BOCA ENGINEERING CO. | SPAR
STRUCTURAL & CIVIL CONSULTANTS

TEST REPORT

Date	2023-04-03
Report Number	0093-11-1
Client	FastPlank Systems Inc.
Address	101-4441 76th Ave SE, Calgary, AB T2C 2G8

Subject

Summary conclusion and application of test results derived from ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*, completed for installations of FastPlank P46V Plank.

TEST SUMMARY

Nine (9) representative wall assemblies have been tested in accordance with ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*, at FastPlank Systems Inc. in Calgary, Alberta. Tests were witnessed by Chris Bowness, P.E. of Boca Engineering Co.

Product Description

FastPlank Systems are aluminum siding planks with fastening clips and trim accessories, serving as an exterior wall covering. Planks are extruded 3/64 in. thick aluminum with a V-Notch™ profile, available in widths of 4 in. or 6 in. and in 16 ft. or 32 ft. lengths.

Table 1: Test Assembly Configurations for P46V Plank

Test Series[1]	Configuration[4,5]	Fastener Substrate	Framing	Fastener	Sheathing	Avg. Allowable Design Load (ASD) (psf)[3]
1	Clips @ 16" O.C. straight	Stud	2x6 SPF No. 2 wood studs @ 16" o.c.	1/4 x 4" Galv. Lag bolt	7/16" OSB w/ 2" 20 psi rigid insulation	141
2	Clips @ 32" O.C. straight	Stud	2x4 SPF No. 2 wood studs @ 16" o.c.	1/4 x 4" Galv. Lag bolt	7/16" OSB w/ 2" 20 psi XPS insulation	70
3	Clips @ 32" O.C. straight	Girt	2x4 SPF No. 2 wood studs @ 16" o.c. w/ 18 ga 33 ksi 1.5" x 2" steel z-girt	#10-16 x 3/4" Tek screw into z-girt #10-12 x 1-1/2" screw into wood @ 16" o/c	7/16" OSB / 2" 20 psi rigid insulation	53
4[2]	Clips @ 16" O.C. straight	Stud	2x6 SPF No. 2 wood studs @ 16" o.c.	#10 - 1-1/2" screw	7/16" OSB	-
5	Clips @ 32" O.C. straight	Stud	2x4 SPF No. 2 wood studs @ 16" o.c.	#10 - 1-1/2" screw	7/16" OSB	44
6	Clips @ 32" O.C. straight	Sheathing	2x4 SPF No. 2 wood studs @ 16" o.c.	#10 - 1-1/2" screw	7/16" OSB	44
7	Clips @ 32" O.C. straight	Sheathing	2x4 SPF No. 2 wood studs @ 16" o.c.	#10 - 1-1/2" screw	5/8" Plywood	69

-Table continued on the following page-

8	Clips @ 32" O.C. staggered	Stud	2x4 SPF No. 2 wood studs @ 16" o.c.	#10 - 1-1/2" screw	7/16" OSB	83
9	Clips @ 32" O.C. straight	Stud	2x4 SPF No. 2 wood studs @ 16" o.c.	1/4 x 4" Galv. lag bolt	7/16" OSB / 2" 30 PSI XPS	66

1. All test series consists of testing completed on 3 test decks unless otherwise noted.
2. Testing has not been completed for this test series.
3. Allowable Design Load is equal to the assembly's maximum test load divided by two (2).
4. A straight configuration consists of vertically aligned clips at each plank separation with horizontal spacing as dimensioned.
5. A staggered configuration consists of vertically aligned clips on every second plank with the columns of clip starting locations alternating between the first and second plank rows to create a staggered appearance.

Table 2: Testing Results

Test	Max Load (psf)	Avg. Max Load (psf)	Avg. Allowable Design Load (ASD) (psf)[3]	Avg. Allowable Deflection Service Load (ASD) (psf)[1]	Allowable Deflection[1] at Deflection Service Load				
					L/180 Limit (in.)	Measured Deflection (in.)[2]	L/60 Limit (in.)	Measured Deflection (in.)[2]	PASS/FAIL
					Wall		Plank		
1-1	270	282	141	99	0.53	0.22	0.27	0.15	PASS
1-2	286				0.53	0.24	0.27	0.18	PASS
1-3	289				0.53	0.23	0.27	0.15	PASS
2-1	137	140	70	49	0.53	0.54	0.53	0.30	PASS
2-2	130				0.53	0.42	0.53	0.24	PASS
2-3	152				0.53	0.64	0.53	0.31	PASS
3-1	94	105	53	37	0.53	0.29	0.53	0.27	PASS
3-2[4]	112				0.53	-[4]	0.53	0.45	PASS
3-3	110				0.53	0.40	0.53	0.43	PASS
4-1[5]	-	-	-	-	-	-	-	-	-
4-2[5]	-				-	-	-	-	-
4-3[5]	-				-	-	-	-	-
5-1	91	89	44	31	0.53	0.38	0.53	0.17	PASS
5-2	76				0.53	0.37	0.53	0.15	PASS
5-3	100				0.53	0.41	0.53	0.19	PASS
6-1	90	89	44	31	0.53	0.40	0.53	0.24	PASS
6-2	91				0.53	0.50	0.53	0.41	PASS
6-3	86				0.53	0.40	0.53	0.23	PASS
7-1	129	138	69	48	0.53	0.43	0.53	0.28	PASS
7-2	135				0.53	0.46	0.53	0.28	PASS
7-3	150				0.53	0.54	0.53	0.37	PASS
8-1	165	166	83	58	0.53	0.30	0.53	0.27	PASS
8-2	166				0.53	0.29	0.53	0.29	PASS
8-3	166				0.53	0.32	0.53	0.28	PASS
9-1	136	132	66	46	0.53	0.50	0.53	0.25	PASS
9-2	150				0.53	0.58	0.53	0.30	PASS
9-3	110				0.53	0.43	0.53	0.20	PASS

1. Allowable deflection and deflection service load determined using IBC Table 1604.3 *Deflection Limits* and ASCE 7-22 Chapter 30, *Wind Loads: Components and Cladding.*
2. A linear trendline was created for each data set and used to calculate the wall/plank deflection at the allowable deflection service load of the test series.
3. Allowable Design Load is equal to the assembly's maximum load divided by two (2).
4. Measured wall deflection removed due to sensor failure.
5. Testing not completed for this test series.

CONCLUSION

This test report includes 24 of the 27 scheduled ASTM E330/E330M-14 tests.

The listed tested assemblies have been tested in conformance with the criteria of ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference)*.

The testing results in Table 2 have been evaluated by engineering design methodology in general accordance with ASCE7-22 and Table 1 has been prepared in a format with design information that is suitable to publish in engineering code compliance report documents based on the IBC and NBCC Codes.

Signed

This report has been prepared and reviewed on behalf of BOCA by:

Bradley Wells

April 3, 2023
Date

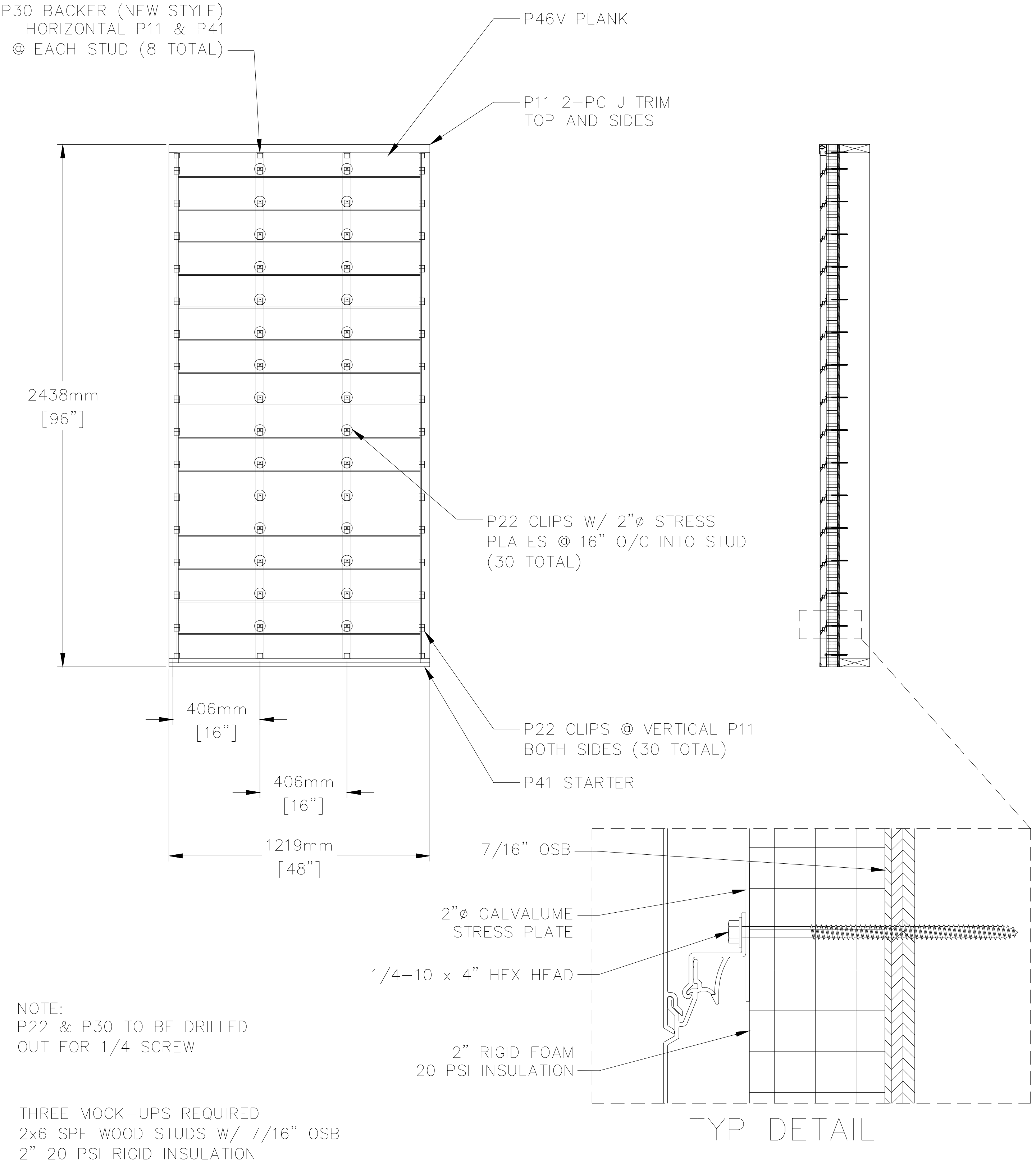
Chris Bowness, P.Eng., P.E.

2023-04-05
Date

CHRISTOPHER W.C. BOWNESS
50363
FILE 0093

ATTACHMENTS:

FP1 TEST WALL



TYP DETAIL

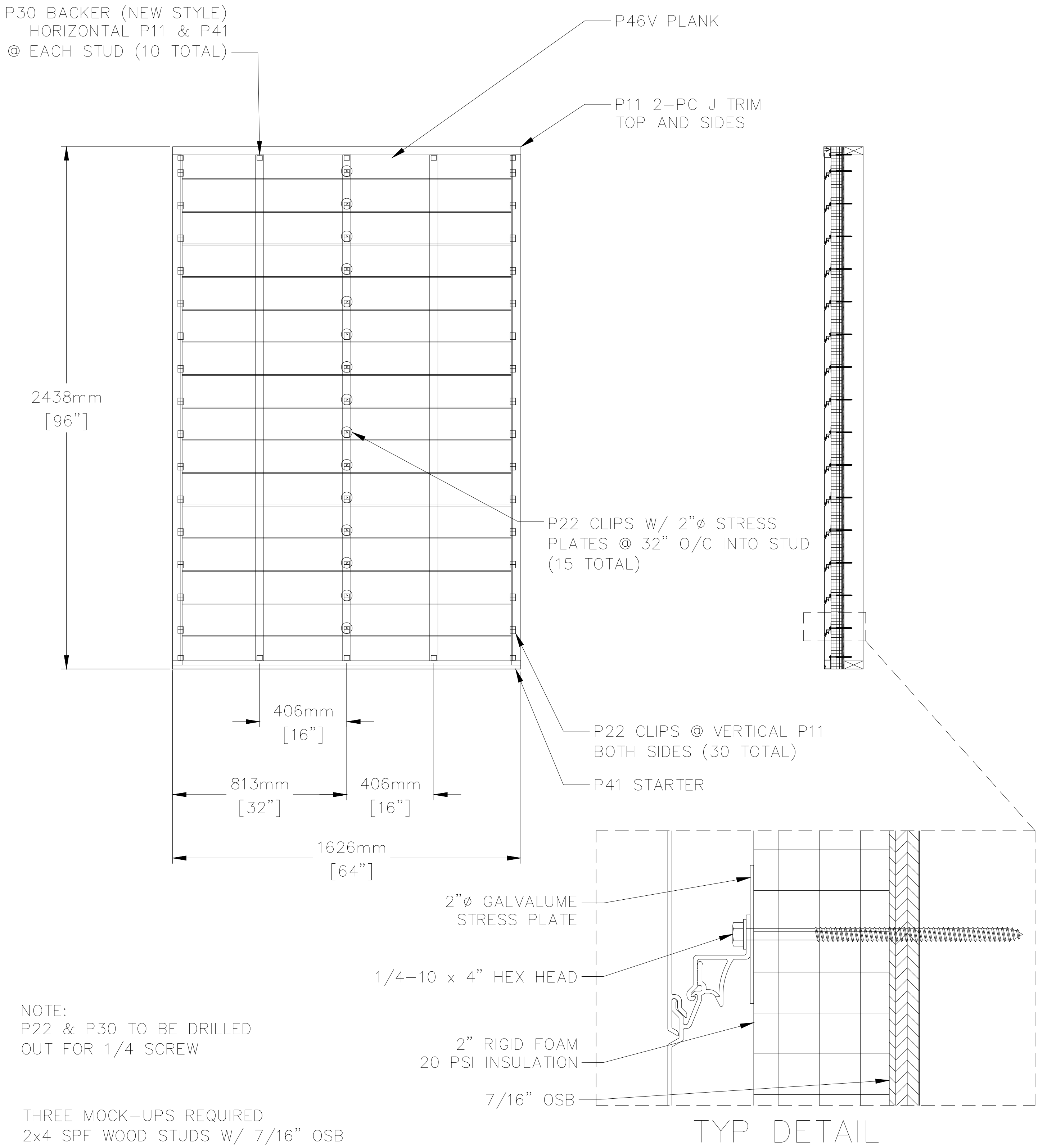
NOTE:
P22 & P30 TO BE DRILLED
OUT FOR 1/4 SCREW

THREE MOCK–UPS REQUIRED
2x6 SPF WOOD STUDS W/ 7/16" OSB
2" 20 PSI RIGID INSULATION
1/4–10 X 4" HEX HEAD STD HDG SCREWS
2"ø GALVALUME STRESS PLATES (PLT–R–2–B)

SCREW & STRESS PLATE DETAILS ADDED 14SEP2022

25JUL2022

FP2 TEST WALL



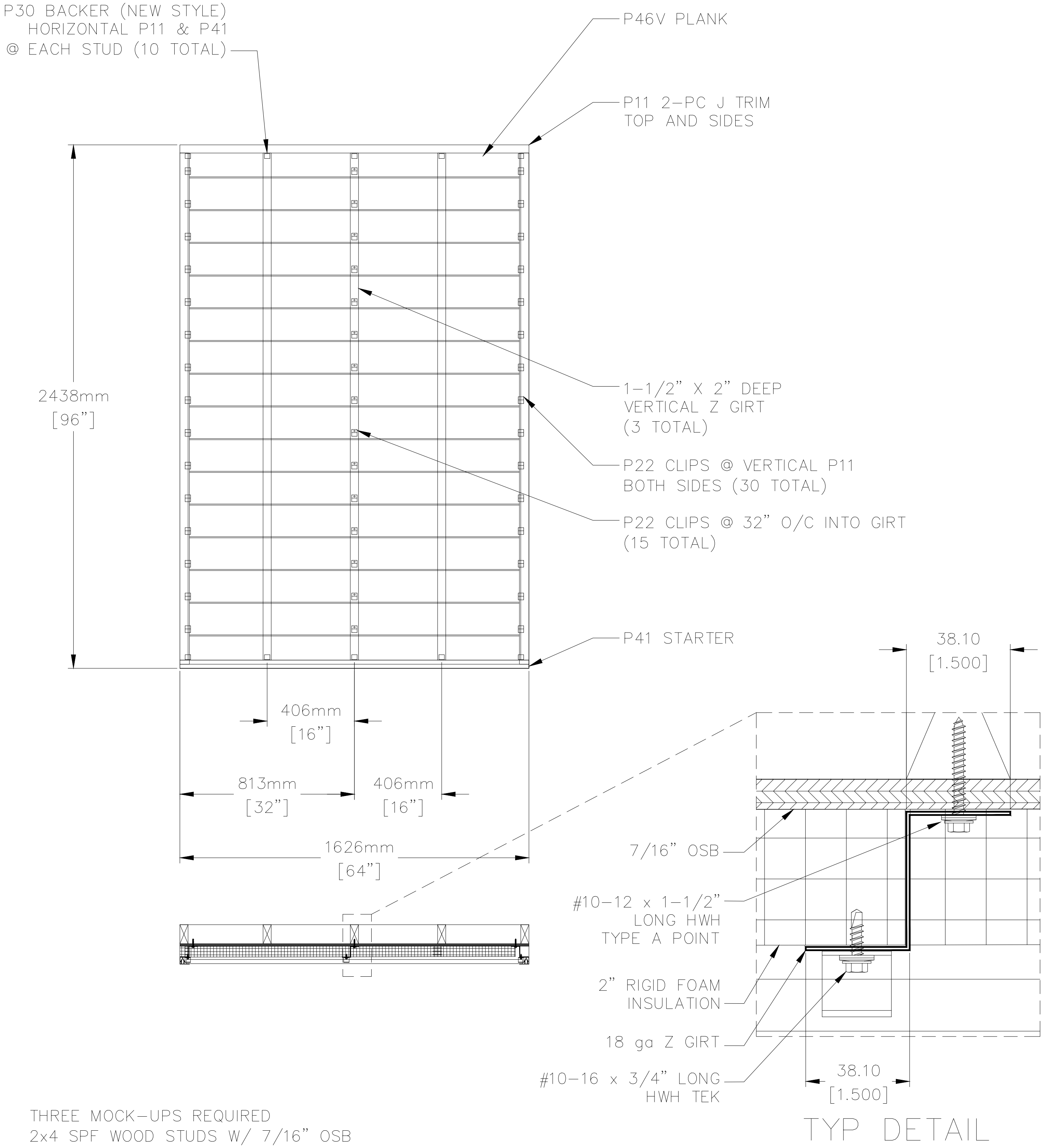
TYP DETAIL

NOTE:
P22 & P30 TO BE DRILLED
OUT FOR 1/4 SCREW

THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 7/16" OSB
2" 20 PSI RIGID INSULATION
1/4-10 X 4" HEX HEAD STD HDG SCREWS
2"ø GALVALUME STRESS PLATES (PLT-R-2-B)

SCREW & STRESS PLATE DETAILS ADDED 14SEP2022
9AUG2022
25JUL2022

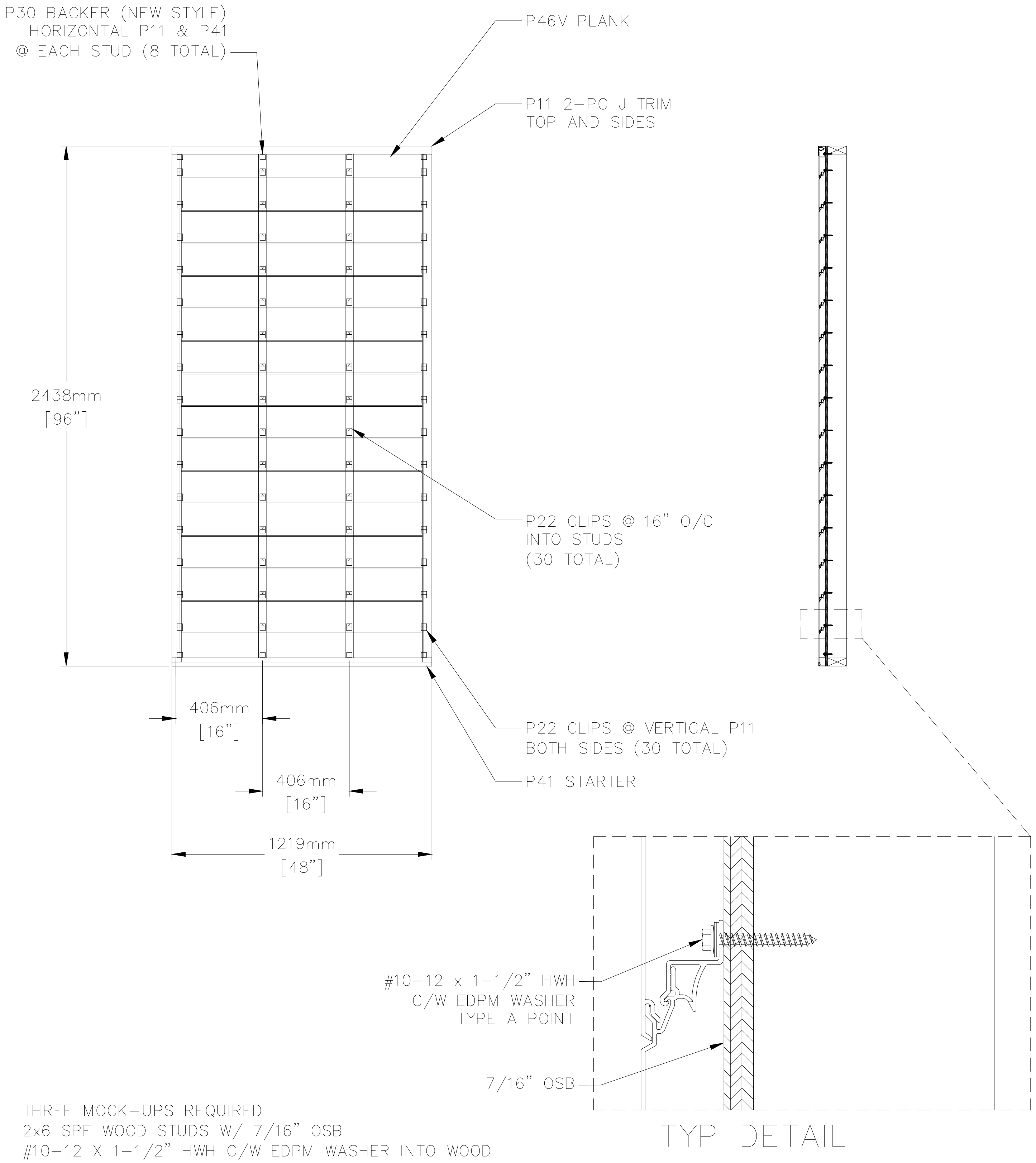
FP3 TEST WALL



THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 7/16" OSB
2" 20 PSI RIGID INSULATION
1-1/2" X 2" DEEP 18 ga Z GIRT
#10-16 X 3/4" HWH TEK C/W EDPM WASHER INTO GIRT
#10-12 X 1-1/2" HWH C/W EDPM WASHER INTO WOOD

