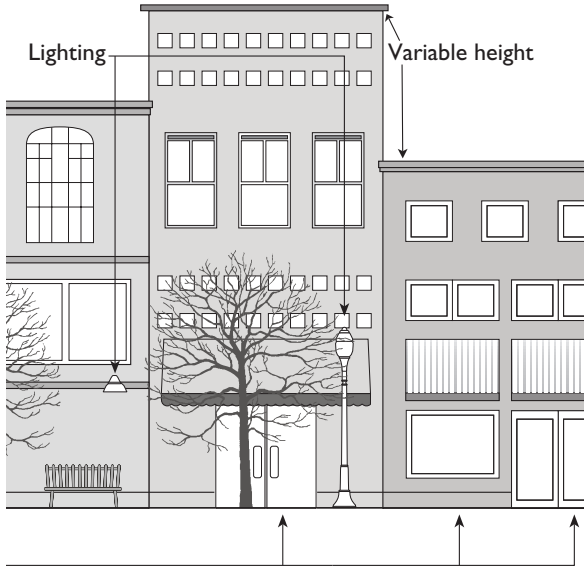




Windows, doors or other openings shall occupy 50% - 70% of the building frontage.



3 STREETSCAPE, BUILDING DESIGN, AND DEVELOPMENT STANDARDS

The quality and character of the public realm is a critical component of how a place is used and experienced. In the Planning Area, the public realm is shaped by buildings, streetscape, the Town Green and Keiser Park, and the spaces in between, all of which contribute to the Planning Area's identity as the center of town. This chapter provides policies for the Planning Area that will serve as a guide for new development. It also outlines the Plan's strategies for enhancing the public realm through quality streetscape design, specific development standards, and design guidelines to further reinforce and shape the identity of the Planning Area.







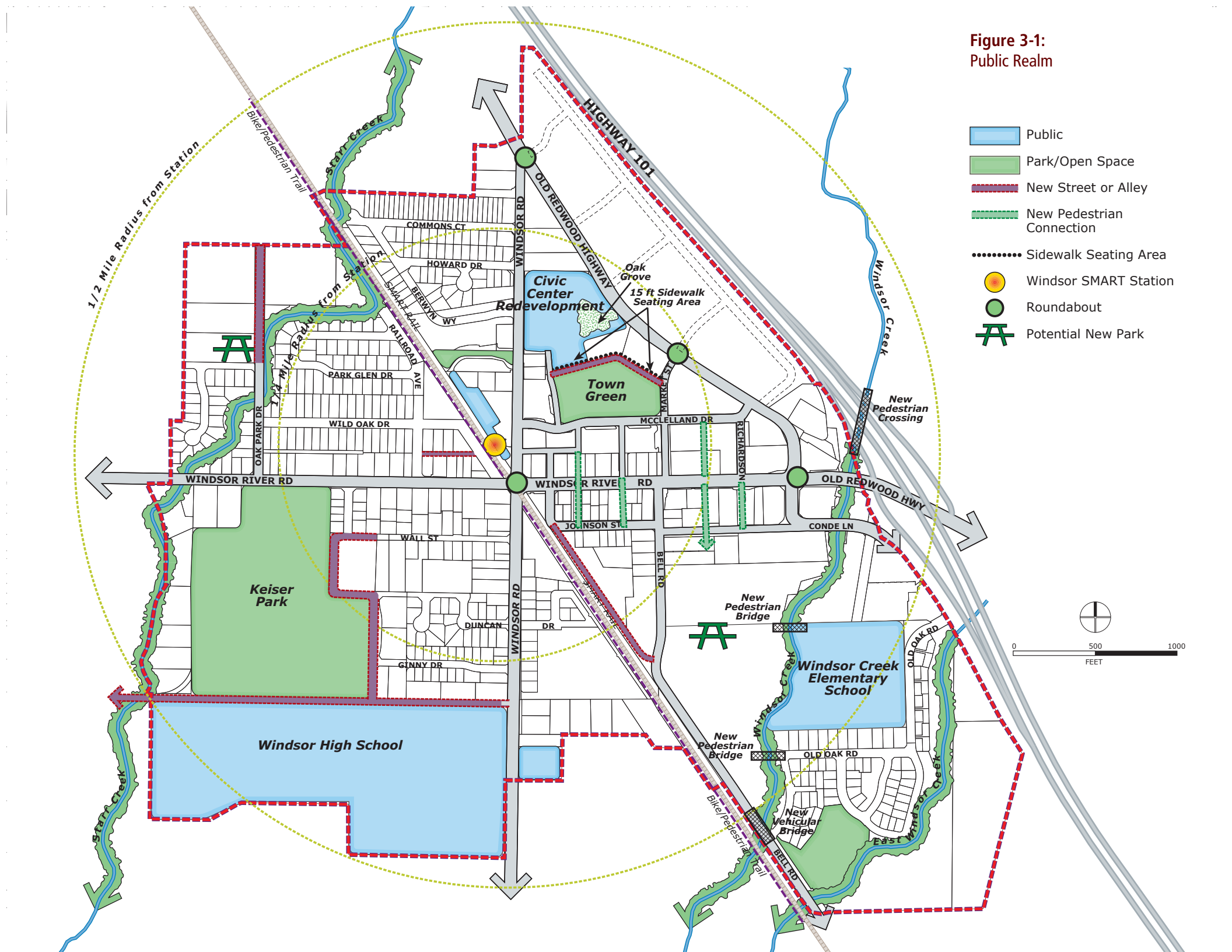
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The Plan envisions a public realm that is vibrant, walkable, and well-connected.

3.1 STREETSCAPE DESIGN AND PUBLIC SPACES

The Planning Area includes a network of parks, public spaces, pedestrian oriented streets, and bicycle and pedestrian paths and connections that comprise the public realm. The Plan proposes to enhance the public realm with additional assets, as shown in Figure 3-1 and illustrated in Figures 3-2 through 3-5. An emphasis on walkability and pedestrian orientation will maximize accessibility to and within Downtown and enhance the area for community gathering. Key elements proposed include a Town Green Loop with a new pedestrian oriented street along the northern edge of the Town Green, streetscape improvements, diversity in building design, new pedestrian connections, and various opportunities for community engagement, from amenities such as benches that encourage casual encounters to outdoor dining and public art that actively engage. Additional direction regarding the design of streets and public spaces are included in Section 3-4: Design Guidelines.

Figure 3-1:
Public Realm



GOALS AND POLICIES

Goal DES-A: Establish a unified streetscape image for Downtown, and enhance the public realm with consistent and pedestrian oriented streetscapes, design diversity, and visual richness.

Creating a sense of continuity and cohesiveness throughout the Planning Area will not only require additional pedestrian and street connections, but also a comprehensive streetscape scheme that addresses right-of-way elements such as sidewalk width, landscaping, street furniture, lighting, and signage. A unified identity will help enhance access and comfort of the street environment and accommodate a high volume of pedestrian traffic, while also ensuring cohesiveness as building design diversifies.

Streets and Streetscapes

DES-1 Within the Downtown core, provide wide sidewalks to accommodate outdoor seating, business display areas, and sidewalk sales (see DG-34 and DG-35 in Chapter 3 for details).

DES-2 Ensure that streetscape improvements along key streets, including undeveloped portions, emphasize pedestrian circulation with wide sidewalks, landscaping, street furniture, pedestrian scaled roadway width, and on-street parking to create a buffer between the pedestrian and traffic. See Figure 3-2.

DES-3 Design new streets adjacent to parks with mid block crossings to calm traffic and provide safer access to park space.

DES-4 Design private streets to be pedestrian-oriented and scaled, with ample landscaping. Prohibit gates that block access to private streets from a public street.

Pedestrian Connections

DES-5 Design new pedestrian connections with amenities such as landscaping, outdoor seating, kiosks, signage and lighting. See Figure 3-3.

DES-6 Where mature oak trees exist, integrate new pedestrian connections into the existing landscape and highlight the connection through use of markers such as signage or public art. See Figure 3-4.

Public Spaces

DES-7 Integrate small pocket parks and plazas throughout new development and along pedestrian connections to create a cohesive and connected public realm.

DES-8 Incorporate art and streetscape design elements, such as banners, street tree alignments, signage, and lighting, into the design of public spaces to reflect a consistent community character.

DES-9 Preserve the oak grove located on the Civic Center site as a public space and environmental resource.

Civic Center Redevelopment

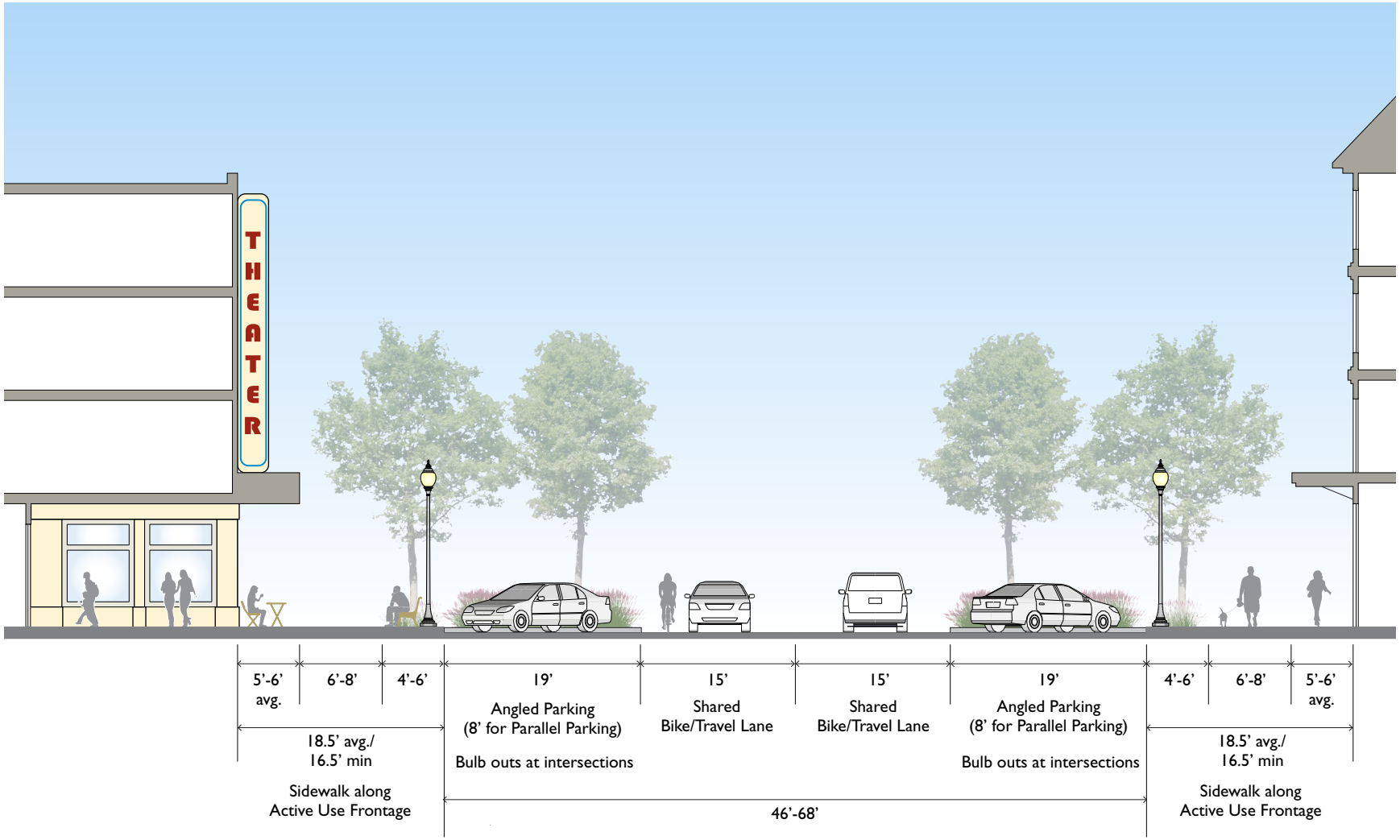
DES-10 When the Civic Center is redeveloped, design the entrance to face the Town Green and define the entrance through architectural, and landscape features such as tower elements, canopies, columns, recesses, plazas, public art, and landscaped open space.

