

1. No footing shall be poured on loose or unsuitable soils, in

- 2. All exterior footings to conform to all applicable code
- 3. All concrete shall have a minimum compressive strength of at

Full Basement. No Basement Windows.

- 4. Foundation anchorage to comply with IRC 2015 Section R403.1.6, it shall consist of minimum size 1/2" diameter anchor bolts with 3/16" x 2" x 2" washers at a maximum of 72" oc for two stories or 48" oc for more than two stories, max of 12" from each corner, min of 2 bolts per wall. Anchor bolt shall extend 7" into concrete or grouted cells of concrete masonry units. Be aware that a garage under may be counted by your code officer as a story. Additional anchorage may be required at
- 5. Foundation reinforcing steel is to be installed in accordance with all applicable provisions of IRC 2015 Section 404.1.3.2

TYPICAL PERIMETER FOUNDATION WALL:

- 8" poured concrete, 8 ft forms, min 7'-10" finished, with
- total of 3 rebar, as follows:
- (1) #4 rebar, 4" from top • (1) #4 rebar @ vertical midpoint. Omit this rebar at walls 4
- (1) #4 rebar, min 3" from bottom or per code
- Secure sill to foundation with 1/2" diameter anchor bolts that extend 7" into concrete and tightened with a nut and
- washer @ 6' oc & max 12" from each corner & each end @ wood sill splices - if built-up sill, bolts must extend through all sill plates or straps must secure all sill plates.

TYPICAL PERIMETER FOOTING:

- 1. Use Footing chart(s) below to verify that depth of home matches chart. Depth is foundation dimension eave to eave. Contact Artform Home Plans if you believe the chart
- 2. Select row for snow load shown on the structural plans. 3. Select a column for soil bearing pressure based on soil
- type and/or consultation with code officer. 4. The required footing size is at the intersection of the Snow
- Load and Soil PSF. Rebar is not required. Key or pin foundation wall to footing per code.
- FAQ Adding rebar to footings does not reduce the required width. Rebar affects performance with earth movement, like an earthquake and has near zero effect on bearing capacity.

Guide to Soil PSF

3,000 Sandy gravel and/or gravel (GW and GP) 2,000 Sand, silty sand, clayey sand, silty gravel and clayey gravel (SW, SP, SM, SC, GM and GC) 1,500 Clay, sandy clay, silty clay, clayey silt, silt and sandy silt (CL, ML, MH and CH)

8" wall - Footing Size for 28 Ft wide house							
Snow Load	Story and	Load Bearing Value of Soil (PSF)					
	type of structure	1500 PSF	2000 PSF	3000 PSF			
50 PSF	2 Story - Plus Basement	23 x 7.5	17 x 6	12 x 6			
55 PSF	2 Story - Plus Basement	23.5 x 7.75	17.25 x 6	12 x 6			
60 PSF	2 Story - Plus Basement	24 x 8	17.5 x 6	12 x 6			
65 PSF	2 Story - Plus Basement	24.5 x 8.25	17.75 x 6	12 x 6			
TO DEE	20. 0. 0.	25 25	10.0				

8" wall - Footing Size for 32 Ft wide house							
Snow Load	Story and	Load Bearing Value of Soil (PSF)					
	type of structure	1500 PSF	2000 PSF	3000 PSF			
50 PSF	2 Story - Plus Basement	25 x 8.5	19 x 6	12 x 6			
55 PSF	2 Story – Plus Basement	25.5 x 8.75	19.25 x 6	12.5 x 6			
60 PSF	2 Story - Plus Basement	26 x 9	19.5 x 6	13 x 6			
65 PSF	2 Story - Plus Basement	26.5 x 9.25	19.75 x 6	13.5 x 6			
70 PSF	2 Story - Plus Basement	27 x 9 5	20 x 6	14 x 6			

8" wall - Footing Size for 36 Ft wide house							
Snow Load	Story and	Load Bearing Value of Soil (PSF)					
	type of structure	1500 PSF	2000 PSF	3000 PSF			
50 PSF	2 Story - Plus Basement	27 x 9.5	21 x 7	14 x 7			
55 PSF	2 Story - Plus Basement	27.5 x 9.75	21.25 x 7	14.5 x 7			
60 PSF	2 Story - Plus Basement	28 x 10	21.5 x 7	15 x 7			
65 PSF	2 Story - Plus Basement	28.5 x 10.25	21.75 x 7	15.5 x 7			
		_	-				

