

The Mill River Corridor District encourages development that connects the downtown and the adjacent residential neighborhoods and enhances a system of linked waterfront parks and urban streets. The design guidelines for the Mill River Corridor District are intended to promote the following objectives:

- a) **Context** – Create a sensitive transition between downtown and residential neighborhoods through the careful organization of building uses, heights, and densities.
- b) **Mix of Uses** – Allow flexibility where possible but maintain strict adherence to critical land use objectives as follows:
 - Require residential uses on both sides of the Mill River and along Clinton Avenue to provide “eyes on the park” and to develop the critical mass necessary for a strong residential neighborhood.
 - Encourage ground floor retail on major street corridors, such as Washington Boulevard and West Main Street, and professional offices generally to enliven streets and provide local neighborhood services within walking distance of residential units.
 - Allow flexibility in land uses along Washington Boulevard to respond to the market and to recognize the boulevard as a zone of transition.

- c) **Architectural Character** – Encourage urban residential architecture with rich texture and traditional building proportions and details to distinguish the district from corporate downtown architecture and lower density suburban residential architecture.



- d) Open Space Relationships** – Recognize the role of buildings in establishing open space character as follows:
- ~ Define open space by the careful placement of buildings.
 - ~ Relate building heights to the scale of adjacent open space.
 - ~ Encourage active, publicly accessible uses on the ground floor where buildings face streets and onto large park areas.
 - ~ Allow continuous public access corridors along the waterfront edge by setting private development back from the water's edge.
- e) Street Relationships** – Recognize streets as public open space corridors that need to be defined by continuous street walls on both sides. Activate the streets by providing multiple building entrances, residential stoops and planting beds, and publicly accessible ground floor uses where appropriate.
- f) Parking** – Mitigate the visual impact of parking by encouraging below grade parking, placing on-site surface and structured parking behind the building, and calling for architectural detail on highly visible parking structures.
- g) Environment** – Enhance the water quality and water's edge while respecting wildlife and fish habitat, Coastal Area Management and Flood Plain requirements, and Stream Encroachment issues.

1.2. Parking Standards

Because of the District's downtown location and proximity to the Transportation Center, residential units should be allowed to have 1.25 spaces per dwelling unit south of Main Street and 1.5 spaces per dwelling unit north of Main Street, regardless of the number of bedrooms. In some instances, arrangements may be made to satisfy a portion of the parking requirements off-site.

Commercial uses are encouraged to limit parking spaces to not more than 2.5 spaces per 1,000 gross square feet (gsf) of development.

2. ARCHITECTURAL AND SITE DESIGN CRITERIA

2.1 Building Guidelines

The building guidelines are intended to convey the important elements of design necessary to create a high quality urban environment that complements downtown, the river, and the neighborhoods.

A successful building respects the context of adjacent buildings and contributes to a cohesive urban character. A distinctive urban form is created by the careful placement of buildings on the site, consideration of massing and proportions, the materials and composition of walls and roofs, and the treatment of doors, windows, and special architectural features.

Character

The area adjoining Columbus Park and along lower Summer Street should provide a reference for the character of the Mill River District. The existing and proposed buildings in this area have strong street walls, well-proportioned buildings with a clearly defined base, mid-section, and top, masonry building materials, and punched window openings, details, and other relief on the facades.

The architectural style in the Mill River District should be clearly distinguished from the corporate downtown architecture, which tends toward smooth geometric planes and glass and steel materials.

It should also be clearly distinguished from low density suburban wood frame architecture, which is inappropriate for the scale of development and the height and massing of the buildings. Rather, the character should be that of an urban, downtown residential neighborhood with multiple building entrances, rich texture, and well-proportioned buildings.

Street Walls and Build-to Lines

A street wall is the vertical surface of a building that faces principal streets and public pedestrian spaces. Street walls that are relatively uniform in height provide a sense of a coherent district [Fig.1]. Abrupt changes along the street wall - more than 25% difference in height - tend to make a district less coherent [Fig.2].

Consistent street walls should frame street corridors in order to create the strong unifying proportions of a well-composed room. Changes in height zones should be carefully located in the interior of the block areas to avoid a change in scale along a street corridor. The height of streetwalls might vary one to two stories on either side of the street. If height differences are greater than this, then the use of step backs for upper floors is recommended.

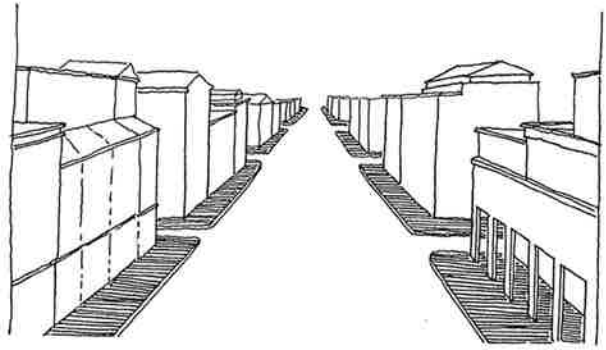


Fig. 1
Coherent district

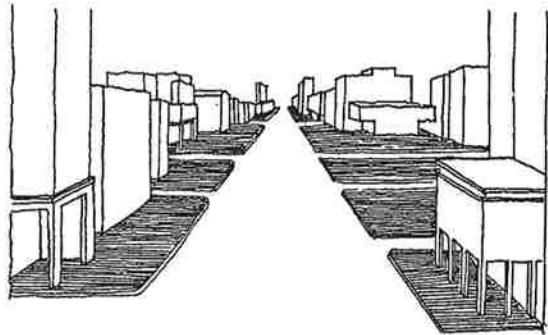


Fig. 2
Less coherent district

The most comfortable street wall to street width ratio, as a rule of thumb is 1:1 or slightly above [Fig.3a, b]. With these proportions, a street tends to feel enclosed but not canyon-like. The top of the street wall is readily visible, with only some limitation of the sky view. At ratios of 1.5:1 and more, sunlight becomes restricted, and extended areas enclosed by such buildings may seem claustrophobic. At the extreme end, a ratio of 5:1 creates a canyon-like effect [Fig. 4a, b]. If the street width is larger than the street wall, the street dimensions promotes spaciousness and a feeling of isolation [Fig.5a, b].



