

13 PUBLIC REALM

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13.1 CIVIC SPACE

1. Development Review

- a. The DEVELOPMENT of any CIVIC SPACE requires Site Plan Approval followed by a Civic Space Permit, in accordance with Chapter 15: Administration, and is exempt from Chapter 11, Article II, Sec. 11-33 (b) of The Code of Ordinances, City of Somerville, Massachusetts.
- b. All DEVELOPMENT, excluding NORMAL MAINTENANCE, requires the submittal of a development review application to the BUILDING OFFICIAL and the issuance of a Certificate of Zoning Compliance prior to the issuance of a Civic Space Permit.

2. Standards for All Civic Spaces

- a. Siting & Orientation
 - i. CIVIC SPACES must be SITED and oriented to maximize their inherent exposure to the sun as follows:
 - a). CIVIC SPACES are prohibited on LOTS that have only one (1) NORTH-FACING, west-facing, or east-facing FRONT LOT LINE.
- b. Design & Construction
 - i. CIVIC SPACES must be engineered and constructed as required by the Director of Public Space & Urban Forestry, in consultation with the City Engineer.
- c. Accessibility
 - i. The design of all CIVIC SPACE must comply with the Americans with Disabilities Act and the Rules and Regulations of the Massachusetts ACCESS Board (521 CMR), as amended.
 - ii. Sloping walkways are encouraged over ramps when reasonably possible to provide for ACCESSIBLE grade changes.
- d. Hours of ACCESS
 - i. CIVIC SPACES must be ACCESSIBLE to the public at all times (twenty four (24) hours per day, seven (7) days per week, three hundred and sixty-five (365) days per year).
 - ii. The review boards may limit the hours of public ACCESS when necessary for public health and safety purposes and maintenance of the space by the PROPERTY OWNER as a condition of Site Plan Approval.
- e. Circulation
 - i. Entrances must be physically and visually ACCESSIBLE from surrounding SITES, designed to make visitors feel welcome and comfortable entering the space, and oriented to preserve view corridors and enhance visual connections to surrounding properties or activities.
 - ii. Entrances adjacent to children's activity areas must be gated.
- f. Landscape
 - i. All landscaping within CIVIC SPACES must comply with the provisions of Section 10.4 Landscaping.
- ii. LARGE TREES are required as indicated for each type of CIVIC SPACE.
- iii. Unless otherwise specified, trees must be planted flush-to-grade or at grade within PLANTING BEDS. Tree grates, raised curbs, railings, and resin-bonded aggregate are prohibited.
- iv. At least one thousand (1,000) cubic feet of SOIL VOLUME must be provided for each tree within a twenty seven (27) foot radius of the tree trunk.
 - a). Where SOIL VOLUMES within the maximum allowable radii for adjacent trees overlap, up to twenty-five percent (25%) of the required for each tree may be shared between trees.
 - b). SOIL VOLUME provided under paved surfaces must be provided through SUSPENDED PAVEMENTS OR STRUCTURAL CELLS. SAND-BASED STRUCTURAL SOIL SYSTEM (SBSS) may be USED with approval of the Director of Public Space & Urban Forestry.
- v. TREE PITS and PLANTERS must have an open soil area centered at the tree trunk that is at least thirty six (36) square feet (such as 6'x6'). Planting soil must be provided to a depth of three (3) feet in the TREE PIT OR PLANTER.
- vi. Coarse grade GROUNDCOVER MULCH must be applied to the soil area at a depth of at least two (2) inches and distributed to create a smooth, level cover over the exposed soil at the time of planting.
 - a). A gap of approximately eight (8) inches must be left between the mulch and the trunk of the tree to avoid mounding above the trunk flare.
- g. Hardscape
 - i. Surface materials must be approved by the Director of Public Space & Urban Forestry.
 - ii. Pervious surfaces may be provided above underground parking and any required cap/fill over contaminated soils, but must be constructed as required by the City Engineer and the Director of Public Space & Urban Forestry.
- h. Amenities and Furnishings
 - i. All amenities and public furniture must comply with the City of Somerville's Park Specifications Handbook. The Director of Public Space & Urban Forestry may authorize the USE of amenities and furnishings that are proportional or better in quality and function to those identified in the Park Specifications Handbook, excluding dedication plaques and SIGNAGE.
- i. Seating
 - i. Seating is required as indicated for each type of CIVIC SPACE. The provision of seating in excess of this requirement is encouraged.
 - ii. Seating must be designed for the convenience and comfort of visitors, located in support of gathering

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- spaces and along pedestrian paths, but should be out of the flow of pedestrian traffic.
- iii. When required to provide seating, CIVIC SPACES should offer a variety of seating types and seating locations including places to sit in the sun, in the shade, out of the wind, in groups, alone, close to activity, and in relative seclusion to every extent possible.
- iv. Linear feet of seating may be provided through movable chairs, fixed individual seats, fixed benches with or without backs, seat walls, PLANTER and fountain ledges, and/or seating steps.
- v. Seat walls, PLANTER and fountain ledges, and/or seating steps may not, in aggregate, represent more than fifteen percent (15%) percent of the linear feet of required seating.
- vi. All seating must be at least eighteen (18) inches in seat depth, at least sixteen (16) inches in seat height, and may be up to twenty (20) inches above the adjacent walking surface.
- vii. Seating thirty (30) inches or more in depth is counted as double the linear feet, provided there is ACCESS to both sides.
- viii. PLANTER or fountain ledges provided as seating must be at least twenty two (22) inches in seat depth.
- ix. Seat backs must be a minimum of fourteen (14) inches high and either contoured in form for comfort or reclined between ten (10) to fifteen (15) degrees from vertical. Walls located adjacent to a seating surface do not count as seat backs.
- x. Movable chairs are not permitted to be chained, fixed, or otherwise secured while a CIVIC SPACE is open to the public, however may be chained or removed during the hours of 9:00pm to 7:00am.
- xi. Steps provided for pedestrian circulation and the seating of open air café areas do not count toward seating requirements.
- xii. Deterrents to seating, such as spikes, rails, or deliberately uncomfortable materials or shapes, placed on surfaces that would otherwise be suitable for seating are prohibited.
- xiii. Deterrents to skateboards, rollerblades and other wheeled devices are permitted on seating surfaces if they do not inhibit seating, maintain a minimum distance of five feet between deterrents, and are integrated into the seating surface at the time of manufacture or construction.
- j. Tables
 - i. Tables are required as indicated for each type of CIVIC SPACE. The provision of tables in excess of this requirements is permitted.
 - ii. All CIVIC SPACES requiring tables must include a minimum of one handicapped ACCESSIBLE table.
- k. Bicycle Parking
 - i. Bicycle parking must be provided as required by Director of Public Space & Urban Forestry and is subject to provisions of §12.1 Bicycle Parking.
- l. SIGNAGE
 - i. Permanent SIGNAGE must be provided as appropriate for each type of CIVIC SPACE.
 - ii. SIGNAGE should be located at entrances and at significant locations to provide direction and information for visitors and residents.
- m. Litter Receptacles
 - i. Litter receptacles must be designed in such a manner that USERS do not have to touch the receptacle or push open a door in order to dispose of litter.
 - ii. Litter receptacles must be constructed of durable materials that are graffiti-, fire-, rust, and stain-resistant.
 - iii. Litter receptacles must include a metal barrier to prevent rodents from entering from the bottom.
 - iv. Litter receptacles should be located near entrances to CIVIC SPACES and within reasonable proximity to seating areas.
 - v. Recycling receptacles are required in conjunction with litter receptacles.
- n. Lighting
 - i. Lighting that promotes personal safety and invites pedestrian activity while adding visual ambiance and character to civic and recreation spaces at night must be provided.
 - ii. Lighting fixtures should be smaller-scale, frequently placed, and scaled to pedestrians. Fixture components (base, pole, luminaries) should have stylistic compatibility, while varying in form according to functional requirements. The indiscriminate USE of bright lighting should be limited.
- o. Irrigation & Drainage
 - i. All irrigation systems must be designed to USE a minimal amount of water.
 - ii. Drainage systems must be designed to return drain water to the soil.
 - iii. All water holding and infiltration facilities must be designed to meet the specific needs of each type of CIVIC SPACE.
- p. ACCESSORY STRUCTURES
 - i. ACCESSORY STRUCTURES common to CIVIC SPACES, including but not limited to, restrooms, open-air pavilions, gazebos, picnic shelters, outdoor theaters/performance stages, field houses, and their substantial equivalents are permitted.

