

**LEGAL DESCRIPTION**

(PER STATUTORY WARRANTY DEED RECORDING #20100430000680)  
 LOT 16, BLOCK 8, MADRONA CREST ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 42 OF PLATS, PAGE 12, RECORDS OF KING COUNTY, WASHINGTON.  
 SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

**BASIS OF BEARINGS**

THE CENTERLINE OF SE 40TH ST BEARS S 89°56'52" E BETWEEN FOUND MONUMENTS PER PLAT.

**REFERENCES**

- MADRONA CREST ADDITION, RECORDED IN VOLUME 42 OF PLATS, PAGE 12, RECORDS OF KING COUNTY, WASHINGTON.

**VERTICAL DATUM**

NAVD88 PER GPS OBSERVATIONS

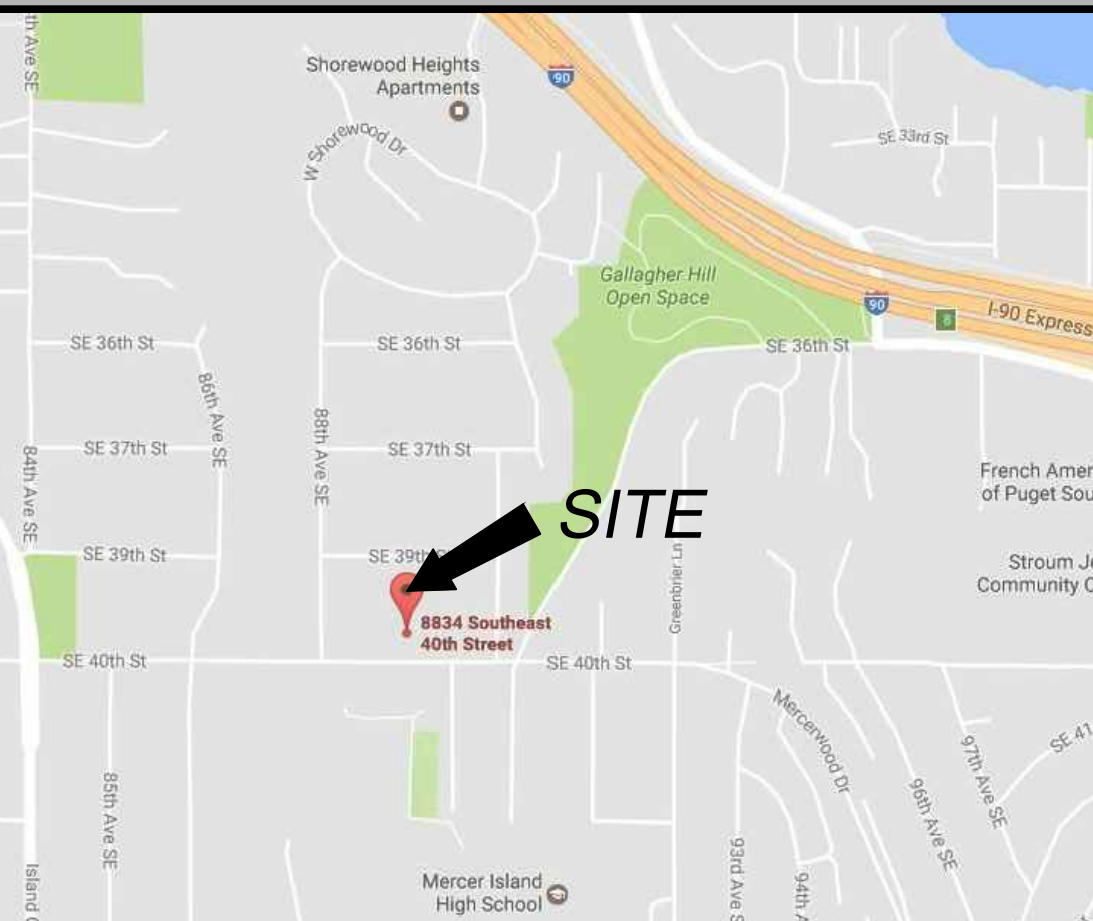
**SURVEYOR'S NOTES**

- THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN DECEMBER OF 2016 & DECEMBER 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.
- ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
- BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. TERRANE ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.
- SUBJECT PROPERTY TAX PARCEL NO. 502190-0915
- SUBJECT PROPERTY AREA PER THIS SURVEY IS 11,238± S.F. (0.26± ACRES) - 11,400 PER KING COUNTY ASSESSOR'S
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
- INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES. NO CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090.

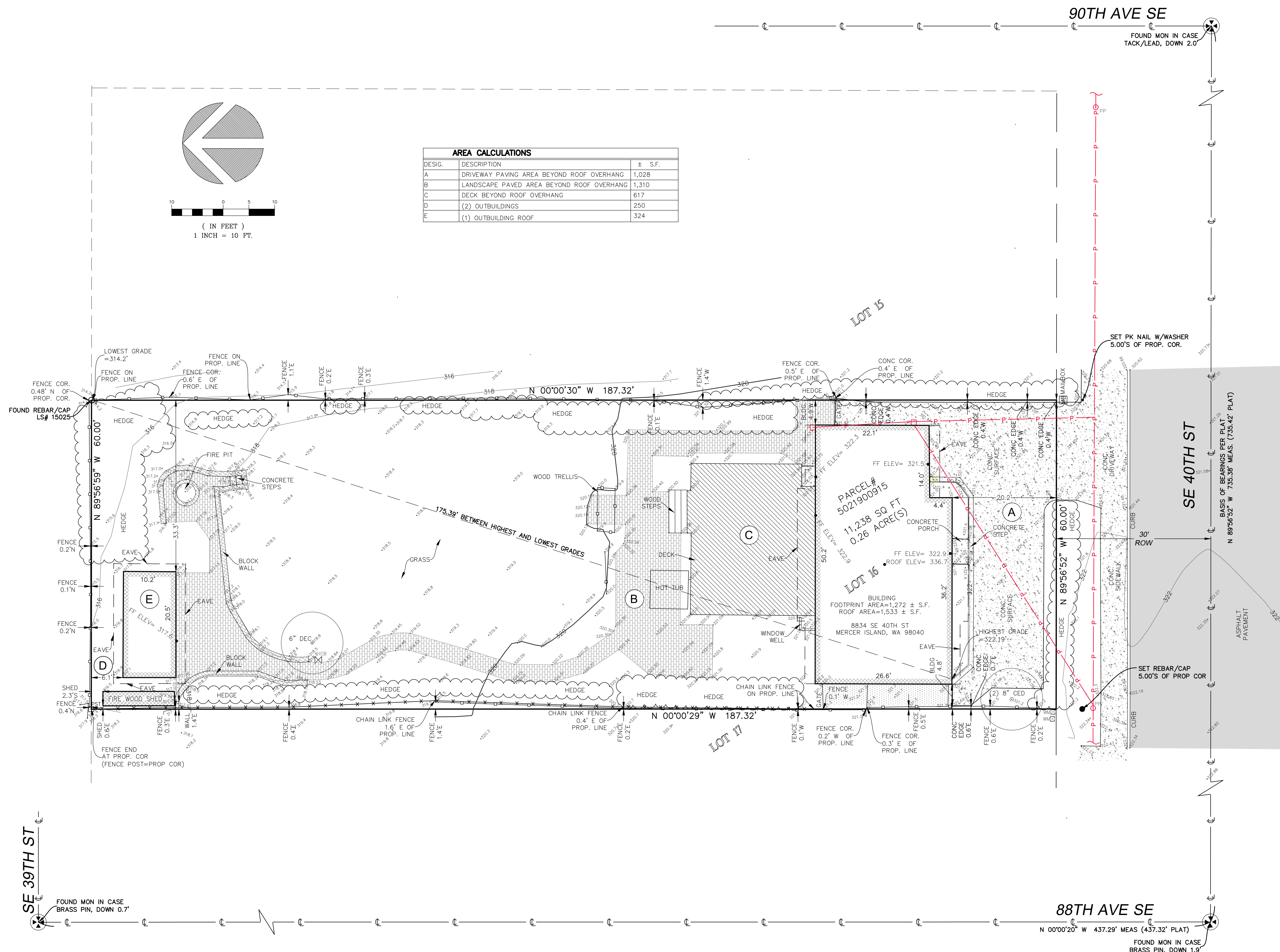
**LEGEND**

	ASPHALT SURFACE		GRAVEL SURFACE
	BRICK SURFACE		HEDGE ROW
	BUILDING		NAIL AS NOTED
	CONCRETE SURFACE		MAILBOX (RESIDENTIAL)
	CONCRETE WALL		MONUMENT IN CASE (FOUND)
	100 CONTOUR (MAJOR)		POST
	102 CONTOUR (MINOR)		POWER METER
	DECK		POWER (OVERHEAD)
	FENCE LINE (CHAIN LINK)		POWER POLE
	FENCE LINE (WOOD)		TREE (AS NOTED)
	GAS METER		WATER METER
	IRR CONTROL BOX		
	REBAR & CAP (SET)		

**VICINITY MAP**  
N.T.S.

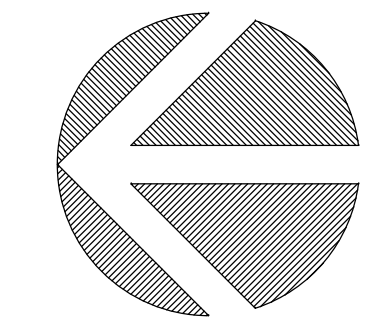


**TOPOGRAPHIC & BOUNDARY SURVEY**



**AREA CALCULATIONS**

DESIG.	DESCRIPTION	± S.F.
A	DRIVEWAY PAVING AREA BEYOND ROOF OVERHANG	1,028
B	LANDSCAPE PAVED AREA BEYOND ROOF OVERHANG	1,310
C	DECK BEYOND ROOF OVERHANG	617
D	(2) OUTBUILDINGS	250
E	(1) OUTBUILDING ROOF	324



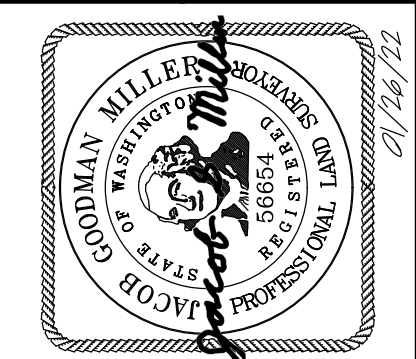
( IN FEET )  
1 INCH = 10 FT.

