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2.1 BUILDING TYPES OVERVIEW

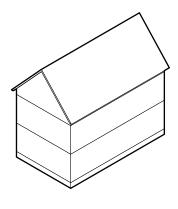
1. General

- a. This Ordinance uses 'building types' as a tool to regulate development within each zoning district.
- b. Building types are defined by the combined disposition, configuration, and function of a principal structure and are used in this Ordinance to establish the standards for new construction, renovation of existing structures, and redevelopment.
- c. In contrast to applying generic dimensional standards to all principal structures, the use of Building Types as a regulatory tool allows dimensional standards to differ from one class or kind of structure to another within the same district and is authorized by M.G.L. Chapter 40A, Section 4.
- d. The selection of building types permitted within a zoning district combine with the mix of permitted uses to define the intended character of each zoning district.

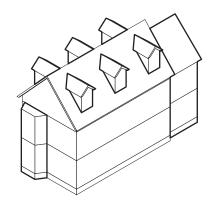
2. The Building Type Kit-of-Parts

- Building types are primarily an assembly of three features including the main body of the building, various building components, and at least one building frontage type.
- b. The Main Body is the primary massing and the most important portion defining a building type's form and scale. The main body of each building type is regulated using dimensional standards that differ for each type.
- c. Building Components are accessory features that attach to the main body and increase the habitable square footage or enhance the usefulness of a building. Each Building Component has dimensional standards that differ for each type of component.
- d. Building Frontages attach to the facade of a building and provide a gradual transition and strong interface between the private realm (yards and building interiors) and the public realm (sidewalks, thoroughfares, and civic spaces). Each Building Frontage has dimensional standards that differ for each type of frontage.
- e. Building Components and Building Frontages provide an important means for achieving variety and individuality in design and are permitted as indicated for each building type.

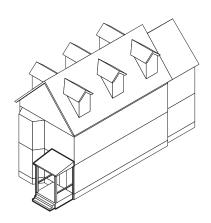
FIGURE 2.1 (a) Building Type Kit-of-Parts



Main Body



Main Body + Building Components



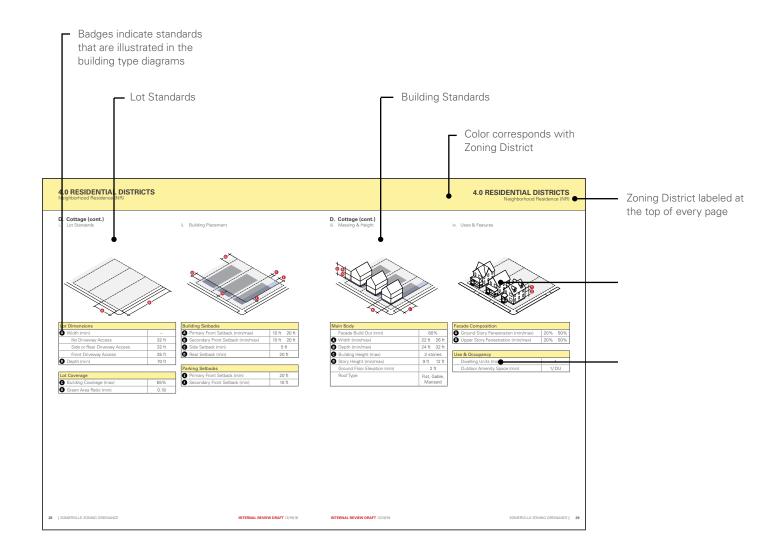
Main Body + Building Components + Frontage Type

Building Types Overview

3. Understanding the Building Type Pages

- a. The standards for building types identified in this Ordinance are presented across four pages that are the same for each building type:
 - i. Description & Precedents. The first page for each Building Type provides a general description and shows several images of typical buildings indicative of the variety possible within the definition of each type. The images are intended only for illustrative purposes and do not fully exemplify all of the requirements or possibilities for each type.
 - Diagrams & Dimensional Tables. Page two and three provide the key spread of dimensional standards.
 - iii. Additional Standards. The fourth and final page for each Building Type identifies various provisions applicable to the specific building type, standards linked to the dimensional table, and includes any additional illustrative diagrams that are necessary.

b. Section 2.2 provides an explanation of each line item in the building type dimensional tables, defines how to measure each requirement, and provides other standards and reference information as necessary.



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2. OVERVIEW & GUIDE Building Types Overview

Standards & Measurements

2.2 STANDARDS & MEASUREMENTS

1. General

a. This section provides an explanation of dimensional standards found in this Ordinance, defines how to measure each requirement, and provides other standards and reference information as necessary.

