



Building Guide

Colorado Chapter of the International Code Council

Single Family Residential One Story Detached Garage

How to Use this Guide

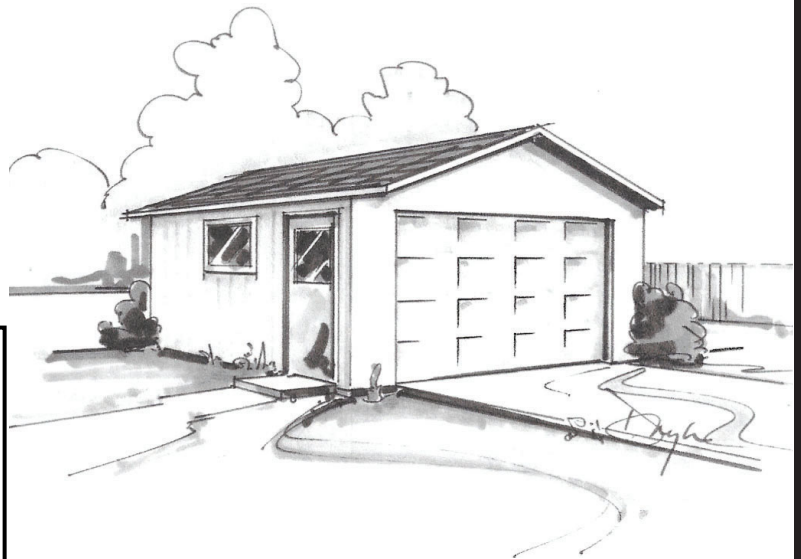
Check with your jurisdiction regarding type of submittal (paper or electronic) and for any additional requirements. Draw to scale or provide dimensions and complete the following (hint: use graph paper with $\frac{1}{4}$ " squares. Example: $\frac{1}{4}$ " = 1").

- 1. Complete this Building Guide** by filling in the blanks on page three and four and indicate which construction details will be used on page five.
- 2. Provide a Plot Plan(site plan)** showing the dimensions of the proposed garage, its relationship to existing buildings/ structures, the distances to adjacent property lines and the distance to any other structures existing on the lot.
- 3. Fill out Building Permit Application**

The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.

Provide building materials and colors samples

Additions and attached structures should match the appearance of the existing structure



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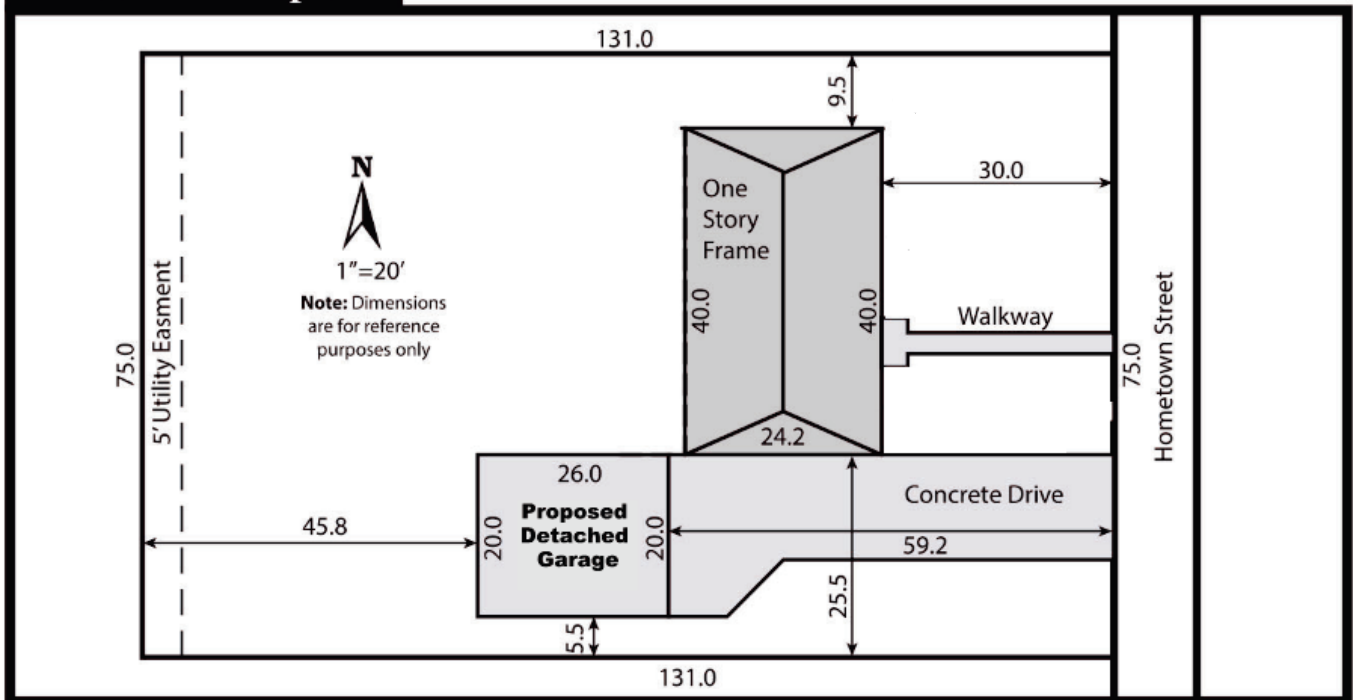
City of Thornton Building Inspection Division
9500 Civic Center Drive, Thornton, CO 80229
303-538-7250
buildings@thorntonco.gov