SCREW DETAILS ADDED 14SEP2022
9AUG2022
25JUL2022

FP4 TEST WALL

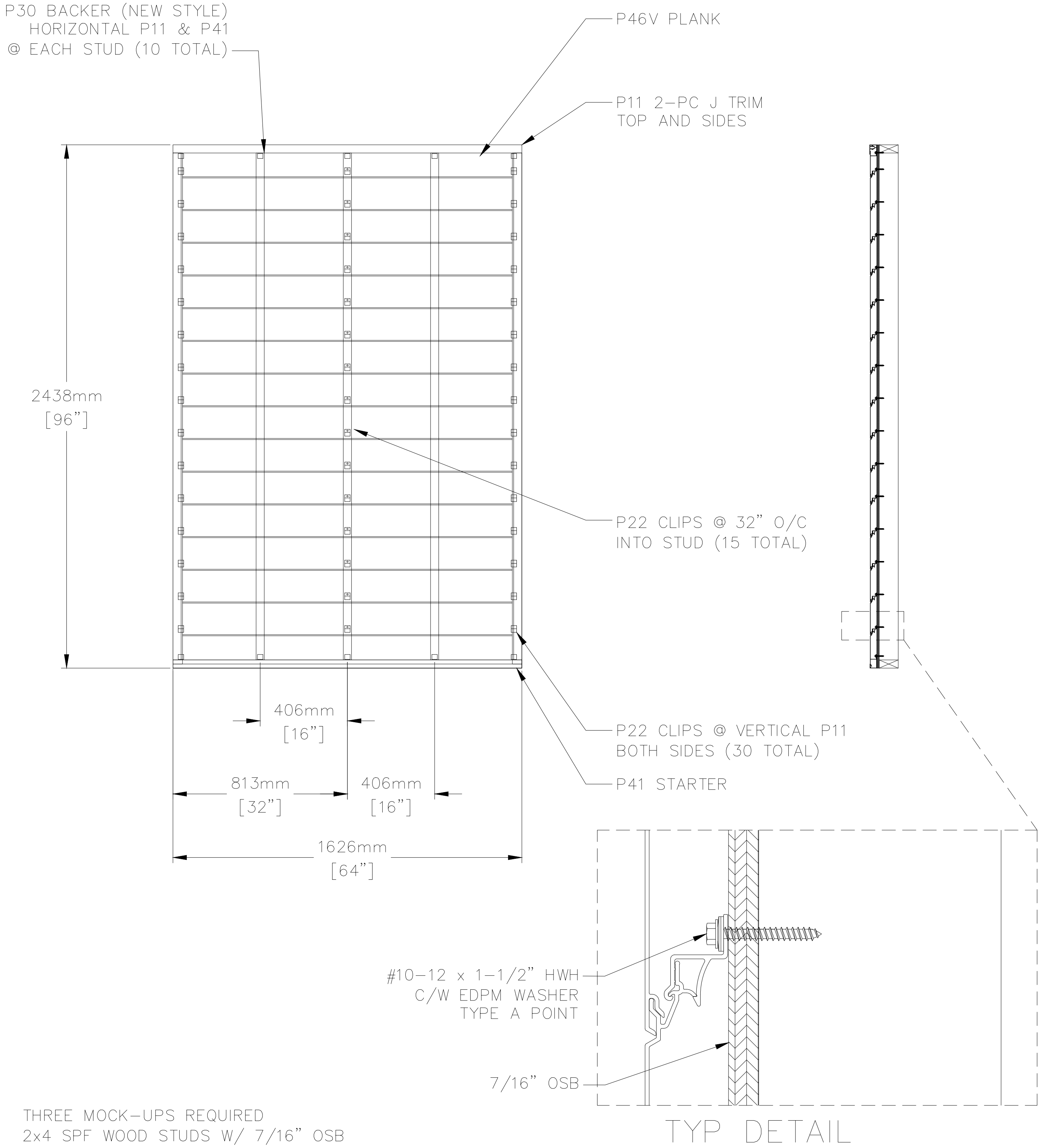


THREE MOCK-UPS REQUIRED
2x6 SPF WOOD STUDS W/ 7/16" OSB
#10-12 X 1-1/2" HWH C/W EDPM WASHER INTO WOOD

SCREW DETAILS ADDED 14SEP2022

25JUL2022

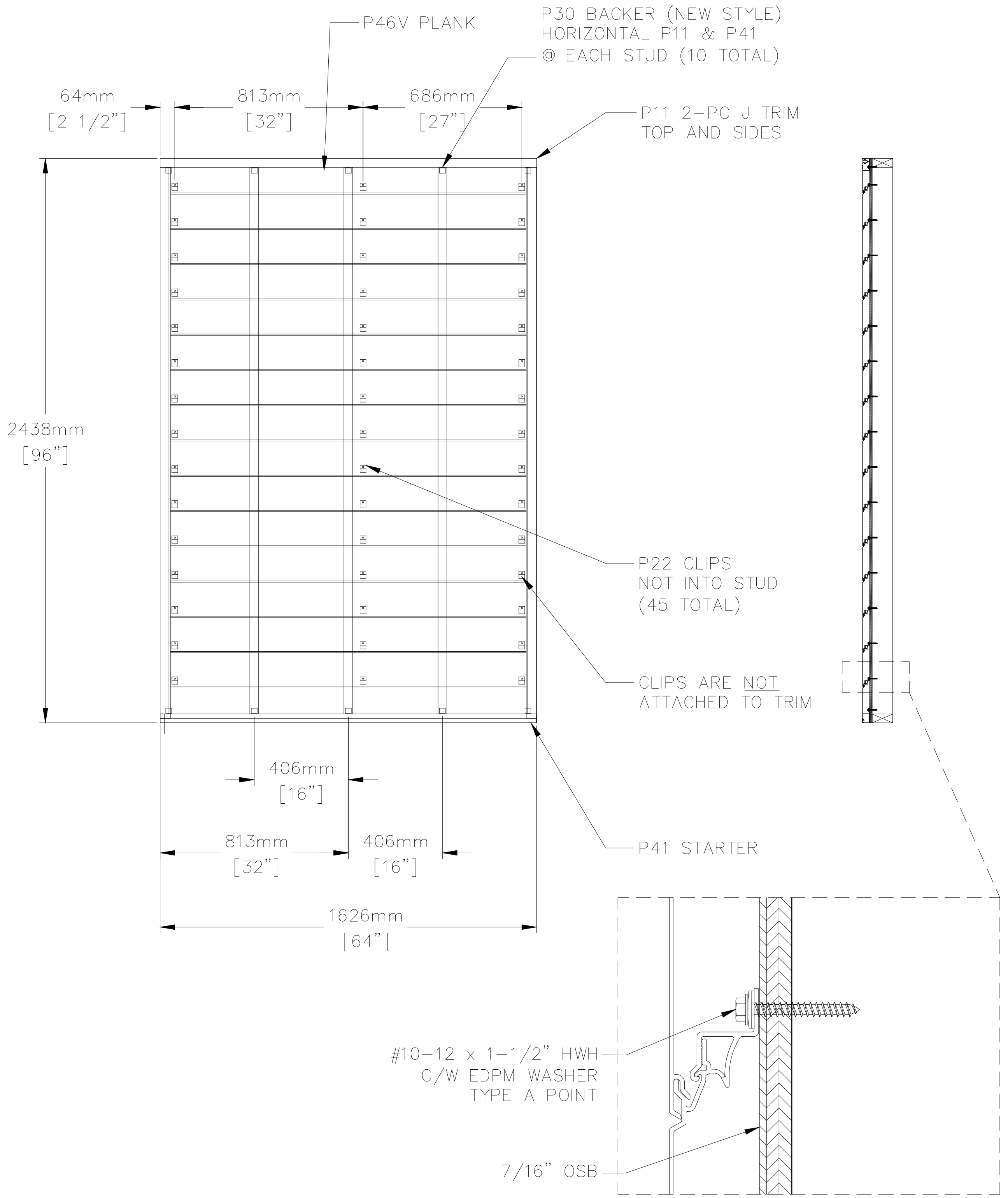
FP5 TEST WALL



THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 7/16" OSB
#10-12 X 1-1/2" HWH C/W EDPM WASHER INTO WOOD

SCREW DETAILS ADDED 14SEP2022
9AUG2022
25JUL2022

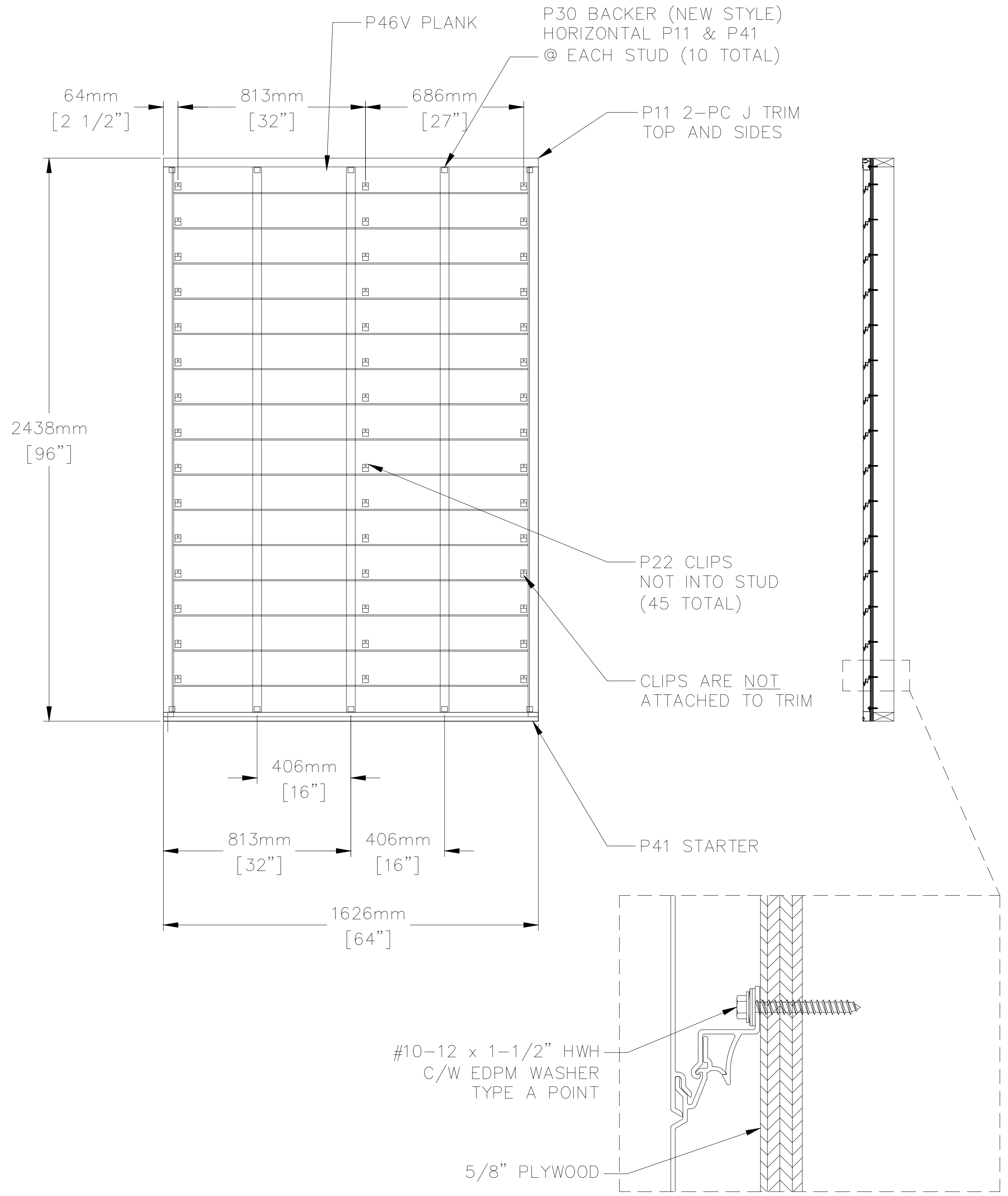
FP6 TEST WALL



THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 7/16" OSB
#10-12 X 1-1/2" HWH C/W EDPM WASHER INTO WOOD

SCREW DETAILS ADDED 14SEP2022
9AUG2022
25JUL2022

FP7 TEST WALL

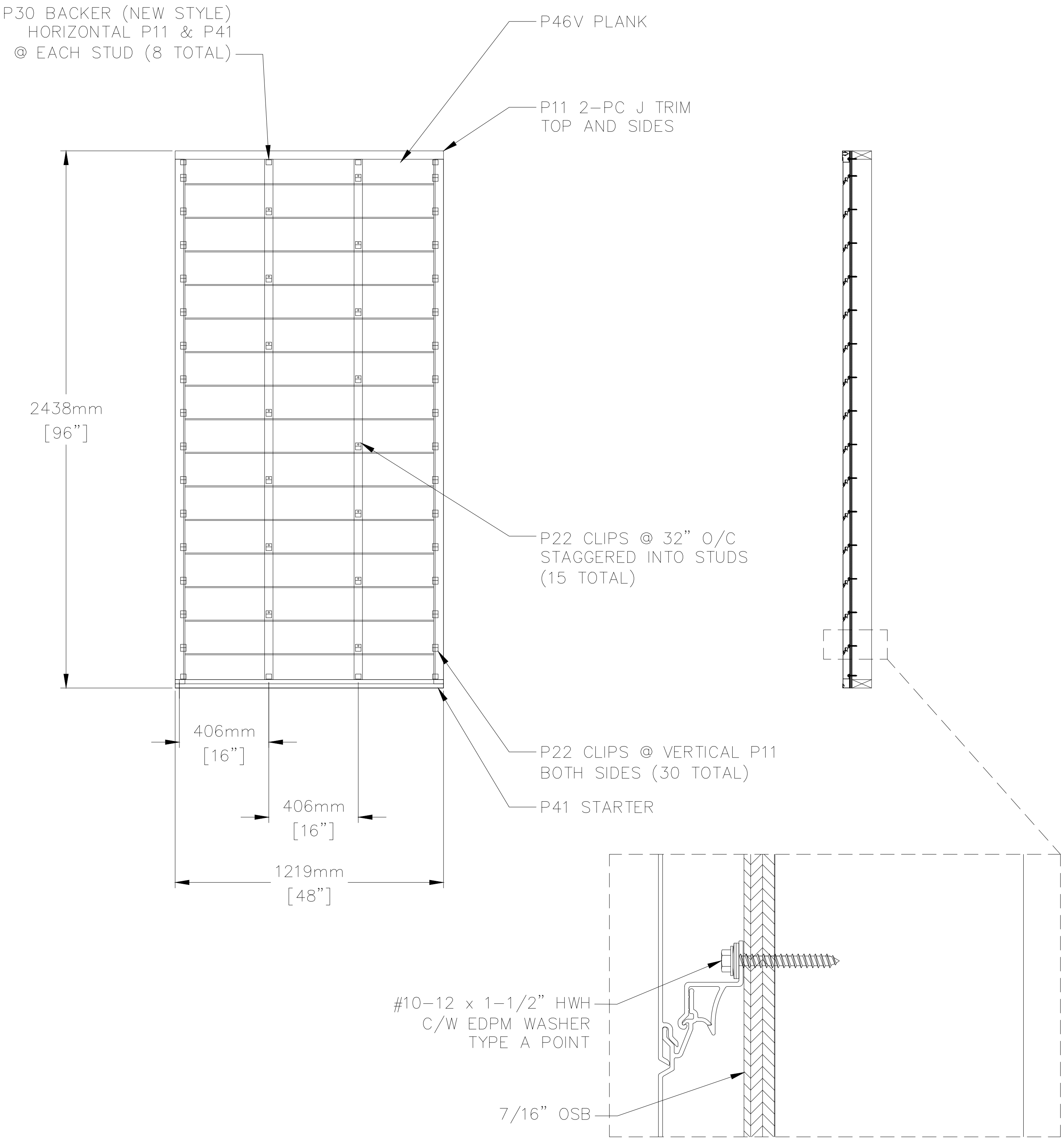


TYP DETAIL

THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 5/8" PLYWOOD
#10-12 X 1-1/2" HWH C/W EDPM WASHER INTO WOOD

SCREW DETAILS ADDED 14SEP2022
9AUG2022
25JUL2022

FP8 TEST WALL

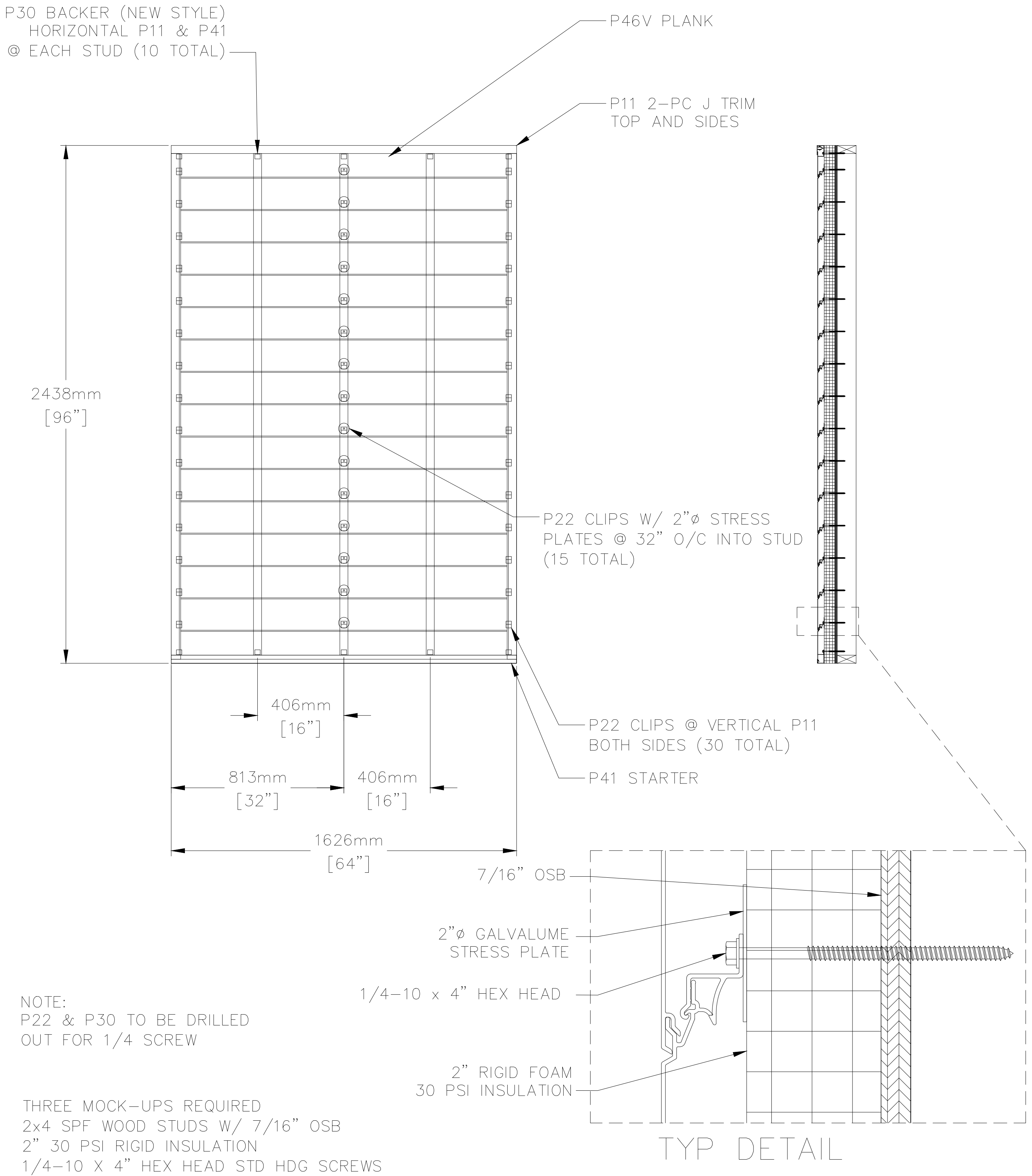


TYP DETAIL

THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 7/16" OSB
#10-12 X 1-1/2" HWH C/W EDPM WASHER INTO WOOD

SCREW DETAILS ADDED 14SEP2022
9AUG2022

FP9 TEST WALL



TYP DETAIL

NOTE:
P22 & P30 TO BE DRILLED
OUT FOR 1/4 SCREW

THREE MOCK-UPS REQUIRED
2x4 SPF WOOD STUDS W/ 7/16" OSB
2" 30 PSI RIGID INSULATION
1/4-10 X 4" HEX HEAD STD HDG SCREWS
2"ø GALVALUME STRESS PLATES (PLT-R-2-B)

SCREW & STRESS PLATE DETAILS ADDED 14SEP2022

9AUG2022

Test: **Transverse Load - Negative Wind Load** **Test#: 1-1** Project#: 0093
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8 Technician(s): Jordan/Denzel
Date: 13-Jan-23 Reviewer: Chris
Product: **P46V Plank** Location: Fastplank, Calgary AB
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

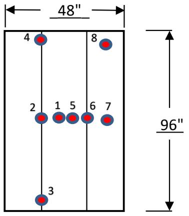
Configuration:	P22 clips with 2" washer @ 16" O.C. into stud
Framing:	2x6 spf wood studs
Fastener:	#12x4" Long HWH
Sheathing:	7/16" OSB / 2" 20 PSI Rigid Insulation
Air Seal:	Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber	Deflection Gauges(Phidget potentiometers)
Motor: Greenco s/n XB810-7AH27	Sensor 1: GALT s/n 20160504
Press. Controller: s/n G205141344	Sensor 2: GALT s/n 20160504
Pressure Sensors:	Sensor 3: GALT s/n 20160504
+/- 2 kPa: p/n 1136	Sensor 4: GALT s/n 20160504
+/- 7 kPa: p/n 1137	Sensor 5: GALT s/n 20160504
50 kPa: p/n 1138	Sensor 6: GALT s/n 20160504
Phidget: s/n 628179	Sensor 7: GALT s/n 20160504
	Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)

Gauge 1:	Plank
Gauge 2:	Stud
Gauge 3:	Stud
Gauge 4:	Stud
Gauge 5:	Plank
Gauge 6:	Stud
Gauge 7:	Plank
Gauge 8:	Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:00 AM	Temp:	20 °C
Finish:	11:41 PM	%RH	19 %RH

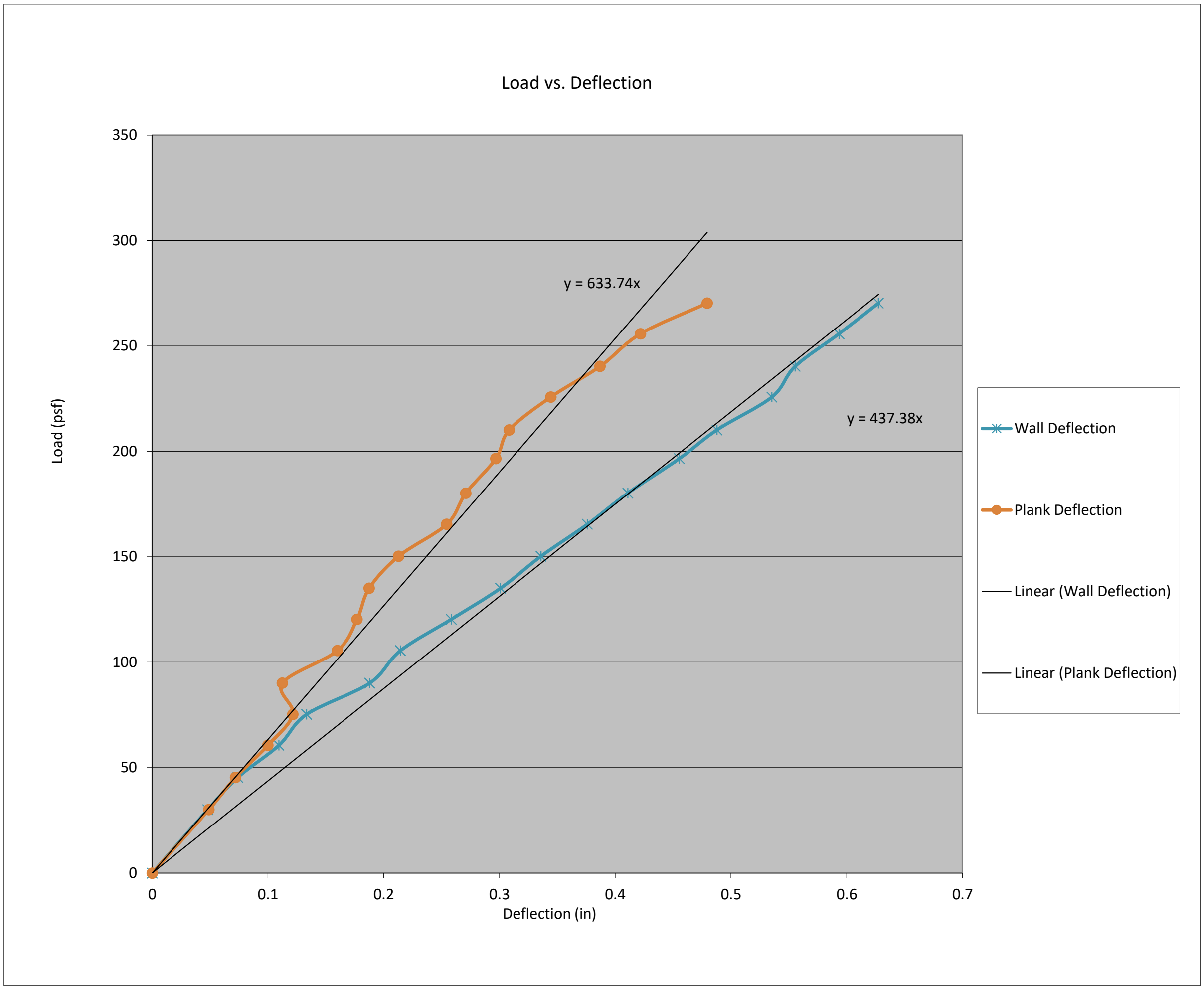
Test Assembly

Width (in)	Length (in)	Horizontal Clip Spacing (in)
48.0	96.0	16

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.1**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.1**	10 sec.	0.138	0.084	0.047	0.025	0.138	0.094	0.085	0.053	
0	**0.0**	1-5mins	0.000	0.006	0.013	0.000	0.013	0.016	0.003	0.003	
45	**45.4**	10 sec.	0.222	0.141	0.084	0.050	0.225	0.159	0.144	0.100	
0	**0.0**	1-5mins	0.019	0.006	0.019	0.016	0.006	0.009	0.006	0.009	
60	**60.6**	10 sec.	0.319	0.203	0.131	0.056	0.310	0.235	0.182	0.144	
0	**0.0**	1-5mins	0.009	0.013	0.025	0.006	0.022	0.022	0.006	0.016	
75	**75.3**	10 sec.	0.397	0.257	0.163	0.084	0.391	0.294	0.226	0.163	
0	**0.0**	1-5mins	0.016	0.016	0.034	0.009	0.025	0.028	0.006	0.009	
90	**90.1**	10 sec.	0.460	0.332	0.191	0.097	0.476	0.363	0.279	0.216	
0	**0.0**	1-5mins	0.019	0.025	0.044	0.013	0.034	0.340	0.013	0.009	
105	**105.5**	10 sec.	0.573	0.388	0.225	0.122	0.560	0.438	0.338	0.241	
0	**0.0**	1-5mins	0.019	0.031	0.041	0.025	0.047	0.034	0.025	0.009	
120	**120.4**	10 sec.	0.654	0.454	0.244	0.147	0.626	0.500	0.385	0.279	
0	**0.0**	1-5mins	0.034	0.034	0.056	0.025	0.056	0.038	0.016	0.019	
135	**135.1**	10 sec.	0.738	0.526	0.278	0.172	0.720	0.575	0.420	0.313	
0	**0.0**	1-5mins	0.050	0.038	0.053	0.034	0.050	0.050	0.022	0.019	
150	**150.3**	10 sec.	0.829	0.594	0.316	0.200	0.798	0.638	0.479	0.351	
0	**0.0**	1-5mins	0.050	0.050	0.063	0.031	0.069	0.059	0.031	0.025	
165	**165.4**	10 sec.	0.932	0.651	0.344	0.206	0.886	0.704	0.539	0.376	
0	**0.0**	1-5mins	0.059	0.050	0.066	0.041	0.075	0.056	0.031	0.022	
180	**180.2**	10 sec.	1.017	0.716	0.372	0.238	0.961	0.776	0.567	0.398	
0	**0.0**	1-5mins	0.059	0.059	0.069	0.044	0.081	0.069	0.031	0.041	
195	**196.6**	10 sec.	1.123	0.795	0.416	0.263	1.064	0.857	0.617	0.432	
0	**0.0**	1-5mins	0.081	0.059	0.075	0.038	0.087	0.078	0.034	0.025	
210	**210.2**	10 sec.	1.192	0.851	0.438	0.288	1.146	0.916	0.661	0.454	
0	**0.0**	1-5mins	0.084	0.059	0.075	0.053	0.091	0.063	0.047	0.028	
225	**225.8**	10 sec.	1.308	0.926	0.478	0.303	1.246	1.001	0.721	0.501	
0	**0.0**	1-5mins	0.103	0.075	0.091	0.053	0.103	0.084	0.044	0.038	
240	**240.3**	10 sec.	1.408	0.976	0.510	0.331	1.324	1.066	0.780	0.532	
0	**0.0**	1-5mins	0.106	0.075	0.094	0.050	0.128	0.078	0.060	0.050	
255	**255.8**	10 sec.	1.514	1.042	0.541	0.356	1.409	1.142	0.815	0.579	
0	**0.0**	1-5mins	0.131	0.081	0.100	0.050	0.135	0.091	0.088	0.044	
270	**270.3**	10 sec.	1.624	1.104	0.572	0.381	1.509	1.185	0.856	0.600	
0	**0.0**	1-5mins	0.147	0.091	0.106	0.072	0.147	0.100	0.091	0.056	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**270.3**	Tape disengaged and machine psf doesn't go up. It remains @ 254 psf (*260)

