

**SURVEYOR'S NOTE:**  
 BASED ON INFORMATION PROVIDED BY STEWART TITLE COMPANY, IT HAS BEEN DETERMINED THAT ACCESS EASEMENTS AFFECTING THIS PROPERTY ARE NOT SURVEYABLE. THE EASEMENTS THAT AFFECT THIS PROPERTY ARE NOT MENTIONED IN THE TITLE REPORT BUT WERE LISTED ON SOME OF THE ADJOINING PROPERTY CHAINS. THESE EASEMENTS ARE RECORDED UNDER AUDITOR'S FILE NUMBERS 3922310 AND 4004443.

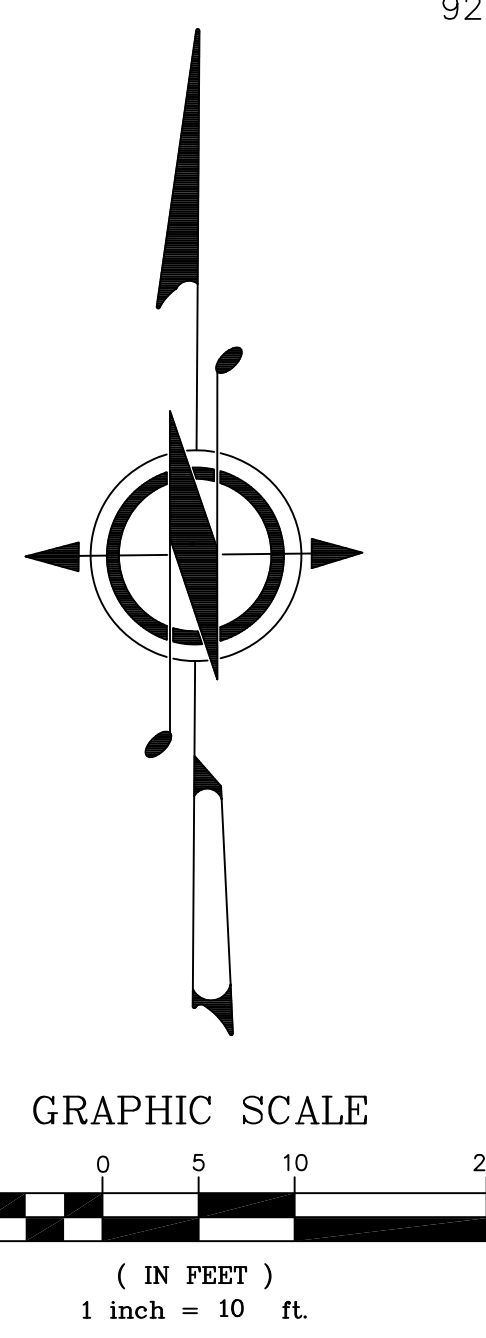
**VERTICAL CONTROL:**  
 NAVD88 PER GPS OBSERVATIONS IN WASHINGTON STATE REFERENCE NETWORK.

**EQUIPMENT AND PROCEDURES:**  
 METHOD OF SURVEY: SURVEY PERFORMED BY FIELD TRAVERSE  
 INSTRUMENTATION: TOPCON PS103A ELECTRONIC TOTAL STATION AND LEICA GPS RECEIVER.  
 PRECISION: MEETS OR EXCEEDS STATE STANDARDS WAC 322-130-090  
 BASIS OF BEARING: STATE PLANE COORDINATE SYSTEM PER FOUND MONUMENTS ON E. MERCER WAY.

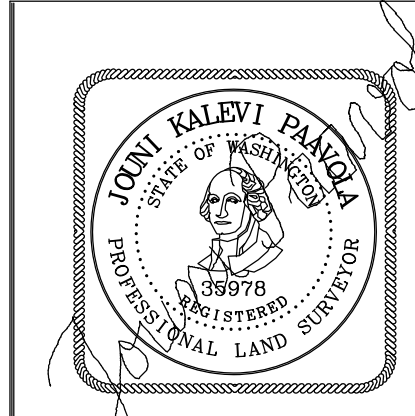
**SURVEY NOTES:**  
 1.) THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF PARTIES WHOSE NAMES APPEAR HEREON ONLY, AND DOES NOT EXTEND TO ANY UNNAMED THIRD PARTIES WITHOUT EXPRESS RECITIFICATION BY THE LAND SURVEYOR.  
 2.) BOUNDARY LINES SHOWN AND CORNERS SET REPRESENT DEED LOCATION; OWNERSHIP LINES MAY VARY. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ALL EASEMENTS, RESTRICTIONS, RESERVATIONS, AND OCCUPATION WHICH MAY ENCUMBER TITLE TO OR USE OF THE PROPERTY. UTILITY LOCATION BASED ON SURFACE EVIDENCE.  
 3.) FIELD WORK PERFORMED AND MONUMENTS RECOVERED IN MAY, 2021

**LEGAL DESCRIPTION**  
 THE LAND SITUATED IN THE CITY OF MERCER ISLAND IN THE COUNTY OF KING IN THE STATE OF WA  
 THAT PORTION OF GOVERNMENT LOTS 2 AND 3, SECTION 19, TOWNSHIP 24 NORTH, RANGE 5 EAST W.M., DESCRIBED AS FOLLOWS:  
 COMMENCING AT THE INTERSECTION OF THE CENTER-LINE OF EAST MERCER WAY WITH A LINE PARALLEL TO AND 2490 FEET NORTH OF (AS MEASURED AT RIGHT ANGLES) THE SOUTH LINE OF SAID SECTION 19; THENCE SOUTH 88°33'02" EAST, PARALLEL WITH THE SOUTH LINE OF SAID SECTION, FOR A DISTANCE OF 186.00 FEET; THENCE NORTH 01°26'58" EAST (AT RIGHT ANGLES TO THE SOUTH LINE SAID SECTION) FOR A DISTANCE OF 85.00 FEET TO AN INTERSECTION WITH A LINE WHICH IS PARALLEL TO AND 2575 FEET NORTH OF (AS MEASURED AT RIGHT ANGLES) THE SOUTH LINE OF SAID SECTION 19, SAID INTERSECTION BEING THE TRUE POINT OF BEGINNING; THENCE SOUTH 88°33'02" EAST, PARALLEL WITH THE SOUTH LINE OF SAID SECTION, FOR A DISTANCE OF 120.00 FEET; THENCE SOUTH 01°26'58" WEST (AT RIGHT ANGLES TO THE SOUTH LINE OF SAID SECTION) FOR A DISTANCE OF 85.00 FEET TO AN INTERSECTION WITH A LINE WHICH IS PARALLEL TO AND 2490 FEET NORTH OF (AS MEASURED AT RIGHT ANGLES) THE SOUTH LINE OF SAID SECTION 19; THENCE SOUTH 88°33'02" EAST, PARALLEL WITH THE SOUTH LINE OF SAID SECTION, FOR A DISTANCE OF 120.00 FEET; THENCE SOUTH 01°26'58" WEST (AT RIGHT ANGLES TO THE SOUTH LINE OF SAID SECTION) FOR A DISTANCE OF 54.60 FEET; THENCE NORTH 05°54'24" WEST FOR A DISTANCE OF 35.83 FEET; THENCE NORTH 88°33'02" WEST FOR A DISTANCE 15.16 FEET; THENCE NORTH 12°42'49" WEST FOR DISTANCE OF 30.94 FEET TO AN INTERSECTION WITH A LINE THAT IS PARALLEL TO AND 2605 FEET NORTH OF (AS MEASURED AT RIGHT ANGLES) THE SOUTH LINE OF SAID SECTION 19; THENCE NORTH 88°33'02" WEST, PARALLEL WITH THE SOUTH LINE OF SAID SECTION, FOR A DISTANCE OF 235.80 FEET, MORE OR LESS, TO A POINT FROM WHICH THE TRUE POINT OF BEGINNING BEARS SOUTH 01°26'58" WEST; THENCE SOUTH 01°26'58" WEST ALONG A LINE WHICH IS AT RIGHT ANGLES TO THE SOUTH LINE OF SAID SECTION 19, FOR A DISTANCE OF 30.00 FEET TO THE TRUE POINT OF BEGINNING;

**EXCEPTIONS**  
 1. SUBJECT TO A 10 FOOT WATER MAIN EASEMENT RECORDED UNDER AUDITOR'S FILE NUMBER 20180723000253. PLOTTED  
 2. SUBJECT TO A 10 FOOT WATER UTILITY EASEMENT AS RECORDED UNDER AUDITOR'S FILE NUMBER 20180719000653. PLOTTED  
 3. SUBJECT TO A 10 FOOT CITY OF MERCER ISLAND WATER FACILITY EASEMENT AS RECORDED UNDER AUDITOR'S FILE NUMBER 20170810000888. PLOTTED



- LEGEND**
- CB STORM DRAIN CATCH BASIN (CB)
  - C/O YARD DRAIN
  - SSMH SANITARY SEWER MANHOLE (SSMH)
  - W VALVE WATER VALVE
  - WM WATER METER
  - FH FIRE HYDRANT
  - PP POWER POLE
  - EM ELECTRIC METER
  - GM GAS METER
  - UP UTILITY PEDESTAL
  - CONIFEROUS TREE CONIFEROUS TREE
  - DECIDUOUS TREE DECIDUOUS TREE
  - TELEPHONE JUNCTION BOX TELEPHONE JUNCTION BOX



**ACREAGE**  
**LAND**  
**SURVEYING**

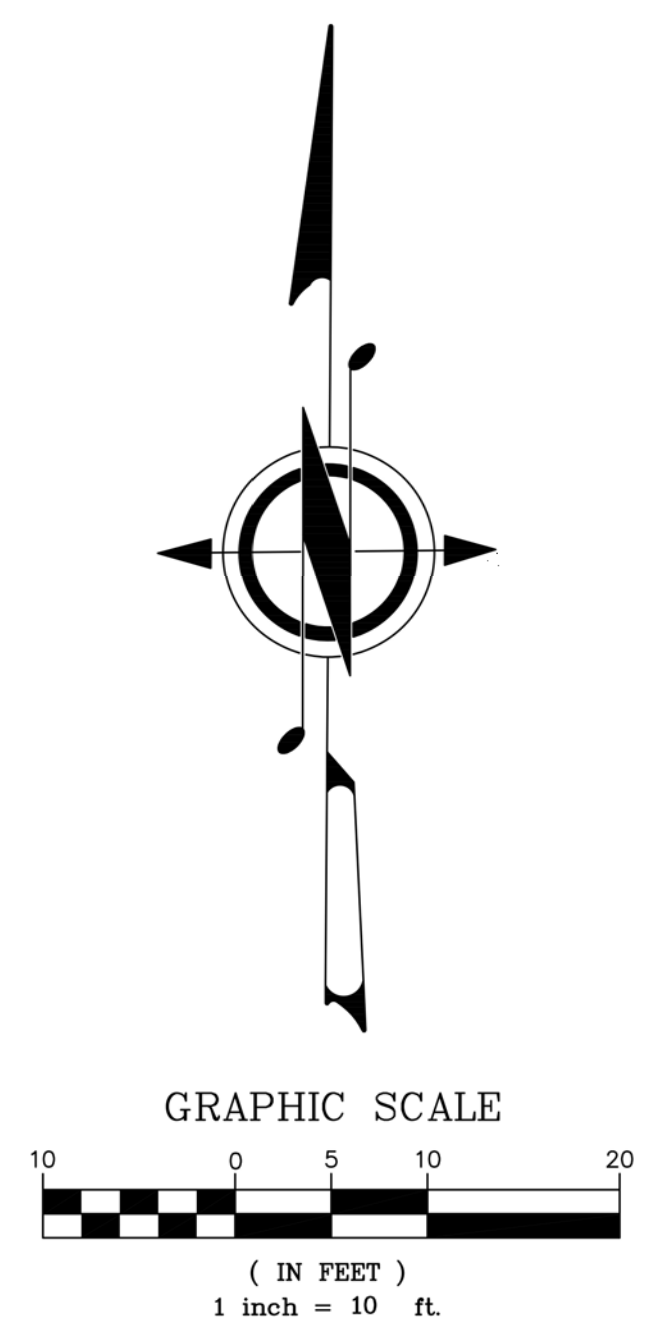
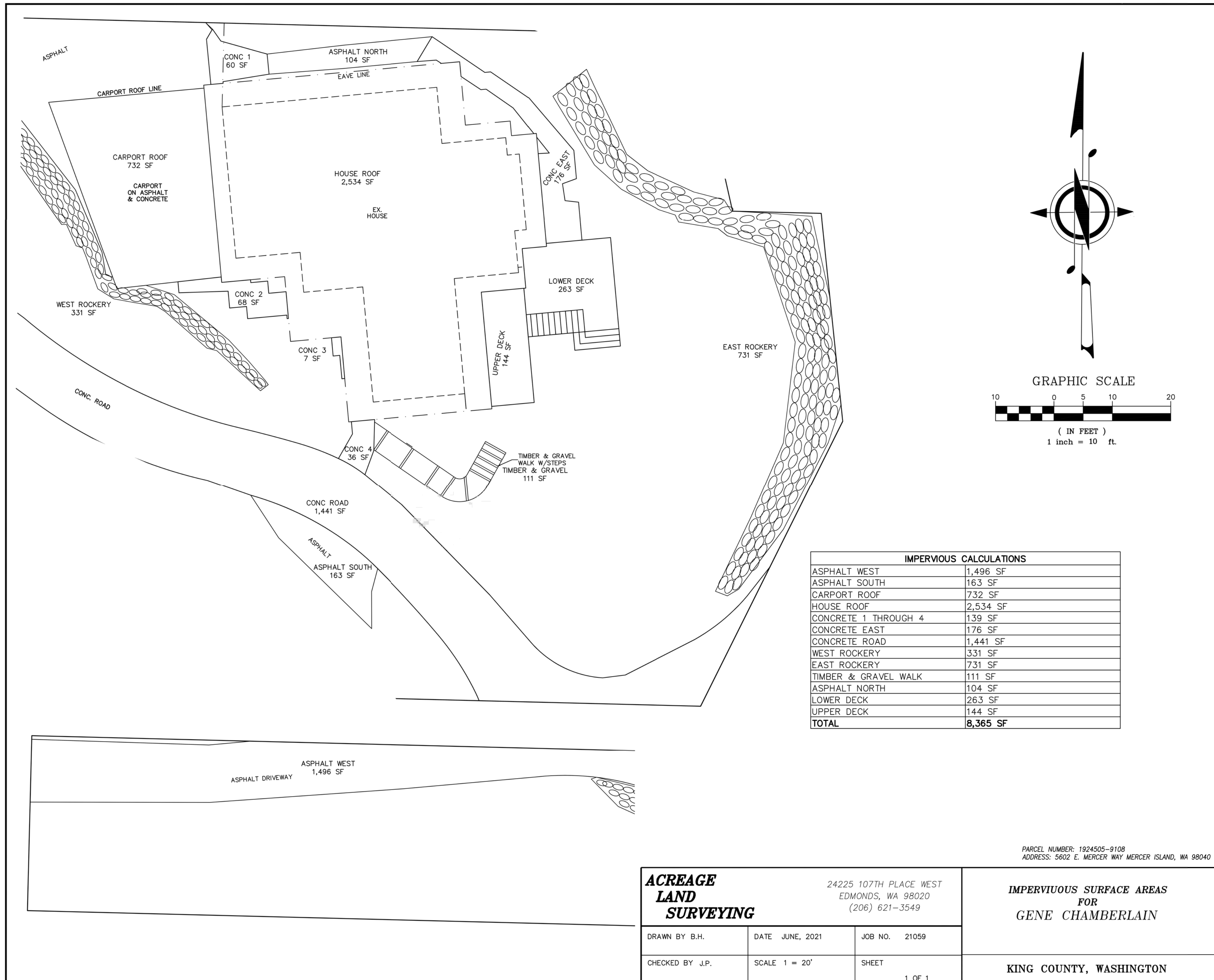
**206**  
**326-9912**

24225 107TH PLACE WEST EDMONDS 98020

**REFERENCES**  
 1. MERCER ISLAND SHORT PLAT NO. MI-85-03-07, AF#8505309002

**SITE INFORMATION**  
 PARCEL NUMBER: 1924505-9108  
 ADDRESS: 5602 E. MERCER WAY MERCER ISLAND, WA 98040  
 AREA = 18,699 SF

<b>TOPOGRAPHIC SURVEY FOR GENE CHAMBERLAIN</b>		
IN THE NE1/4, SE1/4, SEC.19, T.24N., R.5E, W.M. KING COUNTY, WASHINGTON		
DWN. BY: BH	DATE: 9/24/2021	JOB NO. 21059
CHK. BY: JP	SCALE: 1" = 10'	SHEET: 1 OF 1

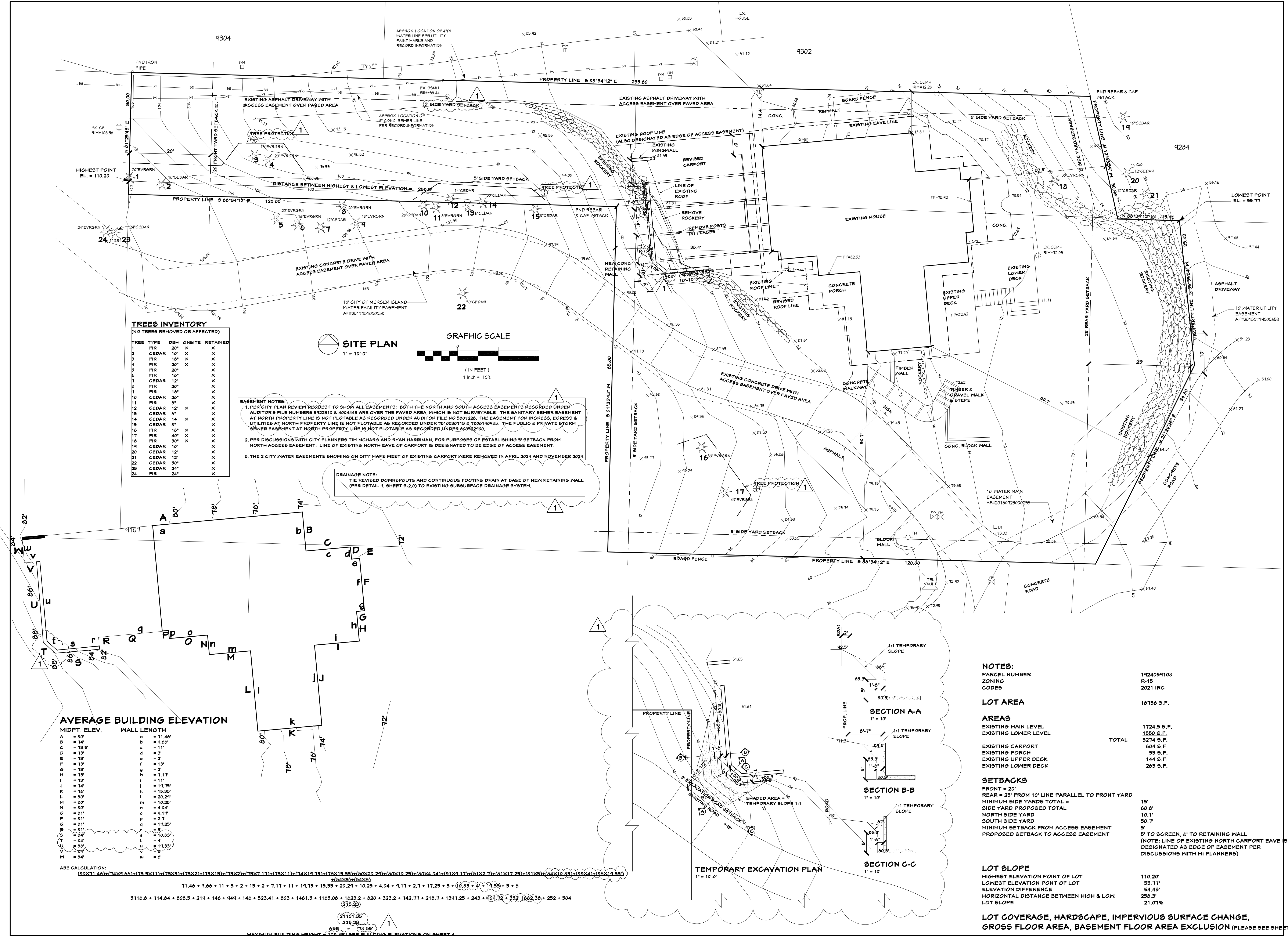


IMPERVIOUS CALCULATIONS	
ASPHALT WEST	1,496 SF
ASPHALT SOUTH	163 SF
CARPORT ROOF	732 SF
HOUSE ROOF	2,534 SF
CONCRETE 1 THROUGH 4	139 SF
CONCRETE EAST	176 SF
CONCRETE ROAD	1,441 SF
WEST ROCKERY	331 SF
EAST ROCKERY	731 SF
TIMBER & GRAVEL WALK	111 SF
ASPHALT NORTH	104 SF
LOWER DECK	263 SF
UPPER DECK	144 SF
<b>TOTAL</b>	<b>8,365 SF</b>

PARCEL NUMBER: 1924505-9108  
 ADDRESS: 5602 E. MERCER WAY MERCER ISLAND, WA 98040

<b>ACREAGE LAND SURVEYING</b>		24225 107TH PLACE WEST EDMONDS, WA 98020 (206) 621-3549	<b>IMPERVIOUS SURFACE AREAS FOR GENE CHAMBERLAIN</b>
DRAWN BY B.H.	DATE JUNE, 2021	JOB NO. 21059	<b>KING COUNTY, WASHINGTON</b>
CHECKED BY J.P.	SCALE 1" = 20'	SHEET 1 OF 1	

2/18/2021 10:41 AM



**AVERAGE BUILDING ELEVATION**

MIDPT. ELEV.	WALL LENGTH
A = 50'	a = 71.46'
B = 74'	b = 19.60'
C = 73.5'	c = 11'
D = 73'	d = 9'
E = 73'	e = 2'
F = 73'	f = 13'
G = 73'	g = 2'
H = 73'	h = 7.17'
I = 73'	i = 11'
J = 74'	j = 14.75'
K = 76'	k = 15.33'
L = 80'	l = 20.29'
M = 80'	m = 10.25'
N = 80'	n = 4.04'
O = 81'	o = 9.17'
P = 81'	p = 2.7'
Q = 81'	q = 17.25'
R = 81'	r = 3'
S = 84'	s = 16.83'
T = 88'	t = 4'
U = 86'	u = 14.33'
V = 84'	v = 9'
W = 84'	w = 6'

**TEMPERARY EXCAVATION PLAN**

SECTION A-A  
SECTION B-B  
SECTION C-C

**NOTES:**

PARCEL NUMBER: 1924094108  
ZONING: R-15  
CODES: 2021 IRC

**LOT AREA:** 18756 S.F.

**AREAS:**  
EXISTING MAIN LEVEL: 1124.5 S.F.  
EXISTING LOWER LEVEL: 1550 S.F.  
TOTAL: 3274.5 S.F.  
EXISTING GARPORT: 604 S.F.  
EXISTING PORCH: 53 S.F.  
EXISTING UPPER DECK: 144 S.F.  
EXISTING LOWER DECK: 263 S.F.

