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: 150
   MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3: B
3. WIND LOADS PER FBC TABLE 2002.4 (MWFRS)
   VULT = 150 MPH & EXPOSURE = B

FOR 20 X 20 X 0.013" MESH SCREEN
HORIZONTAL PRESSURES ON WINDWARD SURFACES = 31 PSF
HORIZONTAL PRESSURES ON LEEWARD SURFACES = 32 PSF
VERTICAL PRESSURES ON SCREEN SURFACES = 9 PSF
VERTICAL PRESSURES ON SOLID SURFACES = 25 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

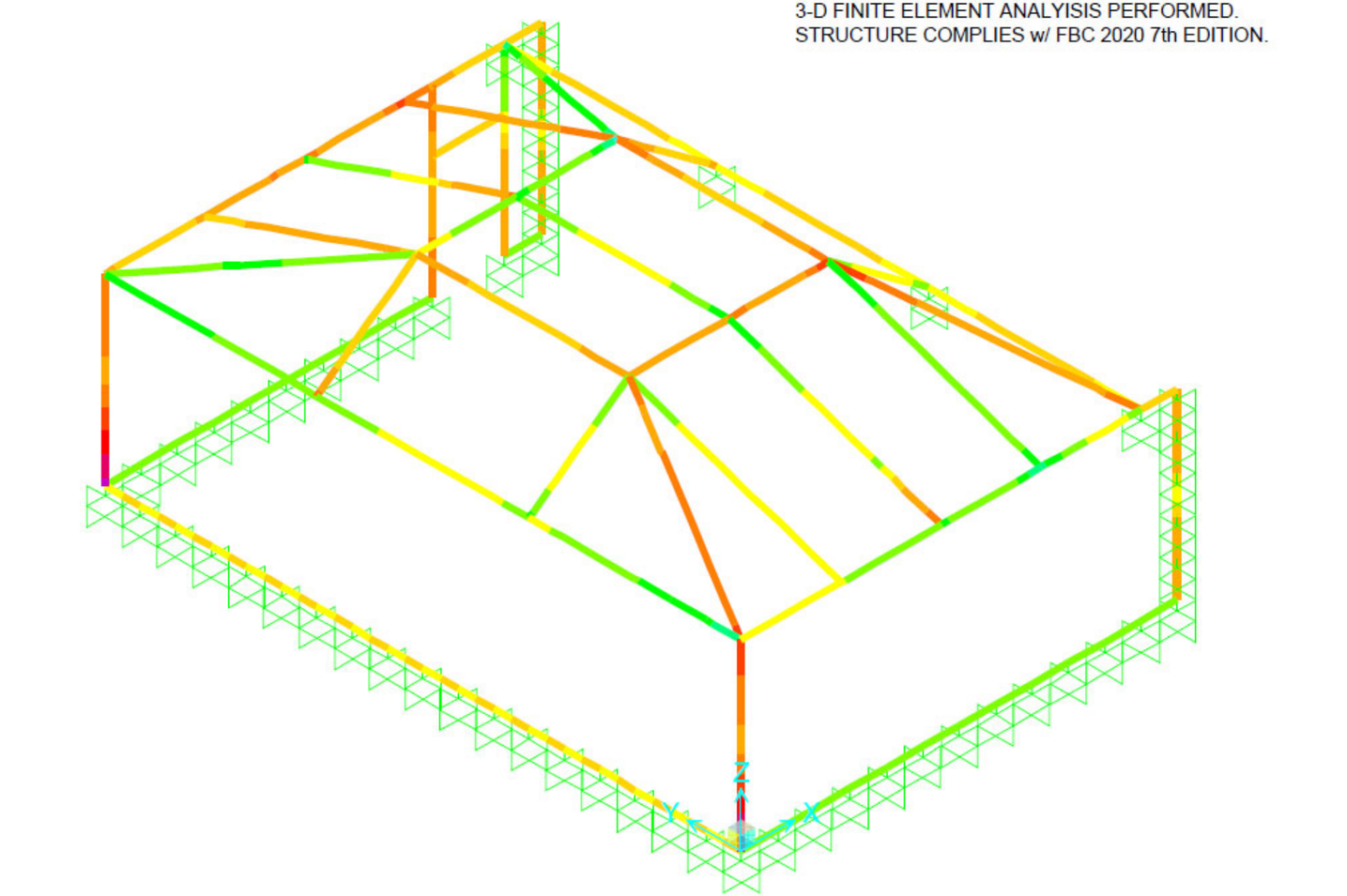
1. FASTENERS ARE REQUIRED TO BE SAE GRADE 2 OR BETTER ZINC PLATED. (CONCRETE ANCHORS ARE TO BE TAPCONS OR BETTER, INSTALLED TO MFG. SPECIFICATIONS)
2. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE SCREENS, FASTENERS AND SCREENS TO MANUFACTURING SPECIFICATIONS.
3. WHERE WOOD DECK IS PRESENT USE 1/4" 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

