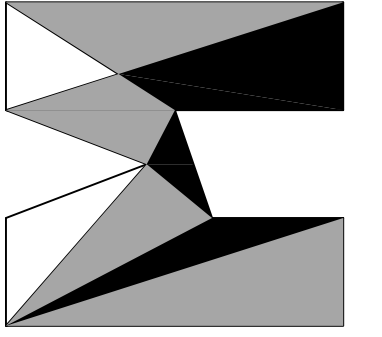


NORTH

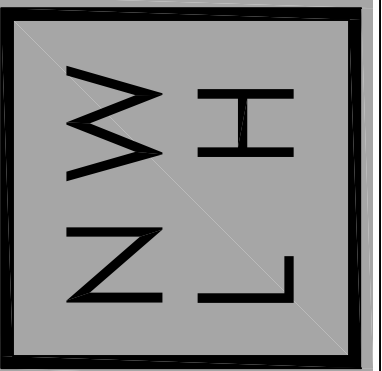
**OVERALL PROPOSED SITE PLAN**

NTA  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040



**matthew mawer**  
 residential design  
 matt@mawer.net  
 425.417.7817

nw  
**lifestyle**  
 homes  
 www.nwlifestylehomes.com



**HOUTCHENS RESIDENCE**  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040

JOB NO: 20-020  
 DATE: 9/01/22  
 DRAWN BY: MM, MG  
 REVISED: 2/14/23

SHEET NO.

**SP**

**LEGAL DESCRIPTION**

THE EAST HALF OF TRACT 18 AND ALL OF TRACT 19, FABEN'S POINT WATERFRONT TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 33 OF PLATS, PAGES 17 AND 18, IN KING COUNTY, WASHINGTON;

TOGETHER WITH THAT PORTION OF VACATED ELIZABETH WAY WHICH LIES BETWEEN THE CENTERLINE OF TRACT 18 PRODUCED SOUTHERLY AND THE EAST LINE OF TRACT 19 PRODUCED SOUTHERLY, AND THE WESTERLY HALF OF VACATED MERCER STREET EXTENDING NORTHWARD FROM THE SOUTH LINE OF TRACT 20 TO THE OUTER BOUNDARY OF THE ADJOINING SHORELANDS OF LAKE WASHINGTON, AND LAKE WASHINGTON SHORELANDS ADJOINING.

TOGETHER WITH THAT PORTION OF TRACT 20 IN SAID PLAT OF FABEN'S POINT WATERFRONT TRACTS LYING EAST OF THE FOLLOWING DESCRIBED LINE BEGINNING AT A POINT ON THE SOUTH LINE OF SAID TRACT 20 WHICH BEARS NORTH 89°55'45" WEST 92.06 FEET FROM THE SOUTHEAST CORNER THEREOF; THENCE NORTH 0°01'54" EAST PARALLEL TO THE EAST LINE OF SAID TRACT 20, A DISTANCE OF 268.52 FEET; THENCE SOUTH 89°55'45" EAST 2.06 FEET; THENCE NORTH 0°01'54" EAST 44.50 FEET TO AN INTERSECTION WITH THE NORTHERLY LINE OF SAID TRACT 20;

EXCEPT THAT PORTION OF TRACT 20 AND THE WESTERLY HALF OF VACATED MERCER STREET (62ND AVENUE SOUTHEAST) CONVEYED TO JOHN W. HARVEY, III, BY DEED RECORDED UNDER KING COUNTY RECORDING NUMBER 6492897; ALSO EXCEPT THE SOUTH 100.00 FEET OF THE WEST 13.06 FEET OF THE EAST 92.06 FEET OF SAID TRACT 20, (PURSUANT TO CITY OF MERCER ISLAND BOUNDARY LINE REVISION NO. MI-83-04-112, RECORDED UNDER RECORDING NUMBER 8306299004.)

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

**BASIS OF BEARINGS**

HELD N 89°55'45" W BETWEEN FOUND MONUMENTS ON THE CENTERLINE OF SE 22ND ST PER R1.

**REFERENCES**

R1. BOUNDARY LINE REVISION NO. MI-83-04-12, VOL. 36, PG. 159, RECORDS OF KING COUNTY, WASHINGTON.

**VERTICAL DATUM**

NAVD88 PER GPS OBSERVATIONS.

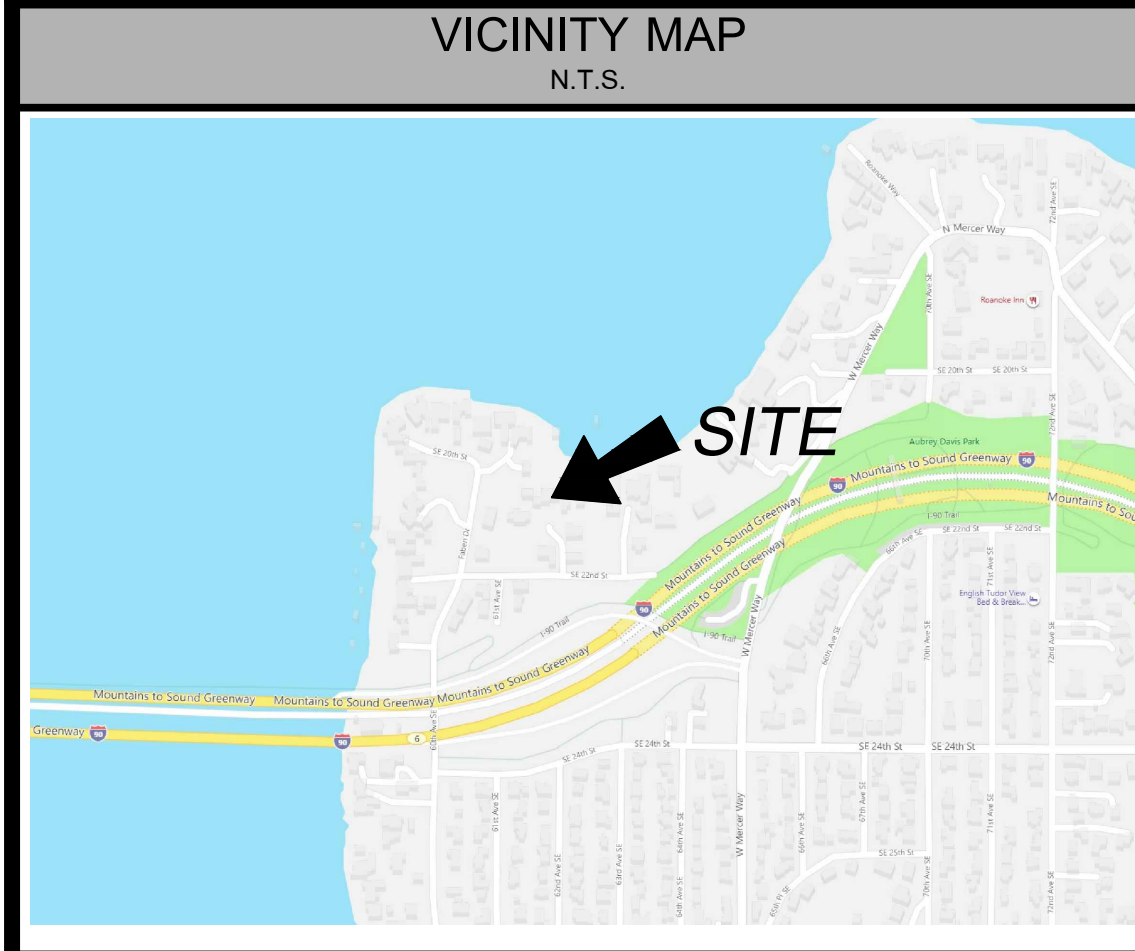
**SURVEYOR'S NOTES**

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN OCTOBER OF 2020. 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. 2439700110
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 55,969 S.F. (1.29 ACRES)
6. THE PROPERTY DESCRIBED HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN CHICAGO NATIONAL TITLE COMPANY OF WASHINGTON, COMMITMENT NO. 0182986-ETU, WITH AN EFFECTIVE DATE OF JULY 1, 2020 AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE PROPERTY OR OTHERWISE KNOWN TO ME HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE PROPERTY.
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 352-130-090.

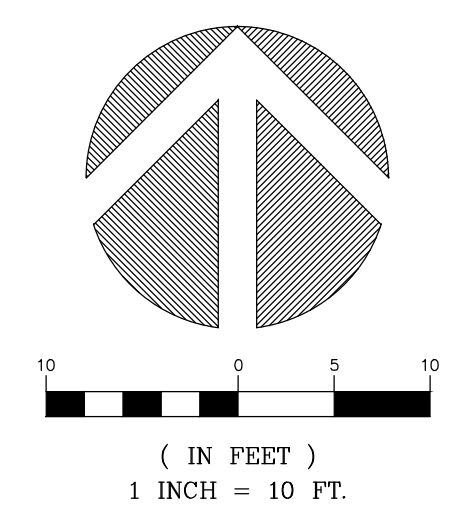
**LEGEND**

	AREA DRAIN		OIL FILL CAP
	ASPHALT SURFACE		POST
	BRICK SURFACE		POWER HAND HOLE
	BUILDING		POWER METER
	CENTERLINE ROW		POWER (OVERHEAD)
	CLEANOUT		POWER (UNDERGROUND)
	CULVERT PIPE		POWER POLE
	CONCRETE SURFACE		POWER POLE (FOUND)
	RETAINING WALL		REBAR & CAP (SET)
	DECK		ROCKERY
	FENCE LINE (CHAIN LINK)		SEWER LINE
	FENCE LINE (WOOD)		SEWER MANHOLE
	GAS LINE		STORM DRAIN LINE
	GAS METER		TREE (AS NOTED)
	HEDGE FOLIAGE LINE		WATER LINE
	INLET (TYPE 1)		WATER METER
	IRON PIPE (FOUND)		YARD LIGHT
	NAIL AS NOTED		SEWER EASEMENT, REC. NO. 4691133
	MAILBOX (RESIDENTIAL)		
	MONUMENT IN CASE (FOUND)		

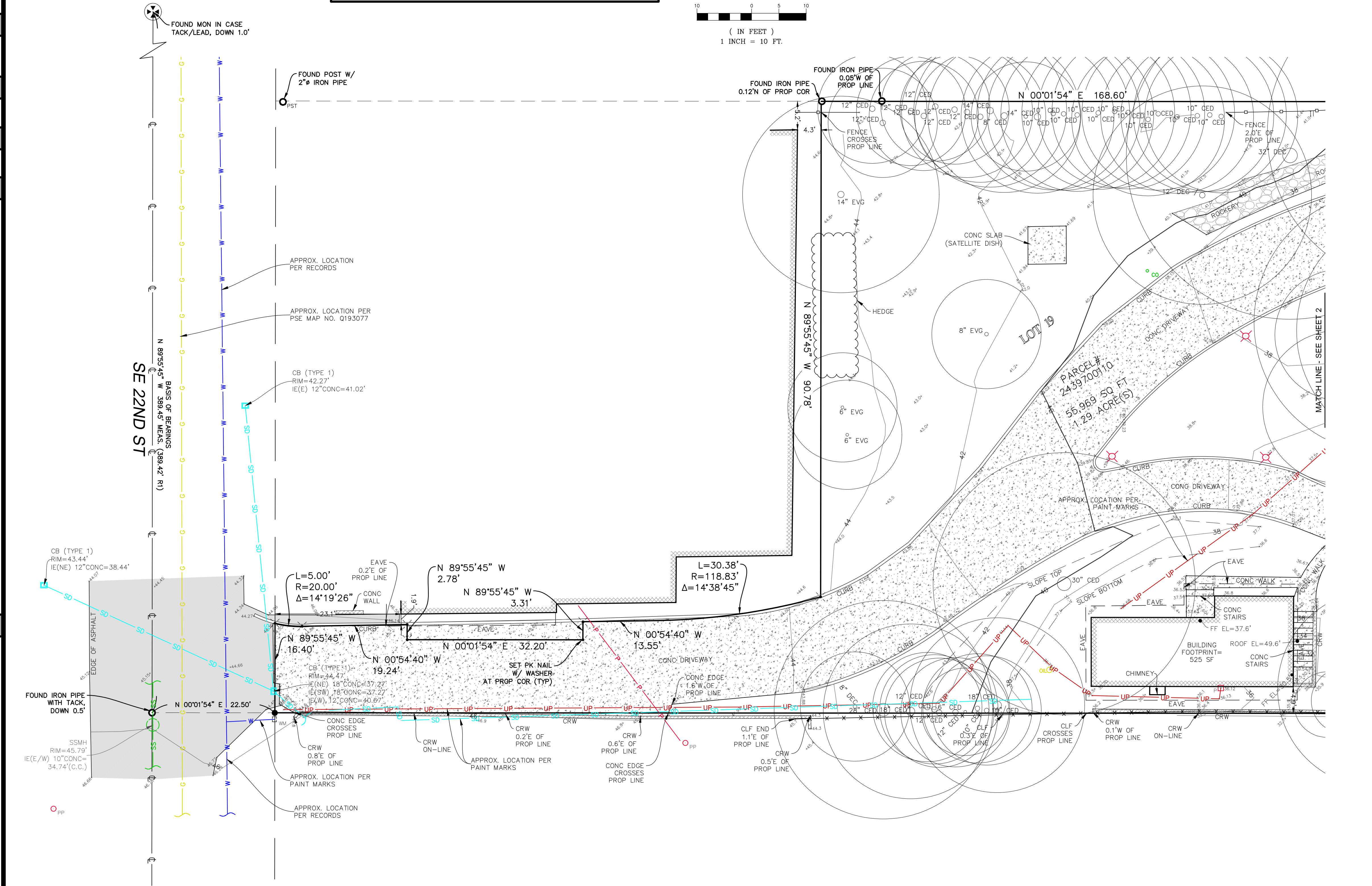
**TOPOGRAPHIC & BOUNDARY SURVEY**



- SCHEDULE B ITEMS**
3. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 GRANTED TO: KING COUNTY  
 PURPOSE: PUBLIC UTILITIES  
 RECORDING DATE: DECEMBER 7, 1946  
 RECORDING NO.: 3635877  
 AFFECTS: PORTION OF SAID PREMISES LYING WITHIN VACATED ELIZABETH WAY (DOESN'T AFFECT SUBJECT PROPERTY)
  4. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 GRANTED TO: MERCER ISLAND SEWER DISTRICT  
 PURPOSE: SEWER  
 RECORDING DATE: JANUARY 18, 1956  
 RECORDING NO.: 4655680  
 AFFECTS: PORTION OF SAID PREMISES (NOTHING TO PLOT)
  5. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 GRANTED TO: MERCER ISLAND SEWER DISTRICT  
 PURPOSE: SEWER  
 RECORDING DATE: MAY 9, 1956  
 RECORDING NO.: 4691133  
 AFFECTS: PORTION OF SAID PREMISES (PLOTTED)



**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.



**TOPOGRAPHIC & BOUNDARY SURVEY**  
 SE 1/4 OF SE 1/4 SEC 02, TWP. 24N., RGE 04E., W.M.  
 PARCEL NO. 2439700110  
**HOUTCHENS RESIDENCE**  
 6024 SE 22ND ST  
 MERCER ISLAND, WA 98040



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

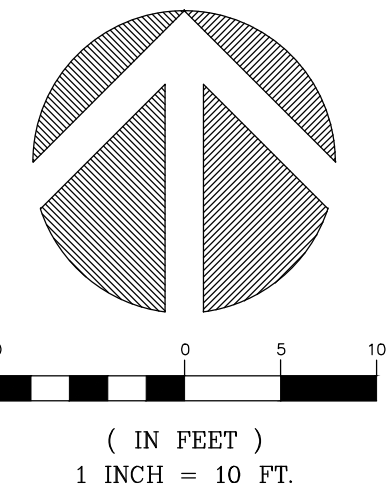
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DATE:	10/09/20
DRAFTED BY:	JPH
CHECKED BY:	JPS
SCALE:	1" = 10'
<b>REVISION HISTORY</b>	
<b>SHEET NUMBER</b>	
1 OF 3	

measure success

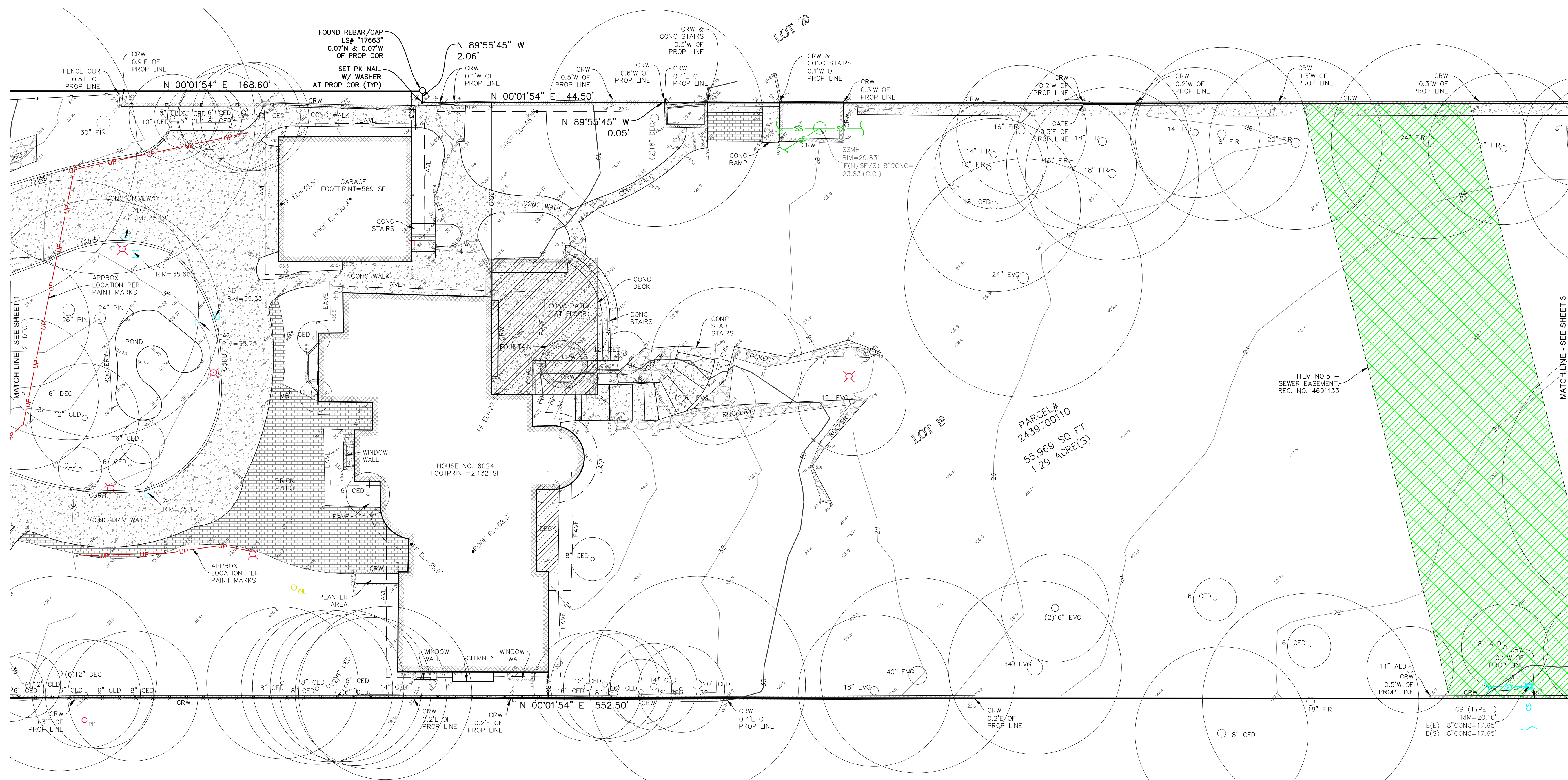
# TOPOGRAPHIC & BOUNDARY SURVEY

## LEGEND

- |  |                          |  |   |
|--|--------------------------|--|---|
|  | AREA DRAIN               |  | OIL O OIL FILL CAP                            |
|  | ASPHALT SURFACE          |  | PST □ POST                                    |
|  | BRICK SURFACE            |  | PH □ POWER HAND HOLE                          |
|  | BUILDING                 |  | P □ POWER METER                               |
|  | CENTERLINE ROW           |  | P — POWER (OVERHEAD)                          |
|  | CLEANOUT                 |  | UP — POWER (UNDERGROUND)                      |
|  | CULVERT PIPE             |  | PP ○ POWER POLE                               |
|  | CONCRETE SURFACE         |  | ○ REBAR AS NOTED (FOUND)                      |
|  | RETAINING WALL           |  | ● REBAR & CAP (SET)                           |
|  | DECK                     |  | Rockery                                       |
|  | FENCE LINE (CHAIN LINK)  |  | SS — SEWER LINE                               |
|  | FENCE LINE (WOOD)        |  | ○ SEWER MANHOLE                               |
|  | GAS LINE                 |  | SD — STORM DRAIN LINE                         |
|  | GAS METER                |  | ○ TREE (AS NOTED)                             |
|  | HEDGE FOLIAGE LINE       |  | W — WATER LINE                                |
|  | INLET (TYPE 1)           |  | WM □ WATER METER                              |
|  | IRON PIPE (FOUND)        |  | Y □ YARD LIGHT                                |
|  | NAIL AS NOTED            |  | ITEM NO. 5 - SEWER EASEMENT, REC. NO. 4691133 |
|  | MAILBOX (RESIDENTIAL)    |  |   |
|  | MONUMENT IN CASE (FOUND) |  |   |



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TOPOGRAPHIC & BOUNDARY SURVEY  
 SE 1/4 OF SE 1/4 SEC 02, TWP. 24N., RGE 04E., W.M.  
 PARCEL NO. 2439700110

HOUTCHENS RESIDENCE  
 6024 SE 22ND ST  
 MERCER ISLAND, WA 98040



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 phone 425.458.4488 support@terrane.net  
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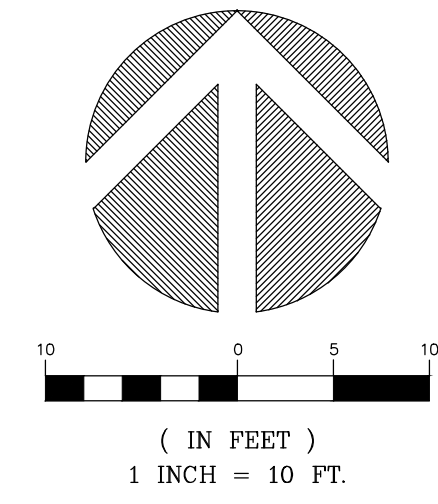
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DATE:	10/09/20
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CHECKED BY:	JPS
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REVISION HISTORY	
SHEET NUMBER	
2 OF 3	

measure success

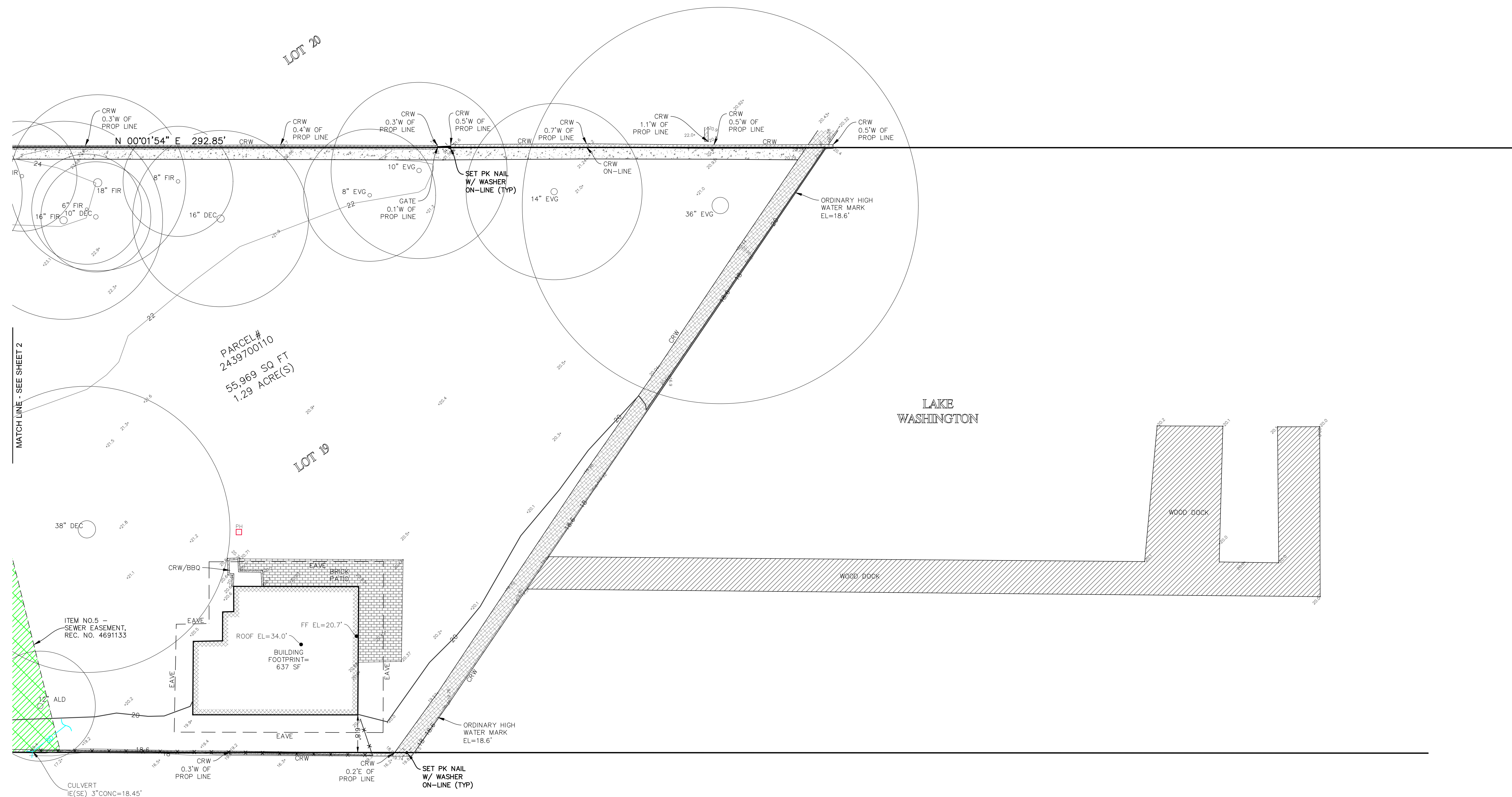
# TOPOGRAPHIC & BOUNDARY SURVEY

## LEGEND

	AREA DRAIN		OIL FILL CAP
	ASPHALT SURFACE		POST
	BRICK SURFACE		POWER HAND HOLE
	BUILDING		POWER METER
	CENTERLINE ROW		POWER (OVERHEAD)
	CLEANOUT		POWER (UNDERGROUND)
	CULVERT PIPE		POWER POLE
	CONCRETE SURFACE		REBAR AS NOTED (FOUND)
	RETAINING WALL		REBAR & CAP (SET)
	DECK		ROCKERY
	FENCE LINE (CHAIN LINK)		SEWER LINE
	FENCE LINE (WOOD)		SEWER MANHOLE
	GAS LINE		STORM DRAIN LINE
	GAS METER		TREE (AS NOTED)
	HEDGE FOLIAGE LINE		WATER LINE
	INLET (TYPE 1)		WATER METER
	IRON PIPE (FOUND)		YARD LIGHT
	NAIL AS NOTED		ITEM NO. 5 - SEWER EASEMENT, REC. NO. 4691133
	MAILBOX (RESIDENTIAL)		
	MONUMENT IN CASE (FOUND)		



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TOPOGRAPHIC & BOUNDARY SURVEY  
 SE 1/4 OF SE 1/4 SEC 02, TWP. 24N., RGE 04E., W.M.  
 PARCEL NO. 2439700110

HOUTCHENS RESIDENCE  
 6024 SE 22ND ST  
 MERCER ISLAND, WA 98040



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JOB NUMBER: 201729  
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 DRAFTED BY: JPH  
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 SCALE: 1"= 10'

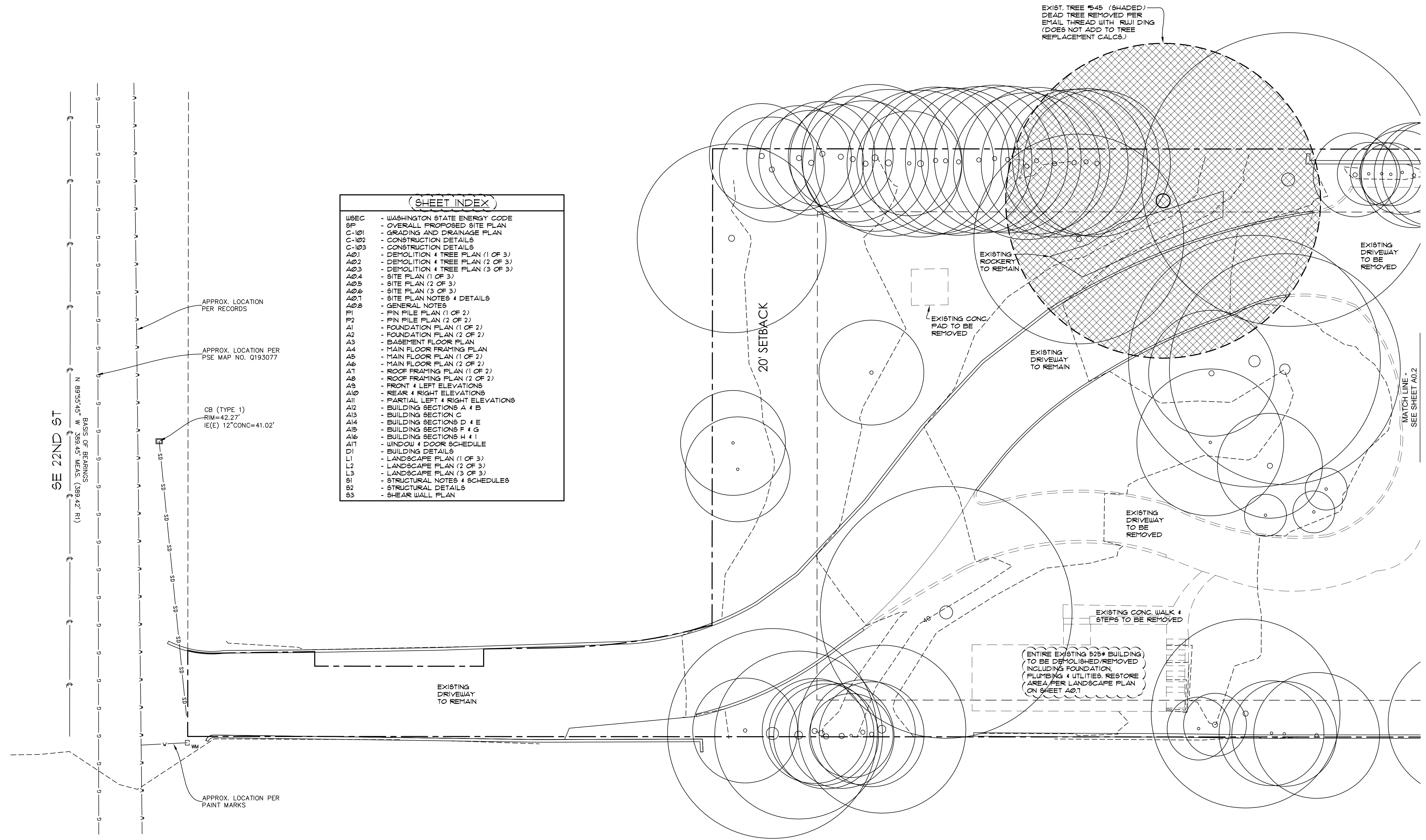
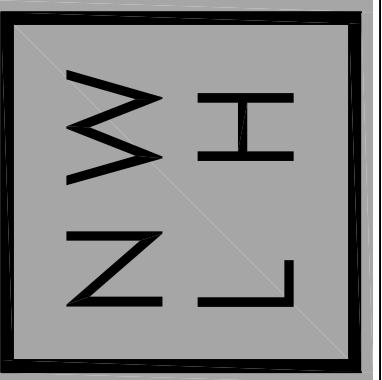
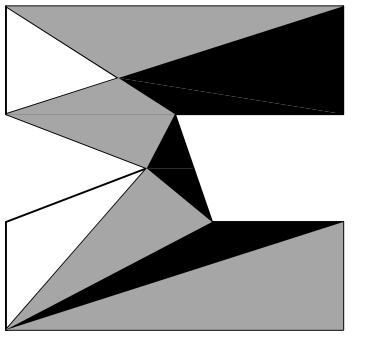
REVISION HISTORY

NO.	DATE	DESCRIPTION

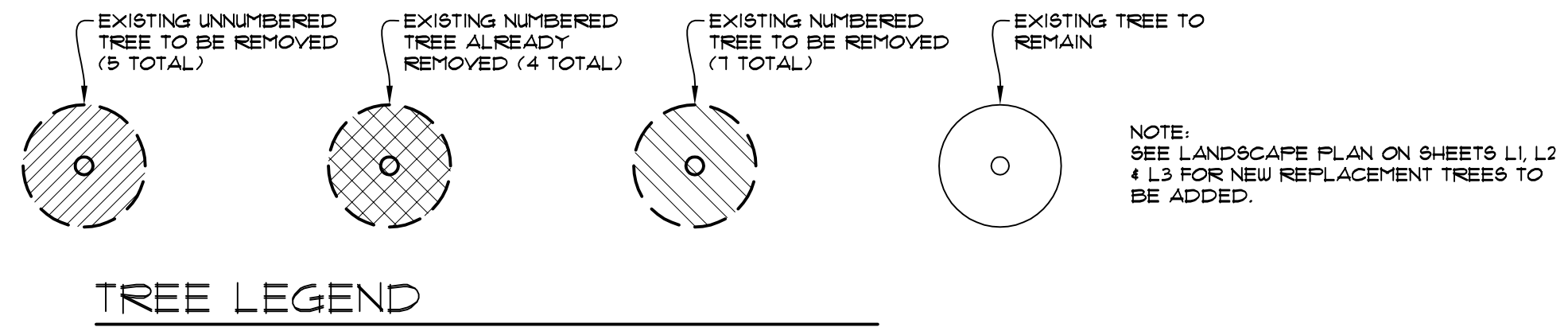
SHEET NUMBER

3 OF 3

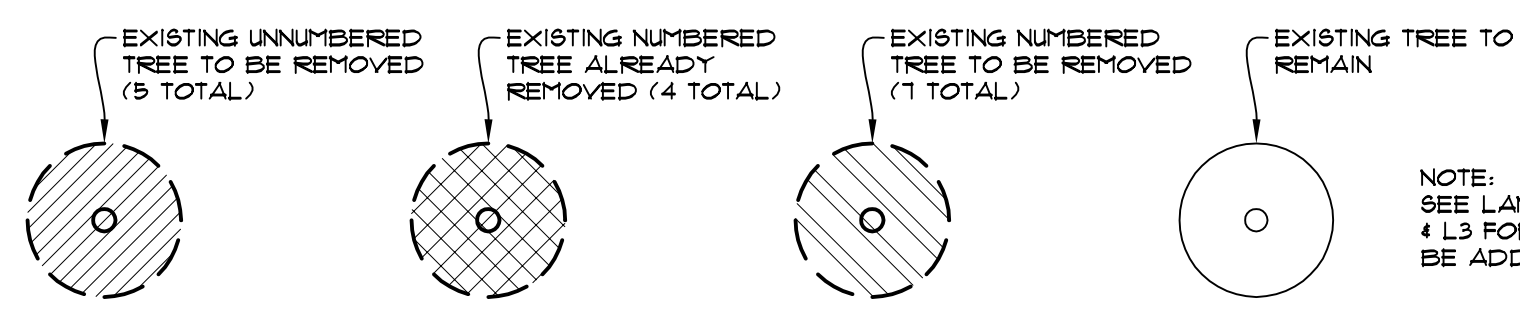
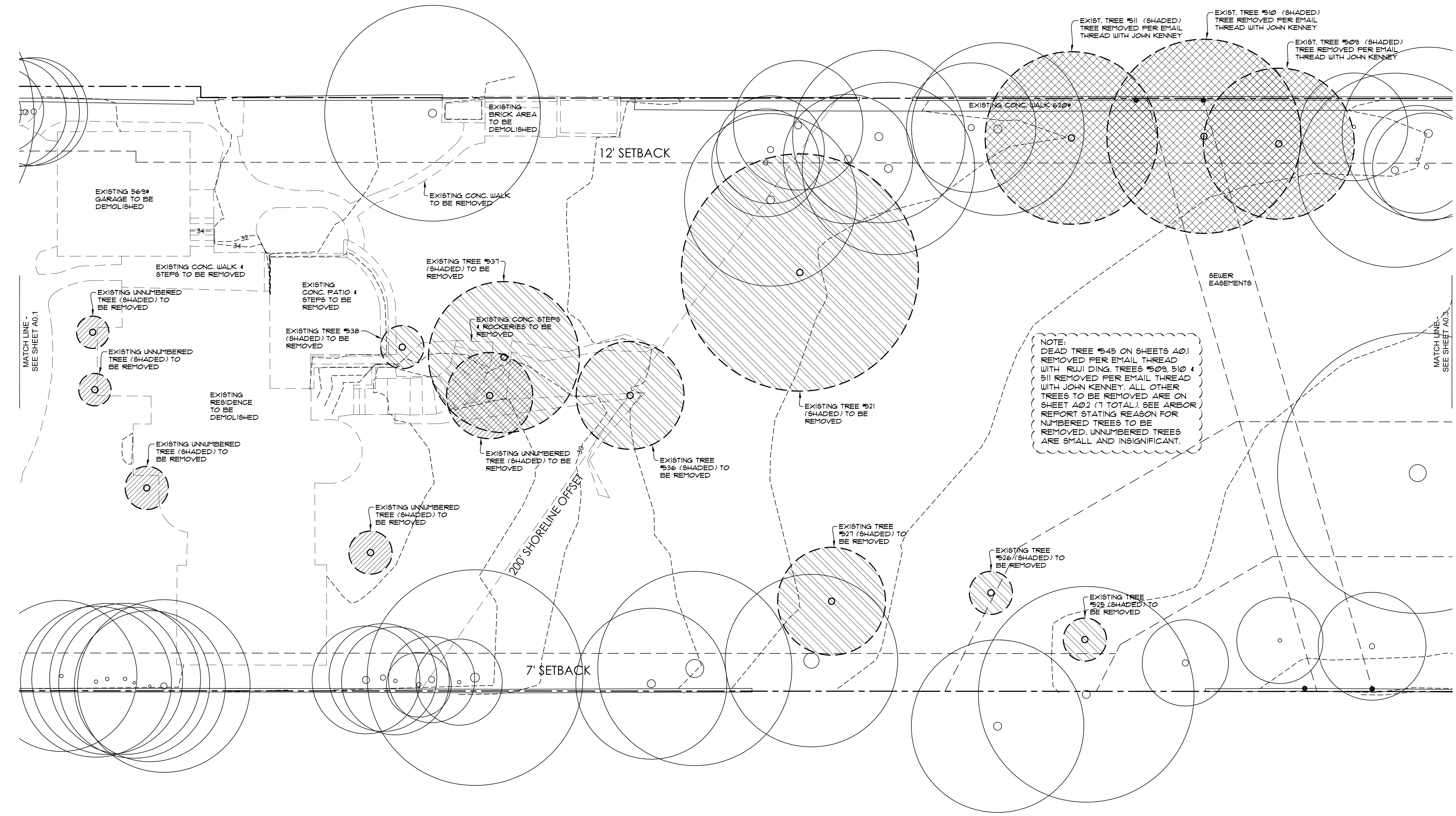
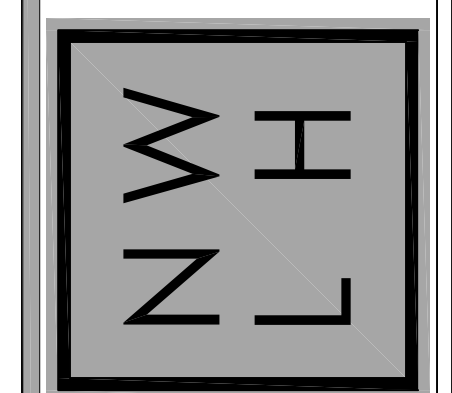
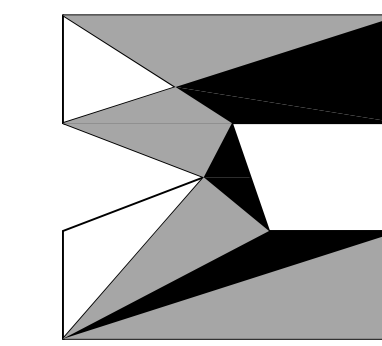
measure success



SHEET INDEX	
WSEC	- WASHINGTON STATE ENERGY CODE
SP	- OVERALL PROPOSED SITE PLAN
C-101	- GRADING AND DRAINAGE PLAN
C-102	- CONSTRUCTION DETAILS
C-103	- CONSTRUCTION DETAILS
A01	- DEMOLITION & TREE PLAN (1 OF 3)
A02	- DEMOLITION & TREE PLAN (2 OF 3)
A03	- DEMOLITION & TREE PLAN (3 OF 3)
A04	- SITE PLAN (1 OF 3)
A05	- SITE PLAN (2 OF 3)
A06	- SITE PLAN (3 OF 3)
A07	- SITE PLAN NOTES & DETAILS
A08	- GENERAL NOTES
F1	- PIN PILE PLAN (1 OF 2)
F2	- PIN PILE PLAN (2 OF 2)
A1	- FOUNDATION PLAN (1 OF 2)
A2	- FOUNDATION PLAN (2 OF 2)
A3	- BASEMENT FLOOR PLAN
A4	- MAIN FLOOR FRAMING PLAN
A5	- MAIN FLOOR PLAN (1 OF 2)
A6	- MAIN FLOOR PLAN (2 OF 2)
A7	- ROOF FRAMING PLAN (1 OF 2)
A8	- ROOF FRAMING PLAN (2 OF 2)
A9	- FRONT & LEFT ELEVATIONS
A10	- REAR & RIGHT ELEVATIONS
A11	- PARTIAL LEFT & RIGHT ELEVATIONS
A12	- BUILDING SECTIONS A & B
A13	- BUILDING SECTION C
A14	- BUILDING SECTIONS D & E
A15	- BUILDING SECTIONS F & G
A16	- BUILDING SECTIONS H & I
A17	- WINDOW & DOOR SCHEDULE
D1	- BUILDING DETAILS
L1	- LANDSCAPE PLAN (1 OF 3)
L2	- LANDSCAPE PLAN (2 OF 3)
L3	- LANDSCAPE PLAN (3 OF 3)
S1	- STRUCTURAL NOTES & SCHEDULES
S2	- STRUCTURAL DETAILS
S3	- SHEAR WALL PLAN



DEMOLITION & TREE PLAN (1 OF 3)  
SCALE: 1" = 10'  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040



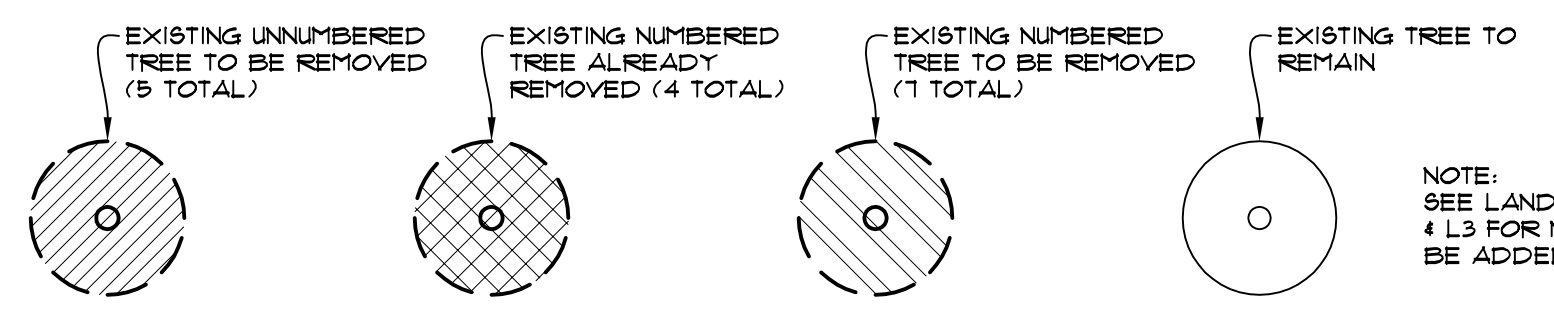
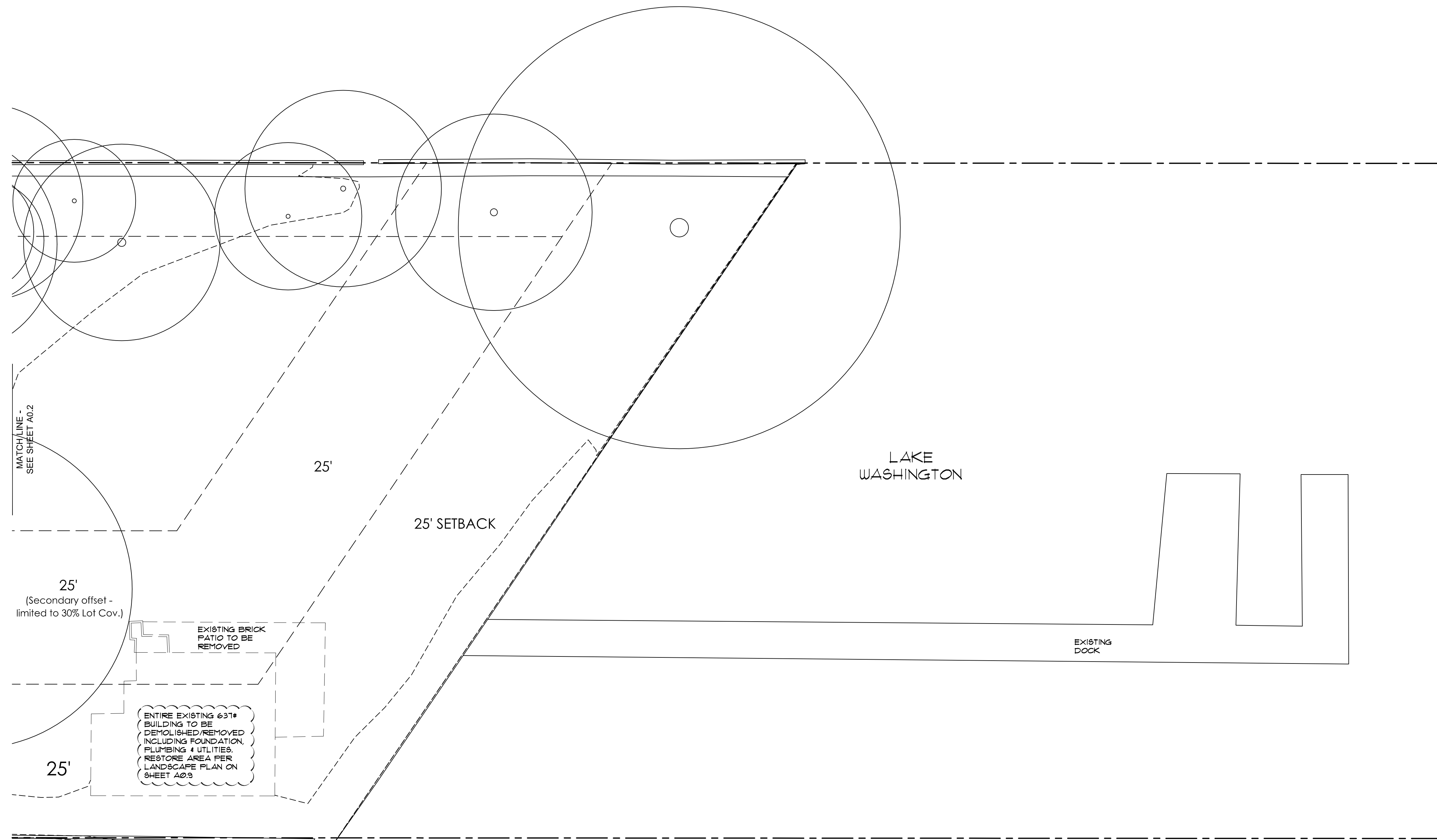
TREE LEGEND

NOTE:  
SEE LANDSCAPE PLAN ON SHEETS L1, L2  
& L3 FOR NEW REPLACEMENT TREES TO  
BE ADDED.

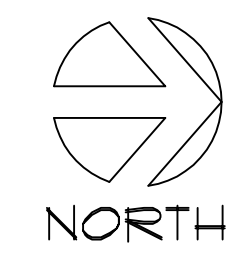
NOTE:  
DEAD TREE #545 ON SHEETS A0.1  
REMOVED PER EMAIL THREAD  
WITH RUI DING. TREES #509, #510 &  
#511 REMOVED PER EMAIL THREAD  
WITH JOHN KENNEY. ALL OTHER  
TREES TO BE REMOVED ARE ON  
SHEET A0.2 (11 TOTAL). SEE ARBOR  
REPORT STATING REASON FOR  
NUMBERED TREES TO BE  
REMOVED. UNNUMBERED TREES  
ARE SMALL AND INSIGNIFICANT.



DEMOLITION & TREE PLAN (2 OF 3)  
SCALE: 1" = 10'  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040



NOTE:  
SEE LANDSCAPE PLAN ON SHEETS L1, L2  
& L3 FOR NEW REPLACEMENT TREES TO  
BE ADDED.



**DEMOLITION & TREE PLAN (3 OF 3)**  
 SCALE: 1" = 10'  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040

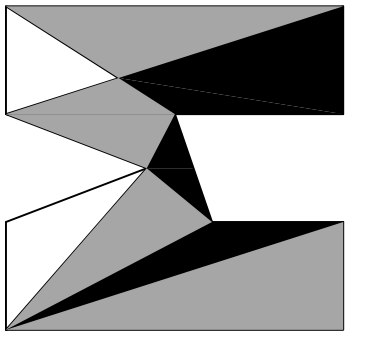
nw **lifestyle** homes  
 www.nwlifestylehomes.com

**N W L H**

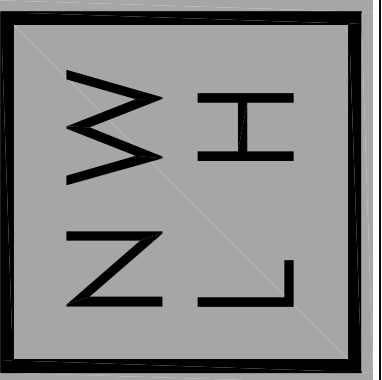
**HOUTCHENS RESIDENCE**  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040

JOB NO: 20-020  
 DATE: 9/01/22  
 DRAWN BY: MM, MG  
 REVISED: 2/14/23

SHEET NO.  
**A0.3**



nw  
**lifestyle**  
homes  
www.nwlifestylehomes.com

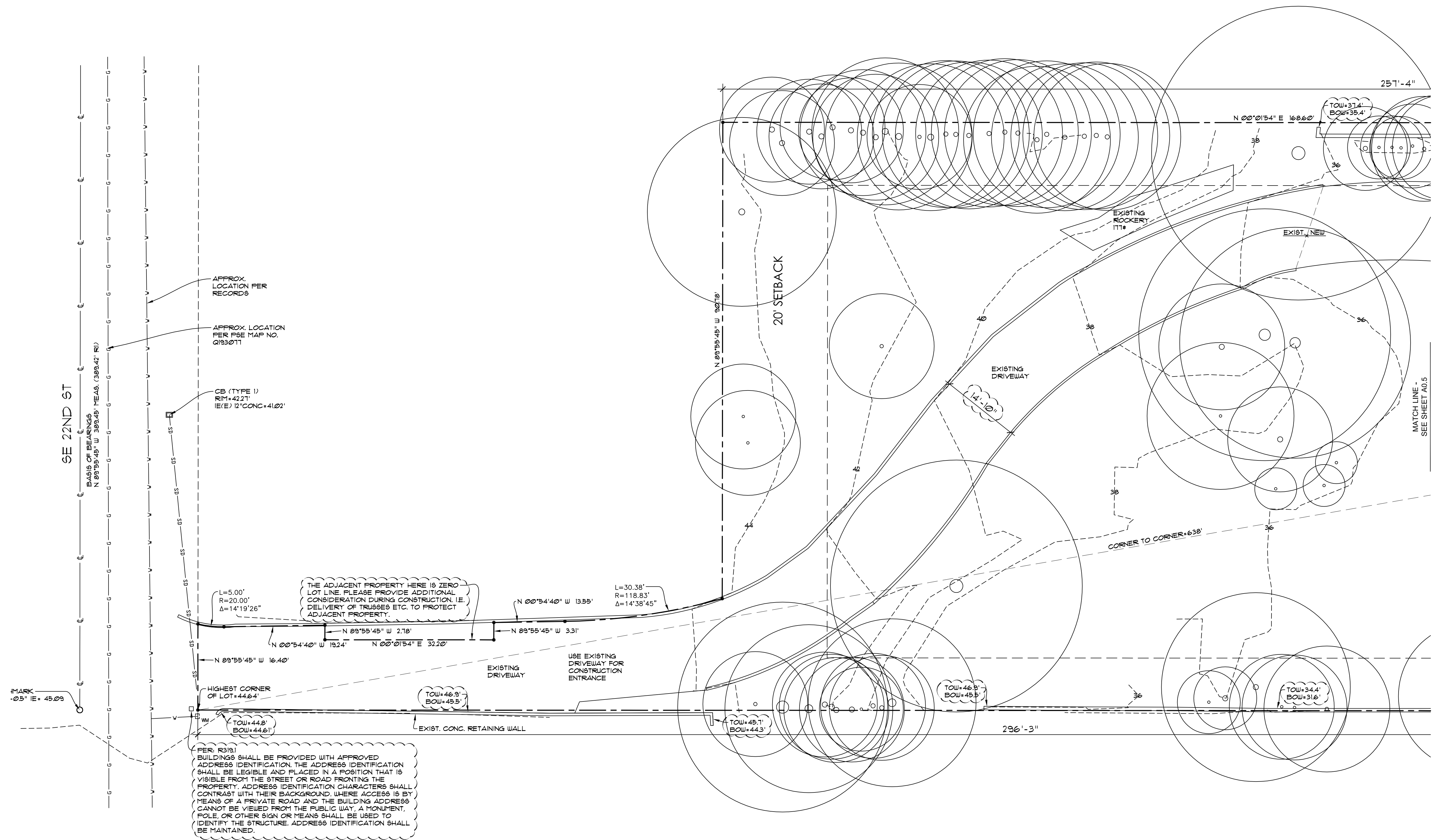


HOUTCHENS RESIDENCE  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040

JOB NO: 20-020  
DATE: 9/01/22  
DRN. BY: MM, MG  
REVISED: 2/14/23

SHEET NO.

**A0.4**



SITE PLAN (1 OF 3)  
SCALE: 1" = 10'  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040



EFFECTIVE FEBRUARY 1, 2021 WASHINGTON STATUTES MANDATE ALL JURISDICTIONS IN THE STATE TO ADOPT AND ENFORCE THE FOLLOWING UPDATED CONSTRUCTION CODE EDITIONS AS THEY WERE ADOPTED AND AMENDED BY THE STATE OF WASHINGTON:

- 2018 INTERNATIONAL BUILDING CODE (IBC)
- 2018 INTERNATIONAL RESIDENTIAL CODE (IRC)
- 2018 INTERNATIONAL MECHANICAL CODE (IMC)
- 2018 INTERNATIONAL FUEL GAS CODE (IFGC)
- 2018 UNIFORM FIREBURNING CODE (UFC)
- 2018 INTERNATIONAL FIRE CODE (IFC)
- 2018 INTERNATIONAL EXISTING BUILDING CODE
- 2018 INTERNATIONAL SWIMMING POOL AND SPA CODE
- WASHINGTON STATE ENERGY CODE (WSEC)
- ICC/ANSI A117.1-09, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, WITH STATEWIDE AND CITY AMENDMENTS

PER: 19.07.16(2)(F.2) IF EXCAVATION/FOUNDATION OR OTHER SIMILAR WORK WILL OCCUR BETWEEN OCTOBER 1 AND APRIL 1 A WET SEASON DEVELOPMENT WAIVER IS TO BE APPLIED AND REVIEWED FOR WORK DURING THE WET SEASON. SEE THIS WEBSITE FOR REQUIREMENTS, SUBMISSION, AND PROCESS: <https://www.mercerisland.gov/cfd/page/wet-season-work-waiver-seasonal-development-limitation>

PROVIDE STRAW OR PLASTIC COVER TO ANY EXPOSED SOILS THROUGH OUT THE CONSTRUCTION CYCLE.

