1432 Woodford Rd. Lewisville, NC 27023 434-688-0609

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Test Report: N/A

Product: Double Door with and without sidelites 12'x6'8" (composite frame)

Scope:

This analysis provides calculations, quantities, and spacing requirements for installing product to substrate, and it applies only to the product described herein. These calculations comply with requirements of the Florida Building Code. Anchor capacity in shear condition:

Solid . .

	nbers w/ & w/out gap	p:												
۵.	With threads presen	it in shea	r plane											
		Fasten	er type:	#10 wo	od screw		(NDS 201	2, NDS 20	015, TR12)					
	١	Nominal di	ameter:	D	0.190	in				Gap:	g:	0.0000 in		
		Root di	ameter:	Dr	0.152	in			Mo	ment arm:		0.0000 in		
	Minimum requ	ired pene	tration:	р	: 1.140	in		Screw be	nding yield	strength:	F _{yb} =	80,000 psi		
		Side n	nember:	PVC					Mai	n member: :	Spruce-Pine	e-Fir (G=0.42)	(
	Side m	ember th	ickness:	† _s :	= 1.000	in		Mai	n member	thickness:	† _m =	1.500 in		
	Side member dowel	bearing st	trength:	F _{es} :	= 10,000	psi	Main me	ember dow	el bearing	strength:	F _{em} =	3,350 psi		
	Side member dow	el bearing	length:	۱ _s :	= 1.000	in	Main	member c	lowel beari	ing length:	I _m =	1.140 in		
		n	-			1					***			
Mod		Mode	-	16 - 15-	-	de II	-	e III _m	-	Mode	-		Mode	
qm = P =	636.5 lbs/in 725.61 lbs	qs = P =	1900 1900	lbs/in	A: B:	0.0005 1.07	A: B:	0.00066 0.57		A: B:	0.00092 0.5		A: B:	0.00105 0.000
г- К _D =	2.400	г- К _D =	2.400	IDS	Б. С:	-681.799	в. С:	-253.623		Б. С:	-521.824		ь. С:	-93.6
Z _m =	302 lbs	κ _D - Ζ _s =	792	lbs	P =	510 lbs	Ms =		, 3 in-Ibs	Mm =	46.8	in-lbs	0.	-75.0
-m	502 103	—s	//2	103	K _D =	2.400	P =		lbs	P =	529		P =	299 lbs
	Min. Design value:	Z=	125	lbs	Z=	212 lbs	K _D =	2.400		κ _D =	2.400	103	K _D =	2.400
	Duration Factor:	C _D =	1.6	100		212 100	Z=		j i Ibs	Z=	221	lbe	Z=	125 lbs
	Allowable Des	-		Z':	- 199	lbs/anchor		100	105					120 100
•		Fasten	er type:		V Tapcon			Tabulat	ed values					
					6-1222.06		1	edge		ing (in)				
		Sub	ostrate:	Hollow b				distance	2.00	4.00				
	Mini	mum embe		1,25				2.00	130	161				
		ual edge d		2.50				4.00	163	202				
		al C To C :		3.00			L	1.00	100	LUL				
		ole Design		Z''=		lbs/anchor (per ir	nternolation (when need	led)					
		-	er type:) Self tappi	4				um Design N	anual sect	ion T55)		
	Nomina	l screw di		D		-	(calculatio	ns per 20		root area:	A _r	0.0151 in ²		
		ial edge d		de			c	crew sher		strength:	F _{su}	54.0 ksi		
		ui euge u			1.000					Construction				
		Side n	nember	material	: Vinyl PVC	:		Mai	n member	material: (6063-T5 a	luminum		
		Th	ickness:	t	1.000	in			-	Thickness:	†2	0.052 in		
	Ultimate	tensile st	trength:	Ftu	1 14	ksi		Ultim	ate tensile	atnonath		22 44		
	Nominal strength	per beari						011111		strength	F _{tu2}	22 ksi		
	Nominal strength		ng (side	member)		Ftul	Rn1 =	5320		(Eq J.5-12		22 KSI		
		per bearir	-		: Rn = 2Dt ₁ f		Rn1 = Rn2 =	5320		-)	ZZ KSI		
	-		ng (main	member)	: Rn = 2Dt ₁ f	F _{tu2}		5320 435) lbs	(Eq J.5-12)	22 KSI		
	N	lominal str	ng (main rength p	member) er tilting	: Rn = 2Dt ₁ f : Rn = 2Dt ₂ l	F _{tu2} 2 ³ D) ^{1/2} F _{tu2}	Rn2 =	5320 435 478) lbs 5 lbs	(Eq J.5-12 (Eq J.5-12)))	22 KSI		
