project description:

CONVERSION OF EXISTING 2 CAR CAR PORT INTO A GARAGE WITH AN ADDITION OF A 3RD CAR BAY WITH A RAISED PLATE.

project team:

owner

MISSELWITZ THEODORE F
7250 N. MERCER WAY
MERCER ISLAND, WA 98040
(650) 208-2348

structural engineer

DANIEL JAY CEDERLUND
P.O. BOX 5096
TACOMA, WA
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architectural drafter

GREG KRUEGER
KRUEGER KRAFTING LLC
4025 61ST DR. NE
MARYSVILLE, WA 98270
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(206) 819-2710

sheet index:

CONFORMING CALCULATION:

EXISTING EXTERIOR WALL LENGTH:	2,605 SQ. FT.
PROPOSED EXTERIOR WALL LENGTH:	3,314 SQ. FT.
MAX DIFFERENTIAL PERCENTAGE:	40%
TOTAL PERCENT DIFFERENTIAL PROVIDED:	27.2%

project data

property address

7250 N. MERCER WAY
MERCER ISLAND, WA 98040

tax account #:

531510-0052

existing legal description

FROM KING COUNTY ACCESSOR:

MC GILVRAS ISLAND ADD &
SH LDS LESS SWLY 152 FT
PLAT BLOCK: 1
PLAT LOT: 10

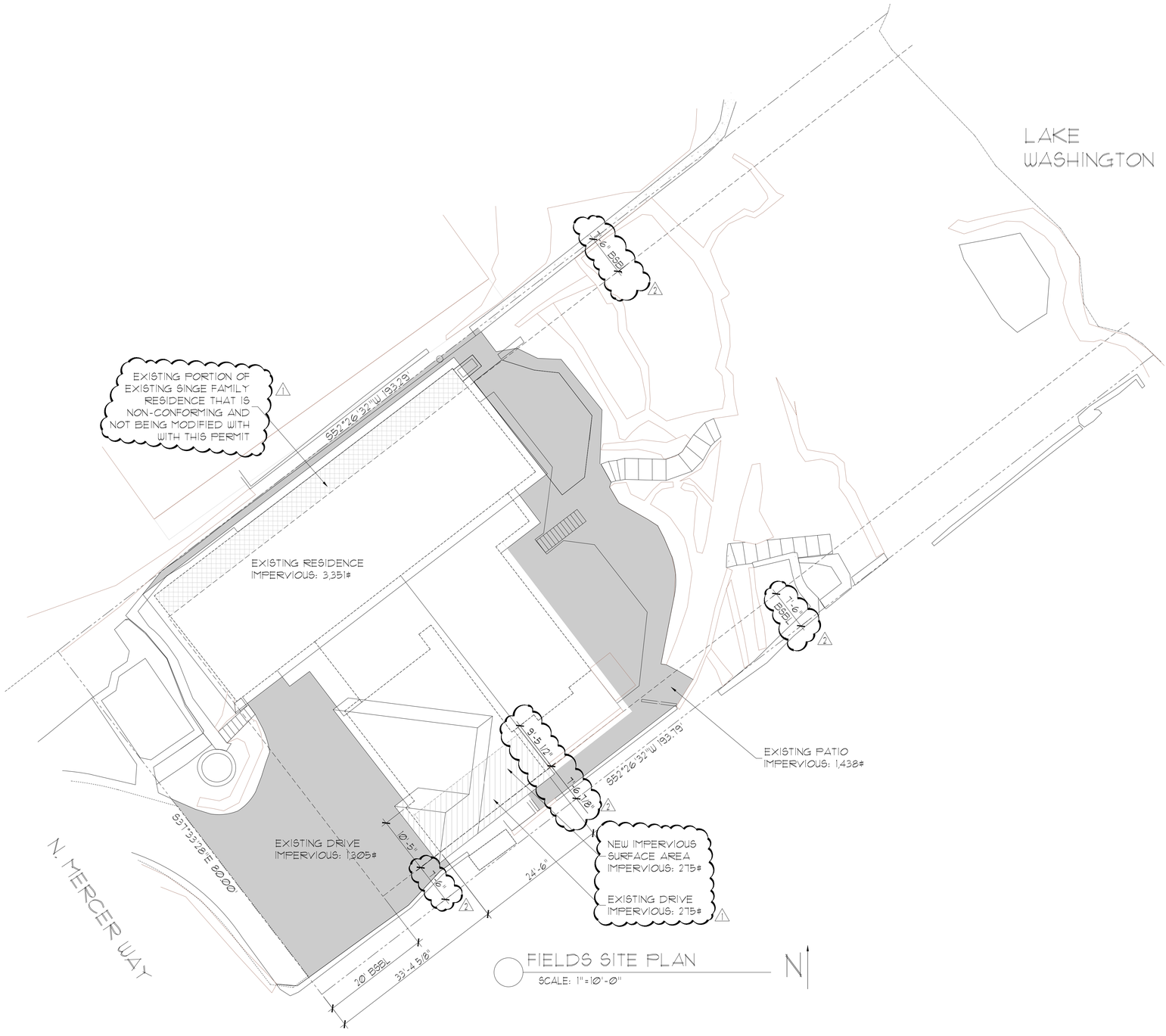
OCCUPANCY R-3
ZONE RSA-4
LOT SIZE = 0. 33 ACRES - 14,560 S.F.

23.44.010 IMPERVIOUS SURFACE:

EXISTING HOUSE & GARAGE:	3,351 S.F.
EXISTING DRIVE:	1,305 S.F.
DRIVE SUBTRACTION:	-275 S.F.
EXISTING PATIO:	1,438 S.F.
PROPOSED 3RD CAR BAY:	275 S.F.
TOTAL	6,381 S.F.
PERCENT	43.8 %

tree impact

THERE ARE NO TREES THAT ARE AFFECTED BY THE ADDITION ON TO THE EXISTING SINGLE FAMILY RESIDENCE.



PLAN DATE	ENG. # & NAME	DESCRIPTION
1 7/18/23		
2 9/12/23		
3 10/06/23		

ENG. # -

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PLAN: FIELDS REMODEL
7250 N. MERCER WAY
MERCER ISLAND, WA 98040

SITE PLAN

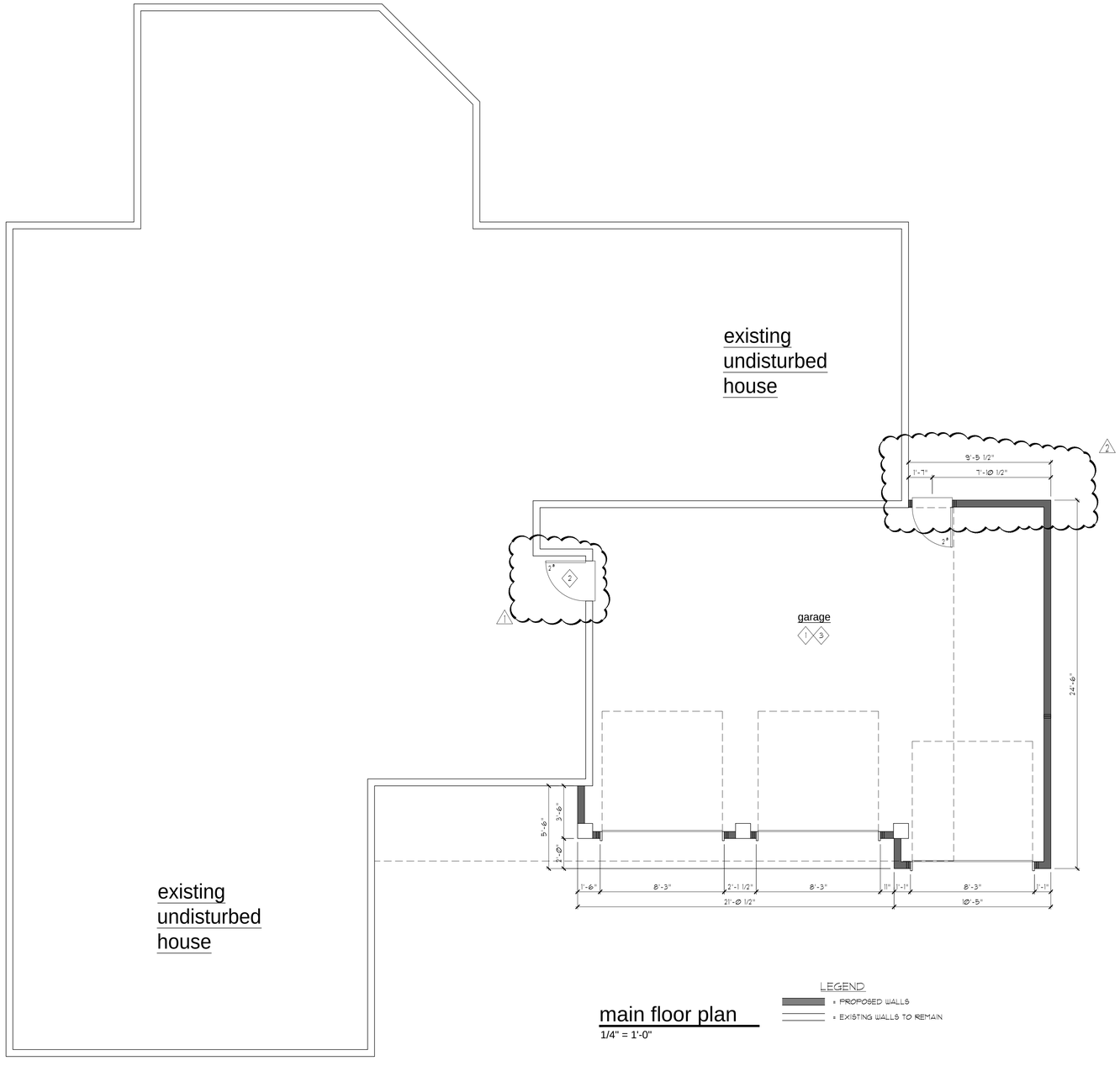
FILE NO.
23-08

SHEET
SP1

FLOOR PLAN NOTES

1. SEE ENGINEERING SHEETS FOR FRAMING FOR ALL HEADER & BEAM CALL-OUTS
2. EXTERIOR WALLS SHALL BE 2x6 HF#2 @ 16" o.c. AND INTERIOR WALLS 2x4 HF#2 @ 16" o.c.
3. ALL ANGLED WALLS TO BE 45 deg. U.N.O.
4. PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL CONNECTIONS AND STIFFENERS HAVE BEEN INSTALLED.
5. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIM's. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD.
6. CO= CARBON MONOXIDE ALARM & SMOKE DETECTOR
7. FIREBLOCK IN ACCORDANCE W/ R302.11 IRC.

