

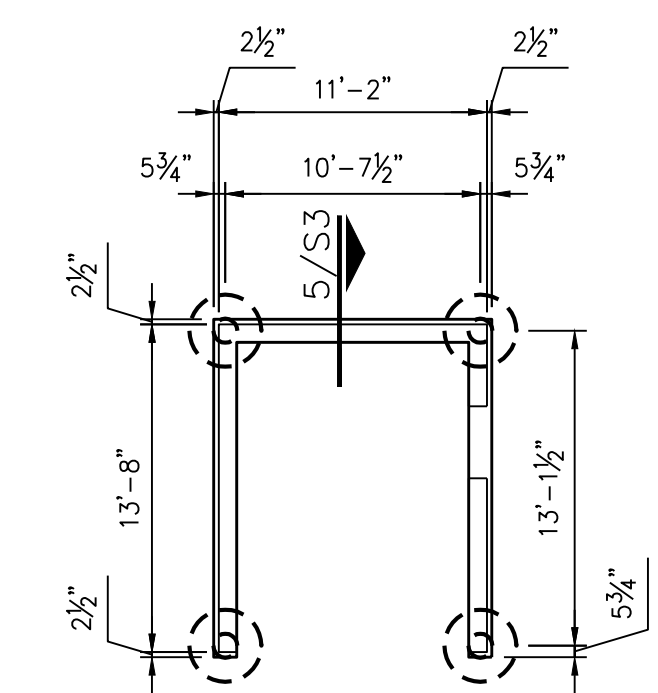
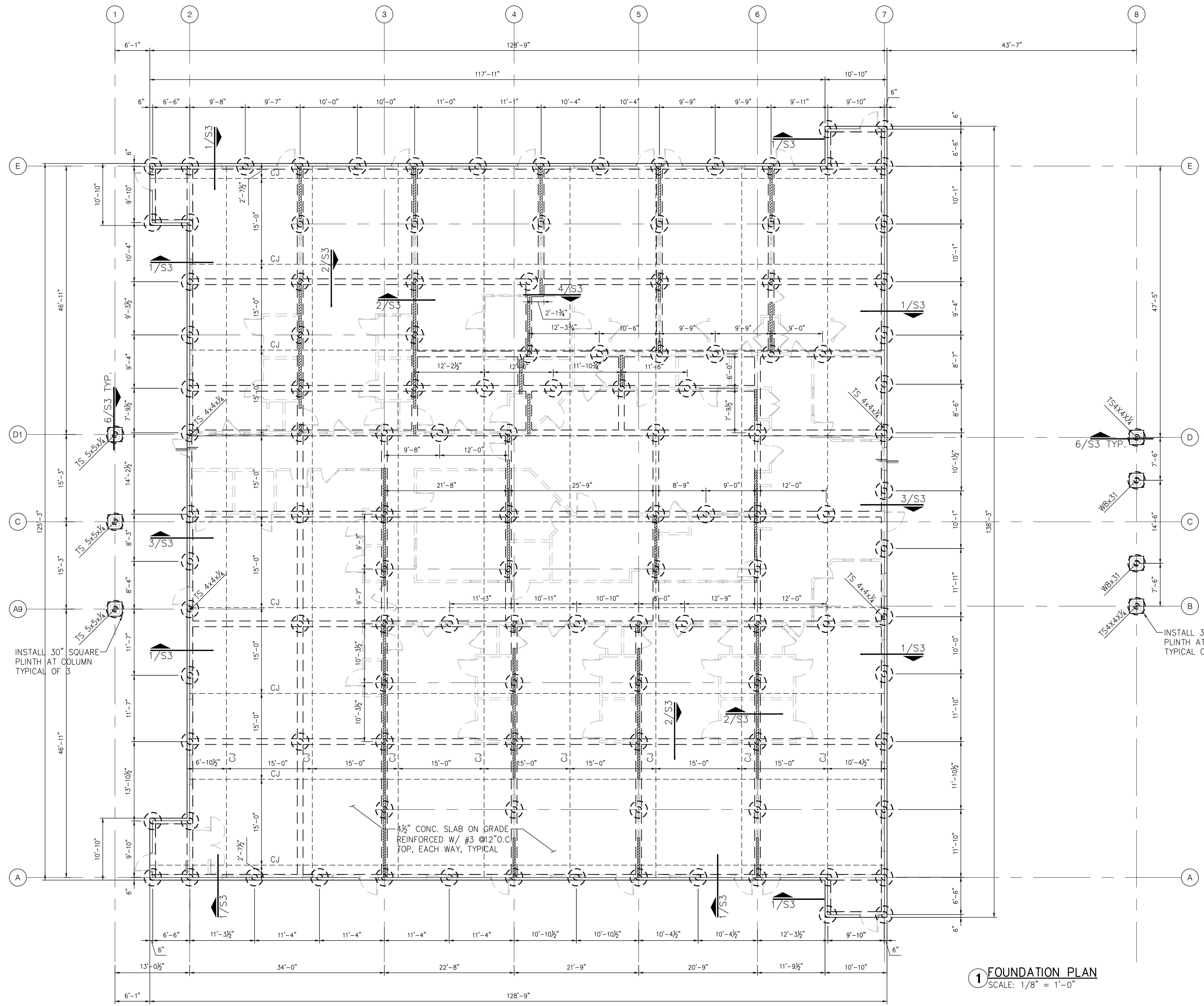
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### FOUNDATION NOTES