Basement egress is required, bulkhead option -shown. Builder may relocate bulkhead to suit building site Verify Size and location of Deck and may substitute other code conforming egress, 6x6 Posts shown under Deck & such as window with egress Porch, can be 4x4 for posts less window well or walk-out than 48" in height. Consult Artform door if grading allows. for decks higher than 8 ft off grade.— 20" Precast Bell or Poured Perimeter Footing to frost, Footing to frost with 8" Type 8.8.28 Typical, unless noted otherwise | | 18'-0" -R311.7.1 - Stairways shall not be less than 36" in clear width at all points above the 4'-6" x 4'-6" x1'-0" Footing Size, quantity, and location permitted handrail height and below the with (7) #4 E.W. Bott. of basement windows required headroom height. Handrails shall may vary to suit grade. not project more than 4.5" on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31 1/2" where a handrail 2'-6" x 2'-6" x 1'-0" Footing is installed on one side and 27" where with (4) #4 E.W. Bott., typical, handrails are provided on both sides. unless noted otherwise—— 13'-5 1/4" — STAIRS UP TO 1st FLOOR: 14 Equal Risers @ 7 3/8" +/-13 Treads @ 10" each, as measured nose to nose— Local building or energy codes . Guards required, may require insulation at -3 1/2" OD concrete filled pipe GC option Walls basement walls and/or slab. GC post typical for interior Basement or Railings should consult local officials. -Post Dimensions posts, unless noted otherwise 3'-5 1/2" ----- 7'-0 1/2" -CO SD **Unfinished Basement** -Align face of stud with face 1480 sq ft of foundation at garage side Line of Beam Above, Typ. Beam Pocket, Ty Fill Under Garage Confirm location and provide electrical service grounding Align face of stud with face of foundation at house sidefor construction only at: Street, City, State — — — — — — -Footing type 8.8.36. — — — — — by or for Builder (2) Rebar required in this footing only, for full width of garage face. Use of rebar in other footings is optional. Shear required at far left and far right of Garage front wall - See Shear Sheet —— 16'-6" ——— Verify RO Requirements of Door & Door Location.

Foundation Plan

Structure designed for Snow Load of 60 psf Ceiling Height May Vary: 8ft Forms

MINIMUM VERTICAL REINFORCEMENT FOR 8-INCH (203MM) NOMINAL FLAT CONCRETE BASEMENT WALL

		MINIMUM VERTICA	MINIMUM VERTICAL REINFORCEMENT - BAR SIZE AND SPACING (inches)				
MAXIMUM UNSUPPORTED WALL HEIGHT	MIAXIMUM UNBALANCED BACKFILL HEIGHT (feet)	Soil classes and design lateral soil (psf per foot of depth)					
(feet)		GW, GP, SW, SP 30	GM, GC, SM, SM-SC and ML 45	SC, ML-CL and inorganic CL 60			
8	4	NR	NR	NR			
	5	NR	NR	NR			
	6	NR	NR	6 @ 37			
	7	NR	6 @ 36	6 @ 35			
	8	6 @ 41	6 @ 35	6 @ 26			

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

3/4" SUB-FLOOR

GLUED AND NAILED

Simpson Strong-Tie Post Cap

Saddle plate shown in detail,

builder may substitute other

conforming plate

- 3 1/2" od concrete filled

steel pipe post, typical

Typical Basement Post

- NOTCH BEAM FOR MUDSILL IF REQUIRED.

(max. notch equals 1/4 depth of beam)

VAPOR BARRIER

SURFACE FOR

WOOD BEAM

Beam Pocket

Follow manufacturer's instructions both for installation of joist hangers to joist and to beam. The illustration below, by Simpson Strong Tie, is provided as a courtesy. Consult their full manual

for acceptable fastener sizes and other important instructions.

SHORT NAILS Do not use short (11/2")

should use full length may not be used as common nails double shear nails

nails for double shear nailing.

