

Project Summary

Project Scope
New single family detached dwelling and associated site work on newly platted undeveloped lot.

Site Data:
Street Address: See Title Block
Neighborhood: See Title Block
Legal Description: See Title Block
Zoning: RP-1 Planned Single Family District
Minimum setbacks: Front: 30'
Side: 7'
Rear: 25'

Maximum height: 2 1/2 stories / 35'
Maximum driveway: 3-car garage = 32'

Code Authority:
City of Lee's Summit, MO

Applicable Codes:
2018 IRC, 2018 IECC, 2018 IBC, 2018 Existing Building Code, and local amendments.

Building Code Summary

2018 International Residential Code (IRC)

- 3 - Building Planning
- 301 Design Criteria
- Wind, Seismic, Snow Loads See Structural
- Live & Dead Loads: See Structural.
- 302 Fire Resistant Construction
- 302.1 Exterior Walls > 5' 0 Hours.
- 302.6 Dwelling/Garage Separation:
From residence / attic: 1/2" gyp board
From habitable rooms above: 5/8" Type X gyp board
Structure supporting separating floor/ceiling: 1/2" gyp board
Garages <3' from dwelling unit on same lot: 1/2" gyp board
- 302.7 Under stair protection: 1/2" gyp board
- 302.9 Wall and ceiling finishes: Flame spread index < 200, smoke developed index < 450.
- 302.10 Insulation, vapor retarders: Flame spread index < 25, smoke developed index < 450.
- 302.11 Fireblocking required between stories and between top story and roof.
- 302.12 Draftstopping required where concealed space exceeds 1,000 SF. 1/2" gyp board or equivalent.
- 308 Glazing in doors, showers, railings, transoms, skylights shall be safety glazing per code.
- 309 Garage floor shall slope to a drain or to the vehicle entrance.
- 310 Basements, habitable attics and sleeping rooms shall have at least one approved emergency escape and rescue opening. Sill height max 44", minimum clear opening 5.7 SF, minimum clear opening height 24", minimum clear opening width 20".
- 310.2 Window wells: minimum horizontal area 5 SF, minimum projection and width 36", permanent ladder required if depth > 44".
- 311 Means of Egress
- 311.2 At least one doorway side-hinged 32" minimum clear opening, with inside and outside landings minimum 36" in direction of travel. Outdoor landing elevation no more than 7 3/4" below top of threshold.
- 311.6 Hallways minimum width 36".
- 311.7 Stairways minimum width 36", minimum headroom 80", maximum riser 7 3/4", minimum tread 10", nosing minimum 3/4" & maximum 1 1/4", railing on at least one side, railing height 34 - 38" above nosing.
- 312 Window fall protection is required at windows where sill is > 72" above grade and < 24" above floor.
- 314 Smoke alarms required in each sleeping room, outside each group of sleeping rooms, and on each additional story, including basements and habitable attics, but not in uninhabitable attics nor crawl spaces. Smoke alarms shall be hard-wired and interconnected per code.
- 315 Carbon monoxide alarms required outside each group of sleeping rooms in dwellings with fuel-fired appliances or attached garage.
- 316 Foam plastics shall comply with R316. Thermal barrier minimum 1/2" gyp board.
- 317 Wood decay protection required
- In crawl space for joists < 18" above exposed ground and girders < 12" above exposed ground.
 - All wood framing in contact with concrete or masonry and < 8" above grade.
 - Sills and sleepers on concrete on masonry
 - Wood siding or sheathing < 6" above grade or < 2" above concrete paving
 - Wood framing supporting water-permeable decking
- 318 Termite protection required per R318.

4 thru 9 - Foundations, Floors, Walls, Roofs

See Structural Notes and Framing Plans for joists, rafters, species & grade.

11 - Energy Efficiency

- N1101 Climate Zone 4
- N1102 Minimum building envelope:
- Fenestration U = 0.35
 - Skylight U = 0.55
 - SHGC = 0.40
 - Ceiling/roof R = 49
 - Wood framed walls R = 20 cavity (or R13 cavity + R5 continuous)
 - Mass walls R = 8 exterior (or R13 interior)
 - Floors above unconditioned space R = 19
 - Basement walls R = 10 continuous (or R13 cavity)
 - Slabs (if < 12" below grade) R = 10 extending at least 24" vertically at the slab edge or horizontally under the slab
 - Crawl space walls R = 10 continuous (or R13 cavity)

N1102.4 Building thermal envelop shall limit air leakage per this section. Provide testing as required by local official.

12 thru 44 - Building Services (MEP)

See MEP drawings by others, who are responsible for code compliance for their portions of the work.

2018 International Building Code (IBC)

- 302 Occupancy Classification Group R-3 Residential
- 601 Construction Type V-B Unsprinklered
Fire resistance ratings = 0 hrs

Residential General Notes

- It is the responsibility of the contractor to become fully aware of any and all conditions related to the site and existing conditions that may effect the cost or schedule of construction activities, prior to submitting a bid.
- Contractor shall verify all dimensions and conditions at the job site including soil conditions, and conditions related to the existing utilities and services before commencing work and be responsible for same. All discrepancies shall be reported to the owner immediately.
- Do not scale drawings or details - Use given dimensions. Check details for location of all items not dimensioned on plans. Dimension on plans are to face of framing or center line of columns typically. Door and cased openings without dimensions are to be six (6) inches from face of adjacent wall or centered between walls.
- The drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction shall be used, subject to review and approval by the architect and structural engineer.
- Building systems and components not specifically detailed shall be installed, as per minimum manufacturers recommendations. Notify the architect of any resulting conflicts.
- All work shall conform to applicable building codes and ordinances. In case of any conflict wherein the methods or standards of installation or the materials specified do no equal or exceed the requirements of the laws or ordinances, the laws or ordinances shall govern.
- Install dust barriers and other protection as required to protect installed finishes and facilities.
- Plumbing, mechanical and electrical drawings, etc. are supplementary to the architectural drawings. It shall be in the responsibility of each contractor to check with the architectural drawings before installation of their work. Any discrepancy between the architectural drawings and the consulting engineer(s) or other supplementary drawings shall be brought to the owner's attention in writing.
- This project contains glazing that will be subject to federal and local glazing standards and the glazing subcontractor shall be responsible for adherence to these requirements. If the glazing subcontractor finds anything in the documents not in compliance with the standards, he/she shall bring discrepancies to the attention of the architect before proceeding.
- All glazing in hazardous locations, defined by the IRC R308.4, shall by safety glazing, including but not limited to the safety glazing identified in the construction documents.
- There shall be no exposed pipe, conduits, ducts, vents, etc. All such lines shall be concealed or finished, unless noted as exposed construction on drawings. Offset studs where required, so that finished wall surface will be flush.
- Contractor shall provide temporary bracing for the structure and structural components until all final connections have been completed in accordance with the plans.
- Carry all footings to solid, undisturbed original earth. Remove all unsuitable material under footings and slab and replace with concrete or with compacted fill as directed by architect.
- All wood framing details not shown otherwise shall be constructed to the minimum standards of the IRC.
- All wood in direct contact with concrete or exposed to weather shall be pressure treated with an approved preservative unless decay resistant heartwood of cedar or redwood is used. Fasteners for pressure treated wood shall be hot dipped galvanized steel, stainless steel, silicon bronze, or copper.
- Nail gypsum wallboard to all studs, top and bottom plates and blocking with drywall nails @ 7 inches o.c. maximum spacing unless shown otherwise. Use 5d for 1/2 wallboard, 6d for 5/8 inch wallboard.
- Provide galvanic separation between dissimilar metals.
- The contractor is to verify the location of all utilities and services to the site prior to beginning any site improvements.
- No materials from the work are to be stock piled on public rights-of-way. All rubbish and debris is to be removed from the site.
- Adjacent properties, streets and walks are to be protected from damage at all times.
- All downspouts and roof drains to be connected to drywells min 10' from foundation, or surface drainage min 3' from foundation unless noted otherwise in construction documents.
- All dimensions are face of stud wall, centerline of column, or face of concrete unless noted otherwise.
- The contractor shall secure permits required by the fire department prior to building occupation.
- The contractor shall take all necessary precautions to ensure the safety of the occupants and workers at all times during the course of the project.
- Approved plans shall be kept in a plan box and shall not be used by any workmen. All construction sets shall reflect the same information. The contractor shall also maintain in good condition, one complete set of plans with all revisions, addenda and changes orders on the premises at all times. Said plans are to be under the care of the job superintendent.
- The contractor and/or the sub-contractors shall apply for, obtain and pay for all required permits and fees except for the building permit.
- Construction hours, per jurisdiction, are to be observed for all phases of the project.

Precautionary Notes

This drawing has been produced by the Architect or prepared under his direct supervision as an instrument of service and is intended for use only on this project. All Drawings, Specifications, ideas and designs, including the overall layout, form, arrangement and composition of spaces and elements portrayed, constitute the original unpublished Work of the Architect. Any reproduction, use or disclosure of the information contained herein without the written consent of the Architect is strictly prohibited.

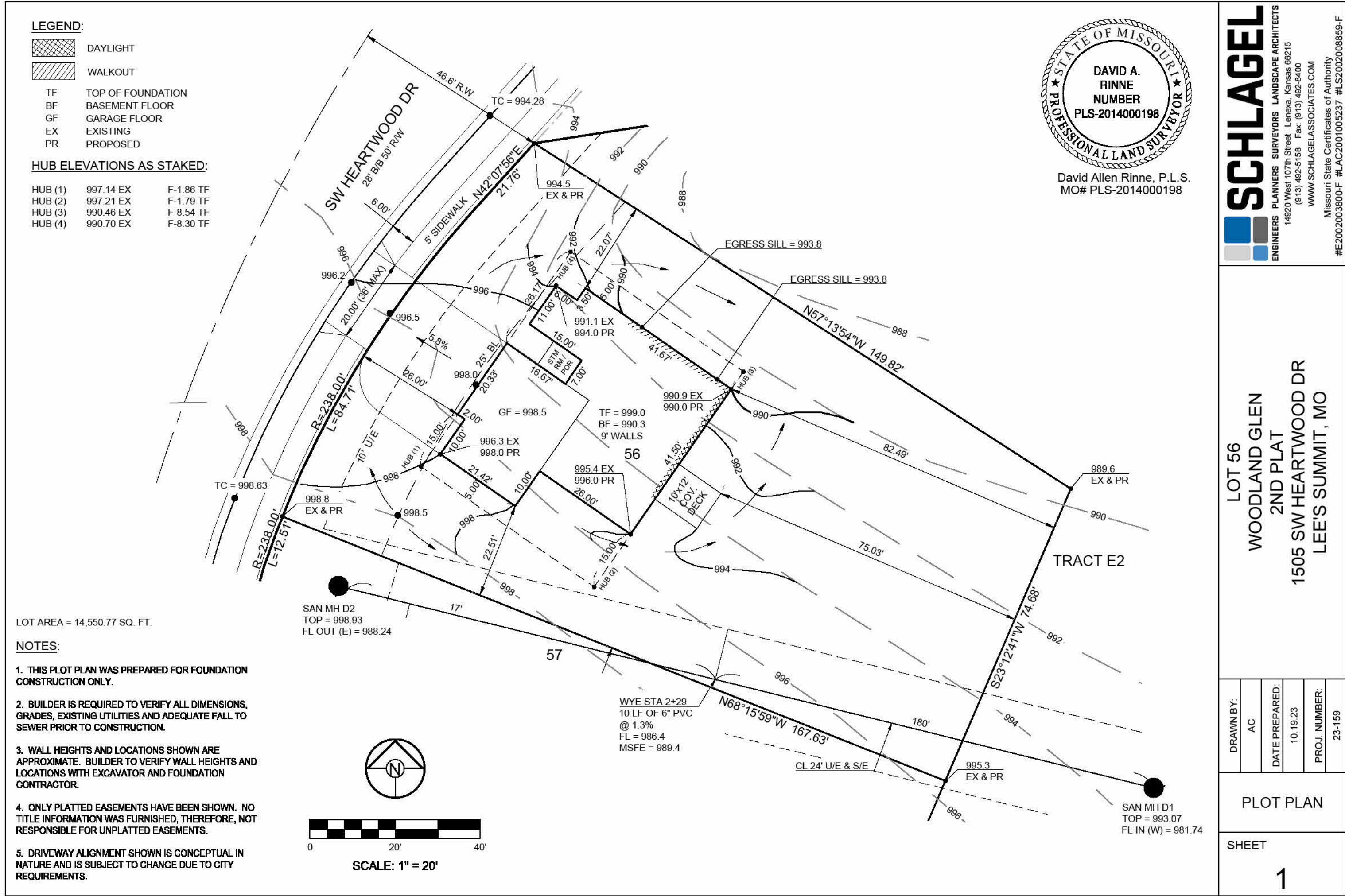
© Bill Fowler Architect, Leawood, KS

- Responsibilities. THE ARCHITECT DISCLAIMS responsibility for the existing building structure, site conditions, existing construction elements or any documents, drawings or other instruments used for any part of the Project which do not bear the Architect's seal. The Architect's services are undertaken only in the interest of the Project Owner. The Architect assumes no obligation for the benefit of any other entity.
- Related Documents. This Drawing is a single component of an integrated set of Construction Documents. General and Supplementary Conditions of the Contract, General Requirements, Specifications and other Drawings also affect the Work described. Failure to review and integrate the design intent of the whole of the Construction Documents does not relieve the Contractor from providing a complete Project.
- Codes and Ordinances. COMPLY WITH all laws, codes, ordinances and regulations of authorities having jurisdiction and with requirements of the Landlord, if applicable. Do not start Work until all permits and required approvals are obtained.
- Verifying Conditions. VERIFY ALL CONDITIONS and dimensions prior to construction. Commencement of Work constitutes verification and acceptance of all existing conditions. Application of a material or equipment item to Work installed by others constitutes acceptance of that Work and assumption of responsibility for satisfactory installation.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
10/25/2023 2:26:39



1 Front View



2 Plot Plan
1" = 20'-0"

Sheet List

Sht No	Sheet Name	Project Issue Date	Current Revision
A01	Cover Sheet	10/10/23	10/20/23
A11	Elevations	10/10/23	10/20/23
A21	Basement Plan	10/10/23	
A22	Main Floor Plan	10/10/23	
AA2	Furnishing Plans	10/10/23	
S01	Structural	10/10/23	
S10	Structural	10/10/23	
S20	Structural	10/10/23	
S21	Structural	10/10/23	
S30	Structural	10/10/23	
S31	Structural	10/10/23	
S32	Structural	10/10/23	
S33	Structural	10/10/23	
S34	Structural	10/10/23	

Area Summary

Basement	Finished Area
945 SF	235 SF
235 SF	974 SF
974 SF	2,153 SF
2,153 SF	
Main Floor	
134 SF	Covered Deck
56 SF	Covered Front Porch
663 SF	Garage
1,423 SF	Main Floor
2,276 SF	
4,429 SF	

BILL FOWLER ARCHITECT

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N.C.A.R.B.
National Council Architectural Registration Boards



Woodland Glen Lot 56

The Woodbridge 1 1/2 Reverse

Location:
1505 SW Heartwood Lane
Lee's Summit, MO
Client:
John Duggan
913.498.3536 / jduggan@ks-dsdlaw.com
BFA No:

WBRG-WG56

Cover Sheet

Sheet No:
10/10/23
Date:
10/20/23
Current Revision Date:
10/20/23

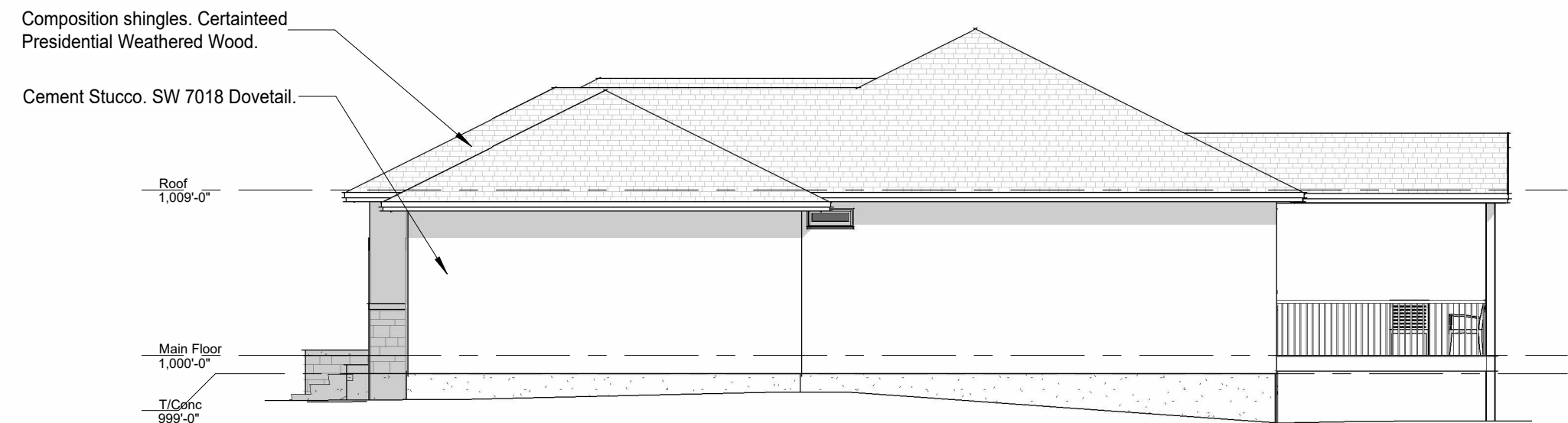
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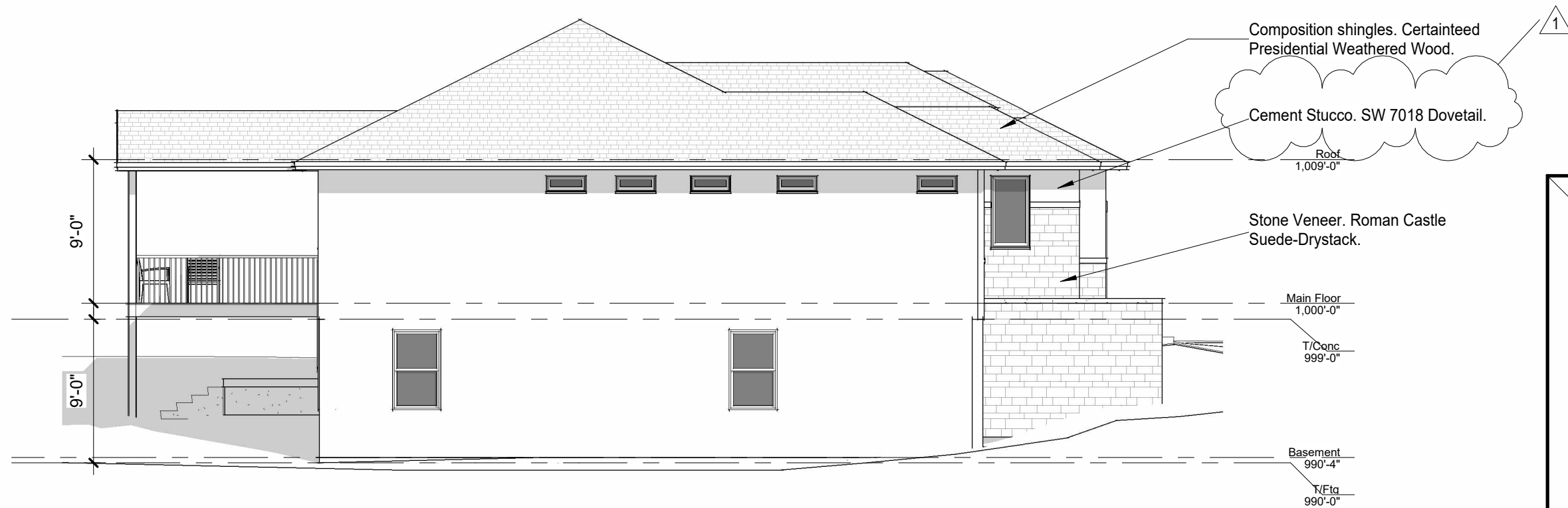
1 Front Elevation
1/4" = 1'-0"

Exterior Elevation Notes

1. Hold finish grade min 6" below bottom of siding or wood framing.



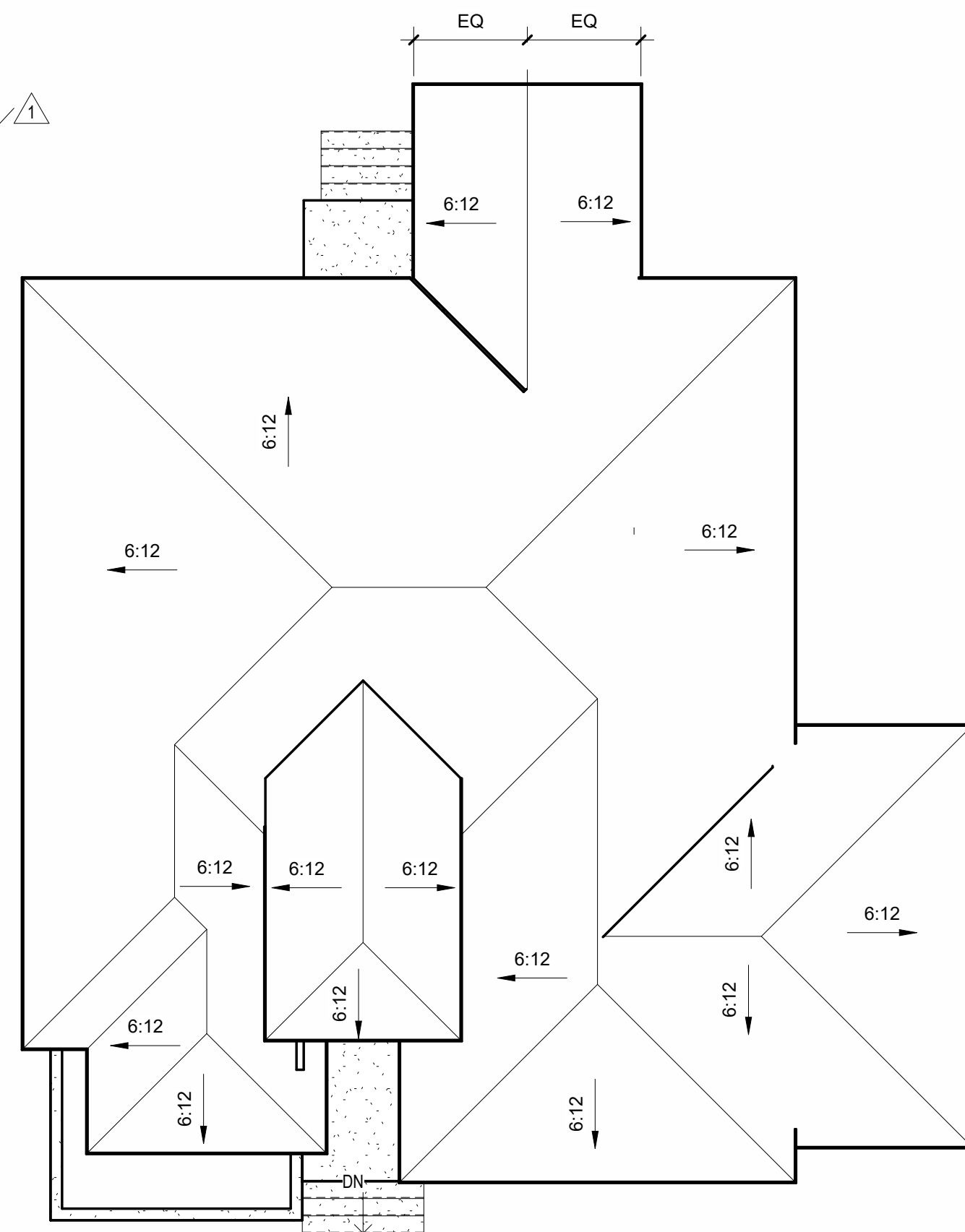
2 Right Elevation
1/8" = 1'-0"



3 Left Elevation
1/8" = 1'-0"



4 Rear Elevation
1/8" = 1'-0"



5 Roof Plan
1/8" = 1'-0"

Exterior Materials

Exterior Cement Stucco & siding: SW 7018 Dovetail

Stone Veneer: Roman Castle Suede-Drystack

Exterior Trim: SW 7005 Pure White

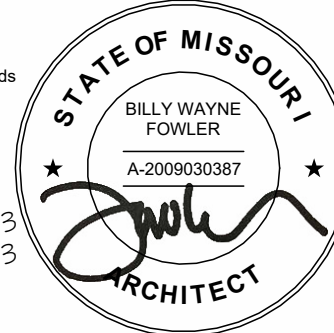
Garage Doors: SW 7020 Black Fox

Roof: Certainteed Presidential Weathered Wood

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Project:

Woodland Glen Lot 56

The Woodbridge 1 1/2 Reverse

Location:
1505 SW Heartwood Lane
Lee's Summit, MO
Client:
John Duggan
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BFA No:

WBRG-WG56

Sheet Name:

Elevations

Sheet No:

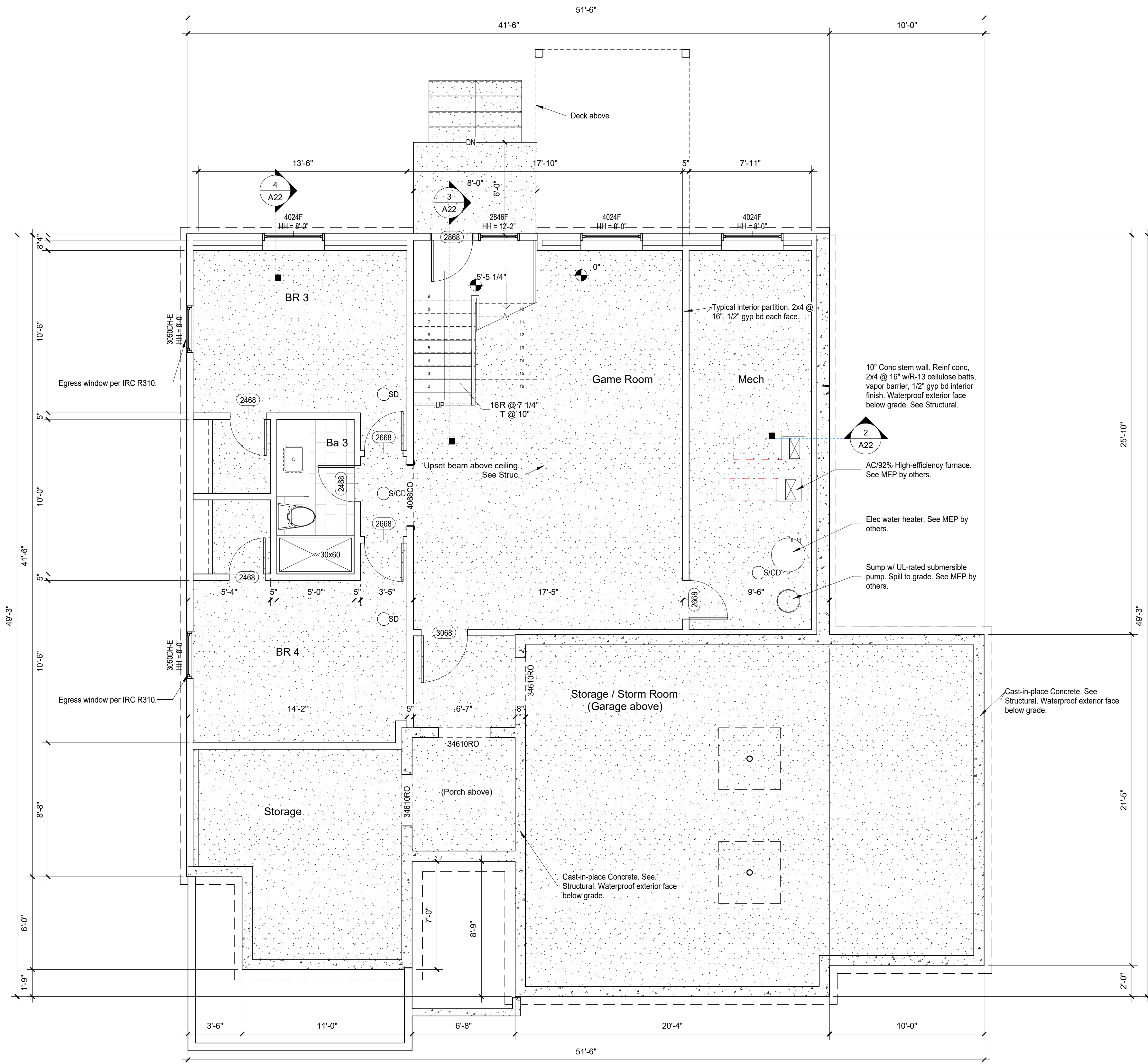
A11

PERMIT SET

Date:

10/10/23

Current Revision Date:
10/20/23



1 Basement Floor Plan
1/4" = 1'-0"

Area Summary

Basement	
945 SF	Finished Area
235 SF	Mechanical
974 SF	Storage/Storm
2,153 SF	
Main Floor	
134 SF	Covered Deck
56 SF	Covered Front Porch
663 SF	Garage
1,423 SF	Main Floor
2,276 SF	
4,429 SF	

Floor Plan Notes

- Unless noted otherwise, exterior wall dimensions are to face of stud or concrete. Interior wall dimensions are to face of finish. Wall thickness dimensions are nominal. Coordinate precision with abutting elements.
- Window and door tags indicate nominal sizes. Example: 3068 = 3'-0" x 6'-8". Tag suffix as follows: C = Casement, F = Fixed, DH = Double-hung, SH = Single-hung, T = Transom, E = Egress, S = Slider. See Elevations for window and door types. Field verify all existing conditions relevant to the work.
- Loose furnishings, if shown, are by Owner.
- Mechanical and electrical designs are by design-build contractors who are responsible for coordinating with Owner's requirements and code conformance.
- All sleeping rooms shall have at least one egress window per IRC R310. See Project Notes and Window Schedule.
- Fire resistant construction, if required, shall comply with IRC R302. See Project Notes.
- Safety glazing, where required, shall comply with IRC R308.
- Garage floor slab shall comply with IRC R309.
- Emergency egress paths such as floors and landings at exterior doors, stairs, and hallways shall comply with IRC R311.
- Where window sills are 24" or lower, provide window fall protection per IRC R312.
- Refer to IRC R317 for preservative treated wood requirements.
- Refer to IRC R318 for termite protection requirements.
- Provide a smoke detector, hard-wired and interconnected, in each sleeping room per IRC 314.
- Provide a carbon monoxide detector, hard-wired and interconnected, outside each group of sleeping rooms and at interior garage door per IRC 315.

