

Previous addition approved under **Permit No. 2110-132.**
Date: **2-10-2021**

BATHROOM NOTES

1. FIREBLOCKING: TUBS AND SHOWERS REQUIRE FIREBLOCKING AS PER R302.11
2. SHOWER SPACE: MINIMUM CLEAR SPACE INSIDE THE SHOWER IS 30" X 30".
3. SHOWER DOOR: SHOWER DOOR MUST BE A MINIMUM OF 22" WIDE AND OPEN OUTWARD IF HINGED.
4. CLEAR SPACE OUTSIDE SHOWER: REQUIRES A 30" WIDE X 24" DEEP CLEAR SPACE OUTSIDE THE SHOWER DOOR.
5. SHOWER ENCLOSURES: ENCLOSURES MUST BE MADE OF SAFETY GLASS.
6. SHOWER WALLS: NON-ABSORBENT SURFACE REQUIRED UP TO 6 FEET IN HEIGHT WITHIN THE SHOWER.
7. TILE BACKING: USE CEMENT BOARD OR CEMENT FIBER BOARD FOR TILE BACKING IN SHOWERS.
8. VAPOR BARRIER: VAPOR BARRIER IS NOT PERMITTED BEHIND WATER-RESISTANT GYPSUM BOARD (W.P. GWB) AT EXTERIOR WALLS.
9. SHOWER FLOW: SHOWER FLOW RESTRICTOR LIMITED TO 2.5 GALLONS PER MINUTE (GPM).
10. VALVE TYPE: TUB OR SHOWER CONTROL VALVES MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING TYPE.
11. TOILET FLUSH: TOILETS MUST HAVE A MAXIMUM FLUSH VOLUME OF 1.6 GALLONS PER FLUSH.
12. TOILET SPACE: REQUIRES 15" CLEAR SPACE ON EACH SIDE FROM THE CENTER OF THE TOILET AND 21" CLEAR SPACE IN FRONT.
13. TOWEL BARS: INSTALL 2X10 BLOCKING FOR TOWEL BARS UP TO 48" ABOVE THE FLOOR OR BELOW SILL HEIGHT IF AT A WINDOW.
14. TOILET PAPER HOLDERS: INSTALL BLOCKING FOR TOILET PAPER HOLDERS.
15. INSULATION: INSULATE EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS.
16. AIR BARRIER: INSTALL AN AIR BARRIER SEPARATING SHOWERS AND TUBS FROM EXTERIOR WALLS.

1. WINDOW HEIGHT: EMERGENCY ESCAPE AND RESCUE OPENINGS MUST HAVE A SILL HEIGHT NO MORE THAN 44 INCHES MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING.
2. WINDOW SIZE: MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET (5.0 SQUARE FEET AT GRADE FLOOR).
3. WINDOW HEIGHT: MINIMUM NET CLEAR OPENING HEIGHT OF 24 INCHES.
4. WINDOW WIDTH: MINIMUM NET CLEAR OPENING WIDTH OF 20 INCHES.
5. OPERABILITY: WINDOWS MUST BE OPERABLE FROM THE INSIDE WITHOUT KEYS, TOOLS, OR SPECIAL KNOWLEDGE.

ROUGH OPENINGS: CONTRACTOR TO VERIFY ROUGH OPENING DIMENSIONS FOR DOORS AND WINDOWS BEFORE ORDERING.

1. ACCESS OPENING SIZE: 22" X 30" MINIMUM ROUGH FRAMED OPENING.
2. LOCATION: ACCESS OPENING LOCATED IN THE CENTER OF THE GARAGE OR OTHER READILY ACCESSIBLE LOCATION.
3. DOOR: INSULATE AND WEATHERSTRIP THE ACCESS DOOR.
4. INSULATION DAM: 12" HIGH INSULATION DAM REQUIRED.
5. ATTIC LADDER SPACE: COMPACT ATTIC LADDER REQUIRES A MINIMUM HEIGHT OF 28" AND A MINIMUM DEPTH OF 44" INSIDE THE ATTIC, ABOVE AND BEHIND THE OPENING.

RANGE HOOD – 50 CFM
MAKEUP AIR PER IRC M1503.6 (PROVIDED BY MECHANICAL – DEFERRED SUBMITTAL)

ALL ENCLOSED UNDER-STAIR SURFACES PROTECTED WITH MINIMUM 1/2" GYPSUM BOARD PER IRC R302.7.

GARAGE SEPARATION PER IRC R302.6:

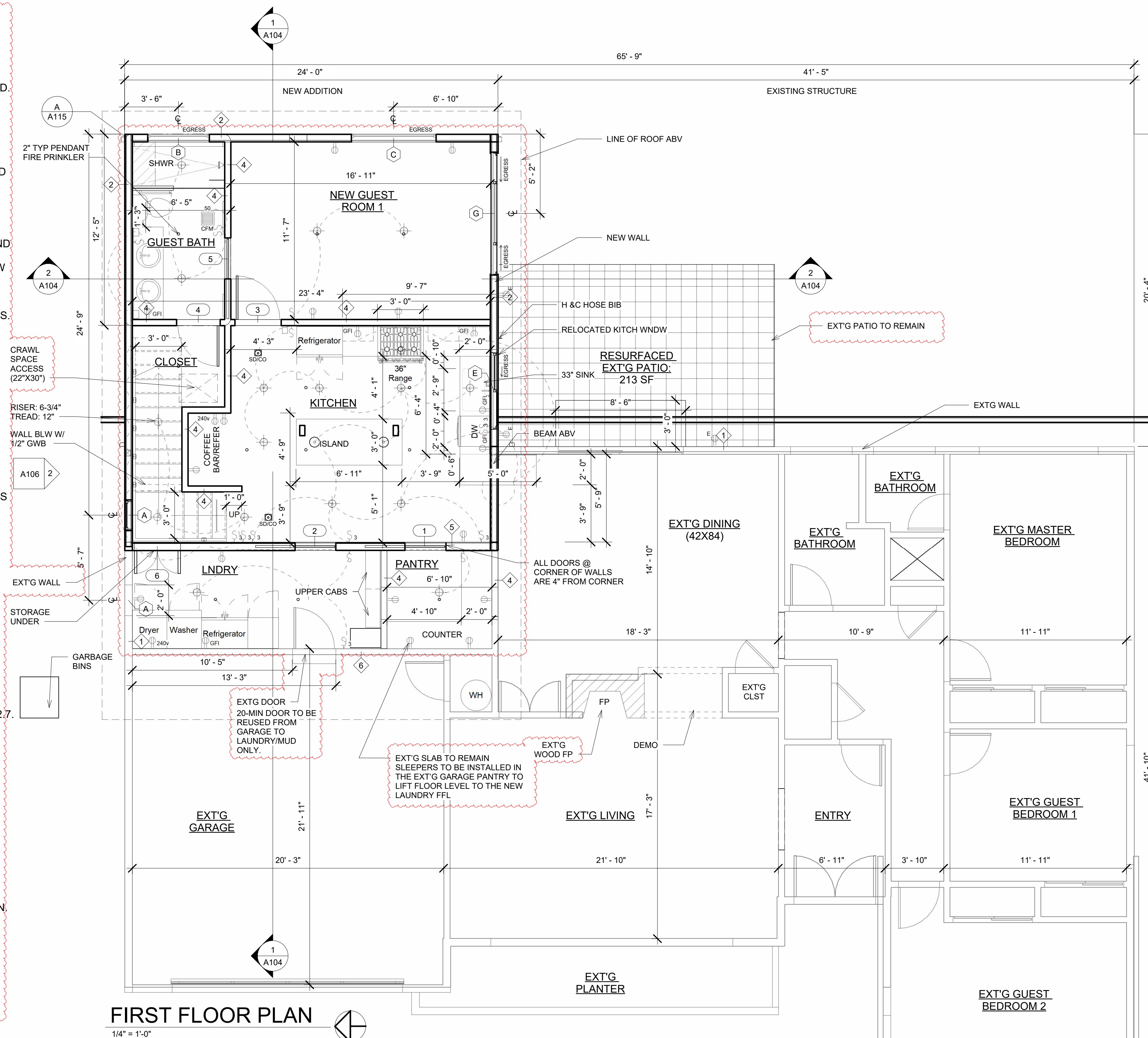
- ½" GWB ON GARAGE WALLS SHARED WITH DWELLING
- 5/8" TYPE X ON CEILINGS SUPPORTING LIVING SPACE ABOVE
- GYPSUM TO UNDERSIDE OF ROOF SHEATHING UNLESS ALLOWED OTHERWISE.

DOOR BETWEEN GARAGE AND DWELLING TO BE 20-MINUTE RATED OR SOLID CORE, SELF-CLOSING, SELF-LATCHING.

R314: SMOKE ALARMS ARE TO BE INSTALLED IN EACH SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS. ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WITH BATTERY BACK-UP. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION. SMOKE ALARMS SHALL BE INTERCONNECTED AND COMPLY WITH HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.

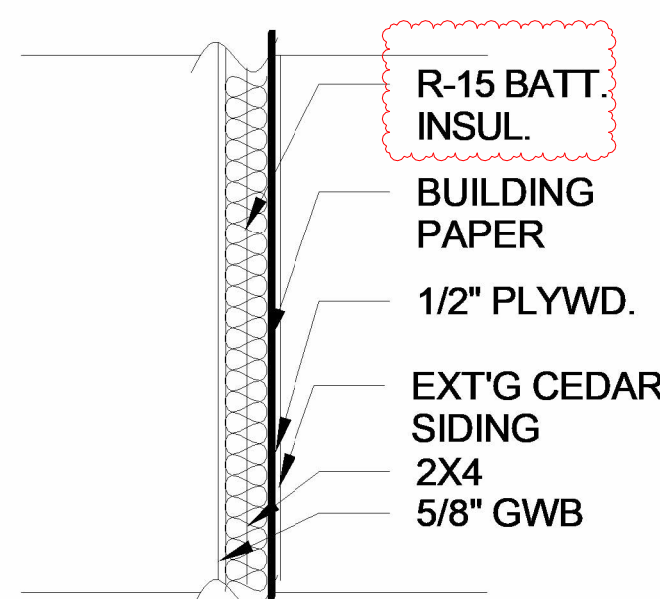
LOW VOLT NFPA 29 IN CHAPTER 29 MAY BE SUBSTITUTED PENDING APPROVAL BY FIRE MASHAL.

R315: CARBON MONOXIDE ALARMS ARE REQUIRED ON EACH FLOOR AND OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES.

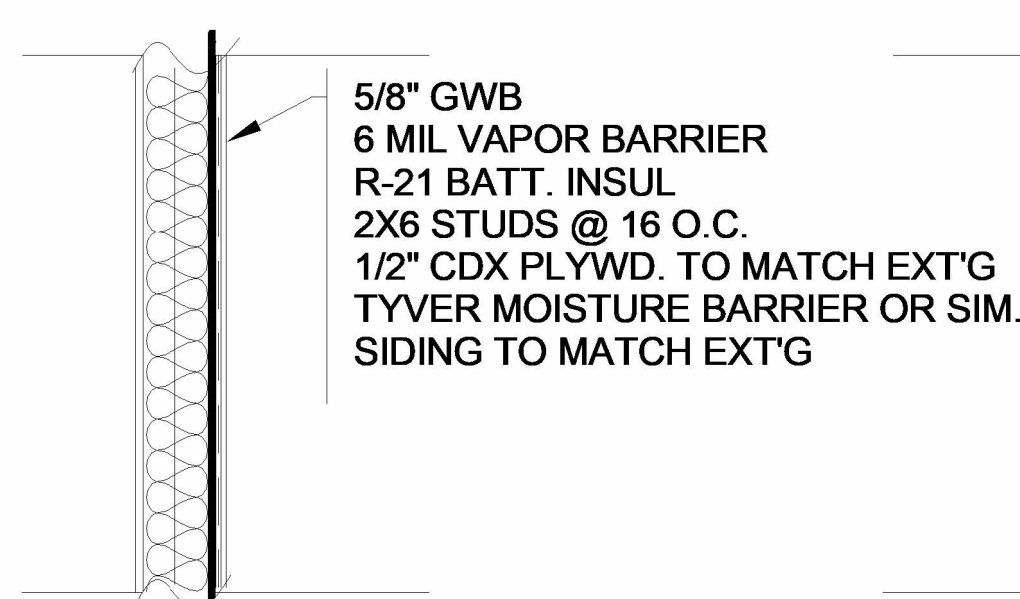


FIRST FLOOR PLAN

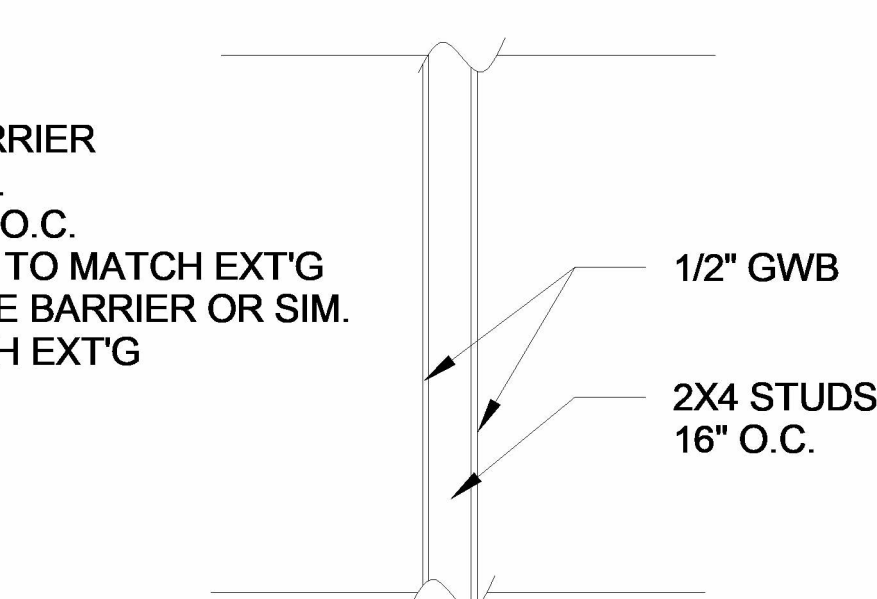
1/4" = 1'-0"



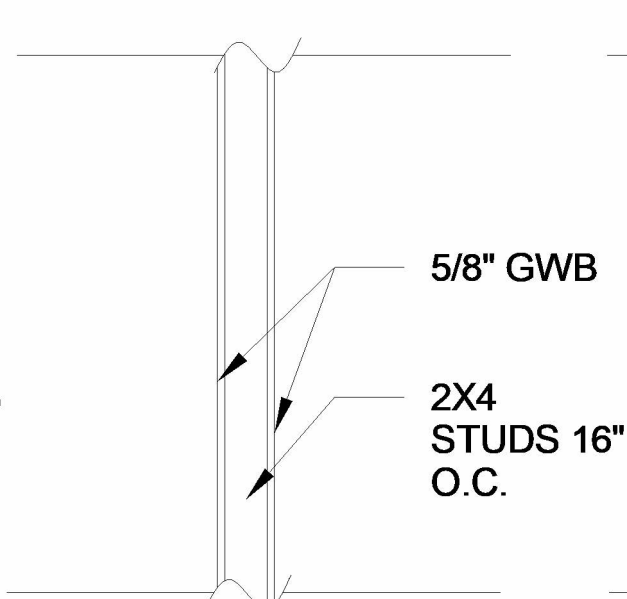
1 EXTERIOR WALL
SCALE: 3/4"=1'-0"



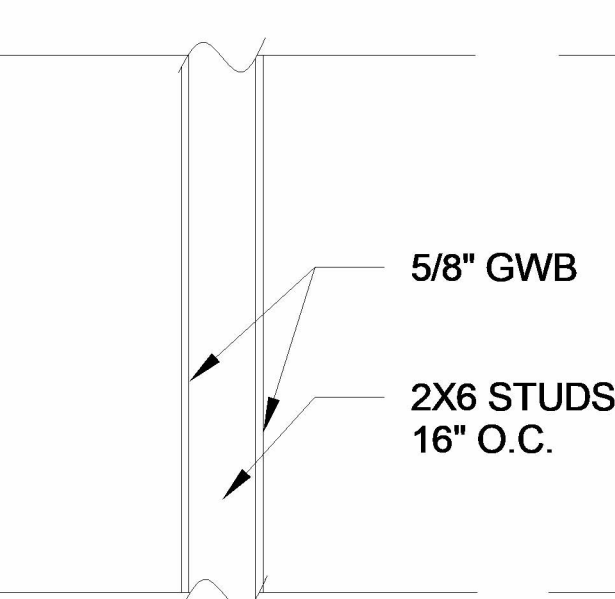
2 EXTERIOR WALL
SCALE: 3/4"=1'-0"



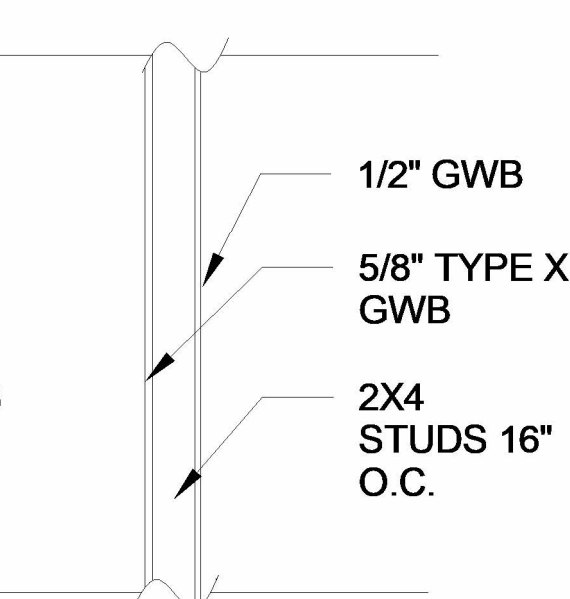
3 2X4 INTERIOR STUD WALL
SCALE: 3/4"=1'-0"



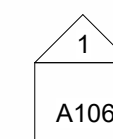
4 2X4 INTERIOR WALL
SCALE: 3/4"=1'-0"



5 INTERIOR WALL
SCALE: 3/4"=1'-0"



6 INTERIOR WALL
SCALE: 3/4"=1'-0"



OWNER
John-Sun Cha & Esther Koo
3818 83rd Ave SE
Mercer Island, WA 98040
347.742.3867

DESIGN FIRM
Cascadia Design-Build NW, LLC
PO Box 455
Bellevue, WA 98009
Contact: Brad@CascadiaDesign-Build.com

CONTRACTOR
Cascadia Design-Build NW, LLC
PO Box 455
Bellevue, WA 98009
Contact: Brad@CascadiaDesign-Build.com

STRUCTURAL ENGINEER
Murar Engineering and Design, Incorporated
1501 N 13th St
Suite 202
Boise, ID 83702
208.343.4125
contact@murarengineering.com

MECHANICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

MECHANICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

ELECTRICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

PLUMBING CONSULTANT
Address
Address
Phone
Fax
e-mail

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KOO & CHA
ADDITION
FIRST FLOOR PLAN

Project number	2025008
Date	12/18/2025
Drawn by	jvl
Checked by	bth

A100

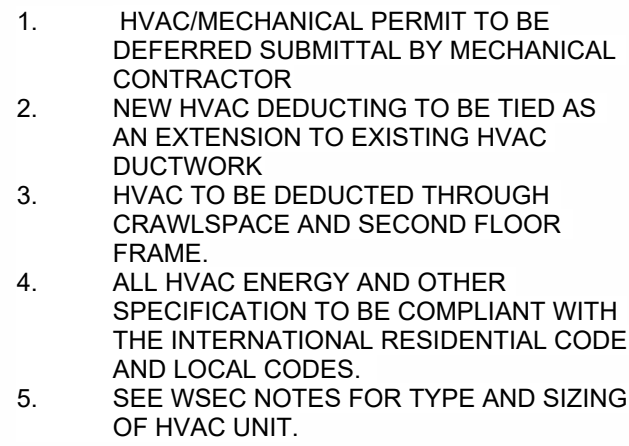
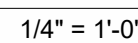
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ADDITIONS >150 SF COMPLY WITH WSEC R402; CONTINUOUS INSULATION PROVIDED WHERE REQUIRED.

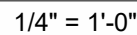
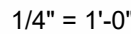
1. FIRE SPRINKLER SYSTEM SHALL BE INSTALLED PER NFPA 13D
2. SYSTEM IS DESIGNED TO CONTROL FIRE LONG ENOUGH FOR OCCUPANT ESCAPE AND IS NOT INTENDED TO FULLY EXTINGUISH A FIRE
3. WATER SUPPLY SHALL PROVIDE A MINIMUM OF **7 MINUTES** OF DISCHARGE
4. DESIGN FLOW SHALL BE BASED ON TWO MOST REMOTE SPRINKLER HEADS OPERATING SIMULTANEOUSLY AT 13 GPM EACH:
TOTAL = 26 GPM
5. REQUIRED VOLUME: **26 GPM x 7 MINUTES = 182 GALLONS**
6. CALCULATION IS BASED ON A 2000 SF RESIDENCE
7. MAIN DISTRIBUTION LINES SHALL BE 1" DIAMETER MINIMUM
8. BRANCH LINES SHALL BE 1/2" DIAMETER MINIMUM
9. PIPE SIZE SHALL BE VERIFIED BY HYDRAULIC CALCULATIONS TO ENSURE ADEQUATE PRESSURE AND FLOW THROUGHOUT
10. SYSTEM SHALL MAINTAIN A MINIMUM OPERATING PRESSURE OF 7 PSI AT THE MOST REMOTE SPRINKLER
11. ALL SPRINKLER HEADS SHALL BE LOCATED WITHIN 6 FEET RADIUS OF VERTICAL SURFACES IN HABITABLE AREAS
12. **AV107.2 FIRE SPRINKLERS IN EXISTING BUILDINGS:** FIRE SPRINKLERS REQUIRED IF CUMULATIVE REMODEL/REPAIR/ADDITION VALUE WITHIN 60 MONTHS EXCEEDS 50% OF EXISTING RESIDENCE VALUE, PER AV107.2 AND APPENDIX Q.

	4" RECESSED LED		RESTROOM BULB SCONCE		STAIRS LIGHTS
	120V RECEPTACLE		POP-UP SOCKET		MINI-SPLIT
	GFI EXTERIOR		PENDANT LIGHT		
	GFI RECEPTACLE		GARBAGE DISPOSAL		
	240V RECEPTACLE		2 X 4 LED		
	EXHAUST FAN/LIGHT COMBO		GARAGE DOOR OPENER		
	50 CFM.		WALL SCONCE		
	SINGLE SWITCH		THERMOSTAT		
	3 WAY SWITCH		5 1/2" X 48" LED		
	DIMMER SWITCH		EXHAUST FAN		
	SMOKE DETECTOR / CARBON MONOXIDE		CABINET LIGHTS		
	SMOKE DETECTOR				

50 CFM MIN. EXHAUST FAN - VENT TO EXTERIOR



Scale 1/4"=1'-0" U.N.O.



*DOOR PRICES TO BE CONFIRMED TO MANUFACTURER

$$3'' = 1'-0''$$

CRAWLSPACE ACCESS
CRAWLSPACE ACCESS OPENING TO BE A MINIMUM OF 18" X 24" WHEN LOCATED IN THE FLOOR, OR 16" X 24" WHEN LOCATED IN THE CRAWLSPACE PERIMETER WALL. ACCESS SHALL BE UNOBSTRUCTED AND INSTALLED PER IRC R408.4.



