

CR LAURENCE CO. INC.

ACOUSTICAL PERFORMANCE TEST REPORT

SCOPE OF WORK

ASTM E90 SOUND TRANSMISSION LOSS TESTING ON A PALISADES S100, SLIDING GLASS DOOR

REPORT NUMBER

L8956.03-303-11-R0

TEST DATE

03/01/21

ISSUE DATE

03/22/21

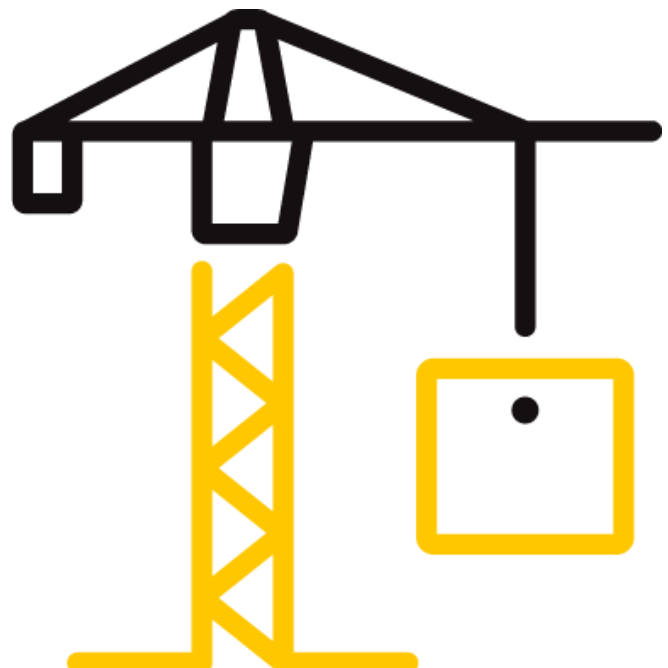
PAGES

17

DOCUMENT CONTROL NUMBER

RT-R-AMER-Test-2761 (01/17/21)

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TEST REPORT FOR CR LAURENCE CO. INC.

Report No.: L8956.03-303-11-R0

Date: 03/22/21

REPORT ISSUED TO

CR LAURENCE CO. INC.

2100 East 38th Street
Vernon, CA 90058

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by CR Laurence Co. Inc. to conduct a sound transmission loss test. Results obtained are tested values and were secured by using the designated test methods. The complete test data is included herein. The client provided the test specimen. All measurements were conducted in the HT test chambers at Intertek B&C located in Lake Forest, California.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Marco T Santa Rosa
	Technician III
TITLE:	Acoustical Testing
SIGNATURE:	
DATE:	03/22/21

REVIEWED BY:	Leeland S Hoover
	Laboratory Manager
TITLE:	Acoustical Testing
SIGNATURE:	
DATE:	03/22/21

MTSR: LSH

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SECTION 2

SUMMARY OF TEST RESULTS

SERIES/MODEL	Palisades S100
TYPE	Sliding Glass Door
GLAZING (Nominal Dimensions)	1" IG (1/4" Tempered Exterior, 1/2" Air Space, 1/4" Tempered Interior)
DATA FILE NO.	L8956.01B
STC	33
OITC	27

SECTION 3

TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM E90-09 (2016), *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements*

ASTM E413-16, *Classification for Rating Sound Insulation*

ASTM E1332-16, *Standard Classification for Rating Outdoor-Indoor Sound Attenuation*

ASTM E2235-04 (2020), *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*

SECTION 4

SPECIMEN INSTALLATION

A sound transmission loss test was initially performed on a filler wall.

The specimen plug was removed from the filler wall assembly. The specimen was placed on an isolation pad in the test opening. Duct seal was used to seal the perimeter of the specimen to the test opening on both sides. The interior side of the specimen, when installed, was approximately 1/4" from being flush with the receive room side of the filler wall. A stethoscope was used to check for any abnormal air leaks around the test specimen prior to testing. Operable portions of the test specimen, if any, were cycled at least five times prior to testing.

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SECTION 5 EQUIPMENT

The equipment listed below meets the requirements of the test methods stated in Section 3 of this report.

EQUIPMENT

INSTRUMENT	MANUFACTURER	MODEL	DESCRIPTION	ASSET #	CAL DATE
Data Acquisition Card*	National Instruments	PXIe-4464	Data Acquisition Card	INT00392	10/19
Data Acquisition Card*	National Instruments	PXIe-4464	Data Acquisition Card	INT00394	10/19
Data Acquisition Card*	National Instruments	PXIe-4464	Data Acquisition Card	INT00395	09/19
Source Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00234	04/20
Source Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00235	04/20
Source Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00236	04/20
Source Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00237	04/20
Source Room Microphone	PCB piezotronics	378C20	Microphone and Preamplifier	INT00238	04/20
Receive Room Microphone	PBC Piezotronics	378C20	Microphone and Preamplifier	INT00229	04/20
Receive Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00230	04/20
Receive Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT01542	04/20
Receive Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00232	04/20
Receive Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT00233	04/20
Receive Room Environmental Indicator	Comet	T7510	Receive Room	INT00299	07/20
Source Room Environmental Indicator	Comet	T7510	Source Room	INT00300	07/20
Microphone Calibrator	Norsonic	1251	Acoustical Calibrator	INT00288	10/20

*- Note: The calibration frequency for this equipment is every two years per the manufacturer's recommendation.

