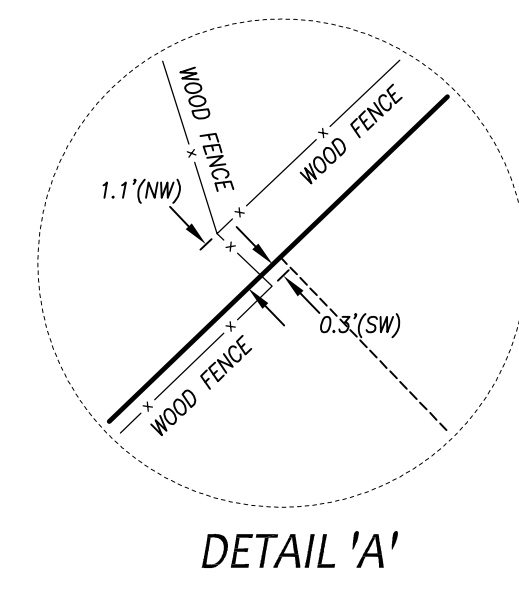


CURVE TABLE

| CURVE | LENGTH | RADIUS | DELTA |
|-------|--------|--------|-----------|
| C1 | 58.13 | 40.00 | 83°15'41" |
| C2 | 39.27 | 25.00 | 90°00'00" |

LINE TABLE

| LINE | LENGTH | BEARING |
|------|--------|---------------|
| L1 | 20.36 | N 69°24'41" E |



EQUIPMENT & PROCEDURES

METHOD OF SURVEY:
 SURVEY PERFORMED BY FIELD TRAVERSE AND REAL TIME KINEMATIC GPS POSITIONING UTILIZING THE HXGN SMARTNET NETWORK

INSTRUMENTATION:
 LEICA TS16 ROBOTIC ELECTRONIC TOTAL STATION
 LEICA VIVA GNSS G508 RECEIVER
 ALL EQUIPMENT HAS BEEN MAINTAINED IN ADJUSTMENT TO MANUFACTURER'S SPECIFICATIONS AS REQUIRED BY WAC 331-130-100

PRECISION:
 MEETS OR EXCEEDS STATE STANDARDS SET BY WAC 332-130-080 THROUGH 332-130-110

BASIS OF BEARING:
 PER THE PLAT OF MERCER WOOD RECORDED IN VOL. 52, PGS. 32-33 OF PLATS, THE MONUMENTED CENTERLINE OF 97TH AVE S.E. AS THE BEARING OF N 20°35'19" W, AS SHOWN HEREON.

LEGAL DESCRIPTION

LOT 19, BLOCK 1, MERCER WOOD, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 52 OF PLATS, PAGES 32 AND 33, IN KING COUNTY, WASHINGTON.
 SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

VERTICAL DATUM

NAVD 88 (NAVD88 -3.67' = NGVD29)
 FOUND CASED CONC. MON. W/NAIL IN CONC. AT THE INTERSECTION OF 97TH AVE. S.E. & MERCERWOOD DR.
 WGS SURVEY DATA WAREHOUSE I.D.#47348
 ELEV. = 224.37'

SURVEY REFERENCES

(R1) PLAT OF MERCER WOOD - VOL. 52, PGS. 32-33
 (R2) PLAT OF MERCER WOOD DIV. 2 - VOL. 57, PG. 81
 (R3) RECORD OF SURVEY - A.F.#20170302900016

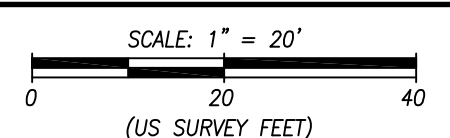
LEGEND

- SET 1/2" x 24" REBAR W/CAP "PCS 37536"
- EXISTING CORNER MONUMENT AS NOTED
- ✕ SET NAIL AND WASHER "PCS 37536"
- ✕ EXISTING NAIL AND WASHER AS NOTED
- ⊙ FOUND MONUMENT AS NOTED
- ℄ RIGHT OF WAY CENTERLINE
- CATCH BASIN
- ⊕ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊕ WATER METER
- ⊕ SANITARY SEWER MANHOLE
- ⊕ SEPTIC LID
- ⊕ MAILBOX
- ⊕ UTILITY/ POLE
- GUY ANCHOR
- ★ CONIFEROUS TREE
- DECIDUOUS TREE
- F FIR
- A ALDER
- P PINE
- (C) CALCULATED
- (M) MEASURED
- (D) DEED (SEE REF.)
- (P) PLAT (SEE REF.)

NOTES

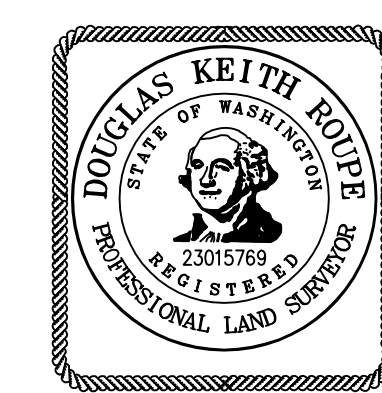
1.) THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF PARTIES WHOSE NAMES APPEAR HEREON ONLY, AND DOES NOT EXTEND TO ANY UNNAMED THIRD PARTIES WITHOUT EXPRESS RECERTIFICATION BY THE LAND SURVEYOR OF RECORD.

2.) BOUNDARY LINES SHOWN AND CORNERS SET REPRESENT DEED LOCATIONS; OWNERSHIP LINES MAY VARY. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ALL EASEMENTS, RESTRICTIONS, RESERVATIONS, AND OCCUPATION WHICH MAY ENCUMBER TITLE OR USE OF SUBJECT PROPERTY.



PACIFIC COAST SURVEYS INC
 SCANNING | MAPPING | SURVEY

P 425.512.7099 | F 425.357.3577
 www.PCSurveys.net
 5131 Colby Ave. Everett, WA 98208



BOUNDARY & TOPOGRAPHIC SURVEY FOR:
BO XIA & MIAO MENG
 NE 1/4, NE 1/4, SEC.18, T.24N., R.05E., W.M.

| | | | | | |
|---------------------------------|--|--------------|------------------|-------------------|------------------|
| DRAWING FILE # 243317top.dwg | ADDRESS OR TAXID# 4040 97TH AVE. S.E., MERCER IS. | DRAWN MAH | DATE 05-15-24 | SCALE 1" = 20' | JOB # 24-3317 |
|---------------------------------|--|--------------|------------------|-------------------|------------------|

PROJECT INFORMATION

ZONING DISTRICT R-8.4
 PROPERTY OWNER XIA BO+MENG MIAO
 PARCEL NUMBER 545600-0165
 LOT AREA 11,682 S.F.
 OCCUPANCY CLASSIFICATION R-3 / U
 CONSTRUCTION TYPE V-B

LEGAL DESCRIPTION

MERCER WOOD ADD
 Plat Block 1
 Plat Lot: 19

STRUCTURAL LOT COVERAGE

MAX. LOT COVERAGE FOR SLOPE: 15% 40% x 11682 = 4,672 SF
 EXIST. LOT COVERAGE 1,861 SF
 ADDED LOT COVERAGE 861 SF
 TOTAL STRUCTURAL AREA 2,722 S.F.
 STRUCTURAL LOT COVERAGE 23.3 % (OK)
 (SEE DIAGRAMS ON A1.1)

HARDSCAPE COVERAGE

MAX. HARDSCAPE AREA 49% x 11682 = 5,724 SF
 EXIST. LOT COVERAGE + HARDSCAPE 2,617 SF
 ADDED LOT COVERAGE + HARDSCAPE 484 SF
 REPLACED EXIST. HARDSCAPE
 IMPERVIOUS SURFACE AREA 3,101 SF
 IMPERVIOUS SURFACE COVERAGE 26.5% (OK)
 (SEE DIAGRAMS ON A1.1)

FLOOR AREA SUMMARY

(E) LOWER FLOOR 1,925 SF
 (E) GARGE 376 SF
 (N) LOWER FLOOR 202 SF
 (N) GARAGE ADDITION 378 SF
 (N) UPPER FLOOR 1,502 SF
 (N) SPACE ABOVE ENTRY >16 FT HEIGHT 90 SF
 TOTAL FLOOR AREA 4,473 SF
 FAR = 40% X 11682 = 4672 SF 4,473 SF (OK)
 (SEE DIAGRAMS ON A1.1)

BUILDING HEIGHT

AVERAGE GRADE 186.3'
 MAX. STRUCTURE HT. ALLOWED (30') 216.3'
 PROPOSED STRUCTURE HT. (26.1') 212.4'
 (SEE DIAGRAMS ON A1.1)

