

**CONTRACTOR: TIMBERLAKE ALUMINUM CONSTRUCTION**  
**DESIGN CRITERIA:**

**Applicable Codes, Regulations, and Standards**

- 1 The 2010 Florida Building Code, specifically Chapter 16 Structural Design, Chapter 20 Aluminum, and Chapter 23 Wood
- 2 AA ASM 35 and Specifications for Aluminum Structures, Part 1-A of the Aluminum Design Manual prepared by The Aluminum Association, Inc. Washington, D C., 2005 Edition
- 3 ASCE 7-10

**Wind Loads**

- 1 Building Occupancy Category, Paragraph 1604.5 and Table 1604.5
- Risk Category 1.**
- 2 Basic Wind Speed, Table 1609C, State of Florida Debris Region & Basic Wind Speed, Paragraph 1609.3.1 and Table 1609.3.1 Equivalent Basic Wind Speed.  
 $V_{ULT} = 120 \text{ MPH}$ ,  $V_{ASD} = 93 \text{ MPH}$
- 3 Exposure Category, Paragraph 1609.4.3 **B**
- 4 Screen Roof Enclosure Table 2002.4

**Foundation Design**

**New 8" x 8" footing w/(1) #5 Cont. 31" overlap at joints on 3" chairs and poured w/ 2,500 PSI concrete. The foundations are based on a minimum soil bearing pressure of 1,500 psf.**

