13 PUBLIC REALM

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13.0 PUBLIC REALM
13.1 CIVIC SPACE

1. General
   a. A civic space is a lot that is accessible to the public and designed to support social and recreational activities or ecological purposes.
   b. Civic space types are defined by the combination of certain characteristics, including the interrelationship between intended use, size, landscape design, and nearby buildings.

2. Development Review
   a. The development of any civic space requires Site Plan Approval, in accordance with Chapter 15: Administration.
   b. Proposed development may or may not necessitate the need for a Special Permit or a Variance based on the nature of the proposal. In such cases, additional development review is required in accordance with Chapter 15: Administration.

3. 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 north-facing front lot line.
      b). Civic spaces are not permitted to have only one west-facing or east-facing front lot line for any lot that also has a south-facing front lot line.
   b. Design & Construction
      i. Civic space must be engineered and constructed as required by the City Engineer and the Director of Transportation & Infrastructure.
   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 Planning Board 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 Transportation & Infrastructure.
   v. Tree pits and planters must have a minimum thirty-six (36) sq. ft. (such as 6’x6’) open soil area, centered at the tree trunk. Planting soil must be provided to a depth of three (3) feet in the tree pit or planter.
   vi. Unless otherwise specified, shredded bark mulch must be applied to the soil area at a uniform depth of three (3) inches and distributed to create a smooth, level cover over the exposed soil at the time of planting.
   g. Hardscape
      i. Surface materials must be approved by the Director of Transportation & Infrastructure.
      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 Transportation & Infrastructure.
   h. Amenities and Furnishings
      i. All amenities and public furniture must comply with the City of Somerville’s Park Specifications Handbook. The Director of Transportation & Infrastructure 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.

01/09/18
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 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 have a minimum seat depth of eighteen (18) inches and a seat height between sixteen (16) inches minimum and twenty (20) inches maximum above grade (adjacent walking surfaces).
   vii. Seating 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 have a minimum depth of 22 inches.
   ix. Seat backs must be a minimum of 14 inches high and either contoured in form for comfort or reclined between 10 to 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 Transportation & Infrastructure 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.
4. 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 the population the space is intended to serve. There are four subtypes of parks: a Regional Park, a Community Park, a Neighborhood Park, and a Pocket Park.

<table>
<thead>
<tr>
<th>Lot Dimensions</th>
<th>Regional Park</th>
<th>Community Park</th>
<th>Neighborhood Park</th>
<th>Pocket Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Size (min/max)</td>
<td>10 acres</td>
<td>2 acres</td>
<td>8,000 sf</td>
<td>800 sf</td>
</tr>
<tr>
<td>Landscape (min/max)</td>
<td>75% 100%</td>
<td>75% 100%</td>
<td>50% 100%</td>
<td>70% 100%</td>
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<tr>
<td>Pervious Area (min)</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Large Trees (min)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Seating (min)</td>
<td>1 / 1,225 sf</td>
<td>1 / 1,225 sf</td>
<td>1 / 1,225 sf</td>
<td>1 / 400 sf</td>
</tr>
<tr>
<td>Tables (min)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
4. Parks (cont.)

b. General to all Parks
   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.

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 ground covers, 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.

e). Trees must be planted to provide shade during summer months.

f). Planting beds and lawn areas must be bordered with raised edges to prevent soil runoff and damage to plants.

g). A drinking fountain accessible to children and adults must be included near the entrance to the pocket park.

h). One bicycle rack designed for parking two bicycles is required.

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.
5. **Commons**

a. A Common is a 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 and civic purposes.

<table>
<thead>
<tr>
<th>Lot Dimensions</th>
<th>Vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lot Size (min/max)</strong></td>
<td><strong>Large Trees (min)</strong></td>
</tr>
<tr>
<td>Public Common</td>
<td>20,000 sf</td>
</tr>
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<td>Public Square</td>
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<td>Green</td>
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<table>
<thead>
<tr>
<th><strong>Lot Development</strong></th>
<th><strong>Furnishings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Landscape (min/max)</strong></td>
<td><strong>Seating (min)</strong></td>
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<tr>
<td>Public Square</td>
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<td>Green</td>
<td>75%</td>
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<table>
<thead>
<tr>
<th><strong>Pervious Area (min)</strong></th>
<th><strong>Tables (min)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Common</td>
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</tr>
<tr>
<td>Public Square</td>
<td>85%</td>
</tr>
<tr>
<td>Green</td>
<td>85%</td>
</tr>
</tbody>
</table>
5. Commons (cont.)

b. General to All Commons
   i. Development Standards
      a). A minimum of one (1) compactor 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 ground covers, 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 fifteen (15) feet of the adjacent sidewalk.
   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.
   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.
6. **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.

