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# Chapter 6. Building Type Standards

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## 6.1. Purpose and Intent

The architectural vocabulary of the Town represents a wide variety of traditional forms that avoid a perception of monotony. This UDO has established regulations specific to these forms. Consequently, buildings that are stylized in an attempt to use the building itself as advertising are discouraged, particularly where the proposed architecture is the result of a "corporate" or "franchise" design. The standards in this Chapter are intended to attach the same or greater level of importance to the overall building design as is placed on the use contained within. Buildings are expected to be added to the Town of Knightdale as long-term additions to the architectural vibrancy of the community.

## 6.2. Applicability

The following building type provisions and architectural standards shall apply, regardless of the underlying zoning district provisions, unless otherwise noted.

## 6.3. Exceptions

- A. **Innovative Planning and Design.** While it is expected that some new building types will be introduced to the Town, these variations should be based upon the predominant types listed in this Chapter. Subject to approval through the Planned Unit Development process, innovative planning or design ideas for development may be approved in any district.
- B. **One- and Two-Family Dwelling Units.** One and Two-Family Dwellings subject to regulation under the North Carolina Residential Code are exempted from meeting "building design elements" as defined in NCGS 160D-702. This exemption is for one and two-family dwellings constructed after June 10, 2015.
- C. Utility Facilities. Class 1 and Class 2 Utility Facilities that are not designed for human habitation shall not be subject to the building design requirements or building design standards contained in this Chapter.

## 6.4. General Building Design Requirements

- A. Architectural Style. The building design standards of this Chapter intentionally do not mandate a particular style and permit a wide variety of architectural expressions. However, when a design exhibits a known architectural style (i.e Colonial, Victorian, Classical Revival) the details shall be consistent with that style unless the local architectural vernacular in the region provides an alternate precedent for a detail.
- B. **Frontage.** All buildings shall share a frontage line (primary façade) with a street or square. (Exception: Buildings that are interior to a site that has buildings that otherwise meet the frontage requirement)
- C. **Termination of Vistas.** Important street vistas (such as along Town gateways and primary pedestrian streets) should terminate in a focal point, such as a building or other architectural or natural feature.
- D. Compatibility. Adjacent buildings should relate in similarity of scale, height, architectural style, and/or configuration. Exceptions to this rule include civic buildings such as churches and schools which through their massing and height serve as landmarks for the community.
- E. **Proportions.** Vertically proportioned windows (height exceeds width), doors, columns, eaves, parapets, and other building components shall be proportional to the overall scale of the building.

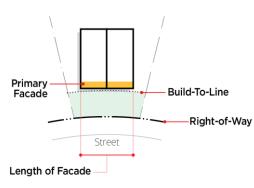


Figure 6.1. Frontage

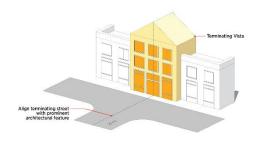


Figure 6.2. Termination of Vista

#### F. Wall Materials.

- 1. Buildings shall be designed in compliance with four-sided design standards, with visually interesting and compatible design on front, side and rear façades.
- 2. Walls of apartment, mixed-use, and nonresidential buildings shall be clad pursuant to the following regulations. Material percentages exclude windows, display windows, doors, roofing, fascia, and soffit materials.
  - a. **Primary Materials**. At least 50% of a building's facades shall be brick, stone (natural/cultured, limestone, marble, or granite), or a combination thereof.
  - b. Secondary Materials. Not more than 50% of a building's facades shall be clapboard, stucco, cementitious fiber board, glass, decorative concrete masonry units (CMU), or exterior insulation finishing systems (EIFS).
  - c. Accent Materials. Not more than 20% of a building's facades shall be wood shingle, wood drop siding, wood board and batten, or decorative metal panels.
- 3. When two or more materials are used on a façade, the heavier material (i.e. stone, brick) should be placed below the lighter material (i.e. siding, shakes) to give the sense of support and grounding.
- G. Façade Articulation. Buildings shall not have long, monotonous, uninterrupted walls of twenty (20) feet or more on any floor of a façade clearly visible from a public right-of-way. Vertically- proportioned windows and spandrel glass, doors, stairwells, porches, pilasters (minimum twelve [12] inch width with minimum one to four (1:4) projection to width ratio), and other architectural elements as approved by the DRC will be used in order to: add architectural interest and variety; relieve the visual effect of a single, long wall; and subdivide a horizontal wall into human-scale vertical proportions.
- H. **Underground Wiring.** To reduce the visual impact of overhead wiring, utility services shall be located underground.
- I. **Type of Construction.** Except where expressly permitted by this Ordinance, manufactured, mobile, and metal units shall be prohibited.



Figure 6.3. Facade Articulation Example Photo Only

## J. Roof Finishing.

- 1. Flat roofs and roof pitches less than three to twelve (3:12) will require a parapet wall along all sides visible from a public street.
- 2. All pitched roofs shall be profiled by eaves projecting a minimum of ten (10) inches from the building face which may include gutters.
- 3. Eaves may expose rafters.
- K. **Rooftop Equipment.** All rooftop equipment shall be screened from view from any public right-of-way through the use of parapet walls and/or a central screened corral.
- L. **Physical Sculpture as Public Art.** Sculptural free-standing public art, such as statues, fountains, and other site-specific art are encouraged and shall be permitted in any required front setback area (Section 3.5).
- M. **Satellite Dishes.** No satellite dish larger than eighteen (18) inches shall be mounted to the front façade of a building or a roof slope facing the street on a gable, hip, gambrel, or mansard roof.

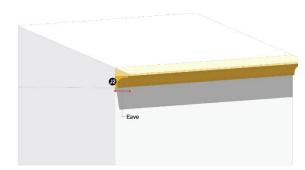


Figure 6.4. Roof Finishing

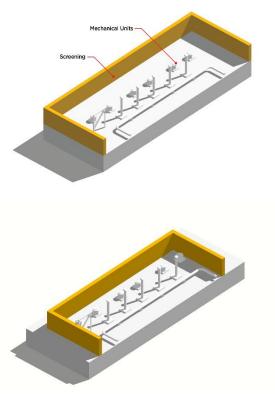


Figure 6.5. Rooftop Equipment - Parapet Wall or Central Corral



## 6.5. House Building Type Standards

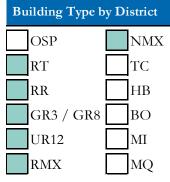
## **Description and Applicability**

#### Description

The House Building is the predominant building type found within the Town of Knightdale and typically has four (4) yards (front, two [2] sides, rear), although variations include setting the building a side property line to create a larger side yard on the opposite side (i.e. Charleston Single). In general, within a block, building types should be uniform in their use of driveways or rear lanes/alleys.

#### Applicability

The House Building primarily accommodates single family uses but may also be converted to commercial use.

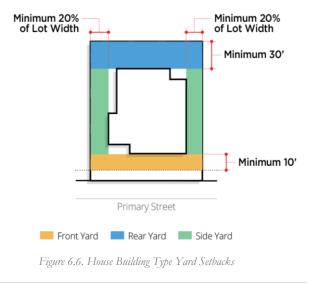


Yard Setbacks	
Front Minimum	10 ft
Front Maximum	n/a
Corner Side Minimum	10 ft
Side Minimum	20% lot width*
Rear Minimum	25 ft

\*Side setback shall be calculated as an aggregate. Lots greater than or equal to 60 feet in width shall have minimum setback of 5 feet. Lots less than 60 feet in width shall have a minimum setback of 3 feet. Side yards of corner lots shall be a minimum of 10 feet.

\*\*Refer to Section 3.4 for the bulk and

dimensional standards applicable to the RT and RR1 Districts.





