RETAINING WALLS

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INTERPRETATION OF RETAINING WALLS

Appendix Sec. 105.2 Item #4 of the California Building Code (CBC).

QUESTION

When does the City of Redding require a building permit for a retaining wall, and when is a retaining wall exempt from a permit?

ANSWER

1. A valid building permit ***is required*** when a retaining wall either
   a. exceeds 4 feet in height, measured vertically from the bottom of the footing to the top of the wall (Figure 1a), **or**
   b. when the retaining wall is supporting a surcharge (slope greater than 6 horizontal to 1 vertical, or loads from adjacent footings, driveways, etc.), regardless of wall height (Figure 2a), **or**
   c. both.

2. A building permit ***is not required*** for retaining walls which
   a. are not part of a building and,
   b. are not over 4 feet in height, and
   c. do not support a surcharge under Appendix Section 105.2 Item #4 C.B.C. and,
   d. are not impounding Class I, II, or III-A liquids.

Note:

If the retaining wall utilizes intermittent wood post supports in lieu of a continuous wall footing, the vertical height measurement of the retaining wall shall begin at the lower grade level with the maximum height of the wall to be 24 inches (retaining earth or not).

To avoid a surcharge, a level grade (less than 6 horizontal to 1 vertical without footings or driveways) must be maintained a distance away from the wall equal to or greater than its overall retained height (Figure 2b).

QUESTION

When does the City of Redding require that a retaining wall be an engineered design?

ANSWER

When a permit is required, engineered calculations, stamped and signed by a licensed architect or engineer, are required to be submitted for plan review. These plans must demonstrate that the subject wall will resist the lateral pressure of the retained material as specified in Section 1610 of the CBC.

RWINTERP

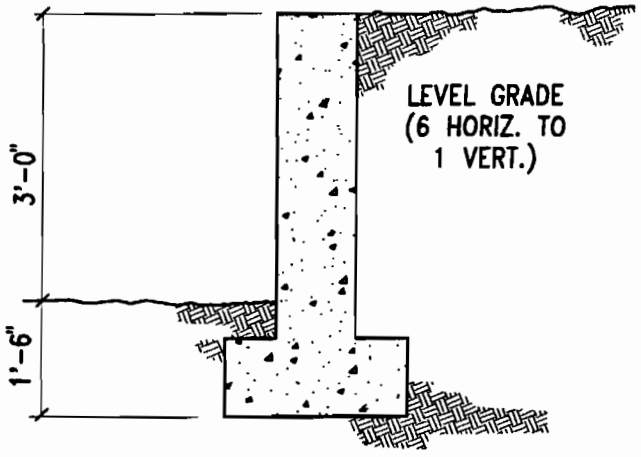


FIGURE 1A

PERMIT
REQUIRED
(ENGINEERING)

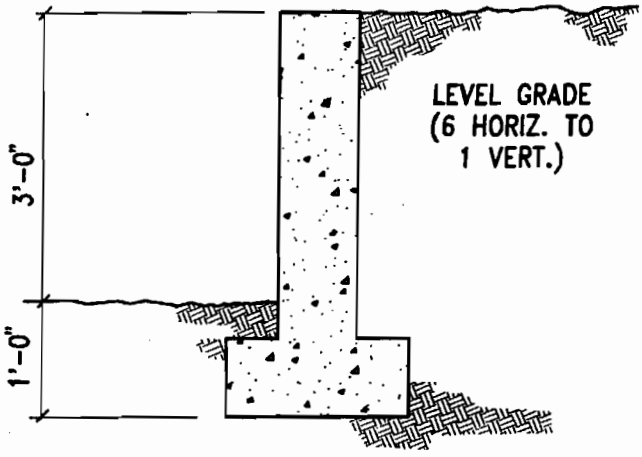


FIGURE 1B

PERMIT
NOT REQUIRED
(EXEMPT)

