

# GENERAL NOTES

THESE GENERAL NOTES ARE TO BE USED AS A SUPPLEMENT TO THE DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THESE GENERAL NOTES, SITE CONDITIONS, AND THE STANDARDS LISTED BELOW SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY OR OMISSION IN WRITING. ANY WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF A DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S OWN RISK. THE CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES REQUIRED TO PERFORM HIS WORK.

## STANDARDS:

ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM WITH:  
2018 Washington State Energy Code  
Washington Civil Electrical Code  
LATEST ADOPTED EDITIONS AS AMENDED AND ADOPTED BY THE APPLICABLE JURISDICTION.

## TYPE OF CONSTRUCTION:

TYPE V-N SPRINKLERED  
NFPA 10D

## PREMISES IDENTIFICATION:

PROVIDE ADDRESS OR HOUSE NUMBER PER RC319 I.R.C. APPROVED NUMBERS OR ADDRESSES SHALL BE PROVIDED FOR ALL NEW BUILDINGS IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

## MORTAR AND GROUT:

TYPE "S" MORTAR FOR INTERIOR AND EXTERIOR WORK. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 1800 PSI. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI.

## MASONRY VENEER:

MASONRY VENEER TO BE ANCHORED TO WOOD FRAMING WITH 22GA. X 1" GALV. ANCHORS SPACED 2 MIN. O.C. IN SEISMIC ZONES 3-4. ANCHORS SHALL HAVE LIP OR HOOK ON THE EXTENDED LEG THAT ENCASES OR ENCLOSES A 9 GA HORIZONTAL JOINT REINFORCEMENT WIRE. THE JOINT REINF. SHALL BE CONTINUOUS W/ BUT 5/16" GAPS BETWEEN THEM PERMITTED.

## FORMALDEHYDE REDUCTION MEASURES:

ALL STRUCTURAL PANEL COMPONENTS OF THE HOUSE SUCH AS SOFTWOOD PLYWOOD, PARTICLE BOARD, WATER BOARD, AND ORIENTED STRAND BOARD SHALL BE IDENTIFIED AS "EXPOSURE 1", "EXTERIOR" OR "HUD APPROVED".

## EXTERIOR WALL FLASHING:

APPROVED CORROSION-RESISTIVE FLASHING SHALL BE APPLIED SINGLE FASHION IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER INTO THE BUILDING STRUCTURAL FRAMING COMPONENTS. SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY WITH ALMA 711. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT FLASHING SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:  
1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE.  
2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUD WALLS WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO CORNICES.  
3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.  
4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.  
5. WHERE EXTERIOR DOORS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.  
6. AT WALLS AND ROOF INTERSECTIONS.  
7. AT BUILT-IN GUTTERS.

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## FIREBLOCKING:

FIREBLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN A TOP STORY AND THE ROOF SPACE.  
FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:  
1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS STAGGERED STUDS AS FOLLOWS:  
1.1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.  
1.2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.  
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT BOFFITS, DROP CEILING'S AND COVE CEILING'S.  
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN.  
4. IN CONCEALED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.1.  
4.1. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES, AND WIRES AT CEILING AND FLOOR LEVEL WITH AN APPROVED MATERIAL TO RESTIT THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNUAL SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS.  
5. FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES. SEE SECTION R1003.15.

## RATPROOFING:

STRAINER PLATES ON DRAIN INLETS SHALL BE DESIGNED AND INSTALLED SO THAT NO OPENING IS GREATER THAN 1/4" INCH IN THE LEAST DIMENSION.  
METER BOXES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT RATS CANNOT ENTER A BUILDING BY FOLLOWING THE SERVICE PIPES FROM THE BOX INTO THE BUILDING.  
IN OR ON BUILDINGS WHERE OPENINGS HAVE BEEN MADE IN WALLS, FLOORS, OR CEILING'S FOR THE PASSAGE OF PIPES, SUCH OPENINGS SHALL BE CLOSED AND PROTECTED BY THE INSTALLATION OF APPROVED METAL COLLARS SECURELY FASTENED TO THE ADJOINING STRUCTURE.  
TUB WASTE OPENINGS IN FRAMED CONSTRUCTION TO CRAWL SPACES AT OR BELOW THE FIRST FLOOR SHALL BE PROTECTED BY THE INSTALLATION OF APPROVED METAL COLLARS OR METAL SCREEN SECURELY FASTENED TO THE ADJOINING STRUCTURE WITH NO OPENING GREATER THAN 1/4" INCH IN THE LEAST DIMENSION.

## GARAGE SEPARATION:

GARAGES, SHOPS, AND SIMILAR AREAS SHALL BE SEPARATED FROM THE DWELLING BY (1) 2" GUBS ON THE GARAGE SIDE WALLS AND SUPPORTING POSTS AND BEAMS. THE MATERIALS SHALL EXTEND FROM THE FOUNDATION TO THE ROOF SHEATHING, WHERE A LIVING AREA IS ABOVE THE GARAGE, THE CEILING SHALL BE PROTECTED WITH ONE LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD PER SECTION R302.6.

## TUBS AND SHOWERS:

TUB AND SHOWER WALLS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE TO A HEIGHT OF NOT LESS THAN 6" ABOVE THE FLOOR. MATERIAL OTHER THAN STRUCTURAL ELEMENTS USED IN SUCH WALLS SHALL BE OF A TYPE NOT ADVERSELY AFFECTED BY MOISTURE. ALL GLAZING INCLUDING WINDOWS WITHIN 60 INCHES OF THE DRAIN INLET SHALL BE SAFETY GLASS. DOORS SHALL swing out.  
FIREBLOCK BETWEEN STUDS.

## FIREPLACES:

GAS ZERO-CLEARANCE FIREPLACES SHALL BE UL APPROVED. THEY SHALL BE INSTALLED IN ACCORDANCE WITH THE IRC AND THE MANUFACTURER'S SPECIFICATIONS. THEY SHALL BE FITTED WITH A TIGHT FITTING FLUE DAMPER. OPERATED WITH A READILY ACCESSIBLE MANUAL OR APPROVED AUTOMATIC CONTROL. ALL FIREPLACES SHALL BE PROVIDED WITH FRESH AIR FROM THE OUTSIDE TO THE FIRE BOX. FRESH AIR INTAKE SHALL BE A MINIMUM OF 6 SQUARE INCHES AND SHALL BE FITTED WITH A READILY OPERABLE DAMPER. THEY SHALL HAVE TIGHT FITTING GLASS OR METAL DOORS, OR FLUE DRAFT INDUCTION FAN.

## CRAWL ACCESS:

CRAWL ACCESS SHALL BE A MINIMUM OF 18"x24". IT SHALL BE UNOBSTRUCTED. IT SHALL BE WEATHERSTRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES.

## HOT WATER TANK:

HOT WATER TANK SHALL BE LABELED COMPLY WITH THE LATEST NAECA STANDARDS. THEY SHALL HAVE A TEMPERATURE / PRESSURE RELIEF VALVE WHICH SHALL VENT TO THE EXTERIOR OF THE BUILDING AND AN EXPANSION TANK. IN UNHEATED SPACES ELECTRIC WATER HEATERS SHALL BE PLACED ON AN INCOMPRESSIBLE INSULATED SURFACE OF R10 MINIMUM. THE WATER HEATER SHALL BE STRAPPED WITH TWO 2" GAUGE X 3/4" METAL STRAPS AT UPPER AND LOWER END OF TANK. STRAPS SHALL BE ATTACHED DIRECTLY TO THE STUDS OR A 2X4 CROSS BRACE W/ 1/4"x4" LAGS. INSTALL GAS IN GARAGES ON AN 18" HIGH STAND.

## HOT WATER TEMPERATURE MAXIMUM:

MAXIMUM HOT WATER TEMPERATURE AT BATH TUBS AND WHIRLPOOLS SHALL BE LIMITED TO 120 DEGREES FAHRENHEIT. THE WATER HEATER SHALL NOT BE CONSIDERED A CONTROL TO MEET THIS REQUIREMENT.

## STAIR NOTES:

MINIMUM STAIR WIDTH 36" CLEAR MINIMUM HEADROOM 6'8" CLEAR. STAIR RISE AND RUN PER THE PLANS (13/4" MAX RISE/20" MIN RUN). THE MAX RISE SHALL NOT EXCEED THE MIN RISE BY MORE THAN 3/8". INSTALL FIRESTOPS IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN THE STUDS ALONG AND IN LINE WITH THE RUN OF THE STAIRS IF THE WALLS UNDER THE STAIRS ARE UNFINISHED. COVER ANY USABLE SPACE UNDER THE STAIRS WITH GYP. BOARD. THE HANDRAILS SHALL BE BETWEEN 1/2" AND 2" IN CROSS SECTION. IT SHALL BE MOUNTED BETWEEN 34" AND 38" ABOVE THE STAIR NOSING, AND BETWEEN 1/2" AND 3/4" FROM THE WALL. THE HANDRAIL SHALL RETURN TO THE WALL.

## SMOKE ALARMS:

SMOKE ALARMS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH SECTION R313. SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING AND SHALL HAVE A BATTERY BACKUP. SMOKE DETECTORS SHALL BE INTERCONNECTED TO PROVIDE AN ALARM IN ALL SLEEPING ROOMS, OUTSIDE THE BEDROOM AREA IN THE IMMEDIATE VICINITY ON EACH ADDITIONAL STORY.

## RECESSED LIGHTING FIXTURES:

WHEN INSTALLED, RECESSED LIGHTING FIXTURES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS:  
1. TYPE IC RATED. MANUFACTURED WITH NO PENETRATIONS BETWEEN THE INSIDE OF THE RECESSED FIXTURE AND CEILING CAVITY AND SEALED OR GASKETED TO PREVENT AIR LEAKAGE INTO THE UNCONDITIONED SPACE.  
2. TYPE IC OR NONIC RATED. INSTALLED INSIDE A SEALED BOX CONSTRUCTED FROM A MINIMUM ONE HALF INCH THICK BOARD OR CONSTRUCTED FROM A PREPARED POLYMERIC VAPOR BARRIER OR OTHER AIR TIGHT ASSEMBLY MANUFACTURED FOR THIS PURPOSE WHILE MAINTAINING REQUIRED CLEARANCES OF NOT LESS THAN ONE HALF INCH FROM COMBUSTIBLE MATERIAL AND NOT LESS THAN THREE INCHES FROM INSULATION MATERIAL.  
3. TYPE IC RATED. REQUIRED UNDER ASTM D293 TO HAVE NO MORE THAN 2.0 CFM AIR MOVEMENT FROM THE CONDITIONED SPACE TO THE CEILING CAVITY. THE LIGHTING FIXTURE SHALL BE TESTED AT SEVENTEEN PASCALS OR 131 LB/RS PRESSURE DIFFERENCE AND HAVE A LABEL ATTACHED SHOWING COMPLIANCE.

## WATER EFFICIENCY STANDARDS:

MAXIMUM WATER USE ALLOWED MEASURED IN GALLONS PER MINUTE (GPM)  
TOILETS 1.75 GPM  
SHOWERHEADS 1.75 GPM  
LAVATORY FAUCETS 1.0 GPM  
KITCHEN FAUCETS 1.75 GPM

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SHOWERHEADS 1.75 GPM  
LAVATORY FAUCETS 1.0 GPM  
KITCHEN FAUCETS 1.75 GPM

## FANS:

BATH, POWDER ROOM AND LAUNDRY ROOM FANS SHALL HAVE A MINIMUM CAPACITY OF 50 CFM. THE FANS SHALL BE VENTED TO THE EXTERIOR AND SHALL HAVE A BACK FLOW PREVENTER. EXHAUST DUCTS IN UNCONDITIONED SPACE SHALL BE INSULATED TO A MINIMUM OF R-4. EXHAUST DUCTS SHALL BE SIZED IN ACCORDANCE WITH THESE GENERAL NOTES. SEE "PRESCRIPTIVE DUCT SIZING". FANS SHALL BE FLOW RATED AT 0.25 U.G. STATIC PRESSURE. MINIMUM EFFICACY 1.4 CFM/WATT

## RANGE HOODS:

RANGE HOODS SHALL HAVE A MINIMUM CAPACITY OF 100 CFM AND SHALL VENT TO THE OUTSIDE AND SHALL HAVE A BACK FLOW PREVENTER. EXHAUST DUCTS IN UNCONDITIONED SPACE SHALL BE INSULATED TO A MINIMUM OF R-4. EXHAUST DUCTS SHALL BE SIZED IN ACCORDANCE WITH THESE GENERAL NOTES. SEE "PRESCRIPTIVE DUCT SIZING". FANS SHALL BE FLOW RATED AT 0.25 U.G. STATIC PRESSURE. MINIMUM EFFICACY 2.8 CFM/WATT

## PRESCRIPTIVE DUCT SIZING:

THIS SECTION SHALL BE USED FOR SIZING EXHAUST AND SUPPLY DUCTS.  
FAN CFM FLEX DIA. MAX LENGTH SMOOTH DIA. MAX LENGTH  
50 4 INCH 20' 4 INCH 100'  
50 5 INCH 30' 5 INCH 100'  
50 6 INCH 40' NO LIMIT 6 INCH NO LIMIT  
60 4 INCH NOT ALLOWED 4 INCH 20'  
80 5 INCH 15' 5 INCH 100'  
80 6 INCH 30' 6 INCH 50'  
100 5 INCH NOT ALLOWED 5 INCH 50'  
100 6 INCH 45' 6 INCH NO LIMIT  
125 6 INCH 15' 6 INCH NO LIMIT  
125 7 INCH 10' 7 INCH NO LIMIT  
THERE SHALL BE A MAXIMUM OF THREE ELBOWS. FOR EACH ELBOW OVER THREE SUBTRACT 10 FEET FROM THE MAXIMUM LENGTH.

## 2018 TABLE R406.2 CREDITS:

OPTION 1d EFFICIENT BUILDING ENVELOPE 1d 0.5 CREDIT  
OPTION 3d HIGH EFFICIENCY HVAC EQUIPMENT 3d 1.0 CREDIT  
OPTION 5b EFFICIENT WATER STANDARDS 5b 0.5 CREDIT  
OPTION 5c EFFICIENT WATER HEATING 5c 1.0 CREDIT

## WHOLE HOUSE VENTILATION (INTEGRATED):

THE INTEGRATED WHOLE HOUSE VENTILATION SYSTEMS SHALL PROVIDE OUTDOOR AIR AT THE RATE CALCULATED USING SECTION M1909.3. INTEGRATED FORCED-AIR VENTILATION SYSTEMS SHALL DISTRIBUTE OUTDOOR AIR TO EACH HABITABLE ROOM THROUGH THE FORCED-AIR SYSTEM DUCTS. INTEGRATED FORCED-AIR VENTILATION SYSTEMS SHALL HAVE AN OUTDOOR AIR INLET DUCT CONNECTING A TERMINAL ELEMENT ON THE OUTSIDE OF THE BUILDING TO THE RETURN AIR FLENUM OF THE FORCED AIR SYSTEM AT A POINT WITH A FEET UPSTREAM OF THE AIR HANDLER. THE OUTDOOR AIR INLET DUCT CONNECTION TO THE RETURN AIR STREAM SHALL BE LOCATED UPSTREAM OF THE FORCED-AIR SYSTEM BLOWER AND SHALL NOT BE CONNECTED DIRECTLY INTO A RETURN CABINET TO PREVENT THERMAL SHOCK TO THE HEAT EXCHANGER. THE SYSTEM SHALL BE EQUIPPED WITH A MOTORIZED DAMPER CONNECTED TO THE AUTOMATIC VENTILATION CONTROL AS SPECIFIED IN SECTION M1909.3.2. THE REQUIRED FLOW RATE SHALL BE VERIFIED BY FIELD TESTING WITH A FLOW HOOD OR A FLOW MEASURING STATION.

THE WHOLE HOUSE VENTILATION SYSTEM SHALL BE CONTROLLED BY A 24-HOUR CLOCK TIMER WITH THE CAPABILITY OF CONTINUOUS OPERATION, MANUAL AND AUTOMATIC CONTROL. THE CONTROL SHALL CONTROL THE FORCED AIR SYSTEM BLOWER AND THE AUTOMATIC DAMPER. THE 24-HOUR TIMER SHALL BE READILY ACCESSIBLE. THE 24-HOUR TIMER SHALL BE CAPABLE OF OPERATING THE WHOLE HOUSE VENTILATION SYSTEM WITHOUT ENERGIZING OTHER ENERGY-CONSUMING APPLIANCES. AT THE TIME OF FINAL INSPECTION, THE AUTOMATIC CONTROL TIMER SHALL BE SET TO OPERATE THE WHOLE HOUSE SYSTEM FOR A LEAST 6 HOURS A DAY. A LABEL SHALL BE AFFIXED TO THE CONTROL THAT READS "WHOLE HOUSE VENTILATION (SEE OPERATING INSTRUCTIONS)".

WHOLE HOUSE EXHAUST FANS SHALL BE RATED AT 0.25 U.G. AND MAX. LOI NONE RATING THE OUTDOOR AIR CONNECTION TO THE RETURN AIR STREAM SHALL BE LOCATED TO PREVENT THERMAL SHOCK TO THE HEAT EXCHANGER. THE OUTDOOR AIR INLET SHALL BE SCREENED OR OTHERWISE PROTECTED FROM ENTRY BY INSECTS, LEAVES, OR OTHER MATERIAL. THE INLETS SHALL BE LOCATED SO AS NOT TO TAKE AIR FROM THE FOLLOWING AREAS:  
A) CLOSER THAN 10 FEET FROM AN AFFILIANCE VENT OUTLET, UNLESS SUCH VENT OUTLET IS 3 FEET ABOVE THE OUTDOOR AIR INLET.  
B) WHERE IT WILL PICK UP OBJECTIONABLE ODORS, FUMES OR FLAMMABLE VAPORS.  
C) A HAZARDOUS OR UNSANITARY LOCATION.  
D) A ROOM OR SPACE HAVING ANY FUEL-BURNING APPLIANCE THEREIN.  
E) CLOSER THAN 10 FEET FROM A VENT OPENING OF A PLUMBING DRAINAGE SYSTEM UNLESS SUCH VENT OPENING IS AT LEAST 3 FEET ABOVE THE AIR INLET.  
F) ATTIC, CRAWL SPACES OR GARAGES.  
THE DUCT SHALL BE INSULATED TO R-4 WHERE PASSING THROUGH UNCONDITIONED SPACE.

## HYAC:

THE HYAC SHALL BE CAPABLE OF MAINTAINING 68 DEGREES FAHRENHEIT AT A POINT THREE FEET OFF THE FLOOR AND 2' FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS WITH THE OUTSIDE TEMPERATURE IS AS SET FORTH IN THE WASHINGTON STATE ENERGY CODE. THE HYAC SYSTEM SHALL BE A GEOTHERMAL HEAT PUMP, WATER FURNACE 5 SERIES NDV O&G. CLIP TO BEM, 9 COP. THE INSTALLED HYAC SIZE SHALL BE BASED ON THE CALCULATED HEAT LOSS AND SHALL NOT EXCEED 90% OF THE CALCULATED HEAT LOSS. A NIGHT SETBACK THERMOSTAT IS REQUIRED.

## ENERGY CODE DATA:

THIS BUILDING IS DESIGNED IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE  
INSULATION VALUES:  
WALLS: R-21 MIT.  
INSULATE BEHIND TUB/SHOWER, PARTITIONS, AND CORNERS. FACE STAPLE FACED INSULATION. FRICTION FIT UNFACED BATT'S AND INSTALL A 4-MIL POLY VAPOR BARRIER.  
CEILING'S: R-38  
INSTALL INSULATION Baffles AT EAVES, Baffles TO MAINTAIN 1" CLEAR ABOVE INSULATION. EXTEND Baffles 6" ABOVE BATT INSULATION AND 12" ABOVE LOOSE FILL INSULATION.  
FLOORS: R-30  
SLAB EDGE: R-10, RIGID  
DUCT INSULATION: R-8  
PIPE INSULATION: R-3  
HOT AND COLD WATER PIPES OUTSIDE OF THE CONDITIONED SPACE SHALL BE INSULATED.  
WINDOWS: U<=0.24  
ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO OMIT INFILTRATION INTO OR FROM THE BUILDING ENVELOPE AND SHALL BE SUBSTANTIATED BY TESTING TO STANDARD ASTM E 993-15.  
EXTERIOR DOORS: U<=0.30  
ONE SIDE-HINGED OPaque DOOR ASSEMBLY UP TO 24 SQUARE FEET IN AREA IS EXEMPT FROM THE U-FACTOR REQUIREMENTS. ALL EXTERIOR DOORS OR DOORS SERVING AS ACCESS TO AN ENCLOSED UNHEATED AREA OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR LEAKAGE AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED FIRE-RATED.

## VAPOR BARRIERS:

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILING'S ARE APPLIED DIRECTLY TO THE UNDERSIDE OF RAFTERS, AND AT EXTERIOR WALLS.

## GROUND COVERS:

A GROUND COVER OF 6 MIL BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES AND UNDER ALL FLOOR SLABS EXCEPT GARAGE FLOOR SLABS. THE GROUND FLOOR COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

## ARCHITECTURAL PLANS

- A 1.0 GENERAL NOTES
- A 1.1 MI DEVELOPMENT PLAN

- A 2.0 FOUNDATION
- A 2.1 GARAGE PLAN
- A 2.2 MAIN FLOOR PLAN
- A 2.3 UPPER FLOOR PLAN
- A 2.4 ROOF PLAN

- A 3.1 EAST ELEVATION
- A 3.2 WEST ELEVATION
- A 3.3 SOUTH ELEVATION
- A 3.4 NORTH ELEVATION

- A 4.1 SECTION "A-A"
- A 4.2 SECTION "B-B"
- A 4.3 SECTION "C-C"
- A 4.4 SECTION "D-D"

- A 5.1 DETAILS
- A 5.2 DETAILS
- A 5.3 DETAILS
- A 5.4 DETAILS
- A 5.5 STAIRS
- A 5.6 WINDOWS

- A 6.1 CABINETS
- A 6.2 GARAGE FLOOR ELECTRICAL
- A 6.3 MAIN FLOOR ELECTRICAL
- A 6.4 UPPER FLOOR ELECTRICAL

## STRUCTURAL PLANS

- P 1.0 SHORING PIN FILE DETAILS
- P 1.1 SHORING PIN FILE PLAN

- S 1.0 STRUCTURAL NOTES
- S 2.0 FOUNDATION PLAN
- S 2.1 MAIN FLOOR FRAMING PLAN
- S 2.2 UPPER FLOOR FRAMING PLAN
- S 2.3 ROOF FRAMING PLAN

- S 3.0 FOUNDATION DETAILS
- S 3.1 FOUNDATION DETAILS
- S 3.2 FOUNDATION DETAILS

- S 4.0 FRAMING DETAILS
- S 4.1 FRAMING DETAILS
- S 4.2 FRAMING DETAILS
- S 4.3 FRAMING DETAILS

## CIVIL ENGINEERING PLANS

- C1.0 SITE PLAN
- C1.02 TOPOGRAPHIC PLAN
- C2.0 EROSION CONTROL PLAN
- C4.01 STORM, UTILITIES & GRADING
- C4.21 STORM DRAINAGE DETAILS

## WETLAND PLANS

- 1 OF 2 CRITICAL ENHANCEMENT PLAN
- 2 OF 2 CRITICAL ENHANCEMENT PLAN

THE HEALEY ALLIANCE AZ  
2605 N 19th DRIVE, GOOD YEAR, AZ 85395 - (480) 444-6766  
REGISTERED ARCHITECT  
STATE OF WASHINGTON  
ARCHITECTS

Mi Treehouse, LLC,  
5631 EAST MERCER WAY  
MERCER ISLAND, WA.

COVER SHEET  
SCALE 1/4" = 1'-0"

DATE  
4-27-2021

PROJECT NO.  
001

SHEET NO.  
A 1.0

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



INSPECTION REQUESTS:

online:



voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

CONTACT INFORMATION:

Applicant is to complete the following information.

Applicant Contact information prior to permit issuance: Name, Address, Phone, Email
Applicant Contact information post permit issuance: Name, Address, Phone, Email

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:

It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below.

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR): Engineer of Record, Company, Phone, General Conformance to Construction Documents, Other

SOILS / GEOTECHNICAL: Special Inspector, Company, Phone, Erosion control measures, Shoring installation and monitoring, Observe and monitor excavation, Verification of soil bearing, Other

REINFORCED CONCRETE: Special Inspector, Company, Phone, Concrete strength, Reinforcing steel and concrete placement, Shotcrete placement, Other

STRUCTURAL STEEL: Special Inspector, Company, Phone, Fabrication and shop welds, Structural steel erection, field welds and bolting, Other

STRUCTURAL MASONRY: Special Inspector, Company, Phone, Mortar strength, Masonry unit strength, Other

WOOD: Special Inspector / Engineer of Record, Company, Phone, Lateral resisting system construction, High strength diaphragm construction, Other

OTHER SPECIAL INSPECTIONS: Special Inspector, Company, Phone, Epoxy grout installations, Expansion anchor installations, Other post installed anchors, Alternative construction methods, Alternative construction materials, Other

DEFERRED SUBMITTALS:

The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

Connector plate wood trusses, Metal joist / metal trusses, Premanufactured structures (stairs, etc.), Precast concrete elements, Other, Post tension layout, Exterior cladding, Window wall / curtain wall construction, Other

ENERGY CODE COMPLIANCE INFORMATION:

Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

Building envelope, Whole house ventilation, Energy Credit Information, RECPC Form Information, Air Leakage Testing, Duct Leakage Testing, Postconstruction Test, Rough-in Test

TO BE COMPLETED BY DSG

PROJECT ALERTS:

Construction of the project shall be from approved plans only. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island. Approved plans must be kept on site and maintained in good condition.

Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Site Considerations, Hours of Work, Construction Vehicle Parking Restrictions, Access Road Requirements, ROW restrictions, Drainage Requirements, Sewer Requirements, Water Service Requirements, Additional Fire Code Requirements, Planning Requirements, Noise Abatement Certification, Tree Requirements

TREE PROTECTION REQUIREMENTS:

Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project. No trees shall be cut without a City of Mercer Island tree permit. Replacement trees must be a minimum of six feet tall at installation.

FIRE PROTECTION REQUIREMENTS:

Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

Fire Sprinkler, NFPA 13D, Plus, NFPA 13R, NFPA 13, Monitored Household Fire Alarm per NFPA 72, Monitored Sprinkler, Water Flow Alarm, Other, Approved Fire Code Alternatives: FCA1, FCA2, FCA3, FCA4

WATER SUPPLY REQUIREMENTS:

Fire sprinkler design calculations must be provided prior to determining water supply system requirements. Water Supply system upgrade required, City Installation, Applicant Installation, Required Service Line Size, Required Supply Line Size, Required Meter Size, Abandonment of existing service and meter required at main, Pressure reducing valve required if pressure exceeds 80 psi, Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply, Additional water supply requirements

DRAINAGE REQUIREMENTS:

On site detention system required, On site infiltration system required, As-built Utility drawings required, Full Size drawings required, Direct discharge into the lake, No Storm Water permit required, Connection to public storm drainage conveyance system req'd, Other

SIDE SEWER REQUIREMENTS:

Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties. Video tape of existing sewer required (see standard details), New connection, Connect to existing, Disconnect permit required, Reconnect permit required, Other

APPROVED CODE ALTERNATIVES:

Code alternatives must be inspected. Refer to the Inspection Checklist. CA1, CA2

SURVEY REQUIREMENTS (The following survey information must be submitted when checked):

Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy.

Surveyor, Building height survey, Building setback survey, Impervious surface survey, Other, MAXIMUM 40 PERCENT ALTERATION INSPECTION: A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered.

GEOTECHNICAL INFORMATION:

Land clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times.

Geotechnical Engineer, SEASONAL DEVELOPMENT LIMITATION RESTRICTION: Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1. Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit.

Permit number, Approved by, Date

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

REQUIRED CONSTRUCTION INSPECTIONS:

It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) in advance of desired inspection. Be specific as to type of inspection.

Inspector shall initial and date appropriate inspection only if approved. Note: Items marked with an "A" require a separate permit. It is the applicants responsibility to apply for and obtain all City of Mercer Island permits. INSPECTIONS: (Listed in order of typical sequencing)

Inspector Date Approved, Pre-construction Meeting to Review Conditions of Permit Approval, Tree protection, Erosion control, Sewer disconnect and cap, Right-of-way use or work / easement, material delivery, etc., Land clearing, grading and demolition, Temporary power, Piling / Shoring / Shotcrete, Footings, setbacks, UFER ground, Foundation walls / concrete columns, Roof and footing drains, Foundation damproofing, Storm drainage, Connections to storm main in ROW, Detention systems, Infiltration systems, Catch basins including oil-water separator tees, Retaining wall drainage, Water Service, Water Supply, Water as-built drawings, Side sewer installation, Connections to side sewer main, Connections to existing side sewer, Driveway / Access road, Underslab electrical / mechanical / plumbing, Underslab insulation / vapor barrier / reinforcing, Underfloor framing, Nailing-Roof sheathing, Nailing-Exterior wall and Shearwall, Rough hydronic installation, Rough electric installation, Rough fire alarm (wiring inspection), Rough plumbing installation (DWV, water), Rough mechanical, Gas Piping, Rough fire sprinkler / hydrostatic and flow (bucket) test, Framing and glazing, Masonry construction (fireplace / walls / veneer / etc.), Insulation installation, Stucco (paper and lath), Shower pan (or tub), Miscellaneous, Code Alternative CA1, Code Alternative CA2, Impact Fees Paid (If applicable)

TO BE COMPLETED BY DSG

Final Inspection: Tree Restoration, Final Inspection: Fire protection, including (but not limited to): Sprinkler, Access Road, Fire Code Alternatives (see below), FCA1, FCA2, FCA3, FCA4, Final Inspection: Water supply protection, including (but not limited to): backflow devices for: Waterfront property, Fire / lawn sprinkler, Well water on property, Boiler, Final Inspection: Site and utility: includes landscape, utilities and ROW. Site restoration complete and as-built drawings ready for submittal, Final Inspection: Building, including electrical / mechanical / plumbing. If applicable, provide closeout (summary) letters from Engineer, Special Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS).

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):

Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.

Approved, Start Date, End Date

ADDITIONAL REQUIRED CITY INSPECTIONS:

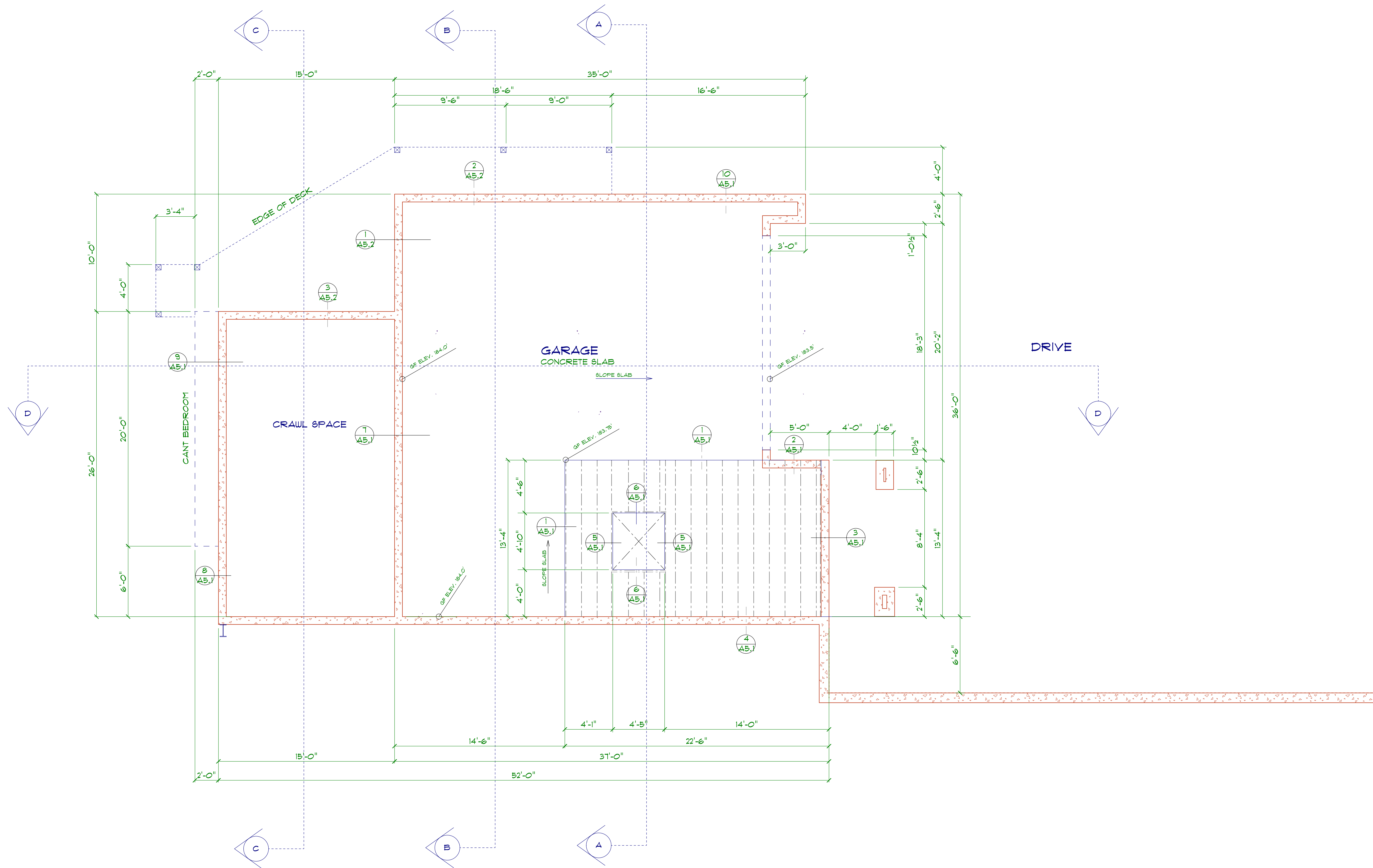
Call the appropriate contact to arrange the inspection. Required Inspection(s), Contact, Phone, Scheduling

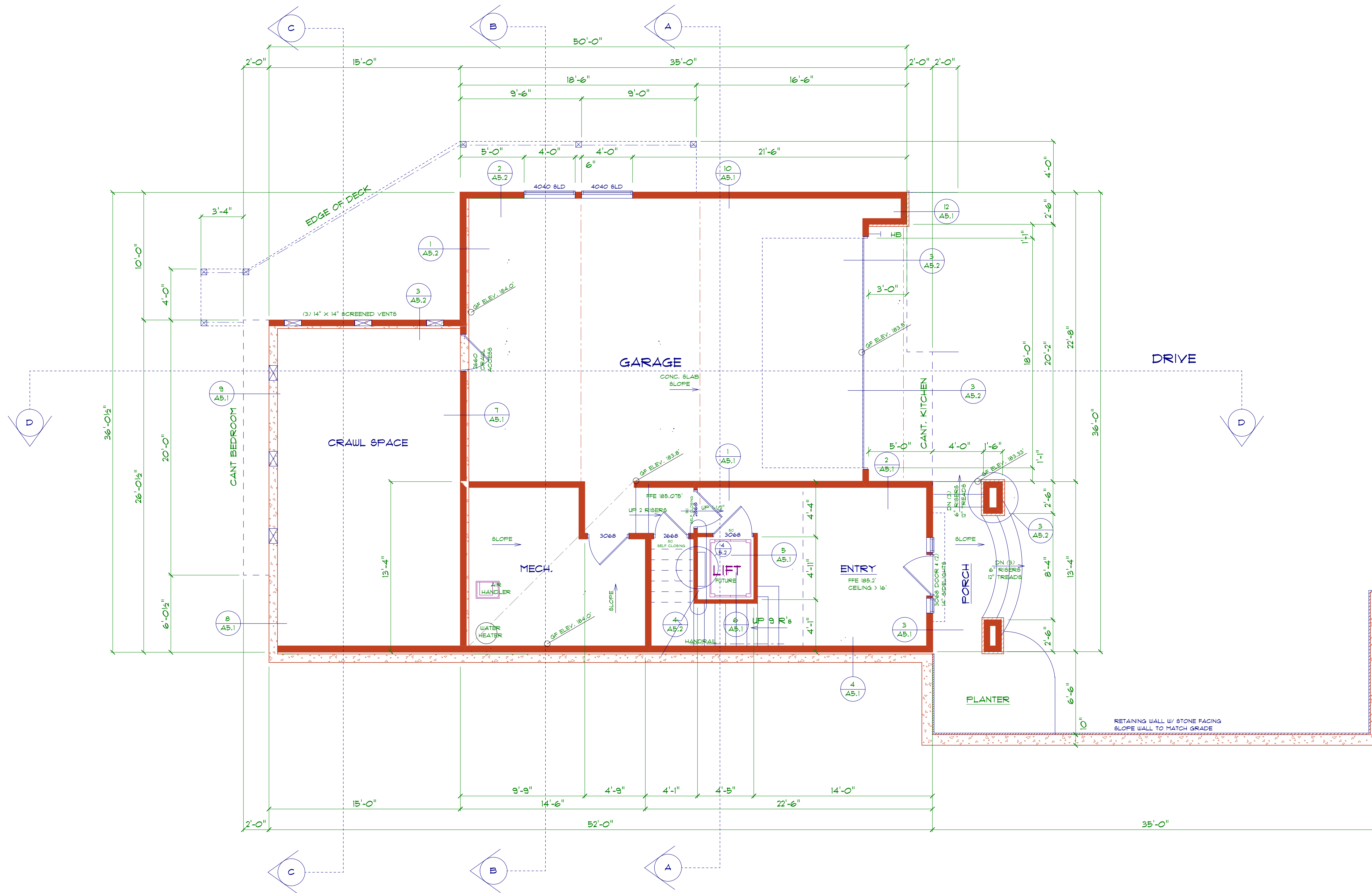
IMPACT FEES: If applicable, Impact fees apply and are due prior to Final Inspection or on Date, whichever occurs first. PLAN REVIEW APPROVALS: Not all review disciplines may be required to review the documents. Building, Planning, Engineering, Tree, Fire

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES. PROJECT NAME, PROJECT ADDRESS, PERMIT NUMBER, Date, Approved

TO BE COMPLETED BY APPLICANT

TO BE COMPLETED BY APPLICANT



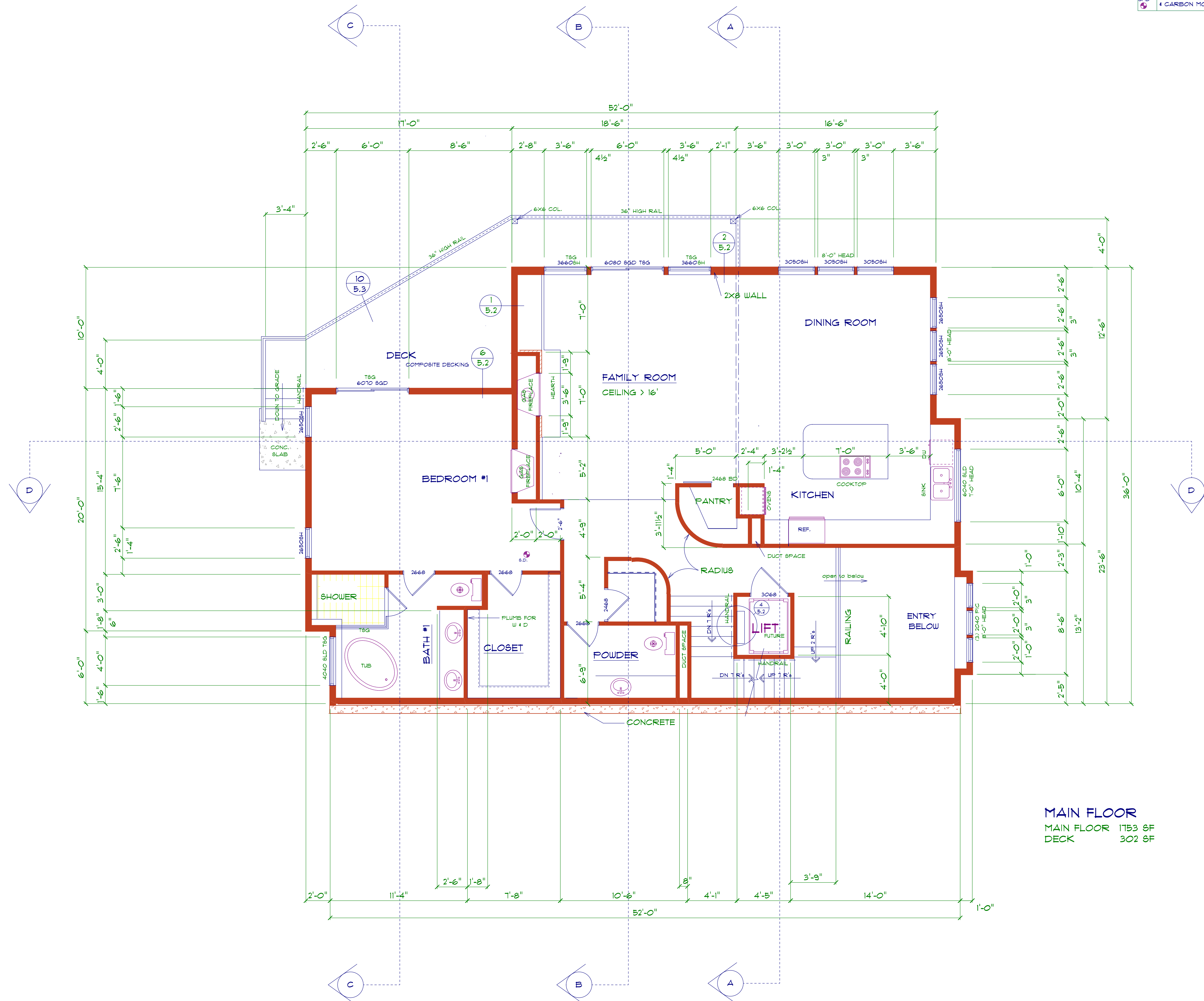


**CRAWL SPACE VENTILATION**

CRAWL SPACE AREA	365 S.F.
VENT. AREA REQ'D. (A/150 X 144)	351 S.F.
8x14 SCREENED VENTS CLEAR AREA	84 S.F.
14x14 SCREENED VENTS CLEAR AREA	141 S.F.
NUMBER OF VENTS:	
(3) 8x14 (4 X 84)	252 S.F.
(3) 14x14 (3 X 141)	441 S.F.
TOTAL	693 S.F.

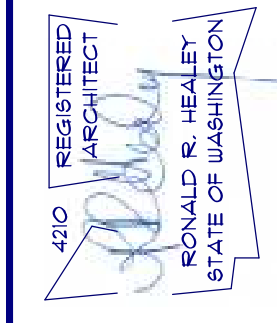
**BASEMENT FLOOR**

LIVING	273 SF
GARAGE	958 SF
TOTAL	1231 SF
BUILDING FOOTPRINT	1694 SF
PORCH	73 SF



LEGEND	
	50 CFM MIN. FAN (V.T.O.)
	110V. SMOKE DETECTOR W/ BATTERY BACKUP & INTERCONNECTED ALARMS
	WHOLE HOUSE FAN - 100 CFM MIN. VTO
	110V. COMBINATION SMOKE DETECTOR & CARBON MONOXIDE DETECTOR

**MAIN FLOOR**  
 MAIN FLOOR 1753 SF  
 DECK 302 SF



**THE HEALEY ALLIANCE AZ**  
 2505 N 195th DRIVE, GOCODYEAR, AZ 85325 - (480) 444-6768  
**ARCHITECTS**

**MI Treehouse, LLC,**  
 5637 EAST MERCER WAY  
 MERCER ISLAND, WA.

**MAIN FLOOR PLAN**

SCALE 1/4" = 1'-0"

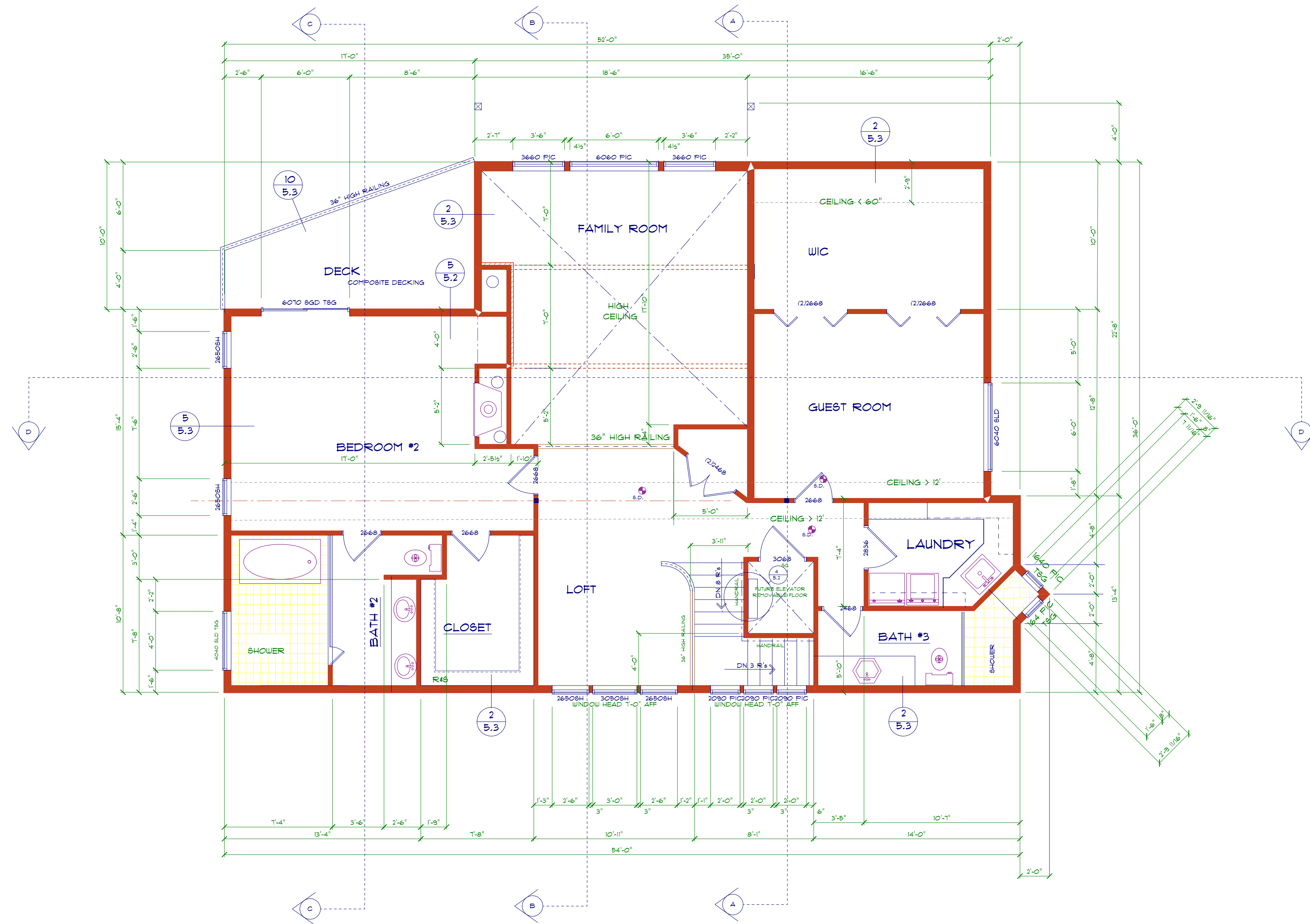
DATE  
4-27-2021

PROJECT NO.  
001

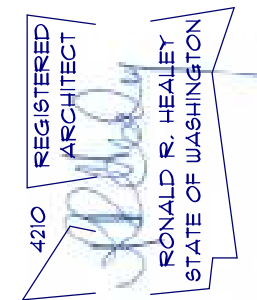
SHEET NO.

**A2.2**

LEGEND	
	50 CFM MIN. FAN (V.T.O.)
	110V. SMOKE DETECTOR W/ BATTERY BACKUP & INTERCONNECTED ALARMS
	WHOLE HOUSE FAN - 100 CFM MIN. VTO
	110V. COMBINATION SMOKE DETECTOR & CARBON MONOXIDE DETECTOR



UPPER FLOOR 1345 SF  
DECK 119 SF



THE HEALEY ALLIANCE AZ  
2505 N 195th DRIVE, GOODYEAR, AZ 85338 • (480) 444-6168  
ARCHITECTS

MI Treehouse, LLC,  
5631 EAST MERCER WAY  
MERCER ISLAND, WA.

UPPER FLOOR PLAN

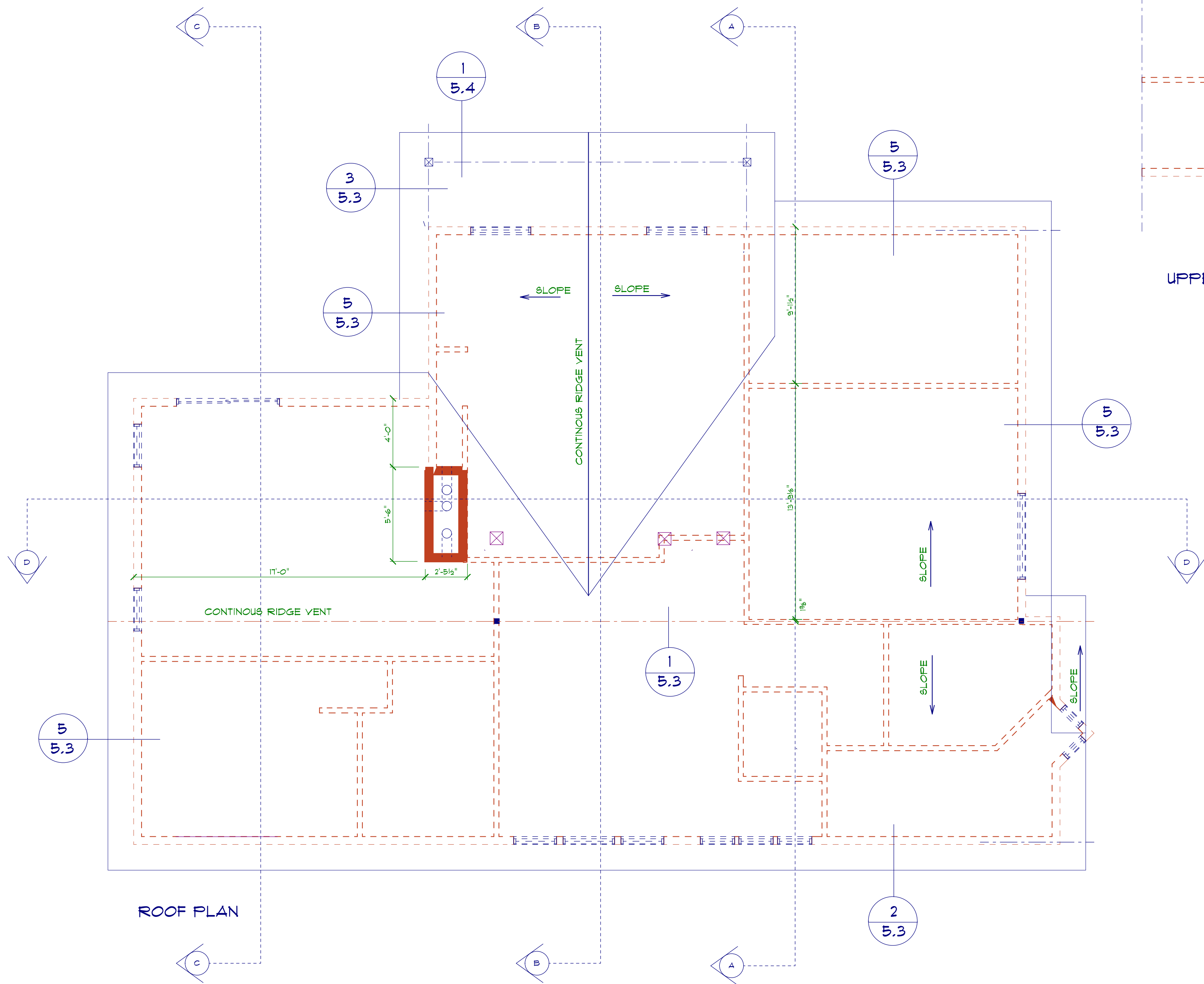
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DATE  
4-21-2021

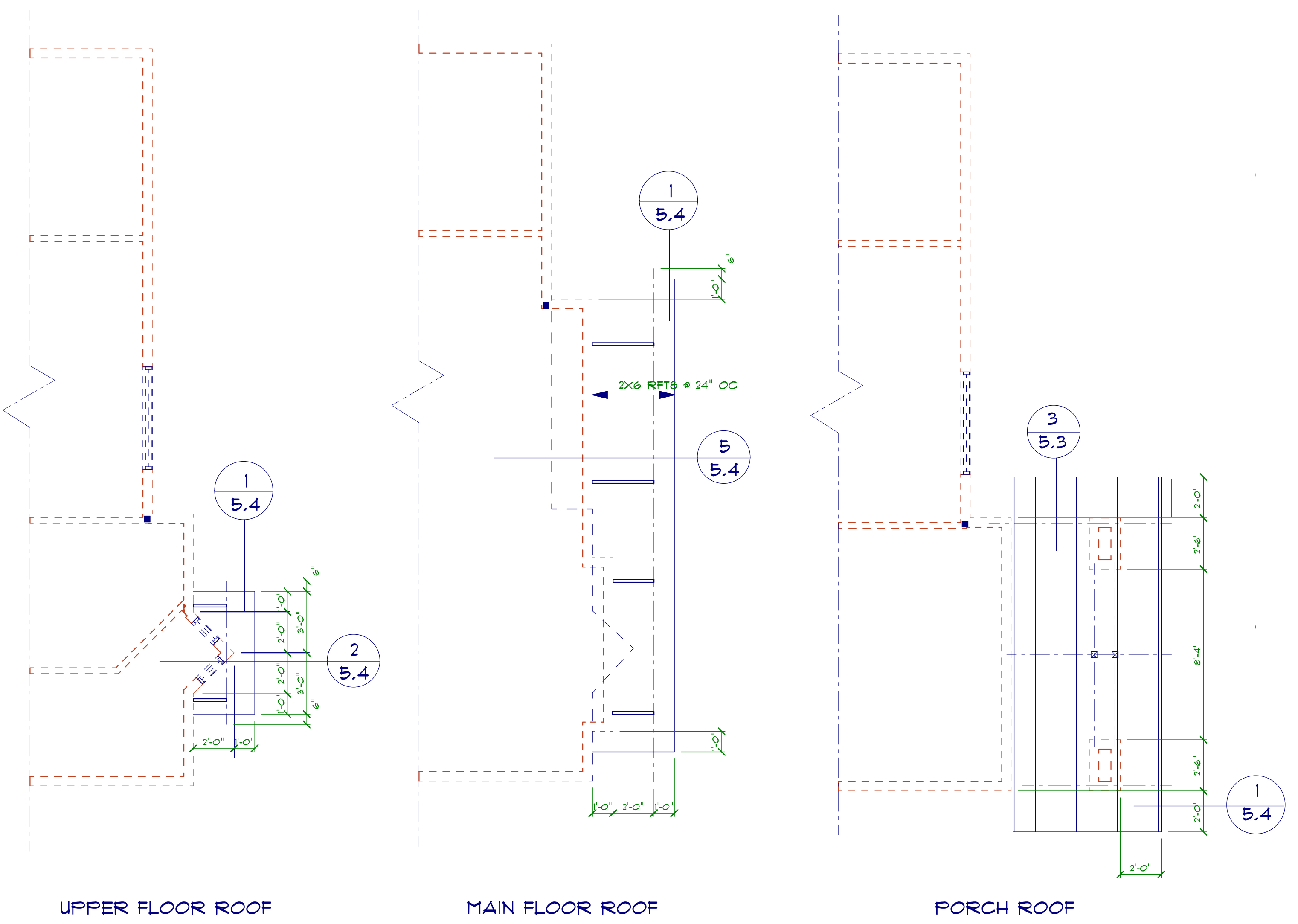
PROJECT NO.  
001

SHEET NO.

A2.3



ROOF PLAN



UPPER FLOOR ROOF

MAIN FLOOR ROOF

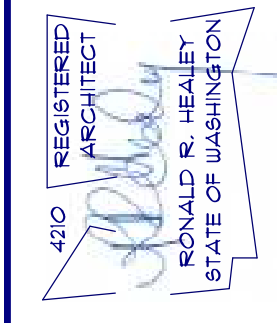
PORCH ROOF

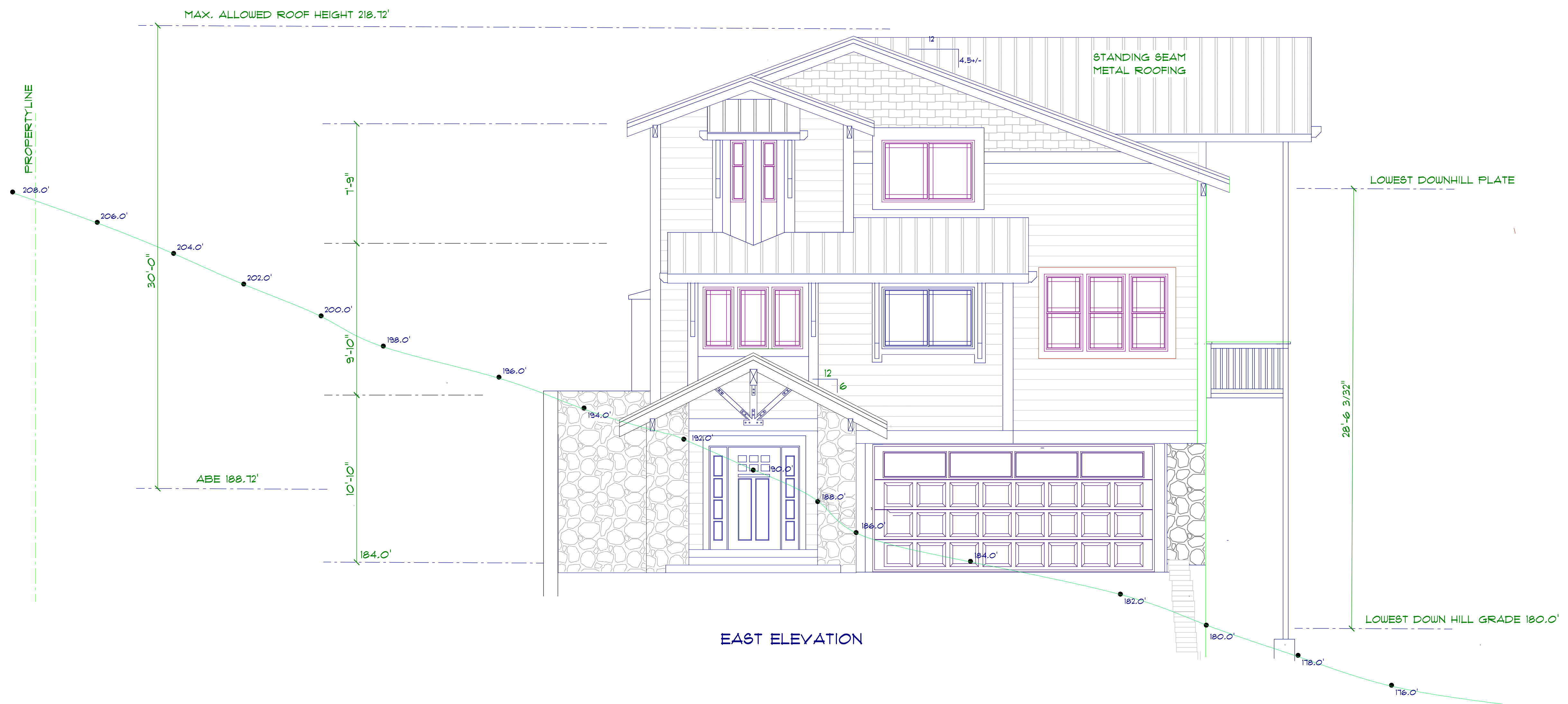
**ROOF VENTILATION**

TYPICAL EACH RAFTER BAY	44 SQ.FT. (2' X 22' X 44 SF)
MAX. RAFTER BAY AREA:	
VENT AREA REQ'D:	21 SQ.IN.
VENT BLOCKS:	10 SQ.IN.
CONTINUOUS RIDGE VENT:	
(18) 18 SQ.IN. / FT.	36 SQ.IN.
TOTAL	46 SQ.IN.

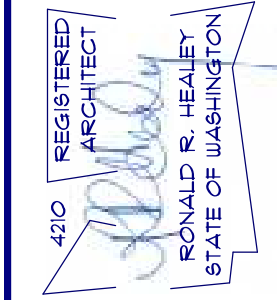
VENT BLOCKS (3) 2" dia. HOLES

ROOF JACK 48 SQ. IN. EACH





EAST ELEVATION



THE HEALEY ALLIANCE AZ  
 2509 N 195th DRIVE, SUITE 100, EVERETT, WA 98203  
 (425) 444-2768  
**ARCHITECTS**

**MI Treehouse, LLC,**  
 5637 EAST MERCER WAY  
 MERCER ISLAND, WA.

EAST ELEVATIONS

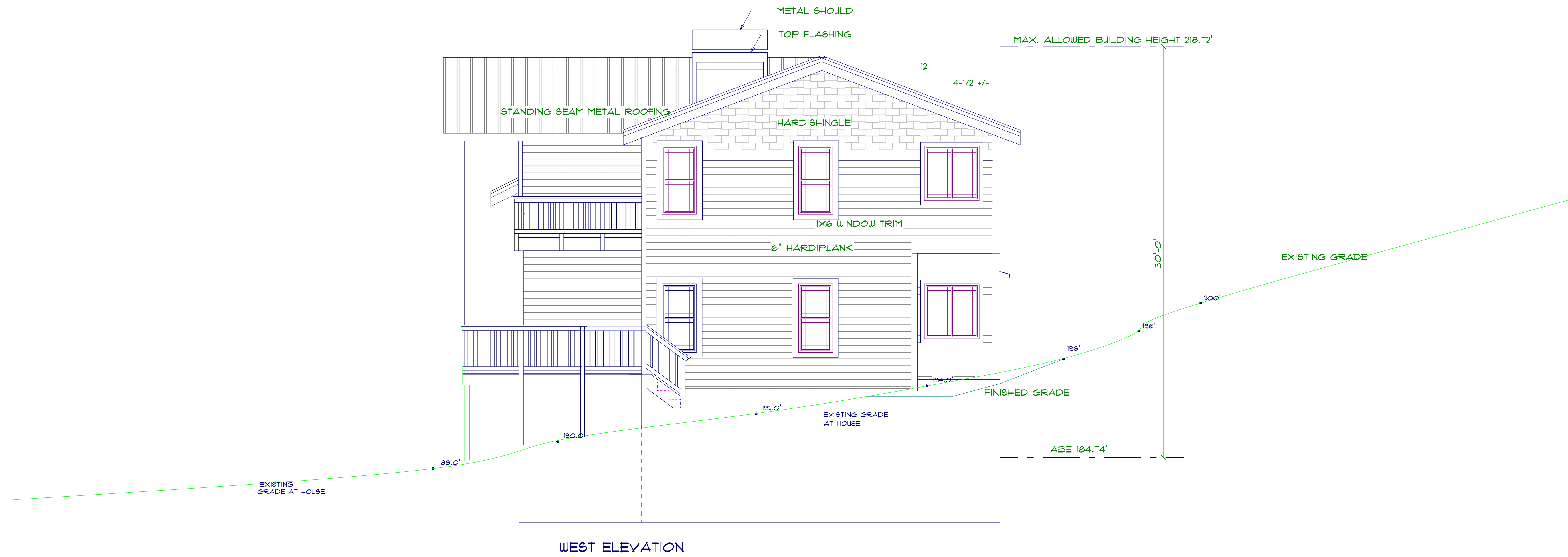
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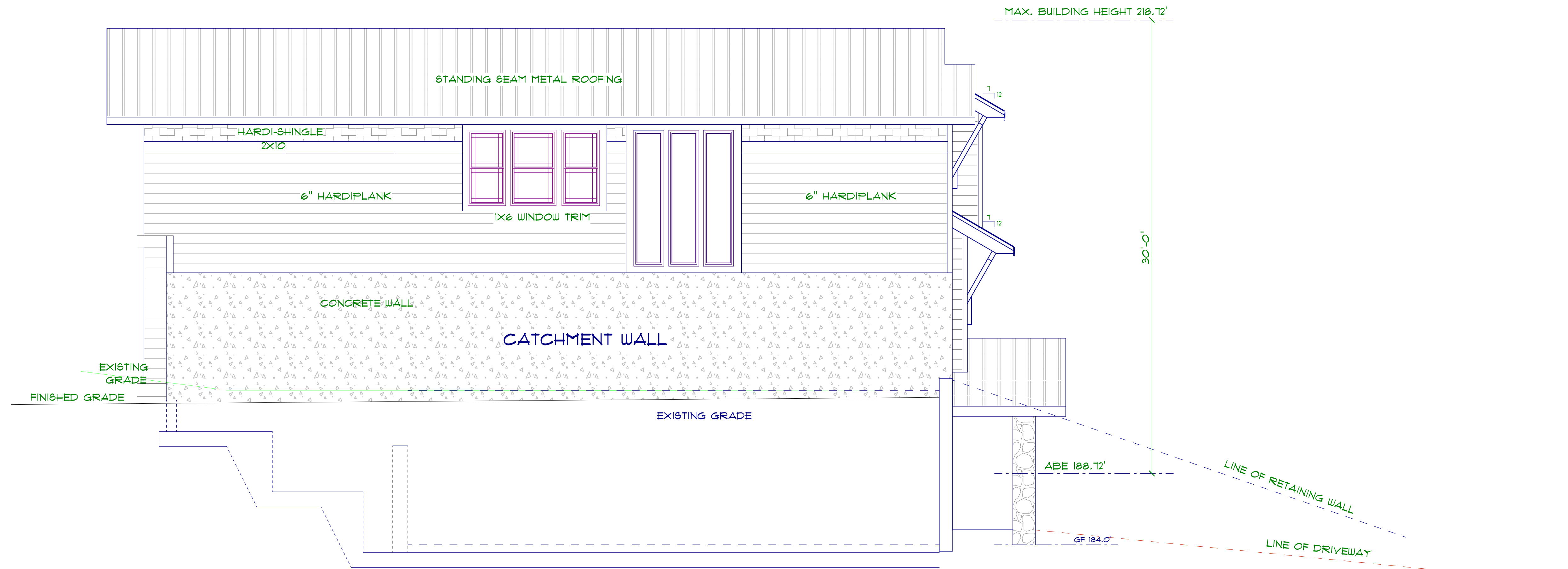
DATE  
4-27-2021

PROJECT NO.  
001

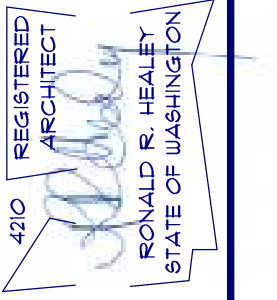
SHEET NO.  
**A3.1**







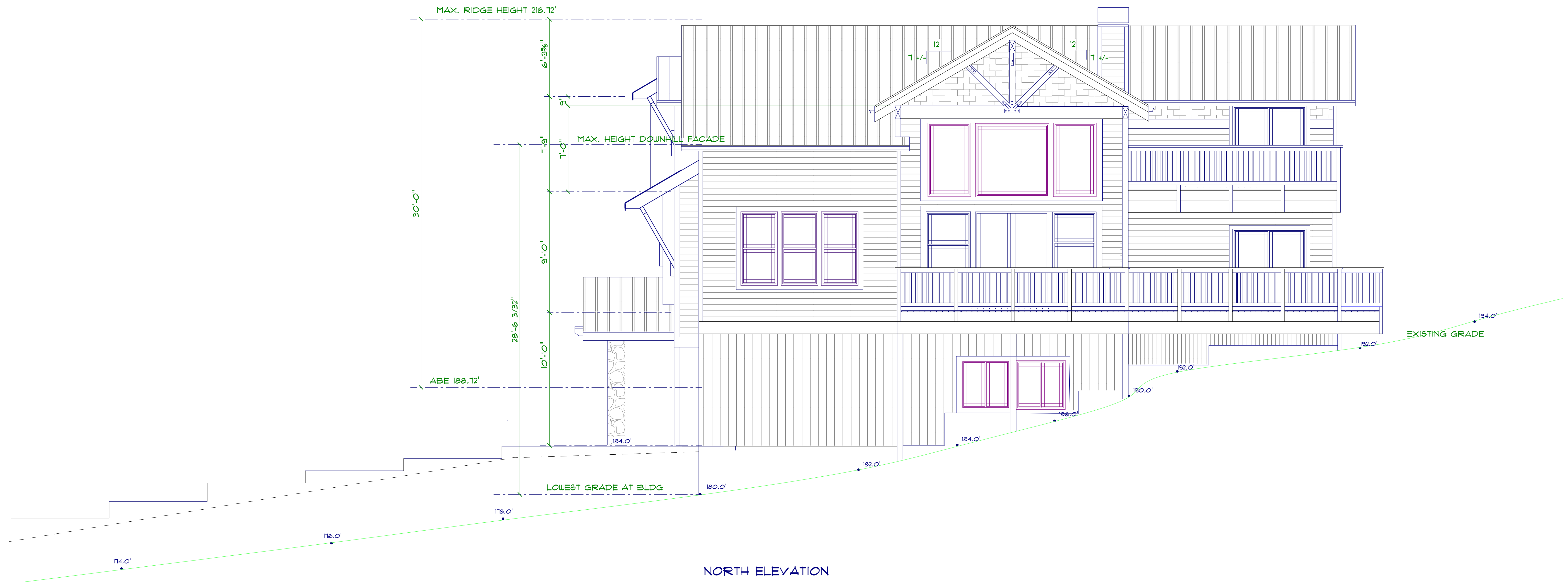
SOUTH ELEVATION



THE HEALEY ALLIANCE AZ  
 2505 N 135th DRIVE, GOODYEAR, AZ 85339 • (480) 444-5768  
**ARCHITECTS**

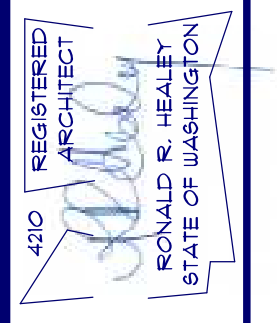
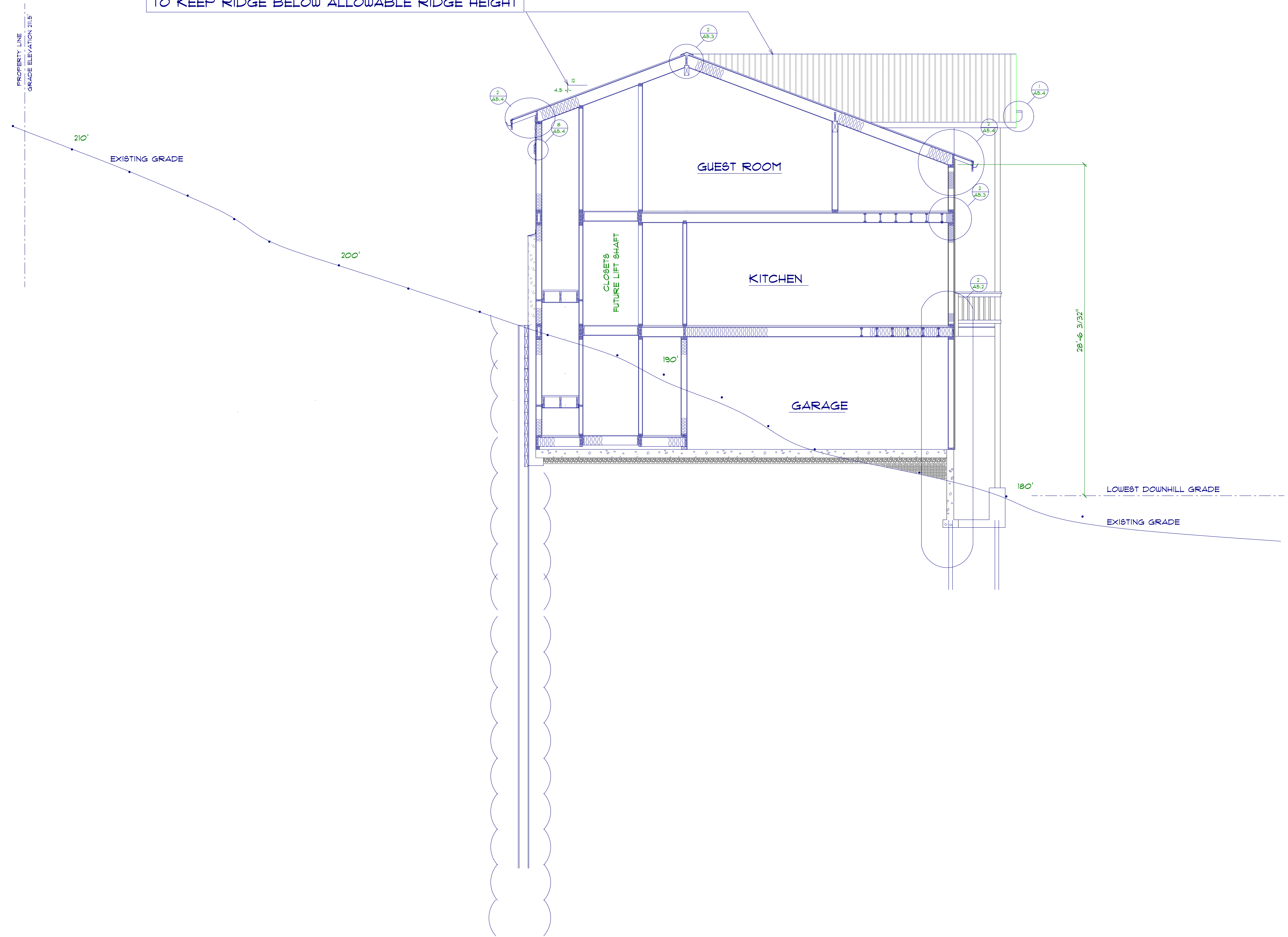
M1 Treehouse, LLC,  
 5631 EAST MERCER WAY  
 MERCER ISLAND, WA.

SOUTH ELEVATIONS  
 DATE: 04-21-2021  
 PROJECT NO.: 001  
 SHEET NO.: **A3.3**  
 SCALE: 1/4" = 1'-0"



NORTH ELEVATION

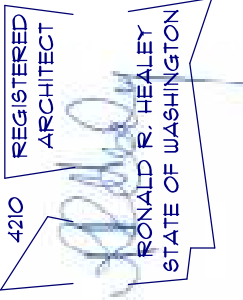
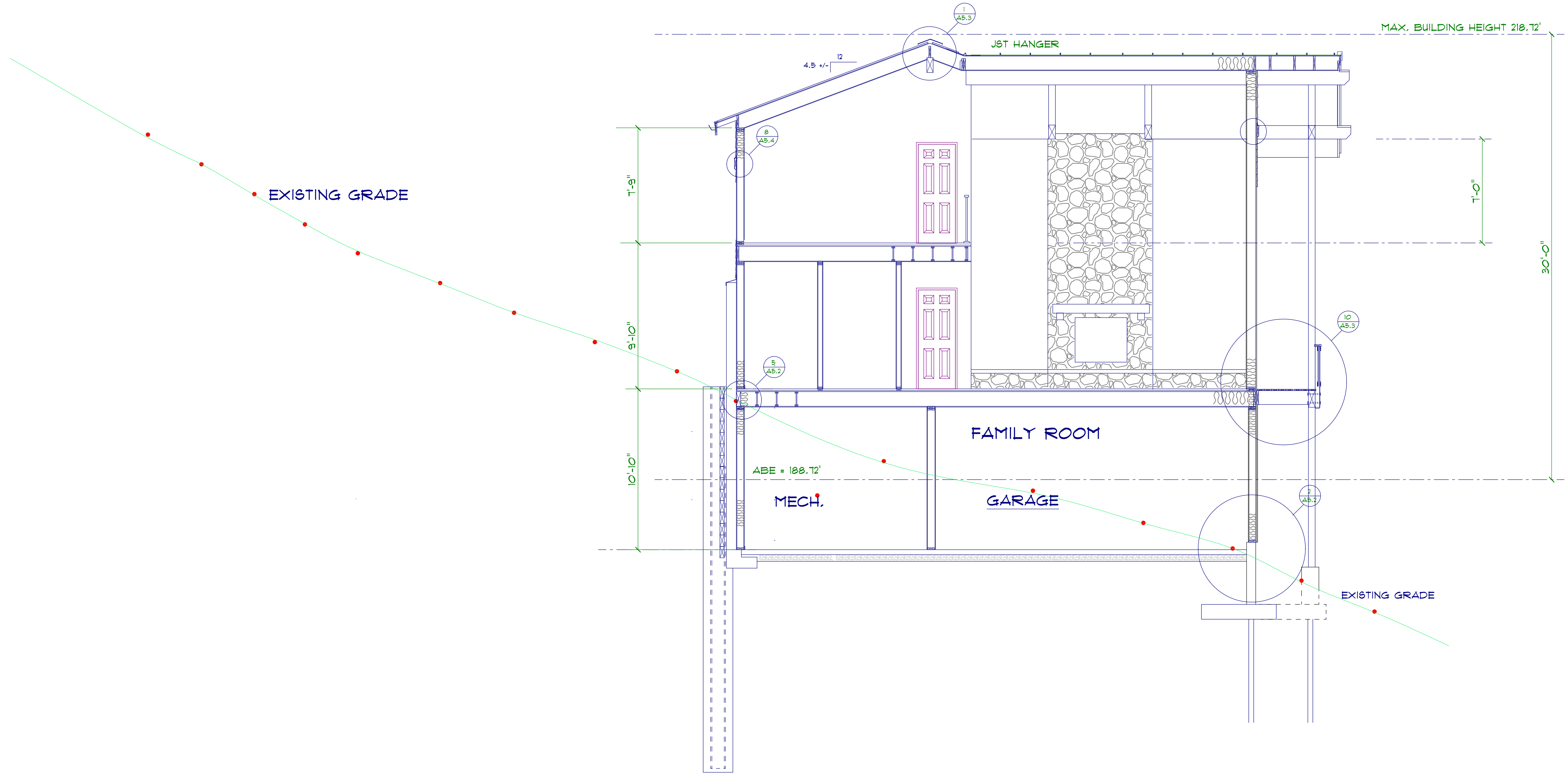
NOTE: ADJUST ROOF PITCH AS REQUIRED TO KEEP RIDGE BELOW ALLOWABLE RIDGE HEIGHT



THE HEALEY ALLIANCE AZ  
 2505 N 138TH DRIVE, GOODYEAR, AZ 85395 • (480) 444-6768  
 ARCHITECTS

M1 Treehouse, LLC,  
 5631 EAST MERCER WAY  
 MERCER ISLAND, WA.

SECTION A-A  
 DATE 04-21-2021  
 PROJECT NO. 001  
 SHEET NO. A4.1  
 SCALE 1/4" = 1'-0"



THE HEALEY ALLIANCE AZ  
 2505 N 138th DRIVE, SUITE 100, AZ 85395 • (480) 444-6768  
**ARCHITECTS**

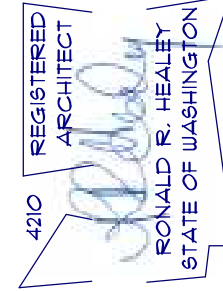
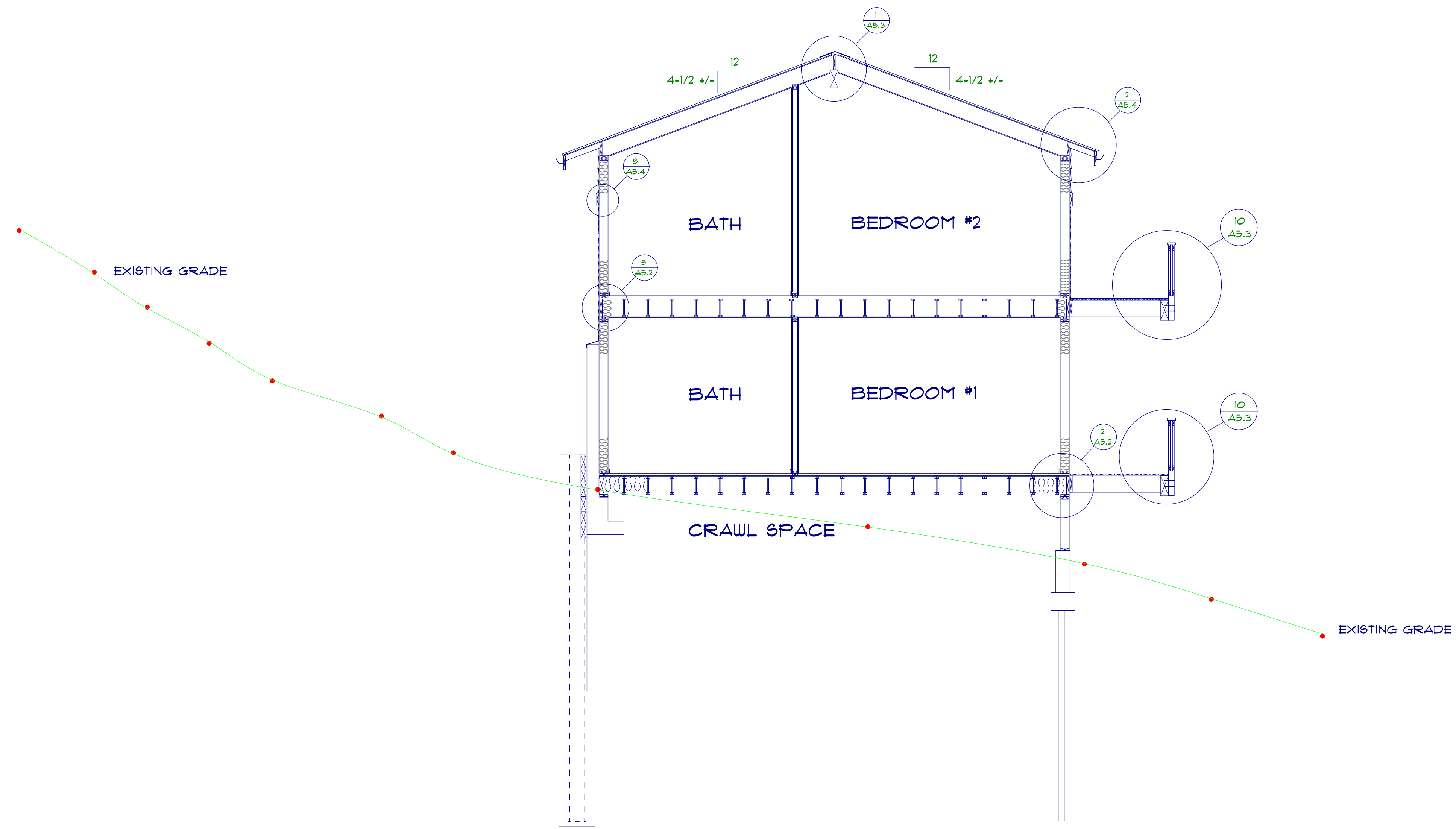
**MI Treehouse, LLC,**  
 5631 EAST MERCER WAY  
 MERCER ISLAND, WA.

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

DATE  
 04-27-2021

PROJECT NO.  
 001

SHEET NO.  
**A4.2**



THE HEALEY ALLIANCE AZ  
 2508 N 135th DRIVE, GOODYEAR, AZ, 85338 • (480) 444-6768  
**ARCHITECTS**

**MI Treehouse, LLC,**  
 5637 EAST MERCER WAY  
 MERCER ISLAND, WA.

SECTION "C-C"

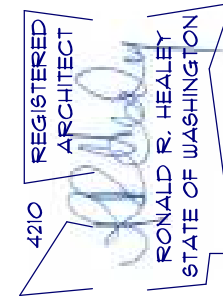
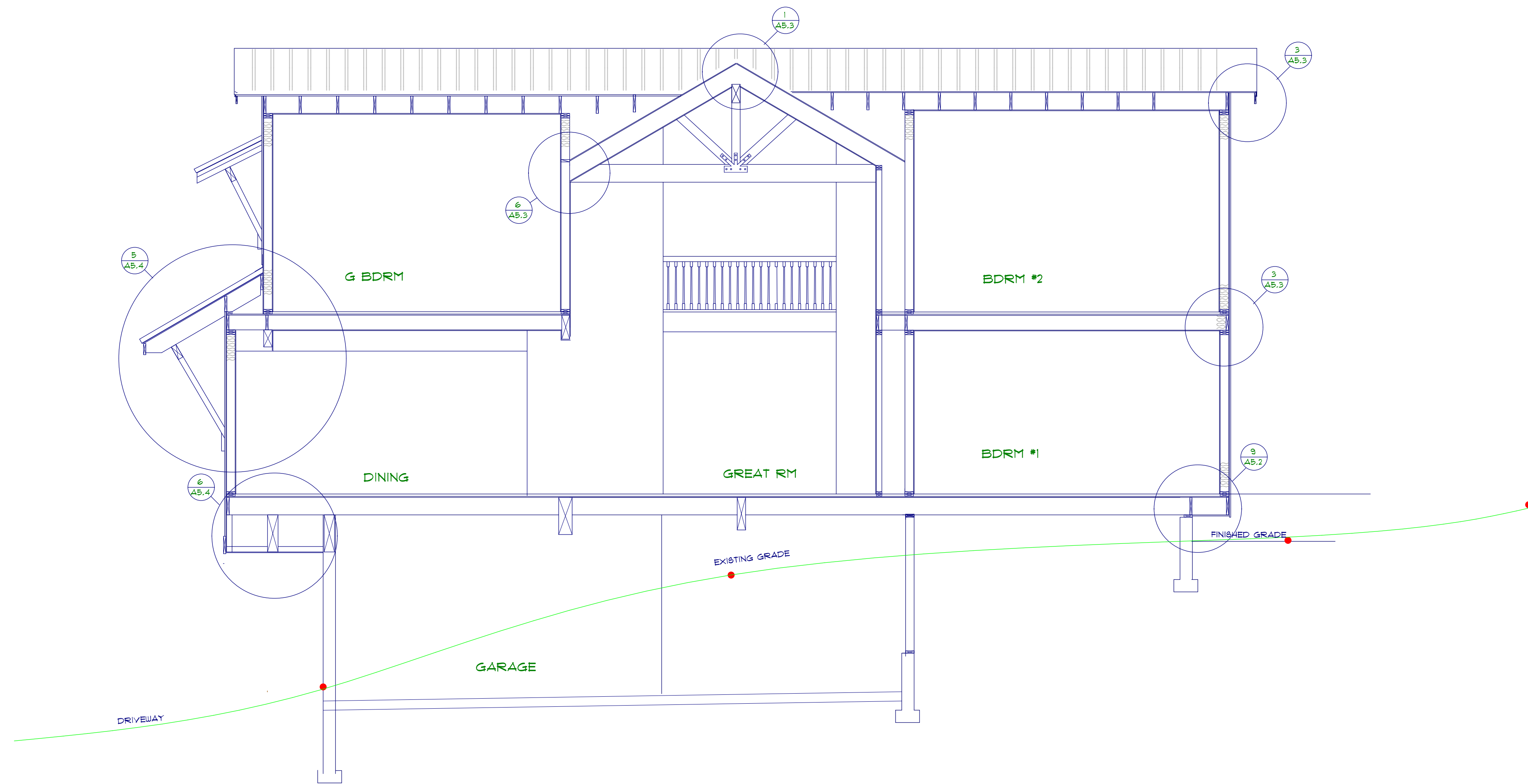
SCALE 1/4" = 1'-0"

DATE  
4-27-2021

PROJECT NO.  
001

SHEET NO.

**A4.3**



THE HEALEY ALLIANCE AZ  
 2505 N 135th DRIVE, GIGHEAR, AZ 85535 • (480) 444-6788  
**ARCHITECTS**

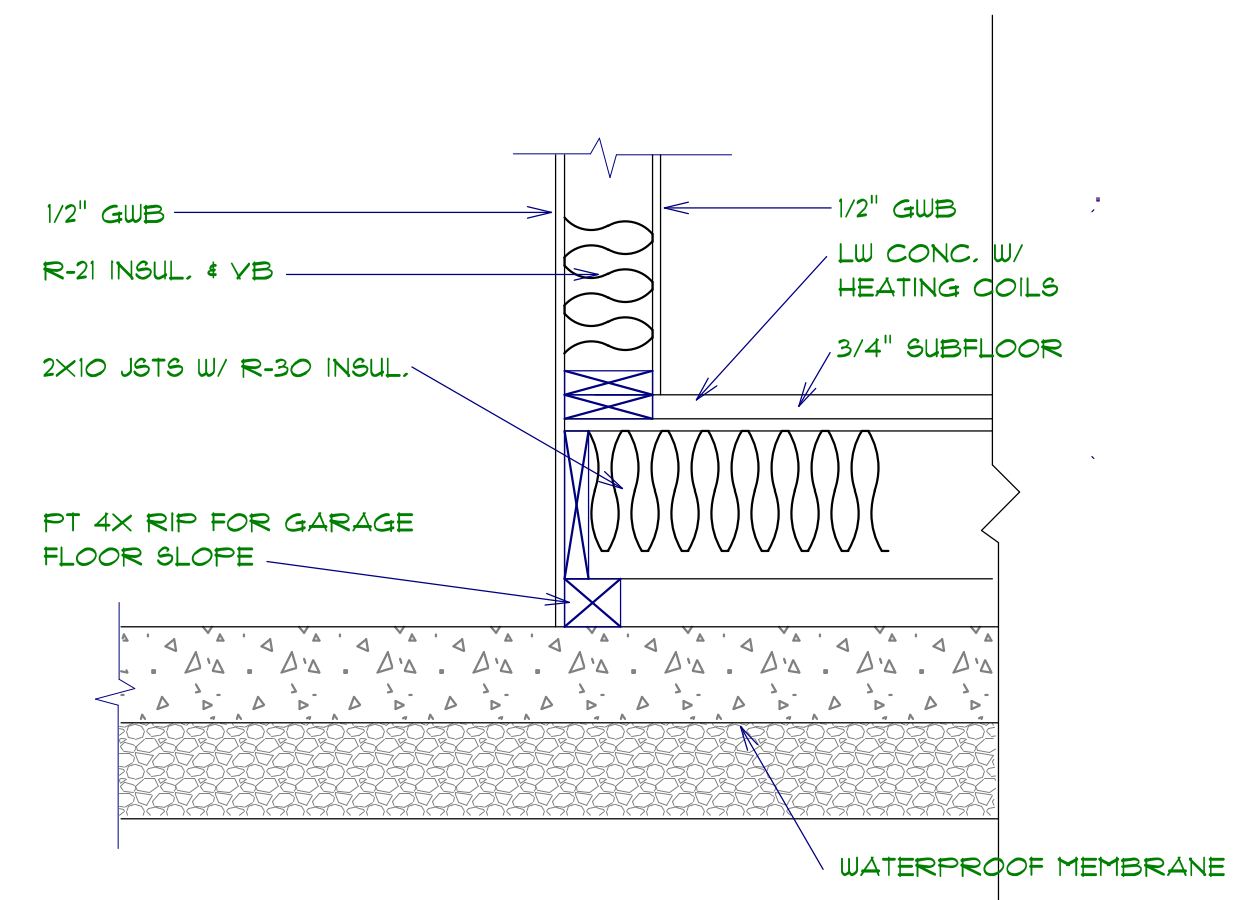
**MI Treehouse, LLC,**  
 5631 EAST MERCER WAY  
 MERCER ISLAND, WA.

