

Section 7.0400 Residential Design Standards

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7.0410 MANUFACTURED DWELLING PARK DESIGN STANDARDS

Except as otherwise provided by the Building Code, ORS 446.003 to ORS 446.140 and OAR 918-600-0005 to 918-600-0095, the following standards shall apply:

A. Permitted structures

1. Manufactured dwellings have a gross floor area of at least 400 square feet, provided that all manufactured dwellings shall:
 - a. Bear an insignia of compliance with the Federal Manufactured Housing Construction and Safety Standards Code; or
 - b. If manufactured prior to June 15, 1976, be demonstrated to be in a condition that is not less than the substantial equivalent of construction standards in effect in Oregon at the time the manufactured dwelling was constructed.
2. Accessory structures, including garages, carports, awnings, and storage buildings located on individual spaces; and utility, service, and recreation facilities to be used in common by residents of the park.
3. One dwelling other than a manufactured dwelling for the use of a caretaker or park manager responsible for maintaining or operating the park.

B. Space Dimension and Separation

1. Minimum length for any manufactured dwelling space shall be 50 feet; minimum space width shall be 30 feet at any point adjacent to a manufactured dwelling on that space.
2. Manufactured dwellings shall be separated by a distance of at least 15 feet.
3. An accessory structure shall be separated from any other structure by a distance of at least 6 feet, except that an accessory structure may be less than 6 feet from a manufactured dwelling on the same space.
4. Each manufactured dwelling shall be set back a distance of at least 6 feet from the closest edge of an adjacent park street or sidewalk. This area shall remain unobstructed by any structure with a height of more than 30 inches above ground level, except that poles, posts, and other customary yard accessories may be permitted.

C. Landscaping as defined in **Section 3.0103**:

1. Perimeter Buffering and Screening

- a. Abutting all contiguous parcels occupied by uses other than manufactured dwelling parks and adjacent to all public streets, a perimeter setback and buffer area of at least 20 feet in width shall be provided. This area shall remain unoccupied by any structure, street, parking or driveway area, except that private street entrances may cross the perimeter buffer area where necessary to provide access to the park. A perimeter setback of at least 5 feet in width shall be provided when abutting parcels are occupied by manufactured dwelling parks.
 - b. The entire perimeter setback and buffer area shall be landscaped. No less than 75% of the perimeter setback and buffer area shall be covered with living plant material, including lawns and other ground covers, shrubs, and trees. The landscape plan shall indicate plant species and spacing of plant materials sufficient to achieve the required 75% coverage within two years of planting.
 - c. Within that portion of the perimeter setback and buffer area which abuts public street right-of-way, screening of the park shall be achieved through a combination of earth berms, or decorative masonry walls, or plant materials sufficient to form a visual screen at least 6 feet in height. When warranted by topography or other local conditions, the Manager may require screening in excess of 6 feet in height in order to achieve effective visual screening of the park from an abutting public street. Clear vision areas shall be maintained in accordance with **Section 9.0200**.
 - d. Within that portion of the perimeter setback and buffer area which abuts adjacent parcels, a sight-obscuring wooden fence or a decorative masonry wall at least 6 feet in height shall be installed to screen the park from adjacent properties. When warranted by topography or other local conditions, the Manager may require screening in excess of 6 feet in height in order to achieve effective visual screening of the park from adjacent properties.
2. Interior Open Space
 - a. At least 15% of the gross area of a manufactured dwelling park shall be in landscaped open space. Such open space may include the perimeter setback and buffer area, vegetated stormwater facilities, and improved outdoor recreation facilities, but shall not include streets, parking areas, or any land area within designated manufactured dwelling spaces.
 - b. For each space in a manufactured dwelling park where occupancy by children under 18 years of age is permitted, 100 square feet of improved recreation area shall be provided within the park. Any such recreation area shall contain at least 2,500 square feet and have a minimum width dimension of 30 feet.
 3. All landscaped areas shall be irrigated by an underground system unless a licensed landscape architect certifies that the landscaping will likely survive without irrigation.
 4. Newly planted trees shall be irrigated by an underground system unless a licensed landscape architect certifies that the landscaping will likely survive without irrigation.
- D. Interior streets and pedestrian facilities shall be designed in accordance with the following standards:
1. Each manufactured dwelling space shall have direct access to an interior street improved with a hard surface.
 2. No manufactured dwelling space shall have direct access to a public street.
 3. The intersection of any entrance to a manufactured dwelling park and a public street shall be separated from any other public street intersection in accordance with public street intersection spacing standards of **Section A5.502**.
 4. Interior streets shall be improved to the following minimum widths:

STREET CLASS	PARKING	PAVEMENT WIDTH
Class 1		
Serving fewer than 50 spaces	None	20 feet
	One side	30 feet
	Both sides	32 feet
Class 2		
Serving 50 or more spaces	None	22 feet
	One side	30 feet
	Both sides	34 feet

5. Private cul-de-sac streets and dead-end driveway accesses shall serve no more than 25 spaces, and shall not exceed a length of 600 feet. Minimum radius for a cul-de-sac turnaround shall be 43 feet, except that the Manager may approve a reduction of pavement width to a 35’ radius with a rolled or low profile curb with a sidewalk adjacent to the pavement; where additional off-street parking is provided and the cul-de-sac posted with “No Parking” signs.
 6. In any manufactured dwelling park containing more than 18 spaces, more than one public street access may be required.
 7. Interior streets shall be designed and constructed in accordance with state standards established for manufactured dwelling park roads and streets.
 8. A system of sidewalks or pedestrian pathways shall be installed linking all manufactured dwelling spaces, recreation areas, parking lots, and common buildings. This system may consist of conventional sidewalks flanking interior streets or an independent network of pathways, provided that for Class 2 streets a sidewalk shall be constructed along at least one side of the street. Where sidewalks are installed along the sides of streets, and for all on-site walkways, public or private walks shall meet applicable City construction and dimensional standards.
 9. Minimum sidewalk width shall be 4 feet unless otherwise specified in this Code.
 10. Maximum grade for any interior street shall be 12%.
 11. The property owner(s) shall be responsible for posting and maintenance of any private street signage, building identification, and individual space identification in accordance with a plan approved by the Manager.
- E. Parking facilities shall be provided in accordance with the following standards:**
1. Each manufactured dwelling space shall be provided with a hard surface parking area. The parking surface may be a permeable surface to meet stormwater requirements. Each such parking area shall have minimum dimensions of 10 feet by 40 feet or 20 feet by 20 feet.
 2. Where on-street parking is prohibited on both sides of an interior street, guest parking shall be provided in off-street parking bays at the rate of 1 parking space for every three manufactured dwelling spaces along the street. Guest parking bays shall be located in close proximity to the manufactured dwelling spaces being served.
 3. Where on-street parking is available on a public street which borders the manufactured dwelling park, such parking spaces may count toward fulfillment of the requirement for guest parking for those manufactured dwellings located between the public street and an interior street on which parking is prohibited. Such parking spaces shall count toward fulfillment of the guest parking

requirement only when suitable pedestrian links exist between the public street and the manufactured dwelling park, and only those on-street parking spaces which are located on the side of the public street which abuts the manufactured dwelling park shall be counted toward fulfillment of the guest parking requirement.

4. Recreational vehicles, trailers, and boats shall not be permitted to park on interior streets or in guest parking areas. Such vehicles may be stored within the park in areas designated for storage of personal items.

F. General Design Standards

1. No more than 60% of any manufactured dwelling space may be occupied by a manufactured dwelling and any other attached or detached accessory buildings.
2. Each manufactured dwelling space shall be provided with at least one slab, deck, or patio constructed of concrete, wood, asphalt, flagstone, or other equivalent material with a minimum size of 120 square feet and a minimum width dimension of 8 feet.
3. A system of hydrants, water lines, and related fire suppression facilities shall be constructed within the manufactured dwelling park as required by the Manager.
4. Wheels, axles, and hitch mechanisms shall be removed from all manufactured dwellings at time of placement.
5. All manufactured dwellings shall have continuous skirting consisting of weather-resistant, non-combustible materials which blend with the exterior siding of the manufactured dwelling.
6. Each manufactured dwelling space shall be provided with one accessory storage building with at least 100 square feet of enclosed floor area. All such storage buildings within the park shall be of a uniform design and constructed of the same materials.

G. See **Section 7.0220 - 7.0223** for additional requirements.

7.0420 DESIGN STANDARDS FOR SINGLE DETACHED DWELLINGS, DUPLEXES, TRIPLEXES, AND QUADPLEXES

The following design standards shall apply to single detached, duplex, triplex, and quadplex residential developments in the following districts: LDR-GB, LDR-7, LDR-5, TR, TLDR, MDR-12, MDR-24, OFR, LDR-PV, MDR-PV, HDR-PV, VLDR-SW, LDR-SW, THR-SW, CMF, CMU, DRL-1, and DRL-2.

Internal conversion of an existing single detached dwelling into a duplex, triplex, or quadplex (as provided in OAR 660-046-0230) is exempt from this section, provided that the conversion does not increase nonconformance with applicable clear and objective standards, unless increasing nonconformance is otherwise permitted by the development code. New duplexes, triplexes, and quadplexes created by adding square footage on a site occupied by an existing single detached dwelling shall comply with this section.

A. Entry Orientation

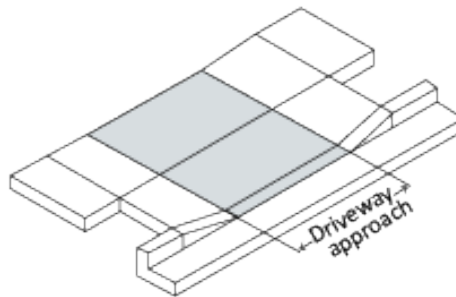
1. Except for flag lots, at least one primary entrance per lot shall be oriented to the street right-of-way.
 - a. The primary entry shall be set back no greater than 8 feet from the longest street-facing wall of the dwelling unit.
 - b. The primary entrance shall:
 - i. Directly face the street; or
 - ii. Be at an angle of up to 45 degrees from the street; or
 - iii. Open onto a porch of at least 25 sq. ft. that has either a roof or an entry facing the street.

- c. Where a building is on a corner lot and fronts two abutting streets, the required primary entry may be oriented to either street.

