

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & IS LARGE MISSILE IMPACT RATED.
5. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
6. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
8. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
9. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/OA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
10. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.
11. ALL WOOD MEMBERS OF THIS PRODUCT THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC REQUIREMENTS.

CORNER CONSTRUCTION:

RECTANGULAR FRAME: MEMBERS ARE COPED, BUTTED AND JOINED WITH (2)TWO 16GA. X 7/16" X 2" STAPLES & (2)TWO NO. 8 X 2 1/2" WOOD SCREWS THROUGH THE VERTICAL FRAME MEMBERS INTO THE HORIZONTAL MEMBERS & (1)ONE NO. 8 X 2 1/2" WOOD SCREWS THROUGH THE HORIZONTAL MEMBERS INTO THE VERTICAL MEMBERS. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

SHAPED FRAME: MEMBERS ARE COPED, BUTTED AND JOINED WITH (3)THREE NO. 8 X 2 1/2" SCREWS THROUGH THE VERTICAL FRAME MEMBERS INTO THE HORIZONTAL MEMBERS & (2)TWO NO. 8 X 2 1/2" SCREWS THROUGH THE HORIZONTAL FRAME MEMBERS INTO THE VERTICAL MEMBERS. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

RECTANGULAR SASH: MEMBERS ARE SQUARE CUT, BUTTED AND JOINED WITH (1)ONE #5/8" X 5" DOWEL. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

SHAPED SASH (ROUND TOP): MEMBERS ARE MITER CUT, BUTTED AND JOINED WITH (1)ONE NO. 8 X 2" SCREW THROUGH THE VERTICAL MEMBERS INTO THE HORIZONTAL MEMBERS & (1) NO 8 X 2" SCREW THROUGH THE HORIZONTAL MEMBERS INTO THE VERTICAL MEMBERS. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

SHAPED SASH (CAMBER TOP): MEMBERS ARE SQUARE CUT, BUTTED AND JOINED WITH (1)ONE NO. 8 X 3 1/2" SCREW THROUGH THE VERTICAL MEMBERS INTO THE HORIZONTAL MEMBERS & (1) NO 8 X 3 1/2" SCREW THROUGH THE GLAZING CAVITY INTO THE HORIZONTAL MEMBER. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

RECTANGULAR FRAME CLAD: MEMBERS ARE MITERED TOGETHER & JOINED VIA A CORNER KEY (ITEM #19) & WITH (1)ONE NO. 6 X 1 1/2" SMS SCREW PER CORNER. CORNERS ARE SEALED WITH A CLOSED CELL FOAM GASKET & POLYURETHANE SEALANT.

SHAPED FRAME CLAD: MEMBERS ARE MITERED TOGETHER & JOINED VIA A CORNER KEY (ITEM #19) & WITH (1)ONE NO. 6 X 1 1/2" SMS SCREW PER CORNER. CORNERS ARE SEALED WITH A CLOSED CELL FOAM GASKET & POLYURETHANE SEALANT.

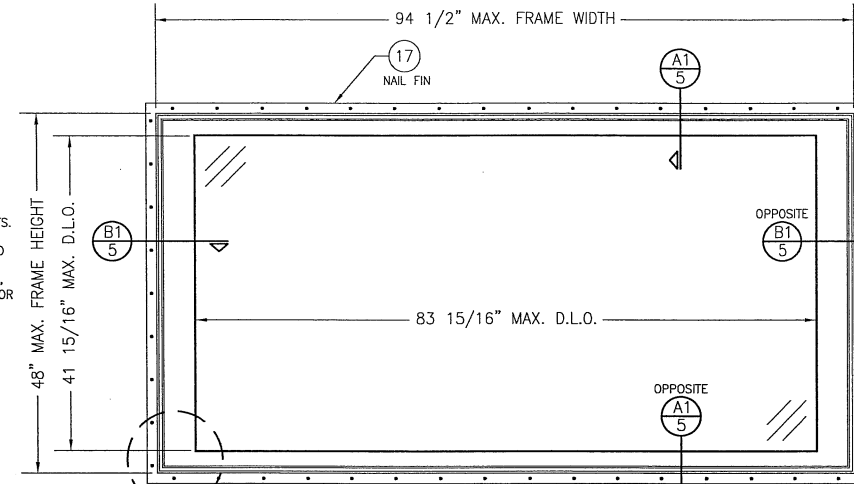
RECTANGULAR SASH CLAD: MEMBERS ARE COPED & BUTTED TOGETHER & SECURED TO THE SASH. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

SHAPED SASH CLAD: MEMBERS ARE COPED & BUTTED TOGETHER & SECURED TO THE SASH. CORNERS ARE SEALED WITH POLYURETHANE SEALANT.

FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME/NAIL FIN/BRICK MOLD TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
NAILING FIN & BRICK MOLD FASTENERS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 SMS SCREW	1 3/8"	1/2"
MIN. 1/8" THK A36 STEEL	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).



SEE CORNER
CONSTRUCTION
DESCRIPTIONS
ON THIS SHEET

EXTERIOR ELEVATION: SINGLE WINDOW

SCALE: 3/4" = 1'-0"

(NAIL FIN MOUNT CONDITION)

(RECTANGULAR WINDOW SHOWN, SHAPED WINDOWS ALSO APPLY. SEE
"APPROVED SHAPES" TABLE ON THIS SHEET)

RECTANGULAR WINDOWS SHOWN. ANCHORING OF SHAPED
WINDOWS IS THE SAME WITH REQUIRED ANCHOR SPACING
ALONG THE FRAME CIRCUMFERENCE BEING THE SAME AS
SPECIFIED FOR A STRAIGHT FRAME.

(1) ALLOWABLE DESIGN PRESSURE (SINGLE & MULTIPLE UNITS)

MAX. FRAME HEIGHT (IN.)	ALLOWABLE DESIGN PRESSURE (PSF)	
	POS.	NEG.
48	70.0	70.0
45	70.0	74.7
42	70.0	80.0
39	70.0	86.1
36	70.0	(1) 93.3
33	70.0	(1) 100.0

(1) WHEN WINDOWS ARE
COMBINED EITHER AS MULTIPLE
WINDOWS IN ONE FRAME OR AS
A MULLED UNIT, ALLOWABLE
NEGATIVE PRESSURE SHALL NOT
EXCEED -90 PSF.

APPROVED SHAPES



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED IN THIS DRAWING.
2. ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.
3. SINGLE WINDOWS SHOWN. OVERALL SHAPES SHOWN ALSO APPLY TO MULTIPLE UNITS.

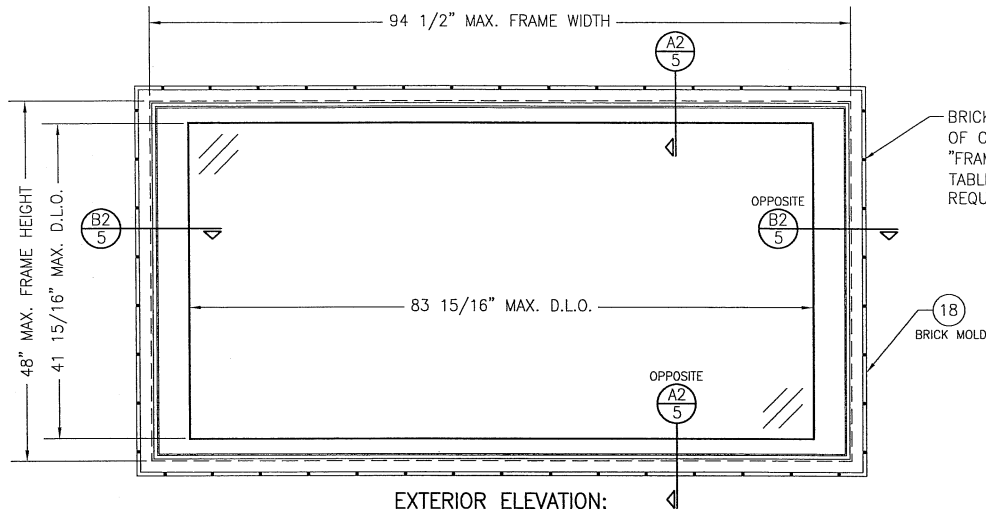
THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DATE	BY	REVISION DESCRIPTION	NO.
08/18/11	W.W.S.	UPDATE TO CURRENT STANDARDS	A1
01/08/13	W.W.S.	UPDATE TO CURRENT STANDARDS	B1
05/07/19	W.W.S.	ADDED ALTERNATE 2 1/4" SASH	C1