Double shear nailing

POST ALIGNED WITH

PROVIDE EXTRA 2' X

2' X BLOCKING

FLOOR JOISTS -

OVER BEAM

BLOCKING SUPPORT AT

STRUCTURAL POINTS -

POST BELOW, TYP -

SHIMS TO LEVEL BEAM

- FOUNDATION WALL

Size per manufacturer's recommendations

Simpson base plate - install per

manufacturer's instructions

bottom of basement slab

- Top of footing min 1/2" below

See Plan for Footing

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

 $oxed{+}$ Artform Home Plans

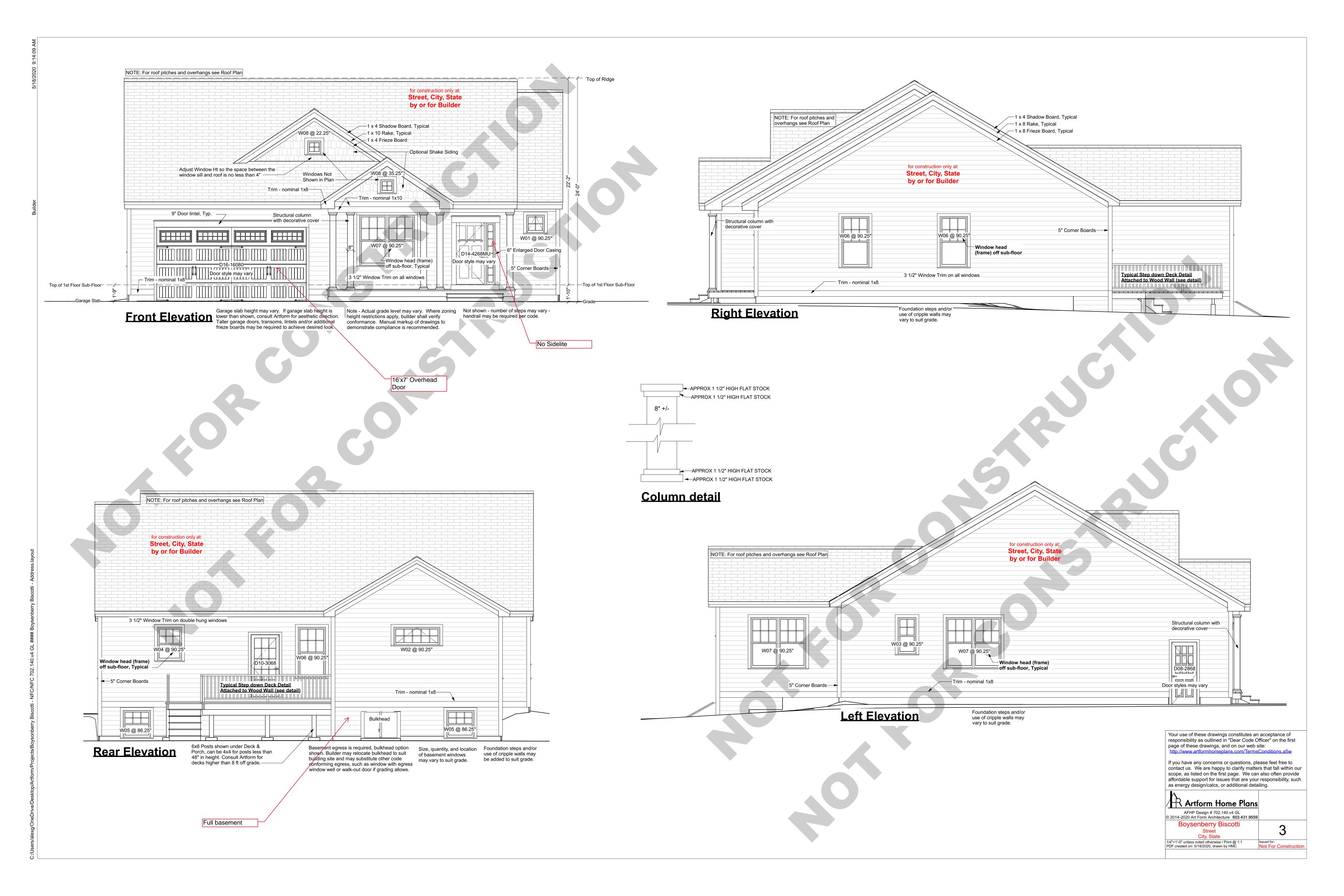
AFHP Design # 702.140.v4 GL 2014-2020 Art Form Architecture 603.431.9559 Boysenberry Biscotti

