

6521 80th Avenue S.E. Revised 6-9-22 Mercer Island, Wa 98040 Lot Coverage - 40% Maximum Lot Coverage - 40% Maximum Building Footprint Including Eaves Main Driveway - Driveable Surface -518.90 745.00 Secondary Parking - Driveable Surface 237.00 4580.49 4333.99 **Total Lot Coverage** Total Added Lot Coverage Remaining (5.91 Sq. Ft.) 246.50 5.91 252.41 Hardscape - 9% Maximum Hardscape - 9% Maximum 1031.94 **West Patio** North Concrete Pad - Non-Driveable Surface Front Entry Walk/Steps 87.00 105.55 90.28 90.28 Site Walls & Rockeries Brick walks / Planters 5.06 10.50 678.74 Total Hardscape Proposed 464.89 Total Added 213.85 353.20 567.05 Lot Hardscape Remaining (353.20 Sq. Ft.) GFA 4586.40 Lower Floor Including Garage - North Part of House Upper Floor - North Part of House South Single Story Area -31.80 -31.80 Basement Exclusion Total Added 4542.20 3948.20 Total GFA Remaining (44.20 Sq. ft.) 594.00 44.20 **Impervious Surfaces**

Site/Property Info

R.L. & D.L. MAK

5452800660

Residential

Site Plan & Statistics

Topographic Survey

Demo Plan

First Floor Plan

Roof Framing Plan

Exterior Elevations

Construction Details

Roof Framing Plan

Details

Mak Residence

General Structural Notes

Sheet Index

Lot #132, Mercer Ridge Add

Exterior Elevations + Cross Section

General Structural Notes & Details

A SEPARATE PERMIT IS REQUIRED

Foundation & Crawlspace Framing Plan 1/4"=1'-0"

6521 80TH Avenue N.E., Mercer Island, Wa 98040

6521 80TH Avenue N.E., Mercer Island, Wa 98040

1"=20'-0"

1"=20'-0"

1/4"=1'-0"

1/4"-1'-0"

1/4"=1'-0"

1/4"=1'-0"

1/4"=1'-0"

1/4"=1'-0"

VARIES

1/4"=1'-0"

1/4"=1'-0"

1/4"=1'-0"

1/4"=1'-0"

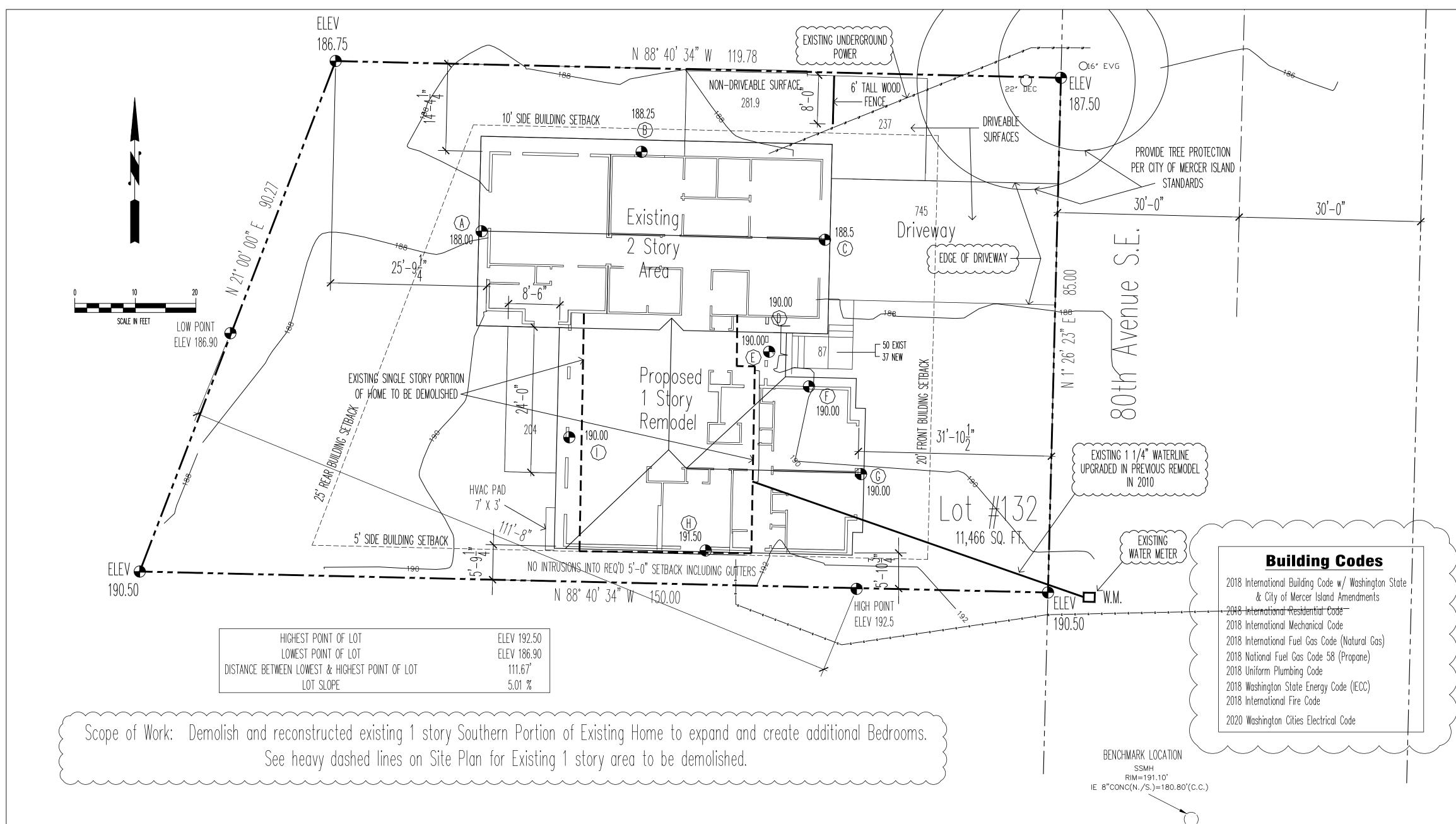
Building Footprint Including Eaves -518.90 745.00 1263.90 Main Driveway - Driveable Surface Secondary Parking - Driveable Surface 237.00 237.00 0.00 North Concrete Pad - Non-Driveable Surface 281.90 0.00 87.00 105.55 Front Entry Walk/Steps Site Walls & Rockeries 5.06 Brick walks / Planters 10.50 Mech Pad Total Added 460.35 **Total Impervious Surfaces** 5259.23 4798.88 Hard Surface Area - New and Replaced (2000 SQ. FT. Max) **Building Footprint Including Eaves** 1745.00

Front Entry Walk/Steps Mech Pad

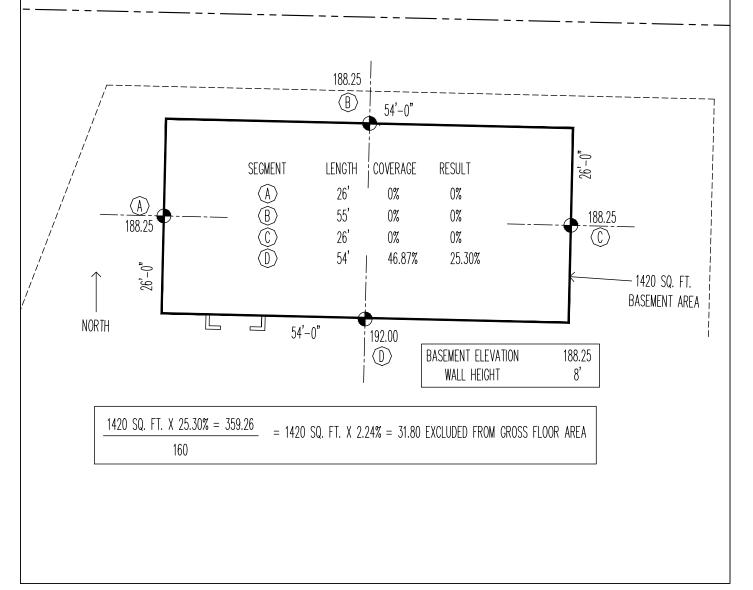
204.00 37.00 10.50 Total new and replaced hard surfaces 1996.50

Site Calculations

Scale: None



Site Plan



Basement	Floor	Area	Calculation
	Scale	e: None	

	Elevation	Wall Length	Total
Α	188.00	26.33	4950.04
В	188.25	54.00	10165.50
С	188.50	26.33	4963.21
D	190.00	8.33	1582.70
Е	190.00	11.25	2137.50
F	190.00	14.00	2660.00
G	190.00	28.00	5320.00
Н	191.50	47.00	9000.50
i	190.00	38.00	7220.00
	Perimeter	253.24	47999.45
Average Bu	ilding Elevation(ABE)		189.54
	—	\	100.10
•	inish Elevation (Additi	on)	192.10
First Floor F	`	on) inish Floor to Highest Ridge)	18.89
First Floor F Builiding He	ight (Measured from F	,	18.89
First Floor F	ight (Measured from F	,	

Average Building Elevation (ABE)

Vicinity Map Scale: None

Lake Washington 6521 80th Ave SE, Mercer Isl... 6521 80th Ave SE Mercer Island, WA 98040 SE 64th St SE 65th St SE 66th St Blackford Ln SE 67th St

SE 61st St

SE 68th St SE 68th St

SE 62nd St

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED RECORDING# 20091124000765)

LOT 132, MERCER RIDGE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 61 OF PLATS, PAGE(S) 44 AND 45, IN KING COUNTY, WASHINGTON.

BASIS OF BEARINGS

N 01°26'23" E BETWEEN SURVEY MONUMENTS FOUND ON CENTERLINE OF 80TH AVE. S.E., PER R1.

REFERENCES

R1. MERCER RIDGE, RECORDED IN VOL. 61 OF PLATS, PGS. 44-45, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD88 PER GPS OBSERVATIONS

SURVEYOR'S NOTES

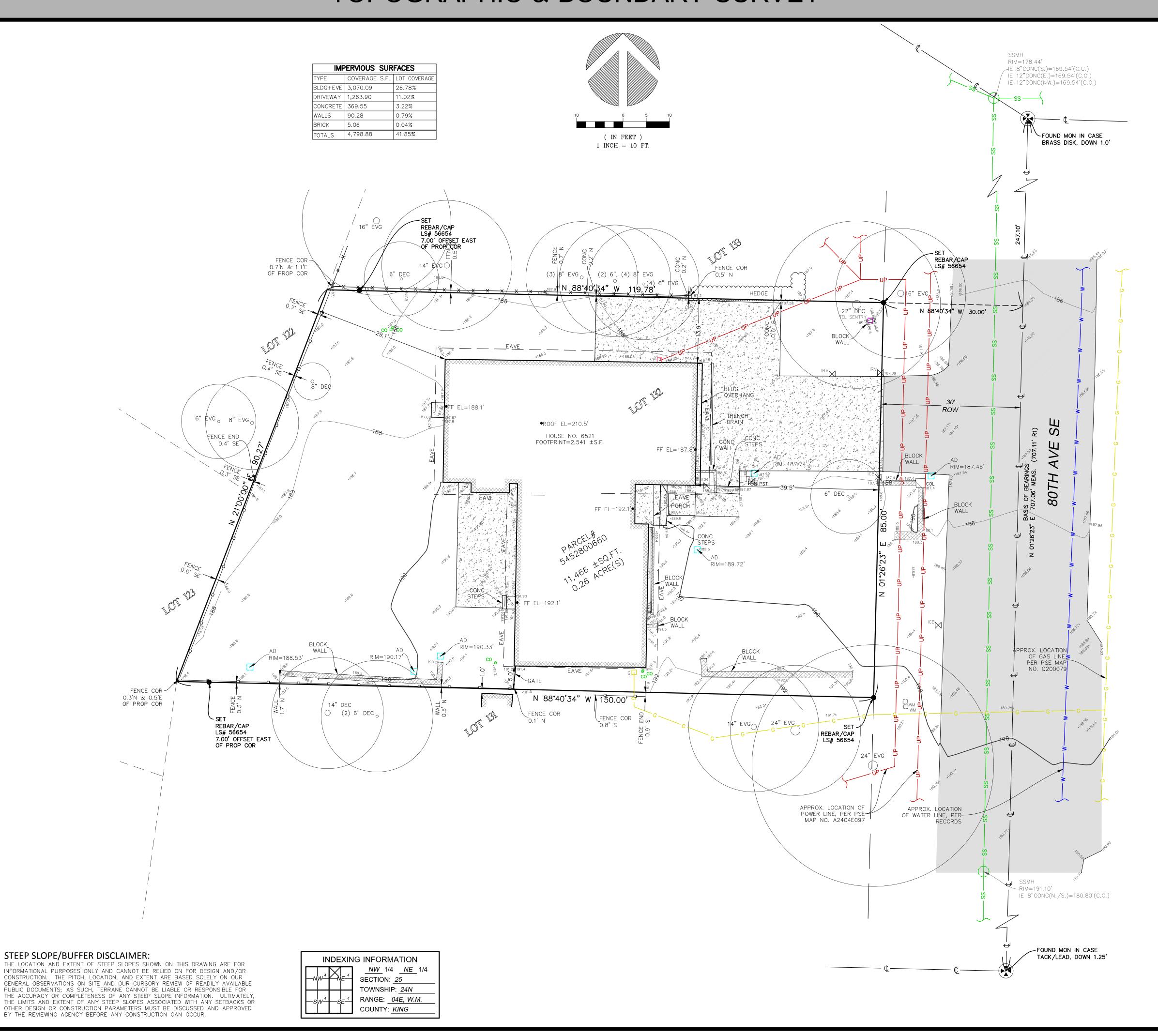
- 1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN APRIL OF 2021. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
- 2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
- 3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
- 4. SUBJECT PROPERTY TAX PARCEL NO. 545280-0660.5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 11,466 ±S.F.
- 6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
- 7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5—SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332—130—090.

LEGEND

:	AREA DRAIN	IRV ⋈	IRRIGATION VALVE
	ASPHALT SURFACE	*	MONUMENT IN CASE (FOUND)
<u> </u>	BUILDING		PAVER SURFACE
— <u>¢</u> —	CENTERLINE ROW	PST□	POST
CO •	CLEANOUT	P□	POWER METER
COL	COLUMN	—— UP ——	POWER (UNDERGROUND)
	CONCRETE SURFACE	•	REBAR & CAP (SET)
	RETAINING WALL	—— SS ——	SEWER LINE
×	FENCE LINE (CHAIN LINK)	\circ	SEWER MANHOLE
	FENCE LINE (WOOD)	TEL SENTRY [TELEPHONE SENTRY
—— G ——	GAS LINE	SIZE TYPE	TREE (AS NOTED)
G 🔲	GAS METER		WATER LINE
	HEDGE FOLIAGE LINE	WM 🗆	WATER METER
ICB ⋈	IRRIGATION CONTROL BLOCK	w∨ ⋈	WATER VALVE



TOPOGRAPHIC & BOUNDARY SURVEY



210324

04/28/21

1" = 10'

IDV / RPM TBR / JGM

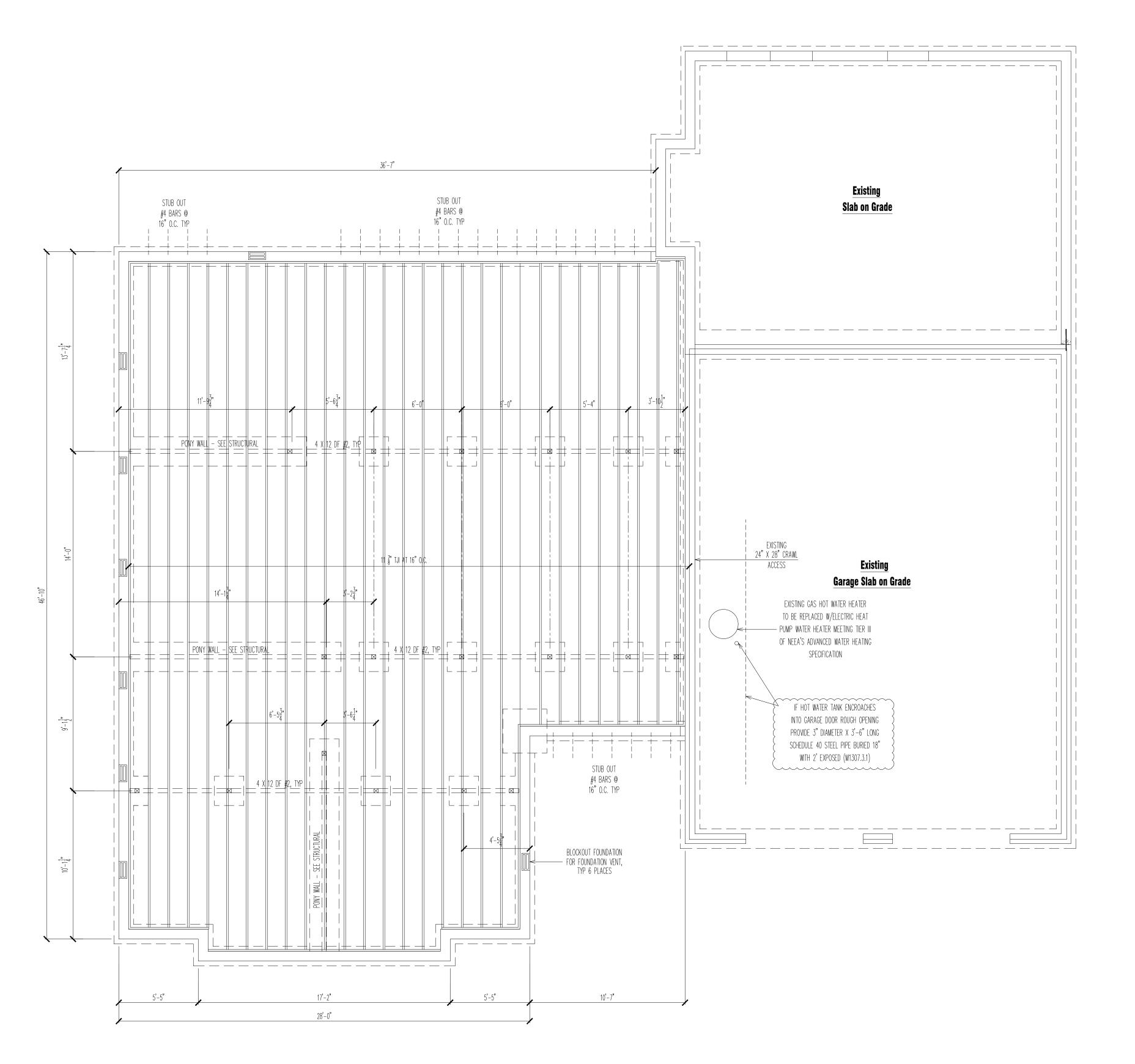
JOB NUMBER:

DRAFTED BY:

CHECKED BY:

REVISION HISTORY

SHEET NUMBER



Foundation & Main Floor Framing Plan

Issued for Permit 9/1/22

North

PROVIDE FIRE BLOCKING TO CUT OFF CONCEALED

BETWEEN STORIES AND BETWEEN TOP STORY AND ROOF PER R302.11

Symbol Legend

■ 4 X 4 POST ABOVE & BELOW FOR POINT LOAD _ _ BEAM OR HEADER BELOW (4 X 12 DF #1 U.N.O.)