1. 1/2" GYPSUM WALL BOARD ON ALL WALLS, POSTS AND BEAM. 5/8" TYPE 'X' GYPSUM WALL BOARD ON CEILINGS AND BEAMS. 5/8" TYPE 'X' GWB. SHALL BE INSTALLED PERPENDICULAR TO THE CEILING FRAMING AND SHALL BE FASTENED AT MAX. 6 INCHES O.C. FASTENERS PER TABLE R702.3.5.
2. 20-MINUTE FIRE-RATED DOOR EQUIPPED WITH A SELF CLOSING DEVICE. IRC R302.5.1
3. A HEAT DETECTOR OR HEAT ALARM RATED FOR THE AMBIENT OUTDOOR TEMPERATURES AND HUMIDITY SHALL BE INSTALLED IN NEW GARAGES THAT ARE ATTACHED TO OR LOCATED UNDER NEW AND EXISTING DWELLINGS. HEAT DETECTORS AND HEAT ALARMS SHALL BE INSTALLED IN A CENTRAL LOCATION AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.



main floor plan
1/4" = 1'-0"

PLAN DATE	ENG. # & NAME	DESCRIPTION
1 7/18/23		
2 9/12/23		
3 10/06/23		

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PLAN: FIELDS REMODEL
7250 N. MERCER WAY
MERCER ISLAND, WA 98040

MAIN FLOOR PLAN

FILE NO.
23-08

SHEET
A1

ROOF PLAN NOTES

1. ALL BEAMS AND HEADERS ARE 4x8 DF#2 (TYP. U.N.O.)
2. PRE-MANUFACTURED WOOD TRUSSES @ 24" o.c. (TYP. U.N.O.)
3. PROVIDE SIMPSON H1 HURRICANE TIE @ EACH END OF TRUSS. PROVIDE (2) H2.5's @ EACH END OF 2-PLY AND GREATER GIRDER TRUSSES. (SIMPSON HARDWARE OR EQUIV.)
4. ROOF SHEATHING SHALL BE 7/16" T4G OSB APPLIED w/ LONG DIMENSION ACROSS TRUSSES OR RAFTERS. STAGGER END JOINTS. 8d COMMON NAIL @ 6" o.c. ALL PANEL EDGES AND OVER ALL SHEAR WALLS AND DRAG TRUSSES w/ 8d NAILS @ 12" O.C. #FIELD.
5. PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS AND STIFFENERS HAVE BEEN INSTALLED.
6. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD.
7. VENT (V.T.O.) CUT-OUT
8. SHADED AREA INDICATES OVER-FRAMING.

WOOD TRUSS NOTES.
(PER I.R.C. SECTION R802.10.)

TRUSS DESIGN DRAWINGS SHALL BE PROVIDED WITH THE SHIPMENT OF TRUSSES DELIVERED TO THE JOB SITE AND SHALL BE ON THE JOB SITE.

ENGINEERING DATA AND DETAILS SHALL BE APPROVED BY THE BUILDING OFFICIAL BEFORE INSTALLATION.

TRUSSES SHALL BE DESIGNED BY A REGISTERED WASHINGTON STATE ENGINEER. STRESS ANALYSIS, DRAWINGS AND DETAILS SHALL BE STAMPED BY AN APPROVED STATE OF WASHINGTON REGISTERED ENGINEER AND FABRICATED FROM ONLY THESE DESIGNS.

ROOF TRUSSES SHALL BE FRAMED AND TIED INTO THE FRAMEWORK AND SUPPORTING WALLS SO AS TO FORM AN INTEGRAL PART OF THE WHOLE BUILDING.

ROOF TRUSSES SHALL HAVE JOINTS WELL FITTED AND SHALL HAVE TENSION MEMBERS WELL TIGHTENED BEFORE ANY LOAD IS PLACED UPON THE TRUSS. DIAGONAL AND SWAY BRACING SHALL BE USED TO BRACE ALL TRUSSES.

PRE-MANUFACTURED TRUSSES TO BE STAMPED BY THE MANUFACTURER OR BY A QUALITY CONTROL AGENCY SUCH AS THE WASHINGTON STATE TRUSS FABRICATORS COUNCIL. TRUSS INFORMATION PERMANENTLY AFFIXED TO EACH TRUSS SHALL CONTAIN TRUSS MANUFACTURER'S IDENTIFICATION, DESIGN LOAD AND TRUSS SPACING.

NONBEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENERS TO ENSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL.

ALL TRUSS BOTTOM CHORDS TO BE DESIGNED AS ATTICS WITHOUT STORAGE (10 PSF LL.). TRUSSES SHALL BE DESIGNED WITH A BOTTOM CHORD OPENING LESS THAN 42"x24" WHERE (2) OR MORE ADJACENT TRUSSES HAVE THE SAME WEB CONFIGURATION.

STICK BUILT OVER-FRAMING:

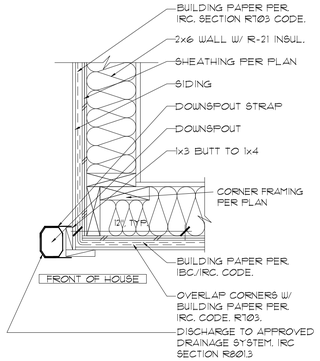
1. 2x4 HF#2 RAFTERS @ 24"o.c.
2. 2x4 HF#2 POST SUPPORT FOR RAFTERS, STAGGER @ 48" O.C.
3. BRACE POST OVER 6'-0" LONG (IN 2x FLAT DIRECTION) TO PREVENT BUCKLING

D.S. LEGEND

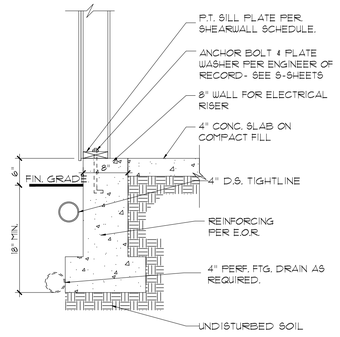
1. ● D.S. = DOWNSPOUT TO GRADE
2. ○ D.S. = DOWNSPOUT TO LOWER ROOF

TYPICAL FOUNDATION NOTES

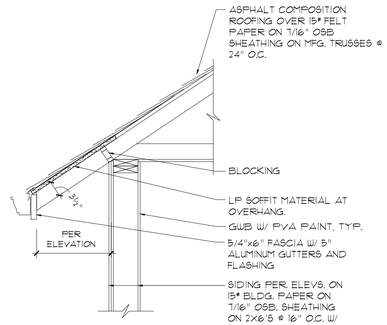
1. USE 4x4 DF#2 POSTS UNDER ALL BEAMS (4x6 @ SPLICE LOCATIONS), TYP. U.N.O.
2. SEE S-SHEETS FOR TYP. PONY WALL CONSTRUCTION AND HOLDOWN @ PONY WALLS.
3. SILL PLATES AND POSTS MUST BE 6" ABOVE EXPOSED EARTH. (BEAMS MUST BE 12" AND TRUSSES 18"). WOOD FRAMING IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR SEPARATED WITH AN APPROVED VAPOR BARRIER.
4. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL AT LEAST 18" BELOW FINISHED ADJACENT GRADE AT EXTERIOR.
5. PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS AND STIFFENERS HAVE BEEN INSTALLED.
6. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD.
7. 2x6 (SBX) PT. SILL PLATE (BORON BORATE PRESSURE TREATED) WITH ANCHOR BOLTS PER SHEAR SCHEDULE AND 3"x3"x⌀.229" PLATE WASHERS. EMBED ANCHOR BOLTS 7" MINIMUM INTO CONC.
8. SLOPE GARAGE SLAB 1/8" (3" MIN.) PER FOOT TOWARD DOORS
9. SLOPE ALL PORCHES, PATIOS, STOOPS AND HARD-SCAPE MATERIAL AWAY FROM BUILDING MIN. 1/4" PER FOOT - TYP.
10. PROVIDE 1X4 SLEEPERS AT RAISED STEM WALLS WHERE SIDING EXTEND TO 6" (MIN.) ABOVE GARAGE, 2" (MIN.) ABOVE CONCRETE HARDSCAPE, ALSO AT FRONT FOR GARAGE DOOR LINER INSTALL.