3. Parks

a. A PARK is a CIVIC SPACE type designed for active and passive recreation, with its character defined by the uses and features provided to meet the needs of different user groups. There are four subtypes of parks: a Regional Park, a Community Park, a Neighborhood Park, and a Pocket Park.



Lot Dimensions		
Lot Size (min/max)	--	--
Regional Park	10 acres	N/A
Community Park	2 acres	10 acres
Neighborhood Park	8,000 sf	2 acres
Pocket Park	800 sf	10,000 sf

Vegetation	
LARGE TREES (min)	--
Regional Park	1 / 1,225 sf
Community Park	1 / 1,225 sf
Neighborhood Park	1 / 1,225 sf
Pocket Park	1 / 400 sf

Lot Development		
Landscaped Area (min/max)	--	--
Regional Park	75%	100%
Community Park	75%	100%
Neighborhood Park	50%	100%
Pocket Park	70%	100%
PERVIOUS AREA (min)	--	--
Regional Park	85%	
Community Park	85%	
Neighborhood Park	85%	
Pocket Park	85%	

Furnishings	
Seating (min)	--
Regional Park	N/A
Community Park	N/A
Neighborhood Park	N/A
Pocket Park	1 linear foot / 75 sf.
Tables (min)	--
Regional Park	N/A
Community Park	N/A
Neighborhood Park	N/A
Pocket Park	N/A

b. General to all Parks

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- i. DEVELOPMENT Standards
 - a). All parks must provide varied spaces that accommodate a wide range of ages, physical abilities, and programming.
 - b). All parks must have at least one (1) entrance point from each ABUTTING THOROUGHFARE to encourage ACCESS from the surrounding neighborhood and from public transportation routes.
 - c). Trees must be planted to provide shade during summer months, especially in seating areas and playgrounds.
 - d). A minimum of one (1) compacting combination litter/recycling receptacle is required for every ten thousand (10,000) square feet of park area.
 - e). Landscaping must consist of informally arranged trees and SHRUBS. The topography may be irregular.
- ii. Design Guidelines
 - a). Entrances should be well designed to make visitors feel welcome and comfortable entering the space.
- c. Regional Parks
 - i. DEVELOPMENT Standards
 - a). A regional park must include a well-connected network of paths that effectively accommodates a variety of travel modes, including walking, bicycling, and provisions to ACCESS by maintenance vehicles.
 - b). One (1) highly-visible and distinct entryway, entrance marker, or gateway is required on each side of a regional park.
 - c). Regional parks must provide for a variety of large and small group activities, as well as smaller passive recreation areas for individual and small group gatherings.
 - d). Regional parks must provide permanent restroom facilities open to the public.
 - e). Wetland and riparian areas must be protected by a 50-foot native vegetation buffer.
- ii. Design Guidelines
 - a). Park features should allow for a diverse group of USERS to participate in various recreation activities simultaneously.
 - b). ACCESSORY STRUCTURES should stylistically reflect the SITE furnishings and be constructed of quality materials that can withstand heavy USE.
 - c). Pathways should create ANTICIPATION and visual interest by framing views and directing attention to landscape features.
 - d). Regional parks should provide deliberate focal points along all park routes and at all park destinations.
 - i). Trees should be used in an informal manner to spatially define primary USER spaces and to frame views sheds.
- d. Community Parks
 - i. DEVELOPMENT Standards
 - a). A Community Park must provide varied spaces that accommodate a wide range of ages, physical abilities and programming.
 - b). A Community Park must have multiple entrance points to encourage ACCESS from the surrounding neighborhood and from public



- transportation routes.
- ii. Design Guidelines
 - a). Approximately two-thirds of a community park should be reserved for active recreation uses such as: playgrounds, sports fields or courts, areas for free play or physical fitness or activities.
 - b). Varied play environments that foster the development of children’s cognitive, physical and social development are encouraged.
 - c). Water features and changes in topography are encouraged.
 - d). Amenities and furnishings include, but are not limited to: seating, drinking fountains, picnic tables and benches, litter receptacles. Signage should be placed at entrances or other points where people gather.
 - e). In addition to active physical recreation, Community Parks should provide opportunities for public art, performance space and community engagement in artistic and cultural expression.
 - f). Trees should be planted to provide shade during summer months, especially in seating areas and playgrounds.
- e. Neighborhood Parks
 - i. Development Standards
 - a). A Neighborhood Park must provide varied spaces that accommodate a wide range of ages, physical abilities and programming.
 - b). A Neighborhood Park must have multiple entrance points to encourage access from the

- surrounding neighborhood and from public transportation routes.
- c). Trees must be planted to provide shade during summer months, especially in seating areas and playgrounds.
- ii. Design Guidelines
 - a). Connectivity to the surrounding environment in a Neighborhood Park is vital. Sidewalks, bike paths, crosswalks and connections to larger transportation systems should be established and clear.
 - b). Wherever possible, spaces should be multi-use and flexible to accommodate as many different uses as possible.
 - c). Spaces in a Neighborhood Park should reflect the desires of the surrounding residents and provide programming that is relevant to that neighborhood’s demographic and user groups.
 - d). Varied play environments that foster the development of children’s cognitive, physical and social development are encouraged.
 - e). Water features and changes in topography are encouraged.
 - f). Amenities and furnishings may include, but are not limited to: seating, drinking fountains, tables, chairs and benches, moveable tables and chairs, litter receptacles, etc. Signage should be placed at entrances or other points where people gather.
 - g). Fencing and vegetation should preserve privacy for abutting yards while providing resident visibility into the park.



