

MORTON BUILDINGS GENERAL SPECIFICATIONS

LAMINATED COLUMNS - NO. 1 OR BETTER SOUTHERN YELLOW PINE NAIL LAMINATED 3 MEMBER S4S COLUMNS NAILED 8" O.C. STAGGERED ON EACH SIDE WITH 4" NAILS.

MFS PRE-CAST CONCRETE COLUMN - MORTON BUILDINGS FOUNDATION SYSTEM IS A PRE-ENGINEERED, 10,000 PSI, STEEL REINFORCED COLUMN FOR BELOW GROUND INSTALLATION. DESIGNED TO BE MECHANICALLY FASTENED TO ABOVE GROUND NAIL LAMINATED COLUMNS. THE SYSTEM IS DESIGNED TO RESIST BOTH AXIAL AND BENDING FORCES.

FOOTINGS AND ANCHORAGE - COLUMN HOLES ARE DUG A MINIMUM DEPTH OF 4'-0" BELOW GRADE (SEE PLANS FOR DIAMETER AND DEPTH). MFS PRE-CAST CONCRETE COLUMNS ARE PLACED IN THE HOLE. CONCRETE (MINIMUM COMPRESSIVE STRENGTH 2500 PSI) IS POURED IN PLACE TO THE SPECIFIED THICKNESS (SEE PLANS FOR REQUIRED THICKNESS ABOVE AND BELOW THE COLUMN). THE COLUMN IS THEN BACKFILLED WITH SOIL AND COMPACTED AT 8" INTERVALS OR BACKFILLED WITH CONCRETE (SEE PLANS).

TREATED LUMBER -- PRESSURE PRESERVATIVE TREATED LUMBER OTHER THAN LAMINATED COLUMNS ARE NO. 1 OR BETTER SOUTHERN YELLOW PINE AND CENTER MATCHED OR NOTCHED AND GROOVED OR S4S. PRESSURE TREATMENT TO GROUND CONTACT RETENTION WITH PRESERVATIVE TREATMENT COMPLYING WITH USE CATEGORY UC4B (AWPA OR ICC-ES) AND IN COMPLIANCE WITH USEPA GUIDELINES AND STANDARDS.

FRAMING LUMBER - SIDING NAILERS ARE 2x4 S4S OR 2x6 SPF NO. 2 OR BETTER SPACED APPROXIMATELY 36" O.C. WITH ALL JOINTS STAGGERED AT ATTACHMENT TO COLUMNS. ROOF PURLINS ARE 2x4 S4S NO. 2 OR BETTER ON EDGE SPACED APPROXIMATELY 24" O.C. ALL OTHER FRAMING LUMBER IS NO. 2 OR BETTER.

ROOF TRUSSES - FACTORY ASSEMBLED WITH 18 OR 20 GAUGE GALVANIZED STEEL TRUSS PLATES AS REQUIRED AND KILN DRIED LUMBER AS SPECIFIED, IN-PLANT QUALITY CONTROL INSPECTION IS CONDUCTED UNDER THE AUSPICES OF THE TPI INSPECTION BUREAU. TRUSSES ARE DESIGNED IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS FOR THE STATED LOADING.

SIDING & ROOFING PANELS (FLUOROFLEX 1000 TM) - 0.019" MIN., G90 GALVANIZED OR AZ55 GALVALUME STEEL WITH AN ADDITIONAL BAKED-ON 70% PVDF FINISH WITH A NOMINAL 1 MIL. PAINT THICKNESS ON EXTERIOR.

TRIM - DIE-FORMED TRIM OF 0.017" MIN., G90 GALVANIZED OR AZ55 GALVALUME STEEL ON GABLES, RIDGES, CORNERS, BASE WINDOWS, AND DOORS WITH SAME FINISH AS ROOFING OR SIDING PANELS.

GUTTERS - 5" K-STYLE, .030 HIGH TENSILE ALUMINUM GUTTER, 70% PVDF FINISH TO MATCH TRIM, ON BOTH SIDES OF THE BUILDING.
2x4F1F1 02/12

SHEET INDEX	
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CURRENT LUMBER SPECIFICATIONS (06-01-2013)		
SIZE	DESCRIPTION	BENDING VALUE Fb
2x4	NO. 2 SPF	1313 PSI
2x4	NO. 1 SYP	1500 PSI
2x4	2100f MSR SPF	2100 PSI
2x6	NO. 2 SPF	1138 PSI
2x6	NO. 1 SYP	1350 PSI
2x6	2100f MSR SPF	2100 PSI
2x6	2400 MSR SYP	2400 PSI
2x8	NO. 1 SYP	1250 PSI
2x8	2400 MSR SYP	2400 PSI
2x10	NO. 1 SYP	1050 PSI
2x10	2400 MSR SYP	2400 PSI
2x12	NO. 1 SYP	1000 PSI
2x12	2250f MSR SYP	2250 PSI
1 1/2"x16"	LAMINATED VENEER LUMBER	2800 PSI
3 1/2"x15"	GLU-LAM	1650 PSI
5 1/4"x16 1/2"	GLU-LAM	2400 PSI
5 1/4"x19 1/2"	GLU-LAM	2400 PSI

DESIGN AND EXPLANATORY NOTES

- 1.) ALL PLOT PLANS AND RELATED DETAILS SHALL BE PROVIDED BY OWNER UNLESS INCORPORATED AS PART OF THESE DRAWINGS.
- 2.) MORTON BUILDINGS GENERAL SPECIFICATIONS APPLY UNLESS INDICATED DIFFERENTLY ON SPECIFIC JOB DRAWINGS OR SUPPLEMENTAL INFORMATION.
- 3.) NO ONE MAY ALTER ANY ENGINEERING ITEM UNLESS ACTING UNDER THE DIRECTION OF THE LICENSED / REGISTERED ENGINEER .
- 4.) ♦ THE PRECEDING SYMBOL IDENTIFIES ITEMS THROUGHOUT THE PLANS THAT ARE NOT PROVIDED BY MORTON BUILDINGS, INC. OR MORTON BUILDINGS' SUBCONTRACTORS AND ARE THE OWNER'S RESPONSIBILITY.

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BUILDING DESIGN CRITERIA	
USE GROUP	U
CONSTRUCTION TYPE	VB
RISK CATEGORY	I
BUILDING AREA	2016 SQ. FT.
ROOF SNOW LOAD *	90 PSF
GROUND SNOW LOAD	142 PSF
WIND SPEED (V _{ULT})	105 MPH
WIND SPEED (V _{ASD})	81 MPH

I HEREBY CERTIFY THAT THE STRUCTURAL DESIGN FOR THIS BUILDING WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED/REGISTERED PROFESSIONAL ENGINEER.

ADAM CRUTCHLEY, P.E.
adam.crutchley@allieddesignaes.com
DATE: _____ REG.# _____

*ROOF SNOW LOAD CALCULATIONS

Pf = 0.7 x Ce x I x Pg x Ct
Ce = SNOW EXPOSURE FACTOR = 1.0
I = IMPORTANCE FACTOR = 0.8
Pg = GROUND SNOW LOAD = 142 PSF
Ct = THERMAL FACTOR = 1.2
Pf = 0.7 x 1.0 x 0.8 x 142 x 1.2 = 95.42 PSF
Cs = ROOF SLOPE FACTOR = 0.94
Ps = Pf x Cs = 95.42 x 0.94 = 89.70 PSF

OFFICE:	MONTROSE, CO
JOB NO.	145-090186

KEN FINCH

CLARK, CO

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ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.

