

DESIGN CRITERIA:

APPLICABLE CODES, REGULATIONS & STANDARDS

1. THE 2020 FLORIDA BUILDING CODE, SPECIFICALLY CHAPTER 16 STRUCTURAL DESIGN, CHAPTER 20 ALUMINUM & CH. 23 WOOD.
2. AA ASM 35 & SPECIFICATIONS FOR ALUMINUM STRUCTURES, PART 1-A OF THE ALUMINUM DESIGN MANUAL PREPARED BY THE ALUMINUM ASSOCIATION, INC. WASHINGTON D.C. 2005 ED.
3. ASCE 7-16 & SE17
4. NDS NATIONAL DESIGN SPECIFICATION FOR WOOD.
5. ACI318 CONCRETE REFERENCE MANUAL.

WIND LOADS

1. BUILDING OCCUPANCY CATEGORY, PARAGRAPH 1604.5 & TABLE 1604.5: RISK CATEGORY 1.
2. BASIC WIND SPEED, TABLE 1609C, STATE OF FLORIDA DEBRIS REGION & BASIC WIND SPEED, PARAGRAPH 1609.3.1 & TABLE 1609.3.1 EQUIVALENT BASIC WIND SPEED: 160 MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3: C
3. WIND LOADS PER FBC TABLE 2002.4 (MWFRS) VULT = 160 MPH & EXPOSURE = C

FOR 20 X 20 X 0.013" MESH SCREEN  
HORIZONTAL PRESSURES ON WINDWARD SURFACES = 49 PSF  
HORIZONTAL PRESSURES ON LEEWARD SURFACES = 39 PSF  
VERTICAL PRESSURES ON SCREEN SURFACES = 14 PSF  
VERTICAL PRESSURES ON SOLID SURFACES = 41 PSF

FOR 18 X 14 X 0.013" MESH SCREEN, APPLIED FACTOR = .88  
FOR ALLOWABLE STRESS DESIGN, APPLIED FACTOR = .6

FOUNDATION DESIGN:

FOOTING SIZE EXISTING CONCRETE SLAB. NO ADDITIONAL FOOTING OR FOUNDATION SYSTEM IS REQUIRED BY THE PROPOSED CONSTRUCTION IF A MINIMUM 4" CONCRETE SLAB IS PROVIDED IN SOUND CONDITION, FREE FROM STRUCTURAL CRACKING, SPALLING & OTHER DETERIORATION. EXISTING FOUNDATION/FOOTING UNDER CONCRETE SLAB MINIMUM 8"x8" W/ (1) #5 BAR TO BE VERIFIED BY CONTRACTOR. SEE TYPICAL FOOTING DETAILS FOR NEW FOOTING DESIGN MINIMUM REQUIREMENTS.

MISCELLANEOUS:

1. SCREENED ENCLOSURES CONTAINING SWIMMING POOLS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF FBC R4501.17 RESIDENTIAL SWIMMING BARRIER REQUIREMENTS.
2. ALUMINUM ADDITIONS ARE NOT TO BE INSTALLED ON A MANUFACTURED HOME, TRAILER HOME, OR PRE-FAB HOME. IF THE EXISTING STRUCTURE IS ONE OF THESE, A SEPARATE 4TH WALL SUPPORT SYSTEM IS SO TO BE ENGINEERED SO THAT NO ADDITIONAL LOADING IS PLACED ON THE MANUFACTURED HOME.

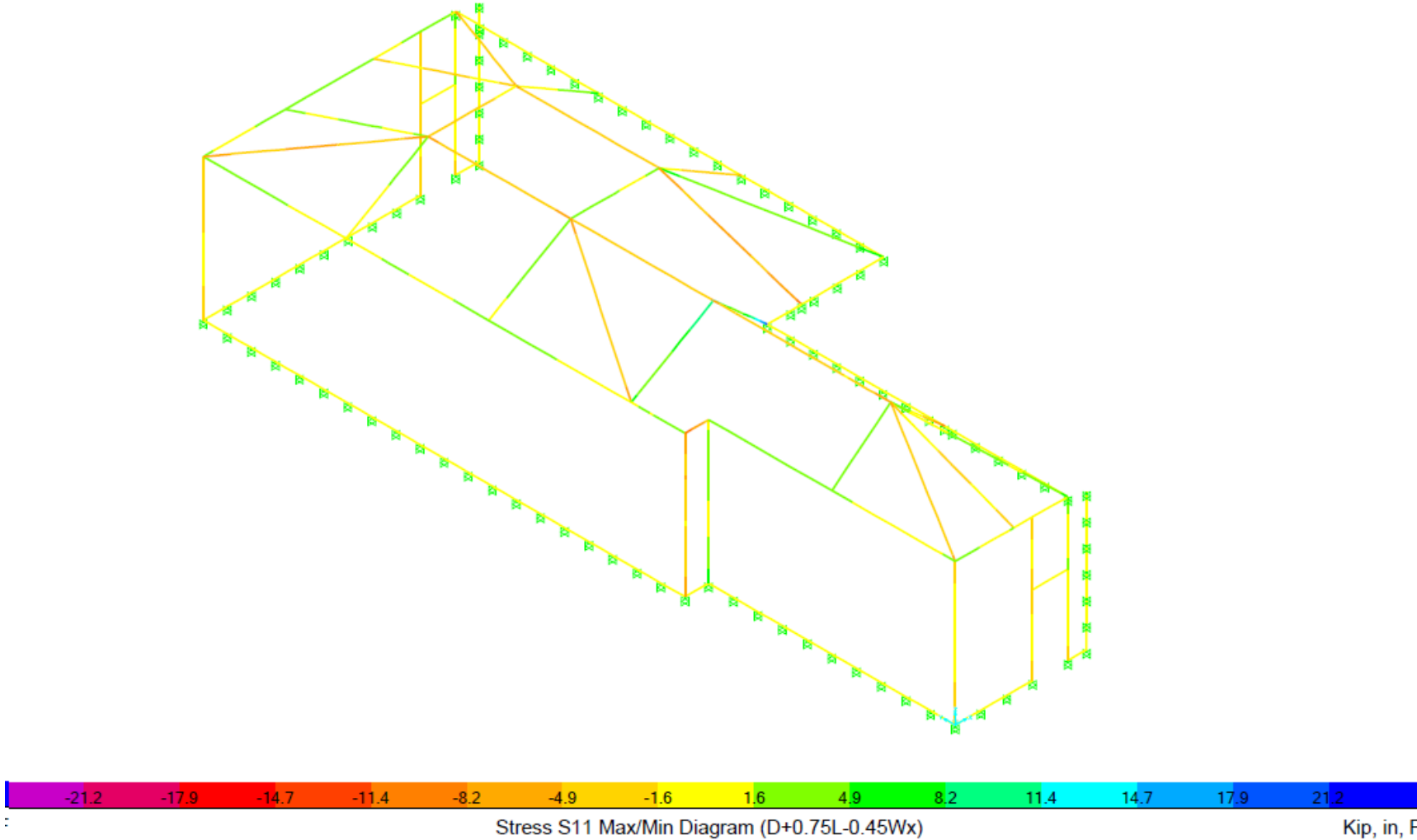
FASTENER SPECIFICATIONS:

1. FASTENERS ARE REQUIRED TO BE SAE GRADE 2 OR BETTER ZINC PLATED. (CONCRETE ANCHORS ARE TO BE TAPCONS OR BETTER, INSTALLED TO MFG. SPECIFICATIONS)
2. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE SCREENS, FASTENERS AND SCREENS TO MANUFACTURING SPECIFICATIONS.
3. WHERE WOOD DECK IS PRESENT USE 1/4" X 3-1/2" GALV. LAG SCREWS IN LIEU OF MASONRY ANCHORS. UNLESS OTHERWISE SPECIFIED.
4. 1"x2" NON STRUCTURAL MEMBERS ATTACHED TO HOST
  - A. FOR MASONRY/CONCRETE APPLICATION USE GALVANIZED 1/4" X 2-3/4" TAPCONS OR EQUAL AT 24" O.C. AND 6" FROM ENDS
  - B. FOR WOOD APPLICATION USE #14 X 2-3/4" WOOD SCREW AT 24" O.C. AND 6" FROM ENDS.
  - C. FOR ALUMINUM APPLICATION USE #10 X 1-1/2" SMS OR TEK SCREW AT 24" O.C. AND 6" FROM ENDS
  - D. WHERE 1"x2" INSTALLED THROUGHOUT AN "OPEN VIEW" SPACING SHALL BE REDUCED TO 18" O.C. AND 6" FROM ENDS

RESPONSIBILITIES:

1. ALL SITE WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH APPLICABLE BUILDING CODES, LOCAL ORDANANCES, AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
2. FOR FASTENERS WHICH ARE NOT VISIBLE AFTER INSTALLATION, THE CONTRACTOR SHALL VERIFY AND ENSURE INSTALLATION HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND IN ACCORDANCE WITH THE ATTACHED DETAILS.
3. FOR "PICTURE WINDOW" MODIFICATION TO EXISTING SCREEN ENCLOSURES, ALL OTHER "EXISTING SCREEN ENCLOSURE" FEATURES ARE TO MEET THE TYPICAL DETAILS AS PROVIDED IN THESE DETAILS. CONTRACTOR IS TO VERIFY & ASSURE EXISTING SCREEN ENCLOSURE IS STRUCTURALLY SOUND.
4. CONTRACTOR TO PROVIDE NOA'S & INSTALL ALL MATERIALS AS PER MANUFACTURER'S SPECIFICATIONS.
5. INTEGRITY OF EXISTING/ HOST STRUCTURE SHALL NOT BE COMPROMISED WITH THE ATTACHMENT OF THE PROPOSED STRUCTURE.