2. Lot Standards

- a. General
 - One (1) Principle Building Type may be built on each lot.
- b. Lot Lines
 - Any lot line abutting a pedestrian street is a primary front lot line.
 - ii. The front lot line of any INTERIOR LOT OF KEY LOT is a primary FRONT LOT LINE.
 - iii. For corner Lots, the primary Front Lot Line is designated as follows:
 - a). Any front lot line abutting a Pedestrian Street is a primary FRONT LOT LINE.
 - b). For all other CORNER LOTS, the primary FRONT LOT LINE is designated by the property owner, with all remaining FRONT LOT LINES are designated as secondary FRONT LOT LINES.
- c. Lot Dimensions
 - i. Lot Width
 - a). Lot width is measured as the length of the front lot line of a lot, except as follows:
 - For a flag lot, only the 'pole' or 'post' portion of the lot is used to measure lot width.
 - ii. Lot Depth

- a). Lot depth is measured as the horizontal distance between the midpoint of the primary front lot line and the midpoint of the rear lot line or to the most distant point on any other lot line where there is no rear lot line..
- d. Lot Development
 - i. Lot Coverage
 - a). The maximum area of a lot that is permitted to be covered by structures and impermeable surfaces. Structures are measured from the outside of the exterior walls at the ground floor, including covered porches and other building components.
 - ii. Green Factor
 - a). Green factor is landscape requirement measured as a ratio of the weighted value of various landscape elements to total lot area. See §10.3 Green Factor for more information.

3. Building Placement

- a. Building Setbacks
 - i. Setbacks are measured parallel to lot lines.
 - ii. All buildings and structures must be located at or behind any required minimum front, side, or rear setback except as indicated in §2.2.3.c. Setback Encroachments.
 - iii. The facade of a principal building must be built at or in front of any maximum front setback for each story of a building. The façade of upper stories may not project forward of the façade of the first story except through the use of permitted building components and building frontages.
 - iv. Buildings and structures are not permitted to

FIGURE 2.2 (a) Lot Dimensions

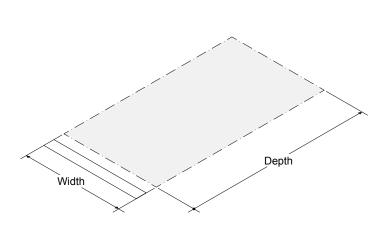
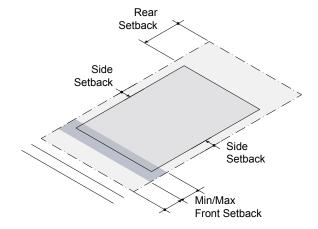
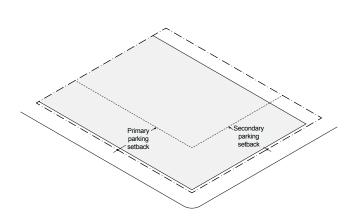


FIGURE 2.2 (b) Setbacks



Standards & Measurements

FIGURE 2.2 (c) Parking Setbacks



encroach upon any easement or the right-of-way of any public thoroughfare.

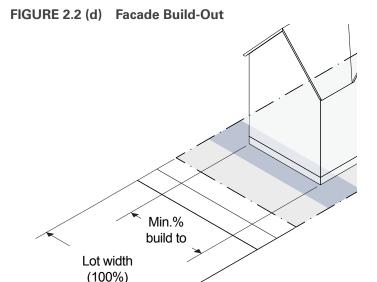
v. Lots that cannot meet tower setback requirements on all sides are not appropriate for tall buildings.

b. Parking Setbacks

 Unless otherwise specified, all off-street parking, including surface and structured parking, but excluding underground parking, must be located at or behind any required parking setback.

c. Setback Encroachments

- i. Building frontages and components may extend beyond a required front setback as indicated for each type.
- ii. Cornices, belt courses, sills, buttresses and other architectural features may encroach up to two (2) feet.
- iii. Chimneys and flues may encroach up to four(4) feet, provided that at least two (2) feet is maintained from the vertical plane of any lot line.
- iv. Building eaves and roof overhangs may encroach up to three (3) feet, provided that at least two (2) feet is maintained from the vertical plane of any lot line.
- v. Unenclosed fire escapes or emergency egress stairways may encroach up to four (4) feet into a required side or rear setback, provided that at least two (2) feet is maintained from the vertical plane of any lot line.
- vi. Mechanical equipment associated with residential uses, such as HVAC units and security lighting, may encroach into a required side or rear setback, provided that at least two (2) feet is maintained from the vertical plane of any lot line.
- vii. Terraces, uncovered and unenclosed patios, and/or



structures below and covered by the ground may fully encroach into a required setback.

