

Test: Wind Load Resistance
 Date: October 20, 2004
 Client: Rocky Mountain Stoneworks
 Project No: 3041212
 Product: Manufactured Concrete clone
 Test Method: CCMC MF 07483 Section 6.5.6 Wind Load Resistance
 ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows,
 Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference1
 Sample Type: Wall Panel 8 ft x 8 ft

Equipment:	Type	Model	ITS ID #
	Manometer	Dwyer 16"	1010
1	Deflection Gauge	Mitutoyo IDF	9-0344
2	Deflection Gauge	Mitutoyo 2416F	1005
3	Deflection Gauge	Mitutoyo IDF	52630
4	Deflection Gauge	Mitutoyo 2416F	1003
5	Deflection Gauge	Mitutoyo 2416F	1007
6	Deflection Gauge	Mitutoyo 2416F	1004
7	Deflection Gauge	Mitutoyo 2416F	1002
8	Deflection Gauge	Mitutoyo 2416F	1006
9	Deflection Gauge	Starret F2740-1	2699
10	Deflection Gauge	Starret F2740-1	2673
11	Deflection Gauge	Starret F2740-1	1014
12	Deflection Gauge	Starret F2740-1	1013

i) Deformation Test (Sustained Pressure)

Negative Pressure denotes a Positive Wind Load
 Positive Pressure denotes a Negative Wind Load

Pressure (Pa)	Deflection Location See Drawing											
	1	2	3	4	5	6	7	8	9	10	11	12
Negative												
Deflection (in)												
15 min @ 400	0.004	0.027	N/A	N/A	0.001	0.028	N/A	N/A	0.020	N/A	0.018	N/A
Residual	0.000	0.006	N/A	N/A	0.000	0.007	N/A	N/A	0.004	N/A	0.006	N/A
15 min @ 600	0.008	0.040	N/A	N/A	0.008	0.041	N/A	N/A	0.029	N/A	0.031	N/A
Residual	0.002	0.008	N/A	N/A	0.002	0.009	N/A	N/A	0.005	N/A	0.012	N/A
15 min @ 800	0.013	0.055	N/A	N/A	0.012	0.055	N/A	N/A	0.039	N/A	0.045	N/A
Residual	0.004	0.010	N/A	N/A	0.002	0.011	N/A	N/A	0.006	N/A	0.020	N/A
Positive												
15 min @ 400	0.004	0.020	N/A	N/A	0.005	0.019	N/A	N/A	0.029	N/A	0.030	N/A
Residual	0.000	0.000	N/A	N/A	0.001	0.000	N/A	N/A	0.013	N/A	0.021	N/A
15 min @ 600	0.013	0.041	N/A	N/A	0.010	0.038	N/A	N/A	0.042	N/A	0.036	N/A
Residual	0.005	0.004	N/A	N/A	0.002	0.002	N/A	N/A	0.015	N/A	0.020	N/A
15 min @ 800	0.024	0.050	N/A	N/A	0.016	0.058	N/A	N/A	0.055	N/A	0.043	N/A
Residual	0.012	0.008	N/A	N/A	0.004	0.007	N/A	N/A	0.016	N/A	0.020	N/A

ii) Repeated Positive and Negative Pressure Test (Cyclic Pressure)

1000 cycles to 1060 Pa Negative No visual breakage or deformation
 1000 cycles to 1060 Pa Positive No visual breakage or deformation

Result
Pass
Pass

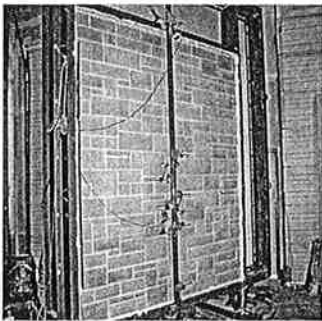
iii) Safety Gust (gust wind)

800 Pa Negative No visual breakage or deformation
 800 Pa Positive No visual breakage or deformation
 1200 Pa Negative No visual breakage or deformation
 1200 Pa Positive No visual breakage or deformation
 1600 Pa Negative No visual breakage or deformation
 1600 Pa Positive No visual breakage or deformation