SHEET NO.	DRAWING INDEX
S/01	GENERAL NOTES
S/02	PLAN/ ELEVATIONS
S/03	DETAILS
S/04	DETAILS
S/05	DETAILS
S/06	DETAILS



PROPOSED MANSARD SCREEN ENCLOSURE  
SEE FOUNDATION DESIGN SHEET-01

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FLORIDA ENGINEERING LLC

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PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

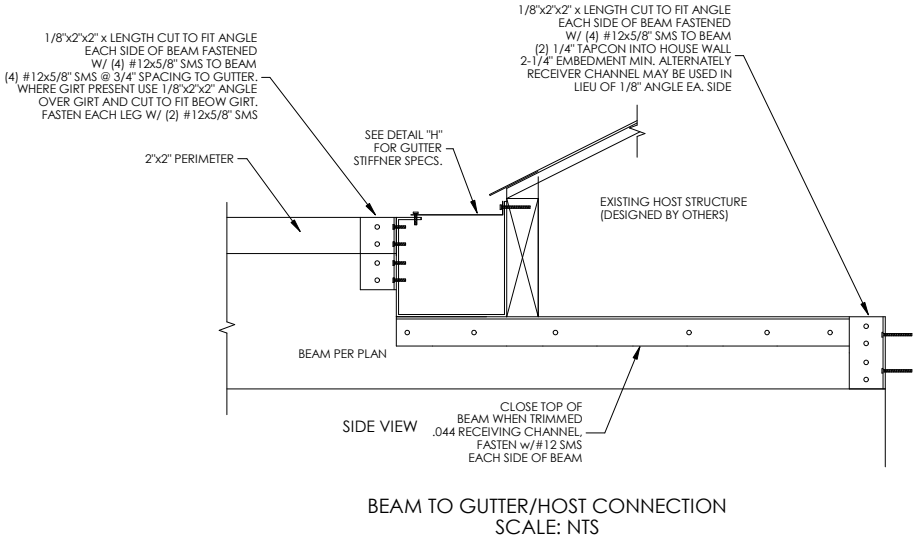
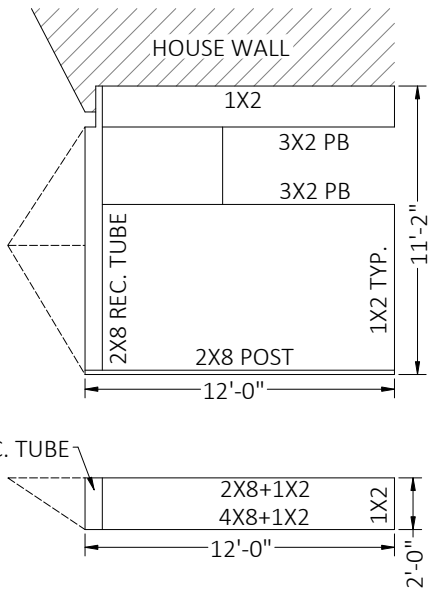
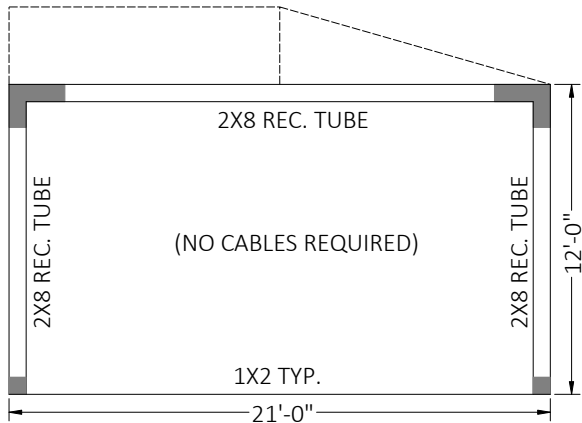
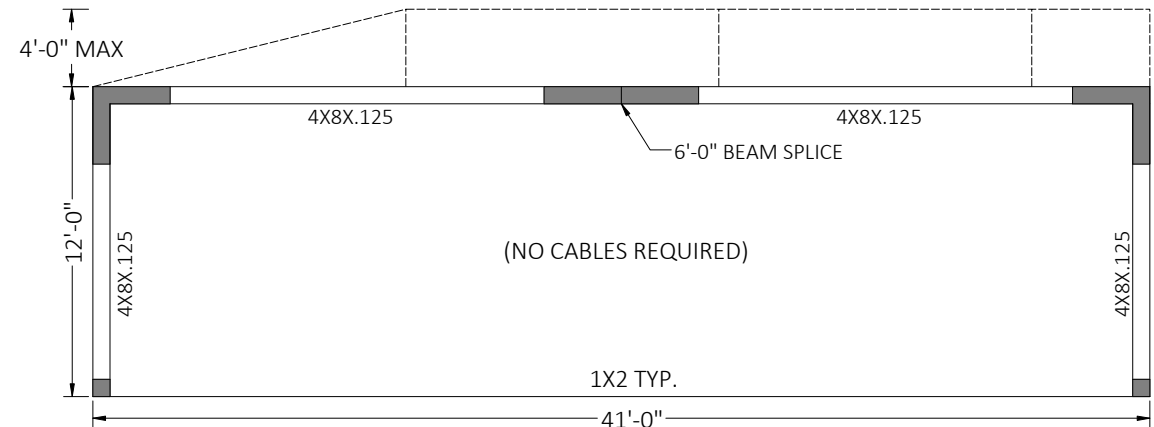
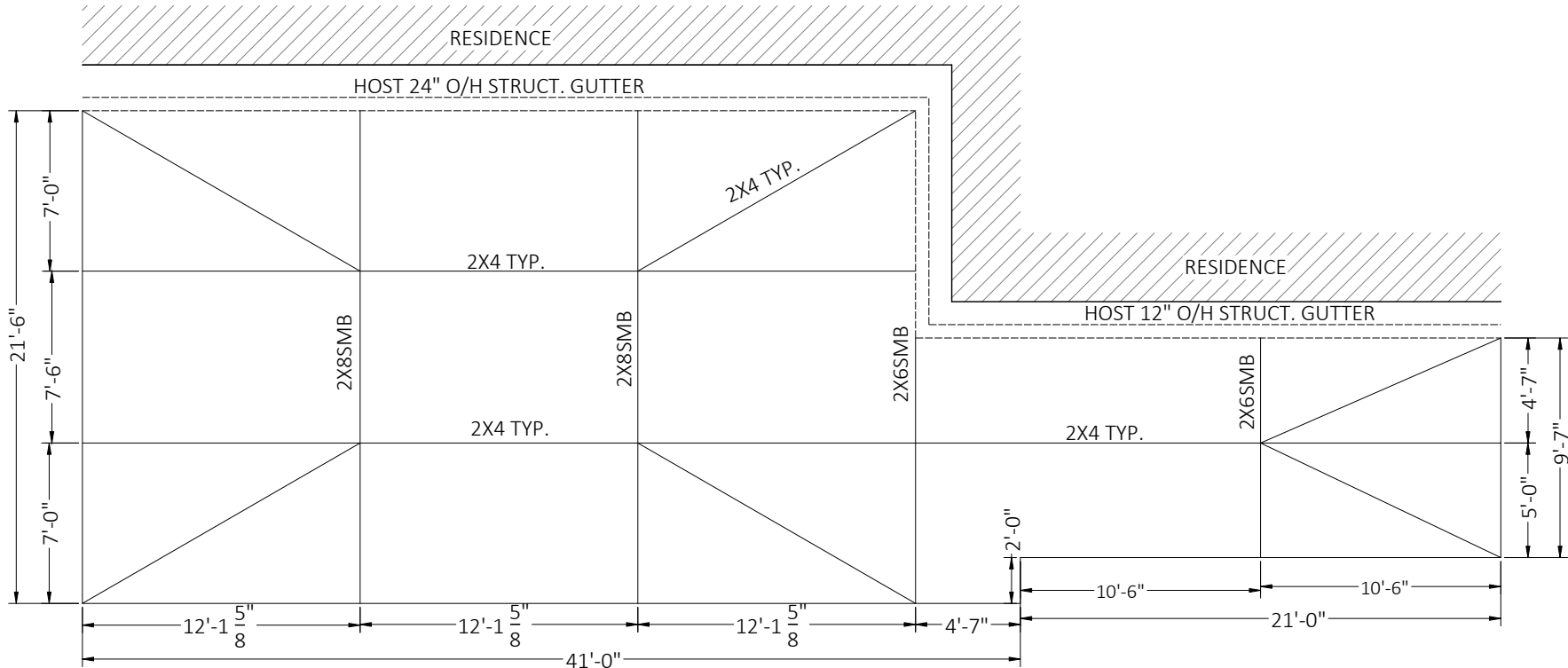
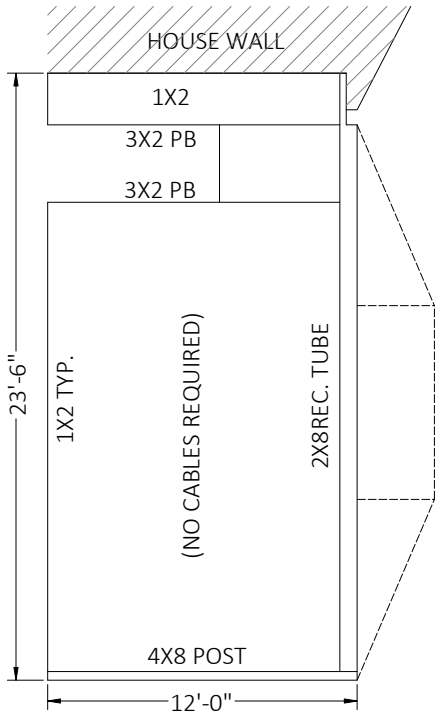
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Orders@FLeng.com