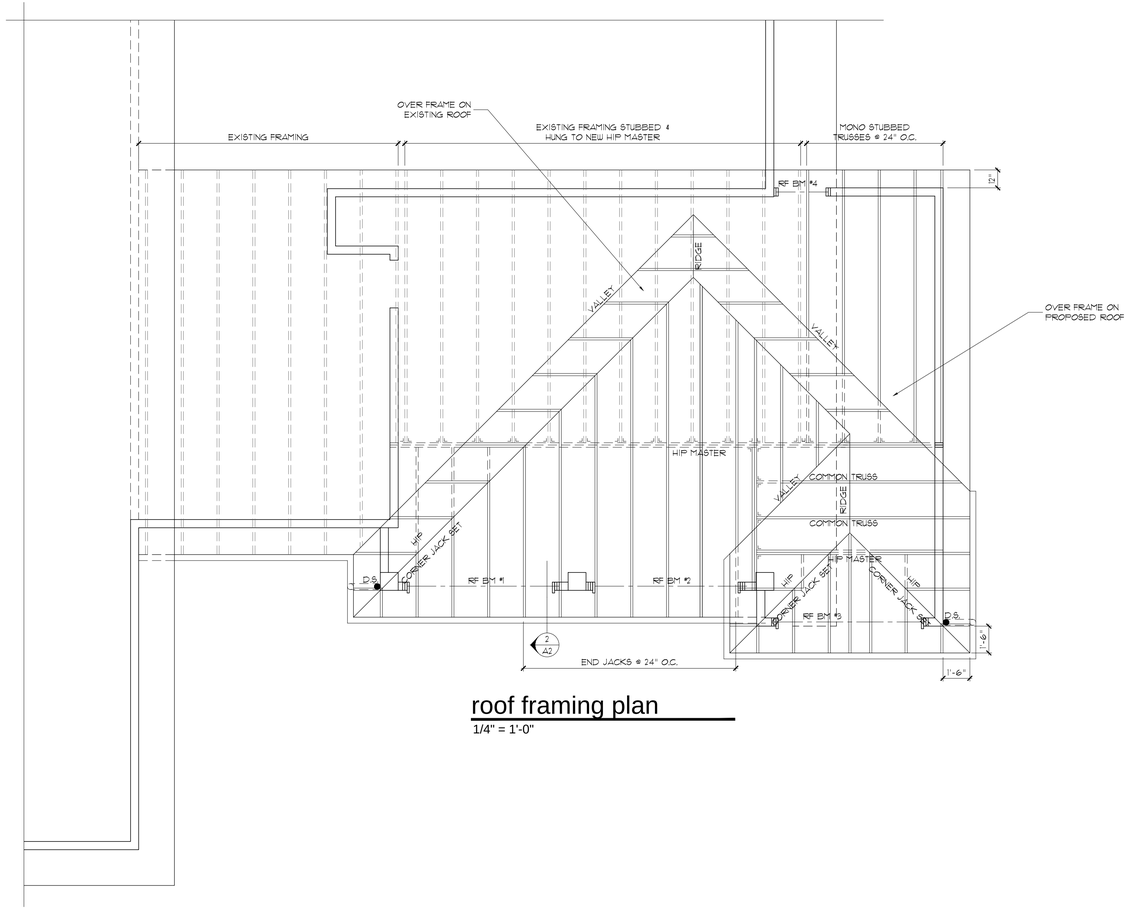
3 DOWNSPOUT DETAIL
1-1/2"=1'-0"



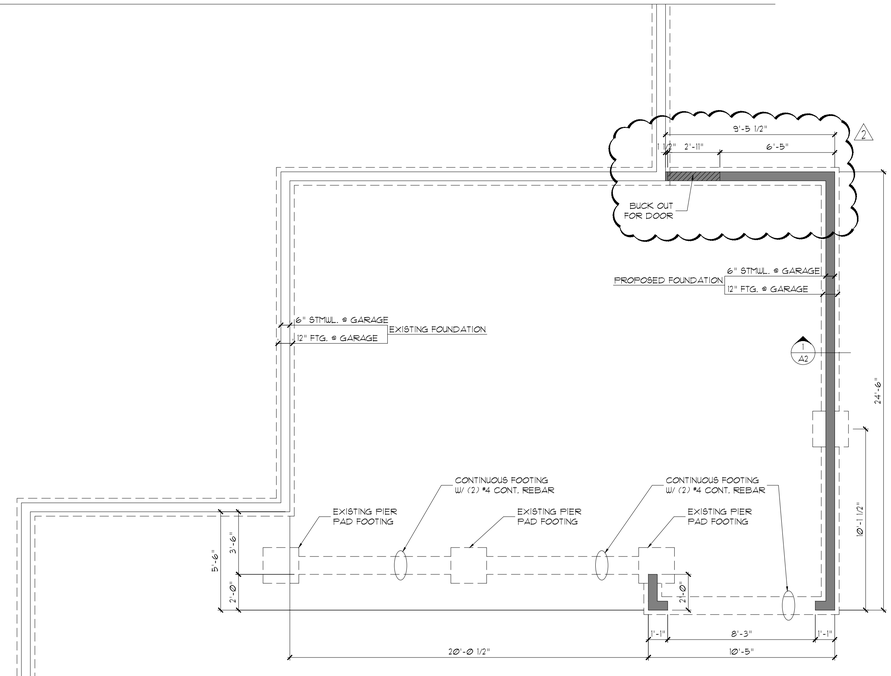
2 TYPICAL FOUNDATION
3/4"=1'-0"



1 TRUSS EAVE
3/4"=1'-0"



roof framing plan
1/4" = 1'-0"



foundation plan
1/4" = 1'-0"

PLAN DATE: 7/18/23 (1) 9/12/23 (2) 10/06/23
ENG. # & NAME:
DESCRIPTION:
ENG. # -

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PLAN: FIELDS REMODEL
7250 N. MERCER WAY
MERCER ISLAND, WA 98040

FOUNDATION PLAN
ROOF FRAMING PLAN

FILE NO.
23-08

SHEET
A2

front elevation

1/8" = 1'-0"

PLAN DATE:	ENG. # & NAME:	DESCRIPTION:
1 7/18/23		
2 9/12/23		
3 10/06/23		

ENG. # -

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PLAN: FIELDS REMODEL
7250 N. MERCER WAY
MERCER ISLAND, WA 98040

ELEVATIONS

FILE NO.
23-08

SHEET
A3

GENERAL STRUCTURAL NOTES

BUILDING CODE:

2018 EDITION OF THE INTERNATIONAL BUILDING CODE

GRAVITY LOADS:

ROOF:

ROOF DEAD LOAD =	20 PSF
ROOF LIVE LOAD =	25 PSF (SNOW)

LATERAL LOADS:

IMPORTANCE FACTOR (I_w, I_E) =	1.0
WIND:	
BASIC WIND SPEED =	110 MPH
EXPOSURE =	C
SEISMIC:	
SEISMIC DESIGN CATEGORY =	D
RESPONSE MODIFICATION FACTOR (R)=	6.5
SHORT PERIOD ACCELERATION (S_{DS}) =	1.108

PRIME CONTRACT DRAWINGS:

THE ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS, SHORING, SURVEYING, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, AND LANDSCAPING; AMONG OTHERS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ADDITIONAL REQUIREMENTS.

DIMENSION VERIFICATION/CONFLICTS:

CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRID LOCATIONS, PROPERTY LINE LOCATIONS, FLOOR ELEVATIONS, FOOTING ELEVATIONS, DEPRESSIONS, WITH THE ARCHITECTURAL, CIVIL AND SURVEY DRAWINGS, DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.

TYPICAL DETAILS:
TYPICAL DETAILS SHOWN ON THE DRAWNGS SHALL APPLY UNLESS NOTED OTHERWISE. SOME TYPICAL DETAILS ARE CUT OR OTHERWISE REFERENCED IN THE DRAWINGS HOWEVER MOST ARE NOT. WHERE SPECIFIC DETAILS ARE NOTED ON THE DRAWINGS THE SPECIFIC DETAIL SHALL BE USED. WHERE NO DETAIL IS NOTED IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CHOOSE THE APPROPRIATE DETAIL FROM THOSE PROVIDED.

FOUNDATIONS:

SPREAD FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL 18" MINIMUM BELOW FINISHED GRADE. FINISHED GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE WITHIN 5 FEET FOR PERIMETER FOOTINGS. DESIGN SOIL BEARING VALUE = 1,500 PSF.

CONCRETE:

MINIMUM COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3,000 PSI TO COMPLY WITH EXPOSURE REQUIREMENT OF IBC TABLE 1904.2 STRUCTURAL DESIGN IS BASED ON f'c OF 2,500 PSI. PER IBC 1705.3., NO SPECIAL INSPECTION REQUIRED.

ALL CONCRETE CONSTRUCTION SHALL CONFORM TO A.C.I. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AT TRENCHES, FLOOR DUCTS, TURNDOWNS, ETC. MAXIMUM SLUMP 4-1/2" FOR CONCRETE WITHOUT PLASTICIZER. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL. UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITECT, ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY CONTROL JOINTS (KEYED OR SAW CUT), AS SHOWN ON THE FOUNDATION PLAN, SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 225 SQUARE FEET. KEYED CONTROL JOINTS NEED ONLY OCCUR AT COLD JOINTS, ALL OTHER JOINTS MAY BE SAW CUT.

FLY ASH – IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS, SHALL BE LIMITED TO 18% OF CEMENTITIOUS MATERIALS AND SHALL HAVE A REPLACEMENT FACTOR OF 1.2 RELATIVE TO CEMENT REPLACED. NO FLY ASH ADDITIVES SHALL BE USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE.

REINFORCING:

ASTM A615 (Fy = 60 KSI) DEFORMED BARS FOR ALL BARS #4 AND LARGER. ASTM A615 (Fy = 40 KSI) DEFORMED BARS FOR ALL BARS #3 AND SMALLER. NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE WITH THE STRUCTURAL ENGINEER. LATEST A.C.I. CODE AND DETAILING MANUAL APPLY. CLEAR CONCRETE COVERAGES AS FOLLOWS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER	
#6 OR LARGER	2"
#5 AND SMALLER	1 1/2"
ALL OTHER PER LATEST EDITION OF ACI 318	

LAP SPLICES IN CONCRETE:

LAP SPLICES, UNLESS NOTED OTHERWISE, SHALL BE CLASS "B" (LSB) TENSION LAP SPLICES PER LATEST EDITION OF A.C.I. 318. STAGGER SPLICES A MINIMUM OF ONE LAP LENGTH. ALL REINFORCING SHALL BE CHAIRED TO ENSURE PROPER CLEARANCES. SUPPORT OF FOUNDATION REINFORCING MUST PROVIDE ISOLATION FROM MOISTURE/CORROSION.