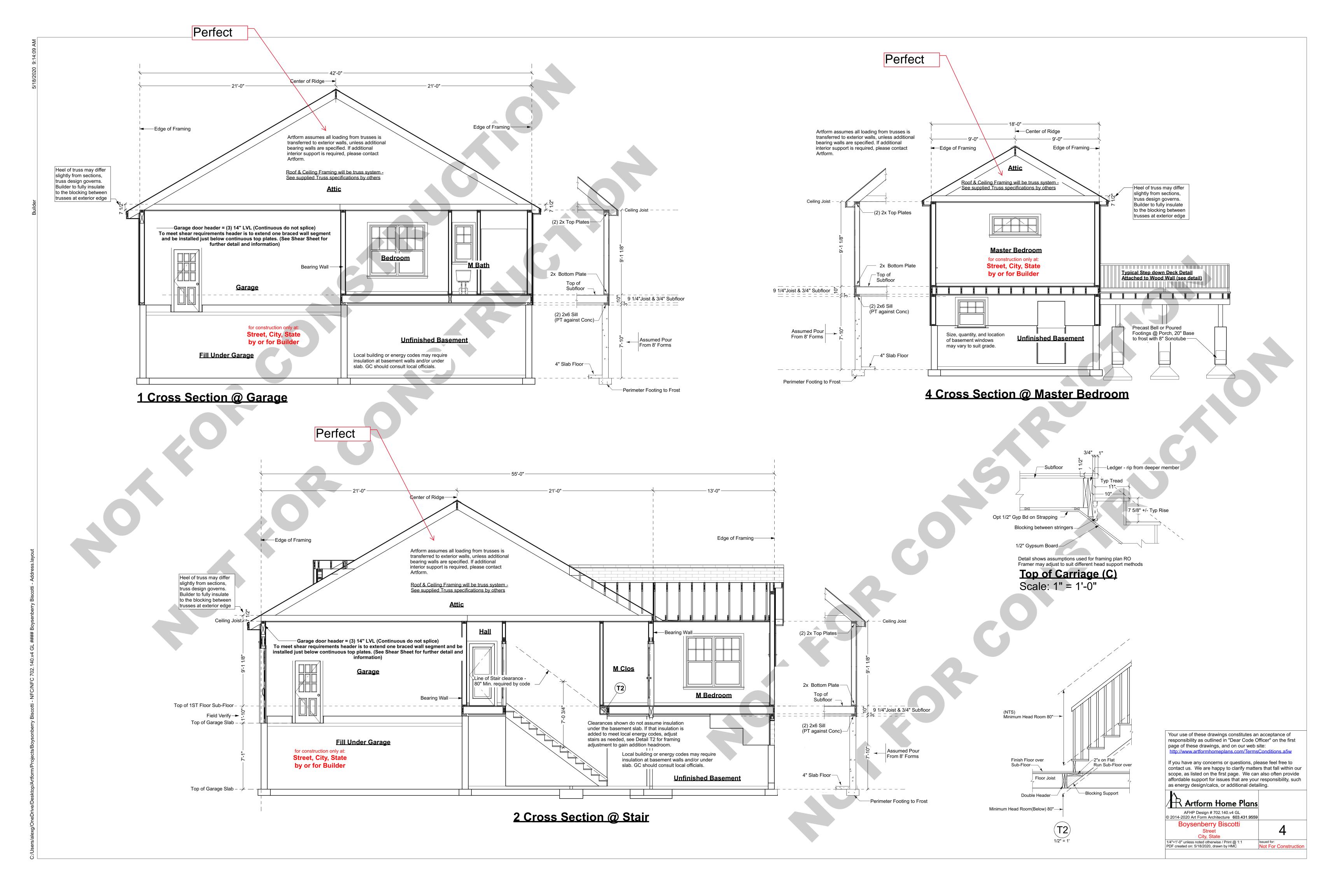
City, State 1/4"=1'-0" unless noted otherwise / Print @ 1:1