**Specifications**

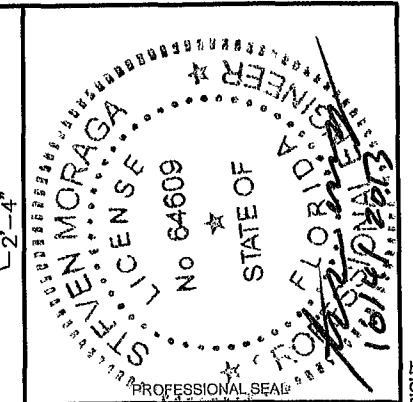
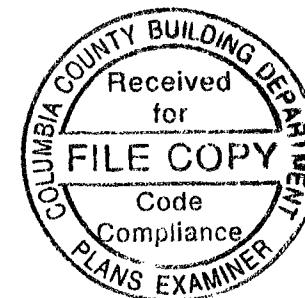
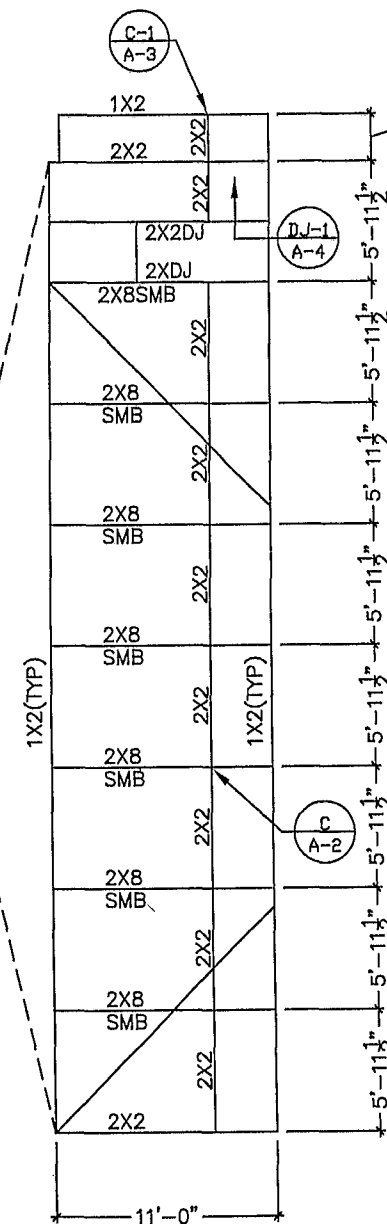
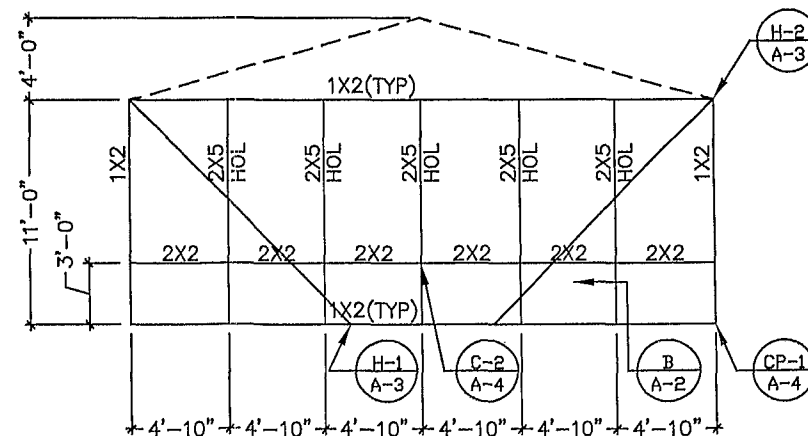
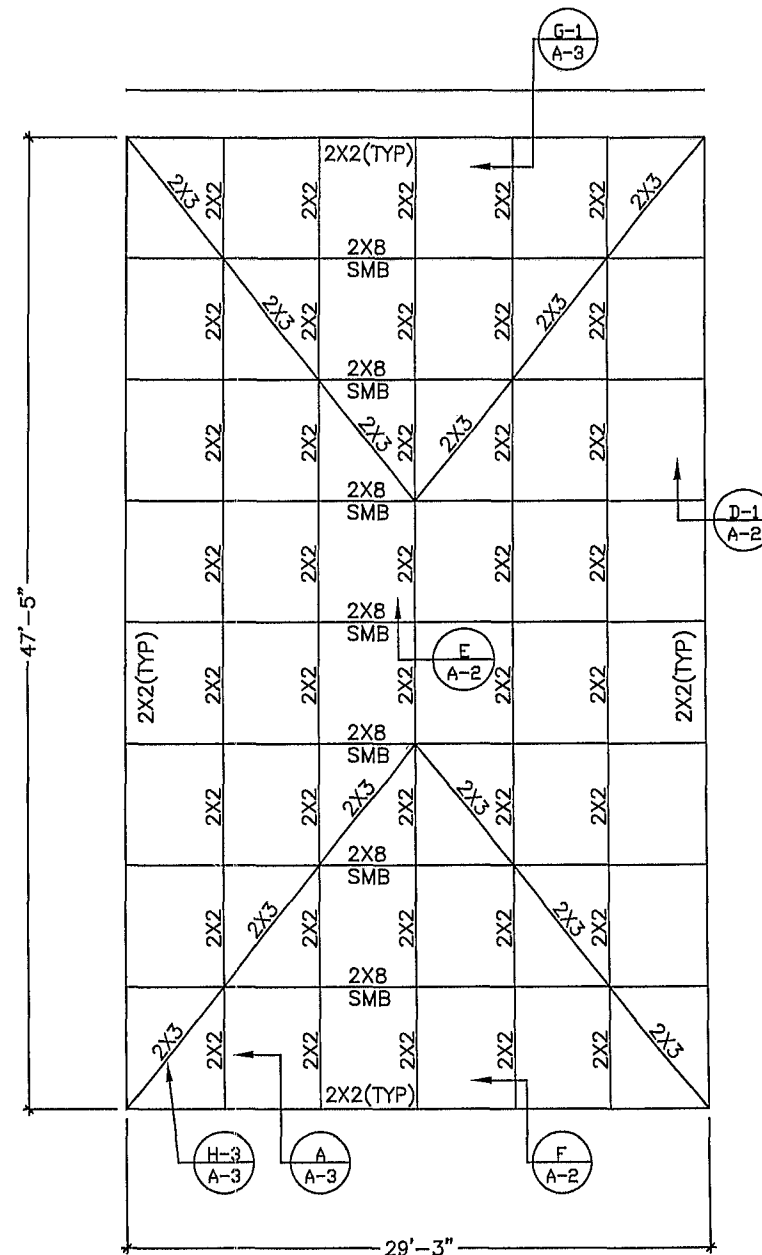
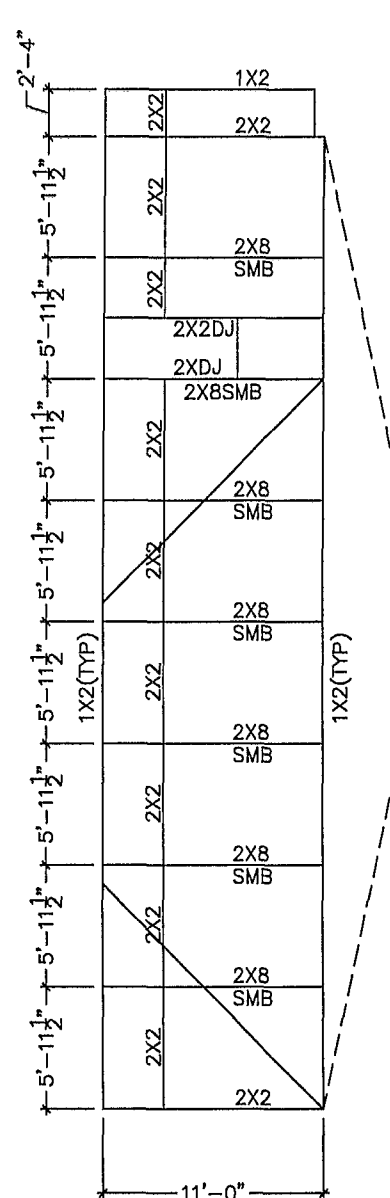
The following specifications are applicable to this project

