TEST REPORT

REPORT NUMBER: 100350201COQ-003
ORIGINAL ISSUE DATE: April 7, 2011

EVALUATION CENTER

INTERTEK TESTING SERVICES NA LTD.
1500 BRIGANTINE DRIVE
COQUITLAM, BC, V3K 7C1

RENDERED TO

DIRTT ENVIRONMENTAL SOLUTIONS LTD.
7303-30TH STREET S.E.
CALGARY, AB T2C 1N6

PRODUCT EVALUATED:
Face Tiled Wall (Solid Wall) and Center Mount Glass Wall

EVALUATION PROPERTY:
Transverse Load Test

Report of Face Tiled Wall (Solid Wall) and Center Mount Glass Wall for the selected requirements of ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*

1 Table of Contents

2 Introduction

Intertek Testing Services NA Ltd. (Intertek) has conducted transverse load tests for DIRTT Environmental Solutions Ltd. on a series of solid and glass wall assemblies. The evaluation was carried out in accordance with ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*. This evaluation was completed during the month of March 2011.

3 Test Samples

3.1. SAMPLE SELECTION

The client submitted twelve (12) solid and glass wall assemblies to the Evaluation Center on March 18, 2011. Samples were not independently selected for testing.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The selected wall assemblies were identified as the following:

Face Tiled Wall (V2 Solid Wall) with Low Profile Base

- 48 in. (1219 mm) wide x product height to suit a 12 ft. (3658 mm) ceiling height
- Exposed horizontal at 10 ft. (3048 mm) AFF on both sides of frame
- 2 equally spaced hidden horizontals below
- MDF Chromacoat tiles up to 10 ft. (3048 mm) height; and separate tile above on both sides

Face Tiled Wall (V2 Solid Wall) with Low Profile Base

- 40 in. (1016 mm) wide x product height to suit a 12 ft. (3658 mm) ceiling height
- Exposed horizontal at 10 ft. (3048 mm) AFF on both sides of frame
- 2 equally spaced hidden horizontals below
- MDF Chromacoat tiles up to 10 ft. (3048 mm) height; and separate tile above on both sides

Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base

- 60 in. (1524 mm) wide x product height to suit a 12 ft. (3658 mm) ceiling height
- Mid Frame horizontal at 10 ft. (3048 mm) AFF
- ¼ in. (6 mm) clear tempered glass

Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base

- 60 in. (1524 mm) wide x product height to suit a 10 ft. (3048 mm) ceiling height
- ¼ in. (6 mm) clear tempered glass

Refer to Appendix F and G for drawings and specific wall details.

4 Testing and Evaluation Methods

4.1. Conditioning

Before testing, the test components were held in room conditions for at least 24 hours at a temperature of 23 ± 2°C and relative humidity of 50 ± 5%.

4.2. Transverse Load Test

Transverse load tests were conducted in accordance with Section 11 of ASTM E72-05. Three replicate samples for each configuration were tested in the horizontal configuration using uniformly distributed loading by the bag method. Each test panel was supported on each end with 1 in. diameter steel rollers and 4 in. x 4 in. steel beams. Heavy duty 6 mil polyethylene sheet was placed over the test specimen, and sealed to the ground with a test frame constructed of steel support beams. The interior length of the frame was set to the maximum adjustable length of the test panels. The interior width of the frame was made approximately 1/4 in. greater than the width of the test panels to allow for free lateral movement of the panels during the tests. Uniformly distributed loading was developed by reducing the air bag pressure against the test sample on the front of test frame assembly. A photograph of the test apparatus is included in Appendix E.

Deflection readings were recorded for each test to establish deformation and set characteristics. A total of seven (7) gauges were set on the test panel - three gauges (3) were located on the horizontal center of the test panel, one on the vertical centre and two on the edges of the panel, and four (4) gauges were positioned at each corner of the panel. All deflection measurements were made independent of the test specimens.

The test panels were loaded in increments appropriate to determine a load-deformation curve. Initial readings of load and deformation were recorded under a preload equivalent to the weight of the panel. The load was then increased to the first increment within one minute where the deformation was immediately recorded. After holding the load for five minutes, the deformation was again recorded. The load was then released back to preload within one minute where the deformation was immediately recorded. After five minutes at no load, the deformation was once more recorded. This sequence of deformation measurements was repeated a minimum of 2 more times, up to a proof load of 15 psf.

5 Testing and Evaluation Results

The test results for the various DIRTT wall assemblies are shown in Table 1 below. A copy of the data sheets can be found in the Appendices.

Table 2. Transverse Load Test Results

Wall	Size	Deflection @ 5 psf	Maximum Deflection		Maximum Load	Pass/Fail
			L/120	L/175 or 0.75 in. whichever is smaller		
Face Tiled Wall (Solid Wall)	48 in. x 12 ft.	1.106 in.	≤ 1.167 in.	-	15.0 psf	Pass
		1.142 in.				
		1.043 in.				
	40 in. x 12 ft.	0.906 in.	≤ 1.167 in.	-	15.0 psf	Pass
		0.929 in.				
		0.870 in.				
Center Mount Glass Wall	60 in. x 12 ft.	0.608 in.	-	≤ 0.750 in.	15.0 psf	Pass
		0.543 in.				
		0.548 in.				
	60 in. x 10 ft.	0.301 in.	-	≤ 0.663 in.	15.0 psf	Pass
		0.242 in.				
		0.234 in.				

6 Conclusion

The DIRTT Face Tiled Wall (Solid Wall) and Center Mount Glass Wall Assemblies identified and evaluated in this report was tested in accordance with ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.* The product test results are presented in Section 5 of this report.

INTERTEK TESTING SERVICES NA LTD.

Tested and Reported by:

Chris Chang, EIT
Test Engineer / Project Leader, Building Products

Reviewed by:

Riccardo DeSantis
Lab Supervisor / Test Technician, Building Products

APPENDIX A: Solid Wall – 48 in. x 12 ft. Test Data (3 pages)

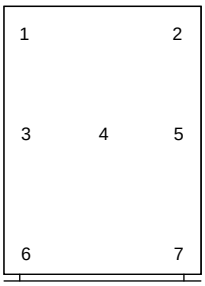
Test:	**Transverse Load**		Project#:	G100350201
Client:	DIRTT Environmental Solutions Ltd.	**TEST #1**	Technician(s):	Chris Chang
Date:	23-Mar-11		Reviewer:	Riccardo DeSantis

Product: **48 in. x 12 ft. Face Tiled Wall (V2 Solid Wall) with Low Profile Base**

Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*

Equipment:
1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)

Time/Temp/RH: 8:00AM / 23.0°C / 50.0%



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	4.0	12.0

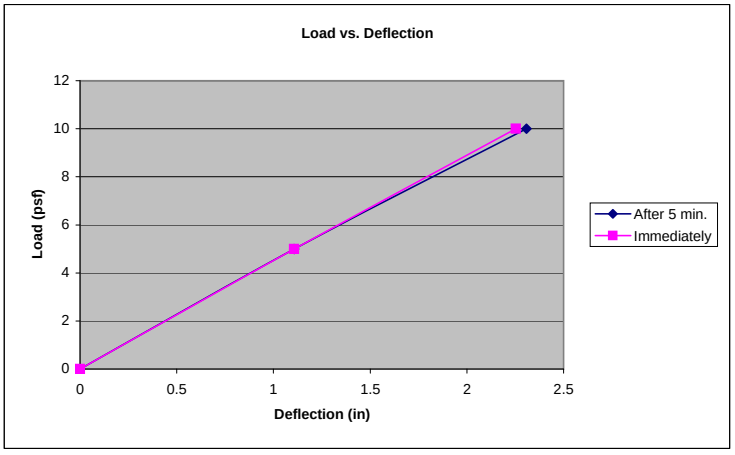
Panel Weight: 237.59 lbs Area: 48.0 sq. ft Pre-load due to weight: 5 psf

Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
1.0	**5**	immed.	0.000	0.000	1.106	1.106	1.106	0.000	0.000	**1.106**
1.9	**10**	immed.	0.026	0.035	2.321	2.321	2.297	0.105	0.073	**2.253**
1.9	**10**	~5min	0.028	0.036	2.380	2.380	2.350	0.109	0.076	**2.308**
1.0	**5**	immed.	0.003	0.000	1.138	1.138	1.137	0.022	0.008	**1.129**
1.0	**5**	~5min	0.000	-0.001	1.061	1.062	1.057	0.016	0.004	**1.055**

OBSERVATIONS/MODE OF FAILURE:

Frame buckled and panel clips deformed - maximum load reached was 21.8 psf (4.2 in. H2O) before test was stopped due to deflection limitations of test chamber

Deflection Limit - L/120 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
1.167	1.106	**Pass**