## 6.6. Townhouse Building Type Standards

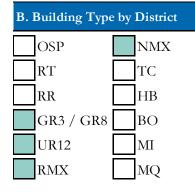
## A. Description and Applicability

#### 1. Description

The Townhouse Building is a building with two (2) or more units on individual lots that are located side-by-side and accessed from a rear lane or alley. As a result, the Townhouse typically only has one (1) yard in the rear, although variations may include a small front setback to provide for landscaping, while the bulk, scale and architectural design of the building(s) reflects that of the surrounding neighborhood or planned development, as may apply.

#### 2. Applicability

The Townhouse Building may accommodate two family uses as defined by NCGS §160D.



Yard Setbacks	
Front Minimum	0 ft
Front Maximum	25 ft
Side Minimum	10 ft*
Rear Minimum	15 ft

\*If partiwall exists, 0 foot side yard minimum

#### **Multi-Building Developments**

- 1 The primary entrance and front façade of individual buildings within a multi-building development shall be oriented towards the following (listed in priority order):
  - a. Perimeter streets;
  - b. Primary internal streets;
  - c. Parks or other common open space;
  - d. Secondary internal streets.
- 2 Primary entrances or facades shall not be oriented towards off-street parking lots, garages, or carports.

#### Siting

 To the maximum extent practicable buildings shall be clustered in order to define street edges, entry points, and public gathering spaces. A maximum of six townhomes may be clustered. The even dispersal of buildings in a widely spaced pattern along streets is prohibited.

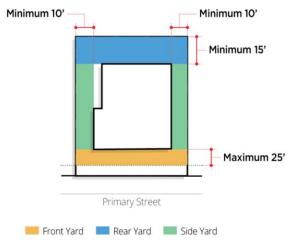
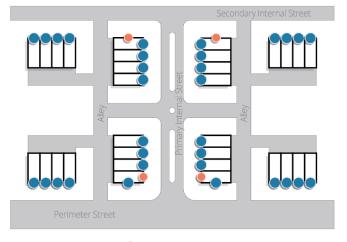


Figure 6.4. Townhome Building Type Yard Setbacks



Priority Entrance 1
Priority Entrance 2



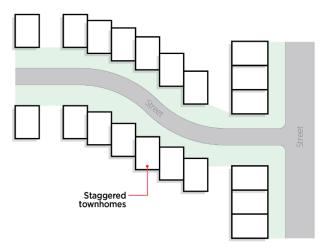


Figure 6.6. Townhome Building Type Siting



## 6.7. Apartment Building Type Standards

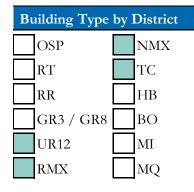
## **Description and Applicability**

#### Description

The Apartment Building is a multi-unit building with units vertically arranged (generally) and with parking located below or behind the building. These buildings typically have one (1) yard in the rear, though variations include a small front setback to provide some landscaping. Units may be rented or sold (condominium ownership), or they may be designed as continuing care facilities.

#### Applicability

Apartment buildings are suitable for a number of uses including residential dwelling units either for sale or rent, professional offices and some commercial/retail uses. Specific uses permitted within the Apartment Building are determined by the District in which it is located.



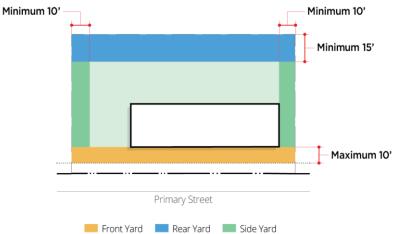
**Town of Knightdale** Knightdale Next UDO Update

Yard Setbacks		
Front Minimum	0 ft	
Front Maximum	10 ft	
Side Minimum	10 ft*	
Rear Minimum	15 ft	

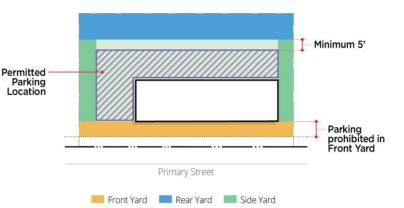
\*If partiwall exists, 0 foot side yard minimum

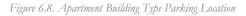
P	Parking Location		
Pe	Permitted Yard		
a.	Front Yard:	prohibited	
b.	Side Yard:	permitted	
c.	Rear Yard:	permitted	
Re	Required Setback		
a.	Front Yard:	not applicable	
b.	Side Yard:	0 feet	
c.	Rear Yard:	5 feet	
G	Garages		

a. Garage doors are not permitted on the primary façade of any Apartment Building.









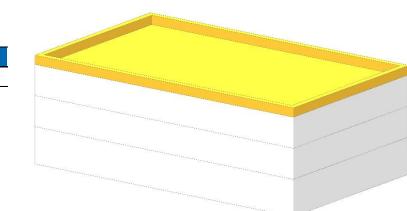


Figure 6.9. Apartment Building Type Roof

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#### **Material Colors**

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

## Roofs

Pitch

a. Roofs shall be flat and screened from view by parapet walls.

#### Façade

#### Articulation

- a. All building elevations visible from the street shall provide doors, useable porches and stoops, balconies, and/or windows.
- A minimum of 60% of front elevations, and a minimum of 30% of side and rear building elevations, as applicable, shall meet this standard.
- c. Useable porches and stoops should form a predominate motif of the building design and be located on the front and/or side of the building. Useable front porches are at least 6 feet deep and extend more than 30% of the facade.

#### Façade Design Details\*

- a. Bay window
- b. Balcony
- c. Window trim (4" min width)
- d. Patterned finish (scales, shakes, wainscoting, etc.)

#### Building Off-Set Design Details\*

- a. Façade off-set (16" min)
- b. Roof Line off-set (16" min)

#### Transparency

a. Ground floor transperancy shall not be required.

\*Detailed design shall be provided by using at least one (1) of the architectural features listed on all facades as appropriate for the proposed architectural style.

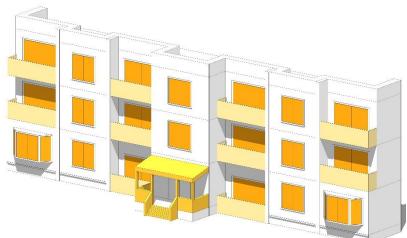


Figure 6.13. Apartment Building Type Articulation

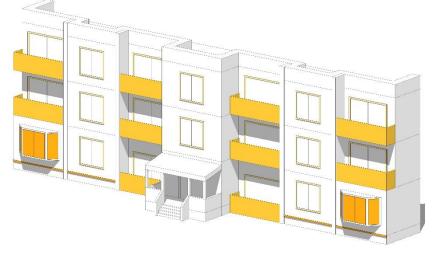


Figure 6.14. Apartment Building Type Façade Design Details

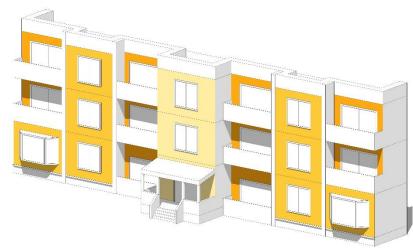


Figure 6.15. Apartment Building Type Building Off-Set Design Details

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#### **Building Entrance**

#### Primary Façade Entrance

- a. Front entrances shall be located on the façade of the building facing the primary street to which it abuts.
- b. Front entrances shall be common for the building, entrances to individual units shall be internal to the building.

#### Entrance Design Details\*

- a. Recessed Entry with 6" min. width Door Trim
- b. Covered Porch with 6" min. width Pillars/Posts/Columns

#### Other Entrances

c. Additional entrances may be oriented toward side or rear parking lots.

#### Service Entrance

d. Entrances for shipping and receiving shall not be visible from a public right-of-way with the exception of a rear alley.

\*Detailed design shall be provided by using at least one (1) of the architectural features listed on all facades as appropriate for the proposed architectural style.