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Sheet Name:

Basement Plan

Sheet No:

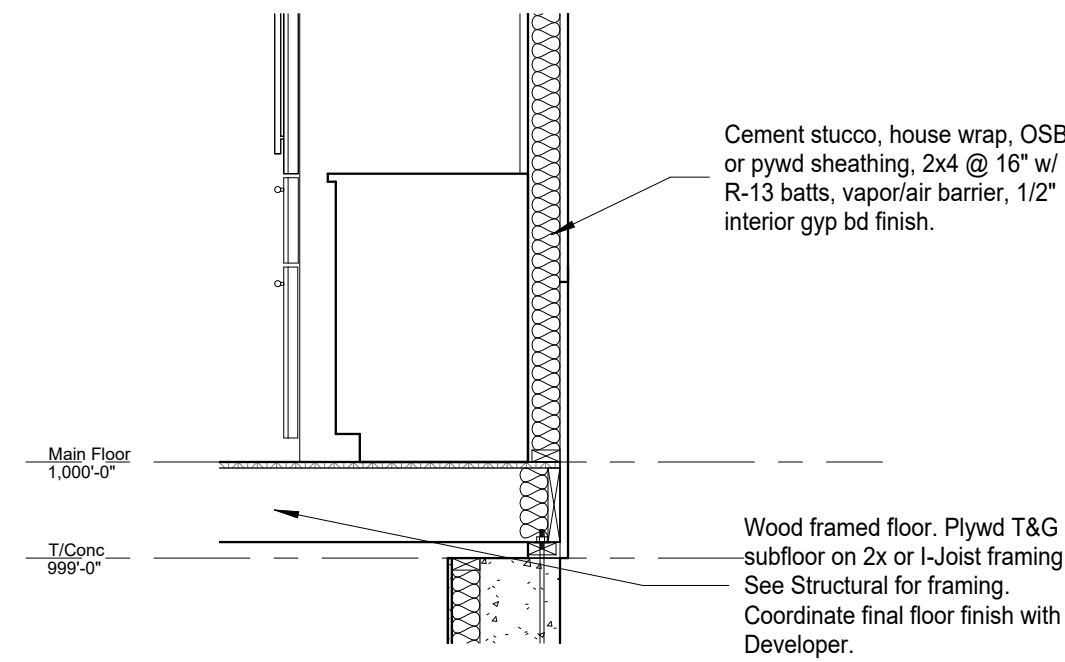
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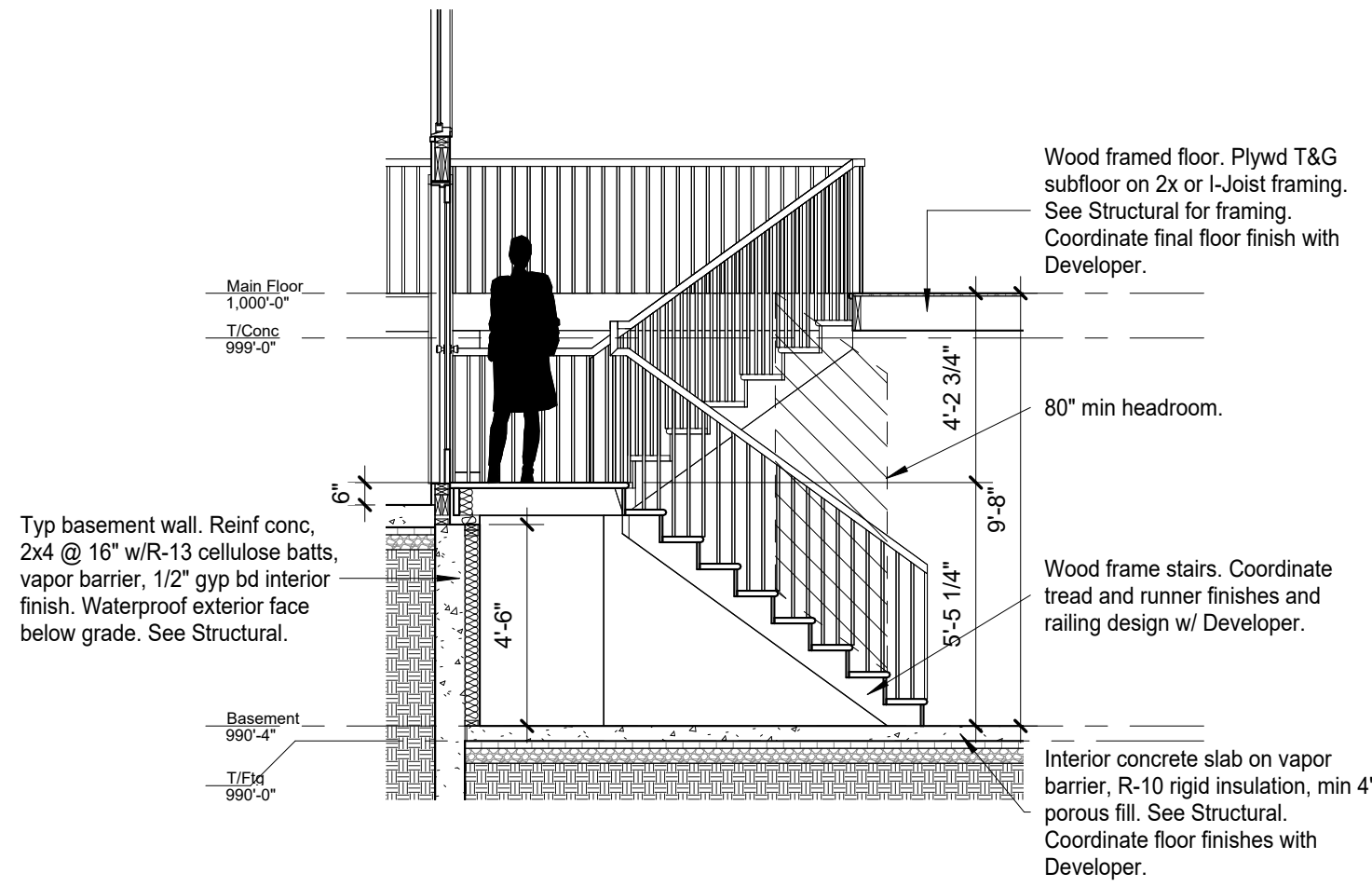
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10/10/23

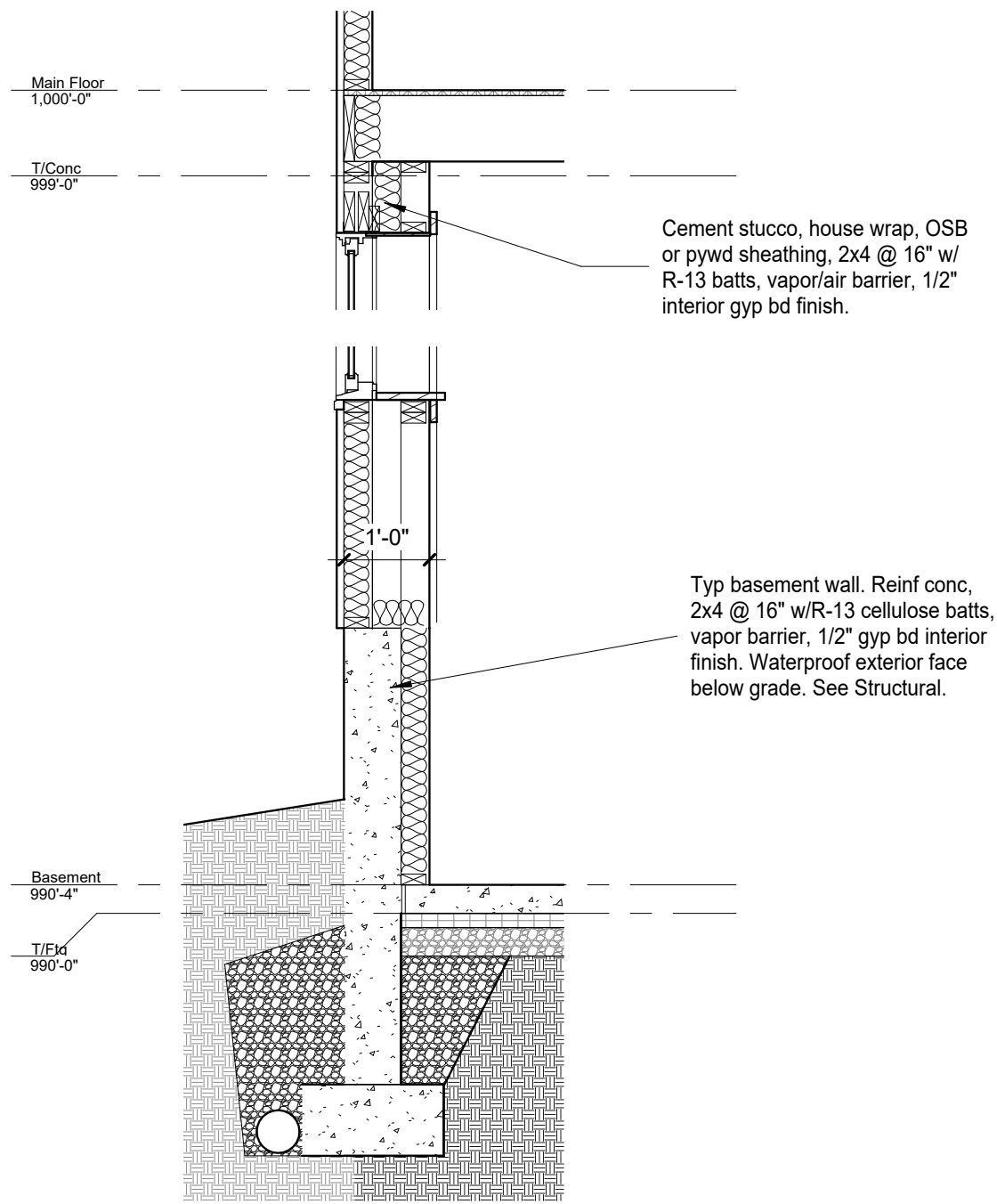
Current Revision Date:



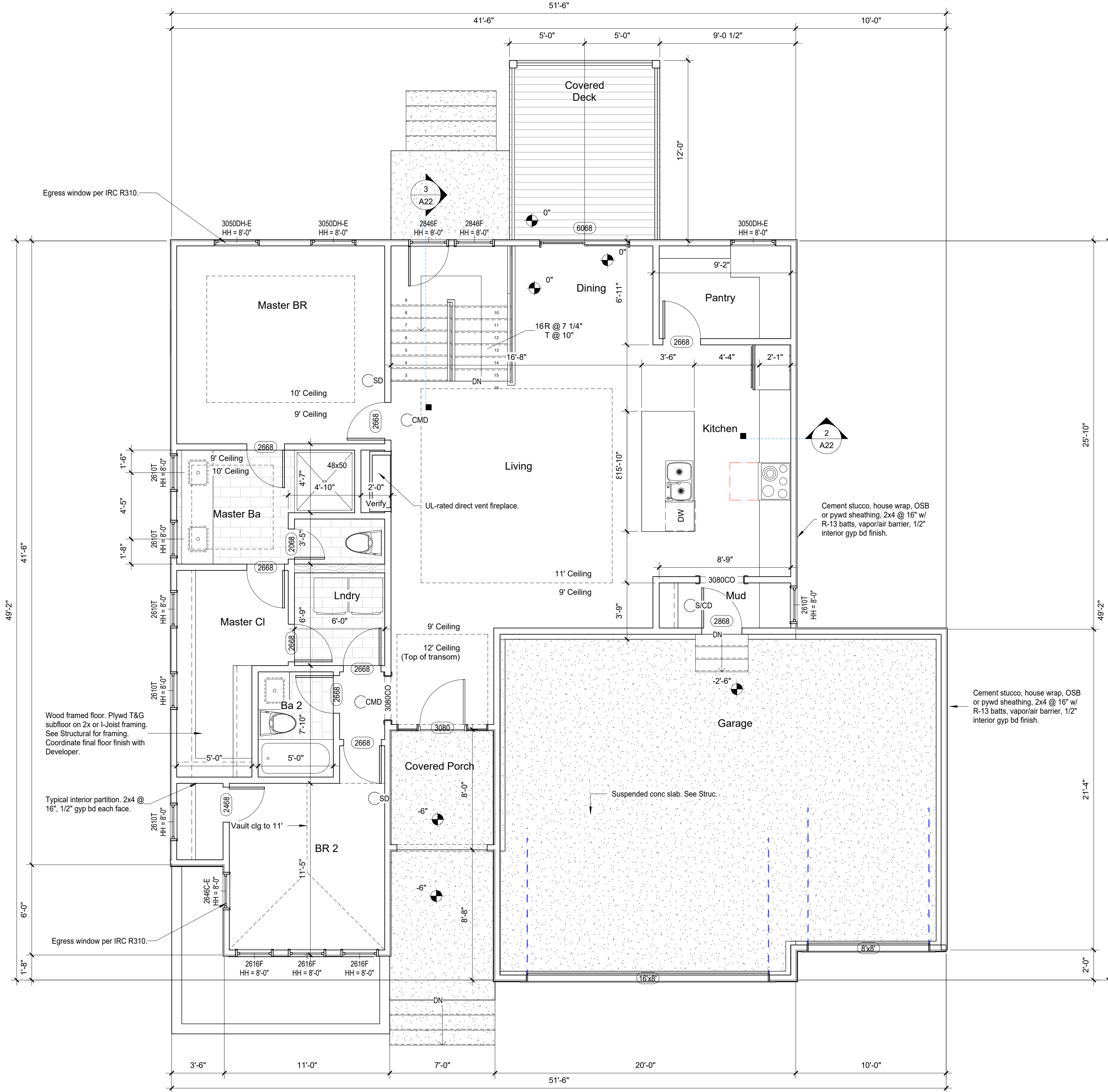
2 Concrete Stem Wall Section
1/2" = 1'-0"



3 Stair Section
1/4" = 1'-0"



4 Wall Section
1/2" = 1'-0"



Plan North



1 First Floor Plan
1/4" = 1'-0"

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235 SF	Mechanical
974 SF	Storage/Storm
2,153 SF	
Main Floor	
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- Provide a carbon monoxide detector, hard-wired and interconnected, outside each group of sleeping rooms and at interior garage door per IRC 315.

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National Council Architectural Registration Boards



Project:

Woodland Glen Lot 56

The Woodbridge 1 1/2 Reverse

Location:
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Lee's Summit, MO
Client:
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BFA No:

WBRG-WG56

Sheet Name:

Main Floor Plan

Sheet No:

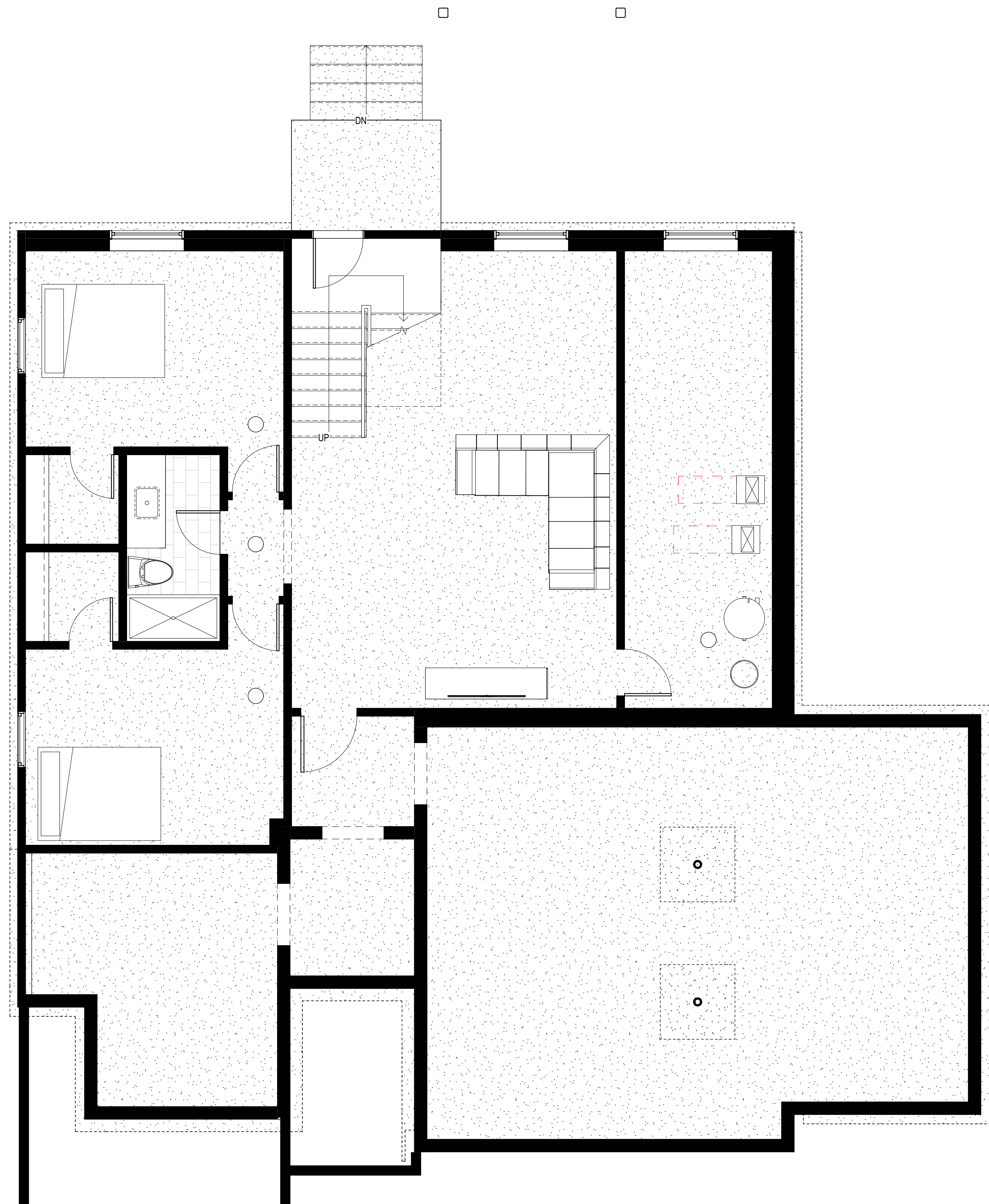
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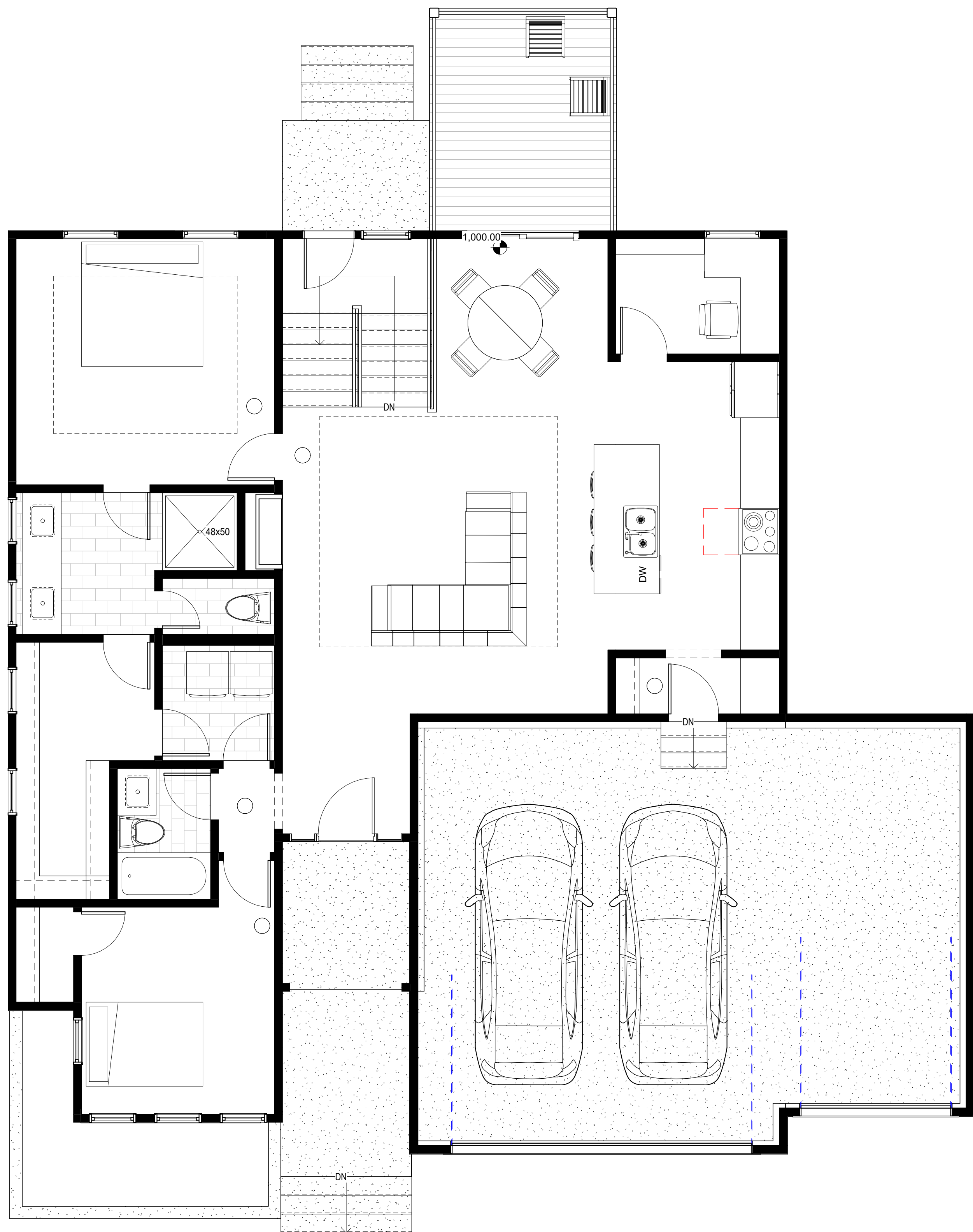
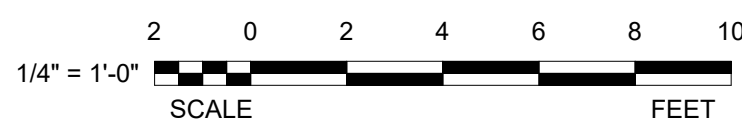
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Current Revision Date:

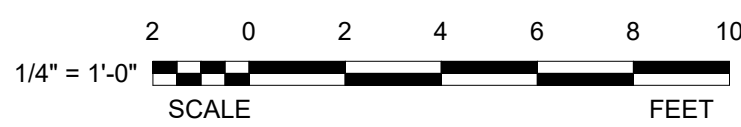
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1 Basement Floor Plan
1/4" = 1'-0"



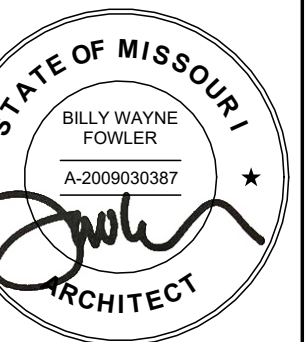
2 First Floor Plan
1/4" = 1'-0"



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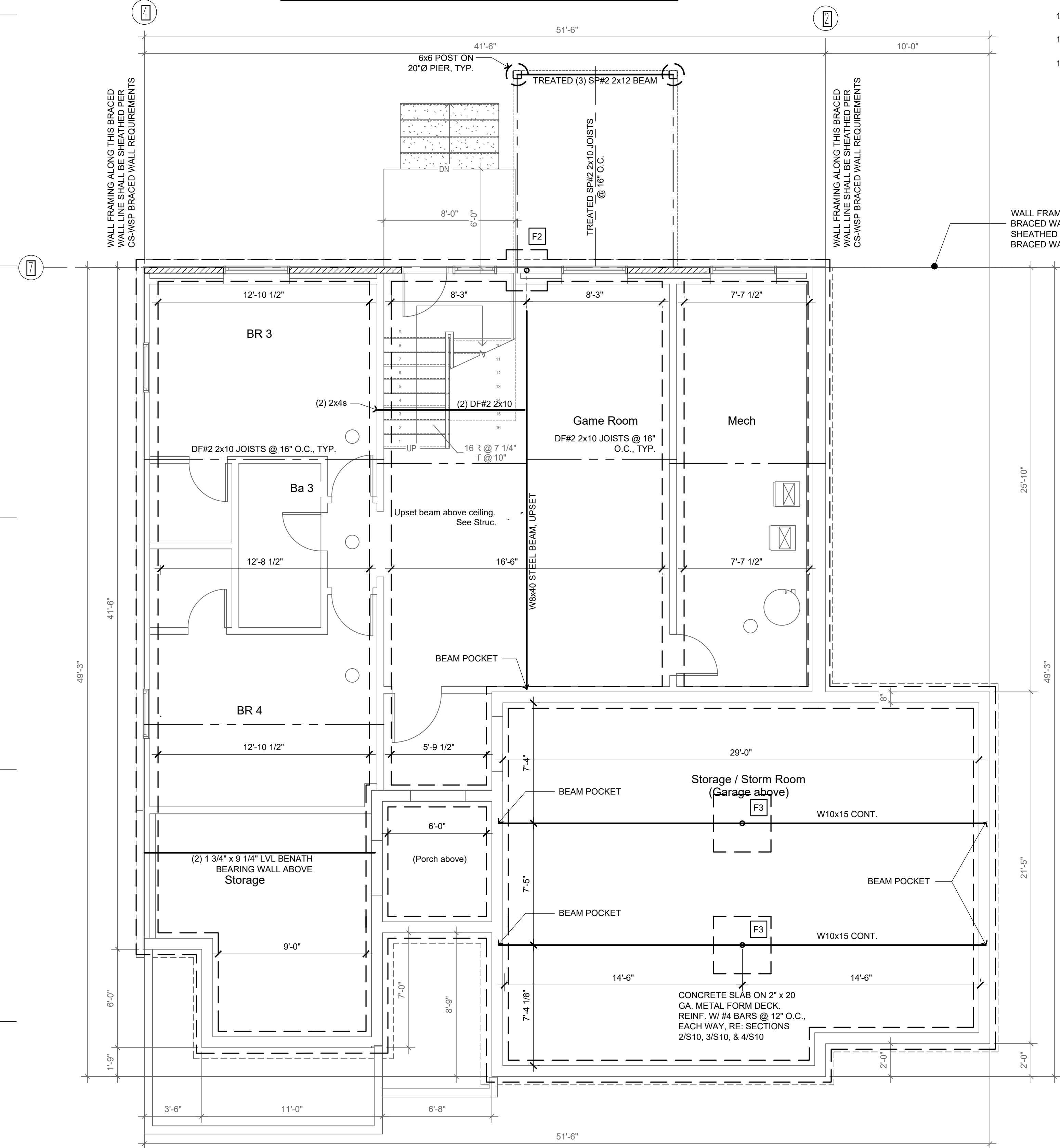
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Furnishing Plans