- 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 and place concrete per American Concrete Institute Manual of Standard Practice, Parts 1, 2, and 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
  - g. Concrete shall be placed over a polyethylene vapor barrier
  - h. All aluminum components embedded within concrete shall be coated with a bituminous paint or epoxy
- 2 Aluminum extrusions shall be 6005 T5 Alloy
- 3 Fasteners are required to be SAE Grade 2 or better zinc plated
- 4 All Self Mating Beam Sections are to be stitched with either #14 screws 6" from ends and 24" center to center or #12 screws 6" from ends and 12" center to center
- 5 The minimum nominal thickness of protector panels (kickplates) shall be an industry standard of 0.024 inches
- 6 Screened enclosures containing swimming pools shall comply with the applicable requirements of FBC R4101.17 Residential Swimming Barrier requirements
- 7 Screen material shall be 18/14 screen, unless approved by Suncoast Architecture & Engineering, LLC
- 8 Door location shall be determined by contractor in the field
- 9 When installing pavers over concrete slab or footing which are supporting aluminum members, such as continuous screen tracks or upright, the pavers must be bonded to the concrete with an epoxy, thinset, or 3,000 PSI grout to ensure full positive contact with concrete.
- 10 Design shall be based upon "RIGID" upright analysis unless approved by Suncoast Architecture & Engineering, LLC

**Roof Type**

Roof Type HIP GABLE

**WIND SPEED AND EXPOSURE HAVE BEEN DETERMINED USING THE ADVANCED TECHNOLOGY COUNCIL'S WEBSITE AND GOOGLE EARTH.**



PROFESSIONAL ENGINEER

STEVEN MORAGA, P.E.  
FLORIDA LICENSE: 64609

SUNCOAST ARCHITECTURE  
& ENGINEERING, LLC  
13630 58TH STREET NORTH SUITE 101  
CLEARWATER FL 33760  
TEL: (727) 532-9000  
FAX: (727) 532-9008

PROJECT ADDRESS:  
HINSON  
625 NW CARTER ROAD  
WHITE SPRINGS  
FLORIDA 32096

DRAWN BY  
SA

DATE DRAWN  
10/04/13

REVISION

1 -  
2 -

SHEET NO

A-1

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# ALUMINUM MEMBERS DIMENSIONS

## HOLLOW SECTIONS

2 x 2 2" x 2" x 0.046"  
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 0.040"  
1 x 3 1" x 3" x 0.045"

## SNAP SECTIONS

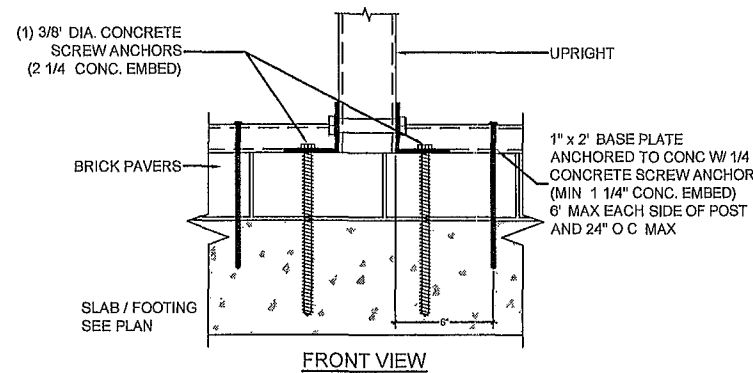
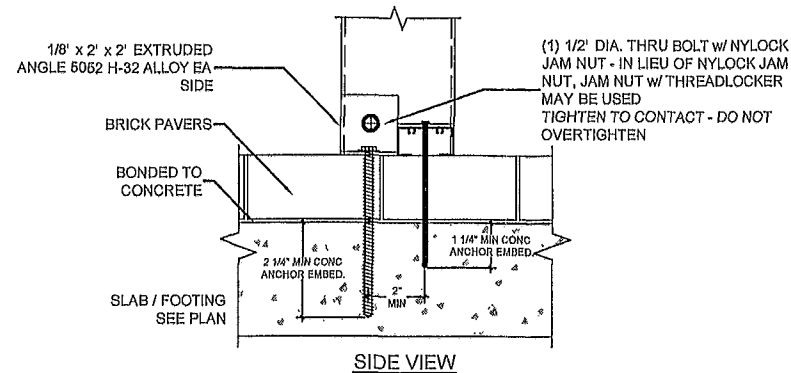
2 x 2 Snap 2" x 2" x 0.045"  
2 x 3 Snap 2" x 3" x 0.050"  
2 x 4 Snap 2" x 4" x 0.045"