TEST CHAMBER

	VOLUME	DESCRIPTION
RECEIVE ROOM	231 m³	Rotating vane and stationary diffusers Temperature and humidity controlled Isolation pads under the floor
SOURCE ROOM	196 m³	Stationary diffusers only Temperature and humidity controlled

	MAXIMUM SIZE	DESCRIPTION
TL TEST OPENING	4.27 m wide by 3.05 m high	Vibration break between source and receive rooms

N/A-Not Applicable

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SECTION 6**LIST OF OFFICIAL OBSERVERS**

NAME	COMPANY
Roman Jimenez	CR Laurence Co. Inc.
Garrett Osterode	CR Laurence Co. Inc
Marco Santa Rosa	Intertek B&C
Eric Rueda	Intertek B&C

SECTION 7**TEST PROCEDURE**

The sensitivity of the microphones was checked before measurements were conducted.

The transmission loss values were obtained for a single direction of measurement.

Two background noise sound pressure level and five sound absorption measurements were conducted at each of five microphone positions.

Two sound pressure level measurements were made simultaneously in receive and source rooms at each of five microphone positions.

The air temperature and relative humidity conditions were monitored and recorded during all measurements.

Data for flanking limit tests, repeatability measurements, and reference specimen tests are available upon request.

Intertek B&C will store samples of test specimens for four years.

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SECTION 8

ACOUSTICAL TEST CALCULATIONS

Transmission loss (TL) at each 1/3 octave frequency is the average source room sound pressure level minus the average receive room sound pressure level, plus, 10 times the log of the specimen area divided by the sound absorption of the receive room with the sample in place.

STC Rating

To obtain the Sound Transmission Class (STC), read the TL of the contour curve at 500 Hz. The sum of the deficiencies below the contour curve must not exceed 32. The maximum deficiency at any one frequency must not exceed 8.

OITC Rating

The Outdoor-Indoor Transmission Class (OITC) is calculated by subtracting the logarithmic summation of the TL values from the logarithmic summation of the A-weighted transportation noise spectrum stated in ASTM E1332.

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SECTION 9
SPECIMEN DESCRIPTION

	FRAME	ACTIVE	FIXED
SIZE	79" by 78-3/4"	38" by 73-1/2"	38" by 73-1/2"
THICKNESS	4-5/8"	4-1/2"	4-1/2"
CORNERS	Butted	Butted	Butted
FASTENERS	Screws	Screws	Screws
SEAL METHOD	N/A	Silicone	Silicone
MATERIAL	Aluminum	Aluminum	Aluminum
REINFORCEMENT	N/A	N/A	N/A
THERMAL BREAK MATERIAL	N/A	N/A	N/A
DAYLIGHT OPENING SIZE (X2)	N/A	34-1/2" by 70-5/8"	34-1/2" by 70-5/8"

MEASURED OVERALL INSULATION GLASS UNIT THICKNESS	0.940"
SPACER TYPE	Aluminum box

	EXTERIOR SHEET	GAP	INTERIOR SHEET
MEASURED THICKNESS	0.223"	0.492"	0.225"
MUNTIN PATTERN	N/A	N/A	N/A
MATERIAL	Tempered	Air*	Tempered
LAMINATE MATERIAL	N/A	N/A	N/A

GLAZING METHOD	Channel
GLAZING MATERIAL	Rubber gasket

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	TYPE	QUANTITY	LOCATION
WEATHERSTRIP	0.270" by 0.270" Polypile with center fin	1 Row	Perimeter of frame (interior)
	1/4" Rubber leaf gasket	2 Rows	Perimeter of Frame (Exterior)
	3/4" by 1/16" Foam pad	1 Row	Meeting stiles
HARDWARE	Latch lock	1	Locking Stile
	Keeper	2	Head and sill
	Locking pin	1	Locking Stile
DRAINAGE	1-3/4" by 1/4" Weep slots with covers	4	Sill

TOTAL WEIGHT (lbs)	AVERAGE WEIGHT (lbs/ft ²)
238	5.51

* - Stated per Client/Manufacturer, N/A-Not Applicable

Photographs are included in Section 11.

A drawing of the test specimen is included in Section 12.