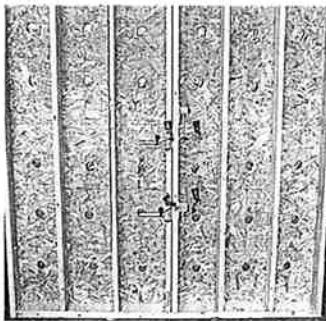
Result
Pass
Pass
Pass
Pass
Pass
Pass

Maximum Wind Pressures for Deflection Measurements

Pressure (Pa)	Deflection Location See Drawing											
	1	2	3	4	5	6	7	8	9	10	11	12
Negative												
Deflection (mm)												
10 sec @ 1320	0.020	0.092	N/A	N/A	0.020	0.091	N/A	N/A	0.070	N/A	0.028	N/A
Residual	0.006	0.012	N/A	N/A	0.002	0.013	N/A	N/A	0.010	N/A	0.016	N/A
10 sec @ 1980	0.037	0.144	N/A	N/A	0.034	0.142	N/A	N/A	0.102	N/A	0.062	N/A
Residual	0.014	0.018	N/A	N/A	0.008	0.019	N/A	N/A	0.010	N/A	0.005	N/A
10 sec @ 2640	0.059	0.200	N/A	N/A	0.050	0.195	N/A	N/A	0.137	N/A	0.102	N/A
Residual	0.022	0.027	N/A	N/A	0.010	0.027	N/A	N/A	0.010	N/A	0.004	N/A
Positive												
10 sec @ 1320	0.042	0.114	N/A	N/A	0.029	0.115	N/A	N/A	0.106	N/A	0.106	N/A
Residual	0.023	0.016	N/A	N/A	0.002	0.014	N/A	N/A	0.028	N/A	0.055	N/A
10 sec @ 1980	0.071	0.182	N/A	N/A	0.046	0.184	N/A	N/A	0.151	N/A	0.153	N/A
Residual	0.032	0.024	N/A	N/A	0.000	0.023	N/A	N/A	0.031	N/A	0.065	N/A
10 sec @ 2640	0.106	0.260	N/A	N/A	0.079	0.260	N/A	N/A	0.199	N/A	0.201	N/A
Residual	0.044	0.036	N/A	N/A	0.008	0.035	N/A	N/A	0.034	N/A	0.074	N/A



Exterior View



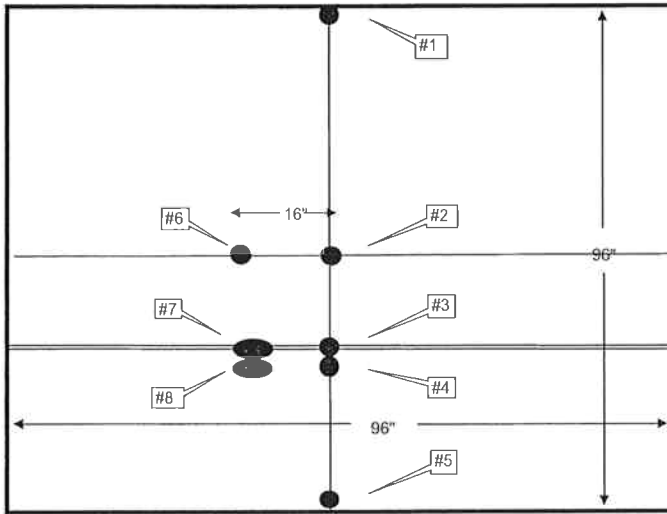
Interior View

Test: Wind Load Resistance
Date: October 20, 2004
Client: Rocky Mountain Stoneworks
Project No: 3041212
Product: Manufactured concrete stone
Test Method: CCMC MF 07483 Section 6.5.6 Wind Load Resistance
 ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows,
 Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference 1

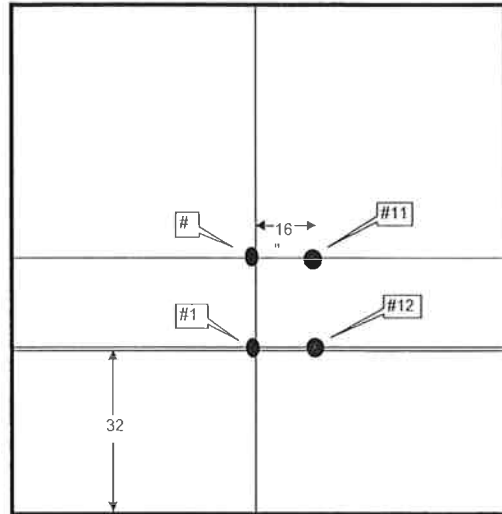
Sample Type: Wall Panel 8 ft x 8 ft

Equipment:	Type	Model	ITS ID #
	Manometer	Dwyer 16"	1010
1	Deflection Gauge	Mitutoyo IDF	9-0344
2	Deflection Gauge	Mitutoyo 2416F	1005
3	Deflection Gauge	Mitutoyo IDF	52630
4	Deflection Gauge	Mitutoyo 2416F	1003
5	Deflection Gauge	Mitutoyo 2416F	1007
6	Deflection Gauge	Mitutoyo 2416F	1004
7	Deflection Gauge	Mitutoyo 2416F	1002
8	Deflection Gauge	Mitutoyo 2416F	1006
9	Deflection Gauge	Starret F2740-1	2699
10	Deflection Gauge	Starret F2740-1	2673
11	Deflection Gauge	Starret F2740-1	1014
12	Deflection Gauge	Starret F2740-1	1013