PROJECT NO. 2300349 3

CA CERT. #30782

CONTRACTOR:  SCREENS OVER MARCO P.O. BOX 801 MARCO ISLAND, FL 34146	PROJECT ADDRESS:		POBLOCKI 7510 HOGAN CT NAPLES, FL 34113
	DESIGN DATE:		01/03/2023
	REVISION 1:		02/14/2023
	REVISION 2:		03/16/2023
	DRAWN BY:		YD
SCALE:		NTS	SHEET:  01



- ALUMINUM SPECIFICATIONS:
1. ALUMINUM EXTRUSIONS SHALL BE 6005 T5 ALLOY UNLESS OTHERWISE NOTED.
  2. ALL SELF MATING BEAM SECTIONS ARE TO BE STITCHED WITH #12 SCREWS 6" FROM ENDS & 24" CENTER TO CENTER. #10 SCREW 6" FROM ENDS & 12" CENTER TO CENETER.
  3. ROOF BRACING SHALL BE A MINIMUM 2"X4"X.050".
  4. THE MINIMUM NORMAL THICKNESS OF PROTECTOR PANELS (KICKPLATES) SHALL BE AN INDUSTRY STANDARD OF 0.024 INCHES.
  5. SCREEN MATERIAL SHALL BE 18/14 SCREEN UNLESS APPROVED BY FLORIDA ENGINEERING LLC.
  6. 1"X2" & 1"X3" NON STRUCTURAL MEMBERS MAY BE USED INTERCHANGEABLY.
  7. DOOR LOCATION MAY BE DETERMINED/ RELOCATED BY CONTRACTOR IN THE FIELD.
  8. NO CABLES REQUIRED PER SITE SPECIFIC ANALYSIS.

#### HATCH/ SYMBOL LEGEND

HATCH	INDICATES
	EXIST. STRUCTURE

NOTE: ALL MAY NOT APPLY

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SHEET:

02

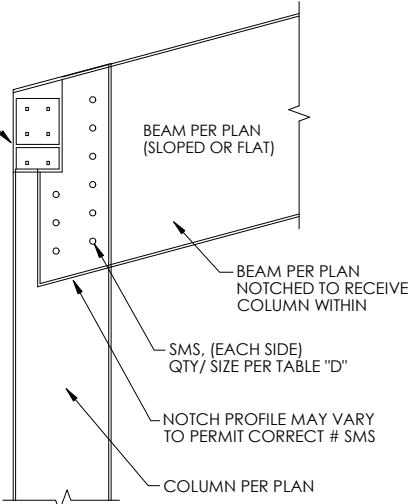
THE ENGINEERING ON THESE PLANS IS SITE SPECIFIC FOR (1) STRUCTURE ONLY AT THE PROVIDED ADDRESS(ES).

1"x2" FASTEN TO COL. (INTERNAL)  
w/(2) #10x1-1/2" SMS, FASTEN TO  
EAVE RAILS ABOVE w/#10 1-1/2" SMS  
24" O.C. AND 6" WITHIN COL.

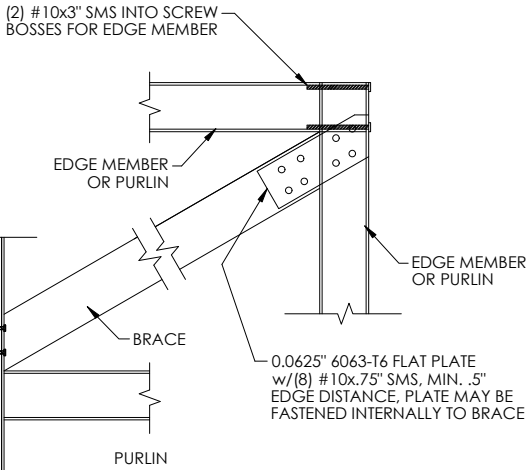
TABLE "D"

BEAM	QTY/ SIZE EACH SIDE
2 x 3	(4)/ #12
2 x 4	(5)/ #12
2 x 5	(5)/ #12
2 x 6	(6)/ #12
2 x 7	(7)/ #12
2 x 8	(8)/ #14
2 x 9	(9)/ #14
2 x 10	(9)/ #14

MAINTAIN MIN. OF 5/8" SEPERATION  
FROM EDGE OF BEAM SMS O.C.



DETAIL "E" - UPRIGHT TO BEAM  
CONNECTION SCALE: NTS



DETAIL "D" - ROOF BRACING CONNECTION  
SCALE: NTS

ALUMINUM MEMBERS DIMENSIONS:

HOLLOW SECTIONS  
2 x 2: 2" x 2" x 0.050"  
2 x 3: 2" x 3" x 0.050"  
2 x 4: 2" x 4" x 0.050"  
2 x 5: 2" x 5" x 0.050"

OPEN BACK SECTIONS  
1 x 2: 1" x 2" x 0.044"  
1 x 3: 1" x 3" x 0.045"

SNAP SECTIONS  
2 x 2 SNAP: 2" x 2" x 0.045"  
2 x 3 SNAP: 2" x 3" x 0.050"  
2 x 4 SNAP: 2" x 4" x 0.045"