**SETBACKS:**  
FRONT = 20'  
REAR = 25' FROM 10' LINE PARALLEL TO FRONT YARD  
MINIMUM SIDE YARDS TOTAL = 15'  
SIDE YARD PROPOSED TOTAL = 60.8'  
NORTH SIDE YARD = 10.1'  
SOUTH SIDE YARD = 50.7'  
MINIMUM SETBACK FROM ACCESS EASEMENT = 5'  
PROPOSED SETBACK TO ACCESS EASEMENT = 5' TO SCREEN, 6' TO RETAINING WALL (NOTE: LINE OF EXISTING NORTH GARPORT EAVE IS DESIGNATED AS EDGE OF EASEMENT PER DISCUSSIONS WITH MI PLANNERS)

**LOT SLOPE:**  
HIGHEST ELEVATION POINT OF LOT: 110.20'  
LOWEST ELEVATION POINT OF LOT: 55.77'  
ELEVATION DIFFERENCE: 54.43'  
HORIZONTAL DISTANCE BETWEEN HIGH & LOW: 259.3'  
LOT SLOPE: 21.07%

**LOT COVERAGE, HARDSCAPE, IMPERVIOUS SURFACE CHANGE, GROSS FLOOR AREA, BASEMENT FLOOR AREA EXCLUSION (PLEASE SEE SHEET 2)**

AREA CALCULATION:  

$$[(80 \times 11.46) + (74 \times 9.60) + (73.5 \times 11) + (73 \times 9) + (73 \times 2) + (73 \times 13) + (73 \times 2) + (73 \times 7.17) + (73 \times 11) + (74 \times 14.75) + (76 \times 15.33) + (80 \times 20.29) + (80 \times 10.25) + (80 \times 4.04) + (81 \times 9.17) + (81 \times 17.25) + (81 \times 3) + (84 \times 16.83) + (88 \times 4) + (86 \times 14.33) + (84 \times 9) + (84 \times 6)]$$

$$= 71.46 + 9.60 + 11 + 9 + 2 + 11 + 11 + 14.75 + 15.33 + 20.29 + 10.25 + 4.04 + 9.17 + 2.7 + 17.25 + 3 + 10.83 + 4 + 14.33 + 9 + 6$$

$$= 5716.0 + 71.44 + 802.5 + 219 + 146 + 949 + 146 + 529.41 + 809 + 1461.5 + 1165.08 + 1623.2 + 820 + 923.2 + 742.71 + 210.7 + 1397.25 + 249 + 804.72 + 357 + 1662.38 + 252 + 504$$

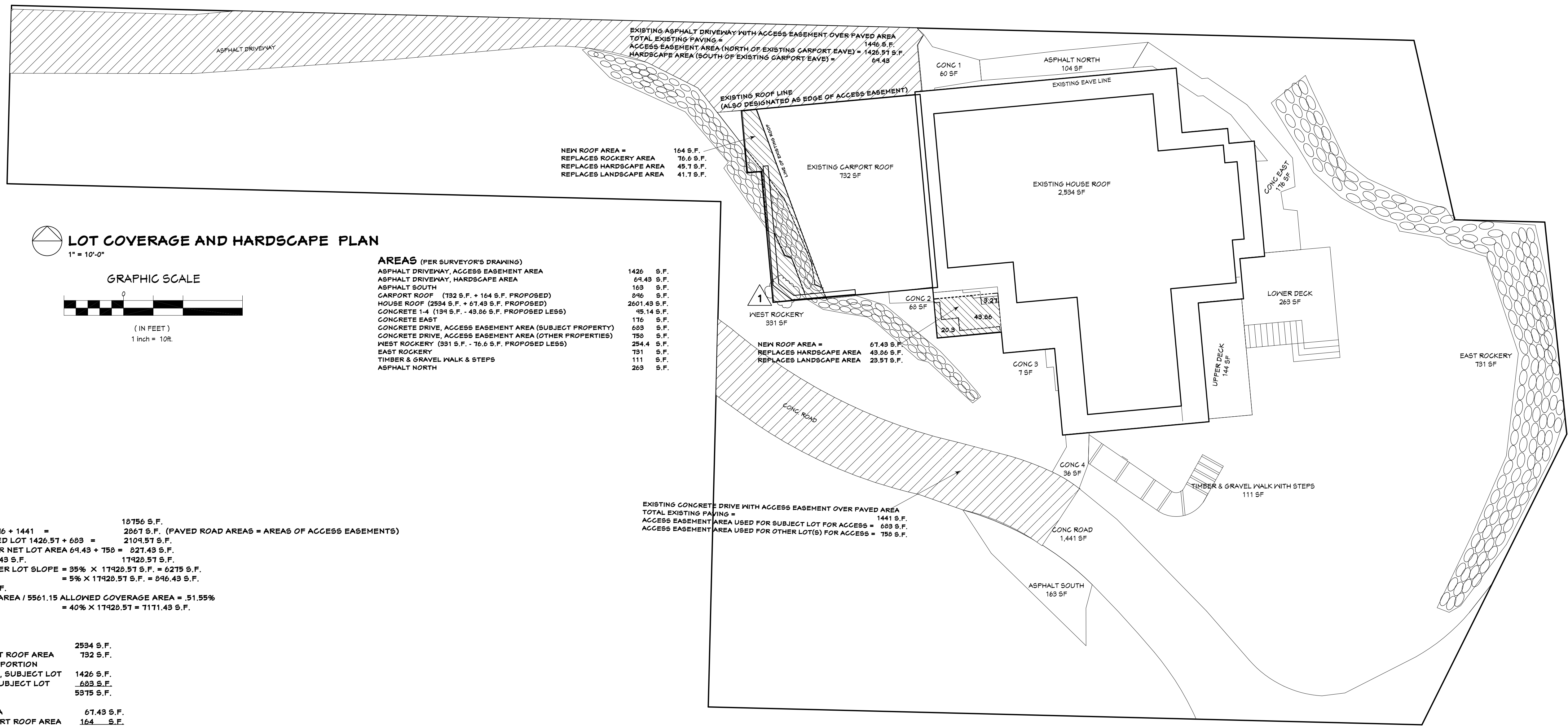
$$= 275.23$$

$$= 21701.38$$

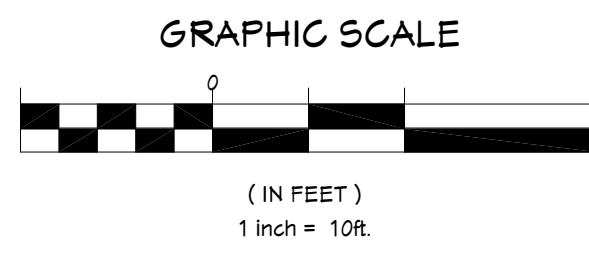
$$= 275.23$$

$$= 10.85$$

MAXIMUM BUILDING HEIGHT = 105.80'. SEE BUILDING ELEVATIONS ON SHEET 2.



**LOT COVERAGE AND HARDSCAPE PLAN**  
1" = 10'-0"



**AREAS (PER SURVEYOR'S DRAWING)**

ASPHALT DRIVEWAY, ACCESS EASEMENT AREA	1426	S.F.
ASPHALT DRIVEWAY, HARDSCAPE AREA	64.43	S.F.
ASPHALT SOUTH	163	S.F.
CARPORT ROOF (732 S.F. + 164 S.F. PROPOSED)	896	S.F.
HOUSE ROOF (2534 S.F. + 61.43 S.F. PROPOSED)	2601.43	S.F.
CONCRETE 1-4 (184 S.F. - 43.86 S.F. PROPOSED LESS)	140.14	S.F.
CONCRETE EAST	176	S.F.
CONCRETE DRIVE, ACCESS EASEMENT AREA (SUBJECT PROPERTY)	663	S.F.
CONCRETE DRIVE, ACCESS EASEMENT AREA (OTHER PROPERTIES)	750	S.F.
WEST ROCKERY (331 S.F. - 76.6 S.F. PROPOSED LESS)	254.4	S.F.
EAST ROCKERY	731	S.F.
TIMBER & GRAVEL WALK & STEPS	111	S.F.
ASPHALT NORTH	263	S.F.

**LOT COVERAGE**

GROSS LOT AREA 10756 S.F.  
 AREA OF ACCESS EASEMENTS 1496 + 1441 = 2937 S.F. (PAVED ROAD AREAS = AREAS OF ACCESS EASEMENTS)  
 DRIVEWAY AREAS TO ENCUMBERED LOT 1426.57 + 683 = 2109.57 S.F.  
 AREA OF ACCESS EASEMENTS FOR NET LOT AREA 64.43 + 750 = 814.93 S.F.  
 NET LOT AREA 10756 S.F. - 814.93 S.F. = 11920.57 S.F.  
 MAXIMUM ALLOWED COVERAGE PER LOT SLOPE = 35% X 11920.57 S.F. = 4172.20 S.F.  
 INCREASE FOR FLAG LOT = 5% X 11920.57 S.F. = 596.03 S.F.  
 5561.15 S.F. X 25% = 1390.29 S.F.  
 2867 S.F. ACCESS EASEMENT AREA / 5561.15 ALLOWED COVERAGE AREA = .5155%  
 TOTAL LOT COVERAGE ALLOWED = 40% X 11920.57 = 4768.23 S.F.

**EXISTING LOT COVERAGE**

EXISTING HOUSE ROOF AREA 2534 S.F.  
 EXISTING ATTACHED CARPORT ROOF AREA 732 S.F.  
 EXISTING ACCESS EASEMENT PORTION  
 VEHICULAR USE, ASPHALT, SUBJECT LOT 1426 S.F.  
 VEHICULAR USE, CONG., SUBJECT LOT 663 S.F.  
 EXISTING TOTAL 5375 S.F.  
 PROPOSED ROOF AREA  
 PROPOSED HOUSE ROOF AREA 61.43 S.F.  
 PROPOSED ATTACHED CARPORT ROOF AREA 164 S.F.  
 PROPOSED TOTAL COVERAGE 5606.43 S.F. / 11920.57 = 47.03%

**HARDSCAPE**

MAXIMUM ALLOWED = 9% OF NET LOT AREA = .09 X 11920.57 S.F. = 1072.85 S.F.  
 "BORROWED" FROM LOT COVERAGE 111.53 - 5606.43 = 1565 S.F.  
 TOTAL ALLOWED 3170.57 S.F. = 11.73%

EXISTING UNCOVERED DECKS 407 S.F.  
 WALKWAYS 419  
 TIMBER & GRAVEL STAIR 111  
 ROCKERIES & RETAINING WALLS 1062  
 TOTAL EXISTING HARDSCAPE 1999 S.F. / 11920.57 = 16.77%

**HARDSCAPE AREA REMOVED (COVERED BY PROPOSED ROOF)**

WEST ROCKERY 76.6  
 ASPHALT WEST OF CARPORT 45.7  
 CONCRETE WALK #2 43.86  
 TOTAL REMOVED 166.16  
 PROPOSED TOTAL HARDSCAPE 1832.84 S.F. / 11920.57 = 15.37%

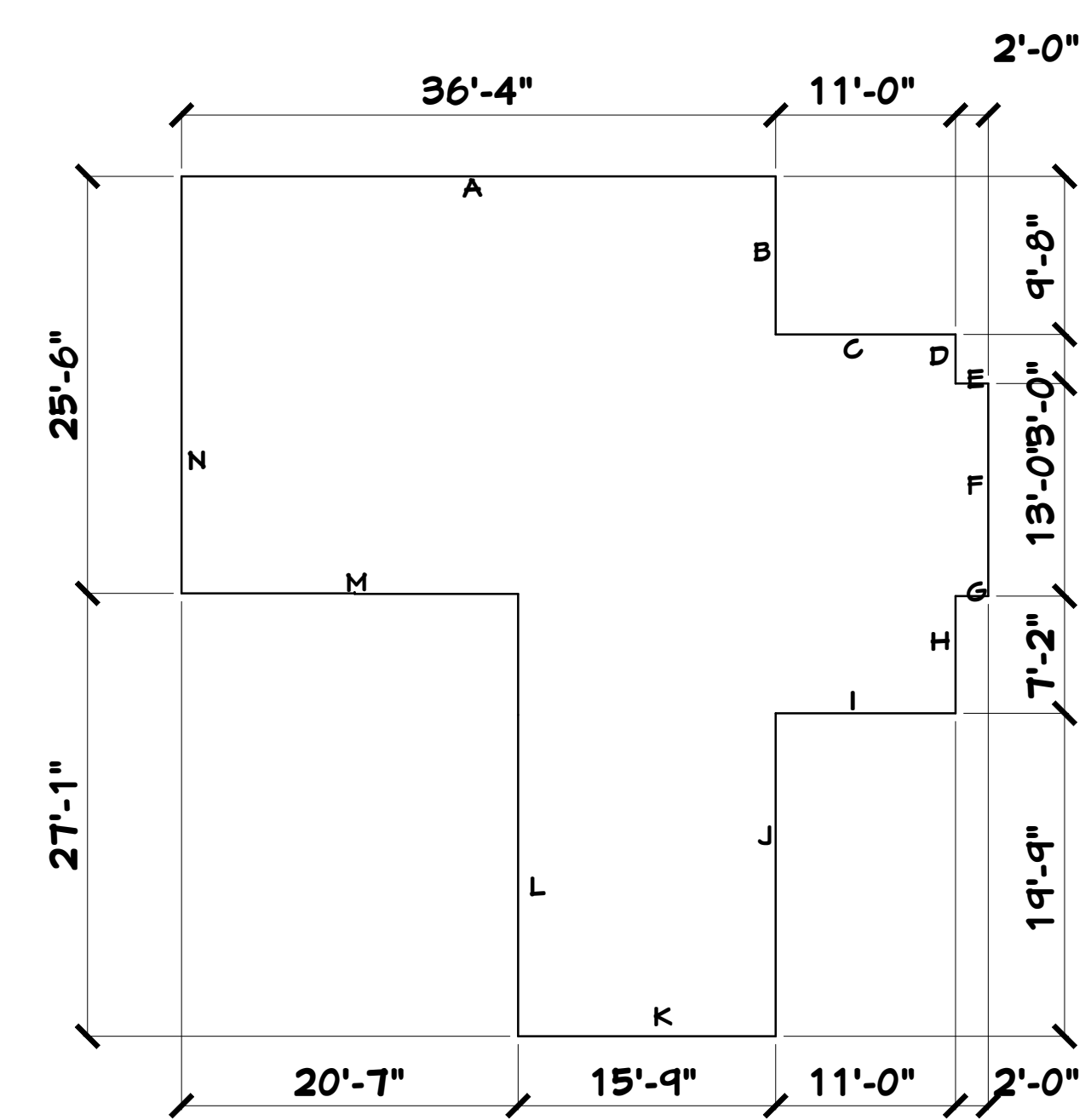
**IMPERVIOUS SURFACE NET CHANGE**

EXISTING HOUSE ROOF 2534 S.F.  
 EXISTING ATTACHED CARPORT ROOF 732  
 EXISTING NORTH ACCESS EASEMENT 1496  
 EXISTING SOUTH ACCESS EASEMENT 1441  
 EXISTING SOUTH ASPHALT PARKING 163  
 EXISTING WALKWAYS 530  
 EXISTING ROCKERIES 1062  
 TOTAL EXISTING 7458  
 PROPOSED CARPORT ROOF AREA 164 S.F.  
 OVER EXISTING HARDSCAPE 49.7  
 OVER EXISTING ROCKERY 76.6  
 OVER EXISTING LANDSCAPE AREA 41.7 S.F.  
 PROPOSED HOUSE ROOF AREA 61.43 S.F.  
 OVER EXISTING HARDSCAPE 43.86 S.F.  
 OVER EXISTING LANDSCAPE AREA 23.57 S.F.

PROPOSED NET NEW IMPERVIOUS = 41.7 S.F. + 23.57 S.F. = 65.27 S.F.

**GROSS FLOOR AREA**

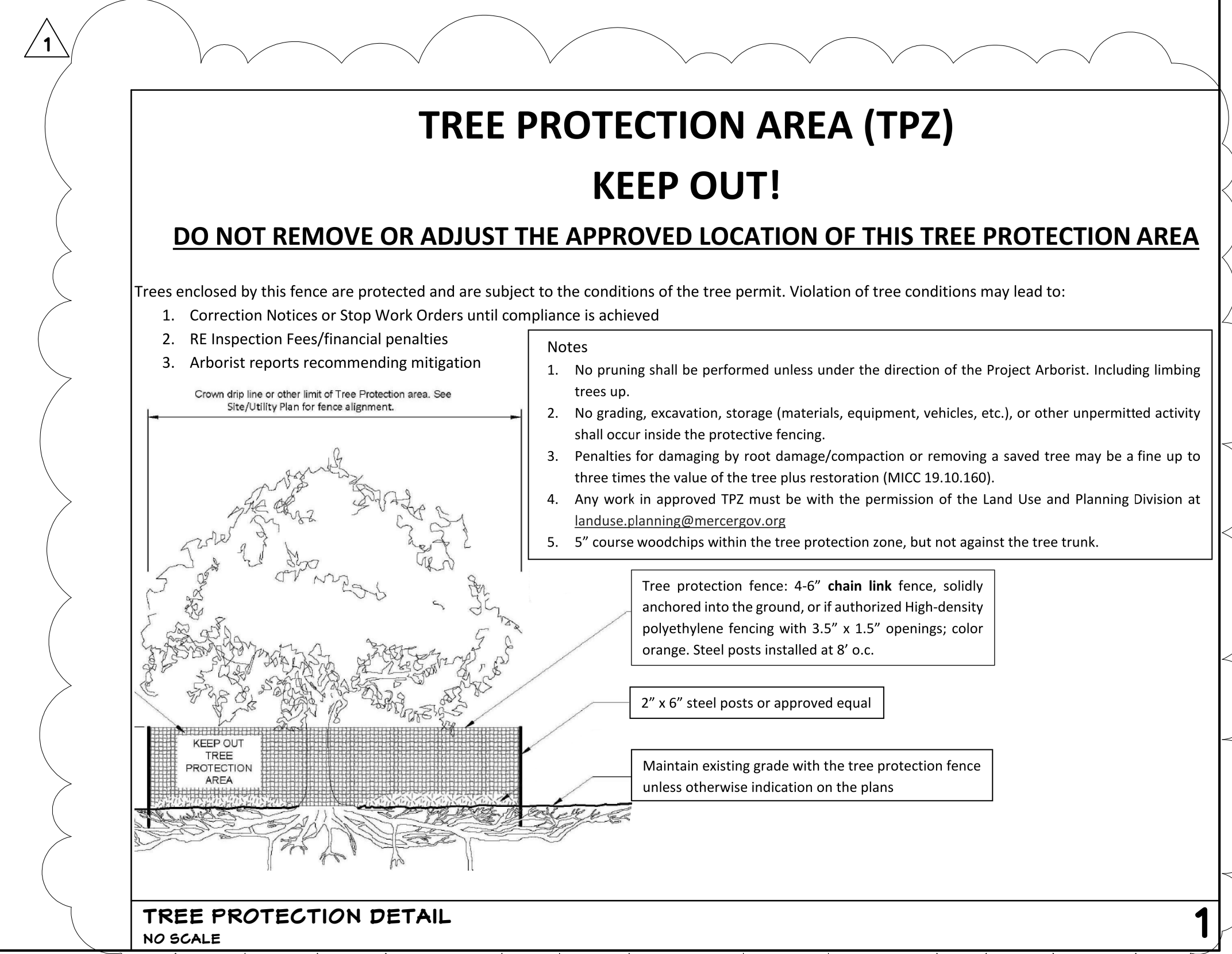
MAXIMUM ALLOWED 40% X 10756 S.F. = 4302.4 S.F.  
 EXISTING MAIN LEVEL 1724.5 S.F.  
 EXISTING LOWER LEVEL 1550 S.F.  
 EXISTING CARPORT 604 S.F.  
 EXISTING TOTAL 3878.5 S.F.  
 PROPOSED CARPORT ADDITION 191 S.F.  
 EXCLUDED BASEMENT AREA (764.27 S.F.)  
 PROPOSED TOTAL 3245.23 S.F. / 10756 S.F. = 30.19%