B. Vehicle Access and Parking

1. For lots abutting an alley, access shall be taken from the alley.
2. Driveway Approaches. Driveway approaches (as shown in **Figure 7.0420(B)(2)** below) are encouraged to be shared for multiple units, but may be developed for individual units.
 - a. Shared driveways shall include shared driveway approaches.
 - b. The total width of all driveway approaches on an individual frontage may occupy no greater than 34% of that lot frontage, or 28 ft., whichever is less.
 - c. Driveway approaches shall meet all the requirements contained in **Section A5.000**.

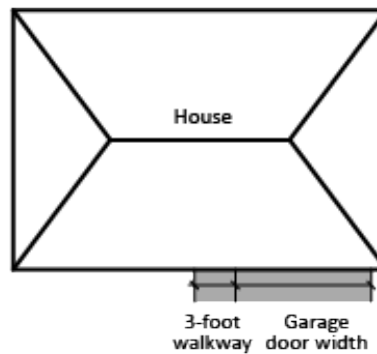
Figure 7.0420(B)(2) Driveway Approach



3. Attached and detached garages, carports, and off-street parking areas shall not be located between a building and a public street (other than an alley), unless:
 - a. Such areas are separated from the street property line by a building; or
 - b. The total combined width of all such areas (excluding any portions separated from the street by a building) do not exceed 20 feet or 50% of the street frontage, whichever is greater.
4. Garages and carports that face the street shall be set back at least 4 feet behind the street-facing wall closest to the street.
5. Off-Street Parking
 - a. Off-street parking spaces for residential uses shall be at least 8.5 feet wide by 18 feet deep, or 8 ft. wide by 24 ft. long for parallel parking spaces.
 - b. Tandem (end-to-end) parking is allowed only for individual units.
6. See **Section 9.0870** for additional parking standard for single detached dwellings.

C. Pedestrian Connections

1. A continuous pedestrian circulation system shall be provided which connects primary entries, parking areas, shared amenities, and the public right of way (including alleys) or sidewalk. It shall be hard-surfaced and a minimum 4 ft. wide.
 - a. Where a walkway is combined with an individual driveway, the walkway width shall extend at least 3 feet beyond the edge of the garage door (see **Figure 7.0420(C)**).

Figure 7.0420(C) Combined walkway width extending beyond garage door**D. Open Space**

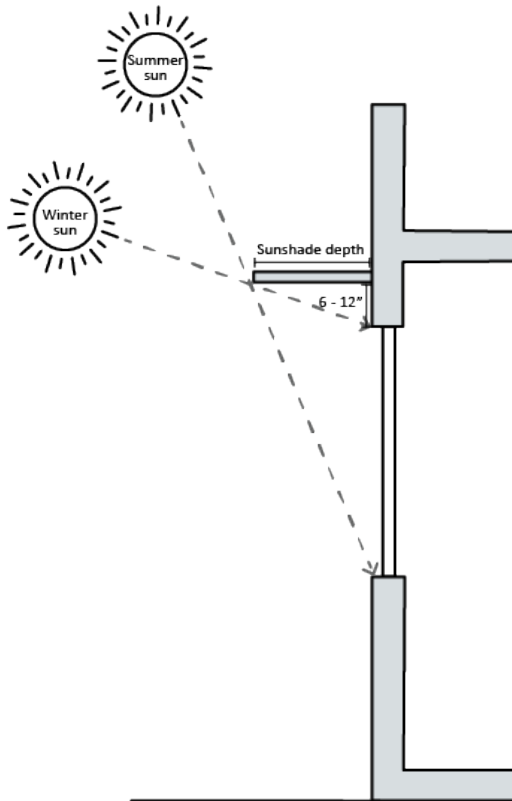
1. A minimum of 15% of the gross area of the lot shall be included as outdoor open space.
 - a. No greater than 50% of the required open space area shall be covered in hardscaping such as paths, patios, and decorative pavers.
 - b. Areas counting toward the open space requirement shall include one or more of the following:
 - i. An attached and directly accessible porch or balcony. The porch or balcony shall be covered, have a railing, and be 64 sq. ft. or larger with minimum dimensions of 6 ft. in each direction;
 - ii. An attached and directly accessible landscaped yard space of 100 sq. ft. or larger with minimum dimensions of 8 feet in each direction;
 - iii. Preserved natural areas (per Article 5);
 - iv. Gardens; or
 - v. A combination of the spaces listed above.
 - c. Open spaces shall include 1 tree per 3,000 sq. ft. of gross lot area.
 - i. Other required site trees may count towards this requirement but street trees may not count.
 - ii. Trees shall not be a species identified as invasive by the City or County, and are recommended to be selected from the approved street tree or parking lot tree lists.
 - iii. Deciduous trees shall be a minimum of 1.0 inch in caliper at time of planting, evergreen trees shall be a minimum of 6 feet in height at time of planting.
 - iv. Existing, healthy trees meeting the size requirements of (iii) above shall count towards this requirement when maintained on site.
 - v. New trees shall be supported by use of stakes, wire, or similar material for at least one year to prevent damage by strong winds.

E. Sustainable Design

1. All flat roofs (slopes 2:12 or less) shall utilize a “white roof” with a Solar Reflectance Index (SRI) of 78 or greater, exclusive of space dedicated to mechanical systems, vegetated roof surfaces, solar panels, sky lights, or other sustainable roof design treatments.
2. Utilize two of the following sustainable design options on each building with conditioned space on the lot. Where there is more than one building with conditioned space on a lot, different options may be utilized for each building. If all buildings on the lot total less than 2,800 sq. ft. only one option shall be required.

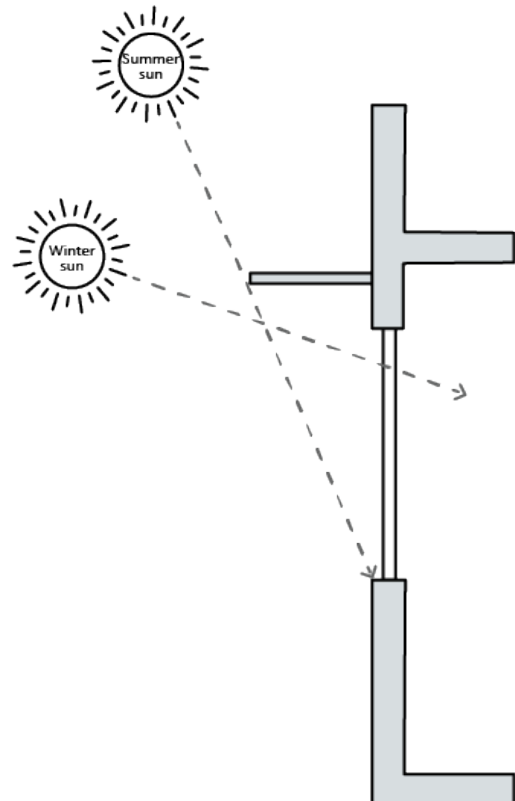
- a. Solar Orientation. Orient the long axis of the building(s) within 15 degrees of true east and west and provide a minimum 17% transparency on the south building façade(s). Provide exterior, architectural sunshades or eaves for all windows 3 sq. ft. or greater on the south building façade(s). Sunshades shall be permanent features on the south building façade(s) and shall meet one of the following options:
 - i. The lowest shadow-casting edge of the Architectural sunshades or eaves shall be between 6 and 12 inches higher than the top of the window and horizontally project 5 inches out from the wall plane for every 12 inches in total window height for the window it shades (See **Figure 7.0420(E)(2)(a)(i)**); or
 - ii. Architectural sunshades or eaves shall effectively block summer sun penetration at noon on the summer solstice and allow for winter sun penetration for the full window height at noon on the winter solstice. (Per the National Oceanic and Atmospheric Administration Solar Position Calculator solar elevation at noon on the winter solstice is 21.05 degrees and on the summer solstice is 67.78 degrees.) (See **Figure 7.0420(E)(2)(a)(ii)**.)

Figure 7.0420(E)(2)(a)(i)



Architectural sunshade is placed between 6 and 12 inches above the window, and the sunshade depth extends 5 inches out from the wall plane for every 12 inches in window height.

Figure 7.0420(E)(2)(a)(ii)



Architectural sunshade effectively blocks the sun at noon on the summer solstice and allows full sun to enter the window at noon on the winter solstice.

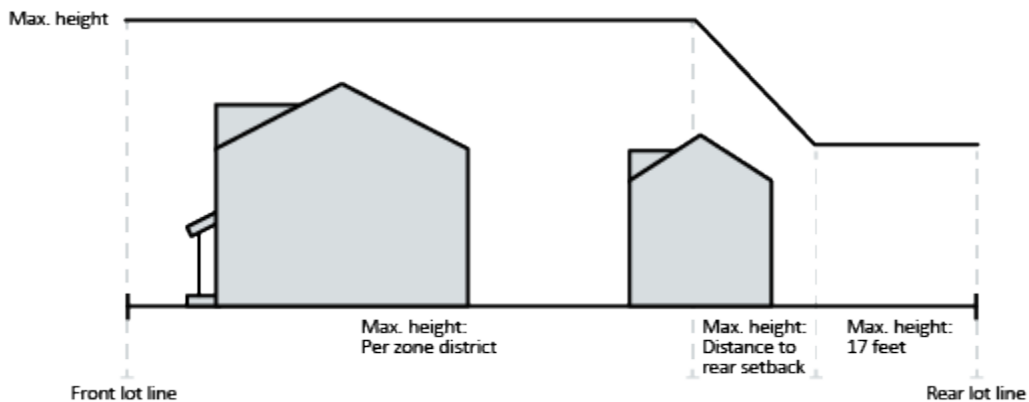
- b. Building envelopes shall utilize the following insulation values in conditioned spaces:
 - i. Wall insulation – above grade: R-23 or greater
 - ii. Wall insulation – below grade: R-19 or greater

- iii. Flat ceilings: R-40 or greater
- iv. Vaulted ceilings: R-31 or Greater
- c. Comply with the Oregon Residential Reach Code (this option shall count as use of two sustainable design options).
- d. Incorporate renewable energy systems (site or building mounted) with a system size of at least 6kW. (Where multiple structures exist the generation system shall count as one sustainable design strategy for all occupiable structures but is not required to be tied to all buildings on site.)
- e. Provide a Level 2 or better electric vehicle charging unit that is accessible to all units on site. Alternatively, this provision may be met by providing one EV-ready outlet (or better) for each unit. This shall include electrical panel capacity and raceway with conduit to terminate in a 240-volt charging outlet that is accessible from at least one parking space for the unit.
- f. Provide pervious paving for all uncovered hardscape areas on site (such as driveways, walkways, and patios not covered by a roof), and provide one canopy tree per 4,000 sq. ft. of gross lot area.
 - i. Canopy tree(s) shall be selected from the approved Parking Lot Trees list and must be capable of a mature height and width of at least 25 feet.
 - ii. Deciduous canopy trees shall be a minimum of 2.5 inches caliper size and shall be balled and burlapped or container stock. Evergreen canopy trees shall be a minimum of 6 feet in height at time of planting.
 - iii. Existing, healthy canopy trees meeting the size requirements of (i-ii) above shall count towards this requirement when maintained on site.
 - iv. Canopy tree(s) may count towards the **Section 7.0420(D)(1)(c)** open space tree requirement.
- g. Retain one or more existing dwelling unit(s) on site.