Gauge Locations - Viewed from outside



Gauge Locations - Viewed from inside



Test: Wind Load Resistance
Date: 20-Sep-06
Client: Rocky Mountain Stoneworks
Project No: 3091486
Product: Stone Cladding
Test Method: CCMC MF 07483 Section 5.6.2 & 6.5.6 Wind Load Resistance
 ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
 Wall Panel 10 ft x 10 ft

Zone: 2
Load: 0,60 kPa

Technicians: Adam Mento
 Josh Chapman

Sample Type:	Type	Model	ITS ID #	Location
Equipment:	Manometer			
	1 Deflection Gauge	Mitutoyo 1" Dial	D2674	8
	2 Deflection Gauge	Mitutoyo Digital series 543-558A	1008	C
	3 Deflection Gauge	Mitutoyo Digital series 543-558A	1462	6
	4 Deflection Gauge	Mitutoyo Digital series 543-558A	1463	19
	5 Deflection Gauge	Mitutoyo Digital series 543-558A	1461	18
	6 Deflection Gauge	Mitutoyo Digital series 543-558A	2708	D
	7 Deflection Gauge	Mitutoyo 1" Dial	D2725	16
	8 Deflection Gauge	Mitutoyo Digital series 543-558A	1464	1
	9 Deflection Gauge	MHC 1" Dial	32617	12
	10 Deflection Gauge	Starrett 3" Dial	1465	A
	11 Deflection Gauge	Mitutoyo 1" Dial	1460	B
	12 Deflection Gauge	Shock Proof 1" Dial	02749	4

Pressure Conversions	(in. water)
100 Pa	= 0.40
200 Pa	= 0.80
400 Pa	= 1.61
600 Pa	= 2.41
800 Pa	= 3.21
1060 Pa	= 4.26
1320 Pa	= 5.30
1600 Pa	= 6.42
1920 Pa	= 7.75
2640 Pa	= 10.60
150 Pa	= 0.60
300 Pa	= 1.20
450 Pa	= 1.81
1200 Pa	= 4.82
1980 Pa	= 7.95

i) Deformation Test (Sustained Pressure)
 Negative Pressure denotes a Positive Wind Load
 Positive Pressure denotes a Negative Wind Load

Pressure (Pa)	Deflection Location See Drawing											
	8	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
10 seconds @ 150	-0.001	-0.002	-0.004	-0.004	-0.004	-0.003	-0.001	-0.004	-0.001	-0.002	-0.003	-0.001
10 seconds @ 300	-0.003	-0.010	-0.019	-0.018	-0.019	-0.003	-0.004	-0.020	-0.004	-0.010	-0.012	-0.004
10 seconds @ 450	-0.005	-0.019	-0.033	-0.032	-0.032	-0.024	-0.008	-0.036	-0.007	-0.016	-0.020	-0.008
15 min @ 600	-0.010	-0.033	-0.060	-0.058	-0.056	-0.041	-0.014	-0.064	-0.013	-0.028	-0.036	-0.021
Residual	-0.004	-0.008	-0.015	-0.014	-0.014	-0.011	-0.005	-0.016	-0.004	-0.009	-0.010	-0.008
Positive	Deflection (in)											
10 seconds @ 150	0.001	0.008	0.015	0.016	0.014	0.01	0.003	0.015	0.003	0.005	0.008	0.004
10 seconds @ 300	0.002	0.016	0.029	0.030	0.028	0.020	0.004	0.031	0.006	0.012	0.015	0.008
10 seconds @ 450	0.005	0.027	0.048	0.048	0.045	0.033	0.008	0.050	0.009	0.019	0.027	0.013
15 min @ 600	0.008	0.039	0.070	0.071	0.066	0.049	0.013	0.074	0.014	0.029	0.010	0.023
Residual	0.002	0.004	-0.028	0.029	0.027	0.019	0.004	0.028	0.004	0.011	0.016	0.009

ii) Repeated Positive and Negative Pressure Test (Cyclic Pressure)

Pressure (Pa)	Deflection Location See Drawing											
	8	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
1000 cycles to 800	-0.006	-0.012	-0.022	-0.021	-0.021	-0.016	-0.009	-0.026	-0.008	-0.014	-0.015	-0.013
Positive	Deflection (in)											
1000 cycles to 800	0.004	0.021	0.039	0.040	0.038	0.027	0.005	0.039	0.004	0.014	0.020	0.012

iii) Safety Gust (gust wind)