24 HOUR EROSION CONTROL CONTACT INFO: MASON MAUER - 425-417-7819

NOTE: TO REDUCE THE POTENTIAL OF SLAB SETTLEMENT AND DISTRESS, THE GEOTECHNICAL ENGINEER RECOMMENDS REMOVING A MINIMUM OF 1-FOOT OF EXISTING SOIL BELOW THE SLAB, AND PLACING 1-FOOT OF PROPERLY COMPACTED FREE-DRAINING GRANULAR STRUCTURAL FILL PER GEOTECHNICAL REPORT SECTION 6.4

**AVERAGE EXISTING GRADE CALCULATIONS**

WALL SEGMENT	WALL LENGTH	MIDPOINT ELEVATION	RESULT
A	17.63'	26.1	460.14
B	14.2'	26.6	372.4
C	2.42'	27.1	65.58
D	4.25'	27.3	116.23
E	5.13'	27.4	140.56
F	1.04'	27.5	28.5
G	5.17'	27.5	142.18
H	1.04'	27.5	28.6
I	5.13'	27.5	141.08
J	66.67'	25.8	1720.09
K	15.42'	24.2	373.16
L	2.17'	24.0	52.08
M	29.58'	23.8	704.2
N	2.17'	23.4	50.78

O	15.0'	23.2	348.0
P	94.67'	26.0	2461.42
Q	1.75'	29.5	51.63
R	33.08'	33.0	1091.64
S	15.29'	34.0	519.86
T	2.0'	34.0	68.0
U	8.0'	34.0	272.0
V	15.0'	34.0	510.0
W	2.71'	32.8	88.83
X	24.83'	32.0	794.51
Y	3.21'	30.4	97.58
Z	37.5'	27.4	1027.5
TOTALS	424.86'	N/A	11726.35

11726.35 / 424.86 = 27.6  
 AVERAGE EXISTING GRADE = 27.6'  
 MAXIMUM BUILDING HEIGHT = 30' ABOVE A.E.G.  
 27.6' + 30' = 57.6'  
 MAXIMUM BUILDING HEIGHT = 57.6'  
 ACTUAL BUILDING HEIGHT = 28.48' (56.08')

**FIRE SPRINKLER NOTE:**

A NFPA 13R FIRE SPRINKLER SYSTEM AND A NFPA 72 CHAPTER 29 MONITORED FIRE ALARM SYSTEM TO BE INSTALLED. (SEPARATE PERMIT REQUIRED)

1-HOUR 5/8" TYPE 'X' GWS TO BE USED ON ALL WALLS & CEILING IN LIEU OF 1/2" GWS

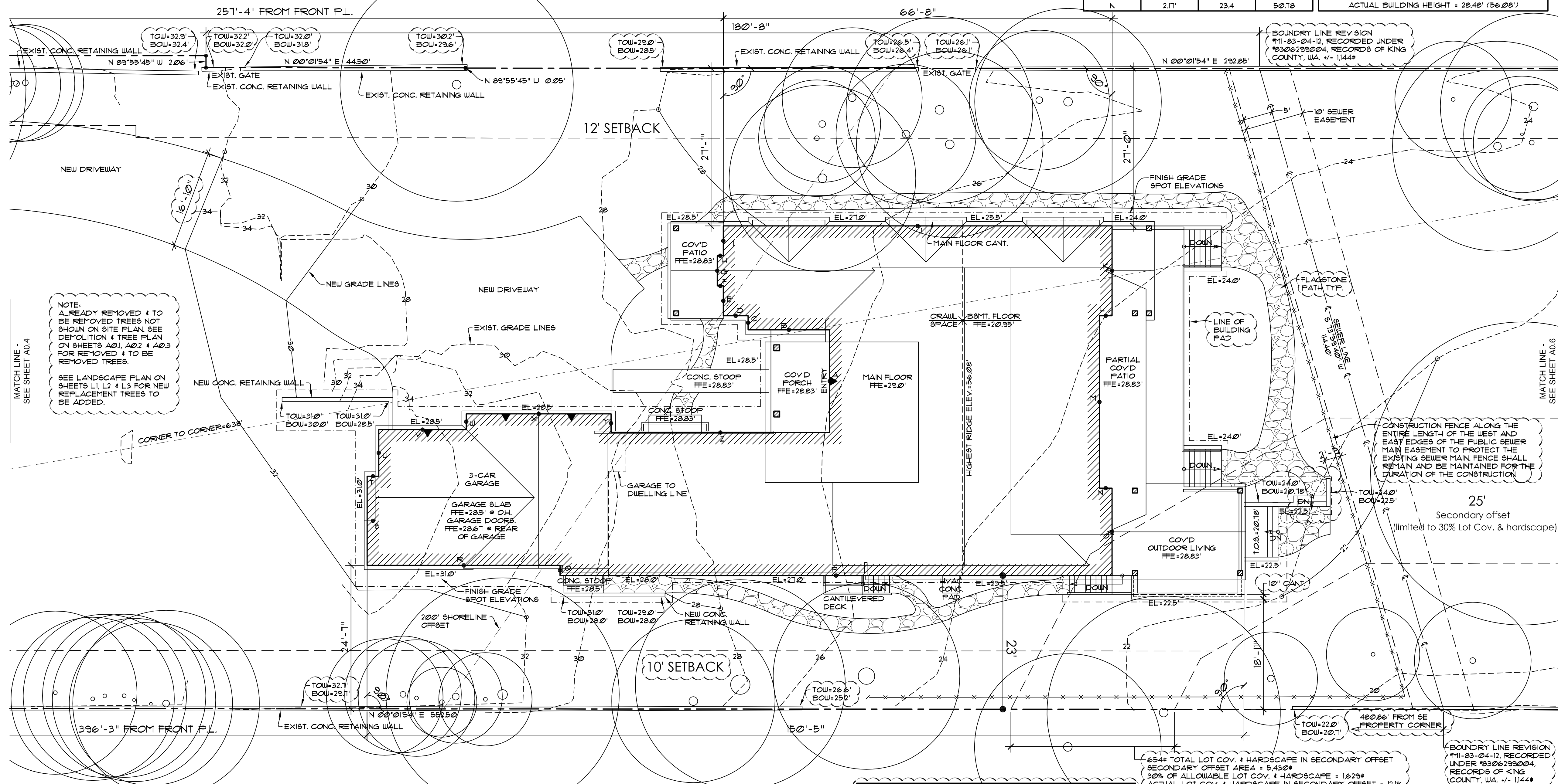
**LOT SLOPE:**

HIGHEST LOT ELEV: 446.4'  
 LOWEST LOT ELEV: 20.0'  
 446.4-20.0/446.4  
 246.4/638.4 = 38% LOT SLOPE

**SIDE SETBACKS:**

LOT IS WIDER THAN 90'  
 SIDE SETBACKS TO BE 1% OF SITE WIDTH  
 LOT 19 1/2' SIDE (19.176x19)  
 SIDE SETBACKS TO BE 19' TOTAL

NOTE: GRADING TO BE APPROXIMATELY 150 YARDS OF SOIL. NO SOIL TO BE REMOVED FROM OR ADDED TO SITE.



NOTE: ALREADY REMOVED & TO BE REMOVED TREES NOT SHOWN ON SITE PLAN. SEE DEMOLITION & TREE PLAN ON SHEETS A0.1, A0.2 & A0.3 FOR REMOVED & TO BE REMOVED TREES.

SEE LANDSCAPE PLAN ON SHEETS L1, L2 & L3 FOR NEW REPLACEMENT TREES TO BE ADDED.

THE CRITICAL AREA REVIEW ASSOCIATED WITH THIS PROJECT (PROCESSED UNDER CA022-011) MUST BE APPROVED PRIOR TO THE APPROVAL OF THE BUILDING PERMIT.

**SITE INFO**

OWNER: MARK HOUTCHENS  
 ENGINEER: MDT ENGINEERING  
 ZONE: R15  
 LOT SIZE: 55,969# (129 ACRES)  
 PARCEL NO.: 2439100110  
 SETBACKS: FRONT-20', REAR-25', SIDE-5' MIN. TOTAL OF 17% OF LOT WIDTH

HEIGHT LIMIT: 30' ABOVE A.B.E.  
 F.A.R. (LESSER OF): 40% (22,387#) OR 1200#  
 LOT COVERAGE: 40% (BUILDING & VEHICLE DRIVING SURFACE)  
 REQUIRED LANDSCAPE: 0%  
 LOT SLOPE: LESS THAN 15%  
 HARDSCAPE: 4% (626#)

**150% GFA MODIFIER CALCULATIONS:**  
 SQUARE FOOTAGE OVER 12'-0"

DINING/GREAT ROOM	586#
ENTRY	121#
PRIMARY SUITE	104#
PRIMARY BATH	56#
GUEST SUITE	16#
KITCHEN	163#
TOTAL	1154#

1154/2 = 577#  
 150% GFA MODIFIER = 577#

**GROSS FLOOR AREA CALCULATIONS**

SITE AREA	55,969#
ALLOWABLE FAR	12,000#
MAIN FLOOR W/ GARAGE	5,721#
BASEMENT FLOOR	2,240#
TOTAL FLOOR AREA	7,961#
PROPOSED G.F.A.	7,961# (14.2%)

**LOT COVERAGE CALCULATIONS**

**EXIST. LOT COVERAGE SURFACE:**

MAIN STRUCTURE W/ OVERHANGS	- 3,674# (REMOVE)
ACC. STRUCT. W/ OVERHANGS	- 1,857# (REMOVE)
DRIVING SURFACE	- 5,781# (P. REMOVE)
TOTAL EXIST. LOT COVERAGE	- 11,312#
LOT COV. TO BE REMOVED	- 1,320#
REMAINING LOT COVERAGE	- 3,932

**LOT COVERAGE SURFACE:**

MAIN STRUCTURE W/ OVERHANGS	- 6,410#
EXIST. DRIVING SURFACE	- 3,932#
NEW DRIVING SURFACE	- 2,178#
TOTAL LOT COVERAGE	- 13,120#
LOT AREA	- 55,969#
PROPOSED LOT COVERAGE	- 13,120/55,969 = 23.4%
MAXIMUM LOT COVERAGE	- 23.381 (40%)
REMAINING LOT COVERAGE	- 9,267# (16.5%)

**HARDSCAPE CALCULATIONS**

**EXIST. HARDSCAPE SURFACE:**

UNCOVERED PATIOS	- 434# (REMOVE)
WALKWAYS	- 519# (REMOVE)
STAIRS	- 247# (REMOVE)
ROCKERIES & RETAINING WALLS	- 453# (P. REMOVE)
TOTAL EXIST. HARDSCAPE	- 1,653#
HARDSCAPE TO BE REMOVED	- 1,200#
REMAINING HARDSCAPE	- 453#

**NEW HARDSCAPE SURFACE:**

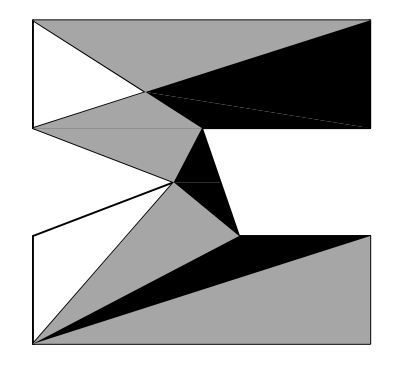
UNCOVERED DECKS	- 74#
UNCOVERED PATIOS/STOOPS	- 437#
FLAGSTONE WALKWAYS	- 888#
STAIRS	- 155#
ROCKERIES & RETAINING WALLS	- 44#
TOTAL NEW HARDSCAPE	- 1,598#
EXISTING ROCKERY	- 177#
EXISTING RETAINING WALLS	- 216#
TOTAL HARDSCAPE	- 2,051#
LOT AREA	- 55,969#
PROPOSED HARDSCAPE	- 2,051/55,969 = 3.7%
MAXIMUM HARDSCAPE	- 16.5% + 3% = 25.5%

654# TOTAL LOT COV. & HARDSCAPE IN SECONDARY OFFSET  
 SECONDARY OFFSET AREA = 5,430#  
 36% OF ALLOWABLE LOT COV. & HARDSCAPE = 1,629#  
 ACTUAL LOT COV. & HARDSCAPE IN SECONDARY OFFSET = 12.1%

DEVELOPMENT PROPOSALS FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION 19.07.02(F)(3)(A). NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

**SITE PLAN (2 OF 3)**  
 SCALE: 1" = 10'  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040

matthew mauer  
 residential design  
 mat@mmd.net  
 425.417.7817

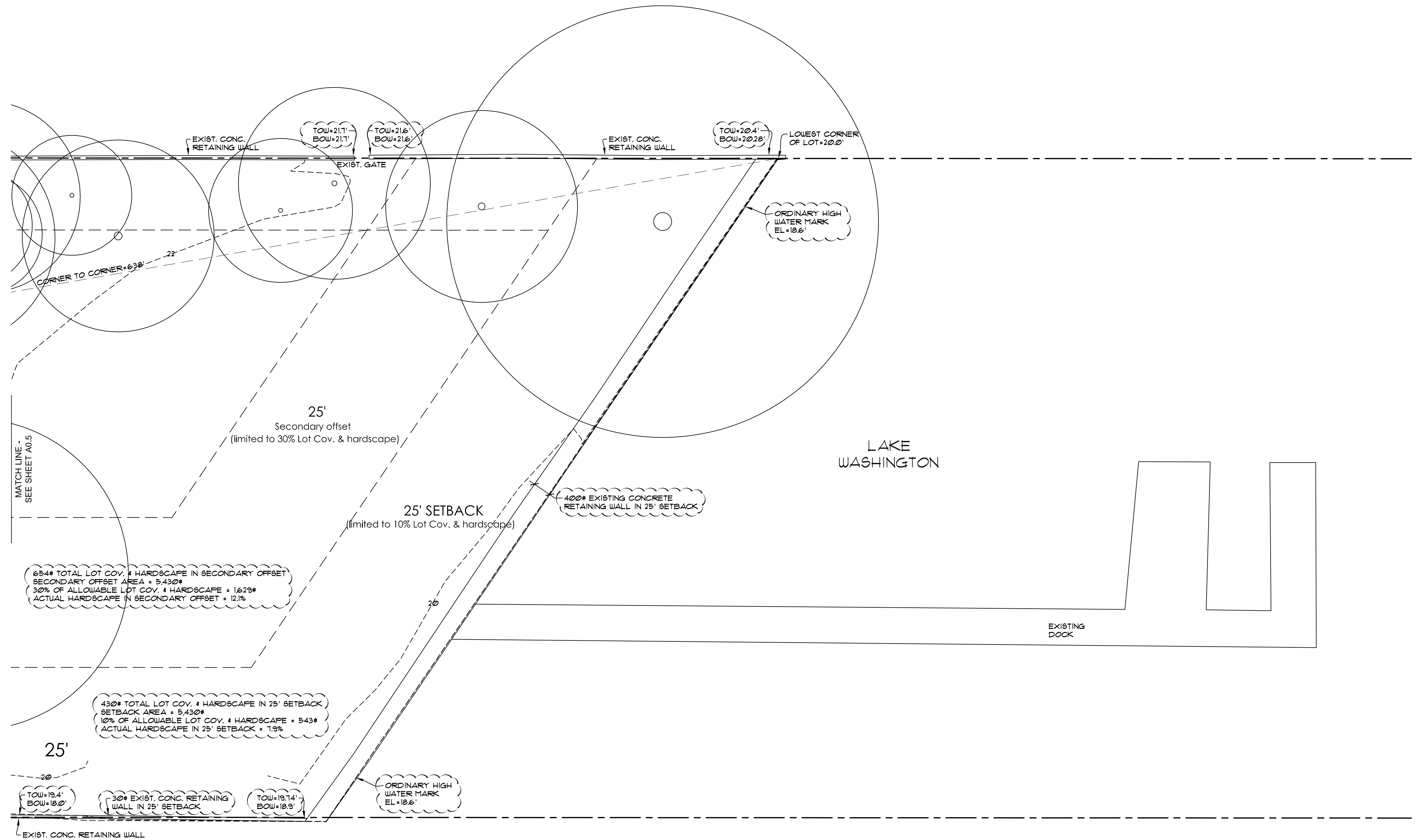


nw lifestyle homes  
 www.nwlifestylehomes.com

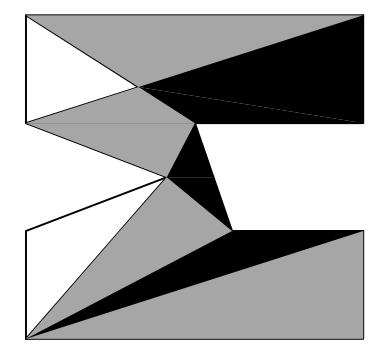
HOUTCHENS RESIDENCE  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040

JOB NO: 20-020  
 DATE: 9/01/22  
 DRWN. BY: MM, MG  
 REVISED: 3/31/23

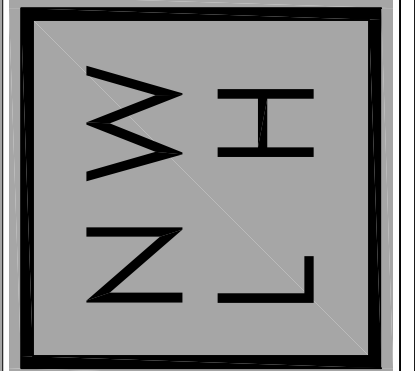
SHEET NO.  
**A0.5**



SITE PLAN (3 OF 3)  
SCALE: 1" = 10'  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040



nw  
lifestyle  
homes  
www.nwlifestylehomes.com



HOUTCHENS RESIDENCE  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040

JOB NO: 20-020  
DATE: 9/01/22  
DRWN. BY: MM, MG  
REVISED: 2/14/23

SHEET NO.  
**A0.6**

**EROSION/SEDIMENTATION CONTROL - PLAN NOTES**

1. THE APPROVED CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS:
  - A. CONDUCT PRE-CONSTRUCTION MEETING.
  - B. FLAG OR FENCE CLEARING LIMITS.
  - C. POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
  - D. INSTALL CATCH BASIN PROTECTION IF REQUIRED.
  - E. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
  - F. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
  - G. CONSTRUCT SEDIMENT POND(S) AND TRAPS.
  - H. GRADE AND STABILIZE CONSTRUCTION ROADS.
  - I. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
  - J. MAINTAIN EROSION CONTROL MEASURE IN ACCORDANCE WITH CITY/COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
  - K. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY/COUNTY TESC MINIMUM REQUIREMENTS.
  - L. COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
  - M. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN 7 DAYS.
  - N. SEED OR SOO ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
  - O. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.

2. CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS CLEAN AND FREE OF CONTAMINANTS AT ALL TIMES AND FOR PREVENTING AN ILLICIT DISCHARGE INTO THE MUNICIPAL STORM DRAIN SYSTEM. IF YOUR CONSTRUCTION PROJECT CAUSES AN ILLICIT DISCHARGE TO THE MUNICIPAL STORM DRAIN SYSTEM, THE CITY/COUNTY STORM MAINTENANCE DIVISION WILL BE CALLED TO CLEAN THE PUBLIC STORM SYSTEM, AND OTHER AFFECTED PUBLIC INFRASTRUCTURE. THE CONTRACTOR(S), PROPERTY OWNER AND ANY OTHER RESPONSIBLE PARTY MAY BE CHARGED ALL COSTS ASSOCIATED WITH THE CLEAN-UP AND MAY ALSO BE ASSESSED MONETARY PENALTIES. THE MINIMUM PENALTY IS \$500. A FINE FOR A REPEAT VIOLATION SHALL BE A MULTIPLE OF THE NUMBER OF VIOLATIONS. A FINE MAY BE REDUCED OR WAIVED FOR PERSONS WHO IMMEDIATELY SELF-REPORT VIOLATION TO THE CITY/COUNTY. A FINAL INSPECTION OF YOUR PROJECT WILL NOT BE GRANTED UNTIL ALL COSTS ASSOCIATED WITH THE CLEAN-UP, AND PENALTIES, ARE PAID TO THE CITY/COUNTY.

3. CONSTRUCTION DEWATERING DISCHARGES SHALL ALWAYS MEET WATER QUALITY GUIDELINES LISTED IN COK POLICY E-1. SPECIFICALLY, DISCHARGES TO THE PUBLIC STORM/WATER DRAINAGE SYSTEM MUST BE BELOW 25 NTU, AND NOT CONSIDERED AN ILLICIT DISCHARGE. TEMPORARY DISCHARGE TO SANITARY SEWER REQUIRE A PERMIT, AUTHORIZATION AND PERMIT AND NOTIFICATION TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR.

4. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY/COUNTY STANDARDS AND SPECIFICATIONS.

5. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE SET BY SURVEY AND CLEARLY FLAGGED IN THE FIELD BY A CLEARING CONTRACTOR PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE OR REMOVAL OF ANY GROUND COVER BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE PERMITTEE/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

6. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (EG. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTION CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

7. THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION MAINTENANCE, REPLACEMENT, AND UPGRADE OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.

8. A COPY OF THE APPROVED ESC PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

9. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.

10. THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE ENGINEER AND THE CITY/COUNTY INSPECTOR.

11. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (EG. ADDITIONAL SLOPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.

12. THE ESC FACILITIES SHALL BE INSPECTED BY THE PERMITTEE/CONTRACTOR DAILY DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT, AND AT THE END OF EVERY RAINFALL, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT DOCUMENTING THE REVIEW OF THE ESC FACILITIES.

13. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A STORM EVENT.

14. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

15. ALL DENUDED SOILS MUST BE STABILIZED WITH AN APPROVED TESC METHOD (EG. SEEDING, MULCHING, PLASTIC COVERING, CRUSHED ROCK) WITHIN THE FOLLOWING TIMELINES:
  - MAY 1 TO SEPTEMBER 30 - SOILS MUST BE STABILIZED WITHIN 7 DAYS OF GRADING.
  - OCTOBER 1 TO APRIL 30 - SOILS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING.
  - STABILIZE SOILS AT THE END OF THE WORKDAY PRIOR TO A WEEKEND, HOLIDAY, OR PREDICTED RAIN EVENT.

16. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RATE APPLIED AT APPROXIMATELY 20 POUNDS PER ACRE).

17. WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2".

18. ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NGPE) SHALL HAVE A 6' HIGH TEMPORARY CONSTRUCTION FENCE (CHAIN LINK WITH PIER BLOCKS) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NGPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL THE PLANNING DEPARTMENT AUTHORIZES REMOVAL.

19. CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A 6-FT. HIGH CHAIN LINK FENCE ADJACENT THE DRIP LINE OF TREES TO BE SAVED, WETLAND OR STREAM BUFFERS, AND SENSITIVE SLOPES. CLEARING CONTROL FENCES ALONG WETLAND OR STREAM BUFFERS OR UPSLOPE OF SENSITIVE SLOPES SHALL BE ACCOMPANIED BY AN EROSION CONTROL FENCE. IF APPROVED BY THE CITY, A FOUR-FOOT HIGH ORANGE MESH CLEARING CONTROL FENCE MAY BE USED TO DELINEATE CLEARING LIMITS IN ALL OTHER AREAS.

20. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.

21. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, FLAGGED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4'-8" ROCK/40%-10% PASSING; 2'-4" ROCK/30%-40% PASSING; AND 1'-2" ROCK/10%-20% PASSING. RECYCLED CONCRETE SHALL NOT BE USED FOR EROSION PROTECTION, INCLUDING CONSTRUCTION ENTRANCE OR TEMPORARY STABILIZATION ELSEWHERE ON THE SITE.

22. IF ANY PART(S) OF THE CLEARING LIMIT BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.

23. ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.

24. AT NO TIME SHALL MORE THAN 1" OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED IMMEDIATELY FOLLOWING REMOVAL OF EROSION CONTROL BMP'S. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSREAM SYSTEM.

25. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT OR SYSTEM UNICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN.

26. ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING 6" MUST HAVE A PERIMETER FENCE WITH A MINIMUM HEIGHT OF 3'.

27. THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION AS DETERMINED BY THE CITY. ALSO ALL INTERCEPTOR SHALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.

28. PRIOR TO THE OCTOBER 1 OF EACH YEAR (THE BEGINNING OF THE WET SEASON), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDED WITHIN ONE WEEK AFTER OCTOBER 1. A SITE PLAN DEPICTING THE AREAS TO BE SEEDED AND THE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR. THE INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

29. ANY AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT (INCLUDING A 5-FOOT BUFFER) MUST BE SURROUNDED BY SILT FENCE PRIOR TO CONSTRUCTION AND UNTIL FINAL STABILIZATION OF THE SITE TO PREVENT SOIL COMPACTION AND SILTATION BY CONSTRUCTION ACTIVITIES.

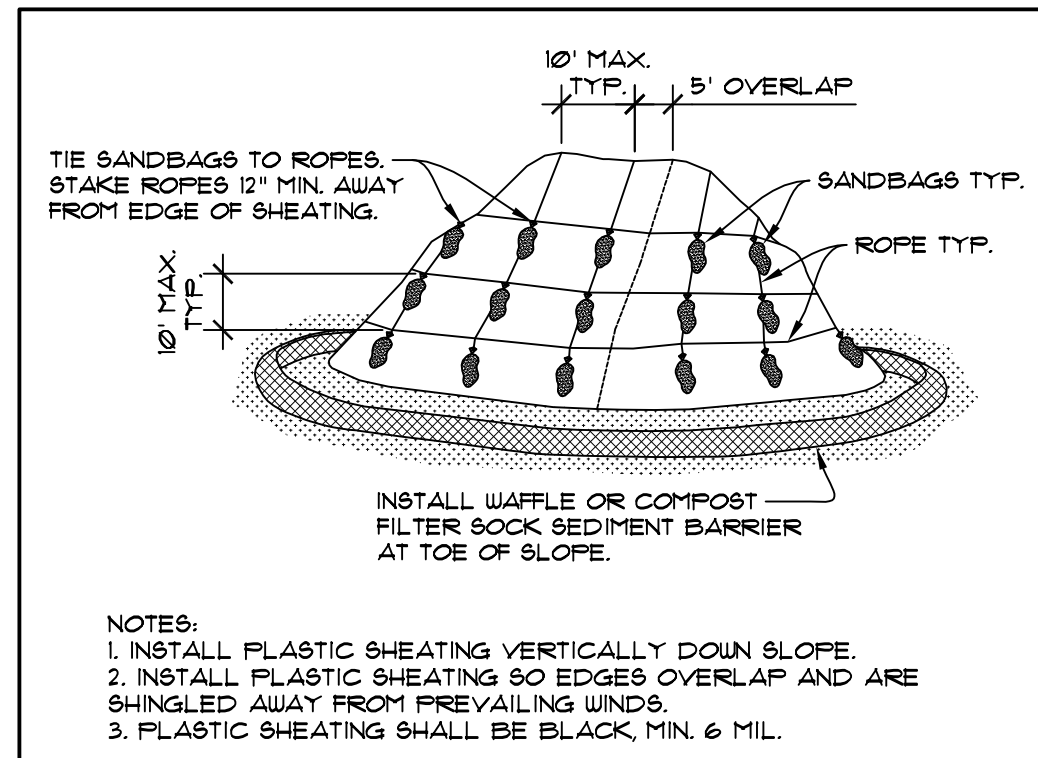
30. IF THE TEMPORARY CONSTRUCTION ENTRANCE OR ANY OTHER AREA WITH HEAVY VEHICLE LOADING IS LOCATED IN THE SAME AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT, 6" OF SEDIMENT BELOW THE GRAVEL MUST BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION FACILITY OR PERVIOUS PAVEMENT (TO REMOVE FINES ACCUMULATED DURING CONSTRUCTION).

31. ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE ADEQUATE PROTECTION FROM SEDIMENT. CATCH BASINS DIRECTLY DOWNSREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE CITY INSPECTOR SHALL BE PROTECTED WITH A 'STORM DRAIN PROTECTION INSERT OR EQUIVALENT.

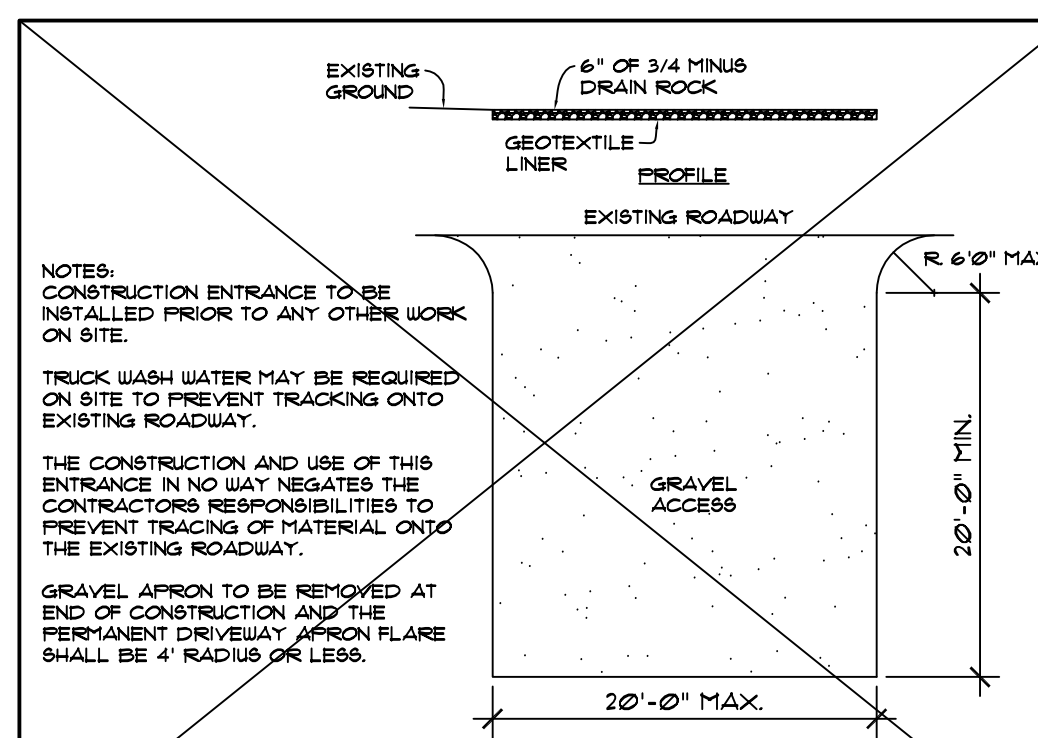
32. IF A SEDIMENT POND IS NOT PROPOSED, A BAKER TANK OR OTHER TEMPORARY GROUND AND/OR SURFACE WATER STORAGE TANK MAY BE REQUIRED DURING CONSTRUCTION, DEPENDING ON WEATHER CONDITIONS.

33. DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.

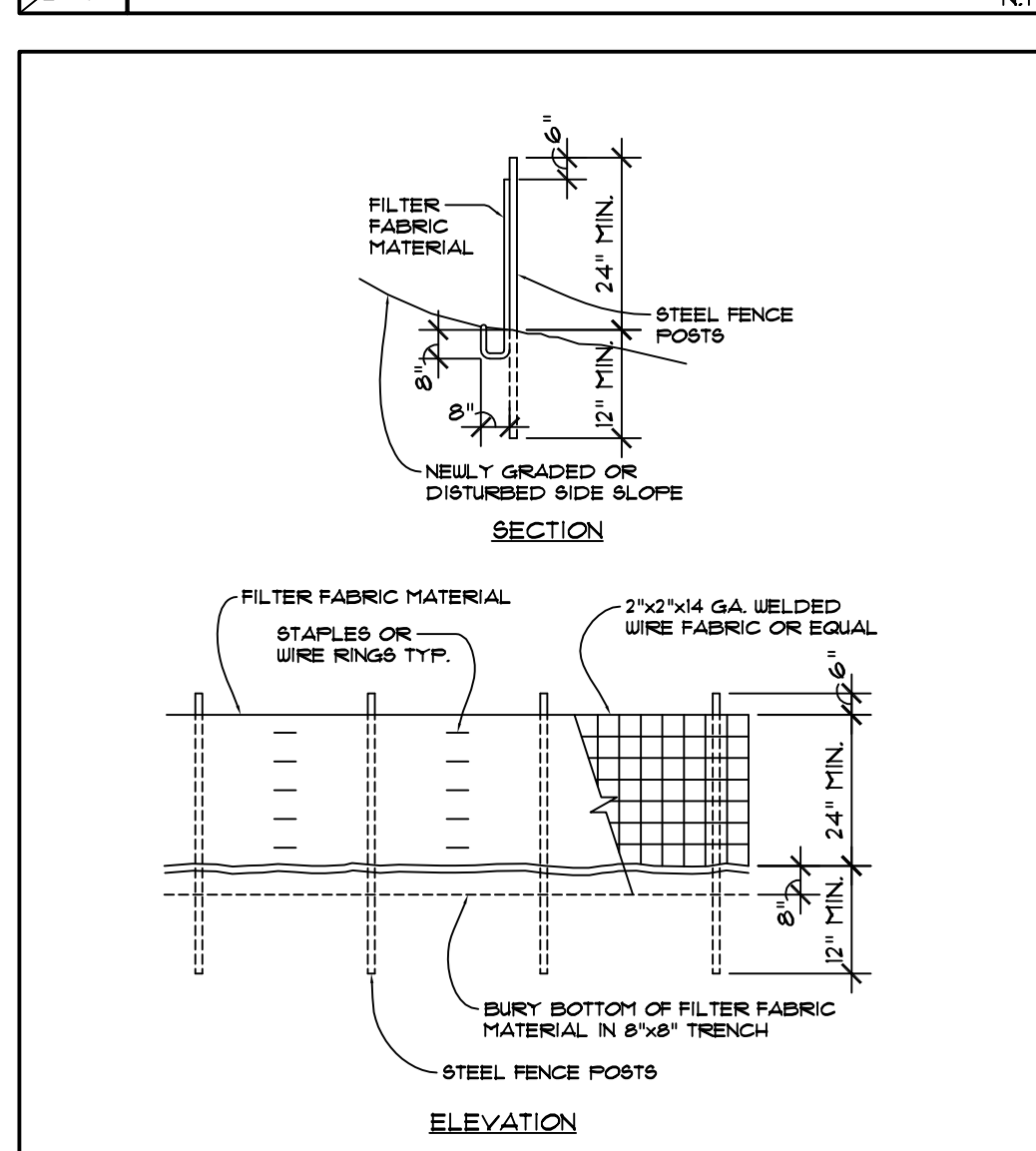
34. RECYCLED CONCRETE SHALL NOT BE STOCKPILED ON SITE, UNLESS FULLY COVERED WITH NO POTENTIAL FOR RELEASE OF RUNOFF.



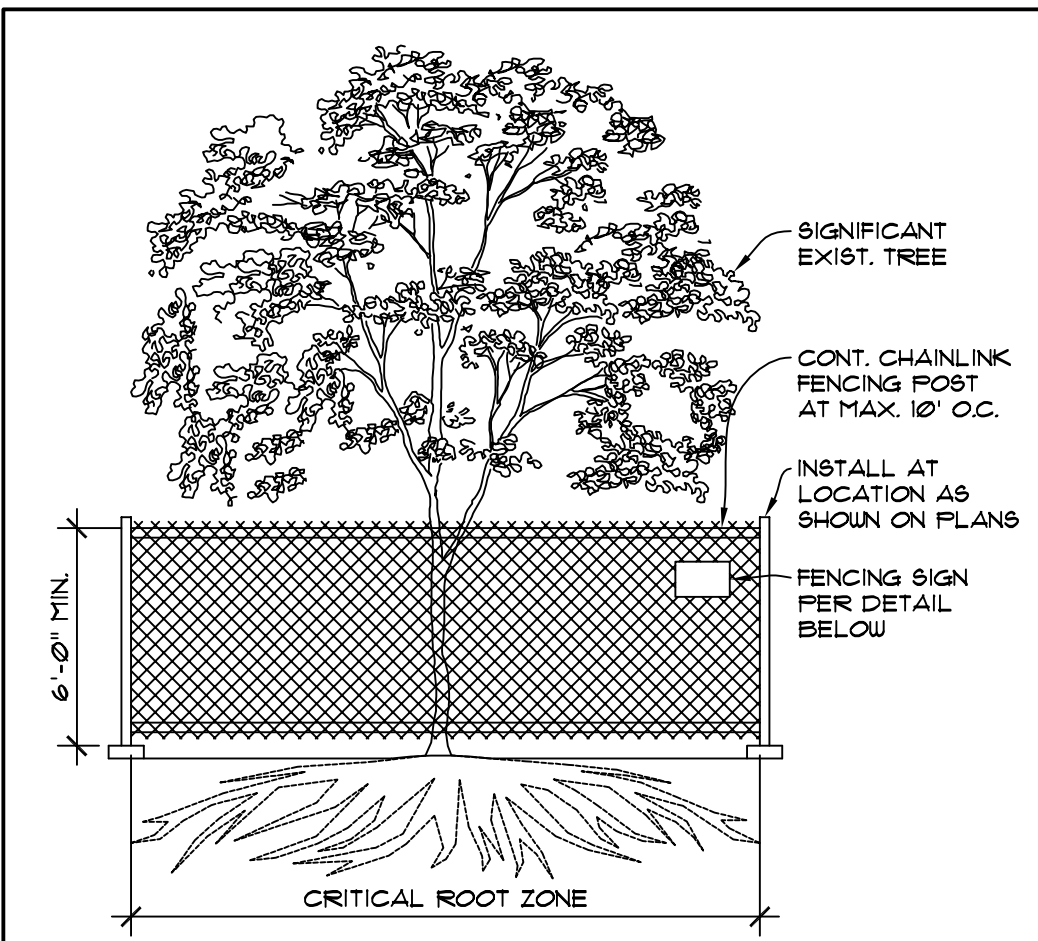
**C1 TEMPORARY STOCK PILE DETAIL** N.T.S.



**C2 GRAVEL CONSTRUCTION ENTRANCE** N.T.S.

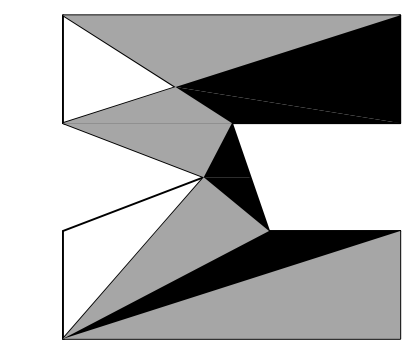


**C3 SILT FENCE DETAIL** N.T.S.



**C4 TREE PROTECTION DETAIL** N.T.S.

1. MINIMUM 6'X (6) FOOT HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCLOSE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION. FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE. SIGN TO BE MINIMUM 11\"/>



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HOUTCHENS RESIDENCE  
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MERCER ISLAND, WA 98040

JOB NO: 20-020  
DATE: 9/01/22  
DRW. BY: MM, MG  
REVISED:

SHEET NO.  
**A0.7**

**GENERAL NOTES:**

- ALL FLOOR JOISTS PER PLAN, REFER TO MFG. LAYOUT FOR ALL FRAMING DETAILS AND BLOCKING, REVIEW MFG. LAYOUT PRIOR TO FRAMING, DOUBLE UNDER BEARING PARTITIONS, PROVIDE SOLID BLOCKING OVER BEARING MEMBERS.
- ALL PRE-MANUFACTURED TRUSSES TO BE IDENTIFIED BY MFG'S STAMP.
- FACTORY BUILT FIREPLACE 4 CHIMNEY TO BE UL LABELED INSTALL PER MANUFACTURERS SPEC'S O/SIDE COMBUSTION AIR REQ'D (MIN 6 SQ IN) DUCTED TO F/BOX W/ OPERABLE O/SIDE DAMPER, TIGHTLY FITTING FLUE DAMPER, AND TIGHT FITTING GLASS OR METAL DOORS OR FLUE DRAFT INDUCTION FAN, MINIMUM FIREPLACE EFFICIENCY OF 50% OR GREATER PER USEC R402.4.2.1, PILOT LIGHT SHALL NOT BE CONTINUOUSLY BURNING PER USEC R402.13.
- LIMIT SHOWER FLOW TO 2.5 GALLON/MIN.
- H.W.T. TO BE LABELED PER ASHRAE STD. NO. 90.2A-90, AND MEET THE REQUIREMENTS PER 1981 NATIONAL APPLIANCE ENERGY CONSERVATION ACT.
- FURNACE AND H.W. TANK, PILOTS, BURNERS, HEATING ELEMENTS, AND SWITCHES TO BE A MIN. OF 18" ABOVE FINISHED FLOOR.
- ALL SKYLITES TO COMPLY WITH I.R.C. SECTION 2409.1 4 2602.3
- ALL SIDELITES, SLIDING GLASS DOORS AND TUB/SHOWER ENCLOSURES TO COMPLY WITH I.B.C. SECTION 2406.
- HEAT REGISTERS TO BE PER LEGEND, LOCATE APPROXIMATELY AS SHOWN, 6" IN FROM EXTERIOR WALLS, 3" IN FROM INTERIOR WALLS.
- VENT DRYER, OVEN/RANGE 4 EXHAUST FANS TO O/SIDE, DRYER EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMB. HORIZ. AND VERT. LENGTH OF 14'-0" INCL., 2 90° ELBOWS, DUCT 2'-0" FOR EA. 90° ELBOW, EXCEEDING 2. SEE DRYER DUCT DTL. FOR ALT. SOLUTIONS. ALL EXHAUST DUCTS INSULATED (MIN. OF R-4)
- ALL NAILING PER IRC TABLE R602.3(1) AND/OR IBC TABLE 2304.9.1, COLUMN, POST 4 BEAM CONNECTIONS TO COMPLY WITH I.B.C. SECTION 2316.
- 
- SOLID 5/8" G. REQ'D ON LOWER STORY OF 2 STORY BUILDING PER I.B.C. DRYWALL NAILED PER SHEAR NAILING SCHEDULES OR IBC 2018 EDITION.
- TUB/SHOWER SURROUND SHALL TO HAVE WATER RESISTANT GYP BOARD AND A SMOOTH HARD SURFACE TO A MINIMUM HEIGHT OF 10" ABOVE DRAIN INLET
- PROVIDE SMOKE DETECTOR IN COMPLIANCE WITH I.B.C. AND I.B.C. STD. #43.6. ALL SMOKE DETECTORS W/BAT BACKUP. SMOKE DETECTORS WILL SOUND AN AUDIBLE ALARM IN ALL SLEEPING ROOMS.
- DUELLING TO COMPLY W/ 2018 USEC-R.
- SEAL GASKET, GASKET, OR WEATHERSTRIP TO LIMIT AIR LEAKAGE: AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALL AND ROOF AND WALL PANELS, OPENINGS AT UTILITY PENETRATIONS THROUGH WALLS, FLOORS, AND ROOFS, ALL OTHER OPENINGS IN BUILDING ENVELOPE.
- ALL EXTERIOR DOORS OR ACCESS HATCHES TO ENCLOSED UNHEATED AREAS MUST BE WEATHERSTRIPPED.
- MINIMUM SOIL BEARING PRESSURE = 1500 PSF.
- FOOTINGS TO BE PLACED ON FIRM, UNDISTURBED NATIVE SOIL.
- DUELLINGS TO COMPLY WITH INTERNATIONAL BUILDING CODE (I.B.C.) 2018
- FIRE STOPS SHALL BE PROVIDED TO CUT OFF ALL CONCL'D DRAFT OPENINGS FROM VERT. TO HORIZ. SPACES, INCLUDING THE STAIR, TUB, SHOWER, FIREPLACE, ETC.

ALL WINDOWS TO HAVE INDIVIDUAL OUTDOOR AIR INLET PORTS PER IRC 4012.4 4021

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE, THE RESULTS OF THE TEST SHALL BE BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL. (R402.4.12.2)

AT LEAST ONE THERMOSTAT PER DUELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE.

DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. A MINIMUM OF 15% OF THE LAMP'S IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS.

R301.3 GEOGRAPHICAL AREAS. APPROVED NATURALLY DURABLE OR PRESSURE-PRESERVATIVE-TREATED WOOD SHALL BE USED FOR THOSE PORTIONS OF WOOD MEMBERS THAT FORM THE STRUCTURAL SUPPORTS OF BUILDINGS, BALCONIES, PORCHES OR SIMILAR PERMANENT BUILDING APPURTENANCES WHEN THOSE MEMBERS ARE EXPOSED TO THE WEATHER WITHOUT ADEQUATE PROTECTION FROM A ROOF, EAVE, OVERHANG OR OTHER COVERING THAT WOULD PREVENT MOISTURE OR WATER ACCUMULATION ON THE SURFACE OR AT JOINTS BETWEEN MEMBERS. DEPENDING ON LOCAL EXPERIENCE, SUCH MEMBERS MAY INCLUDE:

- HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS AND DECKING.
- VERTICAL MEMBERS SUCH AS POSTS, POLES AND COLUMNS.
- BOTH HORIZONTAL AND VERTICAL MEMBERS.

R303.1 STAIRWAY ILLUMINATION. ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIRS INCLUDING THE STAIR TREADS, INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF EACH LANDING OF THE STAIRWAY. FOR INTERIOR STAIRS THE ARTIFICIAL LIGHT SOURCES SHALL BE CAPABLE OF ILLUMINATING TREADS AND LANDINGS TO LEVELS NOT LESS THAN 1 FOOT-CANDLE (1 LUX) MEASURED AT THE CENTER OF TREADS AND LANDINGS. EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTSIDE GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE BOTTOM LANDING OF THE STAIRWAY.

**SOURCE SPECIFIC VENTILATION REQUIREMENTS:**

BATHROOMS, LAUNDRY ROOMS AND POWDER ROOM FANS TO BE 50 CFM. KITCHEN EXHAUST FANS TO BE 100 CFM UNO. EXHAUST FANS SHALL BE FLOW RATED AT 25 W.G. STATIC PRESSURE EXHAUST DUCTS SHALL: BE INSULATED TO R-4 IN UNCONDITIONED SPACE BE EQUIPPED WITH A BACKDRAFT DAMPER TERMINATE OUTSIDE THE BUILDING PER IRC M1501.1 COMPLY WITH BELOW:

FAN CFM	MAX. FLEX DIA.	MAX. FT.	MAX. SMOOTH DIA.	MAX. FT.
50	4"	25'	4"	10'
50	5"	30'	5"	10'
50	6"	OVER 100'	6"	OVER 100'
80	4"	N/A	4"	20'
80	5"	15'	5"	10'
80	6"	30'	6"	OVER 100'
100	5"	N/A	5"	50'
100	6"	45'	6"	OVER 100'
125	6"	15'	6"	OVER 100'
125	7"	30'	7"	OVER 100'

**WHOLE HOUSE VENTILATION REQUIREMENTS:**

A 6" DIAMETER FRESH AIR INLET SHALL BE DUCTED FROM THE EXTERIOR TO THE FRESH AIR RETURN FLENUM. THE FRESH AIR DUCT SHALL BE PROTECTED FROM THE ENTRY OF INSECTS, LEAVES, OR OTHER DEBRIS AND LOCATED SO AS NOT TO TAKE AIR FROM: -HAZARDOUS OR UNSANITARY LOCATIONS. -WHERE IT WILL PICK UP OBJECTIONABLE ODORS, FUMES OR FLMMBL. VFRS. -A LOCATION OR SPACE HAVING RUL. BURNING APPLIANCES THEREIN. -ATTIC, CRAWL SPACE, OR GARAGE. -CLOSER THAN 10" FROM AN APPLING OR PLUMBING VENT OUTLET, UNLESS THE DUCT VENT OUTLET IS AT LEAST 3' ABOVE THE FRESH AIR INLET. DUCT SHALL BE INSUL'D TO R-4 WHEN PASSING THROUGH A COND' SPACE. INLET DUCT SHALL BE EQUIPPED WITH A MOTORIZED DMFR THAT WILL OPEN WHEN THE VNTLN FAN RELAY IS ACTIVATED AND REMAIN CLOSED AT ALL OTHER TIMES. IN ADDN TO THE MOTORIZED DMFR A MANUAL DMFR SET TO 35-5 AIR CHANGES PER HOUR IS ALSO REQUIRED.

A WHOLE HOUSE EXHAUST FAN SHALL BE LCTD IN THE CEILING, SIZE PER THE CALC'S BELOW. THE AIR INTAKE DUCT DMFR SHALL BE SET W/N THIS RNG. WHOLE HOUSE VENTILATION: THIS SECTION ESTABLISHES MINIMUM PRESCRIPTIVE DESIGN REQUIREMENTS FOR WHOLE HOUSE VENTILATION SYSTEMS. EACH DUELLING UNIT OR GUEST ROOM SHALL BE EQUIPPED WITH A VENTILATION SYSTEM COMPLYING WITH OPTION I, II, III OR IV. COMPLIANCE IS ALSO PERMITTED TO BE DEMONSTRATED THROUGH COMPLIANCE WITH THE INTERNATIONAL MECHANICAL CODE.

- OPTION I: WHOLE-HOUSE VENTILATION USING EXHAUST FANS. (IRC M1507.3.4)
- OPTION II: WHOLE-HOUSE VENTILATION INTEGRATED WITH A FORCED-AIR SYSTEM. (IRC M1507.3.5)
- OPTION III: WHOLE-HOUSE VENTILATION USING A SUPPLY FAN. (IRC M1507.3.6)
- OPTION IV: WHOLE-HOUSE VENTILATION USING A HEAT RECOVERY VENTILATION SYSTEM. (IRC M1507.3.7)

MECHANICAL VENTILATION RATE: THE WHOLE HOUSE MECHANICAL VENTILATION SYSTEM SHALL PROVIDE OUTDOOR AIR TO EACH HABITABLE SPACE AT A CONTINUOUS RATE NOT LESS THAN THAT DETERMINED IN ACCORDANCE WITH TABLE M1507.3.3(1).

EXCEPTION: THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS PERMITTED TO OPERATE INTERMITTENTLY WHERE THE SYSTEM HAS CONTROLS THAT ENABLE OPERATION FOR NOT LESS THAN 25 PERCENT OF EACH 4-HOUR SEGMENT AND THE VENTILATION RATE PRESCRIBED IN TABLE M1507.3.3(1) IS MULTIPLIED BY THE FACTOR DETERMINED IN TABLE M1507.3.3(2).

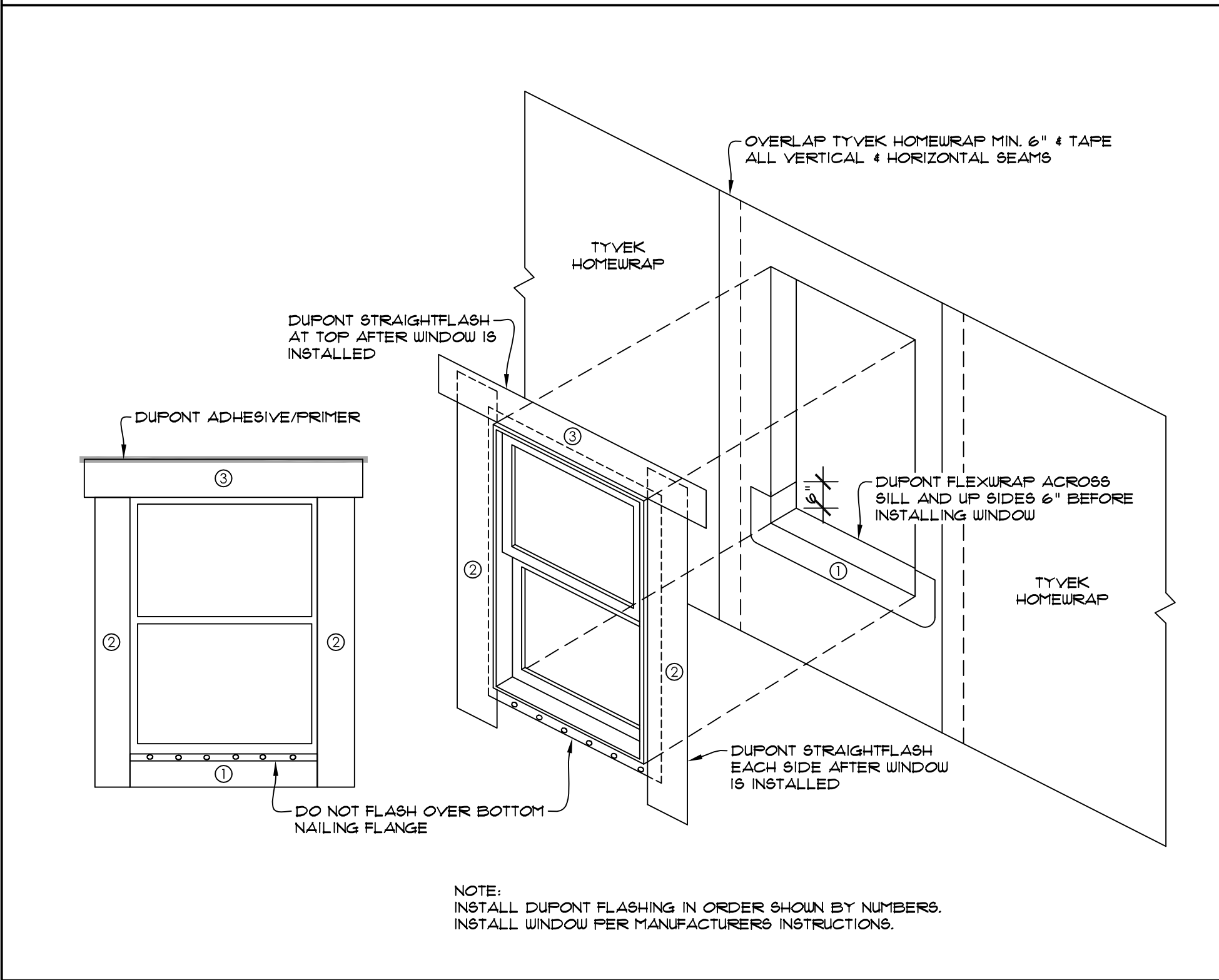
DUELLING UNIT FLOOR AREA (SQUARE FEET)	NUMBER OF BEDROOMS				
	0-1	2-3	4-5	6-1	>1
< 1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	165

RUN TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
	FACTOR	4	3	2	1.5	1
a, FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE INTERPOLATED.						
b, EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.						

EXHAUST FANS MUST BE FLOW RATED AT 25 W.G. AND MAX. 15 SONE RATING. READILY ACCESSIBLE 24 HR. CLK. TMR OR DEHUMIDISTAT 4 RELAY SHALL BE INSTL'D AND WIRED TO REGULATE THE FURN FAN, RELAY AND WHOLE HOUSE EXHAUST FAN. INTERIOR DOORS SHALL BE INSTL'D SO AS NOT TO IMPEDE THE MVMT OF FRESH AIR TO ALL HABITABLE ROOMS.

VNTLN SYSTEM MUST BE PERFORMANCE TESTED JUST PRIOR TO THE FINAL INSPECTION BY THE INSTALLER OR A GLD'D THIRD PARTY. THE INLET DUCT SHALL BE LABELED WITH THE ACTUAL CFM, MSRD 4 A LETTER OF CHG/PLC. SHALL BE AVAILABLE ON SITE FOR THE INSPCTR BEFORE A CERT OF OCCUPANCY WILL BE ISSUED.

**FLANGED WINDOW FLASHING INSTALLATION AFTER TYVEK HOMEWRAP (OR EQUIVALENT)**



**STAIRWAYS - 2018 IRC SECTION 311.7**

R311.7.1 WIDTH - STAIRWAYS SHALL BE NOT LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. THE CLEAR WIDTH OF STAIRWAYS AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL BE NOT LESS THAN 31-1/2" WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 21" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES. EXCEPTION: THE WIDTH OF SPIRAL STAIRWAYS SHALL BE IN ACCORDANCE WITH SECTION R311.10.1.

R311.7.2 HEADROOM - THE HEADROOM IN STAIRWAYS SHALL BE NOT LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM ON THAT PORTION OF THE STAIRWAY. EXCEPTIONS: 1. WHERE THE NOSINGS OF TREADS AT THE SIDE OF A FLIGHT EXTEND UNDER THE EDGE OF A FLOOR OPENING THROUGH WHICH THE STAIR PASSES, THE FLOOR OPENING SHALL BE ALLOWED TO PROJECT HORIZONTALLY INTO THE REQUIRED HEADROOM NOT MORE THAN 4'-3/4". 2. THE HEADROOM FOR SPIRAL STAIRWAYS SHALL BE IN ACCORDANCE WITH SECTION R311.10.1.

R311.7.3 VERTICAL RISE - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 15" BETWEEN FLOOR LEVELS OR LANDINGS.

R311.7.5 STAIR TREADS AND RISERS - STAIR TREADS AND RISERS SHALL MEET THE REQUIREMENTS OF THIS SECTION FOR THE PURPOSES OF THIS SECTION, DIMENSIONS AND DIMENSIONED SURFACES SHALL BE EXCLUSIVE OF CARPETS, RUGS OR RANERS.

R311.7.5.1 RISERS - THE RISER HEIGHT SHALL BE NOT MORE THAN 7'-3/4". THE RISER SHALL BE MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". RISERS SHALL BE VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE NOSING OF THE TREAD ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES FROM THE VERTICAL. OPEN RISERS ARE PERMITTED PROVIDED THAT THE OPENINGS LOCATED MORE THAN 30" AS MEASURED VERTICALLY TO THE FLOOR OR GROUND BELOW DO NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE. EXCEPTIONS: 1. THE OPENING BETWEEN ADJACENT TREADS IS NOT LIMITED ON SPIRAL STAIRWAYS. 2. THE RISER HEIGHT OF SPIRAL STAIRWAYS SHALL BE IN ACCORDANCE WITH SECTION R311.10.1.

R311.7.5.2 TREADS - THE TREAD DEPTH SHALL BE NOT LESS THAN 10". THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT A RIGHT ANGLE TO THE TREAD'S LEADING EDGE. THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8".

R311.7.5.3 NOSINGS - NOSINGS AT TREADS, LANDINGS, AND FLOORS OF STAIRWAYS SHALL HAVE A RADIUS OF CURVATURE AT THE NOSING NOT GREATER 9/16" OR A BEVEL NOT GREATER THAN 1/2". A NOSING PROJECTION NOT LESS THAN 3/4" AND NOT MORE THAN 1-1/4" SHALL BE PROVIDED ON STAIRWAYS. THE GREATEST NOSING PROJECTION SHALL NOT EXCEED THE SMALLEST NOSING PROJECTION BY MORE THAN 3/8" WITHIN A STAIRWAY. EXCEPTION: A NOSING PROJECTION IS NOT REQUIRED WHERE THE TREAD DEPTH IS NOT LESS THAN 11".

