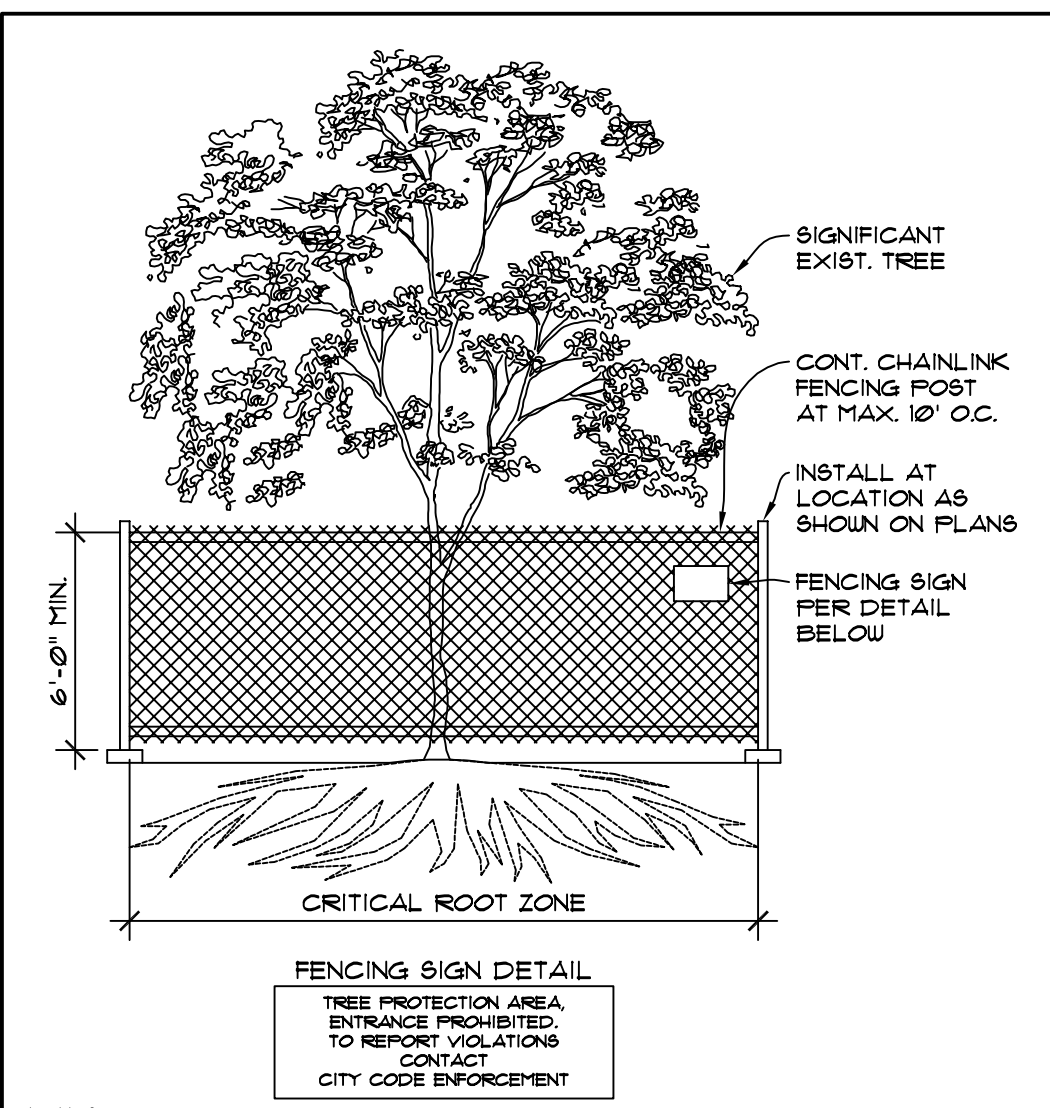


- CONSTRUCTION SEQUENCE:**
- HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
 - FLAG OR FENCE CLEARING LIMITS.
 - INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
 - GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
 - INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.)
 - CONSTRUCT SEDIMENT POND(S) AND/OR TRAP(S).
 - CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 - MAINTAIN TESC MEASURES IN ACCORDANCE WITH CITY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - RELOCATE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH THE CITY OF YARROU POINT TEMPORARY EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.
 - COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN TWO DAYS DURING THE WET SEASON (OCT. 1 TO APRIL 30) OR SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT. 30) WITH STRAW, WOOD FIVER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
 - STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
 - SEED OR SOD ANY AREAS TO REMAIN UN-WORKED FOR MORE THAN 30 DAYS.
 - UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE TESC MEASURES IF APPROPRIATE.

24 HOUR EROSION CONTROL CONTACT INFO: MASON MAUER - 425.417.1819



- NOTES:**
- 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 ENCLOSE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
 - 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.
 - 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.
 - 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.

CI TREE PROTECTION DETAIL N.T.S.

PROJECT DATA:

PROJECT DESCRIPTION: NEW LOWER FLOOR PATIO SLAB ON GRADE
4 MAIN FLOOR WEATHERPROOF DECK

SITE ADDRESS: 6408 E MERCER WAY
MERCER ISLAND, WASHINGTON 98040

BUILDING DESIGN: MATTHEW MAUER RESIDENTIAL DESIGN, INC.
MATT MAUER
PH: 425.417.1811

CONTRACTOR: MAUER BROTHERS LLC
MASON MAUER
PH: 425.417.1819

STRUCT. ENGINEER: MDT ENGINEERING
MICHELLE THOMPSON
PH: 253.881.7125

SCOPE OF WORK:

LOWER FLOOR - REPLACE EXISTING PATIO PAVERS W/
NEW CONCRETE SLAB ON GRADE.

MAIN FLOOR - REPLACE EXISTING DECK W/ NEW
WEATHERPROOF 1/4" PER 12" SLOPED DECK W/ LEVEL
COMPOSITE DECKING ON SLEEPERS.

NO WORK TO BE DONE OUTSIDE SCOPE OF EXISTING
PATIO/DECK.

ACTIVE BALD EAGLE NEST REGULATIONS
THERE WAS AN ACTIVE BALD EAGLE NEST WITHIN
330' TO THIS RESIDENCE AT 6404 EMU FEDERAL
LAWS, RULES, AND REGULATIONS ARE TO BE
FOLLOWED.
[HTTPS://WWW.FWS.GOV/PACIFIC/EAGLE/](https://www.fws.gov/pacific/eagle/)

NO CHANGE TO EXISTING HEIGHT
CALCULATIONS

NO CHANGE TO EXISTING GROSS
FLOOR AREA

LOT SLOPE CALCULATIONS

HIGHEST LOT ELEV (NW CORNER) = 126.00'
LOWEST LOT ELEV (SE CORNER) = 85.00'
126.00 - 85.00 = 41.00'
41.00 / 198.30 = 20.1% LOT SLOPE

LOT COVERAGE CALCULATIONS

EXISTING LOT COVERAGE:	
MAIN STRUCTURE ROOF AREA	2,966
PRIVATE ROAD	135
DRIVEWAY	471
TOTAL	4,172
PROPOSED LOT COVERAGE:	
MAIN STRUCTURE ROOF AREA	1753
PRIVATE DRIVE	NO CHANGE
DRIVEWAY	NO CHANGE
TOTAL	1753
FINAL LOT COVERAGE:	
MAIN STRUCTURE ROOF AREA	3,719
PRIVATE ROAD	135
DRIVEWAY	471
TOTAL	4,925
GROSS LOT AREA	
ACCESS EASEMENT (NOT BENEFITTING SUBJECT SITE)	19,412
NET LOT AREA	3,249
LOT COVERAGE	4,925/15,983 = 30.8%
MAXIMUM LOT COVERAGE	35% (5,534#)
AVAILABLE LOT COVERAGE	669# (4.2%)

HARDSCAPE CALCULATIONS

EXISTING HARDSCAPE:	
FRONT PORCH/PATIO	476
WALKWAY	100
GRAVEL PATH/STEPS	832
LANDSCAPE WALLS	342
ROCKERIES	44
DECK	472
REAR PATIO	153
TOTAL	3,019
PROPOSED HARDSCAPE:	
FRONT PORCH/PATIO	NO CHANGE
WALKWAY	NO CHANGE
GRAVEL PATHS/STEPS	NO CHANGE
LANDSCAPE WALLS	NO CHANGE
ROCKERIES	NO CHANGE
DECK	NO CHANGE
REAR PATIO	-153
FINAL HARDSCAPE:	
FRONT PORCH/PATIO	476
WALKWAY	100
GRAVEL PATH/STEPS	832
LANDSCAPE WALLS	342
ROCKERIES	44
DECK	472
REAR PATIO	0
TOTAL	2,266
NET LOT AREA	15,983
PROPOSED HARDSCAPE	2,266/15,983 = 14.2%
MAXIMUM HARDSCAPE	4.2% + 9% = 13.2%
(EXIST. HARDSCAPE IS LEGALLY NON-CONFORMING)	
WE ARE CONVERTING 153# OF HARDSCAPE TO LOT COVERAGE	

