# **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: MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3:
- 3. WIND LOADS PER FBC TABLE 2002.4 (MWFRS)

VERTICAL PRESSURES ON SOLID SURFACES =

VULT = 150 MPH & EXPOSURE = C

FOR 20 X 20 X 0.013" MESH SCREEN

HORIZONTAL PRESSURES ON WINDWARD SURFACES = 43 PSF HORIZONTAL PRESSURES ON LEEWARD SURFACES = VERTICAL PRESSURES ON SCREEN SURFACES =

34 PSF 12 PSF 36 PSF

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

### FOUNDATION DESIGN:

PROPOSED 4" SLAB 3000 PSI CONCRETE W/ FIBERMESH + PERIMETER 8"X8" MONOLITHIC FOOTER (1) #5 REBAR CONT.

- 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

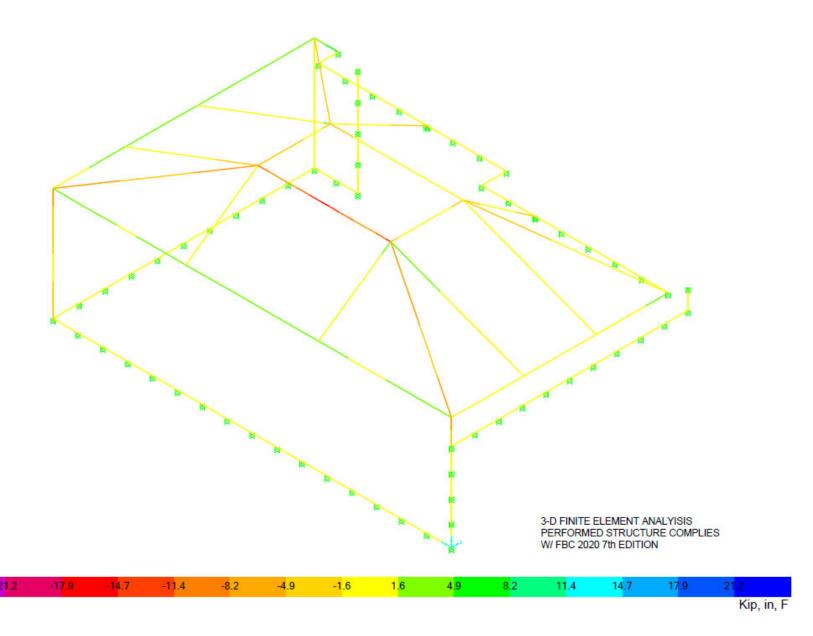
# **RESPONSIBILITIES:**

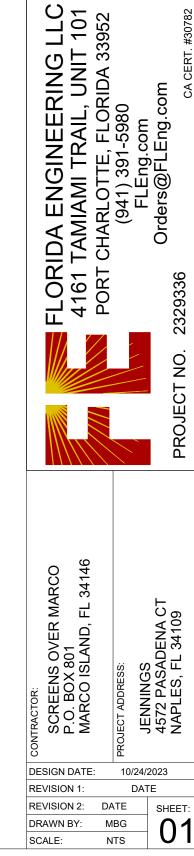
- 1. ALL SITE WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH APPLICABLE BUILDING CODES, LOCAL ORDANANCES, AND THE ENGINEER SHALL
- BE NOTIFIED OF ANY DISCREPANCIES.

  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	
\$/01	GENERAL NOTES	
\$/02	PLAN/ ELEVATIONS	
\$/03	FOUNDATION PLAN	
\$/04	DETAILS	
\$/05	DETAILS	
\$/06	DETAILS	

# PROPOSED MANSARD SCREEN ENCLOSURE SEE FOUNDATION PLAN SHEET-03





HATCH/ SYMBOL LEGEND

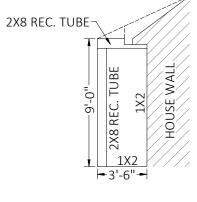
William Strands Legend				
HATCH	INDICATES			
	EXIST. STRUCTURE			

