

ENGINEERING REPORT

PRODUCT:

Bezdan Stainless Steel Adjustable Standoffs

CODES MET:

IRC 2018 and IBC 2018

DATE:

February 2, 2022

Corbally Consulting Ltd. has prepared an engineering report for the Bezdan Stainless Steel Adjustable Standoffs. See pages 2 - 5 to view the condensed report.



To view the complete report please contact our Customer Service department:

info@geobezdan.com 1 800 663 6356

THE BEZDAN ADJUSTABLE ADAPTERS INSTALLED IN THE CONFIGURATIONS SHOWN MEET THE REQUIREMENTS OF THE RELEVANT IBC 2018 AND IRC 2018 CLAUSES BELOW.
 GUARD RAIL ANALYSIS CARRIED OUT AS PER THE REQUIREMENTS OF IBC (INTERNATIONAL BUILDING CODE) 2018 AND IRC (INTERNATIONAL RESIDENTIAL CODE) 2018.

WIND LOAD: IBC 2018 - SECTION 1609 AND ASCE 7-16 - CHAPTERS 26 TO 30 (COMPONENTS AND CLADDING).

GUARD LOADS: IBC 2018 - TABLE 1607.1 AND CLAUSE 1607.8 (SPECIFICALLY 1607.8.1 AND 1607.8.1.1), AS WELL AS ASCE 7-16 - CLAUSE 4.5.1.1 AND IRC 2018 - TABLE R301.5.

GUARD HEIGHT REQUIREMENTS: IBC 2018 - CLAUSE 1015.3.

LOAD COMBINATIONS: IBC 2018 - CLAUSE 2407.1.1 AND IRC 2018 - TABLE R301.5.

ALL TABLES REFERENCED WITHIN THESE DRAWINGS ARE CONTAINED WITHIN CORBALLY CONSULTING REPORT: "ENGINEERING REPORT FOR STAINLESS STEEL ADJUSTABLE ADAPTERS," WHICH SHOULD BE READ IN CONJUNCTION WITH THESE DRAWINGS.

ANALYSIS WAS CARRIED OUT USING THE FOLLOWING APPROPRIATE STANDARDS:

GLASS DESIGN

DESIGN BASIS FOR GLASS: IBC 2018 - CHAPTER 24.

DESIGN BASIS FOR GLASS IN GUARD RAILS: IBC 2018 - SECTION 2407.

STRUCTURAL SUFFICIENCY OF GLASS: ASTM E 1300-16, "STANDARD PRACTICE FOR DETERMINING LOAD RESISTANCE OF GLASS IN BUILDINGS."

STAINLESS STEEL DESIGN

STAINLESS STEEL MATERIAL PROPERTIES: ASCE 8-02, "DESIGN OF COLD FORMED STAINLESS STEEL STRUCTURAL MEMBERS."

STEEL DESIGN: IBC 2018 - CHAPTER 22.

CONNECTIONS

STEEL CONNECTIONS: IBC 2018 - CLAUSE 2204.2 AND AISC 360-16, "SPECIFICATION FOR STRUCTURAL STEEL IN BUILDINGS."

CONCRETE CONNECTIONS: IBC 2018 - CLAUSE 1901.3 AND ACI 318-19, "BUILDING CODE DESIGN FOR STRUCTURAL CONCRETE."

WOOD CONNECTIONS: IBC 2018 - CLAUSE 2307.1 AND THE AMERICAN WOOD COUNCILS (AWC) "NATIONAL DESIGN STANDARD."

1	REVISION 1	02/02/22
No.	ISSUE / REVISION	MM/DD/YY

ALL RIGHTS RESERVED, PROPERTY OF CORBALLY CONSULTING, USE OR REPRODUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION.