R311.7.6 LANDINGS FOR STAIRWAYS - THERE SHALL BE A FLOOR OR LANDING AT THE TOP AND BOTTOM OF EACH STAIRWAY. THE WIDTH PERPENDICULAR TO THE DIRECTION OF TRAVEL SHALL BE NOT LESS THAN THE WIDTH OF THE FLIGHT SERVED. LANDINGS OR SHAPES OTHER THAN SQUARE OR RECTANGULAR SHALL BE PERMITTED PROVIDED THAT THE DEPTH AT THE WALK LINE AND THE TOTAL AREA IS NOT LESS THAN THAT OF A QUARTER CIRCLE WITH A RADIUS EQUAL TO THE REQUIRED LANDING WIDTH. WHERE THE STAIRWAY HAS A STRAIGHT RUN, THE DEPTH IN THE DIRECTION OF TRAVEL SHALL BE NOT LESS THAN 36".

NOTE: ALL UNDERGROUND PLUMBING LOCATIONS TO BE FIELD VERIFIED PRIOR TO FOUNDATION INSTALLATION.

NOTE: CONTRACTOR SHALL VERIFY TO INSPECTOR ALL GUARDS AND RAILINGS SHALL BE CAPABLE OF RESISTING 200 LB LOAD ON TOP RAIL ACTING IN ANY DIRECTION AS REQUIRED BY IRC TABLE R303.

NOTE: PER R302.11, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.

R311.7.1 STAIRWAY WALKING SURFACE - THE WALKING SURFACE OF TREADS AND LANDINGS OF STAIRWAYS SHALL BE SLOPED NOT STEEPER THAN ONE UNIT VERTICAL IN 48" HORIZONTAL.

R311.7.5 HANDRAILS - HANDRAILS SHALL BE PROVIDED ON NOT LESS THAN ONE SIDE OF EACH FLIGHT OF STAIRS WITH FOUR OR MORE RISERS.

R311.7.5.1 HEIGHT - HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34" AND NOT MORE THAN 38".

R311.7.5.2 HANDRAIL PROJECTION - HANDRAILS SHALL NOT PROJECT MORE THAN 4-1/2" ON EITHER SIDE OF THE STAIRWAY. EXCEPTION: WHERE NOSINGS OF LANDINGS, FLOORS OR PASSING FLIGHTS PROJECT INTO THE STAIRWAY REDUCING THE CLEARANCE AT PASSING HANDRAILS, HANDRAILS SHALL PROJECT NOT MORE THAN 6-1/2" INTO THE STAIRWAYS PROVIDED THAT THE STAIR WIDTH AND HANDRAIL CLEARANCE ARE NOT REDUCED TO LESS THAN REQUIRED.

R311.7.5.3 HANDRAIL CLEARANCE - HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2" BETWEEN THE WALL AND THE HANDRAILS.

R311.7.5.4 CONTINUITY - HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT FROM A POINT DIRECTLY ABOVE THE TOP RISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. EXCEPTIONS: 1. HANDRAIL CONTINUITY SHALL BE PERMITTED TO BE INTERRUPTED BY A NEWEL POST AT A TURN IN A FLIGHT WITH UNDERS, AT A LANDING, OR OVER THE LOWEST TREAD. 2. A VOLUTE TURNOUT OR STARTING EASING SHALL BE ALLOWED TO TERMINATE OVER THE LOWEST TREAD.

R311.7.5.5 GRIP SIZE - REQUIRED HANDRAILS SHALL BE OF ONE OF THE FOLLOWING TYPES OR PROVIDE EQUIVALENT GRASPABILITY: 1. TYPE I HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF NOT LESS THAN 1-1/4" AND NOT GREATER THAN 2". IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF NOT LESS THAN 4" AND NOT GREATER THAN 6-1/4" WITH A CROSS SECTION OF DIMENSION OF NOT MORE THAN 2-1/4". EDGES SHALL HAVE A RADIUS OF NOT LESS THAN 0.2". 2. TYPE II HANDRAILS WITH A PERIMETER GREATER THAN 6-1/4" SHALL HAVE A GRASPABLE FINGER RECESS AREA ON BOTH SIDES OF THE PROFILE. THE FINGER RECESS SHALL BEGIN WITHIN A DISTANCE OF 3/4" MEASURED VERTICALLY FROM THE INCLUDING PORTION OF THE PROFILE AND ACHIEVE A DEPTH OF NOT LESS THAN 5/16" WITHIN 1/8" BELOW THE WIDEST PORTION OF THE PROFILE. THIS REQUIRED DEPTH SHALL CONTINUE FOR NOT LESS THAN 3/8" TO A LEVEL THAT IS NOT LESS THAN 1-3/4" BELOW THE TALLEST PORTION OF THE PROFILE. THE WIDTH OF THE HANDRAIL ABOVE THE RECESS SHALL BE NOT LESS THAN 1-1/4" AND NOT MORE THAN 2-3/4". EDGES SHALL HAVE A RADIUS OF NOT LESS THAN 0.2".

PER PRESCRIPTIVE REQUIREMENTS 2018 USEC. \*MODIFIED FOR ENERGY CREDIT 1.3)

CLIMATE ZONE 5B  
MAX. GLAZING U-FACTOR: VERT. U+28\*, OVERHEAD U+30  
MAX. FLOOR U-FACTOR: U+28  
INSULATION # CONDITIONED AREAS:  
TRUSSED CEILING: R-49  
VAULTED 4 SINGLE RAFTER CEILING: R-38 (R40222)  
ABOVE GRADE WALLS: R-21  
FLOOR OVER VENTED CRAWL SPACE: R-38\*  
SLAB ON GRADE: R-10 # PERIMETER 4 UNDER ENTIRE SLAB\*

PERCENT GLAZING 3024.4 (SF. GLAZING AREA) +19.1%  
CALCULATIONS: 4626 (SF. FLOOR AREA)

PRESCRIPTIVE ENERGY CODE COMPLIANCE FOR ALL CLIMATE ZONES IN WASHINGTON PER 2018 USEC:

MEDIUM DUELLING UNIT: 6 CREDITS

HEATING OPTION 2 - HEAT PUMP (10 CREDITS)

ENERGY OPTIONS:

13 - EFFICIENT BUILDING ENVELOPE (0.5 CREDITS):

VERTICAL FENESTRATION U = 0.28  
FLOOR R-38  
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB  
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

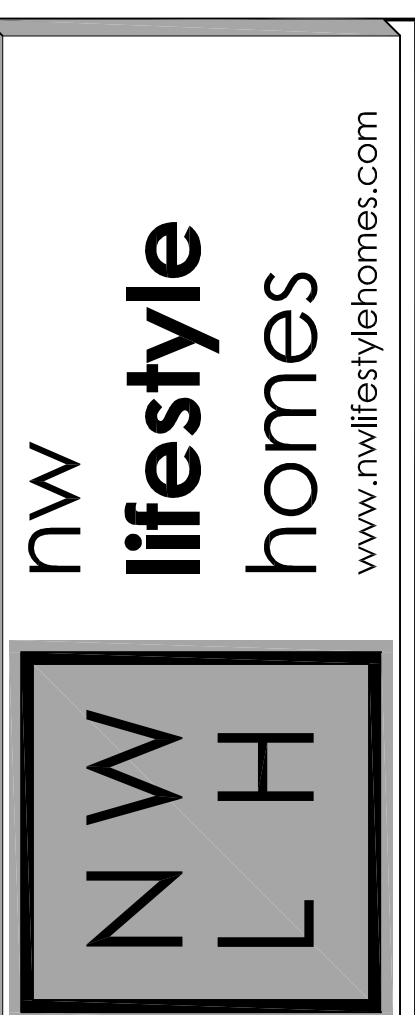
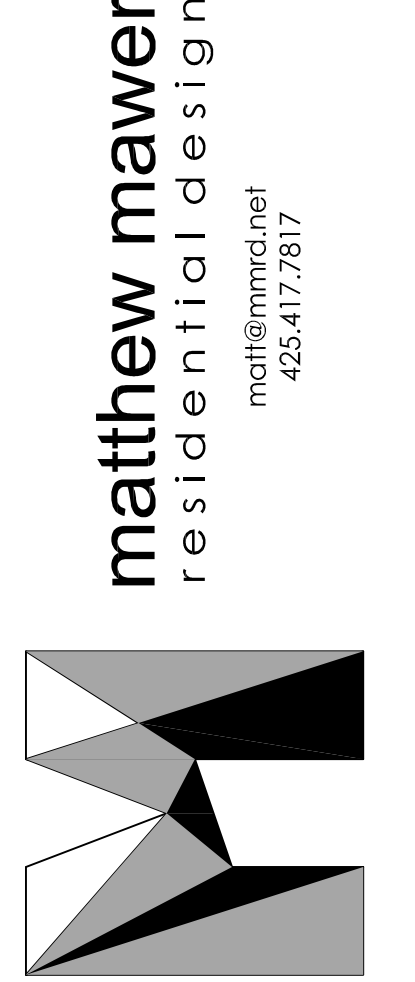
23 - AIR LEAKAGE CONTROL 4 EFFICIENT VENTILATION (15 CREDITS)  
REDUCE THE TESTED AIR LEAKAGE TO 15 AIR CHANGES PER HOUR MAXIMUM AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1507.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HIGH RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.15

32 - HIGH EFFICIENCY HVAC EQUIPMENT (10 CREDITS):  
AIR-SOURCED CENTRALLY DUCTED HEAT PUMP WITH A MINIMUM HSPFF OF 93

5.5 - EFFICIENT WATER HEATING (2.0 CREDITS):  
ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF N.E.A.A.'S ADVANCED WATER HEATING SPECIFICATIONS

XX	EXTERIOR DOOR TAG. SEE DOOR SCHEDULE ON SHEET A1T
XX	EXTERIOR WINDOW TAG. SEE WINDOW SCHEDULE ON SHEET A1T
1	5/8" TYPE "X" GIBB OVER ALL WARM WALLS AND SECOND FLOOR FRAMING 4 SUPPORT MEMBERS. GARAGE CEILING PROTECTION TO BE CONTINUOUS ABOVE GARAGE.
2	CONC. FIBERBOARD # TUB 4 SHOWER SURROUND TO 6" ABOVE DRAIN
3	PILOTS 4 BURNERS OR HTG. ELEMENTS 4 SWITCHES TO BE AT LEAST 18" ABOVE FLOOR. MIN. 6" DIA. FRESH AIR DUCT TO CONNECT TO RETURN AIR FLENUM
4	DIRECT VENT FIREPLACE. INSTALL PER MANUFACTURERS SPECIFICATIONS
5	WHOLE HOUSE VENTILATION SYSTEM PER M1507.3 OF THE I.R.C. SHALL BE MET WITH A HIGH EFFICIENCY FAN (MAX. 0.95 WATTS/CFM), INTERLOCKED WITH THE FURNACE FAN VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTOR ARE ALLOWED. WHOLE HOUSE VENTILATION RATE PER TABLE M1507.3(1) AND SET TO RUN 4 (2) 4-HOUR SEGMENTS
6	22"x30" ATTIC ACCESS. WEATHERSTRIP 4 INSULATE OVER TO EQUAL CEILING INSULATION. TYPE II HANDRAILS WITH A PERIMETER GREATER THAN 6-1/4" SHALL HAVE A GRASPABLE FINGER RECESS AREA ON BOTH SIDES OF THE PROFILE. THE FINGER RECESS SHALL BEGIN WITHIN A DISTANCE OF 3/4" MEASURED VERTICALLY FROM THE INCLUDING PORTION OF THE PROFILE AND ACHIEVE A DEPTH OF NOT LESS THAN 5/16" WITHIN 1/8" BELOW THE WIDEST PORTION OF THE PROFILE. THIS REQUIRED DEPTH SHALL CONTINUE FOR NOT LESS THAN 3/8" TO A LEVEL THAT IS NOT LESS THAN 1-3/4" BELOW THE TALLEST PORTION OF THE PROFILE. THE WIDTH OF THE HANDRAIL ABOVE THE RECESS SHALL BE NOT LESS THAN 1-1/4" AND NOT MORE THAN 2-3/4". EDGES SHALL HAVE A RADIUS OF NOT LESS THAN 0.2".
7	WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT CAUSED BY EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD AND LOWER ONE-THIRD OF THE APPLIANCE'S VERTICAL DIMENSIONS. AT THE LOWER POINT, THE STRAPPING SHALL MAINTAIN A MINIMUM DISTANCE OF 4 INCHES ABOVE THE CONTROLS
8	PER ENERGY CREDIT 3.5. AIR-SOURCED CENTRALLY DUCTED HEAT PUMP WITH A MINIMUM HSPFF OF 110
9	PER ENERGY CREDIT 5.5. ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF N.E.A.A.'S ADVANCED WATER HEATING SPECIFICATION
10	ALTERNATE LOCATION OF 24"x30" CRAWL SPACE ACCESS. WEATHERSTRIP 4 INSULATE TO LEVEL EQUAL TO SURROUNDING SURFACES.
11	COMPLYING WITH M1902.4 CONTROLS: SAUNA HEATERS SHALL BE EQUIPPED WITH A THERMOSTAT THAT WILL LIMIT ROOM TEMPERATURE TO NOT GREATER THAN 194°F. WHERE THE THERMOSTAT IS NOT AN INTEGRAL PART OF THE HEATER, THE HEAT-SENSING ELEMENT SHALL BE LOCATED WITHIN 6 INCHES OF THE CEILING.
SD	INDICATES 110V HARD WIRED SMOKE DETECTOR WITH BATTERY BACKUP
SD	INDICATES 110V HARD WIRED SMOKE 4 CARBON MONOXIDE DETECTOR WITH BATTERY BACKUP

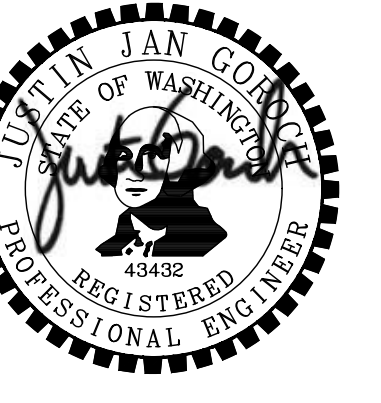
**GENERAL NOTES**



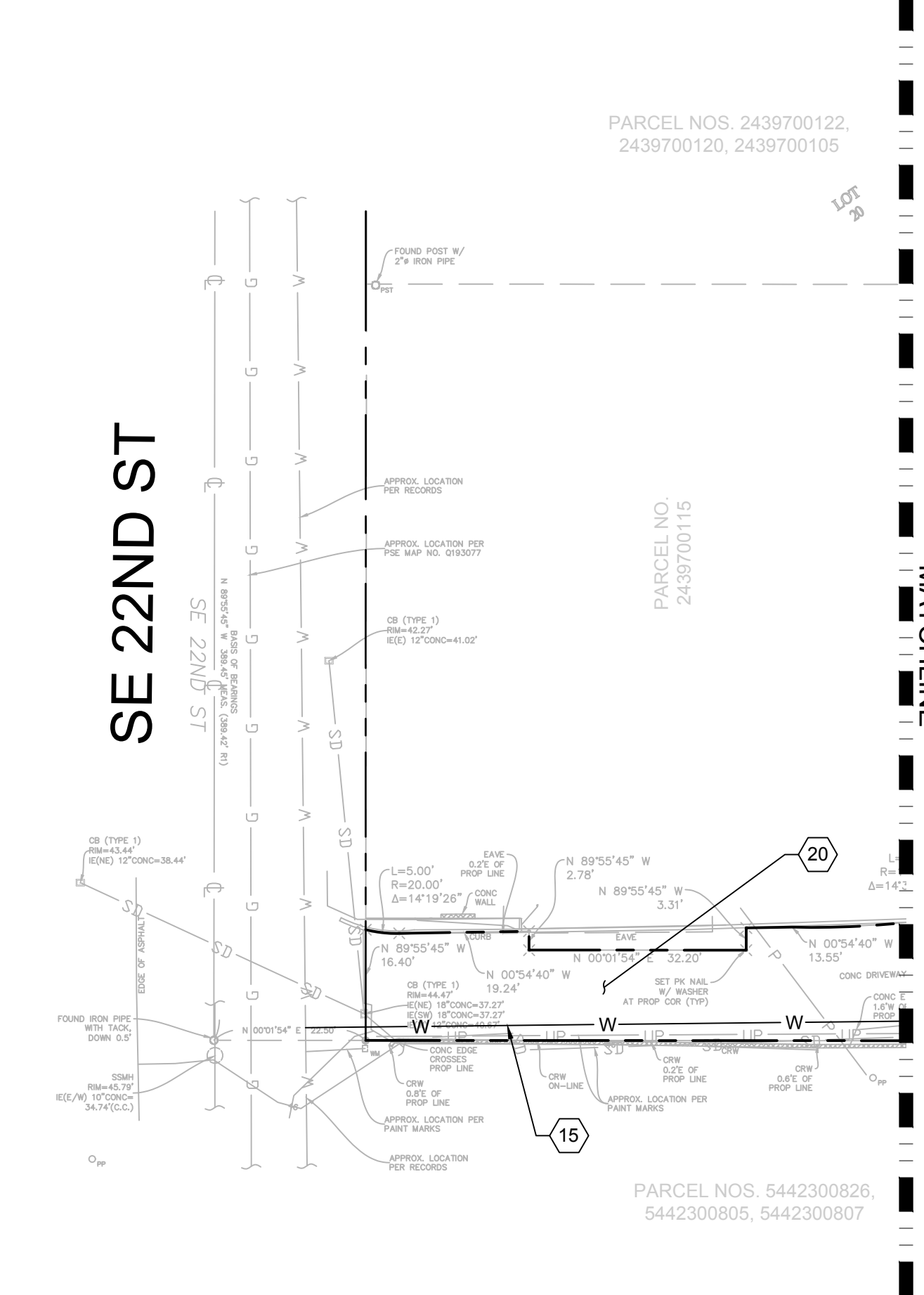
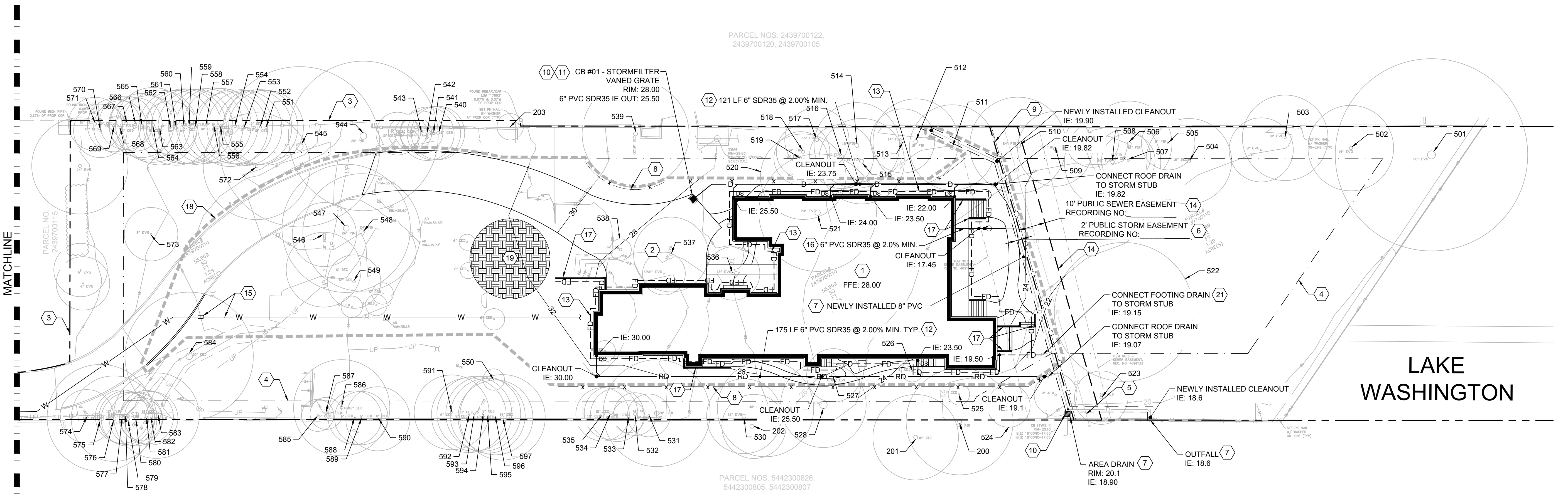
**HOUTCHENS RESIDENCE**  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040

JOB NO: 20-020  
DATE: 9/01/22  
DRWN. BY: MM, MG  
REVISED: 2/14/23

SHEET NO.  
**A0.8**



04/06/2023



**SHEET NOTES**

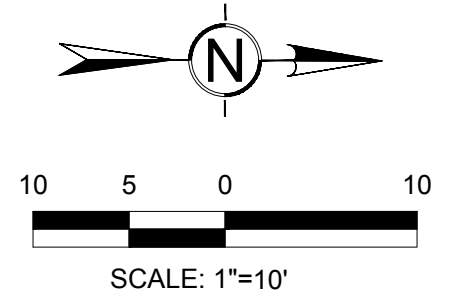
- 1 NEW SINGLE FAMILY HOUSE. SEE ARCHITECTURAL PLANS.
- 2 DRIVEWAY. SEE ARCHITECTURAL PLANS.
- 3 PROPERTY LINE.
- 4 BUILDING SETBACK.
- 5 EXISTING SANITARY SEWER SERVICE LINE TO REMAIN AND BE PROTECTED. NEW 10' EASEMENT WILL BE PROVIDED.
- 6 NEW PUBLIC 2' STORM EASEMENT.
- 7 STORM DRAIN LINE AND OUTFALL INSTALLED UNDER SEPARATE PERMIT.
- 8 TREE PROTECTION PER C4/A07.
- 9 SILT FENCE PER C3/A07.
- 10 INLET PROTECTION PER DETAIL. <sup>2</sup>/<sub>C-102</sub>
- 11 2 CARTRIDGE CATCHBASIN STORMFILTER PER DETAIL. <sup>1</sup>/<sub>C-102</sub>
- 12 ROOF DRAIN PER DETAILS. <sup>4</sup>/<sub>C-102</sub> <sup>5</sup>/<sub>C-102</sub>
- 13 FOOTING DRAIN PER DETAIL. <sup>5</sup>/<sub>C-102</sub>
- 14 PUBLIC 10' SEWER EASEMENT.
- 15 NEW 1.5" METER AND 2" SERVICE CONNECTION PER STANDARD W-14. PROVIDE REDUCED PRESSURE BACKFLOW ASSEMBLY WITH FROST PROTECTION (I.E. ENCLOSURE OR HEAT TAPE) IN ACCORDANCE WITH PLUMBING CODE. RPBA PRODUCT SHALL BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO INSTALLATION. COORDINATE RPBA TESTING REQUIREMENTS WITH THE CITY OF MERCER ISLAND. RPBA SHALL BE AN APPROVED ASSEMBLY PER WAC 246-290-490.
- 16 CONNECT TO SIDE SEWER STUB. PROVIDE CLEANOUT AND BACKFLOW PREVENTOR AT EXTERIOR OF BUILDING PER DETAIL S-18.
- 17 PROPOSED RETAINING WALL SHOWN FOR REFERENCE ONLY. SEE ARCHITECTURAL PLANS FOR RETAINING WALL DESIGN.
- 18 CLEARING LIMITS.
- 19 TEMPORARY STORAGE AND STAGING AREA.
- 20 EXISTING DRIVEWAY TO SERVE AS TEMPORARY ACCESS.
- 21 PROVIDE SWING CHECK VALVE ON FOOTING DRAIN LINE PRIOR TO CONNECTION TO STORM STUB.

**TESC NOTES**

- 1. INLET PROTECTION SHALL BE PROVIDED FOR ALL CATCH BASINS WITHIN 500 FT OF THE PROJECT SITE DURING CONSTRUCTION.
- 2. DISCHARGE FOUNDATION AND TRENCH DEWATERING WATER, WHICH HAVE CHARACTERISTICS SIMILAR TO STORMWATER RUNOFF AT THE SITE, INTO A CONTROLLED CONVEYANCE SYSTEM BEFORE DISCHARGE. CLEAN, NON-TURBID DEWATERING WATER SHALL BE DISCHARGED TO SYSTEMS TRIBUTARY TO, OR DIRECTLY INTO SURFACE WATERS OF THE STATE, PROVIDED THE DEWATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS OR INTERFERE WITH THE OPERATION OF THE SYSTEM.  
  
HIGHLY TURBID DEWATERING WATER SHOULD BE HANDLED SEPARATELY FROM STORMWATER. DISPOSAL OPTIONS MAY INCLUDE: 1) INFILTRATION, 2) USE OF SEDIMENTATION BAG WITH DISCHARGE TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DEWATERING, OR 3) PUMPED TO A TEMPORARY SETTLING TANK PRIOR TO DISCHARGING TO SYSTEMS TRIBUTARY TO, OR DIRECTLY INTO SURFACE WATERS OF THE STATE.  
  
CONTAMINATED DEWATERING WATER, SUCH AS FROM CONSTRUCTION EQUIPMENT OPERATION, SHOULD BE HANDLED SEPARATELY FROM CLEAN STORMWATER. TREATMENT OPTIONS FOR DISPOSAL MAY INCLUDE: 1) TRANSPORT OFF-SITE IN A VEHICLE, SUCH AS VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE WATERS OF THE STATE, OR 2) ECOLOGY-APPROVED ON-SITE CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES APPLIED PRIOR TO DISCHARGE.

**GENERAL NOTES**

- 1. LAWN AND LANDSCAPE AREAS SHALL MEET THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT. PROPOSED LAWN AND LANDSCAPE AREAS SHALL RECEIVE TOPSOIL AMENDED WITH CEDAR GROVE FINE GRADE COMPOST OR OTHER COMPOST THAT MEETS WSDOT STANDARD SPEC 9-14.5(B) AT A RATE OF 0.01 CY PER SQUARE FOOT. SEE DETAIL FOR POST CONSTRUCTION SOIL QUALITY AND DEPTH SECTION. <sup>3</sup>/<sub>C-102</sub>
- 2. PROVIDE A MINIMUM 2 INCH LIFT OF MULCH IN ALL PLANTING AREAS FOR EROSION CONTROL.
- 3. PROPOSED LAWN AREAS SHALL RECEIVE TOPSOIL AMENDED WITH CEDAR GROVE FINE GRAVE COMPOST OR OTHER COMPOST THAT MEETS WSDOT STANDARD SPEC 9-14.5(B) AT A RATE OF 0.005 CY PER SQUARE FOOT. SEE DETAIL FOR POST CONSTRUCTION SOIL QUALITY AND DEPTH SECTION. <sup>3</sup>/<sub>C-102</sub>
- 4. TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED PRIOR TO ANY WORK RELATED TO THE SIDE SEWER. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.
- 5. ISA TRAQ CERTIFIED ARBORIST REQUIRED ON SITE DURING EXCAVATION WITHIN DRIPLENS OF PRESERVED TREES 515, 516, 520, AND 528. ARBORIST WILL DIRECT SOIL CUTTING WITH A FLAT BUCKET UNTIL ROOTS ARE DISCOVERED. THEN AIR EXCAVATE TO LOCATE ROOTS TO PRUNE WITH A SHARP TOOL. FOLLOW TREE PROTECTION GUIDELINES DISCUSSED IN THE ARBORIST REPORT. DOCUMENT ANY CONSTRUCTION IMPACTS TO TREES.



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**PROJECT**  
HOUTCHENS RESIDENCE  
6024 SE 22ND ST  
MERCER ISLAND, WA 98040

**REVISIONS**

NO.	DESCRIPTION

**DATE**  
04.06.2023

**BORA NO.**  
22135

**DRAWN BY:** KSS **DESIGNED BY:** KSS

**REVIEWED BY:** JJG

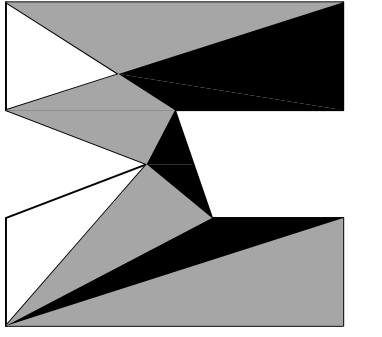
**SHEET TITLE**  
GRADING, DRAINAGE AND TREE PROTECTION PLAN



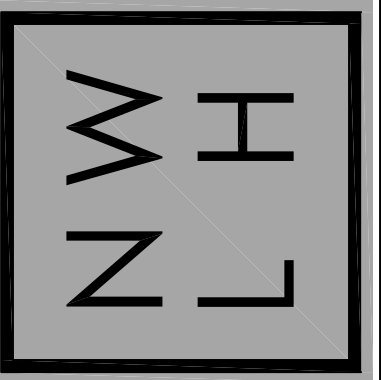








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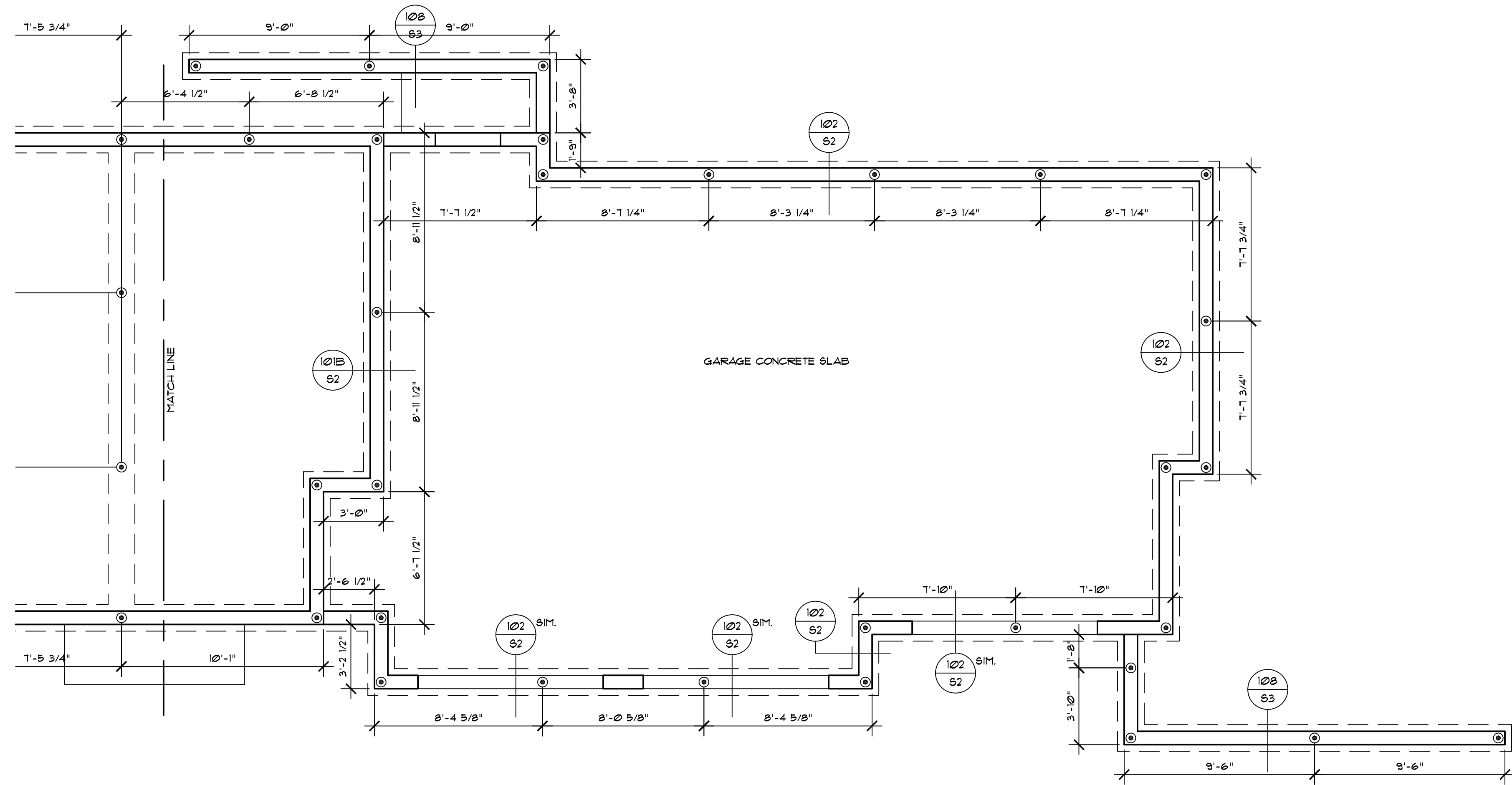


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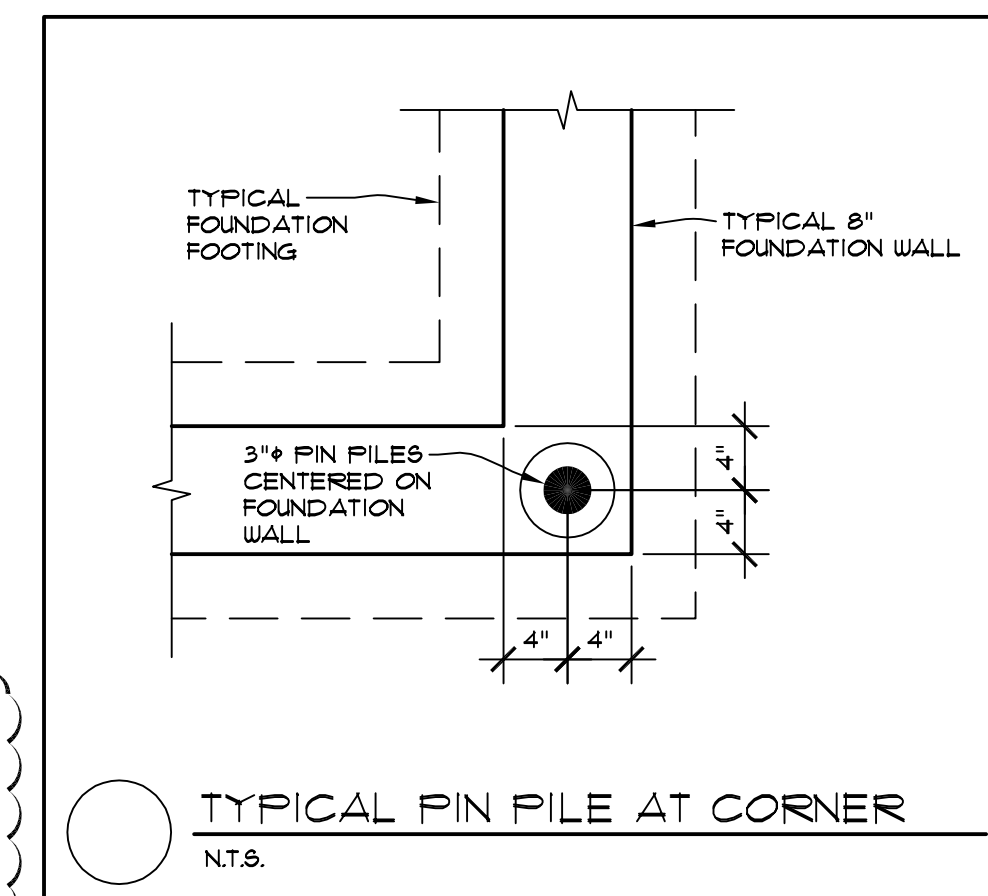
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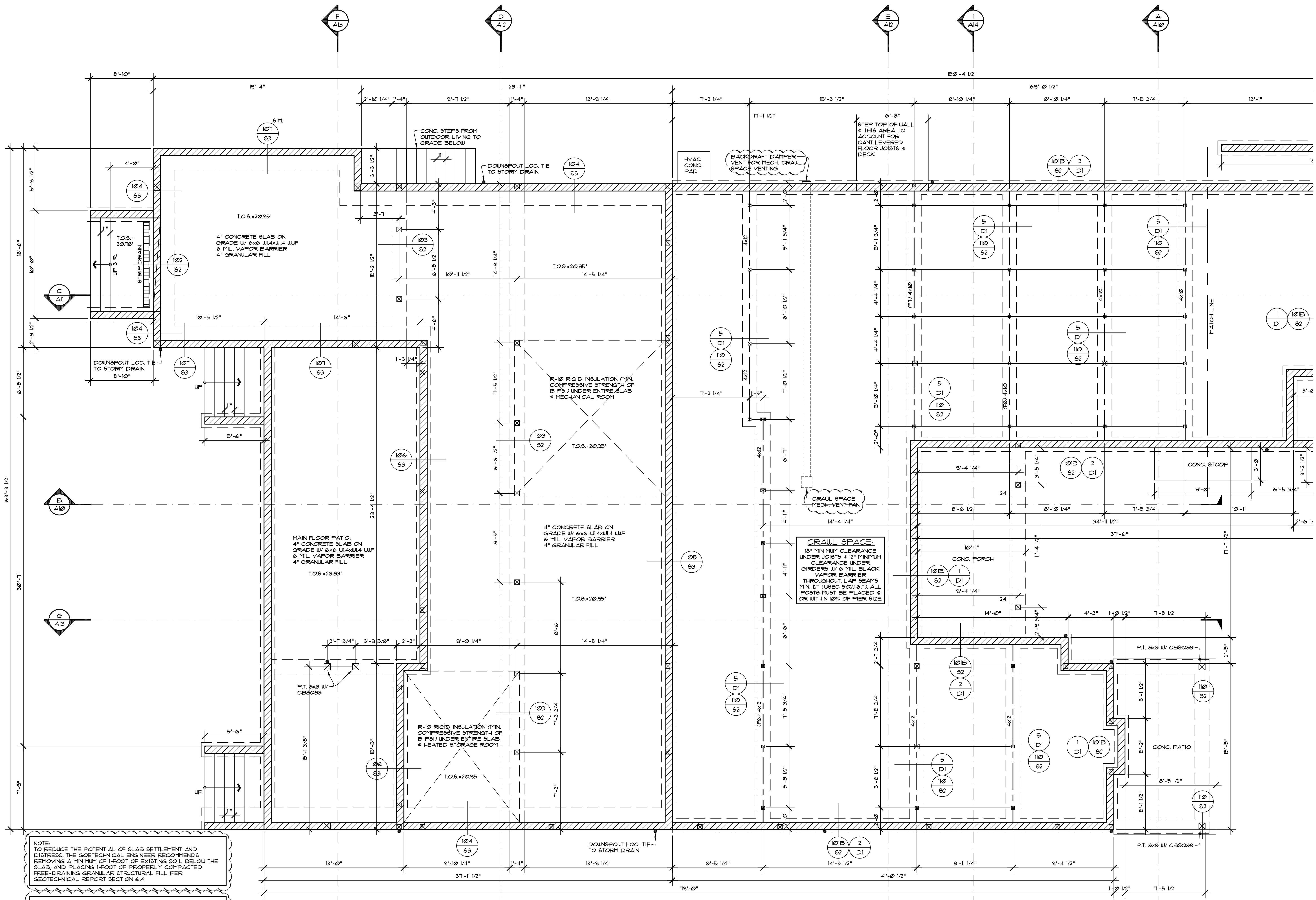


PIN PILE PLAN (2 OF 2)

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

NOTE:  
TO REDUCE THE POTENTIAL OF SLAB SETTLEMENT AND DISTRESS, THE GEOTECHNICAL ENGINEER RECOMMENDS REMOVING A MINIMUM OF 1-FOOT OF EXISTING SOIL BELOW THE SLAB, AND PLACING 1-FOOT OF PROPERLY COMPACTED FREE-DRAINING GRANULAR STRUCTURAL FILL PER GEOTECHNICAL REPORT SECTION 6.4



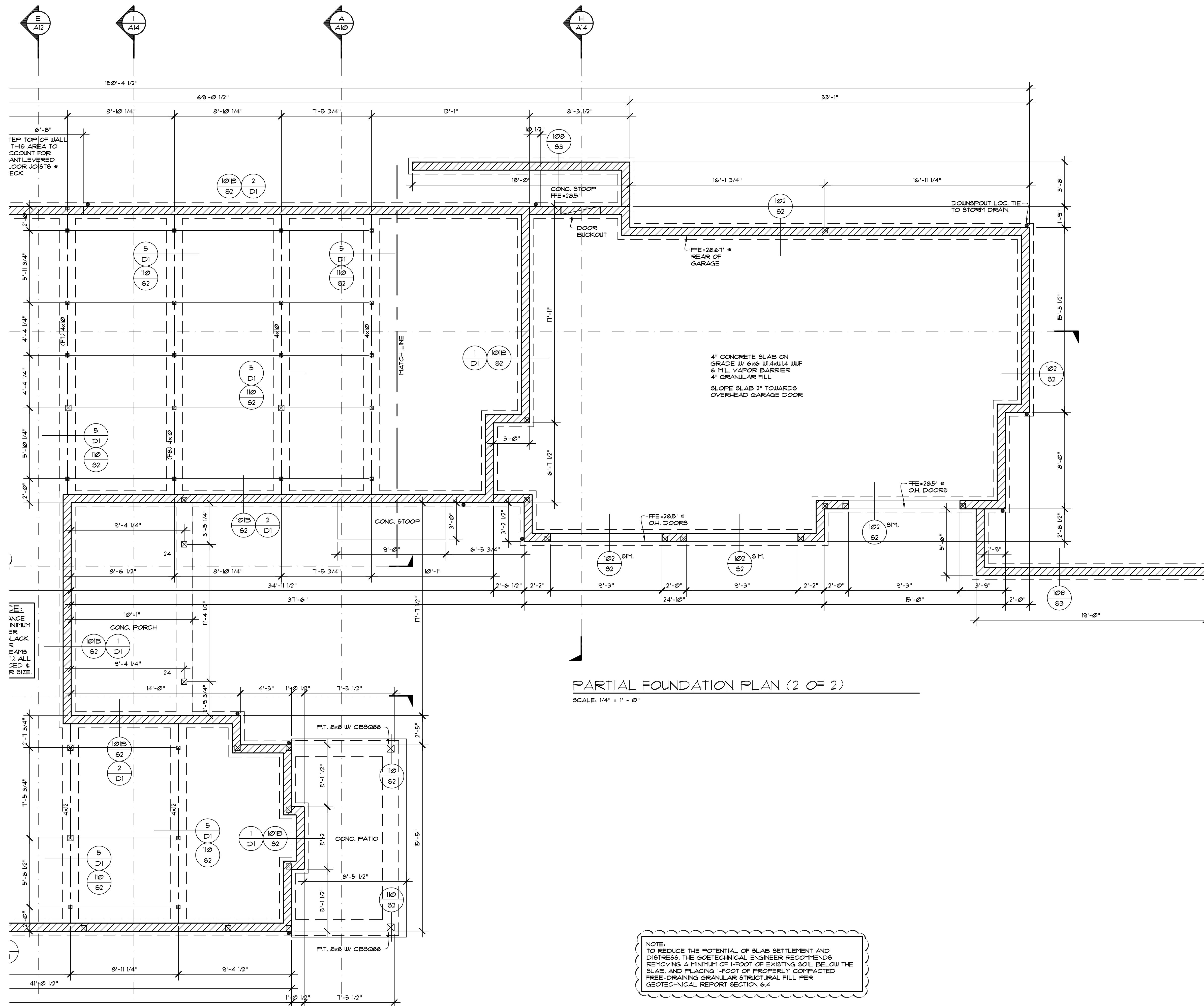


NOTE:  
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CRAWL VENTILATION CALCULATION  
 CRAWL SPACE UNDER FLOOR AREA TO REQUIRE VENTING = 2,454 SF  
 PROVIDE 10 CFM PER 50 SF. OF MECHANICAL VENTILATION  
 2,454 / 50 = 49.1  
 PROVIDE MINIMUM 50 CFM CONTINUOUS MECHANICAL VENTING

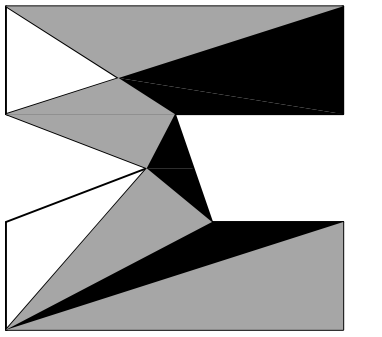
PARTIAL FOUNDATION PLAN (1 OF 2)  
 SCALE: 1/4" = 1' - 0"

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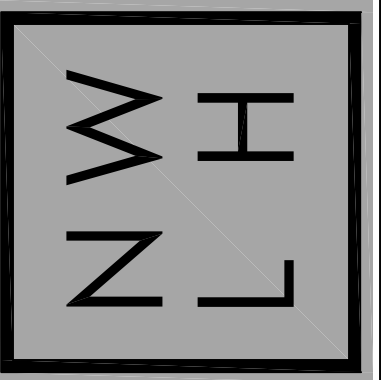


PARTIAL FOUNDATION PLAN (2 OF 2)  
SCALE: 1/4" = 1' - 0"

NOTE:  
TO REDUCE THE POTENTIAL OF SLAB SETTLEMENT AND DISTRESS, THE GEOTECHNICAL ENGINEER RECOMMENDS REMOVING A MINIMUM OF 1-FOOT OF EXISTING SOIL BELOW THE SLAB, AND PLACING 1-FOOT OF PROPERLY COMPACTED FREE-DRAINING GRANULAR STRUCTURAL FILL PER GEOTECHNICAL REPORT SECTION 6.4



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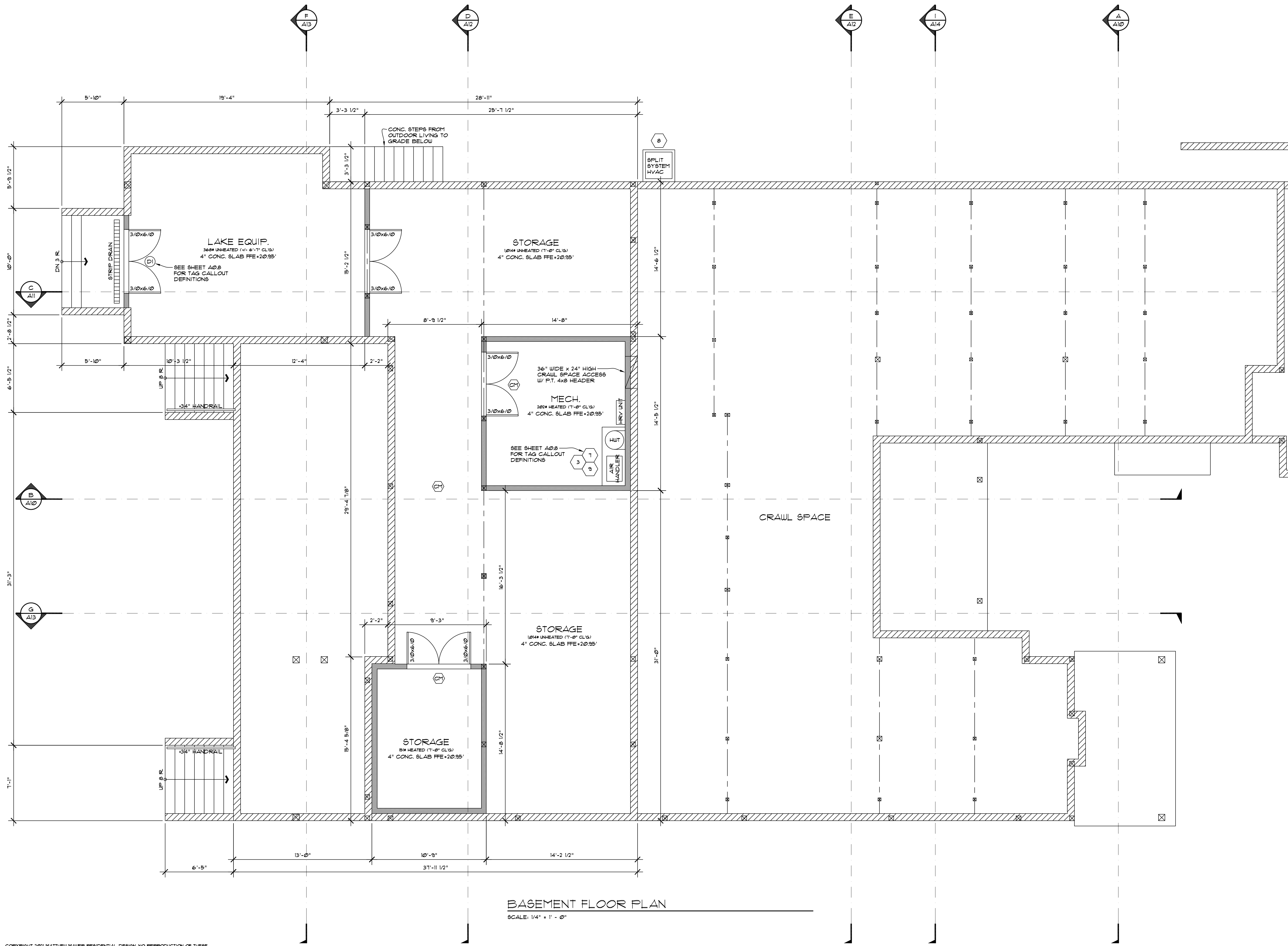


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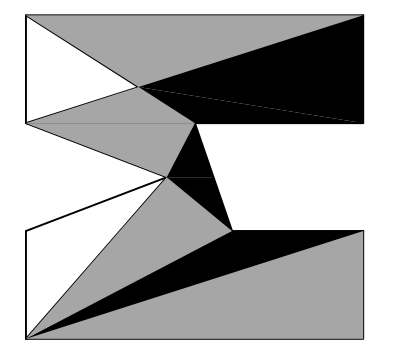
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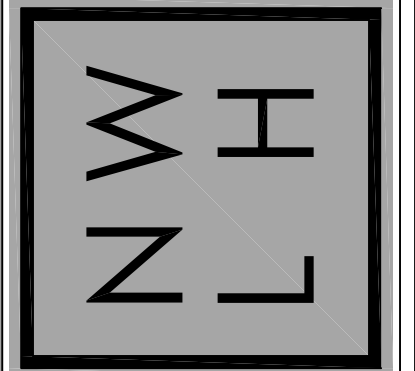


**BASEMENT FLOOR PLAN**  
SCALE: 1/4" = 1' - 0"

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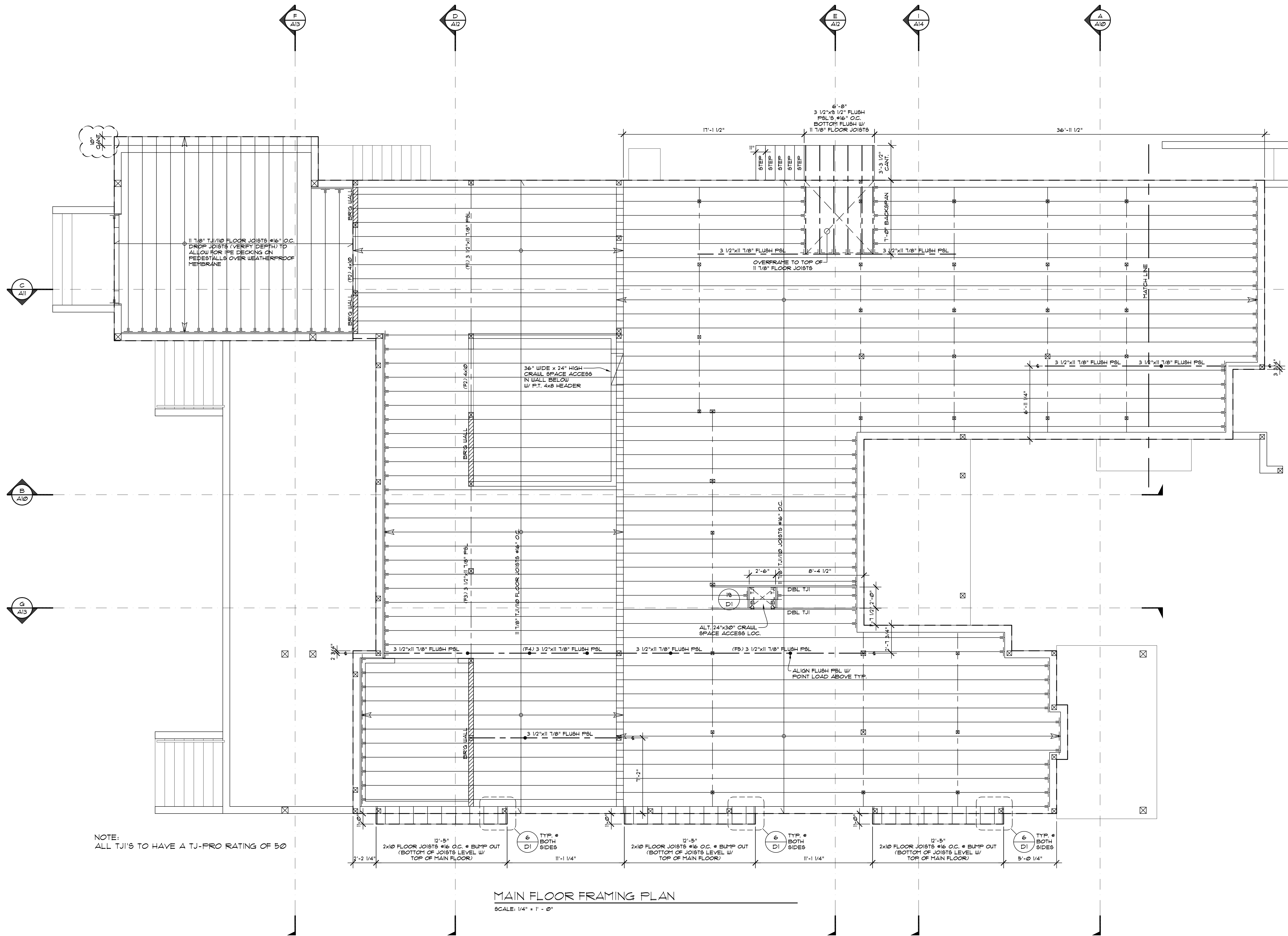
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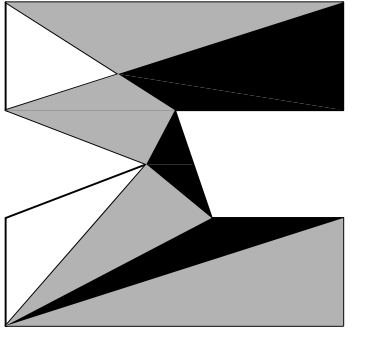
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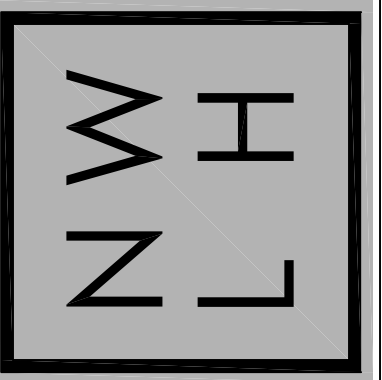
NOTE:  
ALL TJ'S TO HAVE A TJ-PRO RATING OF 50

**MAIN FLOOR FRAMING PLAN**

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



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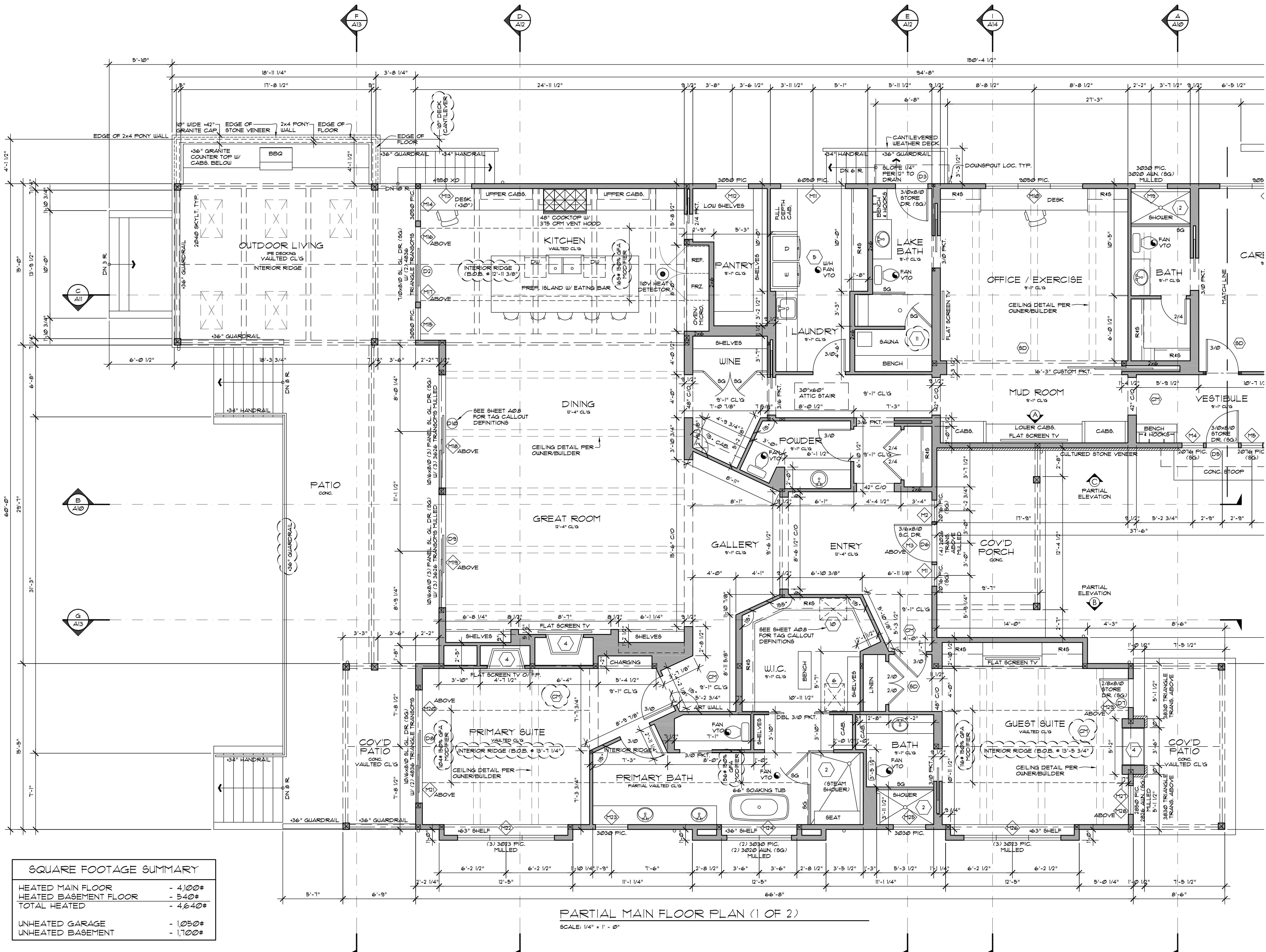
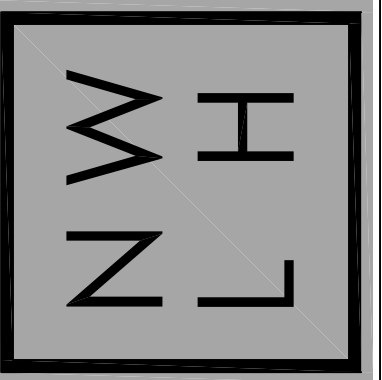
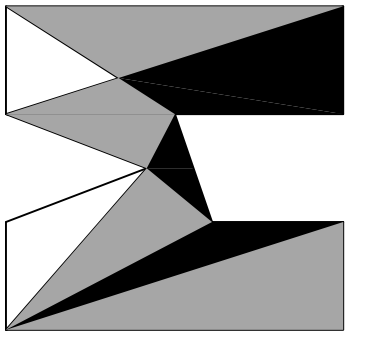