3-D FINITE ELEMENT ANALYISIS PERFORMED.
STRUCTURE COMPLIES w/ FBC 2020 7th EDITION.



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.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2021.06.28 14:05:05 -04'00'

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

PROJECT NO. 2117478

CONTRACTOR: SCREENS OVER MARCO

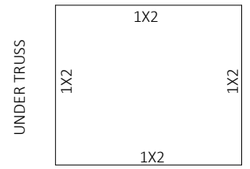
PROJECT ADDRESS: BLUE DIAMOND
708 108th AVE N
NAPLES FL

DESIGN DATE:	06/25/2021
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	PD
SCALE:	NTS

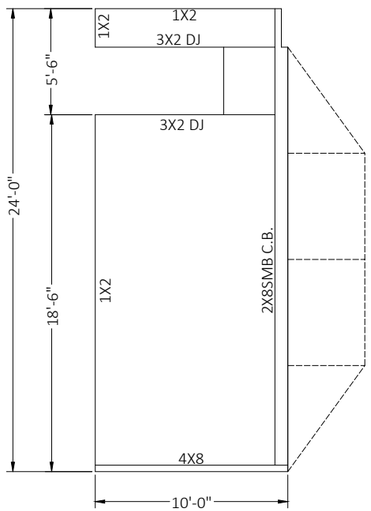
SHEET: 01

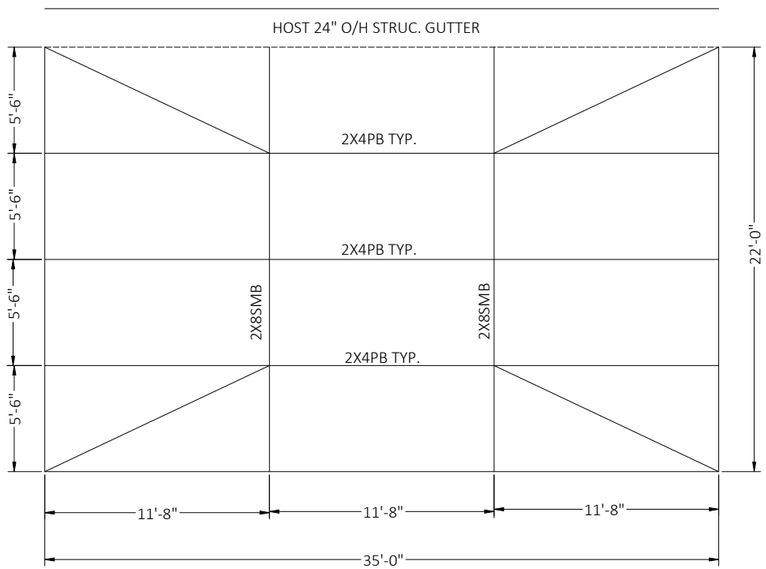
ALUMINUM SPECIFICATIONS

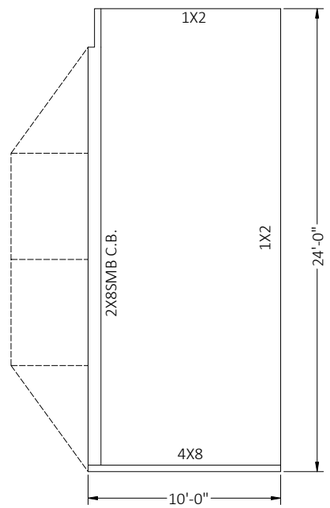
1. ALUMINUM EXTRUSIONS SHALL BE 6005 T5 ALLOY UNLESS OTHERWISE NOTED.
2. ALL SELF MATING BEAM SECTIONS ARE TO BE STITCHED WITH #12 SCREWS 6" FROM ENDS & 24" CENTER TO CENTER. #10 SCREW 6" FROM ENDS & 12" CENTER TO CENETER.
