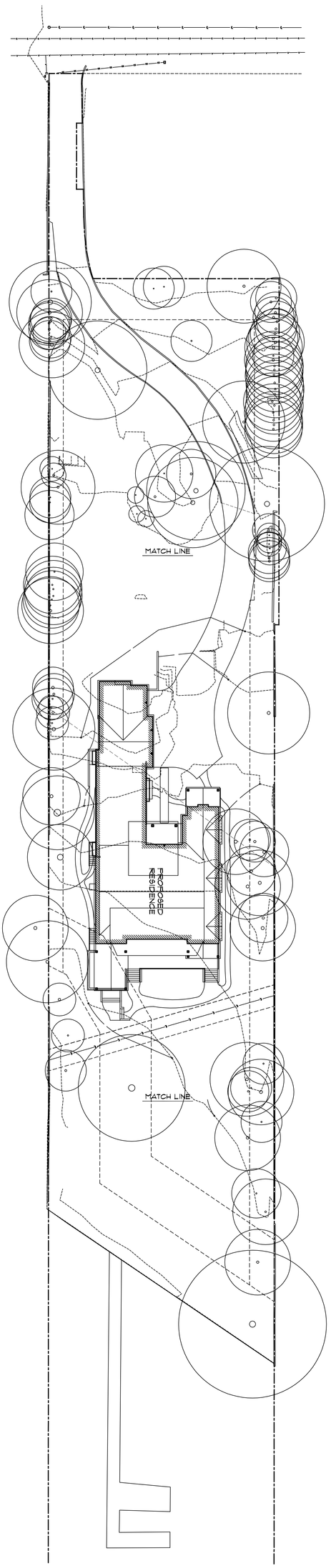
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NORTH

OVERALL PROPOSED SITE PLAN
N.T.S.

6024 SE 22nd ST
MERCER ISLAND, WA 98040

SHEET NO.
SP

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

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

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

matthew mawer
residential design
matt@mmrd.net
425.417.7817

TOPOGRAPHIC & BOUNDARY SURVEY

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 332-130-090.

LEGEND

	AREA DRAIN	OIL	OIL FILL CAP
	ASPHALT SURFACE	PST	POST
	BRICK SURFACE	PH	POWER HAND HOLE
	BUILDING	P	POWER METER
℄	CENTERLINE ROW	P	POWER (OVERHEAD)
CO	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
G	GAS LINE	SD	STORM DRAIN LINE
G	GAS METER	SIZE TYPE	TREE (AS NOTED)
	HEDGE FOLIAGE LINE	W	WATER LINE
	INLET (TYPE 1)	WM	WATER METER
IP	IRON PIPE (FOUND)		YARD LIGHT
	NAIL AS NOTED		ITEM NO. 5 - SEWER EASEMENT, REC. NO. 4691133
	MAILBOX (RESIDENTIAL)		
	MONUMENT IN CASE (FOUND)		

VICINITY MAP

N.T.S.



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:

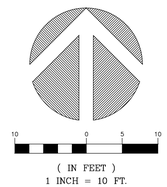
GRANTED TO: MERCER ISLAND SEWER DISTRICT
PURPOSE: SEWER
RECORDING DATE: JANUARY 18, 1956
RECORDING NO.: 4655680
AFFECTS: PORTION OF SAID PREMISES (NOTHING TO PLOT)

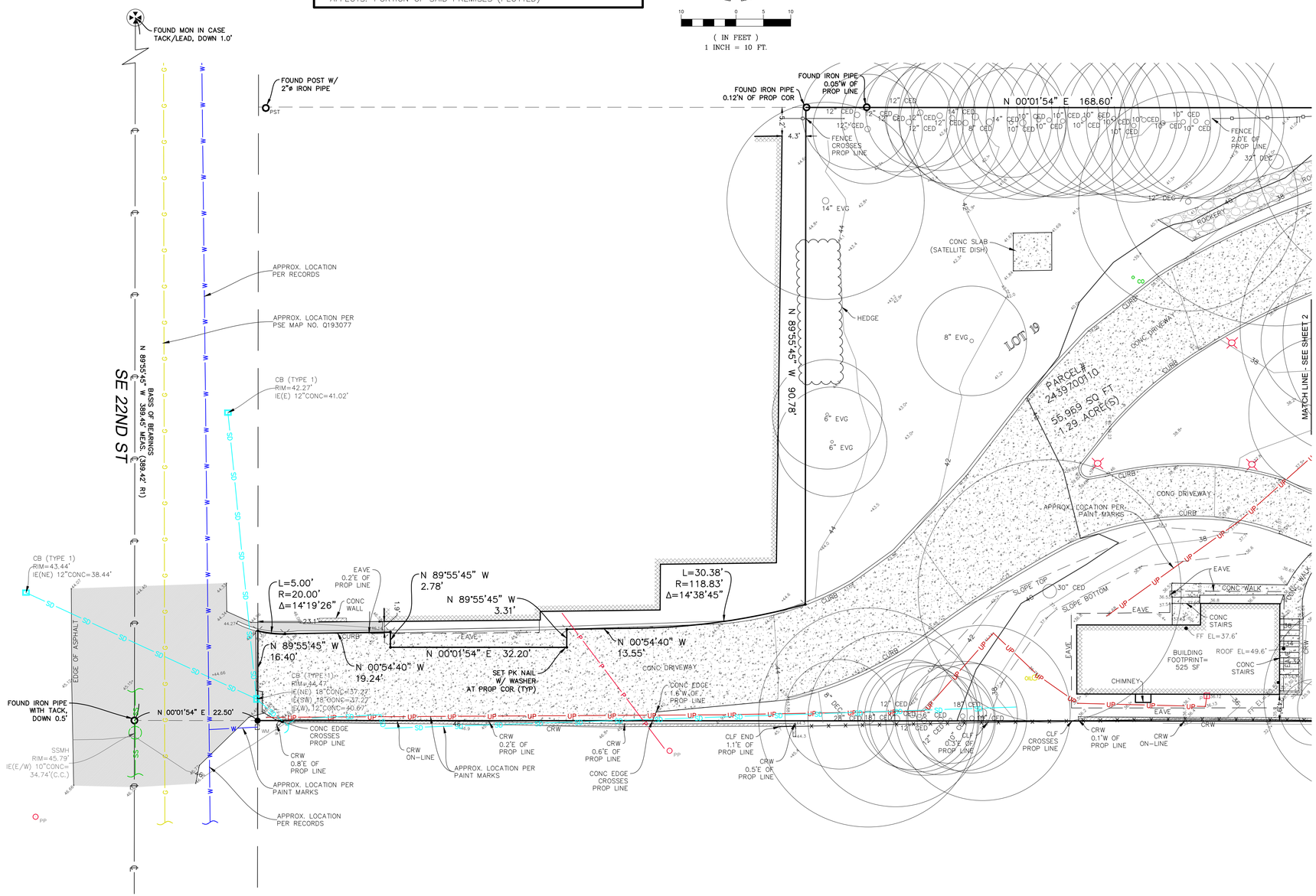
5. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

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.





measure success

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

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

JOB NUMBER:	201729
DATE:	10/09/20
DRAFTED BY:	JPH
CHECKED BY:	JPS
SCALE:	1" = 10'

REVISION HISTORY

SHEET NUMBER
1 OF 3

TOPOGRAPHIC & BOUNDARY SURVEY

LEGEND

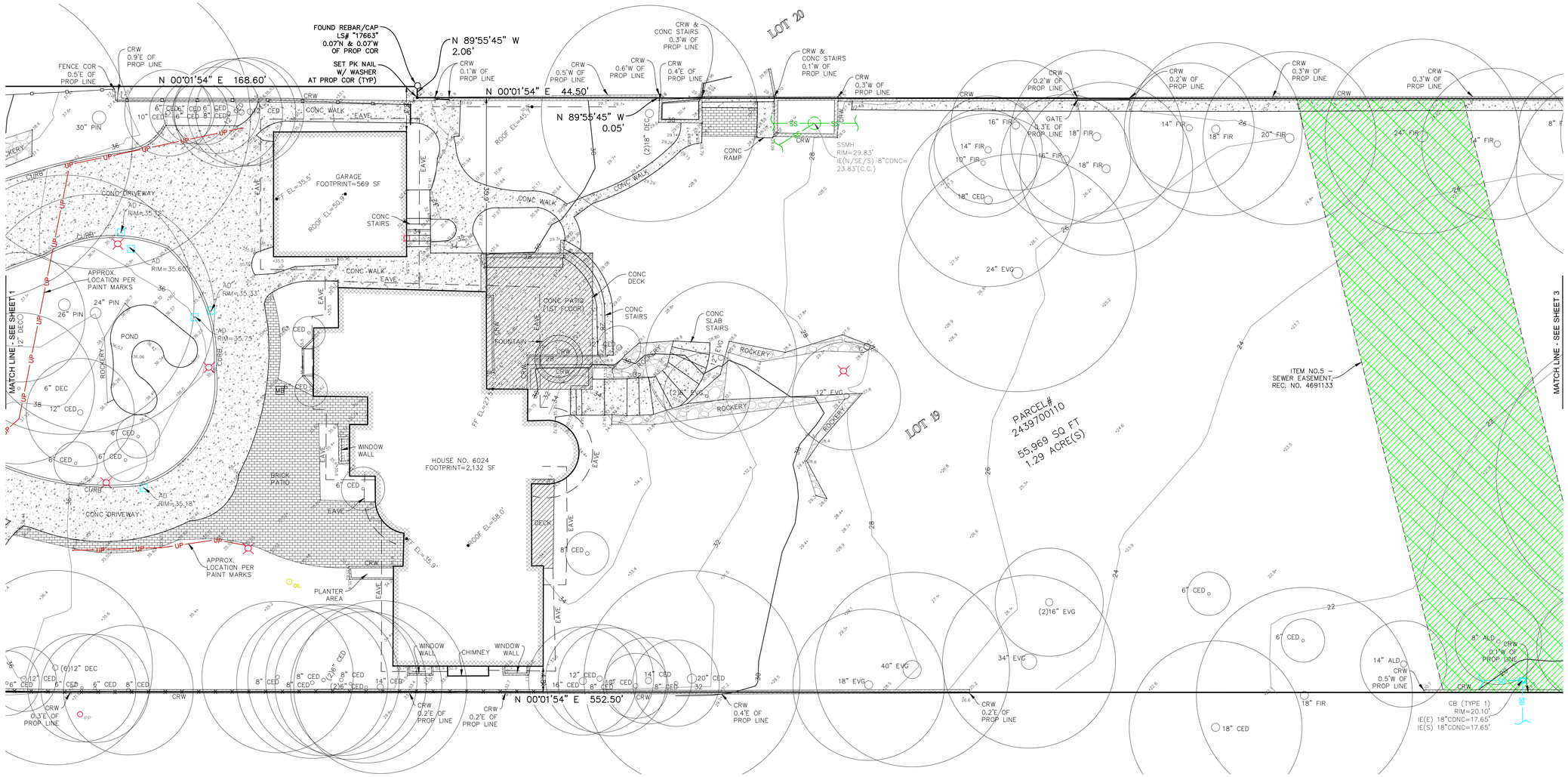
AREA DRAIN	OIL FILL CAP
ASPHALT SURFACE	POST
BRICK SURFACE	POWER HAND HOLE
BUILDING	POWER METER
CENTERLINE ROW	POWER (OVERHEAD)
CLEANOUT	POWER (UNDERGROUND)
CULVERT PIPE	POWER POLE
CONCRETE SURFACE	REBAR AS NOTED (FOUND)
RETAINING WALL	REBAR & CAP (SET)
DECK	ROCKERY
FENCE LINE (CHAIN LINK)	SEWER LINE
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)	

10 0 5 10

(IN FEET)
1 INCH = 10 FT.

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measure success

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

JEFFREY PAUL SIMCIC — 20018 — REGISTERED PROFESSIONAL LAND SURVEYOR — STATE OF WASHINGTON
10/09/20

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

JOB NUMBER:	201729
DATE:	10/09/20
DRAFTED BY:	JPH
CHECKED BY:	JPS
SCALE:	1"= 10'

REVISION HISTORY

SHEET NUMBER
2 OF 3

TOPOGRAPHIC & BOUNDARY SURVEY

LEGEND

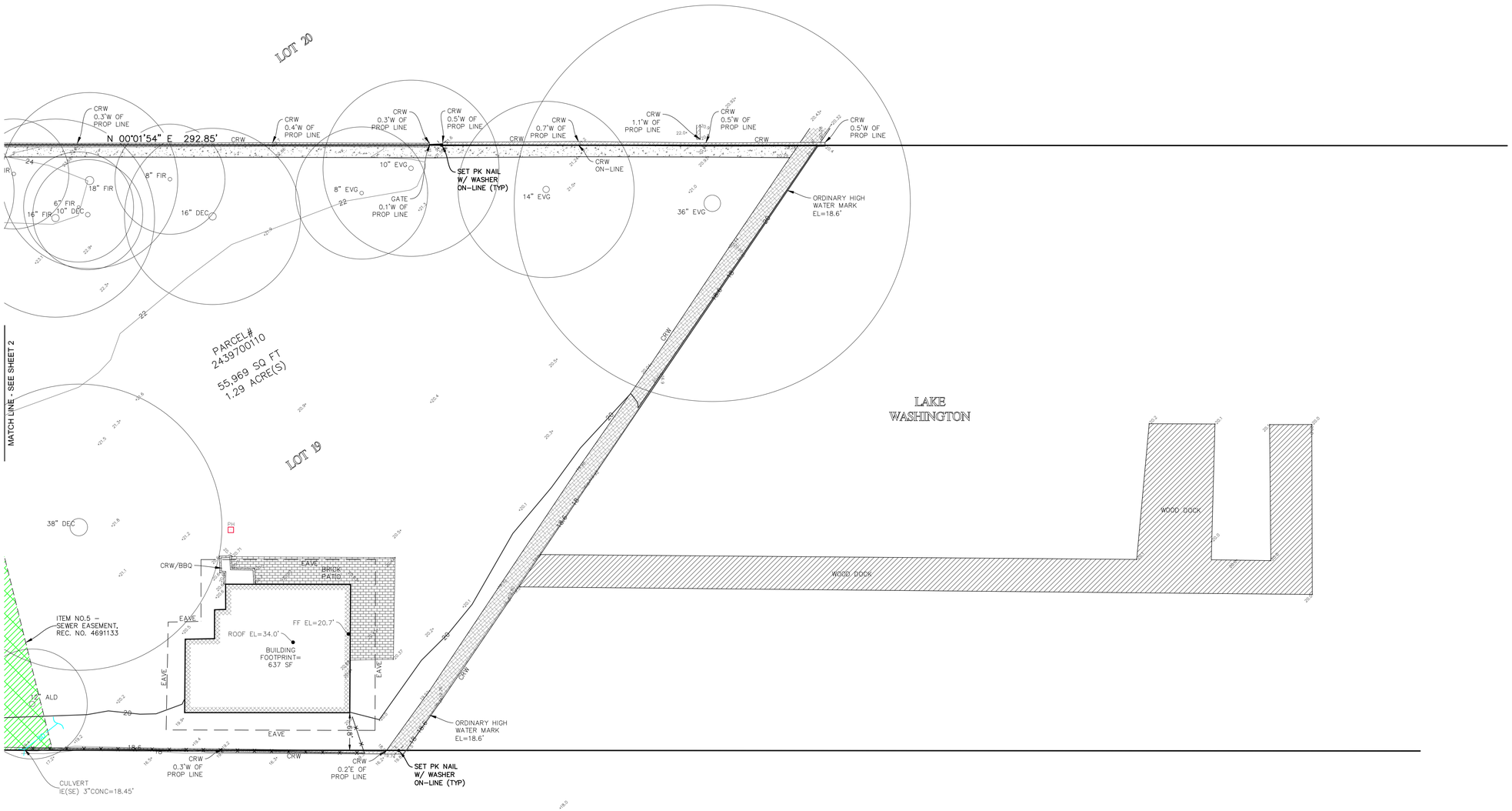
AREA DRAIN	OIL FILL CAP
ASPHALT SURFACE	POST
BRICK SURFACE	POWER HAND HOLE
BUILDING	POWER METER
CENTERLINE ROW	POWER (OVERHEAD)
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CULVERT PIPE	POWER POLE
CONCRETE SURFACE	REBAR AS NOTED (FOUND)
RETAINING WALL	REBAR & CAP (SET)
DECK	ROCKERY
FENCE LINE (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)	

10 0 5 10

(IN FEET)
1 INCH = 10 FT.

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measure success

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

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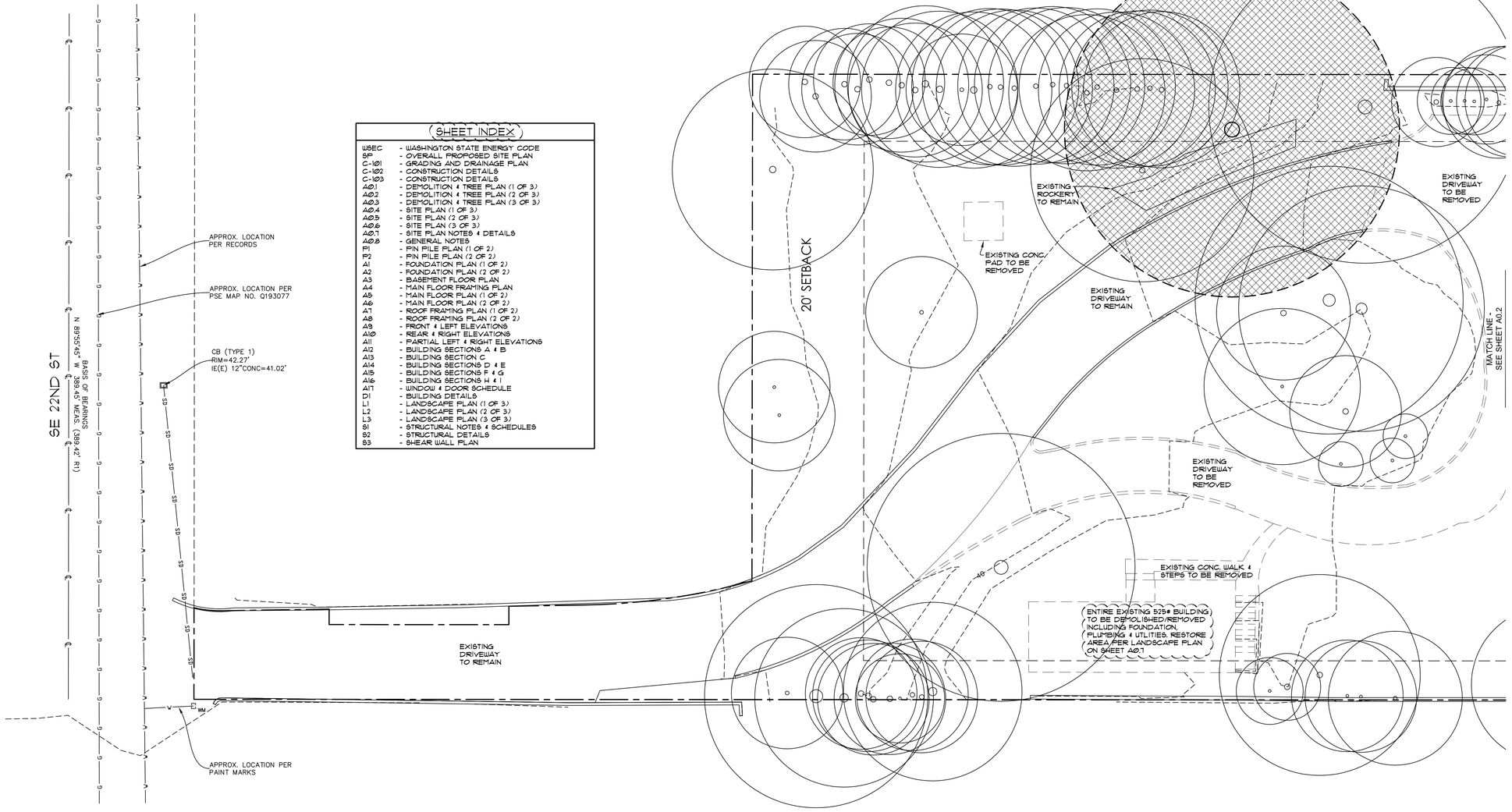
JASON SAVAGE — REGISTERED PROFESSIONAL LAND SURVEYOR — STATE OF WASHINGTON — 21826 — 10/09/20

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DRAFTED BY:	JPH
CHECKED BY:	JPS
SCALE:	1"= 10'

REVISION HISTORY

SHEET NUMBER
3 OF 3



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
A0.1	- DEMOLITION & TREE PLAN (1 OF 3)
A0.2	- DEMOLITION & TREE PLAN (2 OF 3)
A0.3	- DEMOLITION & TREE PLAN (3 OF 3)
A0.4	- SITE PLAN (1 OF 3)
A0.5	- SITE PLAN (2 OF 3)
A0.6	- SITE PLAN (3 OF 3)
A0.7	- SITE PLAN NOTES & DETAILS
A0.8	- GENERAL NOTES
F1	- PIN PILE PLAN (1 OF 2)
F2	- PIN PILE PLAN (2 OF 2)
A1	- FOUNDATION PLAN (1 OF 2)
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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

EXISTING UNNUMBERED TREE TO BE REMOVED (5 TOTAL)

EXISTING NUMBERED TREE ALREADY REMOVED (4 TOTAL)

EXISTING NUMBERED TREE TO BE REMOVED (1 TOTAL)

EXISTING TREE TO REMAIN

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

TREE LEGEND

NORTH

DEMOLITION & TREE PLAN (1 OF 3)

SCALE: 1" = 10'

6024 SE 22nd ST
MERCER ISLAND, WA 98040

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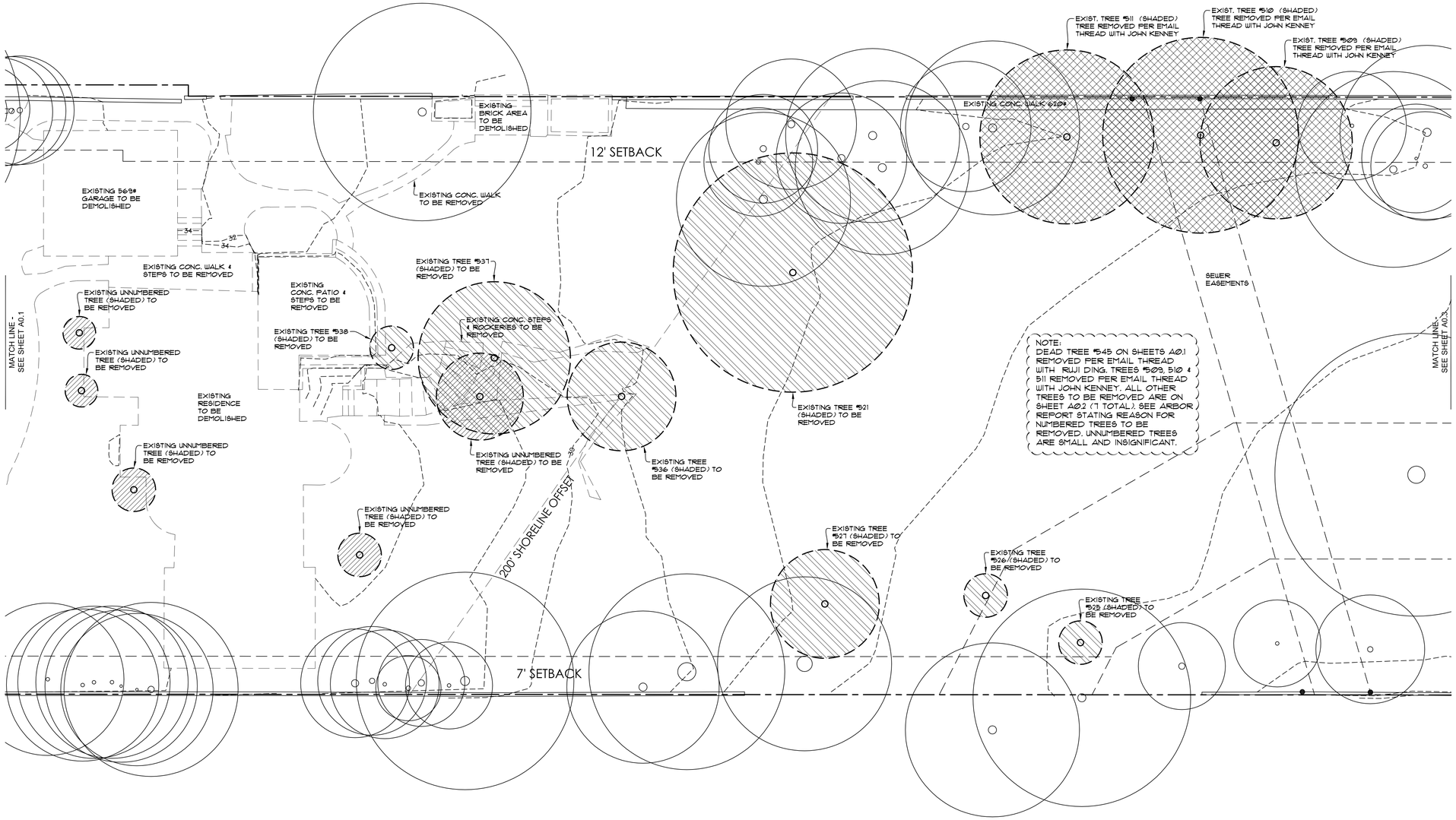
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425.417.7817

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

SHEET NO.
A0.1



EXISTING UNNUMBERED TREE TO BE REMOVED (5 TOTAL)

EXISTING NUMBERED TREE ALREADY REMOVED (4 TOTAL)

EXISTING NUMBERED TREE TO BE REMOVED (1 TOTAL)

EXISTING TREE TO REMAIN

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

TREE LEGEND

NORTH

DEMOLITION & TREE PLAN (2 OF 3)

SCALE: 1" = 10'

6024 SE 22nd ST
MERCER ISLAND, WA 98040

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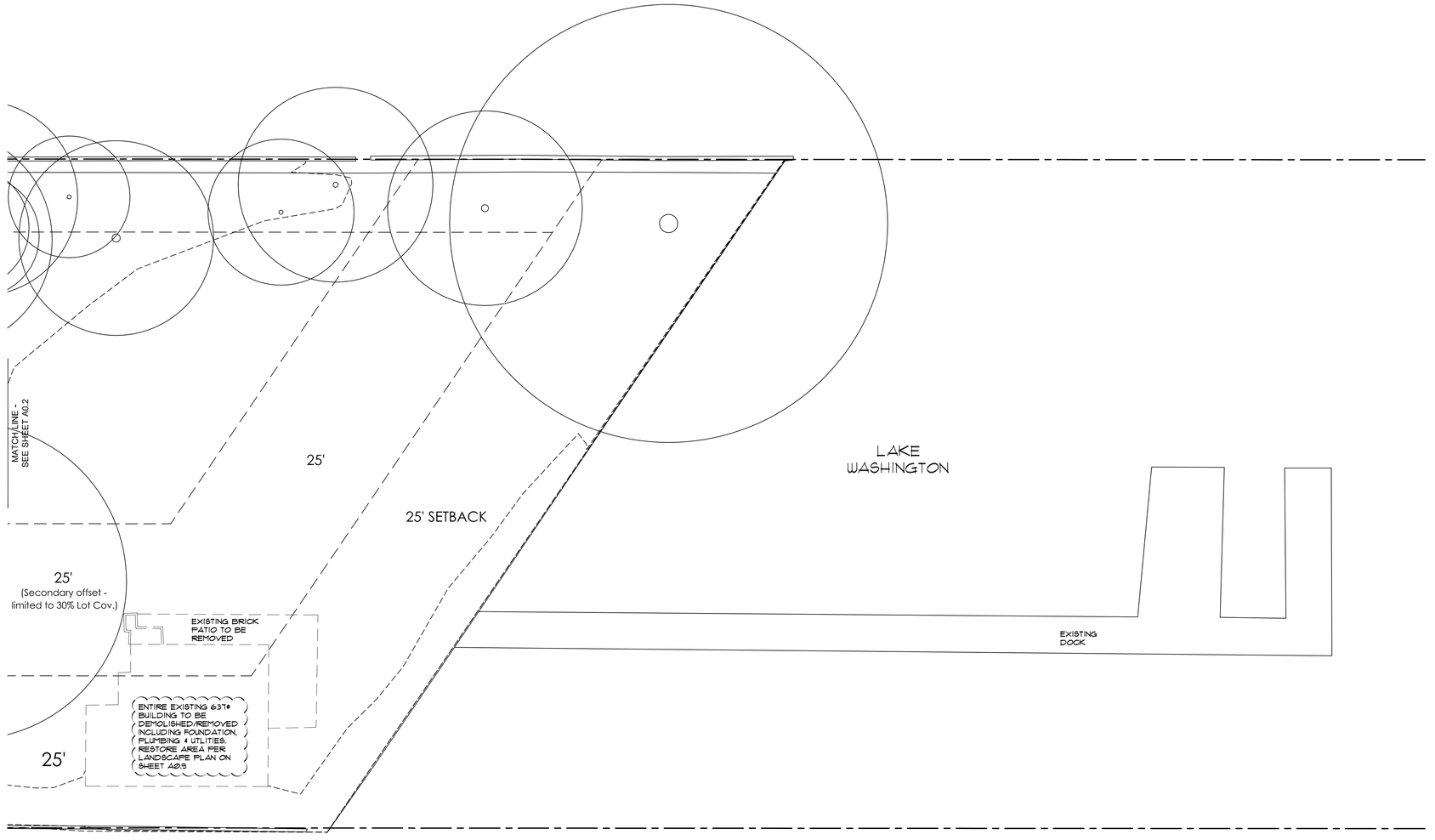
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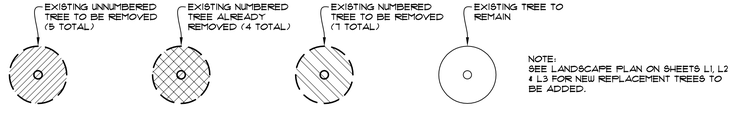
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JOB NO: 20-020
DATE: 9/01/22
DRWN. BY: MM, MG
REVISED: 2/14/23

SHEET NO.
A0.2





TREE LEGEND

NORTH

DEMOLITION & TREE PLAN (3 OF 3)

SCALE: 1" = 10'

