

BUILDING HEIGHT CALCULATIONS

POINT	NATURAL GRADE ELEVATION	FINISHED GRADE ELEVATION	MEASURED FROM:	ROOF ELEVATION	CALCULATION	HEIGHT
A	10071.1'	10072.5'	NATURAL GRADE	10102.8'	10102.8' - 10071.1'	31.0 FEET
B	10072.2'	10072.0'	FINISHED GRADE	10102.0'	10102.0' - 10072.0'	30.00 FEET
C	10070.1'	10071.5'	NATURAL GRADE	10102.8'	10102.8' - 10070.1'	31.0 FEET

SNOW STACK CALCULATIONS

	AREA (SQUARE FEET)	PERCENTAGE OF TOTAL
DRIVEWAY SURFACE	1,005 S.F.	100%
SNOW STACK	503 S.F.+	50%+

LANDSCAPE LEGEND

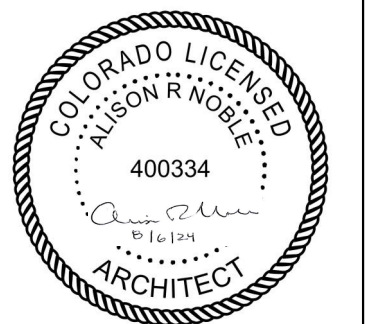
KEY	NAME	NO.	SIZE
	QUAKING ASPEN (POPULUS TREMULOIDES)	6	2" MIN. CAL. 50% MULTI-STEM
	COLORADO BLUE SPRUCE (PICEA PUNGENS) ENGELMANN SPRUCE (PICEA ENGELMANNII)	2	(1) 4"-O" (1) 8"-O"
	SHRUBS -FLECKING COTONEASTER, SILVER BUFF BERRY, TWINBERRY HONEYSUCKLE, SHUBERT CHOKECHERRY, REDTWIN DOGWOOD, NATIVE REDBERRY ELDER	6	5 GAL.
	TREES TO BE REMOVED	0	-
	EXISTING TREES	1+	-

LANDSCAPE NOTES

- SEED ALL DISTURBED AREAS W/ SUMMIT COUNTY GRASS SEED MIX AND 4" TOPSOIL, RAKE AS REQUIRED
- LOCATE PLANTINGS TO AVOID SNOW AND ICE SLIDE AREAS.
- TREES THAT ARE TO REMAIN SHALL BE PROTECTED WITH FENCING TO REDUCE COMPACTION AROUND TREE BASE AND GRADE CHANGES. FENCING TO BE LOCATED AT TREE DRIPLINE.
- COBBLE ROCK TO BE USED AS A GROUND COVER IN ROOF DRIPLINE AREAS.
- ALL PLANT MATERIALS SHALL BE BACK FILLED WITH EQUAL PARTS OF ORGANIC AMENDMENTS AND NATIVE SOIL.
- ALL SHRUB AND TREE WELLS SHALL RECEIVE 3 INCHES SHREDDED BARK MULCH.
- ALL NEWLY PLANTED TREES SHALL BE ROOT RED AT THE TIME OF INSTALLATION.
- GENERAL CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AS SPECIFIED ON SITE PLAN.



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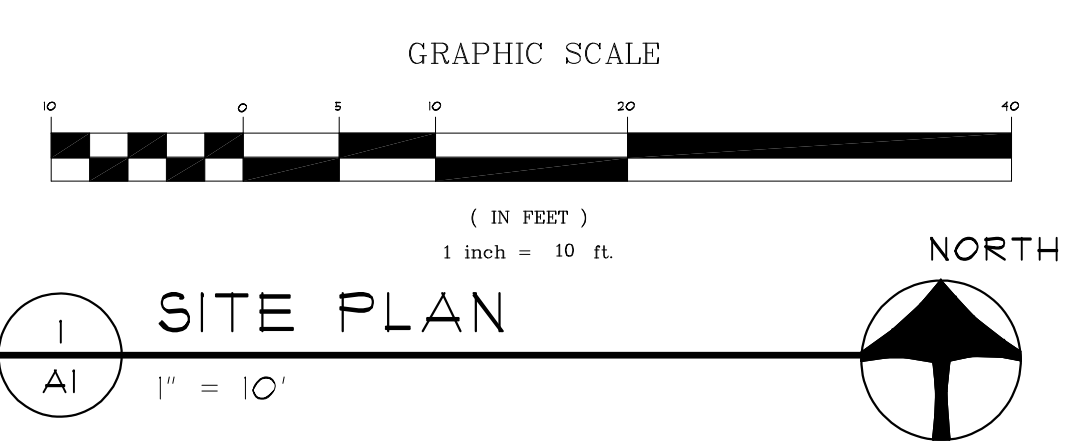
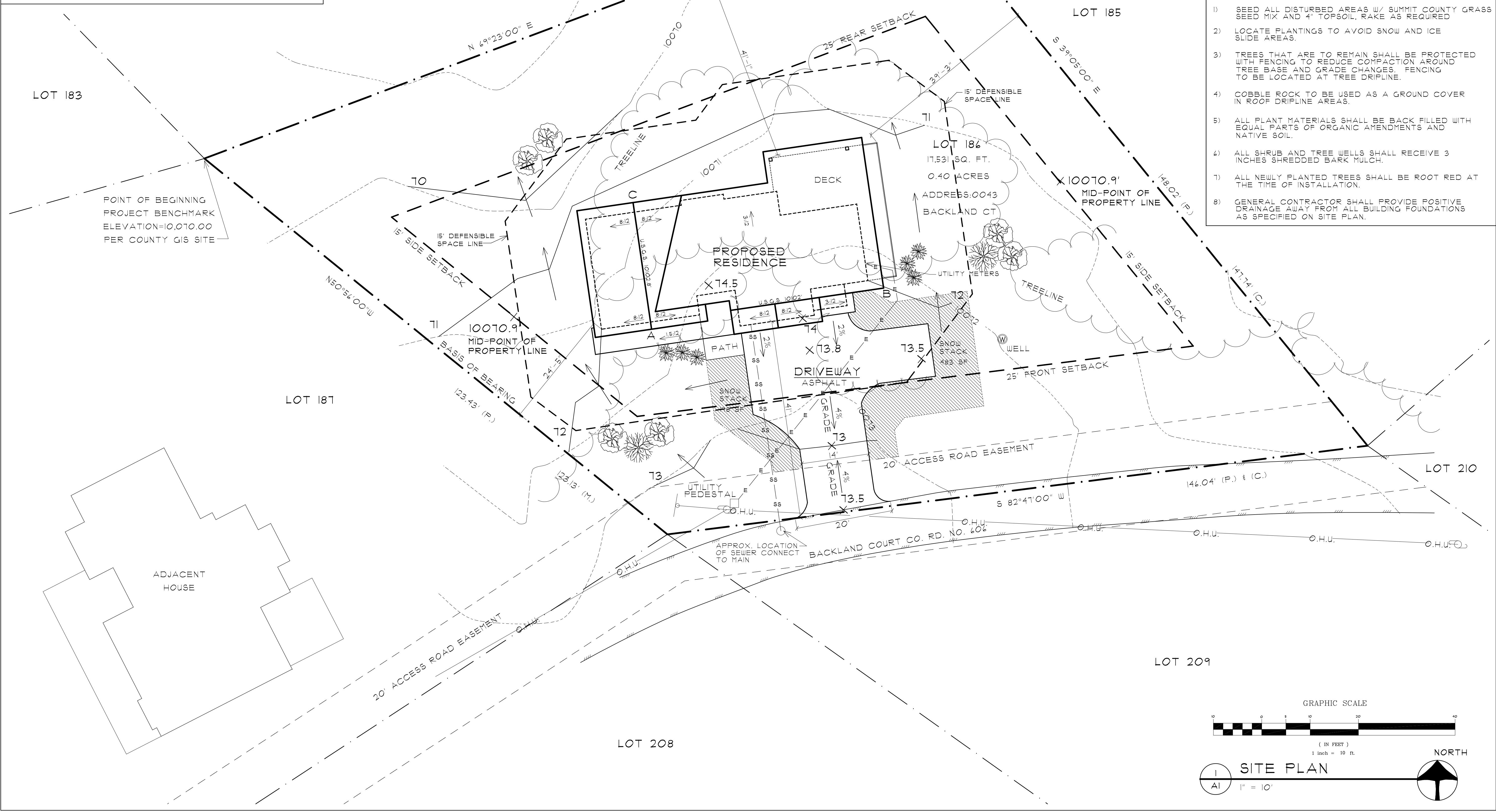


43 BACKLAND RESIDENCE
LOT 186, WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

TITLE
SITE PLAN

ISSUE	DATE
PRELIM.	7/14/24
PERMIT	8/1/24

AI
OF 1



GENERAL NOTES

- ALL ITEMS AND WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR OR HIS SUBCONTRACTORS UNLESS NOTED AS EXISTING OR NOT IN CONTRACT ON THE DRAWINGS.
- THIS PROJECT IS GOVERNED BY THE INTERNATIONAL RESIDENTIAL CODE, 2018 EDITION ADOPTED BY BLUE RIVER, COLORADO. ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL NATIONAL, STATE AND LOCAL CODES, REGULATIONS AND RESTRICTIONS WHICH APPLY TO THIS PROJECT. THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND REQUIRED APPROVALS. BUILDING AREAS ARE SHOWN FOR CODE PURPOSES ONLY AND SHALL BE RECALCULATED FOR ANY OTHER PURPOSES.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, PROPERTY BOUNDARIES, BUILDING SETBACKS, SITE SLOPES AND UTILITY LOCATIONS, ETC., ON THE JOB SITE PRIOR TO THE BEGINNING OF ANY WORK.
- THE CONTRACTOR MUST VERIFY THE BUILDING LAYOUT WITH THE ARCHITECT PRIOR TO EXCAVATION ON THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL NEW CONSTRUCTION ON THE SITE.
- IT IS THE INTENT AND MEANING OF THESE DRAWINGS THAT THE CONTRACTOR AND EACH SUBCONTRACTOR PROVIDE ALL LABOR, MATERIALS, TRANSPORTATION, SUPPLIES, EQUIPMENT, ETC., TO OBTAIN A COMPLETE JOB WITHIN THE RECOGNIZED STANDARDS OF THE INDUSTRY, AND SHALL BE RESPONSIBLE FOR THE FOLLOWING MANUFACTURERS' INSTALLATION RECOMMENDATIONS AND INSTRUCTIONS.
- SUBSTITUTION OF "EQUAL" PRODUCTS WILL BE ACCEPTABLE ONLY WITH OWNER'S OR ARCHITECT'S WRITTEN APPROVAL. IF THE CONTRACTOR REQUIRES ANY CHANGES WHICH IMPACT THE PROJECT SCHEDULE OR BUDGET, HE SHALL SUBMIT A WRITTEN CHANGE ORDER REQUEST TO THE OWNER OR ARCHITECT PRIOR TO THE COMMENCEMENT OF SUCH WORK. PERFORMANCE OF SUCH WORK WITHOUT APPROVAL BY CHANGE ORDER INDICATES GENERAL CONTRACTOR'S ACKNOWLEDGMENT OF NO INCREASE IN CONTRACT SUM OR TIME. CHANGES FROM THE PLANS OR SPECIFICATIONS MADE WITHOUT CONSENT OF THE ARCHITECT ARE UNAUTHORIZED AND SHALL RELIEVE THE ARCHITECT OF RESPONSIBILITY FOR ANY AND ALL CONSEQUENCES RESULTING FROM THESE CHANGES.
- ANY AMBIGUITY OR DISCREPANCY DISCOVERED WITHIN THESE PLANS BY THE CONTRACTOR OR HIS SUBCONTRACTORS, SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT. FAILURE TO NOTIFY THE ARCHITECT SHALL RELIEVE THE ARCHITECT OF RESPONSIBILITY FOR ALL CONSEQUENCES.
- WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. PLAN DIMENSIONS ARE TO THE FACE OF FRAMING MEMBERS, FACE OF WOOD FURRING OR FACE OF CONCRETE WALLS UNLESS OTHERWISE NOTED. SECTION OR ELEVATION DIMENSIONS ARE AT TOP OF CONCRETE, TOP OF PLYWOOD, OR TOP OF WALL PLATES OR BEAMS UNLESS OTHERWISE NOTED.

FLOOR ELEVATIONS

MAIN FLOOR	110'-1 3/4" = U.S.G.S. 10084.6'
LOWER FLOOR	100'-0" = U.S.G.S. 10074.5'

DOOR SCHEDULE

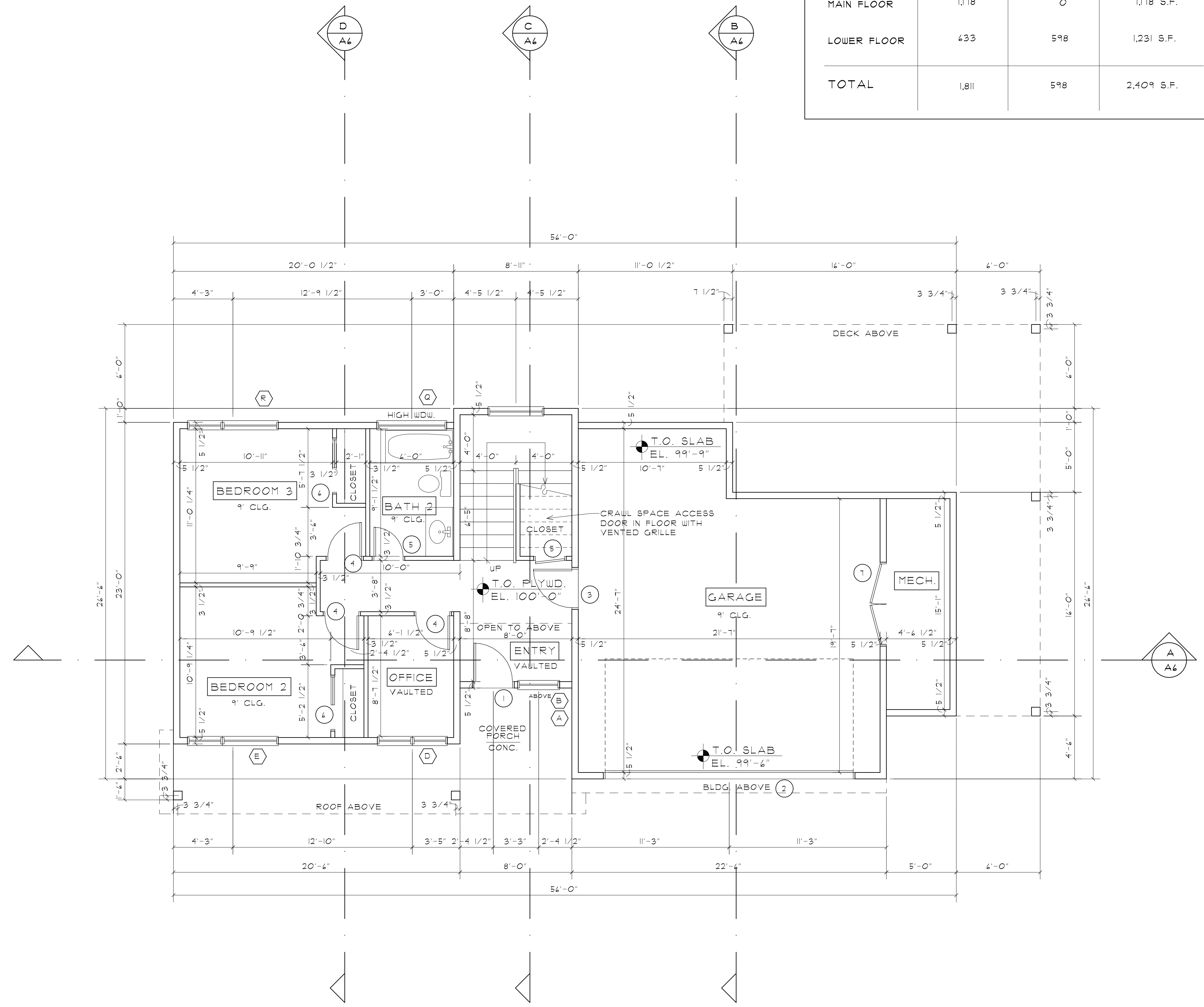
#	MTL.	TYPE	OPER.	WIDTH	HEIGHT	THKNES	GLASS	
1	WOOD	SOLID	SWING	3'-0"	7'-0"	1 3/4"		CUSTOM/OWNER
2	WOOD	GARAGE	OVD	18'-0"	8'-0"	1 3/4"		INSUL. W/AUTO OPEN
3	WOOD	SOLID	SWING	3'-0"	4'-8"	1 3/4"		FIRE DOOR SELF-CLOSING
4	WOOD	PANEL	SWING	2'-8"	4'-8"	1 3/8"		
5	WOOD	PANEL	SWING	2'-4"	4'-8"	1 3/8"		
6	WOOD	PANEL	SLIDE	4'-0"	4'-8"	1 3/8"		PAIR
7	WOOD	PANEL	SWING	4'-0"	4'-8"	1 3/8"		PAIR

WINDOW SCHEDULE

SYM	MFR ID (# UNITS)	TYPE	UNIT WIDTH	UNIT HEIGHT	NOTES
A	3496	FIXED	3'-0"	8'-0"	SAFETY GLAZING
B	1530	FIXED	4'-3"	2'-6"	
C	3040	CSMT	7'-6"	5'-0"	EGRESS
D	3040(2)	CSMT	5'-0"	5'-0"	
E	3040/4840	CSMT/FIX	4'-6"	5'-0"	EGRESS
F	3018/3020/4018/4020	CSMT/FIX	7'-6"	4'-6"	EGRESS
G	3042	CSMT	2'-6"	3'-6"	
H	4812	FIXED	4'-0"	4'-0"	
I	3018/3020/4218/4220	CSMT/FIX	4'-0"	4'-6"	
J	5210/5218	FIX/AUN	4'-4"	10'-0"	
K	5290/5218	FIX/AUN	4'-4"	9'-0"	
L	NOT USED				
M	5254/5218	FIX/AUN	4'-4"	4'-0"	
N	1254/3418(2)	FIX/AUN	4'-0"	4'-0"	
O	4896	FIXED	4'-0"	8'-0"	SAFETY GLAZING
P	3430(2)	FIXED	4'-0"	2'-6"	
Q	4018	AUNING	5'-0"	1'-6"	
R	4840/3040	FIX/CSMT	4'-6"	5'-0"	EGRESS
S	3496	SWING DR	3'-0"	8'-0"	PATIO DOOR

BUILDING AREA CALCULATIONS

	FINISHED	UNFINISHED	TOTAL
MAIN FLOOR	1,178	0	1,178 S.F.
LOWER FLOOR	633	598	1,231 S.F.
TOTAL	1,811	598	2,409 S.F.

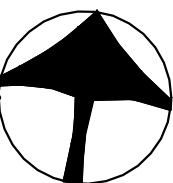


LOWER FLOOR PLAN

1/4" = 1'-0"

633 SF FINISHED
598 SF GARAGE/UNFINISHED

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43 BACKLAND RESIDENCE

LOT 186, WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

TITLE

FLOOR
PLANS

ISSUE	DATE
PRELIM.	7/6/24
PERMIT	8/4/24

A2



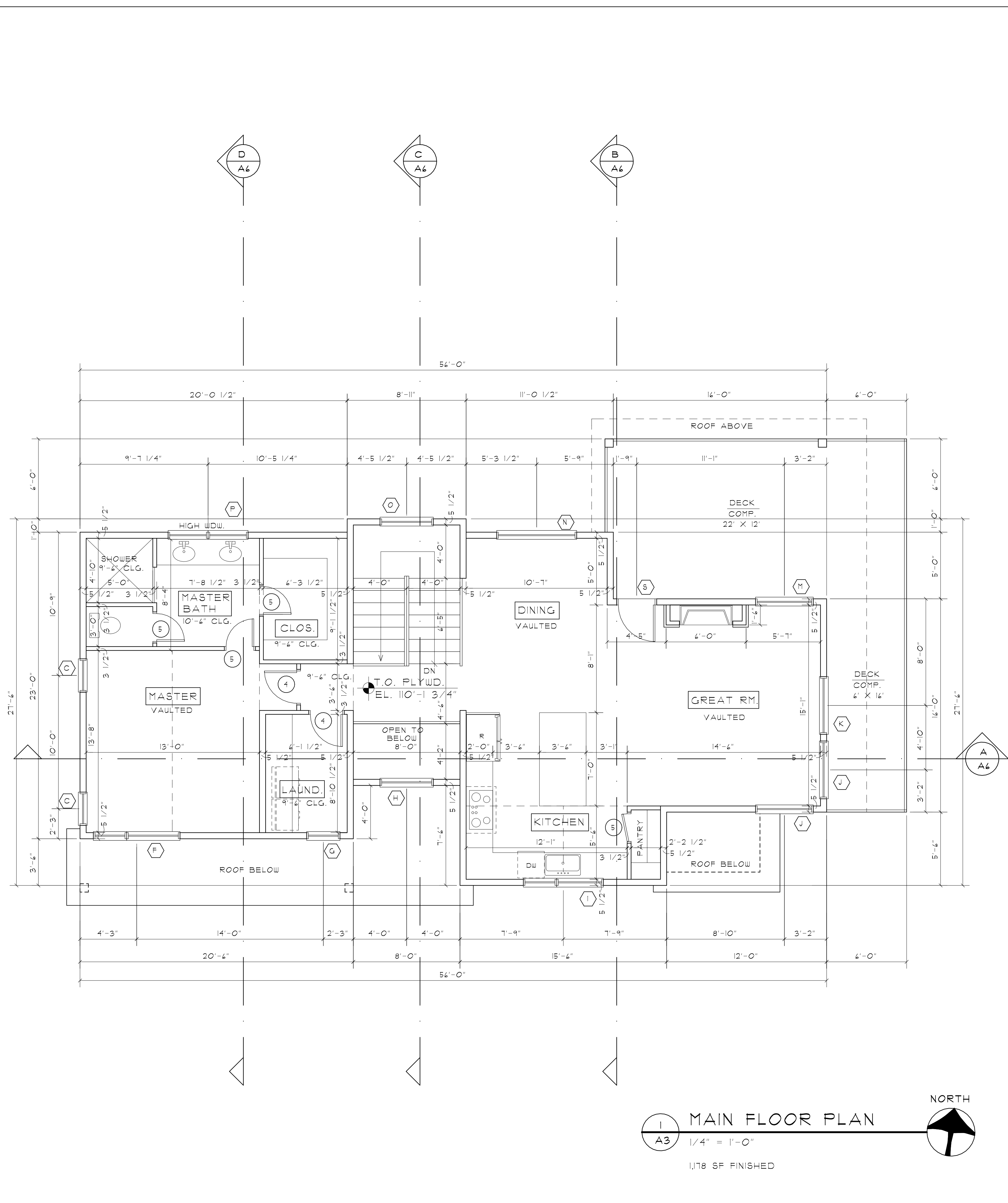
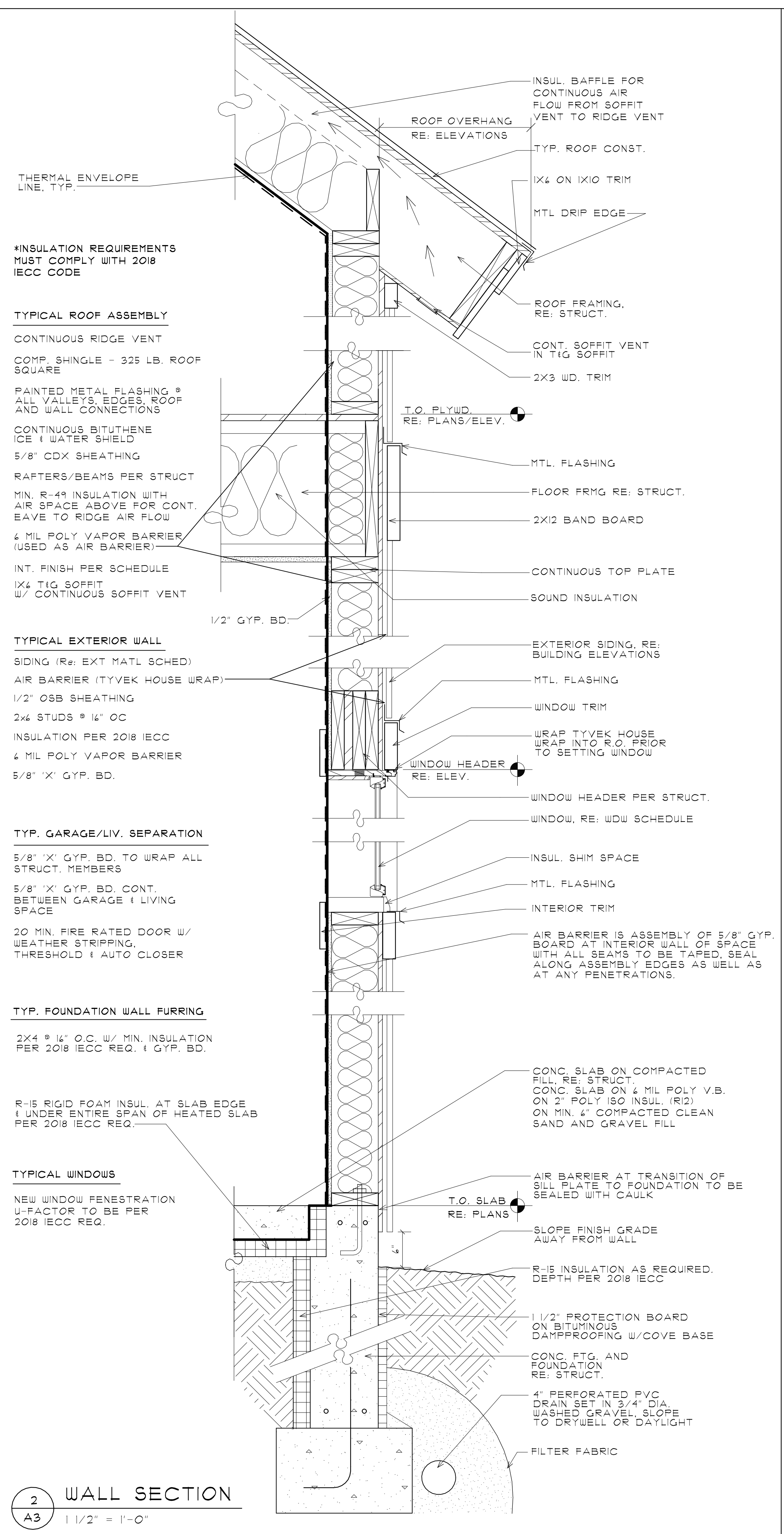
43 BACKLAND RESIDENCE
LOT 186, WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

TITLE

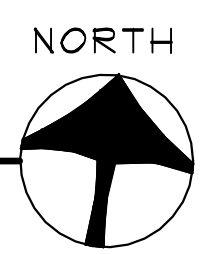
FLOOR
PLANS

ISSUE	DATE
PRELIM.	7/14/24
PERMIT	8/12/24

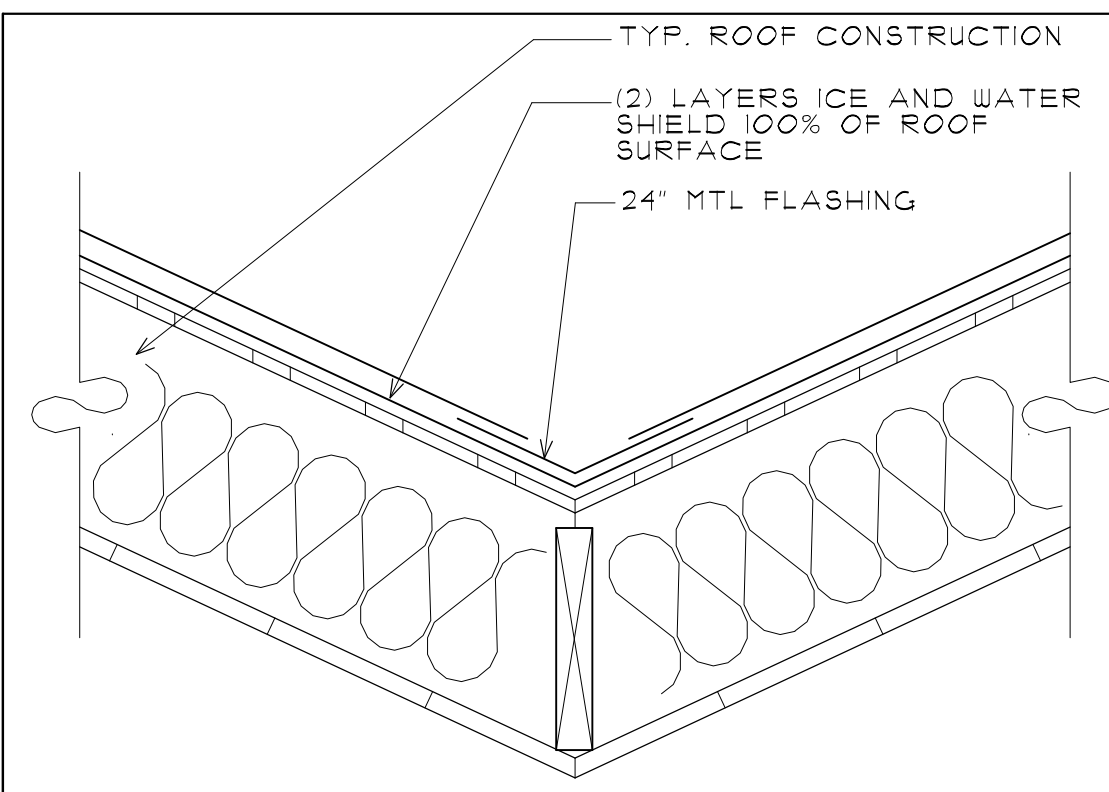
A3



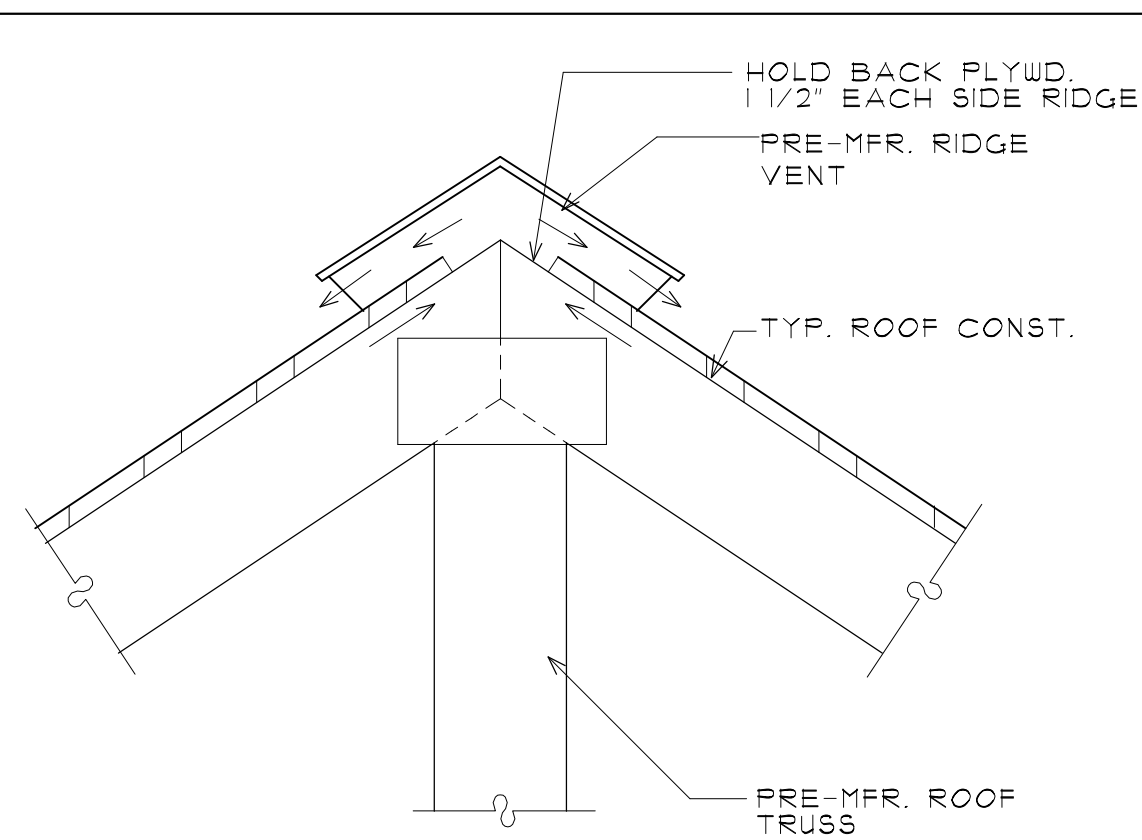
1 MAIN FLOOR PLAN
1/4" = 1'-0"
1,178 SF FINISHED



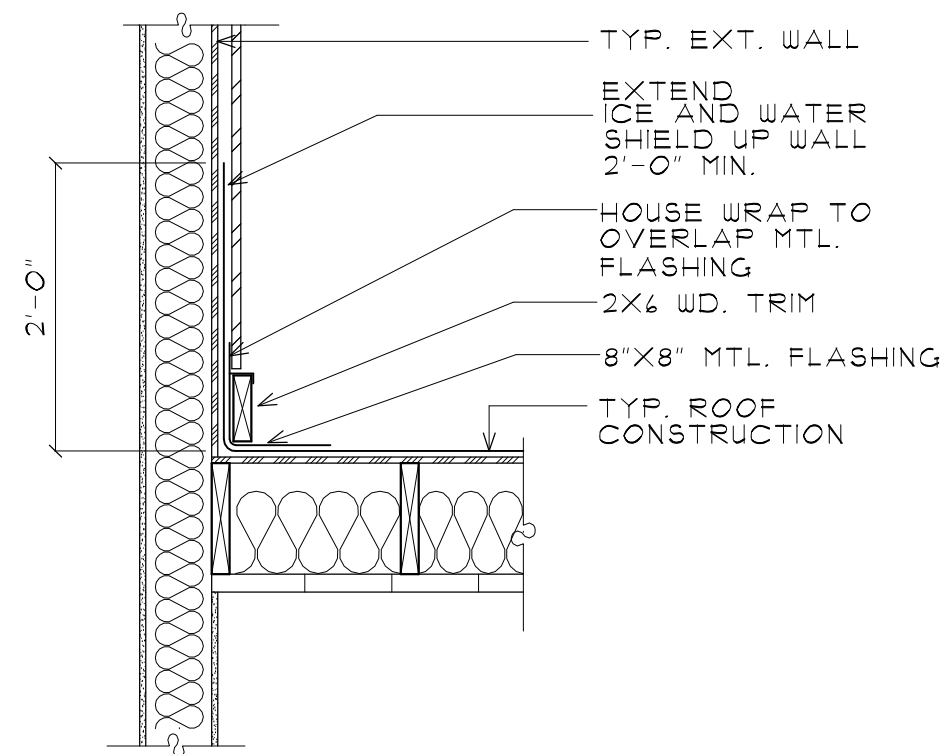
2 WALL SECTION
1/2" = 1'-0"