#### **Multi-Building Developments**

- 1 The primary entrance and front façade of individual buildings within a multi-building development shall be oriented towards the following (listed in priority order):
  - a. Perimeter streets;
  - b. Primary internal streets;
  - c. Parks or other common open space;d. Secondary internal streets.
- 2 Primary entrances or facades shall not be oriented towards off-street parking lots, garages, or carports.

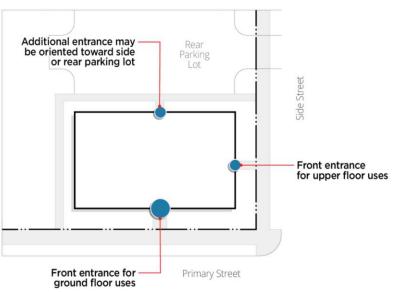


Figure 6.16. Apartment Building Type Building Entrance

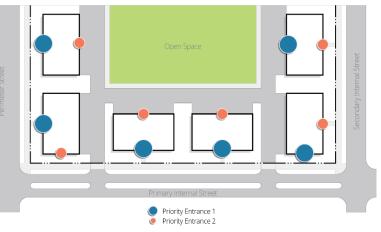


Figure 6.17. Apartment Building Type Multi-Building Developments



## 6.8. Mixed Use Building Type Standards

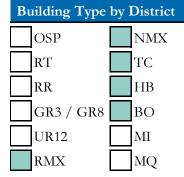
#### **Description and Applicability**

#### Description

A Mixed-Use Building is a multi-story small scale structure which can accommodate a variety of uses. The Mixed-Use Building typically has one (1) yard in the rear, though some buildings may include a small front plaza or courtyard to provide public space for outdoor seating while others may completely cover a lot where parking is handled in a manner other than on-site surface parking.

#### Applicability

Individual Mixed-Use Buildings may be used to provide some commercial service, such as a neighborhood store in close proximity to homes, while a group of Mixed-Use Buildings may be combined to form a mixed-use neighborhood center. Specific uses permitted within the Mixed Use Building are determined by the District in which it is located.



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Yard Setbacks	
Front Minimum	0 ft
Front Maximum	10 ft
Side Minimum	10 ft*
Rear Minimum	0 ft

\*If partiwall exists, 0 foot side yard minimum

P	Parking Location		
Pe	Permitted Yard		
a.	Front Yard:	prohibited	
b.	Side Yard:	permitted	
c.	Rear Yard:	permitted	
Re	Required Setback		
a.	Front Yard:	not applicable	
b.	Side Yard:	0 feet	
c.	Rear Yard:	5 feet	

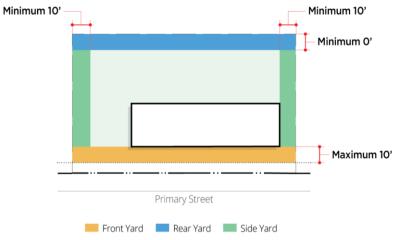


Figure 6.18. Mixed Use Building Type Yard Setbacks

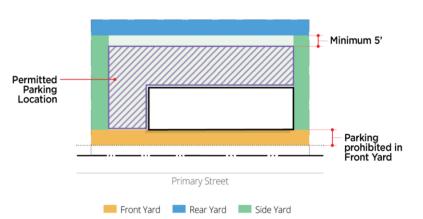


Figure 6.19. Mixed Use Building Type Parking Location

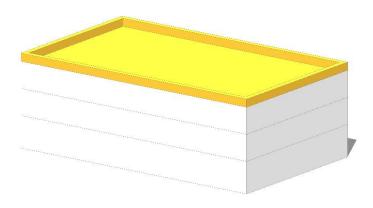


Figure 6.20. Mixed Use Building Type Roofs

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by parapet walls.

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#### Material Colors

Roofs Pitch

a.

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

Roofs shall be flat and screened from view

#### Façade

#### Articulation

- a. Architectural details such as bulk heads, masonry piers, transons, cornices, window hoods, and other similar details shall be used to provide horizontal and vertical façade articulation.
- b. The ground floor shall be distinguished from upper floors through the use of elements that provide horizontal articulation such as storefront cornices.

#### Awnings

a. A building canopy, awning, or similar weather protection, if provided, shall project a minimum of three (3) to five (5) feet from the façade.

#### Transparency

a. The ground level of the building must offer pedestrian interest along sidewalks and paths. Therefore, the first floor of the primary facade as well as the facades of buildings internal to a site containing a pedestrian entrance shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40% of the length of the first floor building elevation.

#### Window Dimensions

- Maximum Sill Height 42 inches\* a. (1st Story):
- Minimum Area: b.
- Minimum Width: c.
- Minimum Height: d.
- \*As measured from the finished floor elevation.

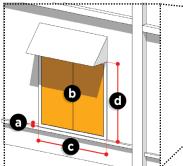
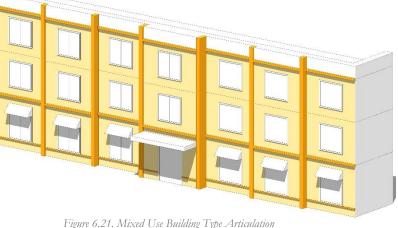


Figure 6.24. Mixed Use Building Type Window Dimensions

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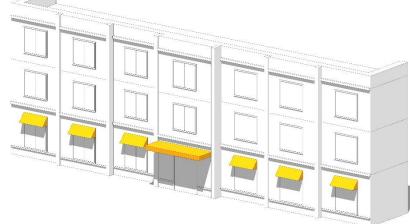


Figure 6.22. Mixed Use Building Type Annings

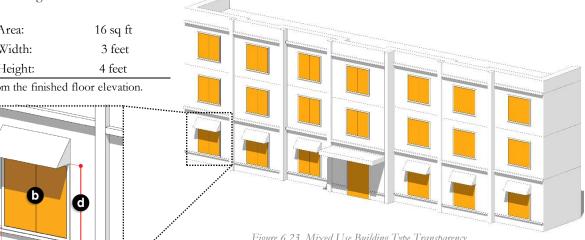


Figure 6.23. Mixed Use Building Type Transparency

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#### **Building Entrance**

#### Primary Façade Entrance

- a. Front entrances for ground floor uses shall be located on the façade of the building facing the primary street to which it abuts.
- a. Front entrances for upper floor uses shall be located on side or rear façades.

#### Other Entrances

b. Additional entrances may be oriented toward side or rear parking lots.

#### Service Entrance

c. Entrances for shipping and receiving shall not be visible from a public right-of-way with the exception of a rear alley.

#### **Multi-Building Developments**

- 1 The primary entrance and front façade of individual buildings within a multi-building development shall be oriented towards the following (listed in priority order):
  - a. Perimeter streets;
  - b. Primary internal streets;
  - c. Parks or other common open space;
  - d. Secondary internal streets.
- 2 Primary entrances or facades shall not be oriented towards off-street parking lots, garages, or carports.

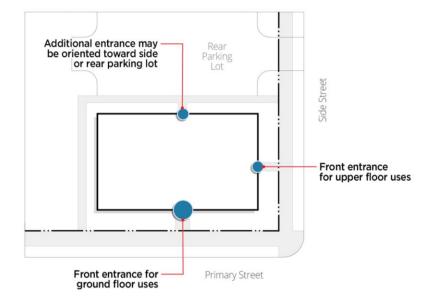


Figure 6.10. Mixed Use Building Type Building Entrance

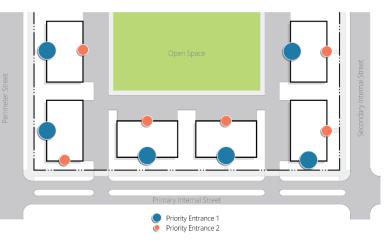


Figure 6.11. Mixed Use Building Type Multi-Building Development

#### **Public Improvements**

#### Public Gathering Space Design

- 1 A minimum of 1 square foot per every 25 square feet of gross floor area or 500 square feet, whichever is less, of public gathering space shall be provided.
- 2 Public gathering spaces shall be integrated into the overall site design and be framed or defined by the building(s).