SITE INFO

STREET ADDRESS:
6408 E MERCER WAY

PARCEL NO.:
2154910020

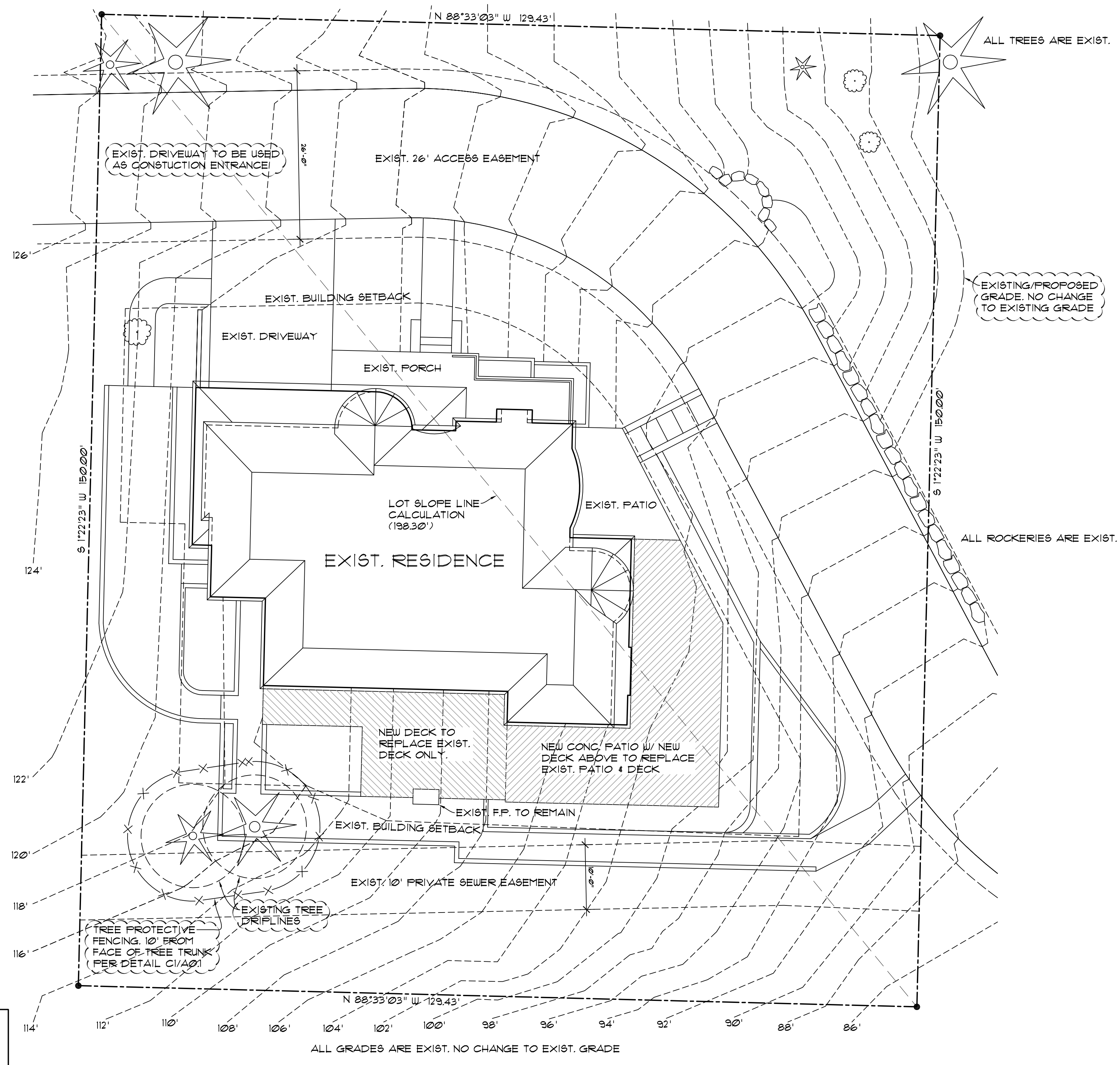
LEGAL DESCRIPTION:
THE NORTH 150 FEET OF THAT PORTION OF GOVERNMENT LOT 1, AND THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SECTION 30, TOWNSHIP 2 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN MEASURED AT RIGHT ANGLES TO THE NORTH LINE THEREOF LYING EASTERLY OF MERCER ISLAND BOULEVARD, TOGETHER WITH SECOND CLASS SHORELANDS FRONTING THEREOF.

ZONING

ZONING:
R-15

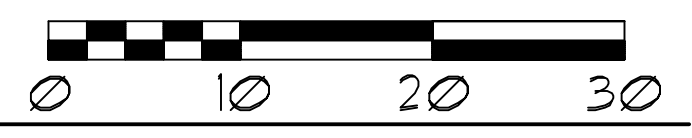
SINGLE FAMILY RESIDENTIAL SETBACKS:
PER DEFINED BUILDING FOOTPRINT LINES APPROVED ON SUBDIVISION SUB 08-006

HEIGHT LIMIT:
30' ABOVE AVERAGE BUILDING ELEVATION.
35' DOWNHILL HIGHEST PLATE FROM EXISTING GRADE.

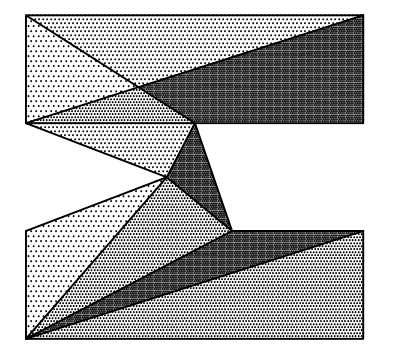


SITE PLAN
SCALE: 1" = 10'

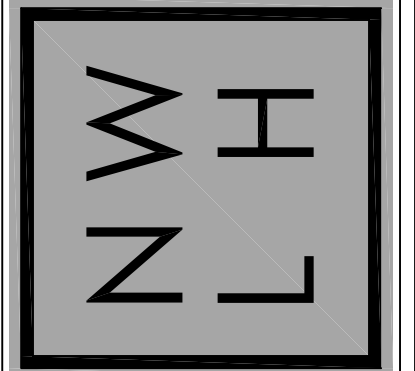
6408 E MERCER WAY
MERCER ISLAND, WA 98040



matthew mauer
residential design
www.matthewmauer.com
425.417.1817



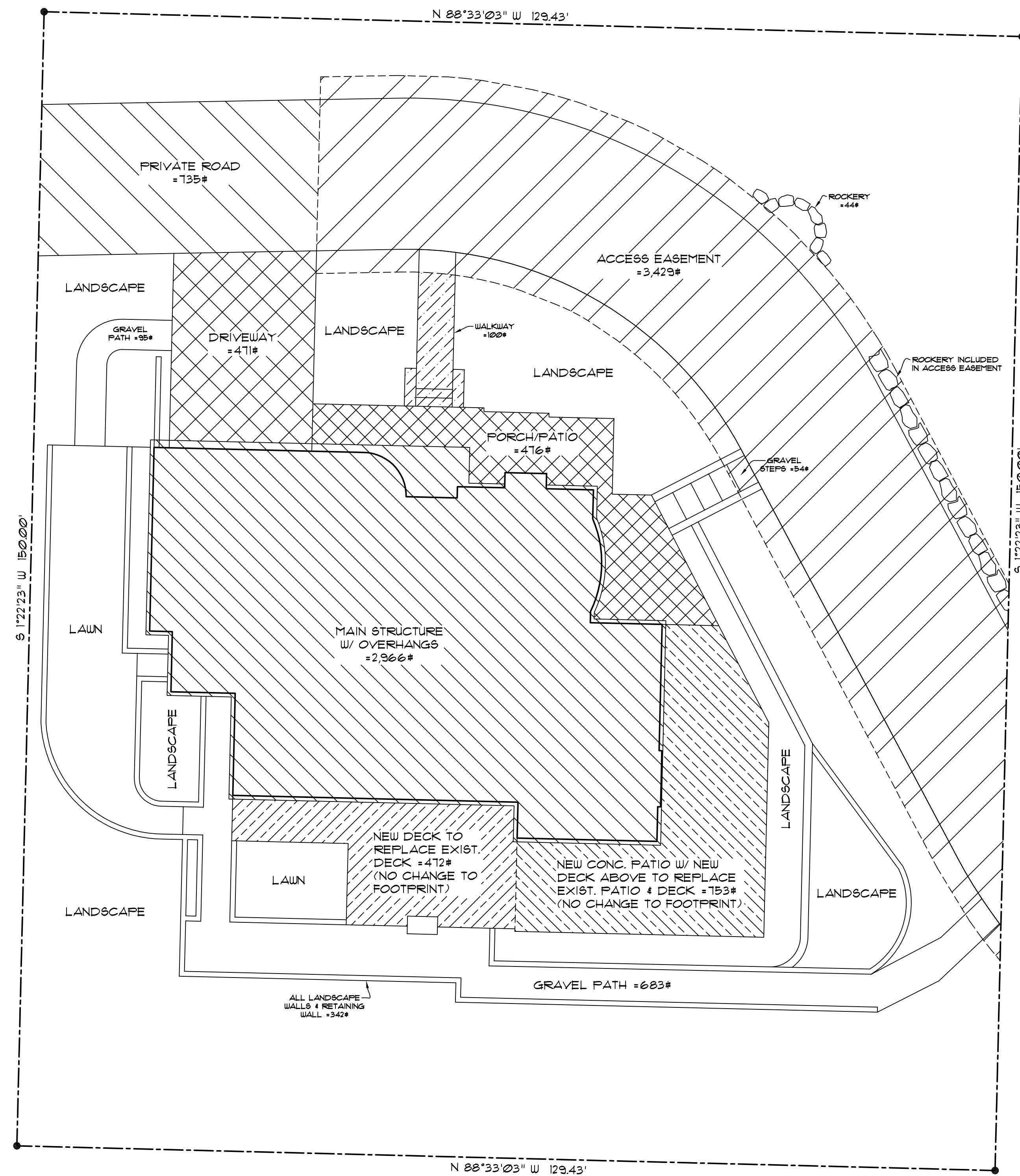
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lifestyle
homes
www.nwlifestylehomes.com