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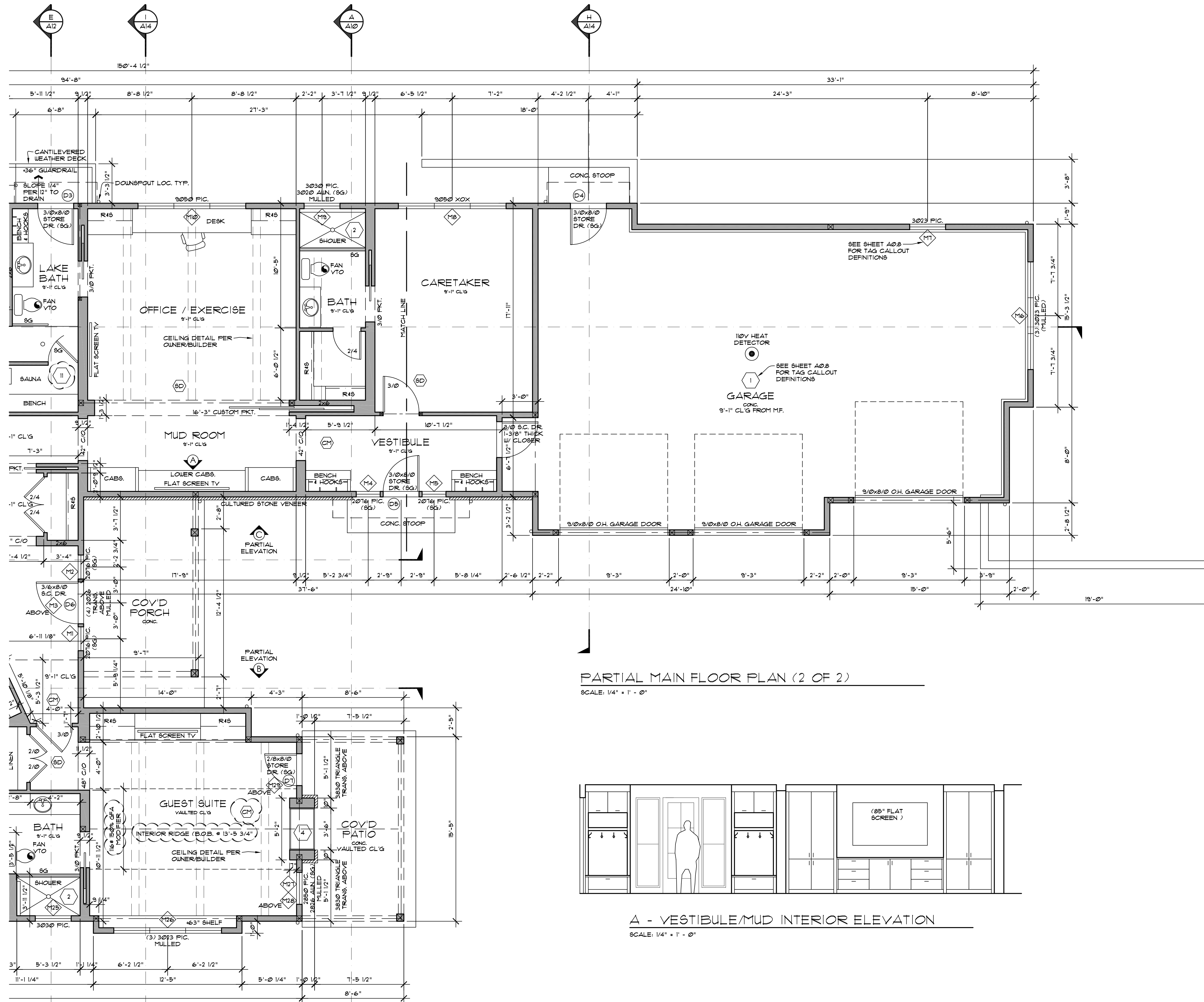
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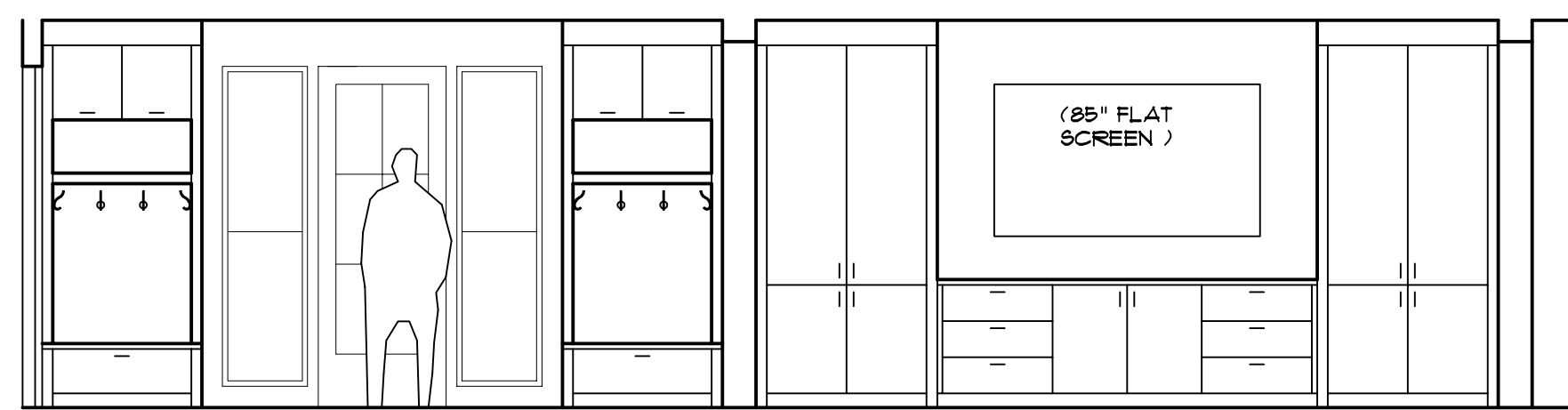


SQUARE FOOTAGE SUMMARY	
HEATED MAIN FLOOR	- 4,100#
HEATED BASEMENT FLOOR	- 540#
TOTAL HEATED	- 4,640#
UNHEATED GARAGE	- 1,050#
UNHEATED BASEMENT	- 1,700#

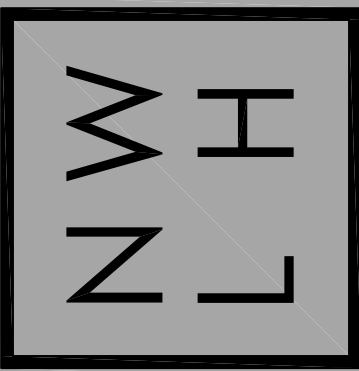
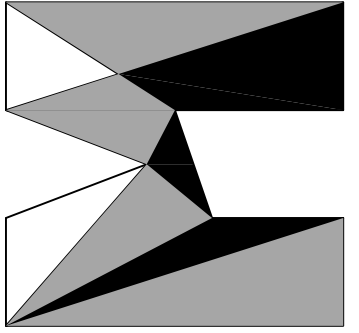
PARTIAL MAIN FLOOR PLAN (1 OF 2)  
SCALE: 1/4" = 1' - 0"

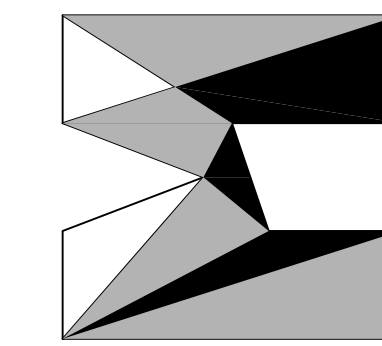


PARTIAL MAIN FLOOR PLAN (2 OF 2)  
SCALE: 1/4" = 1' - 0"



A - VESTIBULE/MUD INTERIOR ELEVATION  
SCALE: 1/4" = 1' - 0"





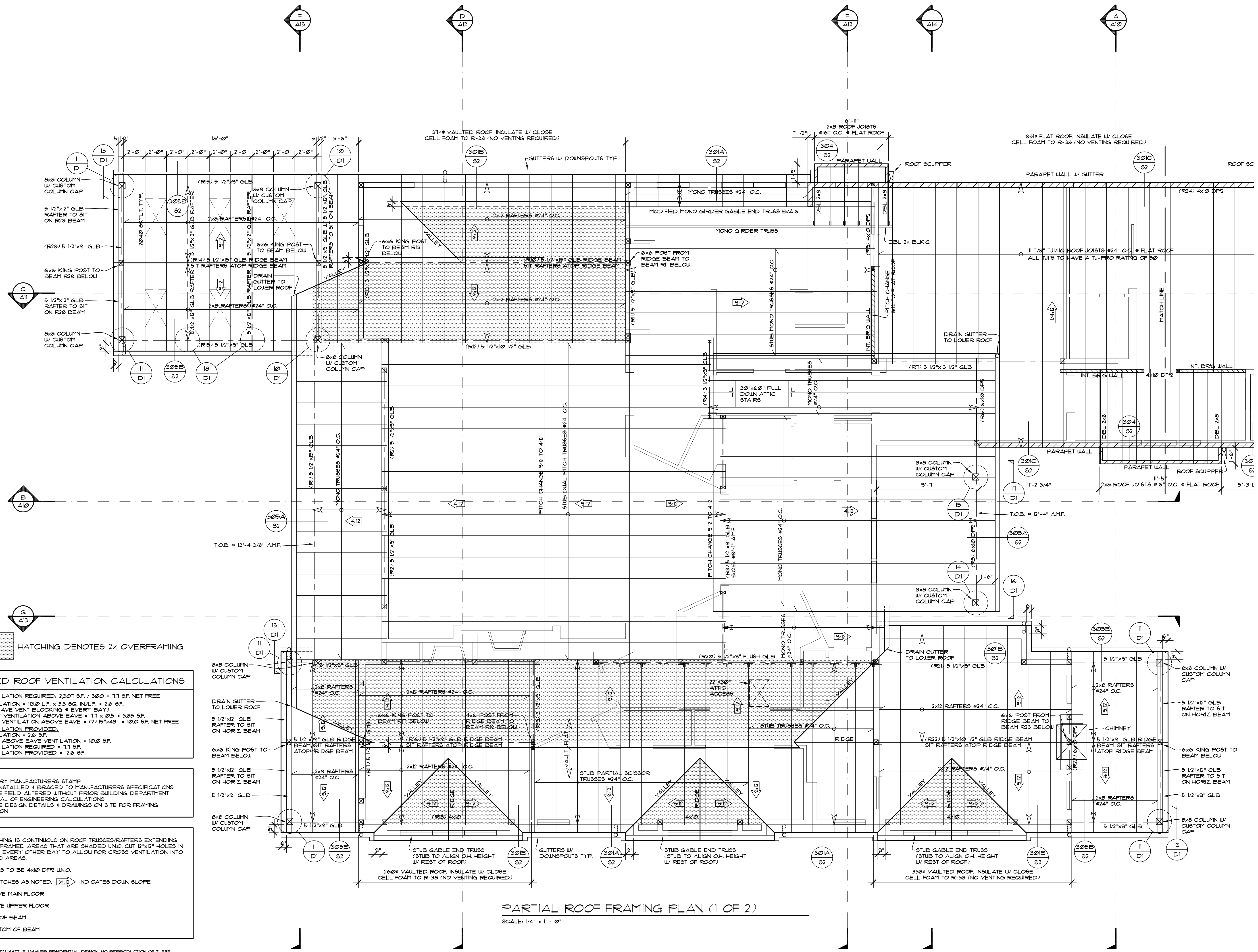
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**PITCHED ROOF VENTILATION CALCULATIONS**

TOTAL VENTILATION REQUIRED: 2,301 SF. / 300 = 1.1 SF. NET FREE  
 EAVE VENTILATION = 113.0 LF. x 3.3 SQ. IN./LF. = 2.6 SF.  
 (PROVIDE EAVE VENT BLOCKING @ EVERY BAY)  
 MIN. 50% BY VENTILATION ABOVE EAVE = 1.1 x 2.5 = 3.05 SF.  
 GABLE END VENTILATION ABOVE EAVE = (2) 15'x48" = 10.0 SF. NET FREE  
 TOTAL VENTILATION PROVIDED:  
 EAVE VENTILATION = 2.6 SF.  
 GABLE END ABOVE EAVE VENTILATION = 10.0 SF.  
 TOTAL VENTILATION REQUIRED = 1.1 SF.  
 TOTAL VENTILATION PROVIDED = 12.6 SF.

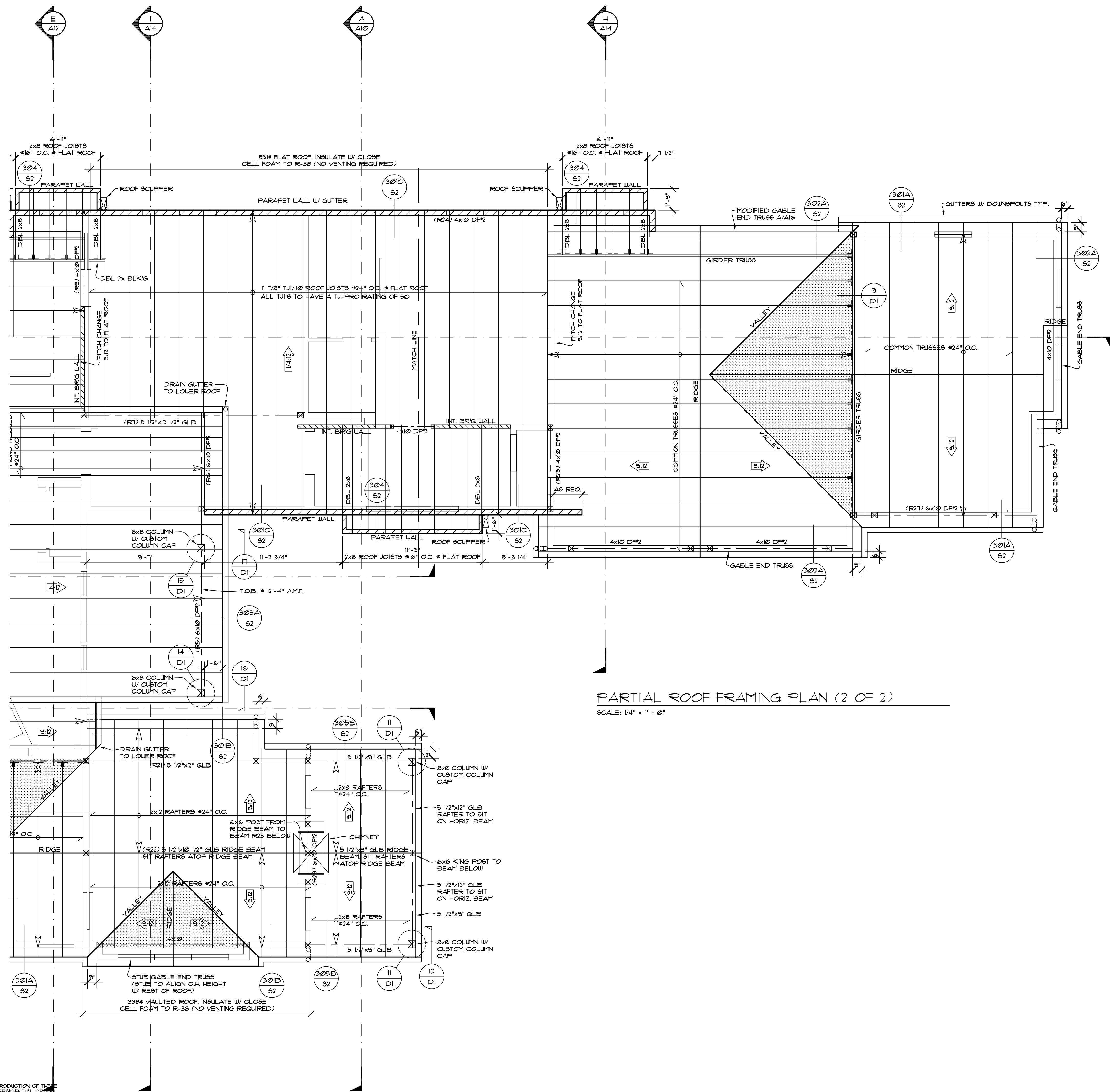
**ALL TRUSSES:**  
 - SHALL CARRY MANUFACTURERS STAMP  
 - SHALL BE INSTALLED & BRACED TO MANUFACTURERS SPECIFICATIONS  
 - WILL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF ENGINEERING CALCULATIONS  
 - SHALL HAVE DESIGN DETAILS & DRAWINGS ON SITE FOR FRAMING INSPECTION

**NOTE:**  
 ROOF SHEATHING IS CONTINUOUS ON ROOF TRUSSES/RAFTERS EXTENDING UNDER OVERFRAMED AREAS THAT ARE SHADED UNO. CUT 12"x12" HOLES IN SHEATHING @ EVERY OTHER BAY TO ALLOW FOR CROSS VENTILATION INTO OVERFRAMED AREAS.  
 ALL HEADERS TO BE 4x10 DFP2 UNO.  
 ALL ROOF PITCHES AS NOTED. [X/12] INDICATES DOWN SLOPE  
 AMF. = ABOVE MAIN FLOOR  
 AU.F. = ABOVE UPPER FLOOR  
 T.O.B. = TOP OF BEAM  
 B.O.B. = BOTTOM OF BEAM

**PARTIAL ROOF FRAMING PLAN (1 OF 2)**  
 SCALE: 1/4" = 1' - 0"

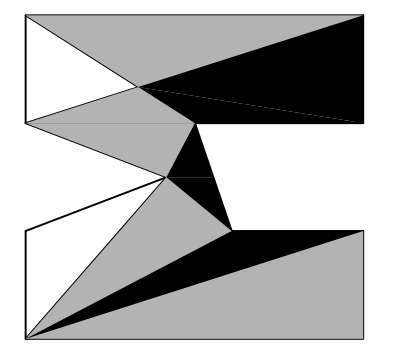
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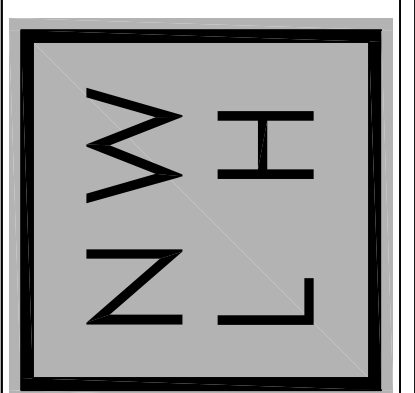


PARTIAL ROOF FRAMING PLAN (2 OF 2)  
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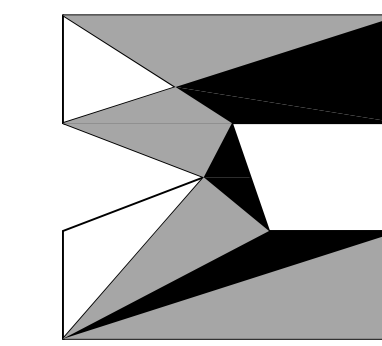
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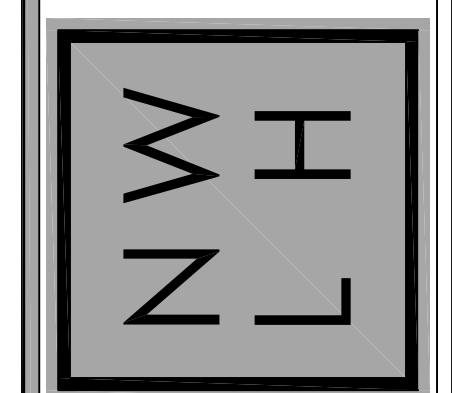
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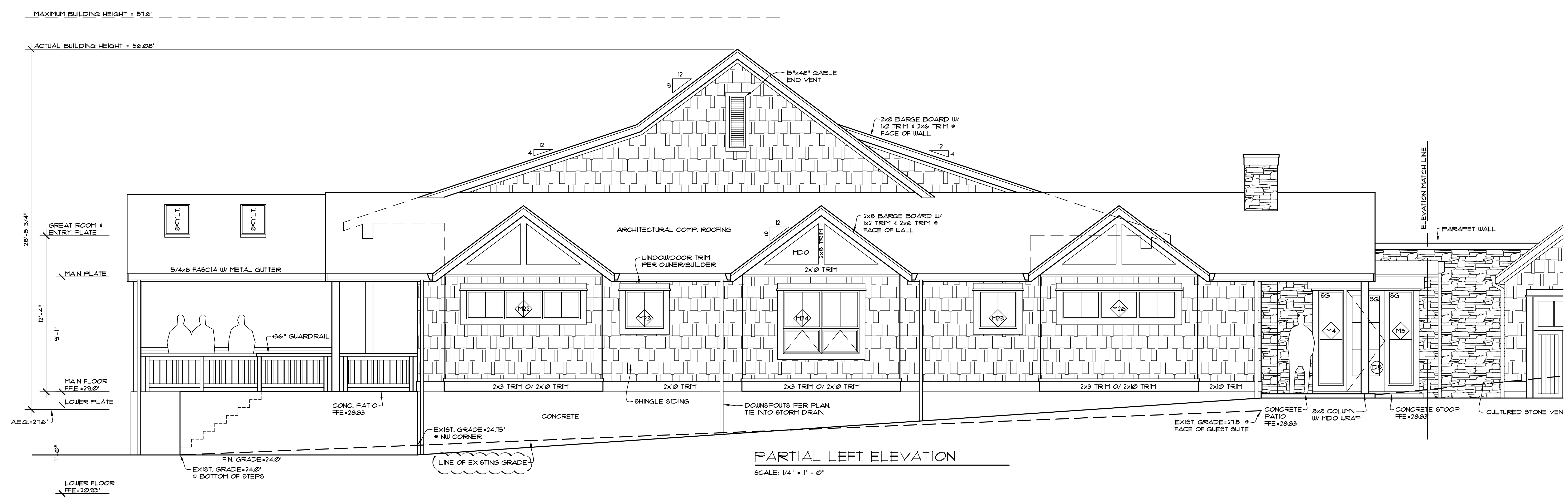
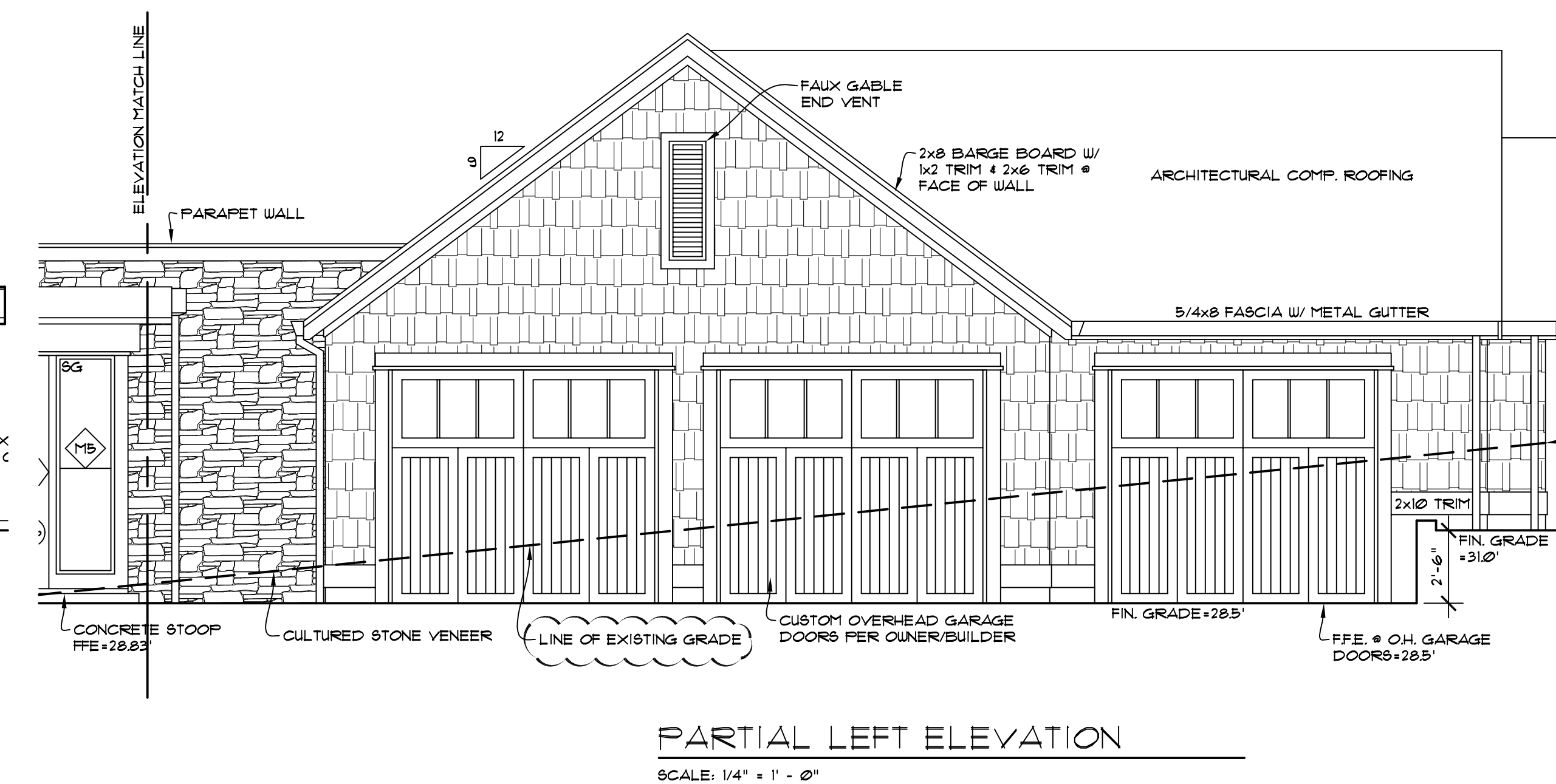
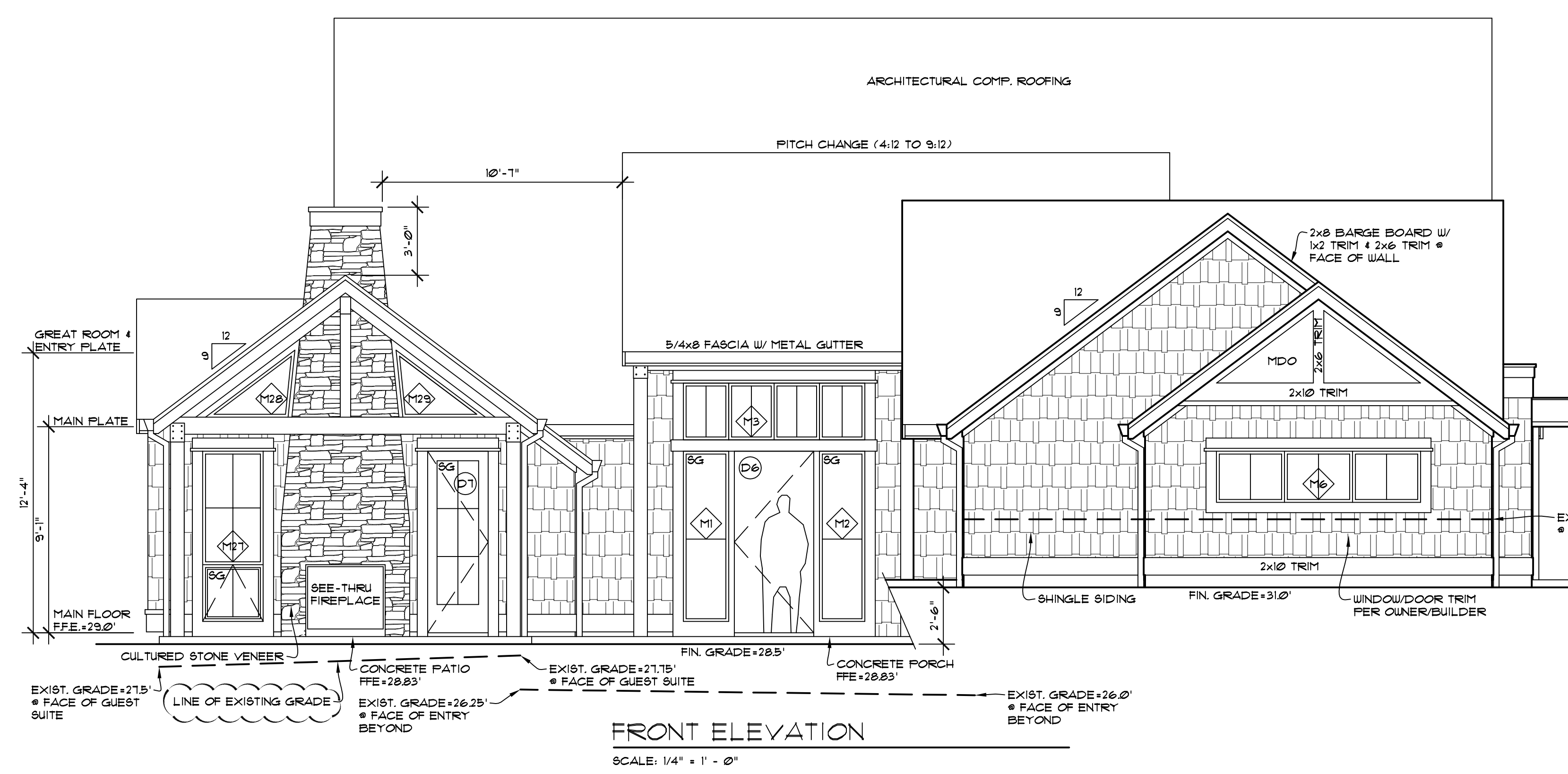
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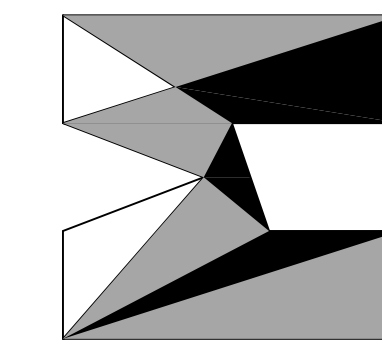


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SHEET NO.  
**A9**





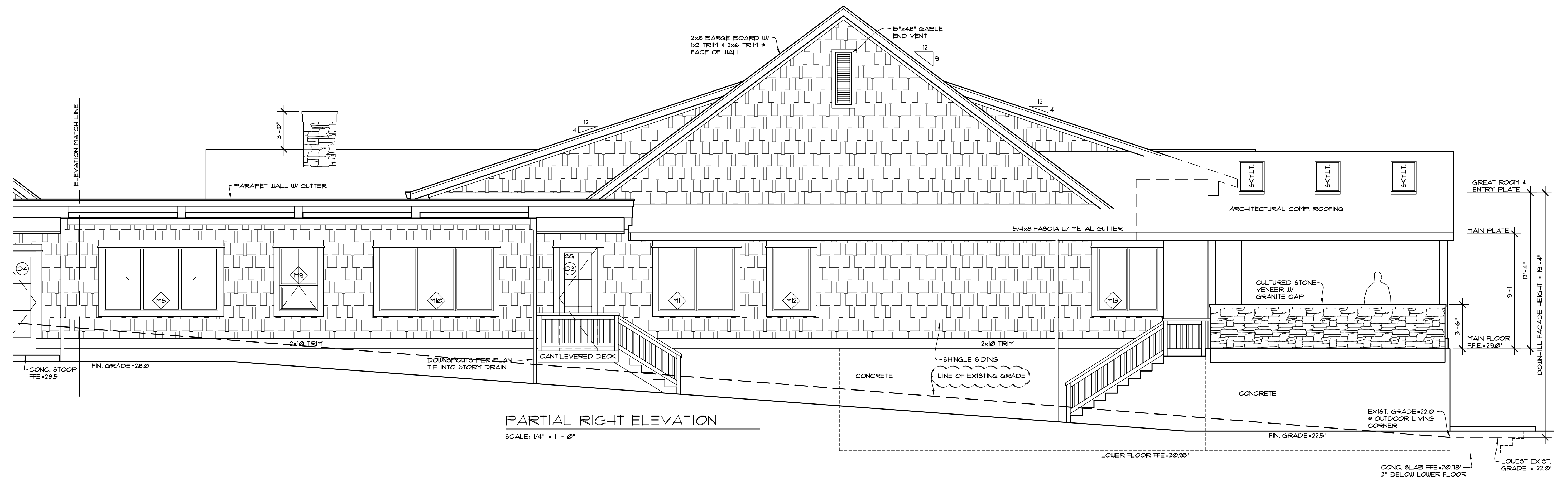
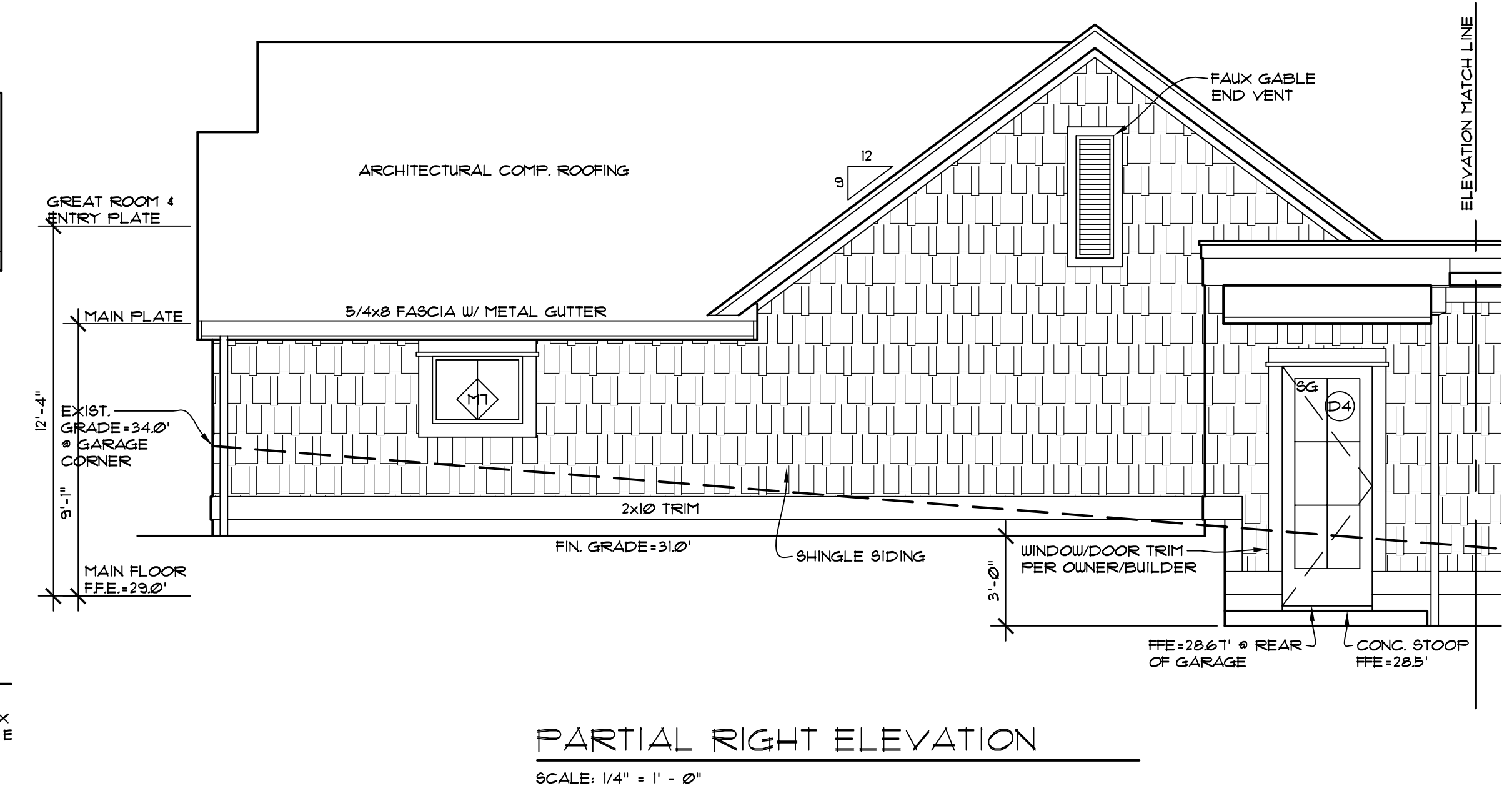
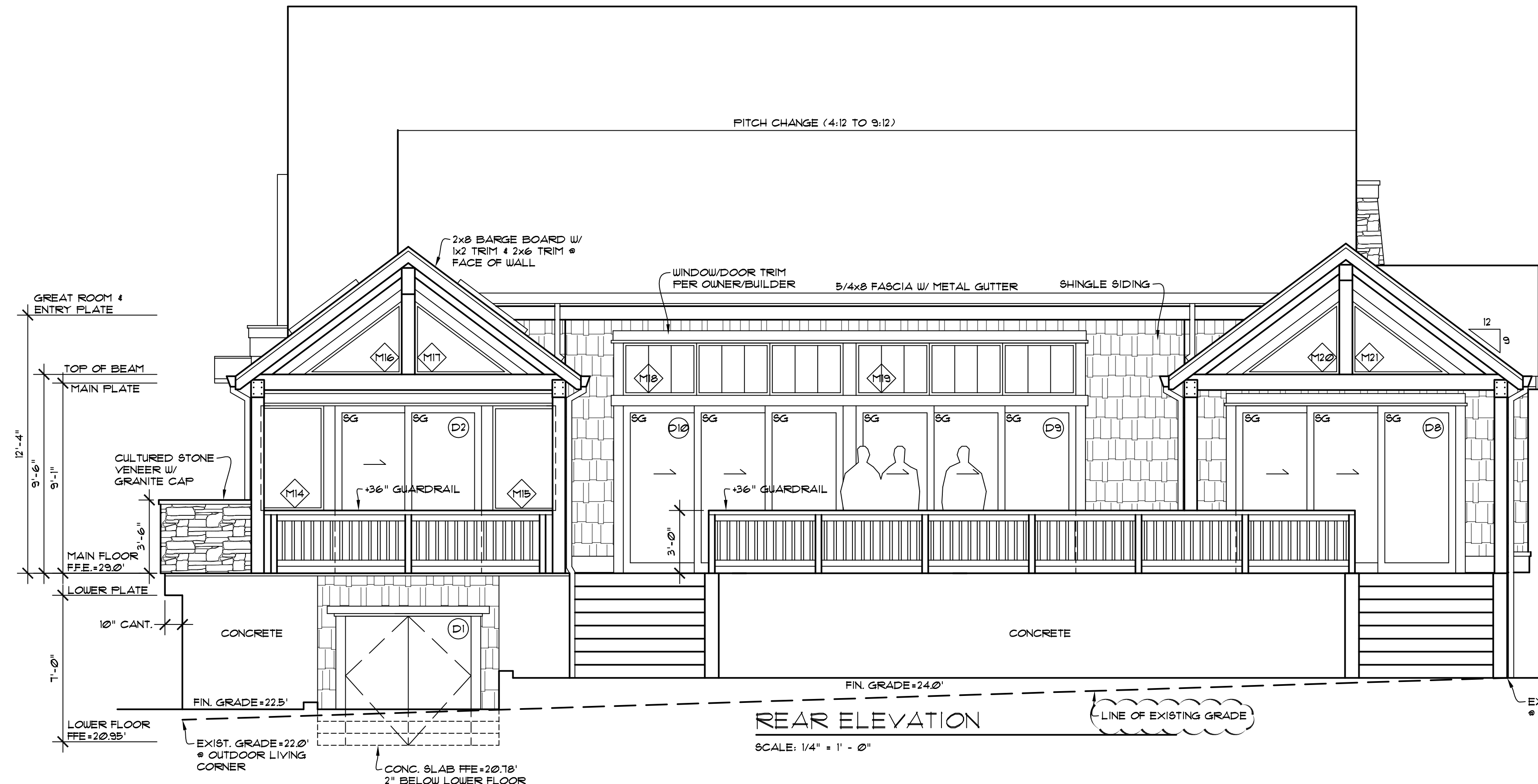
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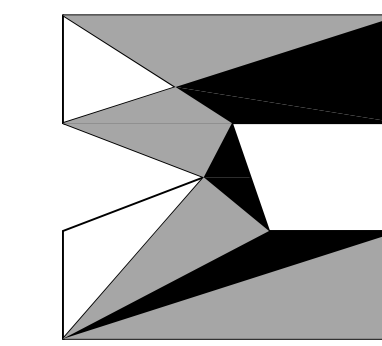
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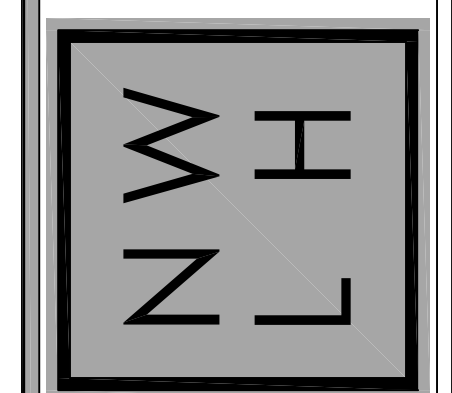
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**A10**





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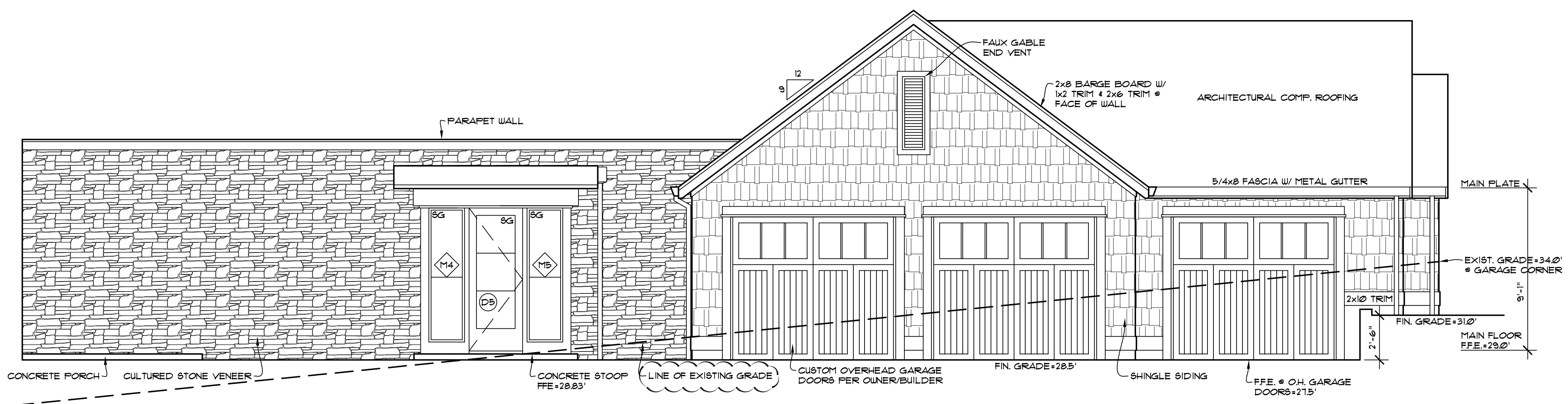


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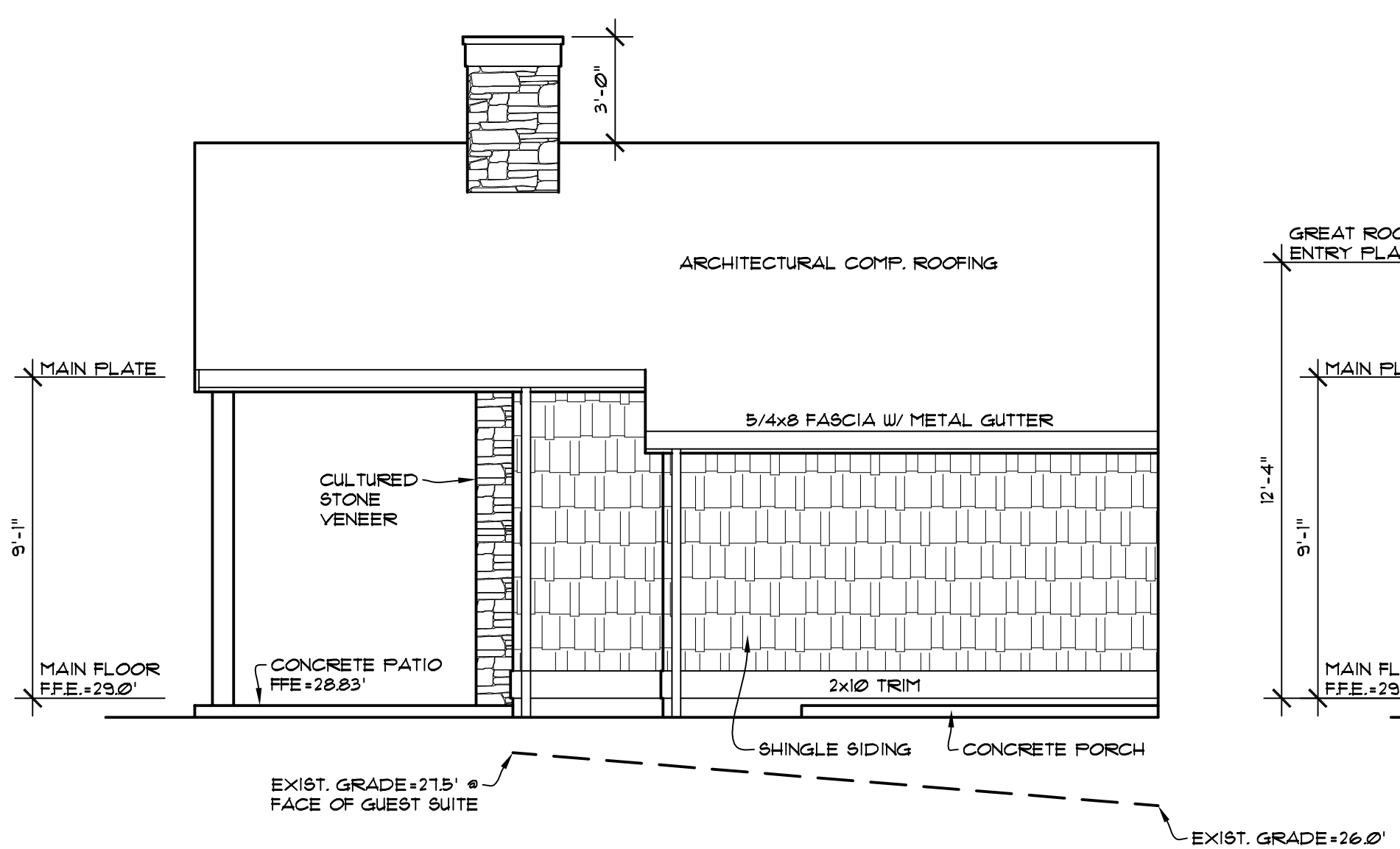
JOB NO: 20-020  
DATE: 9/01/22  
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REVISED: 2/14/23

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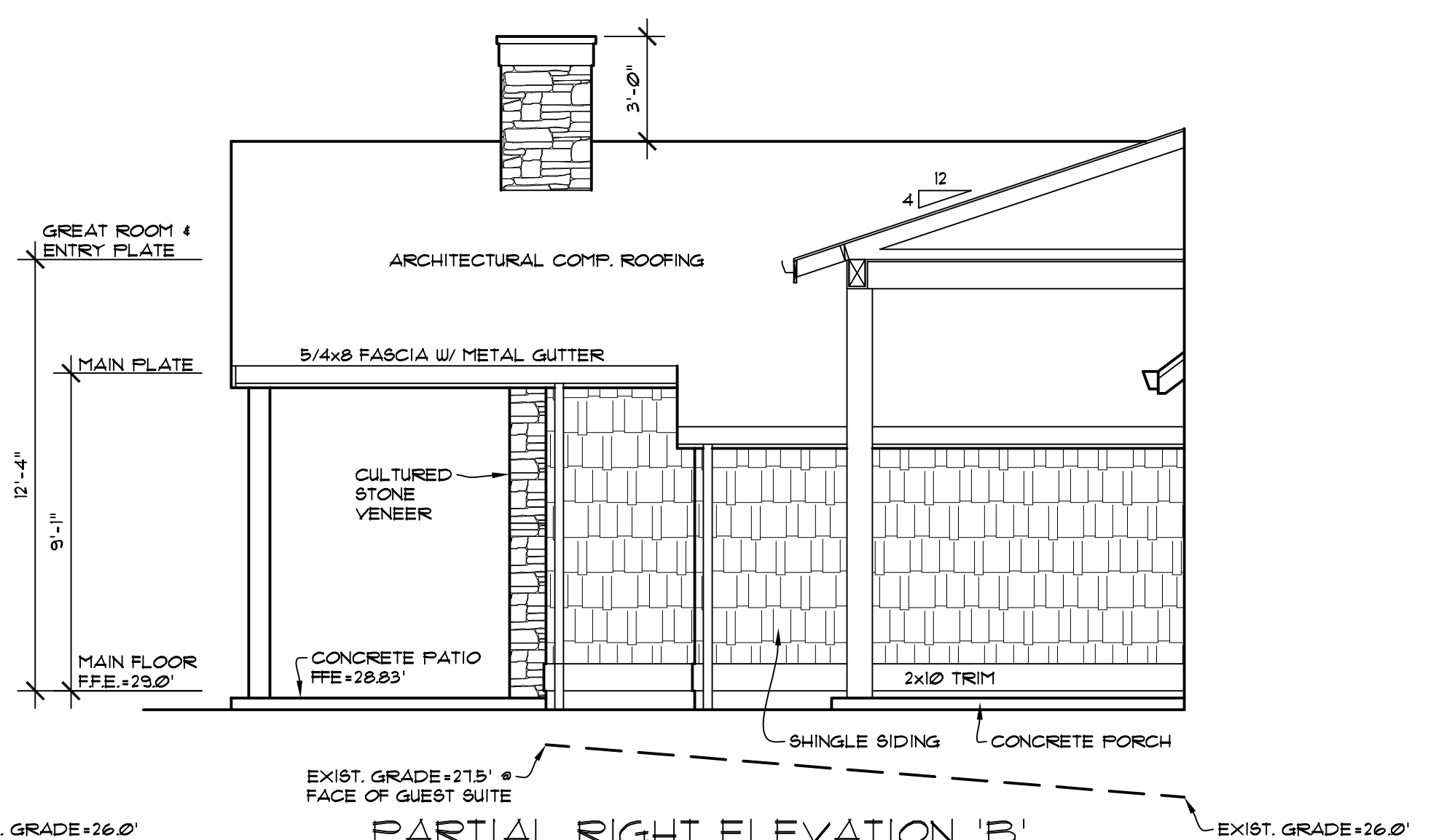
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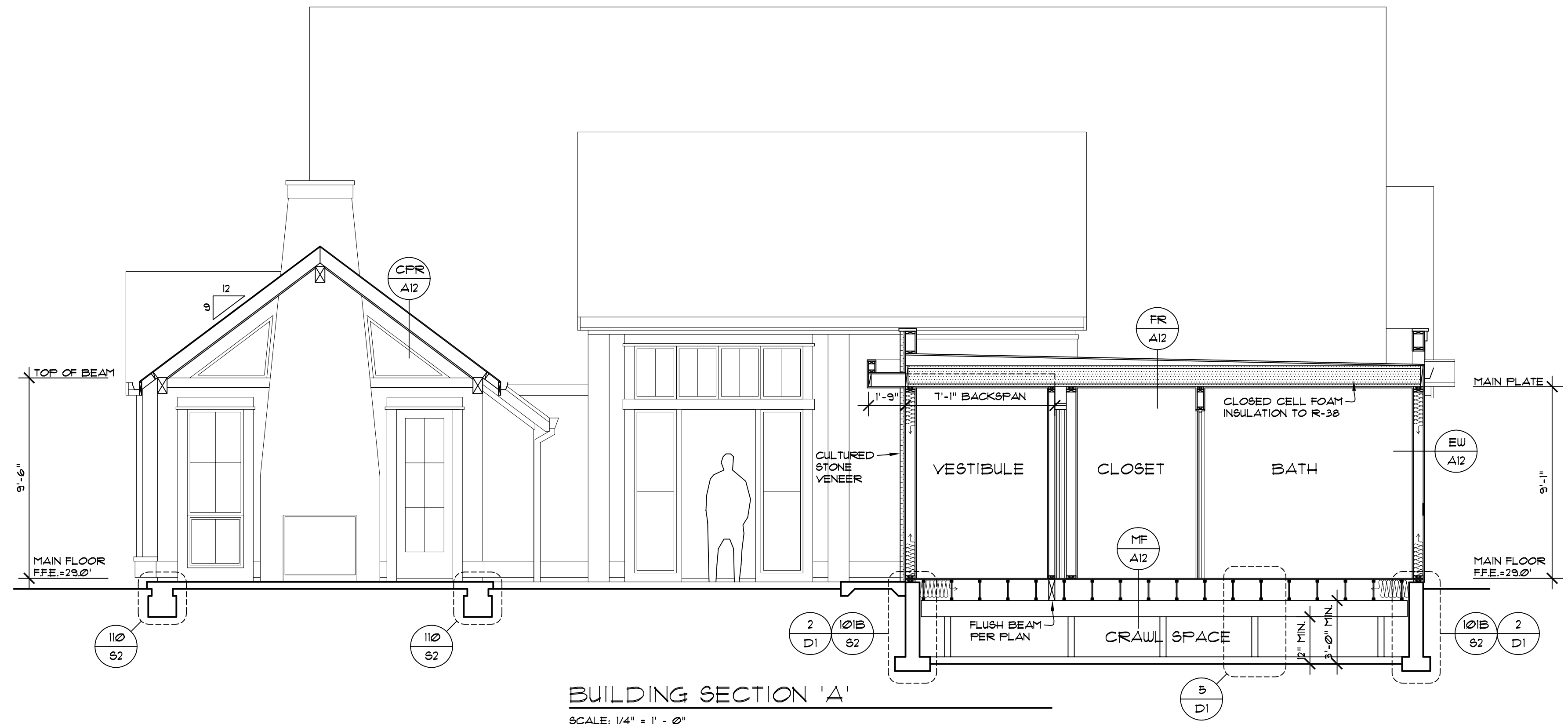
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SCALE: 1/4" = 1' - 0"



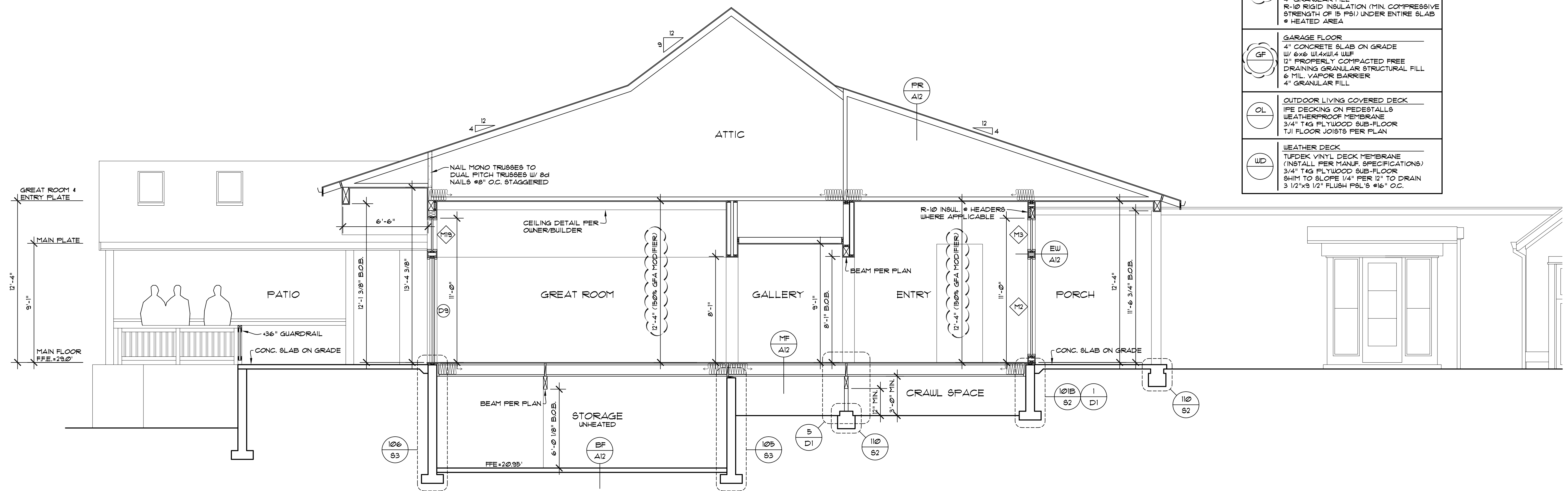
**PARTIAL RIGHT ELEVATION 'B'**  
SCALE: 1/4" = 1' - 0"



**PARTIAL RIGHT ELEVATION 'B' W/ PORCH SECTION**  
SCALE: 1/4" = 1' - 0"



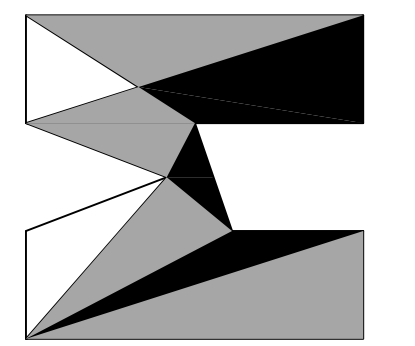
**BUILDING SECTION 'A'**  
SCALE: 1/4" = 1' - 0"



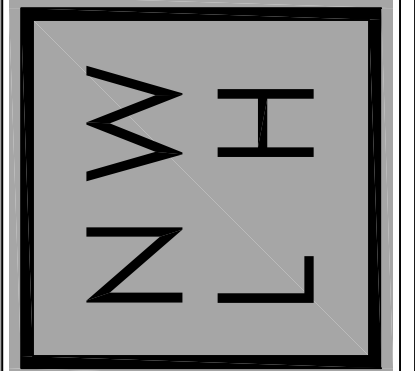
**BUILDING SECTION 'B'**  
SCALE: 1/4" = 1' - 0"

FR	<b>FLAT ROOF</b> CARLISLE STYNETC SURE-TOUGH 60 MIL. POLYESTER-REINFORCED EPDM ROOF MEMBRANE SHEATHING PER STRUCTURAL ENGINEER 2x SHIM TO SLOPE 1/4" / 12" TO DRAIN TJI ROOF JOISTS PER PLAN R-38 INSUL. @ SINGLE RAFTER ROOF 4 MIL. UV. POLY. 5/8" TYPE 'X' GWB (FIRE CODE)
FR	<b>FITCHED ROOF</b> ROOFING PER ELEVATIONS 30# BUILDING PAPER SHEATHING PER STRUCTURAL ENGINEER TRUSSES OR 2x RAFTERS PER PLAN R-49 BATT. INSUL. @ TRUSSED ROOF R-38 BATT. INSUL. OR R-38 CLOSED CELL FOAM INSUL. @ SINGLE RAFTER ROOF 4 MIL. UV. POLY. 5/8" TYPE 'X' GWB (FIRE CODE)
CFR	<b>COVERED PATIO ROOF</b> ROOFING PER ELEVATION 30# BUILDING PAPER SHEATHING PER STRUCTURAL ENGINEER 2x8 RAFTERS @24" O.C. 1/8" T&G CEILING SHEATHING OR EQ.
EW	<b>EXTERIOR CONDITIONED WALL</b> 5/8" TYPE 'X' GWB (FIRE CODE) R-21 BATT INSULATION 4 MIL UV RES. POLY. 2x6 STUDS @ 16" O.C. SHEATHING PER SHEAR WALL SCHED. BUILDING PAPER SIDING PER ELEVATIONS
GW	<b>EXTERIOR GARAGE WALL</b> 5/8" TYPE 'X' GWB (FIRE CODE) 4 MIL UV RES. POLY. 2x6 STUDS @ 16" O.C. SHEATHING PER SHEAR WALL SCHED. BUILDING PAPER SIDING PER ELEVATIONS
DG	<b>DUELLING TO GARAGE WALL</b> 5/8" TYPE 'X' GWB (FIRE CODE) 4 MIL UV RES. POLY. 2x6 STUDS @ 16" O.C. R-21 BATT INSULATION 5/8" TYPE 'X' GWB (FIRE CODE)
BW	<b>BASEMENT WALL (* HEATED AREA)</b> RETAINING WALL PER PLAN 1/2" AIRSPACE 2x6 STUDS @ 16" O.C. R-21 BATT INSULATION 5/8" TYPE 'X' GWB (FIRE CODE)
MF	<b>MAIN FLOOR</b> <b>FINISH FLOOR</b> 1/2" UL. FLY @ VINYL 5/8" UL. FLY @ VINYL TO HARDWOOD 3/4" T&G PLYWOOD SUB-FLOOR (GLUE & NAIL) TJI FLOOR JOISTS PER PLAN R-38 BATT. INSULATION @ AREAS OVER UNHEATED SPACE PER ENERGY CREDIT 13 5/8" TYPE 'X' GWB (FIRE CODE)
BF	<b>BASEMENT FLOOR</b> 4" CONCRETE SLAB ON GRADE W/ 6x6 W4xW14 WUF 12" PROPERLY COMPACTED FREE DRAINING GRANULAR STRUCTURAL FILL 6 MIL. VAPOR BARRIER 4" GRANULAR FILL R-10 RIGID INSULATION (MIN. COMPRESSIVE STRENGTH OF 15 PSI) UNDER ENTIRE SLAB @ HEATED AREA
GF	<b>GARAGE FLOOR</b> 4" CONCRETE SLAB ON GRADE W/ 6x6 W4xW14 WUF 12" PROPERLY COMPACTED FREE DRAINING GRANULAR STRUCTURAL FILL 6 MIL. VAPOR BARRIER 4" GRANULAR FILL
OL	<b>OUTDOOR LIVING COVERED DECK</b> IPE DECKING ON PEDESTALS WEATHERPROOF MEMBRANE 3/4" T&G PLYWOOD SUB-FLOOR TJI FLOOR JOISTS PER PLAN
WD	<b>WEATHER DECK</b> TUDEK VINYL DECK MEMBRANE (INSTALL PER MANUF. SPECIFICATIONS) 3/4" T&G PLYWOOD SUB-FLOOR SHIM TO SLOPE 1/4" PER 12" TO DRAIN 3 1/2"x5 1/2" FLUSH PSL @ 16" O.C.