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SECTION 10

TEST RESULTS

ASTM E90 AIRBORNE SOUND TRANSMISSION LOSS



TEST DATE	03/01/21				
DATA FILE NO.	L8956.01B				
CLIENT	CR Laurence Co. Inc.				
DESCRIPTION	SliSeries/Model: Palisades S100, Sliding Glass Door with 1" IG (1/4" Tempered Exterior, 1/2" Air Space, 1/4" Tempered Interior)				
SPECIMEN AREA	4.03 m ²	RECEIVE TEMP.	18.3 °C	SOURCE TEMP	18.4 °C
TECHNICIAN	Marco T Sant	RECEIVE HUMIDITY	34%	SOURCE HUMIDIT	31%

FREQ (Hz)	BACKGROUND SPL (dB)	ABSORPTION (m ²)	SOURCE SPL (dB)	RECEIVE SPL (dB)	SPECIMEN TL (dB)	95% CONFIDENCE LIMIT	NUMBER OF DEFICIENCIES
80	40.0	5.1	104	75	28	1.75	-
100	34.4	4.6	102	80	22	0.84	-
125	41.4	5.0	102	79	23	0.95	0
160	45.1	5.1	102	76	25	0.76	0
200	38.8	6.7	106	86	17	0.86	6
250	32.8	7.2	107	81	23	0.33	3
315	36.7	7.5	106	79	25	0.29	4
400	41.6	6.4	105	72	31	0.37	1
500	25.7	5.7	106	74	31	0.63	2
630	22.6	6.0	107	72	32	0.41	2
800	25.2	6.0	105	69	34	0.20	1
1000	17.9	6.2	107	69	36	0.27	0
1250	16.8	6.5	105	66	37	0.18	0
1600	11.5	7.2	103	63	37	0.31	0
2000	6.2	8.8	100	65	32	0.28	5
2500	4.2	10.4	100	64	32	0.28	5
3150	4.1	12.5	99	59	36	0.30	1
4000	4.6	15.8	96	51	39	0.39	0
5000	5.5	21.2	92	42	43	0.44	-
STC RATING	33 (Sound Transmission Class)						
DEFICIENCIES	30 (Sum of Deficiencies)						
OITC RATING	27 (Outdoor-Indoor Transmission Class)						

- Notes:
- 1) Receive Room levels less than 5 dB above the Background levels are red.
 - 2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.
 - 3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

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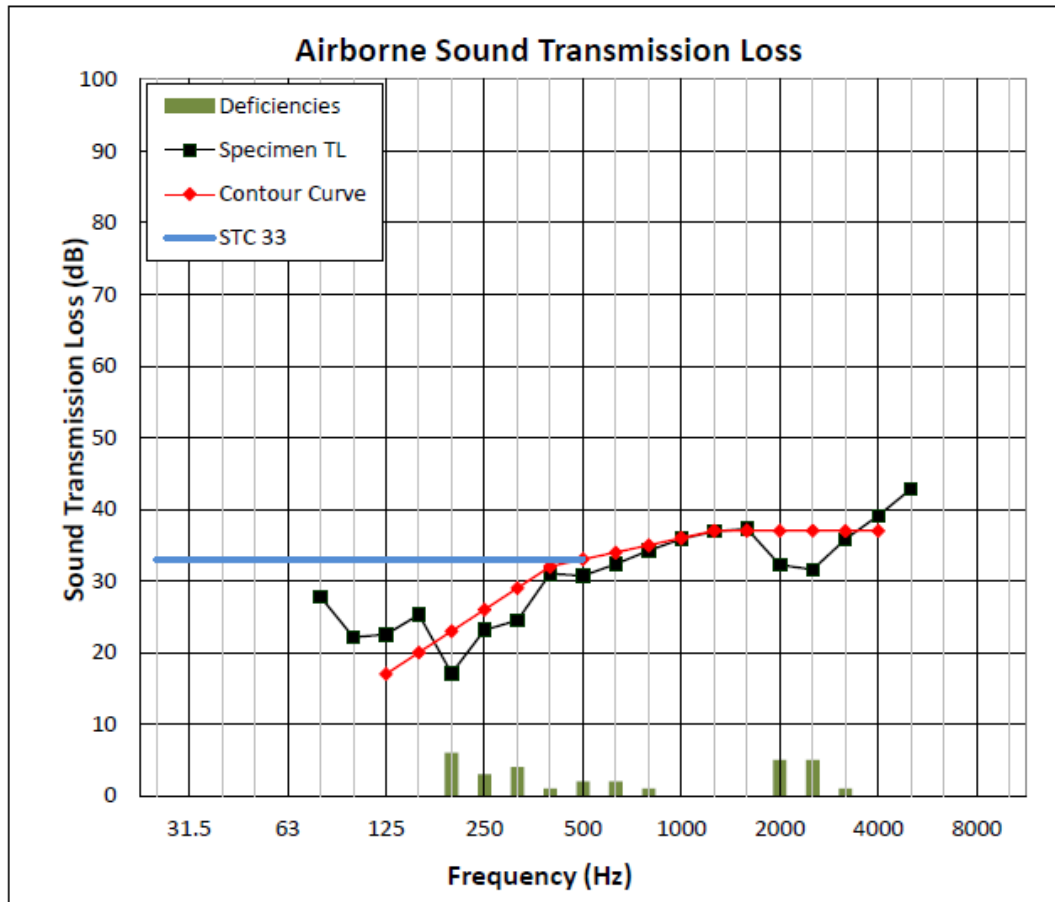
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SECTION 11