ZHANG ADDITION
6408 E MERCER WAY
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SHEET NO.
A0.1



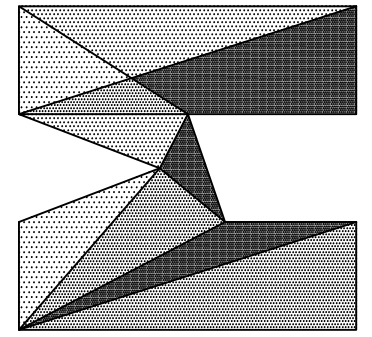
LOT COVERAGE CALCULATIONS

EXISTING LOT COVERAGE:	
MAIN STRUCTURE ROOF AREA	2,966
PRIVATE ROAD	135
DRIVEWAY	471
TOTAL	4,172
PROPOSED LOT COVERAGE:	
MAIN STRUCTURE ROOF AREA	753
PRIVATE DRIVE	NO CHANGE
DRIVEWAY	NO CHANGE
TOTAL	753
FINAL LOT COVERAGE:	
MAIN STRUCTURE ROOF AREA	3,119
PRIVATE ROAD	135
DRIVEWAY	471
TOTAL	4,925
GROSS LOT AREA	
ACCESS EASEMENT (NOT BENEFITTING SUBJECT SITE)	3,249
NET LOT AREA	15,983
LOT COVERAGE	4,925/15,983 = 30.8%
MAXIMUM LOT COVERAGE	35% (5,594#)
AVAILABLE LOT COVERAGE	669# (4.2%)

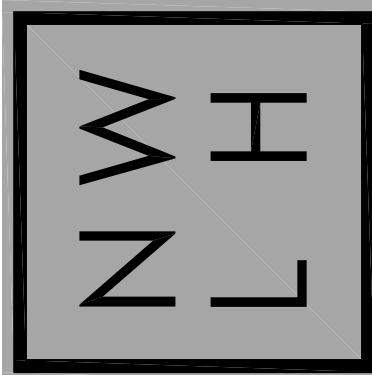
HARDSCAPE CALCULATIONS

EXISTING HARDSCAPE:	
FRONT PORCH/PATIO	476
WALKWAY	100
GRAVEL PATH/STEPS	832
LANDSCAPE WALLS	342
ROCKERIES	44
DECK	472
REAR PATIO	753
TOTAL	3,019
PROPOSED HARDSCAPE:	
FRONT PORCH/PATIO	NO CHANGE
WALKWAY	NO CHANGE
GRAVEL PATHS/STEPS	NO CHANGE
LANDSCAPE WALLS	NO CHANGE
ROCKERIES	NO CHANGE
DECK	NO CHANGE
REAR PATIO	-753
FINAL HARDSCAPE:	
FRONT PORCH/PATIO	476
WALKWAY	100
GRAVEL PATH/STEPS	832
LANDSCAPE WALLS	342
ROCKERIES	44
DECK	472
REAR PATIO	0
TOTAL	2,266
NET LOT AREA	
PROPOSED HARDSCAPE	2,266/15,983 = 14.2%
MAXIMUM HARDSCAPE	4.2% + 9% = 13.2%
(EXIST. HARDSCAPE IS LEGALLY NON-CONFORMING)	
WE ARE CONVERTING 753# OF HARDSCAPE TO LOT COVERAGE	

matthew mawer
 residential design
 www.matthewmawer.com
 425.417.7817



nw lifestyle homes
 www.nwlifestylehomes.com



ZHANG ADDITION
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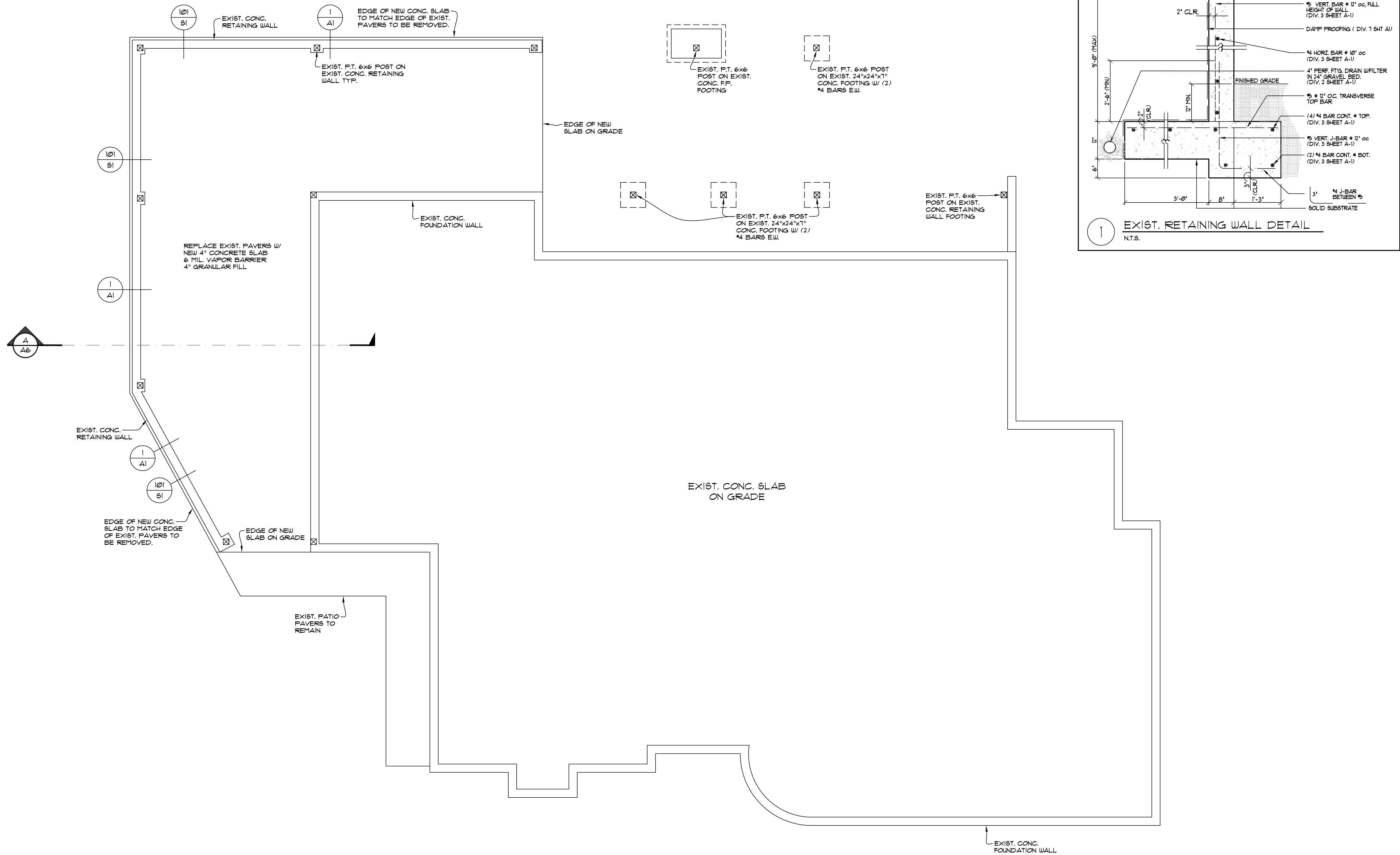
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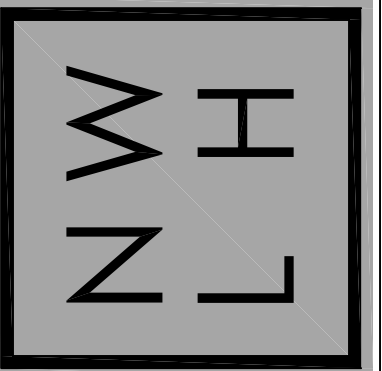
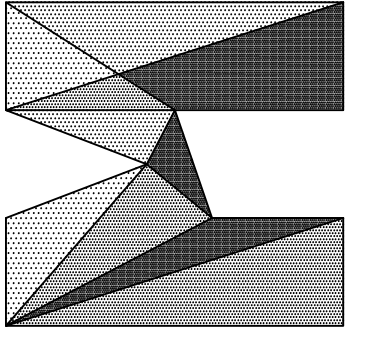
LOT COVERAGE & HARDSCAPE CALCULATIONS