Fig. 4a
Example of street with ratio 5:1

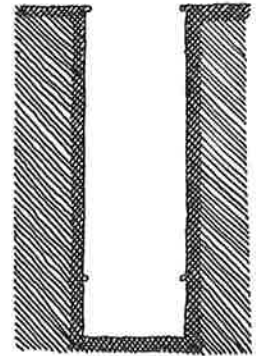


Fig. 4b
Street wall to street width ratio 5:1



Fig. 3a
Example of street with ratio 1:1

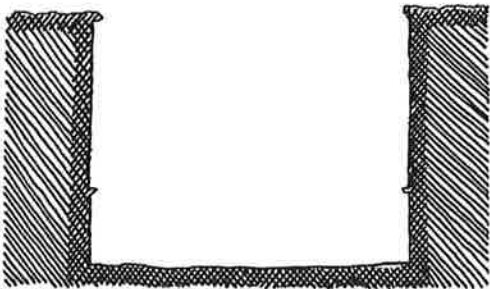


Fig. 3b
Street wall to street width ratio 1:1



Fig. 5a
Example of street with ratio 1:5



Fig. 5b
Street wall to street width ratio 1:5

On Washington Boulevard, the maximum height of the streetwall should be 125 feet, reflecting the width of the street (approximately 125 feet) [Fig. 6].

On Clinton Avenue, the maximum height of the street wall should be 65 feet, reflecting the width of the street corridor (approximately 65 feet) [Fig. 7 a, b]. Building heights can be higher with step-backs on upper stories.

Open spaces should be strongly defined by a consistent street wall in order to create an outdoor room with three-dimensional qualities. Where buildings face onto open spaces, the relationship of streetwall height to park width creates more spacious areas than the narrow street corridors. Their ratios should generally be around 1:3 or 1:4 in order that the buildings frame the open space [Fig. 8a, b]. Buildings composing the frame should not vary in height more than 25%. The significance of open spaces is enhanced by the contrast with the density of the urban fabric. Well-defined relatively narrow street corridors dramatize the entrance into a sunny expanse of open space.

Where buildings on Main Street face onto the park, the maximum height of the street wall should be 65 feet.

Where buildings on Mill River Street face onto the park, the maximum height of the street wall could be relatively high but should step up from the adjacent nursing home to avoid abrupt changes in height. The recommended street wall is 65 feet.