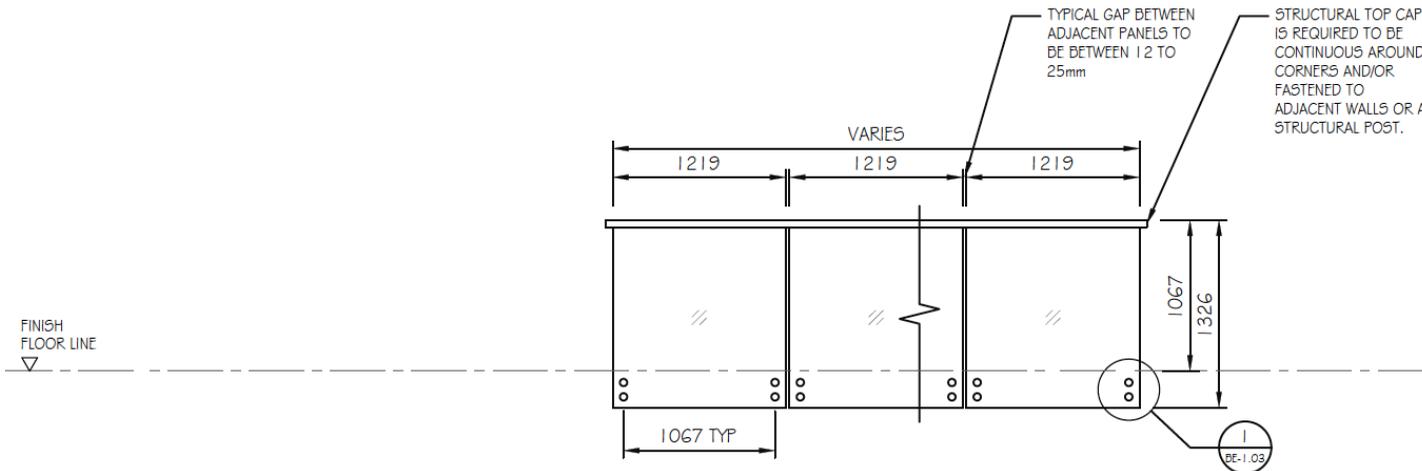
BEZDAN METAL & GLASS REVIEW

4050 GRAVELEY ST, BURNABY, BC V5C 4A5

METAL & GLASS REVIEW

GUARD RAIL ELEVATIONS

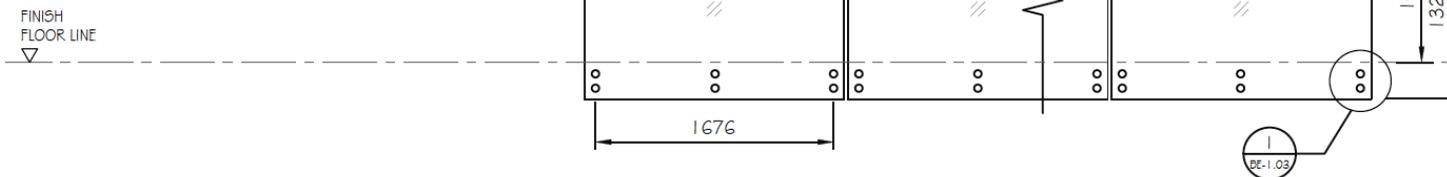
DATE:	FEBRUARY 2022	DRAWING No:	S-1.01
SCALE:	AS SHOWN		
DESIGNED:	DOH		
DRAWN:	MC	PROJECT No:	CC21-042
REVIEWED:	DOH		



NOTE:
 - FOR APPROPRIATE GLASS AND ADAPTER REQUIREMENTS, REFER TO TABLE 1 ON PAGE 5-1.04 OF THIS CONDENSED REPORT.

ADAPTER - 8/8mm TEMPERED / LAMINATED (0.060" SGP) GLASS w/ STRUCTURAL TOP CAP - 1219mm WIDE PANEL

SCALE: 1:40 MTS



NOTE:
 - FOR APPROPRIATE GLASS AND ADAPTER REQUIREMENTS, REFER TO TABLE 1 ON PAGE 5-1.04 OF THIS CONDENSED REPORT.

