

SOLATUBE INTERNATIONAL

IMPACT 160 DS (10") & 290 DS (14") TUBULAR DAYLIGHT DEVICE

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

- THE PRODUCT ANCHORAGE SHOWN HEREIN IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) REQUIREMENTS, INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ) AT THE DESIGN PRESSURES STATED HEREIN.
- THE PRODUCT DETAILS CONTAINED HEREIN ARE BASED UPON SIGNED AND SEALED TEST REPORT ATI85320.01-301-18 AND ASSOCIATED LABORATORY STAMPED DRAWINGS.
- THE PRODUCT HAS BEEN TESTED TO TAS 201, TAS 202 AND TAS203 (ATI TEST REPORT ATI 85320.01-301-18) AND FOUND TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONE. THE DESIGN PRESSURES SHOWN IN DESIGN PRESSURE RATING TABLE ON SHEET 1 OF THIS DRAWING ARE BASED ON THE RESULTS OF TEST REPORT NO. ATI 85320.01-301-18 DIVIDED BY A FACTOR OF SAFETY OF 2 WHERE APPLICABLE.
- PLASTIC COMPONENTS OF THE SOLATUBE TUBULAR DAYLIGHT DEVICE HAVE BEEN EVALUATED TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE INCLUDING THE HIGH VELOCITY ZONE AND ARE IN COMPLIANCE AS DOCUMENTED IN PRODUCT EVALUATION REPORT NO. 1971, BY ROBERT J. AMORUSO, P.E.
- ADEQUACY OF THE EXISTING STRUCTURAL ROOF SHEATHING AND SUPPORTING 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
- THIS PRODUCT EVALUATION DOCUMENT ADDRESSES THE STRUCTURAL ATTACHMENT OF THE SKYLIGHT/TUBULAR DAYLIGHT DEVICE TO THE ROOF SHEATHING ONLY. PREPARATION OF THE ROOF SHEATHING AND ROOF COVERING(S) TO RECEIVE THE SKYLIGHT/TUBULAR DAYLIGHT DEVICE SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS AND COMPLIANT WITH CHAPTER 15 OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE AND CHAPTER 9 OF THE CURRENT EDITION OF THE FLORIDA RESIDENTIAL CODE.
- IN ACCORDANCE WITH THE CURRENT EDITION FBC DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM SKYLIGHT FRAMING SHALL HAVE BEEN PROTECTED.

INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN ON SHEETS 2 AND 3.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION. ALL UNITS REQUIRE EIGHT (8) ANCHORS MINIMUM LOCATED AT ALL CORNERS. ANCHOR ENGINEERING BASED ON ENGAGEMENT INTO ROOF SHEATHING AND NOT 2X ROOF FRAMING.
 - INSTALLATION SHALL BE INTO 7/16" MINIMUM THICKNESS ROOF SHEATHING (SEE NOTE 6 BELOW).
 - IF TDD INSTALLATION LOCATION REQUIRES ANCHORS TO ENGAGE INTO 2X FRAMING, THAT IS ACCEPTABLE.
- ANCHOR REQUIREMENTS;
 - FOR INSTALLATION INTO 7/16" MINIMUM THICKNESS ROOF SHEATHING (SEE NOTE 6 BELOW), USE A #10 TYPE AB PAN HEAD, ROUND HEAD OR TRUSS HEAD TAPPING SCREWS MEETING ASME/ANSI B18.6.4 OF SUFFICIENT LENGTH TO ENSURE PROTRUDING SCREW THREADS AT LEAST 1/2" BEYOND THE INTERIOR SURFACE OF ROOF SHEATHING. EDGE DISTANCE FROM CENTERLINE OF SCREW TO EDGE OF SHEATHING SHALL BE AT LEAST 3/4 INCH.
 - FOR INSTALLATION THROUGH ROOF SHEATHING INTO 2X WOOD ROOF FRAMING (SEE NOTE 6 BELOW), USE A #10 TYPE AB PAN HEAD, ROUND HEAD OR TRUSS HEAD TAPPING SCREWS MEETING ASME/ANSI B18.6.4 OF THE SAME LENGTH AS REQUIRED IN NOTE 3.1 ABOVE. EDGE DISTANCE FROM CENTERLINE OF SCREW TO EDGE OF SHEATHING SHALL BE AT LEAST 3/4 INCH.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE ROOF FINISHES.
- INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES. ROOF SHEATHING THICKNESS, GROUP OR GRADE MAY BE MANDATED BY JURISDICTION REQUIREMENTS, THEREFORE THICKNESS AND GROUP/GRADE SHOWN BELOW WILL BE CONSIDERED MINIMUM.
 - 7/16" THICK PLYWOOD - SPECIES GROUP 1 OR 2 (APA VOLUNTARY PRODUCT STANDARD PS 1) MINIMUM.
 - 7/16" OSB - SHEATHING GRADE (APA VOLUNTARY PRODUCT STANDARD PS 2) MINIMUM.
- INSTALLATION/MOUNTING CONDITIONS AND LIMITATIONS OF USE AS REQUIRED BY THE FOLLOWING SECTIONS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) AND FLORIDA RESIDENTIAL CODE (FRC) SHALL BE MET.
 - FBC CHAPTER 24, SLOPED GLAZING AND SKYLIGHTS
 - FBC CHAPTER 26, LIGHT-TRANSMITTING PLASTIC SKYLIGHT GLAZING
 - FRC CHAPTER 3, SKYLIGHTS AND SLOPED GLAZING
- A CURB CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR THE TYPE OF CONSTRUCTION CLASSIFICATION, BUT AT LEAST 4 INCHES ABOVE THE PLANE OF THE ROOF BY OTHERS IS ALLOWED. ADDITIONAL INSTALLATION DETAILING AND ENGINEERED INSTALLATION EVALUATION BY A LICENSED DESIGN PROFESSIONAL WILL BE REQUIRED FOR SUBMITTAL IN ADDITION TO THIS PRODUCT EVALUATION DOCUMENT.

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5	INSTALLATION DETAILS AND SECTIONS
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DESIGN PRESSURE RATING (PSF)			IMPACT RATING
UNIT	WHERE WATER INFILTRATION TEST IS REQUIRED	WHERE WATER INFILTRATION TEST IS NOT REQUIRED	LARGE MISSLE IMPACT
10" & 14" SOLATUBE	±70.0	±70.0	


PROJECT NUMBER: 415-0316			
D	UPDATED TO 5TH EDITION (2014) FBC	5/11/15	JBH
C	REVISED ELEVATIONS & INSTALLATION SECTS	04/30/15	JBH
B	REVISED ANCHORAGE	4/14/14	RJA
A	UPDATE TO 2010 FBC	12/15/11	TJH
REV	DESCRIPTION		DATE

SOLATUBE INTERNATIONAL
2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE: IMPACT 160 DS (10") & 290 DS (14") TUBULAR DAYLIGHT DEVICE
GENERAL AND INSTALLATION NOTES