- ALL GRADE BEAMS ARE 12" WIDE UNLESS OTHERWISE NOTED.
- ALL DRILLED SHAFTS SHOULD BE CENTERED IN GRADE BEAMS IN BOTH DIRECTIONS UNLESS OTHERWISE NOTED.
- PRESET SHEAR WALL HOLDDOWN ANCHORS AND HURRICANE TIE ANCHORS AS REQUIRED.
- SAW CUT CONTROL JOINTS OF SLAB IN BOTH DIRECTIONS, JOINTS SHOULD BE MAXIMUM OF 15 FEET SPACING.
- PLACE 10 MIL VAPOR BARRIER UNDERNEATH BUILDING PAD AND EXTEND A MINIMUM OF 3 FEET BEYOND.
- PREPARE SUBGRADE AS SPECIFIED IN SHEET S3 AND PROJECT GEOTECHNICAL REPORT.
- INSTALL REINFORCED CONCRETE PLINTH WHERE AS NEEDED WHERE COLUMN OR STUD WALL BASE ANCHOR BOLTS DO NOT HAVE 2 INCH SIDE CONCRETE PROTECTION. PLINTH SHOULD MATCH DEPTH OF GRADE BEAM.

### LEGEND

- STUD WALL ABOVE
- INTERIOR LOAD-BEARING WALL
- 12" DRILLED SHAFT WITH 36" UNDERREAM BELL
- CONTROL JOINT / CONSTRUCTION JOINT



**1 FOUNDATION PLAN**  
SCALE: 1/8" = 1'-0"

**2 DUMPSTER FOUNDATION PLAN**  
SCALE: 1/8" = 1'-0"

**IVY KIDS EARLY LEARNING CENTER**  
 LOT COM21  
 CROSS CREEK RANCH  
 6407 CROSS CREEK BEND LANE  
 FULSHEAR, Tx 77441

MISSION ENGINEERING INC.  
 10370 RICHMOND AVE, #560  
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 TPEF Registration No. F-11771



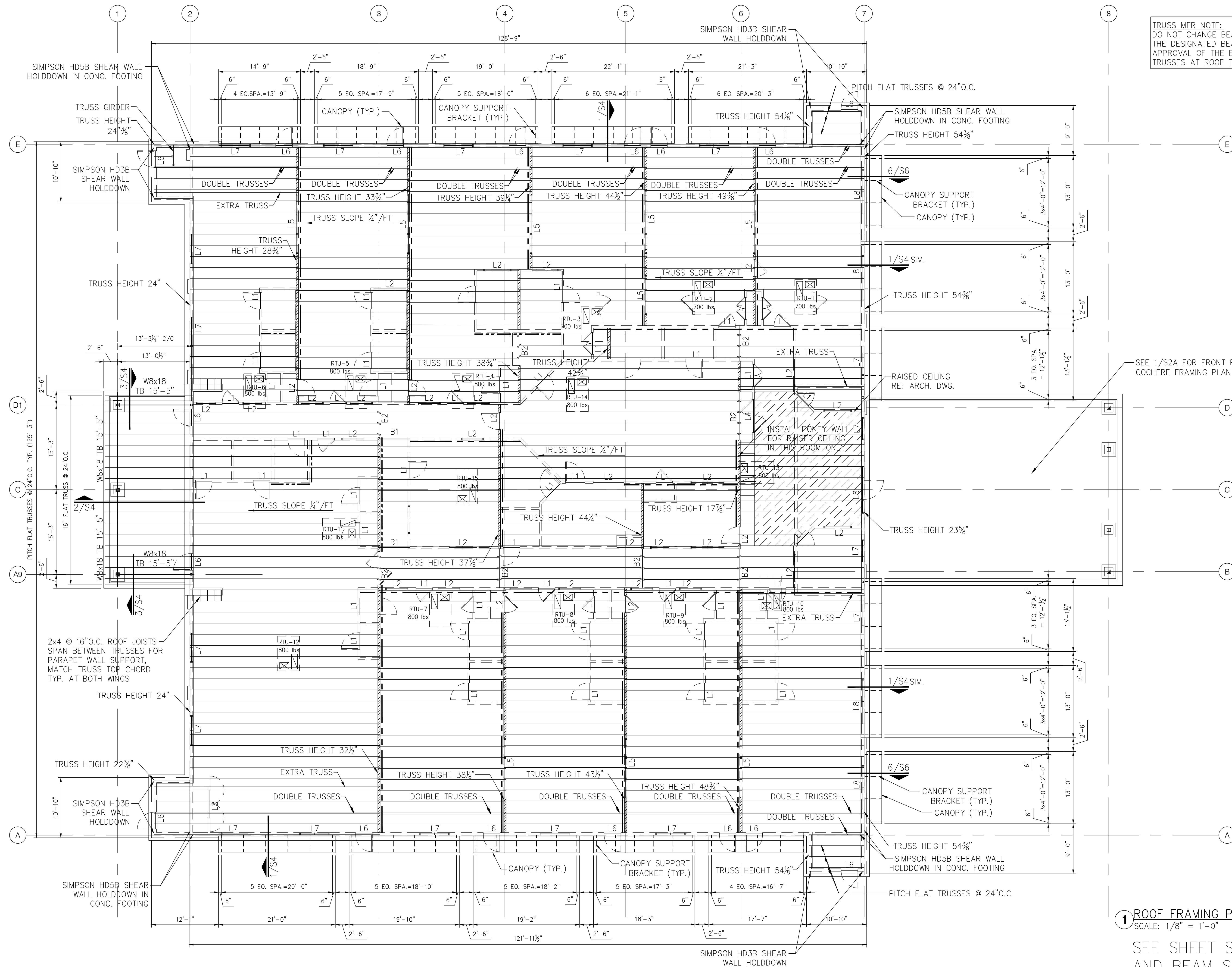
06/20/2019

DRAWING TITLE  
**FOUNDATION PLAN**

DRAWN BY: HW      CHECKED BY: EL

DATE: 06/20/2019      JOB NO.: 1903081

DRAWING NO.: **S1**



**TRUSS MFR NOTE:**  
DO NOT CHANGE BEARING LOCATIONS OF TRUSSES FROM THE DESIGNATED BEARING WALLS OR BEAMS WITHOUT THE APPROVAL OF THE ENGINEER-OF-RECORD. STRENGTHEN TRUSSES AT ROOF TOP UNITS SUPPORTS PER THIS DRAWING.