6024 SE 22nd ST
MERCER ISLAND, WA 98040

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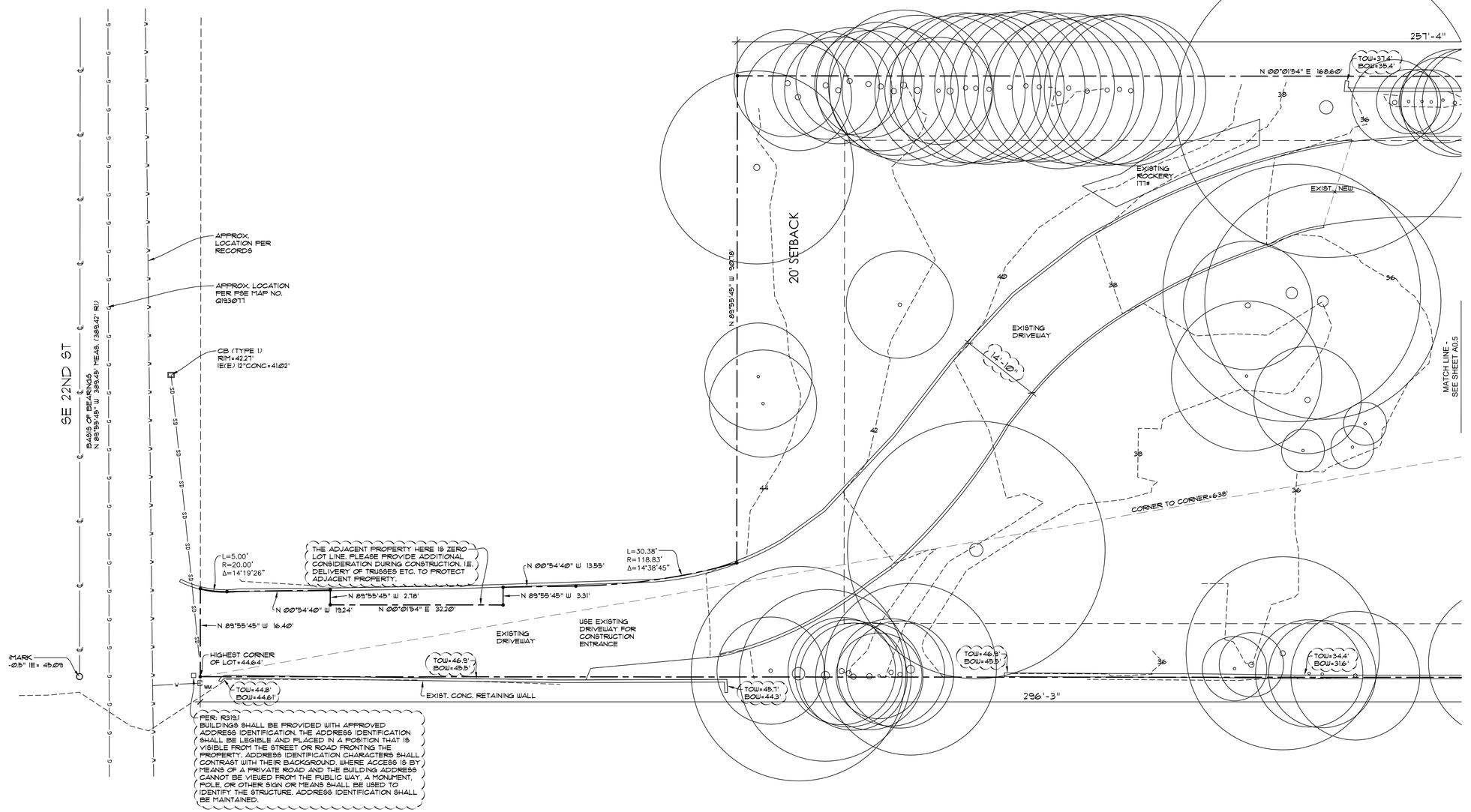
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JOB NO: 20-020
DATE: 9/01/22
DRWN. BY: MM, MG
REVISED: 2/14/23

SHEET NO.
A0.3



NORTH

SITE PLAN (1 OF 3)

SCALE: 1" = 10'

6024 SE 22nd ST
MERCER ISLAND, WA 98040

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MERCER ISLAND, WA 98040

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

SHEET NO.
A0.4

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 PLUMBING CODE (UPC)
2018 INTERNATIONAL FIRE CODE (IFC)
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 INTERNATIONAL SWIMMING POOL AND SPA CODE
WASHINGTON STATE ENERGY CODE (WCEC)
ICC/ANSI A117.1-09, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, WITH STATEWIDE AND CITY AMENDMENTS

PER: 19.07.160(F,K,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/CPD/PAGE/WET-SEASON-WORK-WAIVER-SEASONAL-DEVELOPMENT-LIMITATION

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' GWB TO BE USED ON ALL WALLS & CEILINGS IN LIEU OF 1/2" GWB

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

24 HOUR EROSION CONTROL CONTACT INFO:
MASON MAWER - 425.417.7819

LOT SLOPE:
HIGHEST LOT ELEV=448.4'
LOWEST LOT ELEV=428.0'
448.4-428.0=24.64
24.64/638=3.8% LOT SLOPE

SIDE SETBACKS:
LOT IS WIDER THAN 80'.
SIDE SETBACKS TO BE 11% OF SITE WIDTH
LOT IS 112' WIDE (112'X11%=19')
SIDE SETBACKS TO BE 19' TOTAL.

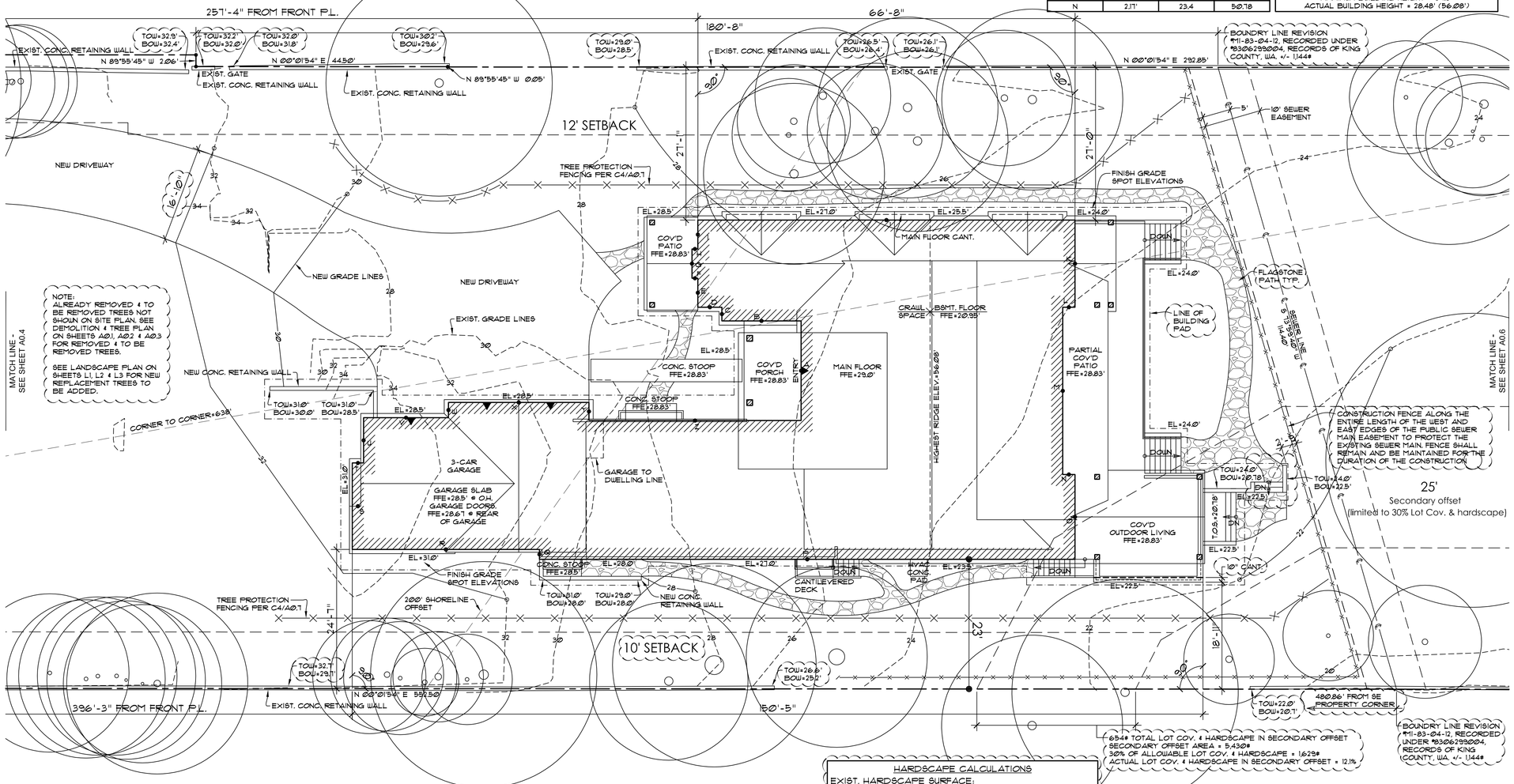
NOTE:
TO REDUCE THE POTENTIAL OF SLAB SETTLEMENT AND DISTRESS, THE GOETECHNICAL ENGINEER RECOMMENDS REMOVING A MINIMUM OF 1-FOOT OF EXISTING SOIL BELOW THE SLABS AND PLACING 1-FOOT OF PROPERLY COMPACTED FREE-DRAINING GRANULAR STRUCTURAL FILL PER GEOTECHNICAL REPORT SECTION 6.4

NOTE:
GRADING TO BE APPROXIMATELY 1500 YARDS OF SOIL. NO SOIL TO BE REMOVED FROM OR ADDED TO SITE.

AVERAGE EXISTING GRADE CALCULATIONS

WALL SEGMENT	WALL LENGTH	MIDPOINT ELEVATION	RESULT
A	17.63'	26.1	460.14
B	14.0'	26.6	372.4
C	2.42'	27.1	65.58
D	4.25'	27.3	116.03
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	704.0
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	88.89
X	24.83'	32.0	794.57
Y	3.21'	30.4	97.58
Z	3.75'	27.4	102.75
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')



THE CRITICAL AREA REVIEW ASSOCIATED WITH THIS PROJECT (PROCESSED UNDER CAO22-011) 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# (1.29 ACRES)
PARCEL NO.:	- 2439710011.0
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 12,000#
LOT COVERAGE:	- 40% (BUILDING & VEHICLE DRIVING SURFACE)
REQUIRED LANDSCAPE:	- 60%
LOT SLOPE:	- LESS THAN 15%
HARDSCAPE:	- +5% (626#)

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

DINING/GREAT ROOM	- 586#
ENTRY	- 127#
PRIMARY SUITE	- 104#
PRIMARY BATH	- 56#
GUEST SUITE	- 116#
KITCHEN	- 165#
TOTAL	- 1,154#
1,154/2 = 577#	
150% GFA MODIFIER = 577#	

GROSS FLOOR AREA CALCULATIONS

SITE AREA	= 55,969#
ALLOWABLE F.A.R.	= 12,000#
MAIN FLOOR W/ GARAGE	= 9,727#
BASEMENT FLOOR	= 2,240#
TOTAL FLOOR AREA	= 7,967#
PROPOSED G.F.A.	= 7,967# (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	- 7,380#
REMAINING LOT COVERAGE	- 3,932

LOT COVERAGE SURFACE:

MAIN STRUCTURE W/ OVERHANGS	- 6,410#
EXIST. DRIVING SURFACE	- 3,932#
NEW DRIVING SURFACE	- 2,778#
TOTAL LOT COVERAGE	- 13,120#
LOT AREA	- 55,969#
PROPOSED LOT COVERAGE	- 13,120/55,969 = 23.4%
MAXIMUM LOT COVERAGE	- 22,387 (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	- 117#
EXISTING RETAINING WALLS	- 276#
TOTAL HARDSCAPE	- 2,051#
LOT AREA	- 55,969#
PROPOSED HARDSCAPE	- 2,051/55,969 = 3.7%
MAXIMUM HARDSCAPE	- 16.5%+9% = 25.5%

453#

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 19.07.020D(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.

NORTH

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

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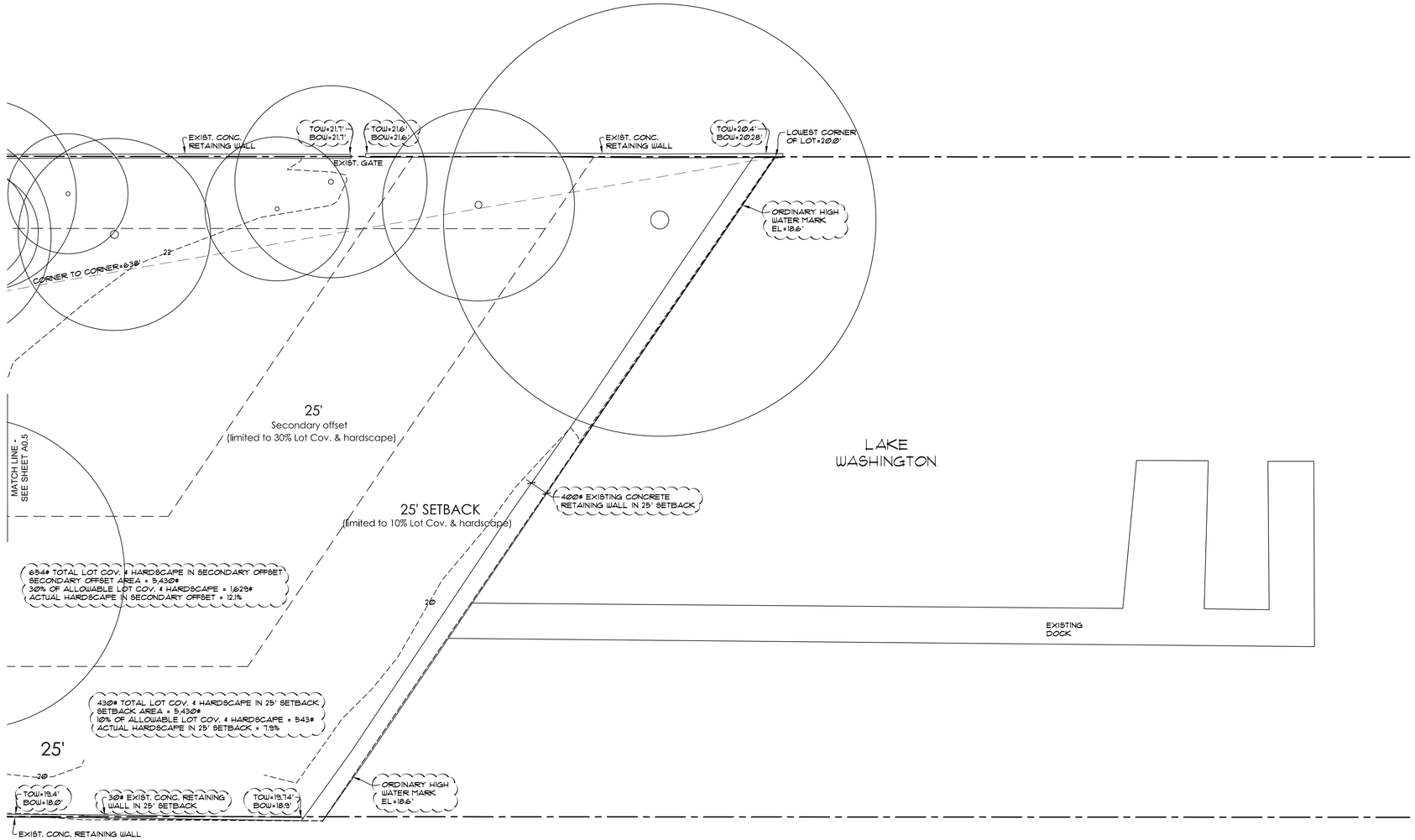
matthew mawer
residential design
matt@mmrd.net
425.417.7817

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: 2/14/23

SHEET NO.
A0.5



NORTH

SITE PLAN (3 OF 3)

SCALE: 1" = 10'

6024 SE 22nd ST
MERCER ISLAND, WA 98040

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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 PONDS 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 SOD 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 MULTIPLIED BY 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 GSP POLICY E-1. SPECIFICALLY, DISCHARGES TO THE PUBLIC STORMWATER DRAINAGE SYSTEM MUST BE BELOW 25 NTU, AND NOT CONSIDERED AN ILLICIT DISCHARGE. TEMPORARY DISCHARGES TO SANITARY SEWER REQUIRE PRIOR 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 CONTROL FENCE 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 (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

7. THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING 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 AND GRADING 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 (E.G., ADDITIONAL SUMPS, 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 REVIEWS 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 (E.G. 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 RYE APPLIED AT APPROXIMATELY 80 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, PLACED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40%-70% 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 BMPS. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM 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 WHICH 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 SWALES 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.

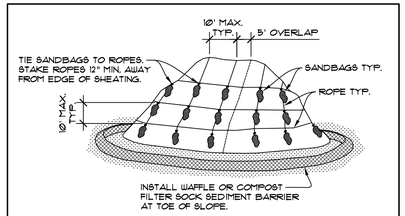
30. IF THE TEMPORARY CONSTRUCTION ENTRANCE OR ANY OTHER AREA WITH HEAVY VEHICLE LOADING IS LOCATED IN THE SAME AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT, 6" OF SEDIMENT BELOW THE GRAVEL SHALL BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION FACILITY OR PERVIOUS PAVEMENT (TO REMOVE FINES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

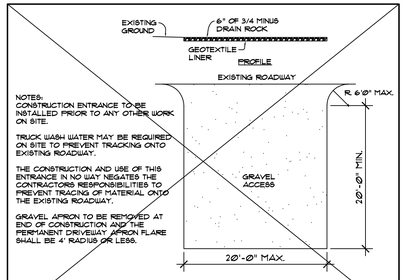
33. DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.

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

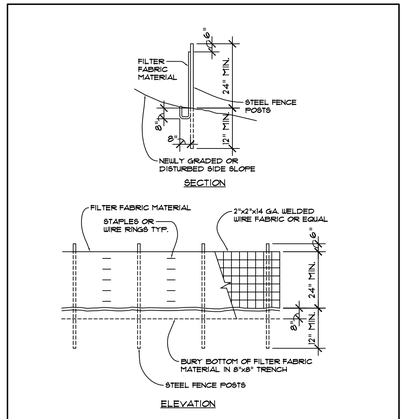


NOTES:
1. INSTALL PLASTIC SHEATING VERTICALLY DOWN SLOPE.
2. INSTALL PLASTIC SHEATING SO EDGES OVERLAP AND ARE SHINGLED AWAY FROM PREVAILING WINDS.
3. PLASTIC SHEATING SHALL BE BLACK, MIN. 6 MIL.

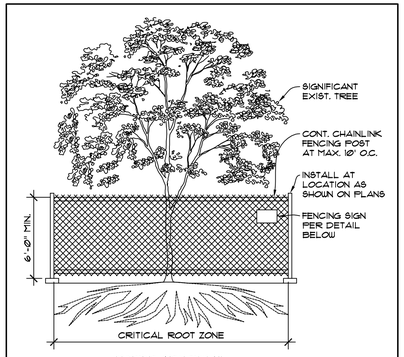
C1 TEMPORARY STOCK PILE DETAIL N.T.S.



C2 GRAVEL CONSTRUCTION ENTRANCE N.T.S.



C3 SILT FENCE DETAIL N.T.S.



FENCING SIGN DETAIL

TREE PROTECTION AREA
ENTRANCE PROHIBITED.
TO REPORT VIOLATIONS
CONTACT:
CITY CODE ENFORCEMENT

NOTES:

1. MINIMUM SIX (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 ENCIRCLE 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"x11", AND MADE OF WEATHERPROOF MATERIAL.

C4 TREE PROTECTION DETAIL N.T.S.

SITE PLAN NOTES & DETAILS

SCALE: N.T.S.

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

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

SHEET NO.
A0.7

GENERAL NOTES:

1. 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.

2. ALL PRE-MANUFACTURED TRUSSES TO BE IDENTIFIED BY MFG'S STAMP.

3. FACTORY BUILT FIREPLACE & CHIMNEY TO BE UL LABELED INSTALL PER MANUFACTURERS SPECS 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 WSEC R402.4.2.1. PILOT LIGHT SHALL NOT BE CONTINUOUSLY BURNING PER WSEC R403.1.3.

4. LIMIT SHOWER FLOW TO 2.5 GALLON/MIN.

5. H.W.T. TO BE LABELED PER ASHRAE STD. NO. 90A-80, AND MEET THE REQUIREMENTS. PER 1981 NATIONAL APPLIANCE ENERGY CONSERVATION ACT.

6. FURNACE AND H.W. TANK, PILOTS, BURNERS, HEATING ELEMENTS, AND SWITCHES TO BE A MIN. OF 18" ABOVE FINISHED FLOOR.

7. ALL SKYLITES TO COMPLY WITH I.R.C. SECTION 2409.1 & 2603.7

8. ALL SIDELITES, SLIDING GLASS DOORS AND TUB/SHOWER ENCLOSURES TO COMPLY WITH I.B.C. SECTION 2406.

9. HEAT REGISTERS TO BE PER LEGEND, LOCATE APPROXIMATELY AS SHOWN, 6" IN FROM EXTERIOR WALLS, 3" IN FROM INTERIOR WALLS.

10. VENT DRYER, OVEN/RANGE & EXHAUST FANS TO O/SIDE. DRYER EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMB HORIZ. AND VERT. LENGTH OF 14'-0", INCL. 2 90d. ELBOWS, DEDUCT 2'-0" FOR EA. 90d. ELBOW EXCEEDING 2. SEE DRYER DUCT DTL. FOR ALT. SOLUTIONS. ALL EXHAUST DUCTS INSULATED (MIN. OF R-4)

11. ALL NAILING PER IRC TABLE R602.3(1) AND/OR IBC TABLE 2304.9.1, COLUMN, POST & BEAM CONNECTIONS TO COMPLY WITH I.B.C. SECTION 2316.

12. ---

13. SOLID SHT'G REQ'D ON LOWER STORY OF 2 STORY BUILDING PER I.B.C. DRYWALL NAILED PER SHEAR NAILING SCHEDULES OR IBC 2018 EDITION.

14. TUB/SHOWER SURROUND WALLS TO HAVE WATER RESISTANT GYP BOARD AND A SMOOTH HARD SURFACE TO A MINIMUM HEIGHT OF 70" ABOVE DRAIN INLET

15. PROVIDE SMOKE DETECTOR IN COMPLIANCE WITH I.B.C. AND I.R.C. STD. #43.6. ALL SMOKE DETECTORS W/BAT BACKUP. SMOKE DETECTORS WILL SOUND AN AUDIBLE ALARM IN ALL SLEEPING ROOMS.

16. DWELLING TO COMPLY W/ 2018 WSEC-R.

17. SEAL, CAULK, 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.

18. ALL EXTERIOR DOORS OR ACCESS HATCHES TO ENCLOSED UNHEATED AREAS MUST BE WEATHERSTRIPPED.

19. MINIMUM SOIL BEARING PRESSURE = 1500 PSF.

20. FOOTINGS TO BE PLACED ON FIRM, UNDISTURBED NATIVE SOIL.

21. DWELLING TO COMPLY WITH INTERNATIONAL BUILDING CODE (I.B.C.) 2018

22. 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 IMC 402.2 & 402.1

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 (R402.4.1.2).

AT LEAST ONE THERMOSTAT PER DWELLING 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 75% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

R317.1.3 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:

1. HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS AND DECKING.
2. VERTICAL MEMBERS SUCH AS POSTS, POLES AND COLUMNS.
3. BOTH HORIZONTAL AND VERTICAL MEMBERS.

R303.7 STAIRWAY ILLUMINATION.
ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIRS, INCLUDING THE LANDINGS AND 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 (11 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 U.N.O.
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 SRC M1501.1
COMPLY WITH BELOW:

FAN CFM	MAX. FLEX DIA.	MAX. FT.	MAX. SMOOTH DIA.	MAX. FT.
50	4"	25'	4"	70'
50	5"	90'	5"	100'
50	6"	OVER 100'	6"	OVER 100'
80	4"	N/A	4"	20'
80	5"	15'	5"	100'
80	6"	90'	6"	OVER 100'
100	5"	N/A	5"	50'
100	6"	45'	6"	OVER 100'
125	6"	15'	6"	OVER 100'
125	7"	70'	7"	OVER 100'

WHOLE HOUSE VENTILATION REQUIREMENTS:

A 6" DIAMETER FRESH AIR INLET SHALL BE DUCTED FROM THE EXTERIOR TO THE FRESH AIR RETURN PLENUM.
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. VPRS.
- A ROOM OR SPACE HAVING FUEL BURNING APPLIANCES THERIN.
- ATTIC, CRAWL SPACE, OR GARAGE.
- CLOSER THAN 10' FROM AN APPLNC OR PLMBG VENT OUTLET, UNLESS THE DUCT VENT OUTLET IS AT LEAST 3' ABOVE THE FRESH AIR INLET.
- DUCT SHALL BE INSLT'D TO R-4 WHEN PASSING THROUGH A COND'D SPACE.

INLET DUCT SHALL BE EQUIPPED WITH A MOTORIZED DMPR THAT WILL OPEN WHEN THE VNTLTN FAN RELAY IS ACTIVATED, AND REMAIN CLOSED AT ALL OTHER TIMES. IN ADD'N TO THE MOTORIZED DMPR, A MANUAL DMPR SET TO .35-5 AIR CHANGES PER HOUR IS ALSO REQUIRED.

A WHOLE HOUSE EXHAUST FAN SHALL BE LCT'D IN THE CEILING. SIZE PER THE CALCS BELOW. THE AIR INTAKE DUCT DMPR SHALL BE SET W/N THIS RNG

WHOLE HOUSE VENTILATION:
THIS SECTION ESTABLISHES MINIMUM PRESCRIPTIVE DESIGN REQUIREMENTS FOR WHOLE HOUSE VENTILATION SYSTEMS. EACH DWELLING 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).

TABLE M1507.3.3(1) CONTINUOUS WHOLE HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (SQUARE FEET)	NUMBER OF BEDROOMS				
	0-1	2-3	4-5	6-7	>7
	AIRFLOW IN CFM				
< 1,500	30	45	60	75	90
1,501-3,000	45	60	**75**	90	105
3,001-4,500	60	75	90	105	120
4,501-6,000	75	90	105	120	135
6,001-7,500	90	105	120	135	150
>7,500	105	120	135	150	165

TABLE M1507.3.3(2) INTERMITTENT WHOLE HOUSE MECHANICAL VENTILATION RATE FACTORS a,b

RUN TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
FACTOR	4	3	**2**	1.5	1.3	1

a. FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE DETERMINED BY INTERPOLATION.
b. EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.

EXHAUST FANS MUST BE FLOW RATED AT .25 W.G. AND MAX. 1.5 SONE RATING. READILY ACCESSBLE 24 HR CLCK TMR OR DEHUMIDISTAT & RELAY SHALL BE INSTLL'D AND WIRED TO REGULATE THE FURN FAN, RELAY AND WHOLE HOUSE EXHAUST FAN.
INTERIOR DOORS SHALL BE INSTLL'D SO AS NOT TO IMPEDE THE MVMNT OF FRESH AIR TO ALL HABITABLE ROOMS.
VNTLTN SYSTEM MUST BE PERFORMANCE TESTED JUST PRIOR TO THE FINAL INSPECTION BY THE INSTALLER OR A QLF'D THIRD PARTY. THE INLET DUCT SHALL BE LABELED WITH THE ACTUAL CFMS MSR'D & A LETTER OF CMPLNC SHALL BE AVAILABLE ON SITE FOR THE INSPCTR BEFORE A CERT OF OCCUPANCY WILL BE ISSUED.

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 27" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.
EXCEPTION: THE WIDTH OF SPIRAL STAIRWAYS SHALL BE IN ACCORDANCE WITH SECTION R311.7.10.1.

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 R311.7.10.1.

R311.7.3 VERTICAL RISE - A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 151" 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 RUNNERS.

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 OPENING LOCATED MORE THAN 30", AS MEASURED VERTICALLY, TO THE FLOOR OR GRADE 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 R311.7.10.1.

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 NOSINGS 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 OF 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".

R311.7.7 STAIRWAY WALKING SURFACE - THE WALKING SURFACE OF TREADS AND LANDINGS OF STAIRWAYS SHALL BE SLOPED NOT STEEPER THAN ONE UNIT VERTICAL IN 48" HORIZONTAL.

R311.7.8 HANDRAILS - HANDRAILS SHALL BE PROVIDED ON NOT LESS THAN ONE SIDE OF EACH FLIGHT OF STAIRS WITH FOUR OR MORE RISERS.

R311.7.8.1 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".

R311.7.8.2 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 STAIRWAY PROVIDED THAT THE STAIR WIDTH AND HANDRAIL CLEARANCE ARE NOT REDUCED TO LESS THAN REQUIRED.

R311.7.8.3 HANDRAIL CLEARANCE - HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2" BETWEEN THE WALL AND THE HANDRAILS.

R311.7.8.4 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 WINDERS, AT A LANDING, OR OVER THE LOWEST TREAD.
2. A VOLUTE, TURNOUT OR STARTING EASING SHALL BE ALLOWED TO TERMINATE OVER THE LOWEST TREAD

R311.7.8.5 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 DIMENSION OF NOT MORE THAN 2-1/4". EDGES SHALL HAVE A RADIUS OF NOT LESS THAN 0.01".
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 TALLEST PORTION OF THE PROFILE AND ACHIEVE A DEPTH OF NOT LESS THAN 5/16" WITHIN 7/8" 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 0.01".

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 R301.5.