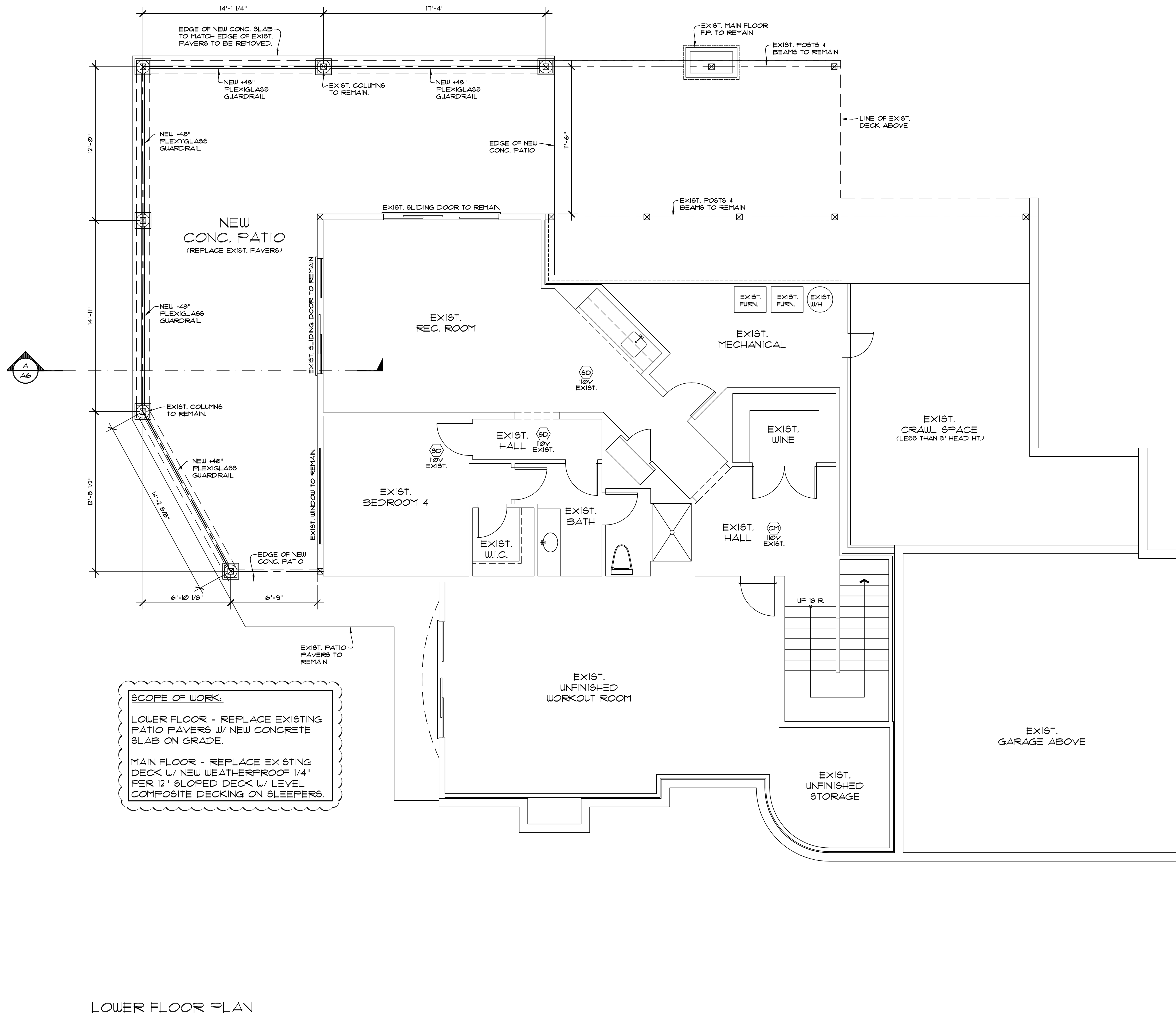
SCALE: 1" = 10'

6408 E MERCER WAY
 MERCER ISLAND, WA 98040



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





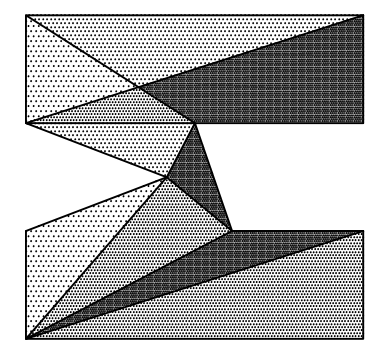
SCOPE OF WORK:
 LOWER FLOOR - REPLACE EXISTING PATIO PAVERS W/ NEW CONCRETE SLAB ON GRADE.
 MAIN FLOOR - REPLACE EXISTING DECK W/ NEW WEATHERPROOF 1/4" PER 12" SLOPED DECK W/ LEVEL COMPOSITE DECKING ON SLEEPERS.

SQUARE FOOTAGE SUMMARY	
EXISTING HEATED:	
LOWER FLOOR	1,685#
MAIN FLOOR	2,161#
UPPER FLOOR	1,871#
TOTAL EXISTING HEATED	5,717#
EXISTING GARAGE	530#
(NO CHANGE TO SQUARE FOOTAGE)	

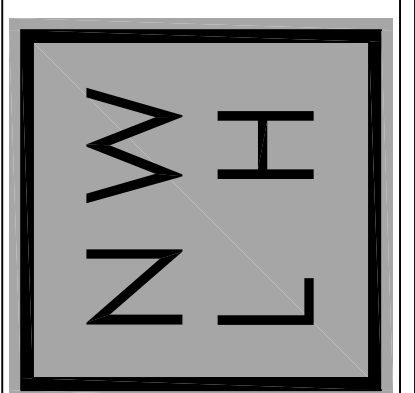
	INDICATES EXIST. HARD WIRED SMOKE DETECTOR WITH BATTERY BACKUP
	INDICATES EXIST. HARD WIRED SMOKE & CARBON MONOXIDE DETECTOR WITH BATTERY BACKUP

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

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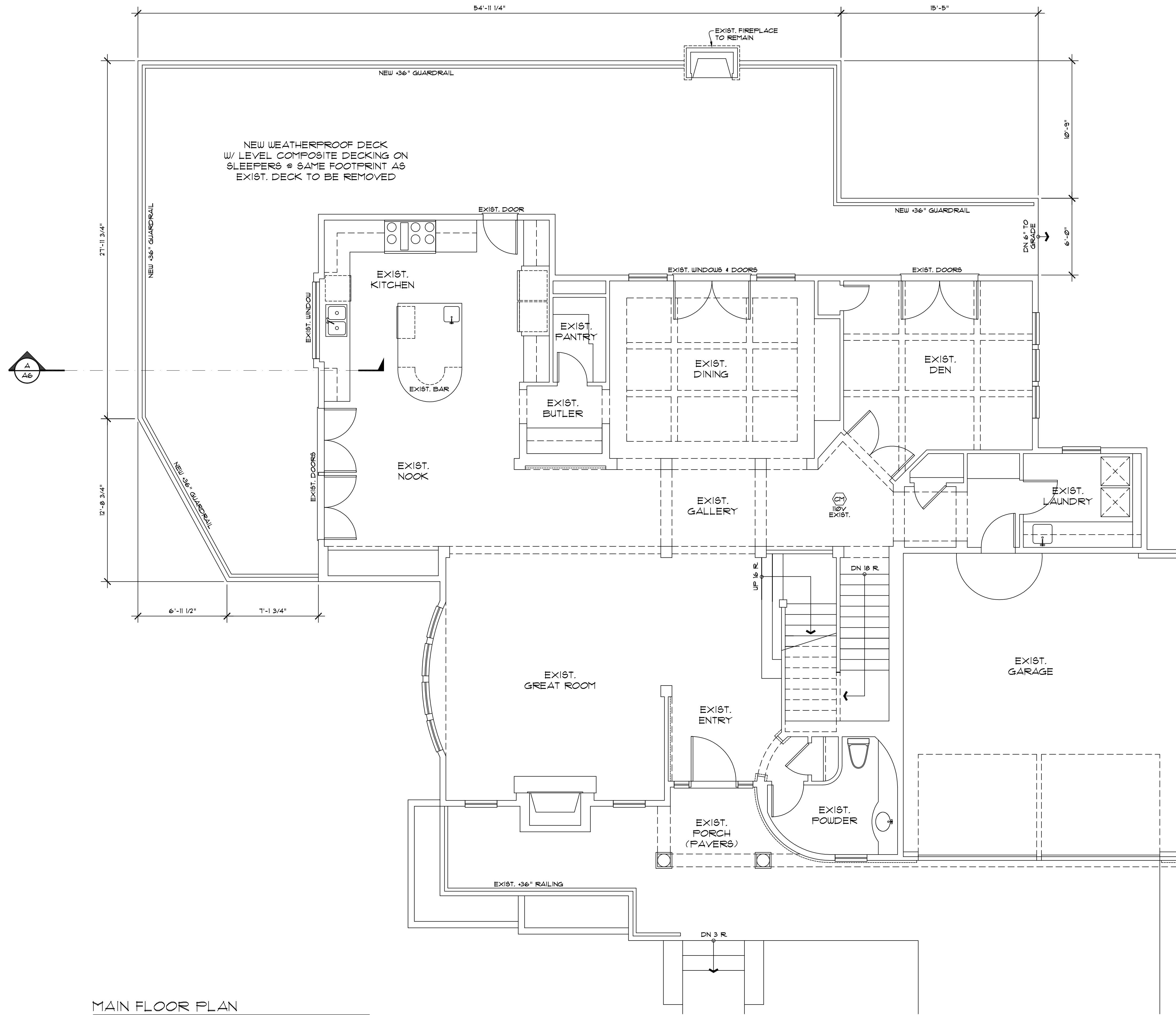
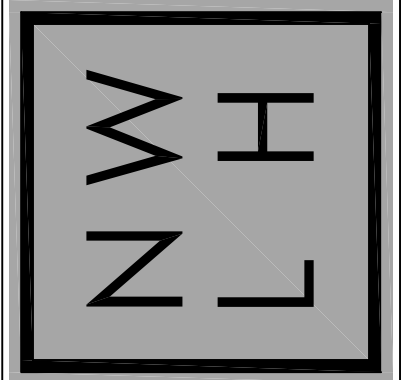
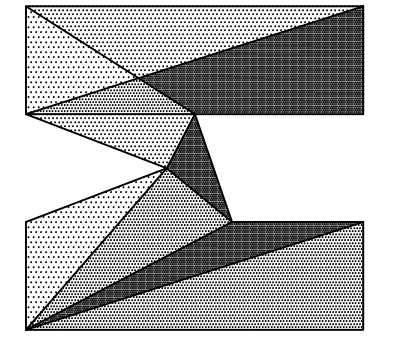
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 MERCER ISLAND, WA 98040