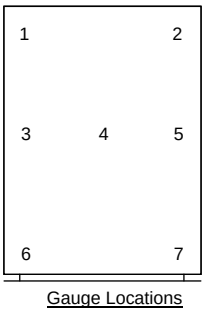
Test:	**Transverse Load**		Project#:	G100350201
Client:	DIRTT Environmental Solutions Ltd.	**TEST #2**	Technician(s):	Chris Chang
Date:	23-Mar-11		Reviewer:	Riccardo DeSantis

Product: **48 in. x 12 ft. Face Tiled Wall (V2 Solid Wall) with Low Profile Base**

Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*

Equipment:
1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)

Time/Temp/RH: 10:15AM / 23.0°C / 50.0%



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	4.0	12.0

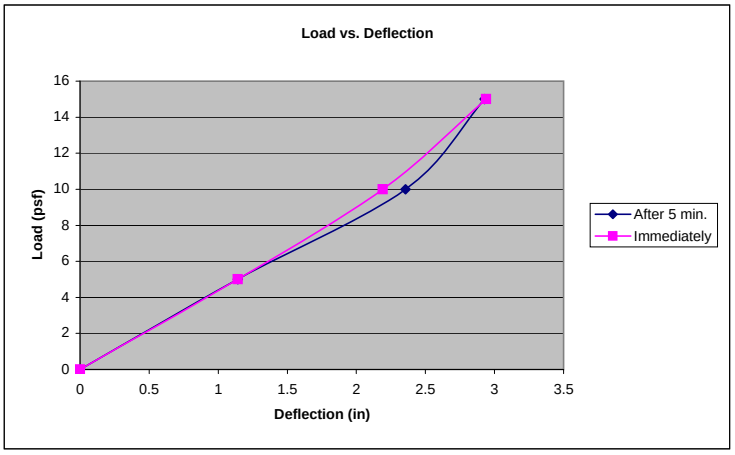
Panel Weight: 237.59 lbs Area: 48.0 sq. ft Pre-load due to weight: 5 psf

Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
1.0	**5**	immed.	0.000	0.000	1.142	1.142	1.142	0.000	0.000	**1.142**
1.9	**10**	immed.	0.020	0.011	2.249	2.263	2.248	0.106	0.106	**2.192**
1.9	**10**	~5min	0.023	0.013	2.431	2.439	2.417	0.130	0.127	**2.356**
1.0	**5**	immed.	0.006	0.003	1.391	1.391	1.386	0.046	0.049	**1.363**
1.0	**5**	~5min	0.004	0.002	1.280	1.280	1.283	0.036	0.038	**1.261**
2.9	**15**	immed.	0.039	0.022	3.118	2.923	3.145	0.217	0.214	**2.939**
2.9	**15**	~5min	0.040	0.022	3.118	2.923	3.145	0.242	0.235	**2.927**
1.0	**5**	immed.	0.011	0.007	1.575	1.569	1.560	0.094	0.085	**1.518**
1.0	**5**	~5min	0.007	0.006	1.331	1.332	1.324	0.071	0.064	**1.292**

OBSERVATIONS/MODE OF FAILURE:

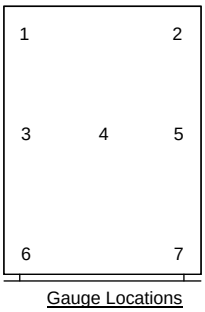
Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

Deflection Limit - L/120 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
1.167	1.142	**Pass**



Intertek

Test:	**Transverse Load**		Project#: G100350201
Client:	DIRTT Environmental Solutions Ltd.	**TEST #3**	Technician(s): Chris Chang
Date:	23-Mar-11		Reviewer: Riccardo DeSantis
Product:	**48 in. x 12 ft. Face Tiled Wall (V2 Solid Wall) with Low Profile Base**		
Test Method(s):	ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*		
Equipment:	1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)		
	2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)		
	3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)		
	4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)		
	5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)		
	6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)		
	7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)		
	Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)		
Time/Temp/RH:	1:30PM / 23.0°C / 50.0%		



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	4.0	12.0

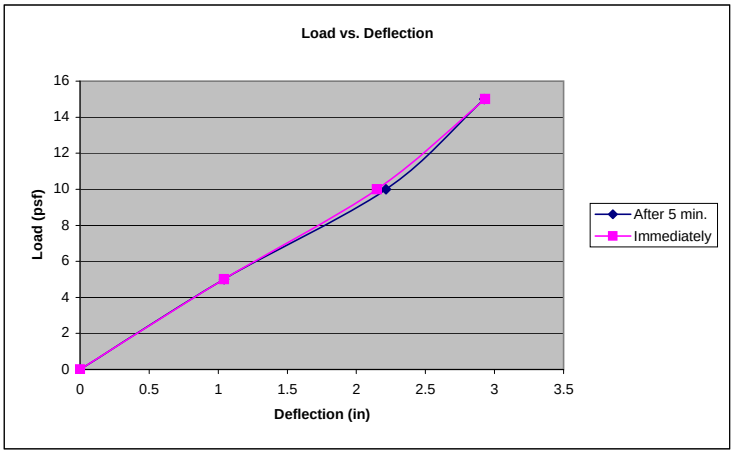
Panel Weight: 237.59 lbs Area: 48.0 sq. ft Pre-load due to weight: 5 psf

Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
1.0	**5**	immed.	0.000	0.000	1.043	1.043	1.043	0.000	0.000	**1.043**
1.9	**10**	immed.	0.046	0.031	2.205	2.230	2.194	0.074	0.089	**2.150**
1.9	**10**	~5min	0.049	0.033	2.280	2.299	2.259	0.080	0.096	**2.215**
1.0	**5**	immed.	0.011	0.006	1.252	1.264	1.262	0.020	0.027	**1.243**
1.0	**5**	~5min	0.015	0.008	1.150	1.154	1.148	0.026	0.031	**1.131**
2.9	**15**	immed.	0.078	0.055	3.028	3.095	2.971	0.118	0.141	**2.933**
2.9	**15**	~5min	0.085	0.058	3.028	3.095	2.971	0.126	0.152	**2.926**
1.0	**5**	immed.	0.020	0.014	1.356	1.365	1.357	0.039	0.050	**1.329**
1.0	**5**	~5min	0.014	0.010	1.190	1.200	1.200	0.028	0.038	**1.174**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

Deflection Limit - L/120 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
1.167	1.043	**Pass**



APPENDIX B: Solid Wall – 40 in. x 12 ft. Test Data (3 pages)

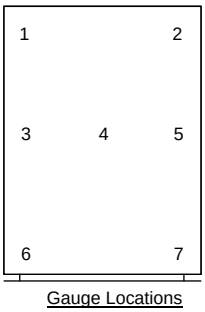
Test:	**Transverse Load**		Project#:	G100350201
Client:	DIRTT Environmental Solutions Ltd.	**TEST #1**	Technician(s):	Chris Chang
Date:	24-Mar-11		Reviewer:	Riccardo DeSantis

Product: **40 in. x 12 ft. Face Tiled Wall (V2 Solid Wall) with Low Profile Base**

Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*

Equipment:
1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)

Time/Temp/RH: 9:00AM / 23.0°C / 50.0%



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	3.3	12.0

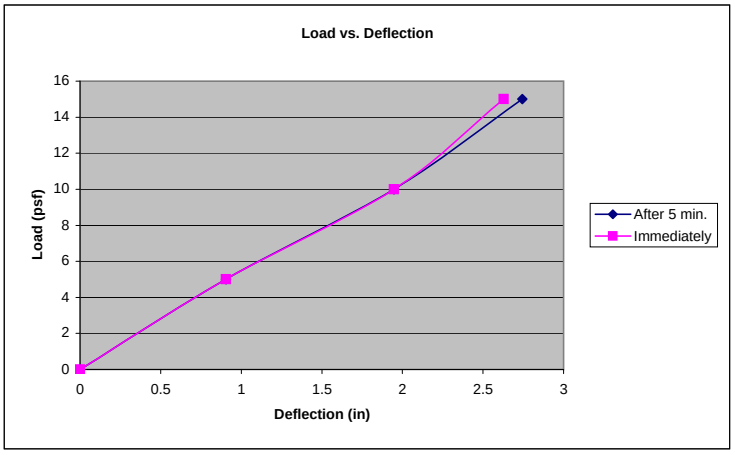
Panel Weight: 200.66 lbs Area: 40.0 sq. ft Pre-load due to weight: 5 psf

Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
1.0	**5**	immed.	0.000	0.000	0.906	0.906	0.906	0.000	0.000	**0.906**
1.9	**10**	immed.	0.038	0.026	2.017	2.002	1.989	0.098	0.059	**1.948**
1.9	**10**	~5min	0.039	0.027	2.018	2.006	1.993	0.104	0.065	**1.947**
1.0	**5**	immed.	0.011	0.009	1.148	1.147	1.137	0.057	0.022	**1.119**
1.0	**5**	~5min	0.010	0.007	1.120	1.103	1.098	0.053	0.020	**1.084**
2.9	**15**	immed.	0.064	0.043	2.734	2.713	2.701	0.145	0.100	**2.628**
2.9	**15**	~5min	0.070	0.049	2.896	2.764	2.859	0.156	0.112	**2.743**
1.0	**5**	immed.	0.015	0.013	1.224	1.205	1.195	0.075	0.039	**1.172**
1.0	**5**	~5min	0.012	0.010	1.130	1.112	1.109	0.069	0.032	**1.086**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