#### Public Gathering Space Activation

- 3 Public gathering space shall have direct access to a public sidewalk and internal pedestrian walkway network and shall provide at least three (3) of the following features:
  - a. Moveable tables and chairs
  - b. Fountain or other water feature
  - c. Sculptures or other public art features
  - d. Benches, seat walls, or amphitheaters
  - e. Raised landscape planters
  - f. Shade trees lining the gathering space
  - g. Pedestrian scale and celebratory lighting
  - h. Other features as approved by the administrator

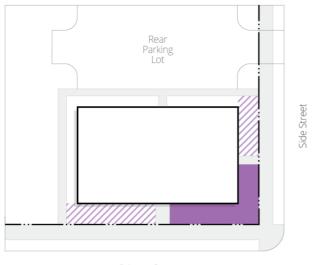




Figure 6.27. Mixed Use Building Type Public Improvement



## 6.9. Commercial Building Type Standards

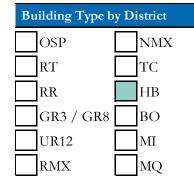
# Description and Applicability

#### Description

The Commercial Building provides convenient automobile access from the fronting thoroughfare, while minimizing the negative impacts of parking lots on an active pedestrian realm. The Commercial Building typically has one (1) yard in the rear, though some buildings may include a small front plaza or courtyard to provide public space for outdoor seating, while others may completely cover a lot where parking is handled in a manner other than on-site surface parking.

#### Applicability

Typically, a single or multi-story mid size structure which accommodates automobile-oriented uses found along major thoroughfares. Specific uses permitted within the Commercial Building are determined by the District in which it is located.



Yard Setbacks	
Front Minimum	10 ft
Front Maximum	30 ft
Side Minimum	6 ft
Rear Minimum	0 ft

## **Parking Location**

Pe	Permitted Yard		
a.	Front Yard:	prohibited	
b.	Side Yard:	permitted	
c.	Rear Yard:	permitted	
Re	equired Setback		
a.	Front Yard:	not applicable	
b.	Side Yard:	0 feet	
c.	Rear Yard:	5 feet	

#### **Material Colors**

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

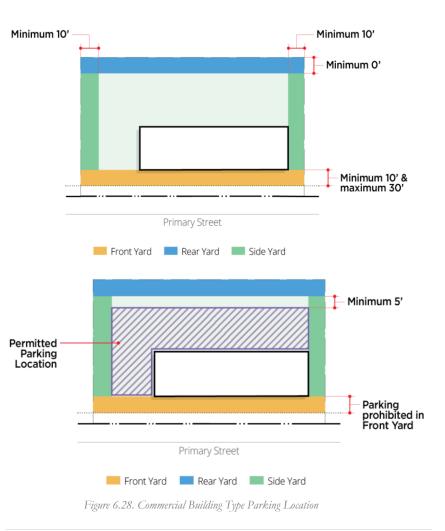
## Roofs

#### Materials

 Pitched roofs shall be clad in wood shingles, standing seam metal, corrugated metal, slate, copper, or asphalt shingles.

#### Relief

a. Roofs shall avoid long, monotonous, uninterrupted horizontal roof planes of 50 feet or more by utilizing roofline offsets that are five (5) feet or more in height, building wall offsets and matching roof lines that are two (2) feet or more in depth, pitched or raised parapets, towers, etc. that lend architectural interest and variety.



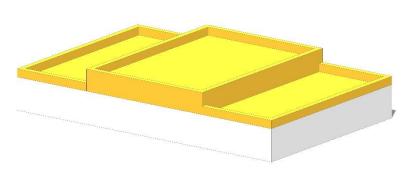


Figure 6.29. Commercial Building Type Roofs

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#### Façade

#### Articulation

- a. No blank, uninterrupted wall shall extend for a length greater than or equal to 20 feet.
- Blank walls shall be avoided by the addition of windows, piers, building recesses, pilasters, arches, columns, or significant changes in the texture or pattern of building materials.
- c. Changes in façade articulation shall occur at intervals which create an interesting visual rhythm.

#### Awnings

- A building canopy, awning, or similar weather protection, if provided, shall project a minimum of three (3) to five (5) feet from the façade.
- b. A building canopy, awning, or similar weather protection, if provided, shall be placed over first floor windows or entrances only.

#### Transparency

a. The ground level of the building must offer pedestrian interest along sidewalks and paths. Therefore, the first floor of the primary facade as well as the facades of buildings internal to a site containing a pedestrian entrance shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40% of the length of the first floor building elevation.

#### Window Dimensions

a.	Maximum Sill Height	42 inches*
	(1st Story):	
b.	Minimum Area:	16 sq ft
c.	Minimum Width:	3 feet
d.	Minimum Height:	4 feet

\*As measured from the finished floor elevation.

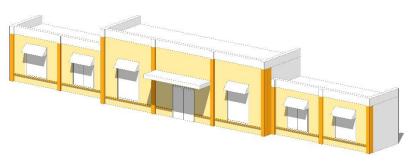


Figure 6.30. Commercial Building Type Articulation

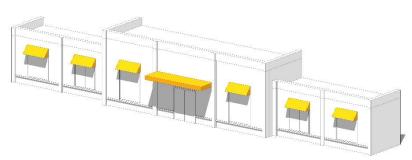


Figure 6.31. Commercial Building Type Annings

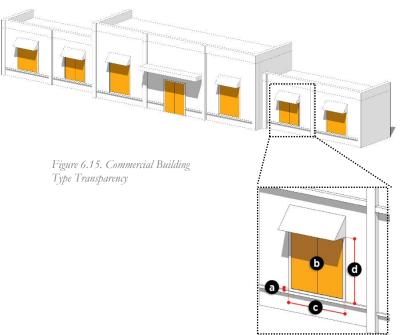


Figure 6.14. Commercial Building Type Window Dimensions

#### **Building Entrance**

#### Primary Façade Entrance

- a. Front entrances shall be located on the façade of the building facing the primary street to which it abuts.
- b. Front entrances shall be designed for the pedestrian and shall be distinguishable from the rest of the building through the use of elements such as but not limited to a landscape forecourt, a wide pedestrian path from the sidewalk with special paving, access and pathway lighting, special plantings and landscape, and / or a prominent roof form.

#### Other Entrances

b. Additional entrances may be oriented toward side or rear parking lots.

#### Service Entrance

c. Entrances for shipping and receiving shall not be visible from a public right-of-way with the exception of a rear alley.

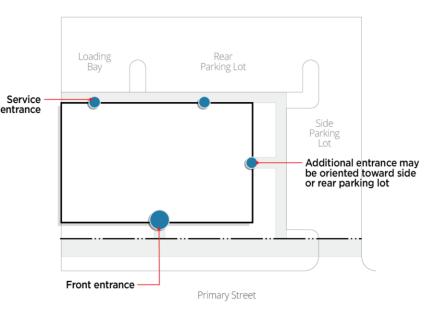


Figure 6.33. Commercial Building Type Building Entrance

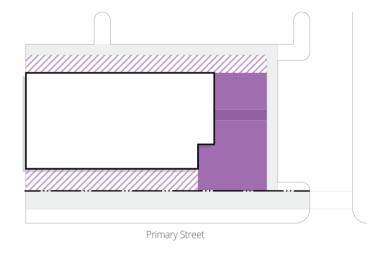
#### **Public Improvements**

#### Public Gathering Space Design

- 1 A minimum of 1 square foot per every 25 square feet of gross floor area or 500 square feet, whichever is less, of public gathering space shall be provided.
- 2 Public gathering spaces shall be integrated into the overall site design and be framed or defined by the building(s).