Single Family Residential One Story Detached Garage

Address: _____

Note: Provide a plot plan (site plan) showing the dimensions of the proposed garage, its relationship to existing buildings/ structures, the distances to adjacent property lines and the distance to any other structures existing on the lot. Include a compass or north facing arrow.

Site Plan Example



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Directions:

1. Fill in the blanks on pages three and four. Please print legibly.
2. Indicate which detail on page five will be used for your project.

Note: Conditioned garages may be required to meet energy code requirements such as insulation requirements in the ceilings, exterior walls, and around the foundation. Check with your local AHJ for specific requirements.

Floor Plan

Dimension

Locate and detail bracing

☒ Check one

☐ Garage is heated
☐ Garage is not heated

Show door and window header sizes and location and size of landing in front of door

3 1/2" minimum concrete slab

() x ' header
(example: (2) 2 x 12)

Note:
If roof trusses or rafters bear on header,
special header design may be required

Double 2x4 or 2x6 trimmers each
end of overhead door header

Garage door opening

Garage door opening width

Dimension*

Dimension*

Dimension*

Dimension*

* If less than 4" see Braced Wall Panel Detail on
page 5 to comply with section R602.10.6.2 (IRC)

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Notes:

1. For roofs with slopes less than 4:12, follow manufacturer's requirements for low slope application of roofing material.
2. Pre-engineered roof trusses with uplift connectors/ hurricane ties may be used in lieu of roof structure shown. Provide stamped truss calculations and layouts.

Sheathing _____
(example: 1/2" exterior plywood)

Minimum 1x _____ ridge board
(example: 1 x 12)

Species and grade of rafters _____
(example: hem fir #1, doug fir #2, southern-yellow pine SS, etc.)

Truss or 2 x _____ rafters spaced _____" O.C
(example: check box OR "2 x 10 rafters spaced 24")

Roof covering _____
(example: class A 3 tab shingles)

Underlayment _____
(example: 1 layer #15 felt)

2x _____ ceiling joists @ _____ O.C.
(example: 2 x 8 @ 24" O.C.)

12 _____ pitch

Double 2x _____ top plate
(example: 2 x 6)

Conditioned space ☐
If yes, method of heating: _____

Unconditioned space ☐

Ceiling insulation _____
(example: R-49)

Wall insulation _____
(example: R-20)

Span _____
(example: 23' 5")

Ceiling height _____
(example: 8')

Wall sheathing _____
(example: 1/2" exterior plywood)

Siding _____
(example: lap, stucco, etc.)