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 01/19/11
DRAWING TITLE: ALUMINUM CLAD WOOD SASH SET TRANSOM WINDOW	
MANUFACTURER: C.P. LOEWEN ENTERPRISES	
77 HWY 52 WEST	
STEINBACH, MB, CANADA R5G 1B2	
204-326-6446	

CONSULTANTS	ENGINEERING
W. W. SCHAEFER	& CONSULTING, P.A.
7480 130TH COURT, NORTH	PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424	

CERTIFICATION	MAX 0-8-2019
W. W. SCHAEFER	P.E. NO. 44135
DRAWING NO. 1669	REV. C
SHEET NO. 1	OF 8



BRICK MOLD FASTENER WITHIN 3 1/2" OF CORNERS & 6" MAX. O.C. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.

18
BRICK MOLD

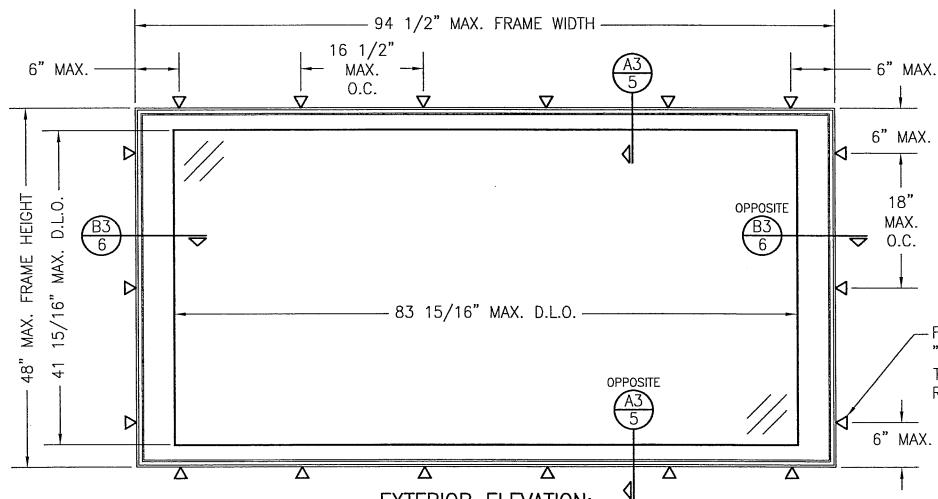
**EXTERIOR ELEVATION:
SINGLE WINDOW**

SCALE: 3/4" = 1'-0"

(BRICK MOLD MOUNT CONDITION)

(RECTANGULAR WINDOW SHOWN, SHAPED WINDOWS ALSO APPLY. SEE "APPROVED SHAPES" TABLE ON SHEET 1)

RECTANGULAR WINDOWS SHOWN. ANCHORING OF SHAPED WINDOWS IS THE SAME WITH REQUIRED ANCHOR SPACING ALONG THE FRAME CIRCUMFERENCE BEING THE SAME AS SPECIFIED FOR A STRAIGHT FRAME.



FRAME SCREWS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.