	N	lominal str	ng (main rength p w shear	member) er tilting strength ty factor	: $Rn = 2Dt_1t_1$: $Rn = 2Dt_2t_2t_1$: $Rn = 4.2(t_1)$: $Rn = A_rF_{su}$: $\Omega = 0$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} ₄ /1.25 3	Rn2 = Rn =	5320 435 478) lbs 5 lbs 3 lbs	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13)))	22 KSI		
	N	lominal str ninal scre	ng (main rength p w shear Safe ⁻	member) er tilting strength ty factor Pa	: Rn = $2Dt_1t_1$: Rn = $2Dt_2t_2$: Rn = $4.2(t_1)$: Rn = A_rF_{su} : $\Omega = 145$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} ,/1.25 3 Ibs/anchor	Rn2 = Rn = Rn =	5320 435 478 654) lbs 5 lbs 3 lbs 4 lbs	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-14)))			
4	Nor	lominal str ninal scre pearing co	ng (main rength p w shear Safe ⁻	member) er tilting strength ty factor Pa	: $Rn = 2Dt_1t_1$: $Rn = 2Dt_2t_2t_1$: $Rn = 4.2(t_1)$: $Rn = A_rF_{su}$: $\Omega = 0$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} ,/1.25 3 Ibs/anchor	Rn2 = Rn = Rn =	5320 435 478 654) lbs 5 lbs 3 lbs 4 lbs	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13)))			
4	N Nor Allowable shear and b	lominal str ninal scre pearing co	ng (main rength p w shear Safe apacity: er type:	member) er tilting strength ty factor Pa	: $Rn = 2Dt_1 I$: $Rn = 2Dt_2 I$: $Rn = 4.2(t)$: $Rn = A_r F_{su}$: $\Omega =$ s 145 D Self tapp : 0.190	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} /1.25 3 Ibs/anchor ing screw in	Rn2 = Rn = Rn = (Calculatio	5320 435 478 654 ons per AI) lbs 5 lbs 3 lbs 4 lbs 5I-S100-1 ar ultimate	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-14 12, sections strength:))) A2.3.2 and F _{su}	E4.3.1) 54.0 ksi		
4	N Nor Allowable shear and b Nomina	lominal str ninal scree Dearing ca Fasten I screw di Screw ro	ng (main rength p w shear Safe apacity: er type: ameter: ot area:	member) er tilting strength ty factor Pa #10 D A	$\begin{array}{rcl} & {\rm Rn} = 2{\rm Dt}_{1}{\rm f} \\ & {\rm Rn} = 2{\rm Dt}_{2}{\rm l} \\ & {\rm Rn} = 4.2({\rm t}_{2}{\rm c}) \\ & {\rm Rn} = 4.7{\rm F}_{\rm su} \\ & {\rm \Omega} \\ & {\rm s} \end{array} \\ & {\rm s} & {\rm 145} \\ \hline {\rm 0 \ Self \ tapp} \\ & {\rm c} & {\rm 0.190} \\ & {\rm r} & {\rm 0.0151} \end{array}$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} /1.25 3 Ibs/anchor ing screw in in ²	Rn2 = Rn = Rn = (Calculatio	5320 435 478 654 ons per AI icrew shec J3.2 of 20) lbs 5 lbs 8 lbs 4 lbs 5I-S100-1 ar ultimate 010 Steel ((Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction))) A2.3.2 and F _{su} a Manual 14	E4.3.1) 54.0 ksi th Edition		
4	N Nor Allowable shear and b Nomina	lominal str ninal scree Dearing ca Fasten I screw di Screw ro Side n	ng (main rength p w shear Safe apacity: er type: ameter: ot area: member	member) er tilting strength ty factor Pa #10 D A material	$\begin{array}{r} {\rm Kn} = 2 {\rm Dt}_1 {\rm f} {\rm Kn} \\ {\rm Kn} = 2 {\rm Dt}_2 {\rm I} \\ {\rm Kn} = 4.2 ({\rm t}_2 {\rm Kn} \\ {\rm Kn} = {\rm A}_r {\rm F}_{\rm su} \\ {\rm Kn} = {\rm A}_r {\rm F}_{\rm su} \\ {\rm Kn} = {\rm A}_r {\rm H} \\ {\rm Self tapp} \\ {\rm Kn} = {\rm O}.190 \\ {\rm r} {\rm O}.0151 \\ {\rm Knyl PVC} \end{array}$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} /1.25 3 Ibs/anchor ing screw in in ²	Rn2 = Rn = Rn = (Calculatio	5320 435 478 654 ons per AI icrew shec J3.2 of 20) lbs 5 lbs 8 lbs 4 lbs 55I-5100-3 ur ultimate 010 Steel (n member	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material :))) A2.3.2 and F _{su} 1 Manual 14 Wetal fram	E4.3.1) 54.0 ksi th Edition ing		