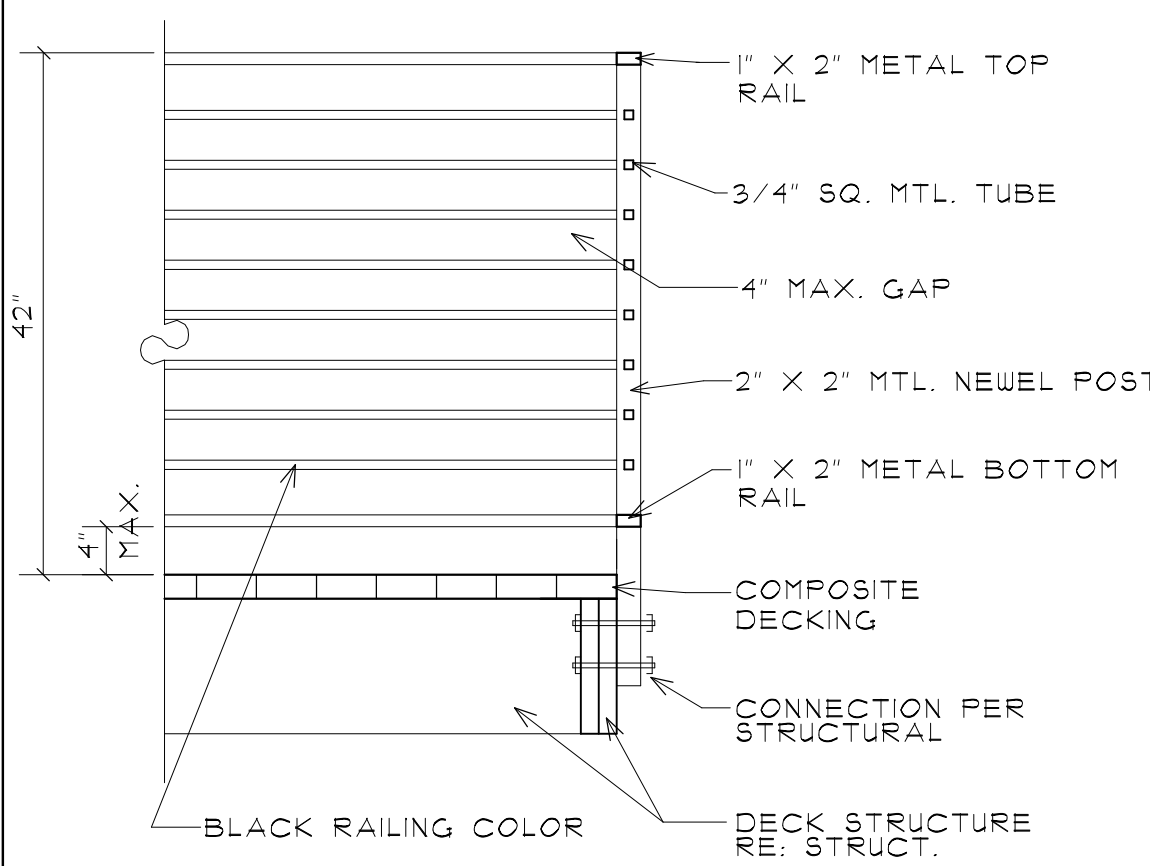
3 VALLEY DETAIL
1 1/2" = 1'-0"



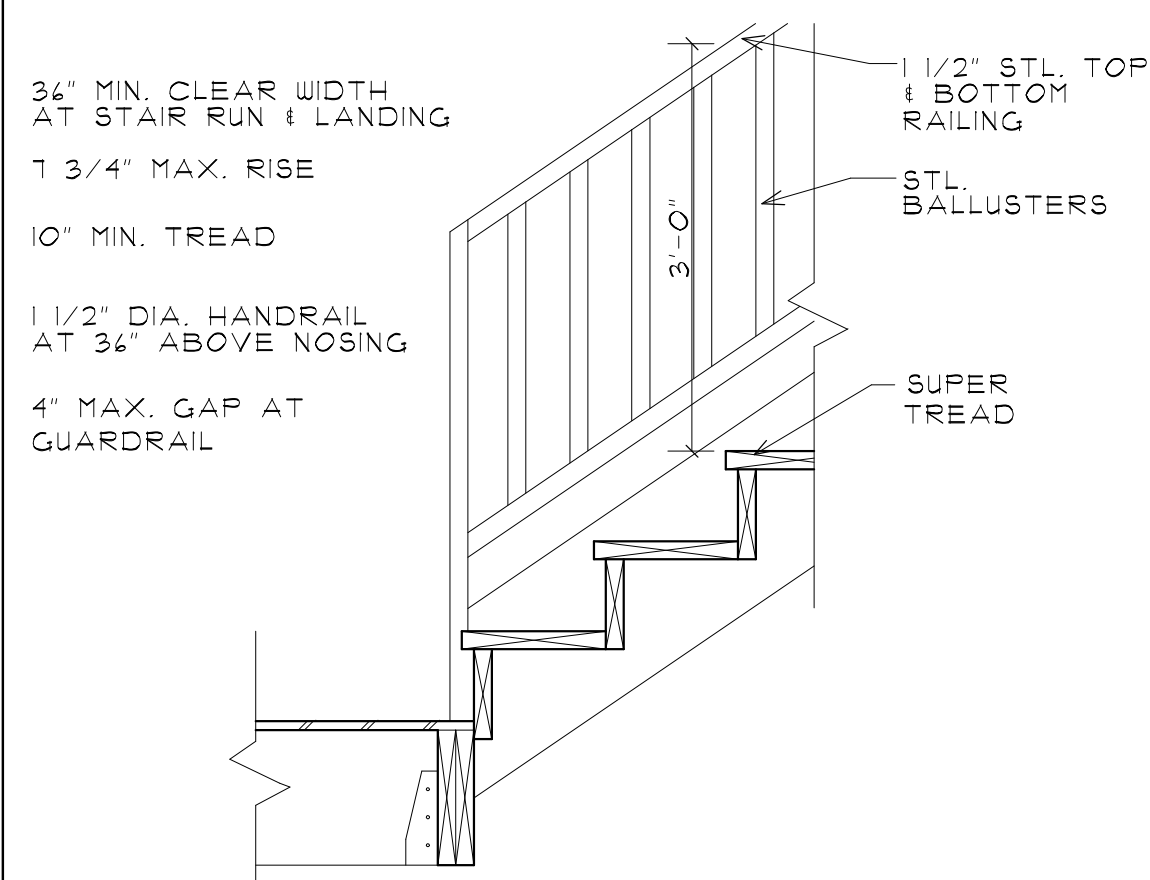
2 RIDGE TRUSS DETAIL
1 1/2" = 1'-0"



4 ROOF/WALL DETAIL
3/4" = 1'-0"



5 EXTERIOR RAIL DETAIL
3/4" = 1'-0"



6 INTERIOR STAIR DETAIL
3/4" = 1'-0"

2018 IECC PRESCRIPTIVE REQUIREMENTS:

ROOF/CEILING:

R-49 UNCOMPRESSED OVER THE TOP PLATE

ABOVE GRADE WALLS:

R-20 CAVITY + R-5 CONTINUOUS

SLABS, INCLUDING SLAB EDGE:

R-10

FENESTRATIONS:

MAX U 0.30

FLOOR R-VALUE:

R-38

BASEMENT WALL:

R-19 CAVITY

BLOWER DOOR:

ACH 2.1 AT A PRESSURE 0.2" W.G. (50 PASCALS)

2018 IECC PRESCRIPTIVE REQUIREMENTS:

-HIGH EFFICACY LED LIGHTS
100% MINIMUM WILL BE PROVIDED

-WATERSENSE FIXTURES REQUIRED
THROUGHOUT

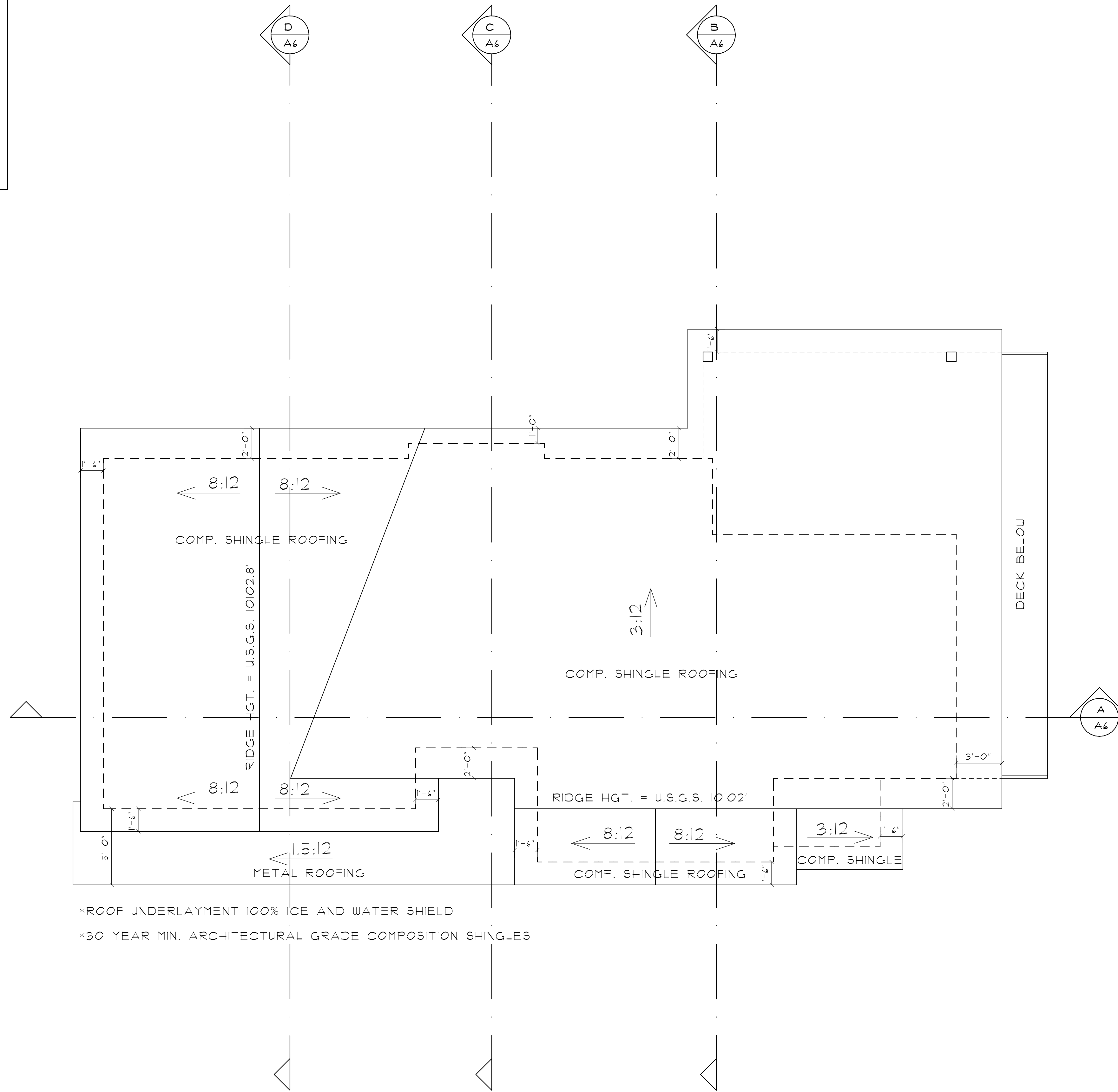
-PROGRAMMABLE THERMOSTATS

-RADIANT HEATING SYSTEM, MINIMUM
95% APUE

-ENERGY EFFICIENT WATER HEATER
ELECTRIC: MIN. 0.95 ENERGY FACTOR
GAS: MIN. 0.76 ENERGY FACTOR

-PROVIDE PV READY CONSTR. INCLUDING
A METAL RACEWAY FROM THE ELEC. PANEL
TO THE ROOF LOCATION WHERE PANELS WILL
BE INSTALLED, INCLUDING A ROOF JACK,
#8 COPPER GROUND, A 2 PULL BLANK IN THE
ELECTRICAL PANEL & AN ELECTRICAL CONDUIT
FROM THE ELEC. PANEL OUT TO ELECTRIC
METER

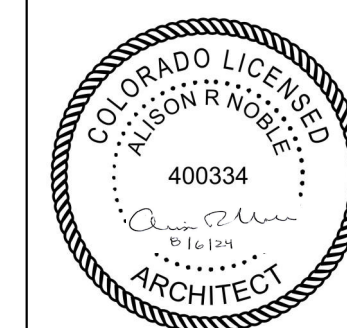
-PROVIDE AN ELEC. CAR CHARGING ROUGH-IN
INCLUDING A BLANKED ELEC. BOX & A RACEWAY
TERMINATING IN THE ELEC. PANEL PER
ART. 425 OF THE 2020 NEC



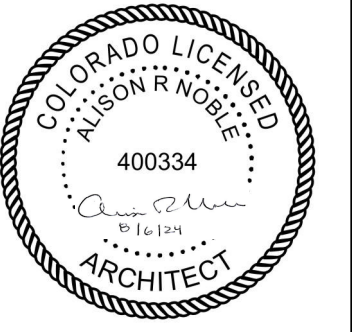
*ROOF UNDERLAYMENT 100% ICE AND WATER SHIELD
*30 YEAR MIN. ARCHITECTURAL GRADE COMPOSITION SHINGLES

1 ROOF PLAN
1/4" = 1'-0"

NORTH



ISSUE	DATE
PRELIM.	7/11/24
PERMIT	8/1/24



TITLE

BUILDING ELEVATIONS

ISSUE	DATE
PRELIM.	7/16/24
PERMIT	8/1/24

A5



2 WEST ELEVATION
A5 1/4" = 1'-0"



1 SOUTH ELEVATION
A5 1/4" = 1'-0"

EXTERIOR MATERIALS SCHEDULE

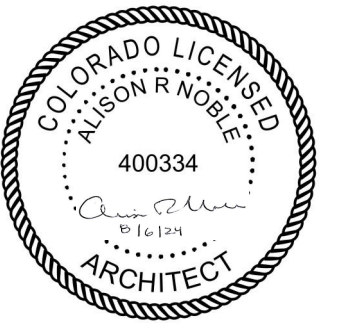
ITEM	MATERIAL	COLOR
ROOF:	COMP. SHINGLE	SEE COLOR BOARD
EAVE/RAKE:	STANDING BEAM METAL	
HORIZ. SIDING:	1X4 + 1X10, MTL./DRIP EDGE	
ACCENT SIDING:	1X8 WOOD SHIPLAP SIDING	
DOORS/WINDOWS:	1X8 VERTICAL WOOD SIDING	
DOOR/WINDOW TRIM:	ALUM. GLAD WOOD	
OUTSIDE CORNER TRIM:	2X4 HEADER 2X4 JAMB + SILL	
INSIDE CORNER TRIM:	2X4	
DECKS/RAILS:	BLACK METAL RAILINGS, COMPOSITE DECKING	
EXPOSED BEAMS/COL:	DOUG FIR TIMBERS	



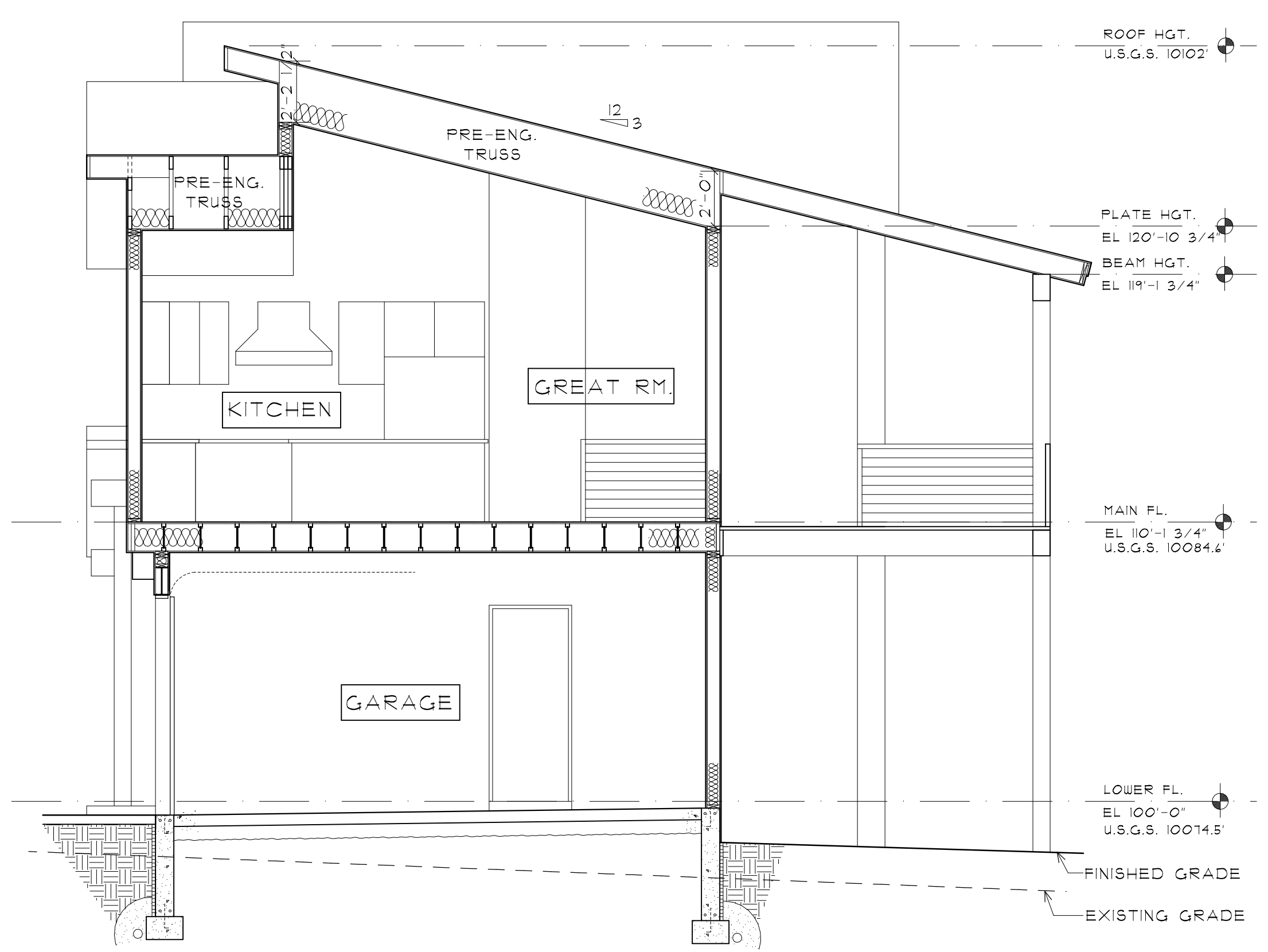
4 EAST ELEVATION
A5 1/4" = 1'-0"



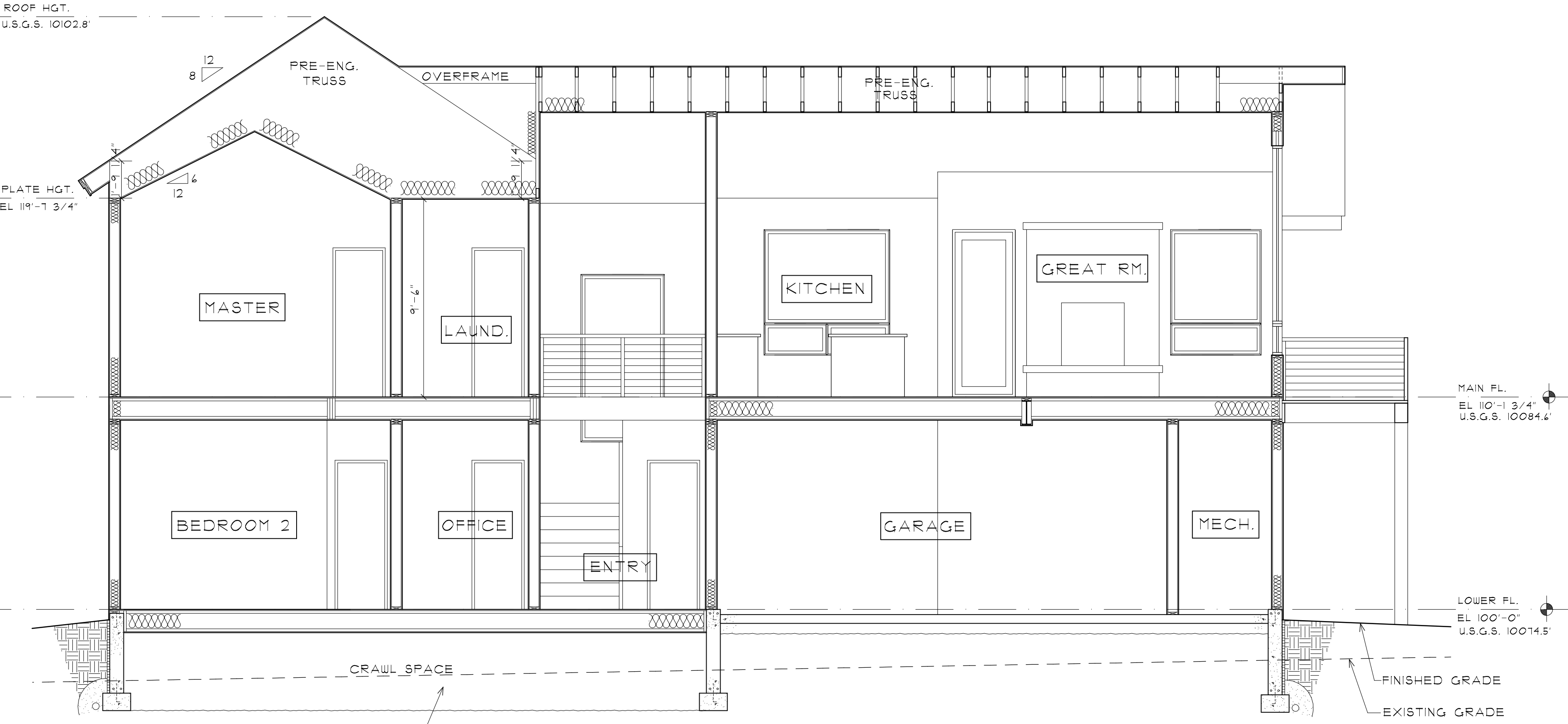
3 NORTH ELEVATION
A5 1/4" = 1'-0"



ISSUE	DATE
PRELIM.	7/14/24
PERMIT	8/14/24

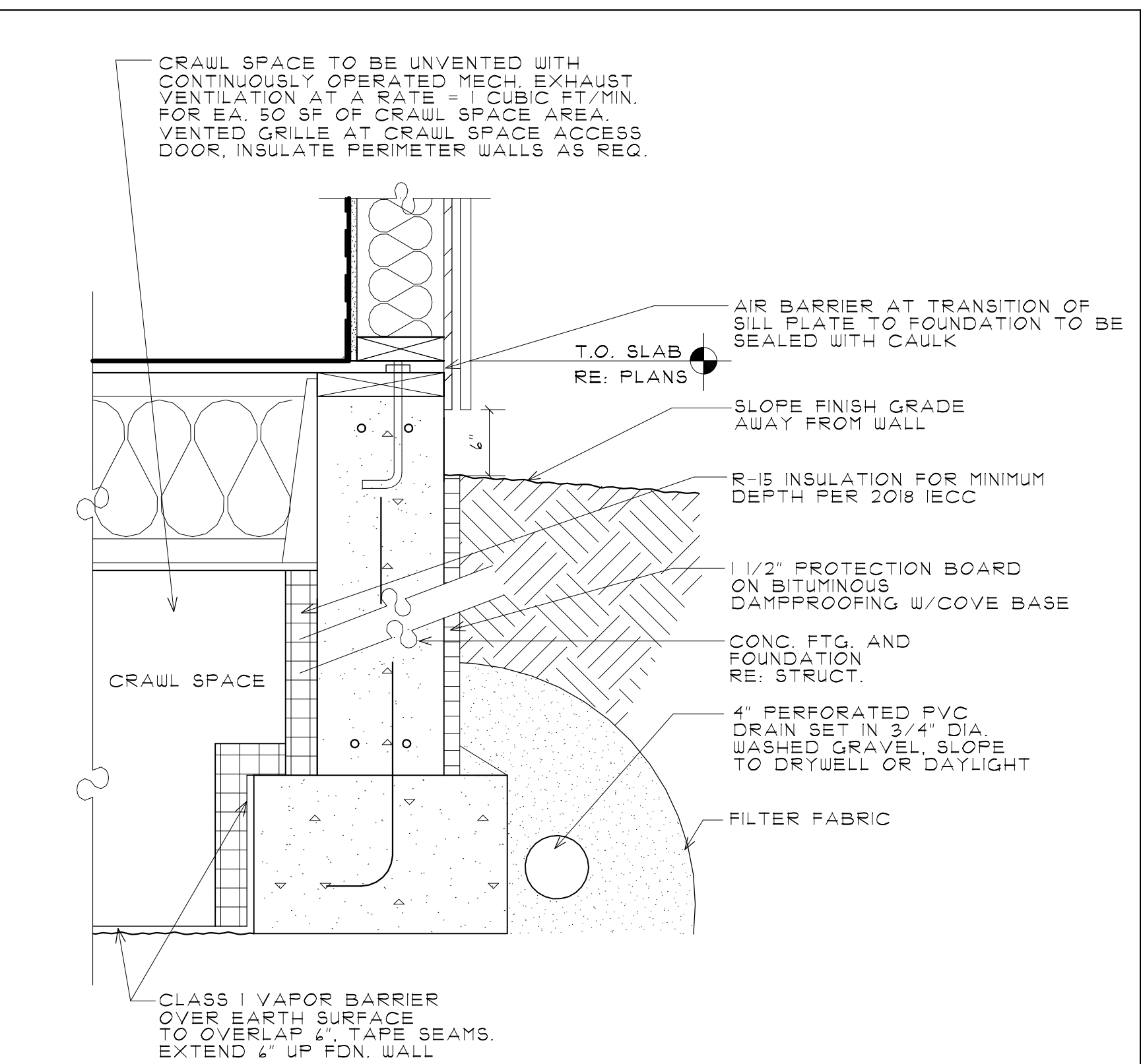


SECTION B
A6 1/4" = 1'-0"

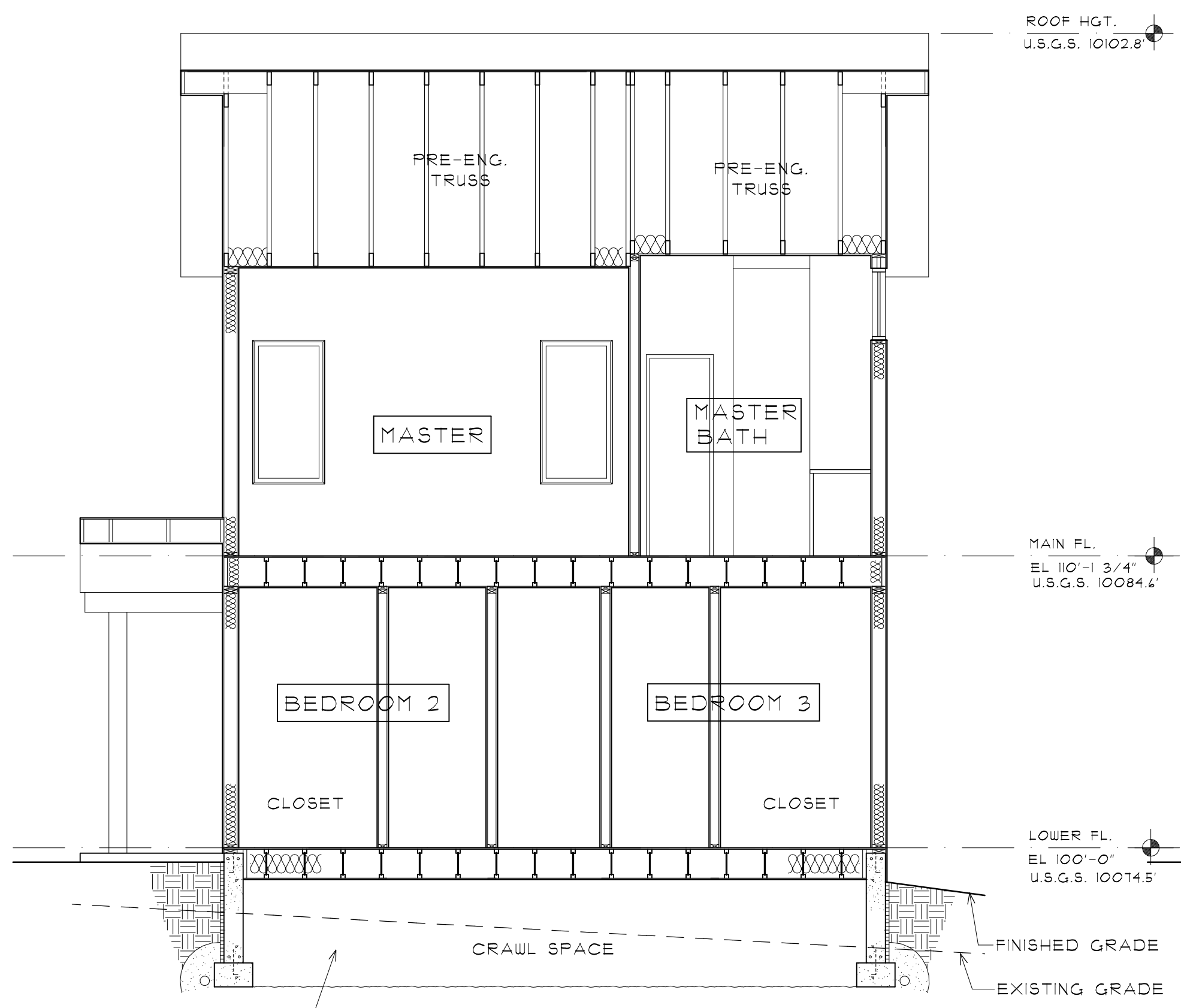


SECTION A
A6 1/4" = 1'-0"

UNVENTED CRAWL SPACE PER DETAIL 5/A6
VENTILATION EQUIP. LOCATED IN CRAWL SPACE

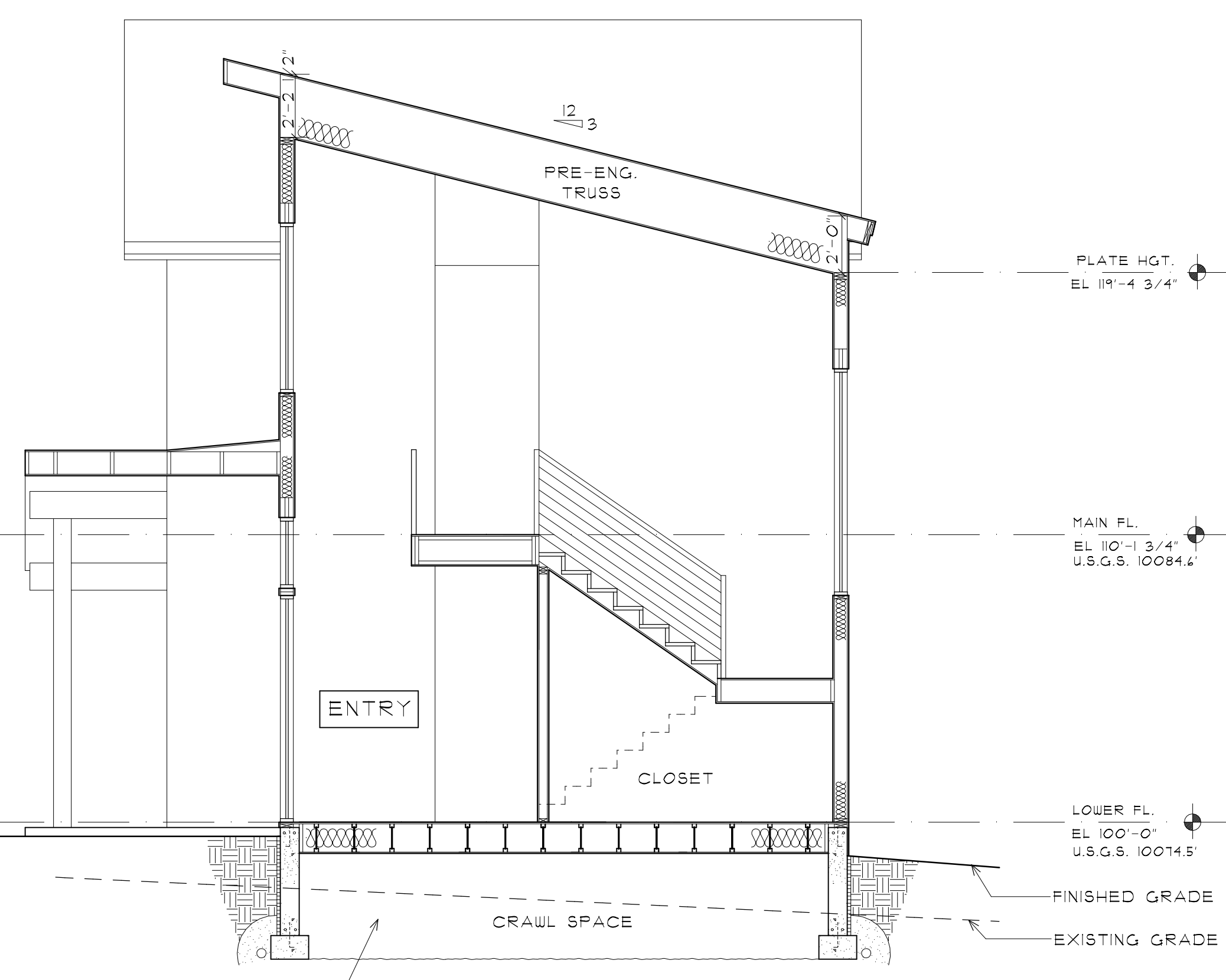


CRAWL SPACE DETAIL
A6 1 1/2" = 1'-0"



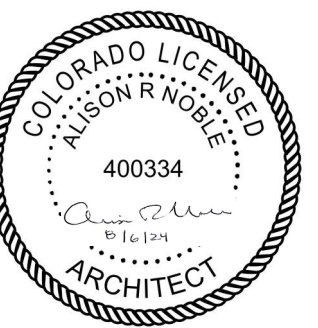
SECTION D
A6 1/4" = 1'-0"

UNVENTED CRAWL SPACE PER DETAIL 5/A6
VENTILATION EQUIP. LOCATED IN CRAWL SPACE



SECTION C
A6 1/4" = 1'-0"