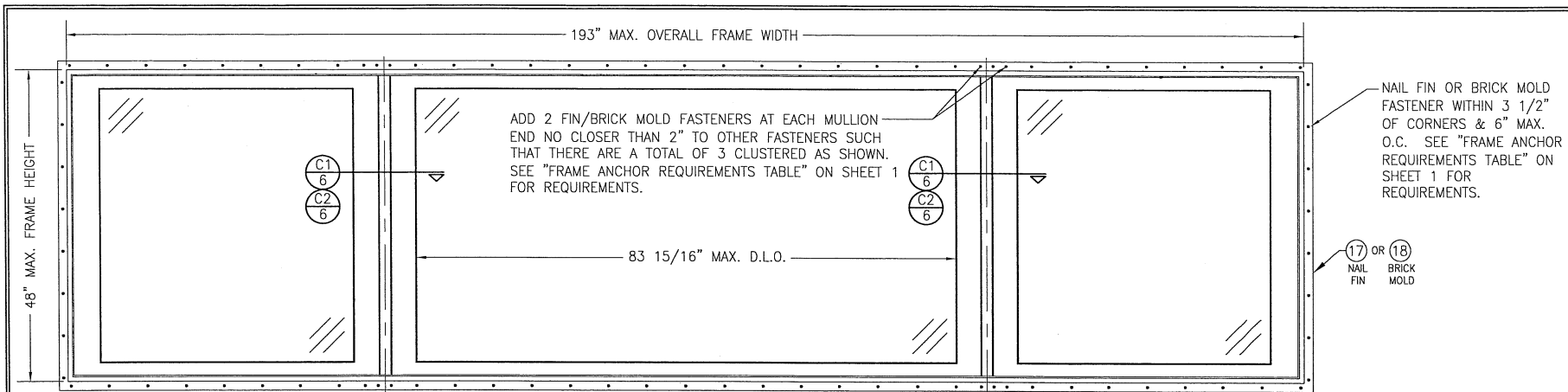
**EXTERIOR ELEVATION:
SINGLE WINDOW**

SCALE: 3/4" = 1'-0"

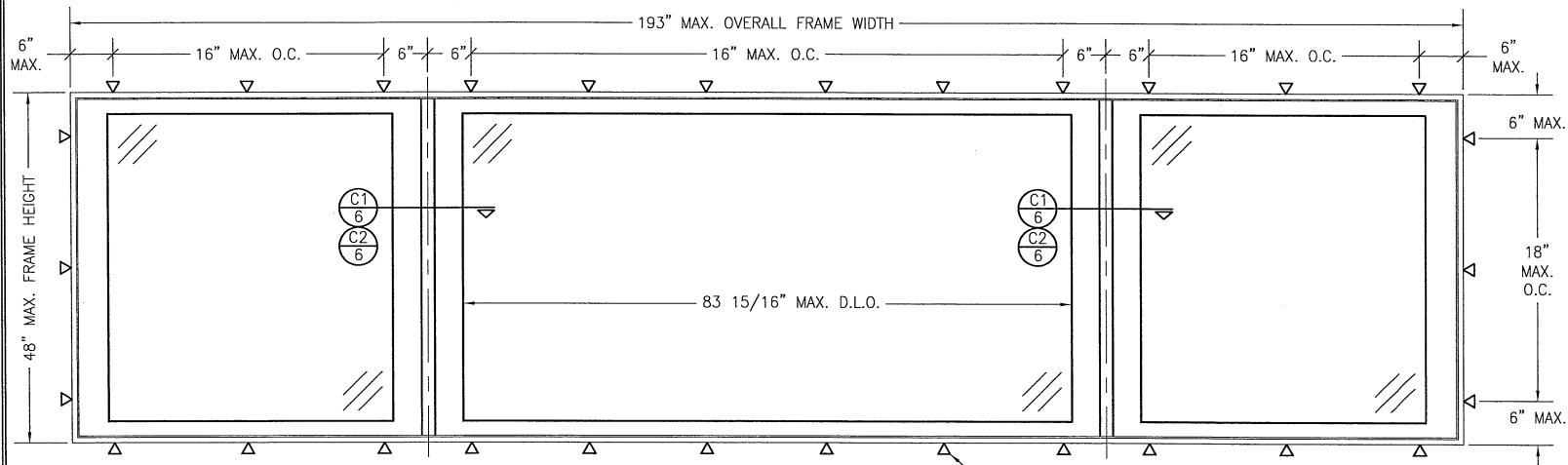
(FRAME SCREW MOUNT CONDITION)

(RECTANGULAR WINDOW SHOWN, SHAPED WINDOWS ALSO APPLY. SEE "APPROVED SHAPES" TABLE ON SHEET 1)

DRAWN BY: W.R.M.		CHECKED BY: W.M.S.	
PLOT: 1=16		DATE: 01/19/11	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: ALUMINUM CLAD WOOD SASH SET TRANSOM WINDOW			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 2480 150TH COURT NORTH, 33418 PALM BEACH GARDENS, FL 33418 PHONE 561-744-3424		MANUFACTURER C.P. LOEWEN ENTERPRISES 77 HWY 52 WEST STEINBACH, MB, CANADA R5G 1B2 204-326-6446	
CERTIFICATION MAY 08 2010 W. W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1669 REV. C SHEET NO. 2 OF 8	