#### Public Gathering Space Activation

- 3 Public gathering space shall have direct access to a public sidewalk and internal pedestrian walkway network and shall provide at least three (3) of the following features:
  - a. Moveable tables and chairs
  - b. Fountain or other water feature
  - c. Sculptures or other public art features
  - d. Benches, seat walls, or amphitheaters
  - e. Raised landscape planters
  - f. Shade trees lining the gathering space
  - g. Pedestrian scale and celebratory lighting
  - h. Other features as approved by the administrator



Recommended Public Gathering Space

Other Potential Public Gathering Space

Figure 6.34. Commercial Building Type Public Improvements



## 6.10. Outlot / Liner Commercial Building Type Standards

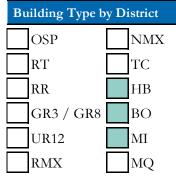
#### **Description and Applicability**

#### Description

The Outlot/Liner Commercial Building is a shallow structure, typically 60 feet deep, placed close to the street frontage to conceal surface or structured parking or Large Lot Commercial Buildings.

#### Applicability

A structure with multiple stories or the appearance of multiple stories utilized to improve the pedestrian environment in automobileoriented corridors found along major thoroughfares. Specific uses permitted within the Outlot/Liner Commercial Building are determined by the District in which it is located.



Yard Setbacks	
Front Minimum	0 ft
Front Maximum	10 ft
Side Minimum	6 ft*
Rear Minimum	10 ft

\*If partiwall exists, 0 foot side yard minimum

P	Parking Location			
Pe	Permitted Yard			
a.	Front Yard:	prohibited		
b.	Side Yard:	prohibited		
c.	Rear Yard:	permitted		
R	Required Setback			
a.	Front Yard:	not applicable		
b.	Side Yard:	0 feet		
c.	Rear Yard:	5 feet		

#### Siting

1 To the maximum extent practicable buildings shall be clustered in order to define street edges, entry points, and public gathering spaces. The even dispersal of buildings in a widely spaced pattern along streets is prohibited.

#### **Material Colors**

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

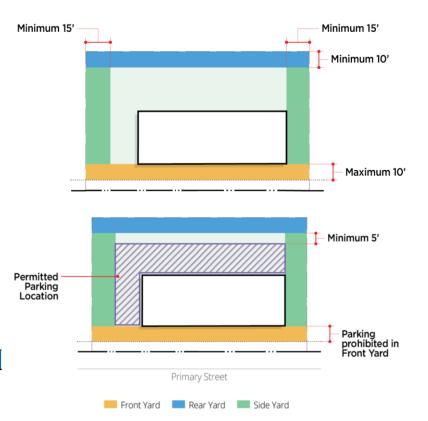


Figure 6.35. Outlot/Liner Commercial Building Type Parking Location

## Roofs

#### Materials

a. Pitched roofs shall be clad in wood shingles, standing seam metal, corrugated metal, slate, copper, or asphalt shingles.

#### Relief

a. Roofs shall avoid long, monotonous, uninterrupted horizontal roof planes of 50 feet or more by utilizing roofline offsets that are five (5) feet or more in height, building wall offsets and matching roof lines that are two (2) feet or more in depth, pitched or raised parapets, towers, etc. that lend architectural interest and variety.

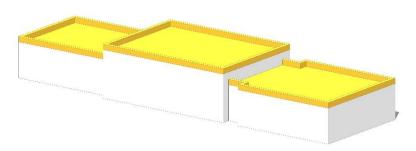


Figure 6.36. Outlot/Liner Commercial Building Type Roof

#### **Building Entrance**

#### Primary Façade Entrance

a. Front entrances shall be located on the façade of the building facing the primary street to which it abuts.

#### Other Entrances

b. Additional entrances may be oriented toward side and rear parking lots.

#### Service Entrance

c. Entrances for shipping and receiving shall be integrated into the architecture of the building and shall not be visible from a public right-of-way, parking lot, or public gathering space. Service entrance Building Primary Street Front entrance

Figure 6.37. Attached Outlot/Liner Commercial Building Type Building Entrance

#### Façade

#### Articulation

- a. No blank, uninterrupted wall shall extend for a length greater than or equal to 20 feet.
- Blank walls shall be avoided by the addition of windows, piers, building recesses, pilasters, arches, columns, or significant changes in the texture or pattern of building materials.
- c. Changes in façade articulation shall occur at intervals which create an interesting visual rhythm.

#### Awnings

- A building canopy, awning, or similar weather protection, if provided, shall project a minimum of three (3) to five (5) feet from the façade.
- b. A building canopy, awning, or similar weather protection, if provided, shall be placed over first floor windows or entrances only.

#### Transparency

a. The ground level of the building must offer pedestrian interest along sidewalks and paths. Therefore, the first floor of the primary facade as well as the facades of buildings internal to a site containing a pedestrian entrance shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40% of the length of the first floor building elevation.

#### Window Dimensions

a.	Maximum Sill Height	42 inches*
	(1st Story):	
b.	Minimum Area:	16 sq ft
c.	Minimum Width:	3 feet
d.	Minimum Height:	4 feet

\*As measured from the finished floor elevation.

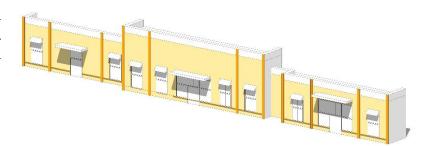


Figure 6.38. Outlot/Liner Commercial Building Type Articulation

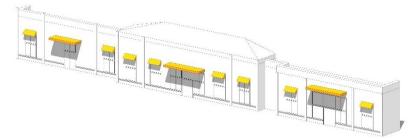


Figure 6.39. Outlot/Liner Commercial Building Type Awnings

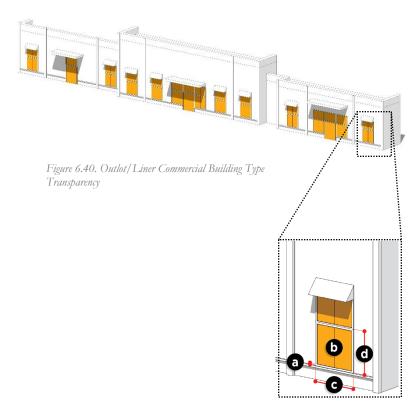


Figure 6.41. Outlot/Liner Commercial Building Type Window Dimensions

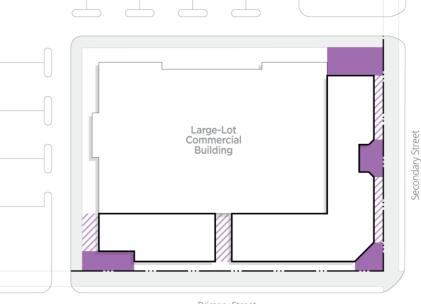
## **Public Improvements**

## Public Gathering Space Design

- 1 A minimum of 1 square foot per every 25 square feet of gross floor area or 500 square feet per building, whichever is less, of public gathering space shall be provided.
- 2 Public gathering spaces shall be provided in the spaces between outlot / liner commercial buildings and be integrated into the overall site design and be framed or defined by the building(s).
- 3 Shared public gathering spaces, serving more than one building are encouraged.