F. Rear Roof Height Limit Reductions

1. In the VLDR-SW, LDR-SW, LDR-PV, LDR-7, LDR-5, and TR districts, the maximum allowed building height is limited at the rear of the lot. The maximum roof height shall be equal to the distance from the rear property line or 17 ft., whichever is greater, up to the maximum height limit for the district. (See **Figure 7.0420(F)**.)

Figure 4.0420(F): Rear Height Limit Reductions



- 2. Affordable housing eligible for a building height bonus (**Section 10.1711(H)**) and subject to the rear roof height limit reductions may add the applicable building height allowance under **Table 10.1711 (B)** to the maximum roof height in **Section 7.0421 (F)(1)**.

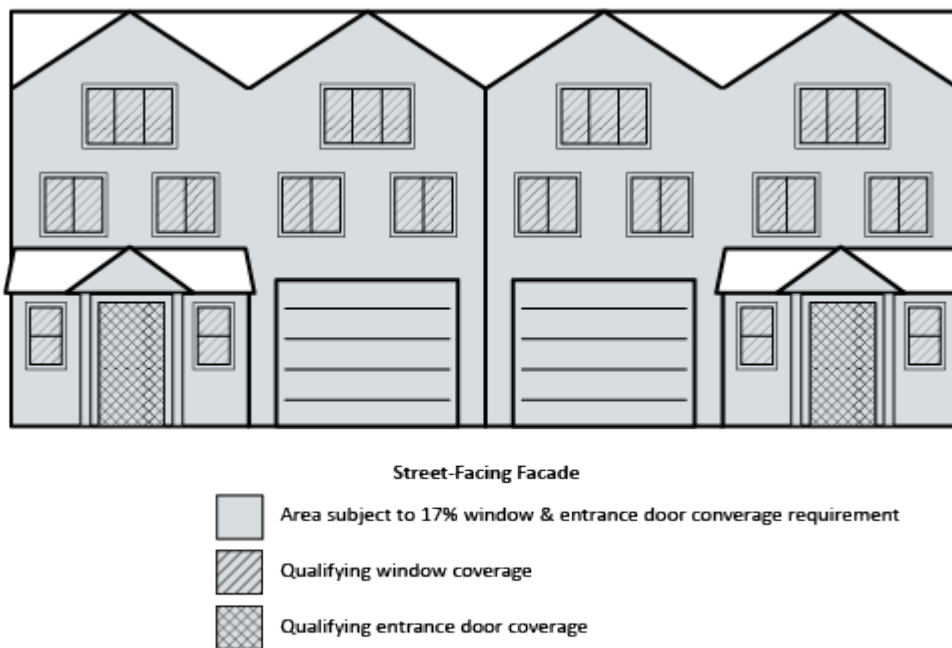
G. Side Wall Articulation

- 1. Facades facing side setbacks and within 10 ft. of the side setback line shall utilize a minimum of one of the following articulation strategies:
 - a. Side walls shall not exceed 35 ft. in length before a full-height offset a minimum 2 ft. in depth and 6 ft. in length is provided.
 - b. Wall area(s) above the first floor shall be setback a minimum of 4 ft. from the first floor wall plane closest to the side setback for a minimum of 60% of the total first floor wall plane(s) length.
 - c. No individual wall plane shall be greater than 280 sq. ft. Individual wall planes shall be offset a minimum of 12 in. from adjacent wall planes.
 - d. Setback all side walls at least an additional 5 ft. from the side setback line.

H. Transparency

- 1. Windows and/or doors (not including garage doors) utilizing clear glass and entry doors of any material shall occupy a minimum of 17% of the total street-facing facade area(s). (See **Figure 4.0420(H)(1) Street Facing Transparency**.)
 - a. Facade area(s) separated from the street by a building shall not be counted towards total street-facing facade area.
 - b. Roof area shall not count towards total street-facing facade area, but wall area above wall headers (such as gable ends and dormers) shall count.
 - c. Entry doors used to meet this standard shall face the street or be at an angle of no greater than 45 degrees from the street.

Figure 4.0420(H)(1): Street-Facing Transparency



2. Clear glass in windows and/or doors shall occupy a minimum of 5% of all other facades.

7.0430 TOWNHOUSE DESIGN STANDARDS

7.0431 RESIDENTIAL DISTRICT TOWNHOUSE DESIGN STANDARD

The following design standards shall apply to townhouse projects in the following districts: LDR-7, LDR-5, TR, TLDR, MDR-12, MDR-24, OFR, LDR-PV, MDR-PV, HDR-PV, VLDR-SW, LDR-SW, THR-SW, those portions of CMF along the NE Glisan and NE 162nd Avenue corridors, DRL-1, and DRL-2.

Internal conversion of an existing single detached dwelling into a townhouse (as provided in OAR 660-046-0230) are exempt from this section, provided that the conversion does not increase nonconformance with applicable clear and objective standards, unless increasing nonconformance is otherwise permitted by the development code.

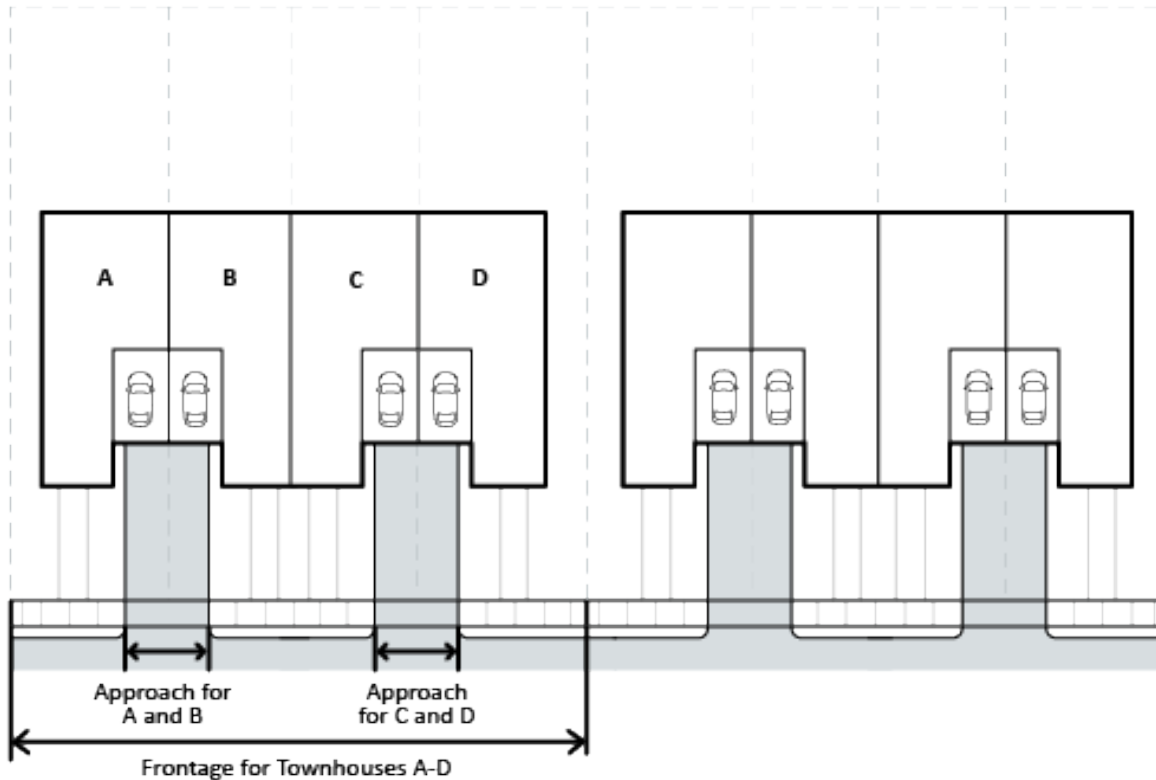
A. Entry Orientation

1. Except for townhouses on the flag portion of flag lots, the primary entrance of each townhouse shall:
 - a. Be set back no greater than 8 feet from the longest street-facing wall of the dwelling unit.
 - b. The primary entrance shall either:
 - i. Directly face the street;
 - ii. Be at an angle of up to 45 degrees from the street;
 - iii. Face a common open space or private access or driveway that is abutted by dwellings on at least two sides; or
 - iv. Open onto a porch of at least 25 sq. ft. that has either a roof or an entry facing the street.
 - c. Where a townhouse is on a corner lot and fronts two abutting streets, the townhouse entry may be oriented to either street.
 - d. Where a townhouse does not have public street frontage and fronts a primary internal drive the internal drive shall be treated as the street per (a)-(c) above.

B. Vehicle Access and Parking

1. For lots abutting an alley, access shall be taken from the alley.
2. Driveway Approaches. Driveway approaches (as shown in **Figure 7.0420(B)(2)**) are encouraged to be shared for multiple units, but may be developed for individual units.
 - a. Shared driveways shall include shared driveway approaches.
 - b. For each set of attached townhouse units, the total width of all driveway approaches on one street frontage may occupy no more than 18 feet or 34% of that frontage, whichever is greater. (See **Figure 7.0431(B)(2)(b): Townhouse Driveway Approach Limits**).
 - c. Driveway approaches shall meet all the requirements contained in **Section A5.000**.