Pressure (Pa)	Deflection Location See Drawing											
	8	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
3 sec @ 1200	-0.003	-0.002	-0.010	-0.008	-0.008	-0.006	-0.005	-0.014	-0.004	-0.006	-0.007	-0.003
Positive	Deflection (in)											
3 sec @ 1200	0.004	0.019	0.035	0.038	0.035	0.025	0.005	0.035	0.003	0.012	0.017	0.009

iv) Deflection Measurements

Pressure (Pa)	Deflection Location See Drawing											
	8	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
10 sec @ 1980	-0.006	-0.016	-0.034	-0.026	-0.028	-0.019	-0.010	-0.040	-0.006	-0.017	-0.021	-0.009
Positive	Deflection (in)											
10 sec @ 1980	0.008	0.023	0.048	0.053	0.053	0.040	0.010	0.048	0.007	0.018	0.022	0.015

Test: Wind Load Resistance
Date: 20-Sep-06
Client: Rocky Mountain Stoneworks
Project No: 3091486
Product: Stone Cladding
Test Method: CCMC MF 07483 Section 5.6.2 & 6.5.6 Wind Load Resistance
 ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
 Sample Type: Wall Panel 10 ft x 10 ft

Zone: 2
Load: 0.60 kPa

Technicians: Adam Mantei
 Josh Chapman

Equipment:	Type	Model	ITS ID #	Location
Manometer				
1	Deflection Gauge	Mitutoyo Digital Series 543-463B	02686	C
2	Deflection Gauge	Mitutoyo Digital Series 543-463B	02684	D
3	Deflection Gauge	Mitutoyo Digital Series 543-463B	02702	B
4	Deflection Gauge	Mitutoyo Digital Series 543-463B	02699	A
5	Deflection Gauge	Mitutoyo Digital Series 543-463B	02764	1
6	Deflection Gauge	Mitutoyo Digital Series 543-463B	02700	8
7	Deflection Gauge	Mitutoyo Digital Series 543-463B	02780	6
8	Deflection Gauge	Mitutoyo Digital Series 543-463B	02762	4
9	Deflection Gauge	Mitutoyo Digital Series 543-463B	02707	12
10	Deflection Gauge	Mitutoyo Digital Series 543-463B	02763	16
11	Deflection Gauge	Mitutoyo Digital Series 543-463B	02768	18
12	Deflection Gauge	Mitutoyo Digital Series 543-463B	02683	19

Pressure Conversions		(in. water)
100 Pa	=	0.40
200 Pa	=	0.80
400 Pa	=	1.61
600 Pa	=	2.41
800 Pa	=	3.21
1060 Pa	=	4.26
1320 Pa	=	5.30
1600 Pa	=	6.42
1920 Pa	=	7.75
2640 Pa	=	10.60
150 Pa	=	0.60
300 Pa	=	1.20
450 Pa	=	1.81
1200 Pa	=	4.82
1980 Pa	=	7.95

i) Deformation Test (Sustained Pressure)
 Negative Pressure denotes a Positive Wind Load
 Positive Pressure denotes a Negative Wind Load

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (in)												
10 seconds @ 150	0.007	0.006	0.005	0.005	0	0.001	0.011	0.005	0.003	0.002	0.011	0.012
10 seconds @ 300	0.015	0.013	0.012	0.013	0.014	0.003	0.025	0.010	0.006	0.004	0.025	0.027
10 seconds @ 450	0.024	0.021	0.018	0.021	0.026	0.006	0.039	0.016	0.009	0.007	0.038	0.041
15 min @ 600	0.040	0.034	0.030	0.034	0.054	0.010	0.064	0.027	0.015	0.010	0.063	0.066
Residual	0.013	0.012	0.012	0.013	0.007	0.004	0.020	0.012	0.007	0.004	0.021	0.022
Positive												
10 seconds @ 150	-0.005	-0.004	-0.002	-0.002	-0.004	-0.001	-0.009	0	0	0	-0.007	-0.007
10 seconds @ 300	-0.013	-0.010	-0.007	-0.009	-0.016	-0.002	-0.022	-0.004	-0.002	-0.002	-0.019	-0.021
10 seconds @ 450	-0.025	-0.020	-0.015	-0.019	-0.034	-0.005	-0.041	-0.011	-0.006	-0.005	-0.038	-0.040
15 min @ 600	-0.038	-0.030	-0.025	-0.030	-0.052	-0.009	-0.062	-0.020	-0.010	-0.009	-0.058	-0.062
Residual	-0.013	-0.009	-0.007	-0.009	-0.017	-0.002	-0.021	-0.005	-0.003	-0.002	-0.020	-0.021

ii) Repeated Positive and Negative Pressure Test (Cyclic Pressure)

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (in)												
1000 cycles to 800	0.015	0.015	0.017	0.018	0.013	0.007	0.023	0.016	0.01	0.007	0.024	0.023
Positive												
1000 cycles to 800	-0.023	-0.015	-0.009	-0.013	-0.022	-0.003	-0.036	-0.009	-0.004	-0.004	-0.034	-0.037

iii) Safety Gust (gust wind)