PHOTOGRAPHS



Photo No. 1
Source Room View of Test Specimen



Photo No. 2
Receive Room View of Test Specimen



Total Quality. Assured.

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SECTION 12

DRAWINGS

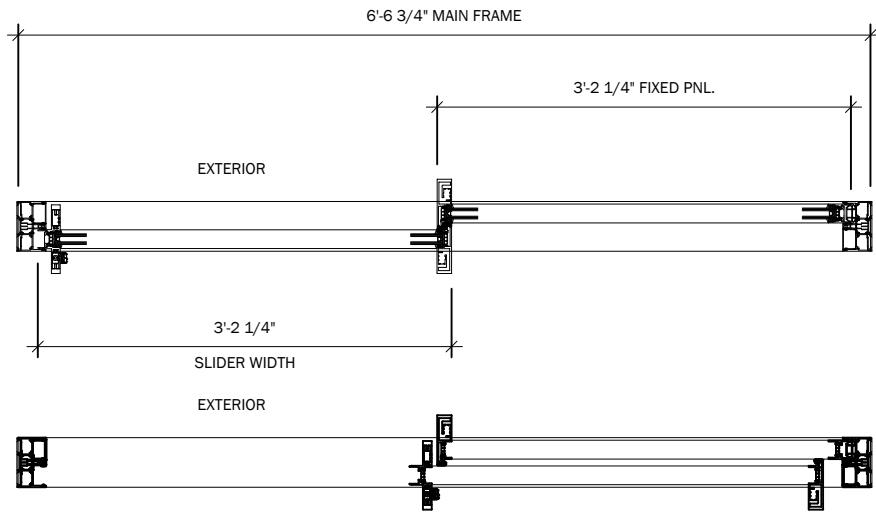
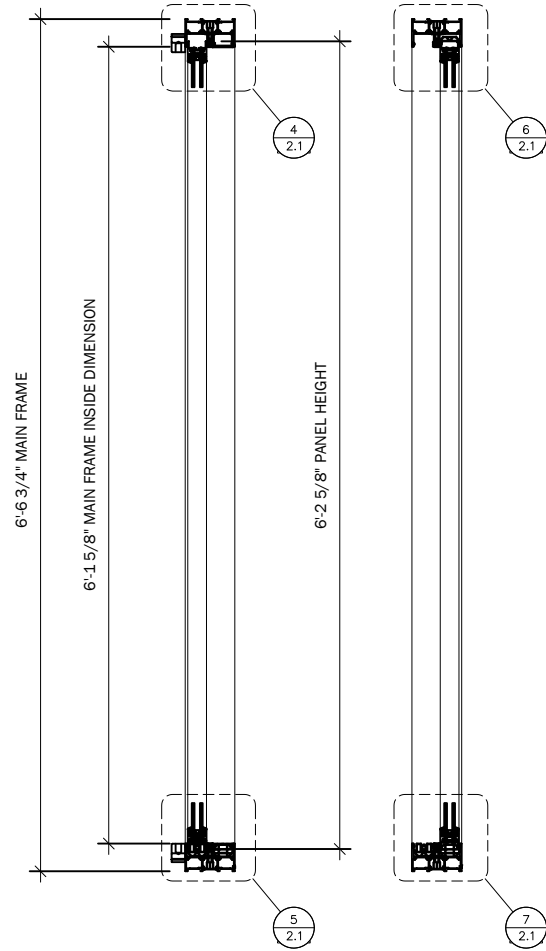
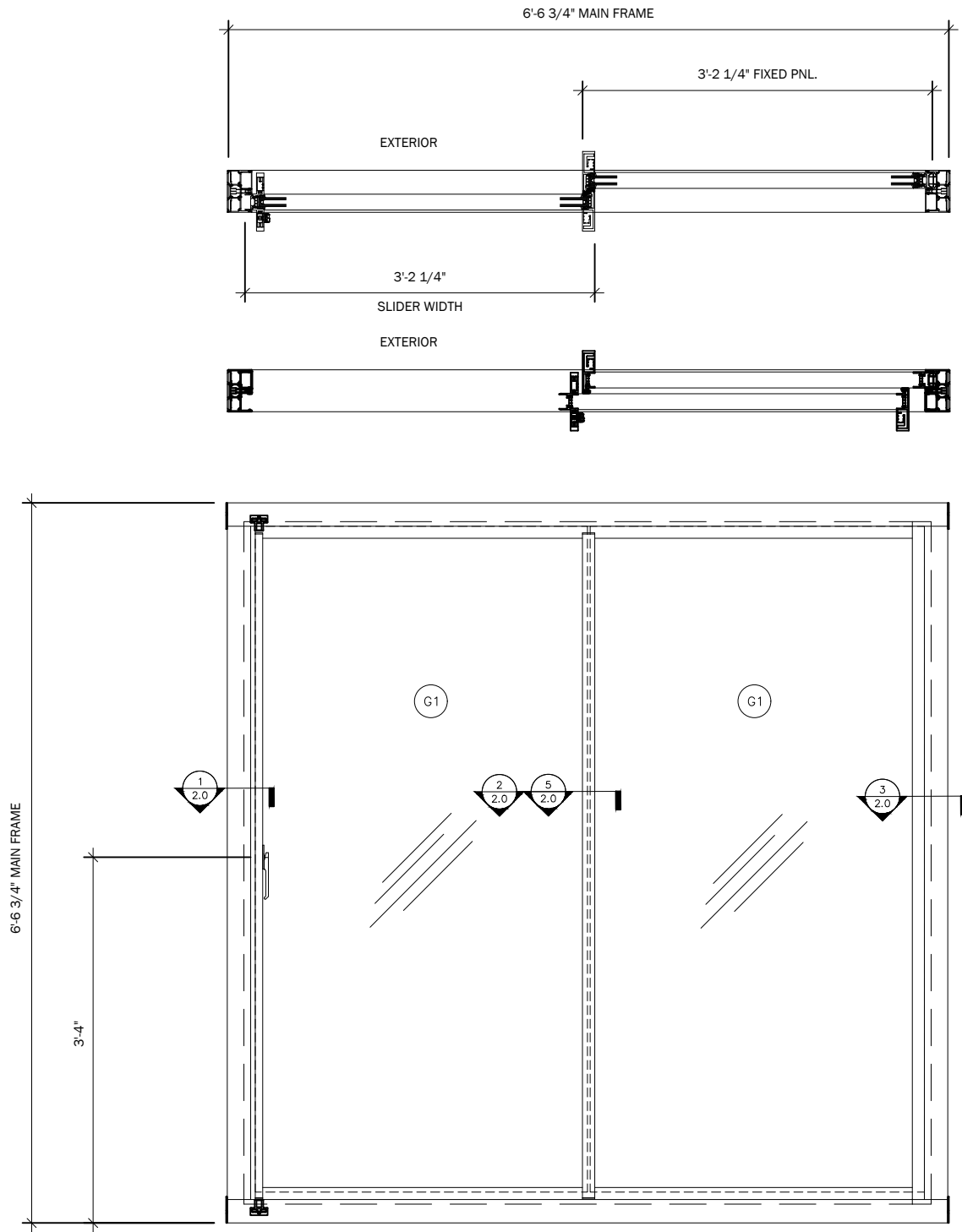
25800 Commercentre Drive
Lake Forest, California 92630