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

PER PERSCRIPTIVE REQUIREMENTS 2018 W.S.E.C.
*(MODIFIED FOR ENERGY CREDIT 1.3)

CLIMATE ZONE 5B
MAX. GLAZING U-FACTOR: VERT. U=.28*, OVERHEAD U=.50
MAX. DOOR U-FACTOR: U=.20
INSULATION @ CONDITIONED AREA:
TRUSSED CEILING: R-49
VAULTED & SINGLE RAFTER CEILING: R-38 (R402.2.2)
ABOVE GRADE WALLS: R-21
BELOW GRADE WALLS: R-21
FLOOR OVER VENTED CRAWL SPACE: R-38*
SLAB ON GRADE: R-10 @ PERIMETER & UNDER ENTIRE SLAB*

PERCENT GLAZING CALCULATIONS:	909.4 (SF. GLAZING AREA) / 4,626 (SF. FLOOR AREA)	=19.7%

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

MEDIUM DWELLING UNIT: 6 CREDITS

HEATING OPTION 2 - HEAT PUMP (10 CREDITS)

ENERGY OPTIONS:

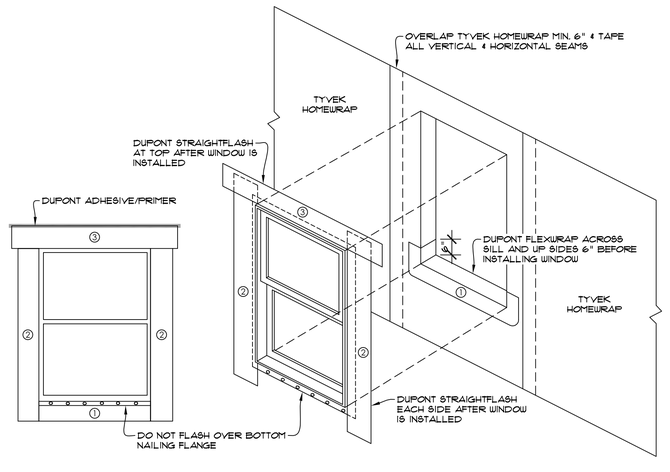
1.3 - EFFICIANT BUILDING ENVELOPE (0.5 CREDITS)
VERTICAL FENESTRATION U = 0.28
FLOOR R-38
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

2.3 - AIR LEAKAGE CONTROL & EFFICIENT VENTILATION (1.5 CREDITS)
REDUCE THE TESTED AIR LEAKAGE TO 1.5 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 EFFICIANCY OF 0.75

3.2 - HIGH EFFICIANCY HVAC EQUIPMENT (1.0 CREDITS)
AIR-SOURCED CENTRALLY DUCTED HEAT PUMP WITH A MINIMUM HSPF OF 9.5

9.5 - EFFICIANT WATER HEATING (2.0 CREDITS)
ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEAA'S ADVANCED WATER HEATING SPECIFICATIONS

FLANGED WINDOW FLASHING INSTALLATION AFTER TYVEK HOMEWRAP (OR EQUIVALENT)



NOTE:
INSTALL DUPONT FLASHING IN ORDER SHOWN BY NUMBERS.
INSTALL WINDOW PER MANUFACTURERS INSTRUCTIONS.

EXT DR	EXTERIOR DOOR TAG. SEE DOOR SCHEDULE ON SHEET A1.1
EXT WDW	EXTERIOR WINDOW TAG. SEE WINDOW SCHEDULE ON SHEET A1.1
1	5/8" TYPE "X" GWB OVER ALL WARM WALLS AND SECOND FLOOR FRAMING & SUPPORT MEMBERS. GARAGE CEILING PROTECTION TO BE CONTINUOUS ABOVE GARAGE.
2	CONC. FIBERBOARD @ TUB & SHOWER SURROUND TO 6' ABOVE DRAIN
3	PILOTS & BURNERS OR HTG. ELEMENTS & SWITCHES TO BE AT LEAST 18" ABOVE FLOOR. MIN. 6" DIA. FRESH AIR DUCT TO CONNECT TO RETURN AIR PLENUM
4	DIRECT VENT FIREPLACE. INSTALL PER MANUFACTURERS SPECIFICATIONS
5	WHOLE HOUSE VENTILATION SYSTEM PER M1507.3.3 OF THE I.R.C. SHALL BE MET WITH A HIGH EFFICIENCY FAN (MAX. @ 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTORS ARE ALLOWED. WHOLE HOUSE VENTILATION RATE PER TABLE M1507.3.3(2) AND SET TO RUN @ (2) 4 HOUR SEGEMENTS
6	22"x30" ATTIC ACCESS. WEATHERSTRIP & INSULATE OVER TO EQUAL CEILING INSULATION. PROVIDE WOOD SURROUND TO PREVENT LOOSE INSULATION SPILLAGE TO LIVING SPACE.
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 HSPF OF 11.0
9	PER ENERGY CREDIT 9.5: ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEAA'S ADVANCED WATER HEATING SPECIFICATION
10	ALTERNATE LOCATION OF 24"x30" CRAWL SPACE ACCESS. WEATHERSTRIP & INSULATE TO LEVEL EQUAL TO SURROUNDING SURFACES.
11	COMPLYING WITH M1903.4 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
CM	INDICATES 110V HARD WIRED SMOKE & CARBON MONOXIDE DETECTOR WITH BATTERY BACKUP

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www.nwlifestylehomes.com

NW LH

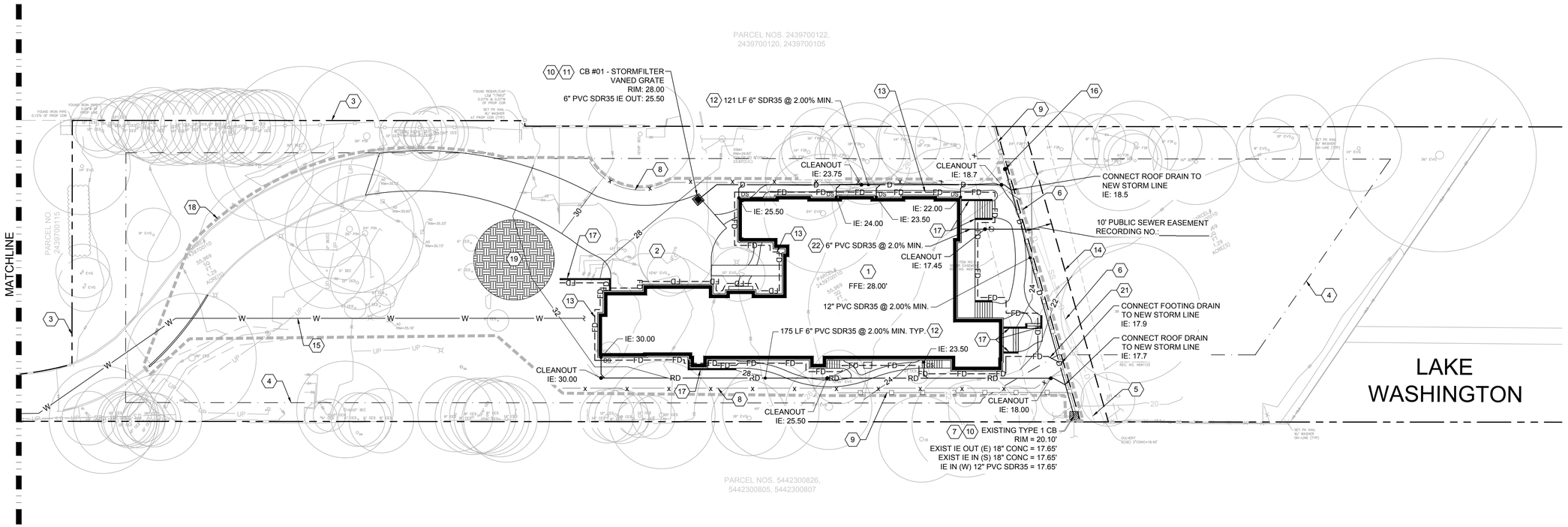
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6024 SE 22nd ST
MERCER ISLAND, WA 98040

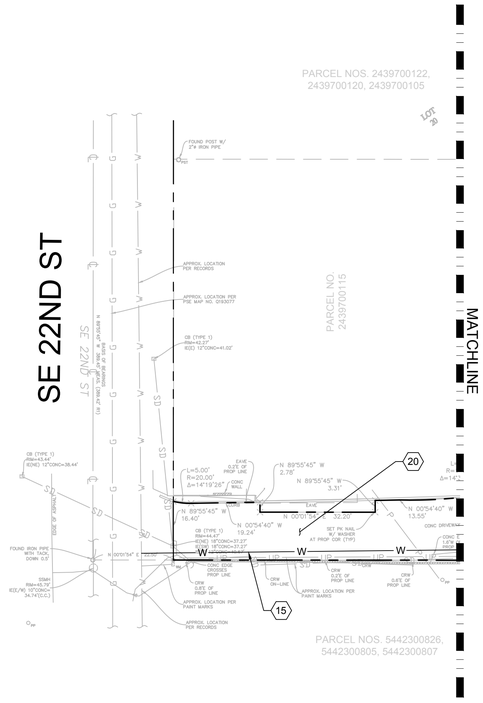
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DATE: 9/01/22
DRWN. BY: MM, MG
REVISED: 2/14/23

SHEET NO.
A0.8

GENERAL NOTES

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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. EXISTING 12" STORM DRAINAGE LINE.
7. CONNECT STORM DRAIN LINE TO EXISTING ON-SITE CATCH BASIN.
8. TREE PROTECTION. SEE ARCHITECTURAL PLANS.
9. SILT FENCE. SEE ARCHITECTURAL PLANS.
10. INLET PROTECTION PER DETAIL. (2 C-102)
11. 2 CARTRIDGE CATCHBASIN STORMFILTER PER DETAIL. (1 C-102)
12. ROOF DRAIN PER DETAILS. (4 C-102) (5 C-102)
13. FOOTING DRAIN PER DETAIL. (5 C-102)
14. NEW 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. LOCATE RPBA WITHIN 50 FEET OF NEW WATER METER ON SITE. RPBA PRODUCT SHALL BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO INSTALLATION. COORDINATE RPBA TESTING REQUIREMENTS WITH THE CITY FO MERCER ISLAND. RPBA SHALL BE AN APPROVED ASSEMBLY PER WAC 246-290-490. (1 C-103)
16. CONNECT NEW 12" PVC SDR35 STORM DRAIN LINE TO EXISTING 12" STORM LINE. CONTRACTOR TO VERIFY EXACT LOCATION, PIPE TYPE, AND INVERT ELEVATION PRIOR TO CONSTRUCTION. NEW STORM LINE TO BE LOCATED OUTSIDE OF SEWER EASEMENT.
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 NEW STORM LINE.
22. PROVIDE NEW SIDE SEWER CONNECTION PER STANDARD DETAIL S-17. PROVIDE CLEANOUT AT EXTERIOR OF BUILDING. PROVIDE CONNECTION TO SIDE SEWER WITH BACKFLOW PREVENTION PER DETAIL S-18. (2 C-103) (3 C-103)

TESC NOTES

1. INLET PROTECTION SHALL BE PROVIDED FOR ALL CATCH BASINS WITHIN 500 FT OF THE PROJECT SITE DURING CONSTRUCTION.

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. (3 C-102)
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. (3 C-102)
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.

N

10 5 0 10

SCALE: 1"=10'

811 Know what's Call below. before you dig.

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T 253.627.4367 F 253.627.4555 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

JUSTIN JAN COX STATE OF WASHINGTON 43432 REGISTERED PROFESSIONAL ENGINEER

2/10/2023

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

REVISIONS

DATE
02.10.2023

BCRA NO.
22135

DRAWN BY: KSS DESIGNED BY: KSS

REVIEWED BY: JJG

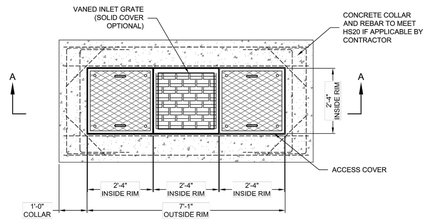
SHEET TITLE
GRADING AND DRAINAGE PLAN

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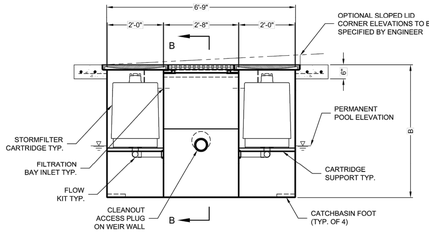
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C-101

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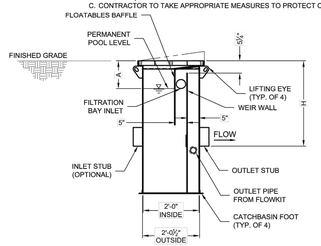
IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY



PLAN VIEW



SECTION A-A



SECTION B-B

STORMFILTER STEEL CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 2 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF TWO CARTRIDGES. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL.
PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"			18"			18" DEEP		
RECOMMENDED HYDRAULIC DROP (H)	3.05'			2.3'			3.3'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25	15	12.53	7.5	15	12.53	7.5
PEAK HYDRAULIC CAPACITY	1.0			1.0			1.8		
INLET PERMANENT POOL LEVEL (A)	1'-0"			1'-0"			2'-0"		
OVERALL STRUCTURE HEIGHT (B)	4'-9"			3'-9"			4'-9"		

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. WWW.CONTECHES.COM
3. STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
5. MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCB.
6. STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
7. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M306 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
8. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 36 SECONDS.
9. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

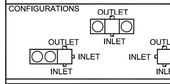
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

2-CARTRIDGE DEEP CATCHBASIN STORMFILTER DATA

STRUCTURE ID	XXX
WATER QUALITY FLOW RATE (cfs)	X.XX
PEAK FLOW RATE (<1.8 cfs)	X.XX
RETURN PERIOD OF PEAK FLOW (yrs)	XXX
CARTRIDGE FLOW RATE (gpm)	XX
MEDIA TYPE (PERLITE, ZPG, PSORB)	ZPG
RIM ELEVATION	XXX.XX'

PIPE DATA:	I.E.	DIAMETER
INLET STUB	XXX.XX'	XX"
OUTLET STUB	XXX.XX'	XX"

CONFIGURATIONS



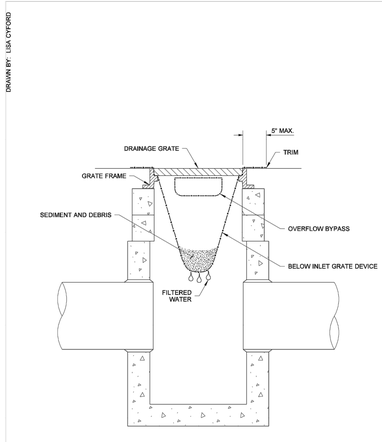
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-526-3999 513-645-7000 513-645-7993 FAX

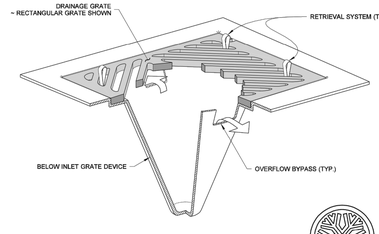
2 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL

CATCHBASIN STORMFILTER

SCALE: NTS (1)



SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

NOTES
1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000998

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERED DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND DATED, IS ON FILE IN THE OFFICE OF THE STATE DESIGN ENGINEER, DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

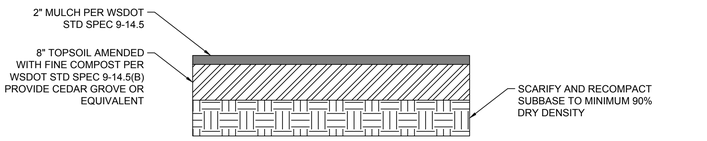
STORM DRAIN
INLET PROTECTION
STANDARD PLAN I-40.20-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Pasco Bakotich III 09-20-07
STATE DESIGN ENGINEER DATE
Washington State Department of Transportation

INLET PROTECTION

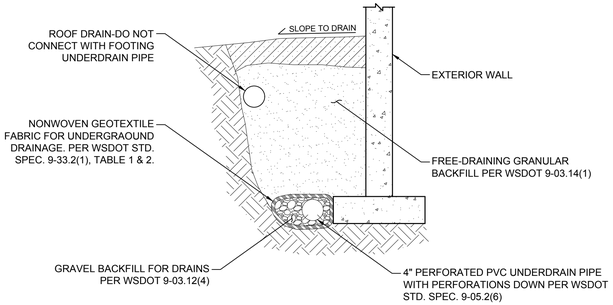
SCALE: NTS (2)



NOTE: CONTRACTOR SHALL AMEND STOCKPILED TOP SOILS WITH COMPOST PER DETAIL AND PLACE IN ALL DISTURBED LANDSCAPE AREAS.

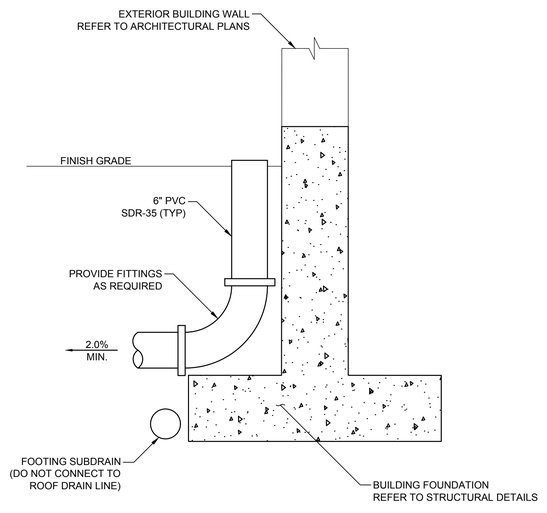
POST CONSTRUCTION SOIL QUALITY AND DEPTH

SCALE: NTS (3)



FOOTING AND ROOF DRAIN SECTION

SCALE: NTS (4)



DOWNSPOUT CONNECTION

SCALE: NTS (5)

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2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

JUSTIN JAN COX
STATE OF WASHINGTON
43432
REGISTERED
PROFESSIONAL ENGINEER

2/10/2023

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

REVISIONS

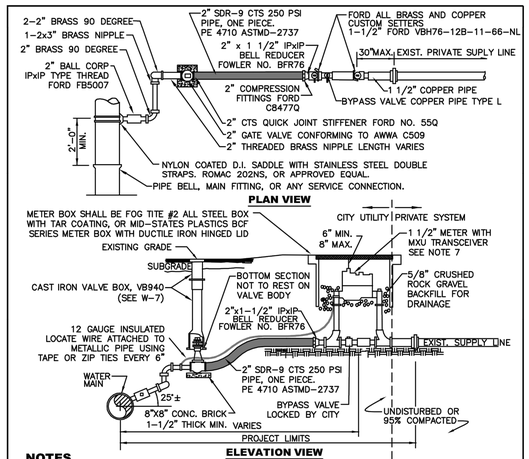
DATE
02.10.2023
BCRA NO.
22135
DRAWN BY: KSS DESIGNED BY: KSS
REVIEWED BY: JJG
SHEET TITLE
CONSTRUCTION
DETAILS

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SHEET
C-102

DATE PLOTTED: 2/10/2023 2:40:03 PM FILENAME: C-301 CONSTRUCTION DETAILS.DWG BY: —

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY



NOTES

1. WATER SERVICES SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT DATED 01/04/2014.
2. MINIMUM DISTANCE BETWEEN CORP STOPS SHALL BE 18" MINIMUM DISTANCE BETWEEN TAPS, BETWEEN CORP STOP AND PIPE ENDS SHALL BE 24", ALL HORIZONALLY STAGGERED.
3. PLASTIC METER BOXES SHALL NOT BE INSTALLED WITHIN ROADWAY, SIDEWALK, OR DRIVEWAYS.
4. UPON CITY ENGINEER'S APPROVAL, METER BOXES ARE ALLOWED TO BE INSTALLED IN PORTLAND CEMENT CONCRETE PAVEMENT OR SIDEWALK.
5. WHEN CONNECTING TO EXISTING PRIVATE SUPPLY LINE CONTAINING FERROUS METAL, PROVIDE INSULATING COUPLING (DB SERIES WITH C21 SERIES ADAPTERS) AND PROVIDE REDUCER AS NECESSARY TO MATCH EXISTING PRIVATE SUPPLY LINE DIAMETER.
6. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN AND STRAIGHT TO WATER METER, UNLESS OTHERWISE APPROVED BY CITY ENGINEER. PROVIDE WINDING SLACK IN THE SERVICE LINE BETWEEN THE MAIN AND WATER METER.
7. WATER METER SUPPLIED BY CITY.
8. ALL FITTINGS TO BE BRASS COMPRESSION TYPE, FORD QUICK JOINT OR EQUAL.
9. NO SERVICE CONNECTIONS BETWEEN BLOW-OFF AND END OF MAIN.

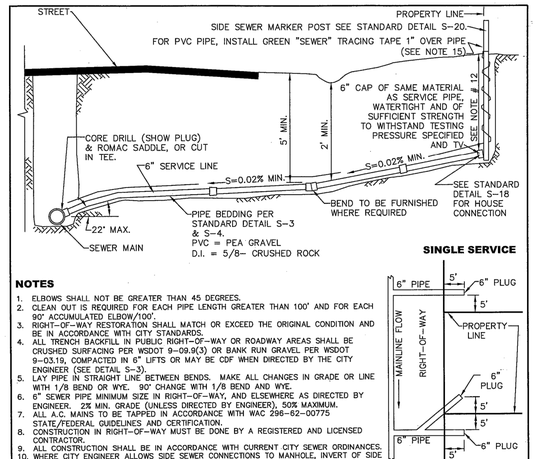
CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
1-1/2" WATER METER INSTALLATION

02-05-2021	NO SCALE	W-14

REV DATE						APPROVED

1.5 INCH WATER METER INSTALLATION

SCALE: NTS (1)



NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARDS.
4. ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS OR MAY BE CDF WHEN DIRECTED BY THE CITY ENGINEER (SEE DETAIL S-3).
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MIN. GRADE (UNLESS DIRECTED BY ENGINEER), 50% MAXIMUM.
7. ALL A.C. MAINS TO BE TAPPED IN ACCORDANCE WITH WAC 296-62-00775 STATE/FEDERAL GUIDELINES AND CERTIFICATION.
8. CONSTRUCTION IN RIGHT-OF-WAY MUST BE DONE BY A REGISTERED AND LICENSED CONTRACTOR.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY SEWER ORDINANCES.
10. WHERE CITY ENGINEER ALLOWS SIDE SEWER CONNECTIONS TO MANHOLE, INVERT OF SIDE SEWER SHALL BE EQUAL TO OR ABOVE MAIN SEWER CROWN, BUT NOT TO EXCEED 18" ABOVE INVERT OF MAIN SEWER.
11. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MIN. OF 6' DEEP AT PROPERTY LINE, OR 5' LOWER THAN THE LOWEST ELEVATION, WHICH EVER IS LOWER.
12. ALL PIPE MATERIALS NOT TO STANDARDS WILL BE ABANDONED AND REPLACED WITH DUCTILE IRON OR PVC PIPE OF THE SAME SIZE.
13. IF A BUILDING SEWER IS TO SERVE MORE THAN ONE PROPERTY, BY JOINT AGREEMENT OF THE OWNERS, AN APPROVED EASEMENT INSURING THAT ALL PROPERTIES INVOLVED SHALL HAVE PERPETUAL USE OF THE SIDE SEWER, HAVING PROVISIONS FOR OPERATION, MAINTENANCE, RECONSTRUCTION AND FOR ACCESS FOR REPAIR PURPOSES, SHALL BE SIGNED BY THE OWNERS. THIS EASEMENT SHALL BE RECORDED WITH THE COUNTY AUDITOR. A SIX INCH (MINIMUM) DIAMETER PIPE SHALL BE USED FOR THE COMMON LINE AND A SIX INCH CLEANOUT EXTENDING TO WITHIN 12 INCHES OF THE GROUND SURFACE SHALL BE PROVIDED AT THE WYE WHERE THE UPPER GRADE CONNECTIONS ARE MADE. BACKWATER VALVES SHALL BE INSTALLED ON SERVICE LINES UPSTREAM OF THE CONNECTION TO THE SHARED SIDE SEWER.
14. THE CITY ENGINEER MAY REQUIRE BACKWATER VALVES ON SIDE SEWERS WHEN DEEMED NECESSARY. THE EFFECTIVE OPERATION AND MAINTENANCE OF ANY BACKWATER VALVE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE SIDE SEWER.
15. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

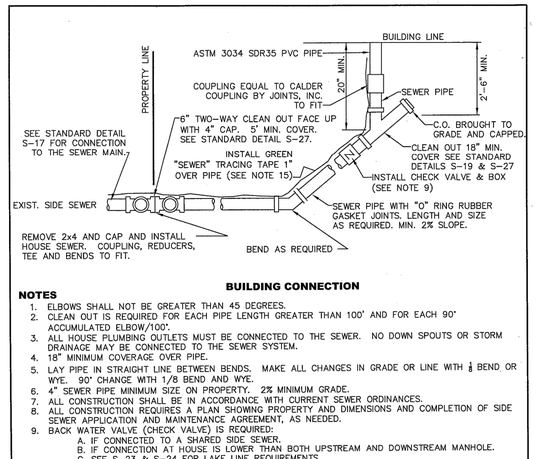
CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CONNECTION AND STUB

6-5-2009	NO SCALE	S-17

REV DATE						APPROVED

SIDE SEWER CONNECTION AND STUB

SCALE: NTS (2)



BUILDING CONNECTION

NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
4. 18" MINIMUM COVERAGE OVER PIPE.
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
8. ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
9. BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
   A. IF CONNECTED TO A SHARED SIDE SEWER.
   B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
   C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
10. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
11. THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
    6" – WITHIN THE PUBLIC RIGHT-OF-WAY.
    4" – SINGLE FAMILY RESIDENCES.
    6" – 2 TO 6 SINGLE FAMILY RESIDENCES.
    6" – BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
12. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE. ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
HOUSE SEWER CONNECTION

6-5-2009	NO SCALE	S-18

REV DATE						APPROVED

HOUSE SEWER CONNECTION

SCALE: NTS (3)

bcra
T 253.627.3367 F 253.627.4393 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

JUSTIN JAN COLE
STATE OF WASHINGTON
43432
REGISTERED PROFESSIONAL ENGINEER

2/10/2023

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

REVISIONS

DATE
02.10.2023

BCRA NO.
22135

DRAWN BY: KSS DESIGNED BY: KSS

REVIEWED BY: JJG

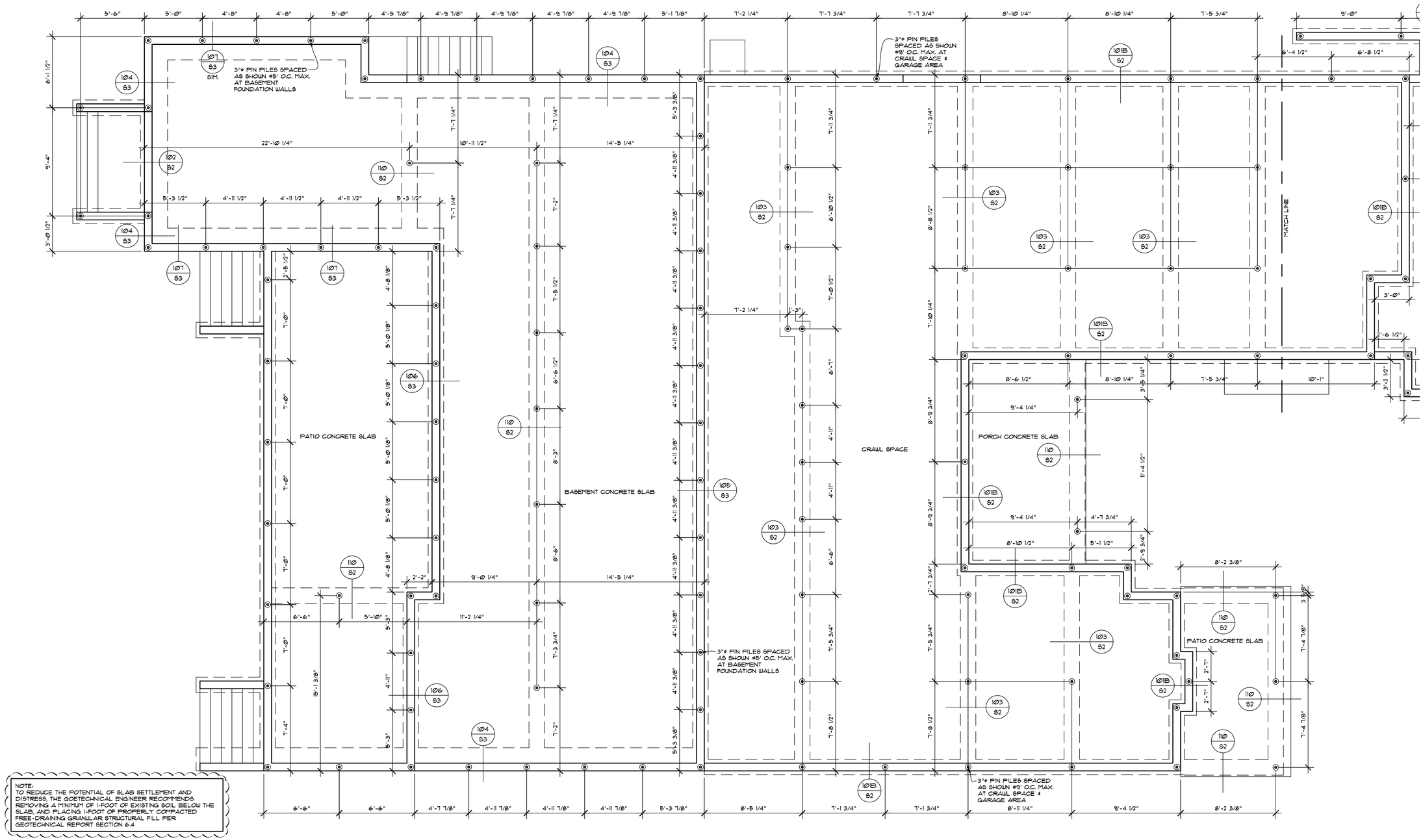
SHEET TITLE
CONSTRUCTION DETAILS

bcra
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SHEET
C-103

DATE PLOTTED: 2/10/2023 2:40:04 PM FILENAME: C-301 CONSTRUCTION DETAILS.DWG BY: ----

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY



PIN PILE PLAN (1 OF 2)

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

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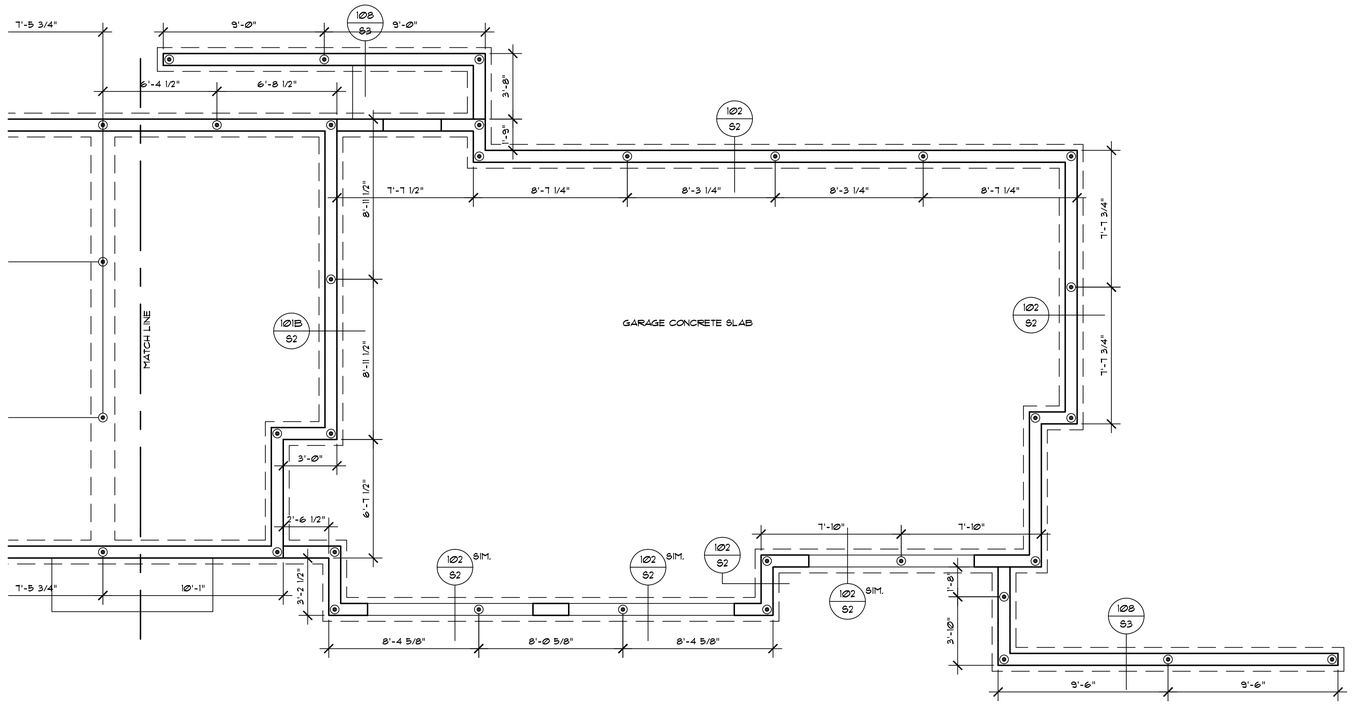
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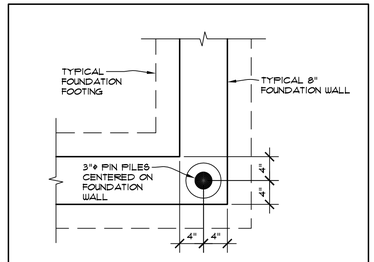
SHEET NO.
P1



PIN PILE PLAN (2 OF 2)

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

NOTE:
TO REDUCE THE POTENTIAL OF SLAB SETTLEMENT AND DISTRESS, THE GOETECHNICAL 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



TYPICAL PIN PILE AT CORNER

N.T.S.

