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ANCHORING OF THE EZINC SOLAR HOT WATER HEATER COLLECTORS

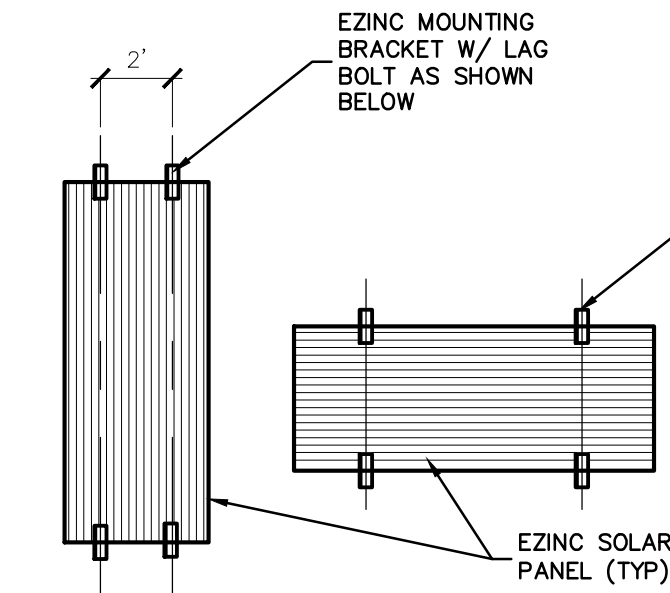
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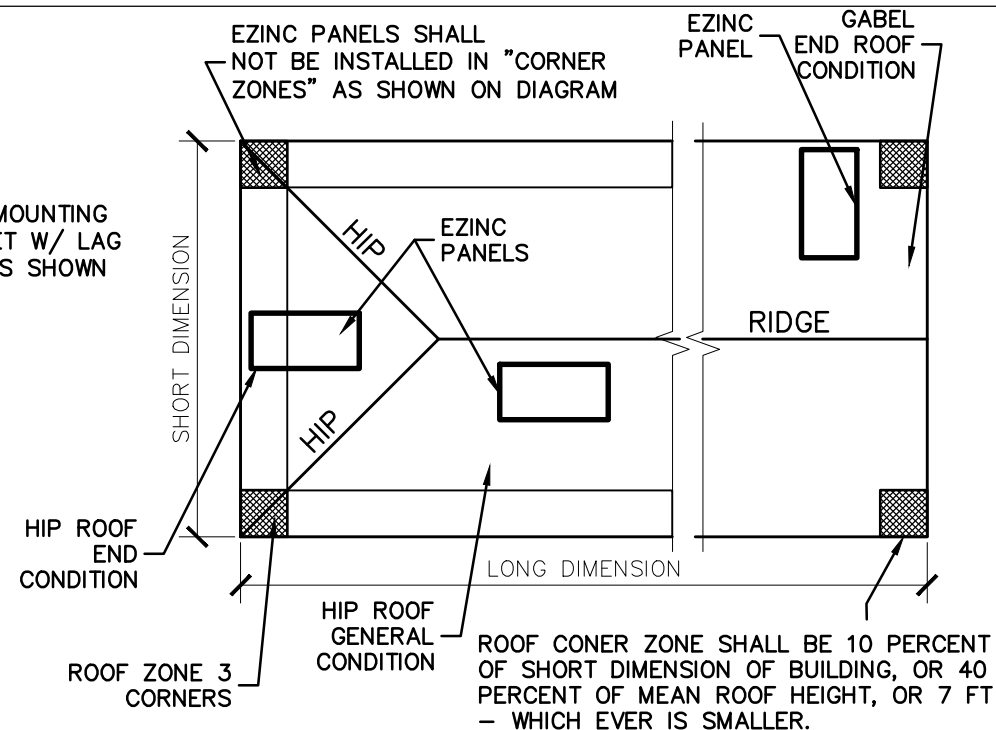
PROJECT #: 60136
DESIGNED: REC080510
SCALE: NOTED