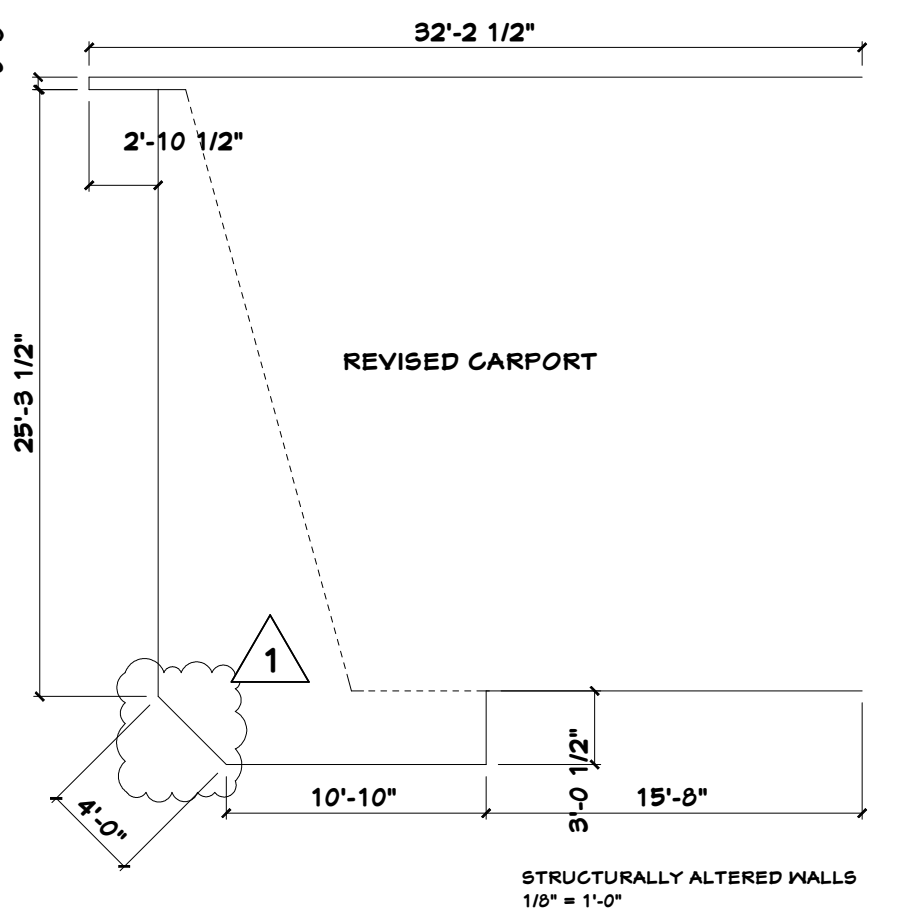
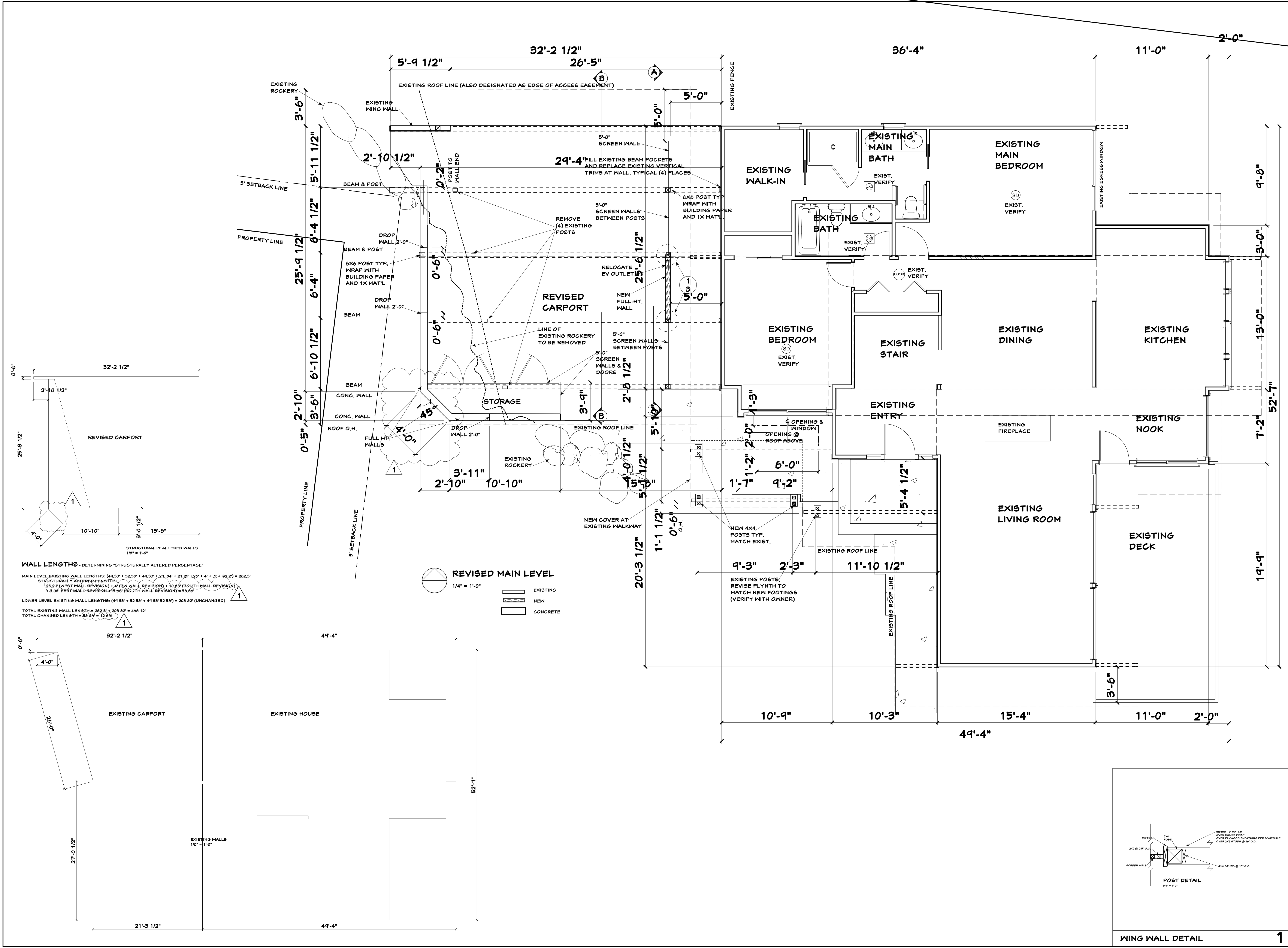


**BASEMENT AREA EXCLUSION**

WALL SEGMENT	LENGTH	COVERAGE	RESULT
A	36.33'	50%	18.2%
B	4.66'	0	0
C	11'	0	0
D	3'	0	0
E	2'	0	0
F	13'	0	0
G	2'	0	0
H	11'	0	0
I	11'	0	0
J	14.75'	0	0
K	15.75'	50%	7.88%
L	27.00'	100%	27.00%
M	20.50'	100%	20.50%
N	26.5'	100%	26.5%
	204.82'		100.96%

1550.5 S.F. X (18.2 + 7.88 + 27.00 + 20.50 + 26.5) = 204.82'  
 1550.5 S.F. X 44.24%  
 764.27 S.F. EXCLUDED FROM GROSS FLOOR AREA





**WALL LENGTHS - DETERMINING "STRUCTURALLY ALTERED PERCENTAGE"**

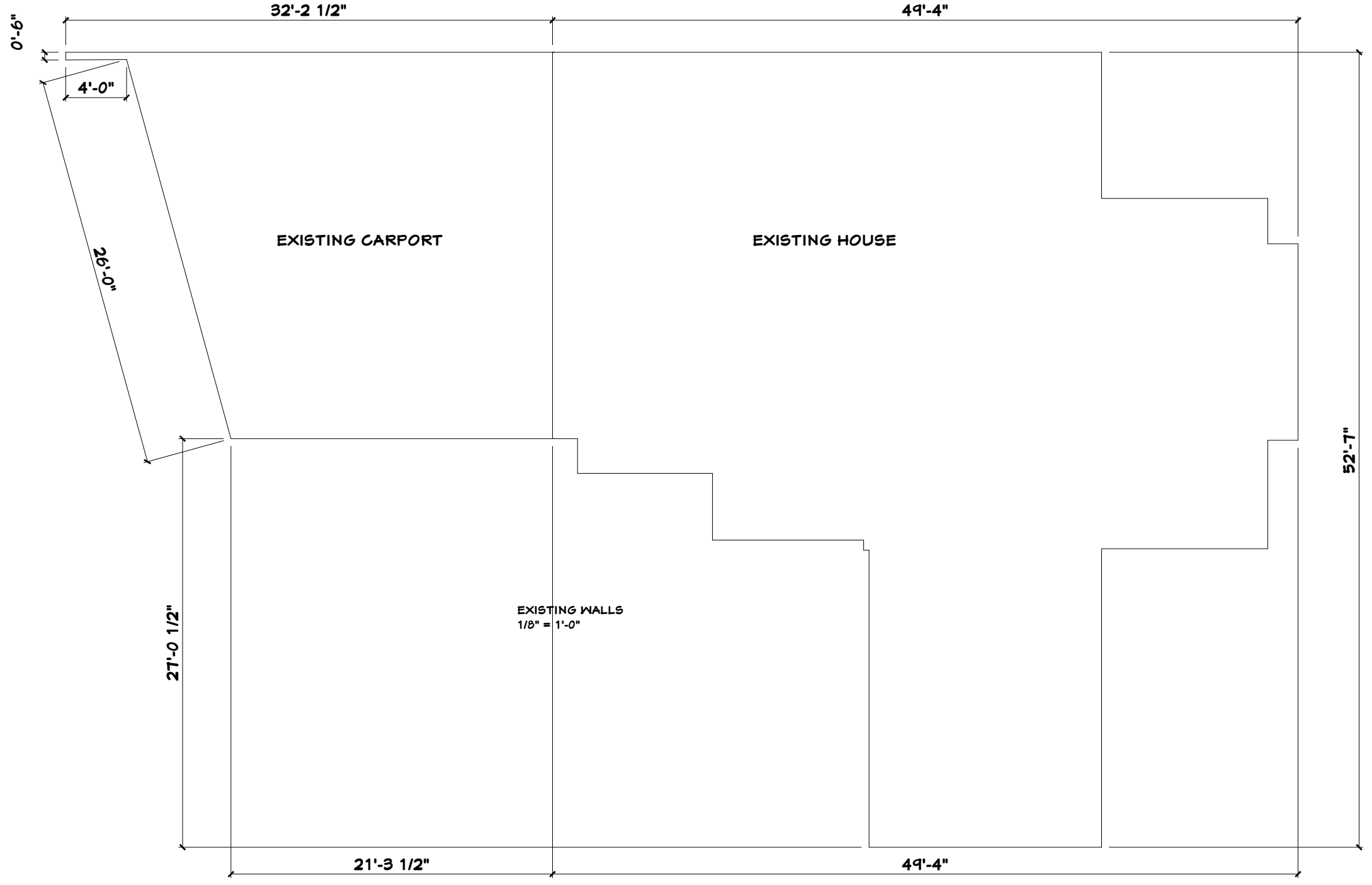
MAIN LEVEL EXISTING WALL LENGTHS: (41.33' + 52.50' + 41.33' + 21.24' + 20' + 4' + 5' + 32.2') = 262.3'

STRUCTURALLY ALTERED LENGTHS:  
25.21' (WEST WALL REVISION) + 4' (S/W WALL REVISION) + 10.23' (SOUTH WALL REVISION) + 3.00' (EAST WALL REVISION) + 19.00' (SOUTH WALL REVISION) = 58.60'

LOWER LEVEL EXISTING WALL LENGTHS: (41.33' + 52.50' + 41.33' + 52.50') = 209.52' (UNCHANGED)

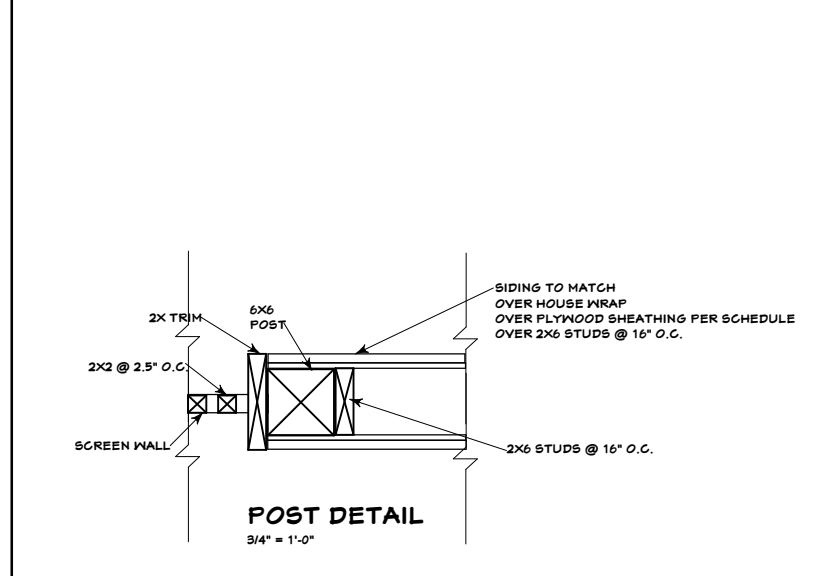
TOTAL EXISTING WALL LENGTH = 262.3' + 209.52' = 466.12'

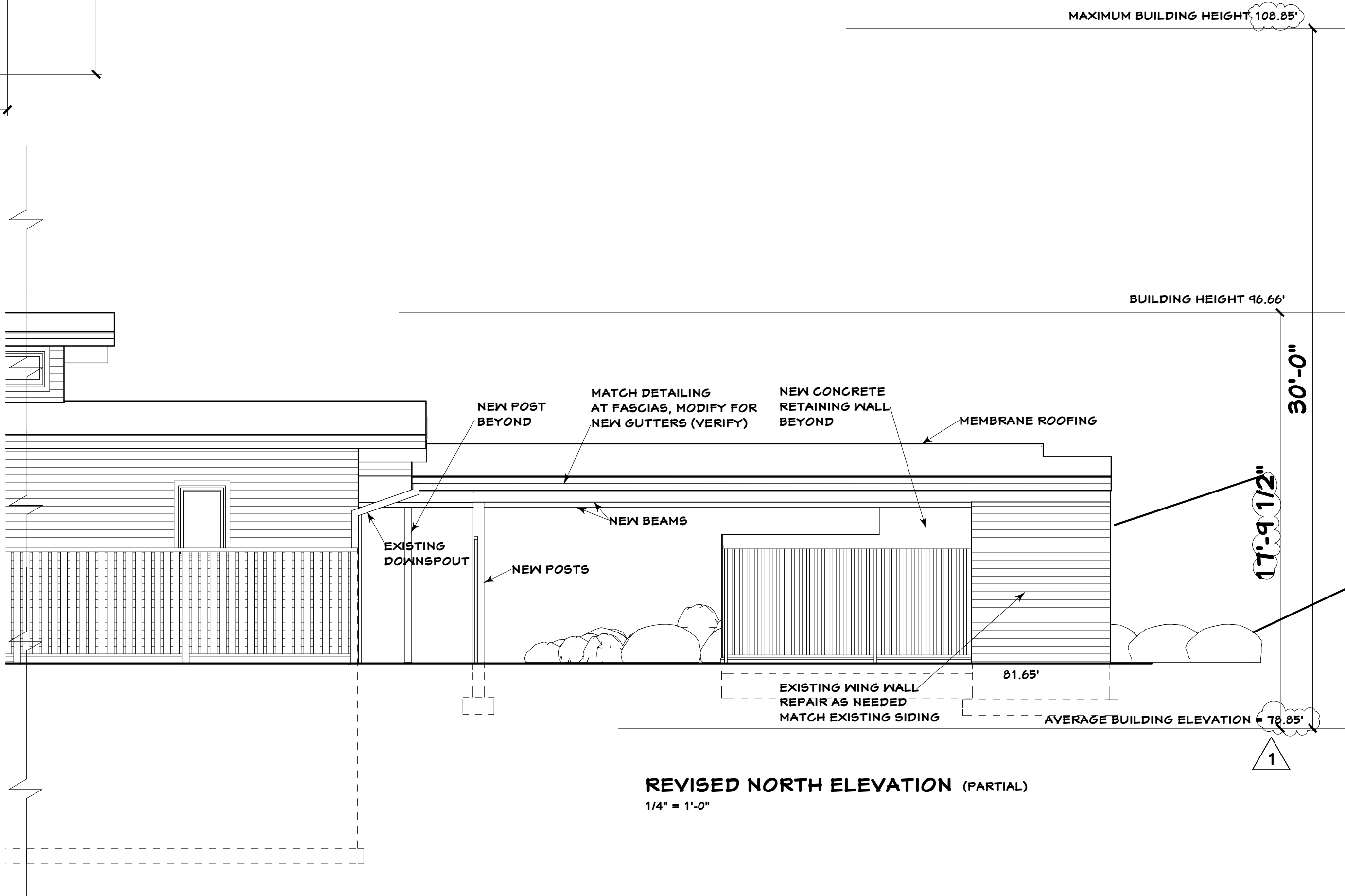
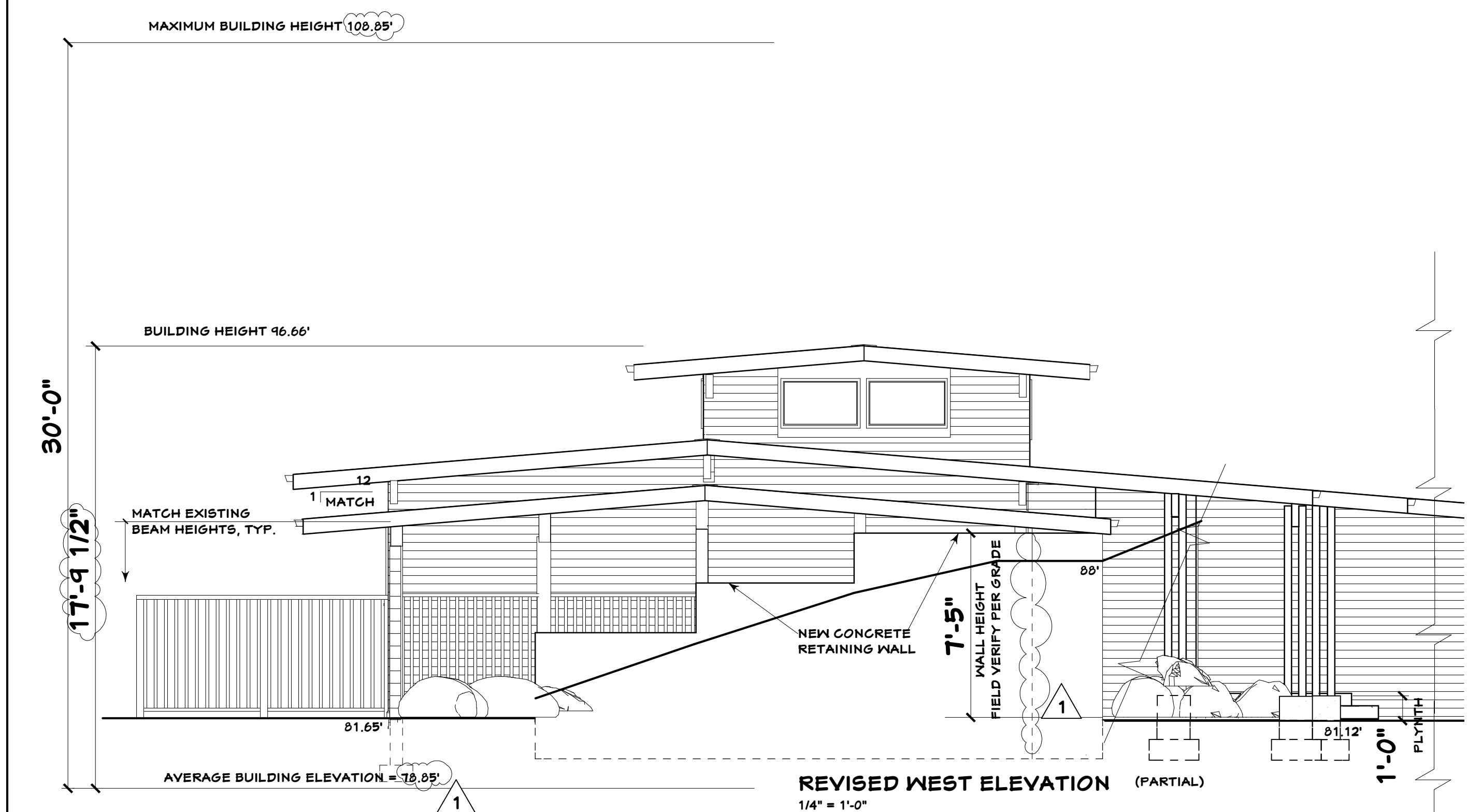
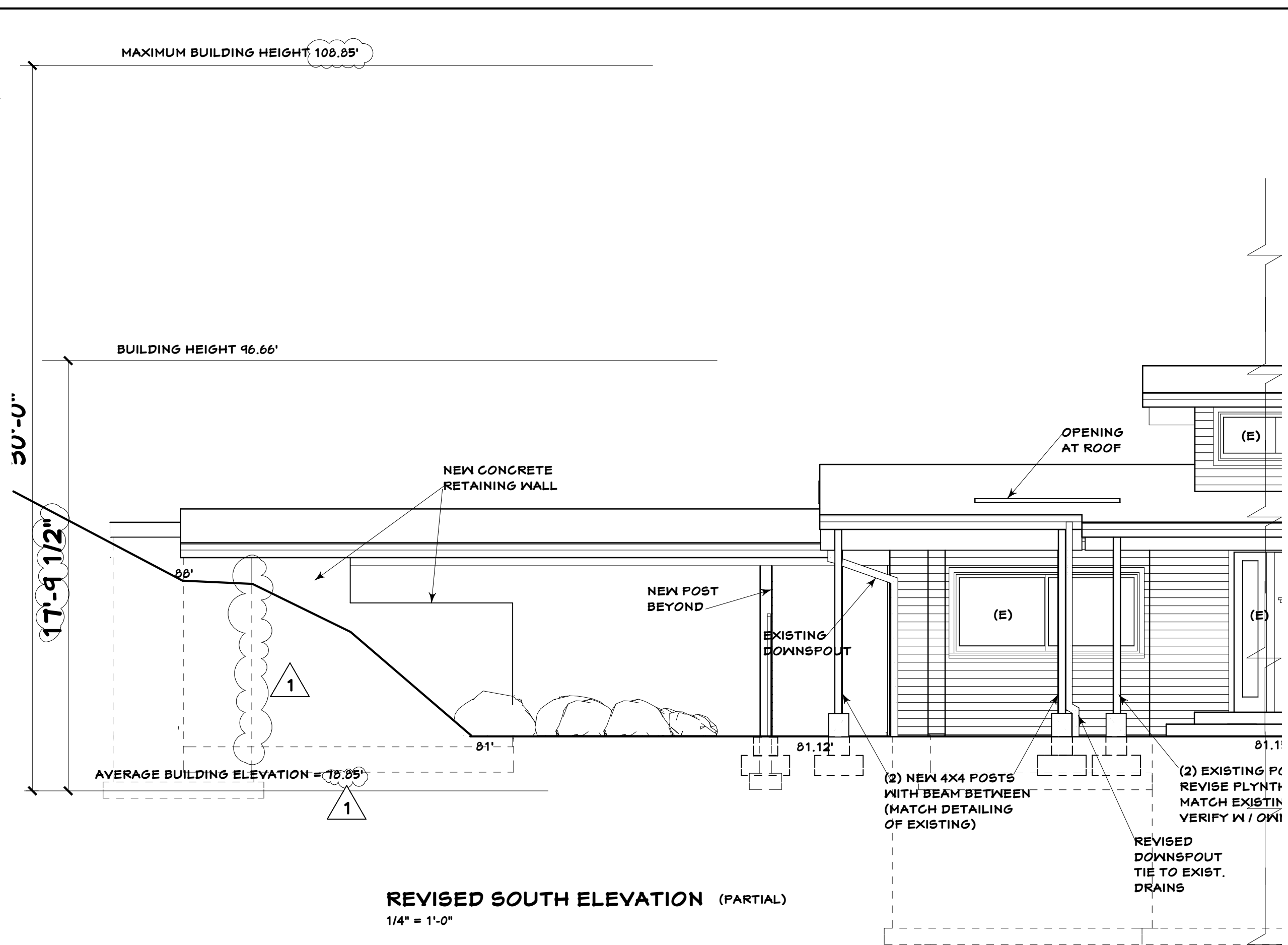
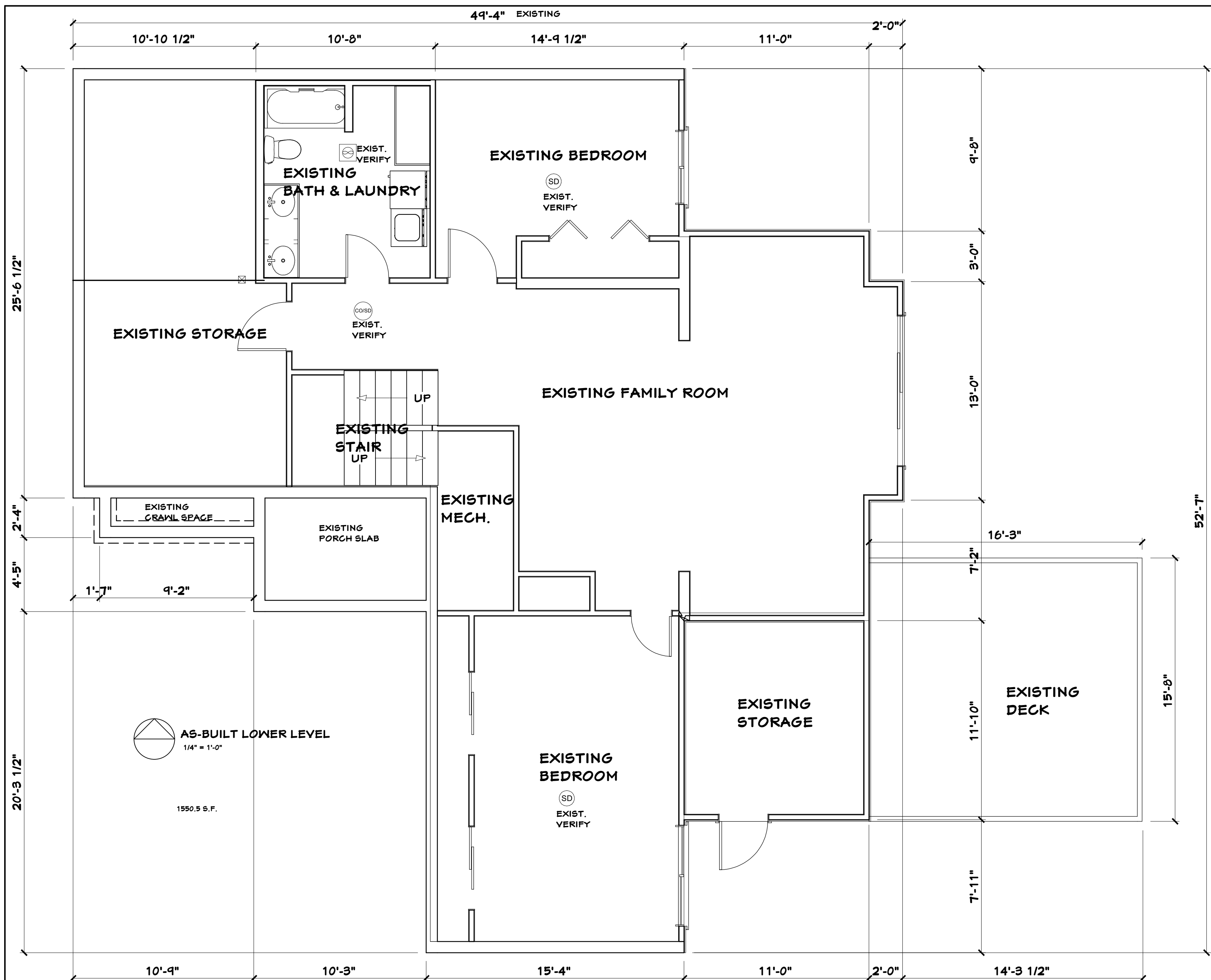
TOTAL CHANGED LENGTH = 58.60' = 12.6%



