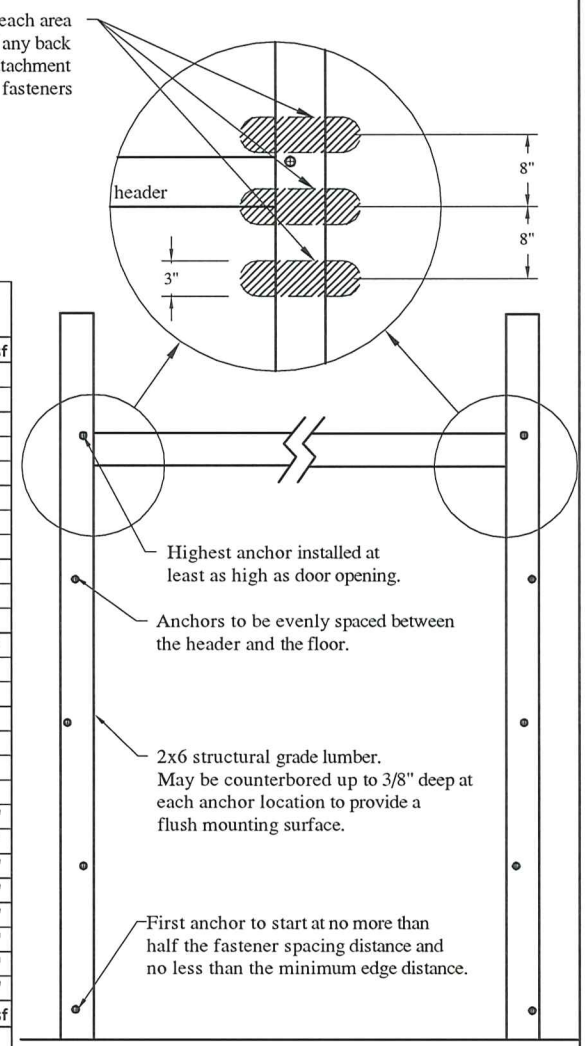
Southern Pine (SP) specific gravity = 0.55; allowable load per anchor = 577 pounds.
Spruce Pine Fir (SPF) specific gravity = 0.42; allowable load per anchor = 385 pounds.
Use SP values only if both structure and jamb are southern pine.
Use SPF values when spruce pine fir is present in structure or jamb material.
Lag screw: 3/8" diameter x 3" min long; must conform to ANSI/ASME B18.2.1
When applying back jambs over dry wall or other non structural wall covering, use longer lags screws to insure 1-1/2" minimum embedment required.
Washer: 1-1/8" minimum outside diameter and 13/32" inside diameter; must conform to ANSI B18.22.1 type A.
Pre-drill 1/4" diameter pilot holes for lag screw insertion.
1-1/2" minimum lag screw edge distance required.
Maximum spacing shown in chart. Lesser spacing may be used to avoid interference with door hardware and or fastening system.
Spring pad attachment details not included.
Maximum load per jamb = 0.5 x (door height) x (door width) x (maximum positive pressure)