100 S. PERSHING P.O. BOX 110 MORTON, IL 61550

PHONE NUMBER: 309-263-4105

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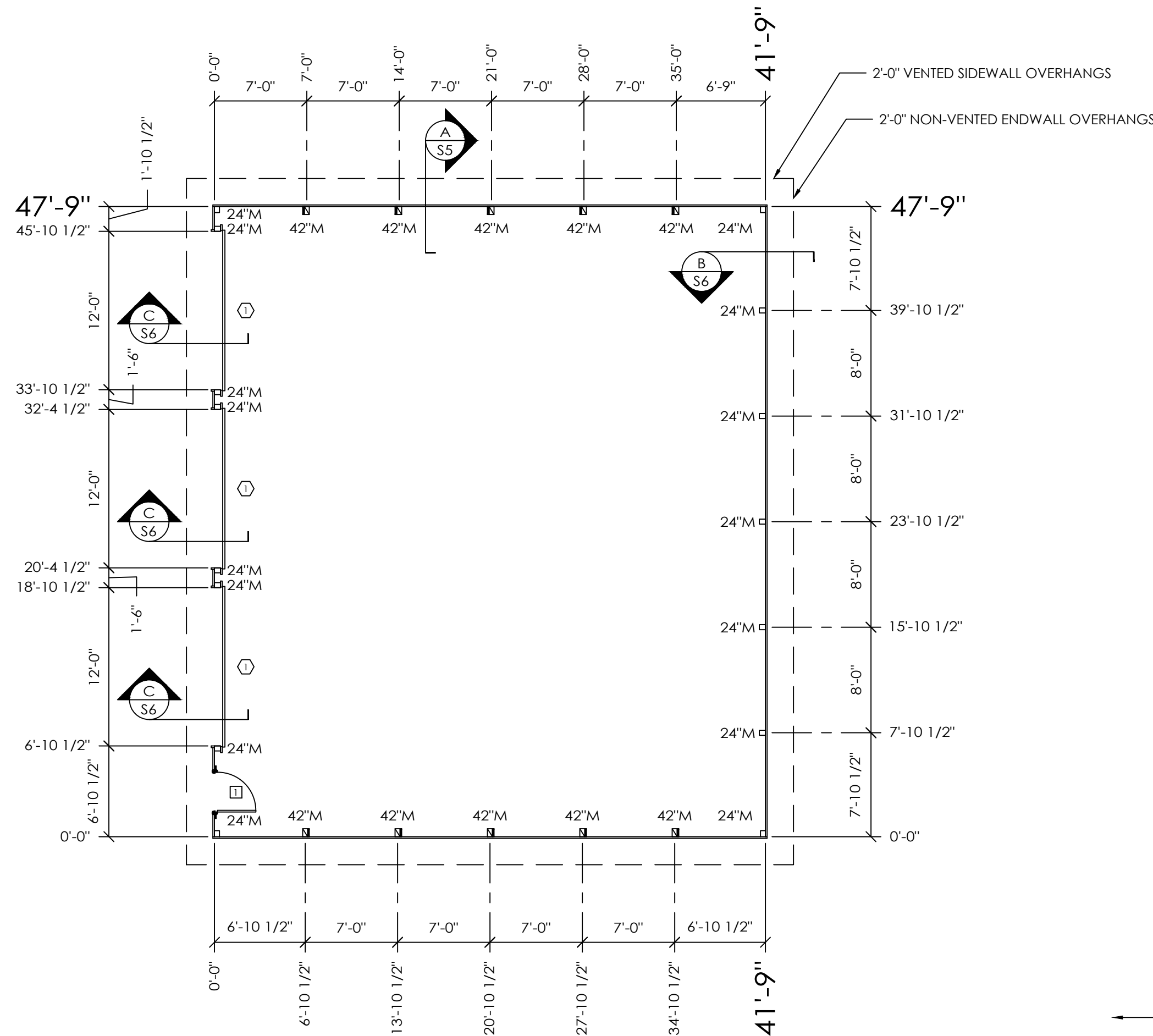
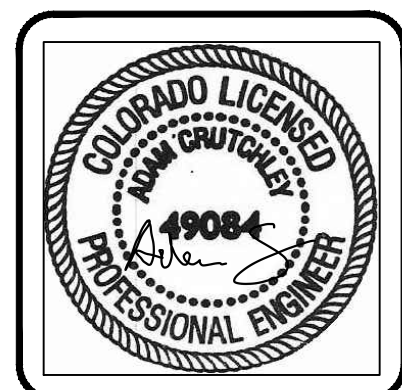
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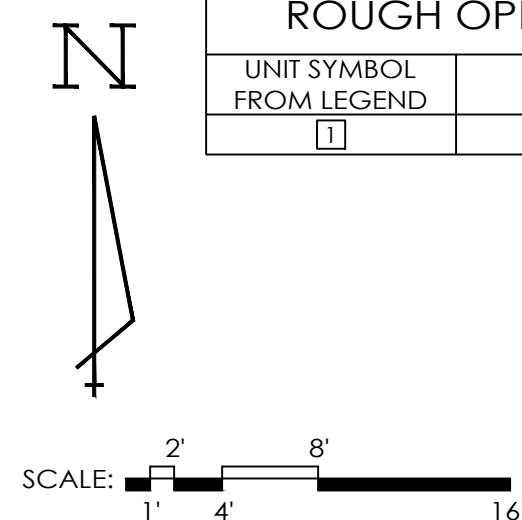


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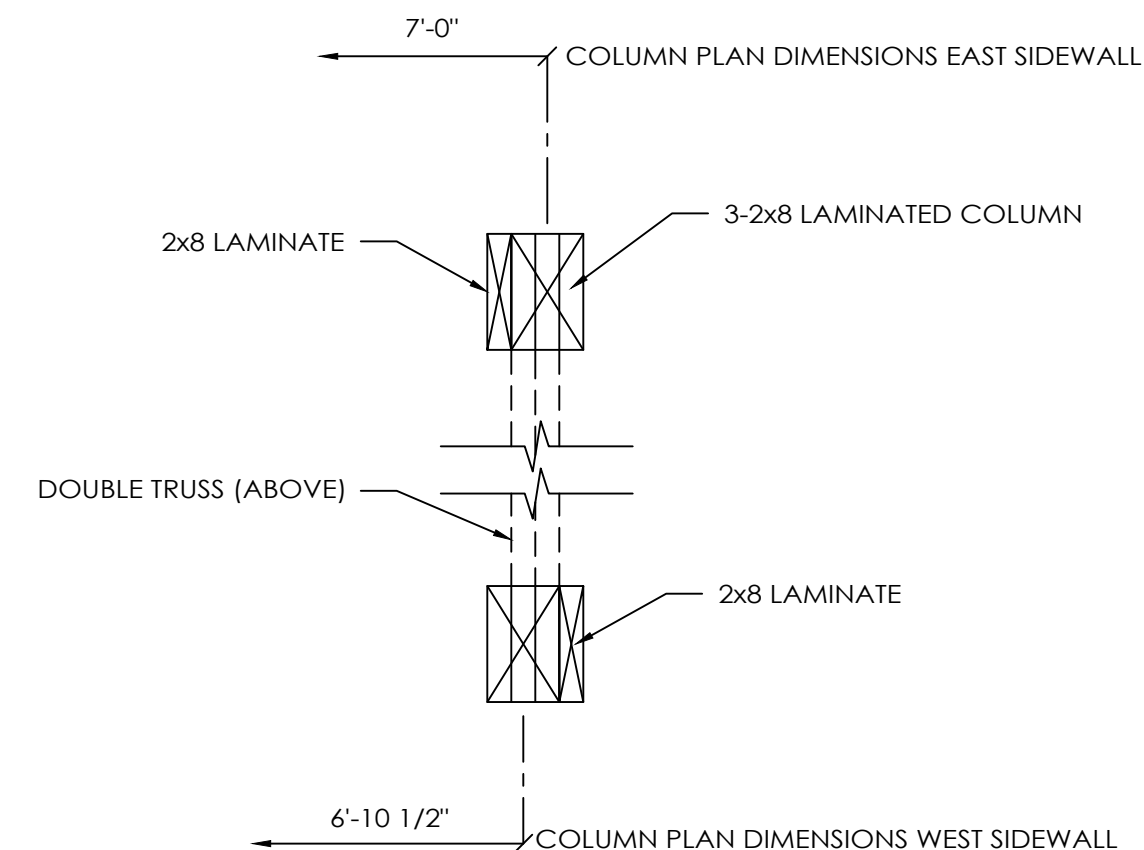
COLUMN PLAN

