

## SHEET INDEX

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# 3105 WHITEPINE DR

AUSTIN, TX 78757

paradisahomes  
comfort-quality-style

## PARADISA HOMES

7427 NORTH LAMAR BLVD STE 101  
AUSTIN, TX 78752  
512.910.4505

### DOOR NOTES:

1. ALL GLAZING IN DOORS SHALL BE TEMPERED.
2. COORDINATE KEYING AND HARDWARE FOR DOORS WITH OWNER.
3. ALL EXTERIOR DOORS SHALL BE FULLY WEATHER STRIPPED.
4. ALL HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE MOUNTED 34" TO 48" ABOVE FINISH FLOOR.
5. INTERIOR DOOR UNDERCUTS SHALL NOT EXCEED 3/4".
6. PROVIDE A CAULK BEAD AT THE BASE OF EACH DOOR FRAME THAT TERMINATES AT ANY NON-CARPET FLOORING.

### WINDOW NOTES:

1. GLAZING WITHIN 24" OF EITHER SIDE OF ANY DOOR SHALL BE TEMPERED.
2. GLAZING GREATER THAN 9 S.F. IN AREA WITH A BOTTOM EDGE LESS THAN 18" ABOVE (AND HORIZONTALLY WITH IN 36") OF A WALKING SURFACE SHALL BE TEMPERED.
3. ALL WINDOWS TO BE DOUBLE PANE, INSULATED, LOW-E WITH AN ARGON FILLING.
4. AT LEAST ONE WINDOW IN EACH BEDROOM SHALL BE 44" AFF MAX. AND OPEN 20" WIDE MIN. BY 24" HIGH MIN. AND OPEN 5.7 SQ. FT. COORDINATE EGRESS WITH ACTUAL MANUFACTURER AS EACH VARIES.

### FIRE PROTECTION

1. PROVIDE SMOKE ALARMS- HARD WIRED, INTERCONNECTED, BATTERY BACKUP AT EACH SLEEPING ROOM AND IMMEDIATE COMMON AREA OUTSIDE OF SLEEPING ROOMS AND LOCATED AT NOT LESS THAN 3FT. FROM A DOOR TO A BATHROOM WITH TUB OR SHOWER EXCEPT WHEN THIS REQUIREMENT WILL PREVENT THE INSTALLATION OF A SMOKE ALARM IN A REQUIRED LOCATION, AND IF APPLICABLE, ON EACH ADDITIONAL STORY INCLUDING BASEMENTS AND HABITABLE ATTICS.
2. PROVIDE CARBON MONOXIDE ALARM-HARD WIRED WITH BATTERY BACKUP, INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND/OR HAVE ATTACHED GARAGE.
3. ALL EAVES WITHIN 5'-0" OF PROPERTY LINES ARE TO BE OF FIRE RATED CONSTRUCTION BY PROVIDING BLOCKING FROM TOP PLATE TO UNDERSIDE OF ROOF WHERE EAVES IS WITHIN 5'-0" OF PROPERTY LINE.

### APPLICABLE CODES:

1. 2021 INTERNATIONAL BUILDING CODE (IBC)
2. 2021 INTERNATIONAL RESIDENTIAL CODE (IRC)
3. 2021 UNIFORM PLUMBING CODE (UPC)
4. 2021 UNIFORM MECHANICAL CODE (UMC)
5. 2020 NATIONAL ELECTRICAL CODE (NEC)

### AUSTIN VISITABILITY

1. ALL SWITCHES AND TEMPERATURE CONTROLS ARE TO BE MOUNTED 48" AFF MAXIMUM
2. ALL OUTLETS ARE TO BE MOUNTED 15" AFF MINIMUM
3. LEVEL ONE MUST HAVE A 32" CLEAR PATH FROM DESIGNATED VISITABLE ENTRANCE TO LEVEL 1 RESTROOM, KITCHEN, LIVING AND DINING. PROVIDE A MINIMUM 32" WIDE DOOR TO ALLOW 30" CLEAR @ BATHROOM DOORWAY
4. PROVIDE 2x6 BLOCKING IN DESIGNATED LEVEL ONE VISITABILITY RESTROOM AROUND PERIMETER OF ROOM @ 34" AFF TO CENTER
5. ONE ENTRY INTO LEVEL ONE MUST HAVE A CHANGE IN LEVEL OF NO MORE THAN 1/2" MAX AND PROVIDE 32" CLEAR @ DOORWAY



10/28/2021

3105 WHITEPINE DR  
AUSTIN, TX 78757

COVER

REVISIONS

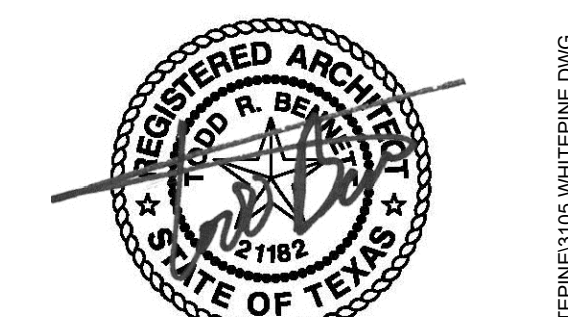
ISSUE DATE

10-28-2021

JOB NUMBER

SHEET

A0



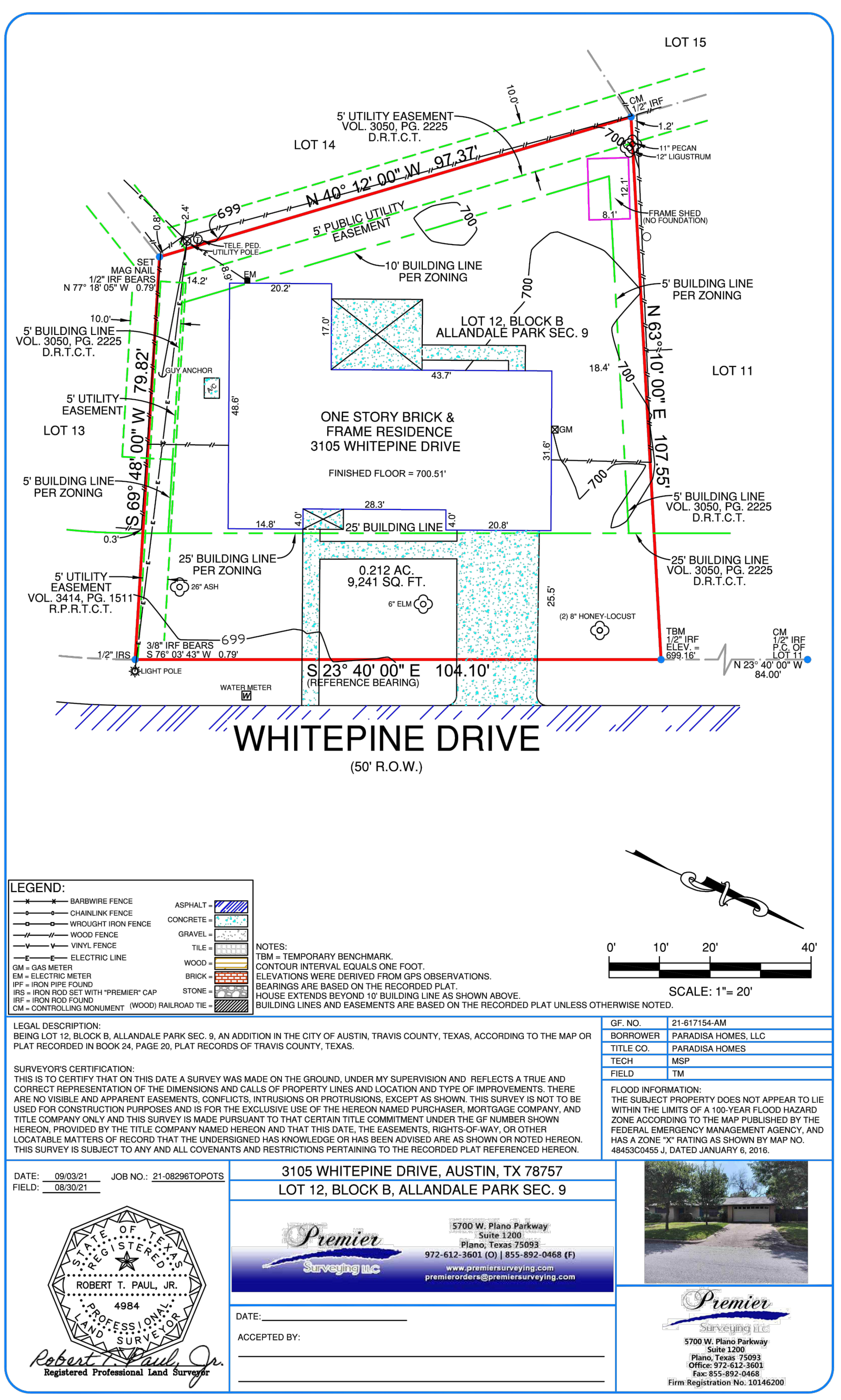
date	issues & revisions	dsgr	aprv
11/29/2021	CoA COMMENT REPORT		

12/07/2021  
 ADDRESS: 3105 WHITEPINE DR  
 AUSTIN, TX 78757  
 LEGAL: LOT 12 BLK B ALLANDALE PARK SEC 9.  
 ZONING: SF-2  
 LOT AREA: 9241 SF  
 PROTECTED TREE: YES  
 CONDITIONED SF:  
 \*HOME: 3054 SF  
 \*CABANA: 372 SF

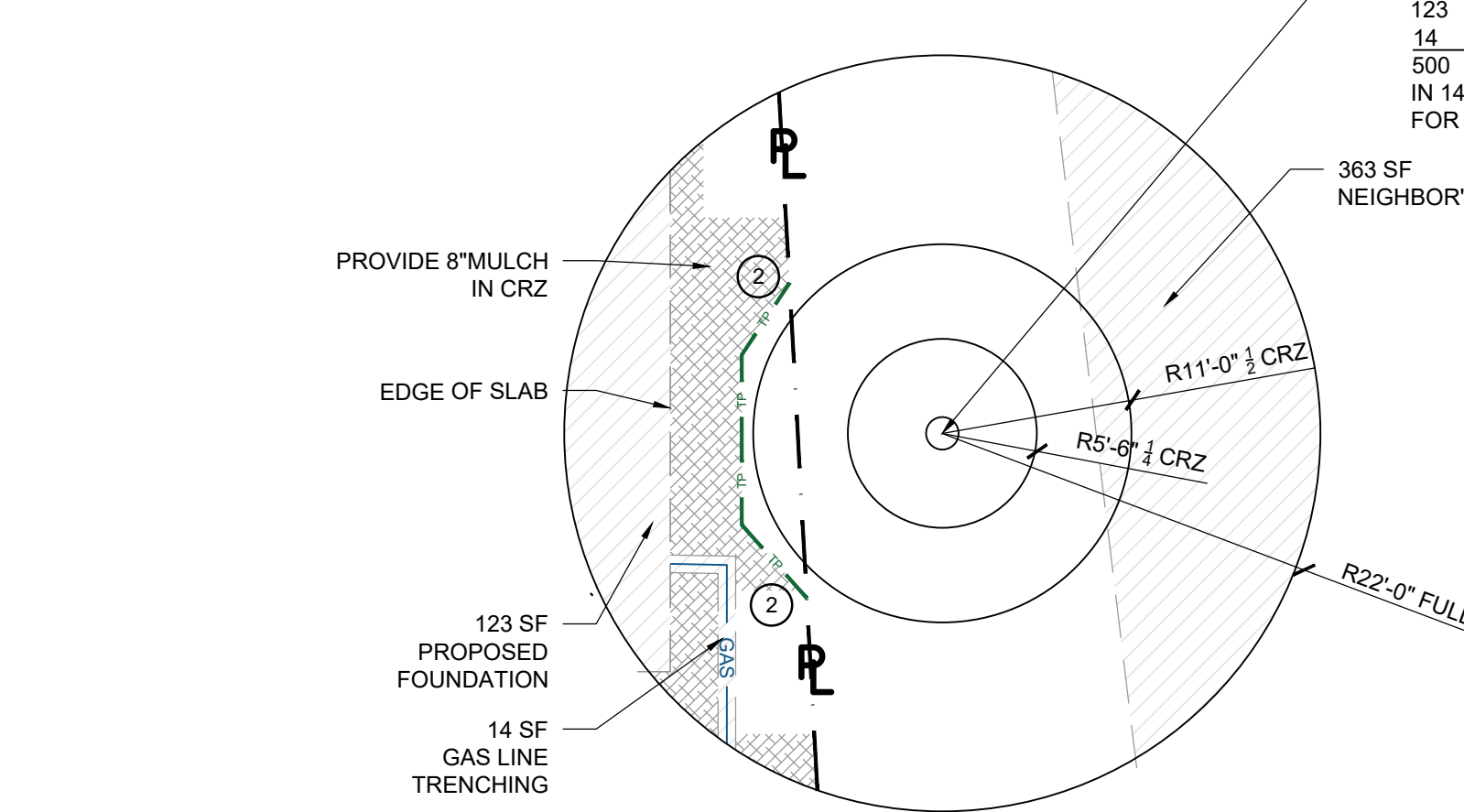
**EXISTING & PROPOSED SITE PLAN**

number  
**A1.0**

- TREE NOTES**
1. THERE ARE NO PORTIONS OF THE SLAB WITHIN THE 1/2 CRZ OF ANY PROTECTED TREE
  2. ANY EXCAVATION FOR UTILITIES WITHIN THE 1/2 CRZ WILL BE DONE USING AIR SPADING BY A CERTIFIED ARBORIST
  3. IF CONCRETE LINE PUMP IS TO BE USED, WRAP CONNECTIONS OF CONCRETE LINE PUMP WITH PLASTIC TO PREVENT CONCRETE SLURRY FROM LEACHING INTO GROUND AND NEAR ROOT OF TREES.
  4. IF HEAVY EQUIPMENT WILL BE ROLLING OVER ANY AREA OF THE FULL CRZ OF PROTECTED TREES, PROVIDE 3/4" PLYWOOD OVER 2X4 LUMBER OVER 12" LAYER OF MULCH TO BRIDGE OVER THE ROOTS AND PREVENT SOIL/ROOT COMPACTION. AFTER CONSTRUCTION IS COMPLETED, SPREAD MULCH AROUND SITE TO LEAVE A MAX LAYER OF 3" WITHIN ROOT ZONES.
  5. NO BATTER BOARD OF FOUNDATION FORMWORK STAKES WITHIN THE 1/2 CRZ EXCEPT #5 WITH POINTED TIP. USE A STRONG-BACK DESIGN TO GET ANY LARGER STAKES OUT OF THE 1/2 CRZ.



**EXISTING SURVEY**  
 SCALE: 1" = 20'-0"

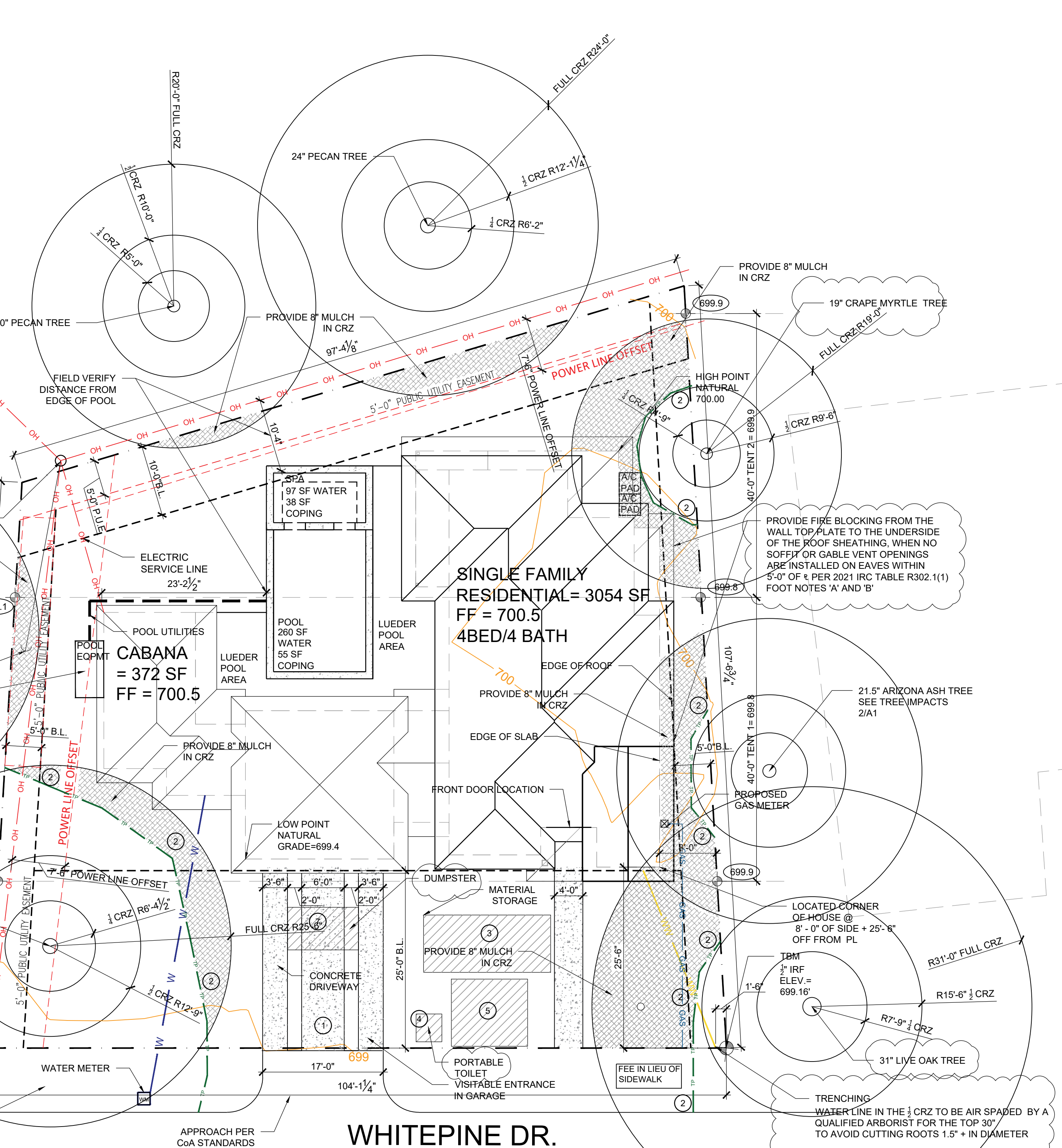


**POST-CONSTRUCTION IMPACTS 21.5' ARIZONA ASH TREE**

**TREE IMPACT PLAN**  
 SCALE: 1" = 10'-0" (HALF SCALE = 1" = 20'-0")

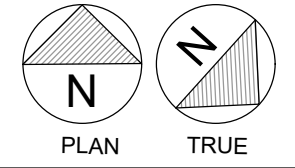
- TREE KEY NOTES**
1. ACCESS TO SITE
  2. TREE PROTECTION TO PROTECT FULL CRZ OF PROTECTED TREES. IF THE FULL CRZ CANNOT BE PROTECTED PROVIDE AN 8" LAYER OF MULCH WITHIN THE ENTIRE FULL UNPROTECTED ROOT ZONE TO MINIMIZE COMPACTION. IF FENCE CANNOT PROTECT ENTIRE 1/2 CRZ FOR ANY REASON AT ANY TIME, STRAP 2X4 PLANKS 6" TALL MINIMUM, SECURELY AROUND TRUNK AND ROOT FLARES. ENVIRONMENTAL CRITERIA MANUAL
  3. MATERIAL STORAGE. MAY NOT BE WITHIN 1/2 CRZ OF PROTECTED TREE
  4. PORTABLE TOILET LOCATION AND TRUCK WASH. NOT TO BE WITHIN FULL CRZ OF ANY PROTECTED TREE
  5. SPOILS PLACEMENT
  6. PROVIDE ACCESS PATH IN 1/2 CRZ: 4 FEET WIDE, MINIMUM, WITH 3/4" PLYWOOD ON TOP OF 2X6 PLANKS ON TOP OF A 12" LAYER OF HARDWOOD MULCH ON TOP OF THE EXISTING GRADE.
  7. DUMPSTER. NOT TO BE WITHIN ANY 1/2 CRZ OF PROTECTED TREE