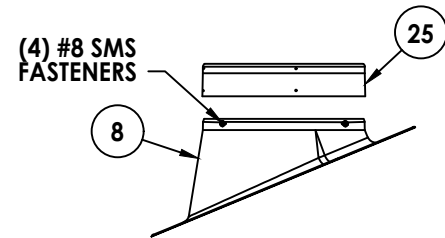
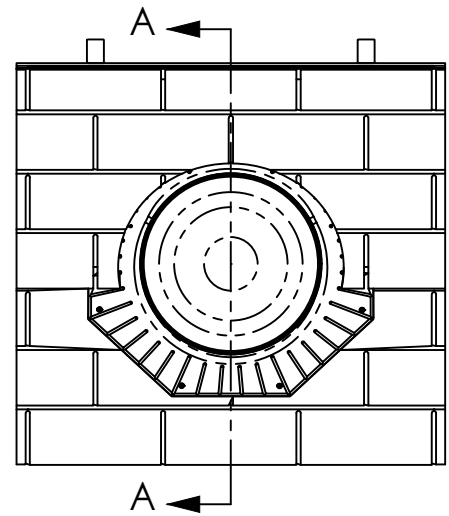
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DRAWING NO: SOLA0004
SHEET: 1 OF 6

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REV: D

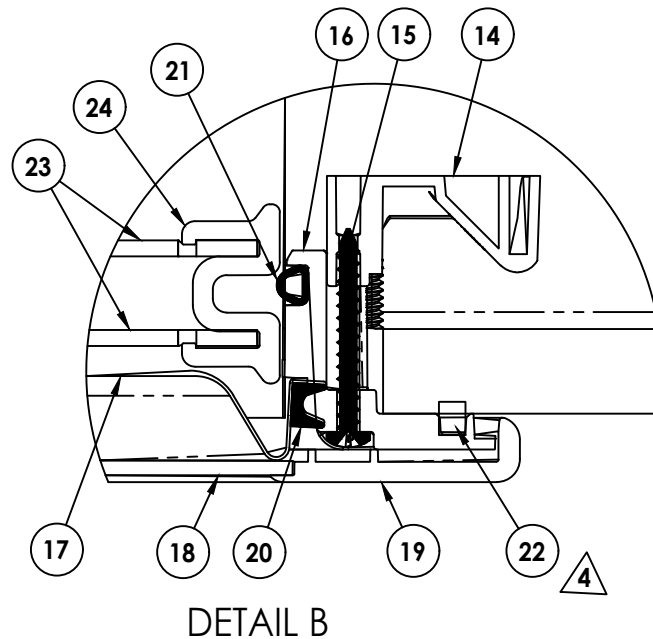
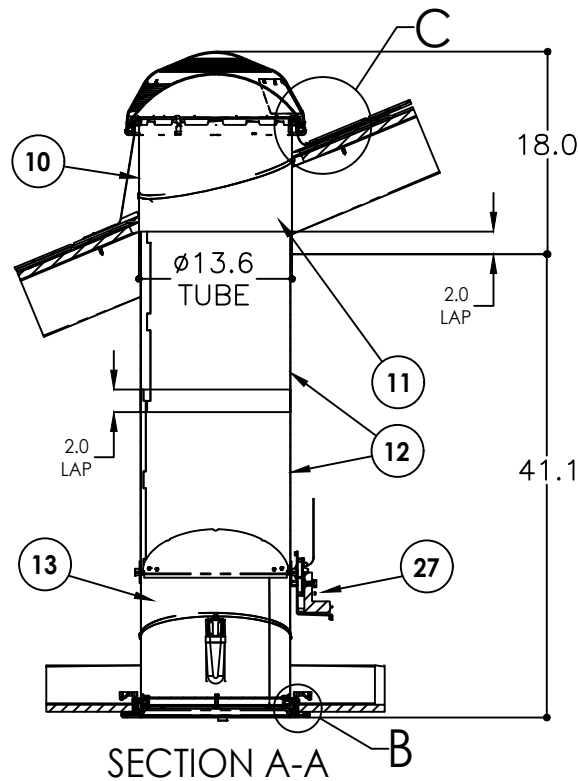
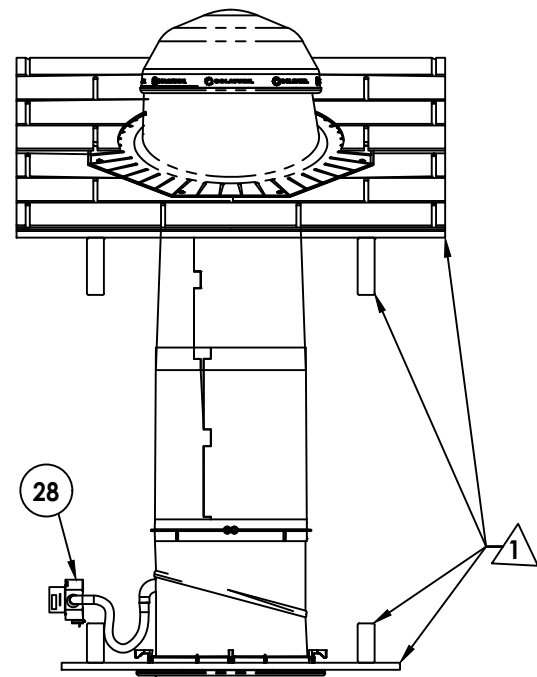