COLUMN PLAN LEGEND

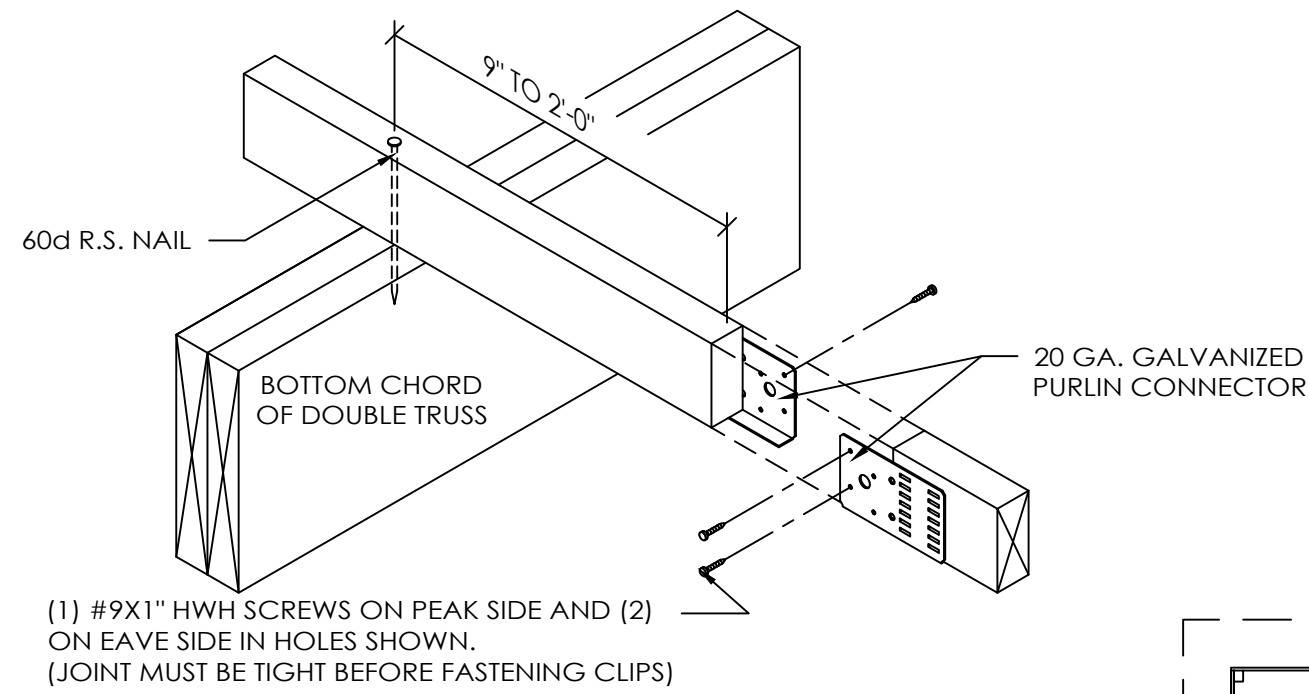
- - 3-2x6 LAMINATED COLUMN LOCATION
- - 3-2x8 LAMINATED COLUMN W/ ADD'L LAMINATE LOCATION
- - 3068 MB910 9-LITE GLASS IN PLAIN FLAT LEAF WALKDOOR, IN SWING, LEFT HINGE WITH LOCKSET
- ⬡ - (3) 12'-2"x14'-1" OVERHEAD DOORS
- ⬢ - (8) 3065 SKYLITE (VERIFY LOCATION)
- ALL STEEL FASTENED WITH STAINLESS STEEL SCREWS
- 24"M - 24" DIAMETER FOOTING WITH 4' TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM). 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x14" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN. PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.
- 42"M - 42" DIAMETER FOOTING WITH 4' TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM). 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x14" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN. PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.



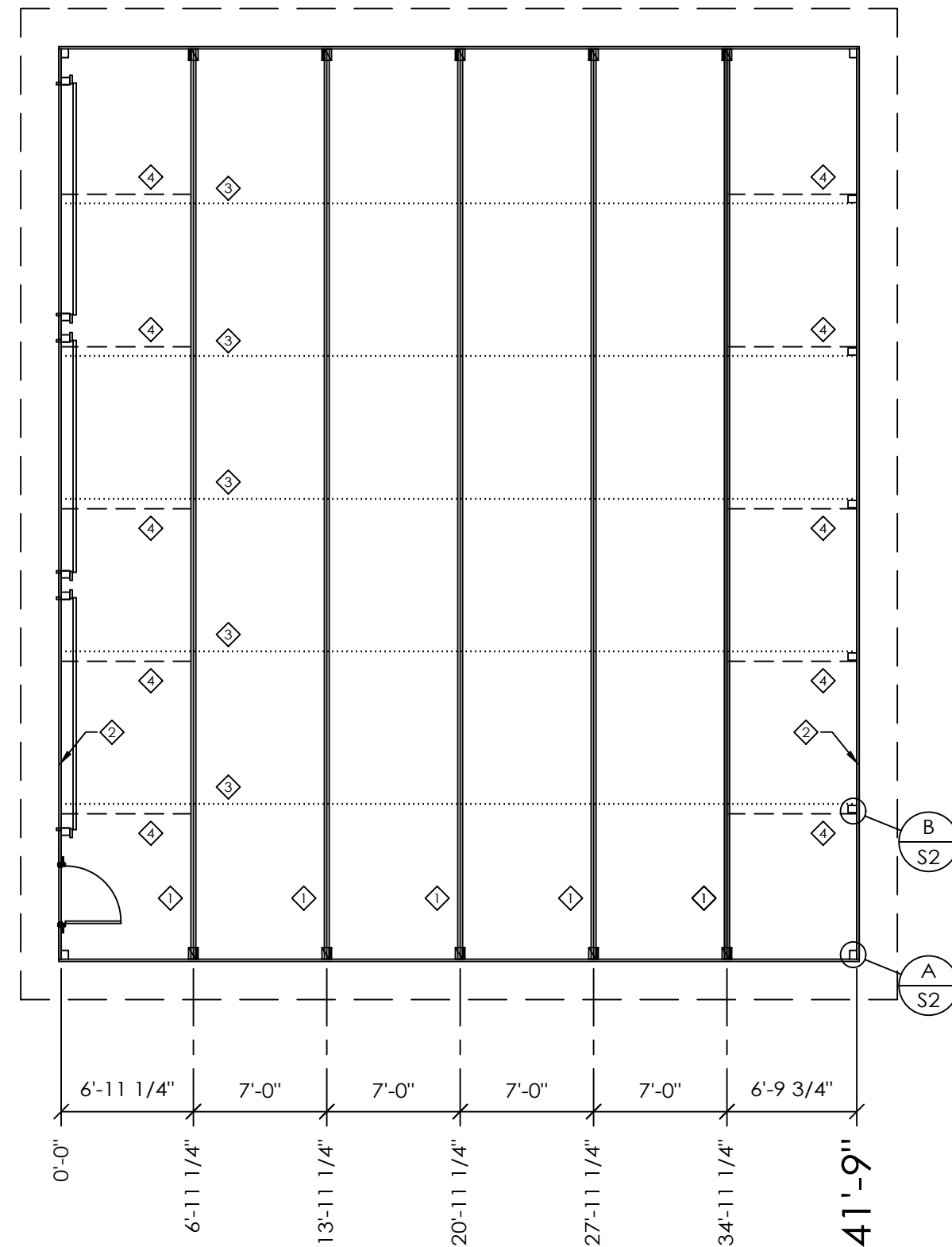
ROUGH OPENING SCHEDULE		
UNIT SYMBOL FROM LEGEND	WIDTH	HEIGHT
1	37 3/4"	81"



DOUBLE TRUSS COLUMN PLACEMENT DETAIL #1
SCALE: 1" = 1'-0"



