

R W Building Consultants, Inc.

Consulting and Engineering Services for the Building Industry

P.O. Box 230 Valrico, FL 33595 Phone 813.659.9197

Florida Board of Professional Engineers Certificate of Authorization No. 9813

June 09, 2014

Joseph Zammit
Fleetwood Window and Doors
1 Fleetwood Way
Corona, CA 92879

REF: Non-Impact Glazing Comparative Analysis for Fleetwood KONA 3800 Fixed Windows
(Corresponding Test Report: TEL 01991007)

Joseph,

Attached is the non-impact glazing comparative analysis for the above mentioned product.

Included are:

1. A summary chart identifying the tested glazing details, the corresponding non-impact comparable glazing and the ASTM E1300 calculated load resistance. For the fixed windows, the non-impact glazing considered were 1/4" annealed, 3/16" heat strengthened and 3/16" tempered insulated glass.
2. A drawing identifying the tested impact glazing and the comparable non-impact glazing details. For example, if the tested impact unit is the "A" glazing, then the 3 non-impact units are "A1", "A2" & "A3".
3. The ASTM E1300 calculations for each tested impact glazing and the comparable non-impact glazing details.

Please contact me if any additional information is required.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Schmidt'.

Lyndon F. Schmidt, P.E.
Florida PE No. 43409
V.P. Engineering
R.W. Building Consultants, Inc.

FLEETWOOD GLAZING COMPARATIVE ANALYSIS

Kona 3800 Fixed Windows

Test Report: TEL 01991007

		DLO (in.)	ASTM E1300 LOAD RESISTANCE (psf)
TESTED GLAZING	A	37.5 x 93.1	76.6
COMPARABLE GLAZING	A1	32.5 x 84.1	77.2
	A2	37.5 x 93.1	92.6
	A3	37.5 x 93.1	185

TESTED GLAZING	B	37.5 x 93.1	98.5
COMPARABLE GLAZING	B1	31.5 x 66.1	98.7
	B2	37.5 x 89.1	98.8
	B3	37.5 x 93.1	185

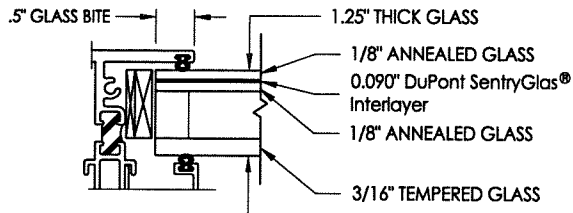
TESTED GLAZING	C	57.1 x 117.1	91.6
COMPARABLE GLAZING	C1	38.1 x 64.1	92.3
	C2	57.1 x 89.1	92.4
	C3	57.1 x 117.1	139

TESTED GLAZING	Ca	47.1 x 141.1	60.3
COMPARABLE GLAZING	Ca1	47.1 x 87.1	61.4
	Ca2	47.1 x 125.1	61.4
	Ca3	47.1 x 141.1	105

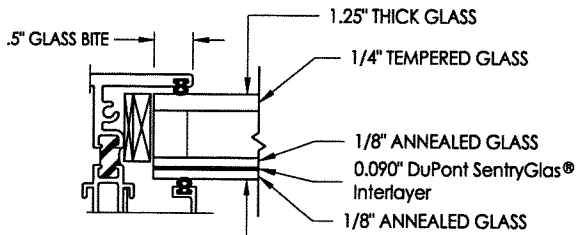
TESTED GLAZING	D	57.1 x 117.1	118
COMPARABLE GLAZING	D1	32.1 x 55.1	120
	D2	36.1 x 78.1	119
	D3	57.1 x 117.1	139