SEE 1/S2A FOR FRONT PORTE COCHERE FRAMING PLAN

**1 ROOF FRAMING PLAN**  
SCALE: 1/8" = 1'-0"

SEE SHEET S2A FOR PLAN NOTES AND BEAM SCHEDULE.

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**IVY KIDS EARLY LEARNING CENTER**  
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06/20/2019

DRAWING TITLE  
**ROOF PLAN**

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DATE 06/20/2019	JOB NO. 1903081
DRAWING NO. <b>S2</b>	

**GENERAL NOTES:**

FOR SOIL INFORMATION AND SITE PREPARATIONS REFER TO THE "GEOTECHNICAL STUDY, PROPOSED IVY KIDS FACILITY ON CROSS CREEK BEND LANE, FULSHEAR, TEXAS" BY TEXAS GEOTECHNICAL CONSULTANTS, LLC., HOUSTON, TEXAS TGC REPORT NO. 903113, DATED APRIL 1, 2019.

EXCAVATION FOR FOOTINGS SHALL BE SCHEDULED TO PERMIT PLACEMENT OF CONCRETE IMMEDIATELY FOLLOWING EXCAVATION. PROTECT EXCAVATION TO MAINTAIN AN UNDISTURBED BEARING SURFACE.

BUILDING SITE SHOULD BE PREPARED IN ACCORDANCE WITH "SITE PREPARATION" ON PAGE 13, SECTION 11.0 PARAGRAPHS 1 THROUGH 5 OF PROJECT GEOTECHNICAL REPORT. REFER TO CIVIL ENGINEERING DESIGN PLANS, GRADING PLAN FOR BUILDING PAD ELEVATION AND EXISTING TOPOGRAPHIC ELEVATION. ANY FILL REQUIRED UNDER BUILDING SLAB MUST BE COMPACTED STRUCTURAL FILL. THE PLACEMENT OF STRUCTURAL FILL SHALL BE IN COMPLIANCE WITH SPECIFICATIONS AS OUTLINED IN PROJECT GEOTECHNICAL STUDY. REFER TO CIVIL ENGINEERING GRADING PLAN FOR AMOUNT OF FILL, IF NECESSARY, AT BUILDING PAD CONSTRUCTION.

CONCRETE WORK SHALL BE IN ACCORDANCE WITH BUILDING CODE REQUIREMENT FOR REINFORCED CONCRETE, ACI 318.

ALL CONCRETE SHALL BE NORMAL WEIGHT (SAND AND GRAVEL) WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE, ACI 315. UNLESS SHOWN OTHERWISE, LAP CONTINUOUS BARS 30 BAR DIAMETERS AT SPLICES. REBAR SHOULD CONFORM TO ASTM A615, GRADE 60.

PROVIDE 1-#5x4'-0" CORNER BAR, TOP AND BOTTOM AT EXTERIOR FACE OF GRADE BEAMS AT CORNERS, AND PROVIDE 4-#5x4'-0" CORNER BARS, (2 TOP & 2 BOT.) AT T-INTERSECTIONS.

AT SLABS CAST ON GRADE, PROVIDE BAR CHAIRS AT 4'-0" SPACING OFF CENTER EACH WAY FOR SUPPORT OF REBAR.

UNLESS SHOWN OTHERWISE, CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:  
 FOOTINGS 3"  
 GRADE BEAMS 2" TOP; 3" BOTTOM & SIDES  
 SLAB ON GRADE 3/4" TOP (INTERIOR); 1 1/2" TOP (EXTERIOR)

DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST EDITION.

ALL STRUCTURAL SHAPES AND PLATES SHALL CONFORM TO ASTM A36. ALL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S. TUBE SHALL CONFORM TO ASTM A53, GRADE B.

UNLESS SHOWN OTHERWISE, CONNECTIONS SHALL BE SHOP WELDED AND FIELD BOLTED AND SHALL BE IN ACCORDANCE WITH THE STANDARDS OF THE AISC. ANCHOR BOLTS SHALL CONFORM TO ASTM A307. MACHINE BOLTS SHALL CONFORM TO ASTM A325 AND BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS RECOMMENDED BY THE RESEARCH COUNCIL OF ENGINEERING FOUNDATION, LATEST EDITION. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 WITH WELDING ELECTRODES ASW A5.1 OR A5.5, E70XX. WELD SIZES NOT INDICATED SHALL BE 3/16 INCH FILLET WELDS. SPLICE SHALL BE DETAILED ON THE SHOP DRAWINGS.

PLACE A 10 MIL VAPOR BARRIER OF POLYTHYLENE UNDER ALL BUILDING SLABS. ALL SLABS SHALL BE MINIMUM OF 4 1/2 INCHES THICK.

DESIGN, FABRICATION, AND ERECTION OF WOOD SHALL BE IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.