## SELF MATING (SMB)

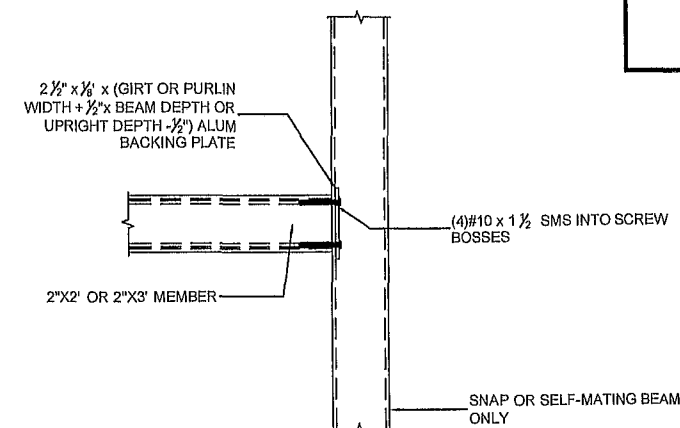
2 x 4 SMB 2" x 4" x 0.044" x 0.100"  
2 x 5 SMB 2" x 5" x 0.050" x 0.100"  
2 x 6 SMB 2" x 6" x 0.050" x 0.120"  
2 x 7 SMB 2" x 7" x 0.057" x 0.120"  
2 x 8 SMB 2" x 8" x 0.072" x 0.124"  
2 x 9 SMB 2" x 9" x 0.072" x 0.124"  
2 x 10 SMB 2" x 10" x 0.092" x 0.398"

MINIMUM FASTENER EDGE DISTANCE, 1/2"  
MINIMUM FASTENER SPACING 3/4"

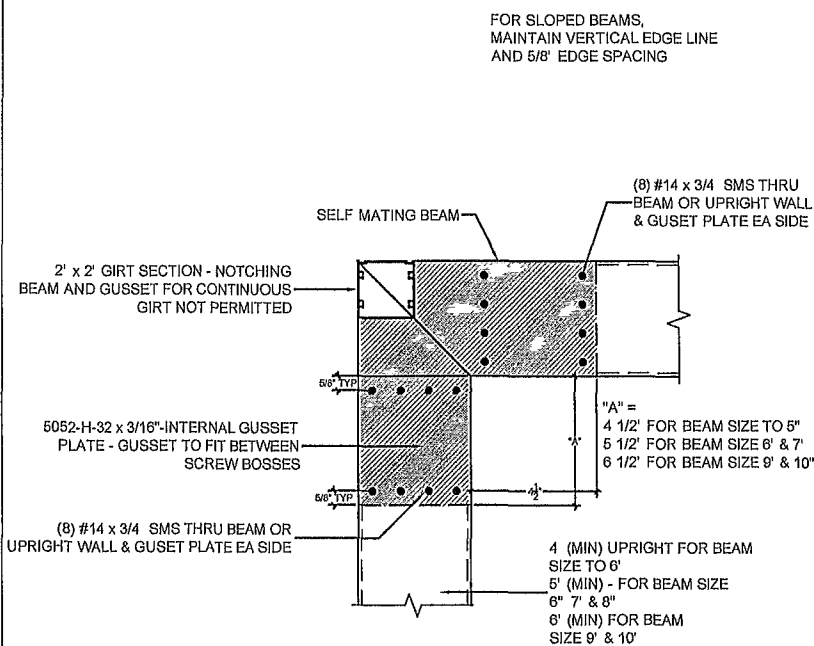
**CONCRETE SCREW ANCHOR:**  
SIMPSON TITEN HD OR EQUIVALENT  
**SHEET METAL SCREWS (SMS):**  
ITW / BUILDEX OR EQUIVALENT



