

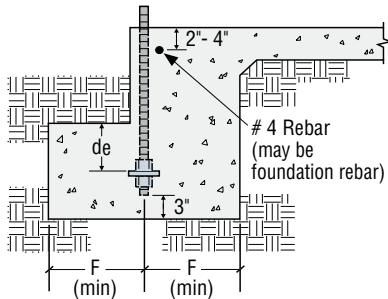
ADDITIONAL ANCHOR DESIGN

These additional anchorage solutions will resist the higher tension load demands of the S/HDS, and S/HDB holdowns and are based on the concrete anchorage provisions of the 1997 UBC, the 2000 IBC, 2003 IBC and 2006 IBC as shown. The designer may specify alternate anchorage solutions using the anchor bolt diameter as specified for the holddown.

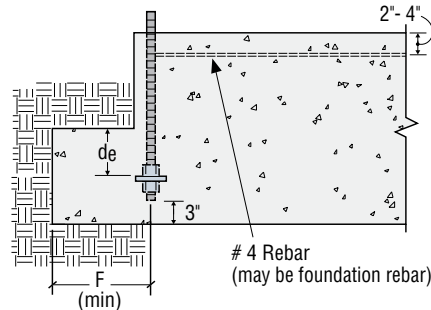
Anchors

Model	Dia.	de	F	Plate Washer
1997 UBC				
phi = 0.65 reinforcement not provided per section 1923.3.2				
S/HD10S&B	7/8"	10	10	—
S/HD15S&B	1"	11	11	—
phi = 0.85 reinforcement provided per section 1923.3.2				
S/HD10S&B	7/8"	9	9	—
S/HD15S&B	1"	10	10	—
2000, 2003 & 2006 IBC				
SDC A & B or Wind				
S/HD10S&B	7/8"	8	12	1/4" x 1 3/4" x 1 3/4"
S/HD15S&B	1"	10	15	3/8" x 2" x 2"
SDC C through F				
S/HD10S&B	7/8" HS	10	15	3/8" x 3" x 3"
S/HD15S&B	1" HS	12	18	5/16" x 3.5" x 3.5"

1. Anchor embedment length is based on a single-pour concrete foundation with a minimum $f'c=2500$ psi. The required embedment depth, de , pour foundation systems. Masonry walls and masonry footings must be evaluated by the designer.
2. UBC anchorage assumes no special inspection and a multiplier of 2 (*anchor not embedded in tension zone of member*) per Section 1923.3.2 IBC anchorage assumes cracked concrete.
3. Typical anchor bolt shall be ASTM A36 or A307 or equivalent and may be either a hex head bolt or threaded rod with a hex nut fixed in place. High strength anchor bolt is denoted as HS and shall be A449 or equivalent and have the plate washer secured with a nut top and bottom.
4. When a plate washer is required, it must be secured with a nut top and bottom. Nuts shall be hex style meeting the requirements of ASTM A563 Grade DH or heavy hex style meeting the requirements of ASTM A563 Grade DH for high strength bolts.
5. When plate washer required, nuts shall be installed top and bottom of plate washer and shall be Heavy Hex ASTM A653 Grade DH.
6. Spacing between anchors in tension at the same time shall be a minimum of the F dimension.
7. Where justified by analysis, Engineer of Record may specify alternate embedment or bolt grade.
8. Footing dimensions are for anchorage only.
9. Actual anchor bolt length to be determined by designer so as to not interfere with holddown stud fasteners.

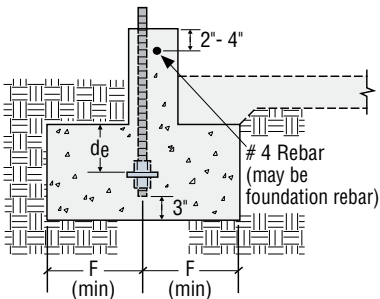


Section at Slab

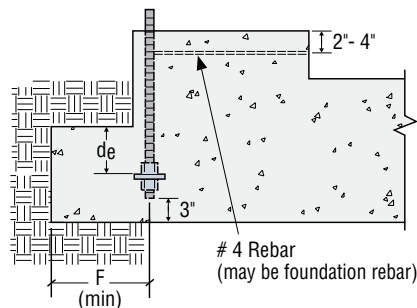


Elevation at Slab

Foundation design (size and reinforcement) by others.



Section at Curb



Elevation at Curb