Deflection Limit - L/120 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
1.167	0.906	**Pass**



Intertek

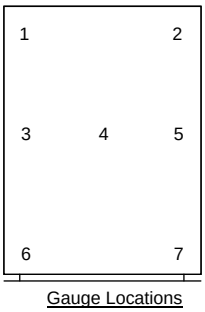
Test:	**Transverse Load**		Project#:	G100350201
Client:	DIRTT Environmental Solutions Ltd.	**TEST #2**	Technician(s):	Chris Chang
Date:	24-Mar-11		Reviewer:	Riccardo DeSantis

Product: **40 in. x 12 ft. Face Tiled Wall (V2 Solid Wall) with Low Profile Base**

Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*

Equipment:
1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)

Time/Temp/RH: 10:00AM / 23.0°C / 50.0%



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	3.3	12.0

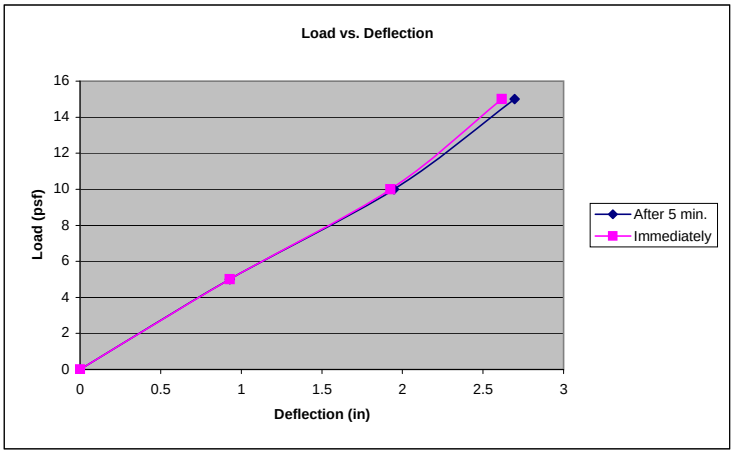
Panel Weight: 200.66 lbs Area: 40.0 sq. ft Pre-load due to weight: 5 psf

Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
1.0	**5**	immed.	0.000	0.000	0.929	0.929	0.929	0.000	0.000	**0.929**
1.9	**10**	immed.	0.033	0.019	1.969	1.983	1.987	0.079	0.086	**1.926**
1.9	**10**	~5min	0.033	0.018	1.991	2.007	2.010	0.080	0.088	**1.948**
1.0	**5**	immed.	0.011	0.004	1.138	1.141	1.139	0.024	0.028	**1.122**
1.0	**5**	~5min	0.007	0.003	1.052	1.055	1.056	0.018	0.022	**1.042**
2.9	**15**	immed.	0.050	0.030	2.690	2.708	2.709	0.126	0.138	**2.617**
2.9	**15**	~5min	0.052	0.032	2.807	2.750	2.813	0.142	0.154	**2.695**
1.0	**5**	immed.	0.014	0.007	1.222	1.222	1.219	0.039	0.048	**1.193**
1.0	**5**	~5min	0.012	0.005	1.134	1.136	1.135	0.035	0.042	**1.112**

OBSERVATIONS/MODE OF FAILURE:

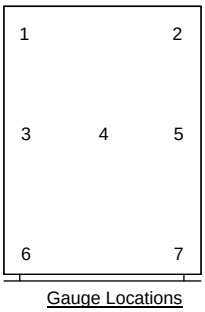
Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

Deflection Limit - L/120 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
1.167	0.929	**Pass**



Intertek

Test:	**Transverse Load**		Project#: G100350201
Client:	DIRTT Environmental Solutions Ltd.	**TEST #3**	Technician(s): Chris Chang
Date:	24-Mar-11		Reviewer: Riccardo DeSantis
Product:	**40 in. x 12 ft. Face Tiled Wall (V2 Solid Wall) with Low Profile Base**		
Test Method(s):	ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*		
Equipment:	1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)		
	2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)		
	3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)		
	4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)		
	5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)		
	6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)		
	7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)		
	Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)		
Time/Temp/RH:	11:00AM / 23.0°C / 50.0%		



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	3.3	12.0

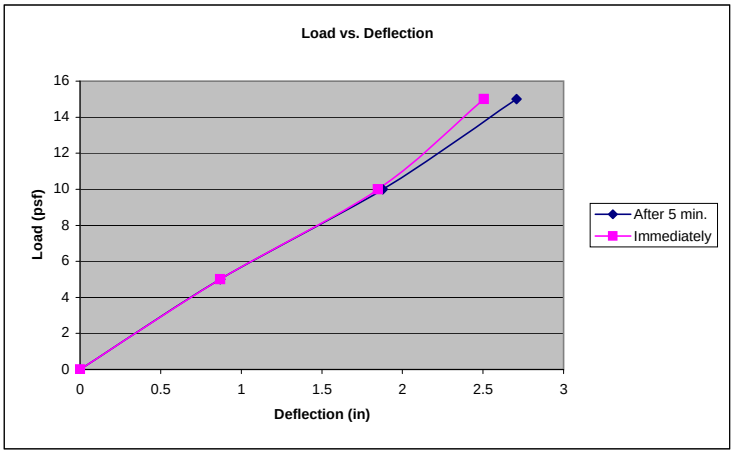
Panel Weight: 200.66 lbs Area: 40.0 sq. ft Pre-load due to weight: 5 psf

Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
1.0	**5**	immed.	0.000	0.000	0.870	0.870	0.870	0.000	0.000	**0.870**
1.9	**10**	immed.	0.022	0.015	1.884	1.902	1.919	0.085	0.092	**1.848**
1.9	**10**	~5min	0.022	0.018	1.915	1.937	1.955	0.089	0.102	**1.878**
1.0	**5**	immed.	0.006	0.002	1.084	1.086	1.088	0.033	0.041	**1.066**
1.0	**5**	~5min	0.004	0.000	0.989	0.991	0.989	0.023	0.035	**0.974**
2.9	**15**	immed.	0.035	0.031	2.564	2.599	2.629	0.143	0.155	**2.506**
2.9	**15**	~5min	0.039	0.034	2.806	2.806	2.828	0.167	0.178	**2.709**
1.0	**5**	immed.	0.008	0.002	1.117	1.117	1.115	0.050	0.062	**1.086**
1.0	**5**	~5min	0.005	0.000	1.009	1.013	1.014	0.044	0.052	**0.987**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

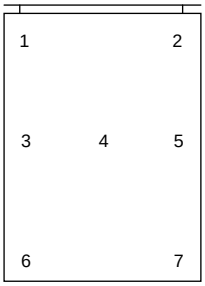
Deflection Limit - L/120 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
1.167	0.870	**Pass**



APPENDIX C: Glass Wall – 60 in. x 12 ft. Test Data (3 pages)

Test: **Transverse Load**
Client: DIRTT Environmental Solutions Ltd. **TEST #1**
Date: 25-Mar-11
Product: **60 in. x 12 ft. Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base**
Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*
Equipment: 1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)
Time/Temp/RH: 8:00AM / 23.0°C / 50.0%