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- h). In addition to active physical recreation, Neighborhood Parks should provide opportunities for public art, performance space and community engagement in artistic and cultural expression. Public art and performances should reflect the neighborhood and preserve a sense of neighborhood identity.
 - i). A neighborhood park should offer a variety of seating types and seating locations, including places to sit in the sun, in the shade, out of the wind, in groups, alone, close to activity, and in relative seclusion to every extent possible.
- f. Pocket Parks
- i. DEVELOPMENT Standards
 - a). A small seating area must be provided at the entrance of a pocket park to allow users to casually watch passing pedestrians without fully entering the park.
 - b). The STREET-side boundary of a pocket park must include a well-defined entry and provide unobstructed views of what activities and facilities are available within the space, but also provide a sense of enclosure for users inside.
 - c). In residential areas, active or useable portions of a pocket park must be adequately screened for privacy from adjacent residential properties through the use of keep-off GROUNDCOVERS, SHRUB plantings, or fencing.
 - d). In non-residential areas, active or useable portions of a pocket park must extend to the LOT LINES and views into the park maintained to promote casual surveillance.
 - ii. Design Guidelines
 - a). Pocket parks should be designed in consideration of the wide range of ages and habits of the people who may use the space at different times of day or night, with primary concern of the potential users living or working within a five (5) minute walk whom most need recreation space.
 - b). A community bulletin board should be included near the entrance to the pocket park.
 - c). The entrance to the pocket park should be emphasized through special planting, paving, seating, or other design elements that draw attention.
 - d). Paved surfaces should be paved with darker colored paving material(s). The use of concrete should be minimized to reduce glare.
 - e). If ABUTTING properties have first floor windows that would benefit from light and a filtered view, chain link perimeter fencing and fast growing vines should be used instead of any solid fence materials.



- f). In non-residential areas, the exterior walls of surrounding buildings should be capitalized on where possible.
- g). Trees should be deciduous and of a species that can tolerate being climbed by children.
- h). Plantings should be fast growing, resilient, easily maintained, and not poisonous.
- i). Nighttime lighting should be sensitive to ABUTTING USES.

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4. Commons

- a. A Common is CIVIC SPACE type designed for passive recreation and civic purposes, with its character defined primarily by vegetation. There are three subtypes of commons: a Public Common, a Public Square, and a Green. Public Commons and Public Squares are often designed to also support active recreation.



Lot Dimensions		
Lot Size (min/max)	--	--
Public Common	20,000 sf	8 acres
Public Square	10,000 sf	2 acres
Green	6,000 sf	1 acre

Vegetation	
LARGE TREES (min)	--
Public Common	1 / 1,225 sf
Public Square	1 / 1,225 sf
Green	1 / 1,225 sf

Lot Development		
Landscaped Area (min/max)	--	--
Public Common	80%	100%
Public Square	50%	100%
Green	75%	100%
PERVIOUS AREA (min)	--	--
Public Common	85%	
Public Square	85%	
Green	85%	

Furnishings	
Seating (min)	--
Public Common	1 linear foot / 100 sf.
Public Square	1 linear foot / 75 sf.
Green	1 linear foot / 75 sf.
Tables (min)	--
Public Common	N/A
Public Square	N/A
Green	N/A

- b. General to All Commons
 - i. DEVELOPMENT Standards
 - a). A minimum of one (1) compacting combination litter/recycling receptacle is required for every ten thousand (10,000) square feet.
 - ii. Design Guidelines
 - a). Reserved
- c. Public Commons
 - i. DEVELOPMENT Standards
 - a). Reserved
 - ii. Design Guidelines
 - a). A PUBLIC COMMON should provide a substantially sized and uninterrupted OPEN SPACE that is landscaped with smooth GROUNDCOVERS, LARGE TREES, and little to no understory plants. Both paved and unpaved paths may be provided, as well as a substantial water feature.
 - b). Large canopy trees should be USED in an informal manner to spatially define the perimeter while also framing views of neighboring buildings from within the PUBLIC COMMON.
 - c). A PUBLIC COMMON should be designed to promote options for children to engage in different forms of play; provide locations where sports, picnics, special events, and simple relaxation can occur for adults; and may include areas designed specifically to accommodate the activities of a public market.
 - d). Paths should provide a variety of walking/running circuits within the PUBLIC COMMON, accommodate DESIRE LINES to surrounding USES on neighboring BLOCKS, and provide different sensory experiences along their edge that change over time and vary across the PUBLIC COMMON.
 - e). Entrances should be well designed to make visitors feel welcome and comfortable entering the space, be physically and visually ACCESSIBLE from surrounding BLOCKS, and include areas for congregating in groups.
- d. Public Squares
 - i. DEVELOPMENT Standards
 - a). A minimum of one (1) linear foot of required seating for every twenty (20) linear feet of STREET frontage must be located within the FRONTAGE AREA of a public square.
 - ii. Design Guidelines
 - a). A PUBLIC SQUARE should have design characteristics in response to the surrounding civic, commercial, and residential context of surrounding buildings.
 - b). LARGE TREES should be USED to establish the perimeter of the public square.
- e. Greens
 - i. DEVELOPMENT Standards
 - a). A green must ABUT at least one public THOROUGHFARE and one private LOT.
 - b). The first fifteen (15) feet of a Green measured perpendicularly from any FRONT LOT LINE is considered the FRONTAGE AREA. A minimum of one (1) linear foot of required seating for every twenty (20) linear feet of STREET frontage must be located within the FRONTAGE AREA.



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- ii. Design Guidelines
 - a). LARGE TREES should provide shade for most of the area of the green.
 - b). Plantings should contribute to the spatial definition of the space as an outdoor room.
 - c). Open areas intended for passive use should be primarily planted with grass.
 - d). Benches and seating ledges or walls should be designed for the convenience and comfort of visitors, located in support of gathering spaces and along pedestrian circulation paths, but should be out of the flow of pedestrian traffic.



5. Plazas

a. A Plaza is a CIVIC SPACE type designed for passive recreation, civic purposes, and commercial activities, with its character defined primarily by hardscape. Plazas are generally located in activity centers or the nexus of major circulation routes. There are three subtypes of plaza: a Central Plaza, Through Block Plaza, and a Pocket Plaza.