ADAPTER - 8/8mm TEMPERED / LAMINATED (0.060" SGP) GLASS w/ STRUCTURAL TOP CAP - 1828mm WIDE PANEL

SCALE: 1:40 MTS



FASTENING NOTES:

REFER TO THE FOLLOWING TABLE FOR WOOD FASTENING REQUIREMENTS:

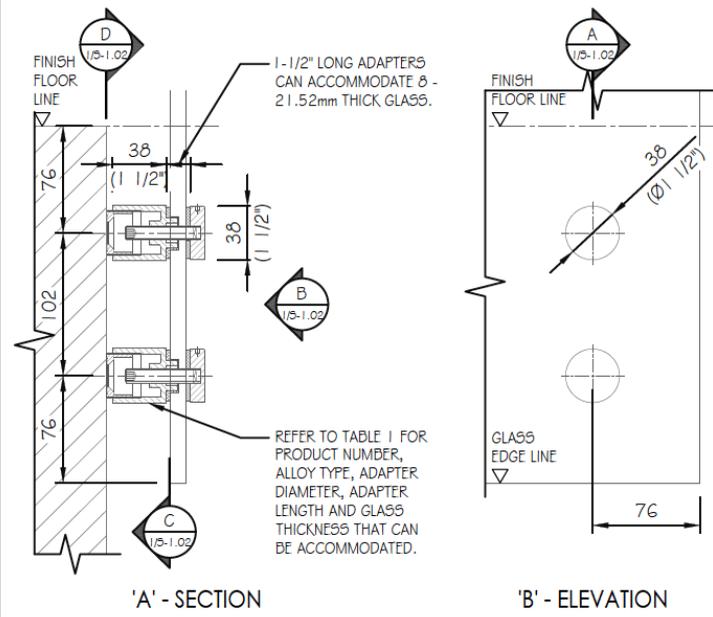
TABLE 7: "EMBEDMENT REQUIRED FOR WOOD FASTENING WITH ADAPTERS AND 8/8mm TEMPERED/LAMINATED (0.060" SGP) GLASS WITH STRUCTURAL TOP CAP."

REFER TO SECTION 3.4.3 FOR CONCRETE FASTENING REQUIREMENTS.

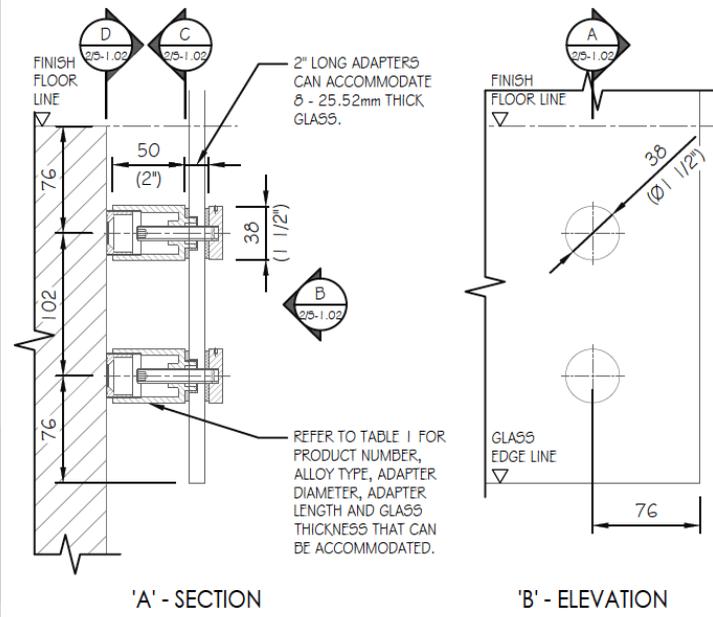
REFER TO SECTION 3.4.4 FOR STEEL FASTENING REQUIREMENTS.

GLASS HOLE SIZE TO ACCEPT ADAPTER:

DRILL HOLE CANT EXCEED 1.02" AS IT WILL AFFECT THE INTEGRITY OF THE GLASS PANEL.



1 **DETAIL 1**
SCALE: 1:2 MTS



2 **DETAIL 2**
SCALE: 1:2 MTS

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS IN MILLIMETERS.

THE BEZDAN ADJUSTABLE ADAPTERS INSTALLED IN THE CONFIGURATIONS SHOWN MEET THE REQUIREMENTS OF THE RELEVANT IBC 2018 AND IRC 2018 CLAUSES BELOW.

GUARD RAIL ANALYSIS CARRIED OUT AS PER THE REQUIREMENTS OF IBC (INTERNATIONAL BUILDING CODE) 2018 AND IRC (INTERNATIONAL RESIDENTIAL CODE) 2018.

WIND LOAD: IBC 2018 - SECTION 1609 AND ASCE 7-16 - CHAPTERS 26 TO 30 (COMPONENTS AND CLADDING).