Project#: G100350201
Technician(s): Chris Chang
Reviewer: Riccardo DeSantis



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	5.0	12.0

Panel Weight: 206.20 lbs Area: 60.0 sq. ft Pre-load due to weight: 3.4 psf

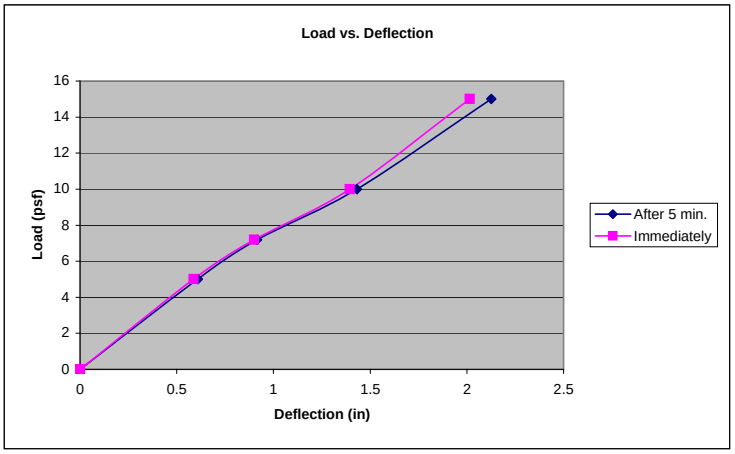
Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
0.7	**3.4**	immed.	0.000	0.000	0.374	0.374	0.374	0.000	0.000	**0.374**
1.0	**5**	immed.	0.028	0.020	0.600	0.617	0.589	0.004	0.006	**0.587**
1.0	**5**	~5min	0.030	0.022	0.620	0.641	0.611	0.004	0.006	**0.608**
0.7	**3.4**	immed.	0.019	0.014	0.502	0.510	0.494	0.004	0.004	**0.492**
0.7	**3.4**	~5min	0.015	0.012	0.479	0.488	0.472	0.002	0.002	**0.472**
1.4	**7.2**	immed.	0.084	0.052	0.956	0.961	0.902	0.009	0.013	**0.900**
1.4	**7.2**	~5min	0.086	0.054	0.976	0.977	0.914	0.009	0.014	**0.915**
0.7	**3.4**	immed.	0.048	0.026	0.574	0.574	0.542	0.005	0.006	**0.542**
0.7	**3.4**	~5min	0.031	0.014	0.415	0.405	0.394	0.001	0.001	**0.393**
1.9	**10**	immed.	0.154	0.104	1.479	1.483	1.439	0.010	0.023	**1.394**
1.9	**10**	~5min	0.156	0.107	1.502	1.523	1.492	0.010	0.024	**1.431**
0.7	**3.4**	immed.	0.083	0.044	0.626	0.623	0.586	0.004	0.007	**0.578**
0.7	**3.4**	~5min	0.061	0.028	0.445	0.430	0.416	0.001	0.000	**0.408**
2.9	**15**	immed.	0.224	0.157	2.099	2.122	2.137	0.011	0.026	**2.015**
2.9	**15**	~5min	0.240	0.170	2.170	2.258	2.286	0.012	0.027	**2.126**
0.7	**3.4**	immed.	0.103	0.054	0.606	0.594	0.570	0.002	0.004	**0.549**
0.7	**3.4**	~5min	0.090	0.044	0.500	0.481	0.469	0.001	0.001	**0.449**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

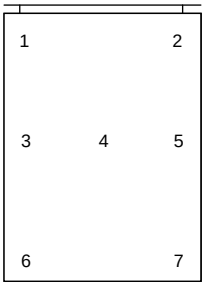
Deflection Limit - L/175 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
0.800	0.608	**Pass**

or 0.75 in. whichever is smaller



Test: **Transverse Load**
Client: DIRTT Environmental Solutions Ltd. **TEST #2**
Date: 25-Mar-11
Product: **60 in. x 12 ft. Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base**
Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*
Equipment: 1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)
Time/Temp/RH: 9:00AM / 23.0°C / 50.0%

Project#: G100350201
Technician(s): Chris Chang
Reviewer: Riccardo DeSantis



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	5.0	12.0

Panel Weight: 206.20 lbs Area: 60.0 sq. ft Pre-load due to weight: 3.4 psf

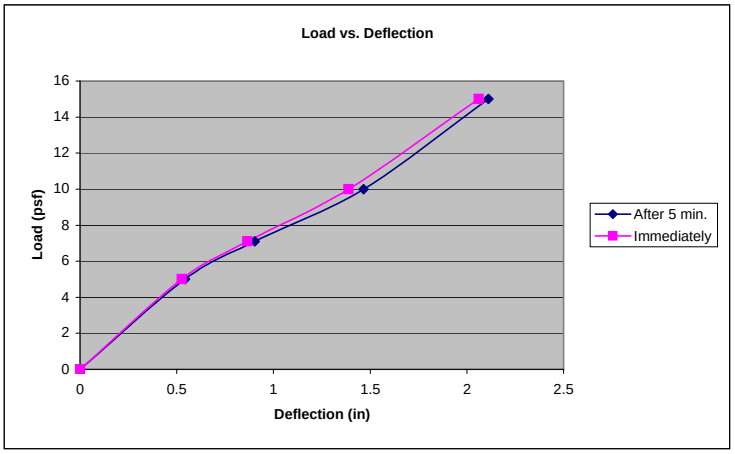
Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
0.7	**3.4**	immed.	0.000	0.000	0.344	0.344	0.344	0.000	0.000	**0.344**
1.0	**5**	immed.	0.027	0.031	0.529	0.558	0.543	0.006	0.006	**0.526**
1.0	**5**	~5min	0.026	0.030	0.545	0.575	0.558	0.004	0.005	**0.543**
0.7	**3.4**	immed.	0.017	0.020	0.435	0.452	0.446	0.004	0.003	**0.433**
0.7	**3.4**	~5min	0.009	0.012	0.362	0.369	0.369	0.001	0.001	**0.361**
1.4	**7.1**	immed.	0.065	0.072	0.875	0.931	0.913	0.014	0.012	**0.866**
1.4	**7.1**	~5min	0.069	0.075	0.914	0.970	0.950	0.012	0.012	**0.903**
0.7	**3.4**	immed.	0.024	0.031	0.457	0.479	0.475	0.005	0.004	**0.454**
0.7	**3.4**	~5min	0.016	0.020	0.360	0.368	0.374	0.003	0.001	**0.357**
1.9	**10**	immed.	0.118	0.120	1.457	1.473	1.439	0.015	0.019	**1.389**
1.9	**10**	~5min	0.126	0.130	1.561	1.550	1.504	0.016	0.019	**1.465**
0.7	**3.4**	immed.	0.032	0.039	0.469	0.487	0.488	0.005	0.004	**0.461**
0.7	**3.4**	~5min	0.023	0.028	0.373	0.378	0.385	0.003	0.001	**0.365**
2.9	**15**	immed.	0.192	0.204	2.112	2.203	2.205	0.028	0.022	**2.062**
2.9	**15**	~5min	0.203	0.215	2.112	2.281	2.292	0.030	0.022	**2.111**
0.7	**3.4**	immed.	0.057	0.068	0.520	0.539	0.539	0.001	0.005	**0.500**
0.7	**3.4**	~5min	0.044	0.054	0.404	0.408	0.420	0.001	0.002	**0.385**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

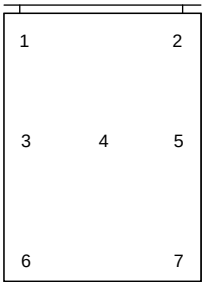
Deflection Limit - L/175 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
0.800	0.543	**Pass**

or 0.75 in. whichever is smaller



Test: **Transverse Load**
Client: DIRTT Environmental Solutions Ltd. **TEST #3**
Date: 25-Mar-11
Product: **60 in. x 12 ft. Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base**
Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*
Equipment: 1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)
Time/Temp/RH: 11:00AM / 23.0°C / 50.0%

Project#: G100350201
Technician(s): Chris Chang
Reviewer: Riccardo DeSantis



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
140	11.67	5.0	12.0

Panel Weight: 206.20 lbs Area: 60.0 sq. ft Pre-load due to weight: 3.4 psf

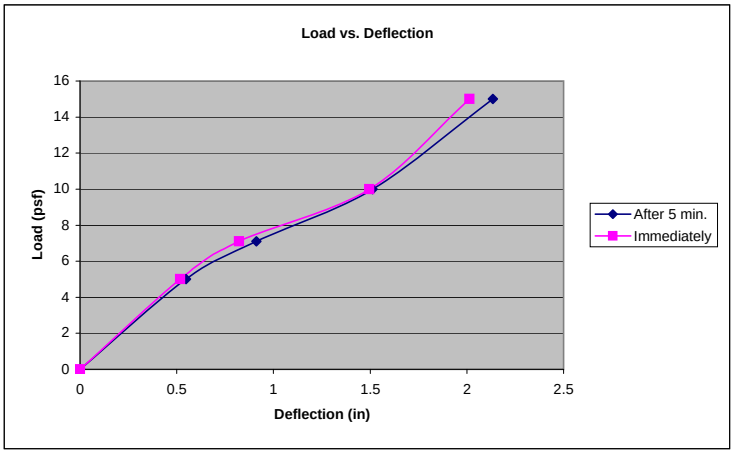
Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
0.7	**3.4**	immed.	0.000	0.000	0.344	0.344	0.344	0.000	0.000	**0.344**
1.0	**5**	immed.	0.015	0.015	0.517	0.541	0.525	0.000	0.009	**0.519**
1.0	**5**	~5min	0.017	0.018	0.548	0.574	0.556	0.000	0.011	**0.548**
0.7	**3.4**	immed.	0.009	0.010	0.436	0.449	0.439	0.000	0.005	**0.435**
0.7	**3.4**	~5min	0.001	0.002	0.336	0.354	0.337	0.000	0.000	**0.342**
1.4	**7.1**	immed.	0.043	0.046	0.806	0.864	0.877	0.000	0.021	**0.822**
1.4	**7.1**	~5min	0.048	0.051	0.896	0.962	0.970	0.000	0.022	**0.912**
0.7	**3.4**	immed.	0.018	0.022	0.460	0.481	0.481	0.000	0.006	**0.463**
0.7	**3.4**	~5min	0.008	0.013	0.352	0.356	0.366	0.000	0.001	**0.353**
1.9	**10**	immed.	0.096	0.102	1.465	1.556	1.637	0.002	0.028	**1.496**
1.9	**10**	~5min	0.097	0.102	1.489	1.572	1.649	0.002	0.028	**1.513**
0.7	**3.4**	immed.	0.032	0.037	0.506	0.529	0.548	0.000	0.004	**0.509**
0.7	**3.4**	~5min	0.020	0.026	0.383	0.388	0.404	0.000	-0.002	**0.381**
2.9	**15**	immed.	0.139	0.144	2.031	2.100	2.159	0.011	0.036	**2.014**
2.9	**15**	~5min	0.151	0.154	2.161	2.224	2.285	0.013	0.038	**2.134**
0.7	**3.4**	immed.	0.045	0.054	0.530	0.557	0.579	0.000	0.005	**0.529**
0.7	**3.4**	~5min	0.034	0.042	0.414	0.422	0.447	0.000	0.000	**0.409**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