**EXTERIOR ELEVATION:
MULTIPLE WINDOWS IN ONE FRAME**
SCALE: 3/4" = 1'-0"
(NAIL FIN OR BRICK MOLD MOUNT CONDITION)



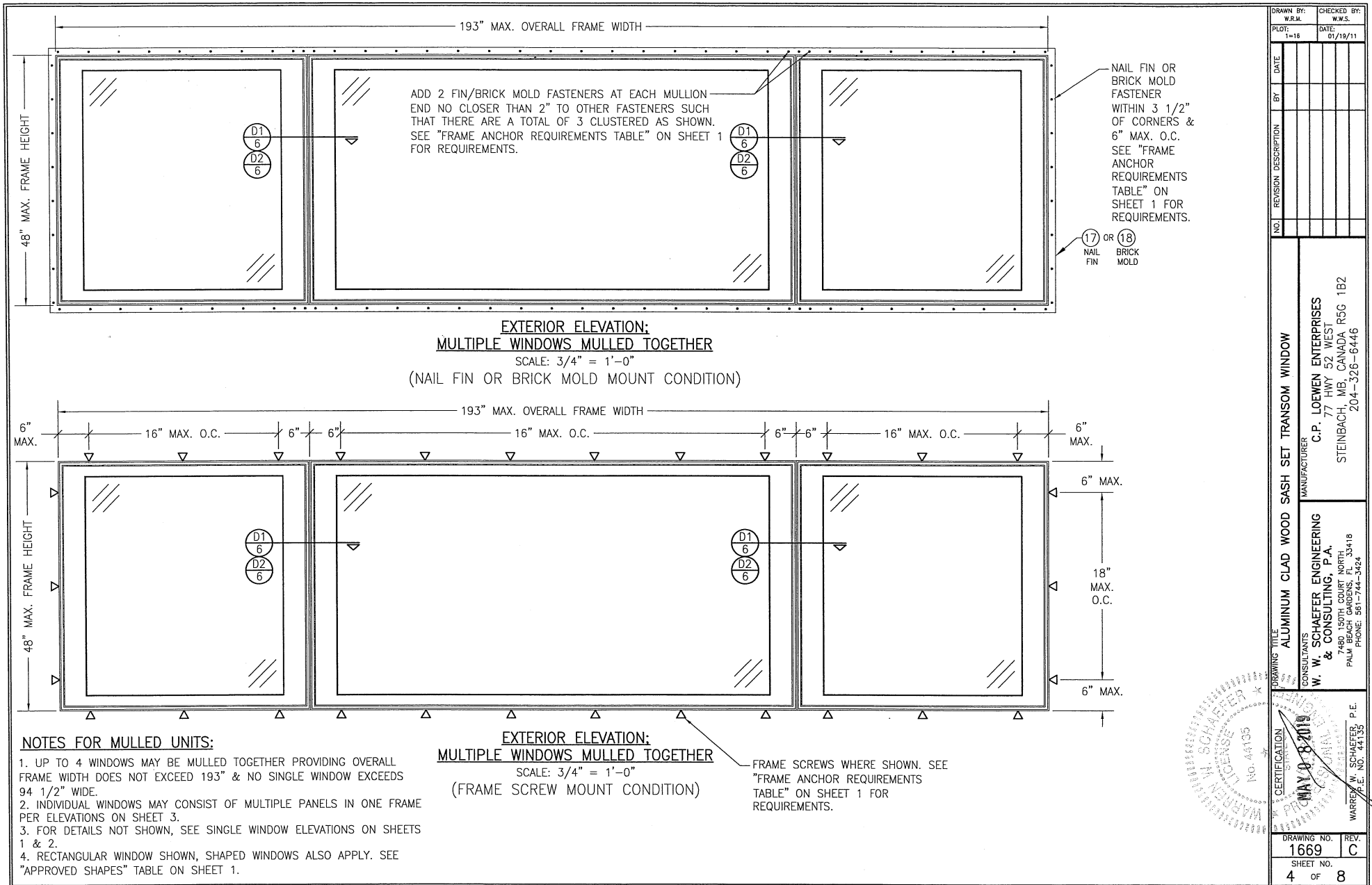
**EXTERIOR ELEVATION:
MULTIPLE WINDOWS IN ONE FRAME**
SCALE: 3/4" = 1'-0"
(FRAME SCREW MOUNT CONDITION)