- viii. Minor structures accessory to utilities, such as hydrants, manholes, transformers, and other cabinet structures, may fully encroach into a required setback.
- ix. Trellises or other structures attached tot he facade of a building for the sole purpose of growing vines or other vegetation are not measured in the calculation of setbacks.
- x. Accessory structures, fences and walls, signs, and landscape buffers may encroach as indicated in Article 10: Development Standards.

4. Massing & Height

a. General

 The upper stories of a building may not project, in any direction, beyond the exterior wall plane of the stories below, except through the use of permitted building components and building frontages.

b. Facade Orientation

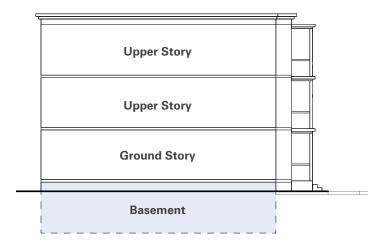
i. The facade of a principal building must be built parallel to a front lot line or to the tangent of a curved front lot line.

c. Main Body

- i. Facade Build Out
 - a). Façade build out is a ratio of building width to lot width, measured at the maximum front setback line. See figure XXX.
 - b). The façade of a building must be built to the façade build out ratio as specified for each building type.
 - c). For lots with frontage on three (3) sides, façade build out along a secondary frontage is only

Standards & Measurements

FIGURE 2.2 (e) Building Height in Stories



applicable to the minimum number of stories required for each building type.

- ii. Building Width
 - a). Width is measured parallel to the facade of a building, from the exterior of each side wall.
- iii. Building Depth
 - a). Depth is measured perpendicularly from the facade as the maximum length of any exterior side wall of a building.
- iv. Floor Plate
 - a). Floor plate is measured as the total gross floor area of each story of a building, measured at the exterior walls but excluding building

components and frontages.

- v. Building Height, Stories
 - a). The total number of stories of a building is calculated as follows:
 - i). The ground story is counted as one (1) story, except that a single ground story of twenty-five (25) feet or more is counted as two (2) stories.
 - ii). Each upper story is counted as one (1) additional story, except that any story, excluding the ground story, with a mezzanine or loft is counted as two (2) stories.
 - iii). Interstitial space between stories is counted as an additional story if the space has a walking surface, permanent lighting, a ceiling height of seven feet six inches (7'6") or more, or is accessed via a stairwell or elevator door.
 - iv). Basements are counted as one (1) story only when the finished floor of the ground story is five (5) feet or more above the average ground level of the lot. Walkout basements are exempt.
 - v). For any lot with frontage on (2) two or more thoroughfares with a difference in elevation of at least ten (10) feet, the ground story at the lower elevation is not included in the calculation of total number of stories.
 - vi). Each story of above ground structured parking is counted as one (1) story regardless of its relationship to habitable

FIGURE 2.2 (f) Downward Slope

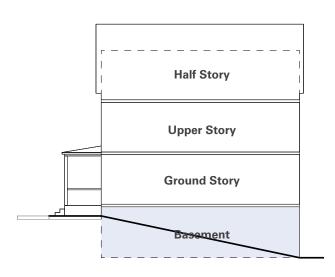
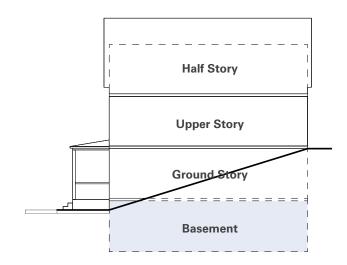


FIGURE 2.2 (g) Upward Slope



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FIGURE 2.2 (h) Building Height in Feet



stories, except that up to two (2) stories of above ground structured parking may be counted as one (1) story when those stories are fully screened by a single ground story with an equal or greater story height.

- b). When building height allows for a half-story, the half story is counted as the habitable space located directly under a pitched roof. The following standards apply:
 - i). The roof rafters must intersect the wall plate or top of wall frame of the exterior walls at a height no more than two (2) feet above the finished floor of the half-story.
 - ii). Ceiling height of a half story must not exceed twelve (12) feet in height at any point.
- c). Non-habitable attic space located under a pitched roof is not counted as a half story.

vi. Story Height

- a). Story height is measured vertically from the surface of the finished floor to the surface of the finished floor above. When there is no floor above, story height is measured from the surface of the finished floor to the top of the structural beam or joists above or the top of the wall plate, whichever is more.
- b). Minimum story height requirements are not measured for half-stories.

vii. Ground Story Elevation

a). Ground story elevation is measured from the average grade of the sidewalk of the abutting thoroughfare or from the crown of the roadway of the adjacent thoroughfare when no sidewalk exists, to the top of the finished floor of the ground story of a building.

viii. Building Height, Feet

a). Building height in feet is measured as the vertical distance from the finished ground level at the façade of the building to the top of the structural beam or joists of the upper most story.

ix. Roofs

a). Defined roof types are permitted as indicated for each building type. If this line item is not identified on the building type table, the roof is not regulated.

x. Roof Features

- a). Roof decks are permitted only on flat roofs and must be setback at least five (5) feet from any facade.
- b). Mechanical & stairwell penthouses; roof mounted cellular, radio, and Internet transmission equipment; vents or exhausts; solar panels or skylights; flagpoles; belfries, chimneys, cupolas, monuments, parapets, spires, steeples, and other non-habitable architectural features are permitted on roofs.