Test#:	1-1	
Max Load	270.3	psf
Allowable Design Load (ASD) = Max Load / 2	135.2	psf
Deflection Service Load (ASD) = Allowable * 0.7	94.6	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.267	in
Wall Deflection @ Deflection Service Load (ASD)	0.2163	in
Plank Deflection @ Deflection Service Load (ASD)	0.1493	in



Test: **Transverse Load - Negative Wind Load** **Test#: 1-2**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 23-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

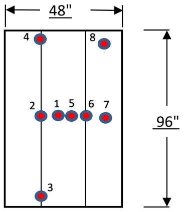
Project#: 0093
Technician(s): Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

Installation:
Configuration: P22 clips w/ 2" stress plates @ 16" O.C. into studs
Framing: 2x6 spf wood studs
Fastener: 1/4-10 x 4" Hex Head STD HD6 Screws
Sheathing: 7/16" OSB w/ 2" 20 PSI Rigid Insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results
Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

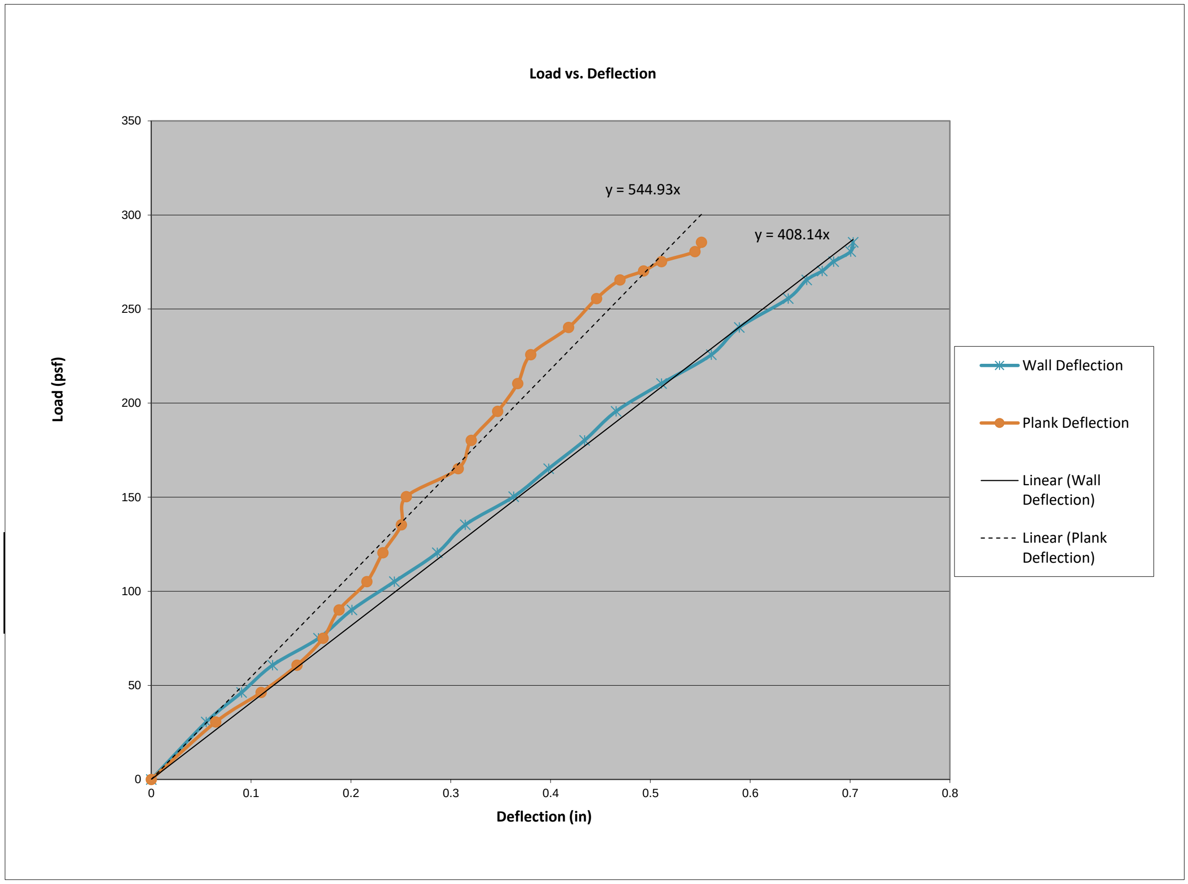
Time/Temp/RH:			
Start:	12:35 AM	Temp:	20.2 °C
Finish:	2:42 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
48.0	96.0	16

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.2**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.5**	10 sec.	0.166	0.094	0.022	0.056	0.138	0.109	0.081	0.110	
0	**0.0**	1-5mins	0.019	0.003	0.006	0.009	0.013	0.025	0.003	0.016	
45	**46.2**	10 sec.	0.307	0.197	0.097	0.116	0.311	0.197	0.175	0.200	
0	**0.0**	1-5mins	0.063	0.053	0.056	0.037	0.072	0.028	0.016	0.025	
60	**60.7**	10 sec.	0.404	0.253	0.122	0.141	0.383	0.263	0.213	0.235	
0	**0.0**	1-5mins	0.069	0.050	0.062	0.025	0.078	0.038	0.047	0.028	
75	**75.0**	10 sec.	0.494	0.322	0.153	0.156	0.483	0.322	0.266	0.269	
0	**0.0**	1-5mins	0.081	0.059	0.072	0.041	0.097	0.053	0.041	0.050	
90	**90.1**	10 sec.	0.576	0.385	0.184	0.184	0.540	0.391	0.297	0.294	
0	**0.0**	1-5mins	0.091	0.069	0.062	0.034	0.107	0.047	0.075	0.049	
105	**105.1**	10 sec.	0.676	0.454	0.209	0.212	0.643	0.466	0.366	0.354	
0	**0.0**	1-5mins	0.109	0.075	0.078	0.044	0.110	0.063	0.063	0.063	
120	**120.5**	10 sec.	0.748	0.513	0.231	0.222	0.706	0.519	0.407	0.388	
0	**0.0**	1-5mins	0.113	0.084	0.081	0.053	0.044	0.066	0.078	0.056	
135	**135.3**	10 sec.	0.826	0.569	0.262	0.247	0.754	0.582	0.438	0.407	
0	**0.0**	1-5mins	0.103	0.081	0.100	0.050	0.135	0.078	0.084	0.059	
150	**150.3**	10 sec.	0.895	0.635	0.278	0.266	0.856	0.644	0.482	0.432	
0	**0.0**	1-5mins	0.119	0.088	0.103	0.050	0.135	0.081	0.072	0.059	
165	**165.2**	10 sec.	1.007	0.698	0.309	0.291	0.938	0.701	0.538	0.454	
0	**0.0**	1-5mins	0.122	0.091	0.103	0.056	0.138	0.088	0.097	0.059	
180	**180.2**	10 sec.	1.079	0.760	0.340	0.312	1.007	0.757	0.544	0.504	
0	**0.0**	1-5mins	0.144	0.100	0.112	0.056	0.154	0.094	0.091	0.059	
195	**195.6**	10 sec.	1.170	0.823	0.368	0.347	1.092	0.823	0.594	0.538	
0	**0.0**	1-5mins	0.160	0.106	0.122	0.062	0.154	0.094	0.091	0.075	
210	**210.4**	10 sec.	1.251	0.889	0.390	0.366	1.170	0.879	0.641	0.566	
0	**0.0**	1-5mins	0.175	0.116	0.122	0.066	0.169	0.103	0.097	0.075	
225	**225.7**	10 sec.	1.342	0.967	0.425	0.387	1.249	0.957	0.691	0.595	
0	**0.0**	1-5mins	0.175	0.125	0.137	0.075	0.173	0.109	0.094	0.081	
240	**240.2**	10 sec.	1.433	1.020	0.450	0.412	1.321	1.010	0.757	0.632	
0	**0.0**	1-5mins	0.194	0.135	0.137	0.084	0.185	0.128	0.116	0.084	
255	**255.6**	10 sec.	1.533	1.092	0.471	0.437	1.424	1.082	0.785	0.645	
0	**0.0**	1-5mins	0.213	0.138	0.147	0.091	0.204	0.134	0.119	0.084	
265	**265.5**	10 sec.	1.605	1.139	0.503	0.462	1.478	1.132	0.807	0.688	
0	**0.0**	1-5mins	0.231	0.150	0.165	0.094	0.213	0.144	0.116	0.106	
270	**270.2**	10 sec.	1.652	1.161	0.506	0.472	1.500	1.157	0.819	0.704	
0	**0.0**	1-5mins	0.231	0.160	0.162	0.100	0.232	0.141	0.131	0.113	
275	**275.2**	10 sec.	1.692	1.186	0.521	0.484	1.547	1.176	0.844	0.732	
0	**0.0**	1-5mins	0.247	0.156	0.162	0.100	0.229	0.153	0.128	0.103	
280	**280.5**	10 sec.	1.749	1.211	0.524	0.497	1.565	1.198	0.857	0.748	
0	**0.0**	1-5mins	0.241	0.163	0.172	0.109	0.232	0.150	0.125	0.113	
285	**285.5**	10 sec.	1.774	1.223	0.534	0.506					
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**285.5**	Air leak. After reaching 285.5 psf the pressure drops rapidly. Tape disengaged.

Test#: **1-2**		
Max Load	285.5	psf
Allowable Design Load (ASD) = Max Load / 2	142.8	psf
Deflection Service Load (ASD) = Allowable * 0.7	99.9	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.267	in
Wall Deflection @ Deflection Service Load (ASD)	0.2448	in
Plank Deflection @ Deflection Service Load (ASD)	0.1834	in



Test: **Transverse Load - Negative Wind Load** **Test#: 1-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 24-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

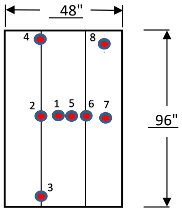
Project#: 0093
Technician(s): Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

Installation:
Configuration: P22 clips w/ 2" stress plates @ 16" O.C. into studs
Framing: 2x6 spf wood studs
Fastener: 1/4-10 x 4" Hex Head STD HD6 Screws
Sheathing: 7/16" OSB w/ 2" 20 PSI Rigid Insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results
Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

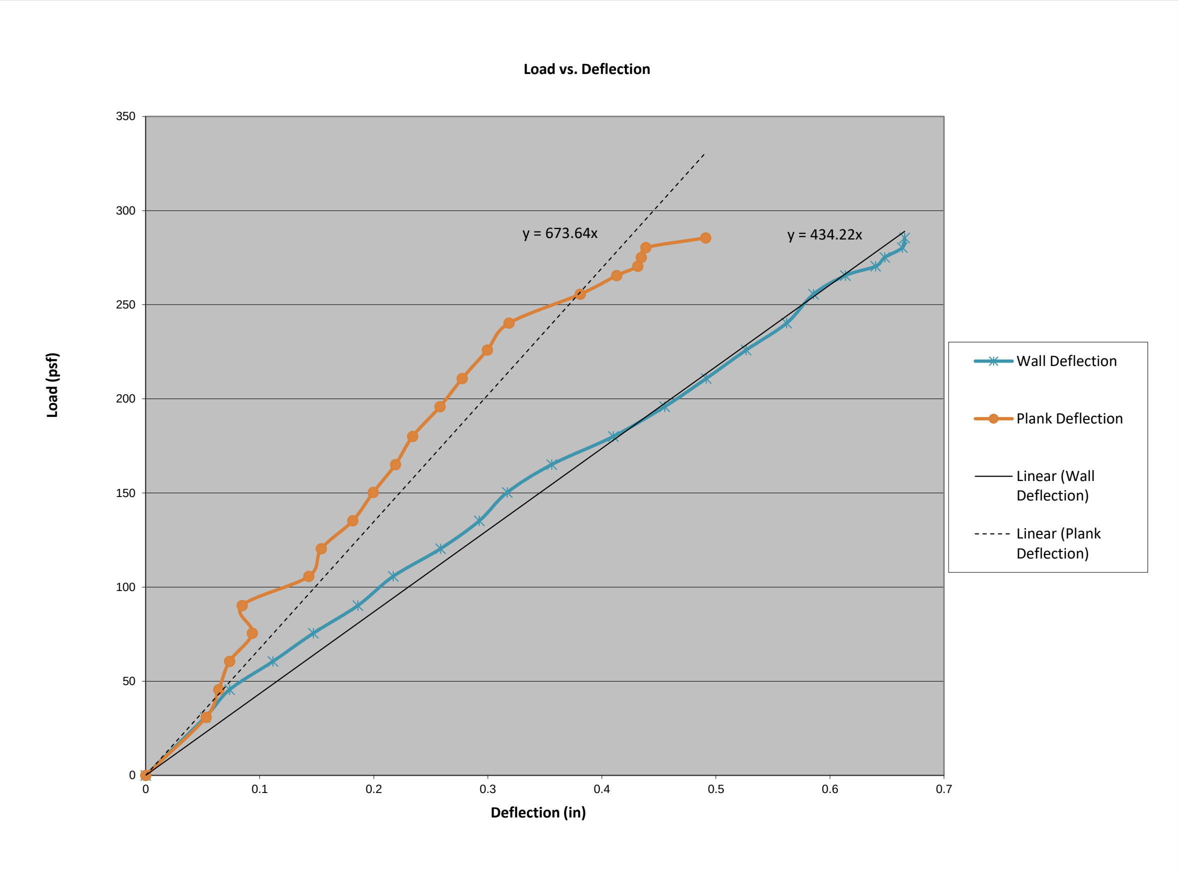
Time/Temp/RH:			
Start:	1:00 PM	Temp:	20.7 °C
Finish:	3:00 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
48.0	96.0	16

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.6**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.8**	10 sec.	0.175	0.113	0.031	0.091	0.198	0.131	0.110	0.197	
0	**0.0**	1-5mins	0.000	0.013	0.003	0.000	0.006	0.000	0.006	0.003	
45	**45.5**	10 sec.	0.228	0.147	0.047	0.100	0.217	0.181	0.128	0.263	
0	**0.0**	1-5mins	0.000	0.000	0.003	0.000	0.000	0.000	0.009	0.006	
60	**60.5**	10 sec.	0.294	0.207	0.063	0.128	0.302	0.234	0.163	0.272	
0	**0.0**	1-5mins	0.000	0.000	0.003	0.019	0.016	0.003	0.000	0.009	
75	**75.5**	10 sec.	0.375	0.263	0.088	0.144	0.386	0.300	0.210	0.304	
0	**0.0**	1-5mins	0.000	0.019	0.003	0.009	0.009	0.006	0.006	0.009	
90	**90.2**	10 sec.	0.419	0.322	0.109	0.163	0.443	0.347	0.247	0.338	
0	**0.0**	1-5mins	0.013	0.016	0.006	0.013	0.019	0.016	0.009	0.006	
105	**105.7**	10 sec.	0.537	0.375	0.138	0.178	0.531	0.413	0.269	0.338	
0	**0.0**	1-5mins	0.003	0.016	0.013	0.016	0.013	0.016	0.016	0.025	
120	**120.4**	10 sec.	0.606	0.435	0.156	0.197	0.600	0.469	0.323	0.382	
0	**0.0**	1-5mins	0.006	0.025	0.013	0.018	0.006	0.016	0.022	0.013	
135	**135.2**	10 sec.	0.691	0.491	0.178	0.219	0.688	0.528	0.357	0.407	
0	**0.0**	1-5mins	0.013	0.025	0.019	0.019	0.028	0.022	0.019	0.028	
150	**150.3**	10 sec.	0.759	0.544	0.213	0.241	0.738	0.575	0.382	0.426	
0	**0.0**	1-5mins	0.022	.0.1	0.028	0.019	0.041	0.022	0.025	0.028	
165	**165.1**	10 sec.	0.837	0.598	0.228	0.256	0.817	0.638	0.423	0.463	
0	**0.0**	1-5mins	0.022	0.031	0.034	0.016	0.047	0.034	0.022	0.013	
180	**180.0**	10 sec.	0.922	0.670	0.250	0.270	0.883	0.706	0.464	0.476	
0	**0.0**	1-5mins	0.034	0.041	0.038	0.025	0.052	0.034	0.022	0.025	
195	**195.8**	10 sec.	1.010	0.738	0.272	0.294	0.980	0.766	0.504	0.504	
0	**0.0**	1-5mins	0.041	0.041	0.038	0.025	0.060	0.050	0.034	0.031	
210	**210.8**	10 sec.	1.091	0.792	0.288	0.313	1.027	0.835	0.545	0.554	
0	**0.0**	1-5mins	0.053	0.053	0.047	0.025	0.069	0.041	0.025	0.041	
225	**225.9**	10 sec.	1.163	0.842	0.306	0.325	1.137	0.885	0.570	0.573	
0	**0.0**	1-5mins	0.056	0.059	0.056	0.034	0.069	0.097	0.038	0.041	
240	**240.2**	10 sec.	1.241	0.901	0.325	0.353	1.209	0.944	0.617	0.613	
0	**0.0**	1-5mins	0.056	0.063	0.059	0.034	0.094	0.063	0.038	0.440	
255	**255.6**	10 sec.	1.366	0.951	0.350	0.381	1.301	1.019	0.642	0.630	
0	**0.0**	1-5mins	0.056	0.075	0.072	0.034	0.113	0.066	0.041	0.022	
265	**265.5**	10 sec.	1.437	0.995	0.369	0.394	1.360	1.053	0.686	0.651	
0	**0.0**	1-5mins	0.087	0.069	0.072	0.041	0.107	0.069	0.041	0.050	
270	**270.4**	10 sec.	1.487	1.026	0.378	0.394	1.407	1.085	0.680	0.673	
0	**0.0**	1-5mins	0.100	0.078	0.081	0.041	0.116	0.075	0.050	0.041	
275	**275.1**	10 sec.	1.512	1.045	0.394	0.400	1.430	1.110	0.700	0.651	
0	**0.0**	1-5mins	0.119	0.081	0.081	0.044	0.113	0.810	0.060	0.047	
280	**280.3**	10 sec.	1.541	1.070	0.394	0.419	1.461	1.135	0.724	0.685	
0	**0.0**	1-5mins	0.125	0.084	0.081	0.047	0.126	0.091	0.056	0.053	
285	**285.5**	10 sec.	1.606	1.083	0.410	0.425	1.498	1.147	0.736	0.714	
0	**0.0**	1-5mins	0.144	0.084	0.094	0.044	0.135	0.091	0.066	0.044	
290	**289.0**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**289.0**	Tuck tape diengaged. Airleak.