NOTE: ALL MAY NOT APPLY

- 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 CENTER.
- 3. ROOF BRACING SHALL BE A MINIMUM 2"X4"X.050".
- ROOF BRACING SHALL BE A MINIMUM 2"X4"X.050".
   THE MINIMUM NORMAL THICKNESS OF PROTECTOR PANELS (KICKPLATES) SHALL BE AN INDUSTRY STANDARD OF 0.024 INCHES.
   VINYL AND ACRYLIC PANELS SHALL BE REMOVED WHEN WIND SPEEDS EXCEED 75 MPH PER FBC.
   SCREEN MATERIAL SHALL BE 18/14 SCREEN UNLESS APPROVED BY FLORIDA ENGINEERING LLC.
   1"X2" & 1"X3" NON STRUCTURAL MEMBERS MAY BE USED INTERCHANGEARIY

- INTERCHANGEABLY.

  8. DOOR LOCATION MAY BE DETERMINED/ RELOCATED BY CONTRACTOR IN THE FIELD.
- 9. NO CABLES REQUIRED PER SITE SPECIFIC ANALYSIS.



-9'-0"

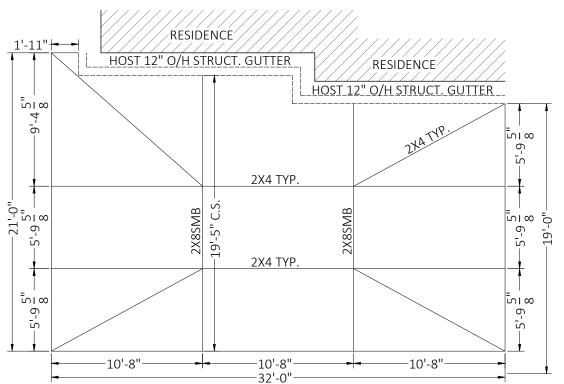
2X8 POST+1X2

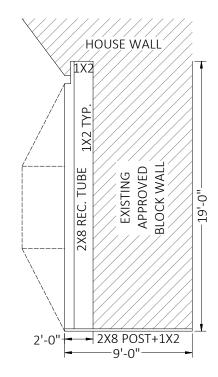
2X8 POST+1X2

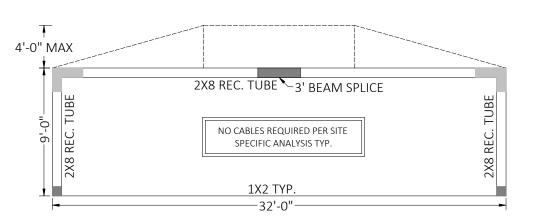
21'-0"

TUBE

2X8 REC.







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



CA CERT. #30782

2329336

PROJECT NO.

SCREENS OVER MARCO P.O. BOX 801 MARCO ISLAND, FL 34146 JENNINGS 4572 PASADENA CT NAPLES, FL 34109 PROJECT ADDRESS:

CONTRACTOR DESIGN DATE: 10/24/2023 DATE REVISION 1: REVISION 2: DATE SHEET: DRAWN BY: MBG SCALE: NTS

### FOUNDATION DESIGN:

PROPOSED 4" SLAB 3000 PSI CONCRETE W/ FIBERMESH + PERIMETER 8"X8" MONOLITHIC FOOTER (1) #5 REBAR CONT.

- THE FOLLOWING SPECIFICATIONS ARE APPLICABLE TO THIS PROJECT:

  1. WHERE CONCRETE SPECIFICATIONS ARE REQUIRED, WHETHER IN THE SCREEN ENCLOSURE SCOPE OR NOT, BY ONE OR MORE REGULATORY AGENCY, THE FOLLOWING SPECIFICATIONS ARE APPLICABLE:
- a. CONCRETE SHALL CONFORM TO ASTM C94 FOR THE FOLLOWING COMPONENTS:
  i. PORTLAND CEMENT TYPE 1 ASTM C 150
- ii AGGREGATES LARGE AGGREGATE 3/4 MAX. ASTM C 33
- iii. AIR ENTRAINING +/- 1 % ASTM C 260
- iv. WATER REDUCING AGENT ASTM C 494
- v. CLEAN POTABLE WATER
- vi. OTHER ADMIXTURES NOT PERMITTED b. METAL ACCESSORIES SHALL CONFORM TO:
- i. REINFORCING BARS ASTM A615, GRADE 60
- ii. WELDED WIRE FABRIC ASTM A185
- C. CONCRETE SLUMP AT DISCHARGE CHUTE NOT LESS THAN 3" OR MORE THAN 5". WATER ADDED AFTER BATCHING IS NOT PERMITTED.
- d. PREPARE & PLACE CONCRETE PER AMERICAN CONCRETE INSTITUTE MANUAL OF STANDARD PRACTICE, PART 1, 2, & 3 INCLUDING HOT WEATHER RECOMMENDATIONS.
- e. MOIST CURE OR POLYETHYLENE CURING PERMITTED.
- f. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC. FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY.