ABBREVIATIONS

| | | | |
|-------------|-----------------|-------|------------------------|
| BLKG | BLOCKING | HORIZ | HORIZONTAL |
| C | CENTER LINE | MAX | MAXIMUM |
| CLR | CLEAR | MFR | MANUFACTURER |
| CONT | CONTINUOUS | MIN | MINIMUM |
| CS | CASEMENT WINDOW | o' | OVER |
| DBL | DOUBLE | O.C. | ON CENTER |
| DS | DOWNSPOUT | SD | SMOKE DETECTOR |
| EL | ELEVATION | SG | SAFETY GLASS |
| EQ | EQUAL | SF | SQUARE FEET |
| EXIST / (E) | EXISTING | SIM | SIMILAR |
| FIG | FOOTING | SLD | SLIDING WINDOW |
| FX | FIXED WINDOW | TYP | TYPICAL |
| HDR | HEADER | UNO | UNLESS NOTED OTHERWISE |
| HWWD | HARDWOOD | w/ | WITH |
| HGR | HANGER | | |

TREE TABLE

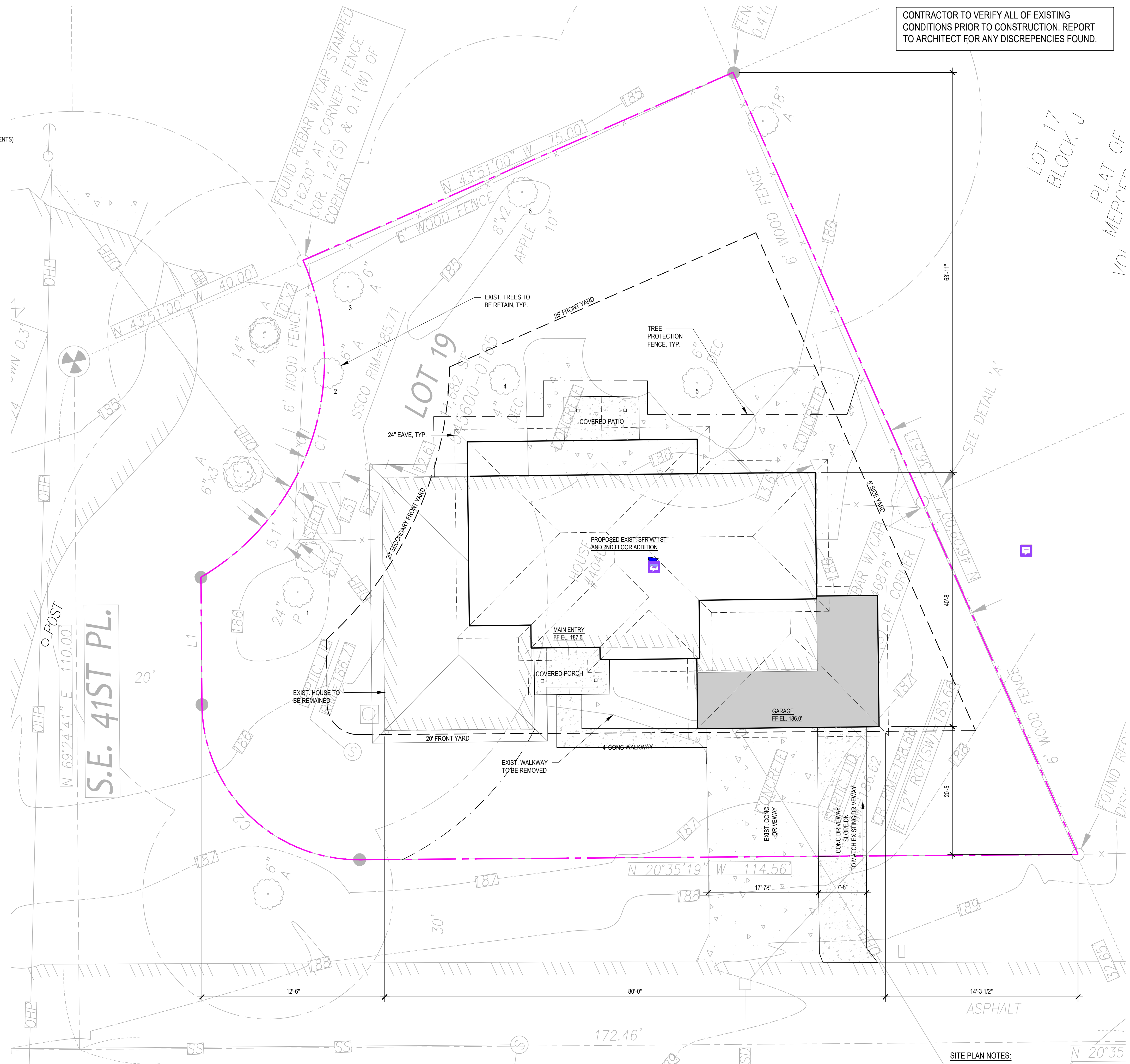
NO TREE PROPOSED TO BE REMOVED

CODE COMPLIANCE

2021 INTERNATIONAL RESIDENTIAL CODE
 2021 INTERNATIONAL MECHANICAL CODE
 2021 UNIFORM PLUMBING CODE
 2021 INTERNATIONAL FIRE CODE
 2020 NATIONAL ELECTRICAL CODE
 2021 WASHINGTON STATE ENERGY CODE

(ALL CODES ABOVE INCLUDE WASHINGTON STATEWIDE AMENDMENTS)

A NFPA 13D FIRE SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13D AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.



CONTRACTOR TO VERIFY ALL OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT TO ARCHITECT FOR ANY DISCREPANCIES FOUND.

LOT 17
 BLOCK J
 PLAT OF
 VOT. MERCER

4040 ADDITION
 4040 97TH AVE SE
 MERCER ISLAND WA 98040

MJZ DESIGN
 425.922.5926
 mjz.design.wa@gmail.com

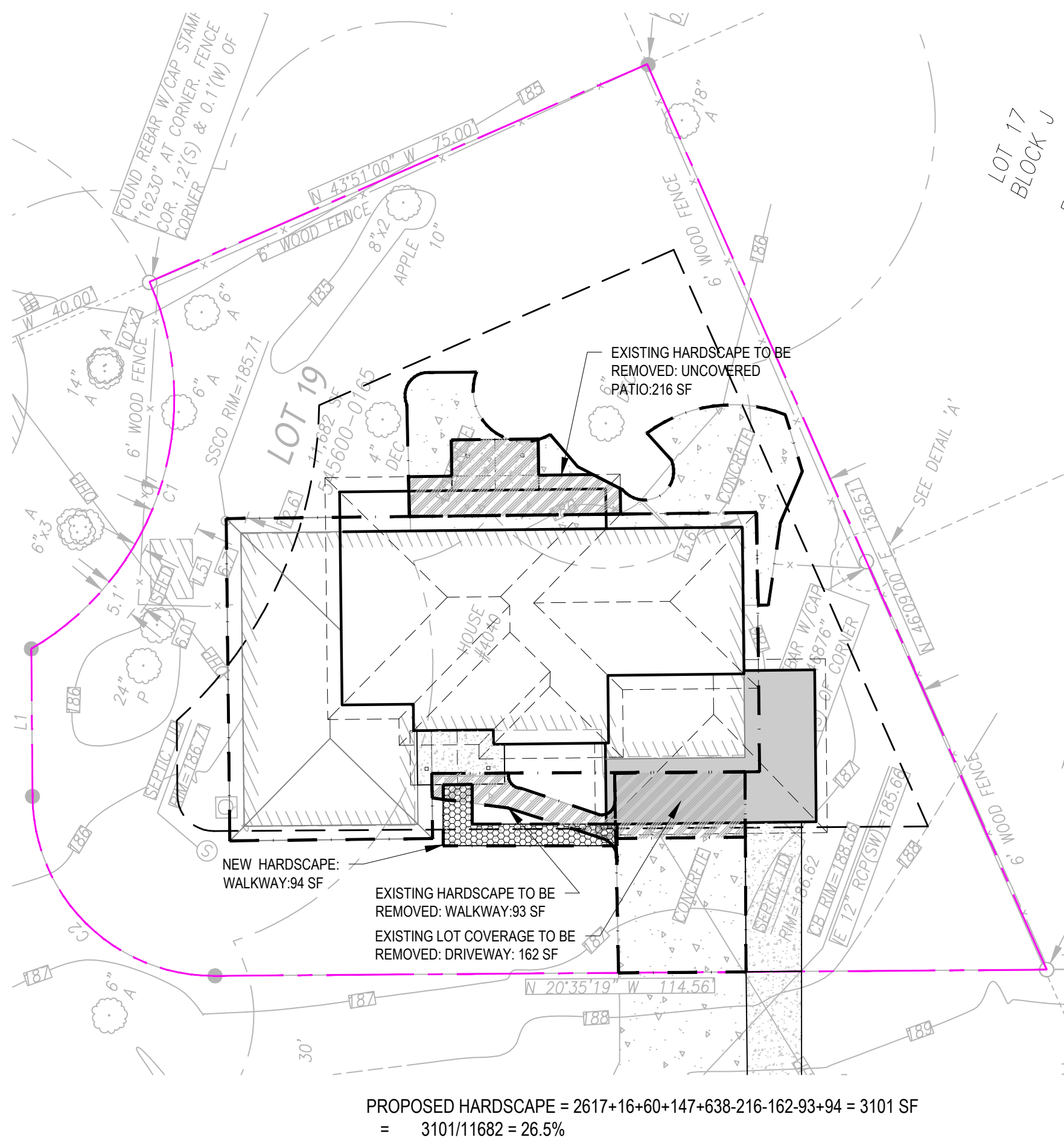
| NO. | DATE | DESCRIPTION OF REVISIONS |
|-----|------------|--------------------------|
| | 06/10/2024 | PERMIT SET |