DESIGN FIRM
Cascadia Design-Build NW, LLC
PO Box 455
Bellevue, WA 98009
Contact: Brad@CascadiaDesign-Build.com

CONTRACTOR
Cascadia Design-Build NW, LLC
PO Box 455
Bellevue, WA 98009
Contact: Brad@CascadiaDesign-Build.com

STRUCTURAL ENGINEER
Murar Engineering and Design, Incorporated
1501 N 13th St
Suite 202
Boise, ID 83702
208.343.4125
contact@murarengineering.com

MECHANICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

MECHANICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

ELECTRICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

PLUMBING CONSULTANT
Address
Address
Phone
Fax
e-mail

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KOO & CHA ADDITION ELEVATIONS

Project number	2025008
Date	12/18/2025
Drawn by	jv
Checked by	bth

A105

Scale 1/4"=1'-0" U.N.C





CONTRACTOR
Cascadia Design-Build NW, LLC
PO Box 455
Bellevue, WA 98009
Contact: Brad@CascadiaDesign-Build.com

MECHANICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

MECHANICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

ELECTRICAL CONSULTANT
Address
Address
Phone
Fax
e-mail

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Address
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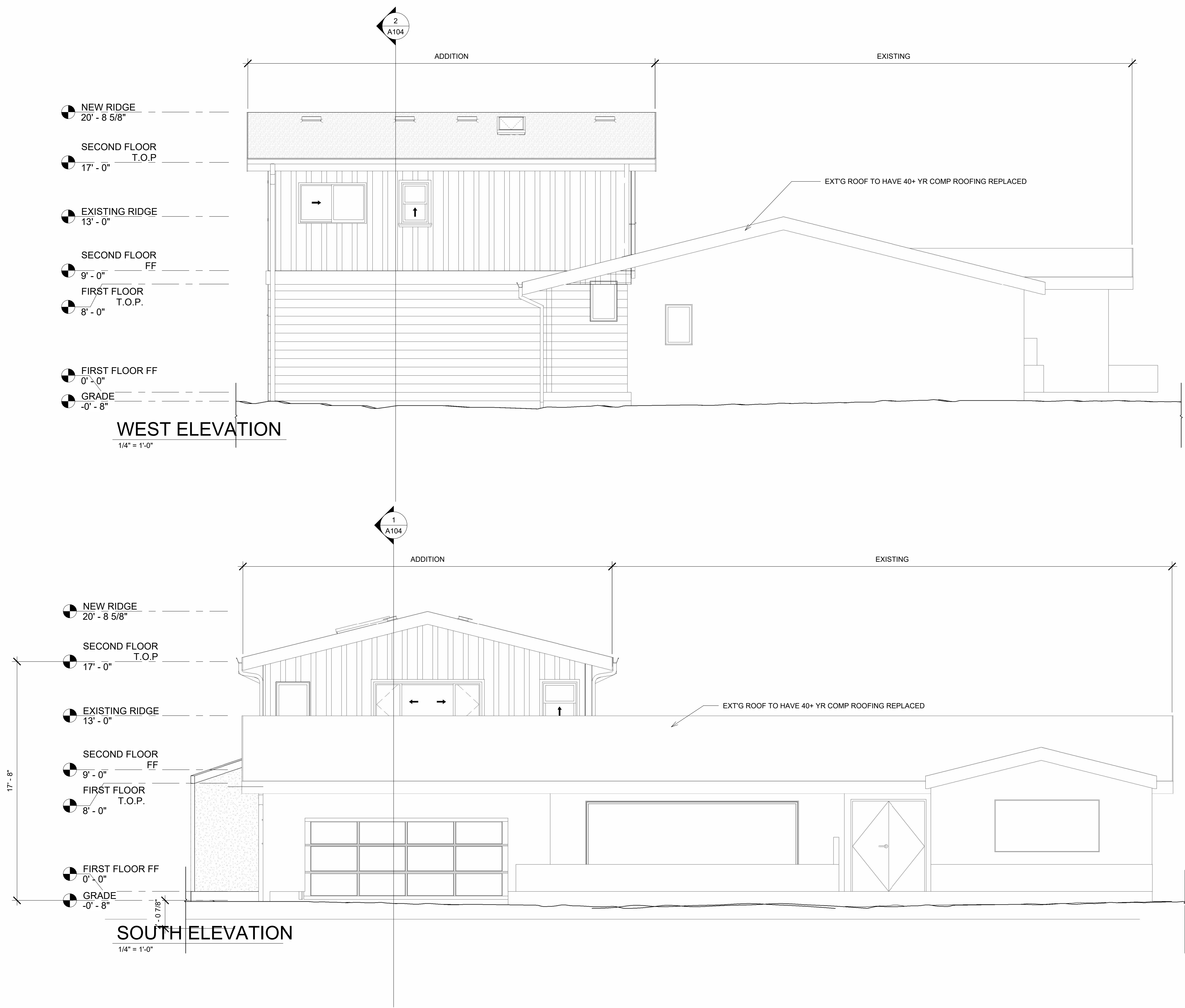
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KOO & CHA ADDITION ELEVATIONS

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A106

Scale 1/4"=1'-0" U.N.C



SECTION 1

- I. DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STRUCTURAL ENGINEERS WET SIGNATURE IS AFFIXED TO DRAWINGS.
- II. ANY DISCREPANCIES IN THE DRAWINGS, NOTES AND SPECIFICATIONS SHALL BE REPORTED TO OWNERS REPRESENTATIVE FOR CLARIFICATION. THE CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION.
- III. THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION.
- IV. CONTRACTOR TO SUBMIT A REQUEST TO ENGINEER/ARCHITECT FOR ANY SUBSTITUTION OF MATERIALS OR PRODUCTS SPECIFIED ON THE DRAWINGS.
- V. THE FOLLOWING NOTES APPLY UNLESS SHOWN OTHERWISE
- VI. THESE DRAWINGS HAVE BEEN PREPARED SOLELY FOR THE USE IN THE CONSTRUCTION OF A PROPOSED BUILDING TO WHICH THESE NOTES ARE ATTACHED. THE DRAWINGS SHALL NOT BE USED IN WHOLE OR IN PART, FOR FABRICATION OR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT THE WRITTEN CONSENT OF THE ENGINEER

SECTION 2

CODE: INTERNATIONAL BUILDING CODE 2021 WITH MERCER ISLAND AND THE STATE OF WASHINGTON PROVISIONS

- I. ROOF LOADING: DEAD LOAD 20 PSF
SNOW LOAD 25 PSF
TOTAL LOAD 45 PSF
- II. FLOOR LOADING: DEAD LOAD 10 PSF
LIVE LOAD 40 PSF
- III. 1500 PSF BEARING PRESSURE ASSUMED PER IBC TABLE 1804.2 CLASS 4 MATERIAL(S).
- IV. SPECIAL INSPECTION REQUIRED
- V. WIND LOADING: 98 MPH (3 SECOND GUST) EXPOSURE C, Kzt = 1.0. PER IBC FIGURE 1609
- VI. SEISMIC LOADING: SEISMIC CATEGORY D, SITE CLASS Sd PER IBC. 35% SNOW LOAD USED IN SEISMIC DESIGN. SEISMIC DESIGN PARAMETERS AS FOLLOWS.
- A. RISK CATEGORY: II
B. SEISMIC IMPORTANCE FACTOR, Ie: 1.0
C. MAPPED RESPONSE PARAMETERS, Ss & S1: Ss=1.41, S1=0.491
D. SITE CLASS: D
E. DESIGN RESPONSE PARAMETERS, Sds & Sd1: Sds=1.12 Sd1=0.59
F. SEISMIC DESIGN CATEGORY: D
G. SEISMIC RESPONSE COEFFICIENT(s), Cs: 0.17g WHEN R=6.5
H. RESPONSE MODIFICATION COEFFICIENT(s), R: R=6.5 (LIGHT FRAME WOOD SHEAR WALLS)

SECTION 3 – CONCRETE

- I. GENERAL REQUIREMENTS
- STRUCTURAL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI. (VALUE USED FOR DESIGN = 2,500 PSI) MINIMUM CEMENT CONTENT SHALL BE 5 SACKS/CU.YD. MAXIMUM SIZE AGGREGATE SHALL BE 3/4" SLUMP NOT TO EXCEED 4".
- II. CAST IN PLACE CONCRETE
- A. CONCRETE FORM WORK TO BE OF ADEQUATE SIZE AND STRENGTH. PROPERLY BRACED TO PREVENT SAGGING OR BULGING. PROTECT ALL CONCRETE FROM EXCESSIVE TEMPERATURES. REFER TO DRAWING FOR DIMENSIONS OF CONCRETE MEMBERS AND SIZE AND LOCATION OF ALL ENFORCEMENT.
- B. FOOTINGS
- NO FOOTING SHALL BE PLACED ON DISTURBED SOIL (IF DISTURBED, COMPACT SOIL IN 6" LIFTS TO 90% OF MAXIMUM DRY DENSITY PER ASTM D1557). FOOTINGS SHALL BE STEPPED DOWN ONE (1) VERTICALLY TO ONE AND ONE HALF (1–1/2) HORIZONTALLY.
- C. FOUNDATION WALLS
- REINFORCE PER DRAWINGS. DO NOT BACKFILL WALLS UNTIL MAIN FLOOR IS FRAMED AND SHEATHED AND CONCRETE HAS CURED A MINIMUM OF 7 DAYS. USE HAND OPERATED COMPACTION EQUIPMENT ADJACENT TO NEWLY PLACED CONCRETE BASEMENT WALLS.
- D. CONCRETE PADS AND THICKENED SLABS
- REFER TO DRAWINGS AS TO SIZE AND REINFORCEMENT.
- E. CONCRETE SLABS
- SLABS ON GRADE, AS NOTED ON THE DRAWINGS, TO BEAR ON 6" COMPACTED GRAVEL BASE.

F. REINFORCEMENT

1. TYPICAL REINFORCEMENT SHALL BE ASTM A615, GRADE 60 FOR ALL BARS. ALL REBAR LAPPED 30 TIMES BAR DIAMETER OR 24" WHICHEVER IS GREATER. REBAR AT FOOTING TO HAVE 3" CLEAR COVER WHEN CAST AGAINST EARTH, 2" WHERE EXPOSED TO AIR OR BACKFILL (U.N.O. ON DRAWING). PROVIDE CORNER BARS WITH 18" LEGS AT THE CORNERS OF ALL WALL AND FOOTINGS, SIZE AND PLACEMENT TO MATCH HORIZONTAL REINFORCEMENT.
2. DEFORMED NONPRESTRESSED LONGITUDINAL REINFORCEMENT RESISTING EARTHQUAKE–INDUCED MOMENT, AXIAL FORCE, OR BOTH, IN SPECIAL MOMENT FRAMES, SPECIAL STRUCTURAL WALLS, AND ALL COMPONENTS OF SPECIAL STRUCTURAL WALLS INCLUDING COUPLING BEAMS AND WALL PIERS SHALL BE ASTM A706, GRADE 60 FOR ALL BARS.

G. ANCHOR BOLTS

- ANCHOR BOLTS TO BE ASTM A307, 1/2" x 10" EMBEDDED IN FOUNDATION WALLS @ 48" O.C. (MAX) U.N.O. (SEE FOUNDATION PLAN FOR REQUIREMENTS AT SHEAR WALL). BOLTS TO BE WITHIN 12" (MAX.) & 4" (MIN) TO ENDS OF SILL PLATES (COORDINATE WITH GENERAL CONTRACTOR) MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE
1. ALL POSTS SUPPORTED BY ISOLATED FOOTINGS TO HAVE POST ANCHORS UNLESS BRACED IN STUD WALLS.
2. REFER TO DRAWINGS FOR HOLDOWN REQUIREMENTS. INSTALL REQUIRED EMBEDDED ITEMS PER MANUFACTURER’S CATALOG TO ENGAGE HOLDOWNS
3. 0.229"x3"x3" SQUARE STEEL PLATE WASHERS SHALL BE PLACED BETWEEN SILL PLATE AND NUT PER IBC 2308.3.1.1.
4. ½" TITEN ANCHORS w/ 5" EMBED w/ SQ PL 0.229"x3"x3" CAN BE SUBSTITUTED FOR CAST IN PLACE A.BOLTS

H. CONSTRUCTION AND CRACK CONTROL JOINTS

ALL SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED TO REMOVE DUST, CHIPS AND OTHER FOREIGN MATERIAL PRIOR TO PLACING ADJACENT CONCRETE. CRACK CONTROL JOINTS IN SLABS SHALL HAVE A MAXIMUM SPACING OF 14’–0” IN BOTH DIRECTIONS AND AT RE–ENTRANT CORNERS.

J. VAPOR BARRIER

VAPOR BARRIER TO BE 10 MIL POLYETHYLENE SHEET PLACED ON UNDISTURBED SOIL. VAPOR BARRIER UNDER SLAB ON GRADE IF REQUIRED, IF SLAB WILL HAVE FLOOR COVERING APPLIED. PLACED ON COMPACTED GRAVEL WITH POLYETHYLENE VAPOR BARRIER AND CONCRETE.

- K. EMBEDDED ITEMS FOR HD TYPE HOLDOWNS TO BE ASTM A307 HEX HEADED BOLT IN THE DIAMETER AS SPECIFIED BY THE MANUFACTURER FOR THE HD. ALL BOLTS TO HAVE 3" MIN. CONCRETE SIDE COVER. EMBEDDMENT DEPTHS ARE 15" FOR BOLTS UP TO AND INCLUDING 3/4" DIA, 24" DEPTH FOR BOLTS OVER 3/4". TYPICAL REINFORCEMENT TO PASS UNINTERRUPTED ALONGSIDE HOLDOWN AS APPLICABLE COUPLER NUTS MAY BE USED TO EXTEND THE HOLDOWN ANCHOR THROUGH THE FLOOR PLATE TO THE SHEAR WALL CHORD.

L. EPOXY ANCHORS

EPOXY GROUTED ANCHORS SHALL CONFORM TO SIMPSON CO. ET EPOXY–TIE ADHESIVE FOR TEMPERATURES ABOVE 40 F, ET22C. EPOXY–TIE ADHESIVE FOR TEMPERATURES OF 25° F TO 40° F OR ENGINEER APPROVED EQUIVALENT. INSTALL PER MANUFACTURER’S INSTRUCTIONS, WIRE BRUSH AND BLOW OUT HOLES.

SECTION 4 – FRAMING LUMBER

I. SAWN STRUCTURAL LUMBER

- A. SAWN LUMBER SHALL BE DOUGLAS FIR–LARCH (DF–L) NO. 1 (U.N.O.). STUD GRADE MAY BE USED FOR STUDS.
- B. WOOD IN CONTACT WITH CONCRETE AND WITHIN 8" OF GRADE SHALL BE PRESSURE TREATED. WOOD IN CONTACT WITH THE INTERIOR FACE OF STEM WALLS AND BELOW GRADE SHALL BE PRESSURE TREATED. WOOD SLEEPERS AND SILLS IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. PROVIDE MILD STEEL PLATE WASHERS AT ALL BOLT HEADS AND NUTS BEARING ON WOOD.
- C. METAL HANGERS AND CONNECTORS SHALL BE FULLY NAILED OR BOLTED UNLESS OTHERWISE NOTED ON THE DRAWINGS. METAL HANGERS OR CONNECTORS SHOWN ON THE DRAWINGS SHALL BE MANUFACTURED BY SIMPSON COMPANY. METAL HANGERS OR CONNECTORS BY OTHER MANUFACTURES MAY BE CONSIDERED WHERE LOAD CAPACITY AND DIMENSIONS ARE EQUAL OR BETTER. ALL SUBSTITUTIONS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW.

- D. PROVIDE SOLID BLOCKING BELOW ALL BEARING WALLS. PROVIDE SOLID VERTICAL BLOCKING IN FLOOR SPACE TO MATCH STUD BUNDLE OR SOLID COLUMN ABOVE AND BELOW. VERTICAL BLOCKING AT WOOD "I" JOISTS SHALL BE 1/16" LONGER THAN JOIST IS DEEP. MINIMUM POST TO BE TWO 2x STUDS BEARING AT EACH END OF HEADER U.N.O. FOR BEAMS FRAMING PERPENDICULAR TO BEARING WALLS PROVIDE FULL WIDTH BEAM POCKET WITH FILLER AS REQUIRED AND KING STUD BOTH SIDES. STITCH STUD BUNDLES TOGETHER WITH 16d COMMON @ 18" O.C. MAXIMUM (U.N.O.) WHERE FLOOR BEAMS ARE FRAMED FLUSH WITHIN FLOOR AND TOP FLANGE HANGERS ARE SPECIFIED. BEAMS ARE TO BE BLOCKED UP TO JOIST HEIGHT WITH FULL WIDTH DF–L SPACER AS REQUIRED.

II. STRUCTURAL GLUED–LAMINATED TIMBER

ALL GLUED–LAMINATED TIMBER SHALL BE COMBINATION 24F–V4 FOR SIMPLY SUPPORTED BEAMS, COMBINATION 24F–V8 FOR BEAMS CONTINUOUS OVER SUPPORTS, AND COMBINATION L2 FOR COLUMNS (U.N.O.) FABRICATION TO BE IN ACCORDANCE WITH AITC A190.1 AND ASTM D3737, PROVIDE WET–USE ADHESIVES MAXIMUM MOISTURE CONTENT SHALL BE 15%. PROVIDE MILD STEEL PLATE WASHERS AT ALL BOLT HEADS AND NUTS BEARING ON WOOD. WOOD BEARING ON OR WITH 1" OF MASONARY OR CONCRETE SHALL BE TREATED WITH AN APPROVED PRESERVATIVE. SEAL END GRAIN OF ALL EXTERIOR EXPOSED BEAMS INCLUDING NON–LOAD BEARING ARCHITECTURAL BEAMS.

III. WOOD SHEATHING

- A. ALL WOOD SHEATHING SHALL BE RATED EXPOSURE 1, APA RATED "SHEATHING" WITH THICKNESS, VENEER GRADES AND SPAN RATING AS SHOWN HEREIN OR ON DRAWINGS.
1. ROOF SHEATHING
19/32" WITH MINIMUM (40/20) SPAN RATING
2. EXTERIOR WALL AND SHEAR WALL SHEATHING
15/32" WITH MINIMUM (24/0) SPAN RATING
- B. ROOF AND FLOOR SHEATHING TO BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND END JOINTS STAGGERED 4'–0" O.C. INSTALL ROOF SHEATHING WITH 1/8" SPACE AT ALL PANEL EDGES. NAIL ROOF SHEATHING WITH 10d @ 6" O.C. AT SUPPORTED PANEL AND 12" O.C. AT INTERMEDIATE FRAMING, FLOOR SHEATHING WITH 10d @ 6" O.C. AT SUPPORTED PANEL EDGES AND 10" O.C. FIELD, U.N.O. HOLES ARE NOT PERMITTED IN DIAPHRAMS UNLESS REVIEWED BY ENGINEER.
- C. NAIL EXTERIOR WALL SHEATHING WITH 8d @ 6" O.C. EDGES AND 12" O.C. FIELD, U.N.O. IN SHEARWALL SCHEDULE OFFSET VERTICAL JOINTS 4'–0" O.C. INSTALL WITH 1/8" GAP AT BUTT ENDS.

IV. WOOD SHEARWALLS

1. NO. 16 GAUGE STAPLES WITH MINIMUM 7/16" OF CROWN AND 1–1/2" LENGTH MAY BE USED AS 3 STAPLES FOR 2 NAILS IN LIEU OF 8d NAILS. WHERE SUBSTITUTING FOR 10d NAILS USE 2 STAPLES FOR EACH NAIL.
2. WHERE PLYWOOD PANELS ARE APPLIED TO BOTH SIDES OF SHEARWALL, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS, OR FRAMING MEMBERS SHALL BE 3" (NOMINAL) WIDE AND NAILS ON EACH SIDE SHALL BE STAGGERED.
3. ALLOWABLE SHEAR VALUES IN SHEARWALL TABLE ARE FOR DOUGLAS FIR FRAMING MEMBERS (GROUP II). NO SUBSTITUTION OF LESSER GROUPS WILL BE ALLOWED. FASTENERS EXPOSED TO WEATHER SHALL BE ZINC COATED BY HOT DIP GALVANIZING, MECHANICALLY DEPOSITED, OR ELECTRO–DEPOSITED.

SECTION 5 SPECIAL INSPECTION

SPECIAL INSPECTION, AS SPECIFIED IN CHAPTER 17, SECTION 1704, 1705 OF THE 2018 IBC, IS REQUIRED AS NOTED FOR THE FOLLOWING ITEMS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE TO THE SPECIAL INSPECTOR PRIOR TO INSPECTION.

- I. CONCRETE CONSTRUCTION
- PER IBC 1705.3 SPECIAL INSPECTION NOT REQUIRED FOR:
- ISOLATED SPREAD CONCRETE FOOTING OF BUILDINGS THREE STORIES OR LESS THAT ARE FULLY SUPPORTED ON EARTH OR ROCK PER EXCEPTION 1.
 - CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS THREE STORIES OR LESS ABOVE THE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK, WHICH SUPPORT LIGHT FRAME CONSTRUCTION OR WHERE THE SPECIFIED F'C USED IN THE DESIGN OF THE CONCRETE IS NOT MORE THAN 2500 PSI PER EXCEPTION 2.1 OR 2.2.
 - NONSTRUCTURAL SLABS SUPPORTED DIRECTLY ON GROUND PER EXCEPTION 3.
 - CONCRETE FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH TABLE 1807.1.6.2 PER EXCEPTION 4
 - CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS ON GRADE PER EXCEPTION 5.
- PER SECTION 1705.3 SPECIAL INSPECTION REQUIRED PER TABLE 1705.3
1. REINFORCING AR WELDING, PERIODICALLY VERIFY WELDABILITY OF REINFORCING BAR OTHER THAN A706, INSPECT SINGLE PASS WELD, MAX ⅝" – REQUIRED FOR THE ANCHOR RODS AT THE BUILDING COLUMNS. CONTINUOUSLY INSPECT ALL OTHER WELDS THEN NOTED ABOVE.
2. ANCHORS CAST IN CONCRETE – PERIODICALLY INSPECT
3. POST INSTALLED ANCHORS– CONTINUOUSLY INSPECT ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED. PERIODICALLY INSPECT ALL OTHER ANCHORS.
4. DESIGN MIX – PERIODICALLY INSPECT REQUIRED DESIGN MIX USED.
5. PRIOR TO CONCRETE PLACEMENT CONTINUOUSLY INSPECT SPECIMENS MADE FOR STRENGTH TESTS, PERFORM SLUMP AND AIR TESTS AND TEMPERATURE OF THE CONCRETE.
6. CONCRETE AND SHOT–CRETE PROPER APPLICATION TECHNIQUES. INSPECT ON A PERIODIC BASIS.–
7. MAINTENANCE OR SPECIFIED CURING TEMPERATURE AND TECHNIQUES – PERIODIC INSPECTION.
8. FORMWORK SHAPE, LOCATION AND DIMENSIONS INSPECT ON A PERIODIC BASIS

II. WOOD CONSTRUCTION

1. PER SECTION 1705.11 PERIODIC SPECIAL INSPECTION IS REQUIRED FOR ELEMENTS OF THE MAIN WIND FORCE RESISTING SYSTEM FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WIND FORCE RESISTING SYSTEM (INCLUDING SHEAR WALLS, DIAPHRAGMS, DRAG STRUTS, BRACES AND HOLD DOWNS. – EXCEPTION. NOT REQUIRED FOR ELEMENTS THAT HAVE A NAIL OF SPACING GREATER THAN 4 INCHES ON CENTER.



REVISION

DATE

FOR PERMIT 2025/AUGUST 18

1501 N 13th st. STE 202
BOISE, IDAHO 83702
PHONE : 208-343-4125
FAX: 866-865-9379
EMAIL: CONTACT@MURARENGINEERING.COM

STRUCTURAL SPECIFICATIONS

CHA & KOO REMODEL
3818 83rd AVE SE
MERCER ISLAND, wa 98040

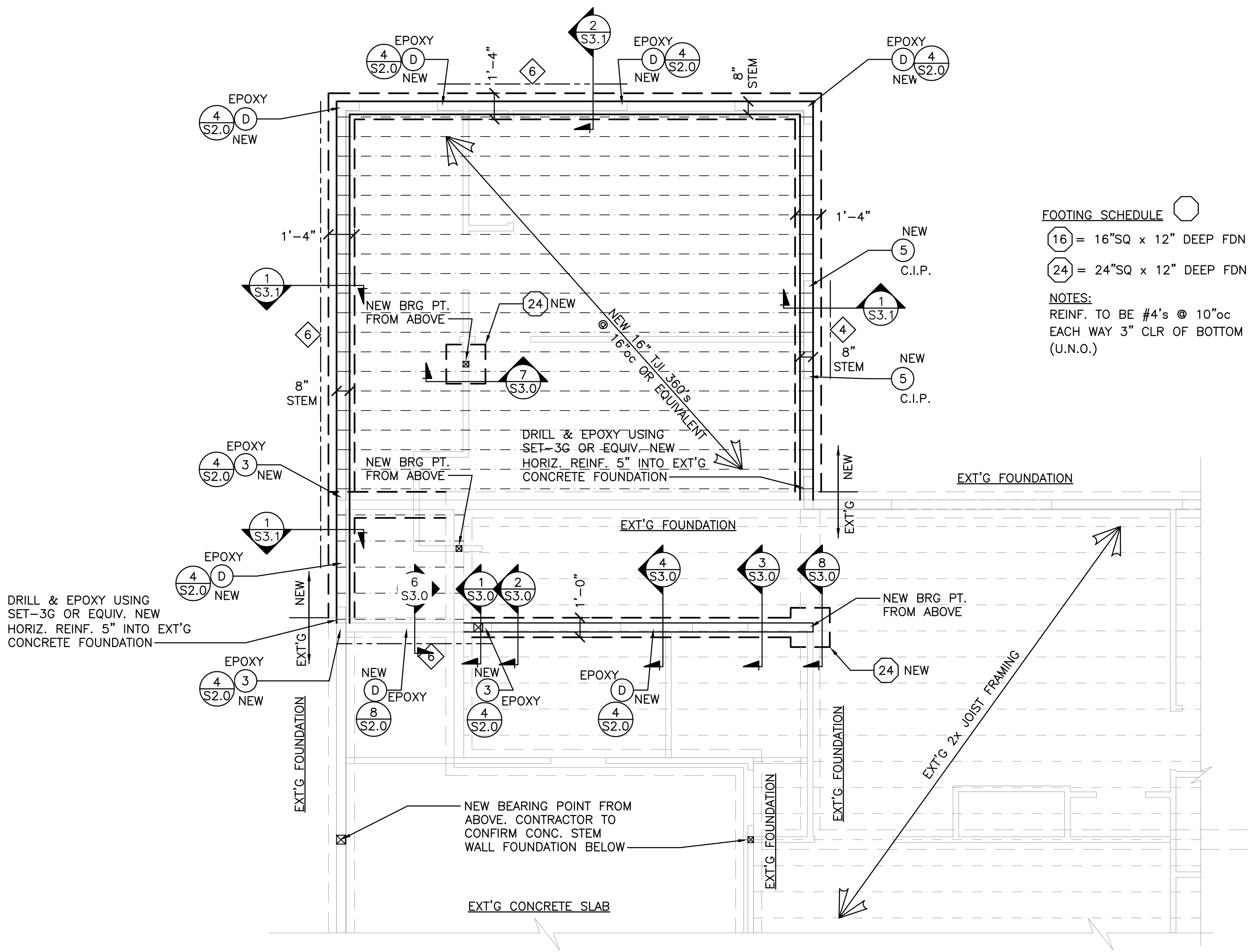
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HOLD DOWN SCHEDULE

- (CB) = CMSTC16 TO BELOW.
SEE DETAIL 9/S4.0
- (CA) = CMSTC16 ATTACHING DBL 2x STUDS
ABOVE & DBL 2x STUDS BELOW RIM
BOARD AT FLOOR ON THIS LEVEL. STRAP
MAY TERMINATE AROUND BEAM, SEE PLAN.
SEE TYPICAL STRAP CONN. DETAILS 9 &
10/S2.0
- (D) = DTT22 W/ CAST IN PLACE A.BOLT OR
EPOXY SEE DETAILS 4 & 8/S2.0
- (3) = HDUE3 W/ CAST IN PLACE A.BOLT OR
EPOXY SEE DETAILS 4 & 8/S2.0
- (5) = HDU5 W/ CAST IN PLACE A.BOLT.
CAN NOT EPOXY. SEE 3/S2.0

NOTE:
C.I.P. = CAST IN PLACE A.BOLTS
EPOXY = HOLD DOWN RODS ALLOWED
TO BE EPOXIED SEE DETAILS 4 &
8/S2.0 FOR ADD'L SPECS.