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (mm)												
3 sec @ 1200	0.005	0.008	0.010	0.011	0.001	0.004	0.010	0.007	0.007	0.004	0.013	0.010
Positive												
3 sec @ 1200	-0.022	-0.014	-0.007	-0.012	-0.014	-0.002	-0.033	-0.007	-0.003	-0.004	-0.029	-0.034

iv) Deflection Measurements

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (mm)												
10 sec @ 1980	0.019	0.022	0.021	0.024	0.028	0.007	0.032	0.014	0.012	0.006	0.036	0.034
Positive												
10 sec @ 1980	-0.034	-0.020	-0.013	-0.016	-0.029	-0.006	-0.052	-0.010	-0.007	-0.007	-0.041	-0.048

Test: Wind Load Resistance
 Date: 20-Sep-08
 Client: Rocky Mountain Stoneworks
 Project No: 3091486
 Product: Stone Cladding
 Test Method: CCMC MF 07483 Section 5.6.2 & 6.5.6 Wind Load Resistance
 ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
 Wall Panel 10 ft x 10 ft

Zone: 3
 Load: 0,80 kPa

Technicians: Adam Mantle
 Josh Cheoman

Equipment:	Type	Model	ITS ID #	Location
	Manometer			
1	Deflection Gauge	Mitutoyo 1" Dial	D2674	B
2	Deflection Gauge	Mitutoyo Digital series 543-558A	1008	C
3	Deflection Gauge	Mitutoyo Digital series 543-558A	1462	6
4	Deflection Gauge	Mitutoyo Digital series 543-558A	1463	19
5	Deflection Gauge	Mitutoyo Digital series 543-558A	1461	18
6	Deflection Gauge	Mitutoyo Digital series 543-558A	2708	D
7	Deflection Gauge	Mitutoyo 1" Dial	D2725	16
8	Deflection Gauge	Mitutoyo Digital series 543-558A	1464	1
9	Deflection Gauge	MHC 1" Dial	32617	12
10	Deflection Gauge	Starrett 3" Dial	1465	A
11	Deflection Gauge	Mitutoyo 1" Dial	1460	B
12	Deflection Gauge	Shock Proof 1" Dial	02749	4

Pressure	Conversions	(in water)
100 Pa	=	0,40
200 Pa	=	0,80
400 Pa	=	1,61
600 Pa	=	2,41
800 Pa	=	3,21
1060 Pa	=	4,26
1320 Pa	=	5,30
1600 Pa	=	6,42
1920 Pa	=	7,75
2640 Pa	=	10,60
150 Pa	=	0,60
300 Pa	=	1,20
450 Pa	=	1,81
1200 Pa	=	4,82
1980 Pa	=	7,95

ii) Deformation Test (Sustained Pressure)

Negative Pressure denotes a Positive Wind Load
 Positive Pressure denotes a Negative Wind Load

Pressure (Pa)	Deflection Location See Drawing											
	B	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
10 seconds @ 200	-0.002	0	-0.013	-0.012	-0.013	-0.009	-0.004	-0.015	-0.003	-0.007	-0.008	-0.006
10 seconds @ 400	-0.006	-0.002	-0.041	-0.041	-0.039	-0.027	-0.010	-0.045	-0.009	-0.018	-0.023	-0.014
10 seconds @ 600	-0.010	-0.017	-0.071	-0.071	-0.067	-0.048	-0.017	-0.078	-0.015	-0.032	-0.041	-0.023
15 min @ 800	-0.015	-0.048	-0.108	-0.108	-0.102	-0.075	-0.027	-0.118	-0.022	-0.047	-0.061	-0.036
Residual	-0.007	-0.010	-0.038	-0.038	-0.036	-0.027	-0.012	-0.041	-0.008	-0.017	-0.020	-0.014
Positive	Deflection (in)											
10 seconds @ 200	-0.001	0.014	0.009	0.009	0.008	0.006	-0.001	0.009	0.001	0.002	0.005	0.001
10 seconds @ 400	0.003	0.026	0.035	0.035	0.033	0.023	0.005	0.036	0.008	0.014	0.020	0.009
10 seconds @ 600	0.006	0.038	0.057	0.058	0.054	0.039	0.010	0.059	0.011	0.022	0.032	0.017
15 min @ 800	0.010	0.055	0.091	0.090	0.085	0.060	0.017	0.094	0.018	0.037	0.050	0.030
Residual	0.002	0.020	0.022	0.022	0.021	0.015	0.004	0.023	0.005	0.009	0.013	0.009

iii) Repeated Positive and Negative Pressure Test (Cyclic Pressure)