4	N Nor Allowable shear and b Nomina	lominal str ninal scree Dearing ca Fasten I screw di Screw ro Screw ro Side n Th	ng (main rength p w shear Safe: apacity: er type: ameter: ot area: nember ickness:	member) er tilting strength ty factor Pa #10 #10 A material t	$\begin{array}{rcr} & {\rm Rn} = 2{\rm Dt}_{1}{\rm I} {\rm R} \\ & {\rm Rn} = 2{\rm Dt}_{2}{\rm I} \\ & {\rm Rn} = 2{\rm Dt}_{2}{\rm I} \\ & {\rm Rn} = 4.2({\rm t}_{2}{\rm I} \\ & {\rm Rn} = {\rm A}_{\rm r} {\rm F}_{{\rm su}} \\ & {\rm \Omega} = \\ & {\rm s} & {\rm 145} \\ \hline {\rm 0} \ {\rm Self \ tapp} \\ & {\rm c} & {\rm 0.190} \\ {\rm r} & {\rm 0.0151} \\ & {\rm Vinyl \ PVC} \\ {\rm r} & {\rm 1.000} \\ \end{array}$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} ,/1.25 3 Ibs/anchor ing screw in in ² :	Rn2 = Rn = Rn = (Calculatio	5320 435 478 654 0ns per AI icrew shec J3.2 of 20 Mai) lbs 5 lbs 3 lbs 4 lbs 3 st-stoo-t ar ultimate 010 steel (n member	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: A Thickness:))) A2.3.2 and F _{su} 1 Manual 14 Wetal fram t ₂	E4.3.1) 54.0 ksi th Edition		
4	N Allowable shear and b Nomina Ultimate	lominal str ninal scree Dearing ca Fasten I screw di Screw ro Screw ro Side n Th tensile st	ng (main rength p w shear Safe apacity: er type: ameter: ot area: nember ickness: trength:	member) er tilting strength ty factor P a #10 D A material t F _u	$\begin{array}{c} \mathbf{R} \mathbf{n} = 2 \mathbf{D} \mathbf{t}_{1} \mathbf{f} \\ \mathbf{R} \mathbf{n} = 2 \mathbf{D} \mathbf{t}_{2} \mathbf{f} \\ \mathbf{R} \mathbf{n} = 2 \mathbf{D} \mathbf{t}_{2} \mathbf{f} \\ \mathbf{R} \mathbf{n} = 4.2 (\mathbf{t}) \\ \mathbf{R} \mathbf{n} = 4.2 (\mathbf{t}) \\ \mathbf{R} \mathbf{n} = \mathbf{A}_{r} \mathbf{F}_{su} \\ \mathbf{n} = \mathbf{n} \\ \mathbf{n} \\ \mathbf{n} = \mathbf{n} \\ \mathbf{n} = \mathbf{n} \\ n$	F _{tu2} 2 ³ D) ^{1/2} F _{tu2} ,/1.25 3 Ibs/anchor ing screw in in ² : in ksi	Rn2 = Rn = Rn = (Calculatio S Per table	5320 435 478 654 500 per AI 500 p) lbs 5 lbs 8 lbs 4 lbs 551-5100-1 ar ultimate 010 Steel (n member	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: Thickness: strength:)))) 1 Manual 14 Metal fram † ₂ F _{u2}	E4.3.1) 54.0 ksi th Edition ing		(IIIIII)
4	N Allowable shear and E Nomina Ultimate N	ominal str ninal scree Pearing ca Fasten I screw di Screw ro Side n Th tensile st Iominal str	ng (main rength p w shear Safe apacity: er type: ameter: ot area: nember ickness: trength: rength p	member) er tilting strength ty factor P a #10 D A material t F _u er tilting	$\begin{array}{c} & {\rm Rn} = 2{\rm Dt}_{1}{\rm I}^{\rm r}\\ & {\rm Rn} = 2{\rm Dt}_{2}{\rm I}\\ & {\rm Rn} = 2{\rm Dt}_{2}{\rm I}\\ & {\rm Rn} = 4.2({\rm t})\\ & {\rm Rn} = 4.2({\rm t})\\ & {\rm Rn} = {\rm A}_{\rm r}{\rm F}_{\rm su}\\ & {\rm \Omega} =\\ & {\rm s} \qquad 145\\ \hline \begin{array}{c} {\rm O} \mbox{ Self tapp}\\ & {\rm O}.190\\ & {\rm r} \qquad 0.0151\\ \hline & {\rm Vinyl} \mbox{ PVC}\\ & {\rm r} \qquad 1.000\\ & {\rm n} \qquad 14\\ & {\rm Rn} = 4.2({\rm t}) \end{array}$	F _{tu2} $_{2}^{3}D)^{1/2}F_{tu2}$ $_{1/1,25}$ 3 Ibs/anchor ing screw in in ² : in ksi $_{2}^{3}D)^{1/2}F_{u2}$	Rn2 = Rn = Rn = (Calculatio S Per table Rn =	5320 435 478 654 500 per AI 500 p) lbs 5 lbs 3 lbs 4 lbs 55I-5100-1 ur ultimate 010 Steel (n member 	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: Thickness: strength: (Eq E4.3.1-)))) 1 Manual 14 Metal fram † ₂ F _{u2} :1)	E4.3.1) 54.0 ksi th Edition ing		11111111 S.R. L