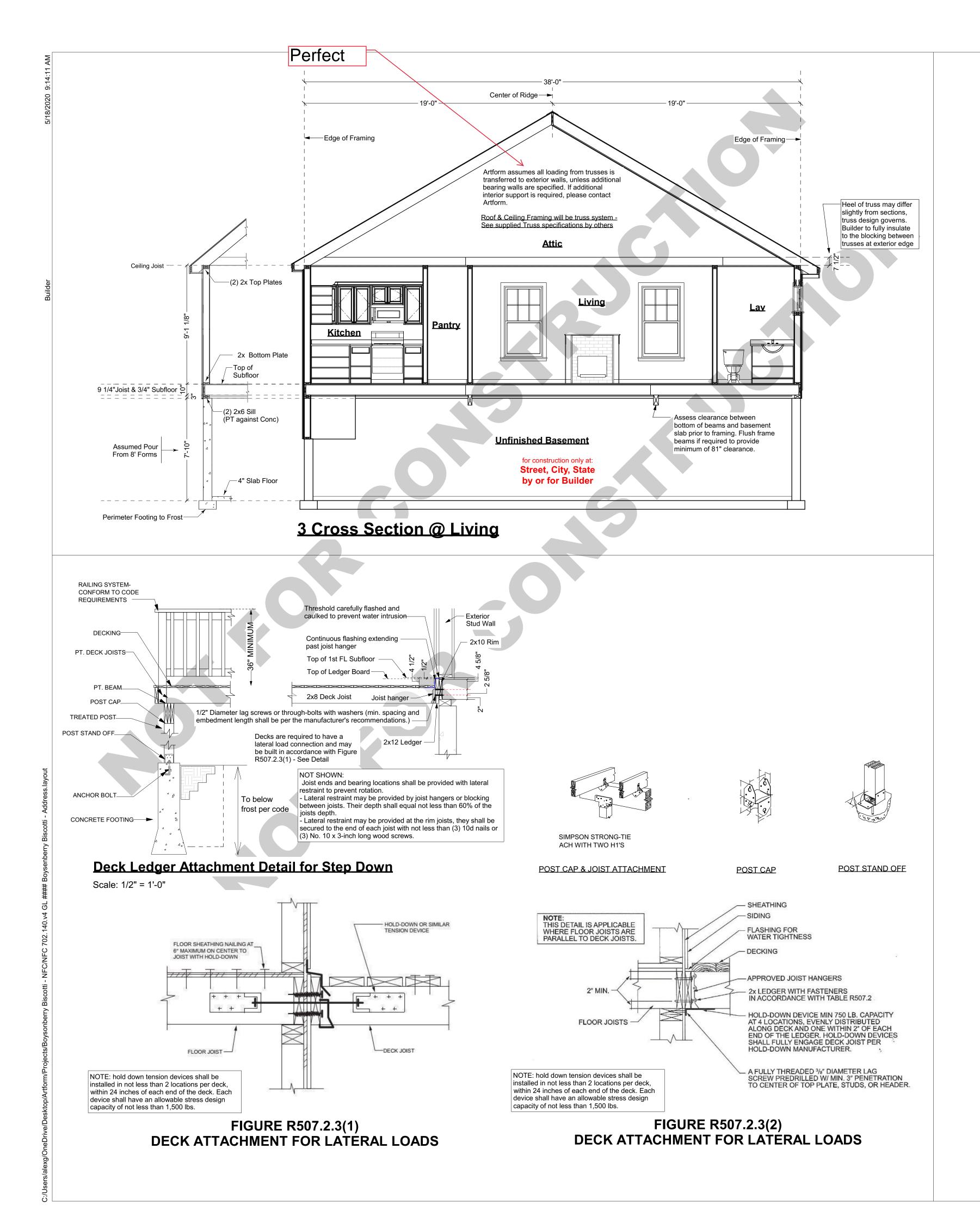
Confirm or review the following prior to forming & pouring foundation Initials Date Checked Confirmed soil bearing Checked w/GC for added foundation steps to suit grade Confirm sill plate thickness (foundation bolts to extend through all) Confirmed garage door size Checked w/GC for added basement windows

Checked w/GC for added basement man doors Confirmed sizes & locations mech/plbg penetrations

Confirmed sizes and locations of beams w/GC, added or adjusted beam pockets Confirmed location and installed electrical service grounding - See GC for location







R602.10.4 Construction methods for braced wall panels

Intermittent and continuously sheathed braced wall panels shall be constructed in accordance with this section and the methods listed in Table R602.10.4.

TABLE 91.5.602.10.4

		BRAG	CING METHODS	_			
METHODS, MATERIAL		MINIMUM	FIGURE	CONNECTION CRITERIA ^a			
WETHODS	, IVIATERIAL	THICKNESS	FIGORE	Fasteners	Spacing		
Intermittent Bracing Method	PFG Portal frame at garage	15/32"	Aller aller	See Section R602.10.6.3	See Section R602.10.6.3		
Continuous Sheathing Methods	CS-WSP Continuously sheathed			Exterior sheathing per Table R602.3(3)	6" edges 12" field		
	wood structural panel	15/32"		Interior sheathing per Table 91.5.602.3(1) or 91.5.602.3(2)	Varies by fastener		

Method PFG: Portal frame at garage door openings shall be constructed in accordance with Figure R602.10.6.3. Note this method is allowed on either side of garage door openings.