ALL SPLICE LOCATIONS SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. REINFORCING BAR SPACINGS GIVEN ARE MAXIMUM ON CENTERS. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH STANDARD 90 DEGREE HOOKS UNLESS NOTED OTHERWISE. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

CLASS B LAP SPLICE AND DEVELOPMENT LENGTHS

BAR #	Ld (IN)	Ld TOP (IN)	LSB (IN)	LSB TOP (IN)	Ldh (IN)	Ldc TOP (IN)
3	12	16	16	22	6	8
4	18	24	24	32	8	12
5	24	30	30	38	11	15

TABLE NOTES:
TOP BARS ARE ANY HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.

STRUCTURAL STEEL:

ALL WORKMANSHIP SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION.

MATERIAL PROPERTIES:

WIDE FLANGE SECTIONS	ASTM A992	Fy = 50 KSI
OTHER SHAPES AND PLATE	ASTM A36	Fy = 36 KSI
HOLLOW STRUCTURAL SECTIONS	ASTM A500 GRADE B	Fy = 46 KSI
STRUCTURAL STEEL PIPE	ASTM A53 GRADE B	Fy = 36 KSI
ANCHOR BOLTS	ASTM F 1554	GRADE 55
MACHINE BOLTS	ASTM A 307	GRADE A

ALL BOLTS SHALL BE ASTM A307, UNLESS NOTED OTHERWISE. ALL ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36. ALL CONSTRUCTION PER LATEST AISC HANDBOOK. ALL EXPANSION AND EPOXY BOLTS TO HAVE I.C.C. RATING FOR MATERIAL INTO WHICH INSTALLATION TAKES PLACE. ALL BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC., SHALL BE INSTALLED WITH STEEL WASHERS AT FACE OF WOOD.

WOOD:

SAWN LUMBER:

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING UNADJUSTED DESIGN MINIMUM PROPERTIES

JOISTS & RAFTERS:	WOOD TYPE:
ALL	DF #2
BEAMS:	
ALL	DF #2
LEDGERS AND PLATES:	HF #2
STUDS:	
ALL	HF #2
POSTS:	
4X4	HF #2
4X6 OR LARGER	DF #2
PRESSURE TREATED JOISTS, BEAMS, AND POSTS:	
ALL	HF #2

PLYWOOD:

ALL PLYWOOD SHALL BE AMERICAN PLYWOOD ASSOCIATION CDX-RATED SHEATHING OR BETTER, AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. (ON ROOFS WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD). STAGGER JOINTS. ALL NAILING SHALL BE WITH COMMON NAILS. WHERE SCREWS ARE INDICATED FOR WOOD-TO-WOOD ATTACHMENTS, USE WOOD SCREWS MEETING THE REQUIREMENTS OF A.N.S.I./A.S.M.E. B18.6.1 OF GRADE ASTM A584, GRADE 1013 TO 1022 STEEL (FY=193,600 PSI). HORIZONTAL DIAPHRAGM AND SHEARWALL CAPACITIES SHALL BE PER THE LATEST EDITION OF I.C.C. REPORT ESR-1539. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SHALL HAVE THE FOLLOWING SPAN/INDEX RATIO, AND SHALL BE ATTACHED AS FOLLOWS, UNLESS NOTED OTHERWISE:

USE:	THICKNESS:	SPAN/INDEX RATIO:	EDGE ATTACHMENT:	INTERMEDIATE ATTACHMENT:
ROOF	7/16"	32/16	8d NAILS @ 6" O.C.	8d NAILS @ 12" O.C.
FLOOR	3/4" T & G	40/20	SCREWS @ 6" O.C.	SCREWS @ 12" O.C.
SHEAR WALL	7/16"	24/0	8d NAILS @ 6" O.C.	8d NAILS @ 12" O.C.

SCREWS AT FLOOR SHEATHING SHALL BE #8 x 2 1/2" LONG FOR SHEATHING LESS THAN 1" NOMINAL THICKNESS, AND SHALL HAVE CURRENT I.C.C. APPROVAL AS A REPLACEMENT FOR 10d NAILS IN WOOD PANEL DIAPHRAGMS. SCREWS PER I.C.C. ER-5280 OR APPROVED EQUAL. ALL FLOOR SHEATHING SHALL BE GLUED TO SUPPORT MEMBERS WITH AN A.P.A. AFG-01 OR ASTM D3498 QUALIFIED GLUE IN ACCORDANCE WITH A.P.A. FORM E30.

ALTERNATE SHEATHING:

AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFING CONTRACTOR. RATED SHEATHING SHALL COMPLY WITH I.C.C. ESR-1301, EXPOSURE 1, AND SHALL HAVE A SPAN RATING AND SHEAR VALUE EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PLYWOOD PER MANUFACTURER'S RECOMMENDATIONS.

NAILING:

ALL NAILS SHALL CONFORM TO ASTM F1667. ALL NAILING SHALL BE WITH COMMON WIRE NAILS OR APPROVED EQUAL. ALL NAILING SHALL BE WITH POWER-DRIVEN FASTENERS MEETING THE REQUIREMENTS OF I.C.C. ESR-1539 OR APPROVED EQUAL. ALL NAILS AND FASTENERS IN PRESSURE-TREATED OR FIRE RETARDANT WOOD SHALL BE HOT-DIPPED ZINC GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, COPPER, OR APPROVED EQUAL, TYPICAL UNLESS NOTED OTHERWISE TO MEET THE REQUIREMENTS OF I.B.C. SECTION 2304.9.5. NAILS SPECIFIED BY PENNYWEIGHT SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PENNYWEIGHT:	SHANK DIAMETER:	NAIL BENDING YIELD STRENGTH (Fyb):
8d	0.131"	100,000 PSI
10d	0.148"	90,000 PSI
16d	0.162"	90,000 PSI

GLUED-LAMINATED BEAMS (GLULAM):

GLUED-LAMINATED BEAMS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2,400 PSI, Fv = 265 PSI, Fc (PERPENDICULAR) = 650 PSI, E = 1,800,000 PSI. CONTINUOUS BEAMS OR BEAMS CANTILEVERING OVER SUPPORTS SHALL HAVE THE SPECIFIED MINIMUM PROPERTIES TOP AND BOTTOM. ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAMS TO BEAR GRADE STAMP AND AITC STAMP AND CERTIFICATE. CAMBER AS SHOWN ON DRAWINGS.

WOOD GENERAL:

DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER PARTITIONS. PROVIDE 2" SOLID BLOCKING AT SUPPORTS OF ALL JOISTS. DOUBLE UP STUDS AT JAMBS AND UNDER BEAMS. EVERY OTHER STUD OF WOOD FRAME BEARING WALL SHALL HAVE A SIMPSON H3 ANCHOR TOP AND BOTTOM, EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS DIRECTLY ATTACHED TO THE TOP AND BOTTOM PLATES WITH EDGE NAILING. PROVIDE 2x SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE. ALL FIELD CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESSURE TREATED WOOD SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT I.C.C. APPROVAL. ALL WOOD CONNECTORS IN CONTACT WITH PRESSURE TREATED OR FIRE RETARDANT WOOD SHALL BE: "Z-MAX", HOT-DIPPED GALVANIZED, STAINLESS STEEL, OR APPROVED EQUAL, TYPICAL UNLESS NOTED OTHERWISE. TYPICAL CONNECTIONS SHALL USE THE FOLLOWING SIMPSON STRONG-TIE CONNECTORS, UNLESS NOTED OTHERWISE:

CONNECTION TYPE	POST TO FOUNDATION	POST TO BEAM	JOIST TO BEAM	BEAM TO BEAM
TYPICAL CONNECTOR	PBS TYPE POST BASE	PC TYPE POST CAP	LU TYPE HANGER	HU TYPE HANGER

HANGERS SHALL BE THOSE SIZED FOR THE APPLICABLE FRAMING MEMBER. I.E.-AN LU26 HANGER SHALL BE USED FOR A 2x6, NOT AN LU24. TOP FLANGE HANGERS WITH EQUIVALENT OR GREATER CAPACITY SHALL BE SUBSTITUTED FOR FACE-MOUNTED HANGERS AS APPLICABLE.

PREFABRICATED FLOOR AND ROOF TRUSSES:

PREFABRICATED TRUSSES ARE DEFERRED SUBMITTAL ITEMS TO BE DESIGNED BY A PROFESSIONAL ENGINEER, FABRICATED AND INSTALLED PER THE LATEST TRUSS PLATE INSTITUTE STANDARDS. FABRICATOR TO PROVIDE ALL CONNECTION DESIGN AND DETAILS. ROOF TRUSSES SHALL BE DESIGNED FOR THE SNOW LOAD SPECIFIED IN THESE DOCUMENTS AND ANY ATTIC LIVE LOADS THAT ARE APPLICABLE PER IRC TABLE R301.5. WHERE ROOF TRUSSES ARE NOT PROVIDED TO COMPLETE THE SYSTEM, OVERFRAMING MEMBERS AND THEIR CONNECTIONS SHALL BE PROVIDED. OVERFRAMING DETAILS SHALL BE INCLUDED IN THE ROOF TRUSS SHOP DRAWINGS IN ORDER TO PROVIDE LOADING CONDITIONS CONSISTENT WITH THE MODELING OF THE TRUSSES. THE OVERFRAMING AND RELATED DETAILS SHALL BE DESIGNED UNDER THE DIRECTION OF THE TRUSS ENGINEER. WHERE ROOF/FLOOR TRUSSES ALIGN WITH SHEAR WALLS, A SPECIAL TRUSS SHALL BE PROVIDED THAT HAS BEEN DESIGNED TO TRANSFER THE SPECIFIC WIND AND SEISMIC LOADS SHOWN ON THE PLANS. THE TRUSS SHALL BE DESIGNED TO TRANSFER LOADS BETWEEN THE ROOF/FLOOR SHEATHING AND THE SHEAR WALL BELOW. TRUSSES SHALL BE DESIGNED TO TRANSFER A MINIMUM OF 150 PLF ALONG THE LENGTH OF THE TRUSS. ALL TEMPORARY AND PERMANENT BRACING REQUIRED FOR THE STABILITY OF THE TRUSS ELEMENTS UNDER GRAVITY LOADS AND IN-PLANE WIND OR SEISMIC LOADS SHALL BE DESIGNED BY THE TRUSS ENGINEER. WHERE THE TOP CHORD IS NOT DIRECTLY ATTACHED TO SHEATHING, THE TRUSS ENGINEER SHALL DESIGN AND SHOW THE PLACEMENT OF ALL REQUIRED TOP CHORD BRACING AND CONNECTIONS ON THE TRUSS SHOP DRAWINGS. ANY BRACING LOADS TRANSFERRED TO THE MAIN BUILDING SYSTEM SHALL BE IDENTIFIED AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW TO THE ENGINEER OF RECORD PRIOR TO SUBMITTING TO THE BUILDING OFFICIAL FOR APPROVAL. NO CUTTING DRILLING OR NOTCHING OF TRUSSES SHALL BE PERMITTED WITHOUT THE APPROVAL OF THE TRUSS DESIGN ENGINEER. TRUSS INSTILLATION AND BRACING DRAWINGS FROM THE TRUSS DESIGNER SHALL BE AVAILABLE ON THE JOB SITE FOR REVIEW BY THE BUILDING OFFICIAL. IF THE TRUSS MANUFACTURERS INSTILLATION DRAWINGS ARE NOT AVAILABLE THEN THE CONTRACTOR SHALL HAVE ON SITE, AND TRUSSES SHALL BE INSTALLED PER THE LATEST EDITION OF BCSI "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES".