Sheet No:
AA2
Date:
10/10/23
Current Revision Date:

PERMIT SET

FOOTING SCHEDULE				
MARK	SIZE L x W x THK	REINFORCING (NO) SIZE LOCATION	TOF EL	COLUMN
F1	2'-6" x 2'-6" x 1'-0"	(5) #4 EW BOTTOM	3'-0" BELOW FIN GRADE	3"Ø STD STEEL PIPE COLUMN
F2	3'-0" x 3'-0" x 1'-0"	(6) #4 EW BOTTOM	8" BELOW TOP OF SLAB	3"Ø STD STEEL PIPE COLUMN
F2a	3'-0" x 3'-0" x 3'-6"	(6) #4 EW TOP & BOTTOM	6" ABOVE FINISH GRADE	(2) STUDS TREATED UNDER EACH BEAM
F3	3'-6" x 3'-6" x 1'-2"	(7) #4 EW BOTTOM	8" BELOW TOP OF SLAB	3"Ø STD STEEL PIPE COLUMN
F4	4'-6" x 4'-6" x 1'-4"	(9) #4 EW BOTTOM	8" BELOW TOP OF SLAB	3"Ø STD STEEL PIPE COLUMN

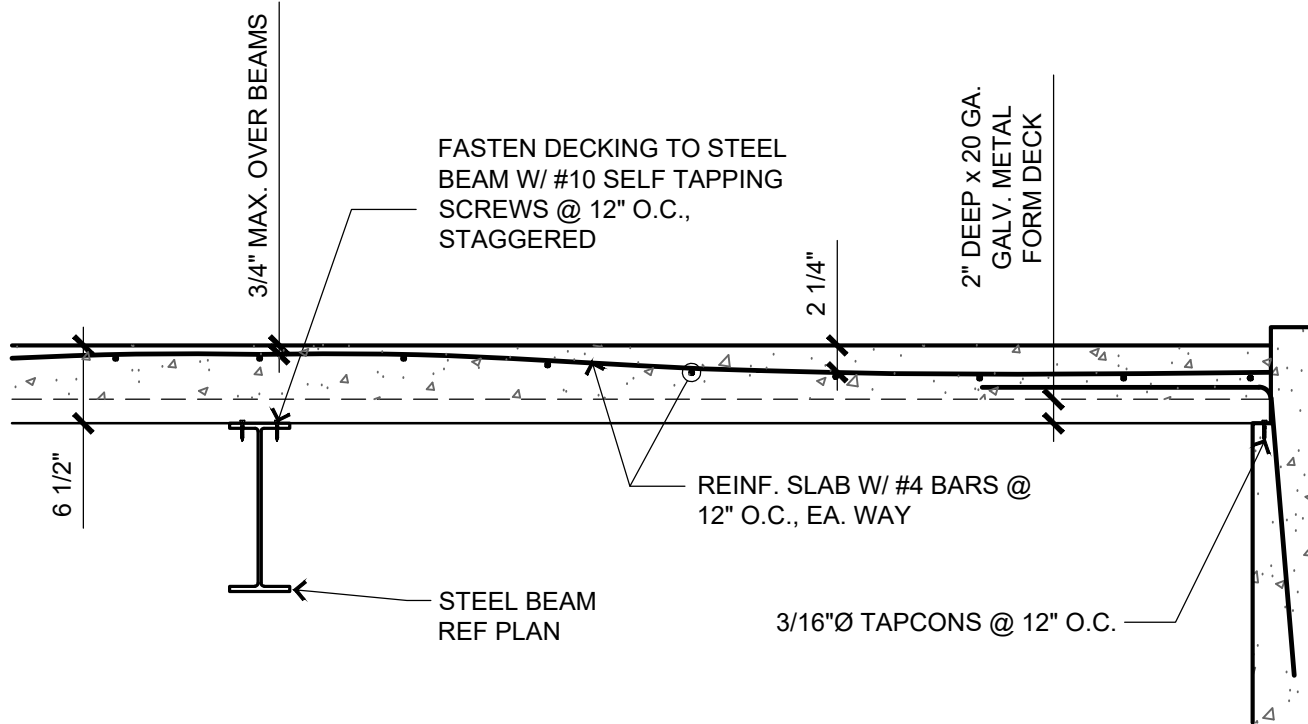


1 FOUNDATION/1ST FLOOR FRAMING PLAN

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

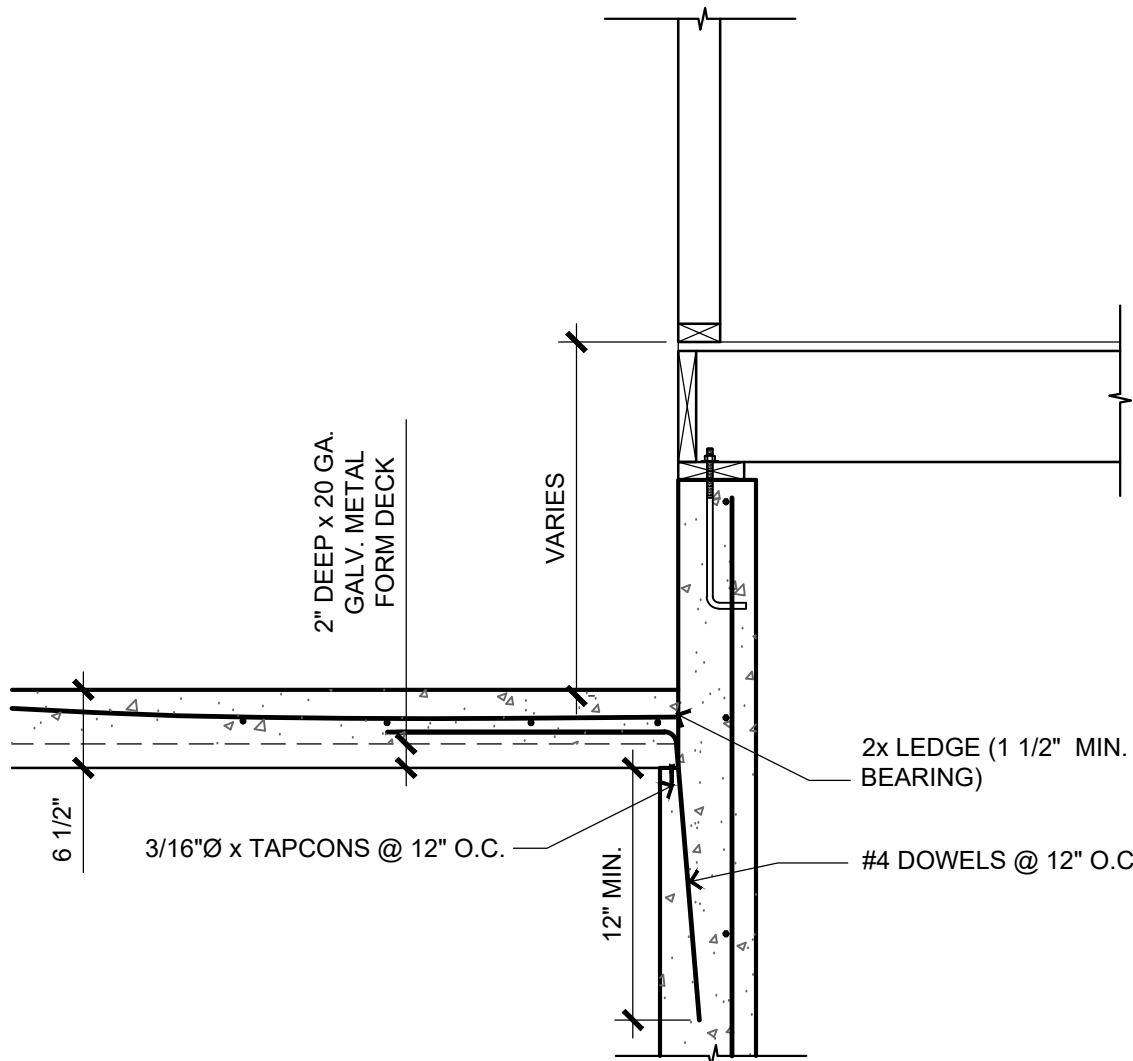
FLOOR FRAMING PLAN NOTES

- NOTES ARE TYPICAL UNLESS NOTE NUMBER IS INSIDE OF CIRCLE, THEN THE NOTE REFERS TO A SPECIFIC LOCATION(S) MARKED ON THE PLAN.
- PROVIDE 3/4" TONGUE AND GROOVE WOOD STRUCTURAL PANEL SHEATHING FOR SUBFLOOR GLUED AND NAILED TO WOOD JOISTS WITH 8d NAILS AT 6"oc AT PANEL EDGES AND 12"oc AT NON-PANEL EDGES.
 - ALL EXTERIOR WALL FRAMING SHALL BE 2x4 OR 2x6 DOUG-FIR STUD GRADE AT 16"oc.
 - PROVIDE 1/2" EXTERIOR GRADE PLYWOOD SHEATHING NAILED TO WOOD STUDS WITH 8d NAILS AT 6"oc AT PANEL EDGES AND 12"oc AT NON-PANEL EDGES.
 - ALL INTERIOR BEARING WALL FRAMING SHALL BE 2x4 OR 2x6 DOUG-FIR STUD GRADE AT 16"oc.
 - DOUBLE FLOOR JOISTS UNDER ALL PARTITION WALLS RUNNING PARALLEL WITH JOISTS.
 - PROVIDE PROPER WALL INSULATION AS REQUIRED BY GOVERNING BUILDING CODE.
 - STAIRS SHALL HAVE A MAXIMUM RISE OF 7-3/4" AND MINIMUM TREAD OF 10". ALL RISERS AND TREADS TO BE EQUAL BETWEEN FLOORS.
 - PROVIDE WALL BRACING AS SHOWN ON PLAN.
 - PROVIDE HEADERS AS SHOWN ON PLAN, FOR HEADERS NOT MARKED REFERENCE TYPICAL BEARING WALL HEADER SCHEDULE.
 - FLOOR JOISTS: SEE IRC TABLE R502.3.1(1) AND R502.3.1(2) FOR SPAN, SIZE, SPACING, AND GRADE OF FLOOR JOISTS.
 - PROVIDE MIN (2) STUDS FULL WIDTH BEARING UNDER ALL WOOD BEAMS, LVL'S, AND STEEL BEAMS UNLESS NOTED OTHERWISE.
 - INTERIOR FOOTINGS OF LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.



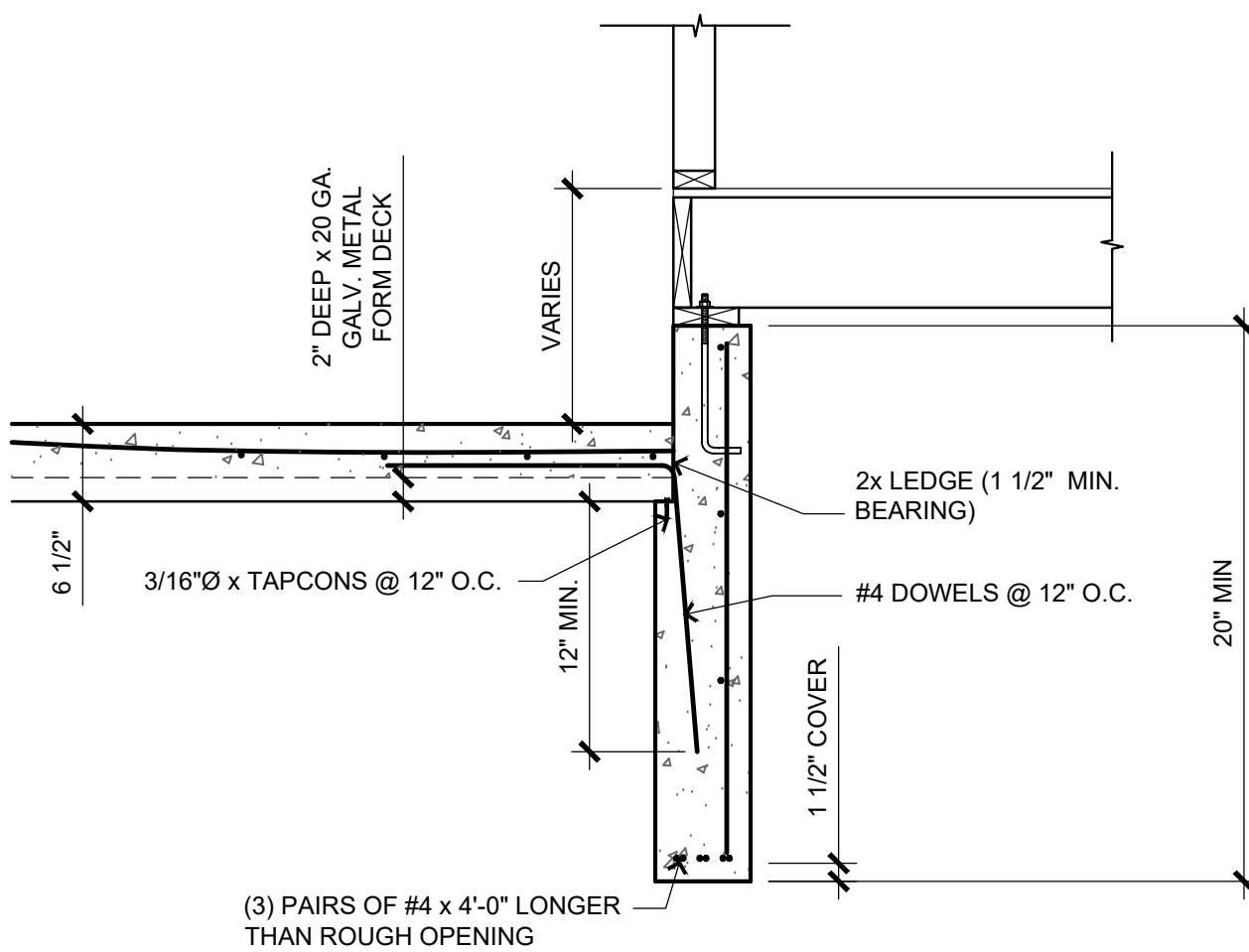
2 SLAB OVER BEAM

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



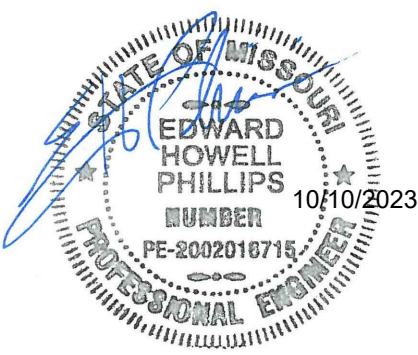
3 GARAGE SLAB ON FILL @ WALL

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



4 SUPPORTED GARAGE SLAB

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



BILL FOWLER ARCHITECT

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N C A R B National Council Architectural Registration Boards

Woodland Glen Lot 56

The Woodbridge 1 1/2 Reverse

Location:
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Lee's Summit, MO
Client:
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913 498 3536 / jduggan@ks-dsdlaw.com
BFA No:

WBRG-WG56

Revisions

NO.	DATE	DESCRIPTION
-----	------	-------------

Sheet Name:
Foundation & 1st Floor Framing Plan
Sheet No:

Date:

S10

10/10/23

PERMIT SET

TYPICAL BRACED WALL METHOD

WSP - WOOD STRUCTURAL PANEL; WOOD STRUCTURAL PANEL SHEATHING WITH A THICKNESS NOT LESS THAN 3/8" FOR 16" STUD SPACING. FASTEN WITH 6d COMMON NAILS (1 1/2"x2" LONG) AT 6"oc ALONG EDGES AND 12"oc AT INTERMEDIATE SUPPORTS, WHERE SHOWN ON PLANS. UNLESS OTHERWISE NOTED, PANEL WIDTH = 4'-0".

CS-WSP - CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANEL; WOOD STRUCTURAL PANEL SHEATHING WITH A THICKNESS NOT LESS THAN 3/8" FOR 16" STUD SPACING. FASTEN WITH 6d COMMON NAILS (1 1/2"x2" LONG) AT 6"oc ALONG EDGES AND 12"oc AT INTERMEDIATE SUPPORTS, PLACED ON ALL SHEATHABLE SURFACES ON ONE SIDE OF THE BRACED WALL LINE INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS.

GB - GYPSUM BOARD; 1/2" GYPSUM BOARD WITH 13 GAGE, 1 3/8" LONG, 19/64" HEAD; 0.098" DIA, 1 3/8" LONG, ANNULAR-RINGED; 6d COOLER NAIL, 0.092" DIA, 1 7/8" LONG, 1/4" HEAD; OR GYPSUM BOARD NAIL, 0.0915" DIA, 1 7/8" LONG, 19/64" HEAD; TYPE W OR TYPE S SCREWS; AT 7"oc EDGES & 7"oc FIELD

PFH - PORTAL FRAME WITH HOLD-DOWNS; REF PORTAL FRAME WITH HOLD-DOWNS DETAIL

ABW - ALTERNATE BRACED WALL; REF ALTERNATE BRACED WALL DETAIL

PFG - PORTAL FRAME AT GARAGE; REF PORTAL FRAME AT GARAGE DETAIL

LIB - LET-IN BRACE; REF LET-IN BRACE DETAIL.

HPS - HARDBOARD PANEL SIDING; HARDBOARD PANEL SIDING WITH A 7/16" THICKNESS. FASTEN WITH 0.092" DIA, 0.225" DIA HEAD NAILS WITH LENGTH TO ACCOMMODATE 1 1/2" PENETRATION INTO STUDS AT 4"oc ALONG EDGES AND 8" AT INTERMEDIATE SUPPORTS.

FLOOR FRAMING PLAN NOTES

NOTES ARE TYPICAL UNLESS NOTE NUMBER IS INSIDE OF CIRCLE, THEN THE NOTE REFERS TO A SPECIFIC LOCATION(S) MARKED ON THE PLAN.

- PROVIDE 3/4" TONGUE AND GROOVE WOOD STRUCTURAL PANEL SHEATHING FOR SUBFLOOR GLUED AND NAILED TO WOOD JOISTS WITH 8d NAILS AT 6"oc AT PANEL EDGES AND 12"oc AT NON-PANEL EDGES.
- ALL EXTERIOR WALL FRAMING SHALL BE 2x4 OR 2x6 DOUG-FIR STUD GRADE AT 16"oc.
- PROVIDE 1/2" EXTERIOR GRADE PLYWOOD SHEATHING NAILED TO WOOD STUDS WITH 8d NAILS AT 6"oc AT PANEL EDGES AND 12"oc AT NON-PANEL EDGES.
- ALL INTERIOR BEARING WALL FRAMING SHALL BE 2x4 OR 2x6 DOUG-FIR STUD GRADE AT 16"oc.
- DOUBLE FLOOR JOISTS UNDER ALL PARTITION WALLS RUNNING PARALLEL WITH JOISTS.
- PROVIDE PROPER WALL INSULATION AS REQUIRED BY GOVERNING BUILDING CODE.
- STAIRS SHALL HAVE A MAXIMUM RISE OF 7-3/4" AND MINIMUM TREAD OF 10". ALL RISERS AND TREADS TO BE EQUAL BETWEEN FLOORS.
- PROVIDE WALL BRACING AS SHOWN ON PLAN.
- PROVIDE HEADERS AS SHOWN ON PLAN, FOR HEADERS NOT MARKED REFERENCE TYPICAL BEARING WALL HEADER SCHEDULE.
- FLOOR JOISTS: SEE IRC TABLE R502.3.1(1) AND R502.3.1(2) FOR SPAN, SIZE, SPACING, AND GRADE OF FLOOR JOISTS.
- PROVIDE MIN (2) STUDS FULL WIDTH BEARING UNDER ALL WOOD BEAMS, LVL'S, AND STEEL BEAMS UNLESS NOTED OTHERWISE.

- (12) SIMPSON STRONG-TIE PFS-HKD DOUBLE WALL PORTAL WITH (2) DF#2 2x10 COLUMNS EACH END WITH HEADERS AS INDICATED ON THE PLAN AND SHIMS AS REQUIRED. COLUMNS SHALL BEAR DIRECTLY ON TOP OF FOUNDATION WALL.

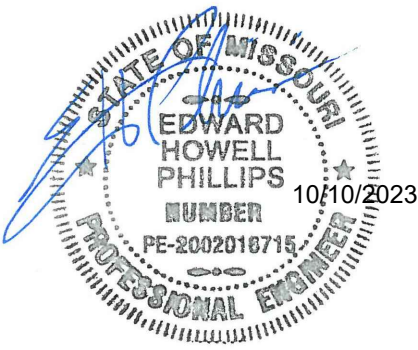
JOIST HANGER TABLE

(BASED ON SIMPSON STRONG-TIE WOOD CONSTRUCTION CONNECTORS 2021 CATALOG)

JOIST SIZE	MODEL NO.	FASTENERS		DF/SP ALLOWABLE LOADS (lb.)	
		HEADER	JOIST	FLOOR (100)	SNOW (115)
2x4	LU24	(4) 0.162 x 3-1/2	(2) 0.148 x 1-1/2	555	630
DBL 2x4	LUS24-2	(4) 0.162 x 3-1/2	(2) 0.162 x 3-1/2	800	905
2x6	LUS26	(4) 0.148 x 3	(4) 0.148 x 3	865	990
DBL 2x6	LUS26-2	(4) 0.162 x 3-1/2	(4) 0.162 x 3-1/2	1,030	1,170
2x8	LUS28	(6) 0.148 x 3	(4) 0.148 x 3	1,100	1,260
DBL 2x8	LUS28-2	(6) 0.162 x 3-1/2	(4) 0.162 x 3-1/2	1,315	1,490
2x10	LUS210	(8) 0.148 x 3	(4) 0.148 x 3	1,335	1,530
DBL 2x10	LUS210-2	(8) 0.162 x 3-1/2	(6) 0.162 x 3-1/2	1,830	2,075
2x12	LUS210	(8) 0.148 x 3	(4) 0.148 x 3	1,335	1,530
DBL 2x12	LUS210-2	(8) 0.162 x 3-1/2	(6) 0.162 x 3-1/2	1,830	2,075
(2) 1 3/4 x 9 1/2	HUS410	(8) 0.162 x 3-1/2	(8) 0.162 x 3-1/2	2,125	2,420
1 3/4 x 11 1/4	HU11	(22) 0.162 x 3-1/2	(6) 0.148 x 1-1/2	3,275	3,695
(2) 1 3/4 x 11 1/4	HHUS410	(30) 0.162 x 3-1/2	(10) 0.162 x 3-1/2	5,635	6,380

- a. FOR MINIMUM NAILING QUANTITY AND LOAD VALUES, FILL ALL ROUND HOLES; FOR MAXIMUM NAILING QUANTITY AND LOAD VALUES, FILL ALL ROUND AND TRIANGULAR HOLES.
- b. FASTENERS: NAIL DIMENSIONS ARE LISTED DIAMETER BY LENGTH.

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N C A R B National Council Architectural Registration Boards

Project:

Woodland Glen Lot 56

The Woodbridge 1 1/2 Reverse

Location:
1505 SW Heartwood Lane
Lee's Summit, MO
Client:
John Duggan
913 498 3536 / jduggan@ks-dsdlaw.com
BFA No:

WBRG-WG56

Revisions

NO.	DATE	DESCRIPTION
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Sheet Name:

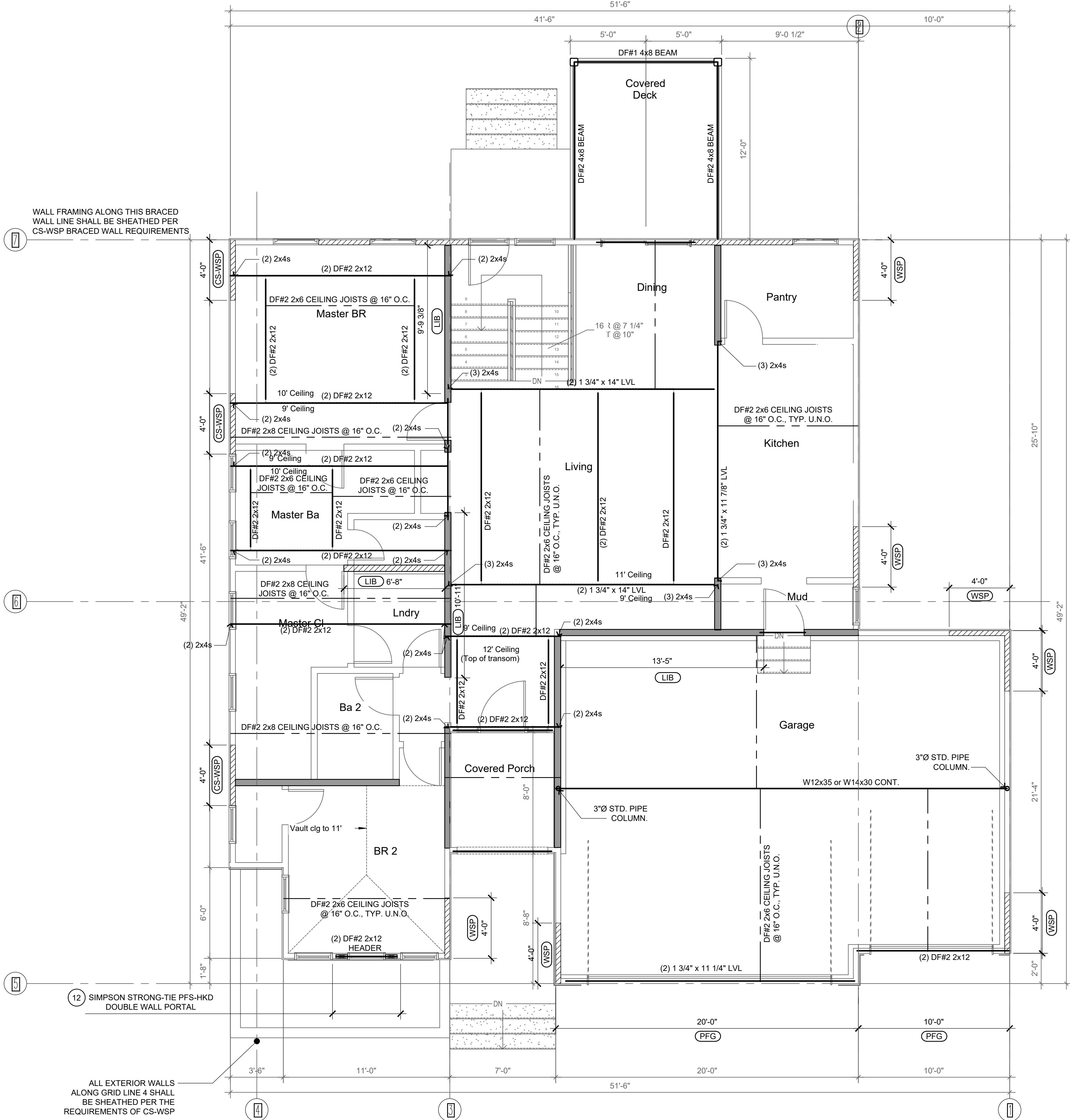
Main Floor Framing Plan

Sheet No: Date:

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ROOF FRAMING PLAN NOTES

- NOTES ARE TYPICAL UNLESS NOTE NUMBER IS INSIDE OF CIRCLE, THEN THE NOTE REFERS TO A SPECIFIC LOCATION(S) MARKED ON THE PLAN.
1. PROVIDE 1/2" EXTERIOR GRADE PLYWOOD SHEATHING NAILED TO ROOF RAFTERS WITH 8d NAILS AT 6"oc AT PANEL EDGES AND 12"oc AT NON-PANEL EDGES.
 2. PROVIDE ADDITIONAL DEPTH TO JOISTS AS REQUIRED TO PROVIDE 1" AIR GAP TO PREVENT CONDENSATION PLUS 12" INSULATION TO PROVIDE R-38 INSULATION VALUE TO VAULTED CEILING AREA WHERE SHOWN ON PLAN WITH CROSS HATCH.
 3. ALL RIDGE, VALLEY, AND HIP MEMBERS SHALL BE 2" NOMINAL THICKNESS AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER.
 4. HIP AND VALLEY MEMBERS SHALL BE SUPPORTED AT THE RIDGE WITH A 2x6 T-BRACE TO A BEARING WALL BELOW.
 5. PROVIDE SOFFIT, RIDGE, AND GABLE END VENTS AS REQUIRED TO PROVIDE ADEQUATE VENTILATION FOR ROOF.
 6. PROVIDE PROPER FLASHING AND BUILDING PAPER UNDER SHINGLES AS REQUIRED TO PROVIDE WATER TIGHT SEAL AT ALL ROOF PENETRATIONS, RIDGES, VALLEYS, HIPs AND/OR OTHER SLOPE CHANGES.
 7. GUTTERS, DOWNSPOUTS, AND SPLASH BLOCKS SHALL BE PROVIDED TO INSURE ALL ROOF DRAINAGE IS DIRECTED 5 FEET MINIMUM FROM HOUSE BEFORE TOUCHING SOIL.
 8. ALL GABLE END WALL FRAMING SHALL BE 2x4 DOUG-FIR STUD GRADE AT 16"oc.
 9. PROVIDE PROPER CEILING INSULATION AS REQUIRED BY GOVERNING BUILDING CODE.
 10. PROVIDE MIN (2) STUDS FULL WIDTH BEARING UNDER ALL WOOD BEAMS, LVL'S, AND STEEL BEAMS UNLESS NOTED OTHERWISE.
 11. BRACE RIDGES/HIPS DOWN TO BEAMS PROVIDED IN CEILING FRAMING OR BEARING WALLS BELOW. RE: CEILING FRAMING PLAN FOR BEAM SIZES.
 12. CEILING BEAM BELOW, RE: CEILING FRAMING PLAN.
 13. BRACE RIDGE TO BEAM BELOW WITH 2x4 T-BRACES @ 5'-0" O.C. MAX.