3. ROOF BRACING SHALL BE A MINIMUM 2X4PB..
4. THE MINIMUM NORMAL THICKNESS OF PROTECTOR PANELS (KICKPLATES) SHALL BE AN INDUSTRY STANDARD OF 0.024 INCHES.
5. VINYL AND ACRYLIC PANELS SHALL BE REMOVED WHEN WIND SPEEDS EXCEED 75 MPH PER FBC.
6. SCREEN MATERIAL SHALL BE 18/14 SCREEN UNLESS APPROVED BY FLORIDA ENGINEERING LLC.
7. 1"X2" & 1"X3" NON STRUCTURAL MEMBERS MAY BE USED INTERCHANGEABLY.
8. DOOR LOCATION MAY BE RELOCATED BY CONTRACTOR IN THE FIELD.
9. NO CABLES REQUIRED PER SITE SPECIFIC ANALYSIS.

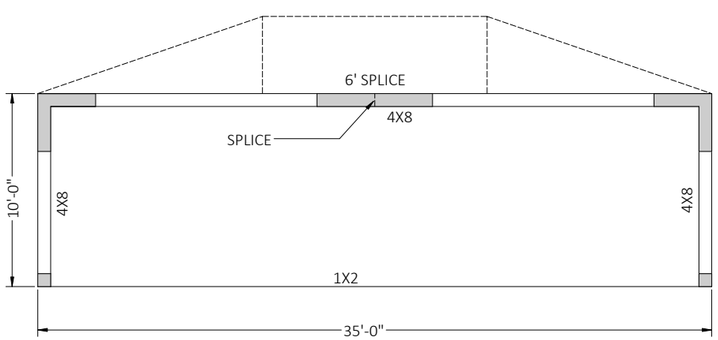


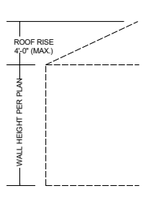
2X4X.050 DIAG. BRACE TYP.











ROOF RISE PROFILE

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.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2021.06.28 14:05:09 -04'00'