1 SITE PLAN
 1/8" = 1'-0"

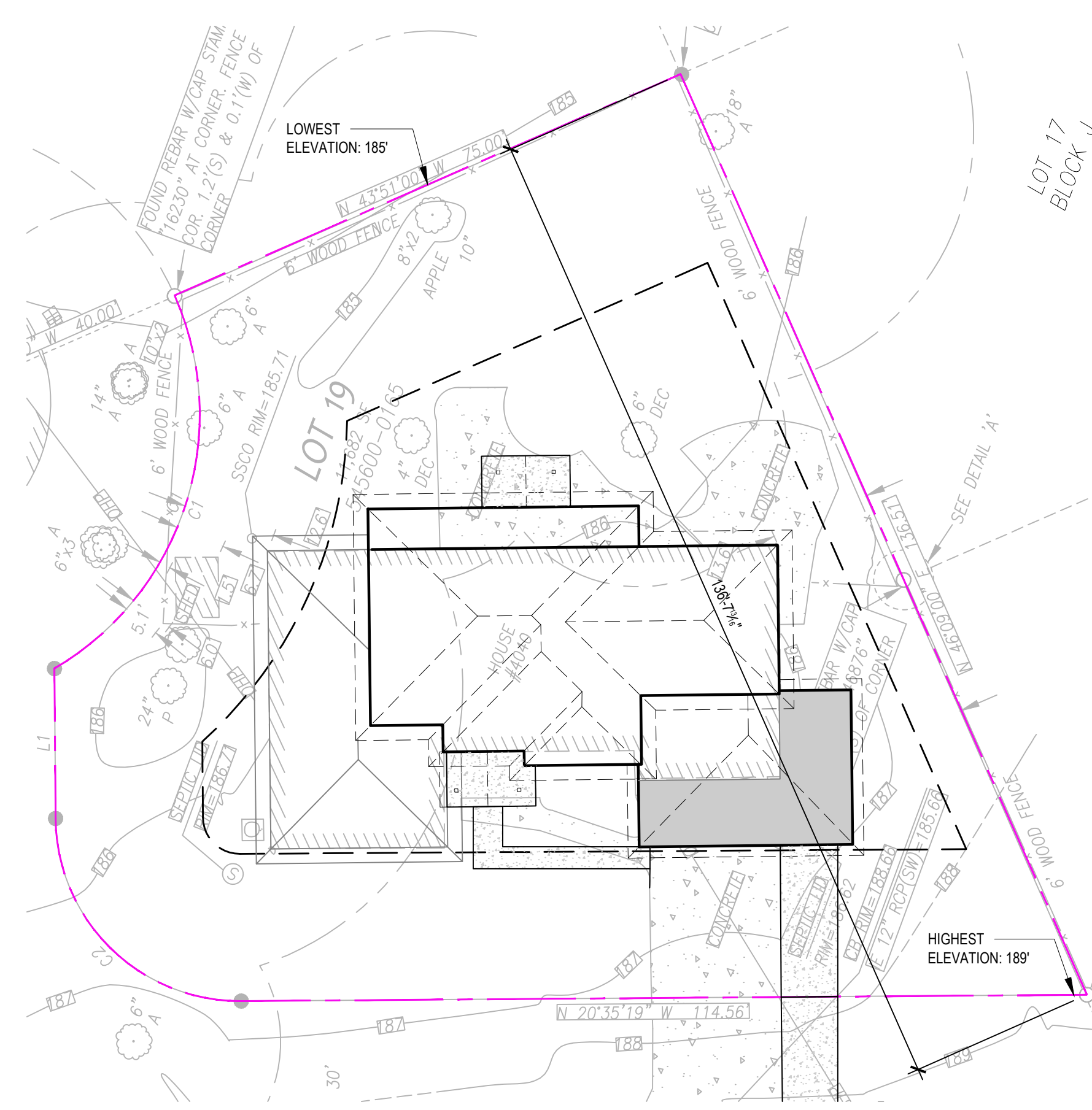
SITE PLAN NOTES:
 1. ALL UTILITIES SERVING THE SITE IS TO BE UNDERGROUNDED.
 2. THE ADDRESS IS TO BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

SITE PLAN

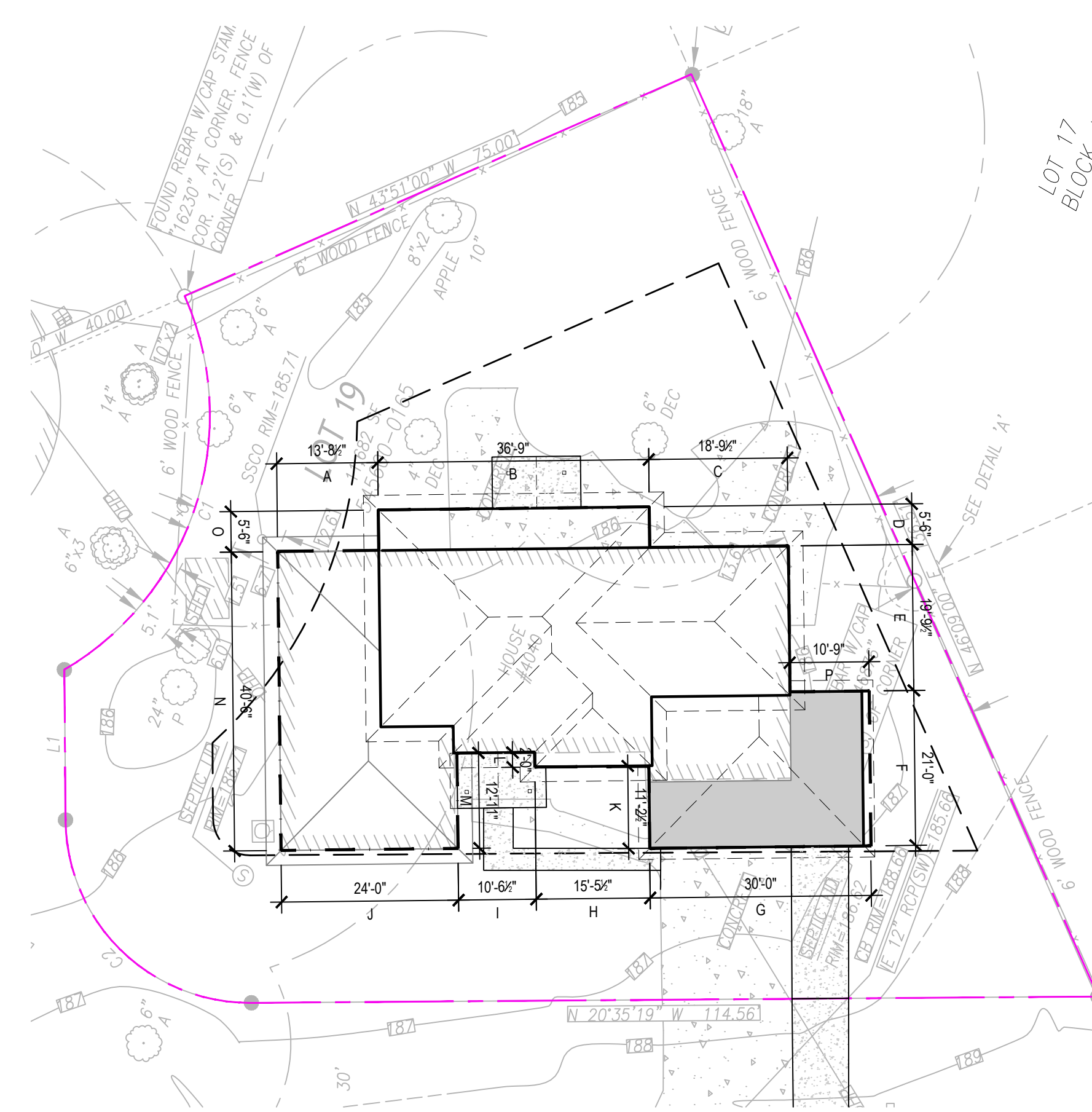
SHEET NUMBER
A1.0



PROPOSED HARDSCAPE = 2617+16+60+147+638-216-162-93+94 = 3101 SF
 = 3101/11682 = 26.5%



LOT SLOPE = ELEVATION DIFFERENCE / HORIZONTAL DISTANCE
 = (189-185) / 135.5
 = 3%



AVERAGE GRADE = 186.3'