Figure 7.0431(B)(2)(b): Townhouse Driveway Approach Limits

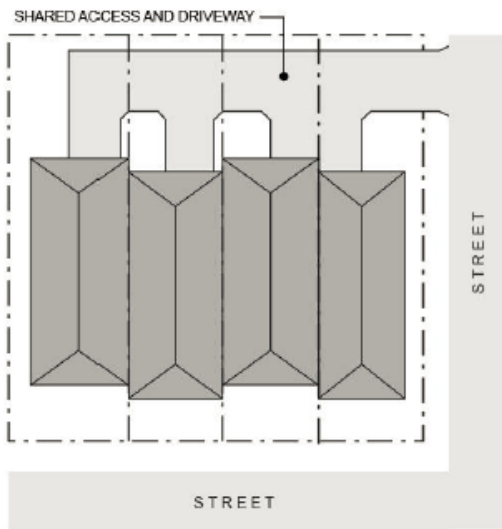


The width of the driveway approaches for townhouses A, B, C, and D may occupy no more than 18 feet or 34% of the total frontage for townhouses A-D, whichever is greater.

3. Townhouses with frontage on a public street shall meet the following standards:
 - a. Garages on the front facade of a townhouse, off-street parking areas in the front yard, and driveways in front of a townhouse are allowed if they meet the following standards:
 - i. There is no improved alley from which to take access.
 - ii. Each townhouse lot has a street frontage of at least 15 feet on a minor access or local street.
 - iii. A maximum of one driveway approach is allowed for each townhouse.
 - iv. Outdoor off-street parking and maneuvering areas do not exceed 12 feet wide on any lot.
 - v. The garage width does not exceed 12 feet, as measured from the inside of the garage door frame.
 - b. The following standards apply to driveways and parking areas for townhouse projects that do not meet all of the standards in subsection (a) above.
 - i. Off-street parking areas shall be accessed on the back façade or located in the rear yard. No off-street parking shall be allowed in the front yard or side yard of a townhouse.
 - ii. A townhouse project that includes a corner lot shall take access from a single driveway approach on the side of the corner lot. (See **Figure 7.0431(B)(3)(b)(ii).**)
 - iii. Townhouse projects that do not include a corner lot shall consolidate access for all lots into a single driveway. The driveway is not allowed in the area directly between the front façade and front lot line of any of the townhouses. (See **Figure 7.0431(B)(3)(b)(iii).**)

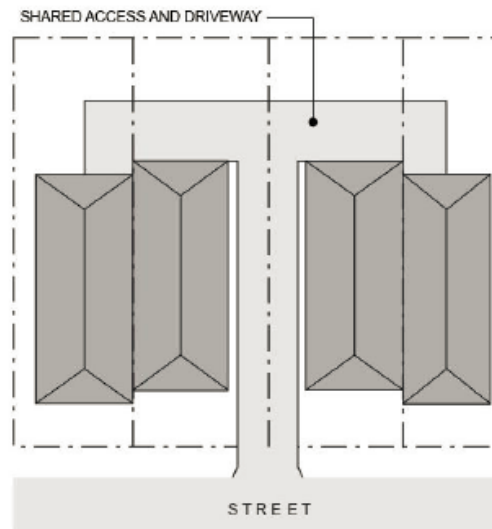
- iv. A townhouse project that includes consolidated access or shared driveways shall grant access easements to allow normal vehicular access and emergency access.
- c. Townhouse projects in which all units take exclusive access from a rear alley are exempt from compliance with subsection (b).
- 4. Garages and carports that face the street shall be set back at least 4 feet behind the street-facing wall closest to the street.
- 5. Off-Street Parking
 - a. Off-street parking may be provided on individual lots or in a shared parking area on an abutting common tract.
 - b. Off-street parking spaces for residential uses shall be at least 8.5 feet wide by 18 feet deep, or 8 ft. wide by 24 ft. long for parallel parking spaces.
 - c. Tandem (end-to-end) parking is allowed only for individual units.

Figure 7.0431(B)(3)(b)(ii)



Townhouses on corner lot with shared access.

Figure 7.0431(B)(3)(b)(iii)



Townhouses with consolidated access.

C. Pedestrian Connections

- 1. A continuous pedestrian circulation system shall be provided which connects primary entries, parking areas, shared amenities, and the public right of way (including alleys) or sidewalk. It shall be hard-surfaced and a minimum 4 ft. wide.
 - a. Where a walkway is combined with an individual driveway, the walkway width shall extend at least 3 feet beyond the edge of the garage door (see **Figure 7.0420(C)**).

D. Open Space

- 1. A minimum of 15% of the gross lot area of the townhouse project shall be included as outdoor open space.
 - a. No greater than 50% of the required open space area shall be covered in hardscaping such as paths, patios, porches, and decorative pavers.
 - b. Areas counting toward the open space requirement shall include one or more of the following:
 - i. An attached and directly accessible porch or balcony. The porch or balcony shall be covered, have a railing, and be 64 sq. ft. or larger with minimum dimensions of 6 ft. in each direction;

- ii. An attached and directly accessible landscaped yard space of 100 sq. ft. or larger with minimum dimensions of 8 feet in each direction;
 - iii. Preserved natural areas;
 - iv. A shared children's play area with at least of 3 types of play equipment and minimum 12 ft. length and width; or
 - v. Shared open space, courtyard, or community garden with minimum 12 ft. length and width; or
 - vi. A combination of the spaces listed above.
- c. Open spaces shall include 1 tree per 3,000 sq. ft. of gross lot area.
- i. Other required site trees such as buffer trees may count towards this requirement but street trees may not count.
 - ii. Trees shall not be a species identified as invasive by the City or County, and are recommended to be selected from the approved street tree or parking lot tree lists.
 - iii. Deciduous trees shall be a minimum of 1.0 inch in caliper at time of planting, evergreen trees shall be a minimum of 6 feet in height at time of planting.
 - iv. Existing, healthy trees maintained on site shall count towards this requirement.
 - v. New trees shall be supported by use of stakes, wire, or similar material for at least one year to prevent damage by strong winds.

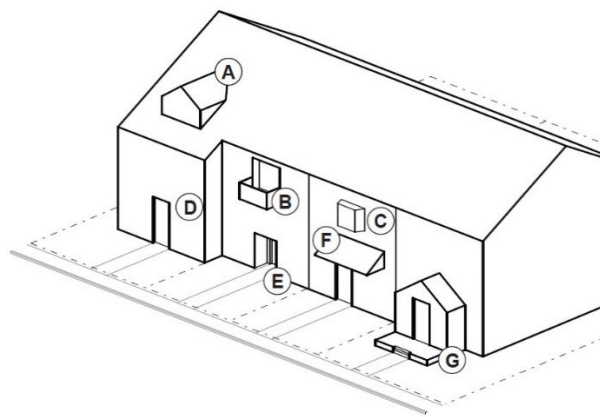
E. Sustainable Design

1. All flat roofs (slopes 2:12 or less) shall utilize a "white roof" with a Solar Reflectance Index (SRI) of 78 or greater, exclusive of space dedicated to mechanical systems, vegetated roof surfaces, solar panels, sky lights, or other sustainable roof design treatments.
2. Utilize two of the sustainable design options listed in **Section 7.0420(E)(2)** on each building with conditioned space in the townhouse project. Where there is more than one building with conditioned space in the development different options may be utilized for each building. If all buildings in the development total less than 3,600 sq. ft. only one option shall be required.

F. Townhouse Unit Articulation

1. Each townhouse shall include at least one of the following on at least one street-facing facade (see **Figure 7.0431(F)** Townhouse Unit Articulation Strategies):
 - a. A roof dormer a minimum of 4 feet in width;
 - b. A balcony a minimum of 2 feet in depth and 4 feet in width and accessible from an interior room;
 - c. A bay window that extends from the facade a minimum of 2 feet;
 - d. An offset of the facade of a minimum of 2 feet in depth, either from the neighboring townhouse or within the facade of a single townhouse;
 - e. An entryway that is recessed a minimum of 3 feet;
 - f. A covered entryway with a minimum depth of 4 feet; or
 - g. A porch meeting the standards of **7.0431(D)(1)(b)(i)** above.

Figure 7.0431(F) Townhouse Unit Articulation Strategies



- (A)** Roof dormer, minimum of 4 feet wide
- (B)** Balcony, minimum 2 feet deep and 4 feet wide. Accessible from interior room.
- (C)** Bay window extending minimum of 2 feet from facade
- (D)** Facade offset, minimum of 2 feet deep
- (E)** Recessed entryway, minimum 3 feet deep
- (F)** Covered entryway, minimum of 4 feet deep
- (G)** Porch, meets standards of subsection (1)(b)(iv) of section (C)

G. Side Wall Articulation

Facades facing side setbacks (excluding common sides) and within 10 ft. of the side setback line shall utilize a minimum of one of the following articulation strategies:

- a. Side walls shall not exceed 35 ft. in length before a full-height offset a minimum 2 ft. in depth and 6 ft. in length is provided.
- b. Wall area(s) above the first floor shall be setback a minimum of 4 ft. from the first floor wall plane closest to the side setback for a minimum of 60% of the total first floor wall plane(s) length.
- c. No individual wall plane shall be greater than 280 sq. ft. Individual wall planes shall be offset a minimum of 12 in. from adjacent wall planes.
- d. Setback all side walls at least an additional 5 ft. from the side setback line.

H. Transparency

1. Windows and/or doors (not including garage doors) utilizing clear glass and entry doors of any material shall occupy a minimum of 17 % of the total street-facing facade area(s). (See **Figure 4.0420(H)(1) Street Facing Transparency.**)
 - a. Facade areas separated from the street by a building shall not be counted towards total street-facing facade area.
 - b. Roof area shall not count towards total street-facing facade area, but wall area above wall headers (such as gable ends and dormers) shall count.
 - c. Entry doors used to meet this standard shall face the street or be at an angle of no greater than 45 degrees from the street.
2. Clear glass in windows and/or doors shall occupy a minimum of 5 % of all other facades.

7.0432 CORRIDOR DISTRICT TOWNHOUSE DESIGN STANDARDS

- A. Purpose.** The purposes of this section include promoting the livability, neighborhood compatibility and public safety of townhouse projects. Site and building design standards are intended to ensure that individual developments contribute to a quality environment for its users and the surrounding neighborhood.
- B. Applicability.** The following design standards shall apply to Townhouse projects in the RTC, SC, SC-RJ, CMF (except for those along the NE Glisan Ave. and NE 162nd Ave. corridors see **Section 7.0431**), and

CMU districts, except as provided in **Section 7.0002**. In addition, **Section 7.0210(B)** shall apply to townhouses in Station Center and Rockwood Town Center Districts.