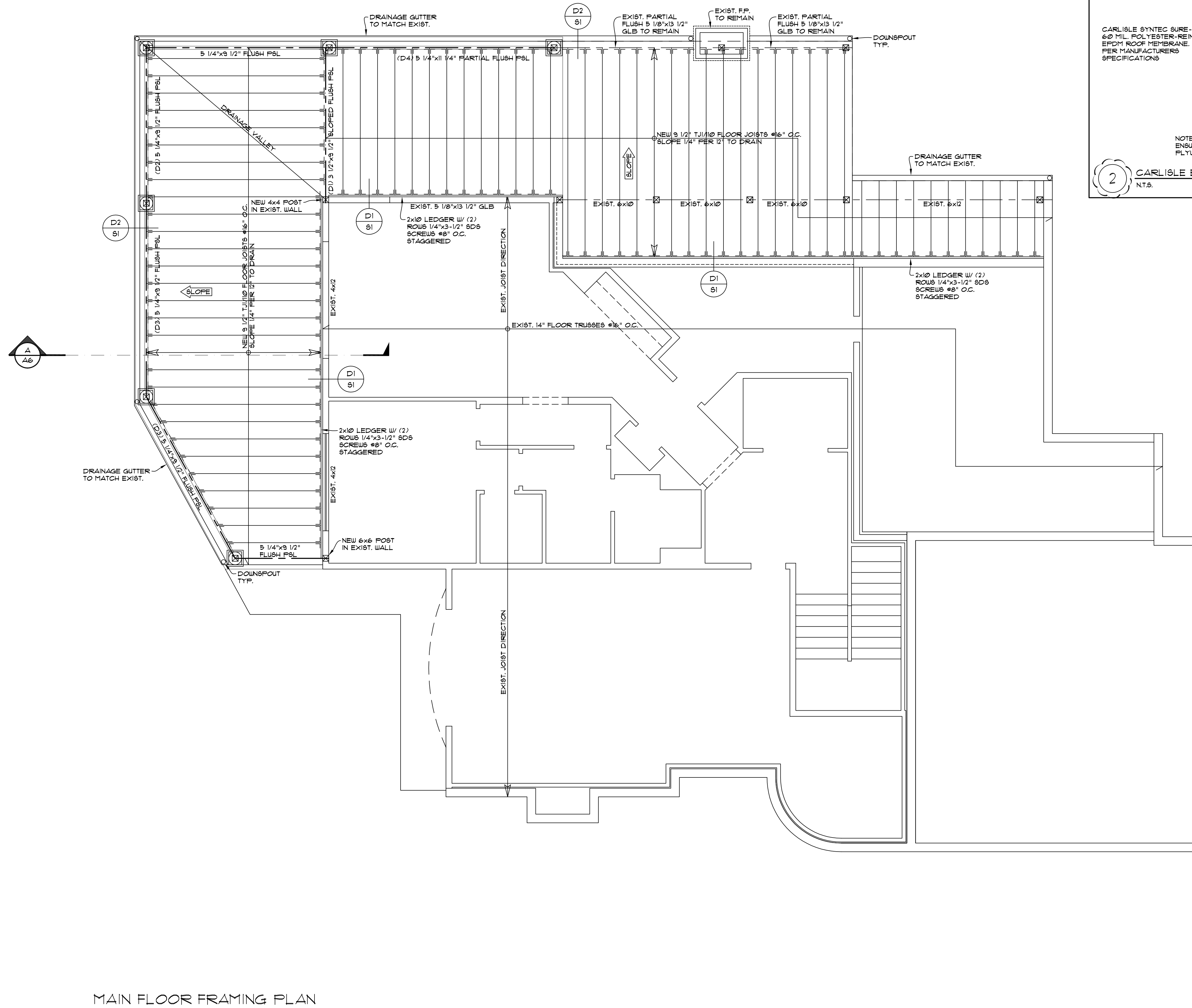
JOB NO: 20-012
 DATE: 10/16/20
 DRAWN BY: MM
 REVISED: 6/04/21

SHEET NO.
A2



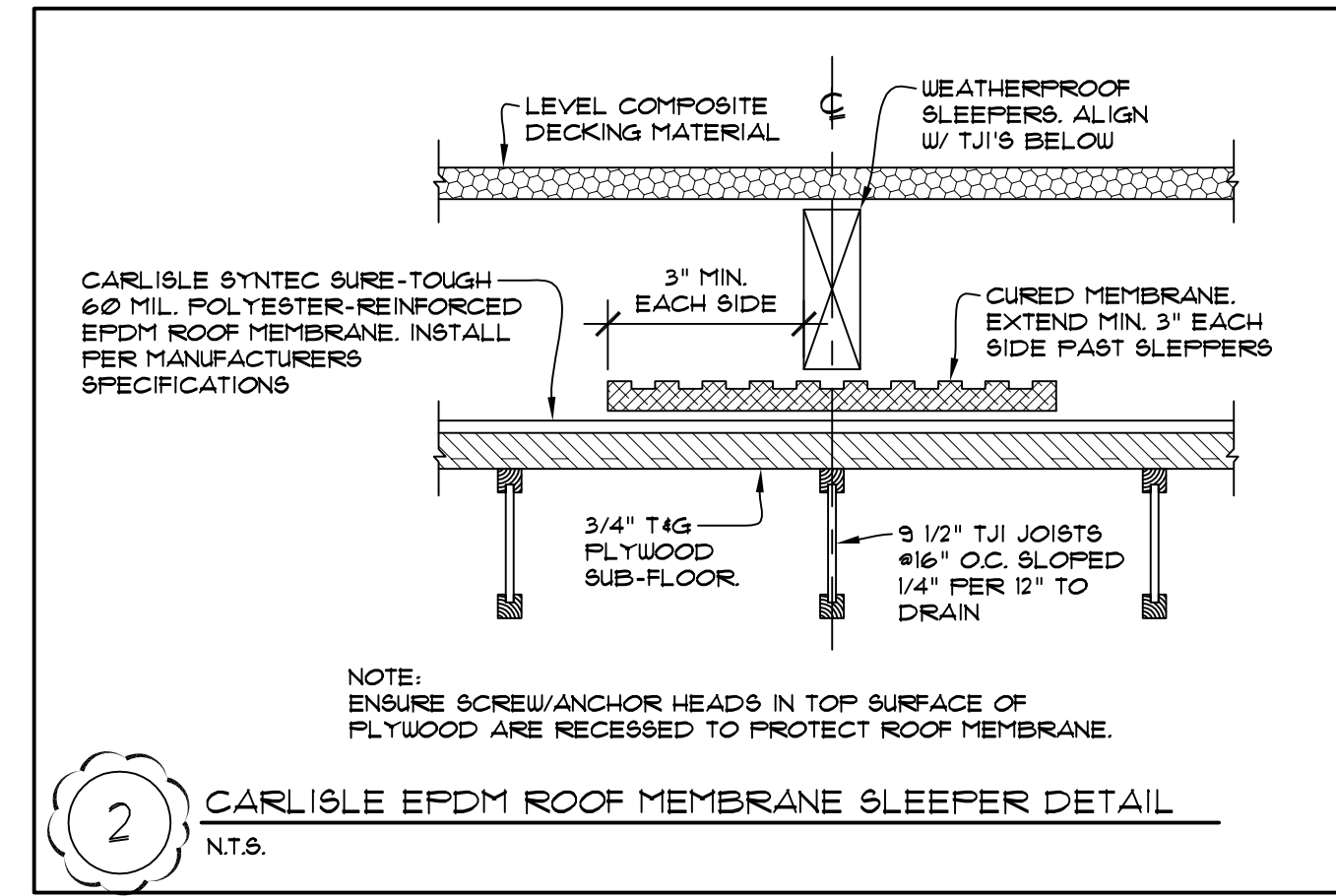
MAIN FLOOR PLAN

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

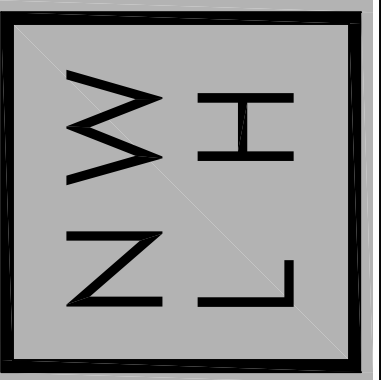
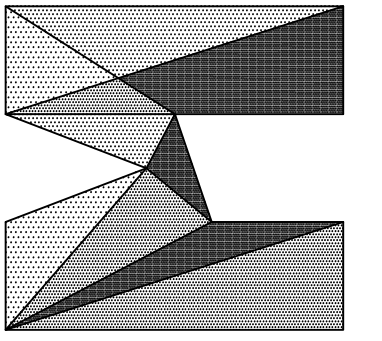