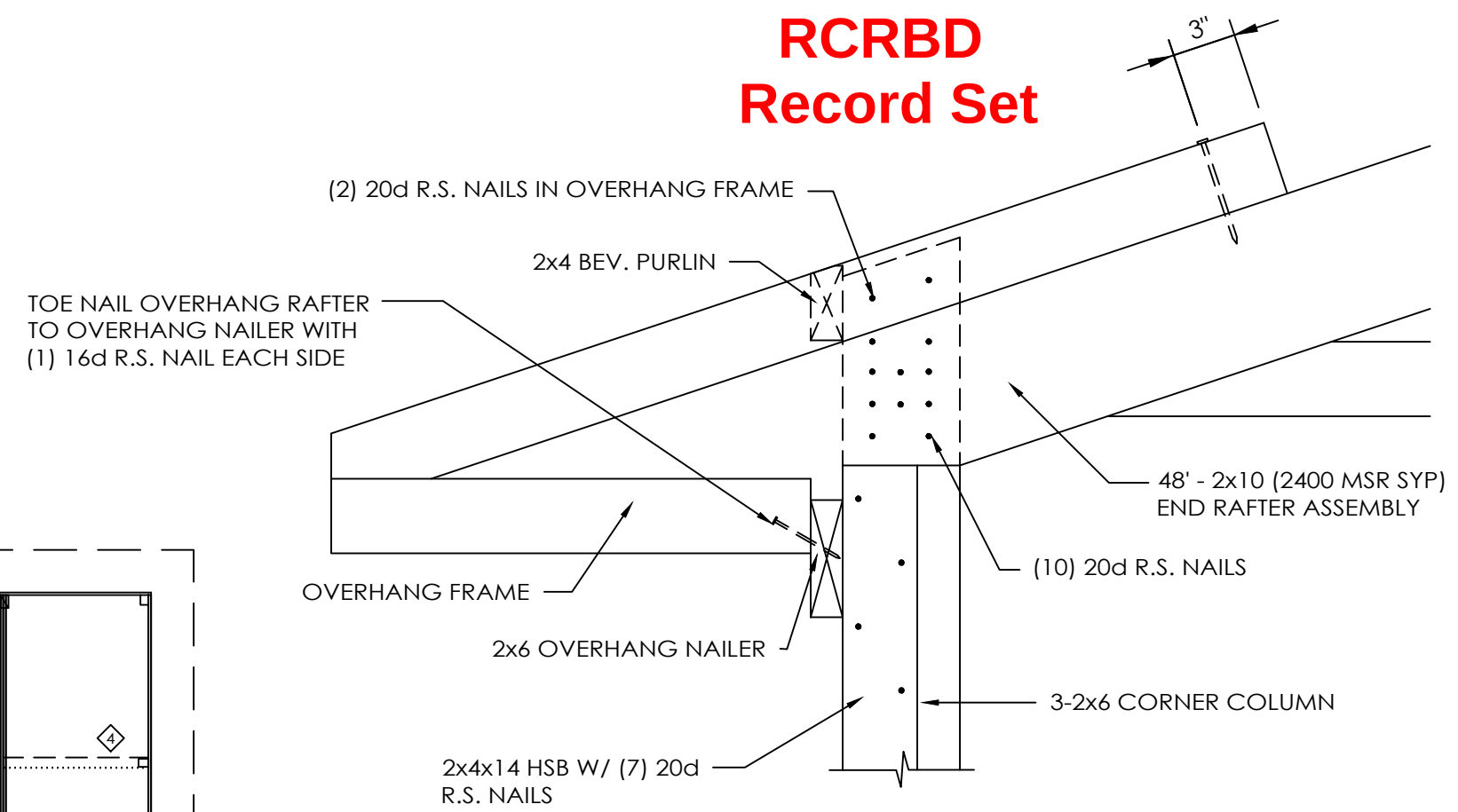
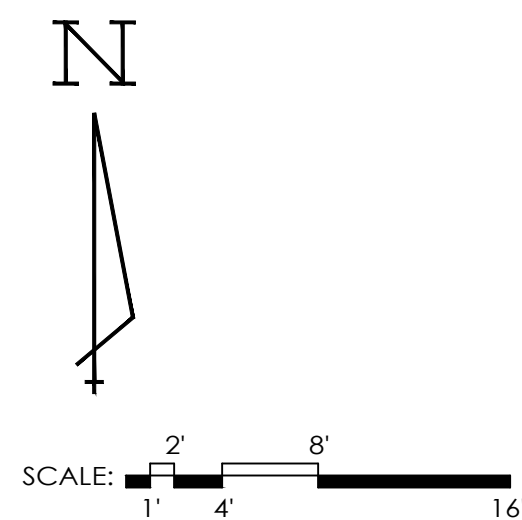
2x4 TRUSS TIE DETAIL



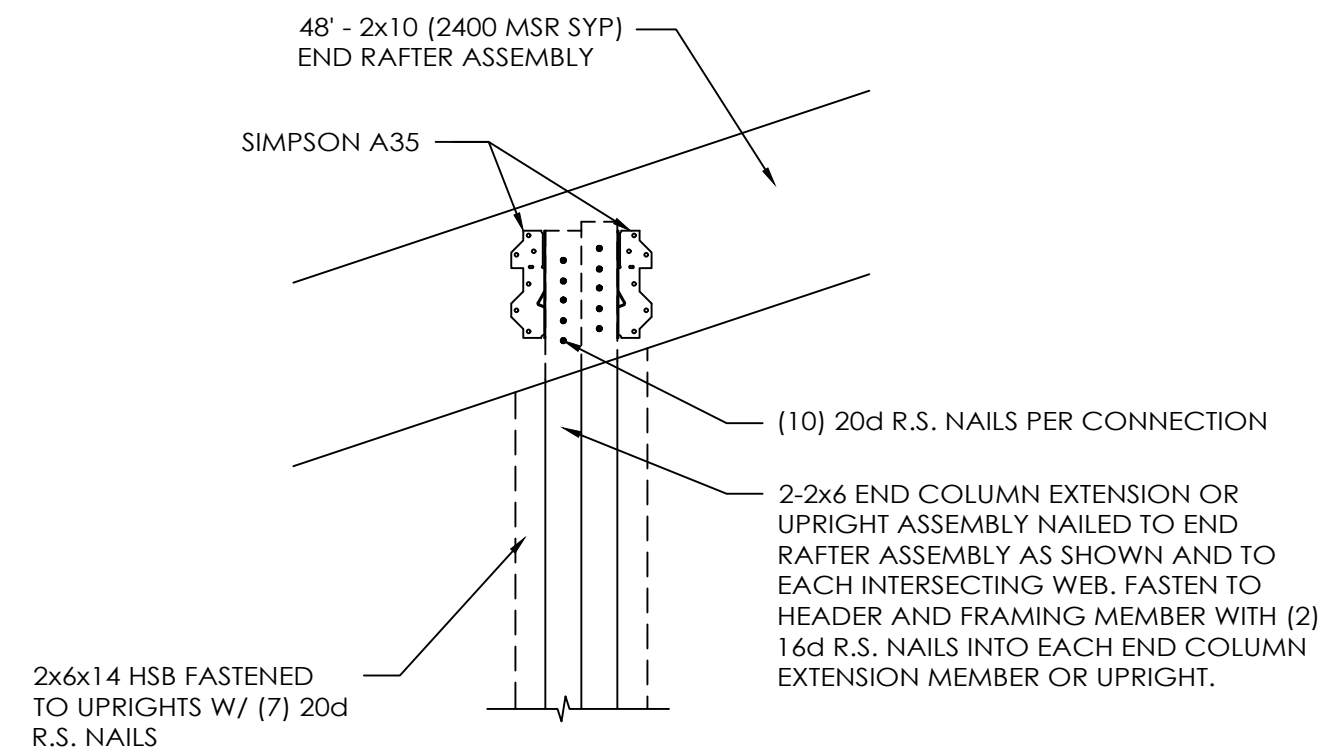
TRUSS/BRACING PLAN

TRUSS/BRACING PLAN LEGEND

- ◇ - DOUBLE 48' 3090 S.C. TRUSSES @ 7'-0" O.C.
- ◇ - 48' END RAFTER ASSEMBLY
- ◇ - 2x4 TRUSS TIES
- ◇ - 2x6 DIAGONAL END BRACES (TO EXTEND TO FIRST TRUSS IN FROM ENDWALL)



DETAIL A
SCALE: 1 1/2" = 1'-0"



DETAIL B
SCALE: 1 1/2" = 1'-0"

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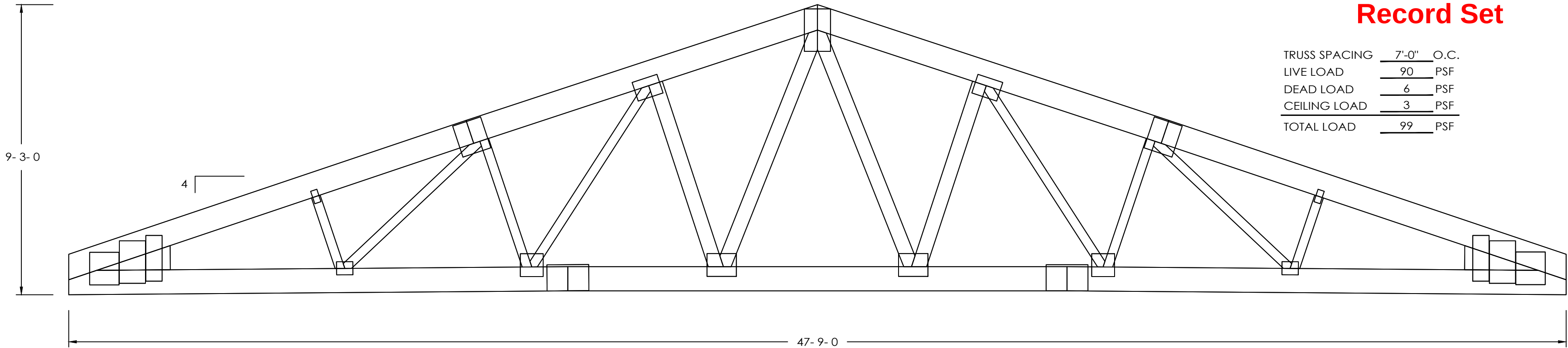