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

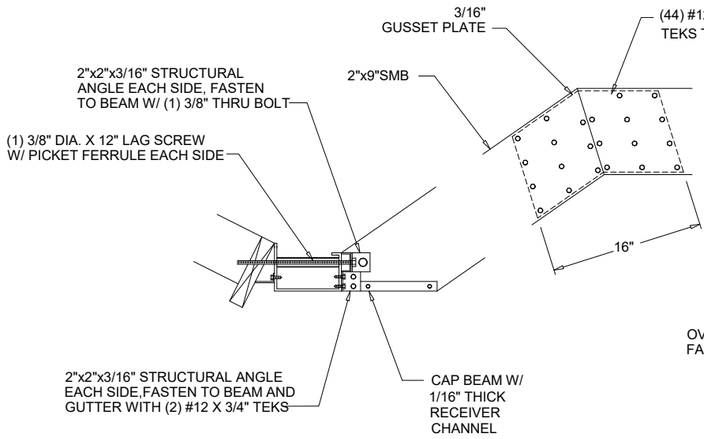
PROJECT NO. 2117478

CONTRACTOR: SCREENS OVER MARCO

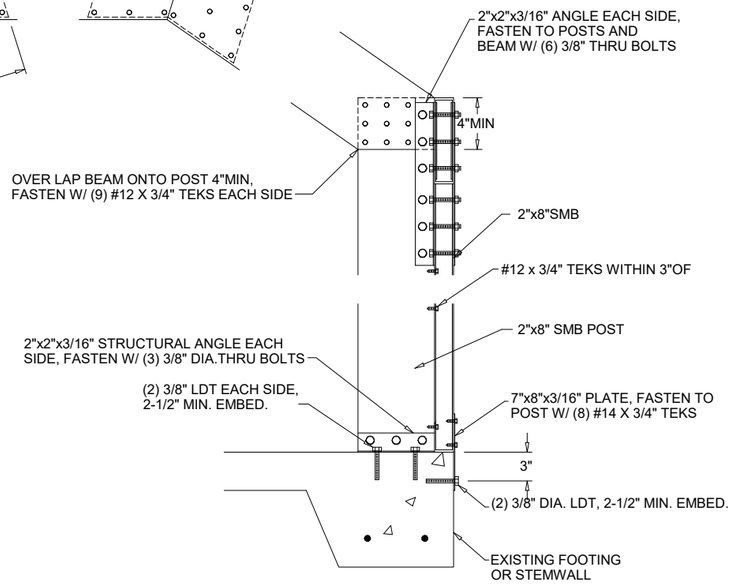
PROJECT ADDRESS: BLUE DIAMOND
708 108th AVE N
NAPLES FL

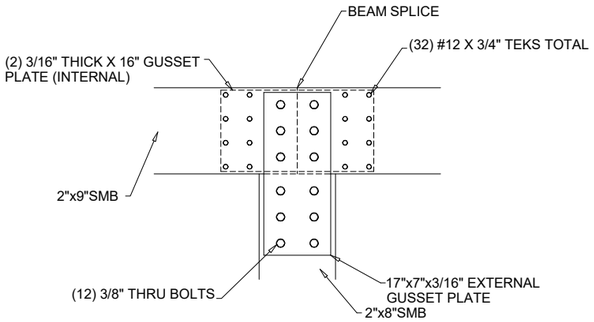
DESIGN DATE:	06/25/2021
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	PD
SCALE:	NTS

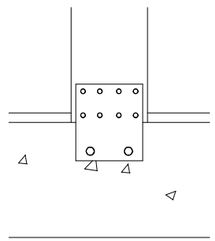
SHEET: 02



BEAM POST CONNECTION
SCALE: N.T.S.

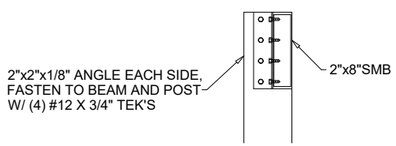


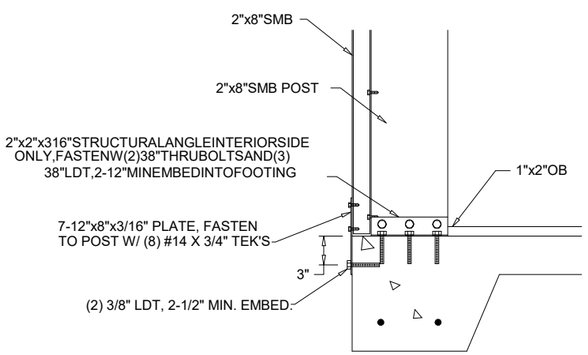




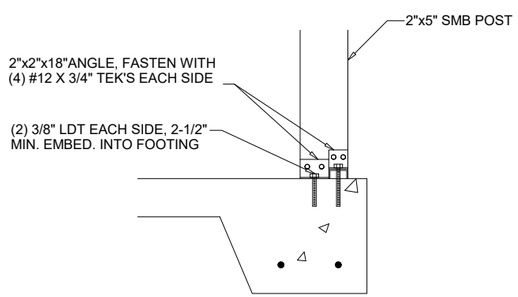
BEAM POST CONNECTION
SCALE: N.T.S.