FOOTING SCHEDULE

- (16) = 16"SQ x 12" DEEP FDN PAD
- (24) = 24"SQ x 12" DEEP FDN PAD

NOTES:
REINF. TO BE #4's @ 10"oc
EACH WAY 3" CLR OF BOTTOM
(U.N.O.)

FOUNDATION NOTES

1. THE ENGINEER HAS PREPARED THIS DRAWING BASED ON THE DIMENSIONS, ELEVATIONS AND TOP OF CONCRETE PROVIDED BY THE ARCHITECT/DESIGNER. IT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS ELEVATIONS AND TOP OF CONCRETE PRIOR TO COMMENCING CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK MATERIALS AND SAFETY IN CONFORMANCE WITH INTERNATIONAL BUILDING CODE (IBC) AND OSHA STANDARDS.
3. FRAMING CONDITIONS MAY DEVELOP DURING CONSTRUCTION FOR WHICH NO SPECIFIC DETAIL OR TYPICAL CONSTRUCTION APPLIES. NOTIFY ENGINEER PRIOR TO PROCEEDING IF UNCLEAR.
4. ALIGN HOLD DOWNS WITH END OF SHEARWALL STUDS ABOVE. ATTACH TO DOUBLE STUDS UNLESS NOTED OTHERWISE (UNO). USE HOLD DOWN EMBED AND PLACEMENT PER MANUFACTURER.
5. DO NOT BACKFILL WALL UNTIL FLOOR IS FRAMED AND SHEATHED AND CONCRETE HAS CURED 7 DAYS (MINIMUM).
6. ANCHOR BOLTS ($\frac{1}{2}$ " ϕ EMBED 7") SHALL BE PLACED A MAXIMUM SPACING OF 48"oc ANCHOR BOLTS TO BE INSTALLED 12" FROM ENDS. TWO ANCHOR BOLTS MINIMUM ARE REQUIRED PER SILL. ANCHOR BOLTS AT SHEAR WALLS PER SHEAR WALL SCHEDULE.
7. $\frac{1}{2}$ " ϕ w/ 5" EMBED TITEN HD SCREW ANCHORS CAN BE SUBSTITUTED FOR ANCHOR BOLTS
8. ALL WOOD IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED FIR.
9. ALL POSTS FROM THE UPPER LEVELS MUST BE ALIGNED WITH, AND MATCH THE POSTING BELOW TO THE FOUNDATION UNLESS TRANSFERRED.
10. SEE DRAWING SHEETS S2 SERIES FOR GENERAL DETAILS NOT CALLED OUT HERE.

ABBREVIATION LIST

* - DEGREE
Ø - DIAMETER
A.B. - ANCHOR BOLT
ARCH - ARCHITECT
APA - AMERICAN PLYWOOD ASSOCIATION
BLK'G - BLOCKING
BM - BEAM
BOT - BOTTOM
C.I.P. - CAST IN PLACE
CLR - CLEAR
COL - COLUMN
CONT - CONTINUOUS
D.F. - DOUGLAS FIR
DIM - DIMENSION
EA - EACH
E.W. - EACH WAY
EXT - EXTERIOR
FDN - FOUNDATION
FRMG - FRAMING
FT - FOOT, FEET
FTG - FOOTING
FND - FOUNDATION
GWB - GYPSUM BOARD
HD - HOLD DOWN
HDR - HEADER
HORIZ - HORIZONTAL
INT - INTERIOR
LVL - LAMINATED VENEER LUMBER
MAX - MAXIMUM
MFT'R - MANUFACTURER
MIN - MINIMUM
N.T.S. - NOT TO SCALE
P.T. - PRESSURE TREATED
PL - PLATE
PSL - PARALLAM
REINF - REINFORCED
REQ'D - REQUIRED
SCHED - SCHEDULE
SHT - SHEET
STD - STANDARD
STRUCT - STRUCTURAL
T&G - TONGUE AND GROOVE
TRTD - TREATED
TYP - TYPICAL
U.N.O. - UNLESS NOTED OTHERWISE
VERT - VERTICAL
w/ - WITH
w/o - WITHOUT

SHEAR WALL SCHEDULE

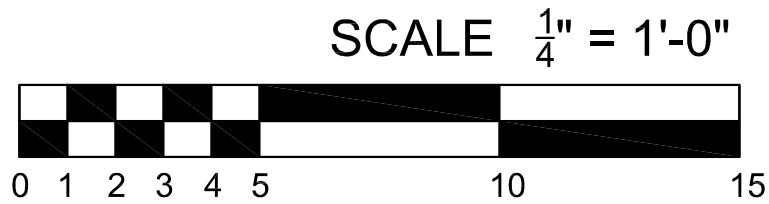
WHERE PANELS ARE APPLIED ON BOTH FACES OF A SHEAR WALL AND NAIL SPACING IS LESS THAN 6"oc ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHALL BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED. SPACING OF ANCHOR BOLTS TO BE HALVED WHEN PANELS ARE APPLIED ON BOTH FACES OF A SHEAR WALL.

SHEAR WALL MARK	SHEATHING MATERIAL	FIELD NAILING ³	EDGE NAILING ³	BOTTOM PLATE	STUDS AT EDGE NAILING	ANCHOR BOLT ⁴
6	1 $\frac{1}{2}$ " SHT'G	8d's @ 12"oc	8d's @ 6"oc	2x	2x	$\frac{1}{2}$ "x10" @ 48"oc
4 ^{2A}	1 $\frac{1}{2}$ " SHT'G	8d's @ 12"oc	8d's @ 4"oc	2x	3x	$\frac{1}{2}$ "x10" @ 27"oc

NOTE

1. ALL SHEAR WALLS LISTED MAY NOT BE USED ON THIS PROJECT.
2. DOUBLE STUDS AND DOUBLE PLATES MAY BE SUBSTITUTED FOR 3x STUDS
 - A. WHEN 8d NAILS OR STAPLES ARE SPACED AT 3" OR LESS, EDGE & PANEL SPLICE MEMBERS TO BE 3x FRAMING MEMBERS OR DOUBLE STUDS.
3. NAILS OR STAPLES
 - A. 8d's = 2 $\frac{1}{2}$ "x0.131" COMMON OR 2 $\frac{1}{2}$ "x0.113" GALVANIZED BOX NAILS, 1 $\frac{1}{2}$ " 16 GAUGE STAPLES
 - B. 1 $\frac{1}{2}$ " 16 GAUGE STAPLES CAN BE SUBSTITUTED FOR 8d COMMONS OR 8d BOX NAILS WITH (3) STAPLES FOR EVERY (2) 8d's.
 - C. STAPLES TO HAVE $\frac{3}{16}$ " MIN CROWN WIDTH AND INSTALLED WITH THEIR CROWNS PARALLEL TO THE LONG DIM OF THE FRAMING MEMBER.
4. ANCHOR BOLTS TO BE ASTM A307, $\frac{1}{2}$ " w/ 7" EMBED IN FOUNDATION WALLS @ 48" O.C. (MAX) U.N.O. (SEE FOUNDATION PLAN FOR REQUIREMENTS AT SHEAR WALL). BOLTS TO BE WITHIN 12" (MAX.) & 4" (MIN) TO ENDS OF SILL PLATES (COORDINATE WITH GENERAL CONTRACTOR) MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE
 - A. 0.229"x3"x3" SQUARE STEEL PLATE WASHERS SHALL BE PLACED BETWEEN SILL PLATE AND NUT PER IBC 2308.3.1.1
 - B. $\frac{1}{2}$ " ϕ w/ 5" EMBED TITEN HD SCREW ANCHORS w/ SQ PL 0.229"x3"x3" CAN BE SUBSTITUTED FOR ANCHOR BOLTS
 - C. THE EDGE OF THE SQ $\mathcal{R}$ WASHER SHALL BE PLACED PARALLEL WITHIN $\frac{1}{2}$ " OF THE SHEATHING AT SHEAR WALLS.
 - D. SQ $\mathcal{R}$ WASHERS w/ 1 $\frac{1}{8}$ "x1 $\frac{3}{4}$ " MAXIMUM DIAGONAL SLOT MAY BE USED IF A STANDARD CUT $\mathcal{R}$ WASHER IS PLACED BETWEEN THE NUT AND THE SQ $\mathcal{R}$ WASHER.
5. STUDS AT ENDS OF SHEAR WALLS TO BE PER HOLD DOWN REQUIREMENTS.

NEW & EXISTING FOUNDATION PLAN



NORTH



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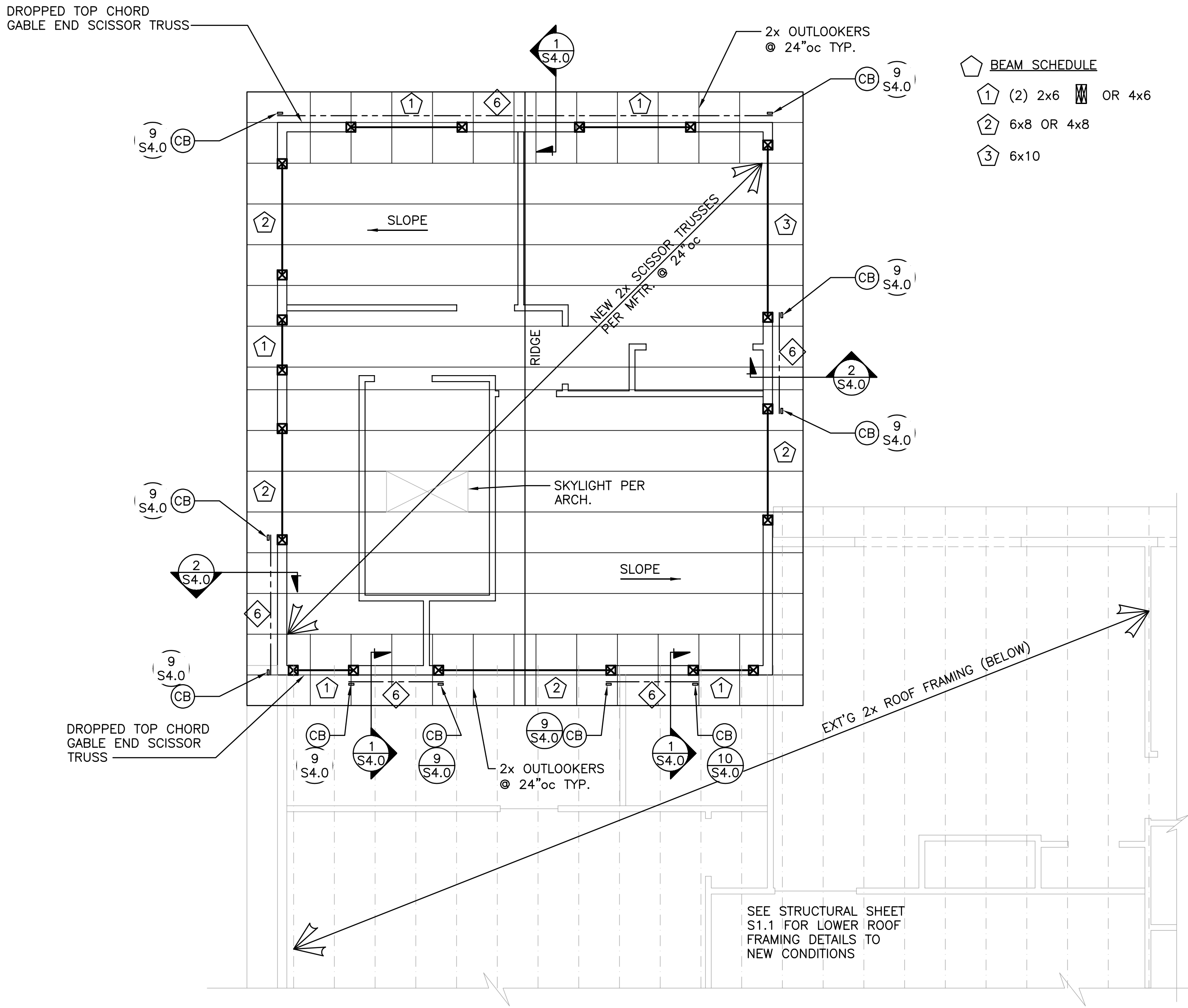
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FRAMING NOTES

- SEE ARCH. FLOOR PLAN FOR PLATE HEIGHTS.
- REFER TO LATERAL BRACING PRIOR TO FRAMING
- PROVIDE (2) STUDS UNDER ALL BEARING POINTS U.N.O. PROVIDE SOLID BLOCKING AT ALL POINT LOADS TO FOUNDATION. SOLID BLOCK BETWEEN ALL FLOOR CAVITIES, MATCHING COLUMN SIZE ABOVE.
- UNLESS OTHERWISE NOTED, PROVIDE (1) KING STUD AND (1) TRIMMER AT EACH SIDE OF ALL OPENINGS.
- TRUSS-TO-TRUSS CONNECTIONS PROVIDED BY TRUSS MFR. TRUSS MFR. SHALL VERIFY ALL DIMENSIONS OFF OF FDN PLAN AND FLOOR PLAN PRIOR TO TRUSS FABRICATION AND NOTIFY ENGINEER OF ANY LAYOUT CHANGES.
- PROVIDE ATTIC VENTILATIONS AS REQUIRED BY CODE.
- CONTRACTOR SHALL INSTALL TRUSSES PER TRUSS MANUFACTURER'S SPECIFICATIONS, INCLUDING PROVIDING FASTENERS TO RESIST ANY UPLIFT.
- ROOF SHEATHING: 19/32" APA RATED: SHT'G WITH 10d NAILS AT 6" oc ALONG EDGES AND DIAPHRAGM BOUNDARIES AND 12" oc IN THE FIELD.
- FLOOR SHEATHING: 3/4", APA RATED: SHT'G, T&G WITH 10d NAILS @ 6" oc ALONG EDGES AND DIAPHRAGM BOUNDARIES AND 12" oc IN THE FIELD.
- LIQUID NAILS DECK AND FLOOR ADHESIVE OR SIMILAR MAY BE APPLIED WITH #10 SCREWS AS AN ALTERNATIVE METHOD TO ATTACH SHEATHING TO JOIST MEMBERS.
- EXTERIOR WALLS TO BE 2x DF NO. 2 STUDS AT 16" oc. INTERIOR WALLS TO BE PER PLAN @ 16" oc.
- THE ENGINEER HAS PREPARED THIS DRAWING BASED ON THE DIMENSIONS, ELEVATIONS AND TOP OF CONCRETE PROVIDED BY THE ARCHITECT. IT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS ELEVATIONS AND TOP OF CONCRETE PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK MATERIALS AND SAFETY IN CONFORMANCE WITH INTERNATIONAL BUILDING CODE (IBC) AND OSHA STANDARDS.
- FRAMING CONDITIONS MAY DEVELOP DURING CONSTRUCTION FOR WHICH NO SPECIFIC DETAIL OR TYPICAL CONSTRUCTION APPLIES. NOTIFY ENGINEER PRIOR TO PROCEEDING IF UNCLEAR.
- ALIGN HOLD DOWNS WITH END OF SHEARWALL STUDS ABOVE. ATTACH TO DOUBLE STUDS UNLESS NOTED OTHERWISE (UNO). USE HOLD DOWN EMBED AND PLACEMENT PER MANUFACTURER.
- PRESERVATIVE TREATED OR PRESSURE TREATED (PT) LUMBER SHALL MEET THE U1 AND M4 STANDARDS SET BY THE AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)
- CONTRACTOR TO PROVIDE WOOD STAIR FRAMING/LANDING MEMBERS AND CONNECTIONS
- SEE DRAWING SHEETS S2 SERIES FOR GENERAL DETAILS NOT CALLED OUT HERE.

ABBREVIATION LIST

* - DEGREE
Ø - DIAMETER
A.B. - ANCHOR BOLT
ARCH - ARCHITECT
APA - AMERICAN PLYWOOD ASSOCIATION
BLK'G - BLOCKING
BM - BEAM
BOT - BOTTOM
C.I.P. - CAST IN PLACE
CLR - CLEAR
COL - COLUMN
CONT - CONTINUOUS
D.F. - DOUGLAS FIR
DIM - DIMENSION
EA - EACH
E.W. - EACH WAY
EXT - EXTERIOR
FDN - FOUNDATION
FRMG - FRAMING
FT - FOOT, FEET
FTG - FOOTING
FND - FOUNDATION
GWB - GYPSUM BOARD
HD - HOLD DOWN
HDR - HEADER
HORIZ - HORIZONTAL
INT - INTERIOR
LVL - LAMINATED VENEER LUMBER
MAX - MAXIMUM
MFT'R - MANUFACTURER
MIN - MINIMUM
N.T.S. - NOT TO SCALE
P.T. - PRESSURE TREATED
PL - PLATE
PSL - PARALLAM
REINF - REINFORCED
REQ'D - REQUIRED
SCHED - SCHEDULE
SHT - SHEET
STD - STANDARD
STRUCT - STRUCTURAL
T&G - TONGUE AND GROOVE
TRTD - TREATED
TYP - TYPICAL
U.N.O. - UNLESS NOTED OTHERWISE
VERT - VERTICAL
w/ - WITH
w/o - WITHOUT

SHEAR WALL SCHEDULE

WHERE PANELS ARE APPLIED ON BOTH FACES OF A SHEAR WALL AND NAIL SPACING IS LESS THAN 6" oc ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHALL BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED. SPACING OF ANCHOR BOLTS TO BE HALVED WHEN PANELS ARE APPLIED ON BOTH FACES OF A SHEAR WALL.

SHEAR WALL MARK	SHEATHING MATERIAL	FIELD NAILING ³	EDGE NAILING ³	BOTTOM PLATE	STUDS AT EDGE NAILING	ANCHOR BOLT ⁴
6	1½" SHT'G	8d's @ 12" oc	8d's @ 6" oc	2x	2x	½"x10" @ 48" oc
4 ^{2A}	1½" SHT'G	8d's @ 12" oc	8d's @ 4" oc	2x	3x	½"x10" @ 27" oc

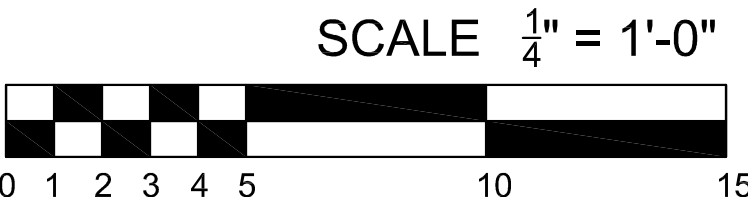
NOTE

- ALL SHEAR WALLS LISTED MAY NOT BE USED ON THIS PROJECT.
- DOUBLE STUDS AND DOUBLE PLATES MAY BE SUBSTITUTED FOR 3x STUDS
 - WHEN 8d NAILS OR STAPLES ARE SPACED AT 3" OR LESS, EDGE & PANEL SPLICE MEMBERS TO BE 3x FRAMING MEMBERS OR DOUBLE STUDS.
- NAILS OR STAPLES
 - 8d's = 2½"x0.131" COMMON OR 2½"x0.113" GALVANIZED BOX NAILS, 1½" 16 GAUGE STAPLES
 - 1½" 16 GAUGE STAPLES CAN BE SUBSTITUTED FOR 8d COMMONS OR 8d BOX NAILS WITH (3) STAPLES FOR EVERY (2) 8d's.
 - STAPLES TO HAVE ⅜" MIN CROWN WIDTH AND INSTALLED WITH THEIR CROWNS PARALLEL TO THE LONG DIM OF THE FRAMING MEMBER.
- ANCHOR BOLTS TO BE ASTM A307, ½" w/ 7" EMBED IN FOUNDATION WALLS @ 48" O.C. (MAX) U.N.O. (SEE FOUNDATION PLAN FOR REQUIREMENTS AT SHEAR WALL). BOLTS TO BE WITHIN 12" (MAX.) & 4" (MIN) TO ENDS OF SILL PLATES (COORDINATE WITH GENERAL CONTRACTOR) MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE
 - 0.229"x3"x3" SQUARE STEEL PLATE WASHERS SHALL BE PLACED BETWEEN SILL PLATE AND NUT PER IBC 2308.3.1.1
 - ½"Ø w/ 5" EMBED TITEN HD SCREW ANCHORS w/ SQ PL 0.229"x3"x3" CAN BE SUBSTITUTED FOR ANCHOR BOLTS
 - THE EDGE OF THE SQ PL WASHER SHALL BE PLACED PARALLEL WITHIN ½" OF THE SHEATHING AT SHEAR WALLS.
 - SQ PL WASHERS w/ 1½"x1¾" MAXIMUM DIAGONAL SLOT MAY BE USED IF A STANDARD CUT PL WASHER IS PLACED BETWEEN THE NUT AND THE SQ PL WASHER.
- STUDS AT ENDS OF SHEAR WALLS TO BE PER HOLD DOWN REQUIREMENTS.



NORTH

UPPER ROOF FRAMING PLAN

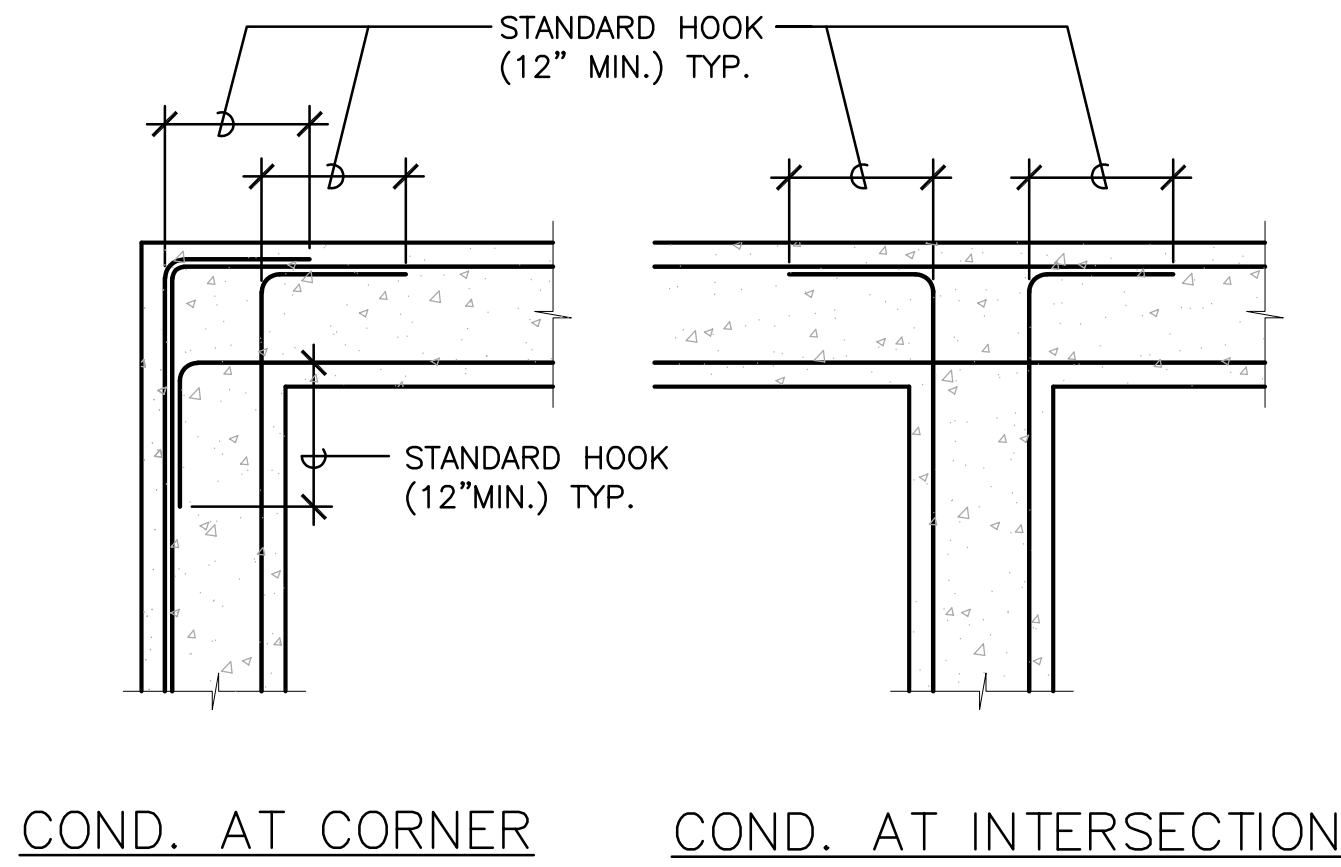


UPPER ROOF FRAMING PLAN

CHA & KOO REMODEL
3818 83rd AVE SE
MERCER ISLAND, wa 98040

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EMJ
FILE NAME
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SCALE
1/4" SCALE
SHEET