**matthew mawer**  
residential design  
matt@mawer.net  
425.417.7817



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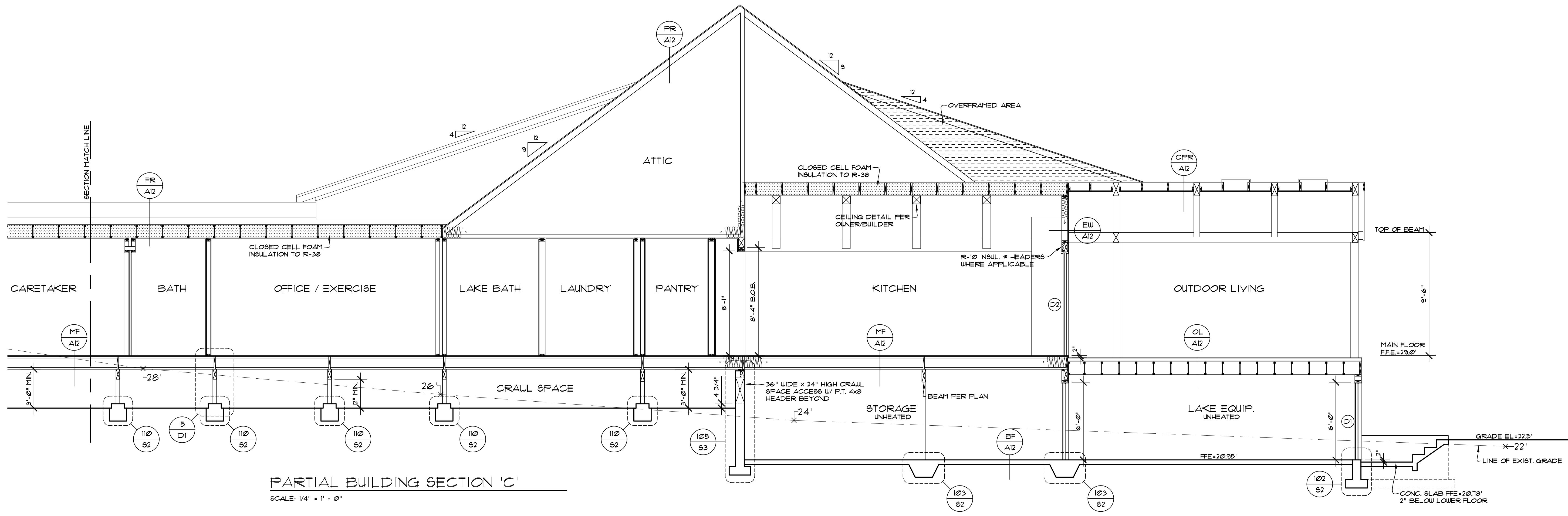
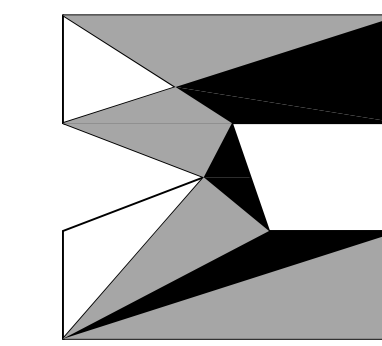


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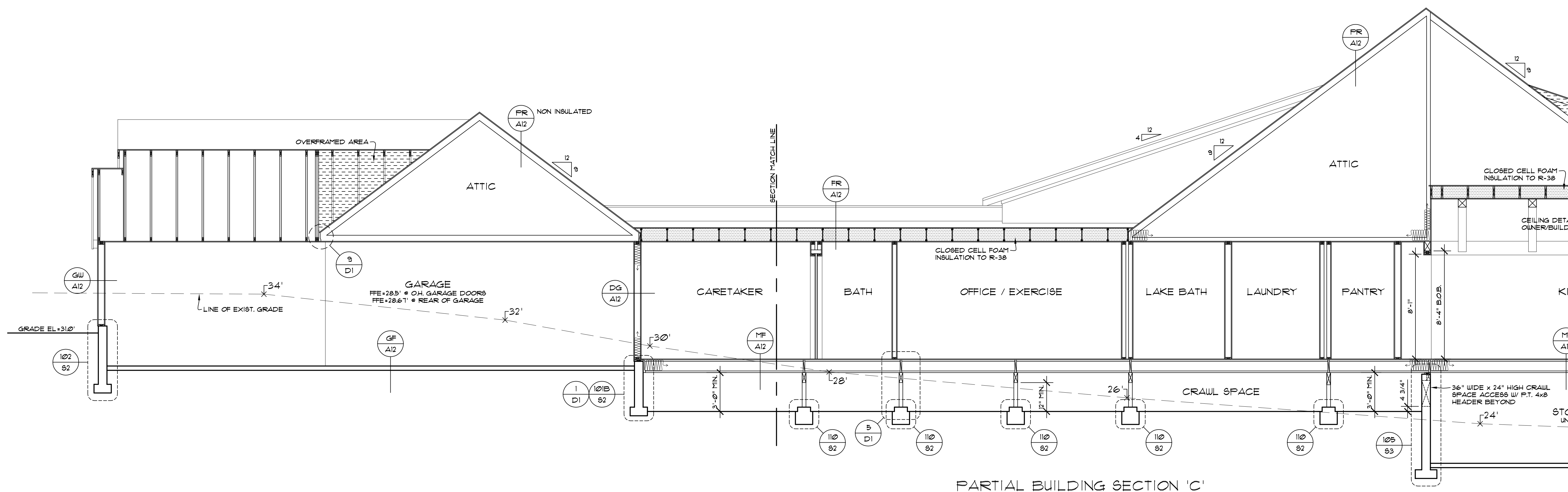
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DATE: 9/22/01  
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**A12**

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PARTIAL BUILDING SECTION 'C'  
SCALE: 1/4" = 1' - 0"



PARTIAL BUILDING SECTION 'C'  
SCALE: 1/4" = 1' - 0"

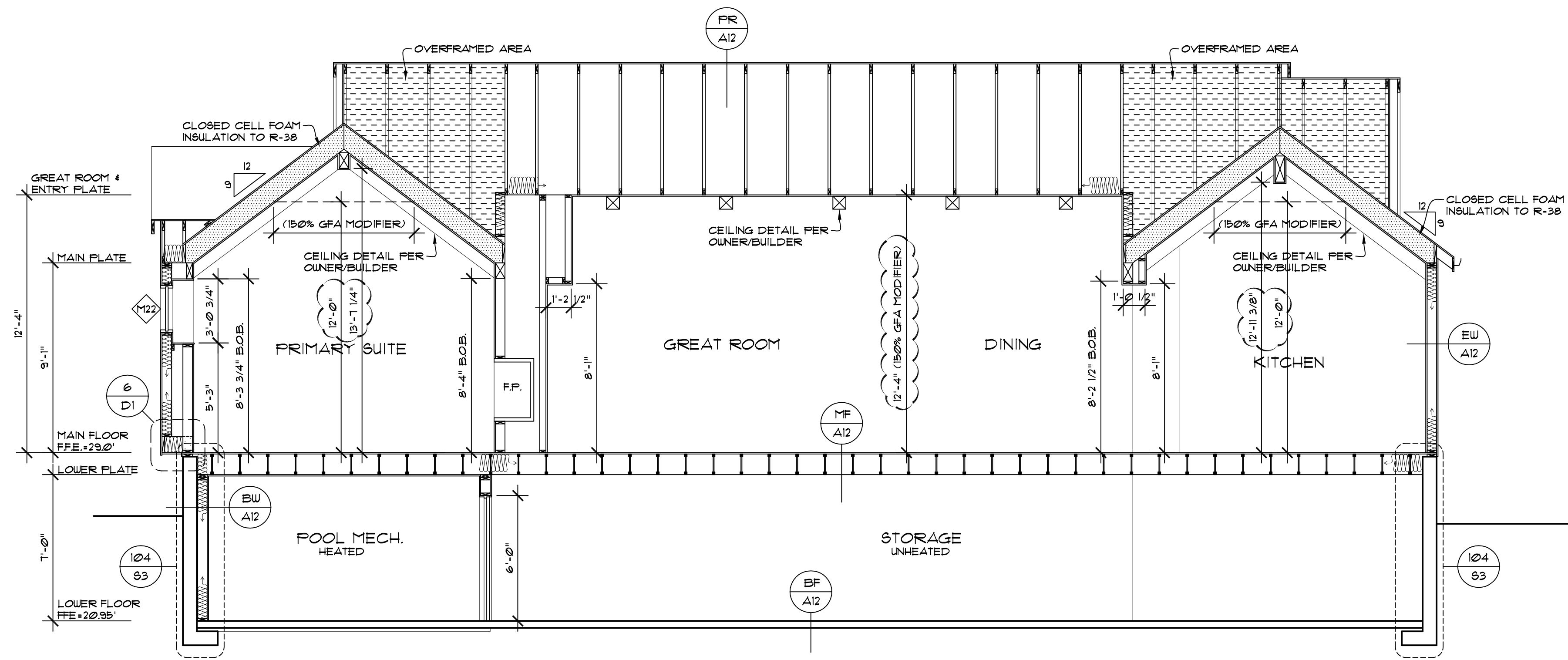
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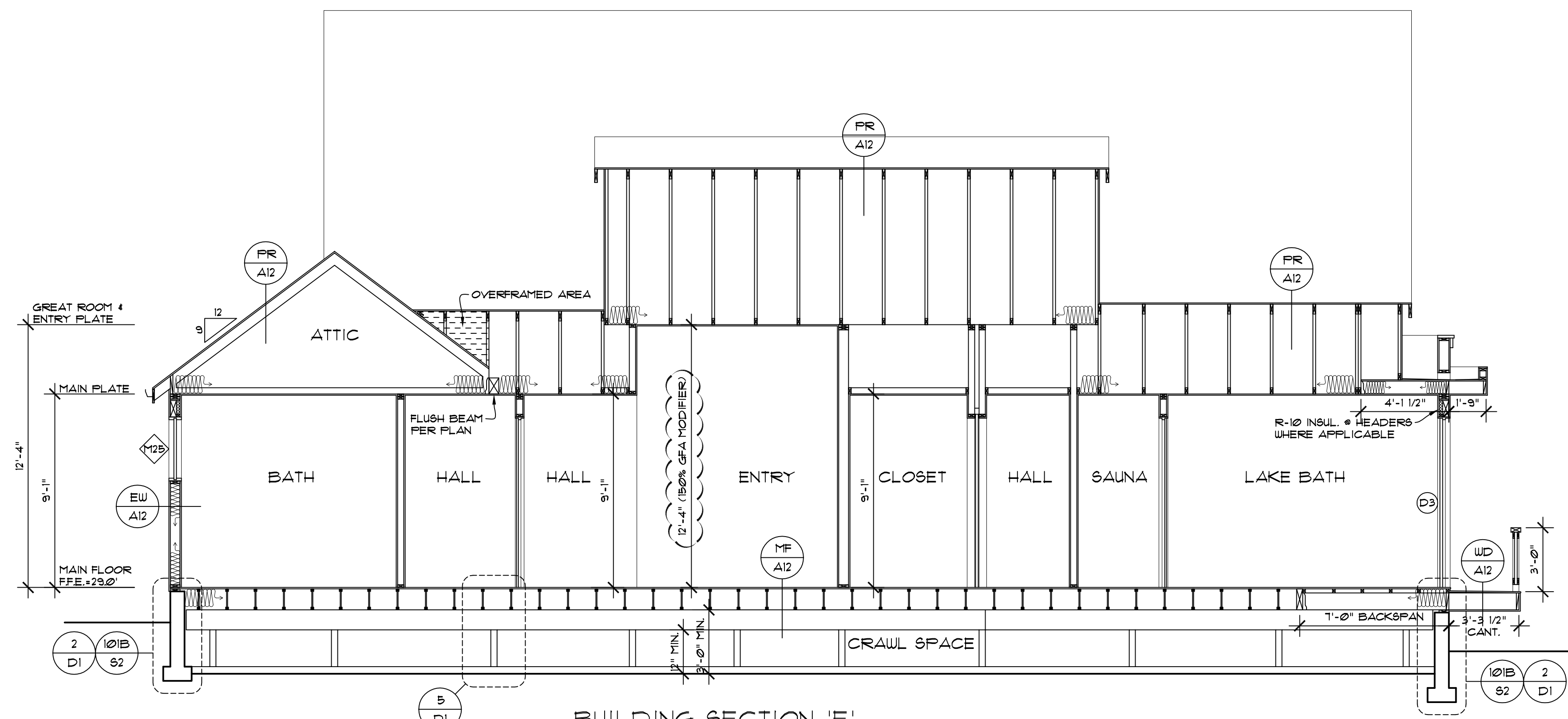
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JOB NO: 20-020  
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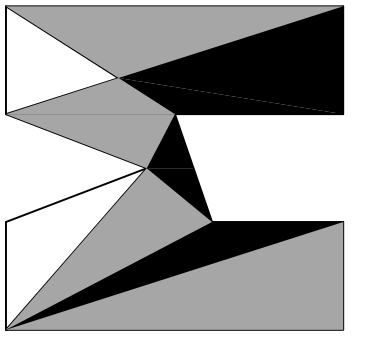
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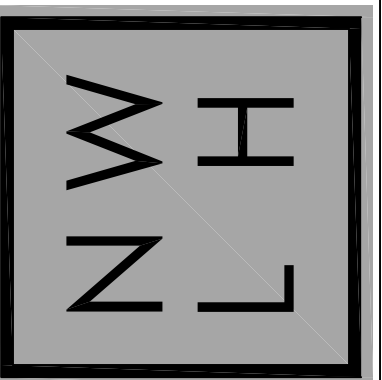
BUILDING SECTION 'D'  
SCALE: 1/4" = 1' - 0"



BUILDING SECTION 'E'  
SCALE: 1/4" = 1' - 0"



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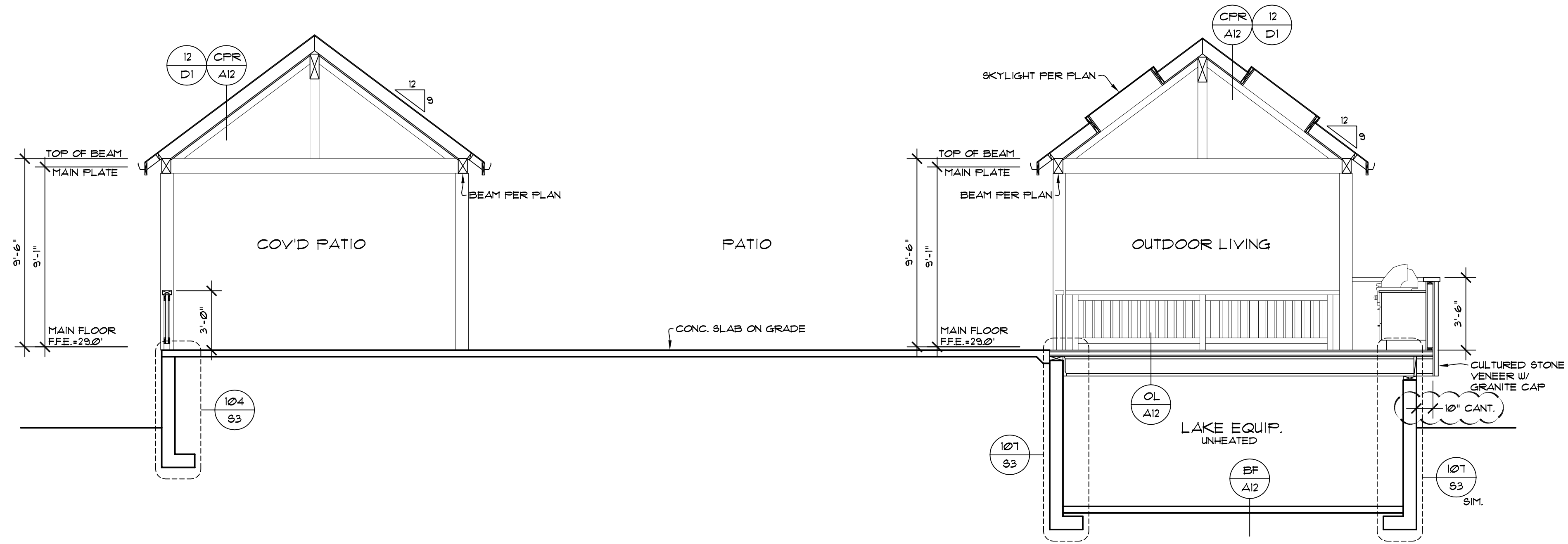


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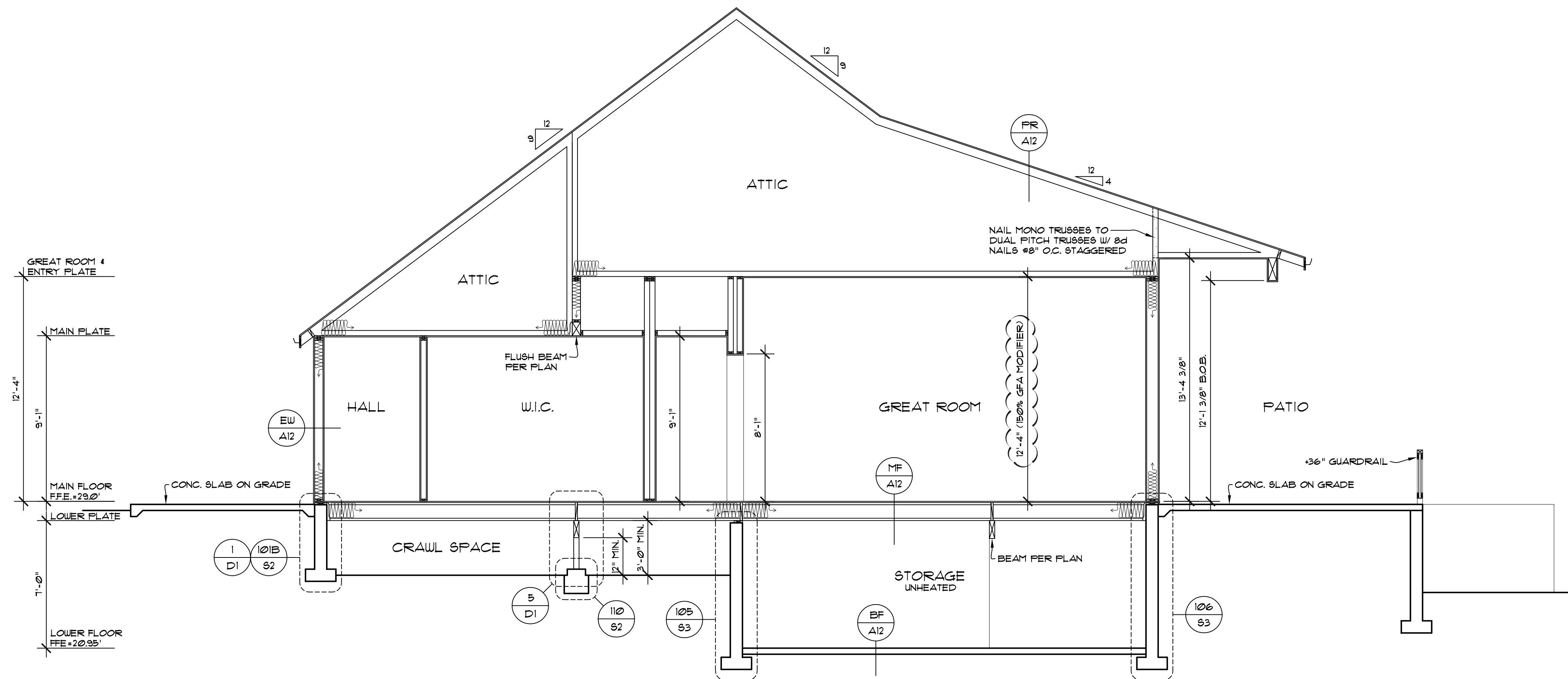
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DRW. BY: MM, MG  
REVISED: 2/14/23

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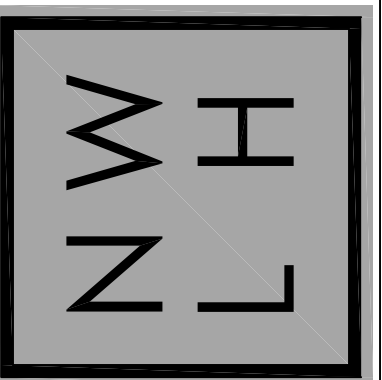
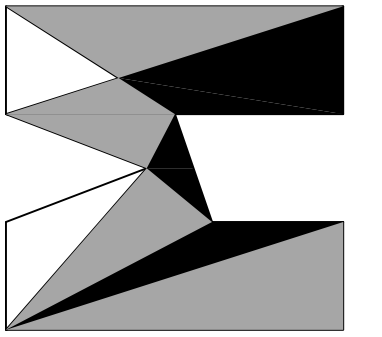
**A14**



BUILDING SECTION 'F'  
SCALE: 1/4" = 1' - 0"



BUILDING SECTION 'G'  
SCALE: 1/4" = 1' - 0"







WINDOW SCHEDULE			
MAIN FLOOR WINDOWS			
M1		M12	
ENTRY HDR. HT. 8'-0"		PANTRY HDR. HT. 8'-0"	
M3		M13	
ENTRY HDR. HT. 11'-0"		KITCHEN HDR. HT. 8'-0"	
M4		M14	
VESTIBULE HDR. HT. 8'-0"		KITCHEN HDR. HT. 8'-0"	
M6		M16	
GARAGE HDR. HT. 8'-0"		KITCHEN HDR. HT. 13'-4"	
M7		M17	
GARAGE HDR. HT. 8'-0"		KITCHEN HDR. HT. 13'-4"	
M8		M18	
CARETAKER HDR. HT. 8'-0"		GREAT ROOM HDR. HT. 11'-0"	
M9		M20	
BATH HDR. HT. 8'-0"		P. SUITE HDR. HT. 13'-4"	
M10		M21	
OFFICE HDR. HT. 8'-0"		P. SUITE HDR. HT. 13'-4"	
M11			
LAUNDRY HDR. HT. 8'-0"			

DOOR SCHEDULE			
EXTERIOR DOORS			
D1		D7	
LAKE EQUIP.		GUEST SUITE	
D2		D8	
KITCHEN		P. SUITE	
D3		D9	
LAKE BATH		GREAT ROOM	
D4		D10	
GARAGE		DINING	
D5			
VESTIBULE			
D6			
ENTRY			