MAIN FLOOR FRAMING PLAN

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



2 CARLISLE EPDM ROOF MEMBRANE SLEEPER DETAIL
NTS.

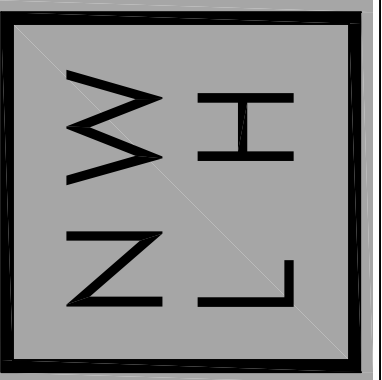
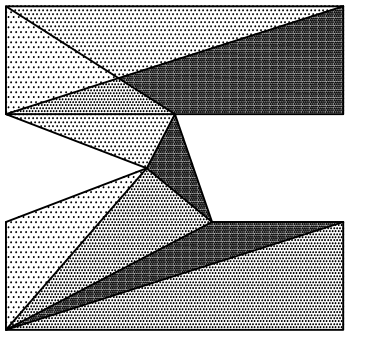


ZHANG ADDITION
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MERCER ISLAND, WA 98040

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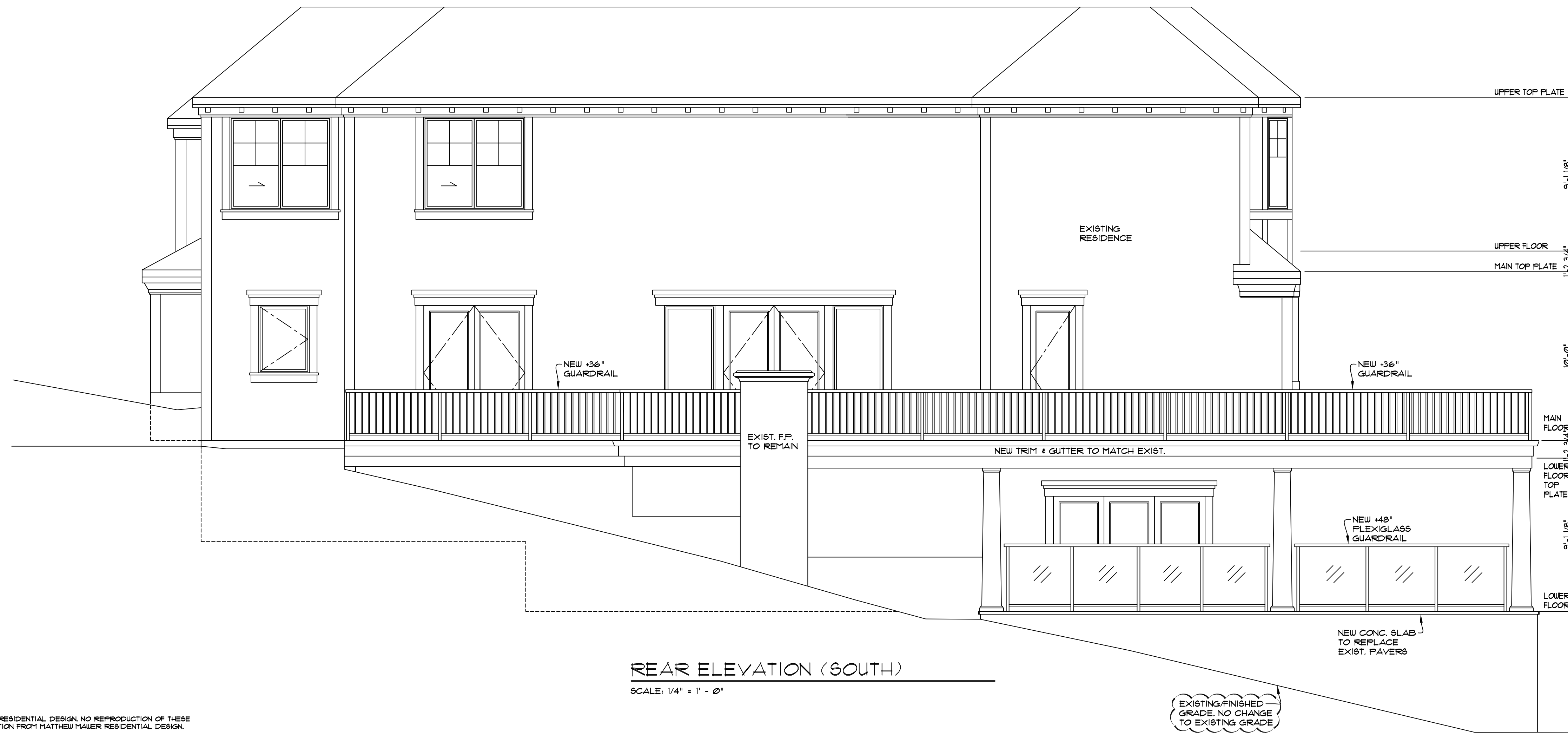
SHEET NO.

A4



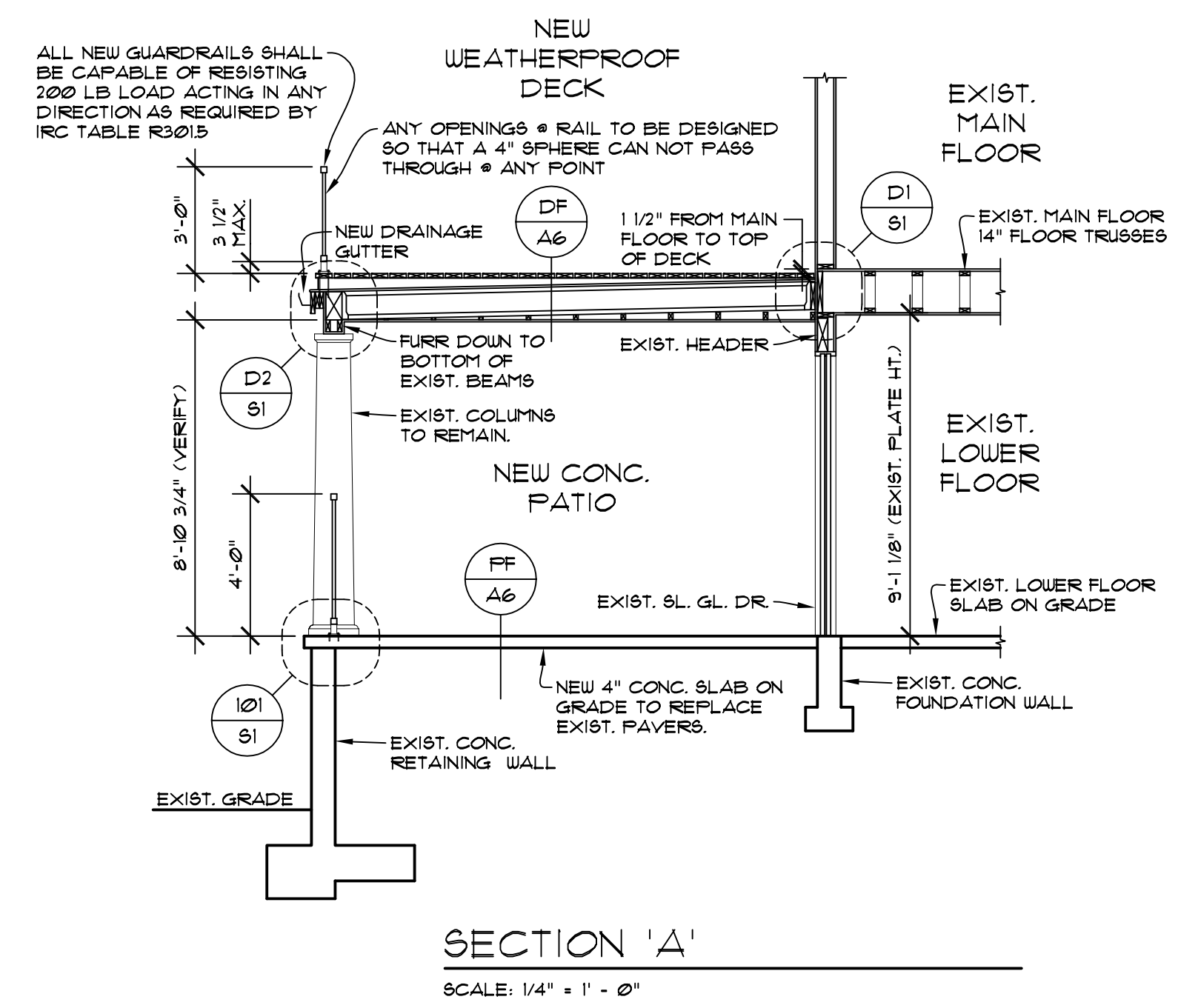
FRONT ELEVATION (NORTH)