SECTION "D-D"  
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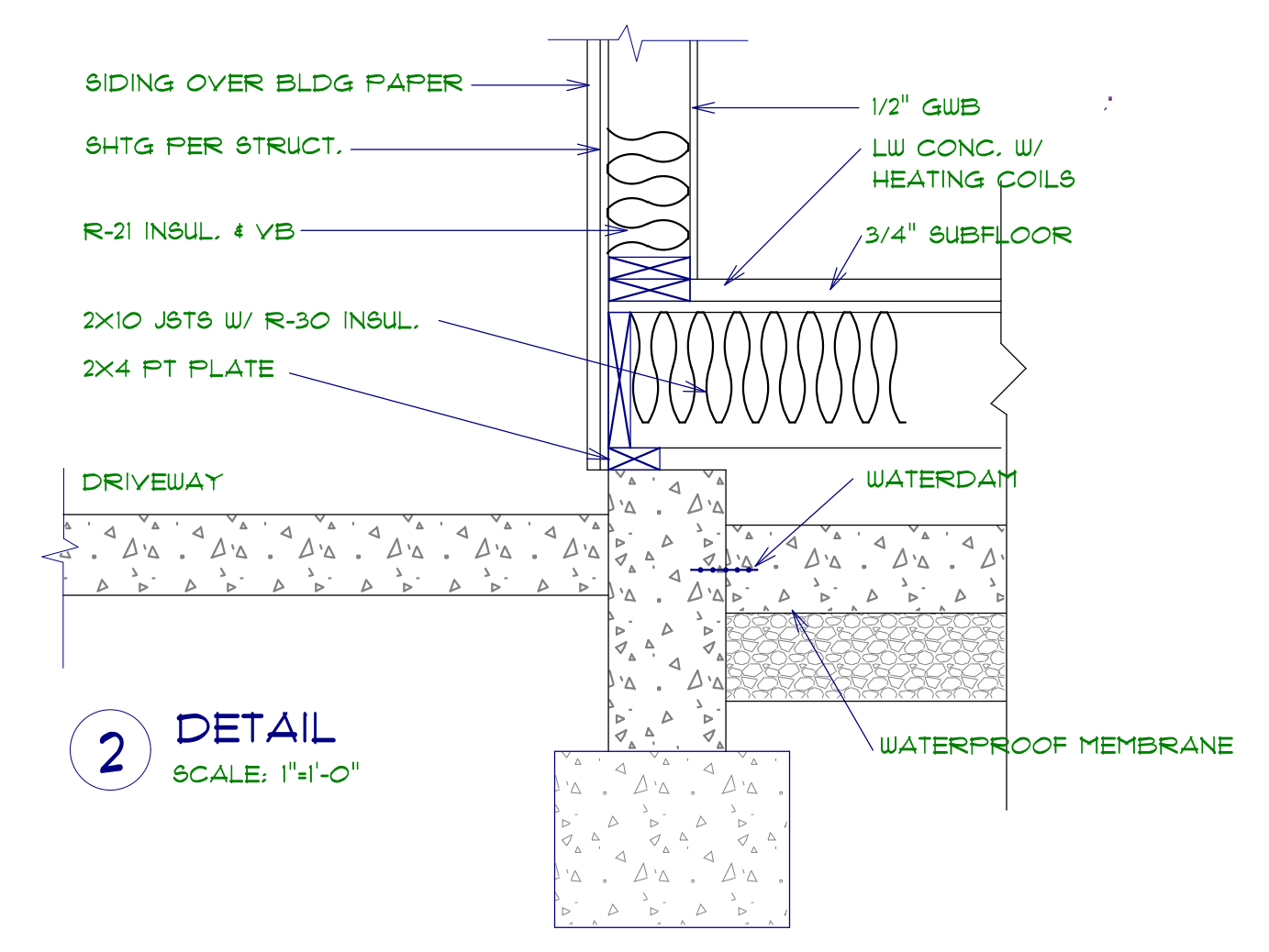
DATE  
 4-27-2021

PROJECT NO.  
 001

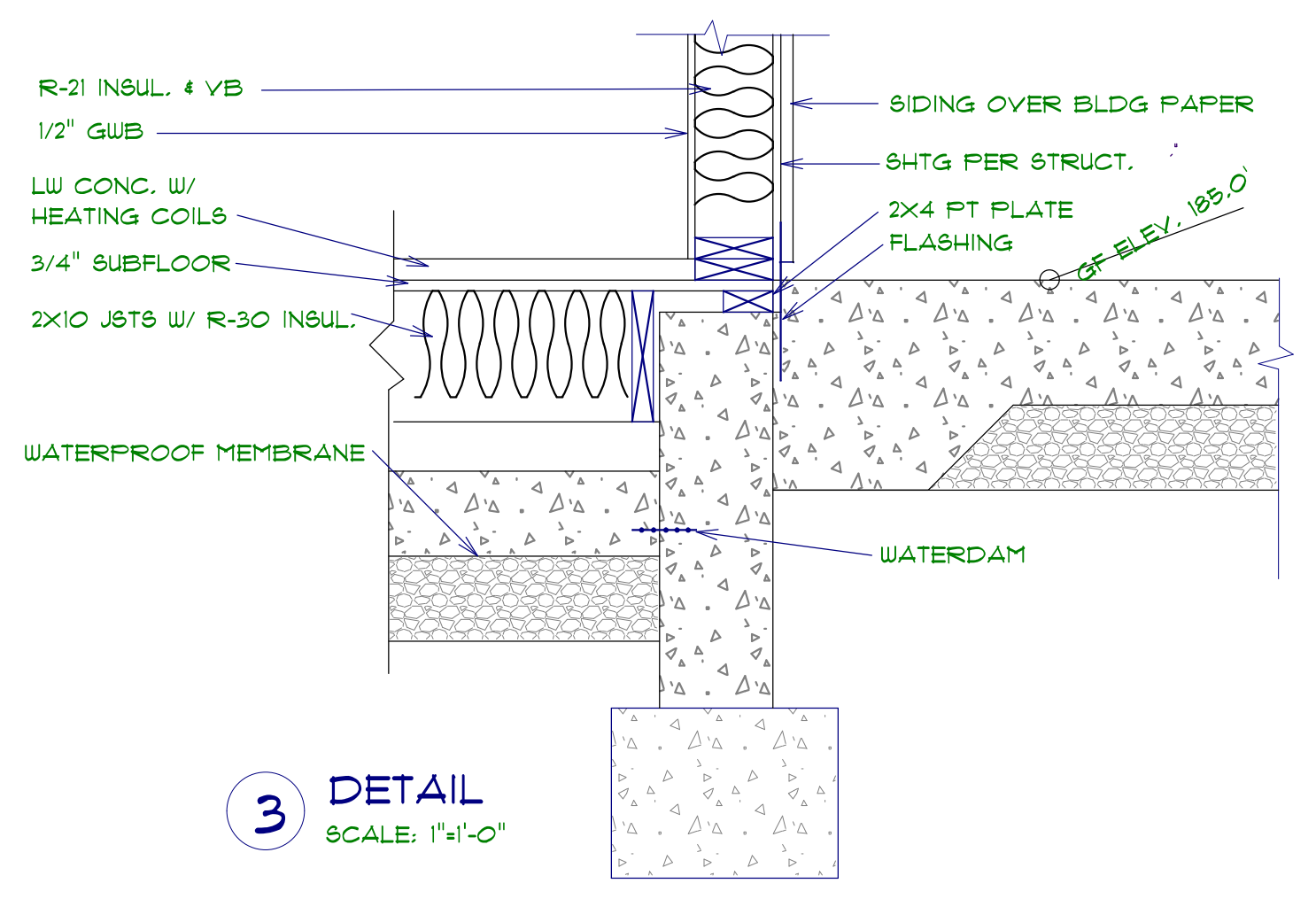
SHEET NO.  
**A4.4**



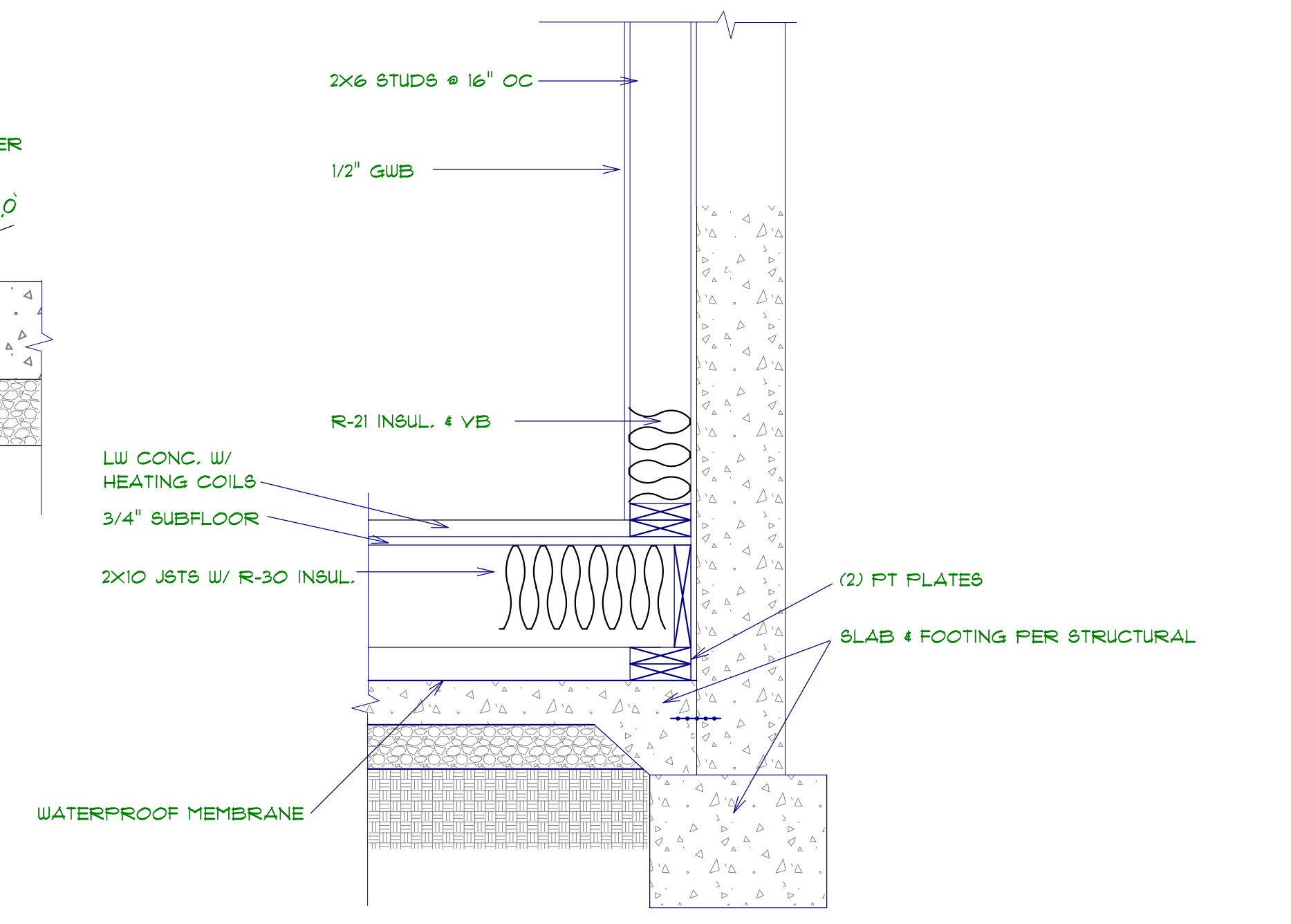
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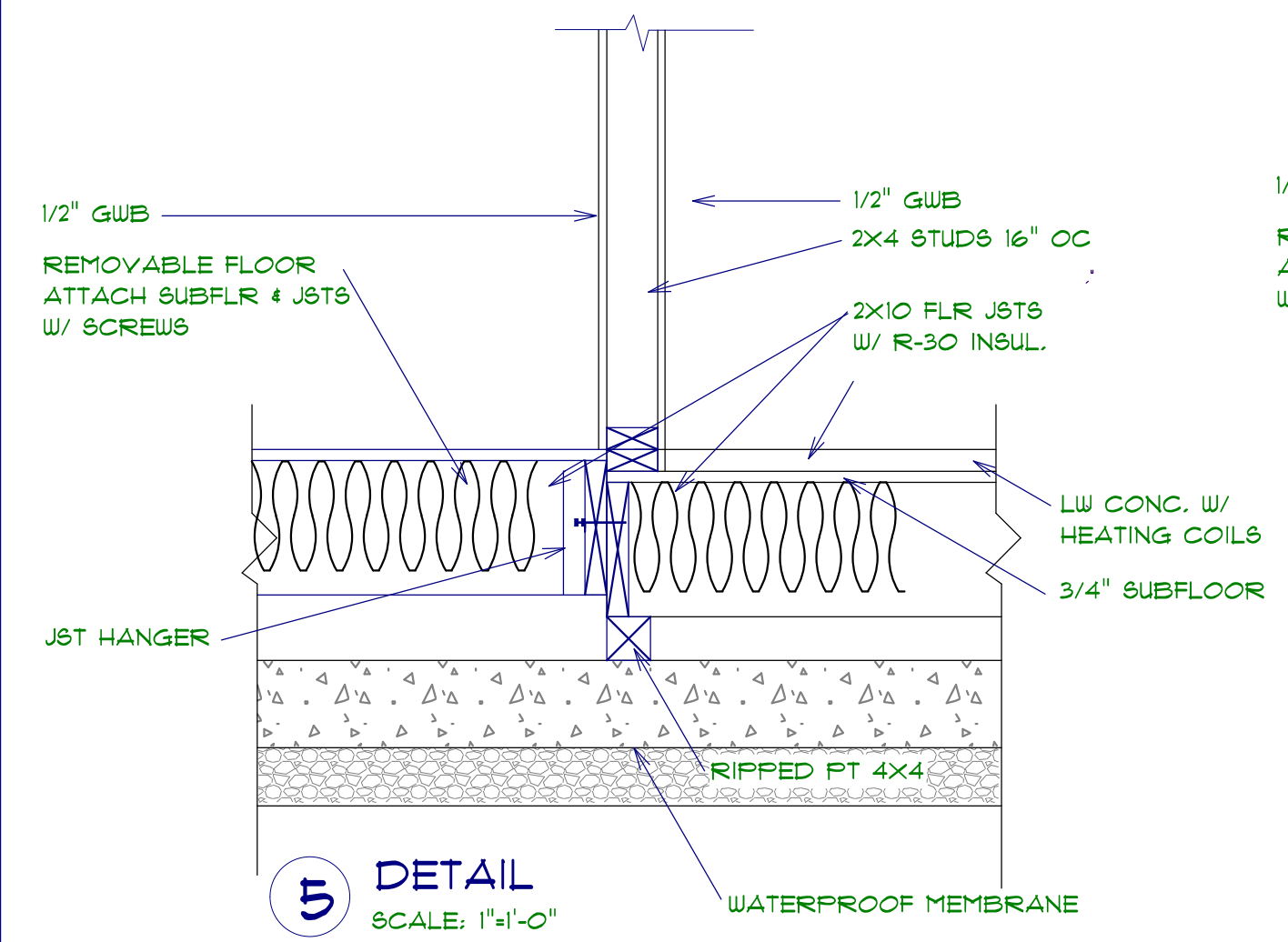
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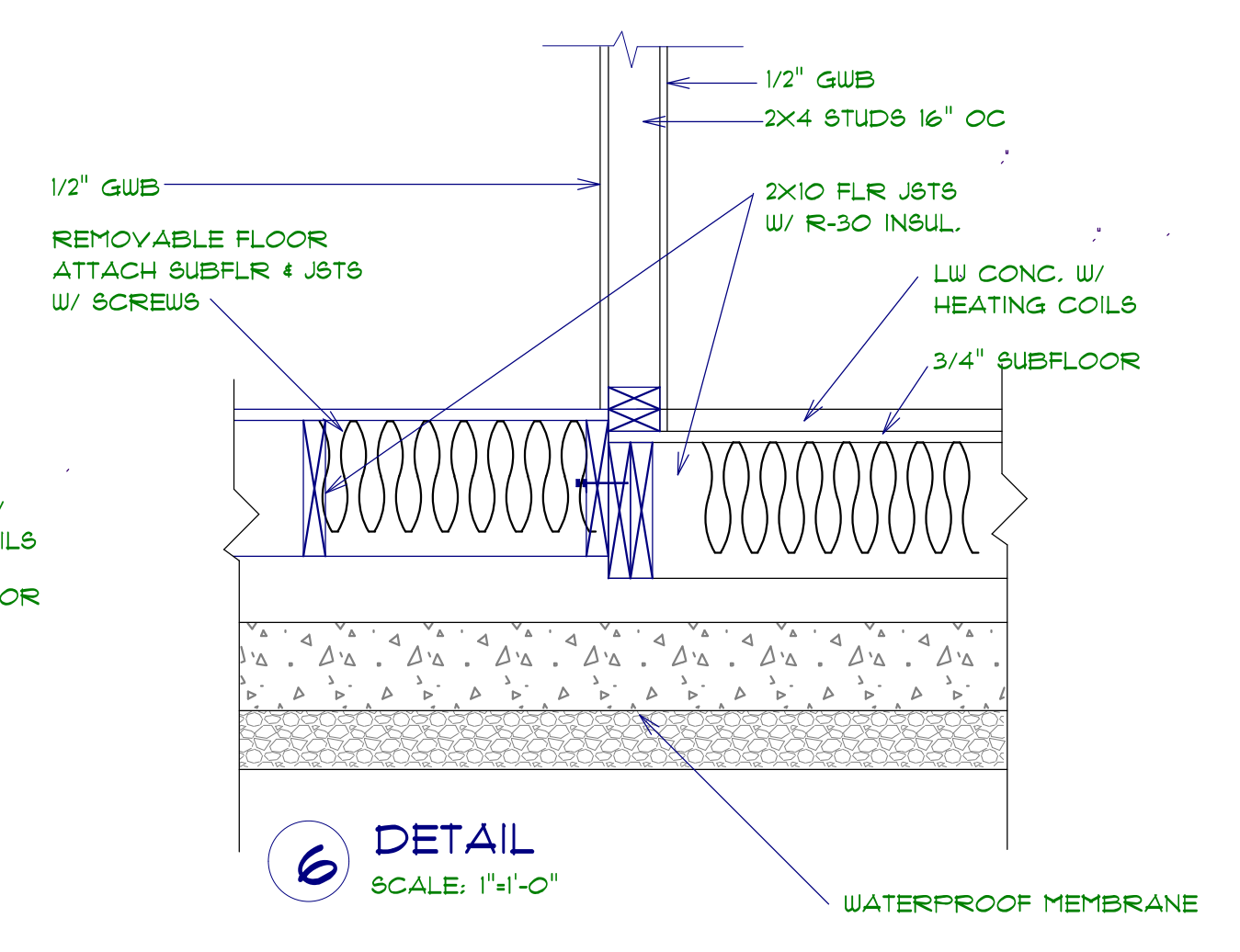
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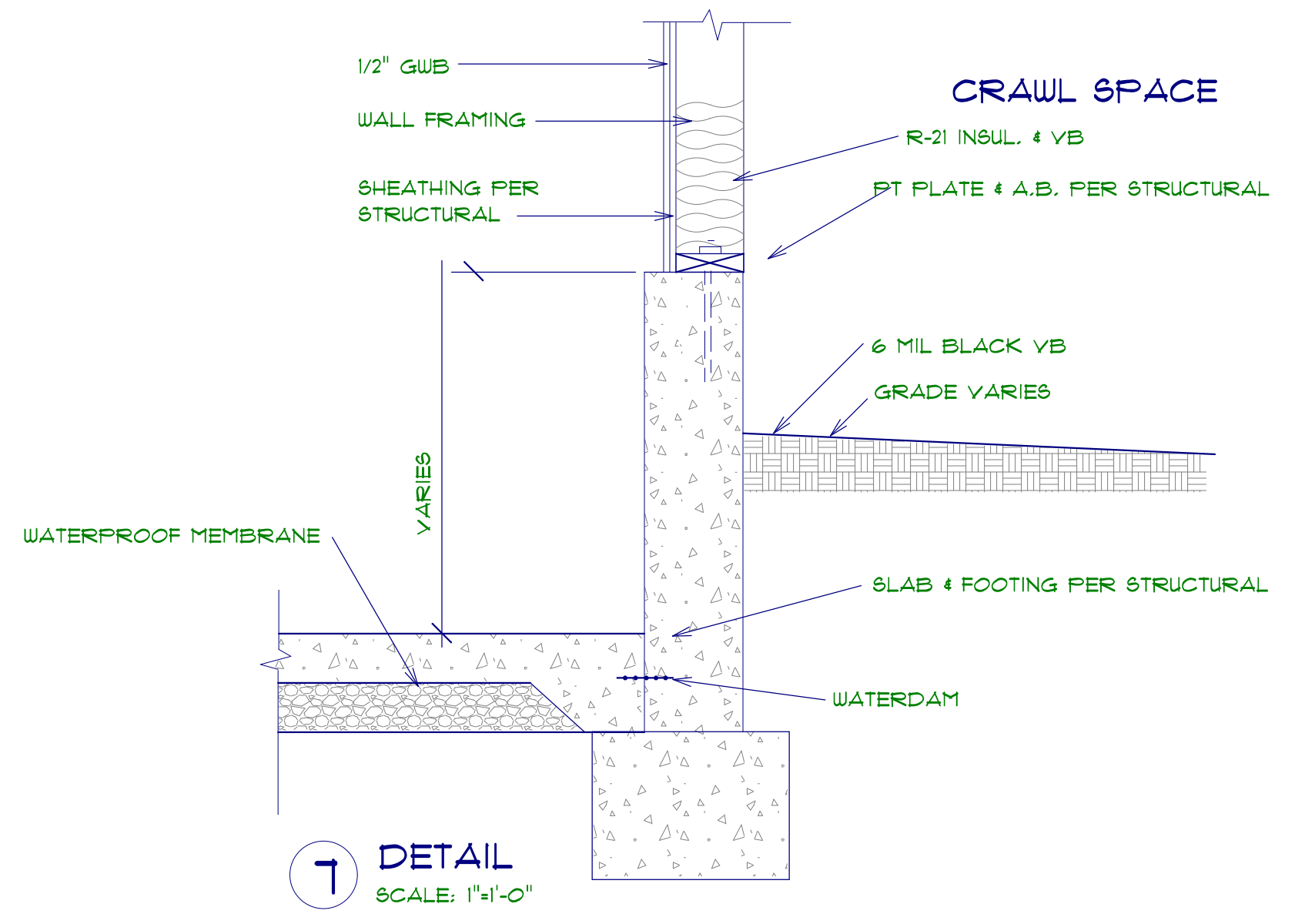
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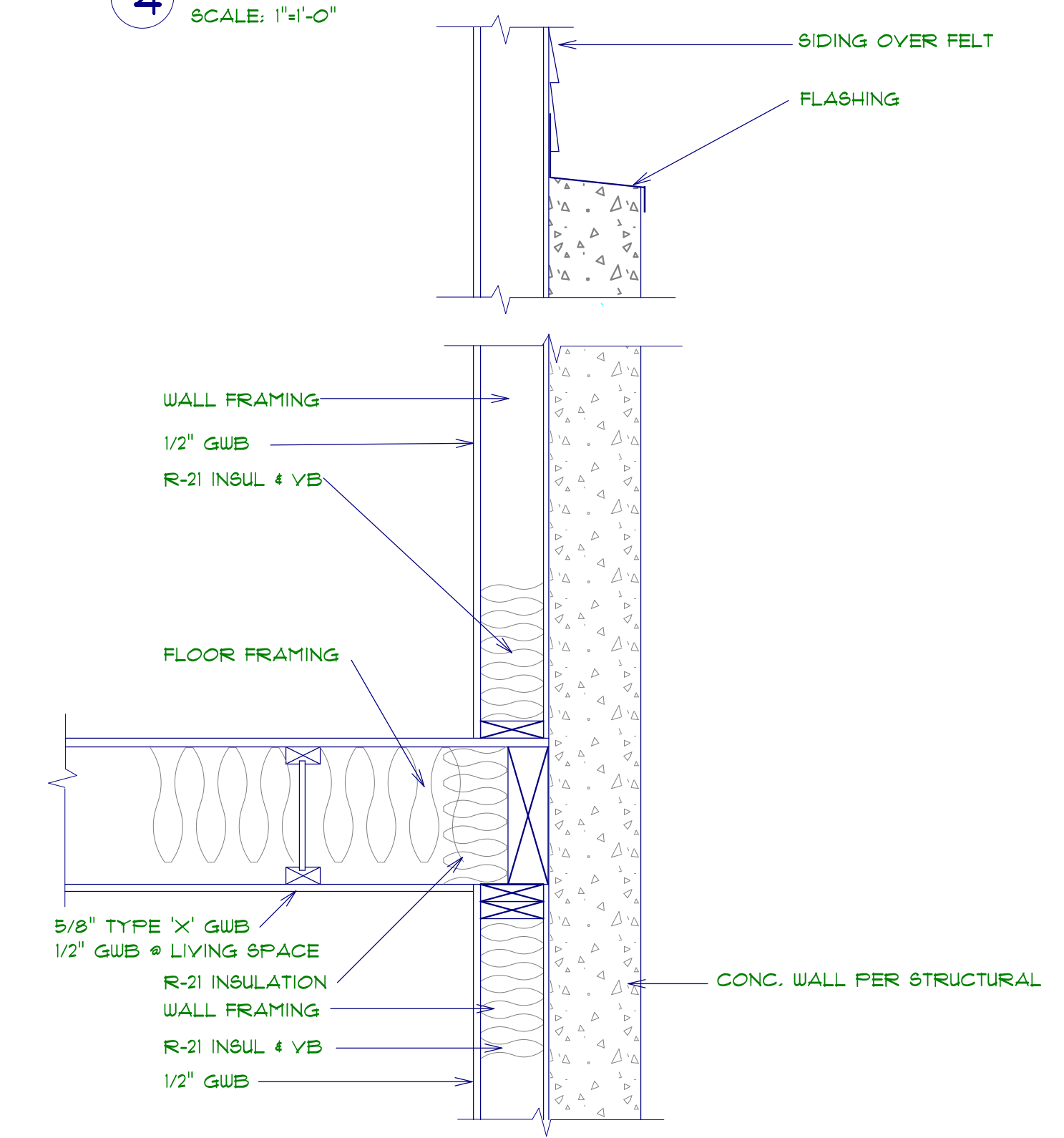
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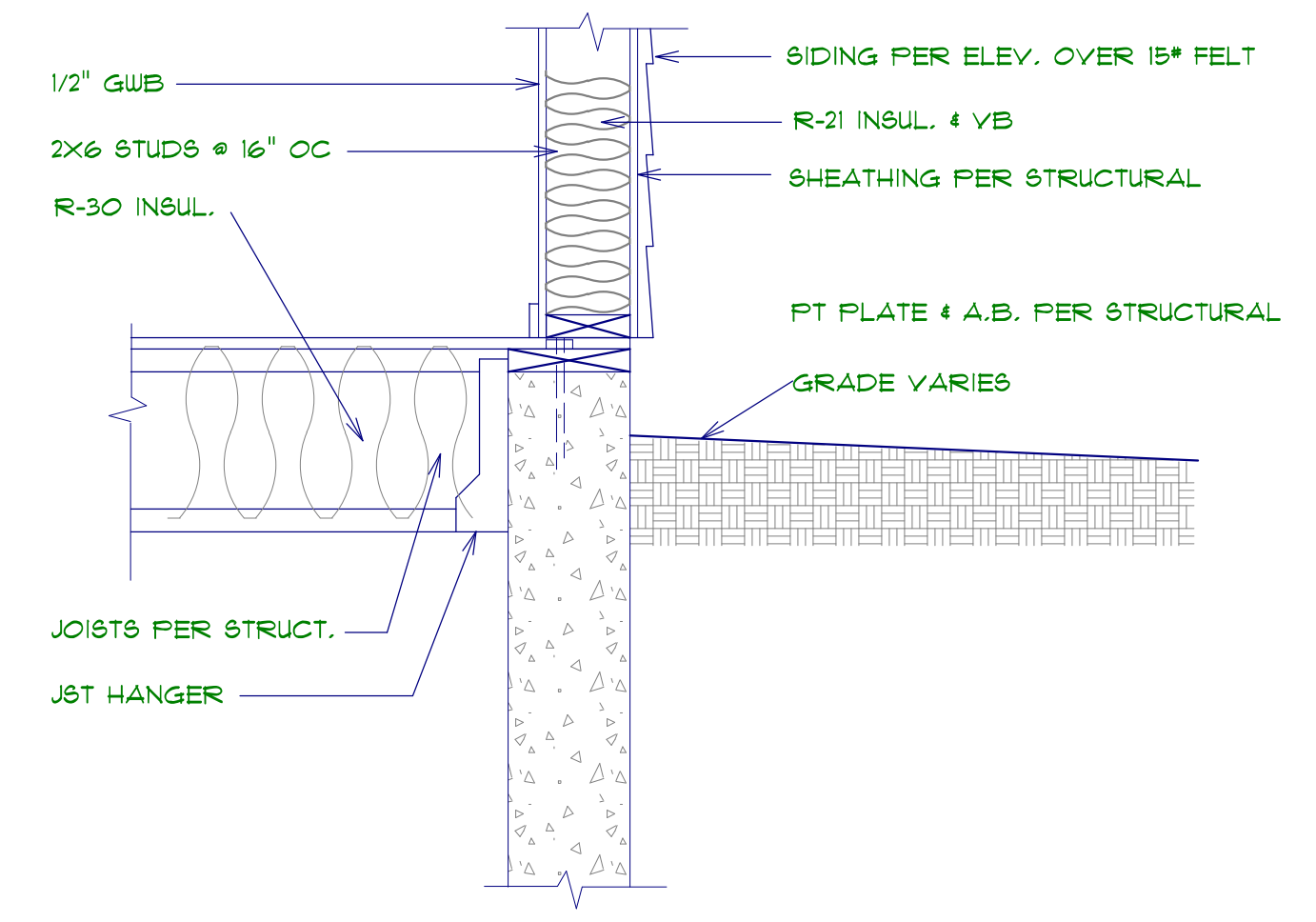
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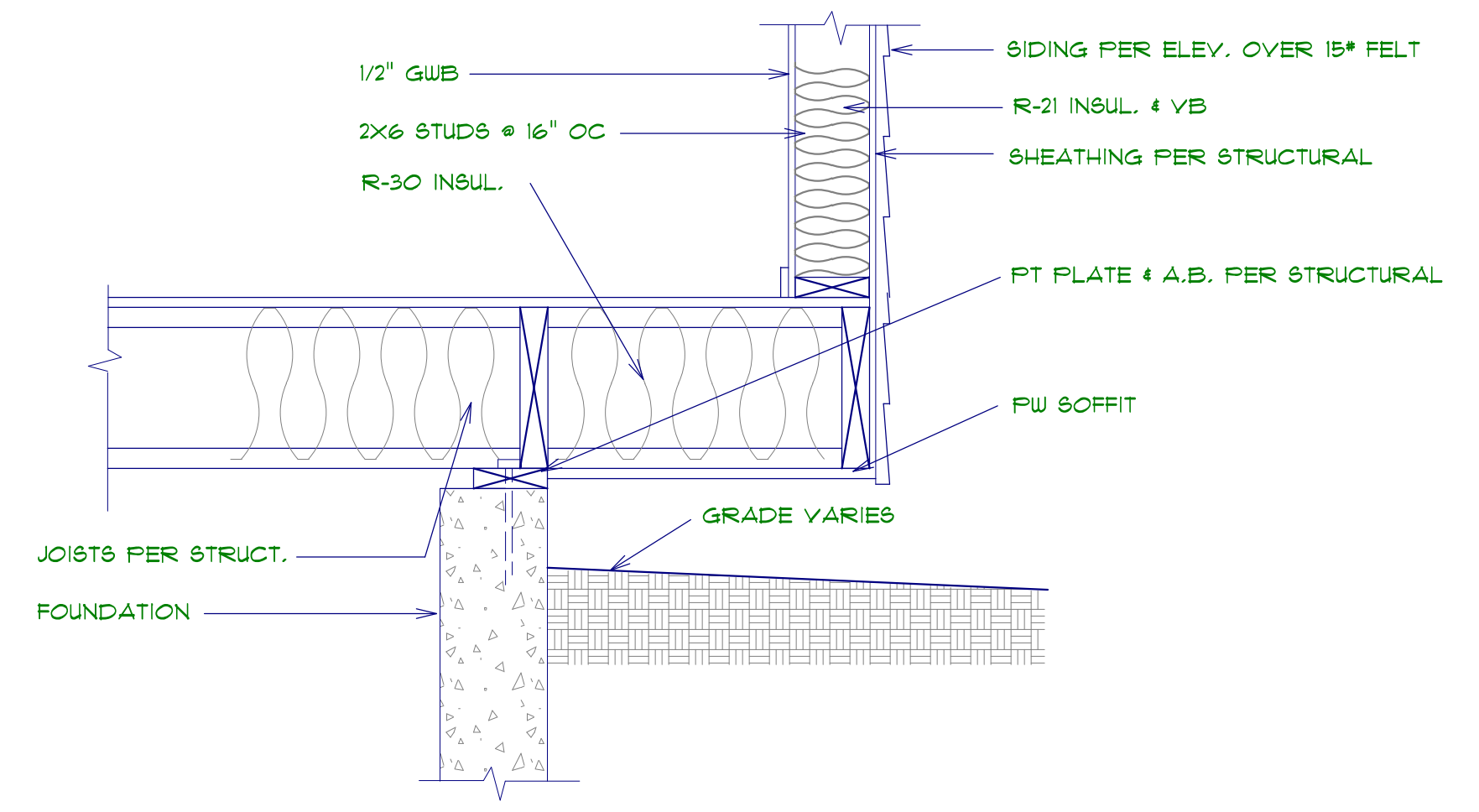
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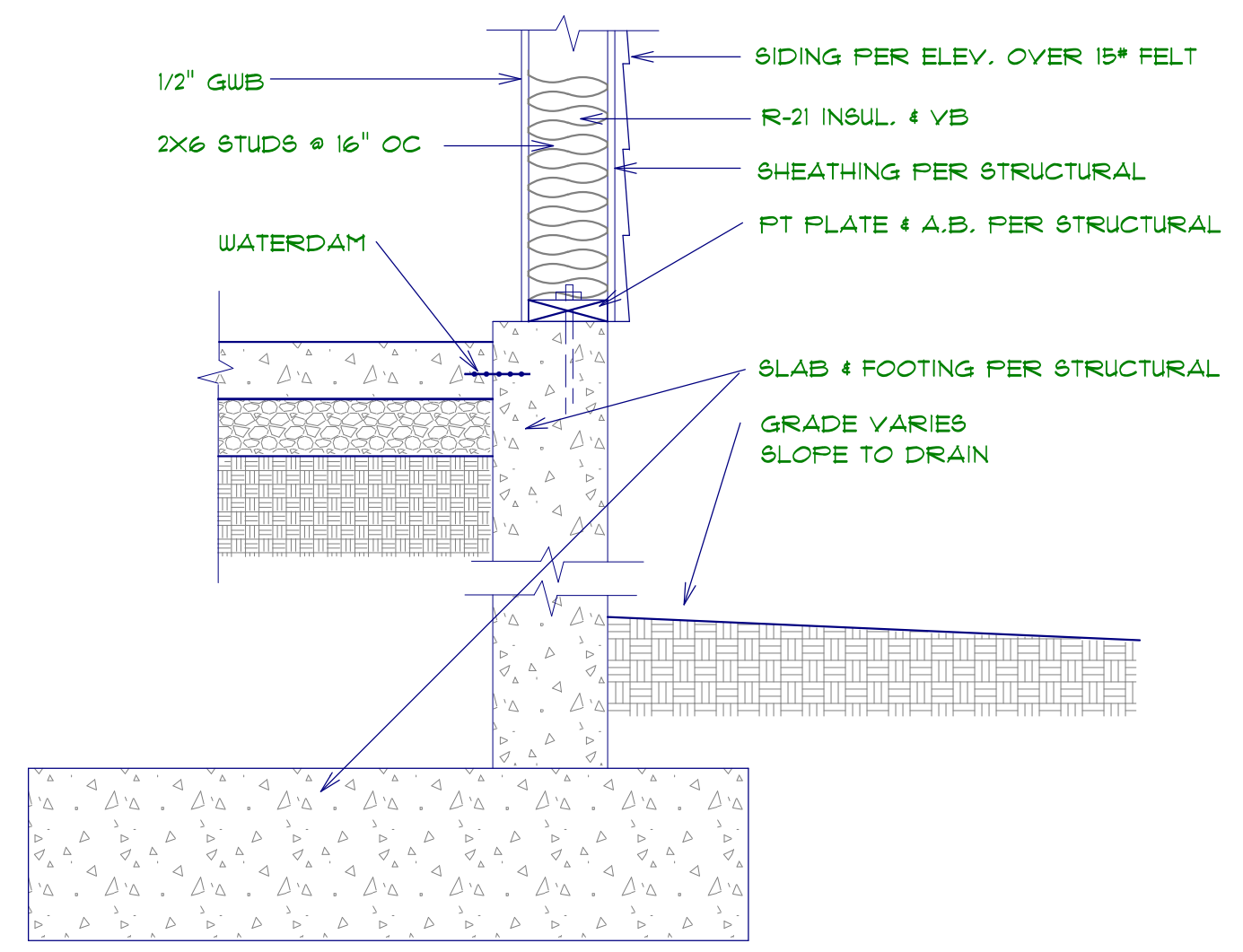
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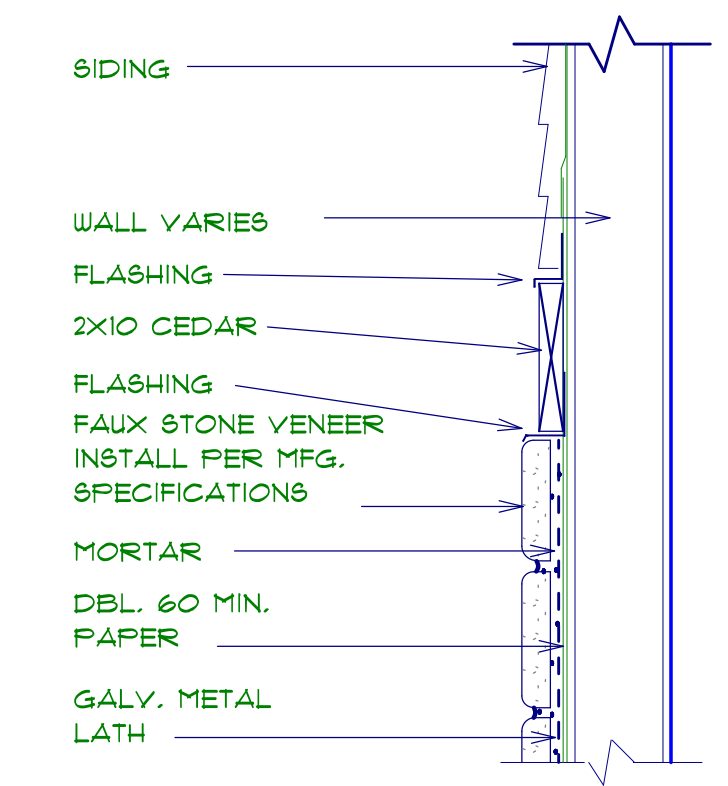
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SCALE: 1"=1'-0"



**10** DETAIL  
SCALE: 1"=1'-0"

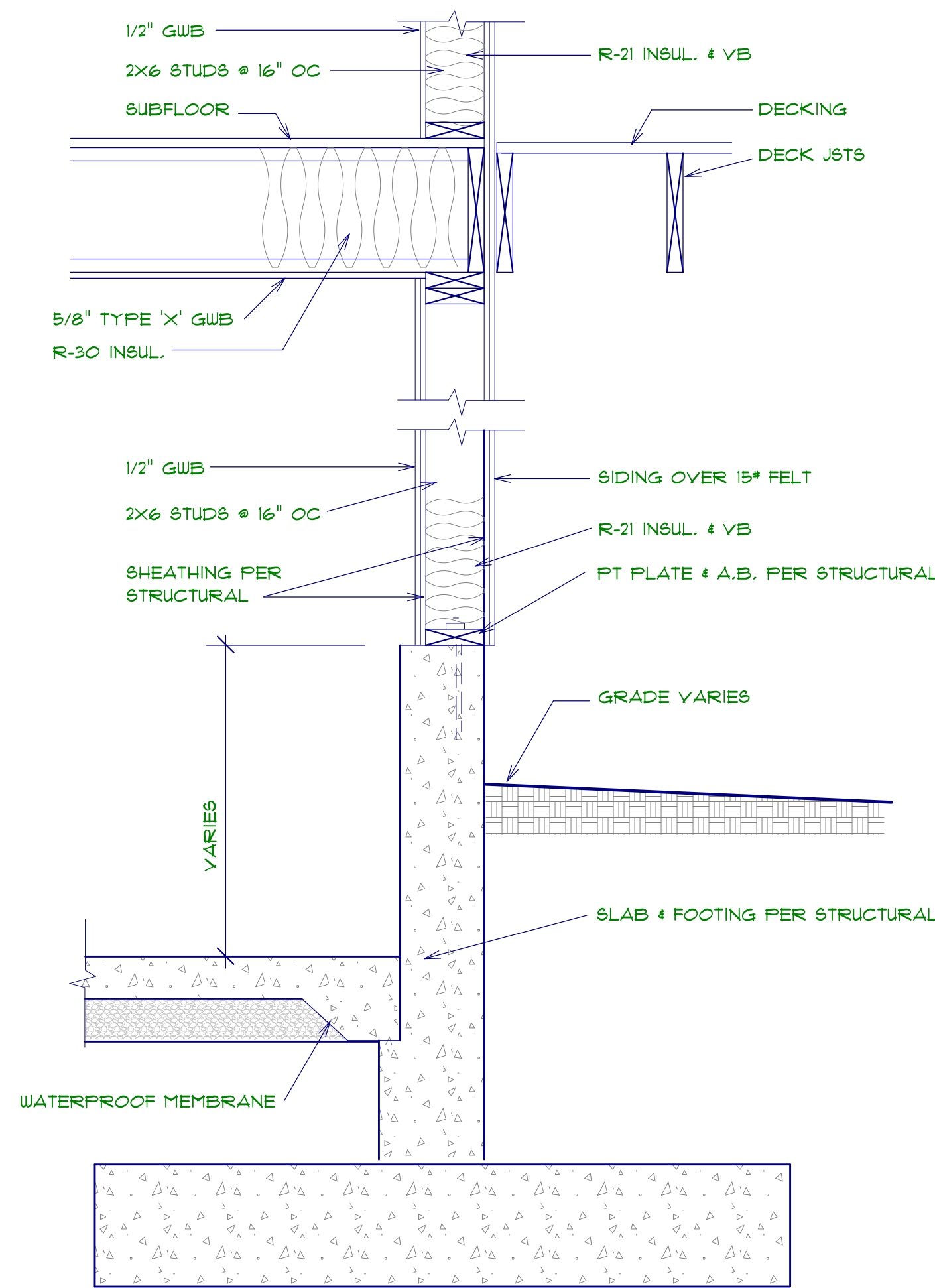


**11** DETAILS  
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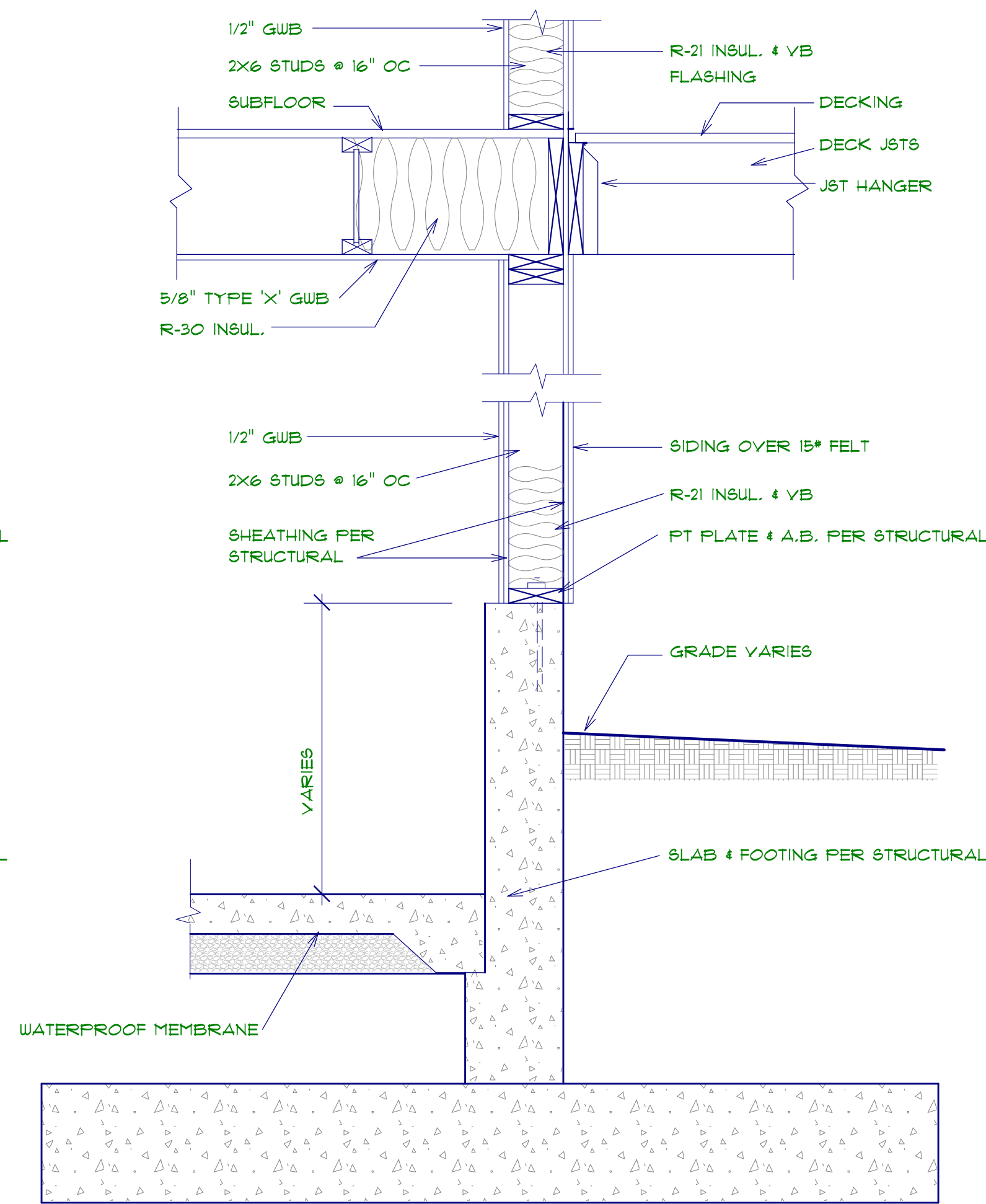


**12** WALL VENEER DETAILS  
SCALE: 1"=1'-0"

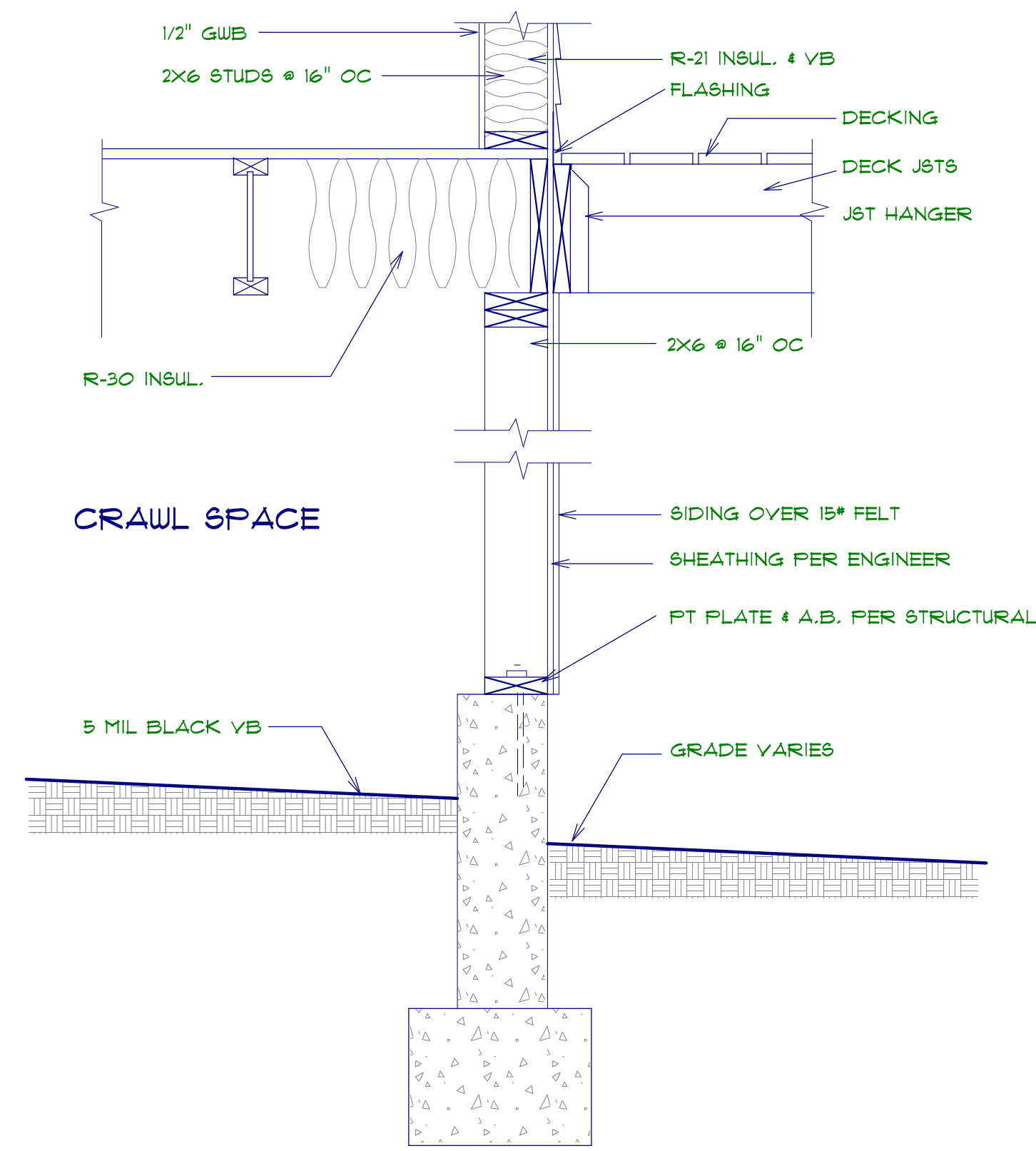




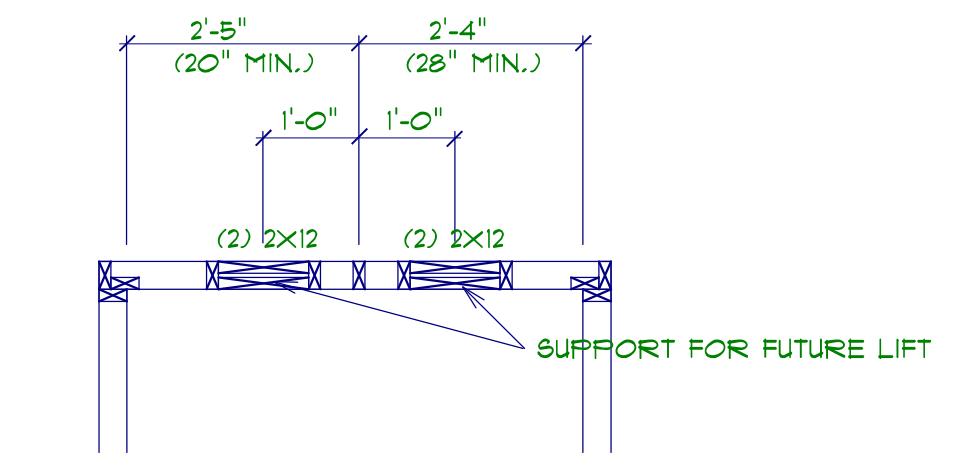
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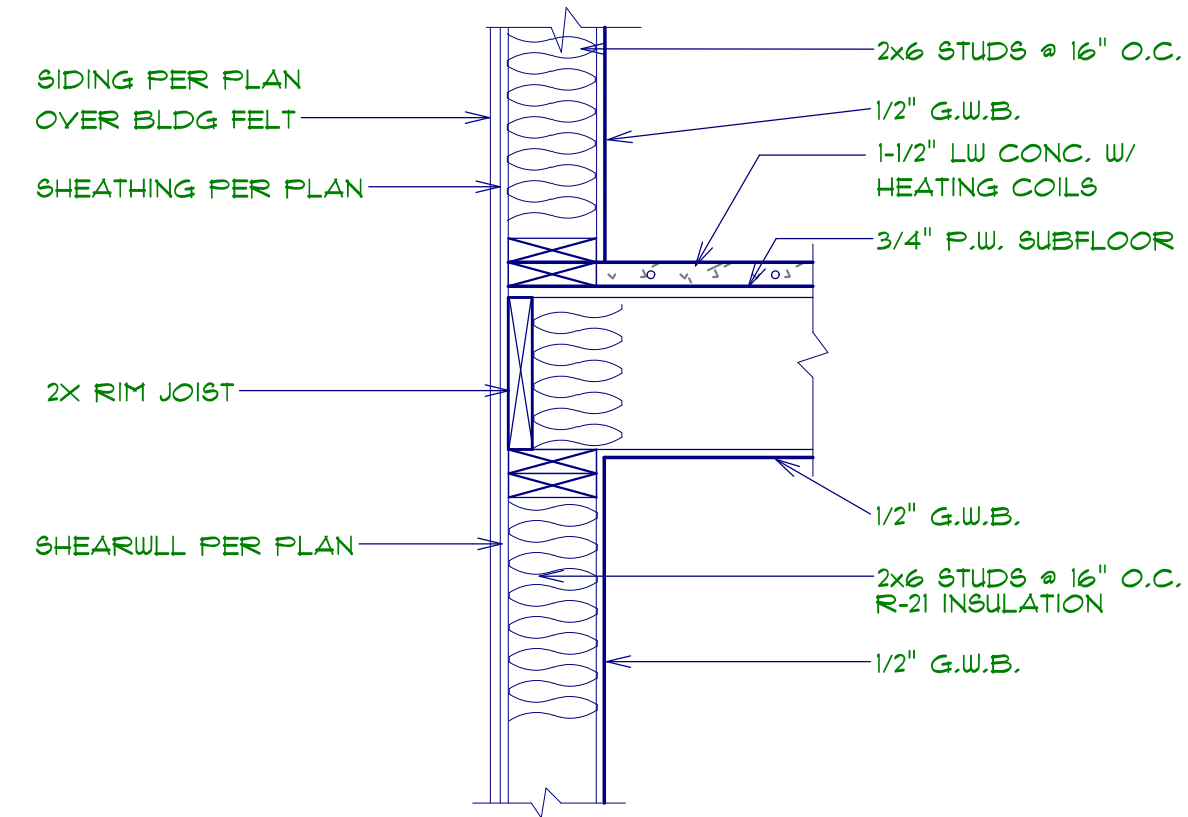
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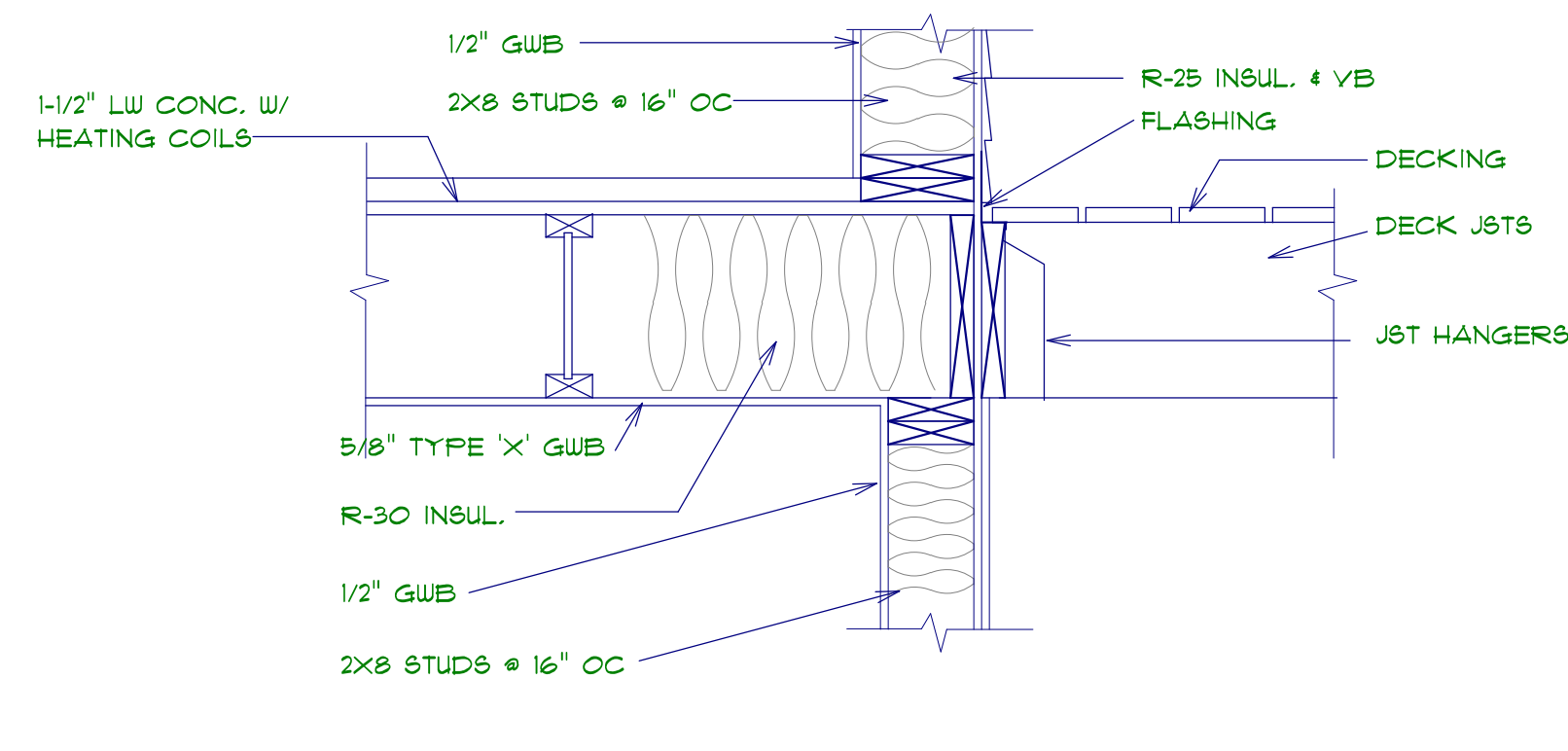
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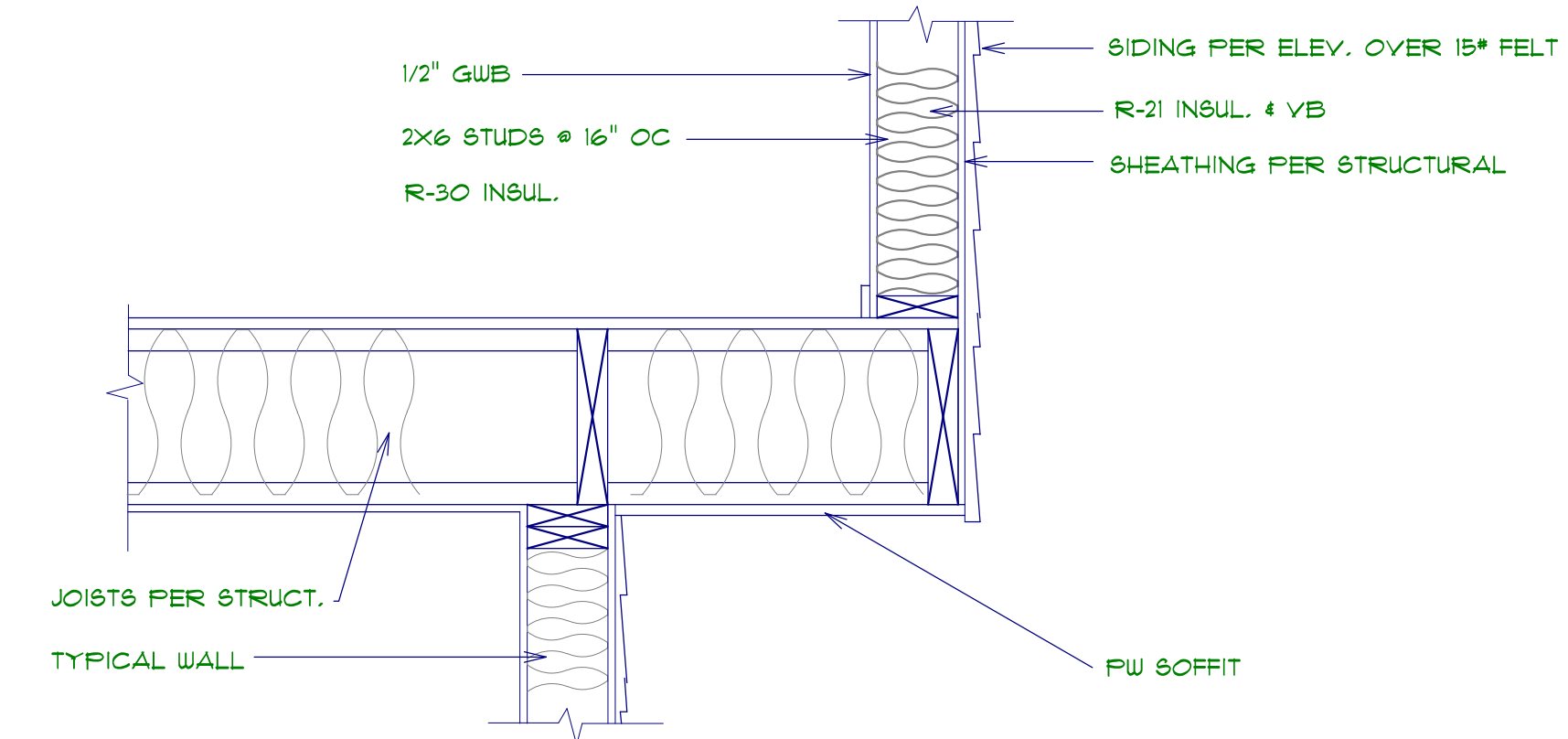
4 DETAIL  
SCALE: 1/2"=1'-0"



5 DETAIL  
SCALE: 1"=1'-0"



6 DETAIL  
SCALE: 1"=1'-0"



9 DETAIL  
SCALE: 1"=1'-0"



THE HEALEY ALLIANCE AZ  
3905 N. 195th DRIVE, GOODPASTER, AZ 85395 - (480) 444-6868  
ARCHITECTS

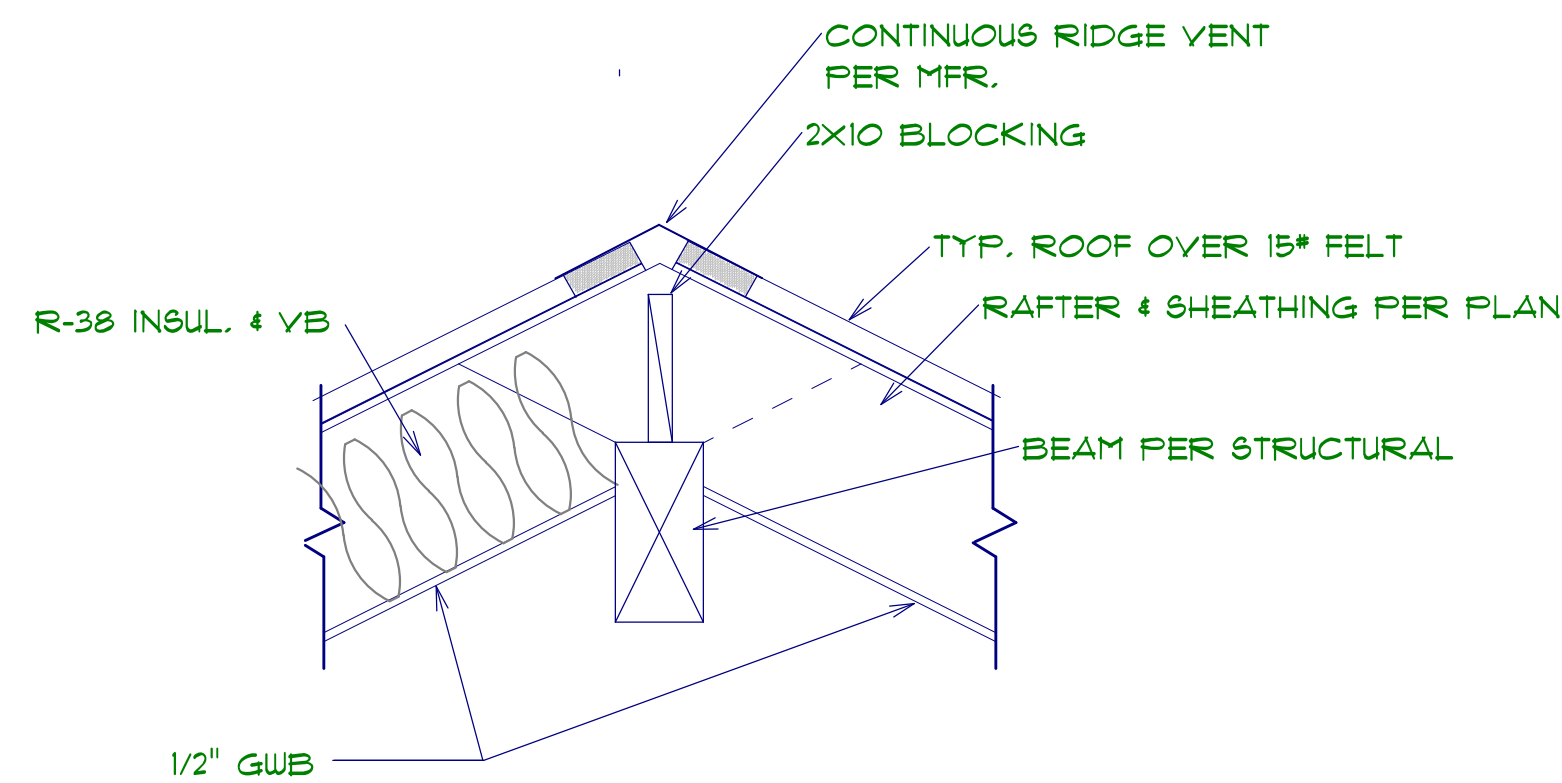
M1 Treehouse, LLC,  
5631 EAST MERCER WAY  
MERCER ISLAND, WA.

DETAILS

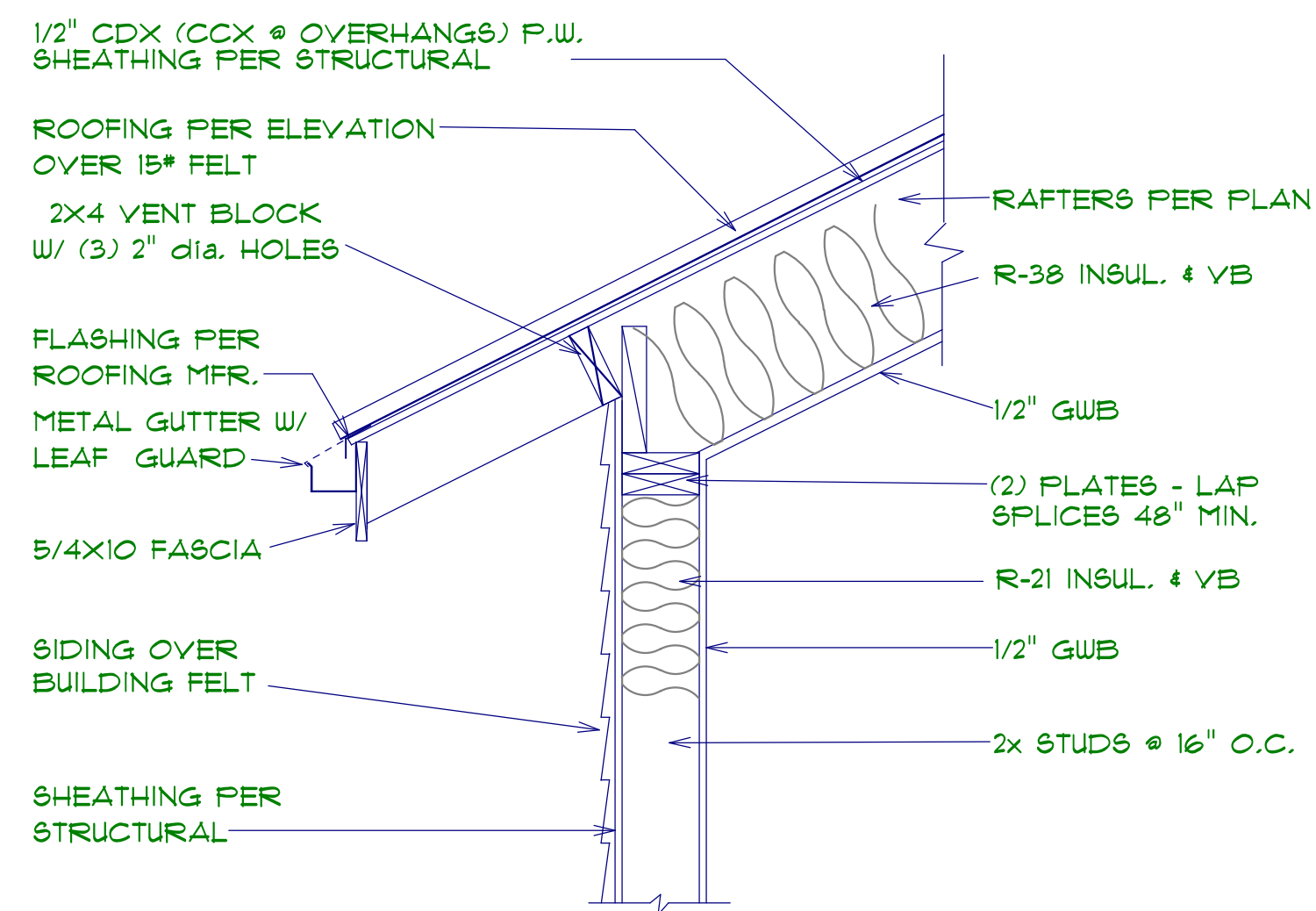
DATE  
7-27-2021

PROJECT NO.  
001

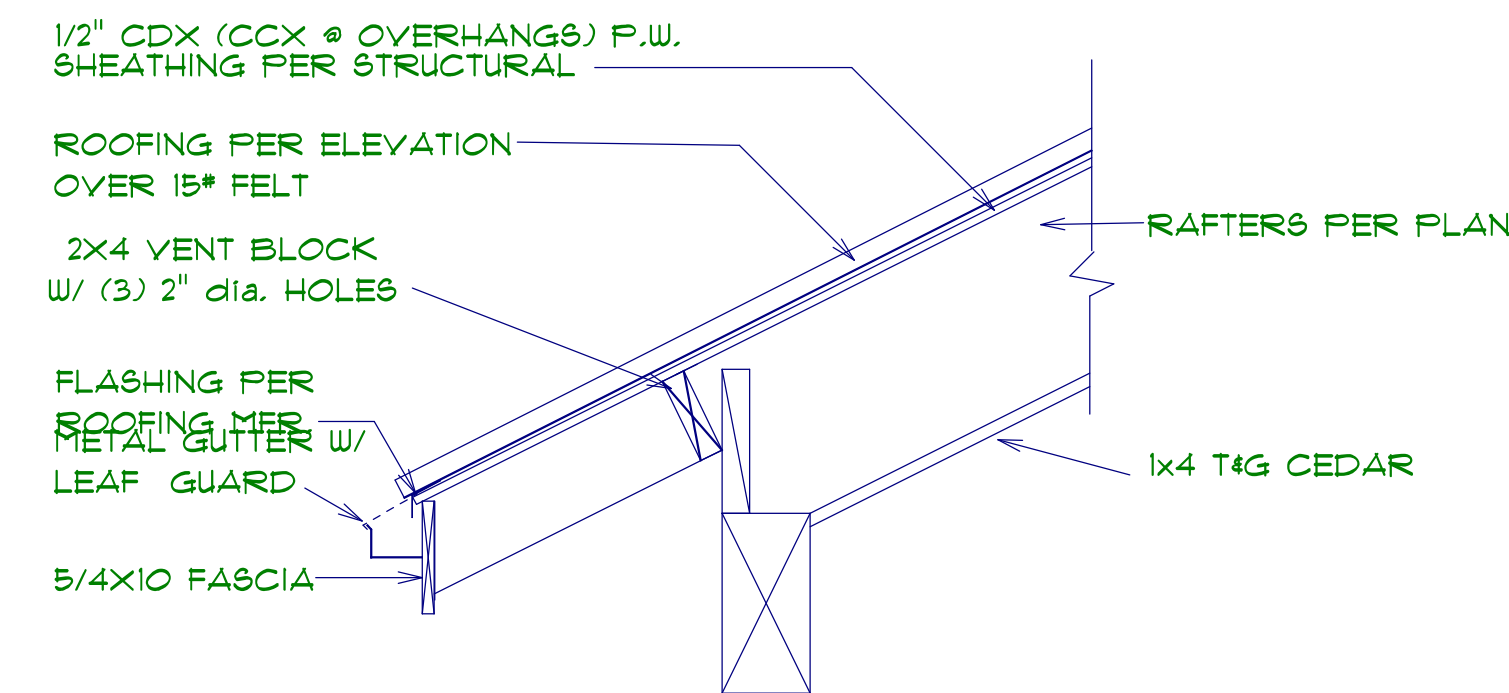
SHEET NO.  
A5.2



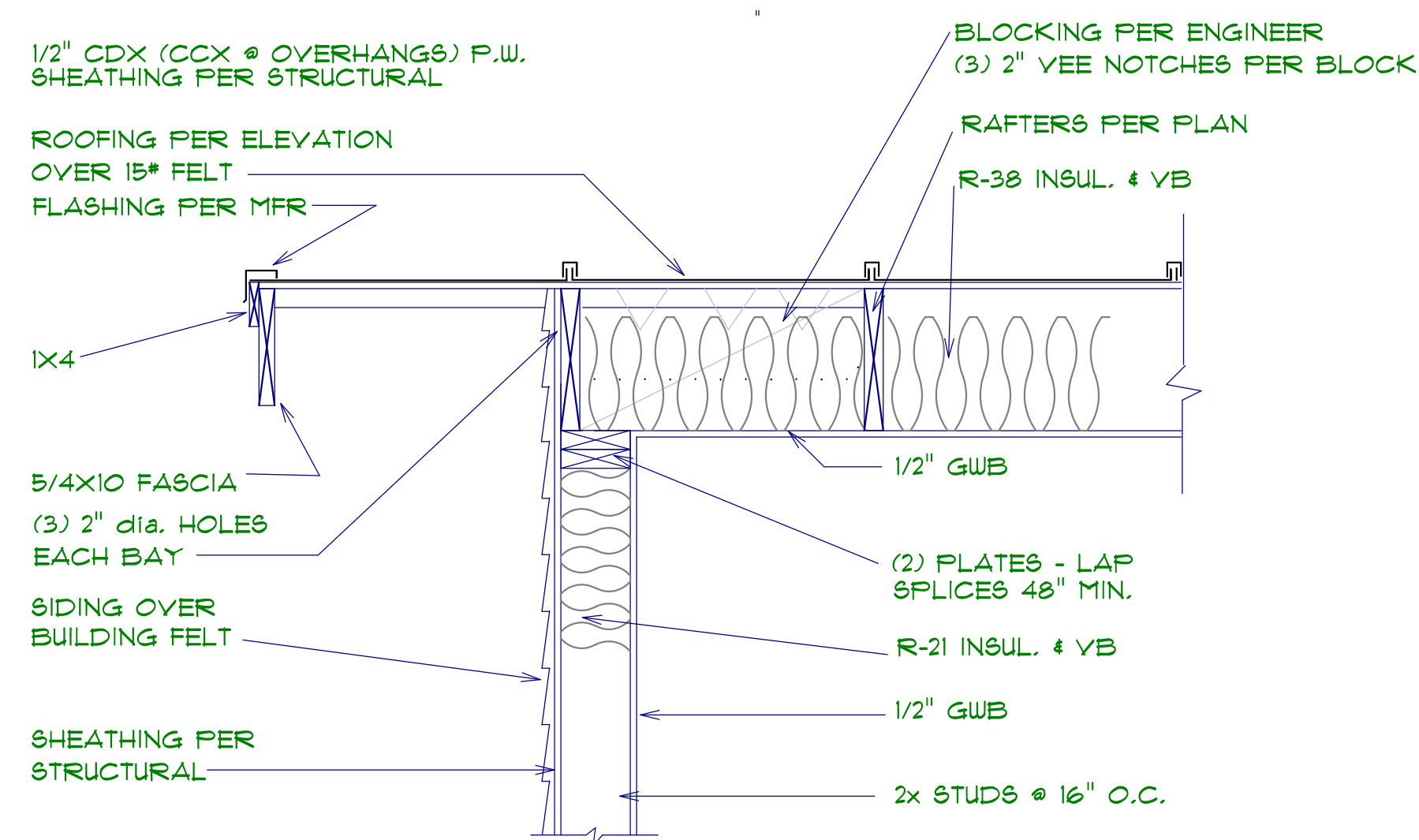
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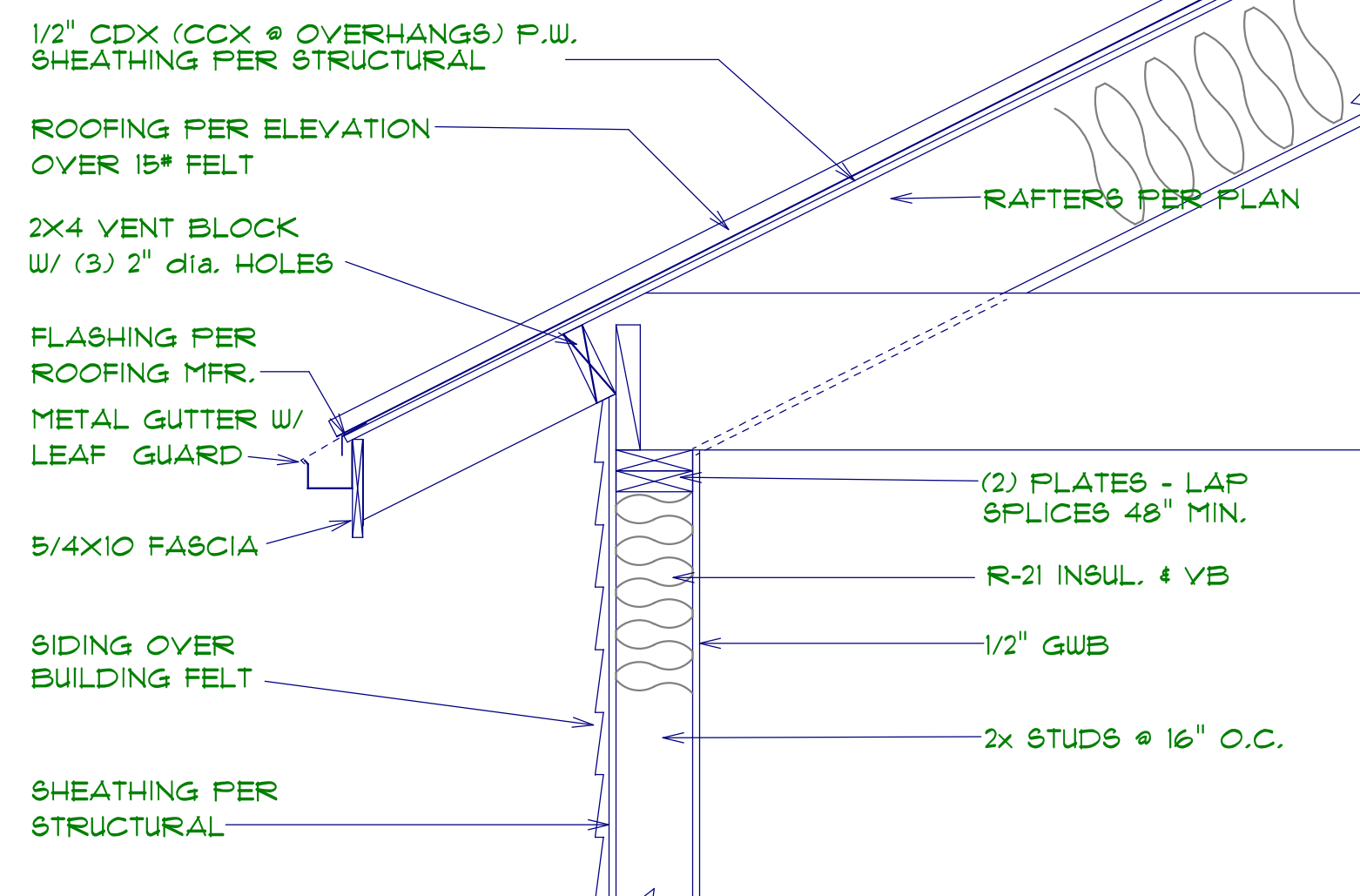
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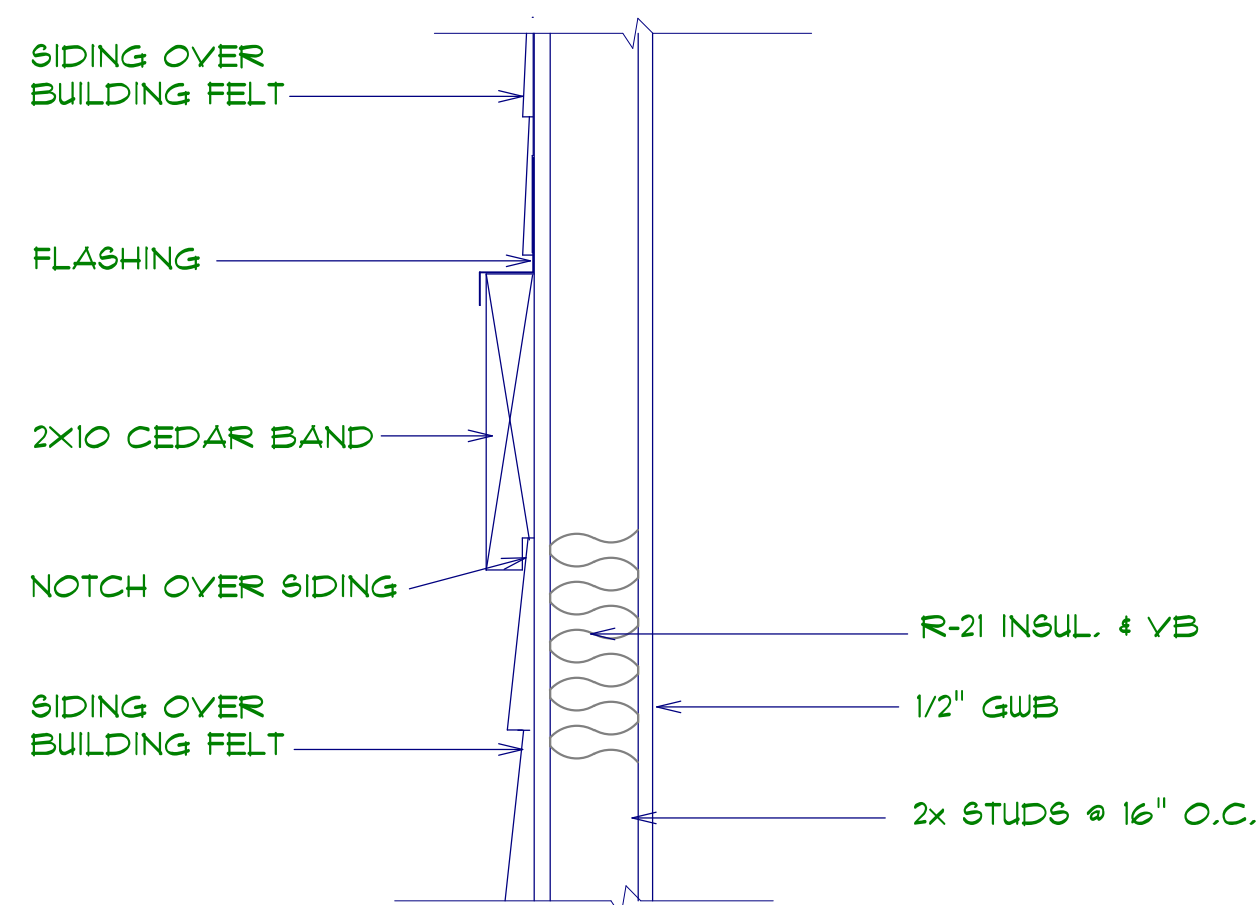
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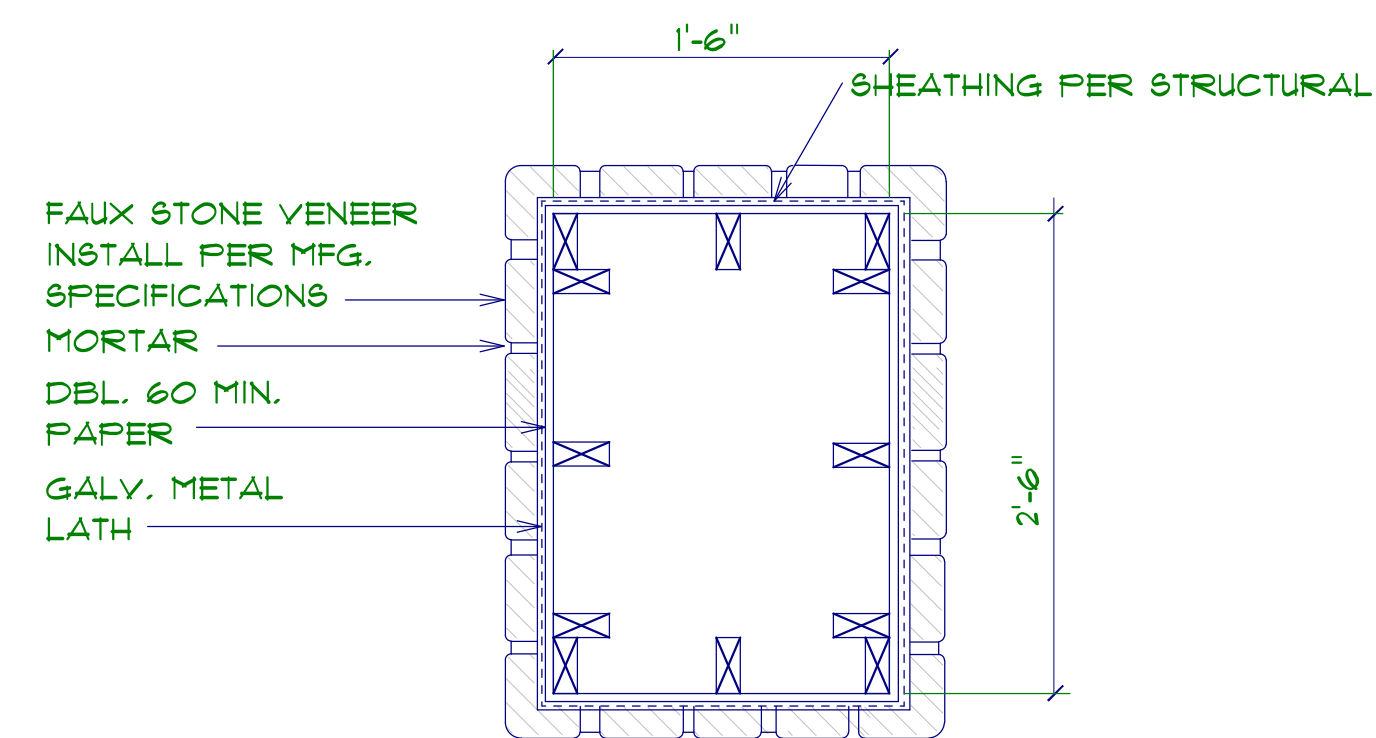
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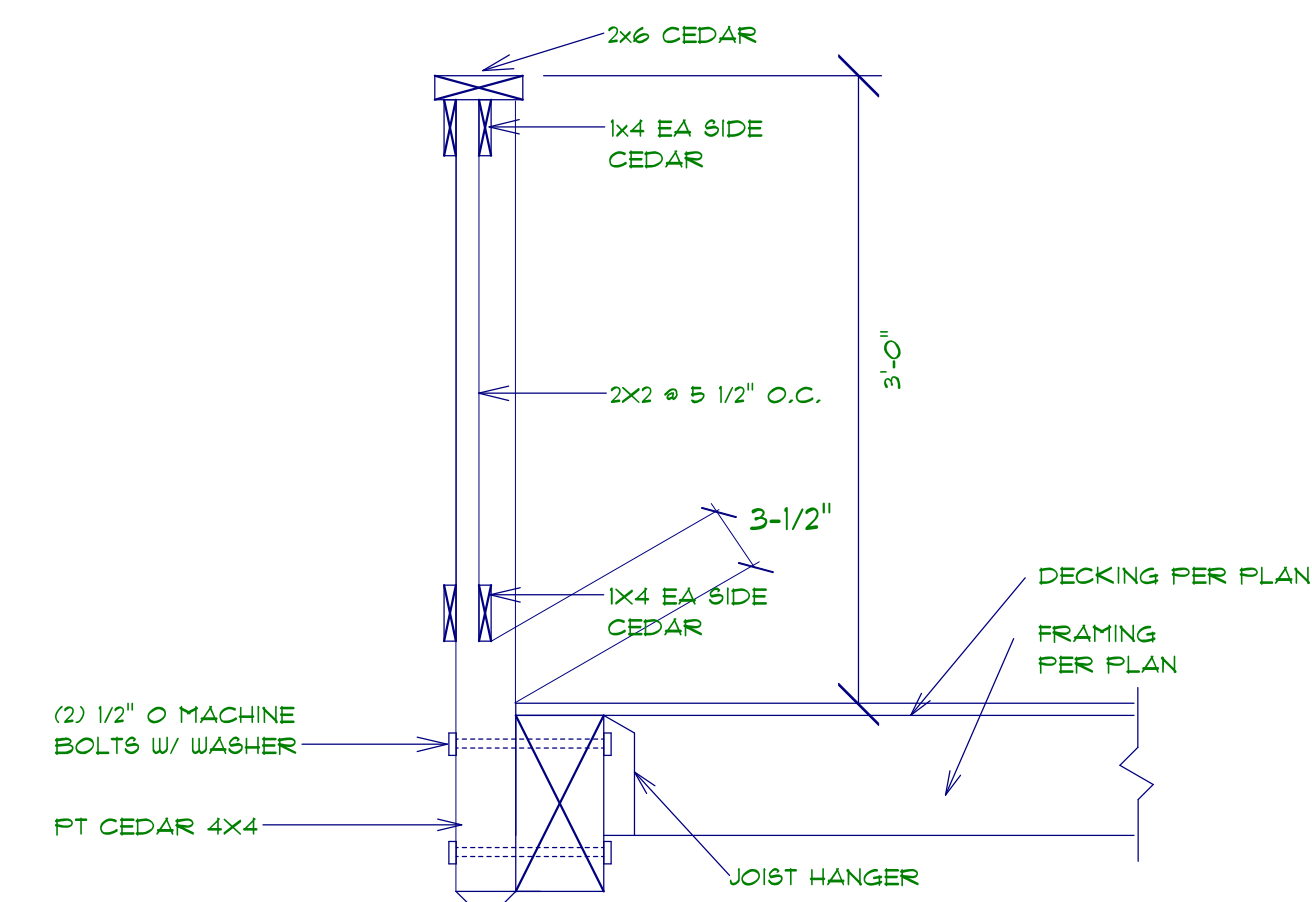
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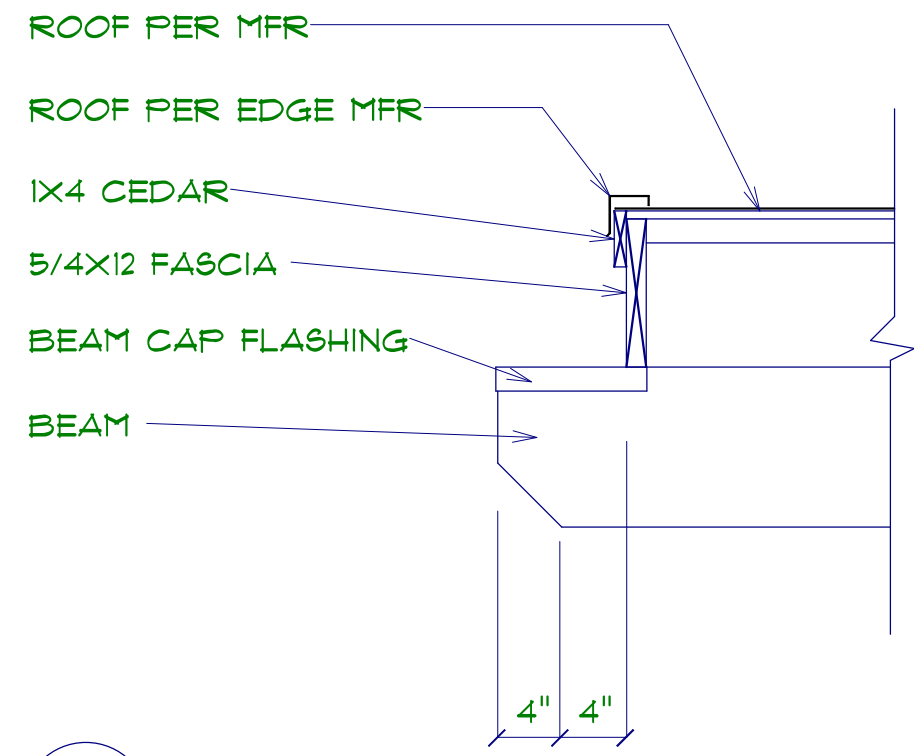
6 DETAIL  
SCALE: 1"=1'-0"



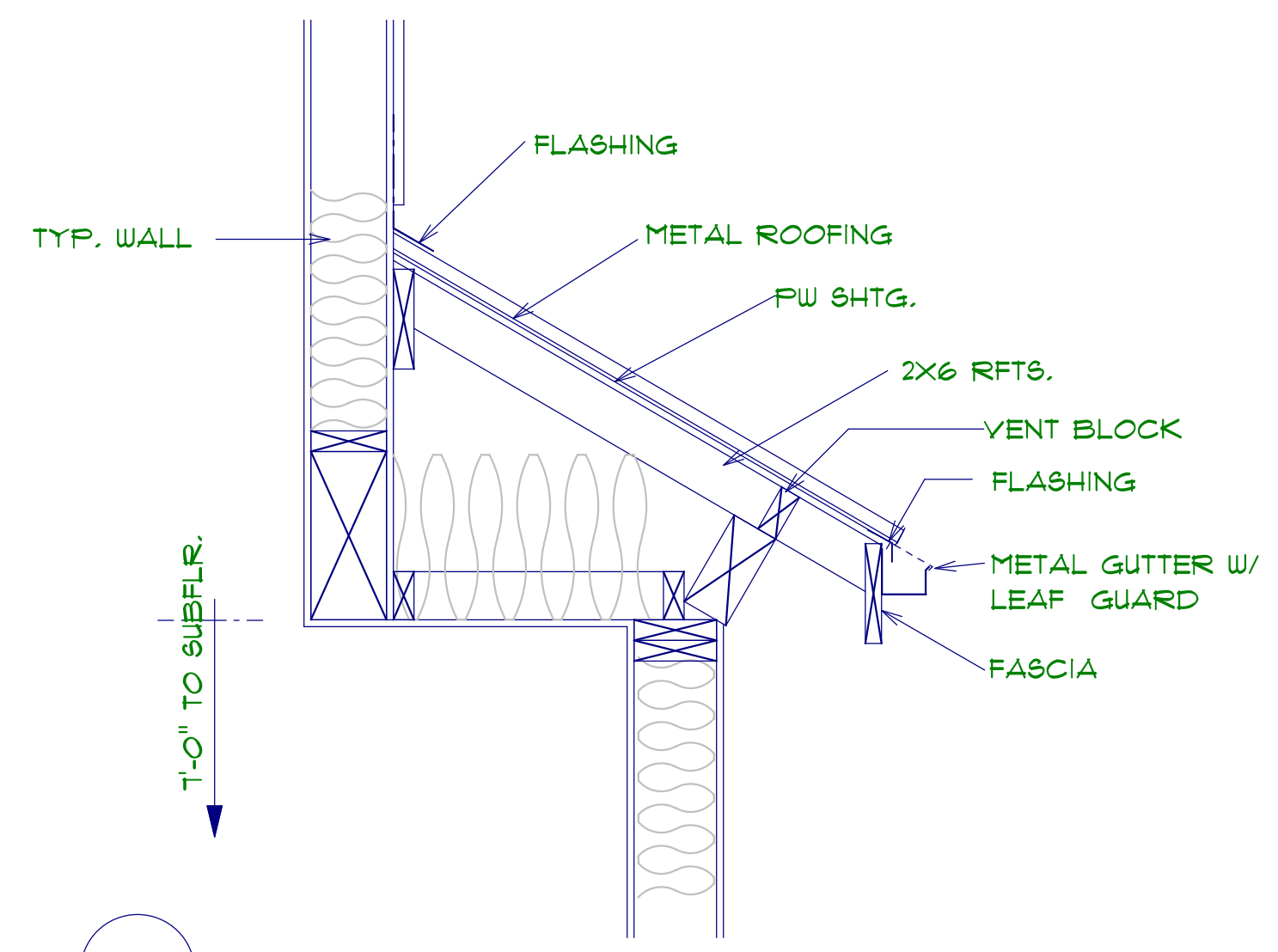
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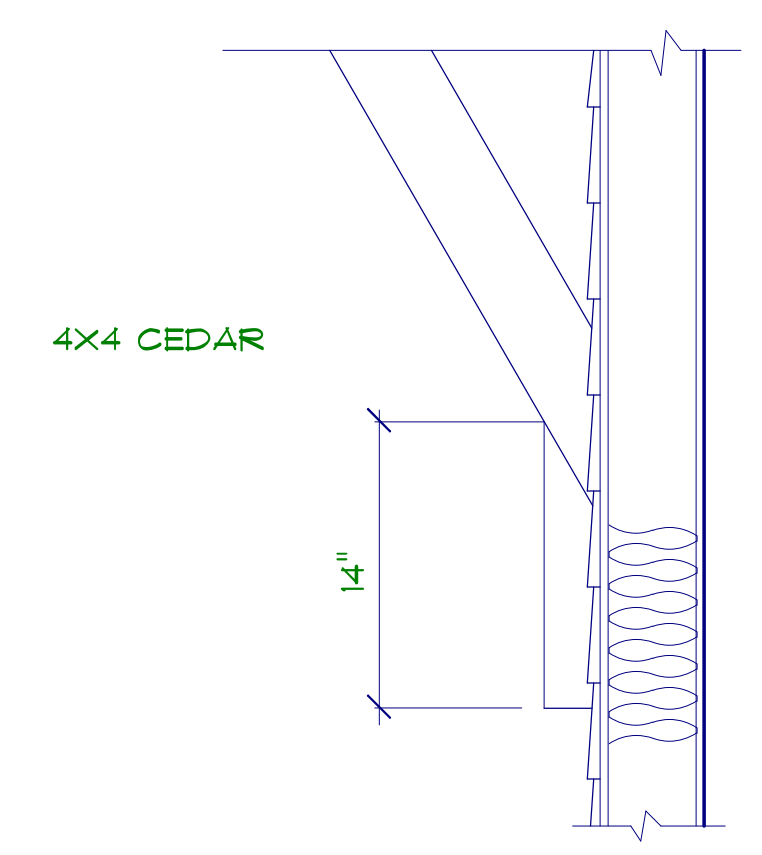
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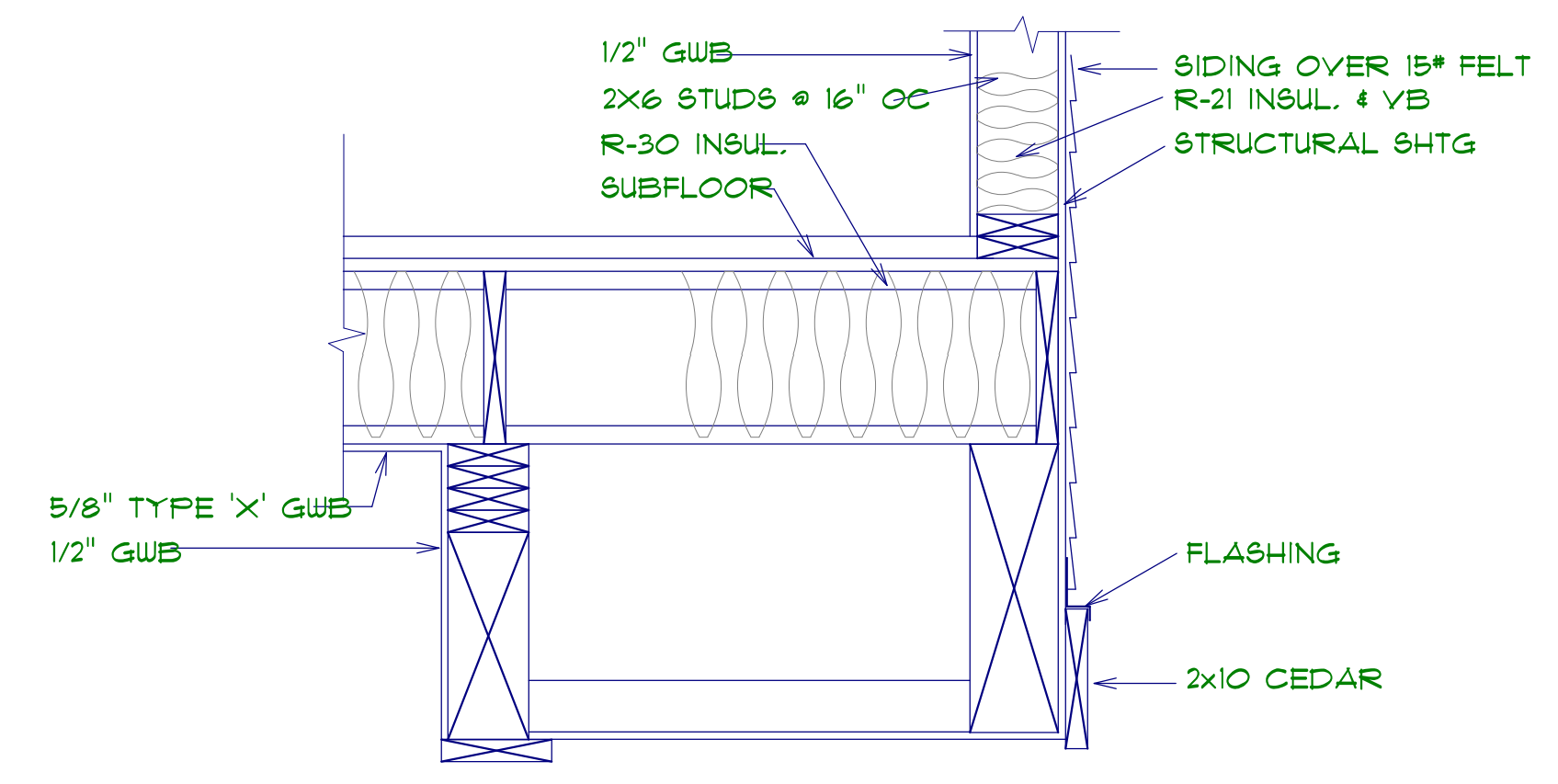
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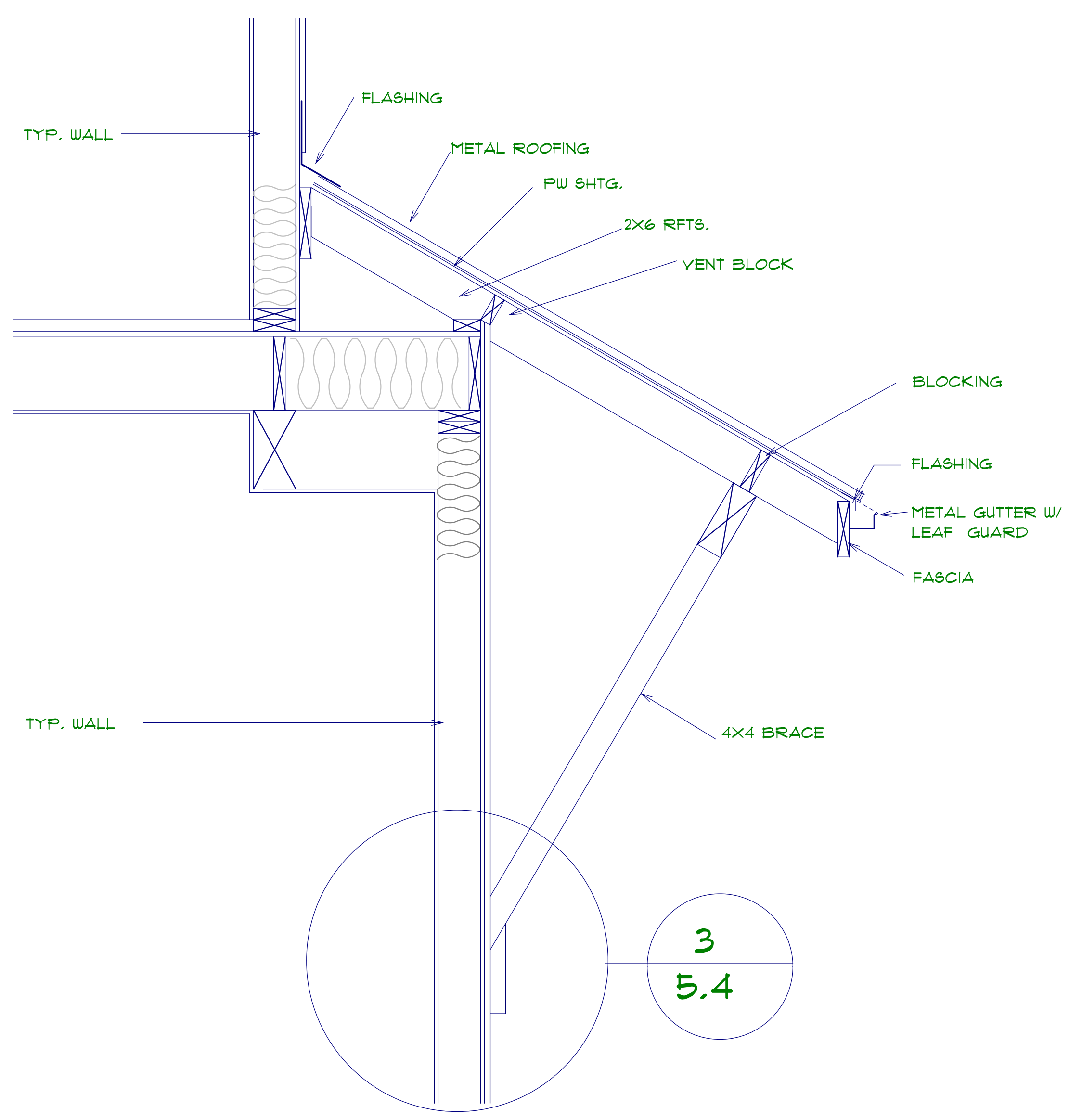
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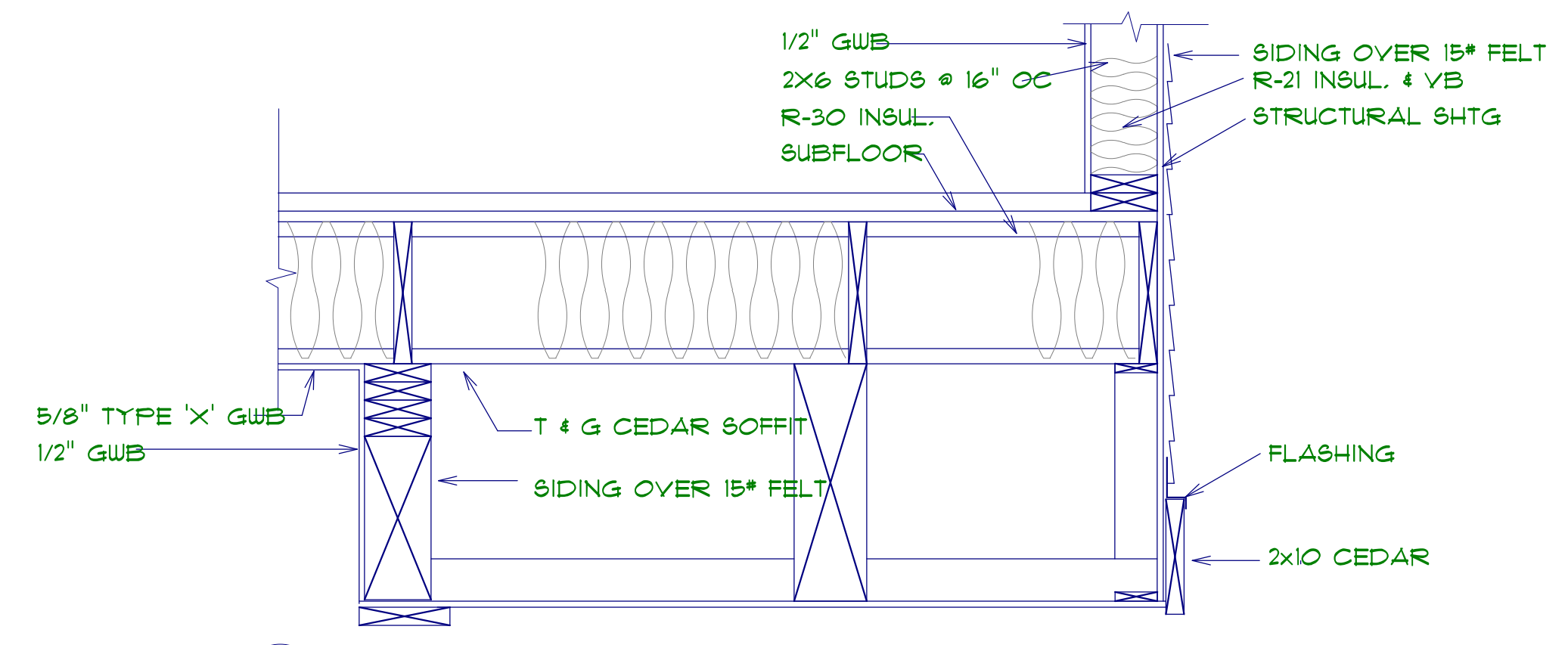
3 DETAIL  
SCALE: 1"=1'-0"



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

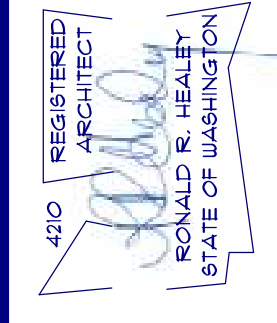


5 DETAIL  
SCALE: 1"=1'-0"



6 DETAIL  
SCALE: 1"=1'-0"

3  
5.4



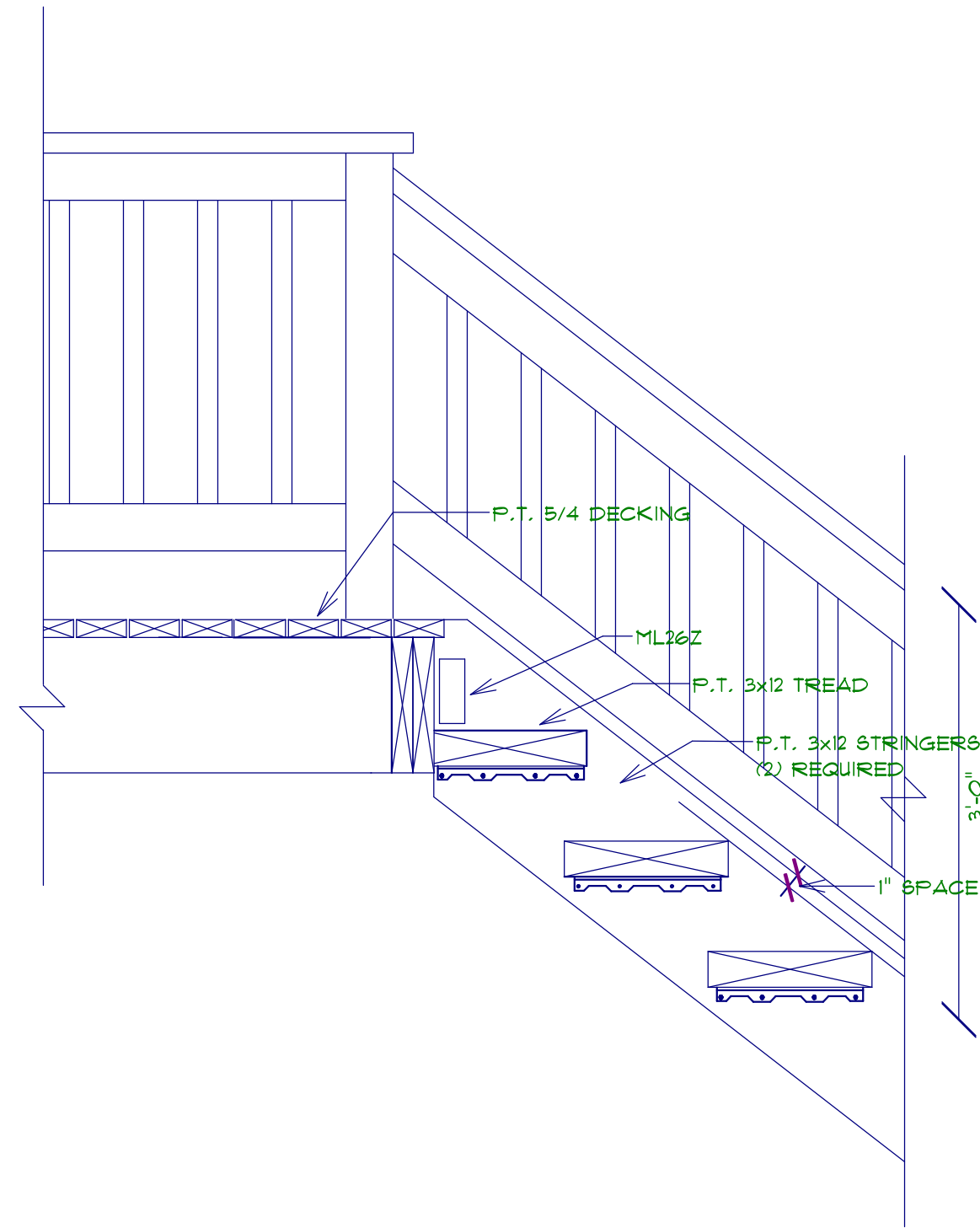
THE HEALEY ALLIANCE AZ  
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ARCHITECTS

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5637 EAST MERCER WAY  
MERCER ISLAND, WA.