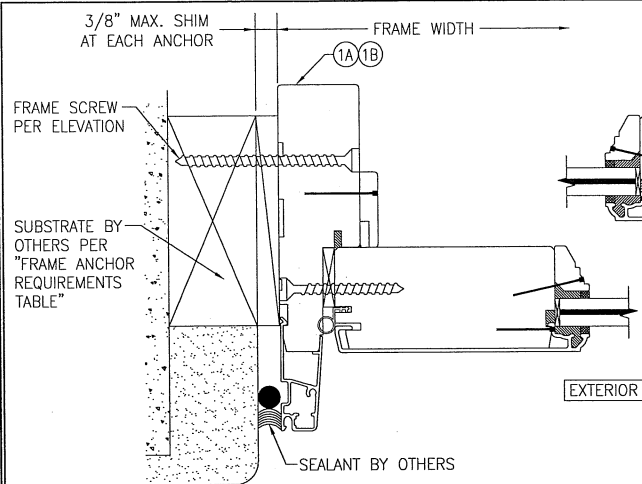
NOTES FOR MULTIPLE WINDOWS IN ONE FRAME:

1. UP TO 4 WINDOW PANELS MAY BE PLACED INTO ONE FRAME PROVIDING OVERALL FRAME WIDTH DOES NOT EXCEED 193" & NO SINGLE WINDOW D.L.O. EXCEEDS 83 15/16" WIDE.
2. FOR DETAILS NOT SHOWN, SEE SINGLE WINDOW ELEVATIONS ON SHEETS 1 & 2.
3. RECTANGULAR WINDOW SHOWN, SHAPED WINDOWS ALSO APPLY. SEE "APPROVED SHAPES" TABLE ON SHEET 1

FRAME SCREWS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.

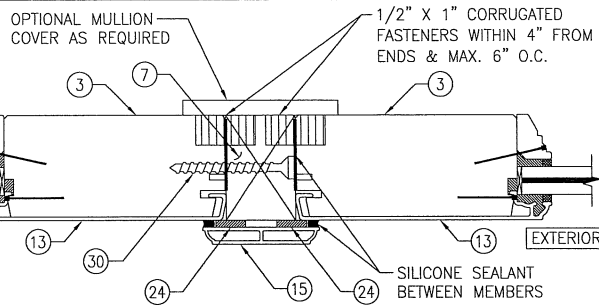
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 01/19/11
DATE	BY
REVISION DESCRIPTION	
NO.	
DRAWING TITLE ALUMINUM CLAD WOOD SASH SET TRANSOM WINDOW	MANUFACTURER C.P. LOEWEN ENTERPRISES 77 HWY 52 WEST STEINBACH, MB, CANADA R5G 1B2 204-326-6446
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 7480 150TH COURT NORTH PALM BEACH, FL 33418 PHONE: 561-744-3424	DATE MAY 10 8 2019
CERTIFICATION W. W. SCHAEFER, P.E. No. 44135	REV. C
DRAWING NO. 1669	SHEET NO. 3 OF 8



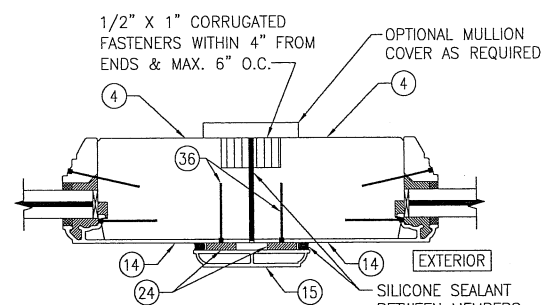


SECTION B3
SCALE: 1/2 FULL 6

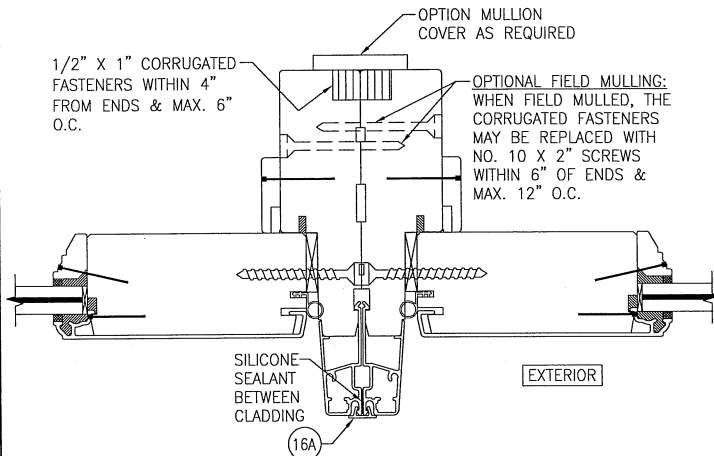
(FRAME SCREW MOUNT)
(FOR DETAIL NOT SHOWN, SEE SECTION B1/5)