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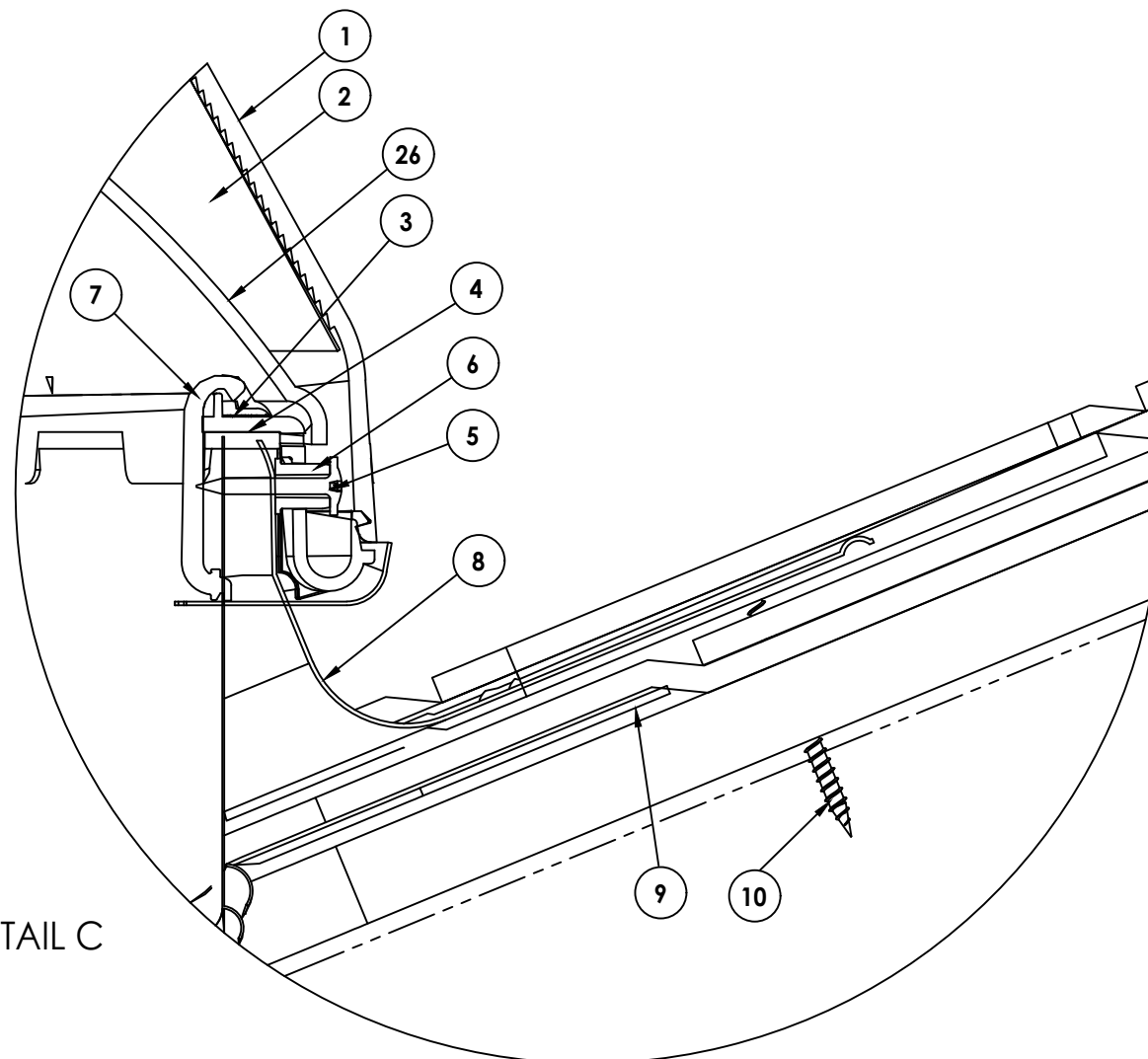
Robert J. Amoruso, P.E.
FL P.E. No. 49752



FLASHING SHOWN WITH OPTIONAL 2"-48" TALL TURRET EXTENSION



DETAIL B



DETAIL C

NOTES:

1. STRUCTURAL ELEMENTS (PLYWOOD, RAFTERS, DRYWALL ETC.) BY OTHERS & SHOWN FOR REFERENCE ONLY
2. ALL TUBE JOINTS & SEAMS TAPED WITH 2" FOIL TAPE (NOT SHOWN)
3. SEE PAGE 6 FOR ALTERNATE DIFFUSER CONFIGURATIONS
4. ITEM #22: RECTANGULAR FOAM OR SEALANT BEAD

ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	410820	DOMES 290 DS	PMMA
2	1	410830	LIGHTTRACKER RELECTOR 290 DS	ALUMINUM LAMINATE
3	1	410660	DOMES RING 290 DS	PMMA
4	1	600610	FOAM SEAL RECTANGULAR 1/8" X 9/16"	FOAM (VARIOUS)
5	4	700240	SCREW #8 X 1" SMS	STEEL
6	4	410730	DOMES RING SPACER	POLYAMIDE
7	3	410750	TOP TUBE CLIP	PMMA
8	1	VARIABLES*	FLASHING	STEEL
9	1	700280/700300	SEALANT	URETHANE
10	8	700480	SCREW #10 X 2" SMS	STEEL
11	1	302240	TOP TUBE 290 DS	ALUMINUM LAMINATE
12	1	301800/301830	EXT. TUBE 16"/24" 290 DS	ALUMINUM LAMINATE
13	1	302120	BOTTOM TUBE 290 DS	ALUMINUM LAMINATE
14	4	410220	CLAMP	POLYAMIDE
15	4	700450	SCREW #8 x 1.5" SMS	STEEL
16	1	410415	CEILING RING 290 DS	PMMA
17	1	421345	290 DS NATURAL EFFECT LENS	PET
18	1	410,530,420,080	290 DS DIFFUSER PANEL	PMMA, PC
19	1	410520	DRESS RING 290 DS	PMMA
20	1	600290	290 DS DIFFUSER SEAL	EPDM FOAM
21	1	600445	D-SEAL HOLLOW	EPDM FOAM
22	1	600620	FOAM SEAL RECTANGULAR 3/16" X 1/4"	CLOSED CELL FOAM
22	1	-	ALTERNATE (PROVIDED BY USER)	ACRYLIC SEALANT (VARIOUS)

OPTIONAL COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
23	2	420260	290 DS INSULATION PANEL (NOT SHOWN)	PMMA
24	4	420270	INSULATION PANEL CLIP (NOT SHOWN)	PMMA
25	1	VARIABLES**	TURRET EXTENSION	STEEL
26	1	410810	290 DS DOME SHOCK INNER	PMMA
27	1	570002	290 DS DAYLIGHT DIMMER	
28	1	510000, 501100	LIGHT KIT (SBCFL, 4-pin)	

* PN'S 200760, 200581, 230445, 230630

** PN'S 230760, 230540, 230550, 230560, 230570

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 TUBULAR DAYLIGHT DEVICE
 ELEVATION, ANCHORING, SECTIONS, DETAILS AND B.O.M.

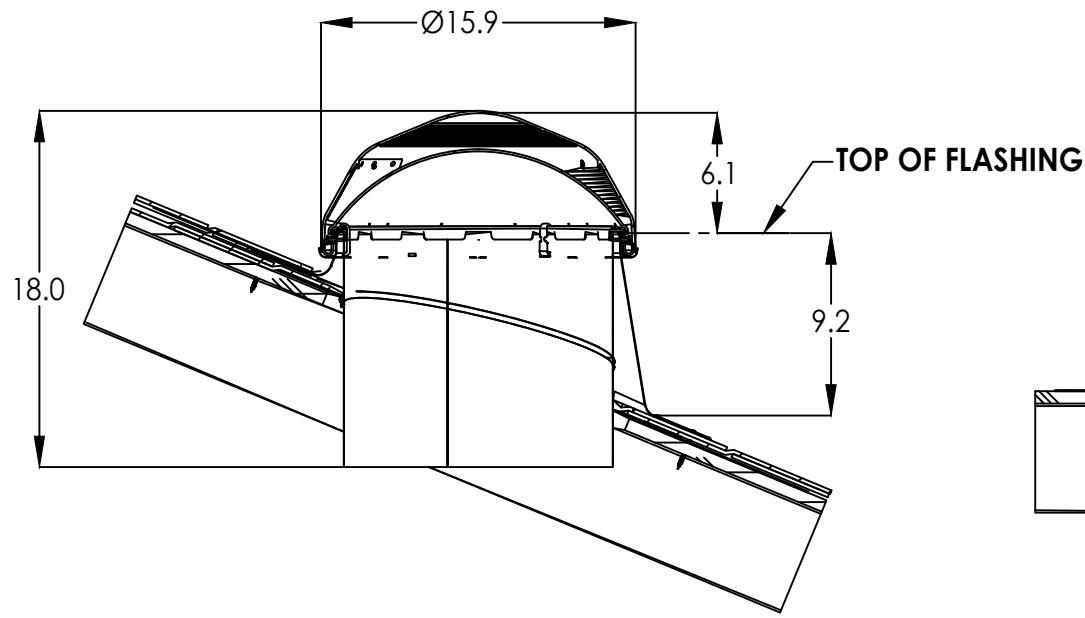
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 SCALE: N.T.S.
 DRAWING NO.: SOLA0004
 DATE: 10/08/08
 REV: D
 SHEET: 2 OF 6