UNVENTED CRAWL SPACE PER DETAIL 5/A6
VENTILATION EQUIP. LOCATED IN CRAWL SPACE



43 BACKLAND RESIDENCE

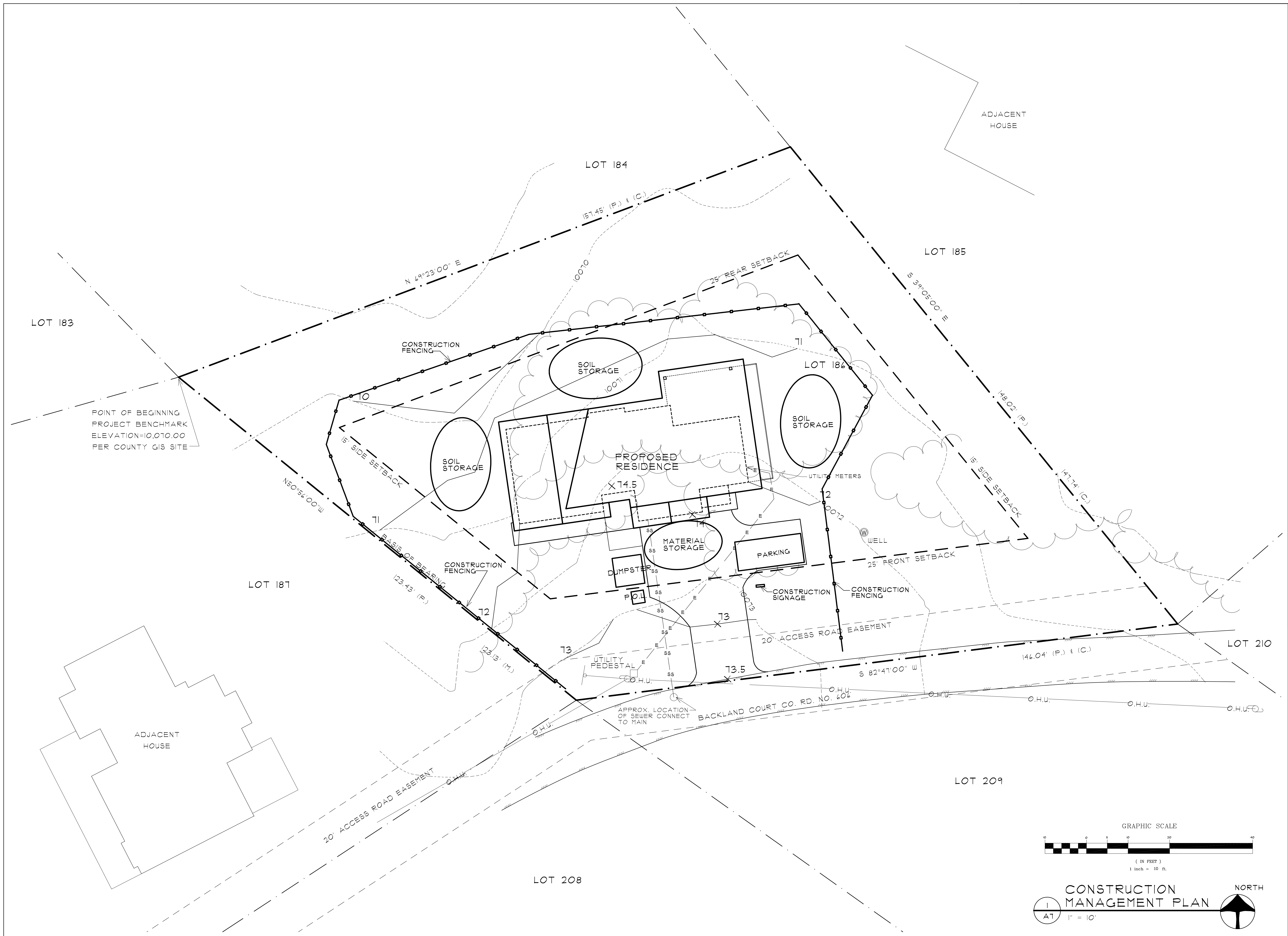
LOT 186, WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

TITLE

**CONSTRUCTION
MANAGEMENT
PLAN**

ISSUE	DATE
PRELIM.	7/14/24
PERMIT	8/14/24

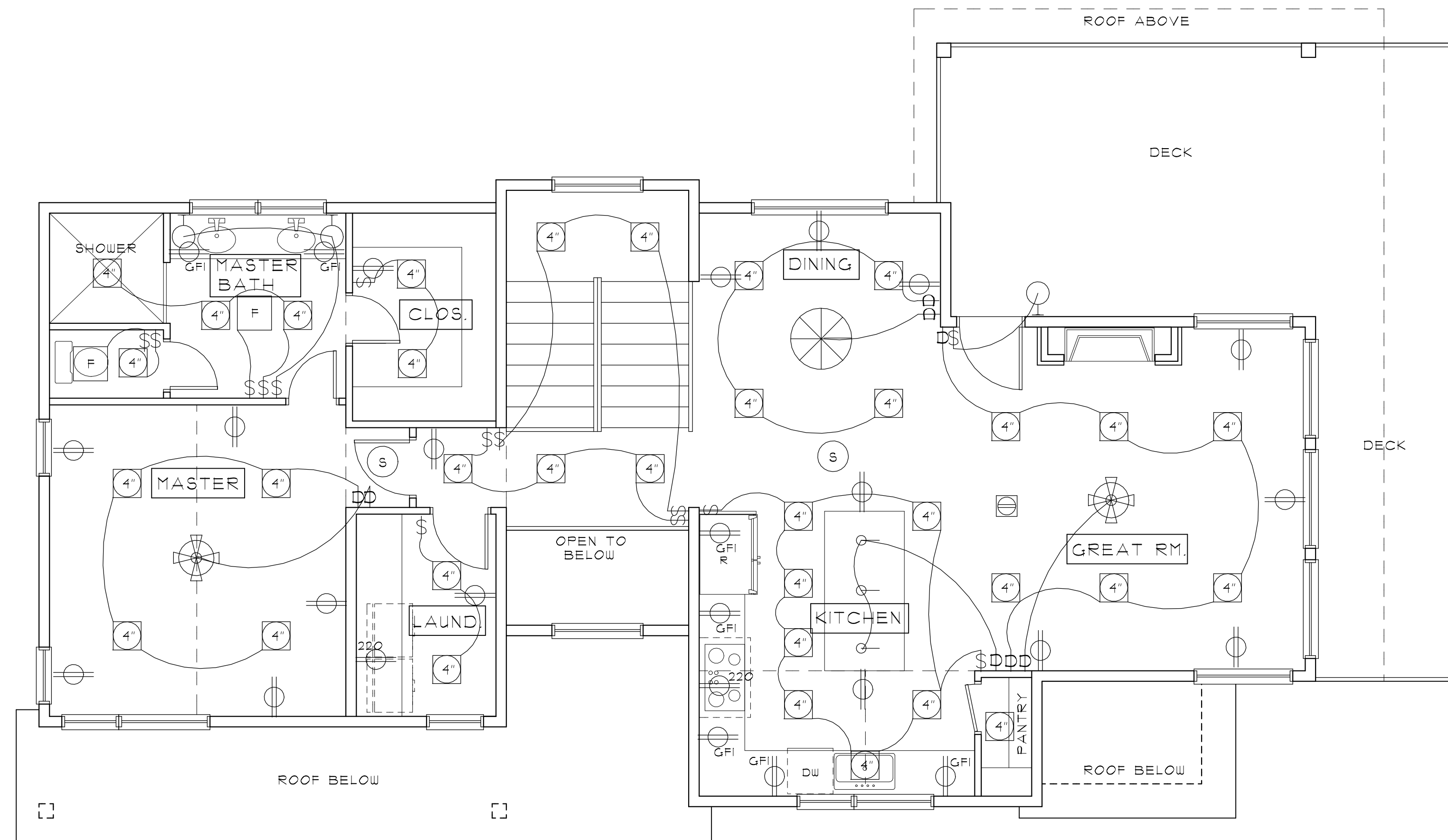
A1



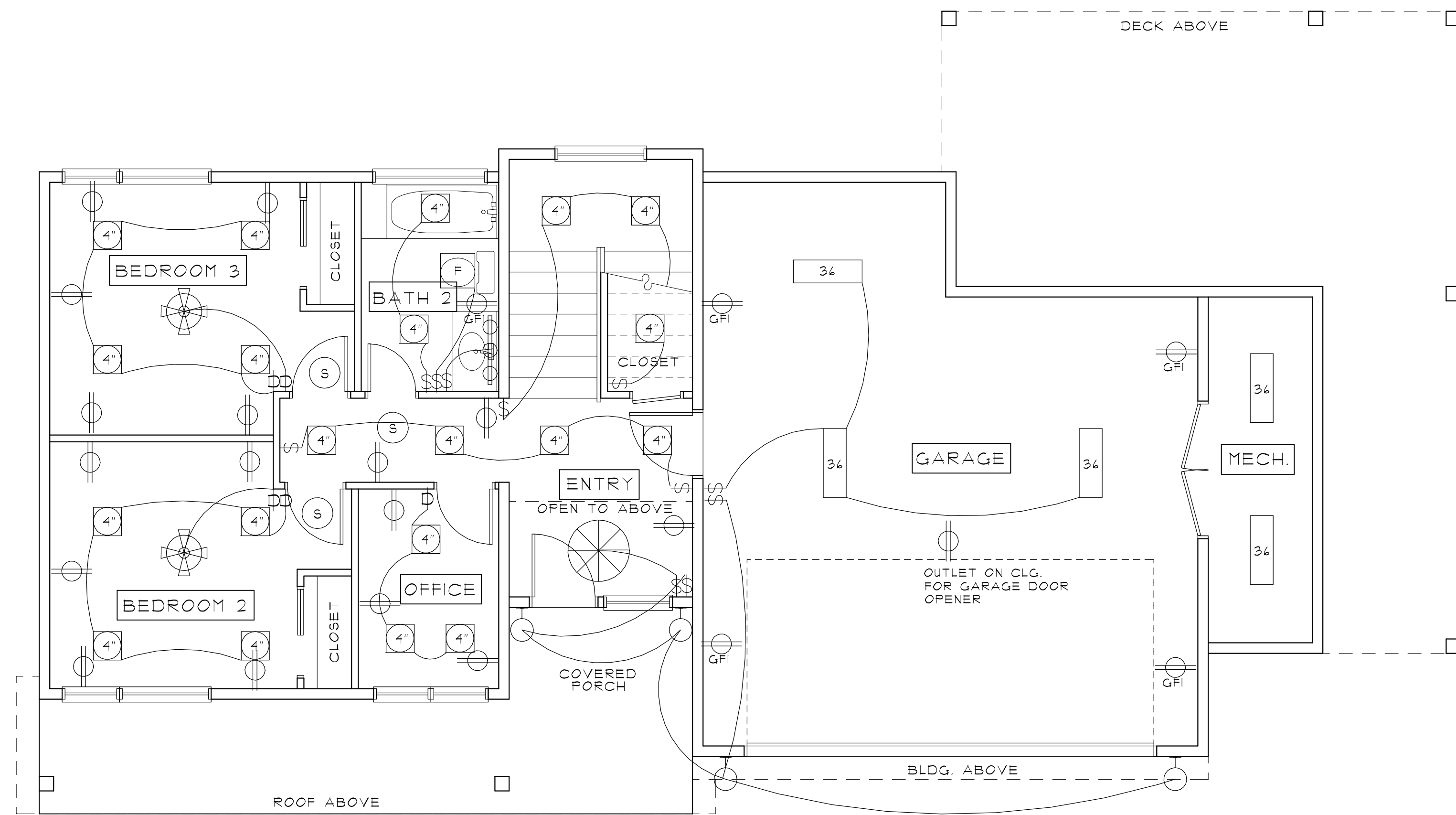
ELECTRICAL SYMBOLS

- | | | | |
|--|--|--|--|
| | RECESSED CAN LIGHT FIXTURE (SPECIFY SIZE IN INCHES) | | CEILING MOUNTED FLOOR LIGHT FIXTURE (SPECIFY SIZE IN INCHES) |
| | RECESSED CAN LIGHT FIXTURE DIRECTIONAL FOR ART | | FLUSH CEILING MOUNTED LIGHT FIXTURE |
| | RECESSED CAN LIGHT WEATHER PROOF | | CEILING MOUNTED PENDANT TASK LIGHTING |
| | CHANDELIER LIGHT FIXTURE | | CEILING MOUNTED BATH VENT |
| | WALL MOUNTED SCONCE | | UNDER COUNTER FLOOR LIGHT FIXTURE |
| | WALL MOUNTED VANITY LIGHT FIXTURE | | CLOS. WALL LIGHT MOTION SENSOR |
| | DOUBLE RECEPTACLE OUTLET | | FIREPLACE FAN |
| | DOUBLE RECEPTACLE OUTLET W/ GROUND FAULT INTERRUPTER | | HARD WIRED CO/SMOKE DETECTOR |
| | 220 VOLT RECEPTACLE OUTLET | | GARBAGE DISPOSAL W/ AIR SWITCH |
| | SPECIAL PURPOSE OUTLET (DW, MICRO, REF) | | RECEPTACLE FOR CHRISTMAS LIGHTS |
| | SWITCH, SINGLE | | WIRING |
| | DIMMER, SINGLE | | DUPLEX FLOOR OUTLET |
| | STAIR LIGHTING | | |

*ALL ELECTRICAL TO BE IN ACCORDANCE WITH 2020 NEC CODE REQUIREMENTS.



2
EI
1/4" = 1'-0"
NORTH



1
EI
1/4" = 1'-0"
NORTH



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43 BACKLAND RESIDENCE
LOT 186, WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

TITLE
ELEC. PLANS

ISSUE	DATE
PERMIT	8/1/24

EI

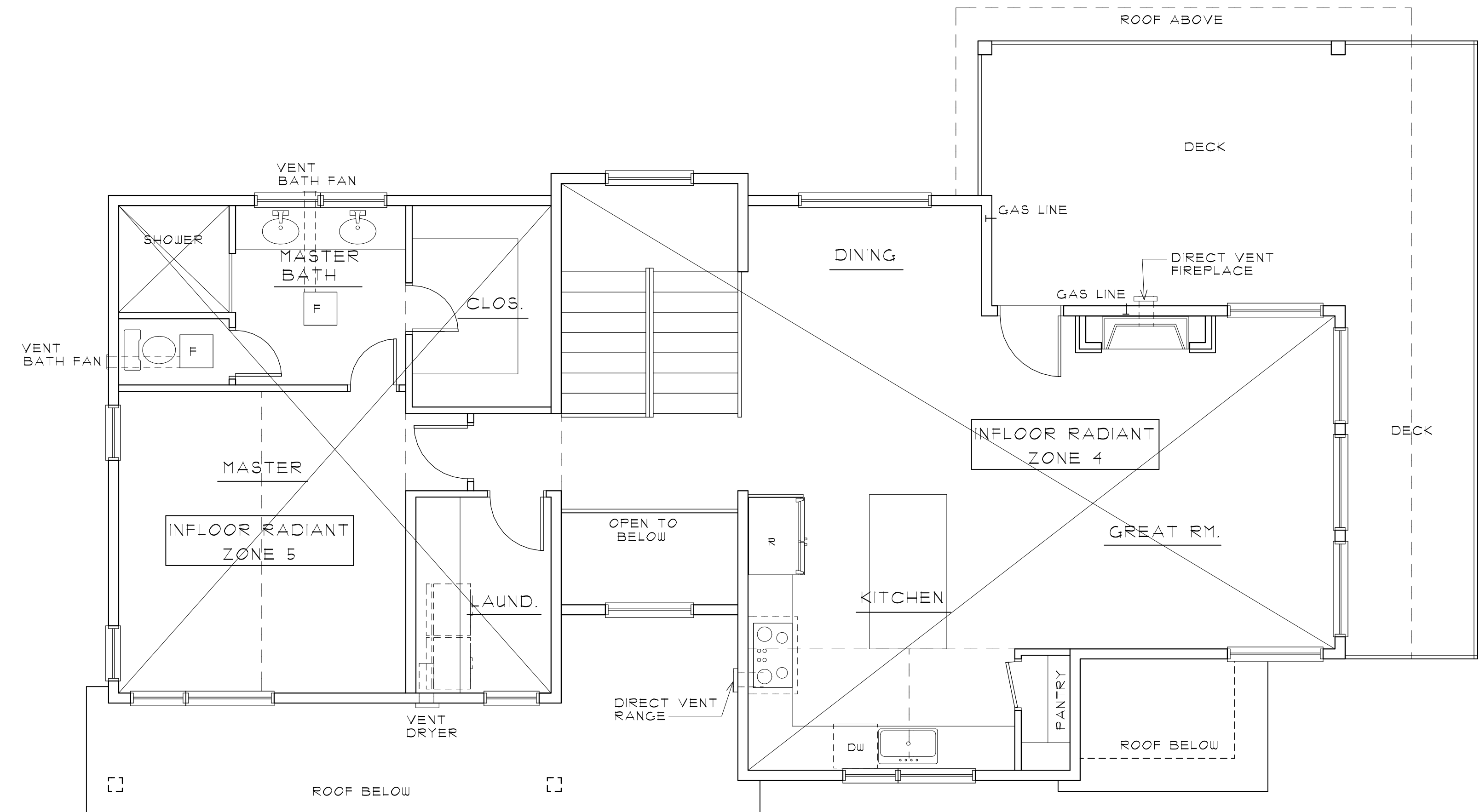
MECHANICAL SYSTEM DESIGN

1. IN-FLOOR RADIANT HEAT WITH A TRIANGLE TUBE INSTINCT 110 MBH 95% EFFICIENCY WALL MOUNT BOILER WITH 80 GALLON SIDEARM WATER TANK.
2. EQUIPMENT AND SYSTEM CONTROLS: HONEY WELL CONTROL BOARDS WITH HONEY WELL LCD PROGRAMMABLE THERMOSTATS
3. DUCTS WITH HAVE ALL SEAMS FOIL TAPED
4. 1/2" PIPE INSULATION ON ALL HOT AND COLD DOMESTIC WATER LINES AND HEAT LINE MAINS.
5. WHOLE HOUSE VENTILATION SYSTEM TO INCLUDE:
 - OUTDOOR AIR AT A CONTINUOUS RATE OF 95 CFM. (2,242 SF W/ 3 BEDROOMS.)
 - LOCAL EXHAUST RATES FOR KITCHENS TO BE 100 CFM INTERMITTENT OR 25 CFM CONT.
 - LOCAL EXHAUST RATES FOR BATHROOMS TO BE MECHANICAL EXHAUST CAPACITY OF 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS

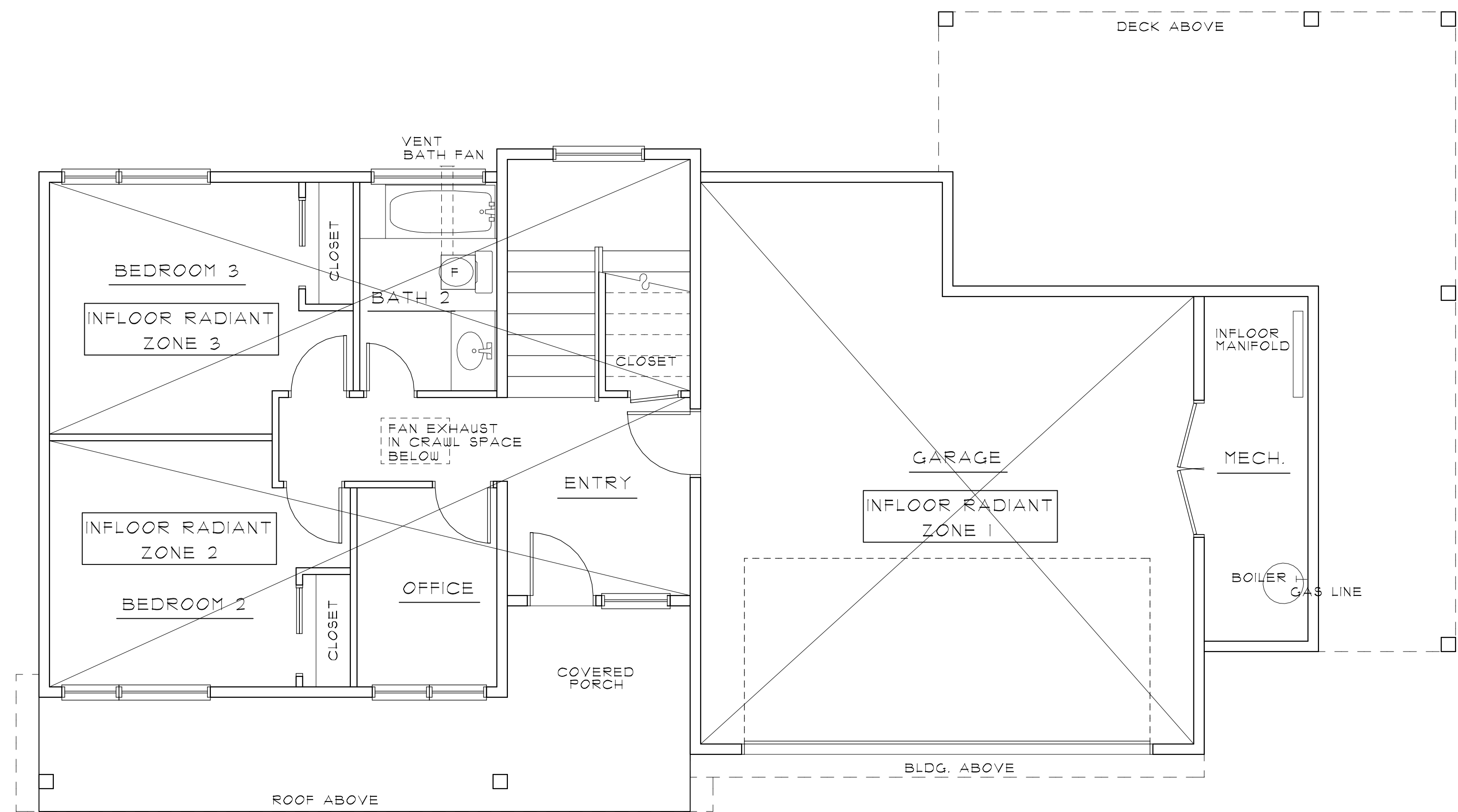
*ALL ELECTRICAL TO BE IN ACCORDANCE WITH 2020 NEC CODE REQUIREMENTS.

*ALL COMBUSTION AIR FOR APPLIANCES TO BE DRAWN FROM OUTSIDE OF BLDG.

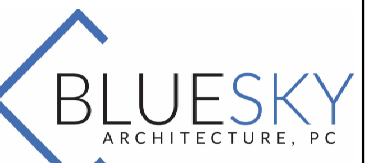
*MECHANICAL CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR LOCATION AND SIZE OF CIRCUITS REQUIRED



2
MI 1/4" = 1'-0" NORTH



1
MI 1/4" = 1'-0" NORTH



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43 BACKLAD RESIDENCE

LOT 186, WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

TITLE

MECH.
PLANS

ISSUE DATE

PERMIT 8/4/24

MI

OF 1

general structural notes

DESIGN LIVE LOADS:

Governing Jurisdiction: Blue River, Colorado

Design loads are per the 2018 International Residential Code (IRC / the Code) unless noted otherwise.

- Risk category II (from ASCE 7 Table 1-1)
Floors 40 psf
Exterior Decks 12/psf
Ground Snow 100 psf
Wind speed (Vw) 115 mph, Exposure C
Seismic Category B

STRUCTURAL PROTECTION, BRACING, OBSERVATION, and SHOP DRAWINGS

- The structural drawings illustrate the completed structure with all elements in their final positions, properly supported and braced. The Contractor, in the proper sequence, shall provide proper shoring and bracing as may be required to achieve the final completed structure.
These plans have been engineered for construction at one specific building site by 40TH Parallel Structural Engineering (Engineer of Record - "EOR"). Builder assumes ALL responsibility for use of these plans at Any Other building site. Plans shall not be used for construction of any other building site without specific review by the engineer.
Observations of foundation reinforcing, or framing required by the Owner, lender, insurer, building department or any other party will be accomplished by the engineer at the Owner's expense. At least 48 hours advance notice is requested.
Contractor is responsible for complying with all applicable Special Inspections requirements of the Code. Special Inspections and Testing shall be performed by a qualified Special Inspector, retained by the Owner, in accordance with the applicable sections of IRC Chapter 17.
Fabricator and /or supplier of structural components (such as structural steel) and performance-specified components (such as prefabricated wood trusses) shall submit shop and erection drawings for architect and engineer review. Submit PDF files for each drawing to the architect and engineer. Allow five working days for review.
DEFLECTION TOLERANCE: Unless noted otherwise, beams/headers are designed for the code minimum deflection criteria. General Contractor to notify EOR in writing of any Window/Floor openings (or other finish elements) that require a stricter deflection tolerance.

REQUIRED SUBMITTALS:

- Non-structural items that the building official requires to be reviewed or designed by the "engineer of record" and that are not included in these drawings shall be submitted as a Deferred Submittal. Documents for deferred submittal shall be submitted to EOR, the Architect, and the owner for review prior to construction. Common Deferred Submittal Items are: Slab Stripper design and connections, Handrail and rail post at floor openings and raised decks, Solar Roofing System, and connections to structure. EOR's review of these items will be for structural support only, based on the current IRC and IRC code Live Loads.

SOILS AND FOUNDATION

- Soils Report: 24-1121 by Best Engineering Solutions and Technologies dated June 29, 2024.
The soils report is hereby referenced, and all recommendations and precautions contained in that report shall be adhered to by the Owner and Contractor except where otherwise specifically noted.
Spread footings shall be as follows except as noted on plans:
Maximum allowable soil bearing pressure: 2000 psf
Place footings on undisturbed natural soil or compacted structural fill tested and approved by the soils engineer.
Open Hole Observation shall be performed by the Soils Engineer to confirm soil bearing conditions prior to footing construction. See Soils Report for any over-excavation/compaction requirements. Provide a copy of the Open Hole Observation Report to EOR. The cost of soils engineering shall be at the Owner's expense.
Center of continuous footings under foundation walls and isolated footings under piers or columns unless noted otherwise.
Minimum frost depth = 40" from finished grade to bottom of footing unless noted otherwise on the plans.
Design lateral soil pressures (equivalent fluid pressures) are as follows:
At-Rest Pressure: 50 pct.
Active Pressure: 45 pct.
Slabs must be in place prior to backfilling around basements, or the contractor shall provide adequate shoring and bracing for review.
Provide perimeter drain system per soils engineer recommendations, unless specifically not required by soils engineer. Extend perimeter drain to daylight or sump. All drain systems and foundation damp-proofing shall be inspected by the soil engineer for compliance with their recommendations.
Non-structural slabs on grade shall be by others but shall not be less than 4" deep welded wire fabric or #4 @ 18" each way in accordance with the soils engineer and shall be separated from the foundation with slip joints and from framing and other structure to allow free-floating movement of the slab with soil.
Placement of any significant thickness of fill beneath footings, slabs, and pavement should be tested to verify proper compaction is obtained in accordance with the soils engineer's recommendations. Backfill all but the top two feet (2'-0") of all basement and site retaining walls with free draining granular material except where backfill with on-site soils is specifically allowed on plans.
Slope compacted grade away from building per soils report, or minimum 1:10 slope for first 10 ft.

CONCRETE AND REINFORCEMENT

- Concrete shall conform to applicable provisions of ACI 301 and 318.
All concrete shall have 5000 psi compressive strength at 28 days (f'c).
All cement shall be Type I/II. Concrete with High Weathering Potential such as porches, carport slabs, and garage floor slabs shall be air entrained (air content between 5% and 7%) per F402.2.
Concrete Exposed to High Sulfates shall be TYPE V cement or any hydraulic cement meeting the requirements of Type IS per ASTM C595, W/C ratio of .45 max.
All rebar shall be ASTM A615 grade 60 fabricated and placed per ACI Manual of Standard Practice (ACI 315) and Welded Wire Fabric (WWF) shall be ASTM A185. Keep reinforcement clean and free of dirt, oil, and scale.
Welded Wire Fabric- 4x4-#3 @ 12" x 12" per ASTM-A1084 Grade 70
Weldable rebar shall be ASTM A706 rebar and is typically stamped with a "w" - rebar welded to the embed plate without a "W" stamp will be rejected and may delay the concrete pour.
Place rebar 3" clear of soil and 1 1/2" clear of forms except as noted. Splice bars 50 diameters (18" for #3, 24" for #4, 32" for #5). Add (2) #5 or (3) #4 bars around openings with 32" straight extensions at corners of the opening.
Place concrete continuously without horizontal cold joints.
Unless noted otherwise, threaded rods, rebar dowels, and similar anchors noted on drawings as fastened to concrete with epoxy shall have specified embedment in a hole 1/4" larger in diameter than the anchor, prepared and installed in accordance with manufacturer's installation instructions, using Simpson "SETLO" adhesive (ESR-4057). Clean the hole with a steel wire brush and compressed air per the manufacturer's recommendations. Temperatures must be above 40° for 48 hour period for installation unless noted by the manufacturer.
A Concrete Encased Electrode (CEE, or "iller rod") is required and shall be field located near the electrical service by the contractor. The CEE shall be per governing jurisdiction and per the IRC code. 40TH PARALLEL can observe the CEE if required by the building official but does not accept responsibility for its design or detailing; the contractor shall notify 40TH PARALLEL of the applicable CEE requirements.
COLD WEATHER CONCRETE PLACEMENT:
Concrete may be poured with no protection if the average air temperature is above 40°F for the next 3 days. Average air temperature is defined as the average between the daily high and low temps.
No concrete is allowed to be poured when the average air temperature is below 25°F.
When the air temperature is below 40°F, the concrete temperature at placement should be 65°F to 85°F.
Contractor to use blankets, windbreaks, higher strength concrete, and accelerating and/or water-reducing admixtures per ASTM C 494 C & E as required to protect concrete from freezing during curing.
No Chloride Admixtures shall be added to concrete without 40th Parallel Structural Engineering's written approval.

STRUCTURAL STEEL

- Steel material shall be as follows unless specifically noted otherwise:
Structural Beams: ASTM A992
Angles, misc.: ASTM A36
Anchor Bolts: ASTM A307 or A36 with a minimum 7" embedment depth unless noted
Standard pipe columns: ASTM A 53, Grade 65, 35 ksi.
Tube steel (HSS): ASTM A500, Grade B, 49 ksi
Connector bolts: ASTM A325 FOR STEEL TO STEEL, ASTM A307 FOR WOOD TO STEEL
Expansion Anchors Simpson Strong-Bolt 2 or equivalent.
All structural steel shall be fabricated and erected per the current edition of AISC Steel Construction Manual.
Welding shall be by qualified welders. Use E70XX electrodes and 3/16" fillet welds unless noted otherwise.
Adjustable caps NOT allowed on columns UNO on plans.
Non-skrink grawl beneath column base and beam bearing plates shall be non-metallic with minimum compressive strength of 5,000 psi.
Steel Beam Framing:
Typical Wood Nailer: 2x nailer to match beam width. Connect to the top flange with construction adhesive and 3/8" diameter thru-bolts at 24" oc, staggered.
At Flush steel beams which receive top mounted hangers, rip 2x nailer to exact beam width plus 3/8" and attach to top flange with construction adhesive and 1/2" diameter machine bolts @ 32", staggered. Plates shall overhang beam flange (at least 1/8" but not more than 1/4") on both sides to prevent hangers from contacting steel beam. Set joints in hangers with adhesive.
At Flush steel beams which receive top mounted hangers, rip 2x nailer to exact beam width plus 3/8" Plate shall overhang beam flange (at least 1/8" but not more than 1/4") on both sides to prevent hangers from contacting steel beam.
Blocked steel beam webs: Block beam web with solid 2x blocking, bear tight to bottom flange, and glue & bolt to flange with 2" thru-bolts at 24" oc unless noted otherwise. Use a minimum of 3 - 3/8" thru-bolts.
At dropped steel beams bearing on built-up studs, bearing beams on stud end grain. Install 2x6 vertical blocking between beam flanges and nail king studs thereto with at least (6) 16d nails on each side unless noted otherwise.
2 - #14 Self-Drilling Screws (B1460 screws by SIMPSON or equivalent) may be installed in place of 1 - 3/8" thru-bolt. Use length as required to penetrate steel member.
All beams shall have full-depth web stiffeners on each side of the webs above and below columns.

WOOD FRAMING:

- All framing and details not specifically specified shall comply with the prescriptive (non-engineered) requirements of the International Residential Code.
Sawn Lumber and Timbers:
Nominal 2x and 3x lumber shall be Douglas-Fir #2 or better.
Sill plates and ledgers in contact with concrete or masonry shall be preservative treated with Micronized Copper Azole (Southern Yellow Pine Lumber), or "Strandguard" LSL. ACO treatment is NOT acceptable.
All deck framing lumber to be Treated Lumber (with MCA-C treatment or another equivalent), Southern Yellow Pine, GRADE #1, not knotted.
Field cut ends, notches and drilled holes of pressure preservative treated wood is to be re-treated in the field in accordance with IRC Section R312.1.1 and NHPA M4.

- Engineered Wood:
Laminated Veneer Lumber (LVL): Manufactured 1-3/4" width with Fb=2,600 psi, E=2,000,000 psi, Fv=285 psi.
LSL, Rim Joists: Manufactured 1-1/4" laminated strand lumber. Trus joist by Weyerhaeuser or equivalent.
Girts, laminated framing members (Dulams) per ANSI Standard A190.1-92. Mark members with an AITC Quality Stamp and furnish an AITC Certificate of Conformance. Doug Fir, Fb = 2400 psi, E = 1,800,000. Combination symbols as follows:
Simple span beams: 2x4V4 with ZERO camber or 2x400 foot camber or ZERO camber except as noted on plan.
Multiple span beams, continuous beams, and cantilevered beams: 2x4V8, ZERO camber.
Columns: Combination #2.
Alaskan Yellow Cedar (A-Y-C) - Iam beams, Fb = 2000 psi, E = 1,500,000, 20F-V12 unless noted otherwise.
Treated LVL to be "TWT treated" 2.0c, 2800 Fb LVL (1 1/4" wide UNO)
Plywood and OSB Sheathing:
Floor sheathing shall be 1/8" Sturd-Floor (23/32" min) with 24" oc APA rating. Lay panels perpendicular to framing members and stagger joints with at least 2-spans per panel. Glue and nail with 10d ring-shank nails @ 6" along edges & @ 12" in fields, UNO.
Wall sheathing shall be 7/16" minimum sheathing with 24/16 APA rating. Block unsupported edges and nail sheathing to all studs, plates, and nails with 10d nails @ 6" along edges & @ 12" in fields. Note additional requirements for shear walls as shown on the plans.
"Roof" sheathing shall be 19/32" minimum with 40/20 APA rating. Lay panels perpendicular to framing members and stagger joints with at least 2-spans per panel. Nail with 10d ring-shank nails @ 6" along edges & @ 12" in fields, UNO.
MSL Floor, and Roof Framing:
Anchor all roof rafters, joists, and trusses to beams and walls at bearing points with metal framing anchors, doubled within 4"-0" of corner and at hips. Install full height blocking between rafters/joists/trusses at all bearings unless noted otherwise on the plans.
Exterior walls shall be 2x6 @ 16" unless noted otherwise on the plans. All wall studs shall be continuous from floor to floor or from floor to roof.
All wood joists and columns shall be supported with posts of equal size of all walls below and with squab blocking in all platform levels to transfer the load to the foundation.
All prefabricated plywood Web I-type joists shall be installed per the manufacturer's recommendations. See manufacturer's literature for web-stiffener installation, and minimum connections of bearing locations. Do not cut or notch chords in any manner. Holes in the joist webs shall not exceed the manufacturer's published limit criteria.
Pre-engineered I-joists shall be continuous over intermediate bearings as is possible and shown on the plans. Block between joists under bearing walls and over interior shear walls.
Layout joists to avoid plumbing and other floor penetrations.
All beams shall be braced against rotation at points of bearing. Dry pack groud all beam pockets in concrete full after beams are set. Rip wood beams with ice and water shield in beam pockets.
At built-up stud columns, nail all laminations with 16d @ 12" full height, staggered.
At dropped wood beams bearing on built-up studs, bear beams on stud end grain. Form a pocket by extending king studs to the wall top plate on each side of the beam. Nail king studs to beam with at least (6) 16d nails each side unless noted otherwise.

