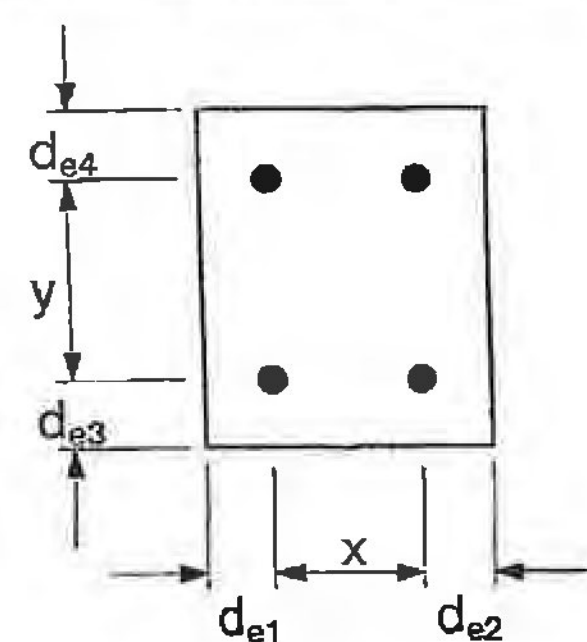


Figure 6.15.7A (continued) Design tensile strength for  $h \geq h_{min}$ ,  $\phi P_{c1}$ —Case 6



x and y are the overall dimensions (width and length) of the stud group.

Case 6: Free edges on four adjacent sides

$$\phi P_{c1} = \phi 2.67 \lambda \sqrt{f'_c} (x_1)(y_1)$$

$$\phi = 0.85$$

where:  $x_1$  and  $y_1$  are the dimensions of the truncated pyramid of the part of the truncated pyramid.

For Case 6:  $x_1 = x + d_{e1} + d_{e2}$   $y_1 = y + d_{e3} + d_{e4}$

Note: Table values are based on  $\lambda = 1.0$  and  $f'_c = 5000$  psi;

for different material properties, multiply table values by  $\lambda \sqrt{f'_c} / 5000$

$f'_c$ in.	$y_1$ , in.	$x_1$ , in.	Design tensile strength, $\phi P_{c1}$ (kips)															
			2	4	6	8	10	12	14	16	18	20	22	24	26			
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	1	1	2	3	3	4	5	5	6	7	7	8	8	9	10	10	
	4	1	3	4	5	7	8	9	10	11	13	14	15	16	17	18	19	19
	6	2	4	6	8	9	11	13	15	17	19	21	23	25	27	29	31	33
	8	3	5	8	10	13	15	18	21	23	25	29	31	35	39	42	46	49
	10	3	7	9	13	16	19	23	25	29	32	35	39	42	46	50	54	58
	12	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58	62	66
14	5	9	13	18	23	27	31	36	41	45	49	54	58	62	66	70	74	
16	5	10	15	21	25	31	36	41	46	51	55	60	65	70	75	80	85	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	1	1	2	3	3	4	5	5	6	7	7	8	8	9	10	10	
	4	1	3	4	5	7	8	9	10	11	13	14	15	16	17	18	19	19
	6	2	4	6	8	9	11	13	15	17	19	21	23	25	27	29	31	33
	8	3	5	8	10	13	15	18	21	23	25	28	31	35	39	42	46	49
	10	3	7	9	13	16	19	23	25	29	32	35	39	42	46	50	54	58
	12	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58	62	66
14	5	9	13	18	23	27	31	36	41	45	49	54	58	62	66	70	74	
16	5	10	15	21	25	31	36	41	46	51	55	60	65	70	75	80	85	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	1	1	2	3	3	4	5	5	6	7	7	8	8	9	10	10	
	4	1	3	4	5	7	8	9	10	11	13	14	15	16	17	18	19	19
	6	2	4	6	8	9	11	13	15	17	19	21	23	25	27	29	31	33
	8	3	5	8	10	13	15	18	21	23	25	28	31	35	39	42	46	49
	10	3	7	9	13	16	19	23	25	29	32	35	39	42	46	50	54	58
	12	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58	62	66
14	5	9	13	18	23	27	31	36	41	45	49	54	58	62	66	70	74	
16	5	10	15	21	25	31	36	41	46	51	55	60	65	70	75	80	85	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	1	1	2	3	3	4	5	5	6	7	7	8	8	9	10	10	
	4	1	3	4	5	7	8	9	10	11	13	14	15	16	17	18	19	19
	6	2	4	6	8	9	11	13	15	17	19	21	23	25	27	29	31	33
	8	3	5	8	10	13	15	18	21	23	25	28	31	35	39	42	46	49
	10	3	7	9	13	16	19	23	25	29	32	35	39	42	46	50	54	58
	12	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58	62	66
14	5	9	13	18	23	27	31	36	41	45	49	54	58	62	66	70	74	
16	5	10	15	21	25	31	36	41	46	51	55	60	65	70	75	80	85	