**REVISED MAIN LEVEL**  
1/4" = 1'-0"

LEGEND:  
 EXISTING  
 NEW  
 CONCRETE





REVISIONS  
1 PLAN REVIEW

CONSULTANTS  
GEOTECH CONSULTANTS, INC  
425 747 9610  
CK ENGINEERING LLC  
206 417 0670

4340 REGISTERED ARCHITECT  
DYNIA BASSE LARSEN  
STATE OF WASHINGTON

FALKNER CARPORT REPAIR & REVISION  
5602 E. MERCER WAY  
MERCER ISLAND, WA 98040

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

SHEET TITLE  
AS-BUILT LOWER LEVEL  
REVISED WEST ELEVATION  
REVISED NORTH ELEVATION  
REVISED SOUTH ELEVATION

SHEET 4  
OF 5 SHEETS  
DATE 12-12-24



**STRUCTURAL NOTES**

**GENERAL REQUIREMENTS & DESIGN CRITERIA**

**BUILDING CODE & REFERENCE STANDARDS:** THE "INTERNATIONAL BUILDING CODE", 2021 EDITION, GOVERNS THE DESIGN AND CONSTRUCTION OF THIS PROJECT. REFERENCE TO A SPECIFIC SECTION IN THE CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE MATERIALS REFERENCE STANDARDS NOTED BELOW. THE LATEST EDITION OF THE MATERIALS REFERENCE STANDARDS SHALL BE USED.

**ARCHITECTURAL DRAWINGS:** REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION INCLUDING, BUT NOT LIMITED TO: DIMENSIONS, ELEVATIONS, SLOPES, DOOR AND WINDOW OPENINGS, NON-BEARING WALLS, STAIRS, CURBS, DRAINS, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES AND OTHER NONSTRUCTURAL ITEMS.

**STRUCTURAL RESPONSIBILITIES:** THE PE IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE PRIMARY STRUCTURE IN ITS COMPLETED STATE.

**CONTRACTOR RESPONSIBILITIES:** THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA AND WSHA. THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY.

**DISCREPANCIES:** IN CASE OF DISCREPANCIES BETWEEN THESE GENERAL NOTES, THE CONTRACT DRAWINGS AND SPECIFICATIONS, AND/OR REFERENCE STANDARDS, THE ENGINEER SHALL DETERMINE WHICH SHALL GOVERN. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

**SITE VERIFICATION:** THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR CONSTRUCTION. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ALL UNDERGROUND UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO EXCAVATION OR DRILLING.

**WIND DESIGN:** BASIC WIND SPEED (3-SECOND GUST), V = 85 MPH(ASD); WIND IMPORTANCE FACTOR, IW = 1.0; OCCUPANCY CATEGORY = II; EXPOSURE CATEGORY = C;

**SEISMIC DESIGN:** SEISMIC IMPORTANCE FACTOR IE = 1.0; OCCUPANCY CATEGORY = II; SS = 1.444g; S1 = 0.501g; SITE CLASS = D; SDS = 1.155g; SD1 = 0.501g; SEISMIC DESIGN CATEGORY = D; BASIC SEISMIC FORCE RESISTING SYSTEM = A-13 (BEARING WALL SYSTEMS) LIGHT-FRAMED WALLS WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE; CS = 0.124; R = 6.5; ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7, SEC 12.8.

**SNOW LOAD:** GROUND SNOW LOAD, PG = 20 PSF; FLAT ROOF SNOW LOAD, PF = 25 PSF (DRIFT LOADS CONSIDERED PER ASCE 7 WHERE APPLICABLE); SNOW EXPOSURE FACTOR, CE = 1.0; SNOW IMPORTANCE FACTOR, IS = 1.0; THERMAL FACTOR, CT = 1.0.

<b>LIVE LOADS:</b>		
ROOF (LIVE)	20 PSF	
ROOF (SNOW)	25 PSF	
RESIDENTIAL FLOOR	40 PSF	
RESIDENTIAL DECK	60 PSF	

**DESIGN-BY-OTHERS (DEFERRED SUBMITTALS) LOADS:** ALL PRE-ENGINEERED/FABRICATED/MANUFACTURED OR OTHER PRODUCTS DESIGNED BY OTHERS SHALL BE DESIGNED FOR THE TRIBUTARY DEAD AND LIVE LOADS PLUS WIND, EARTHQUAKE, AND COMPONENT AND CLADDING LOADS WHEN APPLICABLE. DESIGN SHALL CONFORM TO THE PROJECT DRAWINGS AND SPECIFICATIONS, REFERENCE STANDARDS, AND GOVERNING CODE.

ROOF DEAD LOAD	15 PSF
TOP CHORD DEAD LOAD	8 PSF
BOTTOM CHORD DEAD LOAD	7 PSF
TRUSS UPLIFT LOAD (GROSS)	10 PSF

**DEFERRED SUBMITTALS:** ITEMS DESIGNED BY OTHERS SHALL INCLUDE CALCULATIONS, SHOP DRAWINGS AND PRODUCT DATA. DESIGN SHALL BE PREPARED BY THE SSE AND SUBMITTED TO THE ARCHITECT AND SER FOR REVIEW PRIOR TO SUBMISSION TO THE JURISDICTION FOR APPROVAL. THE SSE SHALL SUBMIT TO THE ENGINEER FOR REVIEW CALCULATIONS AND SHOP DRAWINGS THAT ARE STAMPED AND SIGNED BY THE SSE. REVIEW OF THE SSE'S SHOP DRAWINGS IS FOR GENERAL COMPLIANCE WITH DESIGN CRITERIA AND COMPATIBILITY WITH THE DESIGN OF THE PRIMARY STRUCTURE AND DOES NOT RELIEVE THE SSE OF RESPONSIBILITY FOR THAT DESIGN. ALL NECESSARY BRACING, TIES, ANCHORAGE, AND PROPRIETARY PRODUCTS SHALL BE FURNISHED AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS OR THE SSE'S DESIGN DRAWINGS AND CALCULATIONS.

**INSPECTIONS:** ALL CONSTRUCTION IS SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL IN ACCORDANCE WITH IBC SEC 109. THE CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE BUILDING OFFICIAL. SUBMIT COPIES OF ALL INSPECTION REPORTS TO THE ENGINEER FOR REVIEW.

**PREFABRICATED CONSTRUCTION:** ALL PREFABRICATED CONSTRUCTION SHALL CONFORM TO IBC SEC 1703.6.

**GEOTECHNICAL INSPECTION:** THE GEOTECHNICAL ENGINEER OR BUILDING OFFICIAL SHALL INSPECT ALL PREPARED SOIL BEARING SURFACES PRIOR TO PLACEMENT OF CONCRETE AND REINFORCING STEEL AND PROVIDE A LETTER TO THE OWNER STATING THAT SOILS ARE ADEQUATE TO SUPPORT THE "ALLOWABLE FOUNDATION PRESSURE" SHOWN BELOW. SOIL VALUES SHALL BE FIELD VERIFIED BY THE BUILDING OFFICIAL OR THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.

**GEOTECHNICAL REPORT:** RECOMMENDATIONS CONTAINED IN "GEOTECHNICAL ENGINEERING STUDY", JN 24300 BY GEOTECH CONSULTANTS, INC., DATED OCTOBER 17, 2024 WERE USED FOR FOOTING DESIGN.

**DESIGN SOIL VALUES:**

ALLOWABLE BEARING PRESSURE (ASSUMED)	3500 PSF
PASSIVE LATERAL PRESSURE	350 PSF/FT
ACTIVE LATERAL PRESSURE (UNRESTRAINED)	50 PSF/FT
ACTIVE LATERAL PRESSURE (RESTRAINED)	45 PSF/FT
COEFFICIENT OF SLIDING FRICTION	0.55

**SLABS-ON-GRADE & FOUNDATIONS:** ALL FOUNDATIONS SHALL BEAR ON STRUCTURAL COMPACTED FILL OR COMPETENT NATIVE SOIL PER THE GEOTECHNICAL REPORT. ALL SLABS-ON-GRADE SHALL BE FOUNDED ON APPROPRIATE SUB-GRADE PREPARATION AS NOTED IN THE GEOTECHNICAL REPORT. EXTERIOR PERIMETER FOOTINGS SHALL BEAR NOT LESS THAN 18 INCHES BELOW FINISH GRADE, OR BY THE GEOTECHNICAL ENGINEER AND THE BUILDING OFFICIAL. INTERIOR FOOTINGS SHALL BEAR NOT LESS THAN 12 INCHES BELOW FINISH FLOOR.

**COMPACTION:** UNLESS OTHERWISE SPECIFIED BY A GEOTECHNICAL ENGINEER, FOOTINGS SHALL BE PLACED ON COMPACTED MATERIAL AND SHALL BE WELL-GRADED GRANULAR MATERIAL WITH NO MORE THAN 5% PASSING A #2 SIEVE. FILLS PLACED SHALL BE IN MAXIMUM 8" LIFTS AND ALL BEARING SOILS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT USING THE MODIFIED PROCTOR TEST.

**CAST-IN-PLACE CONCRETE & REINFORCEMENT**

**REFERENCE STANDARDS:** CONFORM TO:

- (1) ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY".
- (2) IBC CHAPTER 19.
- (3) ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE", SEC 3 "REINFORCEMENT AND REINFORCEMENT SUPPORTS."

**FIELD REFERENCE:** THE CONTRACTOR SHALL KEEP A COPY OF ACI FIELD REFERENCE MANUAL, SP-15, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) WITH SELECTED ACI AND ASTM REFERENCES."

**CONCRETE MIXTURES:** CONFORM TO ACI 318 CHAPTER 5 "CONCRETE QUALITY, MIXING, AND PLACING."

**MATERIALS:** CONFORM TO ACI 318 CHAPTER 3 "MATERIALS" FOR REQUIREMENTS FOR CEMENTITIOUS MATERIALS, AGGREGATES, MIXING WATER AND ADMIXTURES.

**REINFORCING BARS:** ASTM A615, GRADE 60, DEFORMED BARS.

**DEFORMED WELDED WIRE FABRIC:** ASTM A497

**BAR SUPPORTS:** CRSI MSP-2, CHAPTER 3 "BAR SUPPORTS."

**TIE WIRE:** 16.5 GAGE OR HEAVIER, BLACK ANNEALED.

**MIX DESIGNS:** PROVIDE A 5-SACK MINIMUM, 28-DAY COMPRESSIVE STRENGTH F'c = 2,500 PSI CONCRETE MIX WITH MAXIMUM 3/4" AGGREGATE AND 0.50 W/C RATIO FOR ALL ISOLATED POST AND CONTINUOUS WALL FOOTINGS, SLABS-ON-GRADE, AND BASEMENT WALLS EXTENDING NO MORE THAN 8" ABOVE FINISH GRADE. ELEVATION FOR BASEMENT WALLS EXTENDING MORE THAN 8" ABOVE FINISH GRADE AND ALL SITE WALLS, PROVIDE A 5-1/2 SACK MINIMUM F'c = 3,000 PSI CONCRETE MIX WITH MAXIMUM 3/4" AGGREGATE AND 0.50 W/C RATIO.

**MIX DESIGN NOTES:**

- (1) W/C RATIO: WATER-CEMENTITIOUS MATERIAL RATIOS SHALL BE BASED ON THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS.
- (2) CEMENTITIOUS CONTENT: THE USE OF FLY ASH, OTHER POZZOLANS, SILICA FUME, OR SLAG SHALL CONFORM TO ACI 301 SEC 4.2.2.8.B. MAXIMUM AMOUNT OF FLY ASH SHALL BE 20% OF TOTAL CEMENTITIOUS CONTENT UNLESS REVIEWED AND APPROVED OTHERWISE BY SER.

- (3) AIR CONTENT: CONFORM TO ACI 301 SEC 4.2.2.4. HORIZONTAL EXTERIOR SURFACES IN CONTACT WITH THE SOIL REQUIRE ENTRAINED AIR. USE "MODERATE EXPOSURE". VERTICAL EXTERIOR SURFACES REQUIRE "MODERATE EXPOSURE". TOLERANCE IS +/- 1-1/2%. AIR CONTENT SHALL BE MEASURED AT POINT OF PLACEMENT.
- (4) SLUMP: CONFORM TO ACI 301 SEC 4.2.2.2. SLUMP SHALL BE DETERMINED AT POINT OF PLACEMENT.
- (5) NON-CHLORIDE ACCELERATOR: NON-CHLORIDE ACCELERATING ADMIXTURE MAY BE USED IN CONCRETE SLABS PLACED AT AMBIENT TEMPERATURES BELOW 50° F AT THE CONTRACTOR'S OPTION.

**FORMWORK:** CONFORM TO ACI 301 SEC 2 "FORMWORK AND FORM ACCESSORIES." REMOVAL OF FORMS SHALL CONFORM TO SEC 2.3.2 EXCEPT STRENGTH INDICATED IN SEC 2.3.2.5 SHALL BE 0.75 F'c.

**MEASURING, MIXING, AND DELIVERY:** CONFORM TO ACI 301 SEC 4.3.

**HANDLING, PLACING, CONSTRUCTING AND CURING:** CONFORM TO ACI 301 SEC 5.

**REBAR FABRICATION & PLACING:** CONFORM TO ACI 301, SEC 3.2.2 "FABRICATION", AND ACI SP-66 "ACI DETAILING MANUAL." CONFORM TO ACI 301, SEC 3.3.2 "PLACEMENT." PLACING TOLERANCES SHALL CONFORM TO SEC 3.3.2.1 "TOLERANCES."

**SPLICING:** CONFORM TO ACI 301, SEC 3.3.2.7. REFER TO PLANS FOR TYPICAL SPLICES.

**FIELD BENDING:** CONFORM TO ACI 301 SEC 3.3.2.8. "FIELD BENDING OR STRAIGHTENING." BAR SIZES #3 THROUGH #5 MAY BE FIELD BENT COLD THE FIRST TIME. OTHER BARS REQUIRE PREHEATING. DO NOT TWIST BARS.

**CORNER BARS:** PROVIDE MATCHING-SIZED "L" CORNER BARS FOR ALL HORIZONTAL WALL AND FOOTING BARS WITH THE APPROPRIATE SPLICE LENGTH, UNO.

**CONCRETE COVER:** CONFORM TO THE FOLLOWING COVER REQUIREMENTS FROM ACI 301, TABLE 3.3.2.3:

CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER (#5 & SMALLER)	1-1/2"
BARS IN SLABS AND WALLS	3/4"

**CONSTRUCTION JOINTS:** CONFORM TO ACI 301 SEC 2.2.2.5, 5.1.2.3A, 5.2.2.1, AND 5.3.2.6. CONSTRUCTION JOINTS SHALL BE LOCATED AND DETAILED AS ON THE CONSTRUCTION DRAWINGS. USE OF AN ACCEPTABLE ADHESIVE, SURFACE RETARDER, PORTLAND CEMENT GROUT, OR ROUGHENING THE SURFACE IS NOT REQUIRED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. WHERE SHEAR BOND IS REQUIRED, ROUGHEN SURFACES TO 1/4" AMPLITUDE.

**WOOD FRAMING**

**REFERENCE STANDARDS:** CONFORM TO:

- (1) IBC CHAPTER 23 "WOOD".
- (2) NDS AND NDS SUPPLEMENT - "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
- (3) ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSS CONSTRUCTION".

**DEFERRED SUBMITTALS:** SUBMIT PRODUCT DATA AND PROOF OF ICC APPROVAL FOR FRAMING MEMBERS AND FASTENERS THAT HAVE BEEN DESIGNED BY OTHERS. SUBMIT CALCULATIONS PREPARED BY THE SSE IN THE STATE OF WASHINGTON FOR ALL MEMBERS AND CONNECTIONS DESIGNED BY OTHERS ALONG WITH SHOP DRAWINGS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS AND WEB STIFFENERS SHALL BE DETAILED AND FURNISHED BY THE SUPPLIER. TEMPORARY AND PERMANENT BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECTION LIMITS SHALL BE AS NOTED UNDER DESIGN LOADS SECTION.

**IDENTIFICATION:** ALL SAWN LUMBER AND PRE-MANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY.

**MATERIALS:**

- **SAWN LUMBER:** CONFORM TO GRADING RULES OF WMPA, WCLIB OR NLGA. FINGER JOINTED STUDS ACCEPTABLE AT INTERIOR WALLS ONLY.

MEMBER USE	SIZE	SPECIES	GRADE
STUDS & POSTS	2x, 4x	HEM-FIR	NO. 2
RAFTERS	2x4 - 2x10	HEM-FIR	NO. 2
BEAMS	4x8 - 4x12	HEM-FIR	NO. 2
BEAMS	6x8 - 6x12	HEM-FIR	NO. 2
POSTS & TIMBERS	6x, 8x	DOUG-FIR	NO. 2

- **GLUED LAMINATED TIMBER:** CONFORM TO AITC 117 "STANDARD SPECIFICATIONS FOR STRUCTURAL GLUE-LAMINATED TIMBER OF SOFTWOOD SPECIES, MANUFACTURING AND DESIGN" AND ANSI/AITC A190.1 "STRUCTURAL GLUED LAMINATED TIMBER," CAMBER ALL GLUED LAMINATED MEMBERS BEAMS TO 2000" RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

MEMBER USE	SIZES	SPECIES	STRESS CLASS	USES
BEAMS	ALL	DF/DF	24F-1.8E	SIMPLE SPANS
	ALL	DF/DF	24F-1.8E [(-FB)=(+FB)]	CANTILEVER SPANS

- **METAL PLATE CONNECTED WOOD ROOF TRUSSES:** CONFORM TO IBC SEC 2303.4 "TRUSSES."

- **WOOD STRUCTURAL SHEATHING (PLYWOOD):** WOOD APA-RATED STRUCTURAL SHEATHING INCLUDES: ALL VENEER PLYWOOD, ORIENTED STRAND BOARD, WATERBOARD, PARTICLEBOARD, T1-11 SIDING, AND COMPOSITES OF VENEER AND WOOD BASED MATERIAL. CONFORM TO PRODUCT STANDARDS PS-1 AND PS-2 OF THE U.S. DEPT. OF COMMERCE AND THE AMERICAN PLYWOOD ASSOCIATION (APA).

LOCATION	THICKNESS	SPAN RATING	PLYWOOD GRADE	EXPOSURE
ROOF	15/32"	32/16	C-D	1
FLOOR	23/32" T&G	24 OC	STURD-I-FLOOR	1
WALLS	15/32"	32/16	C-D	1
WALLS(ALT)	7/16" OSB	24/16	C-D	1

- **JOIST HANGERS AND CONNECTORS:** SHALL BE "STRONG TIE" BY SIMPSON COMPANY OR USP EQUIVALENT AS SPECIFIED IN THEIR LATEST CATALOGS. ALTERNATE CONNECTORS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUIVALENT OR GREATER LOAD CAPACITIES AND ARE REVIEWED AND APPROVED BY THE SER PRIOR TO ORDERING. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE 1/2 OF THE NAILS OR BOLTS IN EACH MEMBER. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE FULL LENGTH COMMON. NAIL STRIPS TO WOOD FRAMING AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE.

- **NAILS AND STAPLES:** CONFORM TO IBC SEC 2303.6 "NAILS AND STAPLES," UNLESS NOTED ON PLANS, NAIL PER IBC TABLE 2304.9.1. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE COMMON. NAIL SIZES SPECIFIED ON THE DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
8d	2-1/2"	0.131"
10d	3"	0.148"
(8d & 10d ALTERNATIVE) PASLODE TETRAGRIP NAILS	2-3/8"	0.113"
12d (16d SINKER)	3-1/4"	0.148"
16d	3-1/2"	0.162"

- **LAG BOLTS/BOLTS:** CONFORM TO ASTM A307.