SG = SAFETY GLASS  
 E = EGRESS WINDOW  
 U-FACTOR FOR ALL WINDOWS = 0.28  
 U-FACTOR FOR DOORS = 0.20

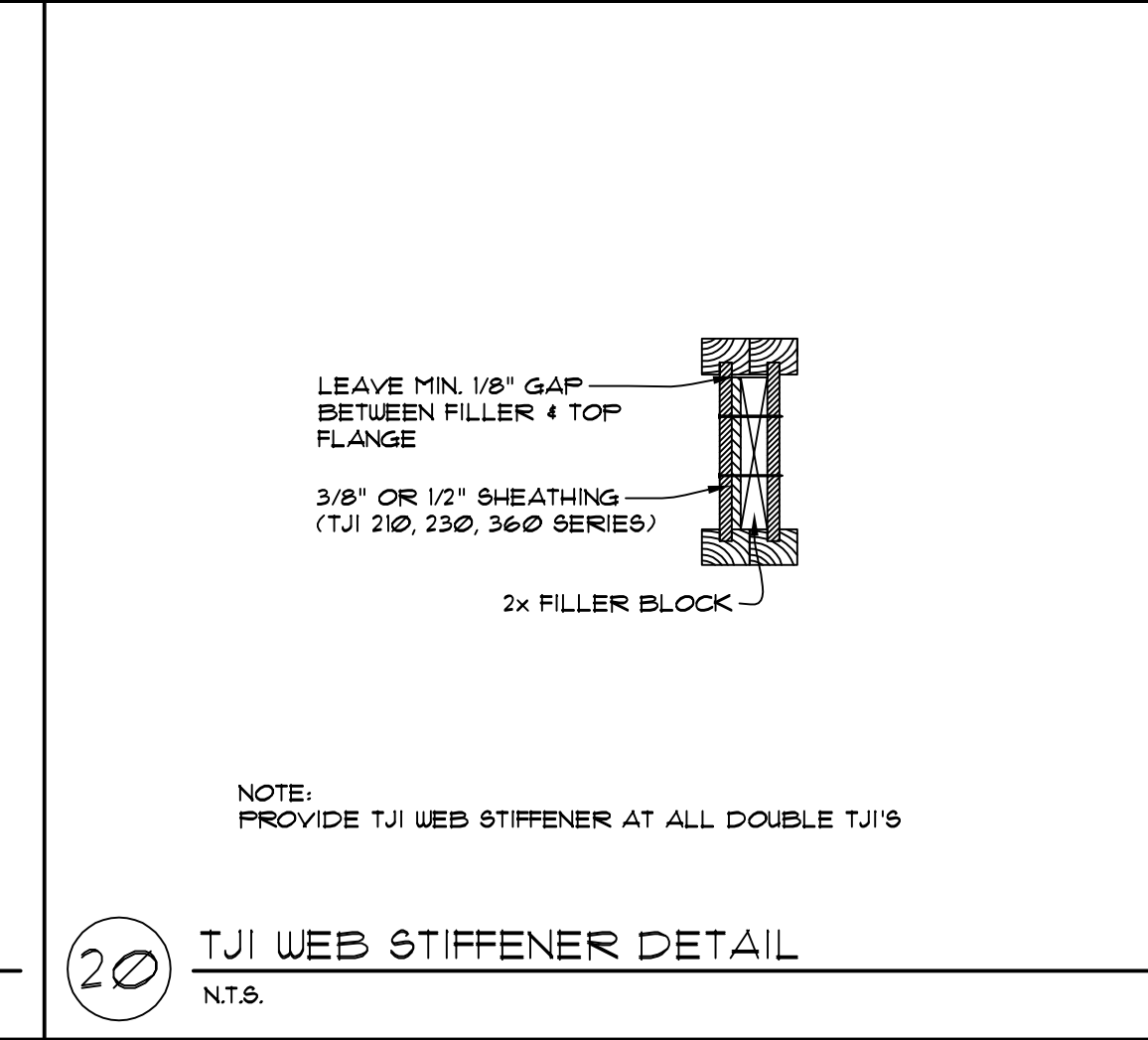
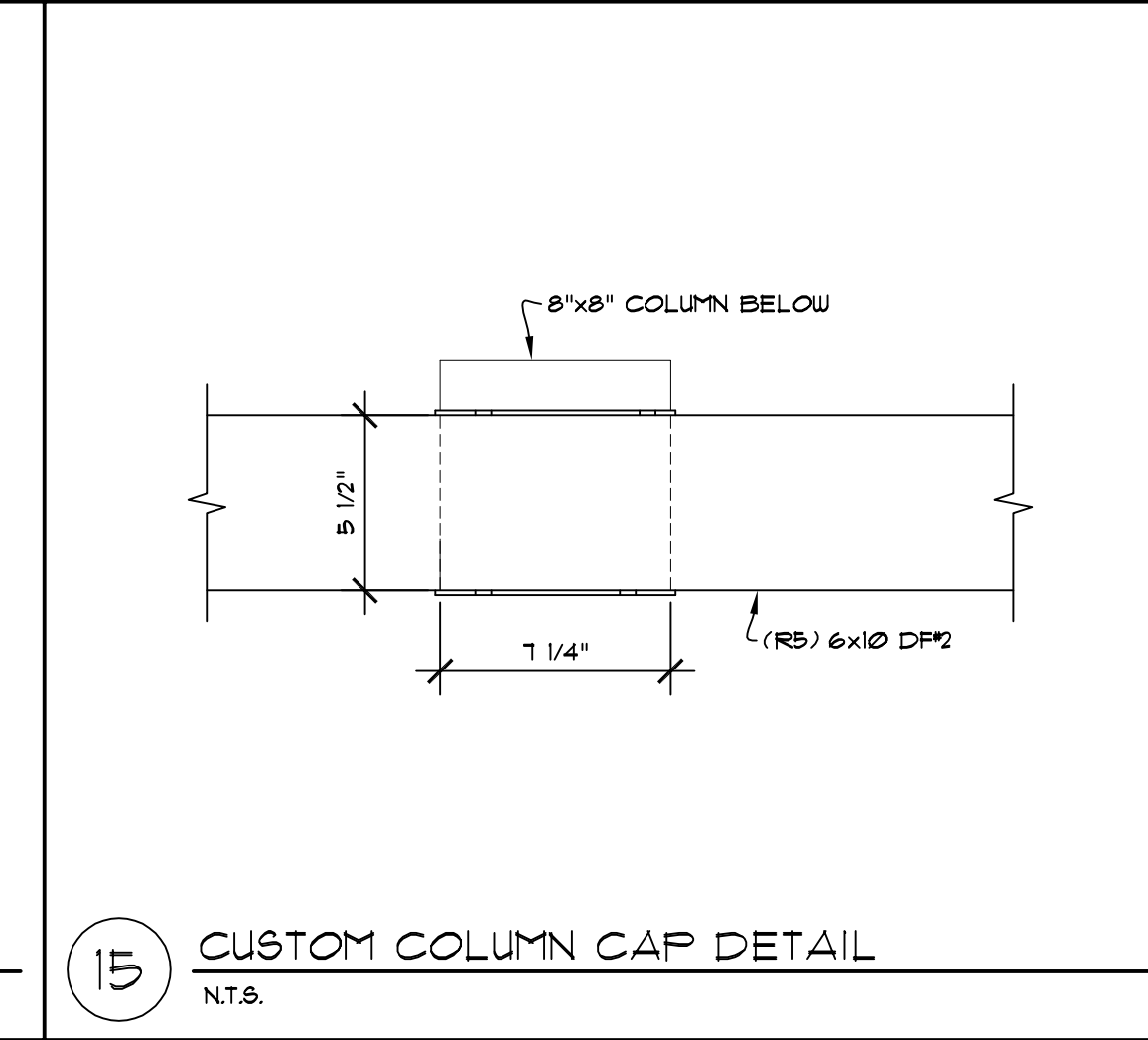
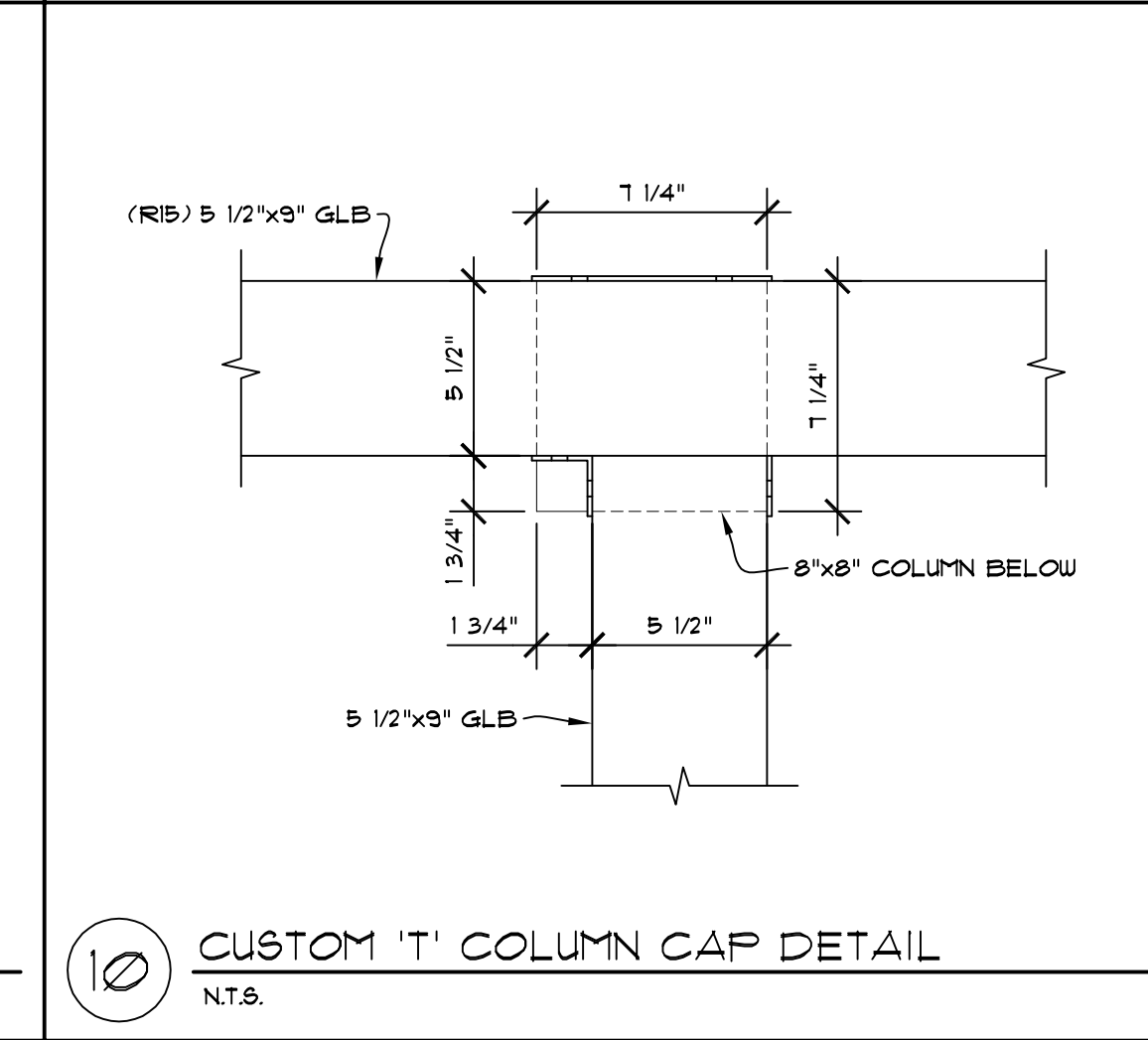
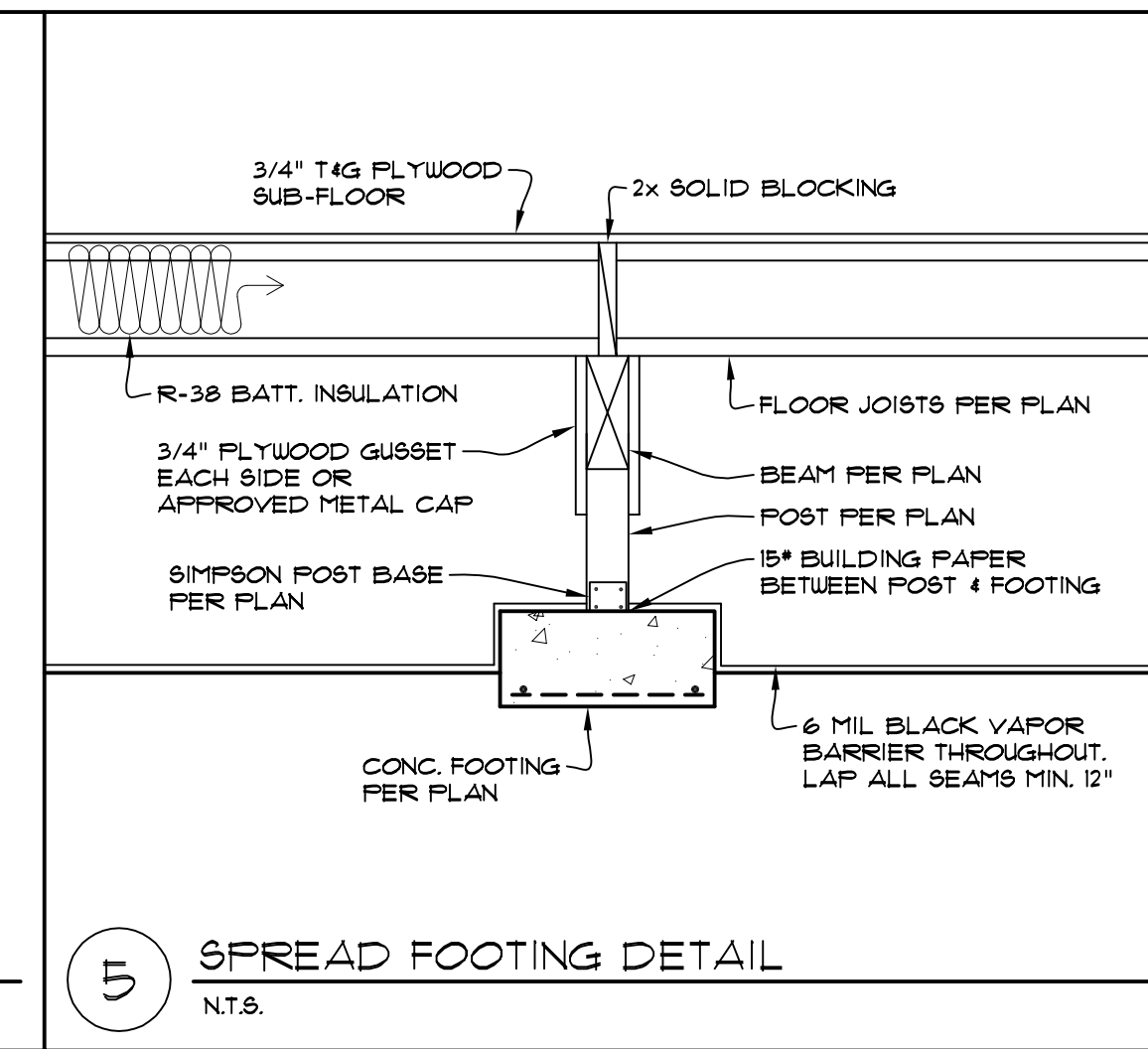
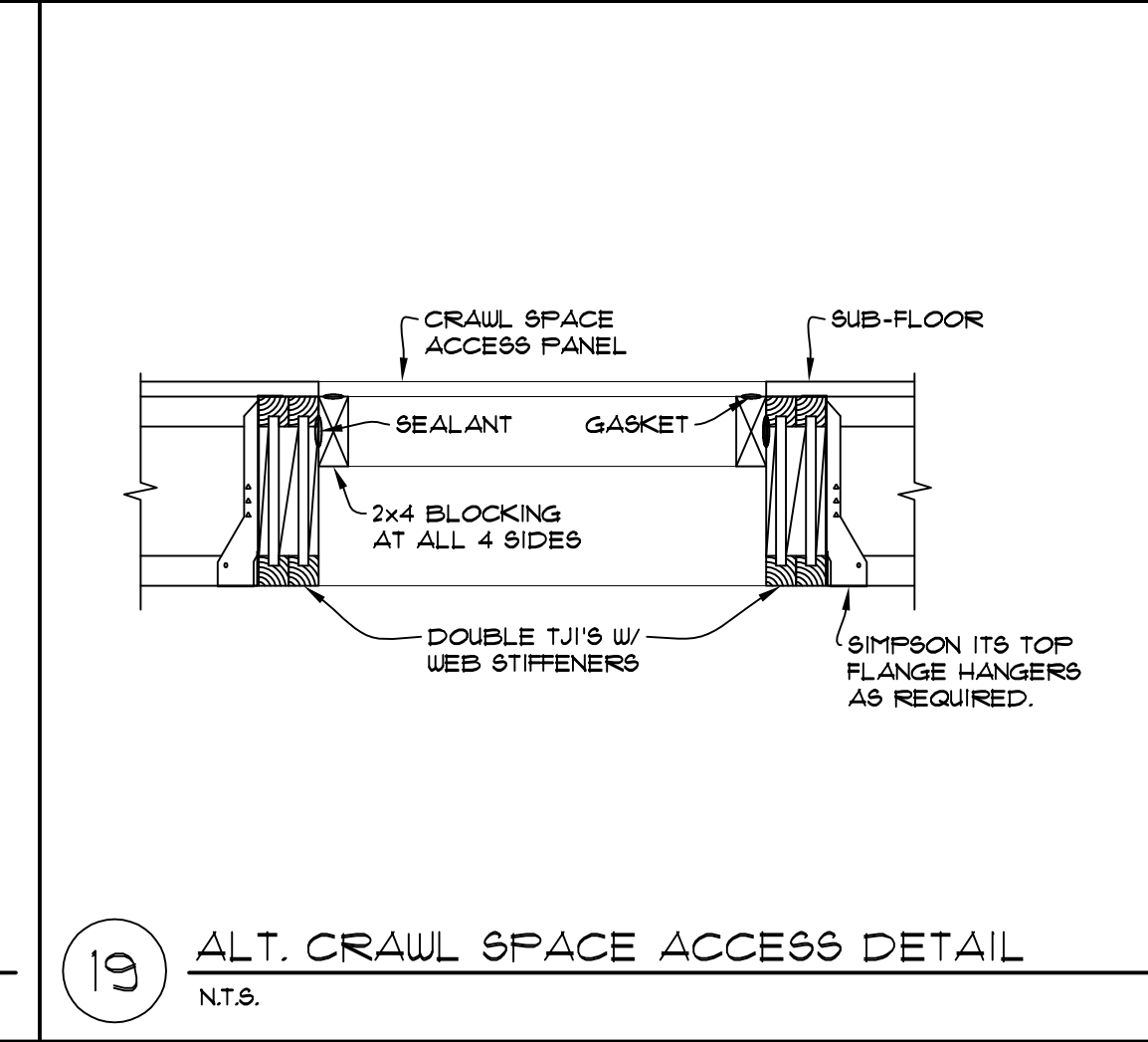
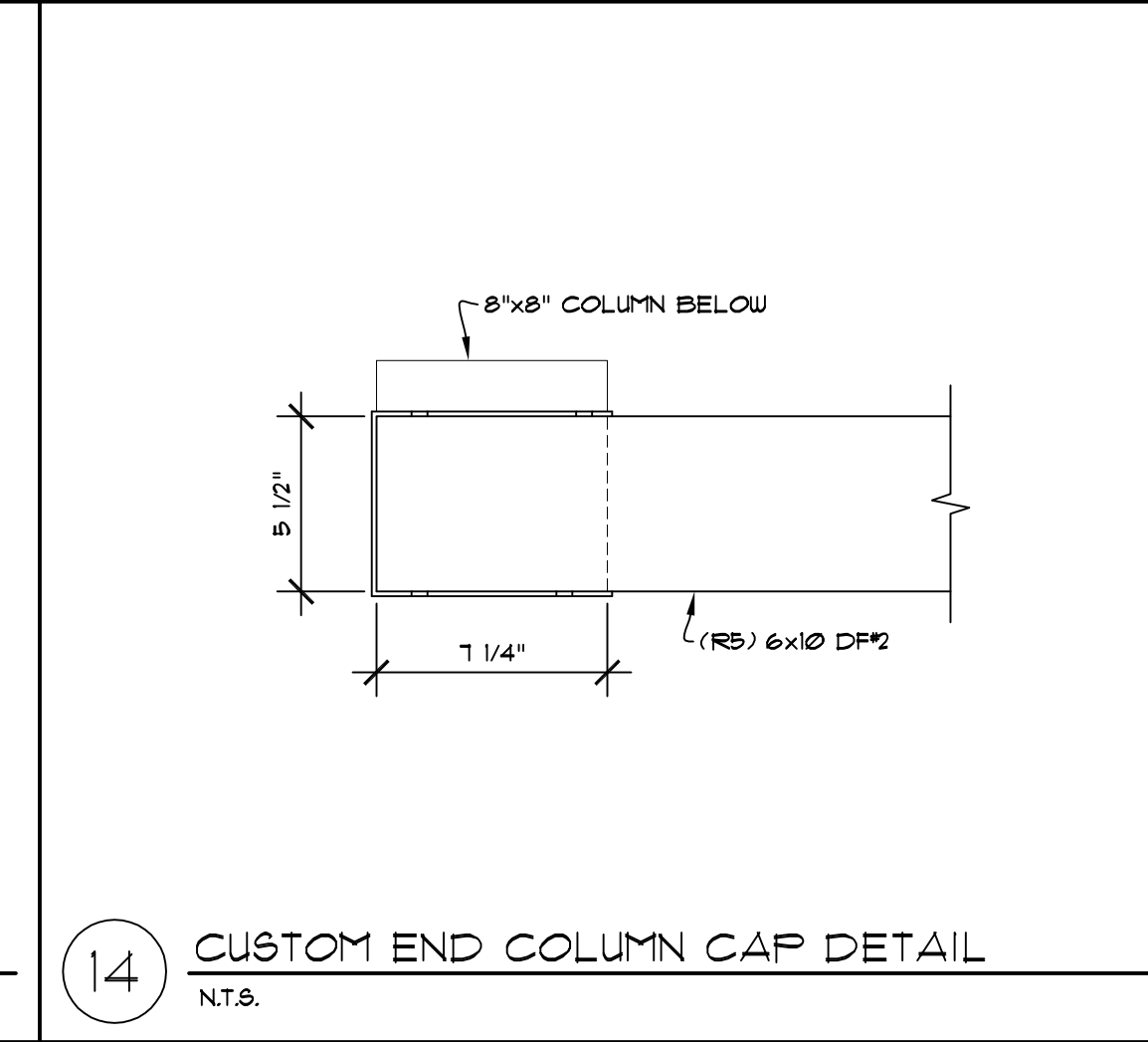
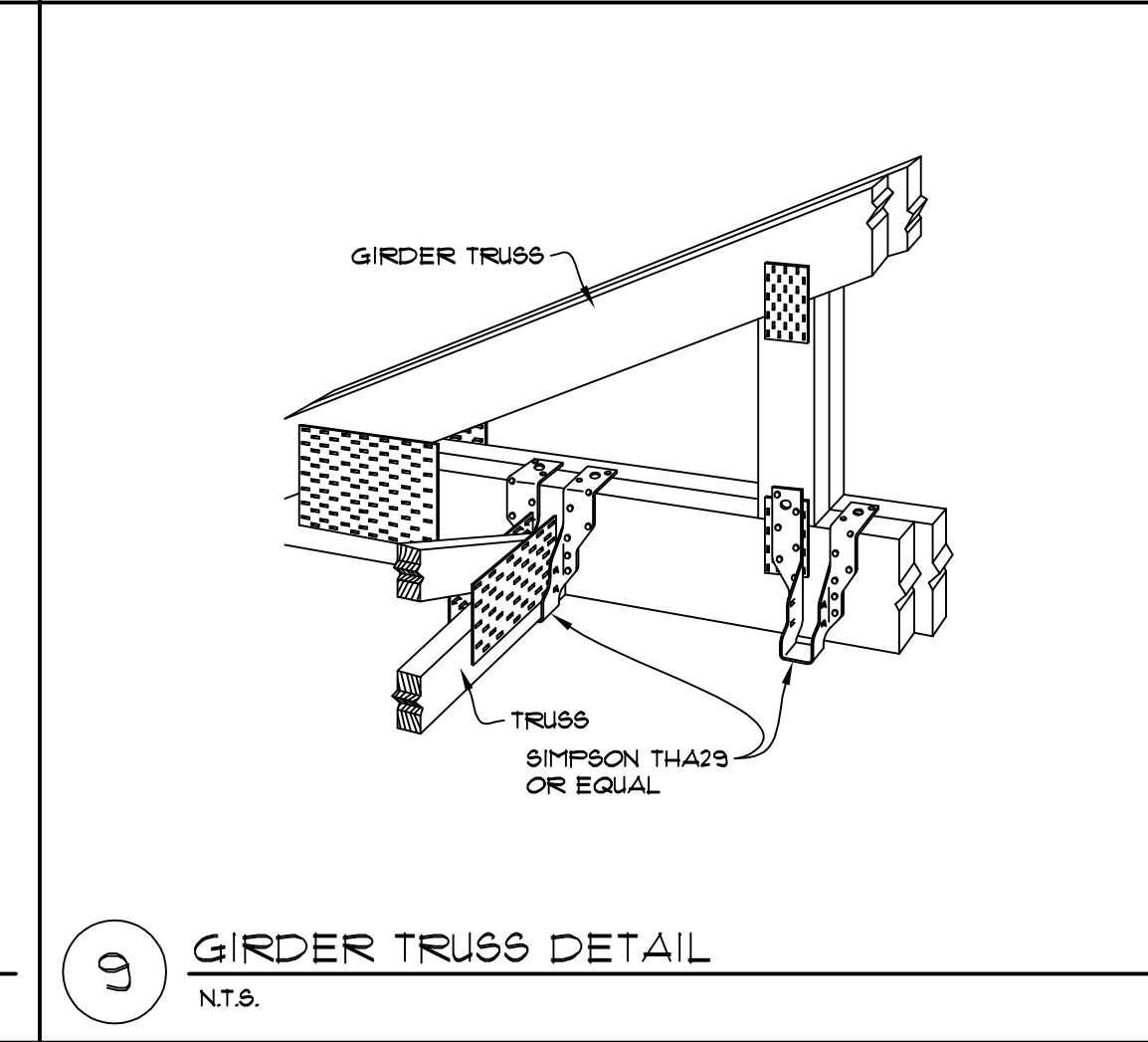
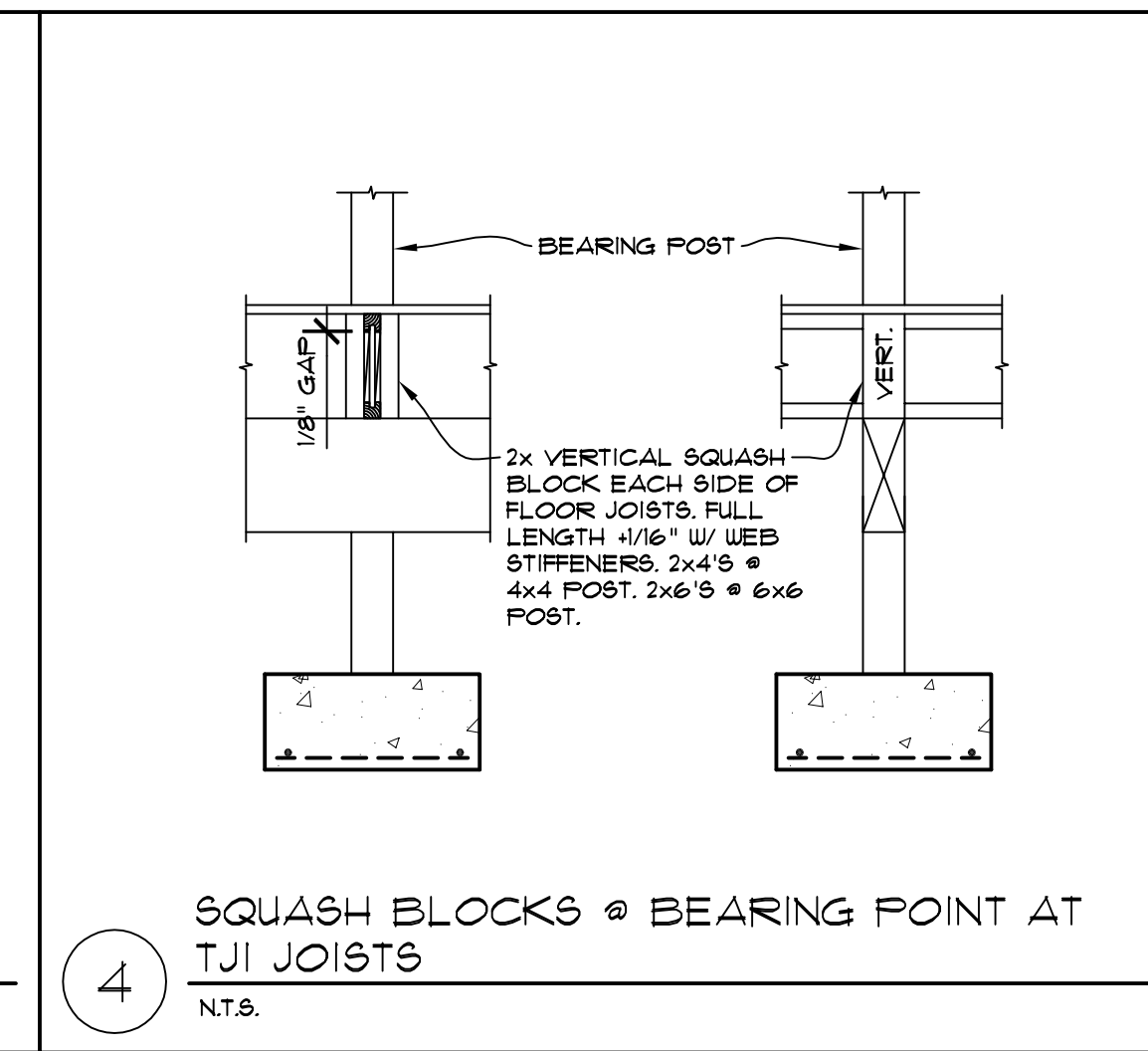
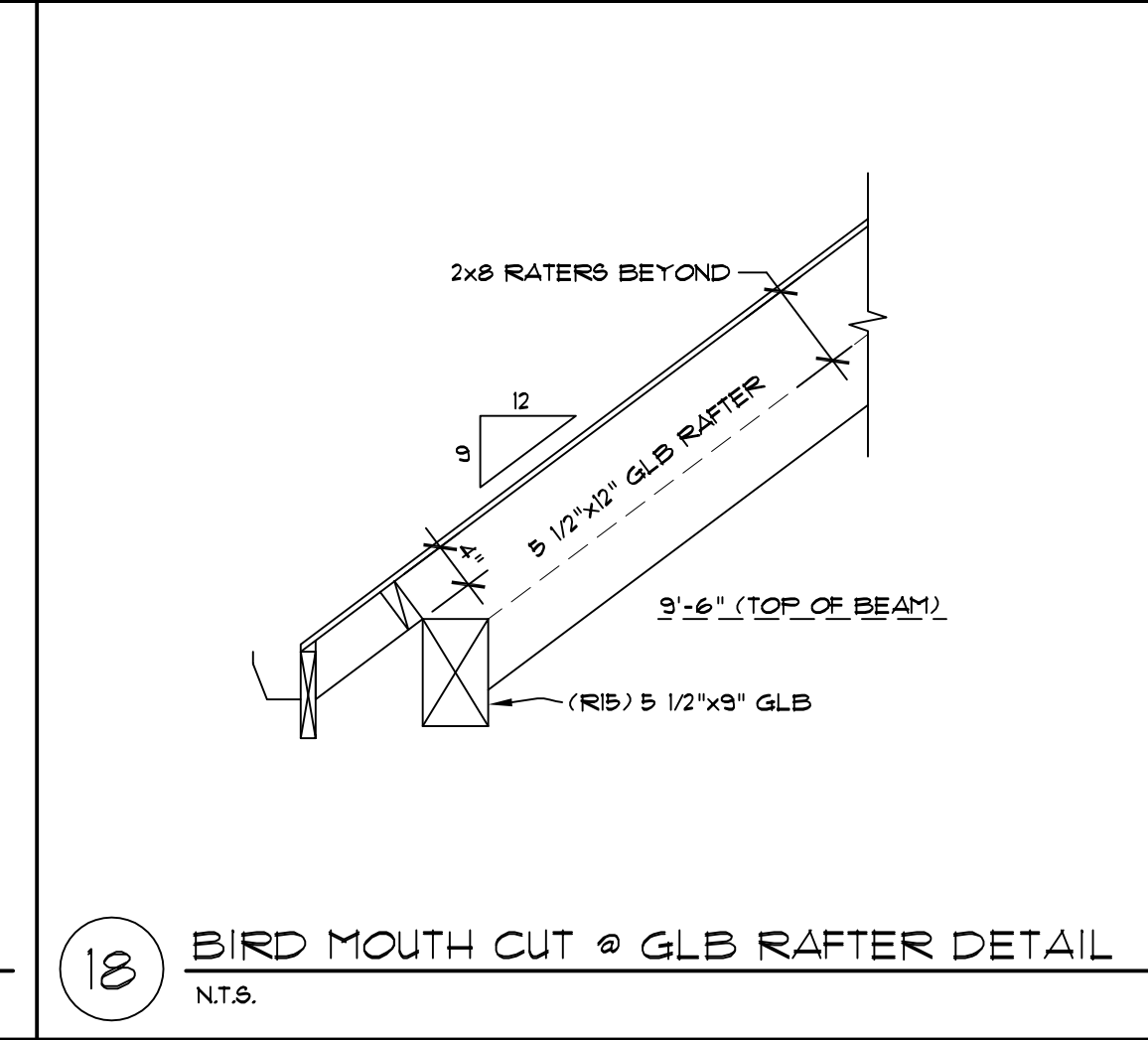
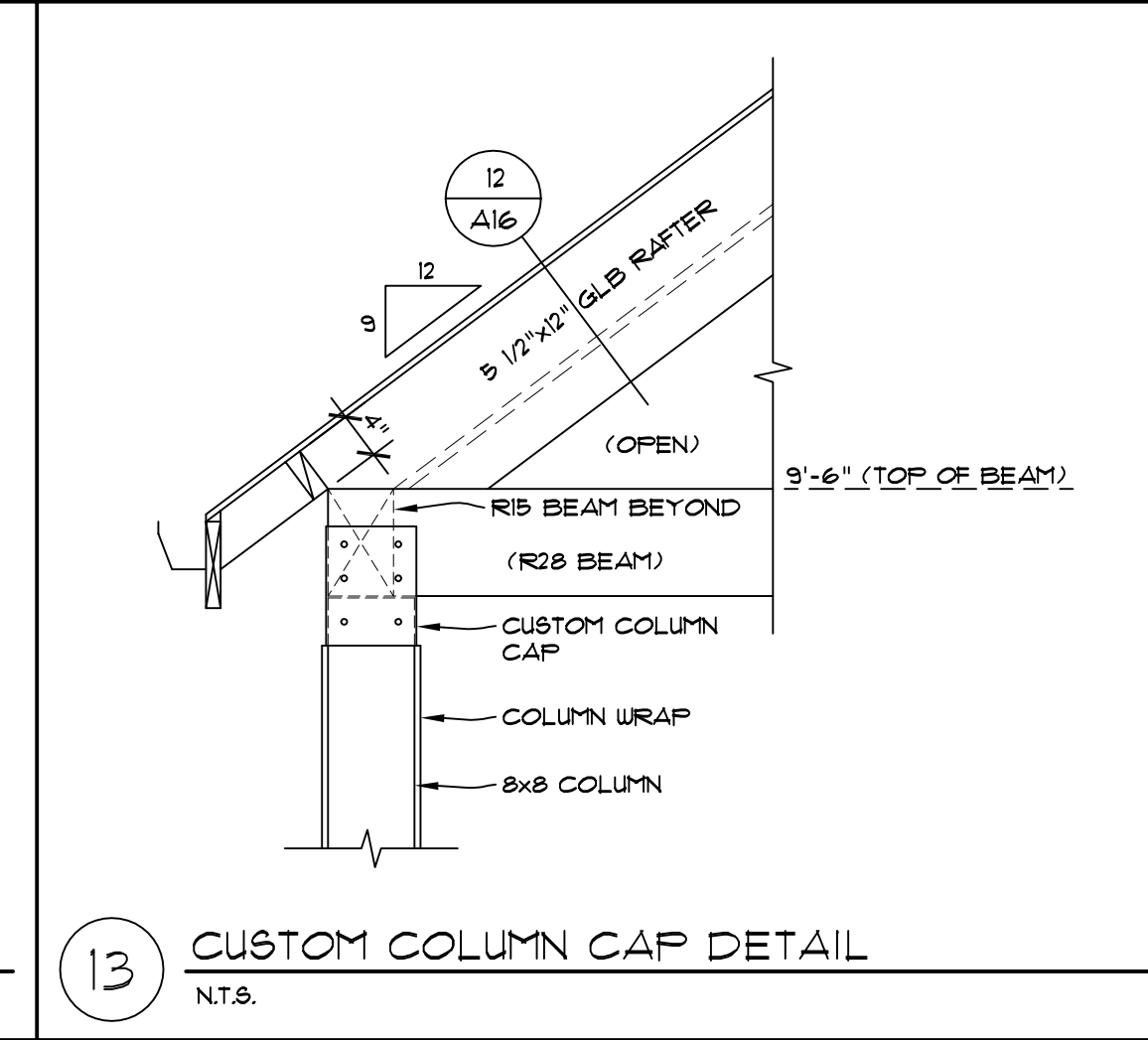
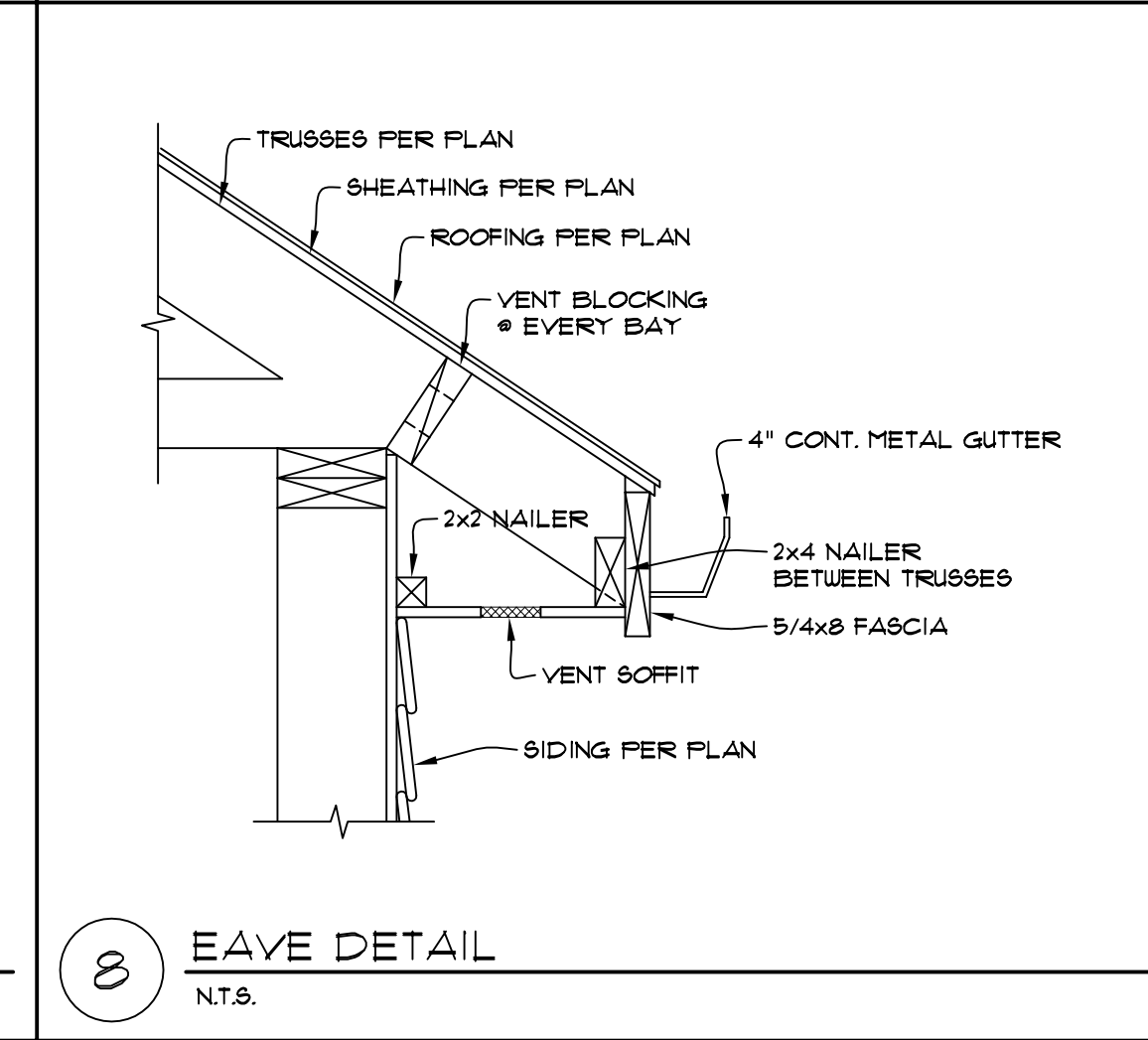
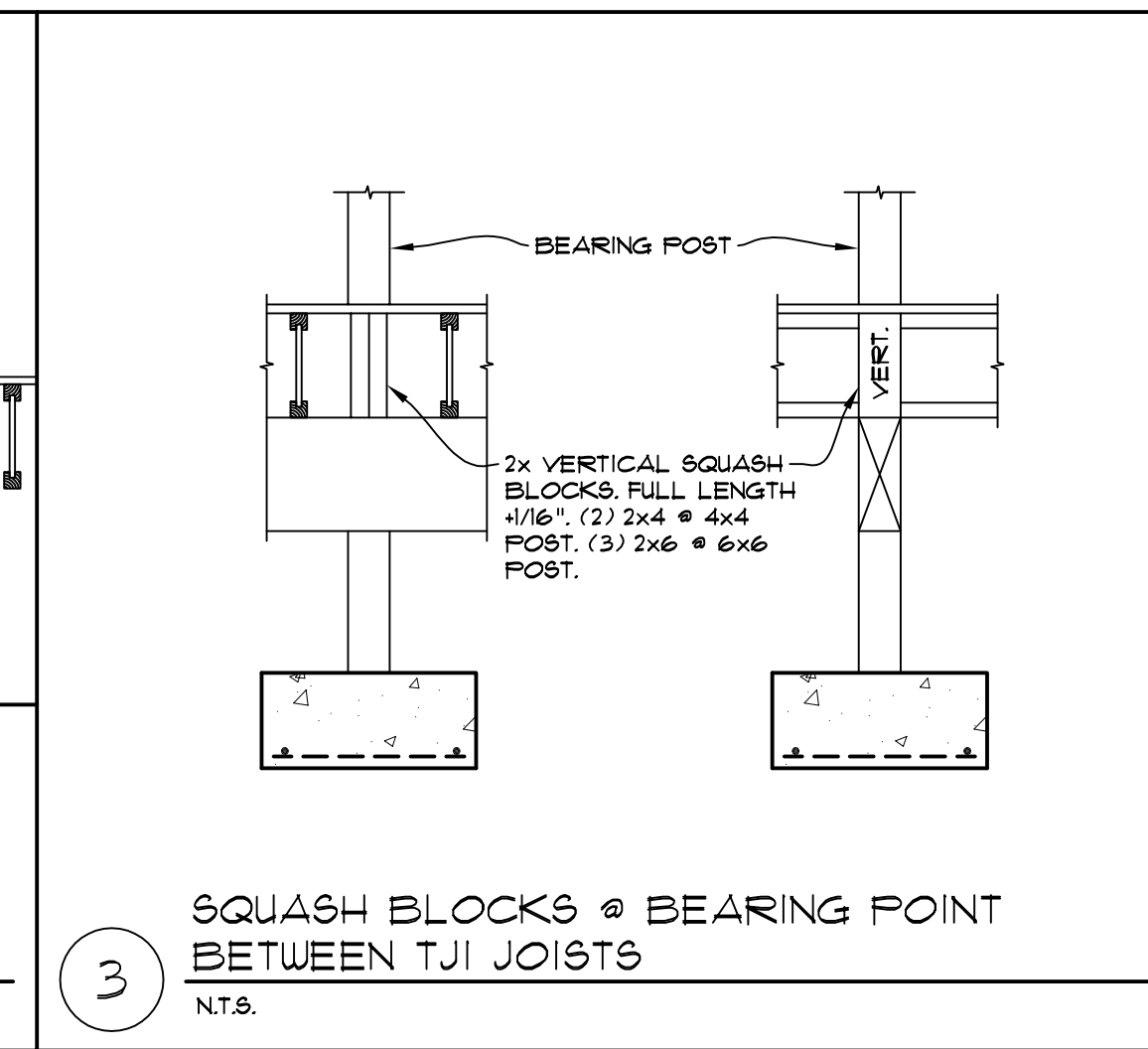
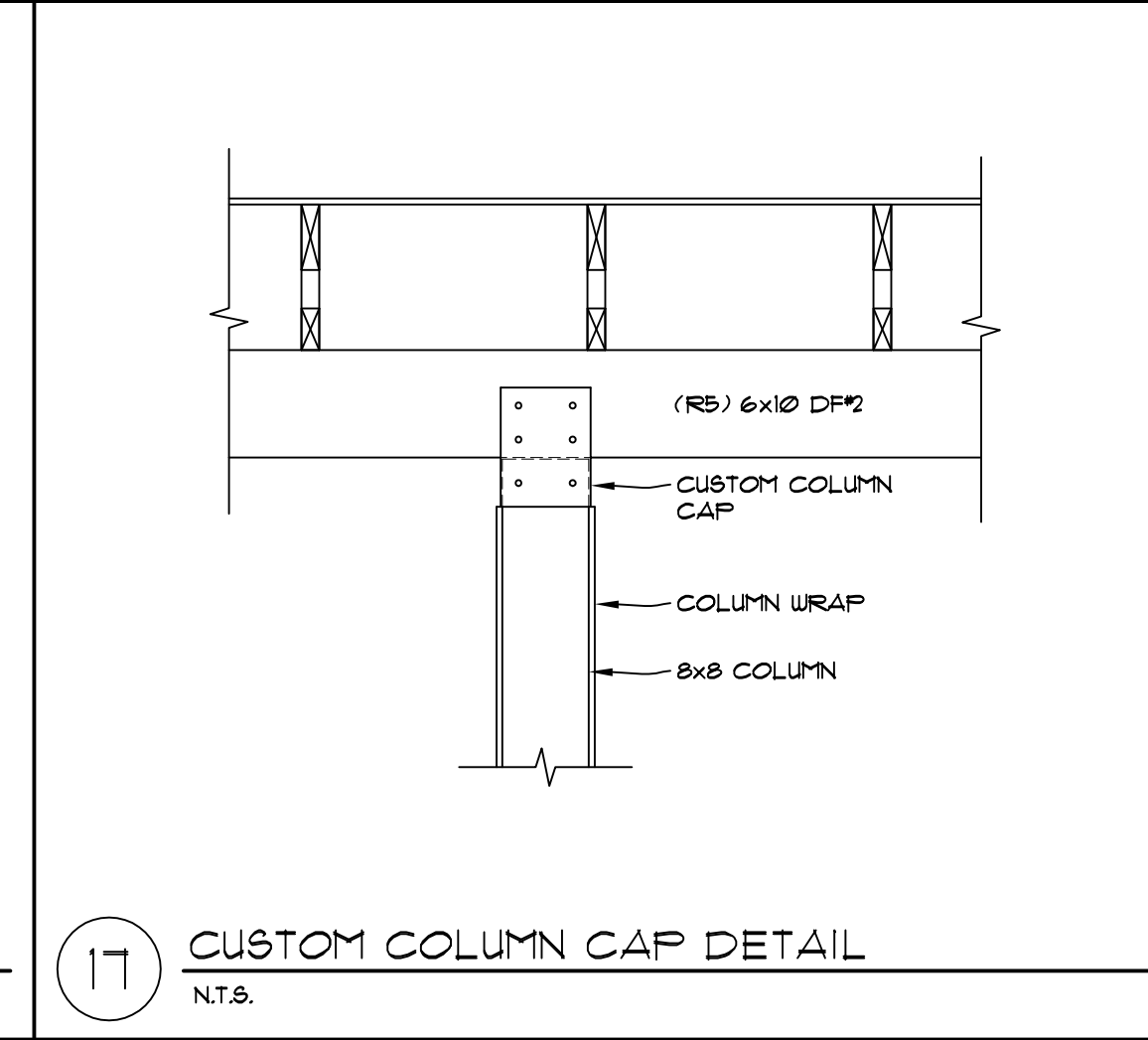
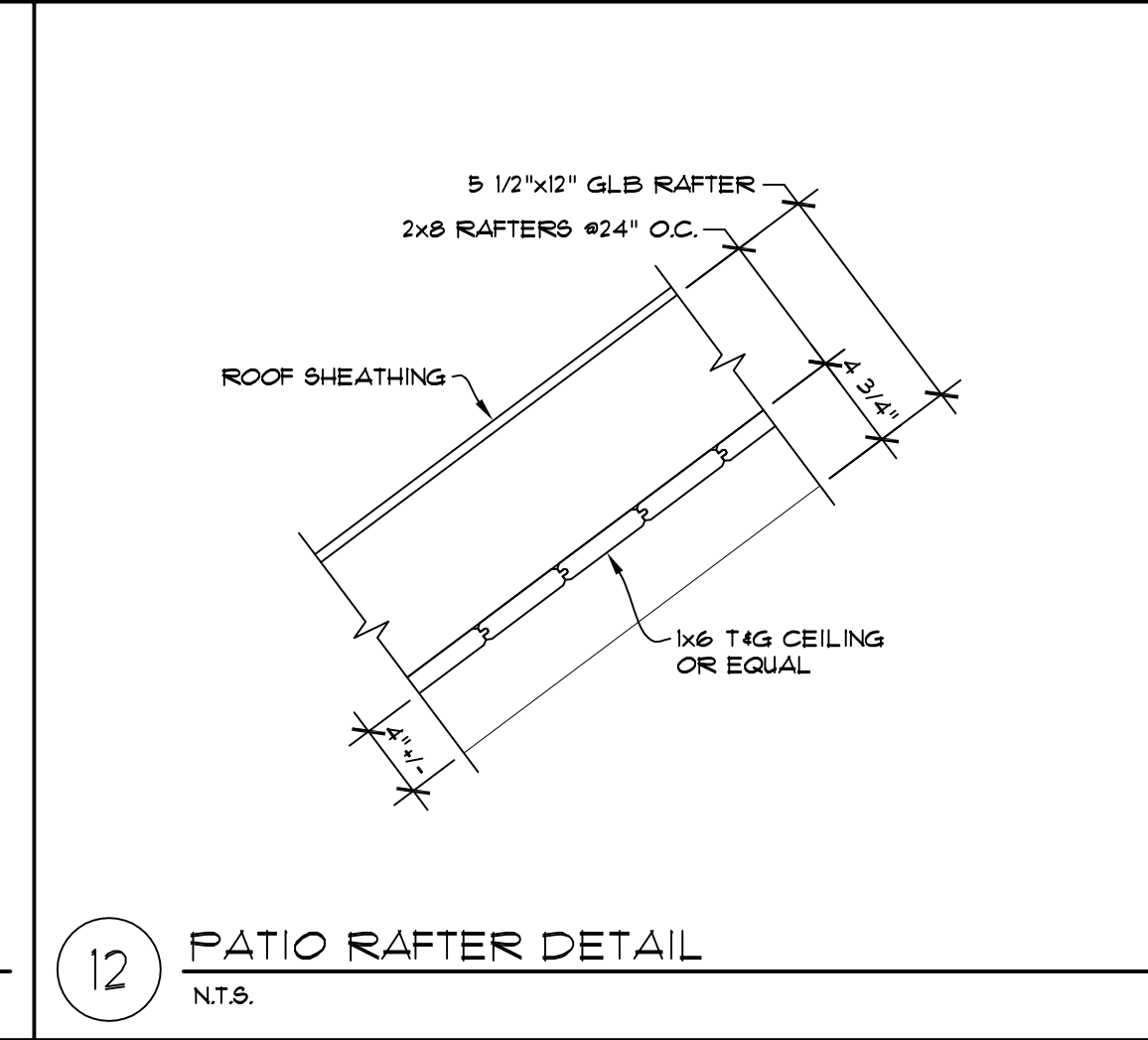
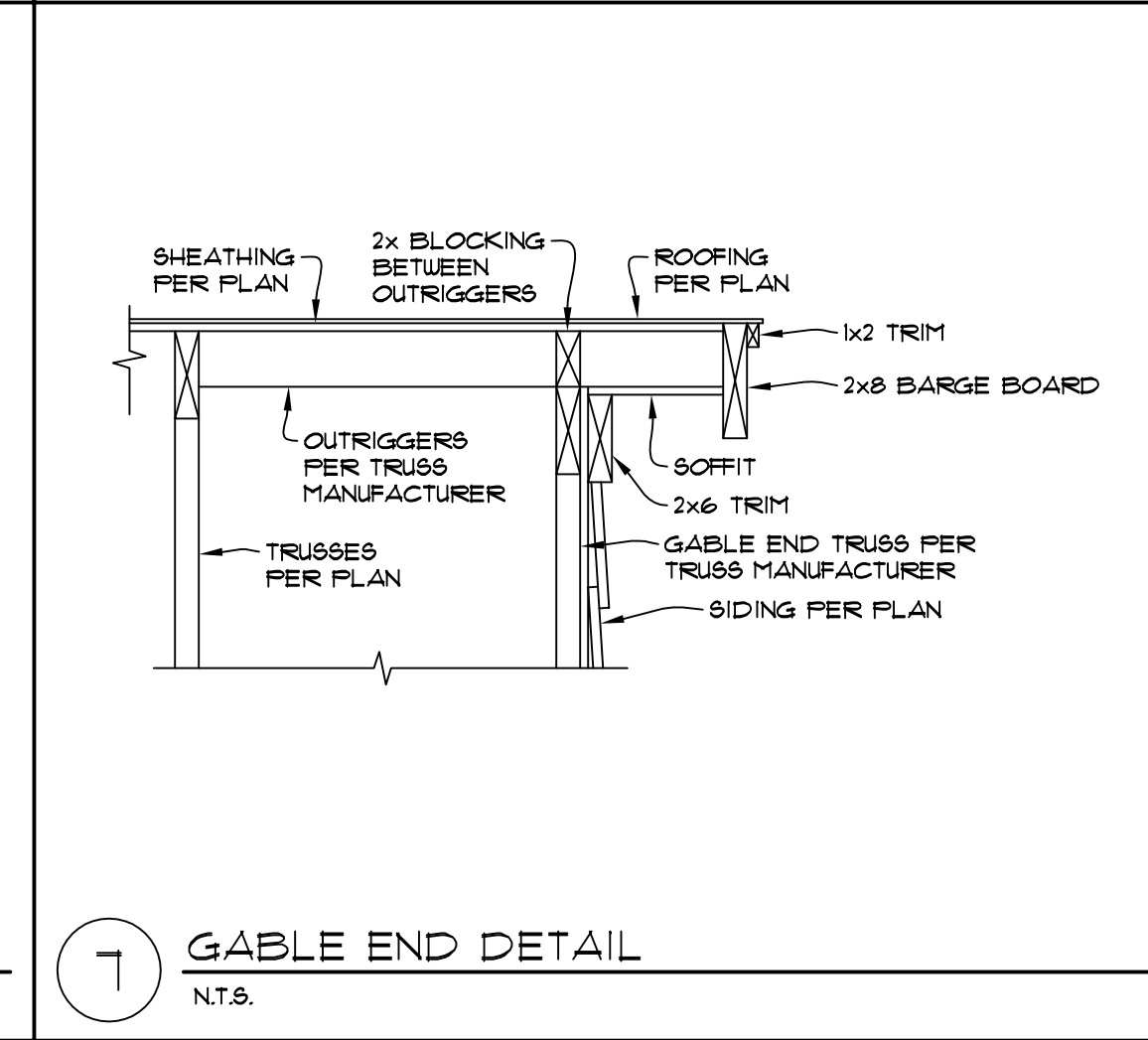
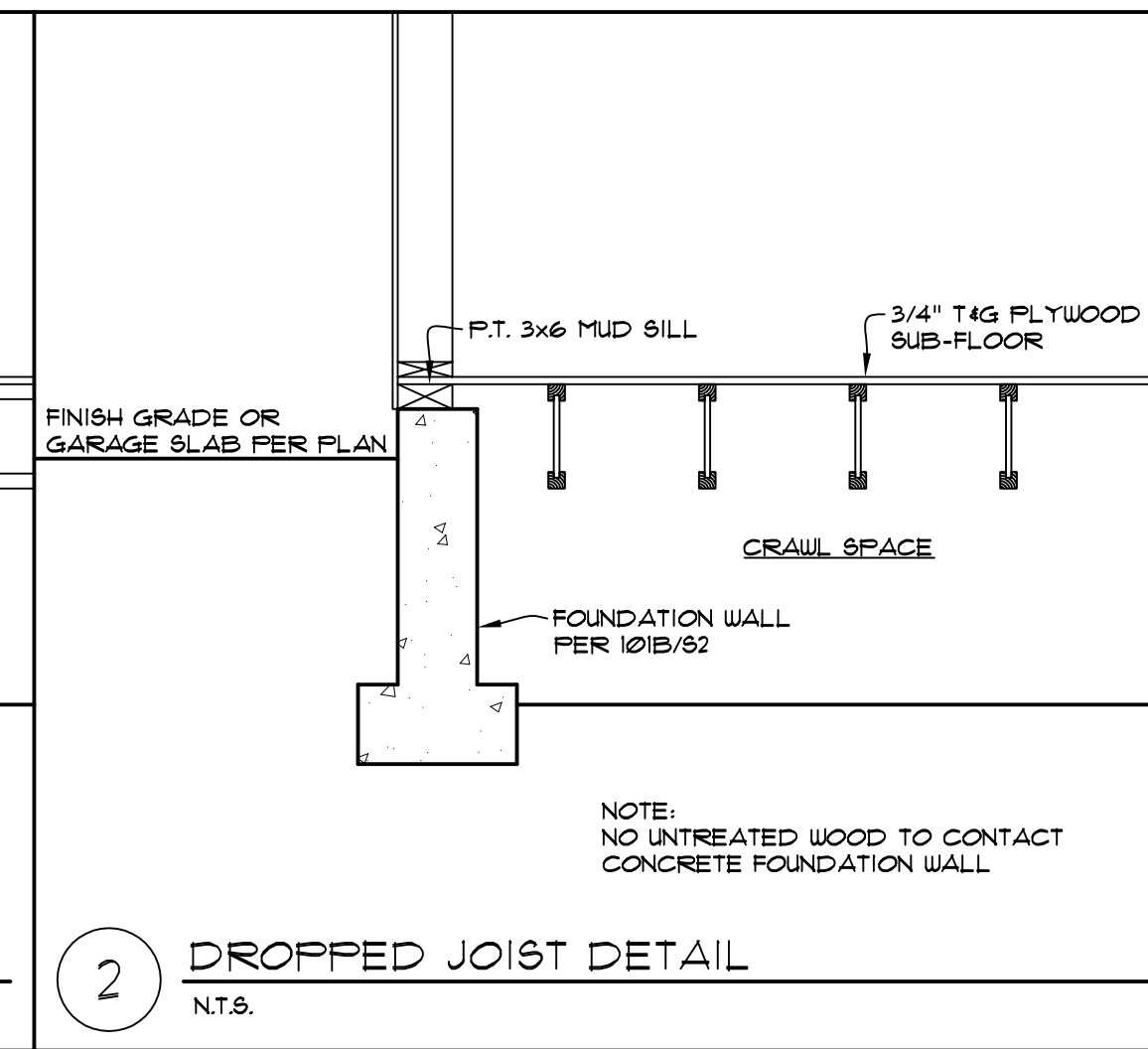
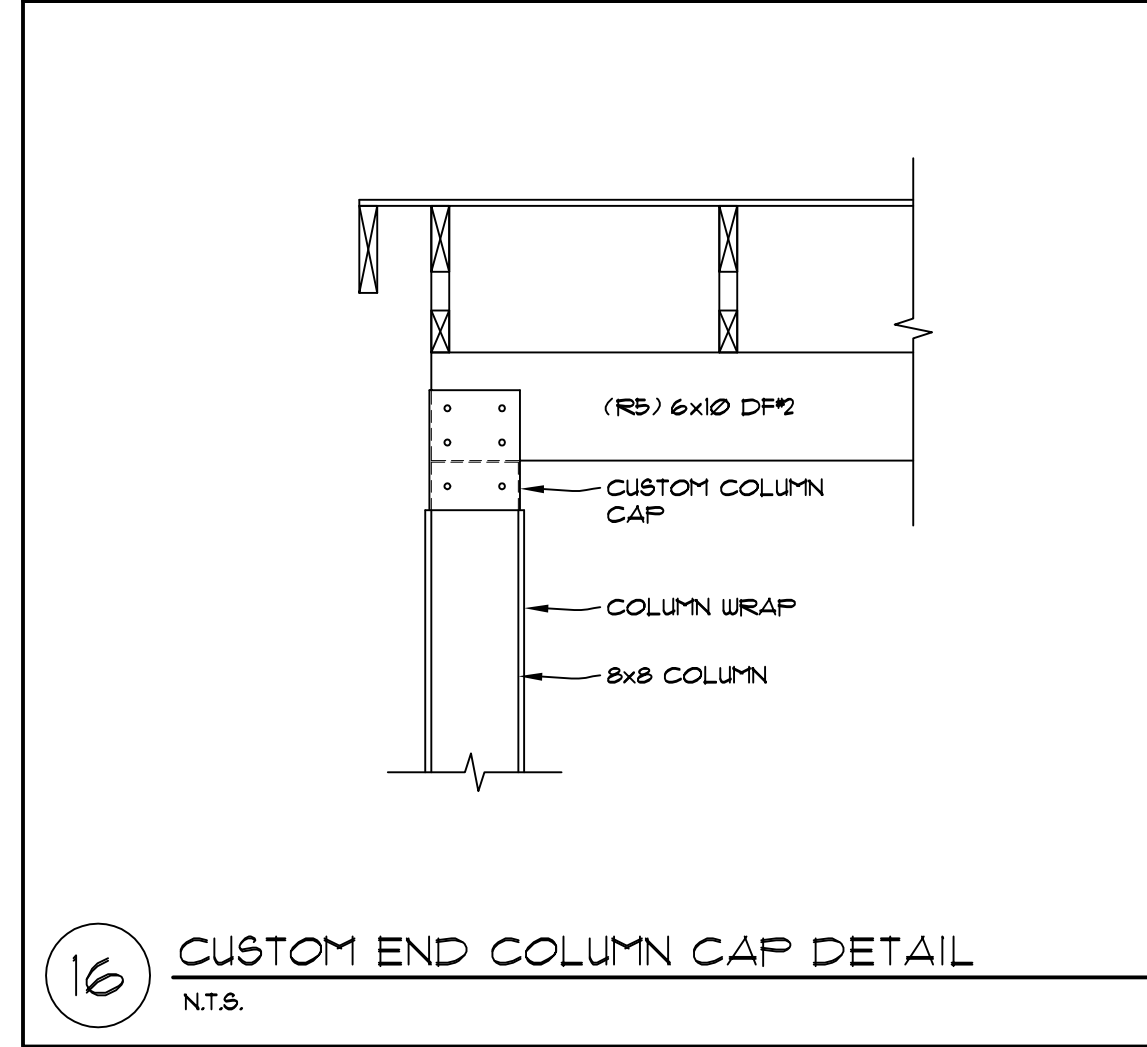
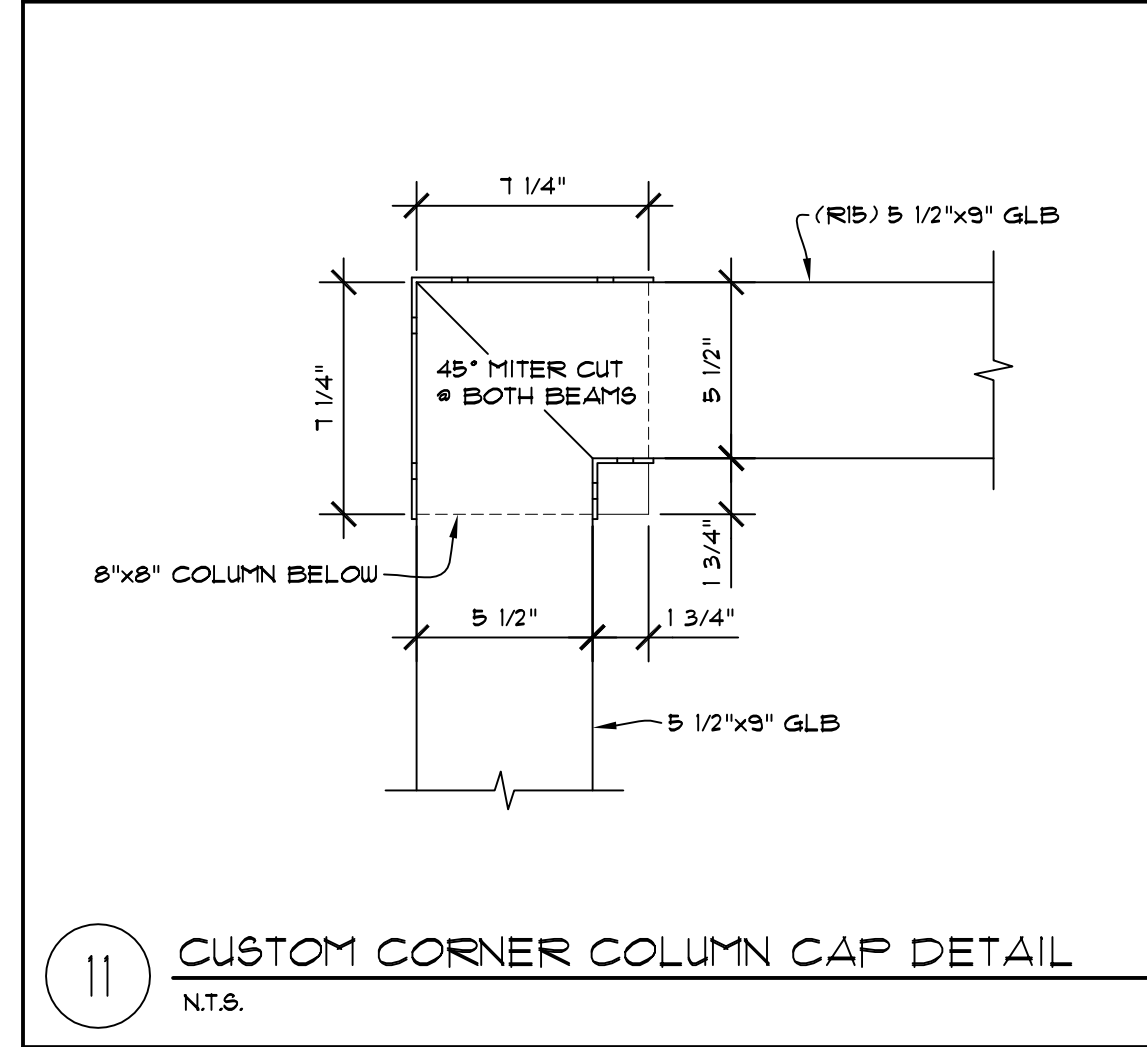
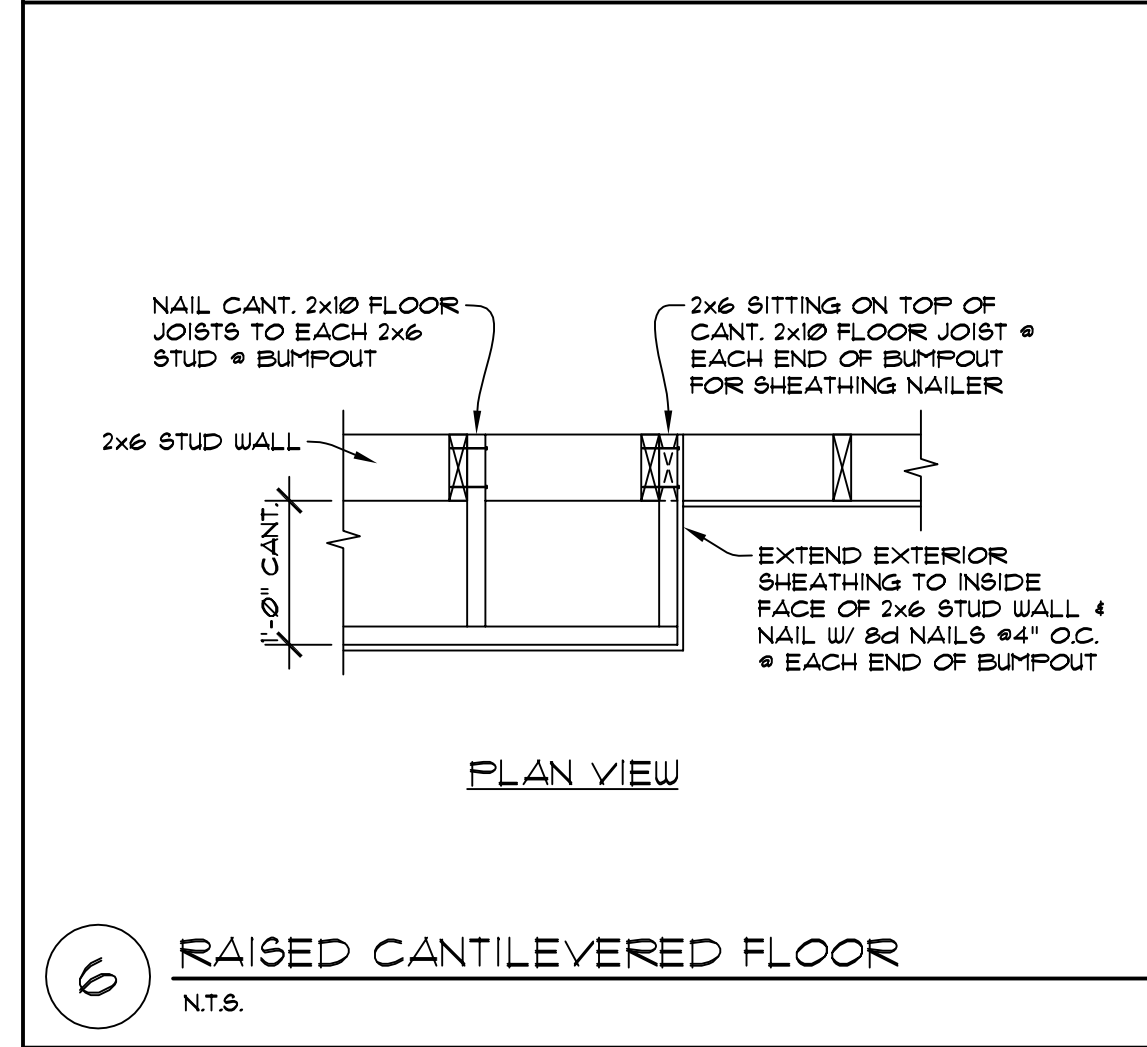
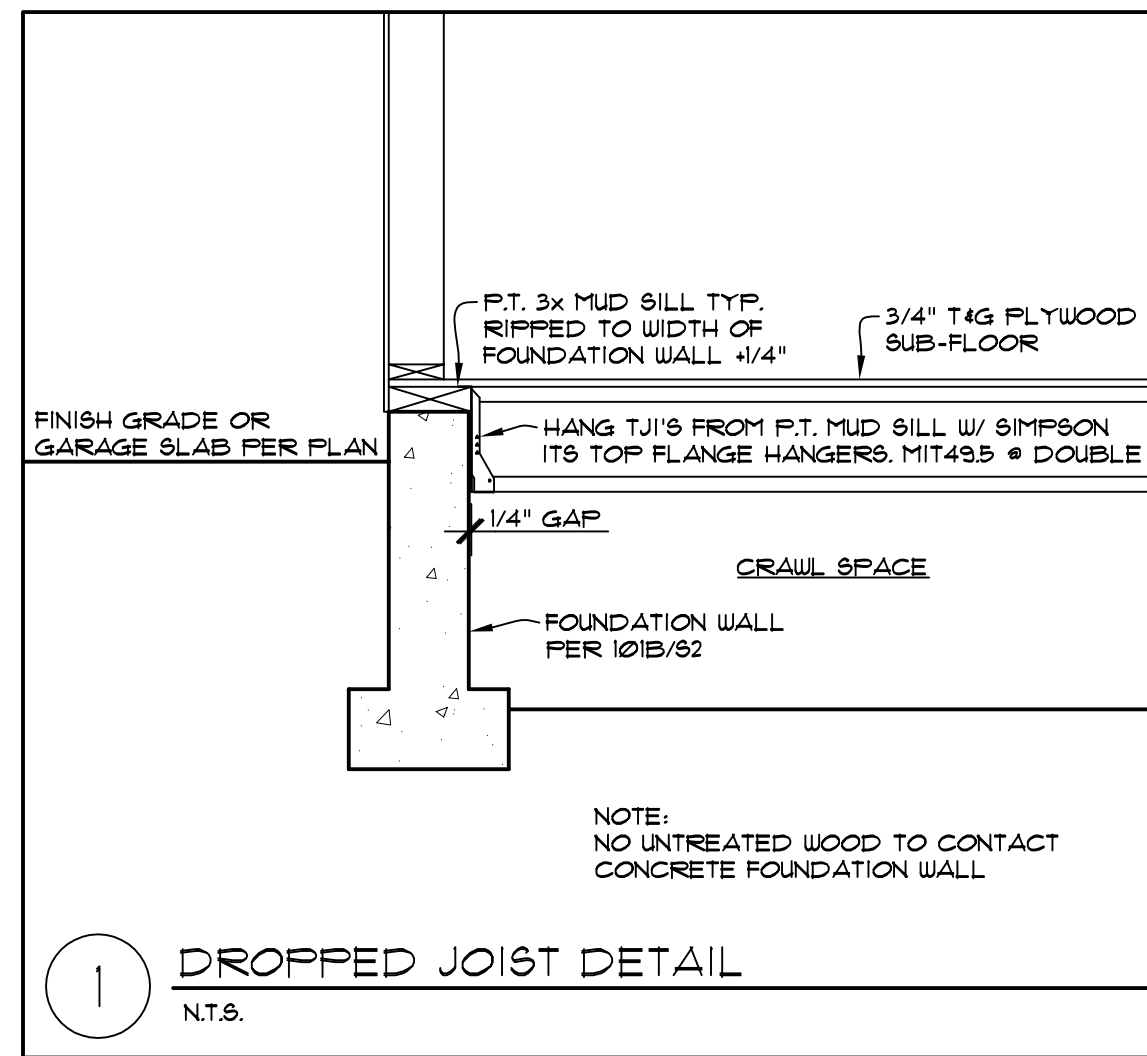
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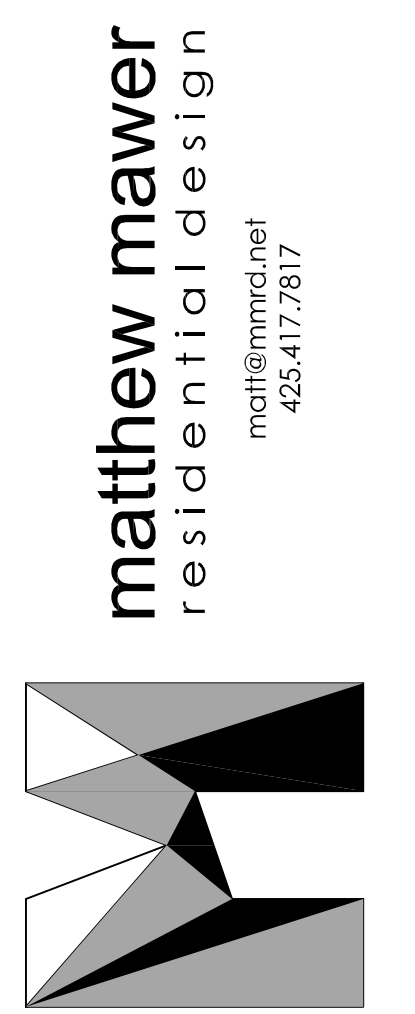
SHEET NO.  
**A17**



NOTE: NO UNTREATED WOOD TO CONTACT CONCRETE FOUNDATION WALL

NOTE: NO UNTREATED WOOD TO CONTACT CONCRETE FOUNDATION WALL

NOTE: PROVIDE TJI WEB STIFFENER AT ALL DOUBLE TJI'S



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JOB NO: 20-020  
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SHEET NO.  
**D1**





MDT ENGINEERING  
3103 44th AVE S  
AUBURN, WA 98001  
PHONE: (253) 709-9852  
EMAIL: md.thompson@earthlink.net

REVISION DATES:  
REV. 2-9-23

PROJECT: MAWER-HOUTCHENS  
SHEET TITLE: STRUCTURAL NOTES & SCHEDULES  
SCALE: NO SCALE  
DATE: 4-18-22  
DRAWN BY: MDT  
SHEET NO.  
PROJECT NO. MAWER/HOUTCHENS  
S1

**STRUCTURAL NOTES**

**CODES AND SPECIFICATIONS**

- INTERNATIONAL BUILDING CODE, 2018 EDITION, ASCE 7-16
- INTERNATIONAL RESIDENTIAL CODE, 2015 EDITION
- SIMPSON STRONG TIE WOOD CONSTRUCTION CONNECTORS 2021-2023
- FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE STAINLESS STEEL, ZMAX(G185HDG PER ASTM A653). BATCH/POST HOT-DIP GALVANIZED (PER ASTM B695, CLASS 55 OR GREATER). UNCOATED AND PAINTED PRODUCTS SHOULD NOT BE USED WITH TREATED WOOD. WHEN USING STAINLESS STEEL HOT-DIP GALVANIZED CONNECTORS, THE CONNECTORS AND FASTENERS SHOULD BE MADE OF THE SAME MATERIAL.

**DESIGN CRITERIA**

- WIND LOAD: INTERNATIONAL BUILDING CODE, 2018, ASCE 7-16, ALTERNATE ALL-HEIGHTS METHOD, ULTIMATE DESIGN WIND SPEED = 110 MPH, NOMINAL DESIGN WIND SPEED = 85 MPH, EXPOSURE C
- SEISMIC: INTERNATIONAL BUILDING CODE, 2018, ASCE 7-16  
RISK CATEGORY II, SEISMIC IMPORTANCE CATEGORY, I<sub>e</sub>=1.0  
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS, S<sub>s</sub>=1.5, S<sub>1</sub>=0.5  
SITE CLASS D  
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS, S<sub>ds</sub>=1.0g, S<sub>d</sub>=0.5g  
SEISMIC DESIGN CATEGORY, D2  
BASIC SEISMIC FORCE-RESISTING SYSTEM: LIGHT FRAME WALLS WITH WOOD SHEAR WALLS  
DESIGN BASE SHEAR, V + F(S<sub>ds</sub>)(W)/R = 0.1846W  
RESPONSE MODIFICATION COEFFICIENT, R=6.5  
ANALYSIS PROCEDURE USED: SIMPLIFIED ALTERNATIVE STRUCTURAL DESIGN FOR SIMPLE BEARING WALL SYSTEMS
- ROOF LOAD: DL = 15 PSF LL = 25 PSF (ROOF SNOW LOAD)
- FLOOR LOAD: DL = 10 PSF LL = 40 PSF
- DECK LOAD: DL = 10 PSF LL = 60 PSF

- SOILS: REFER TO GEOTECH REPORT BY PanGeo INC. PROJECT NO. 22-241 DATED 7/13/22 FOR SOIL DESIGN INFORMATION. PER GEOTECH REPORT, AT SLAB ON GRADE, REMOVE A MINIMUM OF 12" OF EXISTING SOIL BELOW THE SLAB AND PLACE 12" OF PROPERLY COMPACTED FREE-DRAINING GRANULAR STRUCTURAL FILL. IF SOFT, WET SUBGRADE CONDITIONS ARE PRESENT, PLACE A GEOTEXTILE FABRIC OVER THE EXPOSED SUBGRADE PRIOR TO PLACING THE STRUCTURAL FILL.

- 3" DIAMETER PIN PILES WILL BE USED FOR FOUNDATION SUPPORT AS LOCATED PER PLAN WITH AN ALLOWABLE AXIAL COMPRESSION CAPACITY OF 12,000#. PILES SHOULD CONSIST OF SCHEDULE-40, ASTM A-53 GRADE "A" PIPE. LOAD TESTING IS REQUIRED. ASTM D1143 QUICK TEST IS REQUIRED ON A MINIMUM OF 3% OF PILES UP TO 5 MAX, 1 MIN. 3" DIAMETER PILES SHALL BE DRIVEN TO REFUSAL WITH A MINIMUM 600# HYDRAULIC HAMMER. USE THE FOLLOWING REFUSAL CRITERIA BASED ON THE SIZE OF HAMMER UTILIZED:  
600# HAMMER/1000 BLOWS PER MINUTE/12 SECONDS PER INCH  
850# HAMMER/900 BLOWS PER MINUTE/10 SECONDS PER INCH  
1100# HAMMER/900 BLOWS PER MINUTE/6 SECONDS PER INCH  
THIS DRIVING CRITERIA WILL BE VERIFIED BY A STATIC LOAD TEST PROGRAM.

- CONCRETE: 3000 PSI @ 28 DAYS (2500 PSI USED FOR DESIGN)  
GRADE 40 REINFORCEMENT  
MINIMUM 3" COVER FOR ALL REINFORCEMENT EXCEPT AS NOTED AT RETAINING WALL OR OTHER DETAILS.

**TIMBER CONSTRUCTION DETAILS**

- LUMBER GRADES AND ALLOWABLE STRESSES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON PLANS:  
ALL SAWN LUMBER HF#2 OR BETTER, F<sub>b</sub> = 875 PSI, F<sub>v</sub> = 75 PSI, E = 1,300,000  
GLULAM BEAMS 24F-V4, F<sub>b</sub> = 2400 PSI, F<sub>v</sub> = 165 PSI, E = 1,800,000  
MICROLAM, LVL F<sub>b</sub> = 2600 PSI, F<sub>v</sub> = 285 PSI, E = 1,900,000  
PARALLAMS, PSL F<sub>b</sub> = 2600 PSI, F<sub>v</sub> = 290 PSI, E = 2,900,000
- WHEN TOP PLATE IS INTERRUPTED BY HEADER, HEADER SHALL HAVE STRAP CONNECTORS TO THE TOP PLATE EACH END. USE 2- SIMPSON MSTA24 CONNECTORS, UNLESS NOTED OTHERWISE.
- ALL SHEAR WALL SHEATHING, NAILS AND ANCHORS SHALL BE AS DETAILED ON THE DRAWINGS AND AS NOTED IN THE SHEAR WALL SCHEDULE.
- FLOOR SHEATHING SHALL BE 7/16" MINIMUM APA RATED FLOOR SHEATHING WITH 10d COMMON @ 6"OC AT ALL SUPPORTED PANEL EDGES AND 10d @ 12"OC AT INTERMEDIATE SUPPORTS.
- ROOF SHEATHING SHALL BE 7/16" MINIMUM APA RATED ROOF SHEATHING WITH 8d COMMON @ 6"OC AT ALL SUPPORTED PANEL EDGES AND 8d @ 12"OC AT INTERMEDIATE SUPPORTS.

**GENERAL CONSTRUCTION NOTES**

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. ANY VARIATIONS FROM THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER OR THE ENGINEER OF RECORD.
- ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION SHALL BE PROVIDED.
- ANY PROPOSED FIELD CHANGES MUST HAVE THE APPROVAL OF THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

**SHEAR WALL SCHEDULE**

SHEAR WALL TYPE	SHEATHING (NOTE 5)	FASTENER SPACING (COMMON OR GALVANIZED BOX NAILS)	BOTTOM PLATE NAILING OR ANCHOR BOLTS	FRAMING ANCHORS (NOTES 7 & 8)	ALLOWABLE SHEAR	NOTES
1A	7/16" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 ONE SIDE	8d @ 6" OC	16d @ 8" OC OR 1/2" A.B. @ 5'-6" OC	RBC @ 32" OC LTP4 @ 48" OC A35 @ 48" OC	130 PLF	1, 2, 3, 11
1	7/16" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 ONE SIDE	8d @ 6" OC	16d @ 6" OC OR 1/2" A.B. @ 3'-2" OC OR 3/8" A.B. @ 5'-0" OC	RBC @ 18" OC LTP4 @ 30" OC A35 @ 30" OC	242 PLF	1, 2, 3, 11
2	7/16" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 ONE SIDE	8d @ 4" OC	16d @ 4" OC OR 1/2" A.B. @ 2'-2" OC OR 3/8" A.B. @ 3'-4" OC	RBC @ 12" OC LTP4 @ 18" OC A35 @ 18" OC	353 PLF	1, 2, 3, 11
3	7/16" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 ONE SIDE	8d @ 3" OC	1/2" X 5" LAG SCREW @ 6"OC OR 1/2" A.B. @ 3'-2" OC OR 3/8" A.B. @ 5'-0" OC	RBC @ 10" OC LTP4 @ 15" OC A35 @ 15" OC	456 PLF	1, 2, 3, 4, 9, 10, 11
4	7/16" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 ONE SIDE	10d @ 3" OC	1/2" X 5" LAG SCREW @ 6"OC OR 1/2" A.B. @ 1'-4" OC OR 3/8" A.B. @ 2'-0" OC	RBC @ 8" OC LTP4 @ 12" OC A35 @ 12" OC	558 PLF	1, 2, 3, 4, 9, 10, 11
5	7/16" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 ONE SIDE	10d @ 2" OC	1/2" X 5" LAG SCREW @ 5"OC OR 1/2" A.B. @ 1'-0" OC OR 3/8" A.B. @ 1'-8" OC	RBC @ 6" OC LTP4 @ 10" OC A35 @ 10" OC	716 PLF	1, 2, 3, 4, 9, 10, 11
6	19/32" MIN. APA RATED SHEATHING OR APA RATED SIDING 303 BOTH SIDES	10d @ 2" OC	1/2" X 5" LAG SCREW @ 2"OC OR 1/2" A.B. @ 1'-0" OC	LTP4 @ 6" OC A35 @ 6" OC	1618 PLF	1, 2, 3, 4, 6, 9, 10, 11

1. ALL FASTENERS SHALL MEET THE FOLLOWING CRITERIA: 8d COMMON = 0.131" DIAMETER X 2 1/2", 8d GALVANIZED BOX = 0.113 DIAMETER X 2 1/2", 10d COMMON = 0.148 DIAMETER X 3", 10d GALVANIZED BOX = 0.128" X 3", 16d COMMON = 0.162" X 3 1/2".

2. PANEL EDGES SHALL BE BACKED WITH 2" NOMINAL OR WIDER FRAMING. SPACE FASTENERS @ 12" OC ON INTERMEDIATE SUPPORTS.

3. PROVIDE ALL ANCHOR BOLTS WITH 3" X 3" X 1/4" PLATE WASHERS. LOCATE WITHIN 1/2" OF SHEATHING.

4. AT GARAGE JAMBS, REFER TO LATERAL RESTRAINT PANEL DETAIL 401/S1.

5. PROVIDE 1/8" APA RATED SHEATHING (PLYWOOD OR OSB) OR APA RATED SIDING 303 OR INNER SEAL OSB RATED PANEL SIDING ON ALL EXTERIOR WALLS DESIGNATED AS SHEAR WALLS.