PLUMBING WASTE, ADJUST FLOOR JOIST AS REQ'D

(18) 18" X 18" X 8" THICK (2) #4 BARS E.W. (2) 44 BARS E.W. (2) 44 BARS E.W.

(2) #4 BARS E.W. (3) 30" X 30" X 10" THICK (3) #4 BARS E.W. (36) 36" X 36" X 12" THICK (4) #4 BARS E.W. (42) 42" X 42" X 12" THICK (5) #4 BARS E.W.

General Notes

WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED POSTS ARE TO BE ANCHORED AGAINST LATERAL MOVEMENT . PROVIDE 6 MIL. BLACK VAPOR BARRIER IN ENTIRE CRAWLSPAC

EXTEND FOUNDATION WALLS 6" HIGHER THAN ADJACENT GRADE

DIMENSIONS ARE TO FACE OF FND OR CL. OF BEAM U.N.O.). ALL CRAWLSPACE BEAMS ARE TO BE 4 X 12 DF #2 U.N.O. . ANCHOR BOLT SPACING PER SHEAR WALL SCHEDULE 2. PROVIDE SOLID BLOCKING AT ALL POINT LOADS FROM ABOVE 3. PROVIDE SOLID BLOCKING AT ALL SPANS GREATER THAN 10'-(

MIN. CLEARANCE FROM BEAMS TO SOIL IS 12" MIN. CLEARANCE FROM JOISTS TO SOIL IS 18"

FOUNDATION VENT, SEE PLAN FOR LOCATIONS

PIER FOOTING, SIZE AS NOTED:

= SINGLE FLOOR JOIST DOUBLE FLOOR JOIST SIMPSON JOIST HANGER

[HR] HEAT REGISTER

Crawlspace Ventilation

X 14 FOUNDATION VENTS PROVIDE .77 SQ. FT. VENTILATION EACH 7.38 VENTS REQUIRED, 8 PROVIDED CLASS 1 VAPOR BARRIER REQUIRED

FOR ALL SHEAR WALLS, HOLDOWNS, STRAPS, ETC, REFER TO STRUCTURAL DRAWINGS BY DHP ENGINEERS

Issued for Permit 9/1/22

North

PROVIDE FIRE BLOCKING TO CUT OFF CONCEALED DRAFT OPENINGS (HORIZ & VERT) TO FORM A FIRE BARRIER

General Notes

1. ALL EXTERIOR WALLS ARE 2 X 6 AT 16" O.C. U.N.O.
2. ALL INTERIOR WALLS ARE 2 X 4 AT 16" O.C. U.N.O.
3. ALL BEAMS & HEADERS ARE 4 X 8 DF #2 U.N.O.
4. ALL STAIRS TO HAVE UNIFORM RISERS
5. GLASS ENCLOSURE DOORS TO BE LABELED CATEGORY II PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS
PROVIDE W.R. BACKER BOARD AT TUBS/SHWRS TO 72" A.F.F. SMOKE DETECTORS TO BE HARD WIRED WITH BATTERY BACKUP

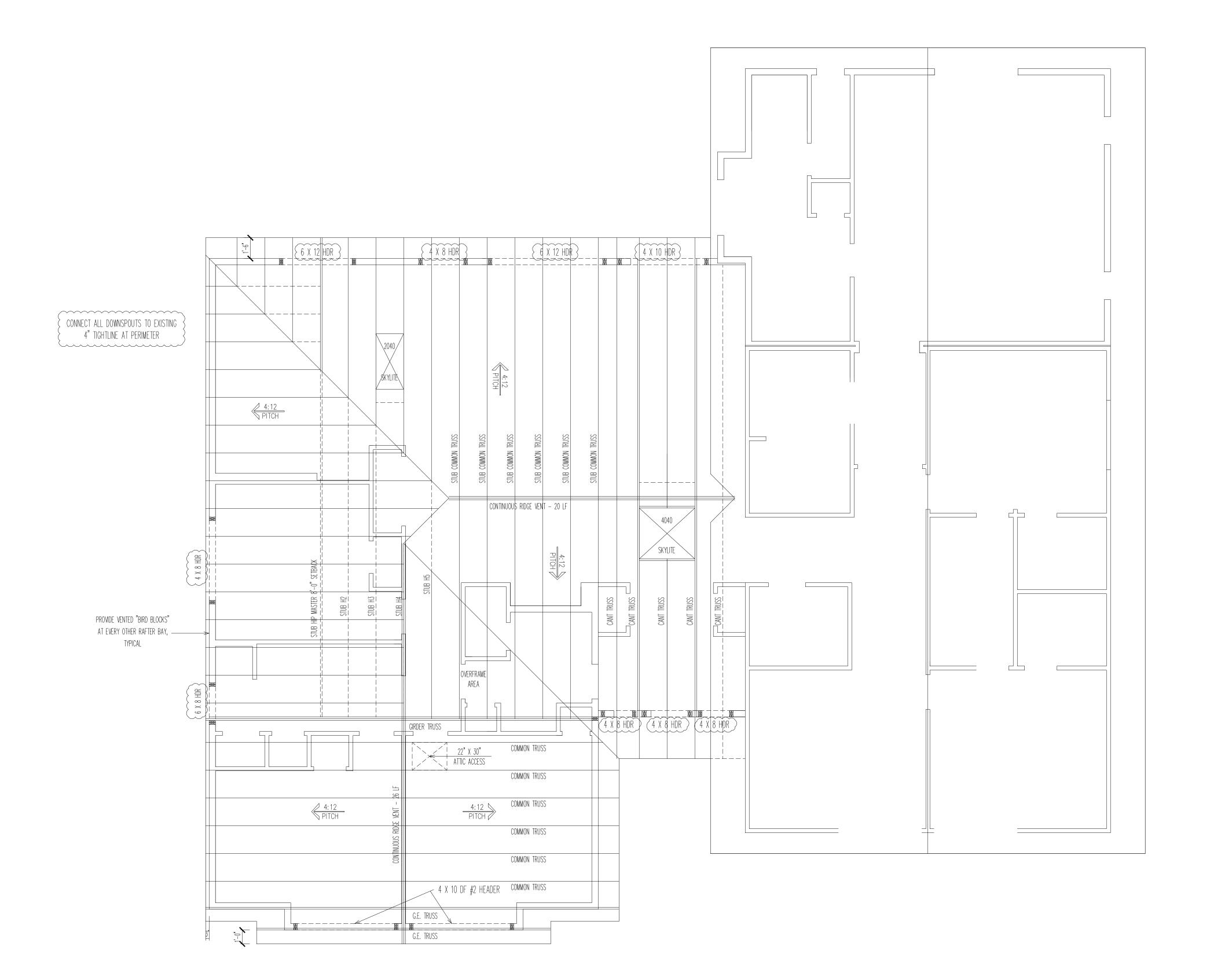
JOHN DE LECTORS TO BE TIAND WINLD WITH BATTERY BAY VERIFY ALL WINDOW SIZES & PATTERNS WITH BUILDER ENERGY SPECIFICATIONS PER 2018 W.S.E.C. VENTILATIONS REQUIREMENTS PER CHAPTER 15, 2018 IRC

Symbol Legend

- FAN, VENT TO OUTSIDE, 100 CFM MINIMUM
- 50 CFM FAN-LIGHT COMBO, VENT TO OUTSIDE
- WHOLE HOUSE FAN, VENT TO OUTSIDE (SEE UPSTAIRS) SMOKE DETECTOR, HARD WIRED WITH BATTERY BACKUP
- CARBON MONOXIDE DETECTOR
- © GAS LOCATION
- ₩ HOSE BIBB

FOR ALL SHEAR WALLS, HOLDOWNS, STRAPS, ETC, REFER TO STRUCTURAL DRAWINGS BY DHP ENGINEERS

FIRST FLOOR PLAN



Roof Framing Plan

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

Issued for Permit 9/1/22

North

4

FOR ALL FRAMING DETAILS, HEADERS, BEAM SIZES

SEE DRAWING S2.2 BY DHP ENGINEERS

PROVIDE FIRE BLOCKING TO CUT OFF CONCEALED DRAFT OPENINGS (HORIZ & VERT) TO FORM A FIRE BARRIER

BETWEEN STORIES AND BETWEEN TOP STORY AND ROOF PER R302.11

Symbol Legend POST BELOW, DBL STUD, OR 4 X 6 TYP. U.N.O. == BEAM OR HEADER BELOW (6 X 10 DF #1 U.N.O.) SINGLE RAFTER OR TRUSS DOUBLE RAFTER OR HEAVY TRUSS MEMBER TRIPLE RAFTER OR HEAVY TRUSS MEMBER SIMPSON JOIST HANGER ROOF OVERFRAMING (2 X 6 AT 24" O.C. U.N.O.) INTERIOR BEARING WALL BELOW R/V ROOF VENT LOCATION (3 LOCATIONS) FAN VENT LOCATION

Roof Ventilation

©===© DOWNSPOUT LOCATION, TO CONFORM TO UBC 1506

ROOF AREA	
1685 SQ. FT. / 300 = <u>5.61</u> NET SQ. FT. REQ'D	
46 LF 2" RIDGE VENTS (.083 SF/LF) 46 LF BIRD BLOCKING (.06 SQ. FT. / LF)	3.81 SQ. FT.
46 LF BIRD BLOCKING (.06 SQ. FT. / LF)	2.76 SQ. FT.
PROVIDE VENTED BIRD BLOCKING AT EVERY OTHER	RAFTER BAY

OTAL VENTILATION PROVIDED

6:12 ROOF PITCH INDICATOR

General Notes

1. ALL RAFTERS ARE 2 X 12 HF #2 U.N.O. 2. ALL BEAMS AND HEADERS ARE 4 X 12 HF #2 U.N.O. 3. ALL ROOF TRUSSES SHALL: HAVE DESIGN DETAILS AND SHOP DRAWINGS STAMPED BY A LISCENSED ENGINEER AND BE ON SITE FOR FRAMING INSPECTION. NO TRUSS SHALL BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF CALCULATIONS ALL ROOF OVERHANGS ARE 1'-6" U.N.O.
ALL OVERFRAMING SHALL BE 2 X 6 AT 24" O.C. U.N.O.

FOR ALL SHEAR WALLS, HOLDOWNS, STRAPS, ETC, REFER TO STRUCTURAL DRAWINGS BY DHP ENGINEERS

ATTIC SPACE TO BE INSULATED TO R-49 MINIMUM PROVIDE INSULATION BAFFLES AT EAVES WHERE REQUIRED

6.57 SQ. FT.

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

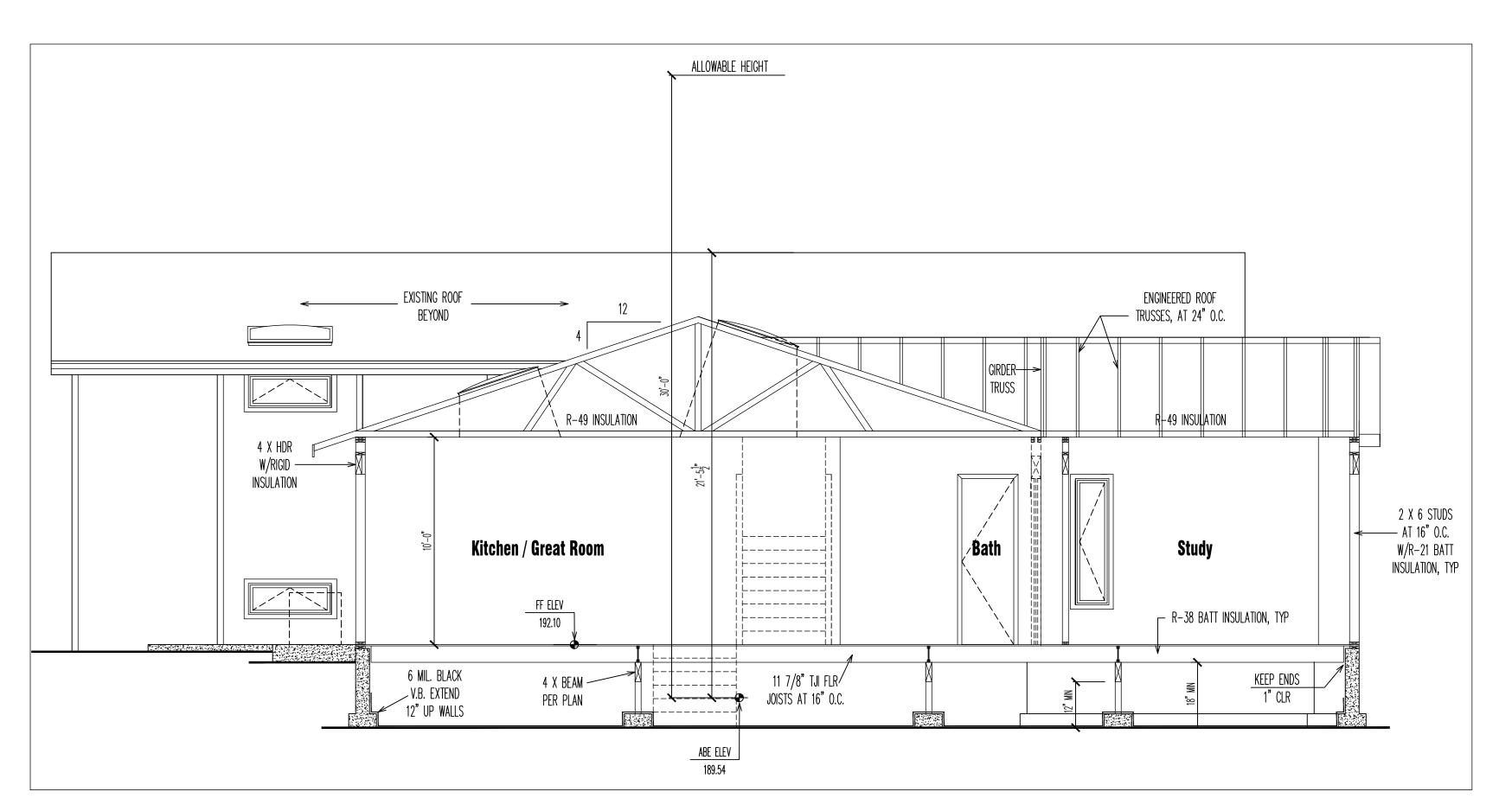
ALLOWABLE HEIGHT HIGHEST POINT OF EXISTING RIDGE COMPOSITION ROOF
TYP AT NEW ADDITION PLATE HT HARDI SIDING, TYP HARDI SIDING, TYP FF ELEV 192.10 F.F. ELEV FF ELEV 192.10 V

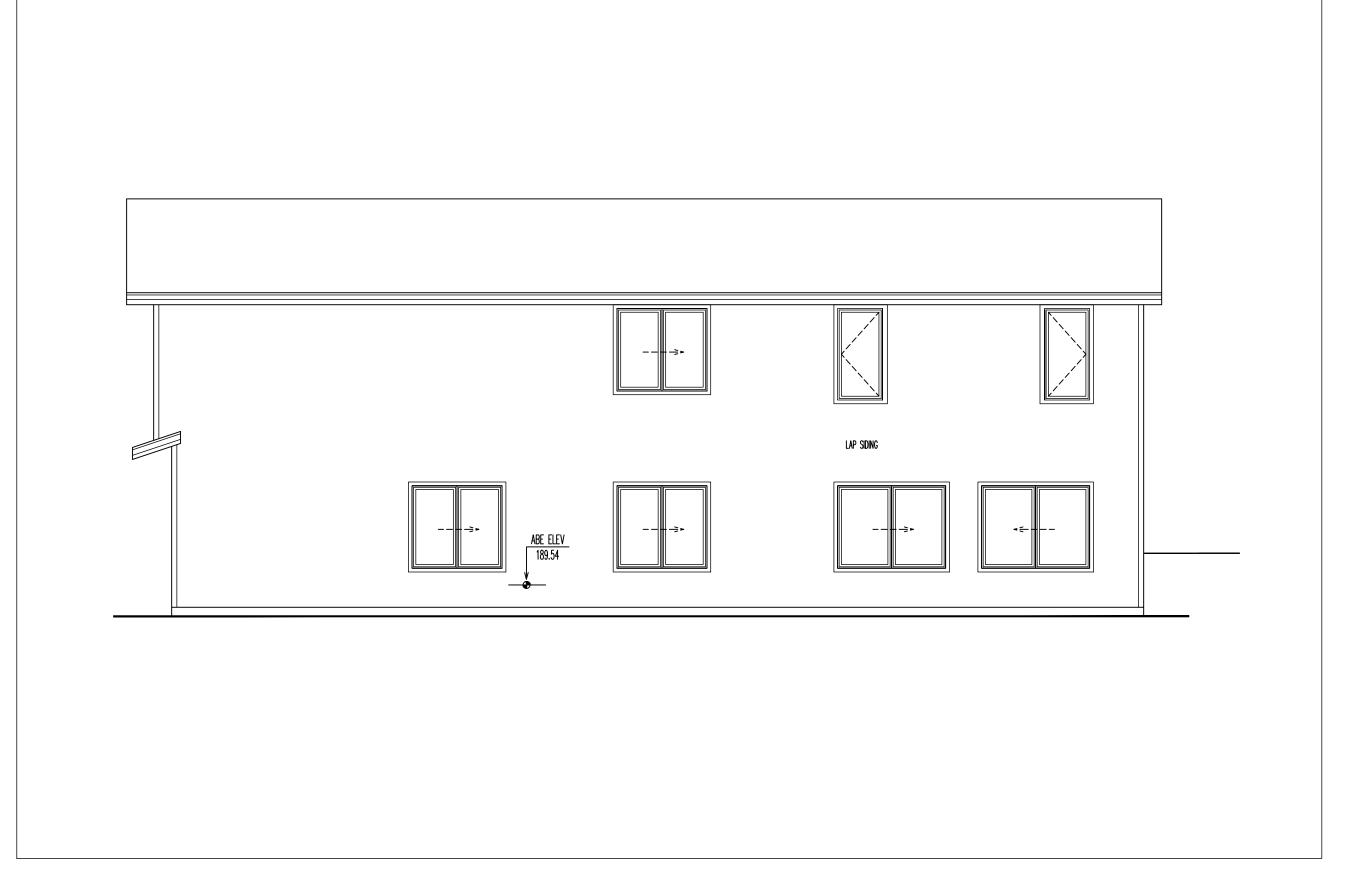
Scale: 1/4" = 1'-0"

