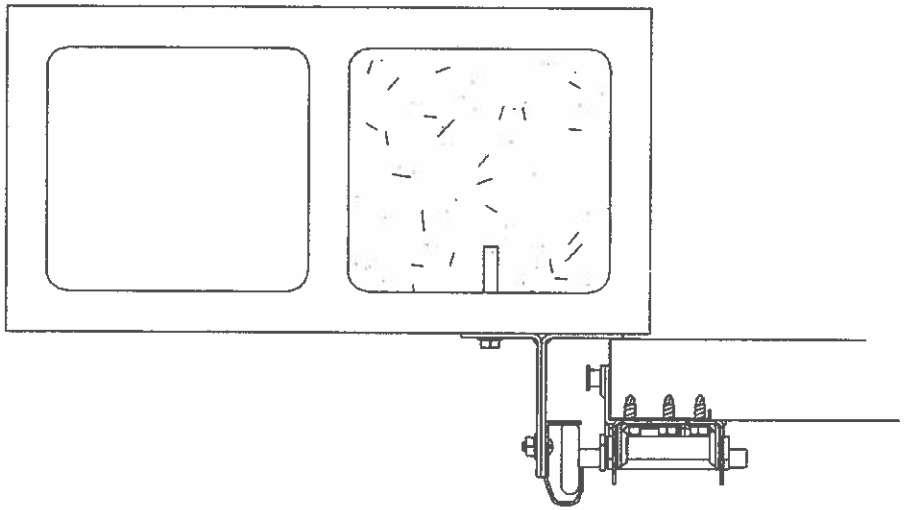
Door Width	Maximum Positive Pressure	Maximum Spacing: ITW Ramset/ Redhead Tapcon in 2000 psi concrete	Maximum Spacing: ITW Ramset/ Redhead Tapcon in block filled with 2000 psi grout
8	17.5 psf	24	24
	20.9 psf	24	22
	24.5 psf	24	18
	28.4 psf	24	16
	32.6 psf	24	14
	34.3 psf	24	13
	39.8 psf	21	11
	45.7 psf	18	10
	52.0 psf	16	8
	58.7 psf	14	N/A
	62.2 psf	13	N/A
9	14.4 psf	24	24
	17.4 psf	24	23
	20.7 psf	24	19
	24.3 psf	24	16
	28.2 psf	24	14
	32.3 psf	23	12
	34.0 psf	21	12
	39.5 psf	18	10
	45.3 psf	16	9
	51.5 psf	14	N/A
	58.2 psf	12	N/A
	61.6 psf	12	N/A
10	14.3 psf	24	24
	17.3 psf	24	21
	20.5 psf	24	18
	24.1 psf	24	15
	28.0 psf	24	13
	32.1 psf	20	11
	33.8 psf	19	10
	39.1 psf	17	9
	44.9 psf	14	8
	51.1 psf	13	N/A
	57.7 psf	11	N/A
	60.9 psf	11	N/A

Door Width	Maximum Positive Pressure	Maximum Spacing: ITW Ramset/ Redhead Tapcon in 2000 psi concrete	Maximum Spacing: ITW Ramset/ Redhead Tapcon in block filled with 2000 psi grout
12	11.4 psf	24	24
	14.1 psf	24	21
	17.0 psf	24	18
	20.3 psf	24	15
	23.8 psf	23	12
	27.6 psf	20	11
	31.7 psf	17	9
	33.3 psf	16	9
	38.6 psf	14	N/A
	44.3 psf	12	N/A
	50.9 psf	11	N/A
14	11.3 psf	24	23
	13.9 psf	24	18
	16.8 psf	24	15
	20.0 psf	24	13
	23.5 psf	20	11
	27.3 psf	17	9
	31.3 psf	15	8
	32.9 psf	14	8
	38.2 psf	12	N/A
	43.8 psf	10	N/A
	49.9 psf	9	N/A
16	11.3 psf	24	20
	13.9 psf	24	16
	16.8 psf	24	13
	20.0 psf	21	11
	23.5 psf	17	9
	27.3 psf	15	8
	31.3 psf	13	N/A
	32.9 psf	12	N/A
	38.2 psf	10	N/A
	43.8 psf	9	N/A
	49.9 psf	8	N/A
18	11.2 psf	24	18
	13.8 psf	24	14
	16.8 psf	22	12
	20.0 psf	18	10
	23.5 psf	15	8
	27.3 psf	13	N/A
	31.3 psf	11	N/A
	32.9 psf	11	N/A
	38.2 psf	9	N/A

ITW Ramset/ Redhead Tapcon

2000 psi minimum poured concrete wall; allowable load per anchor = 280 lbs.
Grout-filled (2000 psi minimum) C90 block; allowable load per anchor = 154 lbs.
Anchor: 1/4" dia x 3" long ITW Ramset/ Redhead Tapcon.
Washer: 5/8" O.D. min / 5/16" I.D. max; must conform to ANSI B18.22.1 type B
2-1/2" minimum anchor edge distance required.
1-1/2" minimum embedment of anchors.
Lowest anchor to be within 10-inches of the floor
Minimum of 3 anchors per jamb allowed.
Maximum spacing shown in chart. Lesser spacing may be used to avoid interference with door component system.
Add additional track brackets as required to satisfy fastener spacing in these charts.
These charts do not address spring pad connections to the building.
8" CMU block walls shall be of sufficient strength to resist loads.
Load per jamb = 0.5 x door width x max positive pressure x door height

Calculation reference: DASMA TDS #161a,
ITW Ramset/ Redhead data.



Alternative design may be approved by a registered professional engineer.

Supporting structural elements shall be designed by a registered professional engineer for wind loads in addition to other loads.

This drawing does not address the jamb/wall design, but only door attachment. Jamb/wall construction is shown only for illustration purposes. The building designer is responsible for ensuring that the jamb/wall is sufficient to carry the door live and static loads.

STATE OF TEXAS
JOHN E. SCATES
56308

John E Scates
7/27/10

Professional Engineer's seal provided only for verification of windload construction details

John E. Scates, P.E.
3121 Fairgate Drive
Carrollton, Texas 75007
TXPE 56308, F-2203

C.H.I. OVERHEAD DOORS

SCALE none

DATE 2-24-2010

Concrete and CMU Block Wall Attachment Detail

C.H.I. Drawing: BJA-005-03