TESTED IMPACT GLAZING

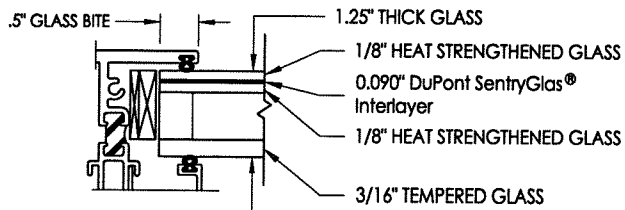
TEST REPORT: TEL 01991007



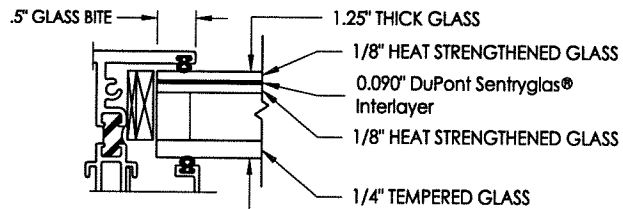
A GLAZING DETAIL



B GLAZING DETAIL



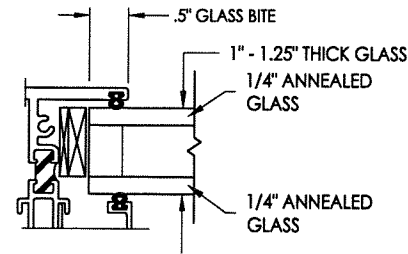
Ca C GLAZING DETAIL



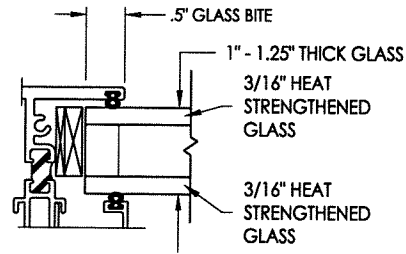
D GLAZING DETAIL

NON-IMPACT GLAZING

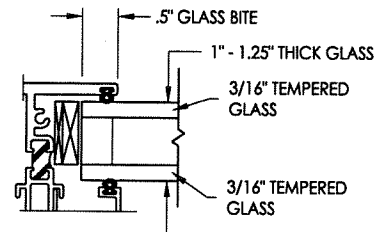
VERIFIED PER ASTM E1300



A1 B1 C1 Ca1 D1 GLAZING DETAIL



A2 B2 C2 Ca2 D2 GLAZING DETAIL



A3 B3 C3 Ca3 D3 GLAZING DETAIL

PRODUCT: FLEETWOOD

PART OR ASSEMBLY: GLAZING DETAILS

NO.	DATE	REVISIONS	BY

RW BUILDING CONSULTANTS, INC.
813.659.9197

DATE:	6-2-14
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	NA
SHEET	1 OF 1

R.W. - PROJECTS\Project Files\Proj 1\1\1 - 1800\PT 1\31\1.D. RWBC Drawings\GLAZING ASTM E1300.dwg, GLAZING

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Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 37.5 in.
Height: 93.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: TESTED IMPACT GLASS
"A" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit
Outboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.

Air Space: 0.5 in.
Inboard Lite: { Annealed }
Interlayer Type: SentryGlas® Plus
Outboard Ply Thickness: 1/8 in.
Interlayer Thickness: 0.09 in.
Inboard Ply Thickness: 1/8 in.
Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.): 60.0 psf
Load Resistance: 76.6 psf
Approximate center of glass deflection: 0.48 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance


Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

This software can be used to determine the load resistance of specified glass types exposed to uniform lateral loads of short or long duration subject to the following conditions:

- The glass is free of edge and surface damage and has been properly glazed in the opening in conformance with the manufacturer's recommendations.
 - Procedures exist to determine load resistance for rectangular glass assemblies that are:
 - a. Continuously supported along all four edges,
 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
 - The software user has the responsibility of selecting the correct procedures for the required application from the software.
 - The stiffness of members supporting any glass edge shall be sufficient that under design load, edge deflections shall not exceed $L/175$, where L denotes that length of the supported edge.
 - The manufacturer states that the Safety Plus II 0.090 Polyurethane Large Missile Resistant interlayer is comparable to the PVB interlayer.
 - The non-factored load values for laminated glass are representative of test data and calculations performed for an interlayer at a temperature of 50° C (122° F).
- For other limiting conditions that may apply, refer to Section 5 of ASTM E1300 and local building codes.

Neither SDG nor GANA guarantees and each disclaims any responsibility for any particular results relating to the use of the Window Glass Design 2004 Software Program. SDG and GANA disclaim any liability for any personal injury or any loss or damage of any kind, including all indirect, special, or consequential damages and lost profits, arising out of or relating to the use of the Window Glass Design 2004 Software Program.

Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 32.5 in.
Height: 84.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
1/4" ANNEALED "A1" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Annealed }	Inboard Lite: { Annealed }
Nominal Thickness: 1/4 in.	Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	77.2 psf
Approximate center of glass deflection:	0.27 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
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Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 37.5 in.
Height: 93.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" HEAT STRENGTHENED "A2" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Heat Strengthened }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	92.6 psf
Approximate center of glass deflection:	0.61 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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- Procedures exist to determine load resistance for rectangular glass assemblies that are:
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 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
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Prepared by:  on 6/3/2014
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Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 37.5 in.
Height: 93.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" TEMPERED "A3" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	185 psf
Approximate center of glass deflection:	0.61 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
- The software user has the responsibility of selecting the correct procedures for the required application from the software.
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Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 37.5 in.
Height: 93.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: TESTED IMPACT GLASS
"B" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Annealed }	Inboard Lite: { Fully Tempered }
Interlayer Type: SentryGlas® Plus	Nominal Thickness: 1/4 in.
Outboard Ply Thickness: 1/8 in.	
Interlayer Thickness: 0.09 in.	
Inboard Ply Thickness: 1/8 in.	
<u>Nominal Thickness: 1/4 in.</u>	

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	98.5 psf
Approximate center of glass deflection:	0.42 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
- The software user has the responsibility of selecting the correct procedures for the required application from the software.
- The stiffness of members supporting any glass edge shall be sufficient that under design load, edge deflections shall not exceed $L/175$, where L denotes that length of the supported edge.
- The manufacturer states that the Safety Plus II 0.090 Polyurethane Large Missile Resistant interlayer is comparable to the PVB interlayer.
- The non-factored load values for laminated glass are representative of test data and calculations performed for an interlayer at a temperature of 50° C (122° F).

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Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 31.5 in.
Height: 66.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
1/4" ANNEALED "B1" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Annealed }	Inboard Lite: { Annealed }
Nominal Thickness: 1/4 in.	Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	98.7 psf
Approximate center of glass deflection:	0.22 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

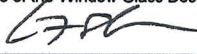
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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
- The software user has the responsibility of selecting the correct procedures for the required application from the software.
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- The manufacturer states that the Safety Plus II 0.090 Polyurethane Large Missile Resistant interlayer is comparable to the PVB interlayer.

For other limiting conditions that may apply, refer to Section 5 of ASTM E1300 and local building codes.

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Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 37.5 in.
Height: 89.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" HEAT STRENGTHENED "B2" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Heat Strengthened }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	98.8 psf
Approximate center of glass deflection:	0.59 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
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- The stiffness of members supporting any glass edge shall be sufficient that under design load, edge deflections shall not exceed $L/175$, where L denotes that length of the supported edge.
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Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 37.5 in.
Height: 93.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" TEMPERED "B3" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	185 psf
Approximate center of glass deflection:	0.61 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
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Prepared by: LFS on 6/3/2014

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 57.1 in.
Height: 117 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: TESTED IMPACT GLASS
"C" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 3/16 in.	Interlayer Type: SentryGlas® Plus
	Outboard Ply Thickness: 1/8 in.
	Interlayer Thickness: 0.09 in.
	Inboard Ply Thickness: 1/8 in.
	Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	91.6 psf
Approximate center of glass deflection:	1.15 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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 - c. Continuously supported along two parallel edges, and
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Prepared by:  on 6/2/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 38.1 in.
Height: 64.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
1/4" ANNEALED "C1" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Annealed }	Inboard Lite: { Annealed }
Nominal Thickness: 1/4 in.	Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	92.3 psf
Approximate center of glass deflection:	0.32 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

This software can be used to determine the load resistance of specified glass types exposed to uniform lateral loads of short or long duration subject to the following conditions:

- The glass is free of edge and surface damage and has been properly glazed in the opening in conformance with the manufacturer's recommendations.
- Procedures exist to determine load resistance for rectangular glass assemblies that are:
 - a. Continuously supported along all four edges,
 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
- The software user has the responsibility of selecting the correct procedures for the required application from the software.
- The stiffness of members supporting any glass edge shall be sufficient that under design load, edge deflections shall not exceed $L/175$, where L denotes that length of the supported edge.
- The manufacturer states that the Safety Plus II 0.090 Polyurethane Large Missile Resistant interlayer is comparable to the PVB interlayer.

For other limiting conditions that may apply, refer to Section 5 of ASTM E1300 and local building codes.

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Prepared by: LFS on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 57.1 in.
Height: 89.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" HEAT STRENGTHENED "C2" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Heat Strengthened }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	92.4 psf
Approximate center of glass deflection:	1.01 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

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Prepared by: LFS on 6/3/2014

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 57.1 in.
Height: 117 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" TEMPERED "C3" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	139 psf
Approximate center of glass deflection:	1.36 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
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Prepared by: LFS on 6/3/2014

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 47.1 in.
Height: 141 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: TESTED IMPACT GLASS
"Ca" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit
Outboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.