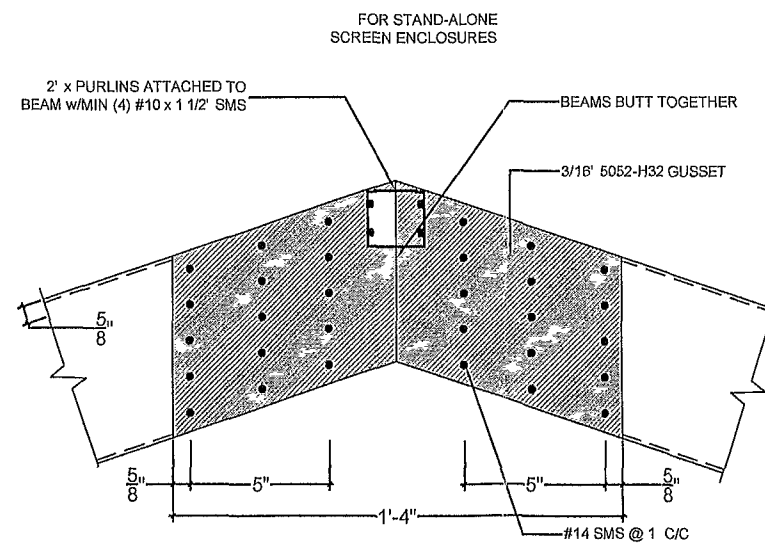
**B**  
**A-2** 2' x 4' OR LARGER UPRIGHT TO CONCRETE W/PAVERS DETAIL  
SCALE: NTS



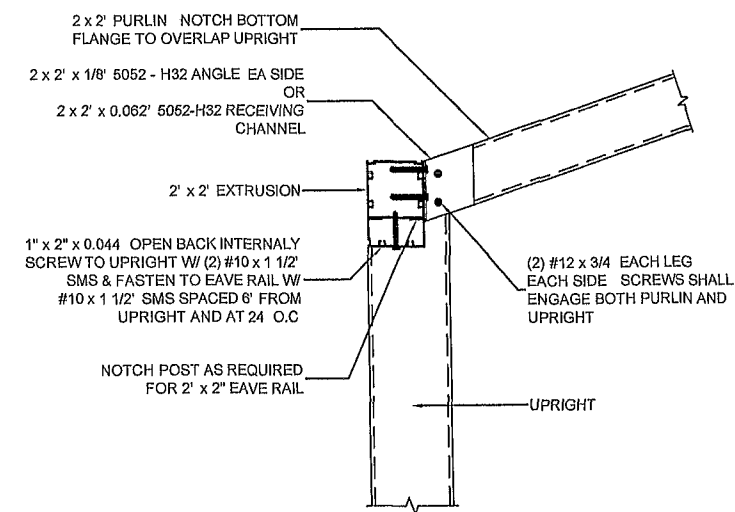
**C**  
**A-2** PURLIN OR GIRT TO BEAM OR POST DETAIL  
SCALE: NTS



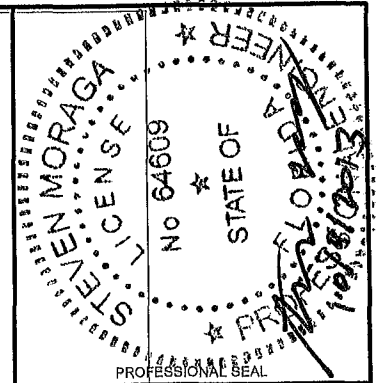
**D-1**  
**A-2** UPRIGHT TO BEAM CONNECTION  
SCALE: NTS



**E**  
**A-2** TYPICAL INTERNAL OR EXTERNAL GUSSET DETAIL - RIGID MEDIUM  
SCALE: NTS



**F**  
**A-2** SLOPED PURLIN CONNECTION DETAIL  
SCALE: NTS



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CLEARWATER FL 33760  
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FLORIDA LICENSES: AA26001769 & CA #28841

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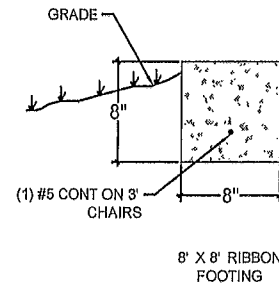
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**A-2**