Lot Dimensions		
Lot Size (min/max)	--	--
Central Plaza	8,000 sf	2 acres
Through Block Plaza	5,000 sf	10,000 sf
Pocket Plaza	2,000 sf	10,000 sf

Vegetation	
LARGE TREES (min)	--
Central Plaza	1 / 1,000 sf
Through Block Plaza	1 / 1,500 sf
Pocket Plaza	1 / 400 sf

Lot Development		
Landscaped Area (min/max)	--	--
Central Plaza	10%	30%
Through Block Plaza	10%	30%
Pocket Plaza	10%	30%
PERVIOUS AREA (min)	--	
Central Plaza	70%	
Through Block Plaza	70%	
Pocket Plaza	70%	

Furnishings	
Seating (min)	--
Central Plaza	1 linear foot / 30 sf.
Through Block Plaza	1 linear foot / 75 sf.
Pocket Plaza	1 linear foot / 50 sf.
Tables (min)	--
Central Plaza	1 / 4 movable chairs
Through Block Plaza	N/A
Pocket Plaza	1 / 3 movable chairs

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- b. General to all Plazas
 - i. DEVELOPMENT Standards
 - a). Contiguous LOTS designed as plazas are considered one single plaza.
 - b). A minimum of one (1) compacting combination litter/recycling receptacle is required for every five thousand (5,000) square feet of Pocket Plaza area.
 - ii. Design Guidelines
 - a). Reserved
- c. Central Plazas
 - i. DEVELOPMENT Standards
 - a). Plazas must be generally rectilinear in shape (e.g. rectangular or square).
 - b). The major portion of a public plaza is the area of a plaza that is largest in size and intended for primary use. Major portions of a plaza must have an average width and depth of forty (40) feet, may have a width up to three (3) times the average depth, measured perpendicularly from the ABUTTING sidewalk, and must occupy at least seventy five percent (75%) of the plazas total area. All points within the major portion of a plaza must be visible when viewed perpendicularly from the sidewalk of the ABUTTING THOROUGHFARE.
 - c). Minor portions of a plaza are secondary areas that allow for additional flexibility in the shape and configuration of a plaza. Minor portions must have an average width and depth of fifteen (15) feet, may occupy up to twenty five percent (25%) of the plazas total area, and must be directly adjacent to the major portion. All points within a minor portion must be visible from within the major portion when viewed perpendicularly from the major portion. Minor portions that do not front onto the same THOROUGHFARE as the major portion (plaza alcoves) may have a width that is up to three (3) times the average depth.
 - d). Visibility of major and minor portions of a plaza is not affected by permitted obstructions.
 - e). Plazas must be open to the sky and unobstructed for at least fifty percent (50%) of the area of a plaza except for the following features, equipment and appurtenances: bicycle racks; lighting; litter receptacles; PLANTERS, PLANTING BEDS, LAWNS, trees, and other landscape features; outdoor cafes and kiosks; public art; seating, including movable chairs, fixed individual seats, fixed benches, seat walls, PLANTER and fountain ledges, and/or seating steps; stages; temporary exhibitions; and water features.
 - i). Trees planted flush-to-grade and lawn, turf, or grass areas that do not differ in elevation from the surface of the plaza by more than six (6) inches are not considered obstructions.
 - ii). Obstructions that are non-permanent or moveable, such as moveable furniture, outdoor cafes, or temporary exhibitions are considered within gross areas designated on a SITE plan and not measured as



- individual pieces of furniture.
- iii). Approved BUILDING awnings, canopies, and SIGNS are exempt.
 - f). The first fifteen (15) feet of a plaza measured perpendicularly from any FRONT LOT LINE is considered the FRONTAGE AREA of a plaza.
 - g). To facilitate pedestrian ACCESS, at least fifty percent (50%) of the FRONTAGE AREA must be free from obstructions.
 - h). Pedestrian circulation paths within a plaza must provide for unobstructed circulation throughout the major and minor portions of the plaza and must, at minimum, connect any ABUTTING sidewalk or CIVIC SPACES to all major focal points and activity areas of the plaza and PRINCIPAL ENTRANCES of ABUTTING buildings. At least one circulation path of at least eight (8) feet clear width must be provided.
 - i). The surface of a plaza must be equal to the average elevation of the ABUTTING sidewalks, publicly ACCESSIBLE walkways, or other CIVIC SPACES. Minor changes beyond this elevation not exceeding two (2) feet are permitted. Plazas over ten thousand (10,000) square feet in area may have up to twenty percent (20%) of the plaza area elevated up to four (4) feet above the grade of the ABUTTING sidewalk, provided that the raised area is set back from the FRONT LOT LINE at least twenty (20) feet.
 - j). Paving must be of non-skid, durable materials that are decorative and compatible in color and pattern with other design features of the plaza.
 - k). Each plaza must provide at least two types of seating. Plazas over ten thousand (10,000) square feet in size must provide moveable seating as one of the required seating types.
 - l). A minimum of one (1) linear foot of required seating for every two (2) linear feet of plaza frontage must be located within the FRONTAGE AREA of a plaza. A minimum of fifty percent (50%) of this seating must have seat backs and at least fifty percent (50%) of the seating with seat backs must face the sidewalk.
 - m). Seat walls and seating steps may not, in aggregate, represent more than fifteen (15) percent of the linear feet of required seating.
 - n). Steps provided for pedestrian circulation must have a height (rise) between four (4) to six (6) inches and a tread (run) of at least seventeen (17) inches, except that steps with a height (rise) of five (5) inches may have a tread (run) of fifteen (15) inches.
 - o). Required open soil areas for trees may be reduced or covered with the approval of the Director of Public Space & Urban Forestry using one of the following techniques:
 - i). Soil area for trees planted flush-to-grade may be covered by cobblestones or other permeable PAVERS that can be removed to accommodate tree trunk and root growth over time. PAVERS must be installed level with the plaza surface and at minimum no closer than eighteen (18) inches from the tree trunk .



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- ii). Trees may be planted below the finished surface of a plaza and the soil area covered by a suspended PAVER grate system with a minimum twenty-four (24) inch wide tree opening and permeable PAVERS. Two- piece, removable trim rings are permitted to cover the tree opening.
- p). Plazas that contain outdoor cafes or kiosks providing food service must provide one (1) additional litter receptacle and (1) additional recycling receptacle for every one thousand five-hundred (1,500) square feet of plaza area occupied by such outdoor eating area.
- ii. Design Guidelines
 - a). A plaza should contain substantial areas of hardscape complemented by PLANTING BEDS or arrangements of trees with open canopies.
 - b). Plantings should contribute to the spatial definition of the space as an outdoor room.
 - c). Benches and seating ledges or walls should be designed for the convenience and comfort of visitors, located in support of gathering spaces and along pedestrian circulation paths, but should be out of the flow of pedestrian traffic.
 - d). The perimeter of a plaza should be well integrated into its surroundings and free from fences, hedges, and other barriers that would impede movement into the space and obscure visibility from adjacent STREETS or BUILDING frontages.
- d. Through BLOCK Plazas
 - i. DEVELOPMENT Standards
 - a). The first fifteen (15) feet of a through BLOCK plaza measured perpendicularly from any FRONT LOT LINE is considered the FRONTAGE AREA of a through BLOCK plaza and must be free from all obstructions.
 - b). The surface of a Through BLOCK Plaza must be equal to the average elevation of ABUTTING sidewalks or publicly ACCESSIBLE walkways.
 - c). Through BLOCK plazas must contain an unobstructed circulation path at least ten (10) feet in width, connecting the two THOROUGHFARES on which the through BLOCK plaza fronts.
 - d). A minimum of fifty percent (50%) of required seating must have seat backs.
 - ii. Design Guidelines
 - a). Adjacent buildings should provide ground level spaces fronting onto the through BLOCK plaza for commercial uses including, but not limited to, the arts & creative enterprise, eating & drinking, and retail USE categories.
 - b). Exterior walls fronting onto the through BLOCK plaza should meet the GROUND STORY FENESTRATION and BLANK WALL standards for the appropriate BUILDING TYPE to every extent practicable.
 - c). UPPER STORY balconies and terraces overlooking the through BLOCK plaza are encouraged for adjacent buildings.
- e. Pocket Plazas
 - i. DEVELOPMENT Standards
 - a). Contiguous LOTS designed as pocket plazas are considered the central plaza type if, in