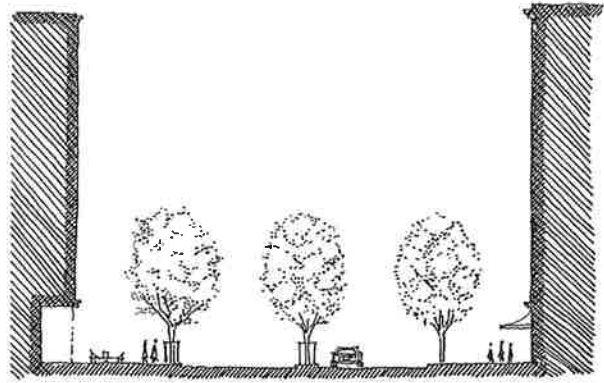


Fig. 6
Washington Boulevard ratio 1:1

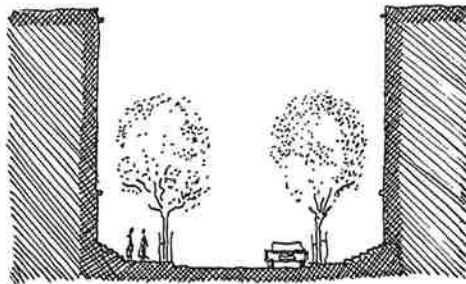


Fig. 7a
Clinton Avenue ratio 1:1



Fig. 7b
Clinton Avenue

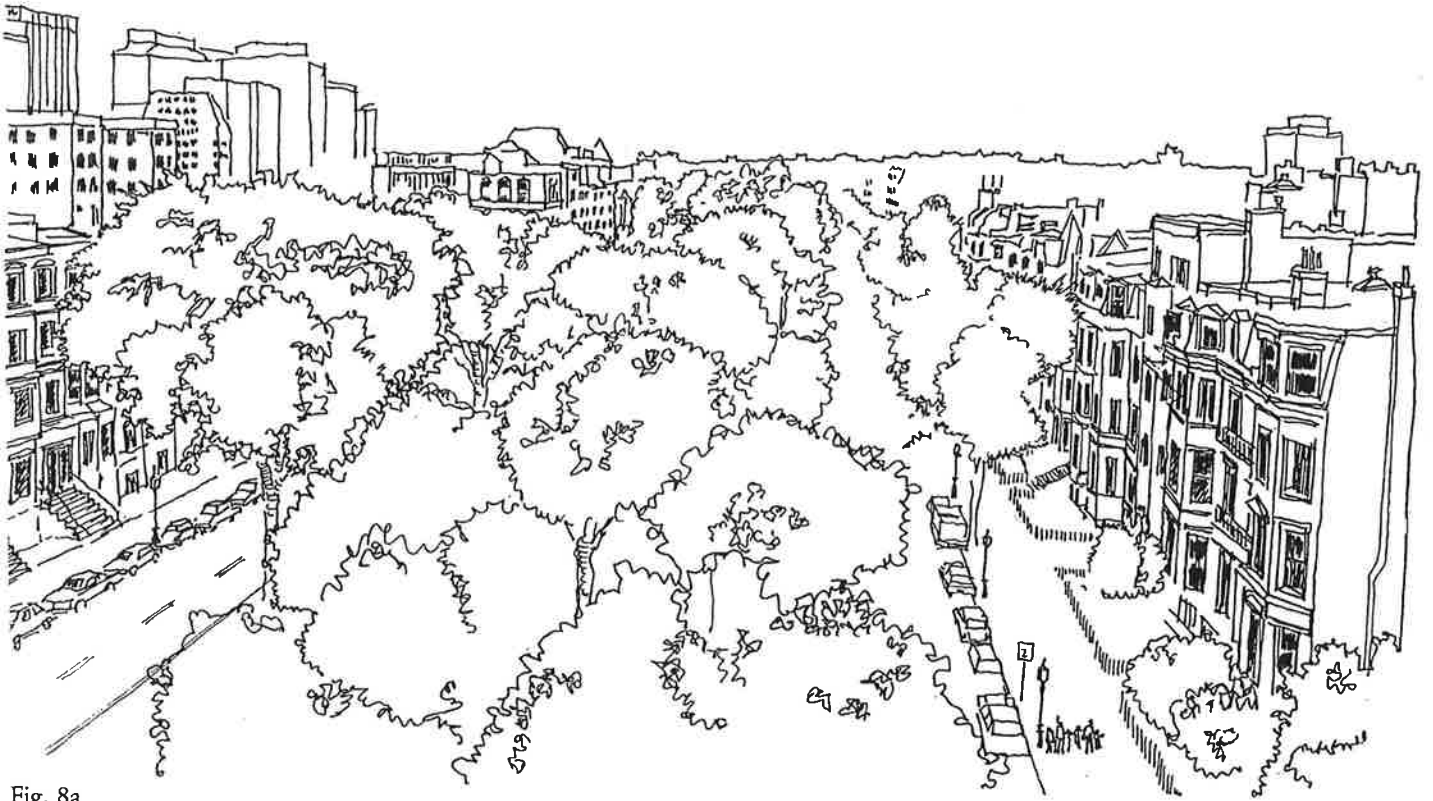


Fig. 8a
Open space defined by street walls

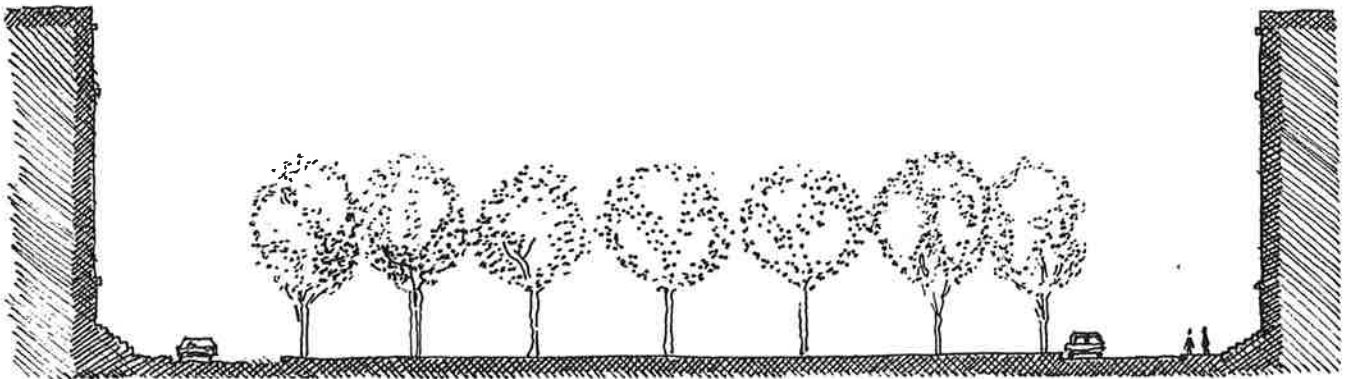


Fig. 8b
Height to width ratio between 1:3 and 1:4 for open space

Buildings should be sited to create usable, positive open spaces, not left over or remnant spaces [Fig. 9a, b]. Private interior courtyards should be complemented with multiple building entrances opening onto the public realm of the street. Buildings should be placed to allow occasional views of the river and should frame these views. Consistent architectural forms bordering open spaces, along with active uses that spill out into the spaces, can help give definition and life.

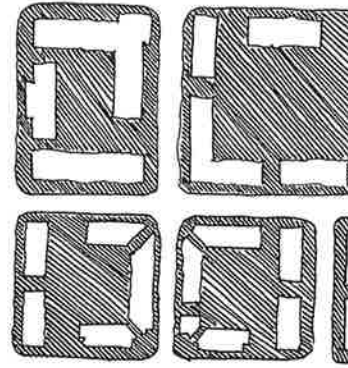


Fig. 9a
Positive open spaces

In order to frame the street, buildings should be close to the street. Build-to lines establish a consistent street wall, minimizing horizontal variations and allowable setbacks [Fig. 10]. On intensely developed streets, such as Washington Boulevard, existing buildings establish the appropriate build-to line for infill development. In order to define major civic spaces, build-to lines for new development should be set along the edge of the open space.

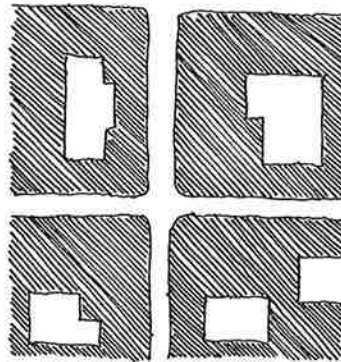


Fig. 9b
Left over or remnant spaces

On Washington Boulevard, the building south of Main Street should continue the street wall of Government Center resulting in a set back of 20 to 30 feet. This will create a generous pedestrian zone, which could accommodate outdoor seating and other amenities [Fig. 11].

At Washington Boulevard, the building on the north side of Richmond Hill Avenue should continue the street wall of the proposed Dreyfus Building, resulting in a setback approximately 10 to 20 feet [Fig.12].

Buildings on the west side of Washington Boulevard, north of West Park Place should provide a consistent street wall along West Park Place in order to define and activate the new park [Fig. 13].