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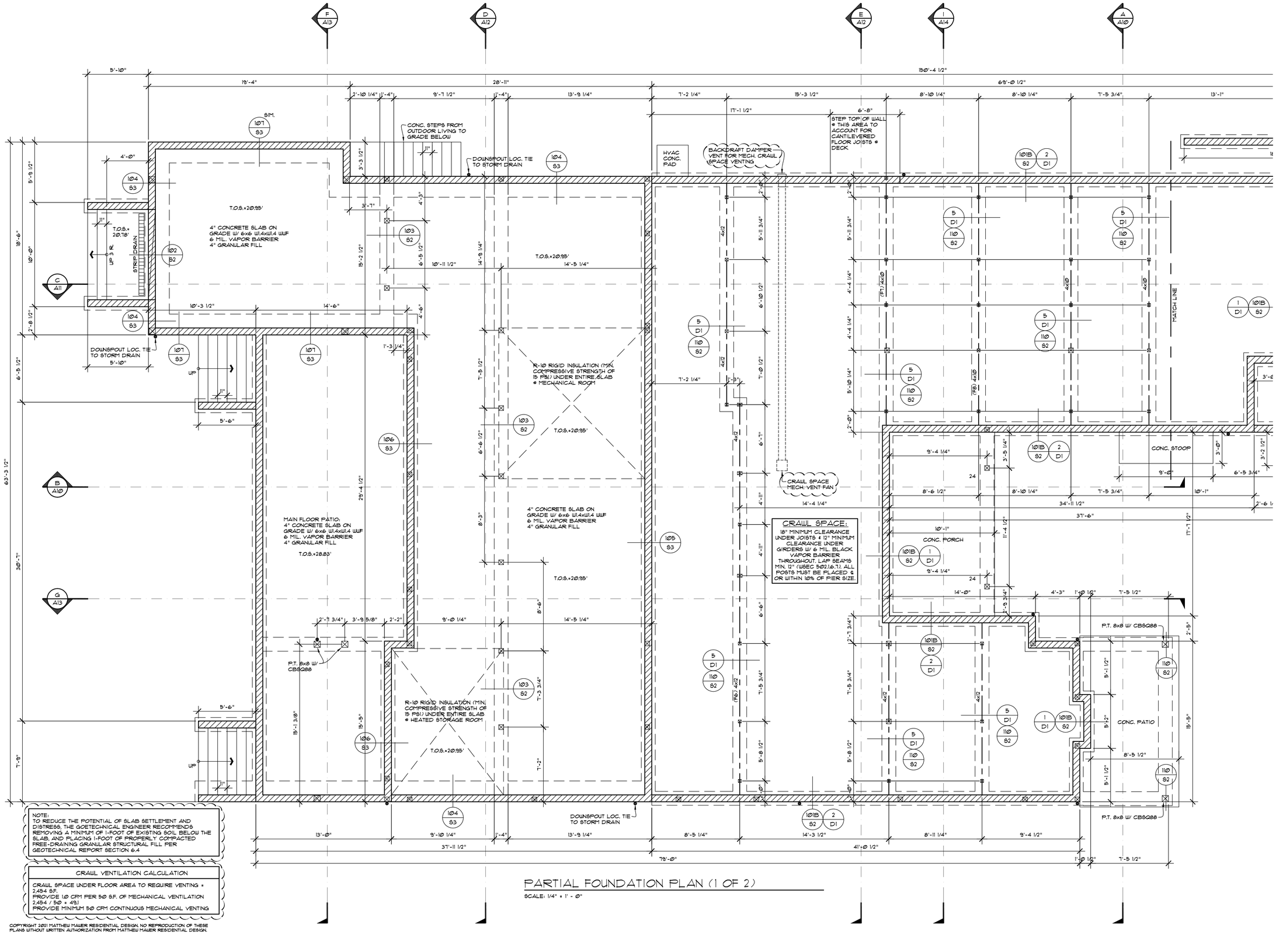
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P2



NOTE:
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CRAWL VENTILATION CALCULATION
CRAWL SPACE UNDER FLOOR AREA TO REQUIRE VENTING = 2,454 SF. PROVIDE 1Ø CFM PER 5Ø SF. OF MECHANICAL VENTILATION 2,454 / 5Ø = 49.1 PROVIDE MINIMUM 5Ø CFM CONTINUOUS MECHANICAL VENTING

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PARTIAL FOUNDATION PLAN (1 OF 2)

SCALE: 1/4" = 1' - Ø"

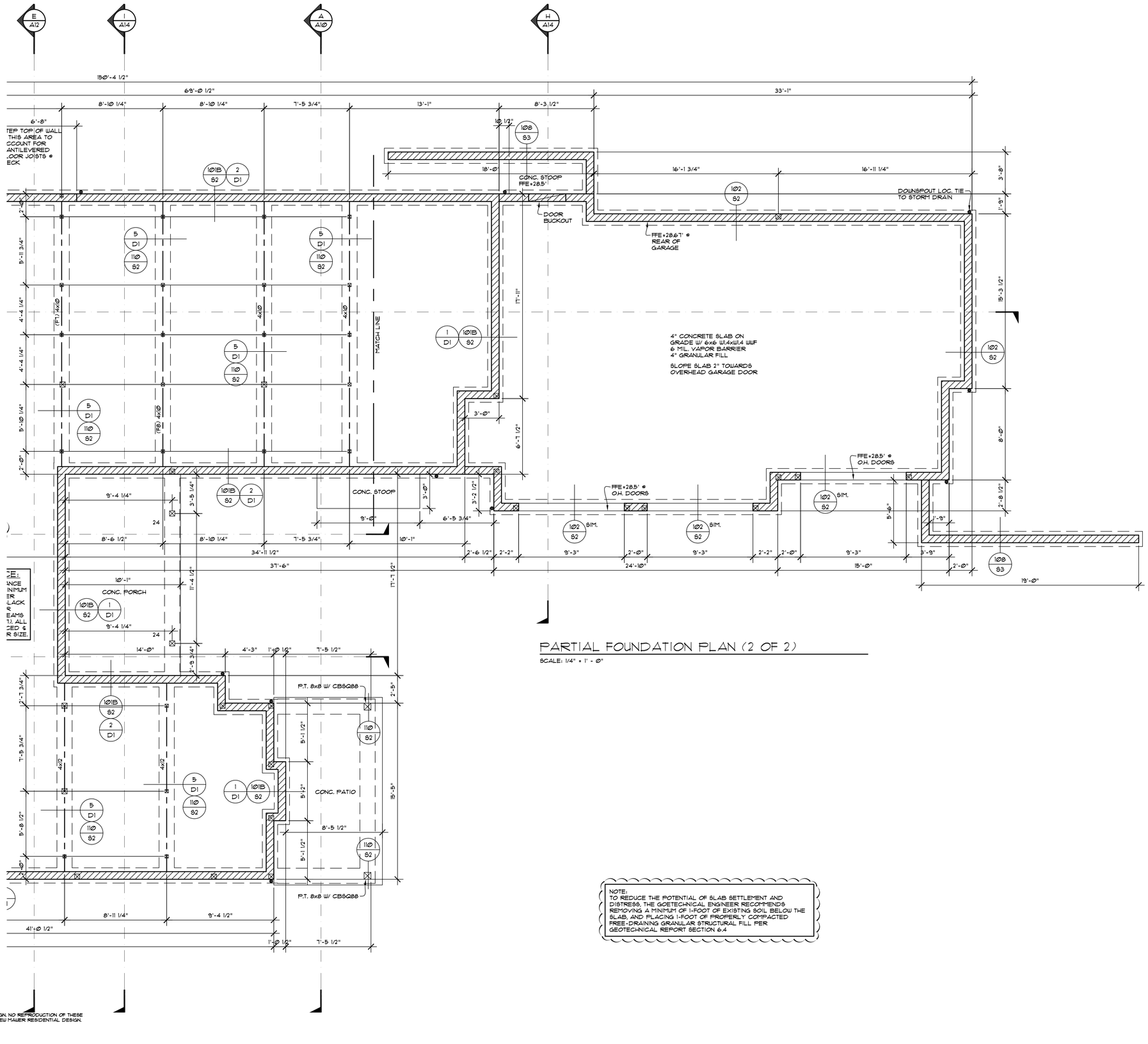
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A1



PARTIAL FOUNDATION PLAN (2 OF 2)

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

NOTE:
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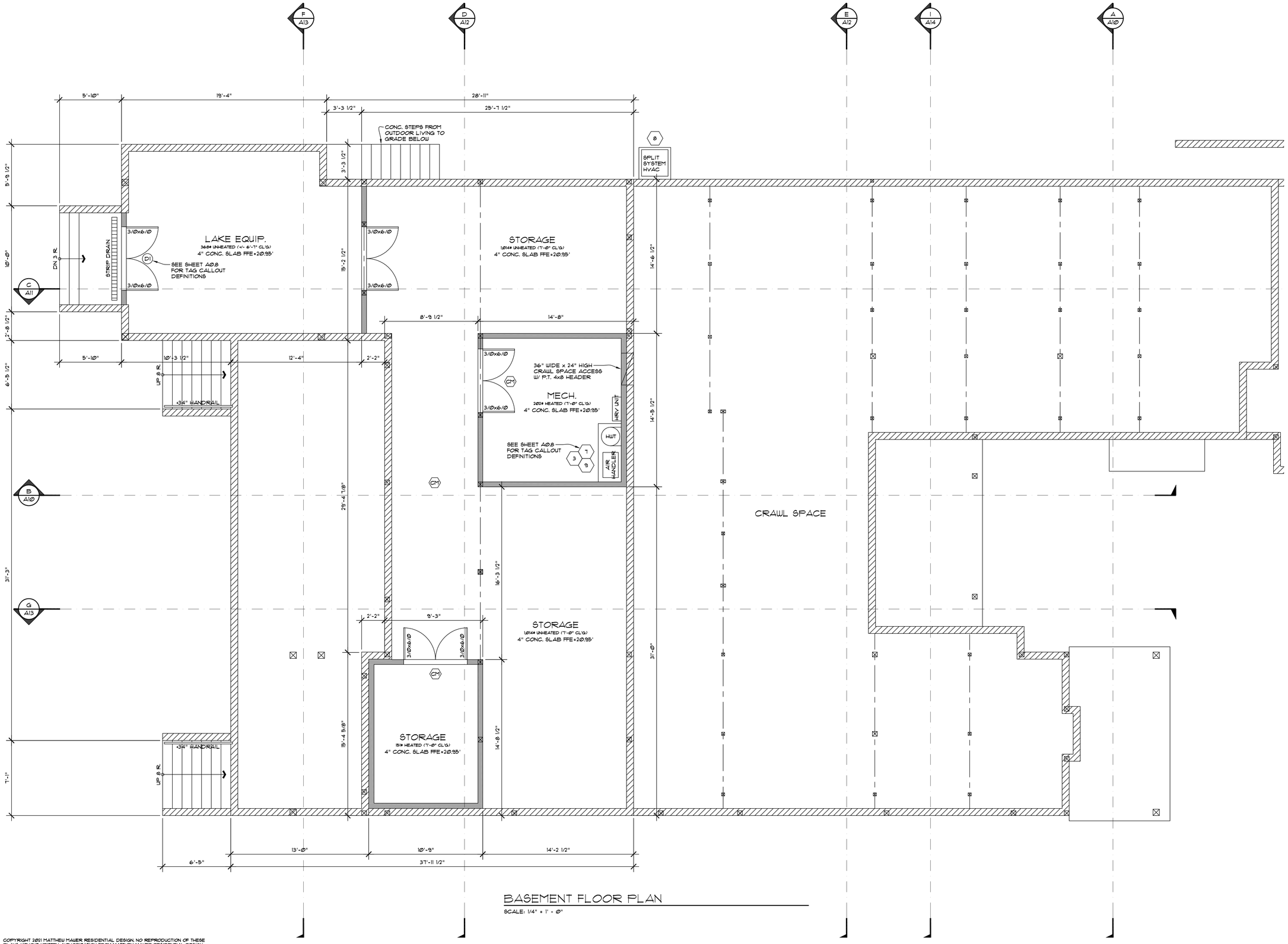
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BASEMENT FLOOR PLAN

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

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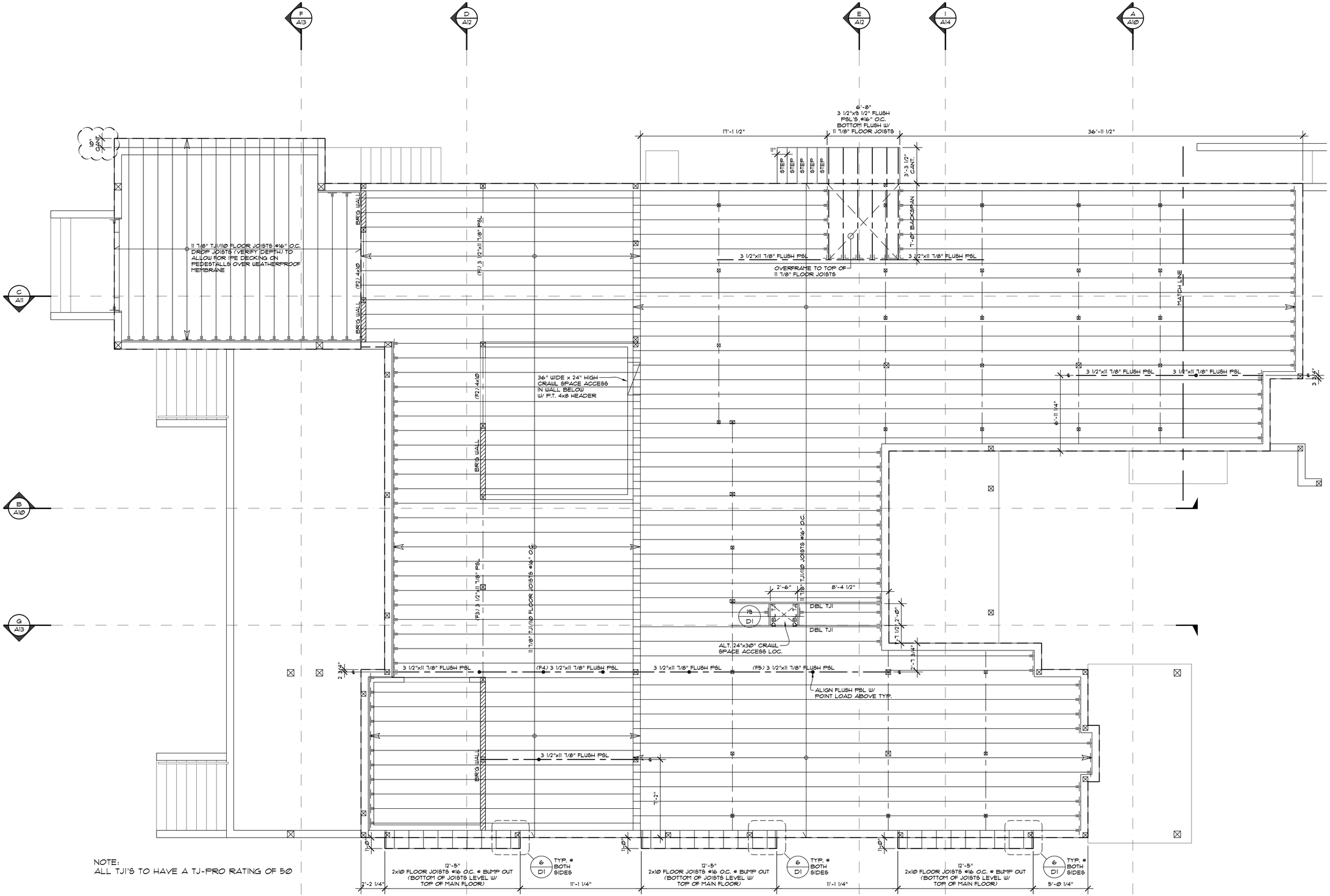
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A3



NOTE:
ALL TJI'S TO HAVE A TJ-PRO RATING OF 5Ø

MAIN FLOOR FRAMING PLAN

SCALE: 1/4" = 1' - Ø"

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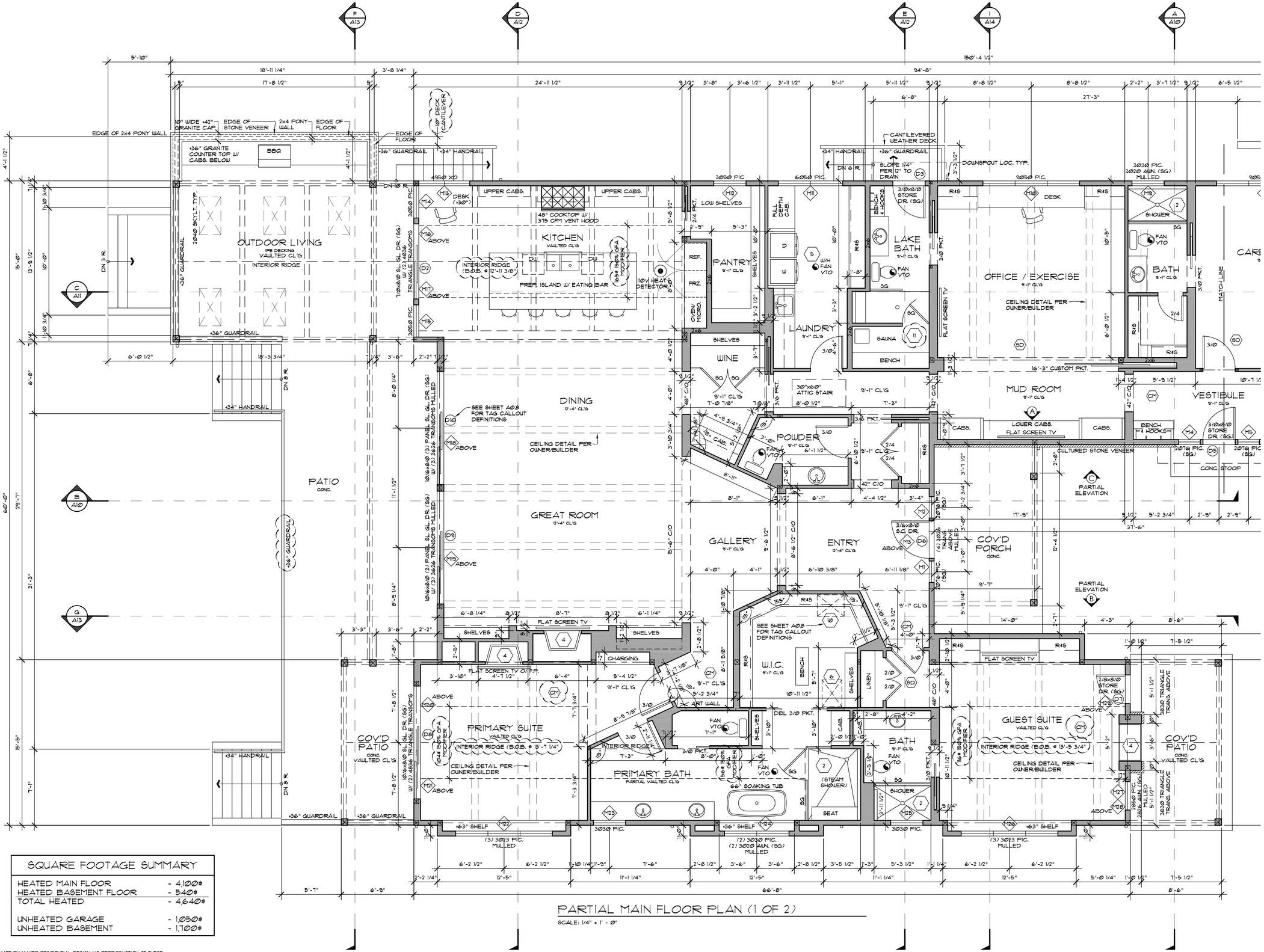
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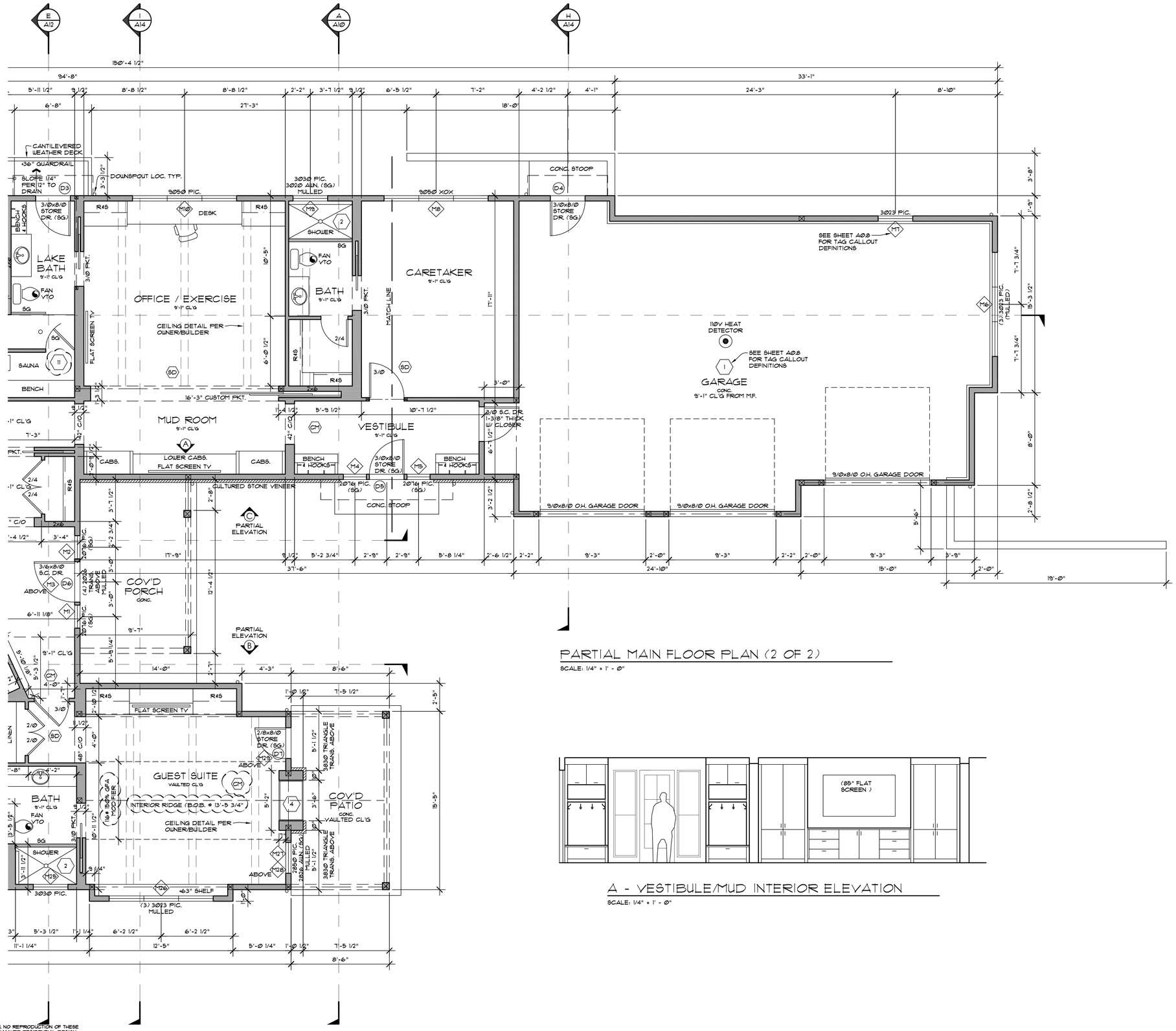
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A4


OUTDOOR LIVING
TILE DECKING
VAULTED CL'G
INTERIOR RIDGE
KITCHEN
VAULTED CL'G
48" COOKTOP W/ 375 CFM VENT HOOD
INTERIOR RIDGE (B.O.B. @ 12'-11 3/8")
FREE. ISLAND W/ EATING BAR
PANTRY
9'-1" CL'G
REF.
FRZ.
OVEN
MICRO
SHELVES
WINE
LAUNDRY
9'-1" CL'G
SAUNA
BENCH
LAKE BATH
9'-1" CL'G
FAN VTO
DESK
OFFICE / EXERCISE
9'-1" CL'G
CEILING DETAIL PER OWNER/BUILDER
SHOWER
BATH
9'-1" CL'G
MUD ROOM
9'-1" CL'G
VESTIBULE
9'-1" CL'G
LOWER CABS. FLAT SCREEN TV
CABS.
BENCH & HOOKS
CULTURED STONE VENEER
CONC. STOOP
PARTIAL ELEVATION
DINING
12'-4" CL'G
CEILING DETAIL PER OWNER/BUILDER
SEE SHEET A0.8 FOR TAG CALLOUT DEFINITIONS
POWDER
9'-1" CL'G
PATIO
CONC.
GREAT ROOM
12'-4" CL'G
GALLERY
9'-1" CL'G
ENTRY
12'-4" CL'G
COV'D PORCH
CONC.
PARTIAL ELEVATION
PRIMARY SUITE
VAULTED CL'G
INTERIOR RIDGE (B.O.B. @ 13'-1 1/4")
CEILING DETAIL PER OWNER/BUILDER
PRIMARY BATH
PARTIAL VAULTED CL'G
66" SOAKING TUB
(STEAM SHOWER)
SEAT
W.I.C.
9'-1" CL'G
BENCH
SHELVES
LINEN
ART WALL
FLAT SCREEN TV
FLAT SCREEN TV O/ F.P.
CHARGING
SHELVES
GUEST SUITE
VAULTED CL'G
INTERIOR RIDGE (B.O.B. @ 13'-5 3/4")
CEILING DETAIL PER OWNER/BUILDER
COV'D PATIO
CONC.
VAULTED CL'G
COV'D PATIO
CONC.
VAULTED CL'G
10" WIDE +42" GRANITE CAP
EDGE OF STONE VENEER
2x4 PONY WALL
EDGE OF FLOOR
EDGE OF 2x4 PONY WALL
+36" GRANITE COUNTER TOP W/ CABS. BELOW
BBQ
10" DECK (CANTILEVER)
+36" GUARDRAIL
+34" HANDRAIL
CANTILEVERED WEATHER DECK
SLOPE 1/4" PER 12" TO DRAIN
DOWNSPOUT LOC. TYP.
+36" GUARDRAIL
+34" HANDRAIL
+34" HANDRAIL
+36" GUARDRAIL
+36" GUARDRAIL
+36" GUARDRAIL
DN 10 R.
DN 3 R.
DN 6 R.
DN 8 R.
DN 6 R.
DN 8 R.
3050 FIC.
4950 XO
6050 FIC.
9050 FIC.
3030 FIC.
3020 AWN. (SG) MULLED
10'-0" CLG.
8'-0" CLG.
9'-0" CLG.
42" C/O
48" C/O
60" C/O
3/0 PKT.
2/4 PKT.
16'-3" CUSTOM PKT.
30"x60" ATTIC STAIR
10'-0"x8'-0" (3) PANEL SL. GL. DR. (SG) W/ (3) 3626 TRANSOMS MULLED
10'-0"x8'-0" (3) PANEL SL. GL. DR. (SG) MULLED W/ (3) 3626 TRANSOMS
10'-0"x8'-0" SL. GL. DR. (SG) W/ (2) 4836 TRIANGLE TRANSOMS
7'-0"x8'-0" SL. GL. DR. (SG) W/ (2) 2436 TRIANGLE TRANSOMS
3/6x8/0 SL. GL. DR.
2/8x8/0 STORE DR. (SG)
3/0x8/0 STORE DR. (SG)
2868 FIC. (SG)
2876 FIC. (SG)
2880 FIC. 2836 AWN. (SG) MULLED
3830 TRIANGLE TRANS. ABOVE
(4) 3626 FIC. ABOVE MULLED
(3) 3073 FIC. MULLED
(2) 3030 FIC. (2) 3020 AWN. (SG) MULLED
3030 FIC.
(3) 3073 FIC. MULLED
+63" SHELF
+36" SHELF
+34" HANDRAIL
MATCH LINE
CARPORT
A13
A12
A12
A14
A10
A11
A10
A13
A08
A08
A08