Pressure (Pa)	Deflection Location See Drawing											
	B	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
1000 cycles to 1060	-0.009	-0.016	-0.046	-0.048	-0.044	-0.034	-0.016	-0.053	-0.011	-0.024	-0.028	-0.019
Positive	Deflection (in)											
1000 cycles to 1060	0.006	0.027	0.036	-0.034	0.033	0.024	0.009	0.036	0.011	0.016	0.019	0.017

iii) Safety Gust (gust wind)

Pressure (Pa)	Deflection Location See Drawing											
	B	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (in)											
3 sec @ 1600	-0.003	-0.008	-0.031	-0.033	-0.029	-0.023	-0.008	-0.036	-0.005	-0.014	-0.018	-0.006
Positive	Deflection (in)											
3 sec @ 1600	0.005	0.024	0.031	0.029	0.029	0.022	0.007	0.031	0.010	0.013	0.016	0.013

iv) Deflection Measurements

Pressure (Pa)	Deflection Location See Drawing											
	B	C	6	19	18	D	16	1	12	A	B	4
Negative	Deflection (mm)											
10 sec @ 2640	-0.011	-0.029	-0.072	-0.072	-0.069	-0.051	-0.019	-0.060	-0.012	-0.031	-0.043	-0.017
Positive	Deflection (mm)											
10 sec @ 2640	0.010	0.044	0.082	0.087	0.087	0.067	0.016	0.081	0.020	0.037	0.039	0.024

Test: Wind Load Resistance
Date: 20-Sep-06
Client: Rocky Mountain Stoneworks
Project No: 3091486
Product: Stone Cladding
Test Method: CCMC MF 07483 Section 5.6.2 & 6.5.6 Wind Load Resistance
 ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference1
Sample Type: Wall Panel 10 ft x 10 ft

Zone: 3
Load: 0,80 kPa

Technicians: Adam Mantle
 Josh Chapman

Equipment:	Type	Model	ITS ID #	Location
Manometer				
1	Deflection Gauge	Mitutoyo Digital Series 543-463B	02686	C
2	Deflection Gauge	Mitutoyo Digital Series 543-463B	02684	D
3	Deflection Gauge	Mitutoyo Digital Series 543-463B	02702	B
4	Deflection Gauge	Mitutoyo Digital Series 543-463B	02699	A
5	Deflection Gauge	Mitutoyo Digital Series 543-463B	02764	1
6	Deflection Gauge	Mitutoyo Digital Series 543-463B	02700	8
7	Deflection Gauge	Mitutoyo Digital Series 543-463B	02780	6
8	Deflection Gauge	Mitutoyo Digital Series 543-463B	02762	4
9	Deflection Gauge	Mitutoyo Digital Series 543-463B	02707	12
10	Deflection Gauge	Mitutoyo Digital Series 543-463B	02763	16
11	Deflection Gauge	Mitutoyo Digital Series 543-463B	02768	18
12	Deflection Gauge	Mitutoyo Digital Series 543-463B	02683	19

Pressure Conversions	(in. water)
100 Pa	= 0.40
200 Pa	= 0.80
400 Pa	= 1.61
600 Pa	= 2.41
800 Pa	= 3.21
1060 Pa	= 4.26
1320 Pa	= 5.30
1600 Pa	= 6.42
1920 Pa	= 7.75
2640 Pa	= 10.60
150 Pa	= 0.60
300 Pa	= 1.20
450 Pa	= 1.81
1200 Pa	= 4.82
1980 Pa	= 7.95

i) Deformation Test (Sustained Pressure)

Negative Pressure denotes a Positive Wind Load
 Positive Pressure denotes a Negative Wind Load

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (in)												
10 seconds @ 200	-0.002	0.007	0.009	0.01	0.001	0.002	0.002	0.008	0.004	0.001	0.008	0.004
10 seconds @ 400	0.009	0.016	0.018	0.020	0.016	0.005	0.022	0.015	0.007	0.004	0.025	0.023
10 seconds @ 600	0.028	0.032	0.030	0.035	0.049	0.009	0.052	0.025	0.014	0.008	0.054	0.054
15 min @ 800	0.050	0.051	0.045	0.053	0.085	0.015	0.085	0.038	0.023	0.013	0.087	0.088
Residual	0.007	0.014	0.016	0.019	0.011	0.005	0.015	0.015	0.009	0.004	0.022	0.018
Positive												
10 seconds @ 200	-0.02	-0.007	-0.002	-0.004	-0.019	-0.002	-0.029	-0.002	-0.001	-0.003	-0.021	-0.025
10 seconds @ 400	-0.035	-0.020	-0.013	-0.016	-0.039	-0.005	-0.053	-0.010	-0.005	-0.007	-0.043	-0.051
10 seconds @ 600	-0.048	-0.030	-0.022	-0.027	-0.055	-0.009	-0.073	-0.018	-0.010	-0.009	-0.064	-0.072
15 min @ 800	-0.068	-0.045	-0.035	-0.043	-0.088	-0.013	-0.104	-0.030	-0.016	-0.014	-0.091	-0.102
Residual	-0.029	-0.016	-0.009	-0.012	-0.028	-0.004	-0.041	-0.009	-0.004	-0.006	-0.034	-0.040

ii) Repeated Positive and Negative Pressure Test (Cyclic Pressure)