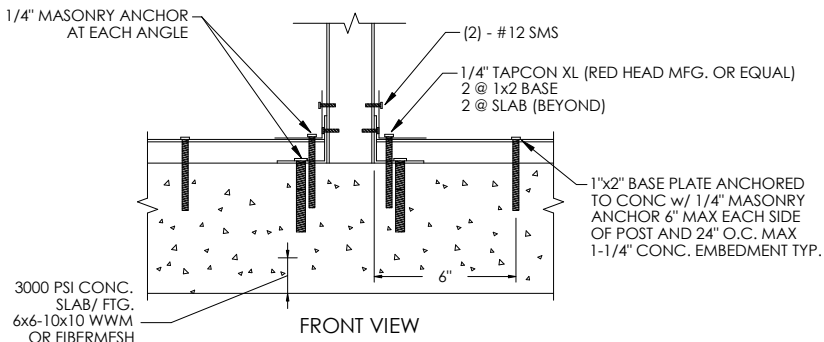
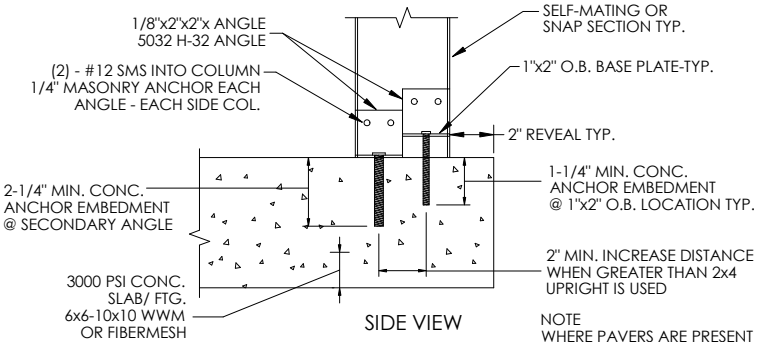
SELF MATING (SMB)  
2 x 4 SMB: 2" x 4" x 0.046" x 0.100"  
2 x 5 SMB: 2" x 5" x 0.050" x 0.116"  
2 x 6 SMB: 2" x 6" x 0.050" x 0.120"  
2 x 7 SMB: 2" x 7" x 0.055" x 0.120"  
2 x 8 SMB: 2" x 8" x 0.072" x 0.224"  
2 x 9 SMB: 2" x 9" x 0.072" x 0.224"  
2 x 9(H) SMB: 2" x 9" x 0.082" x 0.306"  
2 x 10 SMB: 2" x 10" x 0.092" x 0.374"  
ALL MAY NOT APPLY

DETAIL A

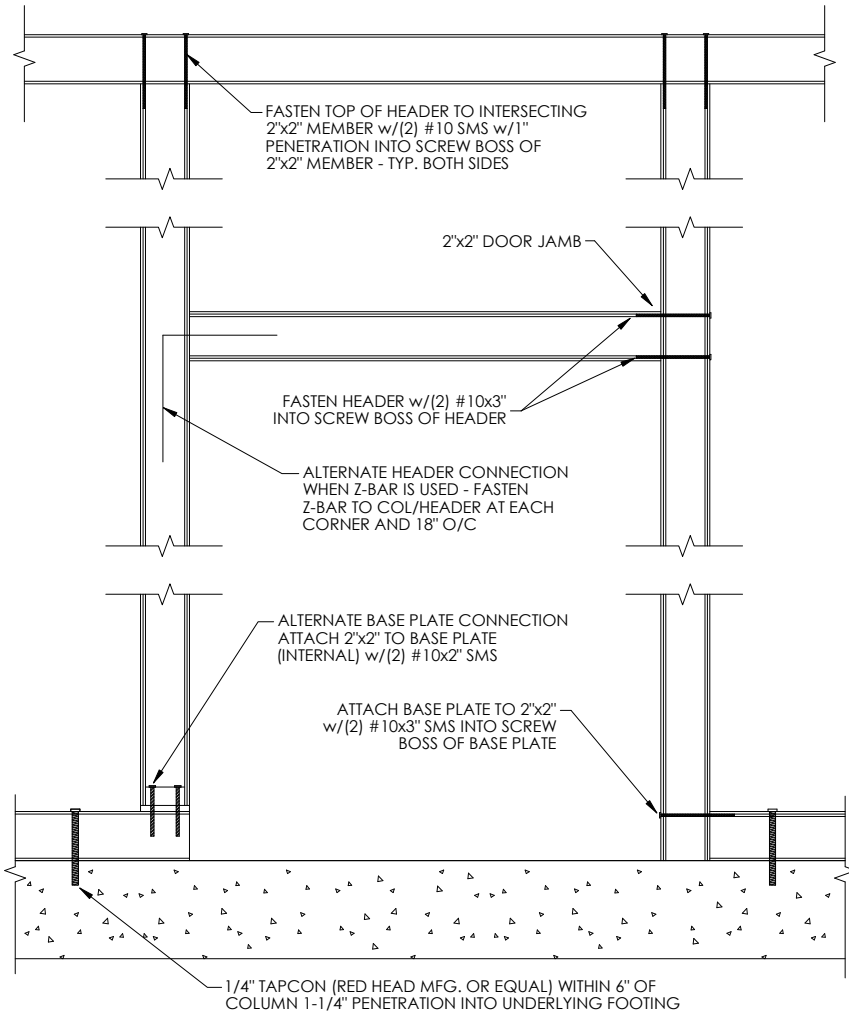
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MINIMUM NUMBER OF TAPCONS INTO CONCRETE &  
# 12 X 3/4" S.M.S. INTO UPRIGHT / EACH SIDE OF BEAM  
THROUGH SECONDARY 2" X 2" X 0.125" ANGLES  
(SEE BELOW)

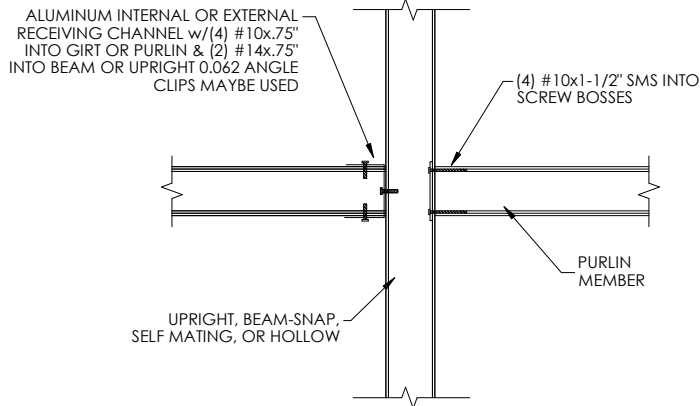
2X4 S.M.B. (1) 1/4" X 2-1/4" S.S. TAPCON & (2) # 12 X 3/4" S.M.S.  
2X5 S.M.B. (1) 1/4" X 2-1/4" S.S. TAPCON & (2) # 12 X 3/4" S.M.S.  
2X6 S.M.B. (2) 1/4" X 2-1/4" S.S. TAPCON & (3) # 12 X 3/4" S.M.S.  
2X7 S.M.B. (2) 1/4" X 2-1/4" S.S. TAPCON & (4) # 12 X 3/4" S.M.S.  
2X8 S.M.B. (3) 1/4" X 2-1/4" S.S. TAPCON & (5) # 12 X 3/4" S.M.S.  
2X9 S.M.B. (4) 1/4" X 2-1/4" S.S. TAPCON & (6) # 12 X 3/4" S.M.S.  
2X10 S.M.B. (5) 1/4" X 2-1/4" S.S. TAPCON & (7) # 12 X 3/4" S.M.S.



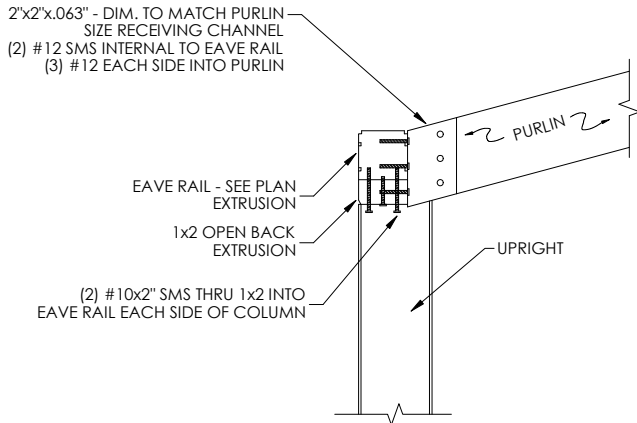
DETAIL "B" - 2"x4" OR LARGER SELF MATING  
UPRIGHT TO DECK DETAILS SCALE: NTS



DETAIL "F" - DOOR JAMB & HEADER  
CONNECTION SCALE: NTS

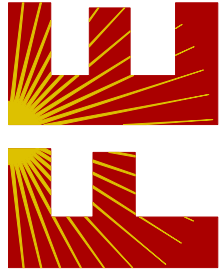


DETAIL "C" - GIRT OR PURLIN TO BEAM  
OR POST DETAIL SCALE: NTS



DETAIL "G" - SLOPED PURLIN  
CONNECTION SCALE: NTS

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CA CERT. #30782

PROJECT NO. 2300349 3

CONTRACTOR:  
**SCREENS OVER MARCO**  
P.O. BOX 801  
MARCO ISLAND, FL 34146

PROJECT ADDRESS:

