



T H E C I T Y O F S A N D I E G O

City of San Diego  
Development Services  
**Building Development Review**  
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San Diego, CA 92101  
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# Building Newsletter 5-7

Townhouse Contiguous Dwellings  
Classified as Group R Division 3

Interpretations of State and Local Building Codes  
2001 California Building Code : Chapter 3  
Revision Date: April 2003

Page 1 of 6

## I. Purpose

The purpose of this building newsletter is to outline the Department's policy for the design and construction of multiple townhouse dwelling units, when built in a row at or near a property line or assumed property line, under Group R, Division 3, Dwelling occupancy classification.

Under this occupancy classification, the terms townhouse and rowhome are considered to be synonymous and are referred to as townhouse or townhouses hereinafter.

Under the policy stated in this building newsletter, rowhomes are single-family dwelling units constructed in a row consisting of either a single townhouse or a pair of attached townhouses forming a duplex unit.

Each townhouse shall extend from foundation to roof. Furthermore, each townhouse shall have open space on at least two sides.

The information set forth in this newsletter is accurate at the time of publication. Users of this newsletter are advised to consult the City of San Diego web site and the Municipal Code for the current and up-to date building regulations which may be different or more restrictive than the requirements set forth herein.

Users of this newsletter are also advised to consult the latest applicable Federal regulations regarding disabled accessibility.

## II. Definitions

**ASSUMED PROPERTY LINE** is a line assumed between two adjoining townhouses or duplexes separating one from the other, where the two buildings are located on the same parcel of land.

**DWELLING** is any building or portion thereof that contains not more than two dwelling units.

**DWELLING UNIT** is any building or portion thereof that contains living facilities, including provisions for sleeping, eating, cooking, and sanitation, as required by the Building Code, for not more than one family.

**LOT LINE** is a legally recorded line dividing one lot from another, or from a street or any public place. This line is also referred to as property line.

**PARTYWALL** is a common wall which is shared by two attached townhouses forming a duplex unit.

**PROPERTY LINE** See lot line.

**PROPERTY LINE WALL** is the exterior wall of a townhouse and is located at or near a property line or at assumed property line.

**TOWNHOUSE** is a single-family dwelling unit constructed as single unit which extends from foundation to roof. Furthermore, each townhouse shall have open space on at least two sides.

## III. Group R, Division 3 Occupancy Classification

In order for multiple individual townhouses to be classified as Group R, Division 3, Occupancy, when built in a row at or near property lines or assumed property lines, the following conditions must be satisfied:

- A. Each townhouse is required to be in compliance with the applicable provisions of the Building Code related to Group R, Division 3, occupancy classification.
- B. Each single townhouse or a duplex shall be considered a separate and independent building.
- C. Each individual townhouse must be located on a parcel of land either bounded by established and recorded legal property lines or assumed property lines or both. The site plan shall clearly show the legal property lines [lot lines] or the assumed property lines with a description of legal address for each individual townhouse and duplex.
- D. Each single townhouse building or duplex building shall be separated from an adjoining dwelling unit by property line walls constructed as defined in this newsletter. Attached dwelling units in a duplex may be separated by a party wall, constructed as defined in this newsletter.
- E. Townhouses shall not be stacked with one constructed on top of the other. Each townhouse must extend from foundation to roof.
- F. Underground and aboveground plumbing, conduits, wiring and other utilities shall comply with the requirements set forth in 'Utilities Connection' under 'Other Related Issues' in this newsletter.
- G. Each separate and independent building must be structurally independent in resisting both vertical gravity loads and lateral (seismic and wind) loads. For additional requirements refer to 'Structural Independence' in this newsletter.
- H. Each individual townhouse or duplex must have a separate means of egress. For additional requirements refer to section 'Means of Egress' in this newsletter.

## IV. Building Height and Number Of Stories Determination

- A. *Definition of grade.* Grade is the lowest point of elevation

of the finished surface of the ground, paving or side walk within the area between the building and the property line or, when the property line is more than 5 feet from the building, between the building and a line 5 feet from the building. Sec. (208). For further detailed information refer to Building Newsletter 2-1.