C. Street Frontage

1. Townhouse units are not allowed to be constructed on flag lots except in cases where minimum density standards would otherwise not be met.
2. At least 50% of the site's frontage (not including access driveways) on any street shall be occupied by buildings oriented to the abutting street (excepting courtyard style townhouse projects, also see **Sections 7.0432(D), (G), and (L)** below). Where a site has less than 70 feet of street frontage this standard may be modified to accommodate a driveway meeting code standards.
3. Courtyard type developments are exempted from maximum setbacks for that portion of a building or buildings having a courtyard area between it and the street.
4. Projects that include a courtyard fronting a public street shall provide a street fronting building orientation and doorway access for those portions of the project that directly face and abut a street and are not between the street and courtyard. Courtyard development building facades separated from a street by an approved courtyard are exempt from street orientation requirements.

D. Building Orientation

1. Any building abutting a public street right-of-way shall be oriented to the street. The street orientation standard is met when the following criteria are satisfied:
 - a. The primary entry or entries for all ground-floor units abutting the street shall open directly onto the street right-of-way, not to the interior of the site or to a parking lot. Secondary entrances may face parking lots or other interior site areas.
 - b. Where a building is on a corner lot and fronts on two abutting streets, a dwelling unit at the corner of the building need be oriented to only one of the streets. However, if one of the abutting streets is a Transit Street, a corner dwelling unit shall be oriented to the Transit Street.
 - c. The end unit abutting the street (as applicable) shall have its primary entrance oriented to the street.
 - d. Non-residential buildings, such as recreation or community centers, which abut a public street right-of-way shall have at least 20% of the ground floor wall area facing the street in windows, doorways, or display areas, including an entry opening directly onto the abutting street. The primary entry for townhouses with frontage on both a public street and an alley shall be oriented to the street, not to the alley.
2. Townhouse units are required to be located adjacent to public streets and alleys and oriented to public streets. Private streets or alleys may be utilized only in districts that permit these following adopted public street and public works standards and appropriate design modifications.
3. The Manager may require that a building that will abut a future street right-of-way, as shown on an approved future street plan or neighborhood circulation plan, be oriented to that future right-of-way.
4. In the case of townhouse complexes, private shared accesses to the rear or to common parking areas may be provided, subject to City circulation and parking standards. Such shared access and parking areas may be located in easements or tracts and shall not take the place of street orientation provisions.

E. Building Separation

1. Buildings shall face one another with a front-to-front and a back-to-back relationship whether on either side of a street, alley, or open space.

- a. An exception to this is with oddly configured properties where a partial building grouping accessed (for example) by a short section of public or private street or alley, might be located to a side in a side-to-rear relationship.
 - b. Back to front facing relationships between groups of buildings (such as front doors facing rear yards or service areas) are not allowed.
 - c. Where property configuration is such that development cannot occur in standard row to row relationships, fronts of units shall not be permitted to face non-street fronting sides or rear of the site.
 - d. Where the rear of a dwelling unit(s) faces the side of another (within the same development project), provide a minimum separation of 20 feet between the building walls of both structures (i.e. side to rear).
 - e. Where two groups of townhouse buildings in a complex face each other, a minimum separation of 30 feet shall be required between front building facades, inclusive of setbacks. If such a grouping is provided internally within a townhouse complex, the separation area shall include, at minimum, a shared pedestrian walkway.
- F. Vehicular Circulation and Parking.** Vehicular circulation and parking shall be provided in accordance with the following standards:
1. Garage facades shall not be closer to the street than portions of the unit containing living space.
 2. Except for individual driveways which may include parking for townhouses, on-site surface parking areas, garages, and vehicular circulation areas shall not be located between a building and an abutting street right-of-way.
 3. Public streets shall be dedicated within the site and connected to adjacent streets as required to create blocks and street intervals that are consistent with **Section A5.402(D)**. The names of any such streets dedicated by deed, without a plat, shall be reviewed by and approved by the Manager prior to recording. Where public streets are required, the Manager may require that traffic-calming features, such as speed humps, curb extensions, and enhanced pedestrian crosswalks be included in the design and construction of the streets.
 4. Where new parcels or blocks are created within a development site as a result of required public street dedications, individual parcels or blocks need not meet minimum residential density standards for the district, provided the development as a whole meets the standard. Applicable standards of this section regarding site landscaping shall also apply to the development as a whole, except that any parcel or block within the development shall have a minimum of 20% of its total area in landscaping, as defined in **Section 3.0103**. In all districts, the Manager may require that deed restrictions be recorded to ensure that where project amenities such as swimming pools, community centers, and shared open space are on separate parcels within the same development, all residents of the development will have on-going access to those amenities and facilities.
 5. Based on the anticipated vehicular and pedestrian traffic generation and the policies of the Community Development Plan, adequate right-of-way and improvements to abutting streets shall be provided by the applicant and shall meet the street standards of the City. This may include, but is not limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, paving, curbs, sidewalks, bike-ways, dual street name, quadrant, and/or neighborhood signage, and other facilities needed because of anticipated vehicular and pedestrian traffic generation.

6. In designing accesses for townhouses, efforts shall be made to mitigate adverse traffic impacts on adjacent, low-density residential neighborhoods. In assessing such impacts, the typical daily street volumes specified in **Sections A5.501** shall be considered.
 7. Townhouses shall submit a Neighborhood Parking Analysis that identifies potential on-street parking conflicts on adjacent streets and recommends possible mitigation measures. The analysis shall include an assessment of the supply and demand for adjacent on-street parking and the estimated on-street parking demand created by the proposed development. Mitigation measures may include, but are not limited to, parking duration limitations, time of day limitations, or supplemental off-street parking.
- G. Driveways and Unit Access.** The following standards are intended to promote access at the rear of the lots so as to limit the number of driveways to the street and to allow for availability of on street parking.
1. Townhouse lots shall be accessed from the rear by alleyway, rather than from a public street except as otherwise authorized within this section. Exceptions to this are: lots at least 30 feet wide may take direct access a public street or a development of 5 or less lots may access the street directly. Private alleys or access drives may be substituted where allowed by the district, where extension potential is not feasible and if appropriate maintenance provisions are established. In addition, a private side access to a common parking area may also be permitted if parking section standards are met. (Note: Townhouse projects on large parcels are not permitted to avoid alleyway and rear access requirements by utilizing multiple structures of 5 or less units/lots or providing serial or by sequential land divisions from one “parent” parcel.)
 2. Up to 20% of proposed lots less than 30 feet wide in a townhouse project, and, not covered by subsection (a) above, can be accessed from the front.
 3. The maximum width for individual single garage driveways located at the front of a dwelling unit is 10 feet wide (excluding the driveway approach width). Alternately, a driveway may be wider to access a garage that has a width no larger than 50% of the total dwelling width.
 4. The maximum width for a shared driveway that serves two units or a double car (side-by-side) garage is 20 feet (excluding the driveway approach width) where the maximum driveway width is 16 feet.
 5. A minimum distance of 20 feet shall be between driveways, whether shared or individual, so as to allow for on street parking.
 6. In the case of a single loaded public alleyway or private street or alley utilized for access, provide a 6 foot high sight obscuring fence or wall and a 5 foot wide landscape planter strip along the side of the alleyway/private street that abuts adjoining properties. Plant materials shall include a combination of ground cover, shrubs and trees and follow the same planting size requirements as for Shared Open Space Areas.
 7. When common area courtyards are being provided that face the street, private rear access and parking may be established provided secondary access or adequate turnaround area is available and maintenance provisions are adopted.
 8. When property configuration is such that rear access cannot be provided in consideration of setback and separation standards, parking to the side in a common parking area may be provided, or, shared driveway accesses to the street may be allowed up to the limit of minimum site density.
 9. If common rather than individual (per unit) parking areas are proposed, the General Design Standards for Surface Parking Lots (**Sections 9.0820-9.0826**) shall apply to the common parking areas. Such common parking areas may be within easements or on commonly owned tracts held and maintained by a homeowners association. Provide a 6 foot high sight obscuring fence or wall

and a 5 foot wide landscaped planter strip along any side(s) of the common parking area that abuts adjoining properties. Plant materials shall include a combination of ground cover, shrubs, and trees and follow the same planting size requirements as for Shared Open Space Areas.

- H. Pedestrian Circulation.** The site design shall promote safe, attractive, and usable pedestrian facilities and direct pedestrian connection between the street and buildings by providing an on-site, continuous pedestrian circulation system that meets the following criteria:
1. The on-site pedestrian circulation system shall be continuous and connect the following: streets abutting the site; ground level units entries and common building entries; common buildings such as laundry and recreation facilities; parking areas; shared open space and children’s play areas; pedestrian amenities such as plazas, resting areas, and viewpoints; and any adjacent transit facilities, public uses, or public park/open space as applicable.
 - a. Walkways shall connect each unit’s front entry to the public street. At least one of the following shall be provided:
 - i. **Separate Walkway.** A separate, minimum three foot wide hard surfaced walkway directly from the public sidewalk to the front door; or
 - ii. **Combined Walkway.** A minimum three foot wide hard surfaced walkway from the public sidewalk to the front door with at least a portion of the walkway combined at the edge of the driveway. The walkway width shall extend at least 3 feet beyond the edge of the garage door. (See **Figure 7.0420(C)**).
 - b. When pedestrian walkways are located between two buildings, a minimum 10 foot wide corridor shall be provided between the buildings. Such walkways are permitted within setback areas.
 2. The on-site pedestrian circulation system shall consist of hard surfaced, minimum 5-foot wide walks. A 7-foot walk shall be provided when the walk abuts shared motor vehicle parking spaces unless wheel stops are used to ensure a minimum 5-foot wide, clear walk.
 - a. Walks shall be separated from auto parking and maneuvering areas, except for individual unit driveways, through physical barrier features such as planter strips, raised curbs, or bollards.
 - b. Where walks cross through driveway or parking areas, except for individual unit driveways, they shall be paved with a material different and visually contrasting from the pavement material in the auto area.
 - c. Walkways adjacent to or within a parking area are subject to standards of **Section 9.0824**.
 3. Walkways shall be barrier-free and unblocked at all times.
 - a. The on-site shared pedestrian circulation system shall be designed to meet the accessibility standards of the Building Code.
 - b. Front entry stoops shall not be elevated more than 6 feet above the grade of the sidewalk.
 - c. Walkways in common areas (including shared parking areas) shall be illuminated to an average of 1.5 foot-candles and a minimum of 0.5 foot-candles during the hours of darkness. Lighting shall be designed so as to not shine directly into residential units by the use of cut-off or directional features.
 - d. All pedestrian walkways shall be in view of at least one unit’s living area windows.
- I. Landscaping Standards.** Landscaping is intended to enhance the visible appearance and livability of townhouse projects and prevent building footprints from dominating available lot areas.
1. At least 20% of the gross site area of a townhouse project shall be landscaped.