**STEEP SLOPE/BUFFER DISCLAIMER:**  
 THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

**INDEXING INFORMATION**

SE 1/4	SW 1/4
NW 1/4	NE 1/4
SECTION: 07	TOWNSHIP: 24N
RANGE: 05E, W.M.	COUNTY: KING

TOPOGRAPHIC & BOUNDARY SURVEY



**Terrane**  
 10801 Main Street, Suite 102, Bellevue, WA 98004  
 phone 425.458.4488 support@terrane.net  
 www.terrane.net

**REVISION HISTORY**

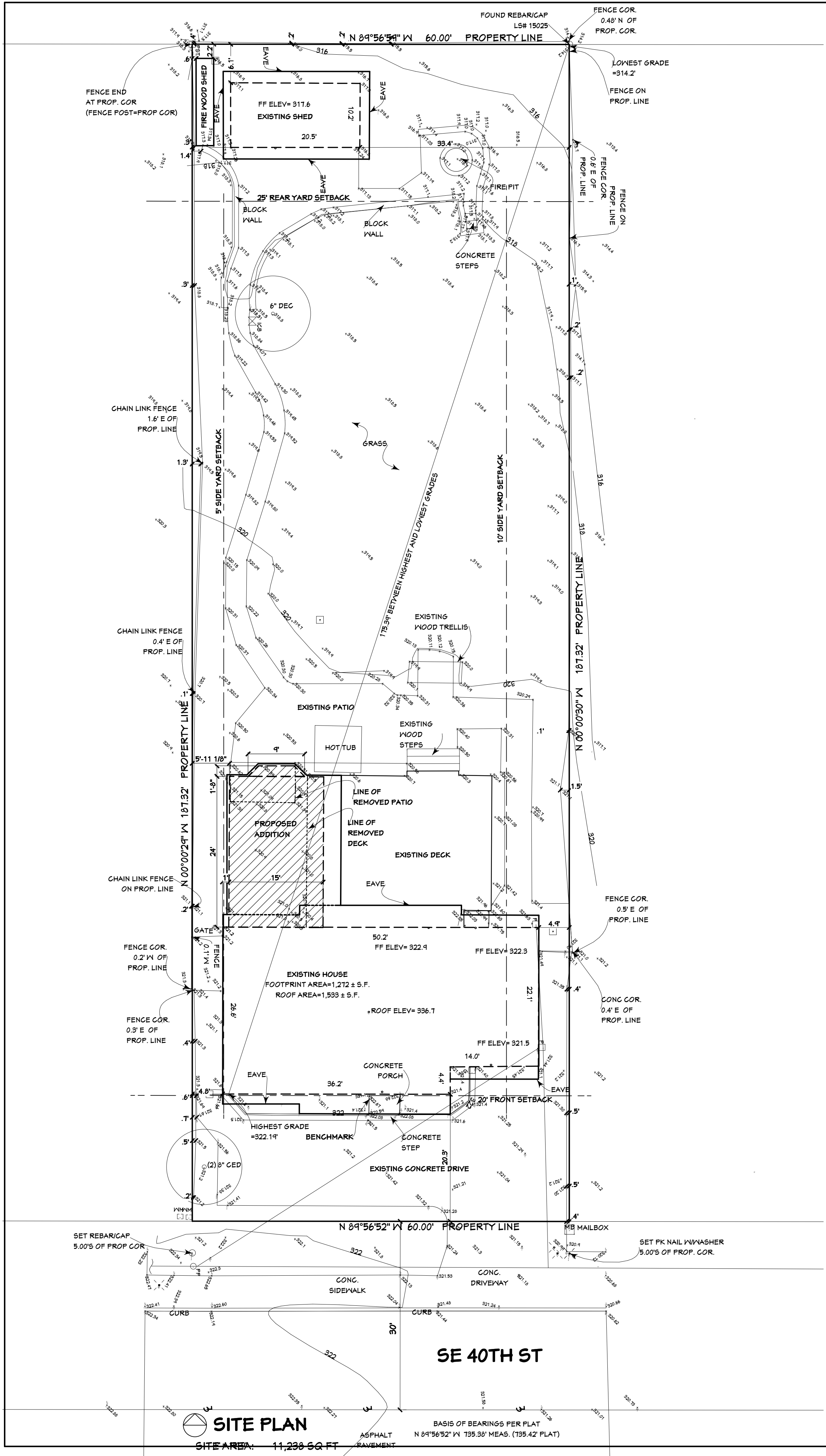
12/17/21	NEW TOPO
01/26/22	AREA CALCS
<b>SHEET NUMBER</b>	
1 OF 1	

measure success

ROBINSON RESIDENCE  
 8834 SE 40TH ST  
 MERCER ISLAND, WA 98040

PARCEL NO. 5021900915

JOB NUMBER: 161523  
 DATE: 12/16/16  
 DRAFTED BY: IDV-PSC  
 CHECKED BY: JGM  
 SCALE: 1"= 10'



**NOTES**

PARCEL NUMBER: 5021400915  
 LEGAL DESCRIPTION: LOT 16, BLOCK 8, MADRONA CREST ADDITION  
 OWNER: ERIC & KAULANI ROBINSON  
 ZONING: R-8.4  
 CODES: 2018 IRC, 2018 IWA STATE ENERGY CODE

ENERGY CREDITS:  
 CREDITS REQUIRED: 1.5 PER ADDITIONS < 500 S.F.  
 CREDITS PROVIDED: 1.5  
 USE OPTION 1.3, 5 CREDITS, EFFICIENT BUILDING ENVELOPE, U-28 WINDOWS, R-38 FLOOR INSULATION,  
 USE OPTION 3.1, 1 CREDIT, EFFICIENT HVAC, GAS MIN. AFUE 95%

WHOLE HOUSE VENTILATION: FRESH AIR PER CODE INTEGRATED WITH FORCED AIR MECHANICAL SYSTEM

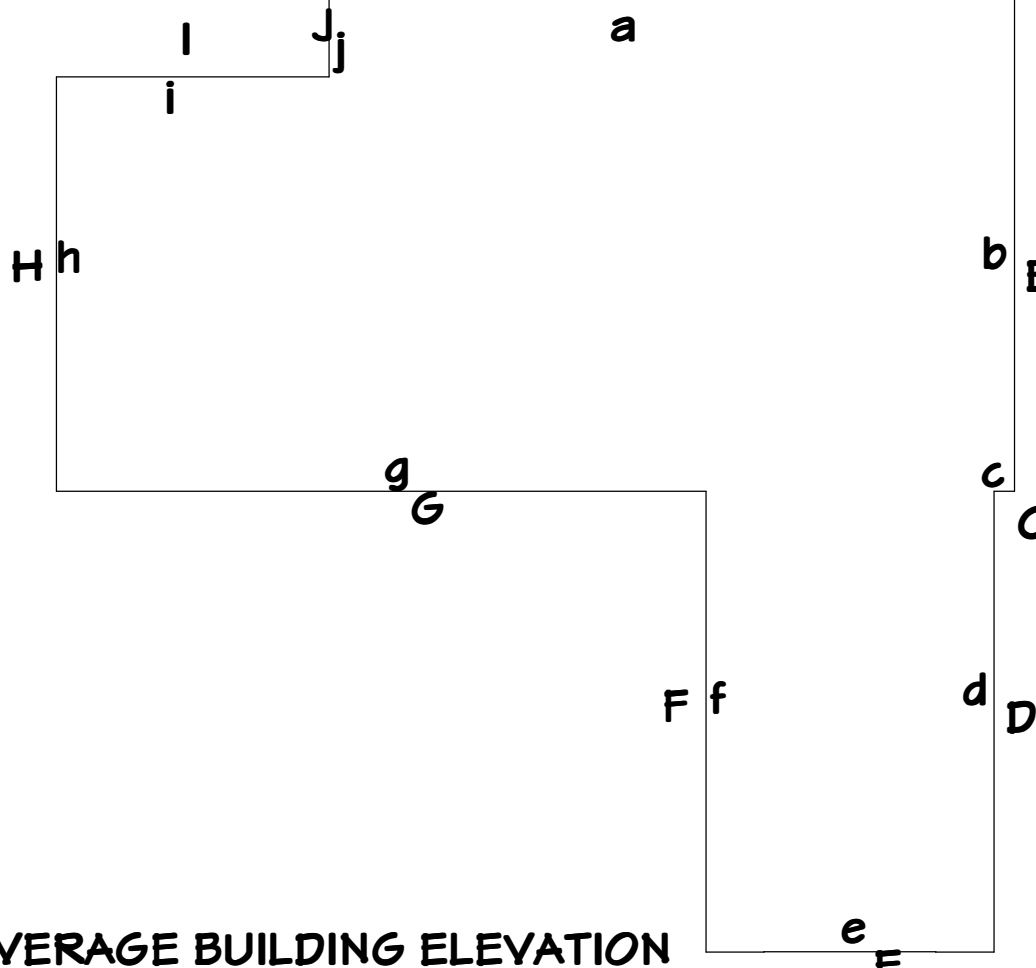
LOT SLOPE CALCULATION:  
 HIGHEST ELEVATION POINT OF LOT: 322.1'  
 LOWEST ELEVATION POINT OF LOT: 314.2'  
 ELEVATION DIFFERENCE: 7.9'  
 HORIZONTAL DISTANCE BETWEEN: 175.3'  
 LOT SLOPE: 4.55%

LOT COVERAGE CALCULATION:  
 GROSS LOT AREA: 11230  
 ALLOWED LOT COVERAGE: 40%  
 ALLOWED LOT COVERAGE AREA: 4495.2 S.F.  
 EXISTING LOT COVERAGE  
 MAIN STRUCTURE ROOF AREA: 1539 S.F.  
 ACCESSORY STRUCTURE ROOF AREA: 324 S.F.  
 VEHICULAR USE: 1020 S.F.  
 TOTAL EXISTING LOT COVERAGE AREA: 2885 S.F.  
 PROPOSED NEW ROOF AREA: 402 S.F.  
 TOTAL PROPOSED LOT COVERAGE: 3287 S.F. = 29.2%

HARDSCAPE CALCULATIONS:  
 GROSS LOT AREA: 11230 S.F.  
 AREA BORROWED FROM LOT COVERAGE: 1209.2 S.F.  
 ALLOWED HARDSCAPE: 9% OF LOT AREA + BORROWED AREA  
 1011.42 + 1209.2 = 2214.62 S.F. = 19.75%  
 TOTAL EXISTING HARDSCAPE AREA  
 UNCOVERED DECKS: 617 S.F.  
 UNCOVERED PATIOS & WALKWAYS: 1310 S.F.  
 TOTAL EXISTING HARDSCAPE: 1927 S.F.  
 (TOTAL DECK AREA REMOVED) (111 S.F.)  
 (TOTAL PATIO AREA REMOVED) (65 S.F.)  
 TOTAL PROJECT HARDSCAPE AREA: 1751 S.F. = 15.6%

GROSS FLOOR AREA CALCULATION:  
 EXISTING MAIN LEVEL AREA: 914 S.F.  
 EXISTING GARAGE AREA: 306.7 S.F.  
 EXISTING ACCESSORY BUILDINGS: 250 S.F.  
 TOTAL EXISTING FLOOR AREA: 1470.7 S.F.  
 PROPOSED NEW AREA, MAIN LEVEL: 375 S.F.  
 ALLOWED GROSS FLOOR AREA: 11230 S.F. X 40% = 4495.2 S.F.  
 PROPOSED GROSS FLOOR AREA: 1845.7 S.F. = 16.4%

BUILDING HEIGHT:



**AVERAGE BUILDING ELEVATION**

MIDPT. ELEV. WALL SEGMENT LENGTH

A = 321.1'	a = 35.63'
B = 321.25'	b = 25.7'
C = 321.2	c = 1'
D = 321	d = 24'
E = 320.6	e = 15'
F = 320.08	f = 24'
G = 320.5	g = 33.83'
H = 320.5	h = 21.6'
I = 321.42	i = 14.21'
J = 321.45	j = 4.08'

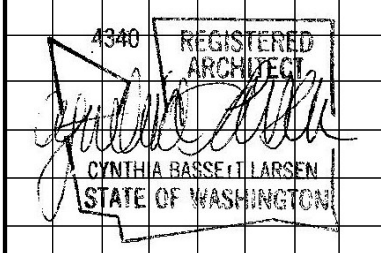
AVE CALCULATION  
 $321(35.63) + 321.25(25.7) + 321.2(1) + 321(24) + 320.6(15) + 320.08(24) + 320.5(33.83) + 320.5(21.6) + 321.42(14.21) + 321.45(4.08)$   
 $35.63 + 25.7 + 1 + 24 + 15 + 24 + 33.83 + 21.6 + 14.21 + 4.08$

AVERAGE BUILDING ELEVATION =  $63859.68 / 199.05 = 320.74'$  (SEE SHEET A-3)  
 MAXIMUM BUILDING HEIGHT = 350.74'  
 EXISTING BUILDING HEIGHT = 336.2'  
 PROPOSED ADDITION HEIGHT = 335.46'