Test#: **1-3**		
Max Load	289.0	psf
Allowable Design Load (ASD) = Max Load / 2	144.5	psf
Deflection Service Load (ASD) = Allowable * 0.7	101.2	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.267	in
Wall Deflection @ Deflection Service Load (ASD)	0.2329	in
Plank Deflection @ Deflection Service Load (ASD)	0.1502	in



Test: **Transverse Load - Negative Wind Load** **Test#: 2-1**
Project#: 0093
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Technician(s): Jordan
Date: 02-Nov-22
Reviewer: C. Bowness
Product: **P46V Plank**
Location: Fastplank, Calgary AB
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

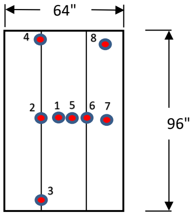
Installation:
Configuration: Clips @ 32" o/c straight
Framing: 2x4 SPF No.2 @ 16" o/c
Fastener: 1/4" - 4" long galvanized lag screw
Sheathing: 7/16" OSB w/ 2" thick 20 psi XPS insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	11:34 AM	Temp:	20 °C
Finish:	12:00 PM	%RH	23 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.6**	10 sec.	0.392	0.328	0.097	0.069	0.354	0.138	0.182	0.131	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**45.4**	10 sec.	0.627	0.535	0.156	0.109	0.564	0.222	0.291	0.175	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
60	**60.5**	10 sec.	0.877	0.766	0.203	0.150	0.789	0.329	0.404	0.260	
0	**0.0**	1-5mins	0.025	0.031	0.016	0.016	0.016	0.022	0.003	0.006	
75	**75.6**	10 sec.	1.137	1.013	0.253	0.206	1.040	0.444	0.538	0.329	
0	**0.0**	1-5mins	0.034	0.047	0.022	0.025	0.041	0.022	0.013	0.016	
90	**90.2**	10 sec.	1.451	1.276	0.319	0.265	1.328	0.560	0.695	0.407	
0	**0.0**	1-5mins	0.053	0.063	0.031	0.025	0.044	0.028	0.022	0.016	
105	**106.7**	10 sec.	1.798	1.564	0.384	0.328	1.660	0.692	0.864	0.491	
0	**0.0**	1-5mins	0.072	0.072	0.031	0.034	0.053	0.038	0.041	0.019	
120	**120.7**	10 sec.	2.093	1.820	0.444	0.387	1.920	0.814	1.005	0.567	
0	**0.0**	1-5mins	0.110	0.097	0.037	0.041	0.088	0.047	0.050	0.038	
135	**136.7**	10 sec.	2.440	2.127	0.519	0.462	2.299	0.964	1.211	0.670	
0	**0.0**	1-5mins	0.125	0.097	0.047	0.041	0.119	0.047	0.072	0.038	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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		10 sec.									
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0	**0.0**	1-5mins									
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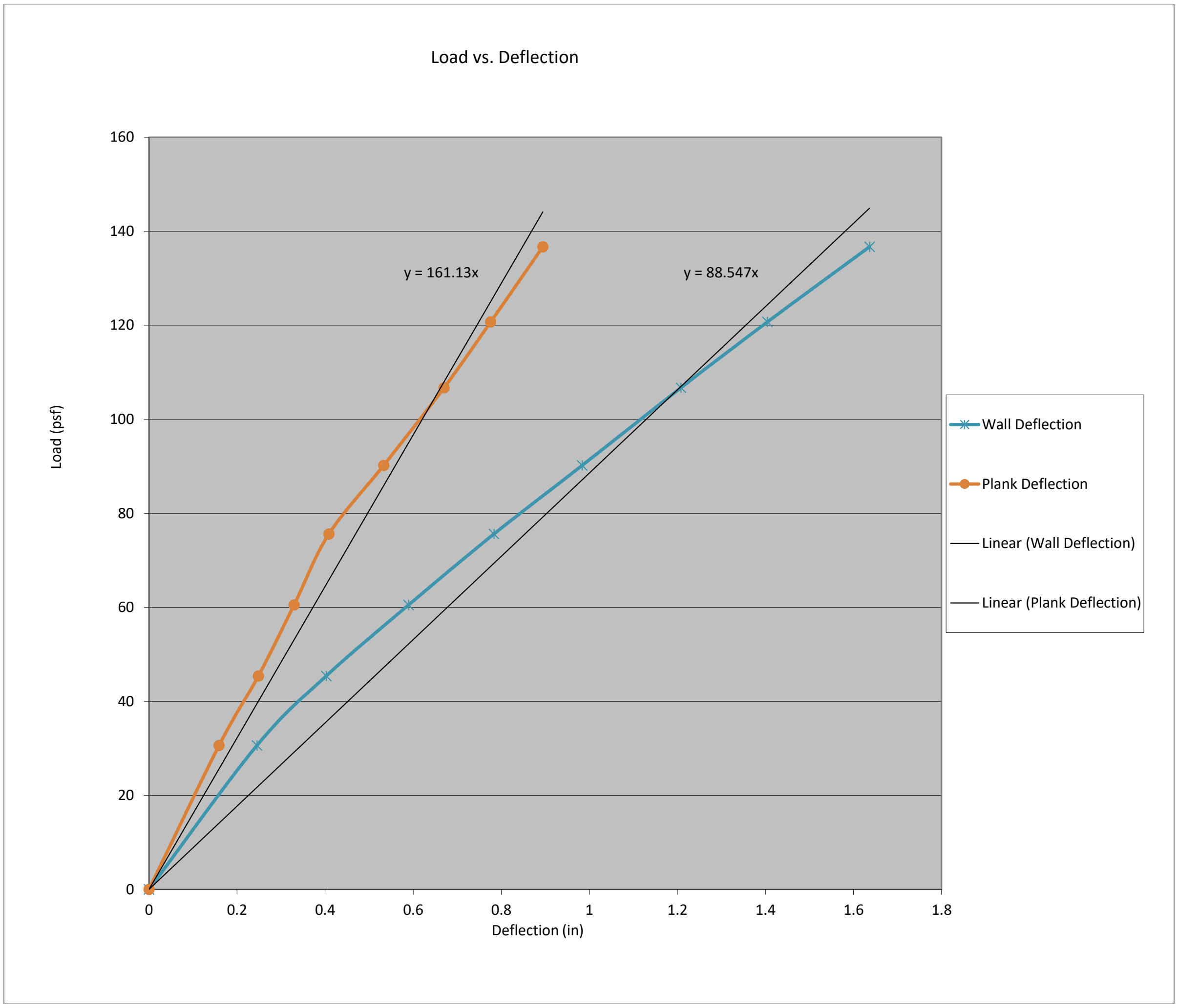
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**136.7**	Clips disengaged while loading up to the 150 psf target

Test#: **2-1**		
Max Load	136.7	psf
Allowable Design Load (ASD) = Max Load / 2	68.4	psf
Deflection Service Load (ASD) = Allowable * 0.7	47.8	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.5403	in
Plank Deflection @ Deflection Service Load (ASD)	0.2969	in



Test:	**Transverse Load - Negative Wind Load** **Test#: 2-2**	Project#:	0093
Client:	FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8	Technician(s):	Jordan
Date:	03-Nov-22	Reviewer:	C. Bowness
Product:	**P46V Plank**	Location:	Fastplank, Calgary AB

Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

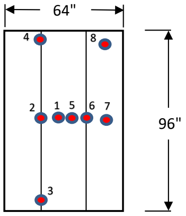
Configuration:	Clips @ 32" o/c straight
Framing:	2x4 SPF No.2 @ 16" o/c
Fastener:	1/4" - 4" long galvanized lag screw
Sheathing:	7/16" OSB w/ 2" thick 20 psi XPS insulation
Air Seal:	Tape used to air seal plank gaps, tape will not influece test results

Equipment:

<u>Pressure Chamber</u>	<u>Deflection Gauges(Phidget potentiometers)</u>
Motor: Greenco s/n XB810-7AH27	Sensor 1: GALT s/n 20160504
Press. Controller: s/n G205141344	Sensor 2: GALT s/n 20160504
Pressure Sensors:	Sensor 3: GALT s/n 20160504
+/- 2 kPa: p/n 1136	Sensor 4: GALT s/n 20160504
+/- 7 kPa: p/n 1137	Sensor 5: GALT s/n 20160504
50 kPa: p/n 1138	Sensor 6: GALT s/n 20160504
Phidget: s/n 628179	Sensor 7: GALT s/n 20160504
	Sensor 8: GALT s/n 20160504

<u>Gauge Locations</u>
(not to scale)

Gauge 1:	Plank
Gauge 2:	Stud
Gauge 3:	Stud
Gauge 4:	Stud
Gauge 5:	Plank
Gauge 6:	Stud
Gauge 7:	Plank
Gauge 8:	Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	2:45 AM	Temp:	20.8 °C
Finish:	3:08 PM	%RH	21 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.6**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.4**	10 sec.	0.366	0.279	0.069	0.066	0.332	0.122	0.176	0.147	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**45.2**	10 sec.	0.576	0.460	0.109	0.166	0.517	0.197	0.279	0.216	
0	**0.0**	1-5mins	0.034	0.031	0.019	0.016	0.028	0.016	0.009	0.016	
60	**60.5**	10 sec.	0.823	0.692	0.166	0.172	0.742	0.313	0.401	0.313	
0	**0.0**	1-5mins	0.053	0.041	0.019	0.025	0.034	0.022	0.022	0.019	
75	**75.7**	10 sec.	1.008	0.864	0.209	0.213	0.924	0.388	0.483	0.366	
0	**0.0**	1-5mins	0.053	0.047	0.025	0.031	0.044	0.031	0.019	0.019	
90	**91.1**	10 sec.	1.255	1.089	0.266	0.272	1.137	0.485	0.602	0.450	
0	**0.0**	1-5mins	0.066	0.056	0.034	0.041	0.056	0.031	0.019	0.022	
105	**106.4**	10 sec.	1.499	1.293	0.316	0.322	1.381	0.591	0.736	0.519	
0	**0.0**	1-5mins	0.075	0.066	0.034	0.050	0.063	0.047	0.016	0.028	
120	**120.6**	10 sec.	1.775	1.528	0.372	0.388	1.641	0.710	0.884	0.603	
0	**0.0**	1-5mins	0.094	0.072	0.041	0.056	0.088	0.047	0.038	0.028	
135	**129.9**	10 sec.	1.947	1.691	0.422	0.435	1.817	0.775	0.968	0.663	
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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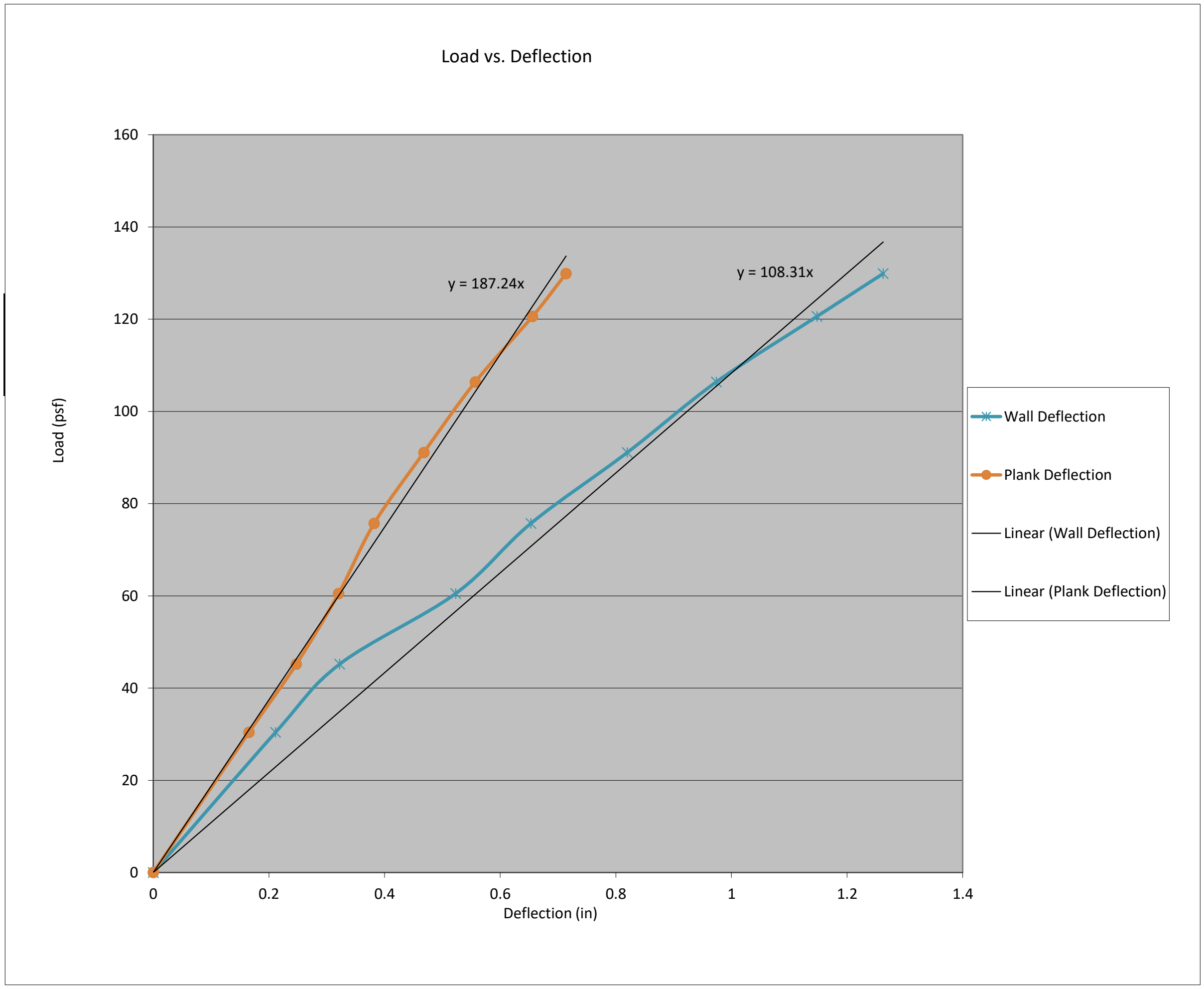
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**129.9**	2x4 broke at around 132 psf.

Test#: **2-2**		
Max Load	129.9	psf
Allowable Design Load (ASD) = Max Load / 2	65.0	psf
Deflection Service Load (ASD) = Allowable * 0.7	45.5	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.4198	in
Plank Deflection @ Deflection Service Load (ASD)	0.2428	in



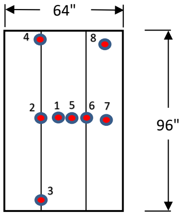
Test: **Transverse Load - Negative Wind Load** **Test#: 2-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 09-Nov-22
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Jordan
Reviewer: C. Bowness
Location: Fastplank, Calgary AB

Installation:
Configuration: Clips @ 32" o/c straight
Framing: 2x4 SPF No.2 @ 16" o/c
Fastener: 1/4" - 4" long galvanized lag screw
Sheathing: 7/16" OSB w/ 2" thick 20 psi XPS insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results
Equipment:

Pressure Chamber	Deflection Gauges(Phidget potentiometers)
Motor: Greenco s/n XB810-7AH27	Sensor 1: GALT s/n 20160504
Press. Controller: s/n G205141344	Sensor 2: GALT s/n 20160504
Pressure Sensors:	Sensor 3: GALT s/n 20160504
+/- 2 kPa: p/n 1136	Sensor 4: GALT s/n 20160504
+/- 7 kPa: p/n 1137	Sensor 5: GALT s/n 20160504
50 kPa: p/n 1138	Sensor 6: GALT s/n 20160504
Phidget: s/n 628179	Sensor 7: GALT s/n 20160504
	Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	1:25 AM	Temp:	19.7 °C
Finish:	N/A PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.0**	10 sec.	0.385	0.385	0.010	0.075	0.358	0.147	0.182	0.138	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**45.8**	10 sec.	0.638	0.575	0.156	0.112	0.568	0.256	0.285	0.216	
0	**0.0**	1-5mins	0.044	0.041	0.025	0.006	0.047	0.025	0.019	0.016	
60	**60.1**	10 sec.	0.876	0.797	0.197	0.162	0.787	0.347	0.388	0.276	
0	**0.0**	1-5mins	0.059	0.056	0.034	0.016	0.053	0.031	0.025	0.016	
75	**75.4**	10 sec.	1.129	1.053	0.256	0.221	1.023	0.463	0.507	0.357	
0	**0.0**	1-5mins	0.069	0.056	0.041	0.016	0.060	0.031	0.025	0.019	
90	**90.5**	10 sec.	1.430	1.325	0.271		0.578	0.585	0.645	0.429	
0	**0.0**	1-5mins	0.084	0.072	0.050	0.025	0.075	0.041	0.031	0.028	
105	**105.1**	10 sec.	1.755	1.602	0.381	0.337	1.588	0.710	0.805	0.519	
0	**0.0**	1-5mins	0.100	0.081	0.050	0.031	0.097	0.050	0.041	0.022	
120	**120.8**	10 sec.	2.065	1.888	0.447	0.402	1.908	0.841	0.977	0.607	
0	**0.0**	1-5mins	0.116	0.097	0.059	0.041	0.107	0.056	0.041	0.034	
135	**136.2**	10 sec.	2.412	2.179	0.528	0.477	2.237	0.972	1.159	0.648	
0	**0.0**	1-5mins	0.150	0.122	0.075	0.047	0.144	0.066	0.059	0.038	
150	**152.1**	10 sec.	2.775	2.513	0.609	0.543	2.630	1.122	1.378	0.789	
0	**0.0**	1-5mins	0.197	0.138	0.091	0.056	0.191	0.075	0.091	0.056	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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		10 sec.									
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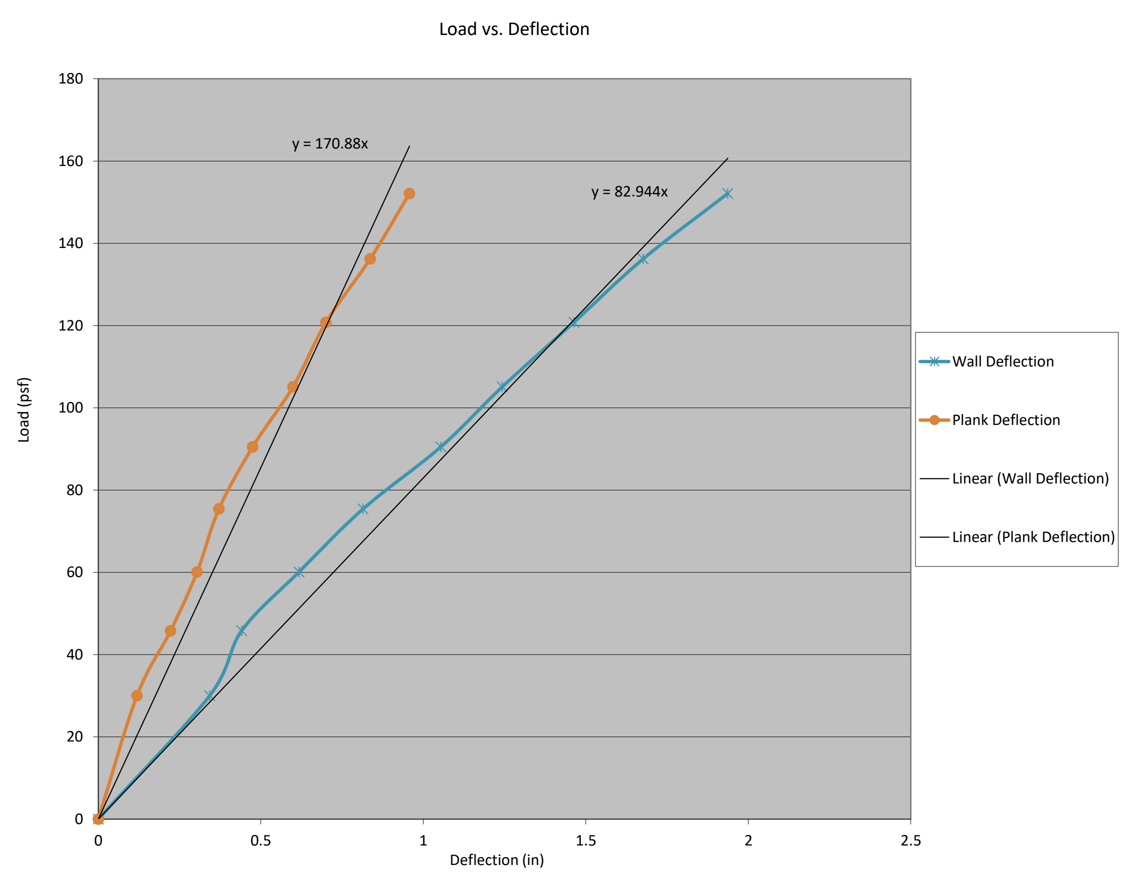
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**152.1**	NOT RECORDED

Test#:	**2-3**	
Max Load	152.1	psf
Allowable Design Load (ASD) = Max Load / 2	76.1	psf
Deflection Service Load (ASD) = Allowable * 0.7	53.2	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.6418	in
Plank Deflection @ Deflection Service Load (ASD)	0.3115	in



Test: **Transverse Load - Negative Wind Load** **Test#: 3-1**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 06-Feb-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

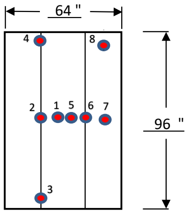
Installation:
Configuration: P22 clips @ 32" O.C. into GIRT
Framing: 2x4 spf wood studs
Fastener: #10-16x3/4" HWH Tek w EPDM into Girt, #10-12x1-1/2" HWH w/EPDM into wood
Sheathing: 7/16" OSB w/ 2" 20 PSI Rigid Insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	Taken [✓]
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	1:23 AM	Temp:	20.6 °C
Finish:	2:01 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.9**	10 sec.	0.425	0.354	0.141	0.066	0.394	0.166	0.188	0.141	
0	**0.0**	1-5mins	0.013	0.016	0.016	0.000	0.019	0.009	0.009	0.000	
45	**45.4**	10 sec.	0.653	0.504	0.172	0.106	0.604	0.247	0.288	0.213	
0	**0.0**	1-5mins	0.031	0.016	0.022	0.000	0.025	0.009	0.006	0.005	
60	**60.3**	10 sec.	0.919	0.685	0.222	0.140	0.864	0.338	0.413	0.279	
0	**0.0**	1-5mins	0.056	0.025	0.031	0.006	0.053	0.009	0.022	0.006	
75	**75.5**	10 sec.	1.241	0.892	0.272	0.187	1.152	0.444	0.550	0.357	
0	**0.0**	1-5mins	0.119	0.031	0.041	0.006	0.110	0.016	0.041	0.003	
90	**90.8**	10 sec.	1.688	1.095	0.322	0.228	1.565	0.538	0.741	0.463	
0	**0.0**	1-5mins	0.275	0.031	0.041	0.000	0.244	0.009	0.106	0.028	
105	**94.0**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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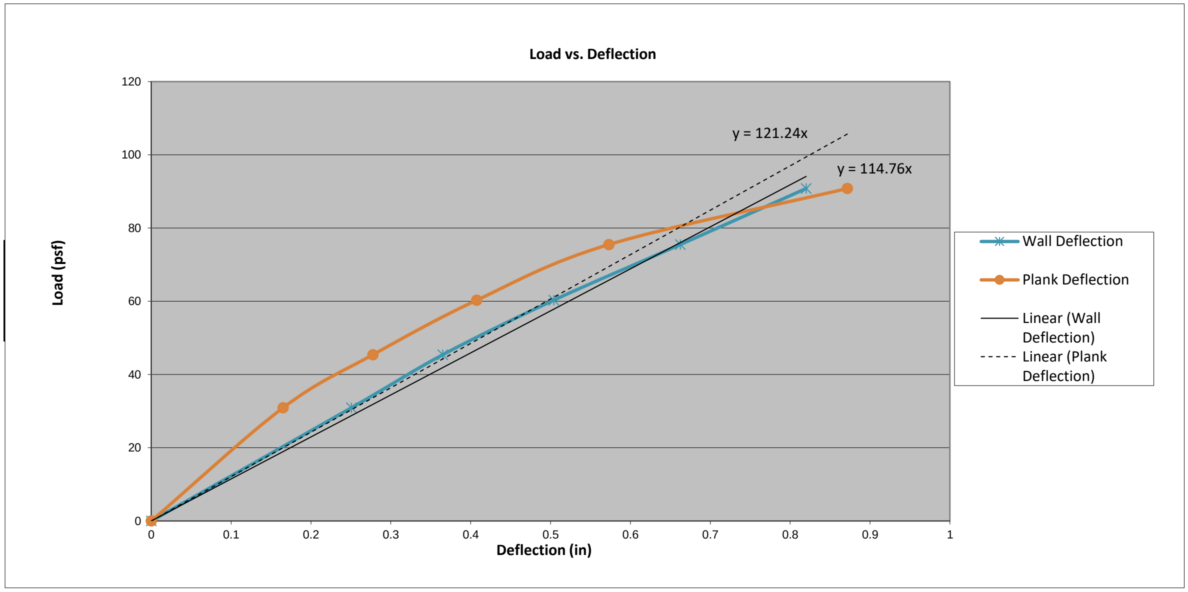
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**94.0**	Clips disengaged. #10-12x1-1/2" HWH screw (OSB to Stud) disengaged.

Test#: **3-1**		
Max Load	94.0	psf
Allowable Design Load (ASD) = Max Load / 2	47.0	psf
Deflection Service Load (ASD) = Allowable * 0.7	32.9	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.2867	in
Plank Deflection @ Deflection Service Load (ASD)	0.2714	in



Test:	**Transverse Load - Negative Wind Load**	**Test#: 3-2**	Project#:	0093
Client:	FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8		Technician(s):	Denzel
Date:	07-Feb-23		Reviewer:	Chris
Product:	**P46V Plank**		Location:	Fastplank, Calgary AB

Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

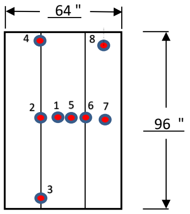
Configuration:	P22 clips @ 32" O.C. into GIRT
Framing:	2x4 spf wood studs
Fastener:	#10-16x3/4" HWH Tek w EPDM into Girt, #10-12x1-1/2" HWH w/EPDM into wood
Sheathing:	7/16" OSB w/ 2" 20 PSI Rigid Insulation
Air Seal:	Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber	Deflection Gauges(Phidget potentiometers)
Motor: Greenco s/n XB810-7AH27	Sensor 1: GALT s/n 20160504
Press. Controller: s/n G205141344	Sensor 2: GALT s/n 20160504
Pressure Sensors:	Sensor 3: GALT s/n 20160504
+/- 2 kPa: p/n 1136	Sensor 4: GALT s/n 20160504
+/- 7 kPa: p/n 1137	Sensor 5: GALT s/n 20160504
50 kPa: p/n 1138	Sensor 6: GALT s/n 20160504
Phidget: s/n 628179	Sensor 7: GALT s/n 20160504
	Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)

- Gauge 1: Plank
- Gauge 2: Stud
- Gauge 3: Stud
- Gauge 4: Stud
- Gauge 5: Plank
- Gauge 6: Stud
- Gauge 7: Plank
- Gauge 8: Plank



	Description	Taken [✓]
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	2:50 PM	Temp:	20.8 °C
Finish:	3:30 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.8**	10 sec.	0.472	-	0.090	0.075	0.430	0.175	0.197	0.153	
0	**0.0**	1-5mins	0.016	-	0.006	0.000	0.019	0.006	0.000	0.000	
45	**45.3**	10 sec.	0.719	-	0.147	0.109	0.669	0.263	0.316	0.222	
0	**0.0**	1-5mins	0.041	-	0.016	0.009	0.041	0.016	0.013	0.013	
60	**60.4**	10 sec.	1.001	-	0.197	0.150	0.914	0.363	0.438	0.291	
0	**0.0**	1-5mins	0.106	-	0.025	0.009	0.104	0.016	0.038	0.013	
75	**75.5**	10 sec.	1.320	-	0.246	0.190	1.221	0.472	0.569	0.377	
0	**0.0**	1-5mins	0.200	-	0.041	0.009	0.188	0.006	0.078	0.028	
90	**90.5**	10 sec.	1.639	-	0.296	0.225	1.516	0.578	0.719	0.451	
0	**0.0**	1-5mins	0.247	-	0.050	0.009	0.217	0.025	0.084	0.031	
105	**105.5**	10 sec.	1.983	-	0.362	0.265	1.843	0.703	0.860	0.542	
0	**0.0**	1-5mins	0.347	-	0.066	0.009	0.301	0.031	0.122	0.044	
120	**112.0**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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0	**0.0**	1-5mins									
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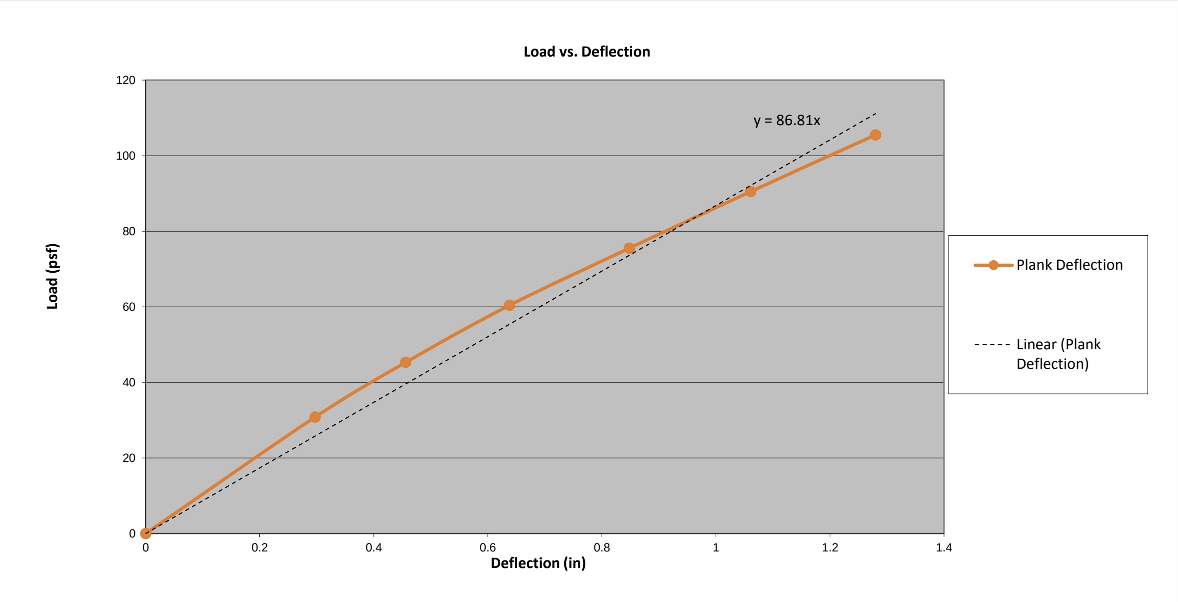
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**112.0**	Clips disengaged. Screws were not installed O.C. of 2x4 studs, they were almost at the edge.