<table>
<thead>
<tr>
<th>Lot Dimensions</th>
<th>Vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Size (min/max)</td>
<td>Large Trees (min)</td>
</tr>
<tr>
<td>Central Plaza</td>
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</tr>
<tr>
<td>Pocket Plaza</td>
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</table>

<table>
<thead>
<tr>
<th>Lot Development</th>
<th>Furnishings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape (min/max)</td>
<td>Seating (min)</td>
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<tr>
<td>Central Plaza</td>
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<tr>
<td>Through Block Plaza</td>
<td>10%</td>
</tr>
<tr>
<td>Pocket Plaza</td>
<td>10%</td>
</tr>
<tr>
<td>Pervious Area (min)</td>
<td>Tables (min)</td>
</tr>
<tr>
<td>Central Plaza</td>
<td>70%</td>
</tr>
<tr>
<td>Through Block Plaza</td>
<td>70%</td>
</tr>
<tr>
<td>Pocket Plaza</td>
<td>70%</td>
</tr>
</tbody>
</table>

|            | Tables (min) |
| Central Plaza | 1 / 4 movable chairs |
| Through Block Plaza | N/A |
| Pocket Plaza | 1 / 3 movable chairs |
6. Plazas (cont.)
   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 must have a minimum average width and depth of forty (40) feet, a maximum width that is not greater than three (3) times the average depth, measured perpendicularly from the Abutting sidewalk, and occupy no less than 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 a minimum average width and depth of fifteen (15) feet, occupy no more than twenty five percent (25%) of the plazas total area, and 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) must have a maximum width that is not greater than 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 setback 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 4 to 6 inches and minimum tread (run) of 17 inches, except that steps with a height (rise) of 5 inches may have a minimum tread (run) of 15 inches.

o). Required open soil areas for trees may be reduced or covered with the approval of the Director of Transportation & Infrastructure 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 a twenty-four (24) inch wide tree opening must be maintained.

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 a minimum average width and depth of forty (40) feet and a maximum width that is not greater than 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 4 to 6 inches and minimum tread (run) of 17 inches, except that steps with a height (rise) of 5 inches may have a minimum tread (run) of 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.
7. Civic Uses
   a. General
      i. The use of civic space is permitted as specified on Table 11.1 (a) 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 expressly authorized are prohibited.
   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 §11.1.8 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 (a) and ordered in the text of §13.7.d Definitions & Standards 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 a maximum of 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 no more than 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 a maximum of 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
i). Reserved

c). Cafe Seating for an Adjacent Use
i). Cafe seating may be permitted within a Civic Space for adjacent Eating & Drinking Establishment uses by Special Permit.

   ii). In its discretion to approve or deny cafe seating within a Civic Space for an adjacent Eating & Drinking Establishment use, the Planning Board shall consider the following:

      a. compliance with the standards of §15.2.1 Special Permit;
      b. The percentage of the civic space proposed to be occupied by the cafe seating and the viability of the remaining area to properly function as the intended type of civic space.
      c. Recommendations provided by the Urban Design Commission for

     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

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### TABLE 13.1 (a) Permitted Civic Uses

<table>
<thead>
<tr>
<th>Use Category Specific Use</th>
<th>Regional Park</th>
<th>Community Park</th>
<th>Neighborhood Park</th>
<th>Public Common</th>
<th>Public Square</th>
<th>Green</th>
<th>Central Plaza</th>
<th>Pocket Plaza</th>
<th>Use Specific Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Fields</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>N</td>
<td>SP</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>13.1.7.d.ii</td>
</tr>
<tr>
<td>Cafe Seating</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>13.1.7.d.iii</td>
</tr>
<tr>
<td>Cafe Seating for an Adjacent Use</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>13.1.7.d.iii.c</td>
</tr>
<tr>
<td>Dog Park</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>13.1.7.d.iv</td>
</tr>
<tr>
<td>Public Service</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>13.1.7.d.v</td>
</tr>
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<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>13.1.7.d.vi</td>
</tr>
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<td>P</td>
<td>P</td>
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<td>P</td>
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<td>P</td>
<td>13.1.7.d.vii</td>
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<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
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<tr>
<td>Performance Space</td>
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<td>P</td>
<td>P</td>
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<td>P</td>
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<td>Playground</td>
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<td>P</td>
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<tr>
<td>School Yard</td>
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<td>N</td>
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<td>N</td>
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<tr>
<td>Skate Park/Rink</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>N</td>
<td>P</td>
<td>P</td>
<td>N</td>
<td>P</td>
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<tr>
<td>Urban Agriculture</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>13.1.7.d.xii</td>
</tr>
<tr>
<td>Water Feature (except as noted below)</td>
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<td>P</td>
<td>P</td>
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<td>P</td>
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<td>P</td>
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<tr>
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<td>SP</td>
<td>N</td>
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<td>N</td>
<td>N</td>
<td>N</td>
<td>13.1.7.d.xii.c</td>
</tr>
</tbody>
</table>