DES-11 Accommodate a range of active pedestrian uses along the new street located along the northern edge of the Town Green by providing a 15-foot wide area for seating and dining to activate the park edge and complete the Town Green Loop. See Figure 3-5.

Public Art

DES-12 Promote public art through programs, such as the establishment of a Public Art Committee, to ensure ongoing inclusion of high-quality public art that reflects the Windsor community in public spaces throughout the Downtown core.

Figure 3-2: Downtown Core Streetscape Improvements









Special subtle lighting adds character to pedestrian connections.

Figure 3-3: Pedestrian Connection

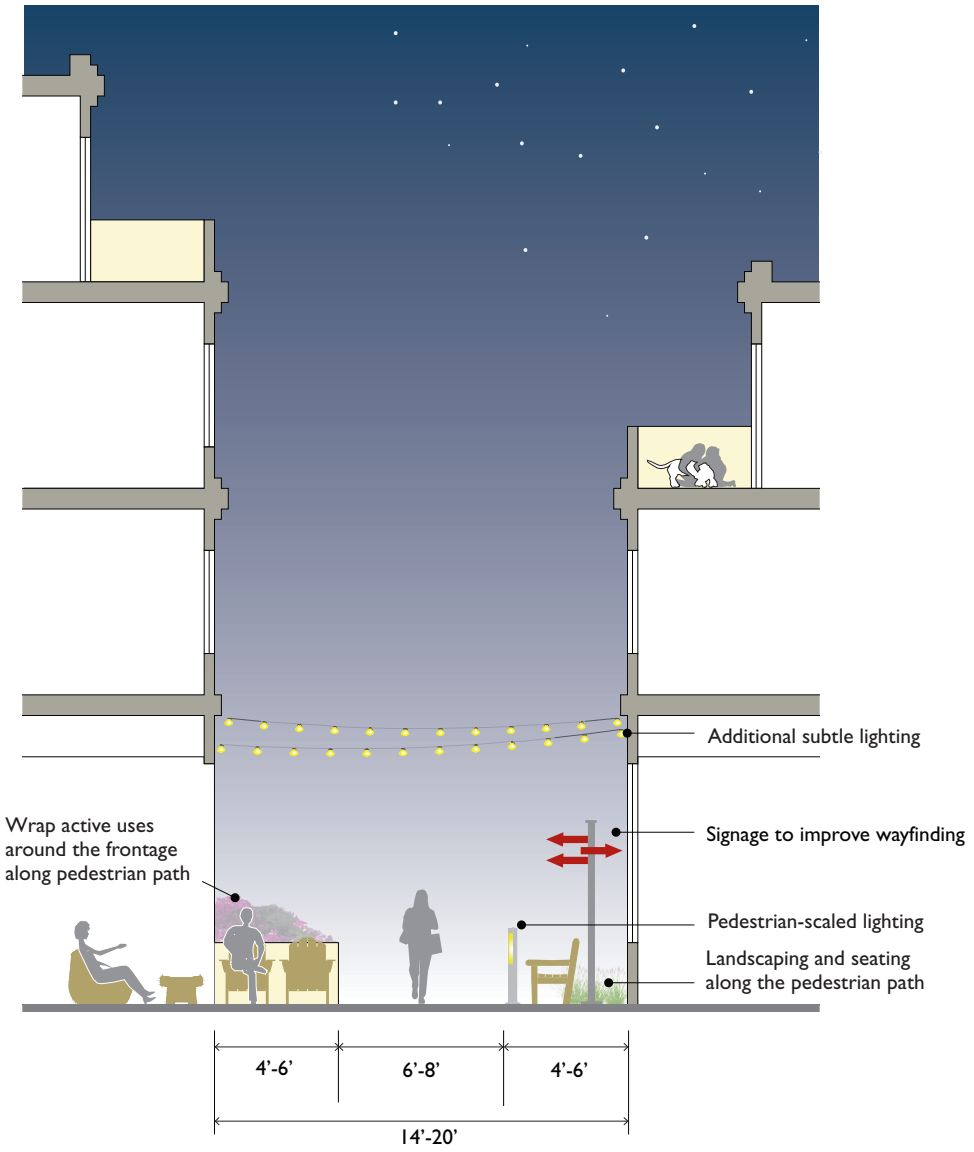
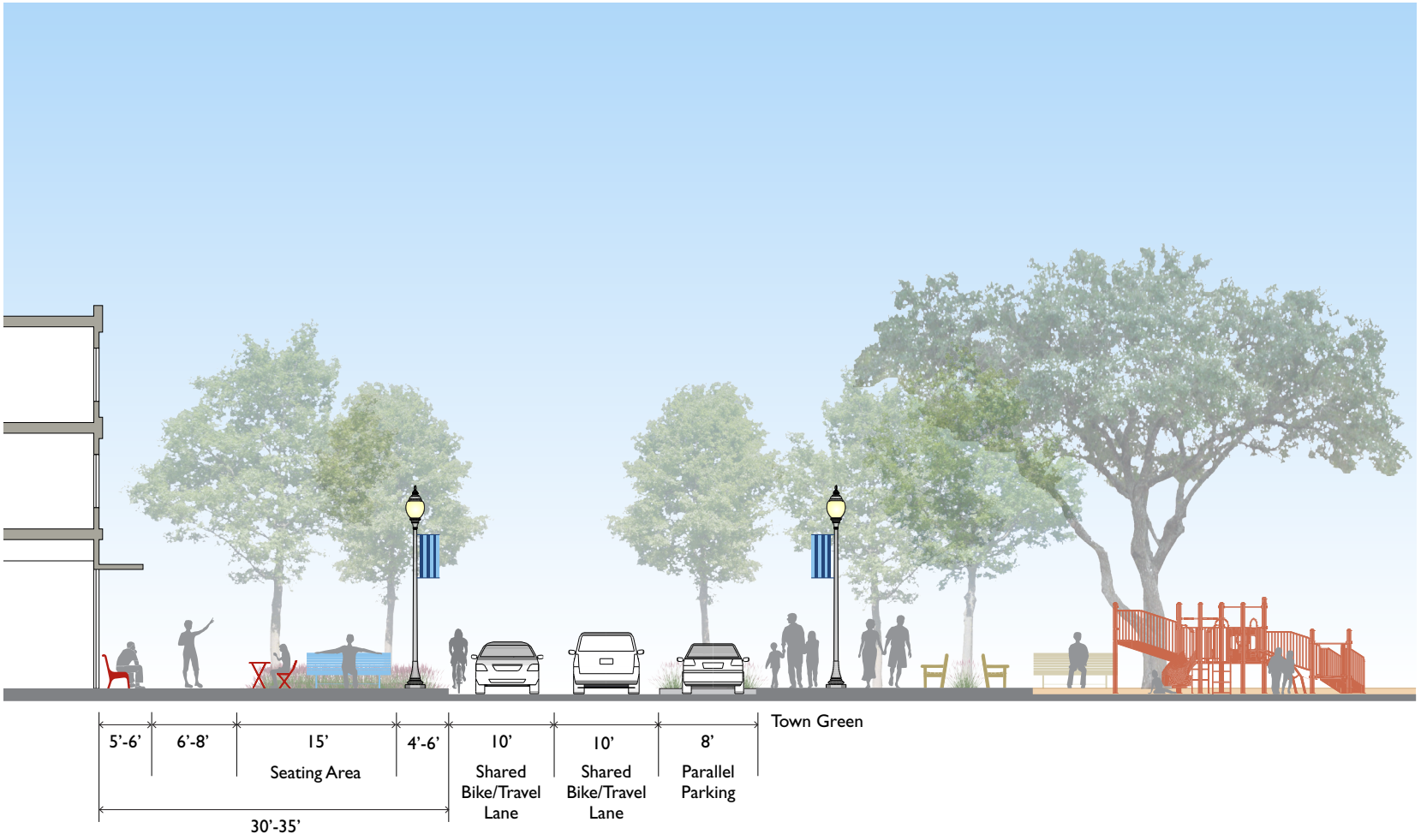


Figure 3-4: Pedestrian Connection with Mature Oak Trees



Figure 3-5: Town Green Loop



3.2 BUILDING DESIGN

Building design shapes a building's character and dictates how a building relates to the public realm. The composition of a façade can create visual interest and ensure pedestrian orientation. Building details and articulation can both create design variety and establish harmony within a development or among adjacent buildings.

Existing buildings in the Downtown core, while successful, generally use a similar design palette—in terms of massing, building heights, color, and the emulated historic look. As infill sites are redeveloped and the core expands, the Plan seeks to establish a greater diversity in building design and appearance, while retaining the pedestrian scale and unified public realm established in recent developments. The following policies, together with the development standards and design guidelines, work to ensure high quality design for the Planning Area.

GOALS AND POLICIES

Goal DES-B: Foster a unique sense of place that further establishes Windsor's identity as the center of Downtown, a place for community gathering, and a regional destination.

Goal DES-C: Promote compact development patterns and an urban feel through higher intensity development and quality design.

DES-13 Allow a variety of architectural styles, providing that the design is finely articulated, pedestrian oriented, incorporates neighborhood identity, and matches the rhythm of existing structures.