- a. All landscaped front, side, and rear yard areas, landscaped common open space, preserved natural areas, vegetated stormwater facilities, planter areas, landscaped screening and separation area, as well as landscaped strips located between the curb and sidewalk, can be included to meet the 20% landscaping requirement. In addition, shared walkways within landscaped areas may count for up to 10% of the total landscaping requirement (i.e. 10% of the 20% of gross area total).
 - b. Of the 20 % landscape requirement in above, a portion of the landscaping total shall be located in rear yard areas of lots that are not rear accessed.
 2. At least 80% of the front yard setback area shall be landscaped when the driveway is at the rear of the unit or when a shared parking area is provided, or at least 25% of the front yard setback area shall be landscaped when the driveway is at the front of the unit.
 - a. Up to 20% of the required front yard setback landscaping area may be walkways or stoops associated with unit access, and at least 80% of those areas shall consist of a continuous ground cover of lawn and/or low growing evergreen shrubs, or other evergreen ground cover. Trees and larger shrubs may also be added to the landscaped area.
 3. All yard setbacks shall be landscaped and shall have at least 5 deciduous shade trees per 100 lineal feet. Existing evergreen trees may substitute for the required deciduous shade trees on a one-for-one basis, provided the tree is capable of at least 25 feet in height and is at least 10 feet in height. Where the yard abuts a required buffer the trees may be credited towards any tree required for the buffer.
 4. In addition to street trees as required by **Section 9.1044**, landscape/site trees shall be required at the rate of one tree per 2,000 square feet of gross site area. Existing landscape/site trees that are preserved may count at a 1 to 1 ratio for purposes of meeting site tree requirements.
 - a. New landscape/site trees shall be capable of growing to a height of at least 25 feet. However, when accompanied by an arborist's report outlining where such larger sized trees are not appropriate, ornamental, dwarf, and other smaller species may be permitted in those locations.
 - b. New deciduous landscape/site trees shall be a minimum of 1.5 inch caliper at the time of planting.
 - c. Evergreen trees shall be a minimum 6 foot height at time of planting.
 - d. New site trees shall be distributed throughout the project rather than clumping them in one location.
 - e. Newly planted trees shall be supported (by use of stakes and wire, or similar material) to prevent wind damage for at least one year.
 5. Required planting sizes at time of planting are as follows:
 - a. Groundcovers, other than lawn, shall be a minimum of 4-inch pots spaced 2 feet on center.
 - b. Trees shall have a minimum caliper of 1.5 inches at time of planting and shall be staked for at least one year.
 - c. Evergreen shrubs shall be at least 24 inches high at finished grade and all shrubs shall be a minimum one gallon size at planting.
 - d. Ferns shall be a minimum of 16 in. high from finished grade and 1 gallon size.
 - e. Mulches and barkchips are only allowed as a filler, until required groundcover and shrub materials mature and spread. Mulches and barkchips are not permitted as a substitute for living plant materials.

6. The grading and contouring of the site takes place and on-site surface drainage and on site storage of surface water facilities are constructed, when necessary, so there is no adverse effect on neighboring properties, public rights-of-way or the public storm drainage system (refer to **Section 9.0500** – Grading and Drainage Requirements, and **Section A5.205** – Drainage Management Practices).
 7. All landscaped areas shall be irrigated with an in-ground irrigation system, except for dwelling structures containing less than four unit or when a licensed landscape architect submits written verification that the proposed planting materials do not require irrigation.
 8. All plantings shall be maintained and dead or diseased plants replaced within 3 months of removal.
- J. Private Open Space.** Each unit needs its own private space so as to maintain a feeling of livability and to not encourage crowding. The following options are offered:
1. Each townhouse unit shall have an attached private open space area located at the rear of the unit of at least 120 square feet in size. The area shall be enclosed, screened or otherwise designed to provide privacy with elements such as 6 feet high sight-obscuring fencing, building offsets, and/or vegetative screening. The combined total area of a deck or balcony and patio/rear yard area may be used to obtain the required private area square footage.
 2. Where it is not possible to locate the private open space entirely at the rear of the unit, a private open space may be located on the front façade in the form of an upper story balcony and the square footage counted towards the 120 square feet requirement.
 3. No dimension of private open space area shall be less than a minimum of 6 feet.
 4. If a private open space (in a front, rear, or side yard) is adjacent to common or public open space, parking, or a property line at the perimeter of the development, provide a visual separation consisting of at minimum a 3 foot high fence, wall, or landscaping capable of growing to a 3 foot height between the private open space and the adjacent element.
- K. Shared Open Space Standards for Complexes.** Large townhouse complexes are similar in scale and operation to multifamily and condominium complexes and shall, therefore, provide similar amenities on the property of the project including common open space, play areas, and a mechanism for maintenance of such areas. The following standards are provided for those purposes:
1. For townhouse projects of 20 or more units (including elderly housing townhouse complexes of 20 or more units), provide one or more common (shared) open spaces with a minimum combined total area of 1,000 square feet. For developments over 20 units, add an additional 250 square feet of open space for every additional 10 units. For phased developments open space requirements shall be met per phase.
 2. No common open space area is to be less than 400 square feet in area nor have a horizontal dimension less than 12 feet.
 3. Common open space areas shall primarily be landscaped unless the open space area comprises a natural area (such as a wetland feature or habitat area or a stormwater detention area). Up to 40% of the common open space area may be hard surfaced, improved and dedicated for a specific use (barbecue areas, tennis court, recreation building, community garden, playground, etc.). Where feasible, the surface of open space areas shall be pervious, allowing infiltration of storm water.
 4. If a hard surfaced area is provided, the perimeter shall be landscaped with a combination of evergreen groundcover, shrubs and trees, with the trees spaced 20 feet on center.
 5. Required open space area landscaping shall include lawn, groundcover, shrubs, and trees. Mulch materials are only permitted as a filler until living plant materials mature and spread.

6. For townhouse projects adjacent to public parks or public open spaces (such as schoolyards, public trails, natural areas, etc.):
 - a. Parking, loading and service areas may not be located between the residences and the public areas. Parking may be located under a building provided access to the parking is not from the park or open space side of the development.
 - b. A minimum of 10% of the building façade facing the park or open space shall be comprised of windows.
 - c. Sight obscuring fences greater than 6 feet in height are not permitted between townhouse projects and the park or open space.
7. Children’s play areas shall be provided for developments of 20 or more units following the dimensional, equipment, and perimeter standards of **Section 7.0103(A)(5)(S6)(a)-(e)**, except if the development is for elderly housing. Elderly housing complexes are not required to provide children’s play areas but are required to provide required open space area if 20 units or more in complex size. In addition, the following are required for children’s play areas:
 - a. Shall be located outside of required yard setbacks and buffer areas.
 - b. Shall be located so as to be visible from living area windows of at least 3 dwelling units.Alternatives to children’s play areas may be provided in an equivalent square footage as long as at least one play area is still provided within the townhouse complex. Suitable alternatives include shared picnic facilities, gazebos, gardens, exercise facilities, basketball area, and other related shared open space type uses.
8. Shared open space and other common or shared use areas may be established as tracts or as easements over portions of platted lots. Homeowners associations, site management offices, or other acceptable means shall be established for purposes of maintaining all common areas. An ongoing financial mechanism and oversight functions to provide for maintenance shall be established prior to occupancy of any unit.
9. Landscaped areas within public right-of-way shall not be counted as project open space.
- L. **Architectural/Design Standards for Townhouse Structures.** The following structural and architectural design elements for townhouse structures are intended to help create a sense of individuality besides providing a measure of quality, and shall be provided for all proposals.
 1. No building exterior wall dimension or row of contiguous dwellings (in one structure) shall exceed 100 feet in continuous building length. An exception to this are courtyards (“U” shaped) developments where no unbroken (i.e. continuous) section of the “U” shall exceed 100 feet. (Note: courtyard developments may also include multiple buildings that create a courtyard effect as long as individual building lengths do not exceed 100 feet.)
 2. Offset every two dwelling units from the next dwelling unit by at least 4 feet in exterior wall offset for buildings 2 stories or taller and over 50 feet in length, or, at least 2 feet in offset for buildings 1 story in height or less than 50 feet in length.
 3. For each entry, provide a covered porch or portico with a floor area of at least 40 square feet.
 4. Roofs shall be pitched and have a minimum 3 to 12 slope.
 5. Roof eaves shall be provided (minimum 12-inch projection).
 6. Façade (wall) treatments (such as exterior finish patterns, story lines/floor banding, window trim, corner trim/corner boards, and related items) shall be provided on all sides of the building.
 7. Provide windows on building ends that front streets.
 8. Provide a minimum of 4 of the following architectural elements in the building design:

- a. Dormers
 - b. Gables
 - c. Recessed entries
 - d. Cupolas or towers
 - e. Pillars or columns
 - f. Additional offsets in building face or roof (minimum 16-inches)
 - g. Bay windows
 - h. Decorative and/or alternating patterns on the exterior finish (e.g. scales/shingles, trim boards, ornamentation or similar features)
 - i. Decorative cornice or pediment
 - j. For one story buildings, the use of at least 2 or more different exterior finishes and patterns including such types as masonry, stone, stucco, wood, terra cotta, and tile
 - k. Where masonry is used for exterior finish, apply decorative bonds and a range of colors
 - l. Cantilevers
 - m. Energy Conservation features including non-window elements and other design features that channel natural light from exterior walls or roof (such as by the use of skylights, solar tubes, atriums, and related features)
 - n. Windows on all non-street fronting building ends.
9. Provide at least 2 different exterior finish patterns for all multi-story buildings.
 10. The design of corner buildings that have facades facing both streets shall include a unique feature at the corner such as a tower, corner bay or gable, or a combination of architectural elements that visually enhance the building corner. As an alternative, a functional (i.e. usable) and decorative pedestrian or landscaping feature of not less than 300 square feet in ground area may be provided.
 11. Non linear (“U” or other shaped) building footprints that create common area courtyards may be permitted if rear access is provided.
 12. Garage facades shall not be located closer to a street than façade portions of the structure facing said street containing living space (i.e. no “snout” units are permitted).