**PROPOSED SITE PLAN**  
 SCALE: 1" = 10'-0"



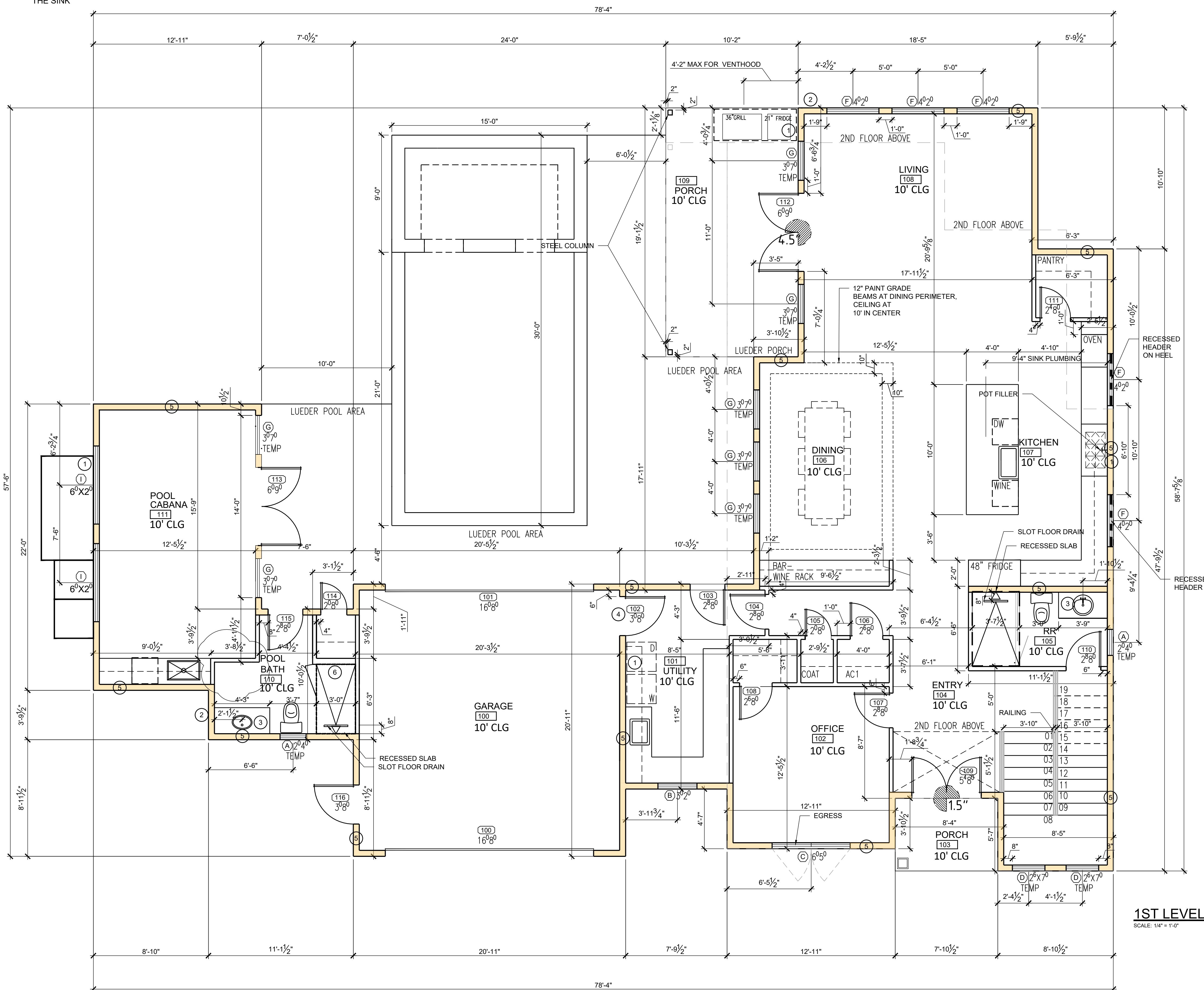
PROPOSED FLOOR TO AREA RATIO		PROPOSED IMPERVIOUS COVERAGE		PROPOSED BUILDING COVERAGE	
NEW	DESCRIPTION	NEW	DESCRIPTION	NEW	DESCRIPTION
1596	1ST LEVEL	438	DRIVEWAY & SIDEWALK	1596	1ST LEVEL
372	CABANA	1596	HOUSE	372	CABANA
1458	2ND LEVEL	372	CABANA	194	REAR PORCH
37	AREA CEILINGS >15'	433	GARAGE	44	FRONT PORCH
44	FRONT PORCH	18	A/C PAD	433	GARAGE
194	REAR PORCH	32	POOL EQUIPMENT PAD	2639	TOTAL
-238	PORCH EXEMPTION	546	POOL DECK LUEDER		
433	GARAGE	93	POOL & SPA COPING	9241	LOT SIZE
-200	GARAGE EXEMPTION	44	FRONT PORCH	28.55%	B.C.
3696	TOTAL	194	REAR PORCH	40%	(3696 SF) ALLOWED IN SF-3
		3766	TOTAL		
9241	LOT SIZE				
99.99%	F.A.R.	9241	LOT SIZE		
40%	(3696 SF) ALLOWED				
		40.75%	I.C.		
		45%	(4158 SF) ALLOWED IN SF-3		

**PROPOSED SITE PLAN**  
 SCALE: 1" = 10'-0"



**KEYED NOTES**

- ① PROVIDE GAS
- ② HOSE BIBB WITH ANTI SIPHON
- ③ NOTE: PROVIDE 2X6 BLOCKING @ 34" AFF AROUND PERIMETER OF THIS RESTROOM EXCEPT BEHIND THE SINK
- ④ MAXIMUM 1/2" CHANGE IN LEVEL
- ⑤ PROVIDE 2X6 WALL
- ⑥ PROVIDE GLASS SURROUND WITH 30" SHOWER DOOR



**1ST LEVEL FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

WINDOW SCHEDULE				
TAG	QUANTIT	WIDTH	HEIGHT	TYPE
A	2	2/0	4/0	FIXED + TEMP
B	1	3/0	2/0	FIXED
C	2	6/0	5/0	(2) 3/0X5/0 CSMT +MULLED
D	4	2/6	7/0	FIXED+ TEMPERED
E	1	5/0	4/0	(2) 2/6 X 4/0 FIXED + MULLED
F	10	4/0	2/0	FIXED
G	10	3/0	7/0	FIXED + TEMP
H	2	3/0	5/0	CSMT
I	3	6/0	2/0	FIXED

DOOR SCHEDULE				
Door No	Width	Height	Swing	Notes
100	16/0	8/0	GR	OH GARAGE
101	16/0	8/0	GR	OH GARAGE
102	3/0	8/0	LH	UTILITY 101
103	2/8	8/0	LH	UTILITY 101
104	2/8	8/0	RH	UTILITY 101
105	2/0	8/0	LH	COAT
106	2/6	8/0	LH	AC-1
107	2/8	8/0	RH	OFFICE 112
108	2/6	8/0	RH	OFFICE CLOSET
109	5/4	8/0	DBL	CUSTOM ENTRY-RIGHT LEAF ACTIVE.
110	2/8	8/0	RH	RR 105
111	2/4	8/0	LH	PANTRY
112	6/0	9/0	DBL	PORCH 109 - LEFT LEAF ACTIVE
113	6/0	9/0	DBL	POOL CABANA 111-RIGHT LEAF ACTIVE
114	2/0	8/0	LH	POOL STORAGE
115	2/8	8/0	RH	POOL BATH 110
116	3/0	8/0	RH	SIDEYARD
200	2/8	8/0	RH	BEDROOM 201
201	4/0	8/0	DBL	CLOSET
202	2/6	8/0	RH	BATH 202
203	2/0	8/0	LH	LINEN
204	2/6	8/0	LH	AC-2
205	2/8	8/0	LH	BEDROOM 204
206	4/0	8/0	DBL	CLOSET BEDROOM 204
207	2/8	8/0	LH	PRIMARY 206
208	2/6	8/0	LH	CLOSET 203
209	2/6	8/0	RH	PRIMARY BATHROOM 205
210	2/4	8/0	RH	TOILET
211	3/0	8/0	LH	BALCONY

**NEW RESIDENCE**  
**3105 WHITEPINE DR.**  
AUSTIN, TX 78757

**paradisahomes**  
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12/07/2021

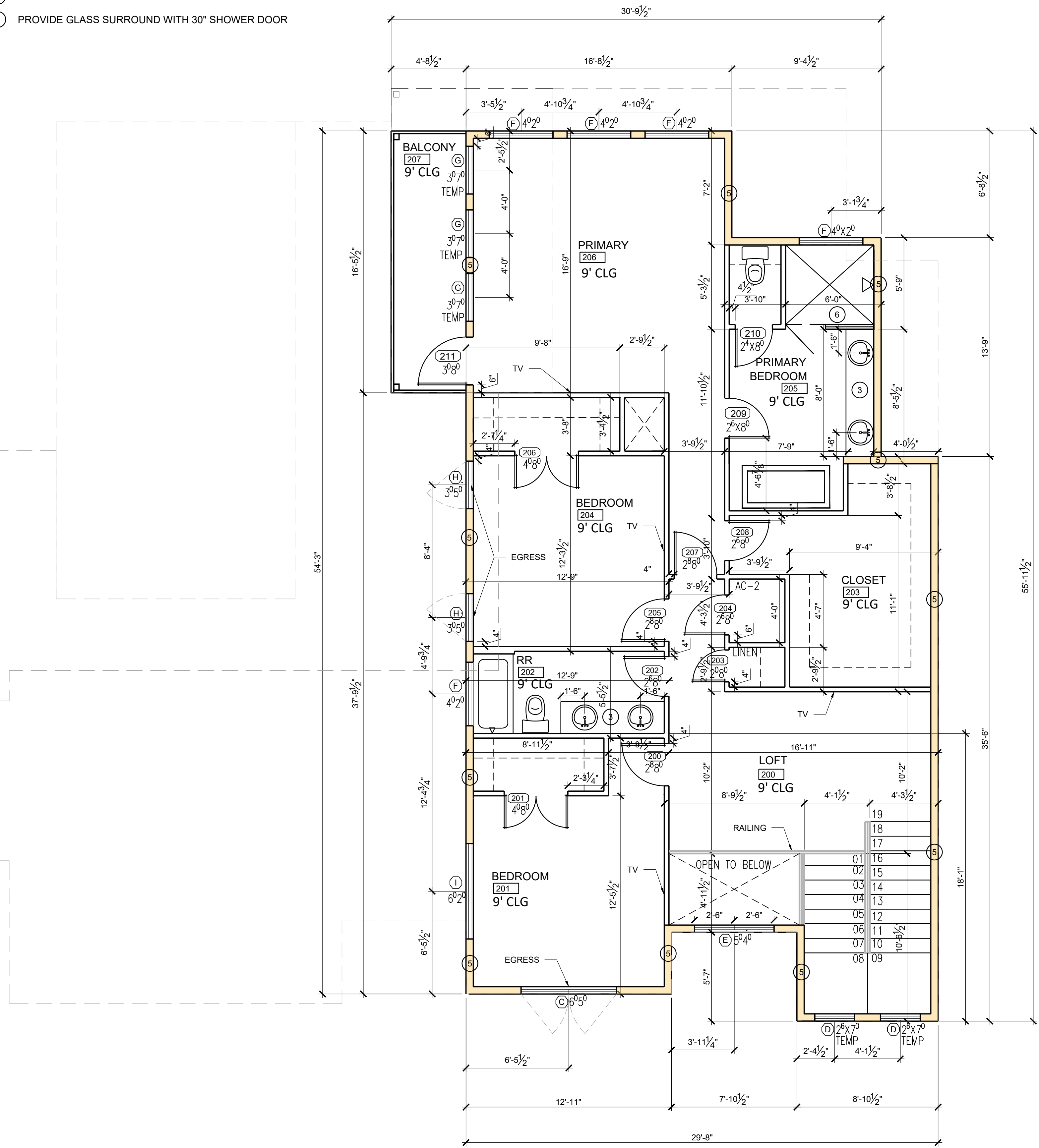
date	issues & revisions	dsgr	aprv
11/29/2021	CoA COMMENT REPORT		

**1ST FLOOR PLAN**

number  
**A2.0**

**KEYED NOTES**

- ① PROVIDE GAS
- ② HOSE BIBB WITH ANTI SIPHON
- ③ NOTE: PROVIDE 2X6 BLOCKING @ 34" AFF AROUND PERIMETER OF THIS RESTROOM EXCEPT BEHIND THE SINK
- ④ MAXIMUM 1/2" CHANGE IN LEVEL
- ⑤ PROVIDE 2X6 WALL
- ⑥ PROVIDE GLASS SURROUND WITH 30" SHOWER DOOR

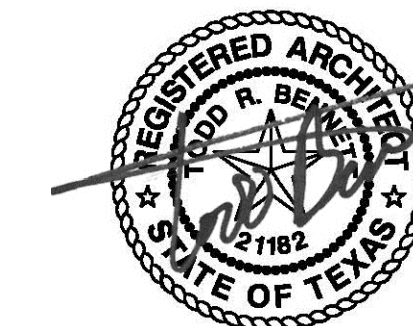


**2ND LEVEL FLOOR PLAN**

SCALE: 1/4" = 1'-0"

**1**

**paradisahomes**  
 comfort-quality-style



10/28/2021

date	issues & revisions	dsgr	aprv

description  
**2ND FLOOR PLAN**

number  
**A2.1**

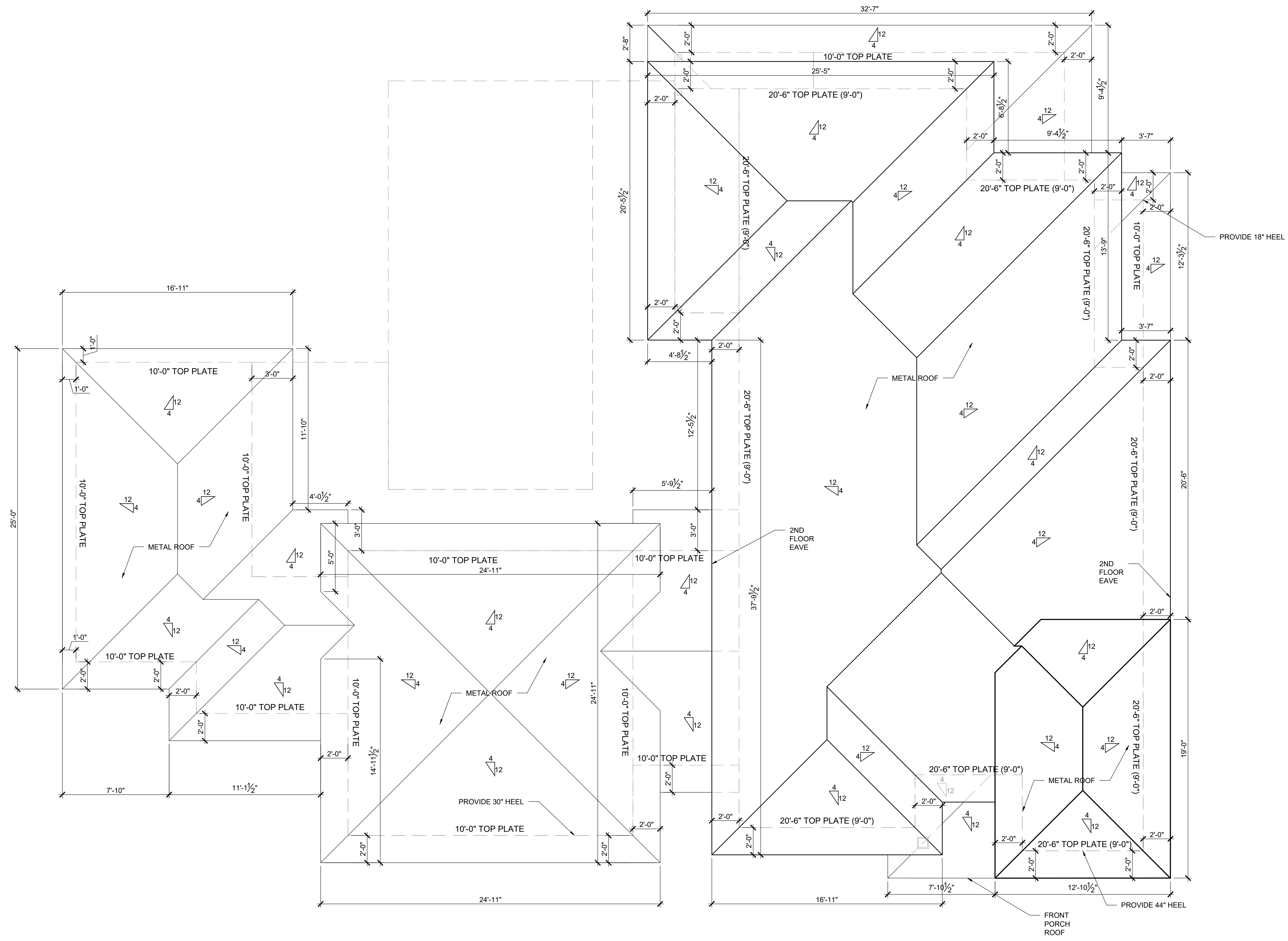


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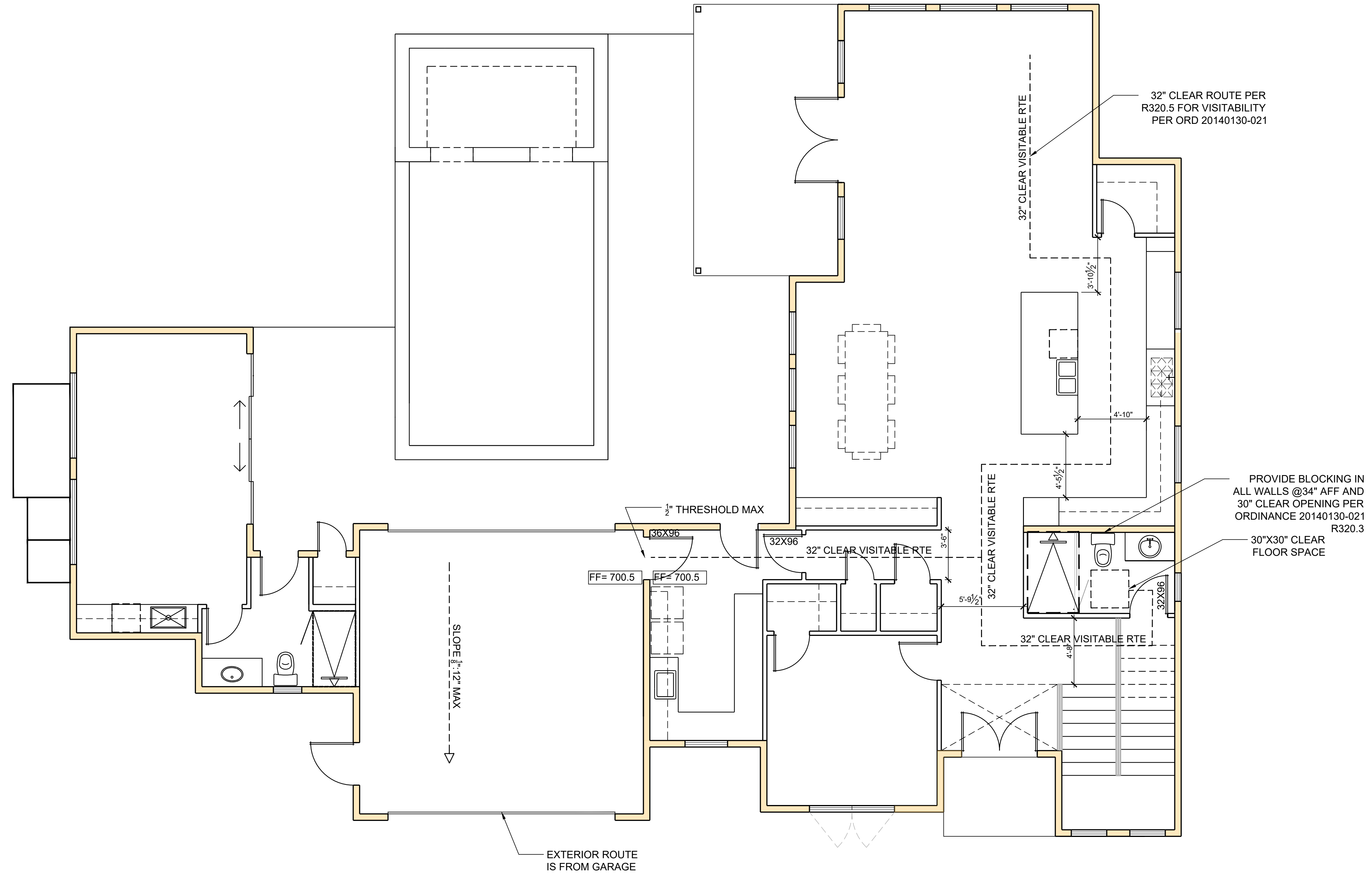
date	issues & revisions	dsgr	aprv

description  
**ROOF PLAN**

number  
**A2.2**



**ROOF PLAN**  
SCALE: 1/4" = 1'-0"



**VISITABILITY PLAN**

SCALE: 1/4" = 1'-0" (HALF SCALE = 1/8" = 1'-0")