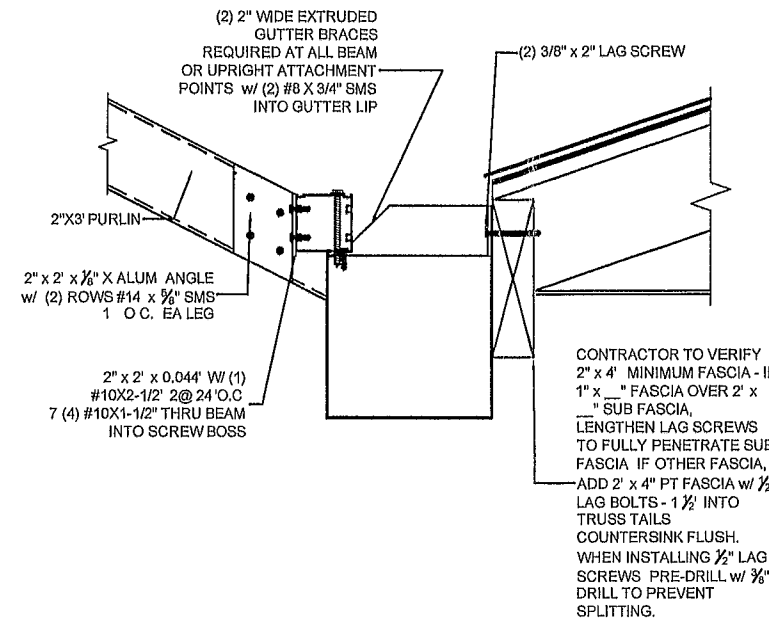
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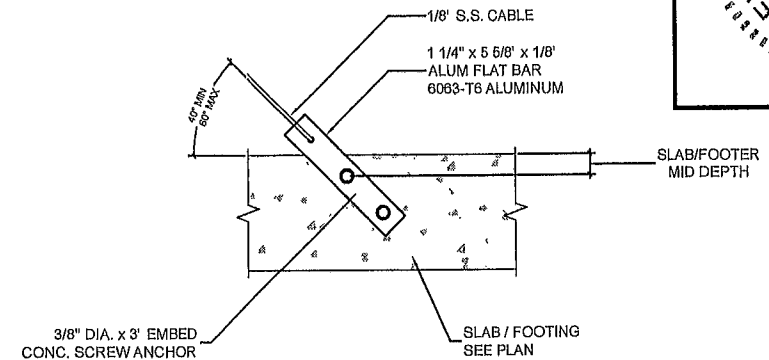
NOTES FOR ALL FOUNDATION TYPES

- 1 THE FOUNDATIONS SHOWN ARE BASED ON A MIN SOIL BEARING PRESSURE OF 1,500 PSF
- 2 THE SLAB/FOUNDATION SHALL BE CLEARED OF DEBRIS, ROOTS AND COMPACTED PRIOR TO PLACEMENT OF CONC.
- 3 CONCRETE SHALL BE PER SPECIFICATIONS ON SHEET A-1
- 4 SOIL TO BE TERMITE TREATED PER 2010 FLORIDA BUILDING CODE, SECTION R318.1

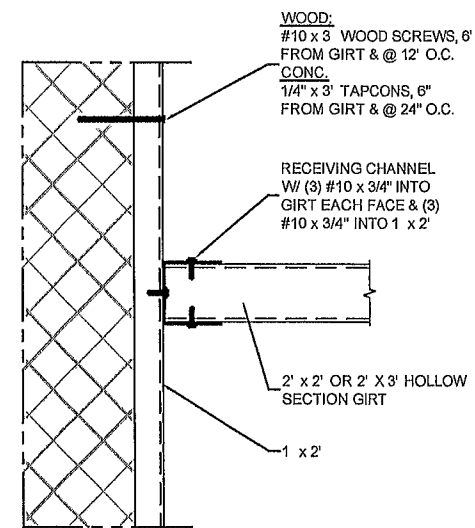
A  
A-3 CONTINUOUS FOOTING  
SCALE: NTS



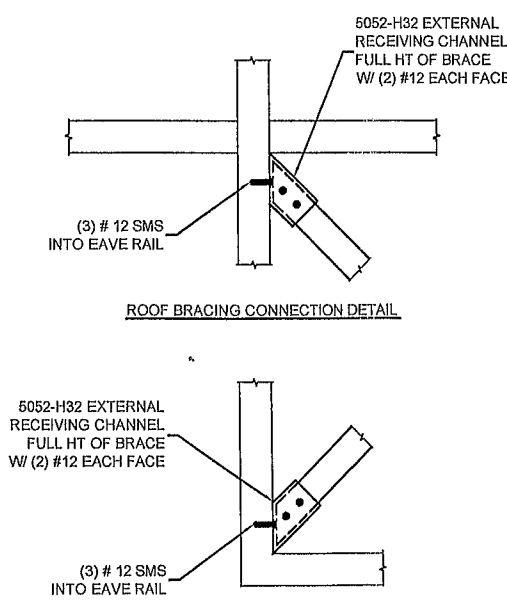
G-1  
A-3 GUTTER BRACE & MATING ELEMENT ATTACHMENT DETAIL  
SCALE: NTS