2x _____ studs @ _____ O.C.
(example: 2 x 6 @ 16" O.C.)

Cont. 2x _____ sill plate
(example: 2 x 6 decay resistant)

Found. Insulation _____
(example R-10)

Footing size _____ x _____
(example: 8" x 16")

Provide approved uplift connectors/ hurricane ties

Solid 2 x blocking between rafters that are 2 x 12 or greater

1 x 4 collar ties @ 48" O.C.
OR ridge steps per section R802.4.6

Check with AHJ for maximum wall height

Diagonal wind bracing or braced wall panels @ corners and each 20' of wall.

Reference exceptions listed in **R403.1.4.1 Frost protection** for maximum allowable square footage on Detail A unless frost depth is achieved.

Concrete and reinforcement requirements subject to review from the AHJ

Concrete Encased Ground (UFER) required for new electrical service

A

B

Check one:
Foundation Detail A ☐
Foundation Detail B ☐
(see page 5)

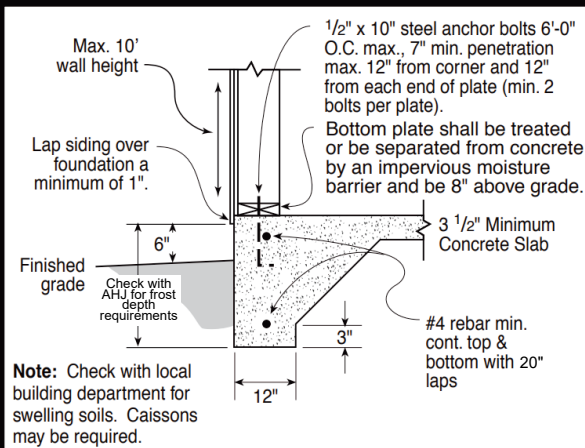
Building Section

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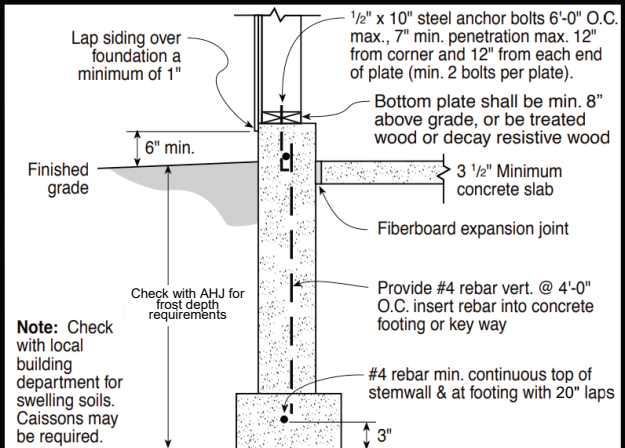
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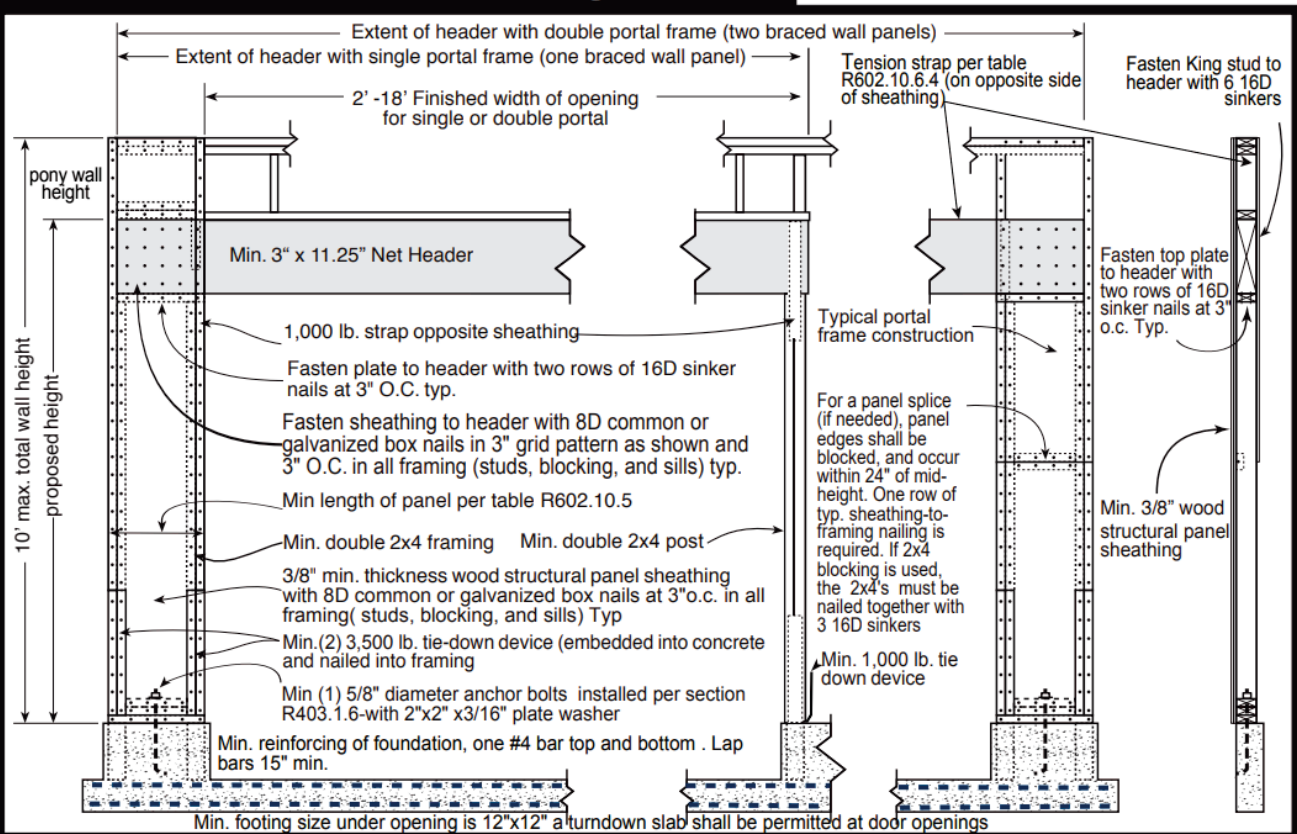
Foundation Detail A