**NAILING REQUIREMENTS:** PROVIDE MINIMUM NAILING IN ACCORDANCE WITH IBC TABLE 2304.9.1 "FASTENING SCHEDULE" EXCEPT AS NOTED ON THE DRAWINGS. NAILING FOR ROOF/FLOOR DIAPHRAGMS/SHEAR WALLS SHALL BE PER DRAWINGS. NAILS SHALL BE DRIVEN FLUSH AND SHALL NOT FRACTURE THE SURFACE OF SHEATHING.

**STANDARD LIGHT-FRAME CONSTRUCTION:** UNLESS NOTED ON THE PLANS, CONSTRUCTION SHALL CONFORM TO IBC SEC 2308 "CONVENTIONAL LIGHT-FRAME CONSTRUCTION" AND IBC SEC 2304 "GENERAL CONSTRUCTION REQUIREMENTS."

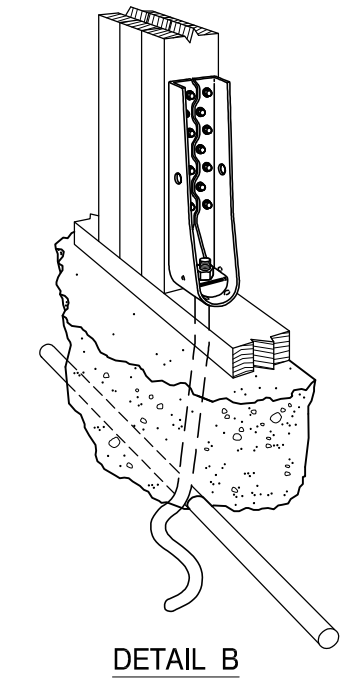
- (1) **WALL FRAMING:** UNLESS OTHERWISE NOTED, ALL INTERIOR WALLS SHALL BE 2X4 @ 16"OC AND ALL EXTERIOR WALLS SHALL BE 2X6 @ 16"OC. PROVIDE (2)BUNDLED STUDS MIN AT WALL ENDS AND EACH SIDE OF ALL OPENINGS. UNO, ALL SOLID SAWN LUMBER HEADERS SHALL BE SUPPORTED BY A MINIMUM OF (1)TRIM AND (1)KING STUD AND ALL GULNAM OR ENGINEERED WOOD HEADERS BY (2)TRIM AND (2)KING STUDS. AT FRAMED WALLS, UNO, ALL SOLID SAWN LUMBER BEAMS SHALL BE SUPPORTED ON A MINIMUM OF (2) BUNDLED 2X STUDS AND ALL GULNAM OR ENGINEERED WOOD BEAMS ON A MINIMUM OF (3) BUNDLED 2X STUDS. STITCH-NAIL BUNDLED STUDS WITH (2)10D @ 12"OC, UNO, ALL INTERIOR AND EXTERIOR HEADERS SHALL BE 4X6. PROVIDE SOLID BLOCKING THRU FLOORS TO SUPPORTS BELOW FOR BEARING WALLS AND POSTS. UNO, ATTACH BOTTOM PLATES OF STUD WALLS TO WOOD FRAMING BELOW WITH 16D @ 12"OC OR TO CONCRETE WITH 5/8"-DIA. ANCHOR BOLTS X 7" EMBEDMENT AT 48"OC. REFER TO SHEAR WALL SCHEDULE FOR SPECIFIC SHEATHING, STUD, AND NAILING REQUIREMENTS AT SHEAR WALLS. UNO, PROVIDE GYPSUM SHEATHING ON INTERIOR SURFACES AND PLYWOOD SHEATHING ON EXTERIOR SURFACES.

- (2) **ROOF/FLOOR FRAMING:** UNLESS OTHERWISE NOTED, PROVIDE DOUBLE JOISTS/RAFTERS UNDER ALL PARALLEL BEARING PARTITIONS AND SOLID BLOCKING AT ALL BEARING POINTS. PROVIDE DOUBLE JOISTS AROUND ALL ROOF/FLOOR OPENINGS. UNO, MULTI-JOISTS/RAFTERS SHALL BE STITCH-NAILED TOGETHER WITH (2)10D @ 12"OC. PROVIDE ROOF SHEATHING EDGE CLIPS CENTERED BETWEEN FRAMING AT UNBLOCKED PLYWOOD EDGES. ALL FLOOR SHEATHING SHALL HAVE TONGUE AND GROOVE JOINTS OR BE SUPPORTED BY SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ROOF/FLOOR SHEATHING. ROOF/FLOOR SHEATHING SHALL BE LAID FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS.

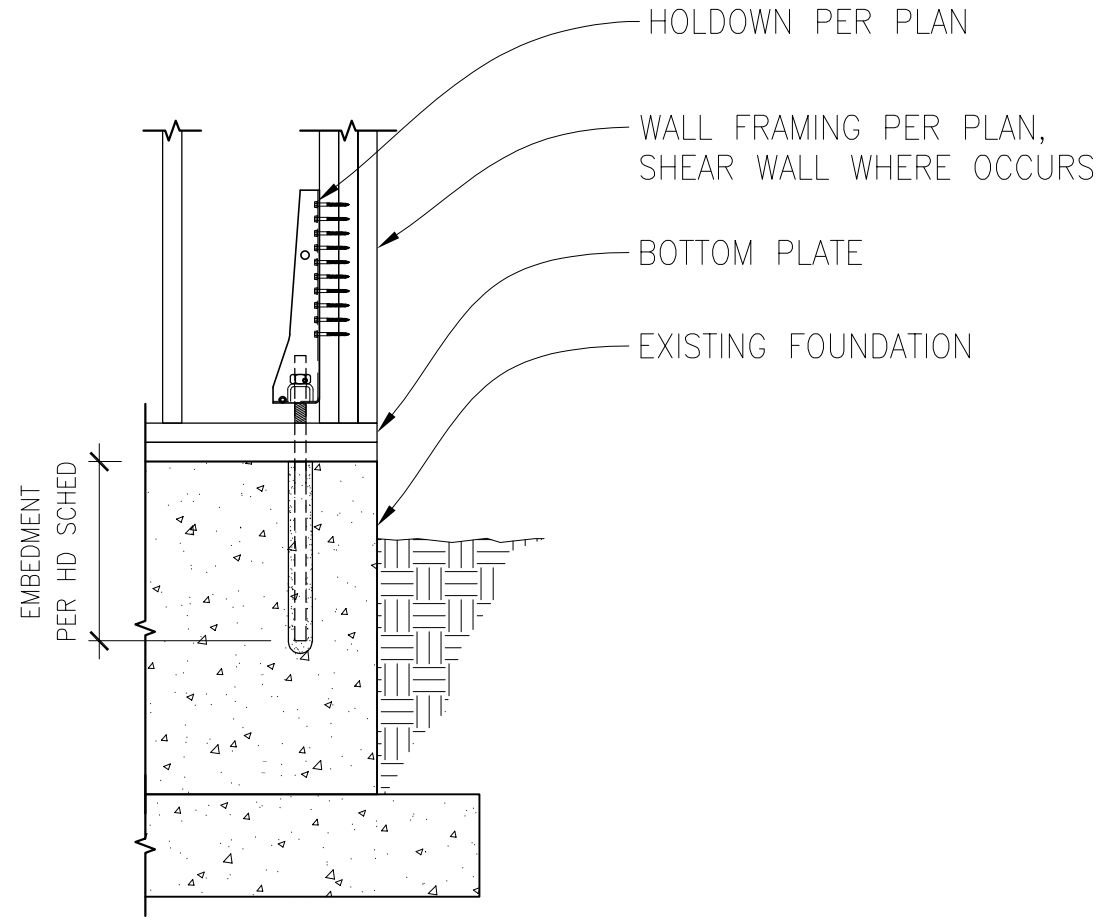
**MOISTURE CONTENT:** WOOD MATERIAL USED FOR THIS PROJECT SHALL HAVE MAXIMUM MOISTURE CONTENT OF 19% EXCEPT FOR THE PRESSURE-TREATED WOOD SILL PLATE.

**PRESERVATIVE TREATMENT:** WOOD MATERIALS ARE REQUIRED TO BE "TREATED WOOD" UNDER CERTAIN CONDITIONS IN ACCORDANCE WITH IBC SEC 2304.11 "PROTECTION AGAINST DECAY AND TERMITES". CONFORM TO THE APPROPRIATE STANDARDS OF THE AMERICAN WOOD-PRESERVERS ASSOCIATION (AWPA) FOR SAWN LUMBER, GLUED LAMINATED TIMBER, ROUND POLES, WOOD PILES AND MARINE PILES. FOLLOW AMERICAN LUMBER STANDARDS COMMITTEE (ALSC) QUALITY ASSURANCE PROCEDURES. PRODUCTS SHALL BEAR THE APPROPRIATE MARK.

**METAL CONNECTORS/PT WOOD:** CK ENGINEERING LLC RECOMMENDS THAT ALL METAL HARDWARE AND FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER BE STAINLESS STEEL TYPE 316L. AT THE OWNER'S RISK AND DISCRETION, HOT-DIPPED GALVANIZED METAL HARDWARE AND FASTENERS MAY BE INVESTIGATED FOR USE IN LIEU OF STAINLESS STEEL PROVIDED THAT THE FINISH HAS A MINIMUM ZINC CONTENT OF AT LEAST 1.85 OZ/SF AND ITS USE IS COORDINATED BY THE CONTRACTOR AND WOOD SUPPLIER FOR THE EXPECTED ENVIRONMENT AND MOISTURE EXPOSURE FOR APPROPRIATE USE BASED ON THE METHOD OF PRESERVATIVE TREATMENT OF THE WOOD.



DETAIL B



**ALL-THREAD ROD INSTALLATION INTO EXISTING FOUNDATION**

SCALE: N.T.S.

7

HOLDOWN SCHEDULE					
MODEL # (1)	ANCHORAGE TYPE (4.6)	FASTENERS	END STUD REQUIRED (2.8)	DOUG-FIR	HEM-FIR
HDU4	SSTB24 OR 5/8" ALL-THREAD ROD W/ 10" EPOXY EMBED INTO 8" CONC. WALL	(10) 1/4"x2 1/2" SDS WOOD SCREWS	(2) 2x STUDS <sup>7</sup>	1,500	1,500

**NOTES:**

- 1. HOLDOWNS SPECIFIED ARE AS MANUFACTURED BY SIMPSON ANCHOR TIE DOWN CO., INC; ACCEPTABLE EQUIVALENT PRODUCT SUBSTITUTIONS ARE AVAILABLE FROM OTHER MANUFACTURERS WITH SER APPROVAL.
- 2. LOCATE ALL HOLDOWNS AT ENDS OF ALL SHEAR WALLS & FASTEN TO BUNDLED END STUDS.
- 3. BUNDLED END STUDS SHOULD BE STITCH-NAILED TOGETHER USING MINIMUM (2) 16d @ 10"OC, UNO.
- 4. LOCATE "HDU#", "LSTHD#", & "STHD#" HOLDOWNS AT CONCRETE FOUNDATION LEVEL. (DETAIL B & C)
- 5. LOCATE "CS#", "MST", "MS1G#" & "CMS1#" STRAPS AT FLOOR-TO-FLOOR CONNECTIONS. (DETAIL A)
- 6. ALL HOLDOWN ANCHOR BOLTS SHALL BE MIN 5" FROM CONCRETE WALL ENDS.
- 6. USE "SSTB" FOR 2x SILL PLATES & "SSTBL" FOR 3x SILL PLATES.
- 7. ADDITIONAL END STUD REQUIRED TO MEET MINIMUM 1 1/2" EDGE DISTANCE FROM CONCRETE CORNER TO "STHD" STRAP. USE "RL" STYLE WITH "STHD" WHERE RIM JOIST IS PRESENT.
- 8. INSTALL ALL HOLDOWN HARDWARE PER MANUFACTURER'S INSTRUCTIONS & RECOMMENDATIONS.
- 9. USE SIMPSON SET-3G EPOXY FOR ANCHOR BOLT TO EXISTING CONCRETE INSTALLATION.

**HOLDOWN SCHEDULE**

SCALE: N.T.S.

8

WOOD-FRAMED SHEAR WALL SCHEDULE FOR HEM-FIR/DOUG-FIR STUD FRAMING								
SW TYPE	SW SHEATHING APA-RATED	NAIL SIZE & SPACING @ PANEL EDGES [1, 2, 12]	RIM JOIST OR BLOCKING ATTACHMENT TO TOP PLATE BELOW [4, 5, 6]	BOTTOM PLATE & EDGE MEMBER REQUIREMENTS [3, 7, 13]		SILL PLATE REQUIREMENTS		SHEAR LOAD CAPACITY (PLF)
				SHEAR NAILING TO WOOD FRAMING BELOW [6, 9]	BOTTOM R AT FRAMING	ANCHOR BOLT TO CONCRETE FOUNDATION [10]	SILL R AT FOUNDATION [11]	
SW-6	15/32" CD-EXT	0.131" @ 2 1/2" @ 6"OC	CLIP @ 18"OC	0.148" @ 3 1/4" @ 6"OC	2x	5/8" @ 48"OC	P.T. 2x	242

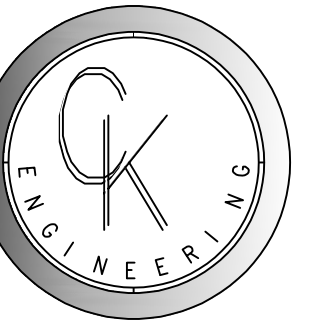
**NOTES:**

- 1. INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY.
- 2. WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUDS.
- 3. BLOCKING IS REQUIRED AT ALL PANEL EDGES.
- 4. PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS, OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLDOWN REQUIREMENTS PER PLANS.
- 5. SHEAR WALLS DESIGNATED AS PERFORATED SHEAR WALLS REQUIRE SHEATHING, SHEAR WALL NAILING, ETC. ABOVE AND BELOW ALL OPENINGS.
- 6. SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLDOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLDOWN POSTS. ADDITIONAL INFORMATION PER HOLDOWN SCHEDULE & DETAILS.
- 7. INTERMEDIATE FRAMING TO BE 2x MINIMUM MEMBERS. ATTACH SHEATHING TO INTERMEDIATE FRAMING WITH 0.148" @ 2 1/2" NAILS AT 12"OC WHERE STUDS ARE SPACED AT 16"OC AND 0.148" @ 2 1/2" NAILS AT 6"OC WHERE STUDS ARE SPACED AT 24"OC.
- 8. BASED ON 0.131" @ 2 1/2" NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131" @ 2 1/2" NAILS WHERE INSTALLED OVER SHEATHING.
- 9. FRAMING CLIPS: SIMPSON "A35" OR "LTP5" OR APPROVED EQUIVALENT.

**WOOD-FRAMED SHEAR WALL SCHEDULE**

SCALE: N.T.S.

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**CK ENGINEERING LLC**  
PROFESSIONAL STRUCTURAL ENGINEERING SERVICES  
19105 34th Ave. W. Suite 205  
Lynnwood, WA 98036  
Phone: (206) 417-0670



3/5/2025

**FALKNER RESIDENCE**  
5602 E. MERCER WAY  
MERCER ISLAND, WA 98040

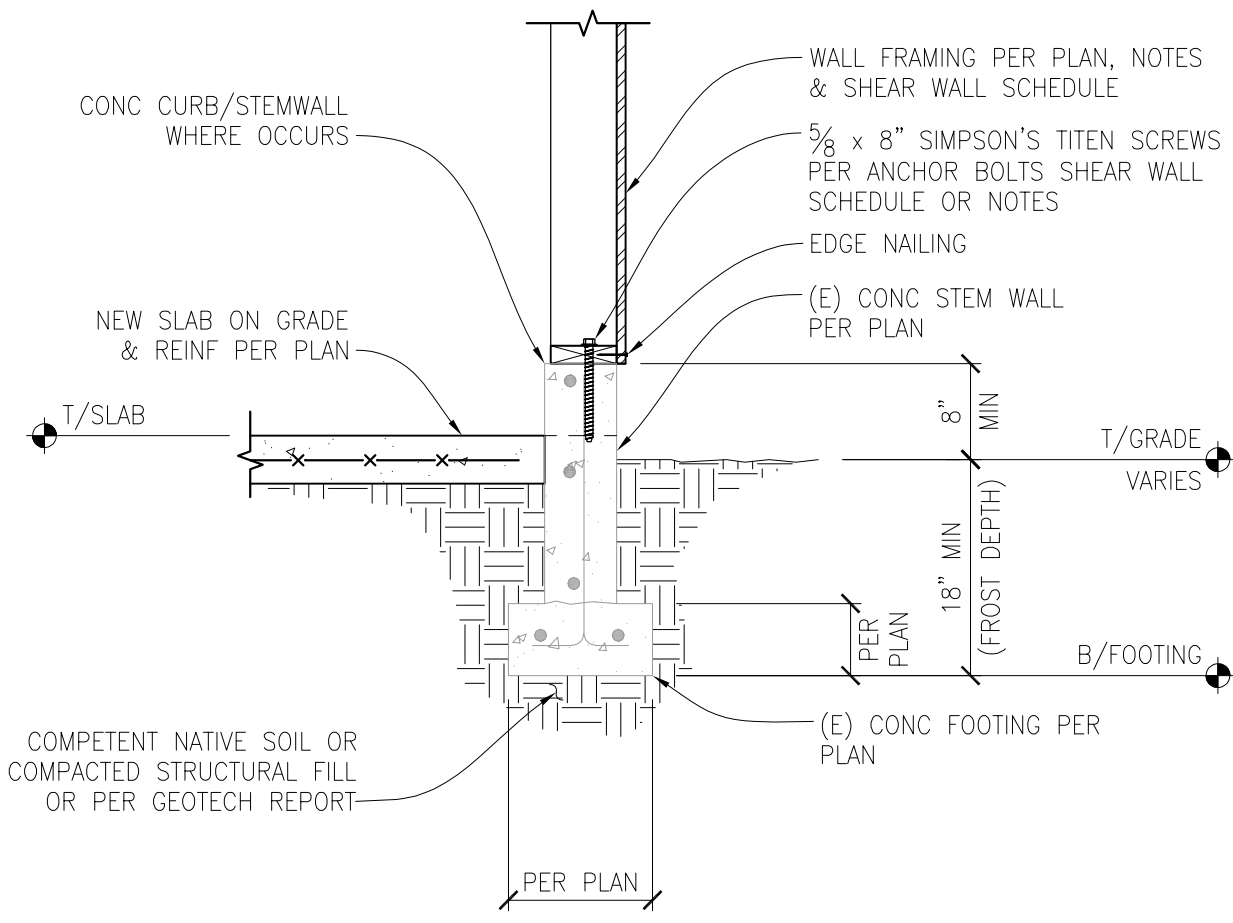
REVISION #	DATE	DESCRIPTION
1	03-5-2025	BUC REVIEW

Drawn By: PK  
Checked By: SC  
Date: 3-5-2025

CK JOB NO.  
**24-031**

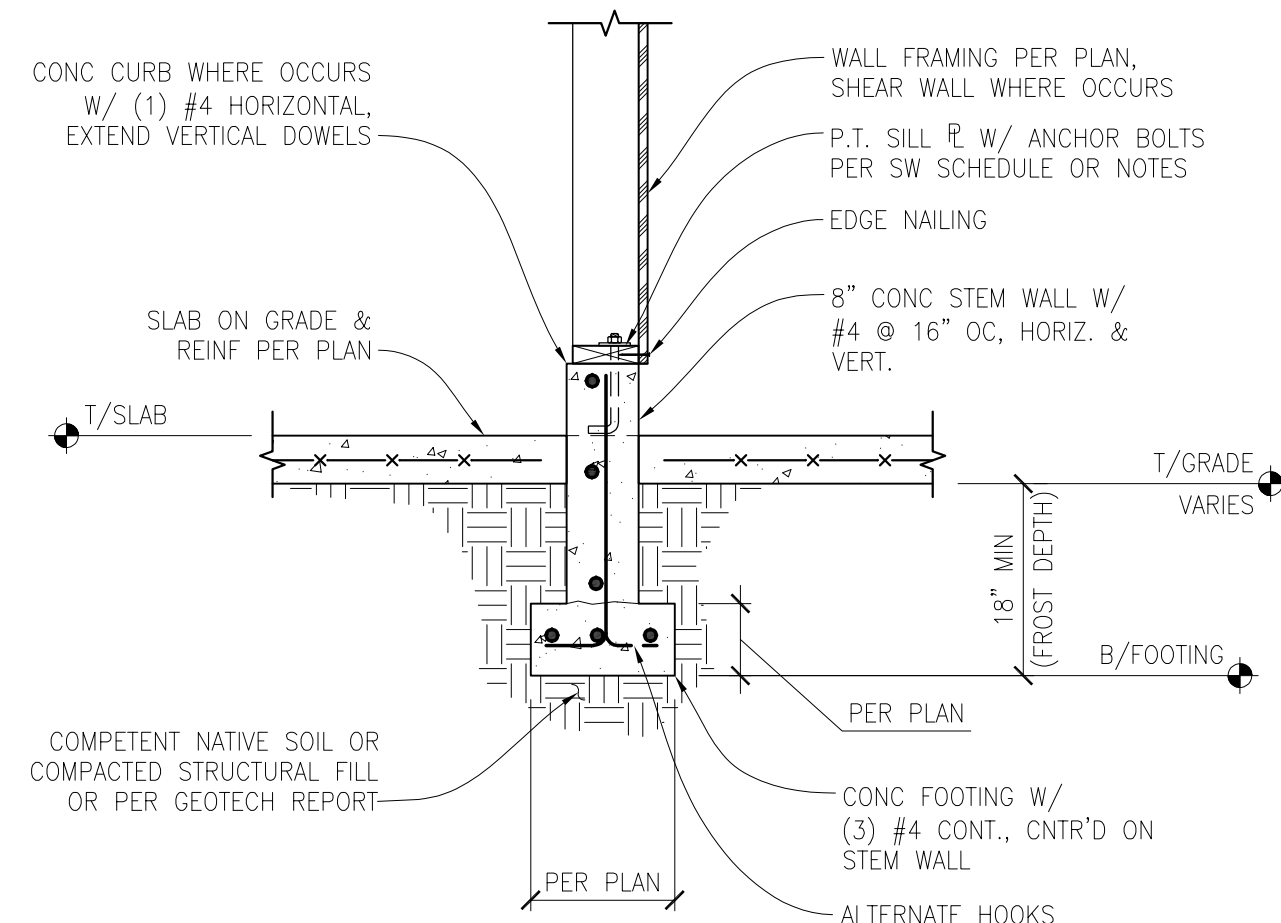
STRUCTURAL NOTES/SCHED.