P - Permitted SP - Special Permit Required N - Not Permitted
13.0 PUBLIC REALM

Civic Space

(1) foot and fence panels must be buried 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.

Development Review

i). 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 consider the following:

a). The review considerations for all Special Permits as specified in Section 5.1 Special Permits

b). Proximity to existing nearby properties in residential use.

c). Proximity of the proposed dog park to larger existing dog parks that might provide more running/ activity space for dogs.

d). The necessity to limit use of the dog park due to the decreased size.

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.

b. Design Guidelines
   i. 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 a maximum of 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.
      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.

iii). A walkway must be provided adjacent to each individual plot. All walkways must have a minimum width of four (4) feet 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.
13.2 THOROUGHFARES

1. Development Review
   a. The development of any civic space requires Site Plan Approval, in accordance with Chapter 15: Administration.
   b. Proposed development may or may not necessitate the need for a Special Permit or a Variance based on the nature of the proposal. In such cases, additional development review is required in accordance with Chapter 15: Administration.

d. Sidewalks
   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 must include a walkway and furnishing zone, and may include an edge and/or frontage zone as illustrated in Figure 6.2: Sidewalks.
      a). Walkways must be a minimum of six (6) feet in width.
      b). Furnishing zones must be a minimum of four (4) feet in width.
      c). Edge zones (ie. “curbwalks”) must be a minimum of two (2) feet in width.
      d). Frontage zones may be a maximum of four and a half (4.5) feet in width.
   iii. Sidewalks must include street trees planted within the furnishing zone in a regularly-spaced allee pattern no greater than thirty (30) feet on center. Along retail frontages, street trees may be planted in an irregularly-spaced allee pattern to avoid visually obscuring storefront windows and signage.
   iv. When planted, street trees must be a minimum height of ten (10) feet and/or two (2) inches in caliper.
   v. A minimum sixteen (16) sq. ft. open soil area must be left around each street tree, centered at the tree trunk. When level with an adjacent walkway, open soil areas must be protected by six (6) inch metal fencing and mulch must be applied to a minimum depth of three (3) inches. When recessed below an adjacent walkway, open soil areas must be protected by metal tree grates.
   vi. Sidewalks in front of terminated vistas and along civic space frontage may be granted a waiver from street tree requirements at the discretion of the Planning Board.
   vii. The pavement design of walkways must be continuous for the full length of each block face.

2. Standards for all Thoroughfares
   a. Thoroughfares must include vehicular lanes and sidewalks, excluding alleys.
   b. Thoroughfares must be engineered and constructed in accordance with the City of Somerville’s official thoroughfare design standards. In the absence of official standards, thoroughfares must be designed and constructed according to the standards deemed to be appropriate by the review board.

3. Streets
   a. Motor Vehicle Travel Lanes
      i. Motor vehicle travel lanes may have a width between ten (10) feet minimum and twelve (12) feet maximum.
      ii. No more than two (2) motor vehicle travel lanes may be combined for any single direction of traffic flow.
   b. Motor Vehicle Parking Lanes
      i. Motor vehicle parking lanes are required and must be eight (8) feet wide or narrower for parallel parking and eighteen (18) feet wide or narrower for diagonal parking.
      ii. Gutter seams, drainage inlets, and utility covers must be flush with the pavement surface and oriented to prevent conflicts with bicycle tires.
      iii. Gutter pans must be incorporated into the width of any parking lane.
   c. Bike Lanes
      i. Bike lanes may have a width between five (5) feet minimum and six (6) feet maximum.
      ii. A six (6) to eight (8) inch solid white lane line must be used to visually separate motor vehicle travel lanes from any bike lane.
      iii. A four (4) inch solid white lane line must be used to visually separate any bike lane from an adjacent motor vehicle parking lane, as applicable.
      iv. Word, symbol, and arrow pavement markings (MUTCD Figure 9C-3) must be used to define any bike lane as the portion of a thoroughfare dedicated for specific use by bicyclists.
      v. Through bike lanes must be located to the left of any dedicated motor vehicle right-turn only lane.
      vi. Lane striping must be dashed through areas of merging and crossing vehicles.
      vii. Colored paint is required to enhance the visibility of bikes lanes in locations determined to be necessary by the Traffic and Parking Department or Director of Transportation & Infrastructure.