Issued for Permit 9-1-22

North







Composite Cross Section A-A

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

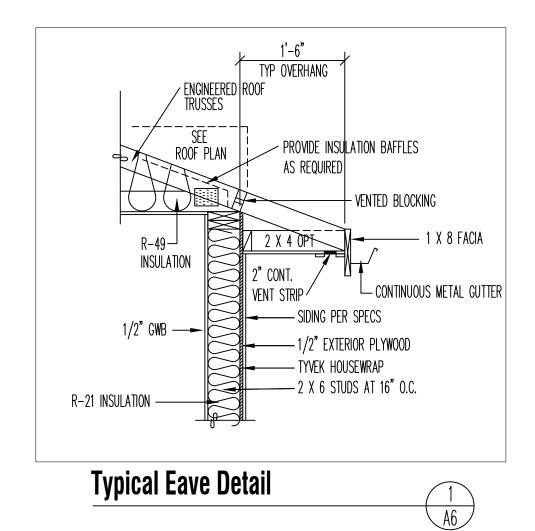
North Elevation SCALE: 3/16" = 1'-0"

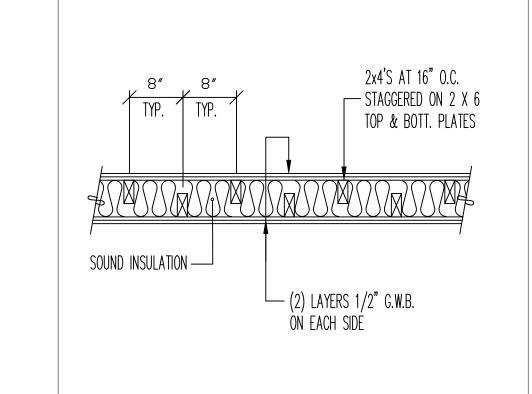
Issued for Permit

North

9-1-22

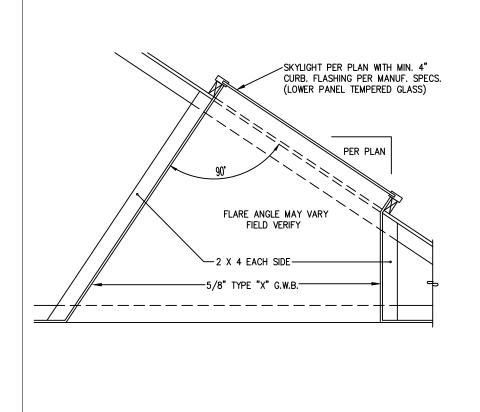






Typical Sound Insulation Wall

WHERE NOTED ON PLANS



Typical Skylight Detail <u>A6</u> WHERE NOTED ON PLANS

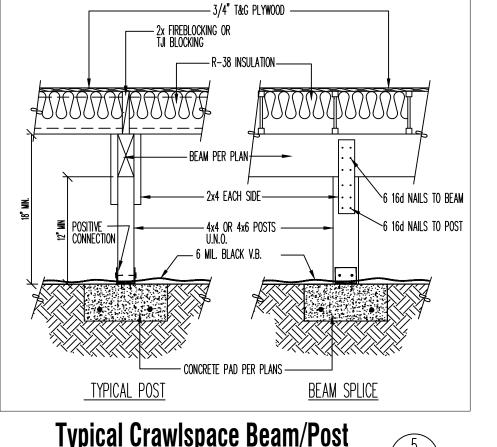
ISSUE DATES 4/8/22

Issued for Permit

9-1-22

ALSO REFER TO "S" DRAWINGS FOR SHEAR WALLS, STRAPS, HOLDOWNS, STRUCTURAL DETAILS

ELEVATIONS ~ 2 X 6 AT 16" O.C. R-21 INSULATION ~ - 2 X 6 STUDS AT 16" O.C. WOOD SHEATHING — R-21 INSULATION PER SPECIFICATIONS — 3/4" T & G PLYWOOD 1/2"ø x 10" A.B. @ 4'-0" O.C. ÁND 12" FROM ENDS, TYPICAL ___ 11 7/8" TJI'S AT 16" O.C. 7772 R-38 Insulation #4 BAR AT 16" O.C. VERT— #4 BAR AT 10" O.C. HORIZ-6 MIL BLACK V.B. FIRM BEARING (2000 PSF ASSUMED) **Typical Exterior Foundation Wall**



Typical Crawlspace Beam/Post A6 WHERE/IF NOTED ON PLANS

2018 Washington State Energy Code – Residential

Prescriptive Energy Code Compliance for All Climate Zones in Washington

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of

maximum tested building air leakage, and show the qualifying ventilation system and its control sequence

Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area.

Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf.

Summary of Table R406.2 and 406.3

Credits - select ONE

heating option

Credits - select ONE

energy option from each

•

•

•

0.0

1.0

-1.0

0.5

0.5

1.0

0.5

1.0

2.0

3.0

0.5

0.5

1.0

1.5

2.0

1.0

1.0

1.5

1.5

1.5

2.0

0.5

1.0

User Notes

credits. To claim this credit, the building permit drawings shall specify the option selected and the

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

of operation.

1. Small Dwelling Unit: 3 credits

3. Large Dwelling Unit: 7 credits

Heat pump[⊂]

5 All other heating systems

1.1 Efficient Building Envelope

1.2 Efficient Building Envelope

1.3 Efficient Building Envelope

1.4 Efficient Building Envelope

1.5 Efficient Building Envelope

1.6 Efficient Building Envelope

1.7 Efficient Building Envelope

3.1^a High Efficiency HVAC

3.2 High Efficiency HVAC

3.3 High Efficiency HVAC

3.4 High Efficiency HVAC

3.5 High Efficiency HVAC

3.6° High Efficiency HVAC

2. Medium Dwelling Unit: 6 credits

All dwelling units that are not included in #1 or #3

Fuel Normalization Descriptions

Energy Credit Option Descriptions

4. Additions less than 500 square feet: 1.5 credits

All other additions shall meet 1-3 above

Combustion heating minimum NAECAb

3 Electric resistance heat only - furnace or zonal

2.1 Air Leakage Control and Efficient Ventilation

2.2 Air Leakage Control and Efficient Ventilation

2.3 Air Leakage Control and Efficient Ventilation

4.1 High Efficiency HVAC Distribution System

4.2 High Efficiency HVAC Distribution System

2.4 Air Leakage Control and Efficient Ventilation

4 DHP with zonal electric resistance per option 3.4

Dwelling units exceeding 5,000 sf of conditioned floor area

Single Family - New & Additions (effective February 1, 2021)

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington Single Family - New & Additions (effective February 1, 2021)

These requirements apply to all IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Project Information Contact Information Scott Bennett, Cypress Point Development, LLC 7530 164th Avenue N.E. #A201, Redmond, Wa 98052 6521 80th Avenue S.E., Mercer Island, Wa 98040 Instructions: This single-family project will use the requirements of the Prescriptive Path below and

incorporate the minimum values listed. Based on the size of the structure, the appropriate number of additional credits are checked as chosen by the permit applicant.

Provide all information from the following tables as building permit drawings: Table R402.1 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and 406.3 - Energy Credits.

Authorized Representative	Scott Bennett Pagelly agned by Sort Bernett INSC U.S. Fractilis Cruresque intervelopm CN-Scott Bennett Dalle 2022 04.14 08.08 25 07 00	Date 03/25/2022
	All Climate Zones (Table R402.1.1)	
	R-Value a	U-Factor ^a
Fenestration U-Factor ^b	n/a	0.30
Skylight U-Factor b	n/a -	0.50
Glazed Fenestration SHGC b,e	n/a	n/a
Ceiling ^e	49	0.026
Wood Frame Wall ^{6-h}	21 int	0.056
Floor	30	0.029
Below Grade Wall c,h	10/15/21 int + TB	0.042
Slab ^{d,f} R-Value & Depth	10, 2 ft	n/a

- R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity that is less a than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table.
- b The fenestration *U*-factor column excludes skylights. "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
- d R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1. For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
- R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
- For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
- Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard h framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

Prescriptive Path - Single Family 2018 Washington State Energy Code-R Prescriptive Path - Single Family

2018 Washington State Energy Code-R

2018 Washington State Energy Code - Residential Prescriptive Energy Code Compliance for All Climate Zones in Washington Single Family - New & Additions (effective February 1, 2021)

	Summary of Ta	ble R406.2 (cont.)				
Energy Options	Energy Credit Option Descriptions (cont.) Credits - select ON energy option from		Energy Credit Ontion Descriptions (cont.)		option from		Notes
5.1 ^d	Efficient Water Heating	0.5					
5.2	Efficient Water Heating	0,5					
5.3	Efficient Water Heating	1.0					
5.4	Efficient Water Heating	1.5					
5.5	Efficient Water Heating	2.0					
5.6	Efficient Water Heating	2.5					
6.1 ^e	Renewable Electric Energy (3 credits max)	1.0					
7.1	Appliance Package	0.5					
	Total Cred	lits	6.0	Calculate Total	Clear Form		

- a. An alternative heating source sized at a maximum of 0.5 W/sf (equivalent) of heated floor area or 500 W,
- whichever is bigger, may be installed in the dwelling unit.
- b. Equipment listed in Table C403.3.2(4) or C403.3.2(5) c. Equipment listed in Table C403.3.2(1) or C403.3.2(2)

Prescriptive Path - Single Family

- d. You cannot select more than one option from any category EXCEPT in category 5. Option 5.1 may be combined with options 5.2 through 5.6. See Table 406.3.
- e. 1.0 credit for each 1,200 kWh of electrical generation provided annually, up to 3 credits max
- See the complete Table R406.2 for all requirements and option descriptions. f. Use the single radiobutton in the upper right of the second column to deselect radiobuttons in that group.

Please print only pages 1 through 3 of this worksheet for submission to your building

r Building Officials Onl	y		
~			

2018 Washington State Energy Code-R

STRUCTURAL NOTES

1.0 GENERAL

THESE STRUCTURAL NOTES SUPPLEMENT THE SPECIFICATIONS, ANY DISCREPANCY FOUND AMONG THE DRAWINGS, SPECIFICATIONS, THESE NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY TH CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION.

ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF MERCER ISLAND AND: THE 2018 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED AND ADOPTED BY MERCER ISLAND AND THE STATE OF WASHINGTON; A.C.I. 318-14; A.I.S.C. 360-16; AWS D1.4-17; NDS 2018 WITH 2018 NDS SUPPLEMENT, AND 2015 SPECIAL DESIGN PROVISIONS FOR WIND &

25 PSF

40 PSF

1.2 DESIGN CRITERIA

- A. VERTICAL LOADS
- LIVE LOADS

ROOF (SNOW)

FLOORS (RESIDENTIAL)

2. DEAD LOADS

ROOF 15 PSF FLOORS (RESIDENTIAL) 12 PSF

B. LATERAL LOADS:

ALLOW 33-1/3% INCREASE IN STRESSES FOR WIND AND SEISMIC FORCES. LATERAL FORCES ARE TRANSMITTED BY DIAPHRAGM ACTION OF THE FLOORS TO SHEAR WALLS. LOADS ARE THEN TRANSFERRED TO THE FOOTINGS, WHERE ULTIMATE DISPLACEMENT IS RESISTED BY PASSIVE PRESSURE OF EARTH AND SLIDING FRICTION OF EARTH. OVERTURNING IS RESISTED BY THE DEAD LOAD OF THE STRUCTURE.

1. WIND: EXPOSURE C

BASIC WIND SPEED = 98 M.P.H. (3 SECOND GUST). RISK CATEGORY = II INTERNAL PRESSURE COEFFICIENT, GCpi = 0.18

2. SEISMIC:

IMPORTANCE FACTOR, IE = 1.0 RISK CATEGORY II MAPPED SPECTRAL RESPONSE COEFFICIENTS, Ss = 1.472 AND S1 = 0.5664 SOIL SITE CLASS = DSPECTRAL RESPONSE COEFFICIENTS, SDs = 1.178 AND SD1 = 0.667

SEISMIC DESIGN CATEGORY = DSEISMIC RESPONSE COEFFICIENT, ULTIMATE Cs = 0.1812 RESPONSE MODIFICATION FACTOR R = 6.5

SEISMIC FORCE RESISTING SYSTEM = LIGHT FRAMED LOAD BEARING WALLS EQUIVALENT LATERAL FORCE PROCEDURE

2.0 SITE WORK

2.1 SOIL DATA SOIL BEARING @ CONT. SPREAD FOOTINGS = 1500 PSF. WHERE GEOTECHNICAL REPORT HAS NOT BEEN PROVIDED, THE ABOVE VALUES ARE ASSUMED. BOTTOM EXT FOOTING SHALL BE 12" BELOW GRADE PER JURISDICTION.

2.2 EXCAVATION

EXCAVATE FOR FOOTINGS DOWN TO DEPTH SHOWN ON DRAWINGS OR TO FIRM UNDISTURBED MATERIAL. AREAS OVER-EXCAVATED SHALL BE BACKFILLED WITH LEAN CONCRETE (f'c = 2000 PSI), OR BE STRUCTURALLY FILLED PER SECTION 2.3. OR BE INSPECTED BY SOILS ENGINEER PRIOR | 4.0 | WOOD FRAMING TO PLACEMENT OF REINFORCING STEEL

2.3 BACKFILL AND COMPACTION

BACKFILL SHALL NOT BE PLACED UNTIL AFTER THE REMOVAL OF ALL FORMS, SCREEDS OTHER WOOD DEBRIS AND MATERIAL SUBJECT TO ROT OR CORROSION. USE ONLY MATERIALS APPROVED FOR BACKFILL. IN AREAS UNDER SLABS OR FOOTINGS, MATERIAL SHOULD BE GRANULAR IN NATURE, PLACED IN 6-INCH LIFTS AND COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO COMPACTION TEST, PROCEDURE T-180. THE FILL SHOULD BE LIMITED TO CLEAN, GRANULAR MATERIAL.

3.0 CONCRETE

3.1 GENERAL

NORMAL WEIGHT CONCRETE MEETING THE REQUIREMENTS OF ACI 301 ESTABLISH PROPORTIONS OF CEMENT, COARSE AND FINE AGGREGATES, WATER, AND ADMIXTURES TO PRODUCE THE PROPERTIES SPECIFIED FOR EACH CONCRETE MIX TYPE PER ACI-301 ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL BATCHES. USE ADMIXTURES IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. USE AMOUNTS OF WATER-REDUCING ADMIXTURE THAT WILL PERMIT PLACING WITHOUT SEGREGATION, HONEYCOMBING OR ROCK POCKETS. THE SLUMPS SPECIFIED ARE THE SLUMPS REQUIRED AT THE POINT OF PLACEMENT INTO THE STRUCTURE. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR CONTROL JOINTS. PROTECT ALL FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES AFTER POURING. SURFACES WHERE EXPOSED SHOULD BE SMOOTH AND FREE FROM IRREGULARITIES.

3.2 STRENGTH

DESIGN MIXES TO PROVIDE NORMAL WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:

APPLICATION	STRENGTH f'c (PSI)	MAXIMUM WATER/CEMENT RATIO	PERCENT AIR ENTRAINMENT
FOOTINGS	3000	0.50	0.0%
FOUNDATION WALLS	3000	0.50	5.0% (SEE NOTE 4)
INTERIOR SLABS ON GRADE	3000	0.50	0.0%
OTHER SLABS ON GRADE, SEE NOTE 4	3000	0.50	5.0%

SUBNOTES:

- 1. ANY OF THE ABOVE MIXES CAN BE USED FLOWABLE (8" TO 11" SLUMP) IF THE PROPER ADDITION OF ADMIXTURES IS INCLUDED AND THE W/C RATIO IS NOT INCREASED. 2. SLABS ON GRADE MAY CONTAIN WELDED-WIRE OR POLYPROPYLENE FIBERS. EITHER ONE OF THESE MAY BE USED TO ASSIST IN THE MITIGATION OF VARIABLE SHRINKAGE AND
- 3. THE PROPORTIONS APPROVED SHALL BE CAREFULLY MAINTAINED. NO DEVIATION FROM THESE PROPORTIONS, ESPECIALLY THE ADDITION OF WATER, SHALL BE MADE WITHOUT APPROVAL OF THE ENGINEER.
- 4. PER SECTION IBC 1904, VERTICAL CONCRETE EXPOSED TO WEATHER AND SLABS ON GRADE SHALL HAVE A MIN I'C = 3000 PSI AND HAVE 5% AIR ENTRAINMENT. FOR BUILDINGS THREE STORIES OR LESS, PER SECTION 1705.3 EXCEPTION 1, 2.1, 3, AND 5 NO SPECIAL INSPECTION IS REQUIRED.

3.3 MATERIAL - CEMENT, WATER & AGGREGATES PER ACI 301

- A. CEMENT MUST CONFORM TO ASTM C150/C150M-15, TYPE I OR TYPE II. ENGINEER'S APPROVAL IS REQUIRED FOR USE OF TYPE III CEMENT.
- B. WATER TO BE CLEAN AND POTABLE.

RECOMMENDATIONS.

C. COARSE AND FINE AGGREGATES TO CONFORM TO ASTM C33/C33M-13.

3.4 MATERIALS

A. WATER REDUCING ADMIXTURES: CONCRETE USING POZZOLITH ADMIXTURES TO PRODUCE FLOWABLE CONCRETE MAY BE USED WITH THE ENGINEER'S APPROVAL AND MUST CONFORM TO ASTM C494/C494M-13, POZZOLITH POLYHEED, POZZOLITH 100XR, OR POZZUTECH 20. POZZOLITH SHALL BE INCORPORATED INTO ALL CONCRETE IN EXACT ACCORDANCE WITH THI MANUFACTURER'S INSTRUCTIONS. ADMIXTURES AND DOSAGES WILL VARY DEPENDING ON CLIMATIC CONDITIONS AND THE CONTRACTOR'S JOBSITE REQUIREMENTS. MAXIMUM SLUMP FOR SUCH CONCRETE SHALL NOT EXCEED 8" WITH A MINIMUM OF 10 OUNCES OF POLYHEED PER 100 OUNCES OF CEMENT. USE IN ACCORDANCE WITH MANUFACTURER'S

3.4 MATERIALS (CONT.)

- B. AIR ENTRAINMENT: CONFORM TO ASTM C260/C260M-10a AND ASTM C494/C494M-13, MBVR OR MICRO-AIR BY MASTER BUILDER. NO AIR ENTRAINMENT IN COLUMNS WITHOUT PRIOR WRITTEN PERMISSION BY ENGINEER OF RECORD. ENTRAIN 5% +/-1% AIR BY VOLUME IN ALL EXPOSED CONCRETE.
- C. OTHER ADMIXTURE: NO OTHER ADMIXTURES PERMITTED UNLESS PRIOR APPROVAL IS GIVEN BY THE ENGINEER. NO ADMIXTURES CONTAINING CHLORIDES ARE PERMITTED.

5 REINFORCING STEEL

DETAIL, FABRICATE AND PLACE PER ACI 315 AND ACI 318-14. SUPPORT REINFORCEMENT WITH APPROVED CHAIRS, SPACERS, OR TIES.