DESIGN AND EXPLANATORY NOTES

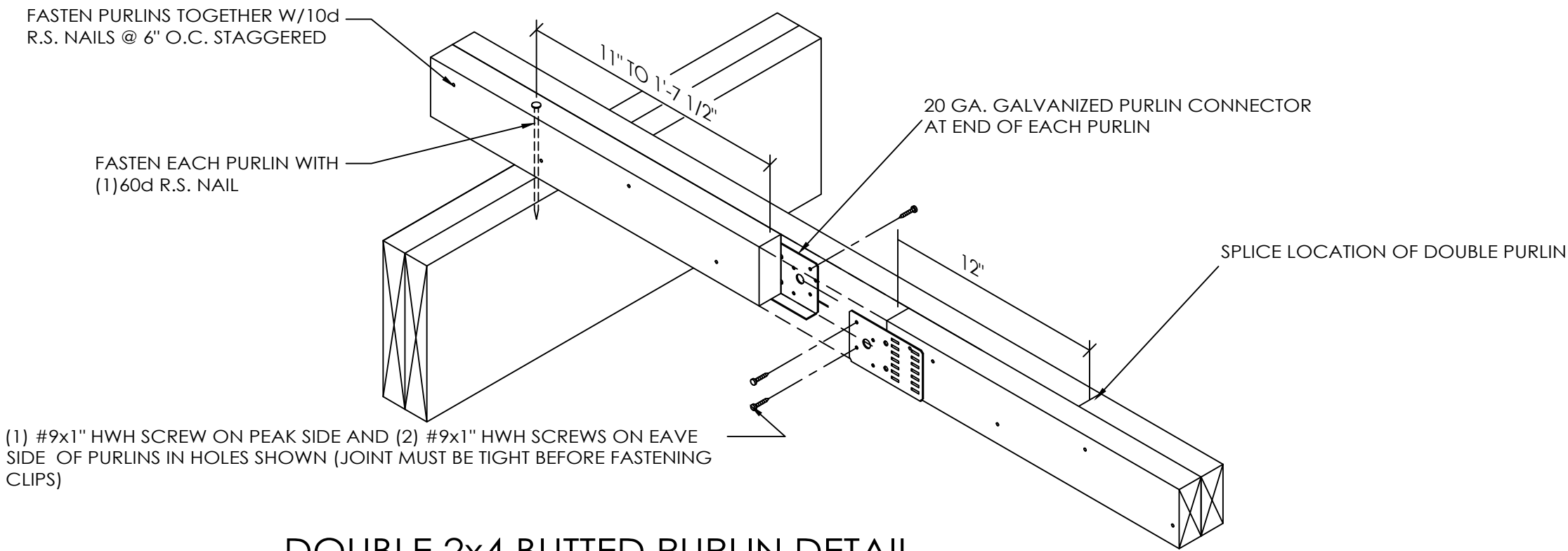
1.) TRUSSES ARE USED AS A DOUBLE MEMBER TRUSS ASSEMBLY WHERE NOTED ON THE TRUSS/BRACING PLAN ON SHEET S2. NAIL TRUSSES TOGETHER FROM EACH SIDE WITH .131" DIA. x 2-3/4" R.S. GUN NAILS STAGGERED 8" O.C. ALONG TOP CHORD AND WEB MEMBERS, AND 24" O.C. ALONG LOWER CHORD.

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TRUSS SPACING	7'-0"	O.C.
LIVE LOAD	90	PSF
DEAD LOAD	6	PSF
CEILING LOAD	3	PSF
TOTAL LOAD	99	PSF



48' S.C. 3090 (4116) TRUSS
SCALE: 3/8" = 1'-0"



DOUBLE 2x4 BUTTED PURLIN DETAIL
(PURLINS CONNECTED WITH 60D R.S. NAIL)
SCALE: 1 1/2" = 1'-0"

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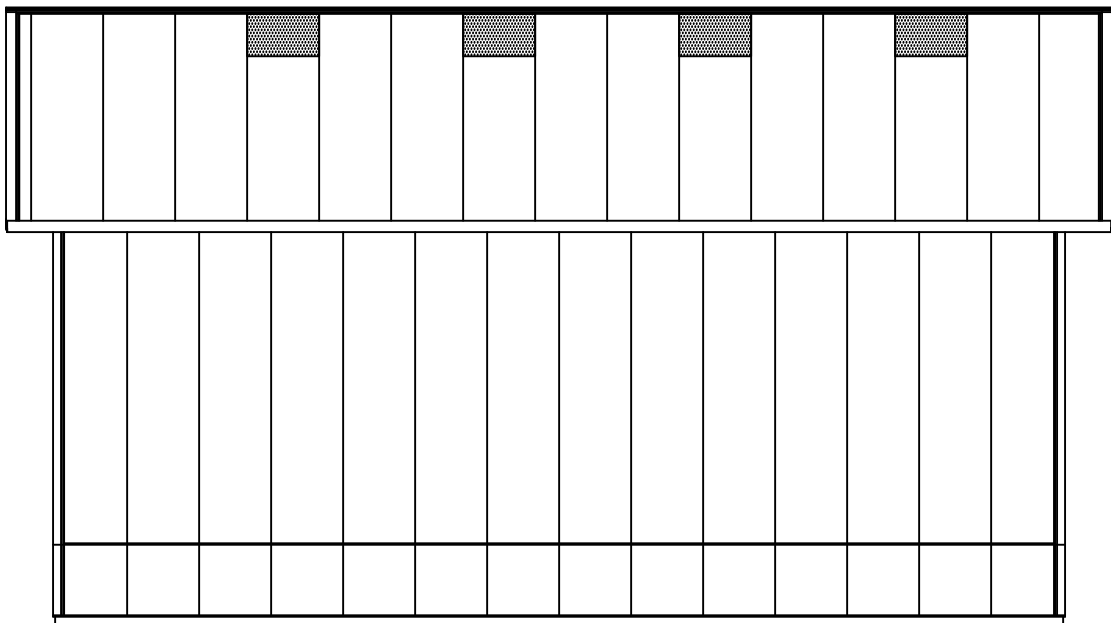
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DESIGN AND EXPLANATORY NOTES