Robert J. Amoruso, P.E.
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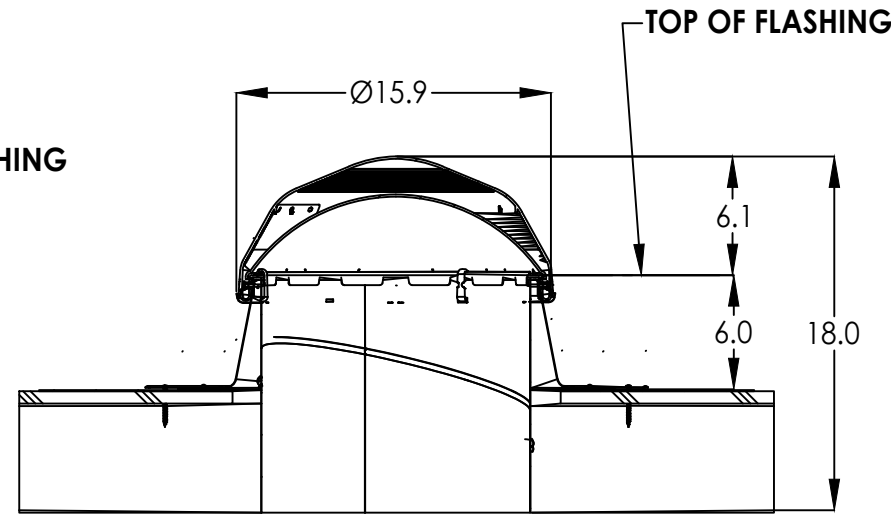
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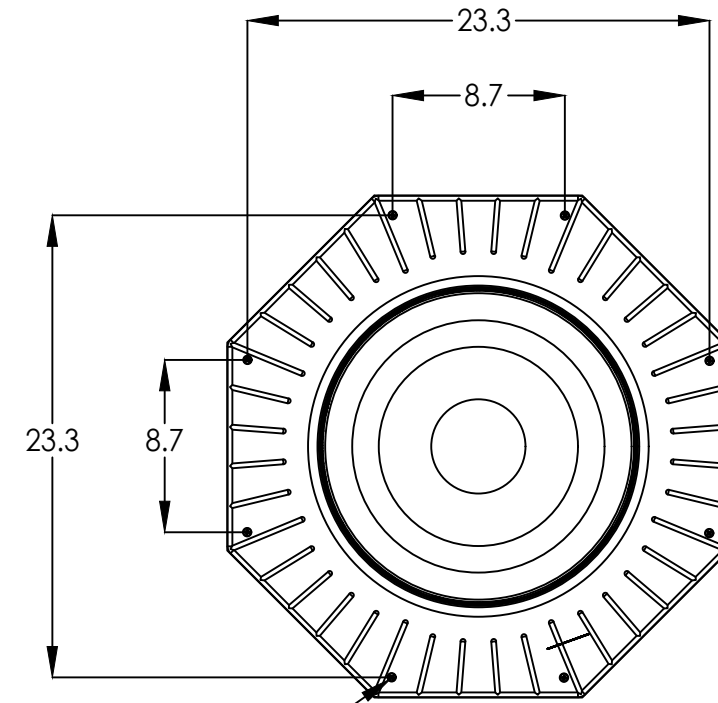
290 DS (14") FLASHING OPTIONS



PITCHED

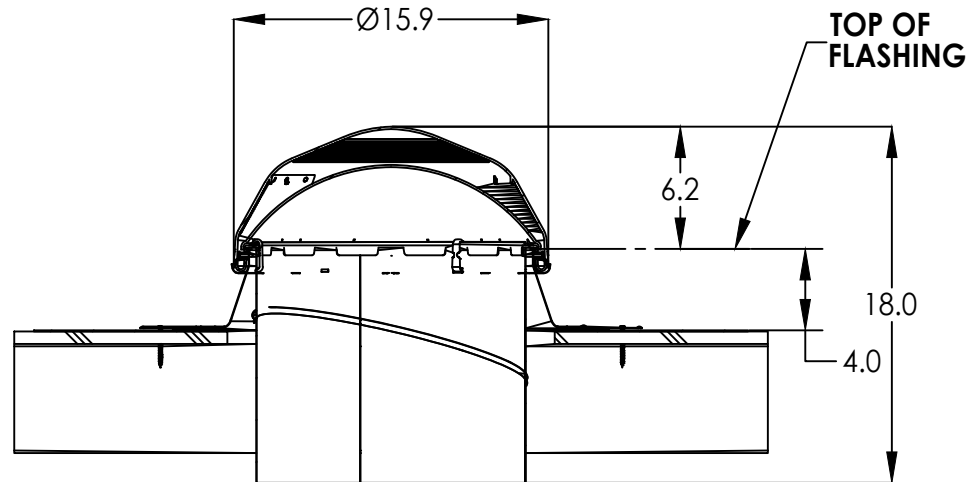


FLAT 6"



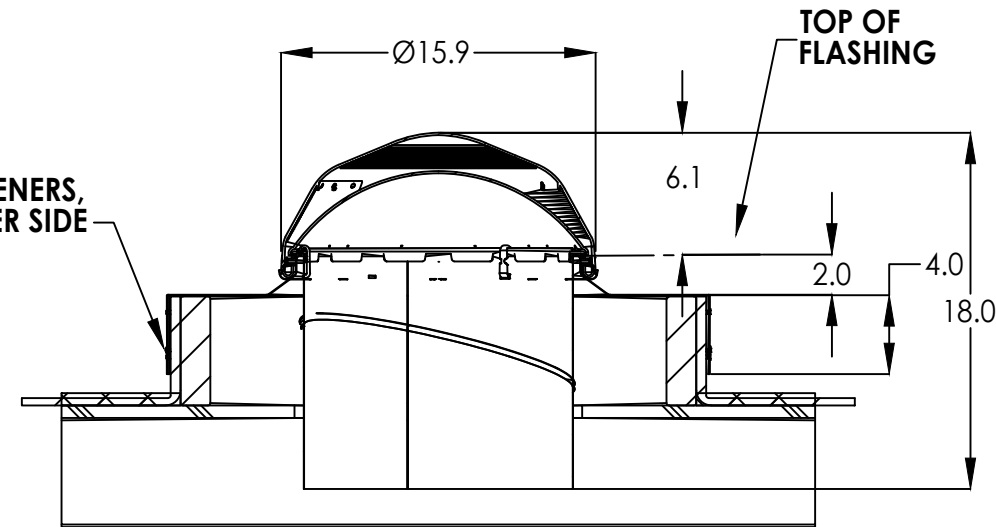
8X FLASHING FASTENERS

FLASHING FASTENER SPACING
FLAT 4", FLAT 6" & PITCHED



FLAT 4"