Roof Trusses:

- Pre-engineered, prefabricated trusses shall be designed for the fabricator by a Professional Engineer Registered in the State of construction and shall comply with the Code and the Truss Plate Institute Requirements. Manufacture and installation of trusses shall comply with ANSI/PFI 1 "National Design Standard for Metal-Plate-Connected Wood Truss Construction", PFI 101 "Commentary and Recommendations for Handling, Installing and Bracing Metal-Plate-Connected Wood Trusses", and PFI 020 "Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses".
Trusses shall be designed for loads per plan.
Maximum allowable deflections shall be as follows:
Truss Maximum deflection under full Live load: Span / 360
Truss Maximum deflection under full Dead + Live load: Span / 240 or 1/4", whichever is lesser
Lower chord of gable end trusses shall be anchored to wall plate with framing anchors at 6'-0" on center and laterally braced to roof framing at 6'-0" on center maximum spacing, or as required by the fabricator.
Solid block between trusses of bearings.
Unless otherwise indicated, trusses shall be designed for perpendicular to grain bearing on Hem Fir plates (40S psi). End grain bearing is not allowed unless accepted in writing by EOR. Design truss bearings for bearing blocks or Truss Bearing Enhancers as required to compensate for overstresses. Specify size, species, and nailing for bearing blocks.
All truss-to-truss connections shall be specified by the truss supplier unless specifically noted on the drawings.

WOOD FRAMING, HARDWARE, CONNECTORS, AND FASTENERS:

- Metal connectors shall be by Simpson Strong-Tie and installed with nailing to achieve maximum rated capacity unless noted otherwise. Note that heavy-duty and skewed hangers may require a special order. See the current Simpson catalog or "Installer's Pocket Guide" for required nailing. NOTE THAT MOST HEAVY HANGERS REQUIRE 16d COMMON NAILS (16dX3 1/2"). "Sinker", 12d common nails, and short "hanger nails" are NOT acceptable and WILL HAVE TO BE PULLED AND REPLACED.
All connectors shall meet the recommendations of the pressure-treated wood manufacturer. Connectors in exposed applications shall not be less than Hot Dip Galvanized (HDG) or Stainless Steel (SS).
All screws, nails, and bolts shall match the material and coating of hangers and other connectors. DO NOT mix stainless with galvanized products.
Straps shall not be installed with fasteners into end grain in 2x members or any narrow face of LVL members.
FASTENERS:
Nails designated as "8d" nails on the plan, shall be 8d ring shank gun nails (0.113" diameter x 2 3/8" long) unless noted otherwise.
Nails designated as "10d" nails on the plan, shall be 10d ring shank gun nails (0.131" diameter x 2 3/8" long) unless noted otherwise.
Framing nails in 2x lumber shall be 12d common nails (0.131" diameter x 3 3/8" long) unless noted otherwise. These nails are commonly referred to as "stair sinkers" or "16d gun nails". Nails called out as "16d" on plan shall be 12d common nails.
16d Common nails shall be 0.162" diameter x 3 3/8" long and may not be substituted.
"Ramset Pins" indicate .145" diameter powder actuated drive pins. Use appropriate length to penetrate steel material per manufacturer recommendations.
Epoxy Anchors in wood. Unless noted otherwise, threaded rods fastened to timbers with epoxy shall have specified embedment in a hole 1/8" larger in diameter than the anchor. Clean out the hole with a steel wire brush and compressed air, and fill the hole 2/3 full with Simpson "SET" adhesive prior to installing the rod.
SIS SCREWS - 1/4" screws with length indicated, per SIMPSON STRONG TIE. NO SUBSTITUTIONS.
TIMBERLOK or LEDGERLOK Screws - per Fastenmaster, pre-drilling w/ 1/8" bit is acceptable if required. Substituting SDS screws of the same length is acceptable.
Lead holes for lag screws shall be 60% to 70% of lag shank diameter in compliance with AITC criteria.

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43 BACKLAND DR
LOT 186WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

Table with 2 columns: JOB #, DATE, DESIGN BY, REVISIONS. Values: DBM24118, 8/6/2024, DBM.

Professional Engineer Seal for Dana Michel, License No. 44357, State of Colorado, expires 08.06.2024.

40th Parallel Structural Engineering
Secure ESeal#
40PDBM24118_2024.08.06
SHEET NO.
S1.0



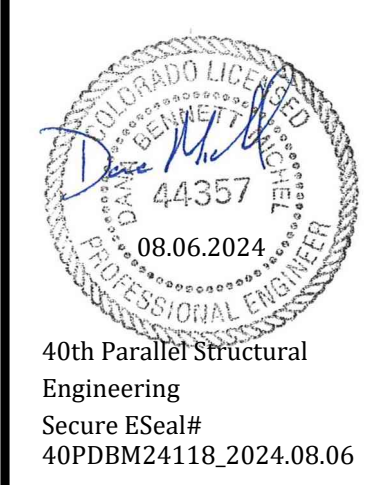
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43 BACKLAND DR
 LOT 186 WILDERNESS, BLUE RIVER ESTATES
 BLUE RIVER, COLORADO

JOB # DBM24118
 DATE 8/8/2024
 DESIGN BY DBM

REVISIONS:

No.	Description



40th Parallel Structural Engineering
 Secure ESeal# 40PDBM24118_2024.08.06

SHEET NO. S1.1

TYP MAIN FLOOR FRAMING MEMBERS CONNECTION SCHEDULE

UNLESS NOTED OTHERWISE, CONNECT FRAMING MEMBERS AS FOLLOWS:
MEMBER/CONDITION: TYP CONNECTION, UNO:

- FLOOR JST TO FLUSH BM: IUS-SERIES W/ 10d x 0.148" x 3" NAILS
- FLOOR JST TO SILL PL: ITS W/ 10d x 0.148" x 1 1/2" NAILS TO SILL
- 2x TRID DECK JST: HU12 W/ 16d x 0.162" x 3 1/2" NAILS TO LEDGER
- LVL BM TO CONC. WALL (**LOCS): HU412 SERIES W/ 1/4" x 2" TITEN CONC. SCREWS TO FND
- LVL BEAMS TO FLUSH BM: HHUS-SERIES HANGERS W/ 16d x 0.162" x 3 1/2" NAILS

* Metal connectors shall be by Simpson Strong Tie and installed with nailing to achieve maximum rated capacity unless noted otherwise. Note that heavy duty and skewed hangers may require special order. See current Simpson catalog or "Installer's Pocket Guide" for required nailing. NOTE: THAT MOST HEAVY HANGERS REQUIRE 16d COMMON NAILS (162x38"). "Sisters", 12d common nails, and short "hanger nails" are NOT acceptable and WILL HAVE TO BE FILLED AND REPLACED.

STEEL FRAMING NOTES

(B1) TYPICAL @ STL BMS NAILER: RE: S2A/S2J
 (B2) TYPICAL @ BLOCKED BEAM WEB: RE: S2B/S2J
STEEL COLUMN SCHEDULE & CAP PL & BASE PL "TOP"
 SCOL3.5 = WSS3 1/2 x 3 1/2 x 1/4 STL COL W/ CAP PL PER 50/S2.3
 BPI = BASE PLATE PER 55/S2.3

WALL SCHEDULE

MARK	THICKNESS	T.B.R. REINFC.	NOTES
WBA	8"	2-#4	#4 @ 16" O.C. HORIZ BARS & #4 @ 18" O.C. VERTS BARS CENTERED IN WALL
WBD	8"	2-#4	NO ADDITIONAL MAT REINFORCING REQUIRED
PIL	16" SO	#4 DMLS FULL HT @ CORNERS & #3 HORIZ TIES @ 16" O.C. DBL @ TOP	

NOTES:
 • WBA IS TYPICAL U.O.C.
 • SEE TYPICAL FOUNDATION DETAILS ON SHEET S2.1 FOR ADD. INFO
 • PROVIDE 1/2" x 10" ANCHOR BOLTS @ 24" O.C. & @ CORNERS U.O.C.

FOOTING SCHEDULE

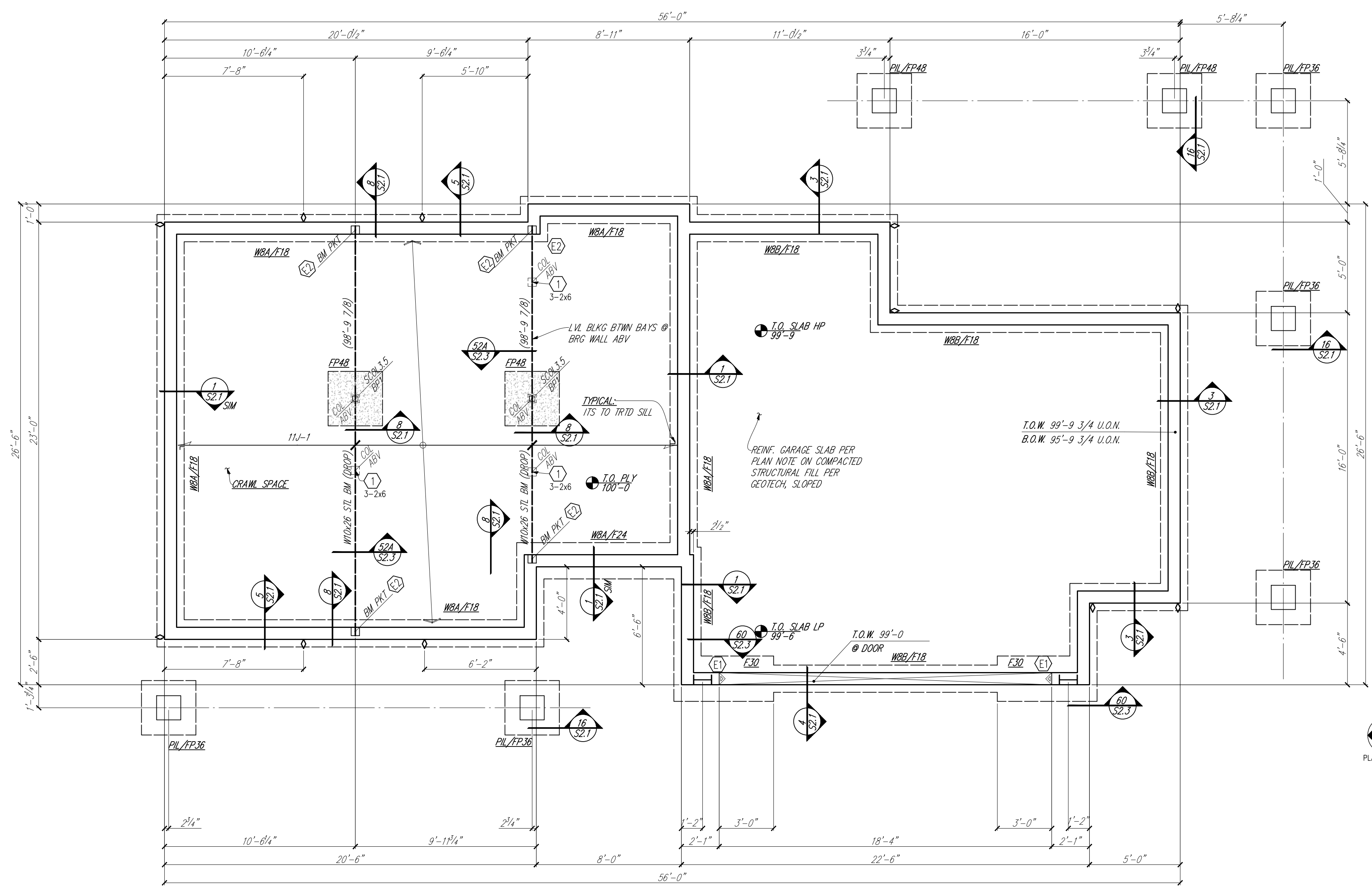
MARK	SIZE	REINFORCING
F18	18"x10"x CONT	#4x 3/8" DMLS @ 24" O.C.
F24	24"x10"x CONT	2-#4 CONT LONG BARS W/ #4x 3/8" DMLS @ 24" O.C.
F30	30"x10"x CONT	#4 @ 16" O.C. TRANSVERSE BARS ON 2-#4 CONT. LONG BARS 3" CLR OF BOTTOM W/ #4x 3/8" DMLS @ 24" O.C.
FP36	36"SO x 10" DEEP	3-#5 EA WAY 3" CLR OF BOT. PROVIDE 4-#4 DMLS TO PILASTER ABOVE
FP48	48"SO x 12" DEEP	4-#5 EA WAY 3" CLR OF BOT. PROVIDE 4-#4 DMLS TO PILASTER ABOVE

NOTES:
 • FOOTINGS TO BE SET A MIN 40" BELOW FINISHED GRADE, CENTERED BELOW BEARING ELEMENTS. ON COMPACTED STRUCTURAL FILL OR UNDISTURBED SOL REVIEWED & APPROVED BY GEOTECHNICAL ENGINEER OF RECORD.
 • F18 WALL FOOTING IS TYPICAL U.O.C.
 • CONTRACTOR TO VERIFY MIN. 2000 PSF SOL BEARING CAPACITY W/ A QUALIFIED SOILS ENGINEER & 55 PCF LATER FLUID PRESSURE PRIOR TO FTG CONSTRUCTION.

ELEV 100'-0" = 10073.0' USGS

MAIN FLOOR FRAMING & FOUNDATION PLAN

- 1/4" = 1'-0"
- PLAN NORTH
- FLOOR SHTG TO BE MIN 3/4" T. & G. APA RATED SHTG W/ 10d NAILS @ 6" o.c. @ EDGES & 12" o.c. IN FIELDS
 - PROVIDE 1 1/4" x JST DEPTH LSL RIM MATL @ FLOOR PERM. CONT. U.O.C.
 - 11A-1 TO BE 1 1/8" BCI 8000 SERIES OR EQUIVALENT
 - PROVIDE MIN. 2-2x6 VERT. BULK (SQUASH BULK) THRU - FLOOR SYSTEM @ COL ABV LOCS. NOTED THIS
 - TREATED "TRID LVL" TO BE "PWT TREATED" 2 OF 2800 LB LVL DECK JOIST AND BEAMS
 - FLOAT NON-LOAD BRG PARTITION WALLS ABOVE SLAB ON GRADE PER GEOTECH ENGR.
 - DO NOT BACKFILL BASEMENT WALLS PRIOR TO BASEMENT SLAB INSTALLATION
 - INDICATES STHDTRU HOLDDOWN @ 2-2x6 STUDS ABOVE. INSTALL TYPICAL FOUNDATION DETAILS & PER MANUF RECOMMENDATIONS W/ FULL 16d NAILING. CONTRACTOR TO VERIFY LOCS W/ ARCH DWGS PRIOR TO CONCRETE POUR. RE: 6/S2.1
 - INDICATES STEP TOP OF WALL (T.O.W.)
 - STEEL EMBED PL. RE: 65/S2.3
 - BOTTOM OF WALL (B.O.W.) = TOP OF FOOTING (T.O.FTG.)
 - TOP OF STEEL BMS NOTED THUS (ELEV)
 - SEE S1.0 FOR GENERAL STRUCTURAL NOTES



USER ROD:
 CONNECTION POINT FOR CONCRETE ENCASED ELECTRODE ("USER GROUND") PER CONTRACTOR/ARCH. USER GROUND TO BE INSTALLED PER NEC OR CITY CODE REQUIREMENTS, BY FOUNDATION SUB CONTRACTOR. CONTRACTOR REMIND BLDG INSPECTOR/ENGINEER TO OBSERVE DURING SITE VST.

TYP SLAB-ON-GRADE:
 4" MIN. CONCRETE SLAB-ON-GRADE W/ 6x6-W2.9 x W2.9 W.W.F. ON COMPACTED STRUCTURAL FILL PER SOILS REPORT. FOR BETTER CRACK CONTROL, USE 5" SLAB W/ #4 @ 18 EA WAY, 3" CLR BOTTOM. CUT OR TROWEL CRACK CONTROL JOINTS AT 12' MAX EA WAY W/ 100 SO FT MAX JOINT-FREE AREAS. PROVIDE VAPOR BARRIER & RADON MITIGATION PER ARCH

REINFC GARAGE SLAB PER PLAN NOTE ON COMPACTED STRUCTURAL FILL PER GEOTECH. SLOPED

T.O.W. 99'-9"

T.O.W. 99'-0"

B.O.W. 95'-9" 3/4 U.O.C.

LEDGER SCHEDULE

- 1) 2x10 LEDGER W/ 2-1/4"x3/16" SDS SCREWS @ 16" O.C. FLUSH FRAME JST W/ LUS212
- 2) 2x12 TRTD LEDGER W/ 4-1/4"x4" SDS SCREWS @ 8" O.C. FLUSH FRAME JST W/ LUS212
- 3) 2x12 TRTD LEDGER W/ 3-1/4"x4" SDS SCREWS @ 16" O.C. FLUSH FRAME JST W/ LUS212
- 4) 1 1/2" LVL LEDGER W/ 3-1/4"x4" SDS SCREWS @ 16" O.C. TRHU WALL SHGT TO EA STUD. FLUSH FRAME RFTRS W/ 2-LS90(6 SCREWS) @ CORNER & CANTILEVER TO SUBFASOIA @ LOCS
- 5) LET IN 2x RFTRS & BEAR ON 2x STUB COL. SISTER TO TRUSSES PER XX/S2.x

SHEAR WALL SCHEDULE

TYPE	MARK	NAILING:	NOTES:
"PLY" TYPICAL @ EXTERIOR WALLS U.O.N.		10d @ 6"oc @ PANEL EDGES & 12" O.C. IN FIELDS	11x VERTICAL STRAP AT ENDS PER SCHED
"PLY" @ LOCS NOTED THUS	SW	10d @ 4"oc @ PANEL EDGES & 12" O.C. IN FIELDS	11x VERTICAL STRAP AT ENDS PER SCHED
"GYP" @ LOCS NOTED THUS	GYP	SCREWS @ 4"oc @ PANEL EDGES & 4" O.C. IN FIELDS	

FRAMING: 2x6 @ 16" o.c. HEM FIR #2 OR BETTER W/ 2x6 VERTICAL BLOCKING @ ALL UNSUPPORTED PANEL EDGES

CLADDING:

- PLY - 7/16" APA RATED OSB OR PLY SHTG
- GYP - 5/8" DRYWALL

SHEATHING NAILS: "10d" = 0.131" x 2 1/2" MIN W/ SPACING @ PANEL EDGES PER SCHEDULE & @ 8" O.C. IN FIELDS. INCLUDING FULL LENGTH OF KING STUDS @ OPENINGS. LAP FLOOR RIMS 3" MIN U.O.N. NAIL HEADS SHALL BE DRIVEN FLUSH WITHOUT BREAKING SURFACE OF SHTG. NON-CORFORMING SHTG & NAILING SHALL BE REPLACED.

"PLY" SCREWS: #6x1 1/8" TYPE S OR TYPE W/ DRYWALL SCREWS

STEEL STRAPS: APPLY STRAPS OVER FACE OF WALL SHTG. W/ NAILING PER SCHED.

STRAP & SHEAR WALL INSPECTION: CONTACT E.O.R. OR 3RD PARTY INSPECTOR FOR VISUAL OBSERVATION PRIOR TO INSTALLING BUILDING WRAP & FINISHES.

PENETRATIONS & NOTCHES: NO MECH OR PLUMBING HOLES OR NOTCHES IN SHEATHING OR IN TOP OR BTM PLATES UNLESS NOTED OR PRIOR WRITTEN APPROVAL.

TIE DOWN & STRAP SCHEDULE

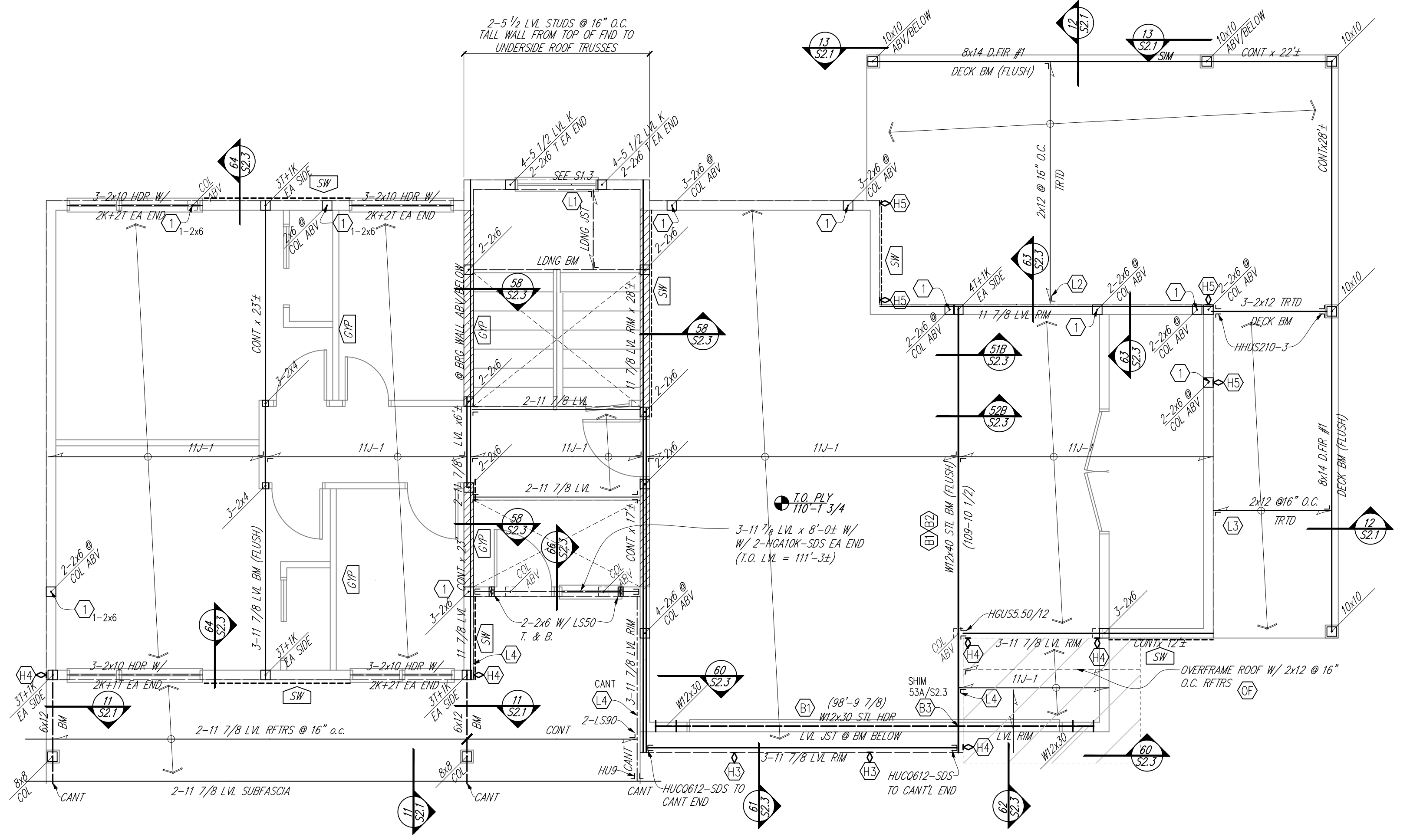
- 11) STD14RJ HOLDDOWN @ 2-2x6 STUDS ABOVE. INSTALL TYPICAL FOUNDATION DETAILS & PER MANUF RECOMMENDATIONS W/ FULL 16d NAILING. CONTRACTOR TO VERIFY LOCS W/ ARCHDRWS PRIOR TO CONCRETE POUR. RE: 6/S2.1
- 12) HDU5-SDS HOLD DOWN TO 3/8" ALL THREAD SET IN 1/2" HOLE. CLEANED, BRUSHED & FILLED W/ SIMPSON "SET 35" EPOXY PER MANUF. SPECIAL INSPECTION REQUIRED RE: 7/S2.1
- 13) 2-ST22 VERTICAL TIE DOWN FROM FLOOR RIM BM TO 2-2x STUDS @ ENDS OF SHEAR WALL ABOVE
- 14) M2TC6B83 VERT STRAP HOOKED TO UNDERSE OF TOP FLANGE OF STL BM W/ 1/8" FILLET WELD 2 SIDES
- 15) 2-CST4x5-0 VERT STRAP FROM STUDS SHOWN TO STUDS @ END OF SHEAR WALL BELOW TO W/ 14-10d NAILS EA END & 6-NAILS TO RIM

TYP FRAMING MEMBERS CONNECTION SCHEDULE

- UNLESS NOTED OTHERWISE, CONNECT FRAMING MEMBERS AS FOLLOWS:
- MEMBER/CONDITION: TYP CONNECTION, UNO.
- FLOOR JST TO FLUSH BM IUS-SERIES W/ 10d x 0.148"x3" NAILS
 - FLOOR JST TO SILL PL MIT W/ 10d x 0.148"x1 1/2" NAILS TO SILL
 - 2x TRTD DECK JST LUS U.O.N.
 - LVL BM TO CONC. WALL ("M.LOCS") HU SERIES W/ 1/4"x2" TIEN CONC. SCREWS TO FND
 - LVL BEAMS TO FLUSH BM HHUS-SERIES HANGERS W/ 16d x 0.162"x3 1/2" NAILS
 - RFTTR (SLOPED) LRU212-2 U.O.N. W/ 10d x 0.148"x2 1/2" NAILS
 - RFTTR TIE DOWN HGA10K-SDS
 - ROOF TRUSS TIE DOWN H2.5A (DBL @ CORNERS) W/ 10d x 0.148"x1 1/2" NAILS
- Metel connectors shall be by Simpson Strong Tie and installed with nailing to achieve maximum rated capacity unless noted otherwise. Note that heavy duty and skewed hangers may require special order. See current Simpson catalog or "installer's Pocket Guide" for required nailing. NOTE THAT MOST HEAVY HANGERS REQUIRE 16d COMMON NAILS (16x33X). "Sikers", 12d common nails, and short "hanger nails" are NOT acceptable and WILL HAVE TO BE REPLACED.*

STEEL FRAMING NOTES

- 1) TYPICAL @ STL RMS NAILED RE: 52A/S2.3
 - 2) TYPICAL @ BLOCKED BEAM WEB RE: 52B/S2.3
 - 3) TYPICAL @ STL BM TO STR BM CONN NOTED RE: 53A/S2.3 & 53B/S2.3
 - 4) NOT USED
 - 5) PRE-DRILL BM FLANGES FOR SDS CONN TO WALL PL RE: 52A/S2.3
 - 6) STEEL END PL TO STUDS RE: 56/S2.3
- STEEL COLUMN SCHEDULE & CAP PL & BASE PL "BP"**
- SC0L3.5 - HSS3 1/2"x3 1/2"x1/4 STL COL W/ CAP PL PER 50/S2.3
 - SC0L4 - HSS4x4x1/4 STL COL W/ CAP PL PER 50/S2.3
 - SC0L5 - HSS5x5x1/4 STL COL W/ CAP PL PER 50/S2.3
 - BP1 - BASE PLATE PER 55/S2.3
 - BP2 - BASE PLATE PER 55/S2.3
 - BP3 - BASE PLATE PER 55/S2.3
 - BP4 - WELD COL TO TOP OF STL BM PER 57/S2.3



UPPER FLOOR & LOWER ROOF FRAMING PLAN

- 1/4" = 1'-0"
- HEADERS TO BE 2-2x10 DOUG. FIR #2 INSULATED HEADERS W/ 1-2x6 KING (K) & 1-2x6 TRIM (T) EA. END & 1-2x6 PL T. & B. OR MORE AS NOTED. RE: 54/S2.3
 - LOWER LVL HDR (ELEVATION VARIES PER ARCH) W/ 5 1/2" LVL PL TOP & BOTTOM. PROVIDE LSSO EA END TO FULL HT KING STUDS. RE: 54/S2.3
 - FLOOR SHTG TO BE MIN 3/4" T. & G. APA RATED SHTG W/ 10d NAILS @ 6"oc @ EDGES & 12"oc IN FIELDS
 - ROOF SHTG TO BE MIN. 5/8" APA RATED (90^{ps}) OSB SHTG W/ 10d RINGSHANK NAILS @ 6"oc @ EDGES & 12"oc IN FIELDS
 - PROVIDE 1 1/4" x JST DEPTH LSL RIM MATL @ FLOOR PERIM. CONT. U.O.N.
 - "1 1/4" TO BE 1 1/2" BCI 6000 SERIES OR EQUIVALENT
 - "RFTTR" TO BE 2x12 @ 16" O.C. W/ LRU212Z U.O.N.
 - "LONG JST" TO BE 2x10 @ 16" O.C. W/ LUS210 TO LEDGER
 - "LONG BM" TO BE 2-9 1/2" LVL BM
 - PROVIDE MIN. 2-2x6 VERT. BLKG (SQUASH BLKG) THRU - FLOOR SYSTEM @ COL ABV LOCS. NOTED THUS
- TREATED "TRTD LVL" TO BE "PWT TREATED" 2.0C, 2800 FB LVL DECK JOIST AND BEAMS
 - TOP OF STEEL AS NOTED (ELEV)
 - FLOAT NON-LOAD BRG PARTITION WALLS ABOVE SLAB ON GRADE PER GEOTECH. ENGR.
 - SEE S1.0 FOR GENERAL STRUCTURAL NOTES



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43 BACKLAND DR
LOT 186 WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

JOB # DBM24118

DATE 8/8/2024

DESIGN BY DBM

REVISIONS:

No.	Description



40th Parallel Structural
Engineering
Secure ESeal#
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SHEET NO.

S1.2

SHEAR WALL SCHEDULE			TIE DOWN & STRAP SCHEDULE		
TYPE	MARK	NAILING:	NOTES:		
"PLY" TYPICAL @ EXTERIOR WALLS U.O.N.		10d @ 6"oc @ PANEL EDGES & 12" O.C. IN FIELDS	(11) VERTICAL STRAP AT ENDS PER SCHD	(11)	STANDARD HOLD-DOWN @ 2-2x6 STUDS ABOVE. INSTALL TYPICAL FOUNDATION DETAILS & PER MANUF. RECOMMENDATIONS W/ FULL 16d NAILING. CONTRACTOR TO VERIFY LOGS W/ ARCHITECTS PRIOR TO CONCRETE POUR. RE: 6/52.1
"PLY" @ LOCS NOTED THUS	(SW)	10d @ 4"oc @ PANEL EDGES & 12" O.C. IN FIELDS	(11) VERTICAL STRAP AT ENDS PER SCHD	(12)	HDRUS-SDS HOLD DOWN TO 5/8" ALL THREAD SET IN 3/4" HOLE. CLEANED, BRUSHED & FILLED W/ SIMPSON "SET 36" EPOXY PER MANUF. SPECIAL INSPECTION REQUIRED RE: 7/52.1
"GYP" @ LOCS NOTED THUS	(GYP)	SCREWS @ 4"oc @ PANEL EDGES & 4" O.C. IN FIELDS		(13)	2-ST22 VERTICAL TIE DOWN FROM FLOOR RIM BM TO 2-2x STUDS @ ENDS OF SHEAR WALL ABOVE
				(14)	MSTCG6B3 VERT STRAP HOOKED TO UNDERSIDE OF TOP FLANGE OF STL BM W/ 1/6" FILLET WELD 2 SIDES
				(15)	2-CST4x5-0 VERT STRAP FROM STUDS SHOWN TO STUDS @ END OF SHEAR WALL BELOW TO W/ 14-10d NAILS EA END & 6-NAILS TO RIM

FRAMING: 2x6 @ 16" o.c. HEM FIR #2 OR BETTER W/ 2x6 VERTICAL BLOCKING @ ALL ALL UNSUPPORTED PANEL EDGES.

SHEATHING:

- "PLY" - 7/16" APA RATED OSB OR PLY SHGT
- "GYP" - 5/8" DRYWALL

SHEATHING NAILS: "10d" = 0.131" x 2 1/2" MIN W/ SPACING @ PANEL EDGES PER SCHEDULE & @ 8" O.C. IN FIELDS. INCLUDING FULL LENGTH OF KING STUDS @ OPENINGS. LAP FLOOR RIMS 3" MIN U.O.N. NAIL HEADS SHALL BE DRIVEN FLUSH WITHOUT BREAKING SURFACE OF SHGT. NON-COMFORMING SHGT & NAILING SHALL BE REPLACED.

GYP SCREWS: #6x1 1/8" TYPE S OR TYPE W/ DRYWALL SCREWS

STEEL STRAPS: APPLY STRAPS OVER FACE OF WALL SHGT. W/ NAILING PER SCHD.

STRAP & SHEAR WALL INSPECTION: CONTACT E.O.R. OR 3RD PARTY INSPECTOR FOR VISUAL OBSERVATION PRIOR TO INSTALLING BUILDING WRAP & FINISHES.

PENETRATIONS & NOTCHES: NO MECH OR PLUMBING HOLES OR NOTCHES IN SHEATHING OR IN TOP OR BIM PLATES UNLESS NOTED OR PRIOR WRITTEN APPROVAL.