S1.2



1 3/4" SCALE

NOTE: ALL BAR BEND DIAMETERS AND END LENGTHS MUST CONFORM TO THE CRSI MANUAL OF STANDARD PRACTICE

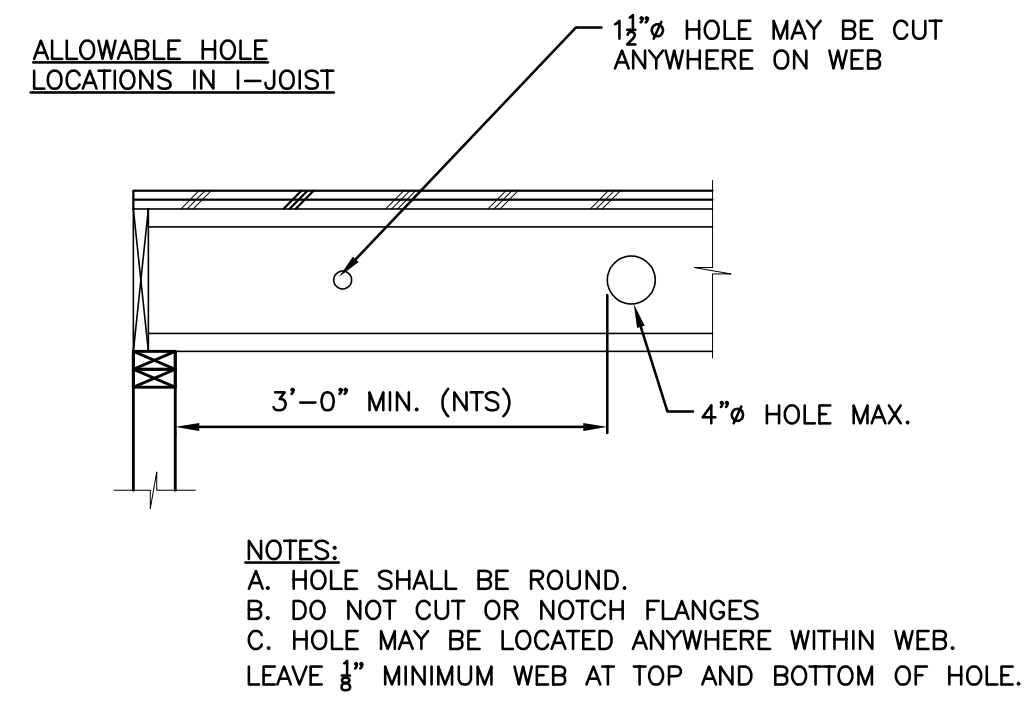
STANDARD HOOKS FOR DEFORMED BARS

BAR SIZE	D	H	90°	180°
#3	2 1/4"	4 1/2"	2 1/2"	2 1/2"
#4	3"	6"	2 1/2"	2 1/2"
#5	3 3/4"	7 1/2"	2 1/2"	2 1/2"
#6	4 1/2"	9"	3"	3"
#7	5 1/4"	10 1/2"	3 1/2"	3 1/2"
#8	6"	12"	4"	4"
#9	9"	13 1/2"	4 1/2"	4 1/2"
#10	10"	15"	5"	5"

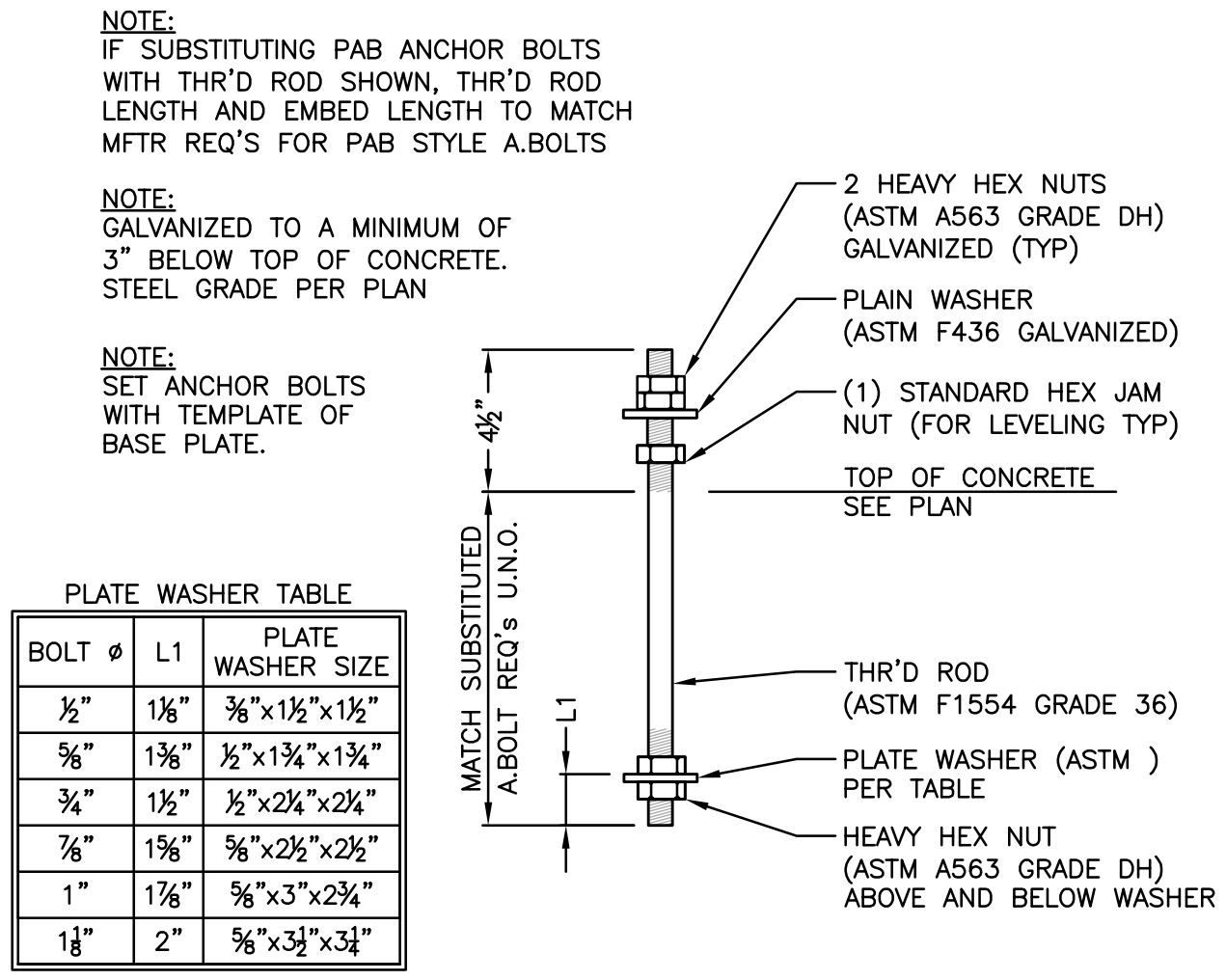
STANDARD STIRRUPS, TIES & HOOPS

BAR SIZE	D	H	90°	135°	180°
#3	1 1/2"	3"	3"	2 1/2"	2 1/2"
#4	2"	3"	3"	2 1/2"	2 1/2"
#5	2 1/2"	3 3/4"	3 3/4"	2 1/2"	2 1/2"
#6	4 1/2"	9"	4 1/2"	3"	3"
#7	5 1/4"	10 1/2"	5 1/4"	3 1/2"	3 1/2"
#8	6"	12"	6"	4"	4"

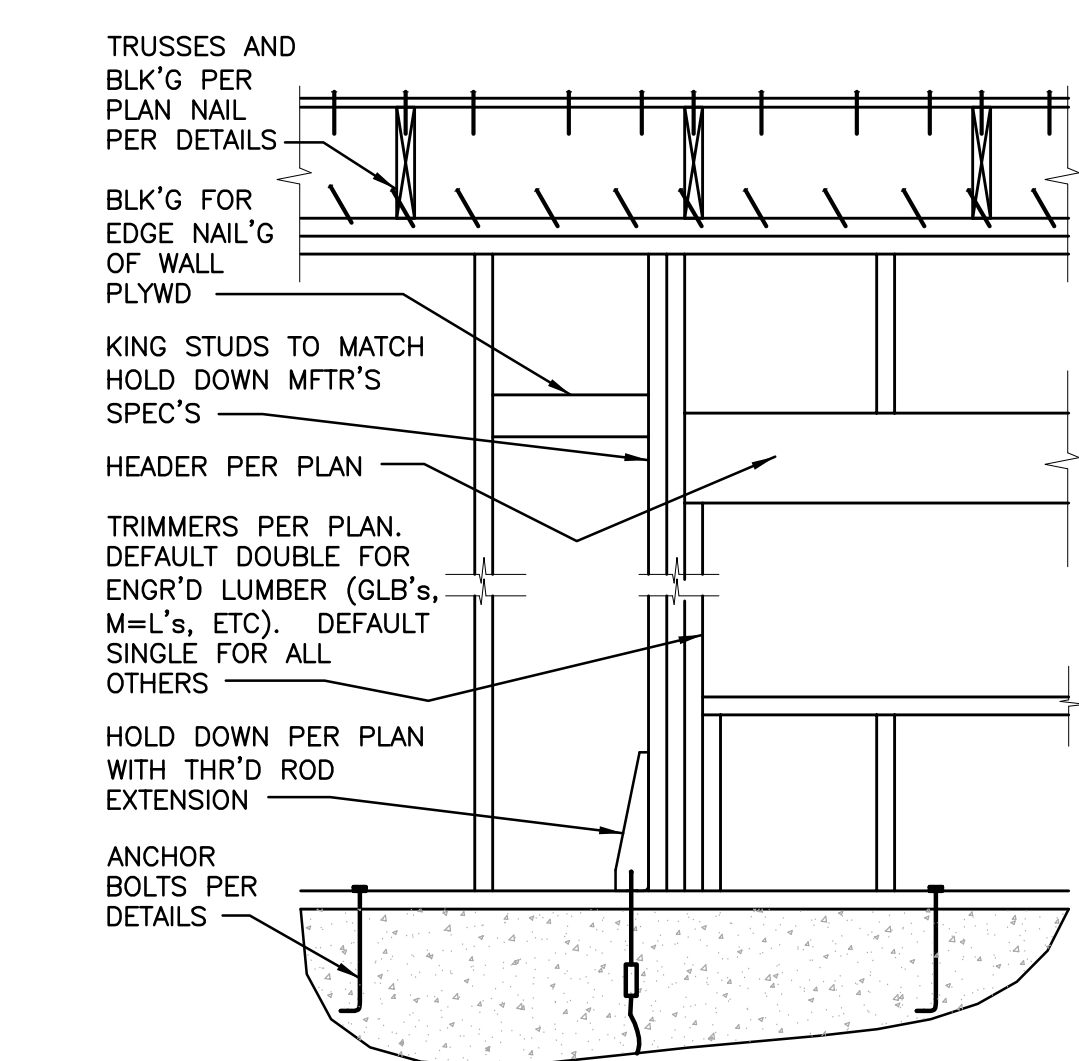
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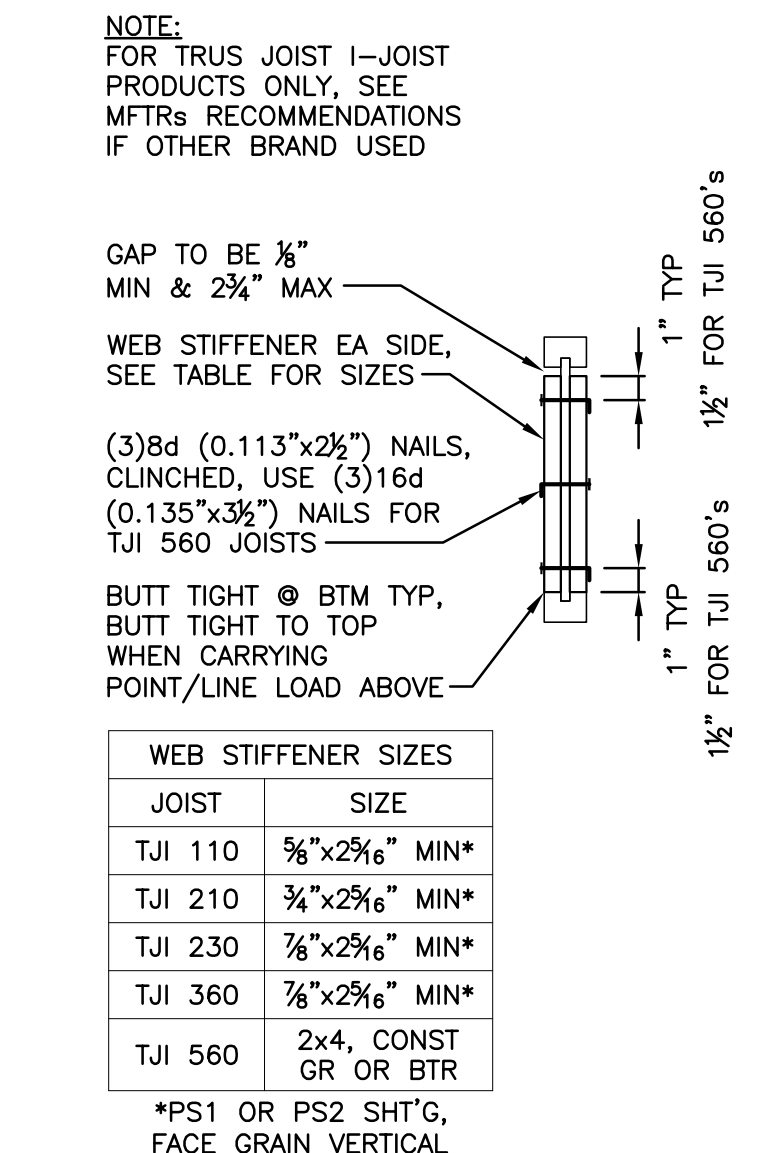
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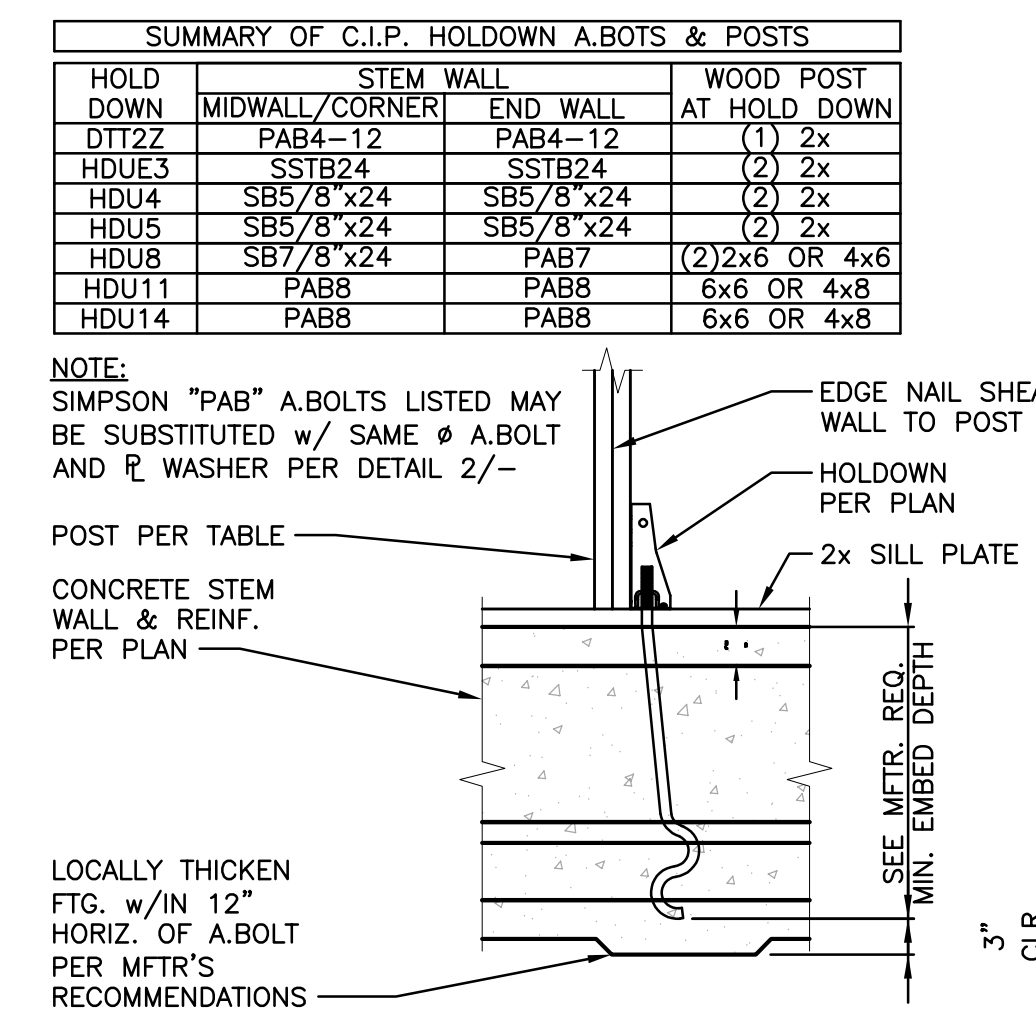
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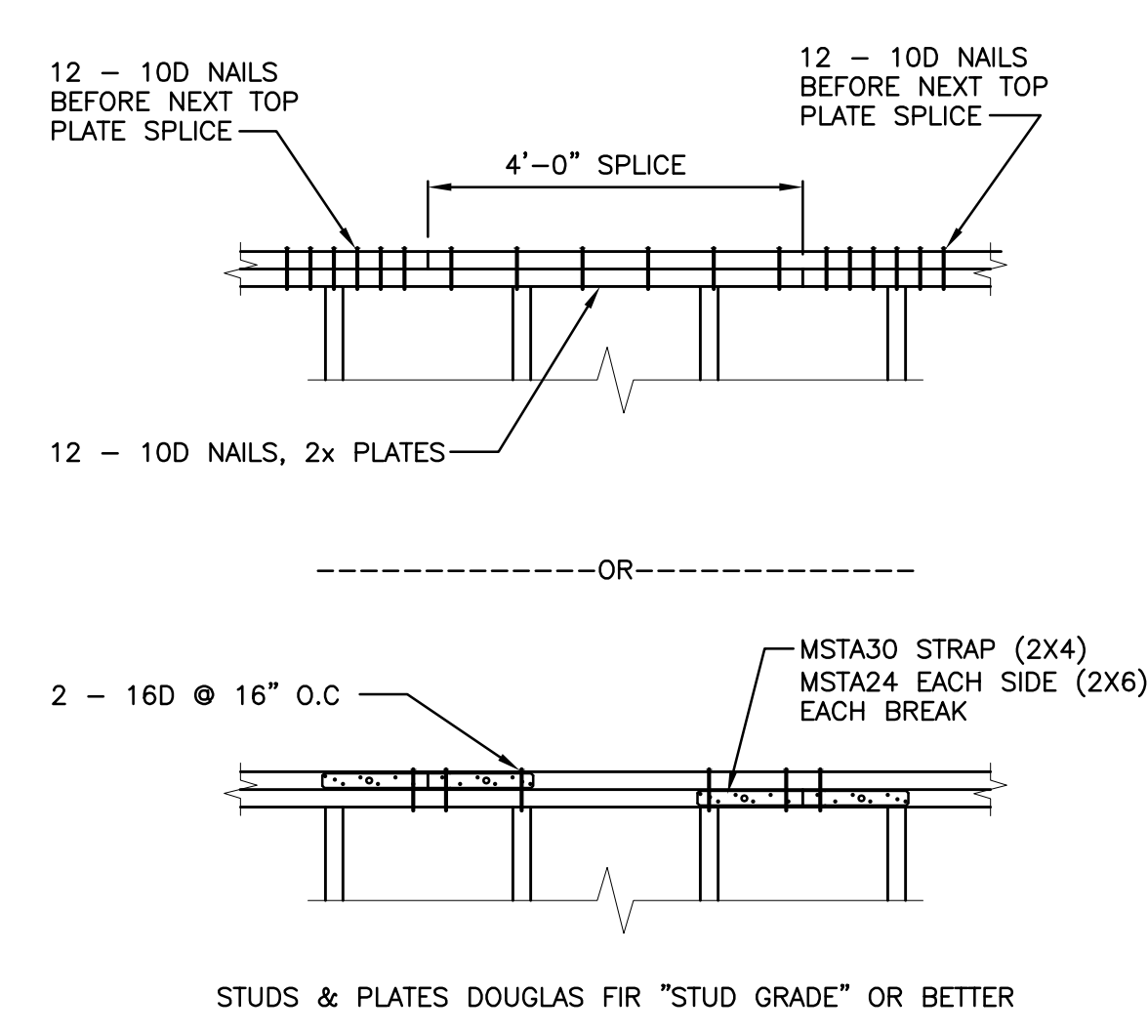
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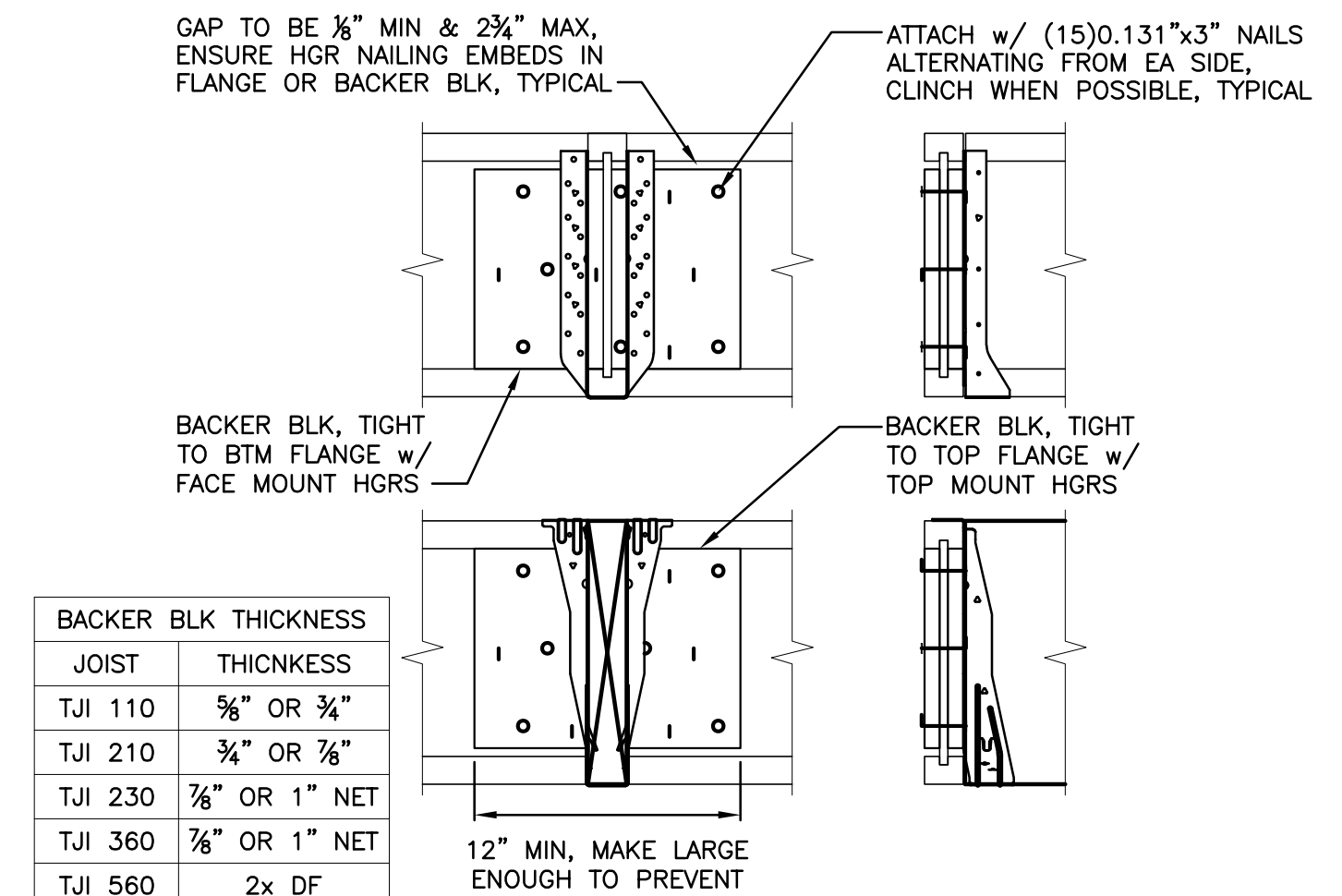
10 TJI WEB STIFFENERS 3/4" SCALE