- A. STEEL REINFORCEMENT SHALL BE NEW, DEFORMED BILLET STEEL, MEETING ASTM STANDARD A615/A615M-15ge1, A706/A706M-15 AT BOUNDARY ELEMENTS: GRADE 60 FOR #3 AND LARGER BARS UNLESS NOTED OTHERWISE ON THE PLANS. CARE SHALL BE TAKEN IF BENDING GRADE 60 REBARS IN FIELD AFTER CONCRETE PLACEMENT. ALL BEND SHALL BE
- B. REINFORCEMENT IN ALL WALLS, SLABS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS OR CORNER BARS PROVIDED, BOTH VERTICAL AND HORIZONTAL.
- C. LAPS: ALL TENSION SPLICES ARE ACCORDING TO ACI 318-14, CLASS B AND ALL COMPRESSION SPLICES ARE 30 DIAMETERS FOR I'C GREATER THAN 3000 PSI AND ARE 40 DIAMETERS FOR I'C WHICH IS LESS THAN 3000 PSI, UNLESS NOTED OTHERWISE.
- D. TRIM REINFORCING: AROUND ALL OPENINGS SHALL BE A MINIMUM 1-#4 TOP AND BOTTOM, 4.3 PRE-ENGINEERED ROOF AND FLOOR TRUSSES EXTENDING 2'-6" BEYOND OPENING AT EACH CORNER. SEE TYPICAL DETAILS.
- E. WELDING: TACK WELDING OF REBAR IS NOT PERMITTED UNLESS CALLED FOR AND APPROVED BY THE ENGINEER.
- F. MINIMUM REINFORCING: WHERE REINFORCEMENT IS NOT SHOWN ON THE DRAWINGS, THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-14) SHALL BE REFERRED TO FOR PROPER REINFORCEMENT.
- G. REBAR COVER: PROVIDE CONCRETE PROTECTION FOR REINFORCEMENT AS FOLLOWS:

CONDITION	COVER
CONCRETE DEPOSITED AGAINST EARTH	3"
CONCRETE DEPOSITED AGAINST FORMS BUT EXPOSED TO EARTH	2"
MAIN REINFORCING IN BEAMS	1-1/2"
TO TIES IN COLUMNS AND TIED REBAR IN WALLS	1-1/2"
FOR BARS IN SLABS ON GROUND	1-1/2"

H. WELDED WIRE FABRIC AND DEFORMED BAR ANCHORS: ASTM A1064/1064M-13

3.6 EPOXY DOWELED REINFORCEMENT

A. ALL REINFORCEMENT WHICH IS TO BE DOWELED INTO EXISTING CONCRETE SHALL BE INSTALLED WITH USING THE DEWALT PURE 110+ ADHESIVE SYSTEM PER ICC REPORT ESR-3298 OR APPROVED EQUAL. ADHESIVE SHALL BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS.

B. EPOXY SHALL BE MIXED, APPLIED, AND CURED IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES. REINFORCEMENT AND CONCRETE SHALL BE CLEAN AND FREE OF IRREGULARITY. EPOXY SHALL NOT BE MIXED OR CURED IN AIR AND / OR CONCRETE TEMPERATURES BELOW MINIMUM PER MANUFACTURER'S SPECIFICATIONS.

C. EPOXY DOWELING OF REINFORCEMENT IN OVERHEAD APPLICATIONS SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.

ROUGH CARPENTRY

ALL 2x FRAMING LUMBER SHALL BE #2 HEM FIR FOR STUDS AND HEM FIR STANDARD OR BETTER FOR PLATES OR AS SHOWN BELOW. ALL 2" LUMBER SHALL BE KILN DRIED (KD) OR SURFACE DRIED (SD). EACH PIECE OF LUMBER SHALL BEAR THE STAMP OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) SHOWING GRADE MARK OR APPROVED EQUAL. OTHER MATERIALS SHALL BE AS SHOWN BELOW:

MEMBER	GRADE/SPECIES	Fb (PSI)	Fv (PSI)	Fcp (PSI)	Fc (PSI)	E (PSI)
2x AND 3x STUDS	#2 HEM FIR	850	150	405	1300	1,300,000
2x JOISTS	#2 HEM FIR	850	150	405	1300	1,300,000
4x HEADERS	#2 HEM FIR	850	150	405	1300	1,300,000
4x COLUMNS	#2 HEM FIR	850	150	405	1300	1,300,000
6x HEADERS	#2 DOUG FIR	875	170	625	600	1,300,000
6x COLUMNS	#2 DOUG FIR	750	170	625	700	1,300,000

ALL EXPOSED STRUCTURAL MATERIALS OR MATERIAL IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED (SEE SECTION 4.9).

2 FLAT AND TAPERED CHORD ENGINEERED WOOD JOISTS

A. FABRICATION:

THE TRUSS MANUFACTURER SHALL VERIFY ALL SETBACKS AND DIMENSIONS PRIOR TO FABRICATION. ALTERATION OF THE TRUSS LAYOUT INDICATED ON THE PLANS MAY REQUIRE SUPPORTING STRUCTURAL AND FOUNDATION CHANGES. THEREFORE PRIOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER IS REQUIRED. WHERE THE VENDOR REQUIRES 2 SPAN CONTINUOUS FRAMING TO HAVE THE TOP CHORD CUT AT THE INTERMEDIATE SUPPORT THE ENGINEER SHALL BE NOTIFIED. MAXIMUM ALLOWABLE TOTAL LOAD DEFLECTION SHALL BE SPAN/240 UNLESS NOTED OTHERWISE.

B. STORAGE AND HANDLING:

THE ENGINEERED WOOD JOIST IF STORED PRIOR TO ERECTION, SHALL BE STORED IN A VERTICAL POSITION AND PROTECTED FROM THE WEATHER. THEY SHALL BE HANDLED WITH CARE SO THEY ARE NOT DAMAGED.

C. ERECTION AND INSTALLATION:

THE ENGINEERED WOOD JOISTS ARE TO BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE PLANS AND WITH THE RECOMMENDATIONS IN THE MANUFACTURER'S MANUAL. TEMPORARY CONSTRUCTION LOADS WHICH CAUSE STRESSES BEYOND DESIGN LIMITS ARE NOT PERMITTED. ERECTION BRACING. IN ADDITION TO THAT SPECIFIED IS TO BE PROVIDED TO KEEP THE ENGINEERED WOOD JOISTS STRAIGHT AND PLUMB AS REQUIRED AND TO ASSURE ADEQUATE LATERAL SUPPORT FOR THE INDIVIDUAL ENGINEERED WOOD JOISTS AND THE ENTIRE SYSTEM. UNTIL THE SHEATHING MATERIAL HAS BEEN APPLIED. SEE THE MANUFACTURERS MANUAL FOR ADDITIONAL NOTES REGARDING ERECTION BRACING FOR OPEN WEB SERIES JOISTS.

REDBUILT CLEAR SPANS BEYOND 70 FEET ARE TO BE ERECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS WHICH ARE THAT: "THE REDBUILT TRUSS SHALL BE ERECTED IN RIGID MODULES AT LEAST 8 FEET IN WIDTH ACCURATELY ASSEMBLED IN A JIG WITH FINAL SHEATHING PERMANENTLY AND TOTALLY ATTACHED WHILE ON THE GROUND. SPECIFIED BRIDGING SHALL BE INSTALLED IN EACH MODULE AS DETAILED". SEE MANUFACTURER'S MANUAL FOR ADDITIONAL REQUIREMENTS. ERECTION, BRACING, AND PROCEDURES, AS WELL AS THE SAFETY OF THE WORKERS, ARE THE RESPONSIBILITY OF THE ERECTOR.

D. WEB STIFFENERS:

1. COMMERCIAL STRUCTURES:

WEB STIFFENERS MUST BE FIELD INSTALLED AT ALL BEARING POINTS AND AT SPECIFIED CONCENTRATED LOADS AS SHOWN ON THE PLANS. WEB STIFFENERS ARE FIELD INSTALLED AT ENGINEERED WOOD JOIST DEPTHS LESS THAN 22 INCHES AND PLANT INSTALLED THEREAFTER. A GAP BETWEEN THE STIFFENER AND THE TOP CHORD MUST BE PRESENT AT ALL BEARING CONDITIONS. AT CONCENTRATED LOADS THE GAP MUST BE PRESENT BETWEEN THE STIFFENER AND THE BOTTOM CHORD. WEB STIFFENERS SHOULD BE LVL OR OF EQUIVALENT STIFFNESS.

.2 FLAT AND TAPERED CHORD ENGINEERED WOOD JOISTS (CONT.)

2. RESIDENTIAL STRUCTURES:

IN RESIDENTIAL STRUCTURES WEB STIFFENER REQUIREMENTS (IF ANY) ARE PER THE PLANS AND THE MATERIAL USED SHALL BE WOOD PANELS (OSB OR PLYWOOD). WEB STIFFENER GAP REQUIREMENTS SHALL BE AS DESCRIBED ABOVE.

E. HANGERS:

ALL HANGERS SHALL BE AS REQUIRED PER ENGINEERED WOOD VENDOR FOR FLAT AND TAPERED CHORD JOISTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ANY DISCREPANCIES BETWEEN VENDOR REQUIREMENTS AND THAT WHICH IS CALLED OUT ON THE PLANS BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.

F. HOLES IN ENGINEERED WOOD JOISTS:

THE TOP AND BOTTOM FLANGES ARE NEVER TO BE CUT. THE JOIST SHALL NOT BE CUT WITHIN 4 INCHES OF THE SUPPORT CENTERLINE OTHERWISE A 1-1/2 INCH DIAMETER HOLE CAN BE CUT IN THE WEB ANYWHERE AS LONG AS THE DISTANCE BETWEEN THE HOLES IS EQUAL TO 2 TIMES THE HOLE DIAMETER. A 1-1/2 INCH DIAMETER HOLE CAN ALSO BE MADE WITHIN 6 INCHES OF ANY BEARING SUPPORT. ANY SIZE OR SHAPE HOLE LARGER THAN THAT SHALL BE CUT ONLY IN ACCORDANCE WITH THE HOLE CHARTS IN THE MANUFACTURER'S MANUAL AND ON THE PLANS.

G. CEILING CLIPS:

JOIST / TRUSS CONNECTIONS TO NON-LOAD BEARING WALLS SHALL BE PER THE TYPICAL DETAILS. SLIDE CLIPS SHALL NOT BE USED UNLESS APPROVED BY THE ENGINEER.

ALL PREFABRICATED WOOD ROOF AND FLOOR TRUSSES SHALL BE DESIGNED BY OR UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE STRUCTURE IS LOCATED. THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO THE BUILDING DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION. ALL NECESSARY BRIDGING. BLOCKING, PRE-NOTCHED PLATES, HANGERS, ETC. SHALL BE DETAILED OR SPECIFIED, AND FURNISHED BY THE MANUFACTURER. ALL PERMANENT BRACING FOR TRUSSES SHALL BE DETAILED AND DESIGNED BY THE TRUSS SUPPLIER. THE TRUSS MANUFACTURER SHALL VERIFY ALL SETBACKS, DIMENSIONS, AND BEARING POINTS PRIOR TO FABRICATION. MAXIMUM ALLOWABLE DEFLECTIONS SHALL BE AS FOLLOWS:

FLOOR TOTAL LOAD SPAN/240 OR 3/4" FLOOR LIVE LOAD SPAN/480 OR 1/2" ROOF TOTAL LOAD SPAN/240 OR 3/4" ROOF LIVE LOAD SPAN/360 OR 1/2"

TRUSSES SHALL BE DESIGNED FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ADDITIONAL CONCENTRATED LOADS FROM MECHANICAL UNITS, AND MISCELLANEOUS EQUIPMENT, ETC. SHALL BE ACCOUNTED FOR/COORDINATED WITH THE SUB-CONTRACTORS, ARCHITECT AND TRUSS ENGINEER. ALTERATION OF THE TRUSS LAYOUT INDICATED ON THE PLANS MAY REQUIRE SUPPORTING STRUCTURAL AND FOUNDATION CHANGES, THEREFORE PRIOR APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER IS REQUIRED. TRUSSES SHALL NOT BE FIELD ALTERED PRIOR TO WRITTEN APPROVAL OF THE ENGINEER OF RECORD DESIGNING THE TRUSSES.

TRUSS CONNECTIONS TO NON-LOAD BEARING WALLS SHALL BE PER THE TYPICAL DETAILS. SLIDE CLIPS SHALL NOT BE USED UNLESS APPROVED BY THE ENGINEER.

1.4 CARPENTRY HARDWARE

- A. BOLTS SHALL BE ASTM A307-14e1.
- B. WASHERS SHALL BE STANDARD CUT WASHERS OR MALLEABLE IRON WASHERS.
- C. ALL NAILS SHALL BE COMMON WIRE NAILS OR EQUIVALENT PNEUMATICALLY DRIVEN NAILS (P-NAILS), GALVANIZED P-NAILS SHALL BE INSTALLED PER THE MANUFACTURERS GUIDELINES.

COMMON WIRE NAIL	PNEUMATIC NAIL	MINIMUM NAIL LENGTH	NAIL APPLICATION
16d COMMON	0.162"ø P-NAIL	3-1/2"	FRAMING
12d COMMON	0.148"ø P-NAIL	3-1/4"	FRAMING
10d COMMON	0.148"ø P-NAIL	2-3/8"	SHEATHING
8d COMMON	0.131"ø P-NAIL	2-3/8"	SHEATHING

- D. LAG SCREWS, SHEAR PLATES SEE IBC.
- E. ANCHORS AND CONNECTORS SHALL BE SIMPSON, USP, OR OTHER ICC OR IAPMO APPROVED.
- F. HARDWARE EXPOSED TO WEATHER OR TO VIEW SHALL BE GALVANIZED OR PROTECTED WITH OTHER APPROVED MEANS OF CORROSION PROTECTION. FOR ADDITIONAL REQUIREMENTS REGARDING HARDWARE IN EXPOSED CONDITIONS SEE SECTION 4.9.

4.5 MINIMUM NAILING — PER IBC TABLE 2304.10.1. (UNLESS DETAILS SHOW OTHERWISE) 4.6 ANCHOR BOLTS

FOUNDATION PLATE OR SILL BOLTING SHALL BE PER IBC CHAPTER 23. PER IBC 2308.3.1. ALL FOUNDATION PLATES OR SILLS SHALL BE BOLTED TO CONCRETE OR MASONRY WITH MINIMUM 1/2" NOMINAL DIAMETER ANCHOR BOLTS EMBEDDED AT LEAST 7" AND SPACED NOT MORE THAN 6 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES OR LESS THAN 4 INCHES FROM EACH END OF EACH PIECE. IN SEISMIC CATEGORIES D, E AND F 3" x 3" x 0.229" WASHERS ARE REQUIRED AT ALL ANCHOR BOLTS PER IBC SECTION 2308.3.2. IN SEISMIC CATEGORIES E AND F, MINIMUM OF 5/8" DIAMETER BOLTS ARE REQUIRED PER SECTION 2308.3.1.1.

.7 PLYWOOD/OSB SHEATHING

EACH SHEET SHALL BEAR THE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. ALL GRADING AND INSTALLATION SHALL CONFORM TO MOST CURRENT VERSION OF PS2 FOR OSB. USE THICKNESS AND NAILING AS SHOWN ON THE DRAWINGS. SHEATHING SHALL HAVE EXPOSURE RATING AS APPROPRIATE PER THE CONTRACTOR'S CONSTRUCTION AND WEATHER CONDITIONS SPECIFIED BY CONTRACTOR. EXCEPT AS OTHERWISE SHOWN OR NOTED, PROVIDE 0.131" DIA P-NAILS OR 8d COMMON NAILS AT 6" ON CENTER @ SUPPORTED PANEL EDGES AND 0.131" DIA P-NAILS OR 8d COMMON NAILS AT 12" ON CENTER ON OTHER SUPPORTING MEMBERS FOR WALLS AND ROOFS. FOR FLOORS, USE THE SAME SPACING PATTERN AS STATED FOR WALLS OR ROOF EXCEPT USE 0.148" DIA P-NAILS OR 10d COMMON NAILS. SHEETS SHALL BE INSTALLED WITH APA REQUIRED 1/8" GAP BETWEEN PANEL EDGES AND END PANELS.

NOTE: EQUIVALENT RATED PLYWOOD MAY BE USED IN LIEU OF OSB CALLED OUT. ALL THICKNESS AND GRADING SHALL CONFORM TO PS1 OR PS2. SHEATHING SHALL HAVE EXPOSURE RATING AS APPROPRIATE PER THE CONTRACTOR'S CONSTRUCTION AND WEATHER CONDITIONS SPECIFIED BY CONTRACTOR.

ROOF DIAPHRAGM: 7/16" OSB (MIN PANEL INDEX = 24/16), WITH 0.131" DIA P-NAILS OR 8d COMMON NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND AT 12" O.C. AT FIELD TYPICAL UNLESS NOTED OTHERWISE ON PLAN. WHERE REQUIRED, USE PLY-CLIPS INSTALLED PER MANUFACTURER'S GUIDELINES AND APA GUIDELINES.

FLOOR DIAPHRAGM: 3/4" TONGUE AND GROOVE OSB (MIN PANEL INDEX = 40/20), WITH 0.148" DIA P-NAILS OR 10d COMMON NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND AT 12" O.C. AT FIELD TYPICAL UNLESS NOTED OTHERWISE ON PLAN. SHEATHING SHALL BE GLUE-NAILED TO FRAMING WITH APPROVED ADHESIVE PER THE ARCHITECT.

MANUFACTURED TIMBER BEAMS

A. GLULAMINATED TIMBER BEAMS (GLULAM BEAMS)

ALL STRUCTURAL GLUE-LAMINATED TIMBER, MATERIALS, MANUFACTURE AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH ANSI A190.1-2017 "STRUCTURAL GLUED LAMINATED TIMBER", AND ALL MEMBERS SHALL BE MARKED WITH A QUALITY MARK THEREOF. ALL PLY LAYOUTS SHALL BE PER P.S. 56. CAMBERS ARE AS SHOWN ON THE DRAWINGS. ALL MEMBERS SHALL BE EITHER COMBINATION 24F-V4 (SIMPLE SPAN) OR 24F-V8 (CANTILEVERED OR CONTINUOUS SPAN) AS APPLICABLE. ALL MEMBERS SHALL BE ARCHITECTURAL APPEARANCE AND SHALL BE GLUED WITH WATERPROOF ADHESIVE PER ANSI A190.1-2017. ARCHES SHALL BE COMBINATION 24F-V8 AND HAVE EXTERIOR GLUE, ARCHITECTURAL GRADE.

B. PARALLAM BEAMS

BEAMS SHALL BE 2.0E PARALLAM PSL AS MANUFACTURED BY WEYERHAEUSER. MATERIALS, MANUFACTURE, AND QUALITY CONTROL SHALL BE PER THE MANUFACTURER WHO SHALL ULTIMATELY BE RESPONSIBLE FOR THE MANUFACTURE OF THE PRODUCT. ALL BRIDGING AND BRACING SHALL BE PER THE MANUFACTURER.