REVISIONS


CONSULTANTS

CK ENGINEERING, LLC  
 206 417 0670



2704 34TH AVENUE SOUTH, SEATTLE, WA 98144 | (206) 232-0602

ROBINSON RESIDENCE  
 8884 SE 40TH ST.  
 MERCER ISLAND, WA 98040

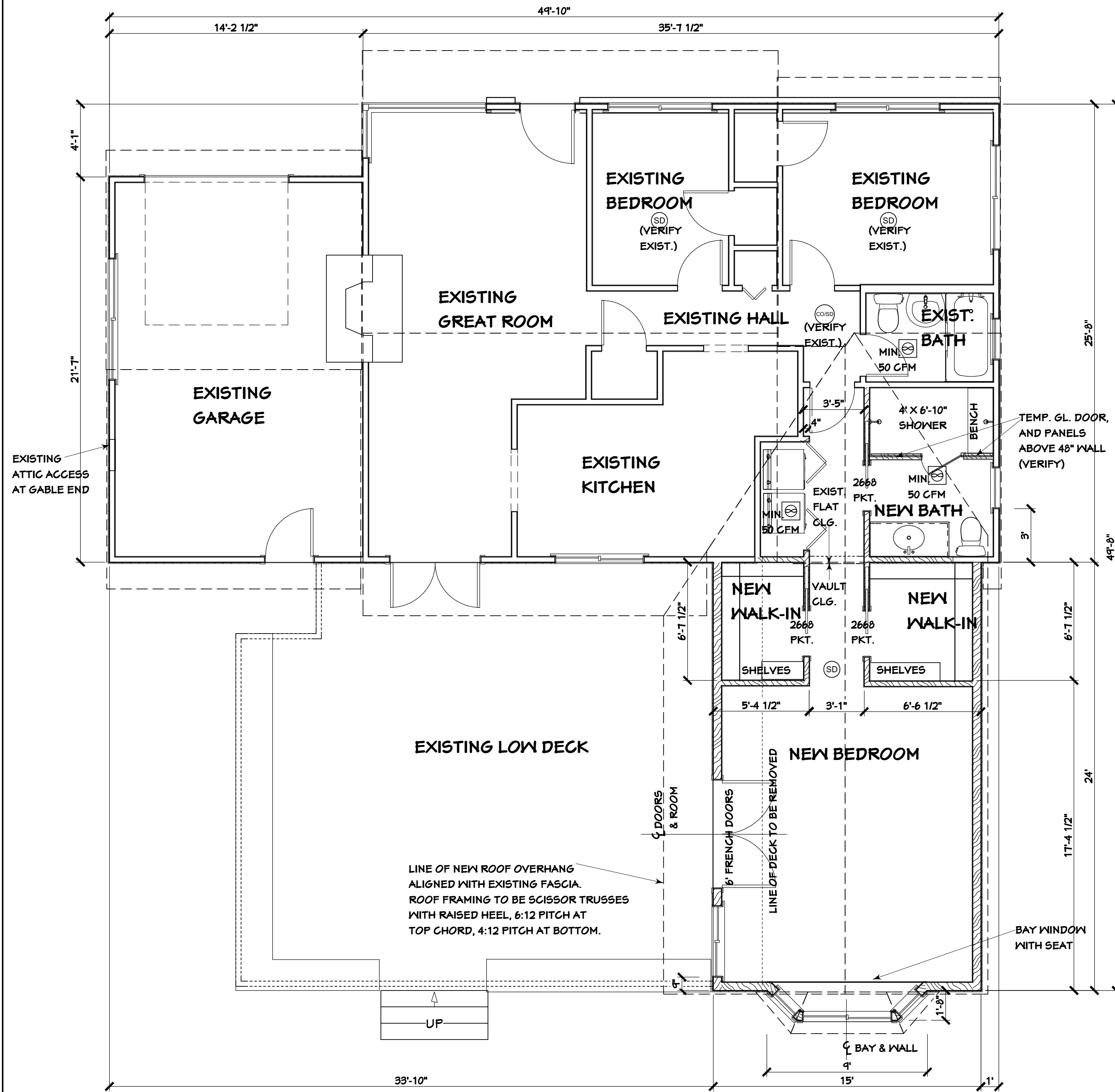
**BASSETT LARSEN DESIGN LLC**

SHEET TITLE

SITE PLAN  
 NOTES

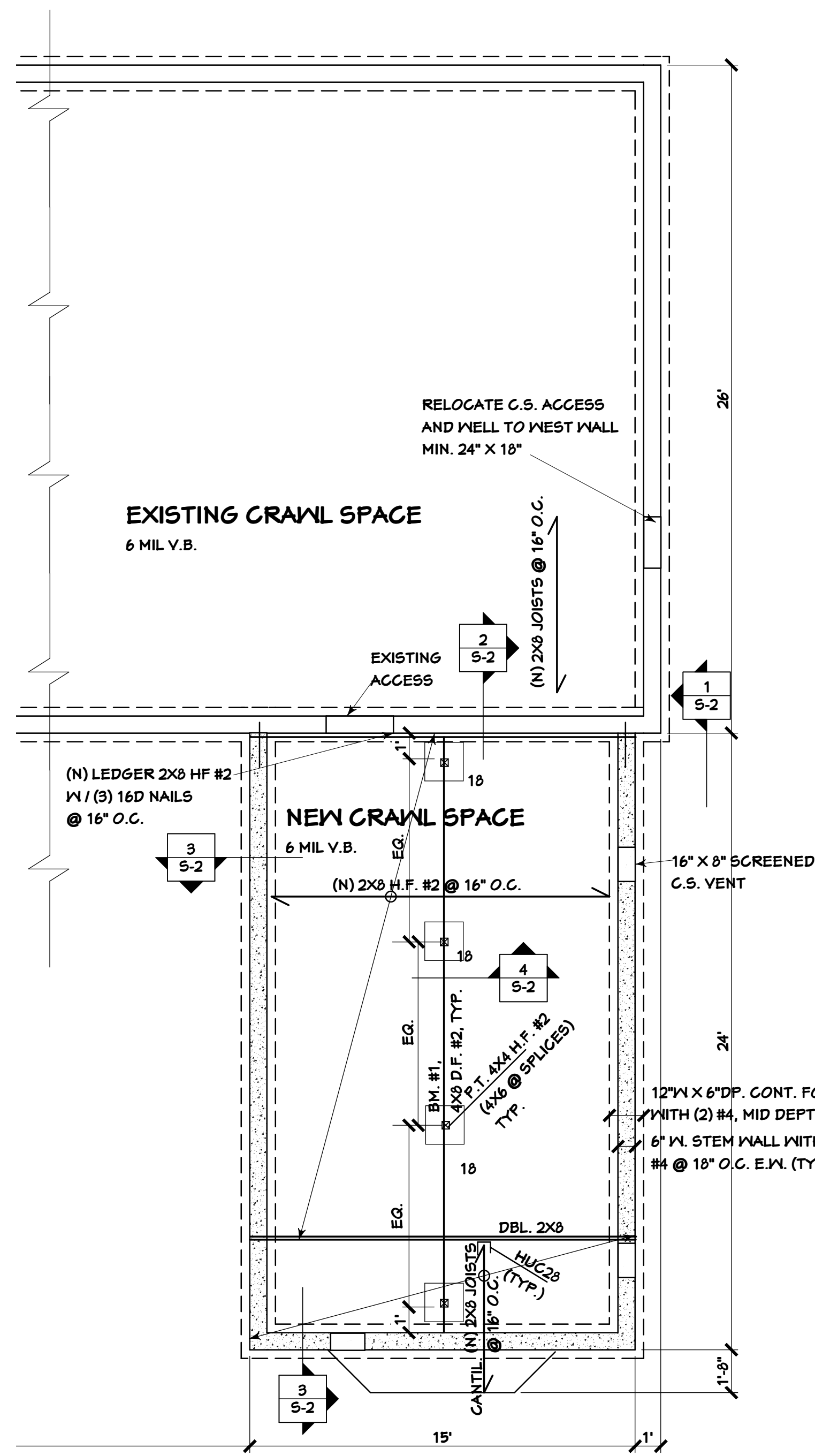
SHEET **A1**  
 OF 3 SHEETS

DATE 2-4-22



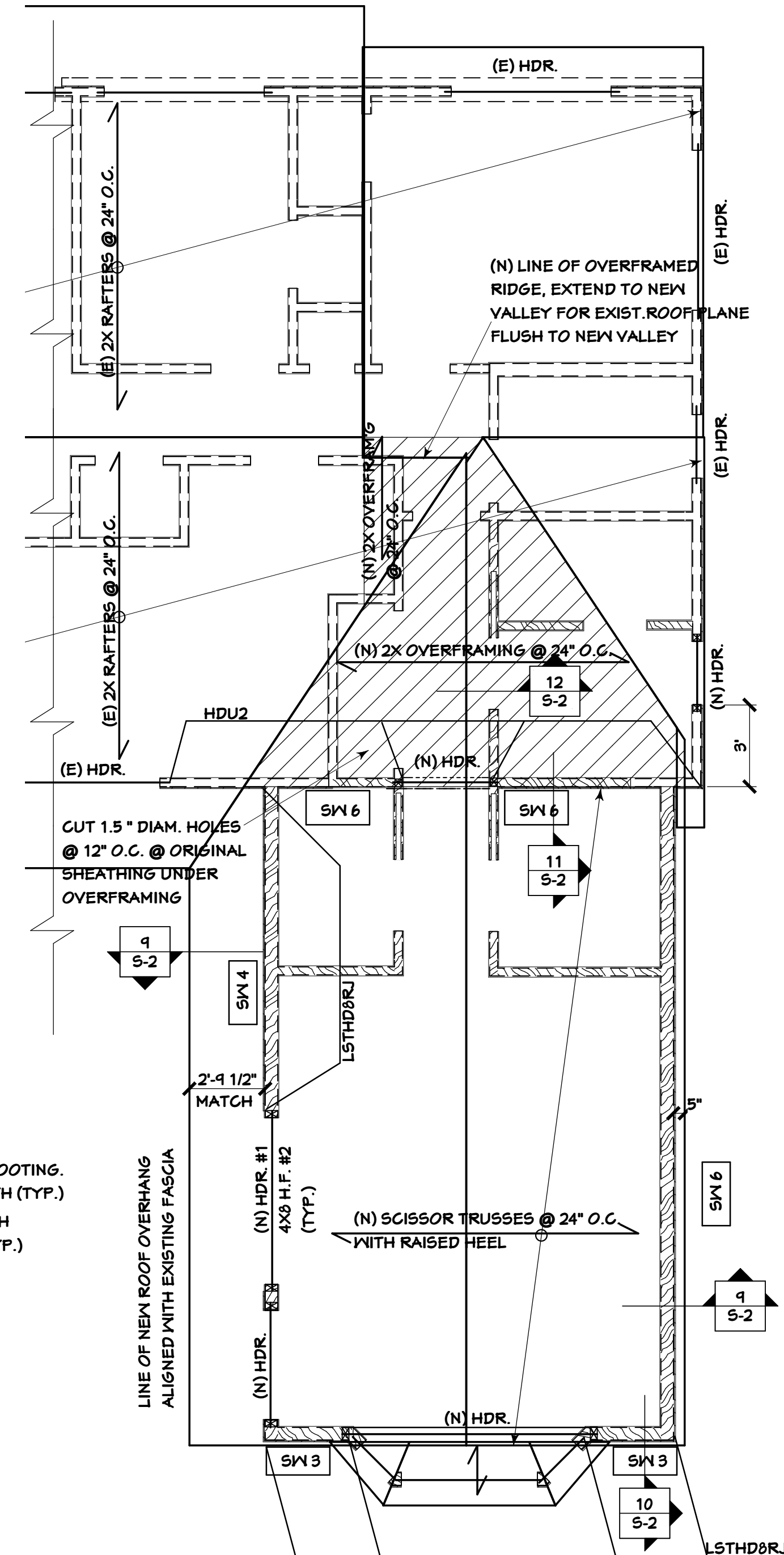
**REVISED FLOOR PLAN**  
1/4" = 1'-0"

- EXISTING
- REMOVED
- NEW



**REVISED FOUNDATION PLAN**  
1/4" = 1'-0"

- EXISTING
  - NEW
  - 18" SQ. X 10" DP. FOOTING
  - 18" WITH (2) #4, E.V. TYP.
- CRAWL SPACE VENTING:**  
**VENTING REQUIRED:**  
 360 S.F. / 150 = 2.4 S.F. = 345.6 SQ. IN.  
**VENTING PROVIDED:**  
 3 VENTS, 16" X 8" = 384 SQ. IN.



**REVISED ROOF FRAMING PLAN**  
1/4" = 1'-0"

- ROOF VENTILATION**
- VENTILATION REQUIRED**  
 360 S.F. / 150 = 2.4 S.F. = 345.6 SQ. IN.
  - VENTILATION PROVIDED**  
 SOLID VENT BLOCK  
 48" X 4.71 SQ. IN. / FT. = 226 SQ. IN.
  - CONTINUOUS RIDGE VENT  
 24" X 12 SQ. IN. / FT. = 288 SQ. IN.