## Public Gathering Space Activation

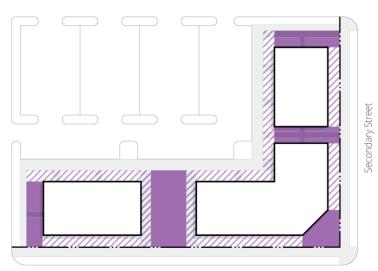
- 4 Public gathering space shall have direct access to a public sidewalk and internal pedestrian walkway network and shall provide at least three (3) of the following features:
  - a. Moveable tables and chairs
  - b. Fountain or other water feature
  - c. Sculptures or other public art features
  - d. Benches, seat walls, or amphitheaters
  - e. Raised landscape planters
  - f. Shade trees lining the gathering space
  - g. Pedestrian scale and celebratory lighting
  - h. Other features as approved by the administrator



Primary Street

Recommended Public Gathering Space 🛛 📈 Other Potential Public Gathering Space

Figure 6.42. Attached Outlot/Liner Commercial Building Type Potential Public Gathering Space Locations



Primary Street

Recommended Public Gathering Space

Other Potential Public Gathering Space

Figure 6.43. Detached Outlot/Liner Commercial Building Type Potential Public Gathering Space Locations



## 6.11. Large Lot Commercial Building Type Standards

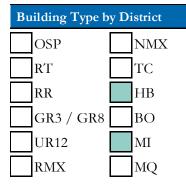
#### **Description and Applicability**

#### Description

The Large Lot Commercial Building has a footprint greater than 25,000 square feet and is often used by big-box national retailers. To minimize the negative impacts of this building type on the pedestrian realm, the Large Lot Commercial Building shall be screened with either detached or attached Outlot/Liner Commercial Buildings.

#### Applicability

Typically, a single or multi-story large size structure which accommodates automobileoriented uses found along major thoroughfares. Specific uses permitted within the Large Lot Commercial Building are determined by the District in which it is located.



Yard Setbacks	
Front Minimum	0 ft
Front Maximum	n/a
Side Minimum	10 ft
Rear Minimum	30 ft

## **Parking Location**

Pe	ermitted Yard	
a.	Front Yard:	permitted*
b.	Side Yard:	permitted
c.	Rear Yard:	permitted
R	equired Setback	
a.	Front Yard:	5 feet**

- b. Side Yard: 0 feet
- c. Rear Yard: 5 feet
- Permitted only if screened from ROW by detached Outlot/Liner Commercial Building(s)
- \*\* 5 foot setback from detached Outlot/Liner Commercial Building(s)

# Minimum 10' Minimum 10' Minimum 30' Minimum 30' Minimum 0' Primary Street Front Yard Rear Yard Side Yard

Figure 6.44. Large Lot Commercial Building Type Yard Setbacks

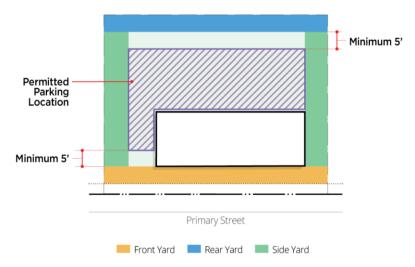


Figure 6.45. Large Lot Commercial Building Type Parking Location

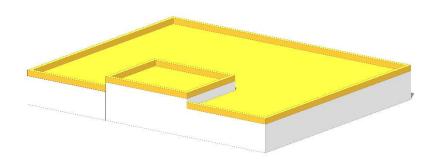


Figure 6.46. Large-Lot Commercial Building Type Roofs

#### Pitched roofs shall be clad in wood shingles, standing seam metal, corrugated metal, slate, copper, or asphalt shingles.

## Relief

Roofs

a.

Materials

 Roofs shall avoid long, monotonous, uninterrupted horizontal roof planes of 50 feet or more by utilizing roofline offsets that are five (5) feet or more in height, building wall offsets and matching roof lines that are two (2) feet or more in depth, pitched or raised parapets, towers, etc. that lend architectural interest and variety.

Town of Knightdale Knightdale Next UDO Update Chapter 6 – Building Type Standards Page **29** of **43** 

#### Façade

#### Articulation

- a. No blank, uninterrupted wall shall extend for a length greater than or equal to 30 feet.
- Blank walls shall be avoided by the addition of windows, piers, building recesses, pilasters, arches, columns, or significant changes in the texture or pattern of building materials.
- c. Changes in façade articulation shall occur at intervals which create an interesting visual rhythm.

#### Awnings

- A building canopy, awning, or similar weather protection, if provided, shall project a minimum of three (3) to five (5) feet from the façade.
- b. A building canopy, awning, or similar weather protection, if provided, shall be placed over first floor windows or entrances only.

#### Transparency

a. The ground level of the building must offer pedestrian interest along sidewalks and paths. Therefore, the first floor of the primary facade as well as the facades of buildings internal to a site containing a pedestrian entrance shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40% of the length of the first floor building elevation.

#### Window Dimensions

a.	Maximum Sill Height	42 inches*
	(1st Story):	
b.	Minimum Area:	16 sq ft
c.	Minimum Width:	3 feet
d.	Minimum Height:	4 feet

\*As measured from the finished floor elevation.



Figure 6.47. Large-Lot Commercial Building Type Articulation

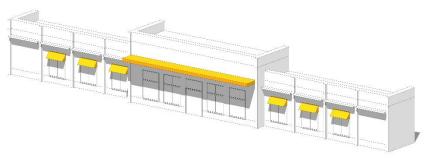


Figure 6.48. Large-Lot Commercial Building Type Annings

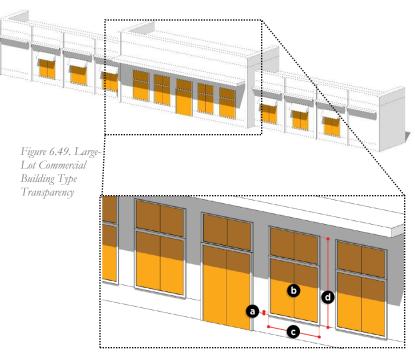


Figure 6.50. Large-Lot Commercial Building Type Window Dimensions

#### **Building Entrance**

#### Primary Façade Entrance

- a. Front entrances shall be located on the façade of the building facing the primary street to which it abuts or the façade of the building facing the parking lot. If an attached outlot / liner commercial building(s) is located between the large lot commercial building and the primary street, nose entrances shall be required and incorporated into the design of the storefronts.
- b. Front entrances shall be designed for the pedestrian and shall be distinguishable from the rest of the building through the use of elements such as but not limited to a landscape forecourt, a wide pedestrian path from the sidewalk with special paving, access and pathway lighting, special plantings and landscape, and / or a prominent roof form.

#### Other Entrances

b. Additional entrances may be oriented toward side or rear parking lots.

#### Service Entrance

c. Entrances for shipping and receiving shall not be visible from a public right-of-way with the exception of a rear alley.

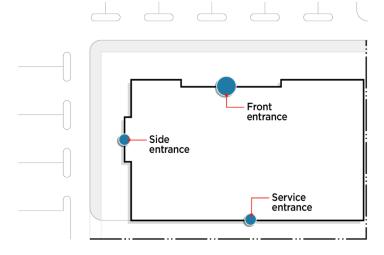


Figure 6.51. Large Lot Commercial Building Type with Detached Outlot/Liner Commercial Building Type Building Entrance

# Principal Building Liner Commercial Nose Entrance

Figure 6.52. Large Lot Commercial Building Type with Attached Outlot/Liner Commercial Building Type and Nose Entrance Street

#### **Material Colors**

1 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

## Institutional Building Type Standards

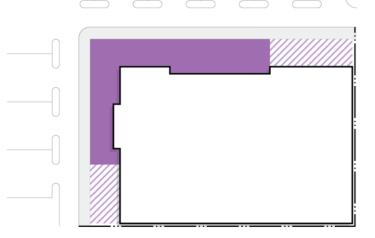
## **Public Improvements**

## Public Gathering Space Design

- 1 A minimum of 1 square foot per every 25 square feet of gross floor area or 500 square feet, whichever is less, of public gathering space shall be provided.
- 2 Public gathering spaces shall be integrated into the overall site design and be framed or defined by the building(s).