NOTE: ROOF HAS BEEN DESIGNED WITH STRUCTURAL HIPs & VALLEYS. ALL HIPs & VALLEYS TO BE BRACED PER HIP/VALLEY RAFTER TABLE. ALL HIPs & VALLEYS TO BE 2x10 MIN UNO.

NOTE: ALL HIPs, VALLEYS, RIDGES, AND ROOF BEAMS SHALL COMPLY WITH IRC R802.3 & R802.4.3 & HAVE (1) SIMPSON H2.5A AT EACH END TO RESIST UPLIFT. WHERE THE ROOF MEMBER IS SUPPORTED BY A STRUT, IN ADDITION TO THE ROOF MEMBER TO STRUT UPLIFT CONNECTION, THE STRUT SHALL ALSO BE CONNECTED TO A BEARING WALL OR BEAM BELOW WITH A SIMPSON H2.5A.

PURLIN SPAN TABLE

PURLIN (DF #2) *	MAX SPAN			
	2x6	2x8	2x10	2x12
2x6 RAFTERS AT 24"oc	4'-3"	5'-4"	6'-4"	7'-1"
2x6 RAFTERS AT 16"oc	3'-11"	4'-10"	5'-10"	6'-6"

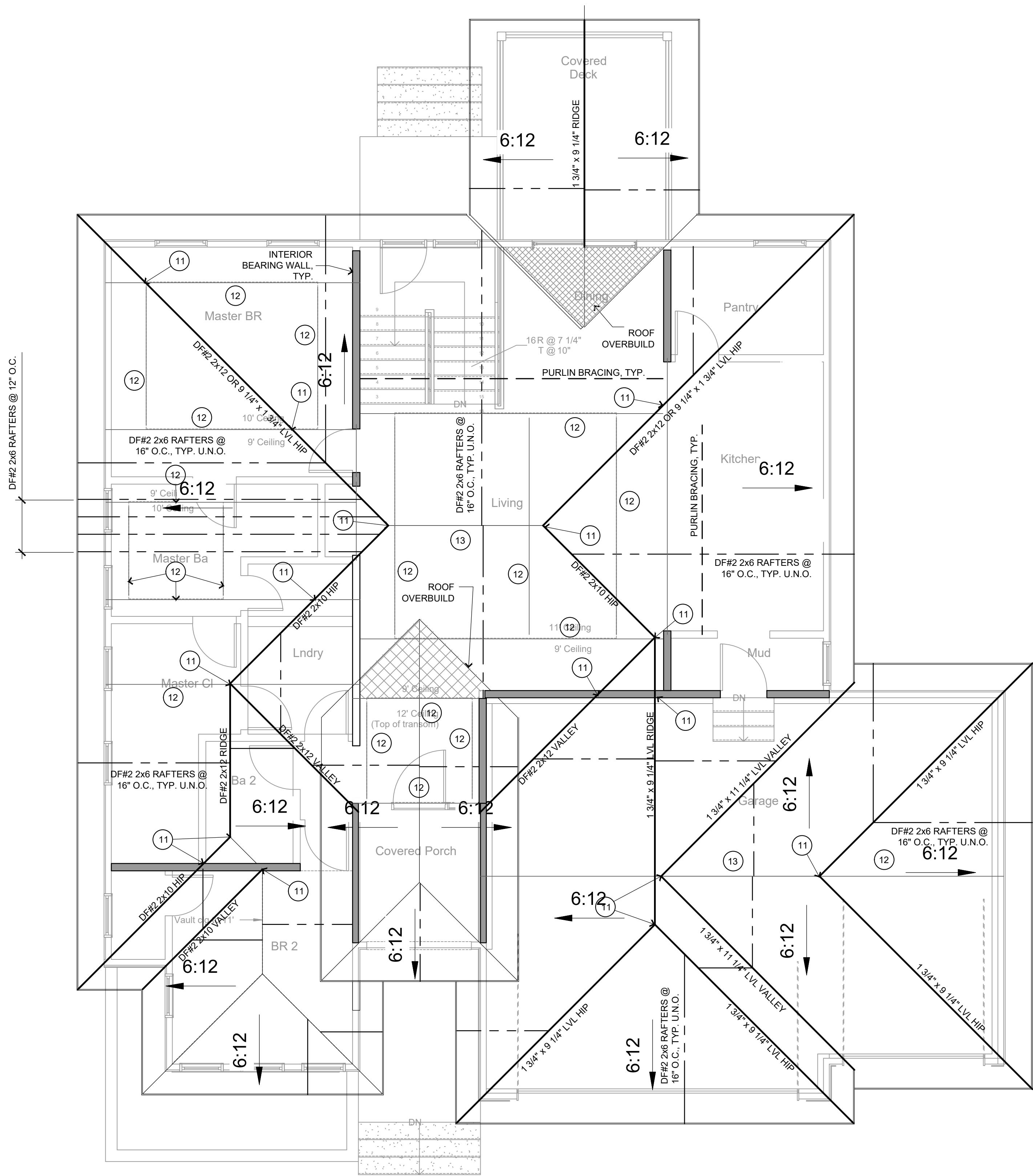
* BRACE PURLINS WITH 2x6 "T" BRACES.

FOR BRACE LENGTHS LESS THAN 6'-0", 2x4 "T" BRACES MAY BE USED.

FOR BRACE LENGTHS OVER 20', USE 2x8 "T" BRACES.

HIP/VALLEY RAFTER TABLE

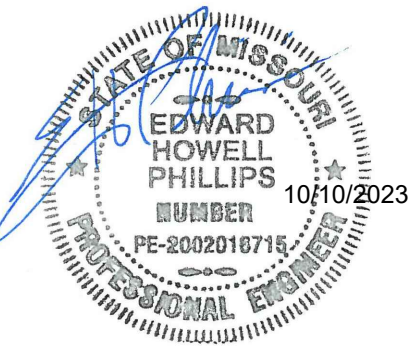
TYPE	MAX UNBRACED SPAN					
	2x6	2x8	2x10	2x12	1 3/8"x9 1/2" LVL	1 3/8"x11 1/2" LVL
HIP RAFTERS	9'-6"	11'-2"	12'-9"	14'-1"	15'-8"	18'-2"
VALLEY RAFTERS	7'-7"	8'-10"	10'-1"	11'-2"	13'-2"	15'-3"



1 ROOF FRAMING PLAN

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

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The Woodbridge 1 1/2 Reverse

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1505 SW Heartwood Lane
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Revisions

NO.	DATE	DESCRIPTION
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Roof Framing Plan

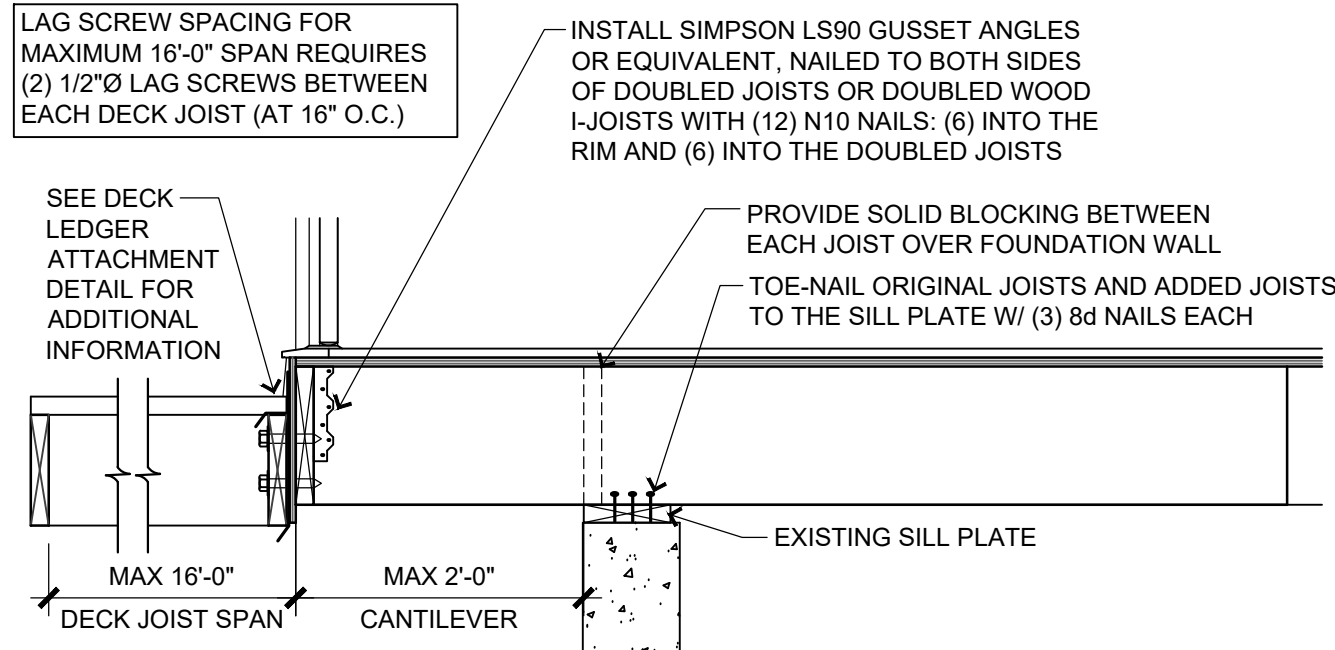
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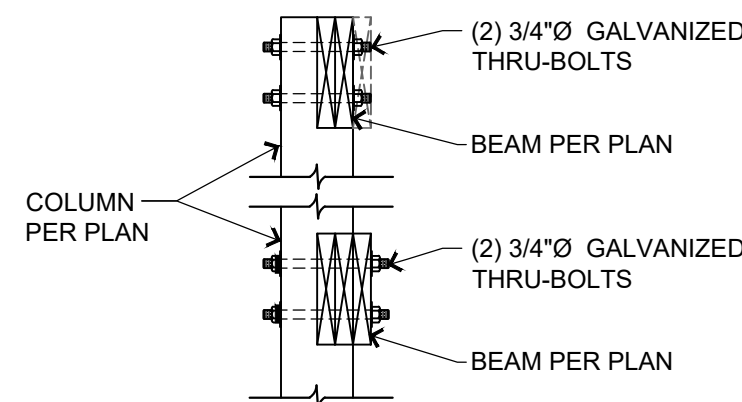
EXISTING JOISTS MUST BE 2x10'S (MIN) OR WOOD I-JOISTS @ 16" O.C. MAXIMUM DECK JOIST SPAN CONNECTING TO CANTILEVERED JOISTS IS 16'-0".

FOR 2'-0" CANTILEVER, EACH 2x10 MUST BE DOUBLED WITH AN ADDITIONAL 6'-0" LG 2x10 NAILED TOGETHER W/ 10d COMMON NAILS @ 16" O.C. STAGGERED. EACH I-JOIST MUST BE DOUBLED WITH 30" LONG WEB STIFFENERS ADDED. WEB STIFFENERS SHALL BE PLACED BETWEEN THE I-JOISTS ON THE OUTSIDE FLANGES OF EACH OF THE TWO I-JOISTS AND NAILED TOGETHER W/ A ROW OF (4) 10d NAILS EVERY 16".

FOR 1'-0" CANTILEVER, EXISTING JOISTS DO NOT NEED TO BE DOUBLED.

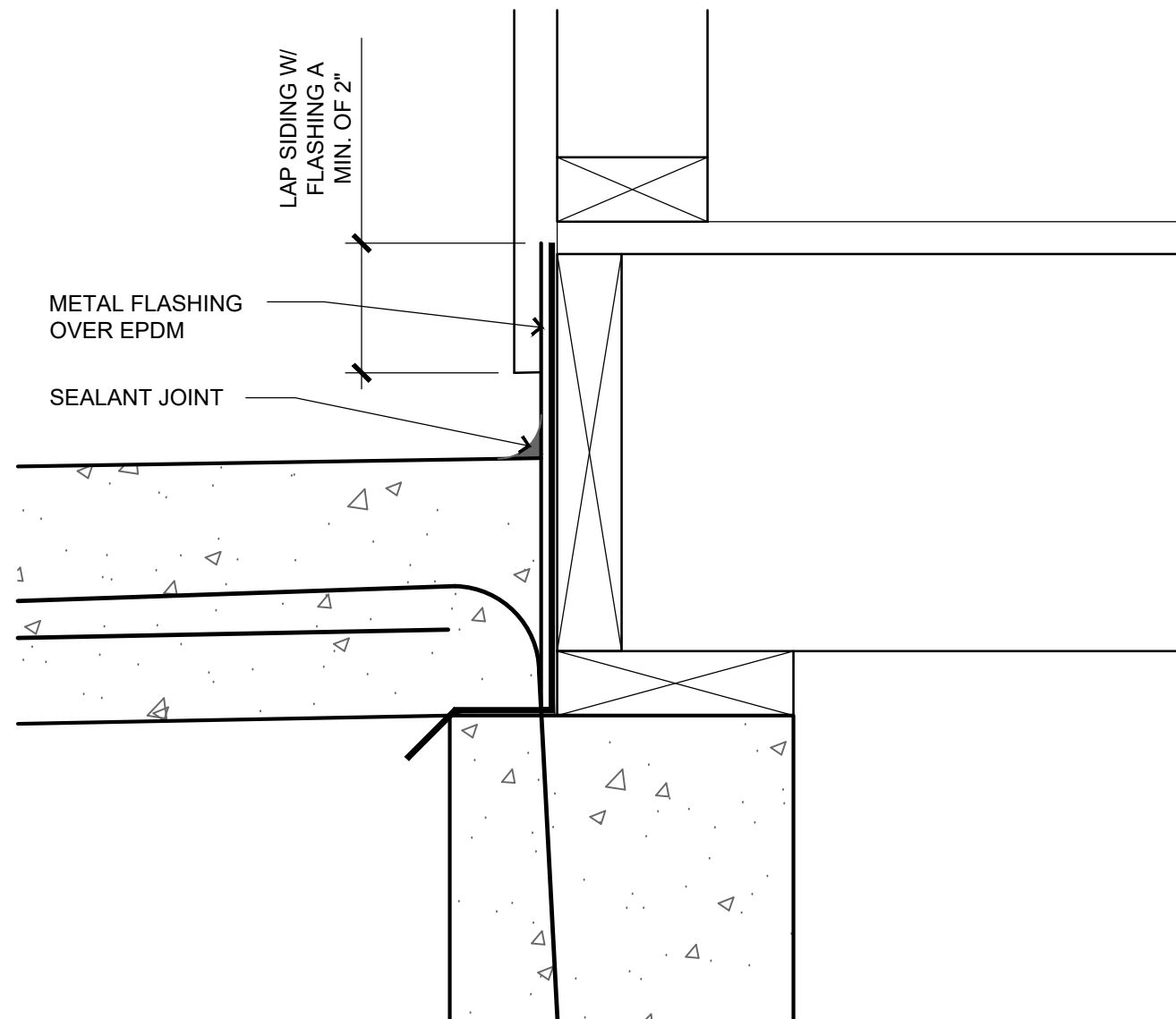
10 DECK LEDGER ATTACHMENT TO CANTILEVERED JOISTS

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



11 DECK BEAM TO COL CONN

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



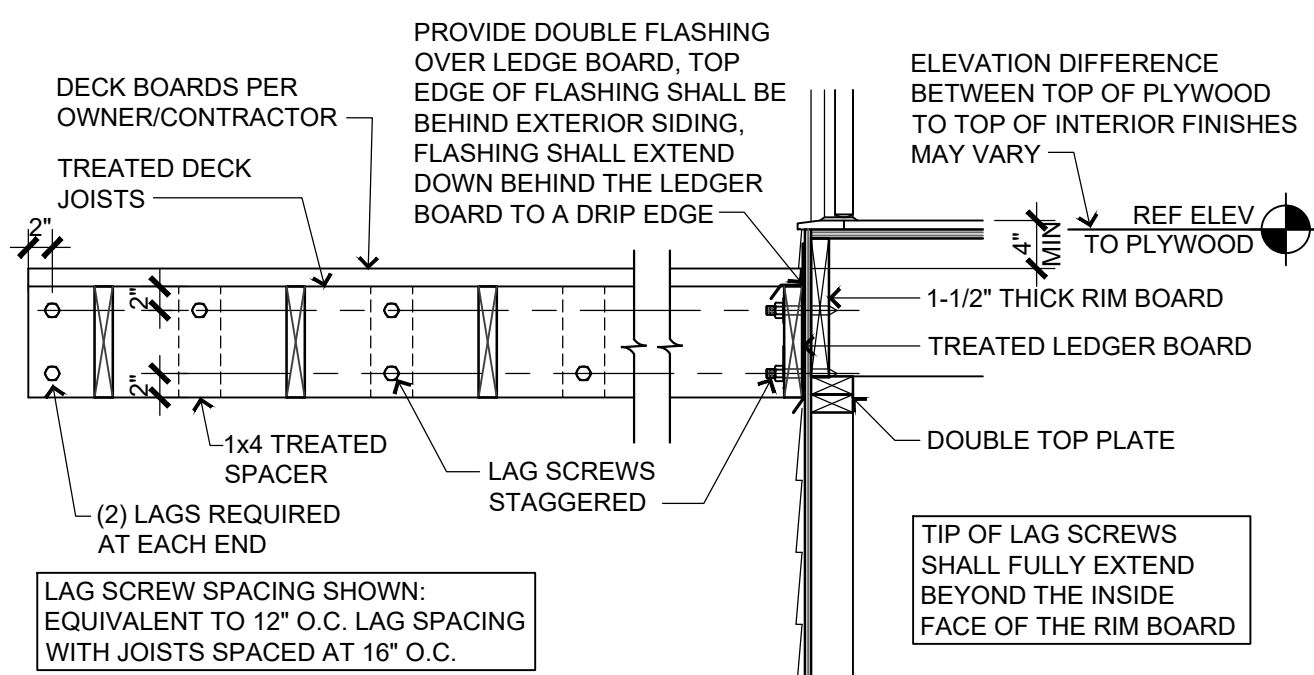
7 STOOP SECTION

SCALE: 3" = 1'-0"

PIER SIZE	AREA S.F.	CAPACITY LBS.	
		1500 PSF	2000 PSF
12"Ø	0.79	1,177	1,570
14"Ø	1.07	1,602	2,137
16"Ø	1.40	2,094	2,792
18"Ø	1.77	2,650	3,534
20"Ø	2.18	3,272	4,363
22"Ø	2.64	3,959	5,279
24"Ø	3.14	4,712	6,283
26"Ø	3.68	5,530	7,374
28"Ø	4.27	6,414	8,552

8 DECK PIER

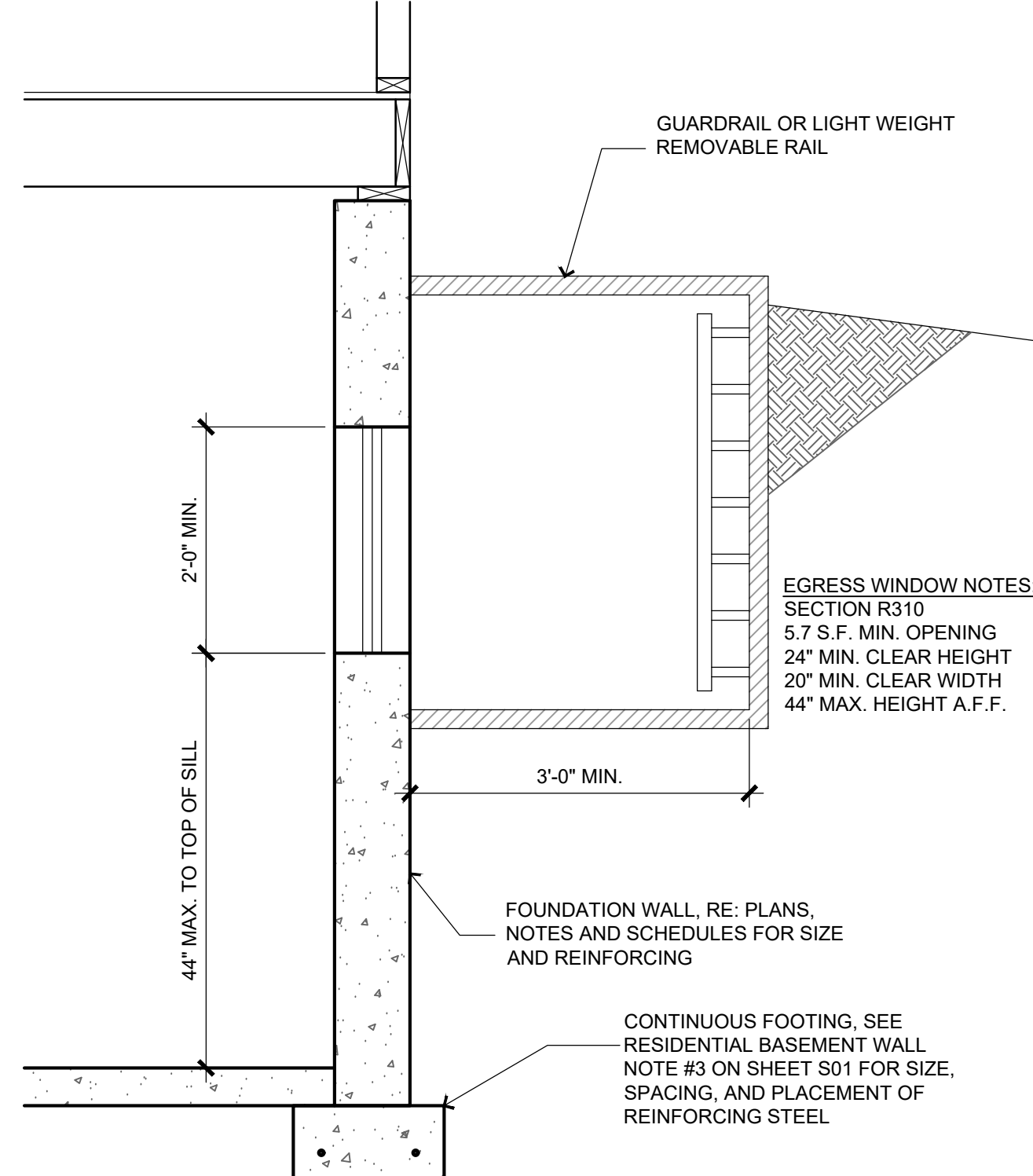
SCALE: 3/4" = 1'-0"



LEDGER FASTENER SCHEDULE												
CONNECTION DETAILS	JOIST SPAN											
	UP TO 6'	6'-1" TO 8'	8'-1" TO 10'	10'-1" TO 12'	12'-1" TO 14'	14'-1" TO 16'	16'-1" TO 18'					
1/2"Ø LAG	SPACING OF FASTENERS											
SCREWS W/ 1/2" MAX SHEATHING	30"oc	23"oc	18"oc	15"oc	13"oc	11"oc	10"oc					
EQUIVALENT LAG SPACING FOR JOISTS @ 16"oc (SEE ROW ABOVE)	EVERY OTHER JOIST SPACES	(2) EVERY THIRD JOIST SPACE	EACH JOIST SPACE			EACH JOIST SPACE W/ (2) EVERY OTHER SPACE		(2) IN EACH JOIST SPACE				