**B. Grade at interior townhouse.** Interior townhouses or duplexes can not retain finished grade. As a result, the lowest level of an interior townhouse is always the first story. Therefore, the total number of stories for an interior townhouse or a duplex must not exceed three stories [levels].

- a. Placing dirt, concrete, grout, sand or other filling material in the cavity between two adjacent townhouses or duplexes along the legal or assumed property line, for the purpose of artificially creating grade in order to establish building heights, basement or the number of stories is not acceptable.
- b. For interior townhouses or duplexes, in order to establish grade for determining building height, basement or the number of stories, a minimum 36 inches wide walkway may be provided between adjacent townhouses or duplex buildings.

**C. Building Height.** The maximum height of a townhouse shall be determined in accordance with the most restrictive provisions set forth in Section 506 of the Building Code, Building Newsletter 2-2 and the Municipal Code.

Proposition D Provisions. For determination of building height for buildings located in areas of San Diego subject to the provisions of Proposition D, refer to Building Newsletter 2-2.

**D. Number of Stories.** Subject to limitations stated in this building newsletter and other provisions of the Building Code, the maximum number of stories for each town house shall not exceed three stories and a basement in height.

- a. For interior townhouses or duplexes refer to Section 'BUILDING HEIGHT AND NUMBER OF STORIES DETERMINATION', Subsection, 'Grade at interior townhouse' in this building newsletter.
- b. The story limits set forth in Table 5-B may be increased by one story if the building is provided with an approved NFPA 13 automatic sprinkler system throughout. Sec. 506.

#### V. Property Line Wall Construction

A property line wall is to be located at or near a property line or an assumed property line. Such a wall shall be constructed in accordance with the following requirements:

- A. A property line wall must occur as the exterior wall of a single townhouse or a duplex.
- B. Each property line wall must be structurally independent in resisting both vertical gravity loads and lateral (seismic and wind) loads of the supported dwelling unit. For additional information refer to section under

'Structural Independence' in this building newsletter.

- C. Property line walls shall be constructed of an approved assembly not less than one-hour fire-resistive rating. Therefore, adjacent to legal property lines or assumed property lines, there shall be two structurally-independent, one-hour fire-resistive walls.
- D. No openings are permitted in property line walls.
- E. Through penetrations of the property line walls are not permitted.
- F. For membrane penetrations of the property line walls refer to section 'Penetrations in exterior walls' in this newsletter.
- G. Property line walls shall have a minimum Sound Transmission Class [STC] rating of 50.
- H. Parapets shall be provided on all property line walls in accordance with the provisions set forth in Section 709.4 of the Building Code. A parapet need not be provided on a property line wall when any of the stated Exceptions applies.
- I. Property line walls shall be continuous from the foundation to the underside of the roof sheathing, roof deck or roof slab and shall extend the full length of each townhouse or duplex.
- J. An alternative design and method of construction for property line walls may be submitted for consideration.

#### VI. Party Wall Construction

A party wall is a common wall which is shared by two attached townhouses forming a duplex.

- A. Party walls shall be constructed of an approved assembly not less than one-hour fire-resistive rating.
- B. Party walls shall have a minimum Sound Transmission Class [STC] rating of 50.
- C. Penetrations through party walls are permitted provided they are protected in accordance with the required provisions of the Building Code.
- D. For membrane penetrations of the party walls refer to section 'Penetrations in exterior walls' in this newsletter.
- E. Party walls need not be provided with a parapet.
- F. Requirements of structural independence, as stated in this newsletter for property line walls, need not apply to party walls.

#### VII. Means of Egress

- A. *Independent means of egress system.* Every townhouse must be provided with an independent means of egress system as required by Chapter 10 of the Building Code. A means of egress is an exit system that provides a continuous, unobstructed and undiminished path of exit travel from any occupied point in a building or structure to a public way.
- B. *Second Floor or a Basement.* Except as required in Table 10-A, the second floor or a basement within an individual dwelling unit may be provided with access

to only one exit. Sec. 1004.2.3.2, Exception 3.