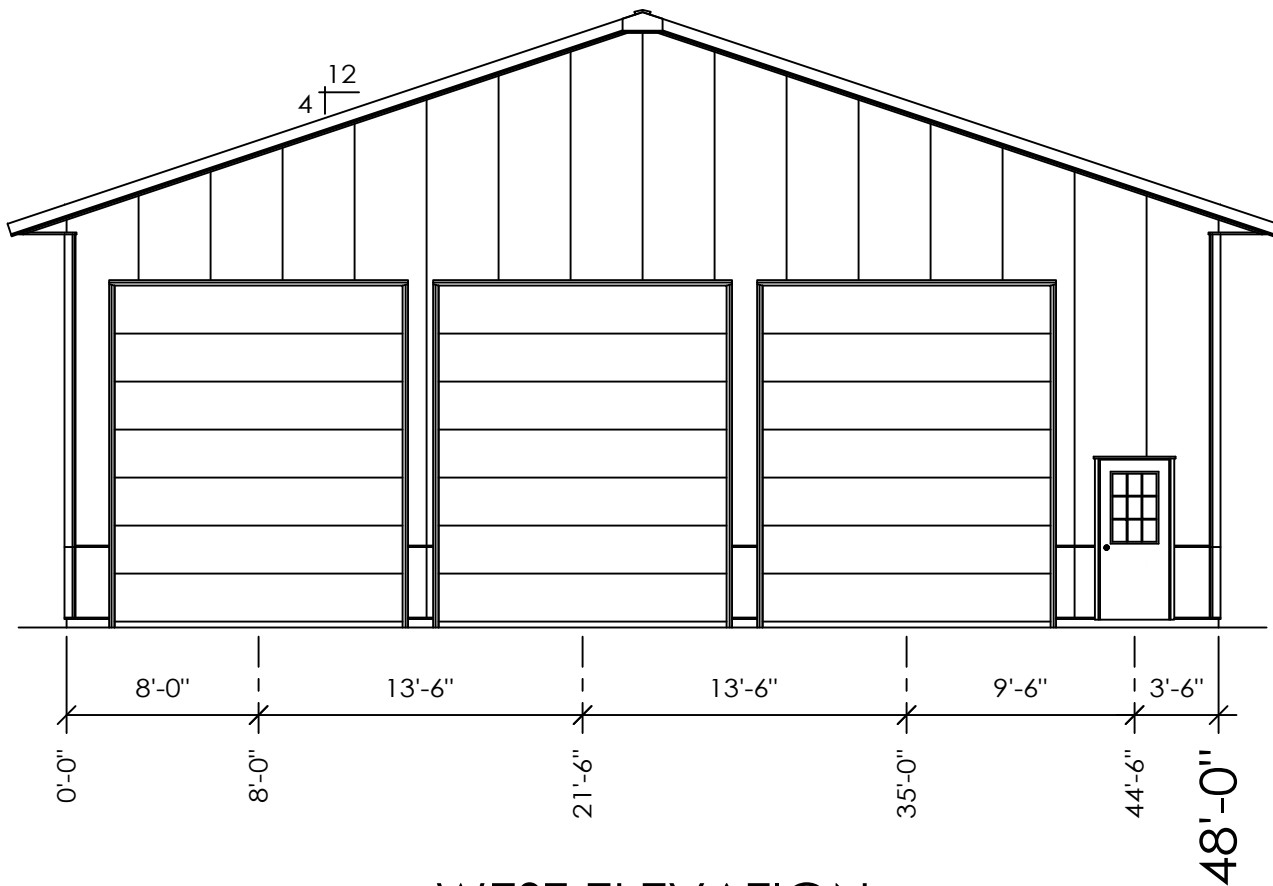
1.) EXTERIOR DOOR AND WINDOW LOCATIONS ARE TAKEN FROM THE EXTERIOR FACE OF THE NAILERS AND ARE TO THE CENTER OF THE DOOR AND WINDOW UNITS. VERIFY ALL DOOR, WINDOW, SKYLIGHT AND SIDELIGHT LOCATIONS WITH THE OWNER.

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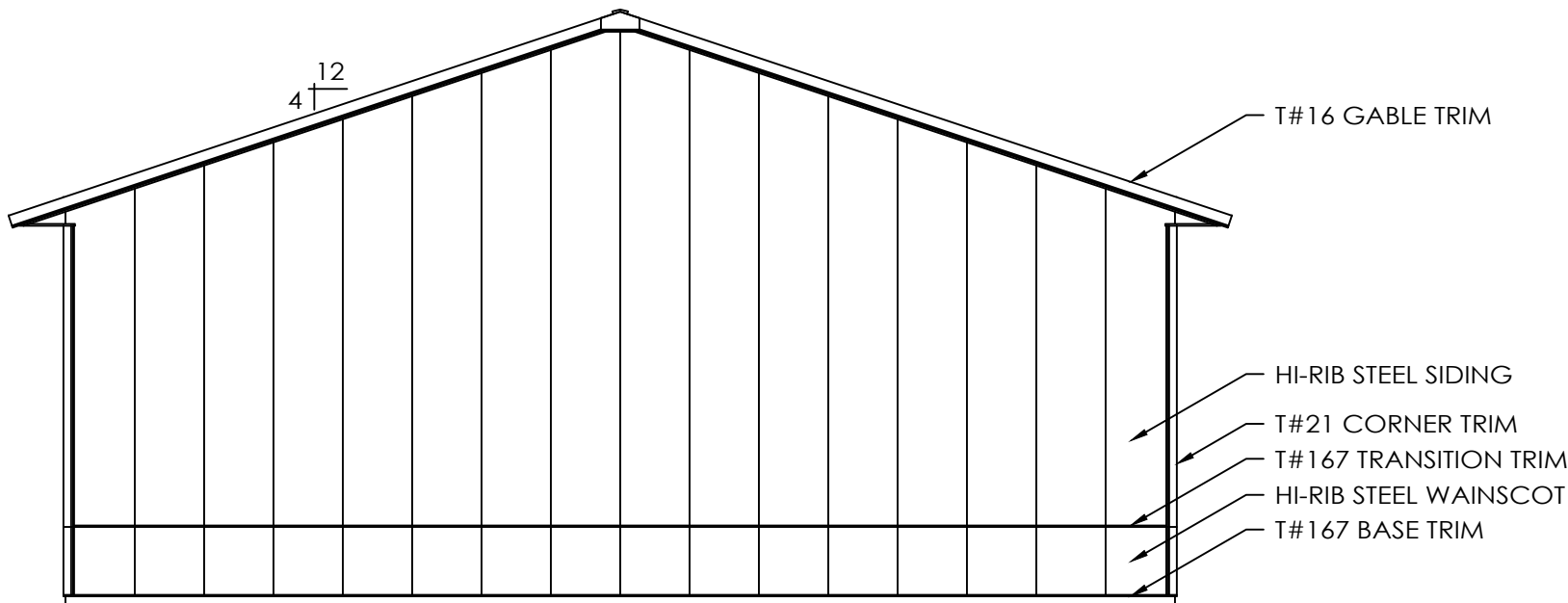
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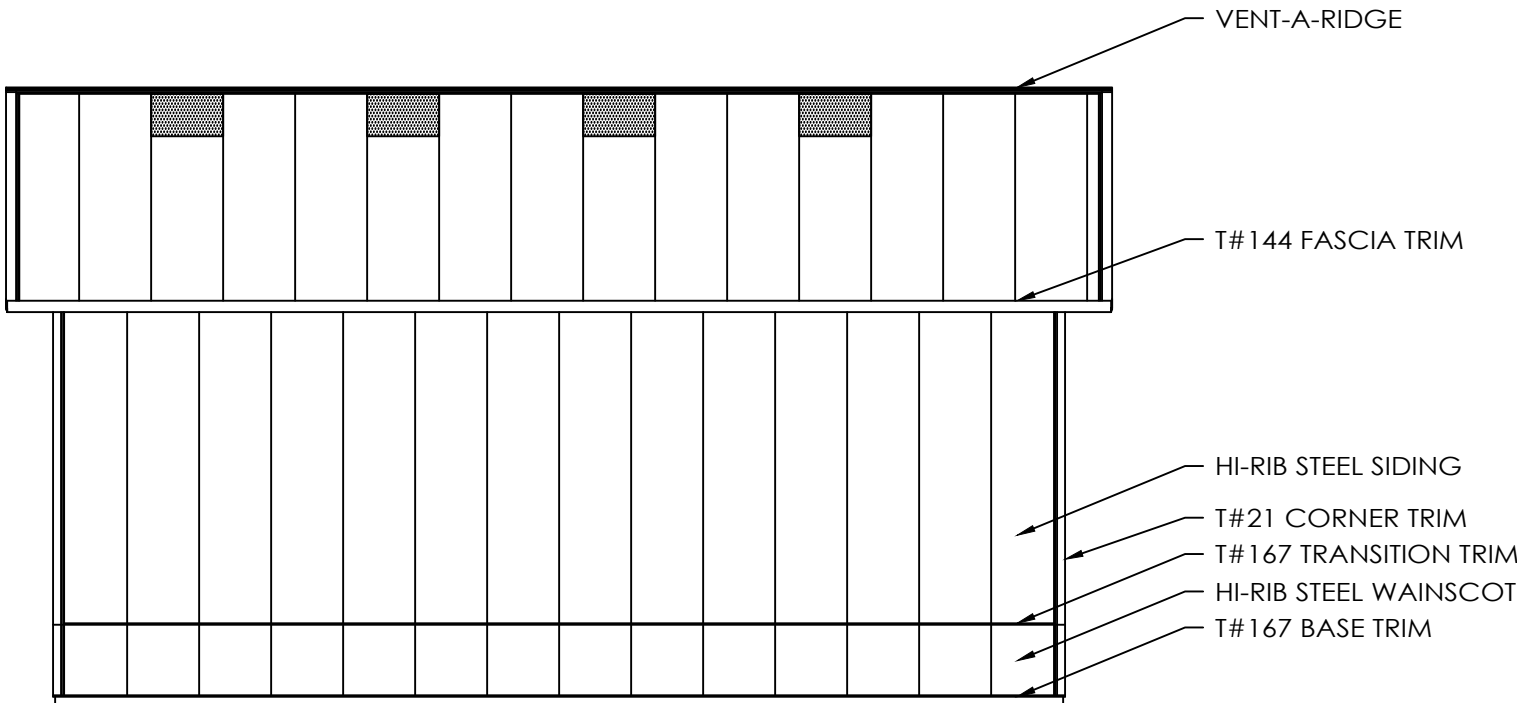
NORTH ELEVATION