8X FLASHING FASTENERS,
2X FASTENERS PER SIDE



CURB

PROJECT NUMBER: 415-0316

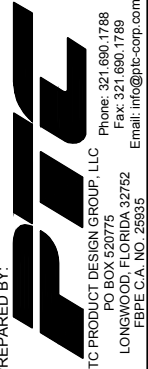
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TUBULAR DAYLIGHT DEVICE
290 DS (14") FLASHING OPTIONS

PREPARED BY: SMC
SCALE: N.T.S.
DATE: 10/08/08
DRAWING NO: SOLA0004
REV: D
SHEET: 3 OF 6

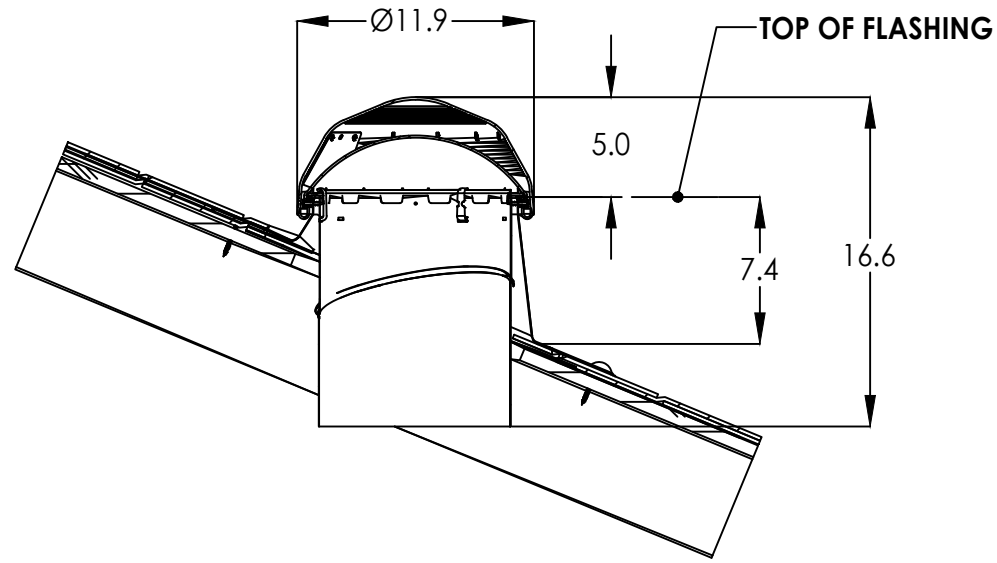
Robert J. Amoruso, P.E.
FL P.E. No. 49752

REV	DESCRIPTION	DATE	BY
A	UPDATE TO 2010 FBC	12/15/11	TJH
B	REVISED ANCHORAGE	4/14/14	RJA
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D	UPDATED TO 5TH EDITION (2014) FBC	5/11/15	JBH

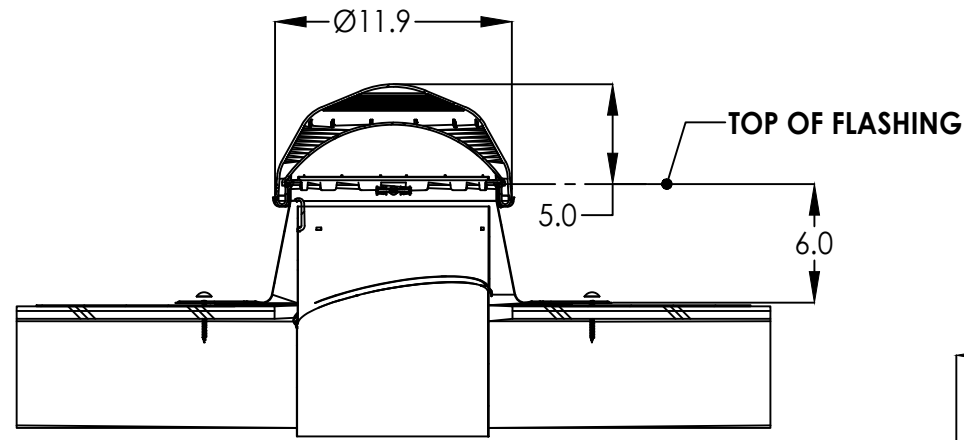


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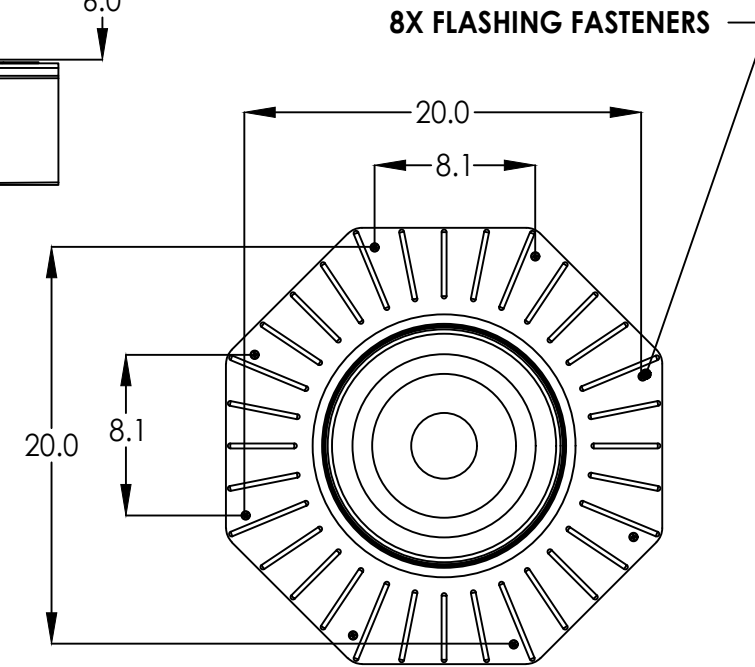
160 DS (10") FLASHING OPTIONS