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (in)												
1000 cycles to 1060	0.014	0.021	0.023	0.026	0.022	0.007	0.025	0.02	0.014	0.006	0.031	0.027
Positive												
1000 cycles to 1060	-0.040	-0.023	-0.017	-0.021	-0.036	-0.010	-0.057	-0.019	-0.012	-0.011	-0.049	-0.058

iii) Safety Gust (gust wind)

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (mm)												
3 sec @ 1600	0.004	0.013	0.014	0.016	0.005	0.002	0.012	0.007	0.006	0.000	0.018	0.012
Positive												
3 sec @ 1600	-0.036	-0.020	-0.013	-0.017	-0.039	-0.009	-0.052	-0.014	-0.009	-0.010	-0.045	-0.052

iv) Deflection Measurements

Pressure (Pa)	Deflection Location See Drawing											
	C	D	B	A	1	8	6	4	12	16	18	19
Negative												
Deflection (mm)												
10 sec @ 2640	0.032	0.036	0.034	0.041	0.054	0.009	0.056	0.023	0.018	0.007	0.060	0.056
Positive												
10 sec @ 2640	-0.078	-0.040	-0.036	-0.040	-0.088	-0.015	-0.109	-0.025	-0.018	-0.016	-0.094	-0.108

Test: **Wind Load Resistance**

Date: 20-Sep-06

Client: Rocky Mountain Stoneworks

Project No: 3091486

Product: Stone Cladding

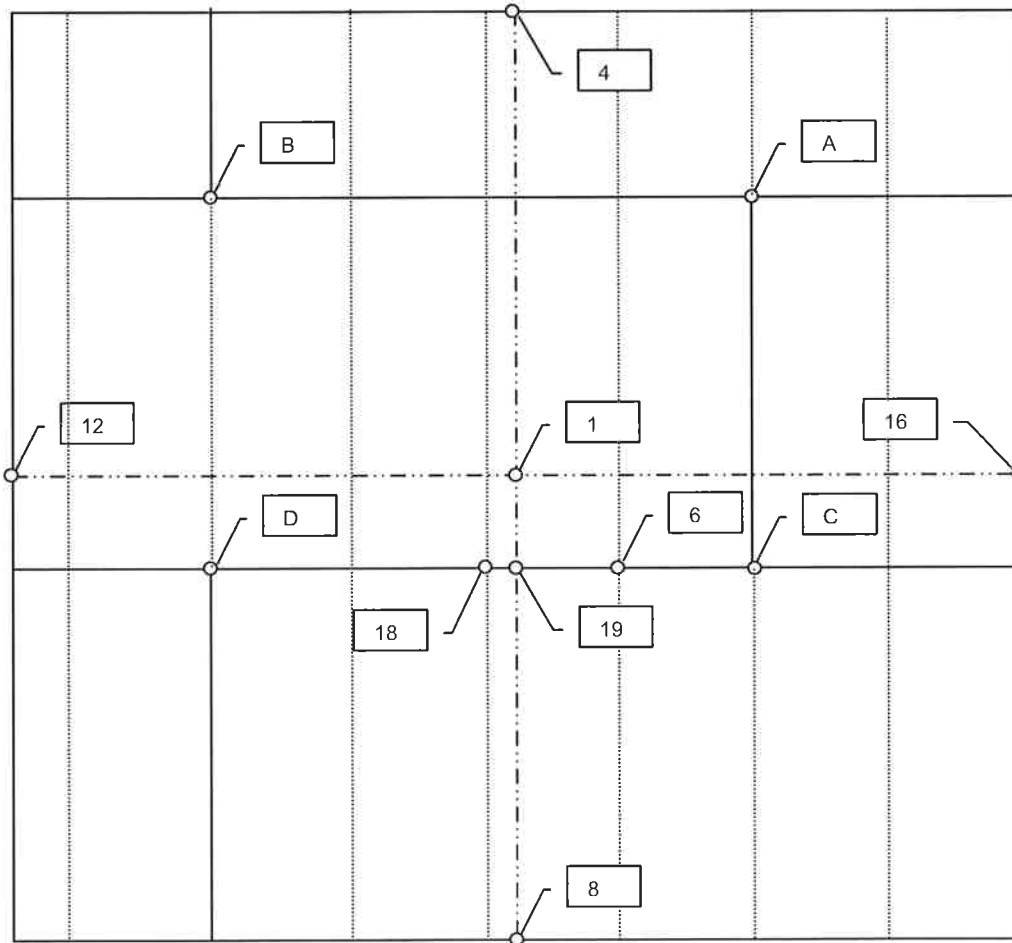
Test Methc CCMC MF 07483 Section 5.6.2 & 6.5.6 Wind Load Resistance

ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows,
Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference1

Technicians: Ivo Tanner

Adam Mantei

Exterior Gauge Locations



..... = Stud Location
 - - - - - = Centre Lines

Gauge ID Numbers

A = 1465	B = 1460	C = 1008	D = 2708
1 = 1464	4 = 02749	6 = 1462	8 = D2674
12 = 32617	16 = D2725	18 = 1461	19 = 1463

Test: **Wind Load Resistance**

Date: 20-Sep-06

Technicians: Ivo Tanner

Client: Rocky Mountain Stoneworks

Adam Mantei

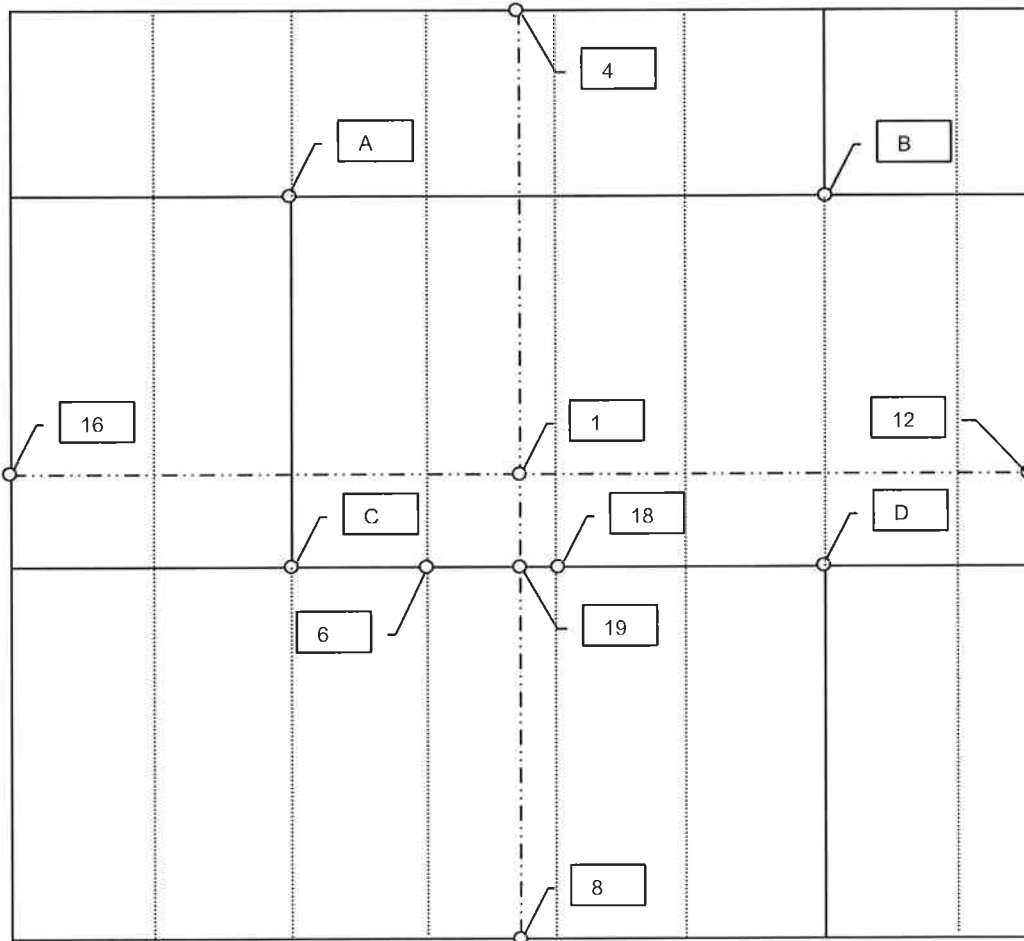
Project No: 3091486

Product: Stone Cladding

Test Methc CCMC MF 07483 Section 5.6.2 & 6.5.6 Wind Load Resistance

ASTM E330-02 Standard Test Method for Structural Performance of Exterior Windows,
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Interior Gauge Locations



..... = Stud Location
 - - - - - = Centre Lines

Gauge ID Numbers

A = 02686	B = 02684	C = 02702	D = 02699
1 = 02700	4 = 02762	6 = 02701	8 = 02683
12 = 02780	16 = 02764	18 = 02768	19 = 02763