Deflection Limit - L/175 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
0.800	0.548	**Pass**

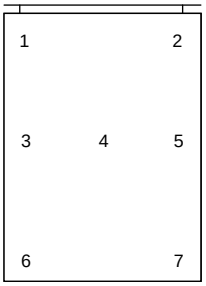
or 0.75 in. whichever is smaller



APPENDIX D: Glass Wall – 60 in. x 10 ft. Test Data (3 pages)

Test: **Transverse Load**
Client: DIRTT Environmental Solutions Ltd. **TEST #1**
Date: 28-Mar-11
Product: **60 in. x 10 ft. Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base**
Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*
Equipment: 1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)
Time/Temp/RH: 10:00AM / 23.0°C / 50.0%

Project#: G100350201
Technician(s): Chris Chang
Reviewer: Riccardo DeSantis



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
116	9.67	5.0	10.0

Panel Weight: 170.00 lbs Area: 50.0 sq. ft Pre-load due to weight: 3.4 psf

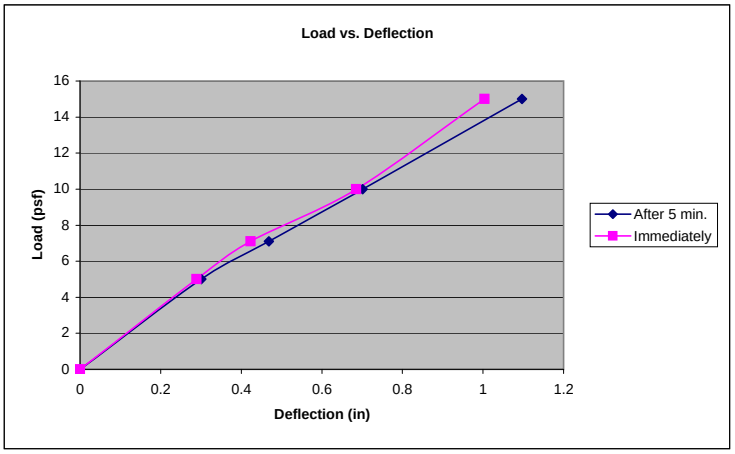
Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
0.7	**3.4**	immed.	0.000	0.000	0.205	0.205	0.205	0.000	0.000	**0.205**
1.0	**5**	immed.	0.009	0.009	0.281	0.314	0.285	0.000	0.001	**0.289**
1.0	**5**	~5min	0.010	0.011	0.293	0.330	0.298	0.000	0.001	**0.301**
0.7	**3.4**	immed.	0.003	0.004	0.228	0.241	0.231	0.000	0.001	**0.232**
0.7	**3.4**	~5min	0.001	0.001	0.210	0.213	0.211	0.000	0.000	**0.211**
1.4	**7.1**	immed.	0.022	0.024	0.406	0.481	0.419	0.000	0.003	**0.423**
1.4	**7.1**	~5min	0.026	0.030	0.450	0.536	0.466	0.001	0.004	**0.469**
0.7	**3.4**	immed.	0.007	0.007	0.248	0.268	0.251	0.001	0.002	**0.252**
0.7	**3.4**	~5min	0.002	0.002	0.207	0.211	0.209	0.001	0.001	**0.207**
1.9	**10**	immed.	0.053	0.065	0.665	0.787	0.700	0.003	0.009	**0.685**
1.9	**10**	~5min	0.053	0.064	0.680	0.804	0.714	0.002	0.008	**0.701**
0.7	**3.4**	immed.	0.010	0.012	0.242	0.258	0.248	0.002	0.004	**0.243**
0.7	**3.4**	~5min	0.007	0.009	0.214	0.219	0.217	0.002	0.003	**0.211**
2.9	**15**	immed.	0.091	0.104	0.980	1.124	1.065	0.004	0.011	**1.004**
2.9	**15**	~5min	0.114	0.121	1.080	1.225	1.177	0.006	0.013	**1.097**
0.7	**3.4**	immed.	0.040	0.030	0.296	0.321	0.296	0.004	0.007	**0.284**
0.7	**3.4**	~5min	0.032	0.021	0.231	0.231	0.230	0.004	0.006	**0.215**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

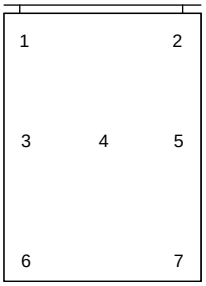
Deflection Limit - L/175 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
0.663	0.301	**Pass**

or 0.75 in. whichever is smaller



Test: **Transverse Load**
Client: DIRTT Environmental Solutions Ltd. **TEST #2**
Date: 28-Mar-11
Product: **60 in. x 10 ft. Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base**
Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*
Equipment: 1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)
Time/Temp/RH: 11:00AM / 23.0°C / 50.0%

Project#: G100350201
Technician(s): Chris Chang
Reviewer: Riccardo DeSantis



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
116	9.67	5.0	10.0

Panel Weight: 170.00 lbs Area: 50.0 sq. ft Pre-load due to weight: 3.4 psf

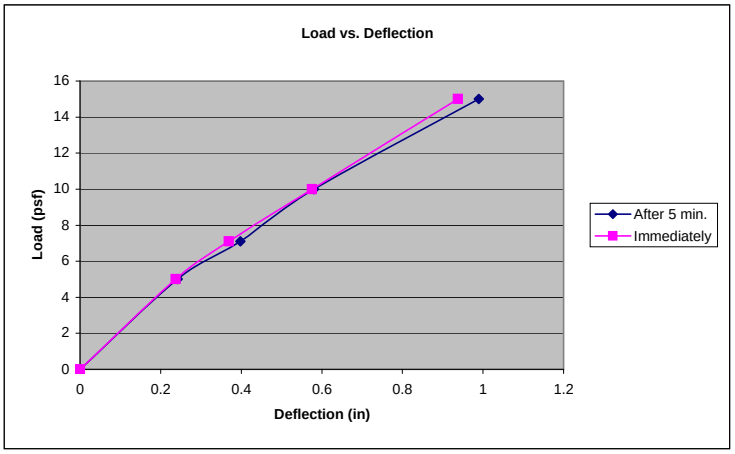
Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
0.7	**3.4**	immed.	0.000	0.000	0.130	0.130	0.130	0.000	0.000	**0.130**
1.0	**5**	immed.	0.022	0.016	0.234	0.274	0.233	0.001	0.000	**0.237**
1.0	**5**	~5min	0.023	0.017	0.239	0.281	0.239	0.001	0.002	**0.242**
0.7	**3.4**	immed.	0.013	0.011	0.181	0.200	0.180	0.001	0.000	**0.181**
0.7	**3.4**	~5min	0.006	0.006	0.137	0.140	0.138	0.000	-0.001	**0.135**
1.4	**7.1**	immed.	0.043	0.031	0.363	0.440	0.365	0.002	0.002	**0.370**
1.4	**7.1**	~5min	0.051	0.040	0.394	0.477	0.395	0.002	0.003	**0.398**
0.7	**3.4**	immed.	0.020	0.020	0.191	0.213	0.191	0.002	0.000	**0.188**
0.7	**3.4**	~5min	0.010	0.014	0.141	0.146	0.143	0.001	-0.001	**0.137**
1.9	**10**	immed.	0.079	0.064	0.572	0.685	0.583	0.004	0.005	**0.575**
1.9	**10**	~5min	0.082	0.068	0.579	0.691	0.593	0.005	0.006	**0.580**
0.7	**3.4**	immed.	0.025	0.030	0.189	0.211	0.191	0.002	0.001	**0.183**
0.7	**3.4**	~5min	0.015	0.024	0.145	0.153	0.151	0.001	0.000	**0.140**
2.9	**15**	immed.	0.154	0.122	0.995	1.079	0.962	0.007	0.013	**0.938**
2.9	**15**	~5min	0.163	0.130	1.057	1.133	1.015	0.008	0.013	**0.989**
0.7	**3.4**	immed.	0.044	0.054	0.216	0.248	0.224	0.002	0.006	**0.203**
0.7	**3.4**	~5min	0.028	0.048	0.161	0.170	0.171	0.002	0.004	**0.147**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