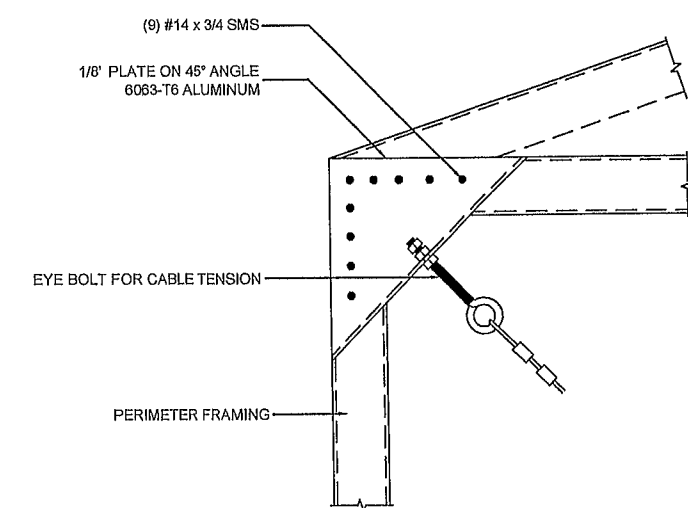
H-1  
A-3 CABLE CONNECTIONS AT FOUNDATION  
SCALE: NTS



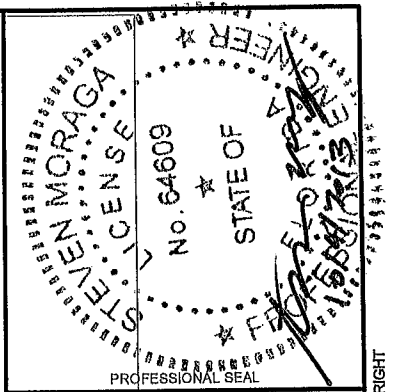
C-1  
A-3 1X2 TO HOST STRUCTURE DETAIL  
SCALE: NTS