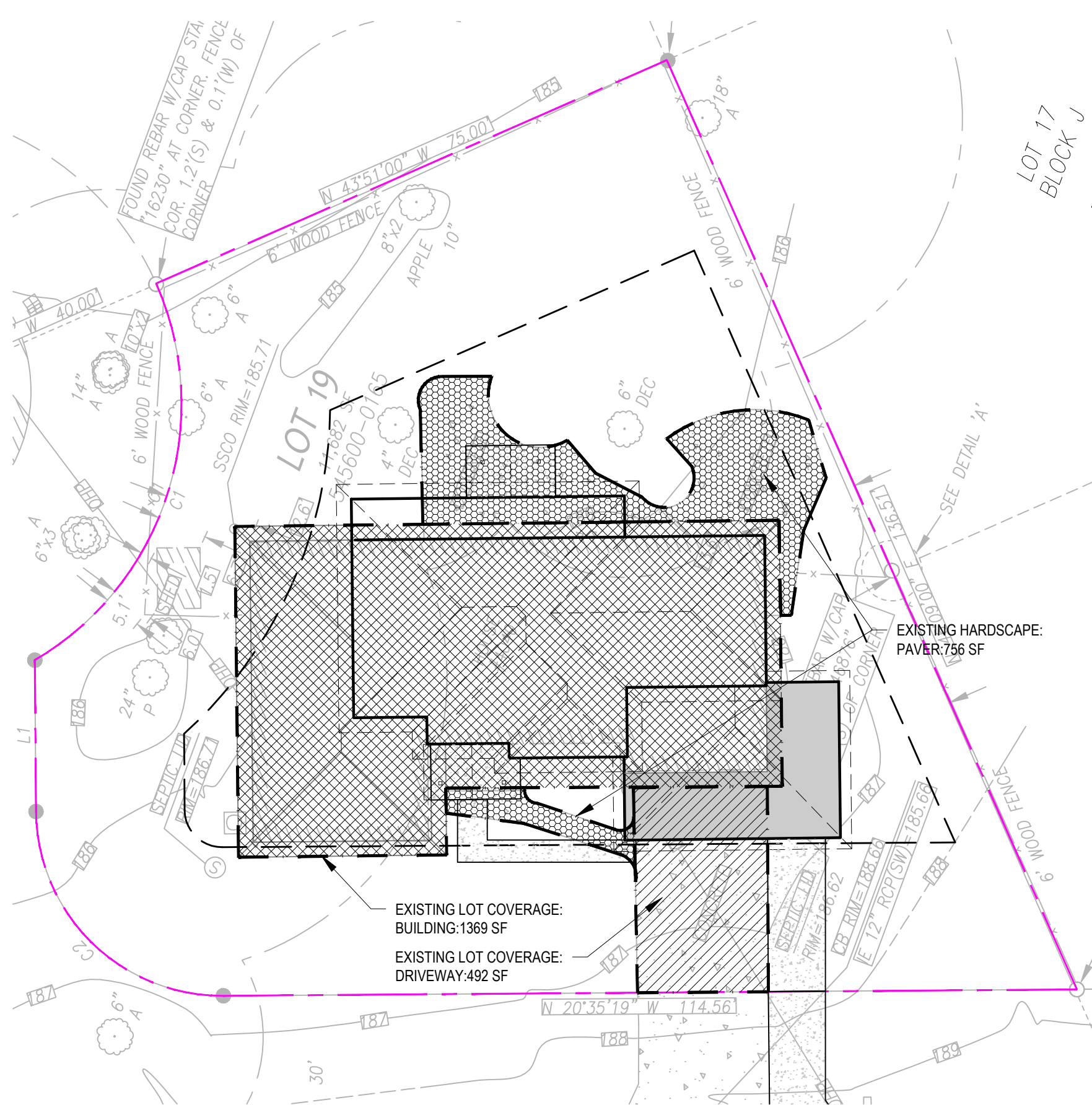
| AVERAGE GRADE CALC | | | | |
|--------------------|-----------|--------------|--------|----------|
| MID POINT | ELEVATION | WALL SEGMENT | LENGTH | A*a= |
| A | 185.5 | a | 13.7 | 2541.35 |
| B | 185.5 | b | 36.7 | 6807.85 |
| C | 186.2 | c | 18.8 | 3500.56 |
| D | 186 | d | 5.5 | 1023 |
| E | 186.5 | e | 19.8 | 3692.7 |
| F | 187 | f | 21 | 3927 |
| G | 186.8 | g | 30 | 5604 |
| H | 186.8 | h | 15.5 | 2895.4 |
| I | 186.3 | i | 10.5 | 1956.15 |
| J | 186.3 | j | 24 | 4471.2 |
| K | 186.8 | k | 11.2 | 2092.16 |
| L | 186.8 | l | 2 | 373.6 |
| M | 186.8 | m | 12.9 | 2409.72 |
| N | 186 | n | 40.5 | 7533 |
| O | 185.5 | o | 5.5 | 1020.25 |
| P | 186.5 | p | 10.7 | 1995.55 |
| | | | 278.3 | 51843.49 |
| AVERAGE GRADE | | | = | 186.3 |

| GROSS FLOOR AREA | |
|----------------------|--------|
| UPPER LEVEL ADDITION | 1502 |
| DOUBLE HEIGHT SPACE | 90 |
| MAIN FLOOR ADDITION | 202 |
| MAIN FLOOR EXIST | 1925 |
| GARAGE ADDITION | 378 |
| GARAGE EXIST | 376 |
| TOTAL | 4473 |
| | |
| LOT AREA | 11682 |
| FAR ALLOWED | 0.4 |
| MAX ALLOWED | 4672.8 |

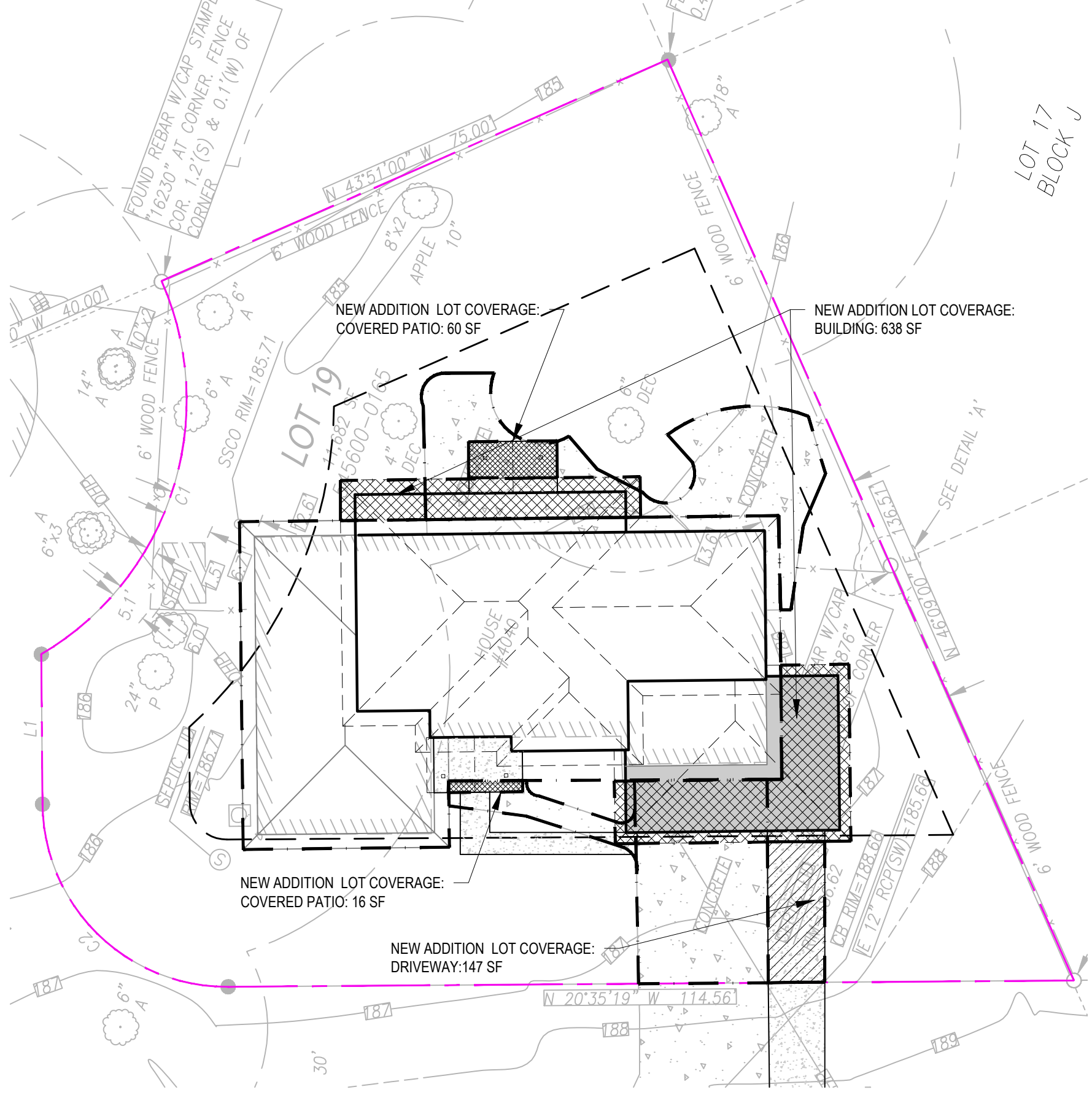
1 HARD SURFACE DIAGRAM
 1/16" = 1'-0"