CORNER POST CONNECTION
(REAR ELEVATION) SCALE: N.T.S.





CORNER POST CONNECTION
(SIDE ELEVATION) SCALE: N.T.S.



POST TO HIP BEAM CONNECTION
SCALE: N.T.S.

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

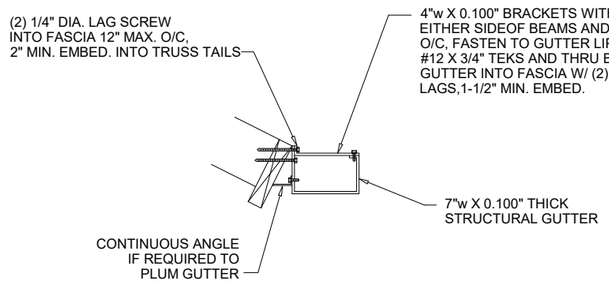
PROJECT NO. 2117478

CONTRACTOR:
SCREENS OVER MARCO

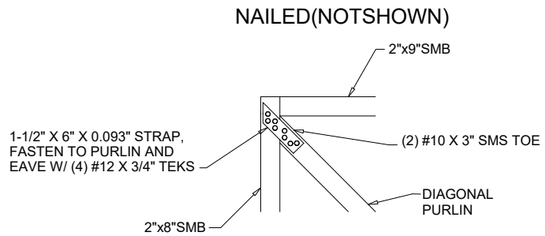
PROJECT ADDRESS:
BLUE DIAMOND
708 108th AVE N
NAPLES FL

DESIGN DATE:	06/25/2021
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	PD
SCALE:	NTS

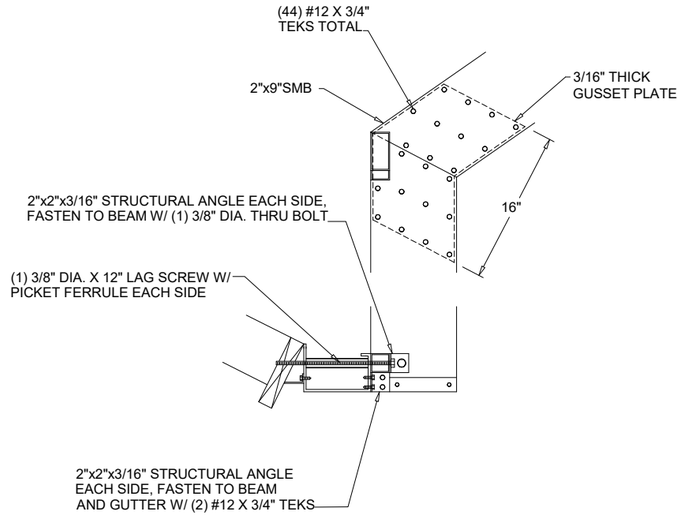
SHEET: 03



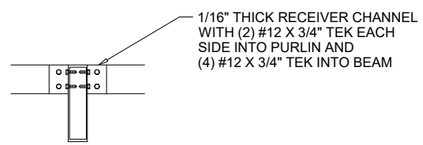
GUTTER CONNECTION
SCALE: N.T.S.



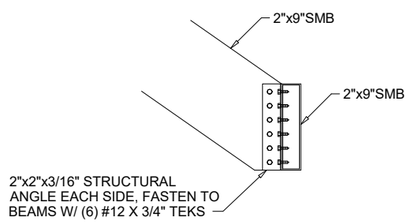
DIAGONAL PURLIN CONNECTION
SCALE: N.T.S.