4	N Allowable shear and b Nomina Ultimate Nominal strength	lominal str ninal scree Fasten I screw di Screw ro Side n Th tensile st lominal str per beari	ng (main rength p w shear Safe apacity: er type: ameter: ot area: nember ickness: trength: rength p ng (side	member) er tilting strength ty factor Pa #10 D A material t Fu er tilting member)	$\begin{array}{c} \mathbf{R} \mathbf{n} = 2\mathbf{D}\mathbf{t}_{1}\mathbf{f} \\ \mathbf{R} \mathbf{n} = 2\mathbf{D}\mathbf{t}_{2}\mathbf{f} \\ \mathbf{R} \mathbf{n} = 2\mathbf{D}\mathbf{t}_{2}\mathbf{f} \\ \mathbf{R} \mathbf{n} = 4.2(\mathbf{t}) \\ \mathbf{R} \mathbf{n} = 4.2(\mathbf{t}) \\ \mathbf{R} \mathbf{n} = \mathbf{A}_{r}\mathbf{F}_{su} \\ \mathbf{n} = \mathbf{n} \\ \mathbf{n} \\ \mathbf{n} \\ \mathbf{n} = \mathbf{n} \\ \mathbf$	$\begin{array}{l} F_{tu2} \\ F_{2}^{3}D)^{1/2}F_{tu2} \\ ,/1.25 \\ 3 \\ \textbf{lbs/anchor} \\ \textbf{ing screw} \\ \textbf{in} \\ \textbf{in}^{2} \\ \textbf{in} \\ sin \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $	Rn2 = Rn = (Calculatic S Per table Rn = Rn1 =	5320 435 478 654 500 per AI 500 per AI 500 per AI 500 per AI 500 7182) lbs 5 lbs 3 lbs 4 lbs 55I-5100-1 ar ultimate 010 Steel (n member - - - - - - - - - - - - - - - - - - -	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: Thickness: strength: (Eq E4.3.1- (Eq E4.3.1-)))) 1 Manual 14 Metal fram t ₂ F _{u2} :1) 2 and -4)	E4.3.1) 54.0 ksi th Edition ing		S.R.L
4	N Allowable shear and b Nomina Ultimate N Nominal strength Nominal strength	lominal str ninal scree Fasten I screw di Screw roo Side n Th tensile st lominal str per beari per beari	ng (main rength p w shear Safe apacity: er type: ameter: ot area: nember ickness: trength: rength p ng (side ng (main	member) er tilting strength ty factor Pa #10 A material t Fu er tilting member) member)	$\begin{array}{c} \mathbf{R} \mathbf{n} = 2\mathbf{D}\mathbf{t}_{1}\mathbf{f} \\ \mathbf{R} \mathbf{n} = 2\mathbf{D}\mathbf{t}_{2}\mathbf{f} \\ \mathbf{R} \mathbf{n} = 2\mathbf{D}\mathbf{t}_{2}\mathbf{f} \\ \mathbf{R} \mathbf{n} = 4.2(\mathbf{t}) \\ \mathbf{R} \mathbf{n} = 4.2(\mathbf{t}) \\ \mathbf{R} \mathbf{n} = \mathbf{A}_{r}\mathbf{F}_{su} \\ \mathbf{n} = \mathbf{n} \\ \mathbf{n} \\ \mathbf{n} \\ \mathbf{n} = \mathbf{n} \\ \mathbf{n} \\ \mathbf{n} = \mathbf{n} \\ \mathbf$	$\begin{array}{l} F_{tu2} \\ F_{tu2} \\ {}^{23} D)^{1/2} F_{tu2} \\ {}^{/1.25} \\ 3 \\ \textbf{lbs/anchor} \\ \textbf{ing screw} \\ \textbf{in} \\ \textbf{in}^2 \\ \textbf{in} \\ \textbf{ksi} \\ {}^{2} D)^{1/2} F_{u2} \\ {}^{1} F_{u1} \\ {}^{1} F_{u1} \\ {}^{1} F_{u2} \\ \end{array}$	Rn2 = Rn = Rn = (Calculatio S Per table Rn = Rn1 = Rn2 =	5320 435 478 654 500 per AI 500 per AI 500 per AI 500 per AI 500 7182 1280) lbs 5 lbs 3 lbs 4 lbs 55I-5100-1 ar ultimate 010 Steel (n member - ate tensile 1 lbs 2 lbs) lbs	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: Thickness: strength: (Eq E4.3.1-)))) 1 Manual 14 Metal fram t ₂ F _{u2} :1) 2 and -4)	E4.3.1) 54.0 ksi th Edition ing	(c)	S.R.L.