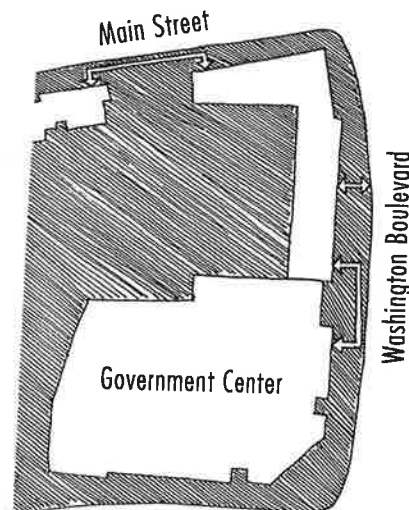


Fig. 11
Proposed setbacks along Washington Boulevard and Main Street

On residential streets with significant redevelopment, street walls should define the street corridor. Build-to line should be setback no more than 15 feet from the street property line, which allows for landscaped planting beds [Fig. 14]. On key building corners, the build-to line should coincide with the property line to emphasize corner tower elements, to provide articulation along the building facade, and to contrast with the recessed landscaped beds [Fig. 15]. Entry stoops also may penetrate the setback zone [Fig. 16].

On Clinton Avenue, Main Street, Mill River Street, and West Broad Street, the setback should vary between 5 and 15 feet with landscaped planting beds along the face of the recessed building facade.

At the corner of West Broad Street and Mill River/Hanrahan Street, the corner of the building should be pushed out close to the property line and should incorporate tower elements to mark an important gateway into the downtown and the entrance to the Mill River Park.

Tower elements are also encouraged at the corner of Washington Boulevard and West Park Place and the corner of Washington Boulevard and Main Street.



Fig. 14
Planting beds along the face of recessed building facade



Fig. 15
Tower element pushed out to the property line



Fig. 12
Proposed set back at Washington Boulevard north of Richmond Hill Avenue



Fig. 13
Proposed consistent street wall along West Park Place and Mill River Street



Fig. 16
Entry stoops

Scale, Proportion, and Massing

The height and proportions of buildings, together with their setbacks and step-backs, determine how massive they seem in relation to their surroundings. The critical dimension is the relationship to the pedestrians on the street – whether they can relate to a structure or feel overwhelmed, and whether the street seems comfortable or canyon-like. Development should be continuous and relatively compact so that varied activities are within walking distance.

Large buildings should have a tri-partite composition, with a clearly defined base, mid-section, and a top [Fig. 17a, b]. The building base should be in proportion to the height of the building. Pedestrians are able to assess vertical and horizontal dimensions with a hierarchy of scaled features in three dimensions, which are described in more detail under the section about Walls below.

For large buildings, the articulation of the building mass is encouraged to create the impression of an aggregate of smaller forms. Transitional steps in building height provide a setting for a small building next to a tall one and offer scale-giving features [Fig. 18].



Fig. 17a
Tri-partite building

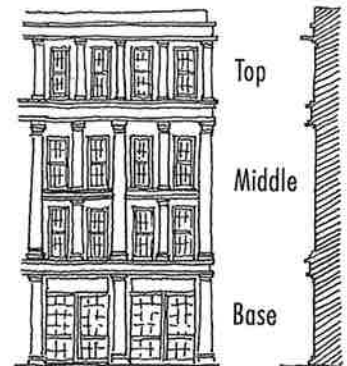


Fig. 17b
Building with a base, middle and top



Fig. 18
Articulation of building mass

Buildings that maintain a street wall of consistent height with their neighbors can have higher portions, yet seem in scale, if the higher elements are stepped back from the building face. The stepped building forms will cast fewer shadows on the street and will be less visible to passing pedestrians. Step-backs also minimize pedestrian winds by creating a shelf to deflect down-drafts. Step-backs typically should be 15 feet back from the face of the street wall [Fig. 19a, b, c].

Landmark and Context Buildings

Structures in prominent locations should have distinct profiles, to serve as landmarks [Fig. 10]. Landmarks give areas their identity and are important for orientation. Prominent locations are at the end of long view corridors, at the corners of large open spaces, and on either side of major street gateways. An occasional contrasting building can provide accent, clarify how the district is organized, and provide a sense of order [Fig. 20].

In order to provide a setting for the rare landmark building, most buildings should be carefully designed as “background” structures. These buildings are well-detailed handsome buildings that do not call attention to themselves, but rather contribute to the overall quality of the space. At the lower levels, all structures should be compatible with adjacent buildings.

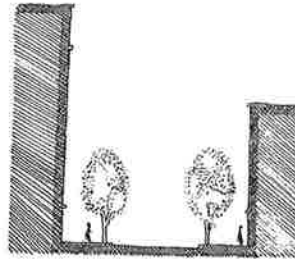


Fig. 19a
With inconsistent street walls, the street does not seem in scale

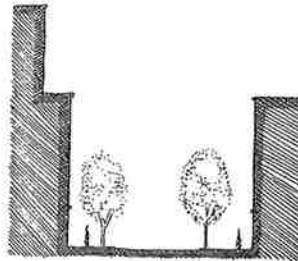


Fig. 19b
Where higher elements are stepped back, the street seems in scale



Fig. 19c
Stepped back building



Fig. 20
Punctuation provides accent and vista in the street

Walls

In order to contrast with the downtown corporate architecture and to distinguish the district as a predominantly residential urban neighborhood, the recommended materials are standard size red brick and light colored masonry with individual windows punctuating the facade. The ratio of solids to openings in brick and masonry buildings should be at least 1:1, which will result in a traditional pattern of solid wall buildings with punched window and door openings [Fig. 21].

The use of deep large-scale indentations, bold sculptural projections, and rich textures are recommended to define street space and scale. Belt courses, cornices, and other devices interrupt the upward rise of tall buildings and create shadows. When several buildings share these features and consistent street walls, they establish a sense of three-dimensional space scaled to the pedestrian. On residential buildings, projections such as bays and porches offset by recessed entryways create texture, shadow, and rhythm [Fig. 22].



Fig. 21
Ratio of solids to openings



Fig. 22
Projection and recession

Large pure geometric planes such as result from curtain walls or metal panel cladding systems are discouraged especially where they have bland, ultra-flat smooth facades and polished reflective surfaces. These surfaces provide no scale reference for the pedestrian to perceive the street space and do not engage space in the street corridor or in adjacent parks. Similarly, endlessly repeated patterns are discouraged, especially all vertical or all horizontal striped patterns that do not provide a useful scale for appreciating the dimension of space [Fig. 23].