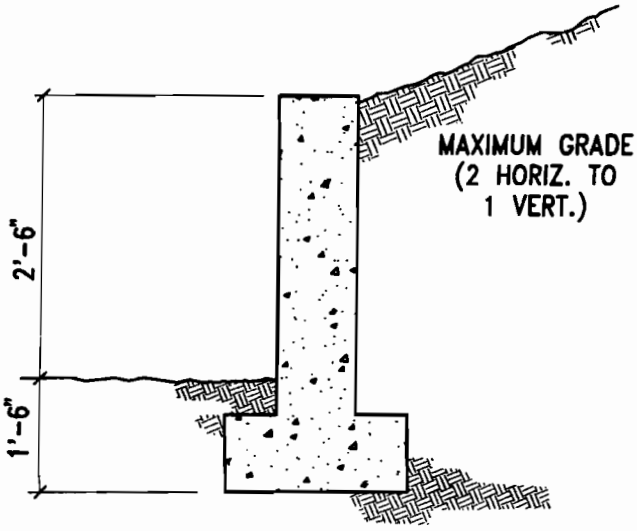


FIGURE 2A

PERMIT
REQUIRED
(ENGINEERING)

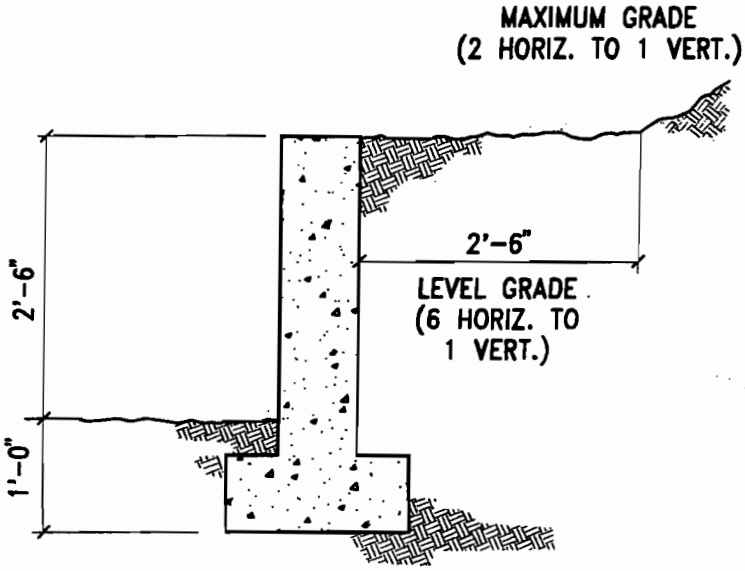
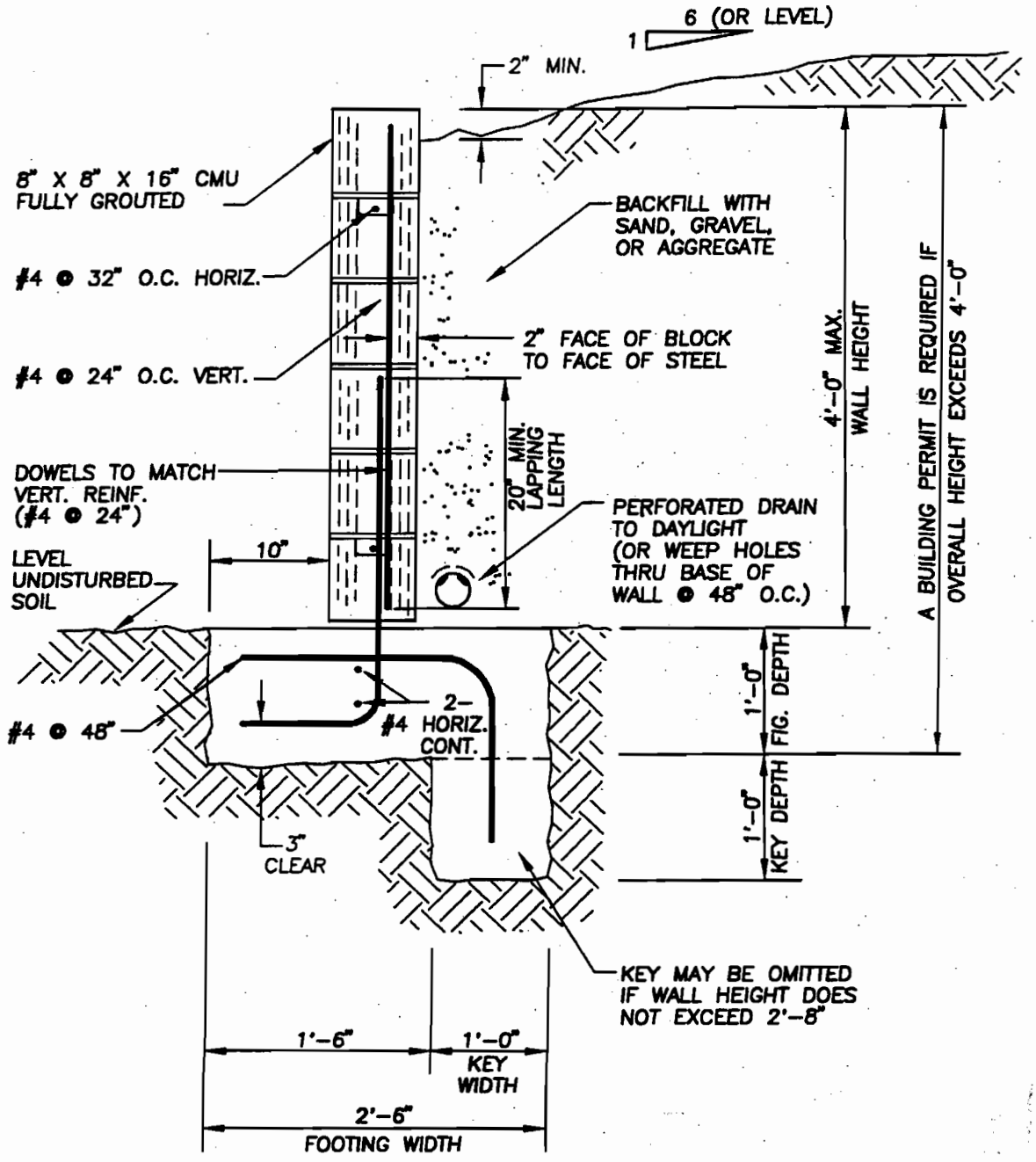