**AUSTIN VISITABILITY**

1. ALL SWITCHES AND TEMPERATURE CONTROLS ARE TO BE MOUNTED 48" AFF MAXIMUM
2. ALL OUTLETS ARE TO BE MOUNTED 15" AFF MINIMUM
3. LEVEL ONE MUST HAVE A 32" CLEAR PATH FROM DESIGNATED VISITABLE ENTRANCE TO LEVEL 1 RESTROOM, KITCHEN, LIVING AND DINING. PROVIDE A MINIMUM 32" WIDE DOOR TO ALLOW 30" CLEAR @ BATHROOM DOORWAY
4. PROVIDE 2x6 BLOCKING IN DESIGNATED LEVEL ONE VISITABILITY RESTROOM AROUND PERIMETER OF ROOM @ 34" AFF TO CENTER
5. ONE ENTRY INTO LEVEL ONE MUST HAVE A CHANGE IN LEVEL OF NO MORE THAN 1/2" MAX AND PROVIDE 32" CLEAR @ DOORWAY



10/28/2021

date	issues & revisions	dsgn	aprv

description  
**VISITABILITY PLAN**

number  
**A2.3**

DATE: October 29, 2021 4:56 AM - PLOTTED BY: MORAL DUDRO/PROX (PARADISA HOMES)/PARADISA HOMES TEAM FOLDER: 2 PLANS IN DESIGN: 3105 WHITEPINE.DWG Copyright © 2014

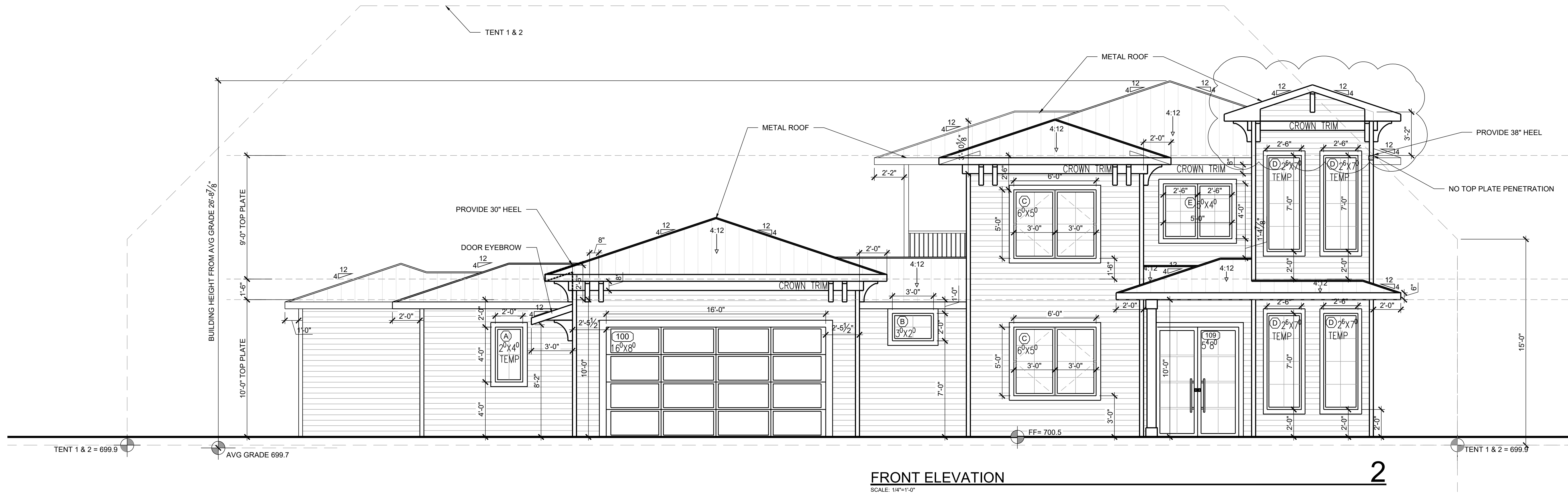


12/07/2021

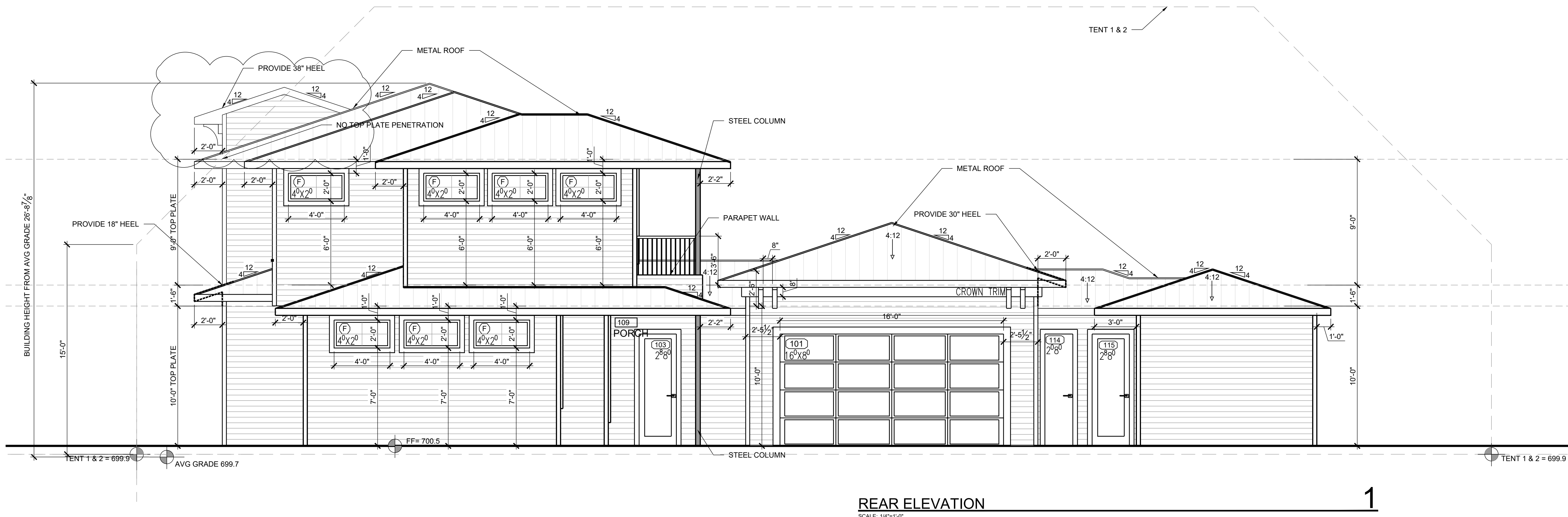
date	issues & revisions	dsgn	aprv
11/29/2021	CoA COMMENT REPORT		

description  
**ELEVATIONS**

number  
**A4.0**



2



1

DATE: December 9, 2021 4:33 AM PLOTTED BY: TODD BENNETT C:\USER\TRB\3105\PROJBOX\PARADISA-HOMES\PARADISA-HOMES TEAM FOLDER\2 PLANS IN DESIGN\3105 WHITEPINE.DWG



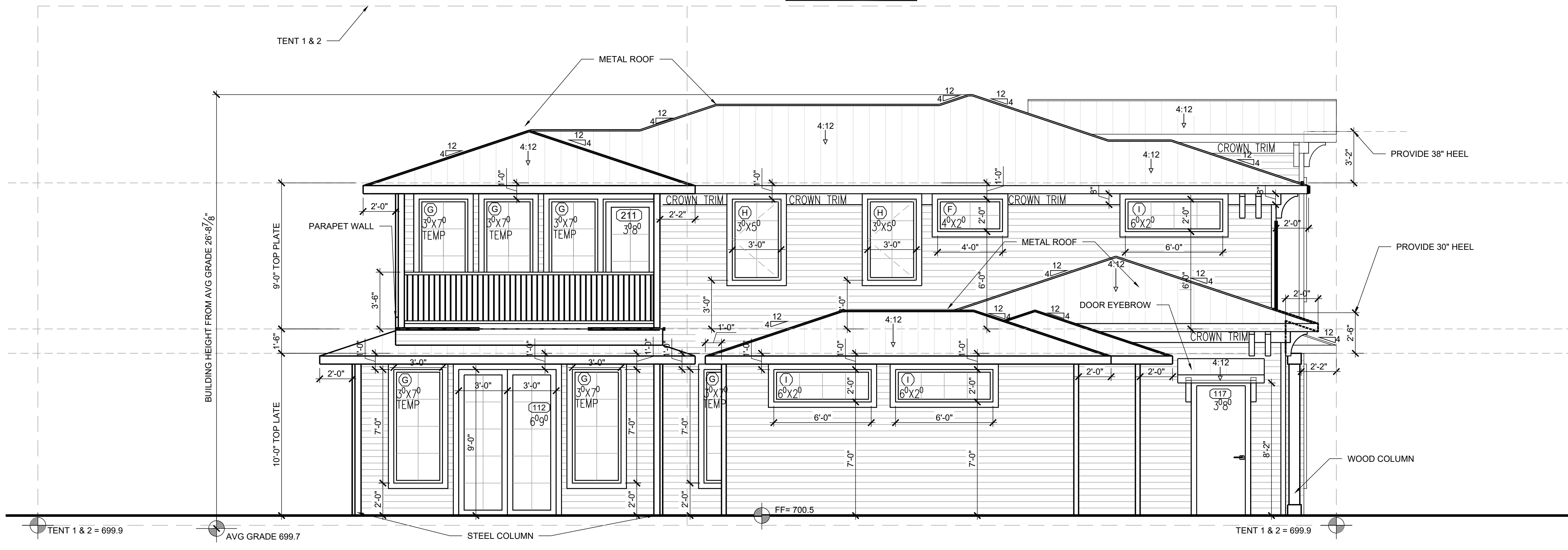
12/07/2021

date	issues & revisions	dsgn aprv
11/29/2021	CoA COMMENT REPORT	

description  
**ELEVATIONS**

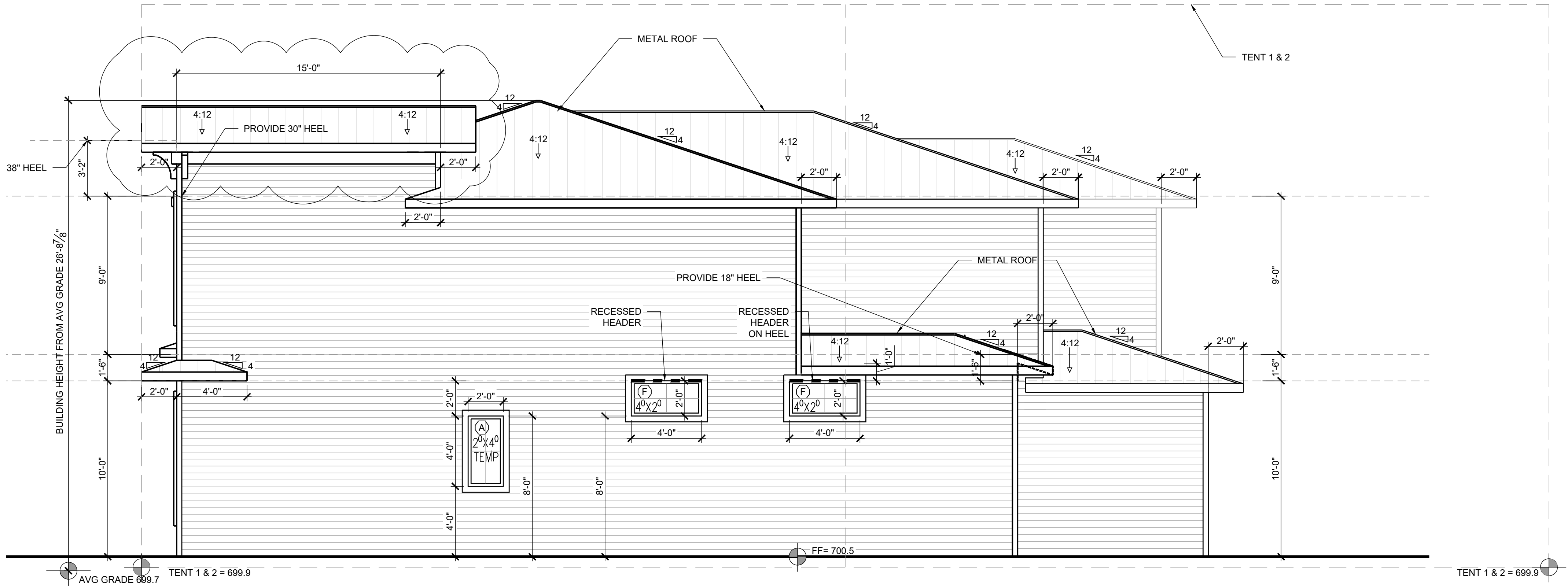
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**HOUSE SIDE ELEVATION**  
SCALE: 1/4" = 1'-0" (HALF SCALE = 1/8" = 1'-0")

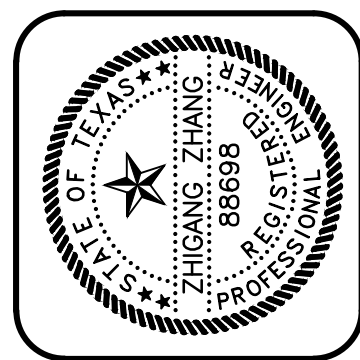
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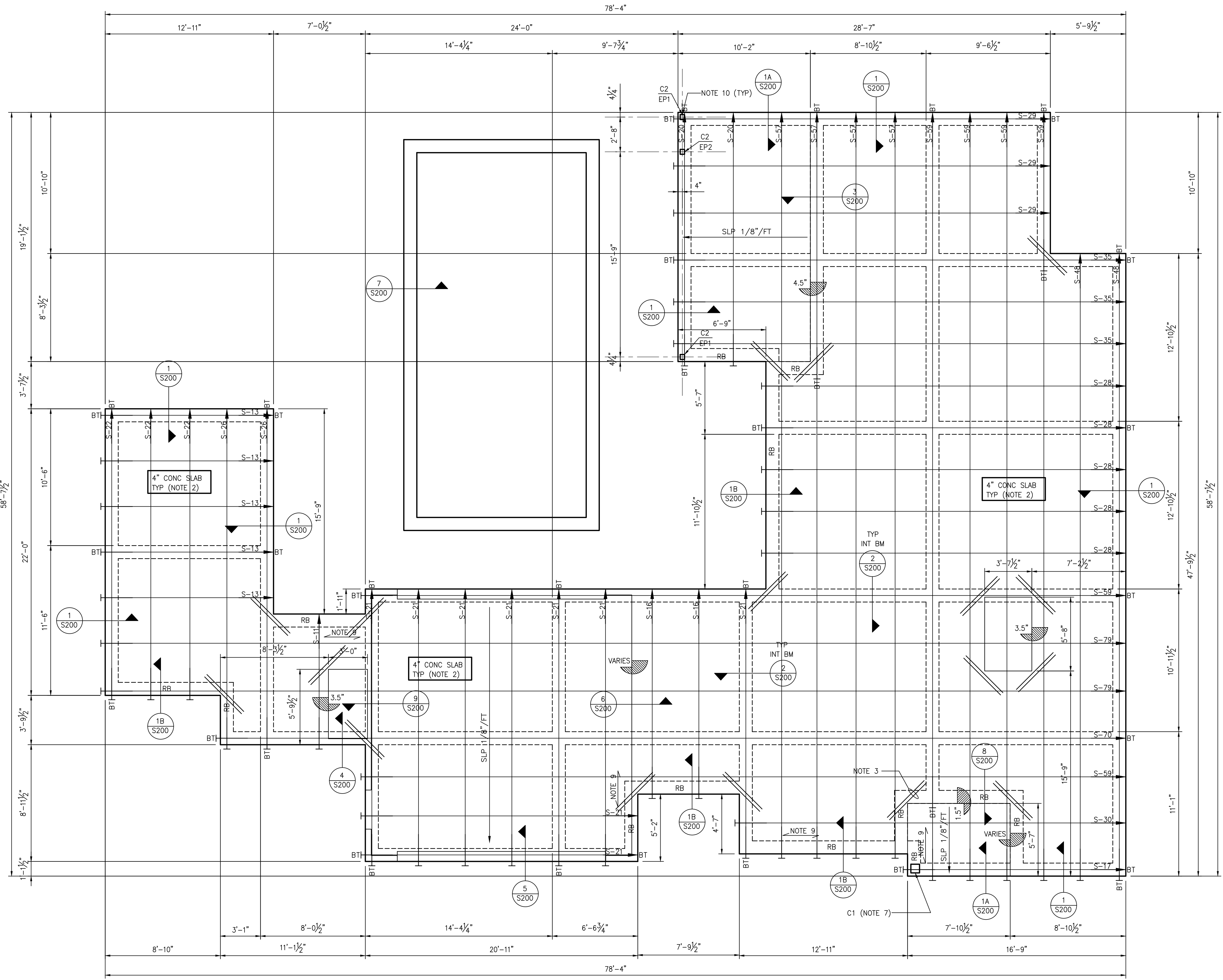
**HOUSE SIDE ELEVATION**  
SCALE: 1/4" = 1'-0" (HALF SCALE = 1/8" = 1'-0")