  g. CONCRETE SLAB SHALL BE PLACED OVER A POLYETHYLENE VAPOR
- BARRIER. (SLAB ONLY)
- 2. WHEN PAVERS ARE UNDER ALUMINUM MEMBERS, CONTRACTOR SHALL EPOXY TO DECK OR GROUT TO DECK w/3000 PSI GROUT WITH BONDING AGENT
- 3. WHEN APPLICABLE FOR NEW SLAB ADDITION TO ADJACENT DRILL & EPOXY #4 X 8" REBAR INTO EX. FOUNDATION EMBED 4" MIN W/ NON-SHRINKING SIMPSON EPOXY-TIE (OR EQUAL) 48" O.C. TYP. ALL LOCATIONS
- 4. WHEN APPLICABLE FOR NEW FOOTER TO EXISTING, DRILL & EPOXY NEW STEEL INTO EX. FOUNDATION WITH EMBED 6" MIN W/ NON-SHRINKING SIMPSON EPOXY-TIE (OR EQUAL) TYP. ALL LOCATIONS
- 5. WHERE PAVERS ARE UNDER ALUMINUM MEMBERS, CONTRACTOR SHALL EPOXY TO DECK OR GROUT TO DECK w/3000 PSI GROUT WITH BONDING AGENT.
- 6. MINIMUM CONCRETE STRENGTH 3000 PSI UNLESS OTHERWISE NOTED.

# MASONRY SPECIFICATIONS:

- 1. CONCRETE MASONRY UNITS (CMU) SHALL BE STANDARD HOLLOW UNITS AND SHALL BE 1900 PSI MINIMUM BASED ON TYPE M OR S MORTAR.
- 2. ALL MORTAR SHALL BE TYPE M OR S.
- 3. ALL GROUT SHALL BE 2000 PSI MINIMUM AND HAVE
- MAXIMUM COARSE AGGREGATE SIZE OF 3/8".
- 4. PROVIDE CLEAN-OUTS FOR REINFORCED CELLS CONTAINING REINFORCEMENT WHEN GROUT POUR EXCEEDS 5'-0" IN

### FOOTING NOTES:

- 1. PROVIDE 1-1/2' COVERAGE TOP, SIDES, BOTTOM AND 1" BETWEEN ADJACENT REBAR LAPS.
- 2. PROVIDE MIN. 3" COVERAGE OF REBAR FOR ALL CONCRETE IN CONTACT WITH THE EARTH.

- 3. FOOTING CONCRETE SHALL BE MIN. 3000 PSI AT 28 DAYS
  4. FOOTING REINFORCEMENT SHALL BE MIN. GRADE 60
  5. PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE TO CITY / CO. REQUIREMENTS
- . PROVIDE 2500 PSF BEARING (TYPICAL) UNDER FOUNDATION
- 7. SEE GENERAL NOTES ABOVE FOR TYING INTO EXISTING FOUNDATIONS
- 8. SEE GENERAL NOTES ABOVE FOR ADDITIONAL CONCRETE INFORMATION & SPECS.

NEW 4" SLAB 3000 PSI W/ FIBERMESH SODDED GRADE

8"x8" MONOLITHIC FOOTING **SCALE: NTS** 

**HOUSE WALL** <del>-</del>3'-6" HOUSE WALL NEW 4" SLAB 3000 PSI MIN. W/ FIBERMESH PROPOSED 4" SLAB 3000 PSI CONCRETE W/ FIBERMESH + PERIMETER 8"X8" MONOLITHIC FOOTER (1) #5 REBAR CONT.