6. WHERE PANELS ARE APPLIED ON BOTH SIDES OF A WALL AND NAIL SPACING IS LESS THAN 6" OC ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.

7. REFER TO TYPICAL SHEAR WALL DETAILS ON STRUCTURAL DETAIL SHEET FOR LOCATION OF FRAMING ANCHORS.

8. AT UPPER FLOOR INTERIOR SHEAR WALLS, REFER TO DETAIL 303/S2 OR 304/S2.

9. AT SHEAR WALL TYPES 3, 4, 5 AND 6, ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3X MEMBER OR (2) 2X MEMBERS. FOR EXAMPLE, PROVIDE A 3X STUD AT VERTICAL JOINTS IN THE SHEATHING.

10. AT SHEAR WALL TYPES 3, 4, 5 AND 6, FOUNDATION SILL PLATES AND BOTTOM PLATES OF SHEAR WALLS SHALL NOT BE LESS THAN A SINGLE 3X MEMBER OR (2) 2X MEMBERS. ALSO, PROVIDE A 3X MINIMUM WIDTH MEMBER BELOW SHEAR WALL TO RECEIVE LAG SCREWS SUCH AS A 3X RIM JOIST, 3X JOIST OR BEAM OR BLOCKING BELOW SHEAR WALL.

11. FASTENERS AT PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE STAINLESS STEEL, G185 HDG, BATCH/POST HOT-DIP GALVANIZED OR MECHANICALLY GALVANIZED.

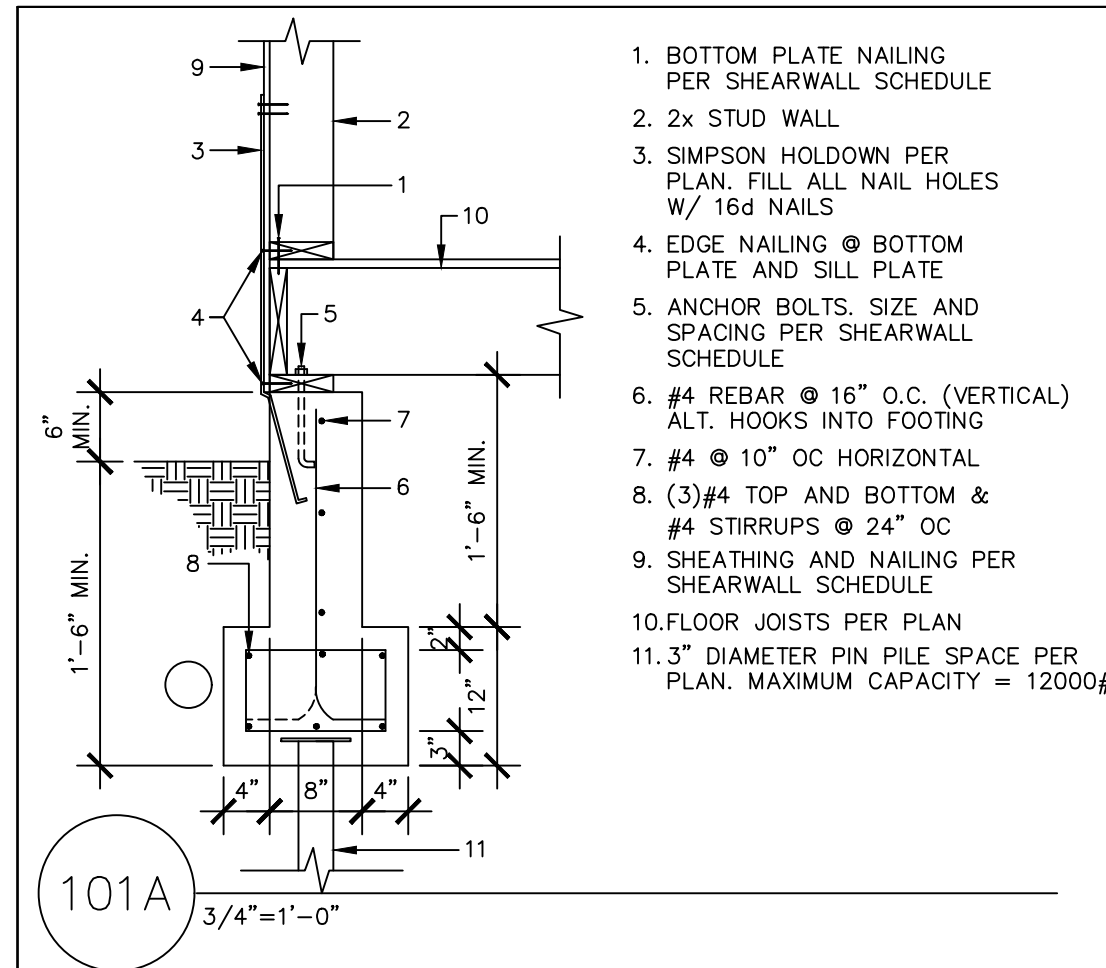
**FOOTING SCHEDULE**

MARK	SIZE	DEPTH	REINFORCING	ALLOWABLE LOAD
18	18"x18"	8"	(2) #4 EACH WAY	3375#
24	24"x24"	10"	(3) #4 EACH WAY	6000#
30	30"x30"	10"	(3) #5 EACH WAY	9375#
36	36"x36"	10"	(3) #5 EACH WAY	13500#
42	42"x42"	10"	(3) #5 EACH WAY	18375#
48	48"x48"	12"	(4) #5 EACH WAY	24000#
54	54"x54"	12"	(5) #5 EACH WAY	30375#
60	60"x60"	12"	(5) #5 EACH WAY	37500#
66	66"x66"	12"	(6) #5 EACH WAY	45375#
72	72"x72"	12"	(7) #5 EACH WAY	54000#

NOTE:  
FOOTING DESIGN IS BASED ON 2500 PSI CONCRETE AND AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF

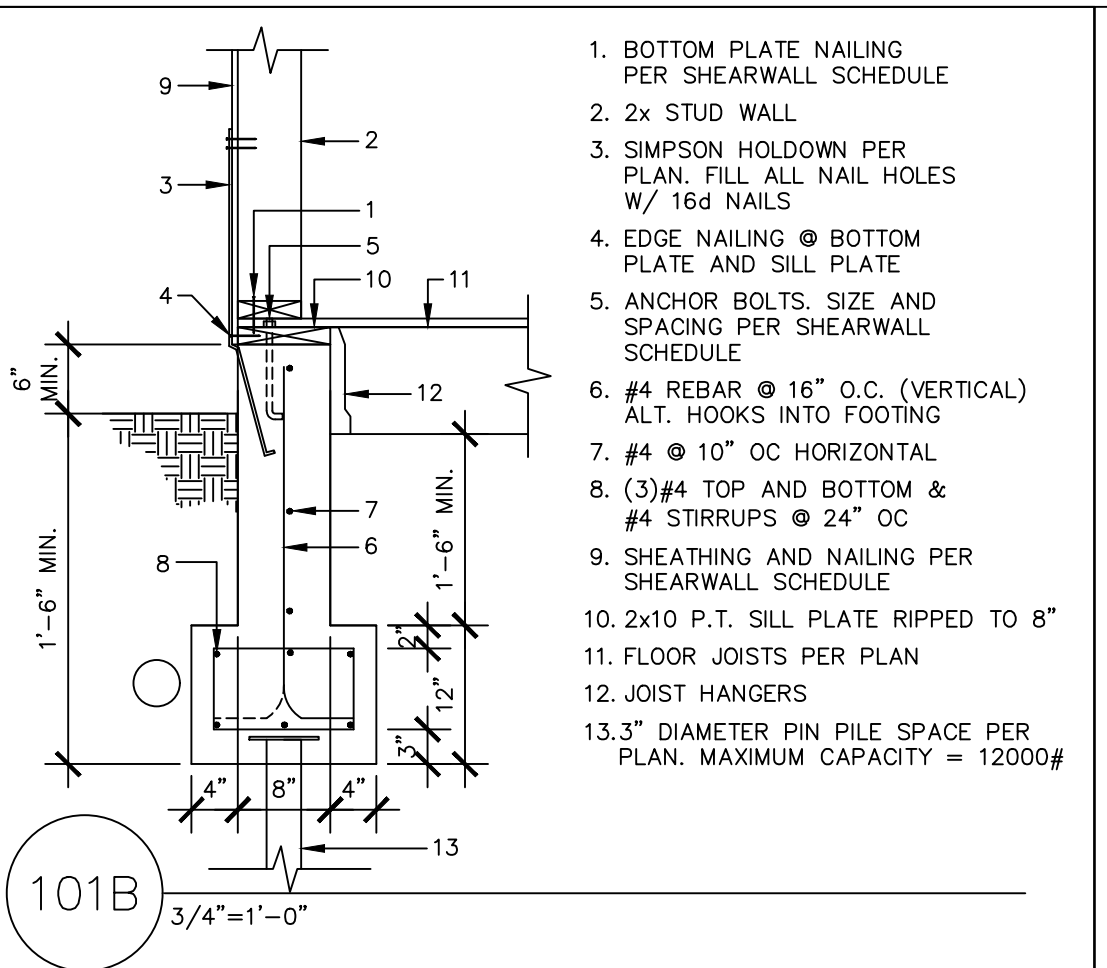


MDT ENGINEERING  
 31403 44th AVE S  
 AUBURN, WA, 98001  
 PHONE: (253) 709-9852  
 EMAIL: md.thompson@earthlink.net



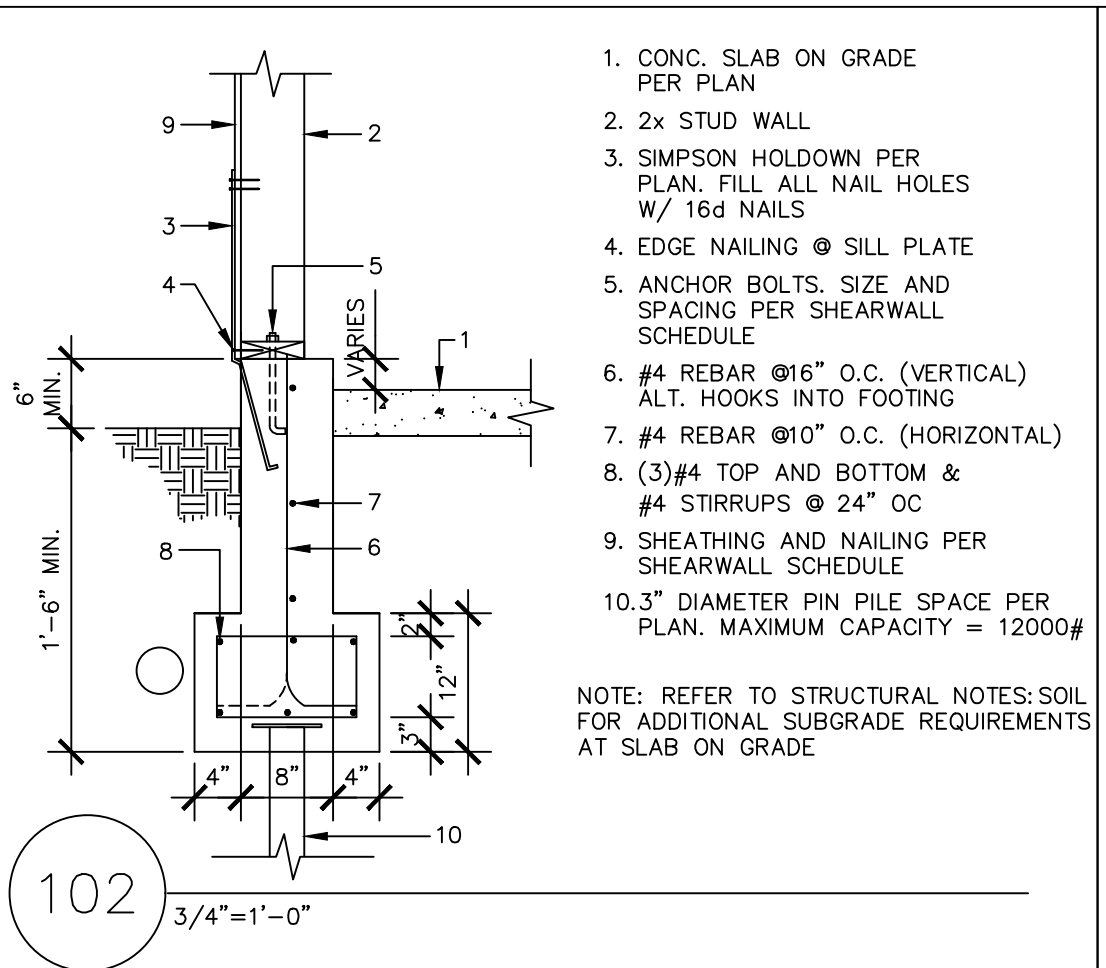
- BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
- 2x STUD WALL
- SIMPSON HOLDOWN PER PLAN. FILL ALL NAIL HOLES W/ 16d NAILS
- EDGE NAILING @ BOTTOM PLATE AND SILL PLATE
- ANCHOR BOLTS. SIZE AND SPACING PER SHEARWALL SCHEDULE
- #4 REBAR @ 16" O.C. (VERTICAL) ALT. HOOKS INTO FOOTING
- #4 @ 10" OC HORIZONTAL
- (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE
- FLOOR JOISTS PER PLAN
- 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

101A  
 3/4"=1'-0"



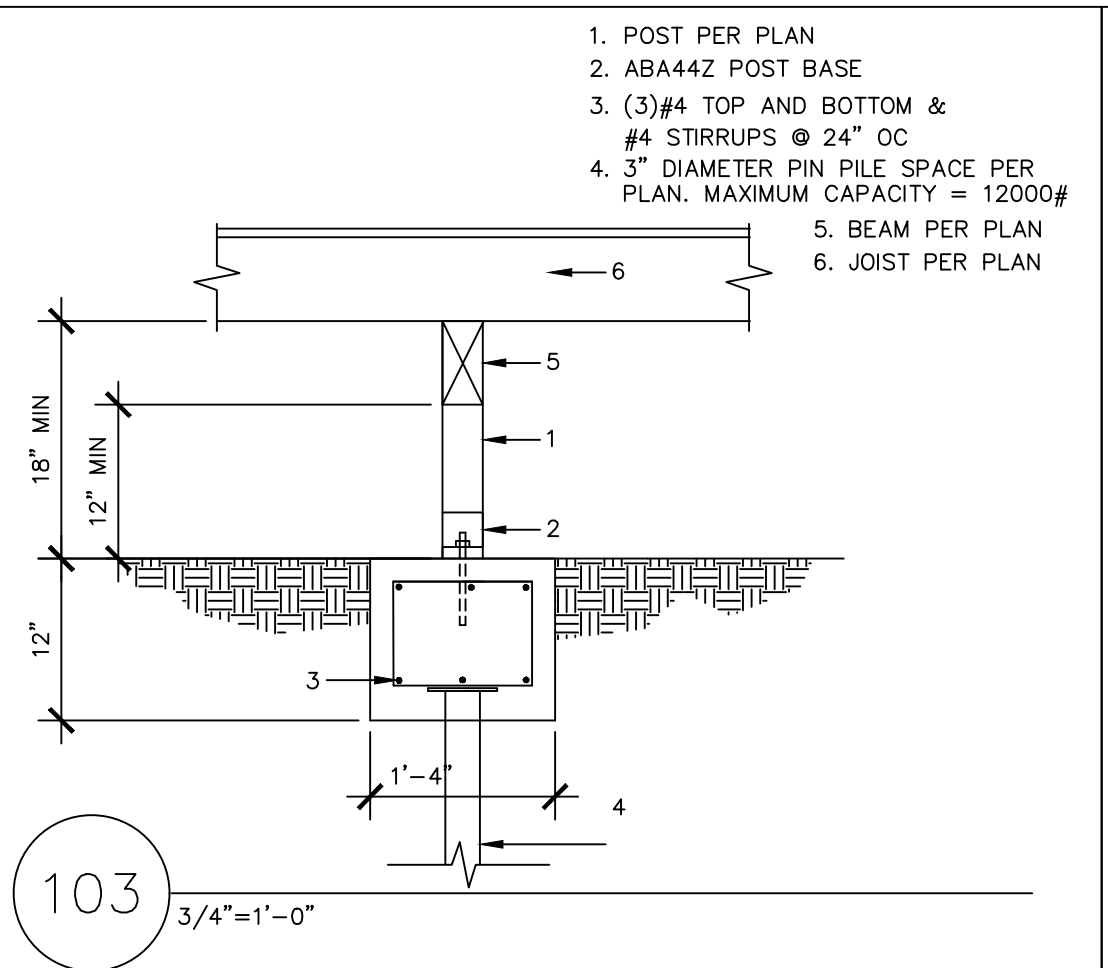
- BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
- 2x STUD WALL
- SIMPSON HOLDOWN PER PLAN. FILL ALL NAIL HOLES W/ 16d NAILS
- EDGE NAILING @ BOTTOM PLATE AND SILL PLATE
- ANCHOR BOLTS. SIZE AND SPACING PER SHEARWALL SCHEDULE
- #4 REBAR @ 16" O.C. (VERTICAL) ALT. HOOKS INTO FOOTING
- #4 @ 10" OC HORIZONTAL
- (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE
- 2x10 P.T. SILL PLATE RIPPED TO 8"
- FLOOR JOISTS PER PLAN
- JOIST HANGERS
- 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

101B  
 3/4"=1'-0"



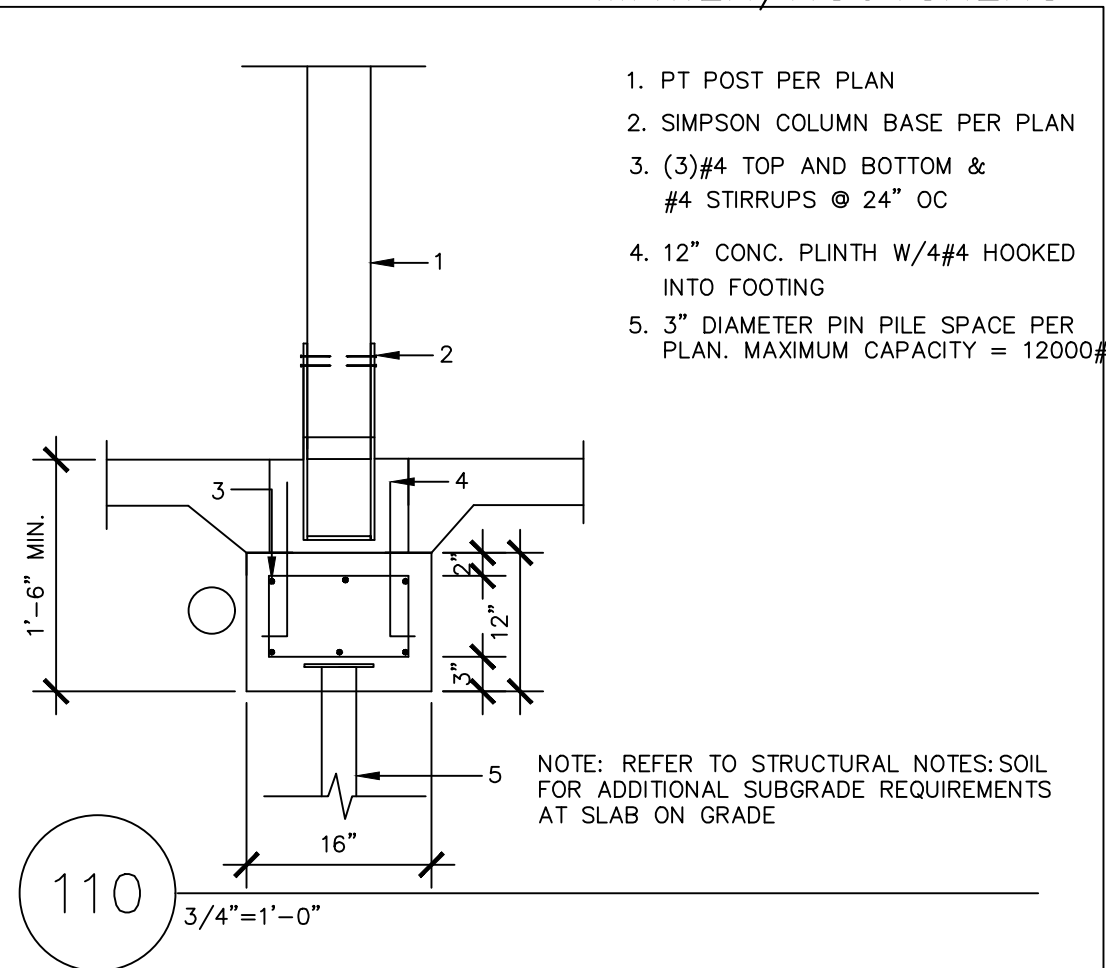
- CONC. SLAB ON GRADE PER PLAN
  - 2x STUD WALL
  - SIMPSON HOLDOWN PER PLAN. FILL ALL NAIL HOLES W/ 16d NAILS
  - EDGE NAILING @ SILL PLATE
  - ANCHOR BOLTS. SIZE AND SPACING PER SHEARWALL SCHEDULE
  - #4 REBAR @ 16" O.C. (VERTICAL) ALT. HOOKS INTO FOOTING
  - #4 @ 10" OC (HORIZONTAL)
  - (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
  - SHEATHING AND NAILING PER SHEARWALL SCHEDULE
  - 10.3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#
- NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

102  
 3/4"=1'-0"



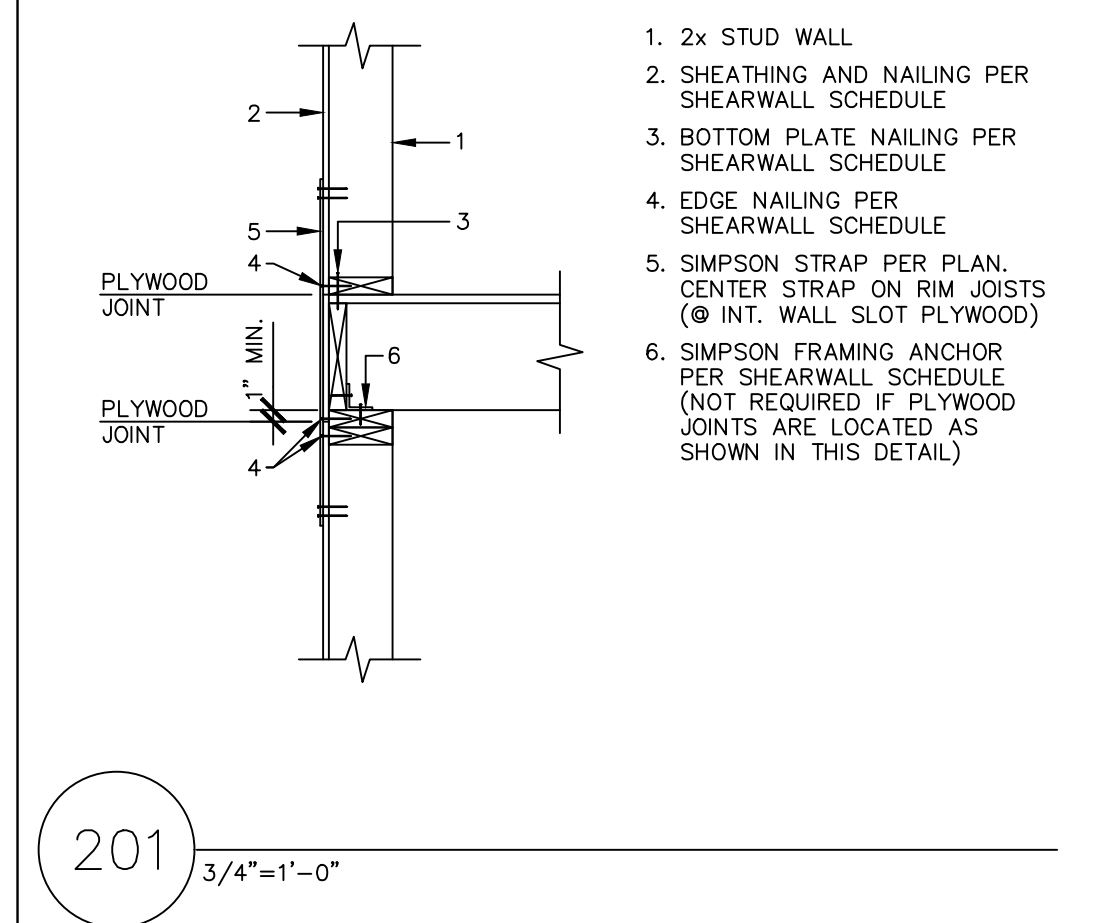
- POST PER PLAN
- ABA442 POST BASE
- (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
- 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#
- BEAM PER PLAN
- JOIST PER PLAN

103  
 3/4"=1'-0"



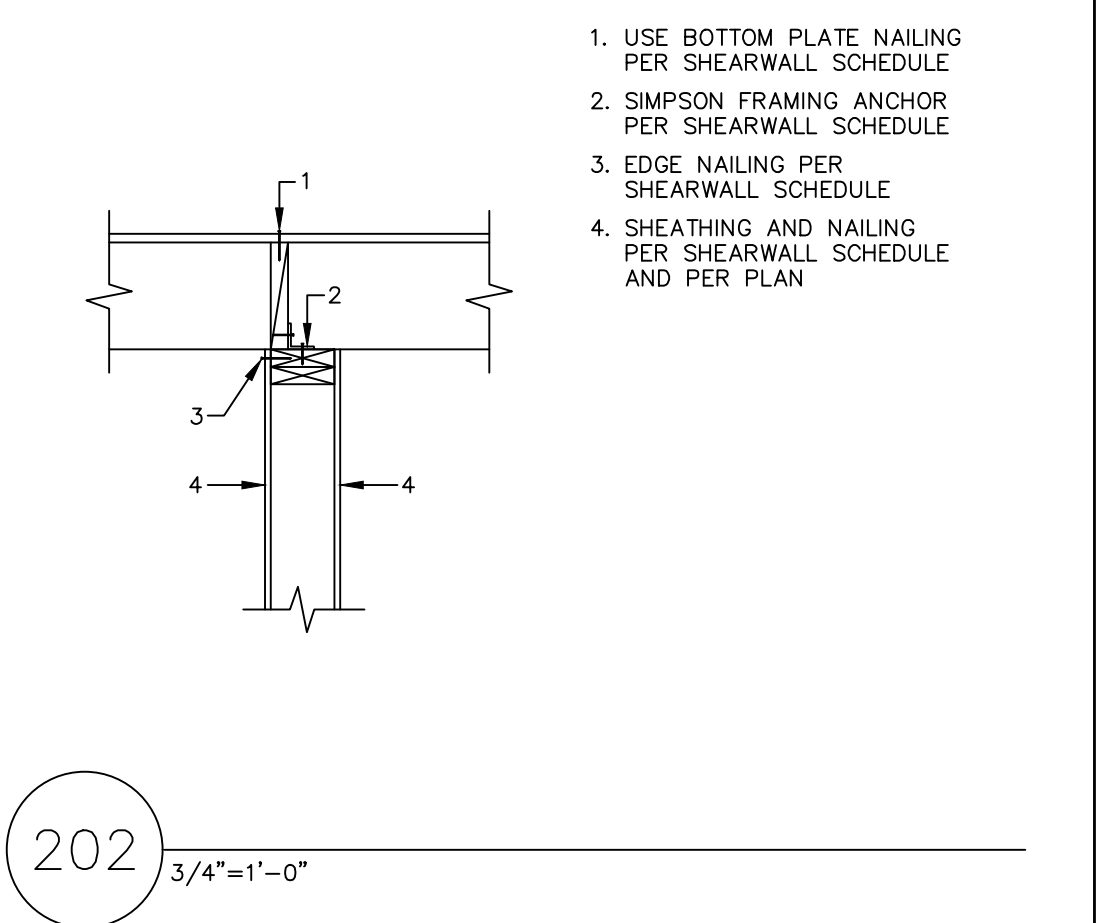
- PT POST PER PLAN
  - SIMPSON COLUMN BASE PER PLAN
  - (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
  - 12" CONC. PLINTH W/#4 HOOKED INTO FOOTING
  - 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#
- NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

110  
 3/4"=1'-0"



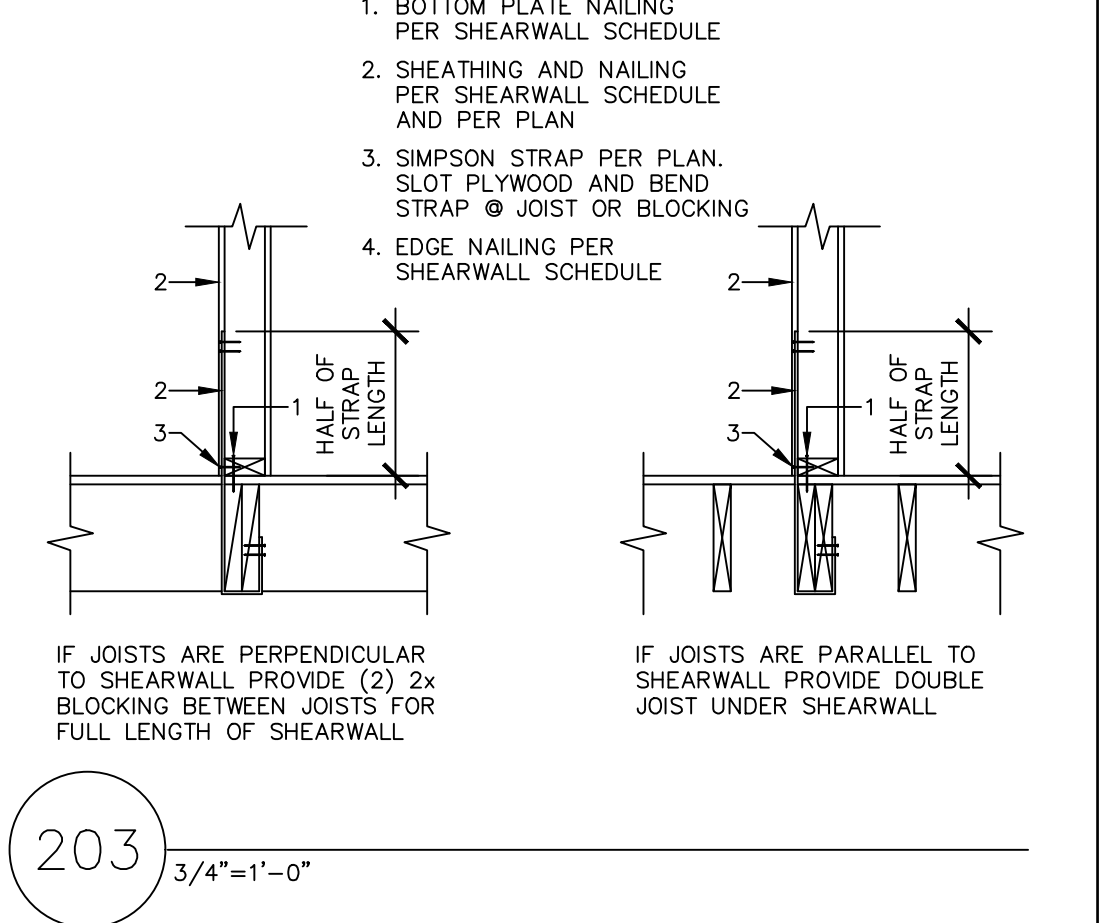
- 2x STUD WALL
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE
- BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
- EDGE NAILING PER SHEARWALL SCHEDULE
- SIMPSON STRAP PER PLAN. CENTER STRAP ON RIM JOISTS (@ INT. WALL SLOT PLYWOOD)
- SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE (NOT REQUIRED IF PLYWOOD JOINTS ARE LOCATED AS SHOWN IN THIS DETAIL)

201  
 3/4"=1'-0"



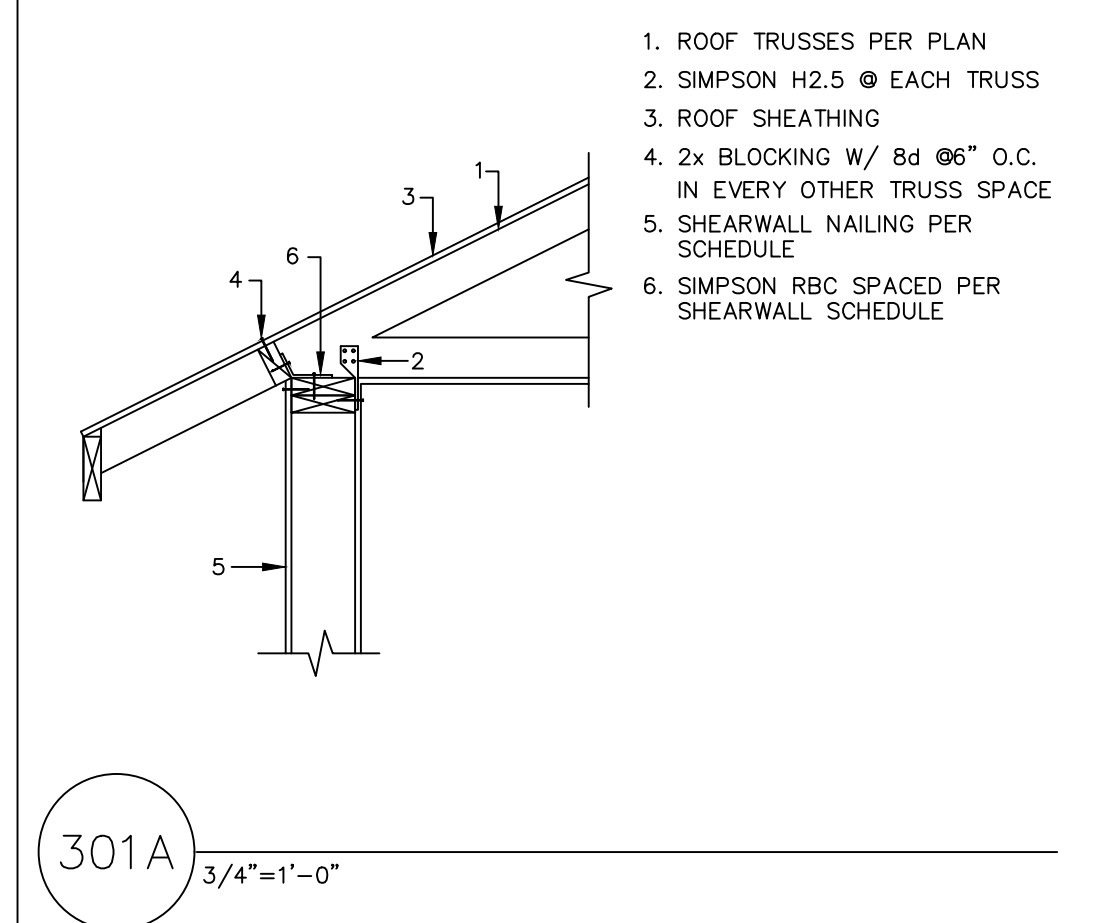
- USE BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
- SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE
- EDGE NAILING PER SHEARWALL SCHEDULE
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN

202  
 3/4"=1'-0"



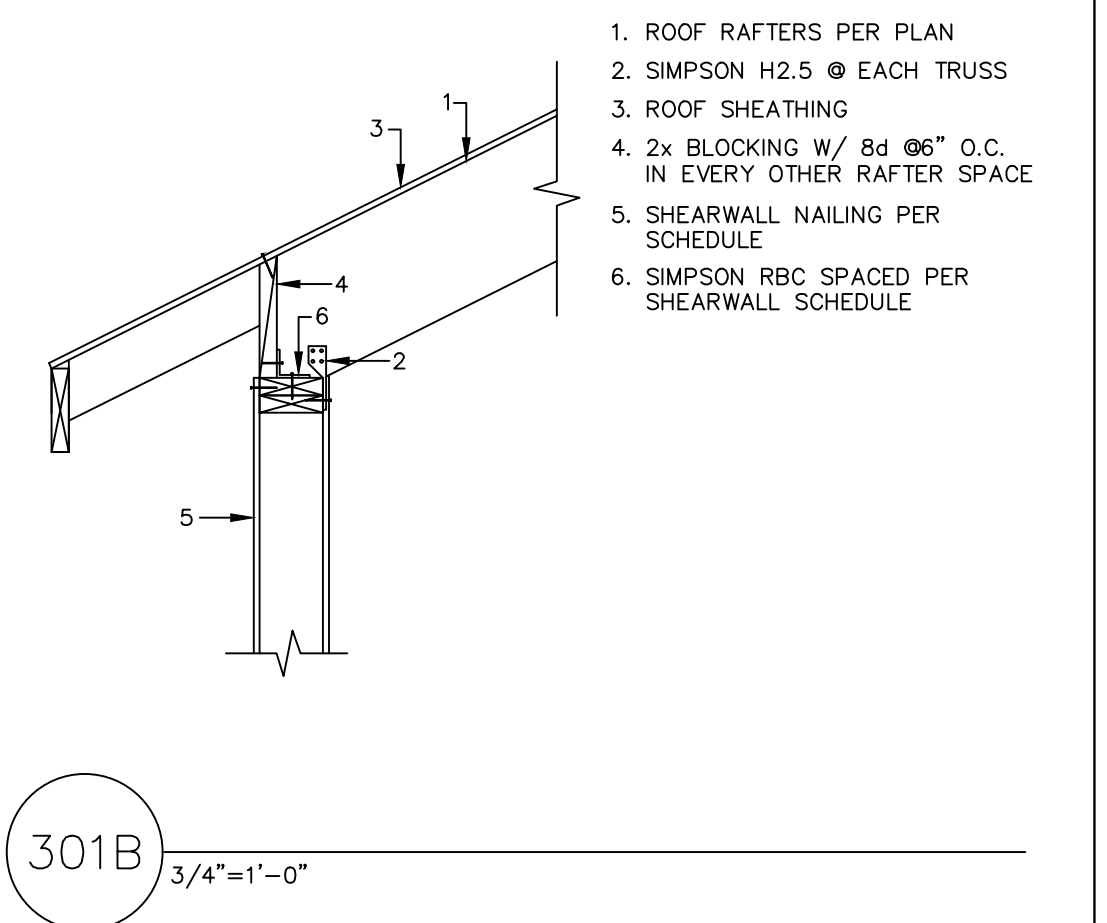
- BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
  - SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
  - SIMPSON STRAP PER PLAN. SLOT PLYWOOD AND BEND STRAP @ JOIST OR BLOCKING
  - EDGE NAILING PER SHEARWALL SCHEDULE
- IF JOISTS ARE PERPENDICULAR TO SHEARWALL PROVIDE (2) 2x BLOCKING BETWEEN JOISTS FOR FULL LENGTH OF SHEARWALL
- IF JOISTS ARE PARALLEL TO SHEARWALL PROVIDE DOUBLE JOIST UNDER SHEARWALL

203  
 3/4"=1'-0"



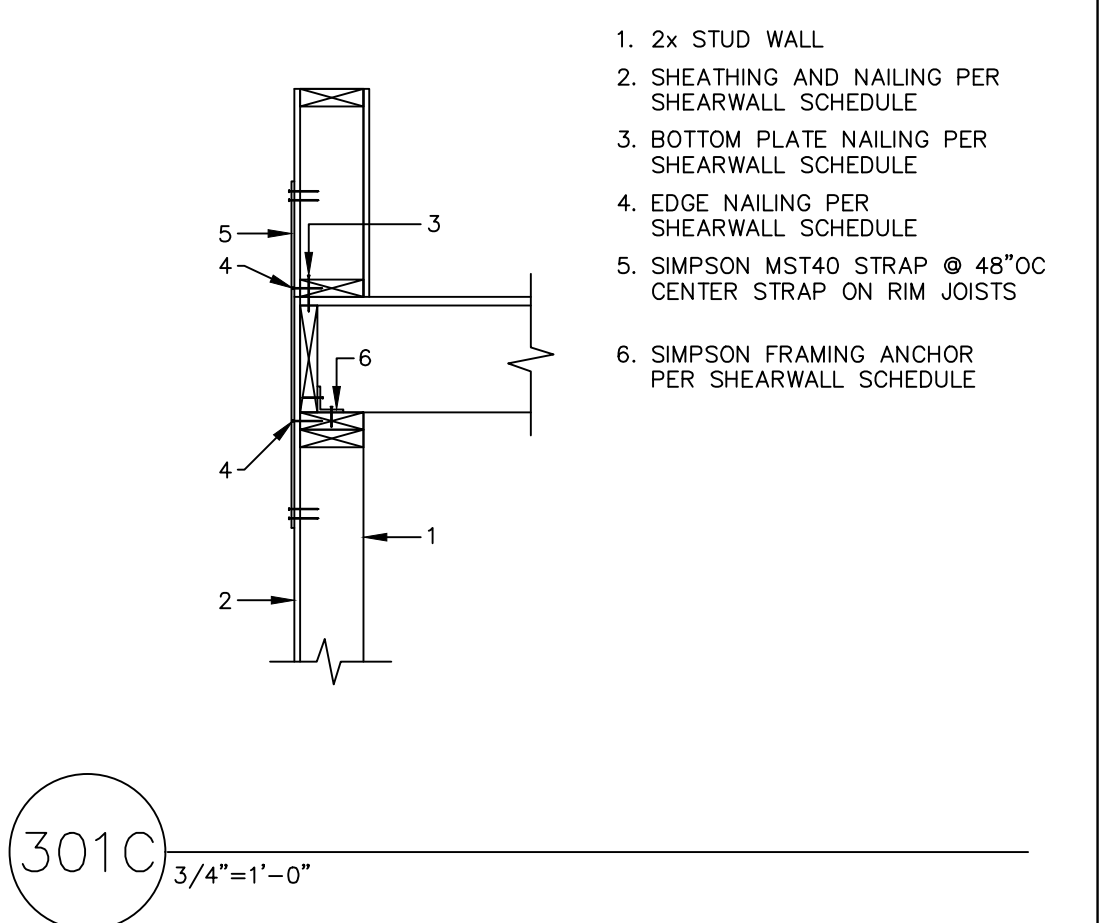
- ROOF TRUSSES PER PLAN
- SIMPSON H2.5 @ EACH TRUSS
- ROOF SHEATHING
- 2x BLOCKING W/ 8d @ 6" O.C. IN EVERY OTHER TRUSS SPACE
- SHEARWALL NAILING PER SCHEDULE
- SIMPSON RBC SPACED PER SHEARWALL SCHEDULE

301A  
 3/4"=1'-0"



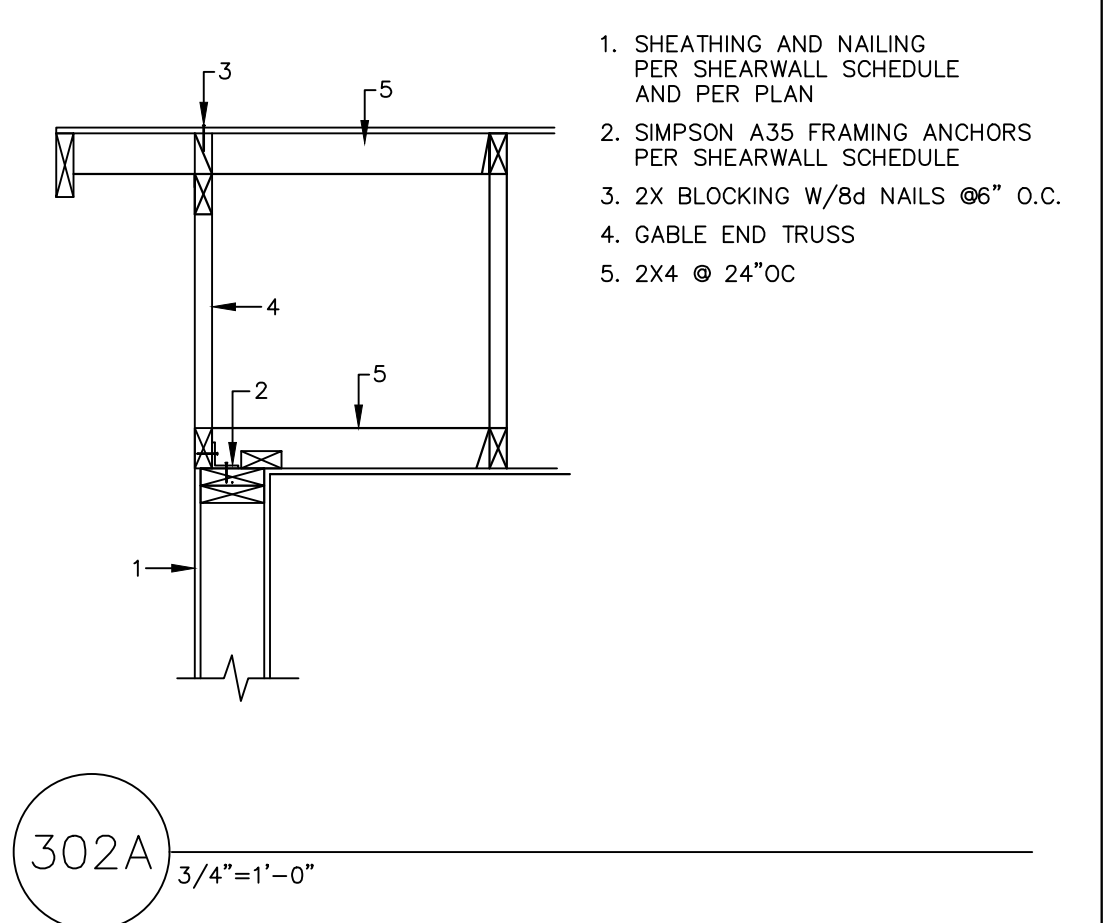
- ROOF RAFTERS PER PLAN
- SIMPSON H2.5 @ EACH TRUSS
- ROOF SHEATHING
- 2x BLOCKING W/ 8d @ 6" O.C. IN EVERY OTHER RAFTER SPACE
- SHEARWALL NAILING PER SCHEDULE
- SIMPSON RBC SPACED PER SHEARWALL SCHEDULE

301B  
 3/4"=1'-0"



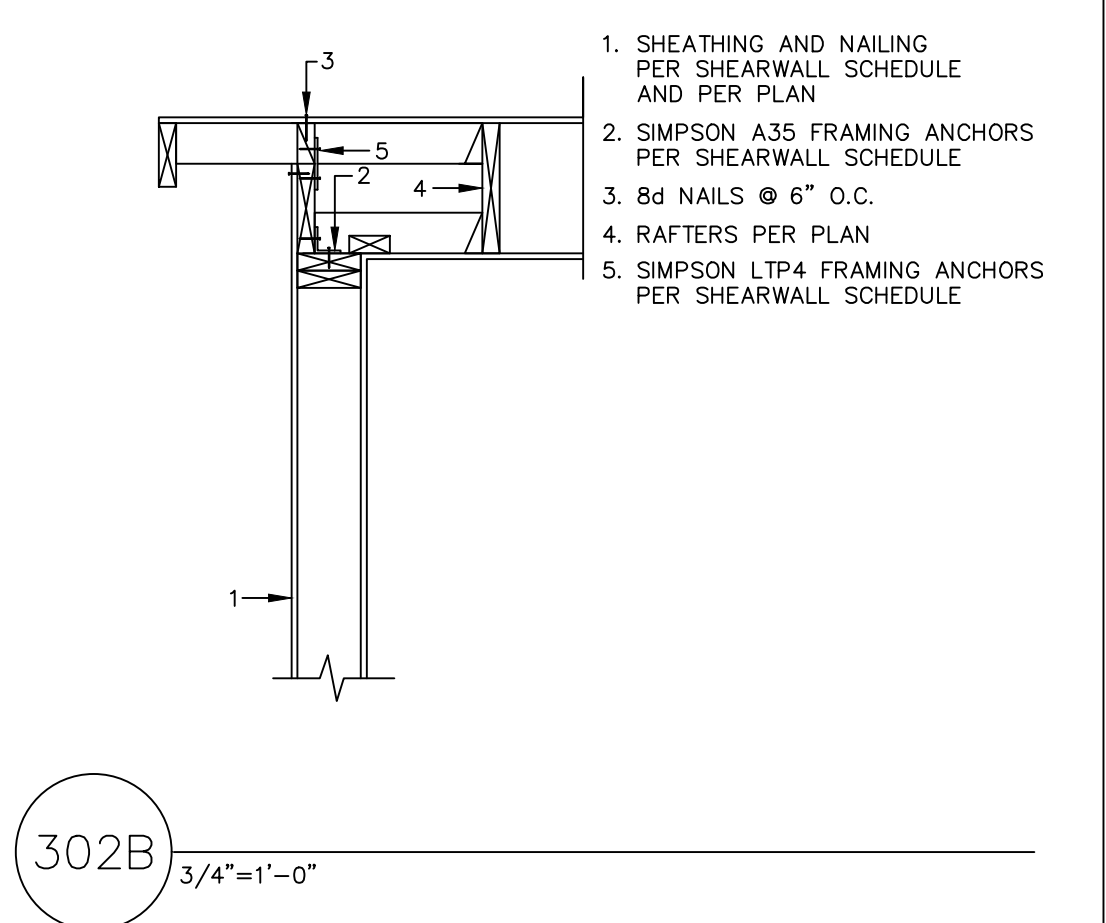
- 2x STUD WALL
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE
- BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
- EDGE NAILING PER SHEARWALL SCHEDULE
- SIMPSON MST40 STRAP @ 48" OC CENTER STRAP ON RIM JOISTS
- SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE

301C  
 3/4"=1'-0"



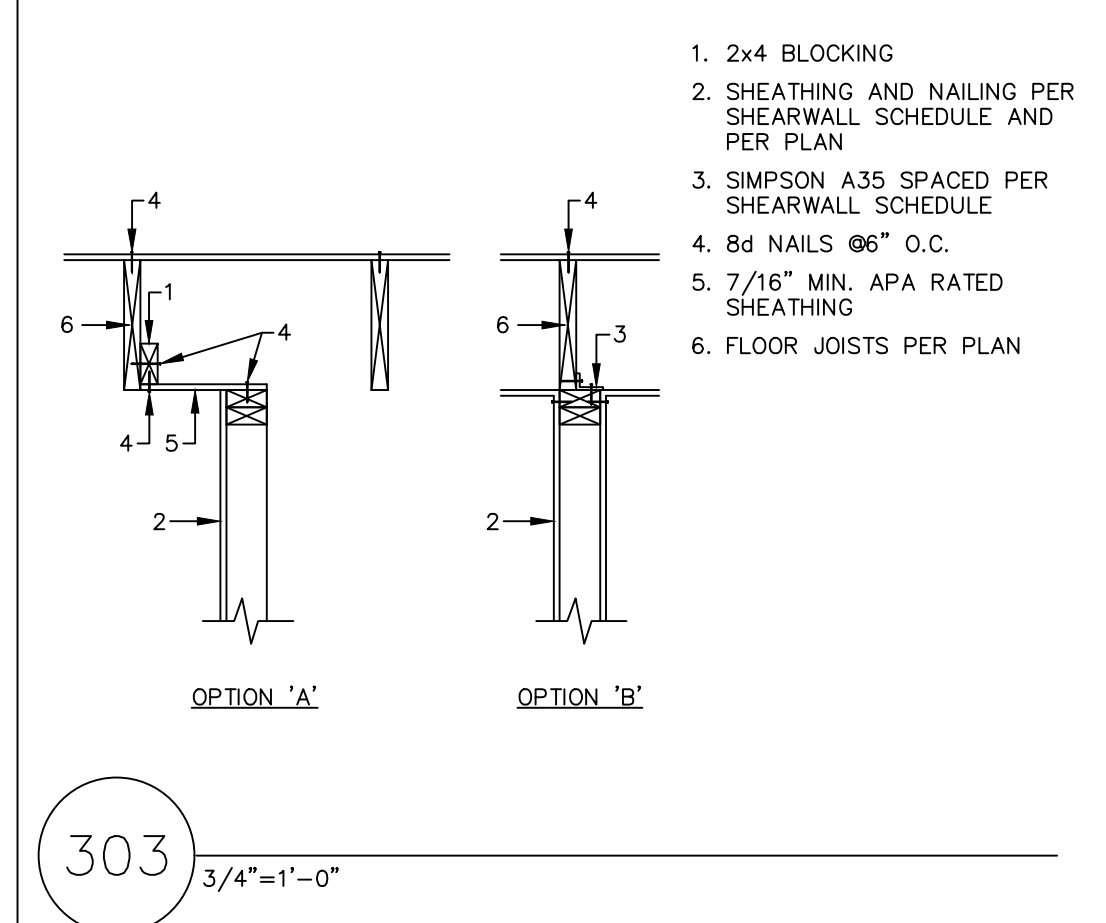
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
- SIMPSON A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE
- 2x BLOCKING W/ 8d NAILS @ 6" O.C.
- GABLE END TRUSS
- 2x4 @ 24" OC

302A  
 3/4"=1'-0"



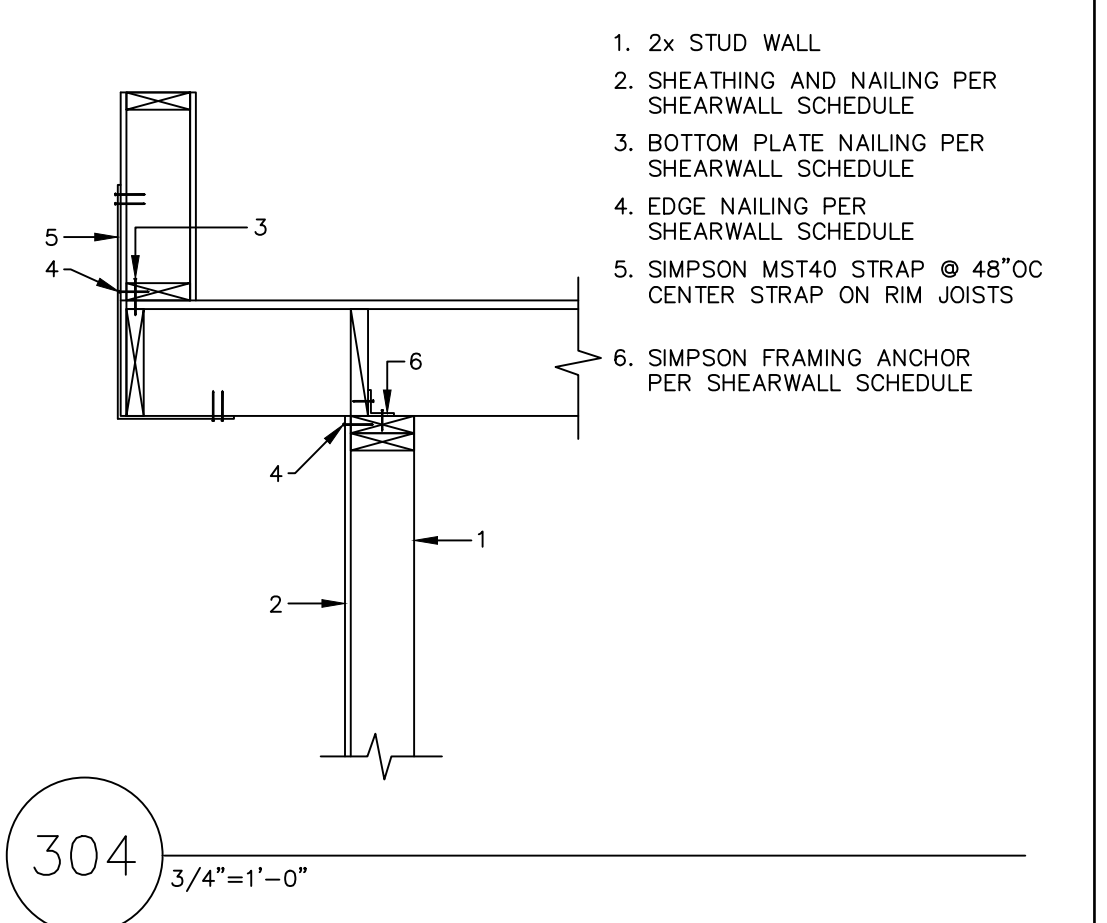
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
- SIMPSON A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE
- 8d NAILS @ 6" O.C.
- RAFTERS PER PLAN
- SIMPSON LTP4 FRAMING ANCHORS PER SHEARWALL SCHEDULE

302B  
 3/4"=1'-0"