NO.	REVISIONS

**CONSULTANTS**  
 CK ENGINEERING, LLC  
 206 417 0670

4340 REGISTERED ARCHITECT  
 CYNTHIA BASSETT LARSEN  
 STATE OF WASHINGTON

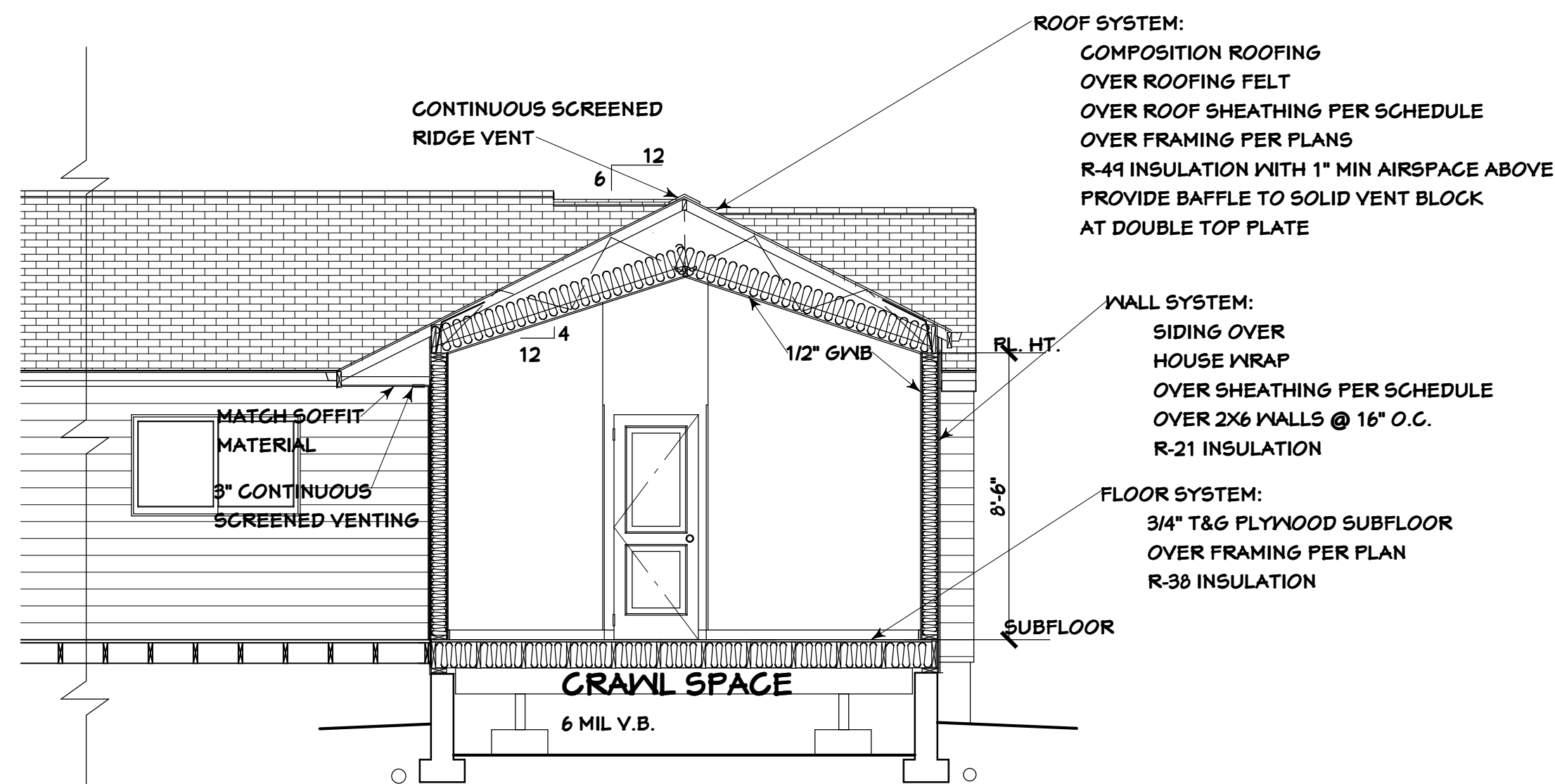
2704 34TH AVENUE SOUTH, SEATTLE, WA 98144. (206) 232-0602

**BASSETT LARSEN DESIGN LLC**  
 ROBINSON RESIDENCE  
 8894 SE 40TH ST.  
 MERCER ISLAND, WA 98040

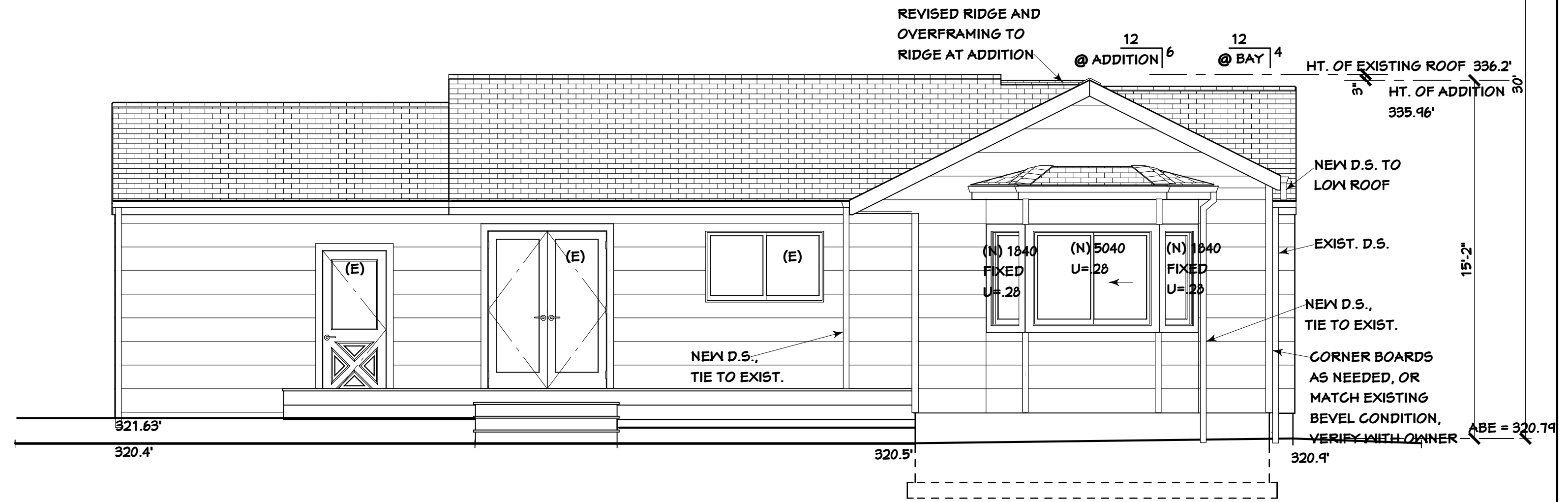
**SHEET TITLE**  
 REVISED FLOOR PLAN  
 REVISED FOUNDATION PLAN  
 REVISED ROOF FRAMING

**SHEET A2**  
 OF 3 SHEETS

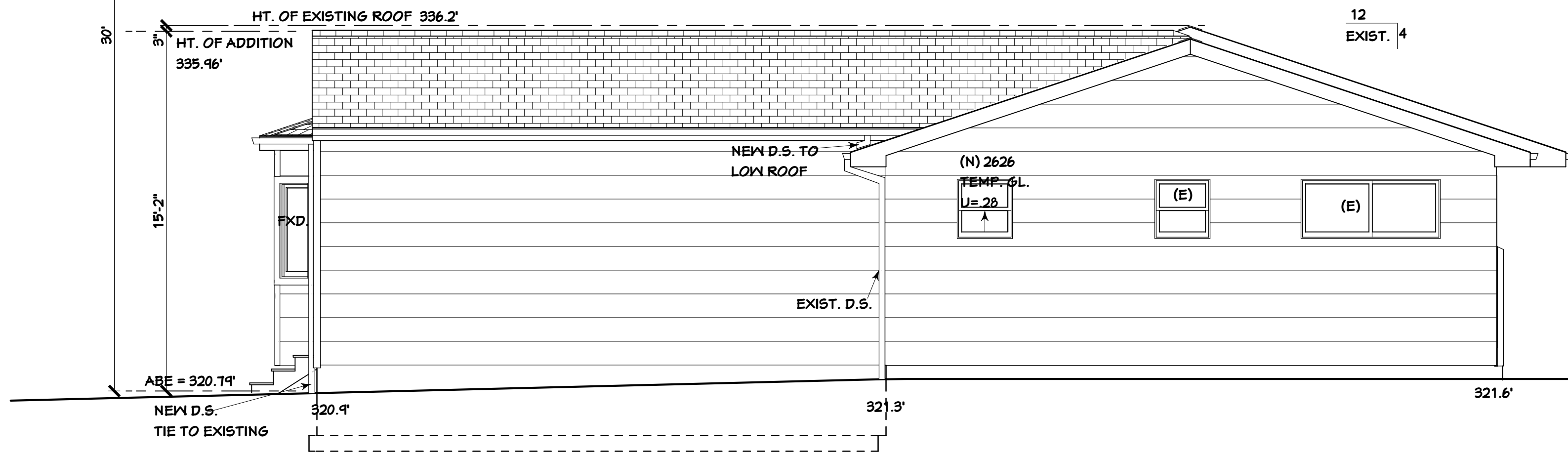
**DATE 2-4-22**



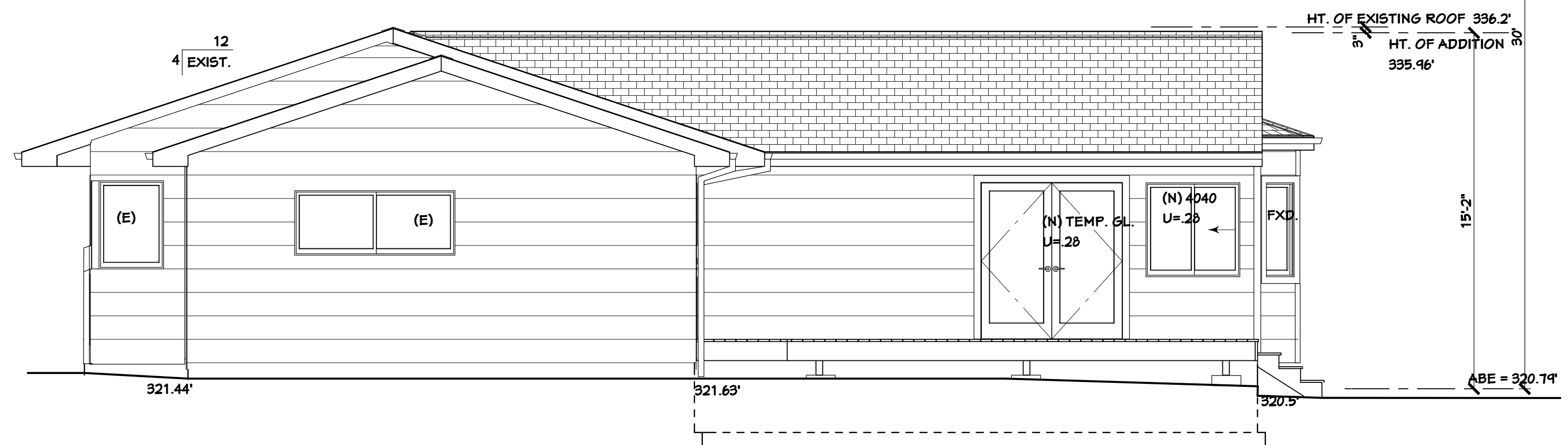
**BUILDING SECTION A-A**  
 1/4" = 1'-0"