- combination, the total land area exceeds the maximum size standard for a single pocket plaza.
- b). Pocket Plazas must be generally rectilinear in shape (e.g. rectangular or square).
 - c). Pocket Plazas must have an average width and depth of forty (40) feet, may have a width up to three (3) times the average depth, measured perpendicularly from the ABUTTING sidewalk.
 - d). All points within a Pocket Plaza must be visible when viewed perpendicularly from the sidewalk of the ABUTTING THOROUGHFARE. Visibility of a Pocket Plaza is not affected by permitted obstructions.
 - e). Pocket Plazas must be open to the sky and unobstructed except for the following features, equipment, and appurtenances: bicycle racks; lighting; litter receptacles; PLANTERS, PLANTING BEDS, lawns, trees, and other landscape features; outdoor cafes and kiosks; public art; seating, including movable chairs, fixed individual seats, fixed benches, seat walls, PLANTER and fountain ledges, and/or seating steps; stages; temporary exhibitions; and water features.
 - i). Trees planted flush-to-grade and lawn, turf, or grass areas that do not differ in elevation from the surface of the plaza by more than six (6) inches are not considered obstructions.
 - ii). Obstructions that are non-permanent or moveable, such as moveable furniture, outdoor cafes, or temporary exhibitions are considered within gross areas designated on a SITE plan and not measured as individual pieces of furniture.
 - iii). Approved BUILDING awnings, canopies, and SIGNS are exempt.
 - f). The first fifteen (15) feet of a Pocket Plaza measured perpendicularly from any FRONT LOT LINE is considered the FRONTAGE AREA of a plaza. At least fifty percent (50%) of the FRONTAGE AREA must be free from obstructions.
 - g). Unobstructed pedestrian circulation paths must connect any ABUTTING sidewalk to all pocket plaza and BUILDING entrances.
 - h). The surface of a Pocket Plaza must be equal to the average elevation of the ABUTTING sidewalk, publicly ACCESSIBLE walkways, or other CIVIC SPACES. Minor changes in elevation not exceeding two (2) feet are permitted.
 - i). Paving must be of non-skid, durable materials that are decorative and compatible in color and pattern with other design features of the Pocket Plaza.
 - j). Each pocket plaza must provide at least two types of seating.
 - k). A minimum of one (1) linear foot of required seating for every two linear feet of frontage (FRONT LOT LINE) must be located within the FRONTAGE AREA of a plaza. A minimum of fifty percent (50%) of this seating must have seat backs and at least fifty percent (50%) of the seating with seat backs must face the sidewalk.
 - l). Seat walls and seating steps may not, in aggregate, represent more than fifteen (15) percent of the linear feet of required seating.
 - m). Steps provided for pedestrian circulation must have a height (rise) between four (4) to six (6) inches and a tread (run) of at least seventeen (17) inches, except that steps with a height (rise) of five (5) inches may have a tread (run) of fifteen (15) inches.
 - n). One bicycle rack designed for parking two bicycles is required.
- ii. Design Guidelines
 - a). A Pocket Plaza should contain areas of hardscape complemented by PLANTING BEDS or arrangements of trees with open, spreading canopies.
 - b). Plantings should contribute to the spatial definition of the space as an outdoor room.
 - c). Benches and seating ledges or walls should be designed for the convenience and comfort of visitors, located in support of gathering spaces and along pedestrian circulation paths, but should be out of the flow of pedestrian traffic. Entrances should be well designed to make visitors feel welcome and comfortable entering the space.
 - d). Water features, including fountains and waterfalls, are encouraged.

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Civic Space

6. Civic Uses

a. General

- i. The USE of CIVIC SPACE is permitted as specified on Table 13.1.7 Permitted Civic Uses.
- ii. CIVIC SPACES may have one or more civic USES to meet the needs of a variety of USERS or only a single USE intended for a specific USER group, such as an athletic field, community garden, dog park, or playground.
- iii. USE categories not identified on Table 13.1.7 may be permitted by the review board by Site Plan Approval.

b. DEVELOPMENT Review

- i. The establishment of any civic USE, CHANGE IN USE, and any expansion of an existing civic USE requires the submittal of a development review application to the BUILDING OFFICIAL.
- ii. Civic USES must comply with any USE-specific standards applicable for each USE in §13.1.7 Civic Use Definitions & Limitations.
- iii. Civic USES permitted by Special Permit require additional DEVELOPMENT review in accordance with §15.2.1 Special Permits.

c. Classification of Uses

- i. Civic USES are grouped into categories, and some categories are further broken into a list of individual civic USES. For example, under the Passive Space civic USE category is Botanical Garden, which is a more strictly regulated civic USE than others in this same category.
- ii. Civic USES are grouped into categories so that USES with similar functional or physical characteristics, the type and amount of activity, the conduct of visitors, and likely impact on surrounding properties are regulated similarly.
- iii. Civic USE categories are listed on Table 13.1.7 and ordered in the text of this Section using the same headings.

d. Civic Use Definitions & Standards

i. General

- a). This Section provides definitions for civic USE categories and individual USES and identifies standards applicable to either all USES within a category or specifically to an individual USE.
- b). In some cases, a civic USE may include ANCILLARY activities that are subordinate and incidental to the day-to-day operations of the PRINCIPAL USE. When identified, such ANCILLARY activities do not require separate approval, but must comply with any standards applicable to the civic USE.

ii. Athletic Fields

A facility providing for active recreation, athletic activity, and competitive sports.

a). DEVELOPMENT Standards

- i). Athletic fields must provide regulation field and COURT sizes tailored to the needs of the specific USER groups the space is intended to serve.
- ii). The area of an athletic field is subtracted from the total area of a CIVIC SPACE to determine required trees, up to fifty percent (50%) of the total area of a CIVIC SPACE.
- iii). The materials and construction methods of any athletic field, including the choice of natural turf or synthetic fields, must be designed to accommodate the projected carrying capacity of the field or COURT. Particular attention must be paid to permeability of subsurface materials, soil compaction, and drainage.

b). Design Guidelines

- i). Multi-purpose athletic fields that permit more cost-effective maintenance and shared amenities along with irrigation and lighting INFRASTRUCTURE are highly encouraged.
- ii). Choices for synthetic or natural turf should take into account community desire, maintenance and appropriateness to the SITE.
- iii). Playing surface for COURT games should be designed with appropriate surfaces such as clay, sand, and concrete, asphalt, or synthetic materials without expansion joints.
- iv). The long axis of all recreation fields should be oriented to the north-south to every extent possible.