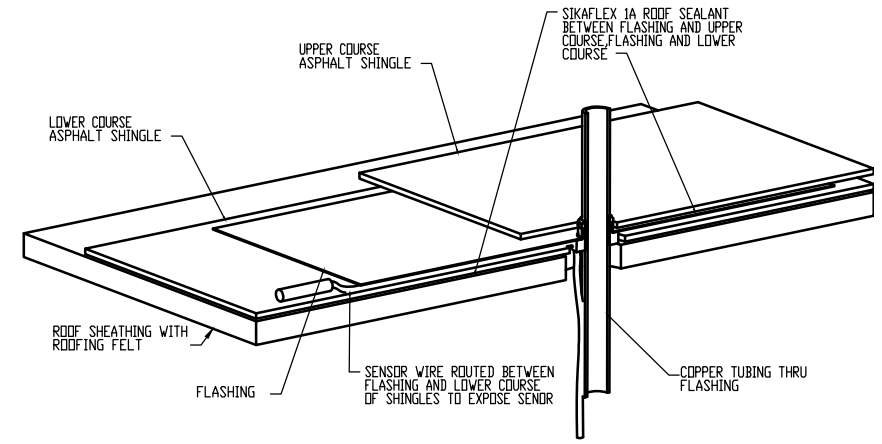
DRAWING NO.
SE-1
SHEET 1 OF 1



1 PLAN OF PANELS
SE-1 SCALE: 3/16"=1'-0"



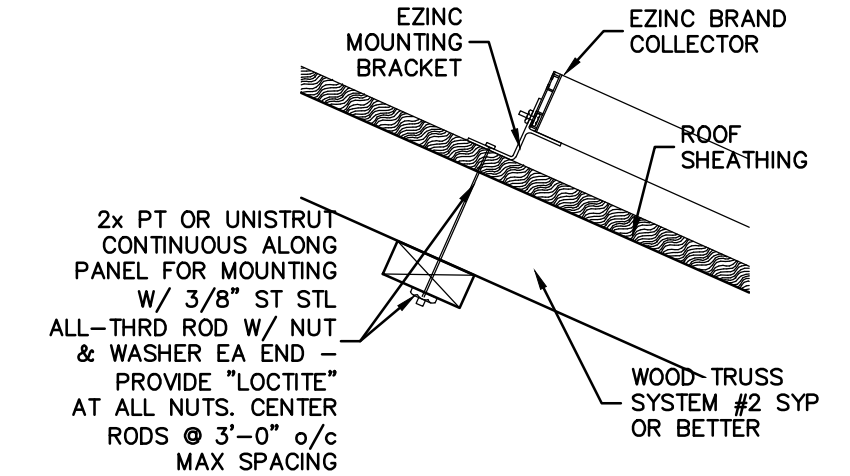
2 ROOF LAYOUT PLAN
SE-1 SCALE: NONE



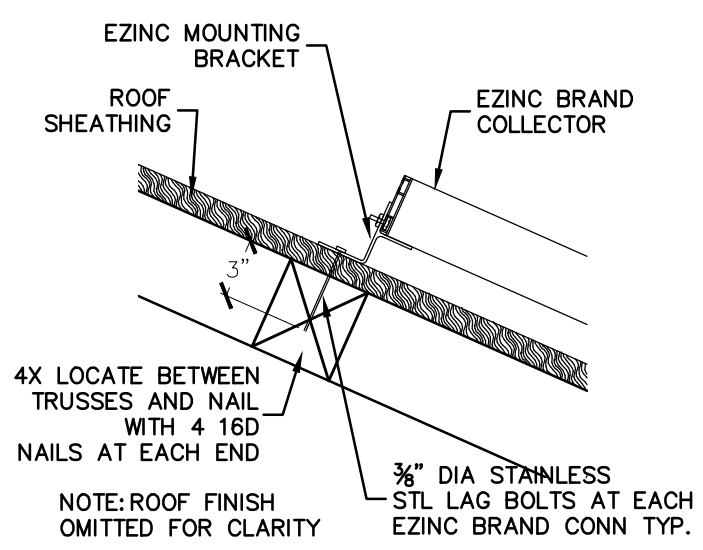
6 ROOF PENETRATION DETAIL
SE-1 SCALE: N.T.S.