**POBLOCKI**  
7510 HOGAN CT  
NAPLES, FL 34113

DESIGN DATE: 01/03/2023

REVISION 1: 02/14/2023

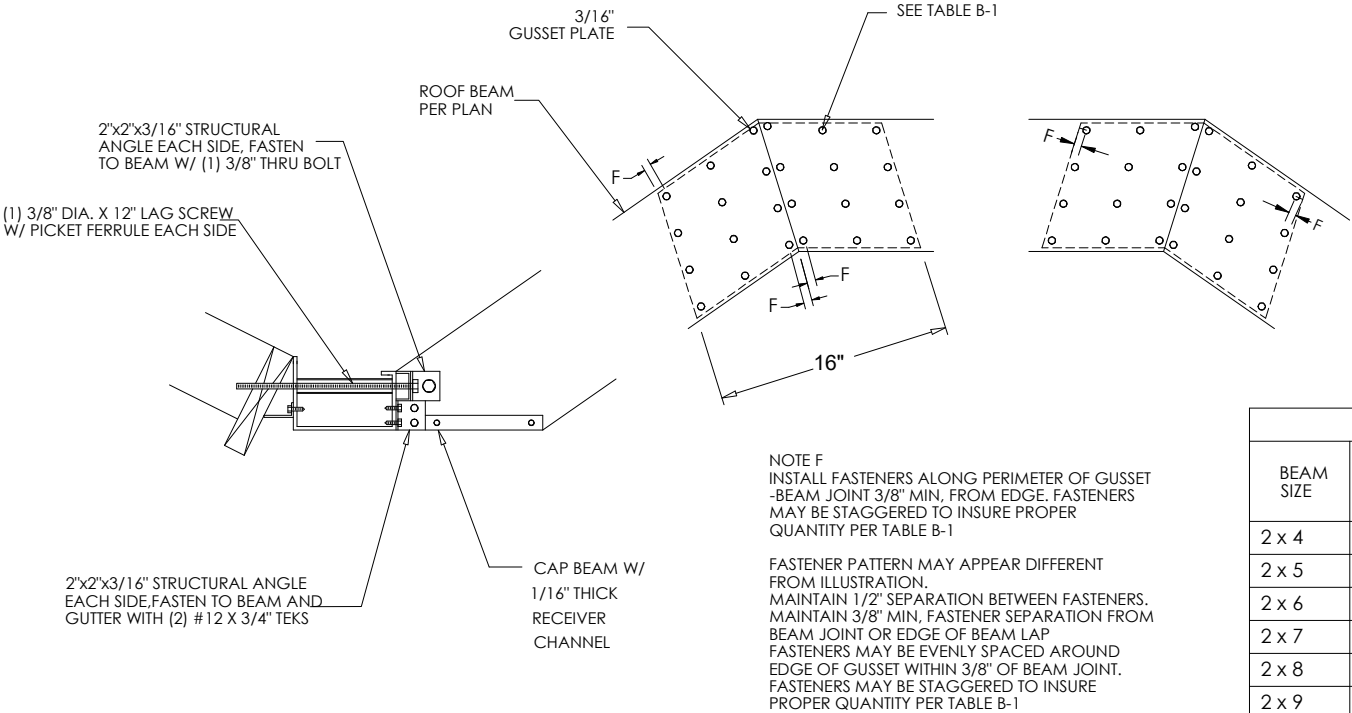
REVISION 2: 03/16/2023

DRAWN BY: YD

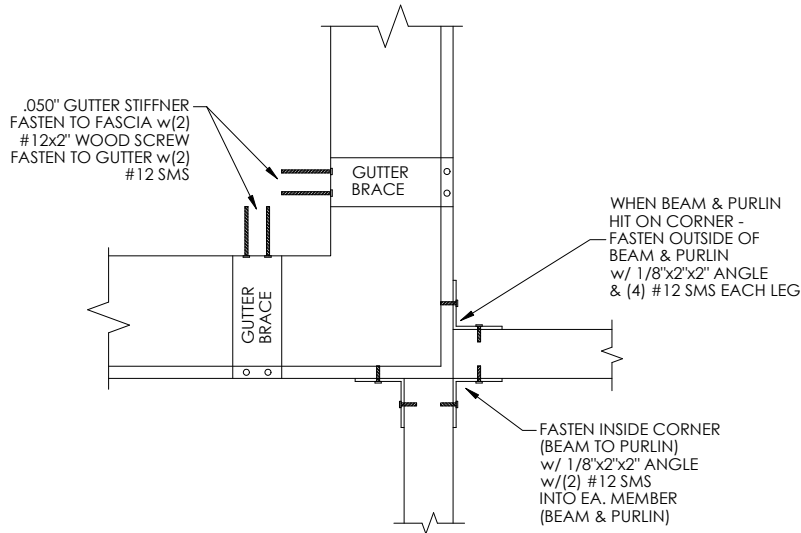
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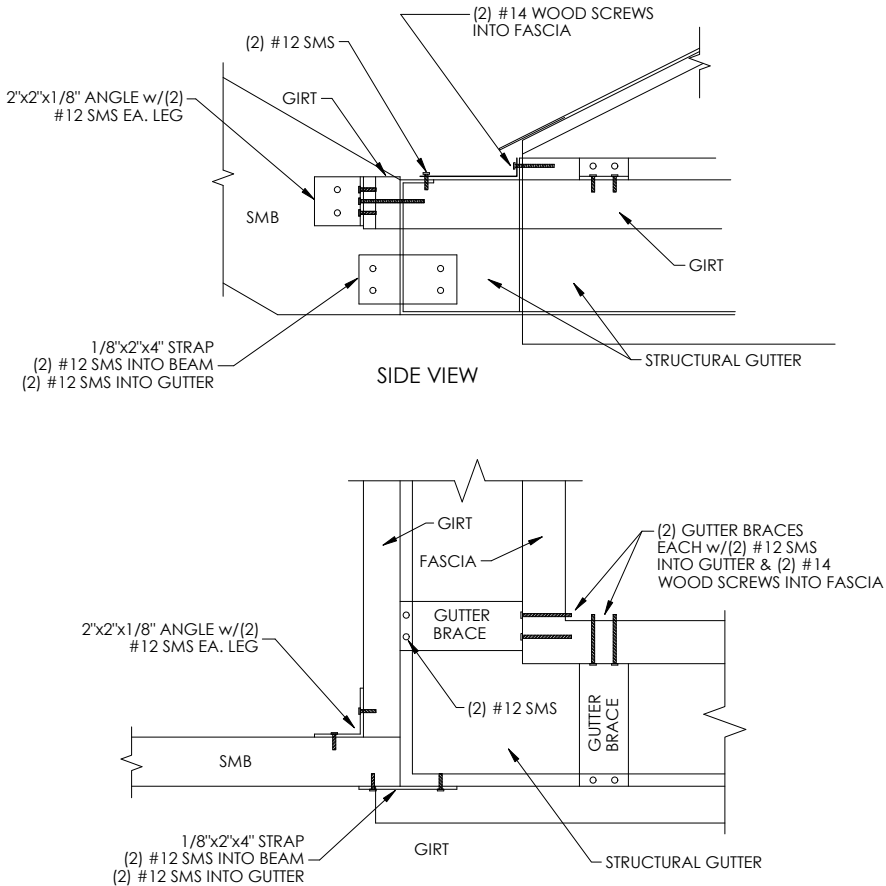
03