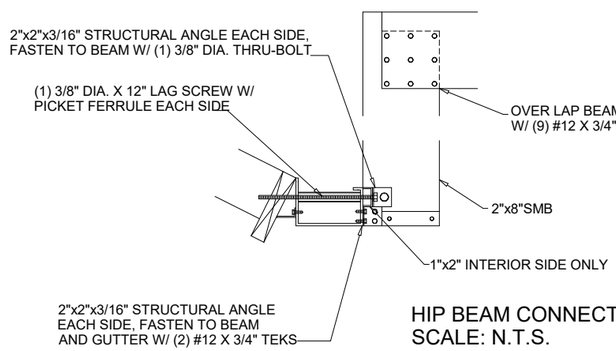
KNEE WALL CONNECTION
SCALE: N.T.S.



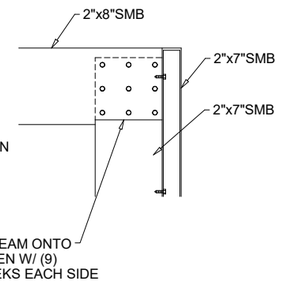
ALTERNATE PURLIN & CHAIR RAIL
CONNECTION SCALE: N.T.S.



BEAM TO CARRY BEAM
CONNECTION SCALE: N.T.S.



HIP BEAM CONNECTION
SCALE: N.T.S.



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.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2021.06.28 14:05:18 -04'00'

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

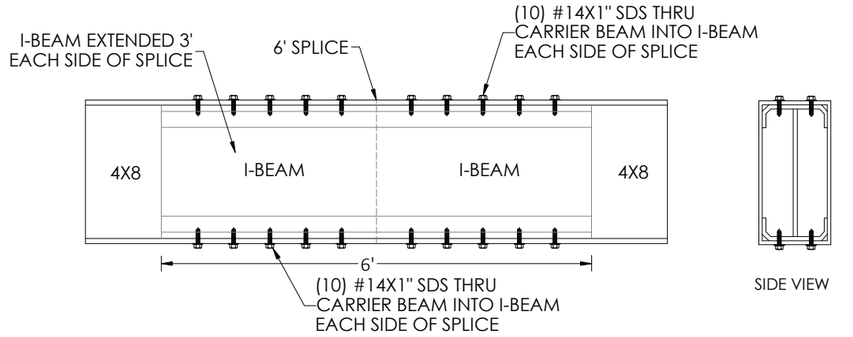
PROJECT NO. 211747B

CONTRACTOR:
SCREENS OVER MARCO

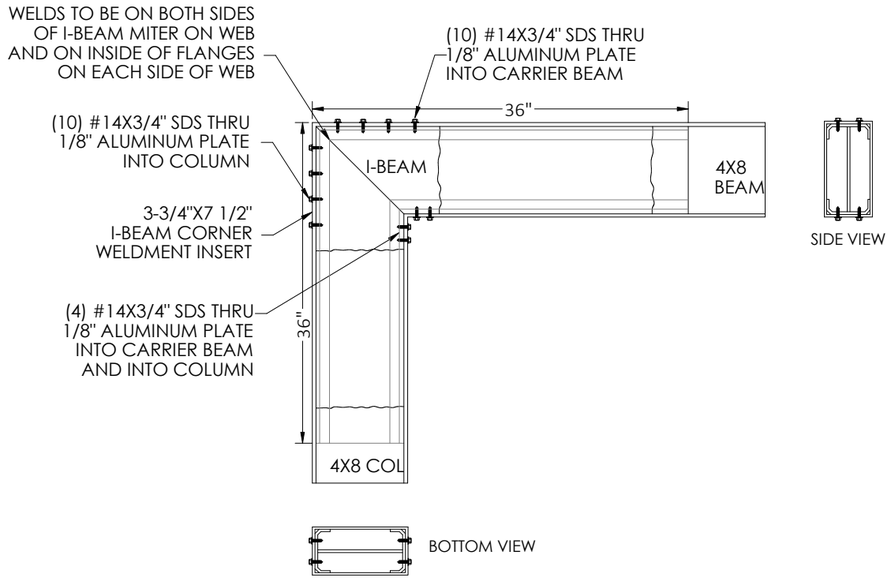
PROJECT ADDRESS:
BLUE DIAMOND
708 108th AVE N
NAPLES FL