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

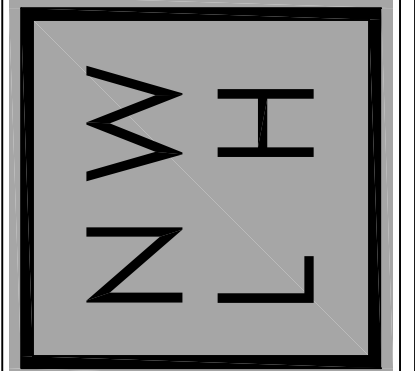
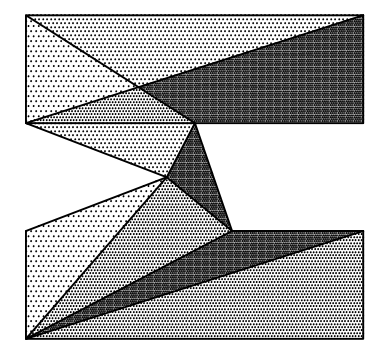


REAR ELEVATION (SOUTH)

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



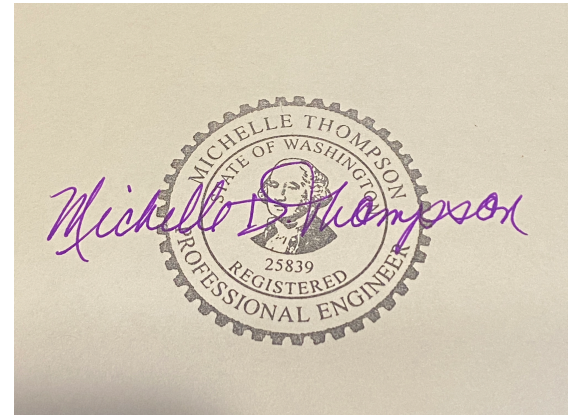
FF A6	PATIO FLOOR REPLACE EXIST. PAVERS W/ 4" CONCRETE SLAB 6 MIL VAPOR BARRIER 4" GRANULAR FILL
DF A6	DECK FLOOR (SEE DETAIL 2/A4) LEVEL COMPOSITE DECKING MATERIAL ON WEATHERPROOF SLEEPERS CARLISLE SYNTEC SURE-TOUGH 60 MIL. POLYESTER-REINFORCED EPDM ROOF MEMBRANE 3/4" TAG FLYWOOD SUB-FLOOR 3 1/2" TJI DECK JOISTS @16" O.C. SLOPED 1/4" PER 12" TO DRAIN SHIMS FOR FLAT CEILING 1/2" GUE



ZHANG ADDITION
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MERCER ISLAND, WA 98040

JOB NO: 20-012
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DRWN. BY: MM
REVISED: 6/04/21

SHEET NO.
A6



STRUCTURAL NOTES

CODES AND SPECIFICATIONS

- INTERNATIONAL BUILDING CODE, 2015 EDITION, ASCE 7-10
- INTERNATIONAL RESIDENTIAL CODE, 2015 EDITION
- SIMPSON STRONG TIE WOOD CONSTRUCTION CONNECTORS 2019-2020
- FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE STAINLESS STEEL, ZMAX(G185HDC PER ASTM A653). BATCH/POST HOT-DIP GALVANIZED (PER ASTM B695, CLASS 55 OR GREATER). UNCOATED AND PAINTED PRODUCTS SHOULD NOT BE USED WITH TREATED WOOD. WHEN USING STAINLESS STEEL HOT-DIP GALVANIZED CONNECTORS, THE CONNECTORS AND FASTENERS SHOULD BE MADE OF THE SAME MATERIAL.