iii. Cafe Seating

A facility equipped with tables and chairs USED for passive recreational activities including, but not limited to, sitting, eating, and game playing alone or in groups.

a). DEVELOPMENT Standards

- i). Cafe seating may occupy up to fifty percent (50%) of the total area of a CIVIC SPACE.
- ii). The cafe seating area is subtracted from the total area of a CIVIC SPACE to determine required trees, up to fifty percent (50%) of the total area of a CIVIC SPACE.
- iii). Cafe areas with food service must provide one (1) compacting combination litter/recycling receptacle for every one thousand five-hundred (1,500) square feet of area occupied by seating.

b). Design Guidelines

Table 13.1.7 Permitted Civic Uses

Use Category Specific Use	Regional Park	Community Park	Neighborhood Park	Pocket Park	Public Common	Public Square	Green	Central Plaza	Through Block Plaza	Pock(et) Plaza	Use Specific Standards
Civic Uses											
Athletic Fields	SP	SP	SP	N	SP	N	N	N	N	N	13.1.7.d.ii
Cafe Seating	P	P	P	P	P	P	P	P	P	P	13.1.7.d.iii
Cafe Seating for an Adjacent Use	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	13.1.7.d.iii.c
Dog Park	P	P	P	P	N	N	N	N	N	N	13.1.7.d.iv
Public Service	P	P	P	P	P	P	P	P	P	P	13.1.7.d.v
Landmark	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	13.1.7.d.vi
Passive Space (except as noted below)	P	P	P	P	P	P	P	P	P	P	13.1.7.d.vii
Botanical Garden	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	13.1.7.d.vii.c
Performance Space	P	P	P	P	P	P	P	P	P	P	13.1.7.d.viii
Playground	P	P	P	P	P	N	N	N	N	N	13.1.7.d.ix
School Yard	P	P	P	N	N	N	N	N	N	N	13.1.7.d.x
Skate Park/Rink	P	P	P	N	P	P	N	P	N	N	13.1.7.d.xi
Urban Agriculture	P	P	P	P	P	P	P	P	N	P	13.1.7.d.xii
Water Feature (except as noted below)	P	P	P	P	P	P	P	P	P	P	13.1.7.d.xiii
Pool	SP	SP	SP	N	N	N	N	N	N	N	13.1.7.d.xii.c

P - Permitted SP - Special Permit Required N - Not Permitted

- i). Reserved
- c). Cafe Seating for an Adjacent Use
 - i). Cafe seating may be permitted within a CIVIC SPACE for adjacent Food & Beverage Service PRINCIPAL USES by Special Permit.
 - ii). In addition to the review criteria for all Special Permits specified in §15.2.1.e. Review Criteria, the review board shall make findings considering the following in its discretion to approve or deny cafe seating within a CIVIC SPACE for an adjacent Food & Beverage Service PRINCIPAL USE:
 - a. The percentage of the CIVIC SPACE proposed to be occupied by the café seating and the viability of the remaining area to properly function as the intended type of CIVIC SPACE.
 - b. Recommendations provided by the Urban Design Commission for the original Development Review

Application submitted for the CIVIC SPACE.

- iv. Dog Park

A facility designed for the active recreation of dogs and their owners.

 - a). DEVELOPMENT Standards
 - i). Dog parks must be a minimum of ten thousand (10,000) square feet in area.
 - ii). The area of a dog park is subtracted from the total area of a CIVIC SPACE to determine required trees.
 - iii). Dog parks are not permitted adjacent to play grounds, recreation fields, and community gardens.
 - iv). A dog park is not permitted to be less than fifteen (15) feet in any dimension.
 - v). Dog parks must be fenced on all sides to a minimum height of 60 inches. Fence footings must be buried to a depth of one (1) foot and fence panels must be buried

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Civic Space

- to a depth of six (6) inches at all locations except at entrances/exits.
- vi). Dog parks must have two entrances/exits.
- vii). Entrances/exits must have a safety gate, with an outer and inner gate on either side of a minimum sixteen (16) square-foot “vestibule” area. This “vestibule” area serves as a buffer between the entrance and the rest of the park.
- viii). One (1) litter receptacle and one (1) dog valet must be provided near each entrance/exit.
- ix). A sub-base of crushed gravel or equivalent that will compact to a dense, graded permeable subsurface must be provided.
- x). GROUND COVER must be decomposed (crushed) granite or similar material that is non water-absorbing and devoid of organic material.
- xi). PLANTING BEDS must be included along the outside of the perimeter fence to help screen the dog park and reduce potential runoff.
- xii). Dog parks must include a watering area with a standard hose-bib.
- xiii). Each dog park must have a permanent SIGN, stating the hours of operation, rules, and regulations for the dog park.
- b). Design Guidelines
 - i). Separated play areas for small dogs and large dogs are recommended.
- c). DEVELOPMENT Review
 - i). The size of a Dog Park may be reduced by Special Permit.
 - ii). In its discretion to approve or deny a Special Permit authorizing a dog park under ten thousand (10,000) square feet in size, the Planning Board shall make findings considering the following in addition to the review considerations for all Special Permits specified in §15.D.1.e. Review Criteria:
 - a. Proximity to existing nearby properties in residential USE.
 - b. Proximity of the proposed dog park to larger existing dog parks that might provide more running/activity space for dogs.
 - c. The necessity to limit USE of the dog park due to the decreased size.
 - d. The design quality of the proposed dog park in relation to the decreased size.
 - e. The provision of adequate space for the recreation of dogs.
- v. Public Service
 - Essential government services provided to the community at large including municipal operations of the City of Somerville, such as departmental offices, social service facilities, and public works facilities; public safety services, such as police and firefighting headquarters and substations; and OPEN SPACES reserved for social and recreational activities or natural resource protection.
 - a). DEVELOPMENT Standards
 - i). Reserved
 - b). Design Guidelines
 - i). Reserved
- vi. Landmark
 - A feature of a CIVIC SPACE designed to commemorate an important event or important person in the HISTORY of the City of Somerville.
 - a). DEVELOPMENT Standards
 - i). Historic landmarks must be reviewed by the Historic Commission.
 - ii). Landmarks recognizing veterans must be reviewed by the Veteran’s Commission.
 - b). Design Guidelines
 - i). Landmarks can take many forms including stone or metal memorials and monuments, statues, plaques, SIGNAGE, or landscape designs.
 - ii). Landmark design, size, and placement should be appropriate and for the SITE.
 - iii). Maintenance of landmarks, including any associated lighting, should be considered in the design.
 - iv). Landmarks should be considered as special features that bring people together for a moment or longer and enliven the experience of residents and visitors in exploring the City of Somerville.
- vii. Passive Space
 - A feature of a CIVIC SPACE designed to accommodate passive recreational activities including, but not limited to, exercising, laying, people-watching, picnicking, reading, relaxing, standing, sitting, and walking alone or in groups.
 - a). DEVELOPMENT Standards
 - i). Reserved
 - b). Design Guidelines
 - i). Reserved
 - c). Botanical Garden
 - A feature of a CIVIC SPACE designed specifically for the cultivation of specimen plants for scientific research, conservation, education, and public display.
 - i). DEVELOPMENT Standards
 - a. Botanical gardens must be curated

by an institution with experience managing collections of plants, or associated with a school, public committee, or private club.