DES-14 Design buildings with unified and harmonious façades, integrating all elements, including signs, balconies, and building entrances.

DES-15 Require high-quality design that enhances the appearance of and contributes positively to the visual context of the area and that reflects the area's identity as the center of Windsor.

DES-16 Provide vertical and horizontal articulation in building mass through strategies such as stepbacks at upper levels, recesses and projections, changes in materials and transparency, and variations in height.

Goal DES-D: Continue to promote green leadership in Windsor and expand Downtown as a green and healthy community.

DES-17 Ensure that development incorporates green building measures such as energy-efficient building design, passive heating/cooling strategies, wastewater technologies, water use reduction, water efficient fixtures, and green building materials.

DES-18 Ensure that development incorporates sustainable site design measures such as permeable paving, stormwater management, and water efficient landscaping.

3.3 DESIGN AND DEVELOPMENT STANDARDS

Districts and Development Standards

The Windsor Station Area/Downtown Specific Plan is implemented through policies in the Plan, amendments to the Windsor Zoning Ordinance, and development standards listed in the Plan. Tables 3-1 through 3-5 outline the specific development standards for each district within the Planning Area. A map of the districts within the Planning Area is shown in Chapter 2: Land Use, Figure 2-1. The following tables and text elaborate on the key development standards for each district and the following section includes design guidelines for development within the Planning Area. The development standards serve as the zoning for the area and supersede development standards in the Windsor Zoning Ordinance. Where specific standards are not listed within the Specific Plan, the applicable sections of the Windsor Zoning Ordinance will regulate development. Permitted, conditionally permitted and prohibited uses for each district are included within applicable sections of the Windsor Zoning Ordinance.

Project Review

All projects within the Planning Area are subject to Site Plan and Design Review in accordance with Chapter 27.42 of the Town's Zoning Ordinance.

3.3-1 Village Residential

Development Standards. Table 3-1 prescribes the development standards for the Village Residential (VR) District. Additional regulations are denoted in a right hand column. Chapter/section numbers in the table refer to the Town of Windsor Zoning Ordinance. The letters in Figure 3-6 refer to corresponding regulations in the "Ref" column in the associated table.

Figure 3-6:
Village Residential

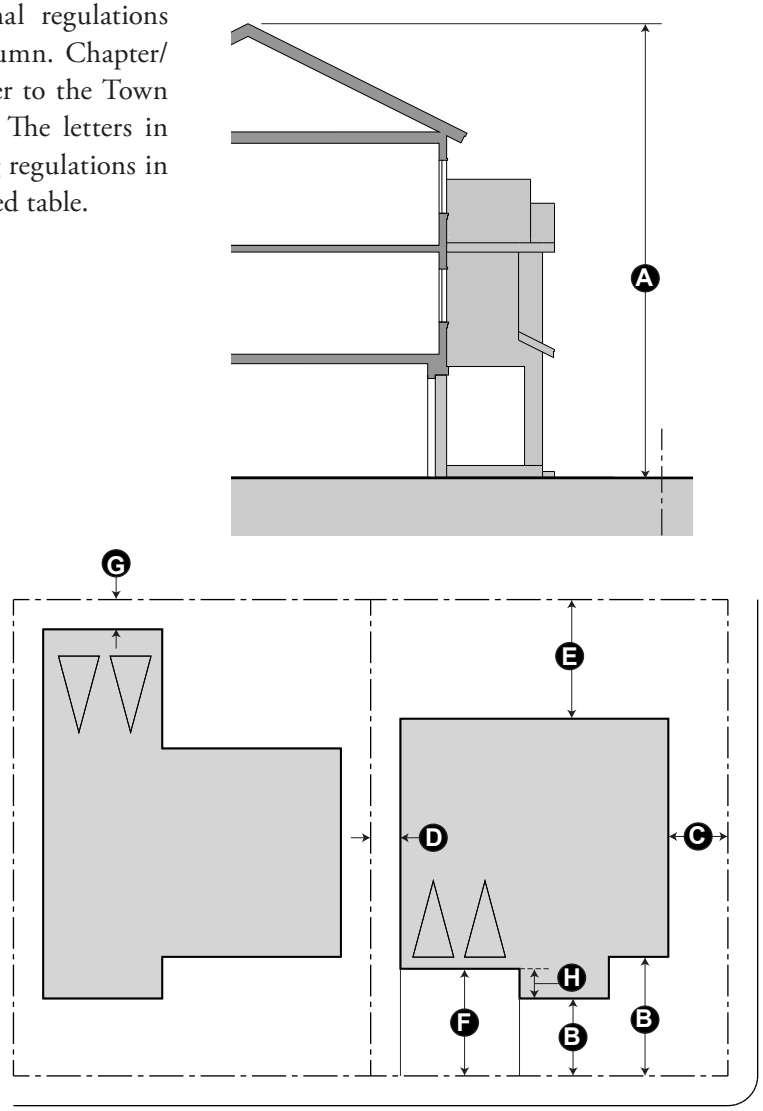


TABLE 3-1: DEVELOPMENT STANDARDS – VILLAGE RESIDENTIAL (VR)

District	VR	Additional Development Standards	Ref
Density, Lot, and Block Size			
Density (Dwelling Units per Gross Acre)	5-8		
Minimum Lot Size (sq ft)	5,000		
Minimum Lot Width (ft)	60		
Building Form and Location			
Maximum Building Height (ft)	35		A
Minimum (or maximum if specified) Setback (ft)		See Chapter 27.20.	
Front	13 min; 20 max		B
Front (Infill Development)	The average of the front setbacks of the two nearest buildings on the same block face or the minimum setback shown above, whichever is less		
Street Side	10		C
Interior Side	5		D
Rear	20		E
Garage	18 from front property line or back of sidewalk, whichever is greater		F
Attached Garage, from Rear Property Line	5		G
Garage, from Primary Façade	5		H
Distance Between Structures	See Section 27.08.050		
Accessory Structures	See Section 27.34.170		
Projections	See Chapter 27.20		
Porch or Stoop Minimum Height Above Sidewalk (ft)	2		
Stoop Minimum Length and Width (ft)	6		
Maximum Site Coverage (% of Lot)	50		
Open Space and Landscaping			
Minimum Usable Open Space (sq ft per unit)	400		
Landscaping	See Chapter 27.28		

Note: The Planning Director may require any proposal to subdivide property to be accompanied with a development plan demonstrating compliance to these Design and Development Standards and other related Town requirements.







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Building design standards include enhanced architecture on corner lots (top), requirements for garage design (middle), and building entrances facing the street (bottom).

Additional Development Standards

(A) **Connectivity.** All streets and alleys shall connect to other streets and alleys to form a continuous vehicular and pedestrian network within the district and to adjacent development. Cul-de-sacs are prohibited.

(B) **Building Design.**

1. *Corner Lots.* Buildings on corner lots shall have enhanced architecture (windows, bay windows, doors, wraparound porches, projections, changes in roofline) on both street frontages. These enhanced architecture features shall be provided for a minimum of 50 percent of the side street frontage elevation.

2. *Garages.* Garages located on the half front of a lot shall be designed with the same level of architectural detail as the main building. Architectural features that minimize the prominence of the garage, such as overhangs or trellises, shall be incorporated into the design.

3. *Universal Design.*[1] For projects within a half mile from the Station and with 20 or more dwelling units, 10 percent of the units shall be designed to be habitable by persons with disabilities.

(C) **Building Entrances.**

1. *Location.* Primary building entries shall be located on the front façade and directly face the street.

2. *Design.* Primary building entries shall incorporate a projection (e.g., porch) or recess, or combination of projection and recess at least 48 square feet in area. The minimum width of the entry feature shall be 20 percent of the width of the street-facing façade. Alternative designs that create a welcoming entry facing the street such as a prominent porch provided for side doors, or entry courtyard that provides a direct walkway to the street may be allowed.

   a. *Subdivisions.* Units with side entrances along a street shall not exceed 25 percent of all homes along a street.

(D) **Garage Location.**

1. *Detached Garages.* Detached garages shall be located in the rear half of the lot. The Planning Director may approve a detached garage in the front half of the lot subject to the front setback requirements where the size, shape, topography, location, surroundings or existing structures of the property makes it infeasible to locate the garage in the rear half of the lot.

1 *Universal Design is a design approach that strives to make day-to-day living and home tasks possible and safer for everyone, allowing a person to remain independent for as long as possible. Additional resources can be found at the North Carolina State University Center for Universal Design website: http://www.ncsu.edu/www/ncsu/design/sod5/cud/.*

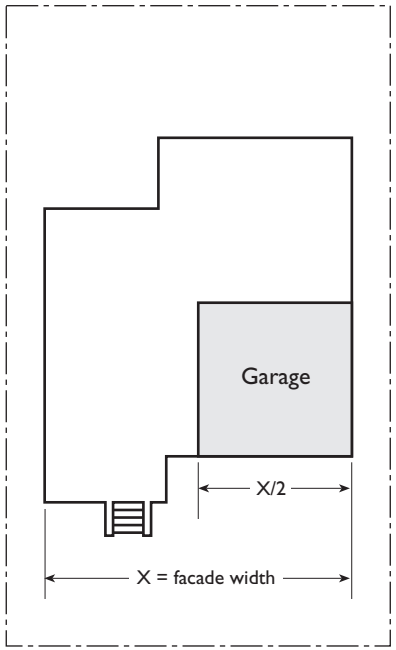
2. *Attached Garages.* Where an attached garage is located on the front half of the existing lot and garage doors face a street, garage width shall not exceed 50 percent of the width of the front façade of the building, as shown in Figure 3-7. For lots less than 45 feet in width, exceptions to the garage frontage requirement may be granted where the Planning Director finds that the visual prominence of the garage has been minimized.

3. *Parking Access.* Garages shall be accessed from a side street or alley whenever possible. Curb cuts shall be minimized and located in a manner least likely to impede pedestrian circulation.

(E) **Paving.** The maximum amount of paving in street-facing yards is 50 percent of the required yard.

(F) **Subdivisions.** Subdivision projects with 10 or more units shall provide a minimum of three different garage or setback configurations.

Figure 3-7:
Attached Garages in Village Residential



No more than 50 percent of facade width may be devoted to garage

3.3-2 Medium Density Residential and Compact Residential

Development Standards. Table 3-2 prescribes the development standards for the Medium Density Residential (MDR) District and Compact Residential (CR) District. Additional regulations are denoted in a right hand column. Chapter/section numbers in the table refer to the Town of Windsor Zoning Ordinance, while individual letters refer to subsections that directly follow the table below "Additional Development Standards." The letters in Figure 3-8 refer to corresponding regulations in the "*Ref*" column in the associated table.