1





**GREENBARTH ENGINEERING, INC.**  
 2000 WEST MILAM AVENUE, SUITE 1200  
 AUSTIN, TEXAS 78703  
 PHONE (512) 289-8086 FAX (512) 383-8339  
 GE JOB NO.: 21457



TENDON ELONGATION SCHEDULE					
LENGTH (FEET)	ELONGATION (INCHES)	LENGTH (FEET)	ELONGATION (INCHES)	LENGTH (FEET)	ELONGATION (INCHES)
10	0.8	64	5.1	118	9.3
12	0.9	66	5.2	120	9.5
14	1.1	68	5.4	122	9.6
16	1.3	70	5.5	124	9.8
18	1.4	72	5.7	126	10.0
20	1.6	74	5.8	128	10.1
22	1.7	76	6.0	130	10.3
24	1.9	78	6.2	132	10.4
26	2.1	80	6.3	134	10.6
28	2.2	82	6.5	136	10.7
30	2.4	84	6.6	138	10.9
32	2.5	86	6.8	140	11.1
34	2.7	88	7.0	142	11.2
36	2.8	90	7.1	144	11.4
38	3.0	92	7.3	146	11.5
40	3.2	94	7.4	148	11.7
42	3.3	96	7.6	150	11.9
44	3.5	98	7.7	152	12.0
46	3.6	100	7.9	154	12.2
48	3.8	102	8.1	156	12.3
50	4.0	104	8.2	158	12.5
52	4.1	106	8.4	160	12.6
54	4.3	108	8.5	162	12.8
56	4.4	110	8.7	164	13.0
58	4.6	112	8.8	166	13.1
60	4.7	114	9.0	168	13.3
62	4.9	116	9.2	170	13.4

**FOUNDATION PLAN**

1/4" = 1'-0" IN 22X34  
 1/8" = 1'-0" IN 11X17

**PLAN NOTES:**

- VERIFY WITH ARCHITECTURAL DRAWINGS FOR DIMENSIONS, SLOPES, SLAB DROPS & FLOOR DRAINS.
- 4" SLAB (U.N.O.) OVER 10 MIL. STEGO VAPOR RETARDER OVER COMPACTED STRUCTURAL FILL. REINFORCE SLAB WITH 1/2" POST-TENSIONED TENDONS. TENDONS SHALL SPACE NO LESS THAN 36" O.C. AND NO MORE THAN 48" O.C. UNLESS NOTED OTHERWISE IN PLAN. FIRST TENDON(S) SHALL BE PLACED BETWEEN 6" TO 18" OF THE PARALLEL CONCRETE EDGE. THE POST-TENSIONING CONTRACTOR SHALL PREPARE A LOG THAT DOCUMENTS THE ELONGATIONS OF EACH CABLE AND SUBMIT FOR ENGINEER'S REVIEW.
- 2-#3x4'-0" CORNER BARS - TYPICAL AT ALL RE-ENTRANT CORNERS.
- RB = REINFORCED BEAM. SEE DETAIL FOR REBARS.
- DESIGNATES TENDON DEAD END.
  - DESIGNATES TENDON LIVE END.
  - BT = BEAM TENDON; S-32 DESIGNATES "SLAB TENDON AND LENGTH IN FEET"
- POST-TENSIONING SLAB TENDONS SHALL BE IN A STRAIGHT LINE FROM STRESSING END TO DEAD END. DEVIATION AT ANY PLACE SHALL NOT EXCEED 10 DEGREES IN A HORIZONTAL GRADUAL PARABOLIC SWEEP.
- C1 = 8X8 WOOD COLUMN. PROVIDE SIMPSON ABU POST BASE w/ 1/2" EPOXY BOLT (EMBED = 5").
- DOWNSPOUT SHALL NOT EMPTY WATER NEAR FOUNDATION. USE FRENCH DRAIN TO DIRECT WATER AT LEAST 10'-0" AWAY FROM FOUNDATION.
- #3 REBARS AT 12" O.C. AT WHERE THERE IS NO SLAB CABLE.
- C2 = HSS4X4X1/4 STEEL COLUMN. EP = EMBED PLATE. SEE S200 FOR EMBED PLATE DETAILS.

3105 WHITEPINE DR  
 AUSTIN, TEXAS

REV.	DATE

CHK. BY: TZ  
 DRWN. BY: BB  
 DATE: 10/29/2021

SHEET NO.  
**S100**  
 OF

DETAILS SCALE TO 3/8"=1'-0" IN 11X17 SHEET

**BUILDING PAD PREPARATION**

- Structural fill material shall consist of crushed limestone base material with the gradation as follows:
 

Retained on 2-1/2" screen	0%
Retained on 1-1/2" screen	0% - 25%
Retained on 3/4" screen	15% - 55%
Retained on 1/4" screen	45% - 75%
Retained on No. 40 mesh sieve	60% - 90%
- Prior to placing fill material, remove all organic and other deleterious material from the existing subgrade for the area within the building line. All exposed surfaces shall then be recompacted to a minimum of 95 percent of the maximum dry density as defined by TxDOT test method TEX 113-E or 114-E at a moisture content within 3 percent of the optimum moisture content. **THIS PROCEDURE DOES NOT APPLY TO THE PROTECTED TREE'S 50% CRITICAL ROOT ZONE.**
- Structural fill shall be placed in 8 inch loose lifts, watered as required and compacted to a minimum of 95 percent of the maximum dry density as defined in TxDOT test method TEX 113-E at a moisture content within 3 percent of the optimum moisture content. **THIS PROCEDURE DOES NOT APPLY TO THE PROTECTED TREE'S 50% CRITICAL ROOT ZONE.**
- Provide a 10 mil polyolefin Stago retarder. Place vapor barrier in accordance with manufacturer's recommendation on top of structural fill.

**POST-TENSIONED CONCRETE**

- Design and construction of post-tensioned concrete shall be in accordance with Post-tensioning Institute.
- All post-tensioning tendons shall be Lo-Lax and anchorages shall conform to report No. ACI 423-3R-83. Tendons shall be fabricated with 1/2" diameter 270 KSI strand meeting ASTM A-416.
- All concrete shall have a minimum compressive strength of 2,000 PSI at time of full stressing. Water content shall be controlled and minimized otherwise cracking due to shrinkage will be excessive.
- The location of construction joints as detailed in the contract documents may not be changed without approval from engineer.
- Tendons and reinforcing bars shall be tied at all intersections. Tendons shall be supported on chairs at no more than 4 feet on center. Rebars shall be adequately supported. Care shall be used during placement of concrete so that positioning of tendons and supports is maintained.
- At dead ends, tendon sheathing may be cut back as much as 12" from the anchorage. At stressing ends, sheathing may be cut back a maximum of 2'. Repair damaged sheathing prior to concrete placement.
- Dead ends and stressing ends shall not be changed in the field without a written approval from engineer.
- Concrete shall be well consolidated in the vicinity of end anchorage.
- Tendon force variations indicated by gage pressure and elongation in excess of 7 percent shall be reported to the structural engineer.
- Tendons shall be stressed as follows:
  - Tendons less than 100 feet shall be fully stressed within 3 to 4 days after concrete placement and achieving a compressive strength of 2,000 psi.
  - Tendons greater than 100 feet shall be partially stressed to 25% of the full stress force within 24 to 36 hours of concrete placement. Full stressing of these tendons shall occur within 3 and 4 days, after concrete has reached a compressive strength of 2,000 psi.
- The jacking force in the 1/2" diameter Lo-lax prestressing strands shall be as follows:
  - Initial jacking force = 33 kips.
  - Final jacking force = 31 kips.
- The post-tensioned slab-on-grade design is based on prestressing losses not exceeding 20% or 4.59 kips per tendon excluding seating and frictional losses.
- Tendons 1/2" and 270 ksi shall be efficiently anchored at 31 kips. These tendons may be temporarily stressed to 33 kips in order to overcome friction and compensate for seating losses.
- Elongations shall be approximately 0.079" per foot of stressed tendon length u.o.c. on plan. Any discrepancies shall be brought to the attention of the engineer.
- Tendon ends shall be cut off with a saw or shear, not a torch.
- Stressing pockets shall be patched with a stiff grout mix.
- Contractor shall submit complete placing plans, details of tendon and bar placements.
- Post-tensioned tendons in beams shall be draped as shown in plans using smooth parabolic drapes.
- After tendons are stressed and excess cut off, any exposed hardware shall be sprayed with rust-inhibitive paint and openings shall be grouted flush with slab edge.
- Tendons shall have the prestressing strand permanently protected against corrosion by a chemically stable, properly applied continuous coating over the entire tendon length. Sheathing for unbonded tendons shall have sufficient tensile strength and water resistance to resist damage and deterioration and shall be continuous over the tendon length.
- Anchorages of unbonded tendons shall develop at least 95% of the minimum specified ultimate strength of the prestressing steel without exceeding anticipated set. Special reinforcement required for the performance of the anchorage shall be provided by the tendon supplier.
- Post-tensioning contractor shall submit the followings to the engineer for review:
  - Lab test and results on anchorage system.
  - Current calibration date for stressing equipment to be used.
  - Coefficient of friction for strands.
  - Mill tests for strands.
- Post-tensioning slab tendons shall be placed in a straight line from stressing end to dead end. Deviation at any place shall not exceed 10 degrees in a horizontal gradual parabolic sweep.
- tendons shall not be placed within 6" of a parallel edge.
- Contractor shall be responsible for locating all post-tensioning tendons when using expansion bolts, adhesive anchors or power-actuated fasteners. The contractor shall locate the tendons using non-destructive means.

**CAST IN PLACE CONCRETE**

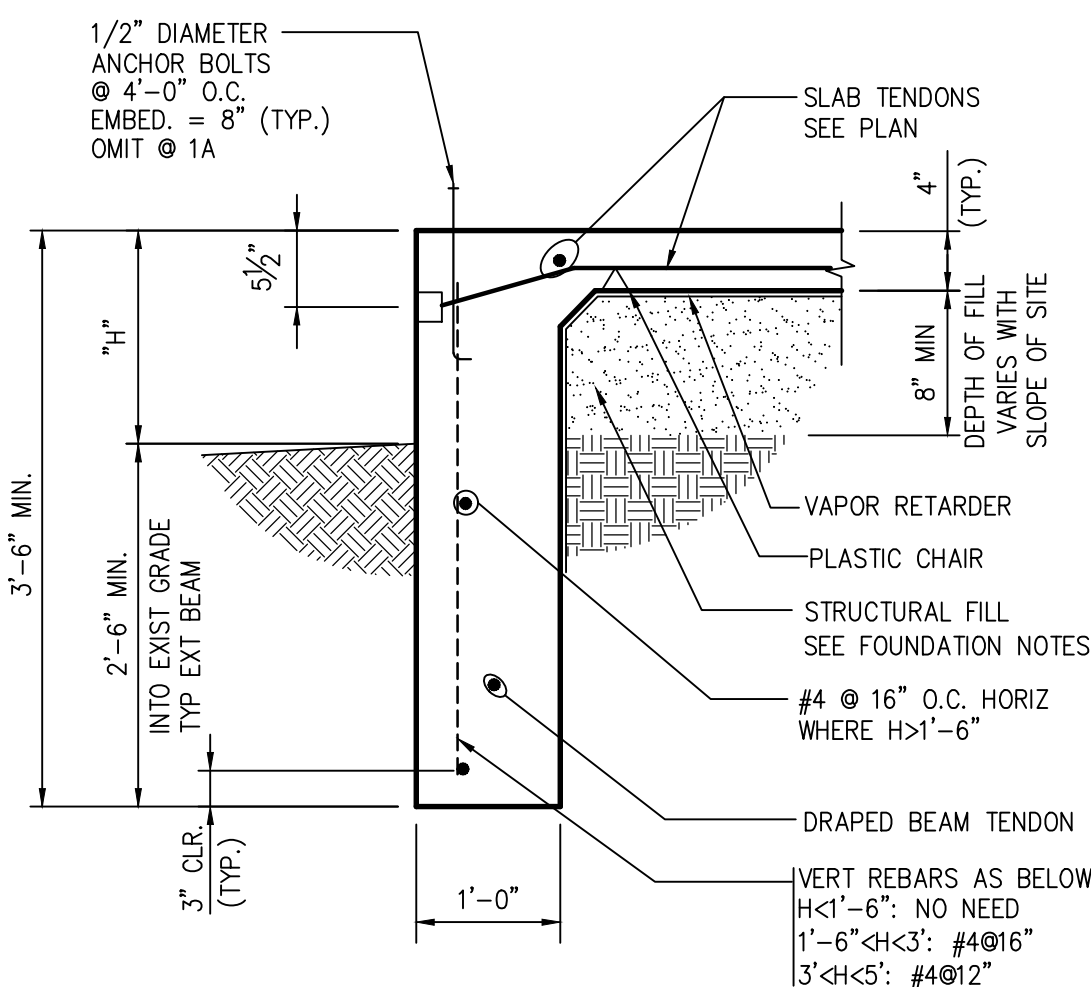
- Cast in place concrete shall meet the following requirements:
 

28 Day Class	Aggregate Type	Slump	Use
A 3000 psi C 33	1" 4" to 6"	4" to 6"	Slab-on-grade & grade beams

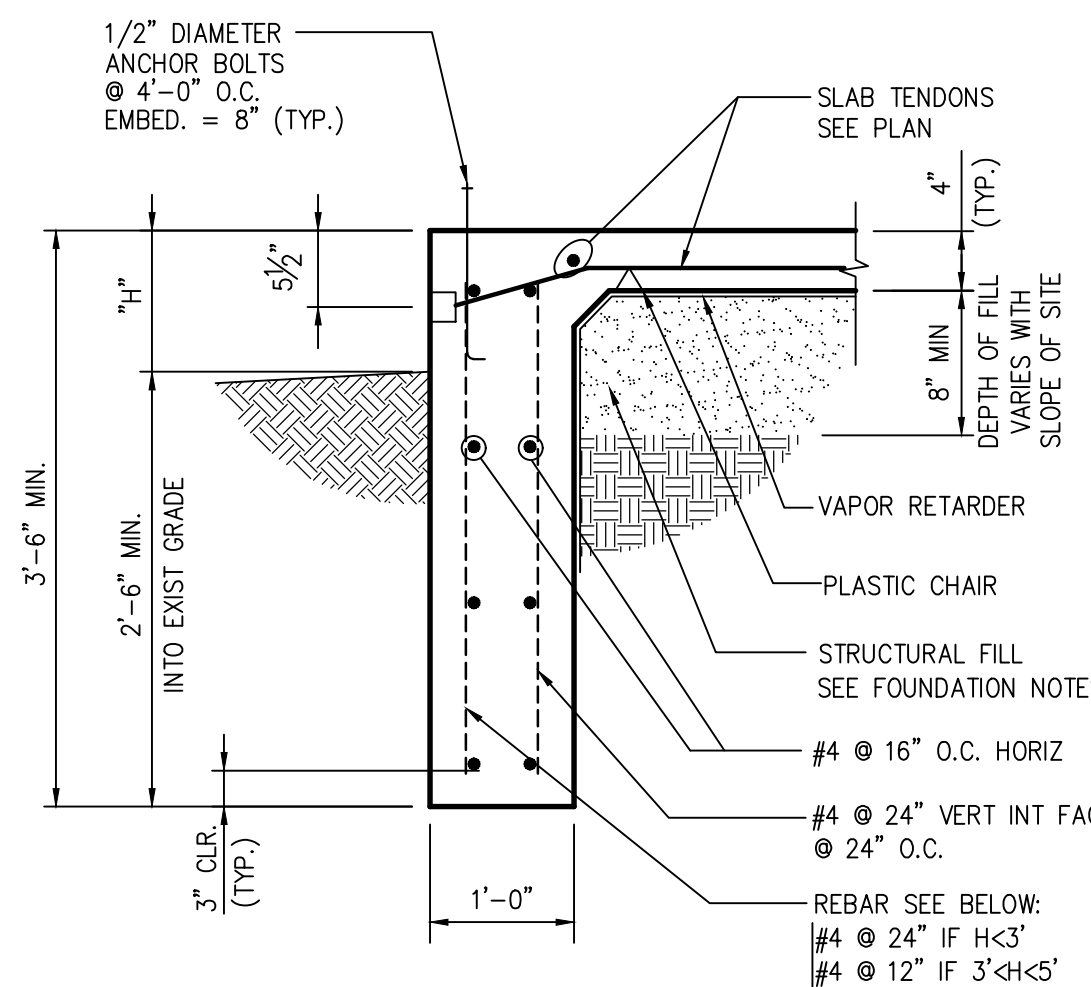
The use of fly ash is recommended, but shall not exceed 25% of the total of the cement plus fly ash by weight.

**CONCRETE REINFORCING**

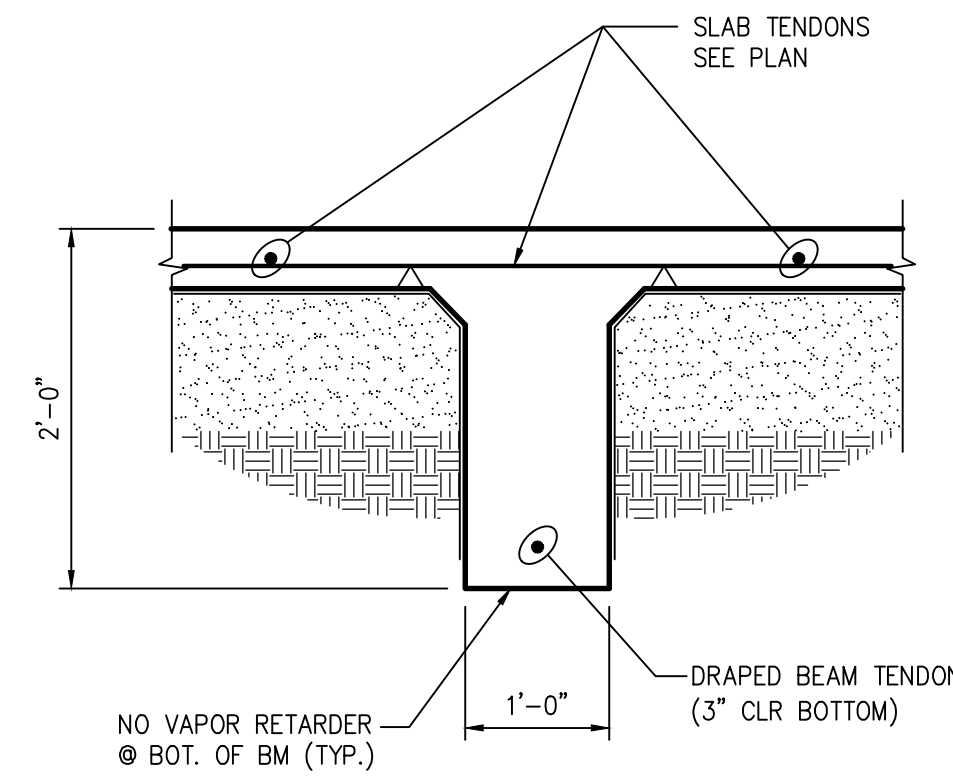
- Reinforcing steel shall be deformed new billet steel bars in accordance with ASTM A615 Grade 60.
- Detailing of reinforcing steel shall conform to the American Concrete Institute Detalling Manual.
- Provide 2-#4 bent bar with 2'-0" legs top and bottom in interior and exterior face of grade beams at corners and top and bottom in exterior face of grade beam at intersections.
- All hooks and bends in reinforcing bars shall conform to ACI detalling standards unless shown otherwise.
- Welding of reinforcing steel will not be permitted.
- Heat shall not be used in the fabrication or installation of reinforcement.
- Reinforcing steel clear cover shall be as follows:
  - Grade beams - 1 1/2" top, 3" bottom, 2" side (formed), 3" side (placed against earth)