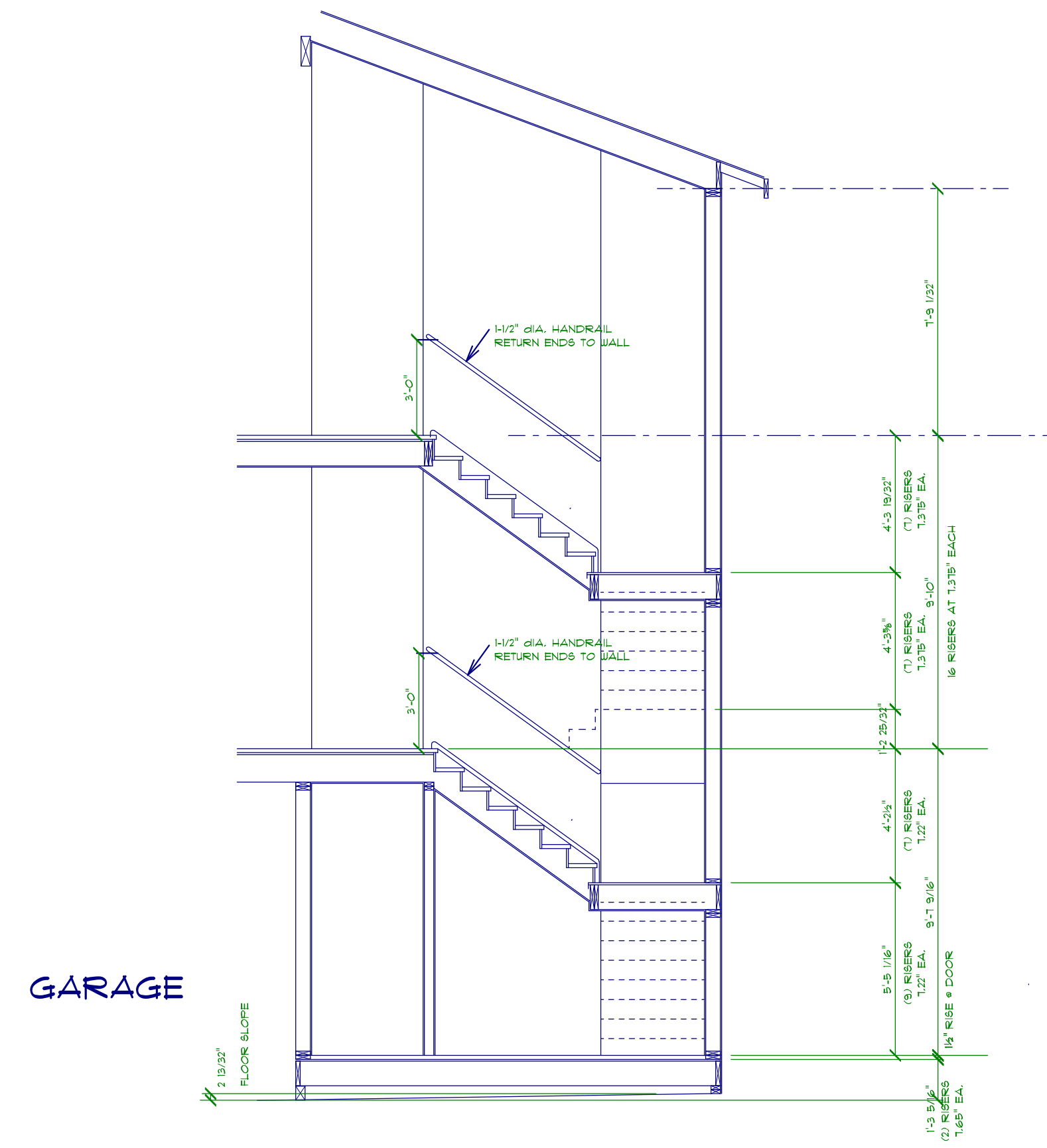
DETAILS  
DATE  
6-25-2020

PROJECT NO.  
001

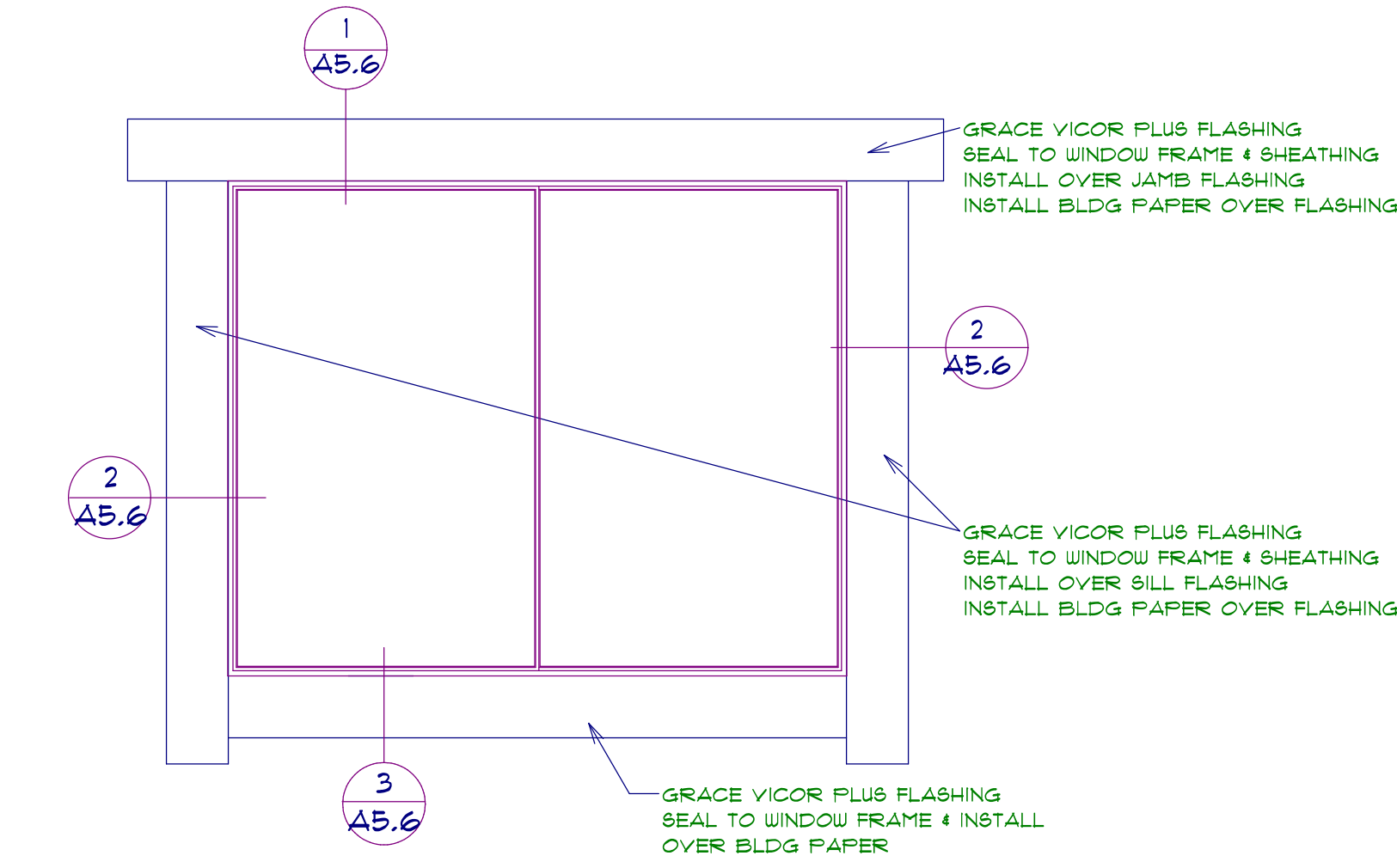
SHEET NO.  
A-5.4



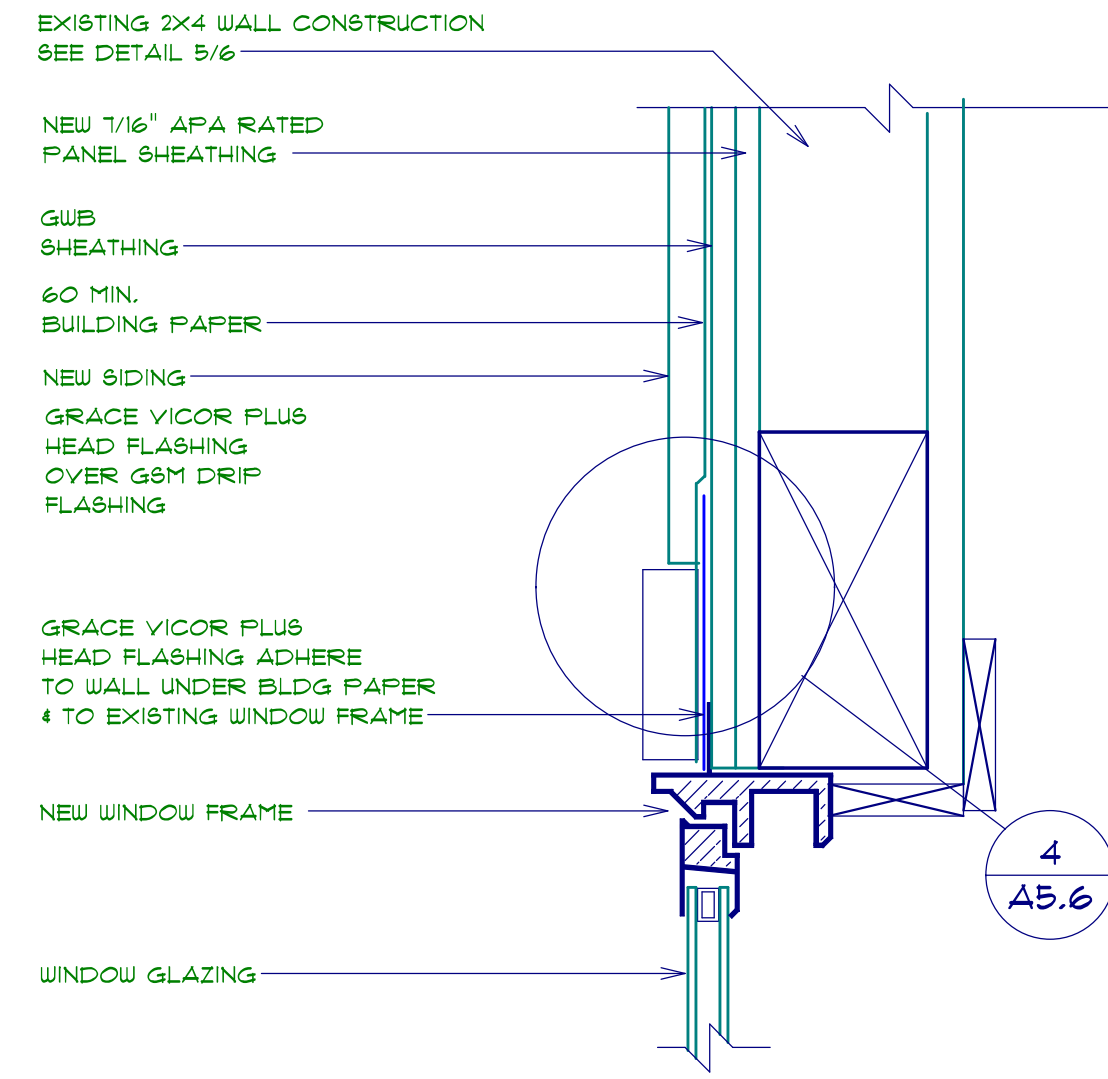
1 STAIR CONNECTION  
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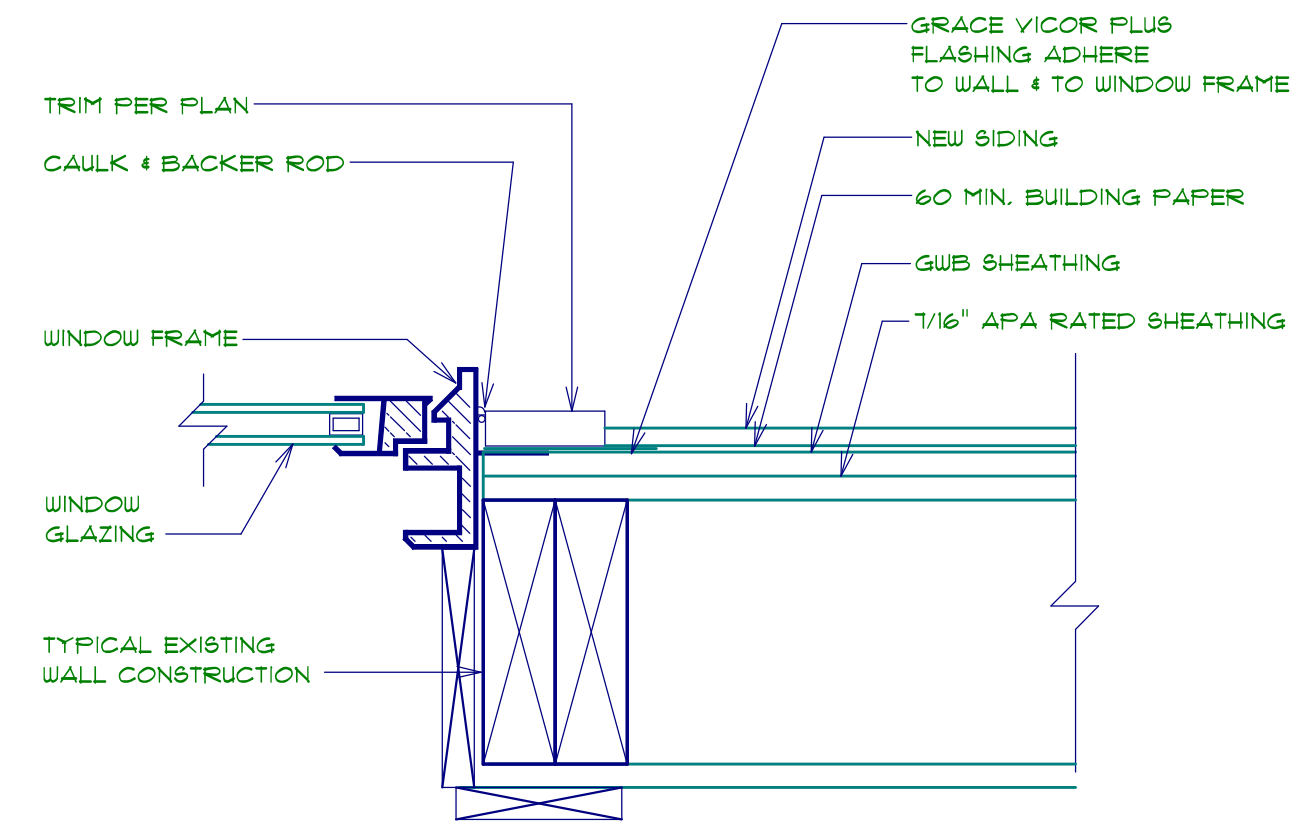
4 STAIR SECTION  
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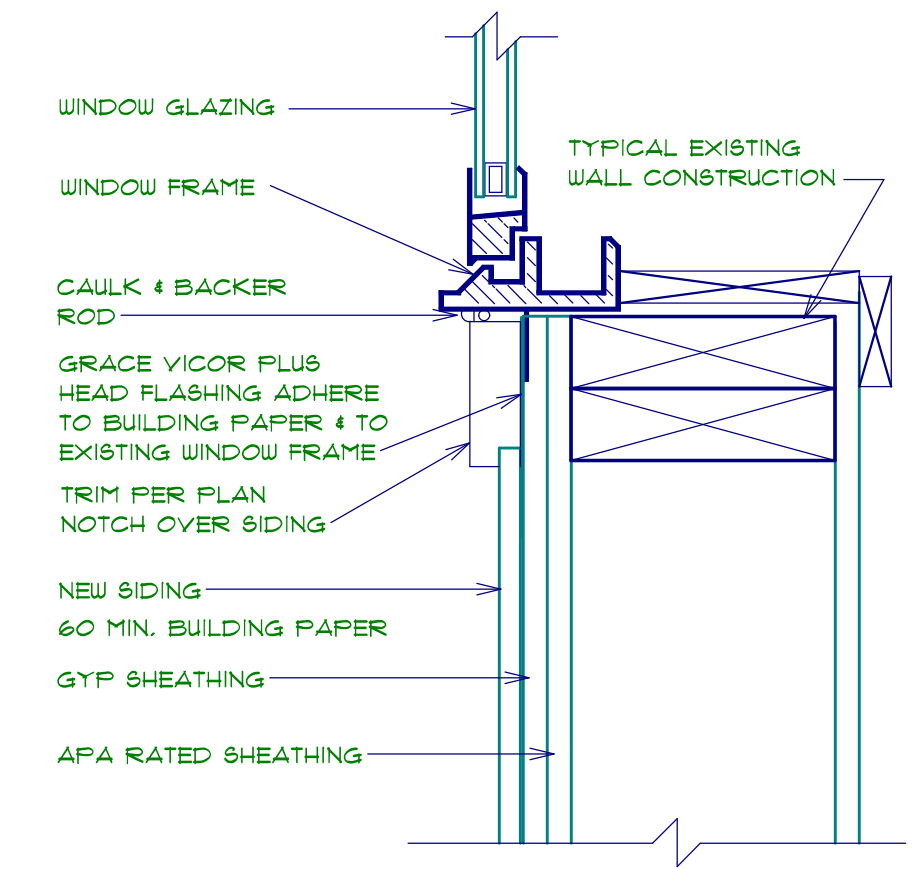
WINDOW FLASHING FOR  
EXISTING WINDOWS



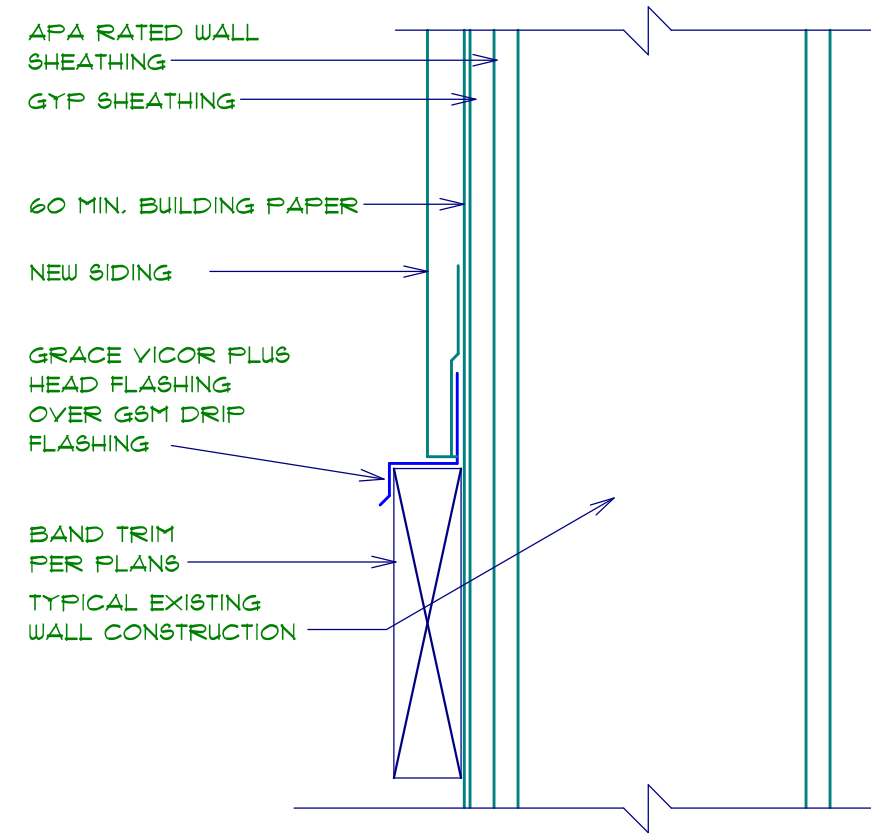
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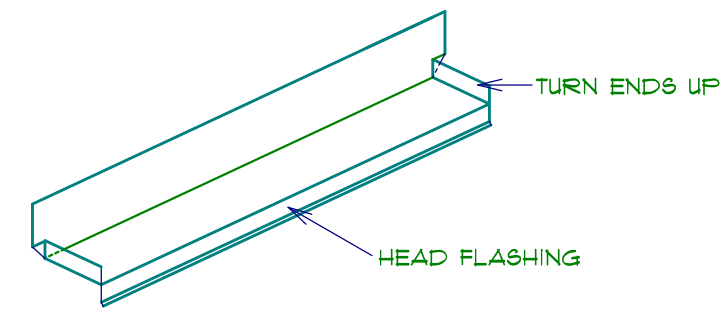
DETAIL #2  
SCALE 3" = 1'-0"



DETAIL #3  
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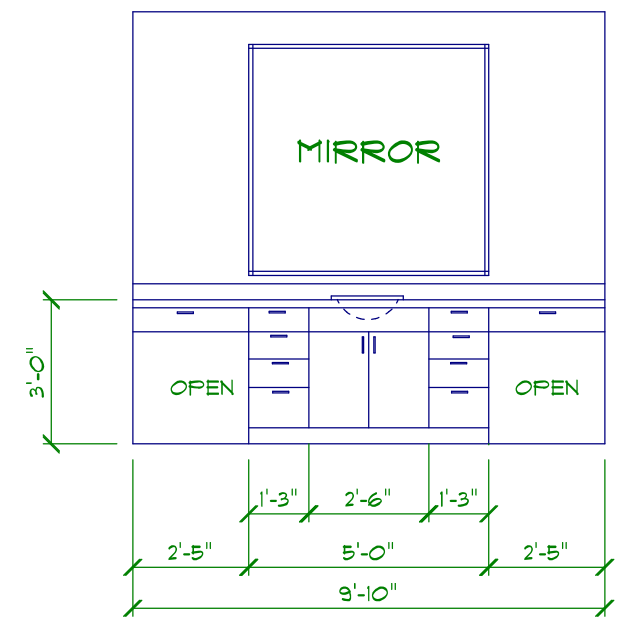
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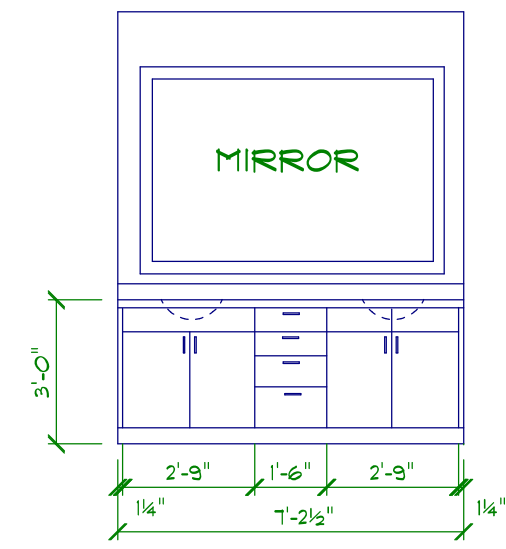
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SCALE 1" = 1'-0"

WINDOW SCHEDULE

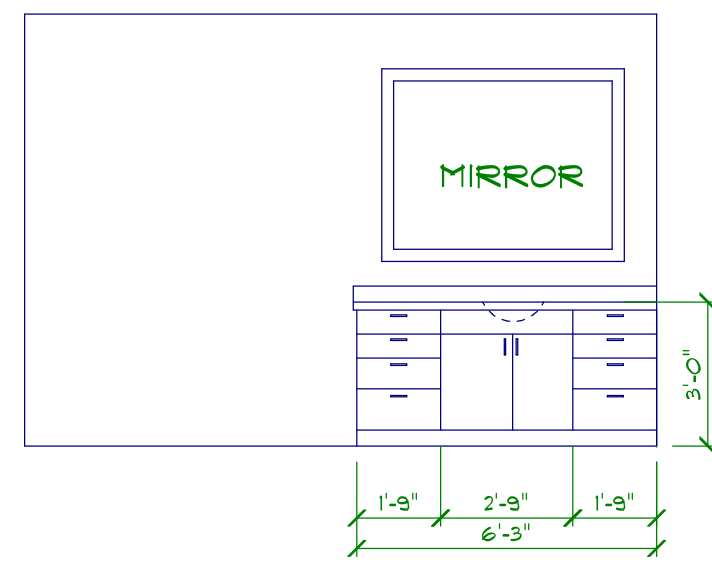
LOCATION	TYPE	QTY	SIZE	U-FACTOR	AREA
ENTRY	PIC	2	2040	0.24	24
KITCHEN	SLD	1	6040	0.24	24
DINING	SH	3	2650	0.24	21.5
DINING	SH	3	3050	0.24	45
FAMILY	SH	2	3660	0.24	42
FAMILY	SGD	1	6080	0.24	48
FAMILY	PIC	1	6060	0.24	36
FAMILY	PIC	2	3660	0.24	42
BDRM #1	SGD	1	6070	0.24	42
BDRM #1	SH	2	2650	0.24	25
BATH #1	SLD	1	4040	0.24	16
BDRM #2	SGD	1	6070	0.24	42
BDRM #2	SH	2	2650	0.24	25
BATH #2	SLD	1	4040	0.24	16
LOFT	SH	2	2650	0.24	25
LOFT	SH	1	3050	0.24	15
STAIRS	PIC	3	2080	0.24	54
BATH #3	PIC	2	1640	0.24	12
BDRM #3	SGD	1	6040	0.24	24



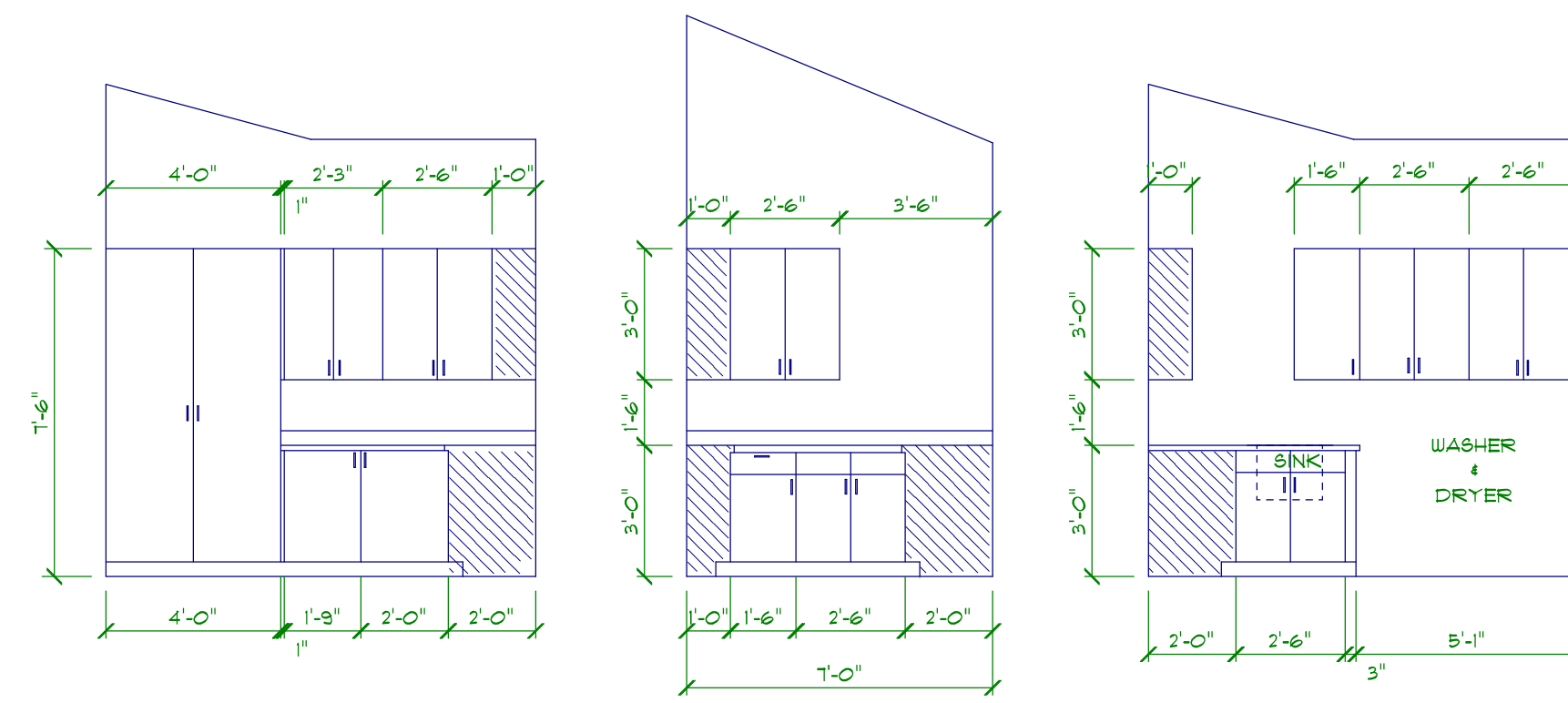
POWDER ROOM



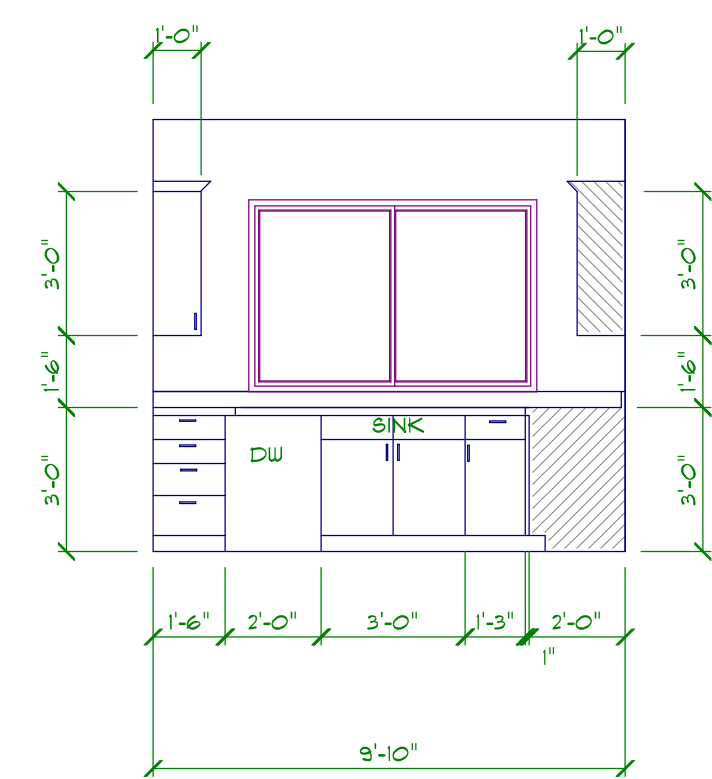
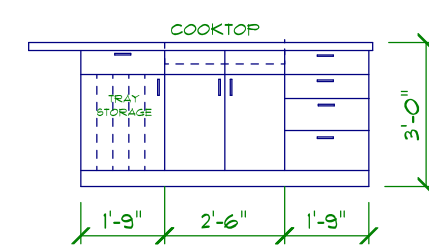
BATH CABINETS  
BATH #1 & #2



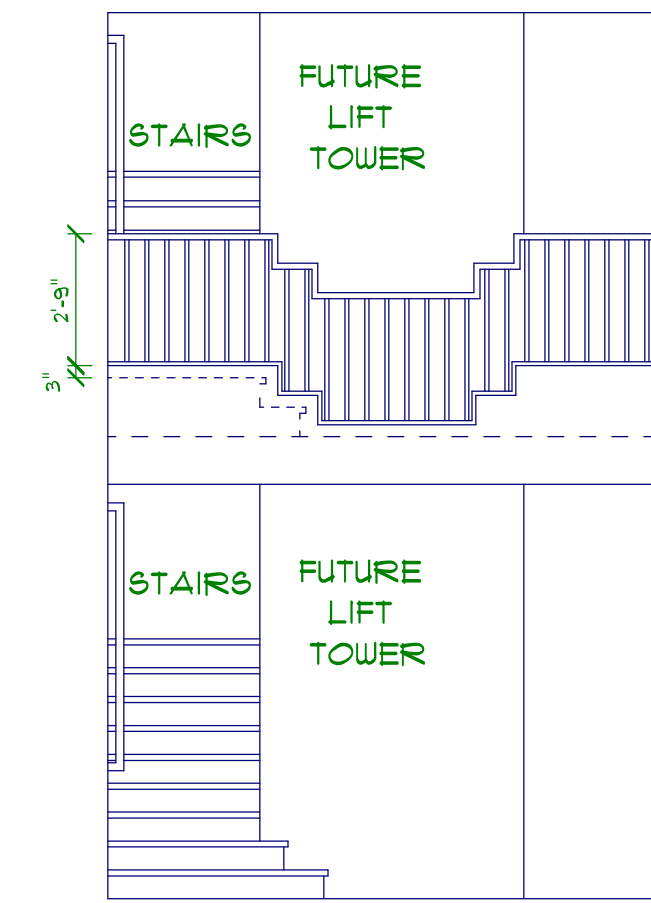
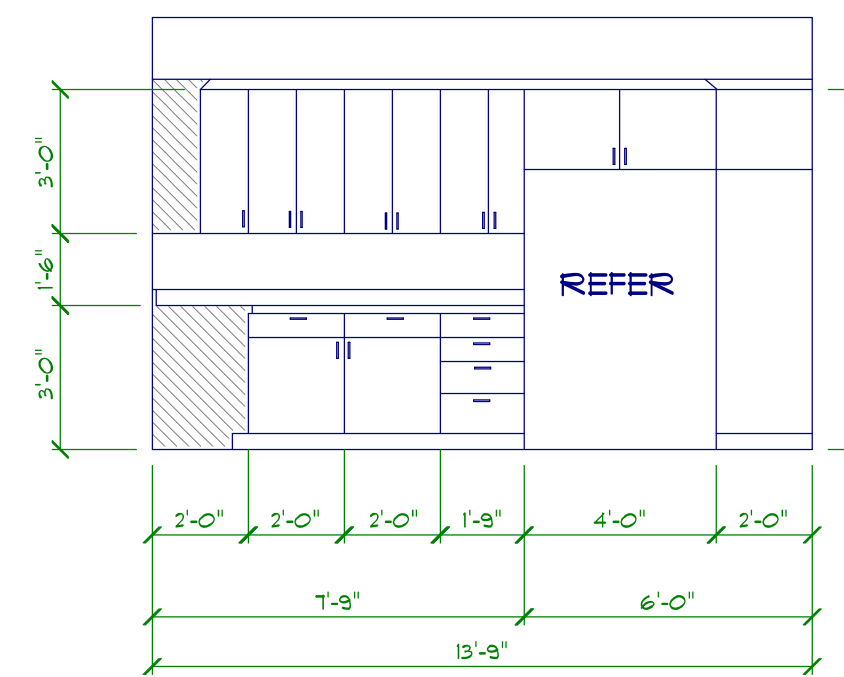
BATH CABINETS  
BDRM #3



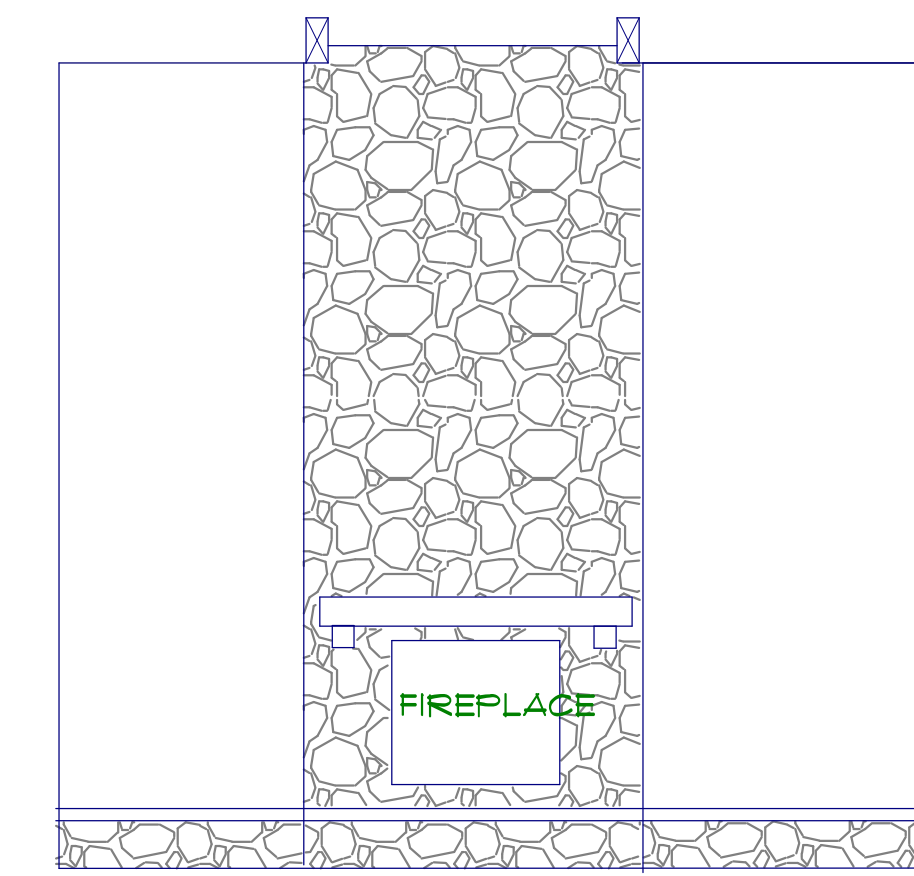
LAUNDRY ROOM



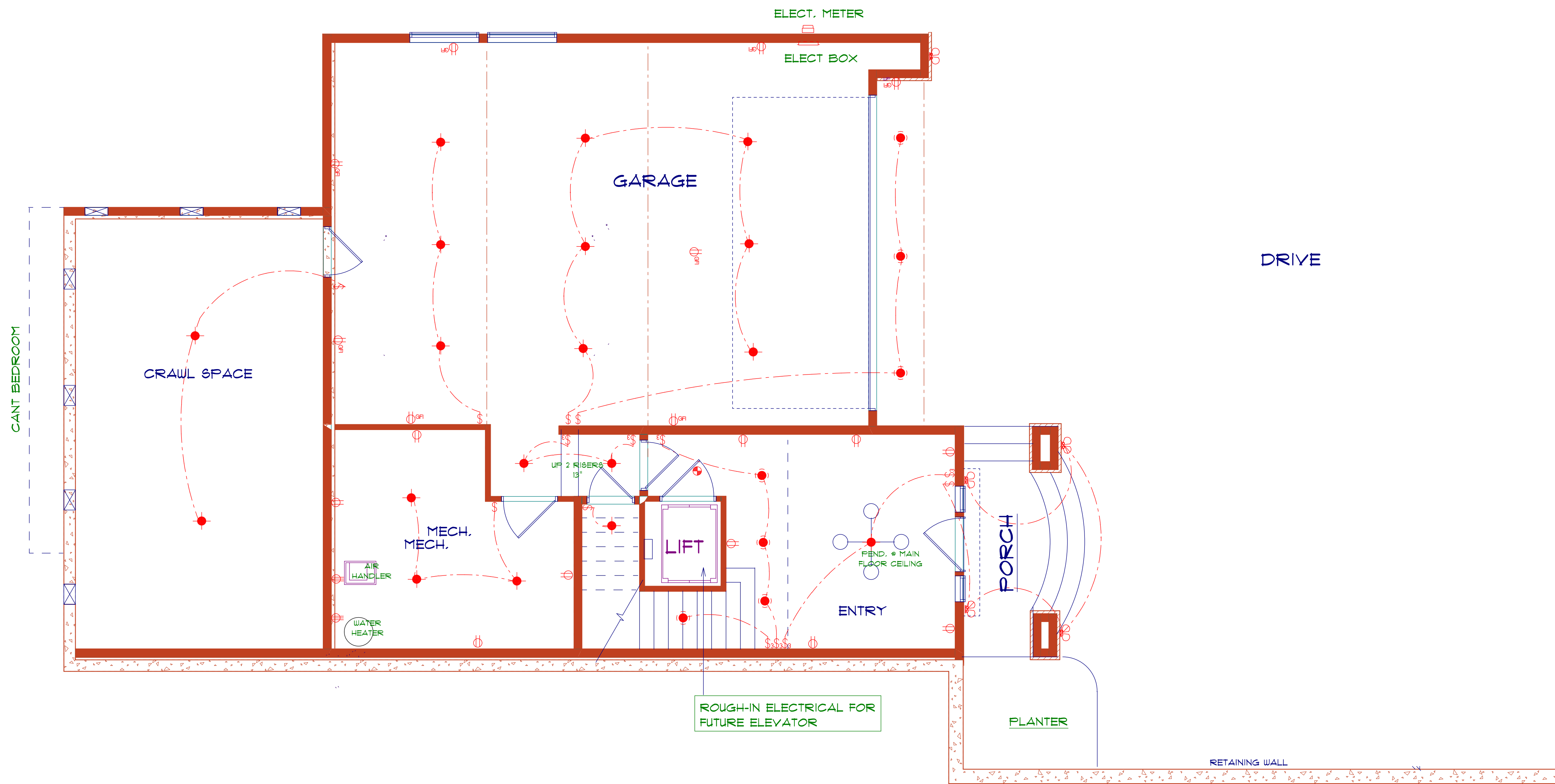
KITCHEN CABINETS



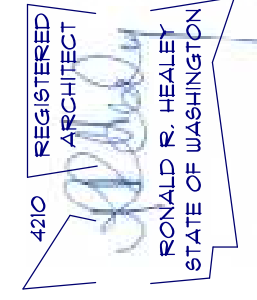
ENTRY



FAMILY ROOM



ELECTRICAL	SYMBOL
110 v direct connection	⊕
Outlet 110 gfi up	⊕ <sub>gfi</sub>
Recessed can	●
Recessed directional	●
Surface mount	●
Wall Mount Flood	⊕
Wall mount	●
fan	⊕
outlet	⊕
220v Direct Wire	⊕
outlet gfi	⊕ <sub>gfi</sub>
smoke detector	⊕
split receptacle	⊕
switch	⊕
switch 3 way	⊕ <sub>3</sub>



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 ARCHITECTS

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 5631 EAST MERCER WAY  
 MERCER ISLAND, WA.

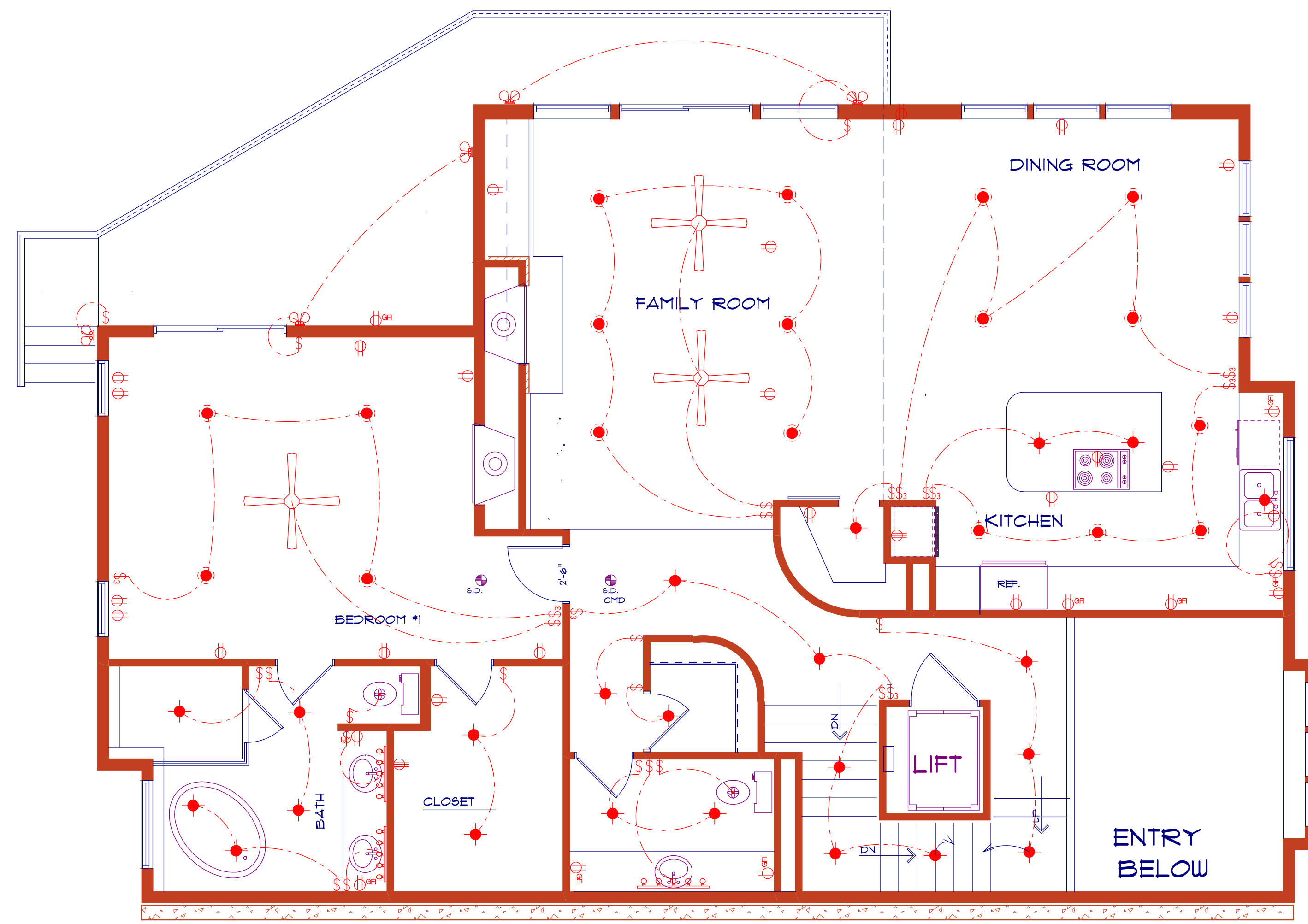
GARAGE ELECTRICAL PLAN

DATE  
 4-27-2020

PROJECT NO.  
 001

SHEET NO.  
 A6.2

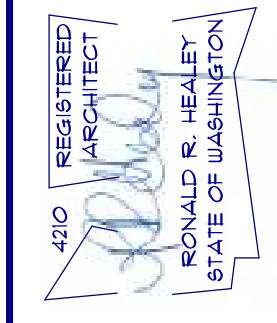
SCALE 1/4" = 1'-0"



LEGEND	
⊕	
⊕	
⊕	

ELECTRICAL	SYMBOL
110 v direct connection	⊕
Outlet 110 gfi up	⊕ <sup>gfi</sup>
Recessed can	⊕
Recessed directional	⊕
Surface mount	⊕
Wall Mount Flood	⊕
smoke detector & carbon monoxide det.	⊕
Wall mount	⊕
fan	⊕
outlet	⊕
220v	⊕
outlet gfi	⊕ <sup>gfi</sup>
smoke detector	⊕
split receptacle	⊕
switch	⊕
switch 3 way	⊕

110V, SMOKE DETECTOR W/ BATTERY BACKUP & INTERCONNECTED ALARMS  
 WHOLE HOUSE FAN - 100 CFM MIN, VTO  
 110V, COMBINATION SMOKE DETECTOR & CARBON MONOXIDE DETECTOR



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**ARCHITECTS**

**MI Treehouse, LLC,**  
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 MERCER ISLAND, WA.

**MAIN FLOOR ELECTRICAL PLAN**

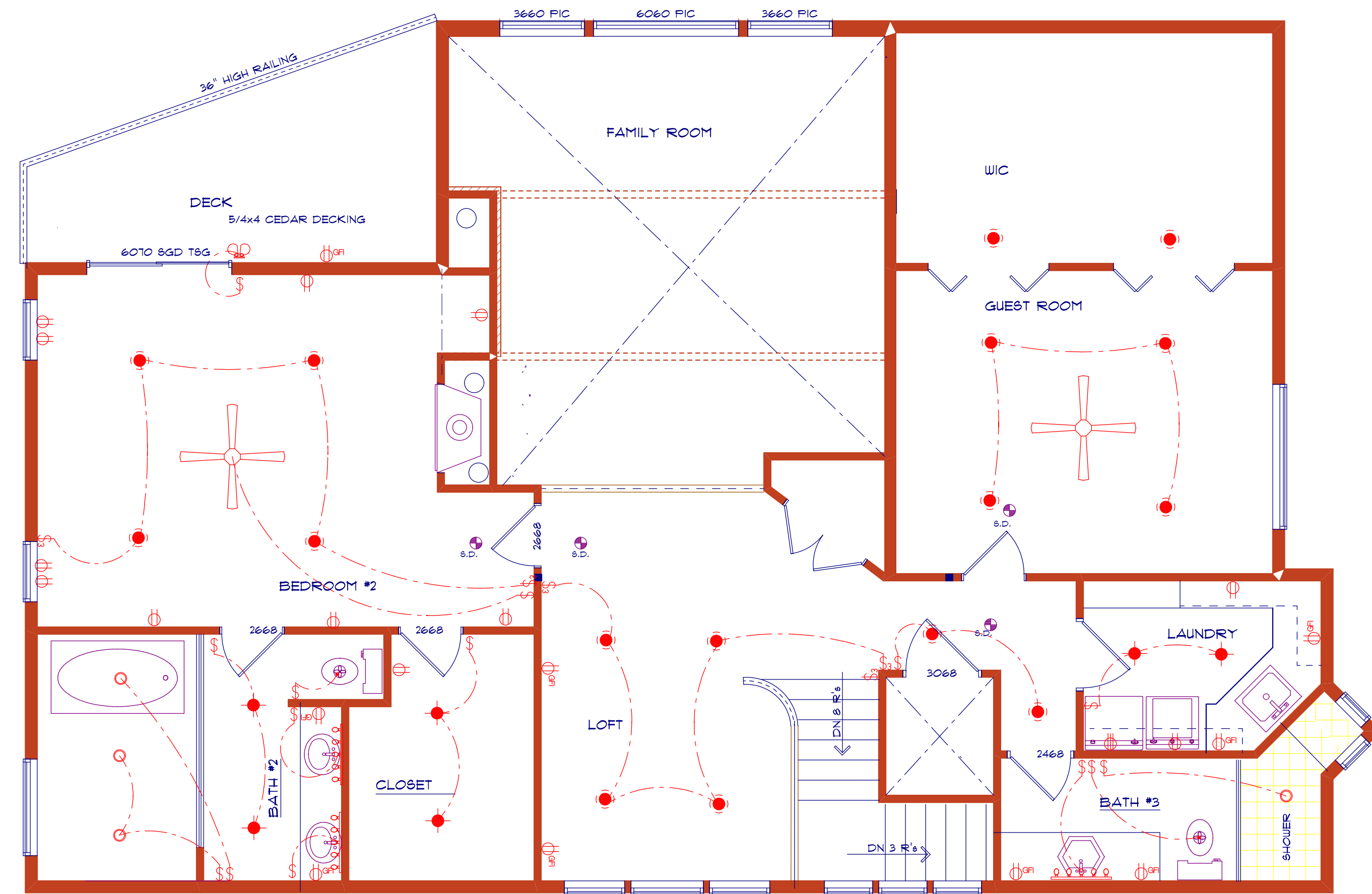
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DATE  
4-27-2021

PROJECT NO.  
001

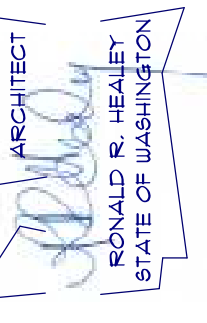
SHEET NO.  
**A6.3**





LEGEND	
	50 CFM MIN. FAN (V.T.O.)
	110V. SMOKE DETECTOR W/ BATTERY BACKUP & INTERCONNECTED ALARMS
	WHOLE HOUSE FAN - 100 CFM MIN. VTO
	110V. COMBINATION SMOKE DETECTOR & CARBON MONOXIDE DETECTOR

ELECTRICAL	SYMBOL
110 v direct connection	
Outlet 110 gfi up	
Recessed can	
Recessed directional	
Surface mount	
Wall Mount Flood	
Wall mount fan	
outlet	
220v Direct Wire	
outlet gfi	
smoke detector	
split receptacle	
switch	
switch 3 way	



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 2525 N 135th DRIVE, GOODYEAR, AZ 85395 - (480) 444-6168  
 ARCHITECTS

MI Treehouse, LLC,  
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 MERCER ISLAND, WA.

UPPER FLOOR ELECTRICAL PLAN

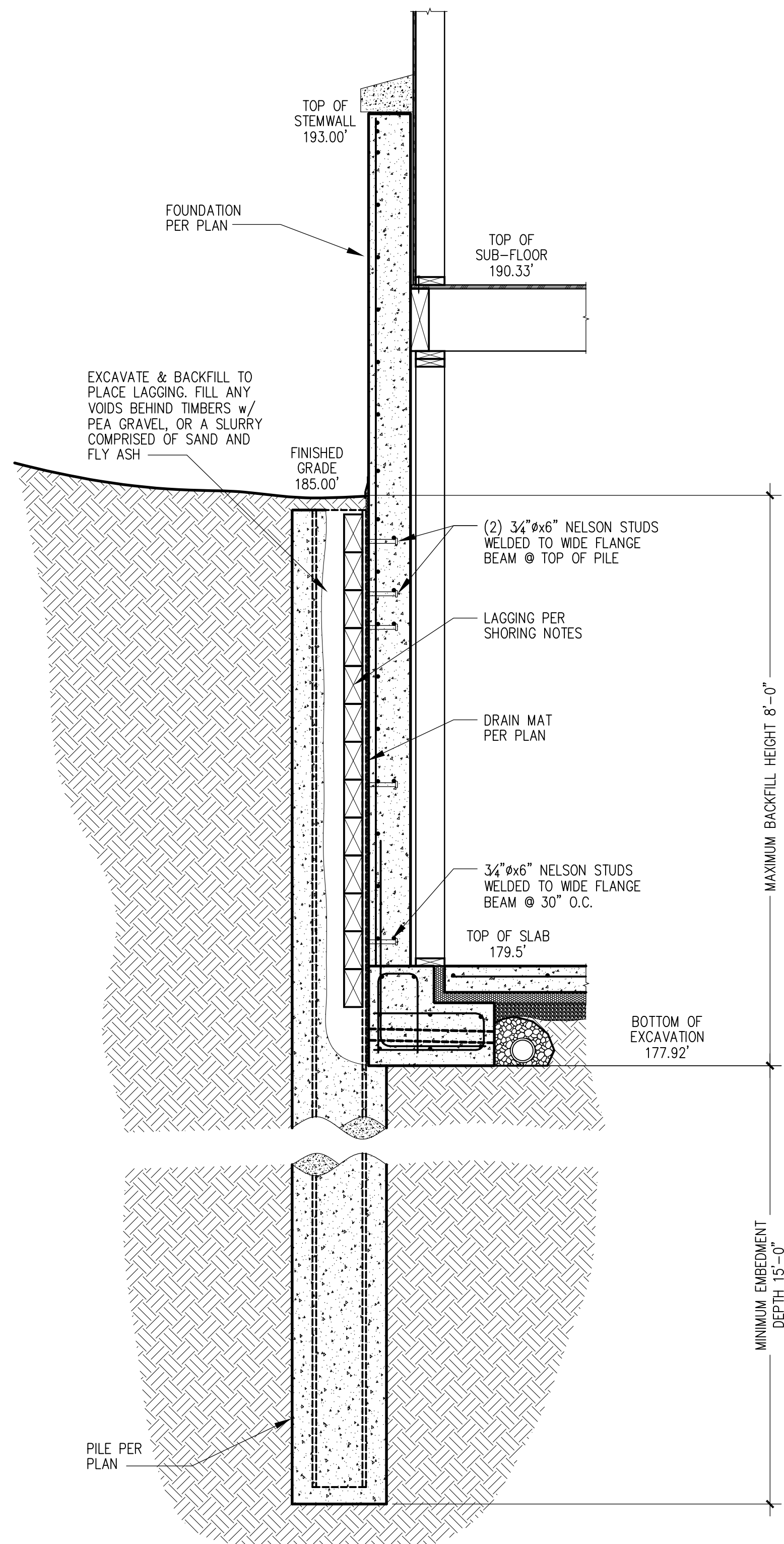
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DATE  
4-21-2021

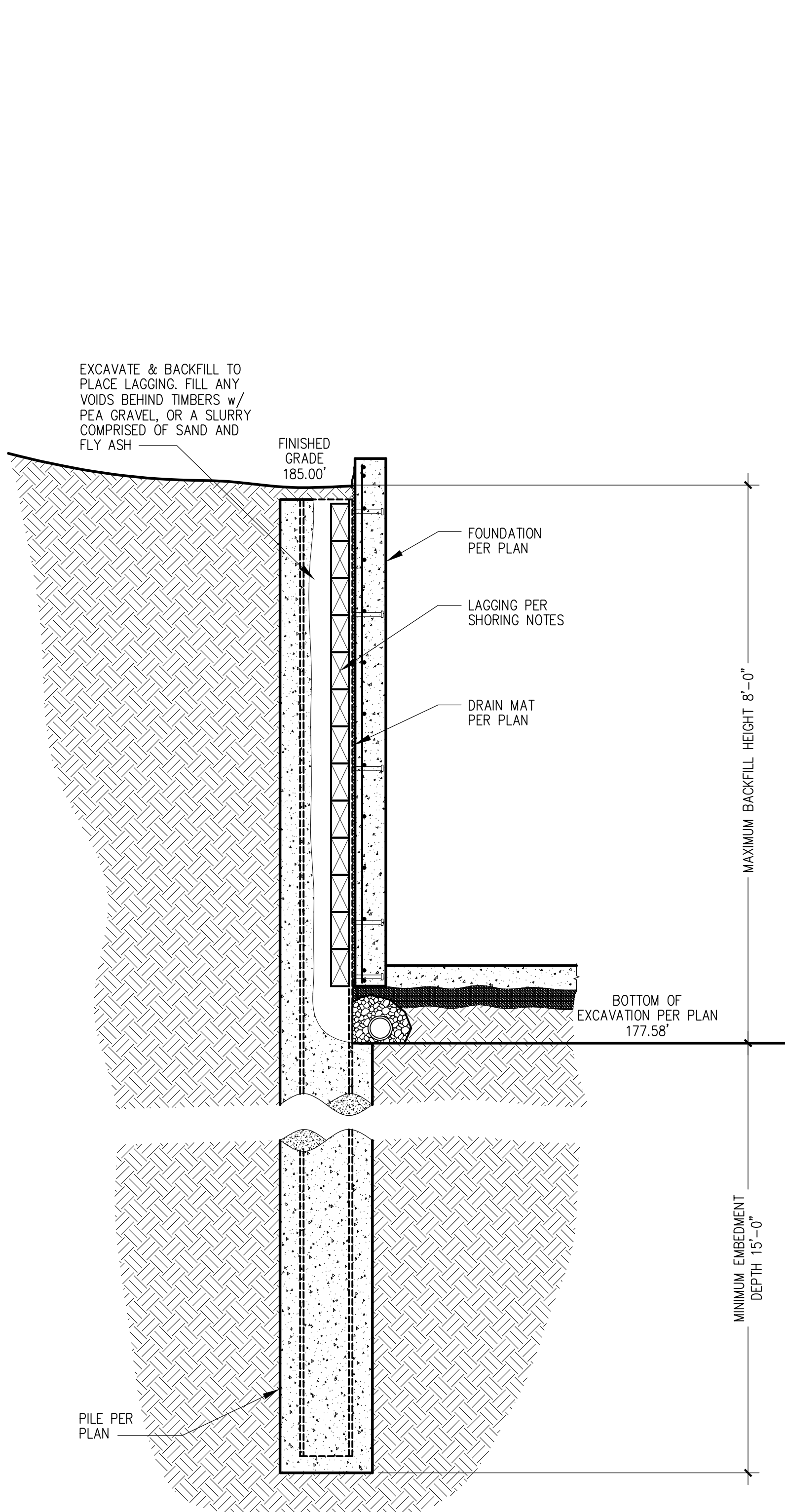
PROJECT NO.  
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SHEET NO.

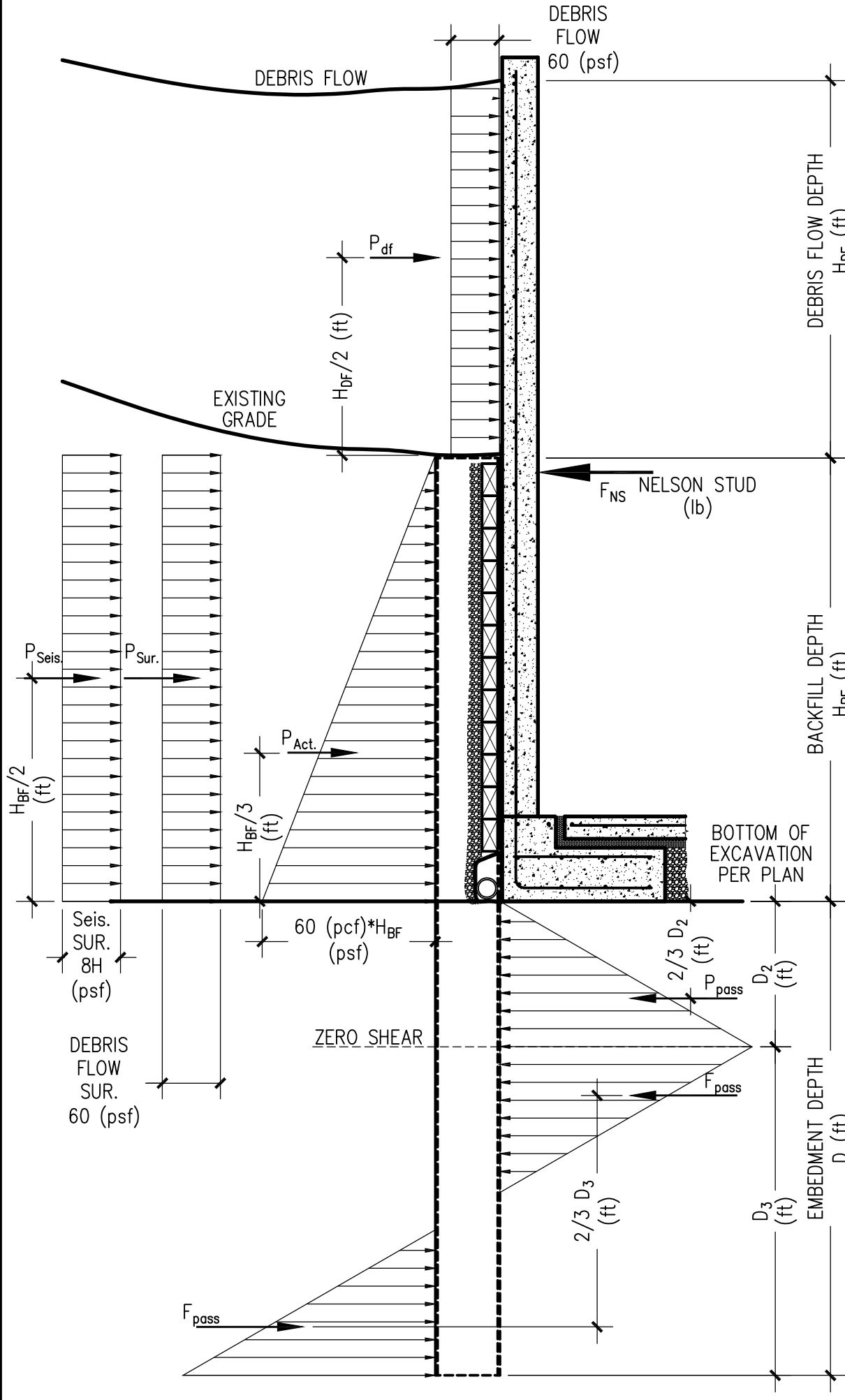
A6.4



1 TYPICAL PILE SECTION (MAIN HOUSE)



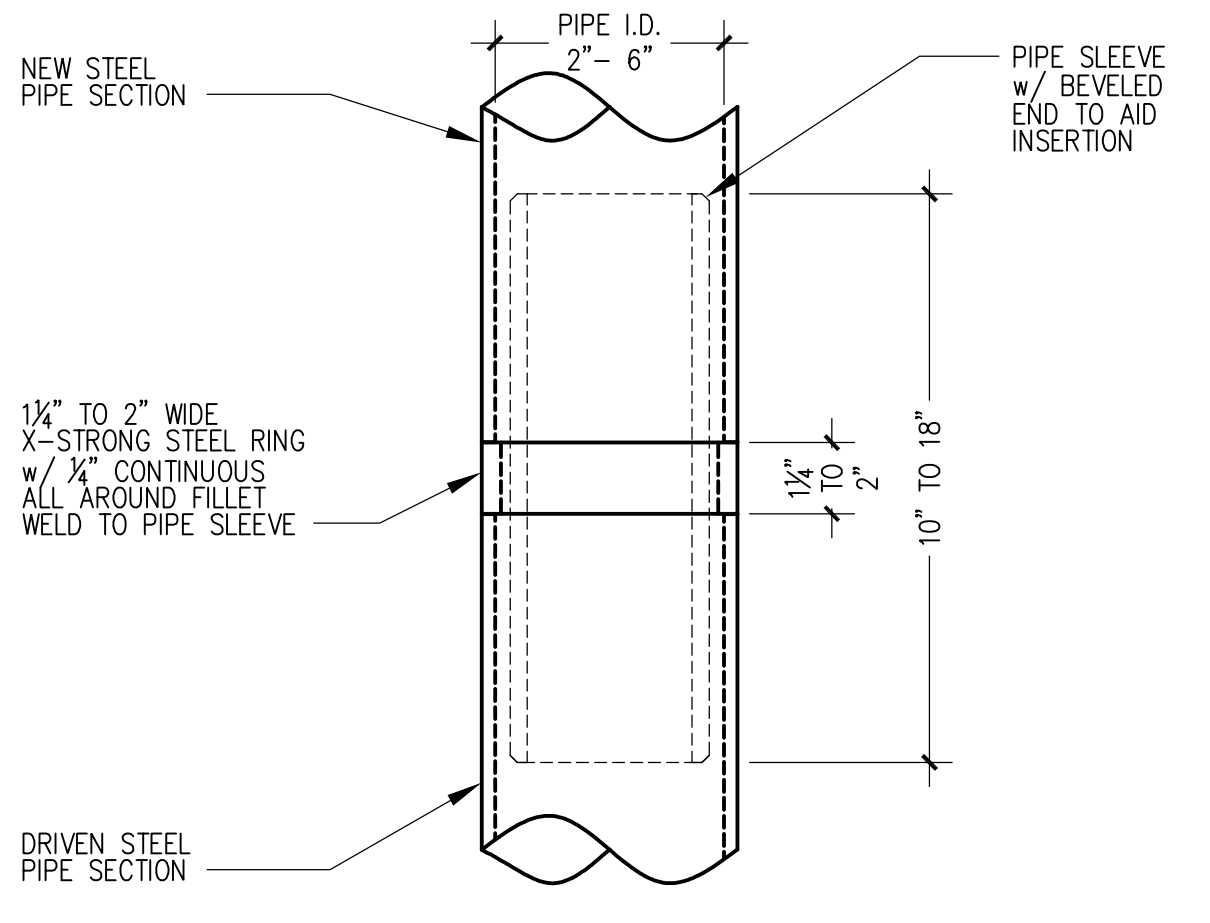
2 TYPICAL PILE SECTION (SITE WALL)



3 PILE LOADING DIAGRAM

PILE #	HEIGHT OF BACKFILL H (ft)	MIN. PILE DEPTH D (ft)	MAX. PILE SPACING SP (ft)	AUGER DIA. d (in)	STEEL SECTION	TIMBER LAGGING
1-9	7'-2"	31'-6"	6'-0"	24"	W10x45	4x8 P.T. HF#2
10-13	9'-0"	30'-10"	6'-0"	24"	W10x54	4x8 P.T. HF#2
14-16	8'-0"	28'-2"	6'-0"	24"	W10x39	4x8 P.T. HF#2

4 PILE SCHEDULE



5 TYPICAL PIN PILE SPLICING DETAIL

GENERAL STRUCTURAL SHORING NOTES

REFERENCE DOCUMENTS:  
 GEOTECHNICAL ENGINEERING STUDY  
 GEO GROUP NORTHWEST, INC.  
 REPORT #G-3637 DATED: FEB. 14, 2016

DESIGN LOADS:  
 THE SOIL PRESSURES INDICATED ON THE SOILS PRESSURE DIAGRAM DETAIL 3/P1.0 WERE USED FOR DESIGN.

SOILS:  
 CONTINUOUS OBSERVATIONS BY THE GEOTECHNICAL ENGINEER SHALL BE CONDUCTED FOR ALL PHASES OF PILE INSTALLATION. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF PILE. SEE GEOTECHNICAL ENGINEERING STUDY FOR COMPLETE INFORMATION INCLUDING; RECOMMENDATIONS FOR SHORING IN GENERAL, SHORING MONITORING, EXCAVATION, LAGGING AND DRAINING.

CONCRETE:  
 CONCRETE SHALL CONFORM TO ALL REQUIREMENT OF OF CHAPTER 19 OF THE IBC. CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD CYLINDER TESTS. UNLESS APPROVED OTHERWISE, REQUIRED ULTIMATE COMPRESSIVE STRENGTHS OF STRUCTURAL GROUT SHALL BE REACHED BY 28 DAYS FOR PILES.

f <sub>c</sub> (psi)	MIN. SACKS OF CEMENT PER YARD OF CONCRETE	MAX. WATER PER 94lb SACK CEMENT	USE
3000	1} SACKS 6SACKS	6 GALLONS	PILE LEAN CONCRETE PILE STRUCTURAL GROUT

STRUCTURAL TIMBERS:  
 ALL GRADES SHALL CONFORM TO WCLIB GRADING RULES FOR "WEST COAST LUMBER", LATEST EDITION. ALL PERMANENT TIMBER LAGGING SHALL BE PRESSURE TREATED WITH WATERBORNE PRESERVATIVES IN ACCORDANCE WITH AWPB LP-22 TO A MINIMUM RETENTION OF 0.4. ALL STRUCTURAL LUMBER SHALL BE AS NOTED BELOW.

FRAMING GRADES:  
 4x TIMBER LAGGING HEM-FIR#2..... F<sub>b</sub> = 680PSI

STRUCTURAL STEEL:  
 STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE A.I.S.C. SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS (14th EDITION). STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM DESIGNATION A992, 50KSI UNLESS NOTED OTHERWISE. WELDING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE LAWS. ALL WELDING SHALL BE BY CERTIFIED WELDERS (W.A.B.O. OR EQUAL) USING E60 OR E70 ELECTRODES. SHOP DRAWINGS OF ALL STRUCTURAL STEEL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. ALL STEEL MEMBERS SHALL BE GIVEN ONE SHOP COAT OF APPROVED PRIMER. SURFACES TO BE EMBEDDED IN CONCRETE, FIREPROOFED OR FIELD WELDED SHALL NOT BE PRIMED. ALL BOLTS SHALL BE A325 UNLESS NOTED OTHERWISE. ALL ANCHOR BOLTS SHALL BE ASTM A307

STATEMENT OF SPECIAL INSPECTION REQUIREMENTS:  
 SPECIAL INSPECTIONS PER IBC CHAPTER 1704 SHALL BE PERFORMED ON THE FOLLOWING BUILDING COMPONENTS. INSPECTIONS SHALL BE PROVIDED BY A QUALIFIED INSPECTION AGENCY APPROVED BY THE BUILDING DEPARTMENT AND RETAINED BY THE OWNER/CONTRACTOR:

- ALL STRUCTURAL STEEL SHALL BE PERIODICALLY INSPECTED TO VERIFY MEMBER SIZE, GRADE, AND INSTALLATION PER PLAN. ANY ON SITE WELDING SHALL BE INSPECTED BY AN AWS D1.1 QUALIFIED INSPECTOR. CONTINUOUS INSPECTION IS NOT REQUIRED IF THE PROCEDURES AND QUALIFICATIONS OF THE WELDERS ARE VERIFIED PRIOR TO THE START OF THE WORK. TESTING AGENCY AND CREDENTIALS TO BE PROVIDED FOR APPROVAL UPON CONTRACT AGREEMENT.
  - AUGERCAST PILE PLACEMENT
- HOLE DIGGING:  
 PILE HOLES SHALL BE DRILLED WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES. THIS MAY INVOLVE CASING HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. REFER TO TO GEOTECHNICAL ENGINEERING STUDY FOR RECOMMENDED HOLE DIGGING PROCEDURE.
- STEEL PLACEMENT TOLERANCES:  
 1" INSIDE PERPENDICULAR TO SHORING WALL  
 1" OUTSIDE PERPENDICULAR TO SHORING WALL  
 3" LATERALLY
- LAGGING:  
 TIMBER LAGGING SHALL BE INSTALLED IN ALL AREAS UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER IN THE FIELD. VOIDS BETWEEN LAGGING AND SOIL SHALL BE BACKFILLED WITH EITHER PEA GRAVEL OR SLURRY PER GEOTECHNICAL ENGINEER. DRAINAGE BEHIND THE WALL MUST BE MAINTAINED. IT IS THE CONTRACTOR RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LAGGING TO AVOID LOSS OF SOIL. MAXIMUM HEIGHT OF 4 FEET IS RECOMMENDED. SPECIAL CARE SHOULD BE TAKEN TO AVOID GROUND LOSS DURING EXCAVATION.
- SHORING MONITORING:  
 CONTINUOUS OBSERVATIONS BY THE GEOTECHNICAL ENGINEER SHALL BE CONDUCTED FOR ALL PHASES OF THE SHORING PROJECT EXECUTION TO DETERMINE THE EFFECT OF CONSTRUCTION ON ADJACENT STRUCTURES IN ORDER TO PROTECT THEM FROM DAMAGE. REFER TO GEOTECHNICAL ENGINEERING STUDY FOR COMPLETE INFORMATION INCLUDING; RECOMMENDATIONS.

GENERAL STRUCTURAL PIN PILE NOTES

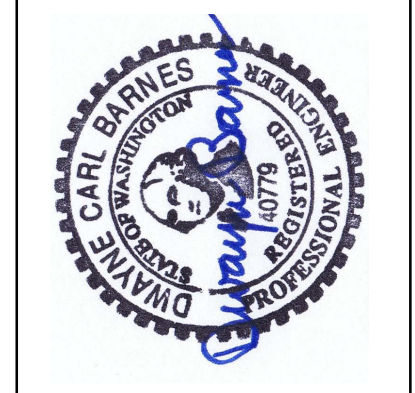
REFERENCE DOCUMENTS:  
 GEOTECHNICAL ENGINEERING STUDY  
 GEO GROUP NORTHWEST, INC.  
 REPORT #G-3637 DATED: MAR. 15, 2015

PIN PILES:  
 1. ALL PIN PILES SHALL CONSIST OF 4" GALVANIZED SCHEDULE 40 ASTM A-53 GRADE "A" PIPE, AND DRIVEN SECTIONS AND CONNECTED WITH COMPRESSION FITTED SLEEVE COUPLERS AND PILE CAPS AS INDICATED IN DETAIL 5/P1.0 & 6/P1.0

- PILES SHALL BE DRIVEN WITH A TELEDYNE TB325 PNEUMATIC HAMMER (OR EQUIVALENT) TO A REFUSAL PENETRATION RATE OF 16SEC/INCH SUSTAINED THROUGH AT LEAST 3 MINUTES OF CONTINUOUS DRIVING. BATTERED PILES SHALL BE DRIVEN AT A RATIO OF 2 HORIZ: TO VERT: PILE CAPACITY 8 TONS FOR VERTICAL PILES, AND 7.8 TONS FOR BATTERED PILES.
- CONTRACTOR SHALL SUPPLY THE GEOTECHNICAL ENGINEER WITH ALL EQUIPMENT AND HAMMER ENERGY INFORMATION TO BE USED ON THE PROJECT, PRIOR TO ARRIVING ON SITE.
- FILED LOAD TESTING PER ASTM STANDARD D 1143-81, SHALL BE CONDUCTED ON AT LEAST (1) PILE, OR A MINIMUM OF 3% OF THE PILES, UP TO A MAXIMUM OF (5).

PIN PILE MONITORING:  
 CONTINUOUS OBSERVATIONS BY THE GEOTECHNICAL ENGINEER SHALL BE CONDUCTED FOR ALL PHASES OF PIN PILE INSTALLATION. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF PILE. REFER TO GEOTECHNICAL ENGINEERING STUDY FOR COMPLETE INFORMATION INCLUDING; RECOMMENDATIONS.

Stoney Point Engineering  
 Dwayne Barnes P.E.  
 dwayne@stonepointengineering.com  
 Office: 425-644-9500



MI Treehouse, LLC  
 5637 East Mercer Way  
 Mercer Island, WA 98084

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Issued	Date
Permit Plans	03/30/20

18-025

P1.0  
 SHORING/PIN PILE DETAILS



## STRUCTURAL NOTES

### CODE:

DESIGN IS IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE (I.B.C.) AS AMENDED BY THE LOCAL BUILDING DEPARTMENT.

### LIVE LOADS:

ROOF.....25 PSF  
FLOOR.....40 PSF  
DECKS.....60 PSF

### LATERAL:

WIND.....BASIC WIND SPEED,110 MPH  
(ASCE 7-10 Ch. 26-27)  
(DIRECTIONAL PROCEDURE) EXPOSURE CATEGORY, D  
 $K_{zt}= 1.00$

SEISMIC..... $S_s = 1.336$   
(ASCE 7-10 Ch. 12.14)  $S_{ps} = 0.891$   
(SIMPLIFIED METHOD) SEISMIC DESIGN CATEGORY, D  
SITE CLASS, D  
SITE COEFFICIENT,  $F_a = 1.0$

### FOUNDATIONS:

BEAR ALL FOUNDATION ON 4"Ø PIN PILES PER GEO GROUP NORTHWEST, INC. REPORT #G-3837 DATED: FEB. 14, 2016. ALL EXTERIOR FOOTINGS SHALL EXTEND A MINIMUM OF 1'-6" BELOW ADJACENT EXTERIOR FINISHED GRADE.

### CAST-IN-PLACE-CONCRETE:

$F'_c = 3000$  PSI @ 28 DAYS. MINIMUM 5½ SACKS OF CEMENT PER CUBIC YARD OF CONCRETE AND A MAXIMUM OF 6¾ GALLONS OF WATER PER 94# SACK OF CEMENT. IN ADDITION, TO BASEMENT WALLS, AND FOUNDATION WALLS, ALL EXTERIOR CONCRETE EXPOSED TO WEATHER AND GARAGE SLABS SHALL BE AIR ENTRAINED WITH AN AIR-ENTRAINING AGENT TO 5%-7% BY VOLUME OF CONCRETE. MAXIMUM SIZED AGGREGATE SHALL BE 1". MAXIMUM SLUMP IS 5" OR LESS. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. ALL REINFORCED STEEL DOWELS, ANCHOR BOLTS AND OTHER INSERTS SHALL BE SECURED IN POSITION PRIOR TO POURING CONCRETE. ANCHOR BOLTS FOR SILL PLATES TO FOUNDATION WALLS SHALL BE A MINIMUM OF ¾"Ø WITH A MINIMUM OF 7" EMBEDMENT INTO CONCRETE AND A MAXIMUM SPACING OF 48" O.C. MINIMUM OF 2 BOLTS PER SILL PLATE. ONE BOLT TO BE PLACED WITHIN 12" OF EACH END OF THE SILL PLATE.

### REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND THE MANUAL STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION BY CRSI. DEFORMED REINFORCING STEEL BARS SHALL CONFORM TO ASTM GRADE 60. ALL REINFORCING BAR BENDS SHALL BE MADE COLD, WITH A MINIMUM RADIUS OF 6 BAR DIAMETERS. CORNER BARS (2'-0" BEND) SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCEMENT. LAP ALL BARS A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE ON THE DRAWINGS REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM COVER:

CONCRETE CAST AGAINST EARTH.....	3"
CONCRETE EXPOSED TO EARTH OR WEATHER.....	2"
#6 THRU #18 BARS.....	2"
#5 BAR AND SMALLER.....	1½"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER.....	¾"
#11 BAR AND SMALLER.....	¾"
SLAB ON GRADE (FROM THE SURFACE).....	1½"

### WELDED WIRE FABRIC (WWF):

WWF SHALL CONFORM TO ASTM A-185. WWF SHALL BE LAPPED ONE CROSSWIRE PLUS 2" (i.e. 8" FOR 6X6 MESH). WWF SHALL BE CHAIRD IN POSITION WITH A MAXIMUM CHAIR SPACING OF 4'

### STRUCTURAL STEEL:

STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE A.I.S.C. SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS (14th EDITION). STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM DESIGNATION A992 UNLESS NOTED OTHERWISE. SQUARE AND RECTANGULAR STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM DESIGNATION A500, GRADE B. STEEL PIPE SHALL CONFORM TO ASTM DESIGNATION A53, TYPE E OR S, GRADE B ( $F_y= 46,000$  PSI). ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND A.W.S. STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS AT MEMBERS AND CONNECTIONS OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL BE MADE WITH A FILLER MATERIAL PRODUCING WELDS WITH A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT-0 DEGREES F, AS DETERMINED BY THE APPLICABLE AWS A5 CLASSIFICATION TEST METHOD. ALL COMPLETE JOINT PENETRATION GROOVE WELDS AT DEMAND CRITICAL WELDS SHALL BE MADE WITH A FILLER MATERIAL PRODUCING WELDS WITH A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT-0 DEGREES F, AS DETERMINED BY THE APPLICABLE AWS A5 CLASSIFICATION TEST METHOD. AND 40 FT-LBS AT-70 DEGREES F, AS DETERMINED BY SECTION A3.4A. FILLER METAL PRODUCING WELDS ARE REQUIRED TO MEET THE MINIMUM REQUIREMENTS FOR CHARPY V-NOTCH TOUGHNESS AS SPECIFIED IN THE WELDING PROCEDURE SPECIFICATIONS. ATTACHMENTS ARE NOT PERMITTED WITHIN THE PROTECTED ZONE AND DISCONTINUITIES SHALL BE REPAIRED IN ACCORDANCE WITH SECTION D1.5 OF AISC 41-10. ALL STEEL MEMBERS SHALL BE GIVEN ONE SHOP COAT OF APPROVED PRIMER. SURFACES TO BE EMBEDDED IN CONCRETE, FIREPROOFED OR FIELD WELDED SHALL NOT BE PRIMED. ALL BOLTS SHALL BE A325 UNLESS NOTED OTHERWISE. ALL ANCHOR BOLTS SHALL BE BE ASTM A307.

### STATEMENT OF SPECIAL INSPECTION REQUIREMENTS:

SPECIAL INSPECTIONS PER IBC CHAPTERS 1704, AND 1705 SHALL BE PERFORMED ON THE FOLLOWING BUILDING COMPONENTS:

- PERIODIC GEOTECHNICAL INSPECTIONS FOR VERIFICATION AND COMPLIANCE TO SOILS REPORT ON SITE EXCAVATION AND GRADING, OVER EXCAVATION AND PLACEMENT OF STRUCTURAL FILL, CONSTRUCTION DEWATERING, PER PAGE 3 OF THE GEOTECHNICAL REPORT, PLACEMENT OF STRUCTURAL FILL AND SOIL COMPACTION, AND VERIFICATION OF SOIL-BEARING CAPACITY.
- CONTINUOUS INSPECTION FOR INSTALLATION OF CONCRETE EXPANSION, ADHESIVE, AND SCREW ANCHORS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

- PERIODIC INSPECTION ON FABRICATION, WELDING, HIGH STRENGTH BOLTING, AND INSTALLATION OF STRUCTURAL STEEL OTHER THAN PREFABRICATED\* STRUCTURAL STEEL MEMBERS TO VERIFY MEMBER SIZE, GRADE, WELDS, AND INSTALLATION PER PLAN.
- CONTINUOUS INSPECTION ON WELDING OF STRUCTURAL STEEL MEMBERS FOR OTHER THAN SINGLE-PASS FILLET WELDS (MAXIMUM 5/16-INCH).

\*\* SPECIAL INSPECTION IS REQUIRED ON THE PREMISES FOR THE FABRICATION OF ALL PREFABRICATED STEEL ELEMENTS, INCLUDING BUT NOT LIMITED, TO STEEL STAIRS, AND STEEL MOMENT FRAMES, UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTION.

### STRUCTURAL TESTING:

STRUCTURAL TESTING BY QUALIFIED TESTING FACILITIES SHALL BE CONDUCTED ON THE FOLLOWING BUILDING COMPONENTS:

- NON DESTRUCTIVE TESTING OF THE COMPLETE JOINT PENETRATION AND PARTIAL JOINT PENETRATION GROOVE-WELDED JOINTS ON THE STEEL ENTRY STAIRS.

### STRUCTURAL SUBMITTALS:

SHOP DRAWINGS, REPORTS, CERTIFICATES AND OTHER DOCUMENTS RELATING TO SPECIAL STRUCTURAL ELEMENTS, INSPECTIONS, AND TESTS SHOULD BE SUBMITTED TO THE CONTRACTOR, THE CITY OF BELLEVUE, AND THE ENGINEER OF RECORD. THE CERTIFICATES OF COMPLIANCE ARE REQUIRED TO STATE THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. CERTIFICATES SHALL BE SUBMITTED ON THE FOLLOWING BUILDING COMPONENTS:

- SHOP DRAWINGS FOR PREFABRICATED METAL-PLATE-CONNECTED WOOD TRUSSES, AND TJ ROOF FRAMING.
- CERTIFICATES OF COMPLIANCE FROM STEEL FABRICATORS ON ALL PREFABRICATED STEEL MEMBERS AT THE COMPLETION OF FABRICATION, INCLUDING BUT NOT LIMITED TO, BEAMS AND COLUMNS, PREFABRICATED STAIR SYSTEMS,

- SUBMITTAL OF ALL WELDING PROCEDURE SPECIFICATIONS VERIFYING THAT ALL WELDS WERE MADE PER APPROVED CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED

TO, ALL BEAMS, AND COLUMNS, MEMBERS AND CONNECTIONS.