Figure 3-8:
Medium Density Residential and Compact Residential

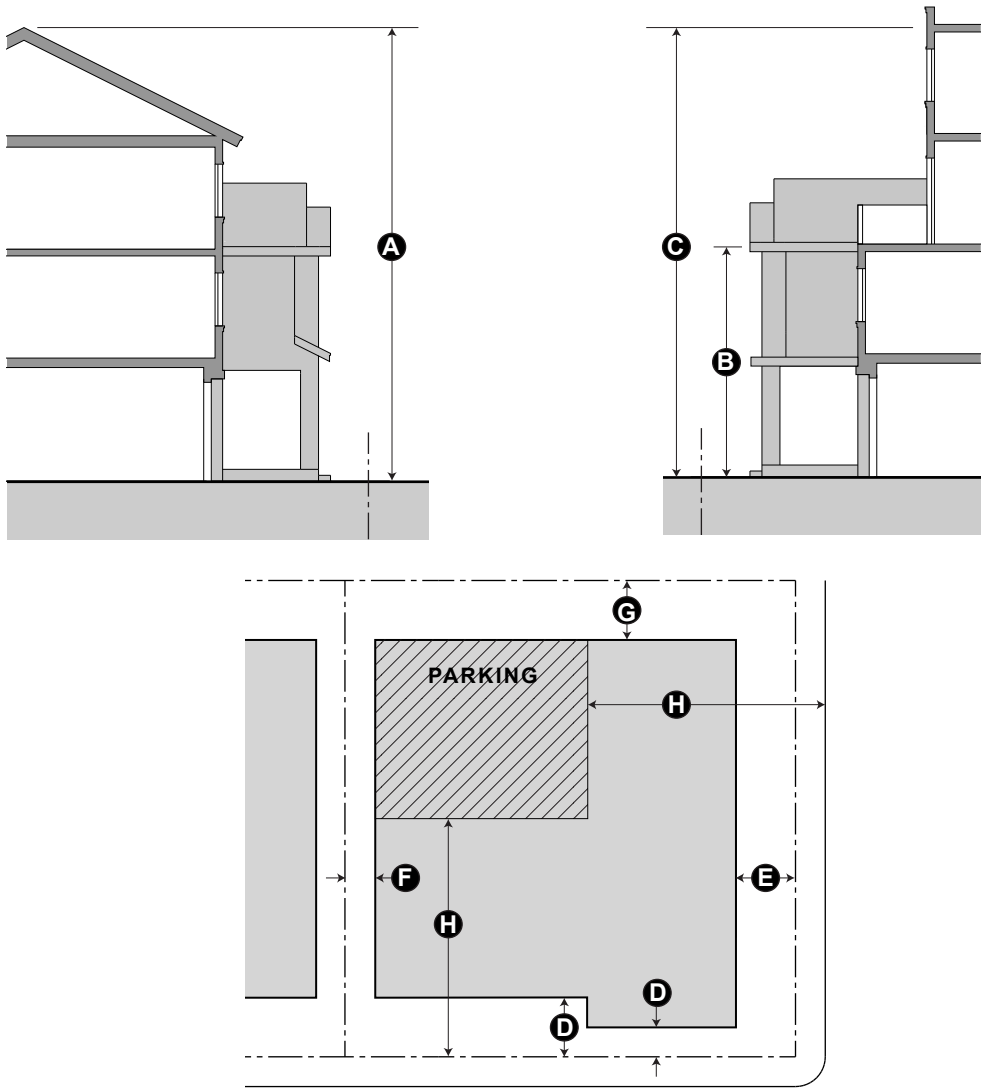


TABLE 3-2: DEVELOPMENT STANDARDS – MEDIUM DENSITY RESIDENTIAL (MDR) AND COMPACT RESIDENTIAL (CR)

District	MDR	CR	Additional Development Standards	Ref
Density, Lot, and Block Size				
Density (Dwelling Units per Gross Acre)	8-16	12-24, up to 32	(A)	
Minimum Lot Size (sq ft)	3,500	3,500		
Minimum Lot Width (ft)	40	20		
Building Form and Location				
Maximum Building Height (ft)	35	n/a		A
Minimum Stories	n/a	2		B
Maximum Stories	n/a	4, up to 5	(A)	C
Minimum (or maximum if specified) Setback (ft)			See Chapter 27.20	
Front	5 min; 10 max	5 min; 10 max		D
Front (Infill Development)	The average of the front setbacks of the two nearest buildings on the same block face or the minimum setback shown above, whichever is less			D
Street Side	10	10		E
Interior Side	5	5		F
Rear	15	10		G
Parking, from street facing property line	40	40	(B)	H
Distance Between Structures	See Section 27.08.050			
Accessory Structures	See Section 27.34.170			
Projections	See Chapter 27.20			
Maximum Site Coverage (% of Lot)	70	80		
Open Space and Landscaping				
Minimum Usable Open Space (sq ft per unit)	200	200	(C)	
Landscaping	See Chapter 27.28			

Note: The Planning Director may require any proposal to subdivide property to be accompanied with a development plan demonstrating compliance to these Design and Development Standards and other related Town requirements.

Additional Development Standards

(A) **Increased Density and Height.** A maximum density of 32 dwelling units per gross acre and up to a maximum height of five stories may be permitted for sites with CR zoning subject to design review and findings by the Planning Commission that the project will be in harmony with the surroundings, include high quality design, and promote pedestrian and bicycle use.

(B) **Parking Setback.** Parking may be located within 40 feet of the street facing property line if the following criteria is met:

1. *Underground and partially Submerged Parking.* Parking completely or partially underground may match the setbacks of the main structure. The maximum height of a parking podium visible from a street is five feet from finished grade.

2. *Surface Parking.* Above-ground parking may be located within 40 feet of a street facing property line with Planning Commission approval, when all of the following findings can be made:

    a. The design incorporates habitable space built close to the public sidewalk to the maximum extent feasible;

    b. The parking area is located in the rear half of the lot;

    c. The parking area is well screened with a wall, hedge, trellis and/or landscaping; and

    d. The site is small and constrained that underground, partially submerged, or surface parking located more than 40 feet from the street frontage is not feasible.

(C) **Open Space.** Projects with two or more dwelling units shall provide usable open space in accordance with Table 3-2. Minimum usable open space may be a combination of common open space accessible to all project residents or private open space for the exclusive use of a single dwelling.

1. *Common Open Space.* At the ground level, common open space shall have a minimum contiguous area of 400 square feet and a minimum dimension of 20 feet.

2. *Private Open Space.* Private open space located on the ground level (e.g., yards, decks, patios) shall have a minimum area of 100 square feet and a minimum dimension of 10 feet. Private open space located above ground level (e.g., balconies) shall have a minimum area of 50 square feet and a minimum dimension of 6 feet.

3. *Alternative Provision of Open Space.* For projects that are within 0.25 miles of an existing park, the amount of usable open space required may be decreased by 50 percent, subject to Planning Commission approval, if the project provides off-site improvements. This may include amenities or infrastructure other than standard requirements and improvements, additional funding for new or enhanced public spaces, or improved access to nearby parks.



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Example of common open space.

(D) **Residential Multiple-Unit Development.** The following standards apply to Multiple-Unit development.

1. *Building Length.* The maximum dimension of any single building shall not exceed 125 feet; exceptions may be granted with Planning Commission approval, based on the finding that adequate design features have been incorporated to create visual variety and avoid a large-scale, bulky, or monolithic appearance.

2. *Architectural Articulation.*

   a. Variable Massing. Adjacent buildings and buildings on the same block shall exhibit variation in height and massing.

   b. Façade Detailing and Materials. Each side of a building that is visible from a public right-of-way shall be designed with a complementary level of detailing and quality of materials. Parking garages, ancillary structures, and carports shall be designed to be architecturally compatible with the main building.

   c. Façade Articulation. All street-facing facades must include vertical projections or recesses at least four feet in depth, or two projections or recesses at least 2.5 feet in depth, for every 25 horizontal feet of wall. If located on a building with two or more stories, the articulated elements must be greater than one story in height, and may be grouped rather than evenly spaced in 25-foot modules. Building entrances and front porches and projections into required yards such as stoops, bays, overhangs, fireplaces, and trellises count towards this requirement.

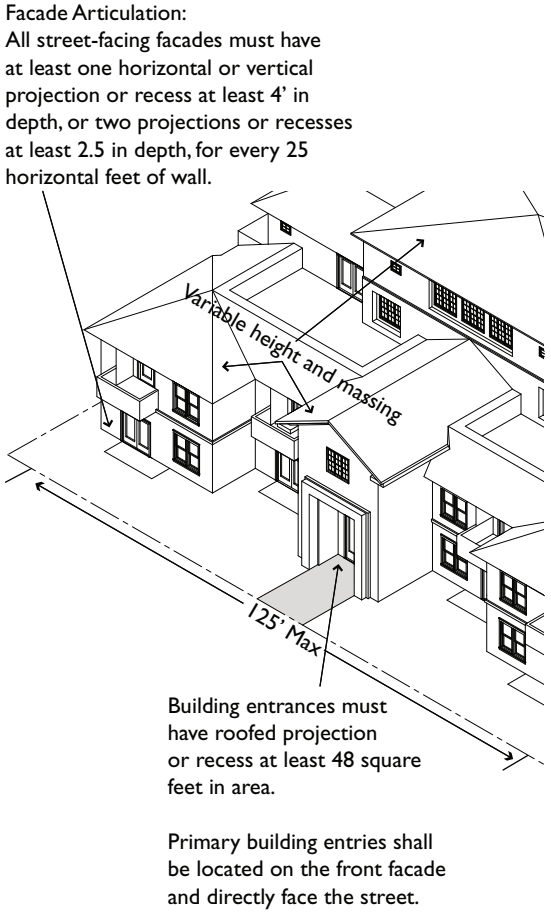
3. *Universal Design.* For projects within one-half mile from the Station and with 20 or more dwelling units, 10 percent of the units shall be designed to be habitable by persons with disabilities.

4. *Building Entrances.* Primary building entries shall be located on the front façade and directly face the street, and shall incorporate a projection (e.g., porch) or recess, or combination of projection and recess at least 48 square feet in area. Alternative designs that create a welcoming entry facing the street such as a prominent porch provided for side doors, or entry courtyard that provides a clear and direct walkway to the street may be allowed.

5. *Parking Access.* Garages shall be accessed from a side street or alley whenever possible. Curb cuts shall be minimized and located in a manner least likely to impede pedestrian circulation.

6. *Paving.* The maximum amount of paving in street-facing yards is 50 percent of the required yard.