WEST ELEVATION



EAST ELEVATION



SOUTH ELEVATION

SCALE: 1" = 4' 2" = 8' 16'

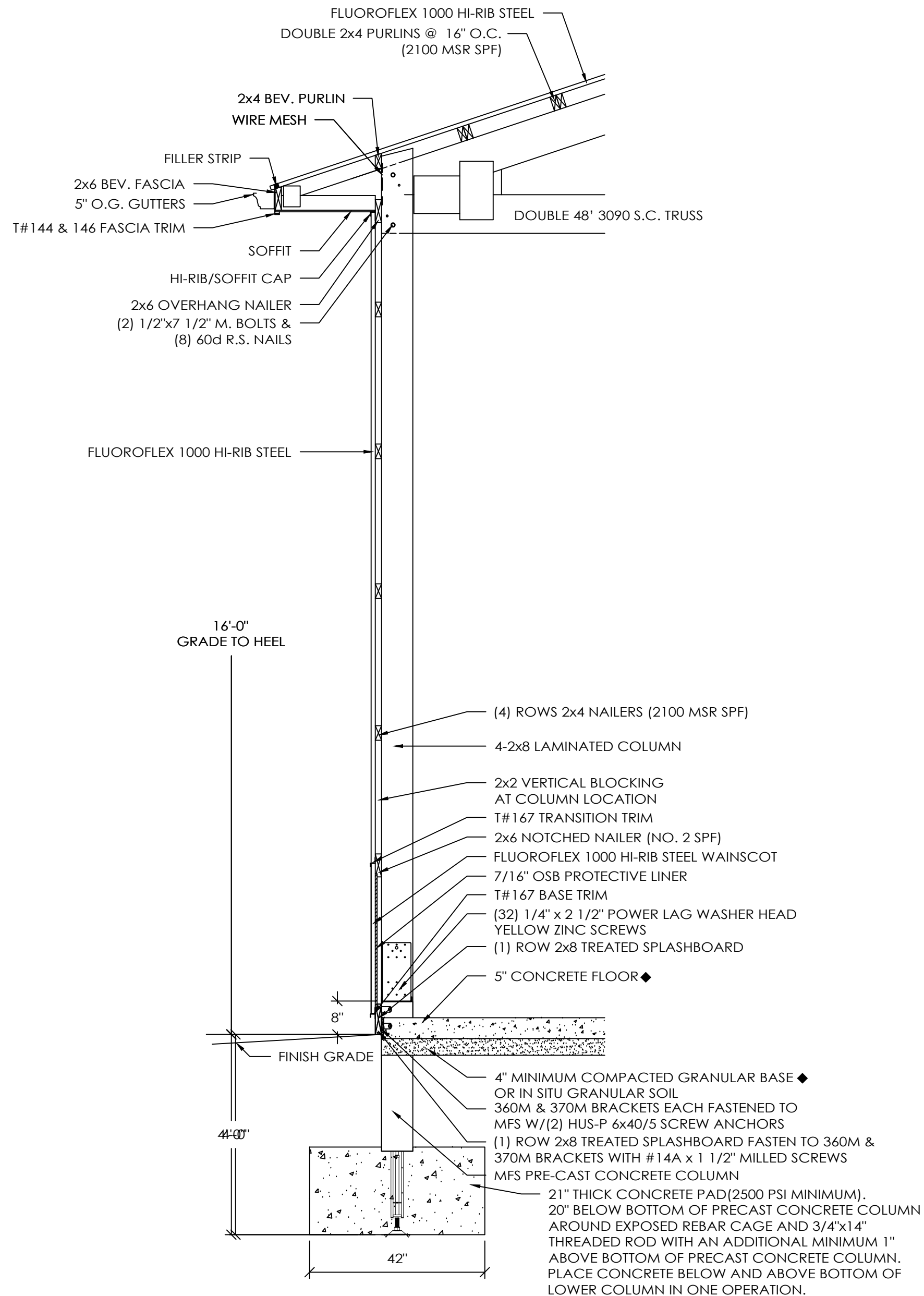
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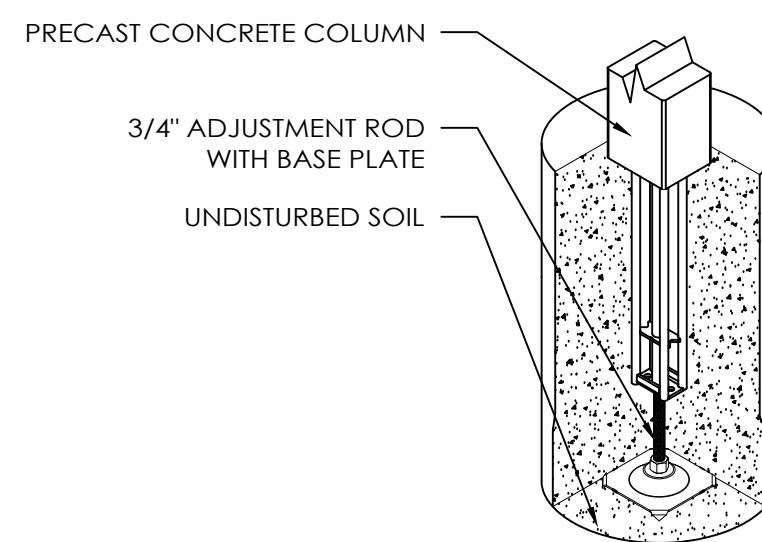
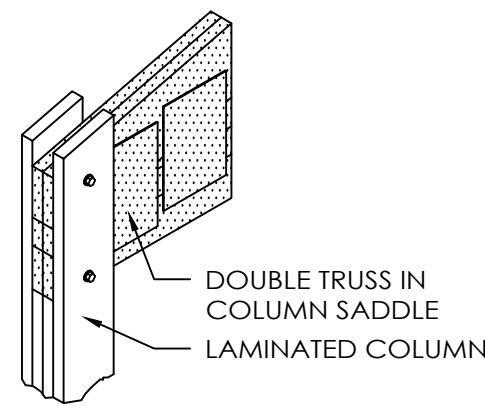
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SCALE: AS NOTED
SHEET NO. S4 OF S6



SIDEWALL SECTION A
SCALE: 1/2" = 1'-0"



LOWER COLUMN ISOMETRIC

DESIGN AND EXPLANATORY NOTES

1. FOOTINGS ARE DESIGNED FOR A 2000 PSF SOIL BEARING CAPACITY. LOCAL CONDITIONS MAY REQUIRE MODIFICATIONS.
2. CONCRETE FLOOR NOTES:
 - a. 3500 PSI, 5 1/2 BAG MIX CONCRETE.
 - b. SLOPE GRADE AWAY FROM BUILDING @ 1" PER FOOT FOR A MINIMUM DISTANCE OF 10' PLUS OVERHANG WIDTH.
 - c. A VAPOR RETARDER IS NOT MANDATED PER IBC SECTION 1907 EXCEPTION 3. UNLESS THE FLOOR WILL BE COVERED BY MOISTURE SENSITIVE FLOORING MATERIALS OR IMPERMEABLE FLOOR COATINGS OR WHERE THE FLOOR WILL BE IN CONTACT WITH ANY MOISTURE SENSITIVE EQUIPMENT OR PRODUCT.
 - d. CONTRACTION JOINTS UNIFORMLY SPACED 15' O.C. OR LESS.
3. PRIOR TO PLACING THE CONCRETE FOOTINGS, HAND TAMP THE BOTTOM 2'-3" OF LOOSE SOIL TO CONSOLIDATE. IF THE DRILLED HOLE CONTAINS MORE THAN 3" OF LOOSE SOIL, REMOVE EXCESS SOIL TO A UNIFORM THICKNESS OF 2'-3", HAND TAMP AND PROCEED WITH CONCRETE FOOTING PLACEMENT.
4. DO NOT PLACE CONCRETE FOOTING THROUGH MORE THAN 3" OF STANDING WATER. IF MORE THAN 3" OF STANDING WATER IS PRESENT IN THE FOOTING HOLE CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR INSTALLATION INSTRUCTIONS.