**S-1.0**



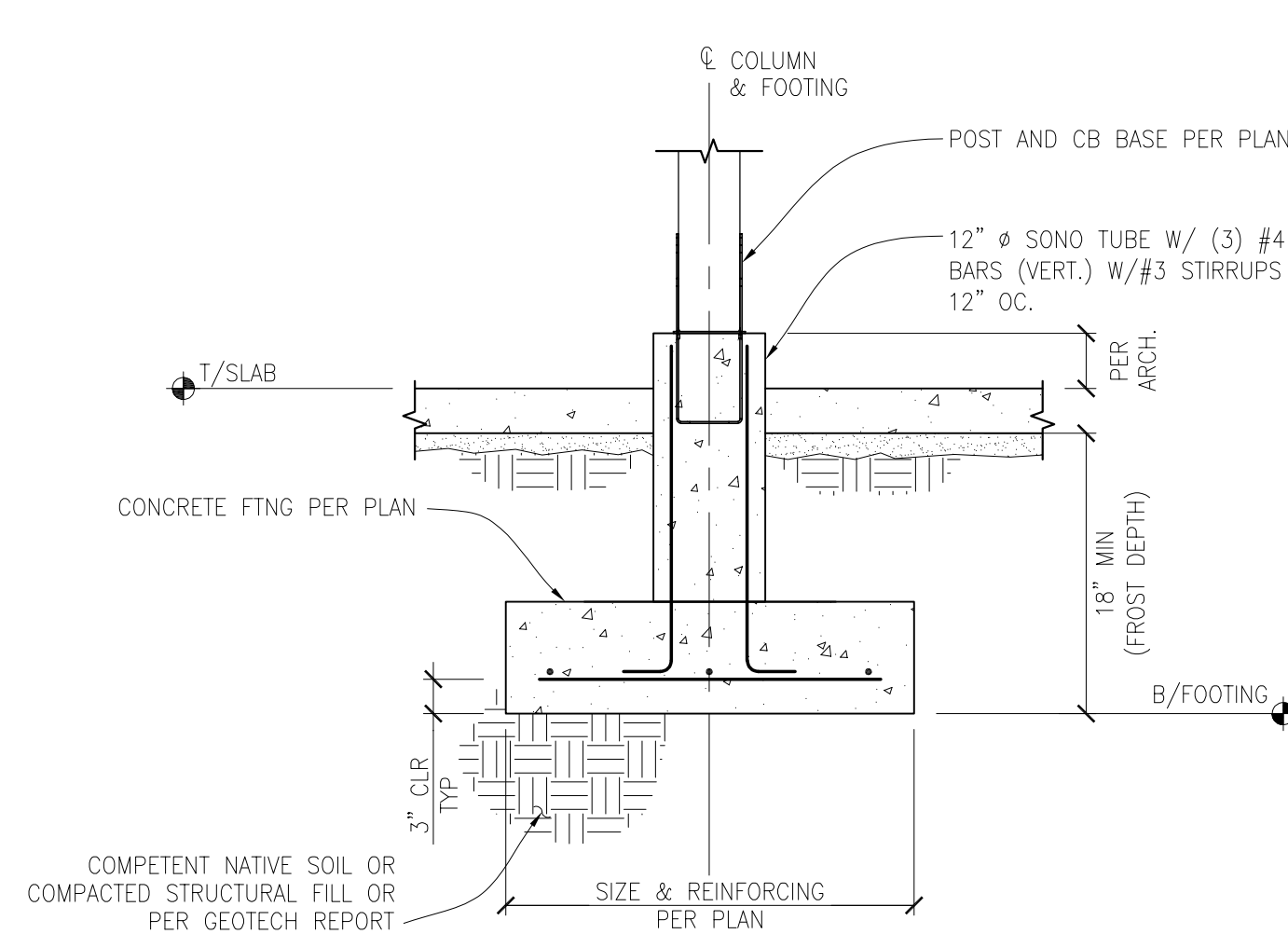
NEW SHEAR WALL TO EXISTING FOUNDATION CON.

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



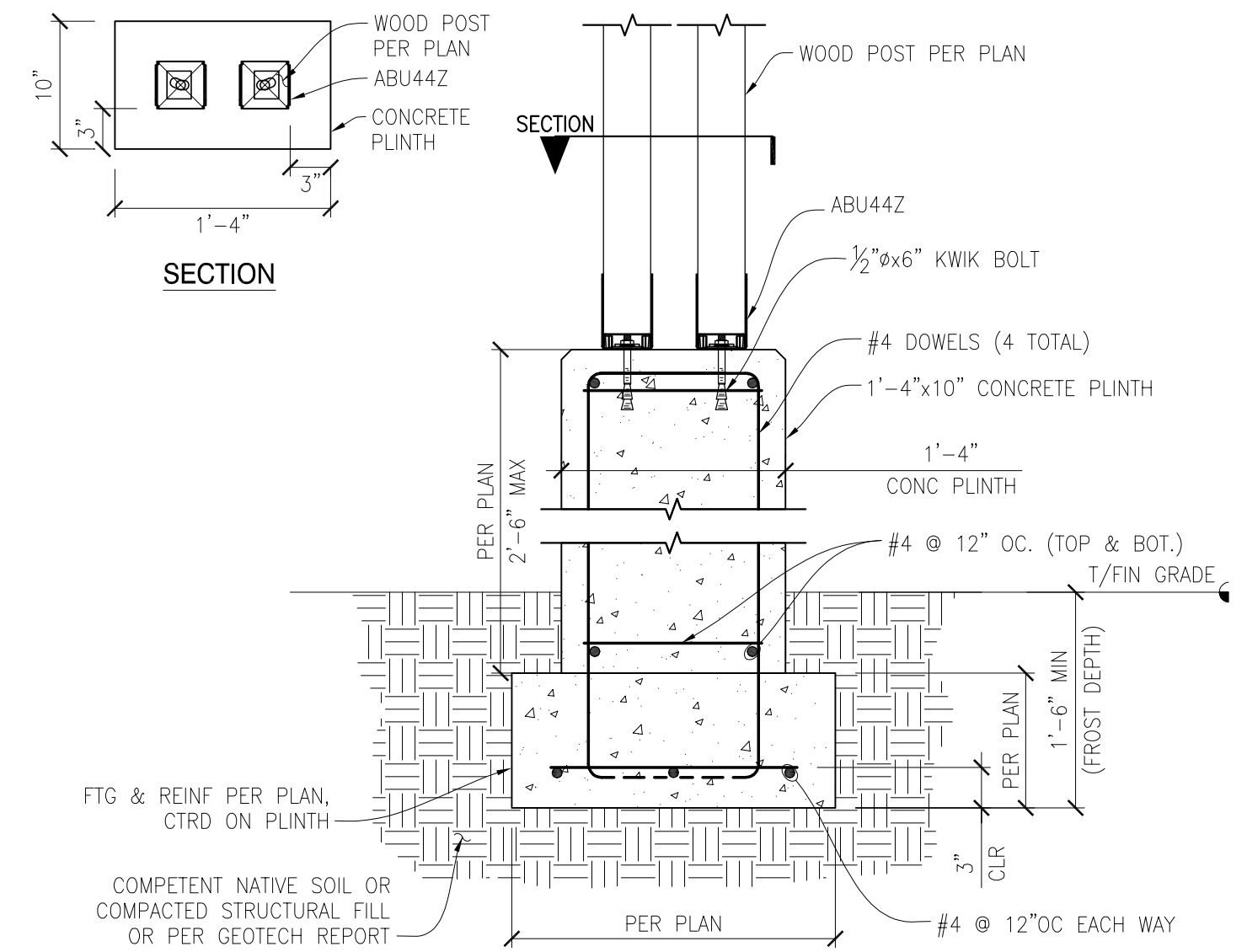
TYPICAL INTERIOR FOUNDATION FOOTING AND STEM WALL WITH SLAB ON GRADE

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



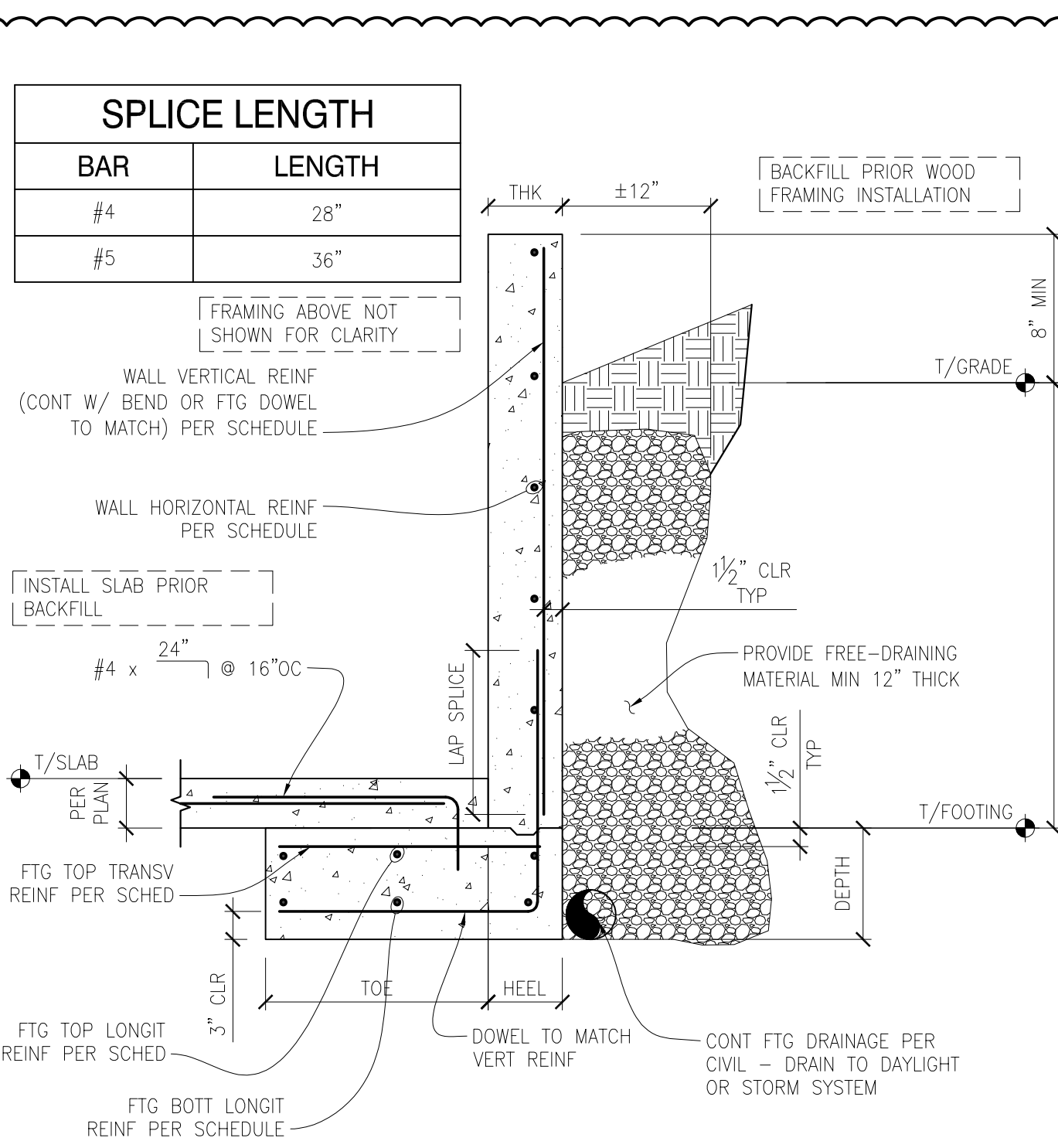
NEW FOOTING/POST CONNECTION

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



TYP. WOOD POST/CONC. PLINTH CONNECTION

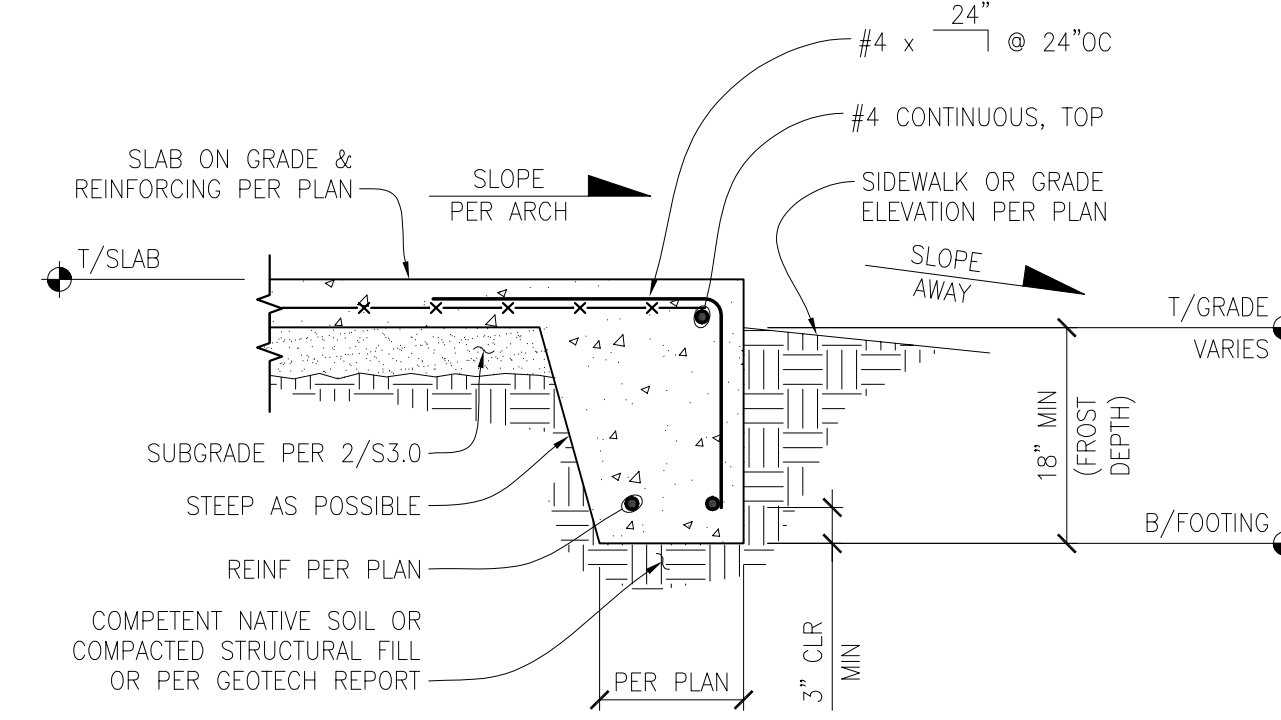
SCALE: 1" = 1'-0"



WALL		FOOTING	
SIZE	REINFORCEMENT	SIZE	REINFORCEMENT
HT (MAX) THK	VERTICAL HORIZONTAL	TOE HEEL DEPTH	TOP/TRANSV TOP/LONGIT BOTTOM/LONGIT
4'-0"	8" #4 @ 12"OC #4 @ 12"OC	2'-6" 0'-8" 10"	#4 @ 10"OC (6) #4 (3) #4
6'-0"	8" #4 @ 8"OC #4 @ 12"OC	4'-9" 0'-8" 10"	#4 @ 7"OC (10) #4 (8) #4
8'-0"	8" #5 @ 12"OC #4 @ 12"OC	7'-3" 0'-8" 12"	#5 @ 10"OC (10) #5 (8) #5
9'-0"	8" #5 @ 8"OC #4 @ 12"OC	8'-6" 0'-8" 12"	#5 @ 9"OC (18) #5 (10) #5

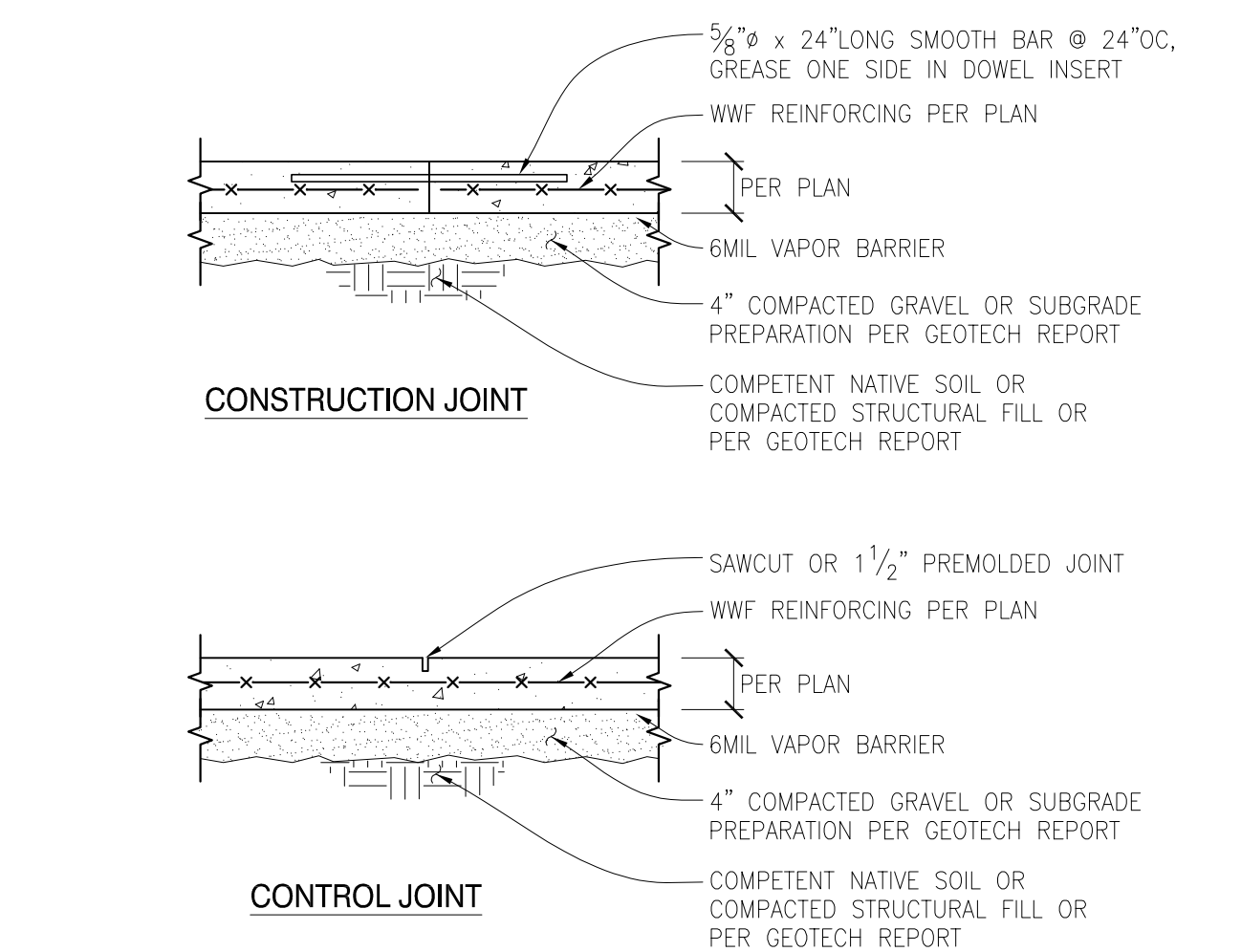
RETAINING WALL SCHEDULE

SCALE: N.T.S.



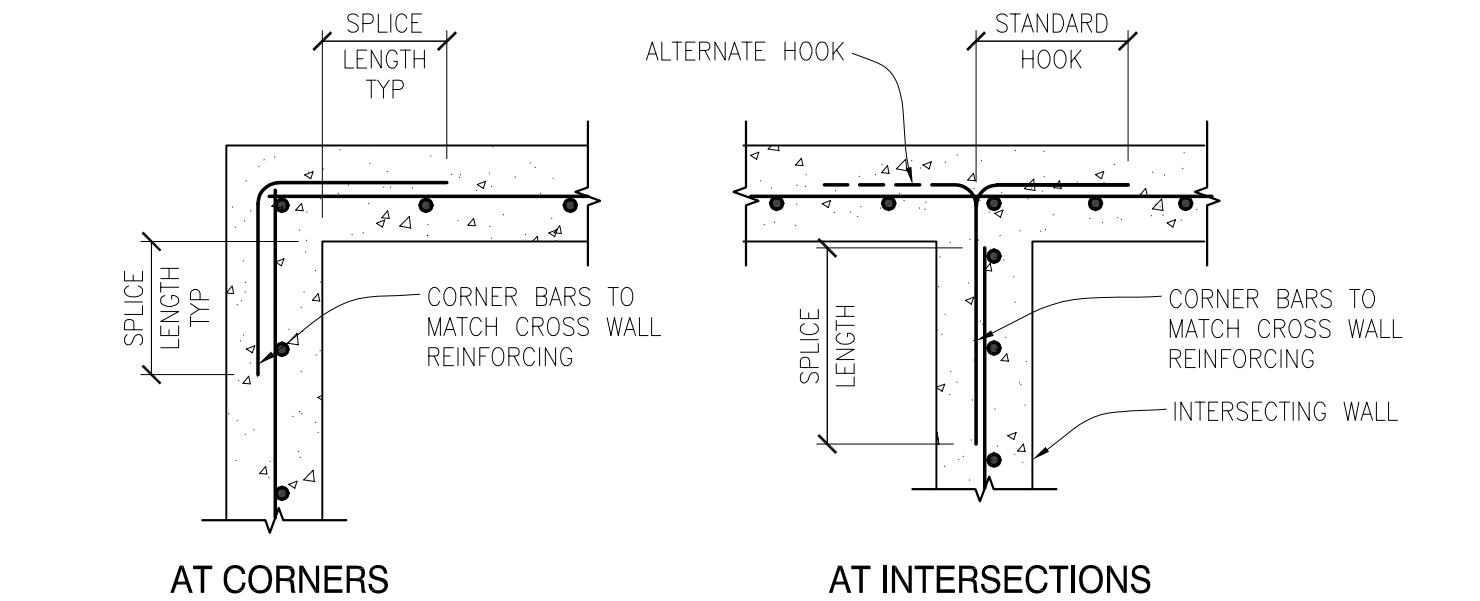
TYPICAL THICKENED SLAB EDGE FOOTING

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



TYPICAL SLAB ON GRADE JOINT DETAILS

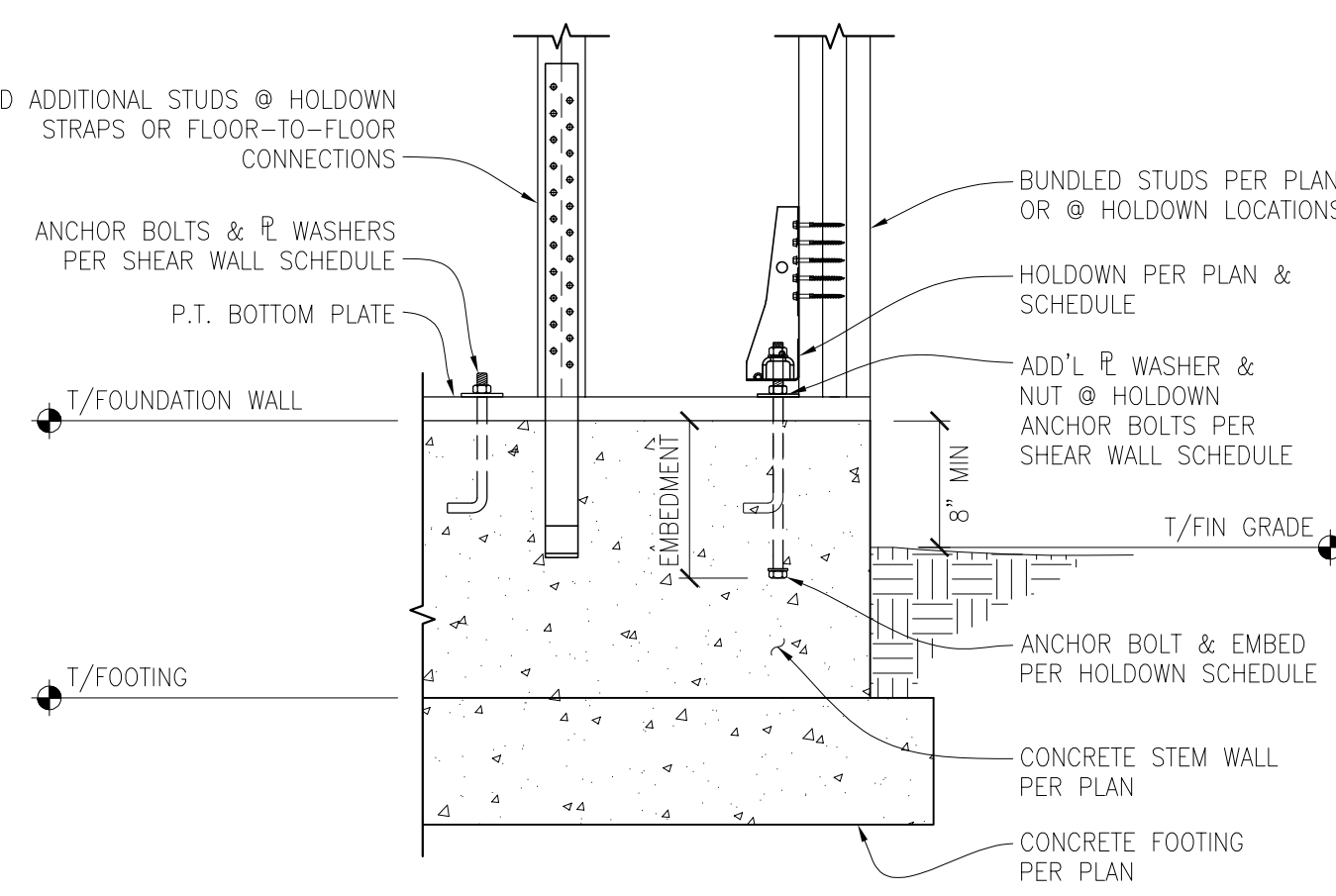
SCALE: N.T.S.