FASTENER SPACING (inches)		DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																			
SPF	SP	22.2psf	24psf	25.1psf	27.5psf	28.8psf	32psf	33.9psf	35.9psf	41.2psf	43.2psf	45.4psf	48psf	50.8psf	54psf	61.7psf	66.5psf	72psf	78.6psf	86.5psf	96.1psf
24	24	17'-4"	16'-0"	15'-4"	14'-0"	13'-4"	12'-0"	11'-4"	10'-8"	9'-4"	8'-10"	8'-5"	8'-0"	7'-6"	7'-1"	6'-2"	5'-9"	5'-4"	n/a	n/a	n/a
23	24	18'-1"	16'-8"	16'-0"	14'-7"	13'-11"	12'-6"	11'-10"	11'-2"	9'-9"	9'-3"	8'-10"	8'-4"	7'-10"	7'-5"	6'-6"	6'-0"	5'-6"	5'-1"	n/a	n/a
22	24	18'-11"	17'-6"	16'-8"	15'-3"	14'-6"	13'-1"	12'-4"	11'-8"	10'-2"	9'-8"	9'-3"	8'-9"	8'-3"	7'-9"	6'-9"	6'-3"	5'-10"	5'-4"	n/a	n/a
21	24	19'-9"	18'-3"	17'-6"	16'-0"	15'-3"	13'-9"	12'-11"	12'-3"	10'-8"	10'-2"	9'-8"	9'-1"	8'-7"	8'-1"	7'-1"	6'-7"	6'-1"	5'-7"	5'-1"	n/a
20	24	20'-9"	19'-3"	18'-4"	16'-9"	16'-0"	14'-5"	13'-7"	12'-10"	11'-2"	10'-8"	10'-2"	9'-7"	9'-1"	8'-6"	7'-5"	6'-11"	6'-5"	5'-10"	5'-4"	n/a
19	24	21'-10"	20'-3"	19'-4"	17'-8"	16'-10"	15'-2"	14'-4"	13'-6"	11'-9"	11'-3"	10'-8"	10'-1"	9'-6"	9'-0"	7'-10"	7'-3"	6'-9"	6'-2"	5'-7"	5'-0"
18	24	23'-1"	21'-4"	20'-5"	18'-8"	17'-9"	16'-0"	15'-1"	14'-3"	12'-5"	11'-10"	11'-3"	10'-8"	10'-1"	9'-6"	8'-3"	7'-8"	7'-1"	6'-6"	5'-11"	5'-4"
17	24	24'-5"	22'-7"	21'-7"	19'-9"	18'-10"	16'-11"	16'-0"	15'-1"	13'-2"	12'-6"	11'-11"	11'-3"	10'-8"	10'-0"	8'-9"	8'-2"	7'-6"	6'-10"	6'-3"	5'-7"
16	24	25'-11"	23'-11"	22'-11"	20'-11"	19'-11"	17'-11"	16'-11"	16'-0"	13'-11"	13'-3"	12'-8"	11'-11"	11'-3"	10'-7"	9'-3"	8'-7"	7'-11"	7'-3"	6'-7"	5'-11"
15	23	27'-1"	25'-1"	23'-11"	21'-10"	20'-10"	18'-9"	17'-9"	16'-9"	14'-7"	13'-11"	13'-3"	12'-6"	11'-10"	11'-1"	9'-9"	9'-0"	8'-4"	7'-7"	6'-11"	6'-3"
14	22	n/a	26'-2"	25'-0"	22'-10"	21'-10"	19'-8"	18'-6"	17'-6"	15'-3"	14'-6"	13'-10"	13'-1"	12'-4"	11'-7"	10'-2"	9'-5"	8'-8"	8'-0"	7'-3"	6'-6"
14	21	n/a	27'-5"	26'-3"	23'-11"	22'-10"	20'-7"	19'-5"	18'-4"	16'-0"	15'-3"	14'-6"	13'-8"	12'-11"	12'-2"	10'-8"	9'-10"	9'-1"	8'-4"	7'-7"	6'-10"
13	20	n/a	n/a	27'-7"	25'-2"	24'-0"	21'-7"	20'-5"	19'-3"	16'-9"	16'-0"	15'-3"	14'-5"	13'-7"	12'-9"	11'-2"	10'-4"	9'-7"	8'-9"	8'-0"	7'-2"
12	19	n/a	n/a	n/a	26'-6"	25'-3"	22'-9"	21'-5"	20'-3"	17'-8"	16'-10"	16'-0"	15'-2"	14'-4"	13'-5"	11'-9"	10'-11"	10'-1"	9'-3"	8'-5"	7'-7"
12	18	n/a	n/a	n/a	27'-11"	26'-8"	24'-0"	22'-8"	21'-5"	18'-8"	17'-9"	16'-11"	16'-0"	15'-1"	14'-2"	12'-5"	11'-6"	10'-8"	9'-9"	8'-10"	8'-0"
11	17	n/a	n/a	n/a	n/a	n/a	25'-5"	24'-0"	22'-8"	19'-9"	18'-10"	17'-11"	16'-11"	16'-0"	15'-1"	13'-2"	12'-2"	11'-3"	10'-4"	9'-5"	8'-5"
10	16	n/a	n/a	n/a	n/a	n/a	27'-0"	25'-6"	24'-1"	21'-0"	20'-0"	19'-0"	18'-0"	17'-0"	16'-0"	14'-0"	13'-0"	12'-0"	11'-0"	10'-0"	9'-0"
10	15	n/a	n/a	n/a	n/a	n/a	n/a	27'-2"	25'-8"	22'-4"	21'-4"	20'-4"	19'-2"	18'-2"	17'-1"	14'-11"	13'-10"	12'-9"	11'-8"	10'-8"	9'-7"
9	14	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27'-6"	24'-0"	22'-10"	21'-9"	20'-7"	19'-5"	18'-3"	16'-0"	14'-10"	13'-8"	12'-7"	11'-5"	10'-3"
8	13	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25'-10"	24'-7"	23'-5"	22'-2"	20'-11"	19'-8"	17'-3"	16'-0"	14'-9"	13'-6"	12'-3"	11'-1"
8	12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	26'-8"	25'-5"	24'-0"	22'-8"	21'-4"	18'-8"	17'-4"	16'-0"	14'-8"	13'-4"	12'-0"
7	11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27'-8"	26'-2"	24'-9"	23'-3"	20'-4"	18'-11"	17'-5"	16'-0"	14'-6"	13'-1"
6	10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27'-3"	25'-7"	22'-5"	20'-9"	19'-2"	17'-7"	16'-0"	14'-4"
6	9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	24'-11"	23'-1"	21'-4"	19'-6"	17'-9"	16'-0"
5	8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	26'-0"	24'-0"	22'-0"	20'-0"	18'-0"
4	7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27'-5"	25'-2"	22'-10"	20'-7"
SPF	SP	22.2psf	24psf	25.1psf	27.5psf	28.8psf	32psf	33.9psf	35.9psf	41.2psf	43.2psf	45.4psf	48psf	50.8psf	54psf	61.7psf	66.5psf	72psf	78.6psf	86.5psf	96.1psf
FASTENER SPACING (inches)		DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																			



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.
Calculation reference: DASMA TDS #161E and 2005 AF&PA NDS for Wood Construction.

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

STATE OF TEXAS
JOHN E. SCATES
56308
PROFESSIONAL ENGINEER

John E Scates
9/28/11

John E. Scates, P.E.
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TXPE 56308, F-2203

C.H.I. OVERHEAD DOORS

SCALE none
DATE 4-18-2011

Back Jamb Attachment Detail
Lag Screw

C.H.I. Drawing: BJA-102-01