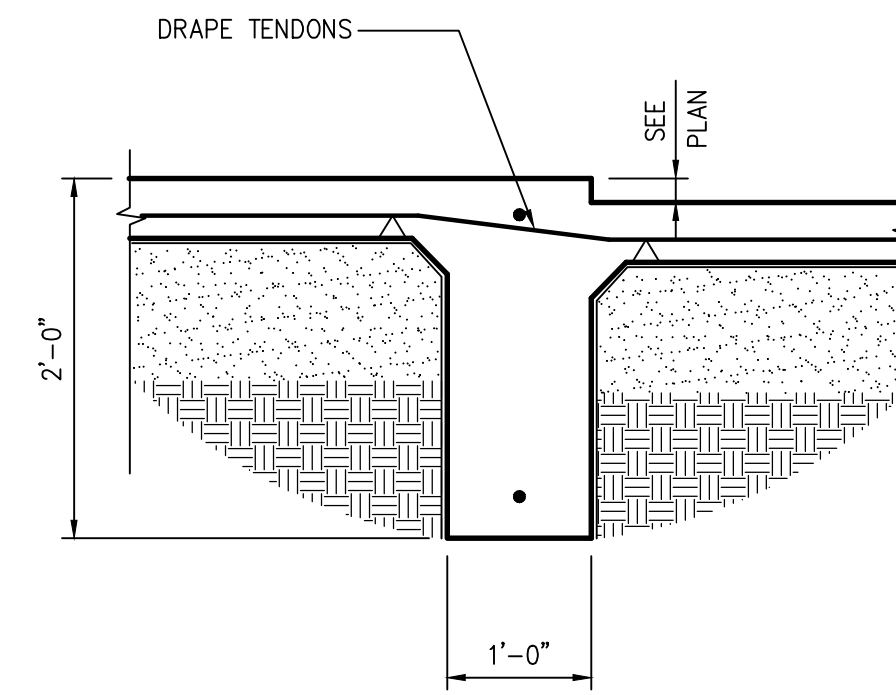
**1A SECTION**  
3/4" = 1'-0"



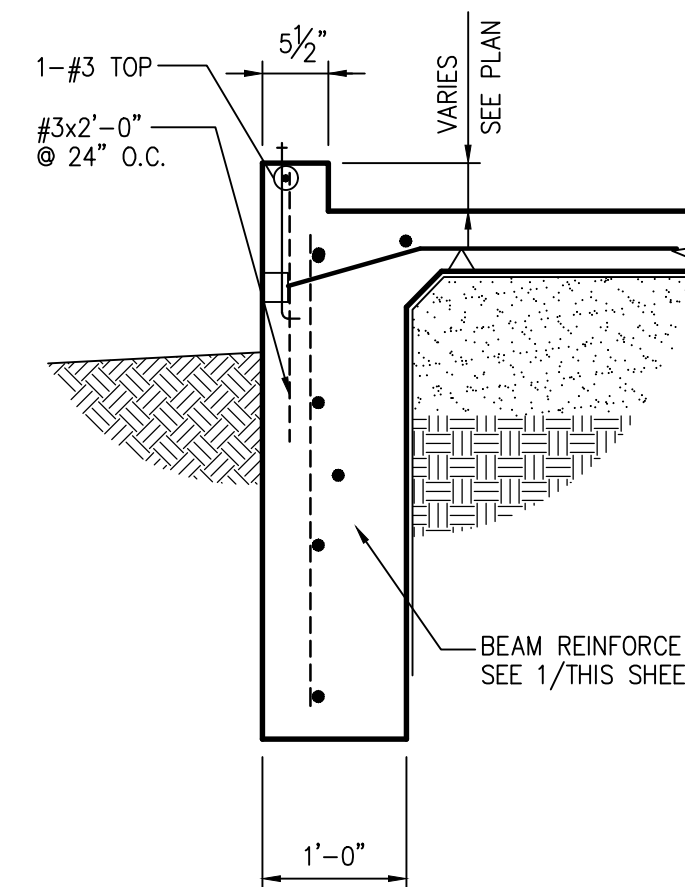
**1B SECTION**  
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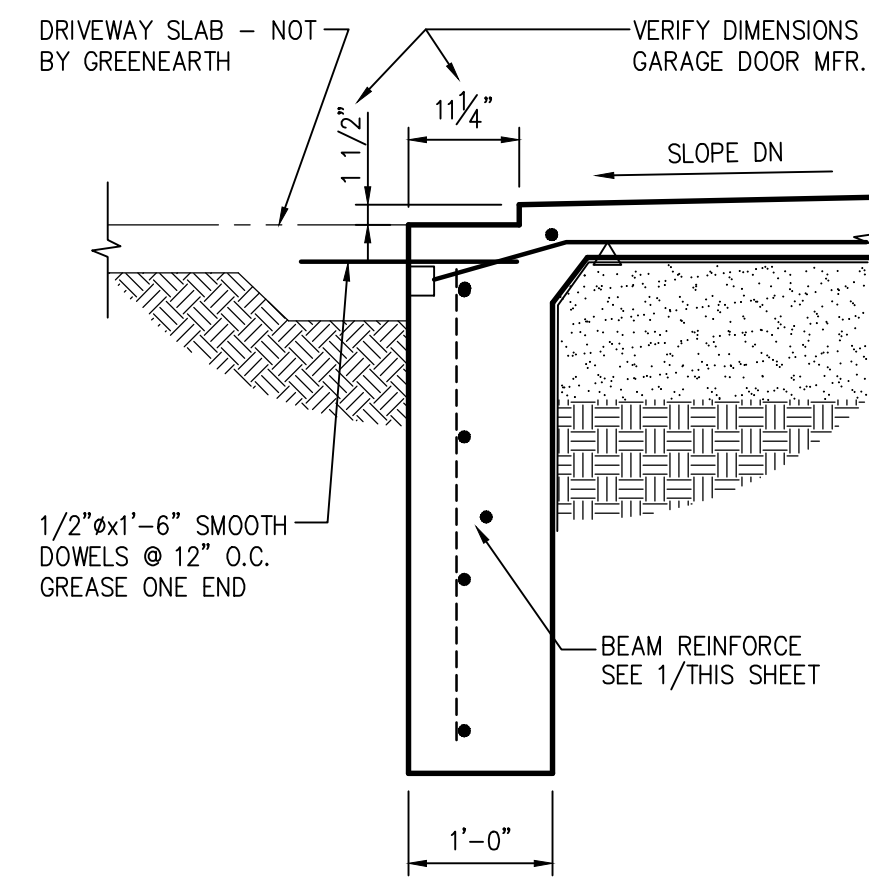
**2 SECTION**  
3/4" = 1'-0"



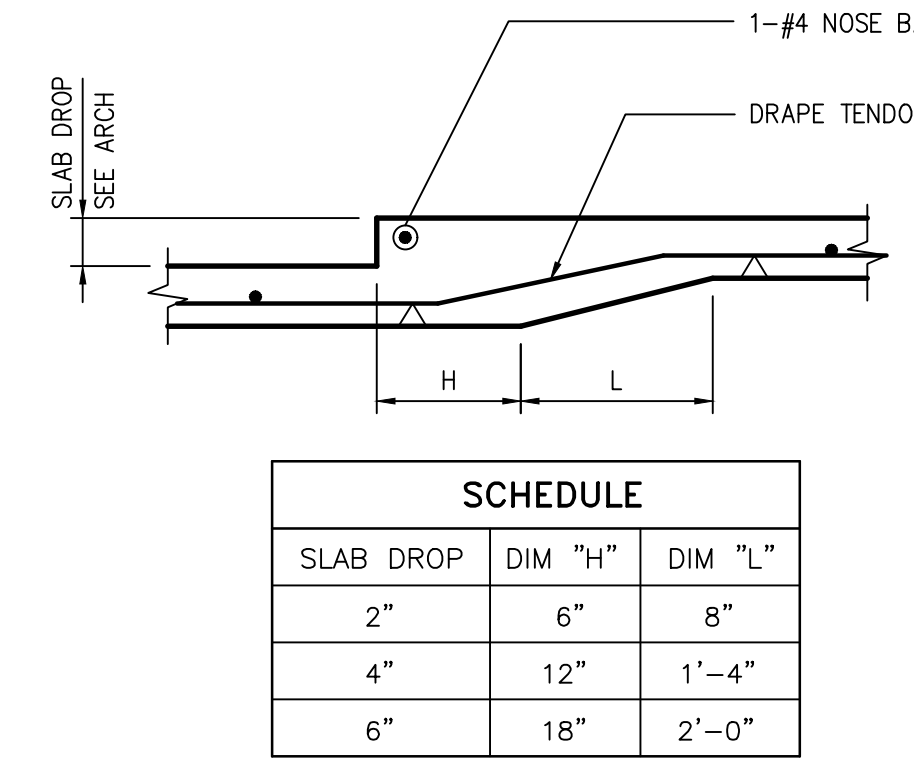
**3 SECTION**  
3/4" = 1'-0"



**4 SECTION**  
3/4" = 1'-0"

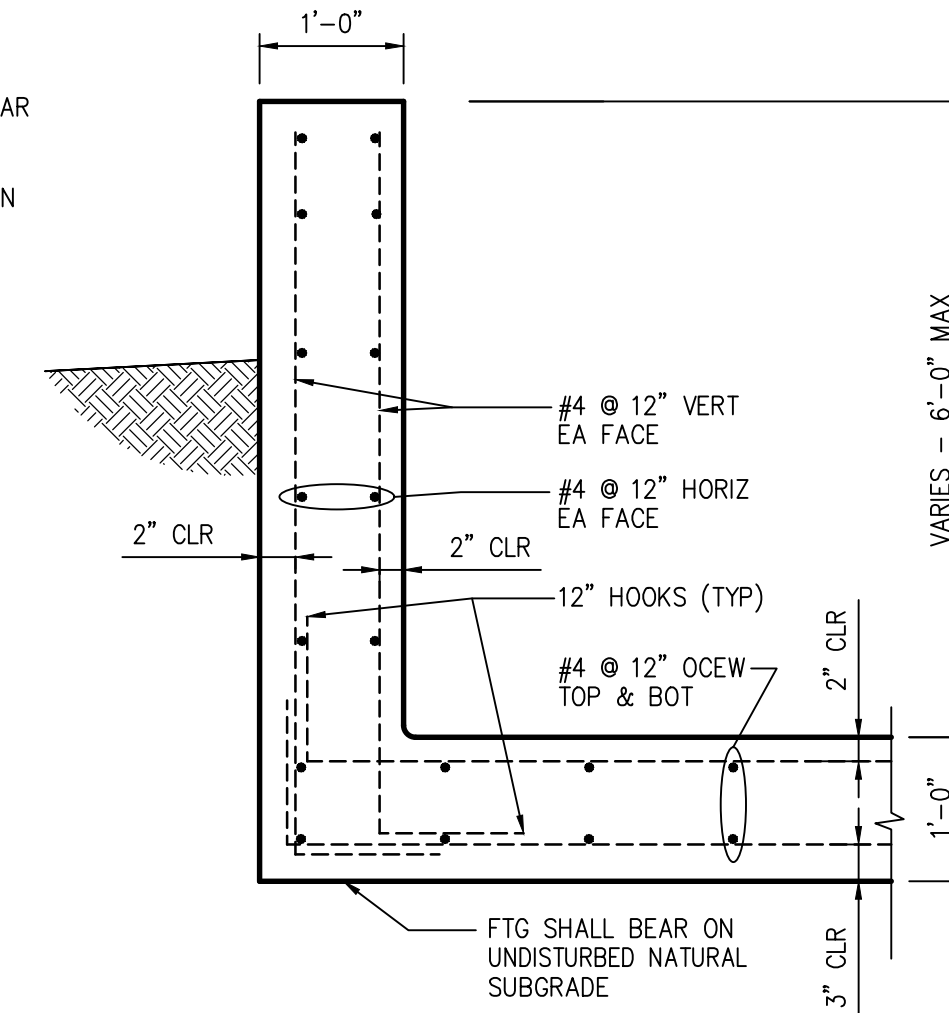


**5 SECTION**  
3/4" = 1'-0"

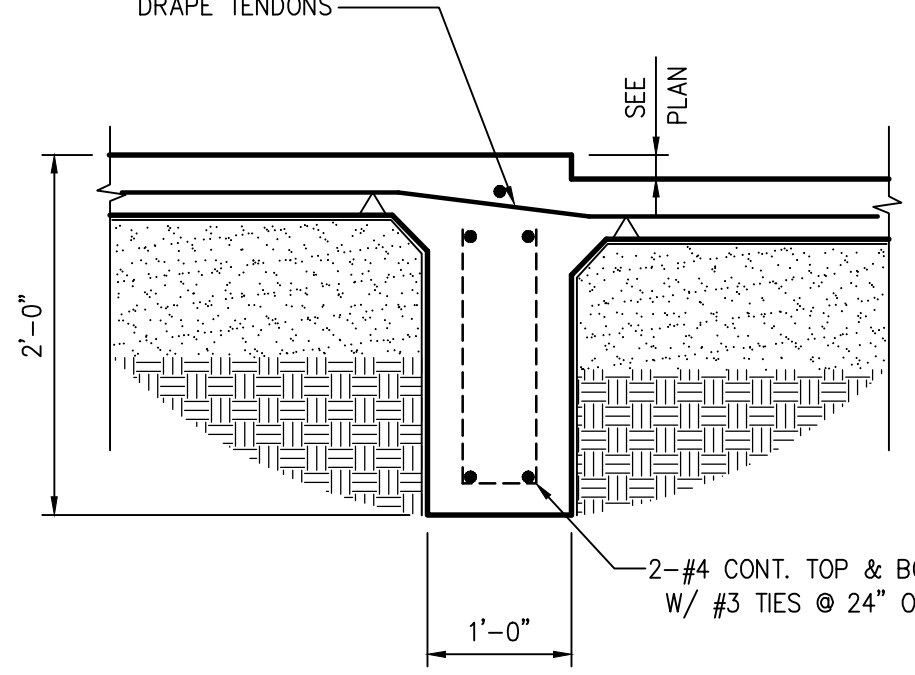


**6 TYPICAL DROP IN SLAB**  
NOT TO SCALE

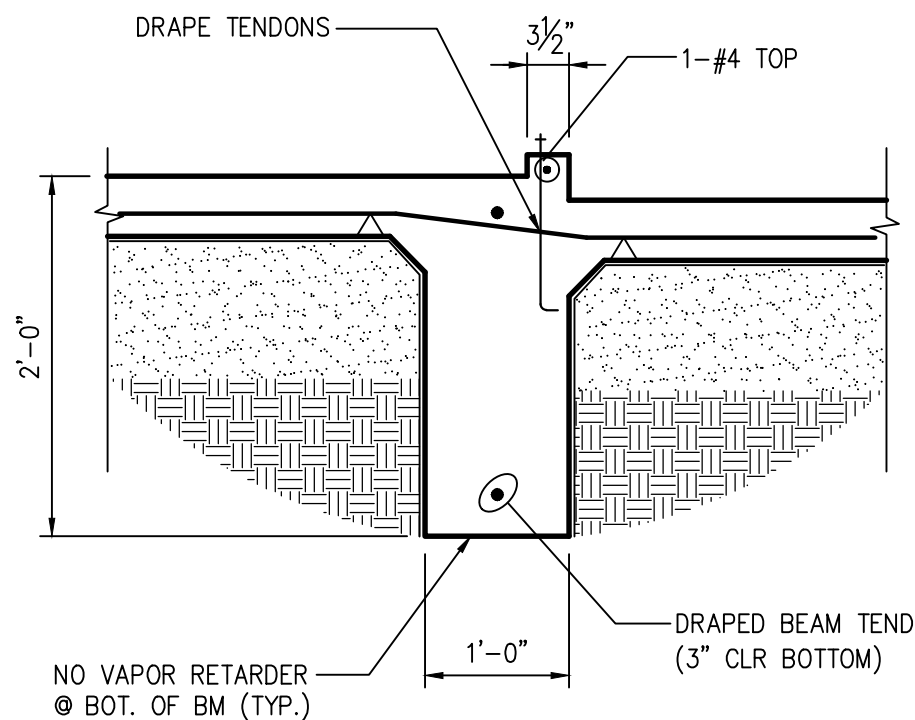
SCHEDULE		
SLAB DROP	DIM "H"	DIM "L"
2"	6"	8"
4"	12"	1'-4"
6"	18"	2'-0"



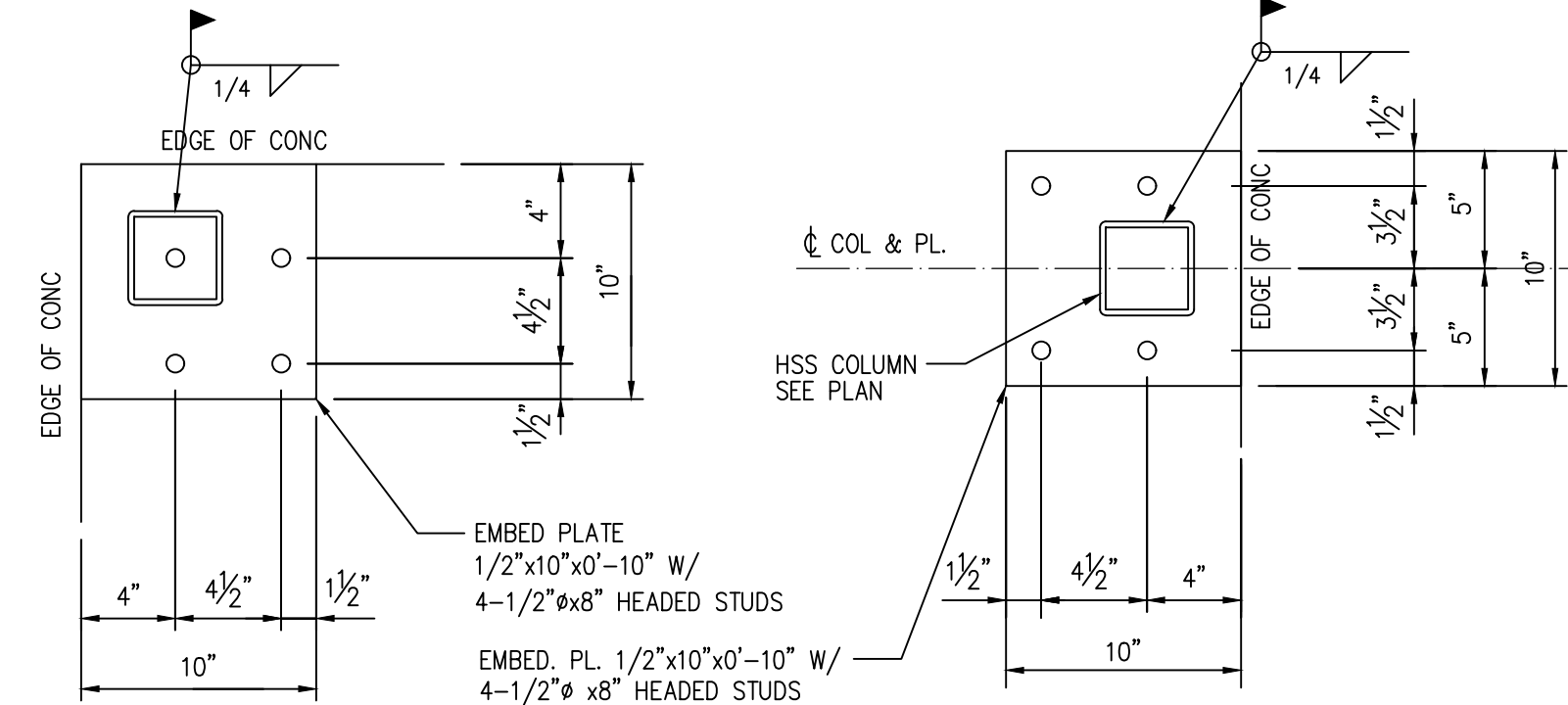
**7 SECTION**  
3/4" = 1'-0"