Test#: **3-2**		
Max Load	112.0	psf
Allowable Design Load (ASD) = Max Load / 2	56.0	psf
Deflection Service Load (ASD) = Allowable * 0.7	39.2	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	-	in
Plank Deflection @ Deflection Service Load (ASD)	0.4516	in



Note: Wall deflection removed due to sensor 2 failure.

Test: **Transverse Load - Negative Wind Load** **Test#: 3-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 15-Feb-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

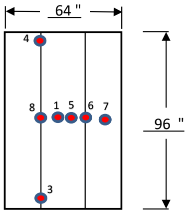
Installation:
Configuration: P22 clips @ 32" O.C. into GIRT
Framing: 2x4 spf wood studs
Fastener: #10-16x3/4" HWH Tek w EPDM into Girt, #10-12x1-1/2" HWH w/EPDM into wood
Sheathing: 7/16" OSB w/ 2" 20 PSI Rigid Insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: -
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Stud



	Description	Taken [✓]
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	1:05 PM	Temp:	20 °C
Finish:	1:38 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.7**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.6**	10 sec.	0.403	-	0.066	0.025	0.373	0.141	0.194	0.307	
0	**0.0**	1-5mins	0.022	-	0.006	0.016	0.019	0.009	0.003	0.009	
45	**45.5**	10 sec.	0.663	-	0.097	0.025	0.612	0.235	0.332	0.482	
0	**0.0**	1-5mins	0.044	-	0.016	0.016	0.035	0.019	0.013	0.014	
60	**60.6**	10 sec.	0.941	-	0.140	0.026	0.872	0.332	0.463	0.673	
0	**0.0**	1-5mins	0.078	-	0.016	0.016	0.060	0.019	0.041	0.019	
75	**75.6**	10 sec.	1.238	-	0.172	0.041	1.160	0.432	0.617	0.870	
0	**0.0**	1-5mins	0.128	-	0.025	0.006	0.113	0.025	0.050	0.025	
90	**90.7**	10 sec.	1.570	-	0.221	0.056	1.468	0.538	0.770	1.086	
0	**0.0**	1-5mins	0.184	-	0.025	0.041	0.160	0.025	0.075	0.034	
105	**105.2**	10 sec.	1.923	-	0.262	0.050	1.791	0.661	0.942	1.302	
0	**0.0**	1-5mins	0.253	-	0.031	0.050	0.229	0.034	0.097	0.050	
120	**110.0**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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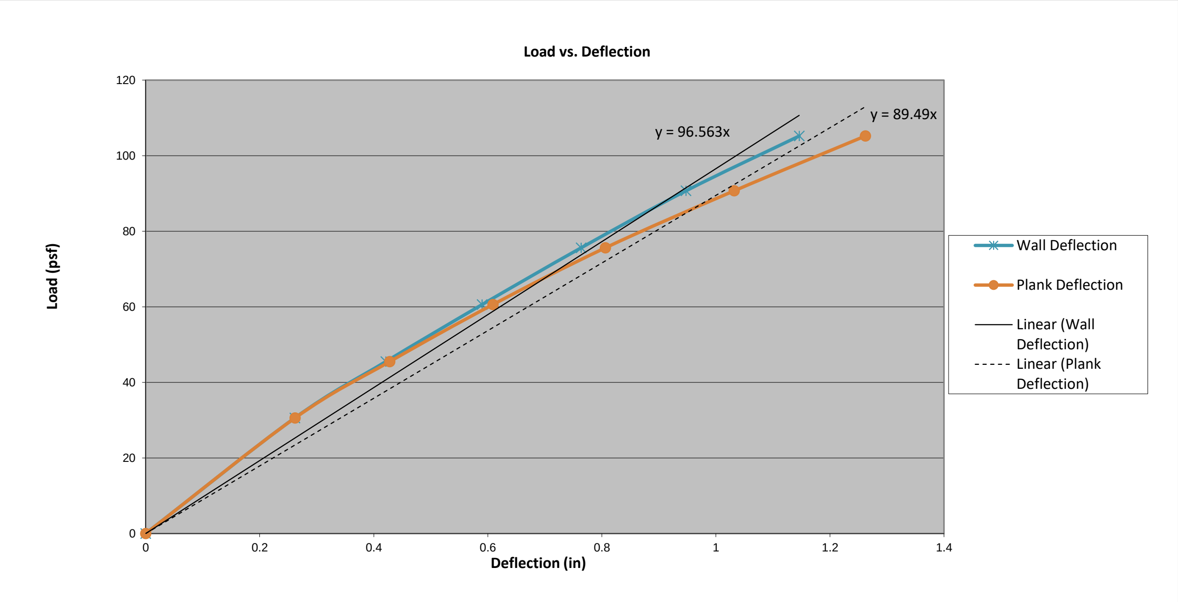
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**110.0**	Screws at studs disengaged.

Test#: **3-3**		
Max Load	110.0	psf
Allowable Design Load (ASD) = Max Load / 2	55.0	psf
Deflection Service Load (ASD) = Allowable * 0.7	38.5	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3987	in
Plank Deflection @ Deflection Service Load (ASD)	0.4302	in



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Test: **Transverse Load - Negative Wind Load** **Test#: 5-1**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 09-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Jordan/Denzel
Reviewer: Chris
Location: Calgary, Ez Trim Factory

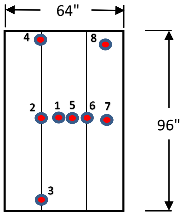
Installation:
Configuration: P22 clips @ 32" O.C. into stud
Framing: 2x4 spf wood studs
Fastener: #10x1-1/2" Long HWH C/W EPDM washer
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	11:30 AM	Temp:	20.5 °C
Finish:	12:20 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.2**	10 sec.	0.479	0.428	0.134		0.410	0.216	0.219	0.166	
0	**0.0**	1-5mins	0.016	0.016	0.016		0.019	0.019	0.009	0.006	
45	**45.7**	10 sec.	0.754	0.682	0.184		0.641	0.344	0.326	0.251	
0	**0.0**	1-5mins	0.041	0.031	0.034		0.025	0.025	0.013	0.003	
60	**60.6**	10 sec.	1.005	0.923	0.238		0.879	0.463	0.460	0.329	
0	**0.0**	1-5mins	0.044	0.041	0.031		0.025	0.025	0.019	0.006	
75	**75.4**	10 sec.	1.283	1.198	0.294		1.145	0.604	0.583	0.407	
0	**0.0**	1-5mins	0.059	0.047	0.041		0.034	0.022	0.013	0.006	
90	**90.7**	10 sec.	1.621	1.498	0.356		1.439	0.742	0.736	0.483	
0	**0.0**	1-5mins	0.075	0.056	0.053		0.047	0.044	0.025	0.019	
		10 sec.									
0	**0.0**	1-5mins									
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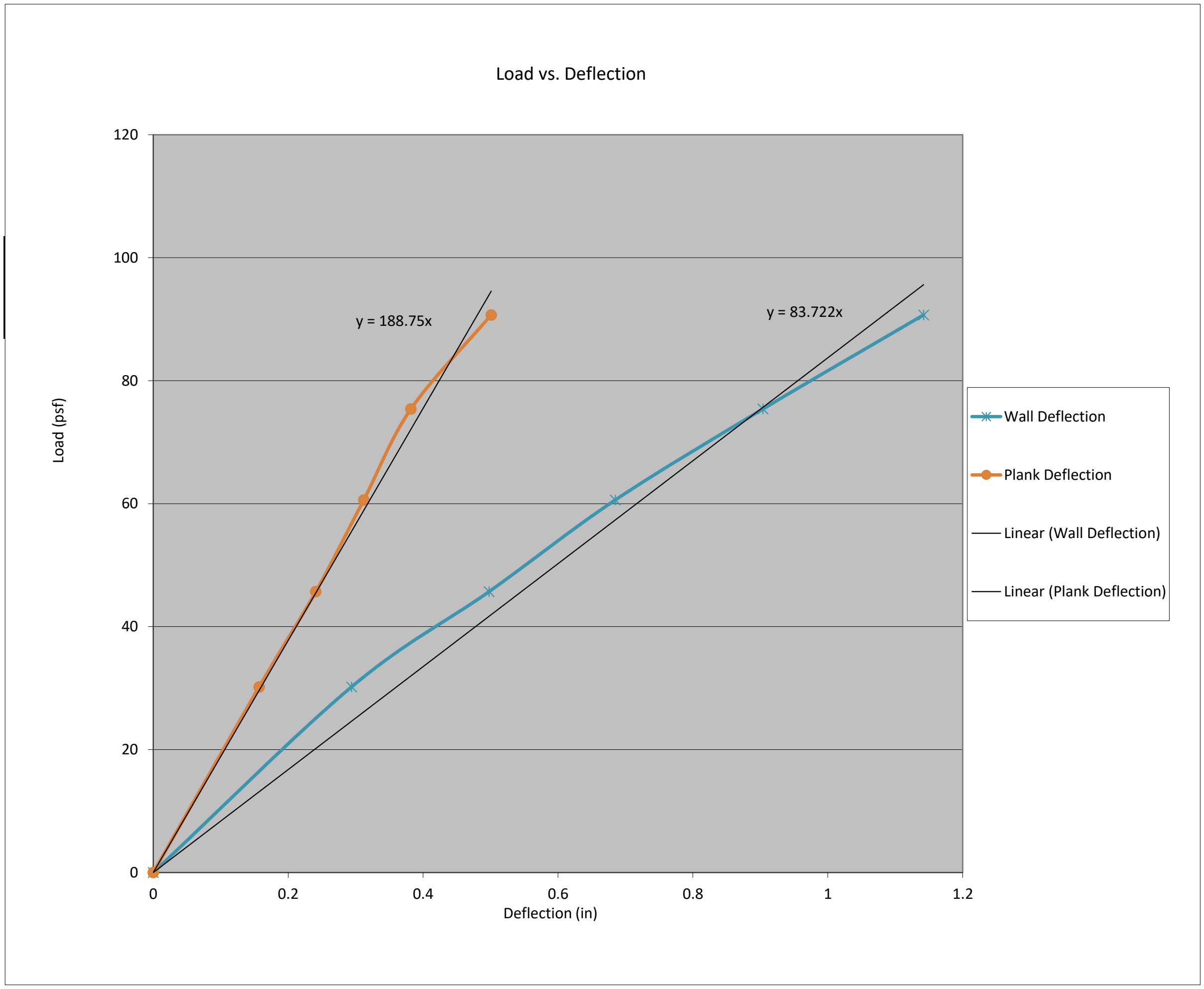
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**90.7**	Stud #3 failed in bending. Failure during loading up to the 105 mark ~93 psf

Test#:	**5-1**	
Max Load	90.7	psf
Allowable Design Load (ASD) = Max Load / 2	45.4	psf
Deflection Service Load (ASD) = Allowable * 0.7	31.7	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3792	in
Plank Deflection @ Deflection Service Load (ASD)	0.1682	in



Test:	**Transverse Load - Negative Wind Load** **Test#: 5-2**	Project#:	0093
Client:	FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8	Technician(s):	Jordan/Denzel
Date:	09-Jan-23	Reviewer:	N/R
Product:	**P46V Plank**	Location:	Calgary, Ez Trim Factory

Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

Configuration:	N/R
Framing:	2x4 spf wood studs
Fastener:	#10x1-1/2" Long wood screws
Sheathing:	7/16" OSB
Air Seal:	Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber	Deflection Gauges(Phidget potentiometers)
Motor: Greenco s/n XB810-7AH27	Sensor 1: GALT s/n 20160504
Press. Controller: s/n G205141344	Sensor 2: GALT s/n 20160504
Pressure Sensors:	Sensor 3: GALT s/n 20160504
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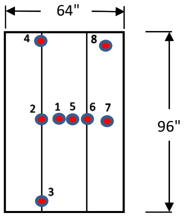
50 kPa: p/n 1138	Sensor 6: GALT s/n 20160504
Phidget: s/n 628179	Sensor 7: GALT s/n 20160504
	Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)

Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	2:30 PM	Temp:	20 °C
Finish:	N/R PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32*

*N/R - Spacing of 5-1 and 5-3 is 32"

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	0.0	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	15.0	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	0.0	1-5mins	Zero Deflection Gauges								
30	30.2	10 sec.	0.485	0.422	0.116		0.429	0.200	0.225	0.147	
0	0.0	1-5mins	0.019	0.019	0.009		0.013	0.009	0.019	0.009	
45	45.7	10 sec.	0.745	0.669	0.175		0.657	0.307	0.344	0.225	
0	0.0	1-5mins	0.019	0.025	0.016		0.016	0.019	0.009	0.006	
60	60.6	10 sec.	1.014	0.917	0.225		0.927	0.426	0.476	0.300	
0	0.0	1-5mins	0.026	0.034	0.025		0.028	0.025	0.022	0.006	
75	75.8	10 sec.	1.356	1.245	0.028		1.227	0.563	0.639	0.375	
0	0.0	1-5mins	0.050	0.041	0.031		0.031	0.028	0.019	0.006	
		10 sec.									
0	0.0	1-5mins									
		10 sec.									
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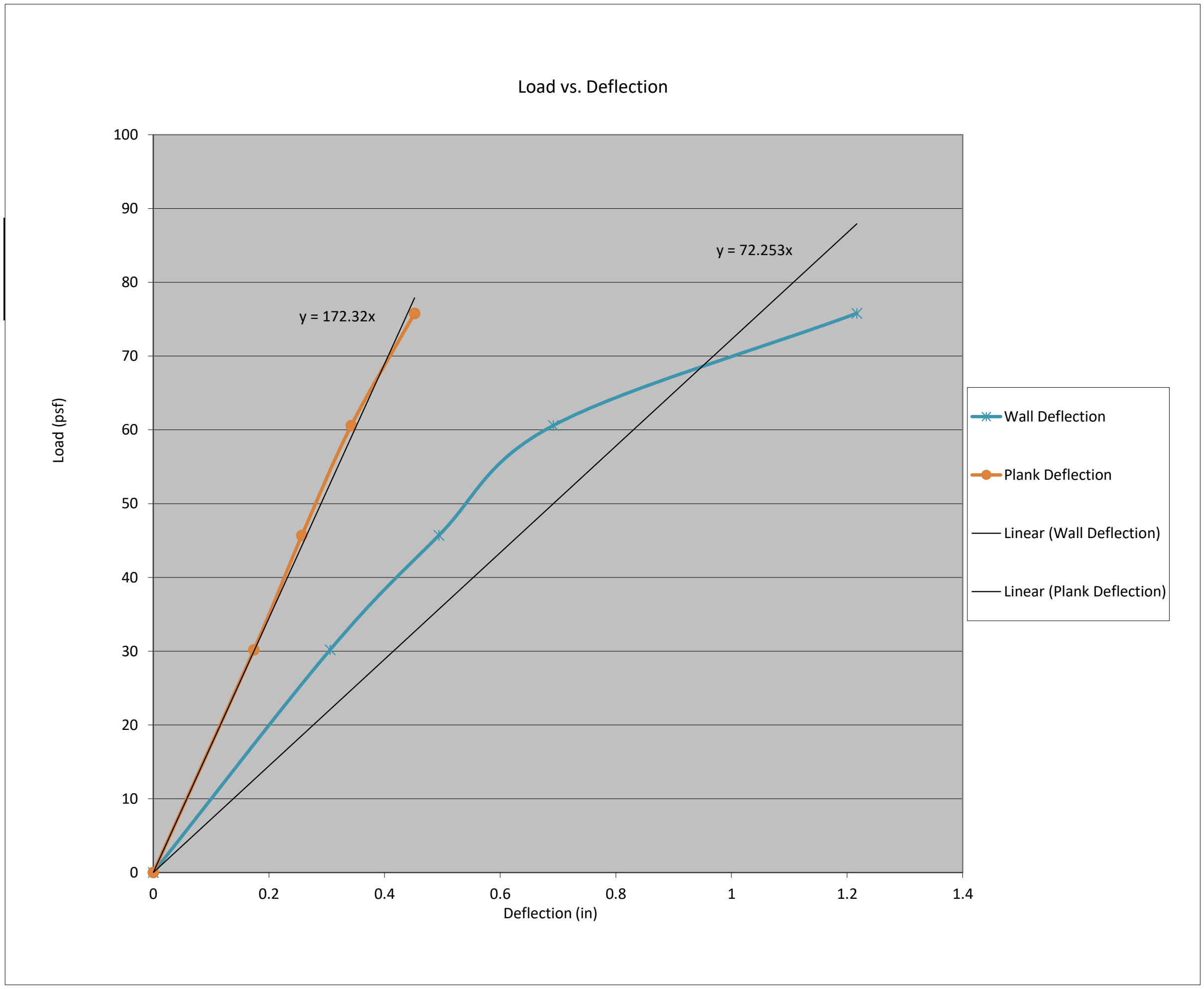
0	0.0	1-5mins									
		10 sec.									
0	0.0	1-5mins									
		10 sec.									
0.0	0.0	1-5mins									

		Mode of Failure
Max Load (psf)	**75.8**	At 75 psf cracking noise, osb void (small) between osb and 2x4. Wall failed going from 75 psf to 90 psf. 2x4 center stand broke in two.

Test#: **5-2**		
Max Load	75.8	psf
Allowable Design Load (ASD) = Max Load / 2	37.9	psf
Deflection Service Load (ASD) = Allowable * 0.7	26.5	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3672	in
Plank Deflection @ Deflection Service Load (ASD)	0.1540	in



Test: **Transverse Load - Negative Wind Load** **Test#: 5-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 10-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

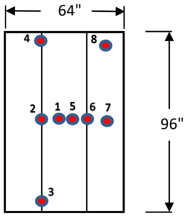
Project#: 0093
Technician(s): Jordan/Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

Installation:
Configuration: P22 clips with 2" washer @ 32" O.C. into stud
Framing: 2x4 spf wood studs
Fastener: #10 wood screws
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results
Equipment:

<u>Pressure Chamber</u>
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

<u>Deflection Gauges(Phidget potentiometers)</u>
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

<u>Gauge Locations</u>
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:30 AM	Temp:	20 °C
Finish:	N/R PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.6**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.7**	10 sec.	0.479	0.441	0.228	0.082	0.428	0.216	0.216	0.136	
0	**0.0**	1-5mins	0.009	0.013	0.025	0.003	0.009	0.019	0.009	0.003	
45	**45.7**	10 sec.	0.716	0.672	0.287	0.123	0.647	0.316	0.322	0.213	
0	**0.0**	1-5mins	0.028	0.038	0.050	0.006	0.038	0.028	0.016	0.013	
60	**60.6**	10 sec.	0.979	0.922	0.328	0.179	0.888	0.429	0.454	0.285	
0	**0.0**	1-5mins	0.047	0.047	0.075	0.013	0.041	0.034	0.028	0.006	
75	**70.5**	10 sec.	1.164	1.094	0.370	0.220	1.063	0.526	0.535	0.326	
0	**0.0**	1-5mins	0.047	0.663	0.081	0.013	0.053	0.044	0.031	0.009	
90	**75.8**	10 sec.	1.273	1.188	0.403	0.249	1.170	0.560	0.595	0.363	
0	**0.0**	1-5mins	0.053	0.056	0.091	0.065	0.004	0.044	0.028	0.006	
105	**80.4**	10 sec.	1.361	1.273	0.419	0.264	1.248	0.604	0.627	0.385	
0	**0.0**	1-5mins	0.063	0.069	0.010	0.025	0.050	0.025	0.031	0.009	
120	**85.3**	10 sec.	1.461	1.357	0.441	0.283	1.355	0.635	0.682	0.420	
0	**0.0**	1-5mins	0.072	0.081	0.116	0.116	0.072	0.059	0.034	0.019	
135	**90.1**	10 sec.	1.570	1.445	0.469	0.302	1.442	0.679	0.725	0.436	
0	**0.0**	1-5mins	0.088	0.081	0.116	0.025	0.088	0.050	0.031	0.016	
150	**95.1**	10 sec.	1.667	1.551	0.490	0.324	1.542	0.729	0.785	0.454	
0	**0.0**	1-5mins	0.084	0.078	0.125	0.022	0.069	0.056	0.031	0.016	
165	**100.0**	10 sec.	1.774	1.648	0.509	0.340	1.617	0.776	0.832	0.483	
0	**0.0**	1-5mins	0.097	0.097	0.131	0.022	0.089	0.066	0.041	0.034	
180	***105.2**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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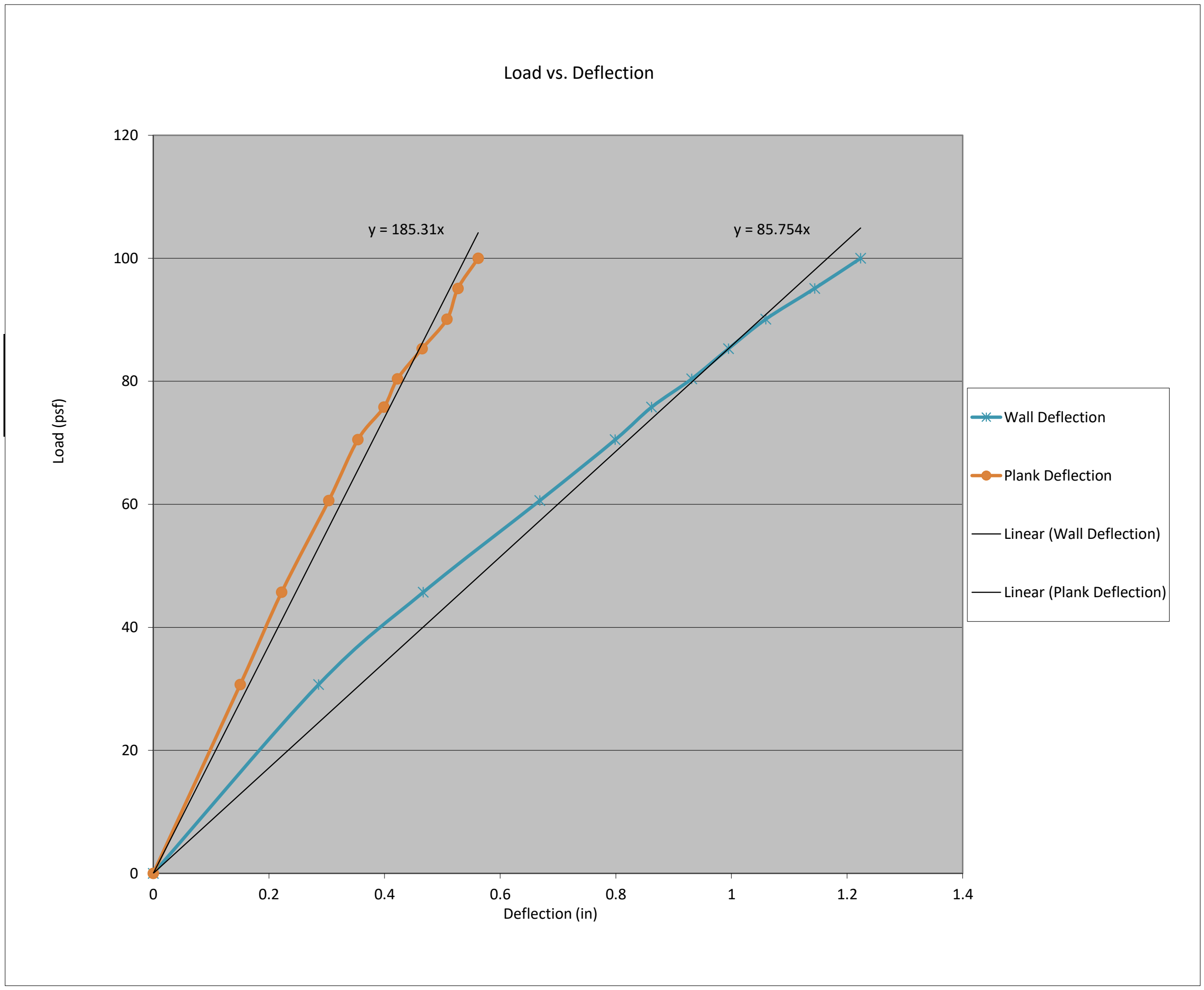
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