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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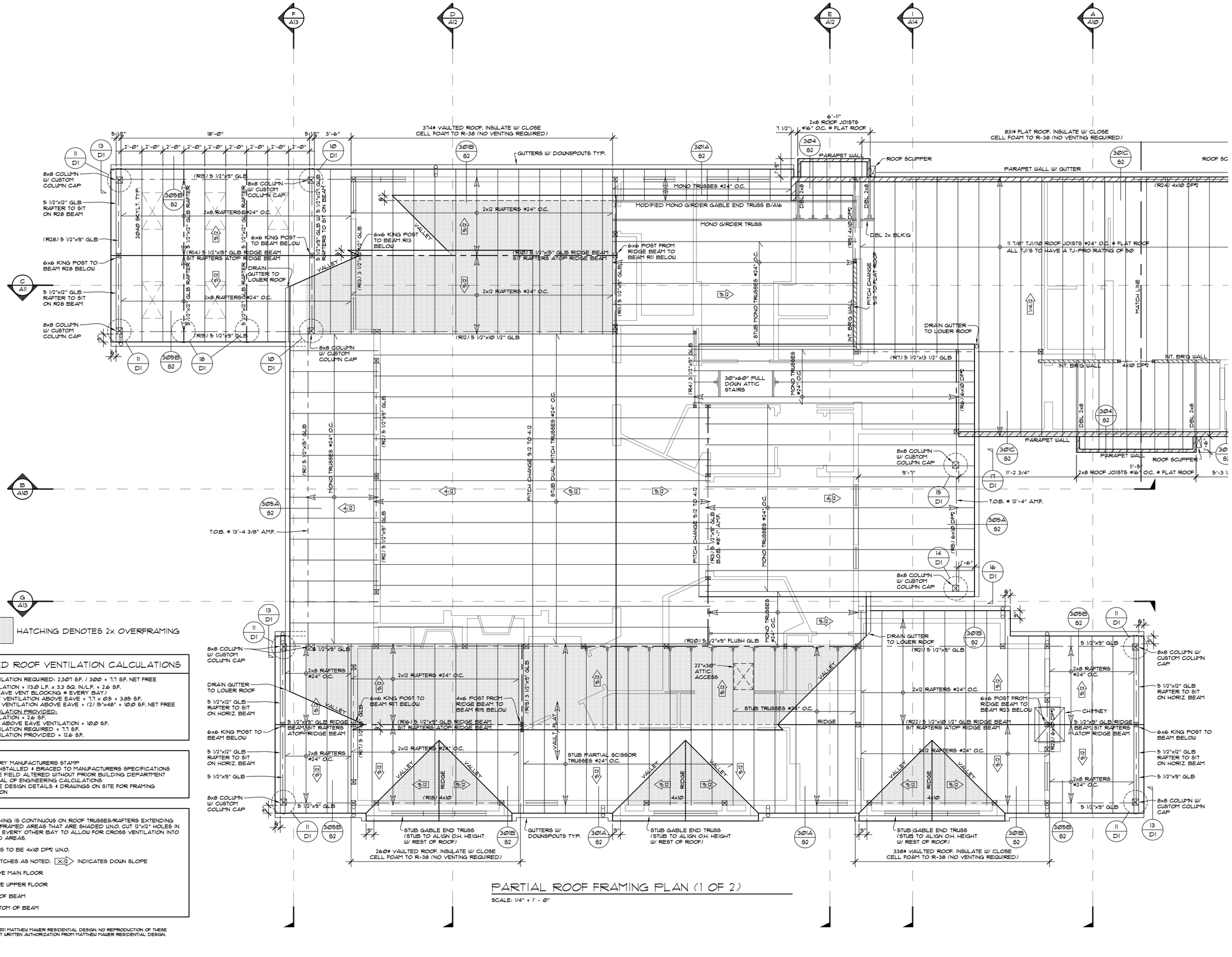
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SHEET NO.
A6



HATCHING DENOTES 2x OVERFRAMING

PITCHED ROOF VENTILATION CALCULATIONS

TOTAL VENTILATION REQUIRED: 2,307 SF. / 300 = 7.7 SF. NET FREE
EAVE VENTILATION = 113.0 L.F. x 3.3 SQ. IN./L.F. = 2.6 SF.
(PROVIDE EAVE VENT BLOCKING @ EVERY BAY)
MIN. 50% BY VENTILATION ABOVE EAVE = 7.7 x 0.5 = 3.85 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 = 7.7 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 U.N.O. CUT 12"x12" HOLES IN SHEATHING @ EVERY OTHER BAY TO ALLOW FOR CROSS VENTILATION INTO OVERFRAMED AREAS.

ALL HEADERS TO BE 4x10 DF#2 U.N.O.

ALL ROOF PITCHES AS NOTED. X:12 INDICATES DOWN SLOPE

A.M.F. = ABOVE MAIN FLOOR

A.U.F. = ABOVE UPPER FLOOR

T.O.B. = TOP OF BEAM

B.O.B. = BOTTOM OF BEAM

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PARTIAL ROOF FRAMING PLAN (1 OF 2)

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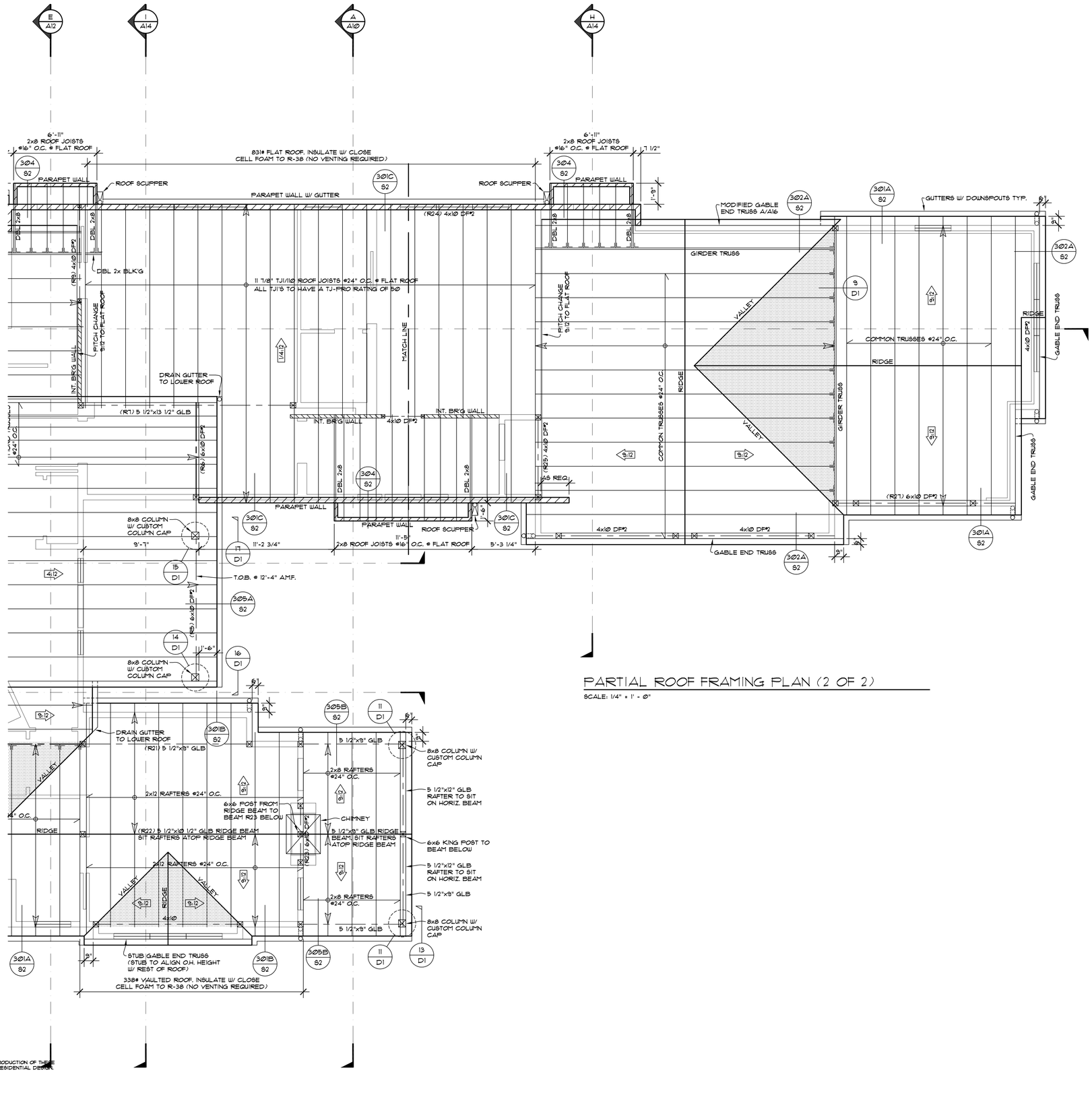
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PARTIAL ROOF FRAMING PLAN (2 OF 2)

SCALE: 1/4" = 1' - Ø"

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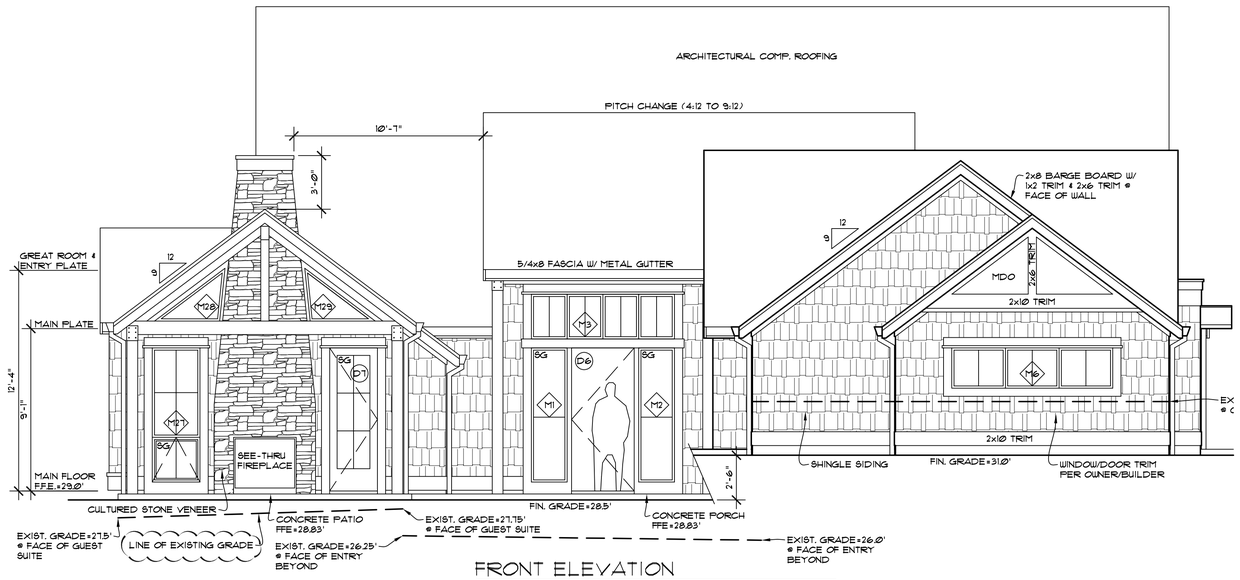
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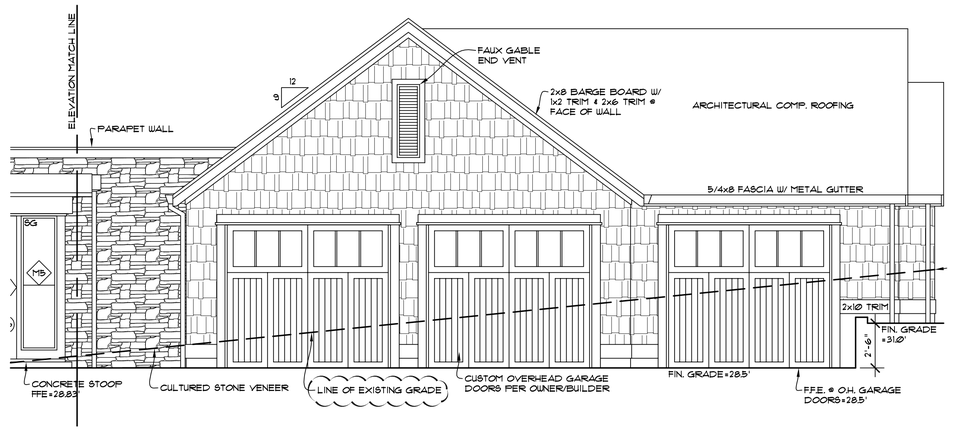
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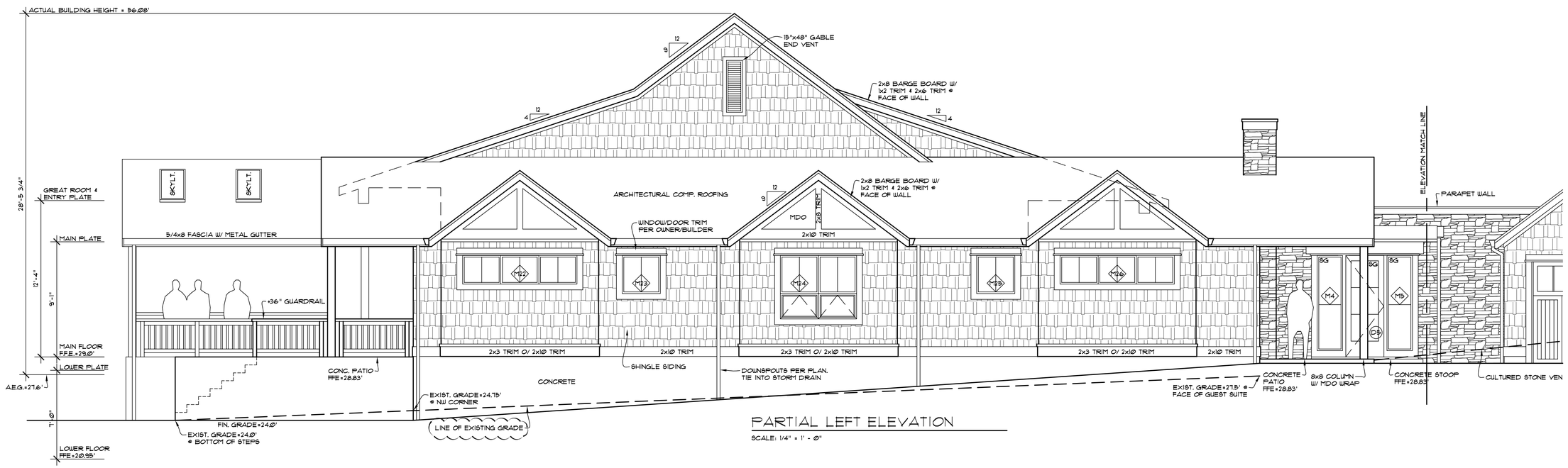
FRONT ELEVATION

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



PARTIAL LEFT ELEVATION

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



PARTIAL LEFT ELEVATION

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

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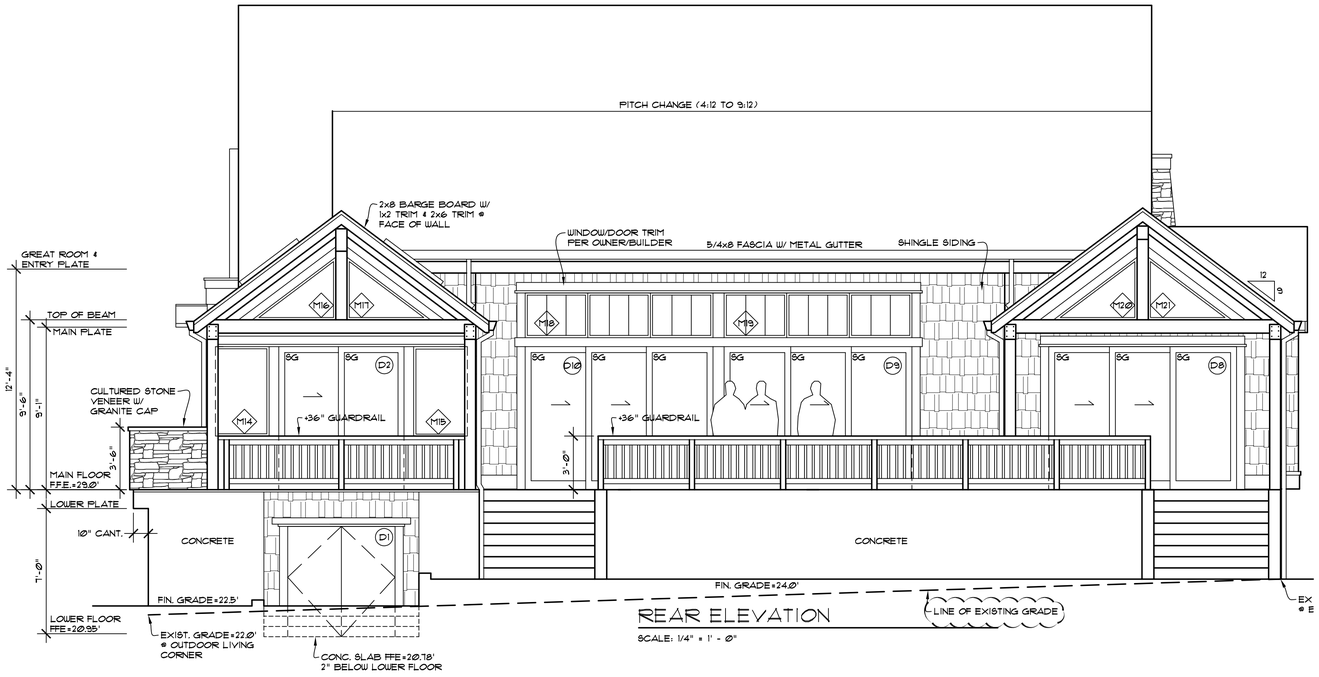
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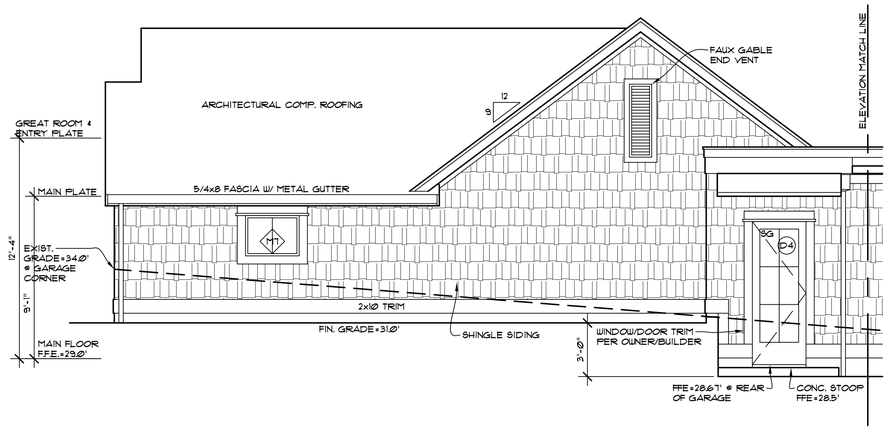
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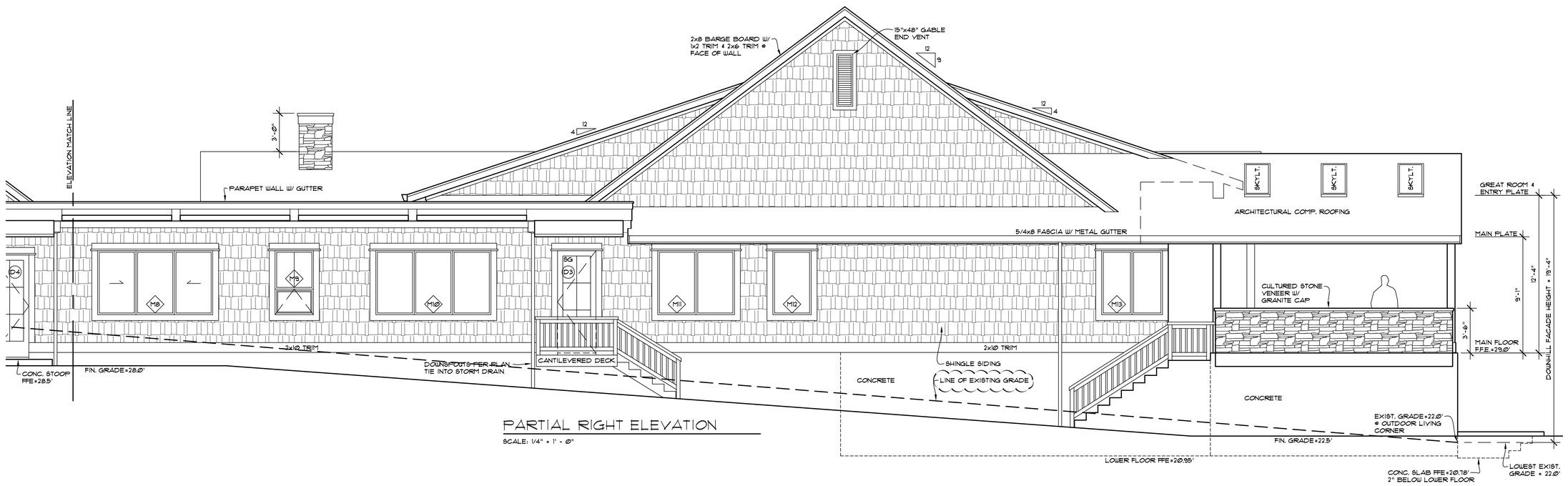
REAR ELEVATION

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



PARTIAL RIGHT ELEVATION

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



PARTIAL RIGHT ELEVATION

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

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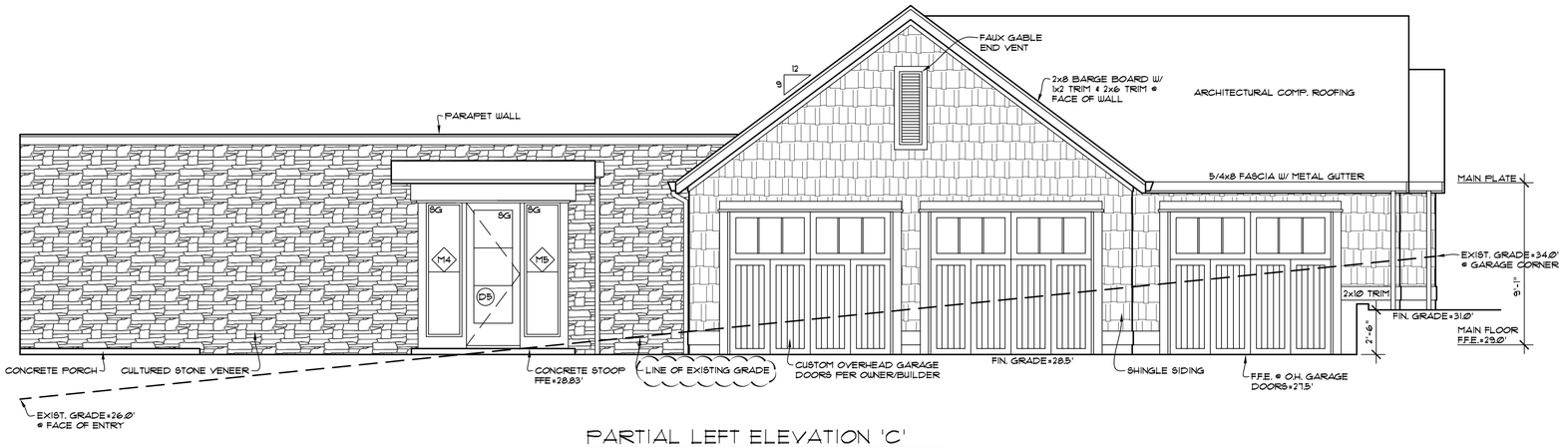
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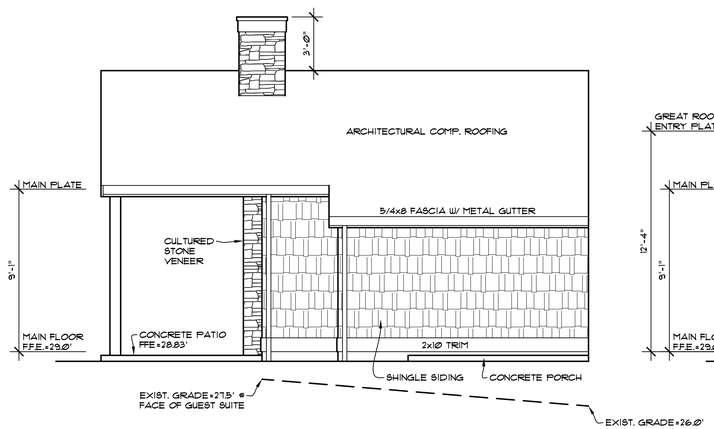
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A10



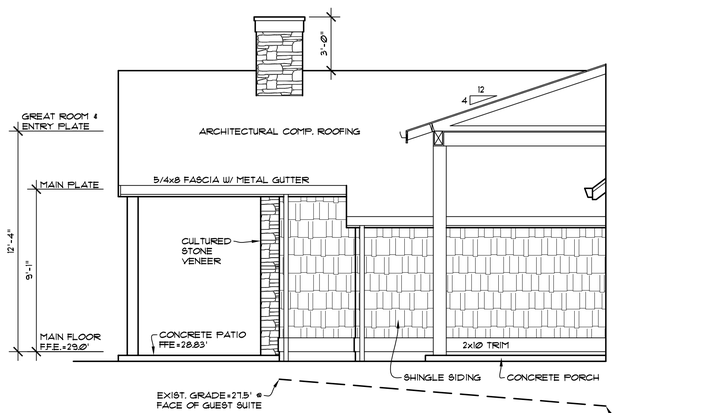
PARTIAL LEFT ELEVATION 'C'

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"

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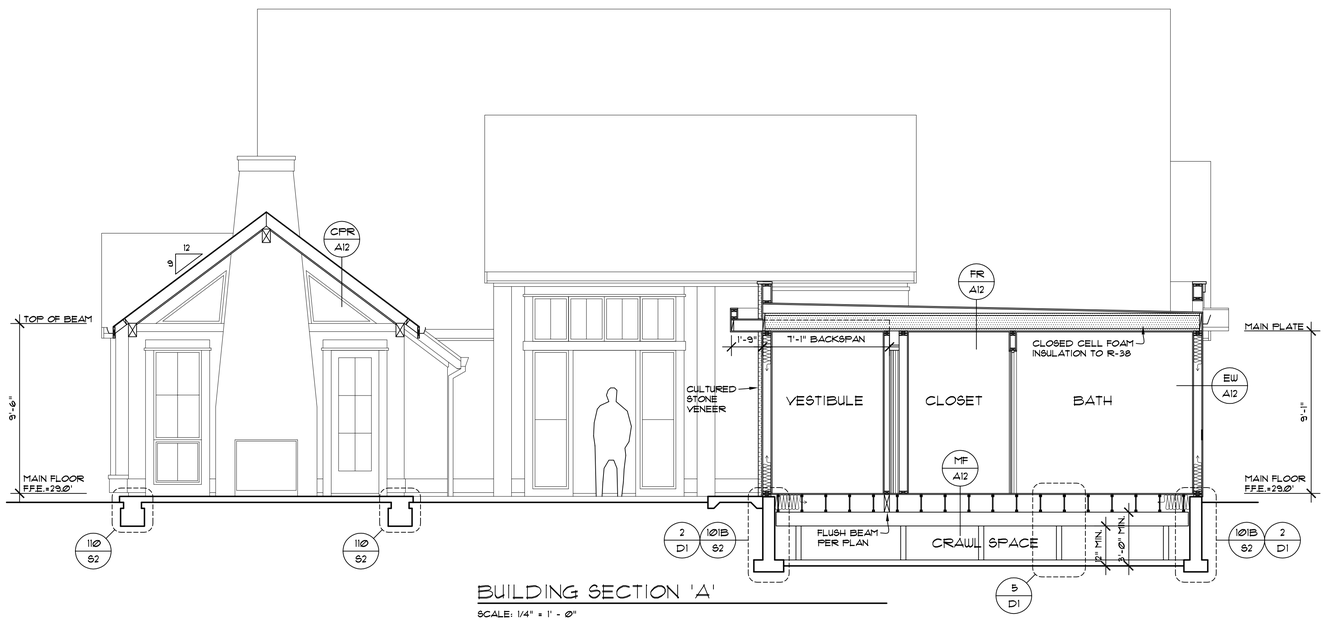
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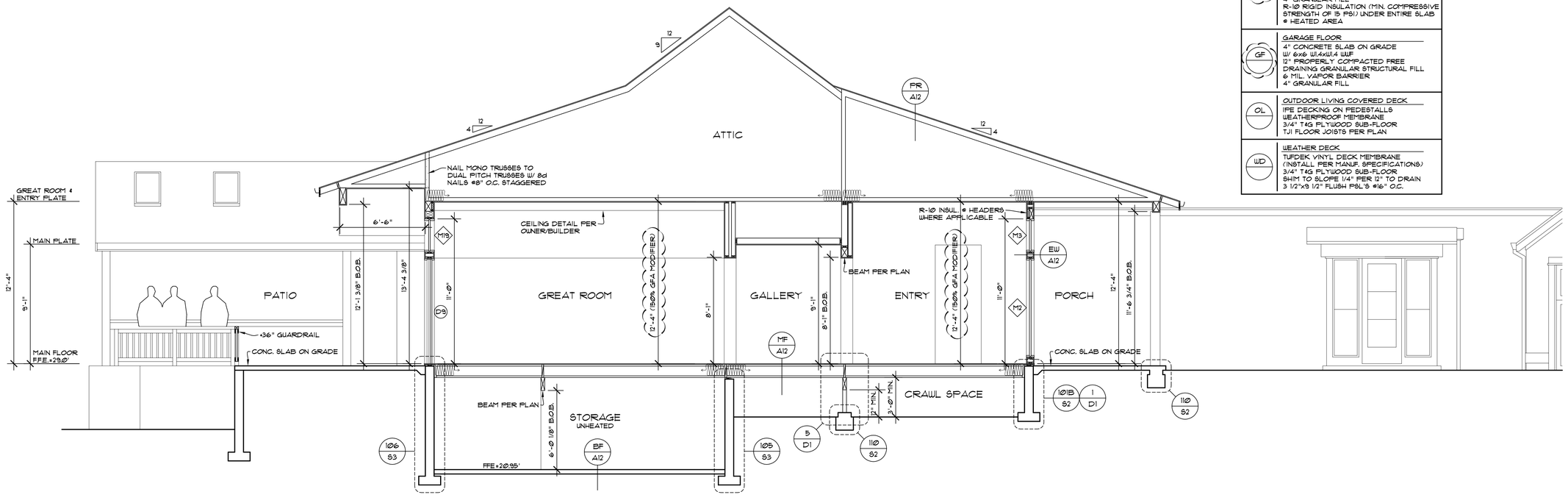
JOB NO: 20-020
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SHEET NO.
A11



BUILDING SECTION 'A'

SCALE: 1/4" = 1' - Ø"



BUILDING SECTION 'B'

SCALE: 1/4" = 1' - Ø"

FR	FLAT ROOF CARLISLE SYNTEC SURE-TOUGH 6Ø MIL. POLYESTER-REINFORCED EPDM ROOF MEMBRANE SHEATHING PER STUCTURAL ENGINEER 2x SHIM TO SLOPE 1/4" / 12" TO DRAIN TJI ROOF JOISTS PER PLAN R-38 INSUL. @ SINGLE RAFTER ROOF 4 MIL. U.V. POLY. 5/8" TYPE 'X' GWB (FIRE CODE)
PR	PITCHED ROOF ROOFING PER ELEVATIONS 3Ø# 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. U.V. POLY. 5/8" TYPE 'X' GWB (FIRE CODE)
CPR	COVERED PATIO ROOF ROOFING PER ELEVATION 3Ø# BUILDING PAPER SHEATHING PER STRUCTURAL ENGINEER 2x8 RAFTERS @24" O.C. 1x6 T&G CEILING SHEATHING OR EQ.
EW	EXTERIOR CONDITIONED WALL 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	EXTERIOR GARAGE WALL 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	DWELLING TO GARAGE WALL 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	BASEMENT WALL (@ HEATED AREA) RETAINING WALL PER PLAN 1/2" AIRSPACE 2x6 STUDS @ 16" O.C. R-21 BATT INSULATION 5/8" TYPE 'X' GWB (FIRE CODE)
MF	MAIN FLOOR FINISH FLOOR 1/2" U.L. FLY @ VINYL 5/8" U.L. 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 1.3 5/8" TYPE 'X' GWB (FIRE CODE)
BF	BASEMENT FLOOR 4" CONCRETE SLAB ON GRADE W/ 6x6 W1.4xW1.4 WWF 12" PROPERLY COMPACTED FREE DRAINING GRANULAR STRUCTURAL FILL 6 MIL. VAPOR BARRIER 4" GRANULAR FILL R-1Ø RIGID INSULATION (MIN. COMPRESSIVE STRENGTH OF 15 PSI) UNDER ENTIRE SLAB @ HEATED AREA
GF	GARAGE FLOOR 4" CONCRETE SLAB ON GRADE W/ 6x6 W1.4xW1.4 WWF 12" PROPERLY COMPACTED FREE DRAINING GRANULAR STRUCTURAL FILL 6 MIL. VAPOR BARRIER 4" GRANULAR FILL
OL	OUTDOOR LIVING COVERED DECK IPE DECKING ON PEDESTALS WEATHERPROOF MEMBRANE 3/4" T&G PLYWOOD SUB-FLOOR TJI FLOOR JOISTS PER PLAN
WD	WEATHER DECK TUFDEK 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"x3 1/2" FLUSH FSL'S @16" O.C.