- WABO CERTIFICATE INDICATING STEEL FABRICATION SHOP IS QUALIFIED TO WELD WITHOUT SPECIAL INSPECTIONS.

### PRESSURE TREATED WOOD:

ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, EARTH, OR EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED WOOD IN ACCORDANCE WITH AWPA U1 AND M4 STANDARDS.

### MISCELLANEOUS HARDWARE:

ALL MISCELLANEOUS HANGERS AND HARDWARE TO BE SIMPSON OR APPROVED EQUAL. ALL HANGERS SHALL BE FASTENED TO WOOD WITH PROPER NAILS AND ALL NAIL HOLES FILLED. ALL NAILS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED PER ASTM STANDARD 153 AND I.B.C. SECTION 2304.9.5. ALL METAL CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE ZMAX (HDG PER ASTM A653, CLASS G-185) OR EQUAL.

### FLOOR SHEATHING:

FLOOR SHEATHING SHALL BE 1½" TONGUE AND GROOVE, A.P.A. RATED SHEATHING WITH A SPAN RATING OF 48/36, WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS. UNLESS NOTED OTHERWISE, NAIL WITH 16d COMMON NAILS @ 6" O.C. AT SUPPORTED PANEL EDGES, AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

### ROOF SHEATHING:

ROOF SHEATHING SHALL BE ¾" A.P.A. RATED PLYWOOD OR ¾" OSB A.P.A. RATED SHEATHING WITH A SPAN RATING OF 32/16, WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS. UNLESS NOTED OTHERWISE, NAIL WITH 8d COMMON NAILS @ 6" O.C. AT SUPPORTED PANEL EDGES, AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

### WALL SHEATHING:

WALL SHEATHING SHALL BE ¾" A.P.A. RATED PLYWOOD OR ¾" OSB A.P.A. RATED SHEATHING WITH A SPAN RATING OF 24/0. PANEL END JOINTS SHALL OCCUR AT SUPPORTS. NAIL ALL PANEL EDGES WITH 8d COMMON NAILS @ 6" O.C. AT SUPPORTED PANEL EDGES AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

### FLOOR FRAMING:

FLOOR JOIST TO BE AS SPECIFIED ON PLANS. PROVIDE FULL DEPTH BLOCKING FOR JOIST AT THE SUPPORTS. FLUSH BEAMS (FB) AND HEADERS NOT CALLED OUT ON THE PLANS SHALL BE (2) 2x8 DOUG-FIR #2. ALL LAMINATED BEAMS SHALL BE SPIKED TOGETHER WITH 16d NAILS @ 6" O.C. STAGGERED

### BEARING WALL FRAMING:

ALL DOOR AND WINDOW HEADERS NOT CALLED OUT ON THE PLANS SHALL BE 4x8 DOUGLAS-FIR #2 WITH (1) CRIPPLE STUD AND (1) KING STUD ON EACH END FOR OPENINGS 5' AND LESS AND (2) CRIPPLE STUDS AND (1) KING STUD ON EACH END FOR OPENINGS GREATER THAN 5'. ALL COLUMNS NOT CALLED OUT ON THE PLANS SHALL BE A MINIMUM OF TWO LAMINATED STUDS. NAIL LAMINATED COLUMNS TOGETHER WITH (2) 16d NAILS @ 12" O.C. WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATES AND BOTTOM PLATES TO EACH STUD WITH MINIMUM (2) 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d NAILS AT 16" O.C. STAGGERED. LAP AND FACE NAIL NAIL TOP PLATES WITH (3) 16d NAILS @ EACH CORNER AND INTERSECTION. STAGGER TOP PLATE SPLICES A MINIMUM OF 48" AND NAIL w/ (4) 16d NAILS EACH SIDE OF SPLICE. FACE NAIL BOTTOM PLATE WITH (2) 16d NAILS AT 16" O.C. OR PER SHEARWALL SCHEDULE. PROVIDE (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER AT CONTACT SURFACES BETWEEN ALL WOOD AND CONCRETE.

### PRE-MANUFACTURED FLOOR JOIST:

JOIST SHALL BE MANUFACTURED IN A PLANT APPROVED FOR FABRICATION BY THE BUILDING DEPARTMENT AND UNDER THE SUPERVISION OF AN APPROVED THIRD PARTY INSPECTION AGENCY. EACH JOIST SHALL BE IDENTIFIED BY A STAMP INDICATING THE JOIST TYPE, C.A.B.O. NER REPORT NUMBER, MANUFACTURERS NAME, PLANT NUMBER, AND THE INDEPENDENT INSPECTION AGENCY LOGO AND EVALUATION REPORT NUMBER. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON SITE AT TIME OF INSPECTION FOR INSPECTORS'S USE AND REFERENCE.

### PRE-MANUFACTURED FLOOR AND ROOF TRUSSES:

ALL TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH APPROVED ENGINEERING PRACTICE. THE DESIGN AND MANUFACTURE OF METAL PLATE CONNECTED WOOD TRUSSES SHALL COMPLY WITH ANSI/TPI 1. ALL TRUSS DESIGN DRAWINGS SHALL BE PREPARED, STAMPED, AND SIGNED BY A WASHINGTON STATE LICENSED STRUCTURAL ENGINEER. ALL TRUSSES SHALL BE BRACED TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE MANUFACTURER'S PROVIDED CONSTRUCTION DOCUMENTS FOR THE BUILDING. IN THE ABSENCE OF SPECIFIC BRACING REQUIREMENTS, TRUSSES SHALL BE BRACED IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICES, SUCH THE SBCA BUILDING COMPONENT SAFETY INFORMATION (BCSI) GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL CONNECTED WOOD TRUSSES. TRUSS MEMBERS SHALL NOT BE CUT, NOTCHED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT THE PRIOR APPROVAL OF THE TRUSS MANUFACTURER'S DESIGN ENGINEER. THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON SITE AT TIME OF INSPECTION FOR INSPECTORS'S USE AND REFERENCE.

### GLUED-LAMINATED TIMBERS:

LAMINATED TIMBERS SHALL BE DOUGLAS-FIR/LARCH KILN DRIED STRESS GRADED COMBINATION 24F-V4 ( $F_y = 2400$  PSI,  $F_x = 109$  PSI) FOR SIMPLE SPANS AND 24F-V8 FOR CANTILEVER AND CONTINUOUS BEAMS. A.I.T.C. CERTIFICATE OF PERFORMANCE REQUIRED. COLUMNS SHALL CONFORM TO TO A.I.T.C. STANDARDS 117.

### STRUCTURAL TIMBERS:

ALL GRADES SHALL CONFORM TO WMPA GRADING RULES FOR WESTERN LUMBER, LATEST EDITION. PROVIDE CUT WASHERS UNDER ALL NUTS AND BOLTS BEARING AGAINST WOOD. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. ALL STRUCTURAL LUMBER SHALL BE AS NOTED BELOW:

### FRAMING GRADES:

2x ROOF RAFTERS	DOUG-FIR/LARCH #2.....	$F_b = 900$ PSI
2x FLOOR/DECK JOIST	DOUG-FIR/LARCH #2.....	$F_b = 900$ PSI
4x BEAMS	DOUG-FIR/LARCH #2.....	$F_b = 900$ PSI
6x BEAMS	DOUG-FIR/LARCH #1.....	$F_b = 1350$ PSI
4x COLUMNS	DOUG-FIR/LARCH #1.....	$F_b = 1000$ PSI
6x COLUMNS	DOUG-FIR/LARCH #1.....	$F_b = 1200$ PSI
2x STUDS	HEM-FIR.....	$F_b = 675$ PSI
LSL	LSL 1.55E.....	$F_b = 2325$ PSI
LVL	LVL 2.0E.....	$F_b = 2600$ PSI
PSL	PSL 2.2E.....	$F_b = 2900$ PSI
GLB	GLU-LAM (24F-V4).....	$F_b = 2400$ PSI

Stoney Point Engineering

Dwayne Barnes P.E.

dwayne@stonepointengineering.com

Office: 425-644-9500



MI Treehouse, LLC  
5637 East Mercer Way  
Mercer Island, WA 98084

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Issued	Date
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18-025

S1.0  
STRUCTURAL  
NOTES



# MAIN FLOOR FRAMING PLAN

SCALE 1/8" = 1'-0"

## MAIN FLOOR FRAMING PLAN NOTES

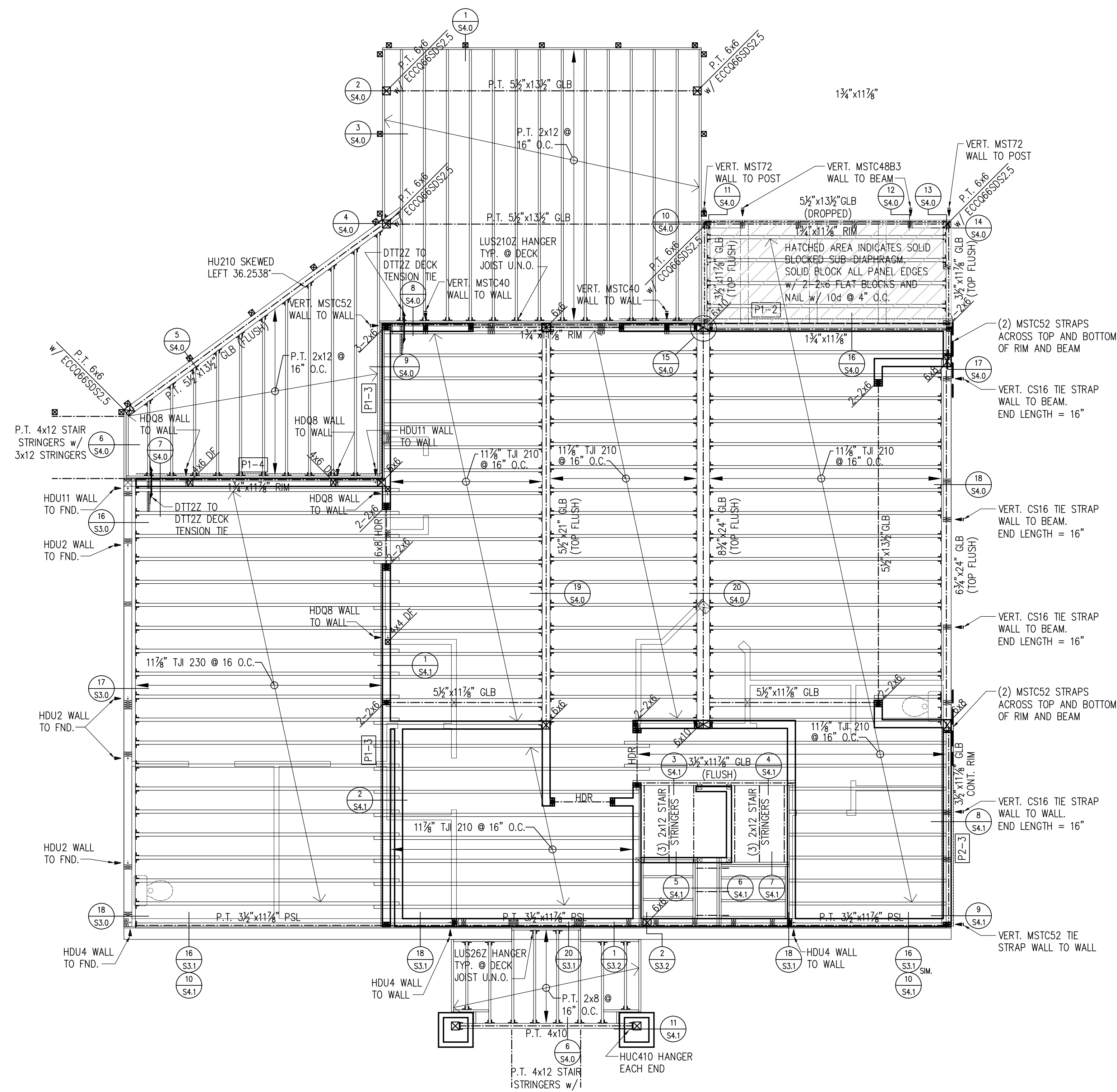
- PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE NOTIFY STONEY POINT ENGINEERING OR OWNER/CONTRACTOR.
- ALL EXTERIOR WALLS TO BE FRAMED WITH 2x6 H.F. (STUD GRADE OR BETTER).
- ALL FRAME NAILING TO COMPLY WITH TABLE 2304.10.1, 2015 I.B.C. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 8d AT 6" O.C. TYPICAL, U.N.O. ON SHEAR WALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT-DIP GALVANIZED PER ASTM A153.
- ALL FLOOR BEAMS TO BE 4x8 D.F.#2 TYP. U.N.O.
- ALL FLOOR JOIST TO BE 11 7/8" TJI 230 @ 16" O.C. U.N.O. PROVIDE SOLID BLOCKING BELOW ALL POINT LOADS ABOVE.
- DENOTES MINIMUM REQUIRED NUMBER OF STUDS NEEDED FOR BEARING UNDER BEAMS AND BELOW WINDOW HEADERS. DOES NOT INCLUDE KING STUDS. MAY BE REPLACED W/ SOLID SAWN LUMBER OF SAME SECTION. TYPICAL, U.N.O.
- ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE DESIGN STRESS VALUES INDICATED ON SHEET S1.0. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN, AND SPACING.

## SHEARWALL NOTES

- ALL EXTERIOR WALLS TO BE P1-6 U.N.O.
- DENOTES SHEARWALL MARK. MARK IS ON SIDE OF WALL TO BE SHEATHED U.N.O.
- DENOTES LOCATION OF TIE STRAP PER PLAN
- → DENOTES LOCATION HOLDOWN PER PLAN.
- SEE SHEETS S3.0, S3.1, S3.2, S4.0, S4.1, AND S4.3 FOR SHEARWALL SCHEDULE, NOTES AND TYP. DETAILS

## LEGEND

- DENOTES INTERIOR LOWER FLOOR BEARING WALLS
- DENOTES LOWER FLOOR WALLS
- DENOTES BEAMS, HEADERS



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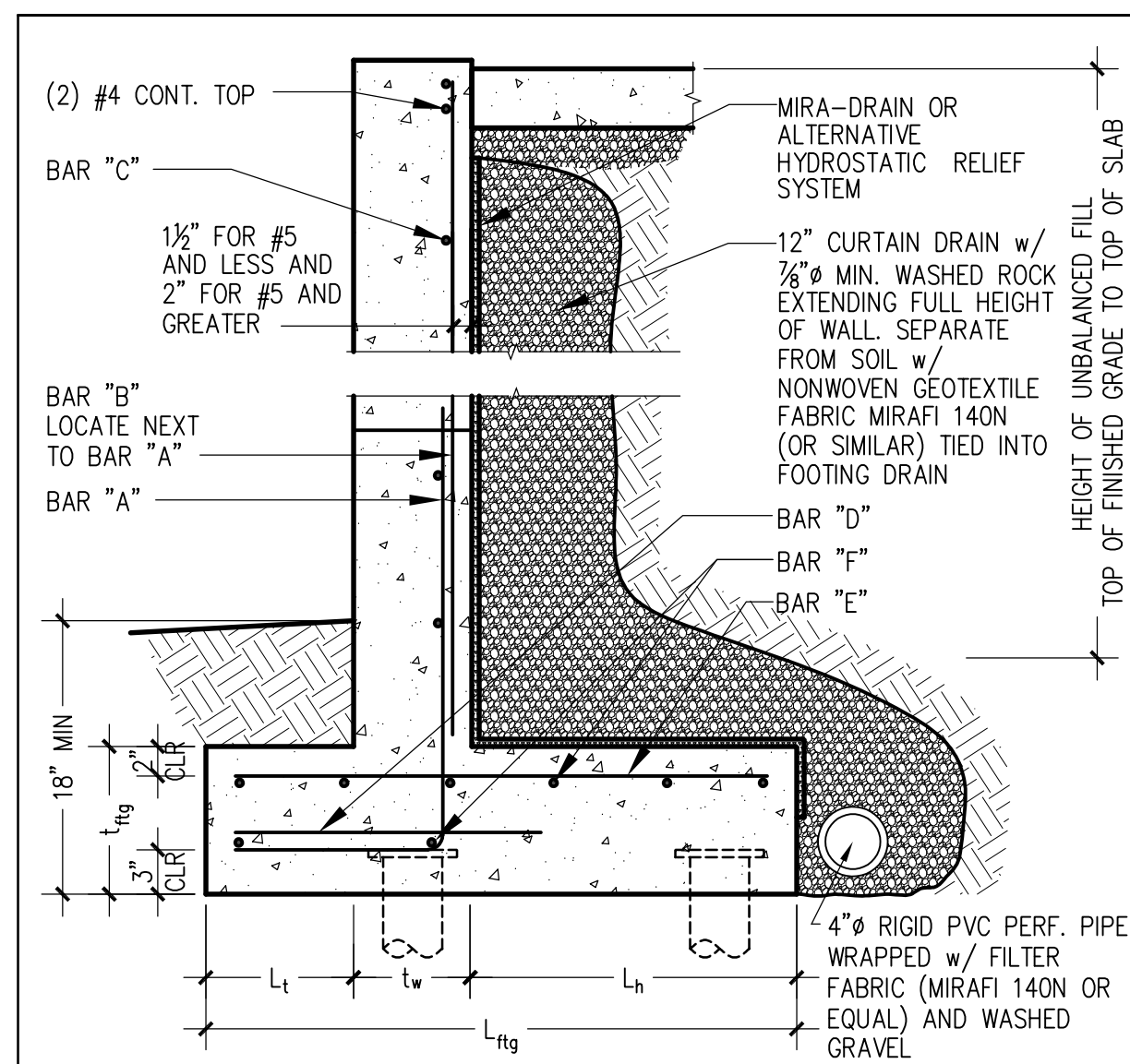
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S2.1







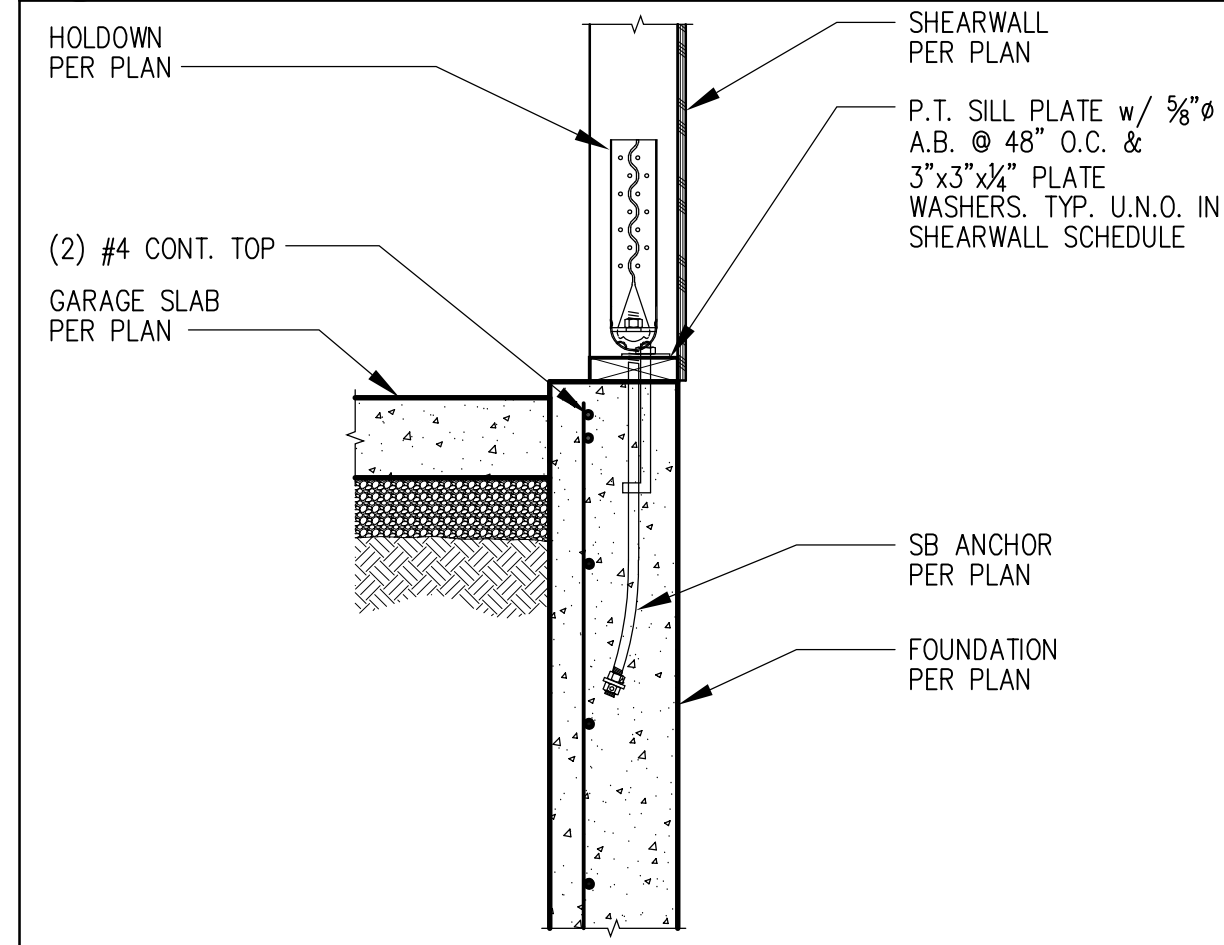


RETAINING WALL SCHEDULE

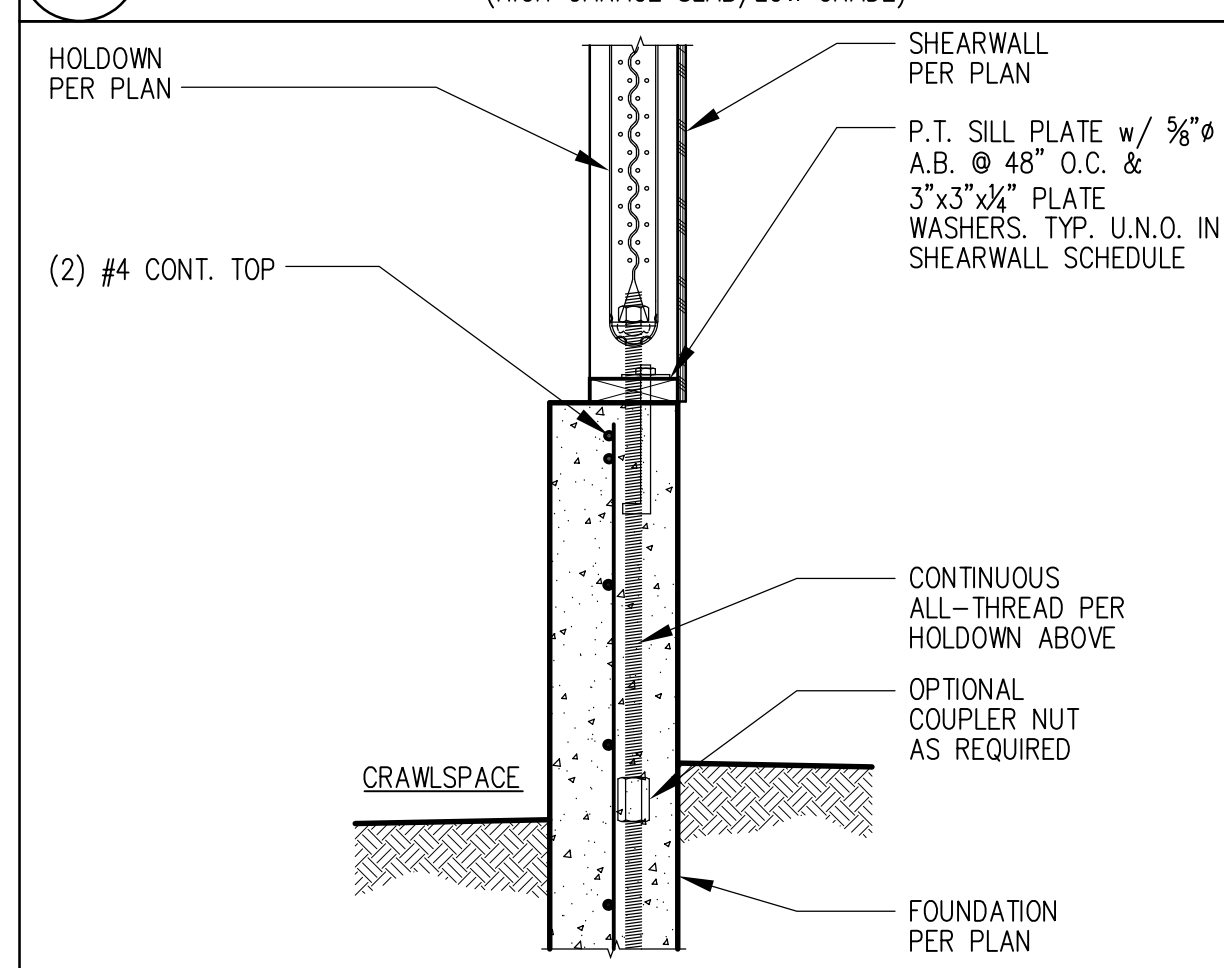
WALL DIMENSIONS				REINFORCEMENT						
H <sub>UNBAL</sub>	L <sub>t</sub>	t <sub>w</sub>	L <sub>h</sub>	L <sub>ftg</sub>	BAR A	BAR B	BAR C	BAR D	BAR E	BAR F
4'-0"	6"	8"	1'-0"	10"	#4@18" 1'-4"	N/A	#4@10"	N/A	N/A	(2) #4 TOP
5'-0"	6"	8"	1'-6"	10"	#4@18" 1'-4"	N/A	#4@10"	N/A	#4@16"	(2) #4 TOP
6'-0"	12"	8"	1'-10"	10"	#4@18" 1'-4"	#4@18"	#4@10"	N/A	#4@12"	(2) #4 TOP
7'-0"	12"	8"	2'-6"	12"	#4@12" 1'-4"	#4@18"	#4@10"	N/A	#4@12"	(2) #4 TOP
8'-0"	12"	8"	3'-0"	12"	#4@9" 1'-4"	#4@18"	#4@10"	N/A	#4@12"	(2) #4 TOP
9'-0"	12"	8"	3'-8"	14"	#5@9" 1'-4"	#4@18"	#4@10"	N/A	#5@12"	(2) #4 TOP
10'-0"	12"	8"	4'-2"	16"	#5@9" 1'-4"	#5@18" 1'-4"	#4@10"	N/A	#5@12"	(2) #4 TOP

NOTES FOR UNBRACED RETAINING WALL:  
 1. EQUIVALENT FLUID PRESSURE = 35 PCF. ALL FOOTINGS TO BEAR ON 4" PIN PILES.  
 2. CONCRETE COMPRESSIVE STRENGTH  $f'_c$  = 2500 PSI, REBAR GRADE #60 KSI.  
 3. BACKFILL HEEL SIDE OF WALL AFTER COMPACTING FILL AND/OR POURING CONCRETE SLAB AT TOE SIDE.

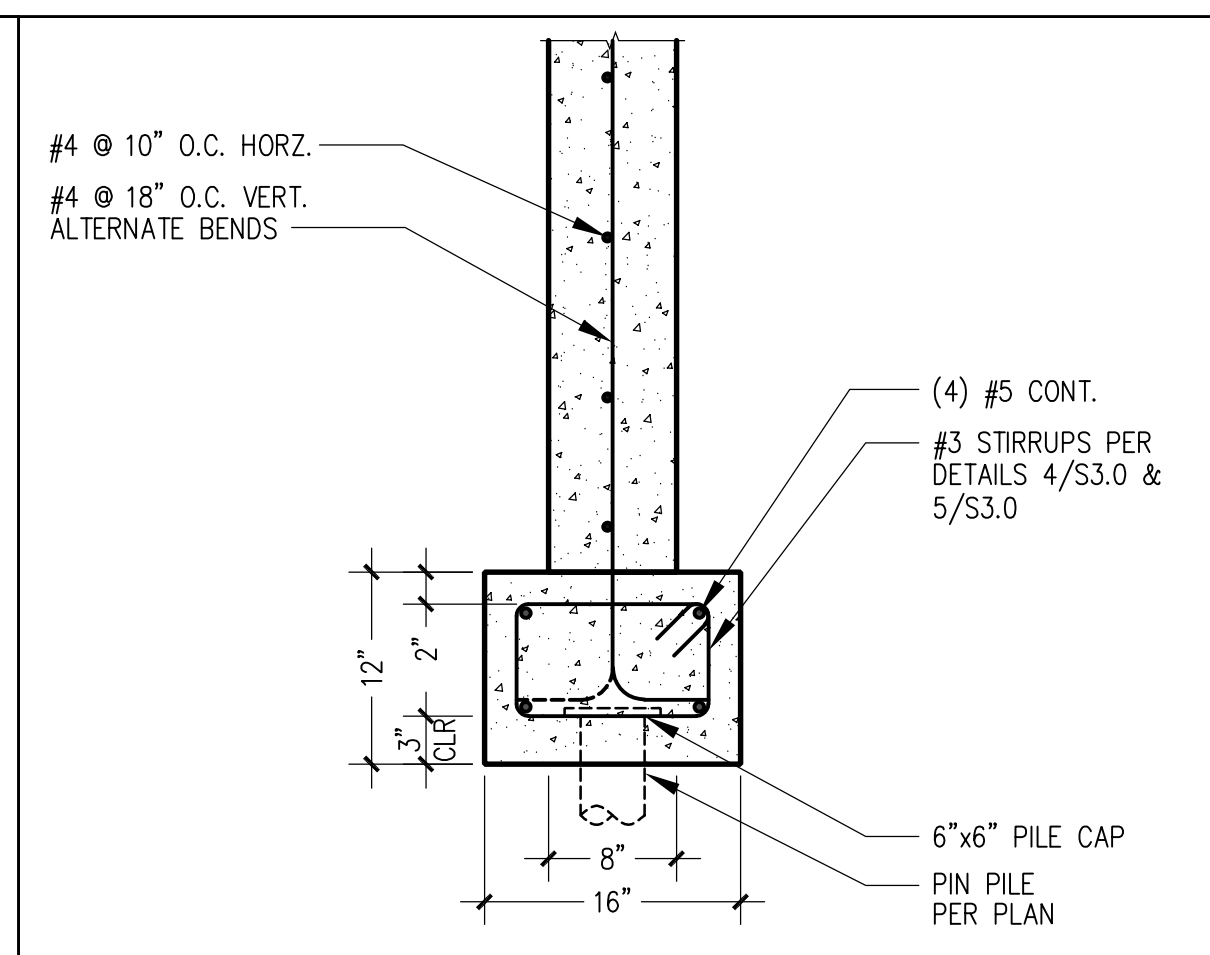
1 UNBRACED CONCRETE RETAINING WALL



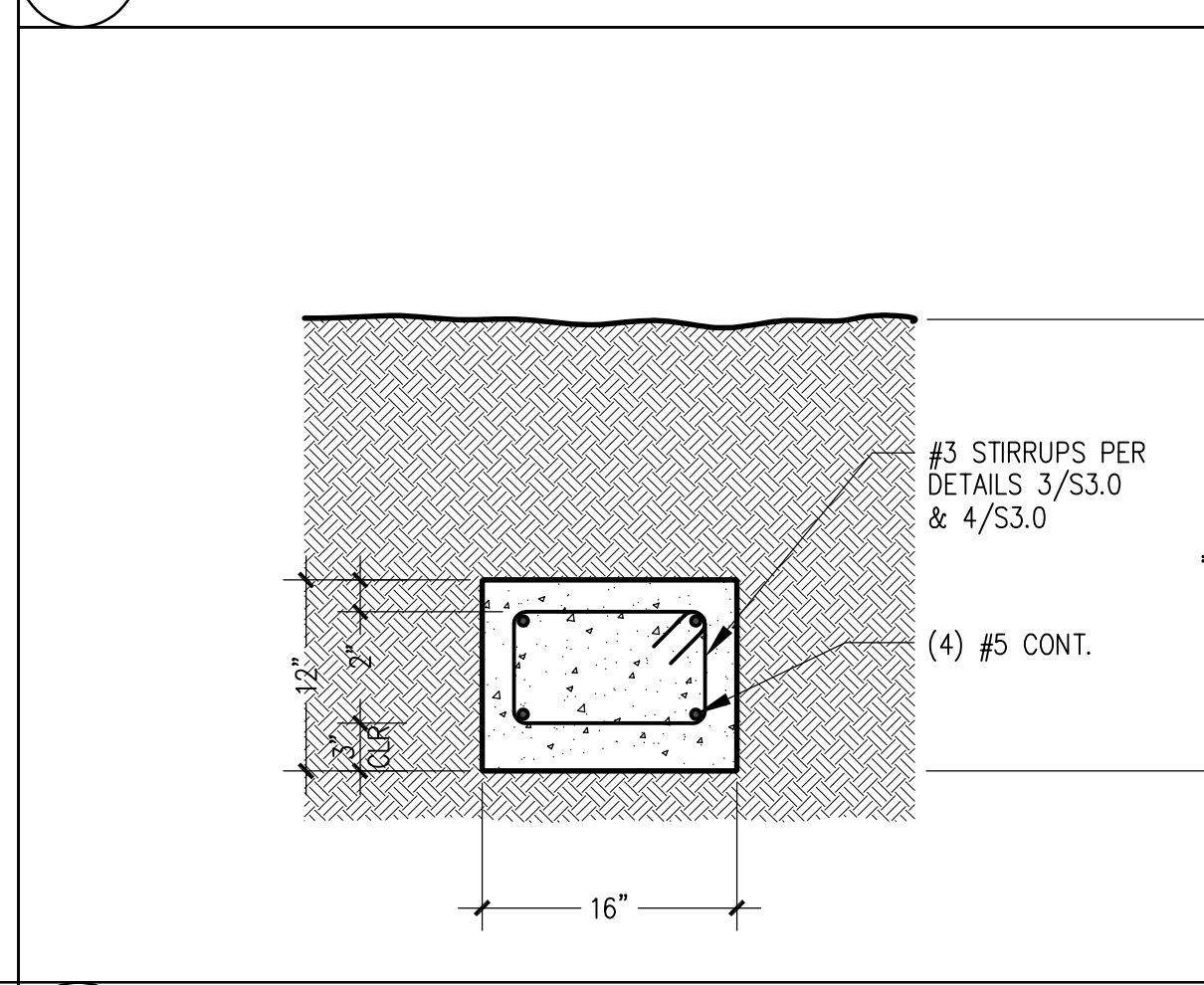
10 SB HOLDOWN ANCHOR TO FOUNDATION (HIGH GARAGE SLAB/LOW GRADE)



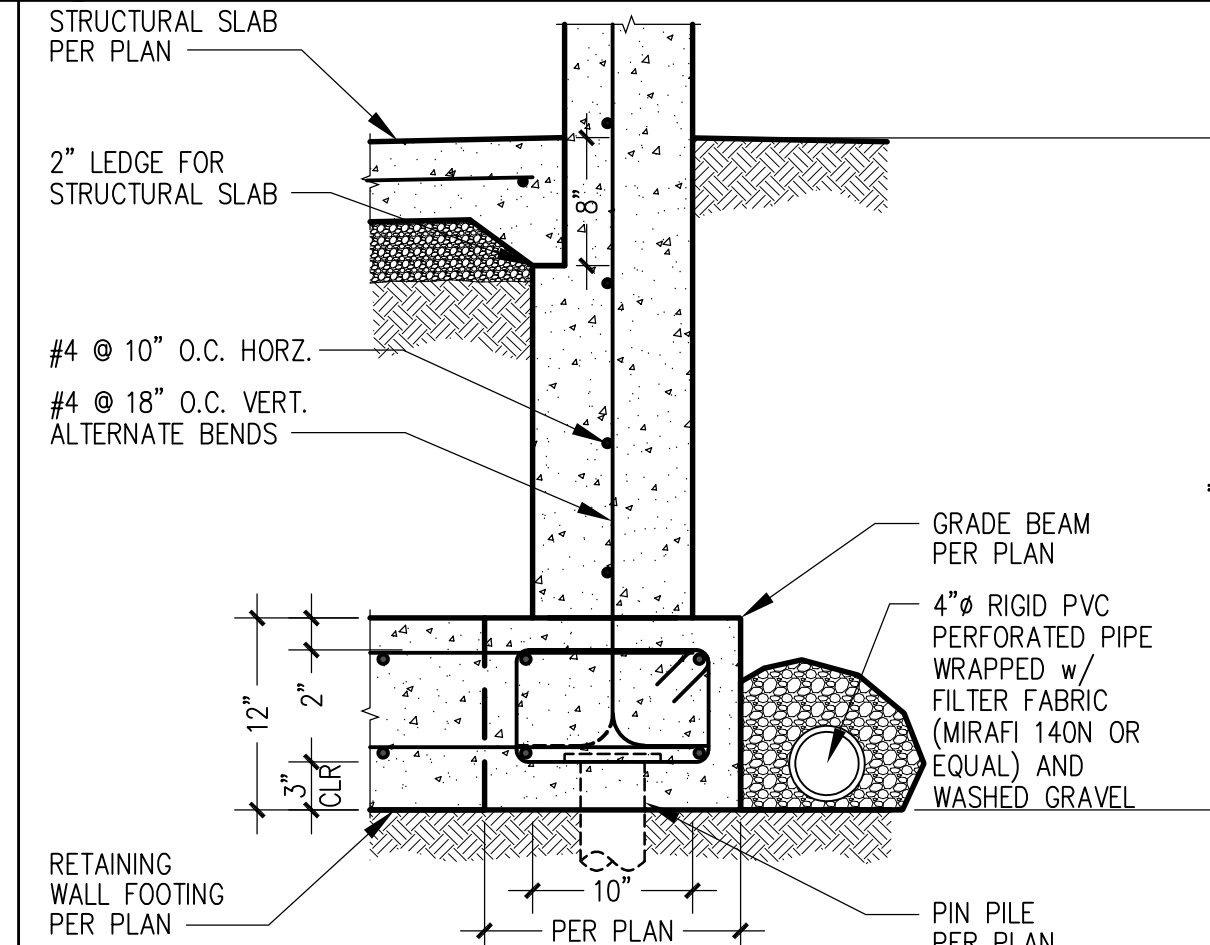
15 PAB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ PONYWALL)



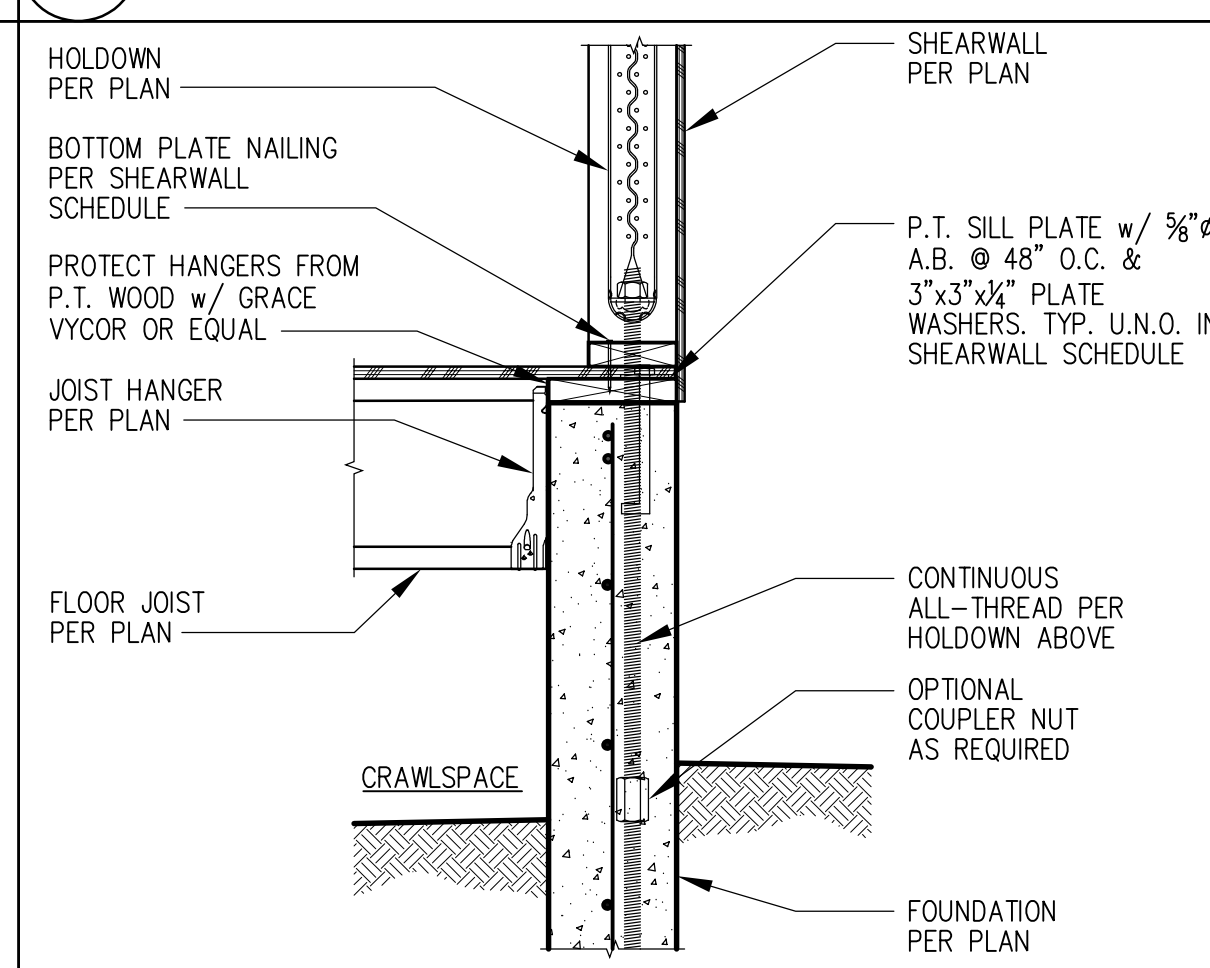
2 TYPICAL GRADE BEAM FOUNDATION



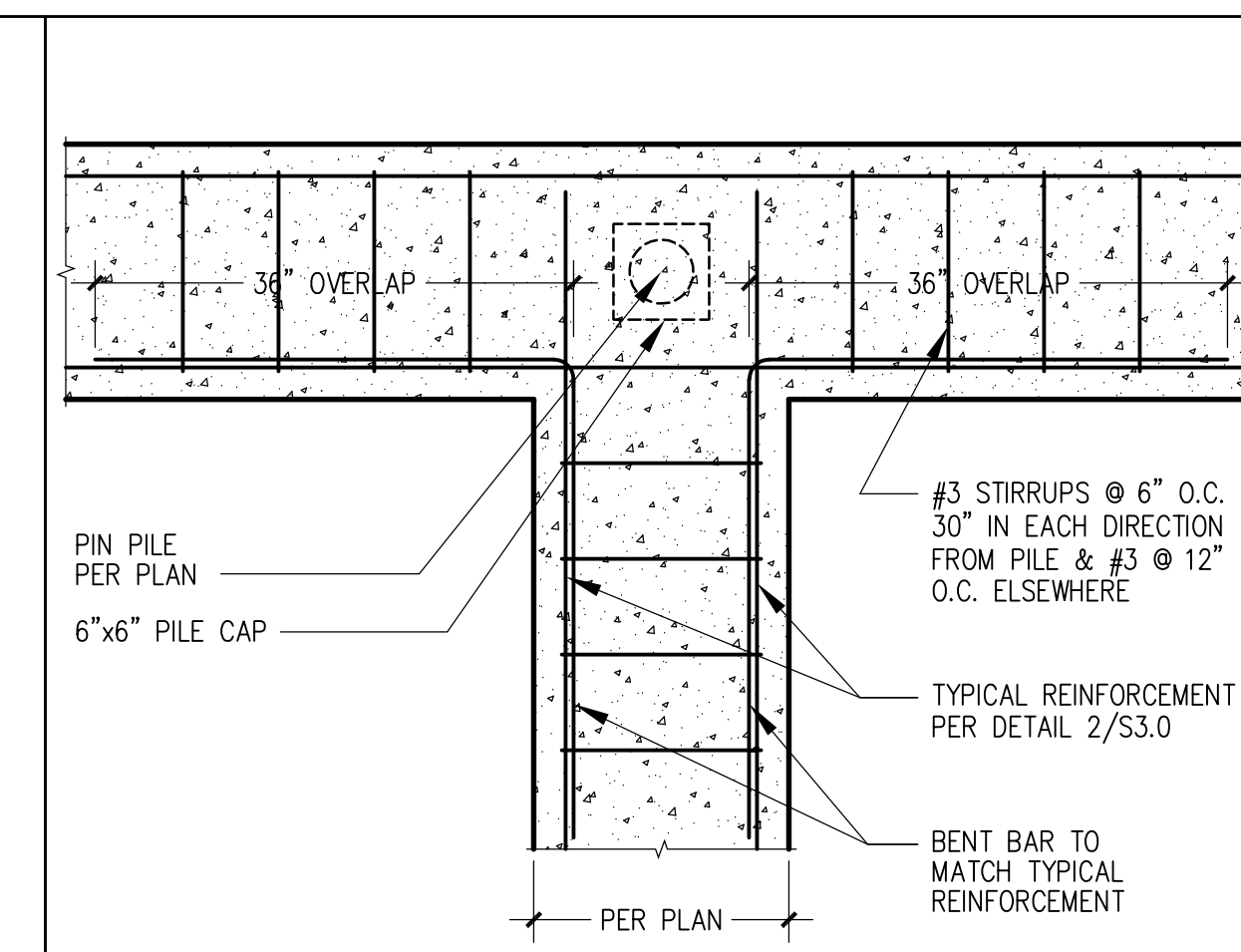
6 TYPICAL 16\"/>



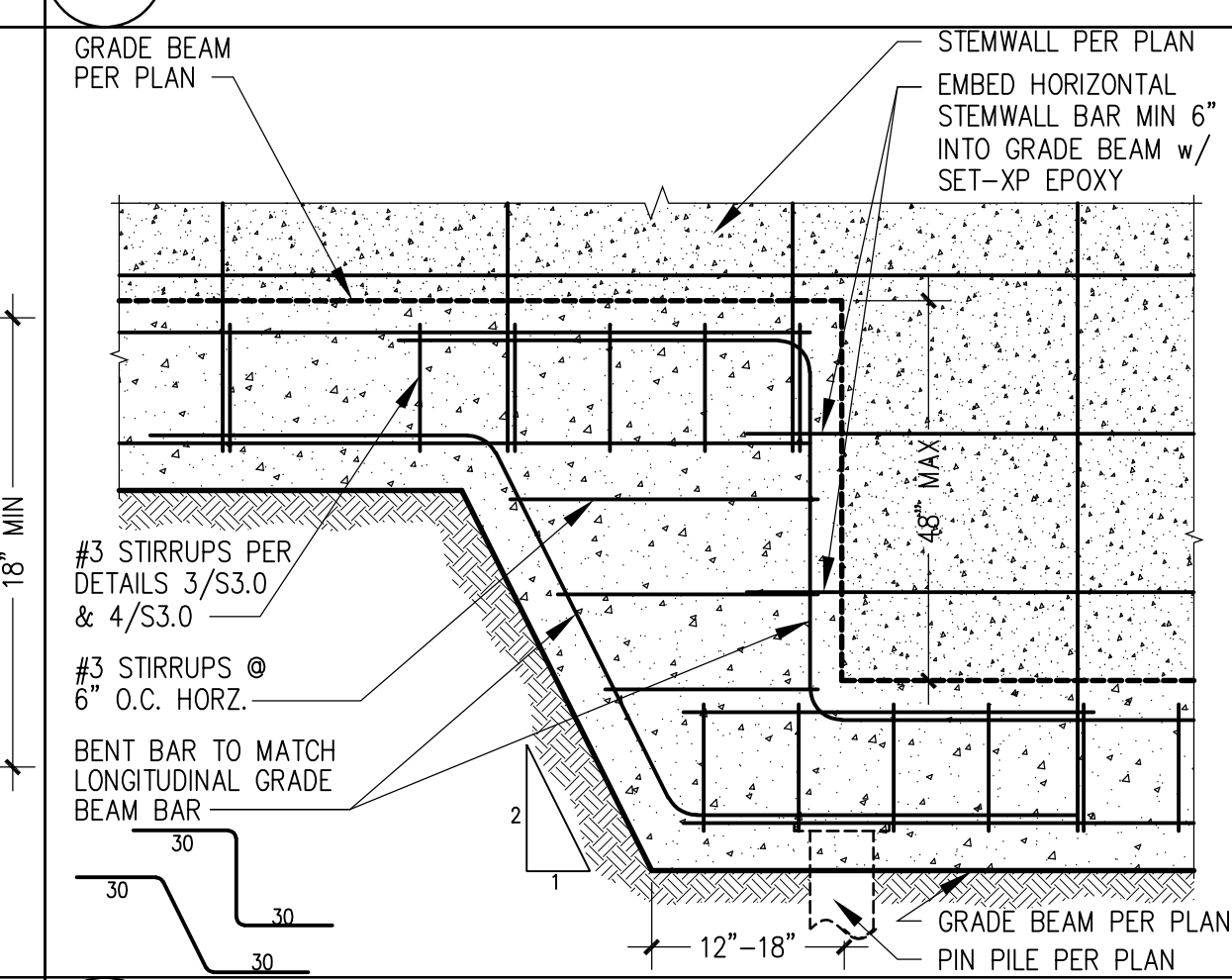
11 GARAGE FOUNDATION WALL



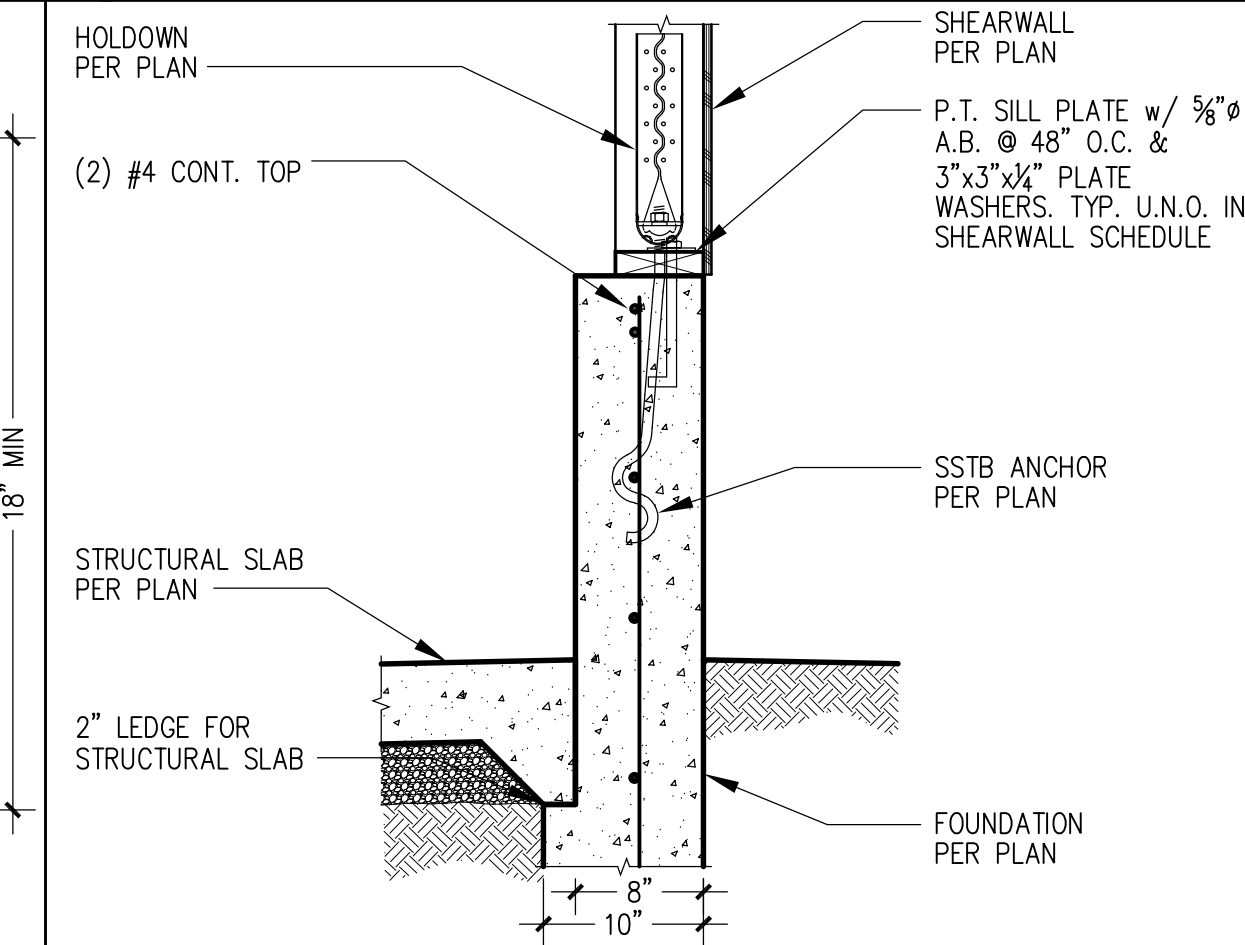
16 PAB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ FLUSH FLOOR FRAMING)



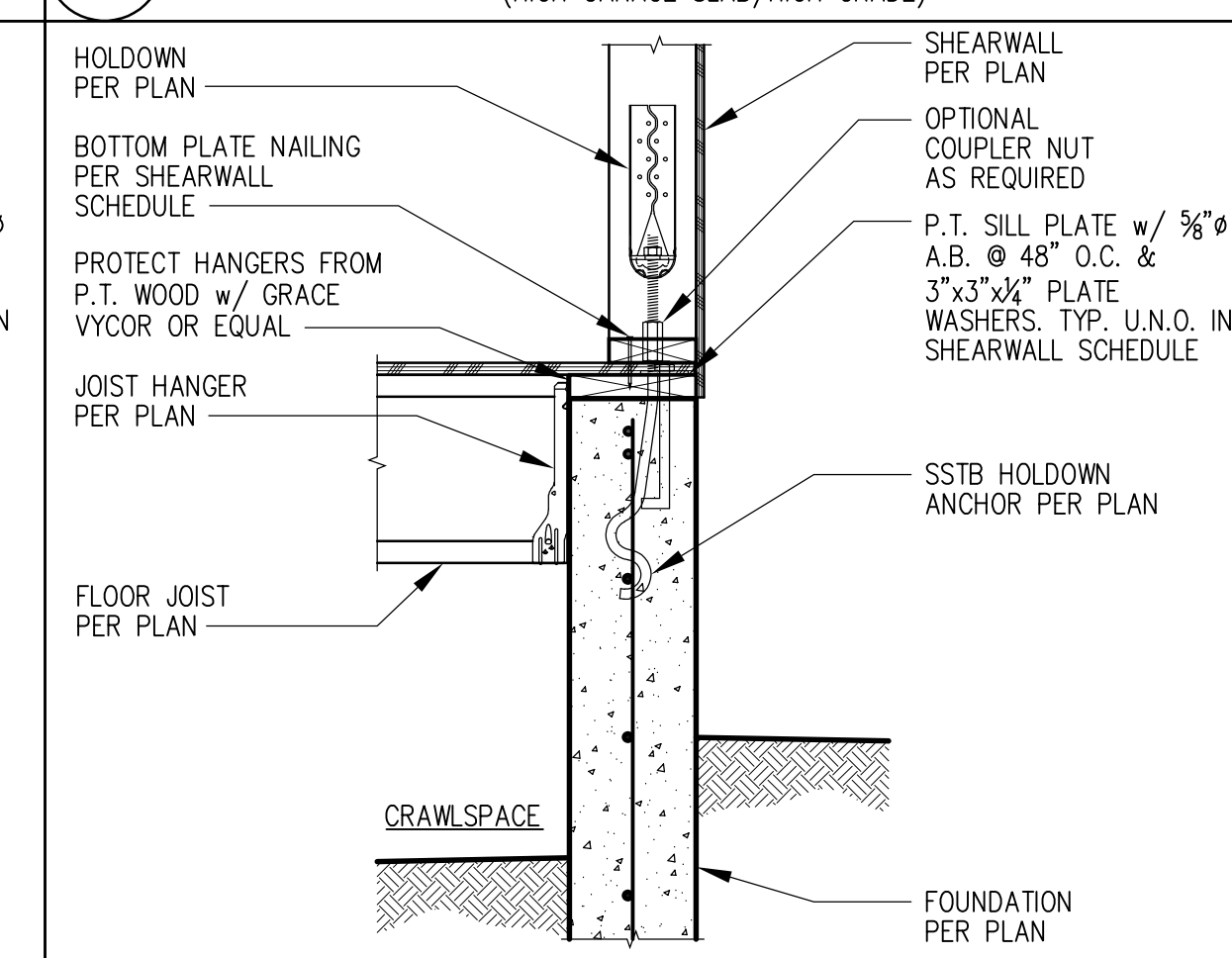
3 TYPICAL GRADE BEAM AT INTERSECTIONS



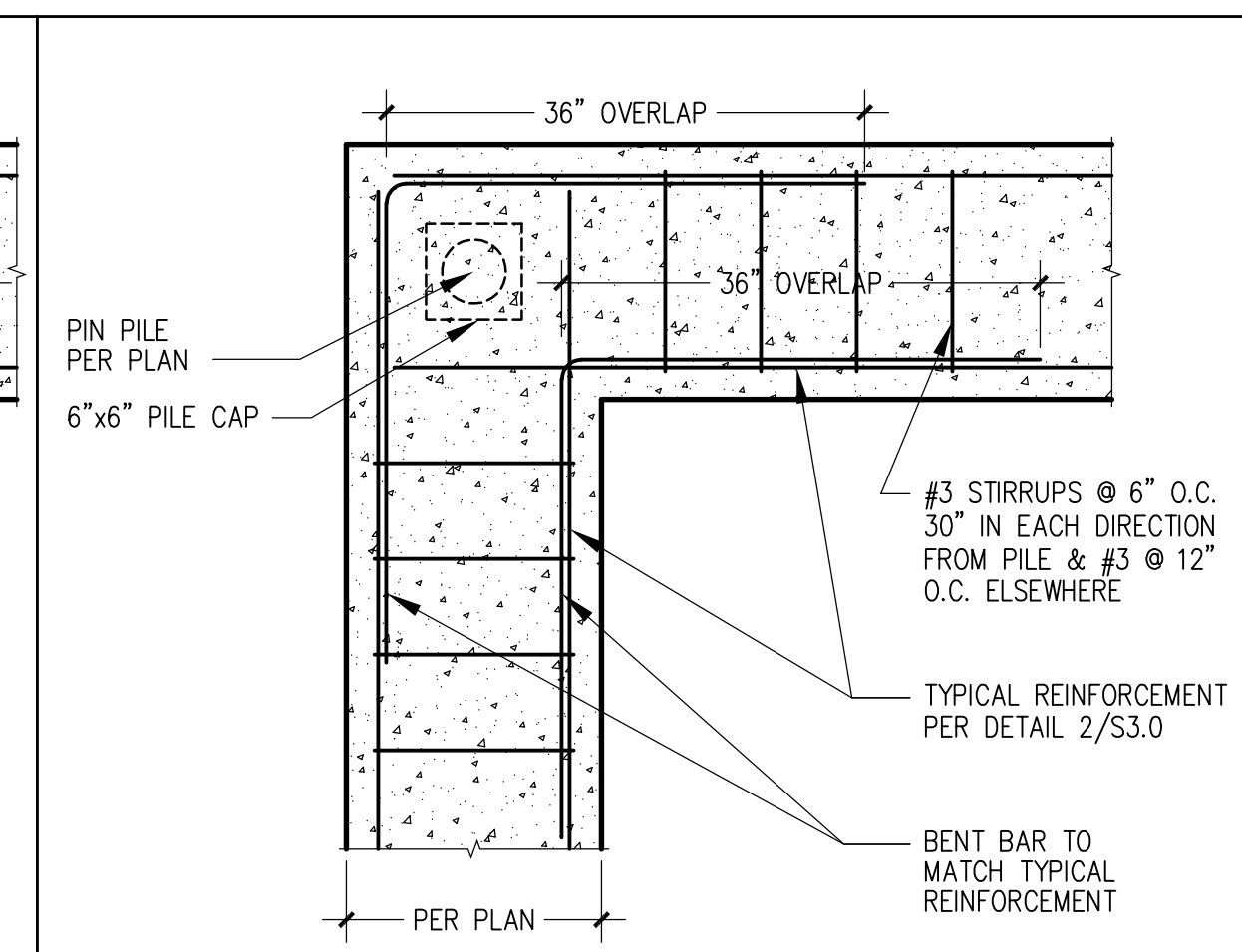
7 TYPICAL FOOTING STEP



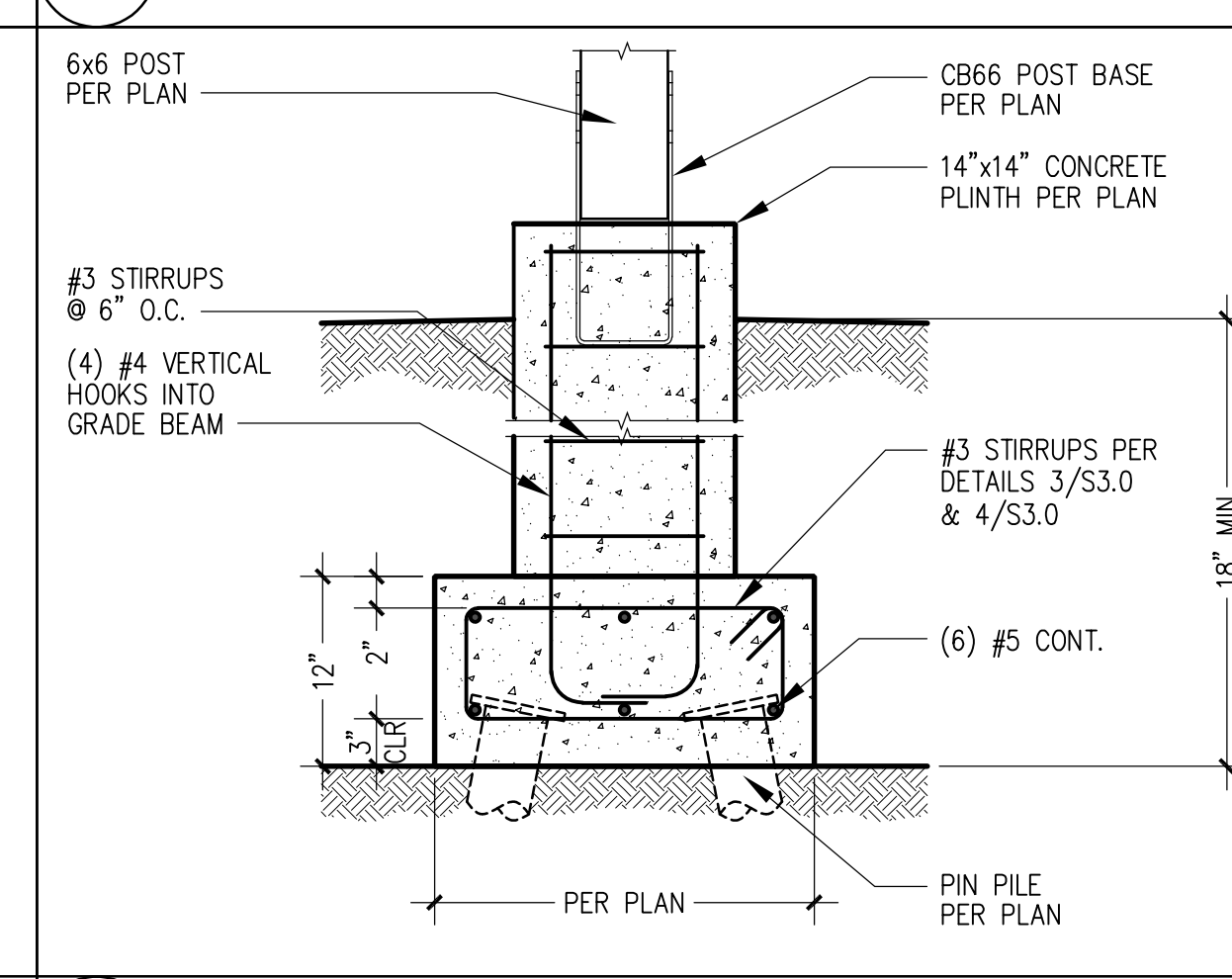
12 SSTB HOLDOWN ANCHOR TO FOUNDATION (HIGH GARAGE SLAB/HIGH GRADE)



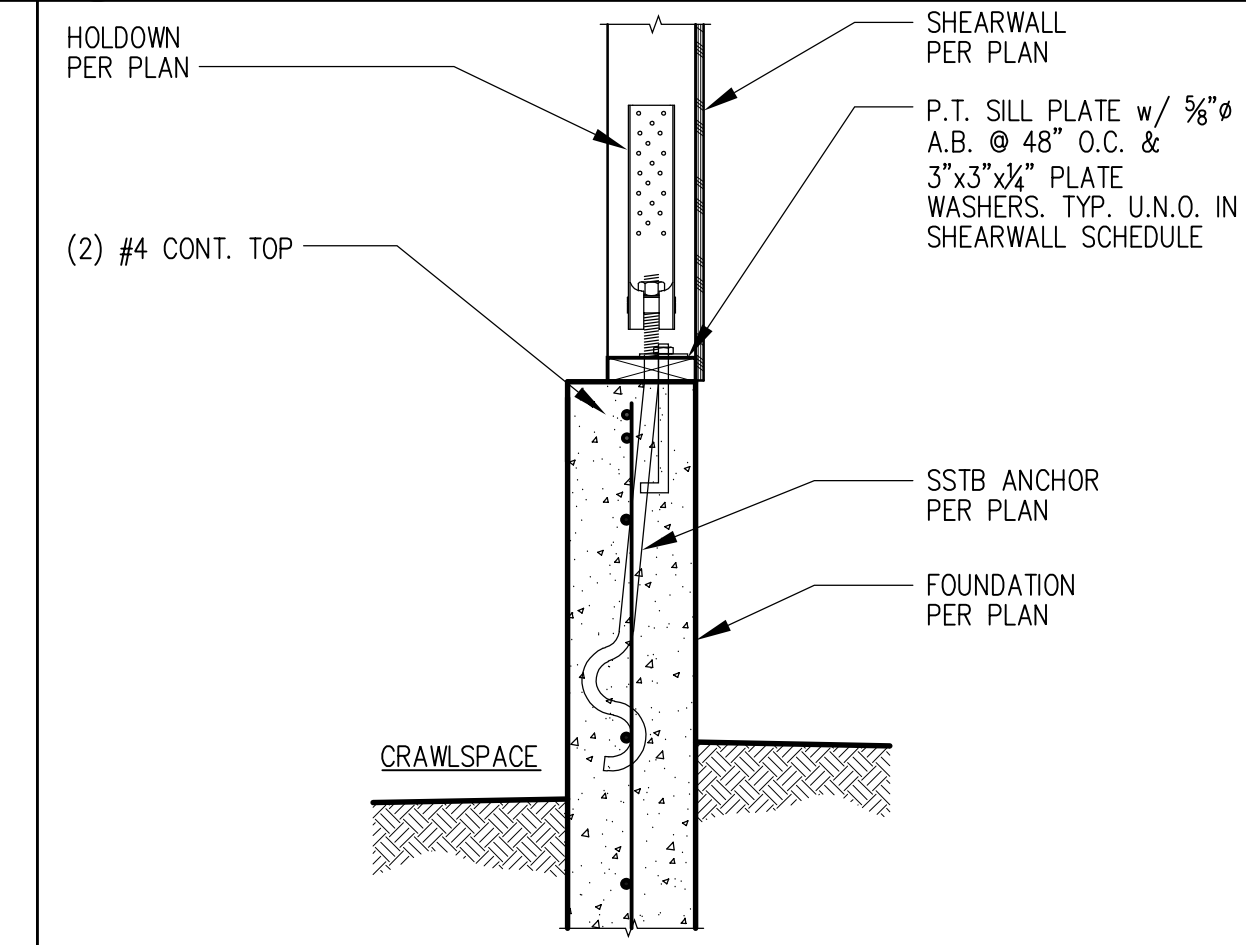
17 SSTB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ FLUSH FLOOR FRAMING)



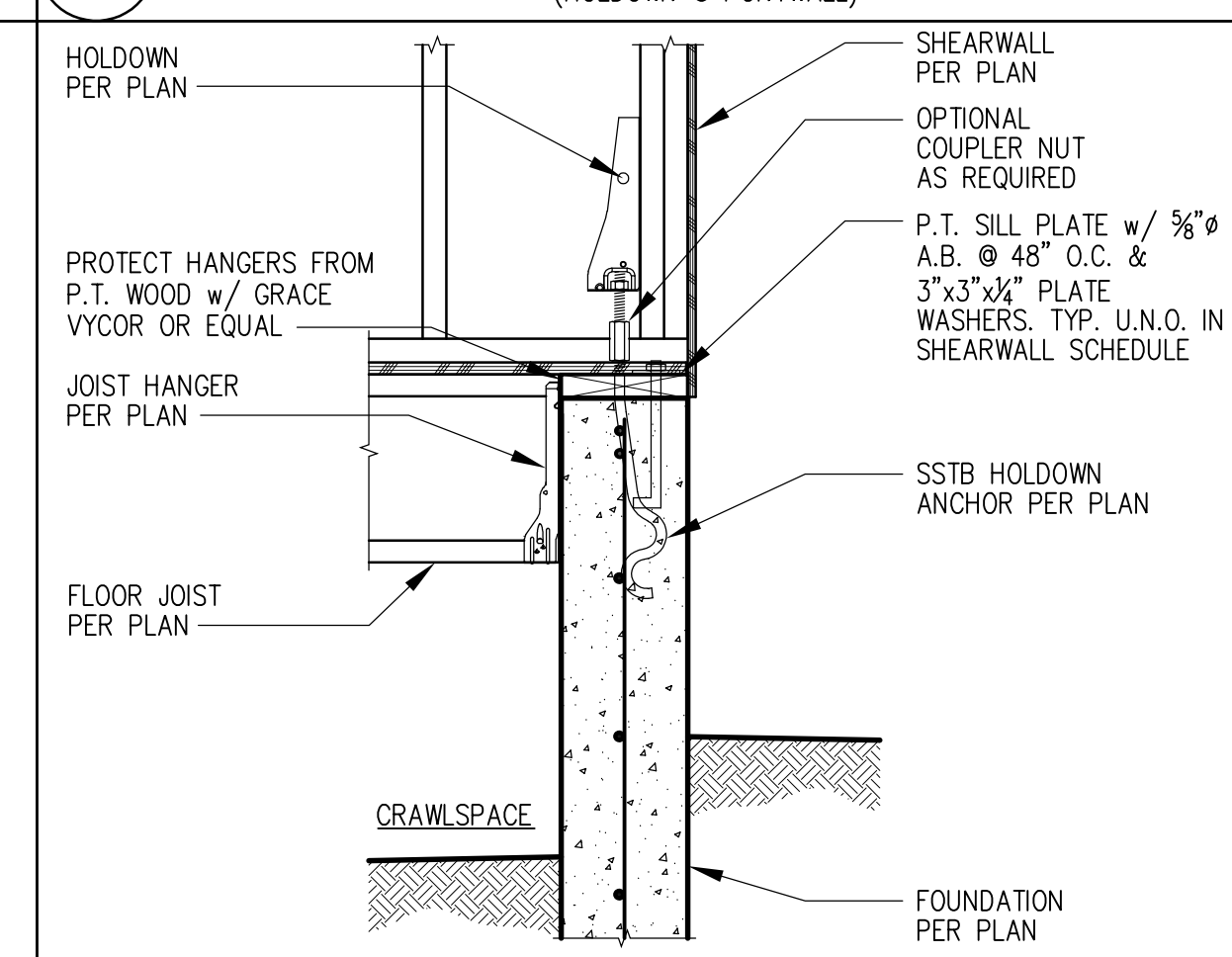
4 TYPICAL GRADE BEAM AT CORNER



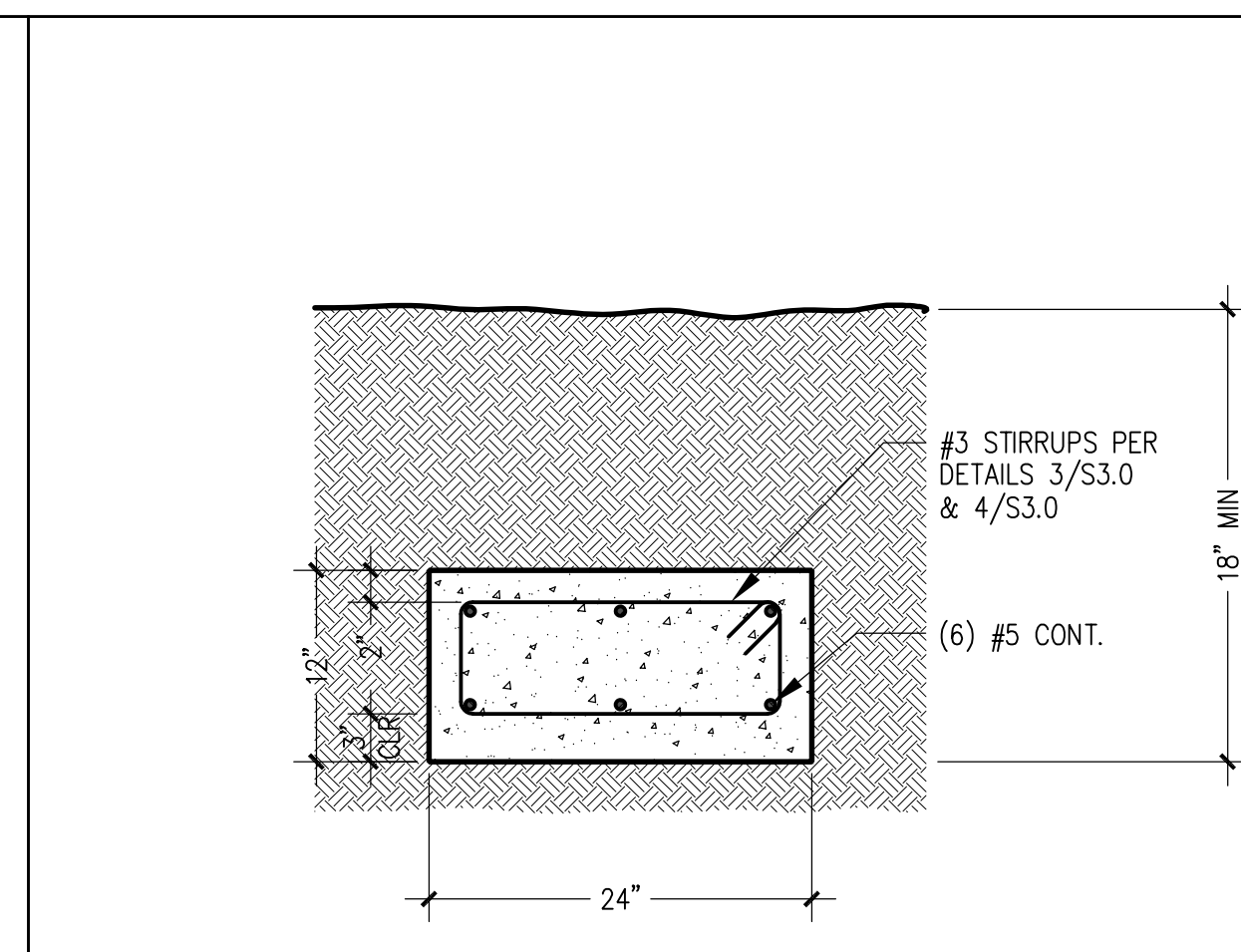
8 CONCRETE POST PLINTH @ GRADE BEAM (ISOLATED GRADE BEAM)



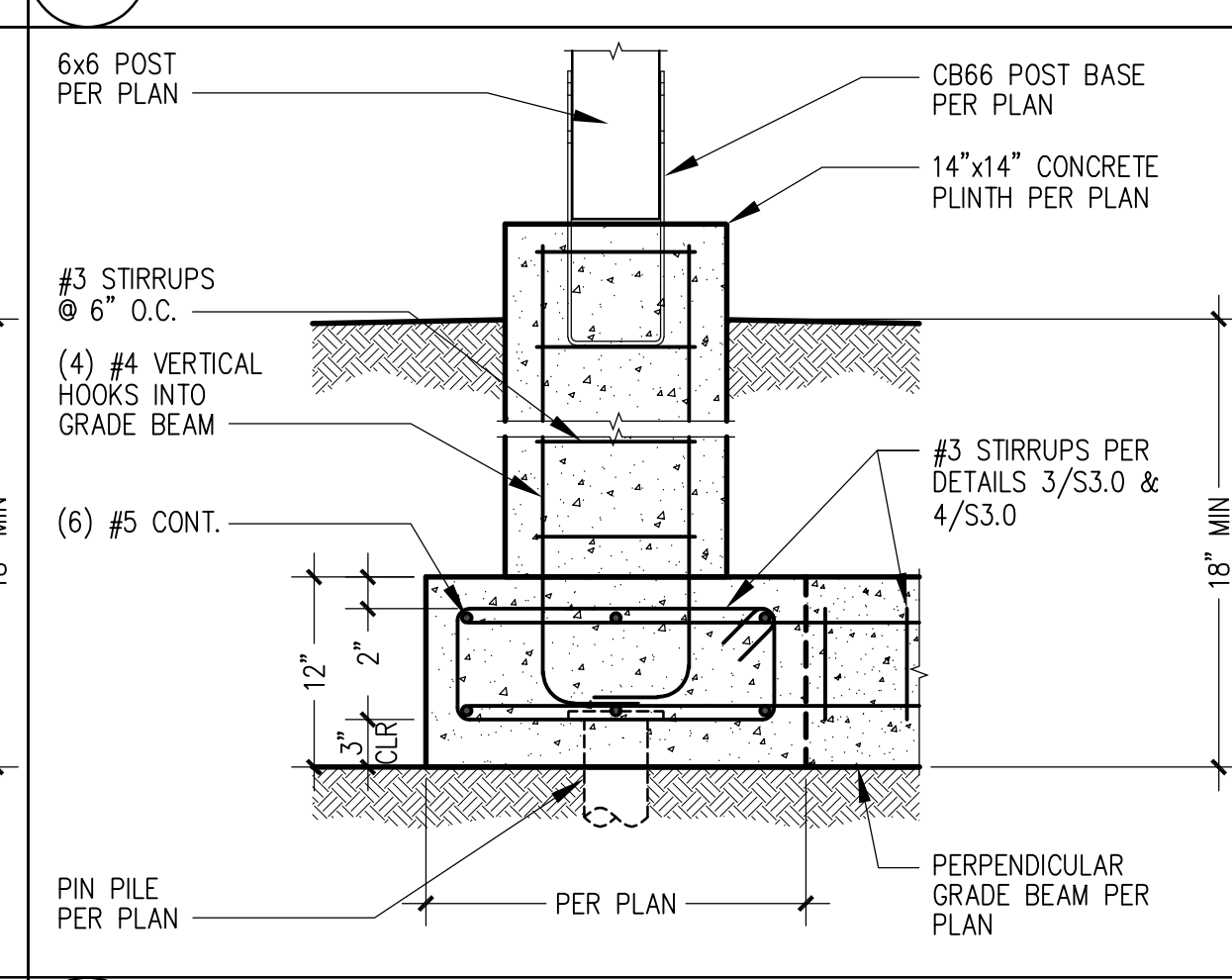
13 SSTB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ PONYWALL)



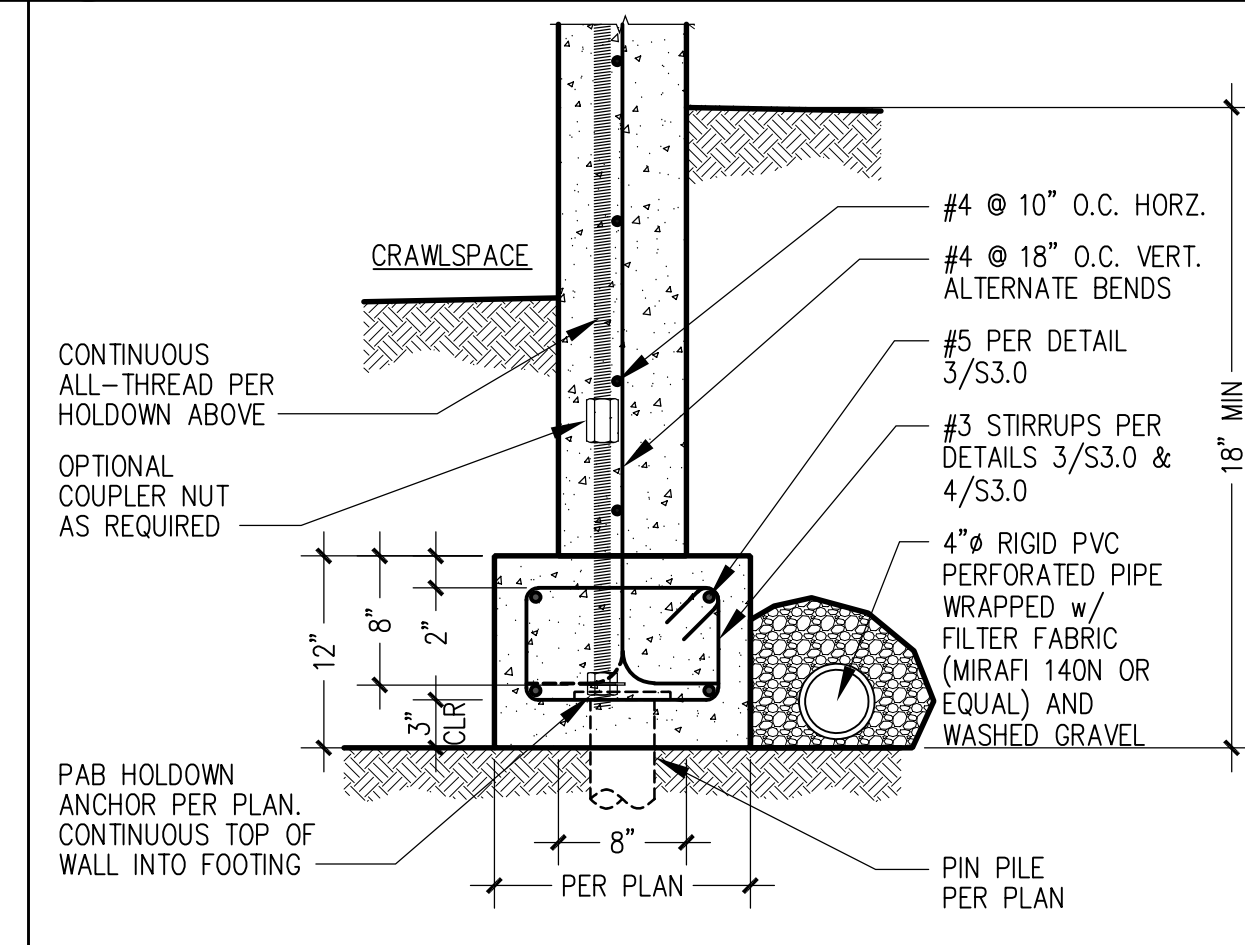
18 SSTB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ FLUSH FLOOR FRAMING)



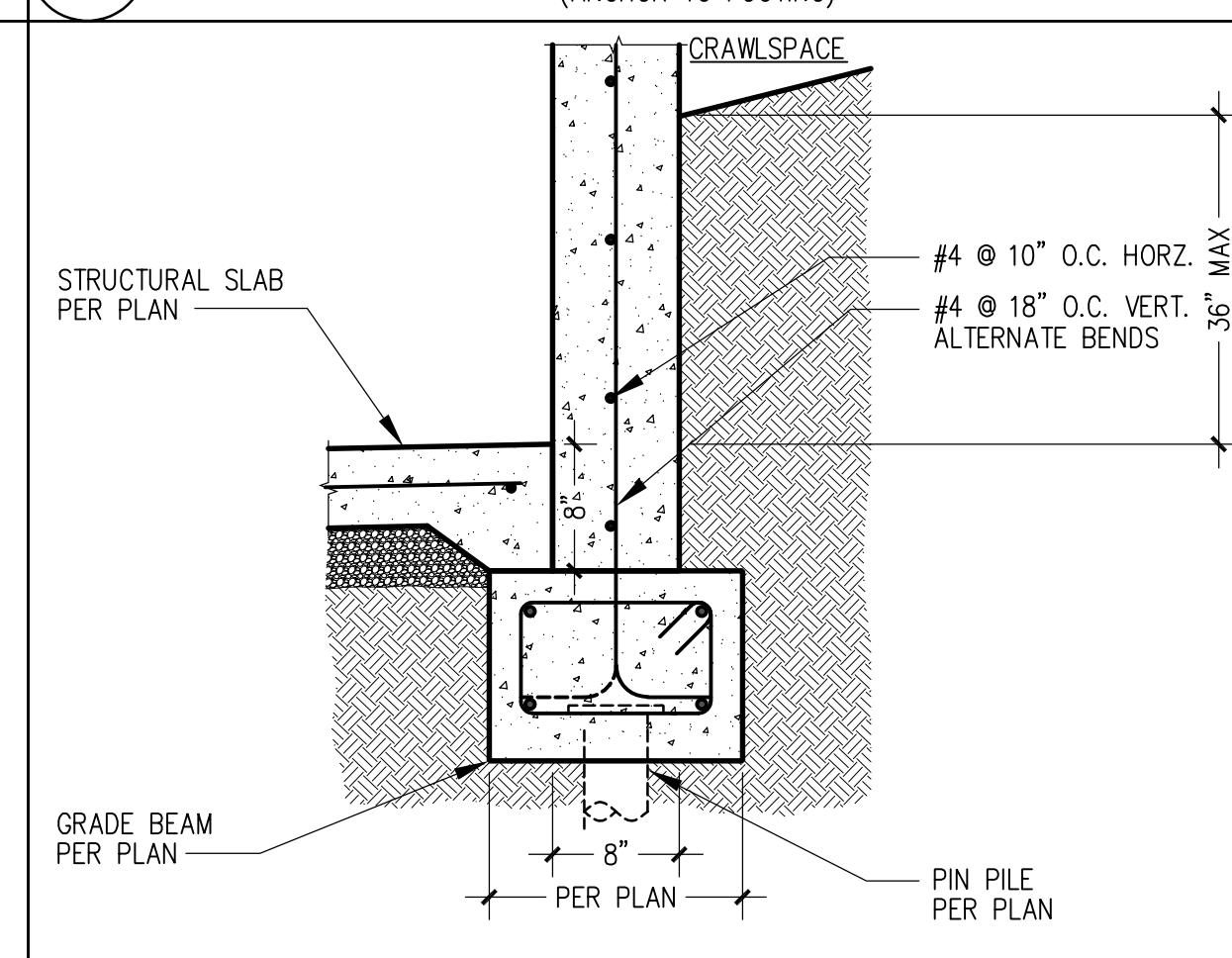
5 TYPICAL 24\"/>



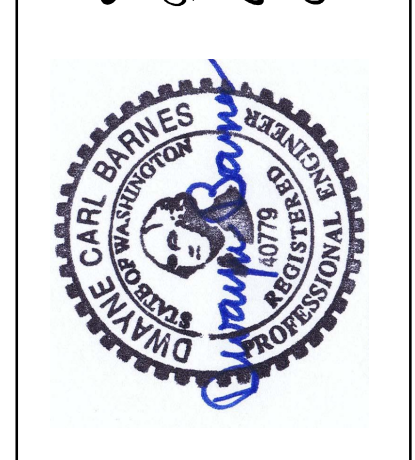
9 CONCRETE POST PLINTH @ GRADE BEAM (GRADE BEAM TEE OFF FOOTING)



14 PAB HOLDOWN ANCHOR TO FOUNDATION (ANCHOR TO FOOTING)

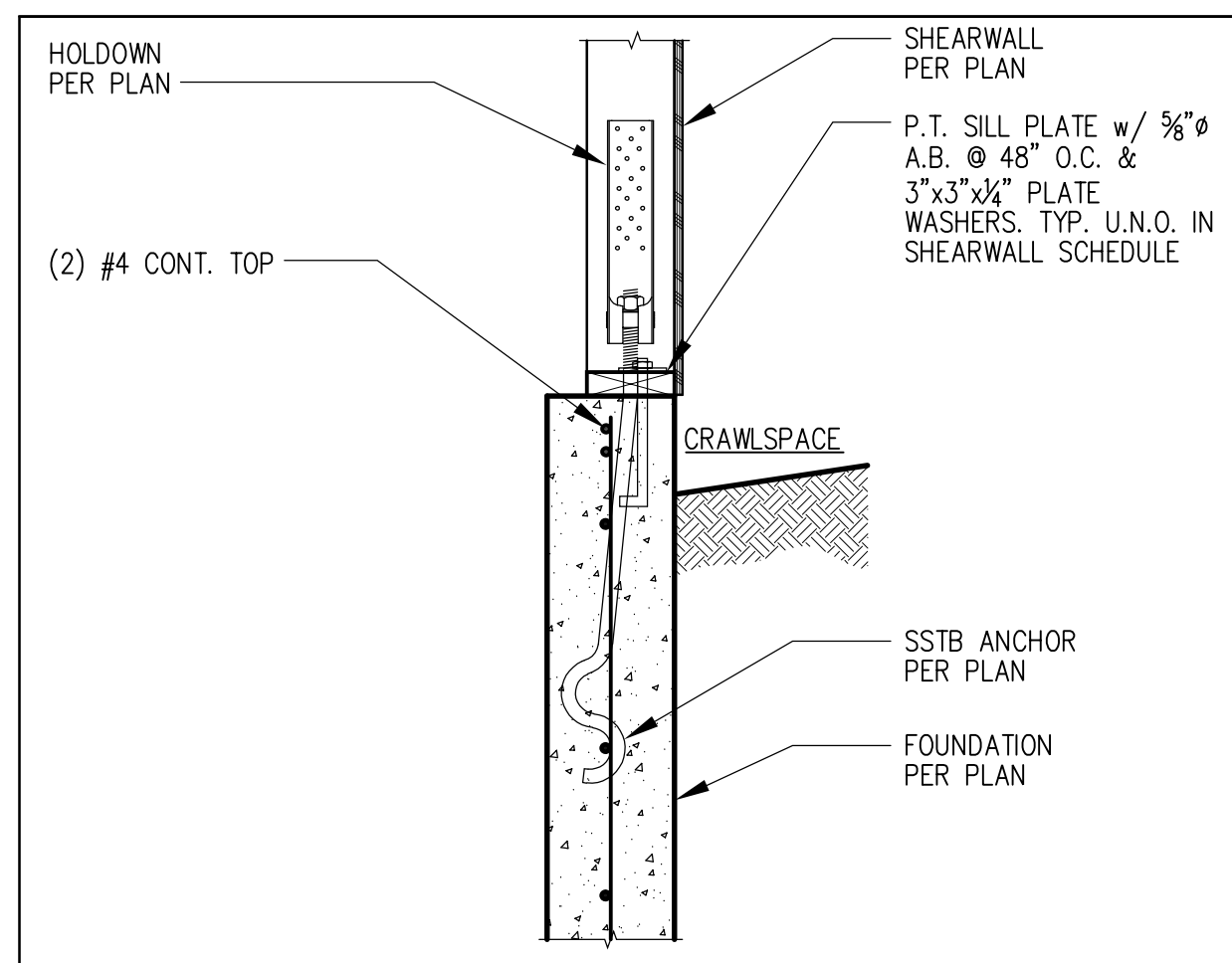


19 GARAGE SLAB @ CRAWLSPACE WALL

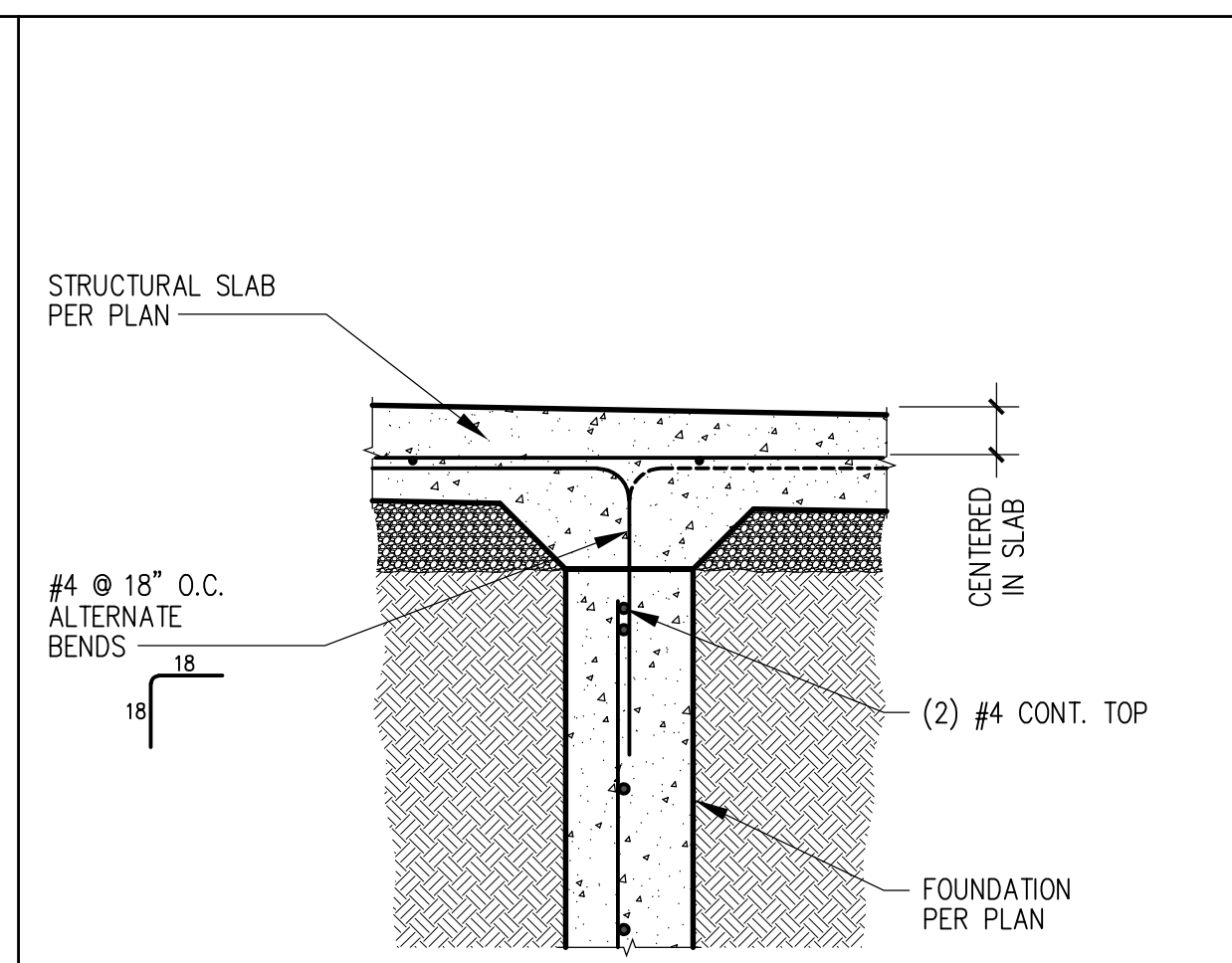


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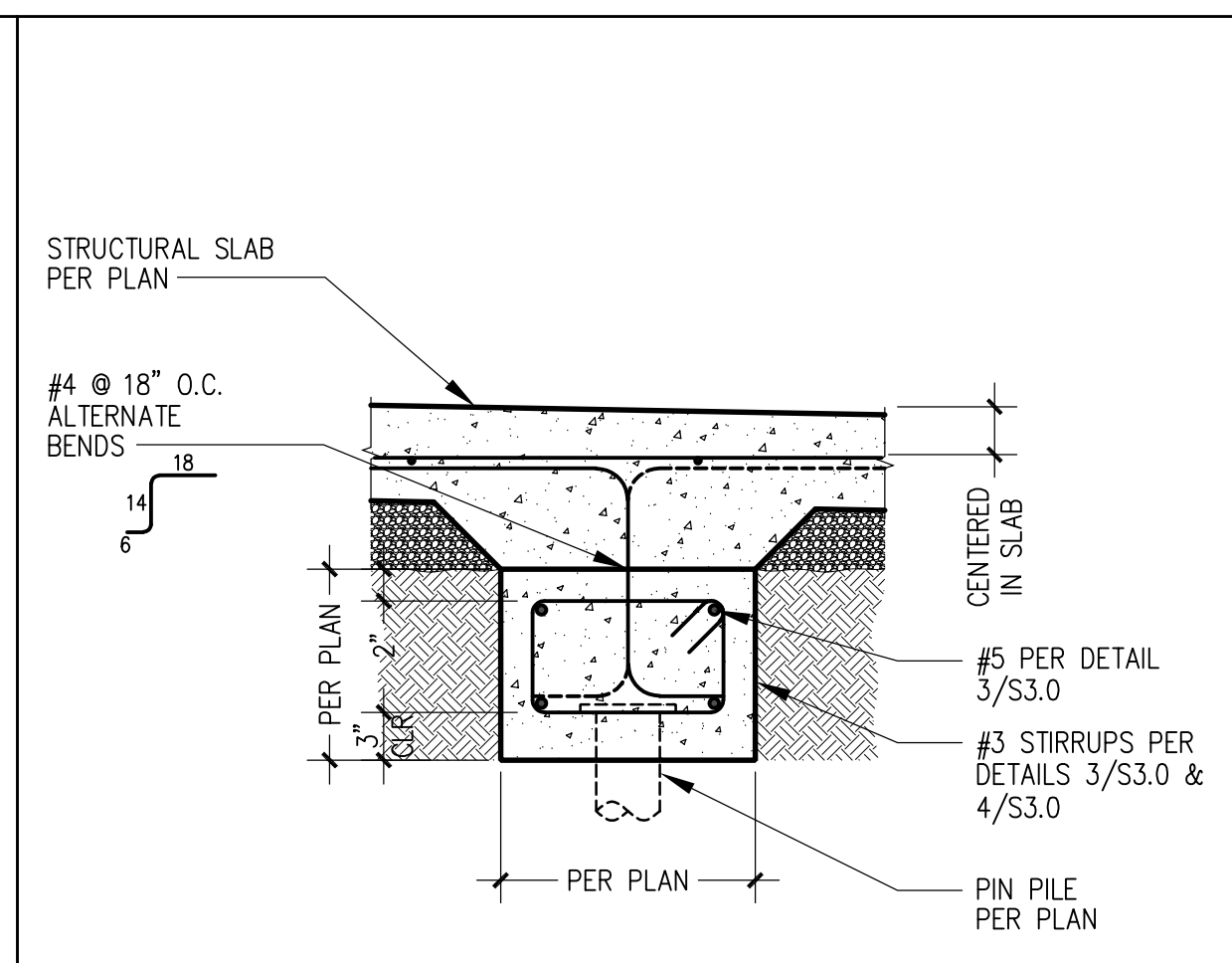
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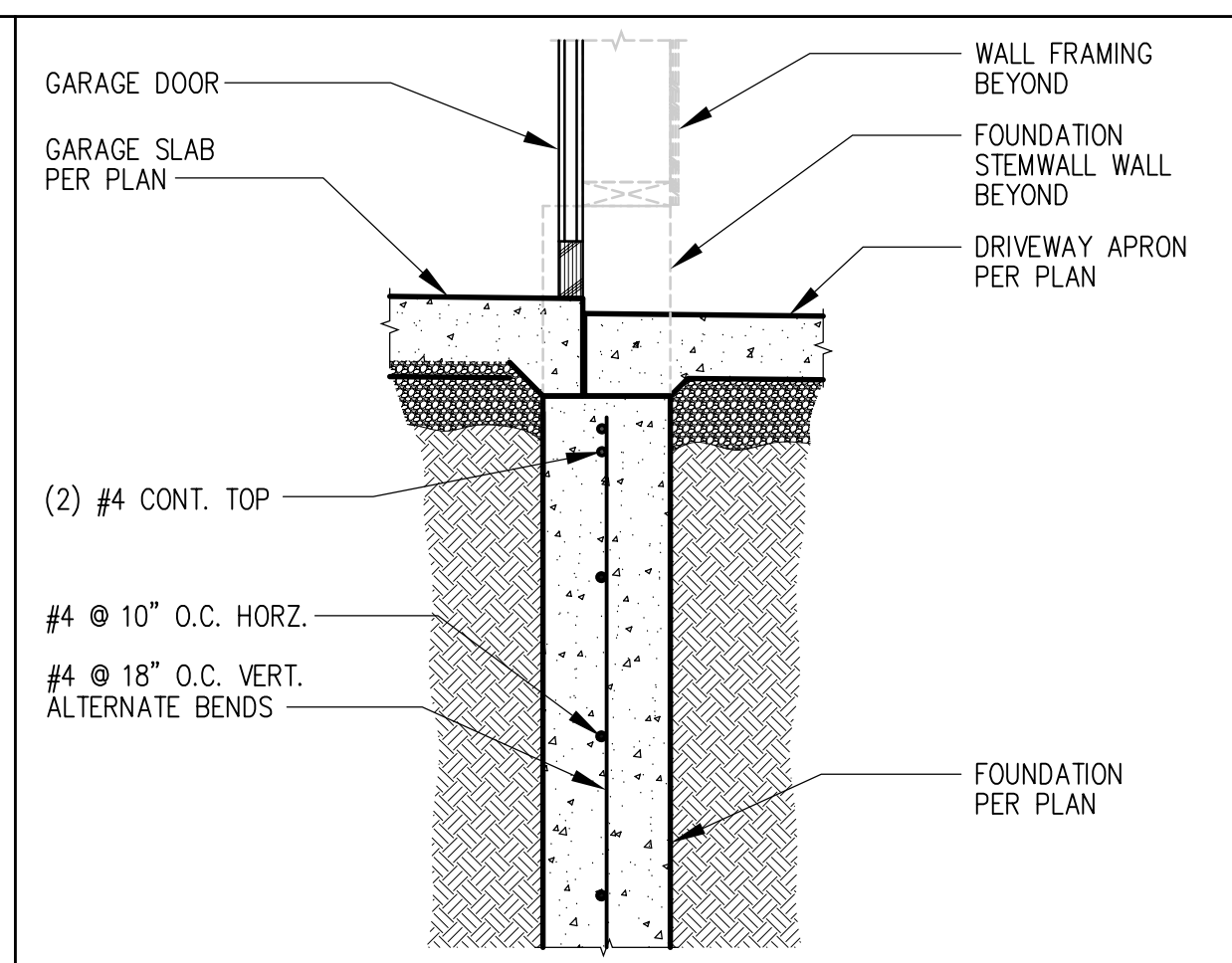
1 SSTB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ INTERIOR GARAGE PONYWALL)