The vertical thrust of a tall building should be interrupted, and the facade should be forcefully concluded at a height appropriate to the creation of a gracious street space. On long facades, the building should be articulated to offset the linear thrust of the street wall. These facades should have features that measure scale for pedestrians, much as older buildings did with varied relatively narrow facades that allowed irregular forms within a consistent framework [Fig. 24].

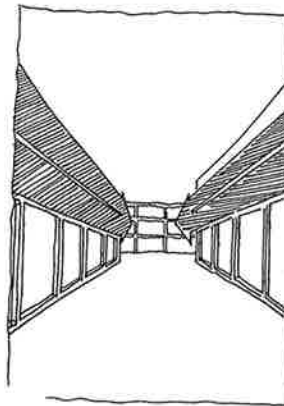


Fig. 23
Smooth geometric planes do not define pedestrian space



Fig. 24
Articulated facades and tripartite composition defines pedestrian space

Roofs

Where appropriate, buildings should have expressive roof lines that create a distinguished building silhouette [Fig. 25]. While the configuration of each roof may vary, adjacent roofs should be united in pitch and scale. Any traditional roof material may be used with the exception of corrugated metal, fiberglass, and wood.

Doors and Windows

The careful location of building entrances will draw people through spaces and help in their animation. Entries that face primary open spaces and streets should be easily identifiable and align with key visual axes, where appropriate.

Entrances to commercial buildings should be clearly recognizable and reflect the scale of the building. On commercial buildings, ground floor entrances should be oriented to the street as well as to major open spaces where possible. Active ground floor uses are strongly encouraged. Important interior spaces, such as lobbies, should be clearly connected to outdoor spaces and visible from the street, so they can welcome people and provide synergy to the urban environment [Fig. 26a, b].



Fig. 25
Traditional roofs create a distinguished building silhouette

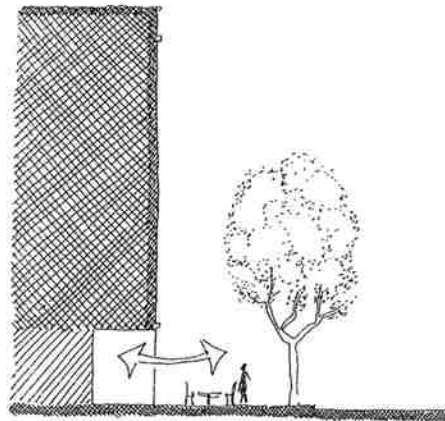


Fig. 26a
Ground floor entrance oriented to the street



Fig. 26b
Commercial street

Because of the flood plain issues in the Mill River Corridor, residential entrances can be raised a half level above the street, accessed with stairways and stoops. Each first floor residential unit facing the street should have an entrance opening onto the street, even in double loaded corridor apartment buildings. Handicap accessibility can be achieved with elevators in the interior of the building. On the street edge, stoops, stairs, and landscape planting are recommended to strengthen the connection between the raised first floor and the street [Fig. 27].

The orientation, proportions, and details of windows enhance the architecture of the building. For the most part, windows should be vertically oriented rectangles aligned in horizontal bands across the building facade. Windows should be recessed into the building facade. Bronze window glass, highly reflective glass, and smoked glass are all strongly discouraged.

On commercial buildings, windows should be at street level and should allow pedestrians to see in and sense the activity within the building. On residential buildings, windows should permit privacy and should be raised a half a level above the sidewalk, corresponding to a first floor raised above the level of the flood plain.



Fig. 27
Residential entrances

Architectural Features and Building Elements

The use of traditional architectural features such as cornices, entrance details, bay windows, dormers, corner towers, arches, porches, balconies, grilles, and ornamental railings is strongly encouraged. These elements help to break down the mass of modern buildings and provide both visual interest and human scale. Modern interpretations of these traditional elements are acceptable if they replicate a similar level of detail and relief [Figs. 28 – 36].

Materials for bay windows, balconies, cornices, should be limited to wood, natural stone, cast stone, steel, sheet copper or zinc. Lower quality aluminum break metal simplifications of traditional detailing are not appropriate.



Fig. 28
Entrance details



Fig. 29



Fig. 30



Fig. 31, 32
Bay windows



Fig. 33, 34
Cornices

Fig. 35, 36
Tourettes, corner towers



Parking Structures and Service Areas

Parking structures at the ground floor facing onto streets and public open spaces are strongly discouraged. Instead, parking should be encouraged below grade, either entirely or a half-level down, or should be placed at the back of the lot. On sites that have frontage on streets, public open spaces, and the river, where there is no obvious back of the site, parking is encouraged to be below grade. Alternatively, active ground floor uses are encouraged on the portion of the garage facing onto public spaces and streets.

Parking garages should have facades that relate to the scale, proportion, and character of surrounding buildings [Fig. 37]. The facades should have a balance of solid wall and openings arranged to complement the surrounding structures. Large blank walls and continuous sloped strip openings are not appropriate. An ordered rhythm of "window-like" punched openings is encouraged. Ramps should be located within the garage structure so that their form is not visible from the exterior. Where appropriate, louvers or screens should be used to animate the facade surfaces and to articulate the structure, hide the parked vehicles, and shield surrounding properties from lights [Fig. 38].

Vertical pedestrian circulation elements should be clearly articulated and visible from adjacent public spaces and nearby circulation routes. Garages should be designed so as to shield all vehicles parked within it from street level view, especially at the ground level. Where possible, the first floor should be for human occupancy such as office or service functions to maintain activity at the ground level. Lighting within the structure should be designed to have a uniform illumination and to minimize glare to the exterior. Light fixtures should be placed or baffled so as not to be visible from surrounding streets or properties.

Parking structures within the floodplain should be designed to allow the free flow of floodwaters, without obstructing them or reducing flood storage. Breakaway louvers and roll-up panels are recommended.

The building service should be located internal to the building or its parking structure if possible. Service should be away from public open spaces and thoroughfares, or if unavoidable, should have design treatment and landscape buffering to emphasize pedestrian comfort and compatibility.



Fig. 37
Garage



Fig. 38
Louvers activate the street facade of a garage

2.2 Site Improvements

Planting Materials

Trees, shrubs, flowers, ground covers, maintained grass, and other landscaping elements are encouraged for shade, privacy, texture, and color when appropriately selected, sited, and spaced. Plant material should recognize the climate, scale, and urban conditions of the project. A limited palette of plant species is preferred.