ii). Design Guidelines

a. Reserved

viii. Performance Space

A feature of a CIVIC SPACE designed as an outdoor venue for live performance of cultural entertainment or artistic expression such as singing, dancing, comedy, literary readings, performance art, musical theater, live plays, and concerts.

a). DEVELOPMENT Standards

i). Reserved

b). Design Guidelines

i). Reserved

ix. Playground

A facility primarily designed as a play area for children.

a). DEVELOPMENT Standards

i). Playgrounds must be a minimum of two thousand five hundred (2,500) and up to twenty five thousand (25,000) square feet in area.

ii). The area of a playground is subtracted from the total area of a CIVIC SPACE TO determine required trees.

iii). Design and construction of a playground must comply with the US Consumer Product Safety Commission's Public Playground Safety Handbook.

iv). Only commercial grade play equipment certified by the manufacturer is permitted.

v). Playground must include seating intended for parents.

vi). Playground surfacing must be composed of a shock-absorbing surface with a maximum 2% slope except where intentionally mounded for play activities. The material must meet all federal, state and local regulations.

b). Design Guidelines

i). Playgrounds should be designed to engage children and adolescents in developing their physical and social skills in a stimulating and safe environment.

ii). Playgrounds should include equipment for two at least age groups: play equipment intended for children ages one (1) to five (5), play equipment intended for children ages six (6) to ten (10), and play equipment for adolescents up to eighteen (18) years in age.

iii). Playgrounds should be designed to meet the widest range in needs of children of different ages and abilities to every extent possible.

iv). Parks that have playground equipment, sports fields, and spray pads should be ACCESSIBLE to all children up to eighteen (18) years in age.

v). Parks that have playground equipment, sports fields, and spray pads should be ACCESSIBLE to all children up to eighteen (18) years in age.

vi). Natural play areas constructed of boulders, logs and land forms and playground equipment made from one hundred percent (100%) recycled plastic or steel is recommended.

vii). Steel play STRUCTURES should be shaded by trees or other shade STRUCTURES to decrease their surface temperature in the summer months.

x. School Yard

A facility designed to accommodate play and learning by students of adjacent schools and by the community during after-school hours or breaks.

a). DEVELOPMENT Standards

i). Reserved

b). Design Guidelines

i). Reserved

xi. Skate Rink/Park

A facility providing a level surface intended for USE by ice or other type of skating or a collection of ramps and other obstacles intended for USE by skateboarders or bicyclists.

a). DEVELOPMENT Standards

i). Reserved

b). Design Guidelines

i). Reserved

xii. Urban Agriculture

A feature of a CIVIC SPACE designed as individual garden PLOTS available to residents for agricultural purposes, including storage facilities for necessary equipment.

a). DEVELOPMENT Standards

i). Community gardens must be located in areas that are agriculturally suitable, including soil conditions, topography, and solar ACCESS.

ii). Land area of a community garden must be level enough to support the intended USE and meet all Americans with Disabilities Act requirements without the USE of RETAINING WALLS that exceed three (3) feet in height.

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- iii). A walkway must be provided adjacent to each individual PLOT. All walkways must be at least four (4) feet in width and all walkways, paths, and landings must meet ADA requirements.
- iv). A permanent, visually transparent fence must be provided at the perimeter of the community garden. Fencing must provide at least one (1) ACCESS gate and at least eight percent (80%) free from vines or other obstructions that will impede visual ACCESS.
- v). REFUSE areas must be provided and screened to enclose all refuse generated from the garden PLOTS. Composters and trash barrels must be rodent proof. Storage areas for tools, fertilizers, equipment, and other material must be enclosed and located in relative proximity to the rear and center of the SITE.
- vi). A water meter and hose bibs must be provided on SITE to provide ACCESS to all PLOTS within the garden with the USE of a twenty-five (25) foot hose. Hose bibs must be secured to a post and include a hose hanger.
- vii). SIGNAGE constructed of commercial grade outdoor materials must be posted at the entrance to the community garden providing the hours of operation, contact name and phone number, community garden rules, and the statement "on-SITE sale of produce is not permitted."
- viii). Farm-stands and the on-SITE sale of produce are prohibited.
- ix). The maximum permitted height for ACCESSORY STRUCTURES, such as trellises, ARBORS, or other plant supports, is six (6) feet.
- x). The maximum height of any STRUCTURE intended for storage is eight (8) feet.
- b). Design Guidelines
 - i). At least twelve (12) individual garden PLOTS should be provided.
 - ii). A minimum of one ACCESSIBLE PLOT should be provided for every twelve (12) PLOTS.
 - iii). The minimum size of individual garden PLOTS should be twenty-five (25) square feet.
- xiii. Water Feature
 - A feature of a CIVIC SPACE involving water including, but not limited to, fountains, pools, ponds, cascades, waterfalls, and streams.
 - a). DEVELOPMENT Standards
 - i). Reserved
 - b). Design Guidelines
 - i). Reserved
 - c). Pool
 - A facility for swimming.
 - i). DEVELOPMENT Standards
 - a). Reserved
 - ii). Design Guidelines
 - a). Reserved

13.2 THOROUGHFARES

1. Development Review

- a. The DEVELOPMENT of any new THOROUGHFARE requires Site Plan Approval followed by a Thoroughfare Permit, in accordance with Chapter 15: Administration.
- b. All DEVELOPMENT, excluding NORMAL MAINTENANCE, requires the submittal of a development review application to the BUILDING OFFICIAL and the issuance of a Certificate of Zoning Compliance prior to the issuance of a Thoroughfare Permit.

2. Standards for all Thoroughfare Type

- a. THOROUGHFARES, excluding ALLEYS, must include travel lanes and sidewalks.
- b. THOROUGHFARES must be designed in accordance with the current edition of the National Association of City Transportation Officials (NACTO) STREET design guidelines:
 - i. The Urban STREET Design Guide
 - ii. The Transit STREET Design Guide
 - iii. Urban Bikeway Design Guide
 - iv. Urban STREET Stormwater Guide
- c. THOROUGHFARES must be engineered and constructed as required by the City Engineer, in consultation with the Director of Public Space & Urban Forestry.
- d. All water and sewer utilities, storm water management infrastructure, public lighting, and public furniture must be designed and constructed in accordance with all standards established by relevant City Departments.