Figure 3-9:
Residential Multiple-Unit Development



3.3-3 Community Commercial and Town Center

Development Standards. Table 3-3 prescribes the development standards for the Community Commercial (CC) District and Town Center (TC) District. Additional regulations are denoted in a right hand column. Chapter/section numbers in the table refer the Town of Windsor Zoning Ordinance, while individual letters refer to subsections that directly follow the table below "Additional Development Standards." The letters in Figure 3-10 refer to corresponding regulations in the "Ref" column in the associated table.

Figure 3-10:
Community Commercial and Town Center

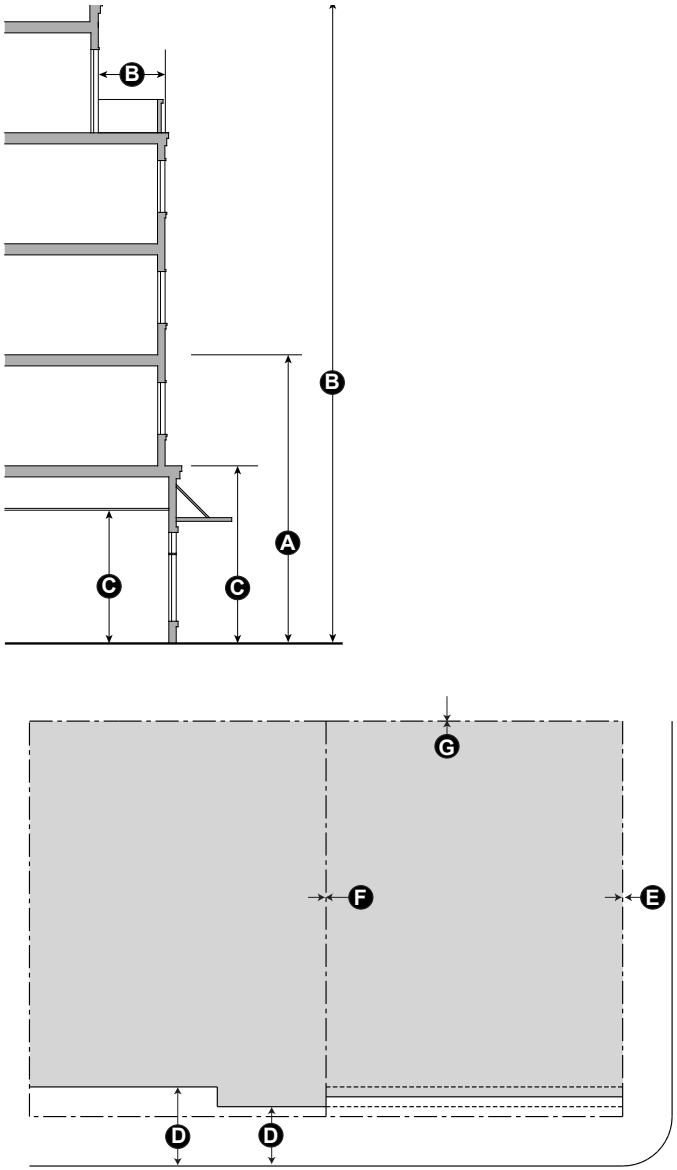


TABLE 3-3: DEVELOPMENT STANDARDS – COMMUNITY COMMERCIAL (CC) AND TOWN CENTER (TC)

District	CC	TC	Additional Development Standards	Ref
Intensity, Lot, and Block Size				
Minimum Floor Area Ratio (FAR)	n/a	0.75 (inclusive of residential density)		
Maximum Floor Area Ratio (FAR)	1.0	2.5 (inclusive of residential density)		
Required Active Use Frontage	See Figure 2.1: Land Use Diagram		(A)	
Minimum Lot Size (sq ft)	10,000	2,000		
Maximum Lot Perimeter (ft)	n/a	1,600; 2,000 for blocks with structured parking		
Height				
Minimum Building Height (ft)	20	2 stories (B)	(C)	A
Maximum Building Height (ft)	45	57 (D)		B
Minimum Ground Floor Height, Non-Residential Uses (ft)	15	15; 12 min. clearance	(E)	C
Maximum Finished First Floor Height, Non-Residential Uses (ft)	n/a	2	(E)	
Maximum Finished First Floor Height, Residential Uses (ft)	n/a	5	(E)	
Building Placement				
Minimum (or maximum if specified) Setback (ft)			See Chapter 27.20	
Front	0 min; 10 max	12.5 min from face of curb	(A) (F)	D
Street Side	0 min	16 max from face of curb		E
Interior Side	0 min; 15 min adjacent to Residential Zone	0 min		F
Rear	0 min; 15 min adjacent to Residential Zone	0 min; 15 min adjacent to Residential Zone		G
Maximum Site Coverage (% of Lot)	50	n/a		

TABLE 3-3: DEVELOPMENT STANDARDS – COMMUNITY COMMERCIAL (CC) AND TOWN CENTER (TC)

District	CC	TC	Additional Development Standards	Ref
Building Form				
Maximum Length of Blank Wall (ft)	20	20	(G)	
Building Projections (ft)	3; Minimum 9 feet above sidewalk grade			
Canopies and Awnings (ft)	5; Minimum 8 feet above sidewalk grade			
Open Space and Landscaping				
Required Public Open Space Area			(H)	
Minimum Size (sq ft)				
Lots less than 15,000 sq ft	n/a	n/a		
Lots between 15,000 and 30,000 sq ft	300	300		
Lots 30,000 sq ft or more	600	600		
Minimum Dimensions (ft)	15	15		
Minimum Residential Usable Open Space (sq ft per unit)	n/a	150(I)		
Landscaping	See Chapter 27.28			
Parking Location and Loading				
Parking, from street facing property line	40	40	(J)	
Maximum Parking Frontage (% of Linear Street Frontage)	20	20	(K)	
Loading	See Section 27.30.100			

Note: The Planning Director may require any proposal to subdivide property to be accompanied with a development plan demonstrating compliance to these Design and Development Standards and other related Town requirements.

Additional Development Standards

(A) **Required Active Use Frontage.** Where indicated in the Land Use Diagram/Figure 2.1, active uses are required on the ground floor. Active uses mean commercial uses that are accessible to the general public, generate walk-in pedestrian clientele, are engaging to pedestrians walking by, and contribute to a high level of pedestrian activity. Active uses may include (but are not limited to): stores, restaurants, cafés, markets, bars, theaters and the performing arts, commercial recreation and entertainment, personal and convenience services, tourism-oriented services, hotel lobbies, banks, childcare services, libraries, museums, and galleries.

1. *Exception.* The Planning Director may allow substitution of an active use subject to the requirements of this chapter.

   a. Planning Director Review. The Planning Director shall find that the proposed new use will not detract from an active pedestrian environment.

   b. Conditions. When making a decision on an application for a substitution of use, the Planning Director may establish conditions including, but not limited to:

      i. A specified term of years for which the substitute use shall be allowed; and

      ii. The provision of space that is equipped (water, sewer, ventilation, etc) for active uses and that would not preclude future active uses from the property.

2. *Minimum Front Setback.* The front setback along required active use frontage areas shall be a building average of 18.5 feet with a building minimum of 16.5 feet.

(B) **Two Story Exception.** The Planning Commission may approve single-story development, along with a reduction in FAR, on the "Richardson Property" lot #2, located between Richardson Street and Old Redwood Highway, when they find that the project design functions in harmony with the Downtown character.

(C) **Large Format Retail.** Require commercial uses that exceed 10,000 square feet to have a multi-storied format rather than be spread out horizontally. Single use large format retail projects that exceed 80,000 square feet shall integrate other uses into the development. The Planning Commission may approve an exception if it is found that the design functions in harmony with the Downtown character.





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Example of ground floor active use that generates a high level of pedestrian activity (top). Example of a two story large format retail building (bottom).

(D) **Fifth Story Limitation.** The fifth story of all buildings, or any portion of building taller than 47 feet, shall be stepped back a minimum of six feet from the story below along all sides.

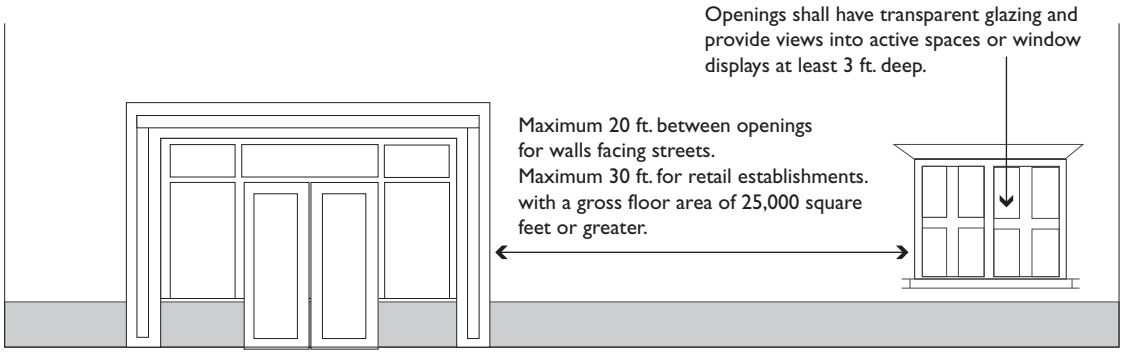
(E) **Heights.**

1. *Ground Floor Height.* The minimum ground floor height for buildings with non-residential uses at the ground level is 15 feet, with a minimum 12 foot clearance from floor to ceiling.
2. *Finished Floor Height.* The maximum finished floor height for ground floor non-residential uses is two feet above grade. The maximum finished floor height for ground floor residential uses is five feet above grade.

(F) **Build-to Line.**

1. *Community Commercial.* Buildings shall be constructed at the required front setback for at least 50 percent of linear street frontage.
2. *Town Center.* Buildings shall be constructed at the required front setback for at least 70 percent of linear street frontage.
3. *Exception.* The Build-to Line requirement may be modified or waived by the Planning Commission if entry courtyards, plazas, entries, outdoor eating and display areas, or mature oak trees are located between the build-to line and building, provided that the buildings are built to the edge of the courtyard, plaza, dining, or landscaped area.

Figure 3-11:
Blank Walls



(G) **Blank Walls.** No walls facing streets may run in a continuous plane for more than 20 feet without an opening. Openings fulfilling this requirement shall have transparent glazing and provide views into work areas, display areas, sales areas, lobbies, or similar active spaces, or into window displays that are at least three feet deep. The maximum length of the blank wall may be 30 feet for retail establishments with a gross floor area of 25,000 square feet or greater, as shown in Figure 3-11.

(H) **Required Public Open Space.**

1. *Location.* Such public space shall be visible from a public street, or from on-site areas normally frequented by customers, and shall be accessible during business hours. Areas within required setbacks may count toward the public space requirement.