**8 SECTION**  
3/4" = 1'-0"

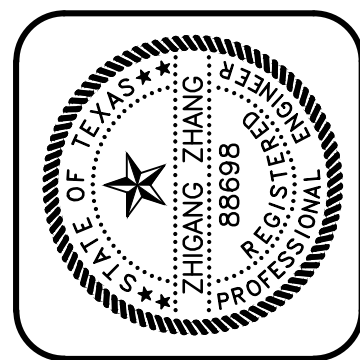


**9 SECTION**  
3/4" = 1'-0"



**EMBEDDED PLATE DETAIL**  
1 1/2" = 1'-0"

Zhiyang Zhang  
10/29/2021



**GREENEARTH ENGINEERING, INC.**  
CONSULTING ENGINEERS  
2500 WEST MILAM AVENUE, SUITE 1200  
AUSTIN, TEXAS 78705  
PHONE (512) 289-8086 FAX (512) 383-8339  
GE JOB NO.: 21457

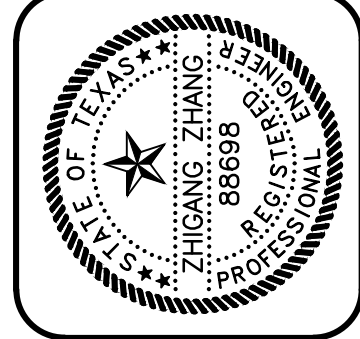
3105 WHITEPINE DR  
AUSTIN, TEXAS

REV.	DATE

CHK. BY: TZ  
DRWN. BY: BB  
DATE: 10/29/2021

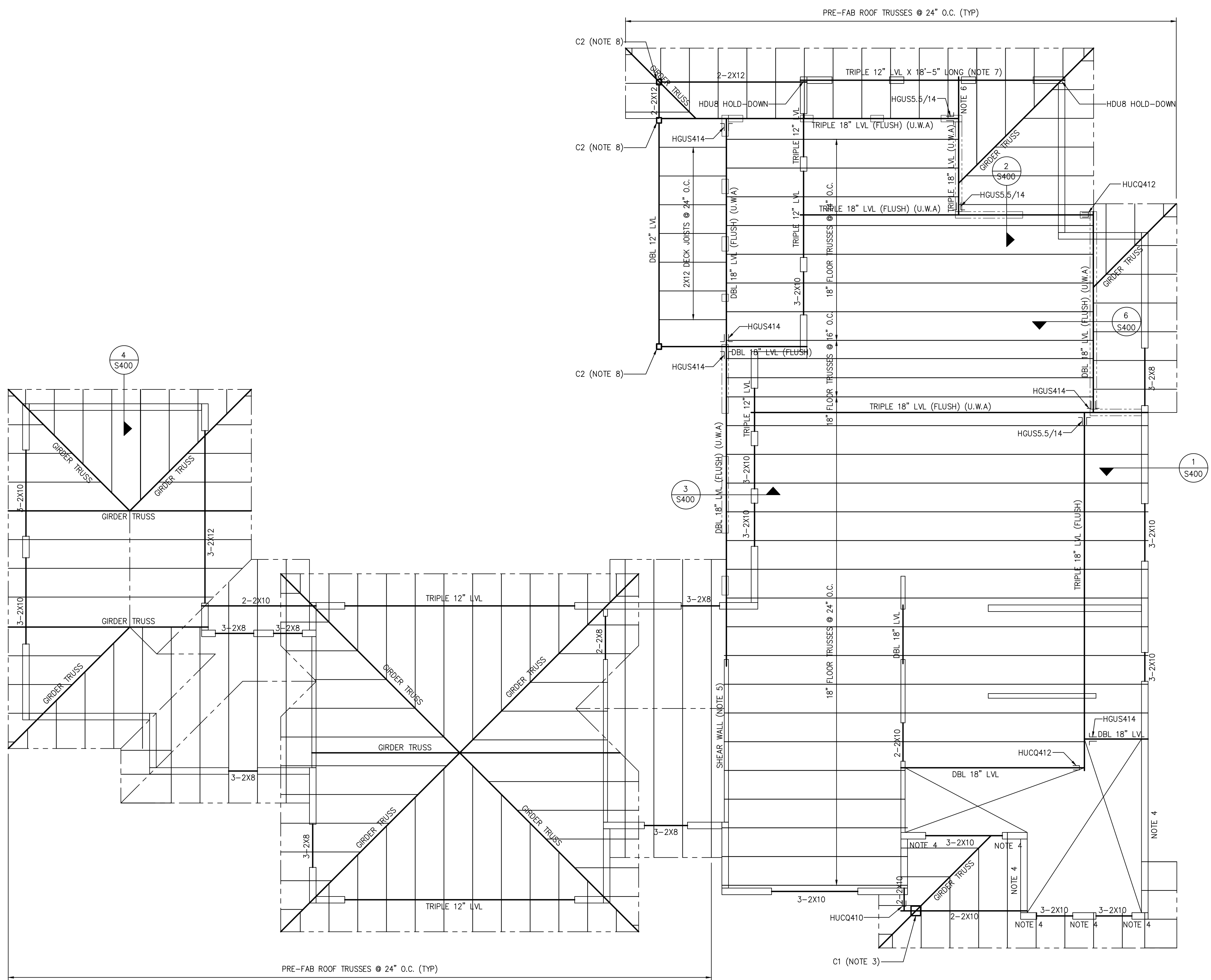
SHEET NO.  
**S200**  
OF

Zhiyong Zhang  
10/21/2021



**GREENBARTH ENGINEERING, INC.**  
 200 WEST MILAM AVENUE, SUITE 200  
 AUSTIN, TEXAS 78701  
 PHONE (512) 289-8086 FAX (512) 383-8339  
 GE JOB NO.: 21457

3105 WHITEPINE DR  
 AUSTIN, TEXAS



BUILT-UP COLUMN SCHEDULE	
	BUILT-UP STUD COLUMN
2- 1 3/4"x14" LVL & UP	4- STUD COLUMN
2- 1 3/4"x12" LVL	3- STUD COLUMN
3- 2 x ___	3- STUD COLUMN
2- 2 x 12	3- STUD COLUMN
2- 2 x 10 OR SMALLER	2- STUD COLUMN

**2ND FLOOR/LOWER ROOF FRAMING PLAN**

1/4" = 1'-0" IN 22X34  
 1/8" = 1'-0" IN 11X17

**PLAN NOTES:**

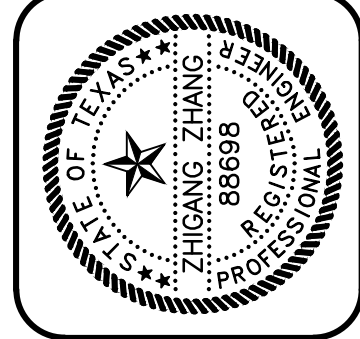
- ALL EXT. WALLS ARE 2X6 @ 16" LOAD BEARING WALLS UNLESS NOTED OTHERWISE IN THIS PLAN.  
 ALL INTERIOR WALLS ARE 2X4 @ 16" LOAD BEARING WALLS UNLESS NOTED OTHERWISE IN THIS PLAN.  
 SEE ARCH'L FOR 2x6 INTERIOR PLUMBING WALLS.
- BEAMS AND HEADERS SHALL BE SUPPORTED BY BUILT-UP COLUMNS & BLOCK SILD TO FOUNDATION. SEE SCHEDULE IN THIS SHEET FOR BUILT-UP COLUMN SIZES.
- C1 = 8X8 WOOD COLUMN.  
 PROVIDE SIMPSON LTSA12 TIE BETWEEN BEAM AND COLUMN.
- STUDS AT STAIR OPENING NEED TO BE 2X6 AND CONTINUOUS FROM FOUNDATION TO ROOF.
- NOTED INTERIOR SHEAR WALL SHALL BE SHEATHED & HAVE 1/2"Ø EPOXY BOLTS AT 48" O.C. (EMBED = 4").
- LVL TO BE NOTCHED WHERE IT MEETS ROOF. HOWEVER, MINIMUM DEPTH SHALL BE 6".  
 BUILDER TO MAKE SURE TRUSS DEPTH AT WALL IS NO LESS THAN 6".
- SEE 10/S400 FOR LVL MOMENT FRAME CONNECTION DETAIL.
- C2 = HSS4X4X1/4 STEEL COLUMN.  
 SEE 8/S400 FOR WOOD BEAM FACE CONNECT TO STEEL COLUMN DETAIL.

REV.	DATE

CHK. BY: TZ  
 DRWN. BY: BB  
 DATE: 10/21/2021

SHEET NO.  
**S300**  
 OF

Zhiqiang Zhang  
10/21/2021



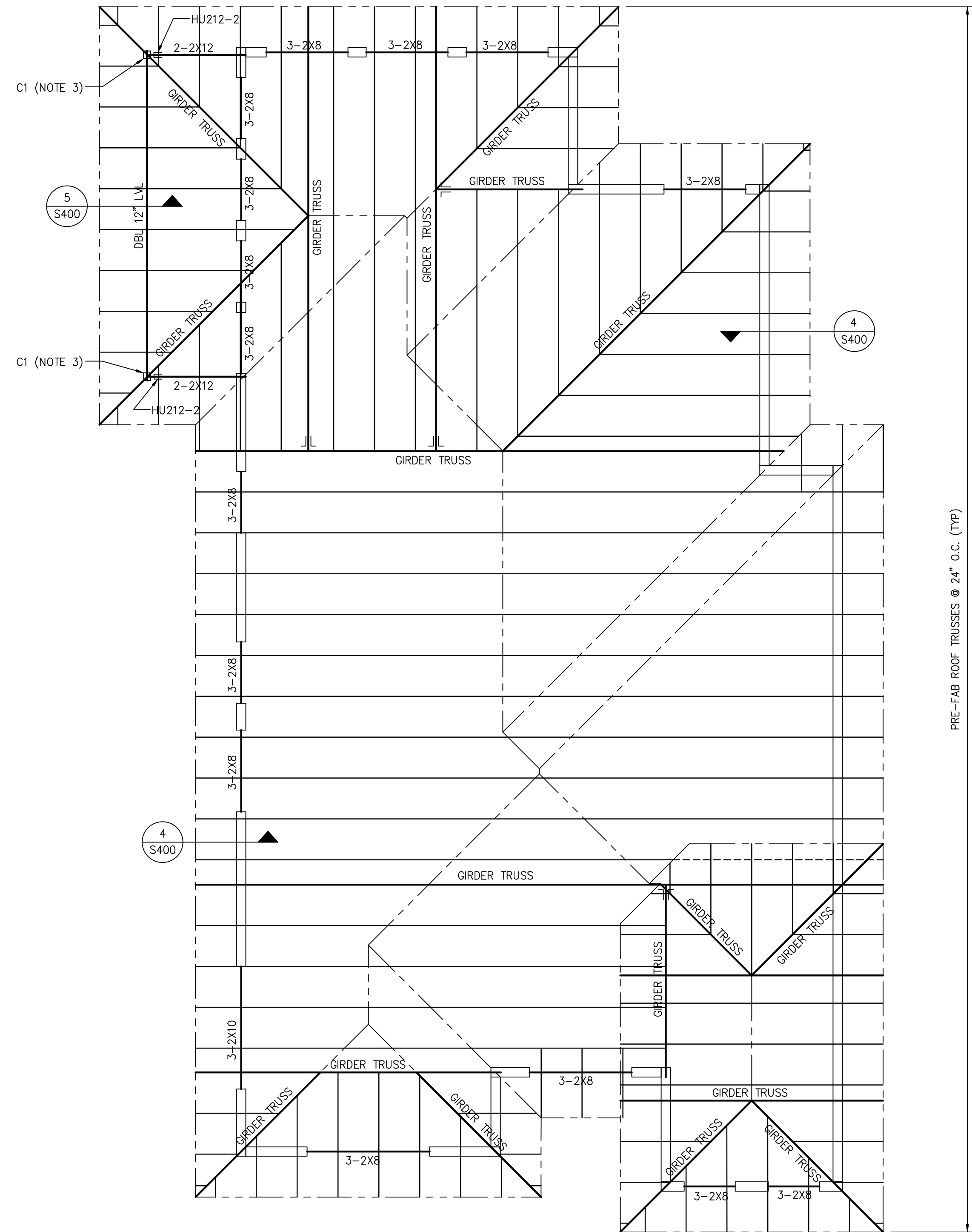
**GREENBARTH ENGINEERING, INC.**  
 200 WEST MILAM AVENUE, SUITE 1000  
 AUSTIN, TEXAS 78701  
 PHONE (512) 289-8086 FAX (512) 383-8339  
 GE JOB NO.: 21457

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REV.	DATE

CHK. BY: TZ  
 DRWN. BY: BB  
 DATE: 10/21/2021

SHEET NO.  
**S301**  
 OF



PRE-FAB ROOF TRUSSES @ 24" O.C. (TYP)

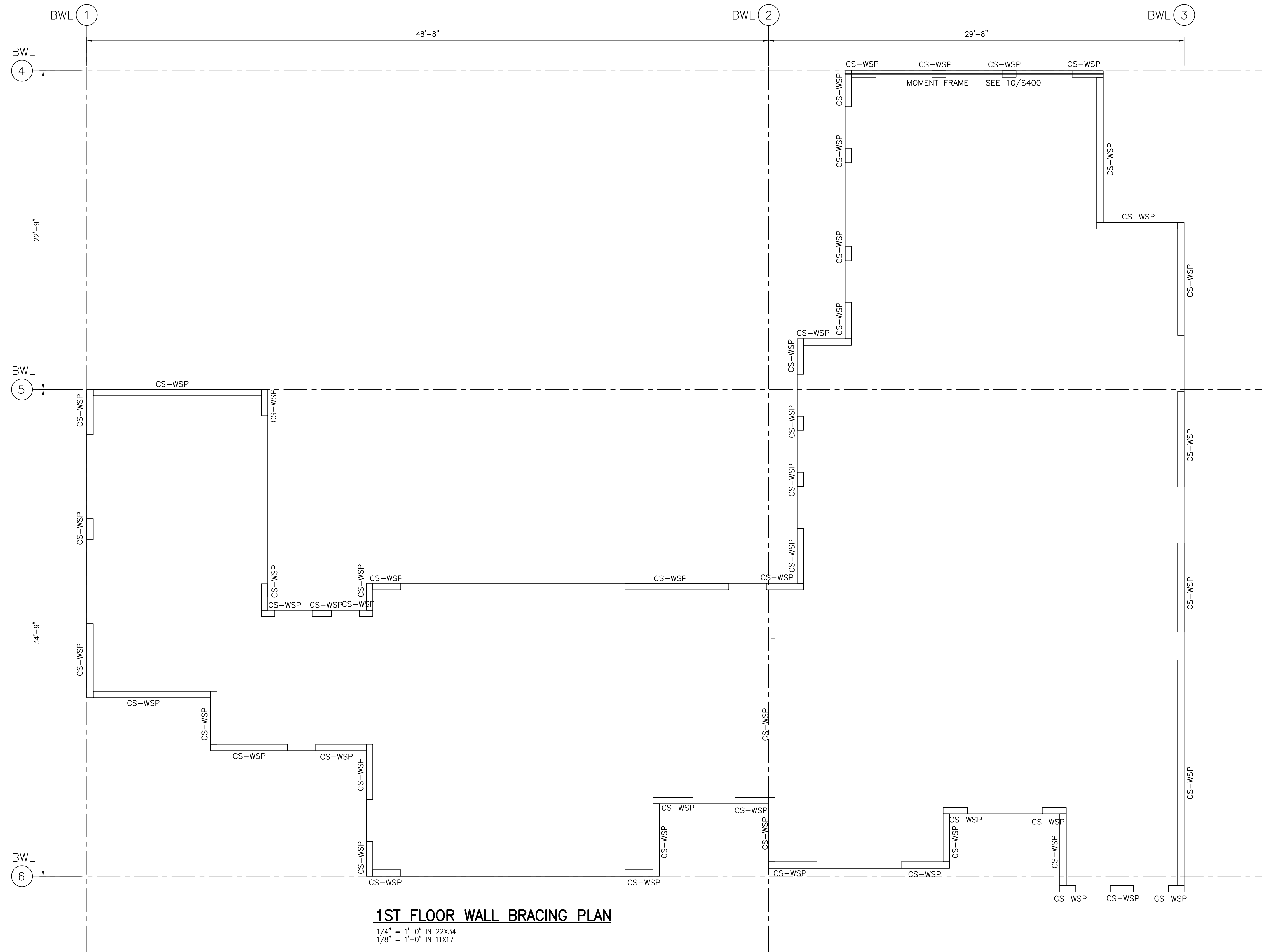
BUILT-UP COLUMN SCHEDULE	
	BUILT-UP STUD COLUMN
2- 1 3/4"x14" LVL & UP	4- STUD COLUMN
2- 1 3/4"x12" LVL	3- STUD COLUMN
3- 2 x ___	3- STUD COLUMN
2- 2 x 12	3- STUD COLUMN
2- 2 x 10 OR SMALLER	2- STUD COLUMN

**ROOF FRAMING PLAN**

1/4" = 1'-0" IN 22X34  
 1/8" = 1'-0" IN 11X17

PLAN NOTES:

- ALL EXT. WALLS ARE 2x6 @ 16" LOAD BEARING WALLS UNLESS NOTED OTHERWISE IN THIS PLAN.  
 ALL INTERIOR WALLS ARE 2x4 @ 16" LOAD BEARING WALLS UNLESS NOTED OTHERWISE IN THIS PLAN.  
 SEE ARCH'L FOR 2x6 INTERIOR PLUMBING WALLS.
- BEAMS AND HEADERS SHALL BE SUPPORTED BY BUILT-UP COLUMNS & BLOCK SOLID TO FOUNDATION. SEE SCHEDULE IN THIS SHEET FOR BUILT-UP COLUMN SIZES.
- C1 = HSS4X4X1/4 STEEL COLUMN.  
 SEE 9/S400 FOR WOOD BEAM OVER STEEL COLUMN CONNECTION DETAIL.



**1ST FLOOR WALL BRACING PLAN**

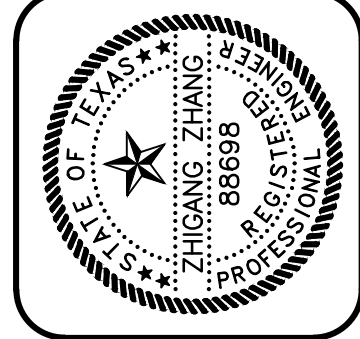
1/4" = 1'-0" IN 22X34  
 1/8" = 1'-0" IN 11X17

BRACE WALL LINE DATA				
BWL	STORY	BWL SPACING (FEET)	REQUIRED LENGTH (FT)	PROVIDED LENGTH (FT)
1	1 OF 1	49	7.5	9+
2	1 OF 2	49	14.5	20+
3	1 OF 2	30	9	20+
4	1 OF 2	23	7.8	MOMENT FRAME
5	1 OF 2	35	10.5	15+
6	1 OF 2	35	10.5	14+

LEGENDS: BWL = BRACED WALL LINE; CS-WSP = CONTINUOUS SHEATHED WOOD STRUCTURAL PANEL;  
 GB = GYPSUM BOARD; CS-PF = CONTINUOUS SHEATHED PORTAL FRAME.