Telephone: 949-460-9600
Facsimile: 717-764-4129
www.intertek.com/building

1 ELEVATION-EXTERIOR

ARCH REF: NONE

1-1/2"=1'-0"



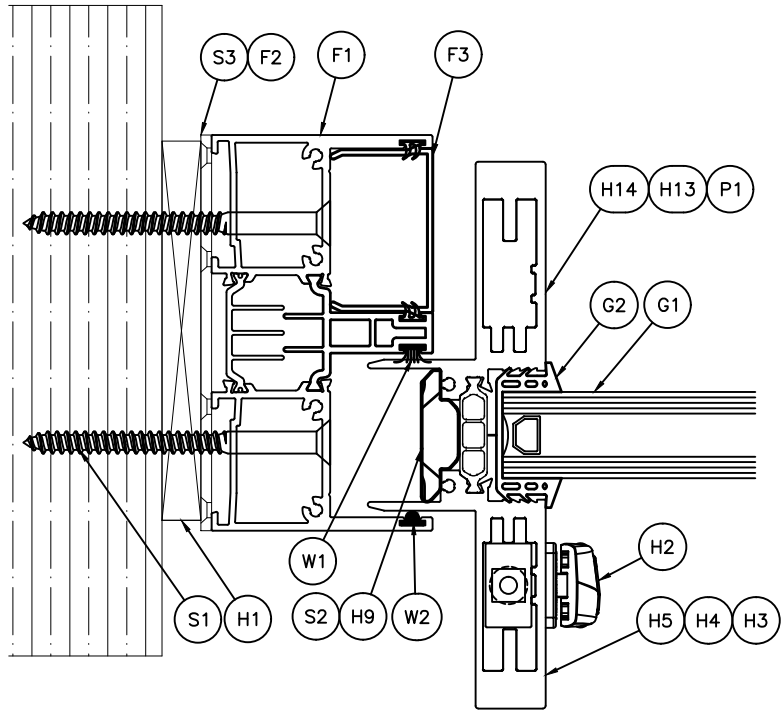
PALISADES S100 SLIDER CONFIGURATION	
PTC #	1011117 - ACOUSTIC
CUSTOMER PO #	CR Laurence Co., Inc
SYSTEM:	S100
FRAME & PANEL FINISH:	DARK BRONZE ANODIZE - CLASS 1
HARDWARE FINISH:	BLACK
SILL:	RAISED
CONFIGURATION:	XO
GLAZING:	1" INSULATED
QTY:	1 (ONE) THUS