Foundation Detail B



Braced Wall Panel Detail figure 602.10.6.2



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Approved Asphalt and Alternative Shingles

Atlas:

- StormMaster
- Pinnacle
- ProLam
- Briarwood
- Castlebrook

Certain Teed:

- Grand Manor
- Belmont
- Carriage House
- Presidential
- Highland Slate
- Landmark (all)
- Patriot
- XT 25

EuroShield:

- Rundle Slate
- Vermont Slate

GAF:

- Camelot II
- Grand Canyon

GAF (cont'd):

- Grand Sequoia
- Woodland
- Timberline HDZ
- Timberline UHDZ
- Timberline CS
- Timberline AS
- Timberline Prestique 40
- Timberline NS
- Marquis WeatherMax
- Royal Sovereign

IKO:

- Armourshake
- Cambridge LT
- Crowne Slate
- Royal Estate
- Dynasty
- Nordic
- Marathon Plus

Malarkey:

- Legacy¹
- Highlander

Malarkey (cont'd):

- Windsor
- Vista

Owens Corning:

- Woodmoor Collection
- Woodcrest Collection
- Duration Shingle (All)
- Oakridge Shingles¹

Pabco:

- Paramount Advantage
- Paramount
- Cascade
- Premier Radiance
- Pabco Premier
- Pabco Prestige

Tamko:

- Heritage
- Proline Titan XT
- Proline Stormfighter Flex
- Proline Stormfighter IR
- Elite Glass Seal

-
- **Installation of solar shingles require a Solar permit application**

The manufacturers and shingle types are not all inclusive. The Building Inspection Division will consider any shingle or alternate roofing material that meet the wind requirements of IRC section R905.2.4 **Shingles and other roof coverings not listed shall be approved prior to permit issuance and will require a building and/or planning department material review.**