TRUSS SUPPLIER NOTE:

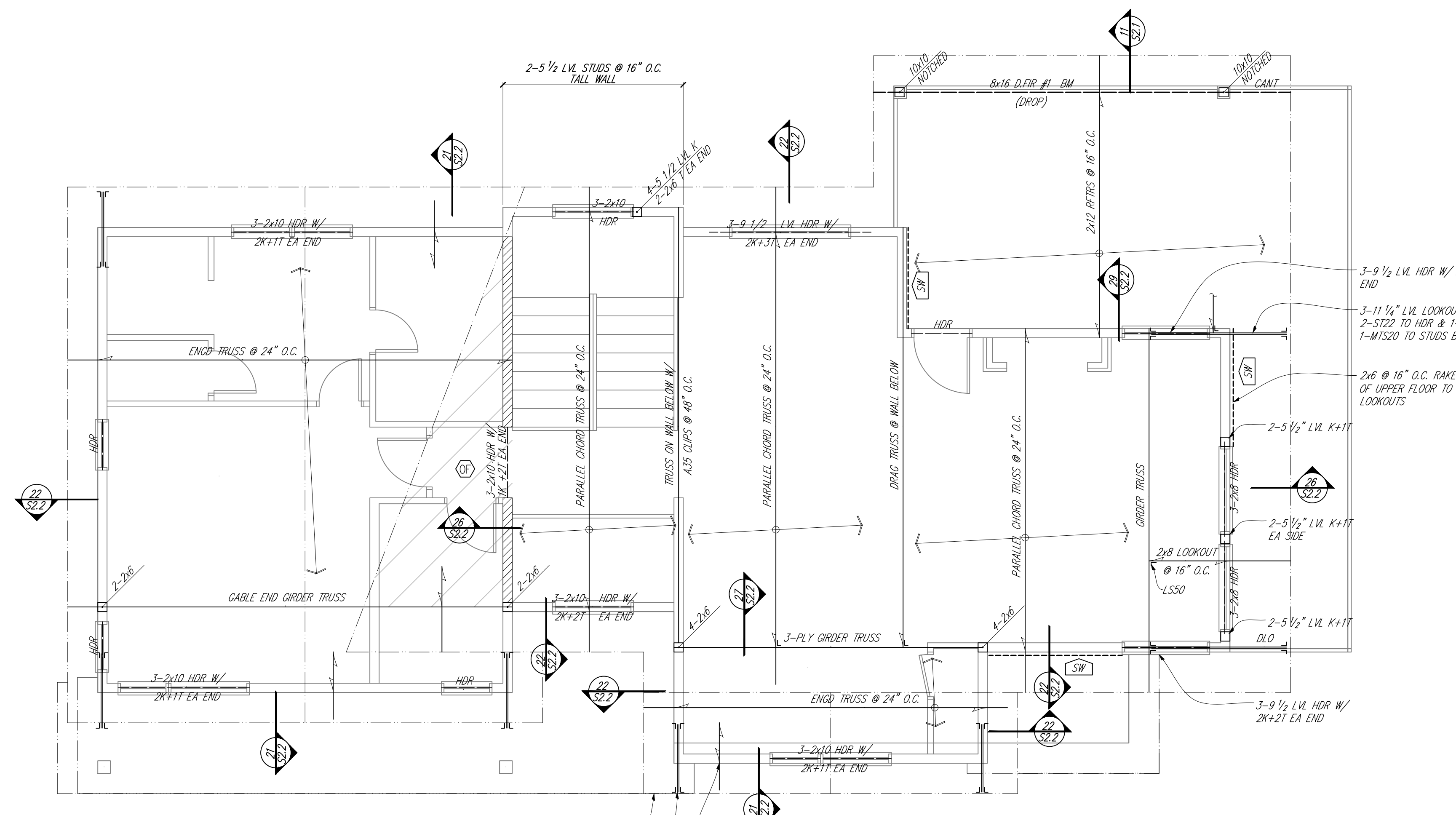
TRUSS DESIGN LOADS ARE AS FOLLOWS:

DEAD LOAD BOTTOM CHORD =	10 PSF
DEAD LOAD TOP CHORD =	10 PSF
SNOW LOAD TOP CHORD =	100 PSF
FLUSH MOUNT SOLAR PV ARRAY =	3 PSF

- DESIGN TRUSSES FOR MAXIMUM LIVE LOAD DEFLECTION OF L/360.
- MAXIMUM DEFLECTION UNDER TOTAL LOAD (DEAD LOAD PLUS FULL LIVE LOADS) SHALL BE THE LESSER OF L/240 OR 3/4".

ALL TRUSS-TO-TRUSS CONNECTIONS SHALL BE DESIGNED BY TRUSS SUPPLIER.

CONTRACTOR TO PROVIDE ENGINEERED TRUSS SHOP DRAWINGS FOR E.O.R. TO REVIEW PRIOR TO FABRICATION



LEDGER SCHEDULE

(1)	2x10 LEDGER W/ 2-1/4"x3/8" SDS SCREWS @ 16" O.C. FLUSH FRAME LNDG JSTS W/ L570
(2)	2x12 TRTD LEDGER W/ 4-1/4"x4" SDS SCREWS @ 8" O.C. FLUSH FRAME JST W/ LUS212
(3)	2x12 TRTD LEDGER W/ 3-1/4"x4" SDS SCREWS @ 16" O.C. FLUSH FRAME JST W/ LUS212
(4)	1 1/8" LVL LEDGER W/ 3-1/4"x4" SDS SCREWS @ 16" O.C. TRHU WALL SHGT TO EA STUD. FLUSH FRAME RFTRS W/ 2-LS90,(6) SCREWS @ CORNER & CANTILEVER TO SUBFASCIA @ LOCS
(5)	LET IN 2x RFTRS & BEAR ON 2x STUB COL. SISTER TO TRUSSES PER XI/52.x

- UPPER ROOF FRAMING PLAN**
- 1/4" = 1'-0"
- HEADERS TO BE 2-2x10 DOUG. FIR #2 INSULATED HEADERS W/ 1-2x6 KING (K) + 1-2x6 TRIM (T) EA. END & 1-2x6 PL. T. & B. OR MORE AS NOTED. RE: 54/52.3
 - LOWER LVL HDR (ELEVATION VARIES PER ARCH) W/ 5 1/2" LVL PL. TOP & BOTTOM. PROVIDE L550 EA END TO FULL HT KING STUDS. RE: 54/52.3
 - ROOF SHGT TO BE MIN. 5/8" APA RATED (M20) OSB SHGT W/ 10d RINGSHANK NAILS @ 6"oc @ EDGES & 12"oc IN FIELDS
 - ENG'D TRUSS DESIGN, TRUSS TO TRUSS CONNECTIONS, AND BRACING DESIGN BY TRUSS MANUF.
 - TIE DOWN TRUSSES, RAFTERS, AND LOOKOUTS @ BRG W/ H2.5A TIE. (DBL @ CORNERS) OR AS NOTED.
 - TIE DOWN CHDR TRUSSES & ROOF BEAMS @ BRG W/ S118 OR MTS18 2 SIDES U.O.N.
 - PROVIDE W/ 2-1/4"x4 1/2" SCREWS @ 16" O.C. STAGGERED (8" O.C. EQUIVALENT) EA SIDE OF BUILT UP COLUMN
 - SEE SHEET S1.01 FOR GENERAL STRUCTURAL NOTES

TYPICAL OVERFRAMING (HATCH) (17)

OVERFRAME TO 2x10 VALLEY PLATES W/ 2- #9 x 3 1/2" GRK SCREW @ EA TRUSS BELOW, 2x6 RAFTERS @ 24" W/ 4'-0" MAX SPAN ON 2x4 POSTS @ 2'-0" x 4'-0" MAX SPACING LAID OUT TO EVENLY DISTRIBUTE LOADS FROM ALL OVERFRAMING MEMBERS TO ALL MEMBERS BELOW. FASTEN TOP OF POSTS TO OVERFRAMING W/ #3. FASTEN BOTTOM OF POST TO LOWER FRMG MEMBERS W/ 1/4" x 6" TIE-SCREW OR H2.5. SHEATH OVERFRAMING PER TYP ROOF SHGT & NAILING.

TYPICAL @ GABLE ENDS (2'-0" MAX O/HANG) :

2x6 @ 16" O.C. (U.O.N.) RAKE WALL TO UNDERSIDE 2x8 @ 16" O.C. LOOKOUTS. CONN LOOKOUTS TO 1ST ADJACENT TRUSS (U.O.N.). PROVIDE ADDL BRACING PER TRUSS MANUF. RE: 21/52.2

TYPICAL @ CORNERS:

- 2-2x8 "DLO" x 4'-0" @ 2'-0" MAX OVERHANGS
- FRAME DBL LOOKOUTS W/ 2-LS70 EA END. TIE DOWN @ CORNERS W/ 2-HB OR 2-S12

TYPICAL @ SUBFASCIA

2x8 CONT SUBFASCIA (U.O.N.) W/ 4-16d FACE NAILS TO LOOKOUTS & TRUSS TAILS. PROVIDE L570 @ CORNERS

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43 BACKLAND DR
LOT 186 WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

JOB #	DBM24118
DATE	8/8/2024
DESIGN BY	DBM
REVISIONS:	
No.	Description

PROFESSIONAL ENGINEER

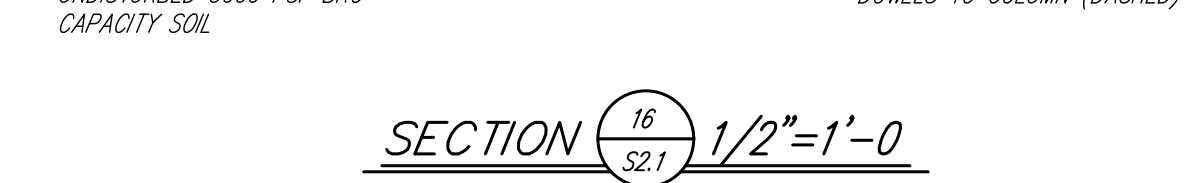
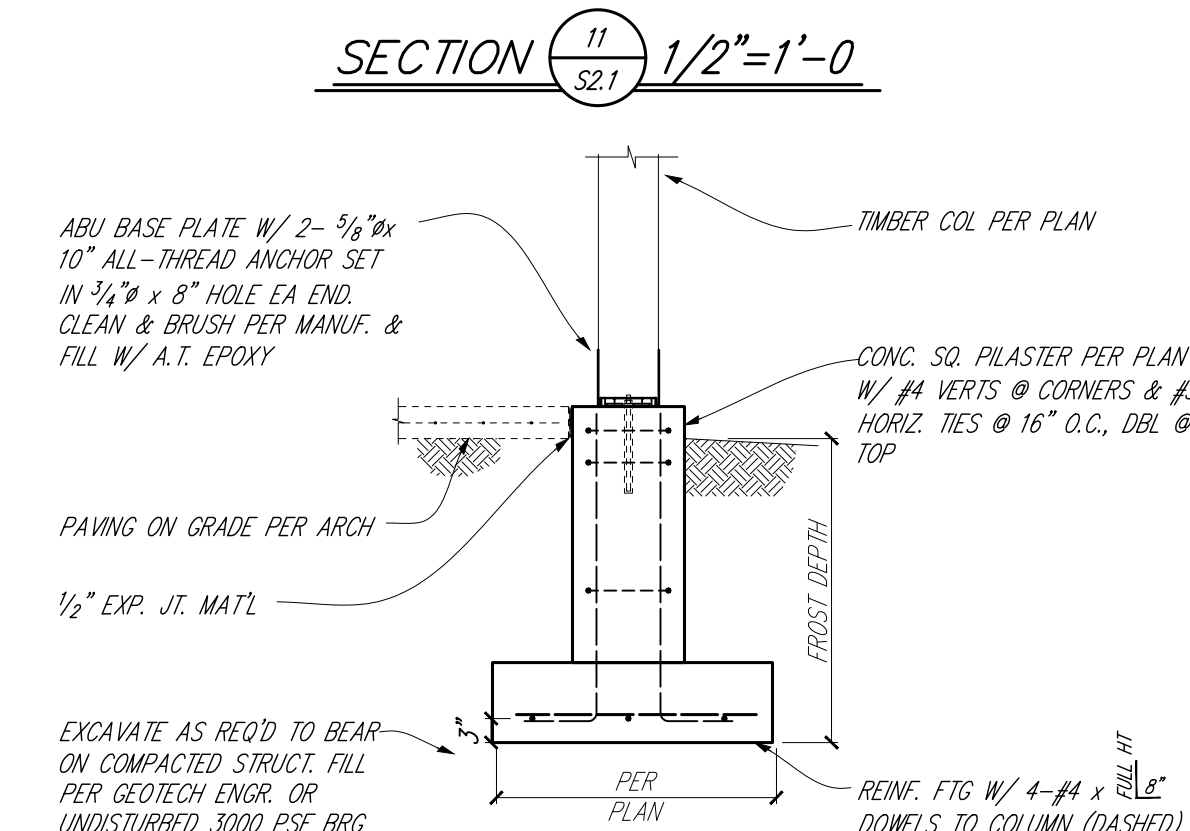
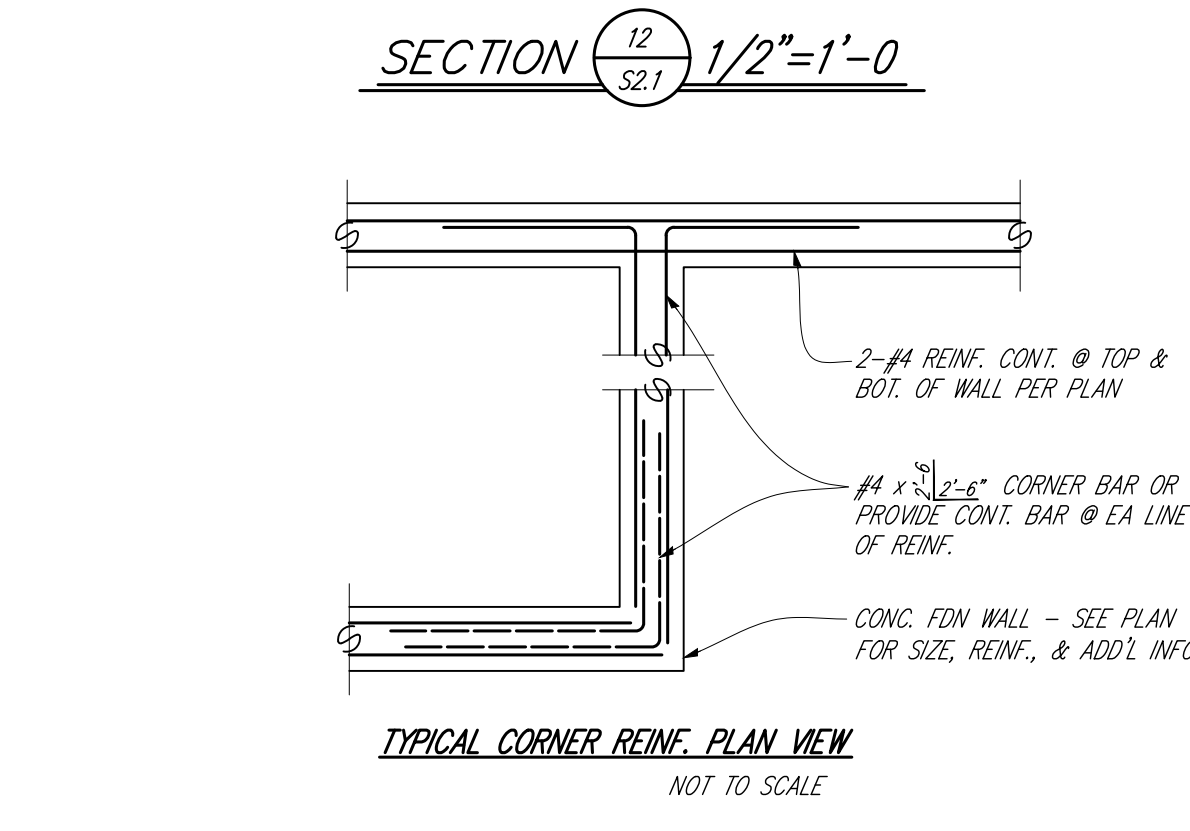
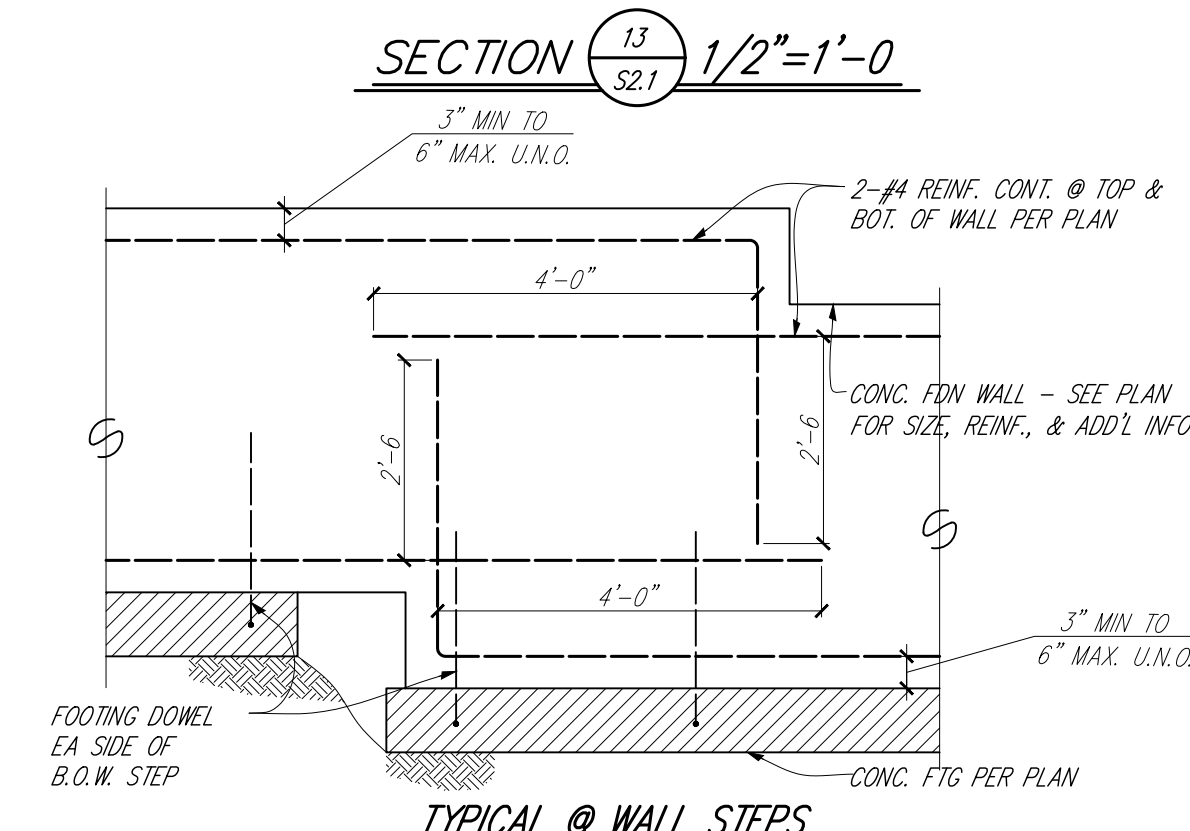
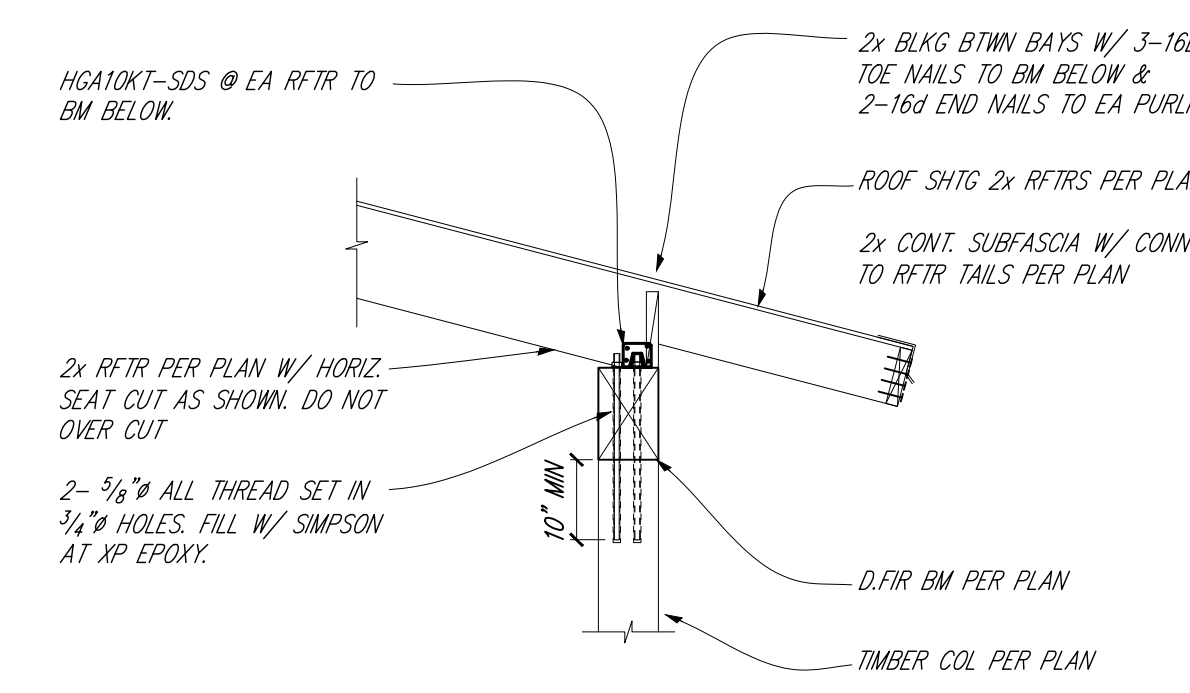
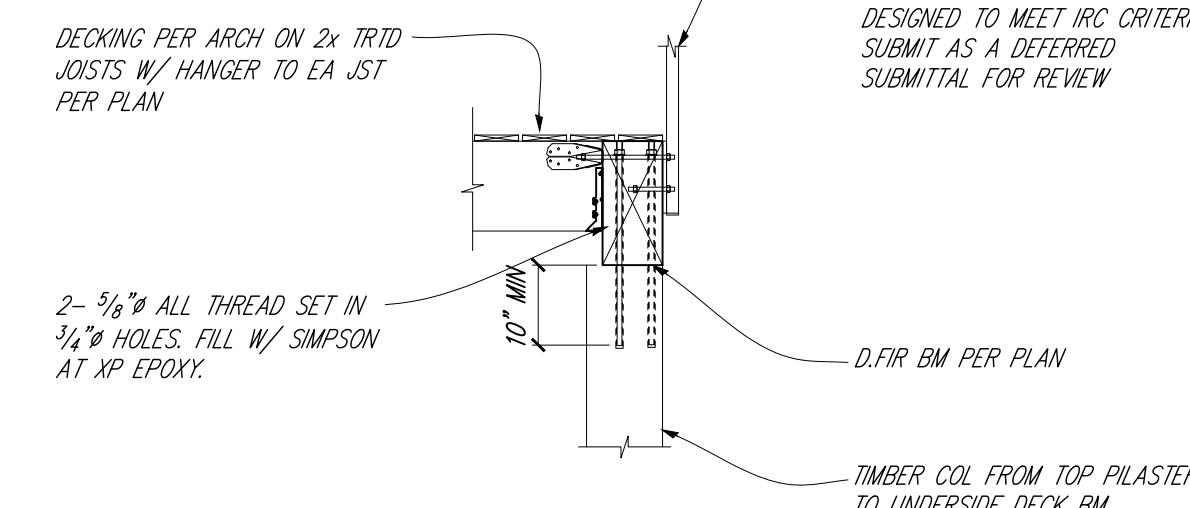
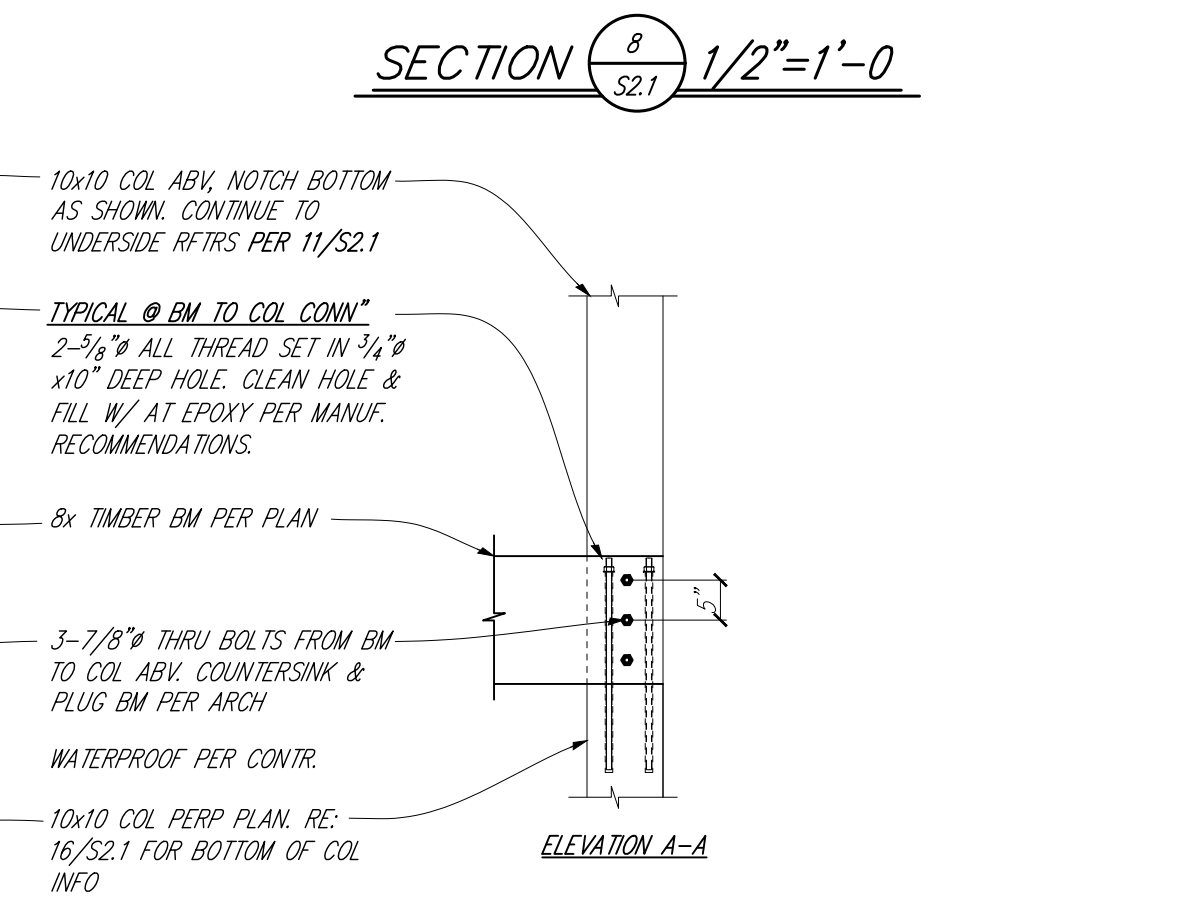
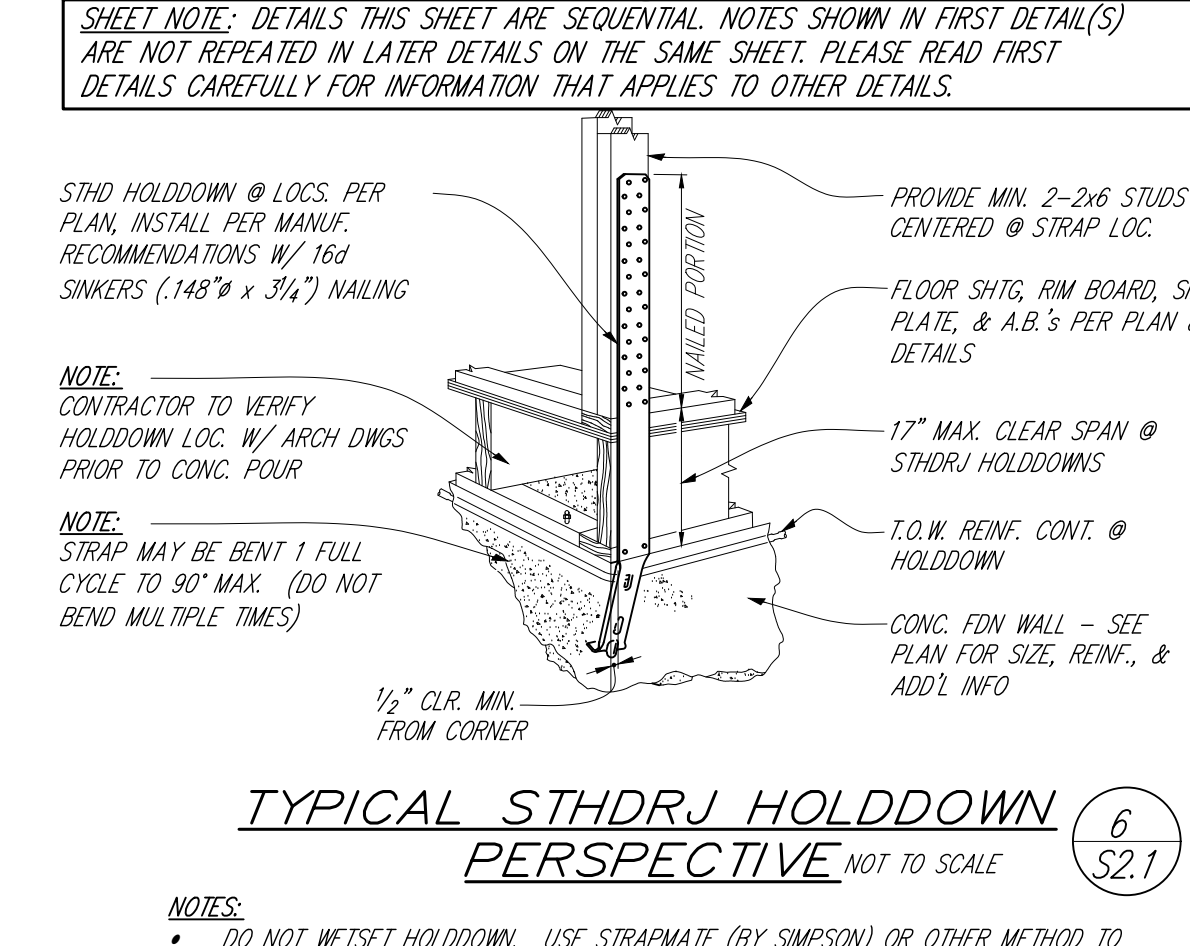
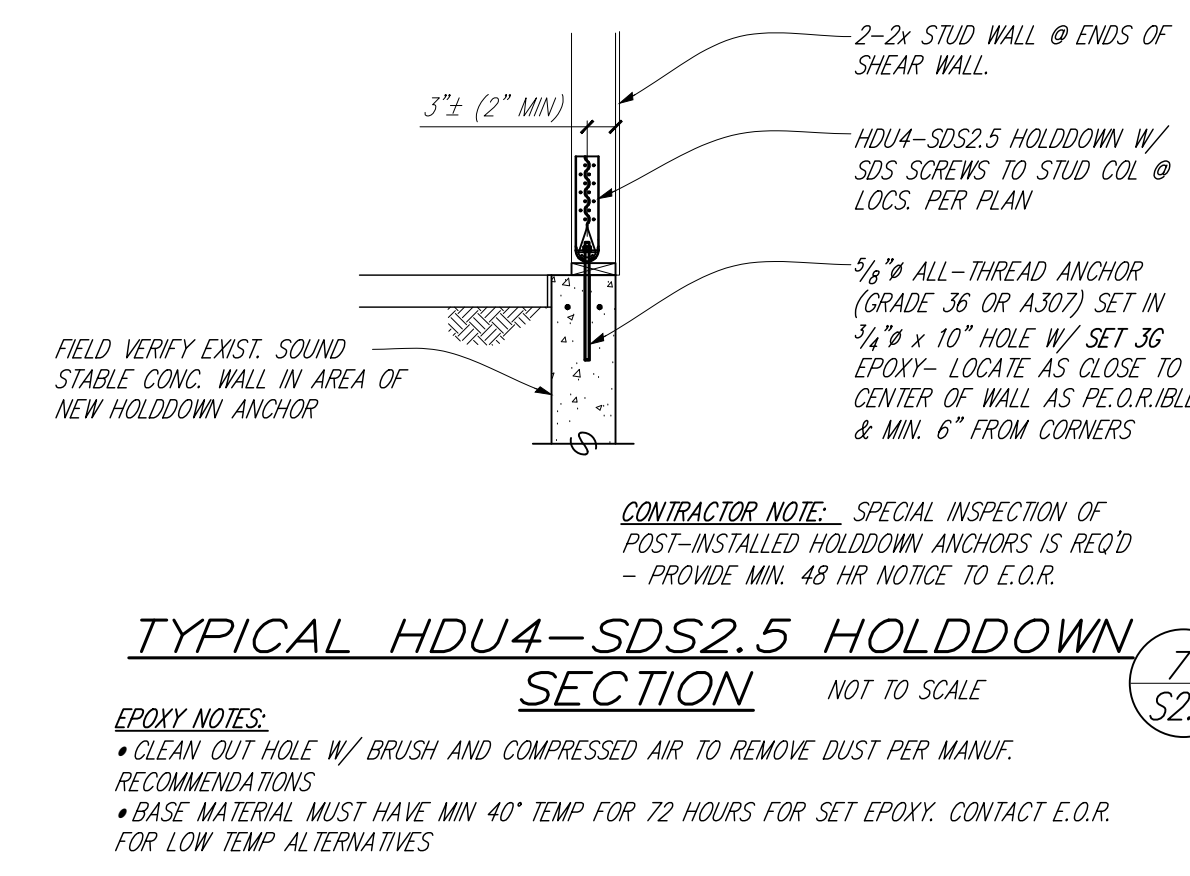
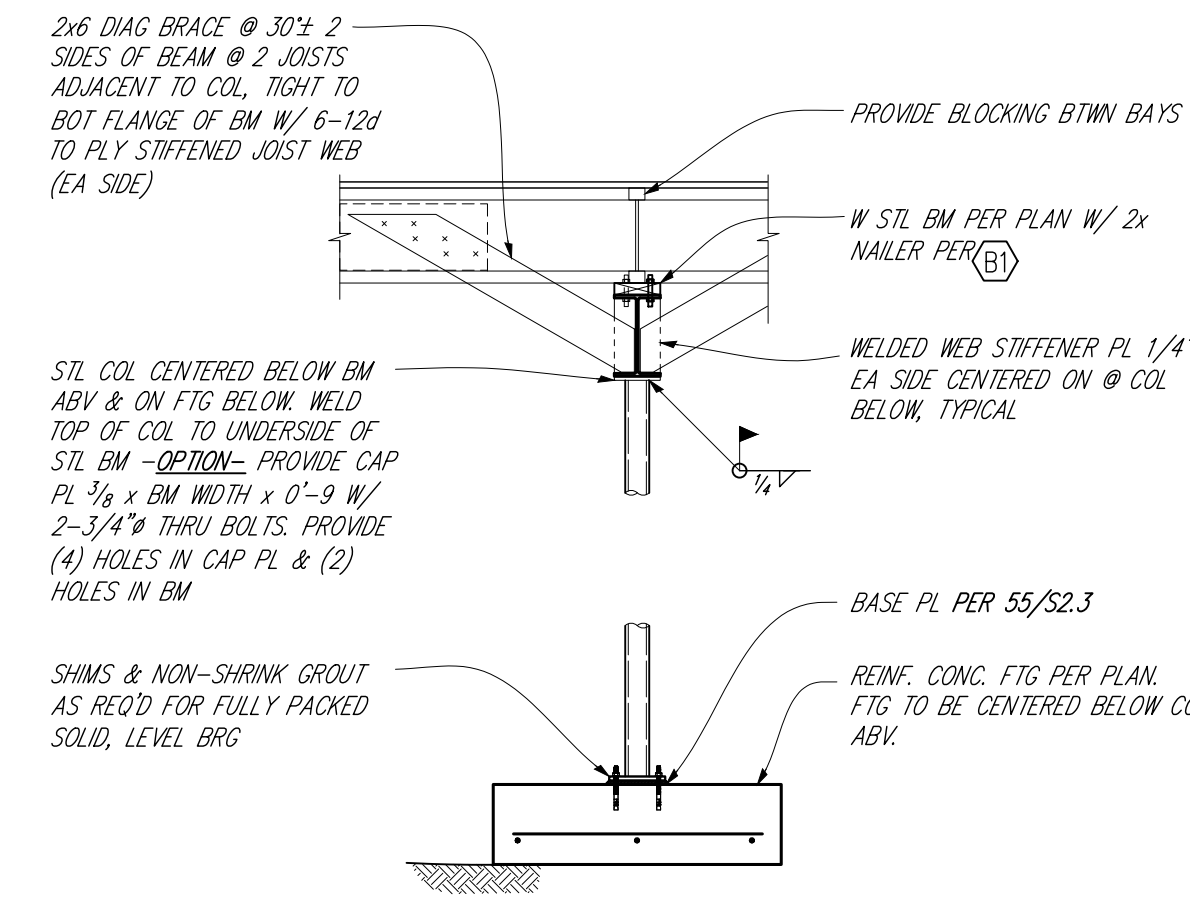
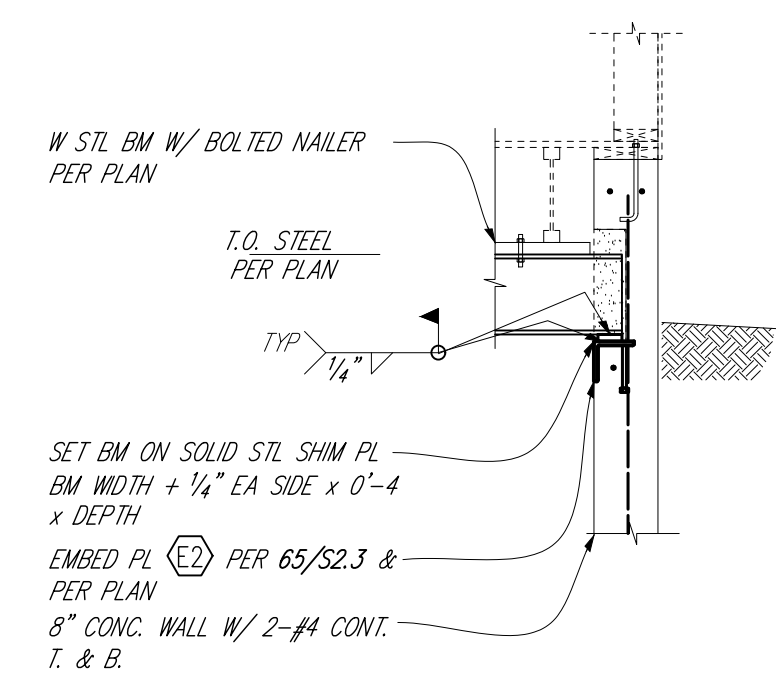
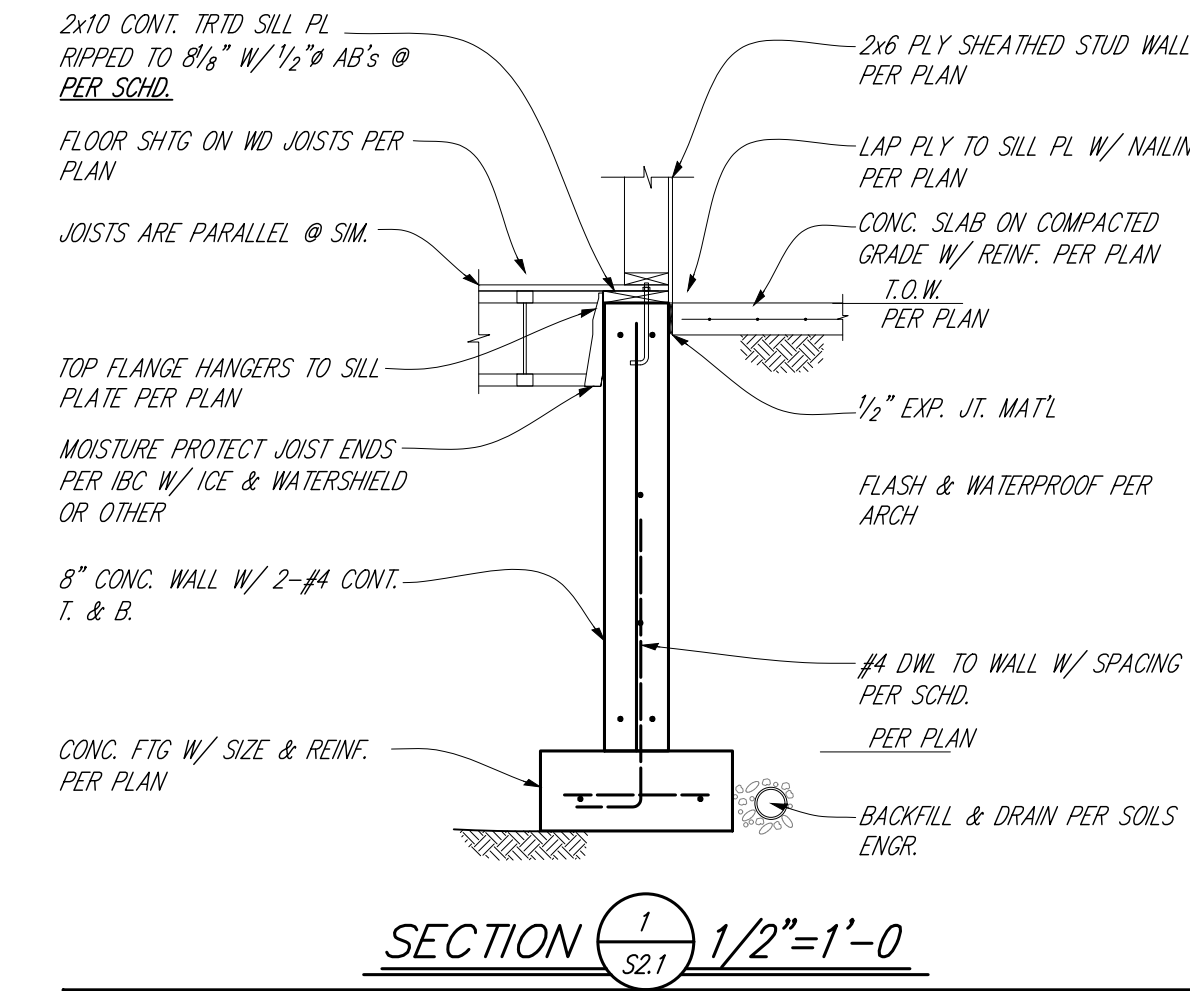
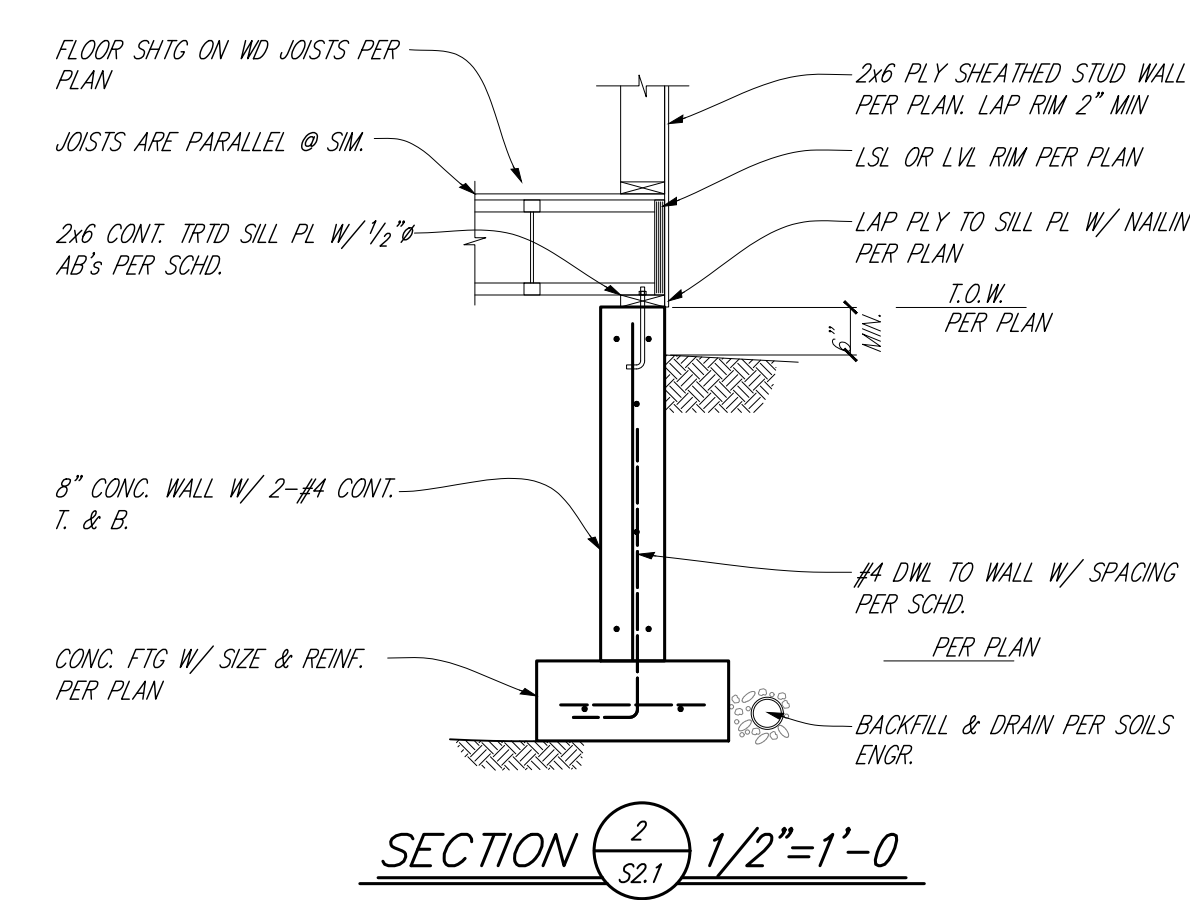
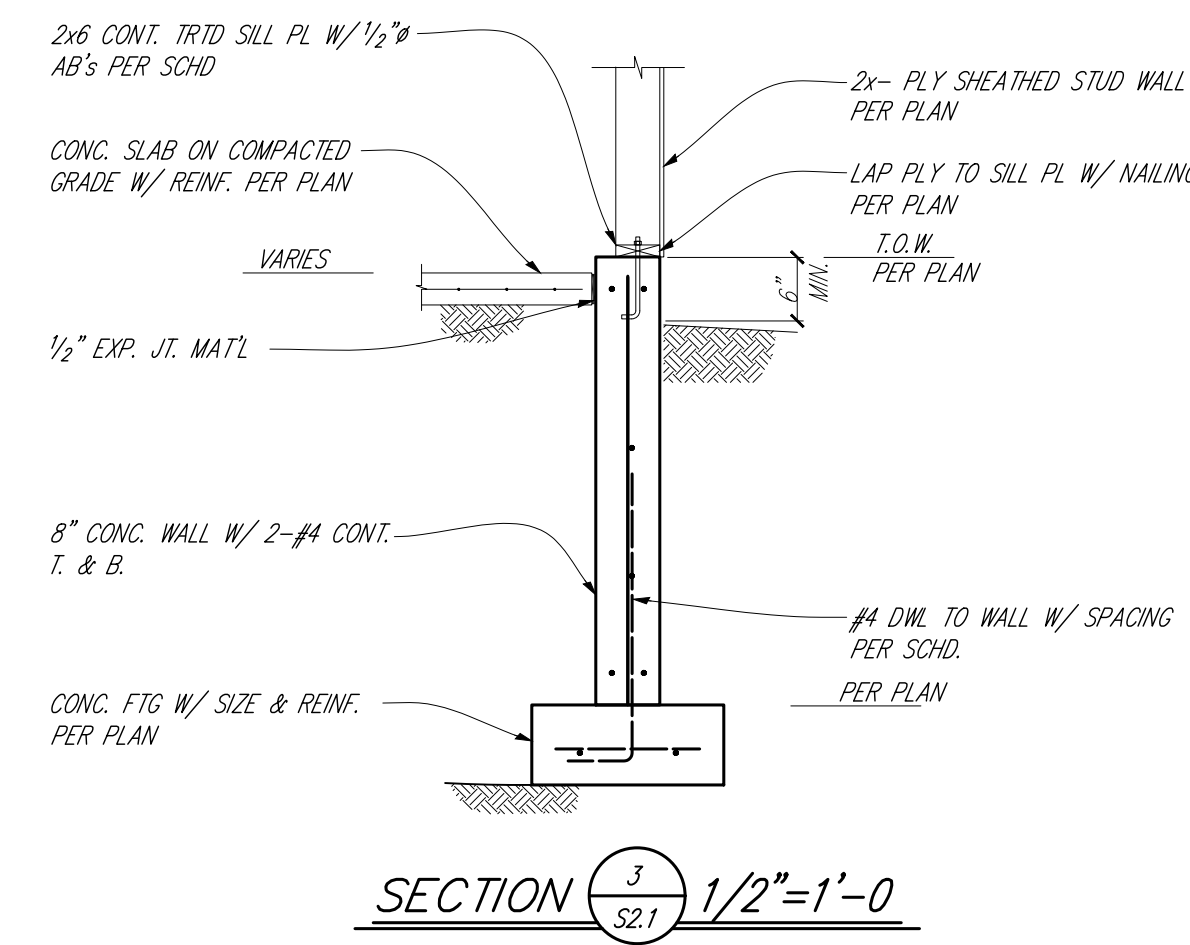
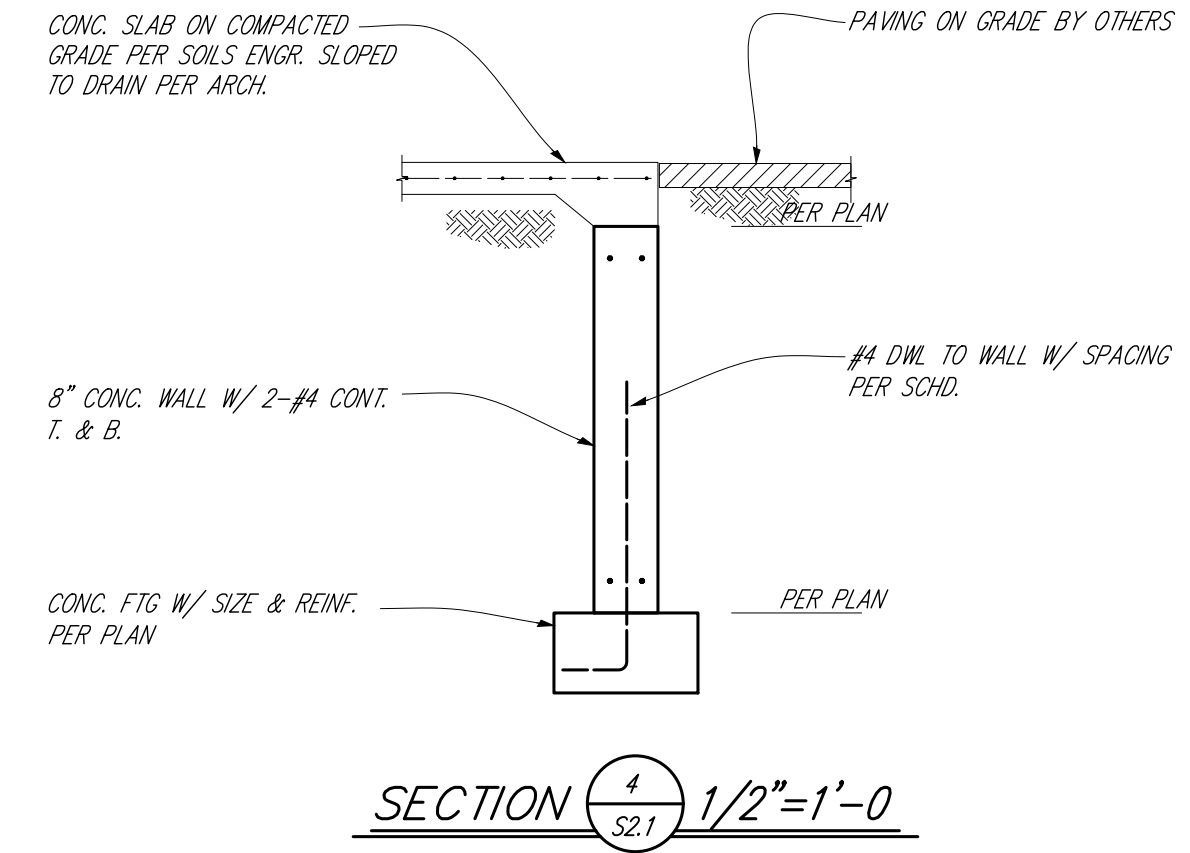
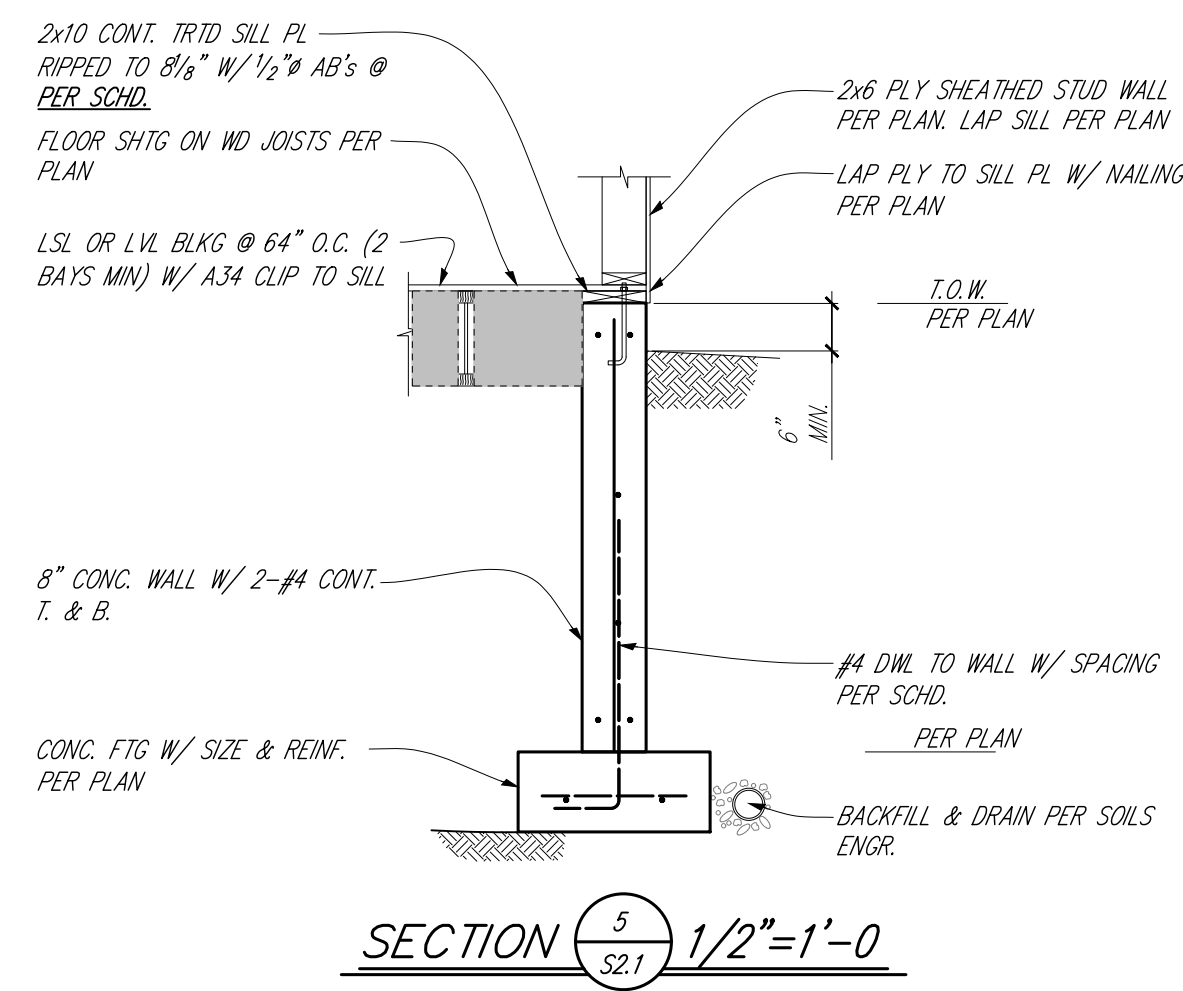
Dana Michel