Drawn By :
Checked By :
Date :
Scale :
Job # :
ESO # :

SYSTEM OR DRAWING
DESCRIPTION

CRH ALUMINUM
A CRH COMPANY
2503 E. Vernon Avenue, Los Angeles, CA 90058-1897
PH (800)-421-6144 FX 800-587-7501 www.crlaurence.com

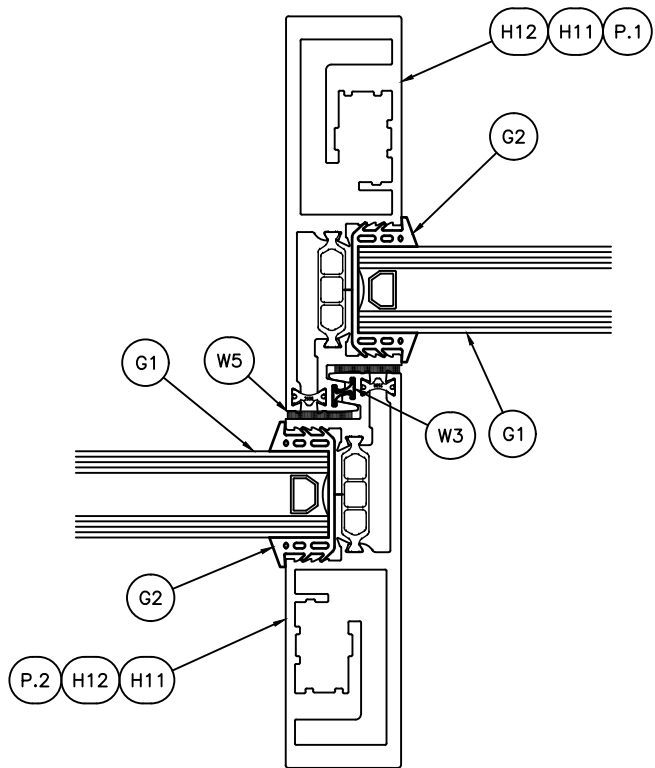
REV #	DATE	BY	CHKD	APPD
1	6/18/19	Drawn by		



① SLIDER JAMB DETAIL

ARCH REF: NONE

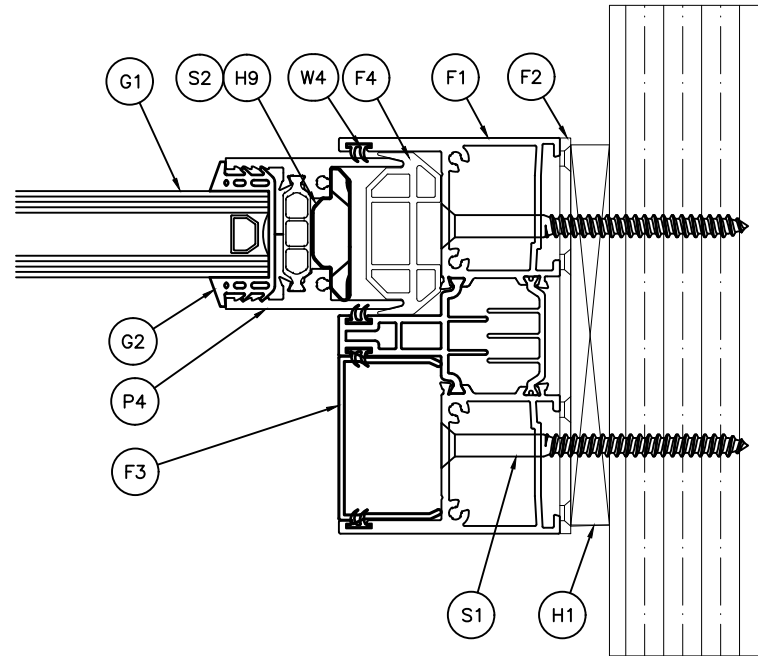
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② INTERLOCK DETAIL (LARGE)