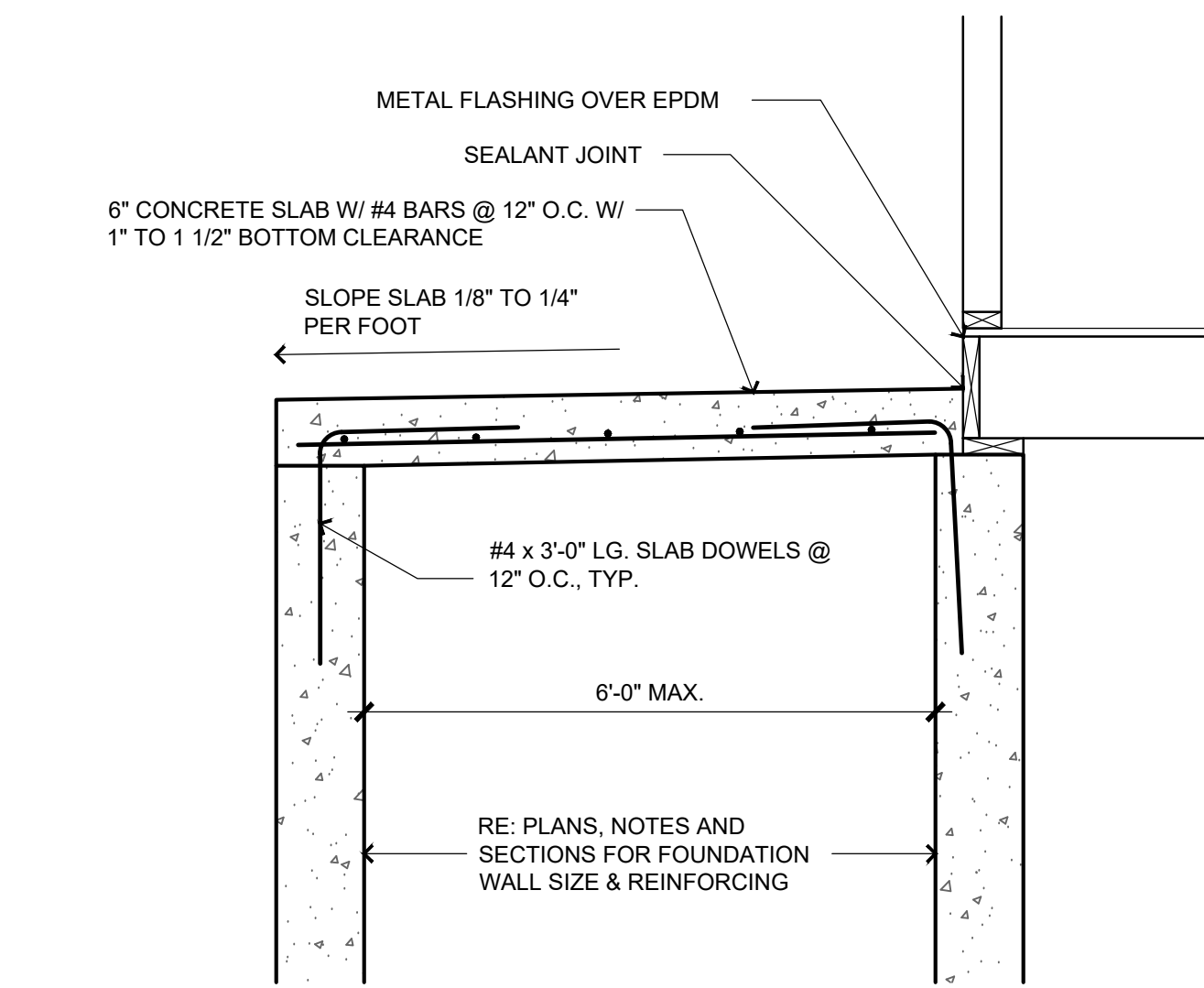
9 DECK LEDGER ATTACHMENT

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



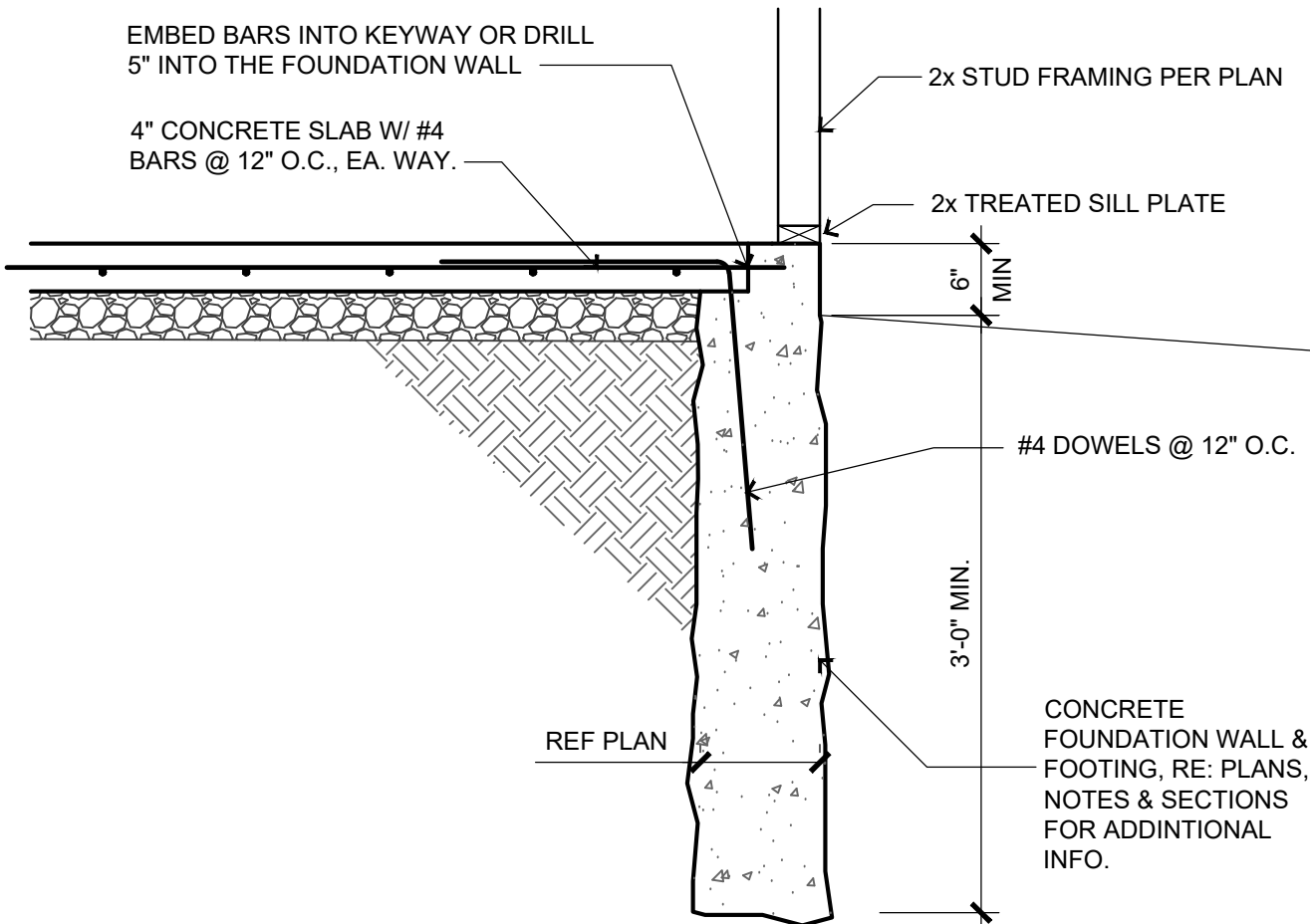
4 TYP EGRESS WINDOW SECTION

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



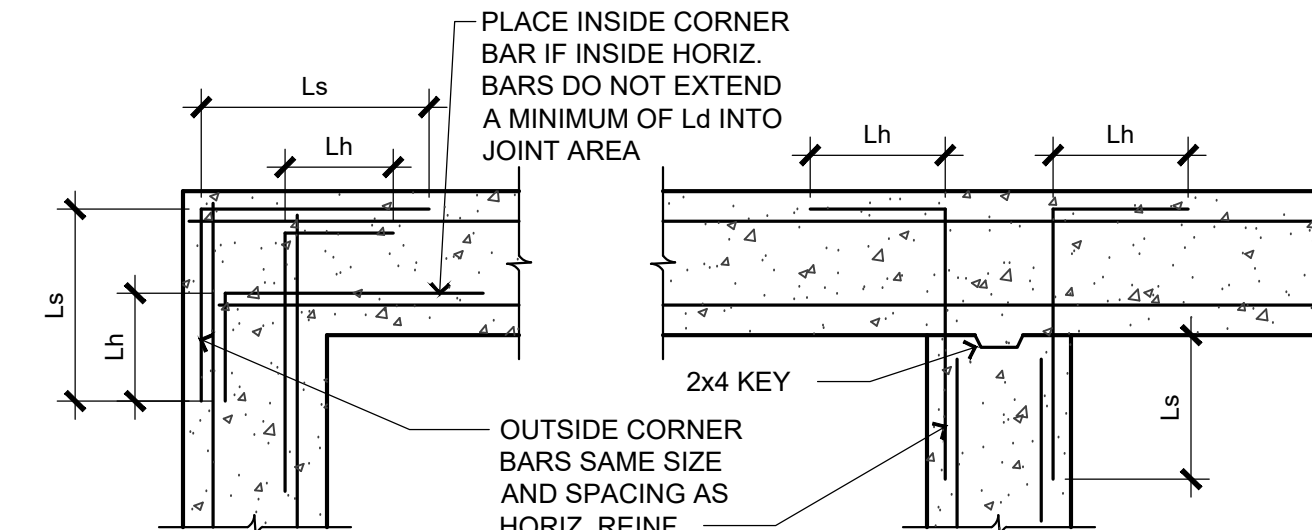
5 SUSPENDED PORCH STOOP

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



6 WALKOUT/GARAGE FTG SECTION

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

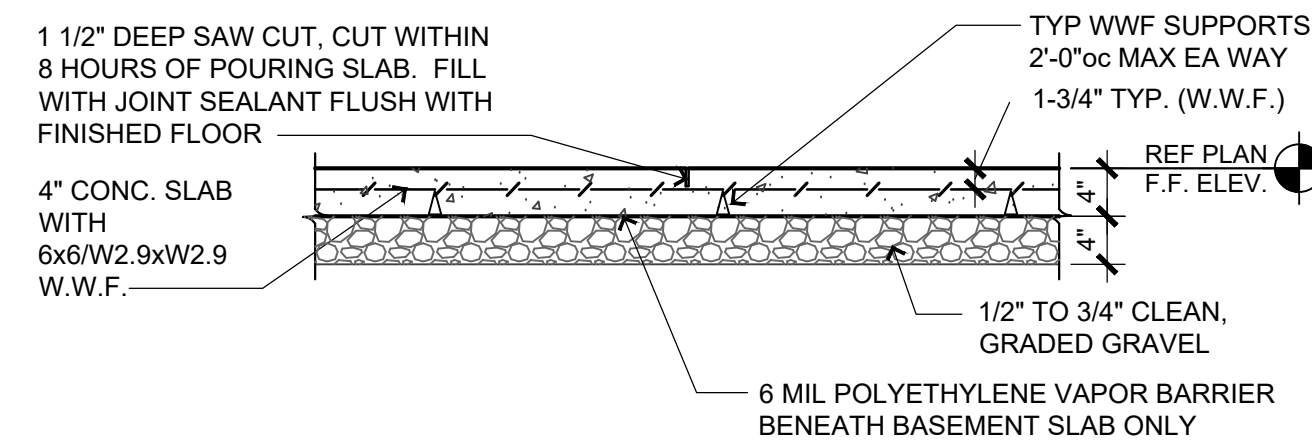


CORNER PLAN INTERSECTION PLAN

Z BARS SAME SIZE AND NUMBER AS FTG. REINFORCEMENT	BAR SIZE			
	Lh	Ld	LS	
3	6"	14"	18"	
4	8"	19"	25"	
5	10"	23"	30"	
6	1'-0"	28"	37"	
7	1'-2"	42"	54"	
8	1'-4"	48"	62"	

GRADE BEAM STEP ELEV. TYP WALL AND GRADE BEAM DTL'S

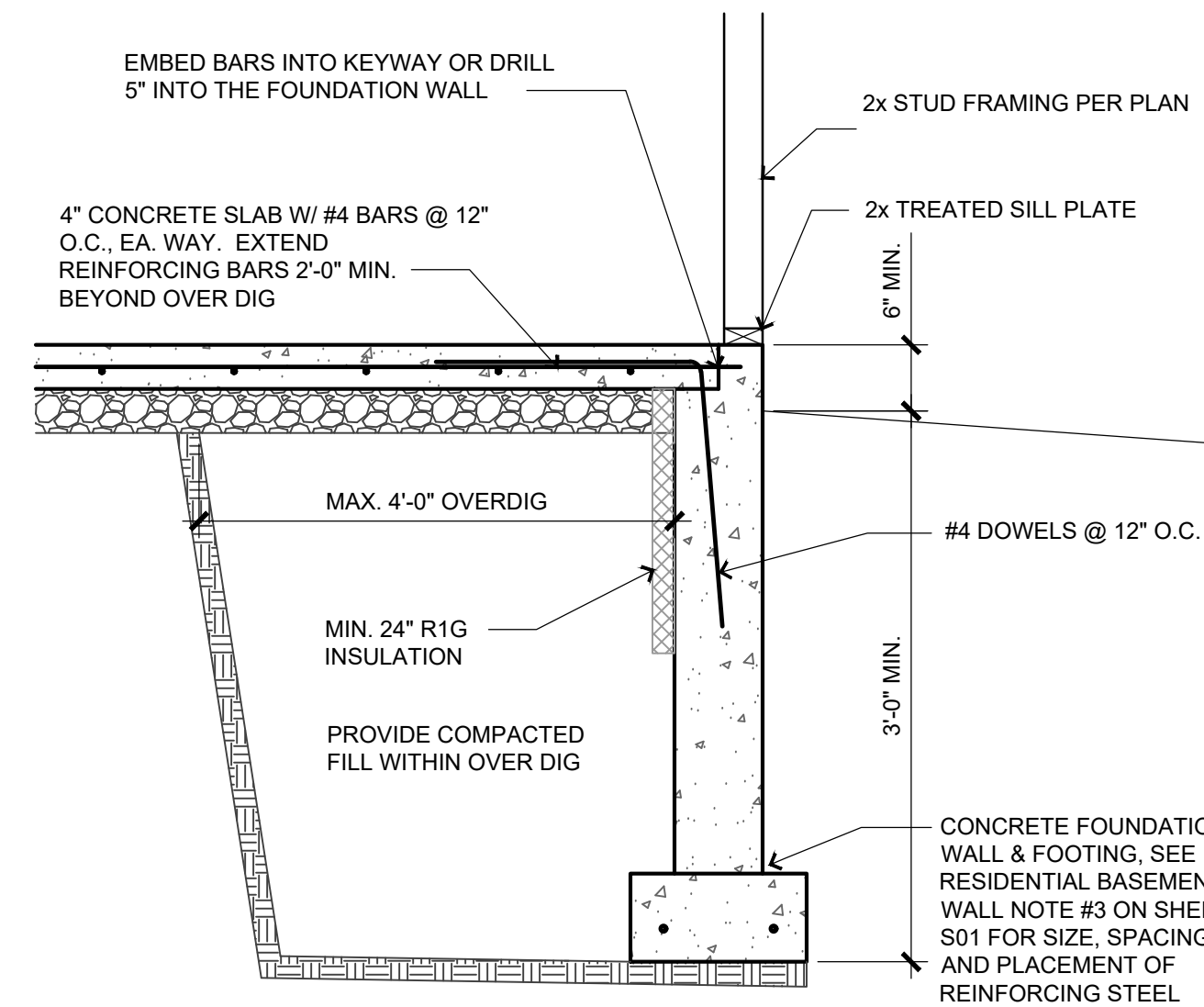
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STANDARD 4" SLAB

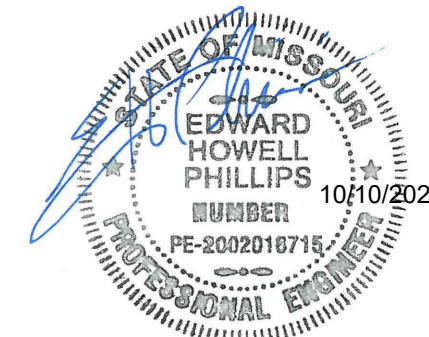
2 STANDARD SLAB DETAILS

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



3 OVERDIG SECTION BSMT SLAB

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



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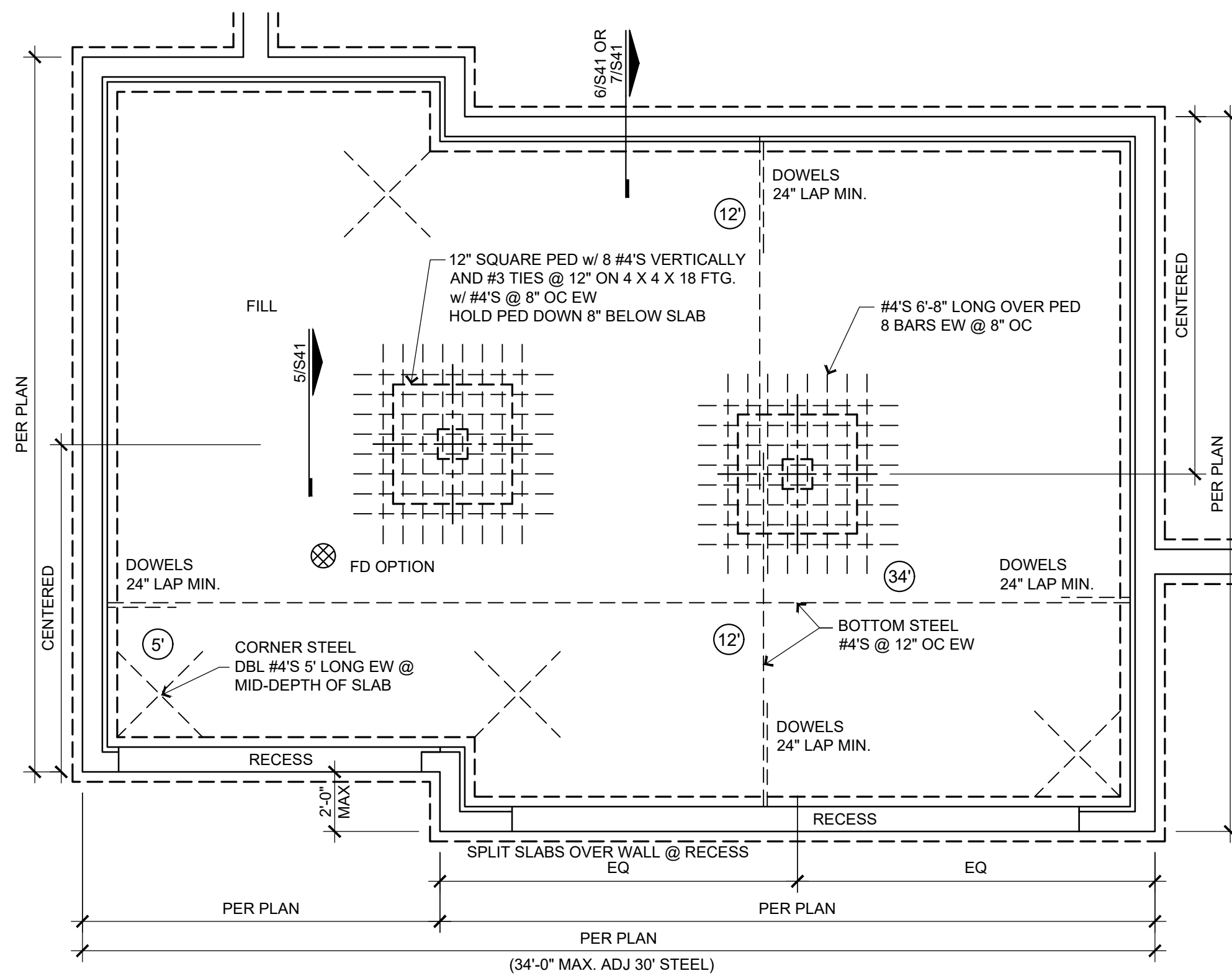
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Standard Details,
Schedules, & Notes
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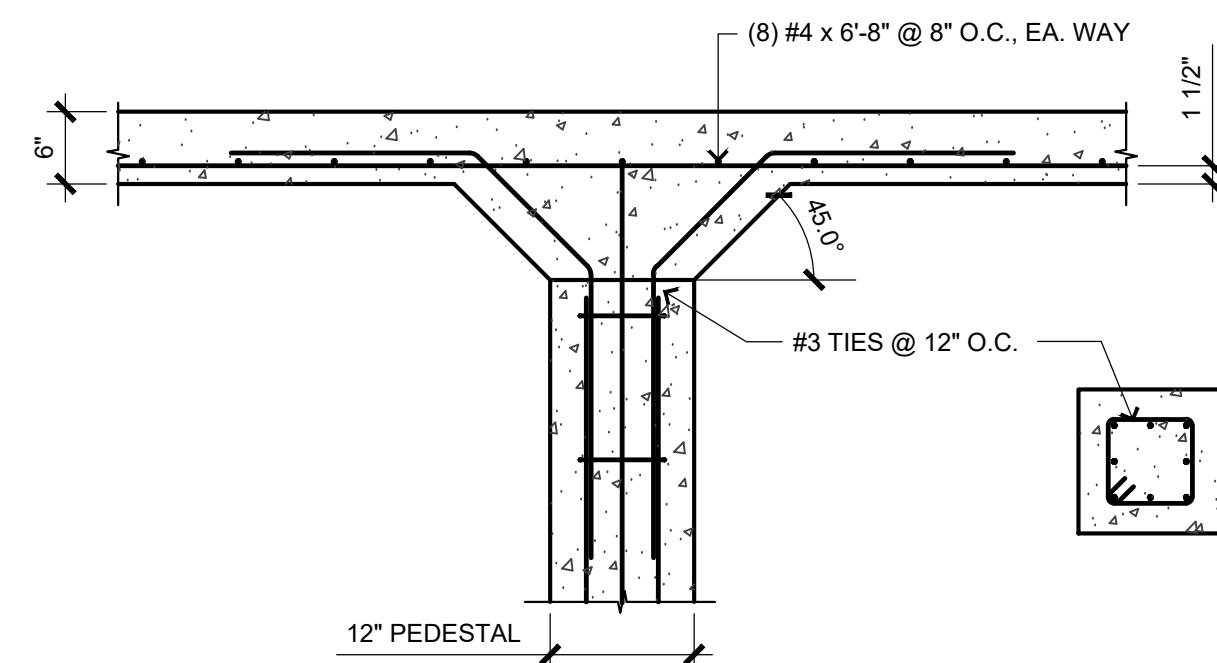
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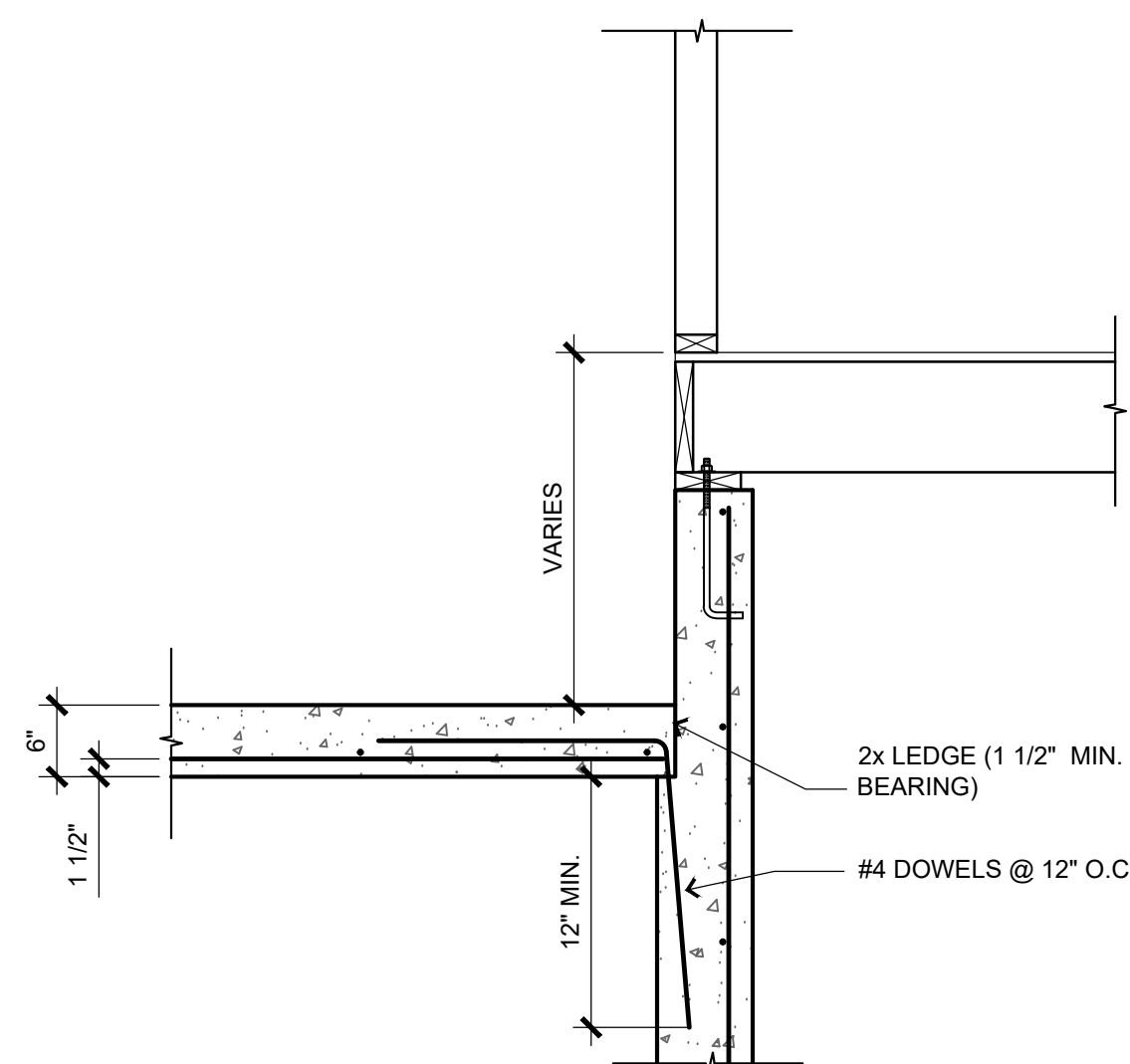
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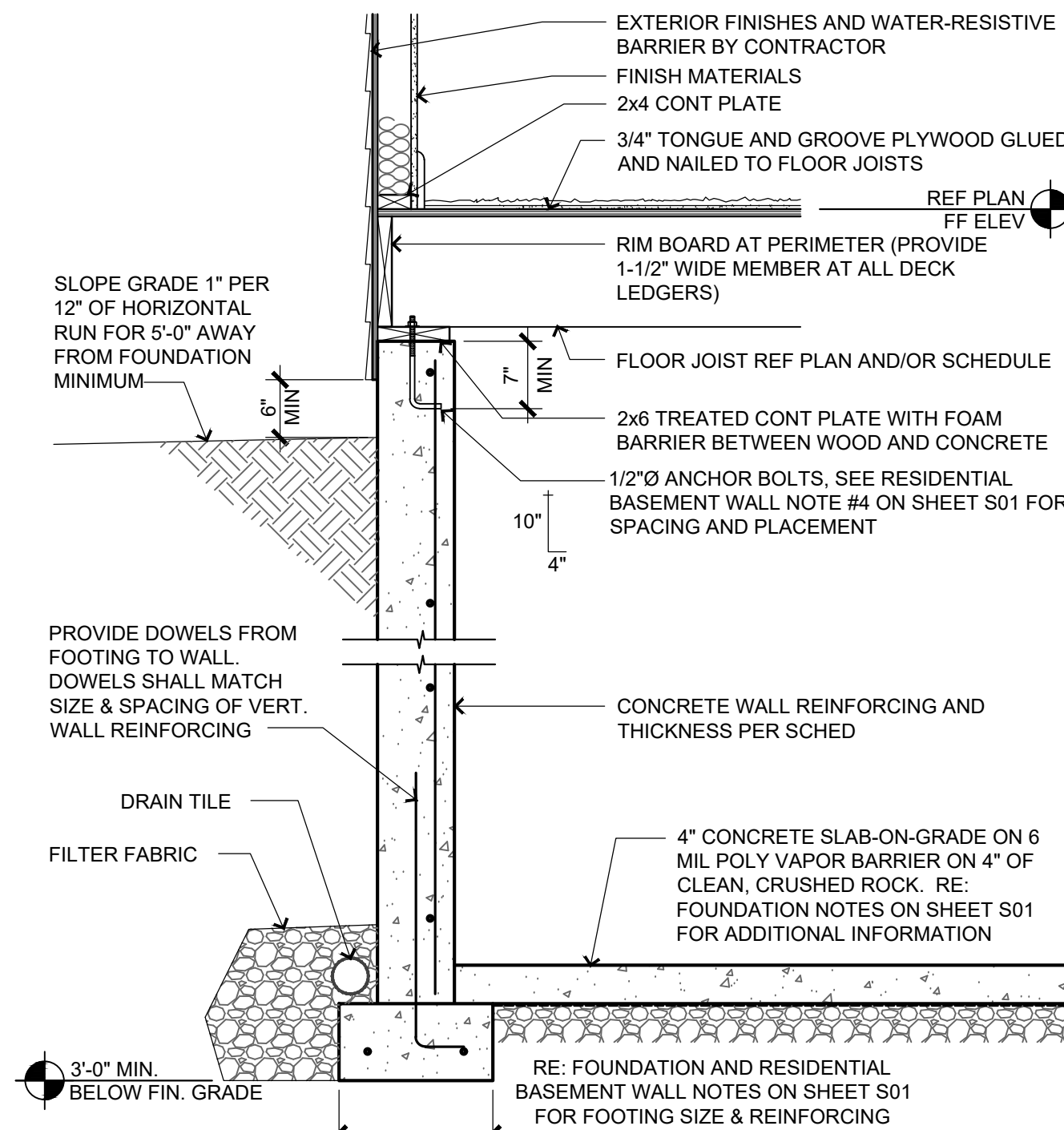
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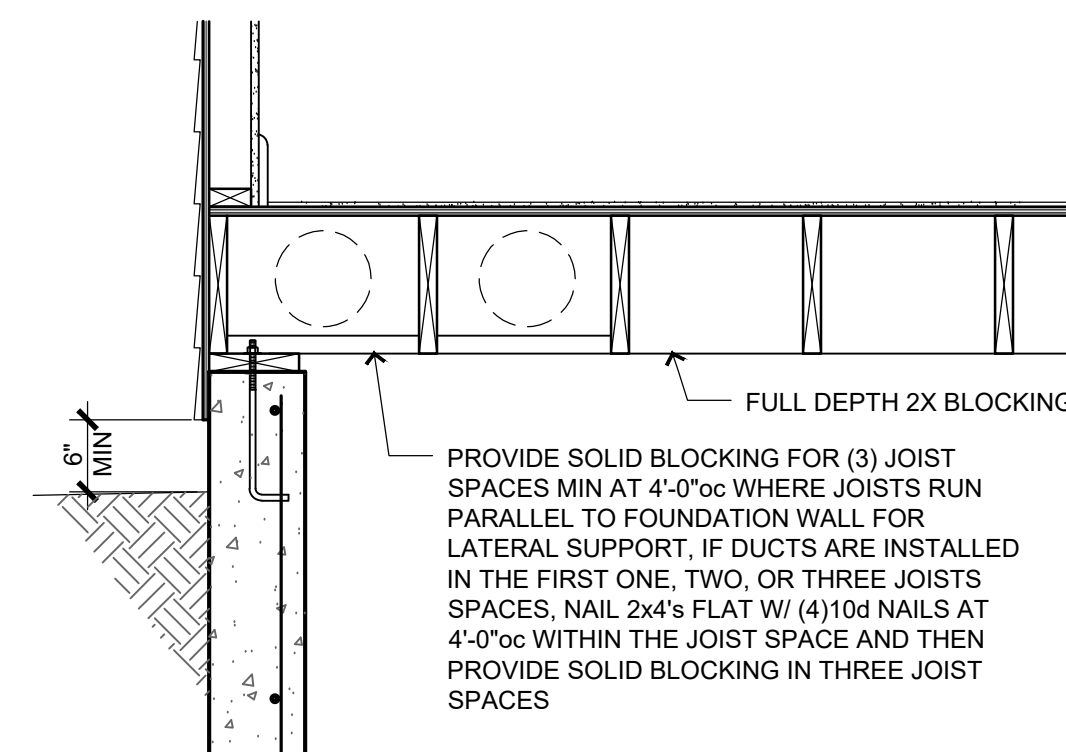
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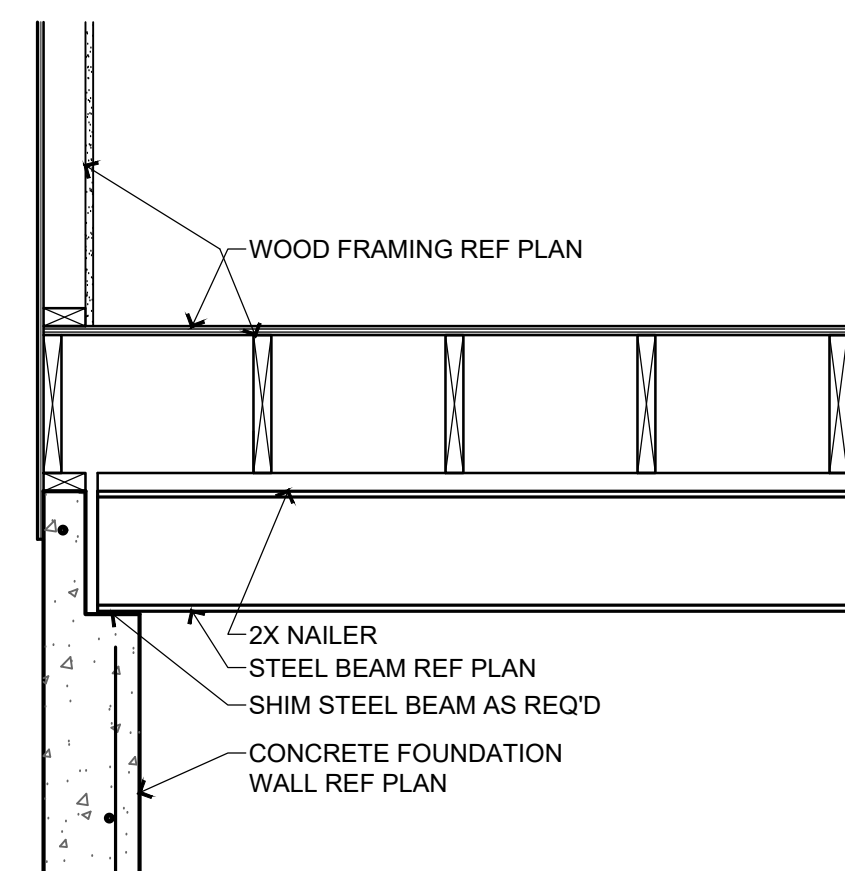
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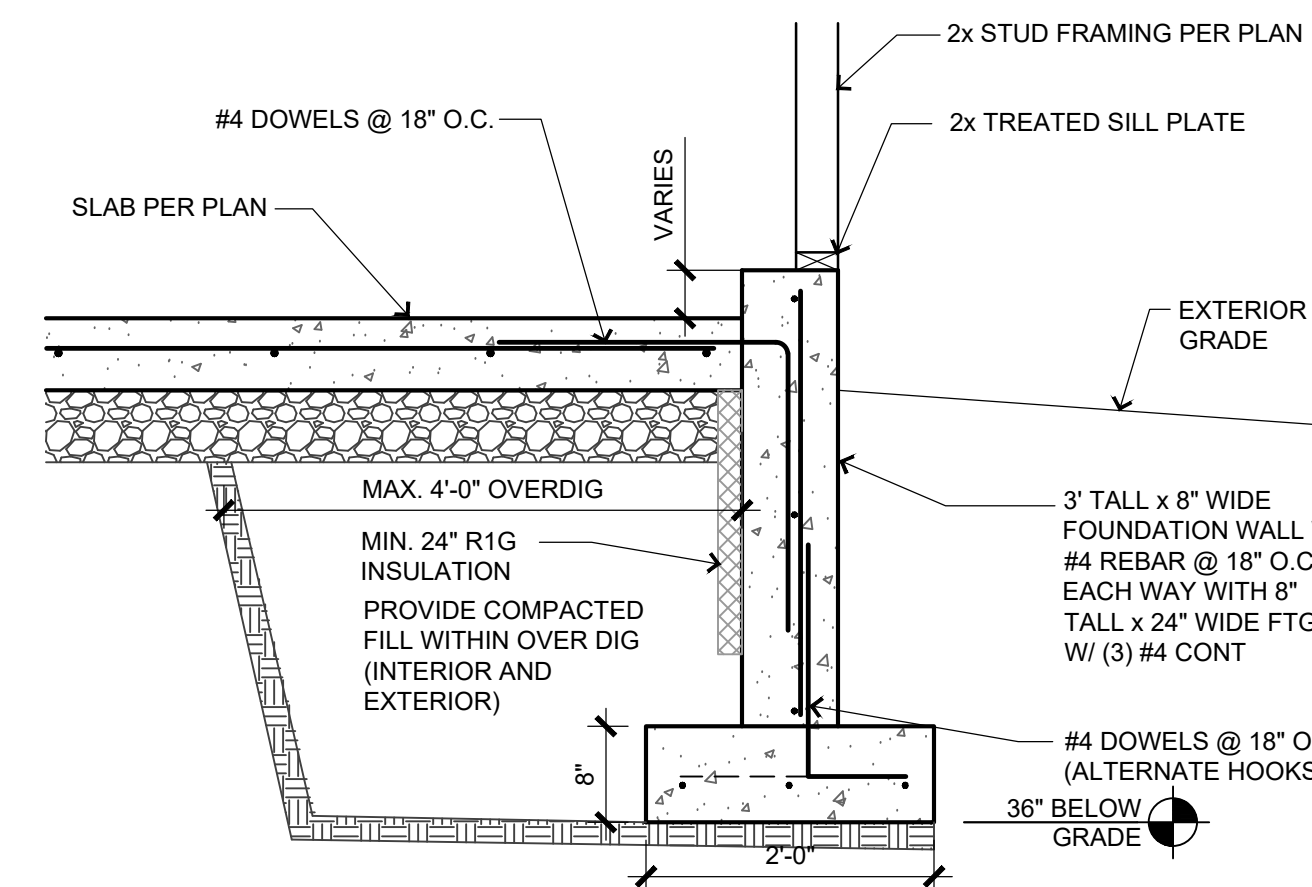
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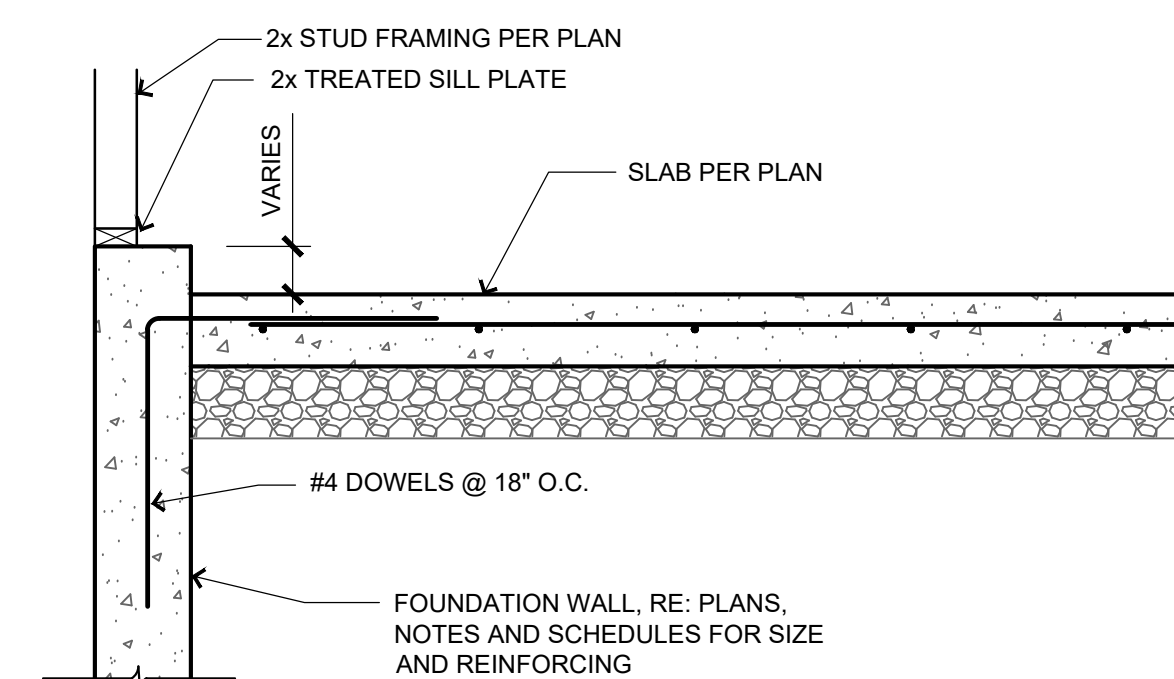
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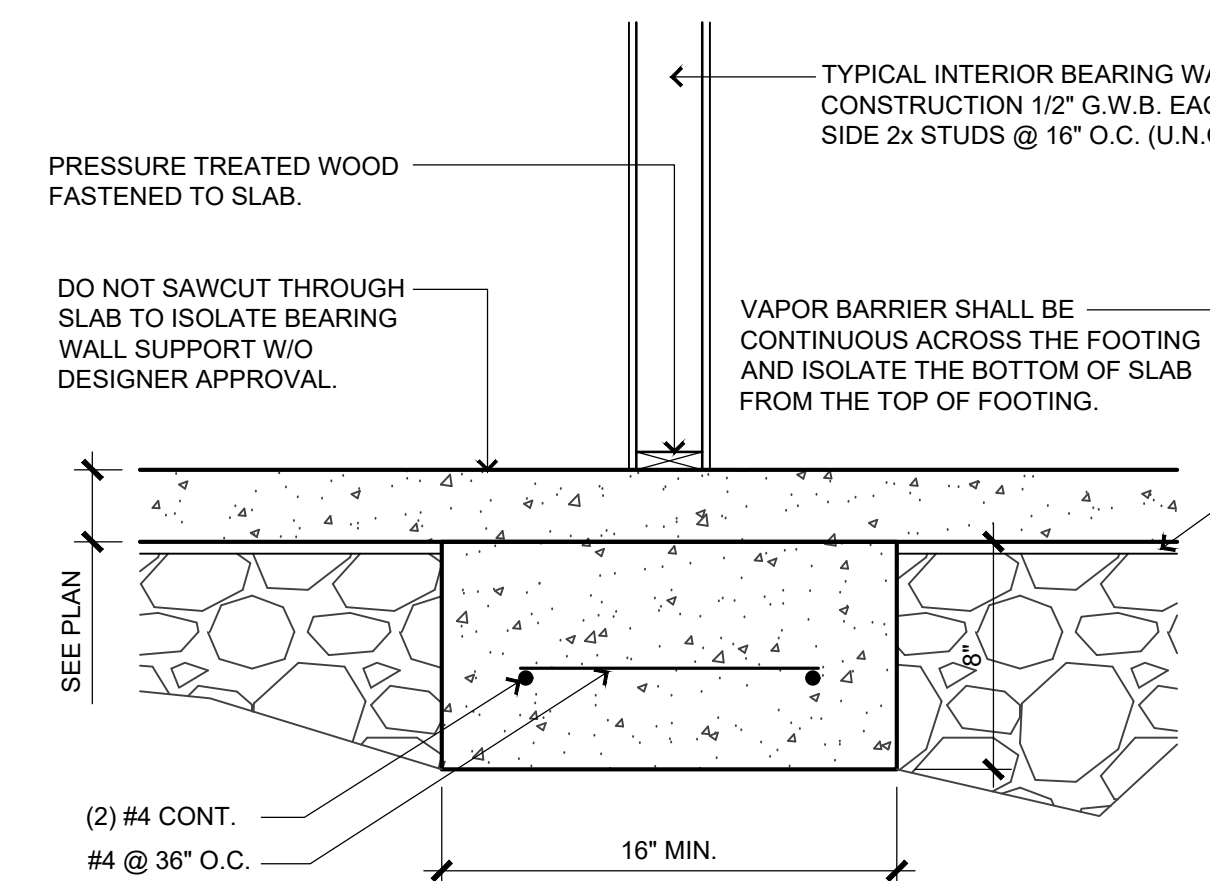
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SCALE: 3/4" = 1'-0"