44357

08.06.2024

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SHEET NO.
S1.3



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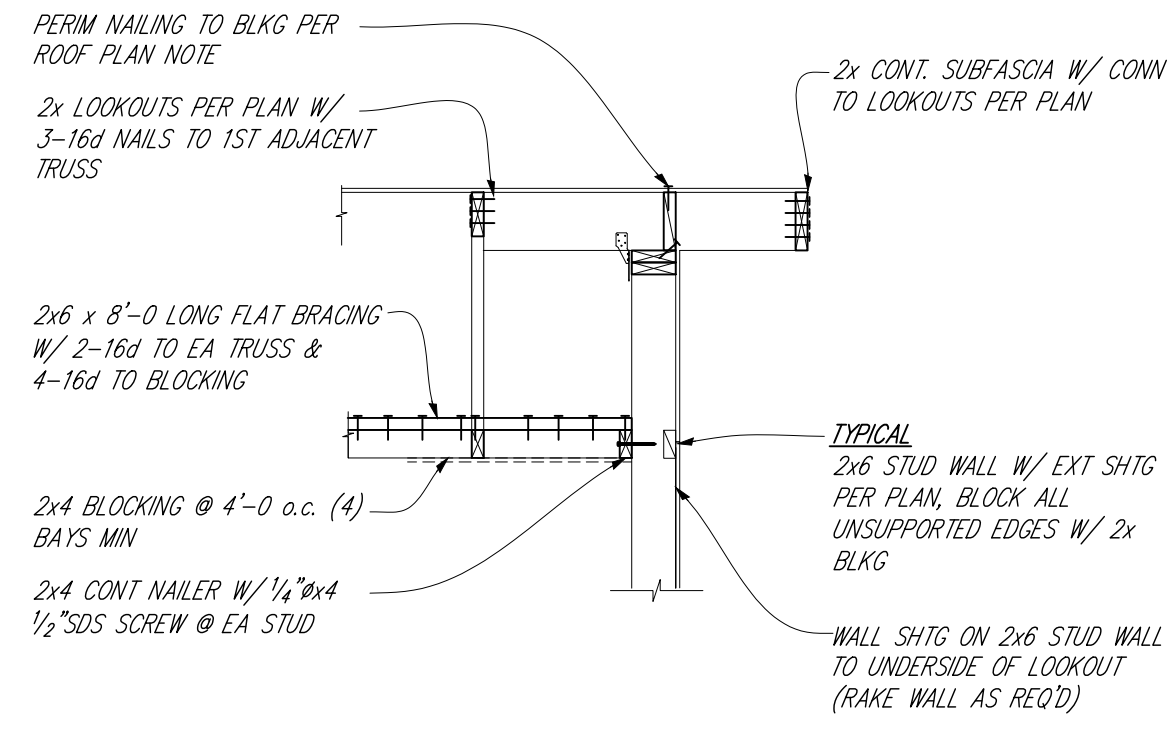
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43 BACKLAND DR
LOT 186 WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

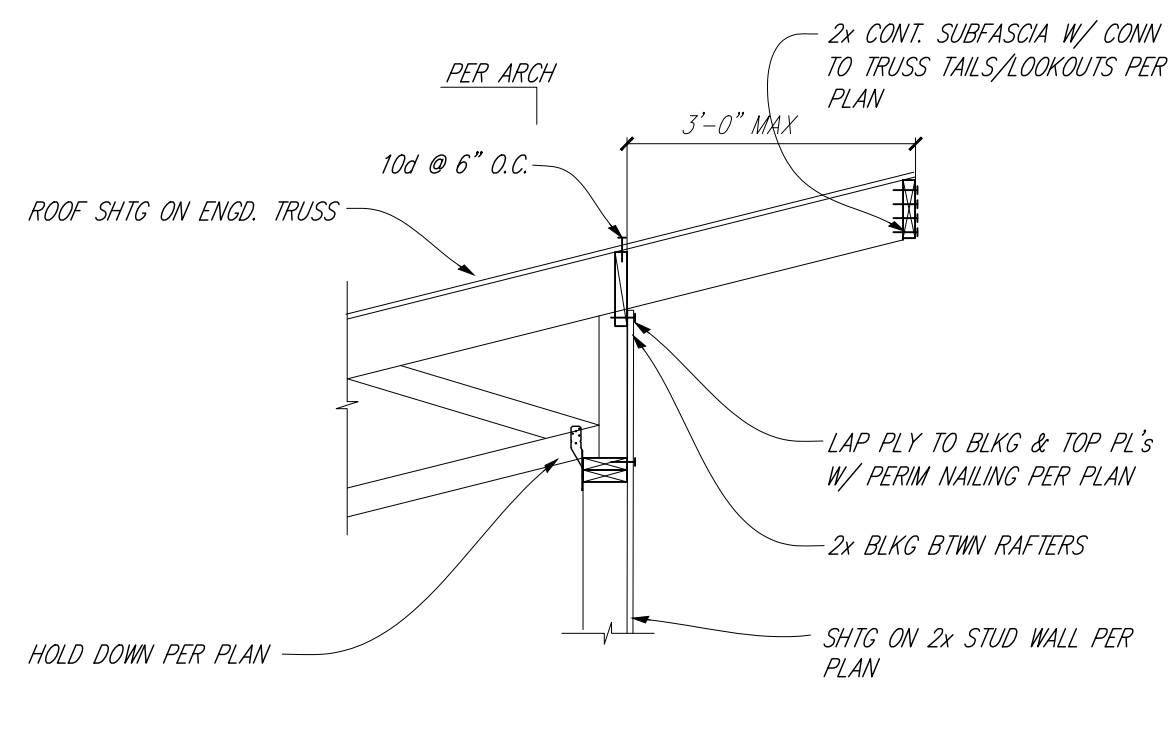
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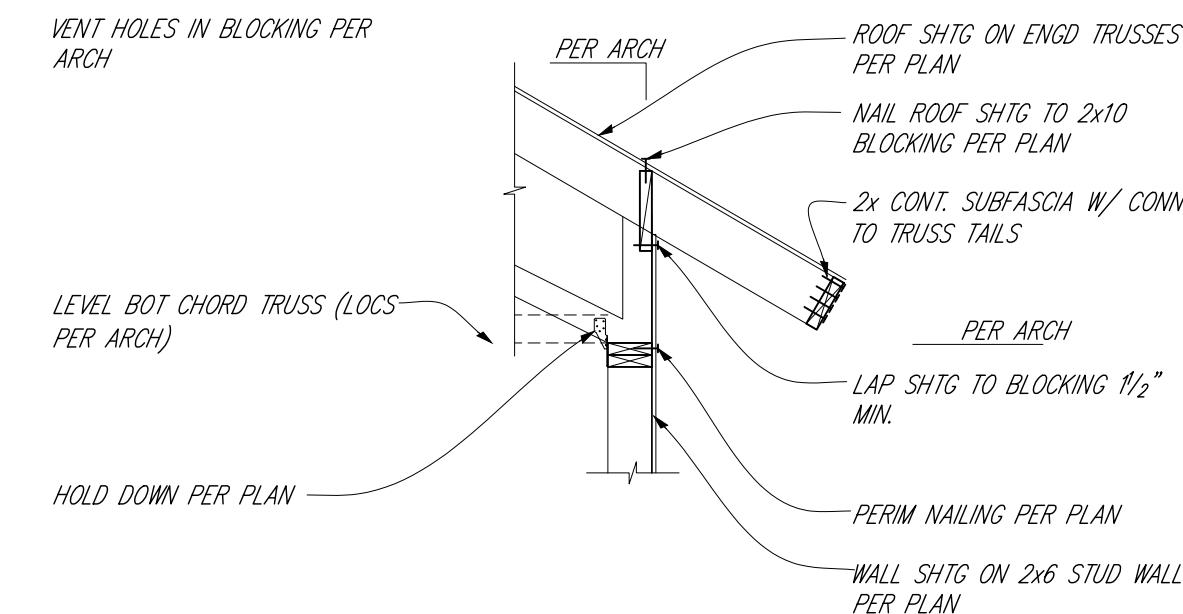
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S2.1



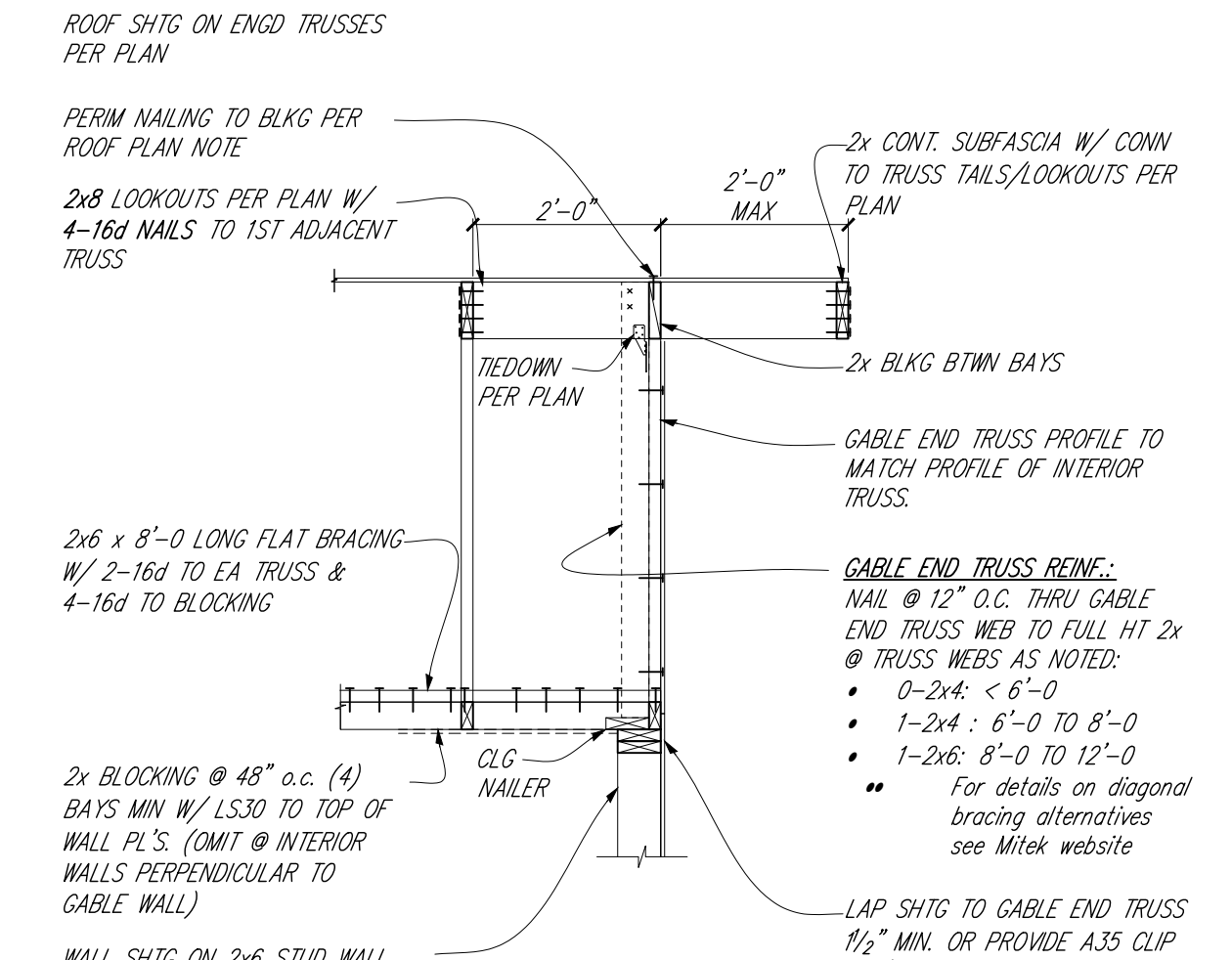
SECTION $\frac{24}{S2.2}$ 1/2"=1'-0"



SECTION $\frac{23}{S2.2}$ 1/2"=1'-0"