4	N Allowable shear and b Nomina Ultimate N Nominal strength Nominal strength	lominal str ninal scree Fasten I screw di Screw roo Side n Th tensile st lominal str per beari per beari	ng (main rength p w shear Safe apacity: er type: ameter: ot area: nember ickness: trength: rength p ng (side ng (main w shear	member) er tilting strength ty factor Pa D #10 A material t Fu er tilting member) member) strength	$\begin{array}{c} & {\rm Rn} = 2{\rm Dt}_1{\rm f} \\ {\rm Rn} = 2{\rm Dt}_2{\rm f} \\ {\rm Rn} = 2{\rm Dt}_2{\rm f} \\ {\rm Rn} = 4.2({\rm t}) \\ {\rm Rn} = 2.7{\rm Dt} \\ {\rm Rn} = 2.7{\rm Dt} \\ {\rm Rn} = 4.7{\rm F}_{\rm su} \end{array}$	$\begin{array}{l} F_{tu2} \\ F_{tu2} \\ {}^{23} D)^{1/2} F_{tu2} \\ {}^{/1.25} \\ 3 \\ \hline \textbf{lbs/anchor} \\ \hline \textbf{ing screw} \\ \textbf{in} \\ \textbf{in} \\ {}^{10} \\ {}^{23} D)^{1/2} F_{u2} \\ {}^{11} F_{u1} \\ {}^{12} F_{u2} \\ {}^{12} F_{u2} \\ {}^{/1.25} \end{array}$	Rn2 = Rn = (Calculatic S Per table Rn = Rn1 =	5320 435 478 654 500 per AI 500 per AI 500 per AI 500 per AI 500 7182 1280) lbs 5 lbs 3 lbs 4 lbs 55I-5100-1 ar ultimate 010 Steel (n member - - - - - - - - - - - - - - - - - - -	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: Thickness: strength: (Eq E4.3.1- (Eq E4.3.1-)))) 1 Manual 14 Metal fram t ₂ F _{u2} :1) 2 and -4)	E4.3.1) 54.0 ksi th Edition ing	. ((1)	S.R.L.
-	N Allowable shear and b Nomina Ultimate N Nominal strength Nominal strength	lominal str ninal scree Fasten I screw di Screw ro Side n Th tensile st Iominal str per beari per beari ninal scree	ng (main rength p w shear Safe apacity: er type: ameter: ot area: nember ickness: trength: rength p ng (side ng (main w shear Safe	member) er tilting strength ty factor Pa #10 A material t Fu er tilting member) member)	$\begin{array}{rcrr} & {\rm Rn} = 2{\rm Dt}_1{\rm f} \\ {\rm Rn} = 2{\rm Dt}_2{\rm f} \\ {\rm Rn} = 2{\rm Dt}_2{\rm f} \\ {\rm Rn} = 4.2({\rm t}) \\ {\rm r} \\ {\rm r} & {\rm \Omega} = \\ {\rm s} \\ {\rm s} \\ {\rm Id} \\ {\rm Self tapp} \\ {\rm r} \\ {\rm O.0151} \\ {\rm r} \\ {\rm O.0151} \\ {\rm r} \\ {\rm O.0151} \\ {\rm r} \\ {\rm r} \\ {\rm O.0151} \\ {\rm r} \\ {\rm r} \\ {\rm r} \\ {\rm n.000} \\ {\rm n} \\ {\rm 14} \\ {\rm r} \\ {\rm Rn} = 4.2({\rm t}) \\ {\rm r} \\ {\rm Rn} = 2.7{\rm D1} \\ {\rm r} \\ {\rm Rn} = 2.7{\rm D1} \\ {\rm r} \\ {\rm Rn} = 4.2({\rm t}) \\ {\rm r} \\ {\rm Rn} = 4.7{\rm F}_{\rm su} \\ {\rm r} \\ {\rm r} \\ {\rm n} = 0 \\ {\rm r} \\ {\rm r}$	$\begin{array}{l} F_{tu2} \\ F_{tu2} \\ {}^{23} D)^{1/2} F_{tu2} \\ {}^{/1.25} \\ 3 \\ \hline \textbf{lbs/anchor} \\ \hline \textbf{ing screw} \\ \textbf{in} \\ \textbf{in} \\ {}^{10} \\ {}^{23} D)^{1/2} F_{u2} \\ {}^{11} F_{u1} \\ {}^{12} F_{u2} \\ {}^{12} F_{u2} \\ {}^{/1.25} \end{array}$	Rn2 = Rn = Rn = (Calculatio S Per table Rn = Rn1 = Rn2 =	5320 435 478 654 500 per AI 500 per AI 500 per AI 500 per AI 500 7182 1280) lbs 5 lbs 3 lbs 4 lbs 55I-5100-1 ar ultimate 010 Steel (n member - ate tensile 1 lbs 2 lbs) lbs	(Eq J.5-12 (Eq J.5-12 (Eq J.5-13 (Eq J.5-13 (Eq J.5-14 12, sections strength: Construction material: Thickness: strength: (Eq E4.3.1- (Eq E4.3.1-)))) 1 Manual 14 Metal fram t ₂ F _{u2} :1) 2 and -4)	E4.3.1) 54.0 ksi th Edition ing		No. 625