DESIGN DATE:	06/25/2021
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	PD
SCALE:	NTS

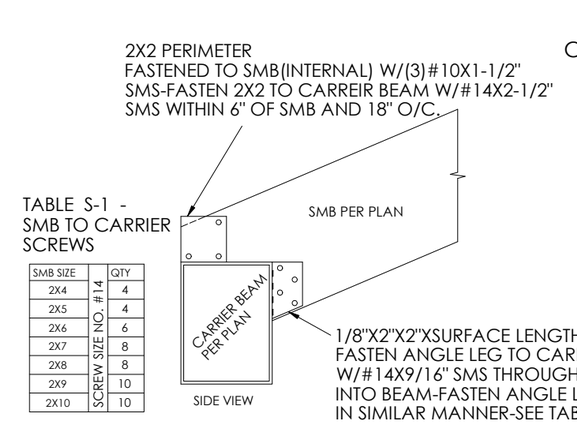
SHEET: 04



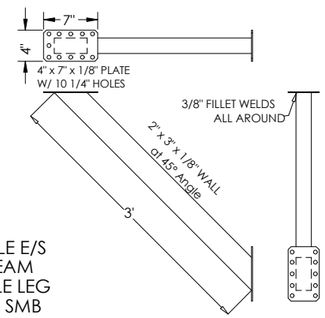
CARRIER BEAM SPLICE DETAIL SCALE: N.T.S.



4"X8" CARRIER BEAM 4"X8" COLUMN CORNER CONNECTION DETAIL SCALE: N.T.S.