5. Uses and Features

- a. Facade Composition
 - i. Fenestration
 - a). Fenestration must be provided as indicated for each building type and is calculated as a percentage of the area of a façade.
 - i). Ground story fenestration is measured between two (2) feet and twelve (12) feet above the Abutting sidewalk.

Standards & Measurements

FIGURE 2.2 (i) Fenestration



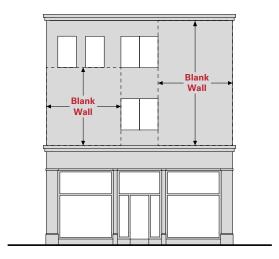
- ii). Upper story fenestration is measured independently for each story, from the top of a finished floor to the top of the finished floor above.
- b). Fenestration enclosed with glazing may be included in the calculation if it meets the following criteria:
 - For ground story fenestration, glazing must have a minimum sixty percent (60%) Visible Light Transmittance (VLT) and no more than fifteen percent (15%) Visible Light Reflectance (VLR).
 - ii). For upper story fenestration, glazing must have must have a minimum of forty percent (40%) VLT and no more than fifteen percent (15%) VLR.

ii. Blank Wall Area

- a). Blank wall area is any portion of a facade that does not include fenestration (doors and windows) and surface relief through the use of columns, cornices, moldings, piers, pilasters, sills, sign bands, other equivalent architectural features that either recess or project from the average plane of the facade by at least four (4) inches.
- b). Blank wall area limitations apply both vertically and horizontally for all stories of a building for any facade.

b. Use & Occupancy

- i. Pedestrian Access
 - a). Principal entrances must be located on the facade of a building, provide both ingress and egress, and be operable at all times.
 - b). Principal entrance spacing is measured as the

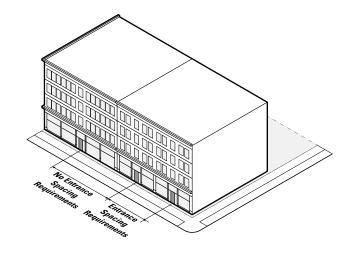


- distance between center line of doors along a facade.
- c). Principal entrance spacing requirements must be met for each building individually, but are not applicable to adjacent buildings.

ii. Dwelling Units

- a). The minimum or maximum number of dwelling units permitted for a building type, as specified.
- iii. Density Factor
 - a). The maximum number of dwelling units permitted is equal to the total residential gross floor area of a building or portion of a building

FIGURE 2.2 (j) Entrance Spacing



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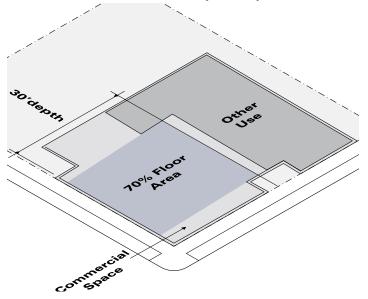
Standards & Measurements

divided by the density factor indicated for a building type.

iv. Habitable Space Depth

- a). Ground story dwelling units must have a habitable room at least twenty (20) feet in depth, measured as the distance from the facade towards the interior of the building.
- v. Commercial Space Depth
 - a). Ground story spaces intended for a commercial tenant must have a leasable area with the depth indicated for each Building Type.
 - b). This depth must be provided for at least seventy percent (70%) of the floor area of the space, measured as the distance from the facade towards the interior of a building.
 - c). This floor area may be provided to one or more tenants.
- vi. Outdoor Amenity Space
 - a). Where required, outdoor amenity space must be provided for each dwelling unit as a balcony, deck, patio, porch, roof deck, roof terrace, or yard.
 - b). Each outdoor amenity space must provide an unobstructed area of at least twenty-four (24) square feet that may be used for seating.
 - c). Apartment Building, General Building, and Mid-Rise Podium Tower building types may provide shared outdoor amenity space, provided that the space includes the total seating area required for each dwelling unit that the shared space is meant to serve.
 - d). For all other building types, each outdoor amenity space must be directly accessible by a doorway from a habitable room within the dwelling unit it is meant to serve.

FIGURE 2.2 (k) Commercial Space Depth



2. OVERVIEW & GUIDE Standards & Measurements

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