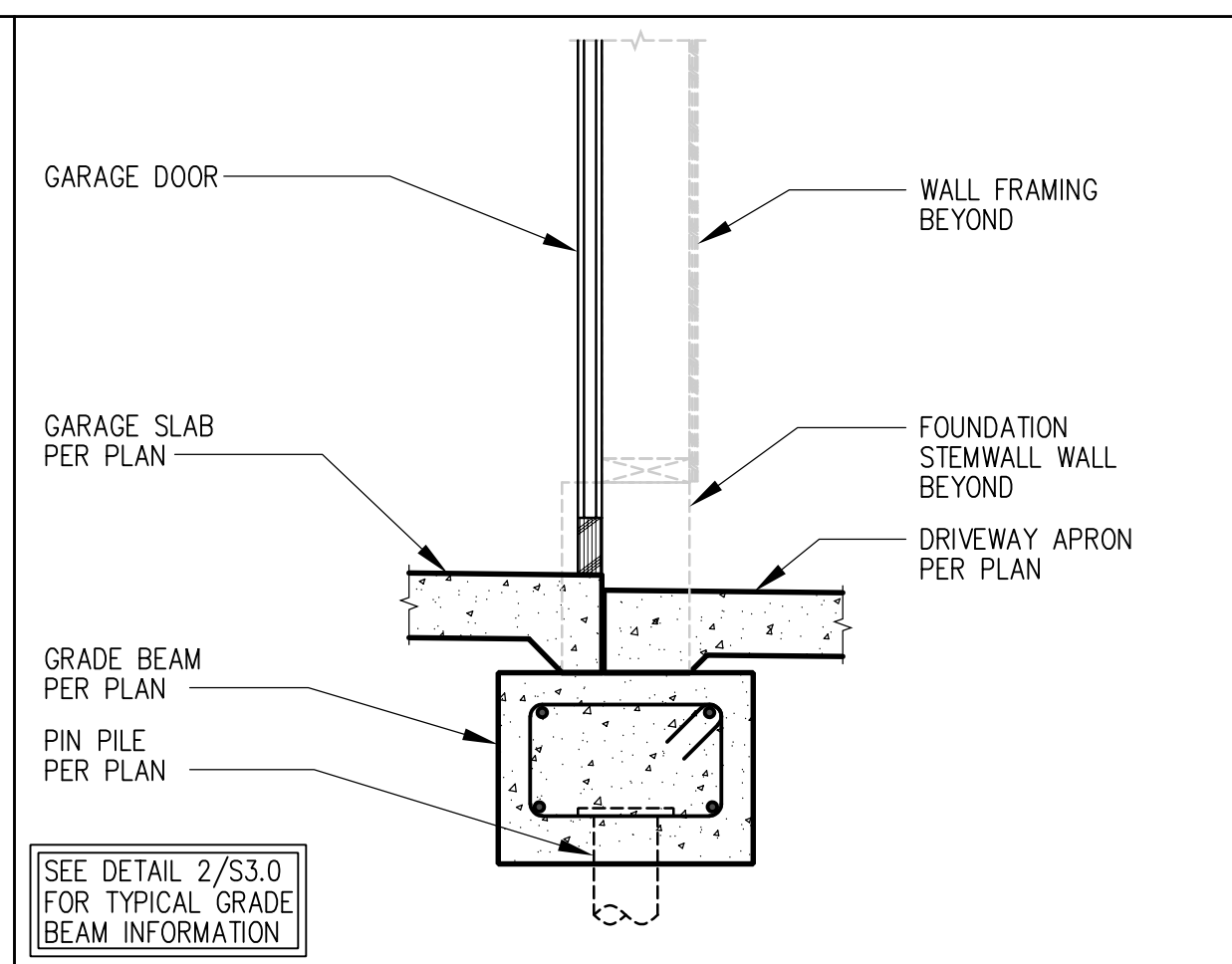
2 GARAGE SLAB @ STEMWALL



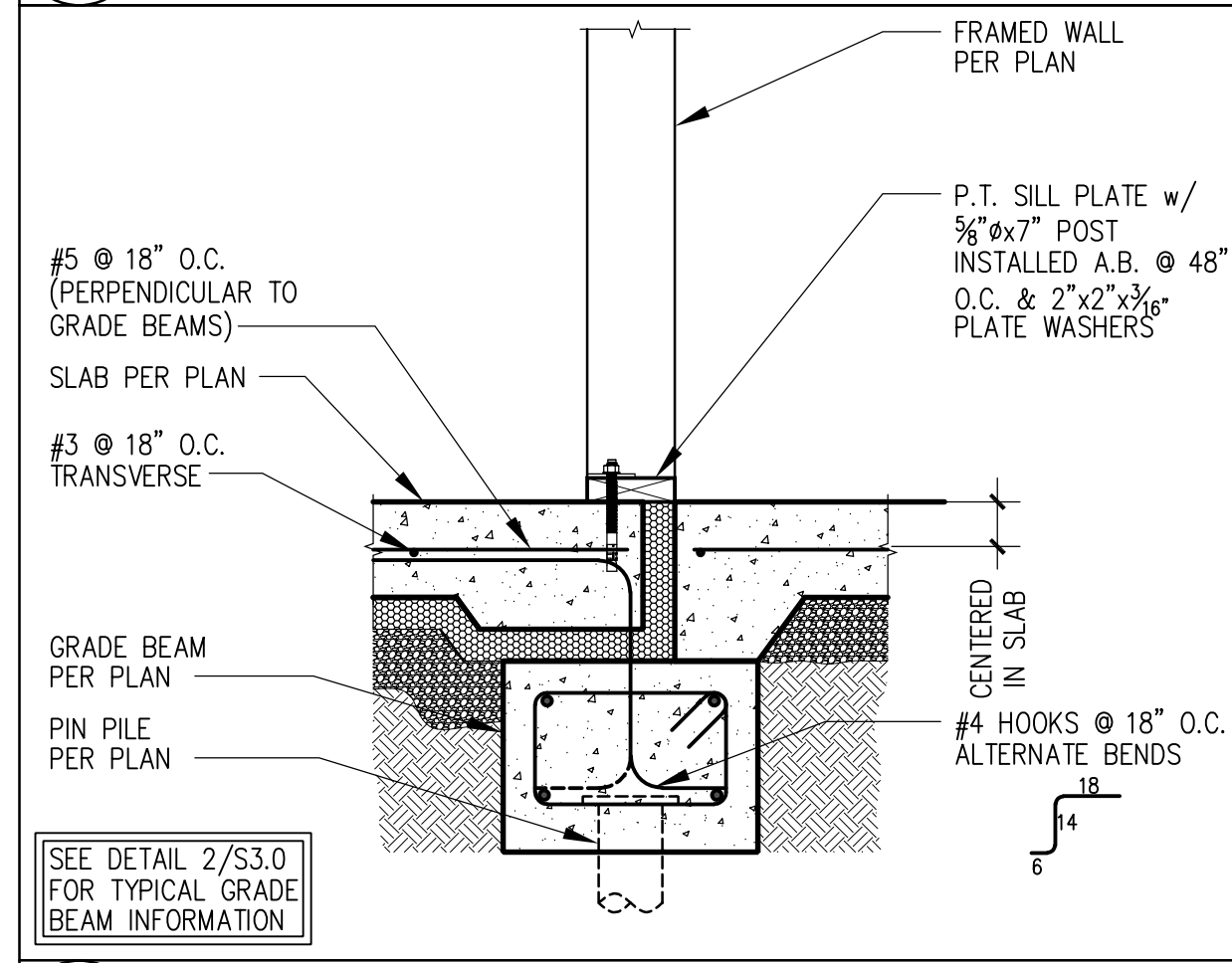
3 GARAGE SLAB @ GRADE BEAM



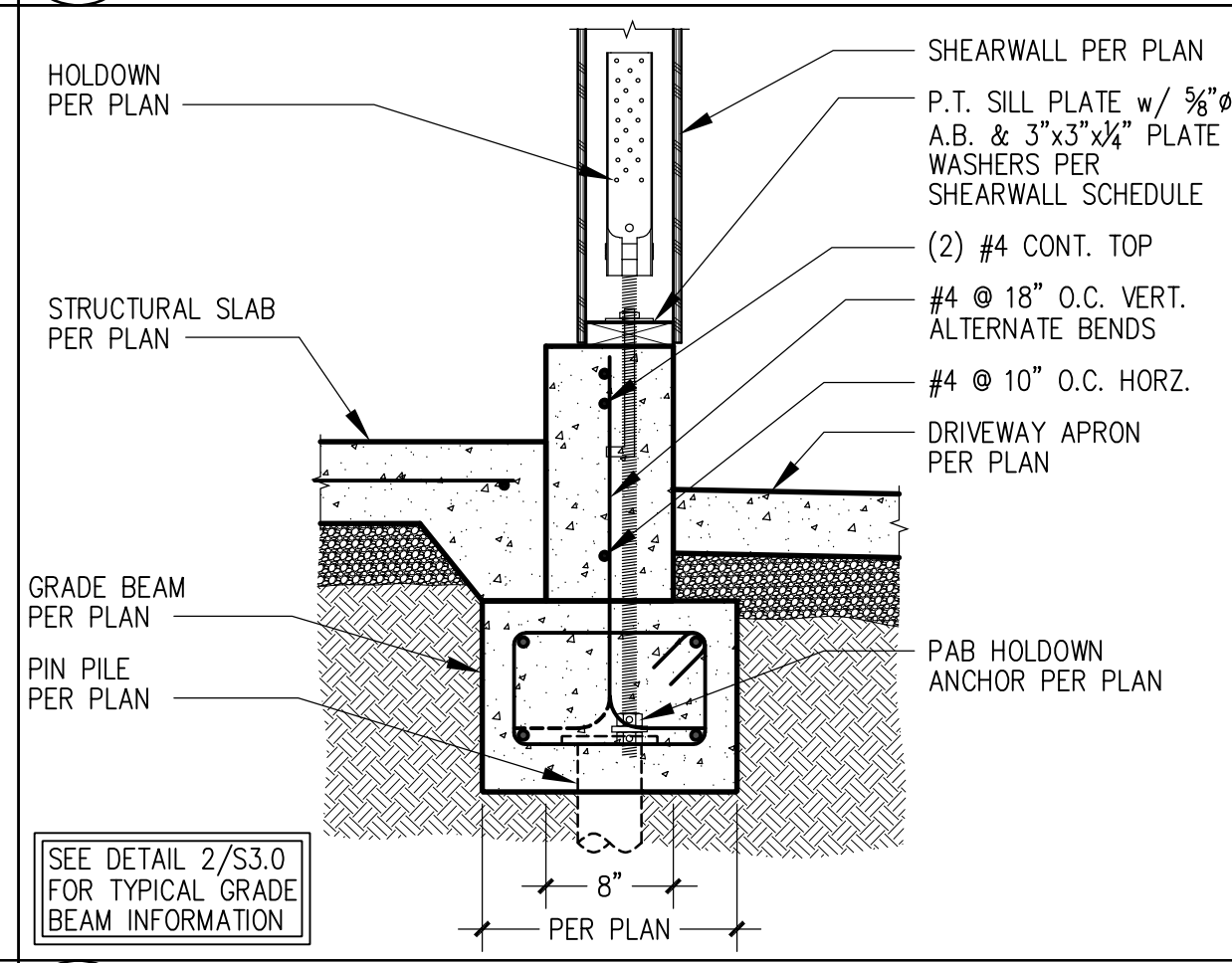
4 GARAGE SLAB @ FOUNDATION WALL (UNHEATED SLAB)



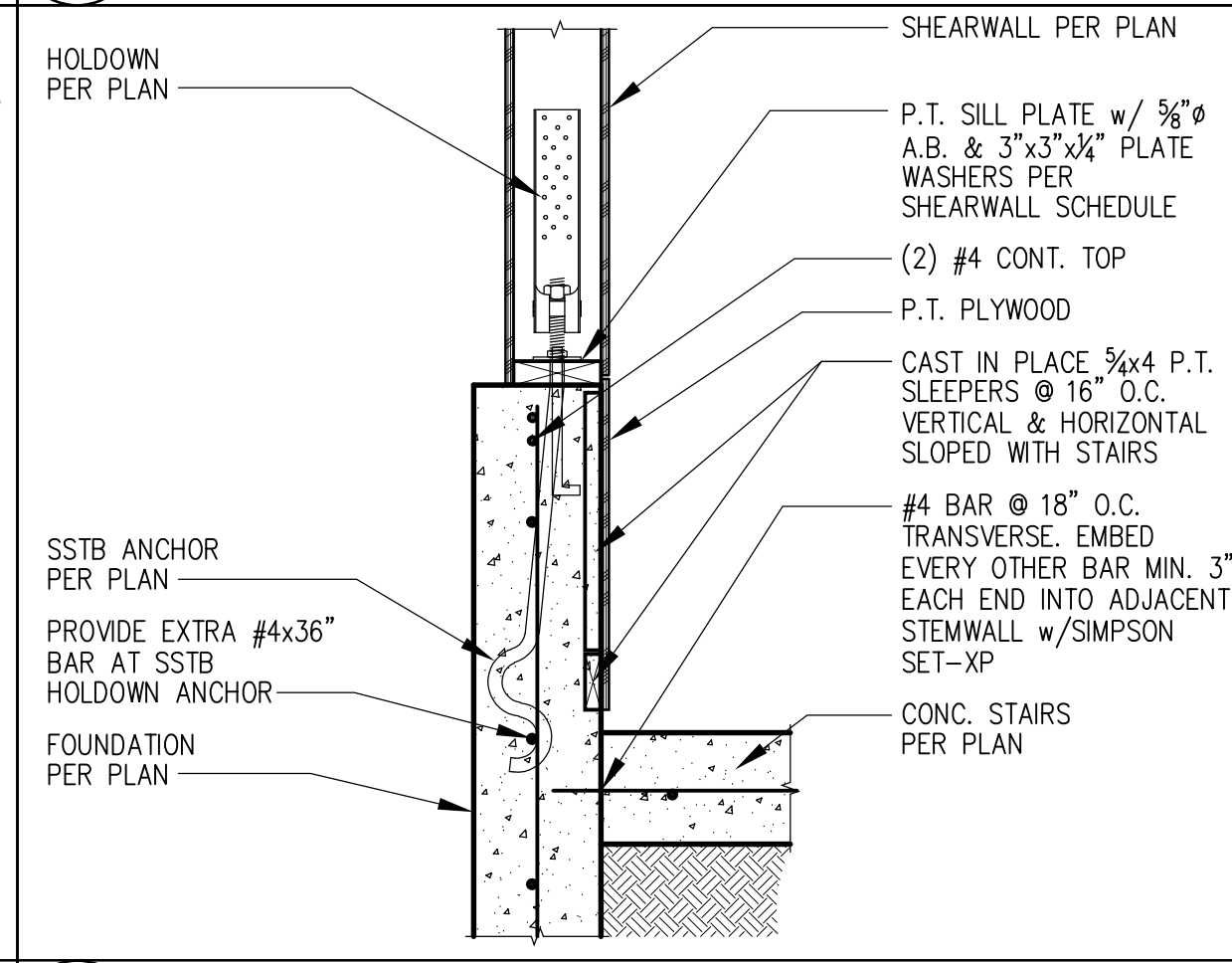
5 TYPICAL GRADE BEAM @ DRIVEWAY APRON



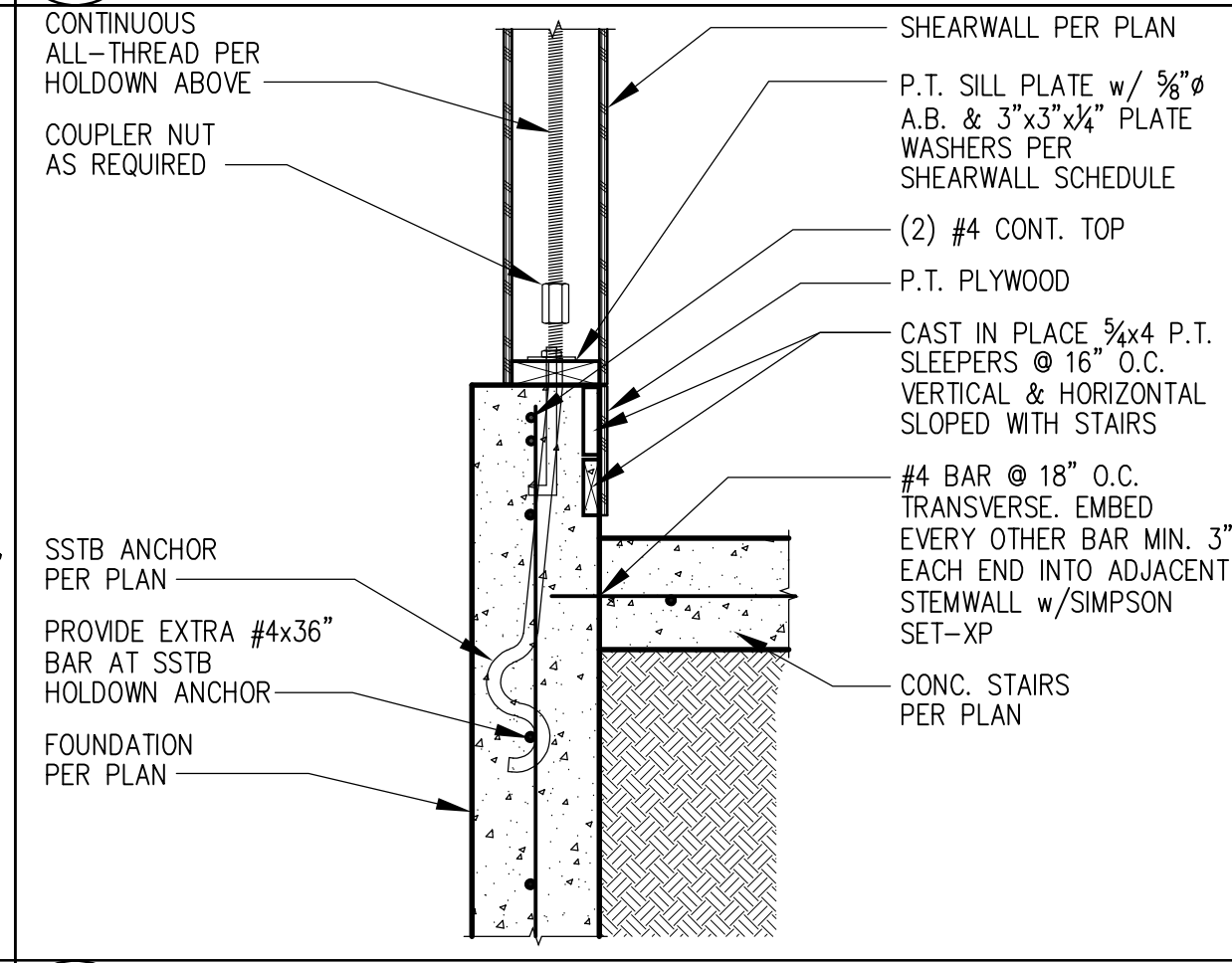
6 TYPICAL BEARING WALL @ SLAB



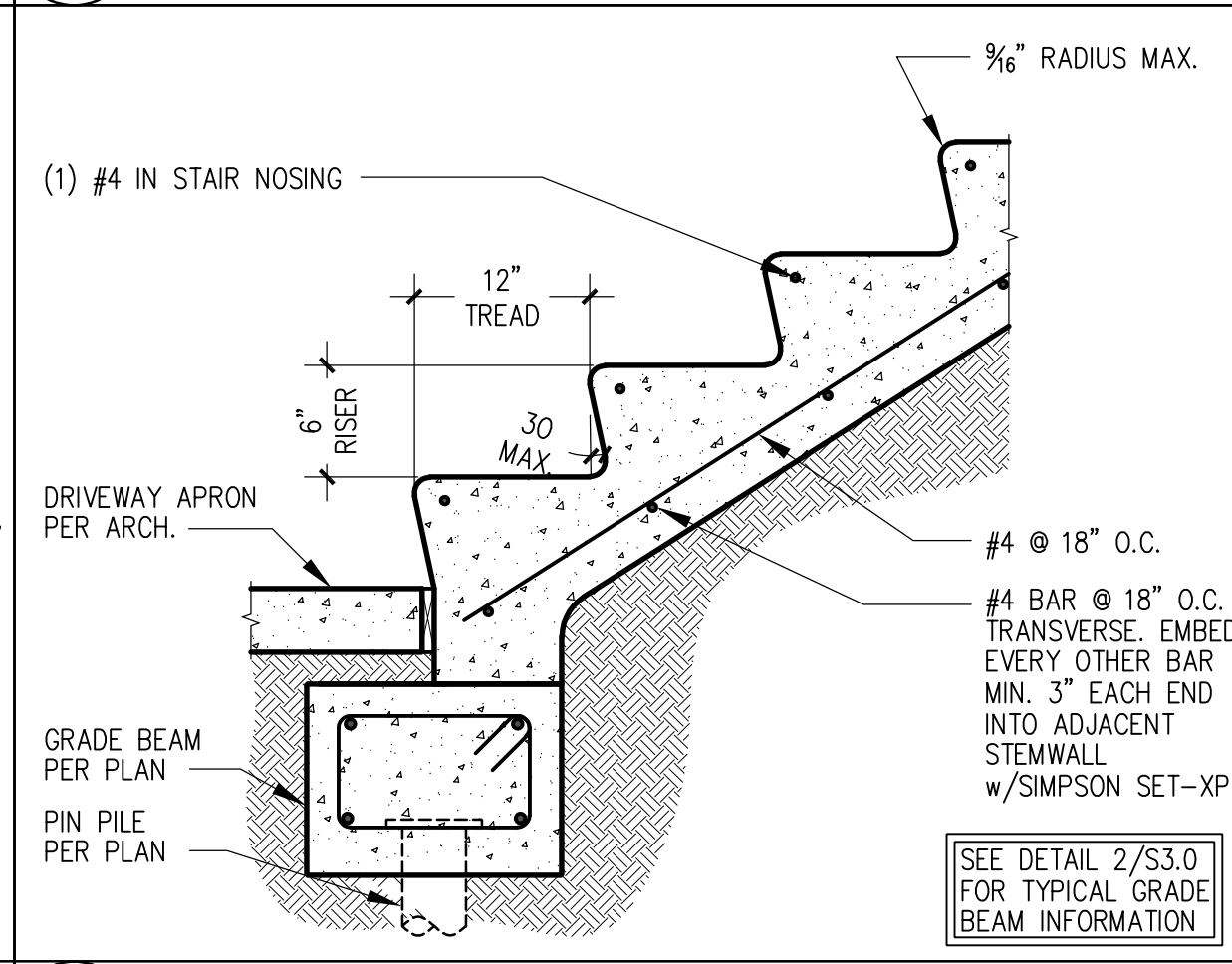
7 HOLDOWN @ GARAGE FNDN.



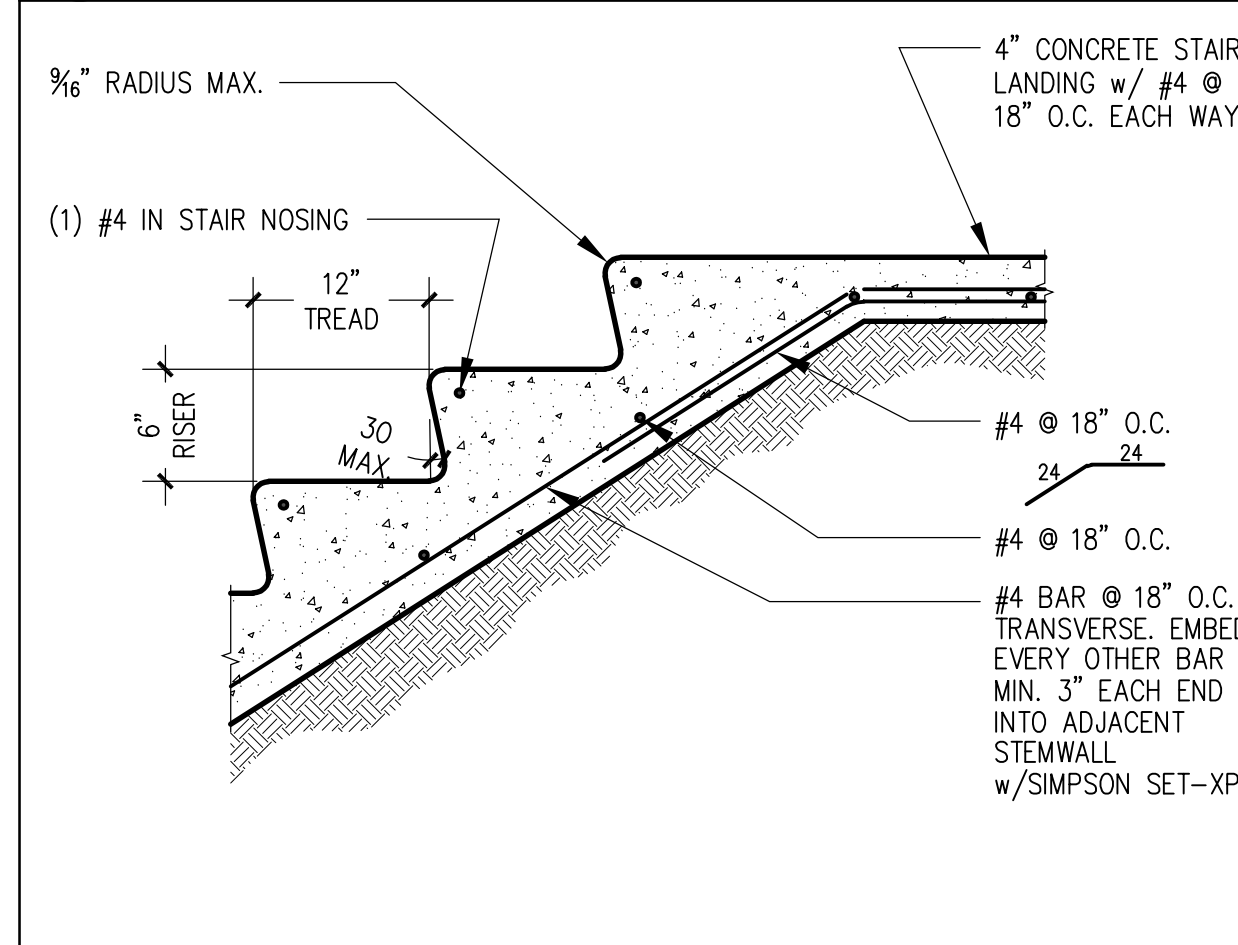
8 SSTB HOLDOWN ANCHOR TO FOUNDATION (HOLDOWN @ PONYWALL/EXTERIOR STAIRS)



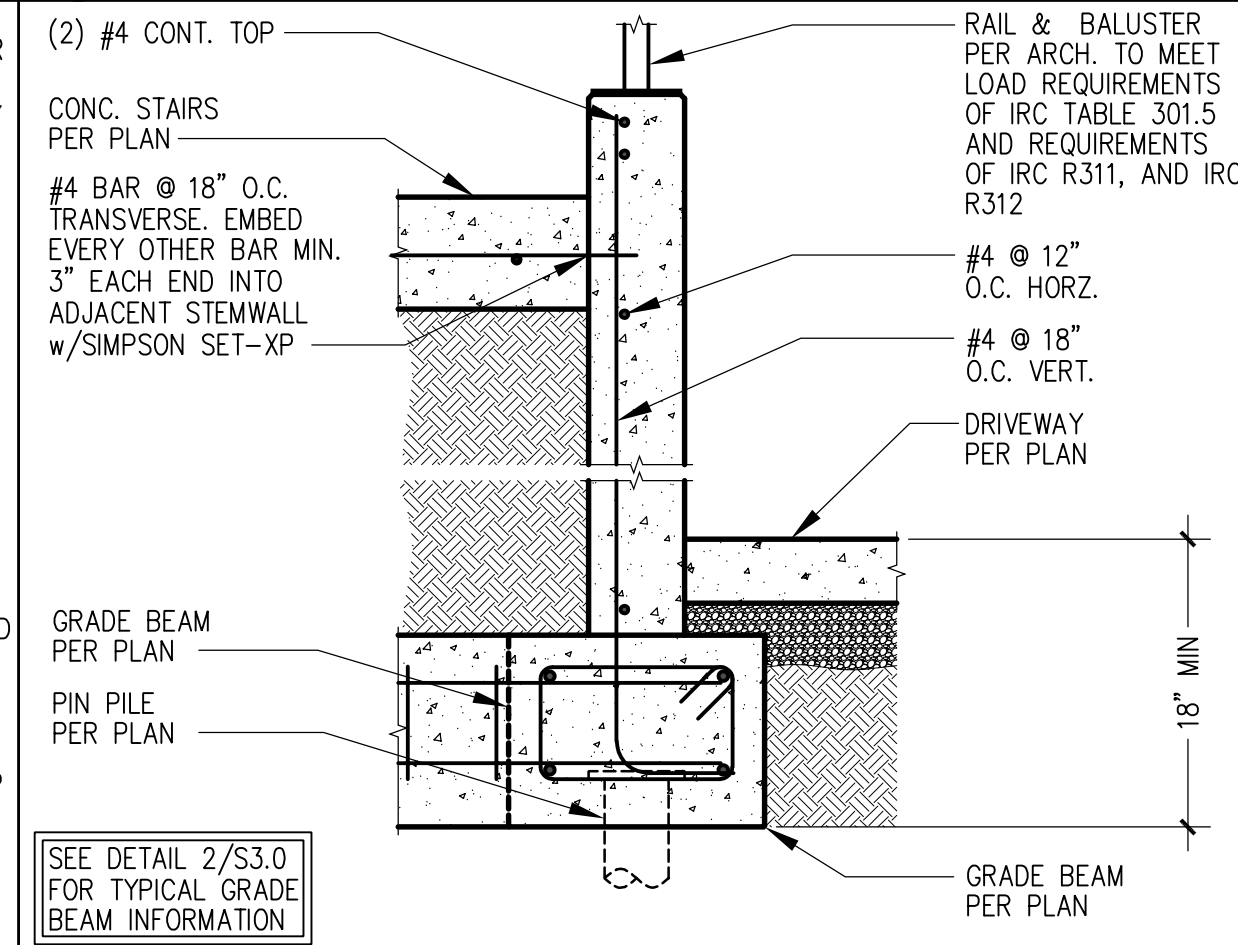
9 SSTB HOLDOWN ANCHOR TO FOUNDATION (ALL-THREAD @ PONYWALL)



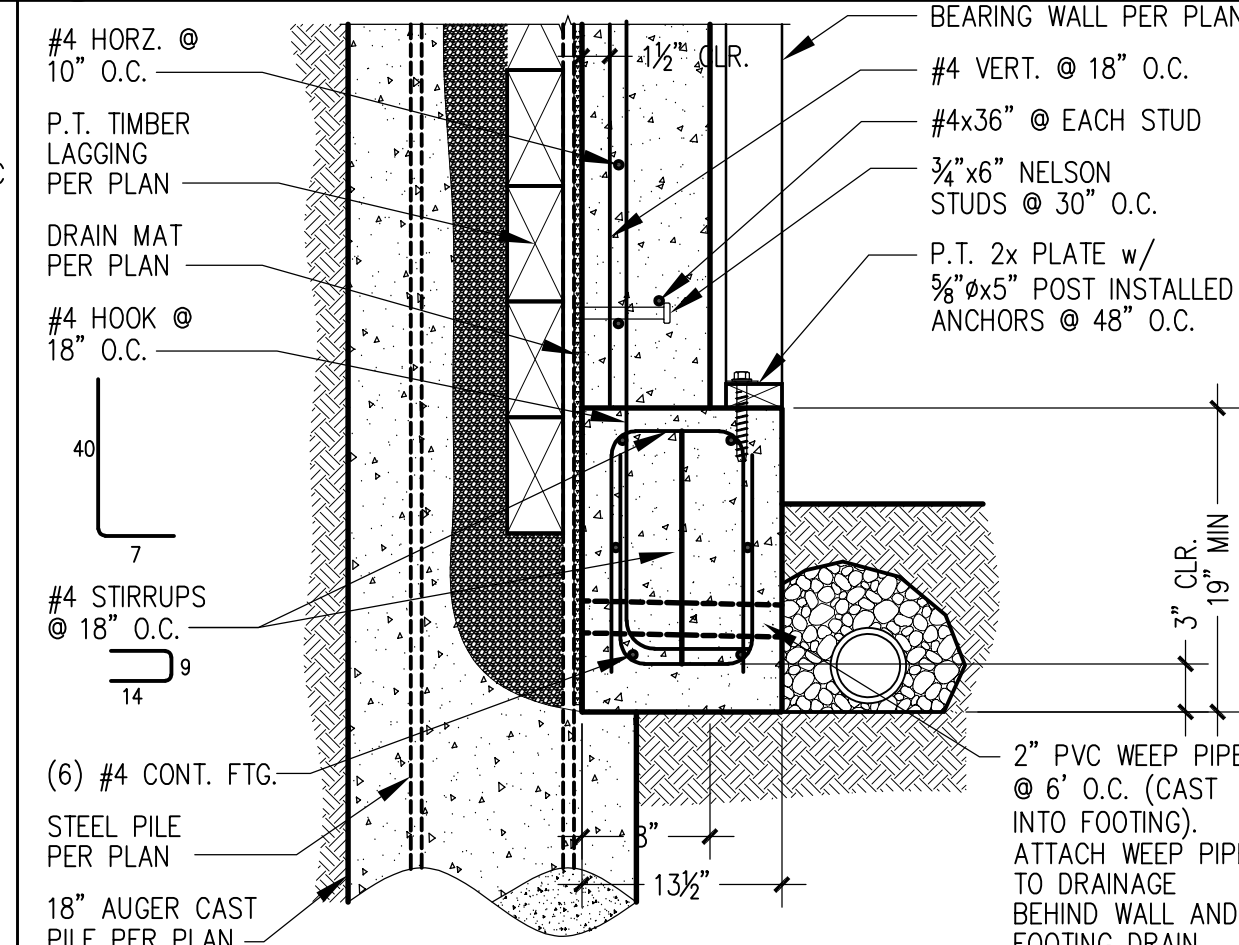
10 CONCRETE STAIRS @ GRADE BEAM



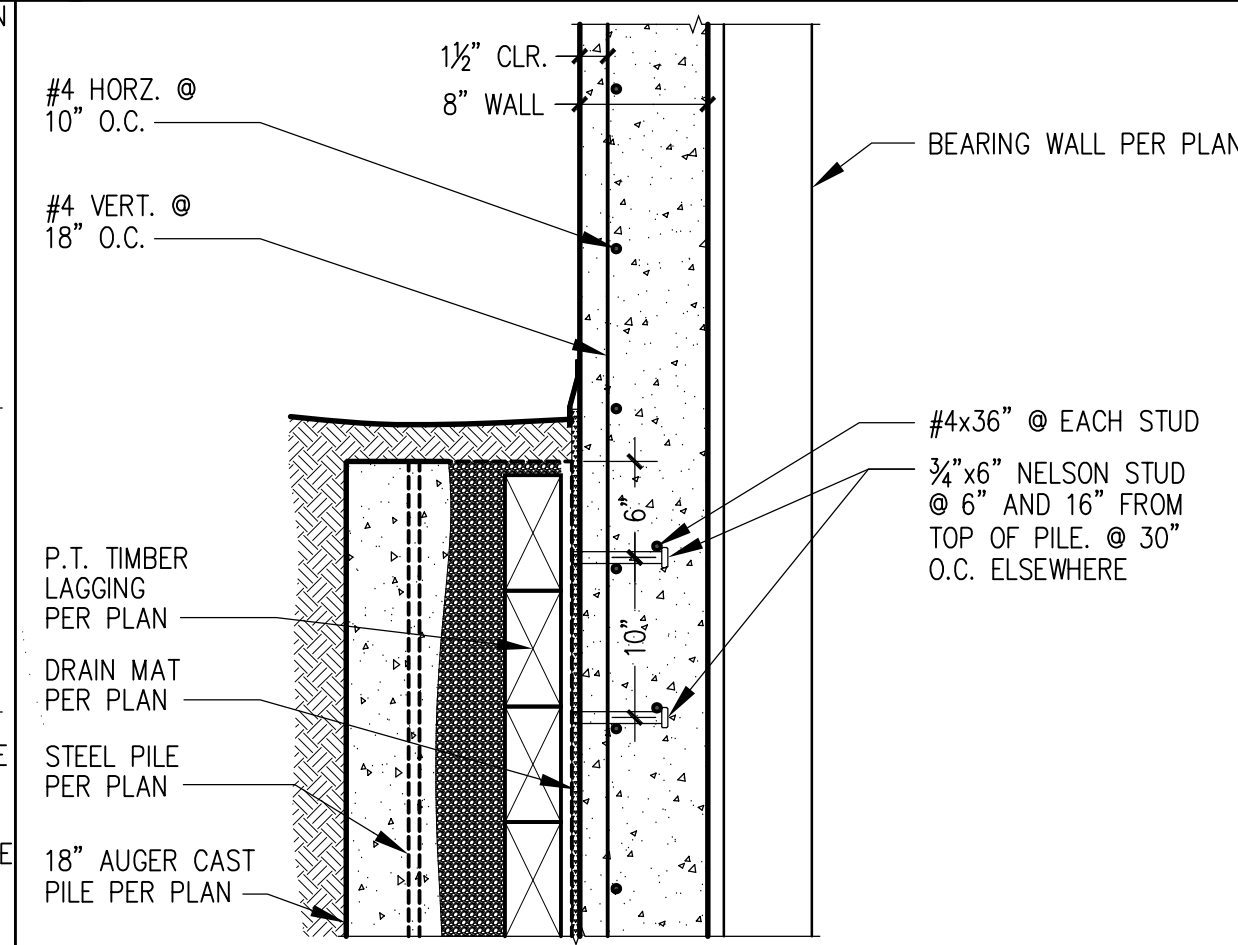
11 CONCRETE STAIRS @ UPPER LANDING



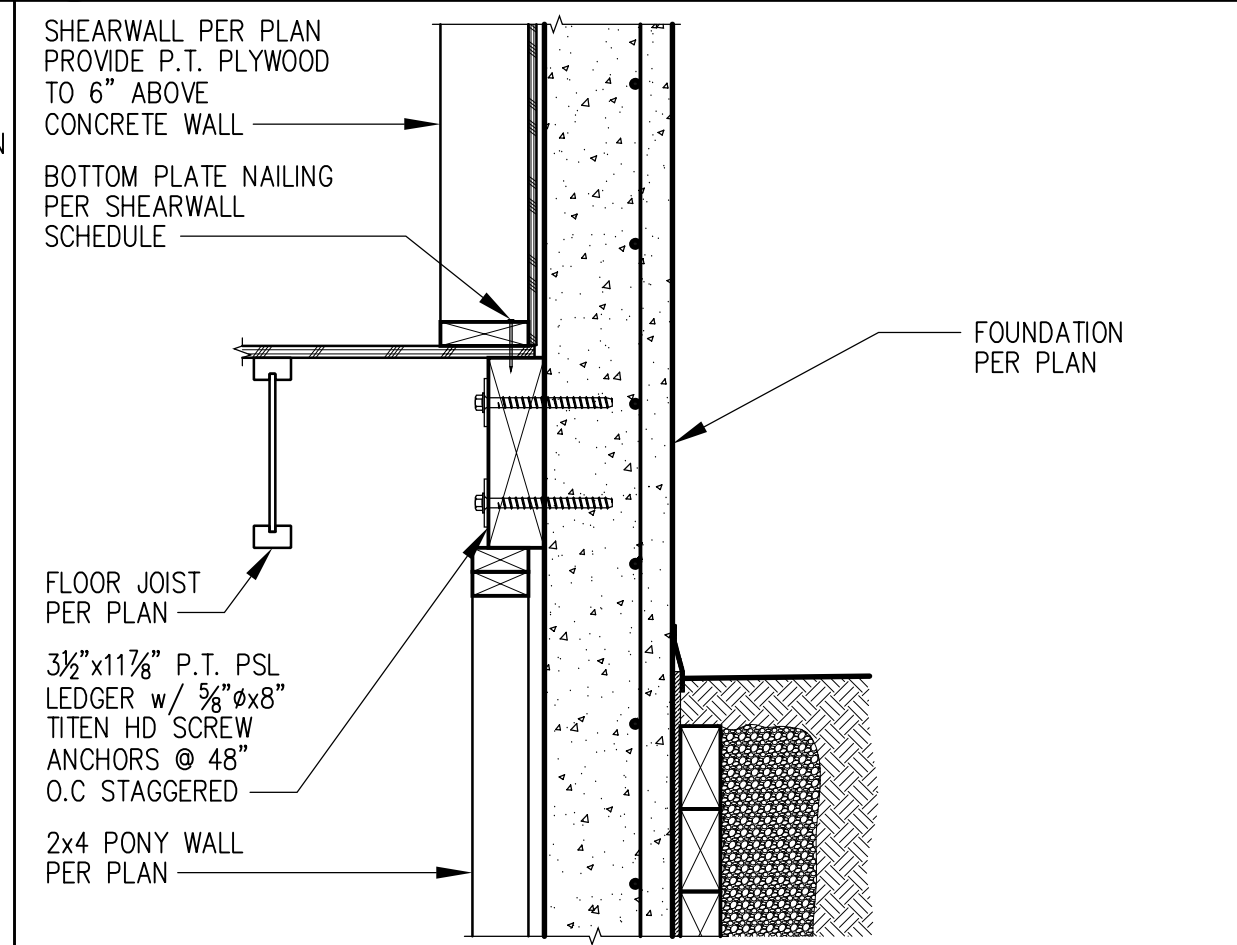
12 CONCRETE STAIR WALL



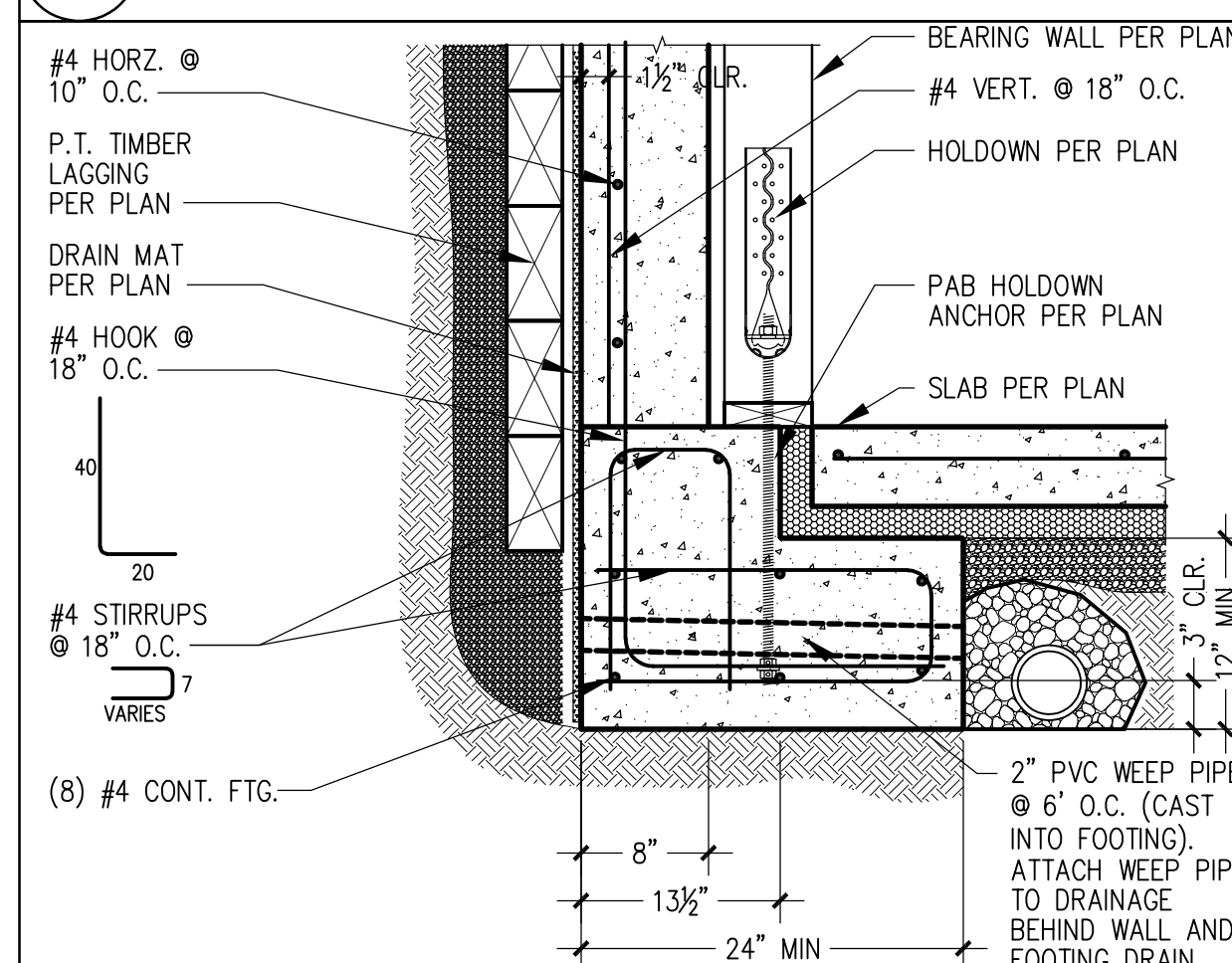
13 TYPICAL CRAWLSPACE FOUNDATION @ PILE (BASE OF WALL)



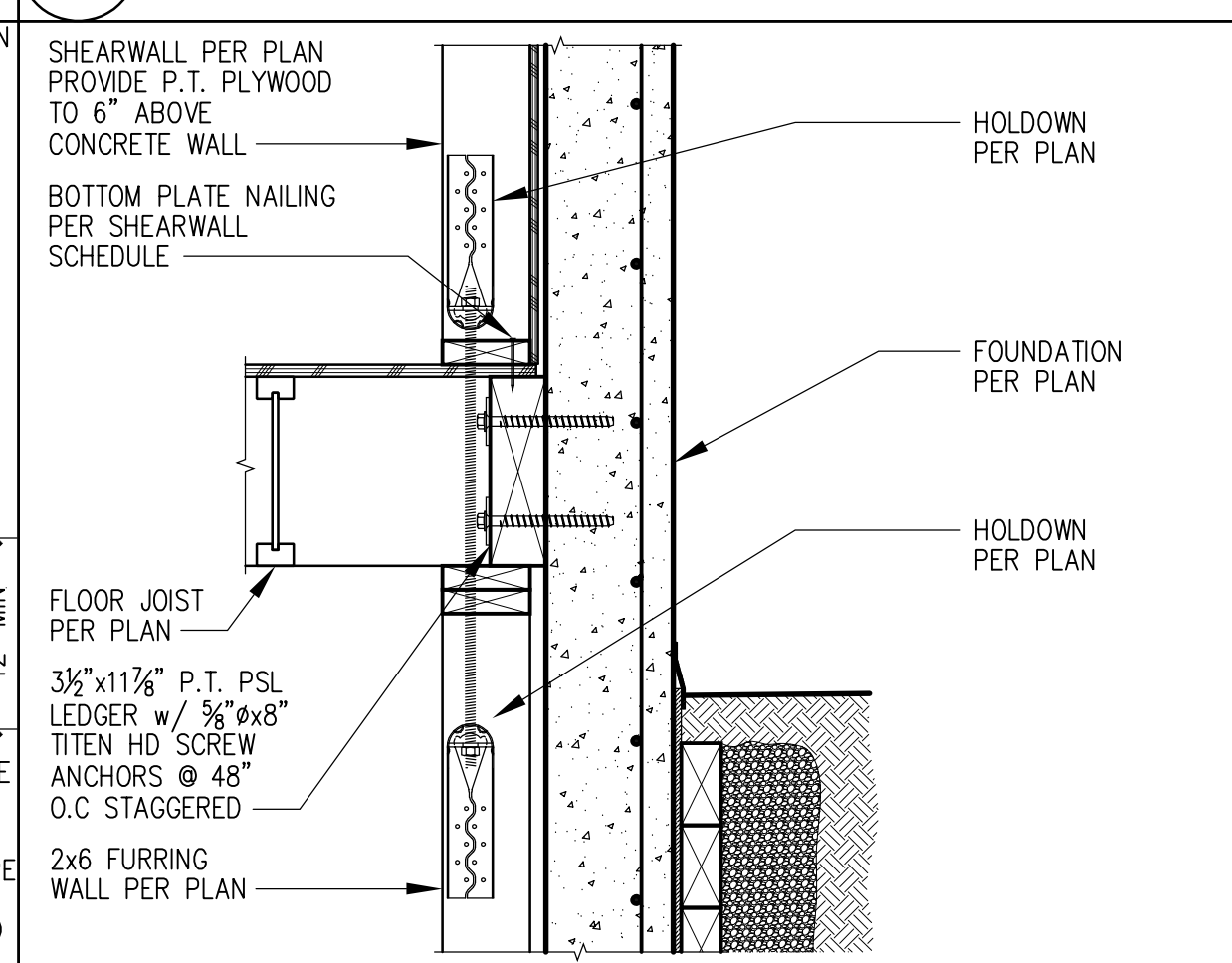
14 TYPICAL FOUNDATION @ PILE (TOP OF GRADE)



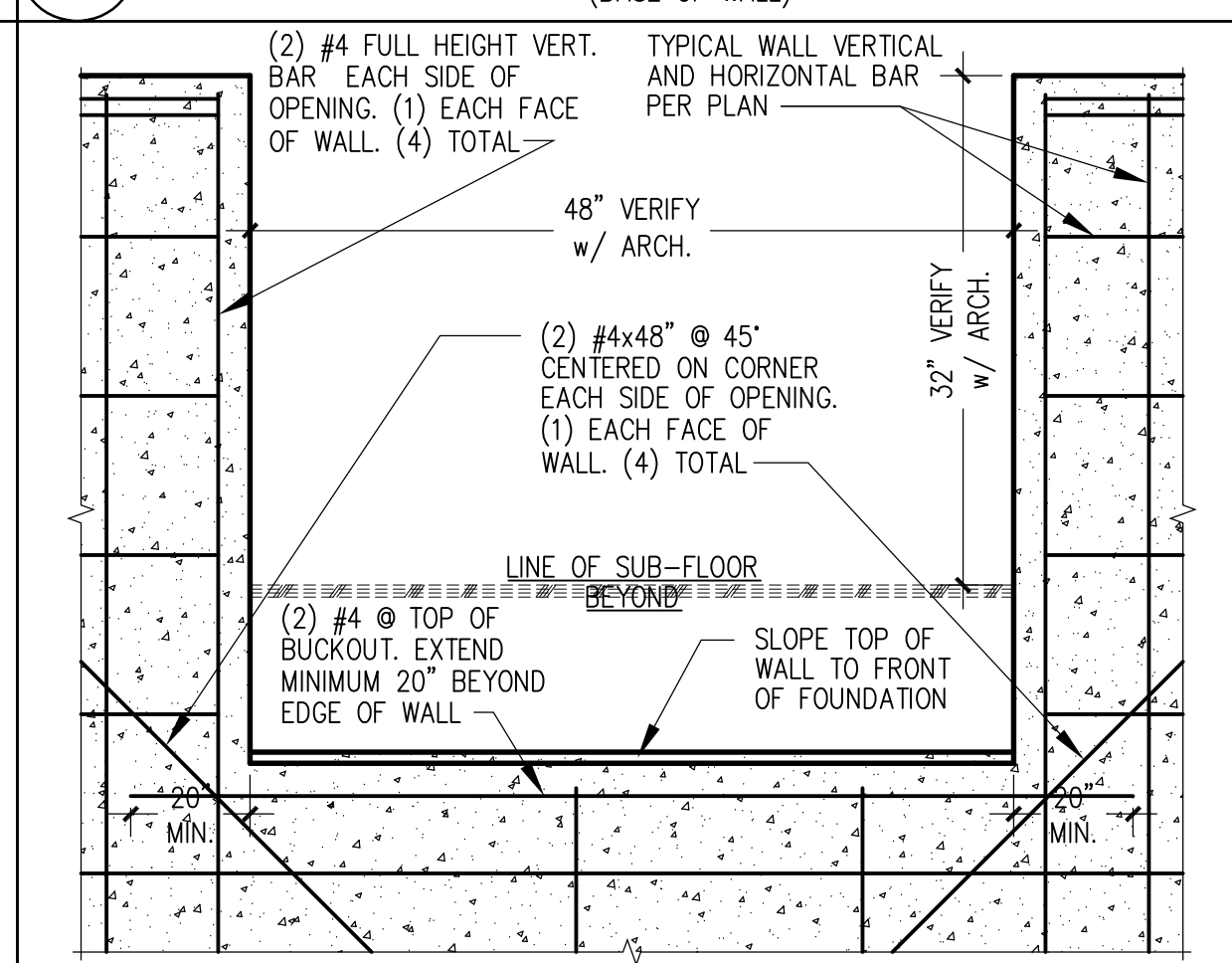
15 TYPICAL SHEAR TRANSFER @ FNDN. WALL (CRAWLSPACE FLOOR FRAMING)



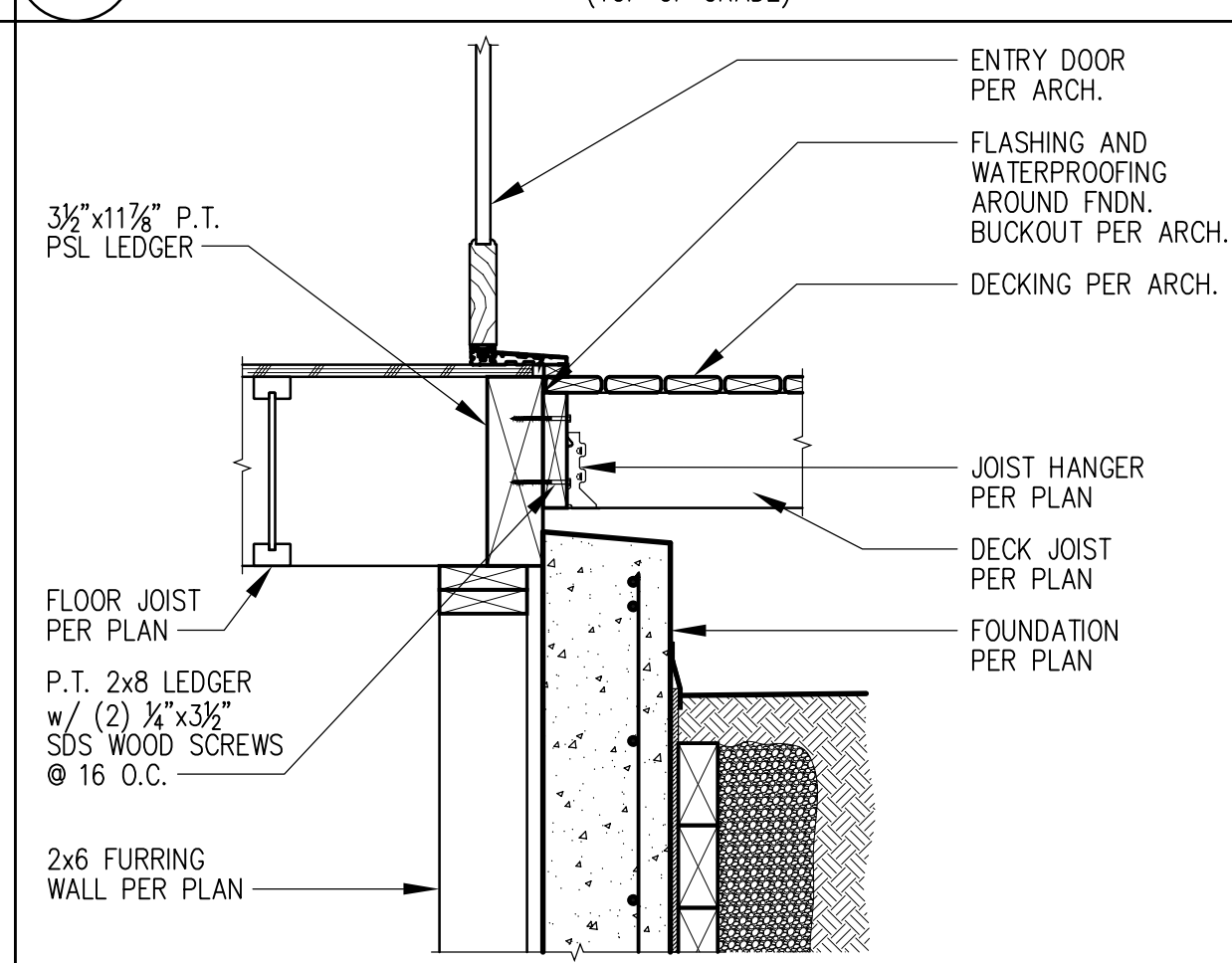
16 HOLDOWN @ BASEMENT FOUNDATION



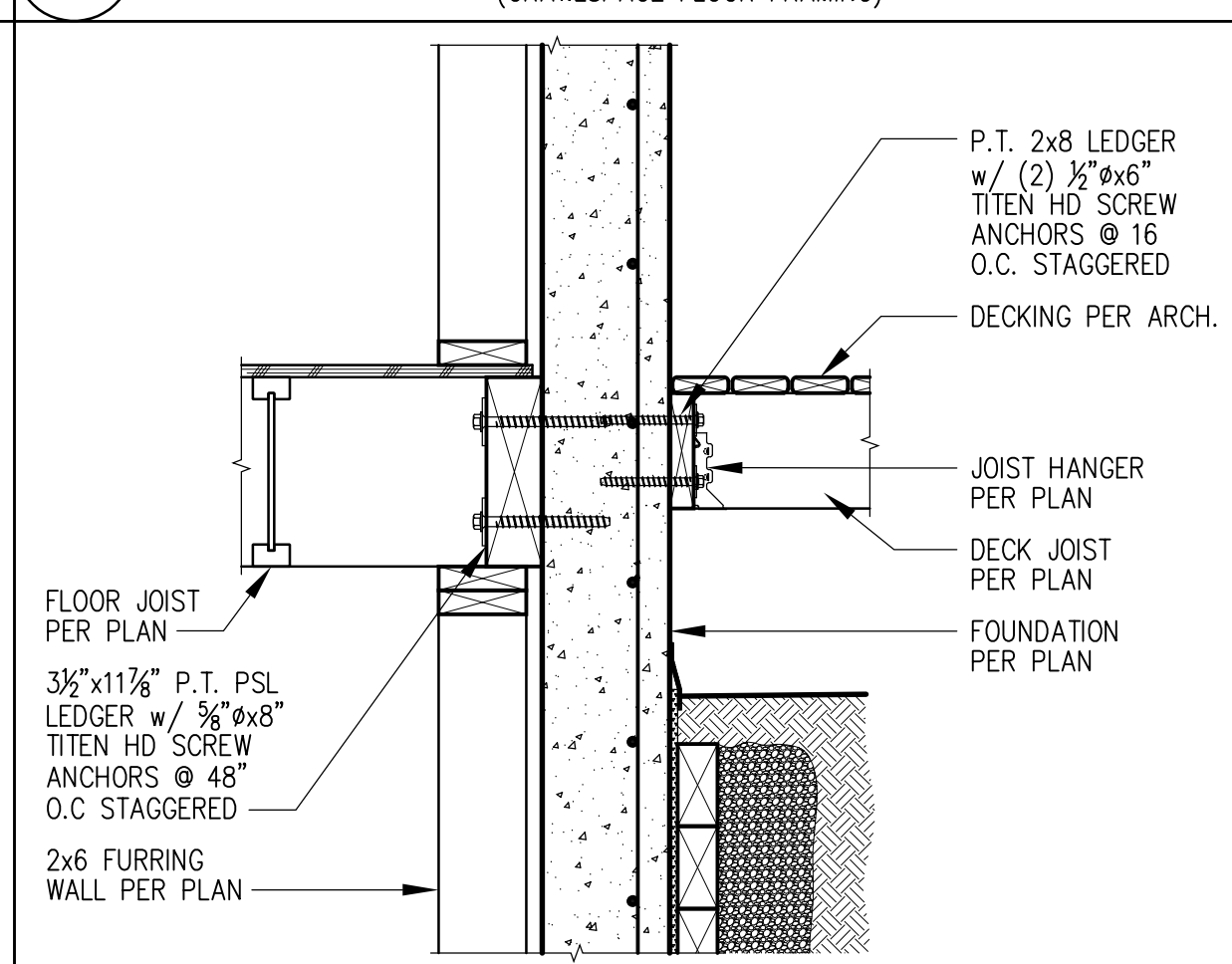
17 SHEAR TRANSFER @ FNDN. WALL (BASEMENT FLOOR FRAMING/HOLDOWN TO HOLDOWN)



18 TYPICAL CONCRETE BUCKOUT (ELEVATION)

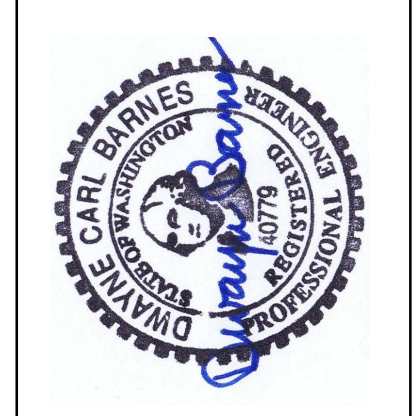


19 ENTRY DECK FRAMING



20 ENTRY DECK @ BALLOON FRAME WALL

**Stoney Point Engineering**  
 Dwayne Barnes P.E.  
 dwayne@stonepointengineering.com  
 Office: 425-644-9500



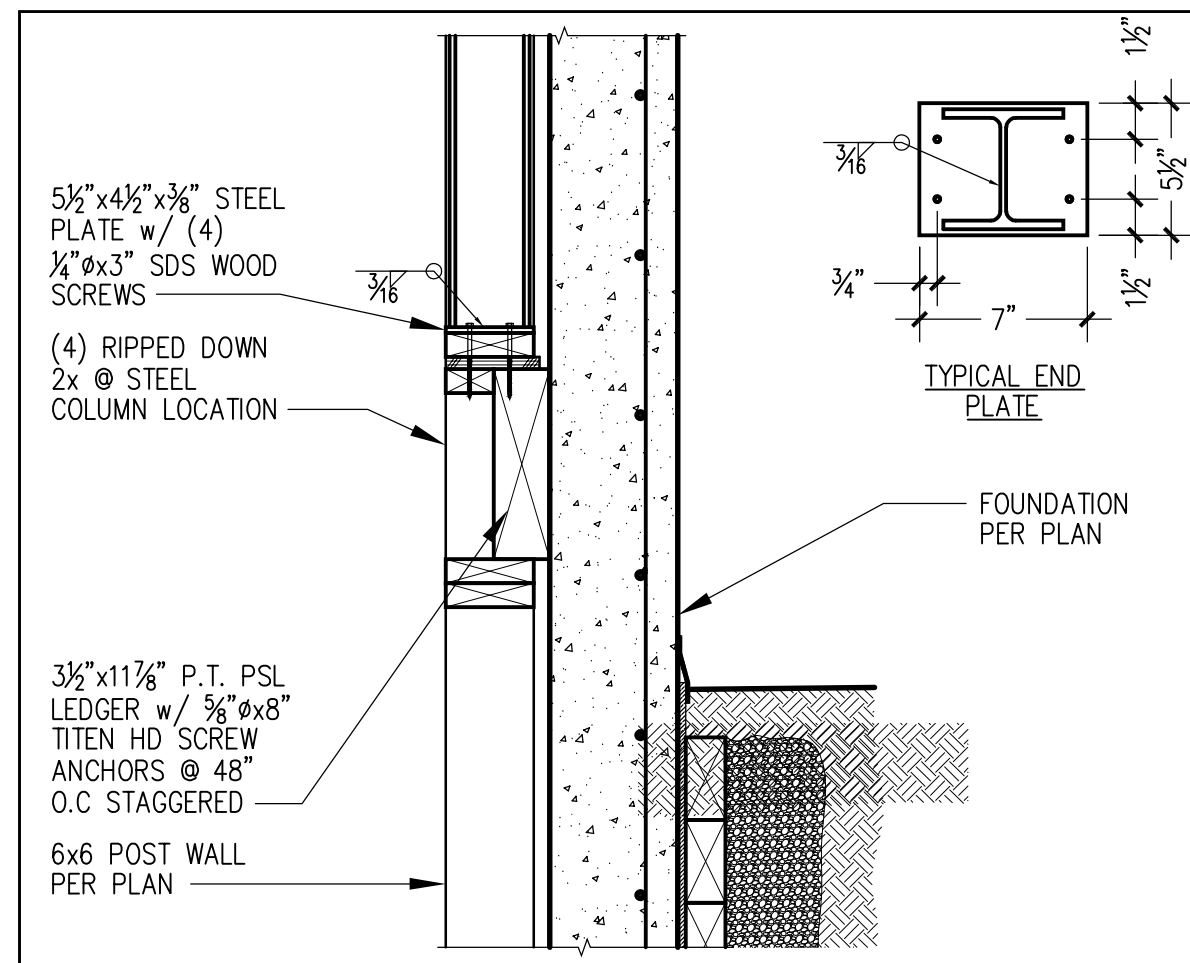
**MI Treehouse, LLC**  
 5637 East Mercer Way  
 Mercer Island, WA 98084

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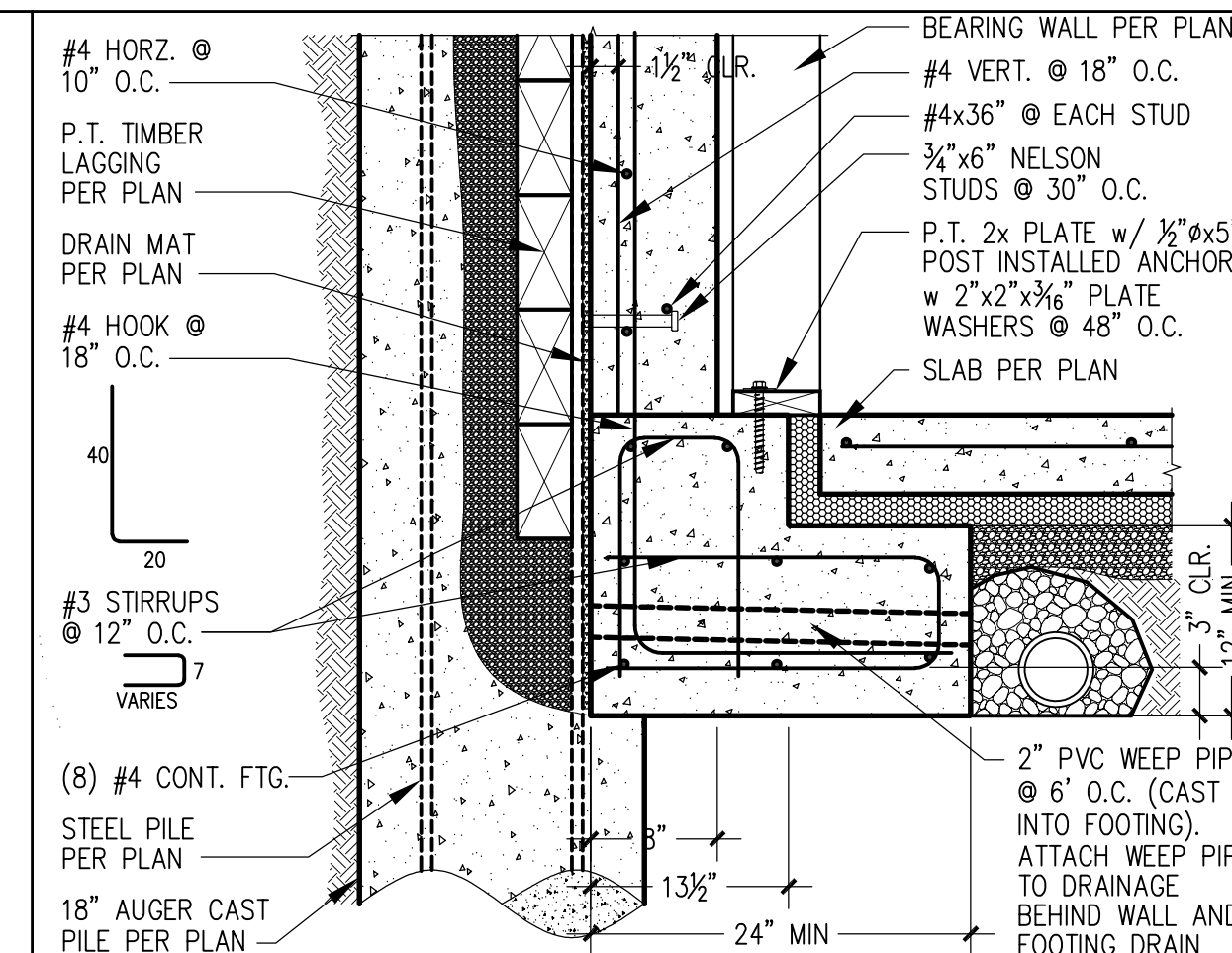
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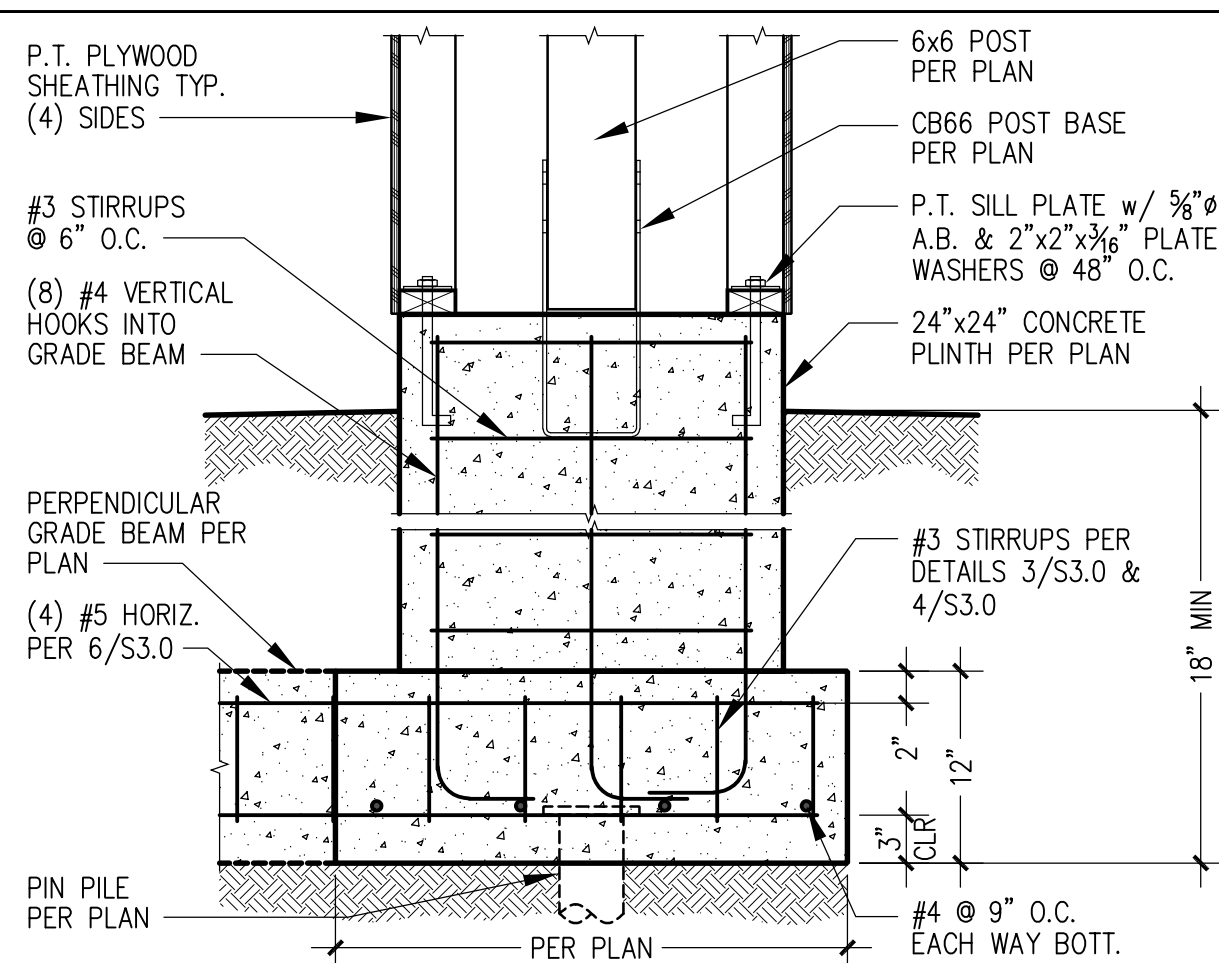
**S3.1**  
 FOUNDATION DETAILS



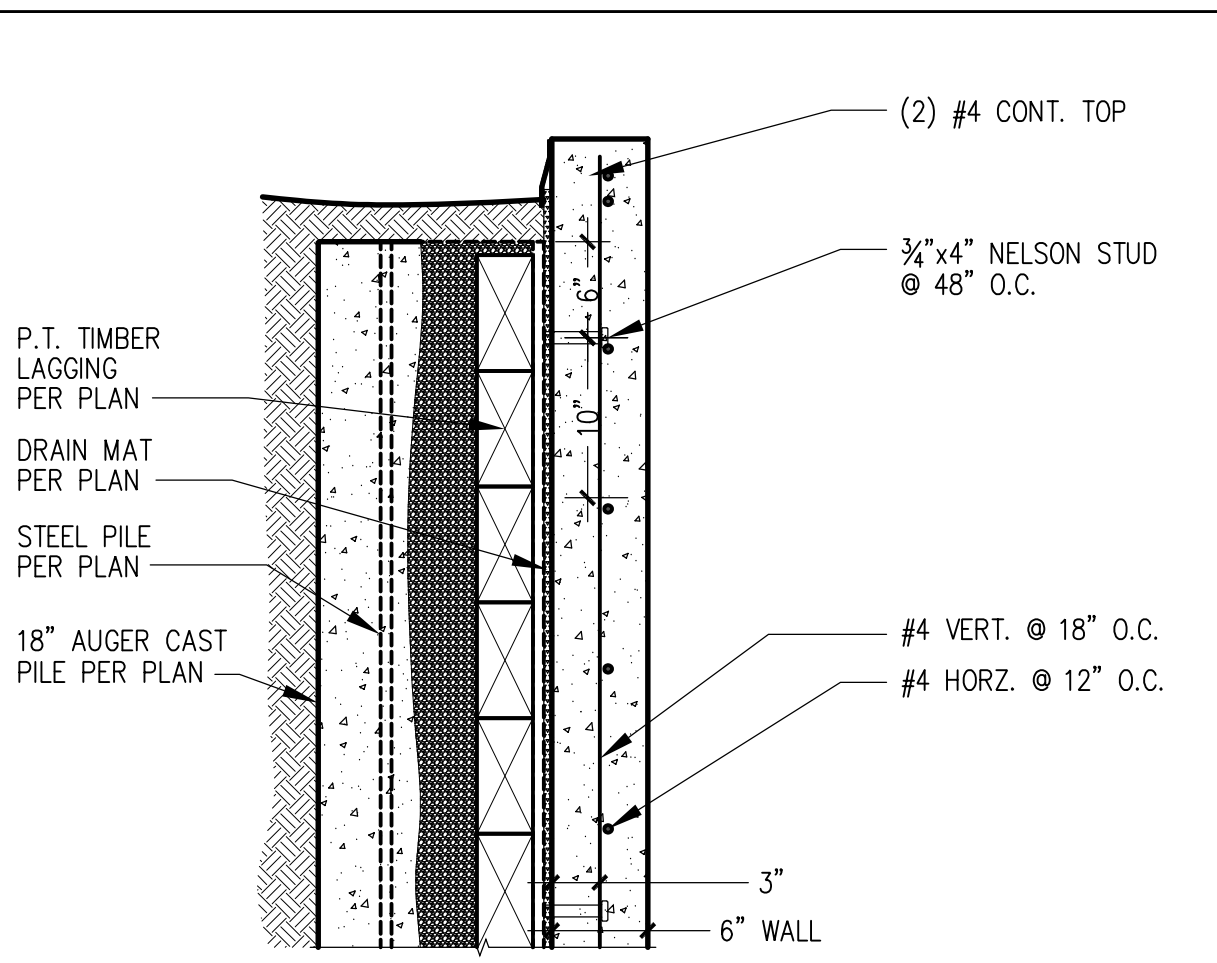
1 W5x16 STEEL COLUMN TO BOTTOM PLATE  
(FLOOR FRAMING)



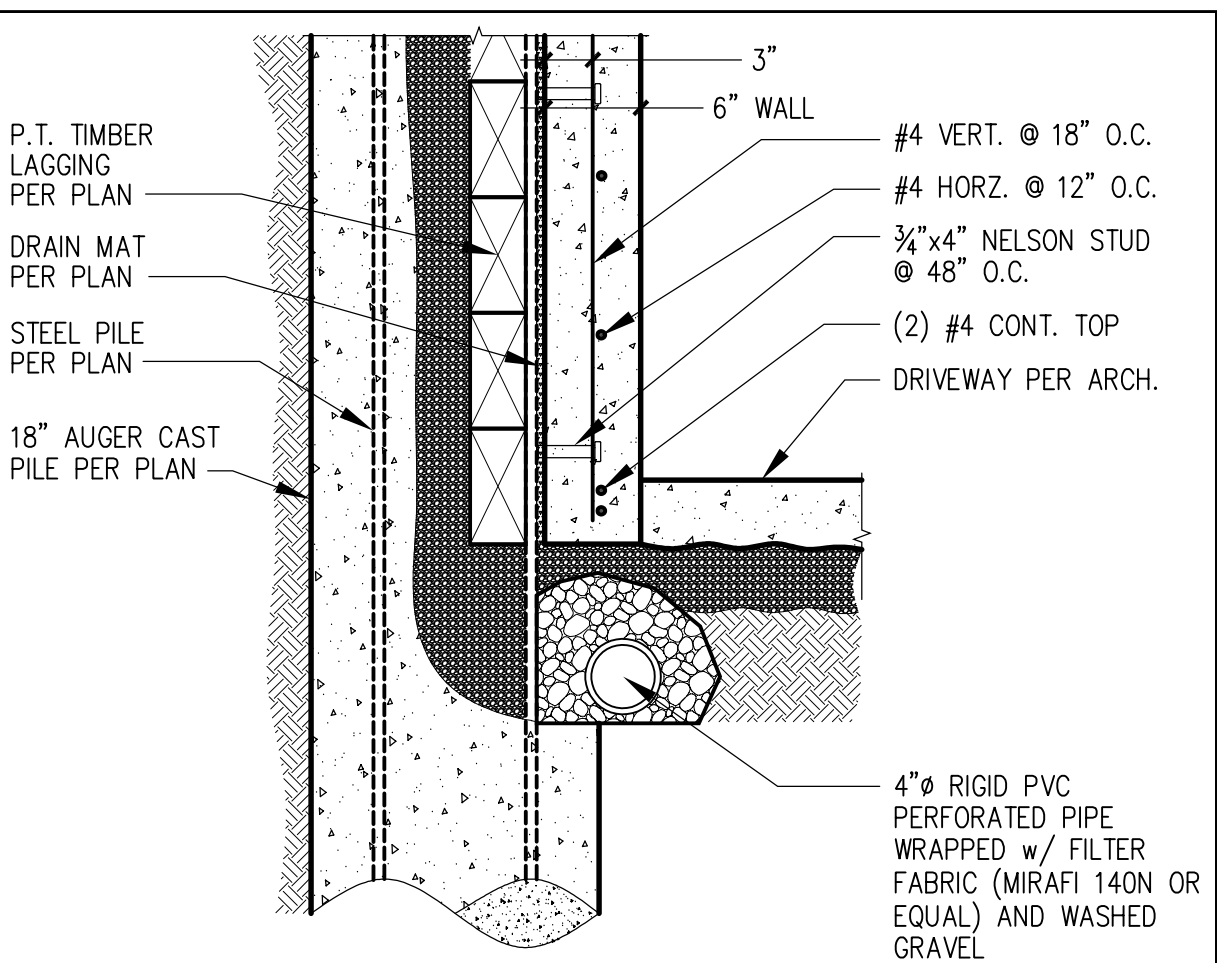
2 TYPICAL BASEMENT FOUNDATION @ PILE  
(BASE OF WALL)



3 CONCRETE POST PLINTH @ ENTRY PORCH  
(GRADE BEAM TEE OFF FOOTING)



4 DRIVEWAY SITE WALL  
(TOP OF GRADE)



5 DRIVEWAY SITE WALL  
(BASE OF WALL)

**Stoney Point Engineering**  
 Dwayne Barnes P.E.  
 dwayne@stonepointengineering.com  
 Office: 425-644-9500

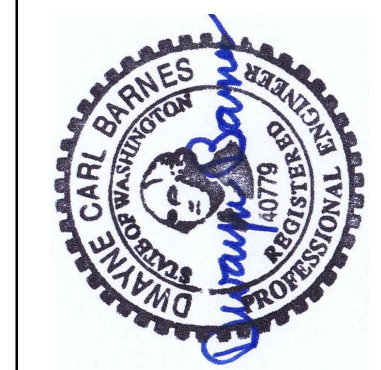
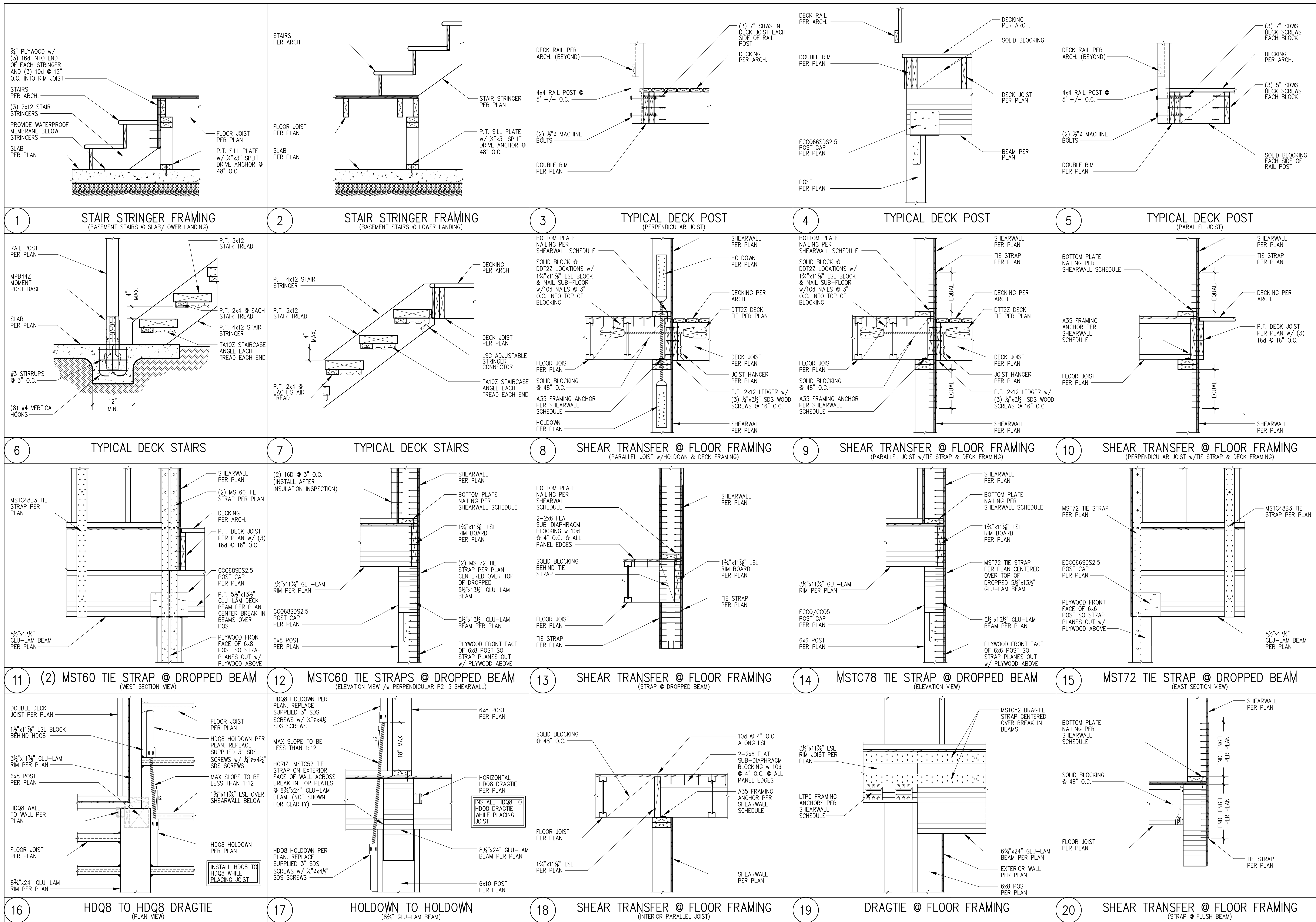


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**S3.2**  
 FOUNDATION  
 DETAILS

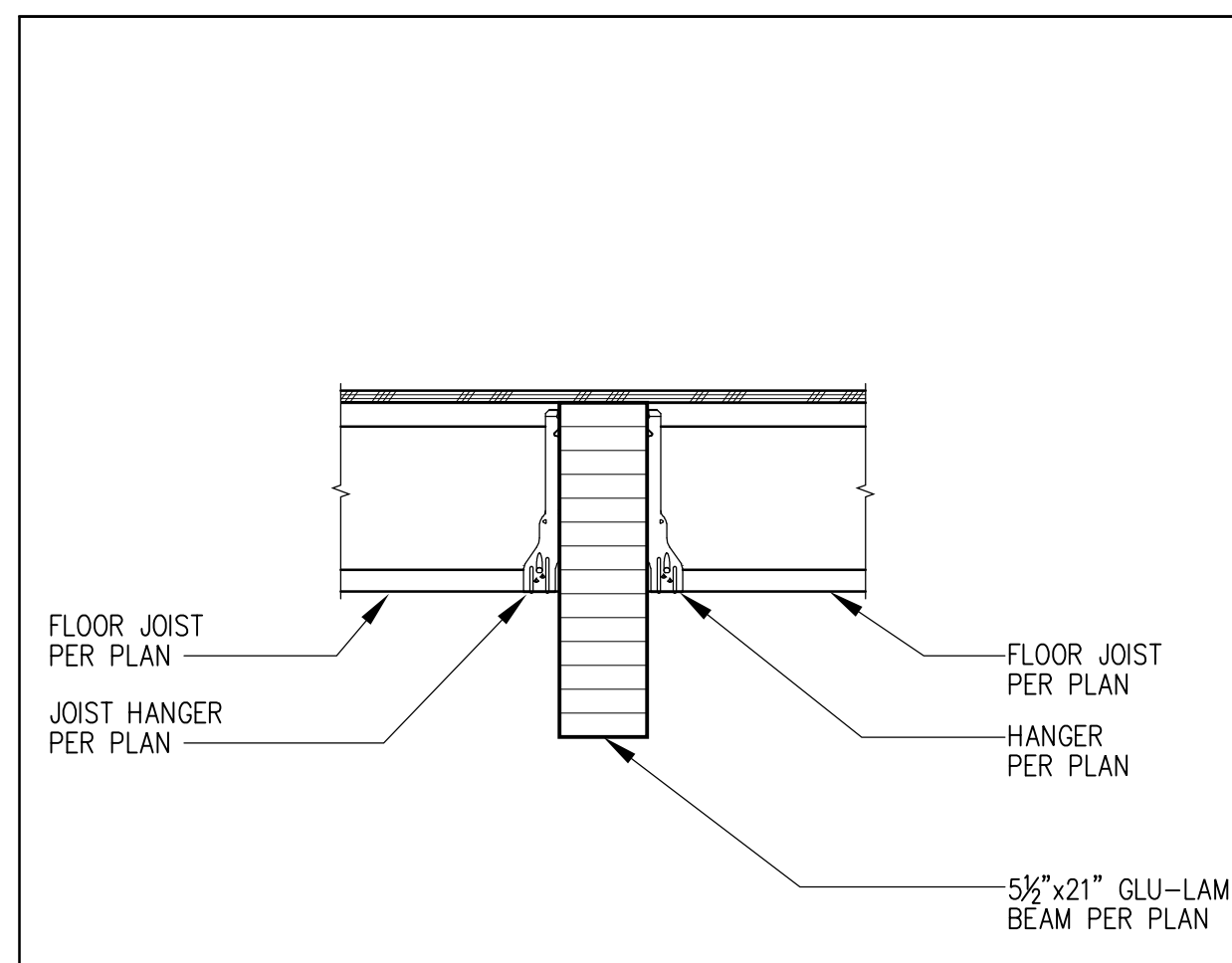


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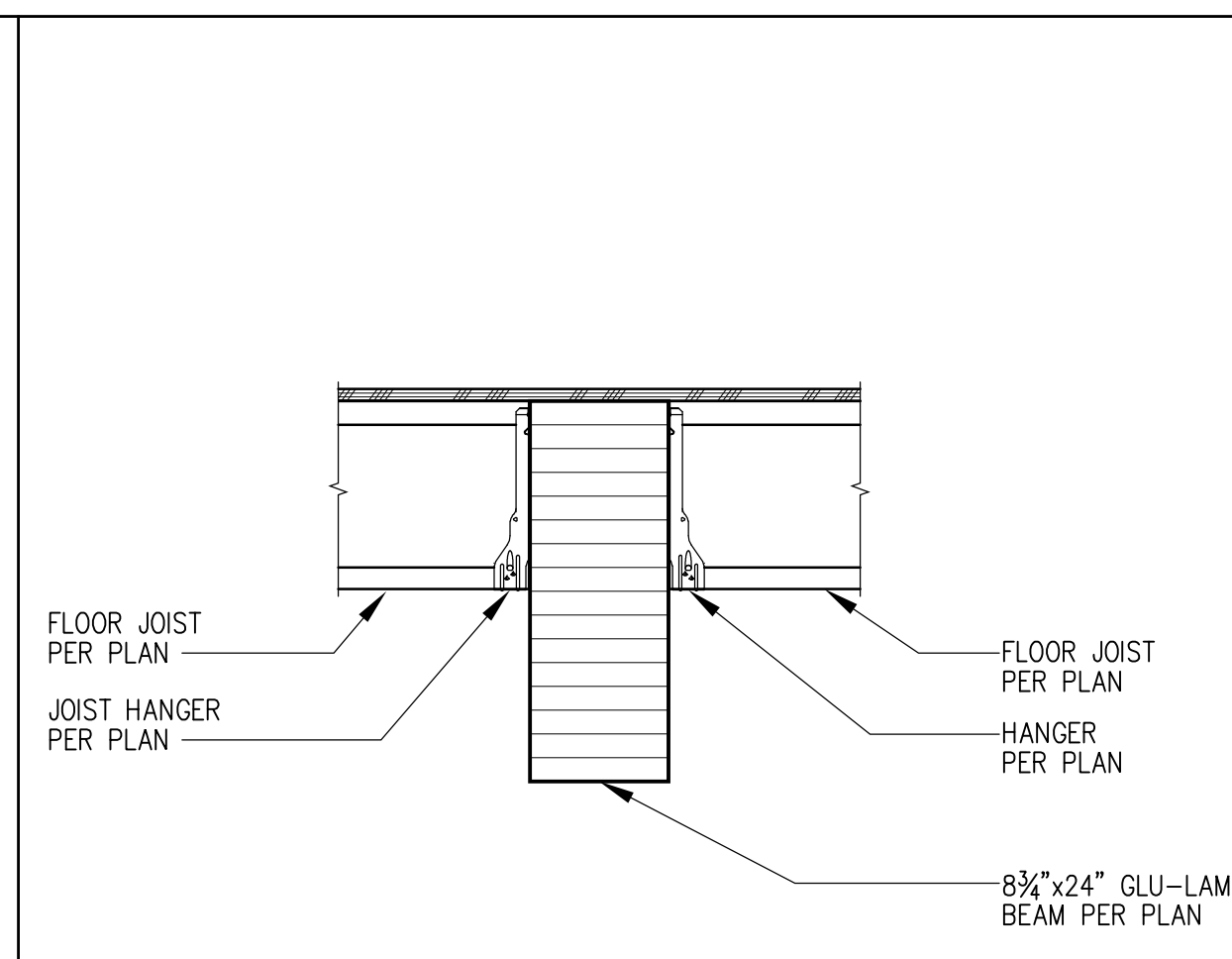
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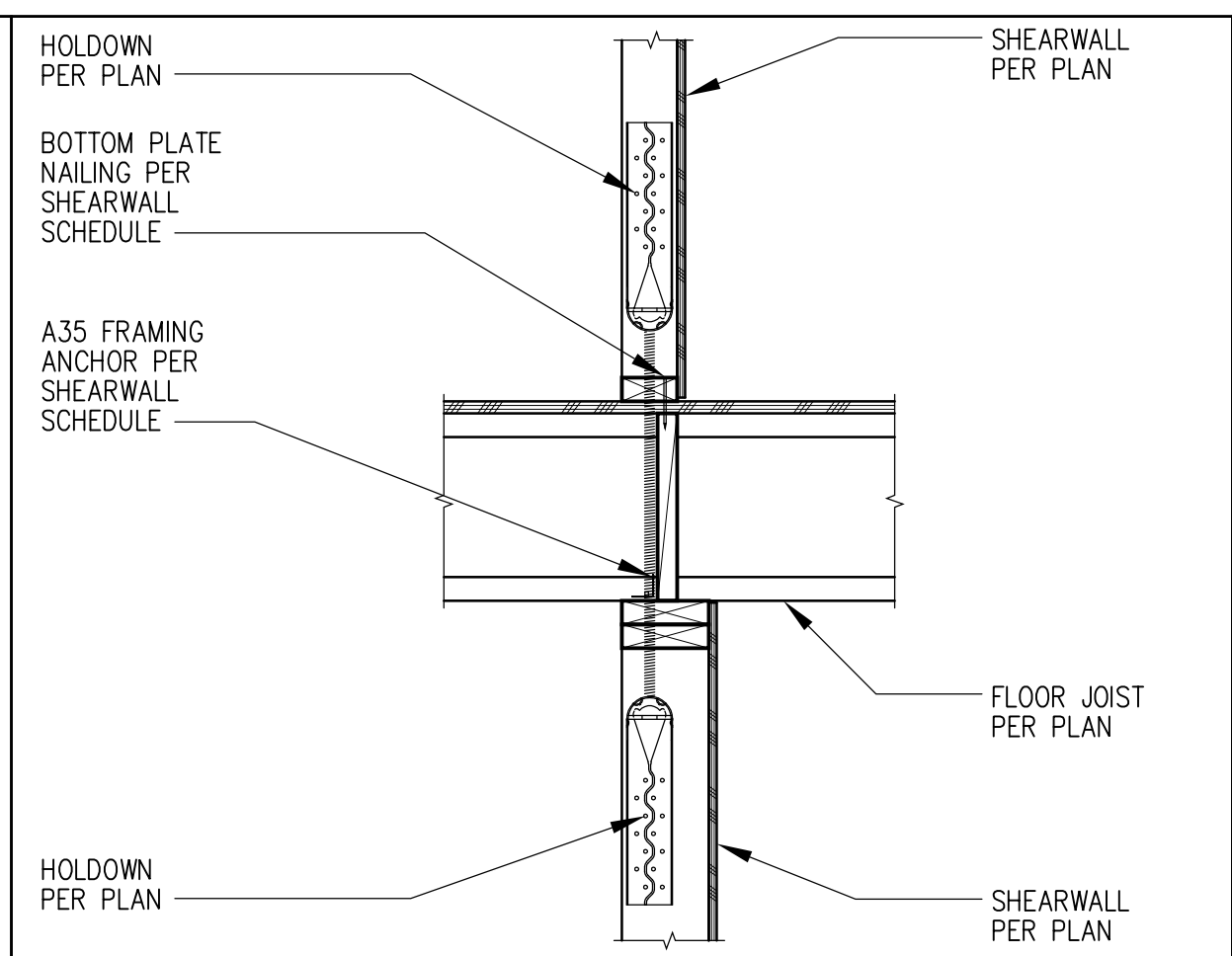
**S4.0**  
 FRAMING DETAILS