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LOWER COLUMN INSTALLATION

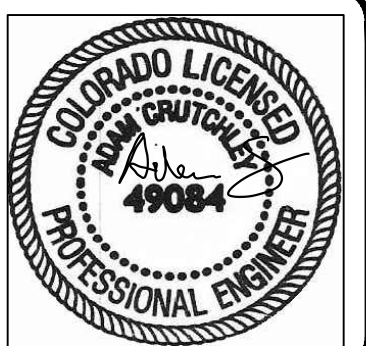
1. INSTALL PRECAST CONCRETE COLUMN W/ADJUSTMENT ROD & BASE PLATE IN THE AUGERED HOLE.
2. PLUMB PRECAST CONCRETE COLUMN IN BOTH DIRECTIONS
3. ADJUST HEIGHT UP OR DOWN WITH ADJUSTMENT HEX ROD
4. POUR READI-MIX CONCRETE INTO THE HOLE AS SPECIFIED.
5. BACKFILL AND COMPACT THE ANNULAR SPACE AROUND THE COLUMN TO GRADE WITH SOIL AUGERED FROM THE SITE.

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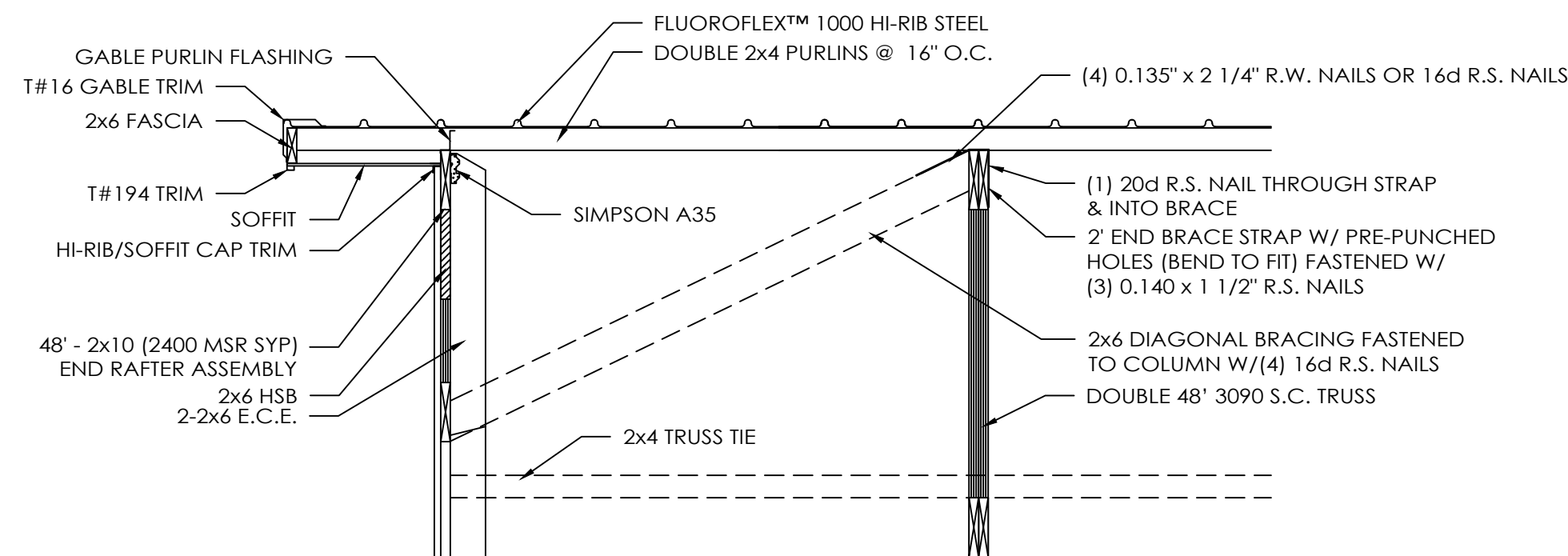
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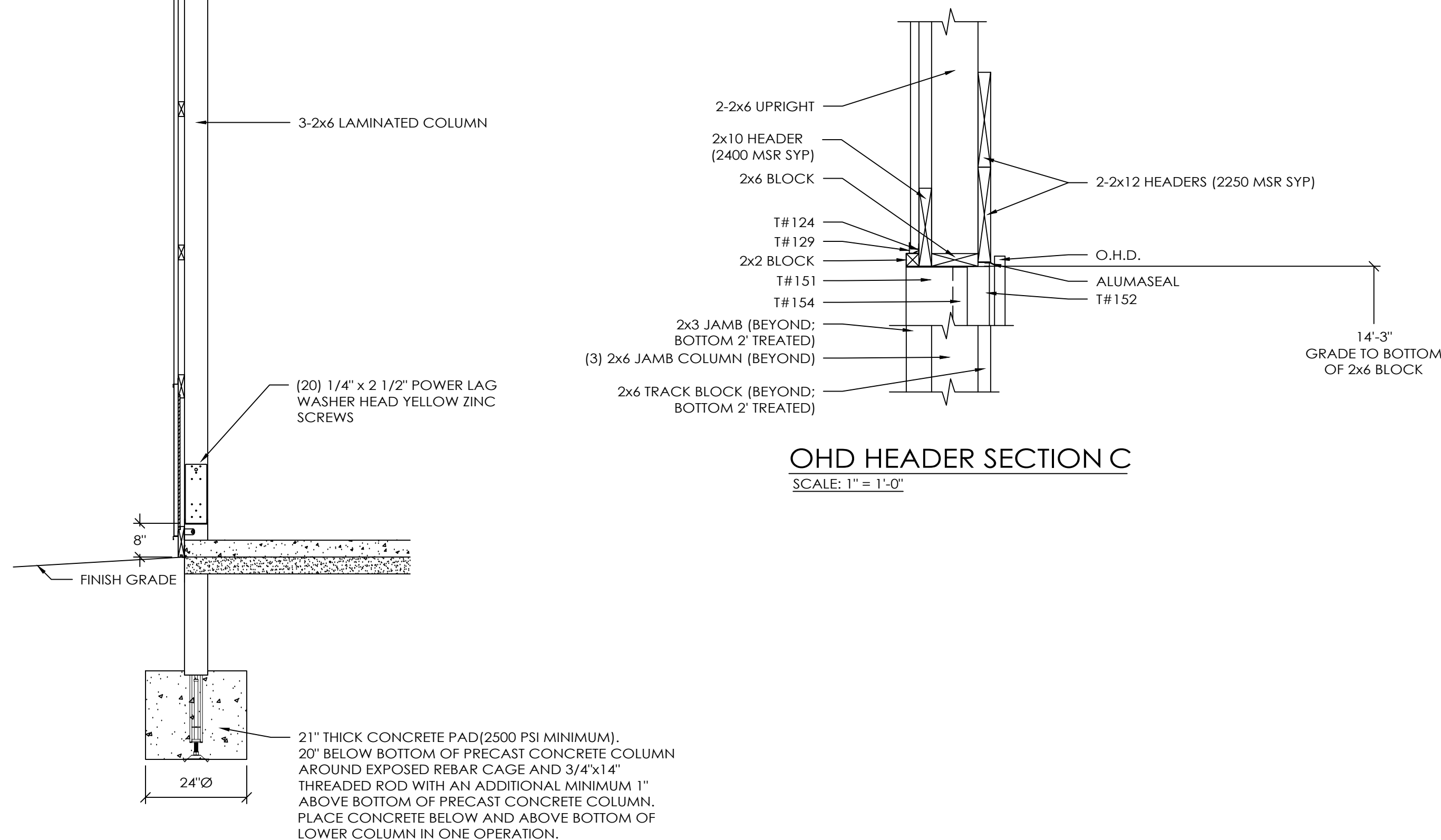
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SCALE: AS NOTED
SHEET NO.
S5 OF S6



RCRBD Record Set



OHD HEADER SECTION C
SCALE: 1" = 1'-0"

HEADER NAILING SCHEDULE		
HEADER MEMBER	UPRIGHT	JAMB COLUMN
EA. 2X12	14	15
2X10	8	10

- NOTES:
- NUMBERS ABOVE ARE 20d R.S. NAILS REQUIRED PER CONNECTION.
 - PRE-DRILL HEADERS AS REQUIRED TO PREVENT SPLITTING.
 - IF NUMBER OF NAILS REQUIRED FOR HEADER TO JAMB COLUMN CONNECTION IS EXCESSIVE TO CAUSE SPLITTING, THE EXCESS NAILS MAY BE INSTALLED IN HEADER SUPPORT BLOCKING.

ENDWALL SECTION B
SCALE: 1/2" = 1'-0"

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