ARCH REF: NONE

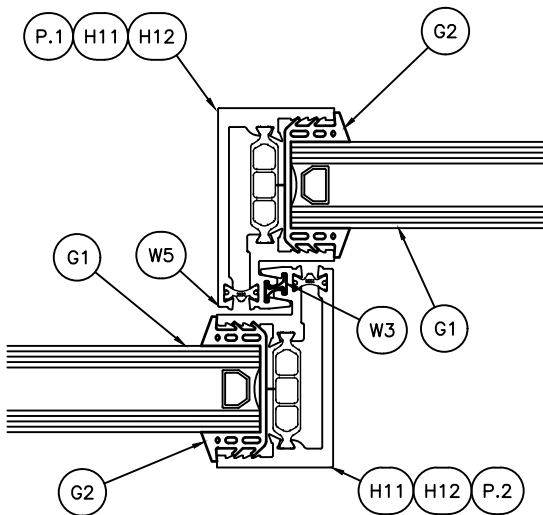
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③ FIXED JAMB DETAIL

ARCH REF: NONE

1"=1'-0"



② INTERLOCK DETAIL (SMALL)

ARCH REF: NONE

1"=1'-0"

Rev #	6/18/19	Drawn By
1		
2		
3		
4		
5		

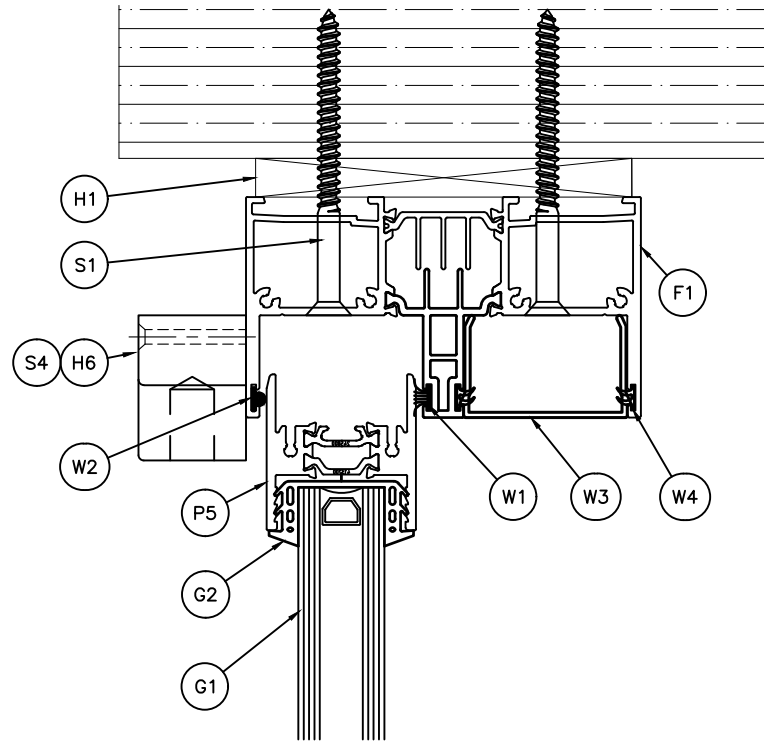


SYSTEM OR DRAWING
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Checked By :
Date :
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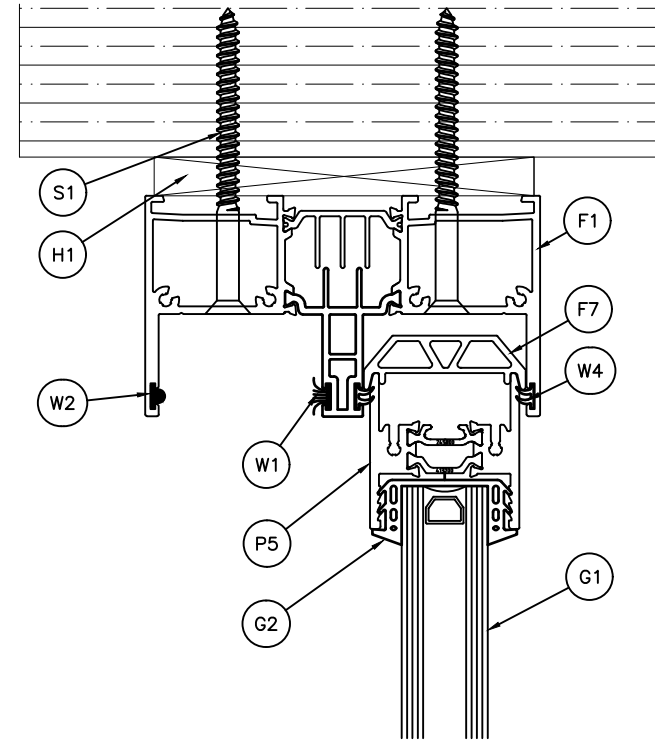
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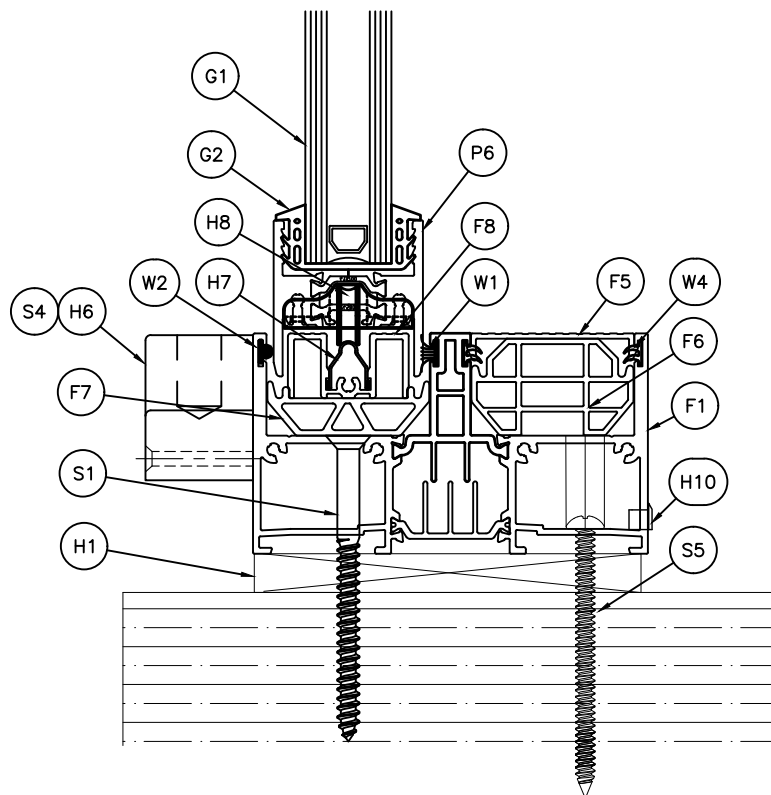