**FOUNDATION PLAN: NTS** 

32'-0'

# **CONCRETE LEGEND**

HATCH	INDICATES	
	HOST/ EXIST.	
	NEW FOOTING	
	NEW SLAB AREA	

NOTE: ALL MAY NOT APPLY

HATCH	INDICATES	
	HOST/ EXIST.	
	NEW FOOTING	
	NEW SLAB AREA	

L N O ENGINEERING I TAMIAMI TRAIL, UNIT T CHARLOTTE, FLORIDA 3 (941) 391-5980 ORIDA

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4161 PORT

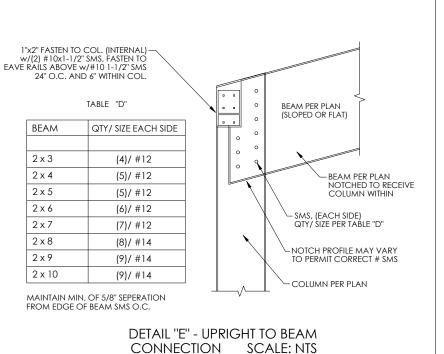
34146 SCREENS OVER MARCO P.O. BOX 801 MARCO ISLAND, FL 3414

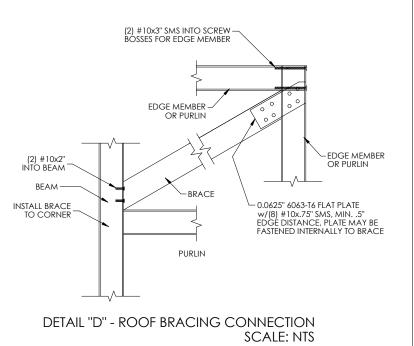
PROJECT ADDRESS:

DESIGN DATE: 10/24/2023 REVISION 1: DATE **REVISION 2:** DATE SHEET: DRAWN BY: MBG SCALE: NTS

2329336 Ö N **PROJECT** 

JENNINGS 4572 PASADENA CT NAPLES, FL 34109





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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CA CERT.

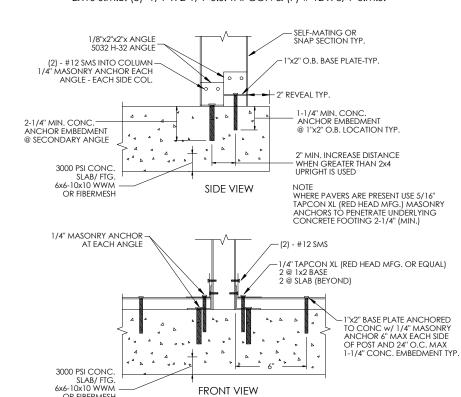
MINIMUM NUMBER OF TAPCONS INTO CONCRETE & # 12 X 3/4" S.M.S. INTO UPRIGHT / EACH SIDE OF BEAM THROUGH SECONDARY 2" X 2" X 0.125" ANGLES

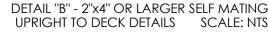
(SEE BELOW)

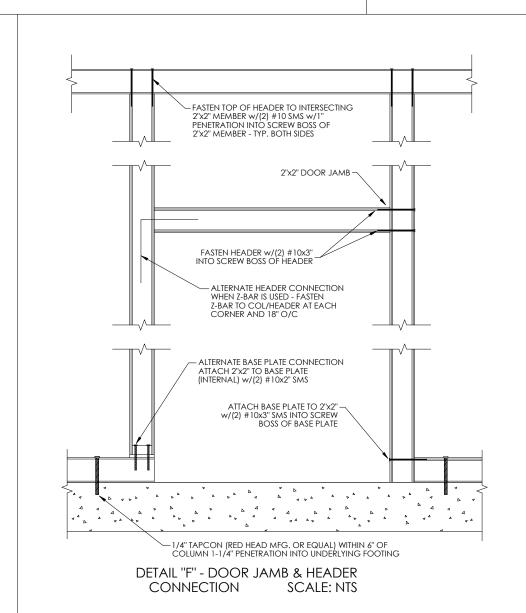
2X4 S.M.B. (1) 1/4" X 2-1/4" S.S. TAPCON & (2) # 12 X 3/4" S.M.S.