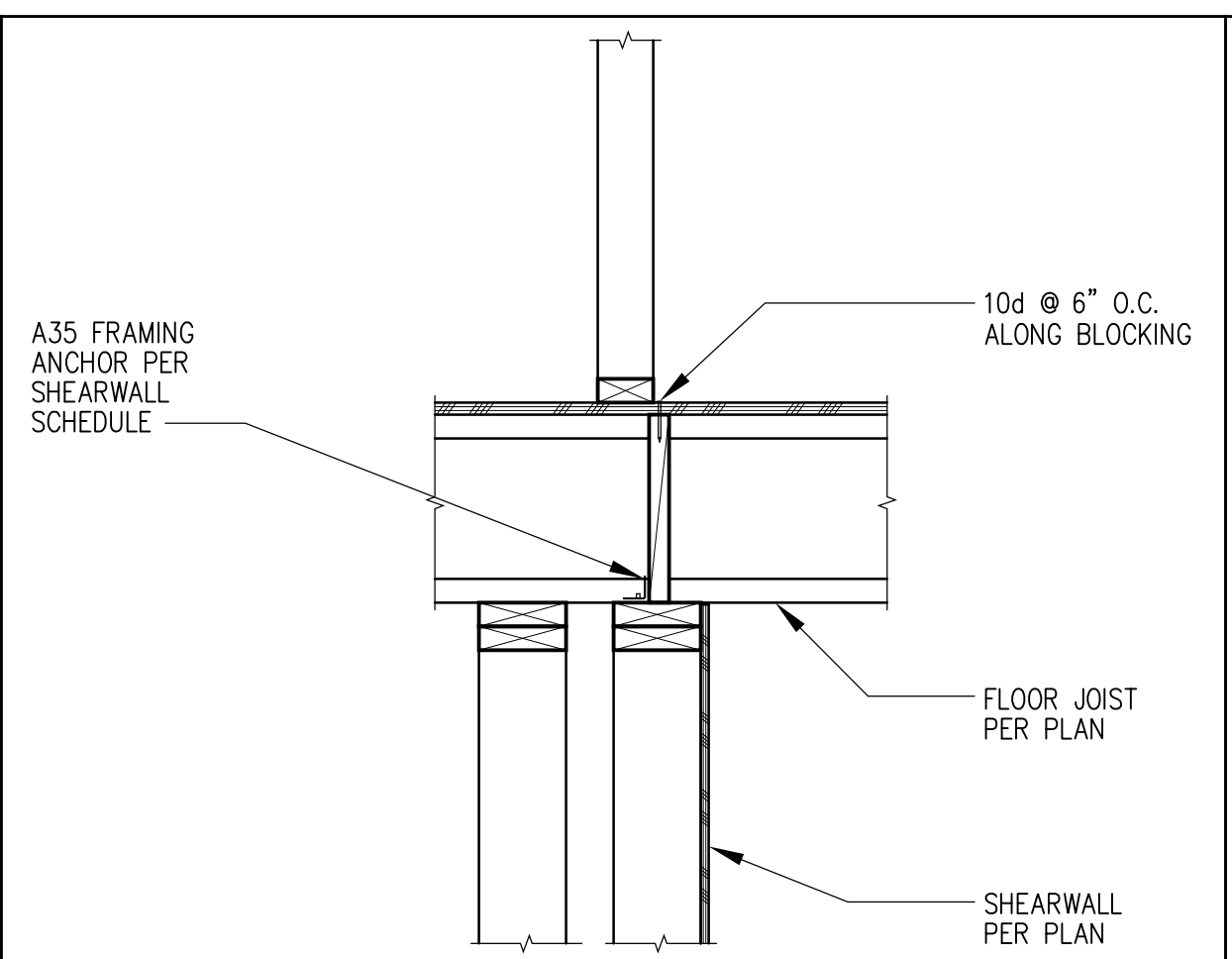
1 FLOOR FRAMING @ GARAGE BEAM  
(5 1/2 x 21" GLU-LAM)



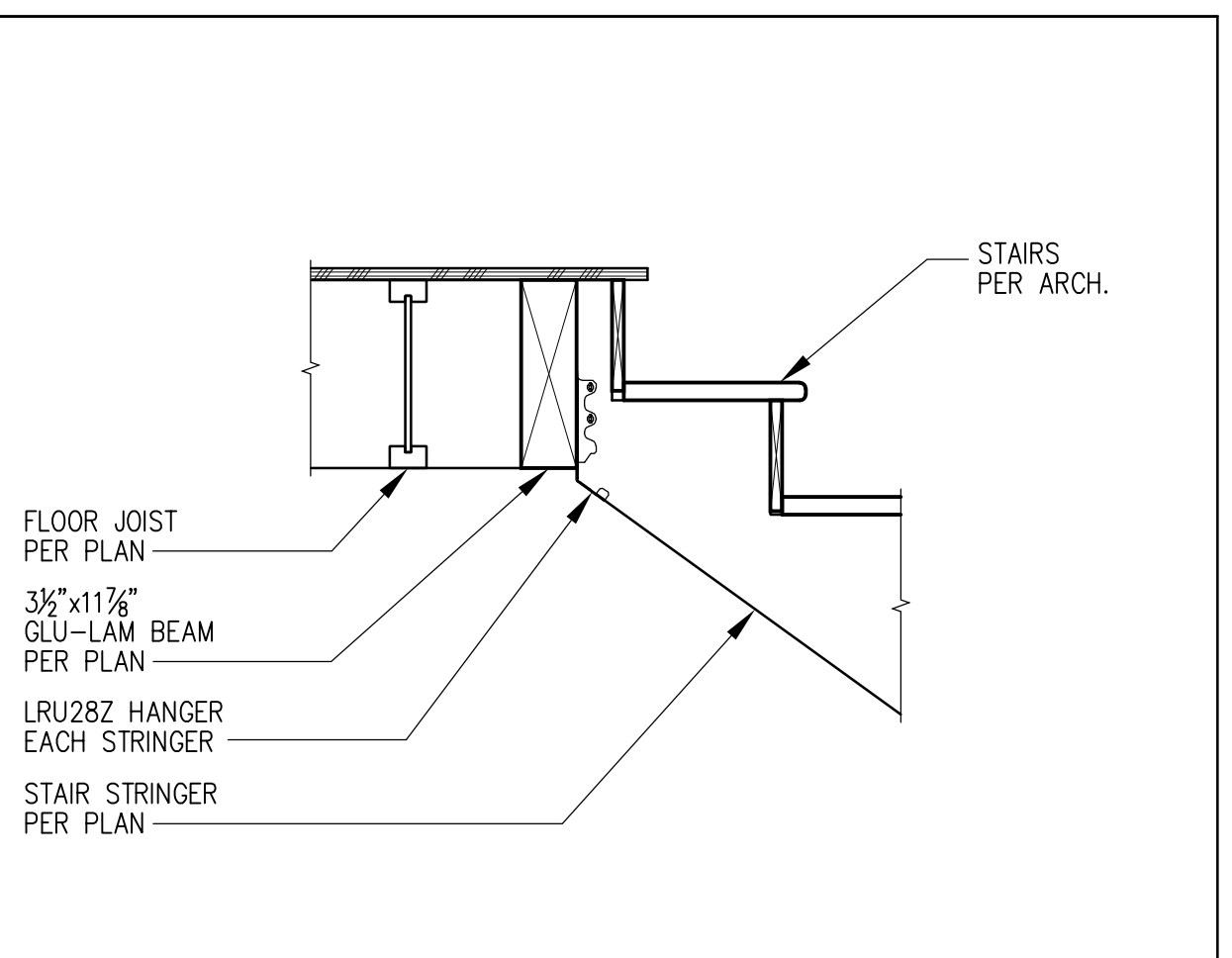
2 FLOOR FRAMING @ GARAGE BEAM  
(8 3/4 x 24" GLU-LAM)



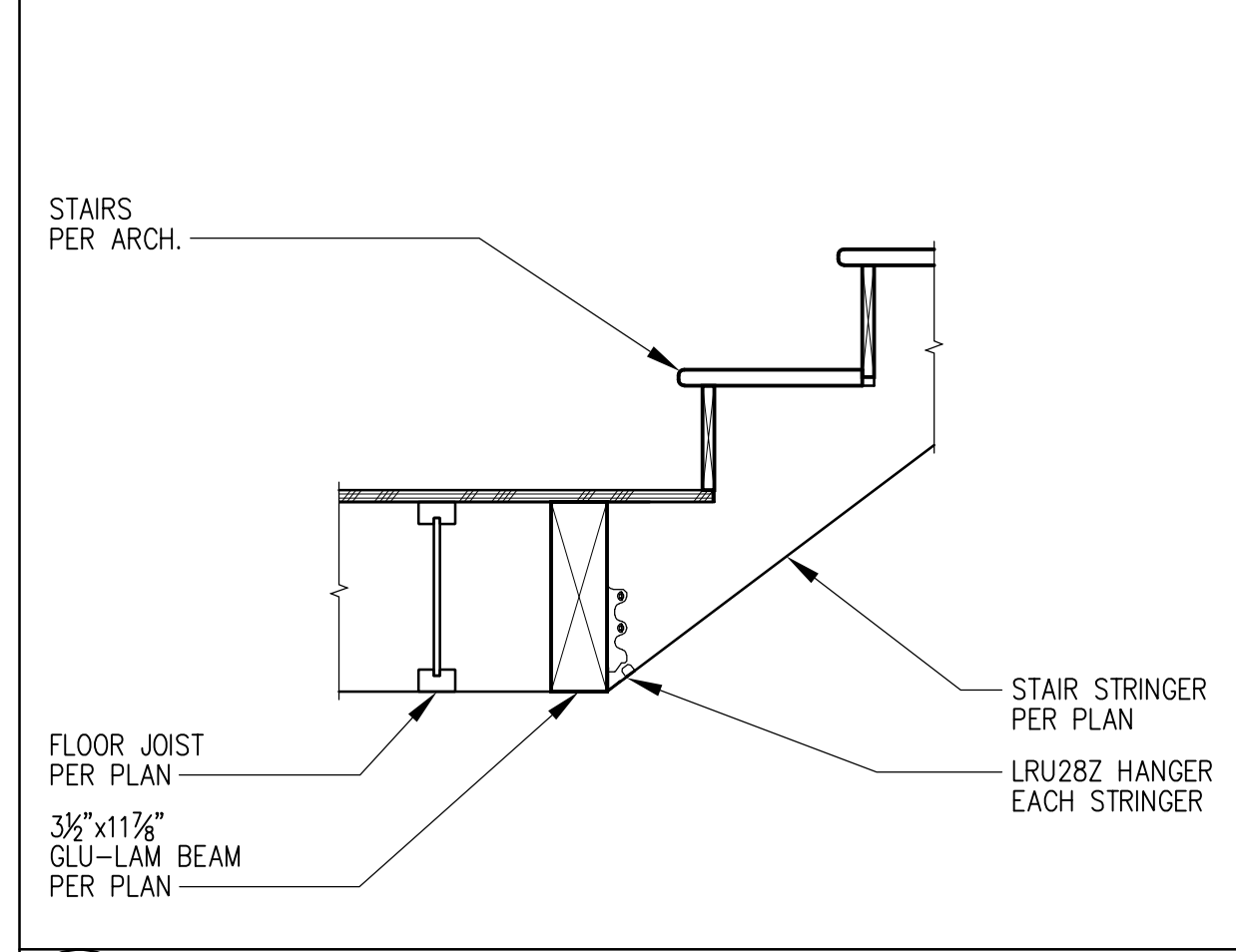
3 SHEAR TRANSFER @ FLOOR FRAMING  
(HOLD-DOWN @ INTERIOR PERPENDICULAR JOIST)



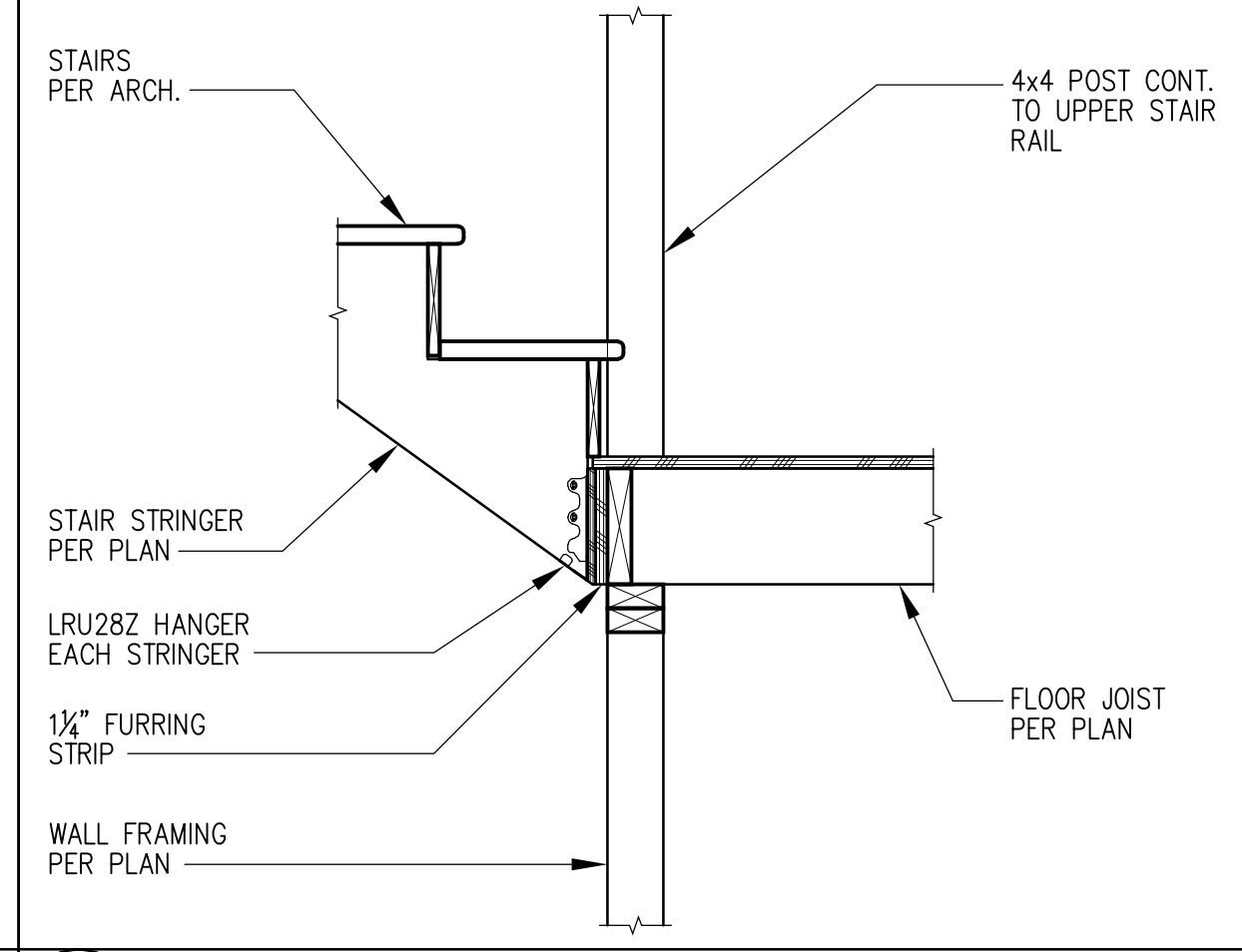
4 SHEAR TRANSFER @ FLOOR FRAMING  
(INTERIOR PERPENDICULAR JOIST)



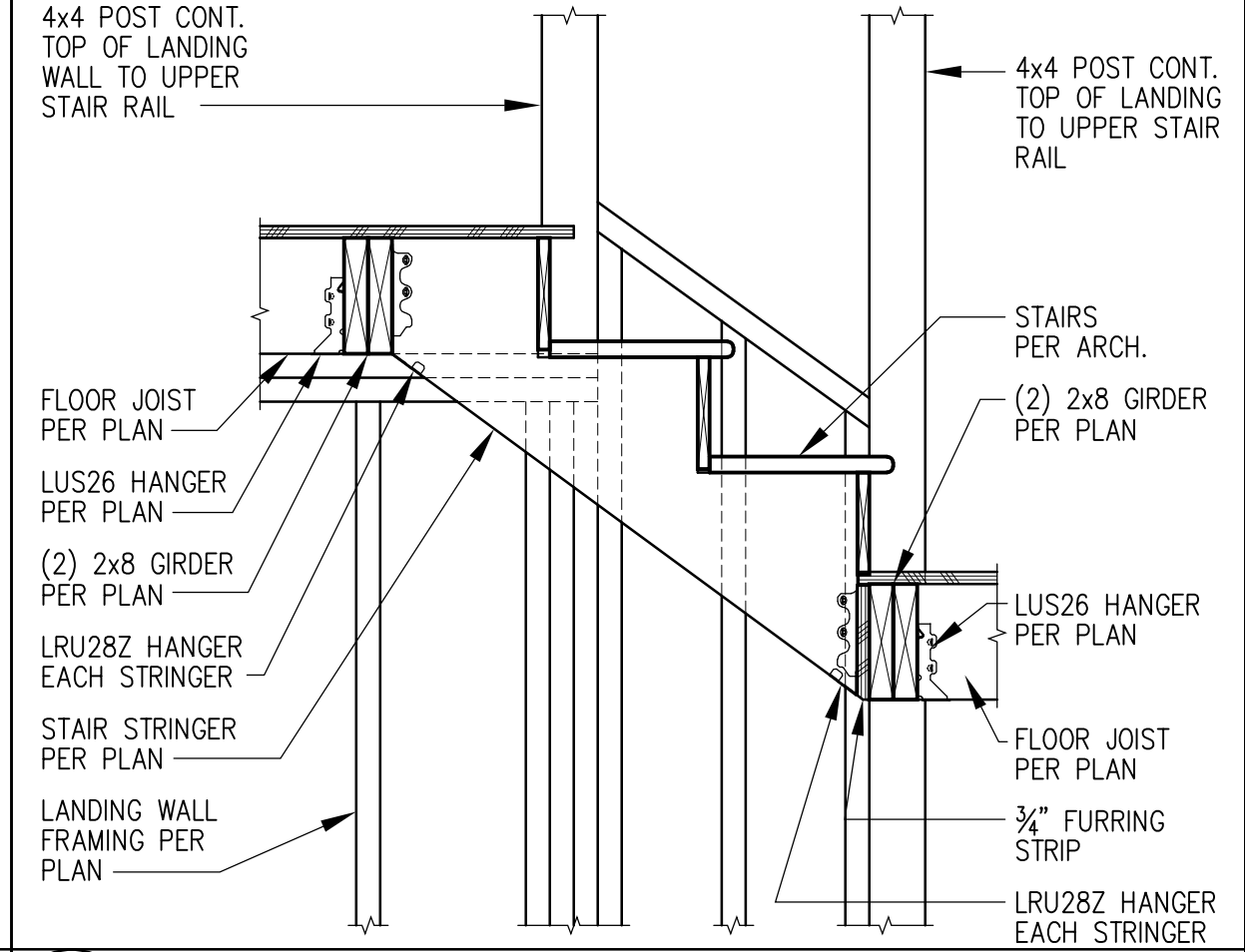
5 STAIR STRINGER FRAMING  
(BASEMENT STAIRS @ MAIN FLOOR FRAMING)



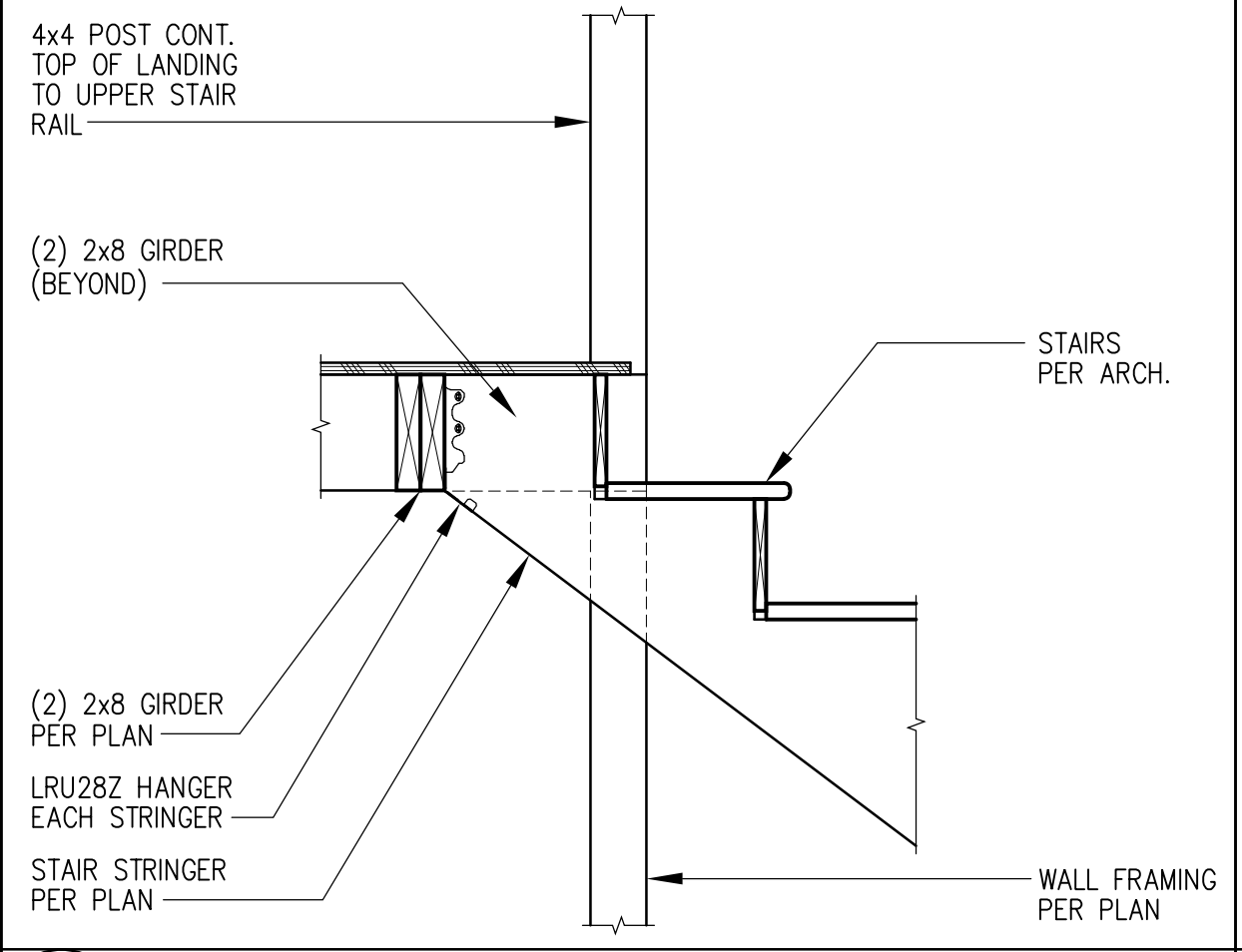
6 STAIR STRINGER FRAMING  
(UPPER FLOOR STAIRS @ MAIN FLOOR FRAMING)



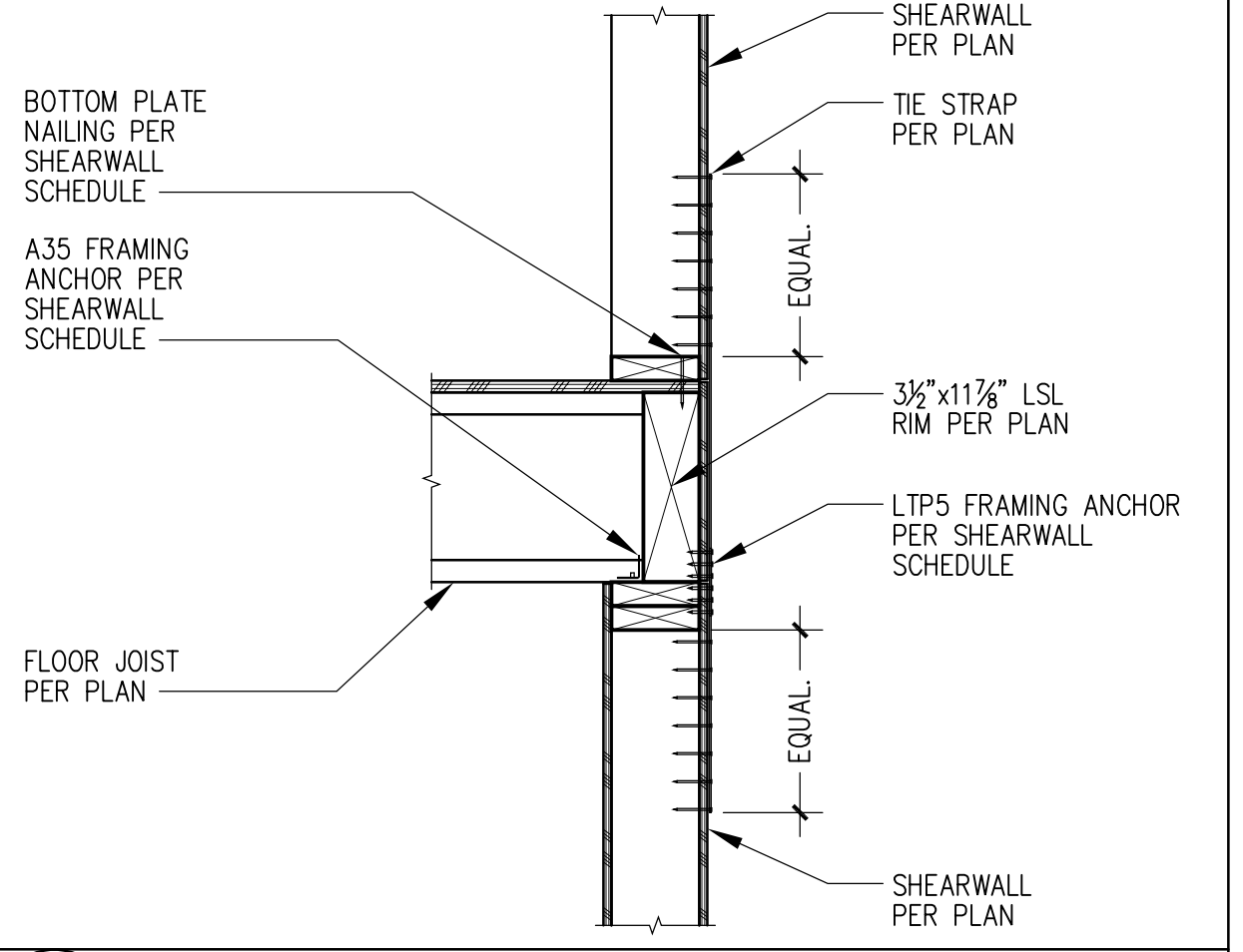
7 STAIR STRINGER FRAMING  
(BASEMENT STAIRS @ UPPER MID LANDING)



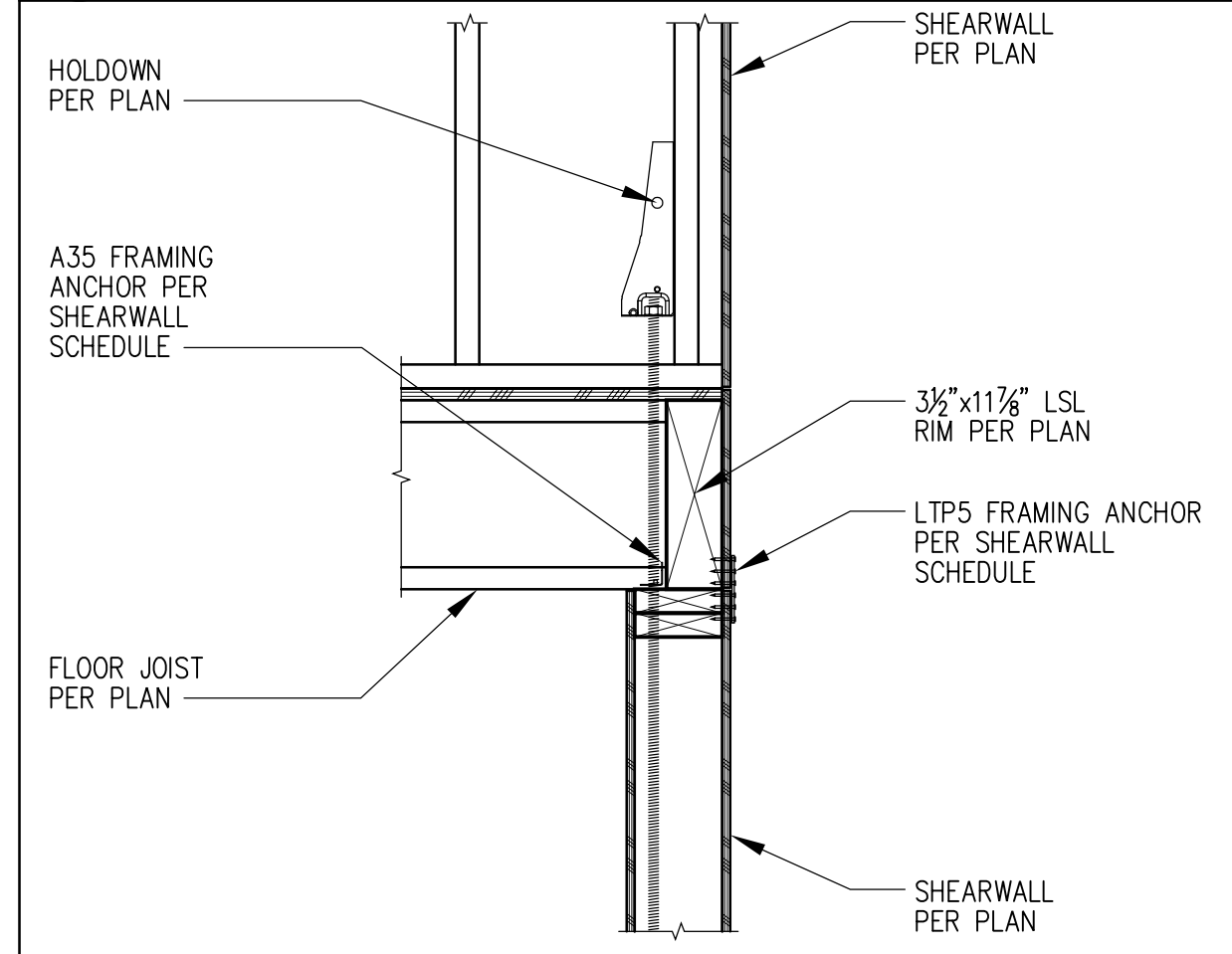
8 STAIR STRINGER FRAMING  
(BASEMENT STAIRS BETWEEN MID LANDINGS)



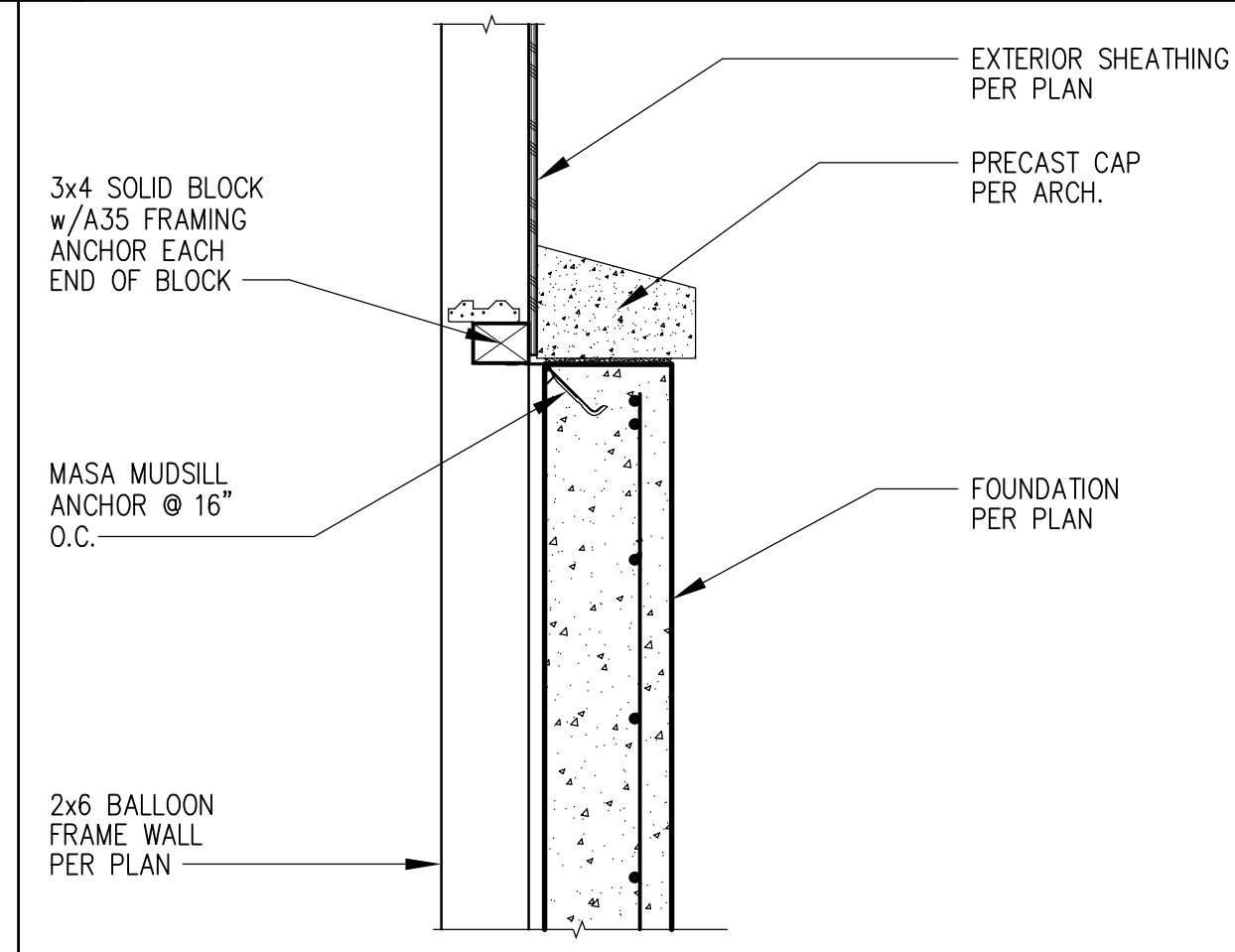
9 STAIR STRINGER FRAMING  
(BASEMENT STAIRS @ LOWER MID LANDING)



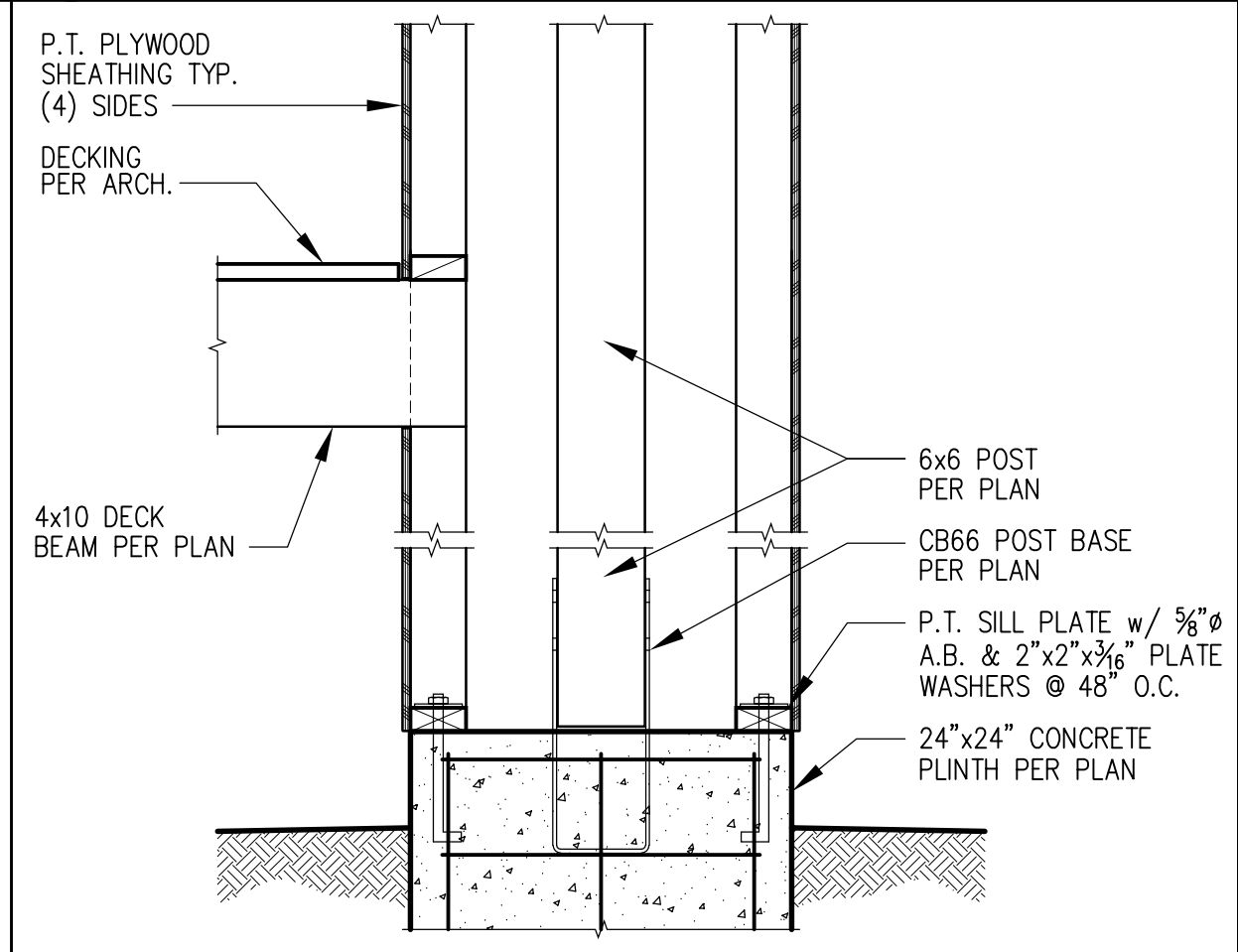
10 SHEAR TRANSFER @ FLOOR FRAMING  
(PERPENDICULAR JOIST w/ TIE STRAP)



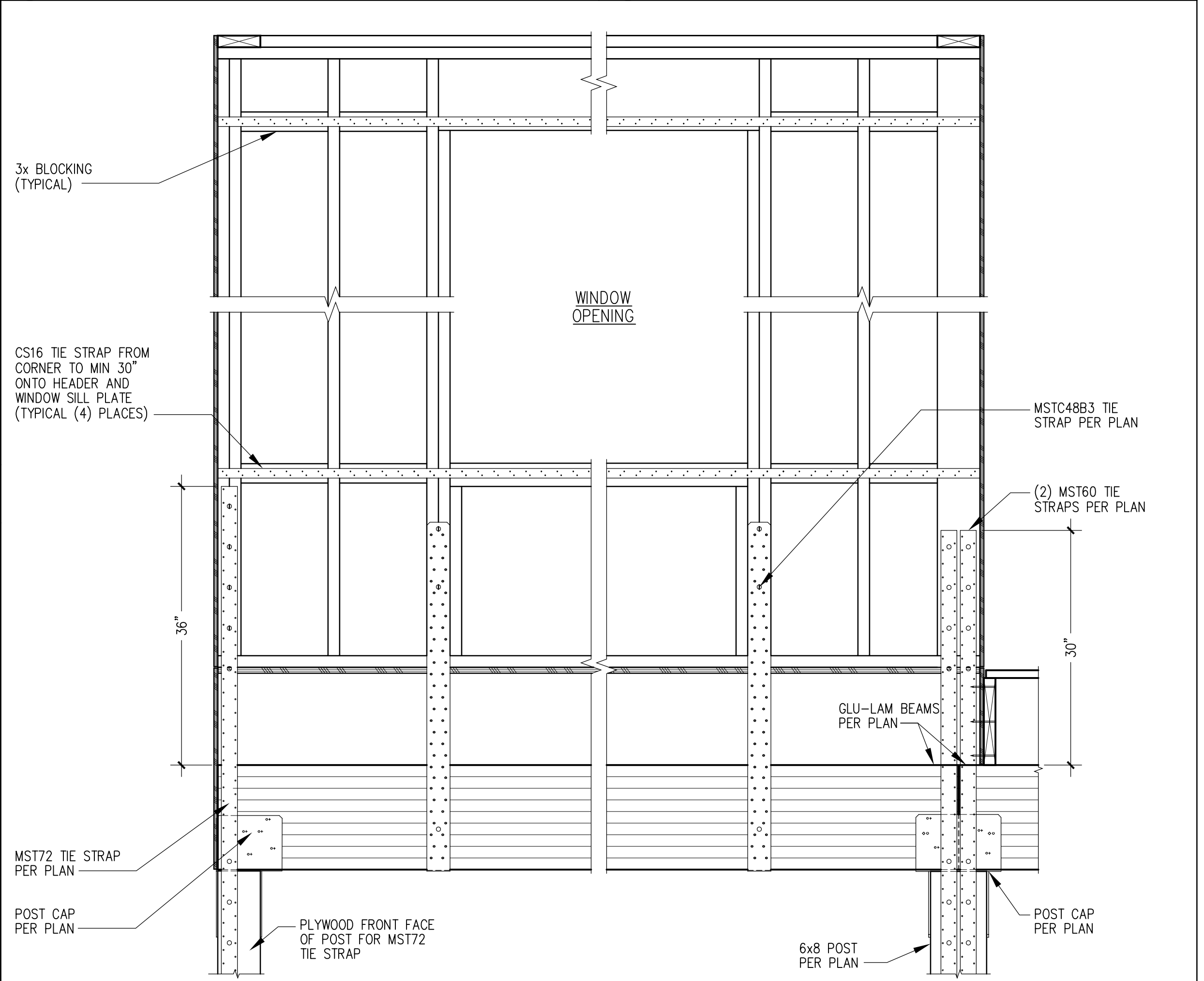
11 SHEAR TRANSFER @ FLOOR FRAMING  
(PERPENDICULAR JOIST w/ TIE STRAP)



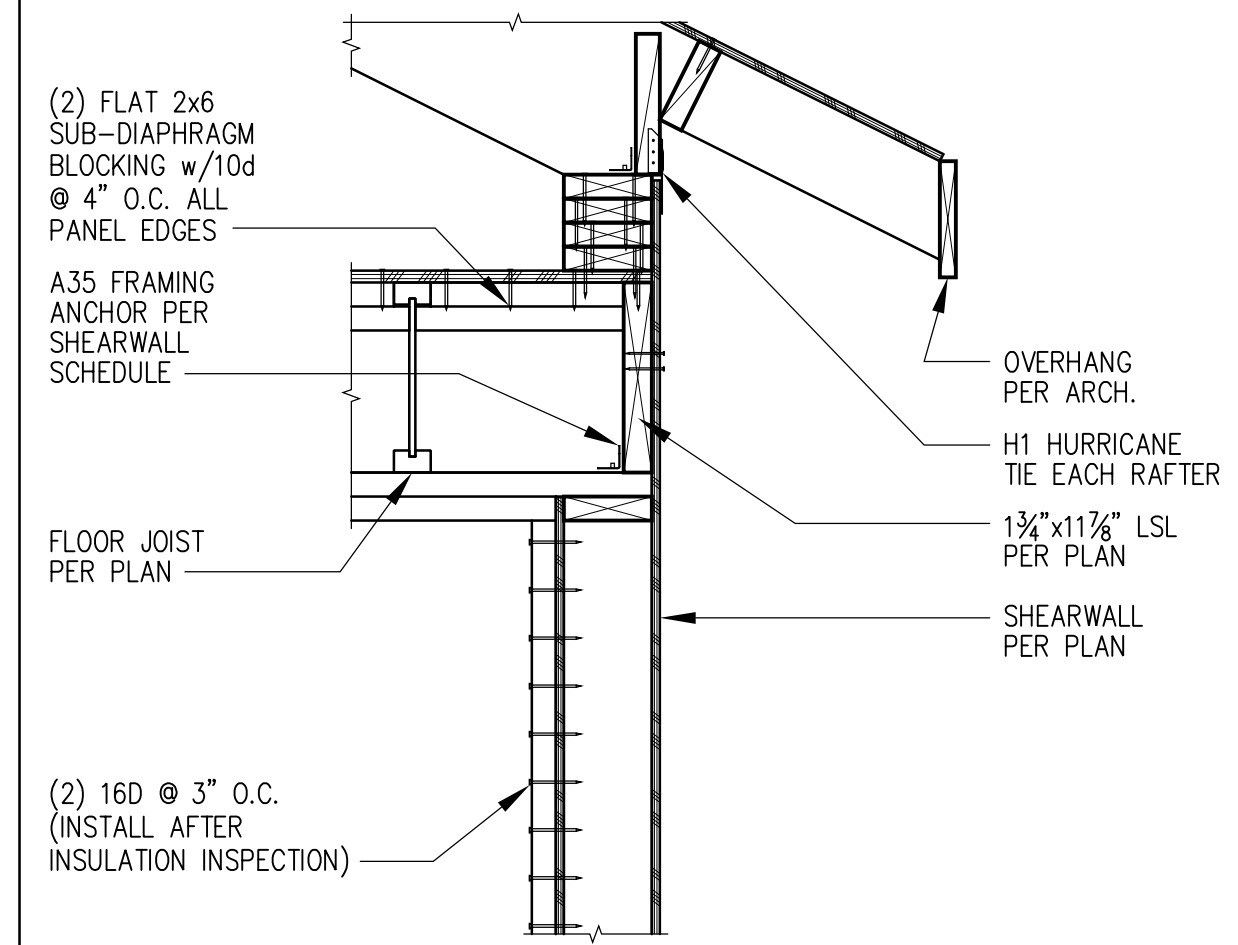
12 TWO-STORY BALLOON FRAME WALL  
(NON-SHEARWALL @ ENTRY & STAIRS)



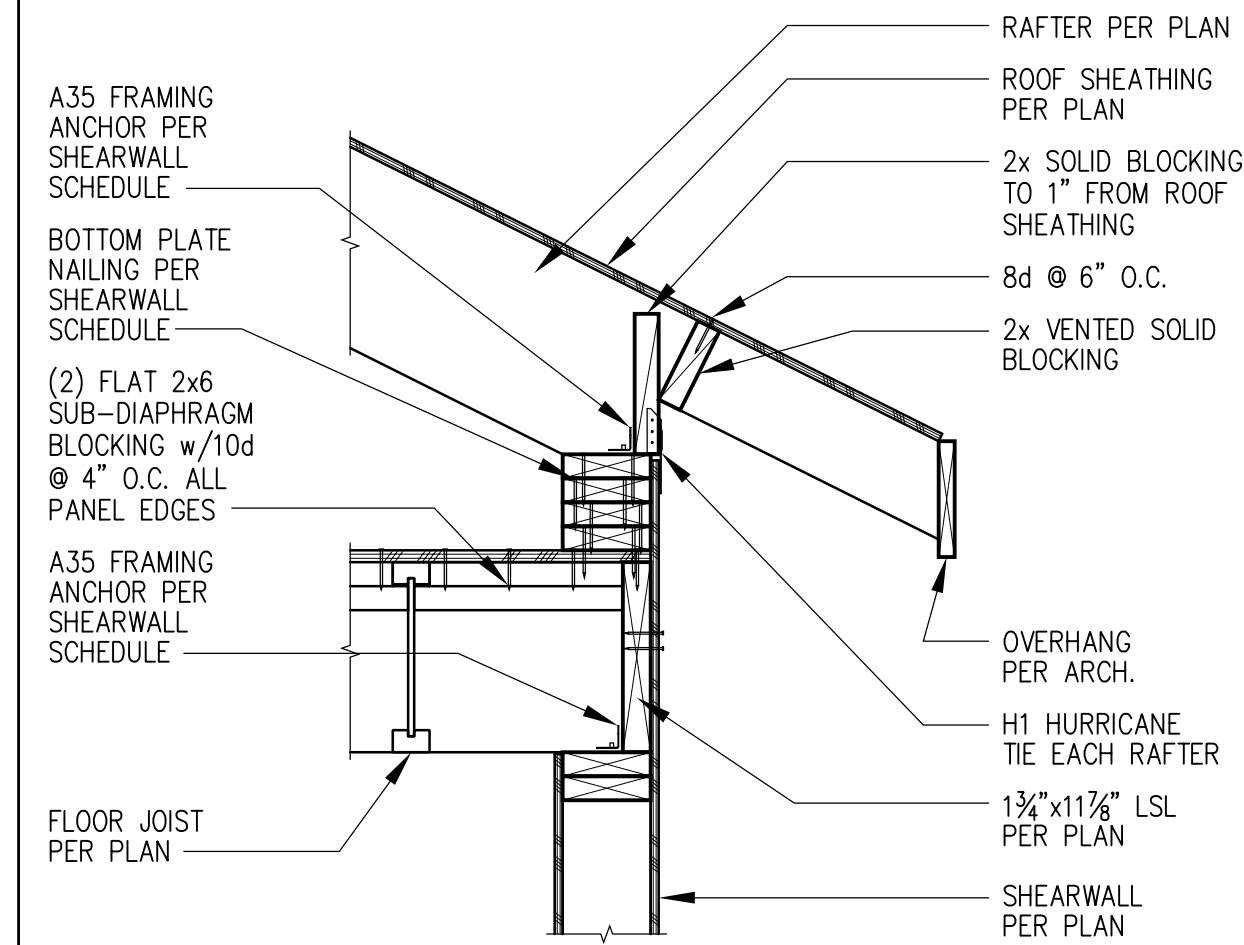
13 DECK BEAM @ ENTRY COLUMN



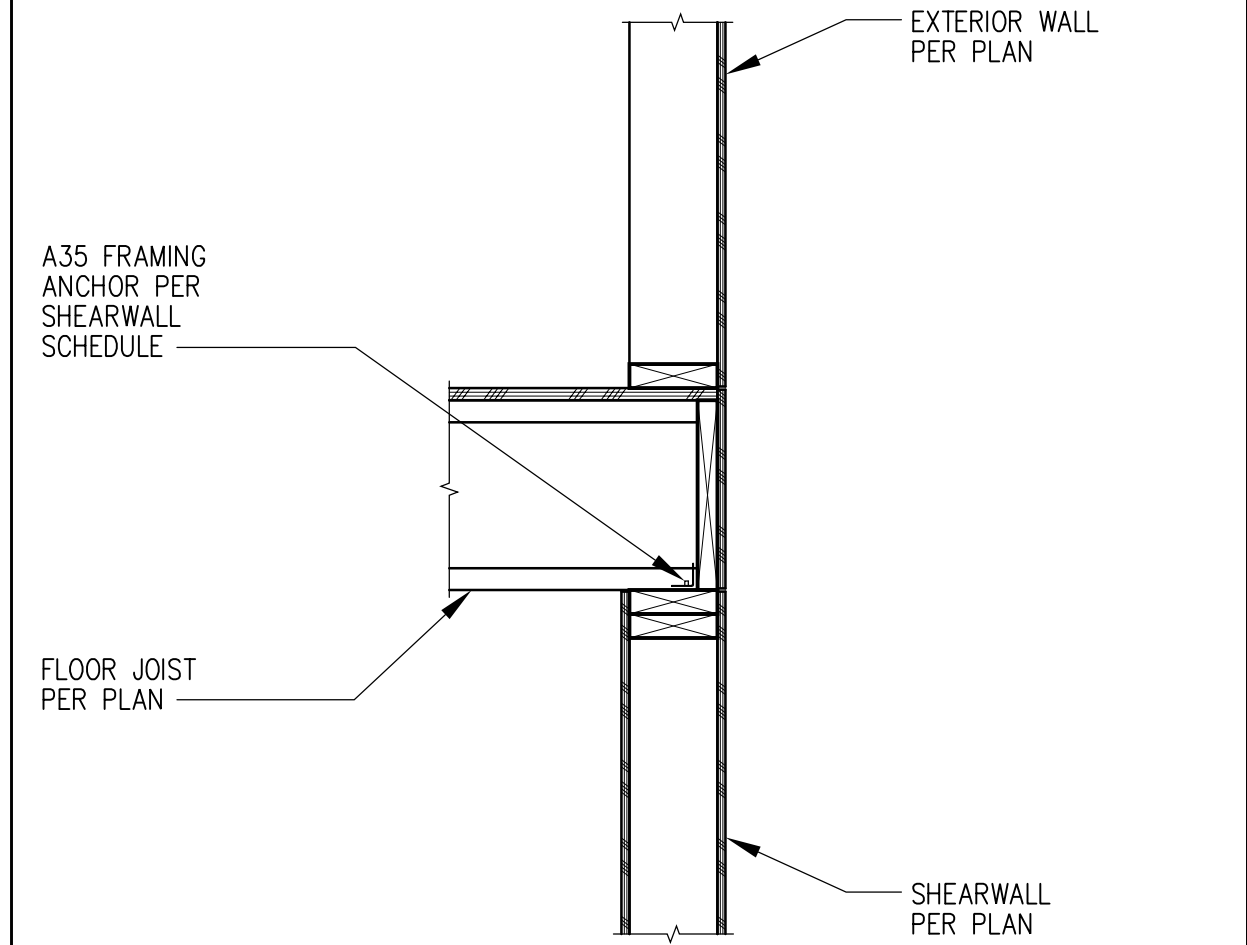
17 SHEARWALL WITH OPENINGS



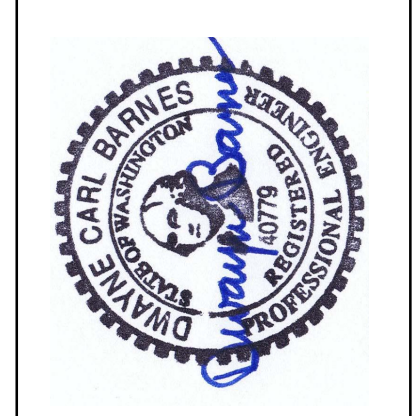
14 SHEAR TRANSFER @ P2-3 SHEARWALL  
(PERPENDICULAR WALL)



15 SHEAR TRANSFER @ EAVE  
(ATTIC EAVE)



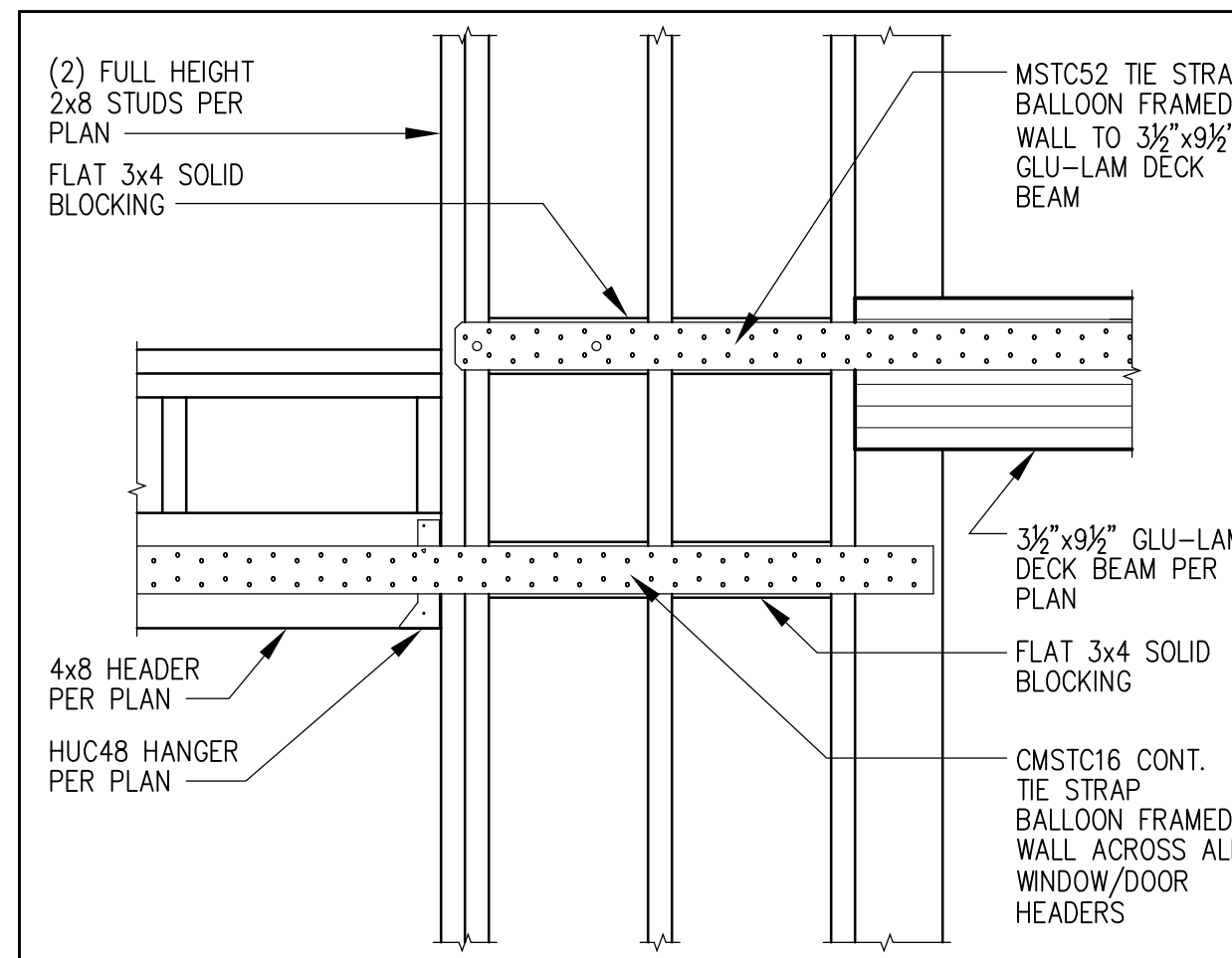
16 SHEAR TRANSFER @ FLOOR FRAMING  
(PERPENDICULAR JOIST)



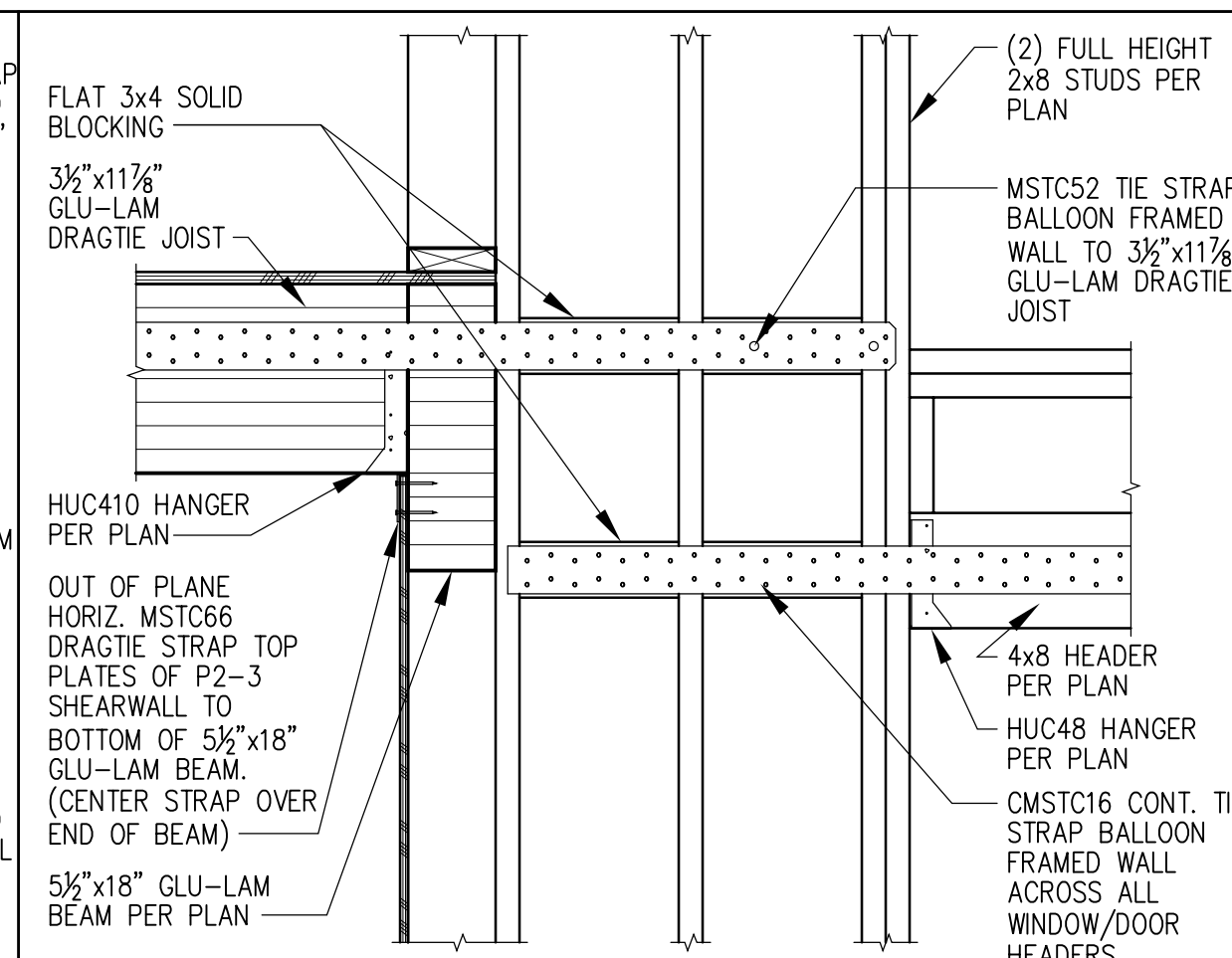
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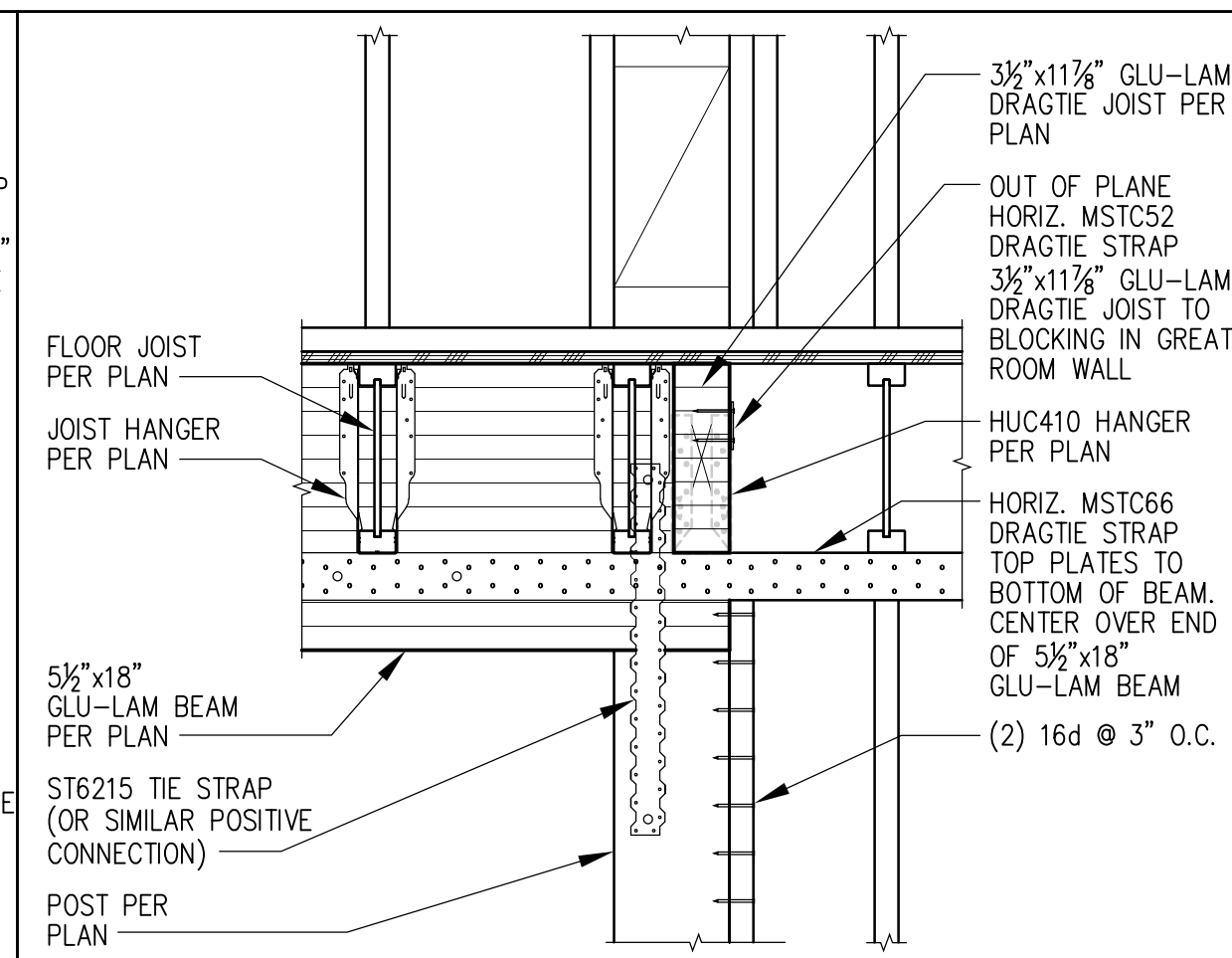
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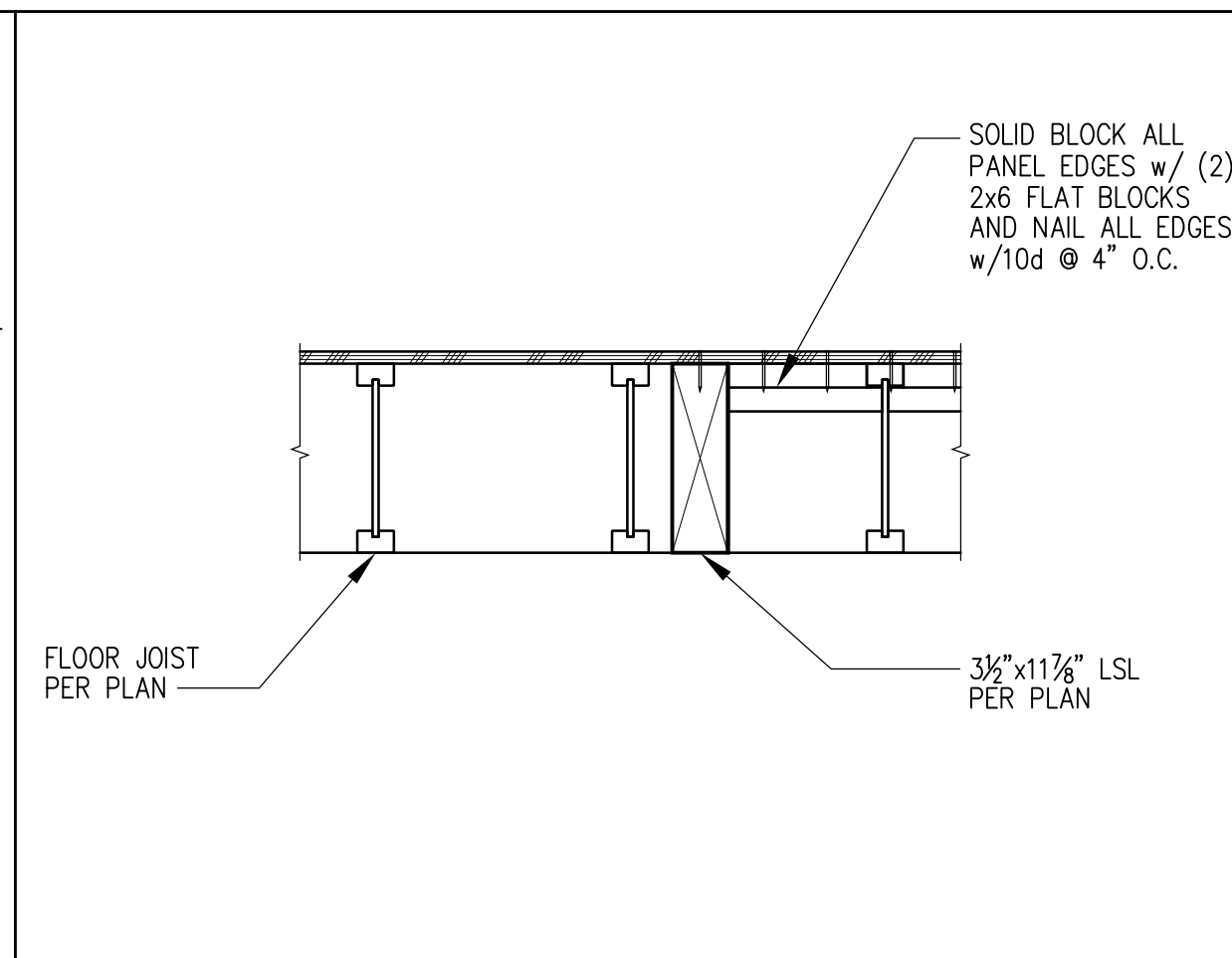
1 TIE STRAP GREAT ROOM TO DECK BEAM



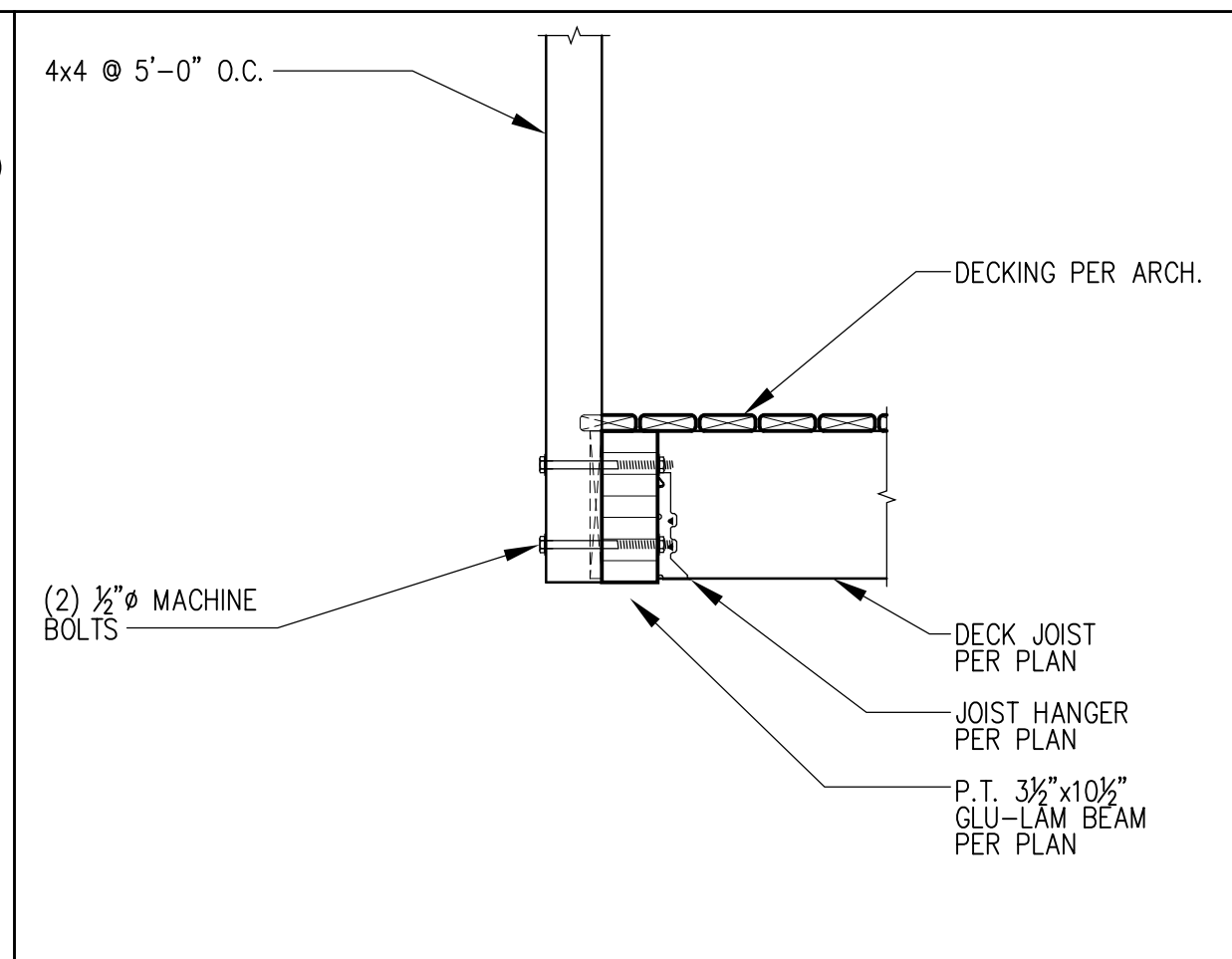
2 TIE STRAP GREAT ROOM TO FLOOR FRAMING



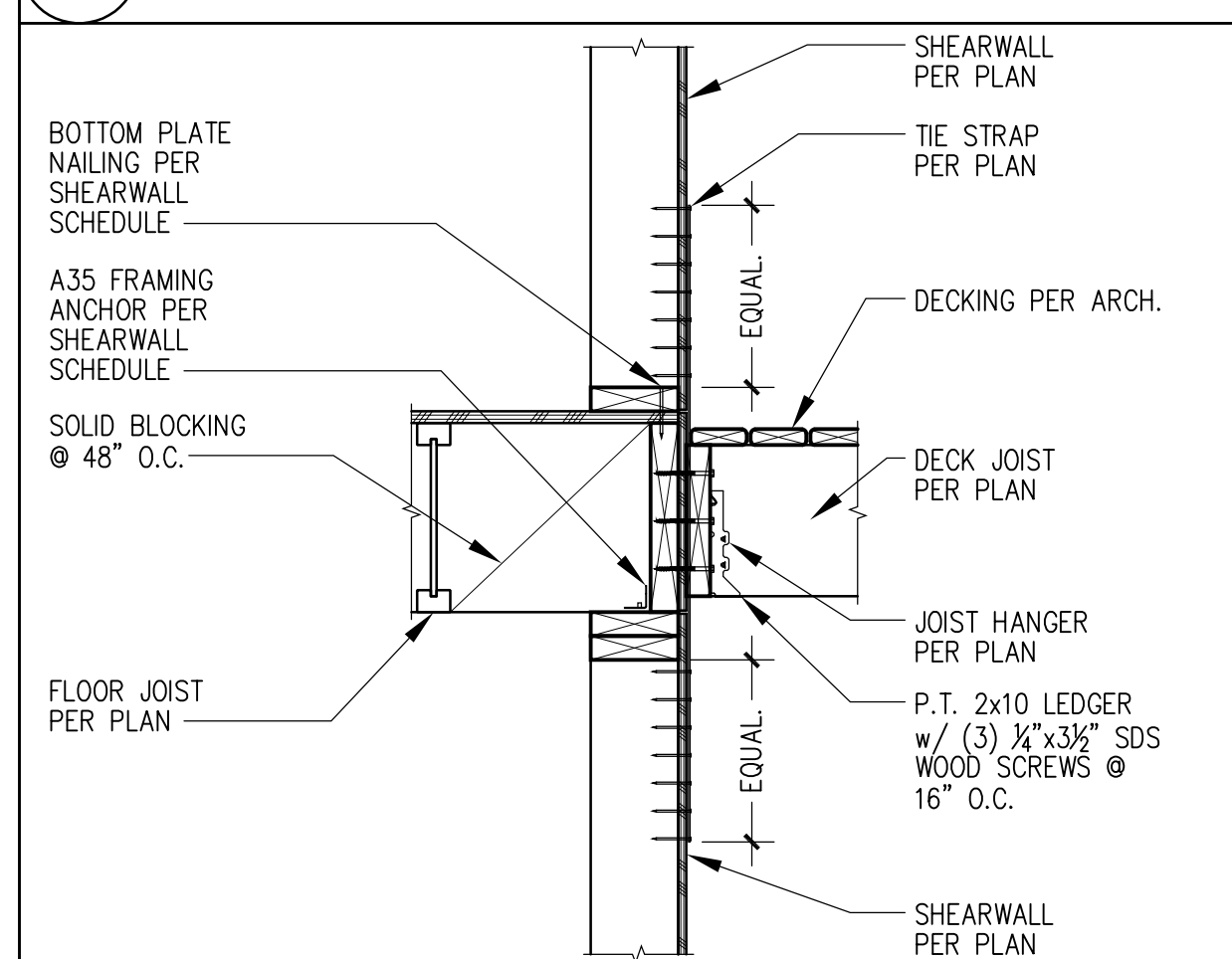
3 DRAGTIE STRAPS @ GLU-LAM FLOOR BEAM



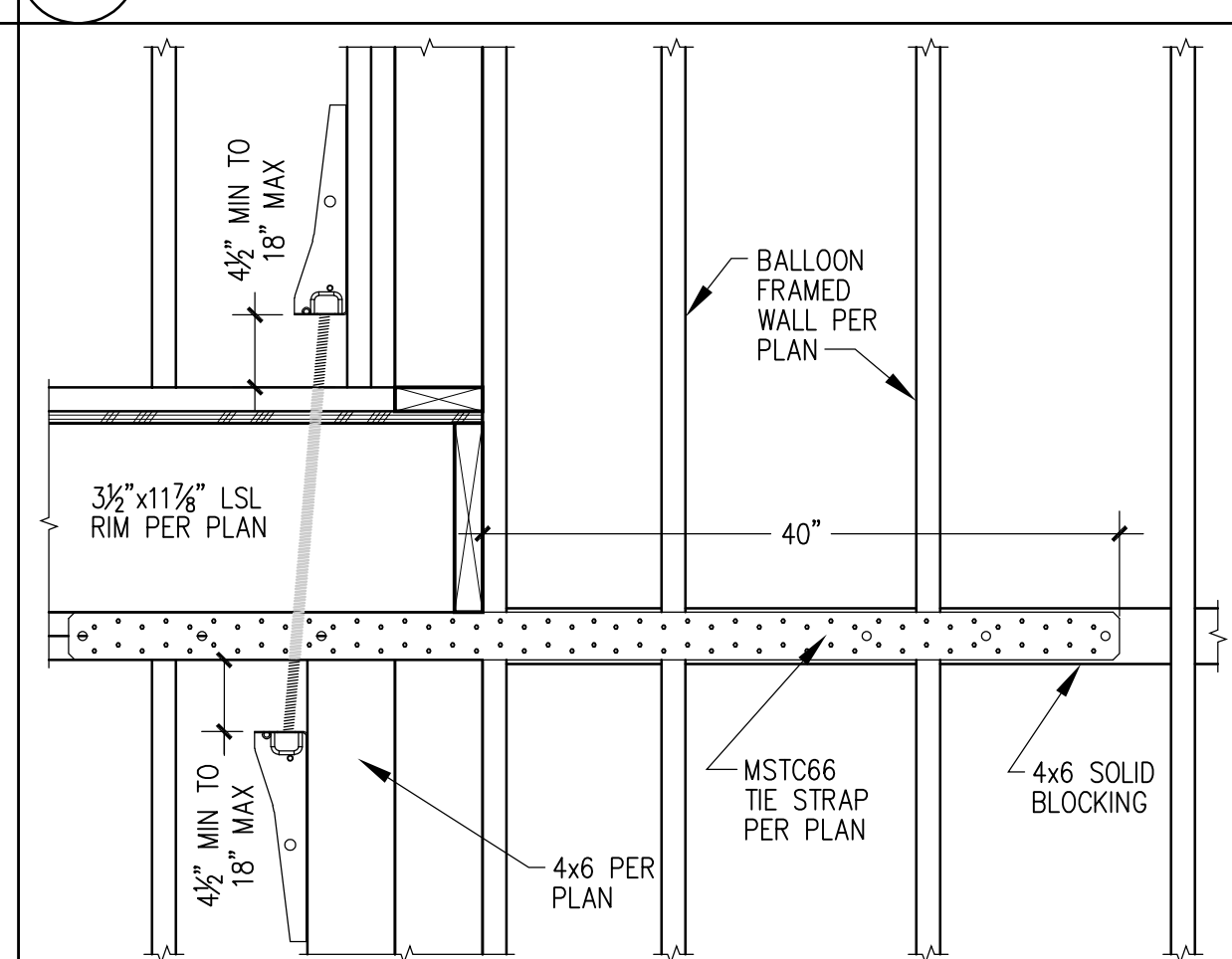
4 SUB-DIAPHRAGM BLOCKING



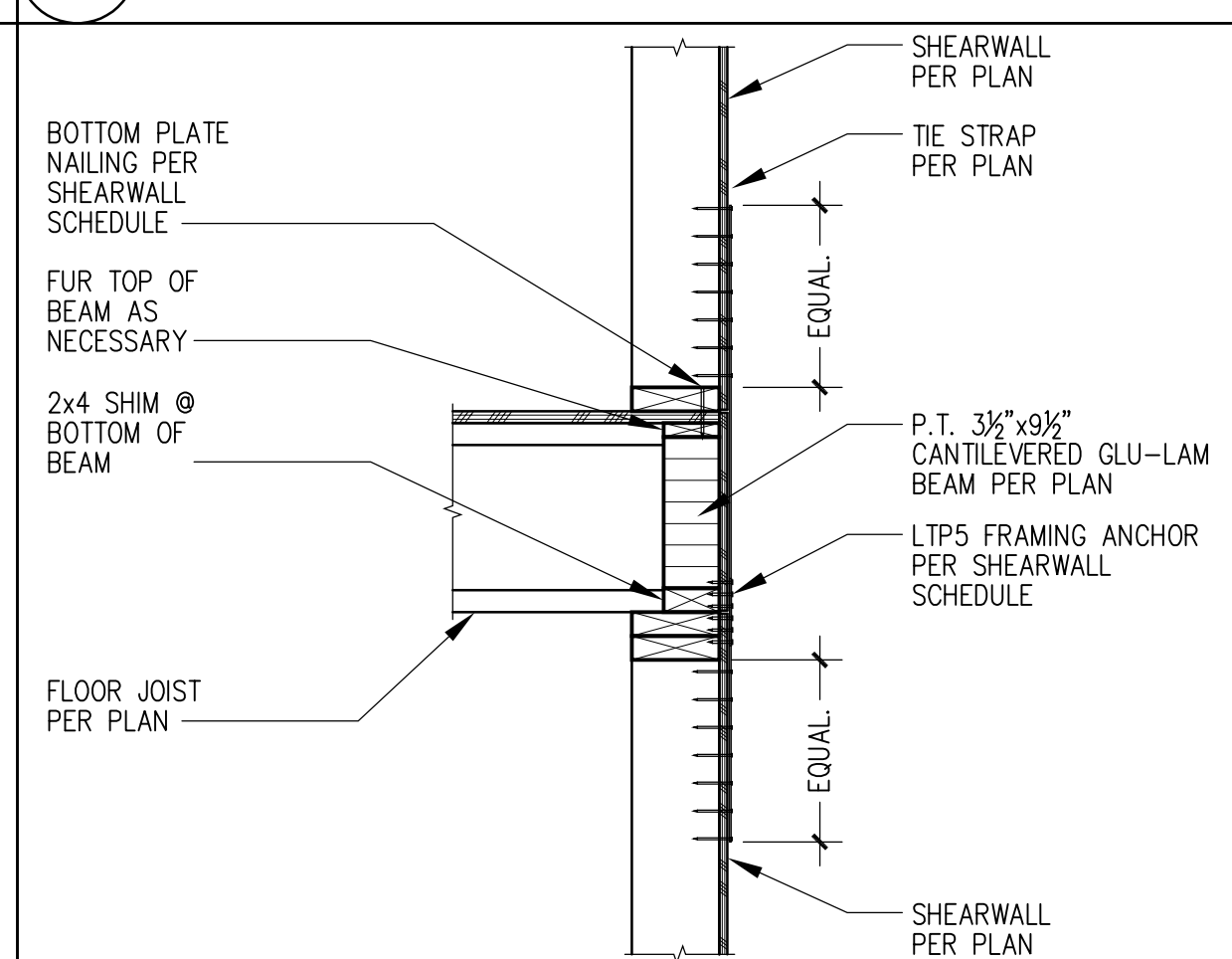
5 TYPICAL UPPER DECK BEAM (FLUSH)



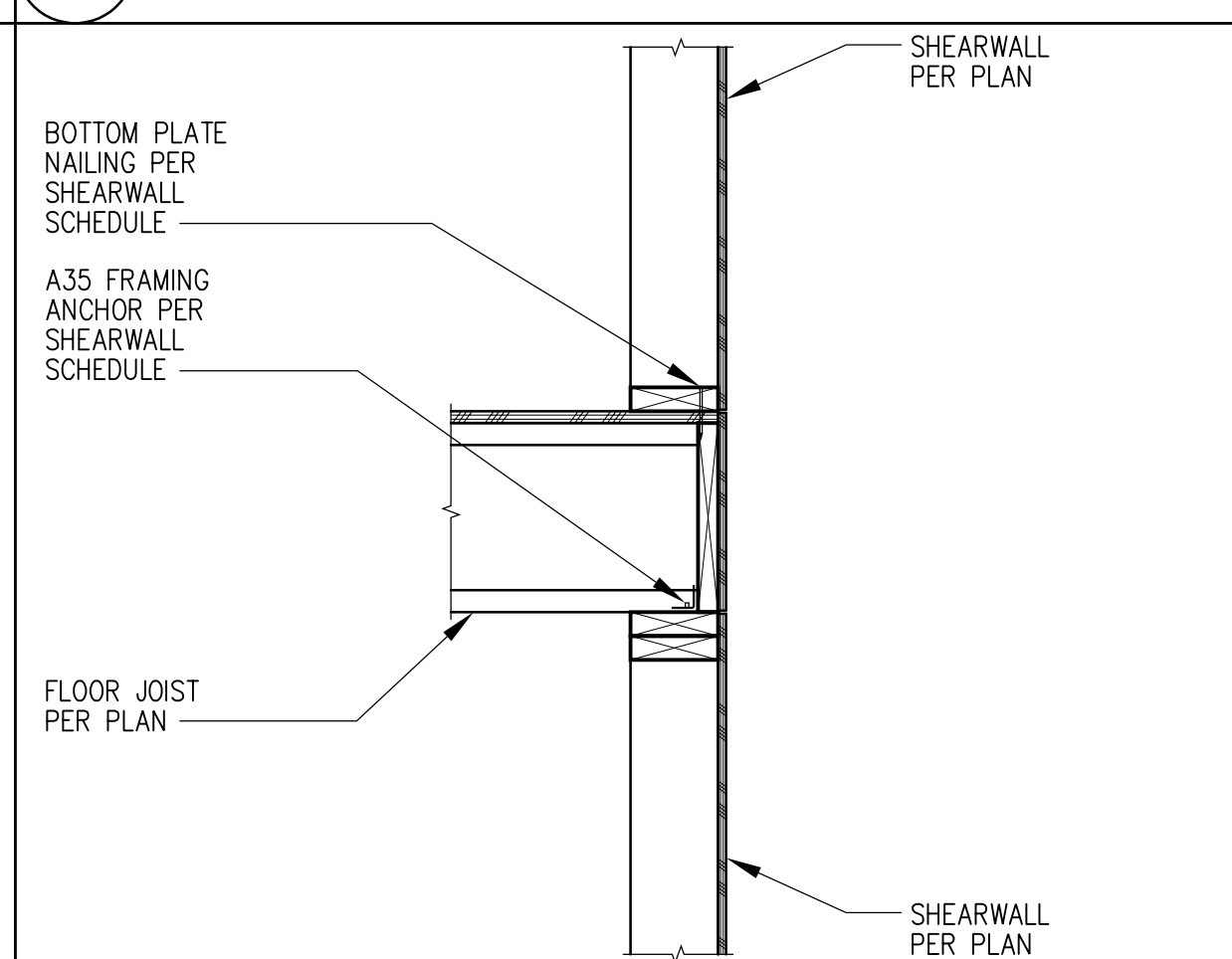
6 SHEAR TRANSFER @ FLOOR FRAMING (PARALLEL JOIST w/ TIE STRAP)



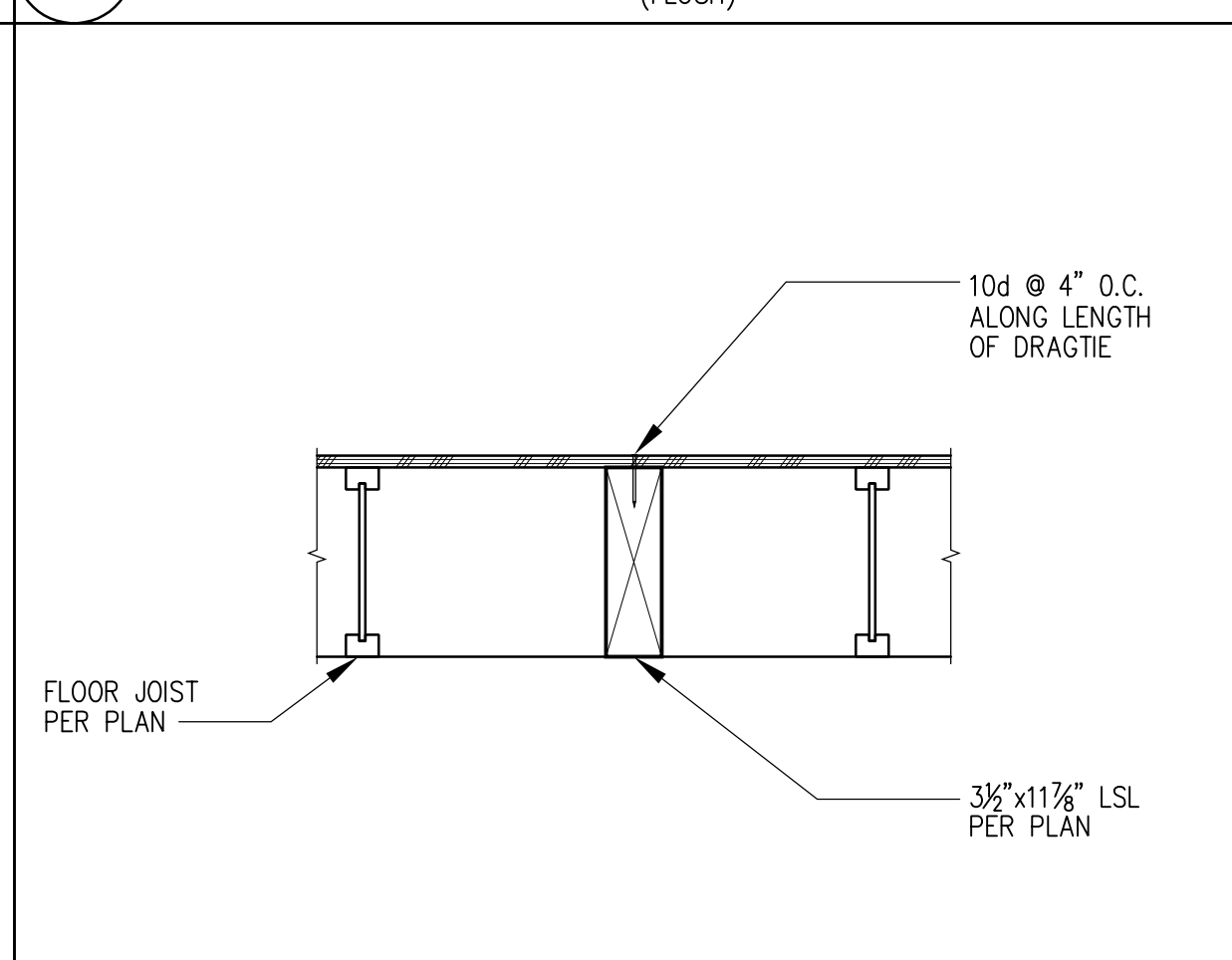
7 TIE STRAP @ GREAT ROOM BALLOON WALL



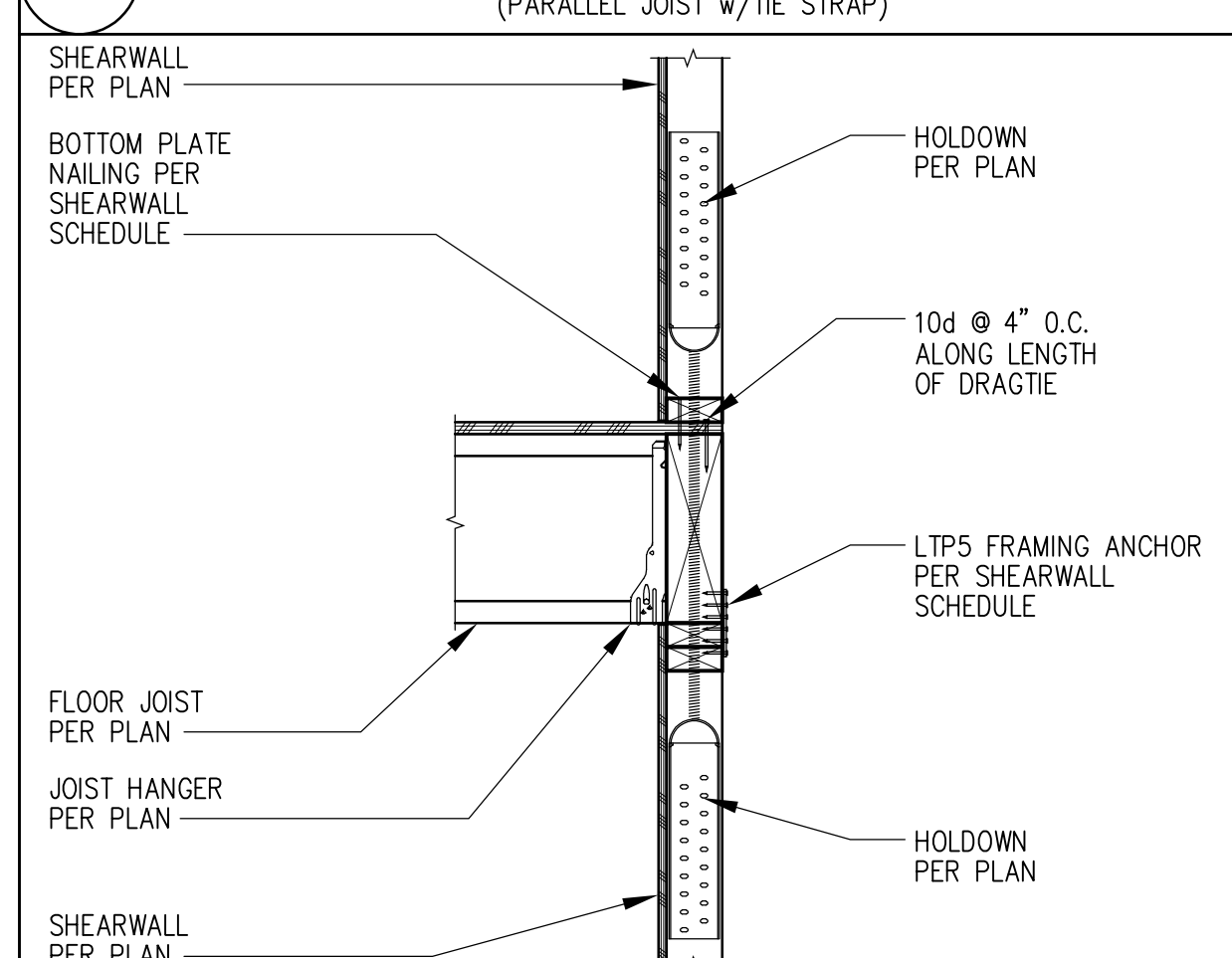
8 SHEAR TRANSFER @ CANT. DECK BEAM (PERPENDICULAR JOIST w/ TIE STRAP)