GUARD LOADS: IBC 2018 - TABLE 1607.1 AND CLAUSE 1607.8 (SPECIFICALLY 1607.8.1 AND 1607.8.1.1), AS WELL AS ASCE 7-16 - CLAUSE 4.5.1.1 AND IRC 2018 - TABLE R301.5.

GUARD HEIGHT REQUIREMENTS: IBC 2018 - CLAUSE 1015.3.

LOAD COMBINATIONS: IBC 2018 - CLAUSE 2407.1.1 AND IRC 2018 - TABLE R301.5.

ALL TABLES REFERENCED WITHIN THESE DRAWINGS ARE CONTAINED WITHIN CORBALLY CONSULTING REPORT: "ENGINEERING REPORT FOR STAINLESS STEEL ADJUSTABLE ADAPTERS," WHICH SHOULD BE READ IN CONJUNCTION WITH THESE DRAWINGS.

ANALYSIS WAS CARRIED OUT USING THE FOLLOWING APPROPRIATE STANDARDS:

GLASS DESIGN

DESIGN BASIS FOR GLASS: IBC 2018 - CHAPTER 24.

DESIGN BASIS FOR GLASS IN GUARD RAILS: IBC 2018 - SECTION 2407.

STRUCTURAL SUFFICIENCY OF GLASS: ASTM E1300-16, "STANDARD PRACTICE FOR DETERMINING LOAD RESISTANCE OF GLASS IN BUILDINGS."

STAINLESS STEEL DESIGN

STAINLESS STEEL MATERIAL PROPERTIES: ASCE 8-02, "DESIGN OF COLD FORMED STAINLESS STEEL STRUCTURAL MEMBERS."

STEEL DESIGN: IBC 2018 - CHAPTER 22.

CONNECTIONS

STEEL CONNECTIONS: IBC 2018 - CLAUSE 2204.2 AND AISC 360-16, "SPECIFICATION FOR STRUCTURAL STEEL IN BUILDINGS."

CONCRETE CONNECTIONS: IBC 2018 - CLAUSE 1901.3 AND ACI 318-19, "BUILDING CODE DESIGN FOR STRUCTURAL CONCRETE."

WOOD CONNECTIONS: IBC 2018 - CLAUSE 2307.1 AND THE AMERICAN WOOD COUNCILS (AWC) "NATIONAL DESIGN STANDARD."

1	REVISION 1	02/02/22
No.	ISSUE / REVISION	MM/DD/YY

ALL RIGHTS RESERVED, PROPERTY OF CORBALLY CONSULTING, USE OR REPRODUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION.

BEZDAN METAL & GLASS REVIEW

4050 GRAVELEY ST. BURNABY, BC V5C 4A5

METAL & GLASS REVIEW

38mm Ø ADJUSTABLE ADAPTER DETAILS

DATE:	FEBRUARY 2022	DRAWING No:	S-1.02
SCALE:	AS SHOWN		
DESIGNED:	DOH		
DRAWN:	MC	PROJECT No:	
REVIEWED:	DOH		CC21-042

FASTENING NOTES:

REFER TO THE FOLLOWING TABLE FOR WOOD FASTENING REQUIREMENTS:

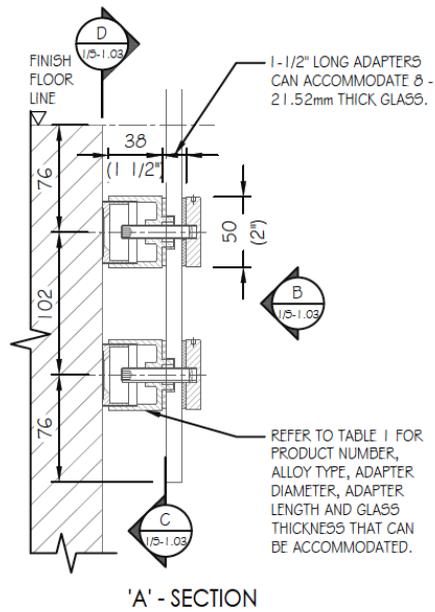
TABLE 7: "EMBEDMENT REQUIRED FOR WOOD FASTENING WITH ADAPTERS AND 8/8mm TEMPERED/LAMINATED (0.060" SGP) GLASS WITH STRUCTURAL TOP CAP."