- C. *Third Floor.* Where the third floor within an individual dwelling unit does not exceed 500 square feet, access to only one exit need be provided from that floor. Sec. 1004.2.3.2, Exception 4.
- D. *Occupied Roof.* Occupied roof (s) on Group R, Division 3 Occupancies may have access to only one exit where such occupied areas are less than 500 square feet and are located no higher than immediately above the second story. Sec. 1004.2.3.2, Exception 5.
- E. *Separation of Exits.* Where two or more exits or exit-access doorways are required from any level or portion of the building, at least two of the exits or exit-access doorways shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the area served measured in a straight line between the center of such exits or exit-access doorways. Sec. 1004.2.4.
- F. *Areas to be included.* In determining the occupant load, all portions of the floor including the area of deck and occupied roof shall be presumed to be occupied at the same time.
- G. An alternative design and method of construction for means of egress system may be submitted for consideration.

#### VIII. Structural Independence

Property line walls must be structurally independent in resisting both vertical gravity loads and lateral (seismic and wind) loads of the supported dwelling unit.

Bearing walls, non-bearing walls, metal tension straps or drag struts, lateral load resisting elements such as shear walls, braced frames or moment frames or any other construction elements at any level are not permitted to cross over the property line or assumed property line. Such elements must provide resistance against required loads for each building separately and independently without relying on the adjacent buildings.

- A. *Horizontal sheathing.* Horizontal sheathing [structural diaphragm] at floor and roof levels are not permitted to cross over the property line or assumed property line.
- B. *Foundation system.* Each of the property line walls must rest upon an independent and separate foundation system [footing and stem wall]. Concrete for the footings for adjoining townhouses or duplexes may be cast and monolithically poured together provided that each footing is designed to behave independently without relying on the footing of the adjoining unit.
- C. *Drift separation.* An individual townhouse or a duplex must be provided with a separation or a continuous and uninterrupted gap from the adjoining townhouse or duplex to allow a safe building drift caused by the applicable lateral forces prescribed by the Building Code.
1. Structural drift calculations shall be provided to justify drift separation.

2. Drift separation dimension shall be clearly shown on project plans between townhouses and duplexes.

#### IX. Utilities and Utility connections

A. **Underground plumbing** work [i.e. water, sewer, fire sprinkler lines, irrigation lines, drainage, gas, etc.] associated with an individual townhouse shall not cross over the property line or assumed property line to the adjoining townhouse (a separate property) within the envelope of building.

Such underground plumbing work may however, cross over the property line or assumed property line outside the envelope of buildings provided an easement is granted and recorded in the deed of each townhouse dwelling unit.

B. **Underground conduits and installed wiring** for electrical, cable, satellite, telephone, or similar lines may cross over assumed property lines outside the building envelope or below adjacent dwelling unit foundations provided an easement is granted and recorded in the deed of each townhouse.

C. **Individual gas and electric meters.** Each individual townhouse or duplex located on a parcel of land bounded by legal property lines, must be provided with individual gas and electric service meters located on the property served.

D. **Electric disconnects.** Each individual townhouse is required to have an electric disconnect within the unit, located as close as practical to the entrance of the dwelling unit as defined in the prevailing edition of the California Electric Code.

E. **Grouping Gas and Electric Meters.** A single service point for electric service, with meters grouped at one location, is acceptable for multiple townhouses or duplexes located on a single (ONE) parcel of property divided with assumed property lines.

A single service point for gas service, with meters grouped at one location, is acceptable for multiple townhouses or duplexes located on a single parcel of property divided with assumed property lines.

Easements will be required to be established and recorded in the deed of every townhouse allowing for privately- owned gas and electric meter lines to cross assumed property lines.

Main electric service disconnects (Maximum of Six) may be grouped at one location to accommodate grouping of the electric service and metering equipment.

San Diego Gas and Electric [SDG&E] requires a meter service disconnect for each meter. The meter service disconnect must be located at or immediately adjacent to the meter.

A 3/4 inch or larger electrical conduit must be installed between the grouped meter location and each individual townhouse. This conduit will provide access for future installation of alternative energy sources as recommended by the California Energy Commission and the California Public Utilities Commission.