FIGURE 2B

PERMIT
NOT REQUIRED
(EXEMPT)

STANDARD DRAWING:	APPROVED BY:	STD. DWG. NO.	SHEET
RETAINING WALL INTERPRETATION	Bill Naegli BUILDING OFFICIAL	DATE: FEBRUARY 25, 1997 SCALE: N.T.S.	1 OF 2

4FTWALL-LL



SPECIFICATIONS:

1. CONCRETE: f'c = 2500 PSI
2. REBAR: ASTM A615 GRADE 40 (OR GR 60)
3. CMU BLOCK: ASTM C90 f'm = 1500 PSI
4. GROUT: f'c = 2500 PSI
5. MORTAR: TYPE S
   1 PART CEMENT
   1/4 TO 1/2 PART LIME
   2-1/4 TO 3 PARTS SAND
6. LAP REBAR SPLICES 24" MIN.

NOTES

A. THIS FREE-STANDING RETAINING WALL IS INTENDED TO SUPPORT LEVEL BACKFILL. NO SURCHARGE AND NO SUPERIMPOSED LOADS.

B. STRUCTURES, DRIVEWAYS, R.V. PARKING OR PROPERTY LINES MAY NOT BE LOCATED WITHIN 4 FEET OF THE WALL ON THE BACKFILL SIDE.

C. OTHER HEIGHTS OR CONDITIONS REQUIRE ENGINEERING.

STANDARD DRAWING:	APPROVED BY:	STD. DWG. NO.	SHT.
4-FT. MASONRY RETAINING WALL	Bill Nagel BUILDING OFFICIAL	DWG. DATE: FEBRUARY 19, 1997	OF 2 2
		SCALE: N.T.S.	