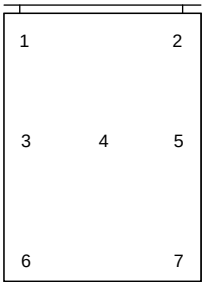
Deflection Limit - L/175 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
0.663	0.242	**Pass**

or 0.75 in. whichever is smaller



Test: **Transverse Load**
Client: DIRTT Environmental Solutions Ltd. **TEST #3**
Date: 28-Mar-11
Product: **60 in. x 10 ft. Center Mount Glass Wall (V2 Glass Wall) with Low Profile Base**
Test Method(s): ASTM E72-05, *Standard Test Methods of Conducting Strength Tests of Panels for Building Construction*
Equipment: 1 - Mitutoyo Digital Gauge (Intertek ID# P60015, cal due November 2011)
2 - Mitutoyo Digital Gauge (Intertek ID# 02780, cal due November 2011)
3 - Mitutoyo Digital Gauge (Intertek ID# P60018, cal due November 2011)
4 - Mitutoyo Digital Gauge (Intertek ID# 02763, cal due November 2011)
5 - Mitutoyo Digital Gauge (Intertek ID# P60017, cal due November 2011)
6 - Mitutoyo Digital Gauge (Intertek ID# 02701, cal due November 2011)
7 - Mitutoyo Digital Gauge (Intertek ID# P60021, cal due November 2011)
Digitron 2027P Digital Pressure Meter (Intertek ID# P60173, cal due March 2011)
Time/Temp/RH: 2:00PM / 23.0°C / 50.0%

Project#: G100350201
Technician(s): Chris Chang
Reviewer: Riccardo DeSantis



Gauge Locations

Span		Panel	
(in)	(ft)	Width (ft)	Length (ft)
116	9.67	5.0	10.0

Panel Weight: 170.00 lbs Area: 50.0 sq. ft Pre-load due to weight: 3.4 psf

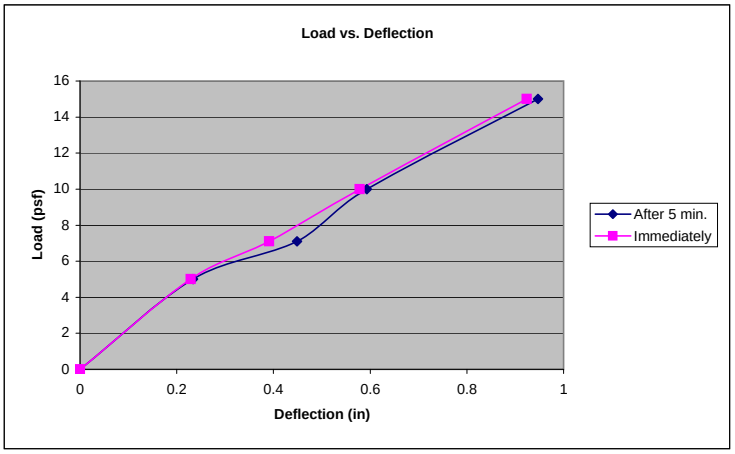
Load (in WC in inches)	Load (psf)	Time	End Gauge 1 (in)	End Gauge 2 (in.)	Midspan Gauge 3 (in.)	Midspan Gauge 4 (in.)	Midspan Gauge 5 (in.)	End Gauge 6 (in.)	End Gauge 7 (in.)	Mean Midspan (in.)
0.0	**0**	immed.	0	0	0	0	0	0	0	**0**
0.7	**3.4**	immed.	0.000	0.000	0.130	0.130	0.130	0.000	0.000	**0.130**
1.0	**5**	immed.	0.009	0.019	0.225	0.263	0.221	-0.001	0.004	**0.229**
1.0	**5**	~5min	0.009	0.020	0.231	0.270	0.226	0.001	0.004	**0.234**
0.7	**3.4**	immed.	0.004	0.018	0.155	0.174	0.167	-0.001	0.002	**0.160**
0.7	**3.4**	~5min	0.001	0.016	0.131	0.141	0.154	-0.001	0.002	**0.138**
1.4	**7.1**	immed.	0.026	0.046	0.384	0.468	0.387	0.003	0.011	**0.391**
1.4	**7.1**	~5min	0.031	0.049	0.441	0.533	0.446	0.004	0.013	**0.449**
0.7	**3.4**	immed.	0.008	0.031	0.174	0.195	0.177	0.002	0.004	**0.171**
0.7	**3.4**	~5min	0.005	0.028	0.137	0.150	0.159	0.001	0.002	**0.140**
1.9	**10**	immed.	0.044	0.062	0.570	0.680	0.583	0.006	0.019	**0.578**
1.9	**10**	~5min	0.046	0.064	0.586	0.697	0.597	0.007	0.019	**0.593**
0.7	**3.4**	immed.	0.011	0.034	0.172	0.194	0.178	0.002	0.004	**0.169**
0.7	**3.4**	~5min	0.007	0.031	0.141	0.155	0.163	0.001	0.003	**0.142**
2.9	**15**	immed.	0.077	0.089	0.932	1.043	0.953	0.012	0.031	**0.924**
2.9	**15**	~5min	0.083	0.093	0.959	1.068	0.980	0.014	0.033	**0.947**
0.7	**3.4**	immed.	0.019	0.041	0.194	0.219	0.194	0.003	0.006	**0.185**
0.7	**3.4**	~5min	0.014	0.037	0.152	0.166	0.170	0.002	0.004	**0.148**

OBSERVATIONS/MODE OF FAILURE:

Panel was not taken to ultimate failure. Test was stopped after reaching 15 psf.

Deflection Limit - L/175 at 5.0 psf (in)		
Requirement	**Max Midspan Deflection**	**Result**
0.663	0.234	**Pass**

or 0.75 in. whichever is smaller



APPENDIX E: Photograph of Test Apparatus (1 page)

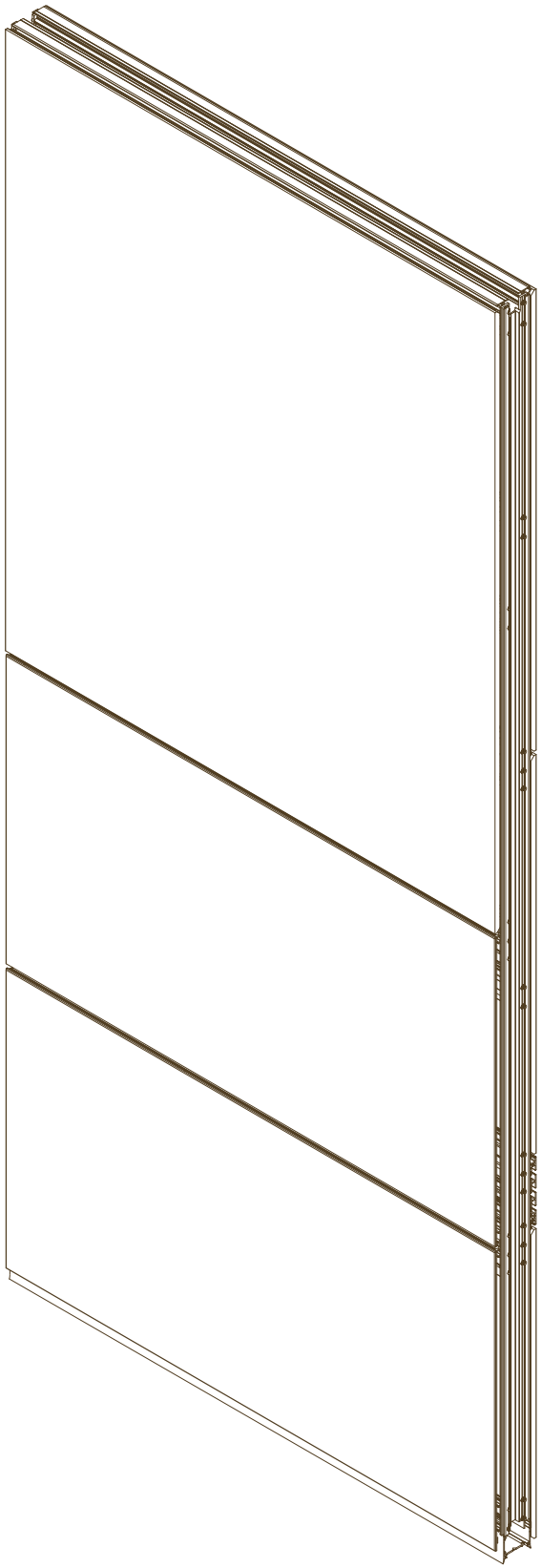
Photo 1. Transverse Load Test Set-up

APPENDIX F: Face Tiled Wall (Solid Wall) Tech Sheet (4 pages)

OVERVIEW - TECH SHEET

FACE TILED WALL (SOLID WALL)

V2 LOW PROFILE BASE



COMPONENTS & MATERIALS

Aluminum Extrusions

Architectural Grade and Structural Aluminum Alloys
Vertical & Horizontal Extrusions, Base Track

Horizontal Sections

Partially exposed Horizontal Support Member for dividing tiles and hanging components; heights user defined.
Hidden Horizontal Member for additional support of face mounted tiles; heights user defined as required.