C. MICROLLAM BEAMS

BEAMS SHALL BE 1.9 MICROLLAM LVL AS MANUFACTURED BY WEYERHAEUSER. MATERIALS, MANUFACTURE, AND QUALITY CONTROL SHALL BE PER THE MANUFACTURER WHO SHALL ULTIMATELY BE RESPONSIBLE FOR THE MANUFACTURE OF THE PRODUCT. ALL BRIDGING AND BRACING SHALL BE PER THE MANUFACTURER.

D. TIMBERSTRAND BEAMS

BEAMS SHALL BE 1.5E OR 1.3E TIMBERSTRAND LSL AS MANUFACTURED BY WEYERHAEUSE. MATERIALS, MANUFACTURE, AND QUALITY CONTROL SHALL BE PER THE MANUFACTURER WHO SHALL ULTIMATELY BE RESPONSIBLE FOR THE MANUFACTURE OF THE PRODUCT. ALL BRIDGING AND BRACING SHALL BE PER THE MANUFACTURER.

LEVEL APPLICATION SIZE/GRADE/S	
7,11 2,07,1101	SPACING
MAIN FLOOR EXTERIOR 2x6 #2 HF @	16" O.C.
INTERIOR 2x4 #2 HF @	16" O.C.

9 PRESERVATIVE TREATMENT

A. PRESERVATIVE TREATMENTS

SEE ARCH FOR ALL PRESERVATIVE TREATED REQUIREMENTS AND FINISHES OF EXPOSED TIMBER MEMBERS AND AT EXTERIOR CONDITIONS.

ALL EXPOSED FRAMING LUMBER, PLYWOOD AND DECK MATERIALS SHALL BE PRESSURE TREATED PER THE 2020 AWPA BOOK OF STANDARDS "P STANDARDS". ALL CUTTING AND BORING AFTER PRESSURE TREATMENT SHALL BE CARED FOR IN ACCORDANCE WITH THE 2020 AWPA BOOK OF STANDARDS "P STANDARDS".

ACZA PRESERVATIVE TREATMENT SHALL NOT BE PERMITTED EXCEPT WHERE HARDWARE (INCLUDING NAILS) IN CONTACT WITH THE TREATED PRODUCT IS COMPOSED ENTIRELY OF STAINLESS STEEL MATERIAL.STAINLESS STEEL HARDWARE SUBSTITUTED FOR HDG PRODUCTS SHALL MEET OR EXCEED THE STRENGTH AND PERFORMANCE OF THE SUBSTITUTED HDG PRODUCT ORIGINALLY SPECIFIED.

B. GALVANIZATION OF HARDWARE (EXPOSED OR IN CONTACT WITH PRESERVATIVE TREATED WOOD)

1. PROTECTED ENVIRONMENT

ALL HARDWARE (HANGERS, NAILS, BOLTS, LAG SCREWS, FLASHING ETC.) SHALL BE HOT-DIP GALVANIZED (HDG) TO A MINIMUM COATING LEVEL OF G185 (1.85 oz/ft2 OF ZINC) WHEN IN CONTACT WITH PRESERVATIVE TREATED WOOD CONTAINING PRODUCTS SUCH AS, BUT NOT LIMITED TO; CCA, ACQ, OR CBA. HDG PRODUCTS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS AS APPLICABLE; ASTM A653/A653M-15, ASTM A123/A123M-17, AND ASTM A153/A153M-09. WHEN USING STAINLESS STEEL OR HOT-DIP GALVANIZED CONNECTORS, THE CONNECTORS AND FASTENERS SHALL BE OF THE SAME MATERIAL.

2. EXPOSED ENVIRONMENT

ALL HARDWARE (INCLUDING CONNECTORS) IN CONTACT WITH PRESSURE TREATED WOOD IN AN EXPOSED OR POTENTIAL TO BE EXPOSED ENVIRONMENT (HAVING POTENTIAL FOR WIND BLOWN RAIN TO REACH) SHALL BE MINIMUM OF G185 COATING OR STAINLESS STEEL. CONTRACTOR TO COORDINATE W/ OWNER ON WHICH TO USE.

MECHANICAL / EPOXY / POWDER DRIVEN FASTENERS

A. MECHANICAL FASTENERS (PRE-DRILLED ANCHORS) 1. TYPICAL MECHANICAL ANCHORS WHICH ARE INSTALLED IN CONCRETE SHALL BE AS MANUFACTURED BY THE SIMPSON, INC. AND SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURERS GUIDELINES AND PER ICC REPORT ESR-1771 FOR WEDGE ANCHORS OR PER ICC REPORT ESR-2713 FOR SCREW

TYPE ANCHORS OR APPROVED EQUALS.

B. EPOXY CONNECTIONS (PRE-DRILLED ANCHORS) ADHESIVE ANCHORS SHALL BE OF THE SIZE AND LENGTH AS CALLED OUT ON THE PLANS USING THE DEWALT ADHESIVE PURE 110 ANCHORING SYSTEM PER APPROVED ICC REPORT ESR-3298 OR APPROVED EQUAL. ADHESIVE ANCHORS SHALL

O MISCELLANEOUS

STRUCTURAL OBSERVATION SHALL, WHEN REQUESTED, BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AS DEFINED IN IBC SECTION 1704. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTION AS REQUIRED BY IBC SECTIONS 110 OR 1705.

BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS.

2. ALL EPOXY ANCHORS REQUIRE SPECIAL INSPECTION.

VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO PROCEEDING. PROVIDE ERECTION BRACING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFNESS ARE INSTALLED. REFER TO ARCHITECTURAL PLANS FOR WALL OPENING, ARCHITECTURAL TREATMENT AND DIMENSIONS NOT SHOWN. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SIZE AND LOCATION OF ALL OPENINGS FOR DUCTS, PIPES, CONDUITS, ETC., NOT SHOWN.

IUMBER	SHE	EET TITLE		RE	
SHEET INDEX					
	SHEET				
		Q P	CENTERLINE PLATE		
		W/O	WITHOUT		
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	W/	WITH		
н.т.	HEIGHT		VERIFY VERTICAL		
	GYPSUM BOARD	VER	VEDIEV		
GR. GYP.		U.N.O.	UNLESS NOTED OTHERWISE		
GALV.	GALVANIZED				
GA.	GAUGE	T/ TYP.	TOP OF TYPICAL		
FURR.	FURRING	THK.	THICK		
FTG.	FOOTING	T&G	TONGUE AND C		
F.S. FT.	FULL SIZE FOOT OR FEET	TR T&B	TREAD TOP AND BOTT	·OM	
F.O.C.	FACE OF CONCRETE				
F.O.B.	FACE OF BRICK	STRUC.			
FIN. FLR.	FINISH FLOOR	STIFF. STL.	STIFFENER STEEL		
FF	FLUSH FRAMED	STD.	STANDARD		
F.F.	FINISH FLOOR	STAGG.	STAGGERED		
	FOUNDATION	SS	SQUARE STAINLESS STE	EL	
	ELOOD DDAIN	SPEC.	SPECIFICATION		
	EXTERIOR	SIM.			
	EACH WAY EXPANSION	SHT. SHW OR S.W.			
EQUIP.	EQUIPMENT	S.F.	SQUARE FOOT		
EQ.	EQUAL	SECT.	SECTION		
E.L./ELEV.		SCHED.	SCHEDULE		
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM	R.O.	ROUGH OPENIN	G	
E.J.	EXPANSION JOINT	RM	ROOM		
(E) EA.	EXISTING EACH	REINF. REQ'D	REINFORCED REQUIRED		
(F)	EXISTING	RE:	REFER TO		
DWG.	DRAWING	R.D.	ROOF DRAIN		
DIA. (Ø) DN.	DOWN	r'LIWU.	r L I WOOD		
DIAG. DIA. (ø)	DIAGONAL	P.L. PLYWD.	PROPERTY LINE PLYWOOD		
DET./DTL.	DETAIL	PCT.	PRE-CAST	_	
DEG.	DEGREE	OFF.	OFFOSITE		
CONT.	CONTINUOUS	OPG. OPP.	OPENING OPPOSITE		
CONSTR.	CONSTRUCTION	OH.	OVERHEAD		
CONC. CONN.	CONNECTION	0.C. 0.D.	OUTSIDE DIAME	TER	
COL. CONC.	COLUMN CONCRETE	O.C.	ON CENTER		
C.M.U.	UNIT	N.T.S.	NOT TO SCALE		
CLR.	CLEAR CONCRETE MASONRY	NO.	NUMBER		
C.J.	CONTROL JOINT	MTL.	METAL		
		M.O.	MASONRY OPEN		
BOT. BTWN.	BOTTOM BETWEEN	MIN. MISC.	MINIMUM MISCELLANEOUS	5	
BM.	BEAM	MFR.	MANUFACTURE	?	
BLKG.	BLOCKING	MAX.	MAXIMUM		
BLDG. BLK.	BUILDING BLOCK	LFA	LOAD FROM AE	SUVE	
BD.	BOARD	1 A	104D EDOM 45) () (E	
/11(011.	AUCHITEOTOWNE	JST.	JOIST		
APPROX. ARCH.	APPROXIMATE ARCHITECTURAL	JNT.	JOINT		
ALT.	ALTERNATE	INT.	INTERIOR		
AGGN.	AGGREGATE	INSUL.	INSULATION		

ABBREVIATIONS

INSUL.

INSIDE DIAMETER

INSULATION

ANCHOR BOLT

AGGREGATE

		PLATE		
SHEET INDEX				
SHEET NUMBER		SHEET TITLE	REVISIONS*	
S1.0		GENERAL NOTES		<u></u>
S1.1		GENERAL NOTES AND DETAILS		
S2.0		FDN AND CRAWLSPACE FRAMING PLAN		<u>^1</u>
S2.1		ROOF FRAMING PLAN		<u></u>
S3.0		DETAILS		
S3.1		DETAILS		1
TOTAL NUMBER OF SHEETS 6				
* LATEST INDIVIDUAL SHEET REVISION ISSUED				

Structural Building Consultants 32008 32nd Ave S, #B Federal Way, WA 98001 (253) 220-0848 #26891 2022-09-01 PREPARED FOR:

山 I) \simeq

REVISIONS TO THIS SHEET:

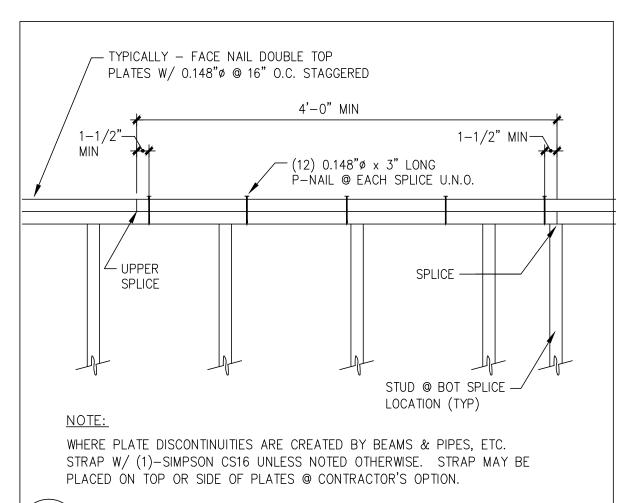
1\ CITY REVIEW COMMENTS RESPONSE (COMMENTS DATED 2022-07-05 TO 2022-07-12 PER ONLINE COMMENT SYSTEM)

DESIGNED BY : COK : COK DRAWN BY : 2022-04-01 ISSUE DATE : 2022-09-01 LATEST REV.

SHEET TITLE GENERAL NOTES

PROJECT # : 22.017

SUBMITTAL SET ONLY NOT FOR CONSTRUCTION THESE DRAWINGS ARE SUBJECT TO REVISIONS PENDING LOCAL JURISDICTIONAL



 $\sqrt{}$ 1/8"x1-1/2" PREMOLDED JOINT

CONTRACTORS OPTION.

STRIP - OPTIONAL SAWCUT @

TYPICAL TOP CHORD SPLICE

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN

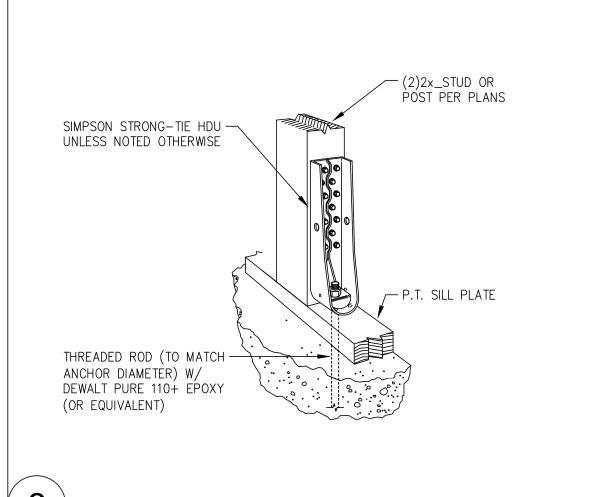
SLAB ON GRADE AS SHOWN ON ARCHITECTURAL

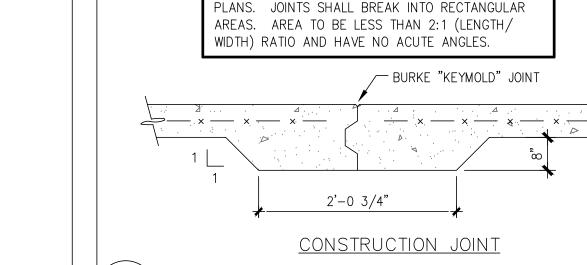
CONTROL JOINT

TYP CONST & CONTROL JOINTS

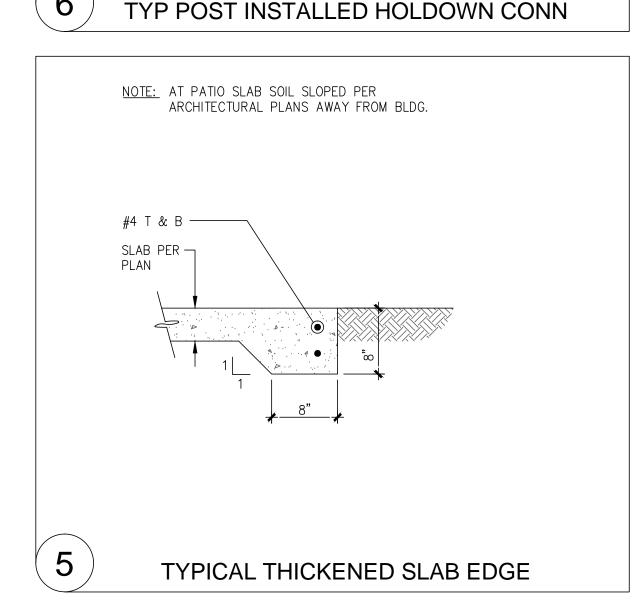
- SEE PLAN FOR SLAB

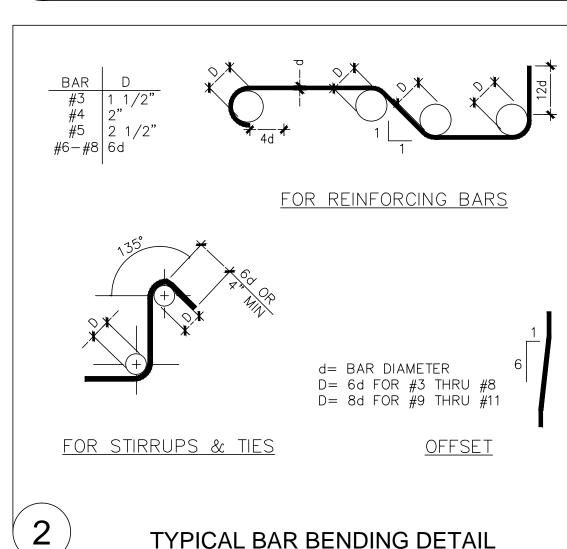
THICKNESS AND REINF.