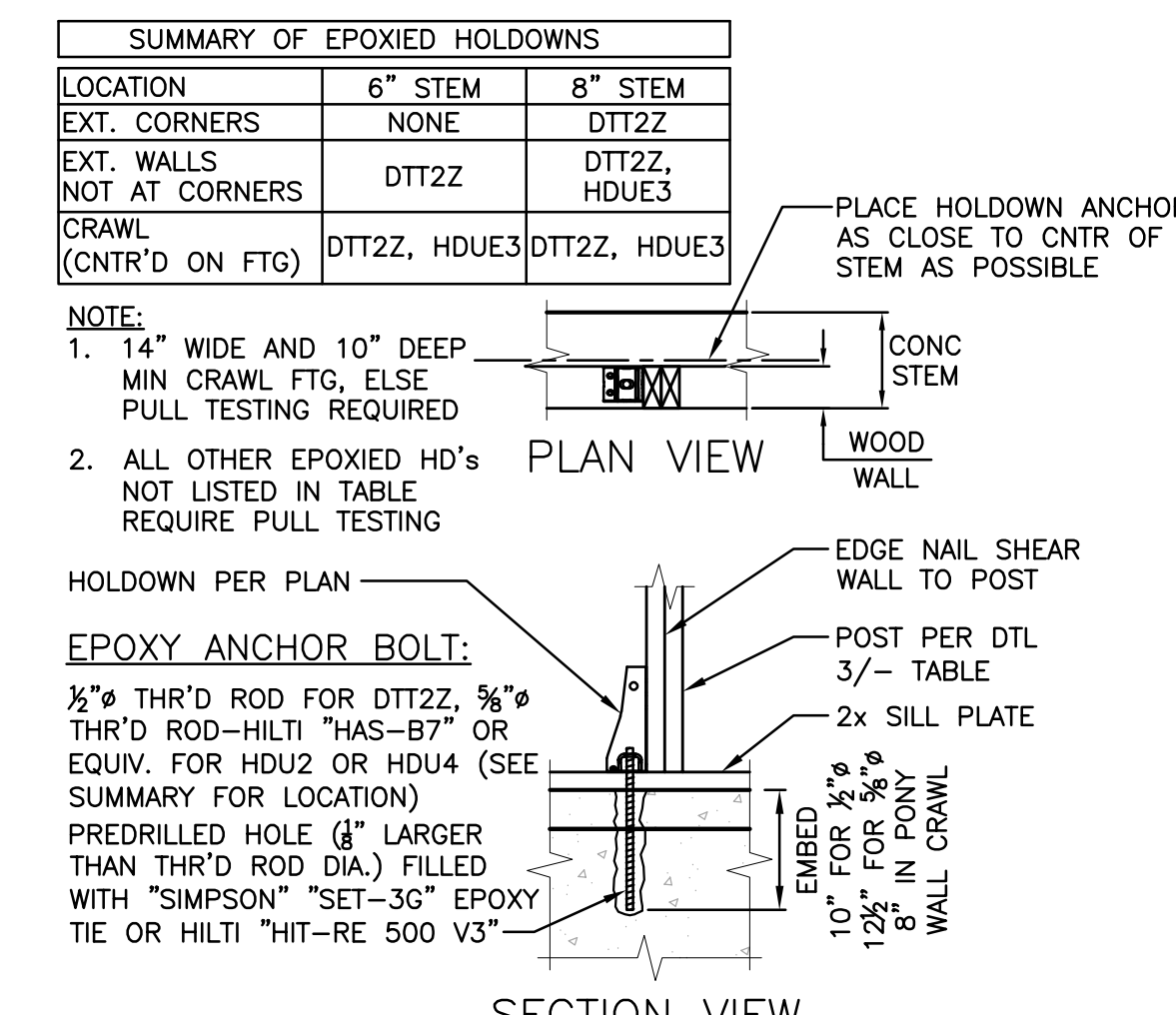
3 CAST-IN-PLACE HD A.BOLT 3/4" SCALE



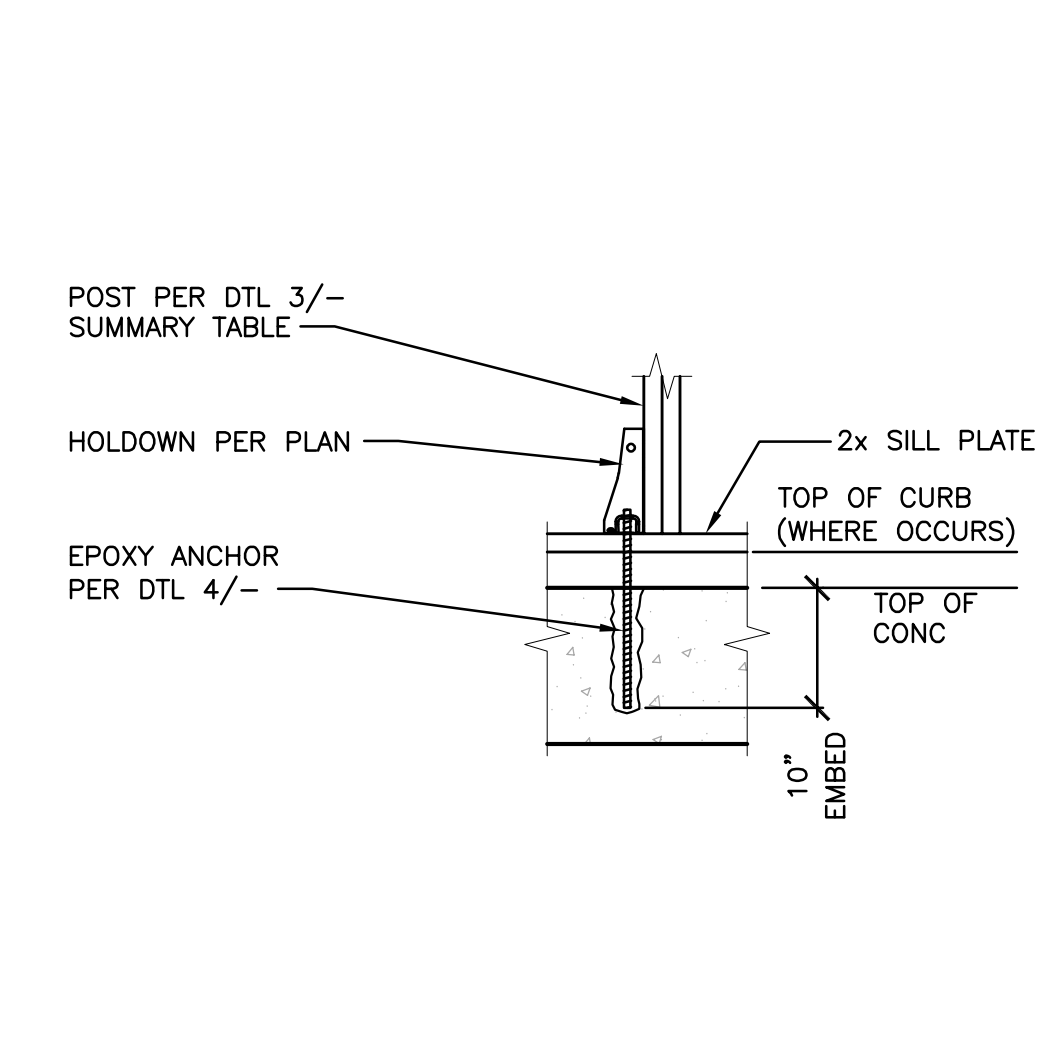
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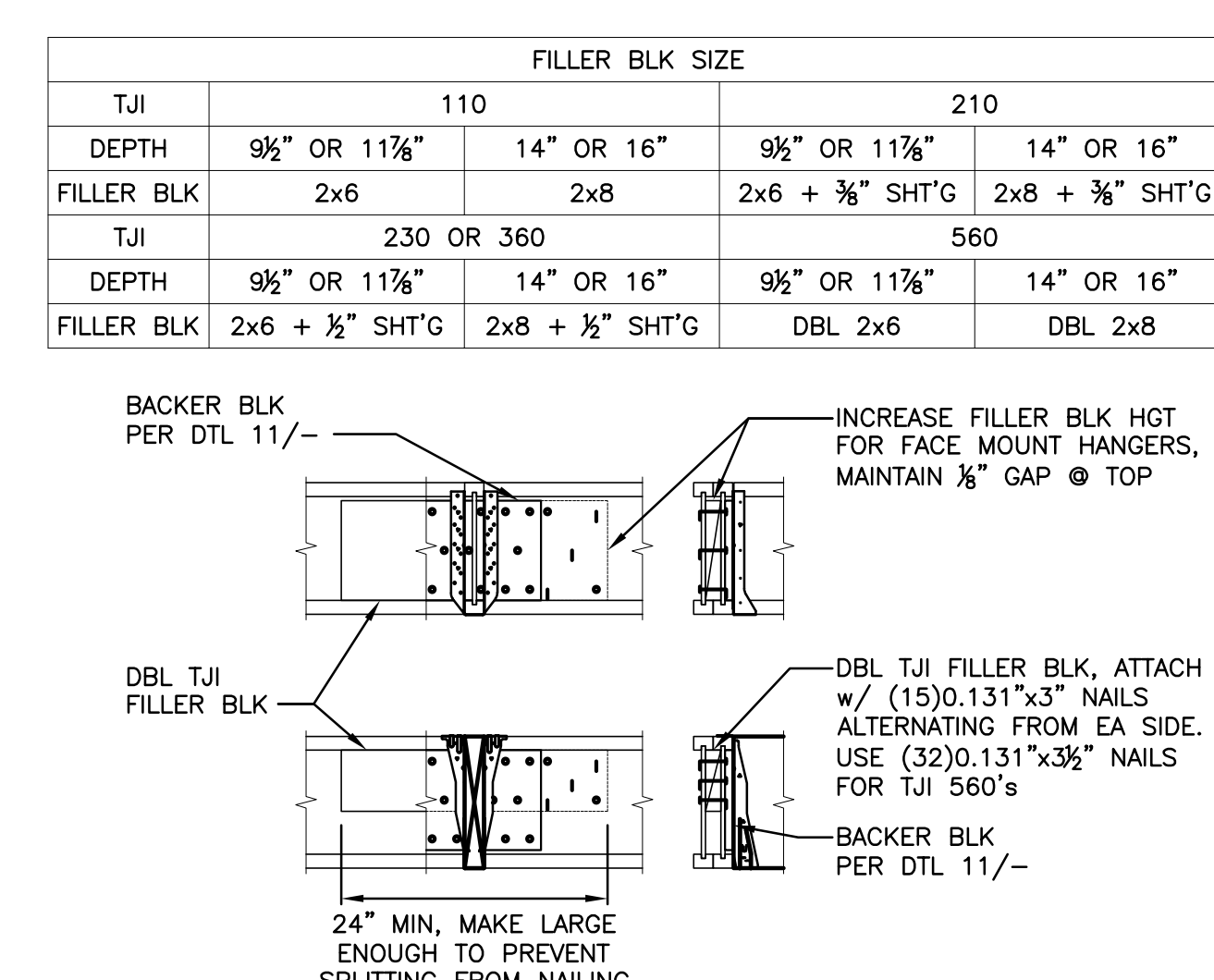
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4 STEM WALL EPOXIED HD's 3/4" SCALE



8 THKN'D SLAB EPOXIED HD's 3/4" SCALE



12 TJI FILLER BLOCK 3/4" SCALE



GENERAL DETAILS

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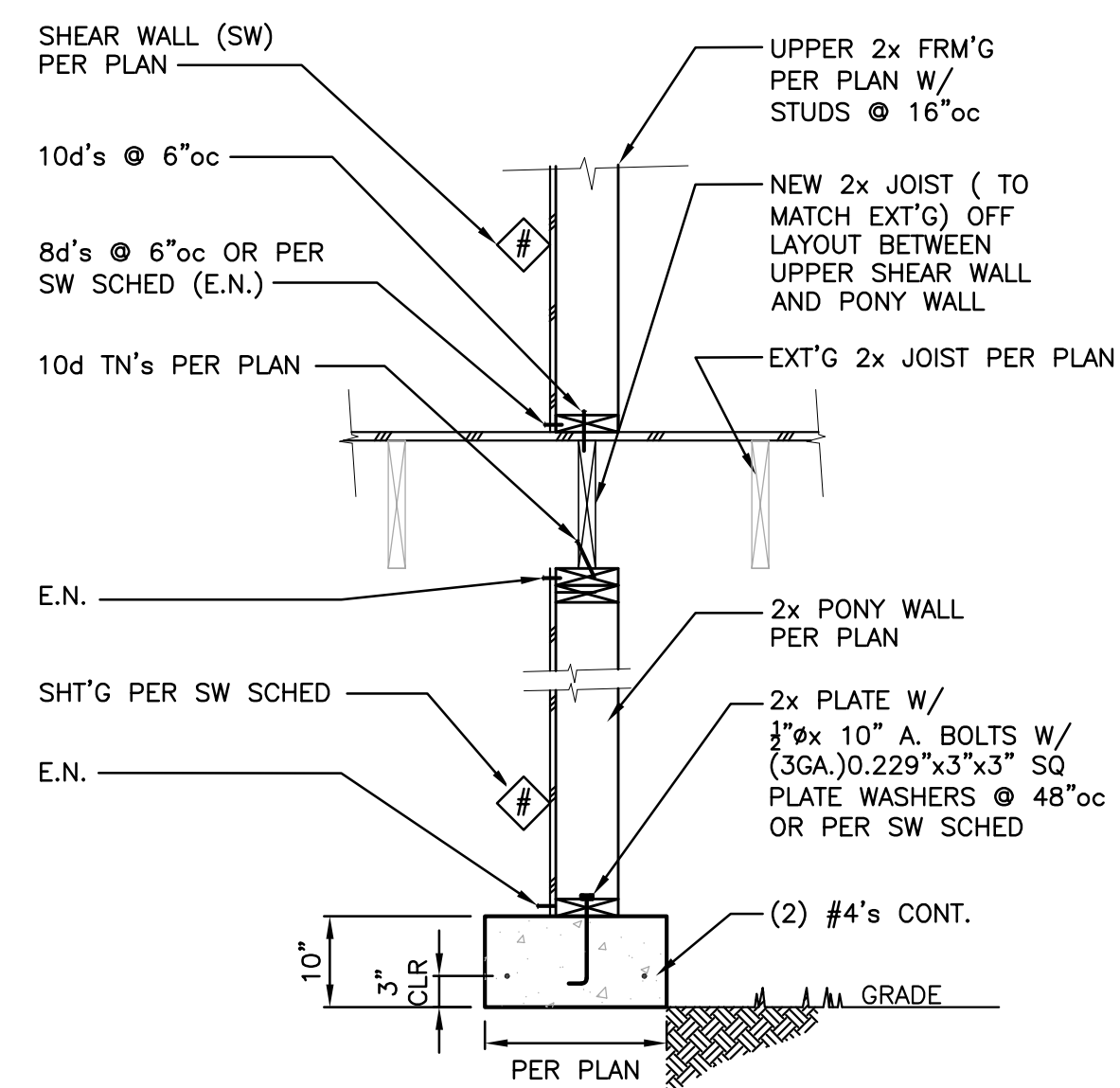
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REVISION DATE

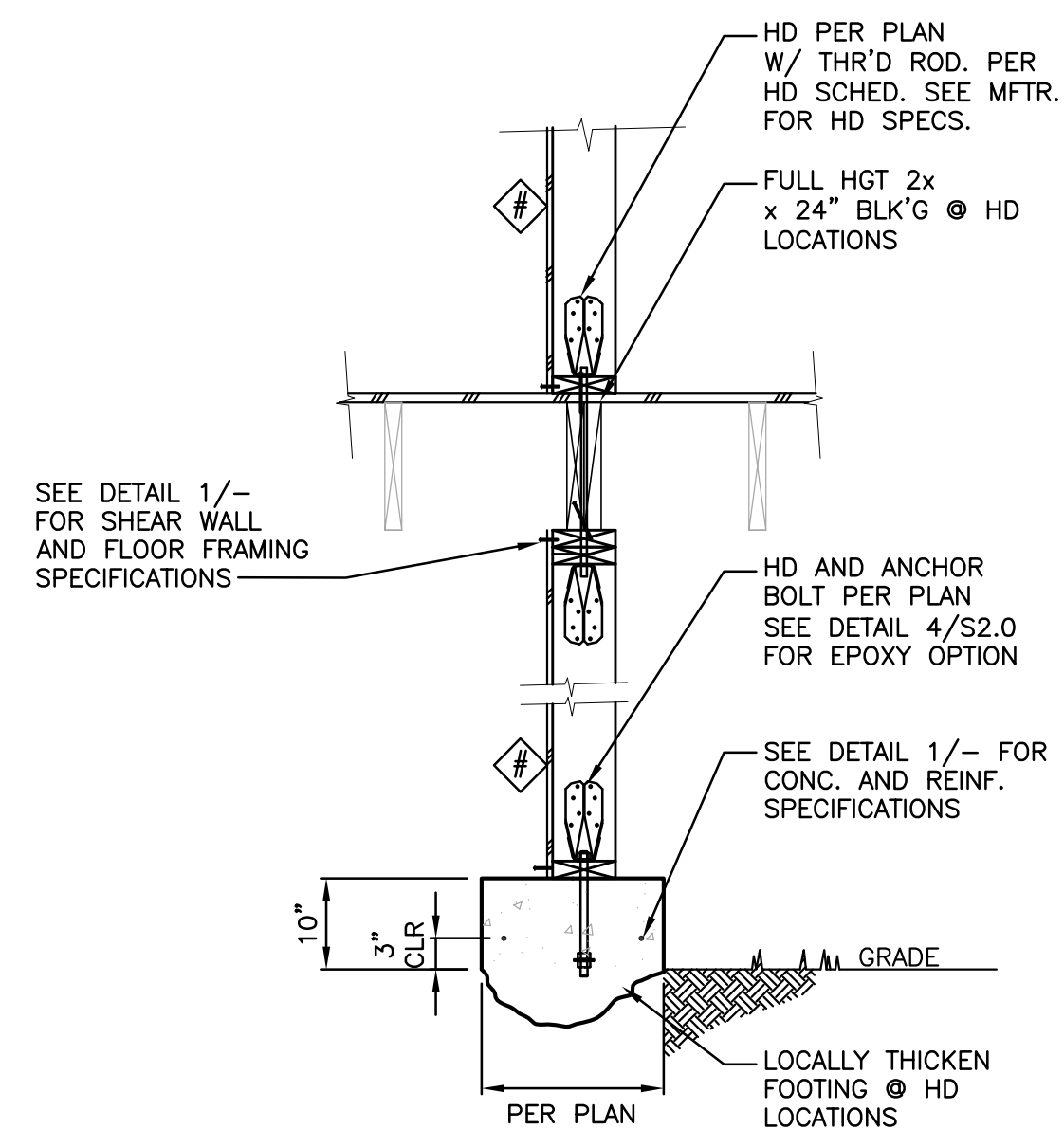
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FAX: 866-855-9379
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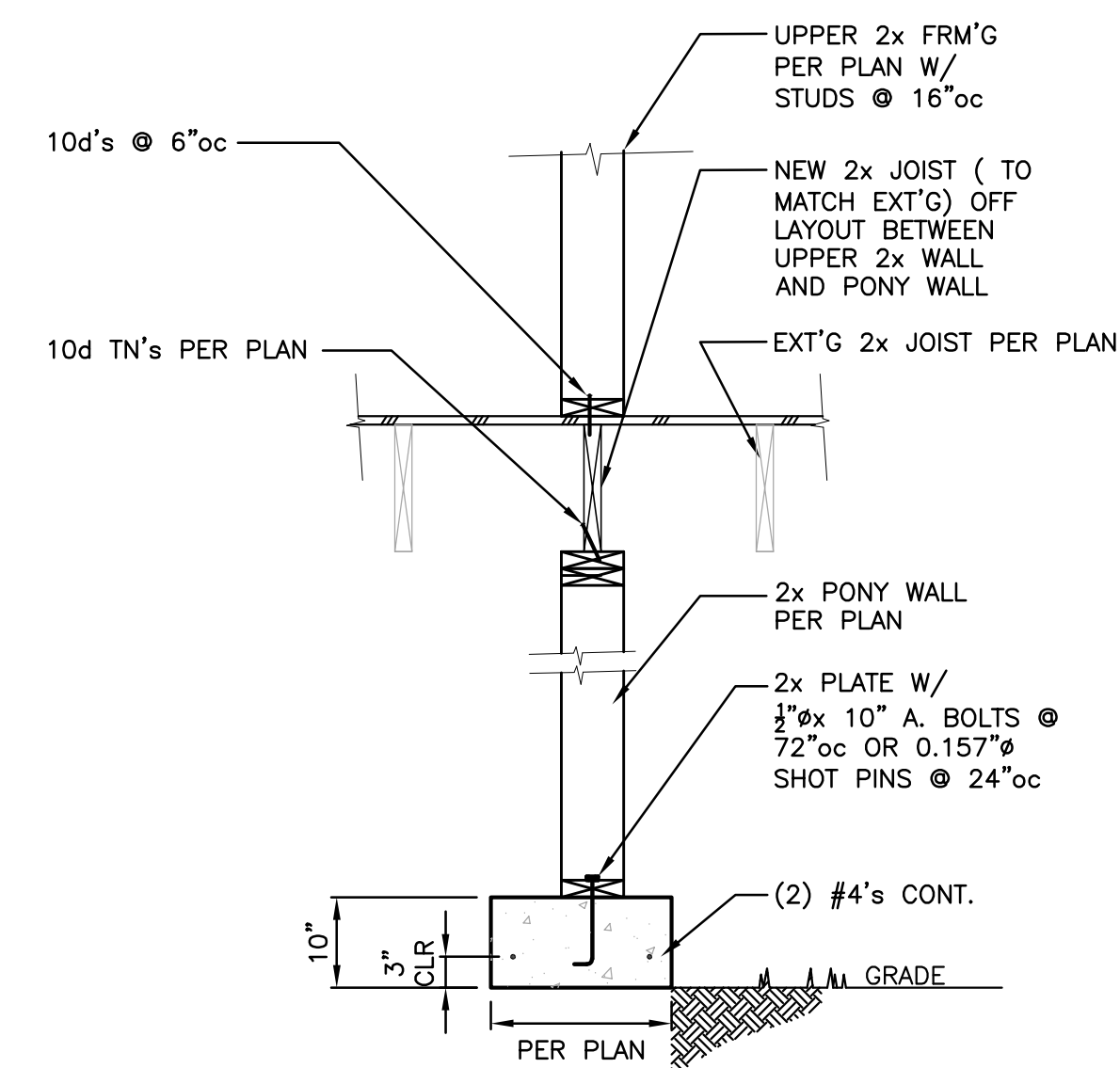
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& DESIGN INC