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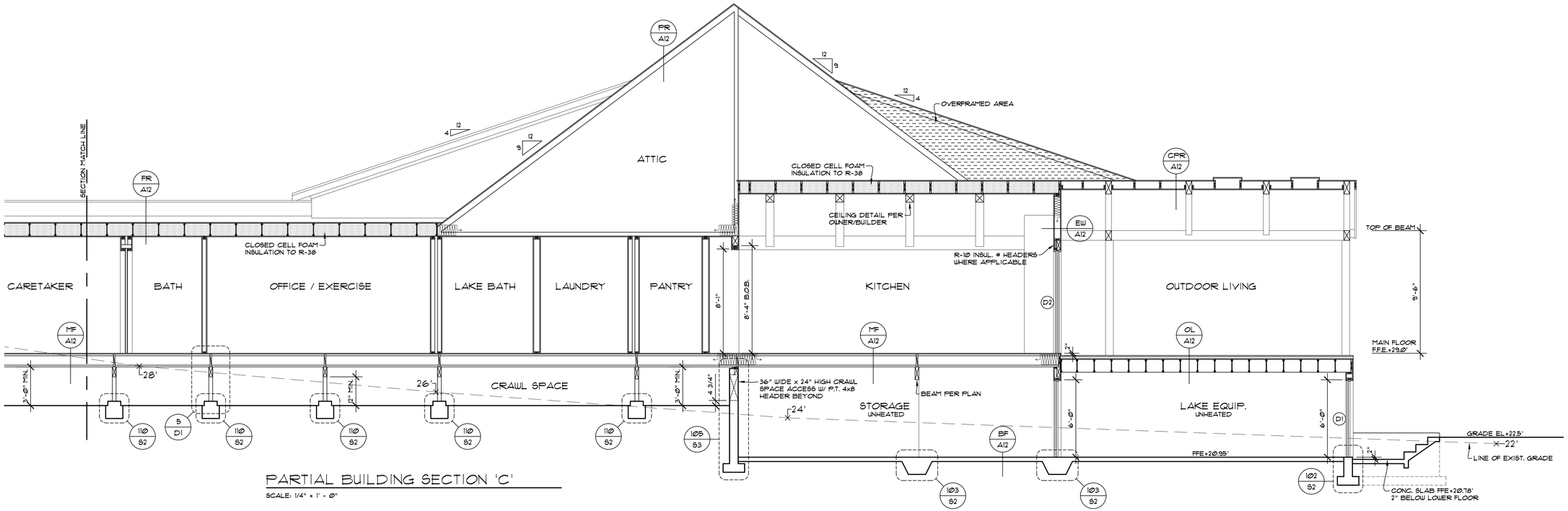
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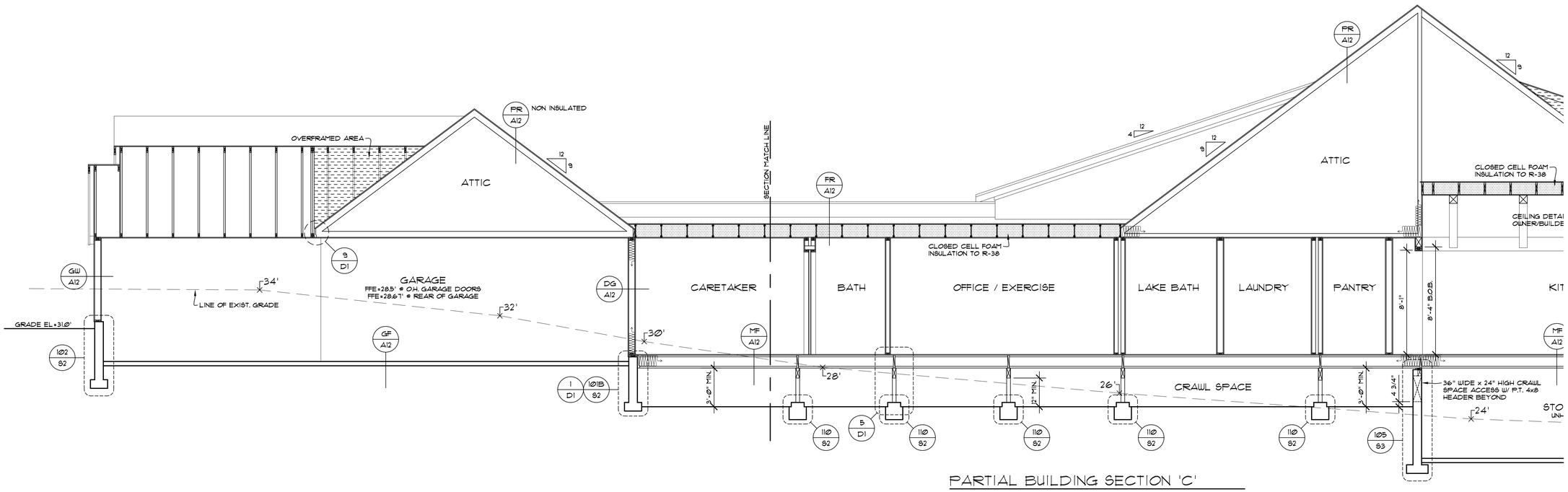
JOB NO: 20-Ø20
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SHEET NO.
A12



PARTIAL BUILDING SECTION 'C'

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



PARTIAL BUILDING SECTION 'C'

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

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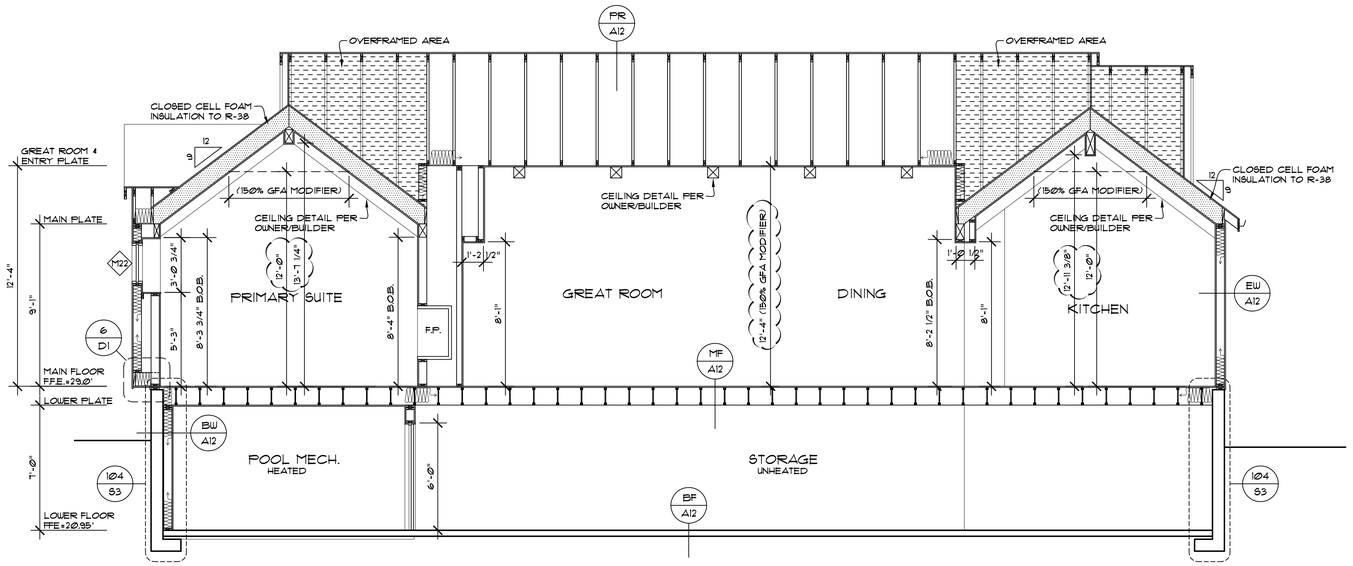
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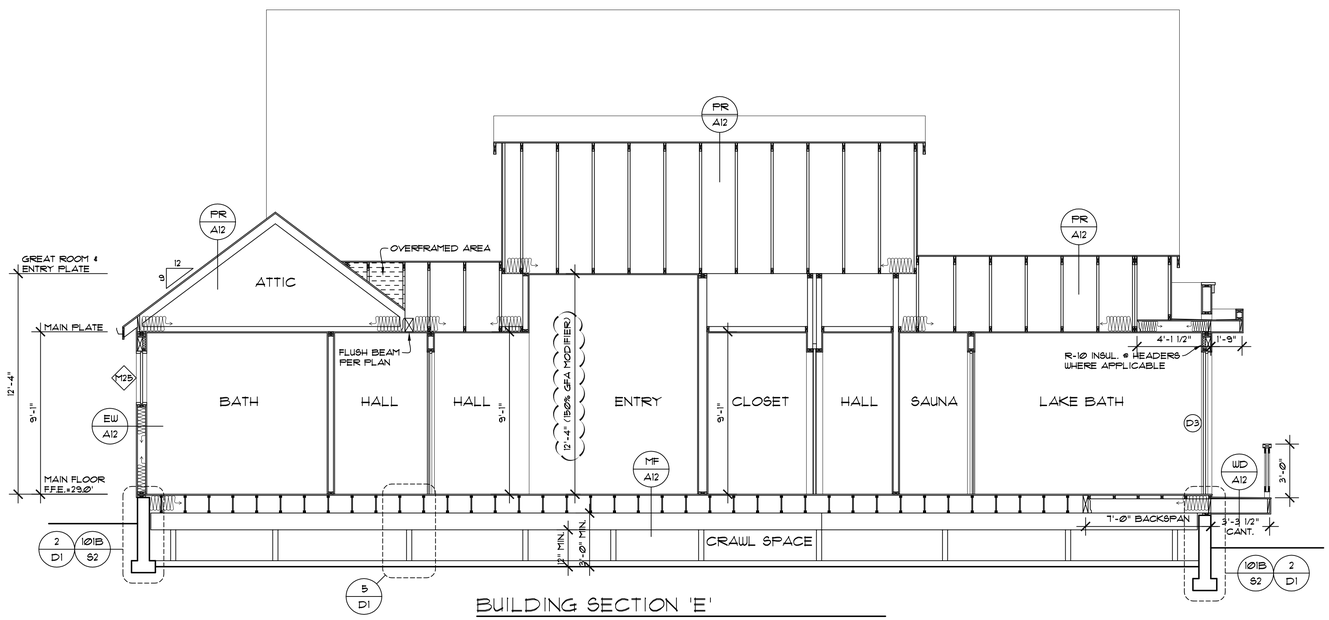
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SHEET NO.
A13



BUILDING SECTION 'D'

SCALE: 1/4" = 1' - Ø"



BUILDING SECTION 'E'

SCALE: 1/4" = 1' - Ø"

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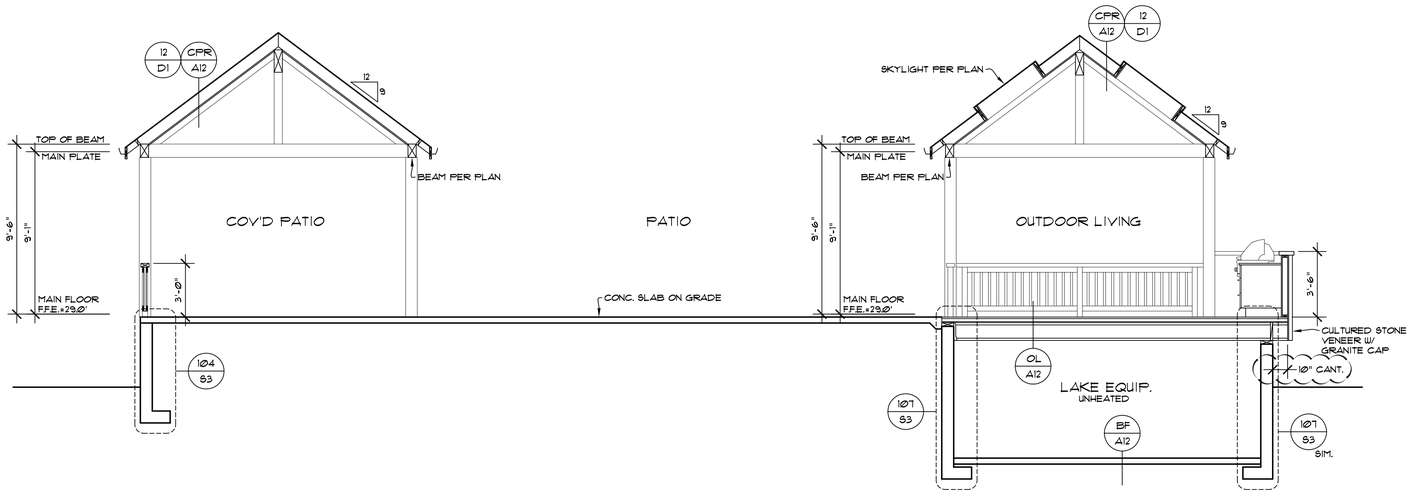
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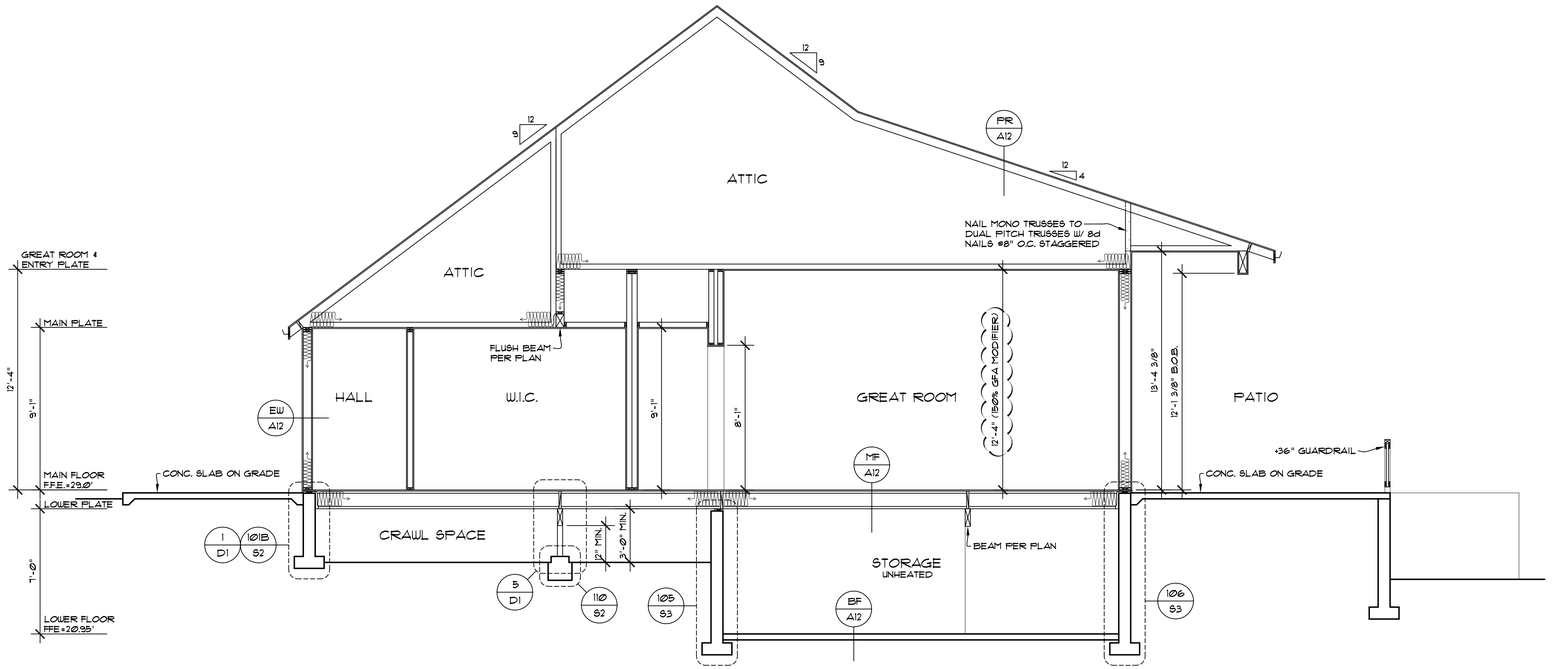
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SHEET NO.
A14



BUILDING SECTION 'F'

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



BUILDING SECTION 'G'

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

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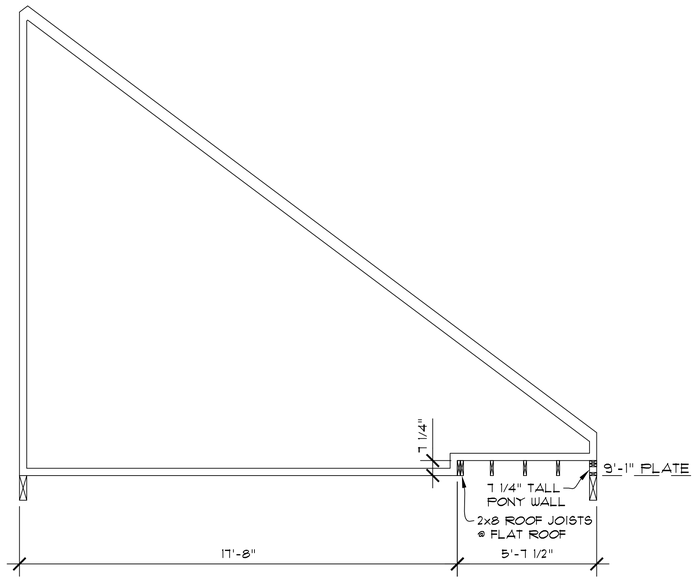
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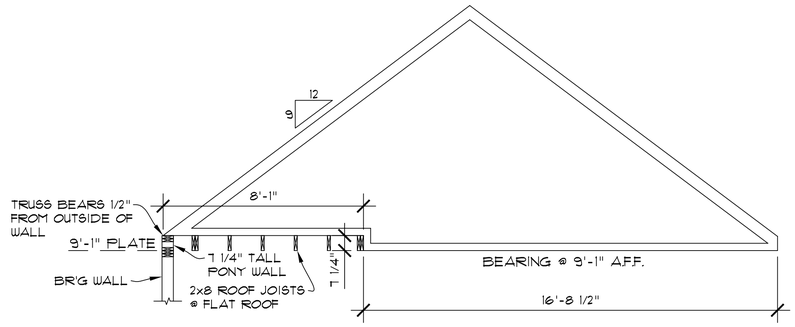
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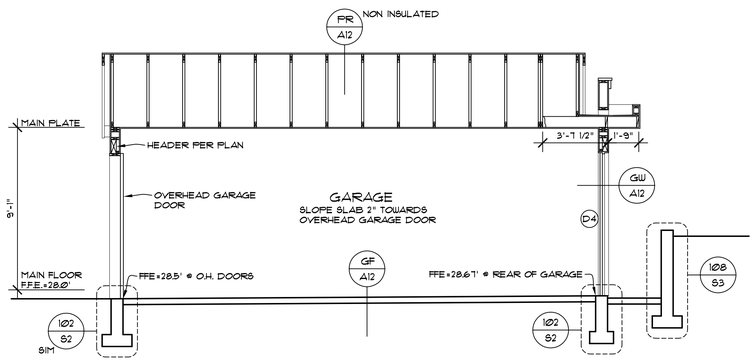
SHEET NO.
A15



MODIFIED MONO GIRDER GABLE END TRUSS 'B'

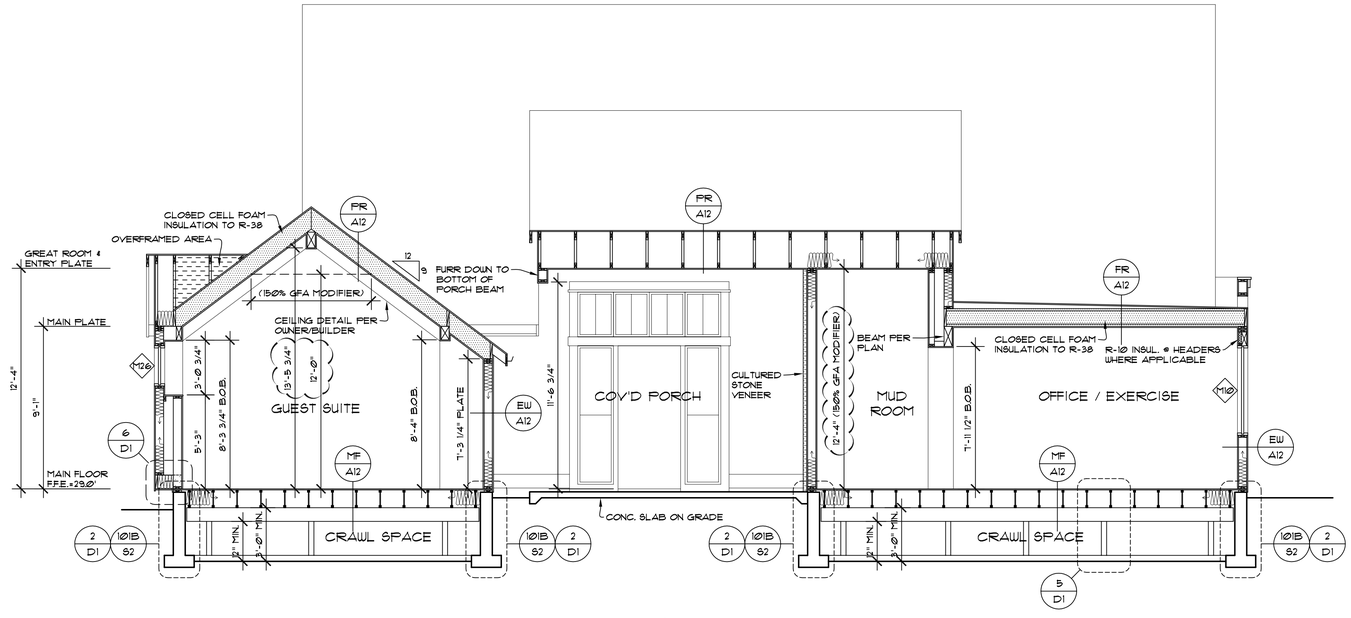


MODIFIED GABLE END TRUSS 'A'



BUILDING SECTION 'H'

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



BUILDING SECTION 'I'

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

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SHEET NO.
A16

WINDOW SCHEDULE

MAIN FLOOR WINDOWS

M1 M2 — ENTRY HDR. HT. 8'-Ø"	7'-6" 5G 1'-9"	M12 — PANTRY HDR. HT. 8'-Ø"	5'-Ø" 3'-Ø"
M3 — ENTRY HDR. HT. 11'-Ø"	2'-Ø" 2'-Ø" 2'-Ø" 2'-Ø" 2'-6" 8'-Ø"	M13 — KITCHEN HDR. HT. 8'-Ø"	5'-Ø" 4'-9"
M4 M5 — VESTIBULE HDR. HT. 8'-Ø"	7'-6" 5G 1'-9"	M14 M15 — KITCHEN HDR. HT. 8'-Ø"	5'-Ø" 3'-Ø"
M6 — GARAGE HDR. HT. 8'-Ø"	3'-Ø" 3'-Ø" 3'-Ø" 2'-3" 9'-Ø"	M16 — KITCHEN HDR. HT. 13'-4"	3'-6" 4'-8"
M7 — GARAGE HDR. HT. 8'-Ø"	2'-3" 3'-Ø"	M17 — KITCHEN HDR. HT. 13'-4"	3'-6" 4'-8"
M8 — CARETAKER HDR. HT. 8'-Ø"	5'-Ø" 9'-Ø"	M18 M19 — GREAT ROOM HDR. HT. 11'-Ø"	3'-6" 3'-6" 3'-6" 2'-6" 10'-6"
M9 — BATH HDR. HT. 8'-Ø"	5'-Ø" 3'-Ø" 2'-Ø" 3'-Ø"	M20 — P. SUITE HDR. HT. 13'-4"	3'-6" 4'-8"
M10 — OFFICE HDR. HT. 8'-Ø"	5'-Ø" 9'-Ø"	M21 — P. SUITE HDR. HT. 13'-4"	3'-6" 4'-8"
M11 — LAUNDRY HDR. HT. 8'-Ø"	5'-Ø" 6'-Ø"		

M22 — P. SUITE HDR. HT. 8'-Ø"	3'-Ø" 3'-Ø" 3'-Ø" 2'-3" 9'-Ø"
M23 — P. BATH HDR. HT. 8'-Ø"	3'-Ø" 3'-Ø"
M24 — P. BATH HDR. HT. 8'-Ø"	3'-Ø" 3'-Ø" 5'-Ø" 3'-Ø" 2'-Ø" 5G 5G 6'-Ø"
M25 — BATH HDR. HT. 8'-Ø"	3'-Ø" 3'-Ø"
M26 — GUEST SUITE HDR. HT. 8'-Ø"	3'-Ø" 3'-Ø" 3'-Ø" 2'-3" 9'-Ø"
M27 — GUEST SUITE HDR. HT. 8'-Ø"	7'-6" 5'-Ø" 2'-6" 2'-8"
M28 — GUEST SUITE HDR. HT. 13'-4"	2'-11 3/4" 3'-8" 3 5/8"
M29 — GUEST SUITE HDR. HT. 13'-4"	2'-11 3/4" 3 5/8" 3'-8"

SG = SAFETY GLASS
E = EGRESS WINDOW

U-FACTOR FOR ALL WINDOWS = Ø.28
U-FACTOR FOR DOORS = Ø.2Ø

DOOR SCHEDULE

EXTERIOR DOORS

D1 — LAKE EQUIP.	6'-Ø" 6'-Ø"
D2 — KITCHEN	7'-Ø" 5G 5G 8'-Ø"
D3 — LAKE BATH	3'-Ø" 5G 8'-Ø"
D4 — GARAGE	3'-Ø" 5G 8'-Ø"
D5 — VESTIBULE	3'-Ø" 5G 8'-Ø"
D6 — ENTRY	3'-6" 8'-Ø"
D7 — GUEST SUITE	2'-8" 5G 8'-Ø"
D8 — P. SUITE	10'-6" 5G 5G 5G 8'-Ø"
D9 — GREAT ROOM	10'-6" 5G 5G 5G 8'-Ø"
D12 — DINING	10'-6" 5G 5G 5G 8'-Ø"

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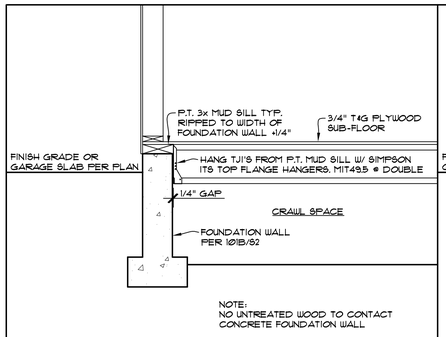
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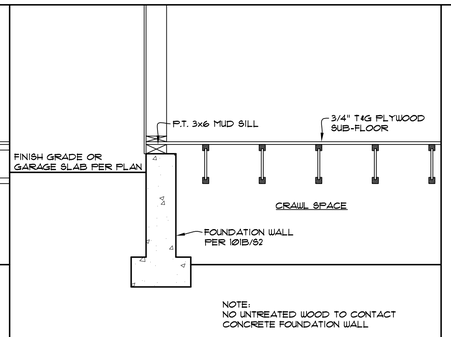
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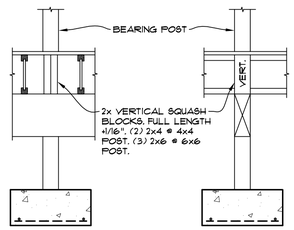
SHEET NO.
A17