REFER TO SECTION 3.4.3 FOR CONCRETE FASTENING REQUIREMENTS.

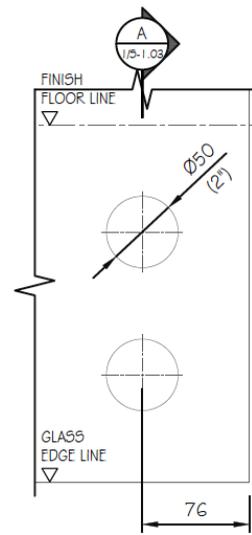
REFER TO SECTION 3.4.4 FOR STEEL FASTENING REQUIREMENTS.

GLASS HOLE SIZE TO ACCEPT ADAPTER:

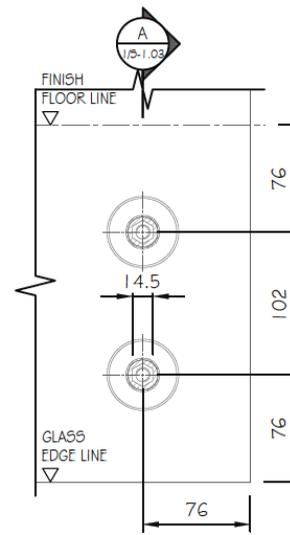
DRILL HOLE CANT EXCEED 1.02" AS IT WILL AFFECT THE INTEGRITY OF THE GLASS PANEL.



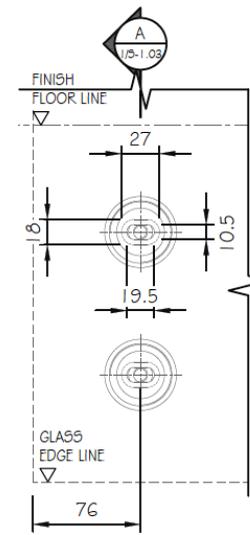
'A' - SECTION



'B' - ELEVATION

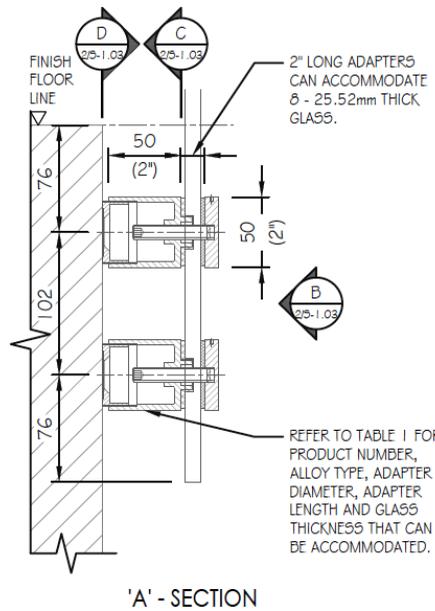


'C' - SECTION

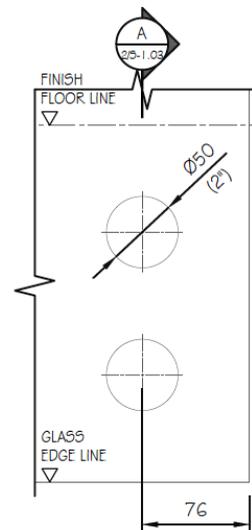


'D' - SECTION

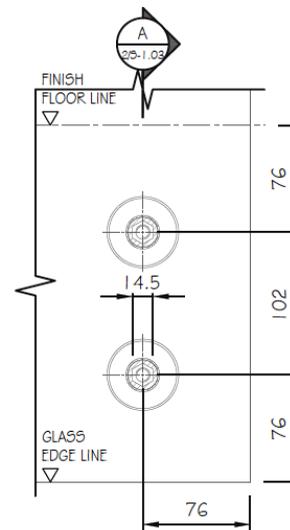
1 DETAIL 3
SCALE: 1:2 MTS



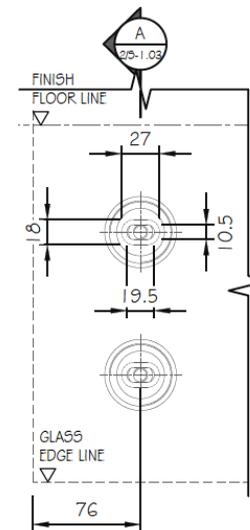
'A' - SECTION



'B' - ELEVATION



'C' - SECTION



'D' - SECTION

2 DETAIL 4
SCALE: 1:2 MTS

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS IN MILLIMETERS.