1 SITE SLOPE DIAGRAM
 1/16" = 1'-0"

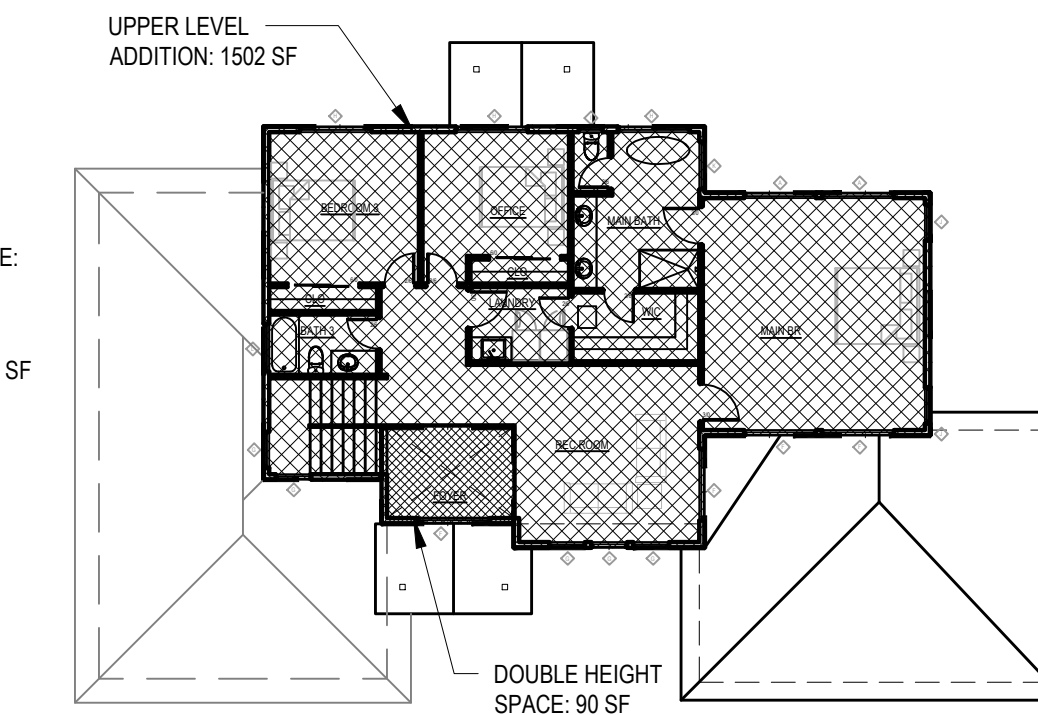
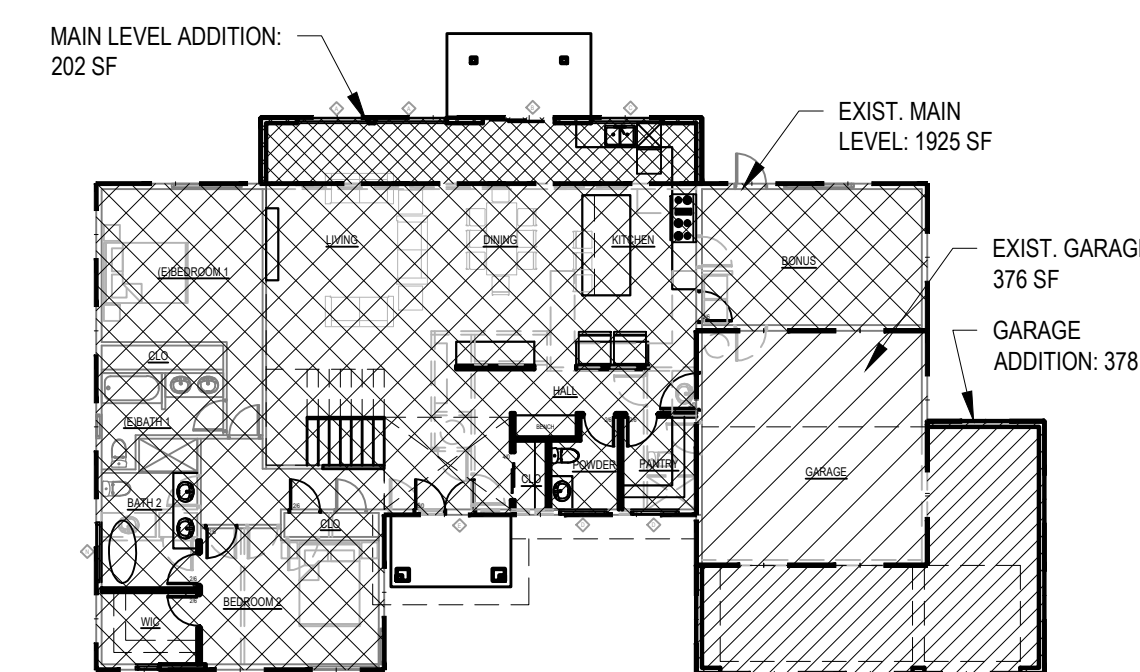
1 AVERAGE HEIGHT DIAGRAM
 1/16" = 1'-0"



EXISTING LOT COVERAGE = 1369+492 = 1861 SF
 = 1861/11682 = 15.9%
 EXISTING HARDSCAPE = 1861 + 756 = 2617 SF
 = 2617/11682 = 22.4%



PROPOSED LOT COVERAGE = 1861+16+60+147+638 = 2722 SF
 = 2722/11682 = 23.3%



1 FAR DIAGRAM
 1/16" = 1'-0"

1 PROPOSED LOT COVERAGE DIAGRAM
 1/16" = 1'-0"

1 EXIST. LOT COVERAGE DIAGRAM
 1/16" = 1'-0"

4040 ADDITION
 4040 97TH AVE SE
 MERCER ISLAND WA 98040

MJZ DESIGN
 425.922.5926
 mjz.design.wa@gmail.com

| NO. | DATE | DESCRIPTION OF REVISIONS |
|-----|------------|--------------------------|
| | 06/10/2024 | PERMIT SET |

LANDUSE DIAGRAM

SHEET NUMBER

PLAN NOTES:

PROVIDE COMBINED SMOKE/CO DETECTOR OUTSIDE EACH SLEEPING ROOM & ON EACH LEVEL - 110V W/ BATTERY BACKUP.

PROVIDE SMOKE DETECTOR @ EACH SLEEPING ROOM - 110V W/ BATTERY BACKUP.

ALL EXTERIOR DOORS TO BE EQUIPPED WITH DEAD BOLT OR DEAD LATCH WITH MIN. 1/2" THROW. ALL WINDOWS WITHIN 10' OF GRADE TO BE CAPABLE OF LOCKING. ALL DOORS MUST BE OPERABLE FROM INSIDE WITHOUT KEY OR SPECIAL KNOWLEDGE OR EFFORT. LEVER ACTION HANDLES ALL DOORS.

ALL TILE SHOWER/BATH WALLS TO BE SHEATHED W/ FULL HEIGHT (72" MIN.) 5/8" CONCRETE BACKER BOARD. ALL KITCHEN AND BATH GWB TO BE WATER RESISTANT TO CEILING.

STAIR SHALL COMPLY WITH SRC R311.7, WITH MAXIMUM RISER 7 3/4" RISER, MIN 10" TREAD. NOSING SHALL BE BETWEEN 3/4" TO 1 1/4" DEEP.

STAIR SHALL BE MINIMUM 36" WIDE CLEAR.

HANDRAIL SHALL BE MOUNTED ON AT LEAST ONE SIDE BETWEEN 34-38" ABOVE TREAD NOSING AND SHALL PROJECT NO MORE THAN 1-1/2" INTO STAIR. GRASP DIMENSION BETWEEN 1-1/4" - 2". PROVIDE CONTINUOUS HANDRAIL OR TERMINATE AT NEWEL POSTS OR SAFETY TERMINAL.

DIMENSIONS SHOWN AT DOOR AND WINDOW OPENINGS ARE ACTUAL SIZE. CONTRACTOR TO PROVIDE ROUGH OPENING AS REQUIRED.

ALL VENTS ON FACADE TO BE LOCATED MINIMUM 3'-0" FROM OPERABLE OPENINGS.

THE MINIMUM GUARDRAIL HEIGHT FOR DECKS AND STAIRS SHALL BE 36" A.F.F. (IRC R312.1.2) DESIGNED TO RESIST A 200 LB CONCENTRATED LOAD ON THE TOP RAIL AND 50 PSF ON ALL GUARDRAIL INFILL COMPONENTS.

IRC R312.1.3 REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT WHICH ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER

IRC R301.5.H IF GLAZING IS USED IN HANDRAIL ASSEMBLIES IT SHALL MEET A SAFETY FACTOR OF 4.