GENERAL:

THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO.

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.

ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

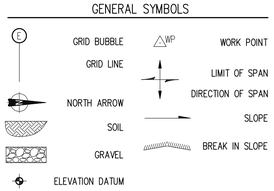
OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS CHOSEN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

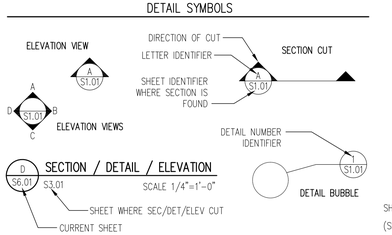
CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE OWNER.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.

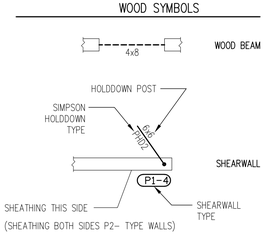
GENERAL SYMBOLS



DETAIL SYMBOLS



WOOD SYMBOLS



ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONST.
ALT	ALTERNATE
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
AWS	AMERICAN WELDING SOCIETY
BLDG	BUILDING
CANT	CANTILEVERED
CC	CENTER-TO-CENTER
CG	CENTER OF GRAVITY
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CY	CUBIC YARD
d	PENNYWEIGHT (NAILS)
DEMO	DEMOLISH, DEMOLITION
DF	DOUGLAS FIR
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DWG	DRAWING
EX	EXISTING
ELEV	ELEVATION
ELEC	ELECTRICAL
EMBED	EMBEDMENT
EQ	EQUAL, EARTHQUAKE
EW	EACH WAY
FDN	FOUNDATION
FF	FINISH FACE, FINISH FLOOR
FT	FEET
FTG	FOOTING
GALV	GALVANIZED
GLB	GLUE LAMINATED BEAM
GWB	GYPSUM WALL BOARD
HORIZ	HORIZONTAL
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IN	INCH
K	KIPS (1000 POUNDS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LB	POUND
Ld	DEVELOPMENT LENGTH
Ldc	COMPRESSION DEVELOPMENT LENGTH
Ldh	HOOK DEVELOPMENT LENGTH
LF	LINEAL FOOT
LL	LIVE LOAD
LSB	LAP SPLICE TYPE B
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO. #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSB	ORIENTED STRAND BOARD
PCF	POUNDS PER CUBIC FOOT
PERP	PERPENDICULAR
PL	PLATE, PROPERTY LINE
PLF	POUNDS PER LINEAL FOOT
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
R	RADIUS
REBAR	REINFORCING STEEL BARS
REQD	REQUIRED
SCHED	SCHEDULE
SIM	SIMILAR
SOG	SLAB ON GRADE
SQ	SQUARE
SW	SHEAR WALL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WIDTH, WIDE FLANGE
W/	WITH
W/O	WITHOUT
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

SHEET LIST

SHEAR WALL SCHEDULE

WALL MARK	SHEATHING	SIDES	PANEL EDGE NAILING	FIELD NAILING	FRAMING AT ADJACENT PANEL EDGES	BASE PLATE ATTACHMENT	ANCHOR BOLT SPACING	FOUNDATION SILL PLATE/FLOOR BASE PLATE	BLOCKING/RIM JOIST ATTACHMENT
P1-6	7/16" OSB	ONE	8d NAILS AT 6" O.C.	12" O.C.	2x	16d NAILS AT 8" O.C.	5/8" DIAMETER BOLTS AT 48" O.C.	2x	SIMPSON LTP4 CLIPS AT 48" O.C.
P1-4	7/16" OSB	ONE	8d NAILS AT 4" O.C.	12" O.C.	2x	16d NAILS AT 6" O.C.	5/8" DIAMETER BOLTS AT 32" O.C.	2x	SIMPSON LTP4 CLIPS AT 32" O.C.

SHEAR WALL SCHEDULE NOTES

1. FRAMING STUDS SHALL BE HEM FIR #2 SPACED AT 16" O.C. MAXIMUM. THICKNESS OF STUDS SHALL BE 2x UNLESS OTHERWISE NOTED IN SCHEDULE.
2. SHEATHING PANELS MAY BE LAYED VERTICAL OR HORIZONTAL. BLOCK ALL HORIZONTAL EDGES WITH 2x OR 3x BLOCKING TO MATCH STUD WIDTH UNLESS NOTED OTHERWISE.
3. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEARWALLS SHALL RECEIVE APA RATED SHEATHING, FULLY BLOCKED WITH MINIMUM EDGE ATTACHMENT OF 8d NAILS @ 6" O.C., 12" O.C. FIELD.
4. NAILING APPLIES TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING.
5. MINIMUM ANCHOR BOLT SPACING OF 48" O.C. UNLESS OTHERWISE NOTED IN SCHEDULE. MINIMUM OF 2 ANCHORS PER WALL. PROVIDE 3"x3"x0.229" SQUARE WASHERS AT EACH ANCHOR BETWEEN THE SILL PLATE AND WASHER. A DIAGONAL SLOT WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. DO NOT RECESS BOLTS.
6. TABLES BASED ON 8d NAILS (2 1/2" LONG x 0.131" COMMON OR 2 1/2" LONG x 0.113" GALVANIZED BOX)
7. BLOCKING/RIM JOIST ATTACHMENT NEED NOT BE USED WHERE THE SHEATHING IS DIRECTLY ATTACHED TO THE BASE/SILL PLATE WITH EDGE NAILING.

HOLDOWN SCHEDULE

SIMPSON PRODUCT NUMBER	POST FASTENING		POST (1)	SIMPSON ANCHOR BOLT
	NAILS	SCREWS		
STHD10 / STHD10RJ (3)	(18) 16d NAILS	–	2 STUDS	–
STHD14 / STHD14RJ (3)	(24) 16d NAILS	–	2 STUDS	–
HDU2-SDS2.5	–	(6) SDS ¼ x 2½	2 STUDS	SB ⅝ x 24
HDU5-SDS2.5	–	(14) SDS ¼ x 2½	2 STUDS	SB ⅝ x 24

HOLDOWN SCHEDULE FOOT NOTES

1. POSTS LISTED IN SCHEDULE ARE MINIMUM. CHECK HOLDOWN CALLOUT ON PLAN FOR LARGER POST REQUIREMENTS.
2. NUMBER OF NAILS LISTED IS A MAXIMUM. DEEPER FLOOR JOIST MAY REDUCE THE NUMBER OF NAILS POSSIBLE INTO STUDS.
3. HDU5 MAY BE SUBSTITUTED FOR STHD TYPE HOLDOWN.

REVISIONS

REV.#	DATE	DESCRIPTION

Puget Sound Structural Engineering
PO Box 5096, Tacoma WA
(253) 238-3554

PROJECT TITLE
FIELDS REMODEL

SITE ADDRESS
7520 North Mercer Way, Mercer Island WA 98040

SHEET TITLE
GENERAL STRUCTURAL NOTES

DRAWN BY:	DJC
DATE:	05-22-2023
SCALE:	AS NOTED
PROJECT NO.:	23-147

SHEET NUMBER
S0.1

BOLT DIAMETER	VERT BOLT EMBEDMENT LENGTH	HORIZ BOLT EMBEDMENT LENGTH	HEADED STUD FILLET WELD SIZE, "S"
1/2"	7"	4"	1/4"
5/8"	7"	4"	5/16"
3/4"	7"	5"	5/16"
7/8"	8"	6"	5/16"
1"	9"	7"	3/8"
1 1/8"	10"	8"	----
1 1/4"	11"	9"	----

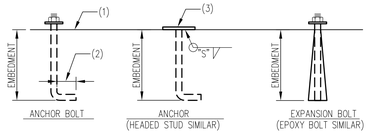
NOTES:

PROVIDE ANCHORS, ANCHOR BOLTS, AND EXPANSION BOLTS, PER THIS SCHEDULE UNLESS NOTED ON PLANS OR ON DETAILS

EXPANSION BOLTS SHALL HAVE I.C.C. REPORT FOR SAME INSTALLATION

AT "ANCHORS" USE 3/16" FILLET

THICKNESS OF DRYPACK DOES NOT APPLY TOWARDS EMBEDMENT.