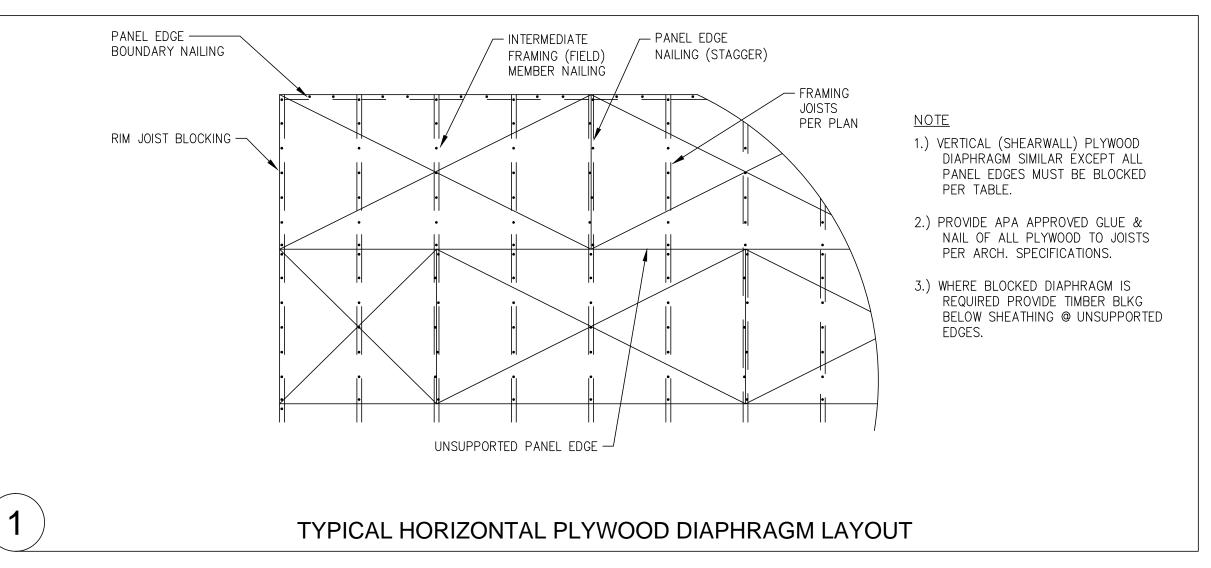




3







FLOOR & ROOF FRAMING NOTES

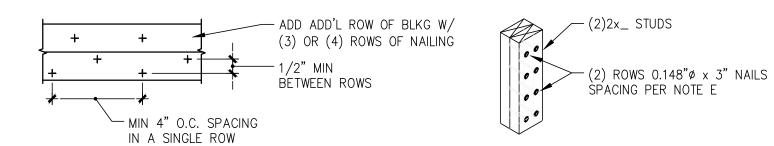
- ALL ROOF TRUSSES ARE TO BE ENGINEERED BY OTHERS. THE TRUSS MANUFACTURER SHALL PROVIDE CONNECTION HARDWARE TO CARRY THE ROOF DEAD AND LIVE LOAD TO THE LOAD CARRYING MEMBER. PROVISIONS FOR PERMANENT BRACING AND THEIR CONNECTIONS WITHIN THE TRUSS SYSTEM SHALL BE PART OF THE PRE-ENGINEERED TRUSS PACKAGE. THE ROOF TRUSS PACKAGE SHALL INCLUDE OVER-FRAMING (VALLEY TRUSSES, OR OTHER SUPPLEMENTARY TRUSSES, AND THEIR CONNECTIONS) AS REQUIRED TO COMPLETE THE ROOF FRAMING SYSTEM FROM THE ROOF SHEATHING TO THE SUPPORTING WALLS BELOW.
- P.E. TRUSS MANUFACTURER SHALL PROVIDE FULL DEPTH TRUSS BLOCKING OR DRAG TRUSSES FROM ROOF DIAPHRAGM TO SHEARWALL BELOW. ATTACH TO SHEARWALL BELOW WITH SIMPSON A35 CLIPS / NAILING PER THE SHEARWALL TABLE. THE MANUFACTURER SHALL DESIGN THE DRAG TRUSS OR TRUSS BLOCKING TO RESIST THE LATERAL FORCE CALLED OUT ON THE PLANS.
- 3. TIE-DOWN EVERY TRUSS (RAFTER) AND ALL END TRUSSES AT ALL BEARING SUPPORTS WITH (1) SIMPSON H2.5A HURRICANE ANCHOR.
- 4. P.E. TRUSS MANUFACTURER TO VERIFY DEFLECTION TOLERANCE BETWEEN TRUSSES AND WINDOWS WHERE WINDOW FRAMES DIRECTLY INTO TRUSS BOTTOM CHORD - VERIFY PER WINDOW SUPPLIER AND ARCHITECT.
- 5. ROOF AND FLOOR JOIST LOCATIONS ARE SCHEMATICALLY SHOWN ON THE PLANS. IT IS NOT THE INTENT OF THE STRUCTURAL PLANS TO GRAPHICALLY LOCATE ALL FRAMING MEMBERS. THE ARCHITECT SHALL VERIFY THE COMPATIBILITY OF JOIST LAYOUT AND FRAMING W/ MECHANICAL, ELECTRICAL & PLUMBING AND ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR SPACING FRAMING MEMBERS AS NOTED ON THE PLANS AND GENERATING MEMBER LAYOUT FOR SHOP DRAWINGS AND QUANTITY TAKEOFFS.
- 6. THE TRUSS MANUFACTURER SHALL VERIFY BEARING COMPATIBILITY (CRUSHING) WITH THE PLATE MATERIAL. TYPICALLY, COMPOSITE BEAMS SHALL BE FULLY BEARING ON 2 X 4 WALLS. I.E. BREAK RIM OR BLOCKING TO ALLOW FULL BEARING OVER $3\frac{1}{2}$ " WIDE PLATES.
- 7. PLACE LONG DIRECTION OF ALL PLYWOOD SHEETS PERPENDICULAR TO TRUSS/RAFTER OR JOIST DIRECTION, SEE DETAIL 1/S1.1. FLOOR SHEATHING IS TO BE CONTINUOUS THROUGH HOUSE. TYPICAL NAILING AT FLOOR AND ROOF DIAPHRAGMS IS PROVIDED IN THE GENERAL STRUCTURAL NOTES ON SHEET S1.0.
- ___ DENOTES THE SHEARWALL TYPE, SEE THE SHEARWALL TABLE ON SHEET S1.1. INDICATES SHEARWALL LOCATION, THE CALL-OUTS ON THE SHEARWALL TABLE APPLY ONLY AT THE LENGTH OF WALL SHOWN HATCHED. PROVIDE SOLID BLOCKING IN FLOOR SPACE BELOW PERPENDICULAR SHEARWALLS.
- 9. NO RIM BOARD LATERAL CAPACITY LESS THAN 700 PLF IS ALLOWED TO BE USED.
- 10. THE DOUBLE TOP PLATE IS TO BE CONTINUOUS ALONG ALL EXTERIOR WALLS AND AT ALL WALL LINES CONTAINING SHEARWALLS. TYPICAL WALL TOP PLATE SPLICES SHALL BE PER DETAIL 4/S1.1.
- 11. WHERE COMPOSITE BEAMS ARE USED AS DRAG STRUTS THE MANUFACTURER SHALL PROVIDE THE FRAMING MEMBERS WITH THE CAPACITY CALLED OUT ON THE PLANS.
- 12. TYPICAL JOISTS SHALL BE 2x12 #2 HEM-FIR @ 16" O.C. IN CRAWLSPACE U.N.O. WHERE REQUIRED, THE COMPOSITE BEAM MANUFACTURER SHALL BE RESPONSIBLE FOR ANY/ALL BEAM HANGERS (SEE PLANS FOR ANY SPECIFIC CALL-OUTS), SOLID BLOCKING, CANTILEVERED CONDITIONS, CONCENTRATED BEARING LOADS AND NAILING FROM SHEARWALLS ABOVE AND
- 13. FF = FLUSH-FRAMED BEAM. VERIFY FLUSH OR DROPPED BEAM CONDITION PER ARCHITECT.
- 14. ALL HEADERS IN NON-LOAD BEARING WALL WITH FRAMING PARALLEL TO WALL 4'-0" AND LONGER SHALL BE A MINIMUM OF (2) 2x8 HF #2 UNLESS NOTED OTHERWISE. CONTACT ENGINEER OF RECORD PRIOR TO CONSTRUCTION IF BEAM CALL OUT MISSING OR UNCLEAR. PROVIDE POSITIVE CONNECTION AT ALL BEAM TO PERPENDICULAR WALL CONNECTIONS, SIMPSON A35 OR LTP5 CLIP U.N.O.
- 15. ALL HEADERS ARE TO BE SUPPORTED BY (1) 2x TRIMMER (BEARING) STUD AND (1) FULL-HEIGHT 2X KING STUD. MULTIPLE TRIMMER STUDS ARE INDICATED PER PLAN. BEAMS AND GIRDER TRUSSES LOADING PERPENDICULAR WALLS SHALL BE SUPPORTED, AT MINIMUM, BY SOLID STUDS BELOW BEAM. MULTIPLE BEARING STUDS CALLED OUT ON UPPER LEVELS SHOULD BE CONTINUED TO FOUNDATION OR BEAM BELOW UNLESS NOTED OTHERWISE AND REQUIRE SOLID BLOCKING BETWEEN FLOORS.
- 16. MATERIAL SUPPLIERS SHALL VERIFY PRESSURE-TREATED MEMBERS W/ DESIGNER. ALL EXPOSED BEAM HANGERS SHALL BE HOT-DIPPED GALVANIZED AT MINIMUM (SEE STRUCTURAL NOTES SECTION 4.9 FOR EXPOSED CONDITION) AND HAVE CONCEALED FLANGES, VERIFY W/ BUILDING
- 17. LSL INDICATES 1.55E TIMBERSTRAND MEMBER. PSL INDICATES 2.2E PARALLAM MEMBER. LVL INDICATES 1.9E MICROLLAM MEMBER. GLB INDICATES 24F-V4 DOUG-FIR GLULAM BEAM IF SIMPLE SPAN. USE 24F-V8 AT CONTINUOUS OR CANTILEVERED SPAN CONDITIONS.
- DENOTES HOLDOWNS SEE THE HOLDOWN TABLE ON SHEET S1.1.
- 19. SEE ARCHITECTURAL PLANS FOR STAIR FRAMING DETAILS AND NOTES, METAL CONTROL JOINTS AT DOORWAY OPENINGS IN CONCRETE FLOORING AND ROOF VENTILATION REQUIREMENTS AND
- 20. SEE ARCHITECTURAL PLANS FOR TOP OF WALL HEIGHTS AND SLAB ON GRADE ELEVATIONS. SEE ARCHITECTURAL PLANS FOR DIMENSIONS. WHERE DIMENSIONS ARE SHOWN ON THE STRUCTURAL PLANS, CONTRACTOR SHALL VERIFY COMPATIBILITY W/ ARCHITECTURAL PLANS. WHERE DISCREPANCY EXISTS, CONTRACTOR SHALL NOTIFY BOTH THE ENGINEER AND ARCHITECT FOR CLARIFICATION.
- 21. WINDOW SUPPLIER TO VERIFY THAT WINDOW AND WINDOW FRAMES TRANSFER WIND LOADS EVENLY TO STRUCTURAL FRAMING ON ALL 4 SIDES OF WINDOW. WINDOW SUPPLIER TO VERIFY MINIMUM .005*H STORY DRIFT TOLERANCE IN PLANE OF ALL WINDOWS AND ALLOW FOR L/240 DEFLECTION (PERPENDICULAR) AT WINDOW MULLIONS.
- 22. ALL CEILING SOFFITS BY OTHERS.
- 23. SEE GENERAL STRUCTURAL NOTES ON S1.0 FOR ADDITIONAL INFORMATION.

SHEARWALL COMPONENT TABLE

	SHEATHING COMPONENTS & NAILING DATA				5/8" AB TO	^A 0.148" DIA	SIMPSON	SIMPSON	EMIN ASD	
MARK		# OF		0/C SPA	4 <i>CING</i>	CONCRETE SPACING	P-NAIL PL TO PL SPACING	A35 CLIP SPACING (IN)	LTP5 CLIP SPACING (IN)	SEISMIC SPF/HF CAPACITY
l	SHEATHING	SIDES	NAILS SIZE	PANEL EDGE	FIELD	(IN)	(IN)			(PLF)
W6\	7/16" OSB OR 15/32" PWD, APA RATED SHEATHING, BLOCKED	ONE	0.131" DIA	6 INCHES	12 INCHES	60" O.C.	8" O/C MAX	27" O.C.	24" O.C.	241
W4	7/16" OSB OR 15/32" PWD, APA RATED SHEATHING, BLOCKED	ONE	0.131" DIA	4 INCHES	12 INCHES	46" O.C.	5 1/2" O/C MAX	19" O.C.	16" O.C.	353
W3	7/16" OSB OR 15/32" PWD, APA RATED SHEATHING, BLOCKED	ONE	0.131" DIA	3 INCHES	12 INCHES	36" O.C.	4" O/C MAX	14" O.C.	12" O.C.	455
W2	7/16" OSB OR 15/32" PWD, APA RATED SHEATHING, BLOCKED	ONE	0.131" DIA	2 INCHES	12 INCHES	27" O.C.	2 ROWS, STAGGERED, 6" O/C MAX	11" O.C.	9" O.C.	595

TYPICAL NOTES:

- 1. ALL NAILING PER IBC TABLE 2304.9.1. UNLESS NOTED OTHERWISE IN SHEARWALL TABLE
- 2. SHEATHING MAY BE PLACED WITH THE LONGITUDINAL DIRECTION VERTICAL. STUDS AND PLATES SHALL BE CONSIDERED TO ACT AS BLOCKING.
- 3. WALL SHEATHING CALLED OUT SHALL EXTEND FOR ENTIRE WALL LENGTH AT THAT ELEVATION AND SHALL BE CONTINUOUS AROUND OPENINGS.
- 4. 8d SHEATHING NAILS ARE TO BE .131" DIAMETER AND 2-3/8" IN LENGTH. 10d PL TO PL NAILS ARE TO BE .148" DIAMETER AND A MINIMUM OF 3-1/4" IN LENGTH. NAILS SHALL BE INSTALLED SO AS TO NOT SPLIT THE TIMBER FRAMING
- 5. SIMPSON CLIPS/ANGLES SHALL BE INSTALLED WITH THE APPROPRIATE FASTENERS PER THE MANUFACTURER'S SPECIFICATIONS.
- 6. USE 3" x 3" x 1/4" PLATE WASHERS AT ALL ANCHOR BOLTS. USE OF SLOTTED HOLE ALLOWED PER IBC/NDS PROVISIONS. FOR SHEARWALLS EXCEEDING 400 PLF, THE PLATE WASHERS ARE TO EXTEND TO WITHIN 1/2" OF THE WOOD SHEATHING PER SDPWS C4.3.6.4.3.
- 7. SPACING SHOWN ABOVE FOR ANCHOR BOLTS, NAILING AND CLIPS IS MAXIMUM AMOUNT ALLOWED. SEE SPECIAL NOTE "A" FOR MINIMUM NAIL SPACING.
- 8. USE 3x_ NOMINAL MEMBERS AT ALL PANEL JOINTS IN WALLS W/ 10d COMMON OR 0.148" DIA NAILS @ 2" O/C OR 3" O/C SPACING AND STAGGER NAILS TO AVOID SPLITTING OF WOOD. ALSO REQUIRED AT ALL PANEL JOINTS IN SHEARWALLS TYPE W3. SEE NOTE "D" BELOW FOR OPTION.
- 9. FRAMING (STUDS) AT SHEARWALLS SHALL BE SPACED NO FARTHER THAN 16" O.C.
- 10. WHERE 2 OR MORE ROWS REQUIRED, STAGGER NAILS SUCH THAT MINIMUM SPACING IS 4" OR GREATER (SEE SCHEMATIC AND NOTE "A" BELOW)



SPECIAL NOTES:

- MINIMUM NAIL SPACING IN A SINGLE ROW SHALL BE 4 INCHES ON CENTER. USE (2) ROWS IF SPACING LESS THAN THIS. USE 2ND RIM BOARD, RIM JOIST OR BLOCKING WHERE THREE ROWS OF NAILING CALLED OUT.
- WHERE PANELS ARE APPLIED TO BOTH FACES OF THE WALL, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. OPTIONAL TO NOT OFFSET PANEL JOINTS AND TO USE 3x_ STUDS AND STAGGER NAILS ON EACH SIDE.
- C. OPTIONAL TO USE (2) 2x's IN PLACE OF SINGLE 3x IN SHEARWALL W3 (SEE SPECIAL FOOT NOTE "D" BELOW).
- D. (2) ROWS OF 0.148" x 3" STITCH NAILING (2)2x_ STUDS TOGETHER @ 10" O/C FOR W3 SHW, PER NDS SDPWS 2015 SECTION 4.3.7.4 AND APA TECH REPORT T2003-22. OPTION TO SINGLE 3x AT PANEL EDGES.
- E. SHEAR LOADS TAKE INTO ACCOUNT S.G. AND CONTROLLING LOAD TYPE.

FOUNDATION NOTES

- MINIMUM OF 3" CLEAR BETWEEN STEEL AND SOIL.
- INDICATES UNIT SHEARWALLS ABOVE. SEE SHEARWALL TABLE FOR ANCHOR BOLT AND SILL PLATE REQUIREMENTS.
- 3. EXTERIOR WALLS SHALL HAVE AN 8" STEMWALL AND A 1'-4" WIDE X 8" DEEP FOOTING WITH REINFORCEMENT 3" CLEAR OF SOIL (TYPICAL), SEE 5/S3.0.
- 4. BOTTOM OF EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 12" BELOW GRADE.
- TYPICAL SQUARE FOOTINGS SHALL BE CONSTRUCTED PER 11/S3.0. REFER TO TABLE FOR REQUIRED DIMENSIONS / REINFORCEMENT.
- 6. EXTEND ALL CONTINUOUS FOOTINGS AT END WALLS 1'-0" MINIMUM BEYOND END OF ALL BEARING WALLS AND SHEARWALLS (TYPICAL).
- PROVIDE FOOTING SUBSTRATE PREPARATION PER THE STRUCTURAL NOTES ON S1.0.
- 8. TYPICAL FLOOR SLABS ARE TO BE 4" CONCRETE ON GRADE PER ARCHITECTURAL SHEETS. PROVIDE CONTROL / CONSTRUCTION JOINTS PER DETAIL 3/S1.1 AT THE DIRECTION OF THE ARCHITECT. INSTALL WWM 6x6-W2.9xW2.9 AT CENTER-LINE.
- DENOTES HOLDOWN. DEEPEN FOOTINGS LOCALLY AT HOLDOWNS TO MAINTAIN A 9. PROVIDE 4" CONCRETE SLABS (BROOM FINISH) W/ THICKENED EDGES AT ENTRY AND PATIO SLABS. ADD STRIP DRAINS AT FACE OF BUILDING WHERE WALKS AND SLABS SLOPE TOWARDS BUILDING; CONNECT TO TIGHTLINE.
 - 10. ALL THICKENED EDGE SLABS SHALL BE 8" WIDE x 8" DEEP WITH (1) CONTINUOUS #4 BAR, SEE DETAIL 5/S1.1.
 - 11. PLACE ALL REINFORCEMENT PER THE TYPICAL DETAILS. MINIMUM BAR BENDS SHALL BE PER DETAIL 2/S1.1.
 - 12. TYPICAL DIMENSIONS ARE TO FACE OF WALL OR TO CENTERLINE OF COLUMN OR FOOTING. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECT. AREAS SHADED ON THE PLANS INDICATE FLOOR AREAS WHERE ELEVATIONS CHANGE.
 - 13. T.O.W. = TOP OF STEMWALL T.O.F. = TOP OF FOOTINGT.O.S. = TOP OF SLAB
 - 14. SEE GENERAL STRUCTURAL NOTES ON S1.0 FOR ADDITIONAL INFORMATION.