- E DENOTES EGRESS WINDOW
- SG DENOTES SAFETY GLAZING

WHOLE HOUSE FAN VENTILATION CALCULATIONS:

WHOLE HOUSE VENTILATION SHALL BE ACCOMPLISHED USING EXHAUST SYSTEM PER M1505.4.1.2

PER IRC M1505.4.3 FOR CONTINUOUS WHOLE HOUSE FAN OPERATION:

PER TABLE M1505.4.3(1) VENTILATION AIRFLOW RATE REQUIREMENTS: UNIT CONTAINS 5+ BEDROOMS & FLOOR AREA 3,501-4,000 SF = **85 CFM**

M1505.4.3.1 VENTILATION QUALITY ADJUSTMENT SYSTEM COEFFICIENT PER TABLE M1505.4.3(2); SYSTEM TYPE IS **NOT DISTRIBUTED & NOT BALANCED** = **1.5**

ADJUSTED AIRFLOW RATE
85 x 1.5 = 127.5 CFM

FOR SYSTEMS DESIGNED TO OPERATE AT LEAST TWO HOURS IN EACH 4-HOUR SEGMENT, VENTILATION RATE FACTOR OF 2, IRC M1505.4.3.2, AND TABLE M1505.4.3(3)

TOTAL AIR FLOW RATE:
5+ BEDROOMS - 127.5 X 2 = 255 CFM REQUIRED

TOTAL REQUIRED AIRFLOW RATE = 127.5 (OR 255) CFM

MIN. LOCAL EXHAUST RATES PER TABLE M1505.4.4(1):
KITCHEN FANS: 100 CFM INTERMITTENT / 30 CFM CONTINUOUS
BATHROOM / TOILET ROOMS: 50 CFM INTERMITTENT / 20 CFM CONTINUOUS

L1 BATH1 EXHAUST FAN = 50 CFM MIN.
L1 BATH2 EXHAUST FAN = 50 CFM MIN.
L1 POWDER ROOM EXHAUST FAN = 50 CFM MIN.
L1 KITCHEN EXHAUST FAN = 100 CFM MIN.

L2 LAUNDRY EXHAUST FAN = 50 CFM MIN.
L2 BATH3 EXHAUST FAN = 50 CFM MIN.
L2 MASTER BATHROOM EXHAUST FAN = 50 CFM MIN.
L2 MASTER TOILET ROOM EXHAUST FAN = 50 CFM MIN.

TOTAL PROVIDED = 450 CFM

PER SRC (OR IRC) M1505.4 - EACH DWELLING UNIT SHALL BE EQUIPPED WITH A VENTILATION SYSTEM. THE WHOLE HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH M1505.4.1 THROUGH M1505.4.4.

WHOLE HOUSE VENTILATION SYSTEMS SHALL BE CONFIGURED TO OPERATE CONTINUOUSLY EXCEPT WHERE INTERMITTENT OFF CONTROLS AND SIZING ARE PROVIDED PER SECTION M1505.4.3.2.

WHOLE HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MIN. AIRFLOW RATE PER SECTION M1505.4.3.1 AT A MAXIMUM OF 1.0 SONE. REMOTE MOUNTED FANS ARE EXEMPT FROM SOUND REQUIREMENTS IF 1) MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS; 2) THERE MUST BE AT LEAST 4 FEET OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE. (M1505.4.1.1)

DUCTS OUTSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-8 - WSEC (OR SEC) R403.3.1

DUCTS ARE TO BE LEAK TESTED IN ACCORDANCE WITH WSEC (OR SEC) R403.3.3 AND WSU RS-33. DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO AN APPROVED FINAL INSPECTION

M1505.4.1.7 CERTIFICATE. A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR, TEST AND BALANCE CONTRACTOR OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING WHEN LOCATED ON AN ELECTRICAL PANEL. THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE FLOW RATE DETERMINED FROM THE DELIVERED AIRFLOW OF THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AS INSTALLED AND THE TYPE OF MECHANICAL WHOLE HOUSE VENTILATION SYSTEM USED TO COMPLY WITH SECTION M1505.4.3.1.

WSEC R401.3 PROVIDE A PERMANENT CERTIFICATE COMPLETED & LOCATED WITHIN 3FT. OF THE ELEC. DISTRIBUTION PANEL TO BE DONE BY CONTRACTOR. DO NOT OBSTRUCT VISIBILITY OF DIRECTORY OR ANY LABELS. LIST ALL R/U-VALUES OF THERMAL BUILDING ENVELOPE, INCLUDING DOORS & WINDOWS, AS WELL AS HEATING SYSTEM AND EFFICIENCIES.

WSEC R402.4 ALL UNITS SHALL BE TESTED & VERIFIED FOR AIR LEAKAGE OF NO MORE THAN 5.0 AIR CHANGES PER HOUR BY A BLOWER DOOR TEST AT 0.2 IN. W.G. A REPORT SHALL BE PROVIDED TO THE CODE OFFICIAL. TESTING TO BE DONE BY THIRD PARTY IF REQUIRED BY CODE OFFICIAL.

WSEC R404.1 A MIN OF 90% OF PERMANENT LAMPS IN FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS.

WSEC R403.1 AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM

WSEC R403.4.2 HOT WATER PIPES ARE REQUIRED TO BE INSULATED OF R-4

SREC TABLE 402.1.1 - ALL WINDOW AND DOOR HEADERS TO BE INSULATED WITH A MINIMUM OF R-10 INSULATION

8 ENERGY CREENERGY REQUIREMENTS (PERSPECTIVE):
EDITS AS SELECTED AND LISTED BELOW:

4. PRIMARY HEATING SOURCE: 3.0 CREDIT FOR HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(2) OR C403.3.2(9) OR AIR TO WATER HEAT PUMP UNITS THAT ARE CONFIGURED TO PROVIDE BOTH HEATING AND COOLING AND ARE RATED IN ACCORDANCE WITH AHRI 550/590

1.2 EFFICIENT BUILDING ENVELOPE: 1.0 CREDIT PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS:
VERTICAL FENESTRATION U = 0.25
FLOOR-R-38
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

3.6 HIGH EFFICIENCY HVAC EQUIPMENT: 1.0 CREDIT AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF 2 OF 9.4 (HSPF OF 11.0). A CENTRALLY DUCTED AIR SOURCE COLD CLIMATE VARIABLE CAPACITY HEAT PUMP (CC VCHP) FOUND ON THE NEEP CC VCHP QUALIFIED PRODUCT LIST WITH A MINIMUM OF 9 HSPF 2 (10 HSPF) MAY BE USED TO SATISFY THIS REQUIREMENT.

5.7 EFFICIENT WATER HEATING: 2.5 CREDIT WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING:
ELECTRIC HEAT PUMP WATER HEATER WITH A MINIMUM UEF OF 2.9 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4, REQUIREMENTS FOR ALL UNITS, OF THE NEEA STANDARD ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE

7.1 APPLIANCE PACKAGE OPTION: 0.5 CREDIT ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS:

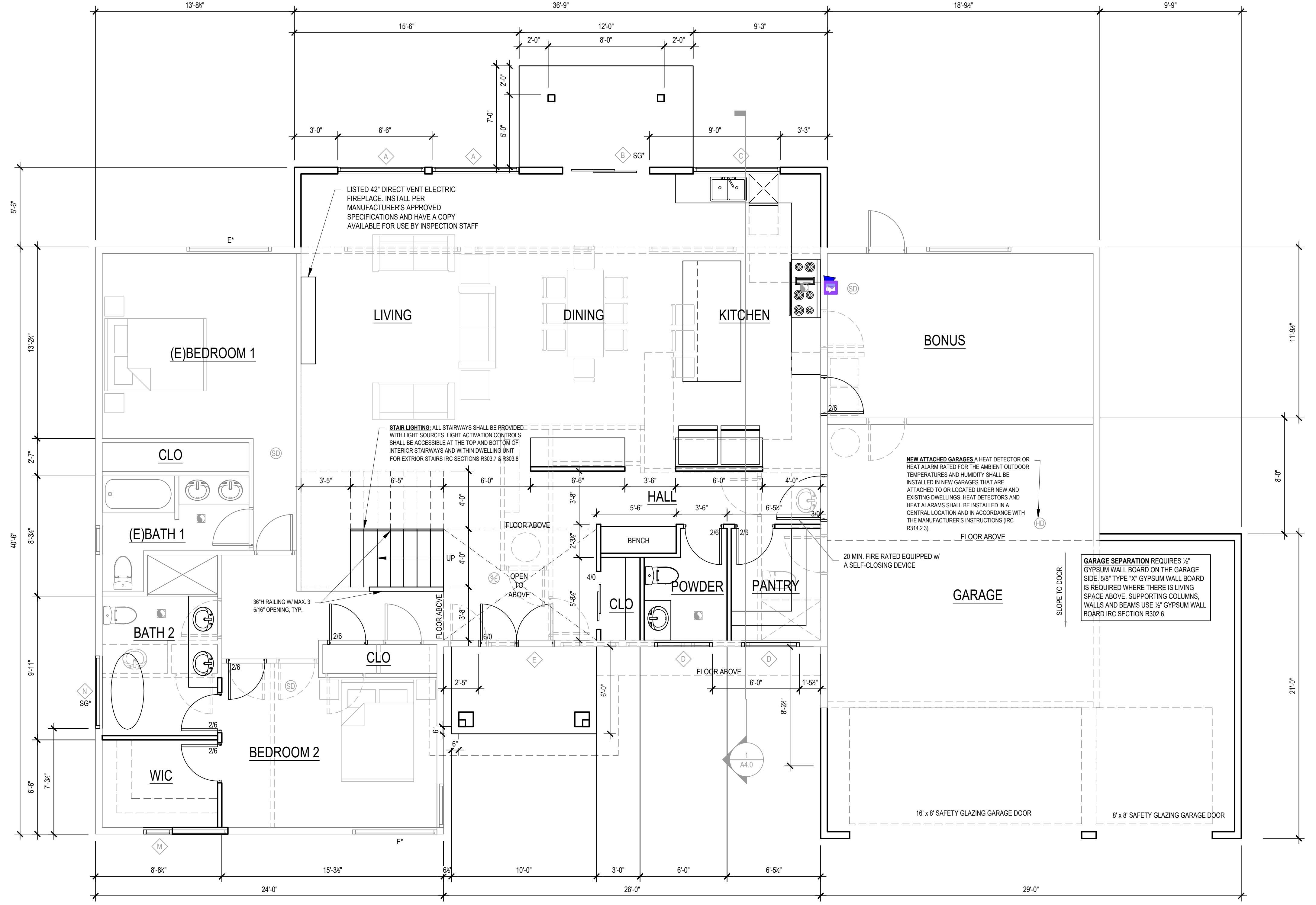
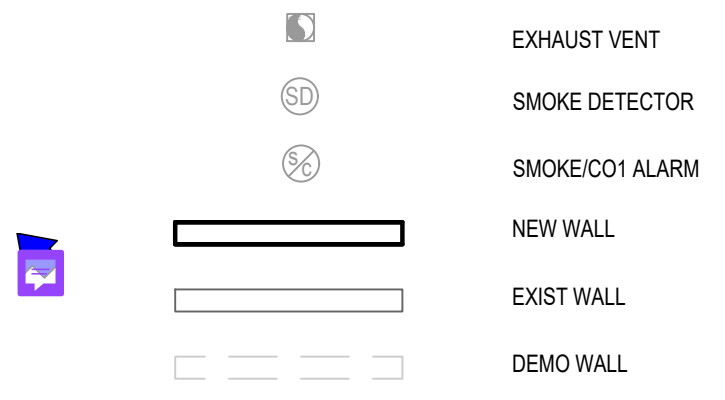
1. DISHWASHER, STANDARD - ENERGY STAR RATED, MOST EFFICIENT 2021 OR DISHWASHER, COMPACT - ENERGY STAR RATED (VERSION 6.0)
2. REFRIGERATOR (IF PROVIDED) - ENERGY STAR RATED (VERSION 5.1)
3. WASHING MACHINE (RESIDENTIAL) - ENERGY STAR RATED (VERSION 8.1)
4. DRYER - ENERGY STAR RATED, MOST EFFICIENT 2022

WHOLE HOUSE VENTILATION SYSTEM CONTROLS:
THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE. CONTROLS SHALL INCLUDE TEXT OR A SYMBOL INDICATING THEIR FUNCTION. IRC M1505.4.2

FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
1.1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
1.2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET (3048 MM).
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7.
4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS.

SYMBOL



1 MAIN FLOOR PLAN
1/4" = 1'-0"
N

4040 ADDITION
4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ DESIGN
425.922.5926
mjz.design.wa@gmail.com

| NO. | DATE | DESCRIPTION OF REVISIONS |
|------------|------|--------------------------|
| 06/10/2024 | | PERMIT SET |

MAIN FLOOR PLAN

SHEET NUMBER
A2.0

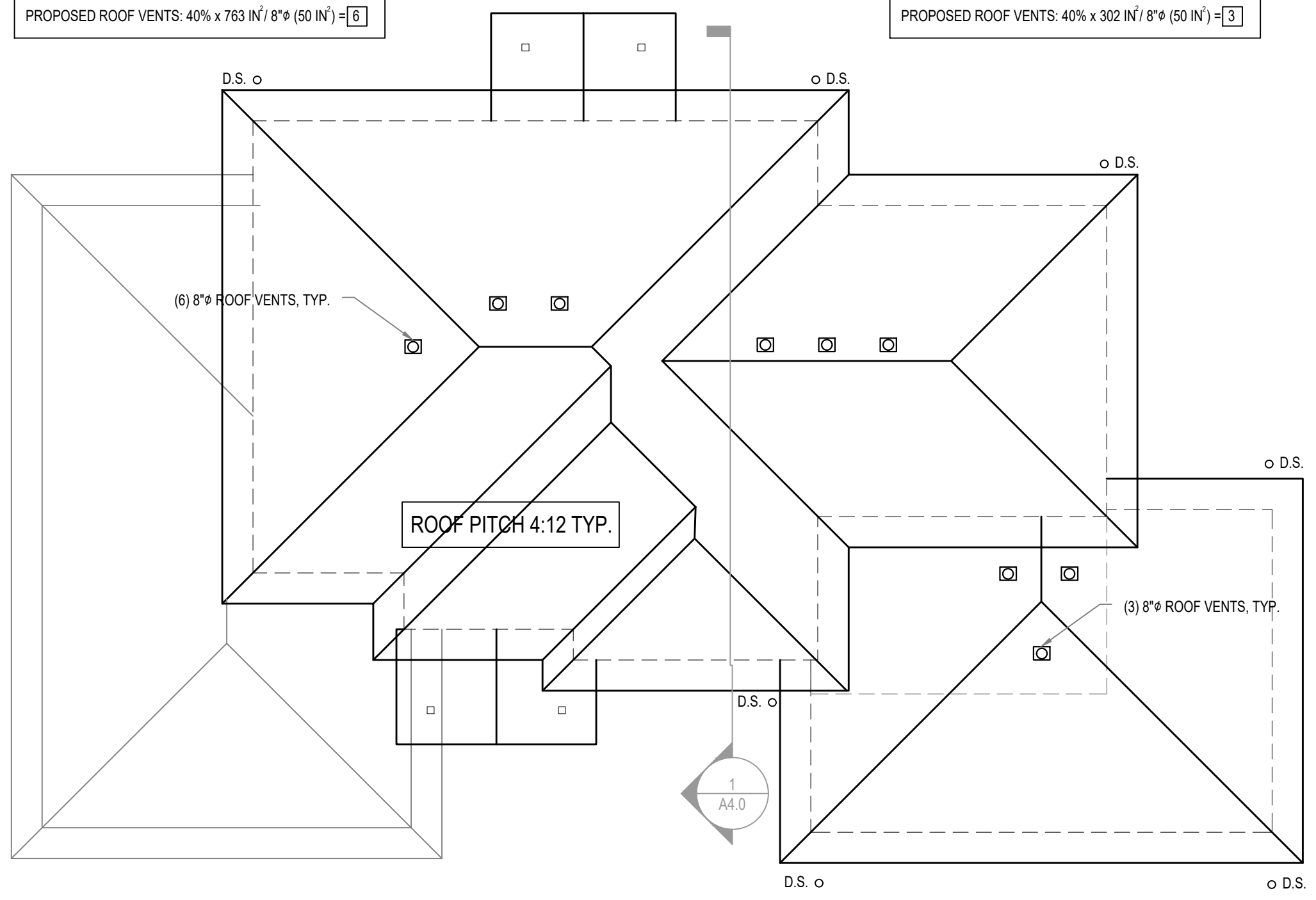
ROOF VENTILATION
 ATTIC AREA = 1592 S.F.
 REQUIRED VENTILATION = 1592 / 300 = 5.30 S.F. (763 IN²)
 PROPOSED EA VE VENT ((3) #1-3/4" HOLES ON EA. EA VE BLOCKING); 3.6 IN²/L.F. x 181" = 652 IN² (SEE SHEET A5 FOR EA VE BLOCKING)
 PROPOSED ROOF VENTS: 40% x 783 IN² / 8" = 60 IN² = [6]

LOWER ROOF VENTILATION
 ATTIC AREA = 630 S.F.
 REQUIRED VENTILATION = 630 / 300 = 2.10 S.F. (302 IN²)
 PROPOSED EA VE VENT ((3) #1-3/4" HOLES ON EA. EA VE BLOCKING); 3.6 IN²/L.F. x 73" = 263 IN² (SEE SHEET A5 FOR EA VE BLOCKING)
 PROPOSED ROOF VENTS: 40% x 302 IN² / 8" = 50 IN² = [3]