## **Public Gathering Space Activation**

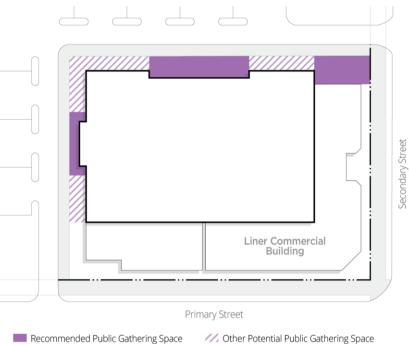
- Public gathering space shall have direct 3 access to a public sidewalk and internal pedestrian walkway network and shall provide at least three (3) of the following features:
  - a. Moveable tables and chairs
  - b. Fountain or other water feature
  - c. Sculptures or other public art features
  - d. Benches, seat walls, or amphitheaters
  - e. Raised landscape planters
  - f. Shade trees lining the gathering space
  - g. Pedestrian scale and celebratory lighting
  - h. Other features as approved by the administrator



Recommended Public Gathering Space

#### /// Other Potential Public Gathering Space

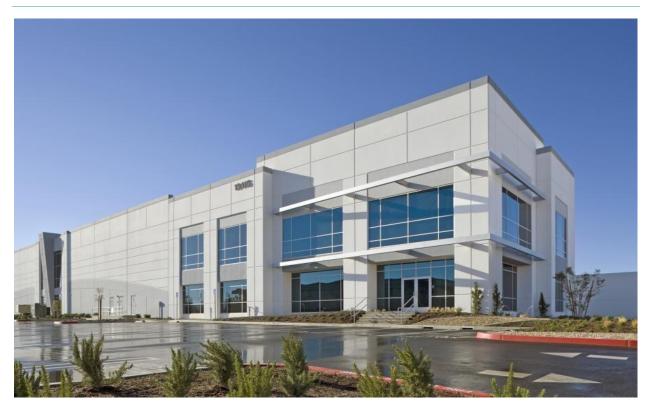
Figure 6.53. Large Lot Commercial Building Type with Detached Outlot/Liner Commercial Building Type Public Improvements



Recommended Public Gathering Space

Figure 6.54. Large Lot Commercial Building Type with Attached Outlot/Liner Commercial Building Type Public Improvements

## 6.12. Manufacturing Building Type Standards



## **Description and Applicability**

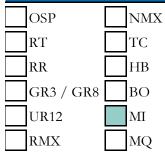
#### Description

The Manufacturing Building is intended for flexible employment-related uses. The form of the building is typically established based on the function of the uses taking place within it.

#### Applicability

Typically a one-story, large scale structure which accommodates manufacturing, storage, distribution, industrial, technology based uses, although a group of manufacturing buildings may be combined to form an industrial park. Specific uses permitted within the Manufacturing Building are determined by the District in which it is located.

#### Building Type by District



Yard Setbacks	
Front Minimum	50 ft*
Front Maximum	n/a
Side Minimum	50 ft*
Rear Minimum	50 ft*

\*If adjacent to residential district, 100 ft.

Parking Location		
Permitted Yard		
a.	Front Yard:	permitted*
b.	Side Yard:	permitted
c.	Rear Yard:	permitted
Required Setback		
a.	Front Yard:	5 feet**
b.	Side Yard:	0 feet
c.	Rear Yard:	5 feet
*	Permitted only if screened from ROW by	
	Outlot/Liner Commercial Building(s)	

\*\* 5 foot setback from Outlot/Liner Commercial Building(s)

#### **Material Colors**

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

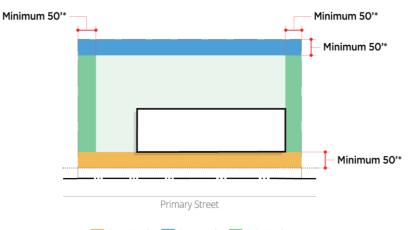
## Roofs

#### Form

 Roofs shall include prominent roof forms that incorporate elements such as but not limited to, upturned eaves or projections, slopes, roof extensions beyond the building elevation to create deep overhangs, architectural elements such as braces, brackets, or saw tooth clerestory windows.

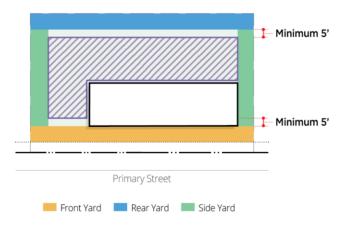
#### Town of Knightdale

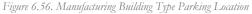
Knightdale Next UDO Update



Front Yard 🔲 Rear Yard 🔲 Side Yard

Figure 6.55. Manufacturing Building Type Yard Setbacks





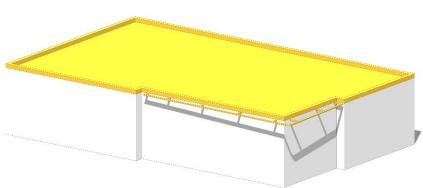


Figure 6.57. Manufacturing Building Type Roofs

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#### Façade

#### Articulation

a. Facades shall be articulated with a sense of depth by including design elements that create shadow lines, change color or materials, or incorporate other details that together with required landscaping (Section 7.4) breakdown large expanses of flat, unembellished surfaces.

#### Awnings

- a. A building canopy, awning, or similar weather protection, if provided, shall project a minimum of three (3) to five (5) feet from the façade.
- b. A building canopy, awning, or similar weather protection, if provided, shall be placed over first floor windows or entrances only.

#### Transperancy

a. The front entrance must offer pedestrian interest along sidewalks and paths. Therefore, 10% of the first floor of the primary facade on either side of the front entrance shall include transparent windows and doors arranged so that the uses inside are visible from and/or accessible to the street on at least 40% of the required length of the building elevation.

#### Window Dimensions

a. Windows should respect the pedestrian scale and be consistent with the grade of pedestrian walkways.



Figure 6.59. Manufacturing Building Type Awnings

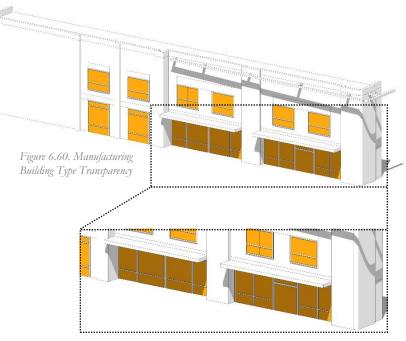


Figure 6.61. Manufacturing Building Type Window Dimensions

#### **Building Entrance**

#### Primary Façade Entrance

- a. Front entrances shall be located on the façade of the building facing the primary street to which it abuts.
- b. Front entrances shall be designed for the pedestrian and shall be distinguishable from the rest of the building through the use of elements such as but not limited to a landscape forecourt, a wide pedestrian path from the sidewalk with special paving, access and pathway lighting, special plantings and landscape, and / or a prominent roof form.

#### Other Entrances

c. Additional entrances may be oriented toward side or rear parking lots.

#### Service Entrance

d. Entrances for shipping and receiving shall not be visible from a public right-of-way with the exception of a rear alley.