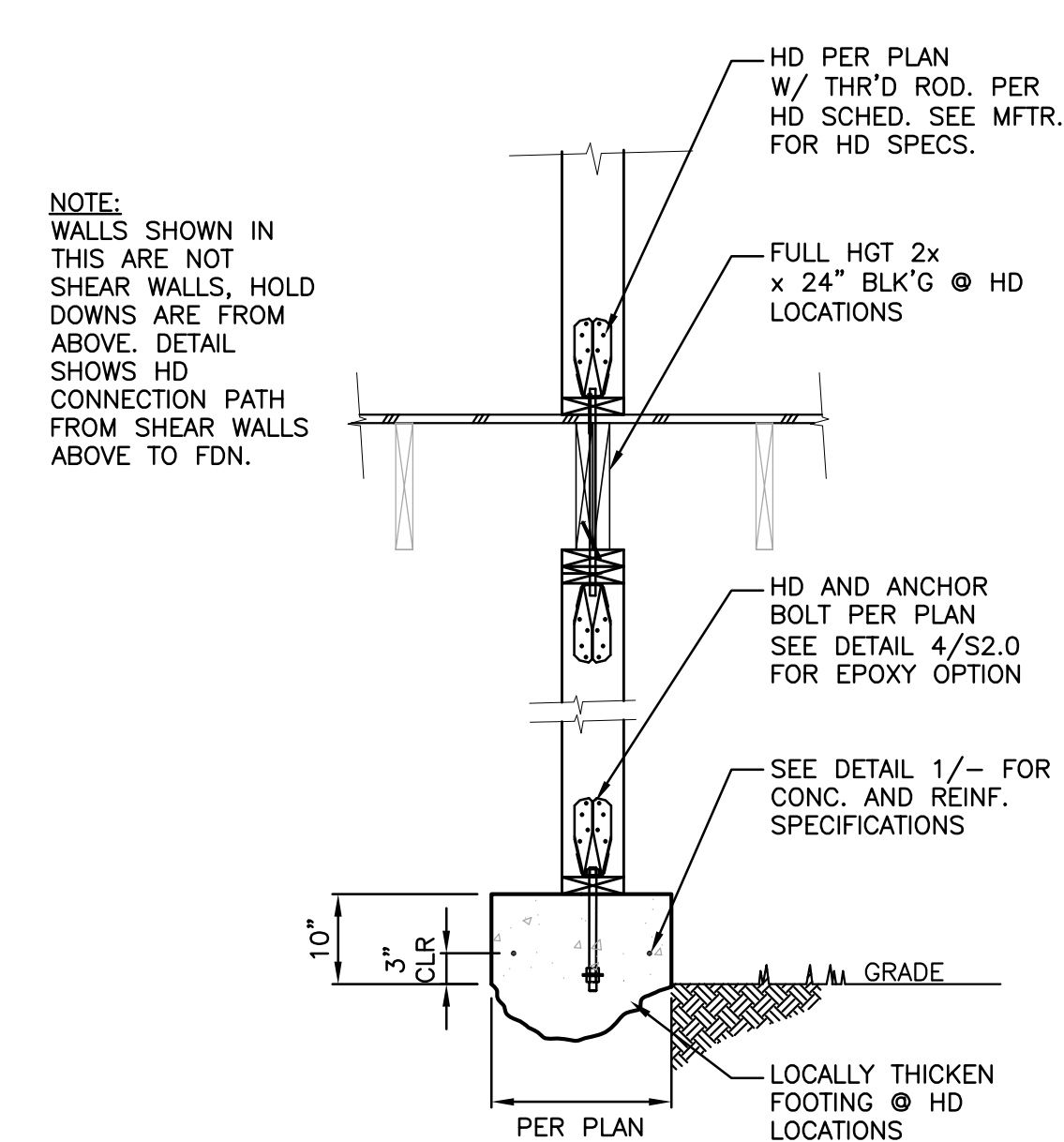
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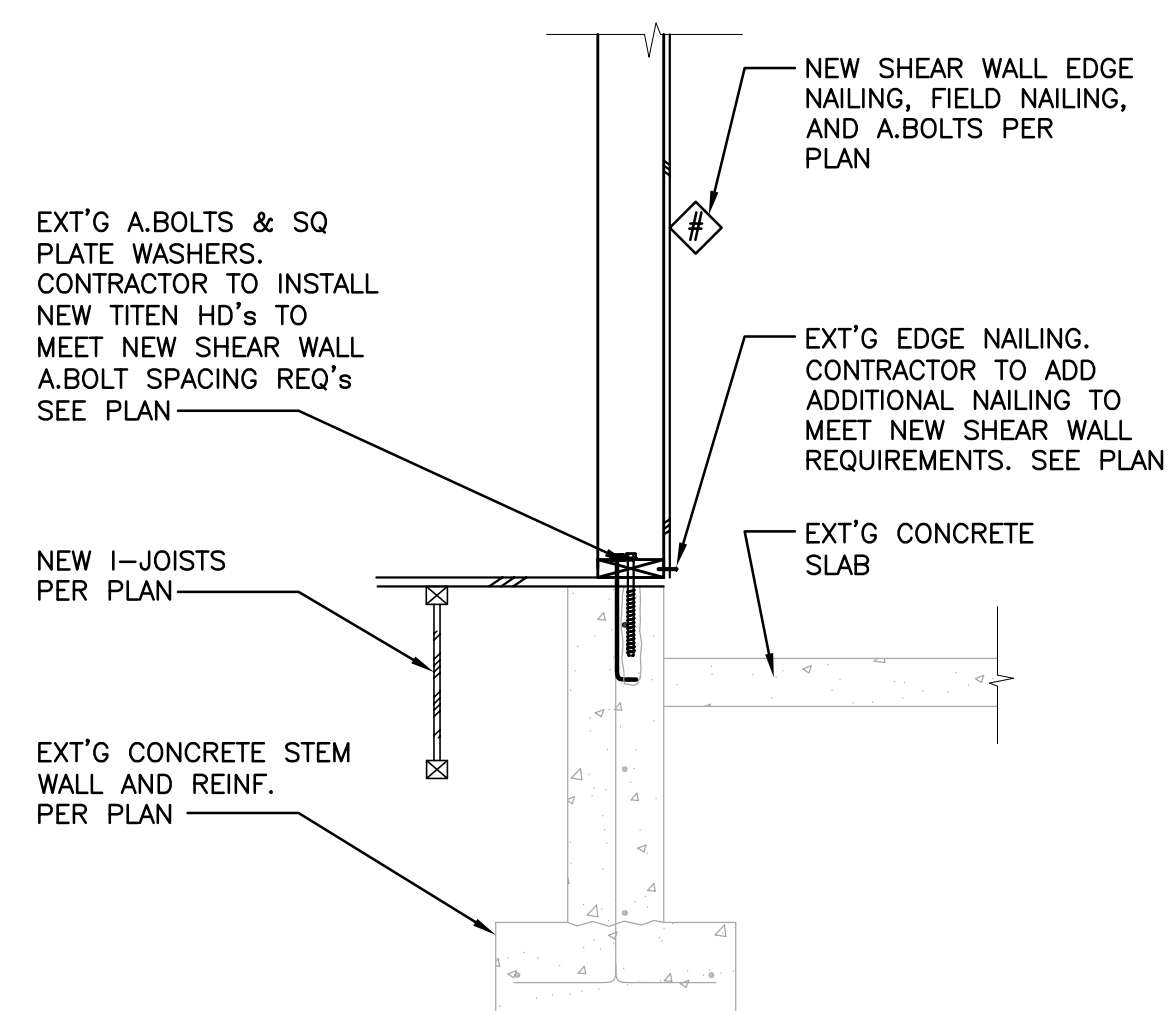
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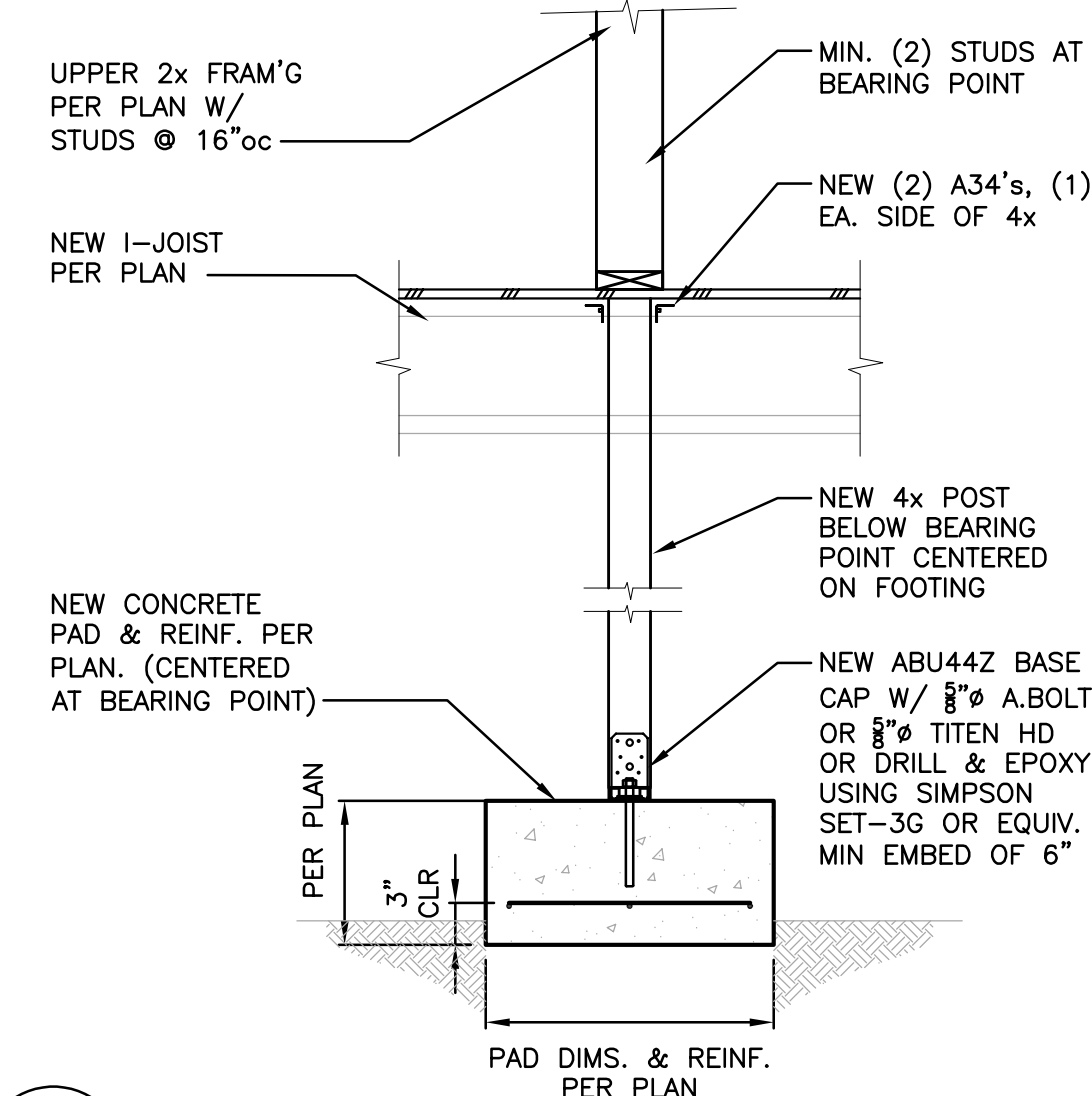
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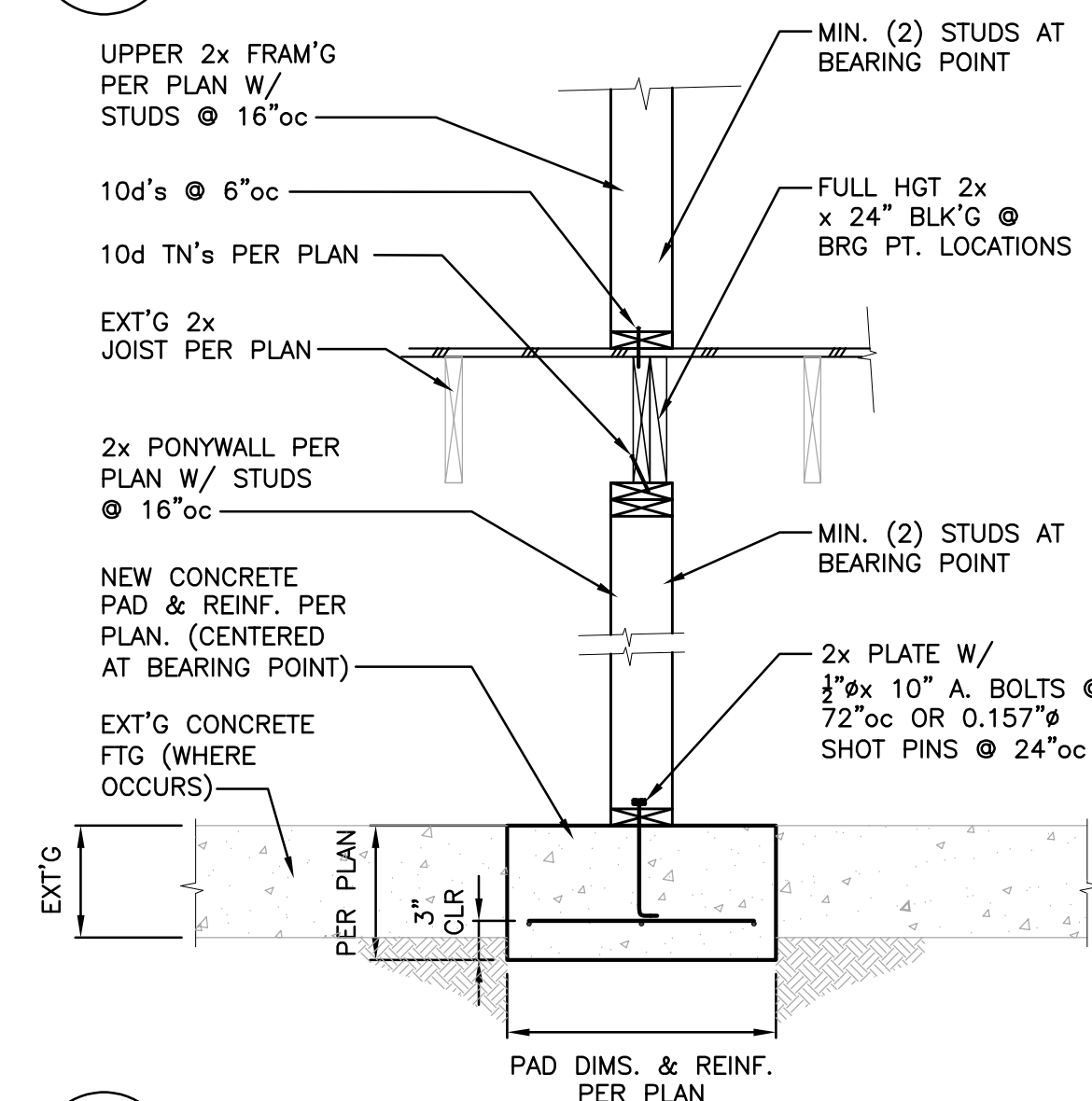
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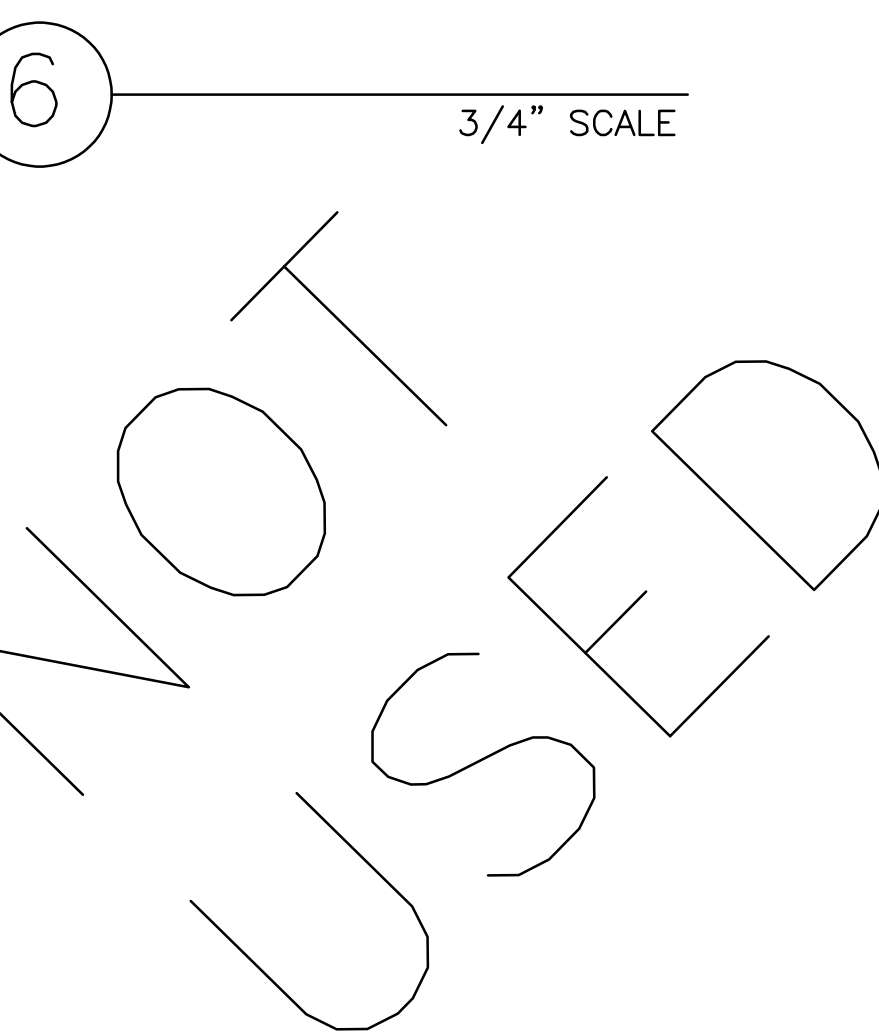
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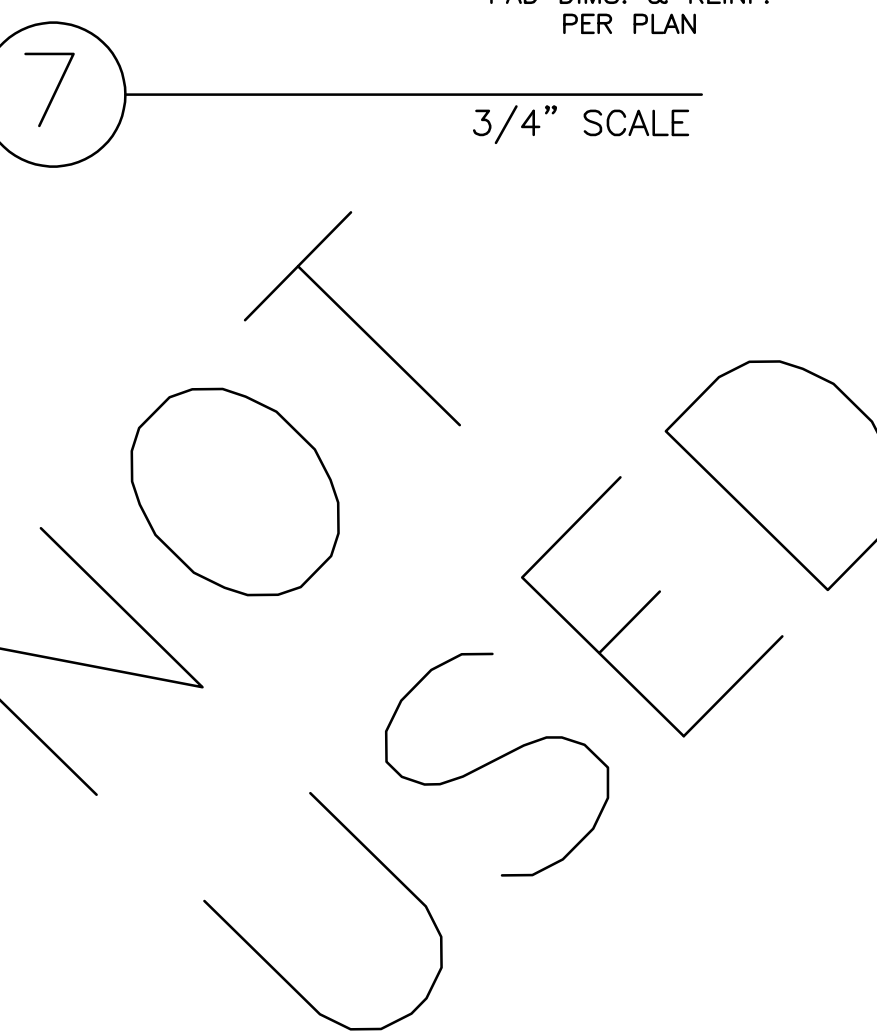
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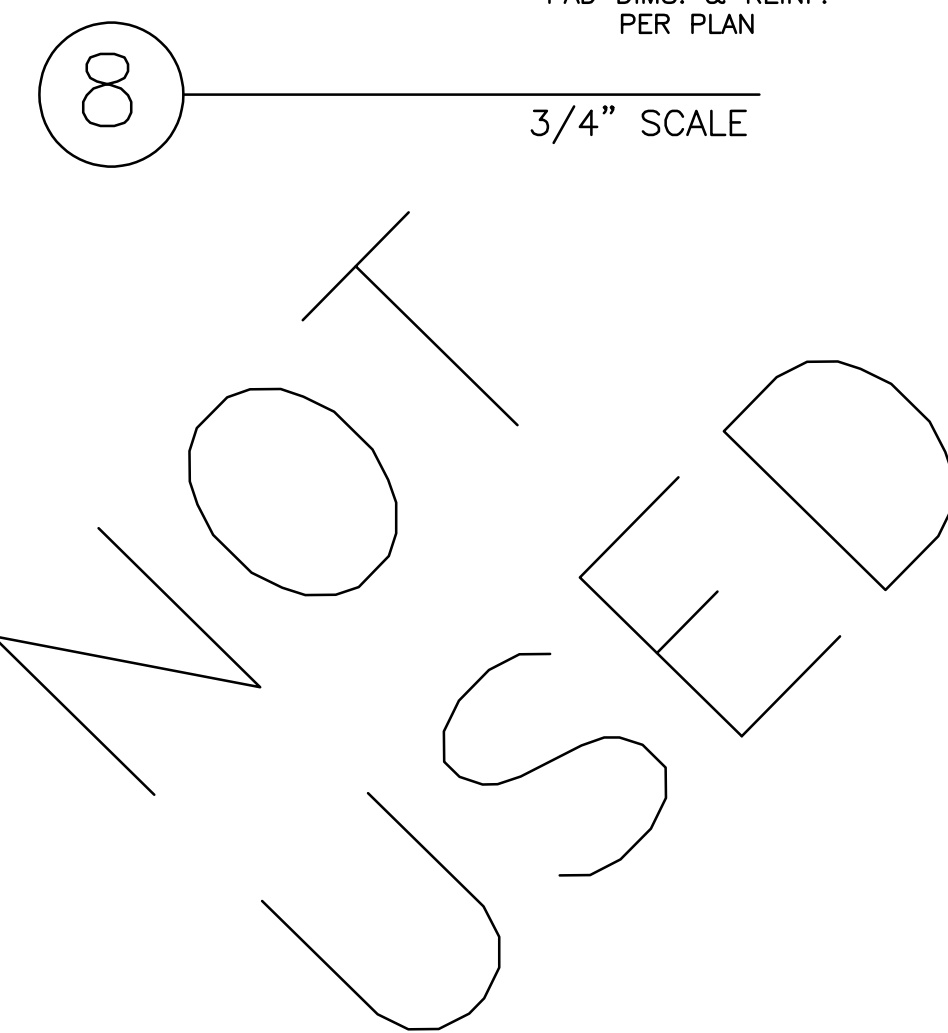
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10 ————— 3/4" SCALE

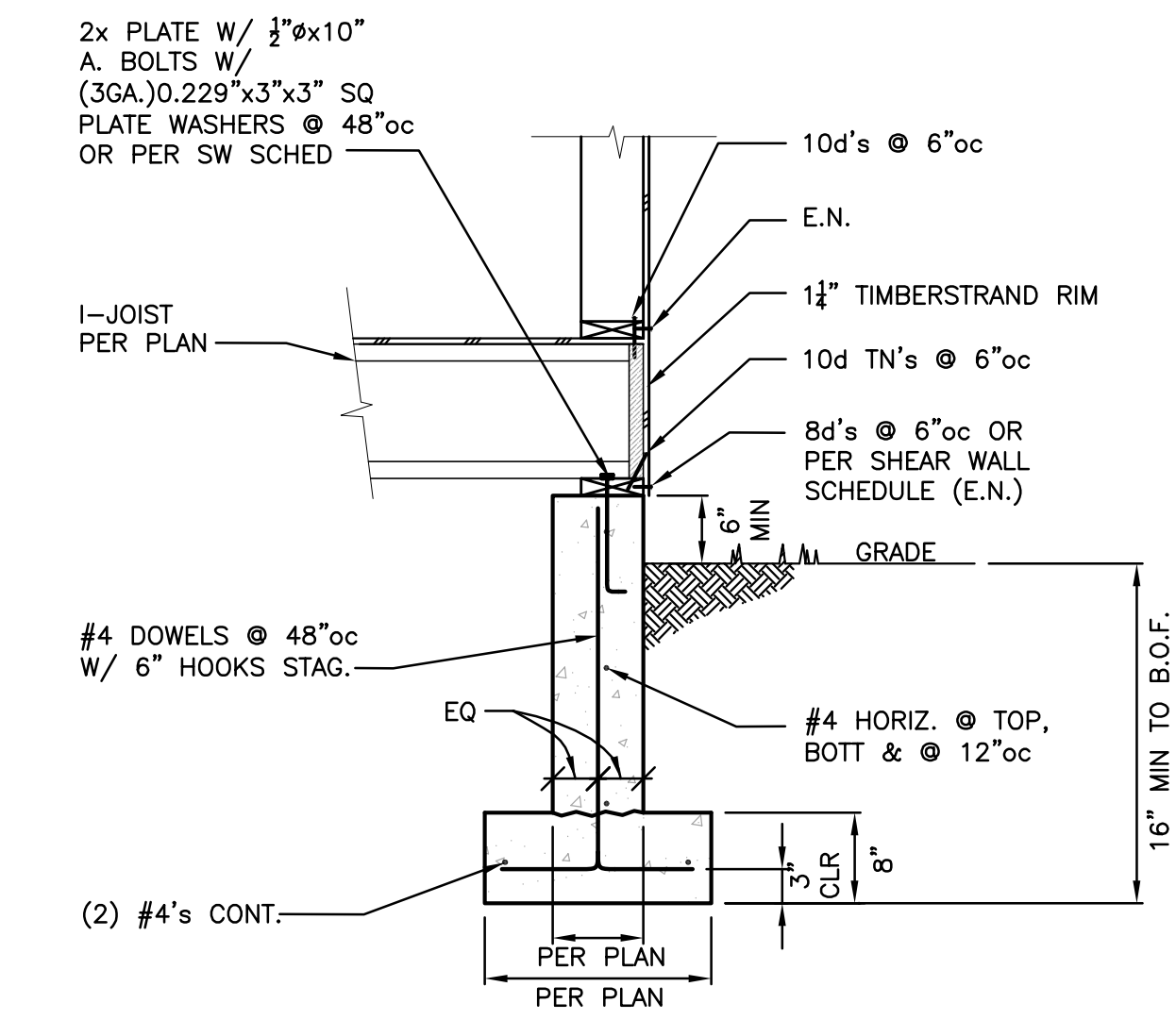


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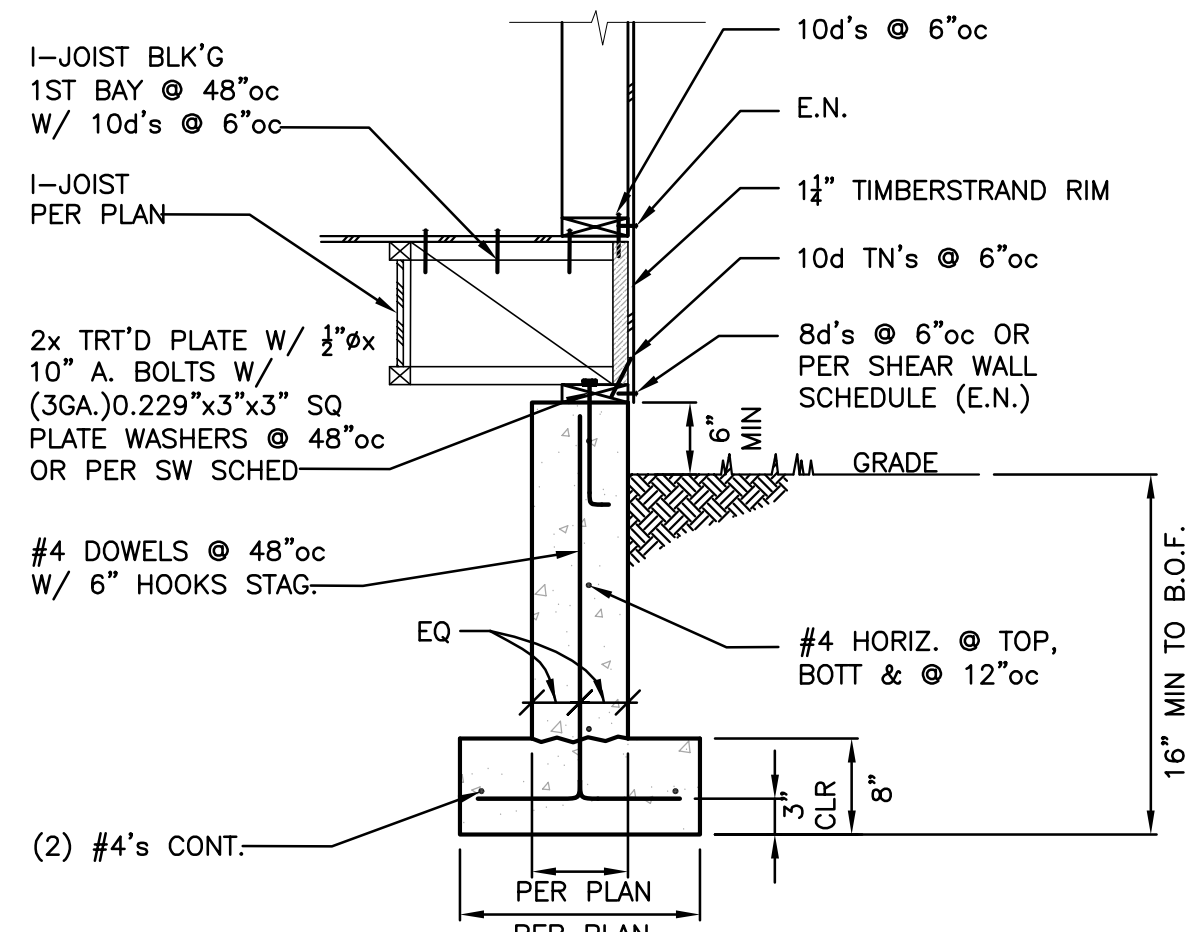