Insulation

1" (25mm) Thick Fiber Glass – Formaldehyde-free, factory installed in frame. Base Insulation to be field installed in base cavity prior to base trim or scribed tiles.

Base Track

Aluminum Base Track
Steel Leveler Assembly with vertical adjustment
Carpet Grippers
Optional Two Sided Tape for smooth flooring
Optional Seismic Base Track

Base Trim

Santoprene Base Trim
Oversized Solid Tiles scribed to floor on site

Face Mount Tile Options

Chroma-coat (painted) Tiles
Wood Veneer on MDF Tiles
Magnetic Whiteboard Tiles
Dry Erase Film on MDF Tiles
Fabric Tiles; tackable and non-tackable
Frameless Back Painted Glass Tiles
Slat Wall Tiles (Accessory Rail)
DIRTT Approved Custom Finishes

PVC Components

Frame Connections	Rigid/Flex Co-extrusion
Ceiling Trim/Wall Start	Rigid/Flex Co-extrusion
PVC Color Options	Black ,Charcoal, Silver, Custom as required

DIMENSIONS & DETAILS

Frame

Standard Wall Thickness	4" (102mm) with Tiles
Minimum Module Width	6" (152mm)
Maximum Module Width	48" (1219mm)
Standard Ceiling Height	Up to 120" (3048mm)*
Vertical Height Adjustment	
Standard Base	– ⅜" (9.5mm) and +3 ⅞" (98mm)

**Wall Heights above 120" (3048mm) must be validated by DIRTT to confirm walls do not exceed the maximum allowable deflection per IBC.*

Frame Connections

Hidden Links	Frame alignment and gap control
Visible PVC Zipper	At frame connection between frames

Trim Components

Ceiling Trim	Flexible trim from top of wall to ceiling
Wall Trim	Rigid connection from Frame to Base Building; combined with flexible Wall Trim

Other Component Connections to Solid Walls

Glass Panels
Door Frames
Corner Connectors
Various Base Building Connections
Modular Electrical
Conventional Electrical

Other Options

Combination Wall	Combined Face Tile Wall with Glass Wall
Curtain Wall	Installed in front of Base Building Wall Tiled one side only

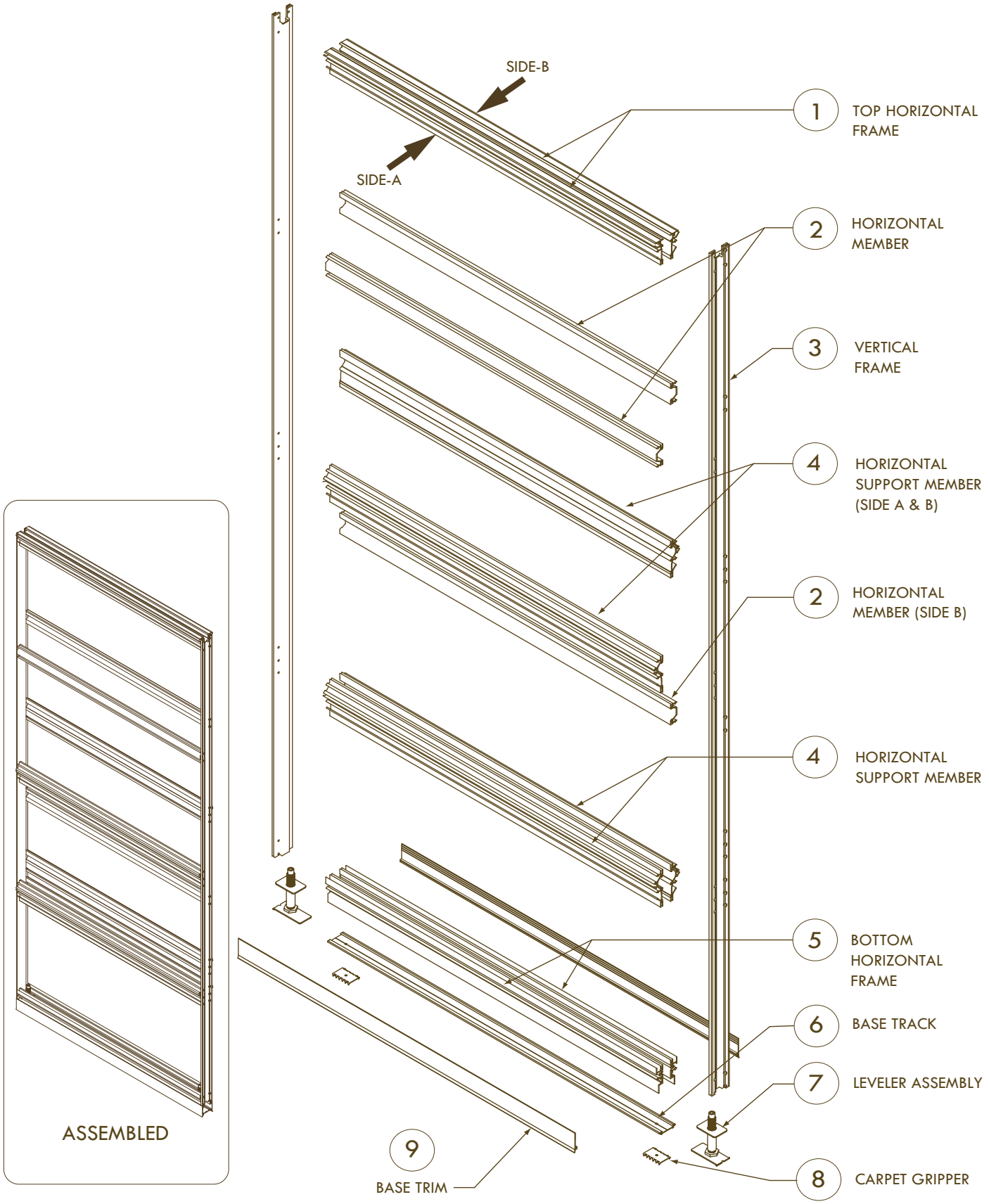
Low Wall
Cornice Height Wall
Center Steel Septum
Mitered Corner Joint
Extended Levelers for additional leveling capability
Seismic
Enhanced STC Performance
DIRTT Approved Custom Solutions (Bespoke)
NAUF/NAF MDF
Fire Retardant MDF