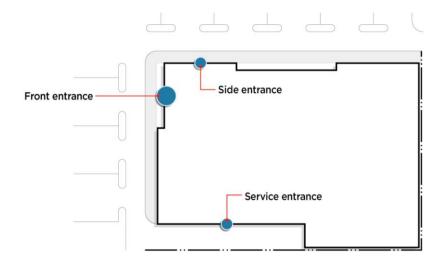


Figure 6.62. Manufacturing Building Type Building Entrance

#### Public Improvements Public Gathering Space Design A minimum of 1 square foot per every 100 1 square feet of gross floor area or 500 square feet, whichever is less, of public gathering space shall be provided. Public gathering spaces shall be 2 integrated into the overall site design and be framed or defined by the building(s). **Public Gathering Space Activation** 2 Public gathering space shall have direct access to a public sidewalk and internal pedestrian walkway network and shall provide at least two (2) of the following Recommended Public Gathering Space /// Other Potential Public Gathering Space features: a. Moveable tables and chairs Figure 6.63. Manufacturing Building Type Public Improvements b. Fountain or other water feature c. Sculptures or other public art features

d. Benches, seat walls, or amphitheaters

f. Shade trees lining the gathering spaceg. Pedestrian scale and celebratory lightingh. Other features as approved by the

e. Raised landscape planters

administrator



## 6.13. Institutional Building Type Standards

## Description and Applicability

#### Description

Institutional Buildings often serve as landmarks and public gathering places. They also should be constructed as permanent additions to the longterm vibrancy of the Town and should serve to exemplify the very best architectural designs and building practices. However, because most Institutional Buildings house specialized populations (i.e. children, elderly, college students, or the infirmed) they have unique characteristics that require design control.

#### Applicability

The Institutional Building type includes, but is not limited to: governmental offices, schools, hospitals and long-term care facilities, post offices, and nonprofit or charitable clubs and organizations.

Building Type by District		
OSP	NMX	
RT	TC	
RR	HB	
GR3 / GR8	BO	
UR12	МІ	
RMX	MQ	

Yard Setbacks	
Front Minimum	10 ft
Front Maximum	n/a
Side Minimum	10 ft*
Rear Minimum	30 ft

\*If partiwall exists, 0 foot side yard minimum

#### Roofs

Flat roofs are allowed, but principal buildings adjacent to residential structures are encouraged to have similar roofs and other architectural features to ensure compatibility.

#### Material Colors

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

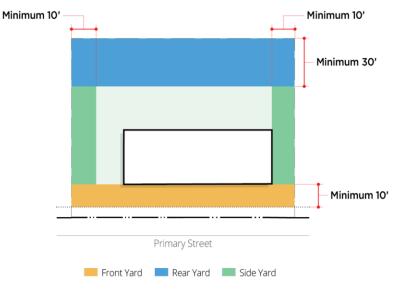
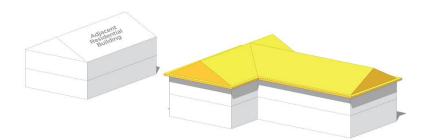


Figure 6.64. Institutional Building Type Yard Setbacks





#### Specific Requirements

- a. Institutional Buildings should create an easily recognizable visual anchor for the community.
- b. Accessory structures shall be set back a minimum of 20 ft from the primary facade of the principal structure; and if more than one (1) accessory structure, shall be arranged to create secondary gathering spaces within the lot.

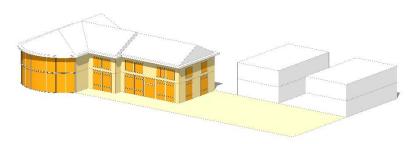


Figure 6.66. Institutional Building Type Specific Requirements

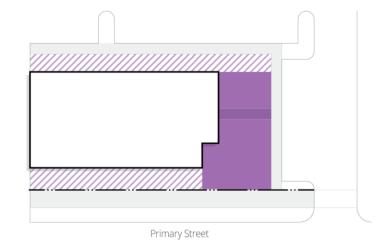
#### **Public Improvements**

#### Public Gathering Space Design

- 1 A minimum of 1 square foot per every 25 square feet of gross floor area or 500 square feet, whichever is less, of public gathering space shall be provided.
- 2 Public gathering spaces shall be integrated into the overall site design and be framed or defined by the building(s).

#### Public Gathering Space Activation

- 3 Public gathering space shall have direct access to a public sidewalk and internal pedestrian walkway network and shall provide at least three (3) of the following features:
  - a. Moveable tables and chairs
  - b. Fountain or other water feature
  - c. Sculptures or other public art features
  - d. Benches, seat walls, or amphitheaters
  - e. Raised landscape planters
  - f. Shade trees lining the gathering space
  - g. Pedestrian scale and celebratory lighting
  - h. Other features as approved by the administrator



Recommended Public Gathering Space 🛛 Other Potential Public Gathering Space

Figure 6.67. Institutional Building Type Public Improvements



## 6.14. Civic Building Type Standards

#### **Description and Applicability**

#### Description

The Civic Building serves as a landmark and a public gathering place. Such buildings should be constructed as permanent additions to the longterm vibrancy of the Town and should serve to exemplify the very best architectural designs and building practices.

#### Applicability

The Civic Building type covers a range of public and private buildings that includes, but is not limited to: Town halls and libraries, museums and observatories, churches and synagogues.

Building Type by District		
OSP	NMX	
RT	TC	
RR	HB	
GR3 / GR8	BO	
UR12	МІ	
RMX	MQ	

Yard Setbacks	
Front Minimum	10 ft
Front Maximum	n/a
Side Minimum	10 ft*
Rear Minimum	30 ft

\*If partiwall exists, 0 foot side yard minimum

#### Roofs

Flat roofs are allowed, but principal buildings adjacent to residential structures are encouraged to have similar roofs and other architectural features to ensure compatibility.

#### **Material Colors**

 Facade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, day glow, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entry ways and public amenities so as to give greater recognition to these features.

#### Specific Requirements

- a. Civic Buildings should be built so that they terminate a street vista whenever possible.
- b. Civic Buildings should be of sufficient design to create an easily recognizable visual anchor for the community.

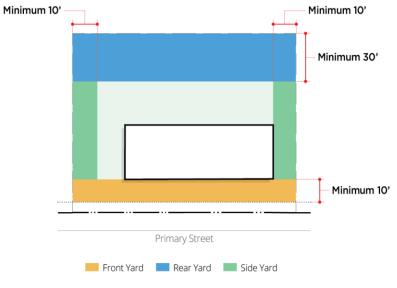


Figure 6.68. Civic Building Type Yard Setbacks

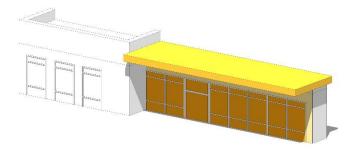


Figure 6.69. Civic Building Type Specific Requirements

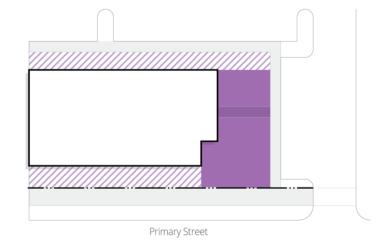
#### **Public Improvements**

#### Public Gathering Space Design

- 1 A minimum of 1 square foot per every 25 square feet of gross floor area or 500 square feet, whichever is less, of public gathering space shall be provided.
- 2 Public gathering spaces shall be integrated into the overall site design and be framed or defined by the building(s).

#### Public Gathering Space Activation

- 3 Public gathering space shall have direct access to a public sidewalk and internal pedestrian walkway network and shall provide at least three (3) of the following features:
  - a. Moveable tables and chairs
  - b. Fountain or other water feature
  - c. Sculptures or other public art features
  - d. Benches, seat walls, or amphitheaters
  - e. Raised landscape planters
  - f. Shade trees lining the gathering space
  - g. Pedestrian scale and celebratory lighting
  - h. Other features as approved by the administrator



🔲 Recommended Public Gathering Space 🛛 🖉 Other Potential Public Gathering Space

Figure 6.70. Civic Building Type Public Improvements