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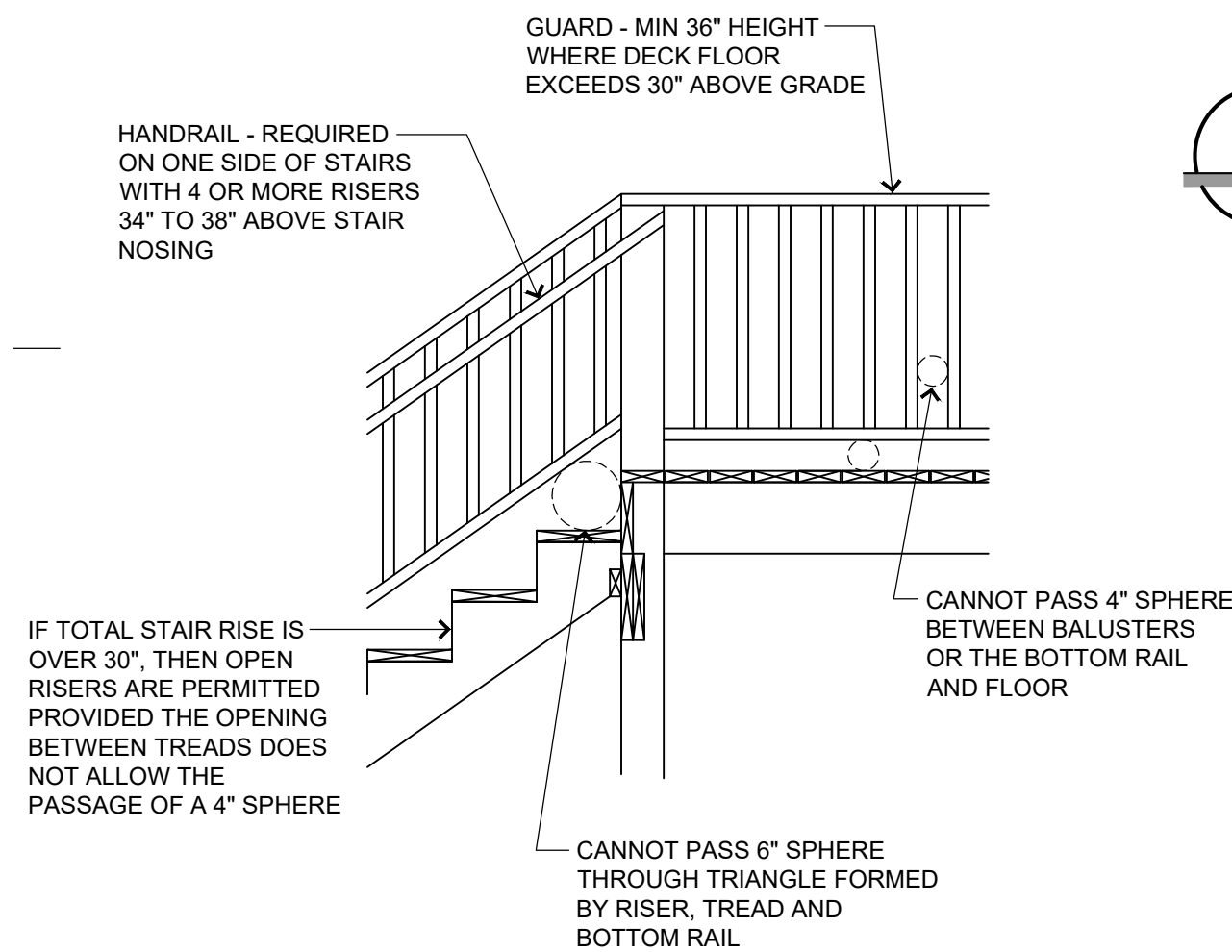


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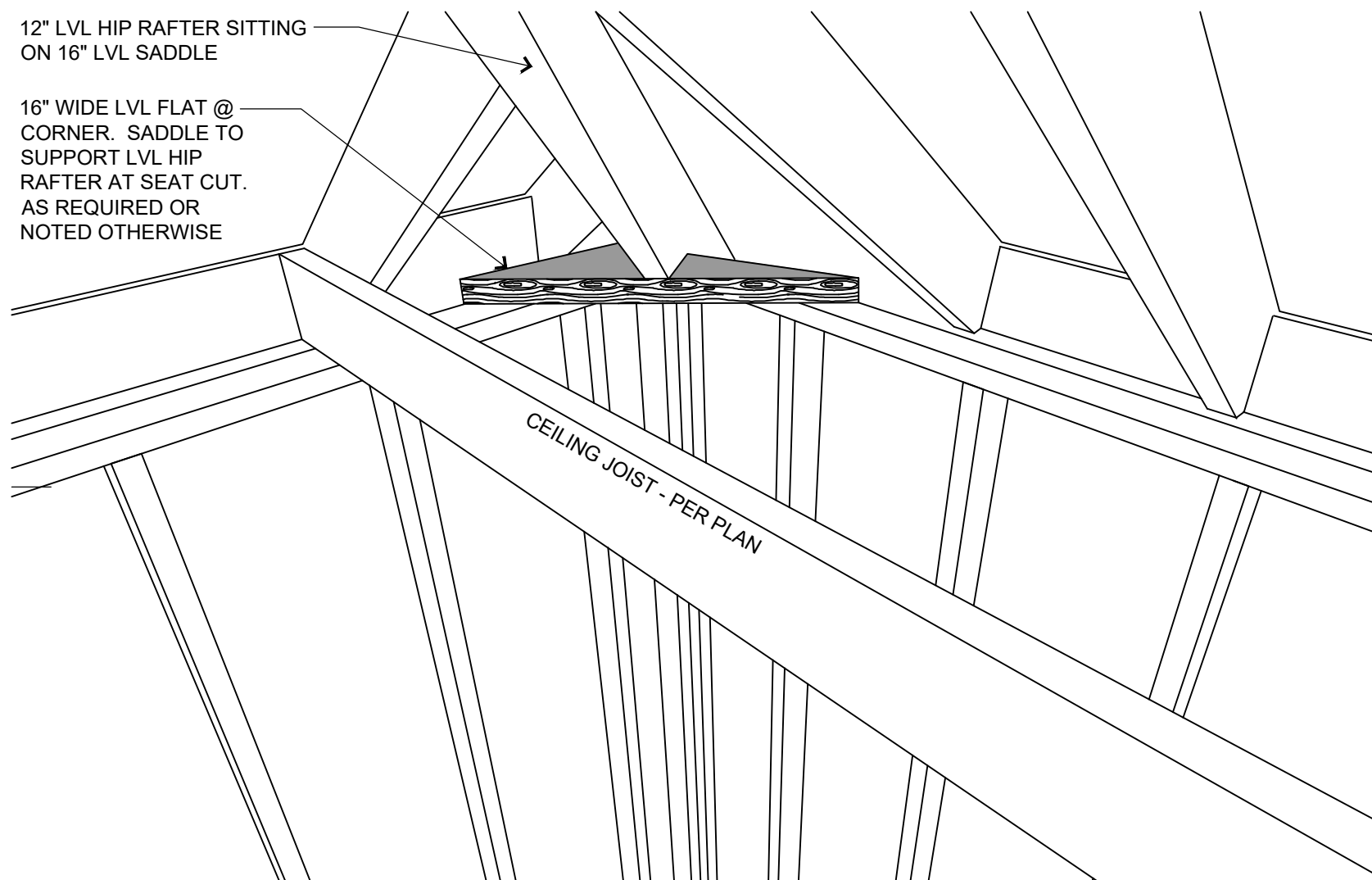
14 STL COL ON CONC WALL

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



15 GUARD DETAIL

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



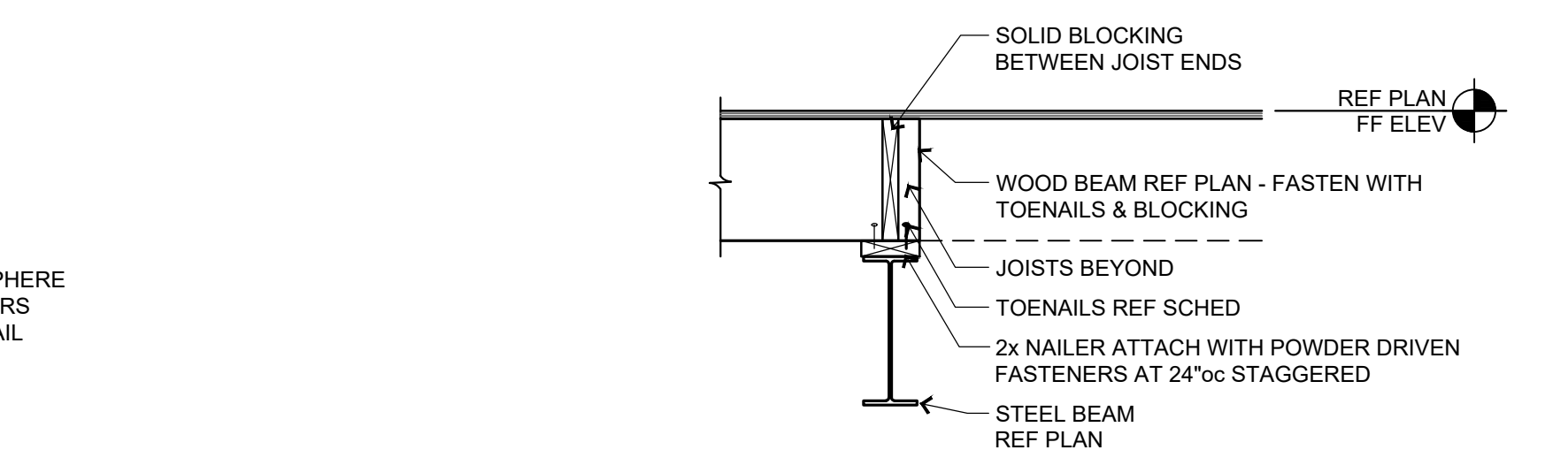
16 LVL HIP RAFTER BEARING ON 16\" LVL FLAT AT CORNERS

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



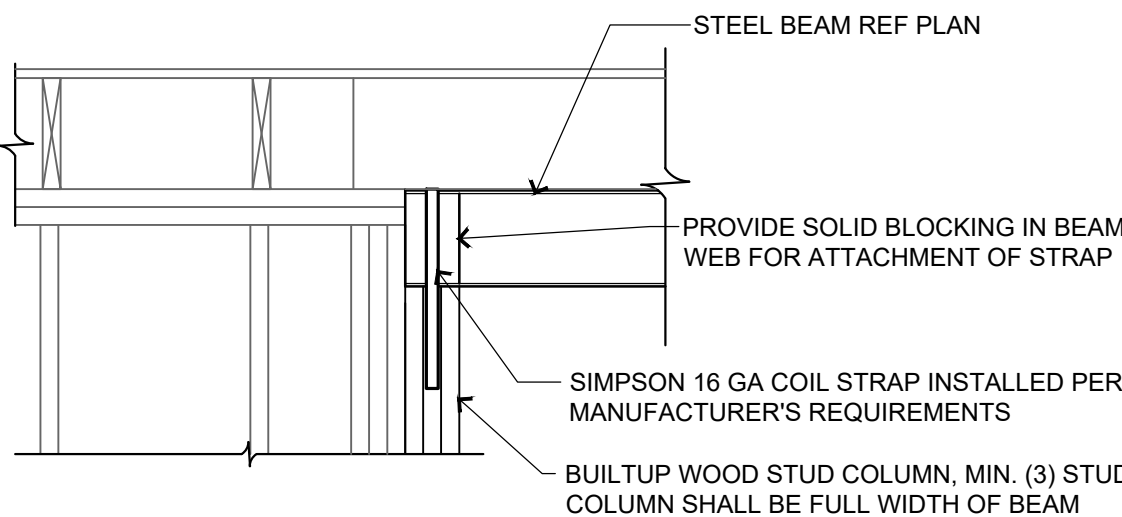
9 NOTCHING AND BORING CEILING OR FLOOR JOISTS