TESTING & APPROVALS

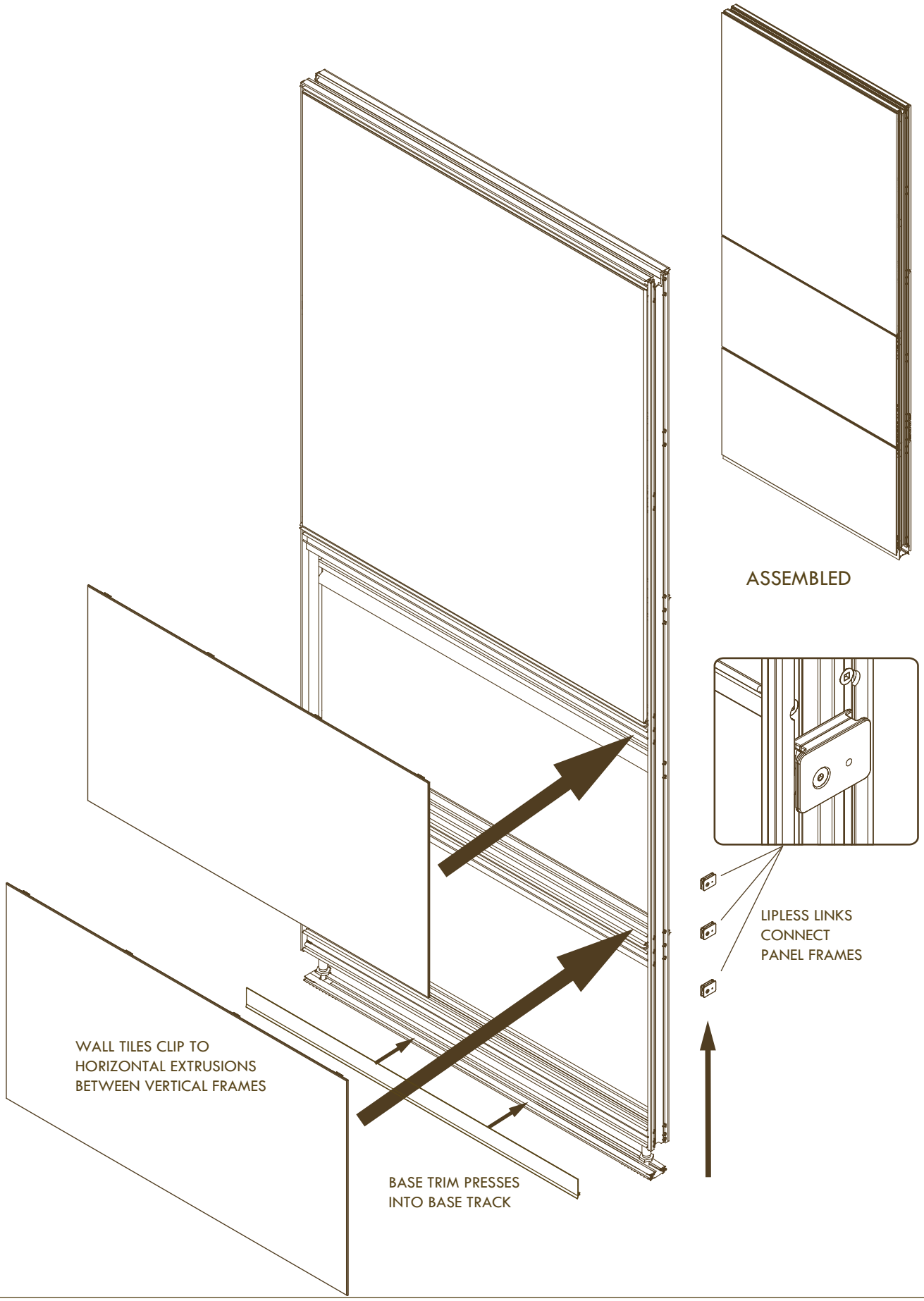
ICC-ES Evaluation Report	ESR-1947
ANSI/BIFMA	X5.6-2003
Traverse Load	ASTM E72
Flame Spread	ASTM E84
STC Rating 37-50 *(Dependent on wall construction)*	ASTM E90
QPS UL/CSA Level 3, Office Electrical	LPCE-75090-1
Los Angeles Research Report (Seismic)	LARR-25604
OSHPD	OPA-2275-07
Seismic Engineering Calculations	
Seismic Engineering Details	

Testing Reports, Details and Approvals are available upon request.

ISOMETRIC/WALL STRUCTURE



ISOMETRIC/WALL PANEL



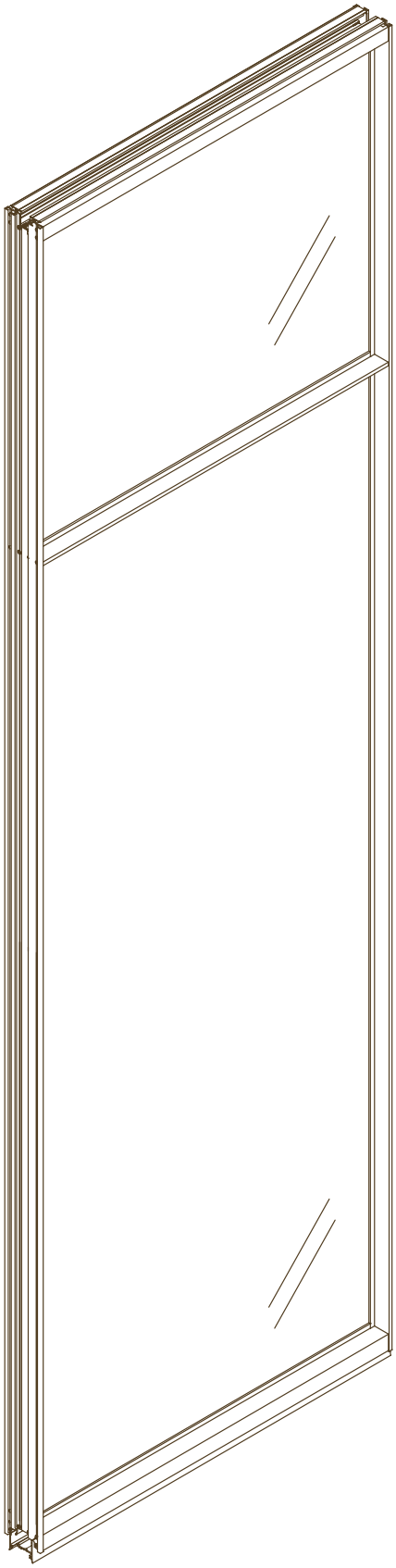
APPENDIX G: Center Mount Glass Wall Tech Sheet (3 pages)

DIRTT

OVERVIEW - TECH SHEET

CENTER MOUNT GLASS WALL

V2 LOW PROFILE BASE



COMPONENTS & MATERIALS

Aluminum Extrusions
- Architectural Grade and Structural Aluminum Alloys
  - Vertical & Horizontal Extrusions, Base Track
- Standard Frame Profiles
  - Rectilinear Profile
  - Curvilinear Profile
  - Blade Profile
- Custom Frame Profiles
- Frame Finish Options
  - Clear Anodized (10 micron standard)
  - Powder Coated
  - Veneer Wrapped
  - Custom as required

Horizontal Sections
- Exposed Horizontal Members in Blade and Curvilinear profiles for dividing and supporting Center Mount Glass or Tiles.
- Center Mount Glass and Tiles are received in PVC Glass Wipes fitted in center groove of horizontal extrusions
- Horizontal Member heights user defined

Base Track
- Aluminum Base Track
- Steel Leveler Assembly with vertical adjustment
- Carpet Grippers
- Two sided tape for smooth flooring
- Optional Seismic Base track

Base Trim
- Santoprene Base Trim

Center Mount Tile Options
- Glass in ¼" (6mm) and ⅜" (10mm) thickness
  - Clear Tempered Glass
  - Etched Glass
  - Laminated Glass
  - Berman Glass
  - Back Painted Glass
- Chroma-coat (painted) Tiles
- Veneer Tiles
- Dry Erase Film on MDF Tiles
- Fabric Tiles
- DIRTT Approved Custom Finishes

PVC Components

Frame Connections	Rigid/Flex Co-extrusion
Ceiling Trim/Wall Start	Rigid/Flex Co-extrusion
Glass Retainer	Rigid/Flex Co-extrusion
PVC Color Options	Black, Charcoal, Silver, Custom as required

DIMENSIONS & DETAILS

Frame

Standard Wall Thickness	4" (102mm)
Minimum Module Width	6" (152mm)
Maximum Module Width	60" (1524mm)
Standard Ceiling Height	Up to 120" (3048mm)*
Vertical Height Adjustment	
Standard Base	– ⅜" (9.5mm) and +1 ⅜" (35mm)
Extended Leveller	+3 ⅞" (98mm)

**Wall Heights above 120" (3048mm) must be validated by DIRTT to confirm walls do not exceed the maximum allowable deflection per IBC.*

Frame Connections

Hidden Links	Frame alignment and gap control
Visible PVC Zipper	At frame connection between frames

Trim Components

Ceiling Trim	Flexible trim from top of wall to ceiling
Wall Trim	Rigid connection from Frame to Base Building; combined with flexible Wall Trim

Other Component Connections to Glass Walls
- Glass Panels
- Door Frames
- Corner Connectors
- Various Base Building Connections

Other Options

Combination Wall	Combined Glass with Solid Wall
Stick Built Wall	Multiple Butt Joint Glass Segments within same frame; site assembled

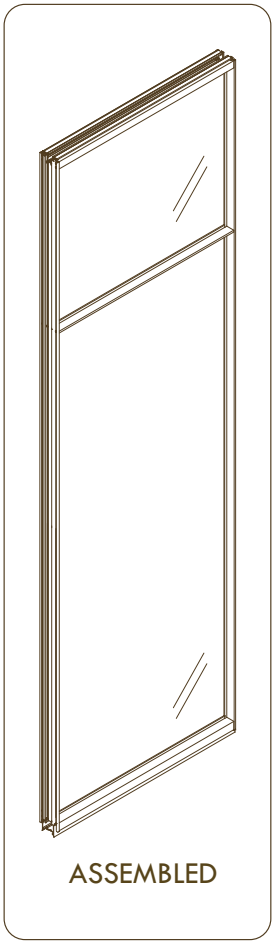
- Cornice Height Wall
- Curved Glass tiles and extrusions
- Glass Spandrel Detail
- Mitered Corner Joint
- DIRTT Approved Custom Solutions

TESTING & APPROVALS

OSHPD	OPA-2275-07
Seismic Engineering Calculations	
Seismic Engineering Details	

Testing Reports, Details and Approvals are available upon request.

ISOMETRIC/WALL PANEL



ASSEMBLED