**REVISED NORTH ELEVATION**  
 1/4" = 1'-0"



**REVISED WEST ELEVATION**  
 1/4" = 1'-0"

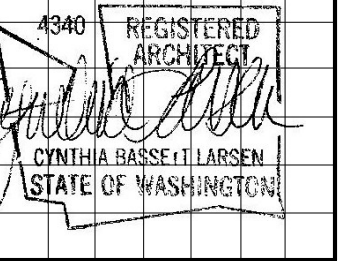


**REVISED EAST ELEVATION**  
 1/4" = 1'-0"

REVISIONS

CONSULTANTS

CK ENGINEERING, LLC  
 206 417 0670



2704 34TH AVENUE SOUTH, SEATTLE, WA 98144 . (206) 232-0602

**BASSETT LARSEN DESIGN LLC**  
 ROBINSOIN RESIDENCE  
 8894 SE 40TH ST.  
 MERCER ISLAND, WA 98040

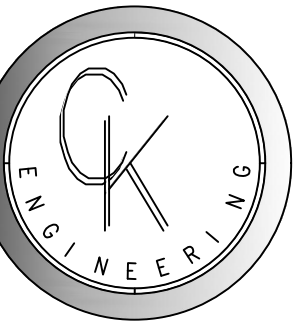
SHEET TITLE

BUILDING SECTION A-A  
 REVISED NORTH ELEVATION  
 REVISED EAST ELEVATION  
 REVISED WEST ELEVATION

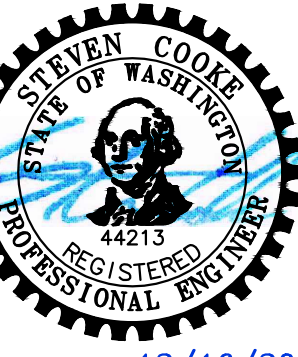
SHEET **A3**  
 OF 3 SHEETS

DATE 2-4-22



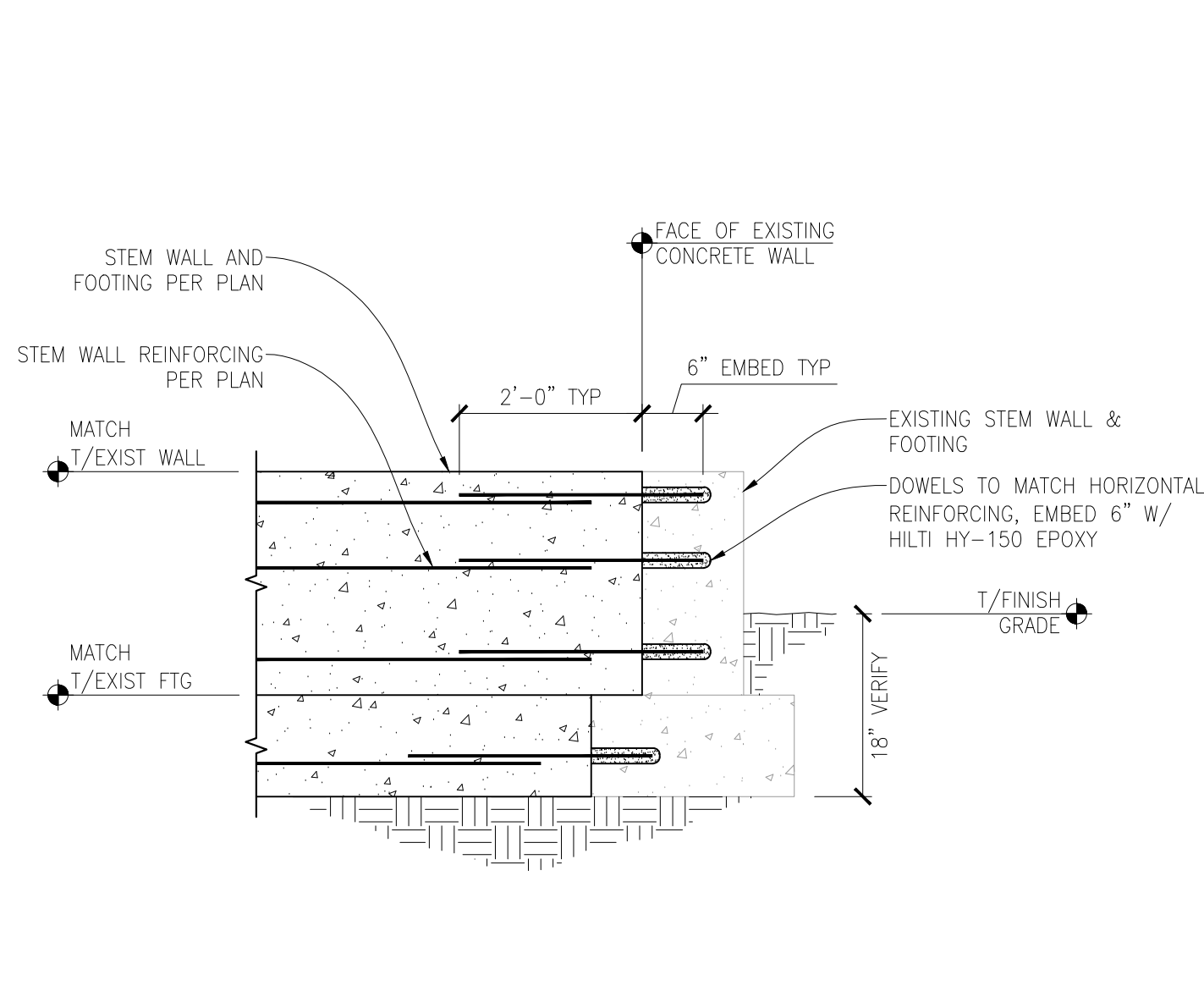


**CK ENGINEERING LLC**  
PROFESSIONAL STRUCTURAL  
ENGINEERING SERVICES  
19105 36th Ave W, Suite 205  
Lynnwood, WA 98036  
Phone: (206) 417-0670



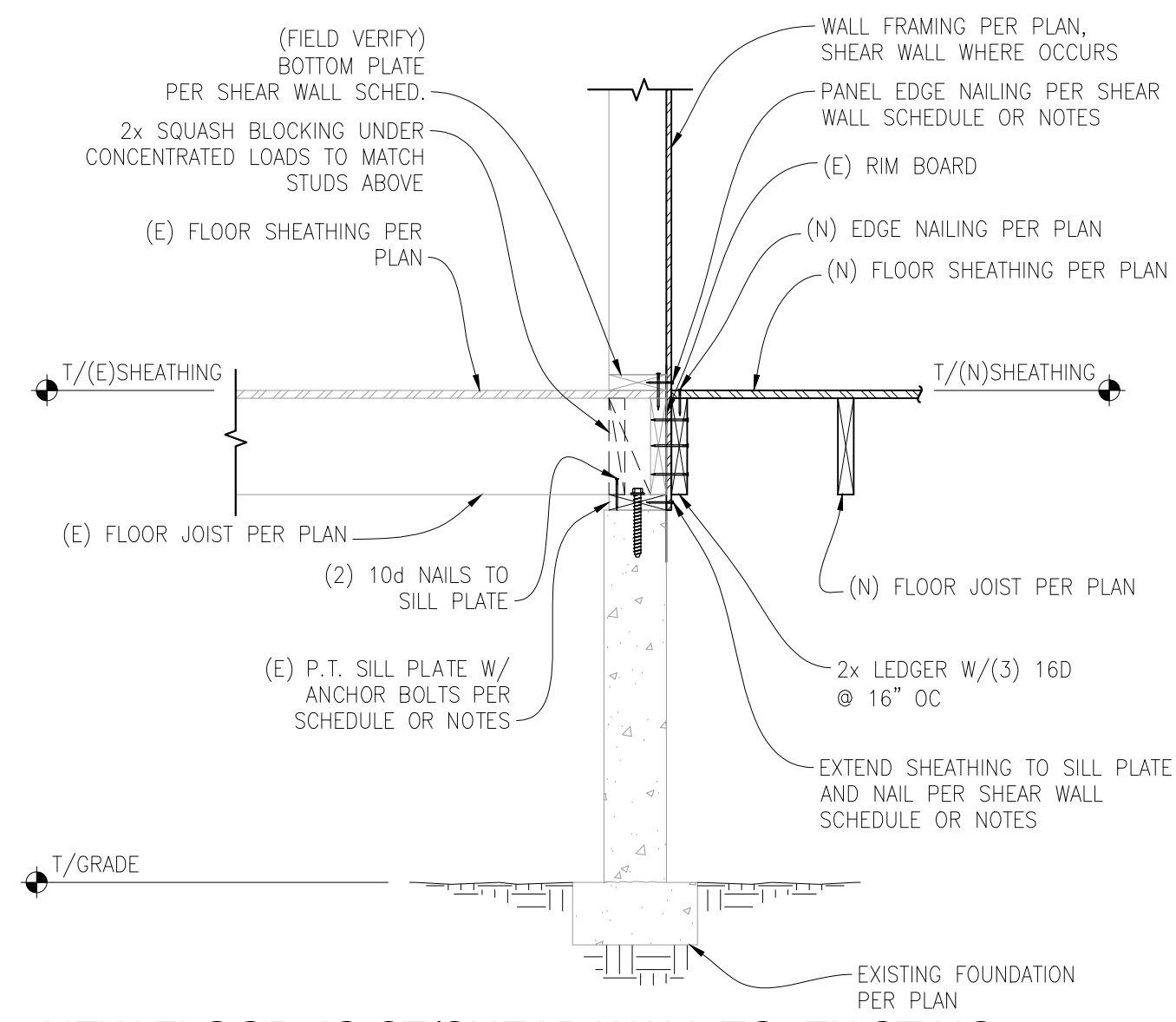
12/16/2021

**ROBINSON RESIDENCE**  
8834 SE 40TH ST.  
MERCER ISLAND, WA 98040



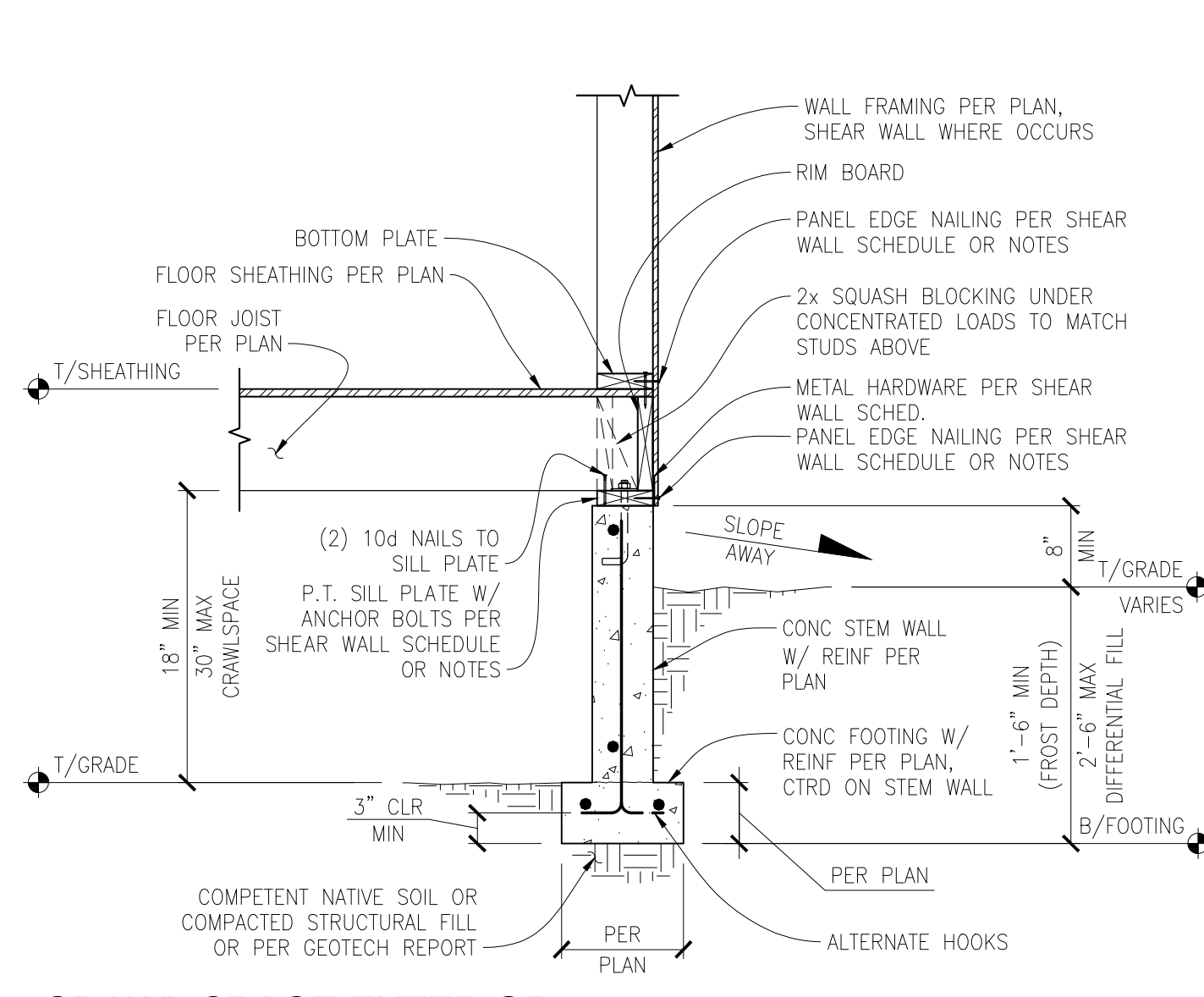
**NEW FOUNDATION CONNECTION TO EXISTING**