Narrow landscaped planting beds are encouraged along the front of residential buildings to soften the building edge and to accent building recesses. Ornamental trees, shrubs and flower beds are encouraged, especially at residential building entrances [Fig. 39].



Fig. 39
Planting bed in front of residential building



Fig. 40
Tree masses ameliorate the visual impact of cars

Planting materials should not obstruct views across the site, especially views to and from parking areas, and views to and from the river. The use of evergreen ground covers in planting beds is strongly encouraged. Low shrubs are recommended for screening cars within parking areas [Fig. 40].

The quality of existing trees should be evaluated within the context of the proposed development plan. Every effort should be made to preserve and maintain existing trees that are in good condition in order to have an immediate landscape effect while other new plant materials mature. If an existing tree is to be preserved, the area within the drip line of the tree should not be disturbed by construction.

Site Lighting

Site lighting should provide nighttime orientation and enhance security. Lighting should be used to identify site gateways, pedestrian walks, building entrances, and key site and architectural features. Lighting fixtures throughout a site development should be consistent in style; variations should be within a family of fixtures.

Site lighting should be directed downward using cut off fixtures to minimize glare onto adjacent properties. Parking lots should have cut-off fixtures, not more than 15 to 18 feet high. Bracket light fixtures attached to buildings are encouraged to light adjacent pedestrian walks and parking areas.

Surface Parking

Surface parking lots should be located behind buildings and should not be located along the street edge. Surface parking lots also should not be located along the edge of parks, although in some instances such as the Clinton Avenue neighborhood, it may be unavoidable. In these cases, grade separation and landscape treatment is recommended to screen the cars from the pedestrians using the riverfront corridor [Fig. 41].

A two to three-foot sitting wall should separate the private open space associated with new developments from the public open space along the river.

The grade separation should not be more than three feet, however, so that pedestrians have visual access to adjacent residential uses and do not feel isolated.

Parking lots should be screened from the riverfront parks and other open spaces, streets, and adjacent residential uses through the use of planted buffers around the edges. These buffers should be composed of continuous tree masses and other planting materials, with a tree spacing of not more than 30 feet, although closer spacing is possible where soil volumes allow [Fig. 42].

Landscape treatment should screen surface parking which abuts existing residential areas and parks.

On the west side of West Main Street, a landscape buffer is not necessary due to significant grade separation between the site and the abutting uses; however, planting in and around the surface parking area will mitigate the visual impression from above.

Parking lot edges and islands should be defined by durable curbs that will withstand winter snowplowing and other vehicular damage. Granite curbs with a 6-inch vertical reveal are recommended, but vertical concrete curbs with a 6-inch reveal may be considered within parking lots.

Within parking lots, extensive paved areas should be mitigated by landscaped islands and dividers between the parking bays where practical. These planting beds should be not less than 10 feet wide in order to provide adequate soil volumes; trees should be set back a minimum of 3 feet from the curb. Tree spacing should not be more than 30 feet, but may be closer where soil volumes allow.

Parking lot dimensions should be consistent with the Stamford Zoning Regulations.



Fig. 41
Section at riverfront corridor



Fig. 42
Continuous tree masses screen the cars

3. DESIGN GUIDELINES FOR THE PUBLIC REALM

The design guidelines for the Public Realm seek to guide the public sector's decisions to create a cohesive system of parks and street corridors as an amenity for residents, visitors, and businesses. The design of the public realm within the Mill River District is based on the principles outlined below.

- People are more likely to use parks that are sunny or that have dappled sun and shade.
- Parks feel safer when there are "eyes on the park," meaning residential units face onto the park, and residents and other abutters have a sense of ownership of the open space.
- Active ground floor uses at the edge of the park make the space more inviting and more secure [Fig. 43].
- Connections between parks create a system of open space within the city [Fig. 44].
- Frontage on open space enhances real estate values and provides an amenity for development.
- Streets should be designed for pedestrians as well as vehicles, including gracious and safe sidewalk zones shaded by street trees and accessible and safe pedestrian crossings.



Fig. 43
Park surrounded by buildings with commercial uses at ground level

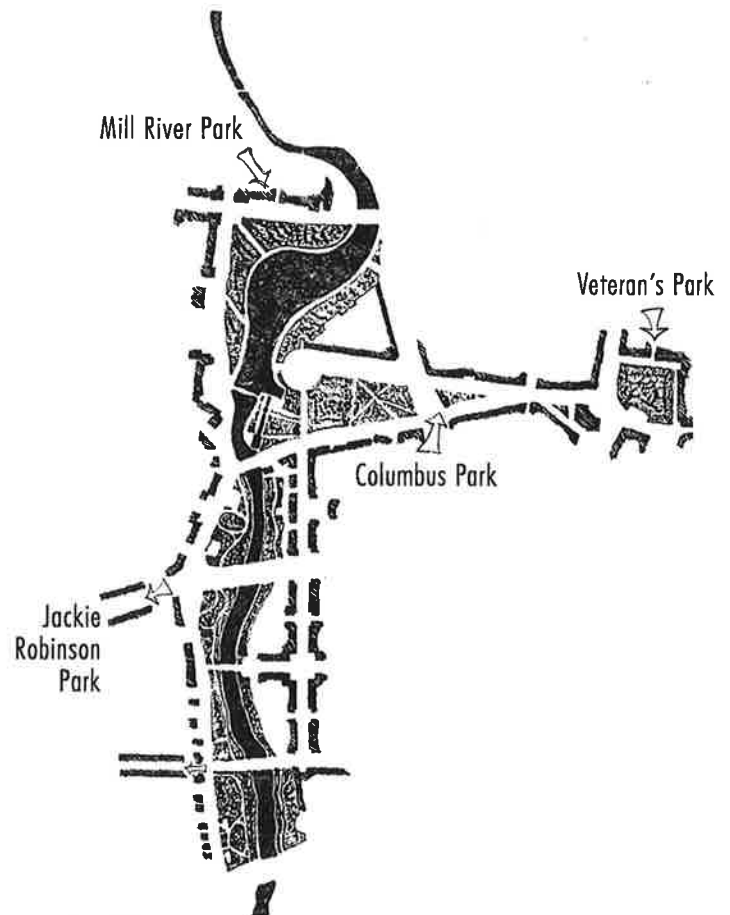


Fig. 44
Connections between parks in and around the Stamford Mill River Corridor

5.1 Park Use and Programming

Parks should be clearly defined spaces that are easy to comprehend and well-defined by surrounding buildings or tree masses. In order to maximize park use and security, ground floor uses fronting onto the park should be active retail, restaurants, or other publicly accessible uses. Residential uses also provide a level of security with round-the-clock surveillance and a long-term commitment and sense of ownership of adjacent open space [Fig. 45].