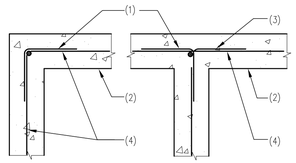


NOTES:

1. FACE OF WALL, TOP OF WALL, COLUMN, ETC.
2. 2" MIN. STANDARD HOOK, OR BOLT HEAD, TYP.
3. PLATE, ANGLE, CHANNEL, ETC.

01 TYPICAL ANCHOR, ANCHOR BOLT, AND EXPANSION BOLT SCHEDULE

SCALE: NTS



NOTES:

1. CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL REINFORCING LAP PER GSN (24" MINIMUM)
2. CONCRETE STEM WALL OR FOOTING
3. ALTERNATE BENDS
4. REINFORCING PER PLANS AND/OR DETAILS

02 PLAN - CORNER REINFORCING IN CONCRETE FOOTING, STEM OR WALL

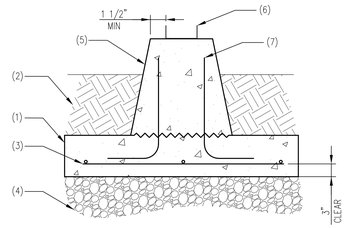
SCALE: NTS

SPREAD FOOTING TABLE			
DESIGNATION	FOOTING SIZE	FOOTING THICKNESS	REINFORCING
18"ø	18" DIAMETER	6"	–
24"ø	24" DIAMETER	7"	–
16	1'-4"x1'-4"	5"	(2) #3 EACH WAY
18	1'-6"x1'-6"	6"	(2) #3 EACH WAY
24	2'-0"x2'-0"	6"	(2) #4 EACH WAY
27	2'-3"x2'-3"	6"	(2) #4 EACH WAY
30	2'-6"x2'-6"	7"	(3) #4 EACH WAY
36	3'-0"x3'-0"	8"	(3) #4 EACH WAY
42	3'-6"x3'-6"	9"	(4) #4 EACH WAY
48	4'-0"x4'-0"	10"	(5) #4 EACH WAY

NOTES:

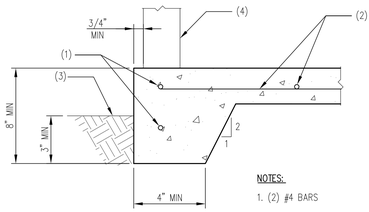
1. FOOTING PER PLAN
2. SOIL
3. REINFORCING PER TABLE
4. UNDISTURBED SOIL OR COMPACTED FILL
5. OPTIONAL PLINTH BLOCK AT ISOLATED SPREAD FOOTINGS
6. POST BASE PER PLAN OR GENERAL STRUCTURAL NOTES, REQUIRED AT ISOLATED SPREAD FOOTINGS.
7. (4) #3 DOWELS REQUIRED INTO PLINTH

NOTE: POST BASE MAY BE POST INSTALLED USE (2) 3/16x2" SCREWS UNO



03 ISOLATED SPREAD FOOTING SCHEDULE

SCALE: NTS

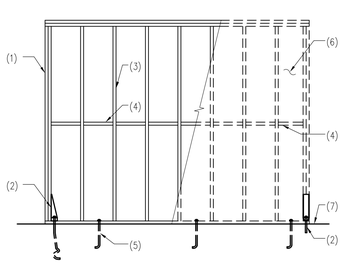


NOTES:

1. (2) #4 BARS
2. SLAB REINFORCING AS APPLIES PER PLAN
3. FINISH GRADE
4. POST AS OCCURS. IF BC TYPE BASE IS USED POST MUST BE PT. IF AB TYPE BASE IS USED POST MAY BE DF

04 THICKENED SLAB EDGE

SCALE: NTS

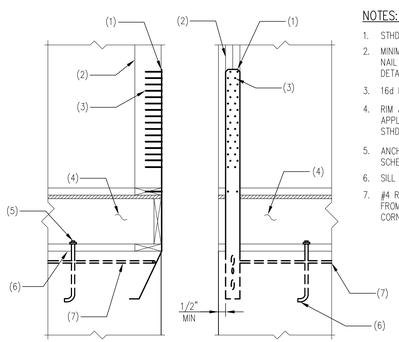


NOTES:

1. MULTIPLE STUDS (MINIMUM 2 UNO) AT EACH END OF PANEL NAILED AS BUILT-UP POST
2. HOLDOWN PER PLAN
3. WOOD STUD
4. BLOCKING REQUIRED AT SHEATHING PANEL JOINTS
5. ANCHOR BOLTS PER SHEARWALL SCHEDULE
6. SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
7. FINISHED FLOOR

09 SHEARWALL ELEVATION

SCALE: NTS

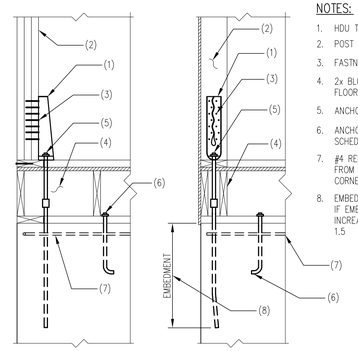


NOTES:

1. STHD TYPE HOLDDOWN
2. MINIMUM OF 2 STUDS AT HOLDDOWN, NAIL TOGETHER PER BUILT-UP POST DETAIL
3. 16d NAILS, FILL ALL HOLES
4. RIM JOIST AND FLOOR SYSTEM AS APPLIES, IF FLOOR JOIST EXIST USE STHD-RJ TYPE
5. ANCHOR BOLTS PER SHEARWALL SCHEDULE
6. SILL PLATE
7. #4 REINFORCING BAR EXTENDING 30" FROM HOLDDOWN EACH DIRECTION, CORNER BAR AS APPLIES

10 STHD TYPE HOLDDOWN

SCALE: NTS

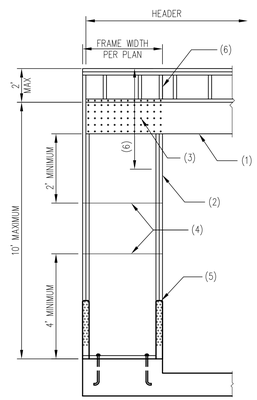


NOTES:

1. HDU TYPE HOLDDOWN
2. POST PER HOLDOWN SCHEDULE
3. FASTNERS PER HOLDOWN SCHEDULE
4. 2x BLOCK IF HOLDOWN IS OVER JOISTED FLOOR SYSTEM
5. ANCHOR BOLT PER HOLDOWN SCHEDULE
6. ANCHOR BOLTS PER SHEARWALL SCHEDULE
7. #4 REINFORCING BAR EXTENDING 24" FROM HOLDDOWN EACH DIRECTION, CORNER BAR AS APPLIES
8. EMBEDMENT PER ANCHOR BOLT SCHEDULE, IF EMBEDMENT IS NOT INTO FOOTING INCREASE LENGTH LISTED IN SCHEDULE BY 1.5

11 HDU TYPE HOLDDOWN

SCALE: NTS



NOTES:

1. HEADER PER PLAN EXTEND OVER PORTAL FRAME
2. (2) STUDS AT EDGES NAIL SHEATHING WITH 8d NAILS AT 3" OC ALL EDGES
3. NAIL SHEATHING TO HEADER ON 3" GRID PATTERN AS SHOWN
4. ACCEPTABLE LOCATION OF PLYWOOD JOINTS IF REQUIRED, BACK JOINTS WITH 2x BLOCKING AND NAIL JOINTS AT 3" OC
5. STHD14 STRAP EACH END
6. IF FRAME HAS CRIPPLE WALL OVER HEADER ADD CRIPPLE STUD IN LINE WITH EDGE OF PORTAL FRAME. NAIL CS20 STRAP FROM DBL PLATE TO 1' BELOW HEADER, STRAP IS ON OPPOSITE SIDE OF WALL FROM SHEATHING

12 APA PORTAL FRAME

SCALE: NTS

REVISIONS

REV. #	DATE	DESCRIPTION

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PO Box 5096, Tacoma WA
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DANIEL J. CEDERBLUND
STATE OF WASHINGTON
46348
STRUCTURAL ENGINEER