- GENERAL NOTES:**
- THESE PLANS ARE IN COMPLIANCE WITH THE 2007 FLORIDA BUILDING CODE, WITH 2009 SUPPLEMENTS, SECTION R301 FOR WIND EXPOSURE CATEGORY "C". CHAPTER 16 FOR 146 MPH EXPOSURE "C" WIND VELOCITY AND PER ASCE 7-05, CHAPTER 6.0 FOR 146 MPH EXPOSURE "C" WIND VELOCITY TYPICALLY.
 - THESE PLANS REMAIN IN EFFECT UNTIL FUTURE CODE REVISIONS DICTATE THAT AN UPDATE IS NECESSARY.
 - LAG BOLT CAPACITIES AND EMBEDMENT ARE BASED UPON "NATIONAL DESIGN SPECIFICATION FOR STRESS GRADE LUMBER AND FASTENINGS" AS PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
 - ALL CONNECTIONS ARE FOR ROOFS 0° TO 45° MAX SLOPE CONDITIONS, AND ALL CONNECTORS ARE FOR MEAN ROOF HEIGHTS NOT TO EXCEED 30'-0". ACTUAL ROOF FINISH NOT SHOWN FOR SIMPLICITY.
 - APPLIED PRESSURES PER ASCE 7-05:
ZONE 1: QZ = -50.4 PSF
ZONE 2: QZ = -77 PSF
 - COLLECTOR TRIBUTARY AREA AND APPLIED LOADS.
AT = 4x8 = 32 FT²
ZONE 1: F1 = 32 X -50.4 = 1613 LBS
 - THE PANEL WILL BE 4' MAX (PER FBC 2007 CHAPTER 3) IN ZONE 2 AND THE REST IN ZONE 1. THIS YIELDS THE FOLLOWING LOADS:
ZONE 1: F1 = 913 LBS (ZONE 1 HEADER LOADING)
ZONE 2: F2 = 1,125 LBS (ZONE 2 HEADER LOADING)
FORCE ON INDIVIDUAL LAG BOLT = LIFTING FORCE - COLLECTOR WEIGHT (NEGLECTED - CONSERVATIVE APPROACH) / # FASTENERS
• R1 = 913 LBS / 2 = 457 LBS
• R2 = 1,125 LBS / 2 = 563 LBS
 - APPLY SIKAFLEX ROOF SEALANT OR EQ. TO ALL ROOF PENETRATIONS

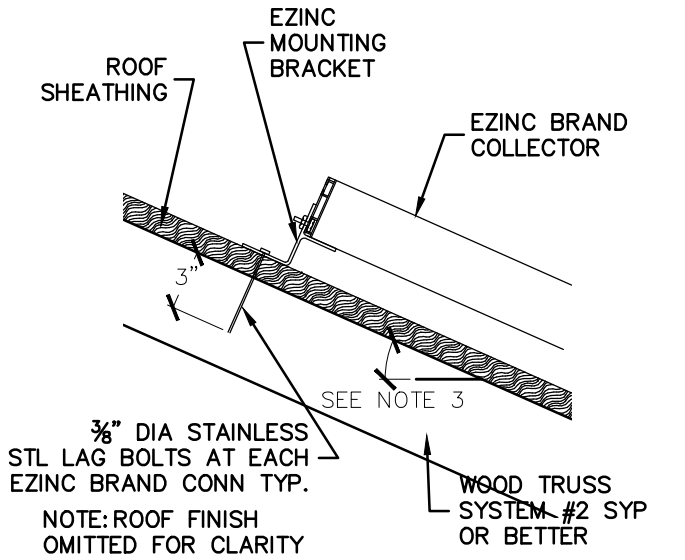
WITHDRAWAL LOADS (LB) FOR 3" EMBEDMENT LAGS IN WOOD				
LUMBER LAG DIA	WHITE OAK	SOUTHERN YELLOW PINE	RED WOOD	DOUGLAS FIR
1/4"	1,143	843	576	501
3/8"	1,411	923	660	614



5 MISSED TRUSS SPANNER INSTALL
SE-1 SCALE: 1-1/2"=1'-0"



3 MISSED TRUSS NAILER INSTALLATION
SE-1 SCALE: 1-1/2"=1'-0"



4 SHINGLE/METAL/BUILT UP ROOF
SE-1 SCALE: 1-1/2"=1'-0"