2. *Amenities.* On-site public space shall include benches or other seating, and the ground surface shall be landscaped or surfaced with high-quality paving materials. Amenities shall be included that enhance the comfort, aesthetics, or usability of the space, including but not limited to trees and other landscaping, shade structures, drinking fountains, water features, or public art.

(I) **Residential Open Space.** Projects with two or more dwelling units shall provide usable open space in accordance with Table 3-3. Minimum usable open space may be a combination of common open space accessible to all project residents or private open space for the exclusive use of a single dwelling.

1. *Common Open Space.* At the ground level, common open space shall have a minimum contiguous area of 400 square feet and a minimum dimension of 20 feet.

2. *Private Open Space.* Private open space shall have a minimum area of 50 square feet.

3. *Alternative Provision of Open Space.* For projects that are within 0.25 miles of an existing park, the amount of usable open space required may be decreased by 50 percent, subject to Planning Commission approval, if the project provides off-site improvements. This may include amenities or infrastructure other than standard requirements and improvements, additional funding for new or enhanced public spaces, or improved access to nearby parks.

(J) **Parking Setback.** Parking may be located within 40 feet of the street facing property line in accordance with the following standards.

1. *Underground and Partially Submerged Parking.* Parking completely or partially

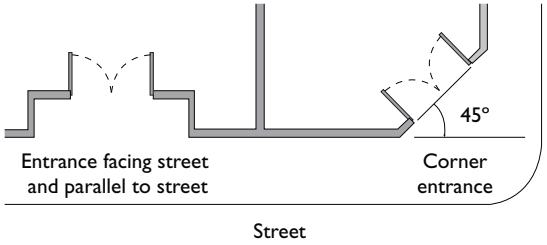

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Examples of common open space.

Figure 3-12:
Building Entrances



underground may match the setbacks of the main structure. The maximum height of a parking podium visible from a street is encouraged to be three to four feet from finished grade with a maximum of five feet from finished grade.

2. *Surface Parking.* Above ground parking may be located within 40 feet of a street facing property line with Planning Commission approval, when all of the following findings can be made:

   a. The design incorporates habitable space built close to the public sidewalk to the maximum extent feasible;

   b. The parking area is well screened with a wall, hedge, trellis and/or landscaping; and

   c. The site is small and constrained that underground, partially submerged, or surface parking located more than 40 feet from the street frontage is not feasible.

   d. Public agency owned park-and-ride lots or parking at the SMART Station site are exempt from this requirement.

(K) **Parking Frontage.** Parking may not exceed 20 percent of linear street frontage, except with Planning Commission Approval. This requirement does not apply to park-and-ride lots or parking for the SMART Station.

(L) **Building Orientation and Entrances**

1. Buildings shall be oriented to face public streets. Residential development adjacent to public spaces or connections shall be oriented facing onto the public space.

2. Building entrances shall be emphasized with small entry plazas, vertical massing, and architectural elements such as awnings, arcades, or porticos.

3. Entrances located at corners or adjacent to pedestrian connections shall generally be located at a 45 degree angle to the corner or pedestrian connection and shall have a distinct architectural treatment to animate the intersection and facilitate pedestrian flow around the corner. Different treatments may include angled or rounded corners, arches, and other architectural elements. All building and dwelling units located in the interior of a site shall have entrances from the sidewalk that are designed as an extension of the public sidewalk and connect to a public sidewalk.

4. All ground floor residential units shall have the primary entrance, either individual or shared, facing the public street or a pedestrian connection, and shall incorporate a projection (e.g., porch or stoop) or recess at least 40 square feet in area, with a minimum depth of five feet. Alternative designs that create a welcoming entry feature facing the street, such as a trellis or landscaped courtyard entry, may be approved by the Planning Commission.

5. In residential mixed-use developments, entrances to residential units shall be located off the street, physically separated from the entrances to the permitted commercial uses, and clearly marked with a physical feature such as a recess or projection incorporated into the building or appropriately scaled element applied to the façade.

(M) **Building Transparency and Required Openings.**

1. *Community Commercial.* A minimum of 50 percent of building façades facing streets containing non-residential uses shall be comprised of clear, non-reflective windows that allow views of indoor space between two and 12 feet above the sidewalk.

2. *Town Center.* A minimum of 70 percent of building facades facing streets containing non-residential uses shall be comprised of clear, non-reflective windows that allow views of indoor space between two and 12 feet above the sidewalk

(N) **Depth of Ground Floor Commercial.** The minimum average depth of ground floor commercial shall be 75 feet, or 65 feet for parcels less than 100 feet in depth. The Planning Director may approve a reduced average depth of 65 feet, or 55 feet for parcels less than 100 feet in depth to allow for efficient site layout and site configuration. Exceptions beyond that are subject to Planning Commission approval.

(O) **Architectural Articulation.** Buildings shall include sufficient architectural design features to create visual interest and avoid a large-scale, bulky or "box-like" appearance. Different ways that this requirement may be met include but are not limited to those listed below; compliance with this requirement shall be evaluated by the Planning Commission in the review process.

1. *Variety in Wall Plane.* Exterior building walls vary in depth and/or direction. Building walls exhibit offsets, recesses, or projections with significant depth, or a repeated pattern of offsets, recesses, or projections of smaller depth.

2. *Variety in Height or Roof Forms.* Building height is varied so that a significant portion of the building has a noticeable change in height; or roof forms are varied over different portions of the building through changes in pitch, plane, and orientation.

3. *Façade Design Incorporates Architectural Detail.* The building façades incorporate details such as window trim, window recesses, cornices, belt courses, changes in material, or other design elements in an integrated composition. The use of materials, textures, and colors enhance architectural interest and emphasize details and changes in plane. Each side of a building that is visible from a public right-of-way incorporates a complementary level of detailing and quality of materials.

Figure 3-13:
Transparency and Articulation





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Examples of internal pedestrian connections.

(P) **Universal Design.** In Town Center, for projects within ½ mile from the Station and with 20 or more dwelling units, 10 percent of the units shall be designed to be habitable by persons with disabilities.

(Q) **Pedestrian Access.** On-site pedestrian circulation and access must be provided according to the following standards.

1. *Internal Connections.* A system of pedestrian walkways shall connect all buildings on a site to each other, to on-site automobile and bicycle parking areas, and to any on-site open space areas or pedestrian amenities.

2. *To Street and Open Space Network.* Regular connections between on-site walkways and the public sidewalk, public open space, and other pedestrian areas shall be provided.

3. *To Neighbors.* Direct and convenient access shall be provided from commercial and mixed-use projects to adjoining residential and commercial areas to the maximum extent feasible while still providing for safety and security.

4. *To Transit.* Safe and convenient pedestrian connections shall be provided from transit stops to building entrances. Sidewalk "bulb-outs" or bus "pull-outs" may be required at potential bus stops.

5. *Interior Pedestrian Walkway Design.*

   a. Walkways shall be a minimum of five feet wide, clear of obstructions, shall be hard-surfaced, and paved with permeable materials.

   b. Where a required walkway crosses driveways, parking areas, or loading areas, it must be clearly identifiable through the use of a raised crosswalk, a different paving material, decorative paving, striping, or similar method.

   c. Where a required walkway is parallel and adjacent to an auto travel lane, it must be raised or separated from the auto travel lane by a raised curb at least four inches high, bollards, or other physical barrier.

(R) **Parking Access.** Parking shall be accessed from a side street or alley whenever possible. Curb cuts shall be minimized and located in the location least likely to impede pedestrian circulation.

3.3-4 Public/Institutional

Development Standards. Table 3-4 prescribes the development standards for the Public/Institutional (P/I) District. Chapter/section numbers in the table refer to the Town of Windsor Zoning Ordinance.

3.3-5 Open Space and Recreation

See Town of Windsor Zoning Ordinance.

TABLE 3-4: DEVELOPMENT STANDARDS – PUBLIC/INSTITUTIONAL (P/I)

District	P/I	Additional Regulations
Building Form and Location		
Maximum Building Height (ft)	57	
Minimum Setbacks (ft)		See Chapter 27.20
Front	0	
Street Side	0	
Interior Side	0	
Rear	0	
Maximum Site Coverage (% of Lot)	100	

3.3-6 Office Overlay

(A) **Land Uses.** Office use and any land use allowed in the underlying district are allowed in the Office Overlay district.

(B) **Development Standards.** Projects shall be designed and developed subject to the standards of the underlying district.

(C) **Access and Parking.** Convenient bicycle and pedestrian access and adequate parking shall be provided. Where office space exceeds 2,000 square feet, additional parking spaces may not be required provided that the project applicant demonstrates that the project will not have a detrimental impact on parking and circulation in the surrounding area.

3.3-7 Entertainment Overlay

(A) **Land Uses.** Residential uses are not permitted.

(B) **Development Standards.** Projects shall be designed and developed subject to the standards of the underlying district.

3.3-8 Number of Parking Spaces Required

(A) **Parking Requirements by Land Use.** Each land use shall provide the number of off-street parking spaces as specified in the Chapter 27.30 of the Town of Windsor Zoning Ordinance except as noted in Table 3-5. All districts are eligible for the shared-use parking reduction provided that they meet the eligibility requirements listed in Section 27.30.050(C)(1) of the Town of Windsor Zoning Ordinance. Additional parking requirement reductions for mixed-use developments with shared parking in the Town Center district are outlined in Table 3-5.

(B) **Unbundling Parking from Residential Uses.** Resident parking may be sold or rented separate from the residential unit. All spaces shall be reserved for residential tenants on the same site.

(C) **In-lieu Parking Fee.** The Planning Director may waive some or all of the parking spaces required for a nonresidential use if an in-lieu fee is approved by the Planning Director and contributed by the developer to a parking district improvement fund. The amount of the fee and the boundary of the parking district shall be established by Council Ordinance. The reduction in the total number of parking spaces required shall be based on the number of spaces purchased in the public parking facility.

TABLE 3-5: PARKING REQUIREMENTS BY LAND USE

Town Center		
	Minimum Off-Street Parking Requirement **First 2,000 square feet of all uses are exempt from all parking requirements.**	
	Automobile with Shared Parking[1]	**Bicycle[2]**
Non-residential Uses	To be determined by analysis using MTC Smart Growth Parking Model or another methodology acceptable to the Town. In no case shall the parking provided be less than half of the number of spaces required by the Town of Windsor Zoning Ordinance for each individual use calculated separately.	One per 5 auto spaces, located conveniently to serve customers, visitors, and employees of the project. A portion of the bicycle parking shall be located within 25 feet of the primary building entrance.
Residential	0.25 spaces per unit required for visitor parking. No separate minimum resident parking standard. Where a Conditional Use Permit is required for the use, the Planning Commission will establish the ultimate parking requirement during the Conditional Use Permit application process. Generally, maximum resident parking shall not exceed two spaces per unit.	Two per 4 residential units, unless separate secured garage space is provided for each unit. The bicycle spaces shall be secure, covered, and located conveniently for residents and visitors.
Other Uses	Refer to Zoning Code	
Compact Residential (CR) and Medium Density Residential (MDR)		
Unit Type	**Automobile Parking[1]**	**Bicycle[2]**
Studios or One-Bedroom Units	1.0 covered space per unit, plus 0.5 spaces per unit required for visitor parking.	Two per 4 residential units, unless separate secured garage space is provided for each unit. The bicycle spaces shall be secure, covered, and located conveniently for residents and visitors.
Units with Two Bedrooms or More	1.5 covered spaces per two-bedroom unit, plus 0.5 spaces per unit required for visitor parking Each additional bedroom (over two) add 0.5 spaces per unit.	