HOLDOWN TABLE						
MARK	BOUNDARY ELEMENT	ANCHOR DIAMETER	ANCHOR EMBEDMENT			
HDU2	(2)2x_ #1 DF U.N.O.	5/8"	12", SEE DETAIL 17/S3.0			

- 1) STRAP HOLDOWNS MAY BE APPLIED DIRECTLY TO BOUNDARY MEMBER ON OPPOSITE SIDE OF SHEATHING OR APPLIED DIRECTLY OVER PWD/OSB SHEATHING. DO NOT LOCATE STRAPS UNDER WOOD SHEATHING OF ANY TYPE OR OVER GYPSUM SHEATHING.
- 2) NAIL SHEATHING PER SHEARWALL TABLE (SHEET S1.1) TO EACH BOUNDARY ELEMENT PER TABLE ABOVE.
- 3) ALIGN FLOOR TO FLOOR STRAPS WITH HOLDOWNS AT FOUNDATION, TYP.
- 4) HOLDOWNS/STRAPS MUST BE ATTACHED TO FULL HEIGHT MEMBERS UNLESS NOTED OTHERWISE. BOUNDARY ELEMENTS ARE IN ADDITION TO TRIMMER/BEARING STUDS CALLED OUT ON PLAN.
- 5) ANCHOR BOLTS ARE TO BE CAST IN PLACE U.N.O., CONTACT E.O.R. FOR EPOXY OPTIONS.
- 6) THREADED RODS/ANCHORS ARE ASTM A307 OR ASTM F1554 U.N.O.
- 7) EMBEDMENT DEPTH PER DETAIL 17/S3.0 MEASURED FROM TOP OF STEMWALL/FOOTING TO TOP OF NUT.
- 8) HEAVY HEX-HEADED BOLT REQUIRED AT NOTED HOLDOWNS

Structural Building Consultants 32008 32nd Ave S, #B Federal Way, WA 98001 (253) 220-0848

2022-09-01

PREPARED FOR:

REVISIONS TO THIS SHEET:

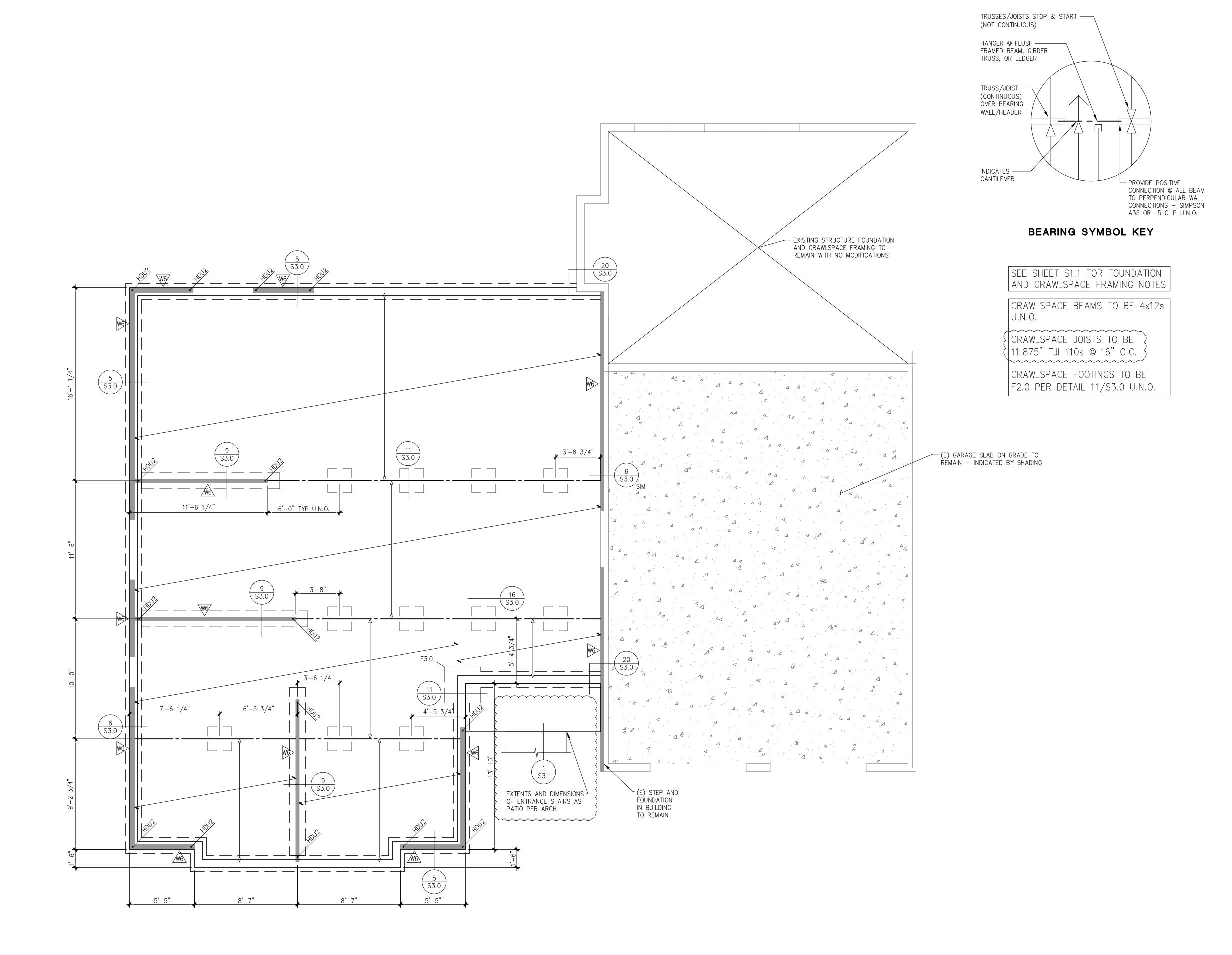
DESIGNED BY : COK DRAWN BY : COK ISSUE DATE : 2022-04-01

LATEST REV. PROJECT # : 22.017

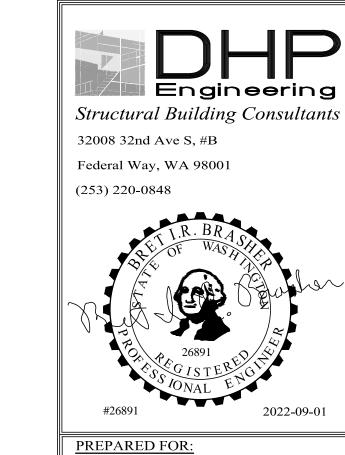
SHEET TITLE **GENERAL NOTES**

AND DETAILS

SUBMITTAL SET ONLY NOT FOR CONSTRUCTION THESE DRAWINGS ARE SUBJECT TO REVISIONS PENDING LOCAL JURISDICTIONAL



CRAWLSPACE FRAMING AND FOUNDATION PLAN
SCALE: 1/4"=1'-0"



REVISIONS TO THIS SHEET:

CITY REVIEW COMMENTS RESPONSE (COMMENTS DATED 2022-07-05 TO 2022-07-12 PER ONLINE COMMENT SYSTEM)

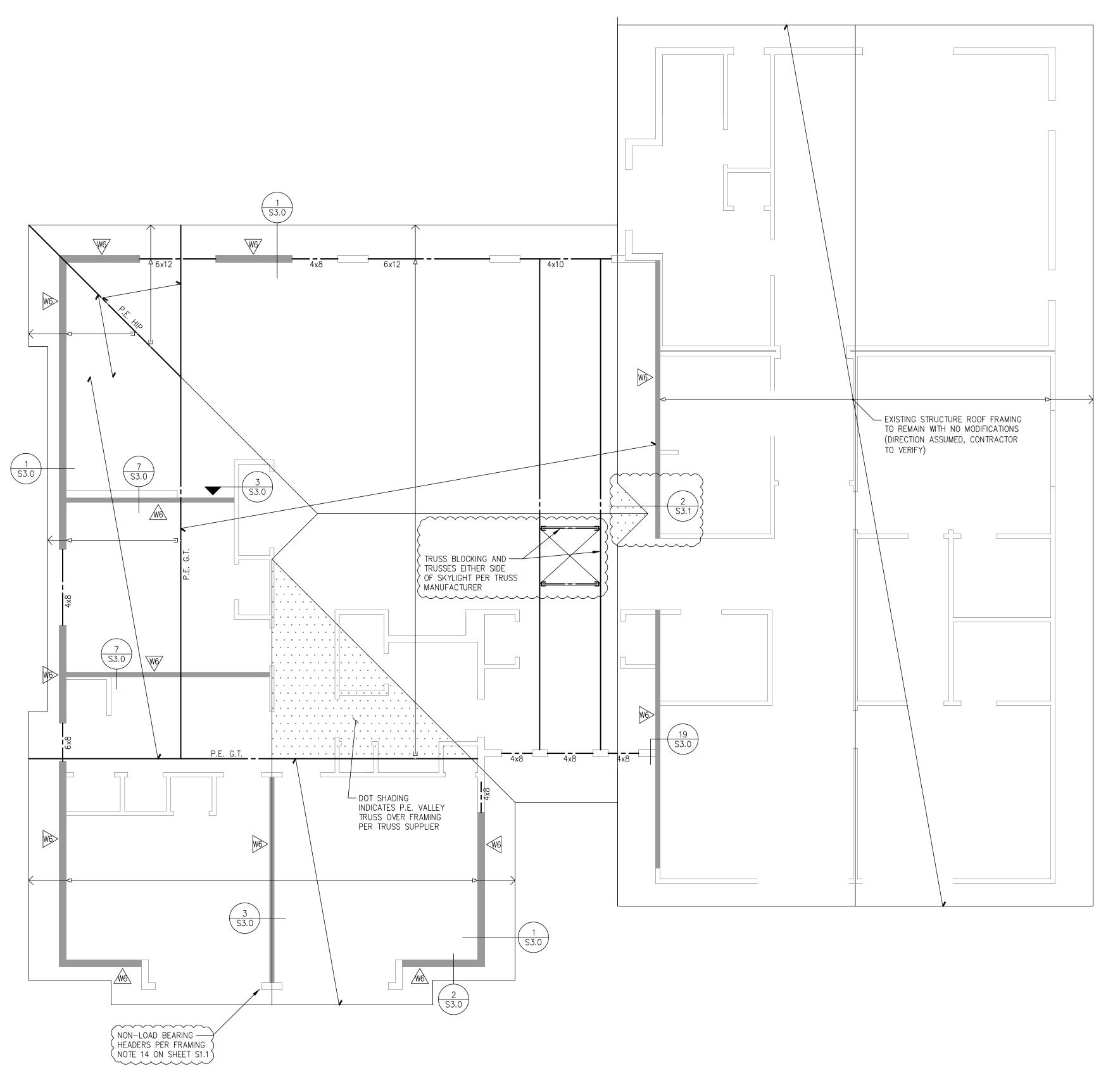
DESIGNED BY : COK
DRAWN BY : COK
ISSUE DATE : 2022-04-01
LATEST REV. : 2022-09-01
PROJECT # : 22.017

SHEET TITLE : FDN AND

FDN AND
CRAWLSPACE
FRAMING PLAN

SUBMITTAL SET ONLY
NOT FOR CONSTRUCTION
THESE DRAWINGS ARE SUBJECT TO
REVISIONS PENDING LOCAL JURISDICTIONAL
DEVIEW

S2.0



TRUSSES/JOISTS STOP & START
(NOT CONTINUOUS)

HANGER @ FLUSH
FRAMED BEAM, GIRDER
TRUSS, OR LEDGER

TRUSS/JOIST
(CONTINUOUS)
OVER BEARING
WALL/HEADER

INDICATES
CANTILEVER

PROVIDE POSITIVE
CONNECTION @ ALL BEAM
TO PERPENDICULAR WALL
CONNECTIONS — SIMPSON
A35 OR L5 CLIP U.N.O.

BEARING SYMBOL KEY

SEE SHEET S1.1 FOR ROOF FRAMING NOTES

ROOF FRAMING TO BE P.E. TRUSSES @ 24" O.C. U.N.O.

Engineering
Structural Building Consultants
32008 32nd Ave S, #B
Federal Way, WA 98001
(253) 220-0848

**Zent Structural Building Consultants
32008 32nd Ave S, #B
Federal Way, WA 98001
(253) 220-0848

**Zent Structural Building Consultants
32008 32nd Ave S, #B
Federal Way, WA 98001
(253) 220-0848

ARING STWIBOL RE

K REMODEL
521 80TH AVE SE
ER ISLAND, WA 98040

REVISIONS TO THIS SHEET:

CITY REVIEW COMMENTS RESPONSE (COMMENTS DATED 2022-07-05 TO 2022-07-12 PER ONLINE COMMENT SYSTEM)

DESIGNED BY : COK
DRAWN BY : COK
ISSUE DATE : 2022-04-01
LATEST REV. : 2022-09-01

PROJECT # : 22.017

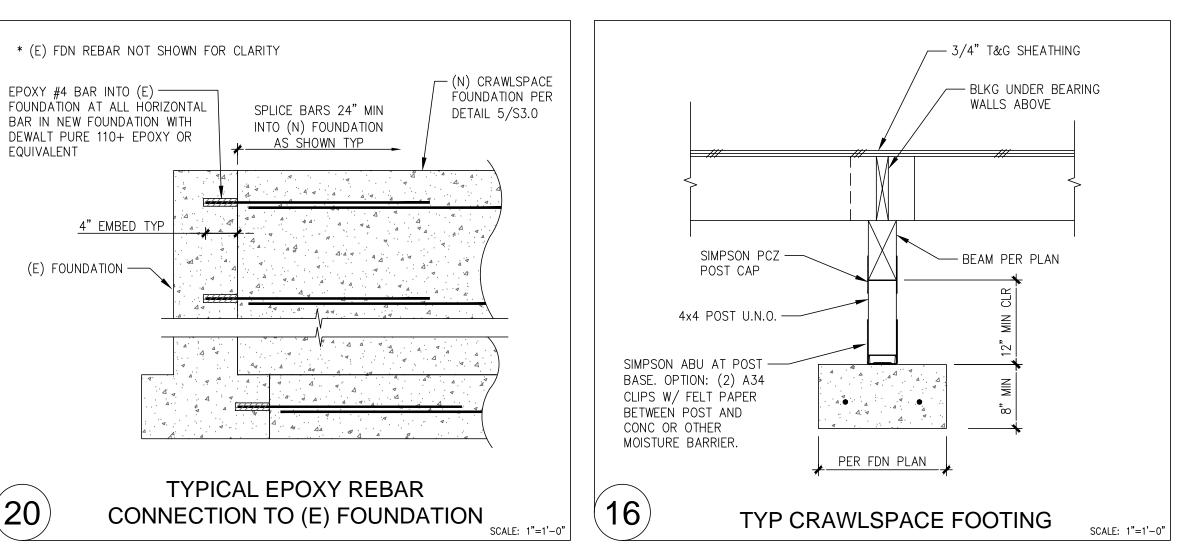
SHEET TITLE :

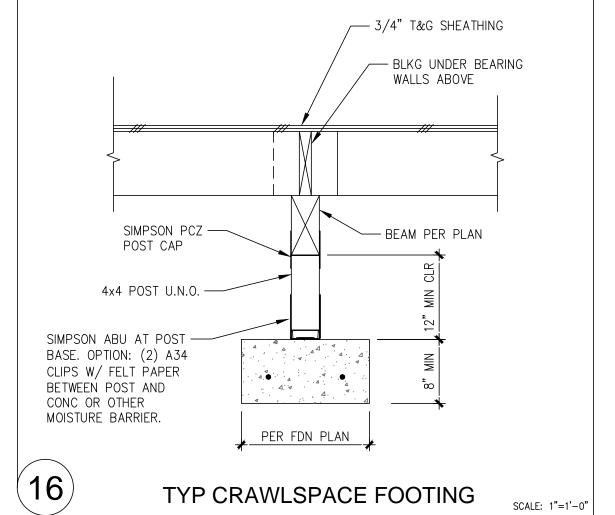
SHEET TITLE :
ROOF FRAMING
PLAN

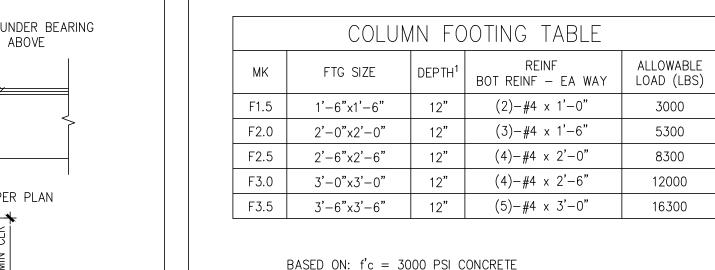
SUBMITTAL SET ONLY
NOT FOR CONSTRUCTION
THESE DRAWINGS ARE SUBJECT TO
REVISIONS PENDING LOCAL JURISDICTIONAL

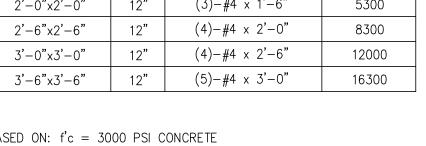
S2.1

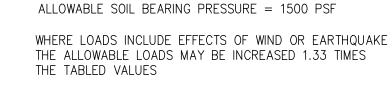
ROOF FRAMING PLAN
SCALE: 1/4"=1'-0"