TYPICAL CORNER BARS AT CONCRETE WALLS - SINGLE MAT

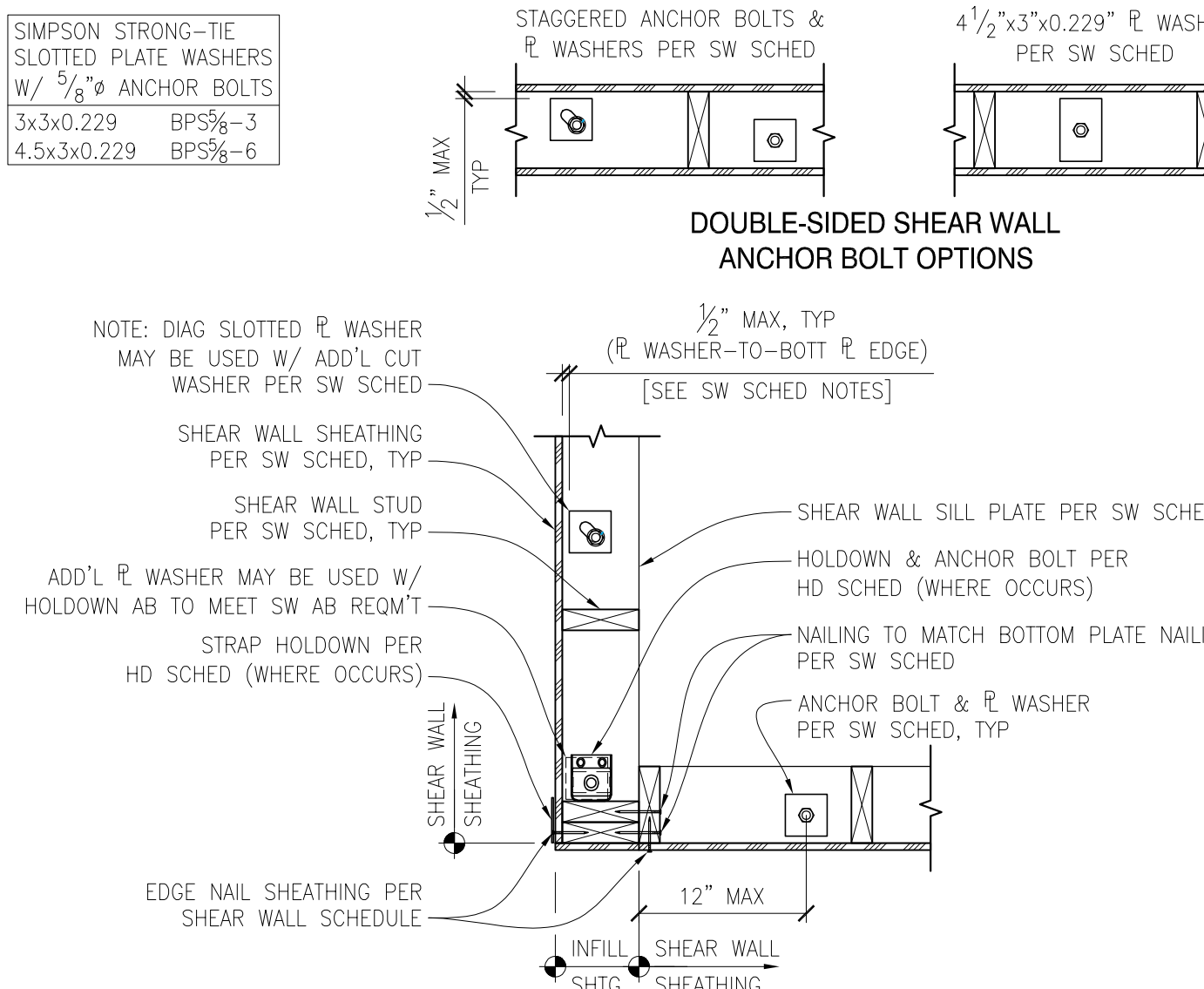
SCALE: N.T.S.

BAR	LENGTH
#4	28"
#5	36"



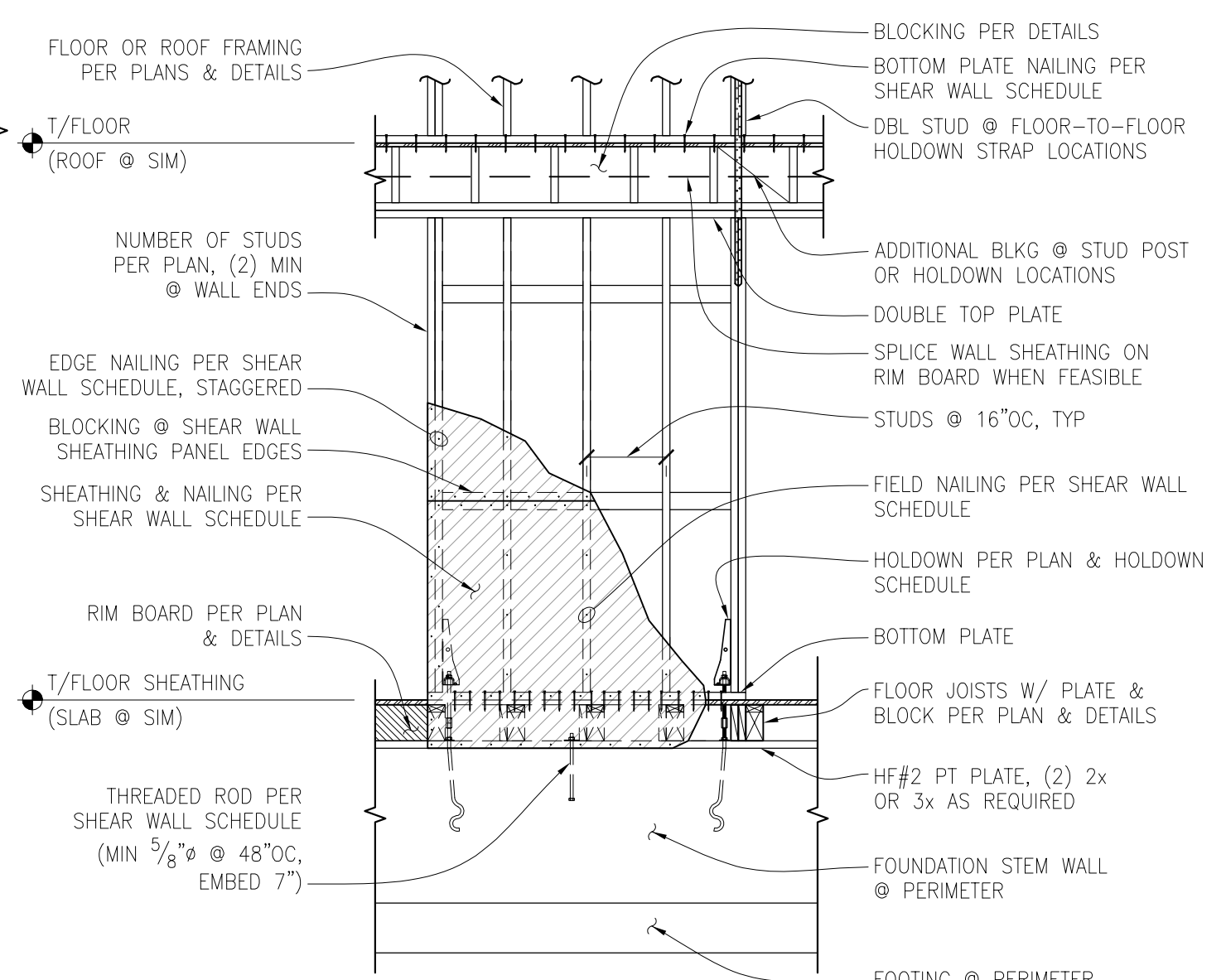
TYPICAL SHEAR WALL HOLDOWN CONNECTIONS AT FOUNDATION CONCRETE WALL

SCALE: N.T.S.



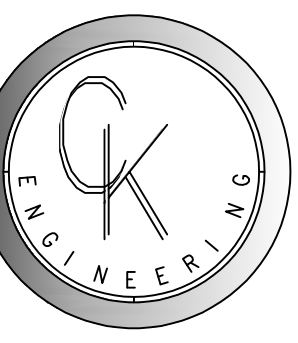
TYPICAL PLAN VIEW - SHEAR WALL HOLDOWNS & ANCHOR BOLTS

SCALE: 1" = 1'-0"



TYPICAL SHEAR WALL ELEVATION

SCALE: N.T.S.



CK ENGINEERING LLC  
PROFESSIONAL STRUCTURAL ENGINEERING SERVICES  
19105 34th Ave. W. Suite 205  
Lynnwood, WA 98036  
Phone: (206) 417-0670



3/5/2025

FALKNER RESIDENCE  
5602 E. MERCER WAY  
MERCER ISLAND, WA 98040

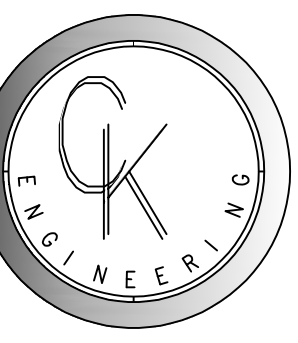
REVISION #	DATE	DESCRIPTION
1	03-5-2025	BDC REVIEW

Drawn By: PK  
Checked By: SC  
Date: 3-5-2025

CK JOB NO.  
24-031

STRUCTURAL  
DETAILS

S-2.0

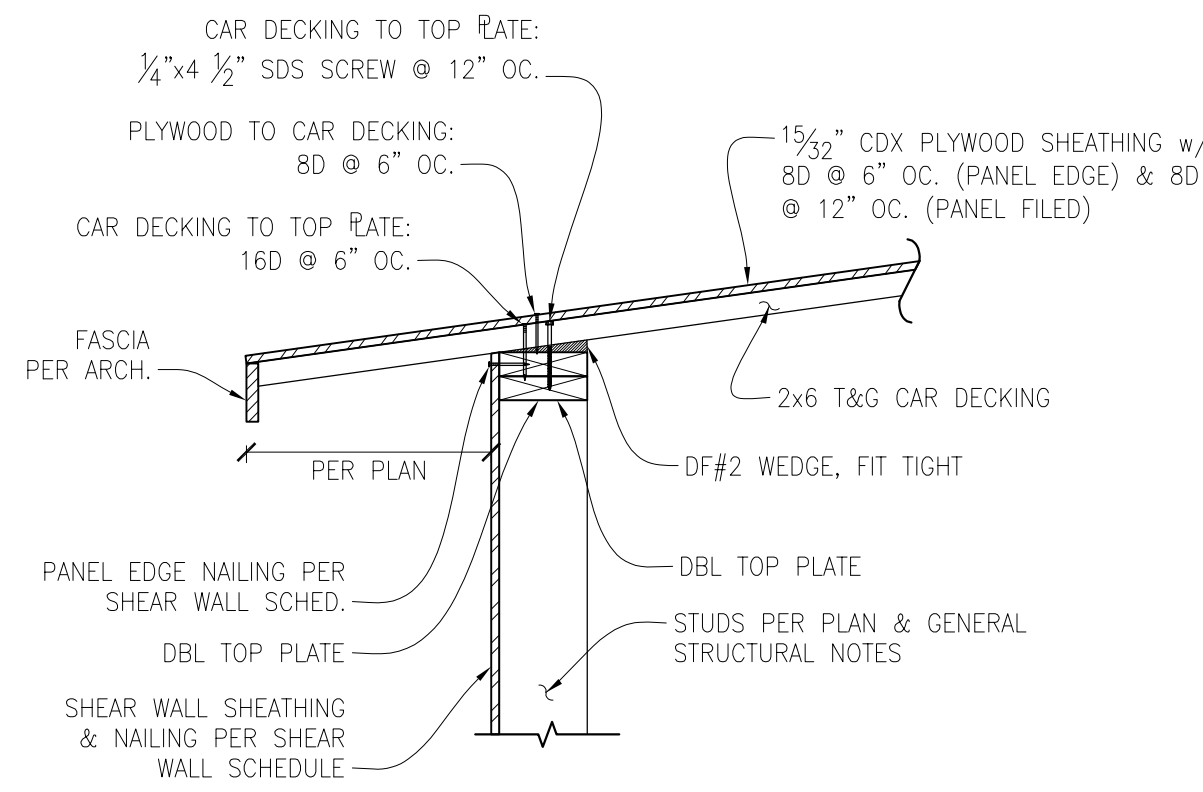


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 19105 34th Ave. W. Suite 205  
 Lynnwood, WA 98036  
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11/15/2024

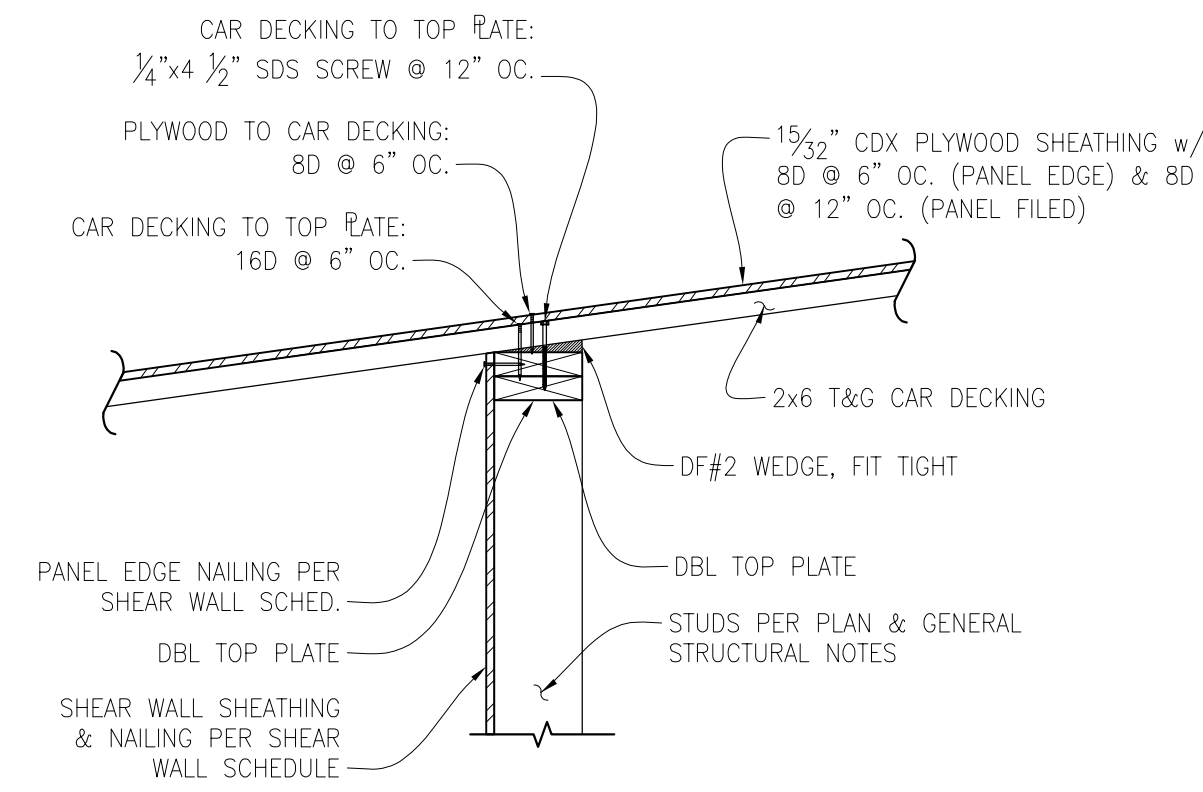
**FALKNER RESIDENCE**  
 5602 E. MERCER WAY  
 MERCER ISLAND, WA 98040



**ROOF SHEATHING TO SHEAR WALL CONNECTION**

SCALE: 1" = 1'-0"

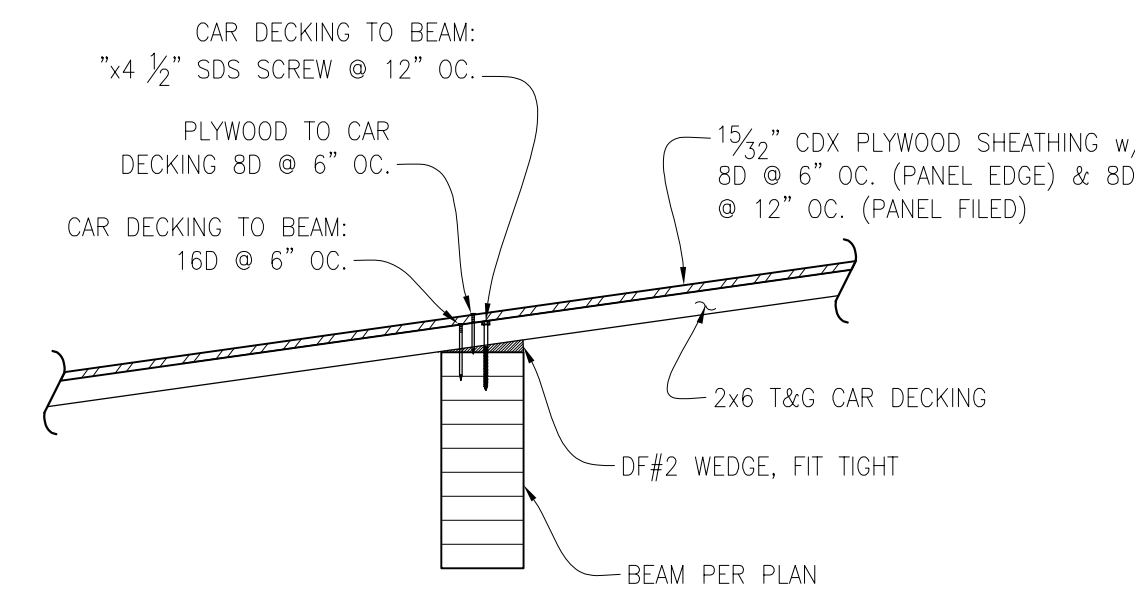
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**ROOF SHEATHING TO SHEAR WALL CONNECTION**

SCALE: 1" = 1'-0"

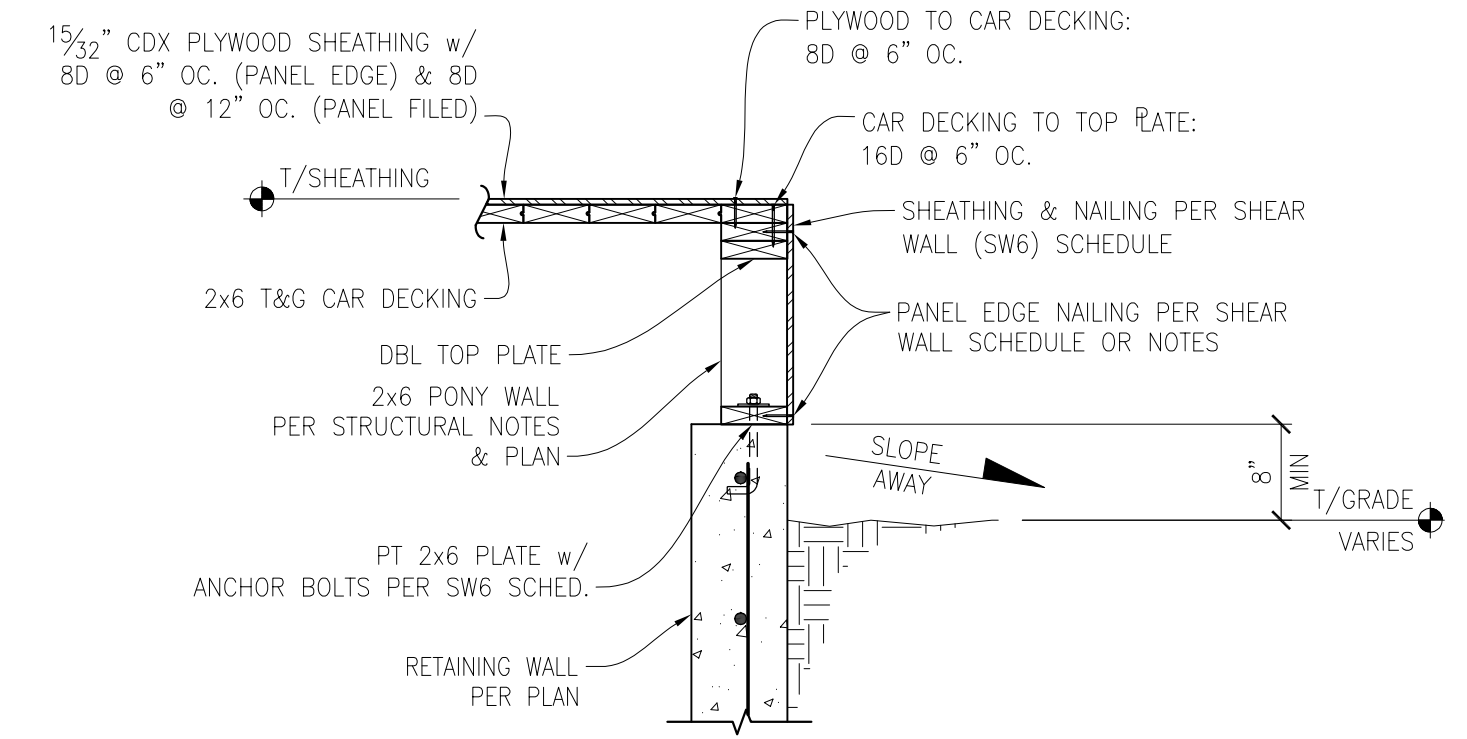
2



**ROOF SHEATHING TO BEAM CONNECTION**

SCALE: 1" = 1'-0"