PROJECT TITLE
FIELDS REMODEL

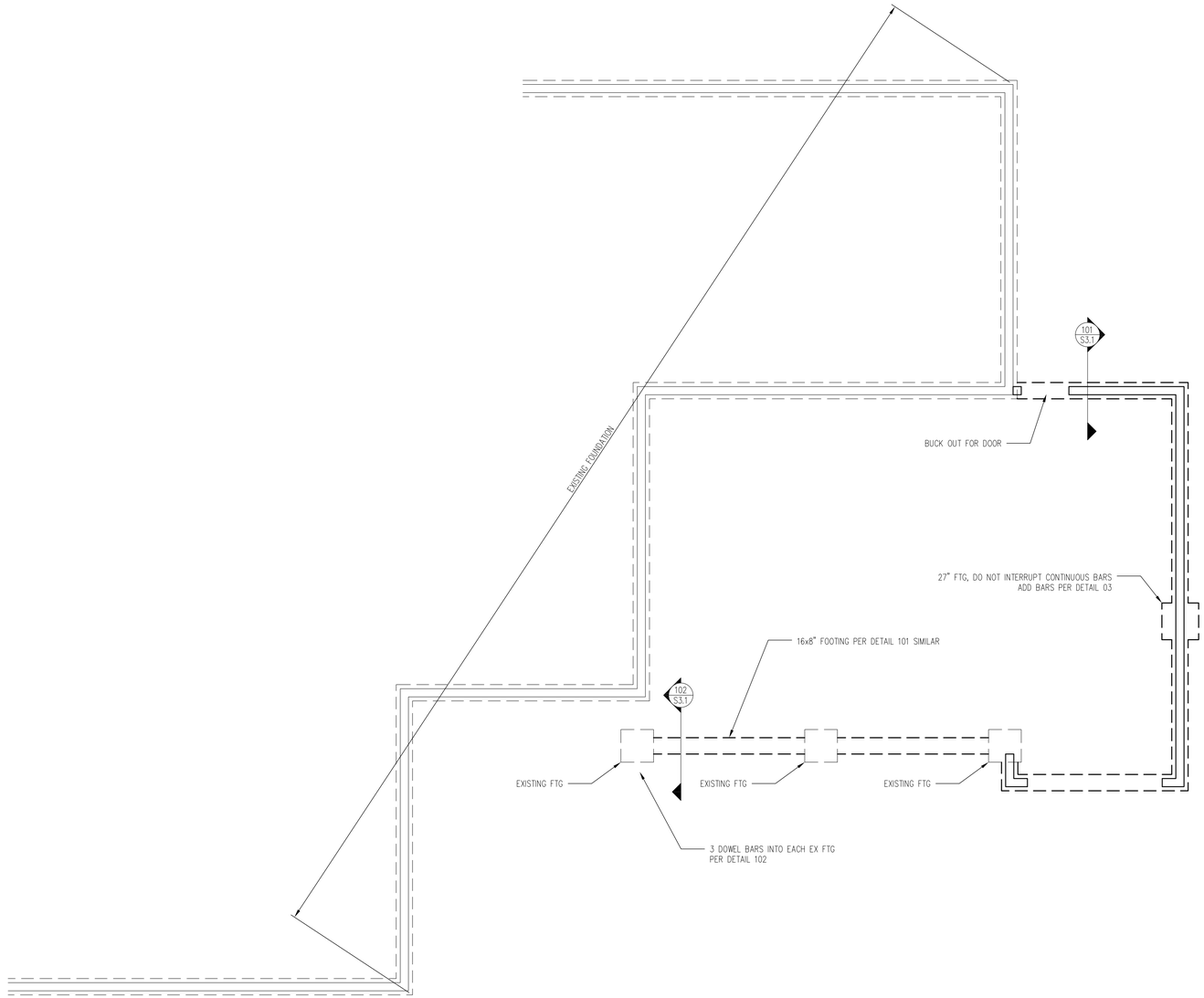
SITE ADDRESS
7520 North Mercer Way, Mercer Island WA 98040

SHEET TITLE
TYPICAL DETAILS

DRAWN BY:	DJC
DATE:	05-22-2023
SCALE:	AS NOTED
PROJECT NO.:	23-147

SHEET NUMBER
S0.2

SHEET 2 OF 6



FOUNDATION

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

REVISIONS

REV. #	DATE	DESCRIPTION

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PO Box 5096, Tacoma WA
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DANIEL J. CEDERLUND
STATE OF WASHINGTON
46349
REGISTERED
PROFESSIONAL ENGINEER

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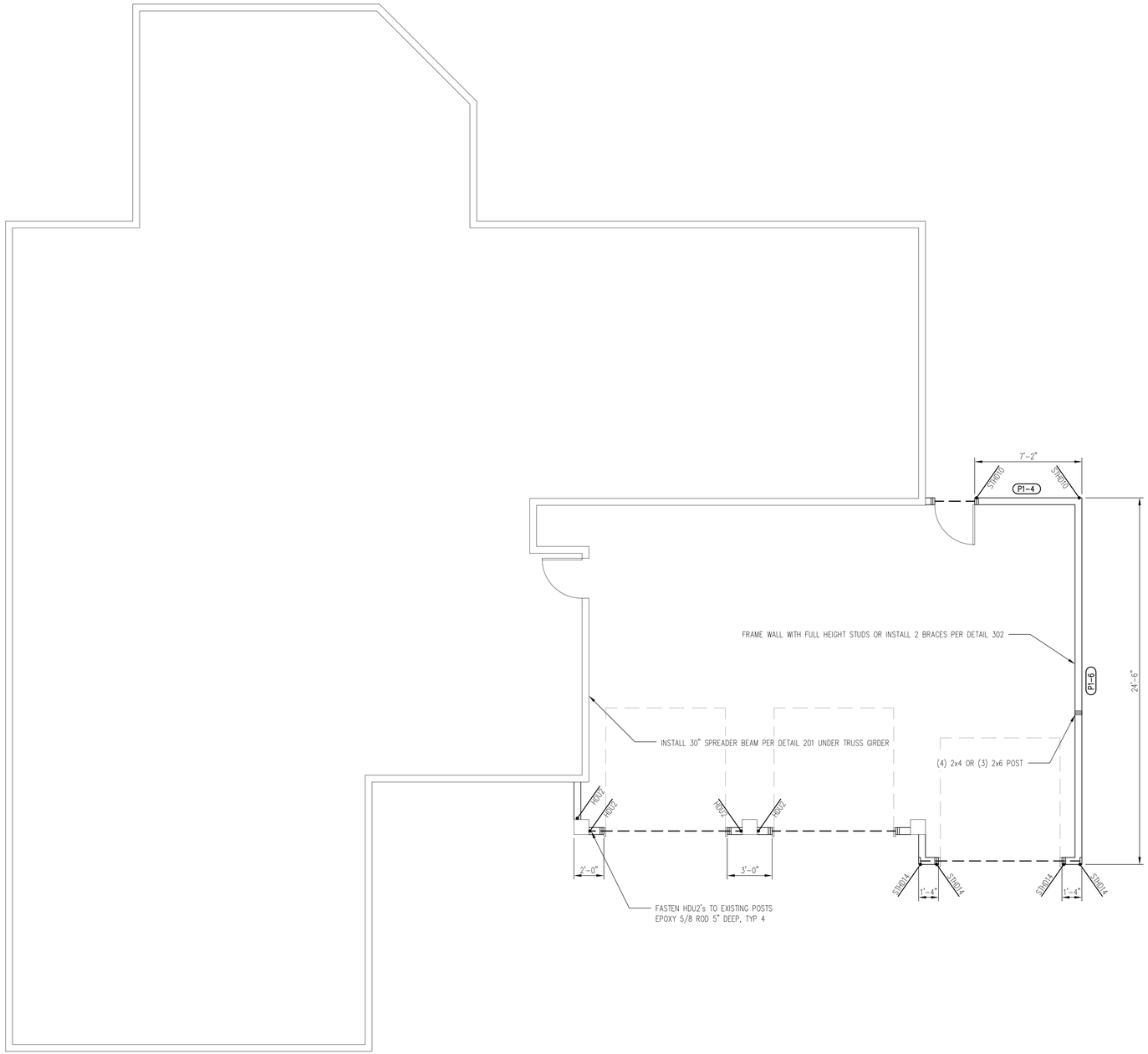
FIELDS REMODEL