Programming of open space can enhance use and the range of participation in the space. Programming may include permanent design features such as playgrounds, ball courts, and amphitheaters that relate to projected need and the anticipated park users [Fig. 46]. Other areas of the park should be designed to accommodate occasional events such as farmer's markets, art and musical venues, and civic gatherings. Open meadows should be carefully sized and placed to either encourage or discourage informal recreation, such as frisbee or ball games. Interpretive elements that draw from the natural and historical resources of the place enrich the meaning of the park. These elements can provide a destination or a series of destinations along a linear route through the park.

A generous amount of sunlight should reach the open space surface for human use and enjoyment. In general, open spaces will be used and appreciated more if they receive natural sunlight throughout the day, especially between 10 am and 2 pm and 4pm to 6 pm. Sunny areas should be complemented by areas of dappled sunlight and shade that provide a range of micro-environments within a park.



Fig. 45
Restaurant in the park

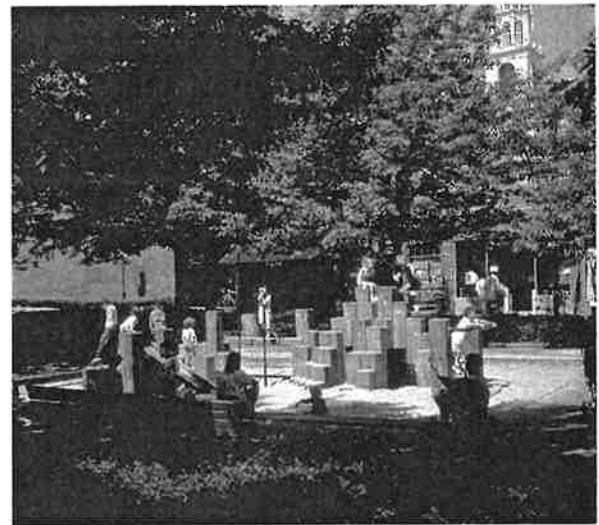


Fig. 46
Playground in the park

3.2 Water's Edge Treatment

Where possible, the elevation of the land adjacent to the Mill Pond should be lowered and the walls reduced to bring the park into closer contact with the water and to allow the flood storage to expand within the open space. Where the walls remain, the parapet (above grade) should be removed and replaced with ornamental railings that allow visual access to the river [Fig. 47].

Overlooks, steps and “get-downs”, and other water's edge features are encouraged. Views of the dam should be emphasized. Water elements and special features that interpret the role of the dam and the former mill sluice ways should be incorporated into the park [Fig. 48].

Below the Main Street bridge, a softer edge to the river is recommended, including naturalized vegetation and enhancement of existing banks, which range from shallow shores with wetland vegetation to much steeper slopes. In some cases, existing walls along the riverfront may need to be rebuilt.

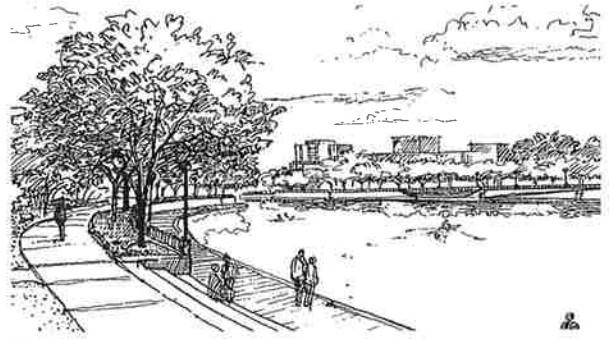


Fig. 47
Visual and physical access between the parks and the water's edge



Fig. 48
Example of a dam with pedestrian walkway above it

3.3 Plant Materials

Plant material should recognize the climate, scale, and urban conditions of the project. A limited palette of plant species is preferred and should be balanced with the need for diversity to protect the plantings from disease. Plantings should reinforce the basic structure of the plan and be functional rather than simply decorative in defining parks and open spaces. In contrast to tree-lined streets, the landscape treatment in parks throughout the District should generally be less formal in character.

The use of native plants should be the highest priority in all plantings, and where possible, community associations should be established to promote attractive and sustainable plantings. These plants should be diverse in both species and longevity so that resilience is maintained even in the event of unforeseen environmental events. The use of exotic materials with unusual habit or color should be discouraged. Likewise, the use of a great variety of plants in close proximity for the sake of horticultural interest is not desirable because such an approach undermines the fundamental idea of unity and restraint that is central to the plan.

Landscape planting around the Mill Pond should not obstruct views of the water. Trees with high canopies are recommended. The cherry trees, which are reaching maturity, should be replaced in the Mill River Park in a way that does not obstruct views of the water.

Vegetation along the natural river banks should be selectively cleared and enhanced with additional plants that will prevent erosion and promote wildlife and birds, while still allowing some views of the water.

3.4 Pathways and Circulation

Wherever possible, a dual set of pathways should be created on each side of the Mill River to provide choices and additional capacity. The pathway system along the river should be designed as a continuous bikeway and pedestrian path, which is separated from automobile traffic [Figs. 49, 50]. Where streets pass along the park, a sidewalk at the edge of the street will function as a second and parallel path.

Riverfront pathways should be connected to sidewalks on bridges and cross streets at grade level. Where feasible, the pathways may pass under bridges but only if safety features are completely addressed including under bridge lighting and patrolling.