- BRACED WALL LINE DATA BASED ON SEISMIC DESIGN CATEGORY A AND A WIND SPEED OF 115 MPH OR LESS.
- MAXIMUM BWL SPACING SHALL NOT EXCEED 60 FEET O.C.;
- WOOD STRUCTURAL PANEL SHALL BE 1/2" OSB (OR PLYWOOD) SHEATHING AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.  
(STAPLE OPTION: 16-GAGE STAPLES @ 3" O.C. AT PANEL EDGES AND 6" O.C. AT INTERMEDIATE FRAMING)
- ALL HORIZONTAL PANEL SPLICES SHALL BE BLOCKED WITH BLOCKING EQUAL TO WALL STUD SIZE AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C.
- THE FLOOR DECK SHALL BE 3/4" MIN OSB OR PLYWOOD DECK AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.
- THE ROOF DECK SHALL BE 1/2" MIN OSB OR PLYWOOD DECK AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.
- GYPSUM BOARD SHALL BE 1/2" THICK AND SHALL BE FASTENED WITH 6d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.

Zhiqiang Zhang  
 10/21/2021



**GREENBARTH ENGINEERING, INC.**  
 CIVIL & STRUCTURAL ENGINEERING  
 2300 WEST MILAM AVENUE, SUITE 1000  
 AUSTIN, TEXAS 78745  
 PHONE (512) 289-8086 FAX (512) 383-8339  
 GE JOB NO.: 21457

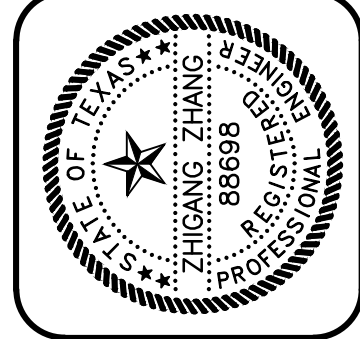
3105 WHITEPINE DR  
 AUSTIN, TEXAS

REV.	DATE

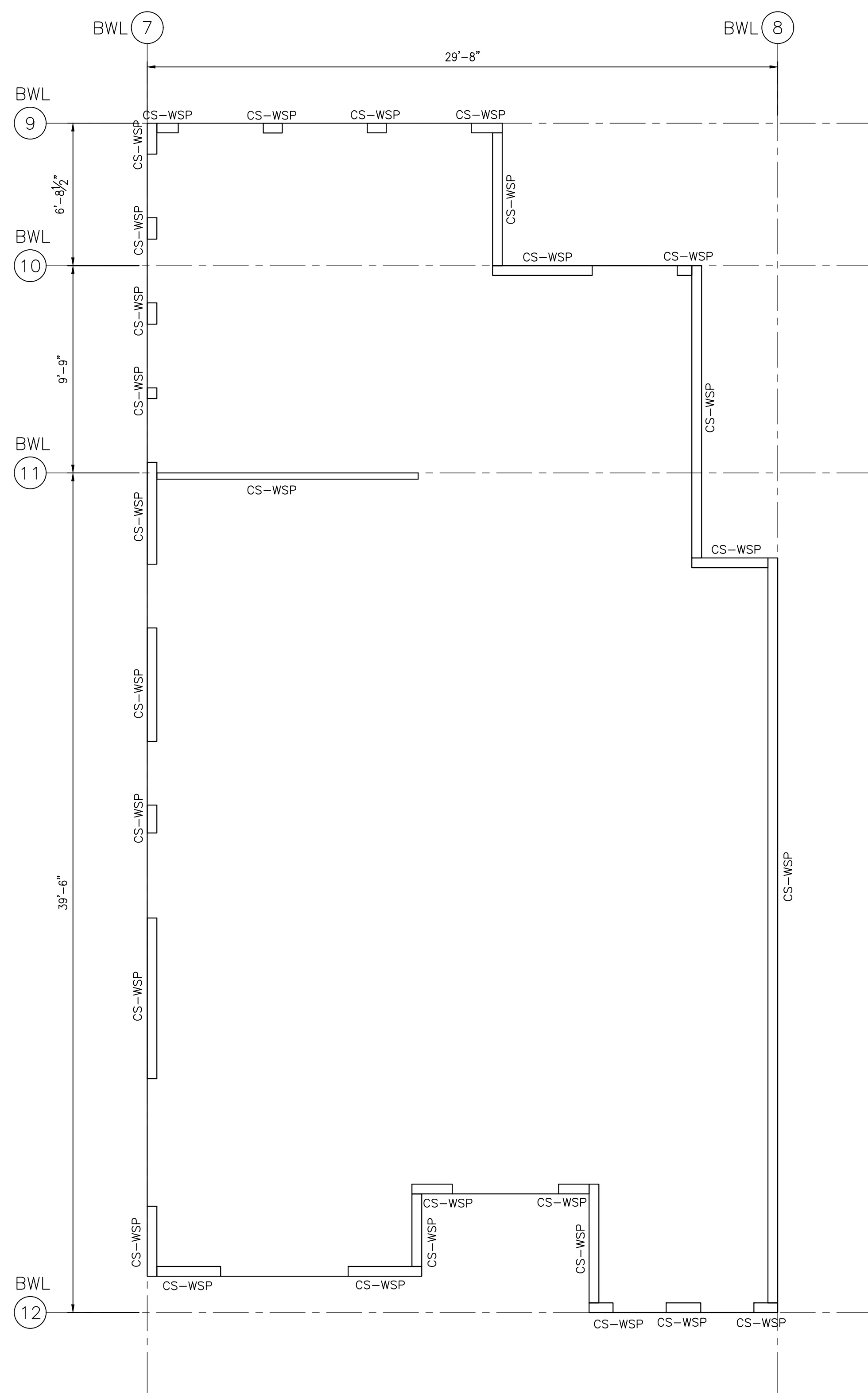
CHK. BY: TZ  
 DRWN. BY: BB  
 DATE: 10/21/2021

SHEET NO.  
**S302**  
 OF

Zhiqiang Zhang  
10/21/2021



**GREENBARTH ENGINEERING, INC.**  
 CIVIL & STRUCTURAL ENGINEERING  
 200 WEST MILAM AVENUE, SUITE 1200  
 AUSTIN, TEXAS 78701  
 PHONE (512) 289-8086 FAX (512) 383-8339  
 GE JOB NO.: 21457



BRACE WALL LINE DATA				
BWL	STORY	BWL SPACING (FEET)	REQUIRED LENGTH (FT)	PROVIDED LENGTH (FT)
7	2 OF 2	30	5	20+
8	2 OF 2	30	5	20+
9	2 OF 2	7	2	3+
10	2 OF 2	10	2	5+
11	2 OF 2	40	6	10+
12	2 OF 2	40	6	10+

LEGENDS: BWL = BRACED WALL LINE; CS-WSP = CONTINUOUS SHEATHED WOOD STRUCTURAL PANEL;  
 GB = GYPSUM BOARD; CS-PF = CONTINUOUS SHEATHED PORTAL FRAME.

**2ND FLOOR WALL BRACING PLAN**

1/4" = 1'-0" IN 22X34  
 1/8" = 1'-0" IN 11X17

- BRACED WALL LINE DATA BASED ON SEISMIC DESIGN CATEGORY A AND A WIND SPEED OF 115 MPH OR LESS.
- MAXIMUM BWL SPACING SHALL NOT EXCEED 60 FEET O.C.;
- WOOD STRUCTURAL PANEL SHALL BE 1/2" OSB (OR PLYWOOD) SHEATHING AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.  
(STAPLE OPTION: 16-GAGE STAPLES @ 3" O.C. AT PANEL EDGES AND 6" O.C. AT INTERMEDIATE FRAMING)
- ALL HORIZONTAL PANEL SPLICES SHALL BE BLOCKED WITH BLOCKING EQUAL TO WALL STUD SIZE AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C.
- THE FLOOR DECK SHALL BE 3/4" MIN OSB OR PLYWOOD DECK AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.
- THE ROOF DECK SHALL BE 1/2" MIN OSB OR PLYWOOD DECK AND SHALL BE FASTENED WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.
- GYPSUM BOARD SHALL BE 1/2" THICK AND SHALL BE FASTENED WITH 6d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING.

3105 WHITEPINE DR  
 AUSTIN, TEXAS

REV.	DATE

CHK. BY: TZ  
 DRWN. BY: BB  
 DATE: 10/21/2021

SHEET NO.  
**S303**  
 OF

DETAILS SCALE TO 3/8"=1'-0" IN 11X17 SHEET

STRUCTURAL GENERAL NOTES

CODES

- Building Code: 2021 International Residential Code.
- Wood Framing: National Design Specifications For Wood Construction with Supplement, National Forest and Paper Products Association, Latest Edition.
- Structural Plywood: Plywood Design Specification, American Plywood Association, Latest Edition.
- Prefabricated Metal Plate Connected Wood Trusses: Design Standard for Metal Plate Connected Wood Truss Construction, ANSI/TPI Latest Edition.

DESIGN LOADS

- Live Loads
  - Roof 20 psf
  - Floor 40 psf
  - Stairs 40 psf

TIMBER FRAMING

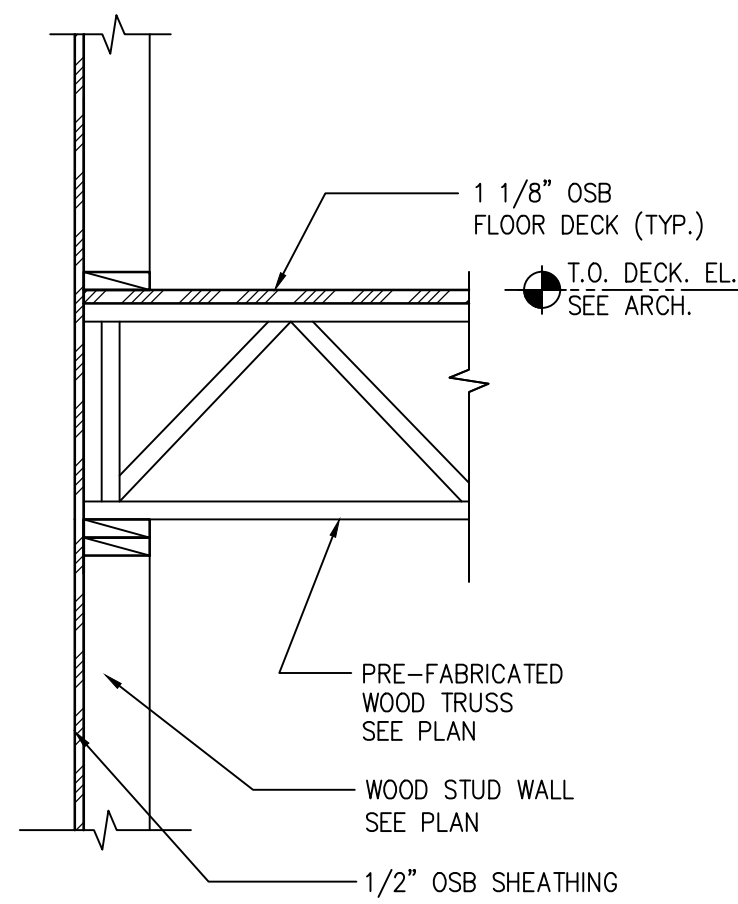
- Unless otherwise noted, all structural framing lumber shall be clearly marked no. 2 southern yellow pine or douglas fir, except that non-loadbearing interior walls may be stud grade southern yellow pine, douglas fir, or spruce-pine-fir.
- All wood headers, beams, and top plates shall be no. 2 Southern Yellow Pine or Douglas Fir.
- All load bearing walls shall have solid 2x blocking at 4'-0" o.c. maximum vertically. End nail with 2-16d nails or side toe nail with 2-16d nails.
- Provide double studs at all wall corners and on each side of all openings, unless noted or detailed otherwise.
- The entire exterior wall framing shall be braced by a 4'-0" wide x 1/2" panel of APA rated sheathing with an exposure 1 rating extending from the top plate to the sill plate. Where wall is taller than 8'-0", provide multiple panels as required to extend from sill plate to top plate. Provide 2x blocking as required to support all panel edges. Nail with 8d common nails at 6" on center at supported edges and 12" on center at intermediate supports.
- Solid 2x blocking or bandboard shall be provided at supports and cantilever ends of all wood joists, and between supports in rows not exceeding 8'-0" apart.
- All framing members framing into the side of a header, hip, valley, ridge, truss or any other beams shall be attached using metal joist hangers manufactured by the Simpson Company or equal. The hanger shall be sized and installed in accordance with the manufacturers recommendations for the size of joist supported.
- Nailing and attachment of all framing members and sheathing shall be as specified in the International Residential Code Nailing Schedule (Table R602.3) unless noted otherwise in the drawings. Common wire nails or spikes, or galvanized box nails shall be used for all framing unless noted otherwise.
- Place a single plate at the bottom and a double plate at the top of all stud walls. Exterior sill plates shall be bolted to the foundation with 1/2" anchor bolts with a minimum embedment of 8" spaced at 4'-0" on center. Provide a minimum of two bolts per plate segment. Sill plates in contact with concrete or masonry shall be pressure treated with a preservative.
- Provide double joists under all interior partition walls oriented parallel to the joists.
- Provide triple studs (or cripples) at each end of any header, beam, ridge, valley, or hip spanning over 10'-0" unless noted otherwise. Provide double studs (or cripples) at each end of any header, beam, ridge, valley, or hip spanning 5'-0" to 10'-0" unless noted otherwise.
- The new generation of pressure treated lumber products are highly corrosive to metal connectors and fasteners. All fasteners and metal connectors used in conjunction with the new generation of pressure treated lumber shall be hot-dip galvanized or stainless steel. These locations include, but are not limited to the following:
  - Anchor bolts at sole plate to foundation.
  - Nails from sole plate to wall studs.
  - Nails at exterior plywood sheathing to sole plate.
  - Bolts at ledger to concrete.
  - Joist to treated ledger connections.
  - All hangers on treated joists.
  - Wood posts to concrete.
  - Deck board to treated joists.

PREFABRICATED METAL PLATE CONNECTED WOOD TRUSSES

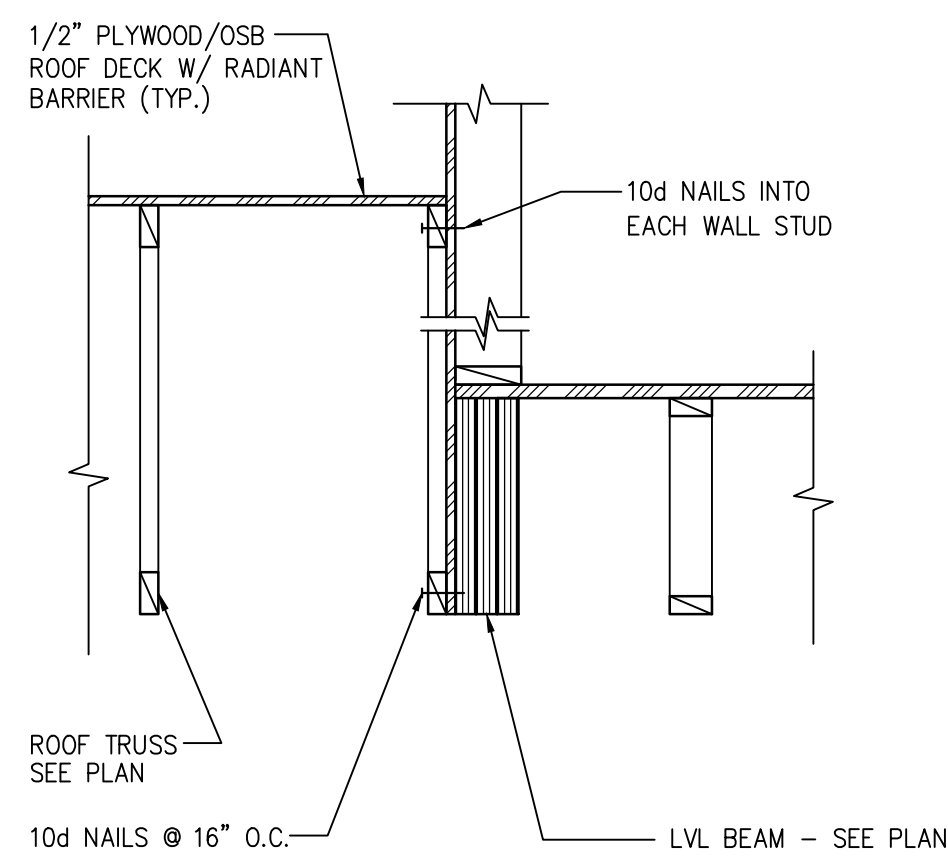
- Trusses shall be designed by the Contractor in accordance with the Truss Plate Institute "Design Standard for Metal Plate Connected Wood Truss Construction" (ANSI/TPI 1-95).
- Truss members shall be clamped in a mechanical or hydraulic jig with sufficient pressure to bring members into reasonable contact at all joints during application of connector plates.
- Provide adequate erection bracing in accordance with Truss Plate Institute publication HIB-91.
- Truss Manufacturer shall provide permanent bracing as required by the design of the trusses. Erection bracing may remain in place as permanent bracing where it does not interfere with the architectural finishes.
- All timber truss members shall be Southern Yellow Pine with a maximum moisture content of 19%. Chord members shall be no. 2 or better and web members shall be no. 3 or better.
- Connection plates shall be manufactured by a WTCA member plate manufacturer. Plates shall be 20 gauge minimum, ASTM A446 grade A steel, with a G60 galvanized coating.
- Trusses shall be designed in accordance with the following requirements:
  - Top chords shall be designed to resist the local bending induced by the floor or roof uniform load on the top chord.
  - Limit live load deflection of floor trusses to L/480. Total load deflections shall be limited to L/360.

COMPOSITE WOOD MEMBERS

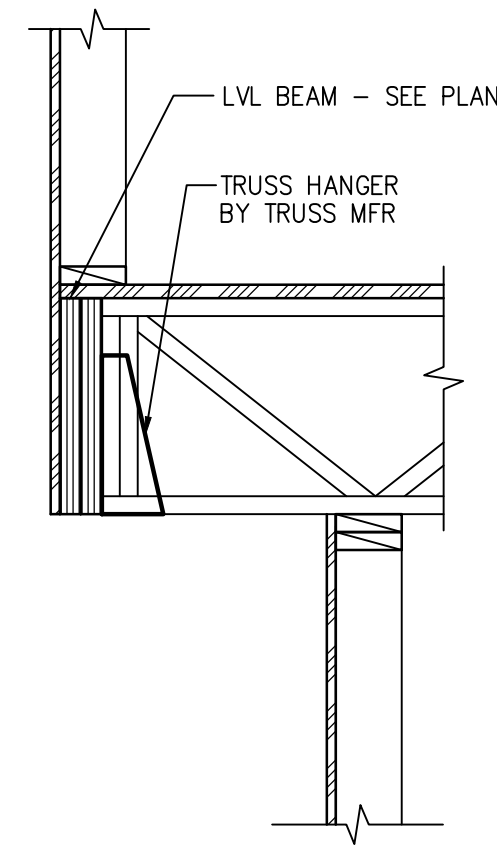
- Where noted on the drawings, joists shall be TJI "SP" series engineered wood joists, and beams shall be "Micro-Lam" or "Parallam" beams as manufactured by the Trus Joist Macmillan Corporation.
- Do not notch joists or beams. Drill holes through webs of engineered wood members for mechanical, electrical or plumbing services in accordance with the recommendations of the engineered wood product manufacturer.
- Multiple wood beams up to three members thick shall be nailed together with three rows of 16d nails at 12" on center. Four or more multiple wood beams and any multiple wood beams utilizing beams thicker than 1 3/4" shall be bolted together with 1/2" diameter bolts top and bottom at supports and ends of the beam, then at 24" on center, staggered top and bottom for the full length of the beam.
- Where multiples of two 1 3/4" Micro-Lam beams are noted on the drawings, contractor may provide single 3 1/2" beams in lieu of double 1 3/4" beams.
- Provide web stiffeners where required by the manufacturer for the specified support condition.