SECTION C1
SCALE: 1/2 FULL 6

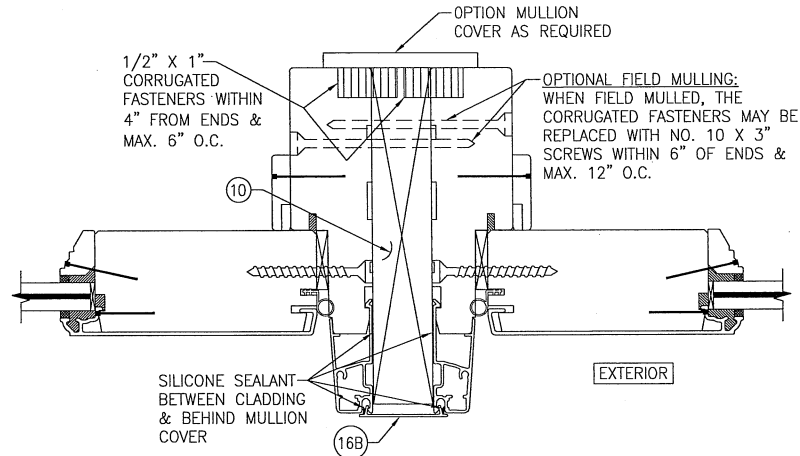


SECTION C2
SCALE: 1/2 FULL 6



SECTION D1
SCALE: 1/2 FULL 6

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



SECTION D2
SCALE: 1/2 FULL 6

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

DRAWN BY: W.M.		CHECKED BY: W.M.S.	
DATE: 01/18/11		DATE: 01/18/11	
NO.	REVISION	DESCRIPTION	DATE
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DRAWING TITLE: ALUMINUM CLAD WOOD SASH SET TRANSOM WINDOW

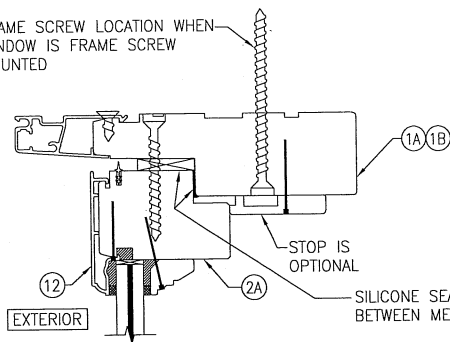
MANUFACTURER: C.P. LOEWEN ENTERPRISES
77 HWY 52 WEST
STEINBACH, MB, CANADA R5G 1B2
204-326-6446

CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
405-1001 COURT PORTFOLIO
PALM BEACH GARDENS, FL 33418
PHONE: 351-744-3424

CERTIFICATION: MAY 08 2019
W. W. SCHAEFER, P.E.
NO. 44135

DRAWING NO. 1669
SHEET NO. 6 OF 8
REV. C

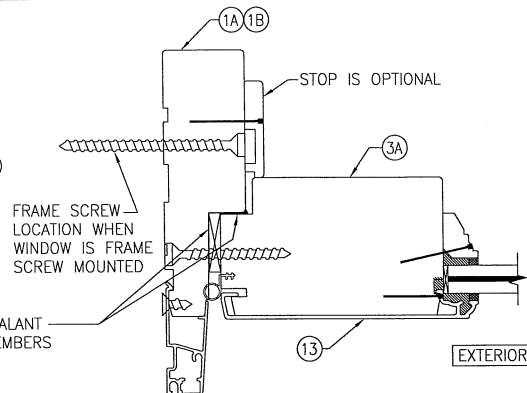
FRAME SCREW LOCATION WHEN WINDOW IS FRAME SCREW MOUNTED



ALTERNATE HEAD/SILL SECTION

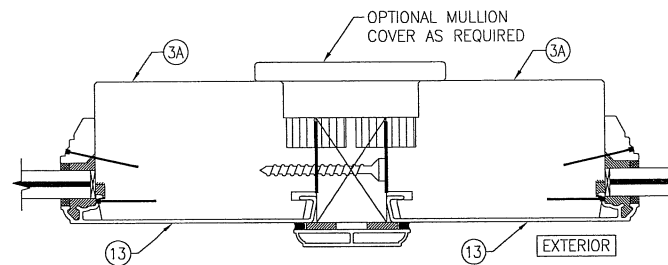
WITH 2 1/4" DEEP SASH

APPLICABLE TO SECTIONS A1/5, A2/5 & A3/5. SEE THOSE SECTIONS FOR ALL DETAIL NOT SHOWN.