In order to accommodate multiple uses, the river edge pathway should be constructed of an all weather surface with a width of 12 feet, and should be ADA accessible. Pedestrian bridges are recommended at the foot of Division Street and near the dam.

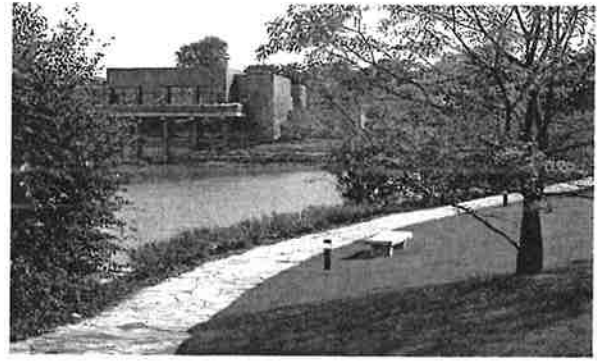


Fig. 49
Pathway along the river



Fig. 50
Pathway flanked with trees

3.5 Lighting

Site lighting should provide nighttime orientation and enhance security. Lighting should be used to identify district and park gateways, pedestrian walks, and key park features. Open space lighting should fall along the perimeter of the space in order to emphasize its form.

Lighting fixtures throughout a site development should be consistent in style; variations should be within a family of fixtures. Specialty lighting should be provided for athletic courts and unique activity areas such as plazas, gazebos, and performance venues.

Where lights follow streets or sidewalks, they should be placed in straight rows on one or both sides. When on both sides, they should align directly across the route. Light spacing should be coordinated with the street tree planting, and spaced approximately 80 feet on center. A uniform setback should be maintained along pavement edges for all fixtures.

Principal roadways should be illuminated with a visible source luminaire to reinforce principal urban organization during evening hours. The luminaires should be mounted on poles no more than 25 feet in height. Secondary roads, parking areas, and service areas should be illuminated by cut-off luminaires mounted on a pole height of 25 feet. Walkways should be illuminated by both traditional and cut-off luminaires. Primary walkways should be illuminated by visible source luminaires installed on fixtures no more than 12 to 15 feet in height, while secondary walkways should be lit by cut-off luminaires on simple fixtures, also 12 to 15 feet high.

3.6 Signage and Furnishings

Seating – Benches should be mounted to a secure, stable, and level surface, and should be sited in both sun and shade in order to provide a choice for the user.

Tables and Chairs – Standards for tables and chairs should be established within this district. Table furnishings should be inviting, comfortable, and in character with the architectural surroundings.

Bicycle Racks – Outdoor bicycle racks should be conveniently sited in proximity to building entries, with good visibility and paved surface, configured with respect to adjacent components of the landscape, and in numbers proportional to demand.

Litter Receptacles – A standard should be established for litter/recycling receptacles. One possibility is a durable black metal receptacle clustered in groups of three and distinguished by color-coded label for recycling (glass, cans, and trash).

Telephones – Public phones should be visibly located in proximity to outdoor gathering spots and seating areas. Multiple phones should be clustered or aligned.

Newspaper Dispensers – Newspaper dispensers should be grouped together and located in proximity to areas with significant pedestrian traffic.

Signage – Interpretive and directional signage throughout the Mill River Corridor should be consistent and designed to complement the character of the park.

Public Art – Public art should relate to its setting. The design and siting of the art work should be integrated into the design of the park.

3.7 Streetscapes

Parallel parking helps separate the moving vehicles from the pedestrians and serves to calm traffic while expanding the supply of short term parking.

On-street parking should be considered for residential streets as well as streets that border the park and that cross through the corridor in order to encourage park use, reduce traffic speeds, and protect pedestrians on sidewalks. Enhancements such as "neckdowns" should be considered at intersections or midblock in order to reduce the width of the travel distance from one side of the street to the other to reduce crossing time for elderly, disabled and children [Fig. 51].

Curbs should clearly distinguish the automobile zone from the pedestrian zone. Curbs should be durable, especially for winter snow plowing operations. Curbs should be vertical granite with a 6-inch reveal.

Sidewalks and pedestrian zones along primary and secondary streets and in medians should provide a refuge for pedestrians. Sidewalks should be designed to accommodate crowd movements by minimizing the placement of obstructions, such as light poles, signs, trees, news dispensers, or buildings, within a clear zone for pedestrian flow. Recommended minimum width is 6 feet on residential streets, with a clear zone of not less than 6 feet. On commercial streets, the sidewalk width will relate to the building placement, and should have a minimum clear zone of 10 feet.

Materials on sidewalks and pedestrian zones should meet ADA requirements for accessibility and should be durable and easy to maintain. Recommended materials are textured concrete, with pavers, brick, or cobble in special locations such plazas and building entries. Crosswalk design and locations should be coordinated with pedestrian patterns and sidewalk design.



Fig. 51
Neckdown at intersection

Trees should be a part of all streetscapes and should line sidewalks and streets in a unified and consistent manner [Fig. 52]. Continuous rows of trees are recommended along both sides of the street, especially on major gateways such as Washington Boulevard, Tresser Boulevard, and West Main Street. A planted median is recommended for Tresser Boulevard and Washington Boulevard.

Street trees should be spaced close enough to clearly define the street corridor when the trees are young. The spacing of the trees should also take into consideration the adequacy of the soil volume per tree and the likelihood of minimum tree canopy maintenance, however. Soil volumes per tree should be not less than 400 cubic feet (cf) per tree. Street tree spacing should not be more than 30 feet. Street trees should be set back from the curb in order to protect them from moving vehicles, opening doors, and the effects of salt. The recommended set back from the curb is not less than 3 feet.

Where possible, and especially on residential streets, trees should be planted within a continuous planting trench that provides adequate soil volumes for each tree (400 cf). The recommended width of the planting trench is not less than 10 feet. The surface of the planting trench may vary depending on the setting and may include grass, cobble, stone dust, or paving as appropriate for the urban character of the site. The excessive use of wood mulch is not recommended in the planting strips.

The palette of lighting, signage, and street furnishings within a street-scape should be consistent.



Fig. 52
Trees as part of streetscape