DESIGN CRITERIA

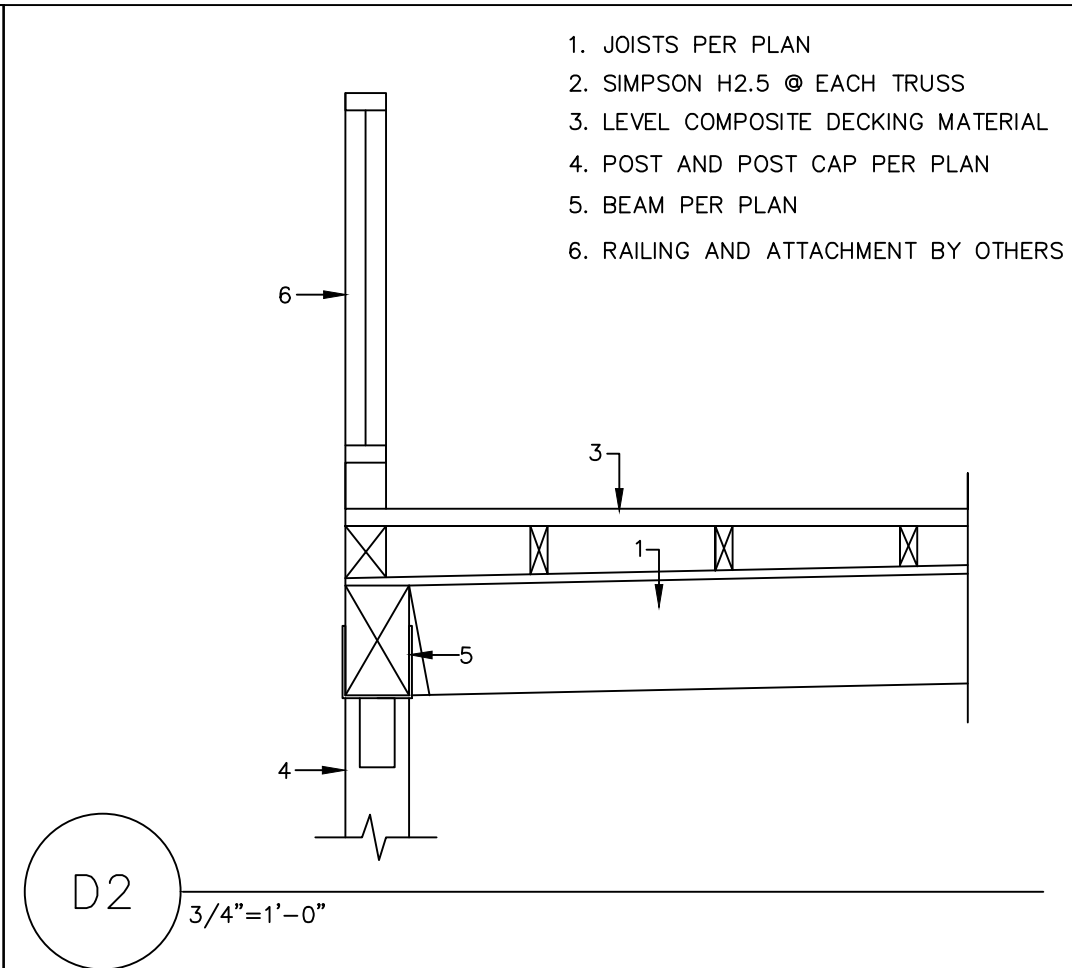
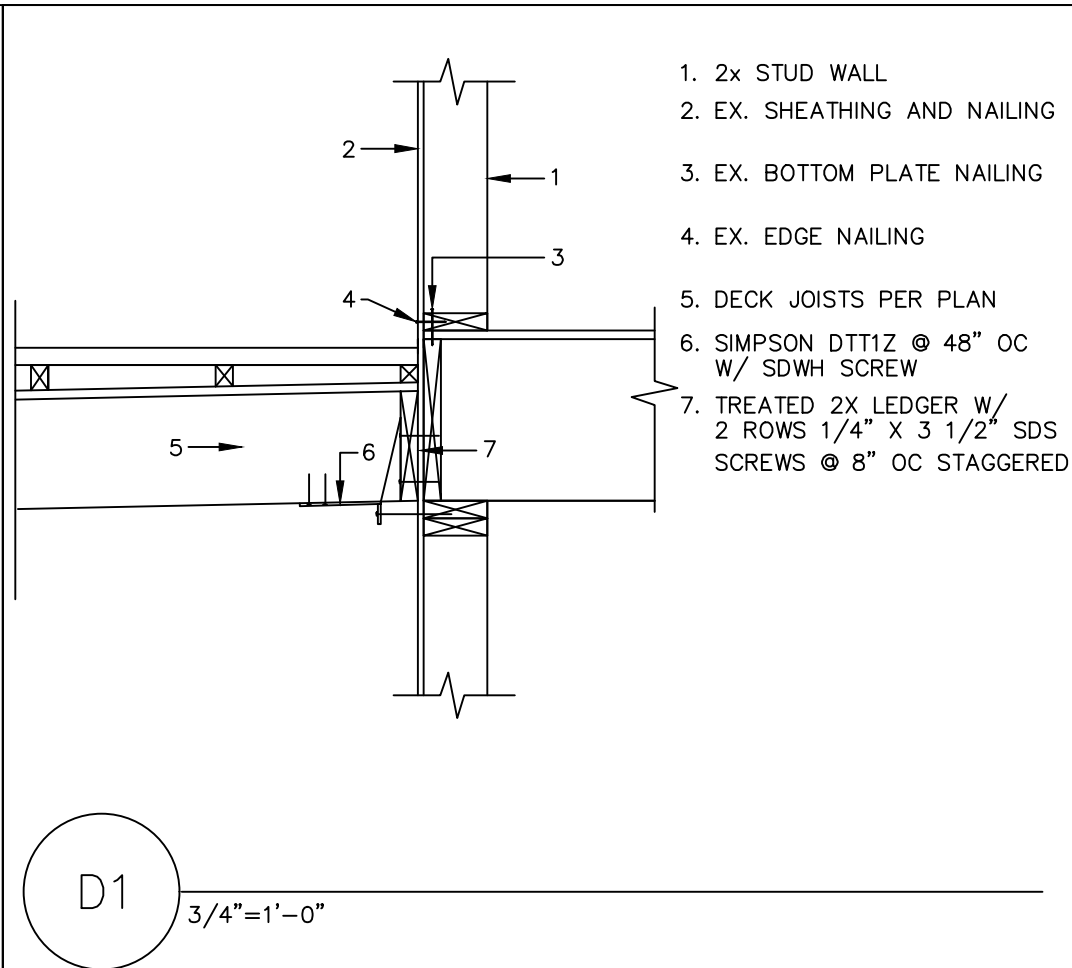
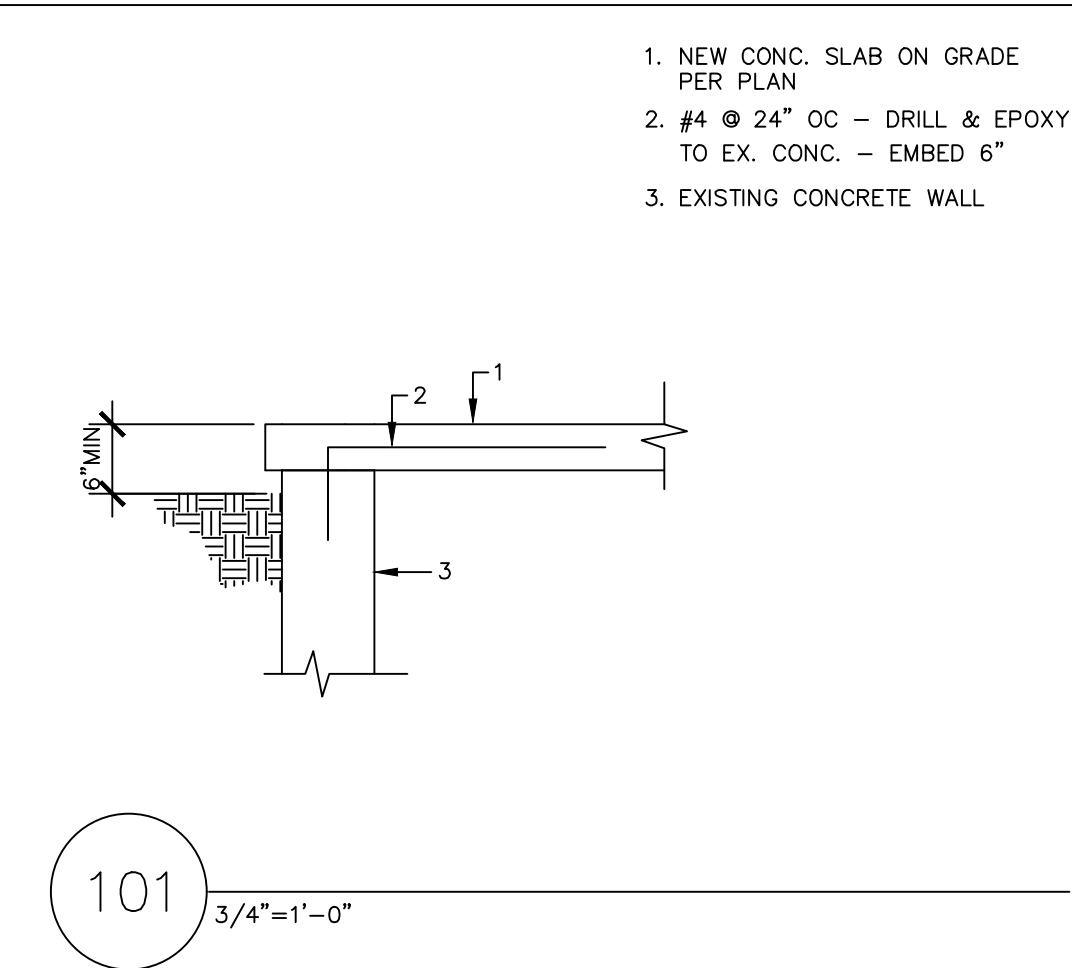
- WIND LOAD: INTERNATIONAL BUILDING CODE, 2015, ASCE 7-10, ALTERNATE ALL-HEIGHTS METHOD, ULTIMATE DESIGN WIND SPEED = 110 MPH, NOMINAL DESIGN WIND SPEED = 85 MPH, EXPOSURE B
- SEISMIC: INTERNATIONAL BUILDING CODE, 2015, ASCE 7-10
RISK CATEGORY II, SEISMIC IMPORTANCE CATEGORY, $I_e=1.0$
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS, $S_s=1.5$, $S_1=0.5$
SITE CLASS D
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS, $S_{ds}=1.0g$, $S_{d1}=0.5g$
SEISMIC DESIGN CATEGORY, D2
BASIC SEISMIC FORCE-RESISTING SYSTEM: LIGHT FRAME WALLS WITH WOOD SHEAR WALLS
DESIGN BASE SHEAR, $V + F(S_{ds})(W)/R = 0.1846W$
RESPONSE MODIFICATION COEFFICIENT, $R=6.5$
ANALYSIS PROCEDURE USED: SIMPLIFIED ALTERNATIVE STRUCTURAL DESIGN FOR SIMPLE BEARING WALL SYSTEMS
- ROOF LOAD: DL = 15 PSF LL = 25 PSF (ROOF SNOW LOAD)
- FLOOR LOAD: DL = 10 PSF LL = 40 PSF
- DECK LOAD: DL = 10 PSF LL = 60 PSF
- SOILS: ASSUMED 1000 PSF ALLOWABLE SOIL BEARING
ASSUMED 35 PCF ACTIVE SOIL PRESSURE, 350 PCF PASSIVE PRESSURE, 0.35 COEFFICIENT OF FRICTION
ALL FOOTINGS AND SLABS SHALL BEAR ON UNDISTURBED SOIL OR FILL COMPACTED TO 95% MODIFIED PROCTOR.
- CONCRETE: 3000 PSI @ 28 DAYS (2500 PSI USED FOR DESIGN)
GRADE 40 REINFORCEMENT
MINIMUM 3" COVER FOR ALL REINFORCEMENT EXCEPT AS NOTED AT RETAINING WALL OR OTHER DETAILS.

TIMBER CONSTRUCTION DETAILS

- LUMBER GRADES AND ALLOWABLE STRESSES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON PLANS:
ALL SAWN LUMBER HF#2 OR BETTER, $F_b = 875$ PSI, $F_v = 75$ PSI, $E = 1,300,000$
GLULAM BEAMS 24F-V4, $F_b = 2400$ PSI, $F_v = 165$ PSI, $E = 1,800,000$
MICROLAM, LV, $F_b = 2600$ PSI, $F_v = 285$ PSI, $E = 1,900,000$
PARALLAMS, PSL, $F_b = 2600$ PSI, $F_v = 290$ PSI, $E = 2,900,000$
- WHEN TOP PLATE IS INTERRUPTED BY HEADER, HEADER SHALL HAVE STRAP CONNECTORS TO THE TOP PLATE EACH END. USE 2-SIMPSON MSTA24 CONNECTORS, UNLESS NOTED OTHERWISE.
- ALL SHEAR WALL SHEATHING, NAILS AND ANCHORS SHALL BE AS DETAILED ON THE DRAWINGS AND AS NOTED IN THE SHEAR WALL SCHEDULE.
- FLOOR SHEATHING SHALL BE $\frac{3}{4}$ " MINIMUM APA RATED FLOOR SHEATHING WITH 10d COMMON @ 6"OC AT ALL SUPPORTED PANEL EDGES AND 10d @ 12"OC AT INTERMEDIATE SUPPORTS.
- ROOF SHEATHING SHALL BE $\frac{3}{4}$ " MINIMUM APA RATED ROOF SHEATHING WITH 8d COMMON @ 6"OC AT ALL SUPPORTED PANEL EDGES AND 8d @ 12"OC AT INTERMEDIATE SUPPORTS.

GENERAL CONSTRUCTION NOTES

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



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

REVISION DATES:
REV. 5-19-21

PROJECT: MAWER-ZHANG	SHEET TITLE: STRUCTURAL NOTES
SCALE: NO SCALE	DATE: 10-14-20
DRAWN BY: MDT	SHEET NO.:
PROJECT NO. MAWER-ZHANG	S-1