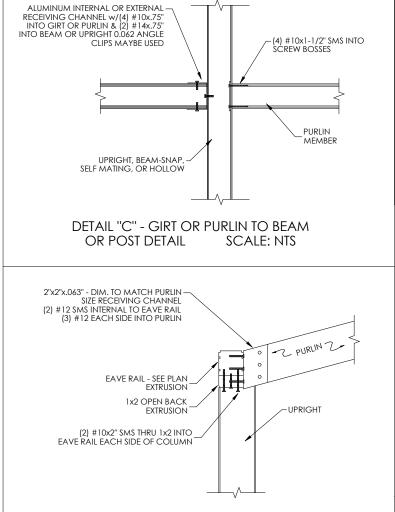
2X5 S.M.B. (1) 1/4" X 2-1/4" S.S. TAPCON & (2) # 12 X 3/4" S.M.S.

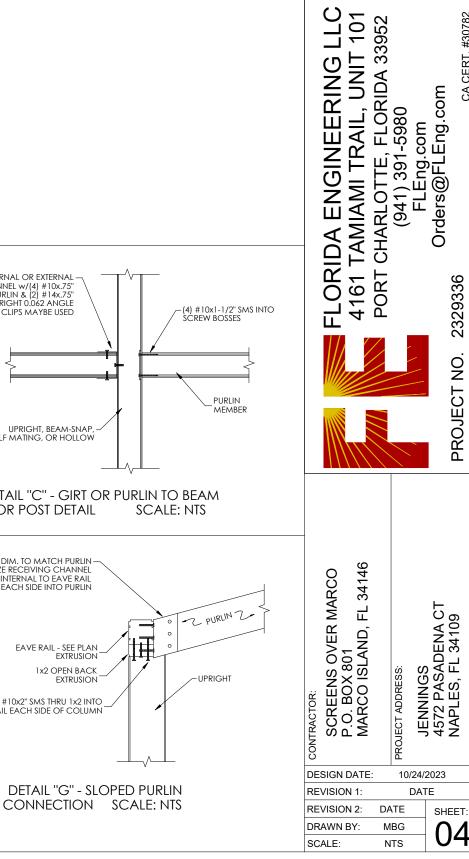
2X6 S.M.B. (2) 1/4" X 2-1/4" S.S. TAPCON & (3) # 12 X 3/4" S.M.S. 2X7 S.M.B. (2) 1/4" X 2-1/4" S.S. TAPCON & (3) # 12 X 3/4" S.M.S. 2X8 S.M.B. (3) 1/4" X 2-1/4" S.S. TAPCON & (4) # 12 X 3/4" S.M.S. 2X8 S.M.B. (3) 1/4" X 2-1/4" S.S. TAPCON & (5) # 12 X 3/4" S.M.S. 2X9 S.M.B. (4) 1/4" X 2-1/4" S.S. TAPCON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