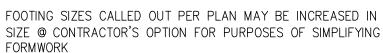


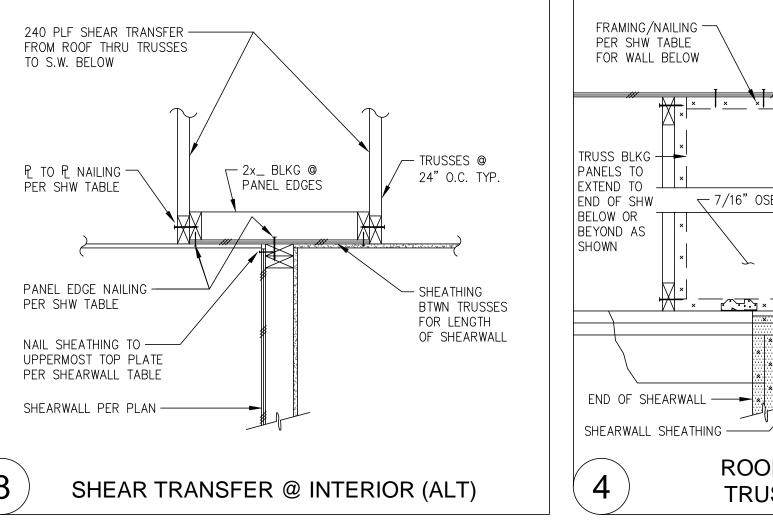




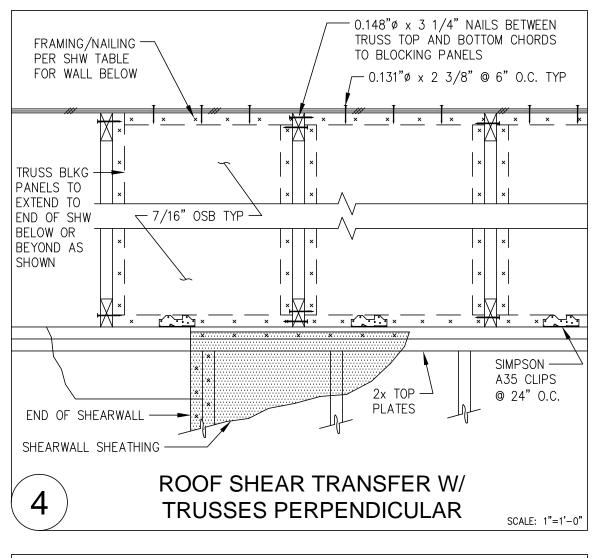


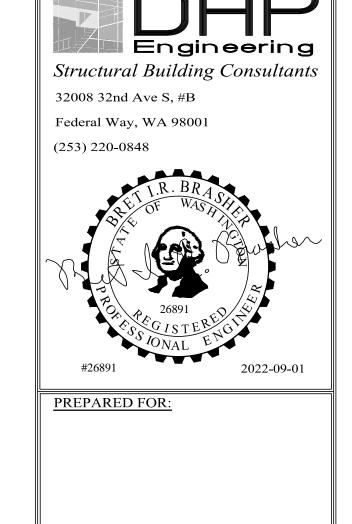






FOR CALLOUTS IN

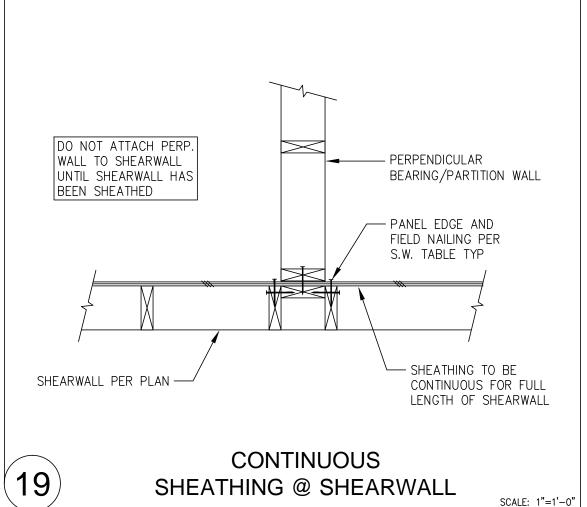




山

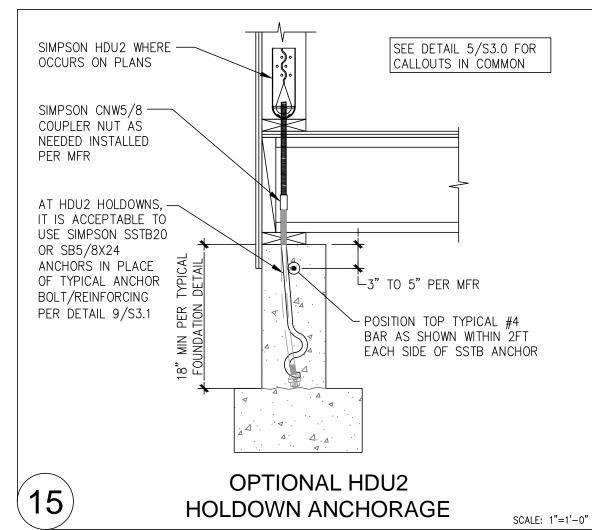
H

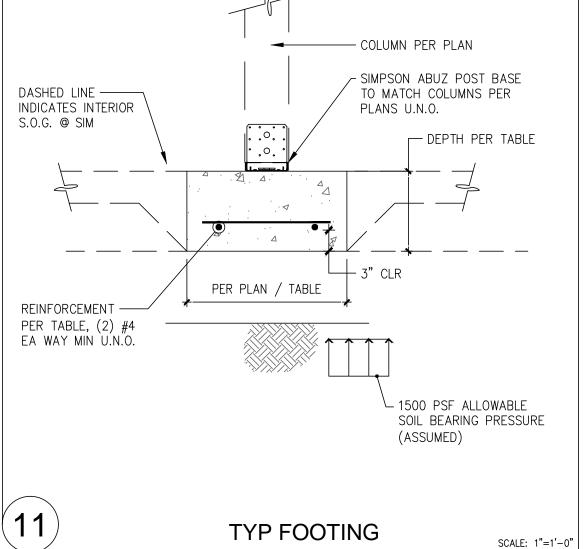
M

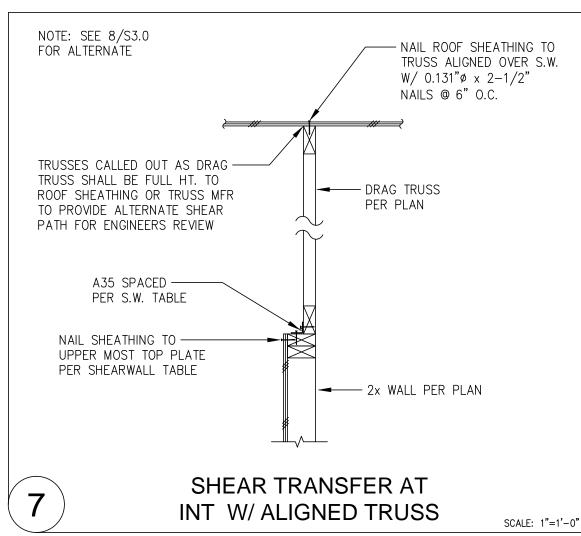


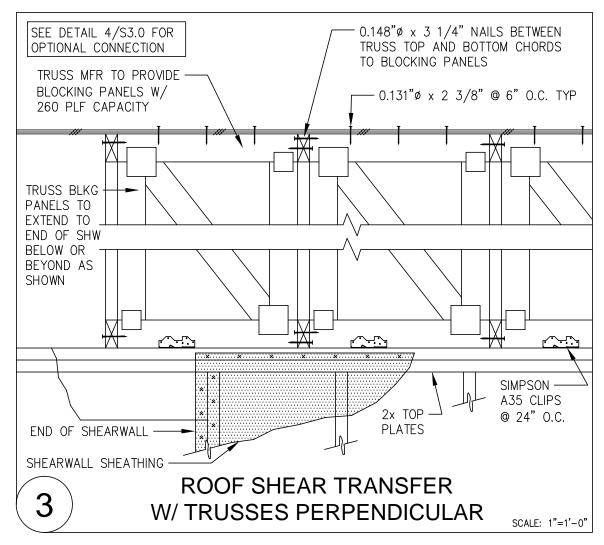
CORNER CONDITION

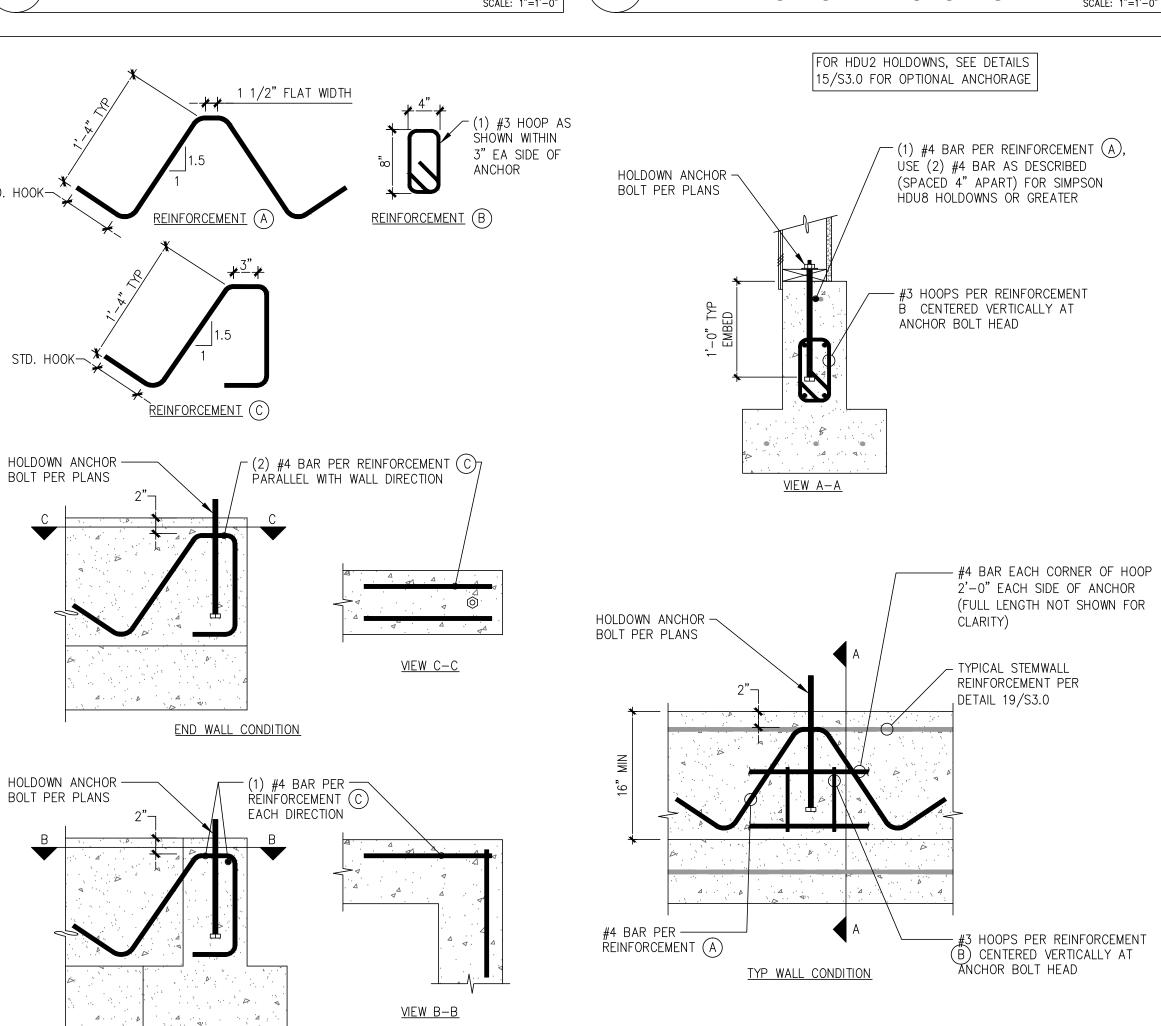
17



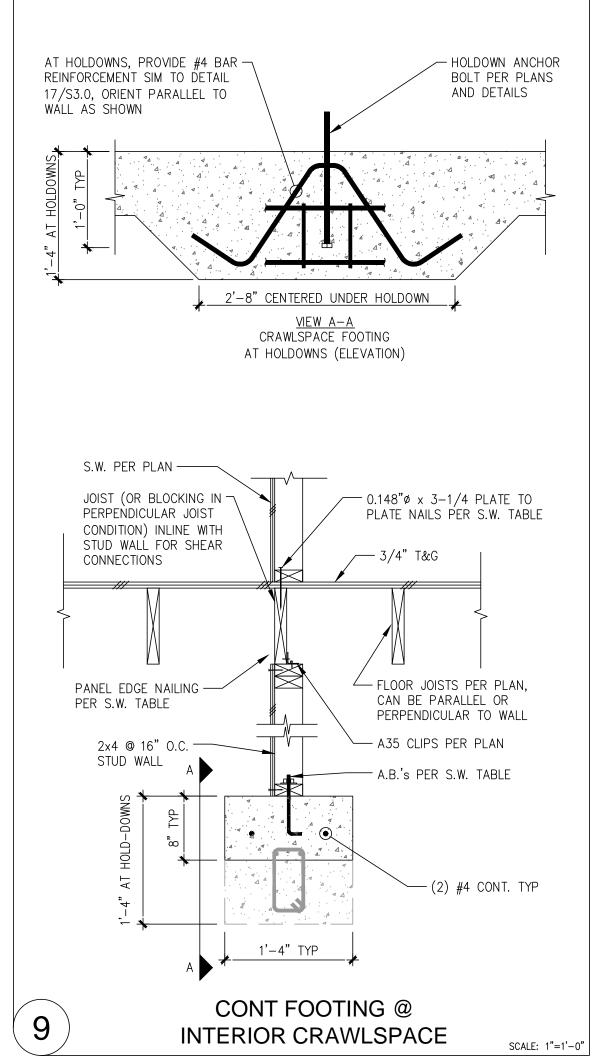




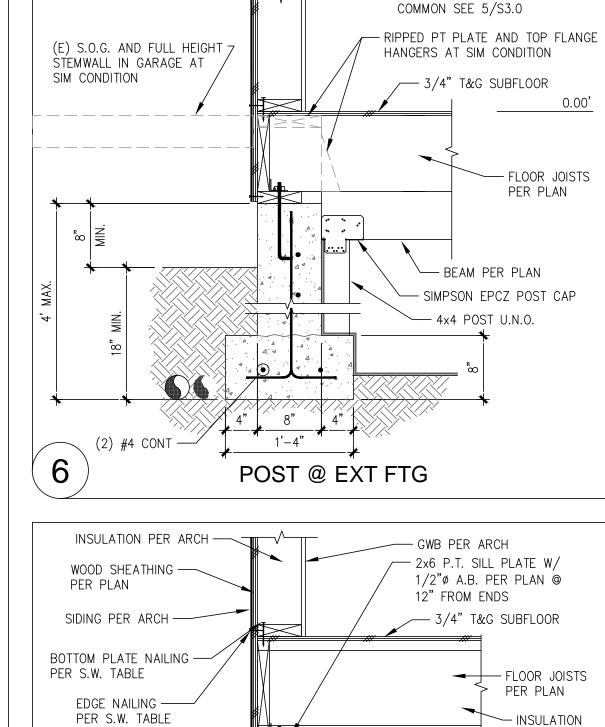


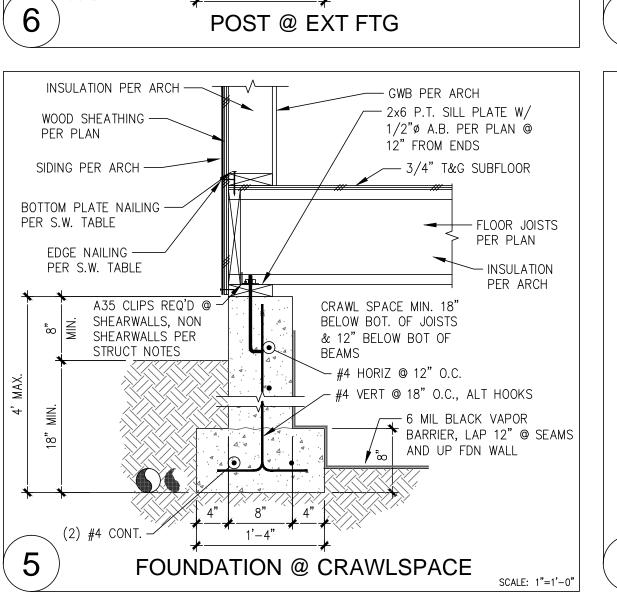


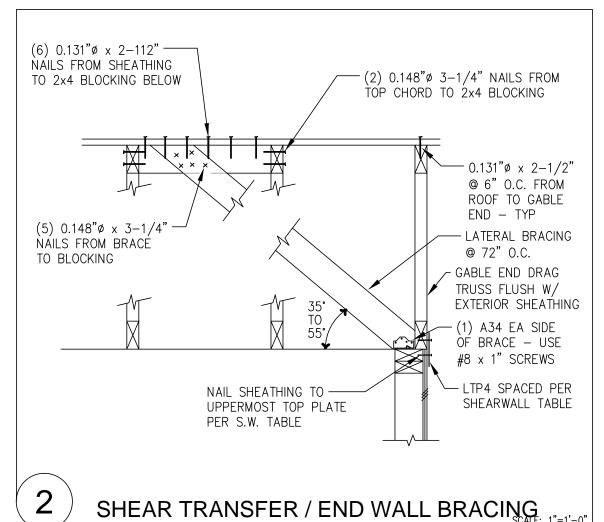
TYP HOLDOWN EMBEDMENT AND REINFORCEMENT

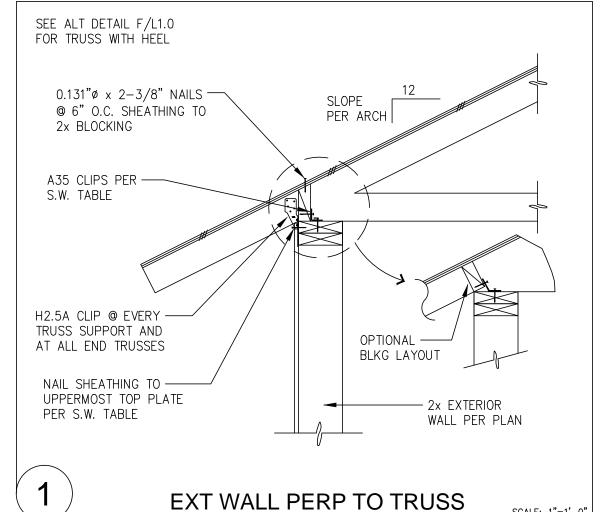


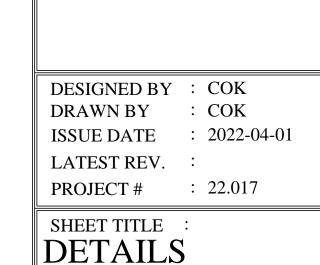
SCALE: 1"=1'-0"







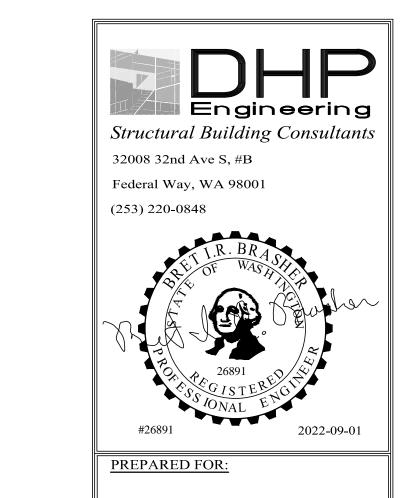




REVISIONS TO THIS SHEET:

SUBMITTAL SET ONLY NOT FOR CONSTRUCTION THESE DRAWINGS ARE SUBJECT TO REVISIONS PENDING LOCAL JURISDICTIONAL

SCALE: 1"=1'-0"



AK KEMODEL
6521 80TH AVE SE
ERCER ISLAND, WA 98040

REVISIONS TO THIS SHEET:

CITY REVIEW COMMENTS RESPONSE (COMMENTS DATED 2022-07-05 TO 2022-07-12 PER ONLINE COMMENT SYSTEM)

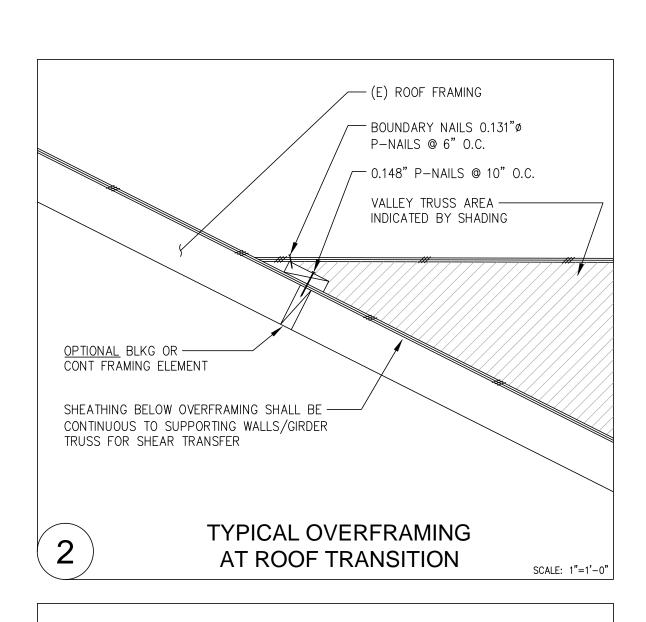
DESIGNED BY : COK
DRAWN BY : COK
ISSUE DATE : 2022-04-01
LATEST REV. : 2022-09-01

PROJECT # : 22.017

SHEET TITLE : DETAILS

SUBMITTAL SET ONLY
NOT FOR CONSTRUCTION
THESE DRAWINGS ARE SUBJECT TO
REVISIONS PENDING LOCAL JURISDICTIONAL
REVIEW.

S3.1



1/2" RADIUS —

- #4 NOSING BAR

~ 6x6 − W1.4xW1.4 − WWF @ €

TYP SLAB ON GRADE STAIRS