1. Motorcycle parking can substitute for up to 10 percent of parking requirement.

2. No use is required to provide a total of more than 50 bicycle spaces.

3.4 DESIGN GUIDELINES

The following Design Guidelines complement the mandatory standards listed in the previous section, and shall form the basis for project design review.

Building Design

DG-1 Adjacent buildings and buildings on the same block should exhibit variation in height and massing.

DG-2 Main entrances should face onto public streets or the Town Green. Buildings that face onto two public streets should provide visible and accessible entrances onto both streets. Secondary building entrances are encouraged to access pedestrian connections and side streets.

DG-3 Corner buildings should have distinct architectural features and defined building entrances at the corner to animate the intersection and facilitate pedestrian flow.







Variations in building heights and massing add interest and maintain a pedestrian-oriented scale (top and middle). Main entrances should face onto main streets and the Town Green (bottom).



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Building entrances should face onto the street (top). Corner buildings should be distinct and well defined (middle). Building facades should be unified and harmonious (bottom).





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Building facades should be articulated with three-dimensional elements such as balconies, recesses, and windows (right and left).

DG-4 Building mass and surfaces should be articulated with three-dimensional elements that create a visual play of light and shadow and reduce the apparent bulk of buildings:

- Incorporate design features such as balconies, recesses, windows, reveals, brackets, cornices at the roof and at the top of the ground floor, and piers at corners and structural bays.
- Use awnings and over-hangs to provide shelter and shade over the sidewalk along pedestrian-oriented retail streets and to enhance the pedestrian realm. Awnings should be made of durable, high quality materials and should not interfere with the tree canopy.
- Employ variations in building height, façades (such as shallow recesses at entries, roof styles, architectural details), and finishes that break up the appearance of large buildings.
- Use horizontal articulation, such as recessions/projections, change in materials, and building transparency.

DG-5 New development should provide operable windows that allow natural ventilation and potentially eliminate the need for mechanical ventilation. If mechanical systems are necessary, use energy-efficient and low emission heating, ventilation and air conditioning (HVAC) systems.

DG-6 Multilevel residential buildings should provide elevator access to upper units.

DG-7 Mechanical, electrical, and all other building equipment should be concealed from all public rights-of-way, pedestrian paths and adjacent buildings. Mechanical equipment should not be located along the ground floor street frontage. Screens should be consistent with the building design or site landscaping.

Ground Level Commercial

DG-8 Frequent entries and windows with visible activity should occur on all publicly exposed façades of commercial buildings. Design entries so that they are clearly defined and distinguishable as seen from the street by incorporating entry plazas, vertical massing, and architectural elements, such as awnings or porticos.

DG-9 The ground floor of buildings identified for Retail Street Frontage should have visually permeable shop frontages with large windows.

DG-10 Ground floor spaces should be designed to accommodate a variety of uses, for instance by providing spaces of sufficient sizes and equipping with the necessary building infrastructure like gas lines, ventilation, water hook-ups, etc., to accommodate food service establishments.

DG-11 Outdoor dining areas are encouraged on Retail Frontage Streets and along pedestrian connections. Outdoor seating areas may be accommodated within building setbacks as part of the business frontage zone (see guidelines for streets and streetscape).

DG-12 Commercial establishments should be designed to complement the pedestrian oriented nature of the neighborhood centers and the scale of the neighborhood. Larger establishments (including stores and supermarkets) are encouraged to the extent that they are designed with a pedestrian orientation.



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Awnings provide shade and add definition to the pedestrian realm.



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The ground floor should have large windows (top). Outdoor dining is encouraged along the street (middle) and horizontal articulation adds visual interest (bottom).



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Large retail establishments should be multi-storied (top) and should consider features such as arcades to improve pedestrian friendliness (middle). Residential buildings converted to office should retain their residential character (bottom).

DG-13 Where larger retail establishments are constructed, they should incorporate high quality design on all visible façades and be pedestrian-oriented:

- Enclose large retail stores within multi-story buildings.
- Design chain stores and corporate offices to match the local aesthetic.
- Provide fenestration (windows, glass storefronts and doors), cohesive signage, and multiple entries.
- Consider a continuous arcade along the front façade and/or a small plaza to visually define store entries while ensuring sufficient clearance.
- Provide variations in roof line to reduce the apparent bulk and mass of the building.
- Incorporate an appropriate level of design detail, ensuring that loading, storage, and equipment areas are screened and well-integrated into the building.

DG-14 Residential buildings converted to office and new buildings within the Office Overlay zone along Windsor River Road should have a residential character, including the landscaped front setback.

DG-15 Residential buildings converted to office as part of the Office Overlay zone should locate parking on the street, in garages, or small parking lots accessed from an alley or narrow driveway located along the side of the property. Adjacent properties are encouraged to work together to create larger shared parking areas and shared access driveways.

DG-16 Commercial buildings outside the Downtown core may be setback from the street per the development standards. Any area between the building and the sidewalk should be landscaped or used for seating; it should not be used for parking or vehicle circulation.

Ground Level Public/Institutional

DG-17 Access to buildings within public and institutional areas should be visible from the street, with clearly marked entrances and pedestrian connections.

Ground Level Residential

DG-18 All residential units should have the primary entrance, either individual or shared, facing a public street or pedestrian connection, as shown in Figure 3-14.

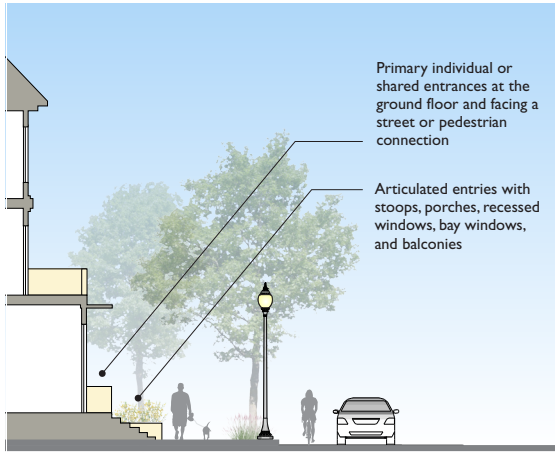
DG-19 Residential ground floor façades should be articulated so that individual residential units are differentiated from each other and from the overall massing of the building. Façades should include stoops, porches, recessed windows, and bay windows or balconies.

DG-20 New transit oriented residential development should accommodate a diverse population. Units, as required by the development standards, should incorporate Universal Design[2] elements to be habitable and visitable by persons with disabilities. Such features include:

- At least one entrance without steps and a flat or very low threshold. This entrance may be a rear entrance.
- Living space on one floor or stair landings big enough to accept lifts.
- Wide interior doors (32" clear, typically provided with 36" door), hallways, and alcoves with 60" x 60" turning space at doors, in kitchens, and dead ends.
- Clear floor space in kitchens and bathrooms.

DG-21 New multifamily residential buildings should provide both townhomes and flats, maximizing townhomes with individual entrances facing public streets.

Figure 3-14:
Ground Level Residential







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Residential entrances should face the street and individual unit entrances should be differentiated (top, middle and bottom).

2 *Universal Design is a design approach that strives to make day-to-day living and home tasks possible and safer for everyone, allowing a person to remain independent for as long as possible. Additional resources can be found at the North Carolina State University Center for Universal Design website: http://www.ncsu.edu/www/ncsu/design/sod5/cud/.*







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Private open space can take various forms, including balconies, front yards and decks, as long as they are safe, provide access to sunlight, and are adequately sized (top and middle). Buildings should be constructed of high quality and durable materials (bottom).

Open Space and Landscaping

DG-22 Spaces should be designed to balance privacy and safety with air and sunlight access. This can be achieved by prioritizing south facing open space opportunities and designing balconies with slatted or otherwise partially transparent grating or railing.

DG-23 Private open spaces, which may include balconies, decks, patios, and fenced yards, should be adequately sized to allow movements and usability.

DG-24 Roof terraces may be installed as an efficient way to use the site and to maximize sunlight access. Green roofs can fulfill common open space requirements if they are usable and accessible to all units.

DG-25 Landscaped and common areas in new development should be maintained privately.

DG-26 Bioswales and rain gardens are encouraged in planting areas and curb extensions to provide retention basins and improved stormwater management.

Materials and Color

DG-27 Building façades should be constructed of high quality and durable materials. Highly finished materials such as polished metal and reflective glass and extremely rustic materials such as unfinished wood should be used appropriately as building accents.

DG-28 Color palettes should reinforce building identity and should complement changes in plane.

DG-29 Roof materials should complement the materials and colors of the façades and provide texture or relief.

DG-30 Trellises and vines or other plantings may be used on building exteriors to insulate and cool interiors.

Signage and Wayfinding

DG-31 The existing Downtown signage and wayfinding system should be expanded to new areas incorporated into the Downtown core. Wayfinding should provide direction to the Town Green, Windsor Station, the Civic Center, public parking, and bike parking.

DG-32 Prohibit backlit or internally lit signs and signs with raceway channel letters.

DG-33 New signage in the Downtown core should meet the following guidelines:

- Architectural Compatibility
  - Signs (including supporting structures, if any) should be designed as an integral design element of a building's architecture and should be architecturally compatible, including color and scale, with the building and surrounding structures.
  - A sign that covers a window or that spills over "natural" boundaries or architectural features and obscures parts of upper floors of buildings is detrimental to visual order and should be avoided.
  - Signs above the first story should not obstruct views from inside or outside upper stories. Externally lit signs should not illuminate upper stories; instead, illumination should focus on the sign itself or downward toward the sidewalk.

- Consistency with Area Character
  - Signs should employ designs, features, materials, and colors that are consistent with the scale and character of the district in which they are located.
  - Where a sign is located in close proximity to a residential area, the sign should be designed and located so it has little or no impact on adjacent residential neighborhoods.
  - New signage should complement or create an interesting and pleasing contrast to this signage type. The prevalent signage in Downtown is externally illuminated raised 14-20 inch letters on sculpted wood background.