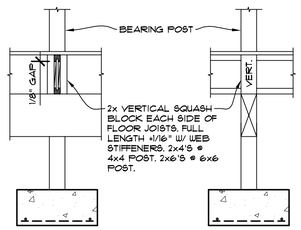
1 DROPPED JOIST DETAIL
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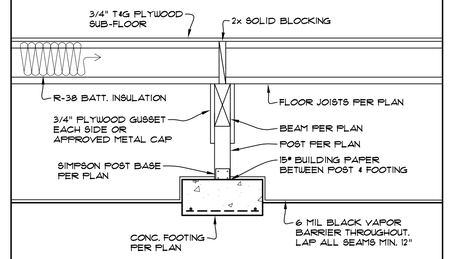
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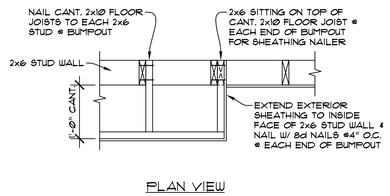
3 SQUASH BLOCKS @ BEARING POINT BETWEEN TJI JOISTS
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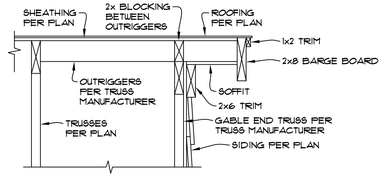
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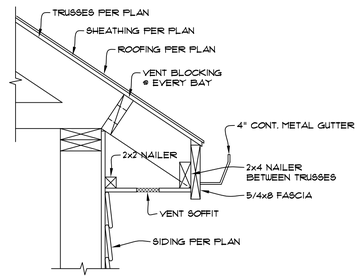
5 SPREAD FOOTING DETAIL
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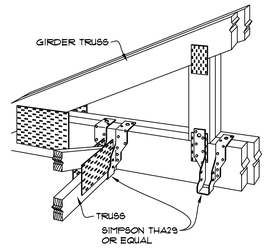
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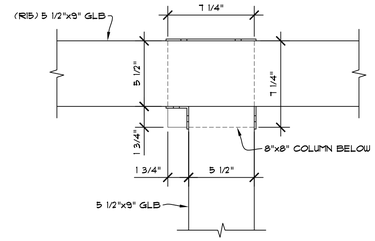
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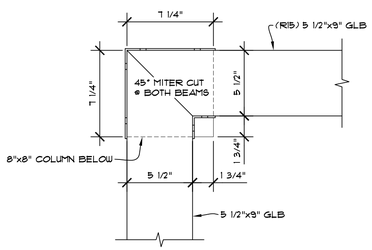
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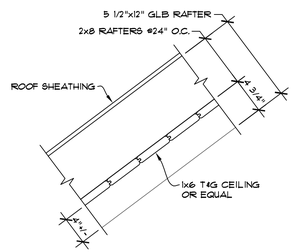
9 GIRDER TRUSS DETAIL
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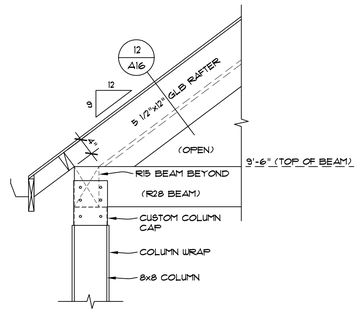
10 CUSTOM 'T' COLUMN CAP DETAIL
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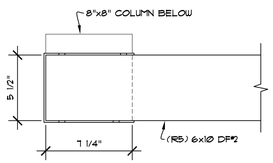
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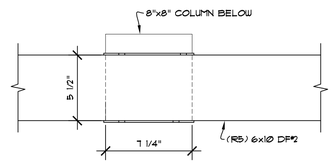
12 PATIO RAFTER DETAIL
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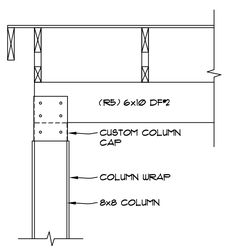
13 CUSTOM COLUMN CAP DETAIL
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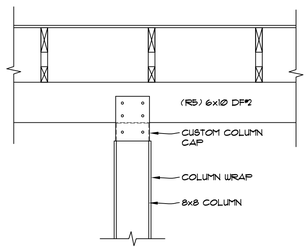
14 CUSTOM END COLUMN CAP DETAIL
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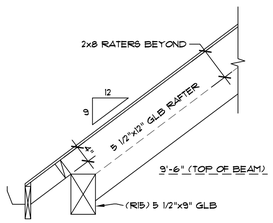
15 CUSTOM COLUMN CAP DETAIL
N.T.S.



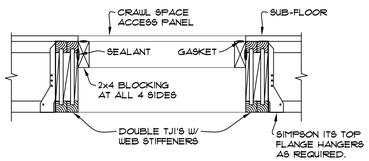
16 CUSTOM END COLUMN CAP DETAIL
N.T.S.



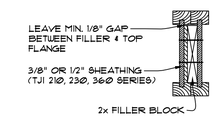
17 CUSTOM COLUMN CAP DETAIL
N.T.S.



18 BIRD MOUTH CUT @ GLB RAFTER DETAIL
N.T.S.



19 ALT. CRAWL SPACE ACCESS DETAIL
N.T.S.



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

20 TJI WEB STIFFENER DETAIL
N.T.S.

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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:

SHEET NO.
D1

Window, Skylight and Door Schedule

Project Information

Houtchens Residence
6024 SE 22nd Street
Mercer Island, WA 98040

Contact Information

Matt Mawer
425.417.7817

	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
Exempt Swinging Door (24 sq. ft. max.)								0.0	0.00
Exempt Glazed Fenestration (15 sq. ft. max.)								0.0	0.00

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
PICTURE	M1	0.28	1	2	0	7	6	15.0	4.20
PICTURE	M2	0.28	1	2	0	7	6	15.0	4.20
TRANSOM	M3	0.28	4	2	0	2	6	20.0	5.60
PICTURE	M4	0.28	1	2	0	7	6	15.0	4.20
PICTURE	M5	0.28	1	2	0	7	6	15.0	4.20
XOX	M8	0.28	1	9	0	5	0	45.0	12.60
PICTURE	M9	0.28	1	3	0	3	0	9.0	2.52
AWNING	M9	0.28	1	3	0	2	0	6.0	1.68
PICTURE	M10	0.28	1	9	0	5	0	45.0	12.60
PICTURE	M11	0.26	1	6	0	5	0	30.0	7.80
PICTURE	M12	0.28	1	3	0	5	0	15.0	4.20
XO	M13	0.28	1	4	9	5	0	23.8	6.65
PICTURE	M14	0.28	1	3	0	5	0	15.0	4.20
PICTURE	M15	0.28	1	3	0	5	0	15.0	4.20
TRIANGLE TRANSOM	M16	0.28	1	4	8	3	6	16.3	4.57
TRIANGLE TRANSOM	M17	0.28	1	4	8	3	6	16.3	4.57
TRANSOM	M18	0.28	3	3	6	2	6	26.3	7.35
TRANSOM	M19	0.28	3	3	6	2	6	26.3	7.35
TRIANGLE TRANSOM	M20	0.28	1	4	8	3	6	16.3	4.57
TRIANGLE TRANSOM	M21	0.28	1	4	8	3	6	16.3	4.57
PICTURE	M22	0.28	3	3	0	2	3	20.3	5.67
PICTURE	M23	0.28	1	3	0	3	0	9.0	2.52
PICTURE	M24	0.28	2	3	0	3	0	18.0	5.04
AWNING	M24	0.28	2	3	0	2	0	12.0	3.36
PICTURE	M25	0.28	1	3	0	3	0	9.0	2.52
PICTURE	M26	0.28	3	3	0	2	3	20.3	5.67
PICTURE	M27	0.28	1	2	8	5	0	13.3	3.73
AWNING	M27	0.28	1	2	8	2	6	6.7	1.87
TRIANGLE TRANSOM	M28	0.28	1	3	8	3	0	11.0	3.08
TRIANGLE TRANSOM	M29	0.28	1	3	8	3	0	11.0	3.08
		0.28						0.0	0.00
SLIDING GLASS DOOR	D2	0.28	1	7	0	8	0	56.0	15.68
STORE DOOR	D3	0.28	1	3	0	8	0	24.0	6.72
STORE DOOR	D5	0.28	1	3	0	8	0	24.0	6.72
STORE DOOR	D7	0.28	1	2	8	8	0	21.3	5.97
SLIDING GLASS DOOR	D8	0.28	1	10	6	8	0	84.0	23.52
SLIDING GLASS DOOR	D9	0.28	1	10	6	8	0	84.0	23.52
SLIDING GLASS DOOR	D10	0.28	1	10	6	8	0	84.0	23.52
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
Sum of Vertical Fenestration Area and UA								909.4	254.04
Vertical Fenestration Area Weighted U = UA/Area									0.28

Overhead Glazing (Skylights)

Component Description	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
Sum of Overhead Glazing Area and UA								0.0	0.00
Overhead Glazing Area Weighted U = UA/Area									0.00
Total Sum of Fenestration Area and UA ***(for heating system sizing calculations)***								909.4	254.04

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2018 Washington State Energy Code (WSEC) and ACCA Manuals J and S. This tool will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please complete the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please contact the WSU Energy Program at energycode@energy.wsu.edu or (360) 956-2042 for assistance.

Project Information

Hutchens Residence
6024 SE 22ns Street
Mercer Island, WA 98040

Contact Information

Matt Mawer
425.417.7817

Heating System Type: ○ All Other Systems ◉ Heat Pump

To see detailed instructions for each section, place your cursor on the word "Instructions"

Design Temperature
Instructions — Mercer Island — Design Temperature Difference (ΔT) = 45
ΔT = Indoor (70 degrees) - Outdoor Design Temp

Area of Building
Conditioned Floor Area
Instructions — Conditioned Floor Area (sq ft): 4,626
Average Ceiling Height
Instructions — Average Ceiling Height (ft): 10.5 — Conditioned Volume: 48,573

Glazing and Doors
Instructions — U-0.28

U-Factor	X	Area	=	UA
0.280		909		254.52

Skylights
Instructions

U-Factor	X	Area	=	UA
0.50		0		---

Insulation
Attic
Instructions — R-49

U-Factor	X	Area	=	UA
0.026		2,307		59.98

Single Rafter or Joist Vaulted Ceilings
Instructions — R-38 Vented

U-Factor	X	Area	UA
0.027		1,803	48.68

Above Grade Walls *(see Figure 1)*
Instructions — R-21 Intermediate

U-Factor	X	Area	UA
0.056		3,261	182.62

Floors
Instructions — R-38

U-Factor	X	Area	UA
0.025		3,516	87.90

Below Grade Walls *(see Figure 1)*
Instructions — R-21 Interior

U-Factor	X	Area	UA
0.042		742	31.16

Slab Below Grade *(see Figure 1)*
Instructions — R-10 Fully insulated

F-Factor	X	Length	UA
0.303		107	32.42

Slab on Grade *(see Figure 1)*
Instructions — R-10 Fully Insulated

F-Factor	X	Length	UA
0.360		0	

Location of Ducts
Instructions — Unconditioned Space

Duct Leakage Coefficient 1.10

Figure 1.



Sum of UA	697.28	
Envelope Heat Load *Sum of UA x ΔT*	31,378	Btu / Hour
Air Leakage Heat Load *Volume x 0.6 x ΔT x 0.018*	23,606	Btu / Hour
Building Design Heat Load *Air leakage + envelope heat loss*	54,984	Btu / Hour
Building and Duct Heat Load *Ducts in unconditioned space: sum of building heat loss x 1.10* *Ducts in conditioned space: sum of building heat loss x 1*	60,483	Btu / Hour
Maximum Heat Equipment Output *Building and duct heat loss x 1.40 for forced air furnace* *Building and duct heat loss x 1.25 for heat pump*	75,603	Btu / Hour

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective February 1, 2021) Version 1.0

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

Project Information	*Contact Information*
Houtchens Residence	Matt Mawer
Mercer Island, WA 98040	425.417.7817

Instructions: This single-family project will use the requirements of the Prescriptive Path below and incorporate the minimum values listed. Based on the size of the structure, the appropriate number of additional credits are checked as chosen by the permit applicant.

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

Authorized Representative ***Date***

All Climate Zones (Table R402.1.1)

	R-Value [a]	U-Factor [a]
Fenestration U-Factor [b]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Glazed Fenestration SHGC [b,e]	n/a	n/a
Ceiling [c]	49	0.026
Wood Frame Wall [d,h]	21 int	0.056
Floor	30	0.029
Below Grade Wall [c,h]	10/15/21 int + TB	0.042
Slab [d,f] R-Value & Depth	10, 2 ft	n/a

a. *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity that is less than the label or design thickness of the insulation, the compressed *R*-value of the insulation from Appendix Table A101.4 shall not be less than the *R*-value specified in the table.

b. The fenestration *U*-factor column excludes skylights.

c. "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.

d. R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.

e. For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.

f. R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.

g. For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for *climate zone* 5 of ICC 400.

h. Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

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

Each dwelling unit ***in a residential building*** shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

1. **Small Dwelling Unit:** 3 credits
   Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area. Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf.
2. **Medium Dwelling Unit:** 6 credits
   All dwelling units that are not included in #1 or #3
3. **Large Dwelling Unit:** 7 credits
   Dwelling units exceeding 5,000 sf of conditioned floor area
4. **Additions less than 500 square feet:** 1.5 credits
   All other additions shall meet 1-3 above

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

Summary of Table R406.2

Heating Options	Fuel Normalization Descriptions	Credits - select ONE heating option		User Notes
1	Combustion heating minimum NAECA[b]	0.0	☐	
2	Heat pump[c]	1.0	◉	
3	Electric resistance heat only - furnace or zonal	-1.0	☐	
4	DHP with zonal electric resistance per option 3.4	0.5	☐	
5	All other heating systems	-1.0	☐	
Energy Options	**Energy Credit Option Descriptions**	**Credits - select ONE energy option from each category [d]**		
1.1	Efficient Building Envelope	0.5	☐	
1.2	Efficient Building Envelope	1.0	☐	
1.3	Efficient Building Envelope	0.5	◉	
1.4	Efficient Building Envelope	1.0	☐	
1.5	Efficient Building Envelope	2.0	☐	
1.6	Efficient Building Envelope	3.0	☐	
1.7	Efficient Building Envelope ☐	0.5	☐	
2.1	Air Leakage Control and Efficient Ventilation	0.5	☐	
2.2	Air Leakage Control and Efficient Ventilation	1.0	☐	
2.3	Air Leakage Control and Efficient Ventilation	1.5	◉	
2.4	Air Leakage Control and Efficient Ventilation ☐	2.0	☐	
3.1[e]	High Efficiency HVAC	1.0	☐	
3.2	High Efficiency HVAC	1.0	◉	
3.3[e]	High Efficiency HVAC	1.5	☐	
3.4	High Efficiency HVAC	1.5	☐	
3.5	High Efficiency HVAC	1.5	☐	
3.6[e]	High Efficiency HVAC ☐	2.0	☐	
4.1	High Efficiency HVAC Distribution System	0.5	☐	
4.2	High Efficiency HVAC Distribution System ☐	1.0	☐	

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

Summary of Table R406.2 (cont.)

Energy Options	Energy Credit Option Descriptions (cont.)	Credits - select ONE energy option from each category [d]		User Notes
5.1[d]	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☐	
5.3	Efficient Water Heating	1.0	☐	
5.4	Efficient Water Heating	1.5	☐	
5.5	Efficient Water Heating	2.0	◉	
5.6	Efficient Water Heating ☐	2.5	☐	
6.1[e]	Renewable Electric Energy (3 credits max)	1.0		
7.1	Appliance Package	0.5	☐	
	Total Credits	6.0	Calculate Total / Clear Form	

a. An alternative heating source sized at a maximum of 0.5 W/sf (equivalent) of heated floor area or 500 W, whichever is bigger, may be installed in the dwelling unit.
b. Equipment listed in Table C403.3.2(4) or C403.3.2(5)
c. Equipment listed in Table C403.3.2(1) or C403.3.2(2)
d. You cannot select more than one option from any category EXCEPT in category 5. Option 5.1 may be combined with options 5.2 through 5.6. See Table 406.3.
e. 1.0 credit for each 1,200 kWh of electrical generation provided annually, up to 3 credits max. See the complete Table R406.2 for all requirements and option descriptions.
f. Use the single radiobutton in the upper right of the second column to deselect radiobuttons in that group.

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STRUCTURAL NOTES

CODES AND SPECIFICATIONS

1. INTERNATIONAL BUILDING CODE, 2018 EDITION, ASCE 7-16
2. INTERNATIONAL RESIDENTIAL CODE, 2015 EDITION
3. SIMPSON STRONG TIE WOOD CONSTRUCTION CONNECTORS 2021-2023
4. 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

1. 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

2. SEISMIC: INTERNATIONAL BUILDING CODE, 2018, ASCE 7-16
   RISK CATEGORY II, SEISMIC IMPORTANCE CATEGORY, Ie=1.0
   MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS, Ss=1.5, S1=0.5
   SITE CLASS D
   DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS, Sds=1.0g, Sd=0.5g
   SEISMIC DESIGN CATEGORY, D2
   BASIC SEISMIC FORCE-RESISTING SYSTEM: LIGHT FRAME WALLS WITH WOOD SHEAR WALLS
   DESIGN BASE SHEAR, V + F(Sds)(W)/R = 0.1846W
   RESPONSE MODIFICATION COEFFICIENT, R=6.5
   ANALYSIS PROCEDURE USED: SIMPLIFIED ALTERNATIVE STRUCTURAL DESIGN FOR SIMPLE BEARING WALL SYSTEMS

3. ROOF LOAD: DL = 15 PSF LL = 25 PSF (ROOF SNOW LOAD)

4. FLOOR LOAD: DL = 10 PSF LL = 40 PSF

5. DECK LOAD: DL = 10 PSF LL = 60 PSF

6. 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.

7. 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

1. LUMBER GRADES AND ALLOWABLE STRESSES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON PLANS:
   ALL SAWN LUMBER HF#2 OR BETTER, Fb = 875 PSI, Fv = 75 PSI, E = 1,300,000
   GLULAM BEAMS 24F-V4, Fb = 2400 PSI, Fv = 165 PSI, E = 1,800,000
   MICROLAM, LVL Fb = 2600 PSI, Fv = 285 PSI, E = 1,900,000
   PARALLAMS, PSL Fb = 2600 PSI, Fv = 290 PSI, E = 2,900,000
2. 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.
3. ALL SHEAR WALL SHEATHING, NAILS AND ANCHORS SHALL BE AS DETAILED ON THE DRAWINGS AND AS NOTED IN THE SHEAR WALL SCHEDULE.
4. FLOOR SHEATHING SHALL BE $\frac{3}{4}$" MINIMUM APA RATED FLOOR SHEATHING WITH 10d COMMON @ 6"OC AT ALL SUPPORTED PANEL EDGES AND 10d @ 12"OC AT INTERMEDIATE SUPPORTS.
5. ROOF SHEATHING SHALL BE $\frac{7}{16}$" 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

1. 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.
2. ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION SHALL BE PROVIDED.
3. 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 $\frac{1}{2}$" 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 $\frac{1}{2}$" A.B. @ 3'-2" OC OR $\frac{5}{8}$" 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 $\frac{1}{2}$" A.B. @ 2'-2" OC OR $\frac{5}{8}$" 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	$\frac{1}{2}$" X 5" LAG SCREW @ 8"OC OR $\frac{1}{2}$" A.B. @ 3'-2" OC OR $\frac{5}{8}$" 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	$\frac{1}{2}$" X 5" LAG SCREW @ 6"OC OR $\frac{1}{2}$" A.B. @ 1'-4" OC OR $\frac{5}{8}$" 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	$\frac{1}{2}$" X 5" LAG SCREW @ 5"OC OR $\frac{1}{2}$" A.B. @ 1'-0" OC OR $\frac{5}{8}$" 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	$\frac{1}{2}$" X 5" LAG SCREW @ 2"OC OR $\frac{5}{8}$" 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 $\frac{1}{2}$", 8d GALVANIZED BOX = 0.113 DIAMETER X 2 $\frac{1}{2}$", 10d COMMON = 0.148 DIAMETER X 3", 10d GALVANIZED BOX = 0.128" X 3", 16d COMMON = 0.162" X 3 $\frac{1}{2}$".
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 $\frac{1}{4}$" PLATE WASHERS. LOCATE WITHIN $\frac{1}{2}$" OF SHEATHING.
4. AT GARAGE JAMBS, REFER TO LATERAL RESTRAINT PANEL DETAIL 401/S1.
5. PROVIDE $\frac{7}{16}$" 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, PANLE 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

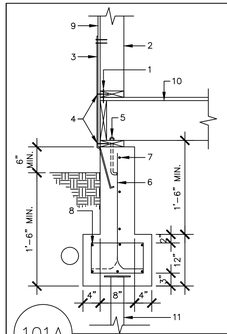
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REVISION DATES:
REV. 2-9-23

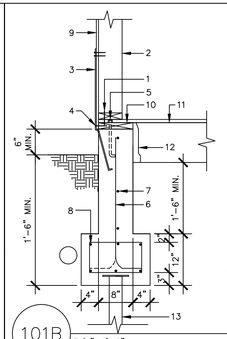
PROJECT: MAWER-HOUTCHENS
SHEET TITLE: STRUCTURAL NOTES & SCHEDULES

SCALE:	DATE:
NO SCALE	4-18-22
DRAWN BY: MDT	SHEET NO. S1
PROJECT NO. MAWER/ HOUTCHENS	



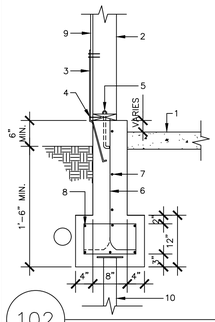
1. BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
2. 2x STUD WALL
3. SIMPSON HOLDOWN PER PLAN. FILL ALL NAIL HOLES W/ 16d NAILS
4. EDGE NAILING @ BOTTOM PLATE AND SILL PLATE
5. ANCHOR BOLTS. SIZE AND SPACING PER SHEARWALL SCHEDULE
6. #4 REBAR @ 16" O.C. (VERTICAL) ALT. HOOKS INTO FOOTING
7. #4 @ 10" OC HORIZONTAL
8. (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
9. SHEATHING AND NAILING PER SHEARWALL SCHEDULE
10. FLOOR JOISTS PER PLAN
11. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

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



1. BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
2. 2x STUD WALL
3. SIMPSON HOLDOWN PER PLAN. FILL ALL NAIL HOLES W/ 16d NAILS
4. EDGE NAILING @ BOTTOM PLATE AND SILL PLATE
5. ANCHOR BOLTS. SIZE AND SPACING PER SHEARWALL SCHEDULE
6. #4 REBAR @ 16" O.C. (VERTICAL) ALT. HOOKS INTO FOOTING
7. #4 @ 10" OC HORIZONTAL
8. (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
9. SHEATHING AND NAILING PER SHEARWALL SCHEDULE
10. 2x10 P.T. SILL PLATE RIPPED TO 8"
11. FLOOR JOISTS PER PLAN
12. JOIST HANGERS
13. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

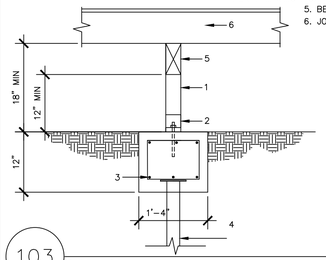
101B 3/4"=1'-0"



1. CONC. SLAB ON GRADE PER PLAN
2. 2x STUD WALL
3. SIMPSON HOLDOWN PER PLAN. FILL ALL NAIL HOLES W/ 16d NAILS
4. EDGE NAILING @ SILL PLATE
5. ANCHOR BOLTS. SIZE AND SPACING PER SHEARWALL SCHEDULE
6. #4 REBAR @16" O.C. (VERTICAL) ALT. HOOKS INTO FOOTING
7. #4 REBAR @10" O.C. (HORIZONTAL)
8. (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
9. SHEATHING AND NAILING PER SHEARWALL SCHEDULE
10. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

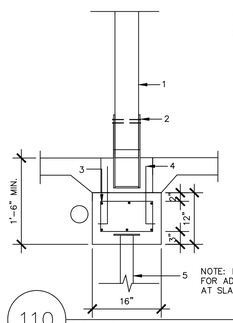
NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

102 3/4"=1'-0"



1. POST PER PLAN
2. ABA44Z POST BASE
3. (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
4. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#
5. BEAM PER PLAN
6. JOIST PER PLAN

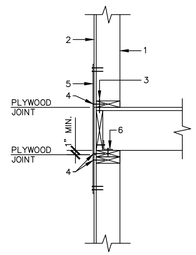
103 3/4"=1'-0"



1. PT POST PER PLAN
2. SIMPSON COLUMN BASE PER PLAN
3. (3)#4 TOP AND BOTTOM & #4 STIRRUPS @ 24" OC
4. 12" CONC. PLINTH W/4#4 HOOKED INTO FOOTING
5. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

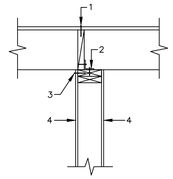
NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

110 3/4"=1'-0"



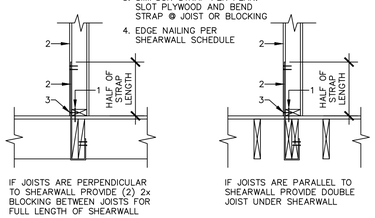
1. 2x STUD WALL
2. SHEATHING AND NAILING PER SHEARWALL SCHEDULE
3. BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
4. EDGE NAILING PER SHEARWALL SCHEDULE
5. SIMPSON STRAP PER PLAN. CENTER STRAP ON RIM JOISTS (@ INT. WALL SLOT PLYWOOD)
6. SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE (NOT REQUIRED IF PLYWOOD JOINTS ARE LOCATED AS SHOWN IN THIS DETAIL)

201 3/4"=1'-0"



1. USE BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
2. SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE
3. EDGE NAILING PER SHEARWALL SCHEDULE
4. SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN

202 3/4"=1'-0"

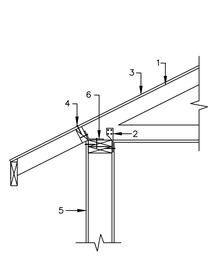


1. BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
2. SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
3. SIMPSON STRAP PER PLAN. SLOT PLYWOOD AND BEND STRAP @ JOIST OR BLOCKING
4. EDGE NAILING PER SHEARWALL SCHEDULE

IF JOISTS ARE PERPENDICULAR TO SHEARWALL PROVIDE (2) 2x BLOCKING BETWEEN JOISTS FOR FULL LENGTH OF SHEARWALL

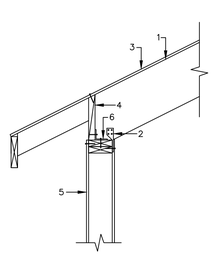
IF JOISTS ARE PARALLEL TO SHEARWALL PROVIDE DOUBLE JOIST UNDER SHEARWALL

203 3/4"=1'-0"



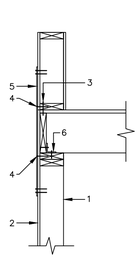
1. ROOF TRUSSES PER PLAN
2. SIMPSON H2.5 @ EACH TRUSS
3. ROOF SHEATHING
4. 2x BLOCKING W/ 8d @6" O.C. IN EVERY OTHER TRUSS SPACE
5. SHEARWALL NAILING PER SCHEDULE
6. SIMPSON RBC SPACED PER SHEARWALL SCHEDULE

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



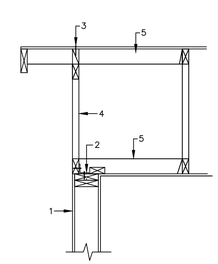
1. ROOF RAFTERS PER PLAN
2. SIMPSON H2.5 @ EACH TRUSS
3. ROOF SHEATHING
4. 2x BLOCKING W/ 8d @6" O.C. IN EVERY OTHER RAFTER SPACE
5. SHEARWALL NAILING PER SCHEDULE
6. SIMPSON RBC SPACED PER SHEARWALL SCHEDULE

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



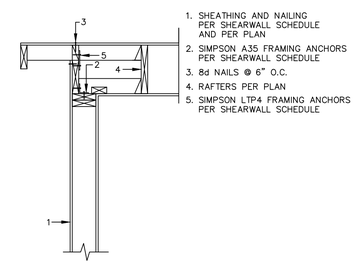
1. 2x STUD WALL
2. SHEATHING AND NAILING PER SHEARWALL SCHEDULE
3. BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
4. EDGE NAILING PER SHEARWALL SCHEDULE
5. SIMPSON MST40 STRAP @ 48"OC CENTER STRAP ON RIM JOISTS
6. SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE

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



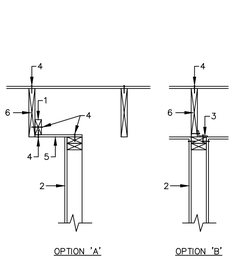
1. SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
2. SIMPSON A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE
3. 2X BLOCKING W/8d NAILS @6" O.C.
4. GABLE END TRUSS
5. 2X4 @ 24"OC

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



1. SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
2. SIMPSON A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE
3. 8d NAILS @ 6" O.C.
4. RAFTERS PER PLAN
5. SIMPSON LTP4 FRAMING ANCHORS PER SHEARWALL SCHEDULE

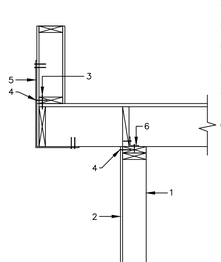
302B 3/4"=1'-0"



1. 2x4 BLOCKING
2. SHEATHING AND NAILING PER SHEARWALL SCHEDULE AND PER PLAN
3. SIMPSON A35 SPACED PER SHEARWALL SCHEDULE
4. 8d NAILS @6" O.C.
5. 7/16" MIN. APA RATED SHEATHING
6. FLOOR JOISTS PER PLAN

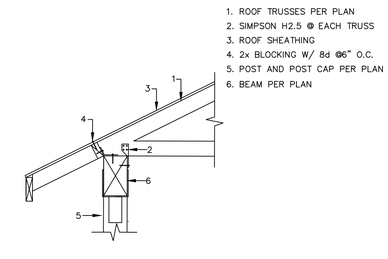
OPTION 'A' OPTION 'B'

303 3/4"=1'-0"



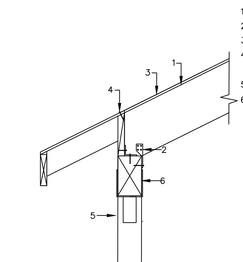
1. 2x STUD WALL
2. SHEATHING AND NAILING PER SHEARWALL SCHEDULE
3. BOTTOM PLATE NAILING PER SHEARWALL SCHEDULE
4. EDGE NAILING PER SHEARWALL SCHEDULE
5. SIMPSON MST40 STRAP @ 48"OC CENTER STRAP ON RIM JOISTS
6. SIMPSON FRAMING ANCHOR PER SHEARWALL SCHEDULE

304 3/4"=1'-0"



1. ROOF TRUSSES PER PLAN
2. SIMPSON H2.5 @ EACH TRUSS
3. ROOF SHEATHING
4. 2x BLOCKING W/ 8d @6" O.C.
5. POST AND POST CAP PER PLAN
6. BEAM PER PLAN

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



1. ROOF RAFTERS PER PLAN
2. SIMPSON H2.5 @ EACH TRUSS
3. ROOF SHEATHING
4. 2x BLOCKING W/ 8d @6" O.C. IN EVERY OTHER RAFTER SPACE
5. POST AND POST CAP PER PLAN
6. BEAM PER PLAN

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

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REVISION DATES:

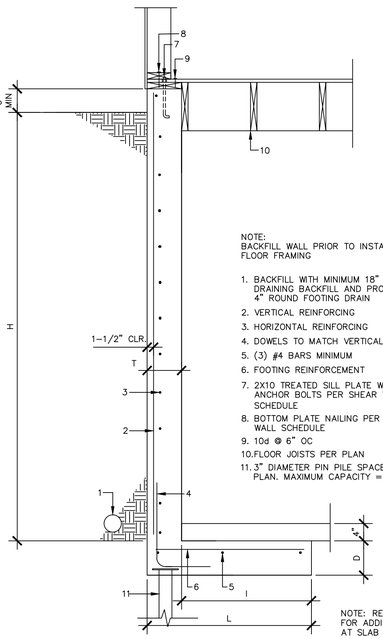
REV. 7-8-22
REV. 8-30-22
REV. 2-9-23

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

PROPERTY LINE CANTILEVERED RETAINING WALL SCHEDULE

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.
6'–0"	8"	3'–4"	2'–8"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @12" 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.
10'–0"	8"	7'–0"	6'–4"	12"	#6 @8" O.C.	#4 @12" O.C.	#6 @8" O.C.	#5 @12" 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.