ALTERNATE JAMB SECTION WITH 2 1/4" DEEP SASH

APPLICABLE TO SECTIONS B1/5, B2/5, B3/6, D1/6 & D2/6. SEE THOSE SECTIONS FOR ALL DETAIL NOT SHOWN.

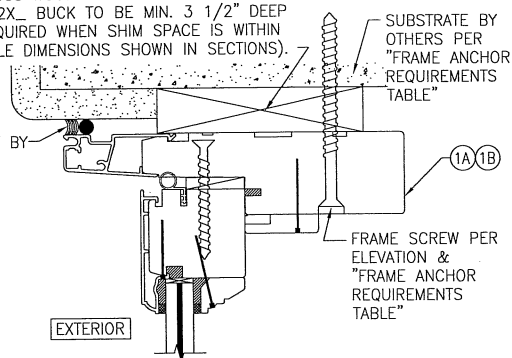


ALTERNATE MEETING STILE SECTION WITH 2 1/4" DEEP SASH

APPLICABLE TO SECTION C1/6. SEE THAT SECTION FOR ALL DETAIL NOT SHOWN.

CONTINUOUS WOOD MEMBER LESS IN THICKNESS THAN A 2X BUCK TO BE MIN. 3 1/2" DEEP (NOT REQUIRED WHEN SHIM SPACE IS WITHIN ALLOWABLE DIMENSIONS SHOWN IN SECTIONS).

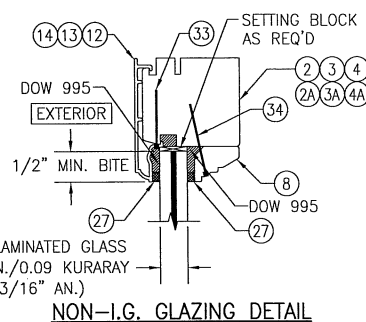
SEALANT BY OTHERS



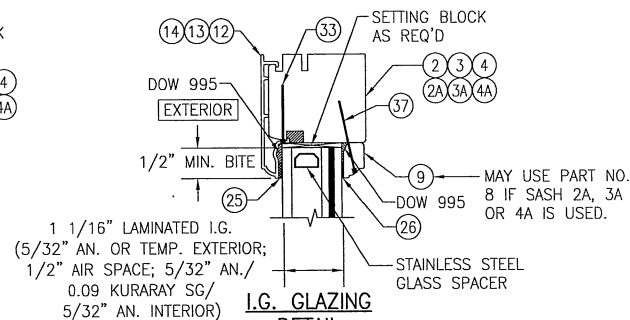
OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME) (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

1 3/4" SASH CONDITION IS SHOWN. 2 1/4" SASH CONDITION ALSO APPLIES EXCEPT FRAME SCREW IS POSITIONED UNDER THE SASH STOP AS SHOWN IN ALTERNATE HEAD/SILL & JAMB SECTIONS.



NON-I.G. GLAZING DETAIL



I.G. GLAZING DETAIL

NOTE: WHEN SILL HEIGHT OF WINDOW EXCEEDS 30 FT. ABOVE GRADE, THE EXTERIOR PANE OF I.G. GLASS MUST BE TEMPERED.

DRAWN BY: W.D.M.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 01/19/11
DATE:	
BY:	
REVISION DESCRIPTION:	
NO.	
DRAWING TITLE: ALUMINUM CLAD WOOD SASH SET TRANSOM WINDOW	
MANUFACTURER: C.P. LOEWEN ENTERPRISES 77 HWY 52 WEST STEINBACH, MB, CANADA R5G 1B2 204-326-6446	
CONSULTANTS: W. SCHAEFER ENGINEERING & CONSULTING, P.A. 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION: W. SCHAEFER, P.E. NO. 44135	
DRAWING NO. 1669	REV. C
SHEET NO. 7	OF 8