WOOD FRAMING FOR INTERIOR AND EXTERIOR BEARING WALLS, ROOF AND FLOOR JOISTS, BEAMS, HEADERS, ETC., SHALL BE No. 2 GRADE SOUTHERN YELLOW PINE KILN DRIED, USED AT 19 PERCENT MOISTURE CONTENT. RAFTER & CEILING JOISTS MAY BE No. 3 GRADE SOUTHERN YELLOW PINE.

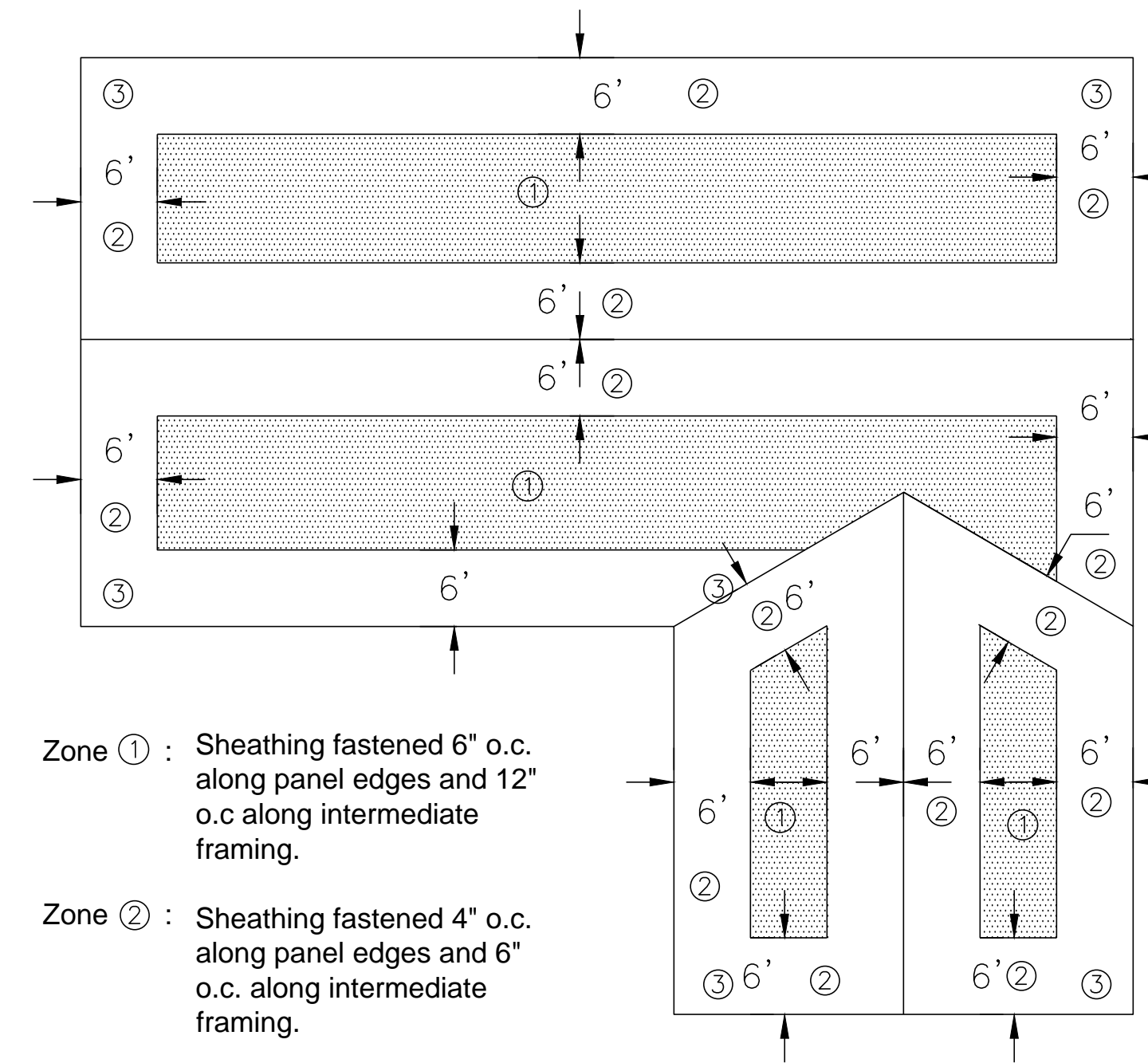
JOIST AND BEAM HANGERS SHALL BE OF SUCH CAPACITY TO SUPPORT THE SHEAR CAPACITY OF THE SUPPORTED JOIST OR BEAM. JOIST HANGERS SHALL BE CONSTRUCTED OF MINIMUM OF 16 GAGE GALVANIZED STEEL AND CONFORM TO THE REQUIREMENTS OF UNIFORM BUILDING CODE.

HOLLOW LOAD-BEARING MASONRY UNITS SHALL CONFORM TO ASTM C90 MADE WITH LIGHT WEIGHT AGGREGATE CONCRETE. MINIMUM ULTIMATE NET COMPRESSIVE STRENGTH SHALL BE 1,350 PSI.

MORTAR AND GROUT SHALL CONFORM TO ASTM C476. MINIMUM 28 DAY COMPRESSIVE STRENGTH, AS DETERMINED BY ASTM C91, SHALL BE 1,800 PSI FOR MORTAR AND 2,000 PSI FOR GROUT.

HORIZONTAL CMU WALL REINFORCING SHALL BE TRUSS TYPE OF 3/16" SIDE RODS & #9 GAGE TRUSS ROD CONFORMING TO ASTM A82 AND IN ACCORDANCE WITH UNIFORM OF 16" O.C. EXCEPT IMMEDIATELY ABOVE LINTELS AND BELOW SILLS SHALL BE INSTALLED IN FIRST AND SECOND JOINTS AT 8" O.C. LAP SPLICE REINFORCEMENT 12". MINIMUM MORTAR COVER SHALL BE 3/4".

BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE.  
 WIND SPEED:  $V_{ult}=130$  MPH, EXPOSURE C, IMPORTANCE FACTOR 1  
 LIVE LOADS:  
 ROOF: 20 PSF  
 NET WIND UP LIFT LOAD: 27 PSF ZONE 1  
 43 PSF ZONE 2  
 58 PSF ZONE 3

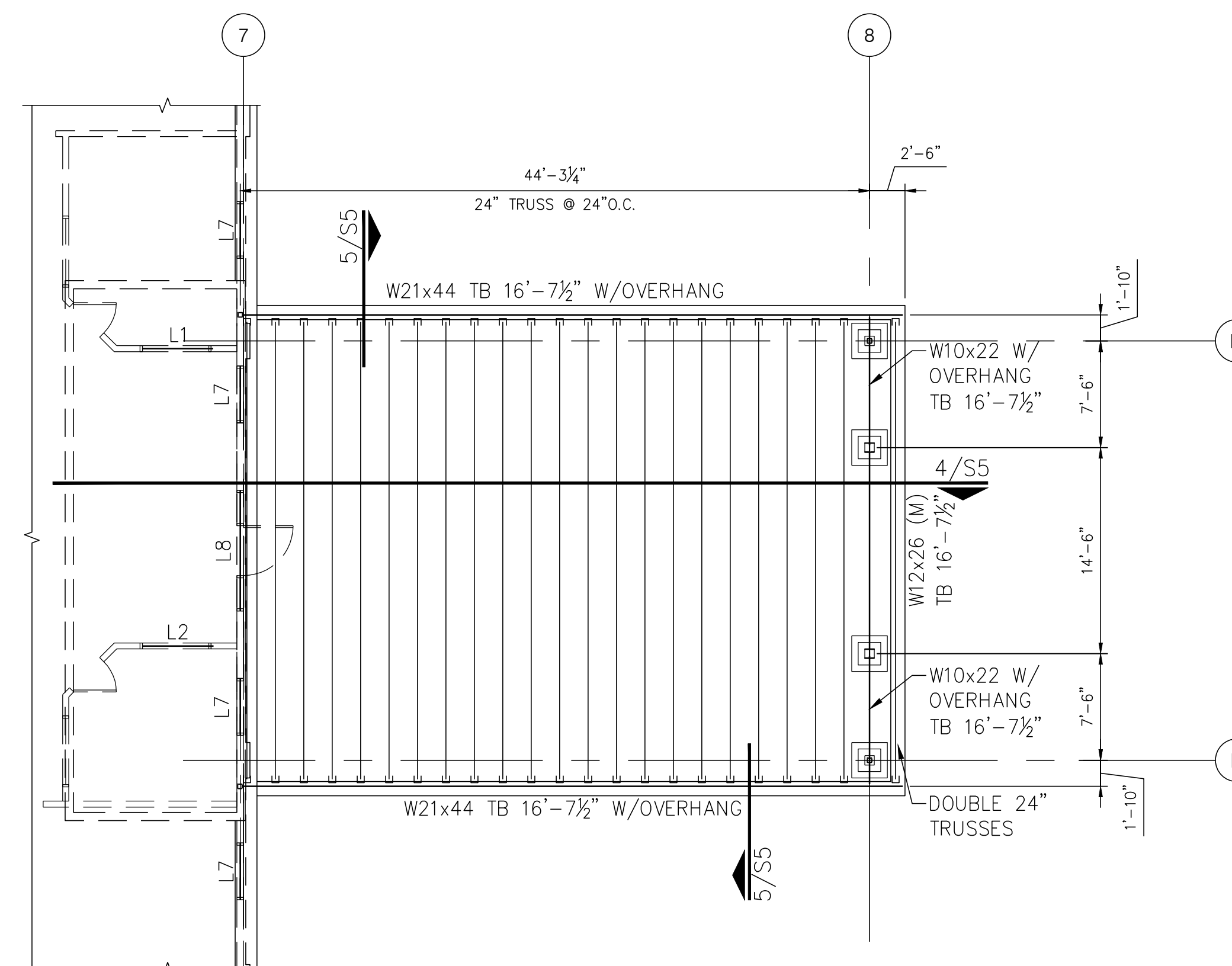


**2 ROOF DECK FASTENING DIAGRAM**  
N.T.S.

	HEADER AND BEAM SCHEDULE	JACK STUD/COLUMN
L1	2-2x6 HEADER	2
L2	2-2x8 HEADER	2
L3	2-2x10 HEADER	3
L4	2-2x12 HEADER	3
L5	3 1/2"x11 1/4" POWER BEAM HEADER	4
L6	3-2x6	2
L7	3-2x8	2
L8	3-2x10	3
B1	2-2X12 BEAM	3
B2	3 1/2"x11 1/4" POWER BEAM	5
B3	3 1/2"x14" POWER BEAM	6