DETAIL "H" BEAM TO GUTTER CONNECTION SCALE: NTS

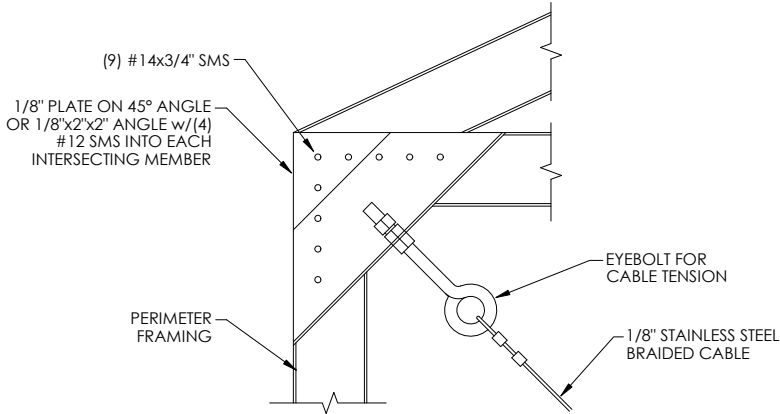


DETAIL "M" BEAM & PURLIN TO GUTTER CONNECTION SCALE: NTS

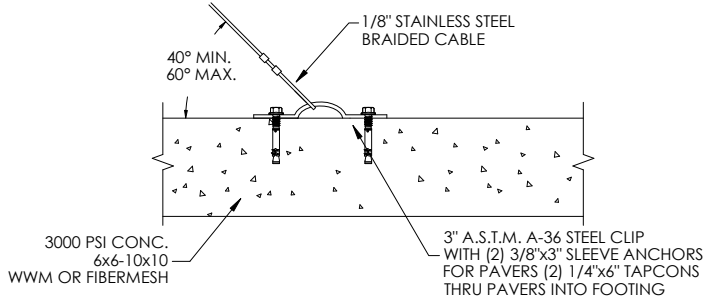


TOP VIEW  
DETAIL "L" CORNER CONNECTION SCALE: NTS

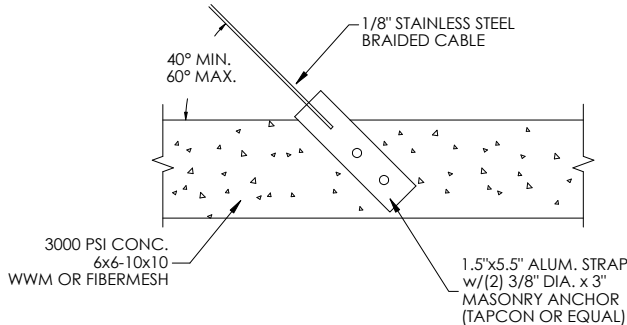
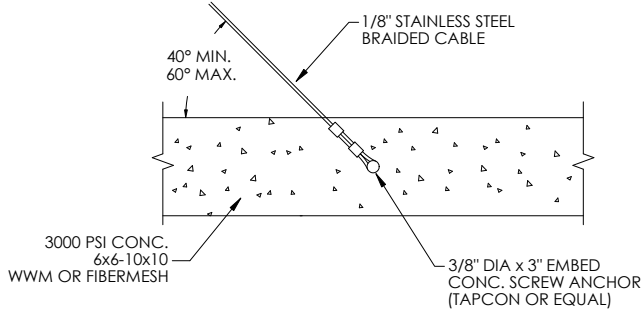
TABLE B-1		
BEAM SIZE	COL. TO BEAM QTY SMS/ SIDE OF COL.	BEAM TO BEAM QTY SMS/ EA. FACE/SIDE
2 x 4	(5) #12	(9) #12
2 x 5	(5) #12	(9) #12
2 x 6	(7) #12	(9) #12
2 x 7	(10) #12	(10) #12
2 x 8	(12) #12	(14) #12
2 x 9	(14) #14	(14) #14
2 x 10	(16) #14	(15) #14



DETAIL "I-2" CABLE CONNECTION AT CORNER SCALE: NTS

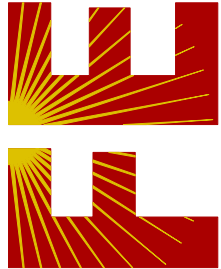


DETAIL "I-1" CABLE CONNECTION AT FOUNDATION SCALE: NTS



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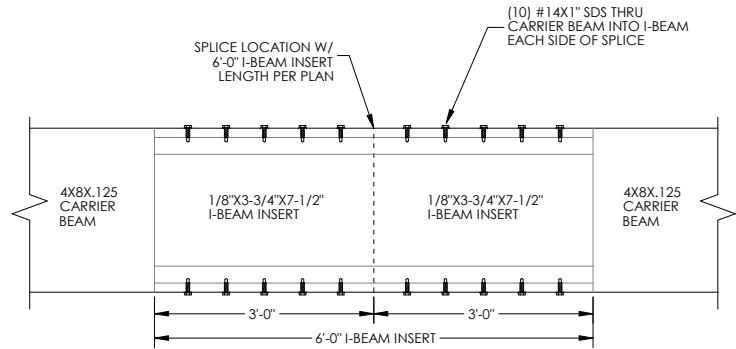
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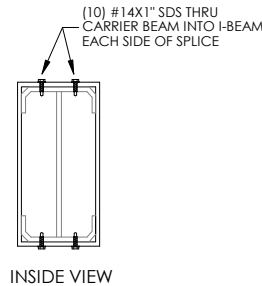
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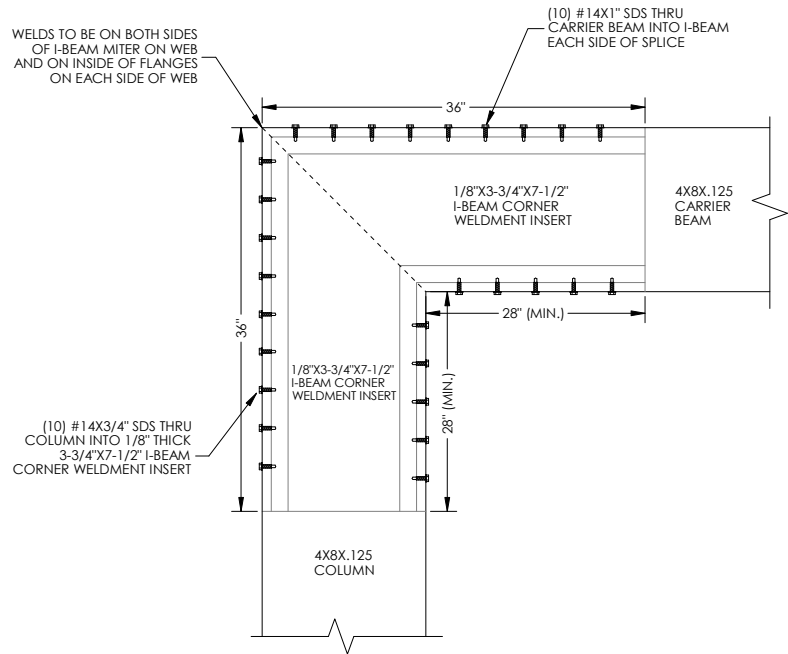




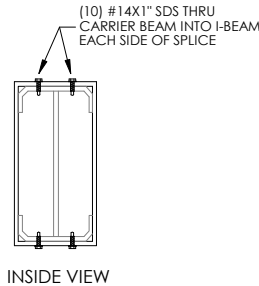
FRONT VIEW  
4X8 CARRIER BEAM SPLICE W/ I-BEAM INSERT  
CONNECTION DETAIL SCALE: NTS



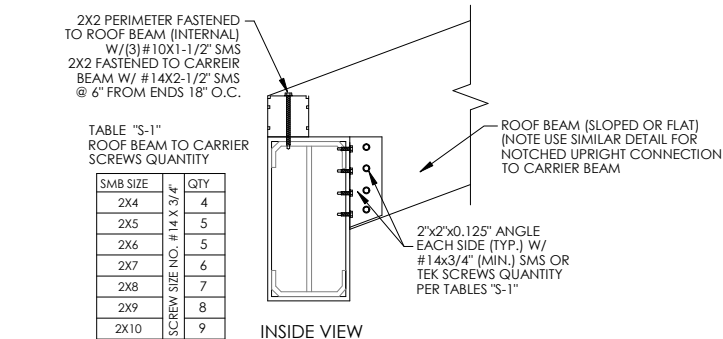
INSIDE VIEW



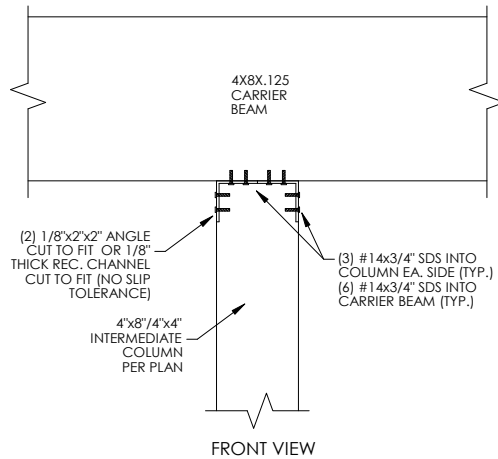
FRONT VIEW  
CORNER 4"X8" COLUMN TO 4"X8" CARRIER BEAM W/  
1/8"X3-3/4"X7-1/2" I-BEAM CORNER WELDMENT INSERT  
CONNECTION DETAIL SCALE: N.T.S.