12 ————— 3/4" SCALE





1 3/4" SCALE



2 3/4" SCALE

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3 3/4" SCALE

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5 3/4" SCALE

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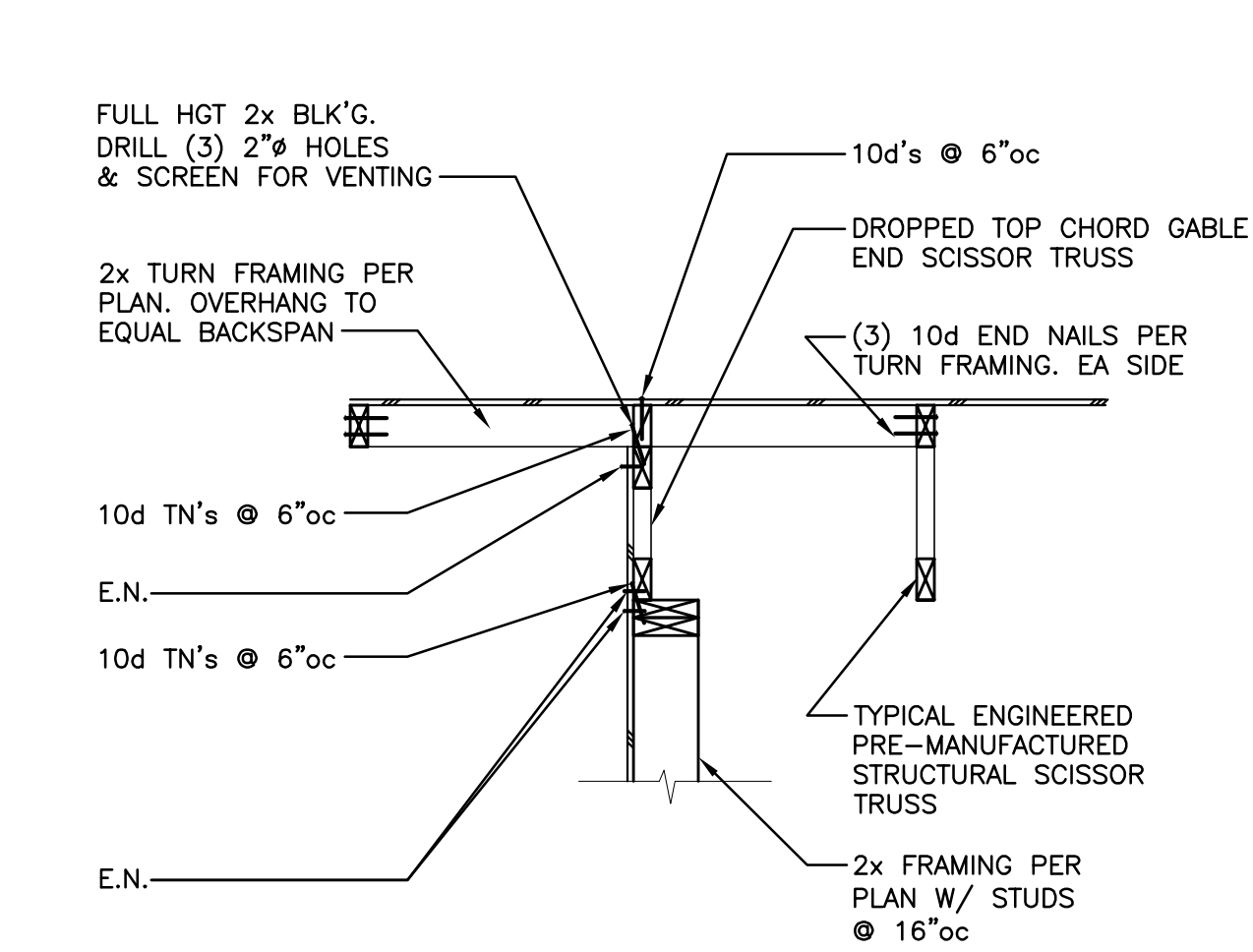
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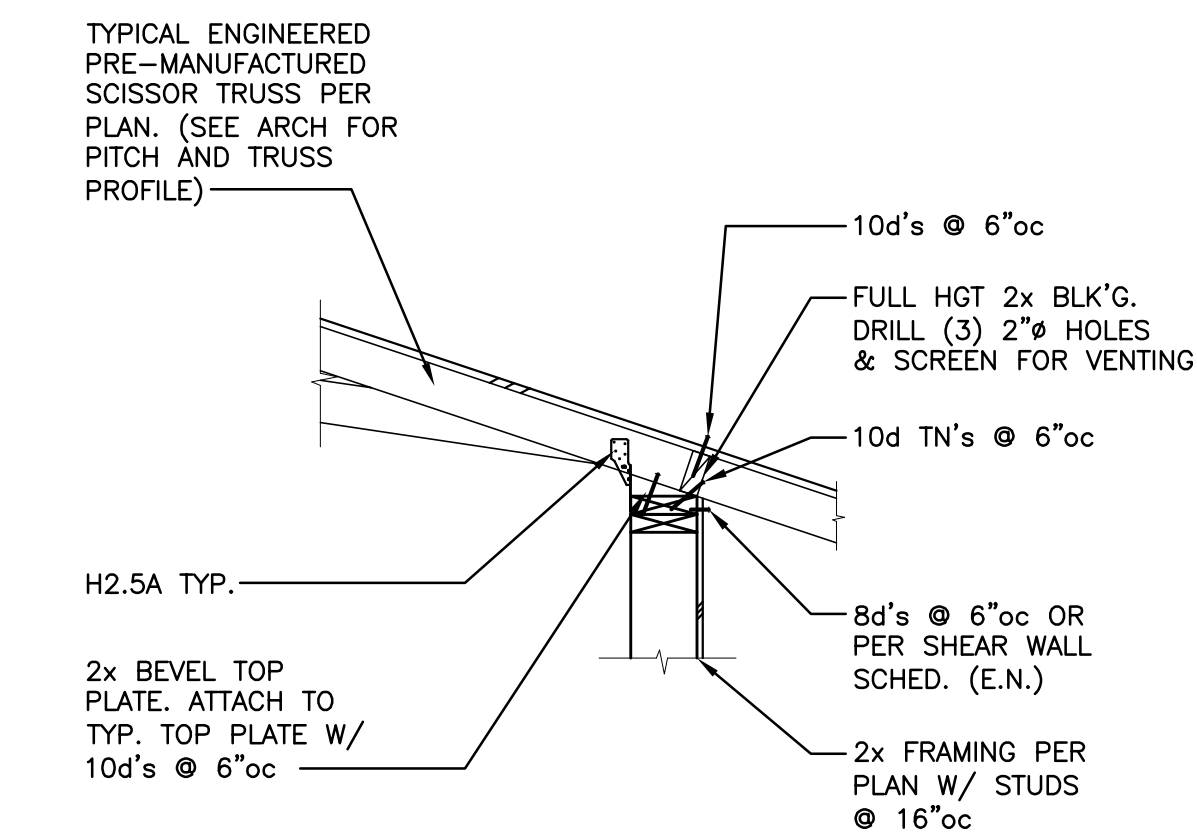
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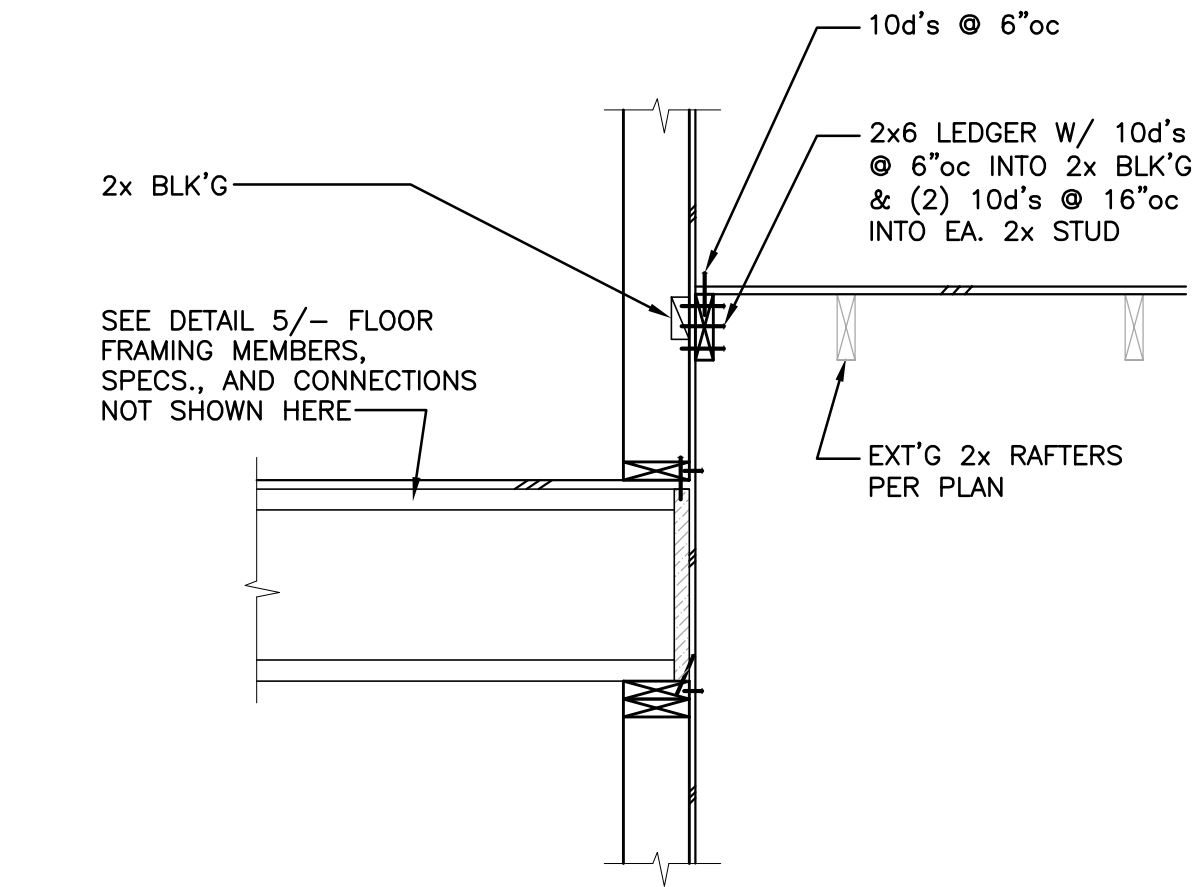
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MURAR ENGINEERING & DESIGN INC	
FOUNDATION DETAILS - SHEET 2	
CHA & KOO REMODEL 3818 83rd AVE SE MERCER ISLAND, wa 98040	
DESIGNED BY	EMU
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SHEET	S3.1



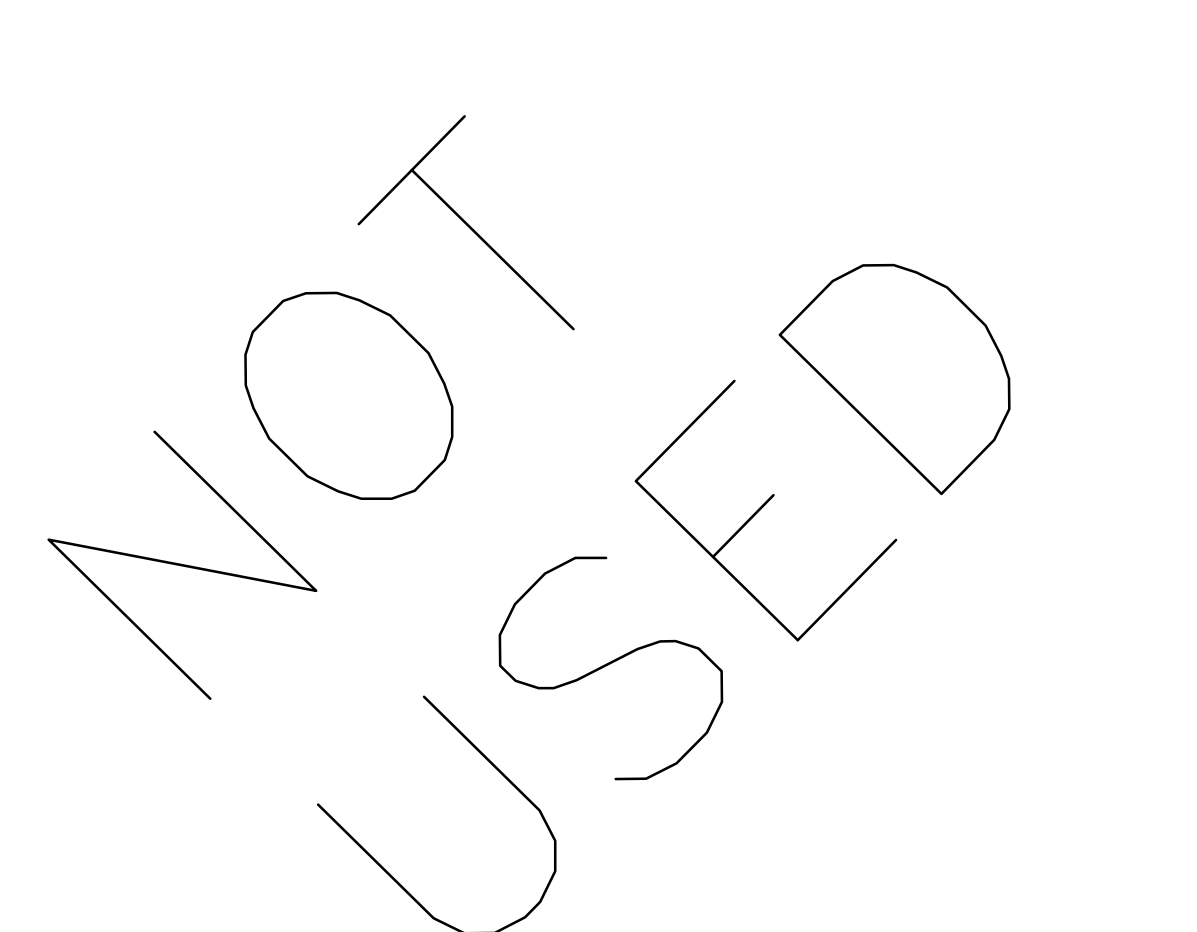
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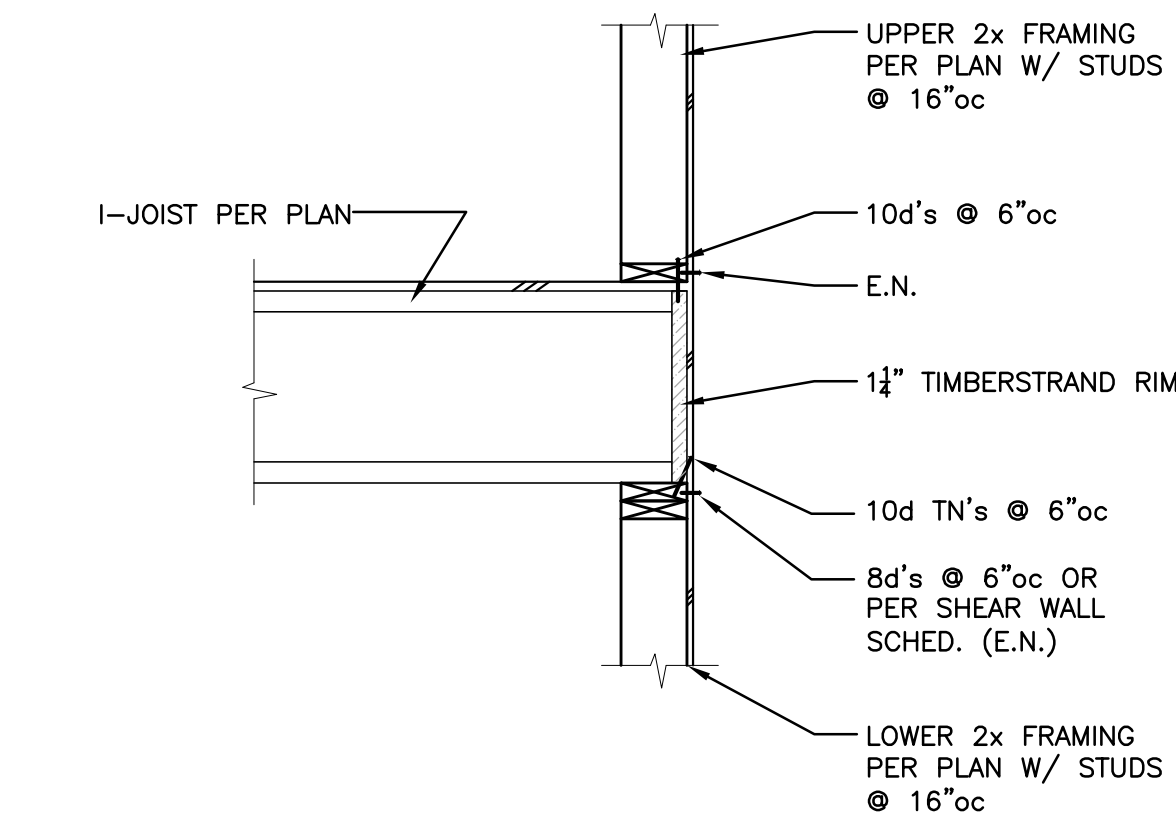
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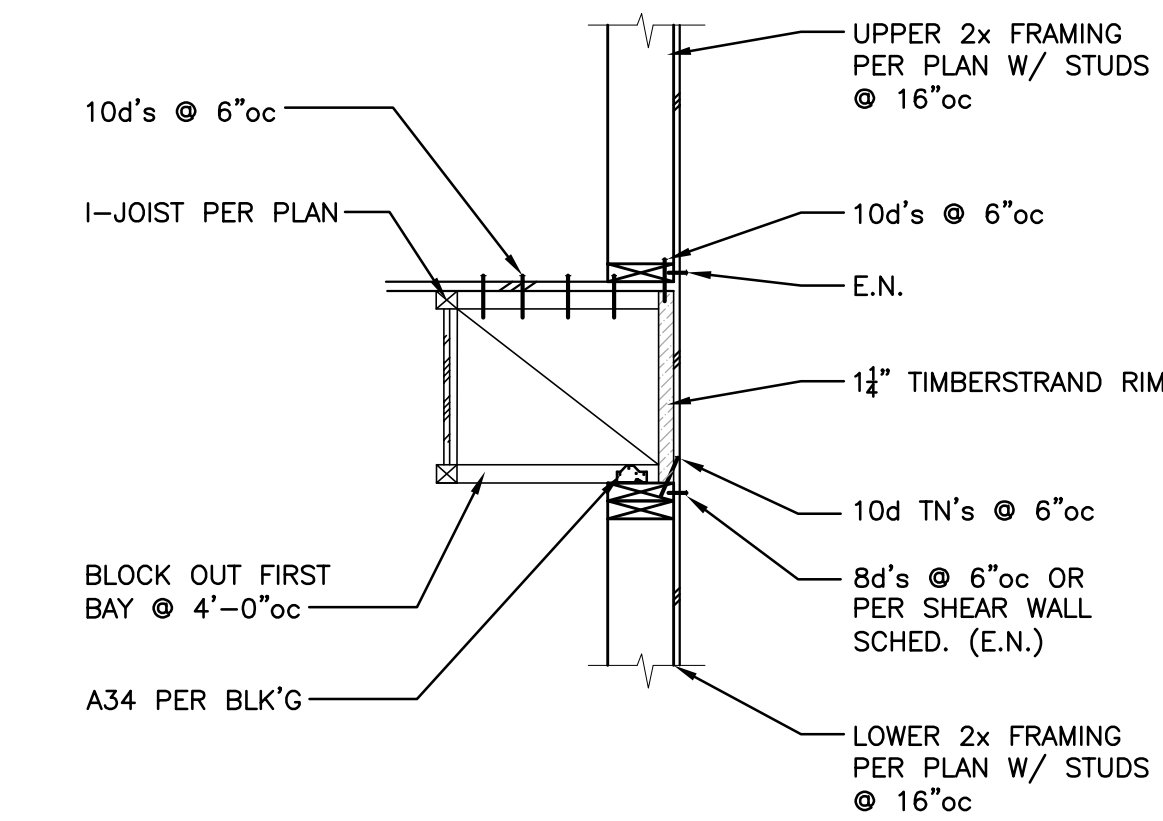
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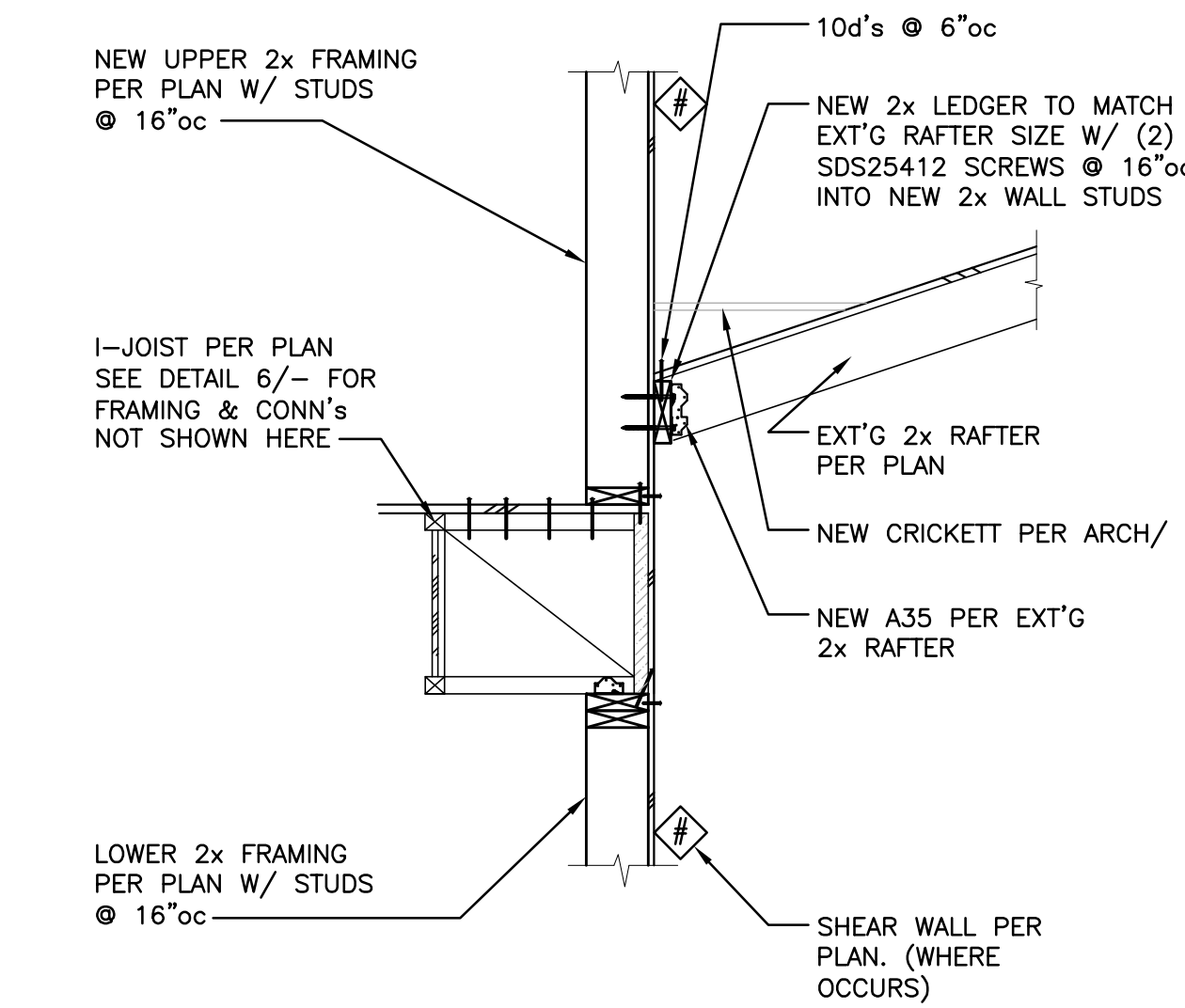
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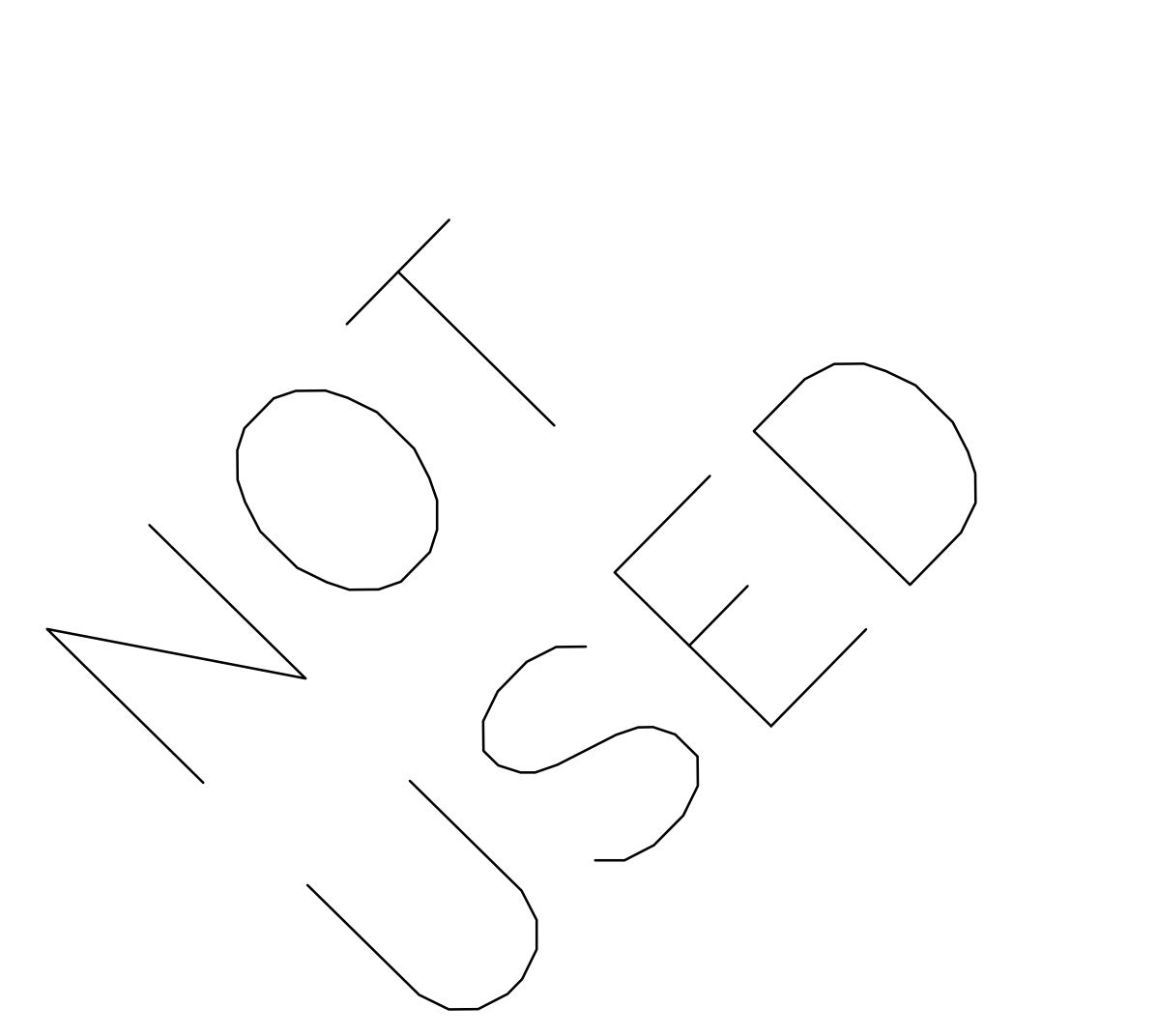
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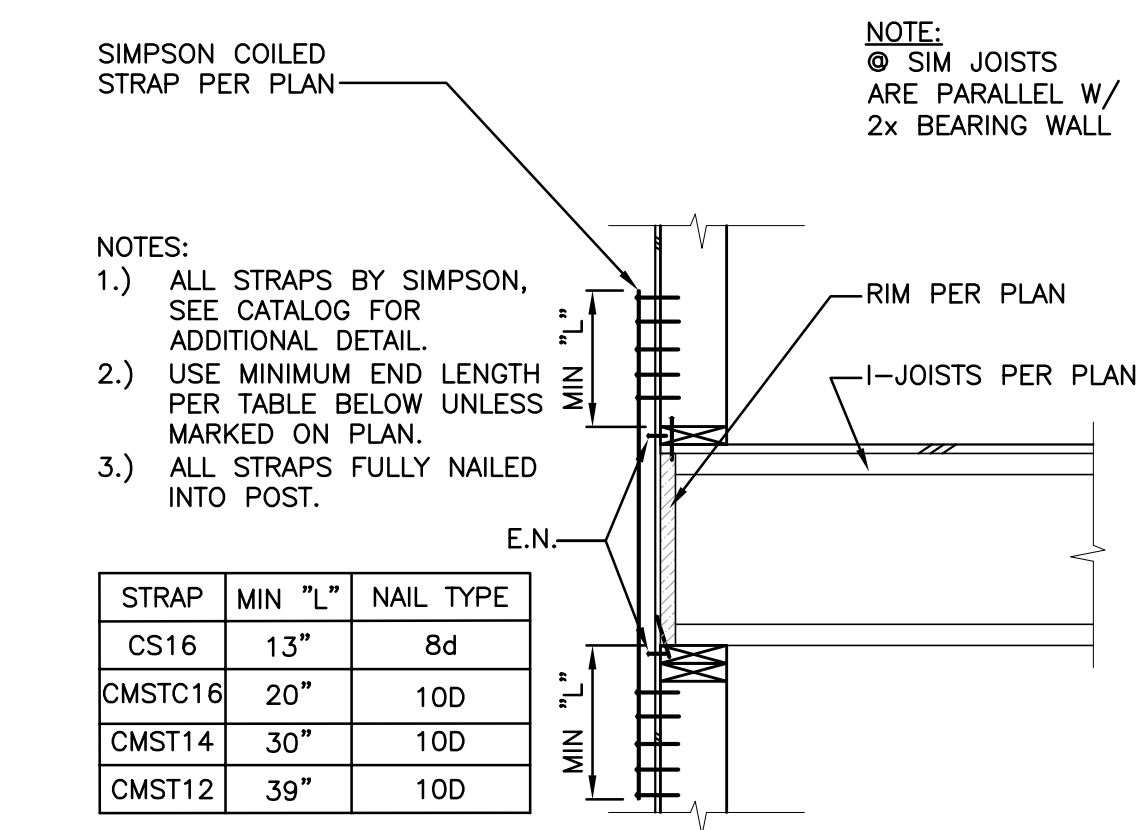
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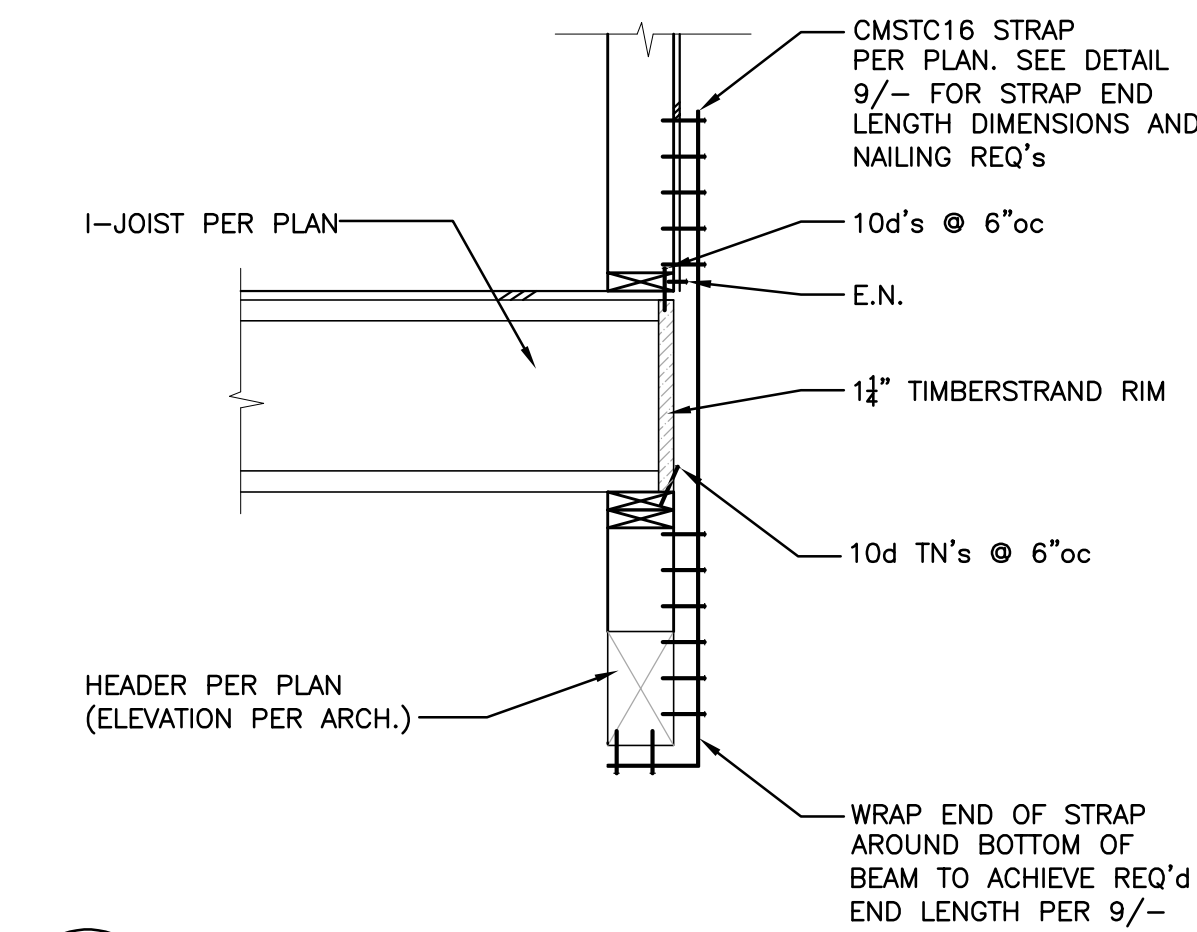
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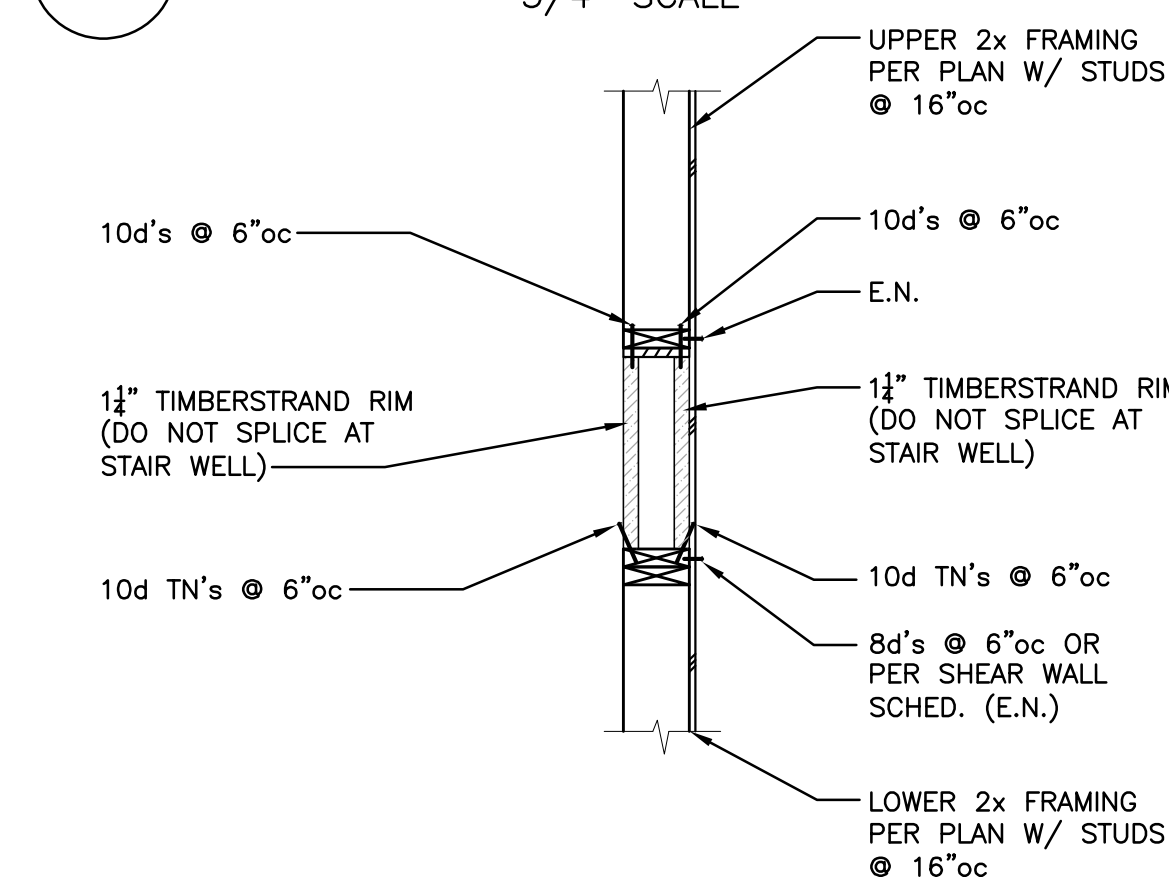
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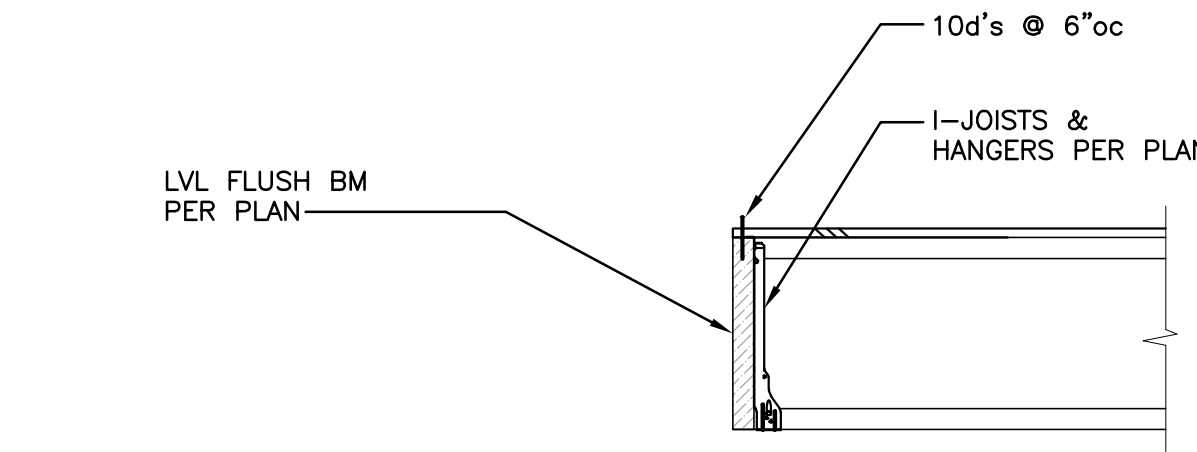
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10 3/4" SCALE