**NOTES:**

- TRUSS LAYOUT SHOWN IS SCHEMATIC ONLY. THE TRUSS MFR SHALL SUBMIT ERECTION PLAN AND CALCULATIONS FOR ENGINEER'S APPROVAL. TRUSS MFR SHALL NOT CHANGE LOCATION OF LOAD-BEARING WALLS OR BEAMS. OTHERWISE, FOUNDATION NEEDS TO BE REVISED.
- TRUSS MFR SHALL COORDINATE WITH MEP DRAWINGS FOR EQUIPMENT LOADS, DUCT PENETRATIONS, AND ROOF DRAIN PENETRATIONS FOR THE TRUSS DESIGN. PITCH FLAT TRUSSES SHALL HAVE LEVEL BOTTOM CHORD AND 1/4"/FT SLOPE TOP CHORD.
- ROOF DESIGN LIVE LOAD = 20 PSF.
- DESIGN WIND SPEED  $V_{ult}=130$  MPH, EXPOSURE C, IMPORTANCE FACTOR 1.
- DENOTES 5/8" GYPSUM BOARD EACH FACE WITH 7" FASTENER SPACINGS, INSTALL SIMPSON STRONG-TIE HD3B SHEARWALL HOLDDOWN ANCHOR AT EACH END.
- /// DENOTES INTERIOR LOAD-BEARING WALL.
- (M) DENOTES WELDED MOMENT CONNECTION AT EACH END OF THE BEAM (SEE DETAIL ON D/S6).
- SEE ARCHITECTURAL PLANS FOR CEILING HEIGHTS OF BUILDING. THE WALLS PLATE HEIGHTS ARE SHOWN ON THIS DRAWING. CONTRACTOR MUST FIELD VERIFY SUCH PLATE HEIGHTS AND ACHIEVE TRUSS STRUCTURAL SLOPE AS INDICATED.
- FRAME ALL EXTERIOR WALLS OF MAIN BUILDING AND ALL EXTERIOR UTILITY ROOMS WITH 2x6 STUDS @ 16" O.C., FRAME INTERIOR LOAD-BEARING WALLS WITH 2-2x4 STUDS @ 16" O.C., FRAME REST OF INTERIOR WALLS WITH 2x4 STUDS @ 16" O.C., UNLESS OTHERWISE NOTED IN ARCHITECTURAL PLAN. USE S.Y.P. GRADE #2. PLATE HEIGHT IS 10'-3 1/4" UNLESS OTHERWISE NOTED.
- INSTALL 1/2" PLYWOOD SHEATHING ALONG EXTERIOR FACE OF MAIN BUILDING EXTERIOR WALLS AND EXTERIOR FACE OF ALL EXTERIOR UTILITY ROOMS, USE 8d COMMON NAILS @ 12" O.C. FOR INTERMEDIATE SUPPORTS AND @ 6" O.C. AT EDGES.
- USE GYPSUM BOARD NAIL @ 8" O.C. AT ALL INTERIOR WALLS WITH GYPSUM BOARD SHEATHING.
- ROOF DECK SHOULD BE 5/8" T&G PLYWOOD SHEATHING UNLESS OTHERWISE NOTED.
- ≡ INDICATES JOIST/BEAM HANGER.
- INSTALL 1/2" THICK CAP PLATE FOR ALL STEEL COLUMNS. TOP OF STEEL COLUMNS ELEVATION SHALL MATCH HIGHEST TOP OF BEAM ELEVATION WHICH FRAME INTO COLUMN.
- ALL TRUSSES UNDERNEATH ROOF TOP UNITS (RTU's) MUST BE DESIGNED FOR EXTRA 500 POUNDS CONCENTRATED LOAD PER EACH TRUSS.



**1 FRONT PORTE COCHERE FRAMING PLAN**  
SCALE: 1/8" = 1'-0"

REVISIONS AND ISSUANCE

NO. DATE DESCRIPTION

IVY KIDS EARLY LEARNING CENTER  
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 6407 CROSS CREEK BEND LANE  
 FULSHEAR, Tx 77441