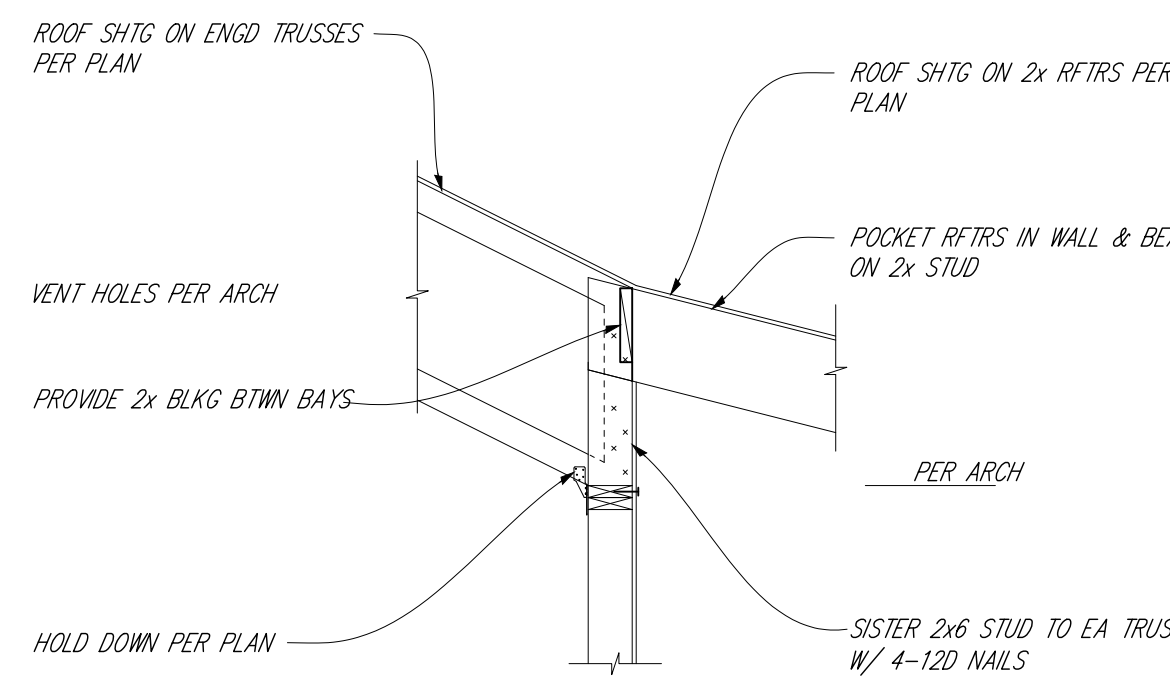


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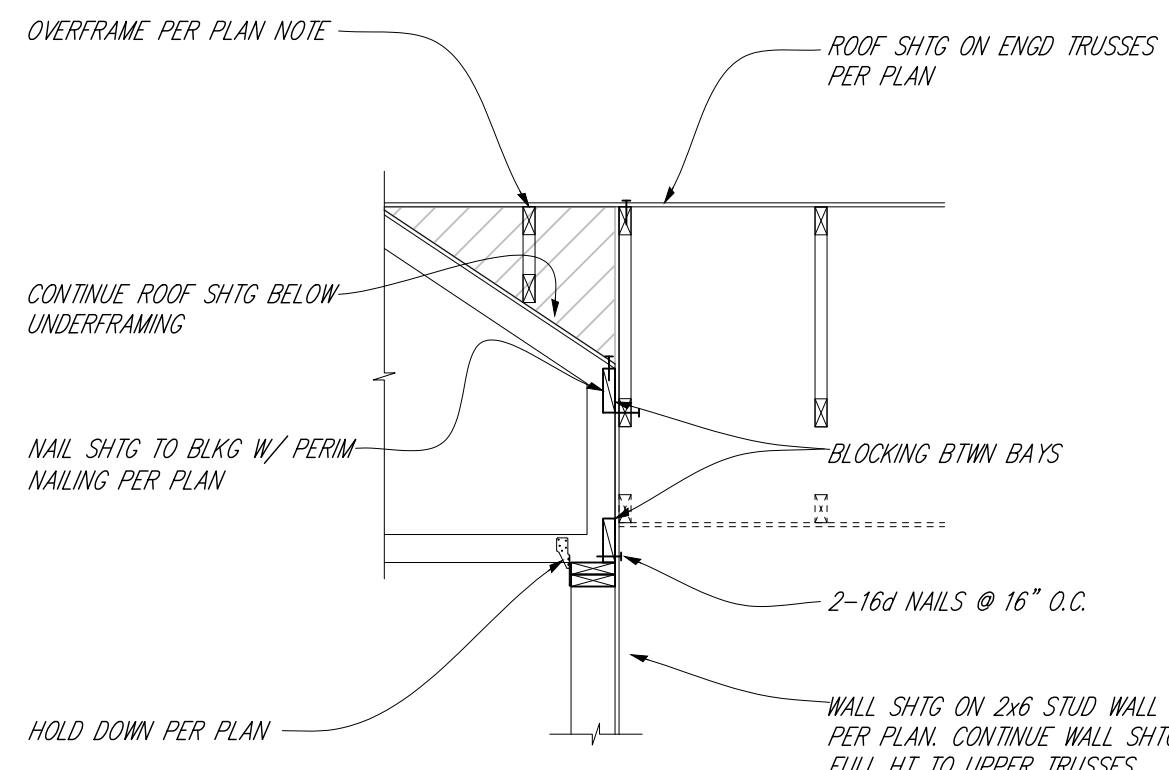


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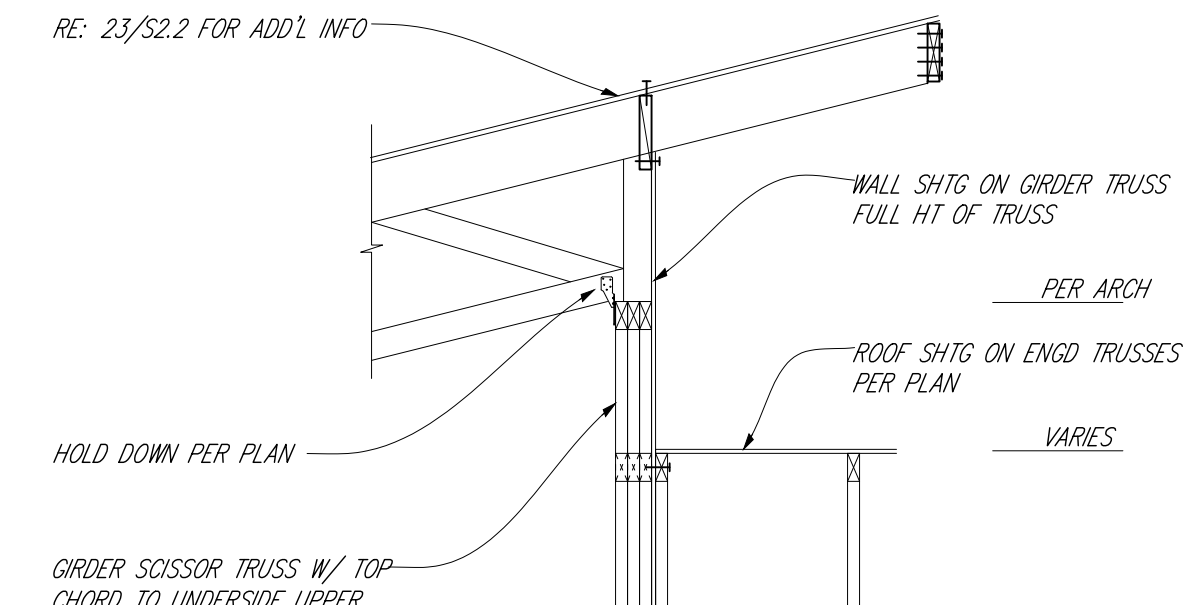
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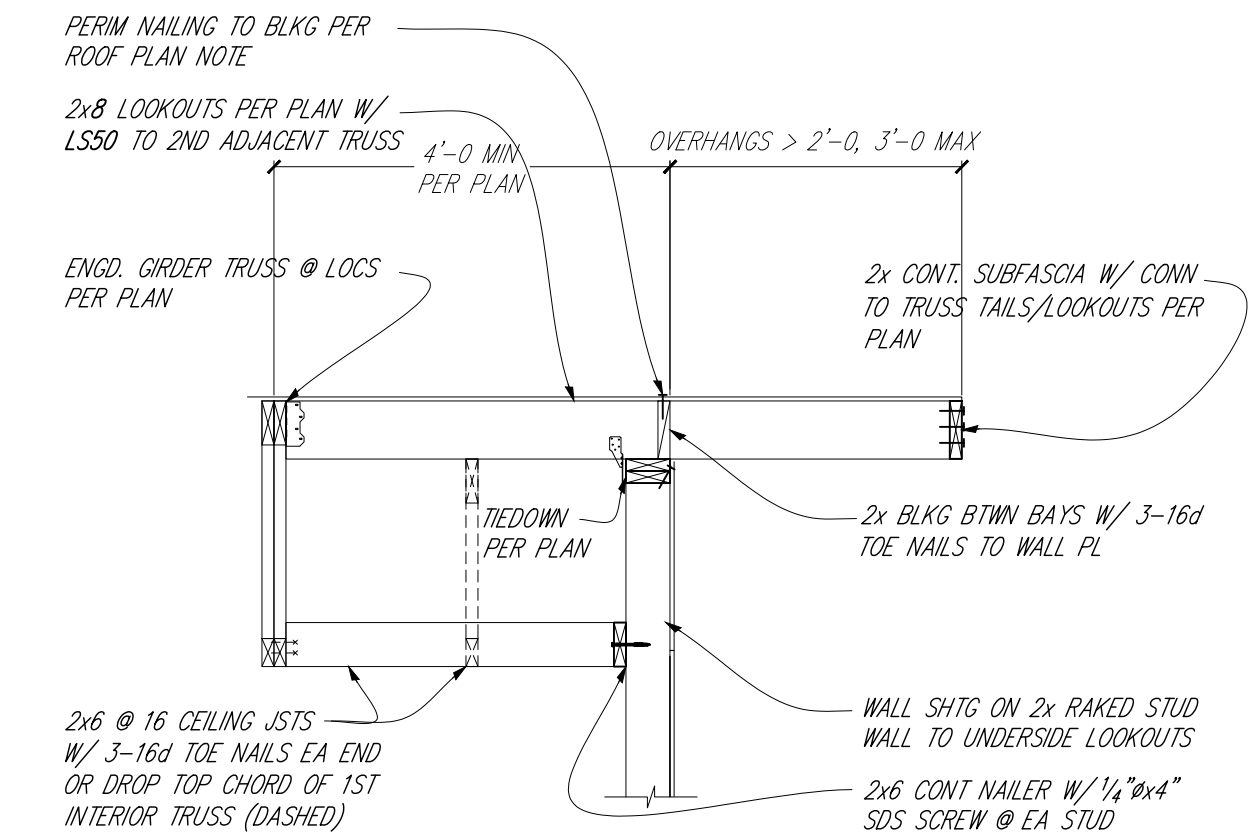
SECTION $\frac{29}{S2.2}$ 1/2"=1'-0"



SECTION $\frac{28}{S2.2}$ 1/2"=1'-0"



SECTION $\frac{27}{S2.2}$ 1/2"=1'-0"



SECTION $\frac{26}{S2.2}$ 1/2"=1'-0"