F. **Above ground gas, electric, cable**, satellite, telephone or similar lines shall not cross legal property lines.

Above ground gas, electric, cable, satellite, telephone or similar lines shall not cross assumed property lines unless, they are installed on the exterior of the building and are visible.

G. **Grounding.** Electrical system grounding shall be provided as follows

- a. When the electric meters are installed on each individual townhouse. Each townhouse dwelling unit shall have a grounding electrode installed as a part of its foundation system. Each Townhouse panelboard shall have a grounding electrode conductor connected to the townhouse unit's individual grounding electrode.
- b. Where meters are grouped together. There shall be a grounding electrode conductor connection between the grouped meter equipment and the grounding electrode in the townhouse dwelling unit where the meters are located; there shall not be a connection from that townhouse unit panelboard to the grounding electrode. Panelboards located in the remaining townhouse dwelling units shall be connected to that units grounding electrode by a grounding electrode conductor.

#### X. **Rear yard access for emergency escape or rescue of the occupants.**

Basements in dwelling units and every sleeping room shall have at least one operable window or door approved for emergency escape or rescue that shall open directly into a public street, public alley, yard or exit court. Sec. 310.4.

When townhouse dwellings are protected throughout with a sprinkler system, sleeping rooms may open into a back yard separated from the yards of adjacent townhouse dwellings. Fences may be used to separate back yards if the following conditions are met:

Case 1: Side fences will be permitted without gates if townhouses have back yards that are at least 15 feet deep, the building is equipped with a 13-D sprinkler system, and the total number of townhouses does not occupy more than one city block.

If back yards are less than 15 feet in depth, the side fences must have gates with Knox pad locks.

Case 2: For non-sprinklered four-plex townhouses only, side fences with gates and Knox pad locks are permitted if, back yards are at least 15 feet deep.

For all other cases not meeting the above limitations, a 13-D sprinkler system will be required.

For further information regarding this issue, contact Fire Plancheck Section at 619-446-5446.

#### XI. **Other Related Issues**

- A. *Encroachments into public right-of-way.* For detailed information and requirements regarding this issue refer to the Municipal Code.

B. *Mezzanines.* A mezzanine is an intermediate floor placed within a room. A mezzanine need not be counted as a story for determining the allowable number of stories when constructed in accordance with all the provisions set forth in Section 507 of the Building Code.

- a. The aggregate area of mezzanines within a room shall not exceed one third of the area of the room in which they are located.
- b. Unless the mezzanine is considered as a separate story, the floor area of all mezzanines shall be included in calculating the allowable floor area of the stories in which the mezzanines are located. Sec. 504.4.
- c. Two means of egress shall be provided from a mezzanine when two are required by Table 10-A of the Building Code. These two exits shall be placed a distance apart to not less than one-half of the length of the maximum overall diagonal dimension of the area served measured in a straight line between the center of such exits. Sec. 1004.2.4.

C. *Basement.* A basement need not be included in the total allowable area, provided such basement does not exceed the area permitted for a one-story building. Sec. 504.5.

If the finished floor level directly above a usable or unused under-floor space is more than 6 feet above grade, as defined herein, for more than 50 percent of the total perimeter or is more than 12 feet above grade, as defined herein, at any point, such usable or unused under-floor space shall be considered as a story. Sec. 220.

For interior townhouses or duplexes refer to Section 'BUILDING HEIGHT AND NUMBER OF STORIES DETERMINATION', Subsection 'Grade at interior townhouse' in this newsletter.

D. *Penetrations of property line walls.* A penetration is an opening created in a membrane or assembly to accommodate penetrating items for electrical, mechanical, plumbing, environmental and communication system. Through-penetration is an opening that passes through both sides of an assembly.

- a. **Through penetrations** of fire resistive property line walls are not permitted.
- b. **Membrane Penetrations** of fire resistive property line walls are permitted provided, they comply with the requirements set forth in Sections 709.7 (membrane penetrations), 709.6.2 (Fire-rated assembly), 709.6.3 (Penetration fire-stop system).

The annular space created in the wall by the penetration shall be completely filled with a listed and approved caulking product having the same fire-resistive rating as the wall penetrated. For product listing agencies accepted by the City of San Diego refer to BNL 17-7.