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 CEILING JOIST PLAN

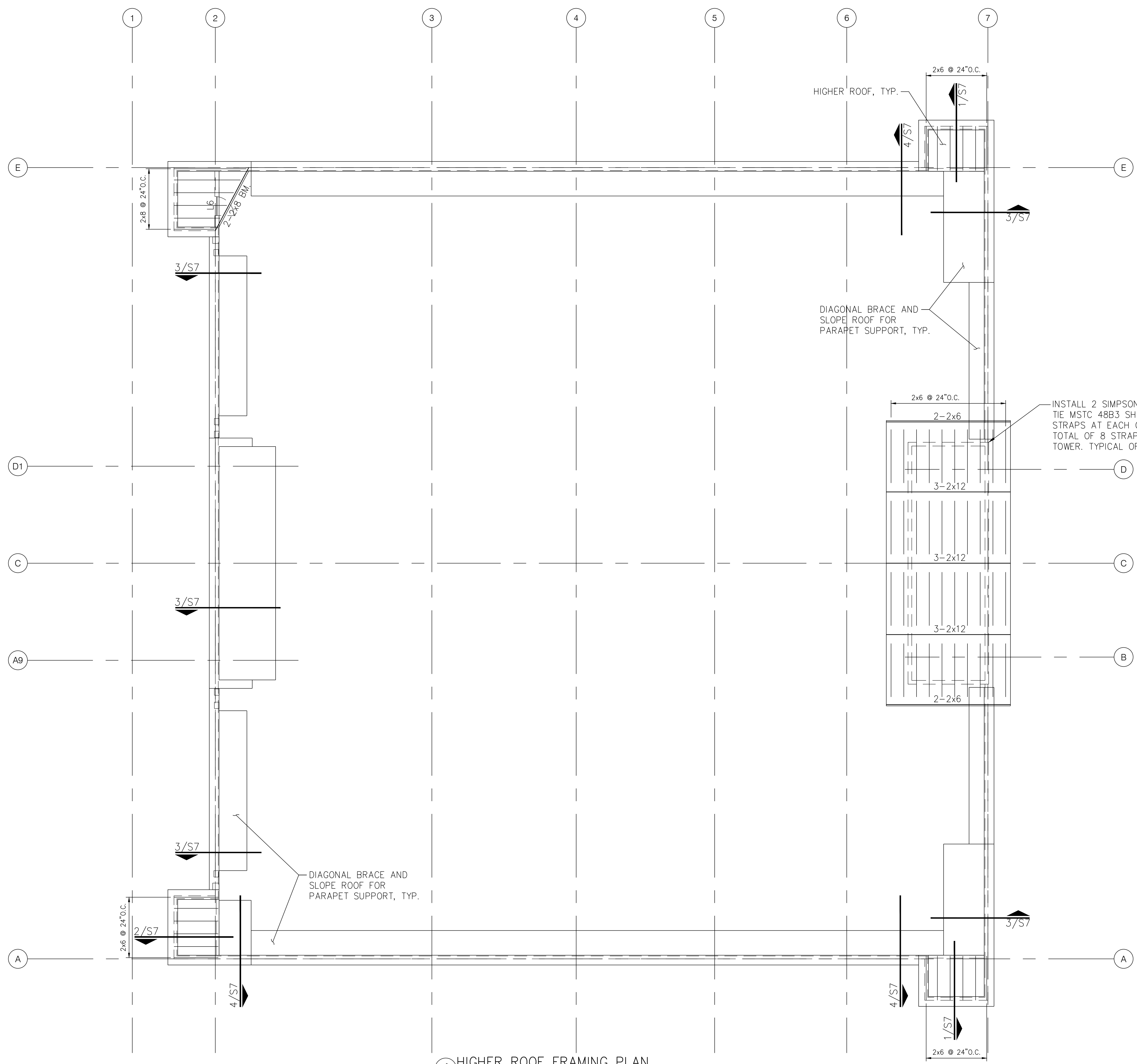
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- NOTES:
1. FRAME ALL WALLS OF 5 TOWERS WITH 2x6 STUDS @ 16" O.C., USE SOUTHERN YELLOW PINE GRADE #2 OR APPROVED EQUAL. PLATE HEIGHTS SHALL FOLLOW ARCHITECTURAL ELEVATIONS.
  2. INSTALL 1/2" PLYWOOD SHEATHING ALONG EXTERIOR FACE OF ALL 5 TOWERS. USE 8d COMMON NAILS @ 12" O.C. FOR INTERMEDIATE SUPPORTS AND @ 6" O.C. AT EDGES.
  3. USE GYPSUM BOARD NAIL @ 8" O.C. AT ALL INTERIOR WALLS WITH GYPSUM BOARD SHEATHING.
  4. ROOF DECK SHOULD BE 5/8" T&G PLYWOOD SHEATHING UNLESS OTHERWISE NOTED.

1 HIGHER ROOF FRAMING PLAN  
SCALE: 1/8" = 1'-0"

SEE SHEET S2A FOR PLAN NOTES AND BEAM SCHEDULE.

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 HIGHER ROOF PLAN

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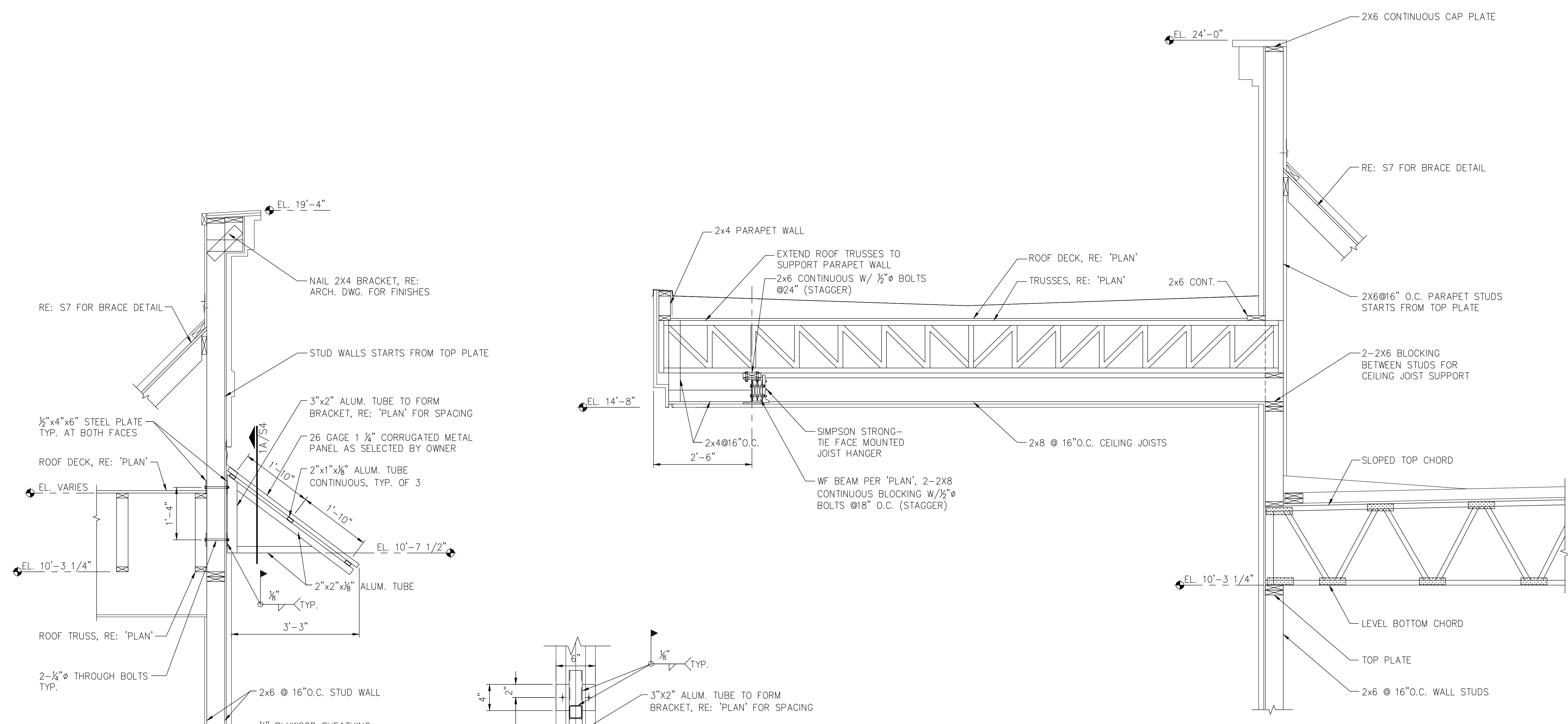
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**1** TYPICAL SIDE WALL AT CANOPY  
 SCALE: 3/4" = 1'-0"