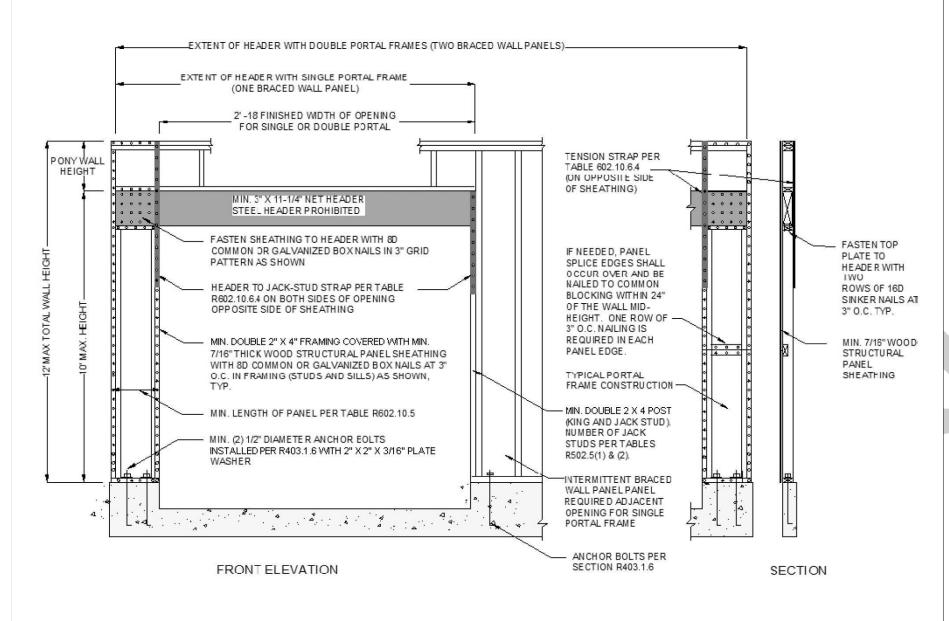


FIGURE R602.10.6.3
METHOD PFG—PORTAL FRAME AT GARAGE DOOR OPENINGS IN SEISMIC DESIGN CATEGORIES A, B AND C

TABLE R602.10.6.4

TENSION STRAP CAPACITY FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHODS PFH, PFG AND CS-PF BRACED WALL PANELS

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE		MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM OPENING WIDTH (feet)	TENSION STRAP CAPACITY REQUIRED (pounds) ^{a, b}					
				Ultimate Design Wind Speed V _{ult} (mph)					
				110	115	130	110	115	130
				Exposure B		В	Exposure C		
	0	10	18	1,000	1,000	1,000	1,000	1,000	1,05
			9	1,000	1,000	1,000	1,000	1,000	1,75
	1	10	16	1,000	1,025	2,050	2,075	2,500	3,95
			18	1,000	1,275	2,375	2,400	2,500 3,950 2,850 DR 1,875 3,125 4,125 DR DR DR	
			9	1,000	1,000	1,475	1,500	1,875	3,12
2 - 4 N = 2 Cd-	2	10	16	1,775	2,175	3,525	3,550	4,125	DR
2 × 4 No. 2 Grade			18	2,075	2,500	3,950	3,975	DR	DR
		12	9	1,150	1,500	2,650	2,675	3,175	DR
	2		16	2,875	3,375	DR	DR	DR	DR
			18	3,425	3,975	DR	DR	DR	DR
	4	12	9	2,275	2,750	DR	DR	DR	DR
	4		12	3,225	3,775	DR	DR	DR	DR
		12	9	1,000	1,000	1,700	1,700	2,025	3,05
	2		16	1,825	2,150	3,225	3,225	3,675	DR
2 v 6 Stud Crado			18	2,200	2,550	3,725	3,750	DR	DR
2 × 6 Stud Grade	¢.	ė.	9	1,450	1,750	2,700	2,725	3,125	DR
	4	12	16	2,050	2,400	DR	DR	DR	DR
			18	3,350	3,800	DR	DR	DR	DR

Straps shall be installed in accordance with manufacturer's recommendations.

Shear Wall Details

Not to Scan

Notes:

- See plans for locations where shear panels are required.
- Details shown here are for one method and for typical conditions. An alternate shear method allowed per code or approved by the code officer may be substituted.
- Note that if sheathing is to be used as wall bracing all vertical joints in required braced wall panels must be blocked. [2015 IRC section R602.10.10]