SCALE:  $\frac{3}{4}" = 1'-0"$



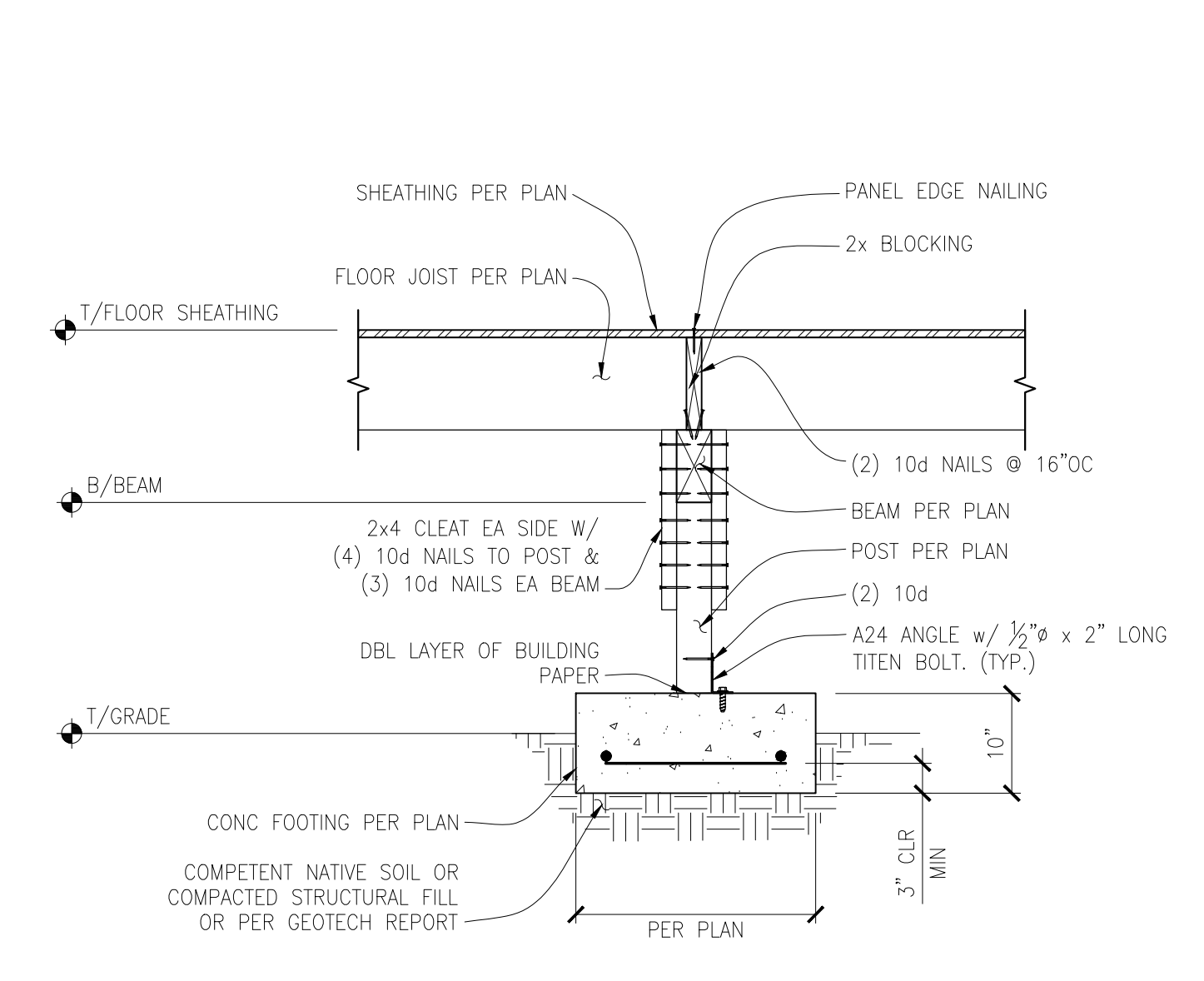
**NEW FLOOR JOIST/SHEAR WALL TO EXISTING FLOOR JOIST/FOUNDATION CONNECTION**

SCALE:  $\frac{3}{4}" = 1'-0"$



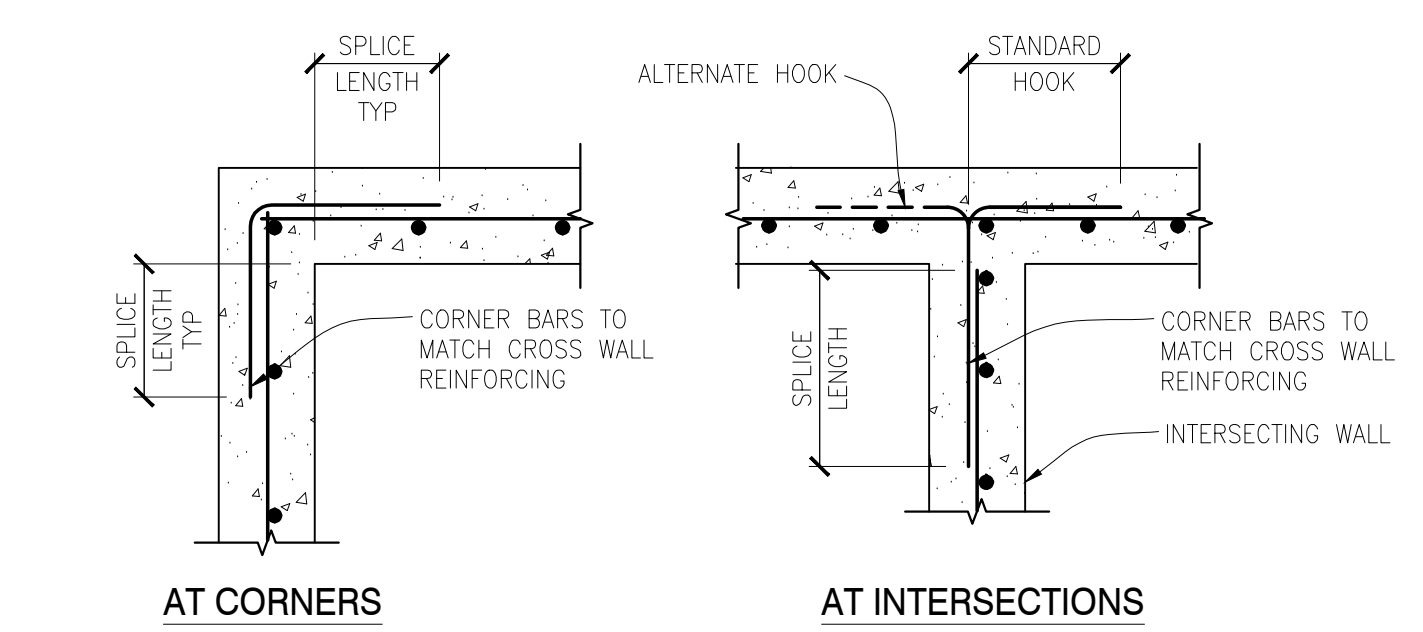
**CRAWL SPACE EXTERIOR SHEAR WALL WITH JOISTS PERPENDICULAR**