- Legibility and Readability
  - The size and proportion of the elements of the sign's message, including logos, letters, icons, and other graphic images, should be selected based on the anticipated distance and travel speed of the viewer. Sign messages oriented towards pedestrians should be smaller than those oriented towards automobile drivers.
  - Colors chosen for the sign text and/or graphics should have sufficient contrast with the sign background in order to be easily read during both day and night hours.
  - High quality materials should be used, such as finished wood, metal, and woven fabric.



A signage and wayfinding system should build on existing signage (top, middle, and bottom), and provide direction to key destinations in the Station Area.



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SIdewalks should include a business frontage zone, an unobstructed pedestrian pathway, and landscaping and street furniture (top). Outdoor dining is encouraged within the business frontage zone (middle and bottom).

  - Design signs to be readable, unambiguous, and concise, so that a viewer can understand or make sense of what appears on the sign. Excessive use of large areas of several colors can create competition for the eye and significantly reduce readability.
  - Consider up-lit signage or use of accent lighting or other subtle illumination to improve visibility at night.

Streets and Streetscape

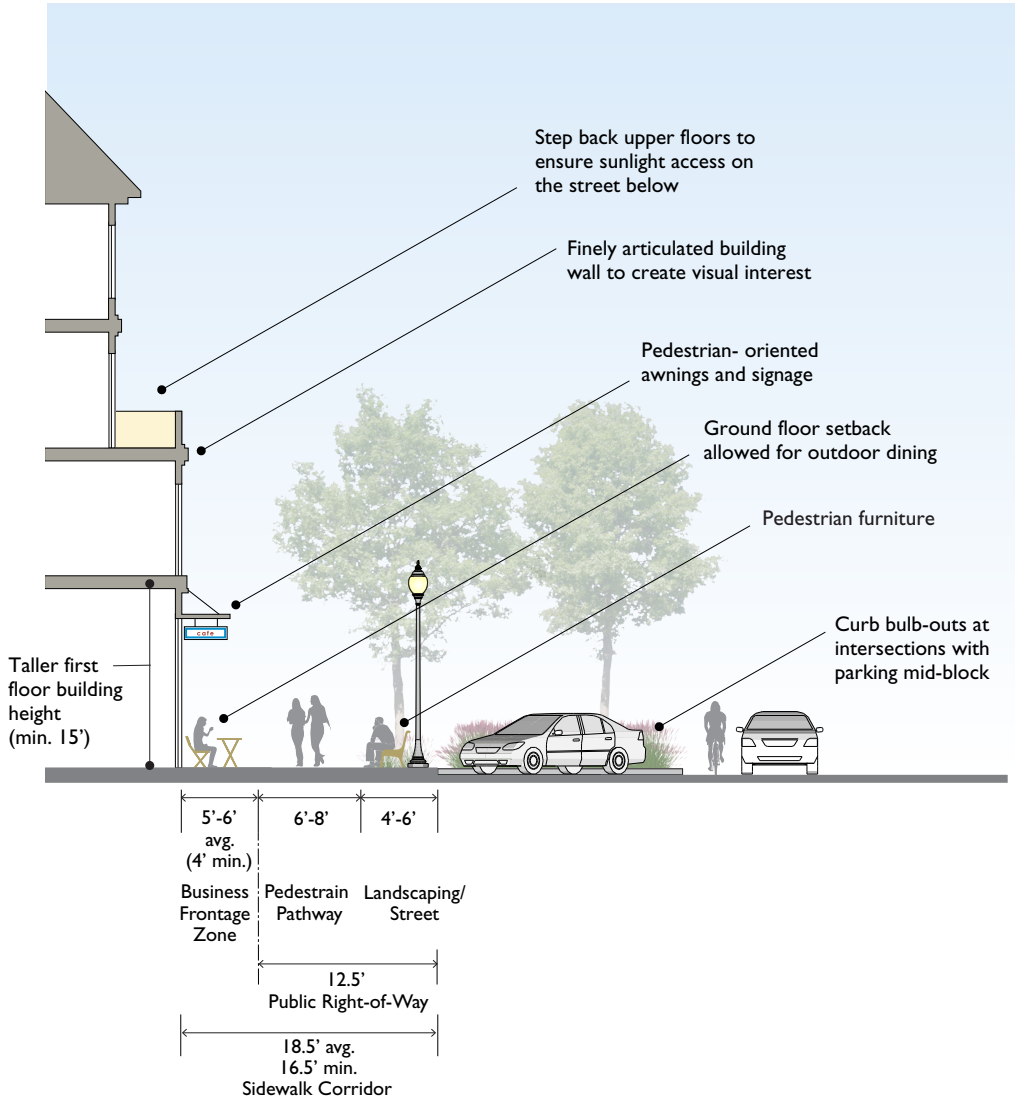
DG-34 The following three components should be considered in the design of the sidewalk area:

- Business Frontage Zone: This area is along active pedestrian streets, located furthest from the curb and acts as the interface between the street and the building, providing accessibility and visibility between buildings and the street. This area should be an average of five to six feet, with a minimum of four feet, and may include space for outdoor dining, container plantings, additional street furniture, overhangs, and displays (e.g., produce stands).
- Pedestrian Pathway Zone: This middle area is the unobstructed path of travel for pedestrians. Sidewalks should maintain an unobstructed pedestrian pathway of six to eight feet in the Downtown core.
- Landscaping/Street Furniture Zone: The area closest to the curb provides a four to six feet space for street trees, landscaping, street lights, bus stops, street signs, benches, trash/recycle bins, bicycle parking, and other street furniture. This area also represents the barrier between parking or driving/biking lanes and the pedestrian pathway.

DG-35 Sidewalk corridors on streets identified for Active Use Frontage should be in conformance with the minimum widths specified in Figure 3-15. Where desirable, sidewalks should be wider to create areas for outdoor dining or other retail uses, while maintaining an adequate continuous walkway for pedestrians.

DG-36 Sidewalks should be designed with amenities that encourage pedestrian activity. All new streets and connections must be ADA compliant, and encourage access between new development and transit by people with disabilities.

Figure 3-15: Active Use Frontage Streets





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Landscaping should include amenities such as bike racks and benches (top) and climate appropriate and drought-resistant landscaping (middle). Street furniture existing in Downtown Windsor adds to the pedestrian realm and improves walkability (bottom).

DG-37 Streets and pedestrian connections in the Downtown core should be lined with a consistent landscaping scheme and should:

- Visually unite the Downtown area, highlight open space, and signal key destinations.
- Provide two or more of the following pedestrian amenities per block: drinking fountain, bench, terracing/steps, public art, bike racks, or additional/specialty landscaping.
- Incorporate landscaping materials that are climate appropriate, drought-resistant and that require minimal irrigation and maintenance.
- Consider plants' height at maturity and potential line-of-sight issues at intersections and pedestrian crossings.
- Support the development of large healthy trees and tree canopies by reducing concrete area and other barriers to root growth, consistent with Department of Public Works Guidelines.

DG-38 Gateway features should be unique in design, visible to both motorists and pedestrians, and emblematic of the town's identity and role within the region. Visual gateways to the Downtown should be established using distinct plantings, public art, signage, lighting, and distinct intersection configurations (i.e. roundabouts) at the following intersections:

- Old Redwood Highway and Windsor Road;
- Windsor River Road and Old Redwood Highway; and
- Windsor River Road and Windsor Road.

DG-39 Public spaces, including streets and pedestrian connections should be well-lit with pedestrian scaled light fixtures to ensure safety and usability at night. New light fixtures should be mounted at a height of 15 feet, and not exceed 20 feet. 'Acorn' type LED fixtures or fixtures that complement the existing acorn fixtures are appropriate for the Downtown core. Integrate subtle and interesting accent lighting.

DG-40 Utility boxes, transformers, lines, utility meters, fire line detector check valves, backflow preventers, and similar devices should be underground or located to the side or rear of buildings and screened from view of public street corridors, in order to provide unobstructed walkways and views.

Parking and Access

DG-41 On-site parking and service areas should be located in the rear, in structures, or on the interior of blocks, and not along Windsor Road, Windsor River Road, Old Redwood Highway, or the Town Green within the Downtown core.

DG-42 The number of curb cuts and driveway entrances should be limited in order to reduce conflicts with pedestrians. Locate entrances on side streets where feasible. If a driveway entrance is located on a primary street frontage, minimize the length of the curb cut and explore sharing driveways and/or loading areas with adjacent property owners. No curb cuts should occur on blocks facing the Town Green.

DG-43 Bike parking for commercial uses should be located as close to the primary building entrance as possible.

Sustainability

DG-44 All new paving should consist of sustainable materials, such as reclaimed pavers, locally-produced materials, or concrete and asphalt with fly ash content.

DG-45 All new development should install water saving appliances and systems such as gray water systems, moisture-sensitive irrigation rainwater cisterns, low-flow toilets and faucets.

DG-46 Buildings should be located, oriented, and shaded, where feasible, as follows:

- Provide exterior shade for south-facing windows during the peak cooling season.
- Provide vertical shading against direct solar gain and glare due to low altitude sun angles for east- and west-facing windows.
- When site and location permit, orient the building with the long sides facing north and south to maximize solar access.
- Protect the building from thermal loss, drafts, and degradation of the building envelope caused by wind and wind-driven materials such as dust, sand, and leaves with building orientation and landscape features.
- Wherever possible, use vegetation to shade buildings to limit direct solar gain and glare.





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Curb cuts can be minimized by locating parking off of alleys (top), or encapsulating parking within the building (middle). Existing parking areas in Downtown Windsor are currently located off of primary streets (bottom).



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Consider permeable pavers for new paving areas (top), installation of solar panels (middle), and green roofs (bottom).

DG-47 New development should install solar panels and/or solar hot water systems as feasible.

DG-48 Green roofs can be incorporated into building design to manage stormwater runoff, reduce energy consumption through insulation, and provide an additional amenity as appropriate:

- "Intensive" roofs are appropriate when resident or tenant access is desired. Soil layers are typically deeper, eight to 24 inches, depending on the loading capacity of the roof and the architectural and plant features desired. These roofs must be relatively flat.
- "Extensive" roofs are appropriate when human access is limited and the goal is for ecological roof cover. Layers may be thinner, two to six inches. Extensive greenroofs can be constructed on slightly sloped roofs.
- All green roofs must be designed to permit routine maintenance and irrigation, as necessary.

DG-49 To minimize the overall environmental impact of development, preference should be given to sustainable building materials such as recycled materials, sustainably harvested wood, rapidly renewable sources, panels made from paper flakes, baked earth, rammed earth, locally-obtained stone and rock, bamboo, and non-toxic low-VOC (volatile organic compound) glues and paints.