Max Load (psf)	**100.0**	**Mode of Failure**
		Framing failed

Test#:	**5-3**	
Max Load	100.0	psf
Allowable Design Load (ASD) = Max Load / 2	50.0	psf
Deflection Service Load (ASD) = Allowable * 0.7	35.0	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.4081	in
Plank Deflection @ Deflection Service Load (ASD)	0.1889	in



Test: **Transverse Load - Negative Wind Load** **Test#: 6-1**
Project#: 0093
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Technician(s): Jordan/Denzel
Date: 10-Jan-23
Reviewer: Chris
Product: **P46V Plank**
Location: Fastplank, Calgary AB
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

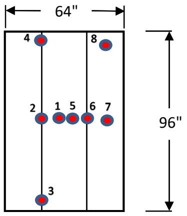
Installation:
Configuration: P22 clips @ 32" O.C. NOT into stud
Framing: 2x4 spf wood studs
Fastener: #10x1-1/2" Long HWH C/W EPDM washer
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	2:25 PM	Temp:	20.6 °C
Finish:	3:00 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.4**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.4**	10 sec.	0.544	0.444	0.122	0.131	0.479	0.216	0.241	0.153	
0	**0.0**	1-5mins	0.016	0.025	0.019	0.016	0.022	0.019	0.009	0.003	
45	**45.4**	10 sec.	0.817	0.682	0.172	0.175	0.769	0.328	0.369	0.229	
0	**0.0**	1-5mins	0.031	0.031	0.016	0.016	0.028	0.019	0.016	0.006	
60	**60.5**	10 sec.	1.123	0.932	0.216	0.222	0.999	0.456	0.504	0.316	
0	**0.0**	1-5mins	0.041	0.041	0.025	0.019	0.041	0.025	0.016	0.013	
75	**75.5**	10 sec.	1.455	1.213	0.256	0.272	1.309	0.585	0.657	0.413	
0	**0.0**	1-5mins	0.056	0.047	0.025	0.022	0.047	0.034	0.025	0.016	
90	**90.3**	10 sec.	1.856	1.526	0.322	0.331	1.679	0.741	0.848	0.510	
0	**0.0**	1-5mins	0.072	0.066	0.041	0.025	0.069	0.044	0.028	0.022	
105	***100**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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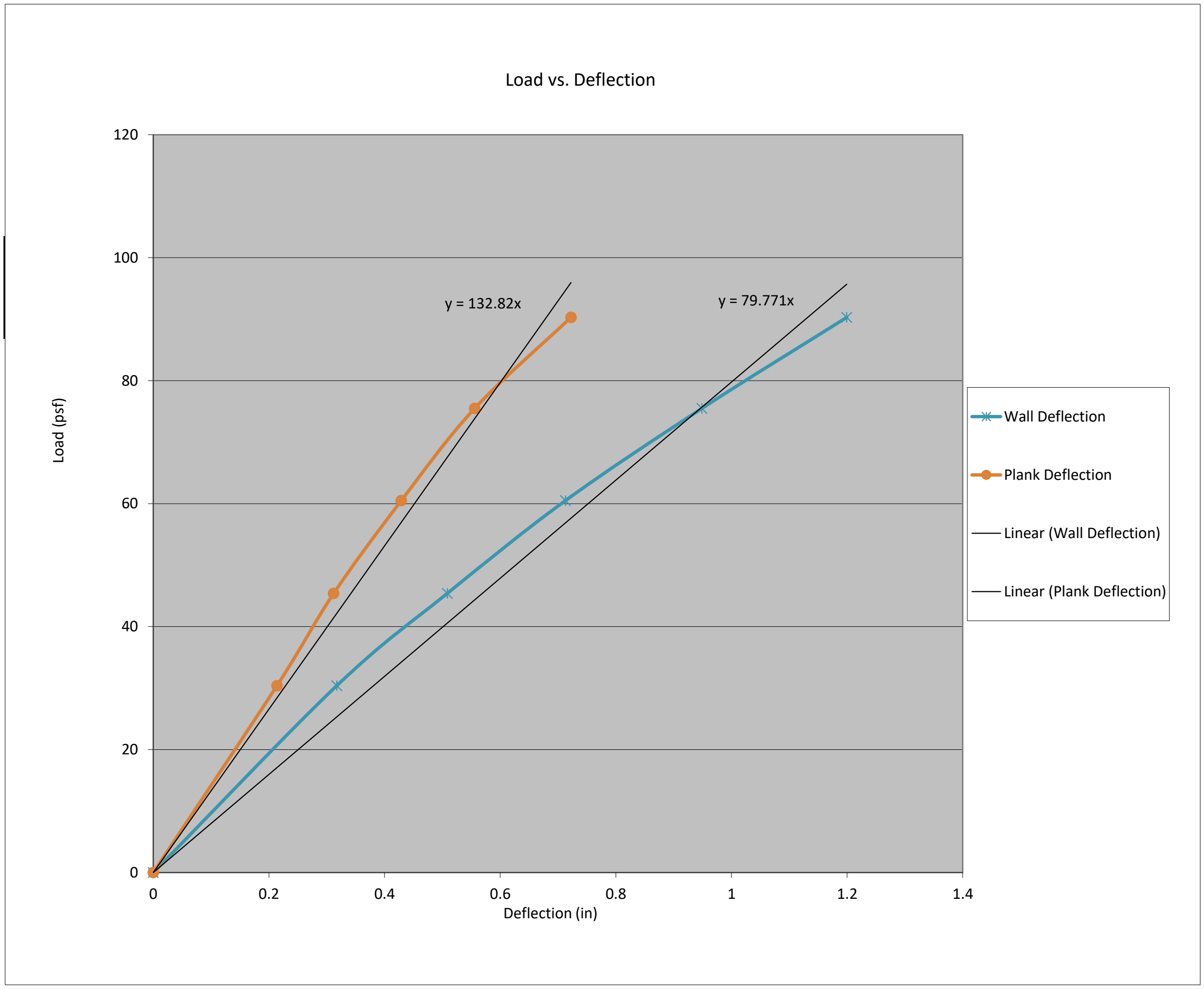
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**90.3**	Screw failed/clips disengaged. Fastplank, disengaged clips at OSB P11 vertical trim from wall deflection

Test#: **6-1**		
Max Load	90.3	psf
Allowable Design Load (ASD) = Max Load / 2	45.2	psf
Deflection Service Load (ASD) = Allowable * 0.7	31.6	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3962	in
Plank Deflection @ Deflection Service Load (ASD)	0.2380	in



Test: **Transverse Load - Negative Wind Load** **Test#: 6-2**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 11-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Jordan/Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

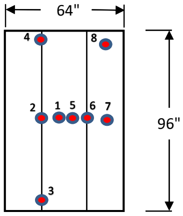
Installation:
Configuration: P22 clips @ 32" O.C. NOT into stud
Framing: 2x4 spf wood studs
Fastener: #10x1-1/2" Long HWH C/W EPDM washer
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	Taken [✓]
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	9:30 AM	Temp:	20 °C
Finish:	11:40 AM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.5**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.2**	10 sec.	0.570	0.509	0.144		0.492	0.216	0.232	0.254	
0	**0.0**	1-5mins	0.028	0.006			0.009	0.066	0.000	0.000	
45	**45.4**	10 sec.	0.867	0.741	0.200		0.762	0.338	0.373	0.348	
0	**0.0**	1-5mins	0.044	0.006	0.009		0.025	0.016	0.013	0.028	
60	**60.9**	10 sec.	1.227	1.031	0.250		1.066	0.454	0.527	0.454	
0	**0.0**	1-5mins	0.072	0.031	0.016		0.050	0.022	0.031	0.016	
75	**70.3**	10 sec.	1.452	1.203	0.291		1.292	0.536	0.633	0.498	
0	**0.0**	1-5mins	0.085	0.041	0.091		0.053	0.022	0.028	0.022	
90	**75.2**	10 sec.	1.577	1.291	0.307		1.402	0.579	0.610	0.577	
0	**0.0**	1-5mins	0.088	0.031	0.091		0.057	0.024	0.022	0.019	
105	**80.4**	10 sec.	1.700	1.349	0.316		1.527	0.623	0.740	0.613	
0	**0.0**	1-5mins	0.089	0.022	0.019		0.063	0.028	0.022	0.028	
120	**85.8**	10 sec.	1.856	1.490	0.341		1.681	0.662	0.822	0.642	
0	**0.0**	1-5mins	0.091	0.031	0.025		0.072	0.022	0.041	0.031	
135	***90.5**	10 sec.	1.960	1.597	0.366		1.816				
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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0	**0.0**	1-5mins									
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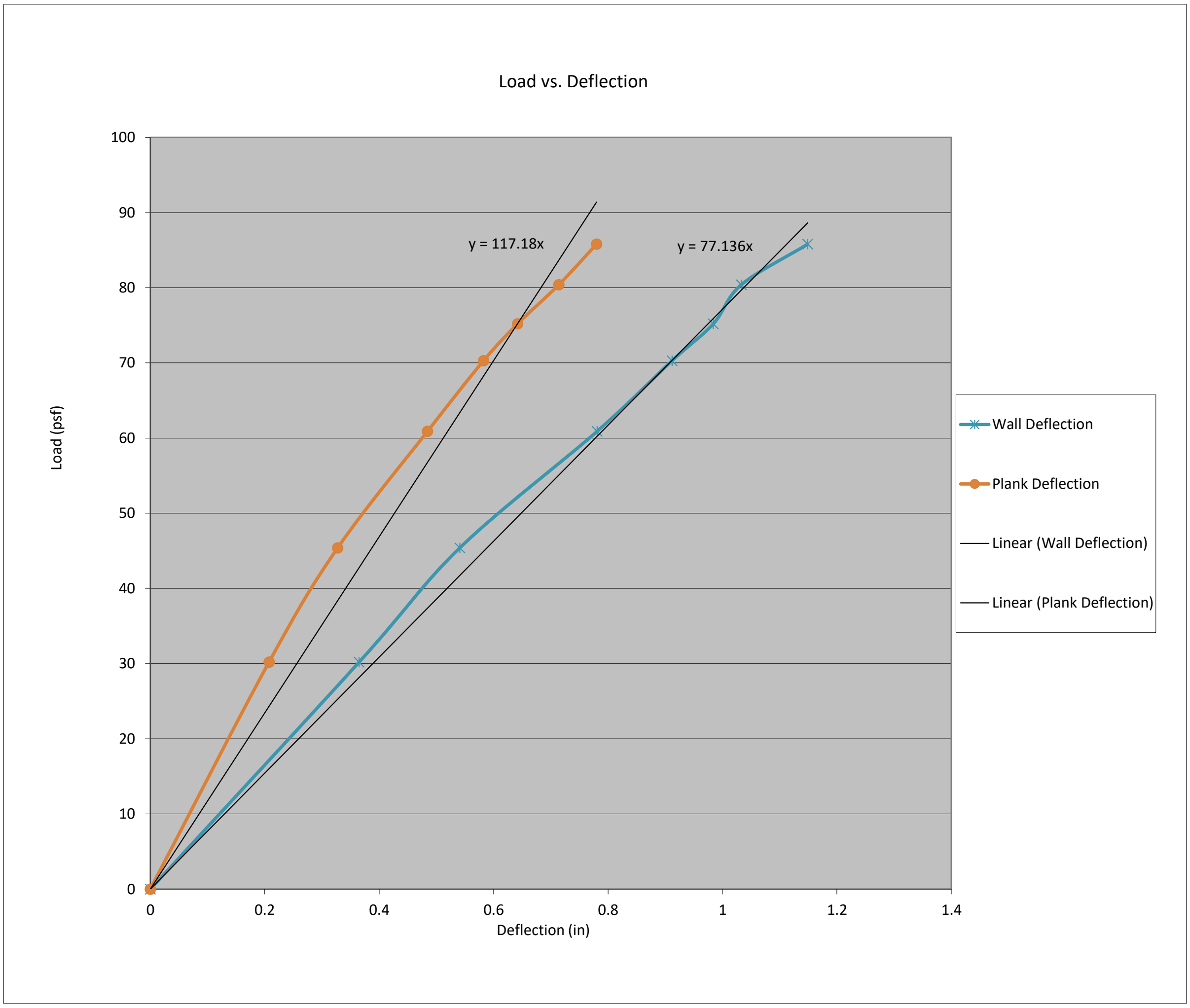
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**85.8**	Hold at 90.5 - 10 seconds, Failed by clip disingagement. Deflection measurement discontinued after failure.

Test#: **6-2**		
Max Load	85.8	psf
Allowable Design Load (ASD) = Max Load / 2	42.9	psf
Deflection Service Load (ASD) = Allowable * 0.7	30.0	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3893	in
Plank Deflection @ Deflection Service Load (ASD)	0.2563	in



Test: **Transverse Load - Negative Wind Load** **Test#: 6-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 11-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Jordan/Chris
Reviewer: N/R
Location: Fastplank, Calgary AB

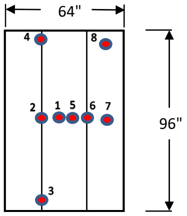
Installation:
Configuration: P22 clips @ 32" O.C. NOT into stud
Framing: 2x4 spf wood studs
Fastener: #10 wood screws
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	2:42 PM	Temp:	20.3 °C
Finish:	3:18 PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.7**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.1**	10 sec.	0.478	0.416	0.035	0.116	0.442	0.184	0.225	0.229	
0	**0.0**	1-5mins	0.003	0.009	0.003	0.000	0.006	0.013	0.006	0.022	
45	**45.8**	10 sec.	0.776	0.644	0.057	0.141	0.899	0.030	0.363	0.360	
0	**0.0**	1-5mins	0.022	0.017	0.009	0.008	0.016	0.009	0.006	0.003	
60	**60.4**	10 sec.	1.067	0.875	0.075	0.175	0.840	0.391	0.510	0.466	
0	**0.0**	1-5mins	0.031	0.025	0.009	0.031	0.028	0.022	0.013	0.016	
75	**70.6**	10 sec.	1.283	1.094	0.010	0.177	1.175	0.475	0.616	0.545	
0	**0.0**	1-5mins	0.038	0.028	0.009	0.041	0.022	0.016	0.009	0.022	
90	**75.7**	10 sec.	1.412	1.131	0.010	0.207	1.306	0.503	0.673	0.589	
0	**0.0**	1-5mins	0.044	0.034	0.008	0.038	0.028	0.028	0.017	0.022	
105	**80.5**	10 sec.	1.515	1.213	0.107	0.216	1.400	0.541	0.735	0.625	
0	**0.0**	1-5mins	0.044	0.034	0.009	0.050	0.028	0.025	0.019	0.009	
120	**85.6**	10 sec.	1.646	1.316	0.115	0.225	1.529	0.591	0.794	0.654	
0	**0.0**	1-5mins	0.057	0.041	0.019	0.009	0.050	0.034	0.017	0.022	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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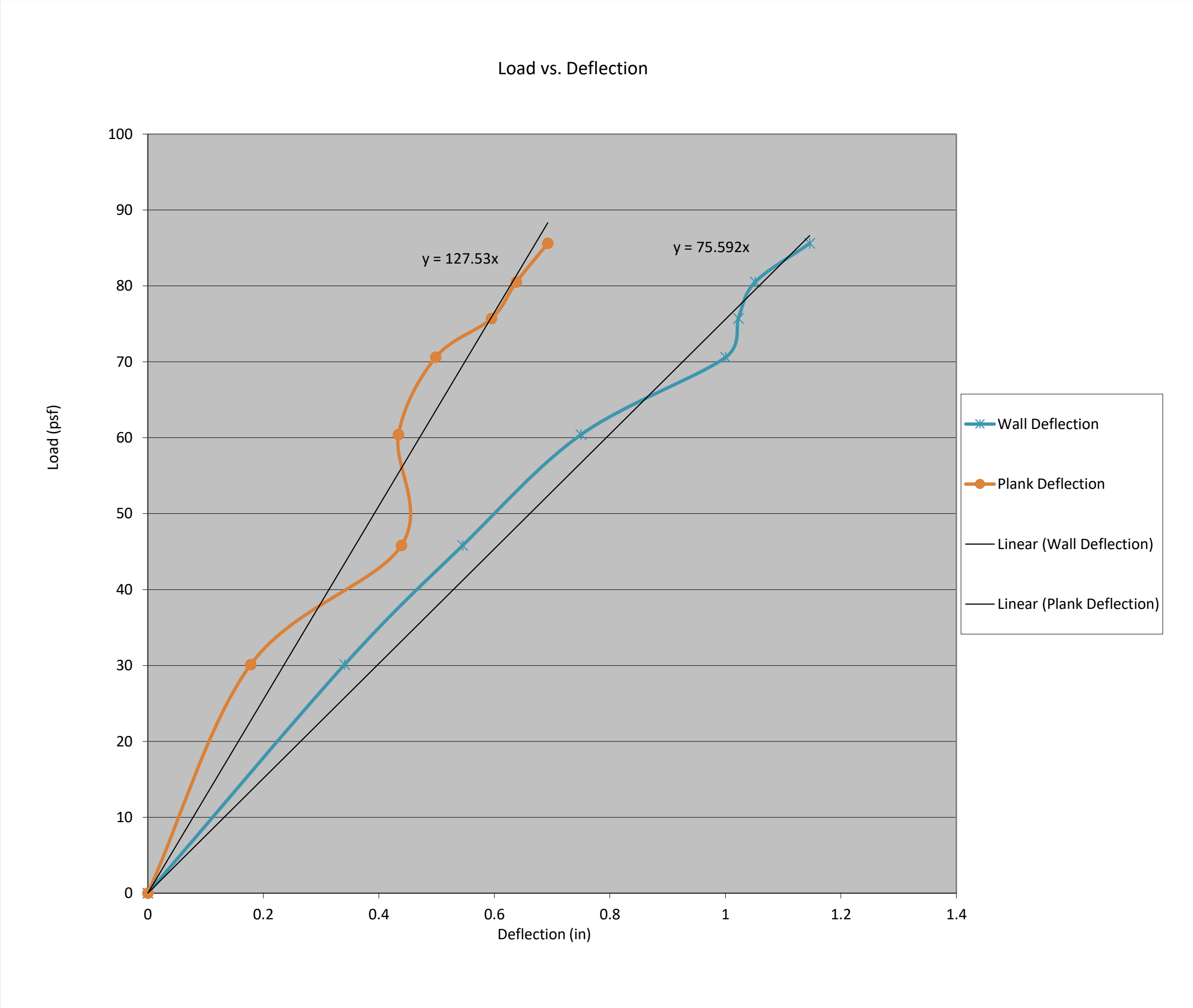
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**85.6**	Screws failed/clips disengaged

Test#: **6-3**		
Max Load	85.6	psf
Allowable Design Load (ASD) = Max Load / 2	42.8	psf
Deflection Service Load (ASD) = Allowable * 0.7	30.0	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3963	in
Plank Deflection @ Deflection Service Load (ASD)	0.2349	in



Test: **Transverse Load - Negative Wind Load** **Test#: 7-1**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 25-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

Installation:

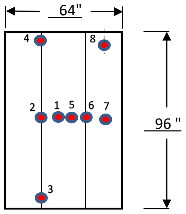
Configuration: P22 Clips @ 32" not into stud
Framing: 2x4 SPF wood studs
Fastener: #10-12x1-1/2" HWH c/w EPDM washer
Sheathing: 5/8" plywood
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	11:40 AM	Temp:	20.7 °C
Finish:	12:40 PM	%RH	20 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.4**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.2**	10 sec.	0.413	0.322	0.037	0.141	0.376	0.181	0.189	0.201	
0	**0.0**	1-5mins	0.006	0.000	0.000	0.009	0.003	0.000	0.000	0.000	
45	**45.1**	10 sec.	0.626	0.501	0.075	0.175	0.592	0.278	0.306	0.282	
0	**0.0**	1-5mins	0.016	0.009	0.000	0.000	0.016	0.009	0.006	0.000	
60	**60.5**	10 sec.	0.860	0.685	0.106	0.216	0.824	0.378	0.432	0.373	
0	**0.0**	1-5mins	0.025	0.016	0.016	0.009	0.016	0.009	0.006	0.009	
75	**75.8**	10 sec.	1.114	0.882	0.131	0.256	1.055	0.497	0.552	0.451	
0	**0.0**	1-5mins	0.038	0.026	0.016	0.016	0.031	0.025	0.013	0.025	
90	**90.2**	10 sec.	1.373	1.080	0.175	0.291	1.318	0.613	0.706	0.539	
0	**0.0**	1-5mins	0.050	0.022	0.016	0.019	0.041	0.028	0.013	0.019	
105	**105.5**	10 sec.	1.677	1.295	0.203	0.331	1.619	0.735	0.848	0.652	
0	**0.0**	1-5mins	0.053	0.034	0.025	0.025	0.050	0.034	0.013	0.031	
120	**120.6**	10 sec.	1.986	1.527	0.241	0.381	1.938	0.869	1.022	0.736	
0	**0.0**	1-5mins	0.047	0.050	0.034	0.025	0.050	0.034	0.022	0.047	
135	**129.0**	10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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		10 sec.									
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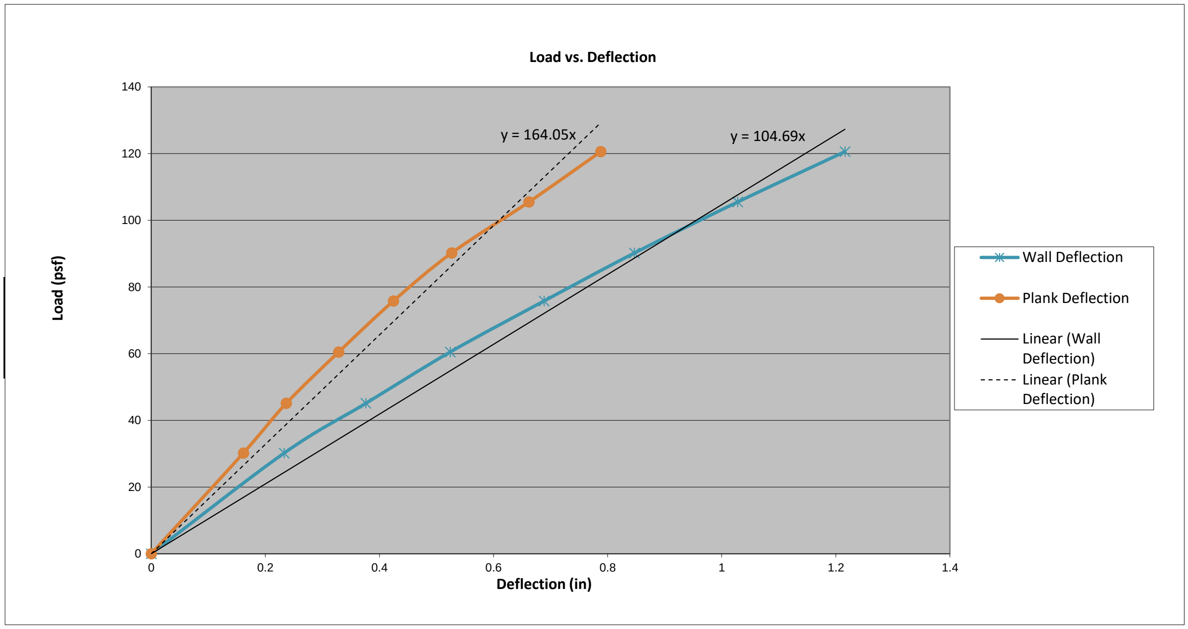
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**129.0**	Screw/Clip disengaged.