3. Standards for Specific Thoroughfare Types

- a. Commercial STREET
 - i. The commercial STREET THOROUGHFARE type is referred to as the Downtown 2-Way STREET by NACTO.
 - ii. The total right-of-way width must be a minimum of seventy-four (74) feet.
 - a). If protected bike lanes are provided, the minimum right-of-way width is increased to eighty (80) feet.
 - iii. Commercial STREETS must include bicycle lanes in each direction.
 - iv. Total right of way width may be reduced by seven (7) feet for each parking lane that is not provided.
- b. Local STREET
 - i. The local STREET THOROUGHFARE type is referred to as a Neighborhood STREET by NACTO.
 - ii. The total local STREET right-of-way width must be a minimum of sixty (60) feet.
 - iii. Total right of way width may be reduced by seven (7) feet for each parking lane that is not provided.
- c. Commercial Shared STREET
 - i. The commercial shared STREET THOROUGHFARE type is referred to as a Commercial Shared STREET by

NACTO.

- ii. The total local STREET right-of-way width must be a minimum of fifty-two (52) feet.
- iii. Total right of way width may be reduced by seven (7) feet for each parking lane that is not provided.

d. ALLEYS

- i. The ALLEY THOROUGHFARE type is referred to as a Commercial ALLEY by NACTO.
- ii. New ALLEYS must include travel lanes in each direction, and may include sidewalks.
- iii. The total ALLEY right-of-way width must be a minimum of twenty (20) feet.
- iv. On STREET parking is not permitted.

4. Sidewalks

a. General

- i. All new and reconstructed sidewalks must be ACCESSIBLE to and usable by persons with disabilities in accordance with the Americans with Disabilities Act and the Rules and Regulations of the Massachusetts ACCESS Board (521 CMR), as amended.
- ii. Sidewalks for new THOROUGHFARES must include a walkway and furnishing zone and may include an edge and frontage zone as illustrated in Figure 13.2.4 (a) Sidewalks.
 - a). Walkways must be a minimum of six (6) feet in width.
 - b). Furnishing zones must be a minimum of six (6) feet in width.
 - c). Edge zones (ie. "curbwalks") must be a minimum of two (2) feet in width.
 - d). Frontage zones may be up to four and a half (4.5) feet in width.
- iii. Furnishing zones may be alternated with an on-STREET parking area on commercial shared STREETS.
- iv. Protected bike lanes must be separated from the walkway of the sidewalk by a furnishing zone.

b. Existing THOROUGHFARES

- i. Installation of a STREET TREE into a sidewalk that existed prior to the adoption date of this Ordinance must be planted as required by the Director of Public Space & Urban Forestry.

c. New THOROUGHFARES

- i. Sidewalks must include LARGE TREES planted within the furnishing zone, except for ALLEY sidewalks.
- ii. Trees must be planted in a regularly-spaced ALLEE pattern between thirty-five (35) and forty-five (45) feet on center, as required by the Director of Public Space & Urban Forestry depending on species or CULTIVAR of tree.
 - a). Along retail frontages, STREET TREES may be

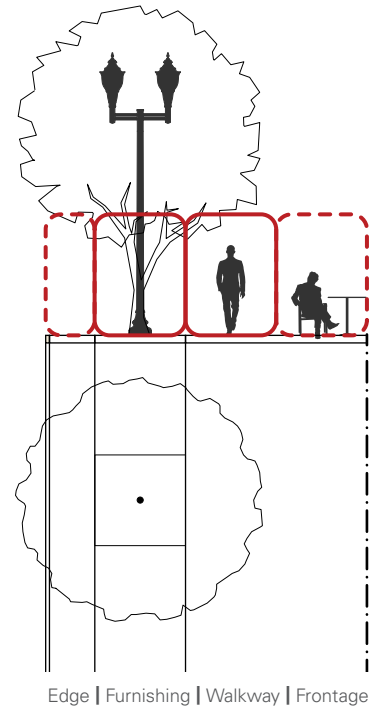
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Thoroughfares

planted in an irregularly-spaced ALLEE pattern to avoid visually obscuring storefront windows and SIGNAGE.

- b). The review boards may grant a WAIVER from the STREET TREE requirements of this section only for sidewalks in front of TERMINATED VISTAS and ABUTTING CIVIC SPACES.
- iii. At least one thousand (1,000) gross cubic feet of SOIL VOLUME space must be provided for each tree within a maximum twenty-seven (27) foot radius of the tree trunk.
 - a). Where required SOIL VOLUMES for nearby trees overlap, up to twenty-five percent (25%) of the required SOIL VOLUME per tree may be shared between trees.
 - b). SOIL VOLUME under paved surfaces must be provided through SUSPENDED PAVEMENTS OR STRUCTURAL CELLS. A SAND-BASED STRUCTURAL SOIL SYSTEM may be used with approval of the Director of Public Space & Urban Forestry.
- iv. When planted, trees must be a minimum height of ten (10) feet or two (2) inches in CALIPER.
- v. TREE PITS must have an open soil area centered at the tree trunk that is at least thirty six (36) square feet (such as 6'x6').
- vi. To reduce soil compaction, shield a tree's trunk from physical damage, and prevent pet waste from entering the soil area, a TREE GUARD at least eighteen (18) inches tall must be installed around the outer

Figure 13.2.4 (a) Sidewalks



perimeter of the TREE PIT.

- a). For sidewalks without an edge zone (i.e. 'Curbwalk'), TREE GUARDS must be three-sided and positioned at least one foot short of the

Figure 13.2.4 (b) Structural Cell Example



Figure 13.2.3 Example Tree Pits & Guards



outer edge of the curb, with the curbside remaining open (not fenced).

- b). For sidewalks with an edge zone, TREE GUARDS must provide protection on all four sides of the TREE PIT.
- c). TREE GUARDS must allow for water to flow from the sidewalk into the TREE PIT.
- vii. Coarse grade GROUNDCOVER MULCH must be applied to the soil area at a depth of at least two (2) inches and distributed to create a smooth, level cover over the exposed soil at the time of planting.
 - a). A gap of approximately eight (8) inches must be left between the mulch and the trunk of the tree to avoid mounding above the trunk flare.
- viii. Trench drains located between the curb and furnishing zone or between the furnishing zone and walkway are recommended to maximize water infiltration into the soil provided for STREET TREES.

5. Mid-Block Passages

- a. Mid-BLOCK passages must connect the sidewalk of one THOROUGHFARE to the sidewalk of another THOROUGHFARE on OPPOSITE sides of a BLOCK.
- b. Mid-BLOCK passages may be designed as an open-air passage between buildings, a covered atrium providing continuous protection from the elements, or as an up to two-STORY passage through a BUILDING.
- c. Open air mid-BLOCK passages must be at least twenty (20) feet in width, with a minimum ten (10) foot wide paved walkway designed as a continuation of the sidewalks they connect, including materials and sidewalk furnishings.
- d. A covered mid-BLOCK passage must be at least twenty (20) feet in width.
- e. All mid-BLOCK passages must be lighted using footlights, bollard lights, BUILDING lights, or STREET lights to provide for safety and visibility at night.

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