SCALE:  $\frac{3}{4}" = 1'-0"$



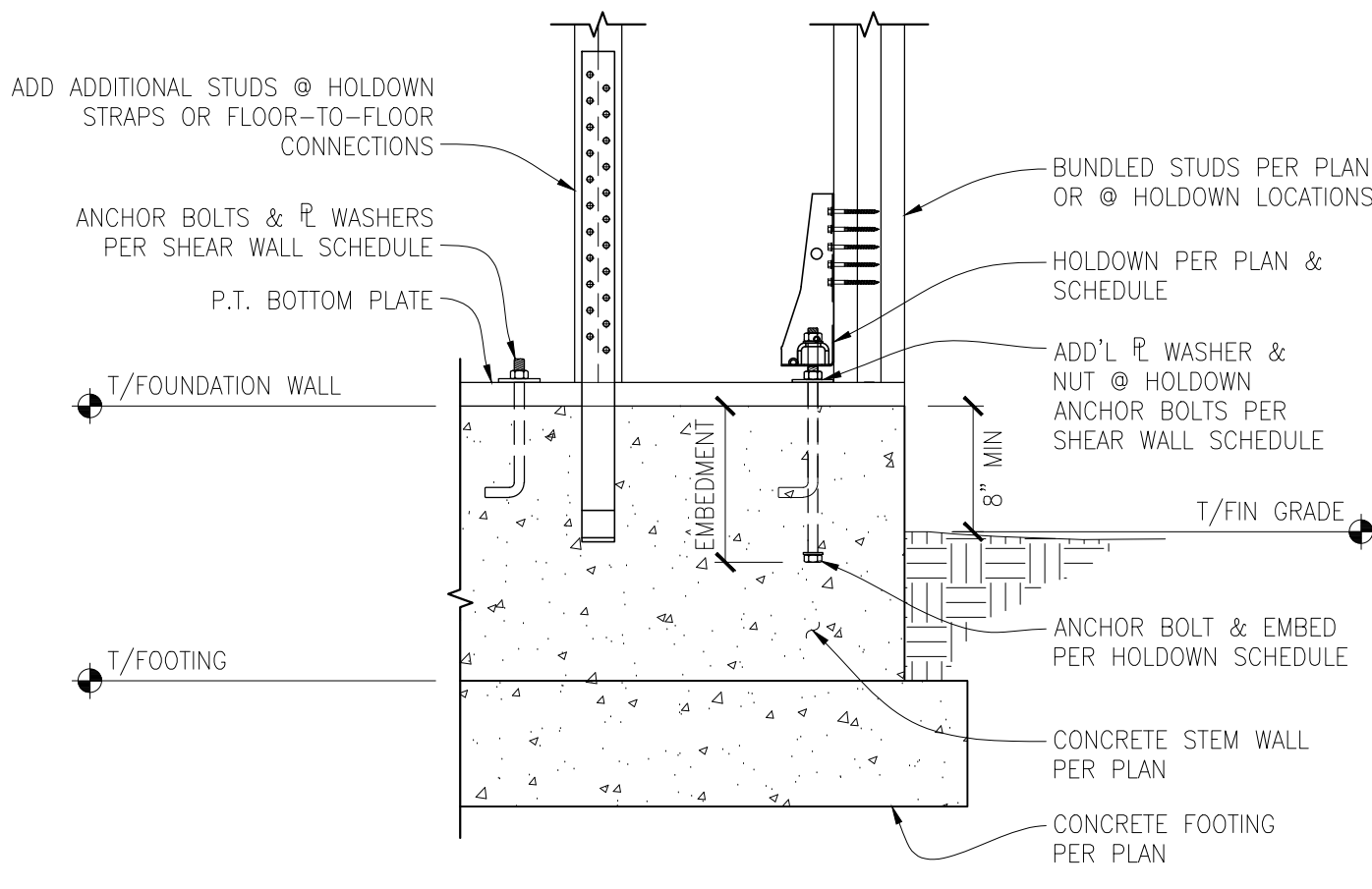
**POST AND BEAM AT CRAWLSPACE**

SCALE:  $\frac{3}{4}" = 1'-0"$



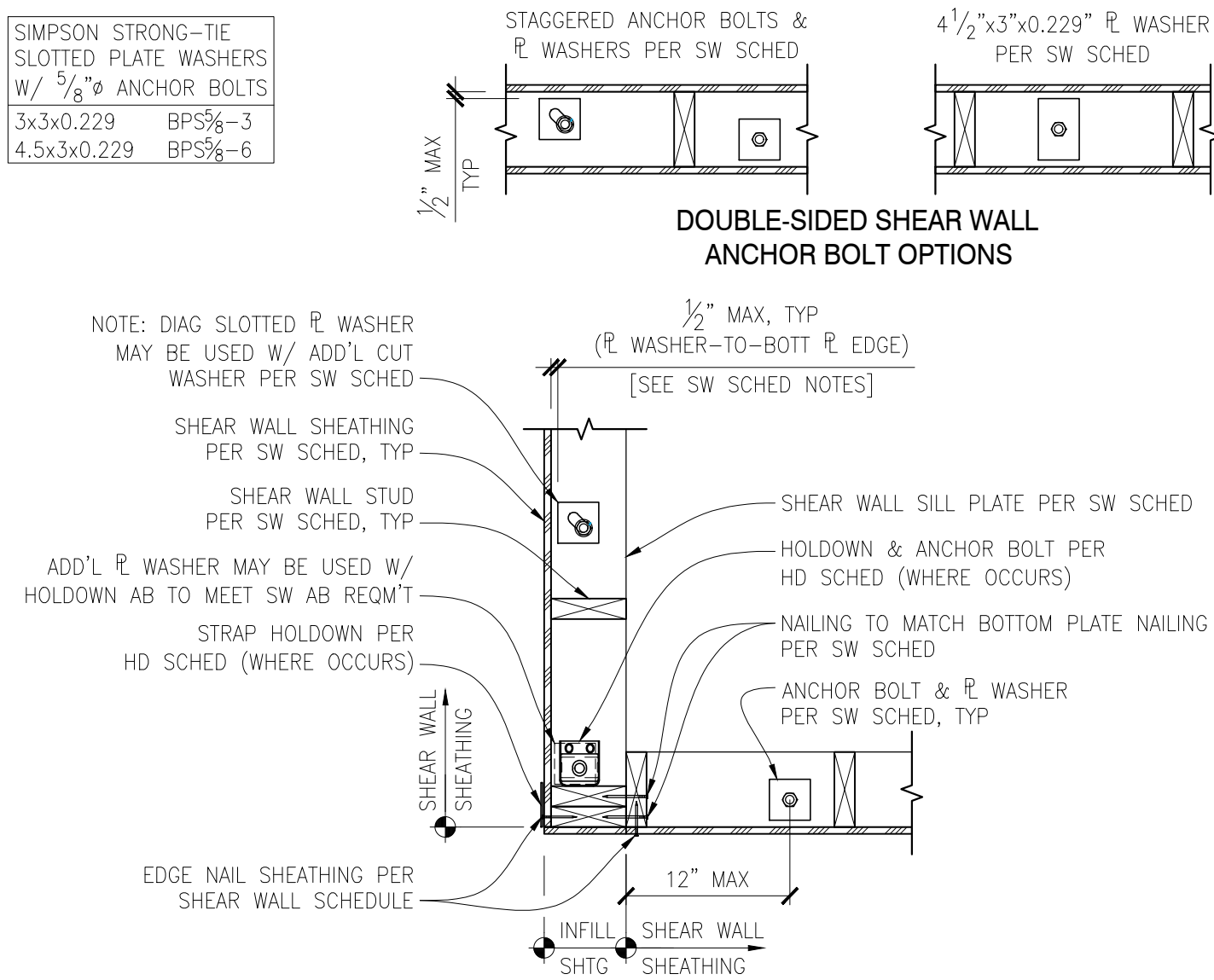
**TYPICAL CORNER BARS AT CONCRETE WALLS - SINGLE MAT**

SCALE: N.T.S.



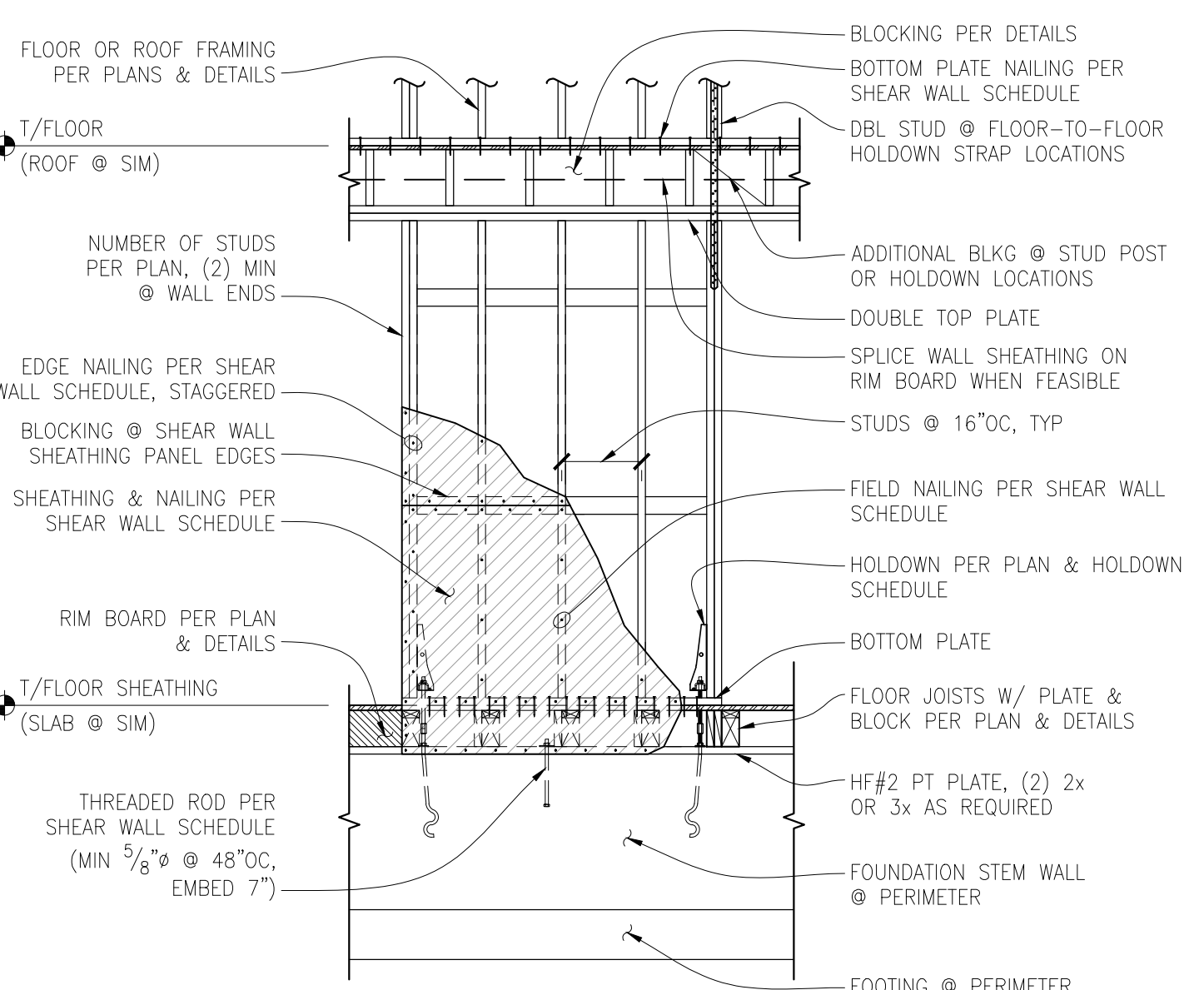
**TYPICAL SHEAR WALL HOLDOWN CONNECTIONS AT FOUNDATION CONCRETE WALL**

SCALE: N.T.S.



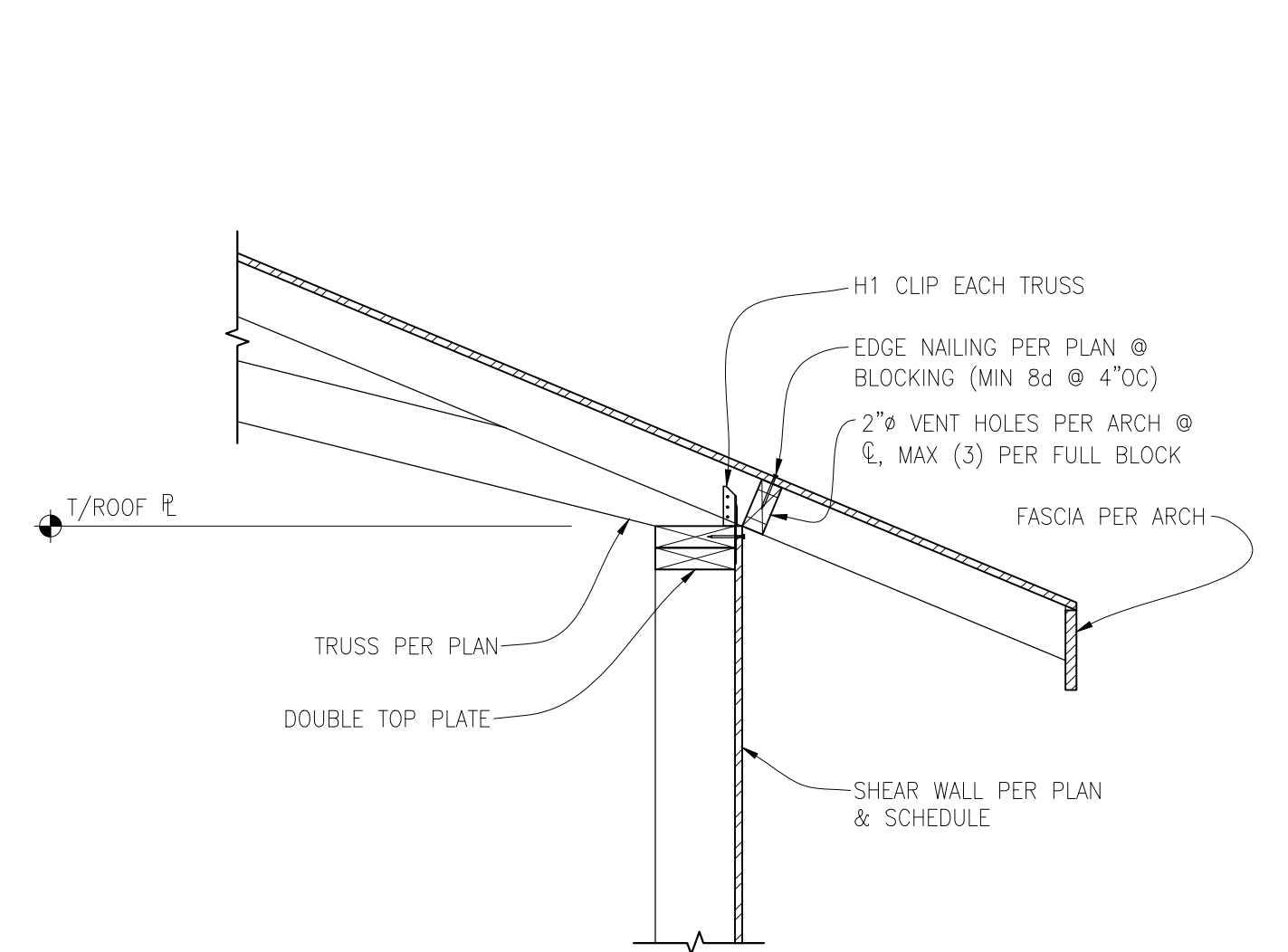
**TYPICAL PLAN VIEW - SHEAR WALL HOLDOWNS & ANCHOR BOLTS**