M. Screening

1. A minimum 6 foot high sight obscuring fence or wall shall screen common loading, garbage/recycling, and other service areas that are shared by two or more townhouse units within a development.
2. Screen transformers and heating, ventilation and air conditioning (HVAC) equipment.
3. Screen freestanding HVAC units with a sight obscuring fence, wall or evergreen landscaping if located adjacent to a property line shared with another residential unit/building or adjacent to open space.
4. Provide utility meter/box screening from the street or from public view.

N. Storage. Space shall be provided for garbage, recycling, and storage in accordance with the following standards:

1. Exterior garbage collection and recycling areas shall be entirely screened by the employment of a vegetative screening and/or minimum 6 foot high sight-obscuring fence or wall. This requirement applies to townhouses only if common garbage collection and recycling facilities are provided for the site.

2. Private storage areas are required for each unit. Each storage space shall consist of an enclosed closet type space at least 6 feet in height with at least 24 square feet of floor area. The facility shall either be connected to each unit, within a garage that belongs with a unit, or easily accessible (such as in a central facility), be completely enclosed and capable of being locked. If located within a garage, the storage space shall be separate from and in addition to the area required for vehicle parking so as to not impede vehicle parking. (Except for retirement housing, elderly housing assisted living developments need not comply with this requirement.)

O. Safe Neighborhood Design Performance Standards. These provisions are intended to help create safer neighborhoods and a high-quality pedestrian environment by incorporating designs that emphasizes linkages and visibility between the dwelling and the street.

1. An addressing system shall be provided and shall consist of the following:
 - a. Individual building addresses shall be clearly visible (as determined by the Fire Marshal) from the abutting public street right-of-way or from the abutting driveway or private street, shall be at least 6 inches in height, shall be of a contrasting color to the background and shall be illuminated so as to be visible during the hours of darkness. Building addresses (including any building identification letters) shall be clearly visible on all sides of the buildings.
 - b. Each individual unit within a complex shall display a unit number that shall be at least 4 inches in height and illuminated during the hours of darkness. Each breezeway shall also be posted with appropriate unit numbers and, when applicable, with appropriate building addresses or letters) for the breezeway.
2. Street Pedestrian Connection Options. At least one of the following shall be provided:
 - a. Separate Walkway. A separate, minimum three foot wide hard surfaced walkway directly from the public sidewalk to the front door; or
 - b. Combined Walkway. A minimum three foot wide hard surfaced walkway from the public sidewalk to the front door with at least a portion of the walkway combined at the edge of the driveway. The walkway width must extend at least 3 feet beyond the edge of the garage door. (See **Figure 7.0420(C)**).
3. Street Surveillance Options. At least one of the following shall be provided:
 - a. Ground Level Outdoor Surveillance Area. A minimum 40 square foot covered hard surfaced entry area is placed immediately adjacent to the front door; or
 - b. Upper Level Outdoor Surveillance Area. A minimum 30 square foot second story covered or open porch, balcony or deck is placed on the front of the dwelling; or
 - c. Dwelling Front Location. The front of the dwelling (not including the garage) or of a covered entry has maximum setback of 16 feet; or
 - d. Dwelling and Garage Front Location. The front of the garage is flush with the front of the dwelling or is recessed back from the front of the dwelling.
4. For townhouse complexes, shared parking areas and common walkways shall be illuminated to an average of 1.5 foot-candles and a minimum of 0.5 foot-candles during the hours of darkness. Lighting shall be designed so as to not shine directly into residential units by the use of cut-off-features. Lighting devices shall be protected by weather- and vandalism-resistant covers.
5. Any individual stair landing may serve a maximum of six units per landing. The area of railings on stair landings shall be a minimum of 50% open. The area of railing is the height of the railing times the length of the railing. This requirement does not apply to landings serving only one townhouse unit.

6. Where parking spaces are numbered and assigned to specific dwelling units, numbers on parking spaces should not correspond to the numbers of the units to which the spaces are assigned.
7. Visible Dwelling Front. The front door shall be oriented towards the street which the dwelling faces. At least 75% of that street frontage shall be visible from:
 - a. the front door; or
 - b. a street-facing ground floor window in a frequently used room such as a living room, dining room, kitchen or bedroom (but, for example, not a window to a garage, bathroom or storage area); or
 - c. a street-facing second story, minimum four-foot-by-four-foot window, except a bathroom window, placed no higher than 3 feet 6 inches from the floor to the bottom of the window sill.

This section allows portions of the front of a dwelling to protrude forward of other portions, as long as the visibility standard is satisfied. A dwelling on a lot created pursuant to **Section 10.1520** may use a private drive or future street to comply with this provision.

P. Transition and Compatibility Between Townhouse Projects and LDR-5/LDR-7/TLDR/TR Development. Restrictions for residential buildings, any portion of which is within 50 feet of an abutting LDR-5, LDR-7, TLDR or TR District:

1. The residential building shall contain no more than 12 dwelling units.
2. The Height Transition standards of **Section 9.0610(A)** shall apply to all residential buildings.
3. Minimum spacing distance between buildings shall be 15 feet. However, where a building exceeds 100 feet in length the minimum spacing distance between that building and any other residential building shall be 20 feet.

Q. Setback, Separation and Height Standards for Townhouses

1. The minimum setback standards for townhouses in the RTC, SC, SC-RJ, CMF, and CMU Districts are per **Table 4.0430**, Footnote 1.
2. The height requirements for townhouses in the RTC, SC, SC-RJ, CMF, and CMU Districts are per **Table 4.0430**, Footnote 19.

7.0440 COTTAGE CLUSTER DESIGN STANDARDS

The following design standards shall apply to cottage cluster developments in the following districts: LDR-7, LDR-5, TR, TLDR, MDR-12, MDR-24, OFR, LDR-PV, MDR-PV, HDR-PV, VLDR-SW, LDR-SW, THR-SW, those portions of CMF along the NE Glisan and NE 162nd Avenue corridors, CMU, DRL-1, and DRL-2 districts.

An existing single detached dwelling converted into a Cottage as part of a Cottage Cluster (as provided in OAR 660-046-0230) is exempt from this section, except **Section 7.0440(K)** Existing Structures shall apply. The remaining portion of the cottage cluster development shall be subject to this section.

A. Entry Orientation

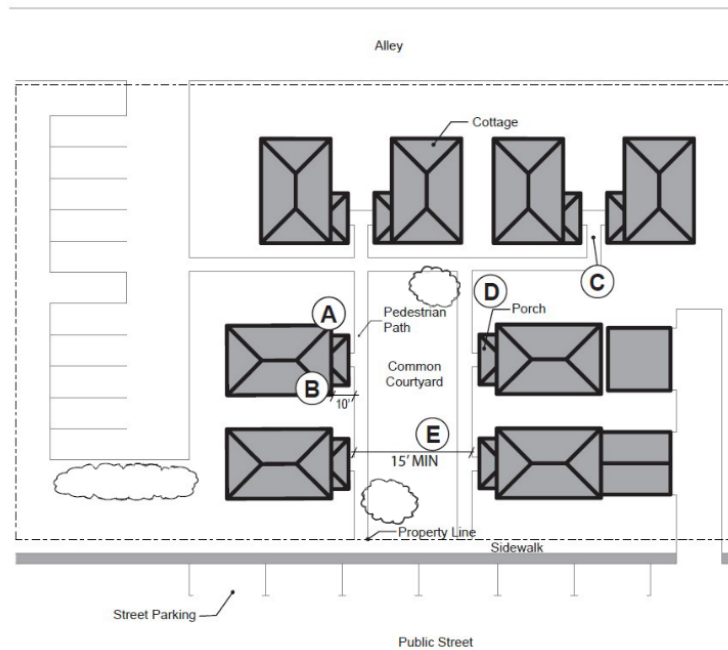
1. Except for flag lots, at least one primary entrance per lot shall be oriented to the street right-of-way.
 - a. The primary entry shall be set back no greater than 8 feet from the longest street-facing wall of the dwelling unit.
 - b. The primary entrance shall:
 - i. Directly face the street; or
 - ii. Be at an angle of up to 45 degrees from the street; or

- iii. Open onto a porch of at least 25 sq. ft. that has either a roof or an entry facing the street.
- c. Where a building is on a corner lot and fronts two abutting streets, the required primary entry may be oriented to either street.

B. Cottage Orientation

Cottages shall be clustered around a common courtyard, meaning they abut the associated common courtyard or are directly connected to it by a pedestrian path, and shall meet the following standards (see **Figure 7.0440(B)** Cottage Orientation and Design):

1. Each cottage within a cluster shall either abut the common courtyard or shall be directly connected to it by a pedestrian path.
2. A minimum of 50% of cottages within a cluster shall be oriented to the common courtyard and shall:
 - a. Have a main entrance facing the common courtyard; and
 - b. Be within 10 feet from the common courtyard, measured from the façade of the cottage to the nearest edge of the common courtyard; and
 - c. Be connected to the common courtyard by a pedestrian path.
3. Cottages within 20 feet of a street property line may have their entrances facing the street. (See **7.0440(A)(1)** above.)
4. Cottages not facing the common courtyard or the street shall have their main entrances facing a pedestrian path that is directly connected to the common courtyard.
5. Cottages shall be separated by a minimum of 8 ft.

Figure 7.0440(B) Cottage Orientation and Design

- (A)** A minimum of 50% of cottages must be oriented to the common courtyard.
- (B)** Cottages oriented to the common courtyard must be within 10 feet of the courtyard.
- (C)** Cottages must be connected to the common courtyard by a pedestrian path.
- (D)** Cottages must abut the courtyard on at least two sides of the courtyard.
- (E)** The common courtyard must be at least 15 feet wide at its narrowest width.