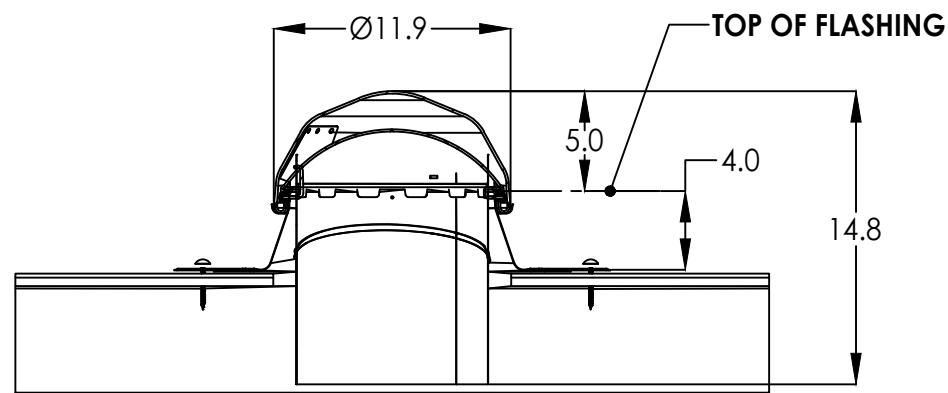
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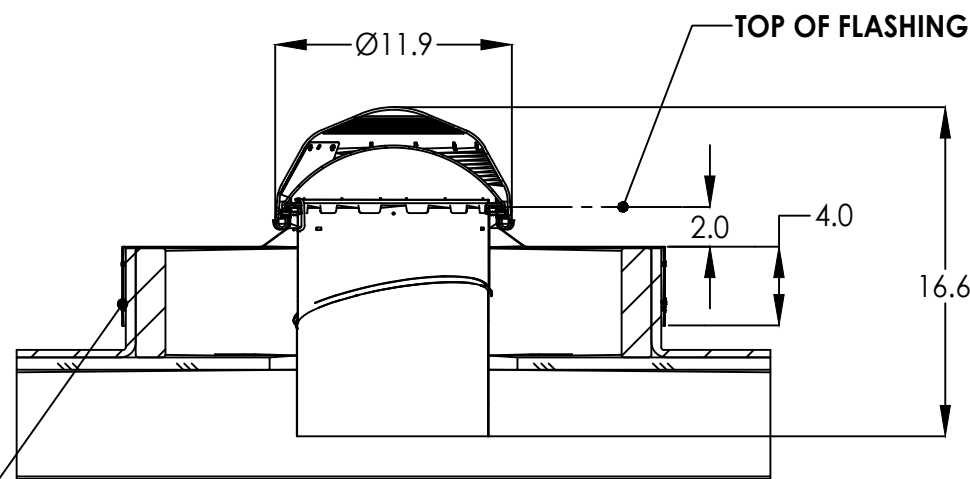
FLAT 6"



FLASHING FASTENER SPACING
FLAT 4", FLAT 6" & PITCHED



FLAT 4"



8X FLASHING FASTENERS,
2X FASTENERS PER SIDE

CURB

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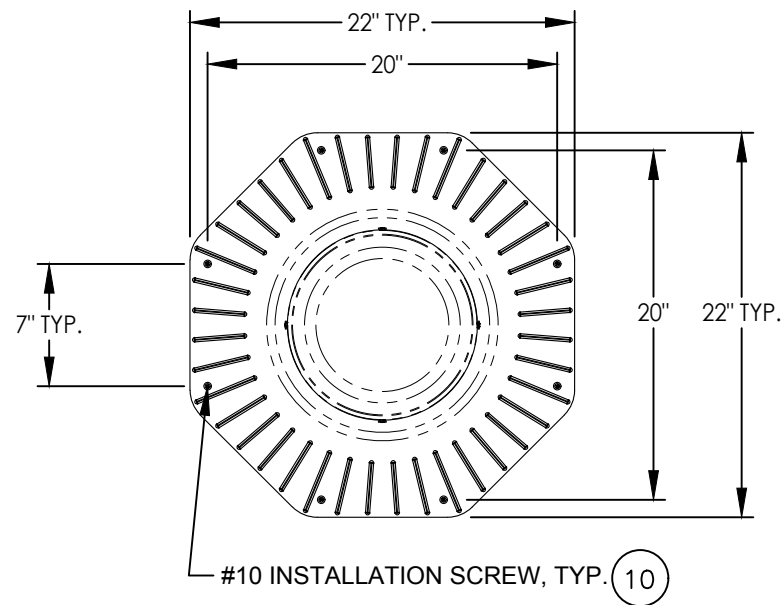
SOLATUBE INTERNATIONAL
2210 OAK RIDGE WAY
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160 DS (10") FLASHING OPTIONS

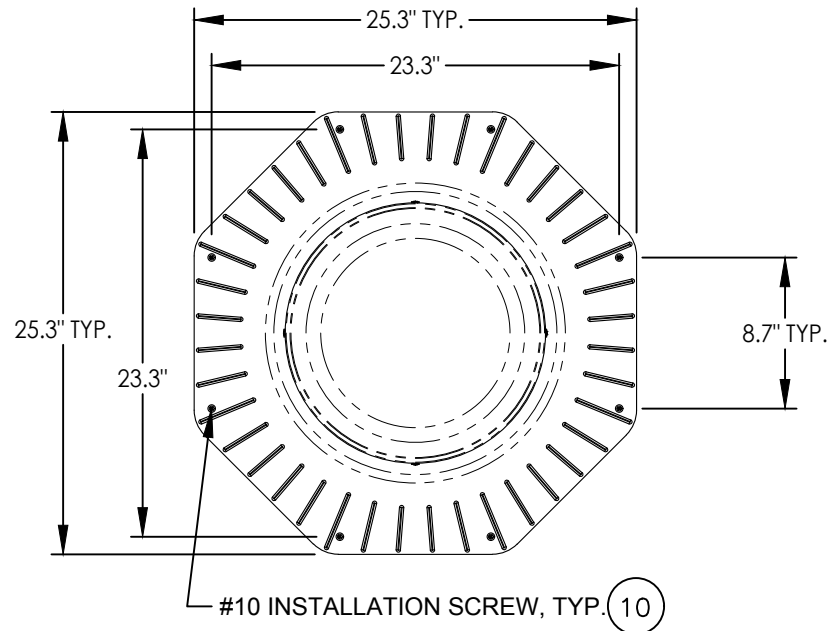
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DATE: 10/08/08
DRAWING NO: SOLA0004
SHEET: 4 OF 6