**1A** BRACKET NORMAL VIEW  
 SCALE: 1 1/2" = 1'-0"

**2** TYPICAL SECTION AT REAR PORTE-CO-CHERE  
 SCALE: 3/4" = 1'-0"

**3** TYPICAL SECTION AT REAR PORTE-CO-CHERE  
 SCALE: 3/4" = 1'-0"

NOTE: ALL EXPOSED ALUMINUM COMPONENTS OF CANOPY SHOULD HAVE CLEAR ANODIZED FINISHES COLOR PER OWNER'S SELECTION

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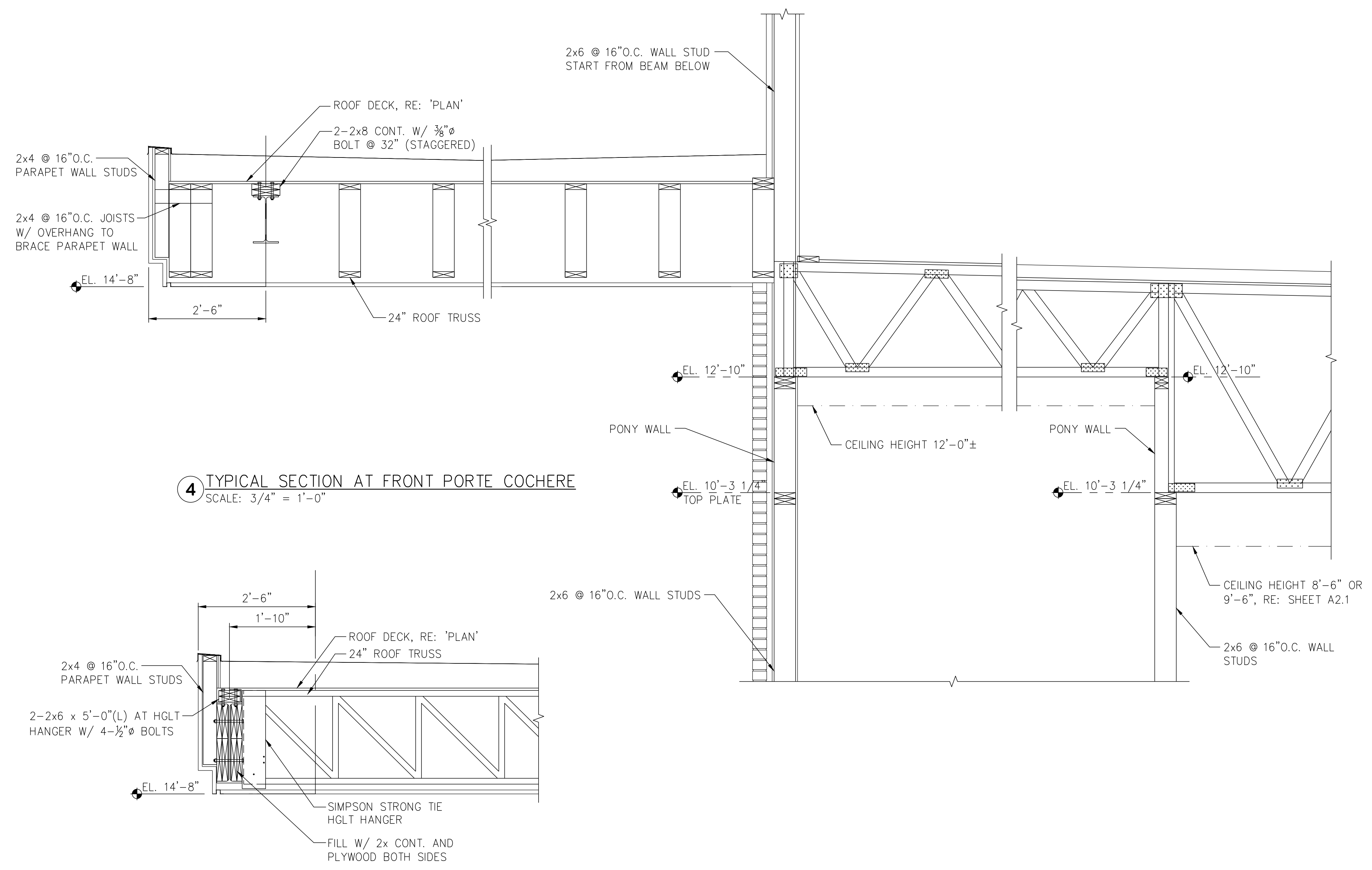
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