Test#:	**7-1**	
Max Load	129.0	psf
Allowable Design Load (ASD) = Max Load / 2	64.5	psf
Deflection Service Load (ASD) = Allowable * 0.7	45.2	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.4313	in
Plank Deflection @ Deflection Service Load (ASD)	0.2752	in



Test: **Transverse Load - Negative Wind Load** **Test#: 7-2**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 26-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Denzel
Reviewer: N/R
Location: Fastplank, Calgary AB

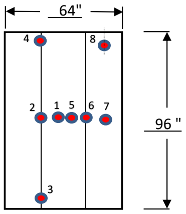
Installation:
Configuration: P22 Clips @ 32" not into stud
Framing: 2x4 SPF wood studs
Fastener: #10-12x1-1/2" HWH c/w EPDM washer
Sheathing: 5/8" plywood
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	12:55 PM	Temp:	20.8 °C
Finish:	1:46 PM	%RH	22 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.4**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.1**	10 sec.	0.388	0.313	0.056	0.081	0.360	0.175	0.191	0.138	
0	**0.0**	1-5mins	0.016	0.009	0.000	0.006	0.000	0.009	0.000	0.000	
45	**45.3**	10 sec.	0.614	0.500	0.097	0.116	0.552	0.279	0.301	0.207	
0	**0.0**	1-5mins	0.025	0.019	0.006	0.016	0.006	0.009	0.003	0.000	
60	**60.1**	10 sec.	0.839	0.677	0.128	0.153	0.780	0.385	0.420	0.288	
0	**0.0**	1-5mins	0.034	0.019	0.016	0.016	0.022	0.019	0.013	0.000	
75	**75.6**	10 sec.	1.096	0.857	0.181	0.194	1.019	0.498	0.542	0.370	
0	**0.0**	1-5mins	0.041	0.025	0.022	0.016	0.022	0.016	0.019	0.006	
90	**90.5**	10 sec.	1.347	1.075	0.218	0.240	1.257	0.600	0.674	0.457	
0	**0.0**	1-5mins	0.038	0.025	0.022	0.016	0.025	0.019	0.019	0.013	
105	**105.6**	10 sec.	1.610	1.285	0.262	0.284	1.517	0.720	0.821	0.542	
0	**0.0**	1-5mins	0.047	0.025	0.025	0.016	0.047	0.019	0.019	0.016	
120	**120.3**	10 sec.	1.908	1.498	0.293	0.322	1.786	0.852	0.968	0.639	
0	**0.0**	1-5mins	0.069	0.034	0.031	0.022	0.063	0.025	0.034	0.025	
135	**135.3**	10 sec.	2.233	1.718	0.343	0.369	2.125	0.977	1.131	0.742	
0	**0.0**	1-5mins	0.103	0.044	0.041	0.031	0.088	0.025	0.050	0.031	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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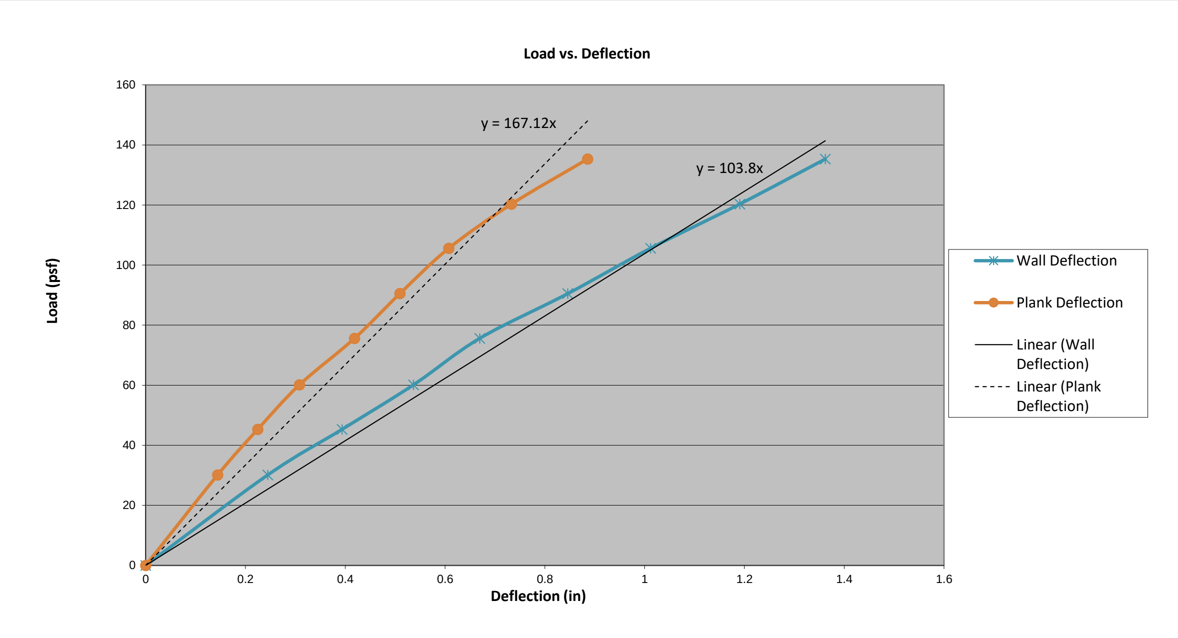
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**135.3**	Clip Disengaged. Two screw disengaging sounds were heard.

Test#:	7-2	
Max Load	135.3	psf
Allowable Design Load (ASD) = Max Load / 2	67.7	psf
Deflection Service Load (ASD) = Allowable * 0.7	47.4	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.4562	in
Plank Deflection @ Deflection Service Load (ASD)	0.2834	in



Test:	**Transverse Load - Negative Wind Load**	**Test#: 7-3**	Project#:	0093
Client:	FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8		Technician(s):	Denzel
Date:	27-Jan-23		Reviewer:	N/R
Product:	**P46V Plank**		Location:	Fastplank, Calgary AB

Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

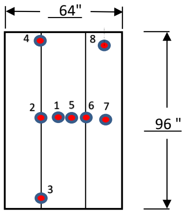
Configuration:	P22 Clips @ 32" not into stud
Framing:	2x4 SPF wood studs
Fastener:	#10-12x1-1/2" HWH c/w EPDM washer
Sheathing:	5/8" plywood
Air Seal:	Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	11:07 AM	Temp:	21 °C
Finish:	N/R PM	%RH	21 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.2**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.1**	10 sec.	0.413	0.335	0.066	0.097	0.384	0.175	0.204	0.163	
0	**0.0**	1-5mins	0.006	0.009	0.000	0.000	0.013	0.009	0.003	0.000	
45	**45.1**	10 sec.	0.623	0.513	0.100	0.128	0.589	0.282	0.288	0.250	
0	**0.0**	1-5mins	0.022	0.019	0.006	0.006	0.016	0.016	0.000	0.000	
60	**60.3**	10 sec.	0.870	0.707	0.141	0.181	0.822	0.388	0.417	0.316	
0	**0.0**	1-5mins	0.038	0.025	0.016	0.009	0.022	0.025	0.013	0.006	
75	**75.7**	10 sec.	1.126	0.907	0.187	0.222	1.061	0.495	0.561	0.420	
0	**0.0**	1-5mins	0.038	0.028	0.016	0.006	0.035	0.025	0.013	0.019	
90	**90.2**	10 sec.	1.380	1.101	0.222	0.265	1.326	0.610	0.683	0.498	
0	**0.0**	1-5mins	0.050	0.034	0.025	0.016	0.041	0.022	0.019	0.019	
105	**105.1**	10 sec.	1.699	1.329	0.262	0.312	1.635	0.720	0.846	0.600	
0	**0.0**	1-5mins	0.053	0.044	0.025	0.016	0.047	0.031	0.022	0.025	
120	**120.2**	10 sec.	2.034	1.548	0.306	0.353	1.978	0.865	1.025	0.711	
0	**0.0**	1-5mins	0.088	0.059	0.034	0.022	0.079	0.041	0.041	0.038	
135	**135.3**	10 sec.	2.362	1.779	0.353	0.384	2.337	0.983	1.222	0.808	
0	**0.0**	1-5mins	0.097	0.050	0.034	0.025	0.104	0.041	0.047	0.056	
150	**150.3**	10 sec.	2.813	2.054	0.409	0.418	2.850	1.130	1.529	0.961	
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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		10 sec.									
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		10 sec.									
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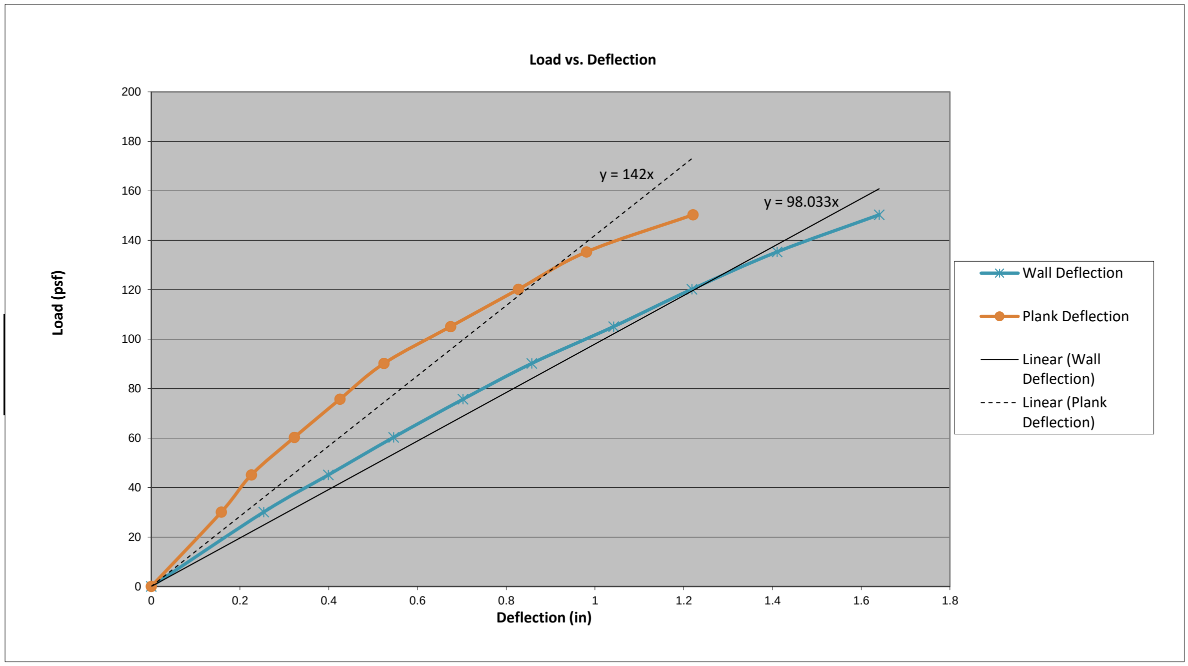
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**150.3**	The joint of the plywood disengaged.

Test#: **7-3**		
Max Load	150.3	psf
Allowable Design Load (ASD) = Max Load / 2	75.2	psf
Deflection Service Load (ASD) = Allowable * 0.7	52.6	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.5366	in
Plank Deflection @ Deflection Service Load (ASD)	0.3704	in



Test: **Transverse Load - Negative Wind Load** **Test#: 8-1**
Project#: 0093
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Technician(s): Jordan
Date: 02-Nov-22
Reviewer: C. Bowness
Product: **P46V Plank**
Location: Fastplank, Calgary AB
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

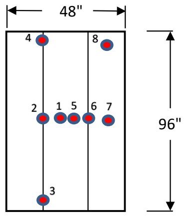
Configuration: Clips @ 32" o/c staggered
Framing: 2x4 SPF No.2 @ 16" o/c
Fastener: #10 - 1 1/2" Screw
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	3:19 AM	Temp:	20.2 °C
Finish:	3:57 PM	%RH	22 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
48.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.3**	10 sec.	0.263	0.156	0.050	0.022	0.238	0.156	0.103	0.069	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**46.2**	10 sec.	0.406	0.247	0.066	0.041	0.357	0.250	0.175	0.107	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
60	**60.7**	10 sec.	0.566	0.347	0.091	0.059	0.505	0.347	0.254	0.147	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
75	**76.1**	10 sec.	0.722	0.453	0.116	0.081	0.636	0.454	0.310	0.191	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
90	**91.5**	10 sec.	0.897	0.560	0.147	0.100	0.784	0.569	0.388	0.245	
0	**0.0**	1-5mins	0.025	0.025	0.016	0.000	0.025	0.028	0.022	0.006	
105	**106.2**	10 sec.	1.100	0.669	0.166	0.125	0.953	0.676	0.463	0.276	
0	**0.0**	1-5mins	0.034	0.034	0.016	0.006	0.036	0.028	0.028	0.019	
120	**120.4**	10 sec.	1.332	0.800	0.187	0.141	1.113	0.801	0.541	0.323	
0	**0.0**	1-5mins	0.050	0.044	0.025	0.009	0.056	0.034	0.034	0.013	
135	**135.4**	10 sec.	1.594	0.929	0.228	0.166	1.332	0.939	0.626	0.382	
0	**0.0**	1-5mins	0.072	0.044	0.025	0.000	0.078	0.041	0.050	0.016	
150	**151.4**	10 sec.	1.791	1.038	0.253	0.188	1.473	1.048	0.698	0.423	
0	**0.0**	1-5mins	0.088	0.050	0.025	0.009	0.082	0.050	0.063	0.038	
165	**164.8**	10 sec.	1.982	1.138	0.278	0.206	1.618	1.145	0.754	0.464	
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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		10 sec.									
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		10 sec.									
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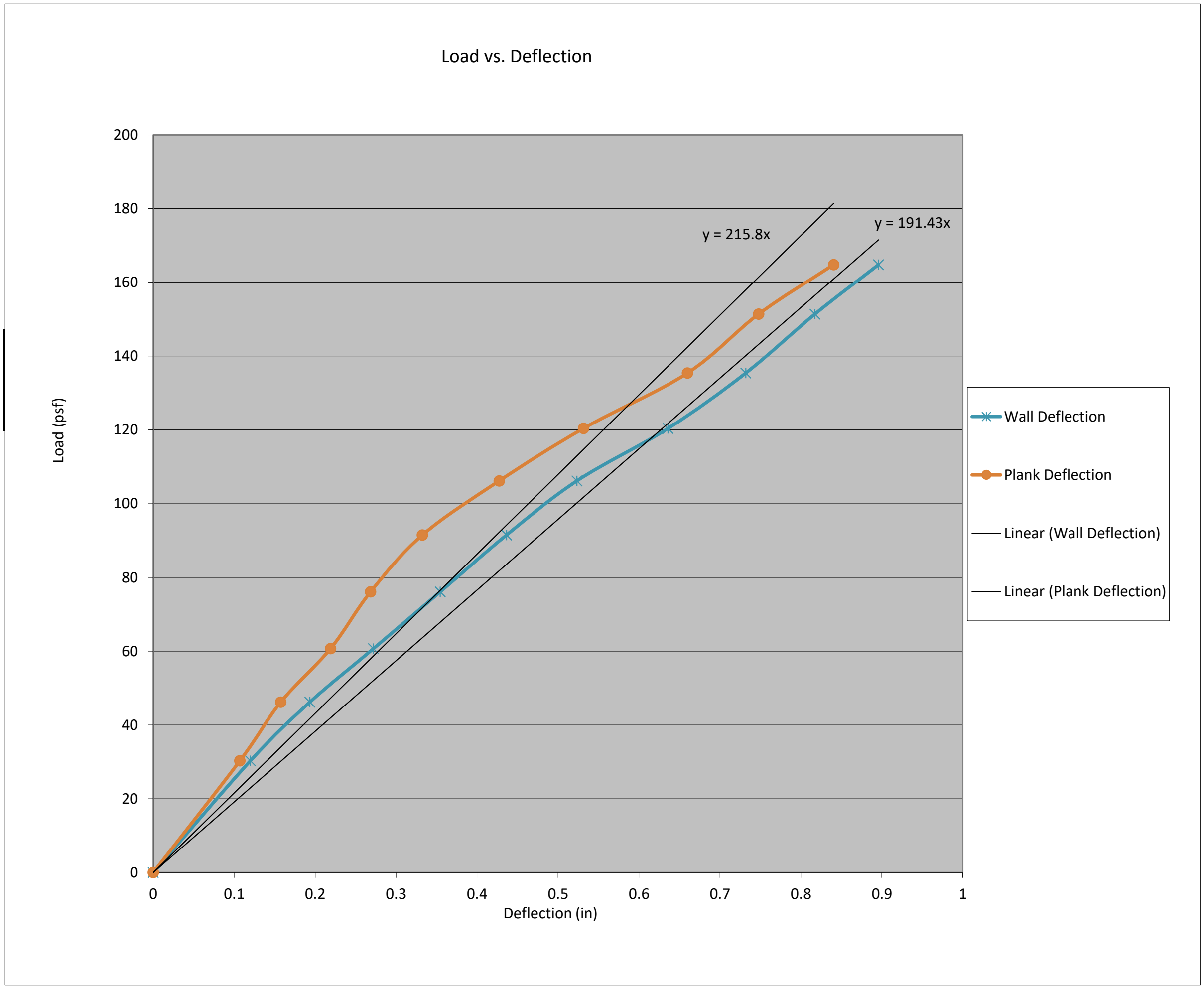
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**164.8**	Clips disengaged on way up to 180 psf

Test#: **8-1**		
Max Load	164.8	psf
Allowable Design Load (ASD) = Max Load / 2	82.4	psf
Deflection Service Load (ASD) = Allowable * 0.7	57.7	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3013	in
Plank Deflection @ Deflection Service Load (ASD)	0.2673	in



Test:	**Transverse Load - Negative Wind Load** **Test#: 8-2**	Project#:	0093
Client:	FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8	Technician(s):	Jordan
Date:	03-Nov-22	Reviewer:	C. Bowness
Product:	**P46V Plank**	Location:	Fastplank, Calgary AB

Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Installation:

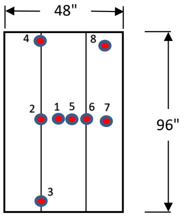
Configuration: Clips @ 32" o/c staggered
Framing: 2x4 SPF No.2 @ 16" o/c
Fastener: #10 - 1 1/2" Screw
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:14 AM	Temp:	20.7 °C
Finish:	10:45 PM	%RH	21 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
48.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.1**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**31.1**	10 sec.	0.294	0.169	0.062	0.031	0.260	0.166	0.128	0.085	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**45.8**	10 sec.	0.475	0.291	0.097	0.059	0.420	0.285	0.204	0.119	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
60	**61.5**	10 sec.	0.603	0.366	0.140	0.081	0.551	0.378	0.263	0.157	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
75	**76.2**	10 sec.	0.760	0.476	0.165	0.106	0.686	0.472	0.332	0.203	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
90	**91.4**	10 sec.	0.950	0.583	0.206	0.122	0.846	0.591	0.413	0.235	
0	**0.0**	1-5mins	0.025	0.013	0.016	0.000	0.025	0.022	0.009	0.003	
105	**105.4**	10 sec.	1.144	0.686	0.231	0.141	1.015	0.697	0.485	0.269	
0	**0.0**	1-5mins	0.025	0.028	0.025	0.009	0.031	0.019	0.013	0.016	
120	**121.9**	10 sec.	1.441	0.836	0.268	0.163	1.238	0.844	0.579	0.326	
0	**0.0**	1-5mins	0.056	0.034	0.022	0.000	0.038	0.031	0.028	0.009	
135	**136.9**	10 sec.	1.685	0.958	0.303	0.191	1.426	0.973	0.661	0.369	
0	**0.0**	1-5mins	0.069	0.044	0.025	0.000	0.060	0.038	0.022	0.022	
150	**151.4**	10 sec.	1.851	1.068	0.328	0.206	1.563	1.066	0.717	0.404	
0	**0.0**	1-5mins	0.075	0.041	0.031	0.009	0.063	0.041	0.028	0.022	
165	**166.0**	10 sec.	2.045	1.165	0.353	0.228	1.717	1.185	0.783	0.445	
0	**0.0**	1-5mins	0.097	0.063	0.041	0.009	0.081	0.044	0.038	0.041	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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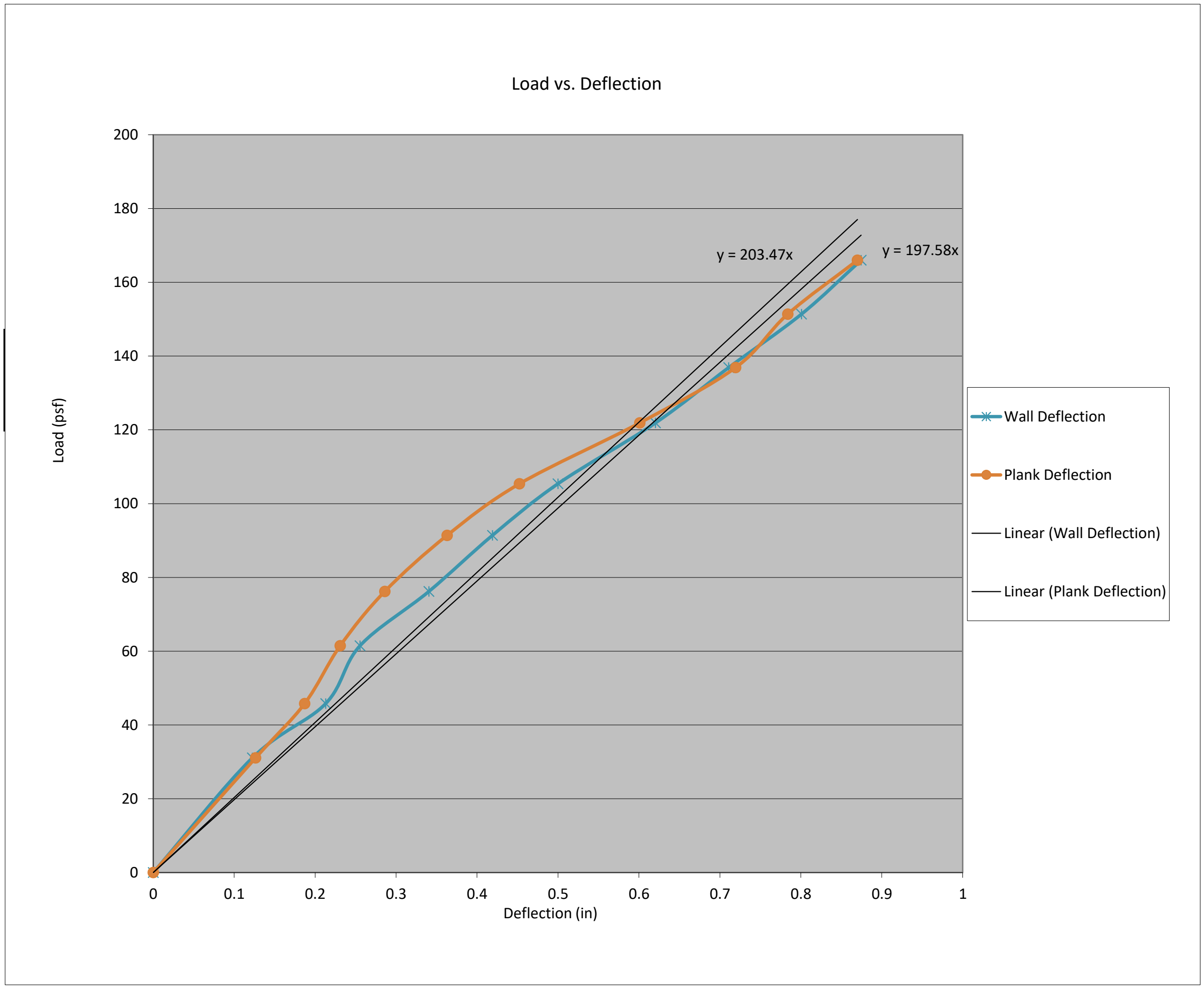
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

Max Load (psf)	**166.0**	**Mode of Failure**
		Clips disengaged on loading up to 180 psf

Test#:	**8-2**	
Max Load	166.0	psf
Allowable Design Load (ASD) = Max Load / 2	83.0	psf
Deflection Service Load (ASD) = Allowable * 0.7	58.1	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.2941	in
Plank Deflection @ Deflection Service Load (ASD)	0.2855	in



Test: **Transverse Load - Negative Wind Load** **Test#: 8-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 04-Nov-22
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Jordan
Reviewer: C. Bowness
Location: Fastplank, Calgary AB