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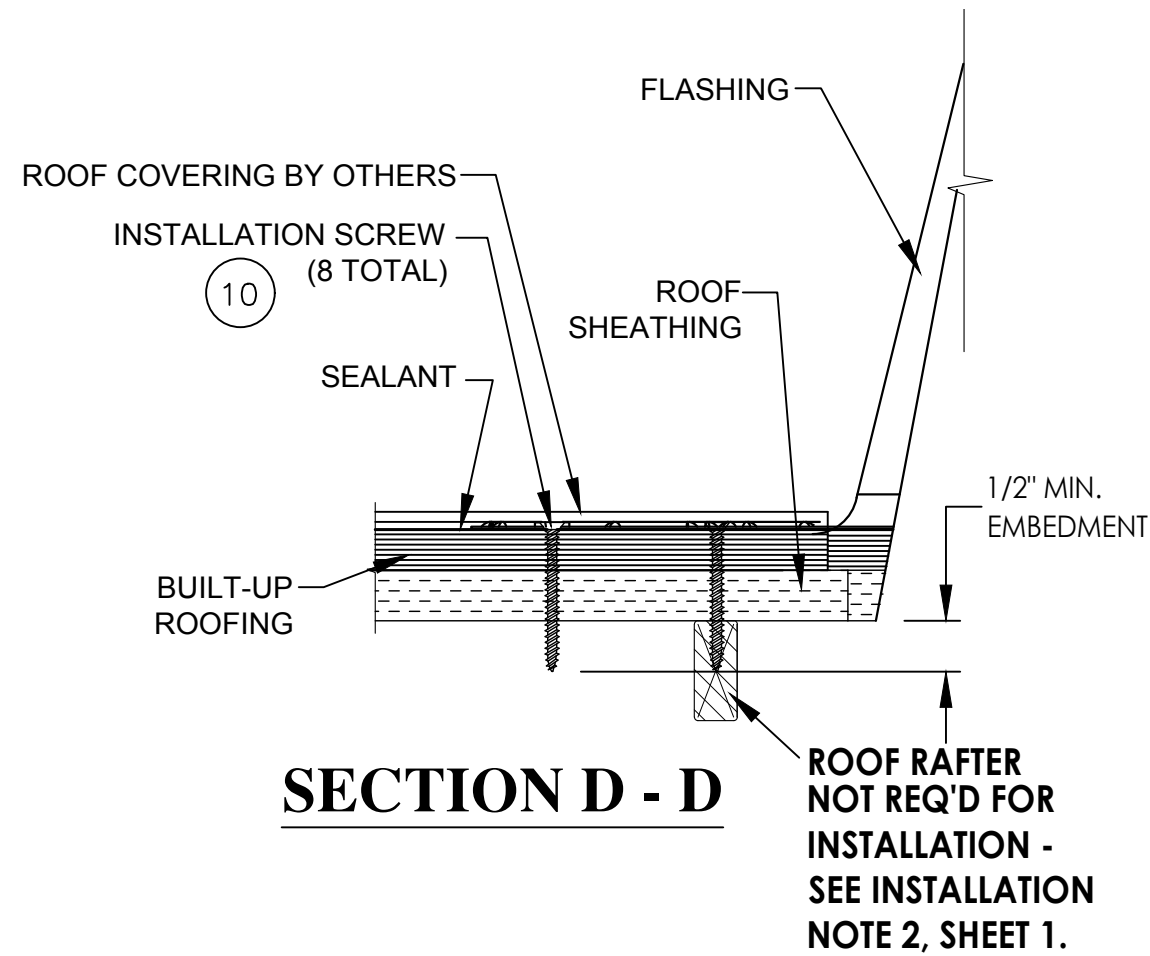
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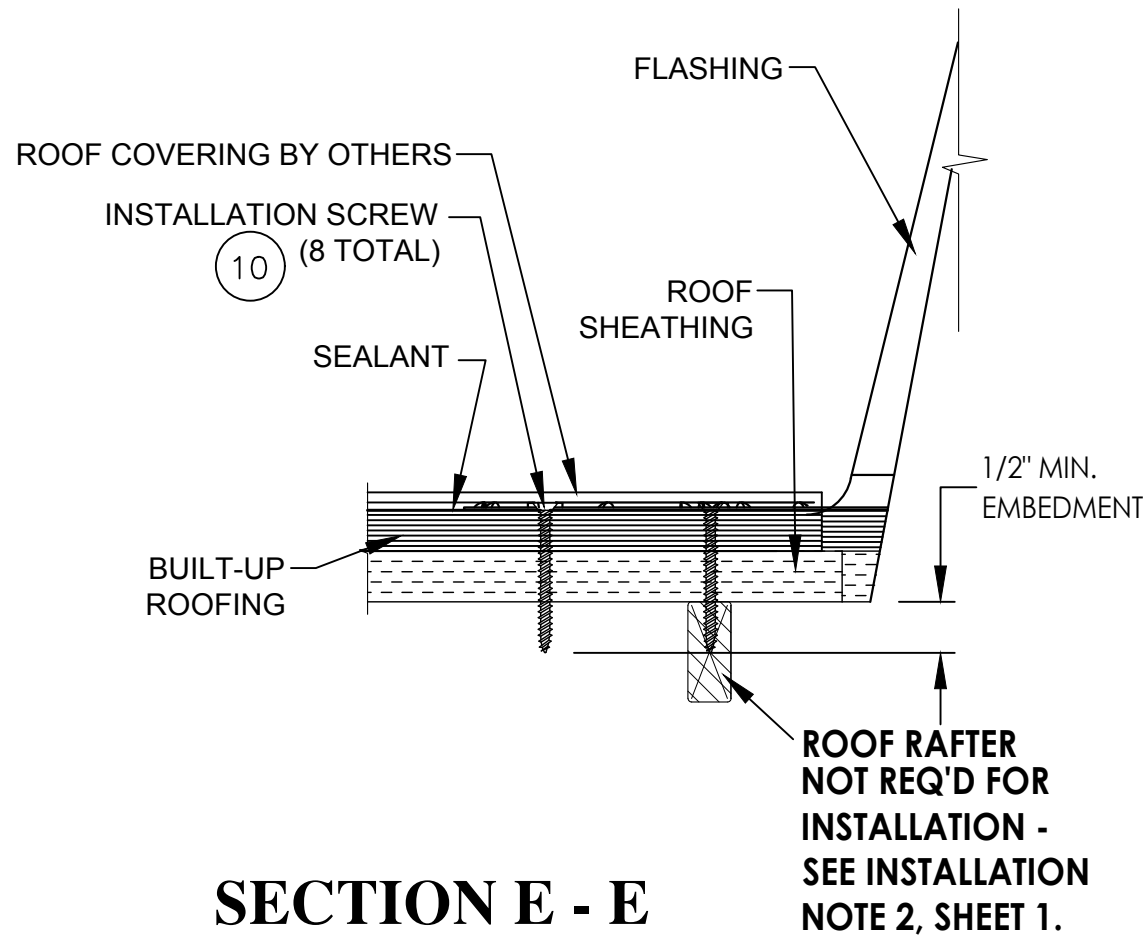
**10" #160 DS
SOLATUBE FLASHING
PLAN**



**14" #290 DS
SOLATUBE FLASHING
PLAN**



SECTION D - D
ROOF RAFTER
NOT REQ'D FOR
INSTALLATION -
SEE INSTALLATION
NOTE 2, SHEET 1.



SECTION E - E
ROOF RAFTER
NOT REQ'D FOR
INSTALLATION -
SEE INSTALLATION
NOTE 2, SHEET 1.

PROJECT NUMBER: 415-0316

		JBH	
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2210 OAK RIDGE WAY
VISTA, CA 92081-9341

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TUBULAR DAYLIGHT DEVICE
INSTALLATION DETAILS AND SECTION

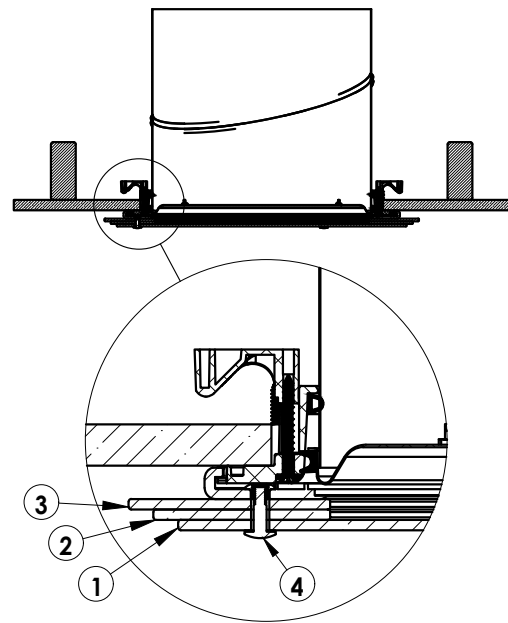
PREPARED BY: PTC PRODUCT DESIGN GROUP, LLC
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DRAWN BY: SMC
SCALE: N.T.S.
REV: D