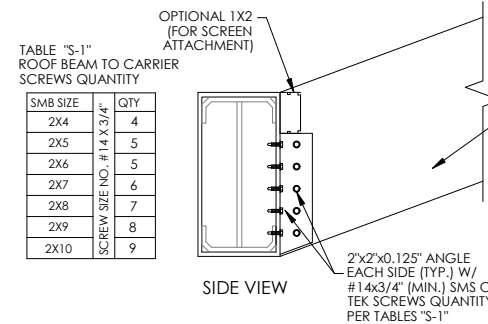
INSIDE VIEW



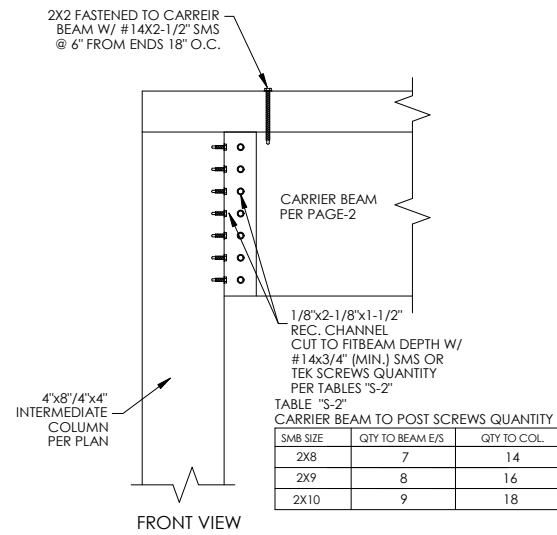
FRONT VIEW  
ROOF BEAM TO CARRIER BEAM  
CONNECTION DETAIL - II SCALE: NTS



FRONT VIEW  
INTERMEDIATE COLUMN TO 4X8 CARRIER BEAM  
CONNECTION DETAIL SCALE: NTS

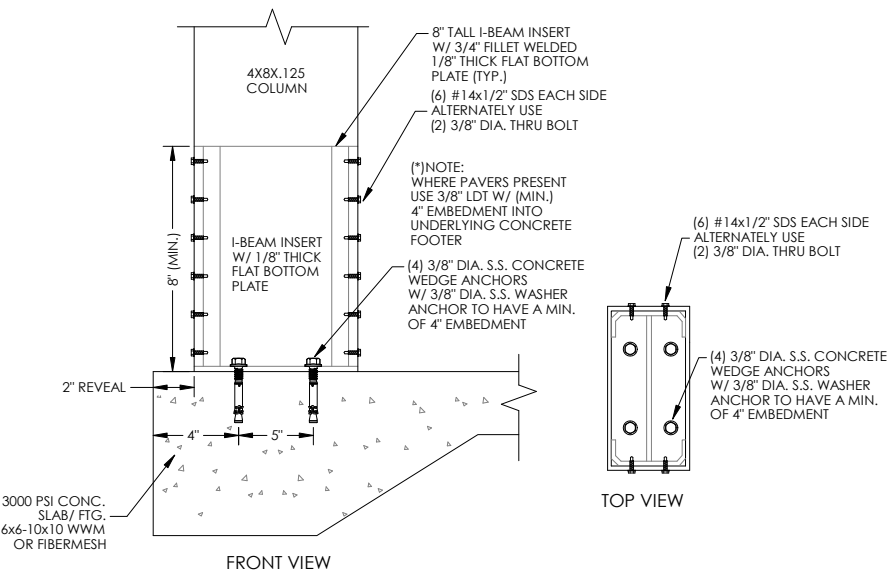


SIDE VIEW  
ROOF BEAM TO 4X8 CARRIER BEAM  
CONNECTION DETAIL - I SCALE: NTS

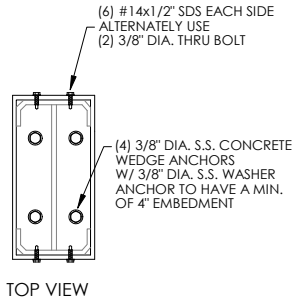


FRONT VIEW  
CARRIER BEAM TO COLUMN  
CONNECTION DETAIL SCALE: NTS

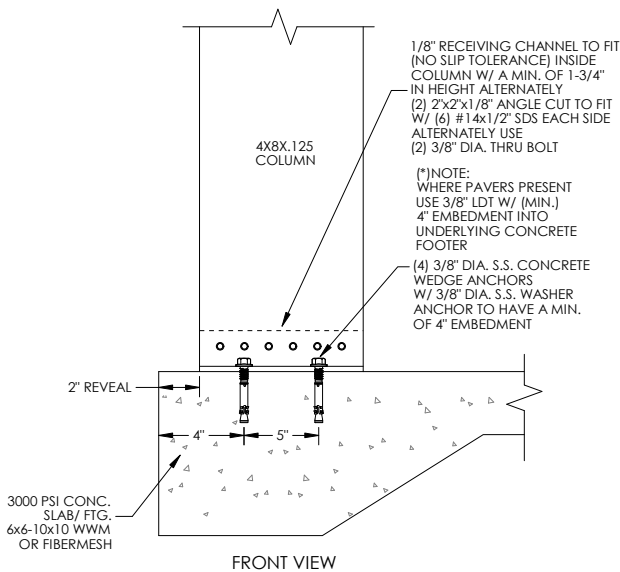
SMB SIZE	QTY TO BEAM E/S	QTY TO COL.
2X8	7	14
2X9	8	16
2X10	9	18



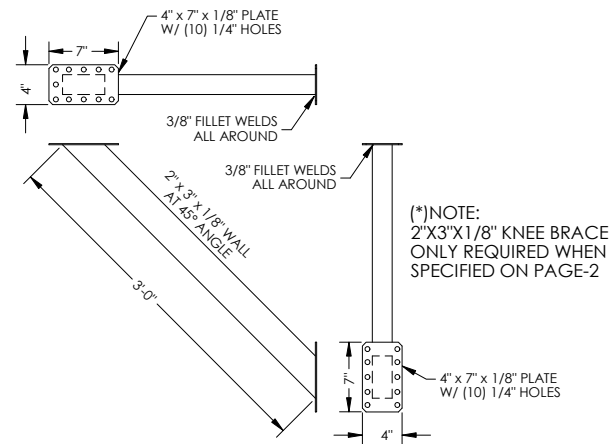
FRONT VIEW  
ANCHORING 4"X8" POST W/ I-BEAM INSERT  
CONNECTION DETAIL SCALE: N.T.S.



TOP VIEW



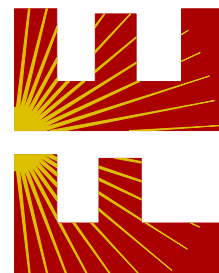
FRONT VIEW  
ANCHORING 4"X8"/4"X4" POST W/ REC. CHANNEL OR ANGLES  
CONNECTION DETAIL SCALE: N.T.S.



FRONT VIEW  
2"X3"X1/8" KNEE BRACE  
CONNECTION DETAIL SCALE: N.T.S.

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DESIGN DATE: 01/03/2023

REVISION 1: 02/14/2023

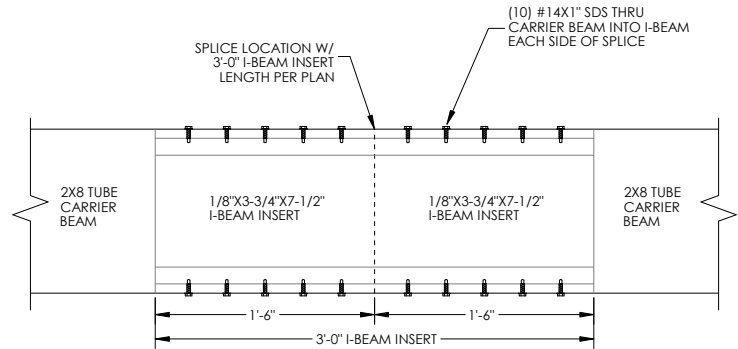
REVISION 2: 03/16/2023

DRAWN BY: YD

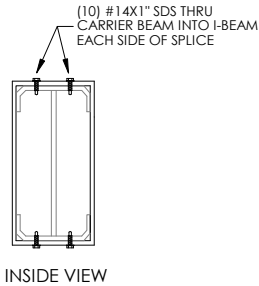
SCALE: NTS

SHEET:

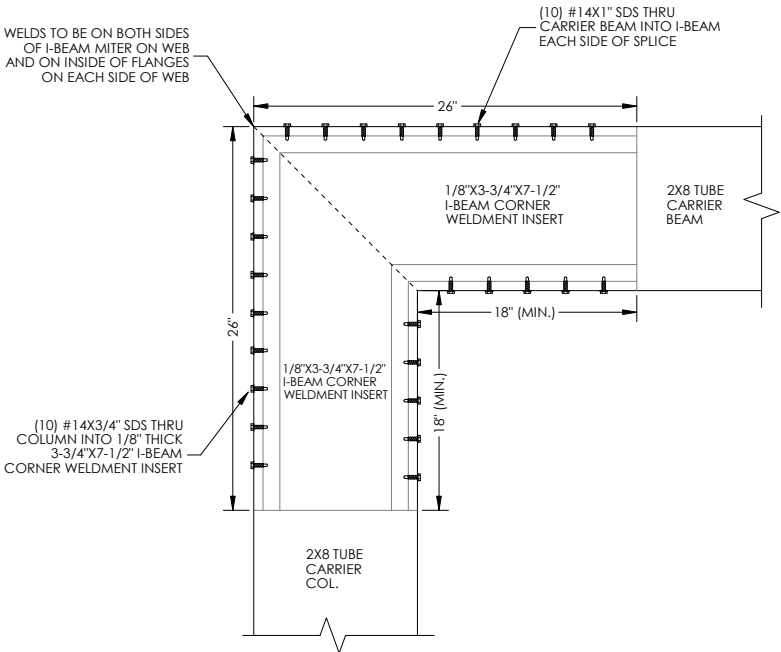
05



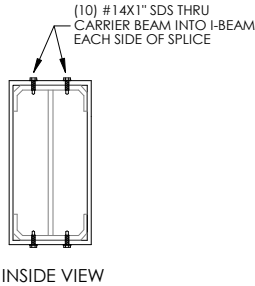
FRONT VIEW  
2X8 CARRIER BEAM SPLICE W/ I-BEAM INSERT  
CONNECTION DETAIL SCALE: NTS



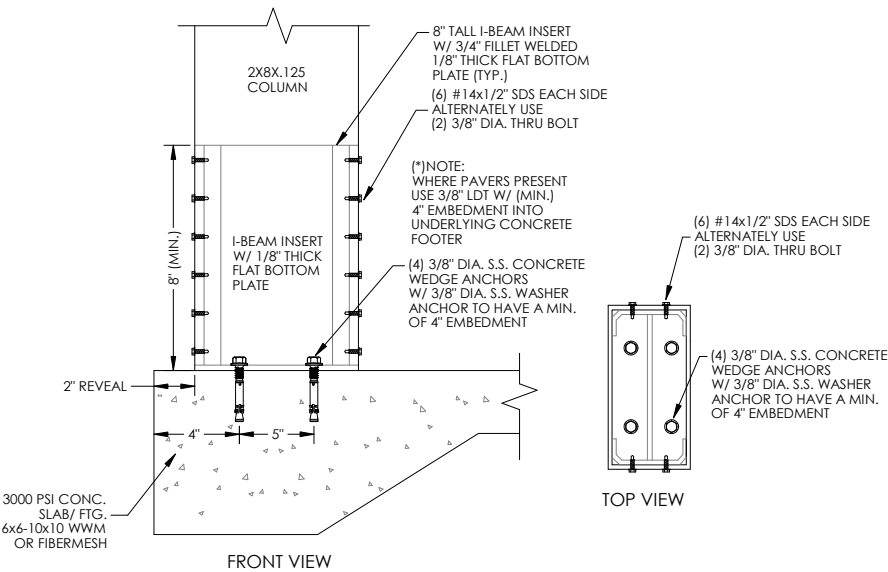
INSIDE VIEW



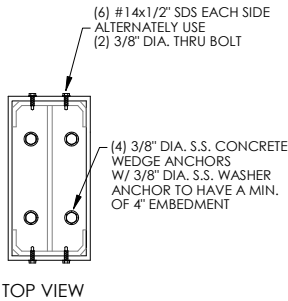
FRONT VIEW  
CORNER 2"X8" COLUMN TO 2"X8" CARRIER BEAM W/  
1/8"X3-3/4"X7-1/2" I-BEAM CORNER WELDMENT INSERT  
CONNECTION DETAIL SCALE: N.T.S.



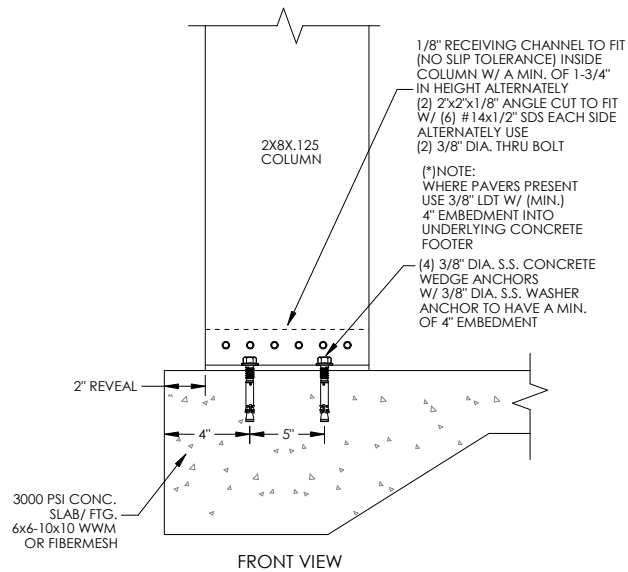
INSIDE VIEW



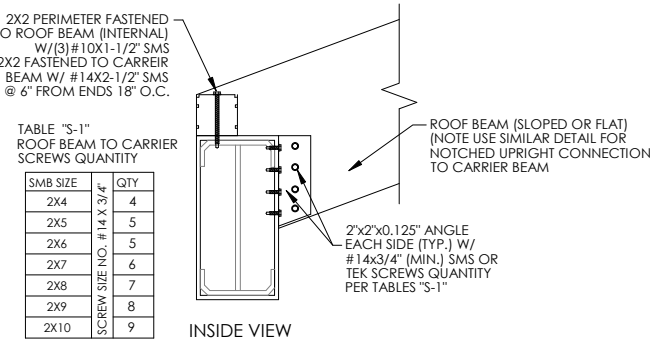
FRONT VIEW  
ANCHORING 2"X8" POST W/ I-BEAM INSERT  
CONNECTION DETAIL SCALE: N.T.S.



TOP VIEW

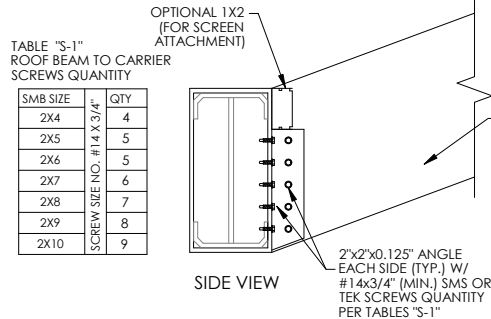


FRONT VIEW  
ANCHORING 2"X8"/4"X4" POST W/ REC. CHANNEL OR ANGLES  
CONNECTION DETAIL SCALE: N.T.S.



INSIDE VIEW  
ROOF BEAM TO CARRIER BEAM  
CONNECTION DETAIL - II SCALE: NTS

SMB SIZE	QTY
2X4	4
2X5	5
2X6	5
2X7	6
2X8	7
2X9	8
2X10	9

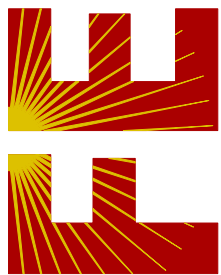


SIDE VIEW  
ROOF BEAM TO 2X8 CARRIER BEAM  
CONNECTION DETAIL - I SCALE: NTS

SMB SIZE	QTY
2X4	4
2X5	5
2X6	5
2X7	6
2X8	7
2X9	8
2X10	9

This item has been electronically signed and sealed by Craig E. Gunderson, P.E. on date below using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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PROJECT NO. 2300349 3

CA CERT. #30782

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P.O. BOX 801  
MARCO ISLAND, FL 34146

PROJECT ADDRESS:  
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7510 HOGAN CT  
NAPLES, FL 34113

DESIGN DATE: 01/03/2023

REVISION 1: 02/14/2023

REVISION 2: 03/16/2023

DRAWN BY: YD

SCALE: NTS

SHEET:

06