H-3  
A-3 ROOF BRACING DETAIL  
SCALE: NTS



H-2  
A-3 CABLE CONNECTION AT CORNER  
SCALE: NTS



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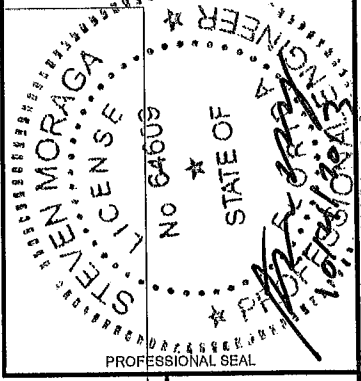
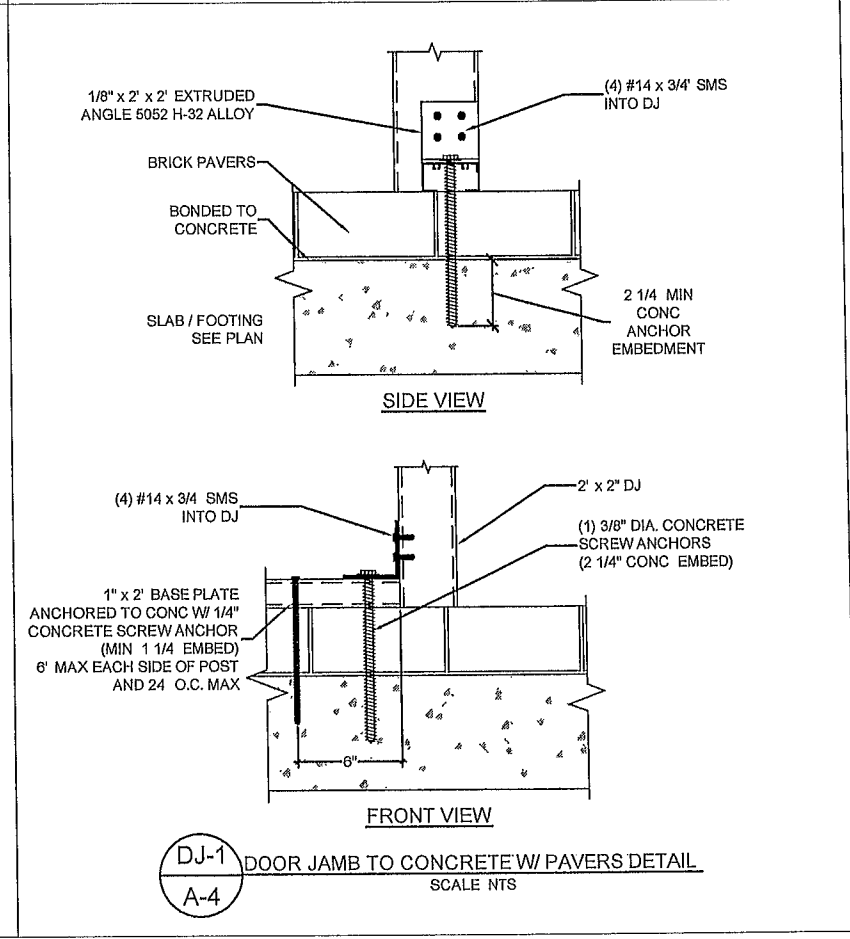
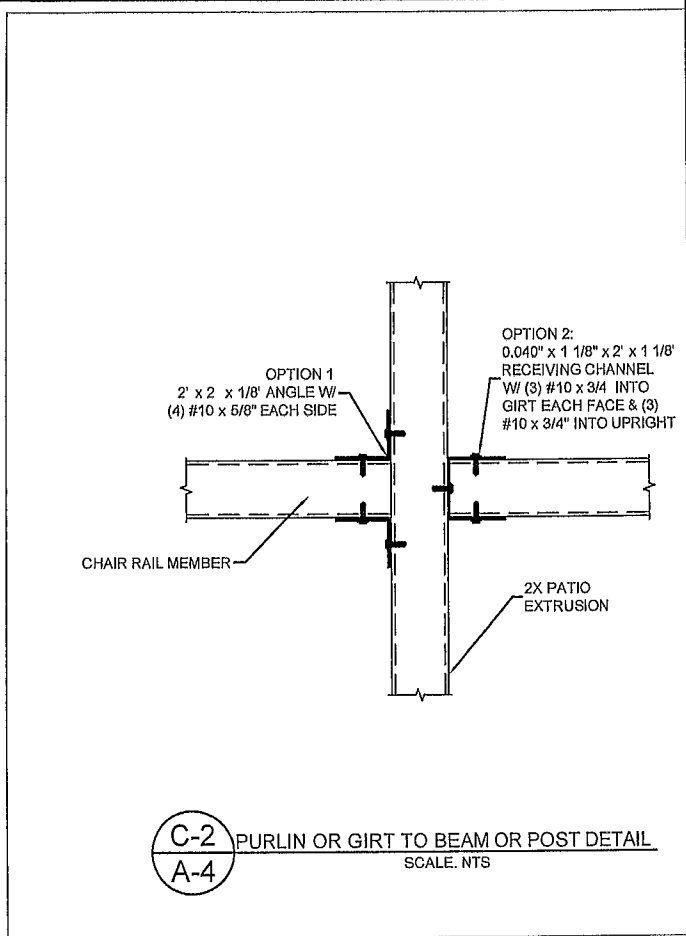
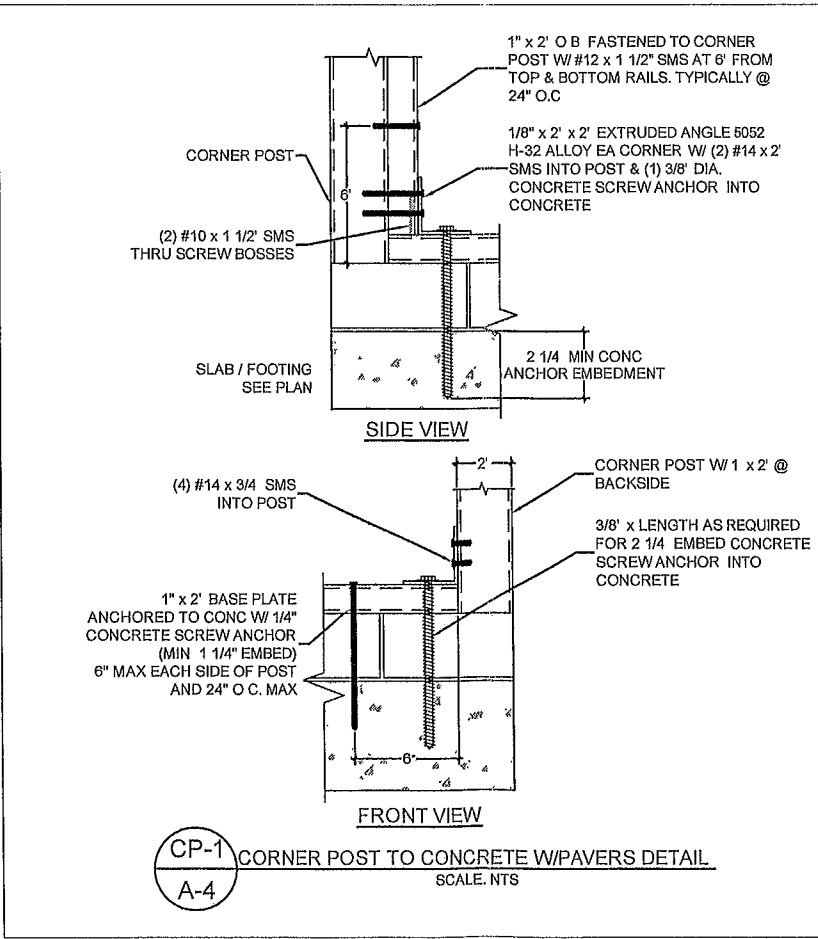
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