Air Space: 0.5 in.
Inboard Lite: { Heat Strengthened }
Interlayer Type: SentryGlas® Plus
Outboard Ply Thickness: 1/8 in.
Interlayer Thickness: 0.09 in.
Inboard Ply Thickness: 1/8 in.
Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.): 60.0 psf
Load Resistance: 60.3 psf
Approximate center of glass deflection: 1.07 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.


Disclaimer:

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 - b. Continuously supported along three edges,
 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
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- The manufacturer states that the Safety Plus II 0.090 Polyurethane Large Missile Resistant interlayer is comparable to the PVB interlayer.
- The non-factored load values for laminated glass are representative of test data and calculations performed for an interlayer at a temperature of 50° C (122° F).

For other limiting conditions that may apply, refer to Section 5 of ASTM E1300 and local building codes.

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Prepared by:  on 6/2/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
 Glazing Angle: 90°
 Lite Dimensions:
 Width: 47.1 in.
 Height: 87.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
 Location: PF 1731
 Comments: NON-IMPACT COMPARABLE GLASS
 1/4" ANNEALED "Ca1" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Annealed }	Inboard Lite: { Annealed }
Nominal Thickness: 1/4 in.	Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	61.4 psf
Approximate center of glass deflection:	0.63 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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Prepared by: LFS on 6/3/2014

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 47.1 in.
Height: 125 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" HEAT STRENGTHENED "Ca2" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Heat Strengthened }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	61.4 psf
Approximate center of glass deflection:	1.18 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

This software can be used to determine the load resistance of specified glass types exposed to uniform lateral loads of short or long duration subject to the following conditions:

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- Procedures exist to determine load resistance for rectangular glass assemblies that are:
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 - c. Continuously supported along two parallel edges, and
 - d. Continuously supported along one edge.
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Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 47.1 in.
Height: 141 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" TEMPERED "Ca3" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	105 psf
Approximate center of glass deflection:	1.35 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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Prepared by:  on 6/3/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 57.1 in.
Height: 117 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: TESTED IMPACT GLASS
"D" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 1/4 in.	Interlayer Type: SentryGlas® Plus
	Outboard Ply Thickness: 1/8 in.
	Interlayer Thickness: 0.09 in.
	Inboard Ply Thickness: 1/8 in.
	<u>Nominal Thickness: 1/4 in.</u>

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	118 psf
Approximate center of glass deflection:	1.09 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

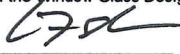
Disclaimer:

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- The non-factored load values for laminated glass are representative of test data and calculations performed for an interlayer at a temperature of 50° C (122° F).

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Prepared by:  on 6/2/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 32.1 in.
Height: 55.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
1/4" ANNEALED "D1" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Annealed }	Inboard Lite: { Annealed }
Nominal Thickness: 1/4 in.	Nominal Thickness: 1/4 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	120 psf
Approximate center of glass deflection:	0.19 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

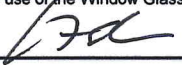
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Prepared by:  on 6/2/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 36.1 in.
Height: 78.1 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" HEAT STRENGTHENED "D2" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Heat Strengthened }	Inboard Lite: { Heat Strengthened }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	119 psf
Approximate center of glass deflection:	0.5 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

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Prepared by:  on 6/2/2014
LFS

Glass Load Resistance Report -- FLEETWOOD NON-IMPACT GLASS COMPARISON

Glazing Information

Edge Supports: 4 Sides
Glazing Angle: 90°
Lite Dimensions:
Width: 57.1 in.
Height: 117 in.

Project Details

Project Name: FLEETWOOD NON-IMPACT GLASS COMPARISON
Location: PF 1731
Comments: NON-IMPACT COMPARABLE GLASS
3/16" TEMPERED "D3" GLAZING

Glass Construction (Rectangular)

Double Glazed Insulating Unit	Air Space: 0.5 in.
Outboard Lite: { Fully Tempered }	Inboard Lite: { Fully Tempered }
Nominal Thickness: 3/16 in.	Nominal Thickness: 3/16 in.

Short Load Duration, Resistance, and Deflection Data

Load (~ 3 sec.):	60.0 psf
Load Resistance:	139 psf
Approximate center of glass deflection:	1.37 in.

Conclusion

Based on your design information, the load resistance is greater than or equal to the specified loading.

Statement of Compliance

Procedures followed in determining the resistance of this window glass are in accordance with ASTM E1300-04.

Disclaimer:

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