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



NOTE:
BACKFILL WALL PRIOR TO INSTALLING FLOOR FRAMING

1. BACKFILL WITH MINIMUM 18" FREE DRAINING BACKFILL AND PROVIDE 4" ROUND FOOTING DRAIN
2. VERTICAL REINFORCING
3. HORIZONTAL REINFORCING
4. DOWELS TO MATCH VERTICALS
5. (3) #4 BARS MINIMUM
6. FOOTING REINFORCEMENT
7. 2X10 TREATED SILL PLATE W/ ANCHOR BOLTS PER SHEAR WALL SCHEDULE
8. BOTTOM PLATE NAILING PER SHEAR WALL SCHEDULE
9. 10d @ 6" OC
10. FLOOR JOISTS PER PLAN
11. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

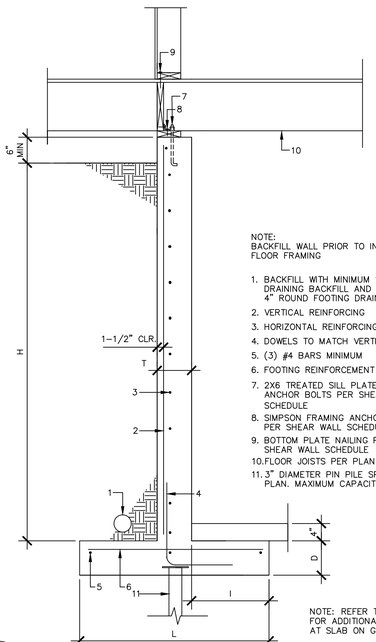
NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

104 CANTILEVERED RETAINING WALL
3/4"=1'–0"

CANTILEVERED RETAINING WALL SCHEDULE

H	T	L	I	D	VERTICAL REINFORCING	HORIZONTAL REINFORCING	DOWELS	FOOTING REINFORCING
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"	2'–8"	1'–0"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @18" 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"	5'–8"	2'–6"	10"	#5 @8" O.C.	#4 @12" O.C.	#5 @8" O.C.	#5 @8" O.C.
12'–0"	10"	6'–6"	2'–10"	11"	#6 @8" O.C.	#4 @6" 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



NOTE:
BACKFILL WALL PRIOR TO INSTALLING FLOOR FRAMING

1. BACKFILL WITH MINIMUM 18" FREE DRAINING BACKFILL AND PROVIDE 4" ROUND FOOTING DRAIN
2. VERTICAL REINFORCING
3. HORIZONTAL REINFORCING
4. DOWELS TO MATCH VERTICALS
5. (3) #4 BARS MINIMUM
6. FOOTING REINFORCEMENT
7. 2X6 TREATED SILL PLATE W/ ANCHOR BOLTS PER SHEAR WALL SCHEDULE
8. SIMPSON FRAMING ANCHORS PER SHEAR WALL SCHEDULE
9. BOTTOM PLATE NAILING PER SHEAR WALL SCHEDULE
10. FLOOR JOISTS PER PLAN
11. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

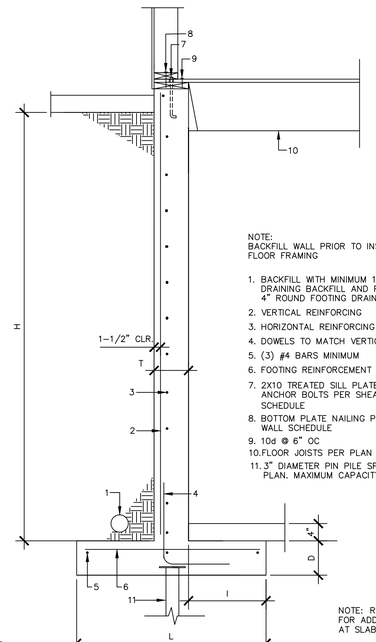
NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

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

CANTILEVERED RETAINING WALL SCHEDULE

H	T	L	I	D	VERTICAL REINFORCING	HORIZONTAL REINFORCING	DOWELS	FOOTING REINFORCING
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"	2'–8"	1'–0"	9"	#4 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @18" O.C.
8'–0"	8"	3'–8"	1'–6"	10"	#5 @12" O.C.	#4 @12" O.C.	#4 @12" O.C.	#4 @10" 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"	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

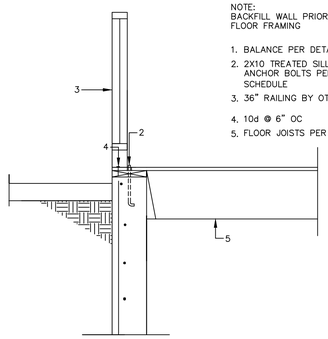


NOTE:
BACKFILL WALL PRIOR TO INSTALLING FLOOR FRAMING

1. BACKFILL WITH MINIMUM 18" FREE DRAINING BACKFILL AND PROVIDE 4" ROUND FOOTING DRAIN
2. VERTICAL REINFORCING
3. HORIZONTAL REINFORCING
4. DOWELS TO MATCH VERTICALS
5. (3) #4 BARS MINIMUM
6. FOOTING REINFORCEMENT
7. 2X10 TREATED SILL PLATE W/ ANCHOR BOLTS PER SHEAR WALL SCHEDULE
8. BOTTOM PLATE NAILING PER SHEAR WALL SCHEDULE
9. 10d @ 6" OC
10. FLOOR JOISTS PER PLAN W/ TOP FLANGE HANGER
11. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

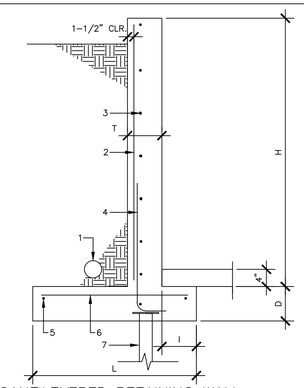
106 CANTILEVERED RETAINING WALL
3/4"=1'–0"



NOTE:
BACKFILL WALL PRIOR TO INSTALLING FLOOR FRAMING

1. BALANCE PER DETAIL 104/S1
2. 2X10 TREATED SILL PLATE W/ ANCHOR BOLTS PER SHEAR WALL SCHEDULE
3. 36" RAILING BY OTHERS
4. 10d @ 6" OC
5. FLOOR JOISTS PER PLAN W/ TOP FLANGE HANGER

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

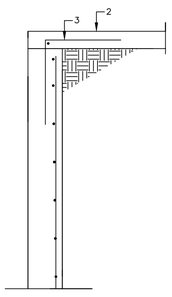


NOTE:
BACKFILL WALL PRIOR TO INSTALLING FLOOR FRAMING, IF IT OCCURS

1. BACKFILL WITH MINIMUM 18" FREE DRAINING BACKFILL AND PROVIDE 4" ROUND FOOTING DRAIN
2. VERTICAL REINFORCING
3. HORIZONTAL REINFORCING
4. DOWELS TO MATCH VERTICALS
5. (3) #4 BARS MINIMUM
6. FOOTING REINFORCEMENT
7. 3" DIAMETER PIN PILE SPACE PER PLAN. MAXIMUM CAPACITY = 12000#

NOTE: REFER TO STRUCTURAL NOTES: SOIL FOR ADDITIONAL SUBGRADE REQUIREMENTS AT SLAB ON GRADE

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



NOTE:
BACKFILL WALL PRIOR TO INSTALLING FLOOR FRAMING

1. BALANCE PER DETAIL 105/S1
2. 4" CONCRETE SLAB ON GRADE
3. #4 DOWELS @ 16" OC

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

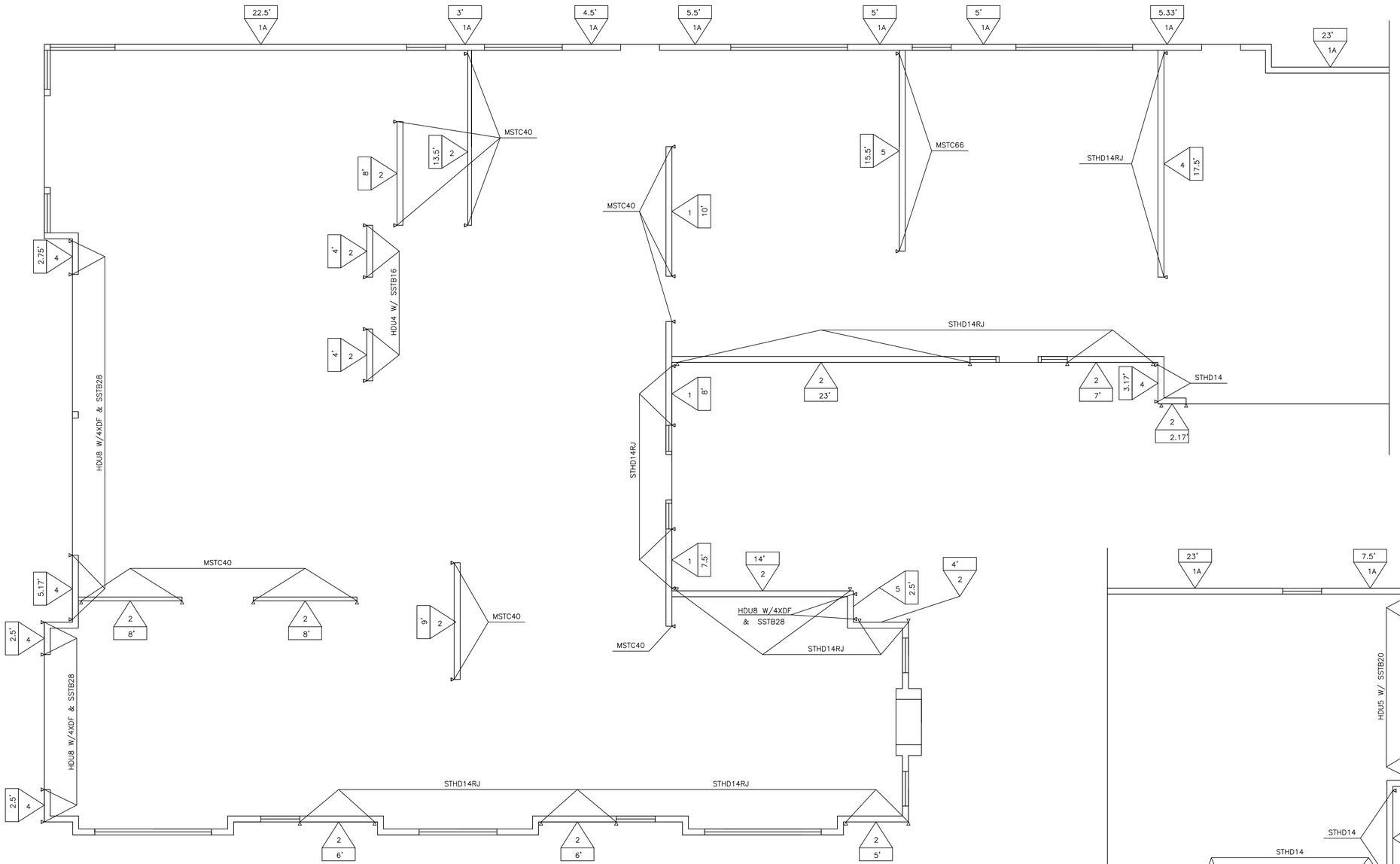
MDT ENGINEERING
31403 44th AVE S
AUBURN, WA. 98001
PHONE: (253) 709–9852
EMAIL: md.thompson@earthlink.net

MICHELLE THOMPSON STATE OF WASHINGTON 25839 REGISTERED PROFESSIONAL ENGINEER

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. S3
PROJECT NO. MAWER/ HOUTCHENS	

MAWER/HOUTCHENS



MAIN FLOOR SHEAR WALL PLAN

$\frac{1}{4}$" = 1'

MICHELLE THOMPSON
STATE OF WASHINGTON
Michelle Thompson
25839
REGISTERED
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AUBURN, WA. 98001
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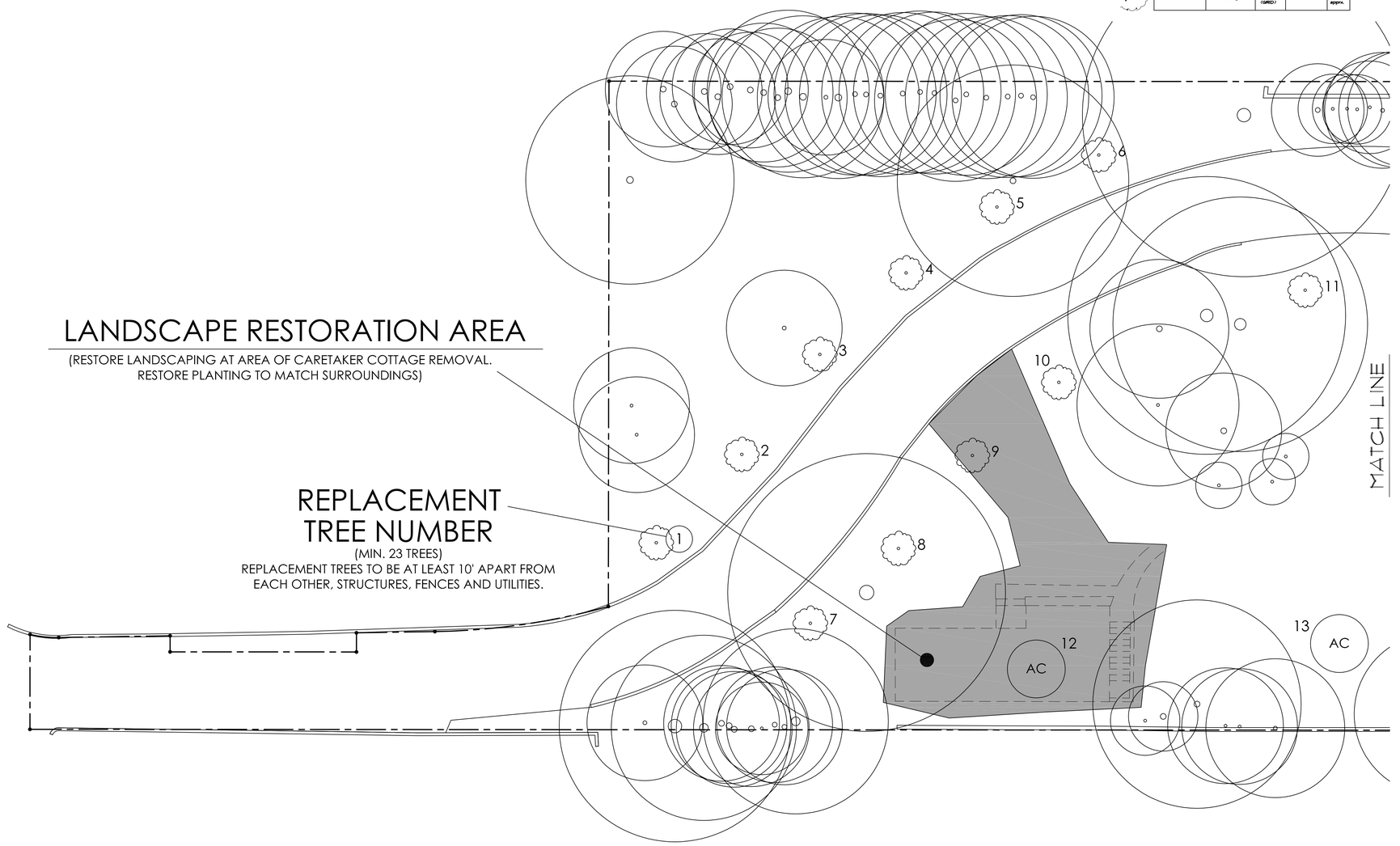
REVISION DATES:

PROJECT: MAWER-HOUTCHENS	SHEET TITLE: SHEAR WALL PLAN
SCALE: NO SCALE	DATE: 4-18-22
DRAWN BY: MDT	SHEET NO. S4
PROJECT NO. MAWER/ HOUTCHENS	

PLANTING LEGEND				
LATIN	COMMON	SPC.	SIZE AT MATURITY	QTY.
Acer circinatum	Vine Maple	18' O.C.	15' h x 15' w	(1)
Katsura	Cercidiphyllum japonicum	20'-25' O.C.	36' h x 25' w (1 1/2" dia. @ trunk base min.)	(12)
Vaccinium ovatum	Huckleberry	6' O.C.	3'-6' h x 3'-6' w	(15)
Aquilegia formosa	Western Columbine	1' O.C.	1.5'-3' h x 1' w	(150) approx.
Carex densa	Dense sedge	1' O.C. (GRID)	6"-1' h x 1' w	(360) approx.

TREE
SHRUB
PERENNIAL

AC
VO
EXISTING



LANDSCAPE RESTORATION AREA

(RESTORE LANDSCAPING AT AREA OF CARETAKER COTTAGE REMOVAL. RESTORE PLANTING TO MATCH SURROUNDINGS)

REPLACEMENT TREE NUMBER

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

NORTH

SHORLINE LANDSCAPE AND RESTORATION PLAN (1 OF 3)

SCALE: 1" = 10'

6024 SE 22nd ST
MERCER ISLAND, WA 98040

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425.417.7817

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

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

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

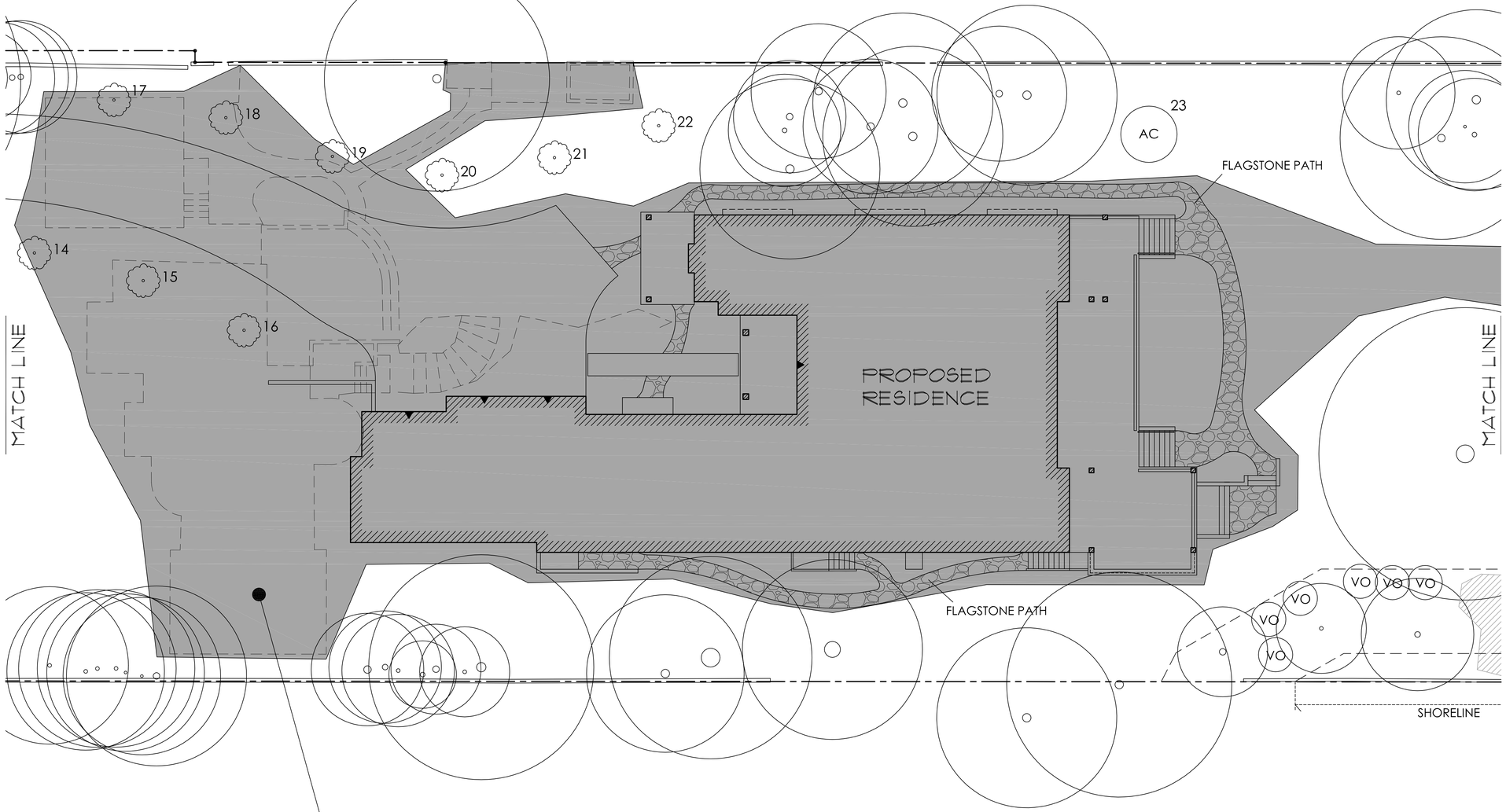
SHEET NO.
L1

PLANTING LEGEND					
	LATIN	COMMON	SPC.	SIZE AT MATURITY	QTY.
TREE	Acer circinatum	Vine Maple	18' O.C.	15' h x 15' w	(7)
	Katsura	Cercidiphyllum japonicum	30-35' O.C.	35' h x 25' w (1 1/2" dia. 4 trunk base min.)	(12)
SHRUB	Vaccinium ovatum	Huckleberry	6' O.C.	3-6' h x 3-6' w	(5)
PERENNIAL	Aquilegia formosa	Western Columbine	1' O.C.	1.5-3' h x 1' w	(150) approx.
	Carex divisa	Divided sedge	2' O.C. (GRID)	6"-1' h x 1' w	(150) approx.

AC

VO

EXISTING



LANDSCAPE RESTORATION AREA

(RESTORE LANDSCAPING AT AREA OF MAIN HOUSE REMOVAL, AND AREA. OF DISTURBANCE SURROUNDING NEW HOME CONSTRUCTION. RESTORE PLANTING TO MATCH SURROUNDING/EXISTING PLANTING.)

NORTH

SHORLINE LANDSCAPE AND RESTORATION PLAN (2 OF 3)

SCALE: 1" = 10'

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NW HOME

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

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

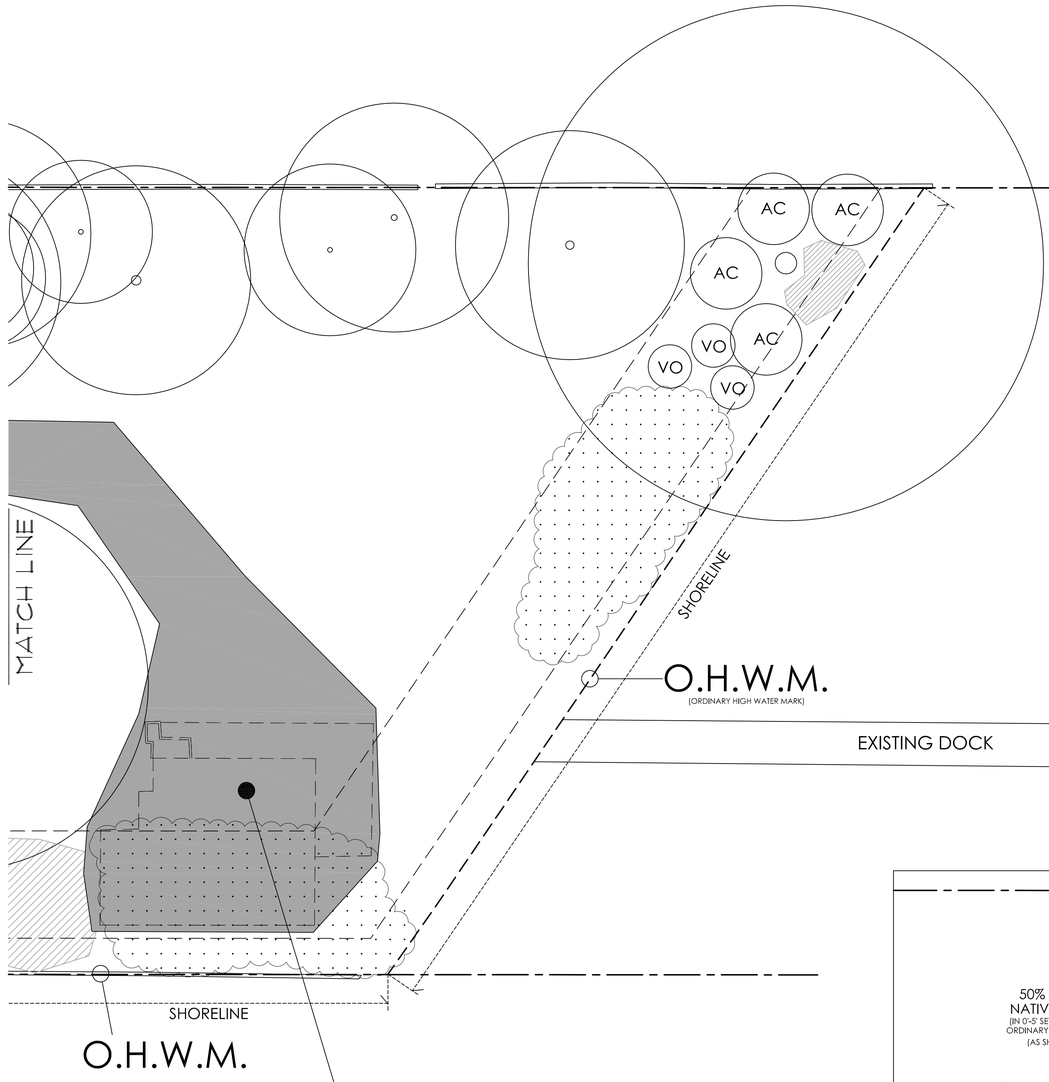
SHEET NO.
L2

PLANTING LEGEND					
	LATIN	COMMON	SPC.	SIZE AT MATURITY	QTY.
TREE	Acer circinatum	Vine Maple	15' O.C.	15' h x 15' w	(7)
	Katsura	Cercidiphyllum japonicum	20-25' O.C.	36' h x 25' w (1 1/2" dia. @ trunk base min.)	(12)
SHRUB	Vaccinium ovatum	Huckleberry	6' O.C.	3-6' h x 3-6' w	(9)
PERENNIAL	Aquilegia formosa	Western Columbine	1' O.C.	1.5-3' h x 1' w	(168) approx.
	Carex densa	Dense sedge	1' O.C. (GRID)	6"-1' h x 1' w	(168) approx.

AC

VO

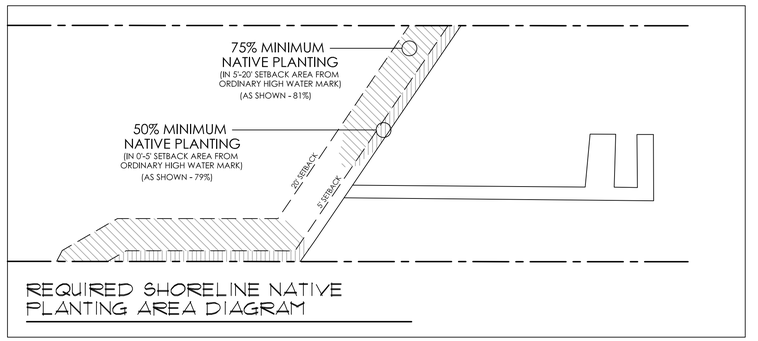
O Existing



LAKE WASHINGTON

LANDSCAPE RESTORATION AREA

(RESTORE LANDSCAPING AT AREA OF LAKESIDE CABANA REMOVAL. RESTORE PLANTING TO MATCH SURROUNDINGS AND IN ACCORDANCE WITH SHORELINE PLANTING PLAN)



REQUIRED SHORELINE NATIVE PLANTING AREA DIAGRAM

NORTH

SHORLINE LANDSCAPE AND RESTORATION PLAN (3 OF 3)

SCALE: 1" = 10'

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