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



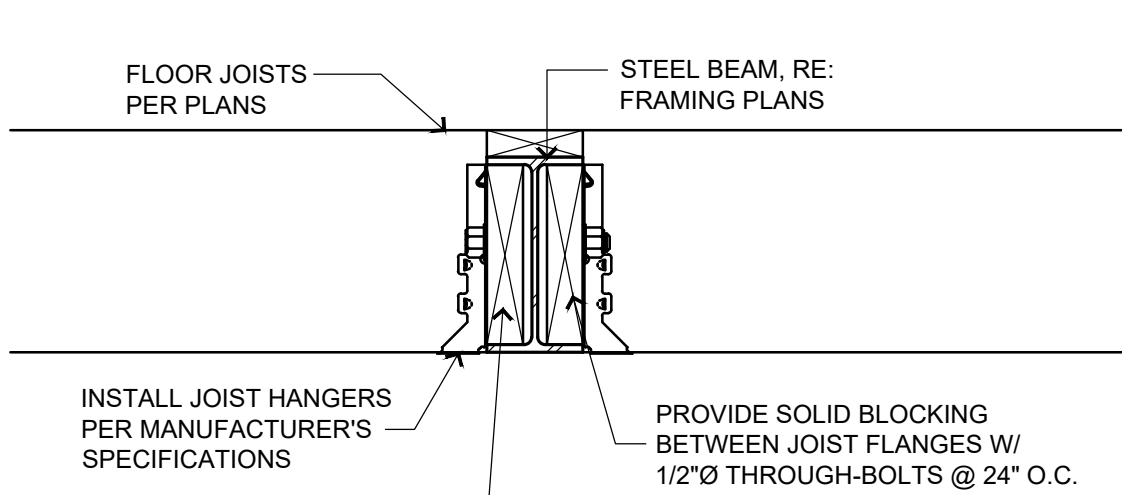
10 WD BEAM ON STEEL BEAM

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



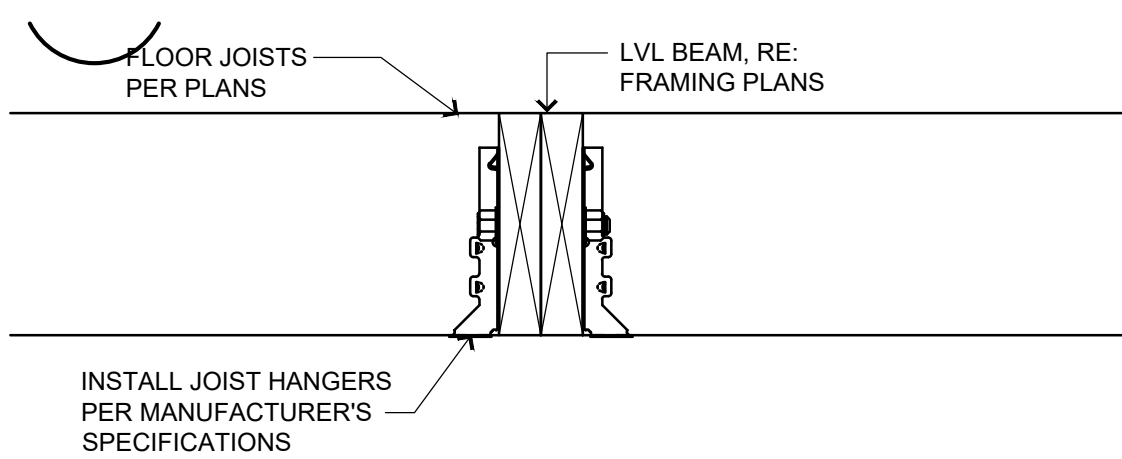
11 STL BM PARALLEL TO WALL

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



12 UPSET STEEL BEAM

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



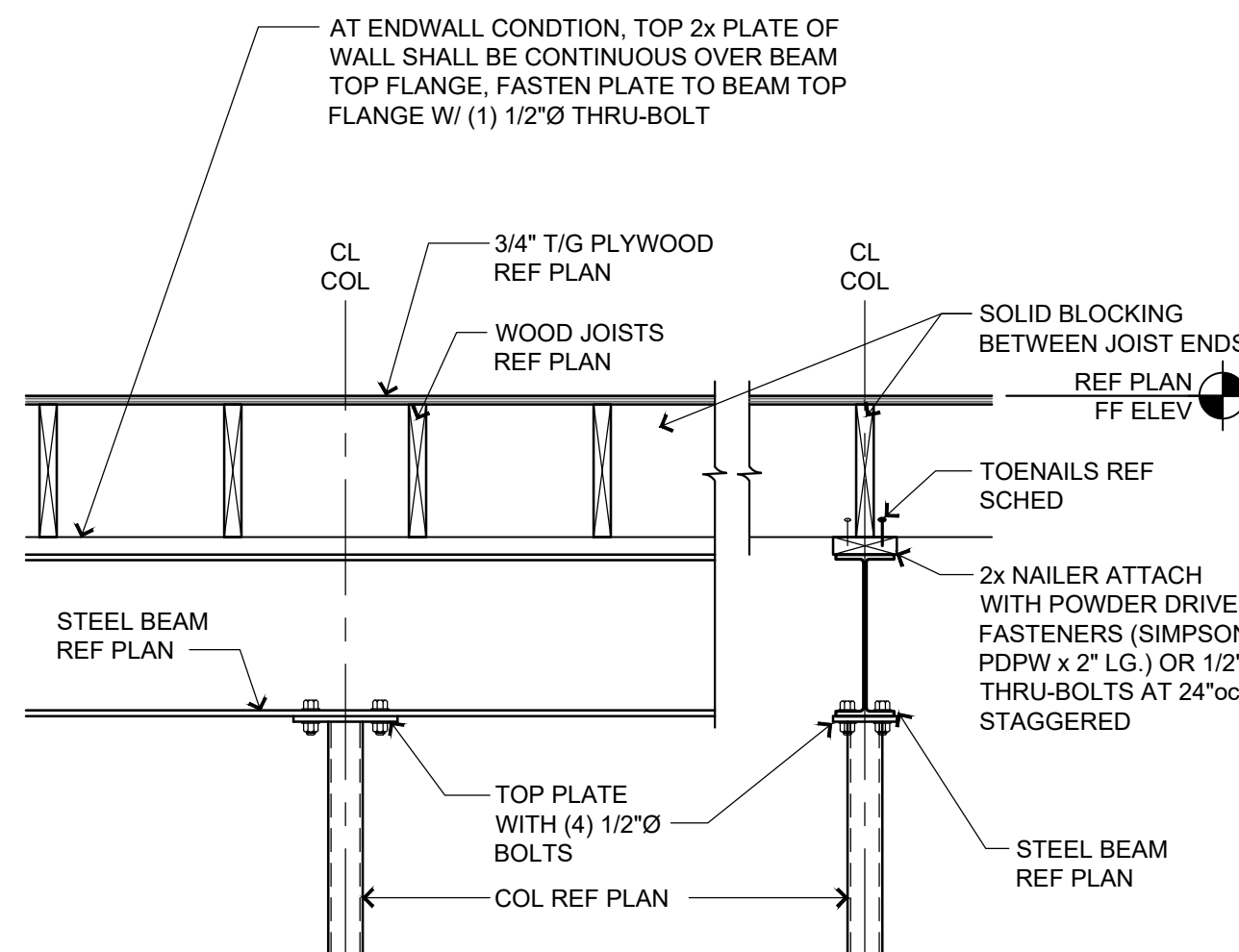
13 UPSET LVL BEAM

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



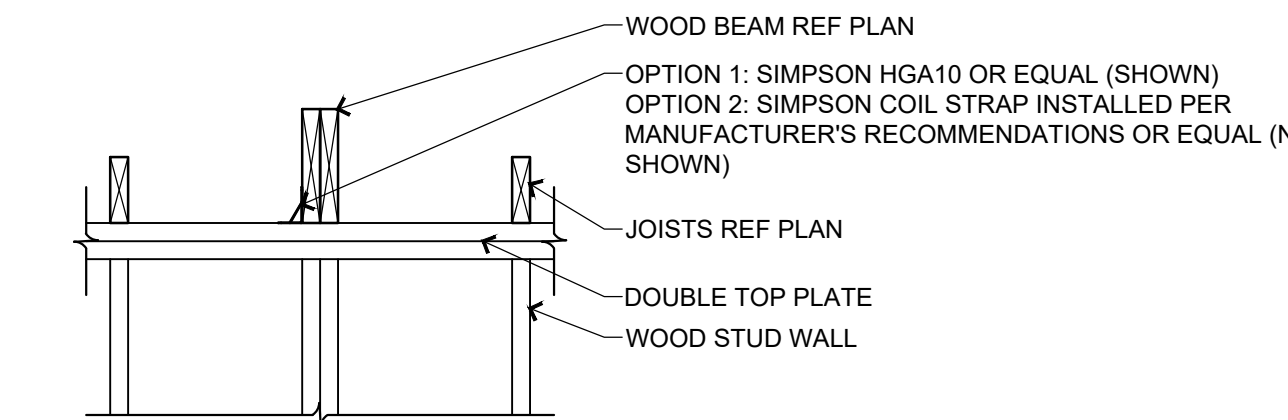
4 ROOF RAFTER BEARING

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



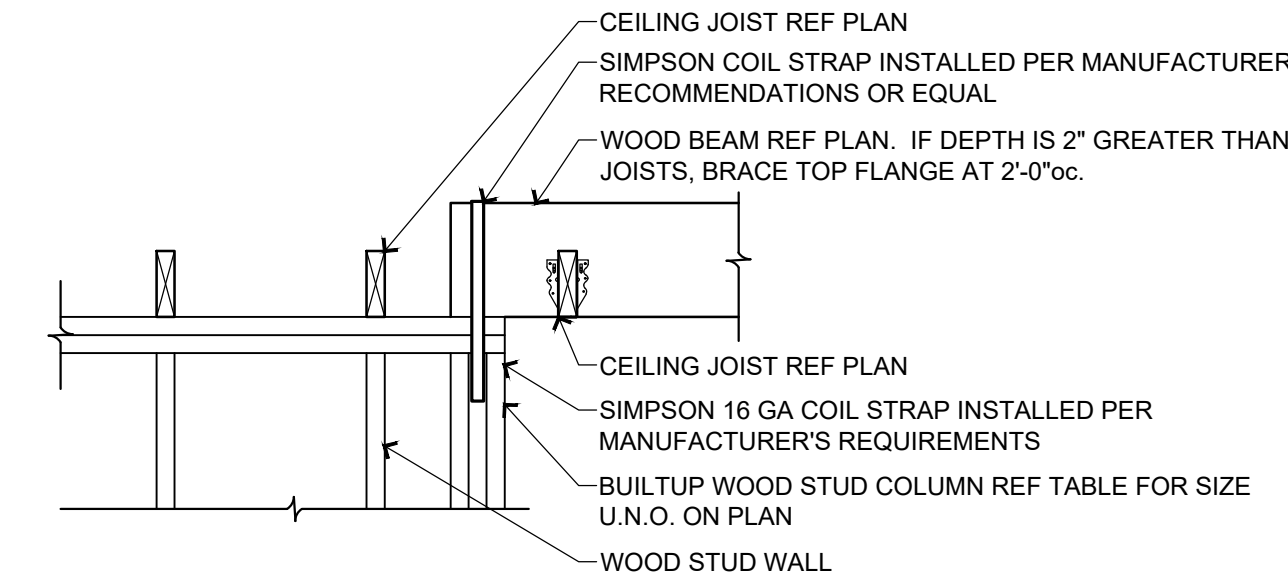
5 TYP. BEAM AT COLUMN

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



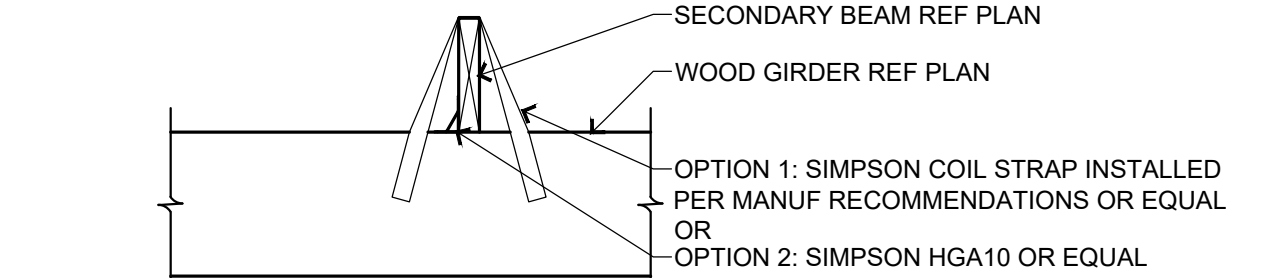
6 TYP WOOD BM PERP TO WALL

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



7 TYP WD BM PARALLEL TO WALL

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



8 WD BM BEARING ON WD BM

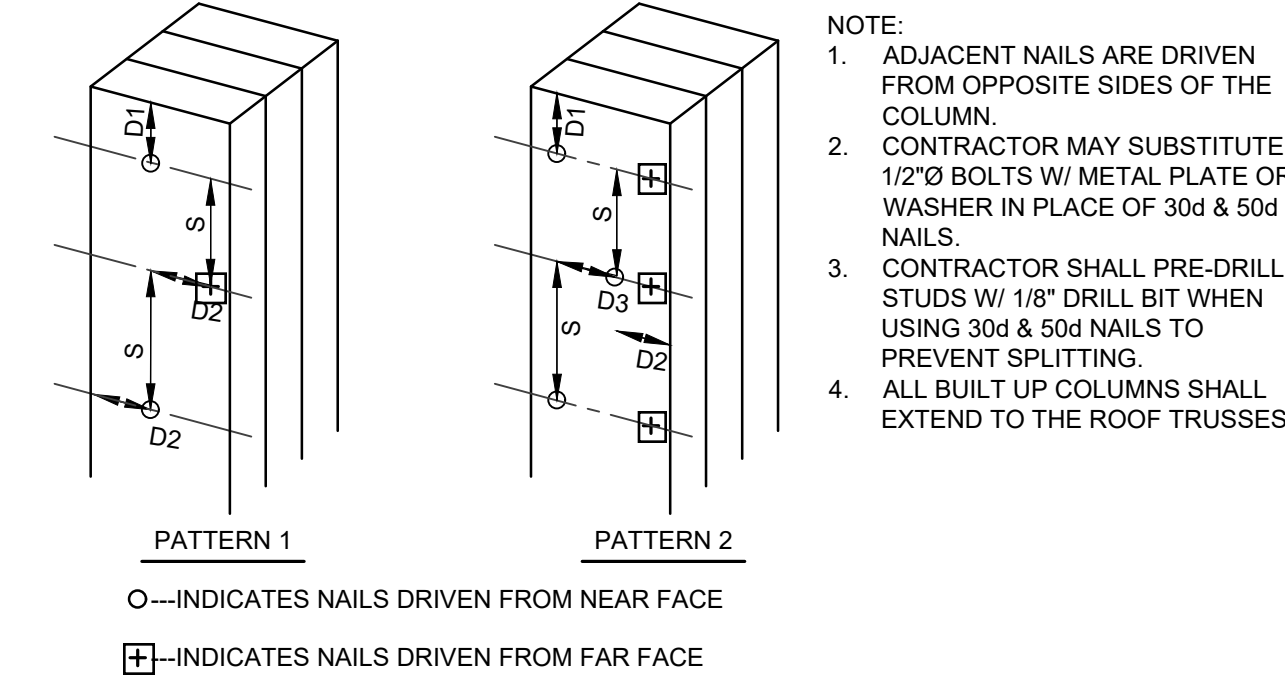
SCALE: 3/4" = 1'-0"



1 NOTCHING AND BORING WALLS

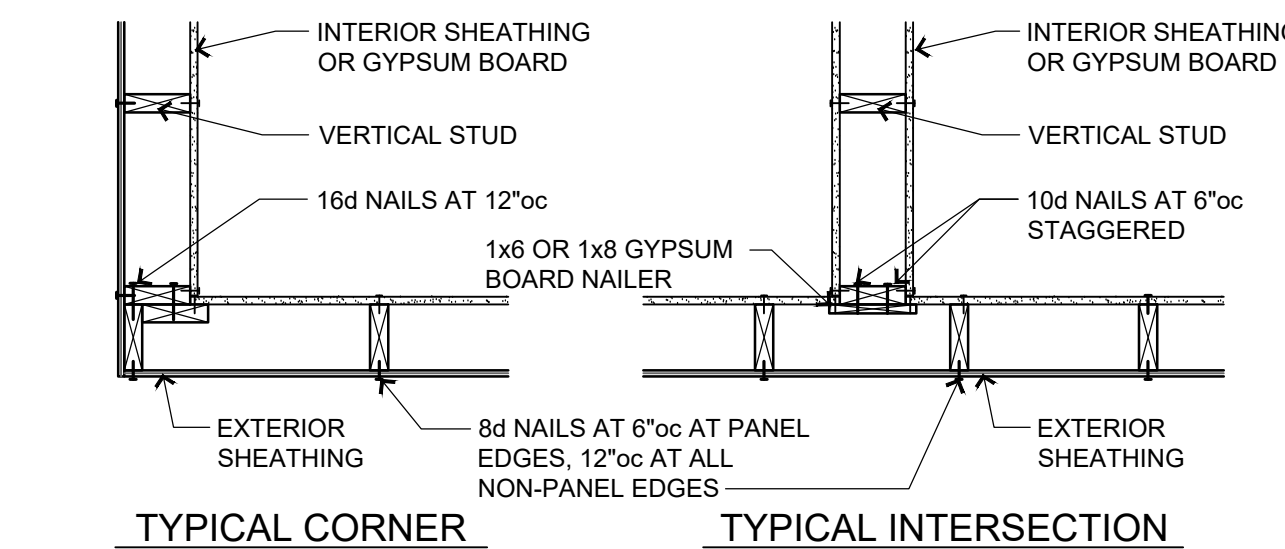
SCALE: 3/4" = 1'-0"

BUILT UP COLUMN NAILING SCHEDULE							
BUILT UP COLUMN	BUILT UP SECTION	PATTERN	END DISTANCE	EDGE DISTANCE	ROW SPACING	NAIL SPACING	NAIL SIZE
BC1	(2) 2x6	2	D1	D2	D3	S	10d
BC2	(3) 2x6	2	3 1/2"	1 1/2"	2 1/2"	9"	30d
BC3	(4) 2x6	2	4"	1 1/2"	2 1/2"	9"	50d
BC4	(2) 2x4	1	2 1/2"	1"	---	6"	10d
BC5	(3) 2x4	1	3 1/2"	1 1/2"	---	8"	30d



2 BUILT UP COLUMN SCHEDULE

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

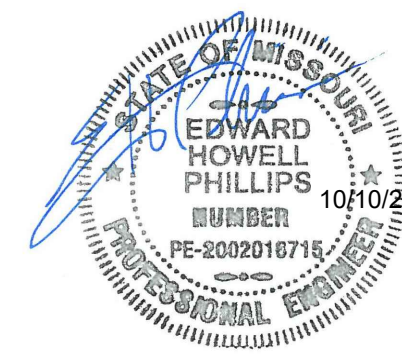


BEARING WALL HEADERS (CENTER BEARING FLOOR)							
INTERIOR WALL (1 FLOOR)				EXTERIOR WALL (ROOF ONLY)			
SPAN	SIZE	NO. J.S.	2	SPAN	SIZE	NO. J.S.	2
0'-0" - 4'-5"	(2) 2x8	2		0'-0" - 5'-4"	(2) 2x8	2	
4'-6" - 5'-5"	(2) 2x10	2		5'-5" - 6'-6"	(2) 2x10	2	
5'-6" - 6'-3"	(2) 2x12	2		6'-7" - 7'-6"	(2) 2x12	2	
INTERIOR WALL (2 FLOORS)				EXT WALL (ROOF + 2 FLOORS)			
SPAN	SIZE	NO. J.S.	2	SPAN	SIZE	NO. J.S.	2
0'-0" - 3'-2"	(2) 2x8	2		0'-0" - 4'-6"	(2) 2x8	2	
3'-3" - 3'-10"	(2) 2x10	3		4'-7" - 5'-6"	(2) 2x10	2	
3'-11" - 4'-5"	(2) 2x12	3		5'-7" - 6'-5"	(2) 2x12	2	
EXT WALL (ROOF + 2 FLOORS)				EXT WALL (ROOF + 2 FLOORS)			
SPAN	SIZE	NO. J.S.	2	SPAN	SIZE	NO. J.S.	2
0'-0" - 3'-9"	(2) 2x8	2		0'-0" - 3'-9"	(2) 2x8	2	
3'-10" - 4'-7"	(2) 2x10	2		3'-10" - 4'-7"	(2) 2x10	2	
4'-8" - 5'-3"	(2) 2x12	2		4'-8" - 5'-3"	(2) 2x12	2	



3 TYP WALL FRAMING DETAILS

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



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N C A R B National Council Architectural Registration Boards

Woodland Glen Lot 56

The Woodbridge 1 1/2 Reverse

Location:
1505 SW Heartwood Lane
Lee's Summit, MO
Client:
John Duggan
913 498 3536 / jduggan@ks-dsdlaw.com
BFA No:

WBRG-WG56

Revisions

NO. DATE DESCRIPTION

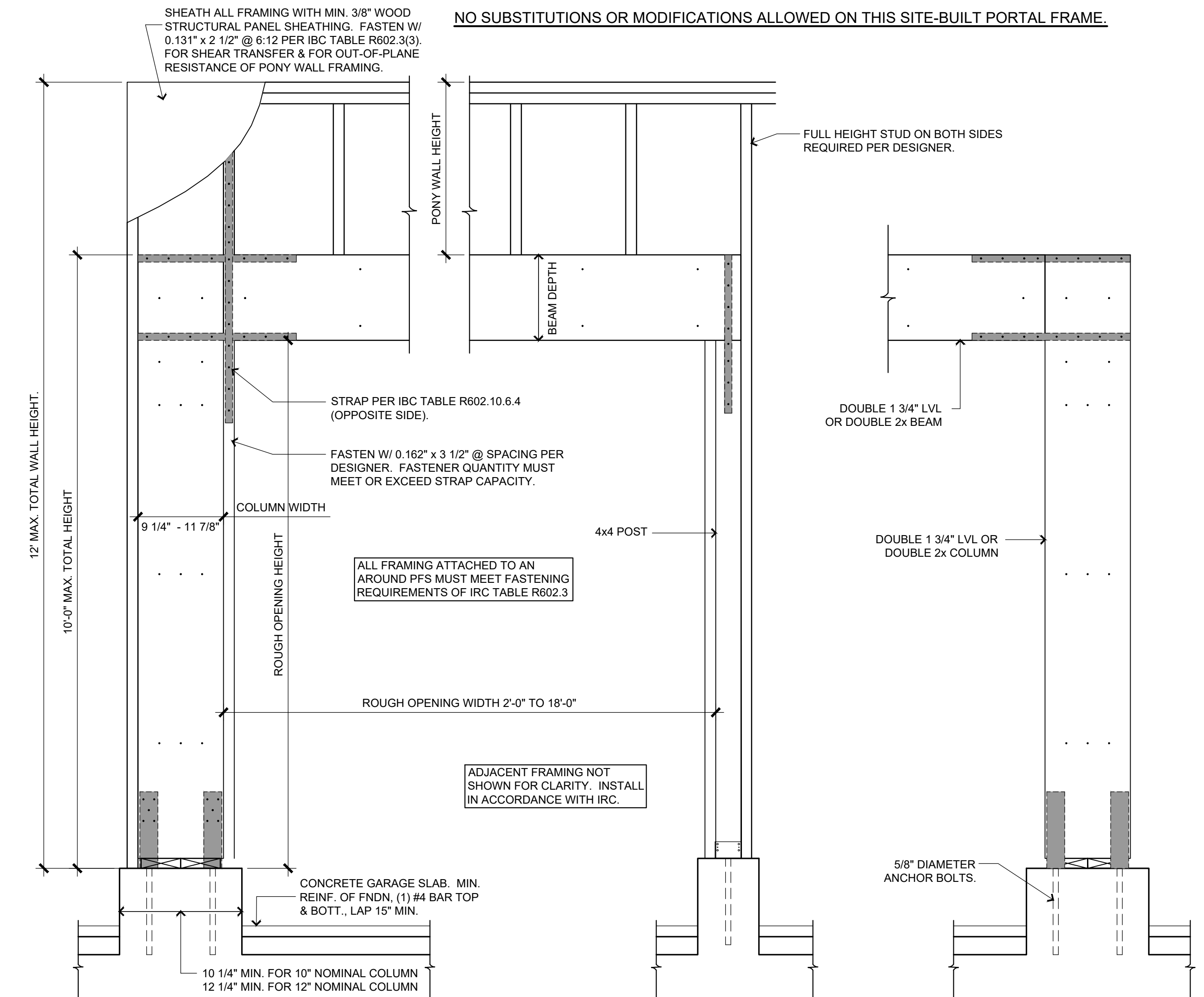
Standard Details, Schedules, & Notes

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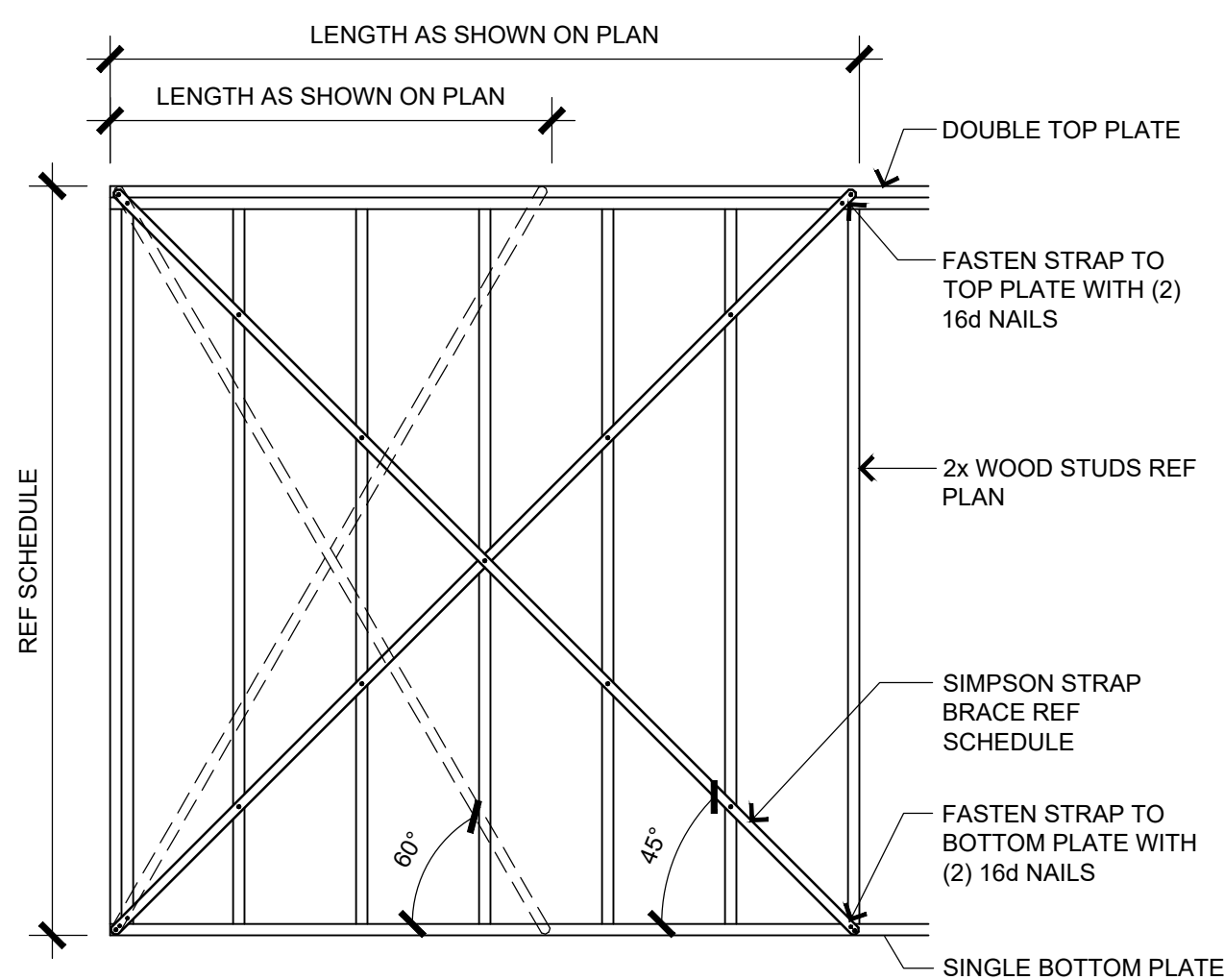


NOTES:

1. THE STRONG-WALL SITE-BUILT PORTAL FRAME SYSTEM (PFS) IS APPLICABLE FOR USE UP TO A HEIGHT OF 10' MAX. THE HEIGHT IS PERMITTED TO BE INCREASED TO 12' WITH A 2' MAX PONY WALL. ALLOWABLE WALL-BRACING LENGTH MUST BE MULTIPLIED BY A 0.80 FACTOR.
2. MINIMUM HEADER DEPTHS FOR LVL AND SOLID SAWN ARE 11 7/8" AND 11 1/4" RESPECTIVELY.
3. SOLID SAWN COLUMNS MAY BE USED IN COMBINATION WITH LVL HEADER MATERIAL. WALL-BRACING LENGTH IS LIMITED TO THAT OF THE SOLID SAWN MATERIAL. SHIMS ILLUSTRATED IN LVL - SOLID SAWN DETAIL BELOW MUST BE USED FOR PROPER FRAMING ALIGNMENT.
4. FOR 10" NOMINAL DF/SF AND SPF/HF SYSTEMS CONSTRUCTED WITH SHIM AT HOLDOWN ONLY, VERTICAL LOAD IS LIMITED TO 2,500 LB.