   d. Sidewalks
      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 must include a walkway and furnishing zone, and may include an edge and/or frontage zone as illustrated in Figure 6.2: Sidewalks.
      a). Walkways must be a minimum of six (6) feet in width.
      b). Furnishing zones must be a minimum of four (4) feet in width.
      c). Edge zones (ie. “curbwalks”) must be a minimum of two (2) feet in width.
      d). Frontage zones may be a maximum of four and a half (4.5) feet in width.
      iii. Sidewalks must include street trees planted within the furnishing zone in a regularly-spaced allee pattern no greater than thirty (30) feet on center. Along retail frontages, street trees may be planted in an irregularly-spaced allee pattern to avoid visually obscuring storefront windows and signage.
      iv. When planted, street trees must be a minimum height of ten (10) feet and/or two (2) inches in caliper.
      v. A minimum sixteen (16) sq. ft. open soil area must be left around each street tree, centered at the tree trunk. When level with an adjacent walkway, open soil areas must be protected by six (6) inch metal fencing and mulch must be applied to a minimum depth of three (3) inches. When recessed below an adjacent walkway, open soil areas must be protected by metal tree grates.
      vi. A minimum sixteen (16) sq. ft. open soil area must be left around each street tree, centered at the tree trunk. When level with an adjacent walkway, the soil area must be protected by six (6) inch metal fencing and mulch must be applied to a minimum depth of three (3) inches. When recessed below an adjacent walkway, open soil areas must be protected by metal tree grates.
      vii. The pavement design of walkways must be continuous for the full length of each block face.

   e. Sidewalk Extensions
      i. Sidewalk extensions must occupy the full width of the parking lane they extend into.
      ii. When a bike lane is present, sidewalk extensions must be set back so that the gutter does not extend into the bike lane.
iii. At corners, sidewalk extensions must run at least five (5) feet from the corner area of the sidewalk as illustrated in Figure 13.2 (a).

iv. At bus stops, sidewalk extensions must run at least fifty (50) feet from the corner area of the sidewalk.

f. Pedestrian Crosswalks
   i. Crosswalks must be designed as shown in Figure 13.2 (b).
   ii. Crosswalk markings must be aligned with the walkway of all adjacent sidewalks unless granted a waiver by the Planning Board.
   iii. Where the walkway is wider than the prescribed width of the crosswalk, crosswalk markings should be widened to match the walkway of the sidewalk.

g. Curb Cuts
   i. Curb cuts may be no wider than the driveway or vehicular entrance they serve, excluding flares or returned curbs.

h. Driveway and Alley Crossings
   i. Driveway crossings traversing sidewalks with paved furnishing zones must be designed to maintain the grade and clear width of the walkway they cross and must include sloped flares on either side of the driveway apron as shown in Figure 13.2 (c).
   ii. Driveway crossings traversing sidewalks with continuously planted furnishing zones must be designed to maintain the grade and clear width of the walkway they cross and must include returned curbs as shown in Figure 13.2 (c).
   iii. The appearance of any walkway (ie. scoring pattern or special paving) must be maintained across any driveway or alley to indicate that, although a vehicle may cross, the area traversed by a vehicle remains part of the sidewalk.
   i. All water and sewer utilities, storm water management infrastructure, public lighting, and public furniture must be designed and constructed according to criteria established by relevant City departments and/or adopted by the Planning Board.

5. Residential Alley
   a. Residential alleys are only permitted when an alley abuts properties within the Neighborhood Residential or Urban Residential district on both sides.
   b. Residential alleys must be twenty (20) feet wide in total right-of-way, with a sixteen (16) foot wide, two-way, travel lane accommodating yield traffic and a two (2) foot shoulder on either side constructed of mountable paving or gravel subgrade.