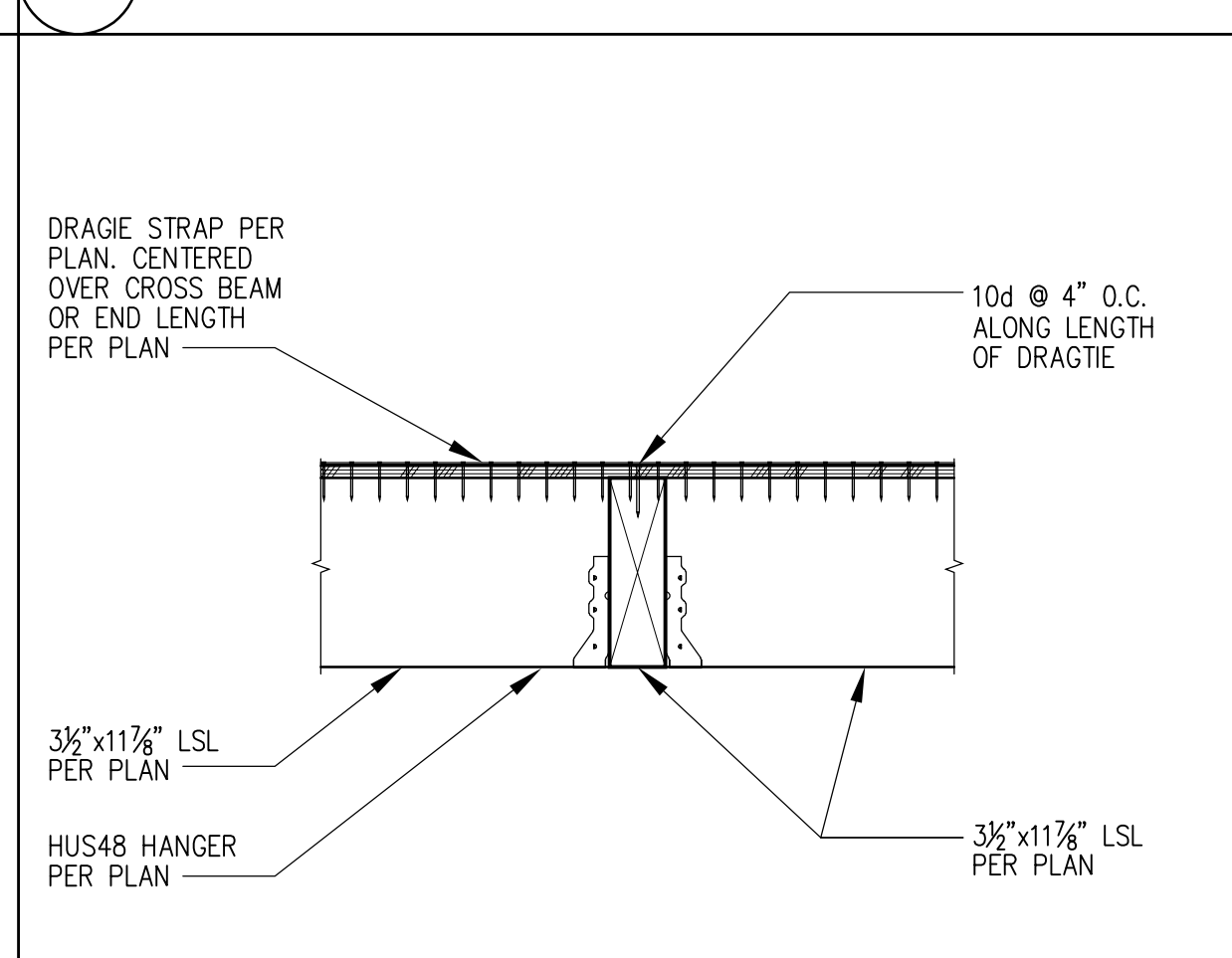
9 SHEAR TRANSFER @ FLOOR FRAMING (PERPENDICULAR JOIST)



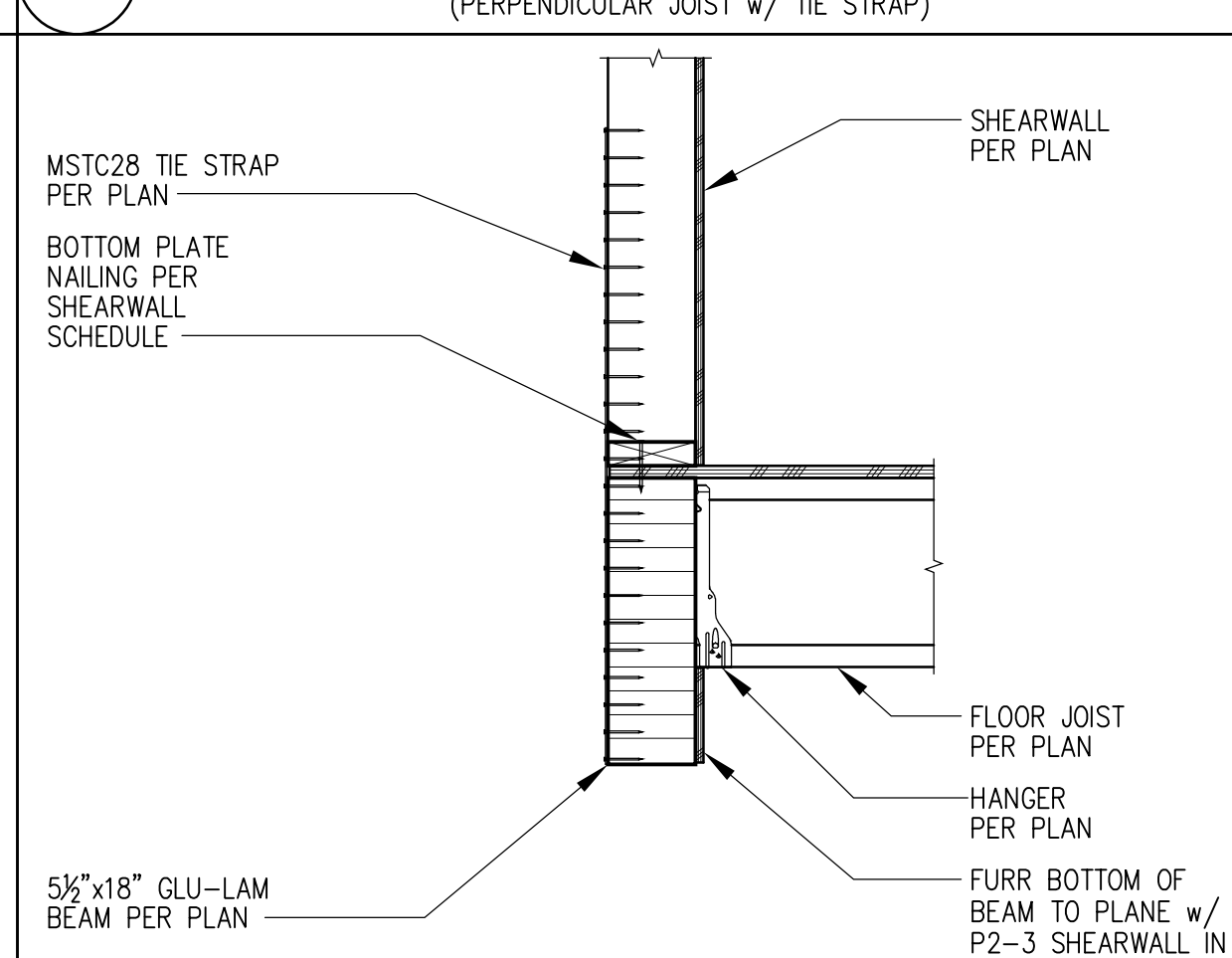
10 DRAGTIE @ PARALLEL JOIST



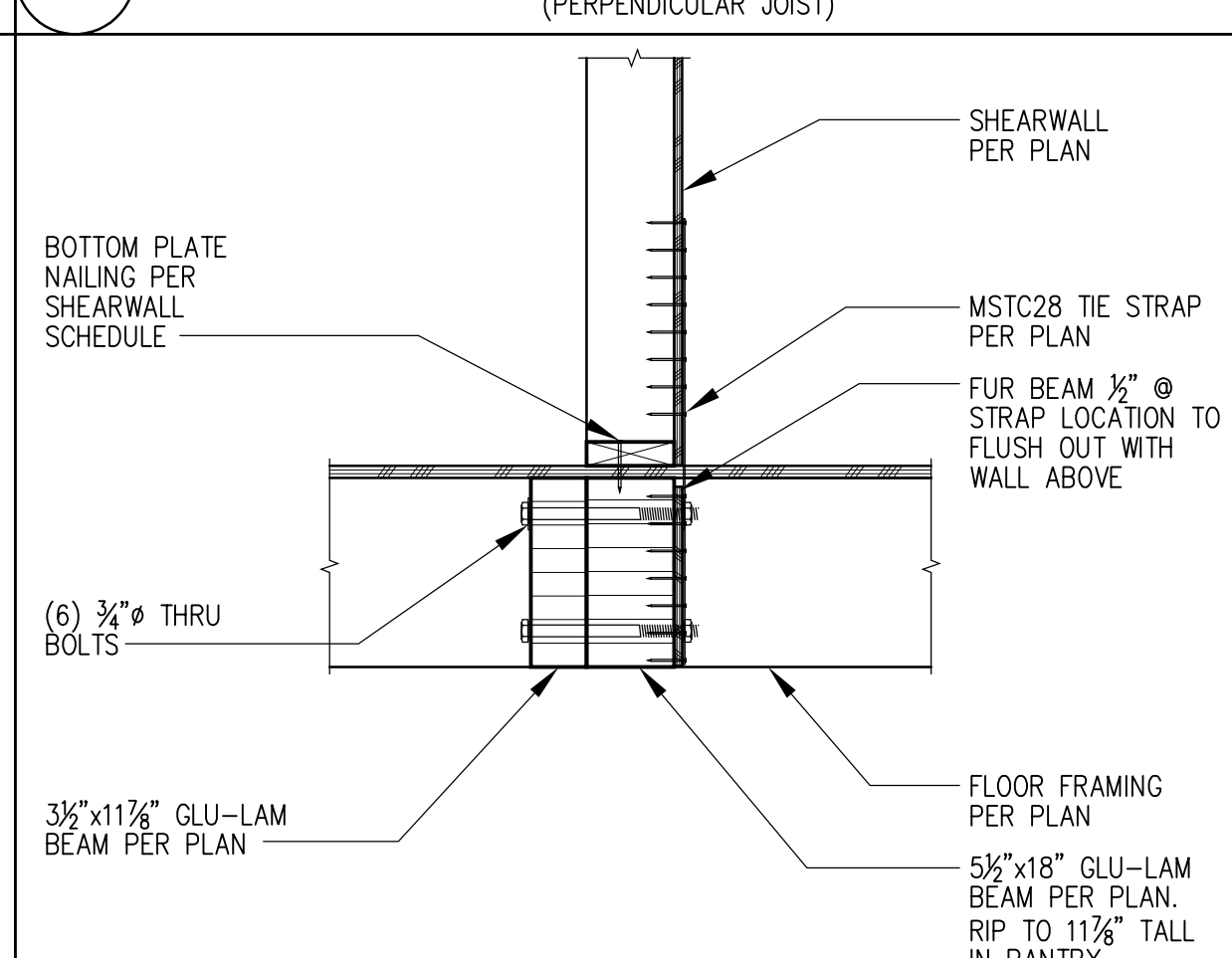
11 SHEAR TRANSFER @ FLOOR FRAMING (HOLD-DOWN TO HOLD-DOWN @ PERPENDICULAR JOIST)



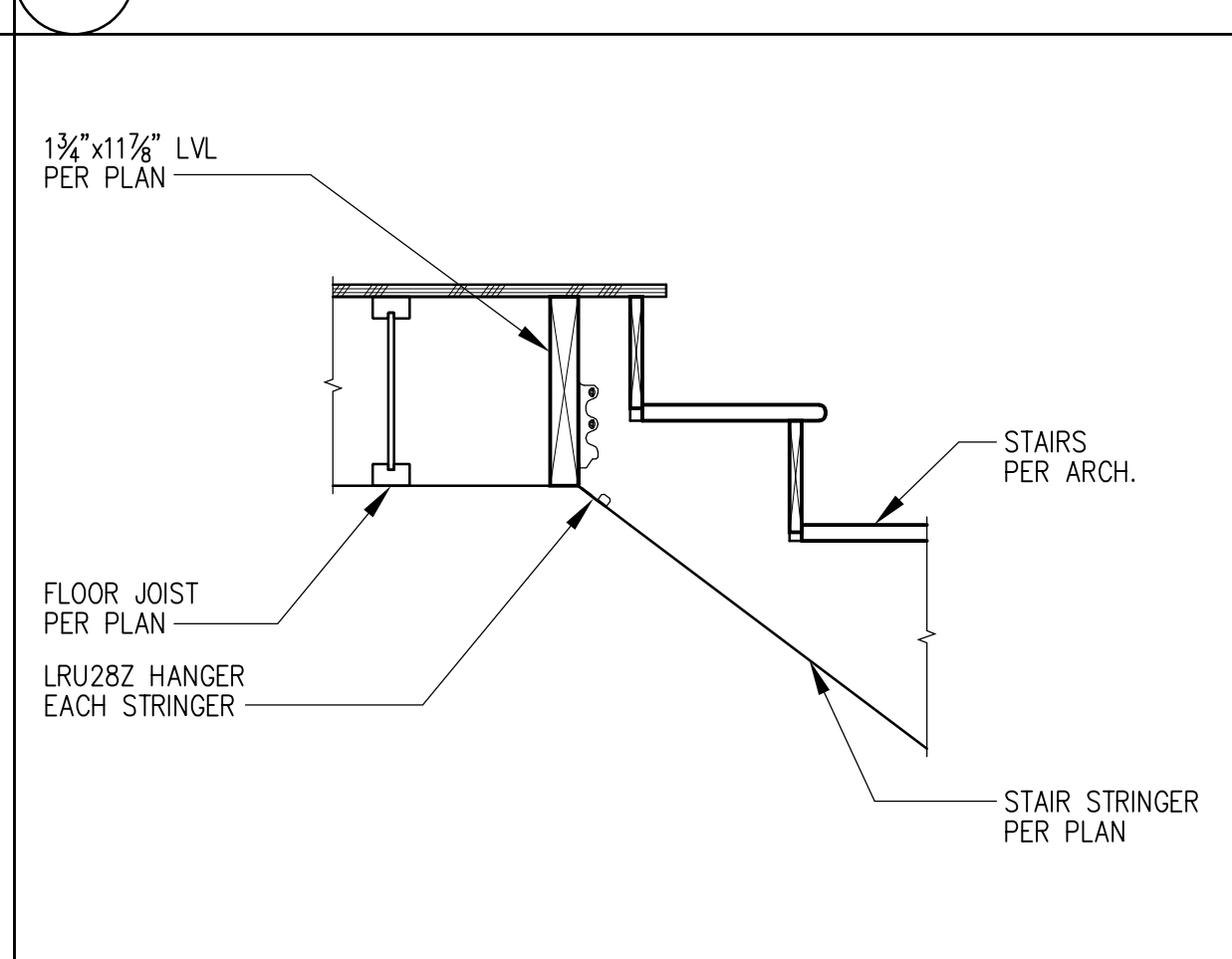
12 DRAGTIE STRAP @ BEAM INTERSECTIONS



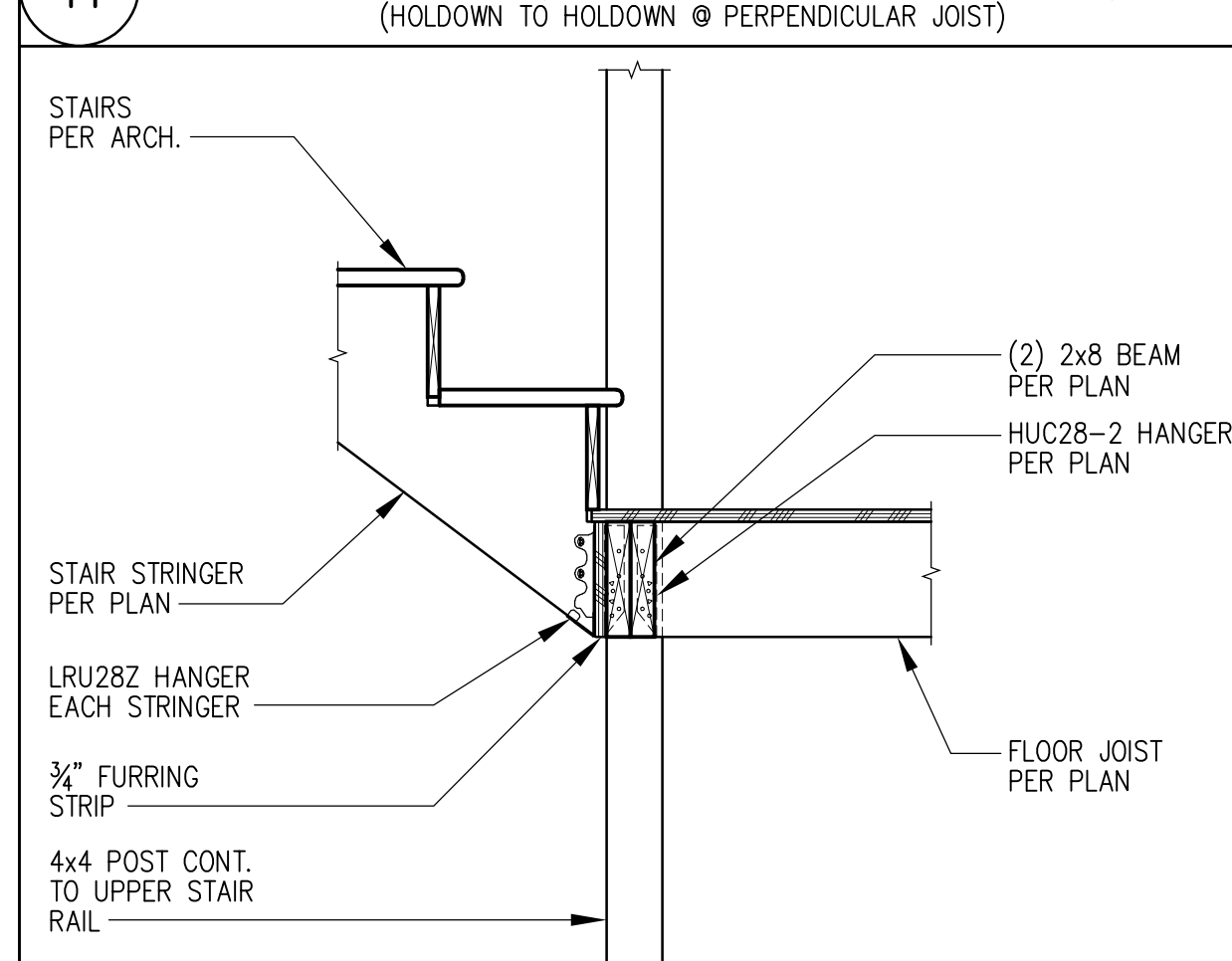
13 TIE STRAP TO BEAM (@ PERPENDICULAR JOIST)



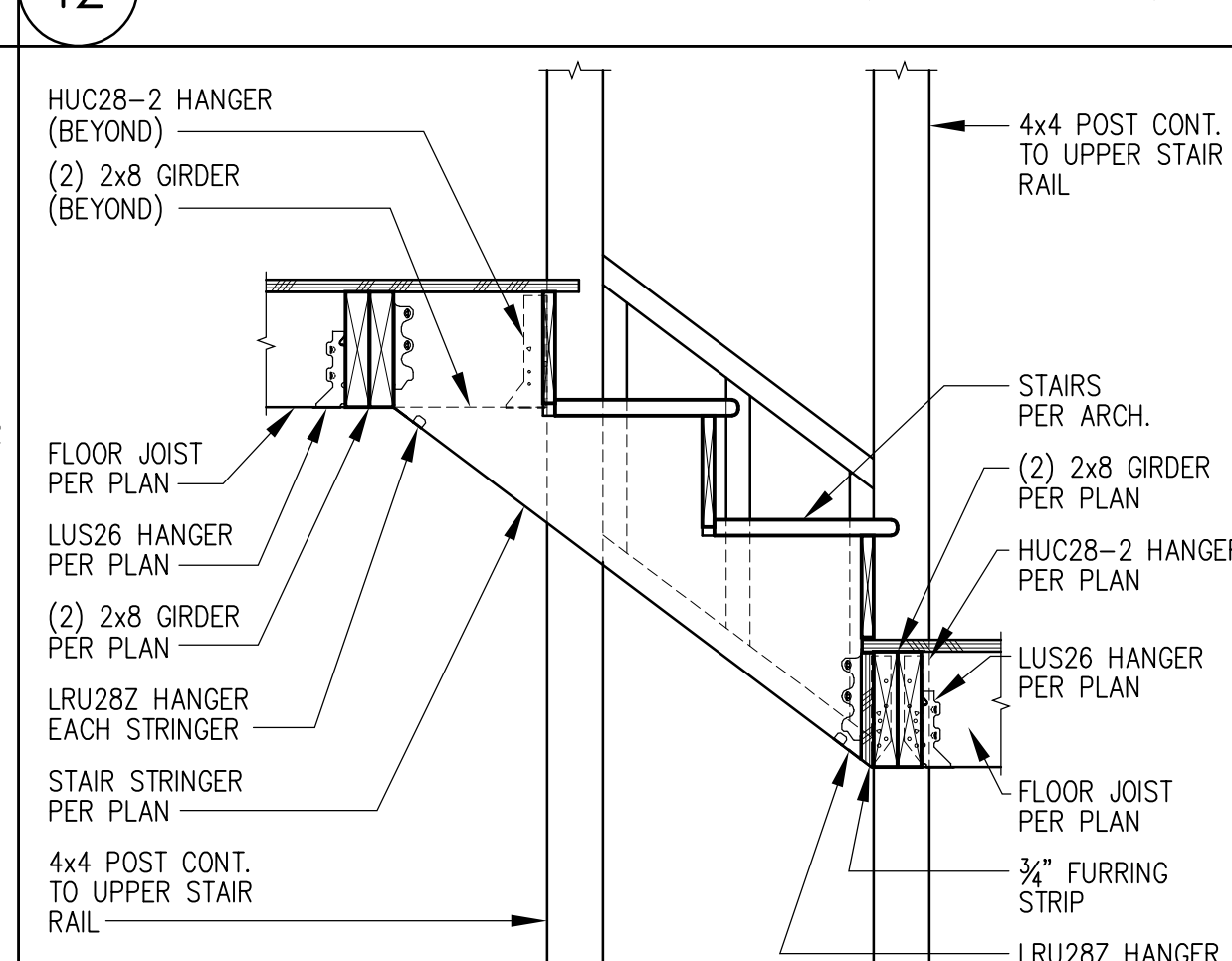
14 TIE STRAP TO BEAM (@ PERPENDICULAR JOIST)



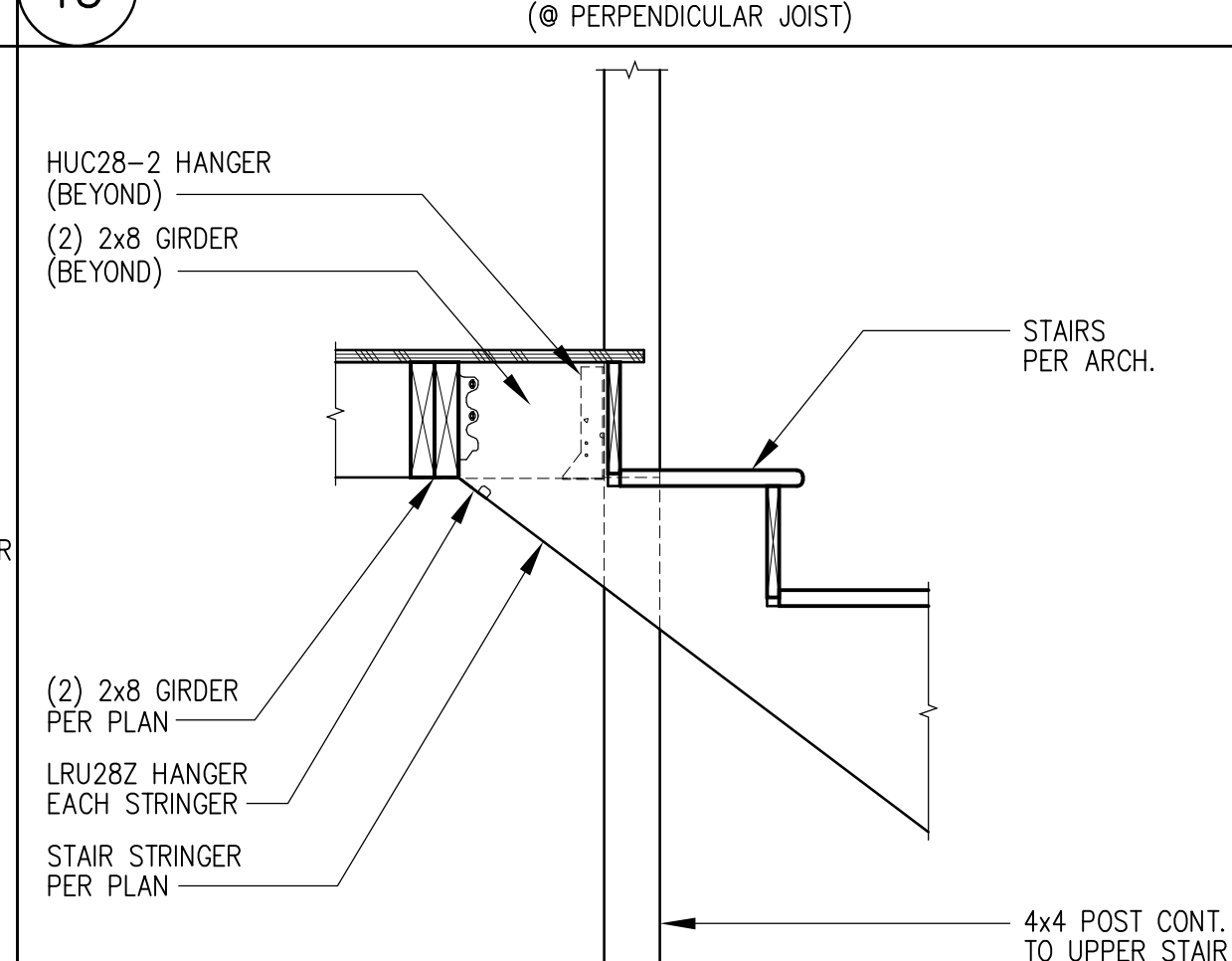
15 STAIR STRINGER FRAMING (UPPER FLOOR STAIRS @ UPPER FLOOR FRAMING)



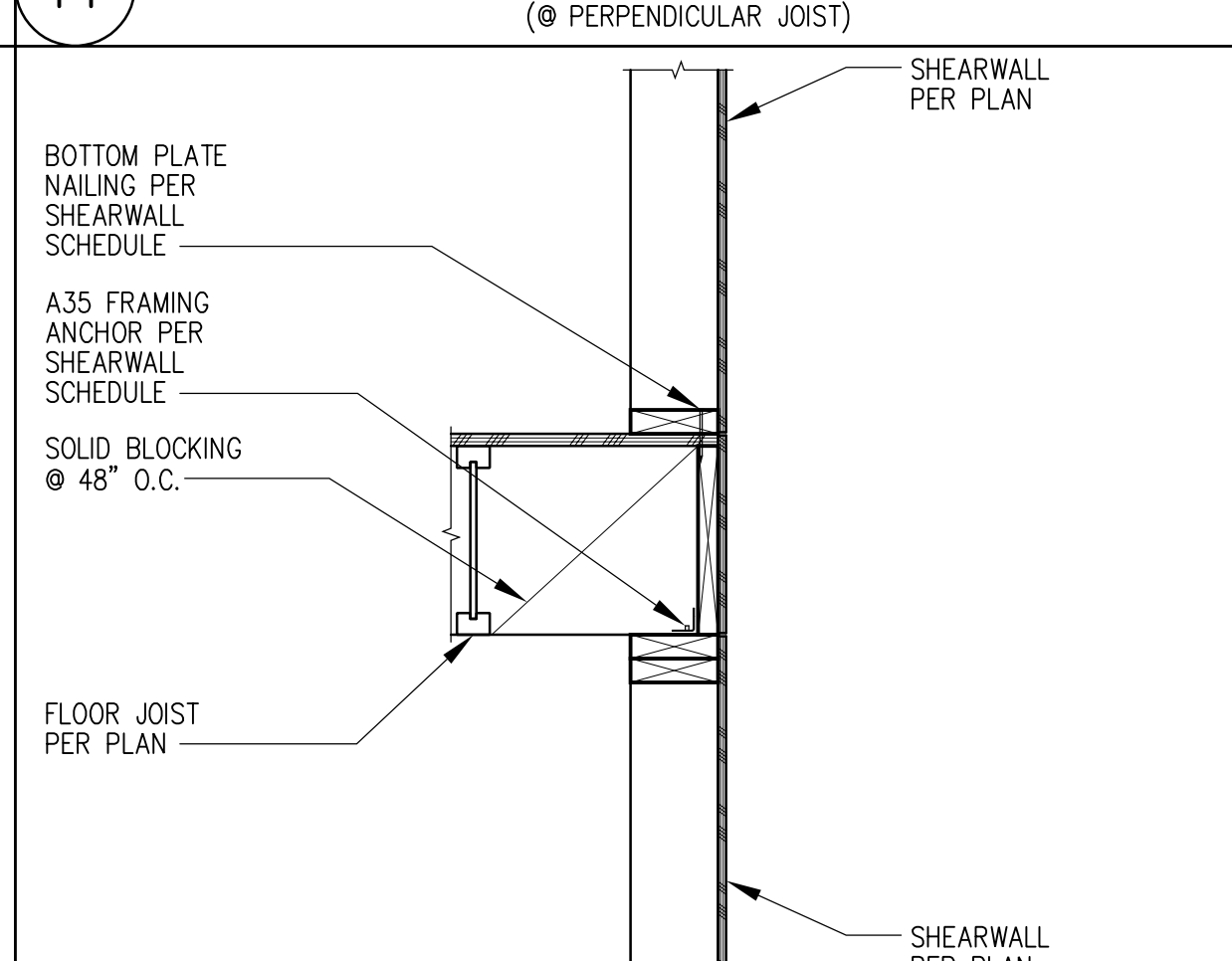
16 STAIR STRINGER FRAMING (UPPER FLOOR STAIRS @ UPPER MID LANDING)



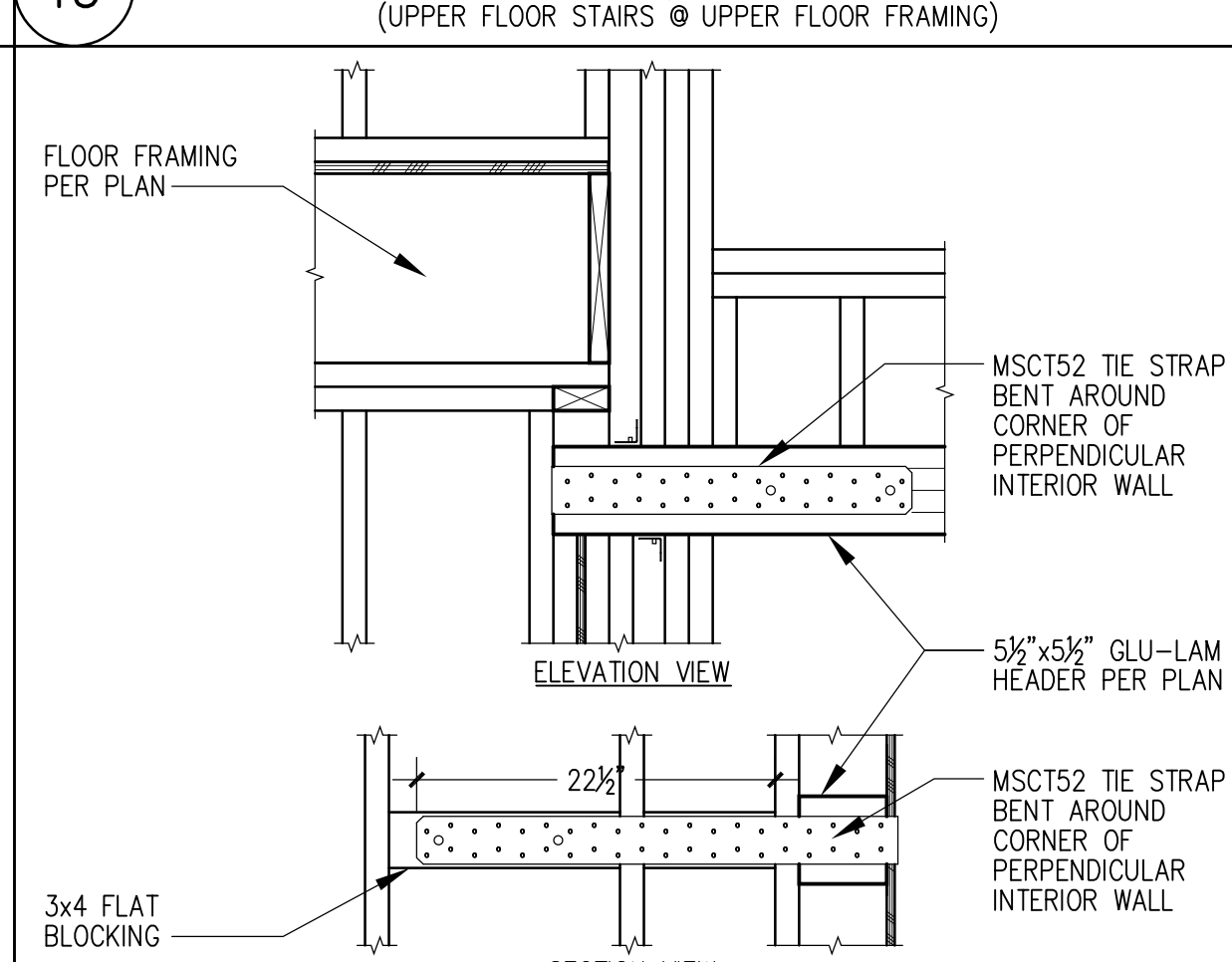
17 STAIR STRINGER FRAMING (UPPER FLOOR STAIRS BETWEEN MID LANDINGS)



18 STAIR STRINGER FRAMING (UPPER FLOOR STAIRS @ LOWER MID LANDING)

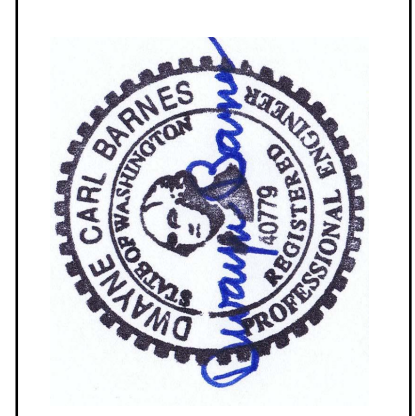


19 SHEAR TRANSFER @ FLOOR FRAMING (PARALLEL JOIST)



20 TIE STRAP @ DOOR HEADER (BALLOON FRAMING w/ TIE STRAP & ENTRY WALL FRAMING)

**Stoney Point Engineering**  
 Dwayne Barnes P.E.  
 dwayne@stonepointengineering.com  
 Office: 425-644-9500



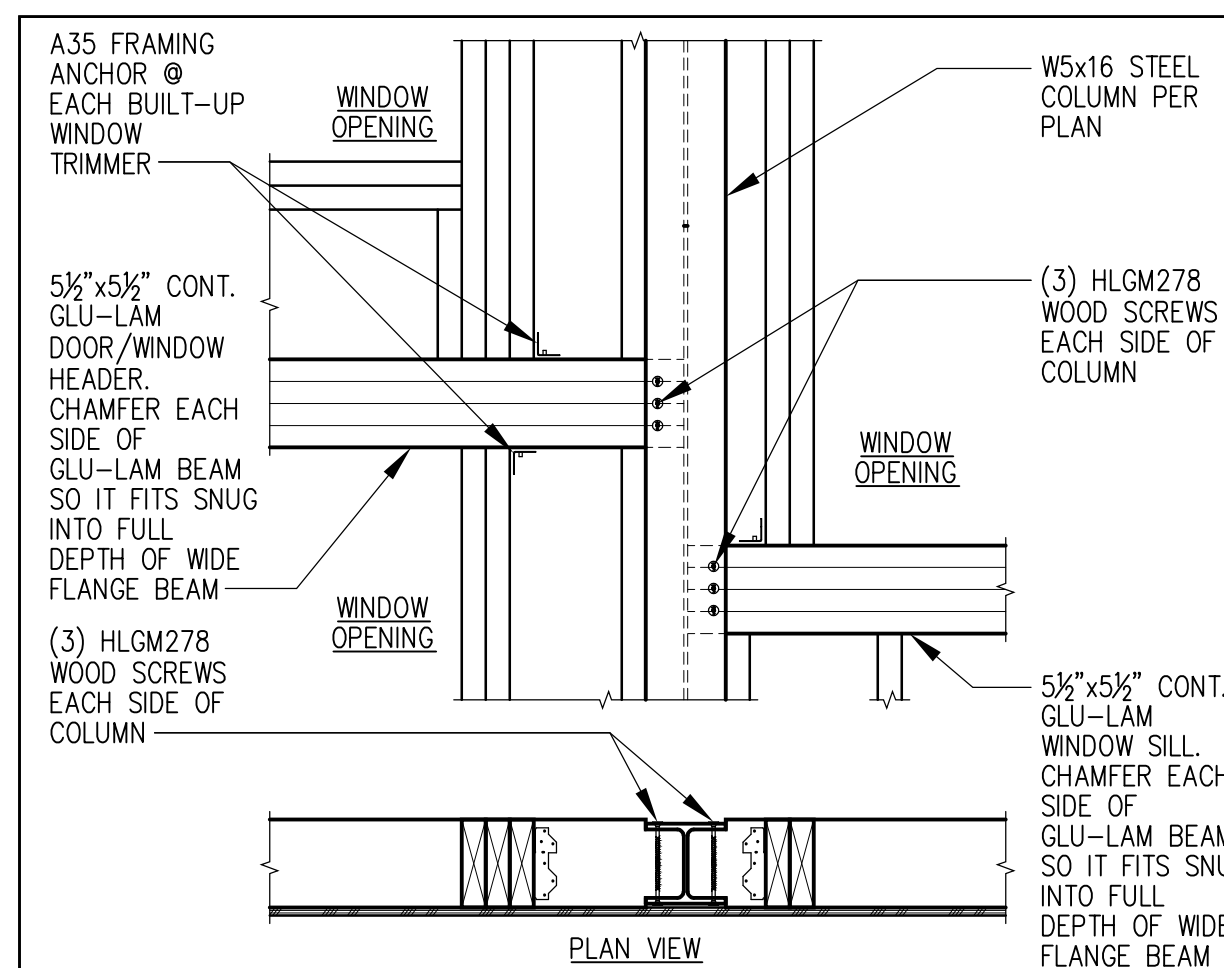
**MI Treehouse, LLC**  
 5637 East Mercer Way  
 Mercer Island, WA 98084

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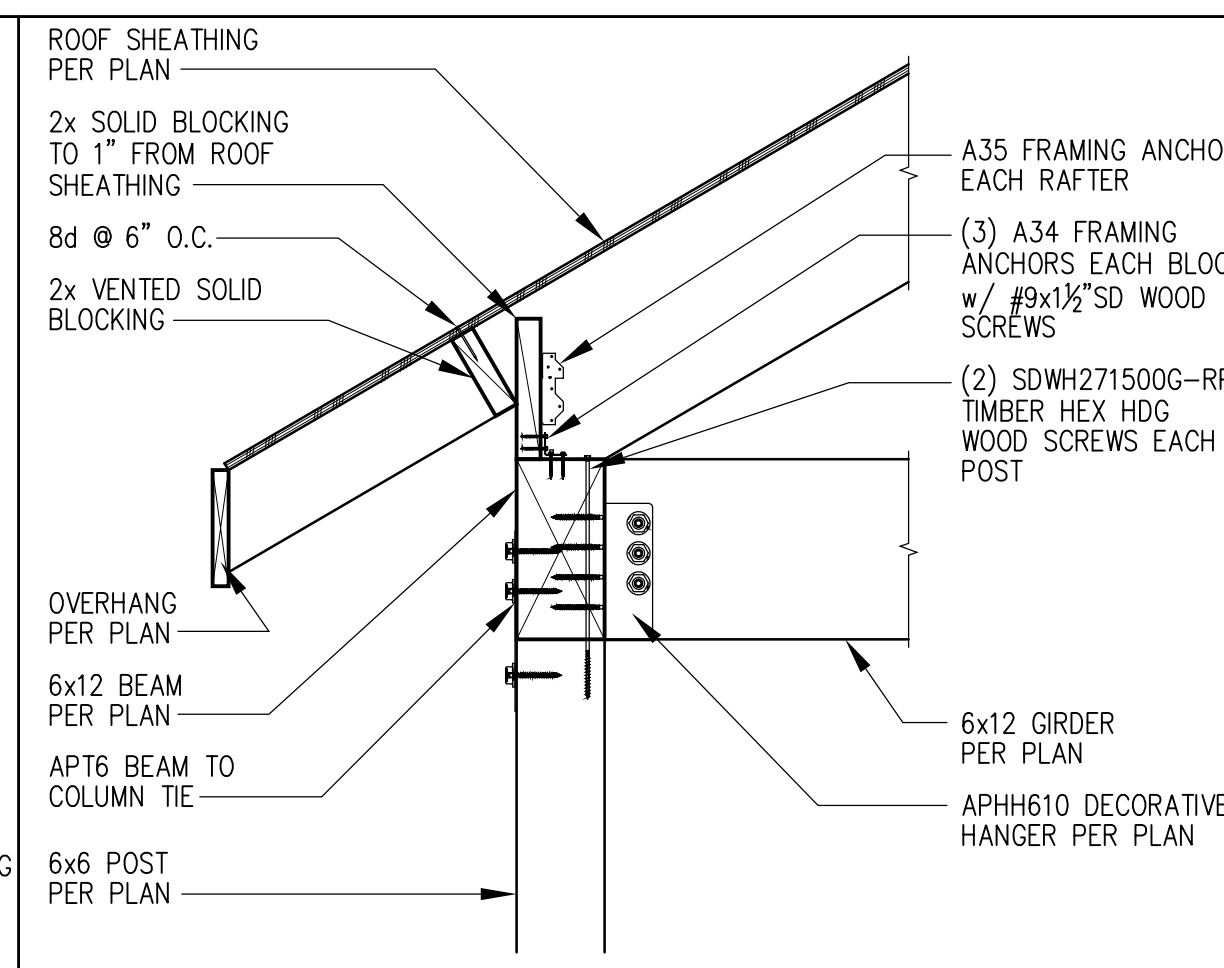
Issued	Date
Permit Plans	03/30/20

18-025

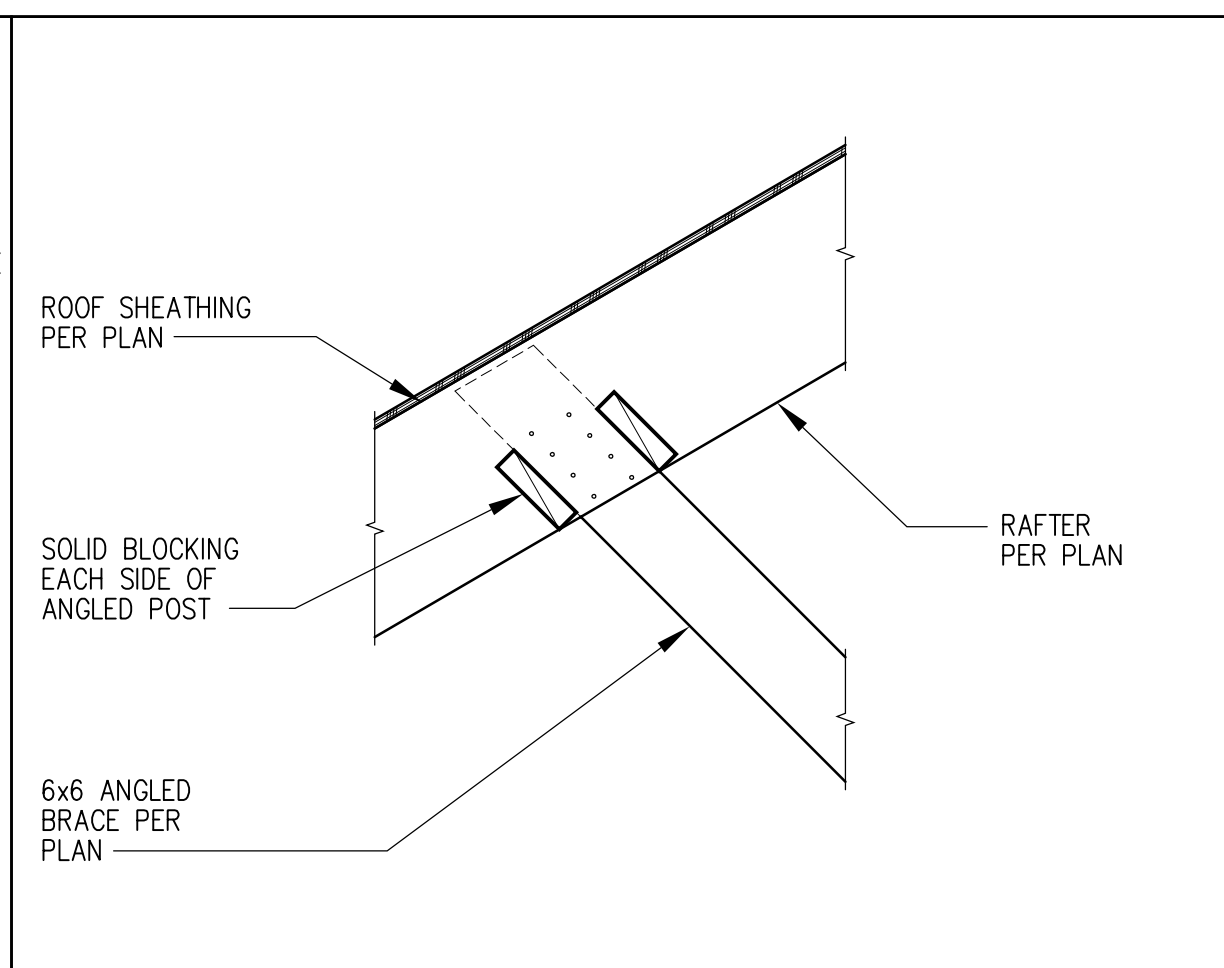
**S4.2**  
 FRAMING DETAILS



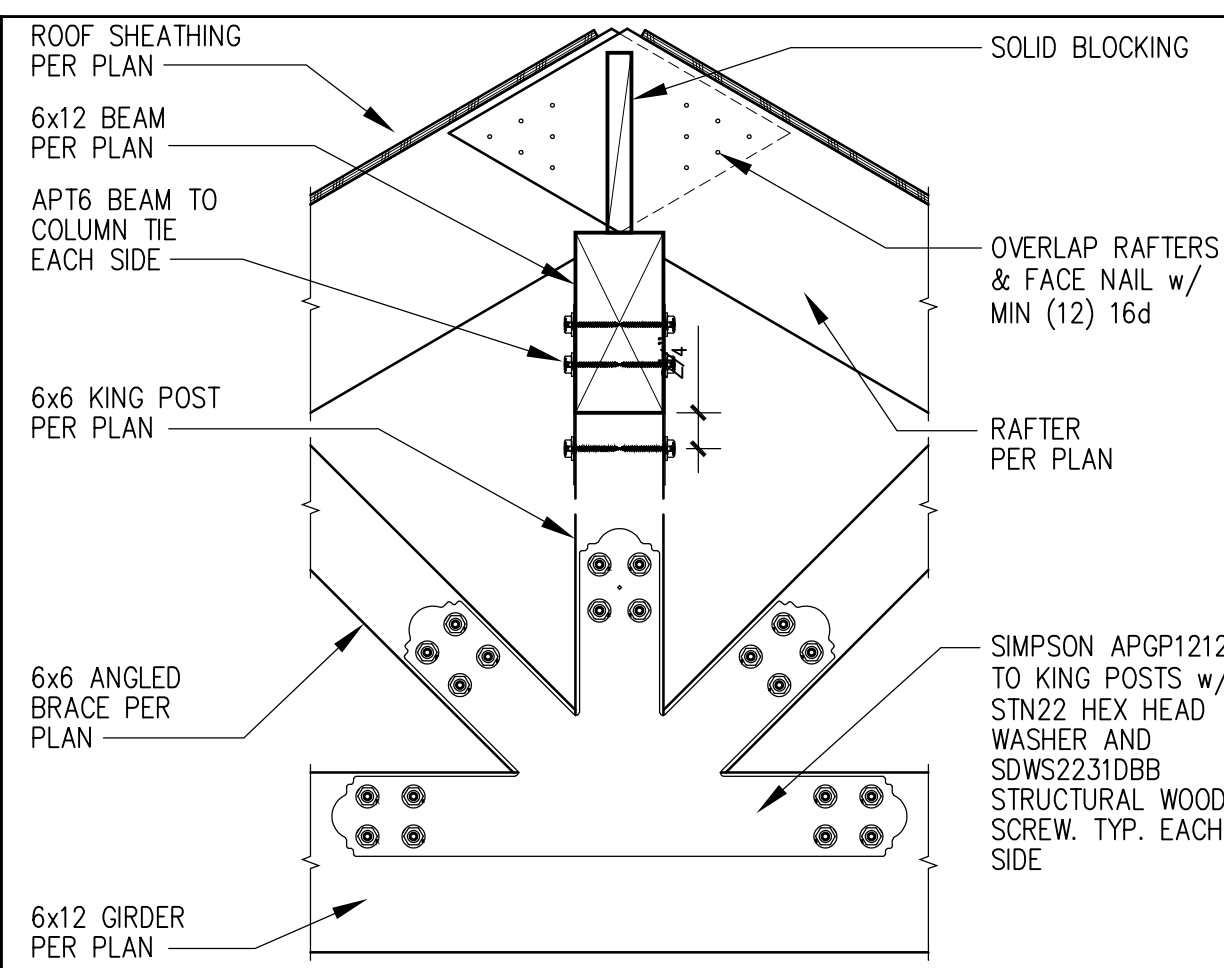
1 W5x16 STEEL COLUMN HEADERS (TYPICAL RAFTER)



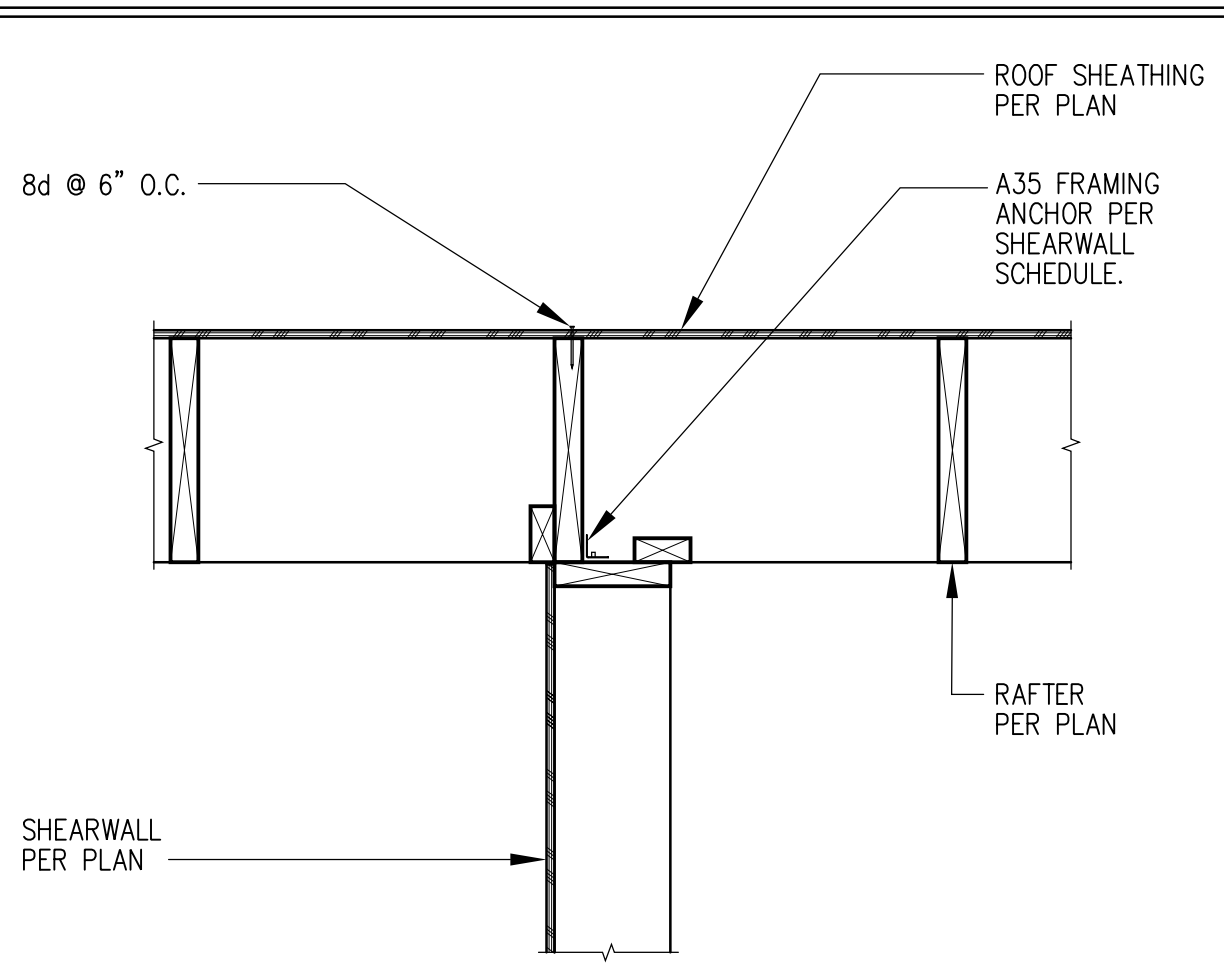
2 TYP. PORCH POST TO BEAM CONNECTION



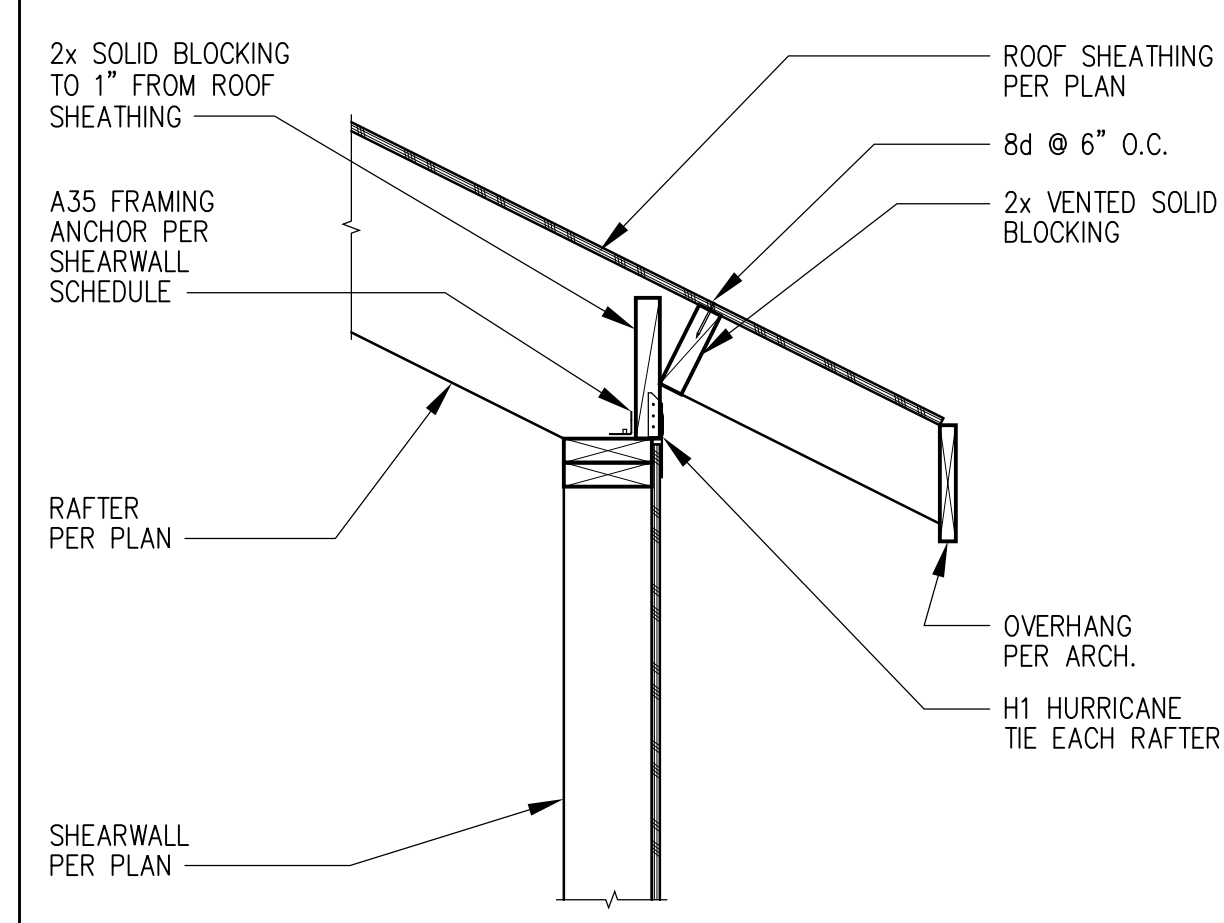
3 ANGLED POST TO RAFTER CONNECTION



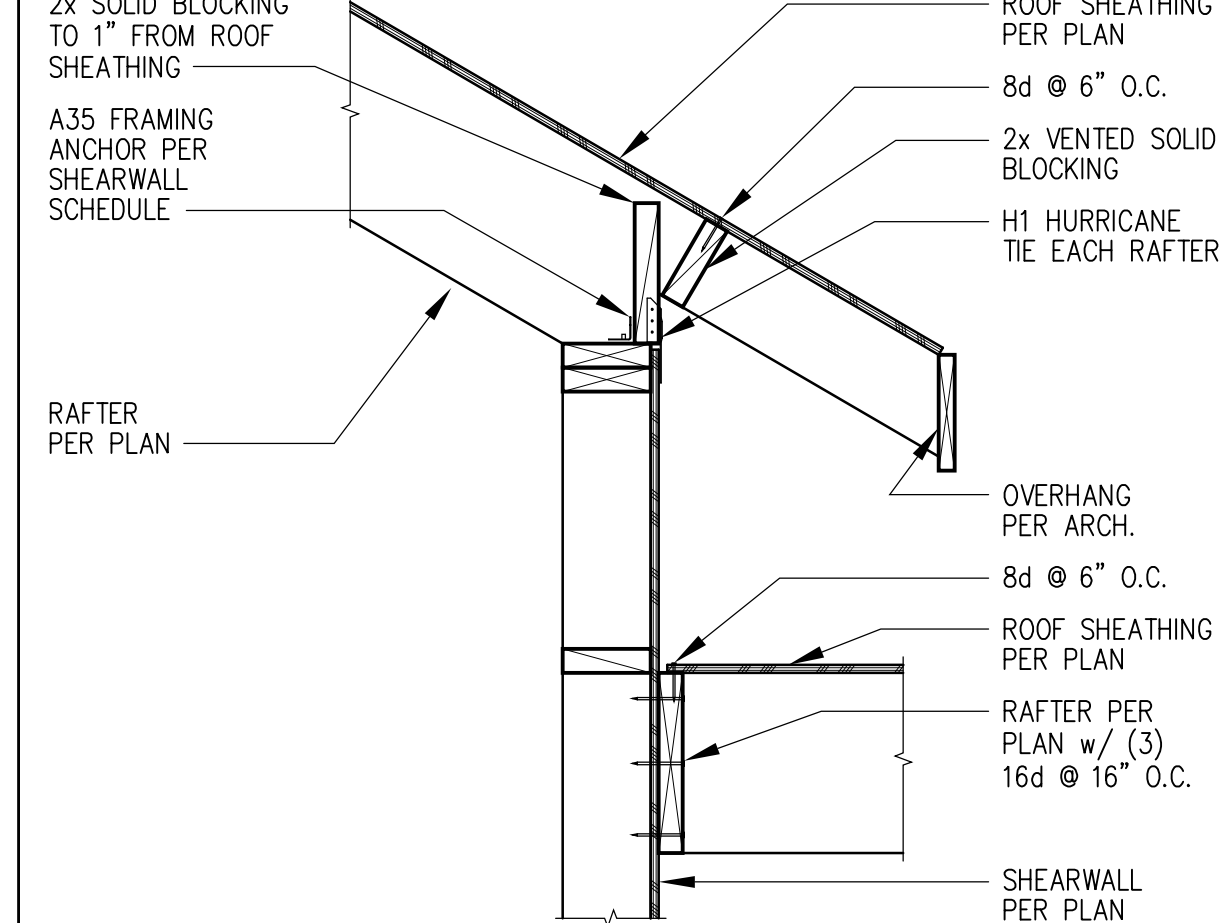
4 KING POST TO BEAM CONNECTION



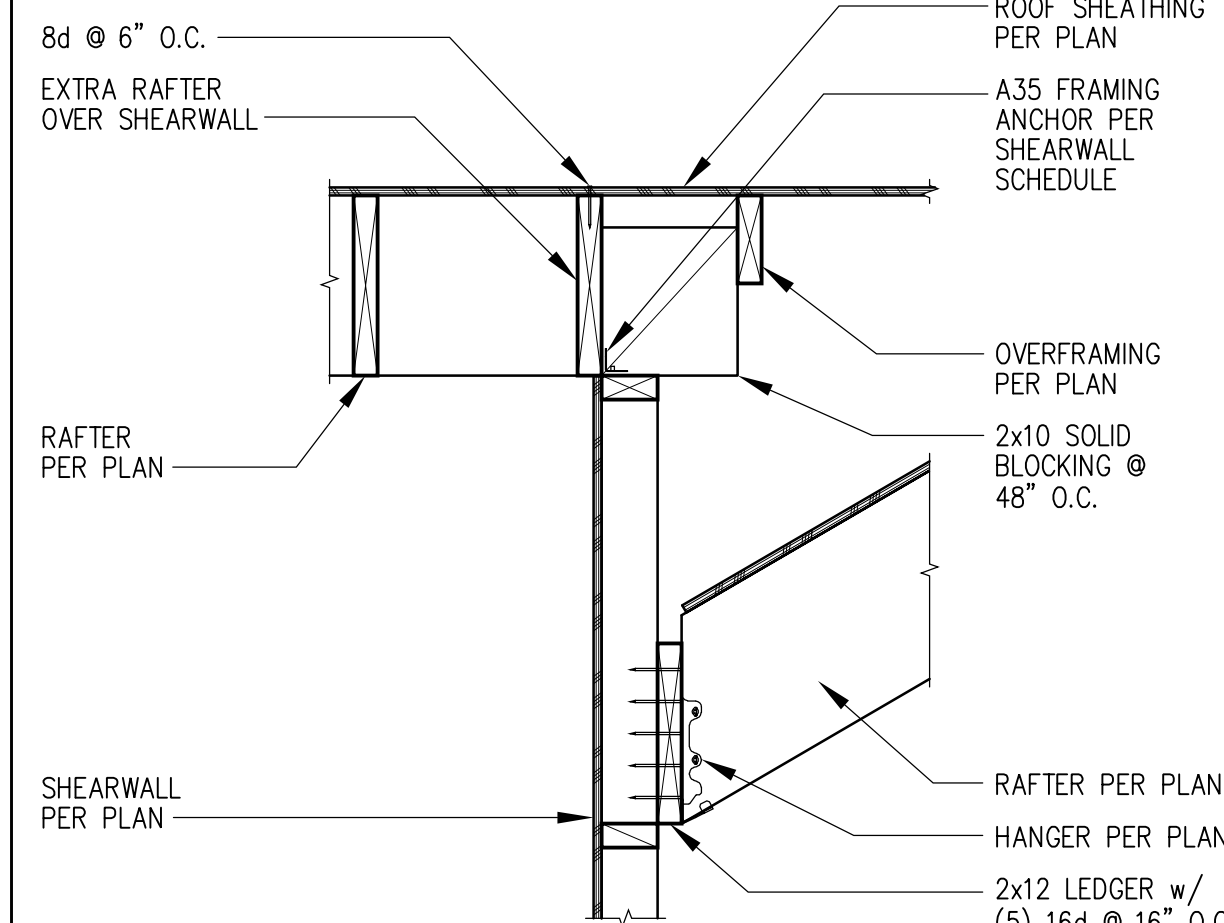
5 SHEAR TRANSFER @ GREAT ROOM GABLE



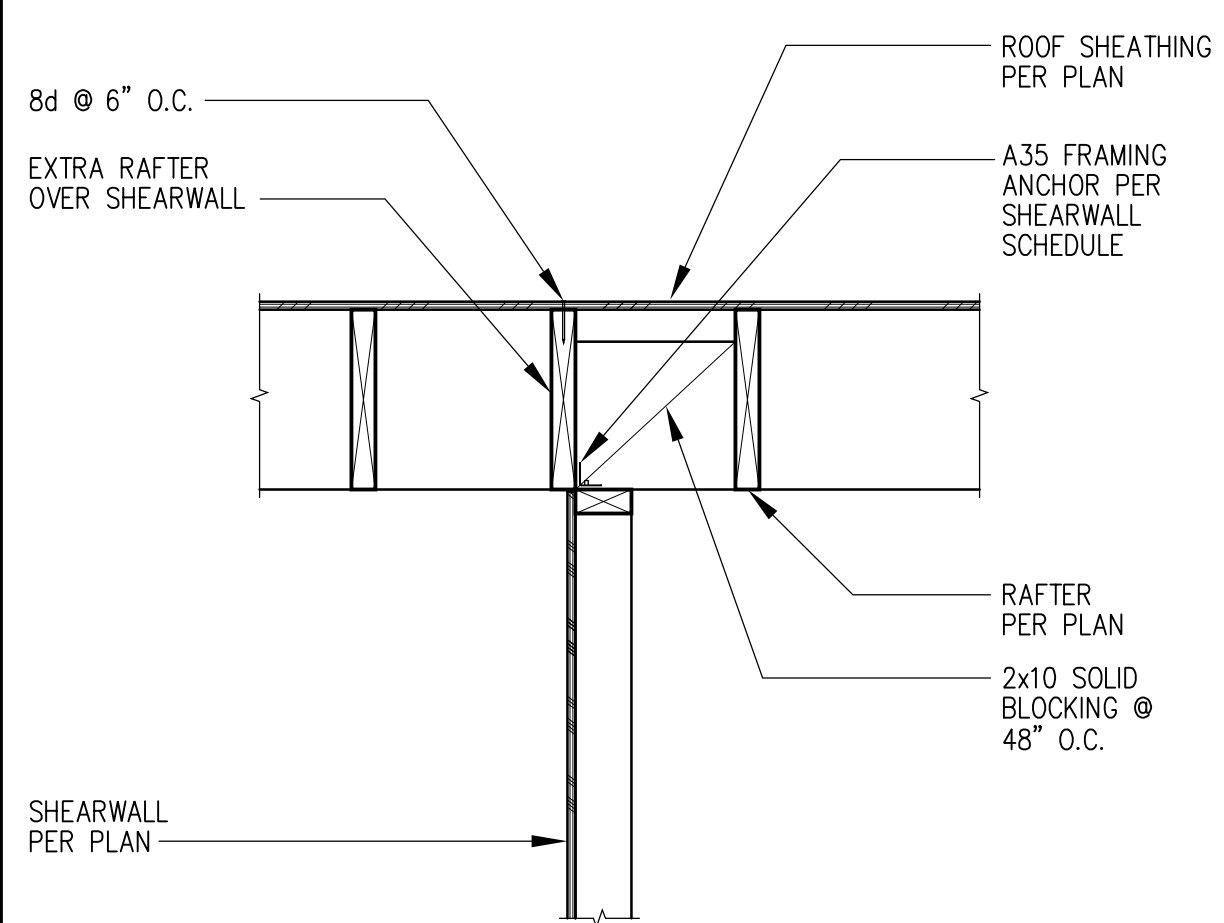
6 SHEAR TRANSFER @ EAVE (TYPICAL RAFTER)



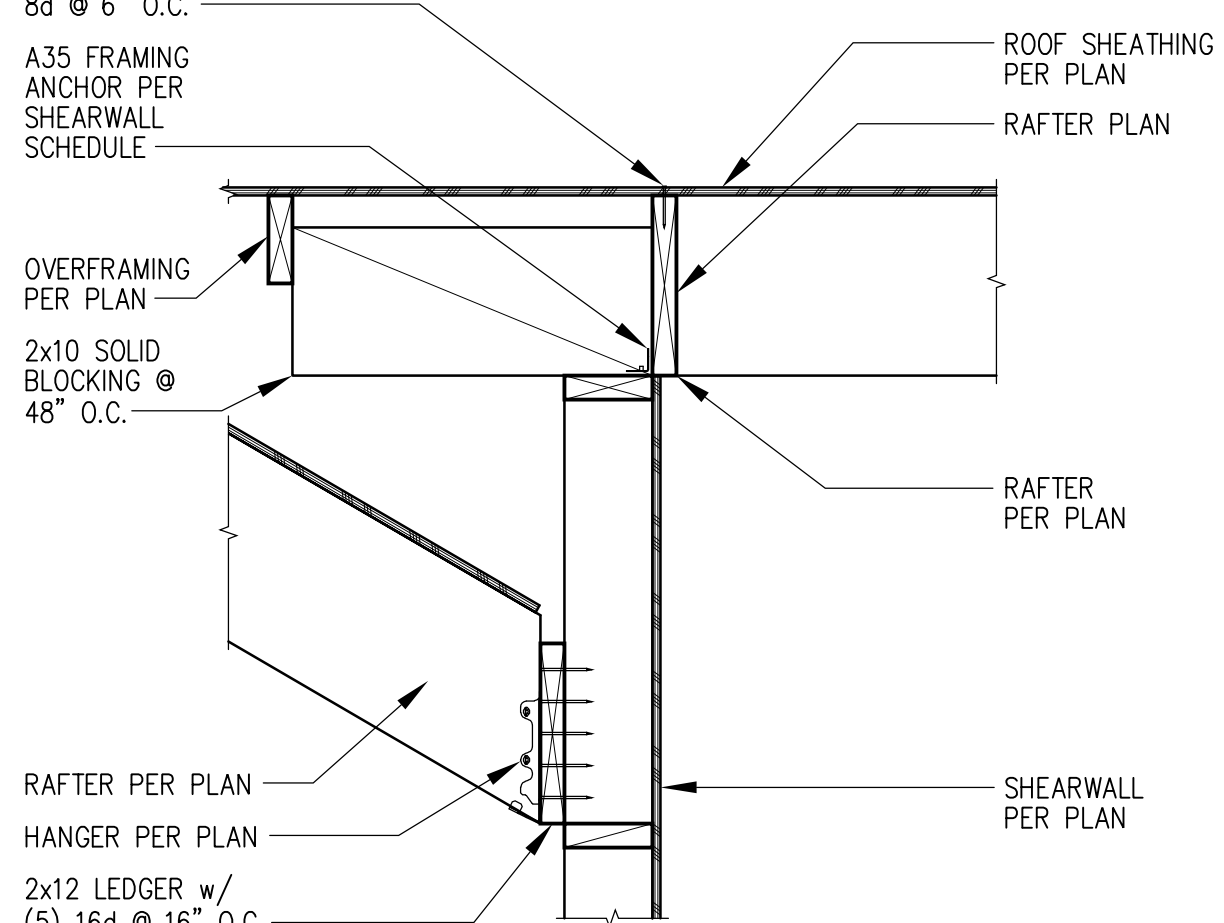
7 SHEAR TRANSFER @ EAVE (TYPICAL RAFTER w/ LOWER ROOF)



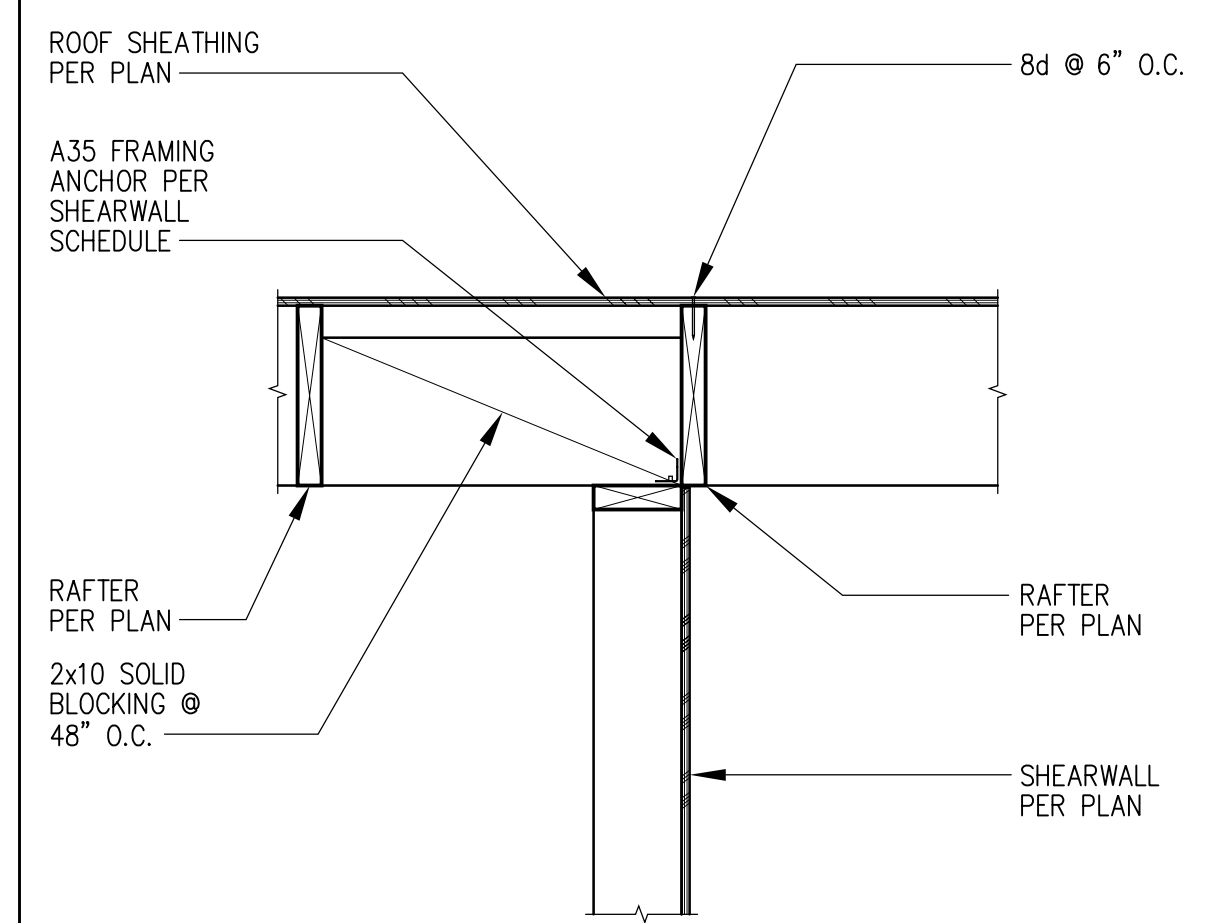
8 SHEAR TRANSFER @ PARALLEL RAFTER (SHEARWALL OFF TYPICAL RAFTER LAYOUT w/OVERFRAMING)



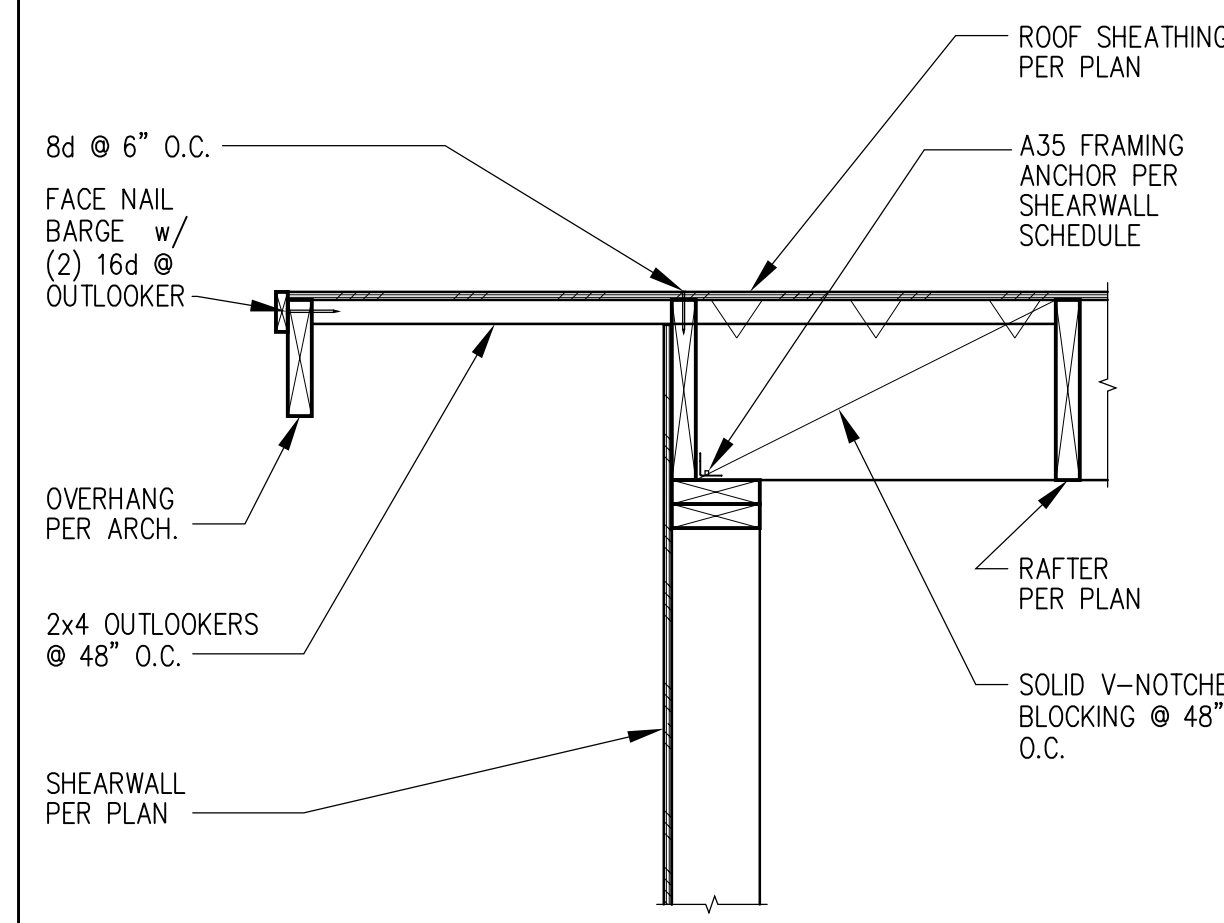
9 SHEAR TRANSFER @ PARALLEL RAFTER (SHEARWALL ON TYPICAL RAFTER LAYOUT)



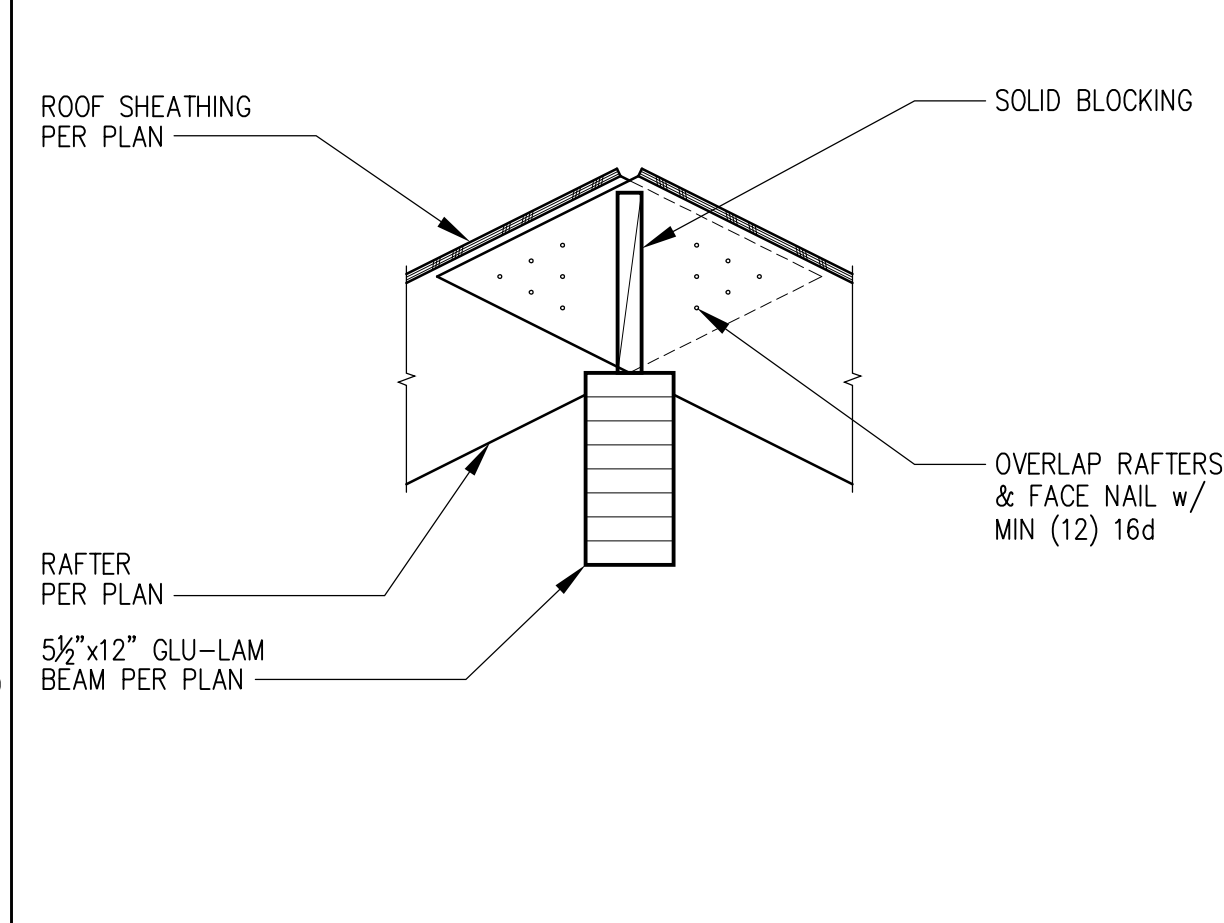
10 SHEAR TRANSFER @ PARALLEL RAFTER (SHEARWALL ON TYPICAL RAFTER LAYOUT w/OVERFRAMING)



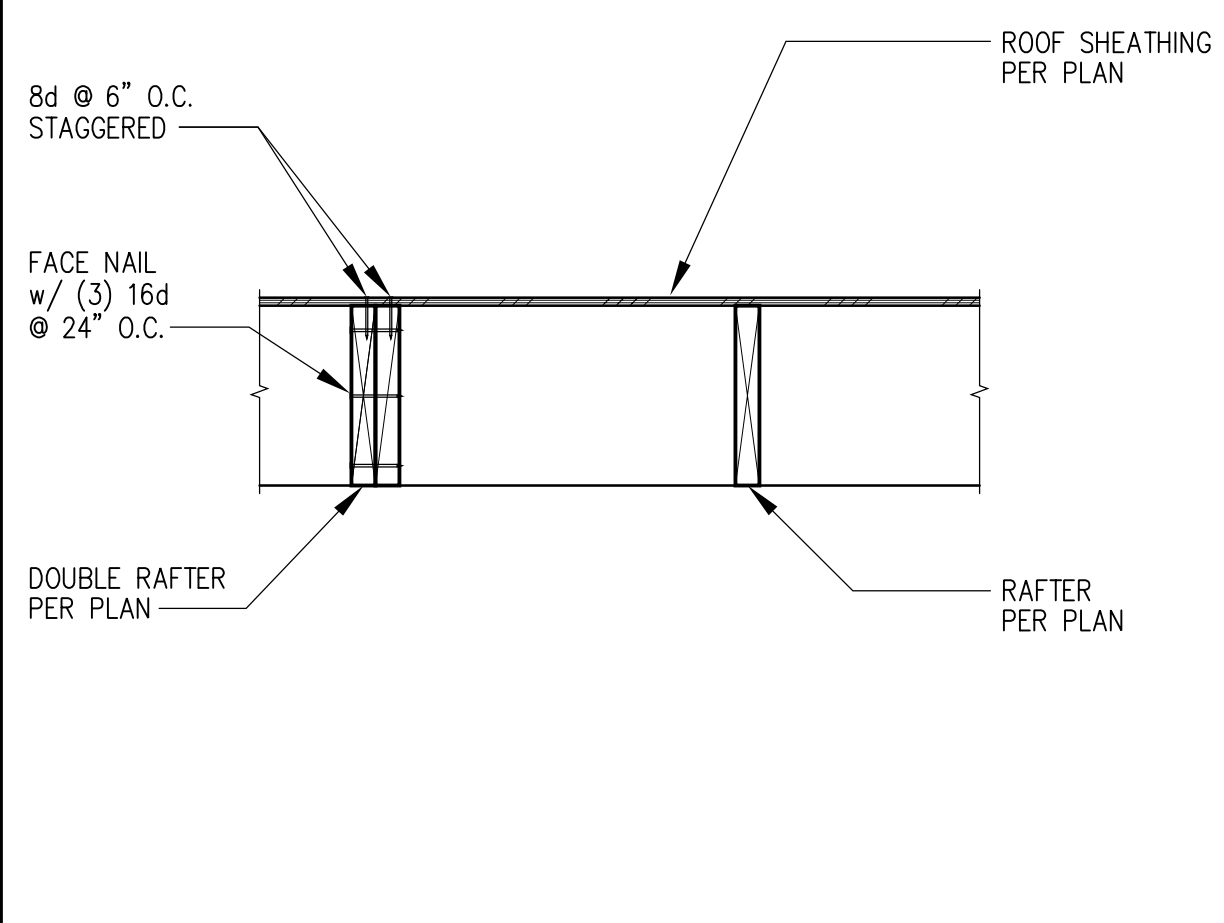
11 SHEAR TRANSFER @ PARALLEL RAFTER (SHEARWALL ON TYPICAL RAFTER LAYOUT)



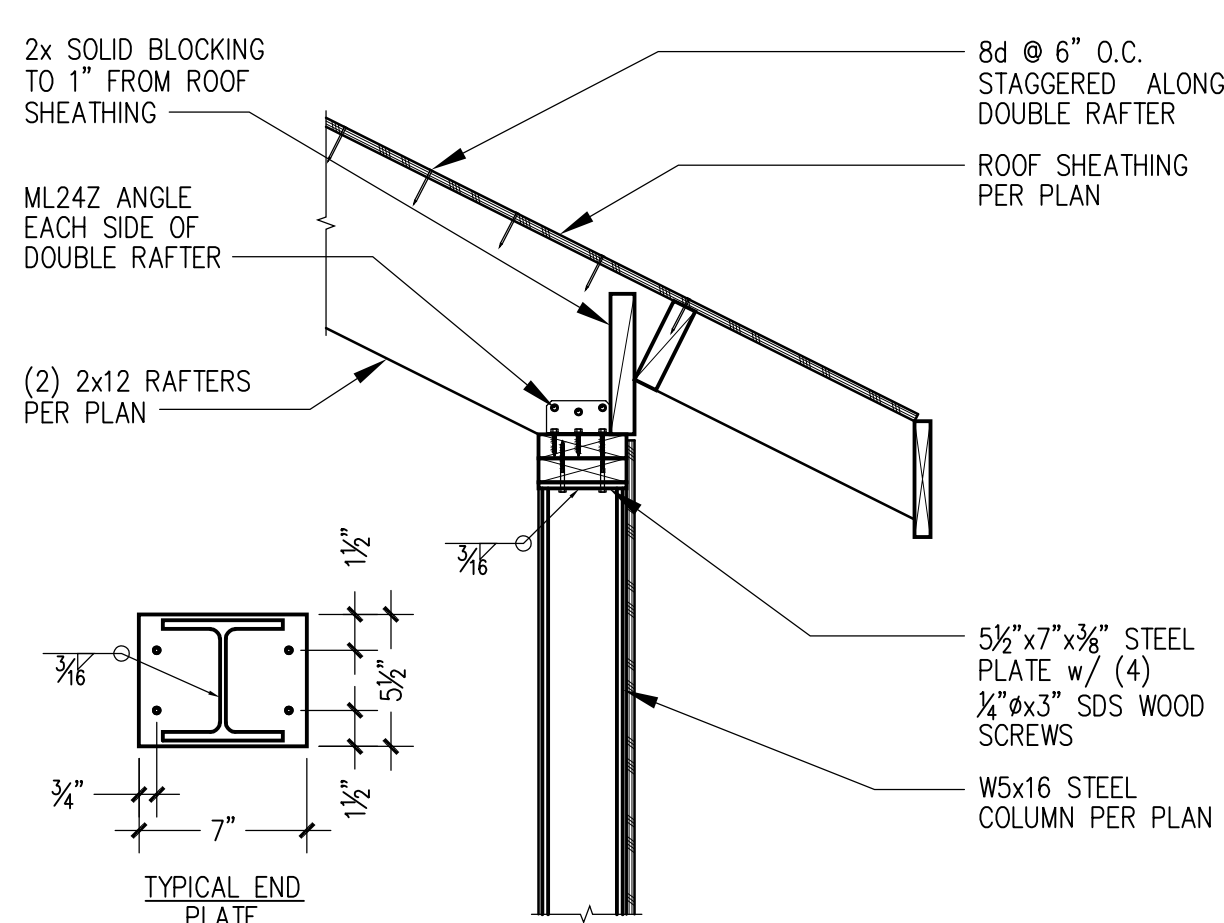
12 SHEAR TRANSFER @ GABLE



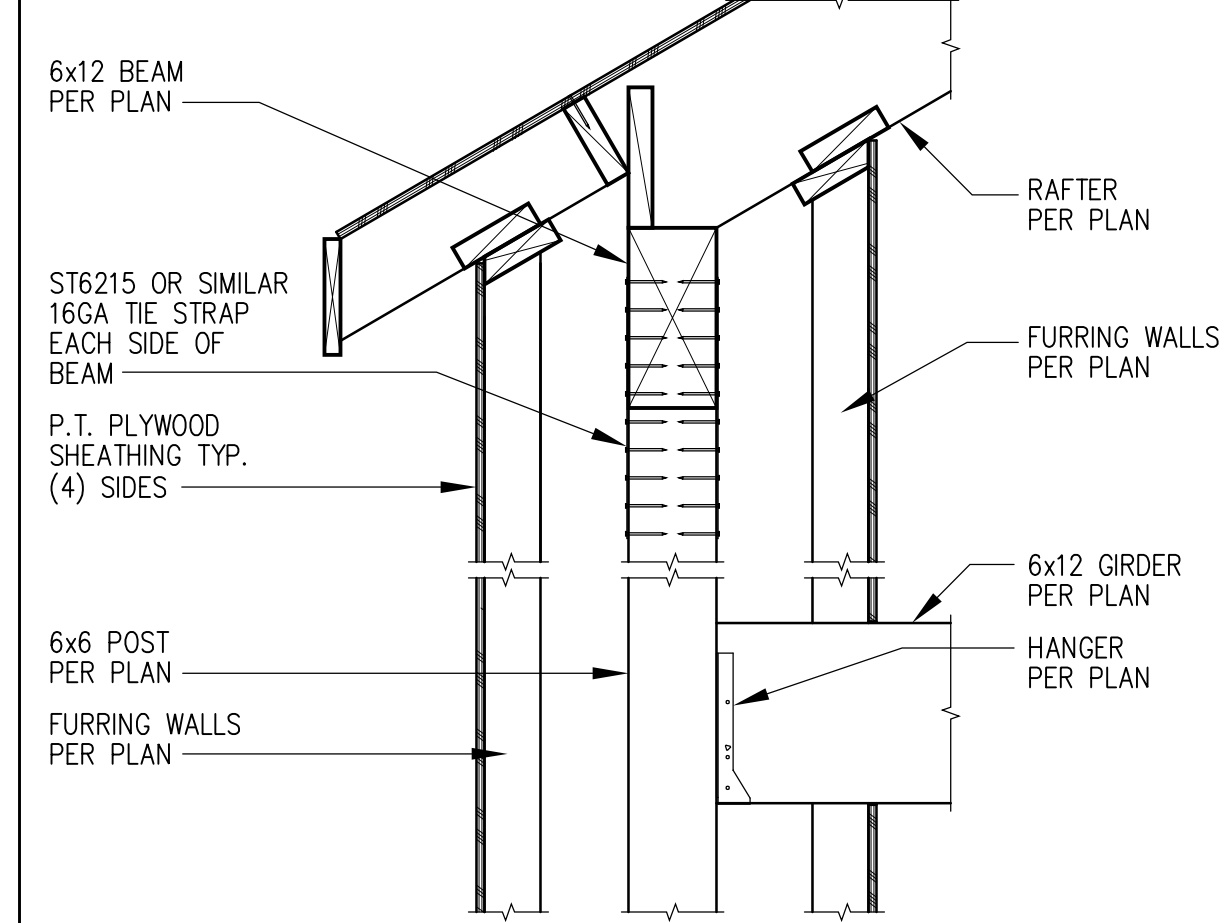
13 ROOF FRAMING @ RIDGE



14 ROOF NAILING @ DOUBLE RAFTER



15 W5x16 STEEL COLUMN TO TOP PLATE (TYPICAL RAFTER)



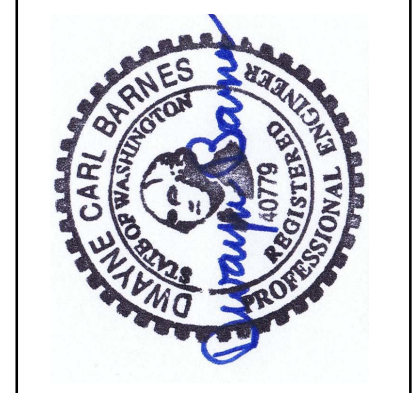
16 PORCH POST TO BEAM CONNECTION (@ STONE FACADE)

MARK	EDGE	FIELD	SILL PLATE ANCHORS	BOTTOM PLATE NAILING	TOP PLATE CONNECTION			BASE SHEAR (PLF)	
					JOIST (8)	RAFTER OR TRUSS	W/O H1	WIND	SEISMIC
P1-6	8d @ 6"	8d @ 12"	3/8" @ 48"	(1) 16d @ 4"	A35 @ 29"	RBC @ 18"	RBC @ 18"	339	241
P1-4	8d @ 4"	8d @ 12"	3/8" @ 33"	(1) 16d @ 3"	A35 @ 20"	RBC @ 31"	RBC @ 12"	495	353
P1-3 (6)	8d @ 3"	8d @ 12"	3/8" @ 25"	(1) 16d @ 3"	A35 @ 15"	RBC @ 18"	RBC @ 10"	637	455
P1-2 (6)	8d @ 2"	8d @ 12"	3/8" @ 19"	(2) 16d @ 4"	A35 @ 12"	RBC @ 11"	RBC @ 7"	832	595
P2-4 (6,7)	8d @ 4"	8d @ 12"	3/8" @ 16"	(2) 16d @ 3 1/2"	A35 @ 10"	RBC @ 9"	RBC @ 6"	990	706
P2-3 (6,7)	8d @ 3"	8d @ 12"	3/8" @ 12"	(2) 16d @ 3"	A35 @ 7"	RBC @ 6"	(2) RBC @ 10"	1274	911
P2-2 (6,7)	8d @ 2"	8d @ 12"	3/8" @ 8"	(3) 16d @ 3"	A35 @ 6"	RBC @ 5"	(2) RBC @ 6"	1662	1190
P1-2-10d (8)	10d @ 2"	10d @ 12"	3/8" @ 16"	(2) 16d @ 3 1/2"	A35 @ 10"	RBC @ 9"	RBC @ 6"	1002	716

NOTES:  
 1. ALL EXTERIOR WALLS TO BE "P1-6" SHEARWALL UNLESS NOTED OTHERWISE.  
 2. NAILS TO HAVE A MINIMUM DIAMETER OF 0.131" FOR 8d, 0.148" FOR 10d and 16d.  
 3. ALL PANEL EDGES TO BE BACKED WITH 2" NOMINAL OR WIDER FRAMING.  
 4. "P1" INDICATES PLYWOOD ON ONE SIDE OF SHEARWALL ONLY, "P2" INDICATES PLYWOOD ON BOTH SIDES.  
 5. ANCHOR BOLTS SHALL HAVE A 3"x3"x24" STEEL PLATE WASHER THAT EXTENDS TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SHEATHED SIDE. WHERE 2x6 SHEARWALLS ARE SHEATHED ON BOTH SIDES, LARGER PLATE WASHERS WILL BE REQUIRED IN ORDER TO MEET THE 1/2" EDGE DISTANCE REQUIREMENT.  
 6. FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3" NOMINAL MEMBER OR A BUILT-UP MEMBER STITCH NAILED TOGETHER PER THE BOTTOM PLATE NAILING PATTERN IN THE SHEARWALL SCHEDULE.  
 7. PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER. NAILS ON EACH SIDE SHALL BE STAGGERED.  
 8. AT CONTRACTORS DISCRETION LTP FRAMING ANCHORS MAY BE USED IN LIEU OF THE A35.