1432 Woodford Rd. Lewisville, NC 27023 434-688-0609 rllomas@Irlomaspe.com Manufacturer: Masonite Report #: 514012A Date: 10/10/2017

Anchor calculations, minimum required anchors

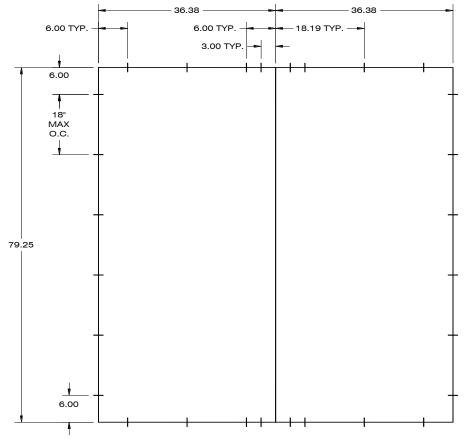
36.38 36.38				Design p	oressure:	60.0	psf		
		Area	Load	Ind.	Max.	Anchor			
	Zone	(ft ²)	(lbs)	(in)	0.C.	Cap.	Qty	Load	Result
A2 - + - A2 79.25		(11)	(IDS)	(11)	(in)	(lbs)	V 19	(lbs)	
	A ₁	2.3	138	N/A	N/A	145	1	138	OK
	A ₂	7.7	463	6.00	21.00	145	5	93	OK
72.75	A ₃	7.7	463	N/A	N/A	145	4	116	OK