2 SITE-BUILT PORTAL FRAME

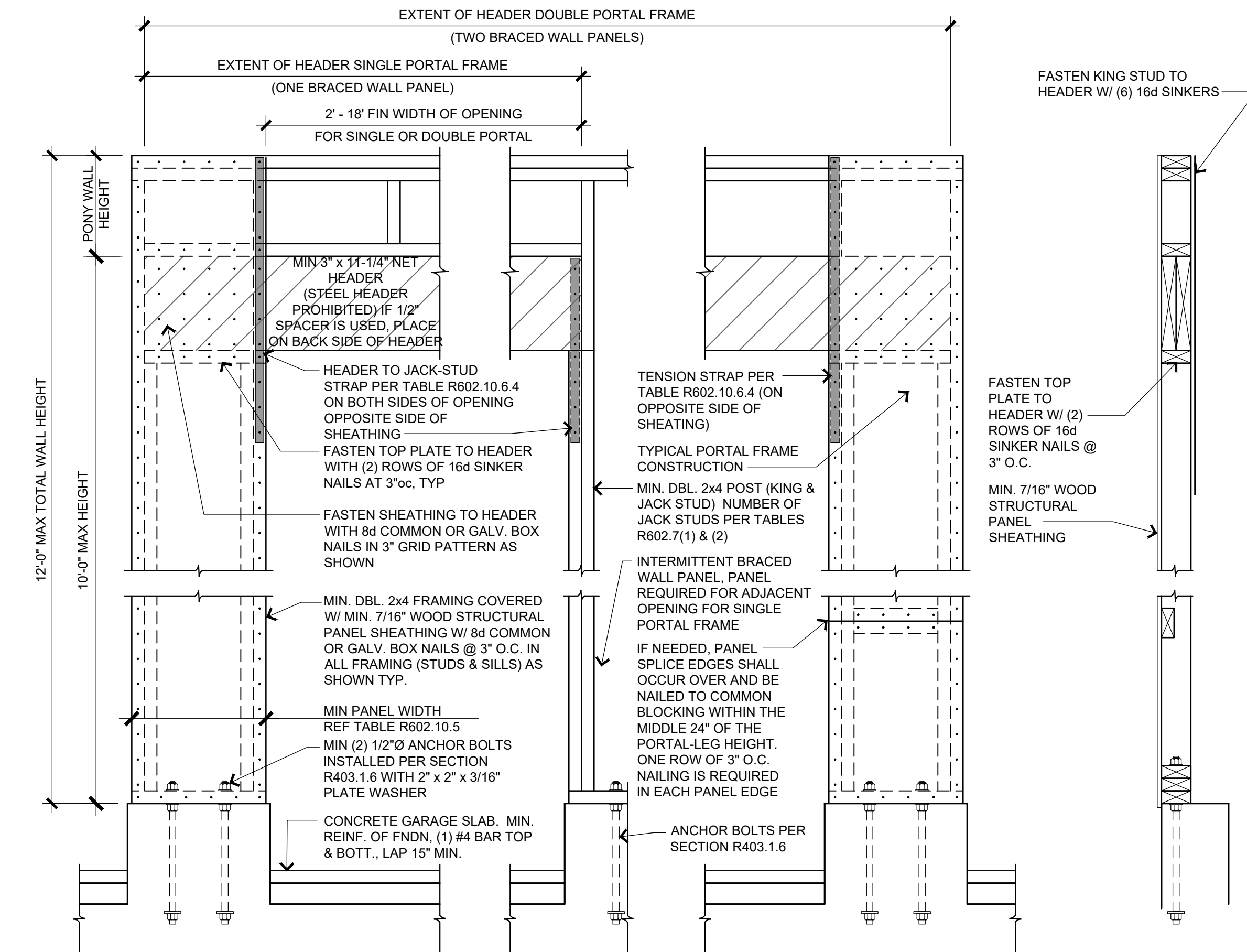
SCALE: 1" = 1'-0"



3 INTERIOR BRACED WALL (LIB)

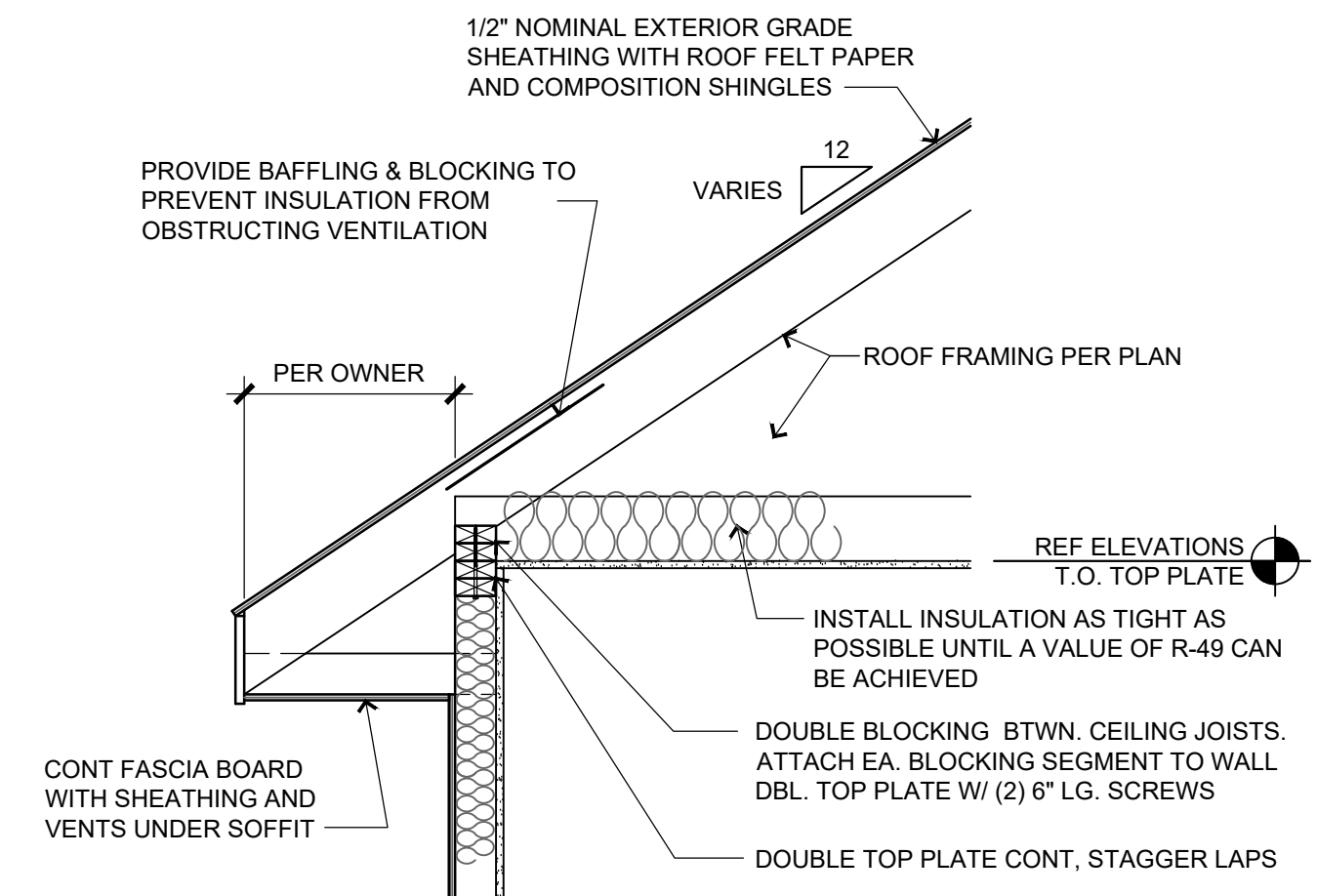
SCALE: N.T.S.

NO SUBSTITUTIONS OR MODIFICATIONS ALLOWED ON THIS SITE-BUILT PORTAL FRAME.



1 PORTAL FRAME AT GARAGE (PFG - R602.10.6.3)

SCALE: 1" = 1'-0"



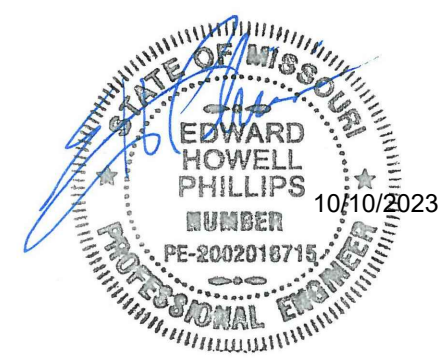
4 ALT. ROOF RAFTER BEARING

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

X-WALSEC02

INTERIOR BRACED WALL SCHEDULE

SIMPSON MODEL NO.	STRAP LENGTH	WALL DIM'S HEIGHT x WIDTH	ANGLE FROM HORIZONTAL	FASTENERS	
				PLATES	EA STUD
WB106	9'-5 5/8"	8'-0" x 5'-0"	60°	(2) 16d	(1) 8d
WB126	11'-4 3/8"	8'-0" x 8'-0"	45°	(2) 16d	(1) 8d
WB106C	9'-6"	8'-0" x 5'-0"	60°	(2) 16d	(1) 8d
WB126C	11'-4 13/16"	8'-0" x 8'-0"	45°	(2) 16d	(1) 8d
WB143C	14'-3"	10'-0" x 10'-0"	45°	(2) 16d	(1) 8d



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ROOF RAFTER SCHEDULE

GRADE	MEMBER SIZE / SPACING	MAX SPAN CEILING JSTS AT TOP PLATE	MAX SPAN H _c /H _r =0.16	MAX SPAN H _c /H _r =0.20	MAX SPAN H _c /H _r =0.25	MAX SPAN H _c /H _r =0.33
#2 DF/L	2x6 /24"oc	11'-9"	10'-6"	9'-9"	8'-11"	7'-10"
#2 DF/L	2x6 / 16"oc	14'-1"	12'-8"	11'-8"	10'-8"	9'-5"
#2 DF/L	2x8 / 16"oc	18'-2"	16'-4"	15'-1"	13'-9"	12'-2"
#2 DF/L	2x10 / 16"oc	22'-3"	20'-0"	18'-5"	16'-10"	14'-10"
#2 DF/L	2x12 / 16"oc	25'-9"	23'-2"	21'-4"	19'-7"	17'-3"

SPANS ABOVE ARE FOR ROOF LIVE LOAD OF 20 PSF AND DEAD LOAD OF 10 PSF WITH CEILINGS ATTACHED TO RAFTERS. RE: TABLES R802.4.1(1) THROUGH R802.4.1(8) FOR ADDITIONAL RAFTER SPAN INFORMATION.

THE ROOF FRAMING ON THIS HOME UTILIZES RAFTERS SPACED AT 16" ON CENTER IN EXPOSURE B WITH A ROOF SPAN LESS THAN 42' ON IN 90 MPH WIND ZONE. THEREFORE THE UPLIFT FORCE ON THE RAFTER IS LESS THAN 200 LBS. AND CAN BE CONNECTED PER TO THE WALL FRAMING PER TABLE R602.3(1).

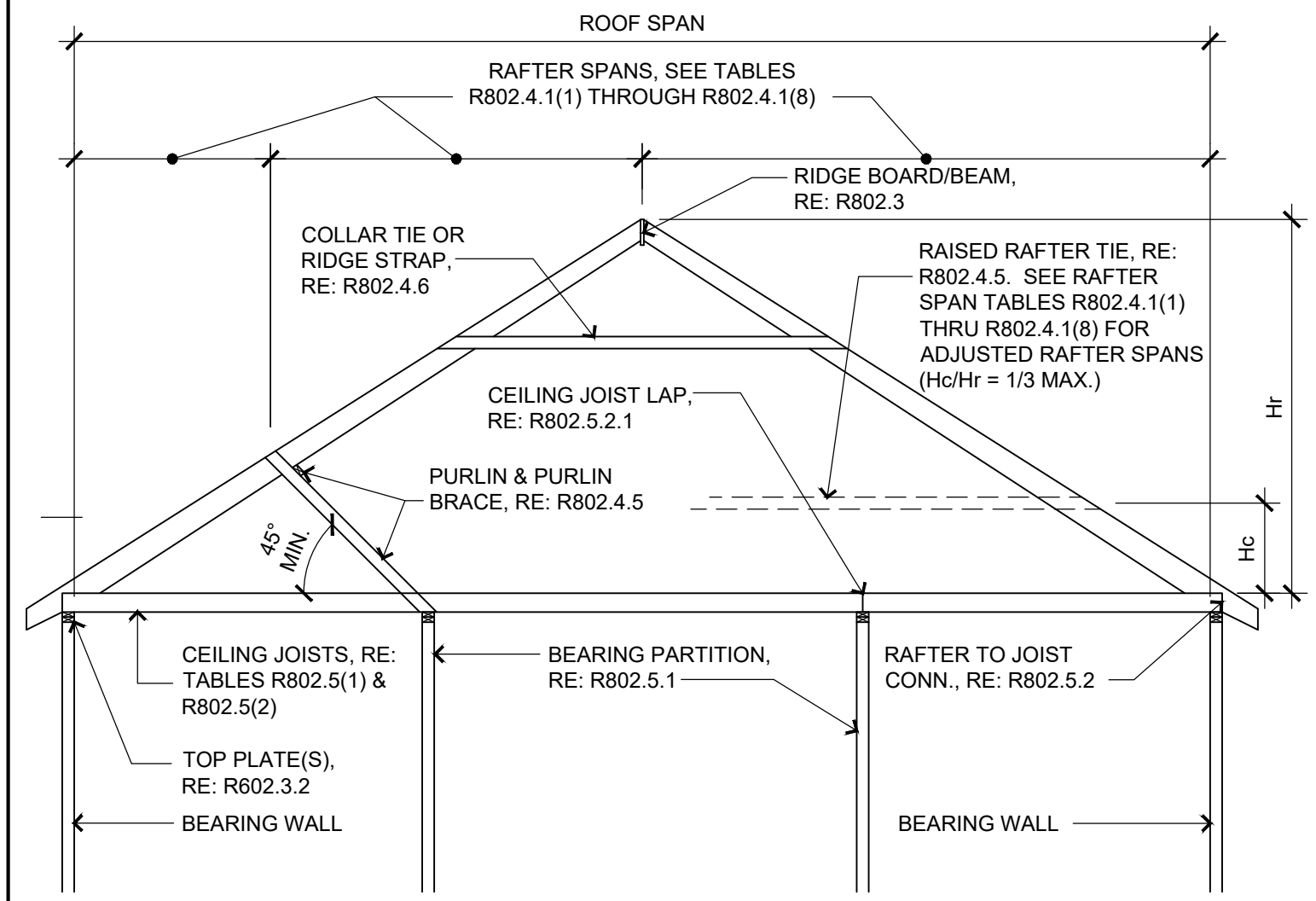


TABLE R802.5.2 RAFTER/CEILING JOIST
HEEL JOINT CONNECTIONS (a,b,c,d,e,g)

RAFTER SLOPE	RAFTER SPACING (inches)	GROUND SNOW LOAD (PSF)																			
		20(f)				30				50				70							
		ROOF SPAN (FEET)																			
		12	20	28	36	12	20	28	36	12	20	28	36	12	20	28	36				
		REQUIRED NUMBER OF 16d COMMON NAILS(a,b) PER HEEL JOINT SPLICES (c,d,e)																			
3:12	12	4	6	8	10	4	6	8	11	5	8	12	15	6	11	15	20				
	16	5	8	10	13	5	8	11	14	6	11	15	20	8	12	14	20				
	24	7	11	15	19	7	11	16	21	9	16	23	30	12	18	24	36				
4:12	12	3	5	6	8	3	5	6	8	4	6	9	11	5	8	11	15				
	16	4	6	8	10	4	6	8	11	5	8	12	15	6	11	15	20				
	24	5	8	12	15	5	9	12	16	7	12	17	22	9	16	23	29				
5:12	12	3	4	5	6	3	4	5	7	3	5	7	9	4	7	9	12				
	16	3	5	6	8	3	5	7	9	4	7	9	12	5	9	12	16				
	24	4	7	9	12	4	7	10	13	6	10	14	18	7	13	18	23				
7:12	12	3	4	4	5	3	3	4	5	3	4	5	7	3	5	7	9				
	16	3	4	5	6	3	4	5	6	3	5	7	9	4	6	9	11				
	24	3	5	7	9	3	5	7	9	4	7	10	13	5	9	13	17				
9:12	12	3	3	4	4	3	3	3	4	3	3	4	5	3	4	5	7				
	16	3	3	4	4	3	3	4	5	3	4	5	7	3	5	7	9				
	24	3	4	6	7	3	4	6	7	3	6	8	10	4	7	10	13				
12:12	12	3	3	3	3	3	3	3	3	3	3	3	4	3	4	5	7				
	16	3	3	3	4	3	3	3	4	3	3	4	5	3	4	5	7				
	24	3	4	4	5	3	3	4	6	3	4	6	8	3	6	8	10				

- a. 40d BOX NAILS SHALL BE PERMITTED TO BE SUBSTITUTED FOR 16d COMMON NAILS.
b. NAILING REQUIREMENTS SHALL BE PERMITTED TO BE REDUCED 25% IF NAILS ARE CLINCHED.
c. HEEL JOINT CONNECTIONS ARE NOT REQUIRED WHEN THE RIDGE IS SUPPORTED BY A LOAD-BEARING WALL, HEADER, OR RIDGE BEAM.
d. WHEN INTERMEDIATE SUPPORT OF THE RAFTER IS PROVIDED BY VERTICAL STRUTS OR PURLINS TO A LOAD-BEARING WALL, THE TABULATED HEEL JOINT CONNECTION REQUIREMENTS SHALL BE PERMITTED TO BE REDUCED PROPORTIONALLY TO THE REDUCTION IN SPAN.
e. EQUIVALENT NAILING PATTERNS ARE REQUIRED FOR CEILING JOIST TO CEILING JOIST LAP SPLICES.
f. APPLIES TO ROOF LIVE LOAD OF 20 psf OR LESS.
g. TABULATED HEEL JOINT CONNECTION REQUIREMENTS ASSUME THAT CEILING JOISTS OR RAFTER TIES ARE LOCATED AT THE BOTTOM OF THE ATTIC SPACE. WHEN CEILING JOISTS OR RAFTER TIES ARE LOCATED HIGHER IN THE ATTIC, HEEL JOINT CONNECTION REQUIREMENTS SHALL BE INCREASED BY THE FOLLOWING FACTORS:

H _c /H _r	HEEL JOINT CONNECTION ADJUSTMENT FACTOR
1/3	1.5
1/4	1.33
1/5	1.25
1/6	1.2
1/10 OR LESS	1.11

WHERE:

H_c= HEIGHT OF CEILING
JOISTS OR RAFTER TIES
MEASURED VERTICALLY
ABOVE THE TOP OF THE
RAFTER SUPPORT WALLS.

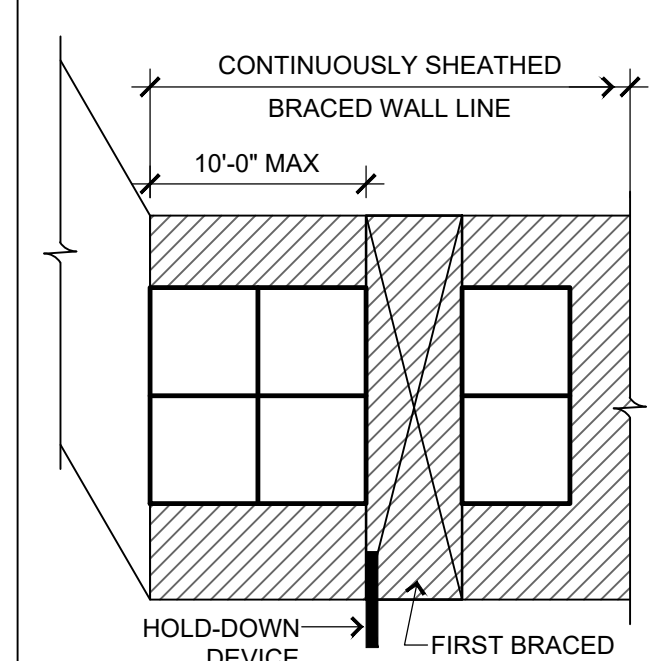
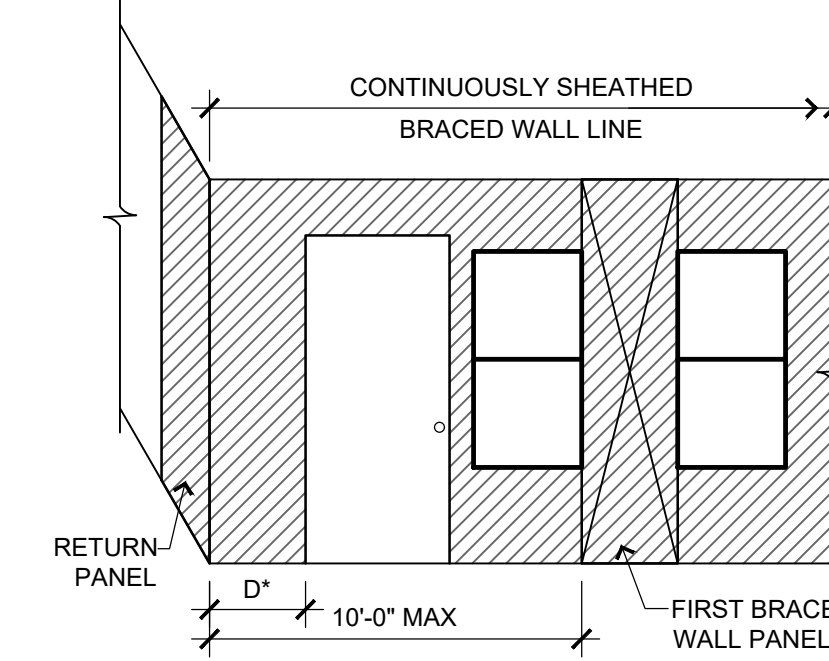
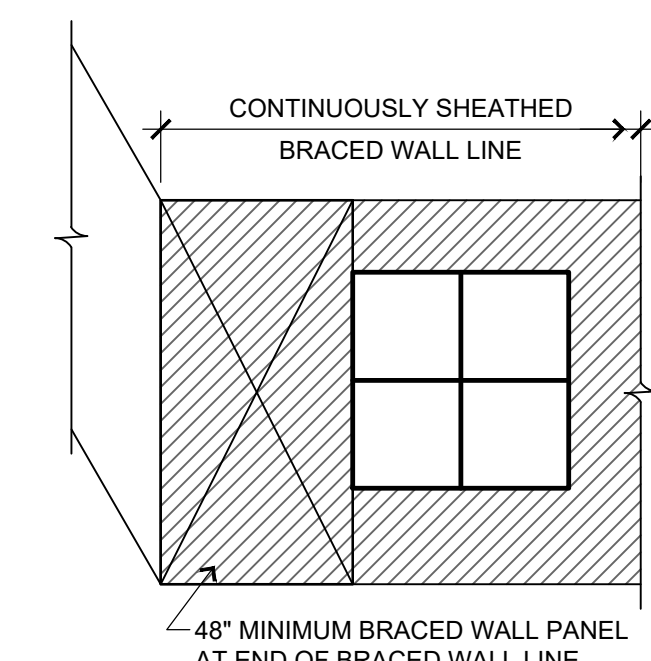
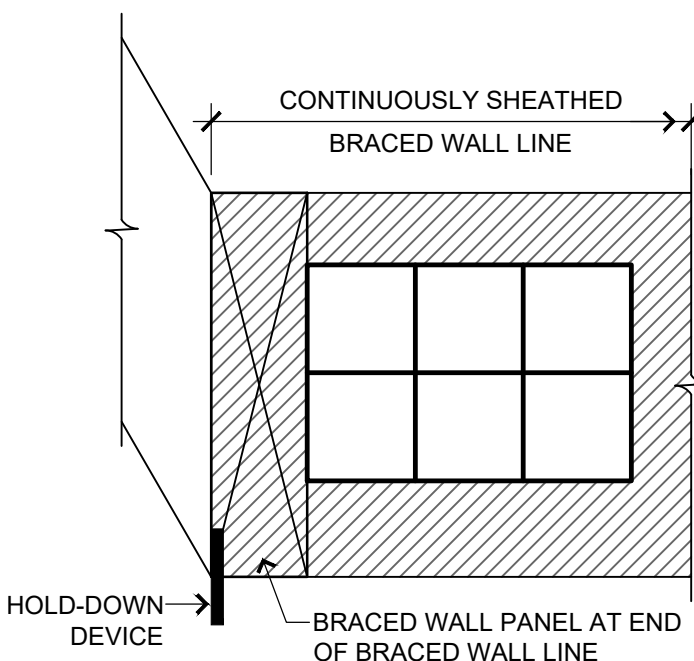
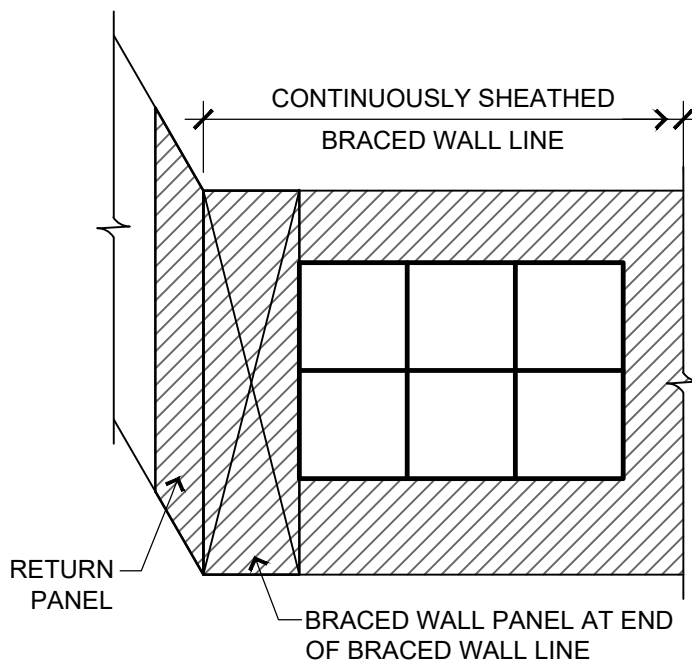
H_r=HEIGHT OF ROOF RIDGE
MEASURED VERTICALLY
ABOVE THE TOP OF THE
RAFTER SUPPORT WALLS.

REQUIREMENTS

RETURN PANEL:
24" FOR BRACED WALL LINES SHEATHED WITH WOOD
STRUCTURAL PANELS
32" FOR BRACED WALL LINES SHEATHED WITH
STRUCTURAL FIBERBOARD

DISTANCE D:
24" FOR BRACED WALL LINES SHEATHED WITH WOOD
STRUCTURAL PANELS
32" FOR BRACED WALL LINES SHEATHED WITH
STRUCTURAL FIBERBOARD

HOLD-DOWN DEVICE:
800 lbs CAPACITY FASTENED TO THE EDGE OF THE
BRACED WALL PANEL CLOSEST TO THE CORNER AND TO
THE FOUNDATION OR FLOOR FRAMING BELOW



1 END CONDITIONS FOR BRACED WALL LINES WITH CONTINUOUS SHEATHING R602.10.7
SCALE: NTS

FASTENING SCHEDULE

IRC 2018 TABLE R602.3(1)

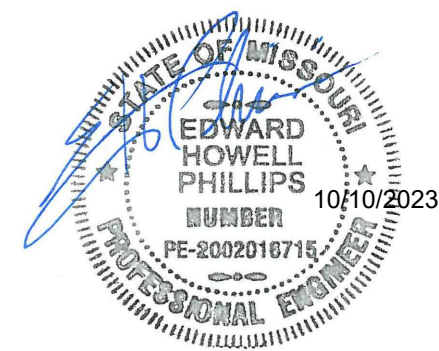
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER (a)(b)(c)	SPACING AND LOCATION
Roof			
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2-1/2" × 0.113"); or 3-8d common (2-1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2-1/2" × 0.113"); or 3-8d common (2-1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions (see Section R802.5.2 and Table R802.5.2)	4-10d box (3" × 0.128"); or 3-16d common (3-1/2" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) (see Section R802.5.2 and Table R802.5.2)	Table R802.5.2	Face nail
5	Collar tie to rafter, face nail or 11/4" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3-1/2" × 0.135"); or 3-10d common (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss(l)
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3-1/2" × 0.135"); or 3-10d common (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3-1/2" × 0.135"); or 2-16d common (3-1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail

Wall			
8	Stud to stud (not at braced wall panels)	16d common (3-1/2" × 0.162") 10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail 16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3-1/2" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
10	Build-up header (2" to 2" header with 1/2" spacer)	16d common (3-1/2" × 0.162") 16d box (3-1/2" × 0.135")	16" o.c. each edge face nail 12" o.c. each edge face nail
11	Continuous header to stud	5-8d box (2-1/2" × 0.113"); or 4-8d common (2-1/2" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common (3-1/2" × 0.162") 10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail 12" o.c. face nail
13	Double top plate splice	8-16d common (3-1/2" × 0.162"); or 12-16d box (3-1/2" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3-1/2" × 0.162") 16d box (3-1/2" × 0.135"); or 3" × 0.131" nails	16" o.c. face nail 12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3-1/2" × 0.135"); or 2-16d common (3-1/2" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box (2-1/2" × 0.113"); or 3-16d box (3-1/2" × 0.135"); or 4-8d common (2-1/2" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3-1/2" × 0.135"); or 2-16d common (3-1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3-1/2" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2-1/2" × 0.113"); or 2-8d common (2-1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1-3/4"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box (2-1/2" × 0.113"); or 2-8d common (2-1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1-3/4" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box (2-1/2" × 0.113"); or 3-8d common (2-1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1-3/4" long	Face nail

		2 staples 1-3/4"	
19	1" × 6" sheathing to each bearing	3-8d box (2-1/2" × 0.113"); or 2-8d common (2-1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1-3/4" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box (2-1/2" × 0.113"); or 3-8d common (2-1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1-3/4" long Wider than 1" × 8" 4-8d box (2-1/2" × 0.113"); or 3-8d common (2-1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1-3/4" long (continued)	Face nail

- a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.
c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
f. For wood structural panel roof sheathing attached to gable end roof framing and to intermediate supports within 48 inches of roof edges and ridges, nails shall be spaced at 6 inches on center where the ultimate design wind speed is less than 130 mph and shall be spaced 4 inches on center where the ultimate design wind speed is 130 mph or greater but less than 140 mph.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.
h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.
j. RSR-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.

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NASS JOB NUMBER: 2023-2167
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