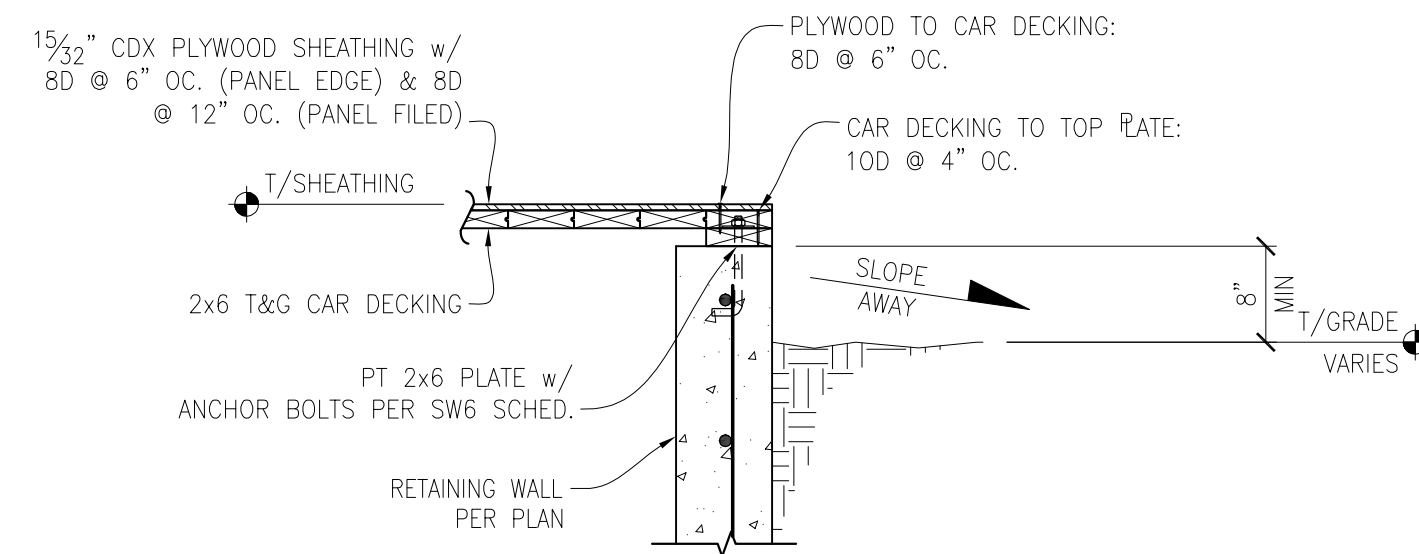
3



**ROOF SHEATHING TO PONY WALL CONNECTION**

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

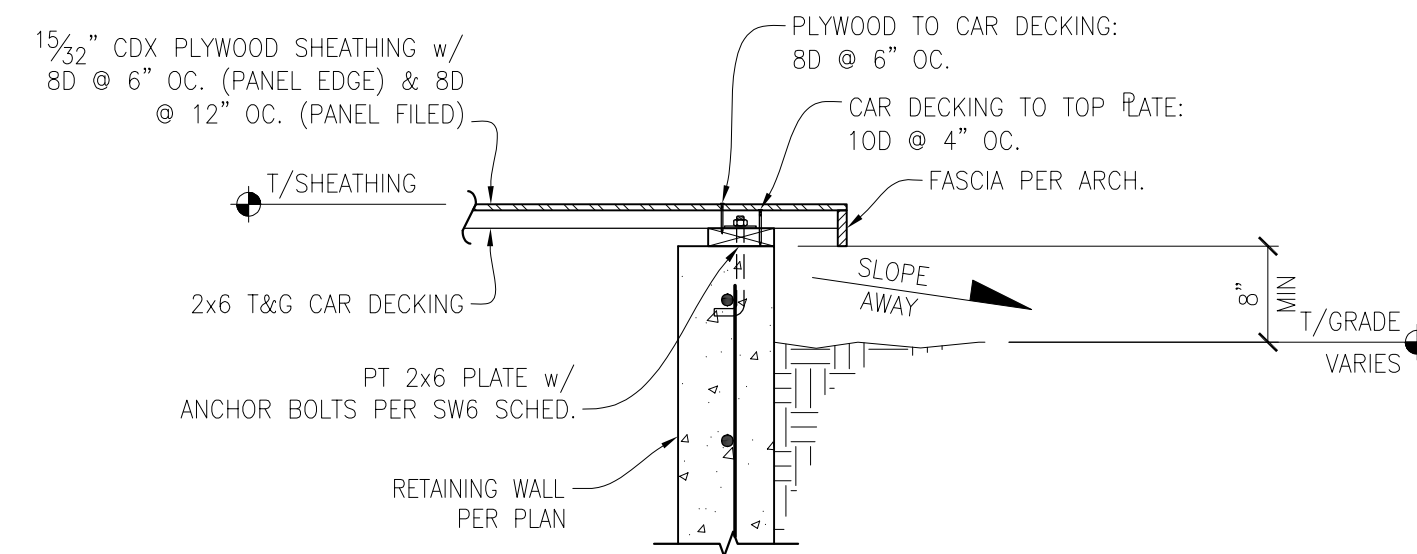
4



**ROOF SHEATHING TO CONC. WALL CONNECTION**

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

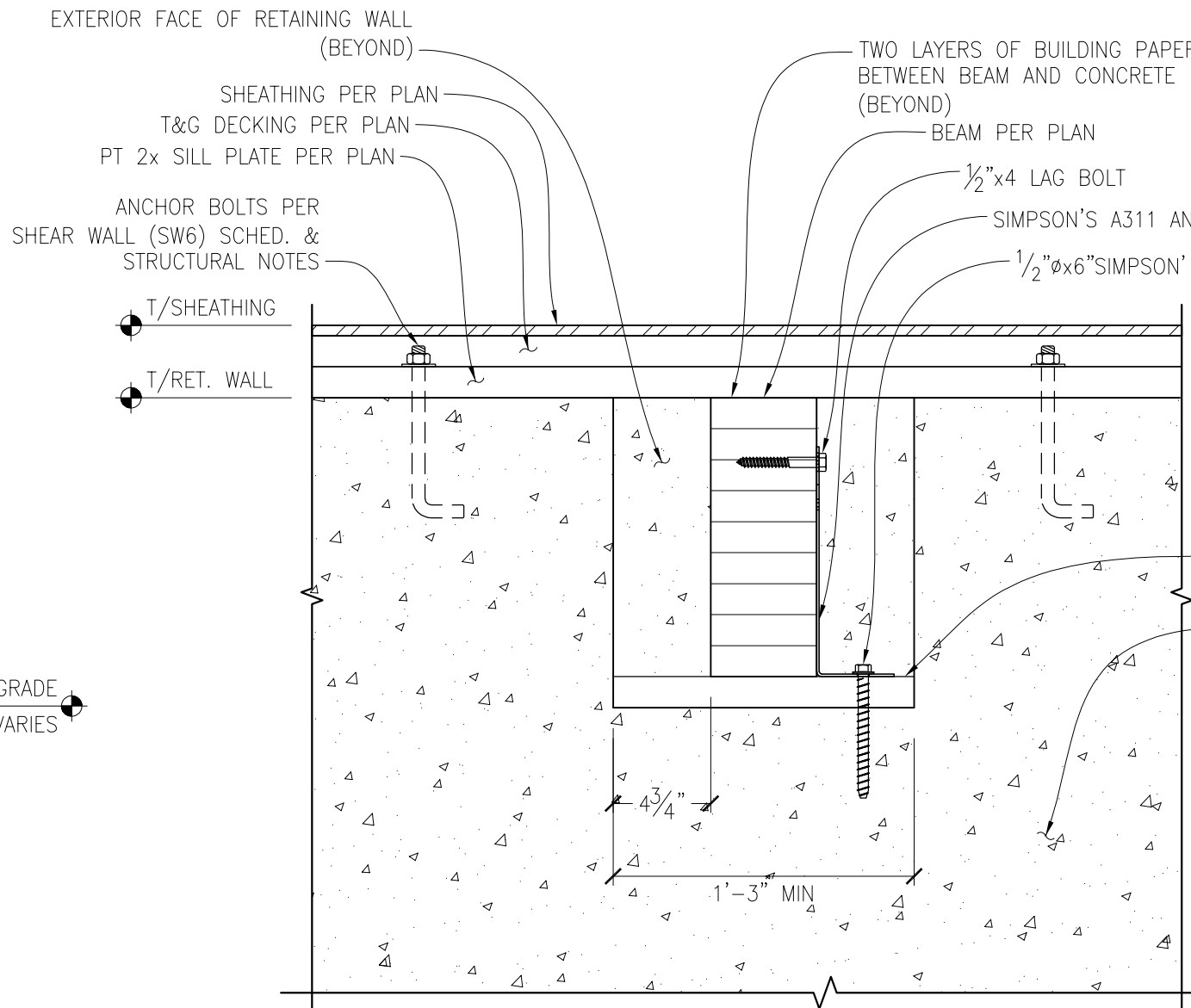
5



**ROOF SHEATHING TO CONC. WALL CONNECTION**

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

6

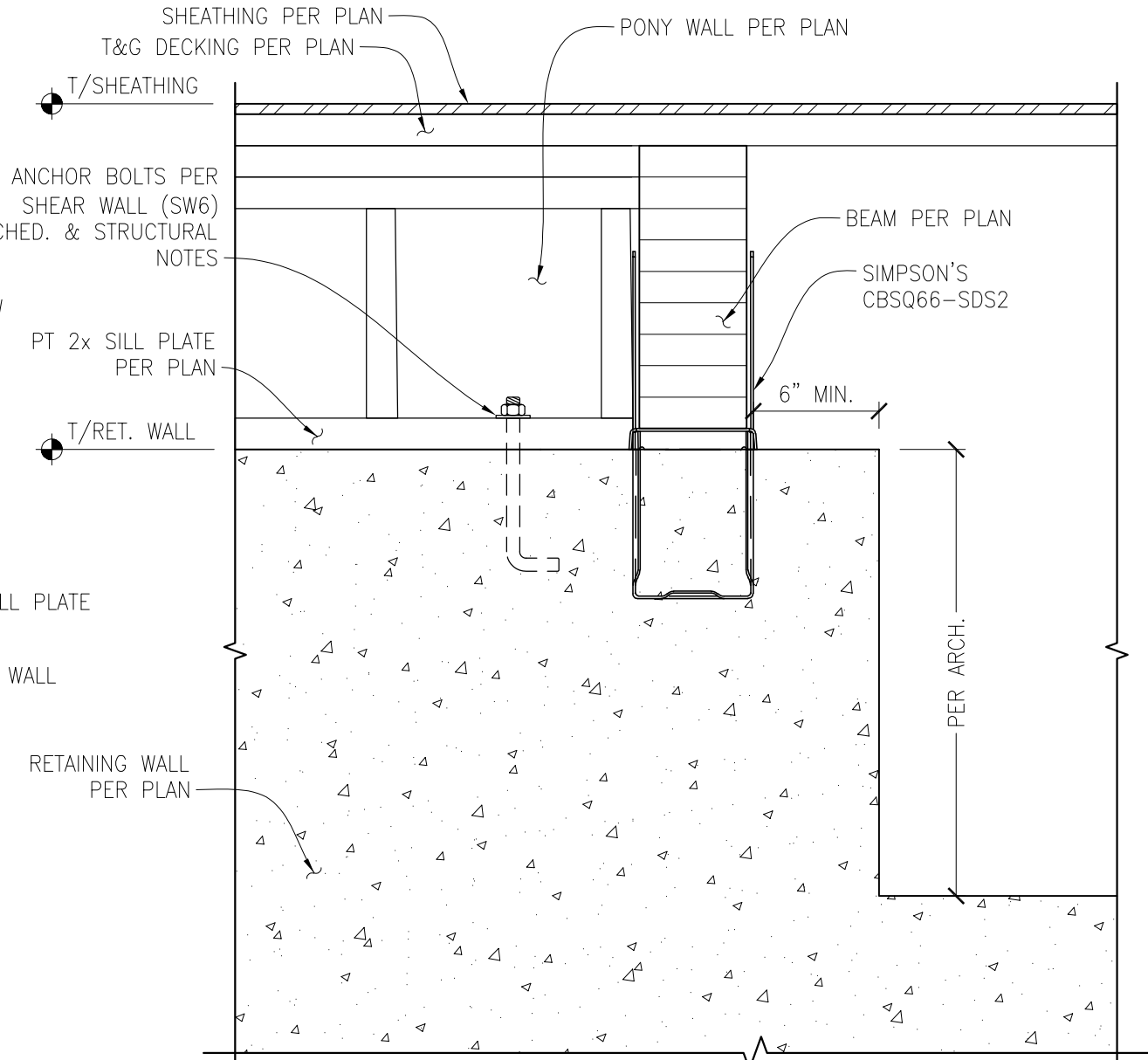


NOTE:  
 1. PROVIDE A 'POCKET' IN RETAINING WALL FOR 4" MIN BEARING OF ROOF BEAM

**ROOF BEAM TO RETAINING WALL CONNECTION**

SCALE: 1 $\frac{1}{2}$ " = 1'-0"

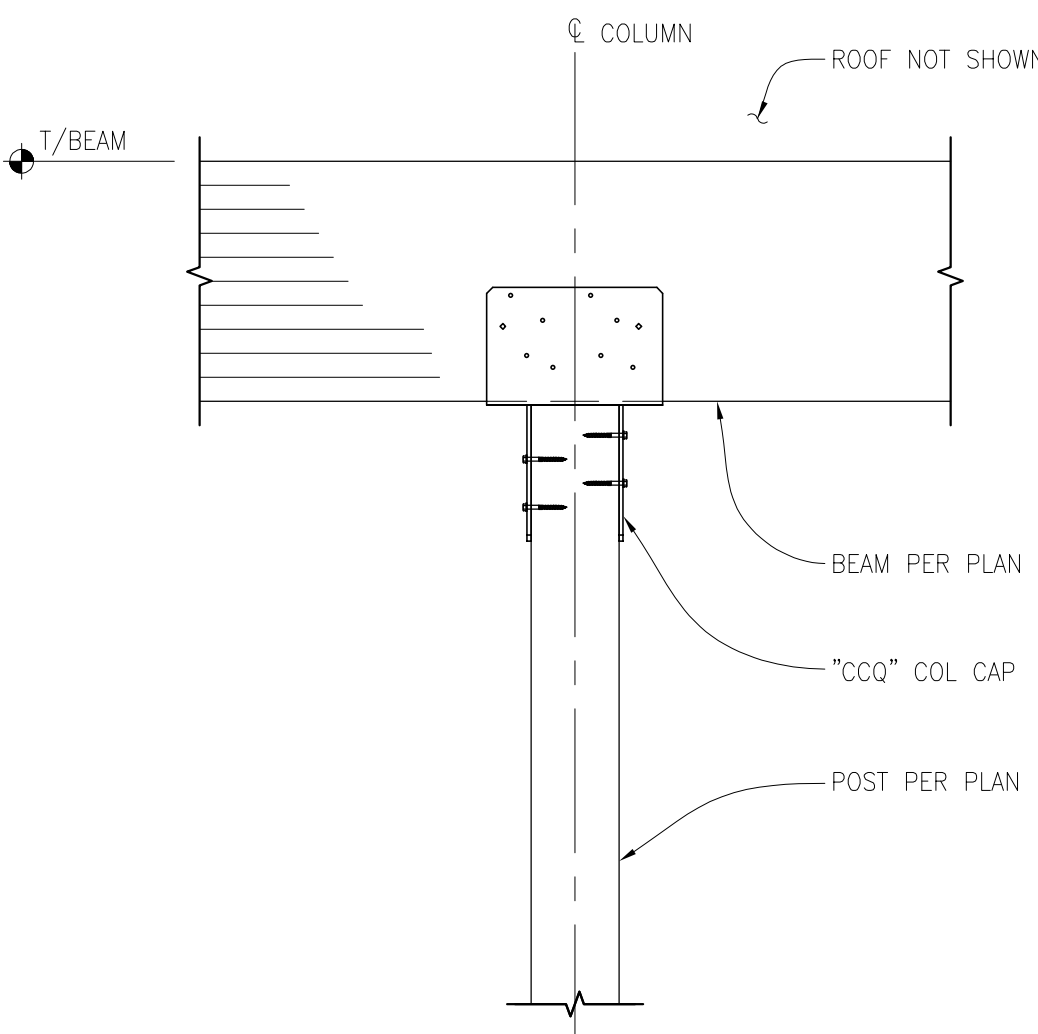
7



**ROOF BEAM TO RETAINING WALL CONNECTION**

SCALE: 1 $\frac{1}{2}$ " = 1'-0"

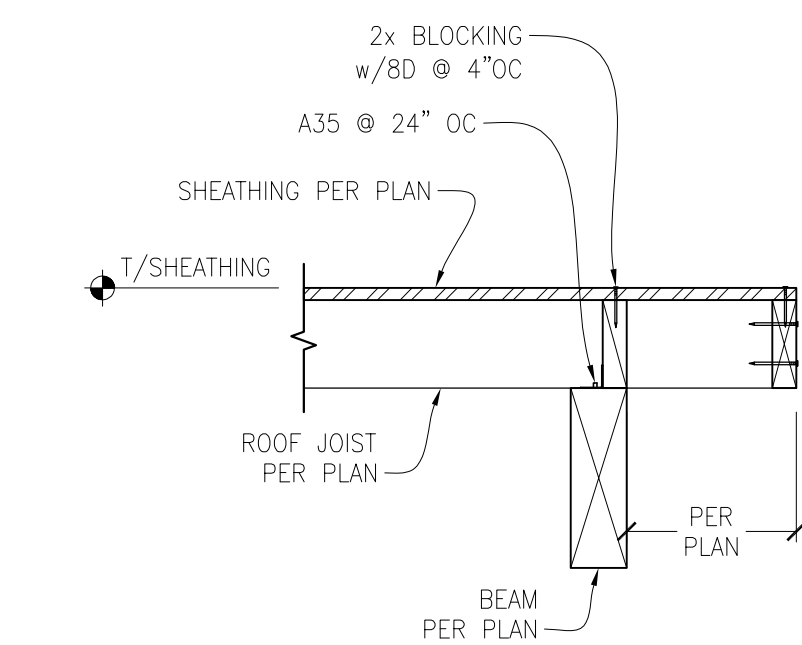
8



**TYPICAL BEAM TO COLUMN CONNECTION**

SCALE: NTS

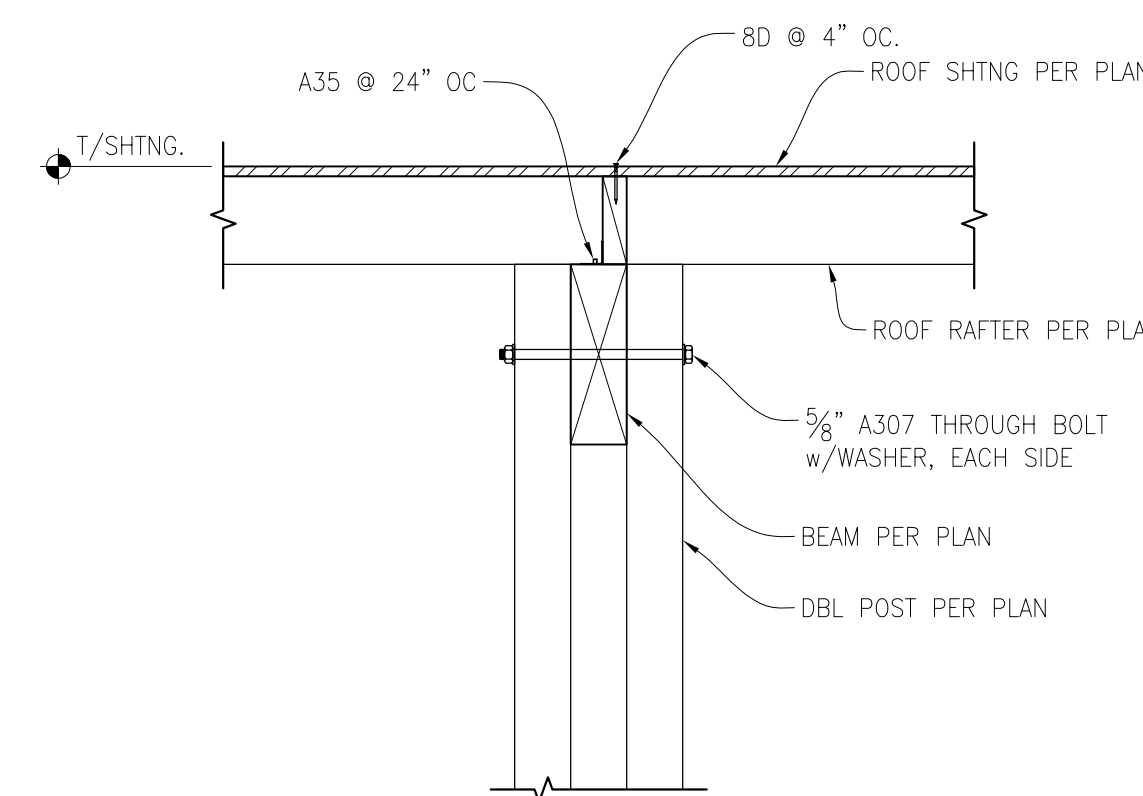
9



**ROOF JOIST TO ROOF BEAM CONNECTION**

SCALE: 1" = 1'-0"

10



**ROOF BEAM TO ROOF POST CONNECTION**

SCALE: 1" = 1'-0"

11

REVISION #	DATE	DESCRIPTION:

Drawn By: PK  
 Checked By: SC  
 Date: 11-15-2024

CK JOB NO.  
 24-031

STRUCTURAL  
 DETAILS

S-3.0