E. *Disabled accessibility.* Access regulations for the physi-

cally disabled may apply. Users of this newsletter are advised to consult the latest applicable State of California and Federal regulations regarding disabled accessibility.

At the time of this publication, California Building Code accessibility and adaptability requirements for the physically disabled need not apply to newly constructed privately funded nonelevator townhouses or duplexes which are classified as single-family, Occupancy Group R, Division 3. Sec. 101.17.9.1.

- F. Elevators.** Design, construction, installation, operation of elevators shall comply with the requirements set forth in Chapter 30 of the Building Code.

Elevators serving an individual townhouse shall comply with the requirements and regulations established by the Division of Occupational Safety and Health of the State of California (Cal / OSHA).

Private elevators located within and serving an individual townhouse need not comply with disabled access provisions.

- G. Flashing at walls on property lines.** Flashing and counter flashing shall be provided over the space between property line walls located between the adjacent townhouses or duplexes. Flashing and counter flashing may cross the property line or assumed property line between the adjoining dwelling units.

Roofing assemblies, roof coverings, flashing, drainage, attic access, draft, ventilation and roof structures shall be as specified in accordance with the requirements set forth in Chapter 15 of the Building Code.

At the juncture of the roof and vertical surfaces, flashing and counter flashing shall be provided per the roofing manufacturer's instructions and, when of metal, shall not be less than 0.019-inch (no. 26 galvanized sheet gage) corrosion-resistant metal.

- H. Balcony location.** Balconies fronting on either the front yard or rear yard shall be placed no closer than 3 feet from the property line or assumed property line. Balconies located closer than 3 feet from property lines, or an assumed property line, shall comply with the requirements of Sections 503.2.1 and 705 of the CBC.

- I. Exterior stairway location.** Exterior stairways located either in front yard or rear yard shall be placed no closer than 3 feet from the property line or assumed property line. Sides of stairways located closer than 3 feet from property lines, or an assumed property line, must be protected with an approved one-hour fire-resistive wall extending from grade up to a point not less than 6'-8" above the nosing of each tread. No openings are permitted in this one-hour wall. This requirement does not apply to exterior stairway located on grade.

- J. Exterior wall coverings.** Exterior wall coverings for the building shall provide weather protection for the building at its exterior boundaries. Exterior wall covering shall be in accordance with the provisions set forth in Chapter 14 of the Building Code.

The exterior wall surface of property line walls located between two adjacent townhouses or duplexes need not be provided with exterior wall covering complying as a weather-resistive barrier.

- K. Openings in the roof.** Where one-hour fire-resistive property line walls terminate at the underside of the roof sheathing, deck or slab, openings in the roof shall not be located with 5 feet of such property line walls. Sec. 709.4, Exception 5.

- a. Roof vents for all appliances, and plumbing systems, designed to be vented shall maintain the distance to property line or assumed property line in accordance with the applicable requirements set forth in the prevailing edition of the California Plumbing Code and the California Mechanical Code.
- b. Skylights shall not be installed within that portion of a roof located within a distance to property line or assumed property line where openings in exterior walls [property line walls] are prohibited or required to be protected, whichever is most restrictive. Sec. 2603.7.1.7 and Table 5 A.

- L. Penetrations of fire-resistive roof-ceiling assembly.** Through penetrations and membrane penetrations of fire-resistive horizontal assemblies, such as fire-resistive roof-ceiling assembly, shall comply with the provisions set forth in Section 710 of the Building Code.

- M. Projections.** Cornices, eave overhangs, exterior balconies and similar architectural appendages extending beyond the floor area as defined in Section 207, shall conform to the requirements of Section 503.2 and Section 705 of the Building Code.

Projections beyond exterior walls shall not extend beyond property lines or assumed property lines.

- N. Garage driveway / curb cuts.** For detailed information and requirements regarding this issue, refer to the Municipal Code. For questions contact the Engineering Review Section at 619-446-5460.

## **XII. Fire Fighting Access**

All portions of non-sprinklered buildings [entire structure with contiguous roofing] shall be within 150 feet of a fire access roadway. The distance can be increased to 200 feet in sprinklered buildings. A fire access roadway is a public street, alley, private road or driveway that a fire apparatus can drive on. California Fire Code (CFC), Sec. 902. In townhouses protected by an automatic sprinkler system, this access may be modified.