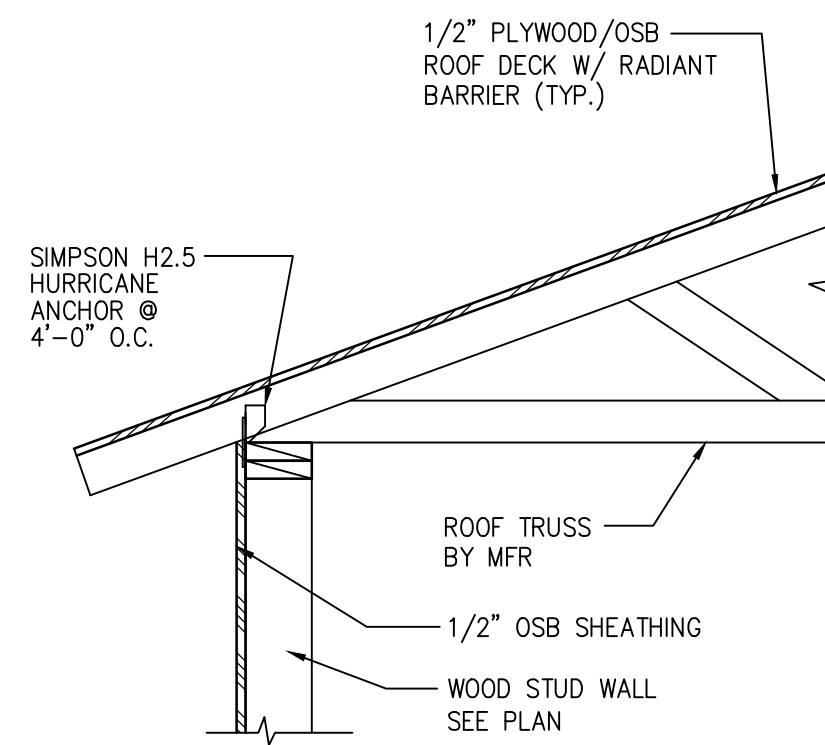
1 SECTION  
3/4" = 1'-0"



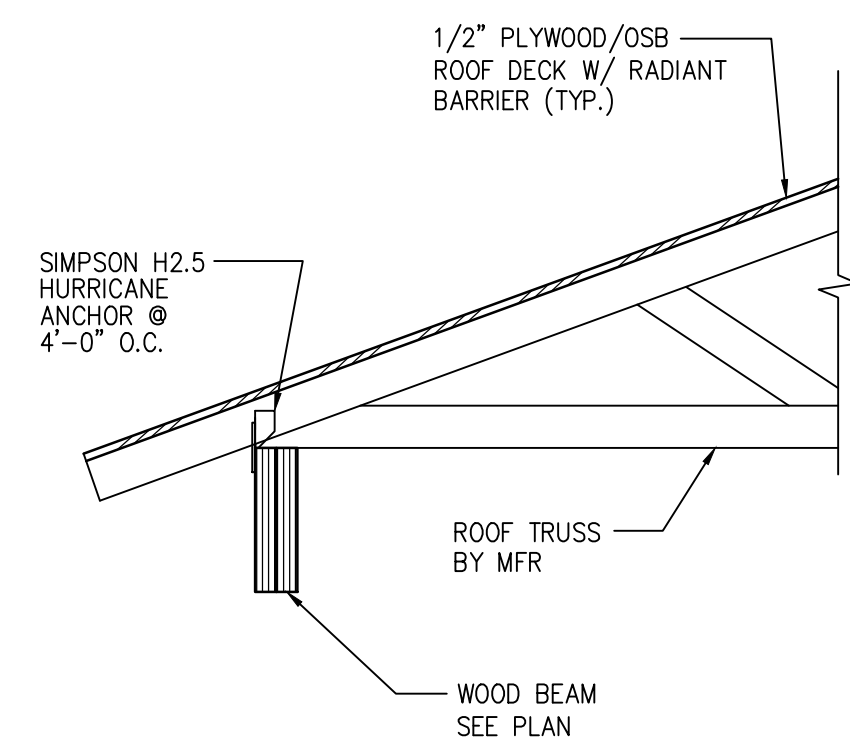
2 SECTION  
3/4" = 1'-0"



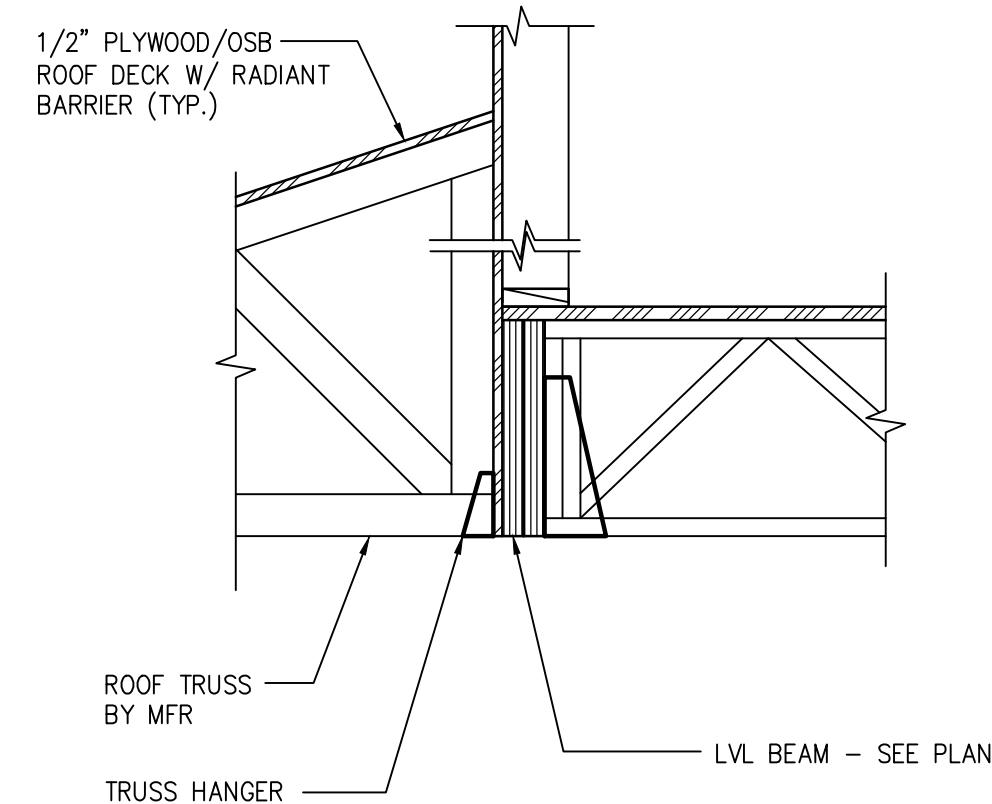
3 SECTION  
3/4" = 1'-0"



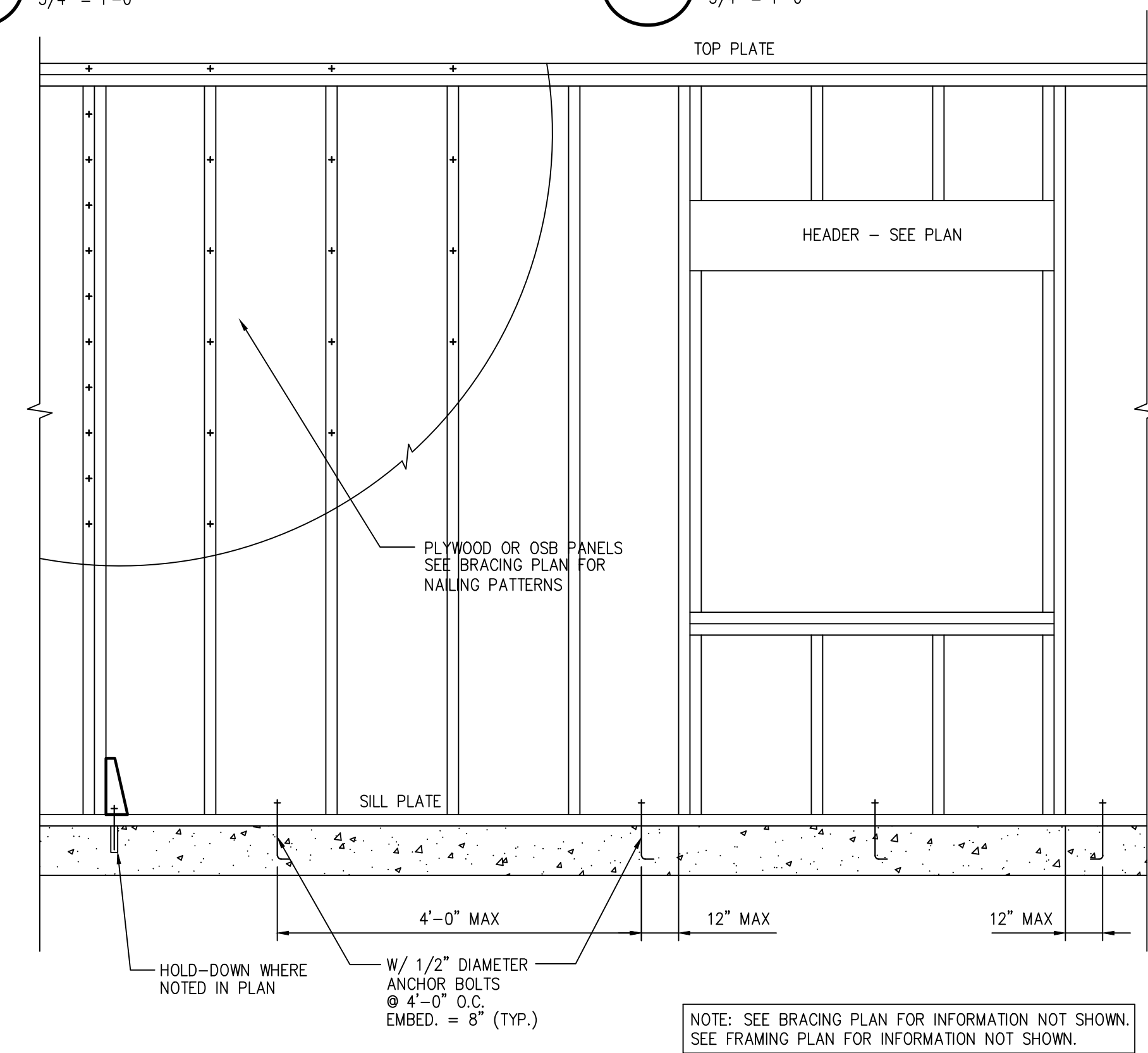
4 SECTION  
3/4" = 1'-0"



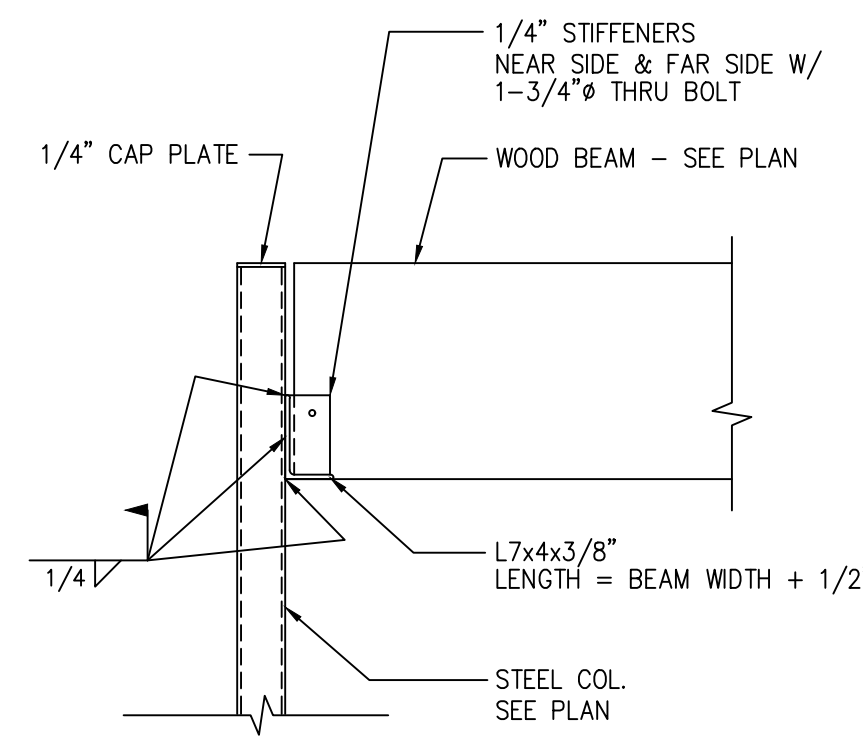
5 SECTION  
3/4" = 1'-0"



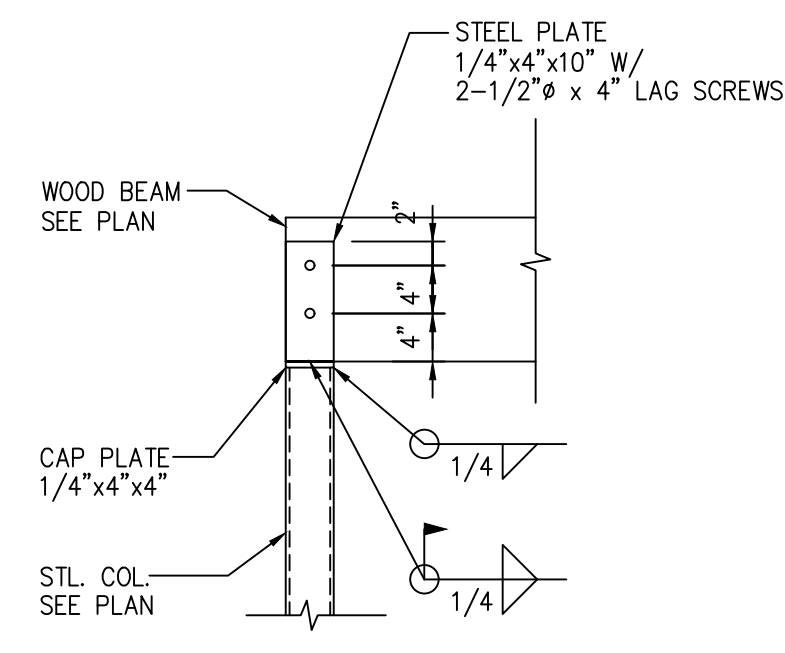
6 SECTION  
3/4" = 1'-0"



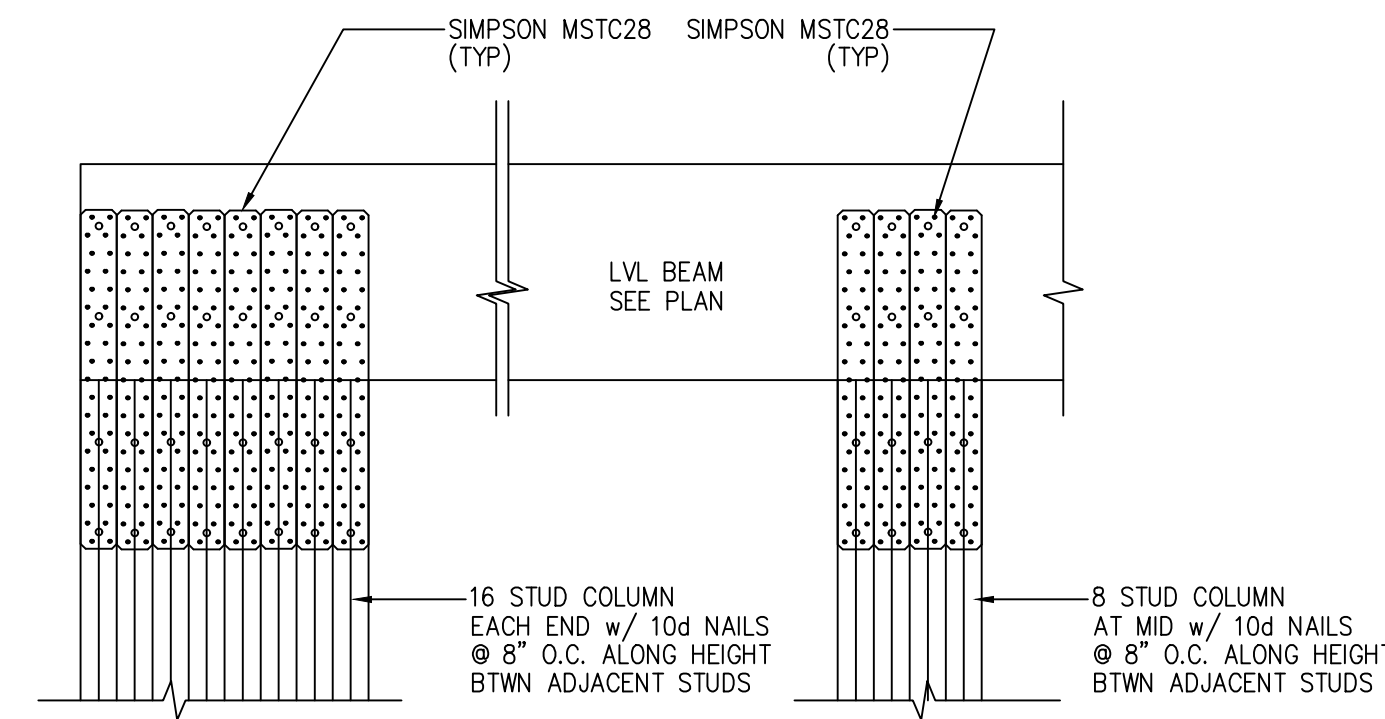
7 ELEVATION VIEW  
TYPICAL WALL BRACING  
NOT TO SCALE



8 TYP. WOOD BEAM FACE-CONNECT TO STEEL COL. DETAIL  
3/4" = 1'-0"

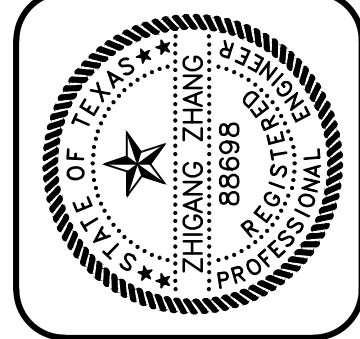


9 WOOD BEAM OVER HSS COLUMN CONNECTION  
N.T.S.



10 WOOD MOMENT FRAME  
3/4" = 1'-0"

Zhiyang Zhang  
10/21/2021



GREENBARTH ENGINEERING, INC.  
2000 WEST MILAM AVENUE, SUITE 1200  
AUSTIN, TEXAS 78704  
PHONE (512) 289-8086 FAX (512) 383-8339  
GE JOB NO.: 21457

3105 WHITEPINE DR  
AUSTIN, TEXAS

REV.	DATE

CHK. BY: TZ  
DRWN. BY: BB  
DATE: 10/21/2021

SHEET NO.  
**S400**  
OF