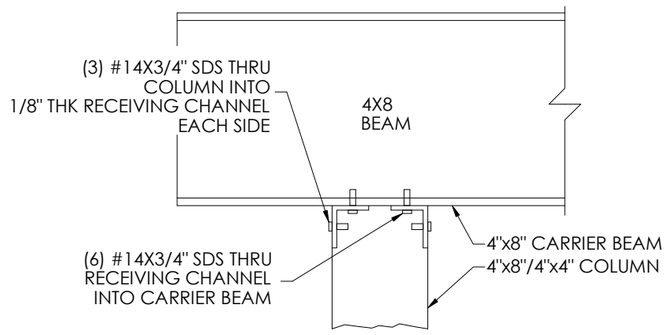


SMB SIZE	SCREW SIZE NO. #14	QTY
2X4		4
2X5		4
2X6		6
2X7		8
2X8		8
2X9		10
2X10		10

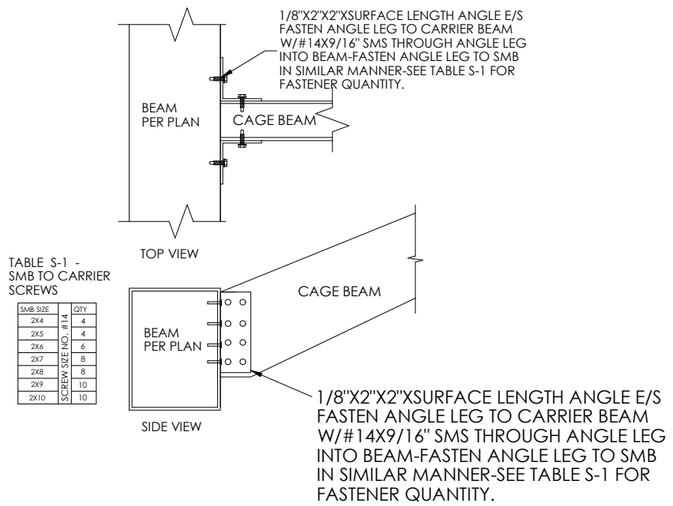


*2"X3"X1/8" KNEE BRACE ONLY REQUIRED WHEN SPECIFIED ON PAGE-2

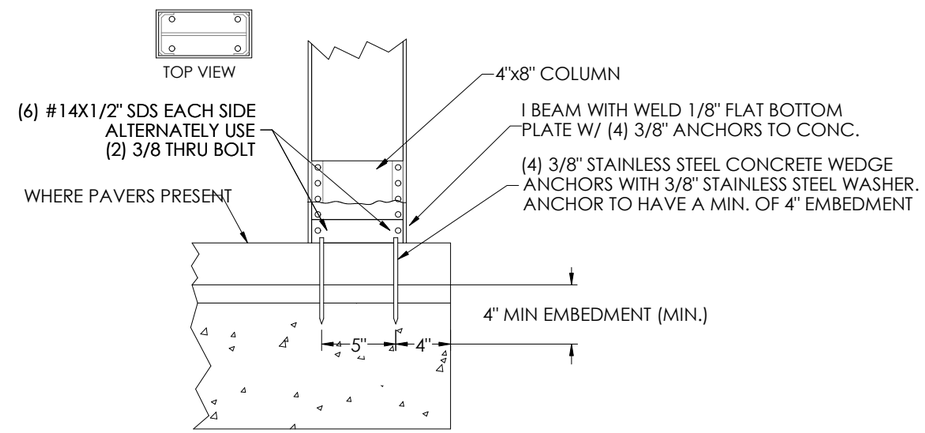
ROOF BEAM TO CARRIER BEAM CONNECTION DETAIL SCALE: N.T.S.



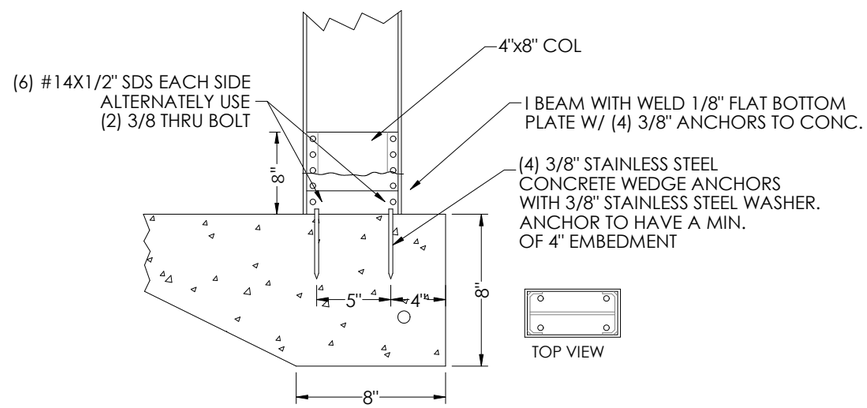
4"X8"/4"x4" TO CARRIER BEAM CONNECTION DETAIL SCALE: N.T.S.



ROOF BEAM TO CARRIER BEAM CONNECTION #2 DETAIL SCALE: N.T.S.



ANCHORING 4"X8"/4X4 POST w/ PAVERS CONNECTION DETAIL SCALE: N.T.S.



ANCHORING 4"X8" POST CONNECTION DETAIL SCALE: N.T.S.

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

PROJECT NO. 2117478

CONTRACTOR: SCREENS OVER MARCO

PROJECT ADDRESS: BLUE DIAMOND 708 108th AVE N NAPLES FL

DESIGN DATE:	06/25/2021
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	PD
SCALE:	NTS

SHEET: 05