THE BEZDAN ADJUSTABLE ADAPTERS INSTALLED IN THE CONFIGURATIONS SHOWN MEET THE REQUIREMENTS OF THE RELEVANT IBC 2018 AND IRC 2018 CLAUSES BELOW.

GUARD RAIL ANALYSIS CARRIED OUT AS PER THE REQUIREMENTS OF IBC (INTERNATIONAL BUILDING CODE) 2018 AND IRC (INTERNATIONAL RESIDENTIAL CODE) 2018.

WIND LOAD: IBC 2018 - SECTION 1609 AND ASCE 7-16 - CHAPTERS 26 TO 30 (COMPONENTS AND CLADDING).

GUARD LOADS: IBC 2018 - TABLE 1607.1 AND CLAUSE 1607.8 (SPECIFICALLY 1607.8.1 AND 1607.8.1.1), AS WELL AS ASCE 7-16 - CLAUSE 4.5.1.1 AND IRC 2018 - TABLE R301.5.

GUARD HEIGHT REQUIREMENTS: IBC 2018 - CLAUSE 1015.3.

LOAD COMBINATIONS: IBC 2018 - CLAUSE 2407.1.1 AND IRC 2018 - TABLE R301.5.

ALL TABLES REFERENCED WITHIN THESE DRAWINGS ARE CONTAINED WITHIN CORBALLY CONSULTING REPORT: "ENGINEERING REPORT FOR STAINLESS STEEL ADJUSTABLE ADAPTERS," WHICH SHOULD BE READ IN CONJUNCTION WITH THESE DRAWINGS.

ANALYSIS WAS CARRIED OUT USING THE FOLLOWING APPROPRIATE STANDARDS:

GLASS DESIGN

DESIGN BASIS FOR GLASS: IBC 2018 - CHAPTER 24.

DESIGN BASIS FOR GLASS IN GUARD RAILS: IBC 2018 - SECTION 2407.

STRUCTURAL SUFFICIENCY OF GLASS: ASTM E1300-16, "STANDARD PRACTICE FOR DETERMINING LOAD RESISTANCE OF GLASS IN BUILDINGS."

STAINLESS STEEL DESIGN

STAINLESS STEEL MATERIAL PROPERTIES: ASCE 8-02, "DESIGN OF COLD FORMED STAINLESS STEEL STRUCTURAL MEMBERS."

STEEL DESIGN: IBC 2018 - CHAPTER 22.

CONNECTIONS

STEEL CONNECTIONS: IBC 2018 - CLAUSE 2204.2 AND AISC 360-16, "SPECIFICATION FOR STRUCTURAL STEEL IN BUILDINGS."

CONCRETE CONNECTIONS: IBC 2018 - CLAUSE 1901.3 AND ACI 318-19, "BUILDING CODE DESIGN FOR STRUCTURAL CONCRETE."

WOOD CONNECTIONS: IBC 2018 - CLAUSE 2307.1 AND THE AMERICAN WOOD COUNCILS (AWC) "NATIONAL DESIGN STANDARD."

I	REVISION 1	02/02/22
No.	ISSUE / REVISION	MM/DD/YY

ALL RIGHTS RESERVED, PROPERTY OF CORBALLY CONSULTING, USE OR REPRODUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION.

BEZDAN METAL & GLASS REVIEW

4050 GRAVELEY ST. BURNABY, BC V5C 4A5

METAL & GLASS REVIEW

50mm Ø ADJUSTABLE ADAPTER DETAILS

DATE:	FEBRUARY 2022	DRAWING No:	S-1.03
SCALE:	AS SHOWN		
DESIGNED:	DOH	PROJECT No:	CC21-042
DRAWN:	MC		
REVIEWED:	DOH		

THE BEZDAN ADJUSTABLE ADAPTERS INSTALLED IN THE CONFIGURATIONS SHOWN MEET THE REQUIREMENTS OF THE RELEVANT IBC 2018 AND IRC 2018 CLAUSES BELOW.