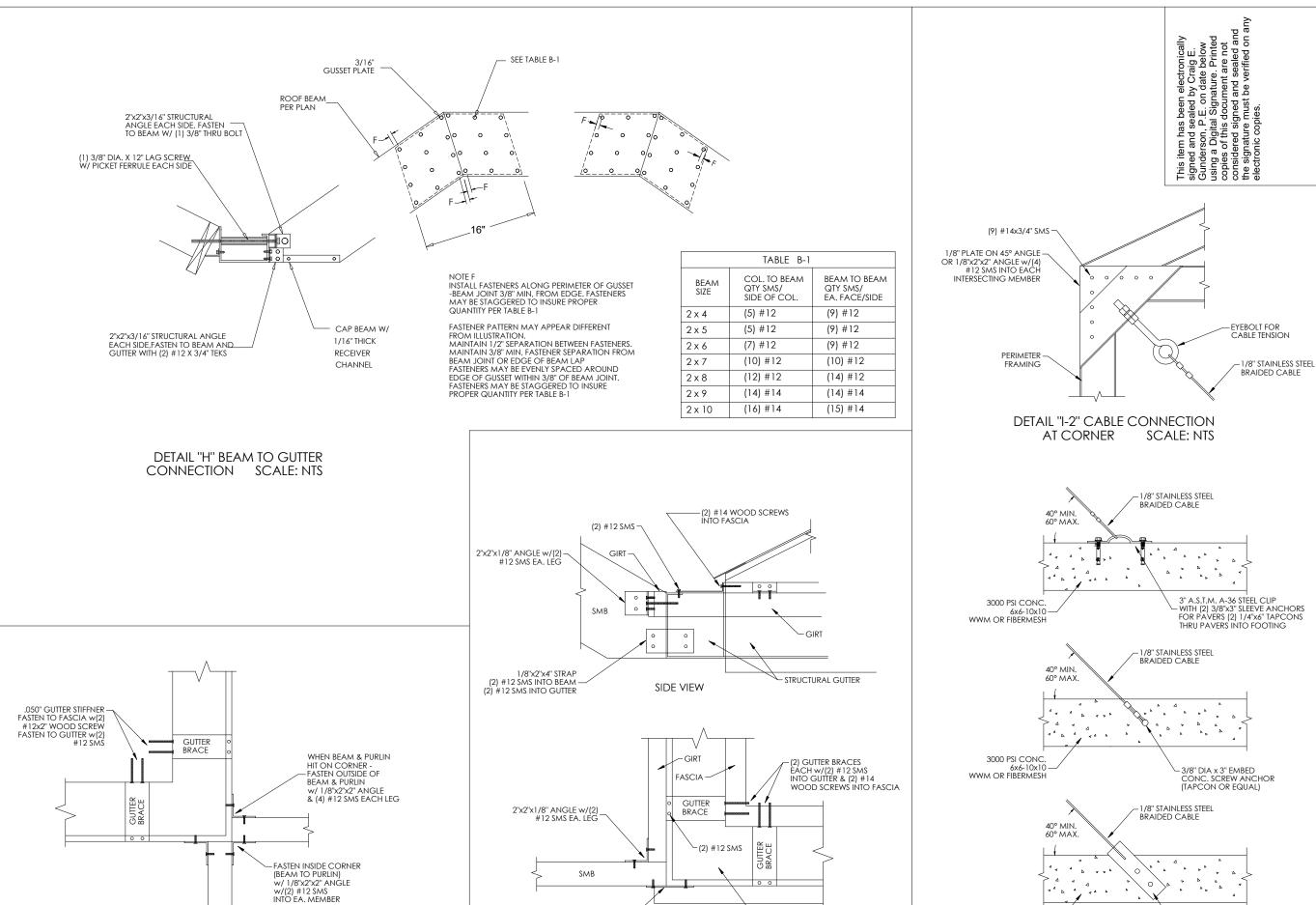












1/8"x2"x4" STRAP (2) #12 SMS INTO BEAM — (2) #12 SMS INTO GUTTER

GIRT

DETAIL "L" CORNER CONNECTION

**TOP VIEW** 

SCALE: NTS

STRUCTURAL GUTTER

(BEAM & PURLIN)

SCALE: NTS

DETAIL "M" BEAM & PURLIN TO GUTTER

CONNECTION

SCREENS OVER MARCO P.O. BOX 801 MARCO ISLAND, FL 34146 JENNINGS 4572 PASADENA CT NAPLES, FL 34109 PROJECT ADDRESS: 10/24/2023

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CA CERT. #30782

2329336

PROJECT NO.

**ENGINEERING LLC** 

**FLORIDA** 

TAMIAMI

4161 PORT

DESIGN DATE: REVISION 1: DATE REVISION 2: DATE SHEET: DRAWN BY: MBG

SCALE:

1.5'x5.5" ALUM. STRAP w/(2) 3/8" DIA. x 3" MASONRY ANCHOR (TAPCON OR EQUAL)