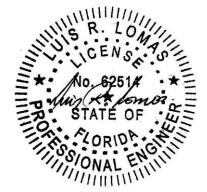
37.50	36.38	36.38	37.50	
1	1	1	1	_
$A1 \\ A2 \\ A2 \\ A1 \\ A1 \\ A1 \\ A1 \\ A1 \\ $		$A4 \wedge A3 \rightarrow A4 \wedge A4 \wedge A4 \rightarrow A4 \wedge A4 \wedge A4 \wedge A4 \wedge A4$		79.25
ł	147	.75		

				Design p	oressure:	60.0	psf		
		Area	Load	Ind.	Max.		Anchor		
	Zone	(ft²)	(lbs)	(in)	0.C.	Cap.	Qty	Load	Result
_					(in)	(lbs)		(lbs)	
5	A ₁	2.4	146	N/A	N/A	145	2	73	OK
	A ₂	7.9	473	6.00	21.00	145	5	95	OK
	A ₃	7.8	468	N/A	N/A	145	4	117	OK
	A ₄	2.3	138	N/A	N/A	145	1	138	OK
	A ₅	7.7	463	N/A	N/A	145	4	116	OK

Anchor Locations:

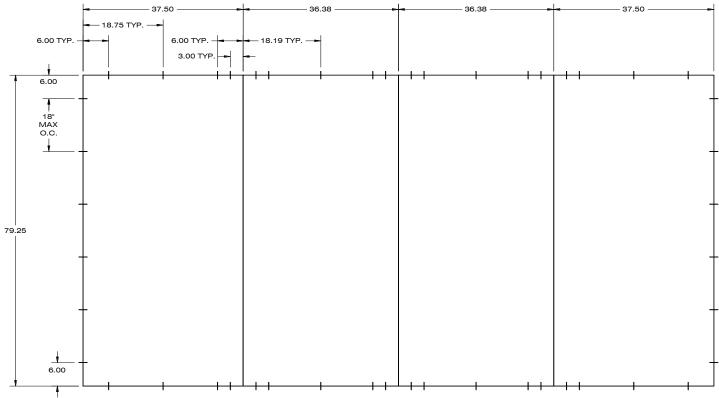
Double door

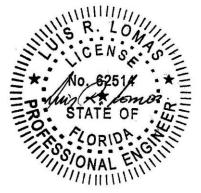




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Double door with sidelites





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Installation instructions:

- 1. FOR ANCHORING THROUGH FRAME INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN BELOW.
- FOR ANCHORING THROUGH FRAME INTO MASONRY/CONCRETE USE 1/4" TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN BELOW.
- 3. FOR ANCHORING THROUGH FRAME INTO METAL STRUCTURE USE #10 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL WITH 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN BELOW.
- 4. ALL FASTENERS TO BE CORROSION RESISTANT.
- 5. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW: A. WOOD: MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
 - C. MASONRY: HOLLOW/FILLED BLOCK PER ASTM C90 WITH Fm=2,000PSI MINIMUM.
 - D. METAL STRUCTURE: STEEL 18GA (.048") FY=33KSI/FU=52KSI OR ALUMINUM 6063-T5 FU=30KSI .052" THICK MINIMUM
- 6. ANCHOR LOCATIONS SHOWN IN THIS DOCUMENT ARE THE MINIMUM REQUIRED FOR THE DESCRIBED PRODUCT EXPOSED AT THE DESIGN PRESSURE INDICATED HEREIN.
- 7. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 8. 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL.
- 9. WHERE SHIM OR BUCK THICKNESS IS LESS THAN 1-1/2" UNITS MUST BE ANCHORED THROUGH FRAME IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE SECURELY FASTENED DIRECTLY INTO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE MATERIAL.
- 10. WHERE WOOD BUCK THICKNESS IS 1-1/2" OR GREATER, BUCK SHALL BE SECURELY FASTENED TO MASONRY, CONCRETE OR OTHER STRUCTURAL SUBSTRATE. UNITS MAY BE ANCHORED THROUGH FRAME TO SECURED WOOD BUCK IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.
- 11. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 12. BUCKS SHALL EXTEND BEYOND WINDOW INTERIOR FACE SO THAT FULL FRAME SUPPORT IS PROVIDED.