GUARD RAIL ANALYSIS CARRIED OUT AS PER THE REQUIREMENTS OF IBC (INTERNATIONAL BUILDING CODE) 2018 AND IRC (INTERNATIONAL RESIDENTIAL CODE) 2018.

WIND LOAD: IBC 2018 – SECTION 1609 AND ASCE 7-16 – CHAPTERS 26 TO 30 (COMPONENTS AND CLADDING).

GUARD LOADS: IBC 2018 – TABLE 1607.1 AND CLAUSE 1607.8 (SPECIFICALLY 1607.8.1 AND 1607.8.1.1), AS WELL AS ASCE 7-16 – CLAUSE 4.5.1.1 AND IRC 2018 – TABLE R301.5.

GUARD HEIGHT REQUIREMENTS: IBC 2018 – CLAUSE 1015.3.

LOAD COMBINATIONS: IBC 2018 – CLAUSE 2407.1.1 AND IRC 2018 – TABLE R301.5.

ALL TABLES REFERENCED WITHIN THESE DRAWINGS ARE CONTAINED WITHIN CORBALLY CONSULTING REPORT: "ENGINEERING REPORT FOR STAINLESS STEEL ADJUSTABLE ADAPTERS," WHICH SHOULD BE READ IN CONJUNCTION WITH THESE DRAWINGS.

ANALYSIS WAS CARRIED OUT USING THE FOLLOWING APPROPRIATE STANDARDS:

GLASS DESIGN

DESIGN BASIS FOR GLASS: IBC 2018 – CHAPTER 24.

DESIGN BASIS FOR GLASS IN GUARD RAILS: IBC 2018 – SECTION 2407.

STRUCTURAL SUFFICIENCY OF GLASS: ASTM E 1300-16, "STANDARD PRACTICE FOR DETERMINING LOAD RESISTANCE OF GLASS IN BUILDINGS."

STAINLESS STEEL DESIGN

STAINLESS STEEL MATERIAL PROPERTIES: ASCE 8-02, "DESIGN OF COLD FORMED STAINLESS STEEL STRUCTURAL MEMBERS."

STEEL DESIGN: IBC 2018 – CHAPTER 22.

CONNECTIONS

STEEL CONNECTIONS: IBC 2018 – CLAUSE 2204.2 AND AISC 360-16, "SPECIFICATION FOR STRUCTURAL STEEL IN BUILDINGS."

CONCRETE CONNECTIONS: IBC 2018 – CLAUSE 1901.3 AND ACI 318-19, "BUILDING CODE DESIGN FOR STRUCTURAL CONCRETE."

WOOD CONNECTIONS: IBC 2018 – CLAUSE 2307.1 AND THE AMERICAN WOOD COUNCILS (AWC) "NATIONAL DESIGN STANDARD."

PANEL WIDTH	ADAPTERS REQUIRED	
	INTERIOR	EXTERIOR
1219mm	4	4
1828mm	6	6



ADAPTER REQUIREMENTS FOR 8/8mm TEMPERED/LAMINATED (0.060" SGP) GLASS W/ STRUCTURAL TOP CAP FOR INTERIOR & EXTERIOR APPLICATIONS

NOTE:

-TABLE 1 MIRRORS TABLE 5 FROM CORBALLY CONSULTING REPORT: "ENGINEERING REPORT FOR STAINLESS STEEL ADJUSTABLE ADAPTERS."
-FURTHER INFORMATION RELATED TO ADAPTER REQUIREMENTS, INCLUDING TABLE NOTES, CAN BE FOUND IN THAT REPORT.

No.	REVISION / ISSUE	DATE
1	REVISION 1	02/02/22

ALL RIGHTS RESERVED, PROPERTY OF CORBALLY CONSULTING, USE OR REPRODUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION.

BEZDAN METAL & GLASS REVIEW

4050 GRAVELEY ST. BURNABY, BC V5C 4A5

METAL & GLASS REVIEW

ADJUSTABLE ADAPTER REQUIREMENTS

DATE:	FEBRUARY 2022	DRAWING No:	S-1.04
SCALE:	N/A		
DESIGNED:	DOH		
DRAWN:	MC	PROJECT No:	
REVIEWED:	DOH	CC21-042	