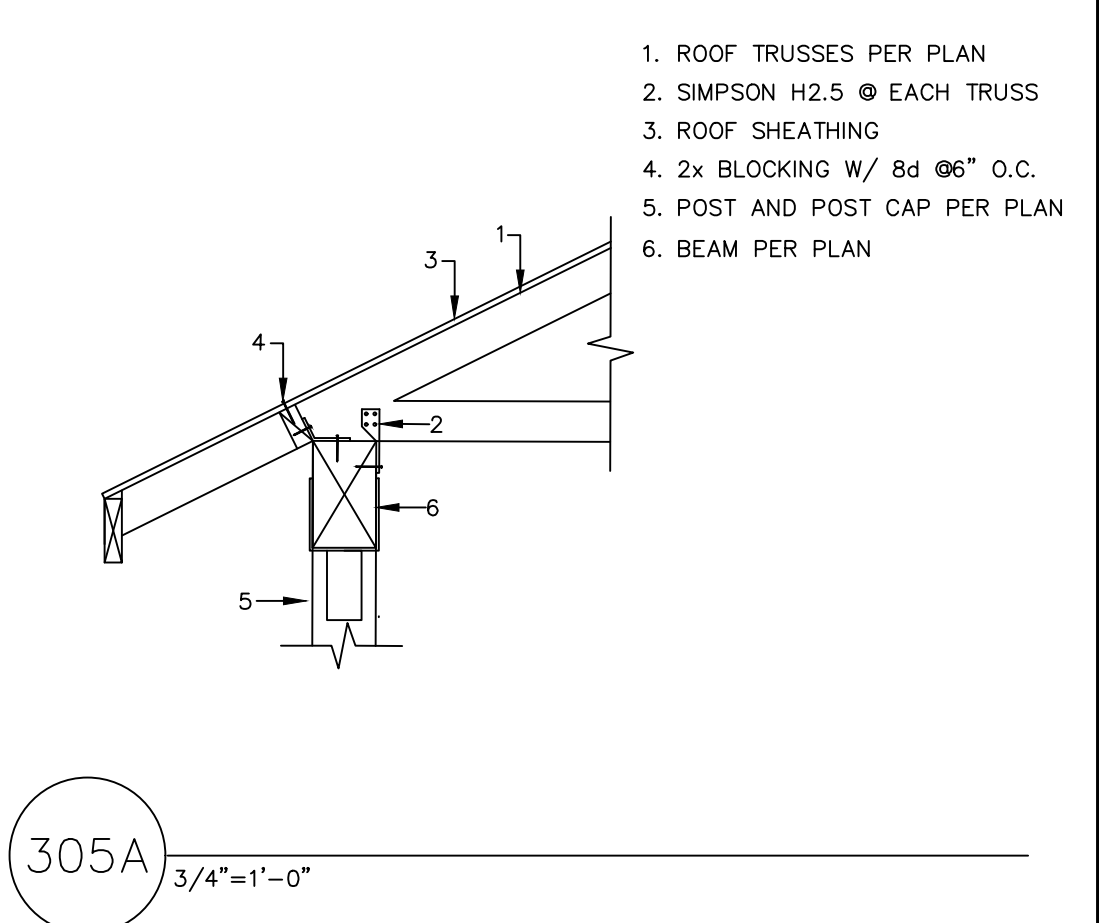
- 2x4 BLOCKING
  - SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
  - SIMPSON A35 SPACED PER SHEARWALL SCHEDULE
  - 8d NAILS @ 6" O.C.
  - 7/16" MIN. APA RATED SHEATHING
  - FLOOR JOISTS PER PLAN
- OPTION 'A'      OPTION 'B'

303  
 3/4"=1'-0"



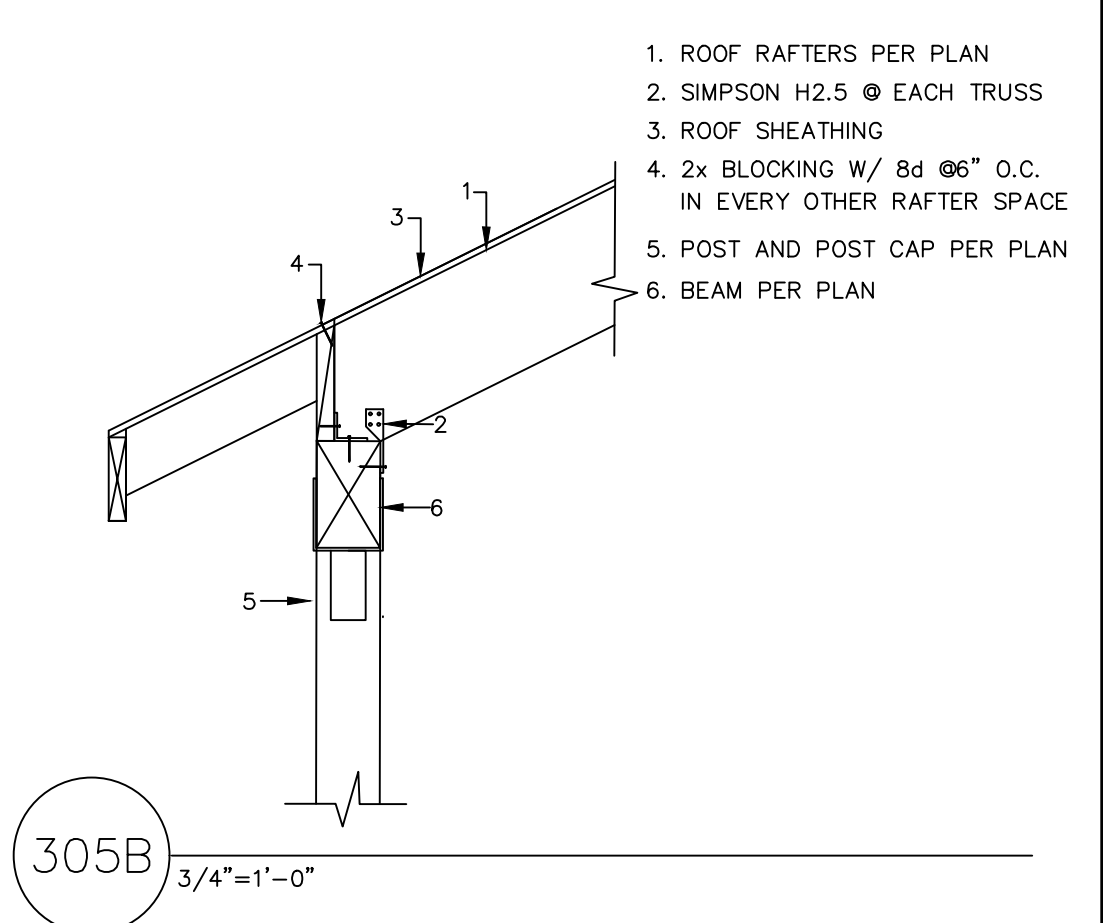
- 2x STUD WALL
- SHEATHING AND NAILING PER SHEARWALL SCHEDULE
- BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
- EDGE NAILING PER SHEARWALL SCHEDULE
- SIMPSON MST40 STRAP @ 48" OC CENTER STRAP ON RIM JOISTS
- SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE

304  
 3/4"=1'-0"



- ROOF TRUSSES PER PLAN
- SIMPSON H2.5 @ EACH TRUSS
- ROOF SHEATHING
- 2x BLOCKING W/ 8d @ 6" O.C.
- POST AND POST CAP PER PLAN
- BEAM PER PLAN

305A  
 3/4"=1'-0"



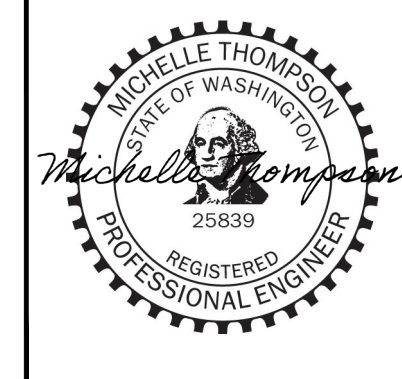
- ROOF RAFTERS PER PLAN
- SIMPSON H2.5 @ EACH TRUSS
- ROOF SHEATHING
- 2x BLOCKING W/ 8d @ 6" O.C. IN EVERY OTHER RAFTER SPACE
- POST AND POST CAP PER PLAN
- BEAM PER PLAN

305B  
 3/4"=1'-0"

REVISION DATES:

REV. 7-8-22
REV. 8-30-22
REV. 2-9-23

PROJECT: MAWER-HOUTCHENS	SHEET TITLE: STRUCTURAL DETAILS
SCALE: NO SCALE	DATE: 4-18-22
DRAWN BY: MDT	SHEET NO.:
PROJECT NO. MAWER/HOUTCHENS	S2

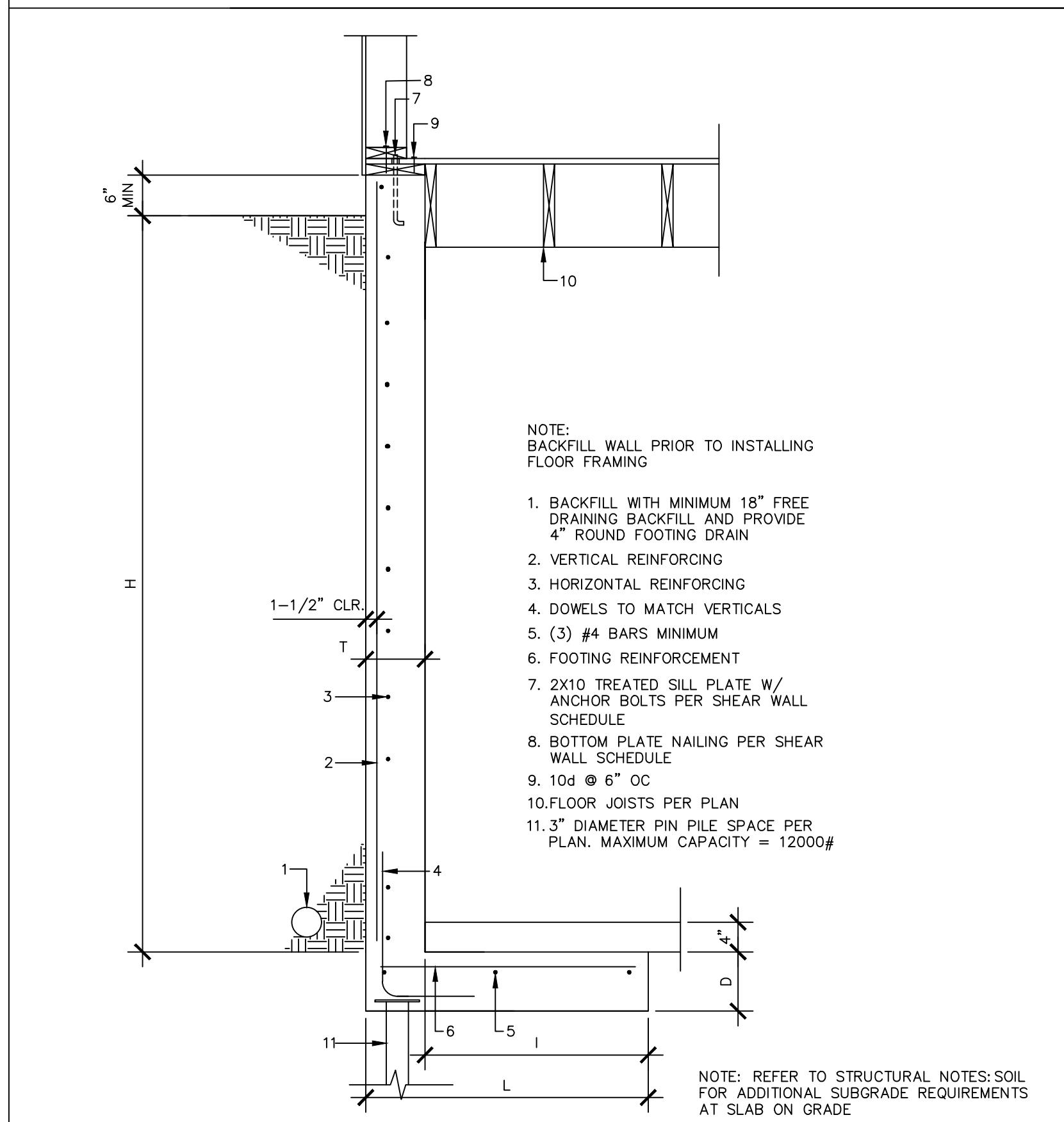


PROPERTY LINE CANTILEVERED RETAINING WALL SCHEDULE									CANTILEVERED RETAINING WALL SCHEDULE									CANTILEVERED RETAINING WALL SCHEDULE								
H	T	L	I	D	VERTICAL REINFORCING	HORIZONTAL REINFORCING	DOWELS	FOOTING REINFORCING	H	T	L	I	D	VERTICAL REINFORCING	HORIZONTAL REINFORCING	DOWELS	FOOTING REINFORCING	H	T	L	I	D	VERTICAL REINFORCING	HORIZONTAL REINFORCING	DOWELS	FOOTING REINFORCING
4'-0"	8"	2'-0"	1'-4"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	4'-0"	8"	2'-0"	8"	8"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @18" O.C.	4'-0"	8"	2'-0"	8"	8"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @18" O.C.
6'-0"	8"	3'-4"	2'-8"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	6'-0"	8"	2'-8"	1'-0"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @18" O.C.	6'-0"	8"	2'-8"	1'-0"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @18" O.C.
8'-0"	8"	5'-0"	4'-4"	10"	#5 @10" O.C.	#4 @12" O.C.	#5 @10" O.C.	#4 @10" O.C.	8'-0"	8"	3'-8"	1'-6"	10"	#5 @12" O.C.	#4 @12" O.C.	#5 @12" O.C.	#4 @10" O.C.	8'-0"	8"	3'-8"	1'-6"	10"	#5 @12" O.C.	#4 @12" O.C.	#5 @12" O.C.	#4 @10" O.C.
10'-0"	8"	7'-0"	6'-4"	12"	#6 @8" O.C.	#4 @12" O.C.	#6 @8" O.C.	#5 @12" O.C.	10'-0"	8"	5'-8"	2'-6"	10"	#5 @8" O.C.	#4 @12" O.C.	#5 @8" O.C.	#5 @8" O.C.	10'-0"	8"	5'-8"	2'-6"	10"	#5 @8" O.C.	#4 @12" O.C.	#5 @8" O.C.	#5 @8" O.C.
12'-0"	10"	8'-5"	7'-7"	13"	#7 @9" O.C.	#4 @10" O.C.	#7 @9" O.C.	#5 @12" O.C.	12'-0"	10"	6'-6"	2'-10"	11"	#6 @8" O.C.	#4 @8" O.C.	#6 @8" O.C.	#5 @10" O.C.	12'-0"	10"	6'-6"	2'-10"	11"	#6 @8" O.C.	#4 @8" O.C.	#6 @8" O.C.	#5 @10" O.C.

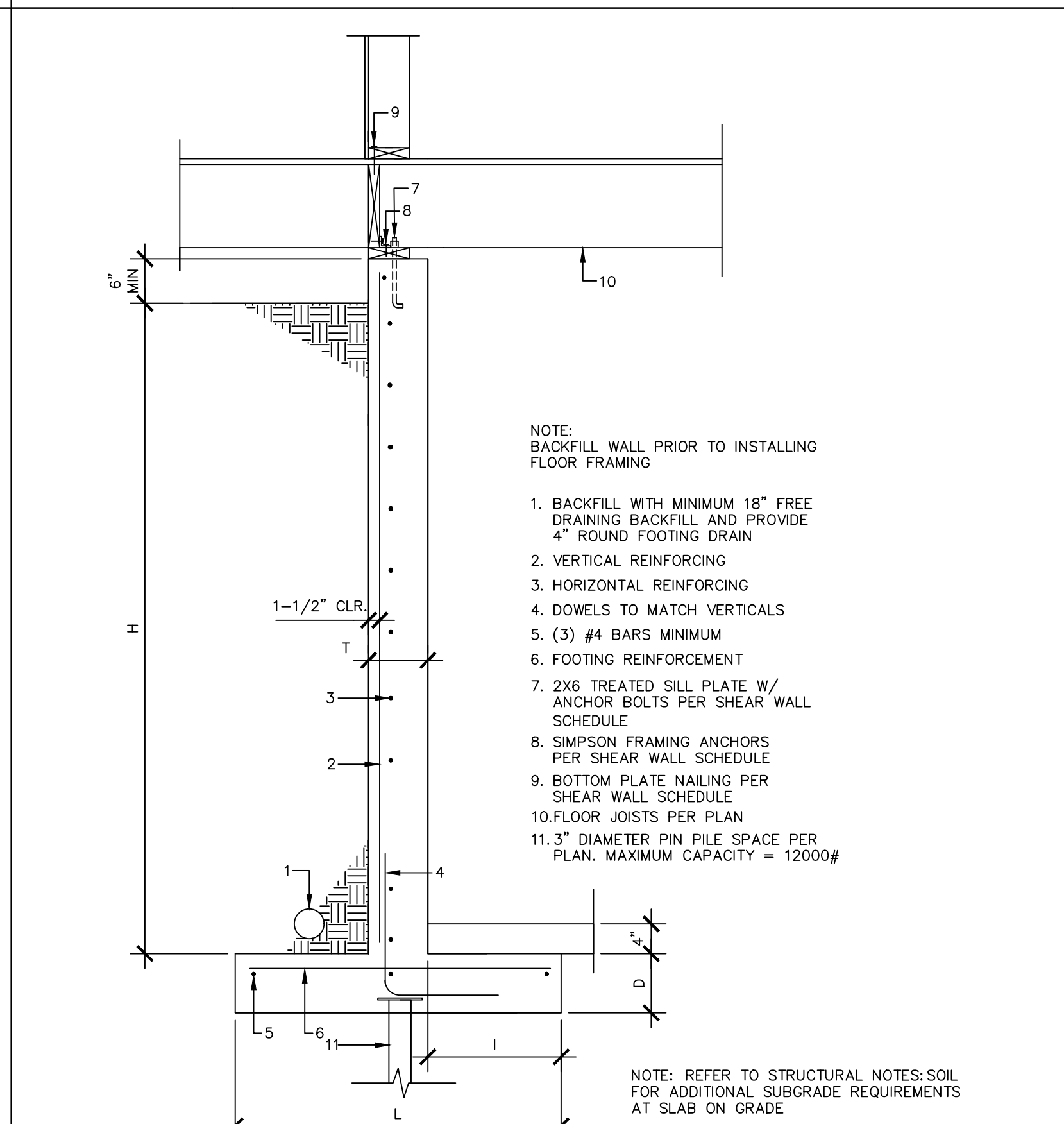
NOTES:  
 CONCRETE STRENGTH SHALL BE AT 2500 PSI @28 DAYS  
 REINFORCING BARS SHALL BE GRADE 40  
 LATERAL EARTH PRESSURE = 35 PCF WITH LEVEL BACKFILL  
 PASSIVE RESISTANCE = 350 PCF AND COEFFICIENT OF FRICTION = 0.35  
 PROVIDE FREE DRAINING GRANULAR BACKFILL FOR A MINIMUM OF 18" BEHIND RETAINING WALL  
 PROVIDE A MINIMUM 4" DIA. PERFORATED PIPE SURROUNDED IN PEA GRAVEL OR WASHED CLEAN GRAVEL (MINIMUM 9" COVER) AND SLOPED TO A STORM DRAIN SYSTEM OR OTHER APPROPRIATE OUTLET. PERIMETER DRAINS SHOULD BE PROVIDED WITH CLEANOUTS AS NECESSARY TO ALLOW PERIODIC INSPECTION AND MAINTENANCE OF DRAINS

NOTES:  
 CONCRETE STRENGTH SHALL BE AT 2500 PSI @28 DAYS  
 REINFORCING BARS SHALL BE GRADE 40  
 LATERAL EARTH PRESSURE = 35 PCF WITH LEVEL BACKFILL  
 PASSIVE RESISTANCE = 350 PCF AND COEFFICIENT OF FRICTION = 0.35  
 PROVIDE FREE DRAINING GRANULAR BACKFILL FOR A MINIMUM OF 18" BEHIND RETAINING WALL  
 PROVIDE A MINIMUM 4" DIA. PERFORATED PIPE SURROUNDED IN PEA GRAVEL OR WASHED CLEAN GRAVEL (MINIMUM 9" COVER) AND SLOPED TO A STORM DRAIN SYSTEM OR OTHER APPROPRIATE OUTLET. PERIMETER DRAINS SHOULD BE PROVIDED WITH CLEANOUTS AS NECESSARY TO ALLOW PERIODIC INSPECTION AND MAINTENANCE OF DRAINS

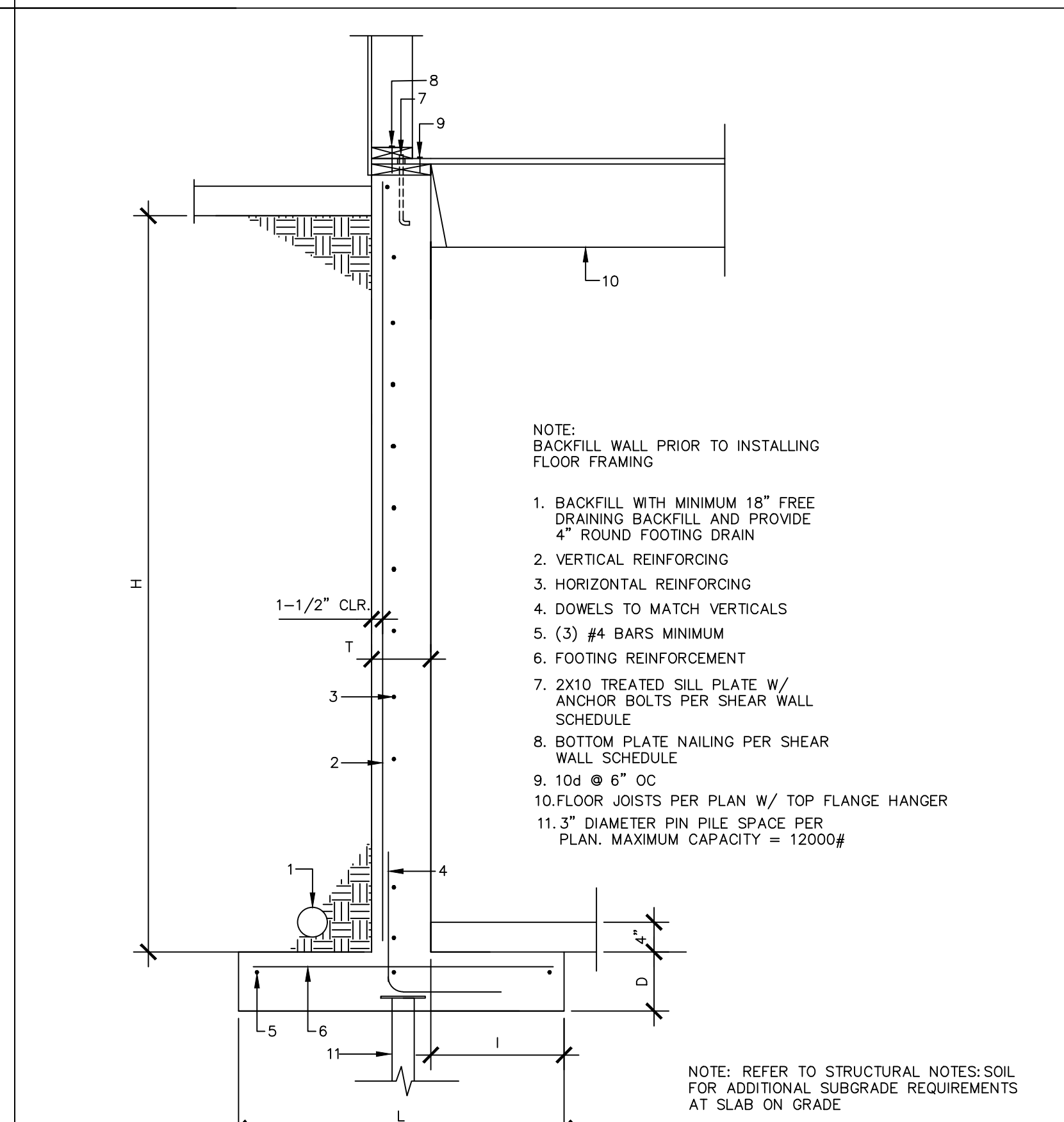
NOTES:  
 CONCRETE STRENGTH SHALL BE AT 2500 PSI @28 DAYS  
 REINFORCING BARS SHALL BE GRADE 40  
 LATERAL EARTH PRESSURE = 35 PCF WITH LEVEL BACKFILL  
 PASSIVE RESISTANCE = 350 PCF AND COEFFICIENT OF FRICTION = 0.35  
 PROVIDE FREE DRAINING GRANULAR BACKFILL FOR A MINIMUM OF 18" BEHIND RETAINING WALL  
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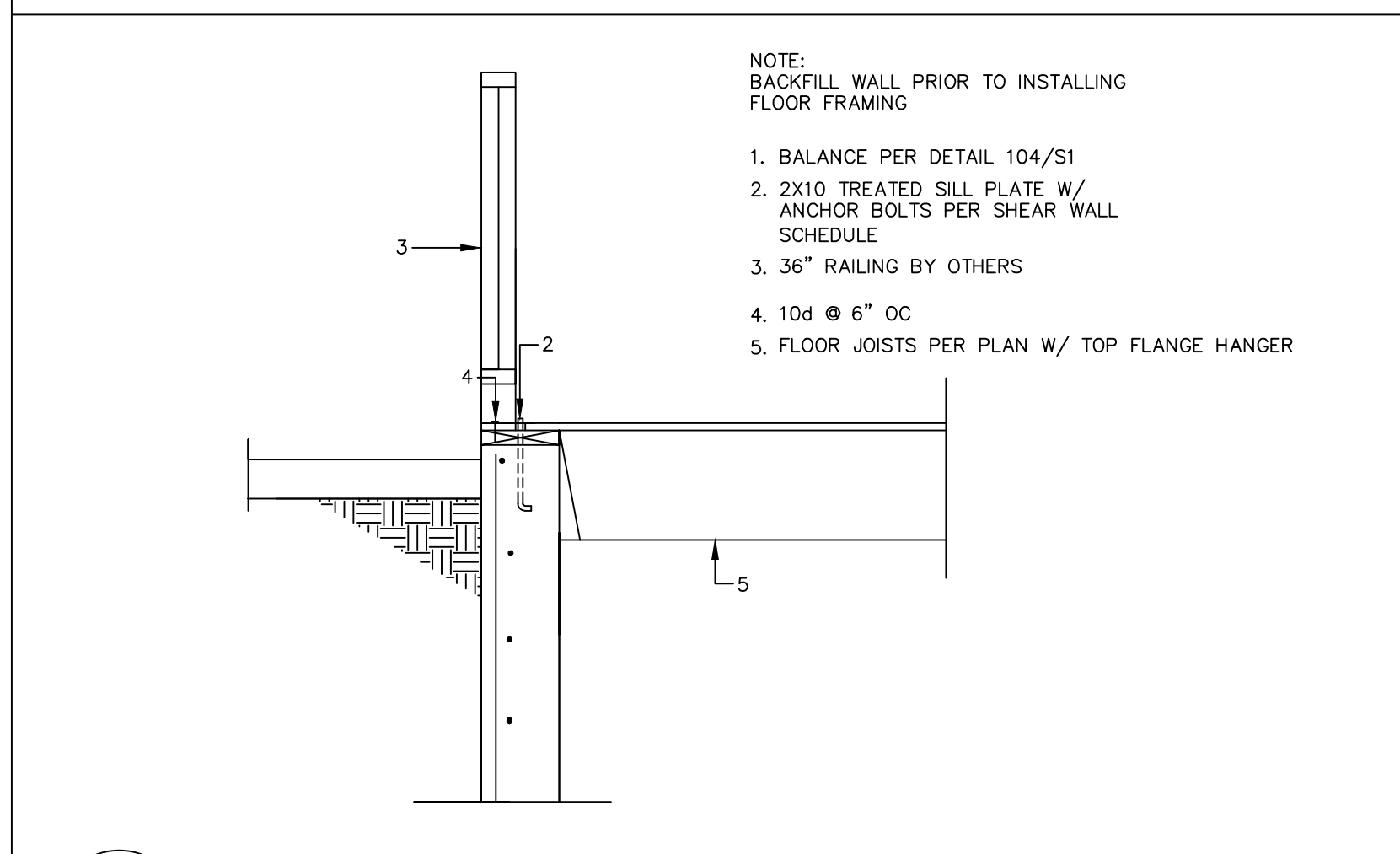
104 CANTILEVERED RETAINING WALL  
 3/4"=1'-0"



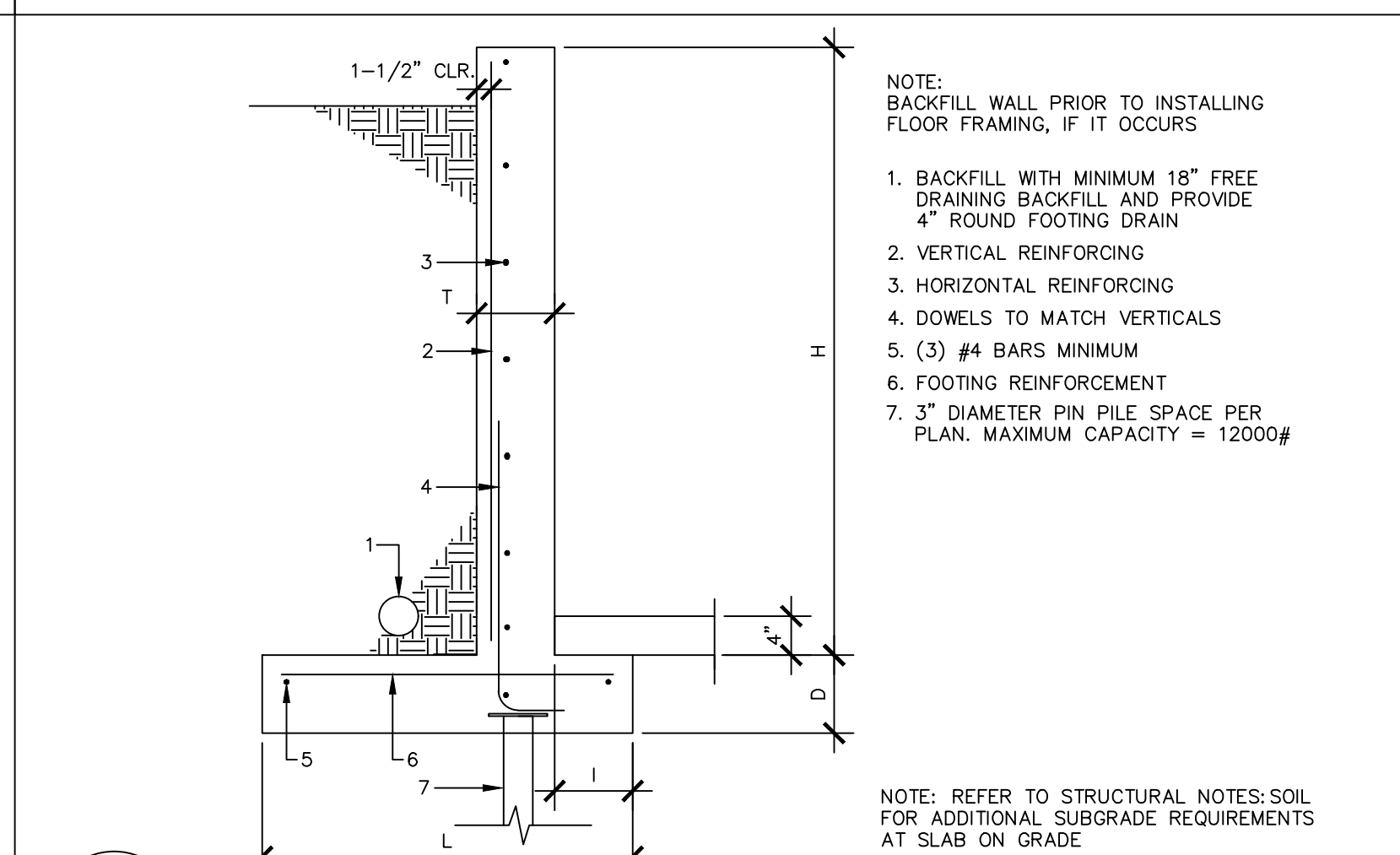
105 CANTILEVERED RETAINING WALL  
 3/4"=1'-0"



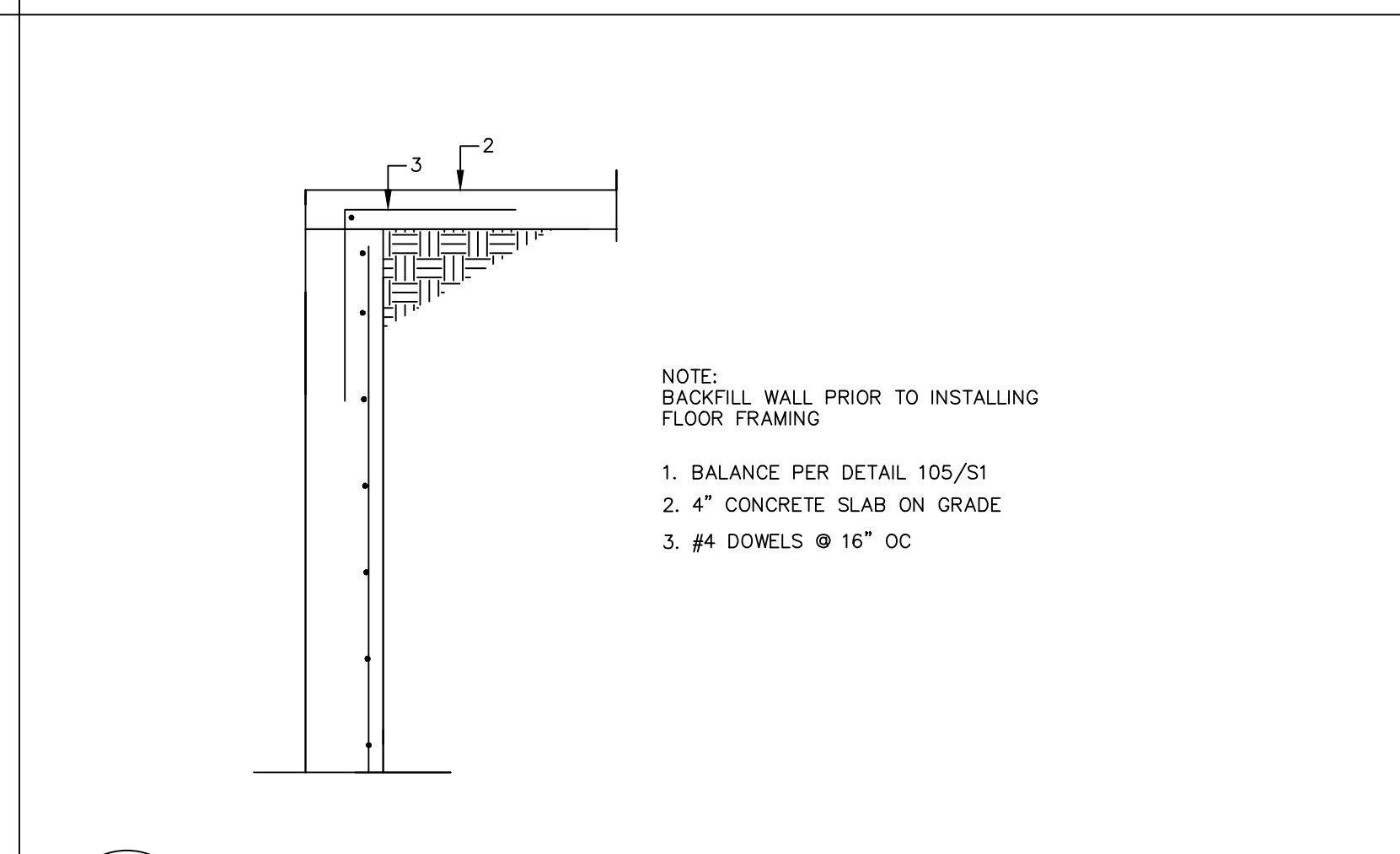
106 CANTILEVERED RETAINING WALL  
 3/4"=1'-0"



107 CANTILEVERED RETAINING WALL  
 3/4"=1'-0"



108 CANTILEVERED RETAINING WALL  
 3/4"=1'-0"



109 CANTILEVERED RETAINING WALL  
 3/4"=1'-0"

MDT ENGINEERING  
 31403 44th AVE S  
 AUBURN, WA, 98001  
 PHONE: (253) 709-9852  
 EMAIL: md.thompson@earthlink.net

REVISION DATES:  
 REV. 7-8-22  
 REV. 2-9-23

PROJECT: MAWER-HOUTCHENS	SHEET TITLE: STRUCTURAL DETAILS
SCALE: NO SCALE	DATE: 4-18-22
DRAWN BY: MDT	SHEET NO.
PROJECT NO. MAWER/HOUTCHENS	S3





LATIN	COMMON	SFC.	SIZE		QTY.
			AT MATURITY		
Acer circinatum	Vine Maple	10' O.C.	5' h x 5' w	(9)	TREE
Thuja occidentalis 'Emerald'	Emerald Green Arborvitae	--	5' h x 3' w	(22)	
Lagerstroemia indica x fauriei 'Natchez'	Crape Myrtle 'Natchez'	--	5' h x 5' w	(2)	
Hydrangea paniculata 'Jane'	Little Lime Hardy Hydrangea	--	4' h x 4' w	(7)	
Hydrangea macrophyllum	Big Leaf White Hydrangea	--	5' h x 5' w	(5)	
Buxus sempervirens 'Winter Gem'	Winter Gem Boxwood	--	2' h x 2' w	(125)	
Hydrangea 'Annabelle'	Annabelle Hydrangea	--	5' h x 5' w	(8)	

NOTE: ALL PLANTED AREAS TO GET AMENDED SOIL AND MULCHED WITH CEDAR GROVE COMPOST.

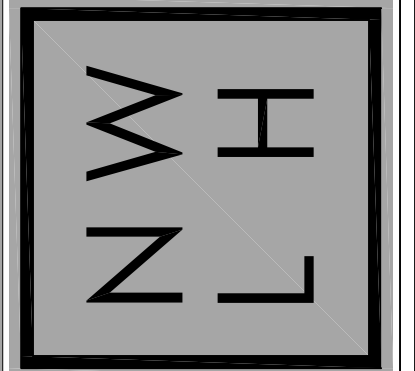
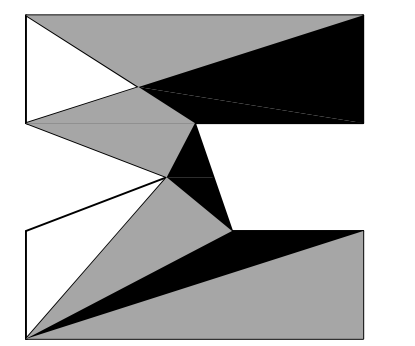
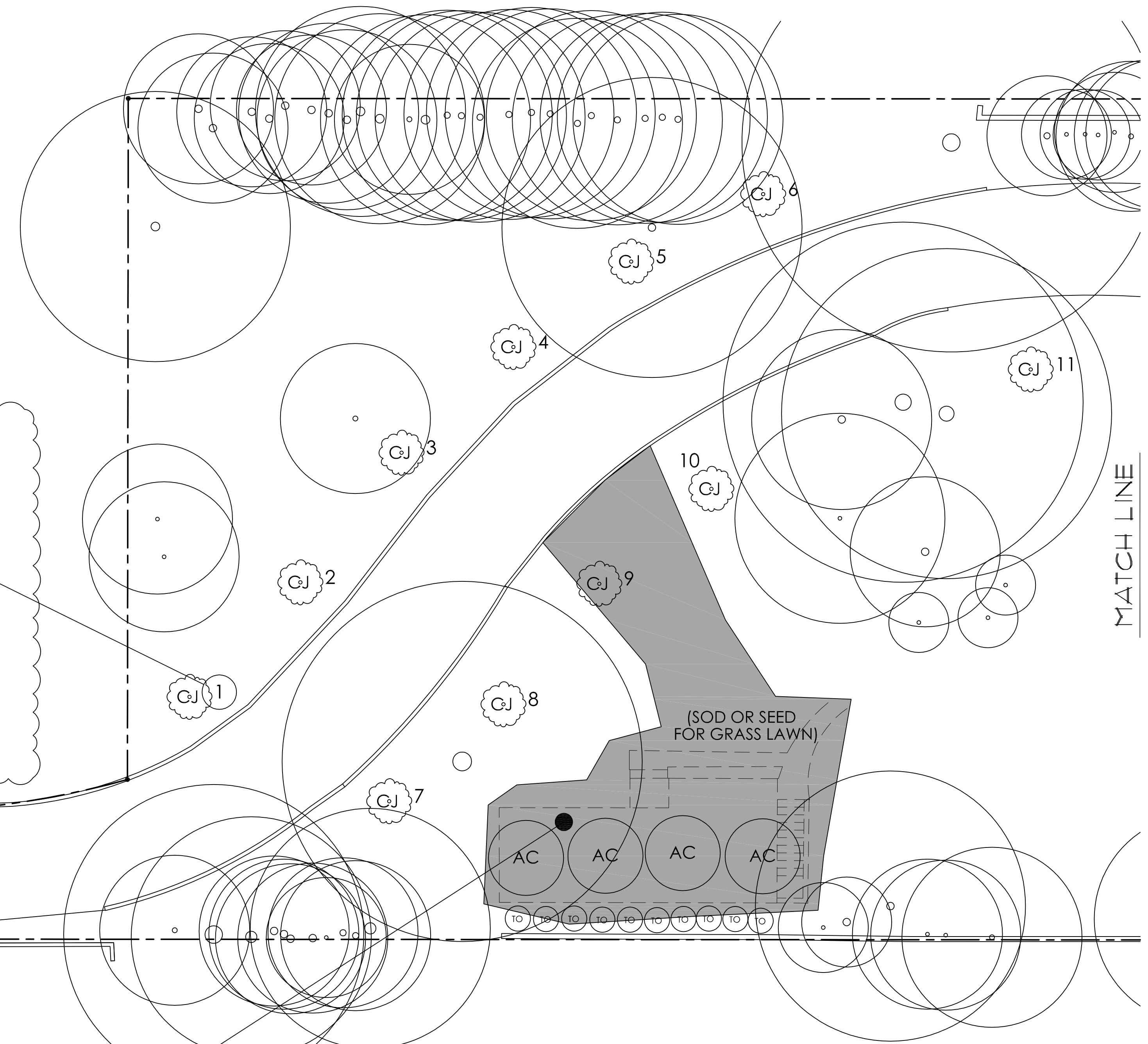
LATIN	COMMON	SFC.	SIZE		QTY.
			AT MATURITY		
Katsura	Cercidiphyllum japonicum	20-25' O.C.	36' h x 25' w (1 1/2" dia. @ trunk base min.)	(23)	TREE

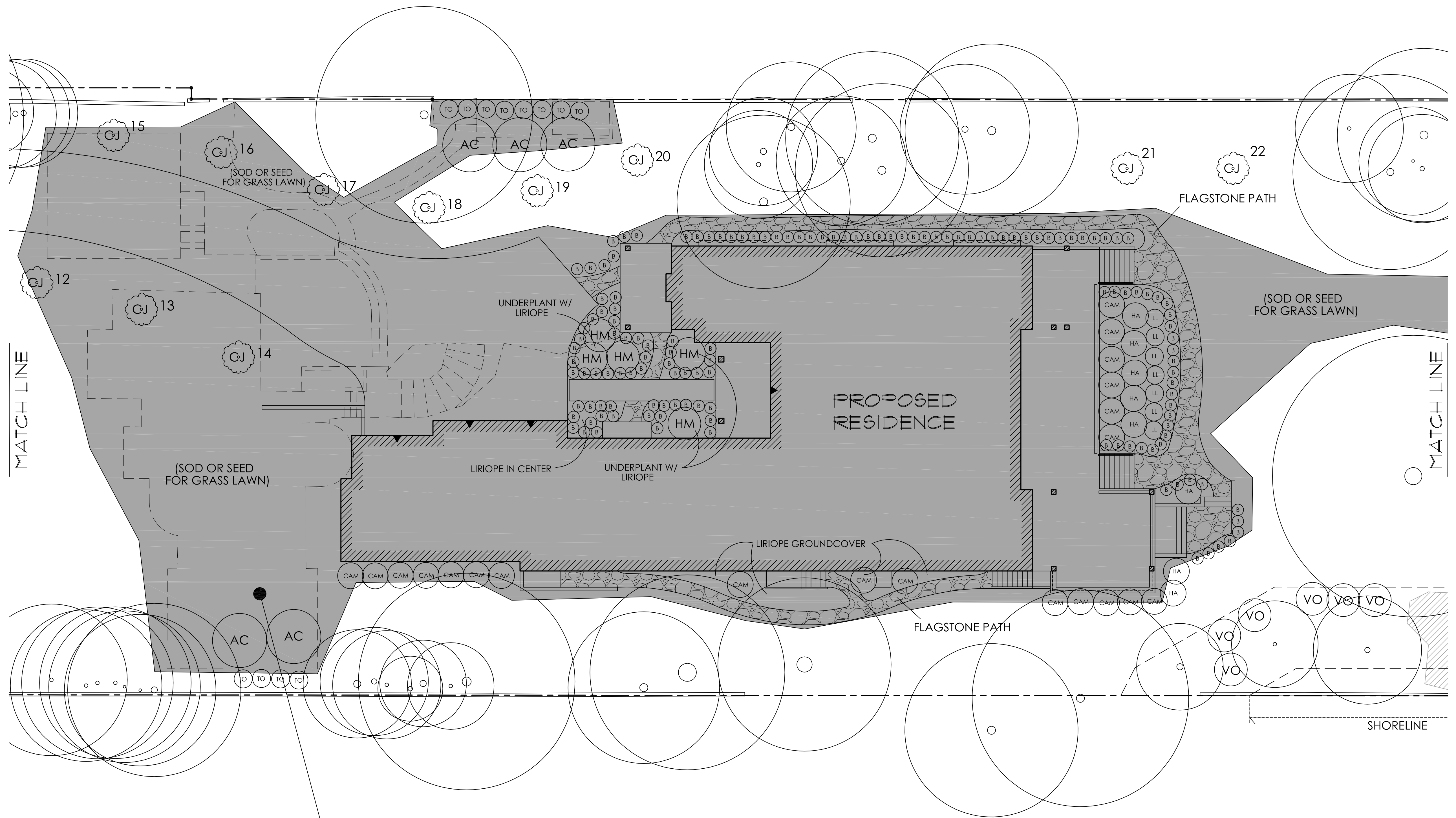
**REPLACEMENT TREE NUMBER**  
(MIN. 23 TREES)  
REPLACEMENT TREES TO BE AT LEAST 10' APART FROM EACH OTHER, STRUCTURES, FENCES AND UTILITIES.

**IRRIGATING OF NEW TREES ON SITE**

1. PLANT EACH TREE WITH A MIX OF NATIVE SOIL AND COMPOST.
2. WATER THOROUGHLY FOLLOWING INSTALLATION APPROXIMATELY 3-5 MINUTES BY HAND TWICE PER DAY FOR THE FIRST 2-3 DAYS TO KEEP THE GROUND MOIST.
3. USE IN-GROUND, PERMANENT IRRIGATION TO WATER EACH TREE FOR APPROXIMATELY 4-6 MINUTES EVERY OTHER DAY FOR THE LIFE OF THE TREE DURING THE SPRING, SUMMER, AND FALL MONTHS OF EVERY YEAR.
4. IF INSTALLED IN A PARTICULARLY DRY SEASON, INCREASE THE NUMBER OF MINUTES PER TREE OR GO TO AN EVERYDAY SETTING AS NEEDED.

**LANDSCAPE RESTORATION AREA**  
(RESTORE LANDSCAPING AT AREA OF CARETAKER COTTAGE REMOVAL IN ACCORDANCE WITH NEW PLANTING PLAN)

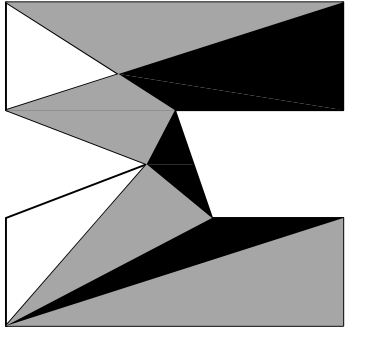




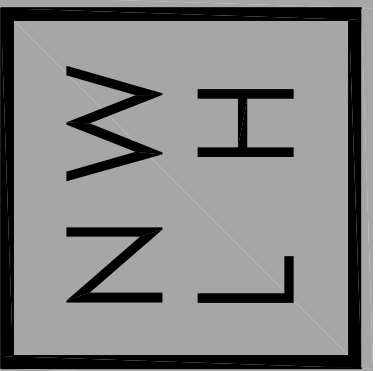
**LANDSCAPE RESTORATION AREA**  
 (RESTORE LANDSCAPING AT AREA OF MAIN HOUSE REMOVAL, AND AREA OF DISTURBANCE SURROUNDING NEW HOME CONSTRUCTION. RESTORE LAWN AREA AND IN ACCORDANCE WITH NEW PLANTING PLAN)



**SHORELINE LANDSCAPE AND RESTORATION PLAN (2 OF 3)**  
 SCALE: 1" = 10'  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040



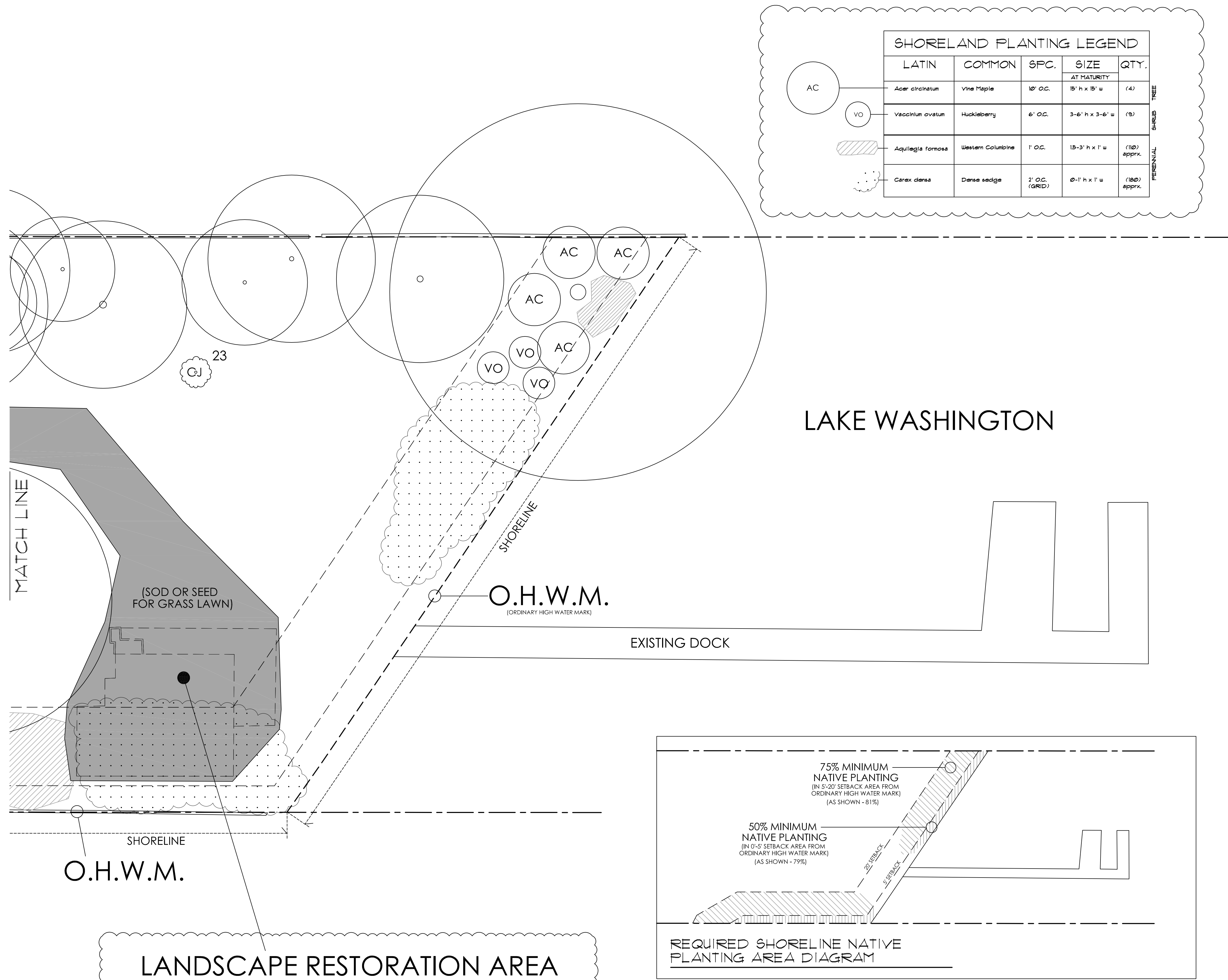
**nw lifestyle homes**  
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**HOUTCHENS RESIDENCE**  
 6024 SE 22nd ST  
 MERCER ISLAND, WA 98040

JOB NO: 20-020  
 DATE: 2/14/23  
 DRWN. BY: MM, MG  
 REVISED: 3/31/23

SHEET NO.  
**L2**

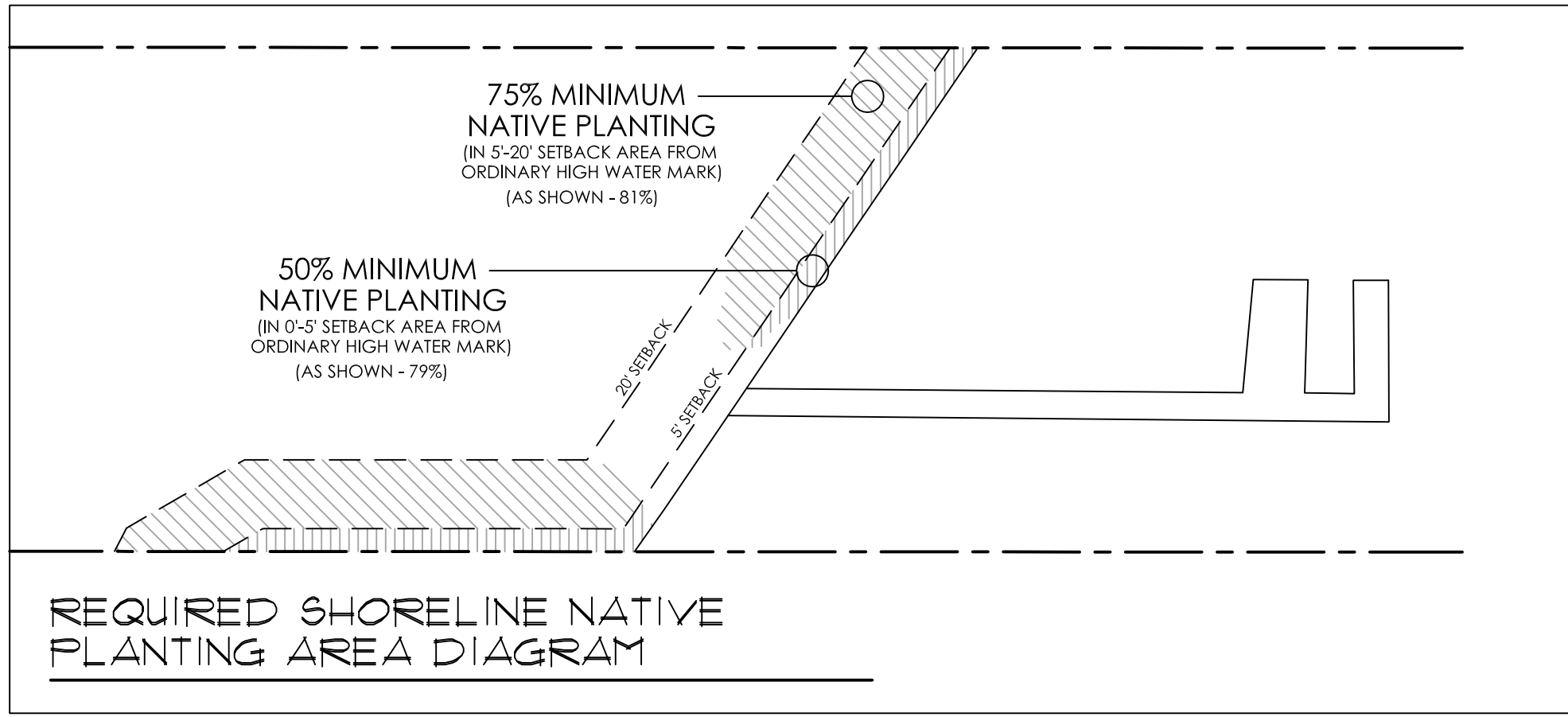


SHORELAND PLANTING LEGEND

LATIN	COMMON	SPC.	SIZE	QTY.	
			AT MATURITY		
Acer circinatum	Vine Maple	10' O.C.	15' h x 15' w	(4)	SHRUB TREE
Vaccinium ovatum	Huckleberry	6' O.C.	3-6' h x 3-6' w	(8)	
Aquilegia formosa	Western Columbine	1' O.C.	15-3' h x 1' w	(120) approx.	PERENNIAL
Carex densa	Dense sedge	2' O.C. (GRID)	0-1' h x 1' w	(180) approx.	

LANDSCAPE RESTORATION AREA

(RESTORE LANDSCAPING AT AREA OF LAKESIDE CABANA REMOVAL. RESTORE EXISTING LAWN AREA AND IN ACCORDANCE WITH SHORELINE PLANTING PLAN)



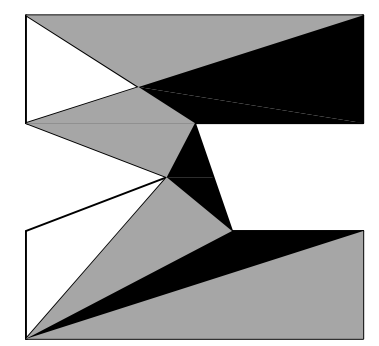
REQUIRED SHORELINE NATIVE PLANTING AREA DIAGRAM



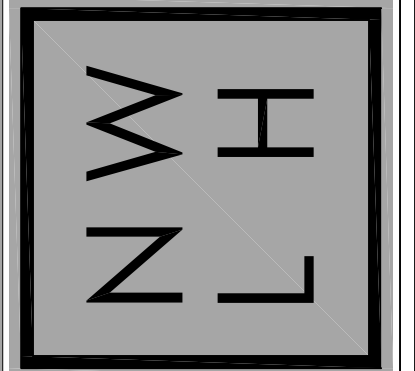
SHORELINE LANDSCAPE AND RESTORATION PLAN (3 OF 3)

SCALE: 1" = 10'  
6024 SE 22nd ST  
MERCER ISLAND, WA 98040

matthew mawer  
residential design  
matt@mawer.net  
425.417.7817



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MERCER ISLAND, WA 98040

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SHEET NO.

L3