④ HEAD DETAIL @ SLIDER
ARCH REF: NONE

1"=1'-0"



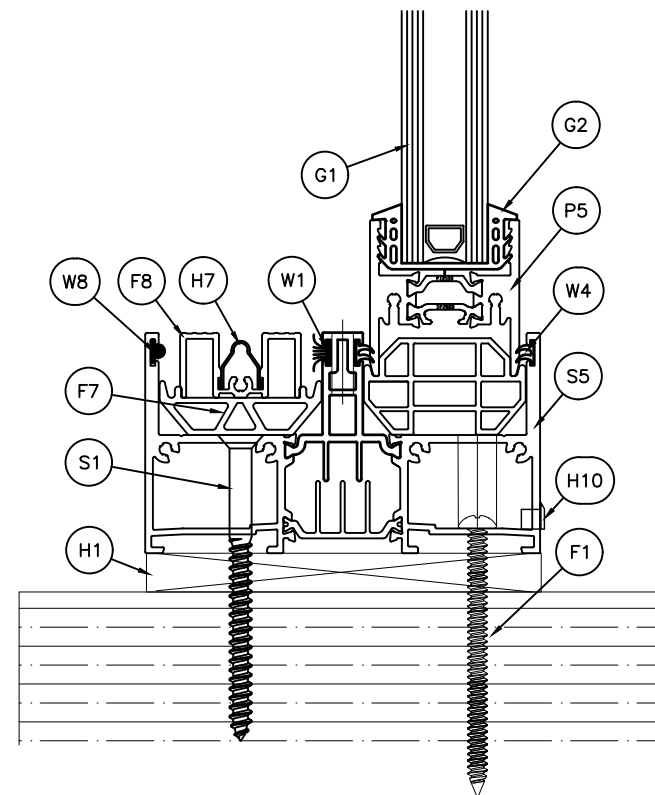
⑥ HEAD DETAIL @ FIXED PANEL
ARCH REF: NONE

1"=1'-0"



⑤ SILL DETAIL @ SLIDER
ARCH REF: NONE

1"=1'-0"



⑦ SILL DETAIL @ FIXED PANEL
ARCH REF: NONE

1"=1'-0"

SYSTEM OR DRAWING
DESCRIPTION

Drawn By :
Checked By :
Date :
Scale :
Job # :
ESO # :

Sheet No.
2.1

CRH
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A CRH COMPANY
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SECTION 13

REVISION LOG

REVISION #	DATE	PAGES	REVISION
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