C. Common Courtyard Design

Each cottage cluster shall share a common courtyard in order to provide a sense of openness and community of residents. Common courtyards shall meet the following standards (see **Figure 7.0440(B)** Cottage Orientation and Design):

1. Each Common Courtyard shall serve no more than 10 cottages.
2. The common courtyard shall be a single, contiguous piece.
3. Cottages shall abut the common courtyard on at least two sides of the courtyard.
4. The common courtyard shall contain a minimum of 150 square feet per cottage within the associated cluster (as defined in **7.0440(B)** above).
5. The common courtyard shall be a minimum of 15 feet wide at its narrowest dimension.
6. The common courtyard shall be developed with a mix of landscaping, pedestrian paths, and/or paved courtyard area, and may also include recreational amenities and gardens. Impervious elements of the common courtyard shall not exceed 75% of the total common courtyard area.
7. Courtyards shall include 1 tree per 3,000 sq. ft. of gross lot area.

- a. Cottage Cluster developments with more than one courtyard shall include a minimum of 1 tree per courtyard.
 - b. Other required site trees such as buffer trees may count towards this requirement but street trees may not count.
 - c. Trees shall not be a species identified as invasive by the City or County, and are recommended to be selected from the approved street tree or parking lot tree lists.
 - d. Deciduous trees shall be a minimum of 1.0 inch in caliper at time of planting, evergreen trees shall be a minimum of 6 feet in height at time of planting.
 - e. Existing, healthy trees maintained on site shall count towards this requirement.
 - f. New trees shall be supported by use of stakes, wire, or similar material for at least one year to prevent damage by strong winds.
8. Pedestrian paths that are contiguous to a courtyard may count toward the courtyard's minimum dimension and area. Parking areas, required setbacks, and driveways do not qualify as part of a common courtyard.

D. Common Buildings

Cottage cluster projects may include common buildings for the shared use of residents that provide space for accessory uses such as community meeting rooms, guest housing, exercise rooms, day care, or community eating areas.

1. One common building is allowed per common open space.
2. Common buildings shall be limited to a maximum 900 sq. ft. footprint unless a covenant is recorded against the property stating that the structure is not a legal dwelling unit and will not be used as a primary dwelling.

E. Pedestrian Access

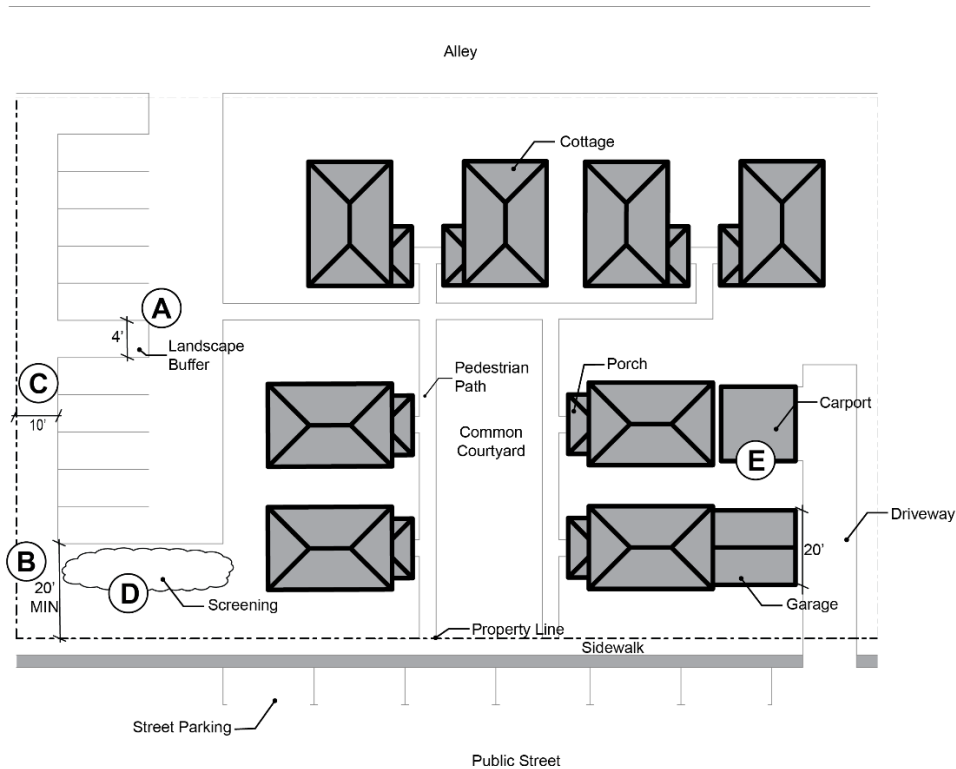
1. An accessible pedestrian path shall be provided that connects the main entrance of each cottage to the following:
 - a. The common courtyard and other shared amenities;
 - b. Shared parking areas;
 - c. Common buildings; and
 - d. Sidewalks in public rights-of-way abutting the site or rights-of-way if there are no sidewalks.
2. The pedestrian path shall be hard-surfaced and a minimum of four feet wide.
 - a. Where a pedestrian path is combined with an individual driveway, the path width shall extend at least 3 feet beyond the edge of the garage door (also see **Figure 7.0420(C)**).

F. Vehicle Access and Parking (see **Figure 7.0440(F)).**

1. For lots abutting an alley, access shall be taken from the alley.
2. Driveway Approaches. Driveway approaches (as shown in **Figure 7.0420(B)(2)**) are encouraged to be shared for multiple units, but may be developed for individual units.
 - a. Shared driveways shall include shared driveway approaches.
 - b. The total width of all driveway approaches on an individual frontage may occupy no greater than 34% of that lot frontage, or 28 ft., whichever is less.
 - c. Driveway approaches shall meet all the requirements contained in **Section A5.000**.
3. Parking location and access.
 - a. Off-street parking spaces and vehicle maneuvering areas shall not be located:

- i. Within of 20 feet from any street property line, except alley property lines; or
 - ii. Between a street property line and 4 feet behind the front facade of cottages located closest to the street property line. This standard does not apply to alleys.
 - b. Off-street parking spaces shall not be located within 10 feet of any other property line, except alley property lines. Driveways and drive aisles are permitted within 10 feet of other property lines.
- 4. Off-Street Parking.
 - a. Off-Street parking spaces for residential uses shall be at least 8.5 feet wide by 18 feet deep, or 8 ft. wide by 24 ft. long for parallel parking spaces.
 - b. Tandem (end-to-end) parking is allowed only for individual units.
- 5. Clustered parking. Off-street parking may be arranged in clusters, subject to the following standards:
 - a. Cottage cluster projects with fewer than 16 cottages are permitted parking clusters of not more than 5 contiguous spaces.
 - b. Cottage cluster projects with 16 cottages or more are permitted parking clusters of not more than 8 contiguous spaces.
 - c. Parking clusters shall be separated from other spaces by at least 4 feet of landscaping.
 - d. Clustered parking areas may be covered.
- 6. Screening.
 - a. Landscaping, fencing, or walls at least three feet tall shall separate clustered parking areas and parking structures from common courtyards and public streets.
- 7. Garages and carports.
 - a. Garages and carports that face the street shall be set back at least 4 feet behind the street-facing wall closest to the street.
 - b. Garages and carports (whether shared or individual) shall not abut common courtyards.
 - c. Individual attached garages up to 200 square feet shall be exempted from the calculation of the maximum 900 sq. ft. building footprint for cottages.
 - d. Individual detached garages shall not exceed 400 square feet in floor area.
 - e. Garage doors for attached and detached individual garages shall not exceed 20 feet in width.

Figure 7.0440(F) Vehicle Access and Parking



- (A)** Parking allowed in clusters of up to 5 spaces. Clusters separated by minimum 4 feet of landscaping.
- (B)** No parking or vehicle area within 20 feet from street property line (except alley).
- (C)** No parking within 10 feet from other property lines (except alley). Driveways and drive aisles permitted within 10 feet.
- (D)** Screening required between clustered parking areas or parking structures and public streets or common courtyards.
- (E)** Garages and carports must not abut common courtyards. Garage doors for individual garages must not exceed 20 feet in width.

G. Sustainable Design

1. Cottage Cluster developments shall follow the **Section 7.0420(E)** Sustainable Design standards.

H. Side Wall Articulation

1. Facades facing side setbacks and within 10 ft. of the side setback line shall utilize a minimum of one of the following articulation strategies:
 - a. Side walls shall not exceed 35 ft. in length before a full-height offset a minimum 2 ft. in depth and 6 ft. in length is provided.
 - b. Wall area(s) above the first floor shall be setback a minimum of 4 ft. from the first floor wall plane closest to the side setback for a minimum of 60% of the total first floor wall plane(s) length.
 - c. No individual wall plane shall be greater than 280 sq. ft. Individual wall planes shall be offset a minimum of 12 in. from adjacent wall planes.
 - d. Setback all side walls at least an additional 5 ft. from the side setback line.

I. Transparency

1. Windows and/or doors (not including garage doors) utilizing clear glass and entry doors of any material shall occupy a minimum of 17 % of the total street-facing facade area(s).
 - a. Facade areas separated from the street by a building shall not be counted towards total street-facing facade area.
 - b. Roof area shall not count towards total street-facing facade area, but wall area above wall headers (such as gable ends and dormers) shall count.
 - c. Entry doors used to meet this standard shall face the street or be at an angle of no greater than 45 degrees from the street.
2. Clear glass in windows and/or doors shall occupy a minimum of 5 % of all other facades.

J. Accessory Structures

1. Accessory structures shall not exceed 400 square feet in floor area.

K. Existing Structures

On a lot or parcel to be used for a cottage cluster project, an existing single detached dwelling on the same lot at the time of proposed development of the cottage cluster may remain within the cottage cluster project area under the following conditions:

1. The existing dwelling may be nonconforming with respect to the requirements of **Section 7.0440**.
2. The existing dwelling may be expanded up to the maximum height for cottages in the applicable district, or the maximum cottage footprint of 900 sq. ft.; however, existing dwellings that exceed the maximum height and/or footprint standards for cottages in the applicable district may not be expanded.
3. The existing dwelling shall be excluded from the calculation of orientation toward the common courtyard, per **Section 7.0440(B)(2)** above.