DATE: 10/08/08
DRAWING NO.: SOLA0004
SHEET: 5 OF 6

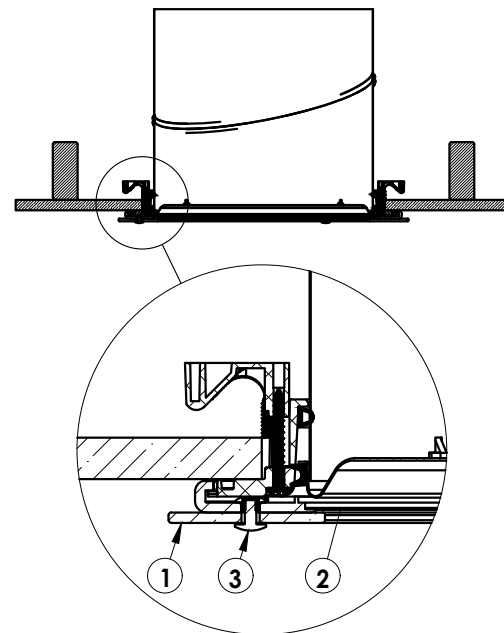
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'TIER DROP' DECORATIVE
FIXTURE ASSEMBLY



TIER DROP DIFFUSER ASSEMBLY COMPONENTS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	1	GLASS LENS	TEMPERED GLASS
2	1	GLASS TRIM RING	TEMPERED GLASS
3	1	GLASS TRIM RING	TEMPERED GLASS
4	3	LENS FASTENER	STAINLESS STEEL

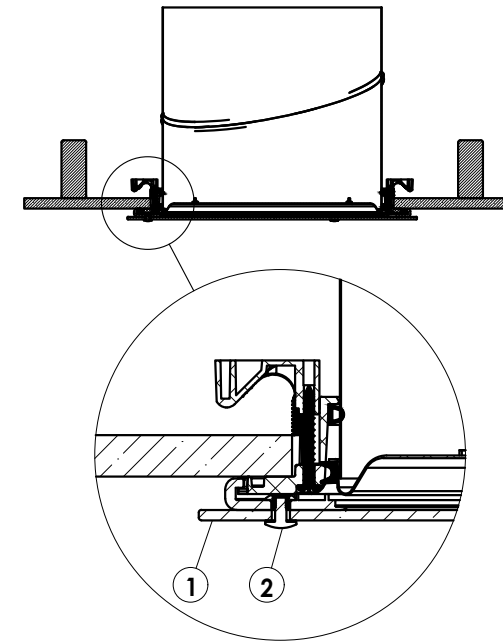
'OPTIVIEW' DECORATIVE
FIXTURE ASSEMBLY



OPTIVIEW DIFFUSER ASSEMBLY COMPONENTS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	1	GLASS TRIM RING	TEMPERED GLASS
2	1	DIFFUSER PANEL OPTIVIEW	PC
3	3	LENS FASTENER	STAINLESS STEEL

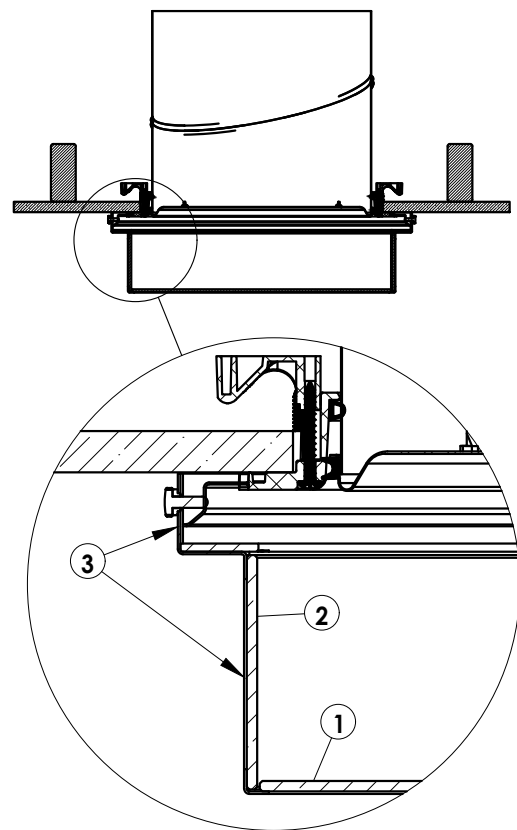
160 DS (10") AND 290 DS (14")
DECORATIVE FIXTURE OPTIONS

'JUST FROST' DECORATIVE
FIXTURE ASSEMBLY



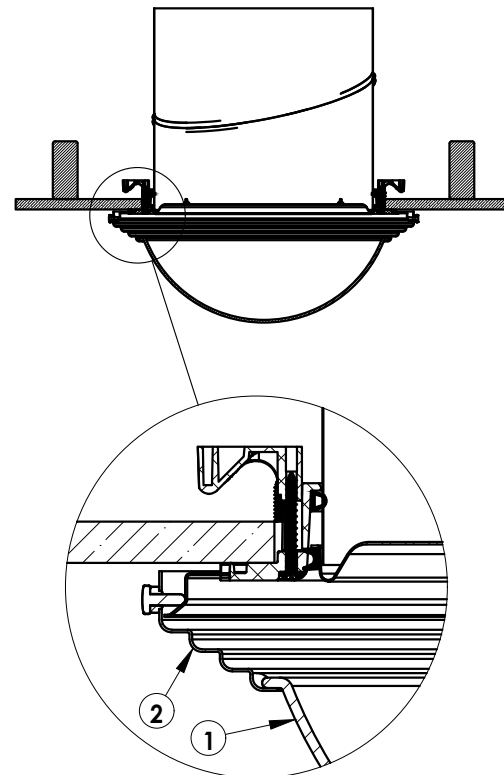
JUST FROST DIFFUSER ASSEMBLY COMPONENTS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	1	GLASS LENS	TEMPERED GLASS
2	3	LENS FASTENER	STAINLESS STEEL

'QUADRA FROST' DECORATIVE
FIXTURE ASSEMBLY



JUST FROST DIFFUSER ASSEMBLY COMPONENTS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	1	GLASS LENS	TEMPERED GLASS
2	4	GLASS LENS	TEMPERED GLASS
3	1	METAL HOUSING	STEEL

'AURORA GLO' DECORATIVE
FIXTURE ASSEMBLY



AURORA GLO DIFFUSER ASSEMBLY COMPONENTS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	1	GLASS LENS	SPUN GLASS
2	4	METAL TRIM RING	STEEL

290 DS (14") DECORATIVE
FIXTURE OPTIONS

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OPTIONAL DIFFUSER DETAILS

PREPARED BY: SMC
SCALE: N.T.S.
DRAWING NO.: SOLA0004
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REV: D
SHEET: 6 OF 6

REV	DESCRIPTION	DATE	BY
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