11 3/4" SCALE



12 3/4" SCALE



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FLOOR & ROOF FRAMING DETAILS

- SHEET 1

CHA & KOO REMODEL

3818 83rd AVE SE

MERCER ISLAND, wa 98040

DESIGNED BY

EMU

FILE NAME

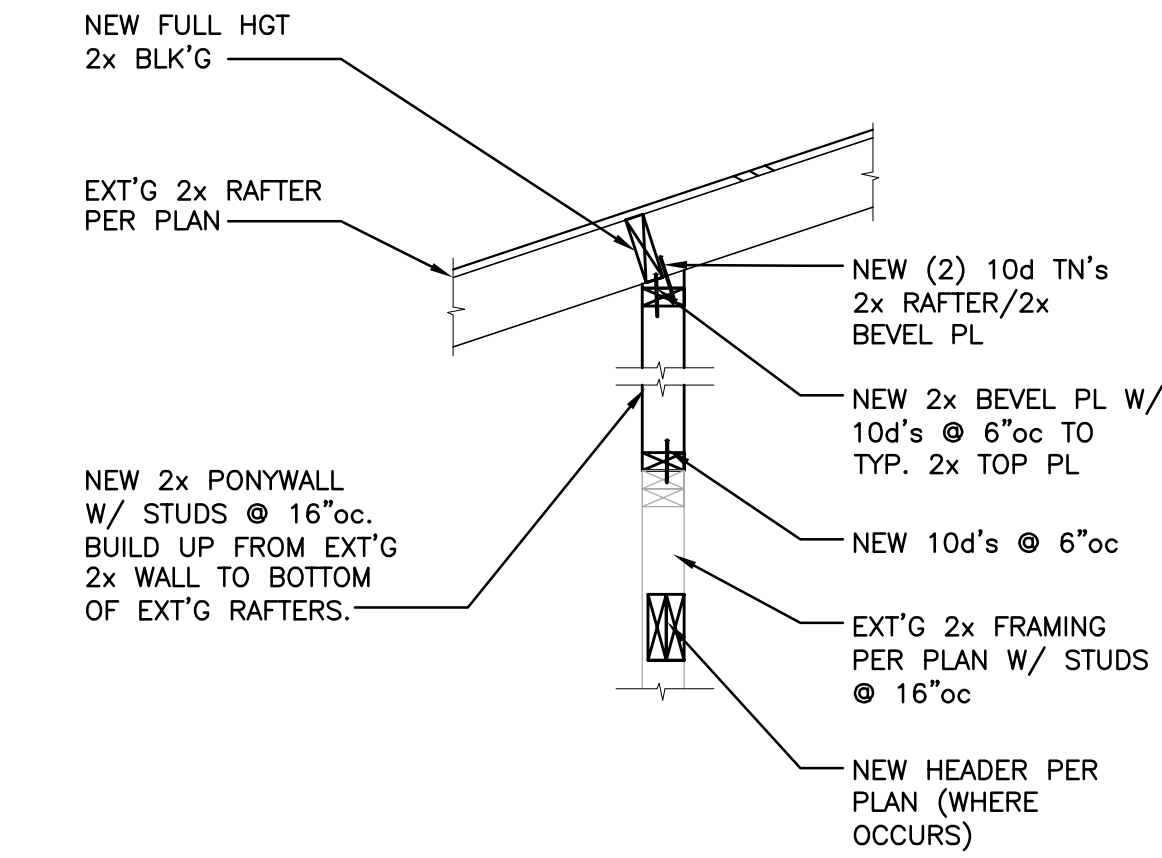
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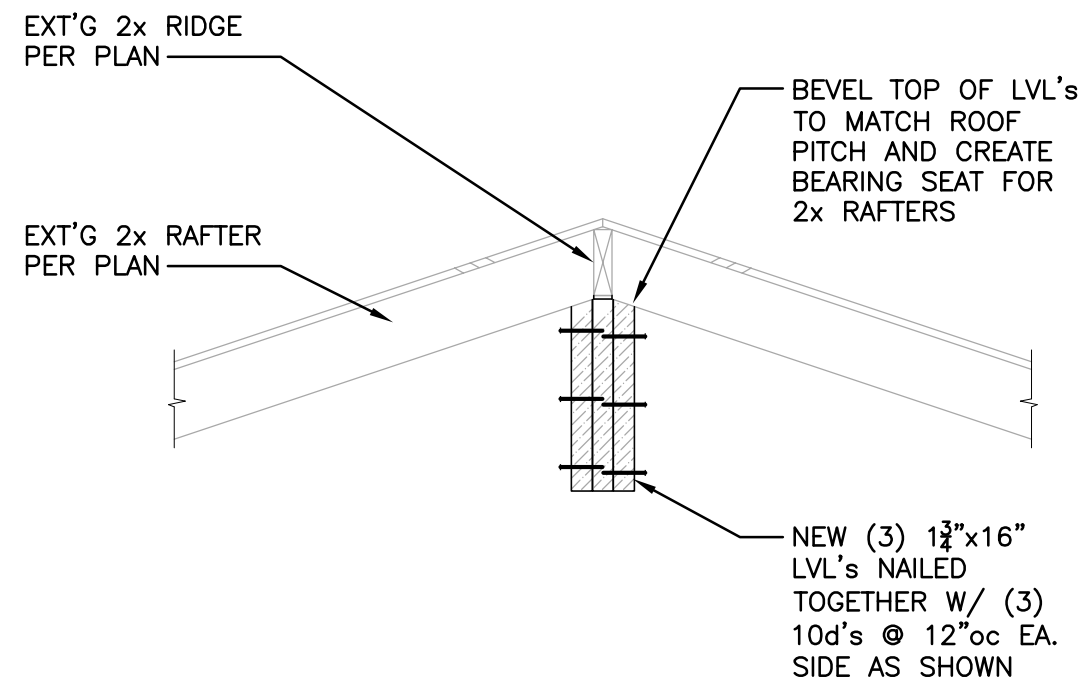
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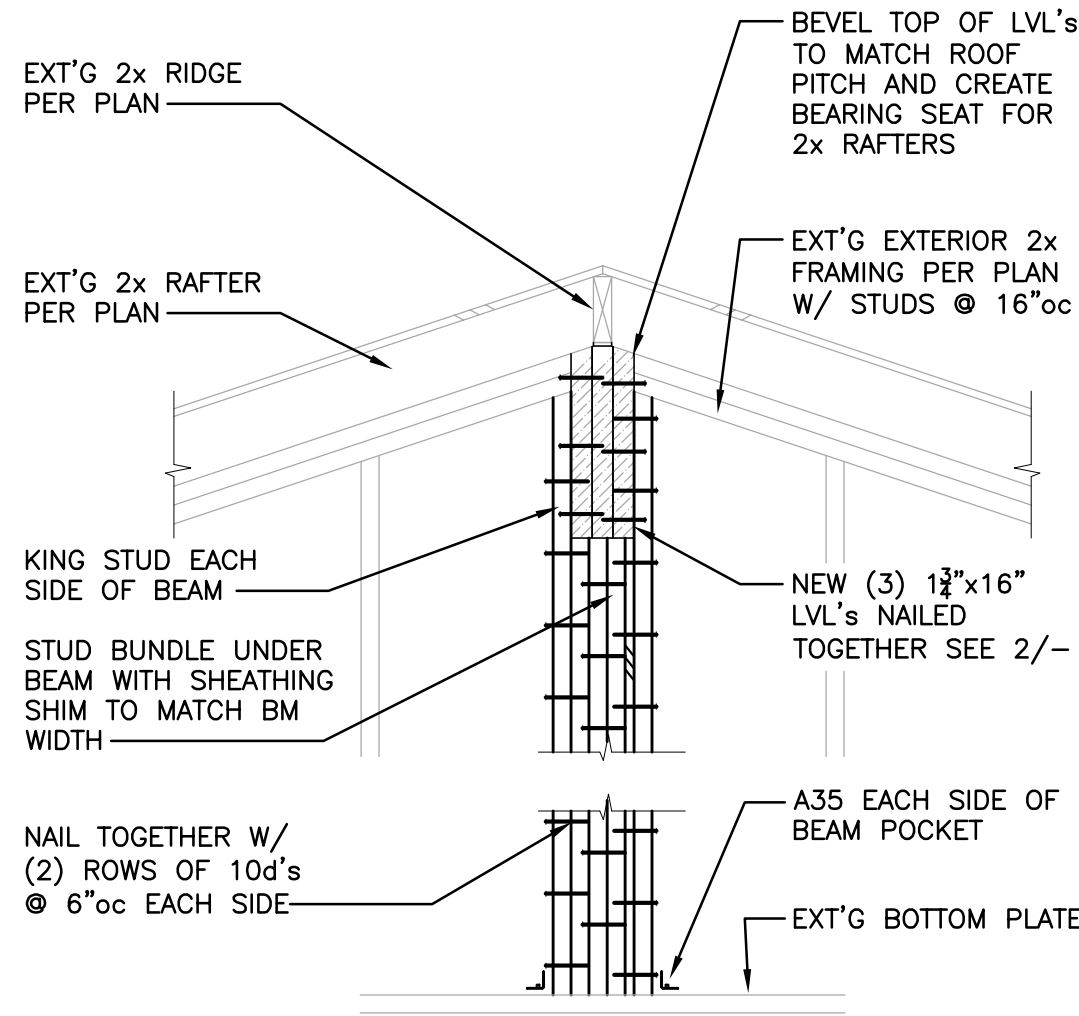
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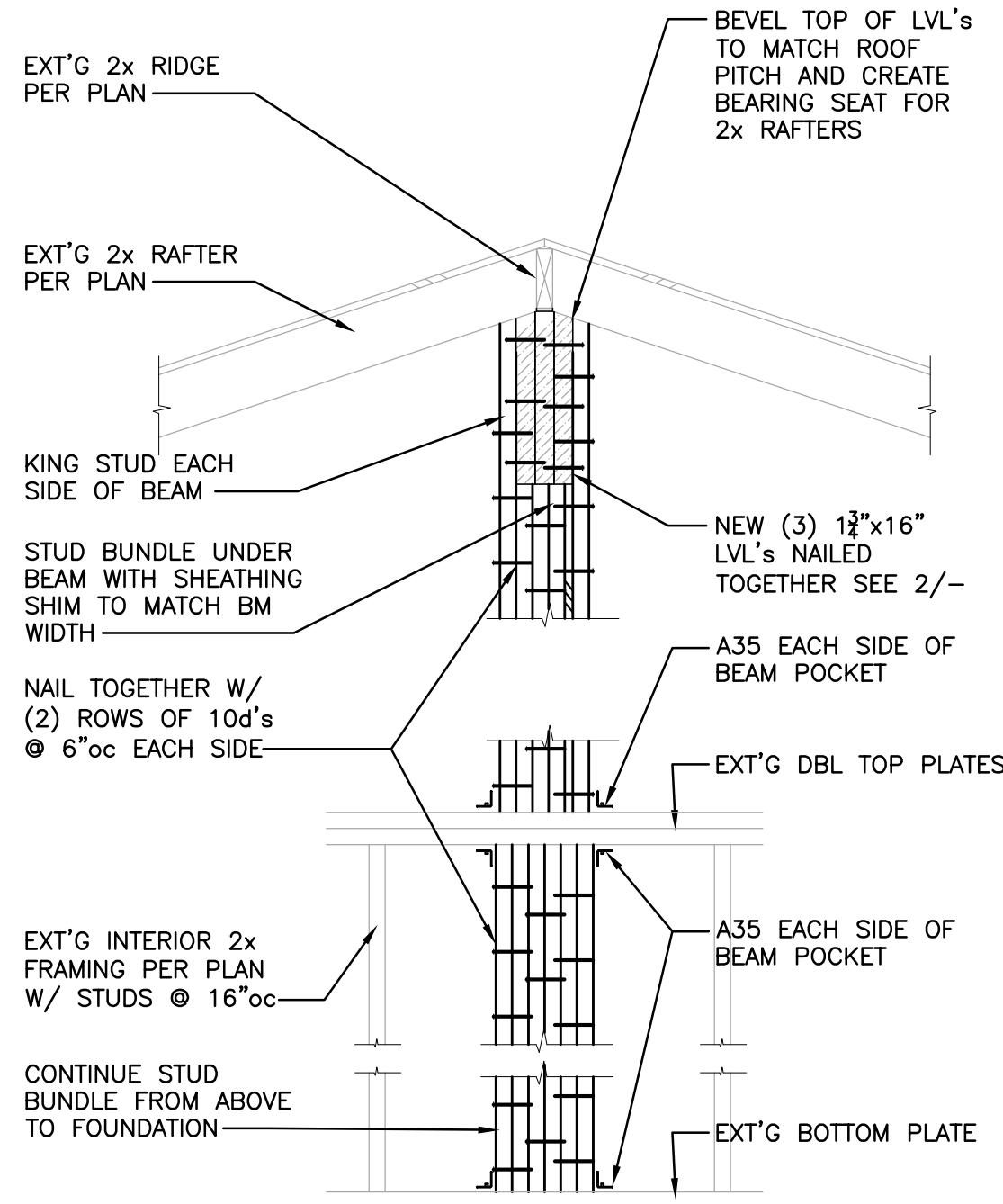
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11 3/4" SCALE

12 3/4" SCALE



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MURAR ENGINEERING & DESIGN INC	
FLOOR & ROOF FRAMING DETAILS - SHEET 2	
CHA & KOO REMODEL 3818 83rd AVE SE MERCER ISLAND, wa 98040	
DESIGNED BY	EMU
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