6. Mid-Block Passages
   a. Mid-block passages must connect the sidewalk of one thoroughfare to another 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 upper 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.
13.3 LAND PLATTING

1. Subdivision
a. Unless otherwise specified, development sites over four (4) acres in land area must be subdivided with thoroughfares to create blocks and lots conforming to the provisions of this Section.
b. Access for motor vehicles, loading, and service to new blocks and individual lots must be from an alley. The configuration of alleys internal to a block must conform to §13.3.5 Alley Access.
c. The subdivision of land requires Subdivision Plan Approval. See §15.3.4 Subdivision Plan Approval for more information.
d. The construction or reconstruction of thoroughfares requires Site Plan Approval as a prerequisite to the issuance of a zoning permit. See §15.3.3 Site Plan Approval for more information.

2. Parcelization
a. Lot splits, lot mergers, and lot line adjustments are subject to the provisions of §13.3.6 Lots and require the submittal of a development review application to the Building Official.

3. Thoroughfare Network
a. The general location and width of all proposed THOROUGHFARES must conform with official maps and exiting policy plans of the City of Somerville.
b. All THOROUGHFARES must intersect with other thoroughfares, forming a network.
c. Where a development site adjoins unsubdivided land, new thoroughfares must extend to or along site boundaries to ensure future thoroughfare connections to the unsubdivided land in the event of its development.
d. Thoroughfares within a development site must connect to any existing or proposed thoroughfares on adjoining sites.
e. Termination of a thoroughfare at a “T” intersection is permitted, provided that the overall connectivity of the thoroughfare network is maintained and intersections are adequately spaced subject to the approval by the Director of Transportation & Infrastructure.
f. To every extent possible, proposed thoroughfares should align with intersections on adjacent sites to provide for the continuation of thoroughfares from adjoining areas.
g. Cul-de-sacs and other dead-end THOROUGHFARES are prohibited.
h. THOROUGHFARES must be permanently open and provide public access as part of an overall connected THOROUGHFARE network.
i. The Planning Board may waive the intersection requirements of §13.3.3.g on a case-by-case basis to accommodate specific site conditions.

4. Blocks
a. Unless otherwise specified, BLOCKS must have individual BLOCK FACES no greater than five-hundred (500) feet and a total perimeter no greater than sixteen-hundred (1,600) feet.
b. BLOCK FACES are measured as the aggregate of all FRONT LOT LINES and the width of ALLEYS, if present, on one side of a BLOCK.
c. BLOCK perimeter is measured as the aggregate of all BLOCK FACE lengths of an individual BLOCK.
d. BLOCKS should be rectangular in shape, but are expected to respond to natural features.
e. The Planning Board may waive block size requirements for portions of development sites abutting areas of undeveloped land, areas unsuitable for development, pre-existing incomplete blocks, or rail rights-of-way.
f. Block dimensions may be calculated at a reduced block face or perimeter length where a mid-block passage connecting opposite sides of a block is installed as a dedicated right-of-way or reserved with a permanent access easement.

5. Alley Access
a. Blocks may be accessed by alleys in one of the configurations defined below:
i. Common Block: A block where parking and service areas internal to the block are shared among several lots and buildings.
ii. H - Block: A block with three alleys that intersect to form an “H,” allowing development to front on four block faces.
iii. T - Block: A block with two perpendicular alleys that intersect to form a “T,” allowing development to front on three BLOCK FACES.
iv. I - Block: A block with one alley servicing lots on either side of a block, allowing development to front on two block faces.
b. To every extent possible, ALLEY ACCESS into BLOCKS should be aligned on opposite BLOCK FACES as well as with ALLEYS on opposite sides the street.

6. Lots
a. All LOTS must have a lot line abutting a THOROUGHFARE or a CIVIC SPACE.
b. LOTS must have a LOT WIDTH appropriate for one or more building type(s) permitted for the district where the LOT is located.
c. Unless otherwise specified, LOTS may be platted to create a CORNER, INTERIOR, or KEY LOT. FLAG LOTS and THROUGH LOTS are prohibited, except for lots intended as a Through Block Plaza civic space type or a Block
d. To avoid creating irregular lot shapes, lots must be platted to be generally rectilinear, where the side lot lines are within 45 degrees of perpendicular to the front lot line or to the tangent of a curved front lot line, and generally straight throughout their length.