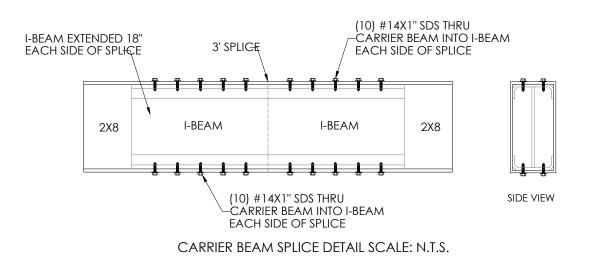
DETAIL "I-1" CABLE CONNECTION

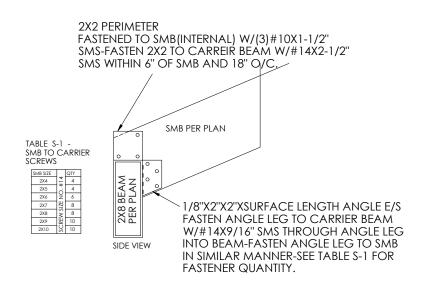
AT FOUNDATION SCALE: NTS

3000 PSI CONC

6x6-10x10 WWM OR FIBERMESH

NTS







1/8"X2"X2"XSURFACE LENGTH ANGLE E/S

W/#14X9/16" SMS THROUGH ANGLE LEG INTO BEAM-FASTEN ANGLE LEG TO SMB

FASTEN ANGLE LEG TO CARRIER BEAM

IN SIMILAR MANNER-SEE TABLE S-1 FOR

FASTENER QUANTITY.

DETAIL SCALE: N.T.S.

(FOR SCREEN ATTACHMENT)

2X8 PER F

SIDE VIEW

**ROOF BEAM TO CARRIER BEAM CONNECTION #2** 

SMB PER PLAN

SMB TO CARRIER SCREWS



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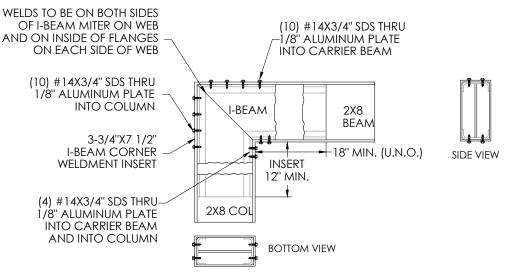
34146 SCREENS OVER MARCO P.O. BOX 801 MARCO ISLAND, FL 3414

JENNINGS 4572 PASADENA CT NAPLES, FL 34109 PROJECT ADDRESS:

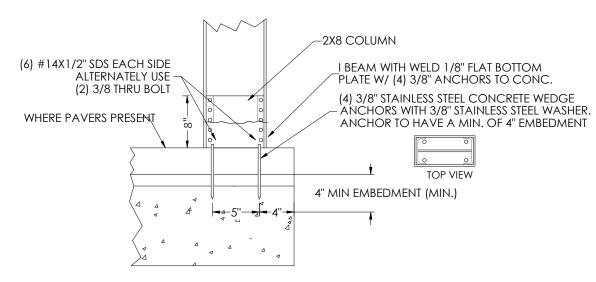
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REVISION 2: DATE SHEET: DRAWN BY: MBG SCALE: NTS

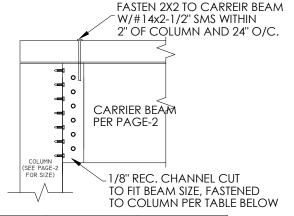
ROOF BEAM TO CARRIER BEAM CONNECTION DETAIL SCALE: N.T.S.





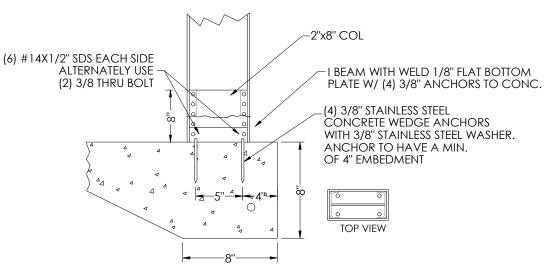


ANCHORING 2X8 POST w/ PAVERS CONNECTION DETAIL SCALE: N.T.S.



BEAM SIZE	QUANTITY/ SIZE LEG TO BEAM E/S	QUANTITY/SIZE TO COL. INTERNAL
2X8	(7) #14 - (4) #16	(12) #14 - (6) #16
2X9	(8) #14 - (5) #16	(14) #14 - (6) #16
2X10	(9) #14 - (6) #16	(14) #14 - (7) #16

BEAM TO COLUMN CONNECTION DETAIL SCALE: N.T.S.



ANCHORING 2X8 POST CONNECTION DETAIL SCALE: N.T.S.