Buildings greater than 35 feet in height above finished grade shall have a fire access roadway along one side of the building that is no closer than 15 feet and no further away than 25 feet, measured horizontally from the exterior face of the building. This roadway allows for aerial ladder access to the building. CFC, Sec. 902.

## **XIII. Limited Commercial Uses in Residential Buildings**

A limited commercial use may be established in one and two-story townhouses without triggering compliance with Building Code provisions associated with commercial

use and occupancy group provided the following conditions are satisfied:

1. The commercial use would normally be classified as Group B Occupancies such as real estate, insurance, accounting, law, drafting, architectural, engineering and other similar professional office type uses.
2. The total aggregate floor area of such commercial use shall not exceed 400 square feet.
3. Space used for the commercial purpose stated in this section, must be occupied by the same tenant of the townhouse. Such space is not allowed to be leased, rented to or used by individuals other than the tenant of the townhouse.
4. The commercial use may not process, use or store hazardous materials, except those necessary for maintenance purposes and operation of equipment.
5. Space used for the commercial purpose may comply with means of egress provisions required for a Group R, Division 3 Occupancy.
6. Light and ventilation shall be provided as is required for Group R, Division 3 Occupancy.
7. The installation of electrical and plumbing fixtures may be in accordance with the Group R, Division 3 Occupancy requirements.
8. Commercial uses that serve the general public must comply with the disabled access provisions set forth in Chapter 11B of the California Building Code.
9. The commercial use must be in compliance with the City of San Diego Municipal Code land development regulations for the area in which the townhouse is located.
10. Public restrooms are not required to be provided.

The application of this policy is not intended to change the occupancy classification of residential buildings, but rather to allow a limited commercial use within a Group R, Division 3 Occupancy.

#### **XIV. Permit Issuance**

- A. *Townhouse.* A separate Combination Permit will be issued for each individual townhouse when all building and zoning regulations of the City of San Diego are satisfied and complied with.
- B. *Duplex.* A separate Combination Permit will be issued for each dwelling unit of a duplex when all building and zoning regulations of the City of San Diego are satisfied and complied with. A duplex unit will be reviewed as a duplex.

#### **XV. Use of Alternate Materials, Designs and Methods of Construction**

The Chief Building Official for the City of San Diego [Building Official hereinafter] may approve the use of any alternate material, design, or construction method if the Building Official determines the following (Municipal Code,

Ch 12, Art 9, Div. 1, Sec 129.109):

- (1) That the proposed alternate material, design, or construction method would comply with the Building, Electrical, Plumbing, or Mechanical Regulations;
- (2) That the proposed alternate material, design, or construction method is at least equivalent to the standards prescribed in the applicable regulation in terms of suitability, quality, strength, effectiveness, fire resistance, durability, safety, and sanitation; and
- (3) That sufficient evidence has been submitted to substantiate any claims that may be made regarding the use of any proposed alternate material, design. Or construction method.

The architect or engineer of record shall submit the appropriate application and applicable fees along with a complete and comprehensive report, plans, sketches, illustrations, details, test reports, reasoning and other evidence and proof sufficient to substantiate any claims and proposals that are made regarding use of alternate materials, design or method of construction.

#### **XVI. Other Information**

All projects incorporating townhouse dwellings complying with this building newsletter must be reviewed on a preliminary basis prior to submittal for permit approval by a Structural Engineering Senior from the Building Development Review Division. A preliminary review appointment with a structural senior staff engineer can be made by calling our central appointment number at (619) 446-5300.

All Building Newsletters and many other related information are available on the City of San Diego web site at [www.sandiego.gov](http://www.sandiego.gov).

For questions regarding this newsletter or questions related to the Townhouse policy, please contact the Development Services Department, Building Development Review at (619) 446-5400.

Additional information regarding the "Use of Alternate Materials, Designs and Methods of Construction" process may be obtained by contacting the Development Services Department Research Engineering staff at (619) 446-5092.