17 PLYWOOD/OSB SHEARWALL SCHEDULE (HEM FIR FRAMING) (1, 2, 3, 4, 5)

**Stoney Point Engineering**  
 Dwayne Barnes P.E.  
 dwayne@stonepointengineering.com  
 Office: 425-644-9500



**MI Treehouse, LLC**  
 5637 East Mercer Way  
 Mercer Island, WA 98084

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Issued	Date
Permit Plans	03/30/20

18-025

**S4.3**  
 FRAMING DETAILS

# 5637 MERCER WAY

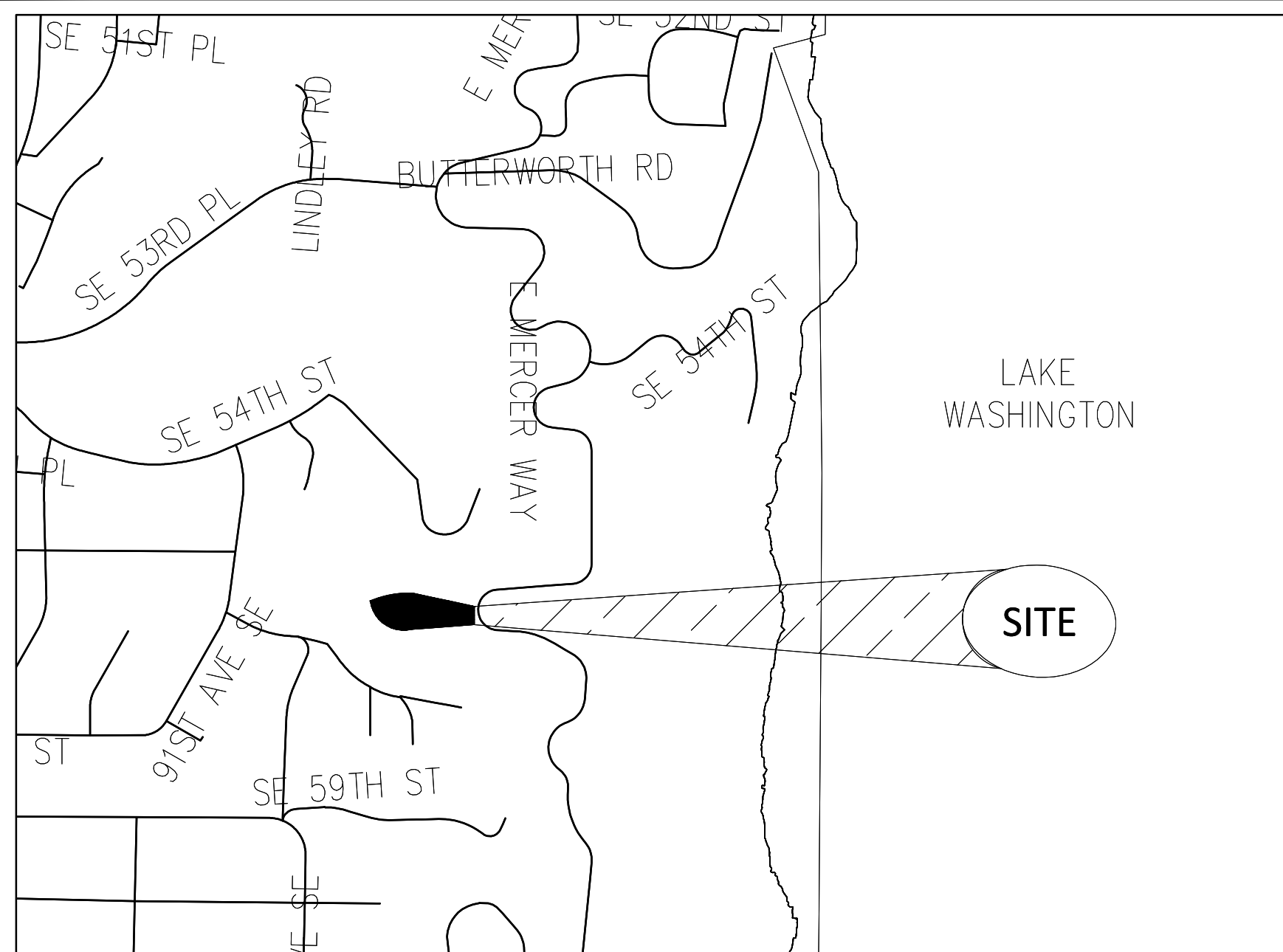
5637 E MERCER WAY  
MERCER ISLAND, WASHINGTON

**OWNER:**

MI TREEHOUSE, LLC  
11030 SE 30TH ST  
BELLEVUE, WA 98004

**ENGINEER/ SURVEY:**

CORE DESIGN INC  
14711 NE 29TH PL, SUITE 101  
BELLEVUE, WASHINGTON 98007  
(425) 885-7877  
CONTACT: MICHAEL A. MOODY, P.E.  
GLENN R. SPRAGUE, P.L.S.



**VICINITY MAP**

1" = 500'

**BASIS OF BEARINGS**

N00°01'20"W BETWEEN THE FOUND MONUMENTS ALONG THE CENTERLINE OF EAST MERCER WAY

**REFERENCES**

STATUTORY WARRANTY DEED RECORDED UNDER RECORDING NUMBER 20140929000870

**LEGAL DESCRIPTION**

LOT A OF CITY OF MERCER ISLAND SHORT PLAT NO. MI-77-1-010, AS RECORDED MARCH 31, 1977 UNDER RECORDING NO. 7703310851, RECORDS OF KING COUNTY AUDITOR;

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

**RESTRICTIONS**

1. THIS SITE IS SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN DEED RECORDED UNDER RECORDING NUMBER 1579699.
2. THIS SITE IS SUBJECT TO THE CONDITIONS, COVENANTS, RESTRICTIONS, EASEMENTS, NOTES, AND SETBACKS, IF ANY, AS SHOWN ON THE FACE OF CITY OF MERCER ISLAND SHORT PLAT NO. MI-77-1-010 AS RECORDED UNDER RECORDING NUMBER 7703310851
3. THIS SITE IS SUBJECT TO AN EASEMENT FOR SIDE SEWER SERVICE AND THE TERMS AND CONDITIONS THEREOF AS RECORDED UNDER RECORDING NUMBER 7804100820.
4. THIS SITE IS SUBJECT TO AN EASEMENT FOR STORMWATER/UTILITY FACILITIES & PEDESTRIAN TRAIL AND THE TERMS AND CONDITIONS THEREOF AS RECORDED UNDER RECORDING NUMBER 20070425001878.

**BASIS OF BEARINGS**

1. THIS SURVEY HAS BEEN PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. IN PREPARING THIS MAP, CORE DESIGN, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS CORE DESIGN, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY STATUTORY WARRANTY DEED RECORDED UNDER RECORDING NUMBER 20140929000870 AND THEREFORE CORE DESIGN, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
2. THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON JUNE 8, 2018. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN JUNE, 2018.
3. PROPERTY AREA = 37,528± SQUARE FEET (0.8615± ACRES).
4. ALL DISTANCES ARE IN FEET.
5. THIS IS A FIELD TRAVERSE SURVEY. A LEICA ROBOTIC TOTAL STATION WAS USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN WA0 332-130-100. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
6. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE ARE SHOWN HEREON. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. UNDERGROUND CONNECTIONS ARE SHOWN AS STRAIGHT LINES BETWEEN SURFACE UTILITY LOCATIONS BUT MAY CONTAIN BENDS OR CURVES NOT SHOWN. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. CORE DESIGN ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS.

**VERTICAL DATUM**

NAVD 88

**BENCHMARKS**

CITY OF MERCER ISLAND POINT "CASC 38"  
ELEVATION=163.23

**SHEET INDEX**

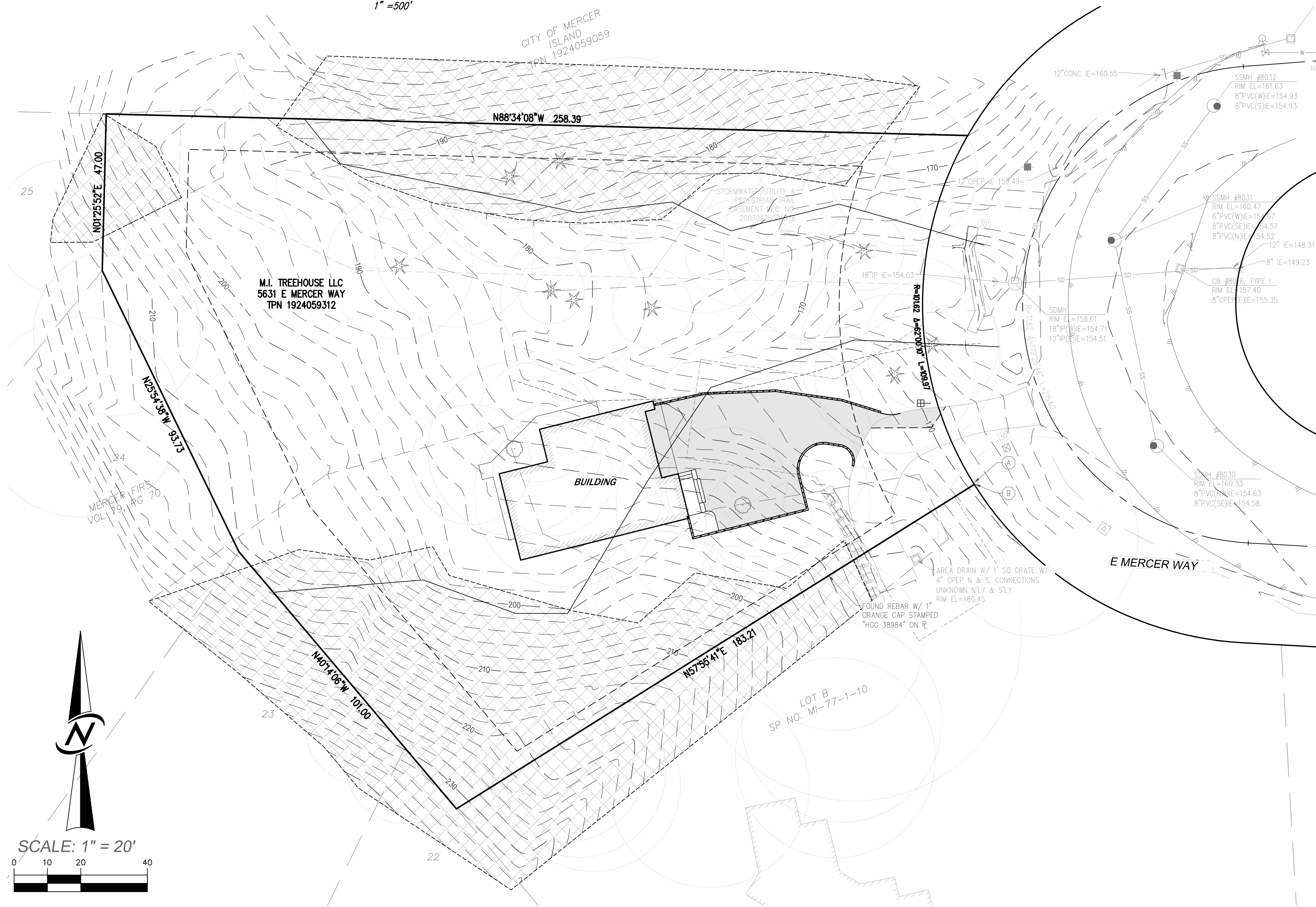
C1.01	SITE PLAN
C1.02	TOPOGRAPHIC PLAN
C2.01	EROSION CONTROL PLAN
C4.01	STORM, UTILITIES & GRADING PLAN
C4.31	STORM DRAINAGE DETAILS

**SITE STATISTICS**

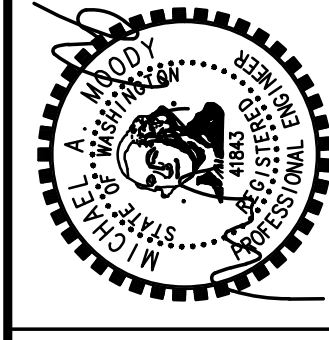
ZONING:	R-15 (RESIDENTIAL-SINGLE FAMILY)
SITE AREA:	±37,554 SF (±0.862 ACRES)
NET LOT AREA:	35,823 SF (0.822 ACRES)
LOTS PROPOSED:	1
TAX PARCEL:	192405-9312
DWELLING UNITS:	1
IMPERVIOUS AREA:	3,739 SF (9.9%)

**LOT SLOPE STATISTICS**

LOT 1:	24.5%
--------	-------



DATE	REVISIONS



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING



**SITE PLAN**  
**MERCER ISLAND TREEHOUSE**  
**MI TREEHOUSE LLC**  
PO BOX 261  
MEDINA, WA 98040

DATE	OCTOBER 2020
DESIGNED	FLAVIO BANHOTI
DRAWN	CHUCK FEMILING
APPROVED	MICHAEL MOODY, PE
	MICHAEL MOODY, PE
	PROJECT MANAGER
SHEET	OF
<b>C1.01</b>	<b>5</b>
PROJECT NUMBER	<b>18039</b>

**UTILITY CONFLICT NOTE:**  
**CAUTION:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT, CONTACTING ALL UTILITY COMPANIES, POT-HOLING THE UTILITIES, AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE # 1-800-424-555 AND THEN POT-HOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT CORE DESIGN, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

**UNDERGROUND LOCATOR SERVICE**  
CALL BEFORE YOU DIG!  
811



4/20/2021 9:14 AM: (2018)18039 [ENGINEERING] FINAL [SHEETS] 18039 C1.01.DWG

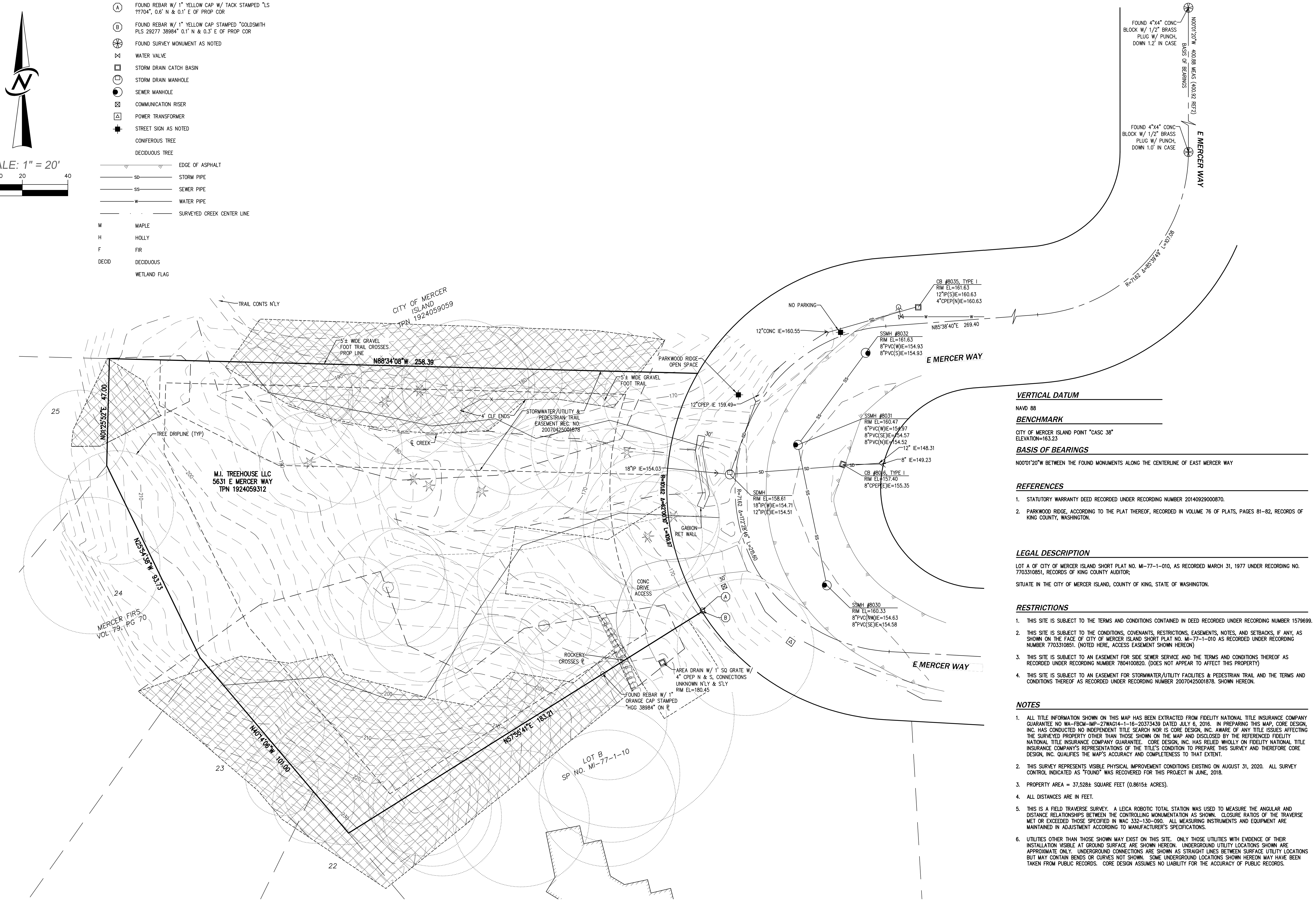
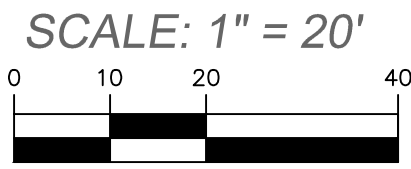


LEGEND

- (A) FOUND REBAR W/ 1" YELLOW CAP W/ TACK STAMPED "LS 77704", 0.6' N & 0.1' E OF PROP COR
- (B) FOUND REBAR W/ 1" YELLOW CAP STAMPED "GOLDSMITH PLS 29277 38984" 0.1' N & 0.3' E OF PROP COR
- (M) FOUND SURVEY MONUMENT AS NOTED
- (X) WATER VALVE
- (S) STORM DRAIN CATCH BASIN
- (L) STORM DRAIN MANHOLE
- (●) SEWER MANHOLE
- (R) COMMUNICATION RISER
- (T) POWER TRANSFORMER
- (S) STREET SIGN AS NOTED
- (T) CONIFEROUS TREE
- (D) DECIDUOUS TREE

- EDGE OF ASPHALT
- SO STORM PIPE
- SS SEWER PIPE
- W WATER PIPE
- SURVEYED CREEK CENTER LINE

- M MAPLE
- H HOLLY
- F FIR
- DECID DECIDUOUS
- WETLAND FLAG



VERTICAL DATUM

NAVD 88

BENCHMARK

CITY OF MERCER ISLAND POINT "CASC 38" ELEVATION=163.23

BASIS OF BEARINGS

N00°01'20"W BETWEEN THE FOUND MONUMENTS ALONG THE CENTERLINE OF EAST MERCER WAY

REFERENCES

- STATUTORY WARRANTY DEED RECORDED UNDER RECORDING NUMBER 20140929008070.
- PARKWOOD RIDGE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 76 OF PLATS, PAGES 81-82, RECORDS OF KING COUNTY, WASHINGTON.

LEGAL DESCRIPTION

LOT A OF CITY OF MERCER ISLAND SHORT PLAT NO. MI-77-1-010, AS RECORDED MARCH 31, 1977 UNDER RECORDING NO. 7703310851, RECORDS OF KING COUNTY AUDITOR;  
 SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

RESTRICTIONS

- THIS SITE IS SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN DEED RECORDED UNDER RECORDING NUMBER 1579699.
- THIS SITE IS SUBJECT TO THE CONDITIONS, COVENANTS, RESTRICTIONS, EASEMENTS, NOTES, AND SETBACKS, IF ANY, AS SHOWN ON THE FACE OF CITY OF MERCER ISLAND SHORT PLAT NO. MI-77-1-010 AS RECORDED UNDER RECORDING NUMBER 7703310851. (NOTED HERE, ACCESS EASEMENT SHOWN HEREON)
- THIS SITE IS SUBJECT TO AN EASEMENT FOR SIDE SEWER SERVICE AND THE TERMS AND CONDITIONS THEREOF AS RECORDED UNDER RECORDING NUMBER 7804100620. (DOES NOT APPEAR TO AFFECT THIS PROPERTY)
- THIS SITE IS SUBJECT TO AN EASEMENT FOR STORMWATER/UTILITY FACILITIES & PEDESTRIAN TRAIL AND THE TERMS AND CONDITIONS THEREOF AS RECORDED UNDER RECORDING NUMBER 20070425001878. SHOWN HEREON.

NOTES

- ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM FIDELITY NATIONAL TITLE INSURANCE COMPANY GUARANTEE NO WA-FBCM-IMP-27WAG14-1-16-20373439 DATED JULY 6, 2016. IN PREPARING THIS MAP, CORE DESIGN, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS CORE DESIGN, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED FIDELITY NATIONAL TITLE INSURANCE COMPANY GUARANTEE. CORE DESIGN, INC. HAS RELIED WHOLLY ON FIDELITY NATIONAL TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE CORE DESIGN, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
- THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON AUGUST 31, 2020. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN JUNE, 2018.
- PROPERTY AREA = 37,528± SQUARE FEET (0.8615± ACRES).
- ALL DISTANCES ARE IN FEET.
- THIS IS A FIELD TRAVERSE SURVEY. A LEICA ROBOTIC TOTAL STATION WAS USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN WAC 332-130-090. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE ARE SHOWN HEREON. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. UNDERGROUND CONNECTIONS ARE SHOWN AS STRAIGHT LINES BETWEEN SURFACE UTILITY LOCATIONS BUT MAY CONTAIN BENDS OR CURVES NOT SHOWN. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. CORE DESIGN ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS.

DATE: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_  
 PROJECT MANAGER: \_\_\_\_\_

CIVIL ENGINEERING  
 LANDSCAPE ARCHITECTURE  
 PLANNING  
 SURVEYING

**CORE DESIGN**

12100 NE 195th St, Suite 300  
 Bothell, Washington 98011 425.885.7877

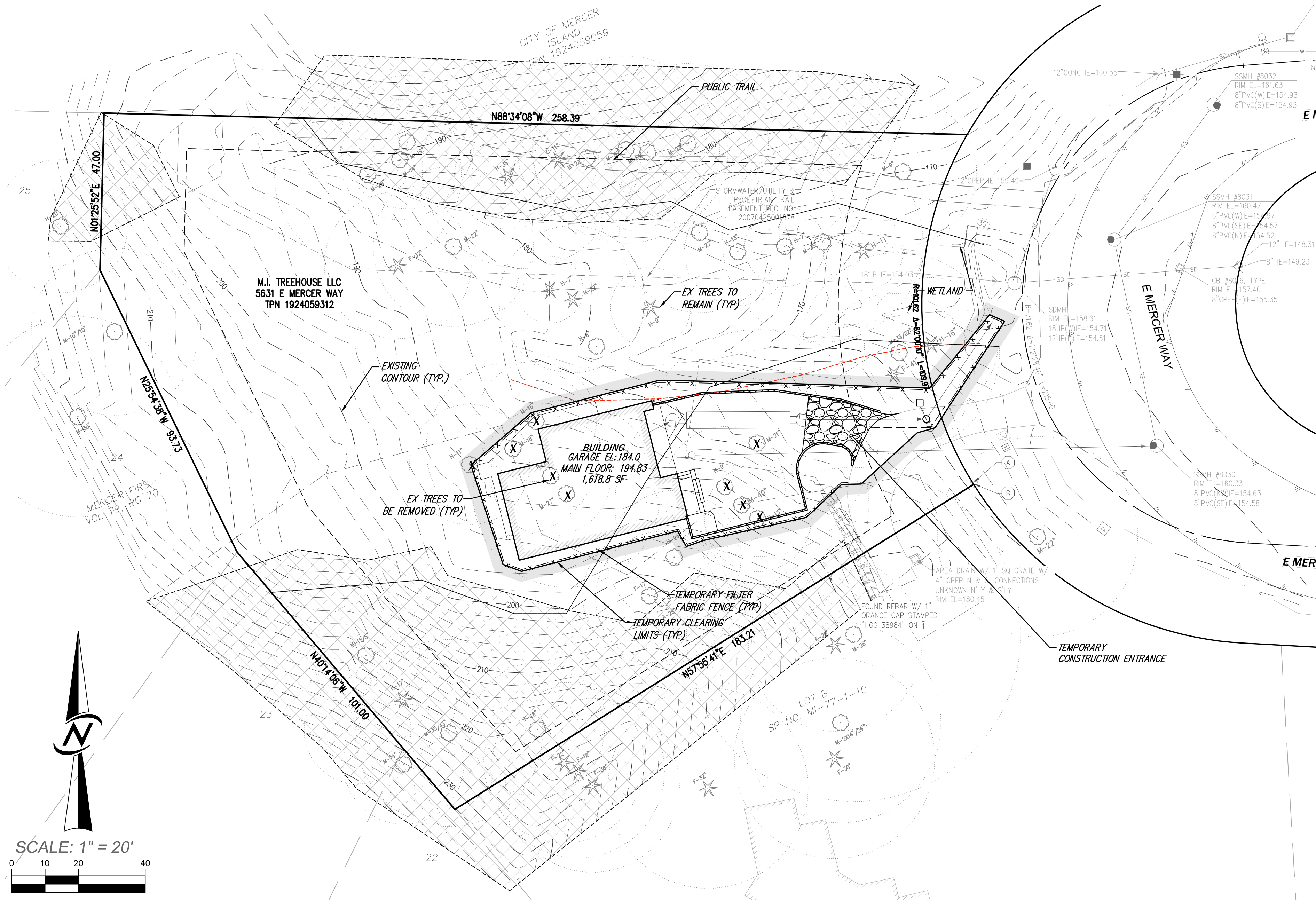
**TOPOGRAPHIC PLAN**  
**MERCER ISLAND TREEHOUSE**  
**MI TREEHOUSE LLC**  
 PO BOX 261  
 MEDINA, WA 98040

DATE: OCTOBER 2020  
 DESIGNED: FLAVIO BANOTTI  
 DRAWN: CHUCK FEMLING  
 APPROVED: MICHAEL MOODY, PE  
 PROJECT MANAGER: MICHAEL MOODY, PE

SHEET OF  
**C1.02 5**

PROJECT NUMBER  
**18039**

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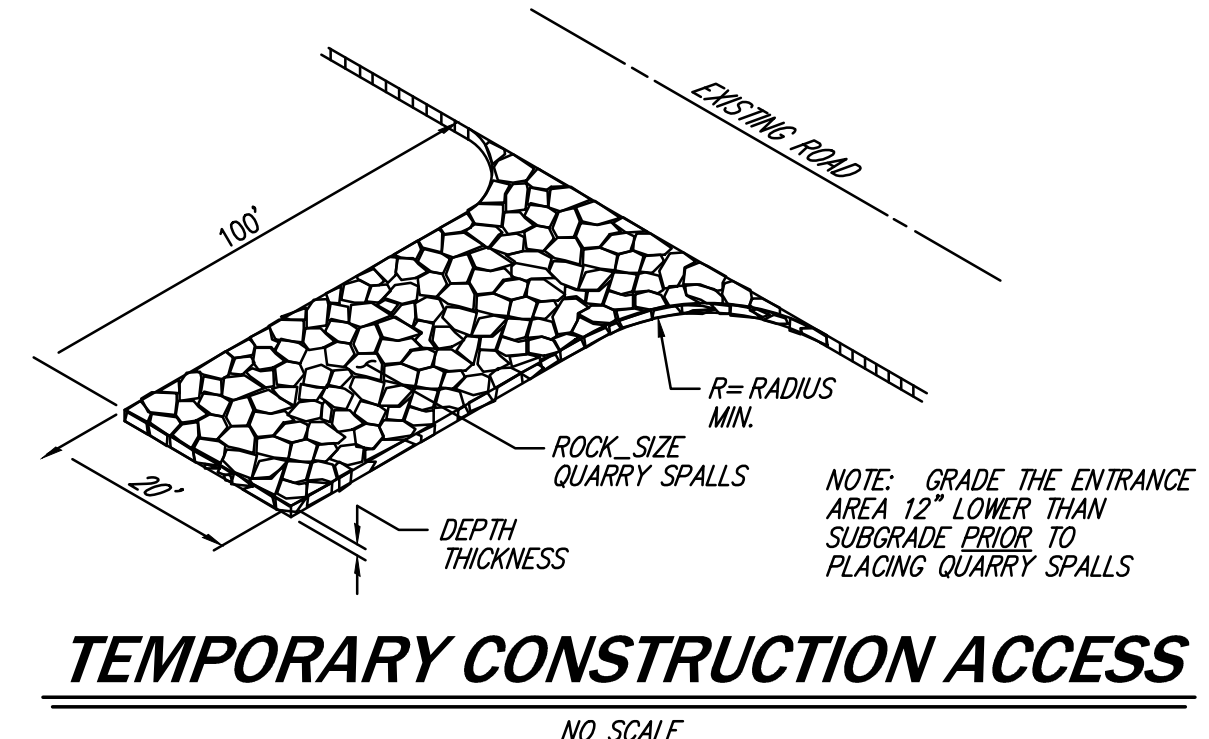
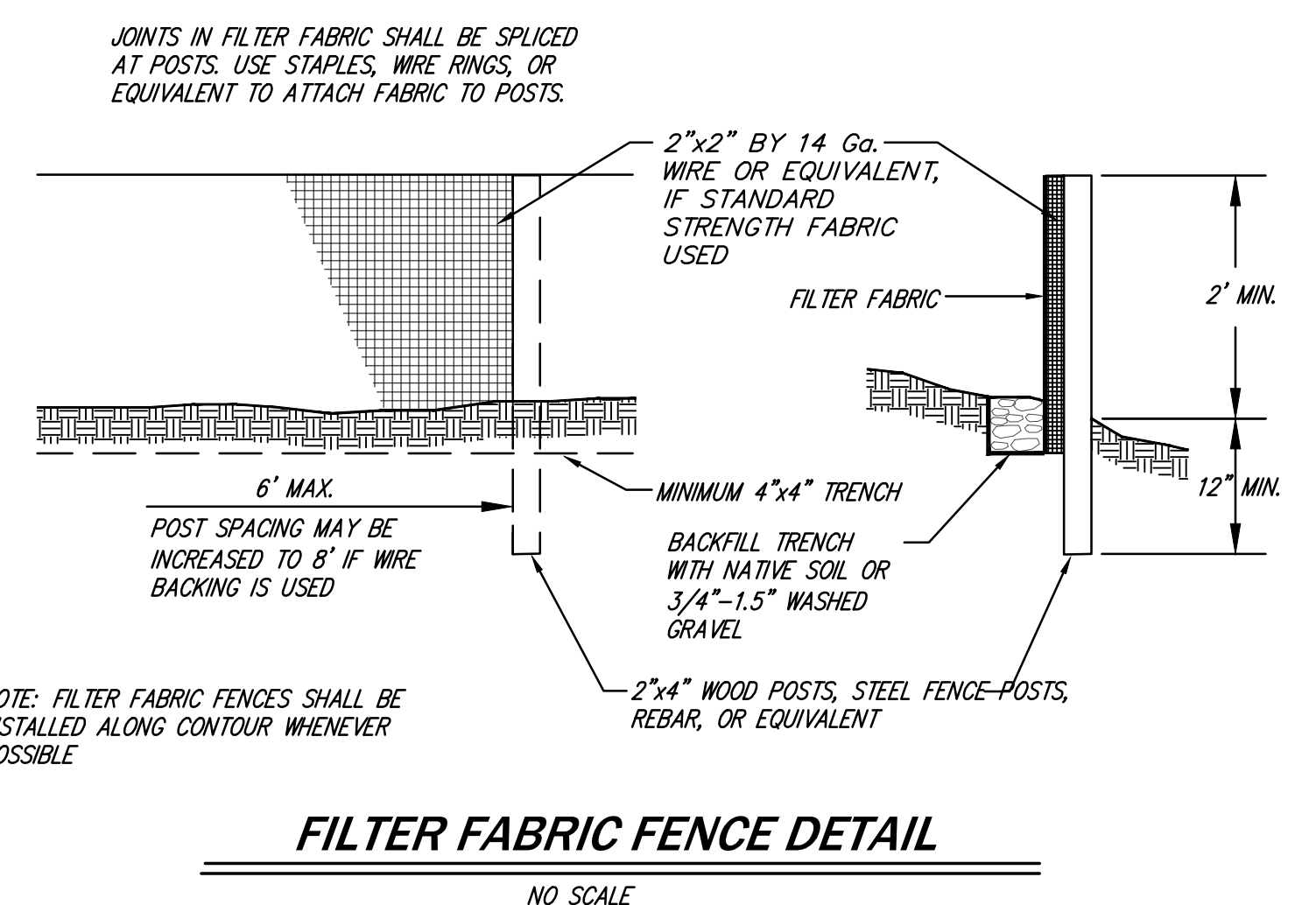
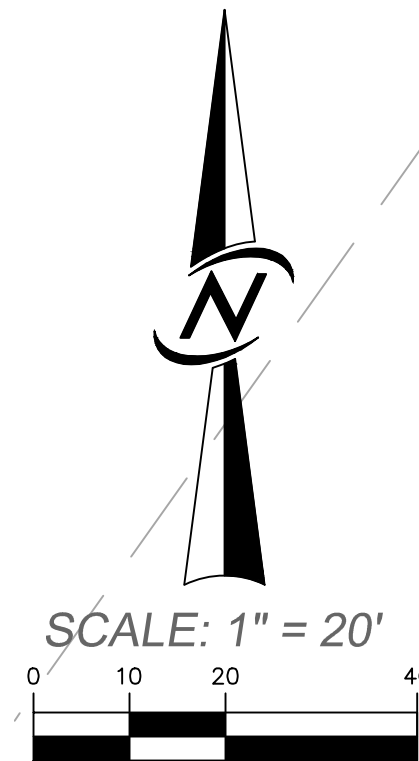


### LEGEND

	BUILDING OVERHANG
	LOT LINES
	DRIVEWAY BOUNDARY
	PROPERTY BOUNDARY
	BUILDING EDGE
	SURVEY ALIGNMENT
	41ST PAVEMENT EDGE
	FOUND MONUMENT AS DESCRIBED
	FOUND PIPE/REBAR AS DESCRIBED
	MADRONA O OAK
	FIG
	DOGWOOD
	CHAIN LINK FENCE
	VERTICAL BOARD FENCE
	ROCKERY
	INLET FILTER (W.S.D.O.T. STD DTL. I-40.20-00)
	SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE DOE STD DTL. BMP 205
	CLEARING LIMITS
	FILTER FABRIC FENCE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	ONSITE TREE TO BE REMOVED

### CONSTRUCTION SEQUENCE

- ① PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF MERCER ISLAND BY PHONING (206)-275-7726.
- ② FLAG LIMITS OF CLEARING IN FIELD AS INDICATED ON SHEET C2.01.
- ③ CLEAR FOR AND CONSTRUCT THE ROCKED CONSTRUCTION ACCESS.
- ④ CONSTRUCT PERIMETER FILTER FABRIC FENCES.
- ⑤ CONSTRUCT DOWNSTREAM DISCHARGE SYSTEM, INTERCEPTOR SWALES, ROCK CHECK DAMS, STORM DRAINAGE PIPES, RIP RAP PADS.
- ⑥ CLEAR & GRADE SITE WHILE EXTENDING TEMPORARY INTERCEPTOR SWALE AS CONSTRUCTION PROCEEDS. ALL SILT-LADEN RUNOFF SHALL BE DIRECTED TO SEDIMENT RETENTION FACILITIES.
- ⑦ CLEAR FOR AND CONSTRUCT DETENTION TANK FOR USE FOR SEDIMENT RETENTION AND CONSTRUCT DISCHARGE SYSTEM.
- ⑧ CONSTRUCT SANITARY SEWER, WATER, & REMAINING STORM DRAINAGE FACILITIES PER THE APPROVED PLANS.
- ⑨ FINE GRADE AND PAVE THE DRIVEWAY.
- ⑩ UPON COMPLETION OF GRADING ACTIVITIES, STABILIZE ALL DISTURBED AREAS, REMOVE EXCESS SEDIMENT FROM THE TANK AND REMOVE ALL TEMPORARY EROSION/ SEDIMENTATION CONTROL FACILITIES.



**UNDERGROUND LOCATOR SERVICE**  
CALL BEFORE YOU DIG!  
811

**UTILITY CONFLICT NOTE:**  
**CAUTION:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT, CONTACTING ALL UTILITY COMPANIES, POTHOLES THE UTILITIES, AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-424-555 AND THEN POTHOLES ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT CORE DESIGN, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

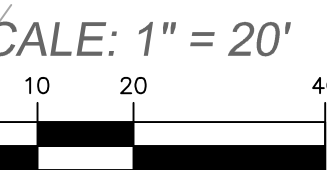
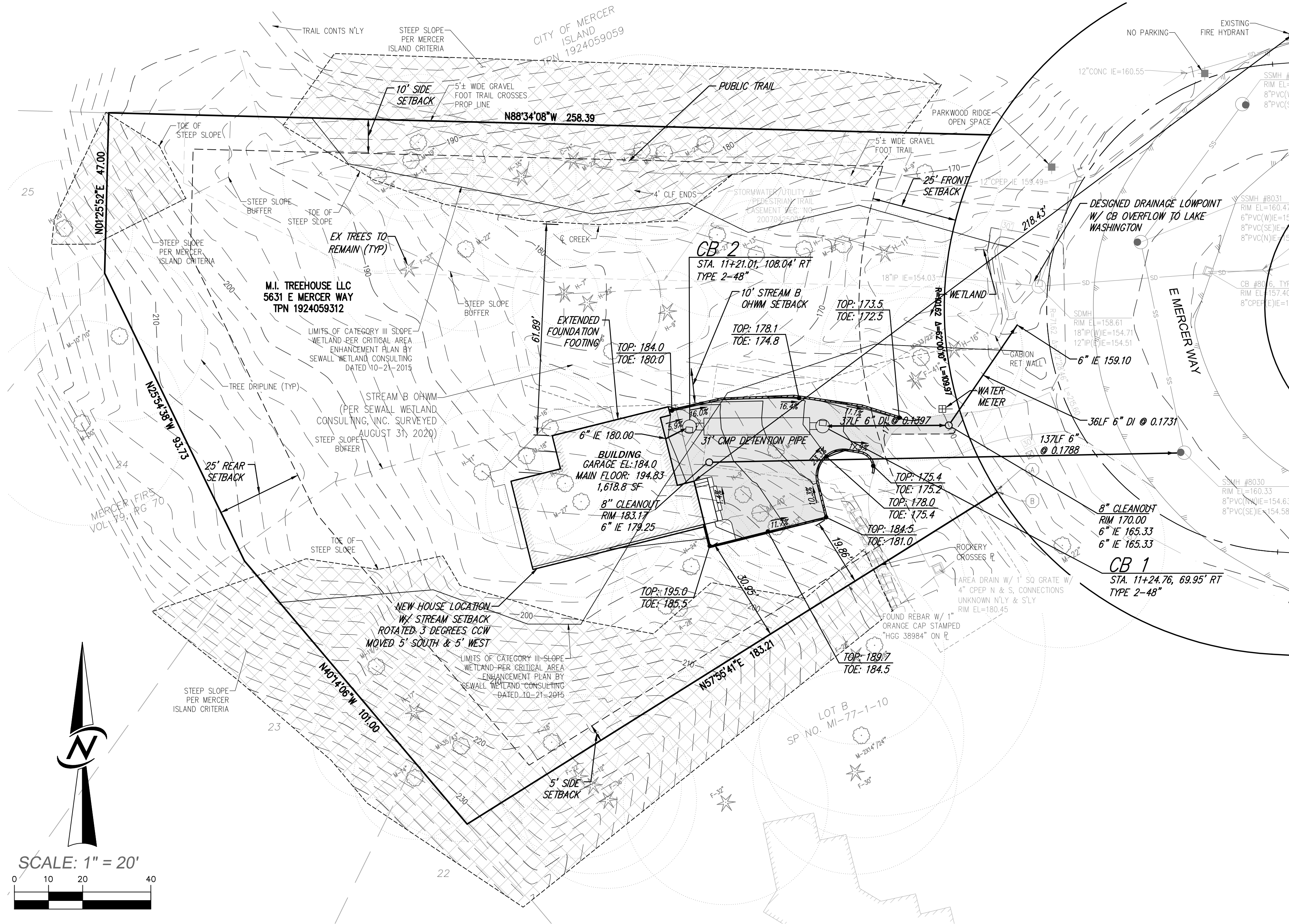
DATE		REVISIONS					
OCTOBER 2020							
DESIGNED	FLAVIO BAINOTTI						
DRAWN	CHUCK FEMILING						
APPROVED	MICHAEL MOODY, PE						
PROJECT MANAGER	MICHAEL MOODY, PE						
SHEET	OF						
C2.01	5						
PROJECT NUMBER		18039					

**EROSION CONTROL PLAN**  
**MERCER ISLAND TREEHOUSE**

**MI TREEHOUSE LLC**  
PO BOX 261  
MEDINA, WA 98040

CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.865.7877



**STORM DRAINAGE GENERAL NOTES**

1. ALL NEW CATCH BASINS SHALL CONFORM TO THE APWA WSDOT STANDARD DETAILS.
2. THE FOOTING DRAINAGE SYSTEM AND THE ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED.
3. PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION FILTER AND SILT REMOVAL FACILITIES TO ENSURE THAT SEDIMENT OR OTHER HAZARDOUS MATERIALS DO NOT ENTER THE STORM DRAINAGE SYSTEM. FOR ALL CONSTRUCTION DURING THE RAINY SEASON, DOWNHILL BASINS AND INLETS MUST BE PROTECTED WITH CATCH BASINS INSERTS. PLACEMENT OF FILTER FABRIC UNDER GRATE IS NOT ACCEPTABLE.
4. PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF STORM DRAINAGE WORK, PIPES AND STORM DRAIN STRUCTURES SHALL BE CLEANED AND FLUSHED. ANY OBSTRUCTIONS TO FLOW WITHIN THE STORM DRAINAGE SYSTEM (SUCH AS RUBBLE, MORTAR, AND WEDGED DEBRIS) SHALL BE REMOVED AT THE NEAREST STRUCTURE. WASH WATER OF ANY SORT SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM OR SURFACE WATER.
5. ON-SITE DRAINAGE SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.
6. SEE FOUNDATION PLAN FOR FOOTING DRAIN LOCATIONS.
7. EXCAVATION OF ON-SITE CATCH BASINS WILL NOT IMPACT NEIGHBORING PROPERTY AND WILL BE CONTAINED BY WALL.

**GENERAL NOTES**

1. CONTRACTOR IS TO OBTAIN PERMITS AND GUARANTEES.
2. ALL DAMAGE TO ADJACENT PROPERTIES OR PUBLIC RIGHTS-OF-WAY RESULTING FROM CONSTRUCTION (E.G., SILTATION, MUD, WATER, RUNOFF, ROADWAY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT OR HAULING) SHALL BE EXPEDITIOUSLY MITIGATED AND REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY. FAILURE TO MITIGATE AND REPAIR SAID DAMAGE OR TO COMPLY WITH THE APPROVED CONSTRUCTION PLANS, THE PERMITS ISSUED BY THE CITY OR THE CITY REQUIREMENT FOR CORRECTIVE ACTION SHALL BE CAUSE FOR THE ISSUANCE OF A "STOP WORK" ORDER, FORECLOSURE ON THE PLAT BOND/ SECURITY, AND/OR OTHER MEASURES DEEMED APPROPRIATE BY THE CITY ENGINEER OR CODE OFFICIAL TO ENSURE QUALITY CONSTRUCTION AND PROTECT THE PUBLIC SAFETY.
3. CONSTRUCTION OF ALL IMPROVEMENTS FOR ACCESS, UTILITIES, STORM DRAINAGE AND SITE WORK SHALL COMPLY WITH CURRENT CITY ORDINANCES AND THE REQUIREMENTS OF THE CITY ENGINEER.
4. ALL SHORT PLAT IMPROVEMENTS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL AND RECORDING OF THE SHORT PLAT MYLAR DOCUMENTS OR BONDED AND COMPLETED PRIOR TO ISSUANCE OF BUILDING PERMITS WHEN APPROVED BY THE CITY ENGINEER. AN ACCURATELY PREPARED AS-BUILT DRAWING THAT SHOWS ALL UTILITIES AND SHORT PLAT IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY UPON COMPLETION OF THE WORK PROVIDED TWO PAPER COPIES, ONE MYLAR AND ONE DXF AUTOCAD FILE. SUBMIT USING MERCER ISLAND'S DATUM AN THE PLAT TO AT LEAST TWO MONUMENTS.

**TREE PROTECTION NOTES**

1. CONTRACTOR SHALL COORDINATE WITH ARBORIST ON GRADING AROUND RETAINED TREES AND ROOTS.
2. ARBORIST TO BE ONSITE TO VERIFY PRESERVATION OF RETAINED TREES

**WATER GENERAL NOTES**

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE DEVELOPER EXTENSION AGREEMENT, THE STANDARD SPECIFICATIONS AND THE STANDARD DETAILS OF THE CITY OF MERCER ISLAND.
2. THE APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN ON PLANS AND PROFILES FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF UTILITY LOCATIONS SHOWN AND FOR DISCOVERY OF POSSIBLE ADDITIONAL UTILITIES NOT SHOWN ON PLANS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE LOCATED BY APPROPRIATE UTILITY DISTRICTS OR COMPANIES, ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
4. FOR UTILITY LOCATES IN KING COUNTY, CALL 1-800-424-5555 PRIOR TO DIGGING.

- PERMITS**
5. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL REGULATORY PERMITS.
  6. ALL WORK IN RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF PERMITTING AGENCY.

- PRE-CON**
7. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD AT THE CITY OF MERCER ISLAND'S OFFICE PRIOR TO THE START OF CONSTRUCTION. CITY STAFF WILL NOTIFY THE APPROPRIATE AGENCIES OR REPRESENTATIVES.

- SURVEYING**
8. PRIOR TO CONSTRUCTING ANY WATER MAINS, THE STREET CENTERLINES OF THE DEVELOPMENT, CENTER OF CUL-DE-SACS, ALL WATER LINE EASEMENTS AND ALL LOT CORNERS SHALL BE STAKED. THE MAXIMUM STATIONING INTERVAL WILL BE 50 FEET WITH THE STATION NUMBER ON EACH STAKE.
  9. HORIZONTAL CONTROL DATA SHALL BE NAD '83/'91. VERTICAL CONTROL SHALL BE NAVD-88 DATUM.
  10. AT THE CONCLUSION OF CONSTRUCTION, THE DEVELOPER'S REGISTERED PROFESSIONAL SURVEYOR SHALL PREPARE A DRAWING BASED ON THE SURVEYED LOCATIONS OF ALL APPURTENANCES INSTALLED, INCLUDING BUT NOT LIMITED TO, WATER MAIN, METER BOXES, BLOWOFFS, VALVES BOXES, HYDRANTS AND BENDS. THE DISTRICT WILL PROVIDE LOCATES TO ASSIST THE SURVEYOR IN LOCATING THE WATER MAIN BETWEEN APPURTENANCES AND LOCATING THE BENDS. THE DRAWING SHALL BE PROVIDED TO THE DISTRICT IN AUTOCAD FORMAT, R 2000 OR NEWER. IN ADDITION, ALL WATER EASEMENTS SHALL BE STAKED AND FLAGGED AT THEIR INTERSECTION WITH PROPERTY LINES AND AT 25 FOOT STATIONS ALONG THE EASEMENT LINES.

- CONSTRUCTION**
11. THE WATER MAIN SHALL BE PLACED AS SHOWN ON PLAN.
  12. A MINIMUM TEN (10) FOOT HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN THE SANITARY SEWER LINE AND THE WATER MAIN.
  13. A FIVE (5) FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL WATER FACILITIES AND UNDERGROUND POWER AND TELEPHONE FACILITIES, UNLESS OTHERWISE APPROVED BY THE DISTRICT.
  14. DISTRICT VALVES SHALL ONLY BE OPERATED BY DISTRICT PERSONNEL.

- MATERIALS**
15. ALL WATER MAIN PIPING SHALL BE DUCTILE-IRON MINIMUM THICKNESS CLASS 52, CEMENT-MORTAR LINED AND TYTON JOINT. ALL WATER MAIN PIPING TO MEET THE REQUIREMENTS OF AWWA C-153.
  16. ALL WATER MAIN FITTINGS SHALL BE CEMENT-MORTAR LINED AND MEET THE REQUIREMENTS OF AWWA C-153.
  17. POLYETHYLENE ENCASEMENT TO MEET THE AWA STANDARD C-105. ANY TEARS OR OPENINGS MADE FOR SERVICE OR TAPS SHALL BE REPAIRED WITH AN ADHESIVE TAPE.
  18. ALL WATER MAIN PIPES AND SERVICES SHALL BE INSTALLED WITH A 14 (FOURTEEN) GAUGE, CONTINUOUS, SOLID-CORE, NEOPRENE COATED LOCATING WIRE. ANY CONNECTIONS OR SPICES SHALL BE MADE WITH SPLIT-BOLT WIRE CONNECTORS.

- PLACEMENT**
19. FIRE HYDRANT LOCATIONS TO BE APPROVED BY THE FIRE MARSHAL OF JURISDICTION.
  20. WATER SERVICE LINE AND METER LOCATIONS WILL BE COORDINATED WITH THE DEVELOPER'S ENGINEER AFTER A THOROUGH REVIEW OF ALL UTILITY FACILITIES.
    - 20-1 THE METER LOCATION SHALL BE WITHIN THREE (3) FEET OF THE PROPERTY LINE THAT IS PERPENDICULAR TO THE RIGHT-OF-WAY AND WITHIN ONE (1) FOOT OF THE EDGE OF PROPERTY ON THE RIGHT-OF-WAY SIDE UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT.
    - 20-2 AFTER INSTALLATION OF THE METER AND BOX, A 2X4 BOARD PAINTED WHITE WITH "WATER SERVICE" STENCILED ONTO IT WILL BE DRIVEN INTO THE GROUND BEHIND THE METER BOX.

**SEWER GENERAL NOTES**

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE DEVELOPER EXTENSION AGREEMENT, THE STANDARD SPECIFICATIONS, STANDARD DETAILS OF THE CITY OF MERCER ISLAND.

- UTILITY LOCATES**
2. THE APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN ON PLANS AND PROFILES FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF UTILITY LOCATIONS SHOWN AND FOR DISCOVERY OF POSSIBLE ADDITIONAL UTILITIES NOT SHOWN ON PLANS.
  3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE LOCATED, BY APPROPRIATE UTILITY DISTRICTS OR COMPANIES, ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
  4. FOR UTILITY LOCATES IN KING COUNTY, CALL 1-800-424-5555 PRIOR TO DIGGING.

- PERMITS**
5. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL REGULATORY PERMITS.
  6. ALL WORK IN RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITTING AGENCY.

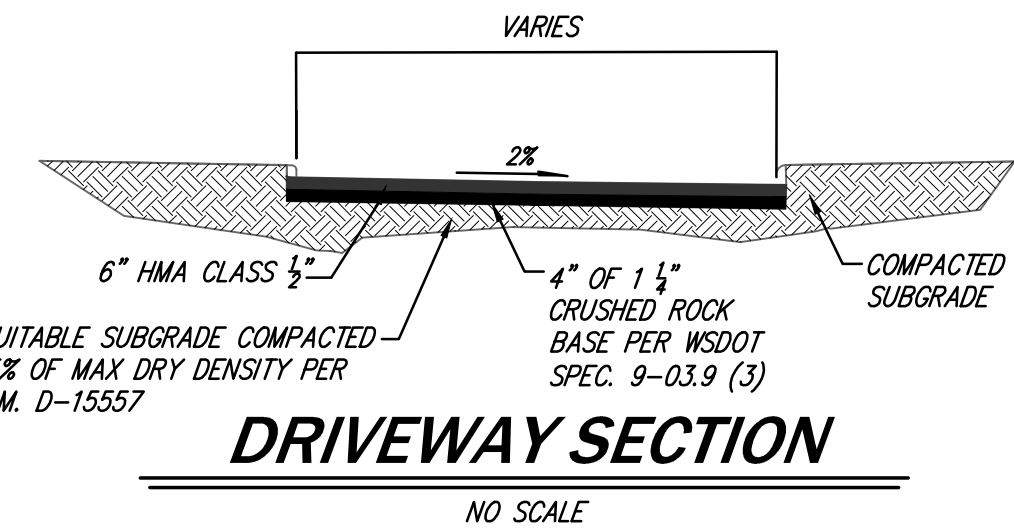
- PRE-CON**
7. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD AT THE CITY OF MERCER ISLAND'S OFFICE PRIOR TO THE START OF CONSTRUCTION. DISTRICT STAFF WILL NOTIFY THE APPROPRIATE AGENCIES OR REPRESENTATIVES.

- SURVEYING**
8. PRIOR TO CONSTRUCTING ANY SEWER MAINS, THE STREET CENTERLINES OF THE DEVELOPMENT, CENTER OF CUL-DE-SACS, ALL SEWER LINE EASEMENTS AND ALL LOT CORNERS SHALL BE STAKED. THE MAXIMUM STATIONING INTERVAL SHALL BE 50 FEET WITH THE STATION NUMBER ON EACH STAKE.
  9. HORIZONTAL CONTROL DATA SHALL BE NAD '83/'91. VERTICAL CONTROL SHALL BE NAVD-88 DATUM.
  10. AT THE CONCLUSION OF CONSTRUCTION, THE DEVELOPER'S REGISTERED PROFESSIONAL SURVEYOR SHALL PREPARE A DRAWING BASED ON THE SURVEYED LOCATIONS OF ALL AT-GRADE APPURTENANCES INSTALLED, INCLUDING BUT NOT LIMITED TO, LOCATION OF EXISTING MANHOLES INCLUDING RIM & ALL INVERT ELEVATIONS AND NEW MANHOLE LOCATIONS INCLUDING RIM & ALL INVERT ELEVATIONS. THE DRAWING SHALL BE PROVIDED TO THE DISTRICT IN AUTOCAD FORMAT, R 2000 OR NEWER. IN ADDITION, ALL SEWER EASEMENTS SHALL BE STAKED AND FLAGGED AT THEIR INTERSECTION WITH PROPERTY LINES AND AT 25 FOOT STATIONS ALONG THE EASEMENT LINES.

- CONSTRUCTION**
11. THE SEWER MAIN SHALL BE PLACED FIVE (5) FEET SOUTH OR WEST FROM THE CENTERLINE OF THE ROADWAY, UNLESS OTHERWISE SHOWN ON THE PLAN.
  12. A MINIMUM TEN (10) FOOT HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN THE SANITARY SEWER LINE AND THE WATER MAIN.
  13. AFTER TRENCH BACKFILL AND COMPACTION, PVC SANITARY SEWER MAINS SHALL BE TESTED FOR DEFLECTION AS SPECIFIED IN SECTION 7-17.3(2) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION TEST OBSERVATION AND INSPECTION BY NORTHSLORE.

- UTILITY DISTRICT**
14. WHENEVER SANITARY SEWER CROSSES BELOW A WATER MAIN, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER LINE IS AT LEAST EIGHTEEN (18) INCHES BELOW THE BOTTOM OF THE WATER MAIN.
  15. ALL MANHOLES SHALL HAVE A MINIMUM DROP OF ONE-TENTH (0.10) FOOT AND FIVE-TENTHS (0.50) FOOT MAXIMUM DROP BETWEEN INVERT IN AND INVERT OUT.
  16. MANHOLES IN THE PUBLIC RIGHT-OF-WAY SHALL BE A MINIMUM OF EIGHT (8) FEET IN DEPTH OR PER APPROVED PLANS.
  17. MANHOLES NOT IN PAVED PUBLIC RIGHT-OF-WAY TO HAVE LOCKING LIDS AND ALL FRAMES SHALL BE LOCKING TYPE PER THE STANDARD DETAILS.
  18. FOR PIPE SLOPES GREATER THAN 20%, RESTRAINED-JOINT DUCTILE IRON PIPE SHALL BE USED FOR EVERY JOINT.
  19. SIDE SEWER STUBS SHALL HAVE A MINIMUM OF TWO (2) PERCENT SLOPE AND MAXIMUM OF FORTY-FIVE (45) DEGREE SLOPE. STUBS SHALL BE 6" MINIMUM DIAMETER FOR ALL STUBS LESS THAN EIGHT (8) FEET IN DEPTH. INSTALL A THREE (3) INCH WIDE GREEN METALLIC DETECTOR TAPE 12" ABOVE THE PIPE, THE ENTIRE LENGTH OF THE STUB CONTINUING UP THE 2X4 SIDE SEWER MARKER POST. IDENTIFICATION ON THE TAPE SHALL INCLUDE THE WORDS "SANITARY SEWER".

- MATERIALS**
20. SANITARY SEWER PIPE LESS THAN EIGHTEEN (18) FEET IN DEPTH AND LESS THAN 20% SLOPE SHALL BE PVC CONFORMING TO ASTM D-3034, SDR-35 AND SHALL BE BEDDED WITH CLEAN, GRANULAR MANUFACTURED PEA GRAVEL FROM 4" UNDER TO 6" OVER THE PIPE. SANITARY SEWER PIPE EIGHTEEN (18) FEET DEEP AND GREATER, OR ON A SLOPE OF 20% DUCTILE-IRON PIPE MUST MEET THE REQUIREMENTS OF AWWA C-151.
  21. HIGH-DENSITY POLYETHYLENE (HDPE) SHALL BE SDR-11 MINIMUM.



**UTILITY CONFLICT NOTE:**  
**CAUTION:**  
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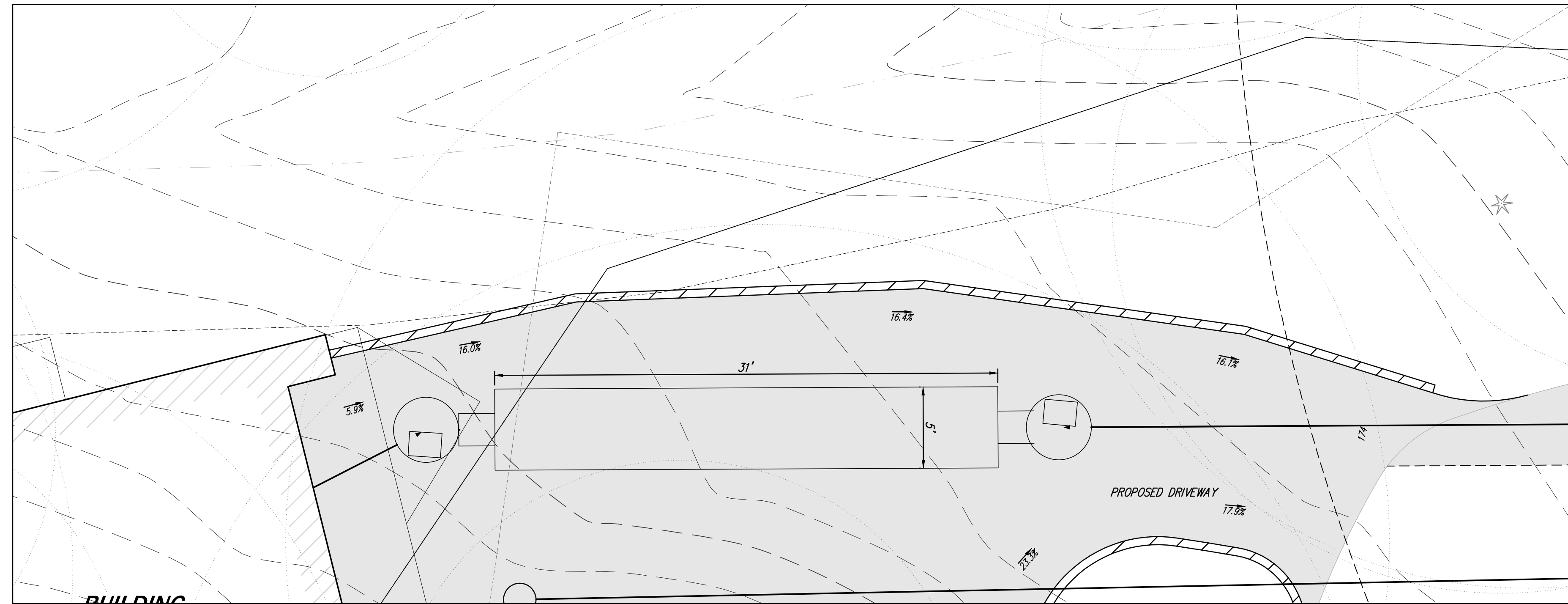
**UNDERGROUND LOCATOR SERVICE**  
 CALL BEFORE YOU DIG!  
 811

DATE	OCTOBER 2020	SHEET	OF
DESIGNED	FLAVIO BAINOTTI	C4.01	5
DRAWN	CHUCK FEMLING	PROJECT NUMBER 18039	
APPROVED	MICHAEL MOODY, PE		
	MICHAEL MOODY, PE		
	PROJECT MANAGER		

**STORM, UTILITIES & GRADING PLAN & NOTES**  
**MERCER ISLAND TREEHOUSE**

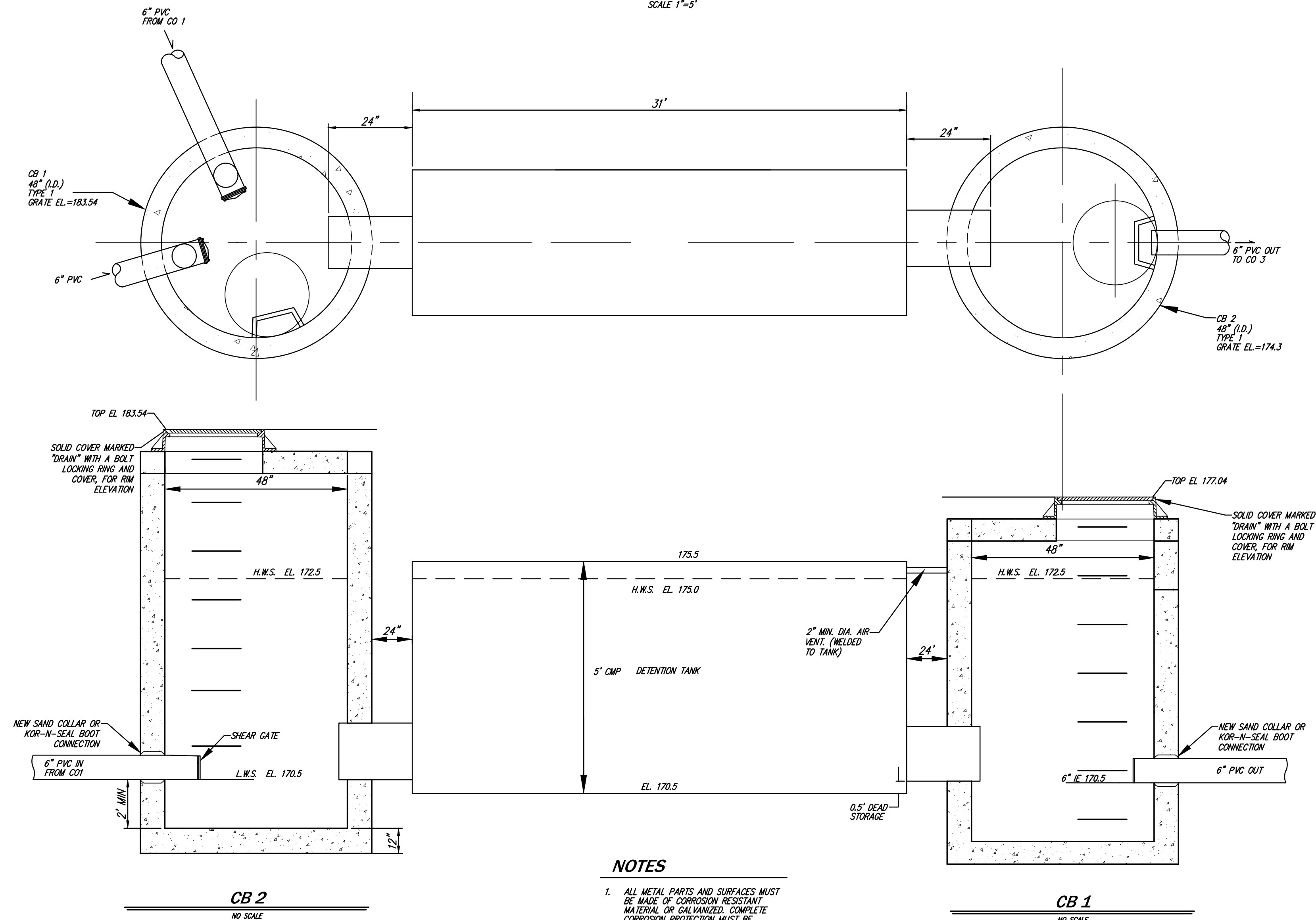
**CORE DESIGN**  
 CIVIL ENGINEERING  
 LANDSCAPE ARCHITECTURE  
 PLANNING  
 SURVEYING

12100 NE 195th St, Suite 300  
 Bothell, Washington 98011 425.885.7877



**DETENTION PIPE**

SCALE 1"=5'



**NOTES**

1. ALL METAL PARTS AND SURFACES MUST BE MADE OF CORROSION RESISTANT MATERIAL OR GALVANIZED. COMPLETE CORROSION PROTECTION MUST BE ASSURED.
2. FIRE APPROVAL ISSUED. FIRE TRUCK ACCESS IS NOT ASSUMED ON ACCESS DRIVEWAY.

DATE	OCTOBER 2020	DESIGNED	FLAVIO BAINOTTI
DRAWN	CHUCK FEMLING	APPROVED	MICHAEL MOODY, PE
PROJECT NUMBER	18039	PROJECT MANAGER	MICHAEL MOODY, PE
SHEET	C4.31	OF	5

**STORM DRAINAGE DETAILS**  
**MERCER ISLAND TREEHOUSE**  
**MI TREEHOUSE LLC**  
 PO BOX 261  
 MEDINA, WA 98040

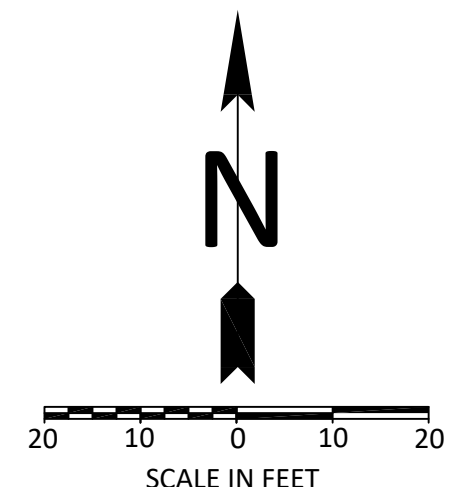
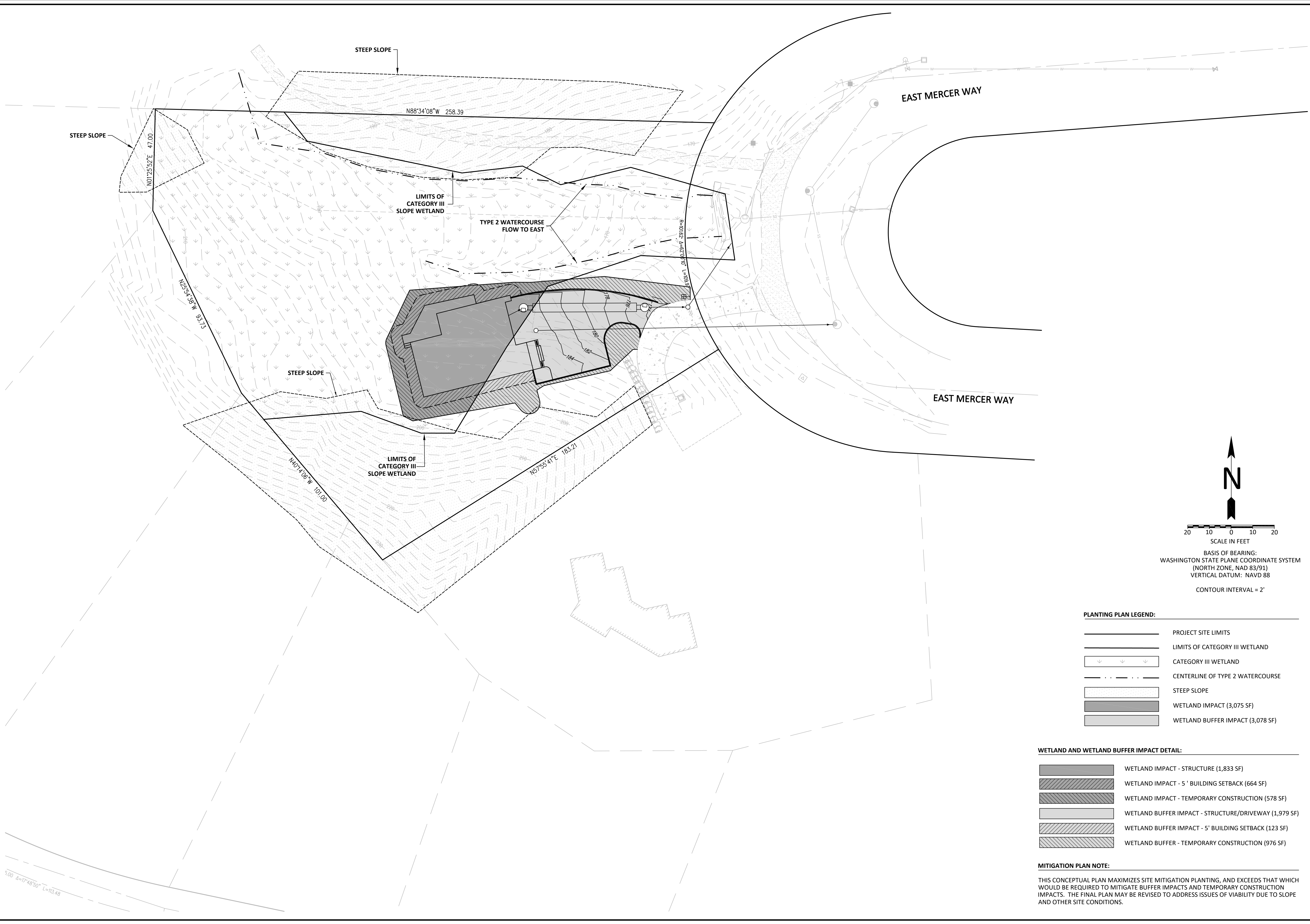
CIVIL ENGINEERING  
 LANDSCAPE ARCHITECTURE  
 PLANNING  
 SURVEYING

12100 NE 195th St, Suite 300  
 Bothell, Washington 98011 425.885.7877

CORE DESIGN

REGISTRATION NO. \_\_\_\_\_  
 EXPIRES \_\_\_\_\_  
 NO. \_\_\_\_\_  
 DATE \_\_\_\_\_

O4-19-21



BASIS OF BEARING:  
WASHINGTON STATE PLANE COORDINATE SYSTEM  
(NORTH ZONE, NAD 83/91)  
VERTICAL DATUM: NAVD 88  
CONTOUR INTERVAL = 2'

**PLANTING PLAN LEGEND:**

- PROJECT SITE LIMITS
- LIMITS OF CATEGORY III WETLAND
- CATEGORY III WETLAND
- CENTERLINE OF TYPE 2 WATERCOURSE
- STEEP SLOPE
- WETLAND IMPACT (3,075 SF)
- WETLAND BUFFER IMPACT (3,078 SF)

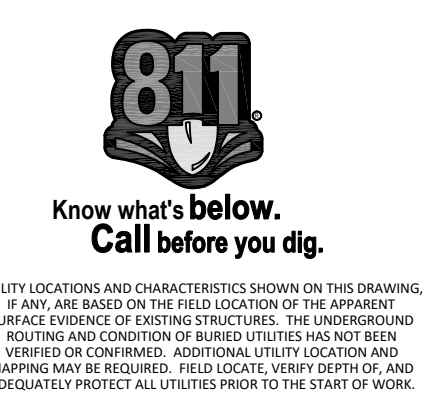
**WETLAND AND WETLAND BUFFER IMPACT DETAIL:**

- WETLAND IMPACT - STRUCTURE (1,833 SF)
- WETLAND IMPACT - 5' BUILDING SETBACK (664 SF)
- WETLAND IMPACT - TEMPORARY CONSTRUCTION (578 SF)
- WETLAND BUFFER IMPACT - STRUCTURE/DRIVEWAY (1,979 SF)
- WETLAND BUFFER IMPACT - 5' BUILDING SETBACK (123 SF)
- WETLAND BUFFER - TEMPORARY CONSTRUCTION (976 SF)

**MITIGATION PLAN NOTE:**

THIS CONCEPTUAL PLAN MAXIMIZES SITE MITIGATION PLANTING, AND EXCEEDS THAT WHICH WOULD BE REQUIRED TO MITIGATE BUFFER IMPACTS AND TEMPORARY CONSTRUCTION IMPACTS. THE FINAL PLAN MAY BE REVISED TO ADDRESS ISSUES OF VIABILITY DUE TO SLOPE AND OTHER SITE CONDITIONS.

**CRITICAL AREA ENHANCEMENT PLAN**  
**- MI TREEHOUSE LLC -**  
5637 EAST MERCER WAY  
MERCER ISLAND, WASHINGTON



NO.	DATE	NOTES
1.	09/08/15	ADDED STREAM
2.	10/21/15	REVISED PER CITY COMMENTS
3.	12/04/18	REVISED PER NEW SITE PLAN
4.	12/17/18	ADDED IMPACT SITE PLAN
5.	01/24/19	REVISED PLANTING PLAN
6.	01/25/19	ADDED MITIGATION PLAN NOTE
7.	10/30/19	REVISED PER NEW SITE PLAN
8.	12/02/20	REVISED PER NEW SITE PLAN

DATE: 03/04/2015  
JOB NUMBER: 14-206

**SITE PLAN**

## MONITORING PLAN & MAINTENANCE PLAN

### ENHANCEMENT PLAN GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

ENHANCEMENT PLAN GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS ARE OUTLINED IN TABLE 2-1 (BELOW). THE GOALS AND OBJECTIVES OF THIS PLAN ARE CONSIDERED ACHIEVED WHEN THE PERFORMANCE STANDARDS ARE SATISFIED.

### MONITORING PLAN

#### AS-BUILT

FOLLOWING COMPLETION OF THE WORK SHOWN ON THIS PLAN, A QUALIFIED PROFESSIONAL SHALL PREPARE AN AS-BUILT OF THE COMPLETED WORK. THE AS-BUILT SHALL SUMMARIZE THE COMPLETED WORK AS WELL AS ANY DEVIATIONS FROM THE APPROVED VERSION OF THIS PLAN.

BASELINE MONITORING DATA SHALL BE COLLECTED AT THE TIME OF THE AS-BUILT (SEE "ANNUAL COMPLIANCE MONITORING" FOR FIELD DATA COLLECTION REQUIREMENTS). PERMANENT PHOTO POINTS SHALL BE ESTABLISHED AT THE TIME OF THE AS-BUILT TO PHOTOGRAPHICALLY DOCUMENT REPRESENTATIVE CONDITIONS WITHIN BUFFER AREAS. BASELINE MONITORING AND PHOTOGRAPHS SHALL BE SUBMITTED WITH THE AS-BUILT.

THE AS-BUILT AND BASELINE MONITORING DATA SHALL BE SUBMITTED TO THE CITY OF MERCER ISLAND NO LATER THAN 30 DAYS FROM THE DATE THAT THE WORK SHOWN ON THIS PLAN HAS BEEN COMPLETED.

#### ANNUAL MONITORING

FOLLOWING ACCEPTANCE OF THE AS-BUILT BY THE CITY OF MERCER ISLAND, ANNUAL COMPLIANCE MONITORING SHALL BE COMPLETED FOR A PERIOD OF FIVE (5) YEARS. ANNUAL COMPLIANCE MONITORING SHALL BE COMPLETED BY A QUALIFIED PROFESSIONAL AND SHALL COMPRISE A SITE INVESTIGATION IN AUGUST OR SEPTEMBER AND REPORTING TO THE CITY OF MERCER ISLAND BY NOVEMBER 30 OF EACH MONITORING YEAR.

MONITORING SHALL COMPRISE A QUANTITATIVE ASSESSMENT OF CONDITIONS WITHIN BUFFER AREAS FOR PURPOSES OF EVALUATING THE CURRENT YEAR'S SUCCESS STANDARDS. AT THE TIME OF EACH MONITORING, THE FOLLOWING INFORMATION SHALL BE COLLECTED WITHIN BUFFER AREAS AND ASSESSED RELATIVE TO THE SUCCESS STANDARDS ESTABLISHED FOR THE PROJECT:

- THE CONDITION OF INSTALLED PLANT STOCK INCLUDING SURVIVORSHIP, HEALTH, AND VIGOR. THE RATIONALE FOR POOR CONDITIONS, IF PRESENT, WILL BE DETERMINED.

A DIRECT COUNT INVENTORY AND ASSESSMENT OF INSTALLED PLANT STOCK SHALL BE USED TO EVALUATE PLANT STOCK CONDITIONS. IN ADDITION, PHOTOGRAPHS OF BUFFER AREAS SHALL BE TAKEN FROM THE PERMANENT PHOTO POINTS ESTABLISHED DURING THE AS-BUILT.

THE RESULTS OF EACH MONITORING ASSESSMENT SHALL BE SUMMARIZED IN A WRITTEN REPORT AND SUBMITTED TO THE CITY OF MERCER ISLAND NO LATER THAN NOVEMBER 30 OF THE RESPECTIVE MONITORING YEAR.

### CONTINGENCY PLAN

SHOULD ANY COMPLIANCE MONITORING ASSESSMENT REVEAL THAT THE PERFORMANCE STANDARDS FOR THE RESPECTIVE YEAR ARE NOT SATISFIED, THE PERMITTEE SHALL WORK WITH THE CITY OF MERCER ISLAND TO DEVELOP A CONTINGENCY PLAN TO ADDRESS THE DEFICIENCY(IES). CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ACTIONS:

1. ADDITIONAL PLANT INSTALLATION;
2. EROSION CONTROL;
3. HERBIVORY PROTECTION;
4. MODIFICATION TO THE IRRIGATION REGIME; AND/OR
5. PLANT SUBSTITUTIONS OF TYPE, SIZE, QUANTITY, AND LOCATION.

SUCH CONTINGENCY PLAN SHALL BE SUBMITTED TO THE CITY OF MERCER ISLAND BY JANUARY 31 OF ANY YEAR WHEN DEFICIENCIES ARE DISCOVERED. UNLESS OTHERWISE APPROVED BY THE CITY OF MERCER ISLAND, ACTIONS SPECIFIED ON AN APPROVED CONTINGENCY PLAN MUST BE COMPLETED WITHIN 60 DAYS. IF THE FAILURE IS SUBSTANTIAL, THE CITY OF MERCER ISLAND MAY EXTEND THE COMPLIANCE MONITORING PERIOD FOR THE ENHANCEMENT WORK.

### MAINTENANCE PLAN

THIS SECTION PROVIDES A GENERAL OVERVIEW OF THE MAINTENANCE PROGRAM NECESSARY TO ENSURE THE PERFORMANCE STANDARDS ESTABLISHED FOR THIS PLAN ARE SATISFIED.

#### GENERAL MAINTENANCE

INSTALLED PLANTS SHALL BE MAINTAINED AT REGULAR INTERVALS DURING THE MONITORING PERIOD TO PROMOTE THE SUCCESSFUL ESTABLISHMENT AND VIGOROUS GROWTH OF THE INSTALLED STOCK.

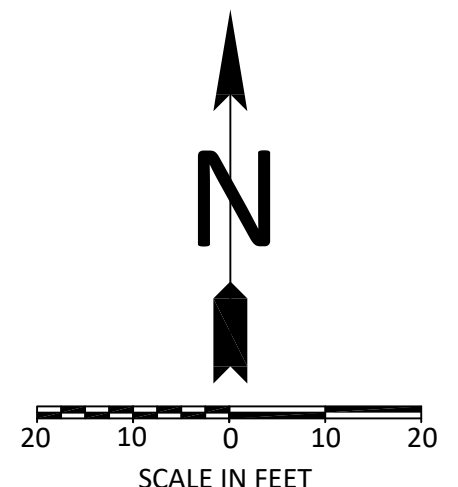
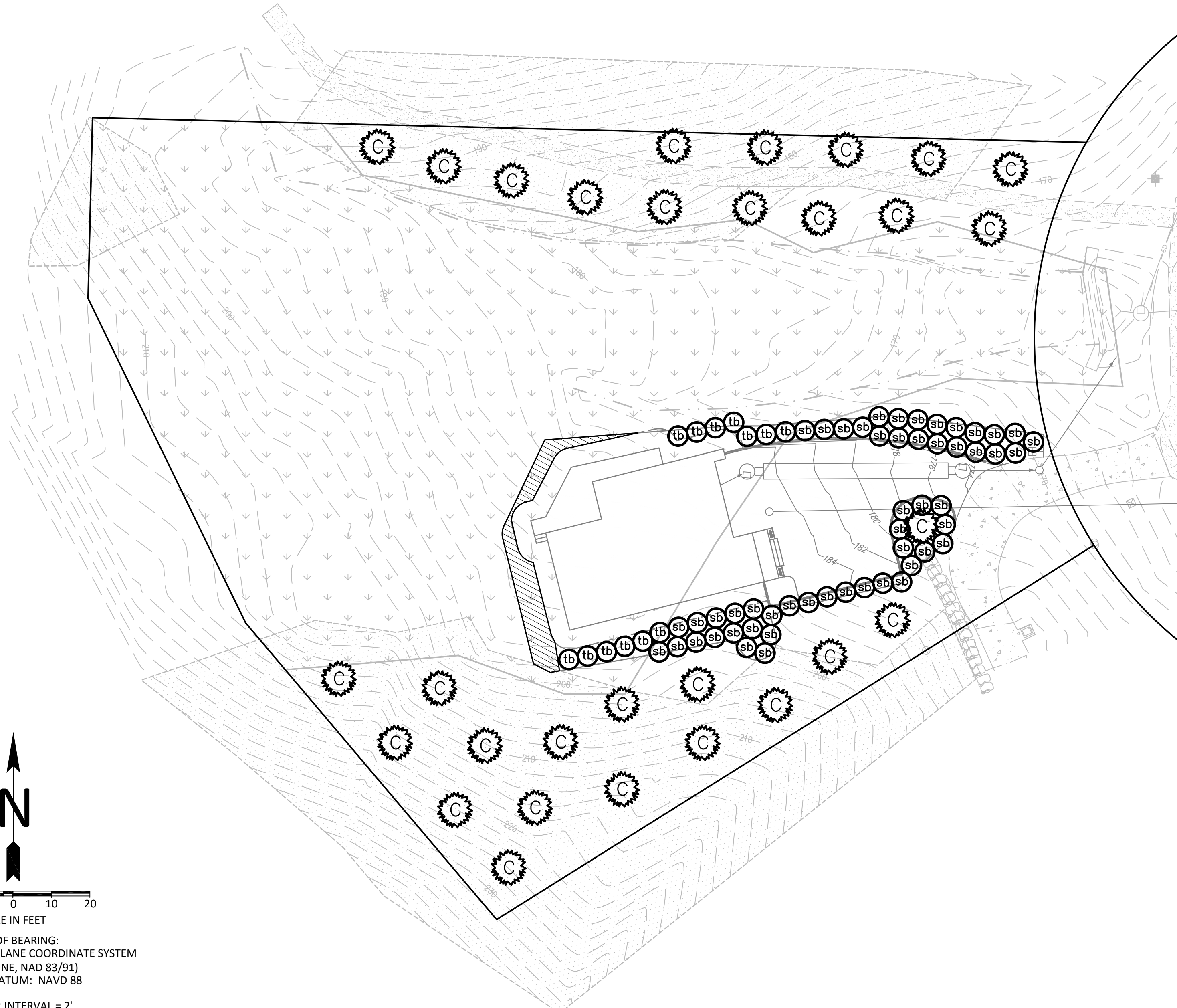
GENERAL MAINTENANCE SHALL INCLUDE:

1. RE-APPLYING BARK MULCH TO MAINTAIN A 6" MINIMUM APPLIED THICKNESS - YEAR 1 ONLY.
3. THE PRUNING OF INSTALLED PLANTS TO REMOVE DEAD WOOD AND PROMOTE VIGOROUS PLANT GROWTH AND PROPER FORM.
4. THE REPLACEMENT OF PLANTS THAT APPEAR TO BE IN DISTRESS AND/OR DISEASED.
5. THE REMOVAL OF TRASH, LITTER, AND/OR OTHER NON-DECOMPOSING DEBRIS.

GENERAL MAINTENANCE WORK SHALL OCCUR MONTHLY DURING THE GROWING SEASON AND/OR AT A FREQUENCY OTHERWISE NECESSARY TO ENSURE THE SUCCESSFUL ESTABLISHMENT AND VIGOROUS GROWTH OF THE INSTALLED PLANTS.

**TABLE 2-1: GOALS, OBJECTIVES, MONITORING SCHEDULE, & PERFORMANCE STANDARDS**

GOAL	OBJECTIVE	SCHEDULE	PERFORMANCE STANDARDS
TO SUCCESSFULLY ENHANCE ON-SITE WETLAND AND BUFFER AREAS USING NATIVE PLANT SPECIES.	TO INSTALL AND SUCCESSFULLY ESTABLISH NATIVE PLANTINGS AS SHOWN ON THIS DRAWING.	AUGUST OR SEPTEMBER OF YEARS 1, 2, 3, 4, & 5 FOLLOWING PLANT INITIAL INSTALLATION	<ul style="list-style-type: none"> <li>• 100% SURVIVAL BY INSTALLED PLANT STOCK AFTER THE FIRST GROWING SEASON (YEAR 1). THIS STANDARD CAN BE MET THROUGH PLANT ESTABLISHMENT OR REPLANTING, AS NECESSARY, TO ACHIEVE THE REQUIRED PLANT NUMBERS.</li> <li>• 85% SURVIVAL BY INSTALLED PLANT STOCK AFTER THE FIFTH GROWING SEASON (YEAR 5).</li> </ul>



SCALE IN FEET  
BASIS OF BEARING:  
WASHINGTON STATE PLANE COORDINATE SYSTEM  
(NORTH ZONE, NAD 83/91)  
VERTICAL DATUM: NAVD 88

CONTOUR INTERVAL = 2'

### MITIGATION PLAN NOTE:

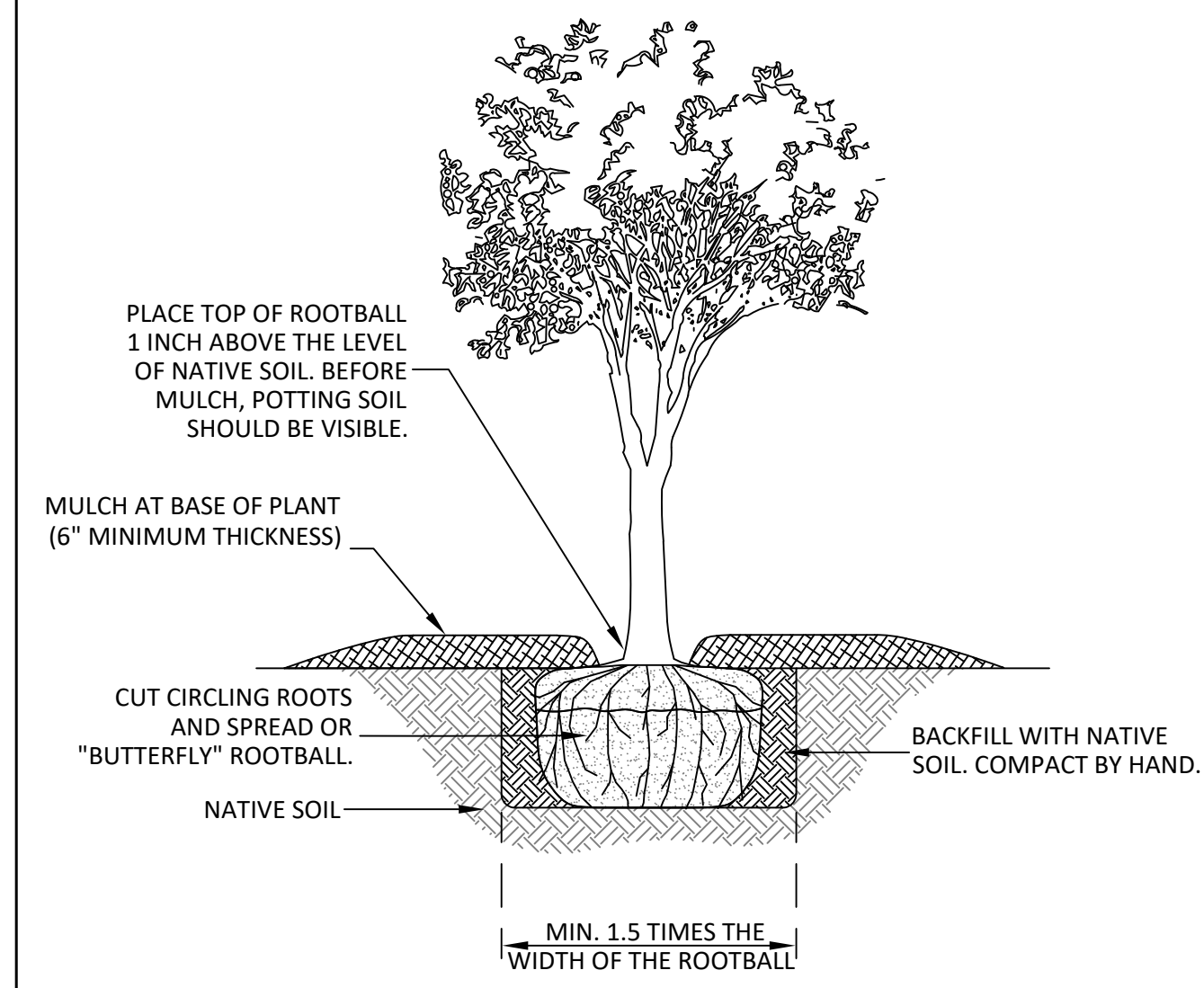
THIS CONCEPTUAL PLAN MAXIMIZES SITE MITIGATION PLANTING, AND EXCEEDS THAT WHICH WOULD BE REQUIRED TO MITIGATE BUFFER IMPACTS AND TEMPORARY CONSTRUCTION IMPACTS. THE FINAL PLAN MAY BE REVISED TO ADDRESS ISSUES OF VIABILITY DUE TO SLOPE AND OTHER SITE CONDITIONS.

### PLANTING PLAN NOTES:

1. BASE TOPOGRAPHIC AND SITE PLAN PROVIDED BY HEALY-JORGENSEN ARCHITECTS (2958 222ND PLACE SE - SAMMAMISH, WASHINGTON 98075; 425-454-3096). SOURCE DRAWINGS HAVE BEEN MODIFIED FOR VISUAL ENHANCEMENT.
2. PROTECT AND ACCOMMODATE EXISTING NATIVE VEGETATION WHEN INSTALLING PLANTS.
3. PLANT MATERIAL QUALITY AND LOCATIONS SHALL BE INSPECTED BY PLAN DESIGNER PRIOR TO PLANT INSTALLATION.
4. PLANT LOCATIONS SHOWN ARE APPROXIMATE. ADJUST PLANT LOCATIONS TO ACCOMMODATE SITE CONDITIONS, TO PRESERVE AND PROTECT EXISTING NATIVE VEGETATION, AND/OR PER PLAN DESIGNER AT THE TIME OF INSTALLATION.
5. SEE THIS SHEET FOR PLANT INSTALLATION DETAILS.

### PLANT SCHEDULE:

COMMON NAME	SCIENTIFIC NAME	SIZE/FORM	QUANTITY	SPACING
WESTERN REDCEDAR	<i>THUJA PLICATA</i>	2 GALLON CONTAINERIZED	30	AS SHOWN
TWINBERRY HONEYSUCKLE	<i>LONICERA INVOLUCRATA</i>	2 GALLON CONTAINERIZED	13	AS SHOWN
SALMONBERRY	<i>RUBUS SPECTABILIS</i>	2 GALLON CONTAINERIZED	52	AS-SHOWN
RED-OSIER DOGWOOD	<i>CORNUS SERICEA</i>	4 FOOT LIVE STAKE	25	4 FT ON-CENTER
			<b>TOTAL - 120</b>	



### PLANT INSTALLATION DETAIL

NOT TO SCALE

### GENERAL NOTES:

1. WORK SHALL CONFORM TO ANY AND ALL APPLICABLE PERMITS AND/OR APPROVED CONSTRUCTION DRAWINGS.
2. WORK SHALL BE COMPLETED BY PERSONS EXPERIENCED IN THE ENHANCEMENT WORK SHOWN ON THESE DRAWINGS.
3. BEFORE THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN MERCER ISLAND, THE OWNER, AND THE PLAN DESIGNER.
4. A COPY OF THESE APPROVED DRAWINGS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. SITE CONDITIONS MAY VARY BASED ON SEASON AND/OR TIME OF YEAR. THE CONSTRUCTION CONTRACTOR SHALL ACCOMMODATE REALIZED AND ANTICIPATED SITE CONDITIONS WHEN COMPLETING THE WORK SHOWN ON THESE DRAWINGS.

**Sewall Wetland Consulting, Inc.**  
PO Box 880 - Fall City, Washington 98024 Phone: 253-859-0515

**CRITICAL AREA ENHANCEMENT PLAN**  
- MI TREEHOUSE LLC -  
5637 EAST MERCER WAY  
MERCER ISLAND, WASHINGTON

**811**  
Know what's below.  
Call before you dig.

UTILITY LOCATIONS AND CHARACTERISTICS SHOWN ON THIS DRAWING, IF ANY, ARE BASED ON THE FIELD LOCATION OF THE APPROPRIATE SURFACE EVIDENCE OF EXISTING STRUCTURES. THE UNDERGROUND RESULTS AND CONDITION OF BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED. ADDITIONAL UTILITY LOCATION AND MAPPING MAY BE REQUIRED. FIELD LOCATE, VERIFY DEPTH, AND ADEQUATELY PROTECT ALL UTILITIES PRIOR TO THE START OF WORK.

NO.	DATE	NOTES
1.	09/08/15	ADDED STREAM
2.	10/21/15	REVISED PER CITY COMMENTS
3.	12/04/18	REVISED PER NEW SITE PLAN
4.	12/17/18	ADDED IMPACT SITE PLAN
5.	01/29/19	REVISED PLANTING PLAN
6.	01/29/19	ADDED MITIGATION PLAN NOTE
7.	10/30/19	REVISED PER NEW SITE PLAN
8.	12/02/20	REVISED PER NEW SITE PLAN

DATE: 03/04/2015  
JOB NUMBER: 14-206

### Planting Plan, Notes, Details, & Monitoring Plan