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43 BACKLAND DR
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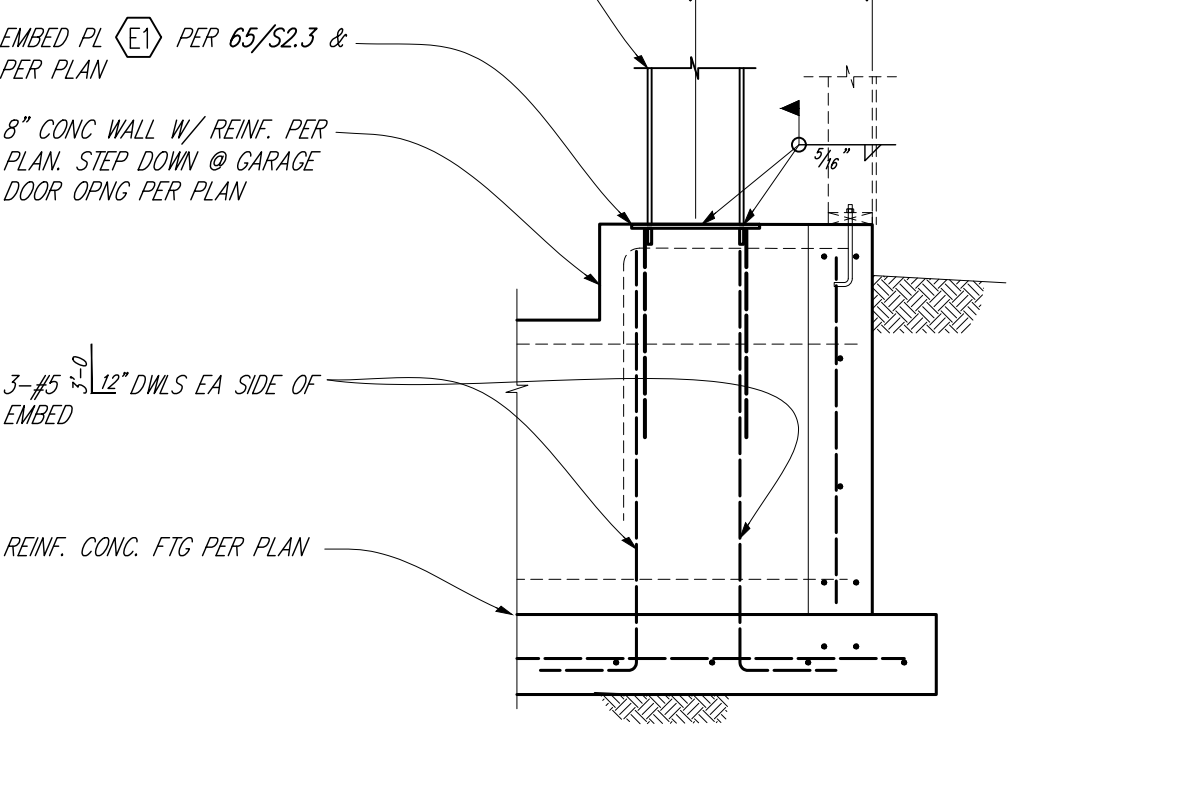
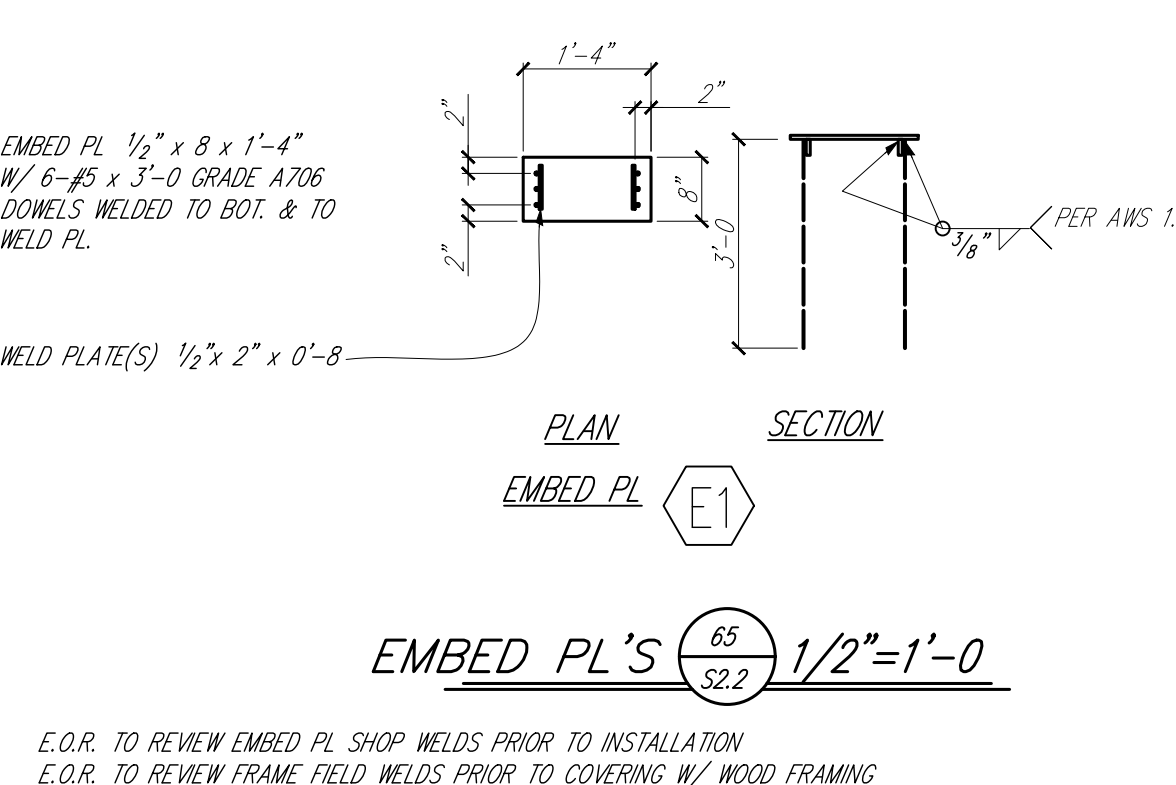
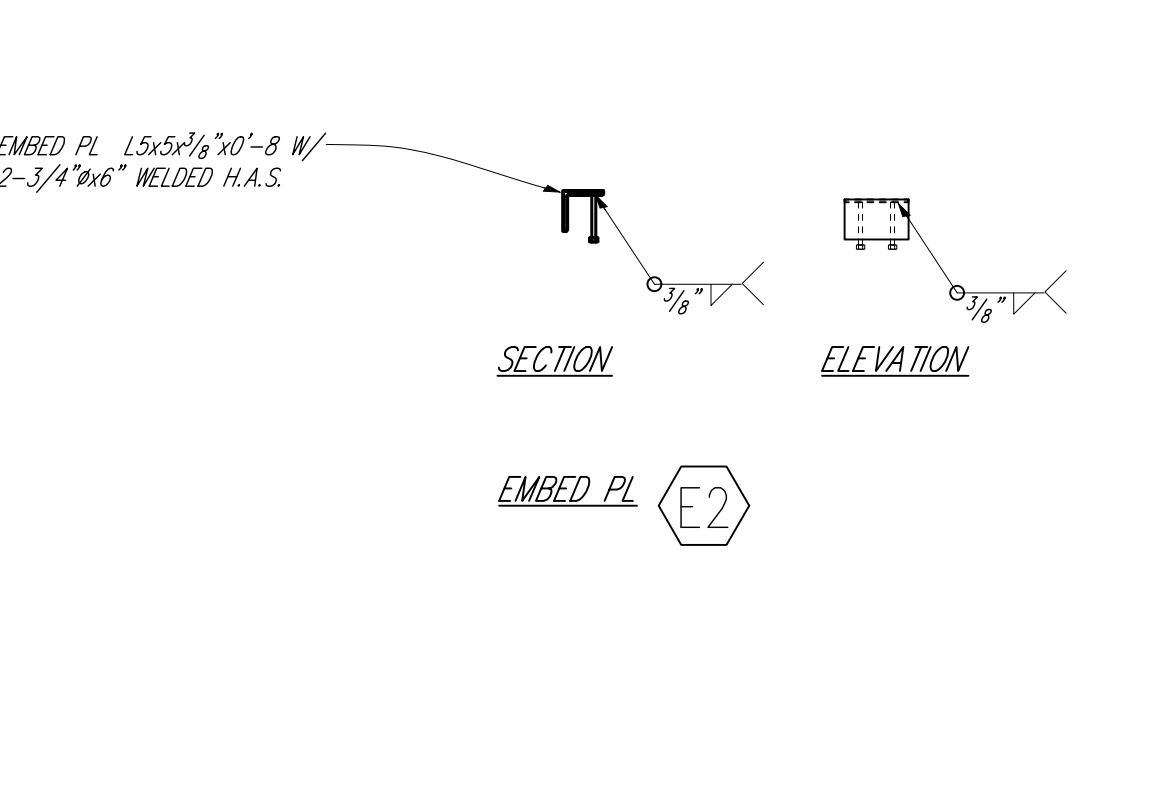
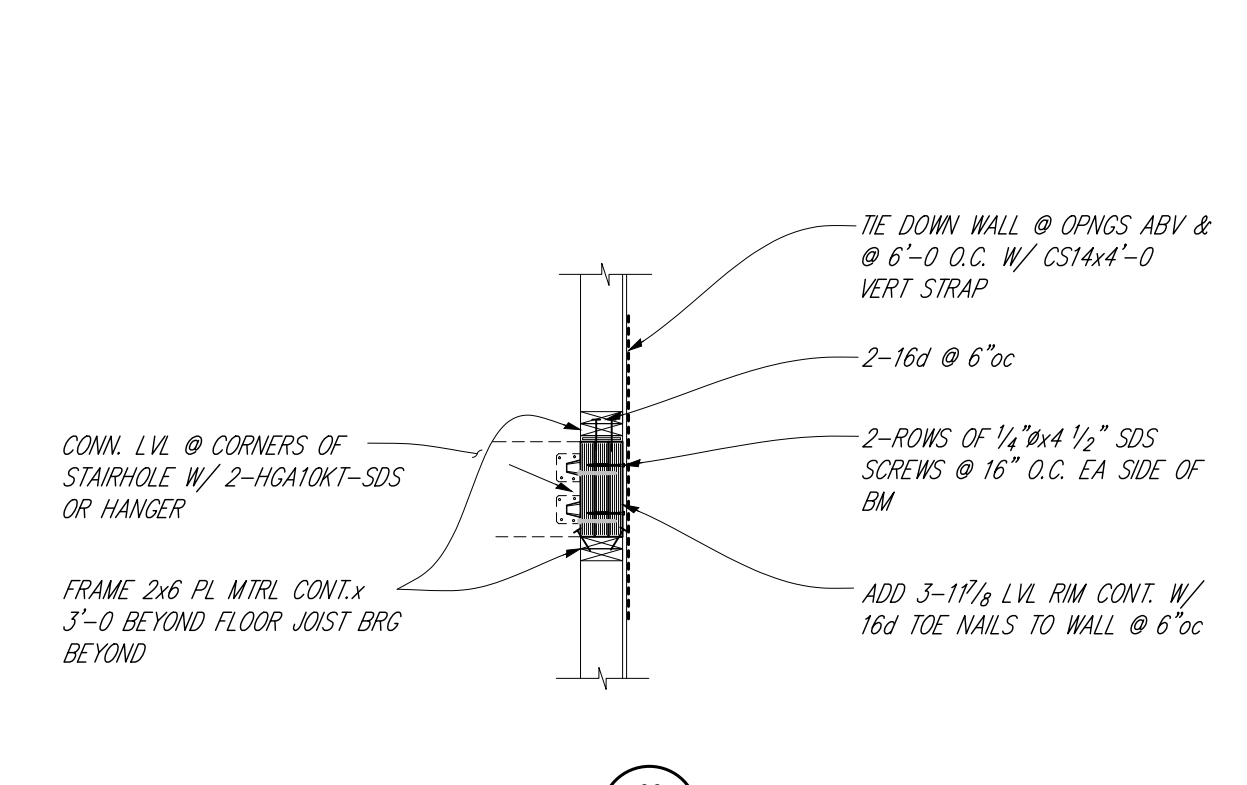
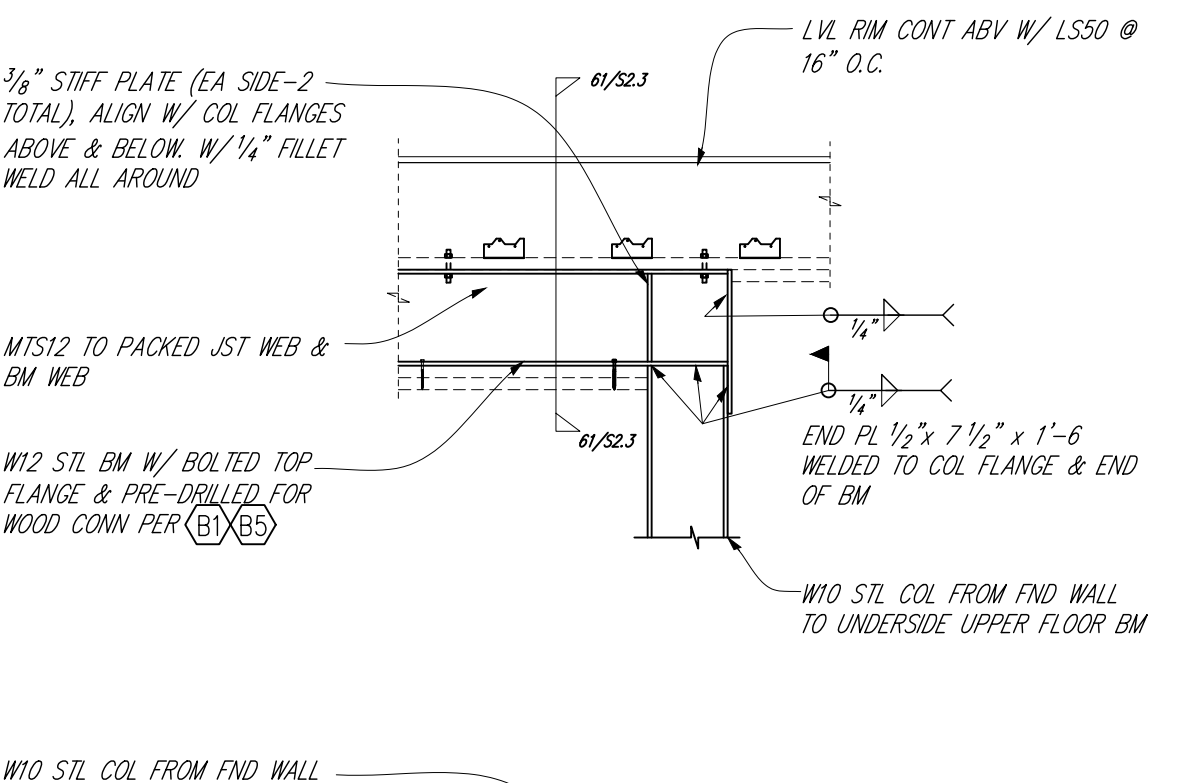
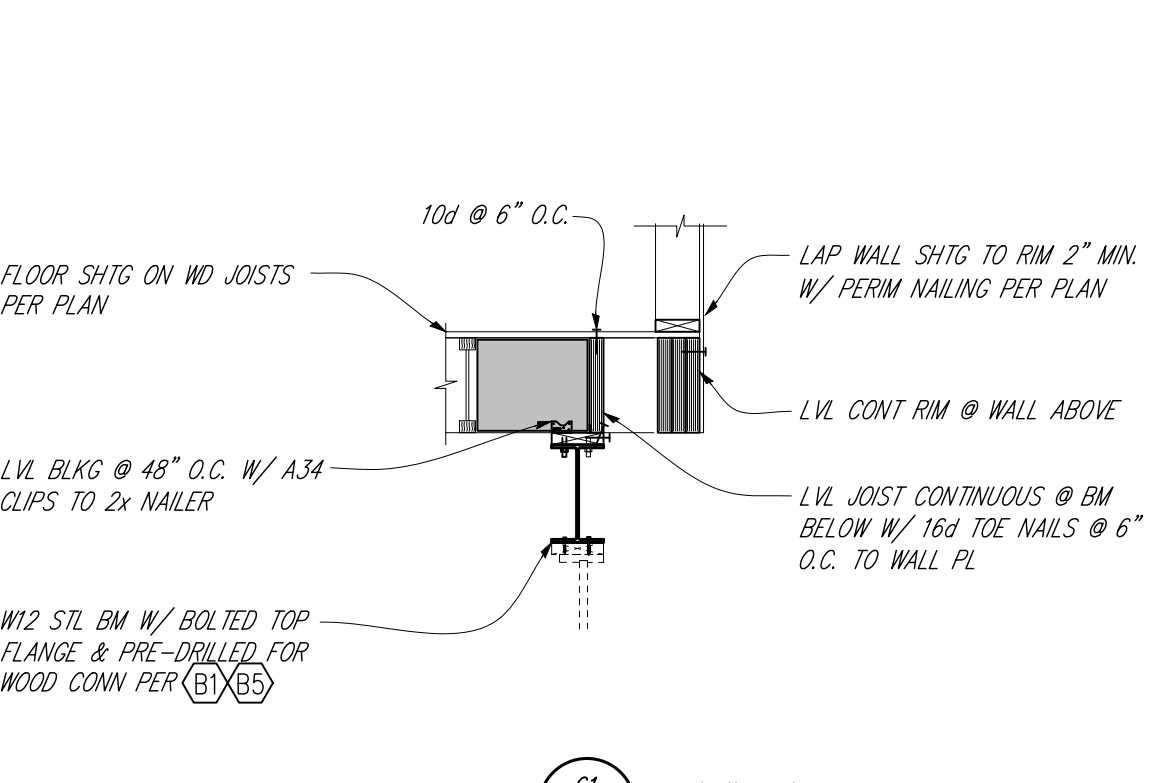
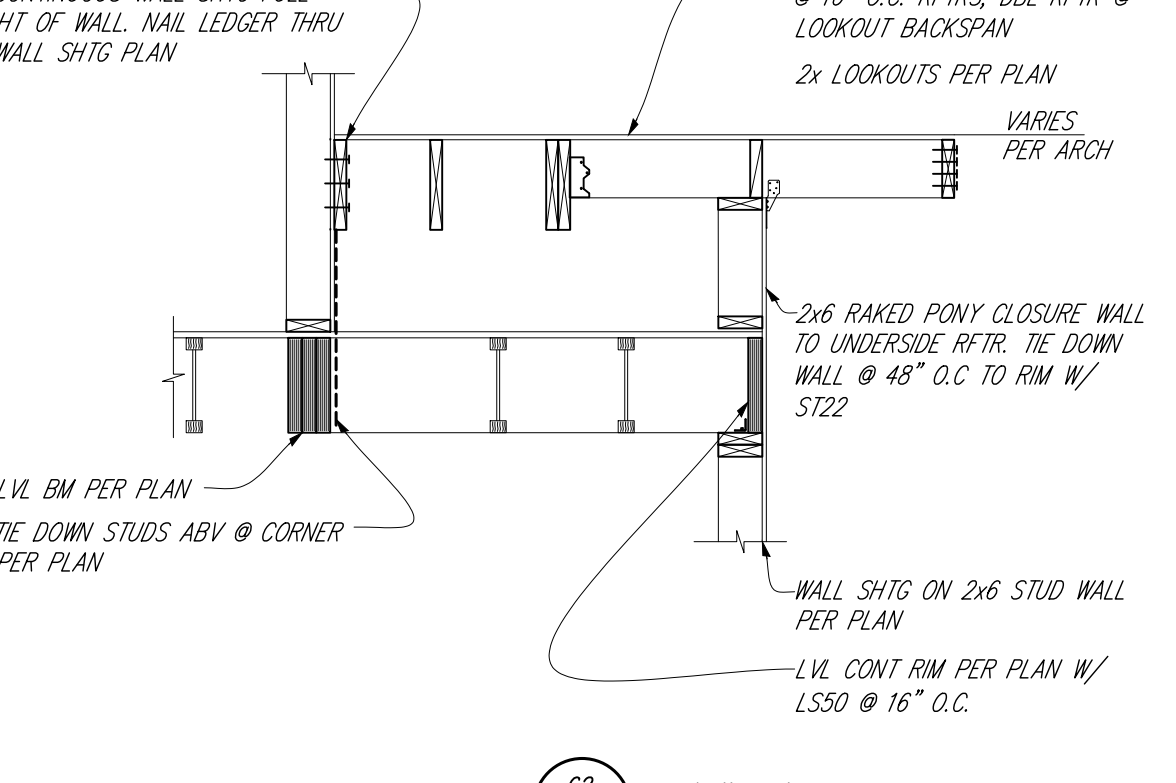
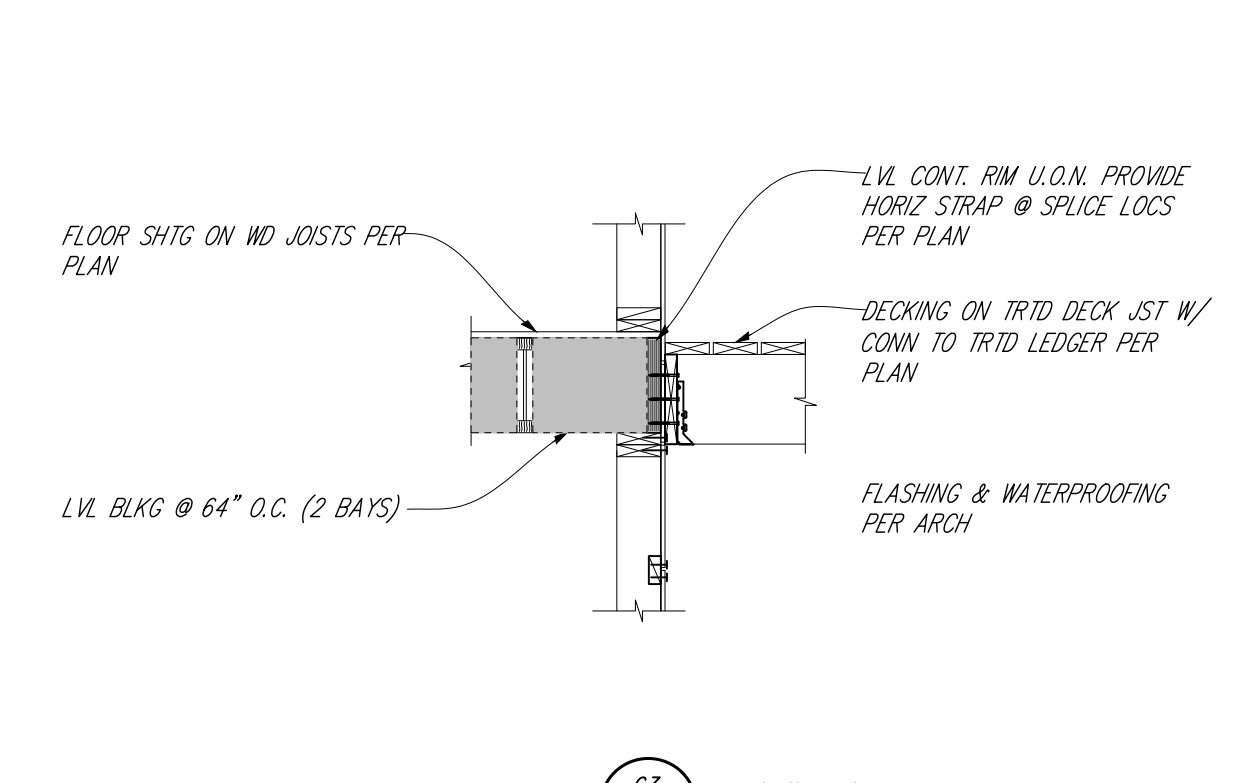
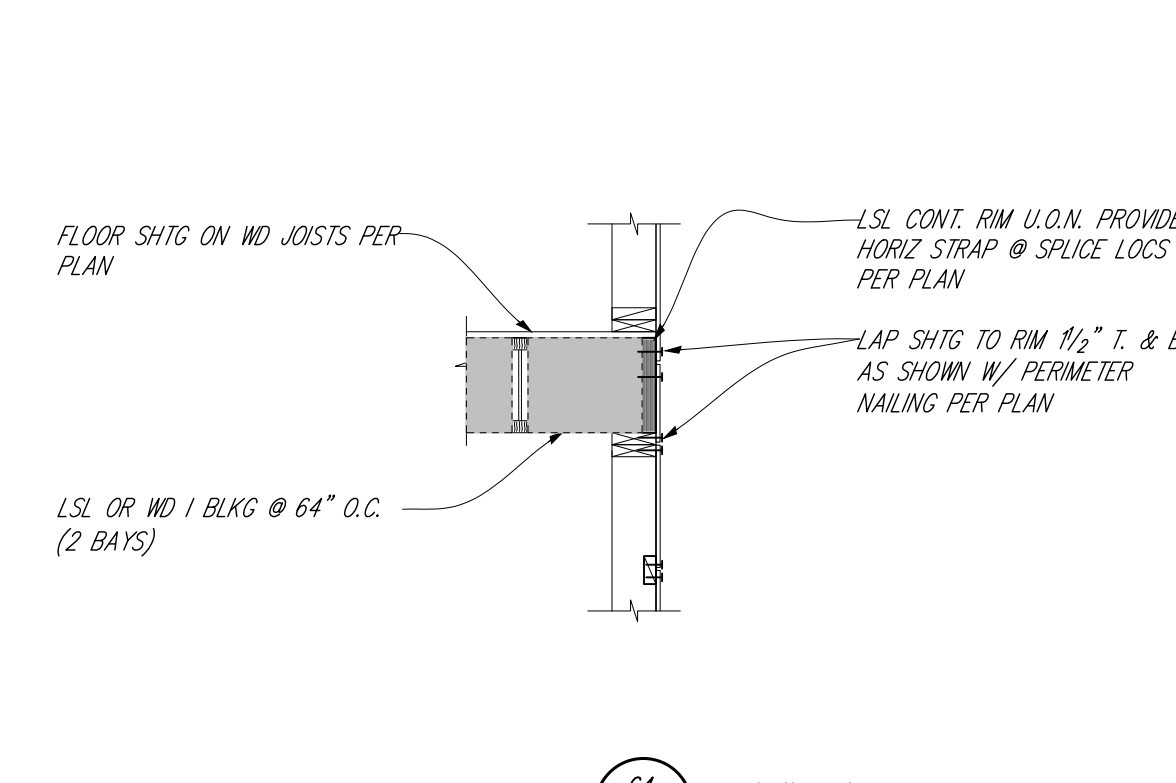
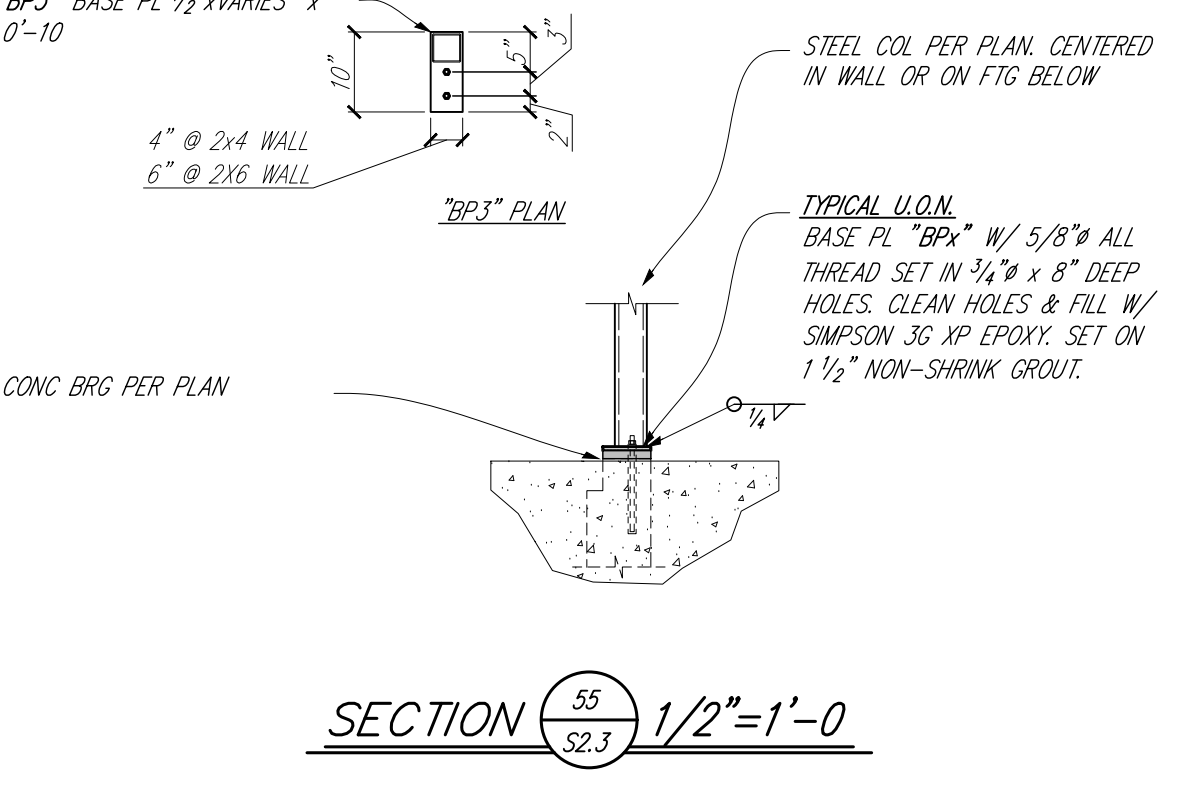
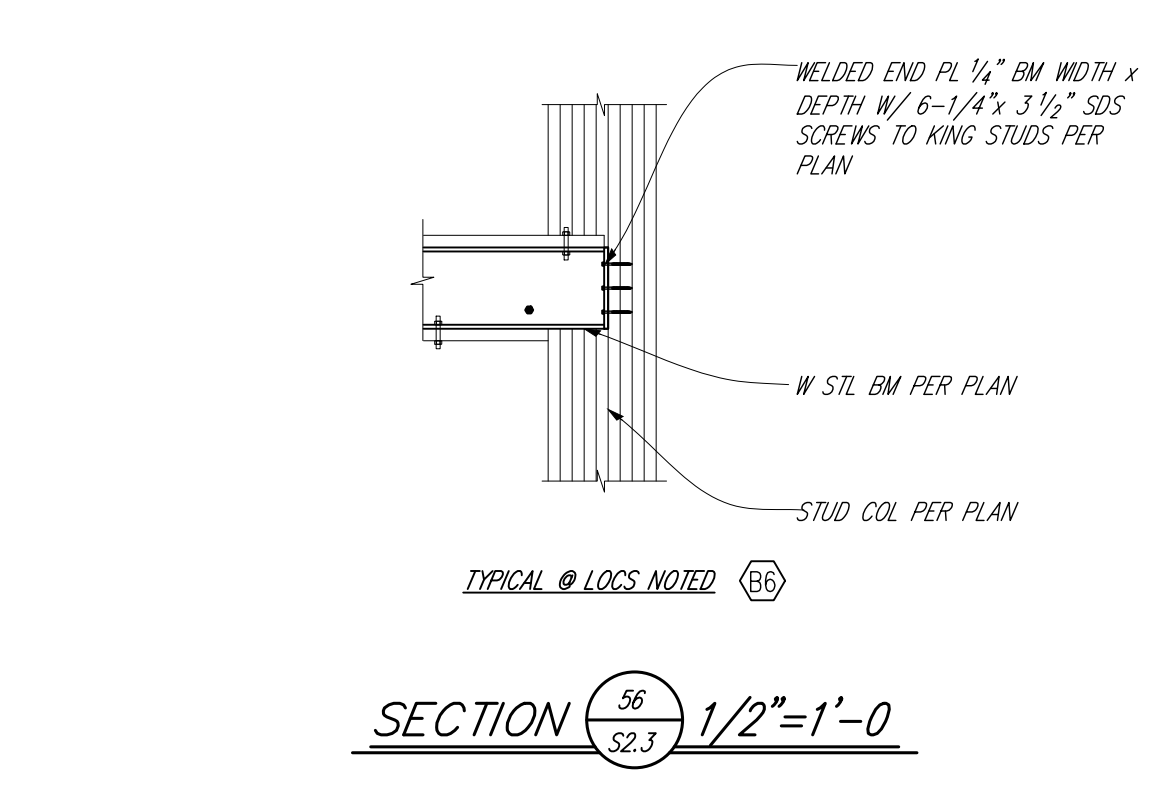
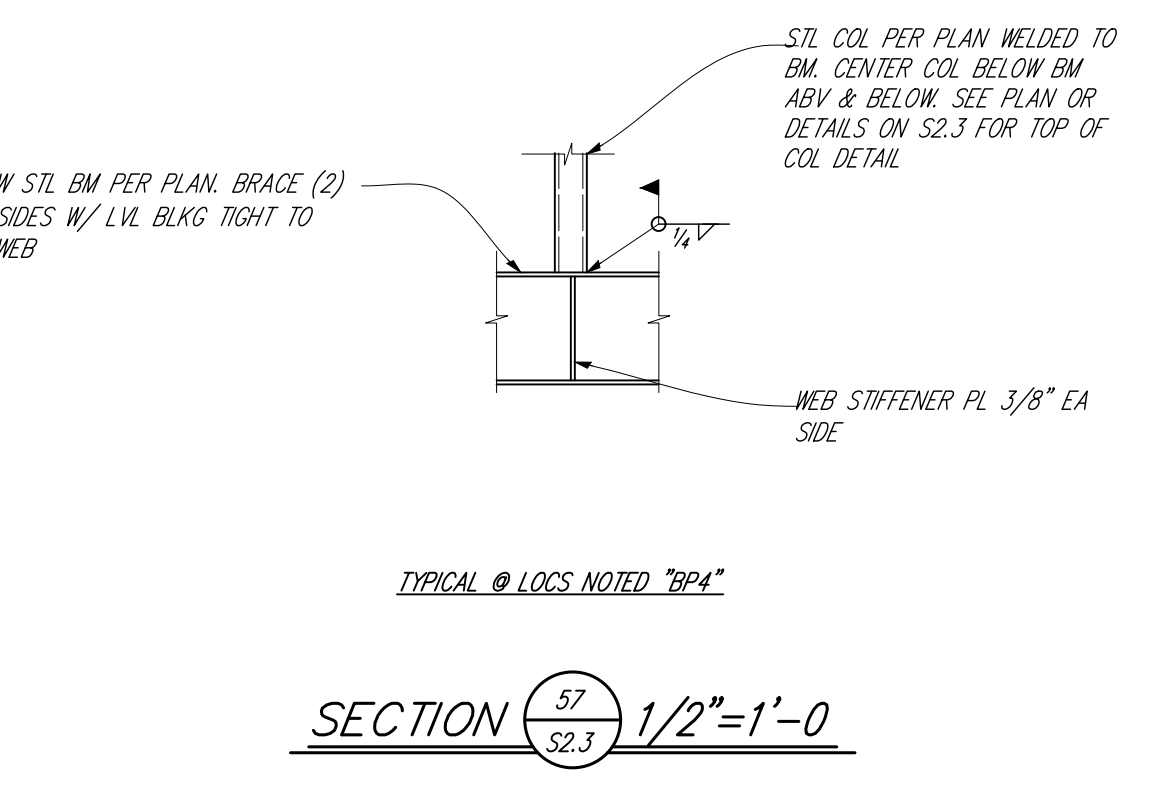
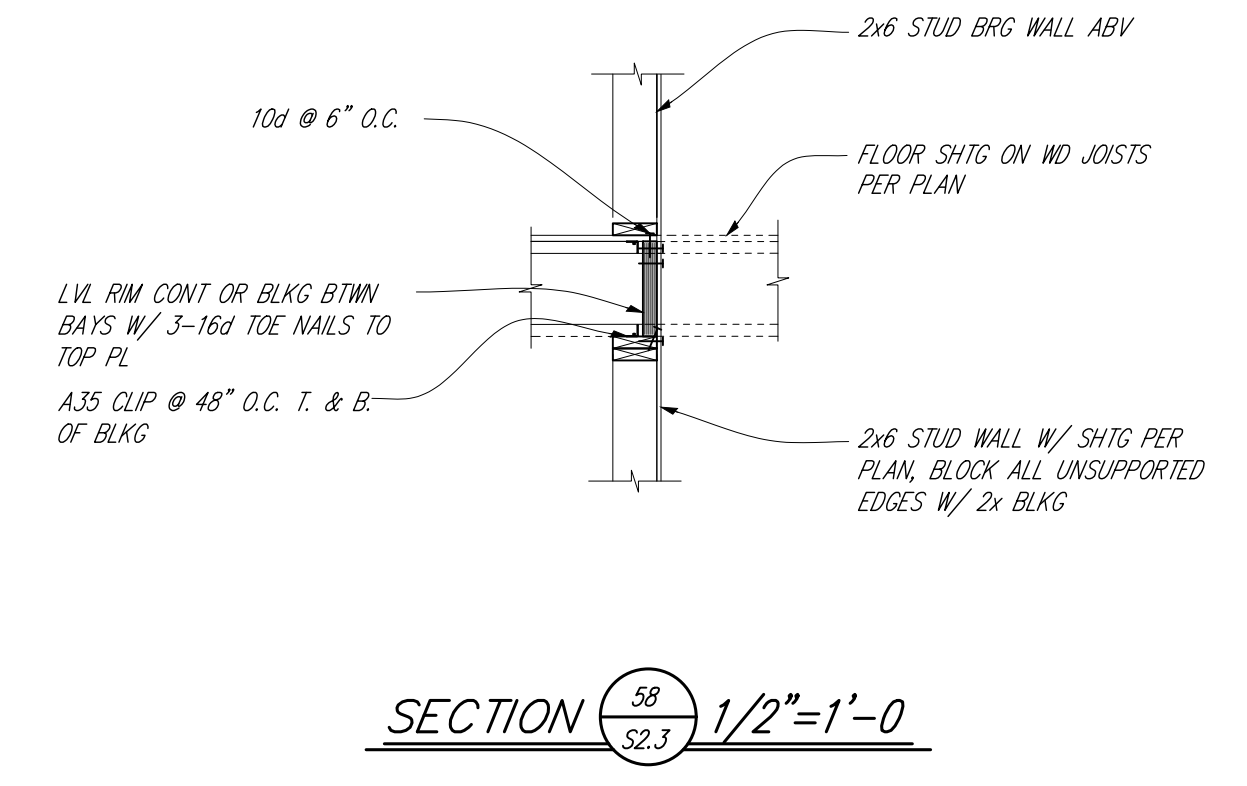
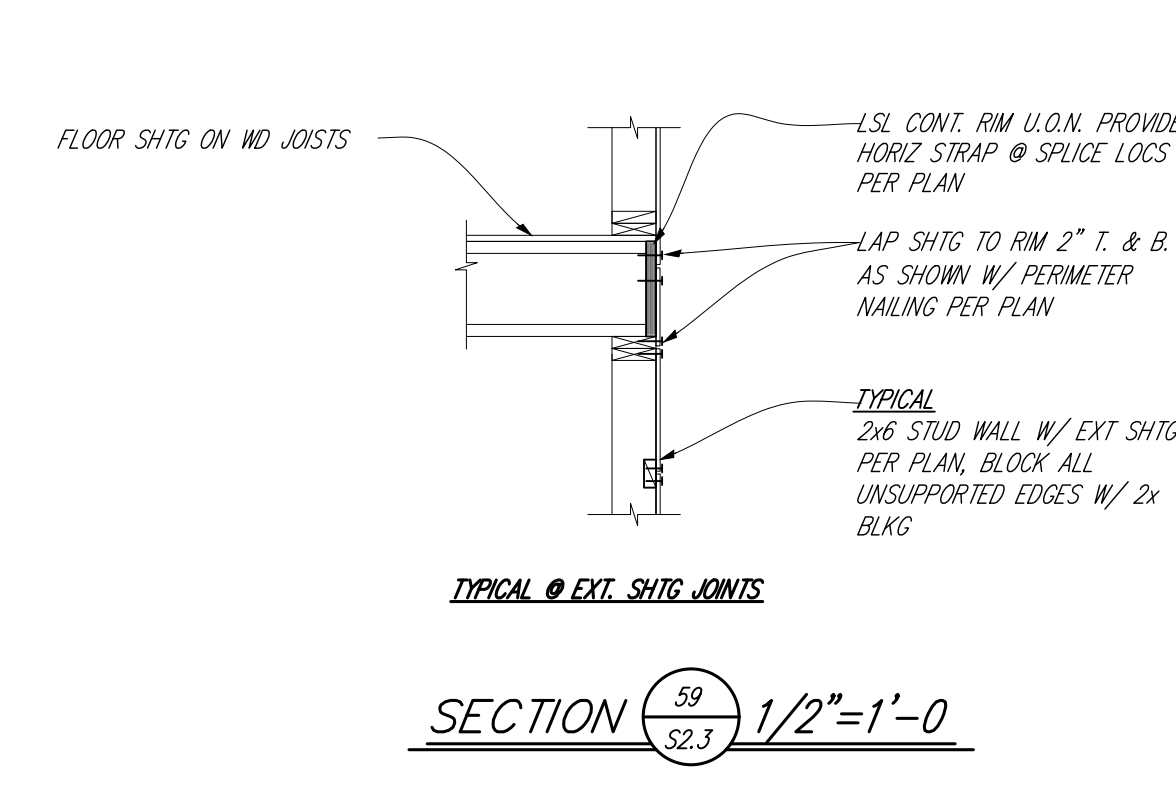
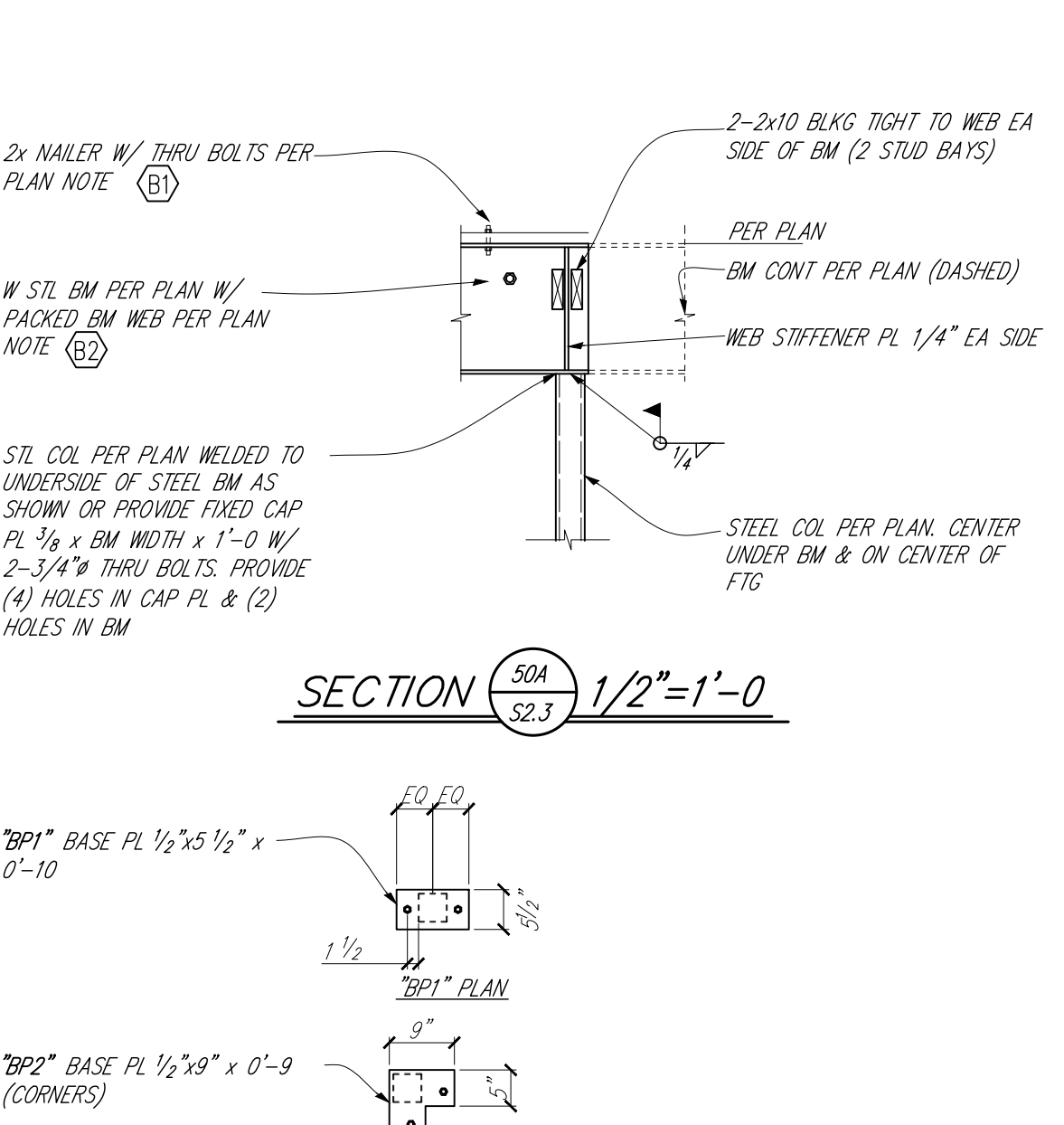
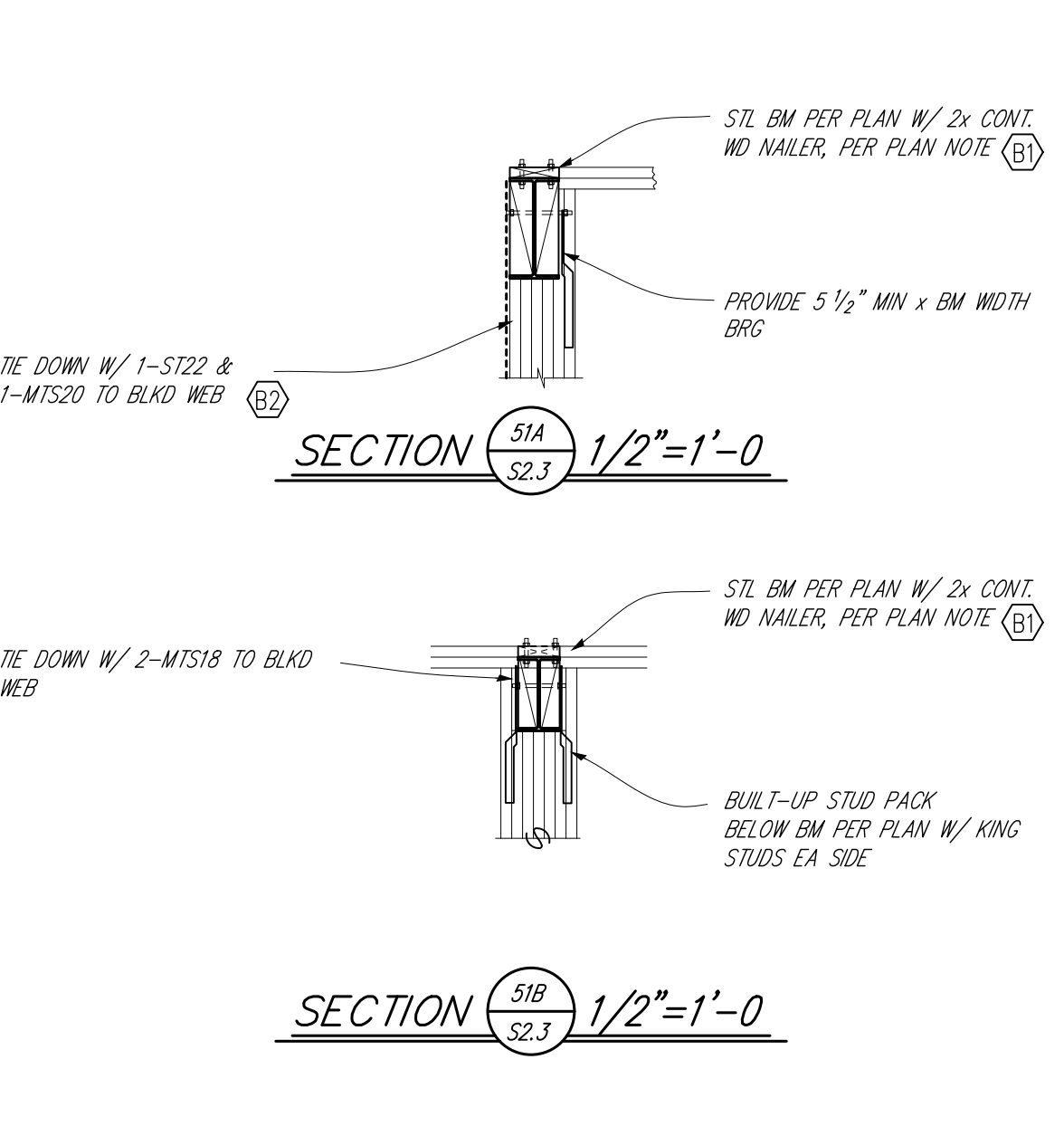
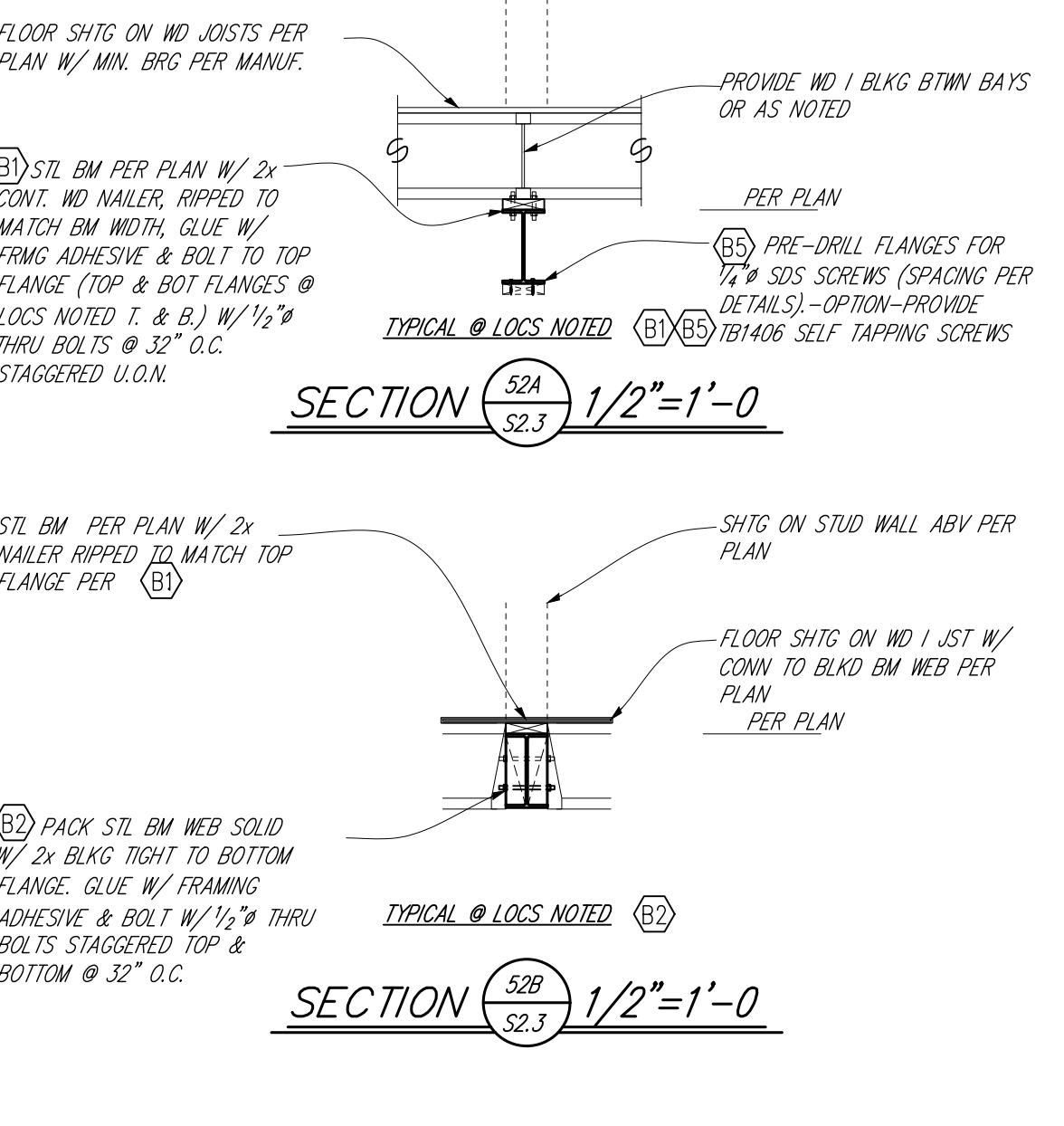
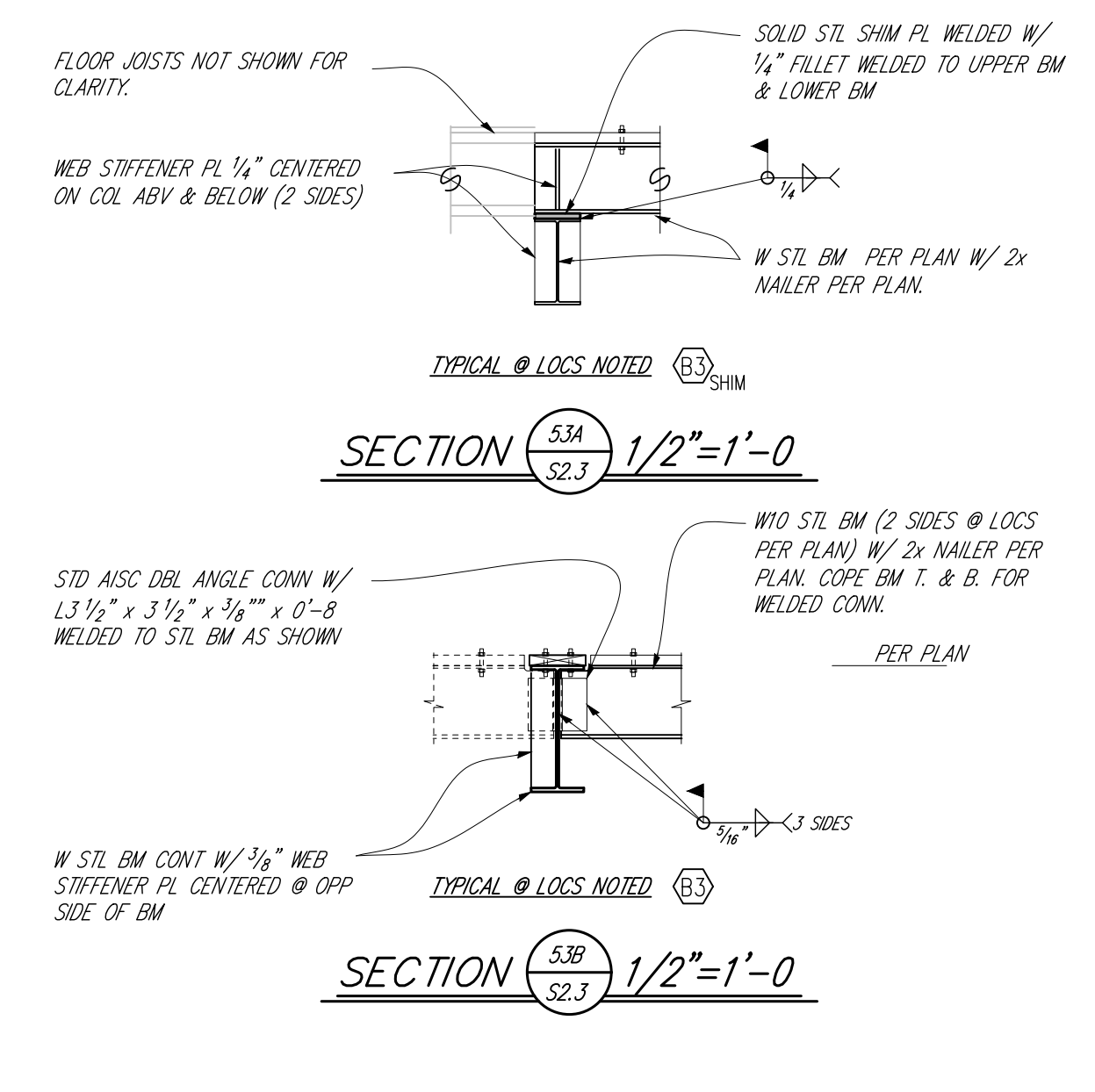
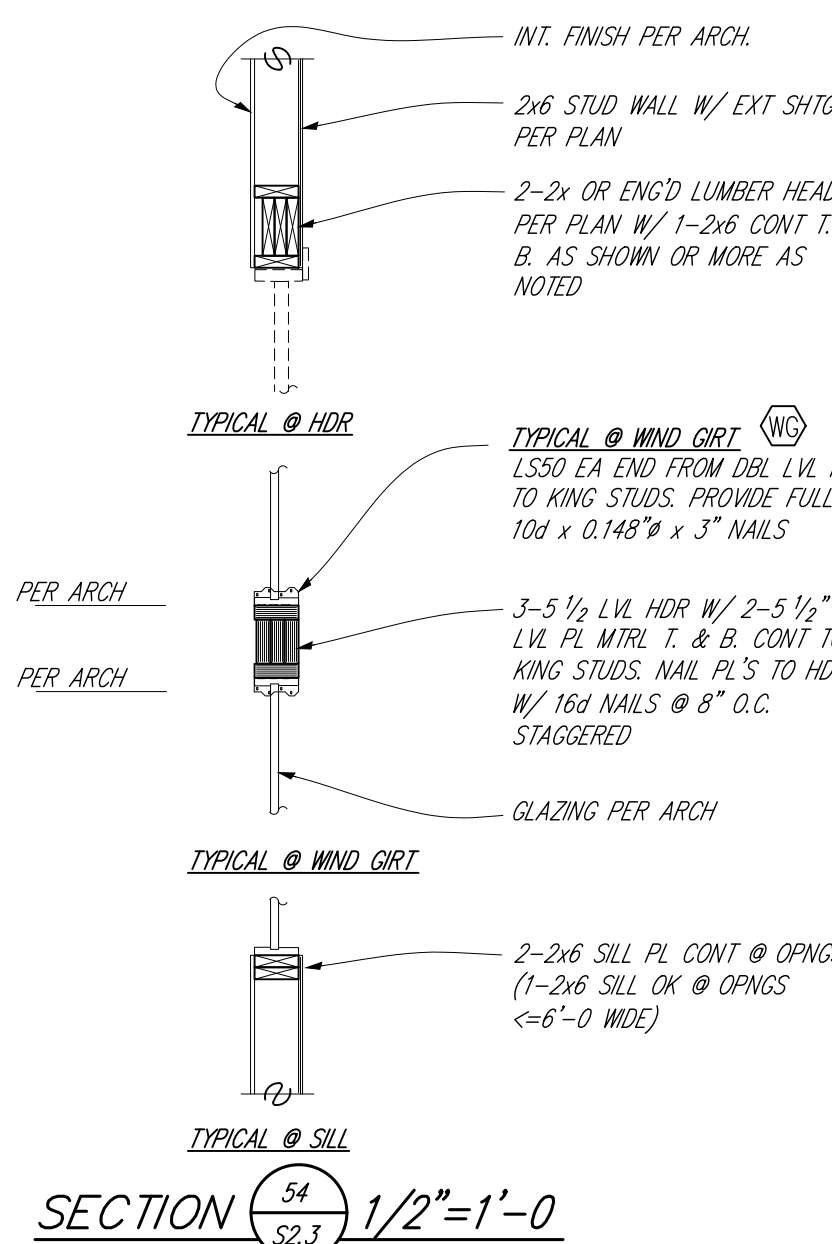
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SHEET NO.

S2.2



- E.O.R. TO REVIEW EMBED PL SHOP WELDS PRIOR TO INSTALLATION
- E.O.R. TO REVIEW FRAME FIELD WELDS PRIOR TO COVERING W/ WOOD FRAMING
- FIELD MEASURE EMBED LOCATIONS, HEIGHTS, LEVELNESS PRIOR TO COLUMN FABRICATION. DO NOT SHM CONNECTIONS W/OUT PRIOR WRITTEN NOTIFICATION BY E.O.R.
- WELDABLE REBAR IS TYPICALLY STAMPED WITH A "W" - REBAR WELDED TO THE EMBED PL WITHOUT A "W" STAMP WILL BE REJECTED AND MAY DELAY THE CONCRETE POUR.
- THE EMBED PL'S IN FORMS PRIOR TO POUR - DO NOT WET SET.

40TH PARALLEL
Structural Engineering

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43 BACKLAND DR
LOT 186 WILDERNESS, BLUE RIVER ESTATES
BLUE RIVER, COLORADO

JOB #	DBM24118
DATE	8/8/2024
DESIGN BY	DBM
REVISIONS:	
No.	Description

PROFESSIONAL LICENSE
Dana Michel
44357
08.06.2024
PROFESSIONAL ENGINEER

40th Parallel Structural Engineering
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SHEET NO.
S2.3