SITE ADDRESS
7520 North Mercer Way, Mercer Island WA 98040

SHEET TITLE
FOUNDATION

DRAWN BY:	DJC
DATE:	05-22-2023
SCALE:	1/4" = 1'-0"
PROJECT NO.:	23-147

SHEET NUMBER
S1.1



WALL FRAMING

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

REVISIONS

REV. #	DATE	DESCRIPTION

Puget Sound Structural Engineering
PO Box 5096, Tacoma WA
(253) 238-2554

DANIEL J. CEDERLUND — STATE OF WASHINGTON — 46348 — REGISTERED PROFESSIONAL ENGINEER

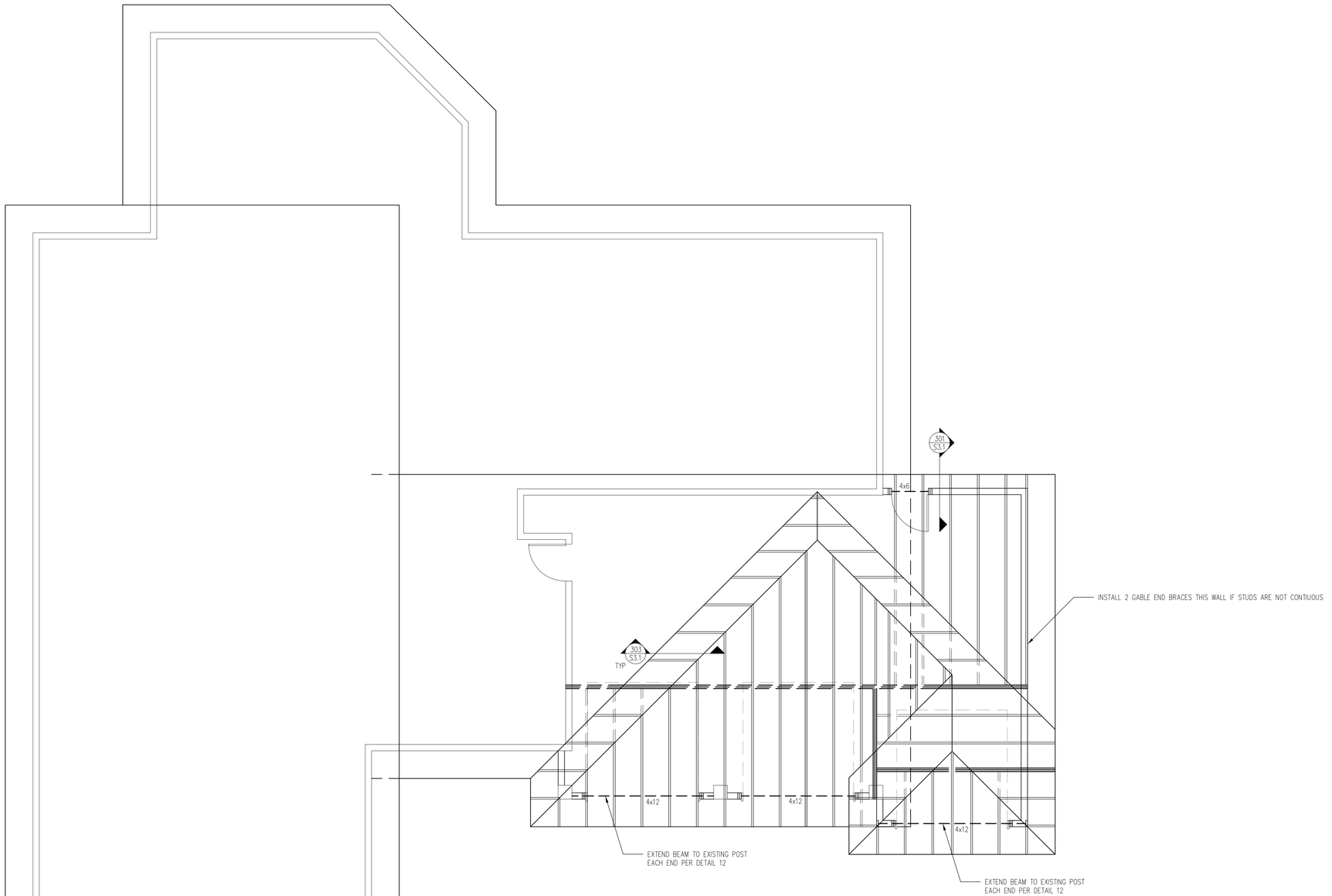
PROJECT TITLE
FIELDS REMODEL

SITE ADDRESS
7520 North Mercer Way, Mercer Island WA 98040

SHEET TITLE
WALL FRAMING

DRAWN BY:	DJC
DATE:	05-22-2023
SCALE:	1/4" = 1'-0"
PROJECT NO.:	23-147

SHEET NUMBER
S1.2



ROOF FRAMING

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

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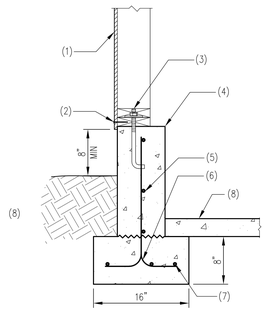
S1.3
SHEET 5 OF 6

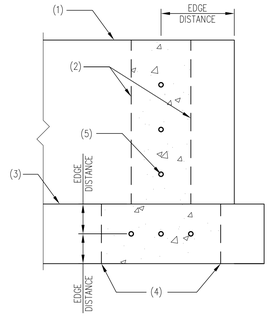


NOTES:

1. WOOD STUD WALL PER ARCHITECTURAL SHEATHING AND NAILING PER SHEARWALL SCHEDULE
2. EDGE NAILING
3. ⅝x10" ANCHOR BOLTS SPACED PER SW SCHEDULE, EMBED PER EMBEDMENT SCHEDULE
4. 8" THICK CONCRETE WALL
5. #4 AT 12" OC, 3 MINIMUM
6. #4 DOWELS AT 12" ALTERNATE BENDS
7. #4 AT 12" OC, 2 MINIMUM
8. CONCRETE SLAB PER ARCHITECTURAL

101 TYPICAL FOUNDATION AT SLAB

SCALE: NTS



NOTES:

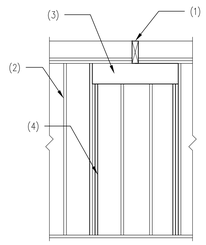
1. EXISTING CONCRETE WALL
2. NEW CONCRETE WALL
3. EXISTING CONCRETE FOOTING
4. NEW CONCRETE FOOTING
5. 16" #4 DOWELS EMBEDED 4" INTO EXISTING CONCRETE

INSTALL #4 DOWELS AT 12" OC, MINIMUM OF 2 IN FOOTING AND STEMWALL EACH.

AT CONTRACTORS OPTION DOWELS MAY BE EPOXIED INTO 5/8"ø HOLES OR DRIVEN INTO 1/2"ø ROTOHAMMERED HOLES. DRIVEN DOWELS ARE NOT RECOMMENDED IF EDGE DISTANCE IS LESS THEN 6" TO AVOID SPLITTING EXISTING CONCRETE.

102 CONCRETE SHEAR DOWELS

SCALE: NTS

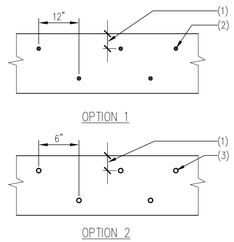


NOTES:

1. BEAM PER PLAN
2. EXISTING STUDS
3. SPREADER BEAM, 4 FT 4x12 UNO, CENTER SPREADER BEAM UNDER BEAM ABOVE ±2"
4. DBL TRIMMER STUD EA SIDE UNO

201 SPREADER BEAM

SCALE: NTS



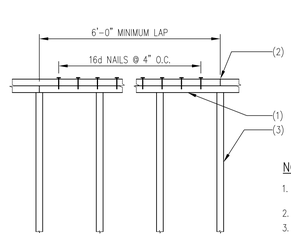
NOTES:

1. 1/6 DEPTH OF MEMBER, TYPICAL
2. OPTION 1: 3" SDWS SCREWS
3. OPTION 2: 16d NAIL

NOTE: ATTACHMENT (SCREWS OR NAILS) CONTINUOUS FOR LENGTH OF MEMBER.

202 TYPICAL BUILT UP WOOD HEADER

SCALE: NTS

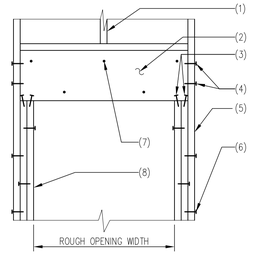


NOTES:

1. TOP PLATE SPLICE OVER STUD ONLY
2. DOUBLE TOP PLATE
3. WOOD STUDS

203 TYPICAL TOP PLATE SPLICE

SCALE: NTS

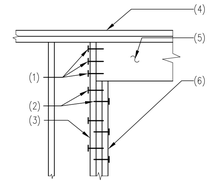


NOTES:

1. WOOD STUD WALL ABOVE
2. WOOD HEADER PER PLAN
3. 16d TOENAILS EACH SIDE, EACH END, EACH TRIMMER
4. 2 ROWS OF 16d NAILS FROM KING STUD TO HEADER AT 4" OC
5. KING STUD CONTINUOUS PLATE-TO-PLATE
6. (2) 16d NAILS @ 12" O.C.
7. 16d NAILS AT 12" O.C. STAGGERED BOTH SIDES FOR BUILT-UP HEADERS
8. TRIMMER STUDS PER PLAN, ELSE USE 2 AT HEADERS WITH ROUGH OPENINGS OVER 5'-0"

204 TYPICAL WOOD HEADER

SCALE: NTS

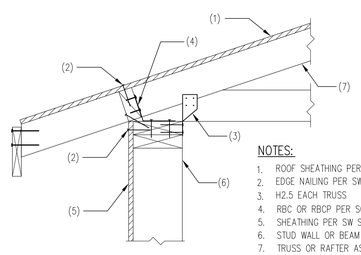


NOTES:

1. 2 ROWS OF 16d NAILS AT 4" OC INTO HEADER
2. 2 ROWS OF 16d NAILS STAGGERED AT 12" OC EACH SIDE IF POST IS MORE THAN 3 STUDS ADD ROWS FOR EACH ADDITIONAL STUD
3. FULL HEIGHT KING STUD
4. CONTINUOUS DOUBLE TOP PLATE
5. WOOD HEADER PER PLAN
6. CRIPPLE STUDS

205 TYPICAL BUILT UP POST PARALLEL TO WALL

SCALE: NTS



NOTES:

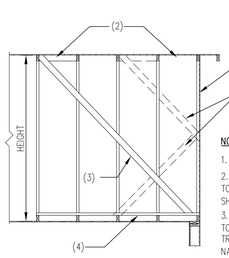
1. ROOF SHEATHING PER PLAN
2. EDGE NAILING PER SW SCHEDULE
3. H2.5 EACH TRUSS
4. RBC OR RBCP PER SCHEDULE
5. SHEATHING PER SW SCHEDULE
6. STUD WALL OR BEAM AS APPLIES
7. TRUSS OR RAFTER AS APPLIES

NOTES:
1. AT EXTERIOR BEAMS VENTED BLOCKS MAY BE OMITTED UNLESS BOT OF TRUSSES ARE SHEATHED.
2. A34 CLIP EACH SIDE MAY BE USED INSTEAD OF H2.5 TO HIDE THE HARDWARE.

RBC SCHEDULE	
TRUSS SPAN	RBC SPACING
UP TO 8'	–
8' TO 16'	6" OC
16' TO 30'	4" OC
OVER 30'	2" OC

301 TYPICAL TRUSS CONNECTION

SCALE: NTS

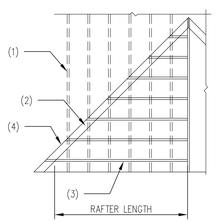


NOTES:

1. GABLE END TRUSS
2. 2x4 BLOCKS AT BRACE ENDS, NAIL BLOCK TO TRUSS WITH (2) 10d EACH END, NAIL TO SHEATHING WITH 8d AT 3" OC
3. 2x4 BRACE AT APPROXIMATELY 45°, NAIL TO TRUSS VERTICAL WITH (2) 16d EACH TRUSS, ADD 2x4 VERTICALS IF NESSECARY NAIL TO TRUSS CORDS WITH (3) 16d NAILS TOP AND BOTTOM
4. 2x4 LATERAL, NAIL TO EACH TRUSS WITH (2) 16d NAILS, NAIL BRACES TO LATERAL WITH (3) 16d
5. ADDITIONAL BRACING AND BLOCKS IF HEIGHT IS GREATER THAN 8 FEET

302 GABLE END BRACING

SCALE: NTS



NOTES:

1. EXISTING ROOF RAFTERS
2. 2x6 UNO, LAY FLAT IN VALLEY, FASTEN TO EXISTING RAFTERS WITH (3) 16d NAILS
3. OVER FRAME RAFTERS, USE 2x6 UP TO 8 FEET LONG, 2x8 UP TO 11 FEET LONG
4. ROOF PLYWOOD EDGE NAILING AT 4" OC UNO

NOTES:
1. REMOVE ROOFING UNDER OVERFRAME, LEAVE SHEATHING.

303 TYPICAL ROOF OVER FRAME

SCALE: NTS

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SHEET NUMBER
S3.1
SHEET 6 OF 6