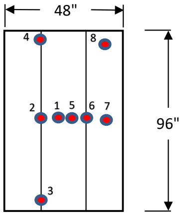
Installation:
Configuration: Clips @ 32" o/c staggered
Framing: 2x4 SPF No.2 @ 16" o/c
Fastener: #10 - 1 1/2" Screw
Sheathing: 7/16" OSB
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:47 AM	Temp:	20 °C
Finish:	11:15 PM	%RH	21 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
48.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.4**	10 sec.	0.297	0.175	-	0.059	0.260	0.188	0.138	0.097	
0	**0.0**	1-5mins	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	
45	**45.9**	10 sec.	0.450	0.288	-	0.075	0.410	0.282	0.200	0.122	
0	**0.0**	1-5mins	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	
60	**61.1**	10 sec.	0.613	0.378	-	0.100	0.548	0.398	0.269	0.182	
0	**0.0**	1-5mins	0.022	0.025	-	0.000	0.025	0.025	0.022	0.025	
75	**75.8**	10 sec.	0.772	0.485	-	0.125	0.698	0.504	0.341	0.207	
0	**0.0**	1-5mins	0.038	0.025	-	0.000	0.034	0.028	0.022	0.028	
90	**90.7**	10 sec.	0.948	0.604	-	0.144	0.845	0.620	0.404	0.263	
0	**0.0**	1-5mins	0.053	0.034	-	0.000	0.044	0.038	0.028	0.022	
105	**106.2**	10 sec.	1.173	0.719	-	0.157	1.027	0.755	0.494	0.313	
0	**0.0**	1-5mins	0.053	0.044	-	0.009	0.053	0.044	0.031	0.019	
120	**120.8**	10 sec.	1.420	0.841	-	0.185	1.233	0.887	0.566	0.354	
0	**0.0**	1-5mins	0.075	0.041	-	0.016	0.069	0.053	0.044	0.038	
135	**136.1**	10 sec.	1.729	0.991	-	0.210	1.462	1.046	0.668	0.407	
0	**0.0**	1-5mins	0.094	0.050	-	0.016	0.088	0.060	0.047	0.031	
150	**151.3**	10 sec.	1.911	1.088	-	0.229	1.619	1.153	0.729	0.457	
0	**0.0**	1-5mins	0.119	0.056	-	0.019	0.116	0.069	0.056	0.050	
165	**166.1**	10 sec.	2.117	1.198	-	0.260	1.785	1.260	0.789	0.501	
0	**0.0**	1-5mins	0.144	0.056	-	0.016	0.125	0.060	0.069	0.060	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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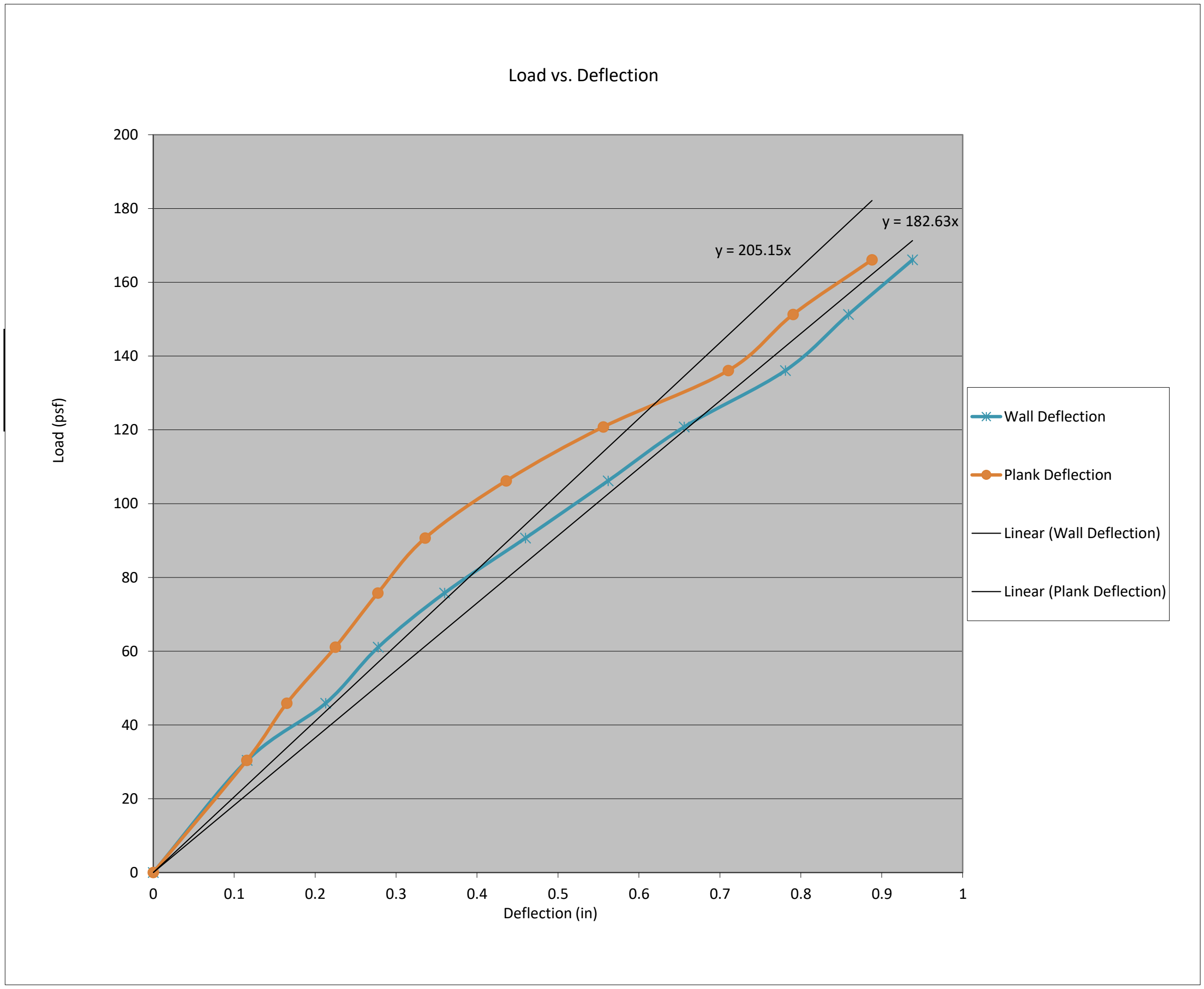
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**166.1**	Clips disengaged on loading up to 180 psf

Test#: **8-3**		
Max Load	166.1	psf
Allowable Design Load (ASD) = Max Load / 2	83.1	psf
Deflection Service Load (ASD) = Allowable * 0.7	58.1	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.3183	in
Plank Deflection @ Deflection Service Load (ASD)	0.2834	in



Test: **Transverse Load - Negative Wind Load** **Test#: 9-1**
Project#: 0093
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Technician(s): N/R
Date: 07-Dec-22
Reviewer: N/R
Product: **P46V Plank**
Location: Fastplank, Calgary AB
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

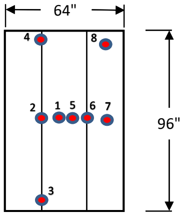
Installation:
Configuration: P22 clips @ 32" O.C.
Framing: 2x4 spf wood studs @ 16" o.c.
Fastener: 1/4x4" Galv. ZAG screw
Sheathing: 7/16" OSB / 2" 30 PSI XPS
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:50 AM	Temp:	18.8 °C
Finish:	N/R AM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	Actual Load (psf)	Time	Gauge 1 (in.)	Gauge 2 (in.)	Gauge 3 (in.)	Gauge 4 (in.)	Gauge 5 (in.)	Gauge 6 (in.)	Gauge 7 (in.)	Gauge 8 (in.)	Observations
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.0**	10 sec.									
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**45.6**	10 sec.	0.654	0.603	0.291	0.116	0.592	0.276	0.288	0.179	
0	**0.0**	1-5mins	0.016	0.006	0.019	0.056	0.022	0.009	0.003	0.013	
60	**60.8**	10 sec.	0.905	0.850	0.371	0.238	0.814	0.391	0.392	0.251	
0	**0.0**	1-5mins	0.016	0.025	0.025	0.100	0.025	0.019	0.006	0.016	
75	**75.2**	10 sec.	1.196	1.116	0.491	0.288	1.071	0.523	0.529	0.323	
0	**0.0**	1-5mins	0.028	0.013	0.034	0.107	0.034	0.025	0.009	0.016	
90	**91.0**	10 sec.	1.474	1.350	0.572	0.338	1.312	0.648	0.657	0.411	
0	**0.0**	1-5mins	0.047	0.041	0.041	0.107	0.044	0.034	0.013	0.025	
105	**105.3**	10 sec.	1.765	1.640	0.678	0.404	1.575	0.780	0.770	0.480	
0	**0.0**	1-5mins	0.056	0.056	0.050	0.116	0.053	0.044	0.019	0.028	
120	**120.6**	10 sec.	2.075	1.922	0.794	0.464	1.866	0.921	0.936	0.559	
0	**0.0**	1-5mins	0.078	0.075	0.059	0.132	0.069	0.041	0.028	0.031	
135	**135.6**	10 sec.	2.423	2.222	0.885	0.539	2.217	1.087	1.130	0.643	
0	**0.0**	1-5mins	0.100	0.081	0.066	0.157	0.103	0.053	0.044	0.041	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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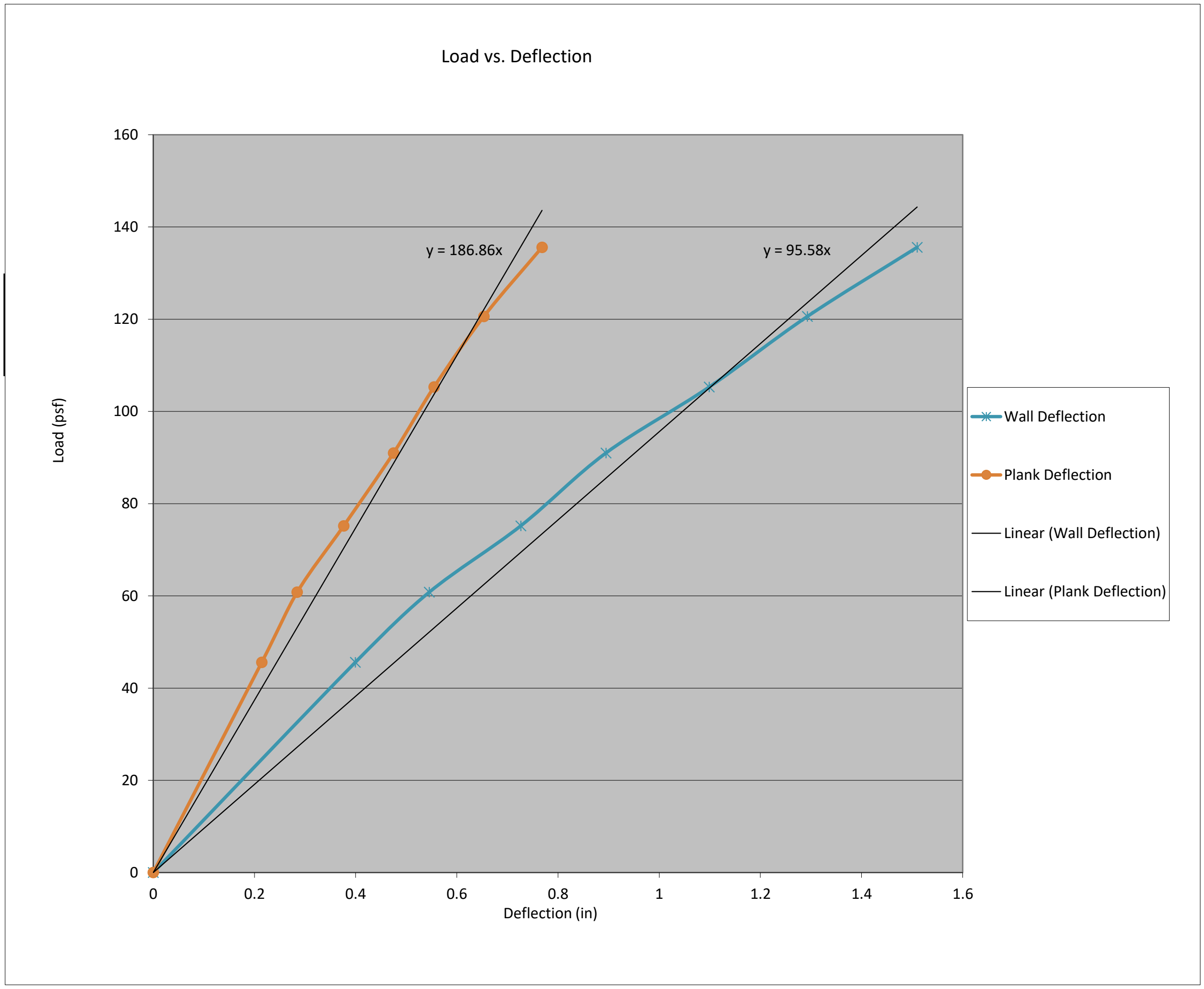
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**135.6**	Clips disengaged.

Test#:	**9-1**	
Max Load	135.6	psf
Allowable Design Load (ASD) = Max Load / 2	67.8	psf
Deflection Service Load (ASD) = Allowable * 0.7	47.5	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.4965	in
Plank Deflection @ Deflection Service Load (ASD)	0.2540	in



Test: **Transverse Load - Negative Wind Load** **Test#: 9-2**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 07-Dec-22
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): N/R
Reviewer: N/R
Location: Fastplank, Calgary AB

Installation:

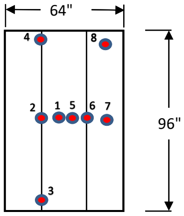
Configuration: P22 clips @ 32" O.C.
Framing: 2x4 spf wood studs @ 16" o.c.
Fastener: 1/4x4" Galv. ZAG screw
Sheathing: 7/16" OSB / 2" 30 PSI XPS
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

Pressure Chamber
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

Deflection Gauges(Phidget potentiometers)
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

Gauge Locations
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	Description	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:30 AM	Temp:	20.8 °C
Finish:	- PM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.0**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.8**	10 sec.	0.411	0.348	0.094	0.066	0.361	0.150	0.185	0.110	
0	**0.0**	1-5mins	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
45	**45.9**	10 sec.	0.627	0.551	0.144	0.106	0.567	0.241	0.285	0.169	
0	**0.0**	1-5mins	0.013	0.016	0.009	0.006	0.022	0.019	0.013	0.006	
60	**60.8**	10 sec.	0.859	0.767	0.190	0.141	0.765	0.341	0.395	0.238	
0	**0.0**	1-5mins	0.028	0.041	0.019	0.006	0.031	0.025	0.022	0.006	
75	**75.8**	10 sec.	1.097	0.990	0.250	0.191	0.991	0.447	0.514	0.301	
0	**0.0**	1-5mins	0.038	0.047	0.025	0.016	0.031	0.025	0.028	0.016	
90	**90.1**	10 sec.	1.354	1.231	0.321	0.238	1.245	0.547	0.636	0.376	
0	**0.0**	1-5mins	0.056	0.056	0.044	0.025	0.047	0.034	0.031	0.013	
105	**105.6**	10 sec.	1.655	1.494	0.390	0.297	1.502	0.663	0.764	0.451	
0	**0.0**	1-5mins	0.078	0.081	0.059	0.031	0.069	0.041	0.047	0.022	
120	**120.4**	10 sec.	1.949	1.735	0.471	0.344	1.790	0.779	0.909	0.526	
0	**0.0**	1-5mins	0.103	0.106	0.069	0.041	0.094	0.044	0.052	0.019	
135	**135.2**	10 sec.	2.253	2.001	0.556	0.413	2.097	0.901	1.084	0.602	
0	**0.0**	1-5mins	0.138	0.122	0.091	0.050	0.125	0.059	0.075	0.034	
150	**150.2**	10 sec.	2.573	2.273	0.662	0.478	2.417	1.035	1.266	0.680	
0	**0.0**	1-5mins	0.176	0.147	0.109	0.056	0.169	0.075	0.088	0.044	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
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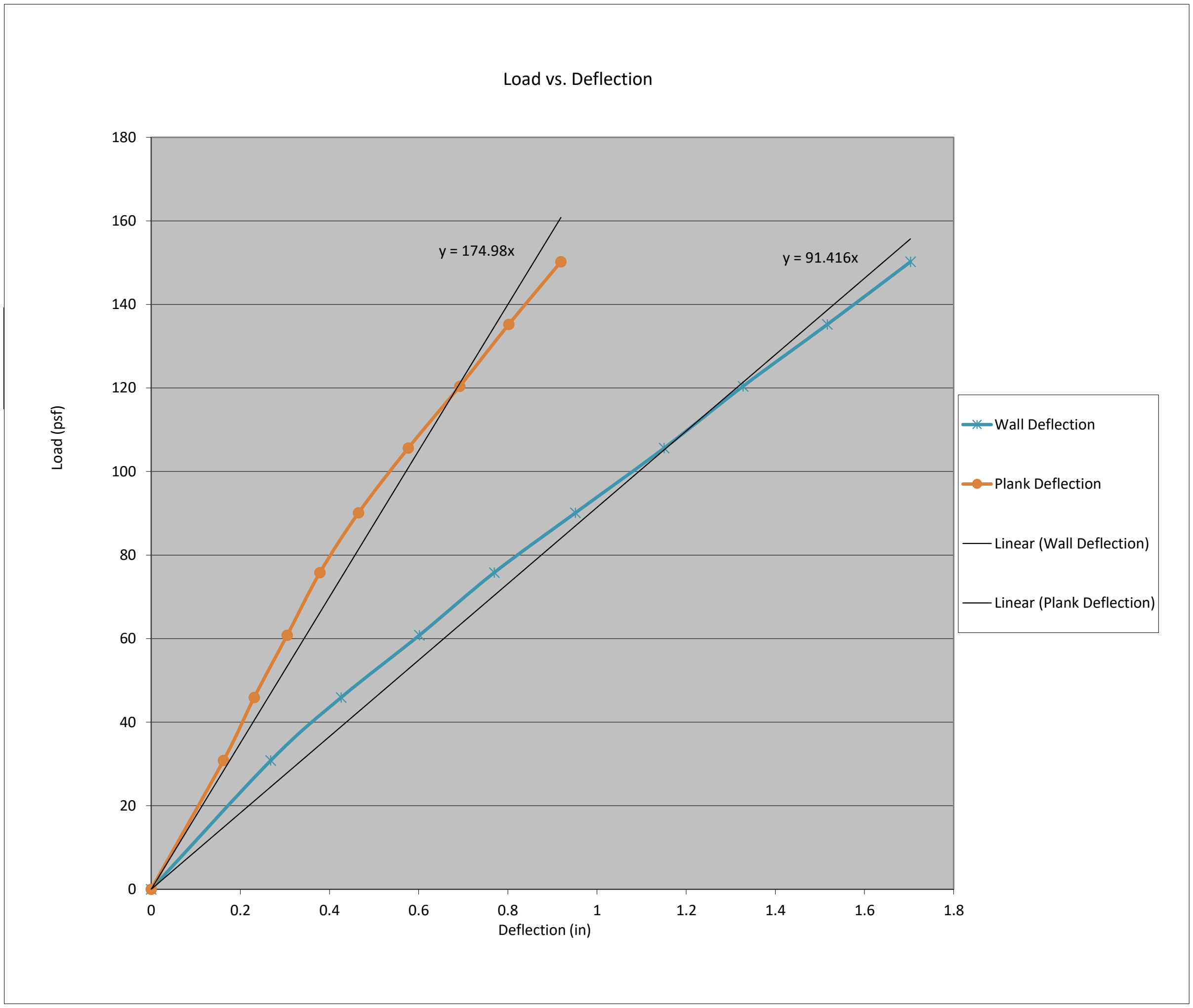
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

Max Load (psf)	**150.2**	**Mode of Failure**
		Not Recorded

Test#:	**9-2**	
Max Load	150.2	psf
Allowable Design Load (ASD) = Max Load / 2	75.1	psf
Deflection Service Load (ASD) = Allowable * 0.7	52.6	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.5751	in
Plank Deflection @ Deflection Service Load (ASD)	0.3004	in



Test: **Transverse Load - Negative Wind Load** **Test#: 9-3**
Client: FastPlank - 101-4441 76th Ave SE, Calgary, AB T2C 2G8
Date: 12-Jan-23
Product: **P46V Plank**
Test Method(s): ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

Project#: 0093
Technician(s): Jordan/Denzel
Reviewer: Chris
Location: Fastplank, Calgary AB

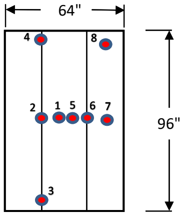
Installation:
Configuration: P22 clips with 2" washer @ 32" O.C. into stud
Framing: 2x4 spf wood studs
Fastener: #12x4" Long HWH
Sheathing: 7/16" OSB / 2" 30 PSI Rigid Insulation
Air Seal: Tape used to air seal plank gaps, tape will not influece test results

Equipment:

<u>Pressure Chamber</u>
Motor: Greenco s/n XB810-7AH27
Press. Controller: s/n G205141344
Pressure Sensors:
+/- 2 kPa: p/n 1136
+/- 7 kPa: p/n 1137
50 kPa: p/n 1138
Phidget: s/n 628179

<u>Deflection Gauges(Phidget potentiometers)</u>
Sensor 1: GALT s/n 20160504
Sensor 2: GALT s/n 20160504
Sensor 3: GALT s/n 20160504
Sensor 4: GALT s/n 20160504
Sensor 5: GALT s/n 20160504
Sensor 6: GALT s/n 20160504
Sensor 7: GALT s/n 20160504
Sensor 8: GALT s/n 20160504

<u>Gauge Locations</u>
(not to scale)
Gauge 1: Plank
Gauge 2: Stud
Gauge 3: Stud
Gauge 4: Stud
Gauge 5: Plank
Gauge 6: Stud
Gauge 7: Plank
Gauge 8: Plank



	<u>Description</u>	**Taken [✓]**
Photo 1:	Before test, back of wall	
Photo 2:	Before test, front of wall	
Photo 3:	After test, back of wall	
Photo 4:	After test, front of wall	
Photo 5:		

Time/Temp/RH:			
Start:	10:25 AM	Temp:	20.1 °C
Finish:	11:20 AM	%RH	19 %RH

Test Assembly		
Width (in)	Length (in)	Horizontal Clip Spacing (in)
64.0	96.0	32

Target Load (psf)	**Actual Load (psf)**	**Time**	**Gauge 1 (in.)**	**Gauge 2 (in.)**	**Gauge 3 (in.)**	**Gauge 4 (in.)**	**Gauge 5 (in.)**	**Gauge 6 (in.)**	**Gauge 7 (in.)**	**Gauge 8 (in.)**	**Observations**
0	**0.0**	immed.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15	**15.1**	10 sec.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0	**0.0**	1-5mins	Zero Deflection Gauges								
30	**30.7**	10 sec.	0.397	0.347	0.106	0.066	0.370	0.156	0.188	0.131	
0	**0.0**	1-5mins	0.022	0.016	0.006	0.006	0.016	0.009	0.003	0.006	
45	**45.3**	10 sec.	0.613	0.554	0.147	0.106	0.567	0.256	0.301	0.216	
0	**0.0**	1-5mins	0.025	0.025	0.016	0.006	0.028	0.016	0.009	0.006	
60	**60.4**	10 sec.	0.851	0.766	0.187	0.147	0.797	0.363	0.416	0.275	
0	**0.0**	1-5mins	0.034	0.034	0.025	0.016	0.028	0.016	0.019	0.019	
75	**70.6**	10 sec.	1.027	0.932	0.213	0.163	0.943	0.444	0.498	0.328	
0	**0.0**	1-5mins	0.063	0.041	0.025	0.016	0.041	0.013	0.009	0.013	
90	**75.5**	10 sec.	1.114	1.014	0.231	0.182	1.022	0.485	0.548	0.344	
0	**0.0**	1-5mins	0.059	0.050	0.025	0.016	0.038	0.025	0.022	0.019	
105	**80.7**	10 sec.	1.214	1.098	0.253	0.197	1.122	0.519	0.586	0.363	
0	**0.0**	1-5mins	0.069	0.050	0.031	0.016	0.050	0.025	0.022	0.013	
120	**85.5**	10 sec.	1.293	1.179	0.262	0.213	1.197	0.560	0.633	0.394	
0	**0.0**	1-5mins	0.069	0.059	0.031	0.022	0.053	0.025	0.028	0.013	
135	**90.5**	10 sec.	1.399	1.264	0.278	0.229	1.282	0.600	0.686	0.425	
0	**0.0**	1-5mins	0.069	0.059	0.031	0.022	0.060	0.031	0.028	0.013	
150	**95.7**	10 sec.	1.493	1.351	0.303	0.238	1.382	0.644	0.727	0.453	
0	**0.0**	1-5mins	0.075	0.066	0.031	0.025	0.066	0.034	0.028	0.013	
165	**100.6**	10 sec.	1.593	1.442	0.319	0.254	1.476	0.682	0.786	0.478	
0	**0.0**	1-5mins	0.094	0.066	0.041	0.022	0.069	0.034	0.034	0.013	
180	**105.4**	10 sec.	1.681	1.523	0.336	0.263	1.564	0.726	0.833	0.510	
0	**0.0**	1-5mins	0.088	0.075	0.041	0.025	0.069	0.031	0.034	0.016	
195	**110.1**	10 sec.	1.784	1.617	0.353	0.279	1.661	0.766	0.880	0.529	
0	**0.0**	1-5mins	0.100	0.084	0.041	0.031	0.085	0.041	0.034	0.016	
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
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		10 sec.									
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		10 sec.									
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		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0	**0.0**	1-5mins									
		10 sec.									
0.0	**0.0**	1-5mins									

		Mode of Failure
Max Load (psf)	**110.1**	2x4 failed/bending, clips disengaged.

Test#:	**9-3**	
Max Load	110.1	psf
Allowable Design Load (ASD) = Max Load / 2	55.1	psf
Deflection Service Load (ASD) = Allowable * 0.7	38.5	psf
Wall Deflection limit = L / 180 of wall height	0.533	in
Plank Deflection limit = L / 60 of plank anchor (clip) span	0.533	in
Wall Deflection @ Deflection Service Load (ASD)	0.4304	in
Plank Deflection @ Deflection Service Load (ASD)	0.1974	in