SCALE:  $1" = 1'-0"$



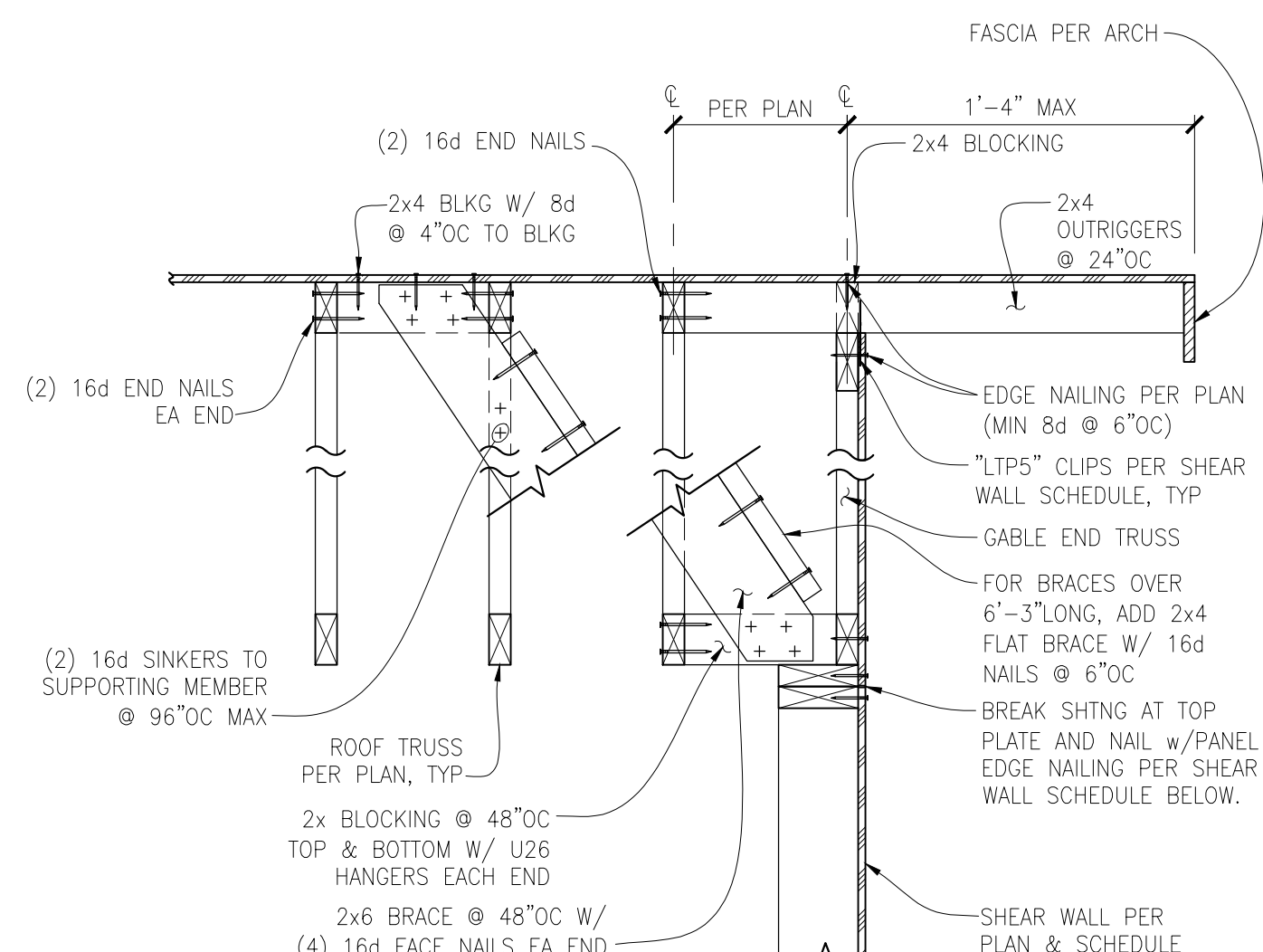
**TYPICAL SHEAR WALL ELEVATION**

SCALE: N.T.S.



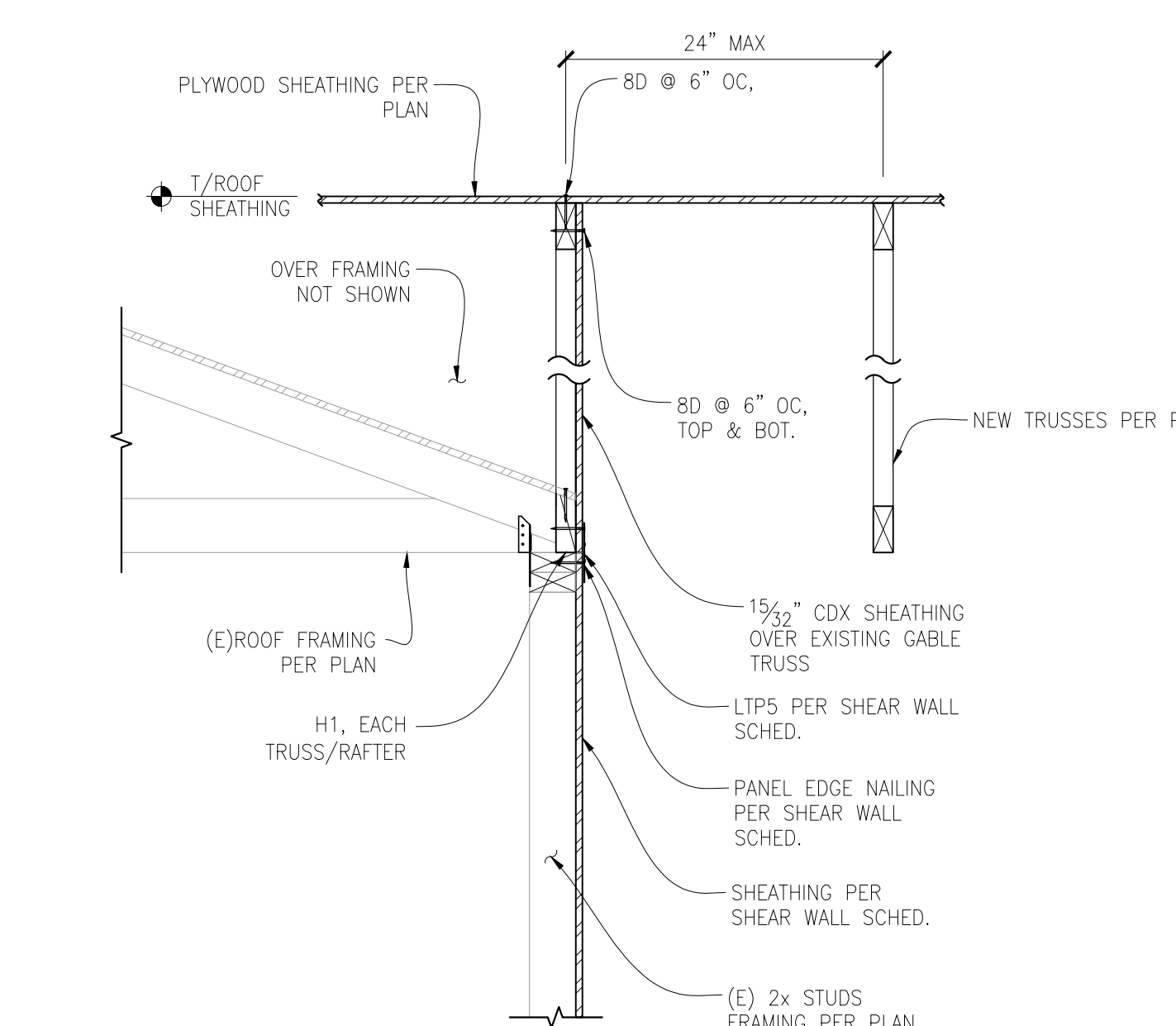
**EXTERIOR SHEAR WALL PERPENDICULAR TO ROOF TRUSS**

SCALE:  $1" = 1'-0"$



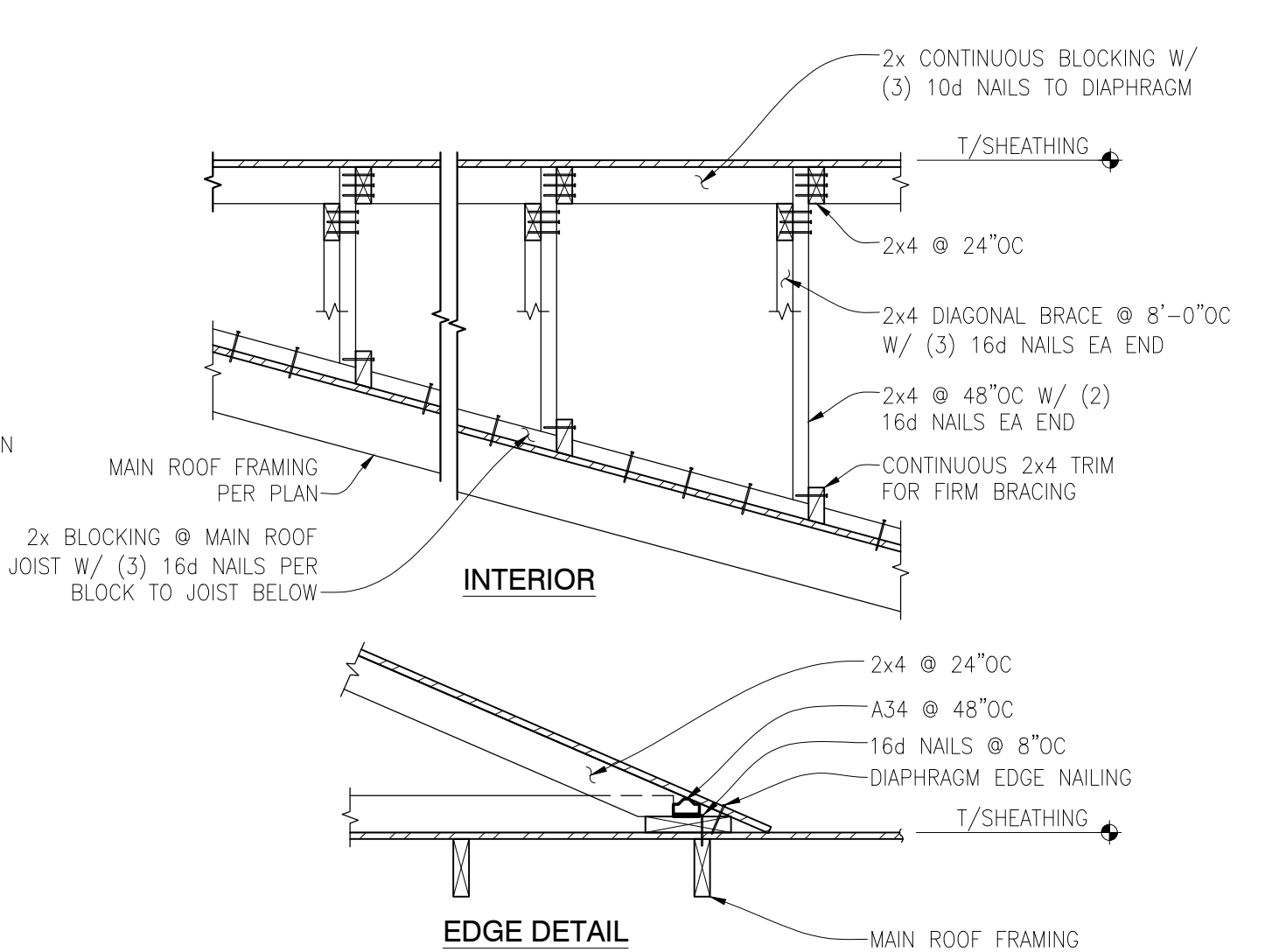
**EXTERIOR SHEAR WALL PARALLEL TO ROOF TRUSS**

SCALE: N.T.S.



**EXISTING TO NEW ROOF TRUSS CONNECTION**

SCALE:  $1" = 1'-0"$



**TYPICAL ROOF OVERFRAMING DETAIL**

SCALE: N.T.S.

REVISION #	DATE	DESCRIPTION

Drawn By: PK  
Checked By: SC  
Date: 12-16-2021

CK JOB NO. 21-066

STRUCTURAL DETAILS

S-2.0