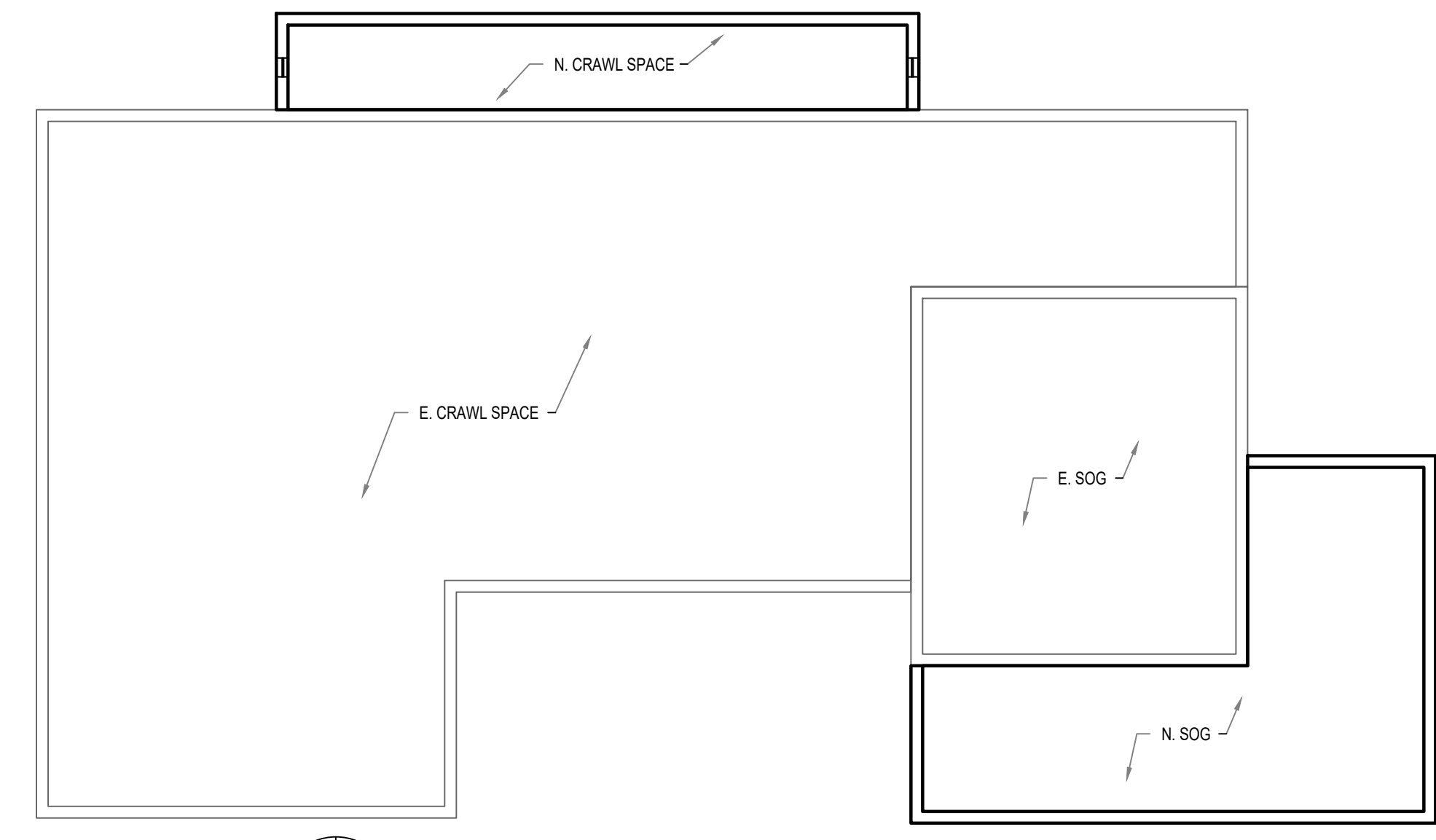
CRAWL SPACE VENTILATION
 TYPICAL SCREENED 14" x 8" C.S. VENT - MIN. W/ .58 SQ. FT. OF NET FREE AREA EACH
 CRAWL SPACE = 202 S.F.
 --> 202 / 150 = 1.34
 --> 1.34 / 0.58 = 2 VENTS REQUIRED
 NOTE: LOCATE VENTS BETWEEN JOISTS AND AVOID CONFLICT W/ HOLDOWNS

SYMBOL

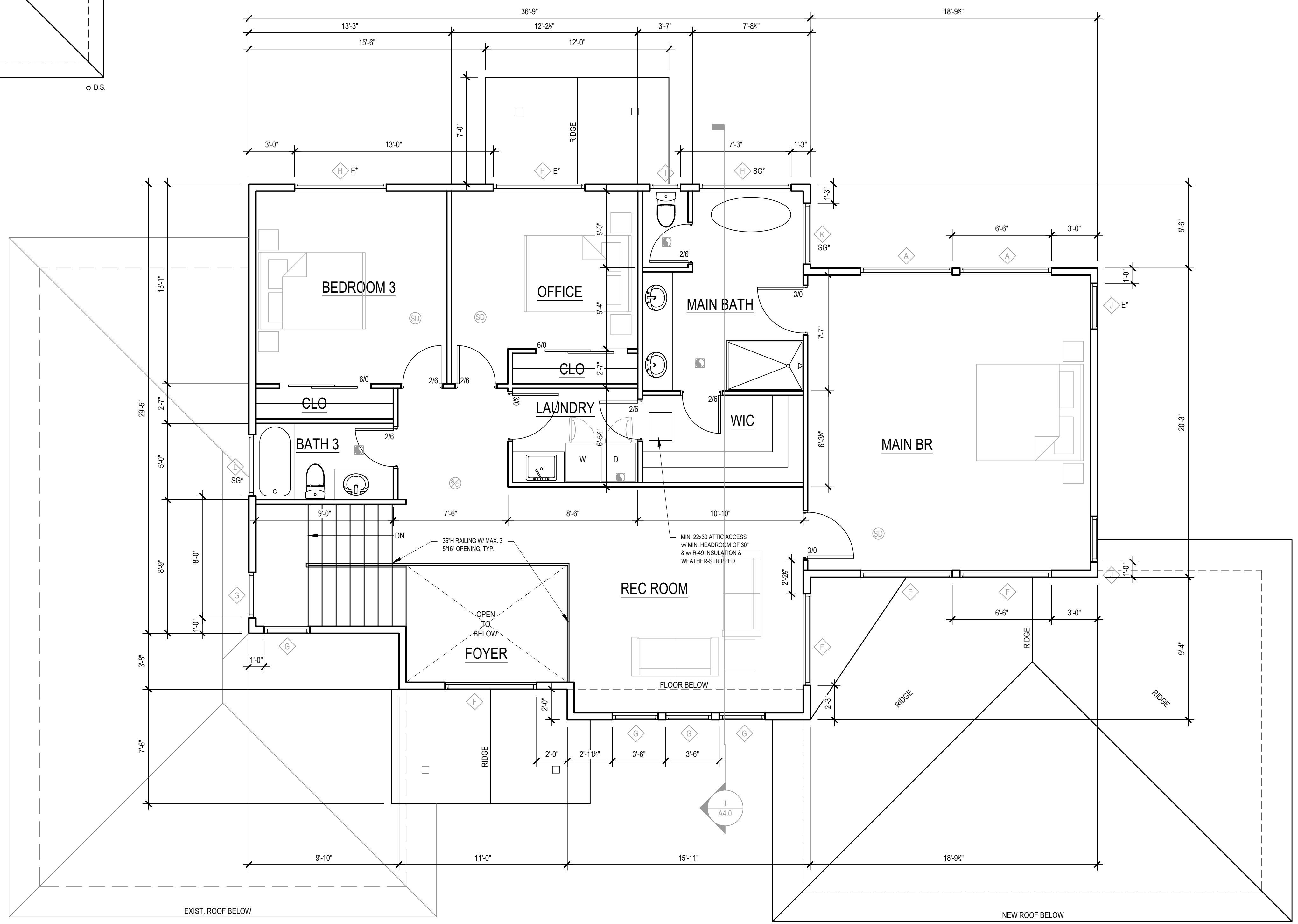
- EXHAUST VENT
- SMOKE DETECTOR
- SMOKE/CO1 ALARM
- NEW WALL
- EXIST WALL
- DEMO WALL



2 CRAWL SPACE PLAN
 1/8" = 1'-0"



2 ROOF PLAN
 1/8" = 1'-0"



1 UPPER FLOOR PLAN
 1/4" = 1'-0"

4040 ADDITION
 4040 97TH AVE SE
 MERCER ISLAND WA 98040

MJZ DESIGN
 425.922.5926
 mjz.design.wa@gmail.com

| NO. | DATE | DESCRIPTION OF REVISIONS |
|-----|------------|--------------------------|
| | 06/10/2024 | PERMIT SET |

UPPER FLOOR PLAN
 ROOF PLAN
 CRAWL SPACE PLAN

SHEET NUMBER

A2.1

- EXTERIOR FINISH SCHEDULE
1. FASCIA
 2. COMPOSITE ROOFING
 3. FIBER CEMENT SIDING
 4. VINYL WINDOW
 5. STONE VENEER
 6. CONCRETE
 7. EXISTING STRUCTURE



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



2 EAST ELEVATION
1/4" = 1'-0"

4040 ADDITION
4040 97TH AVE SE
MERCER ISLAND WA 98040

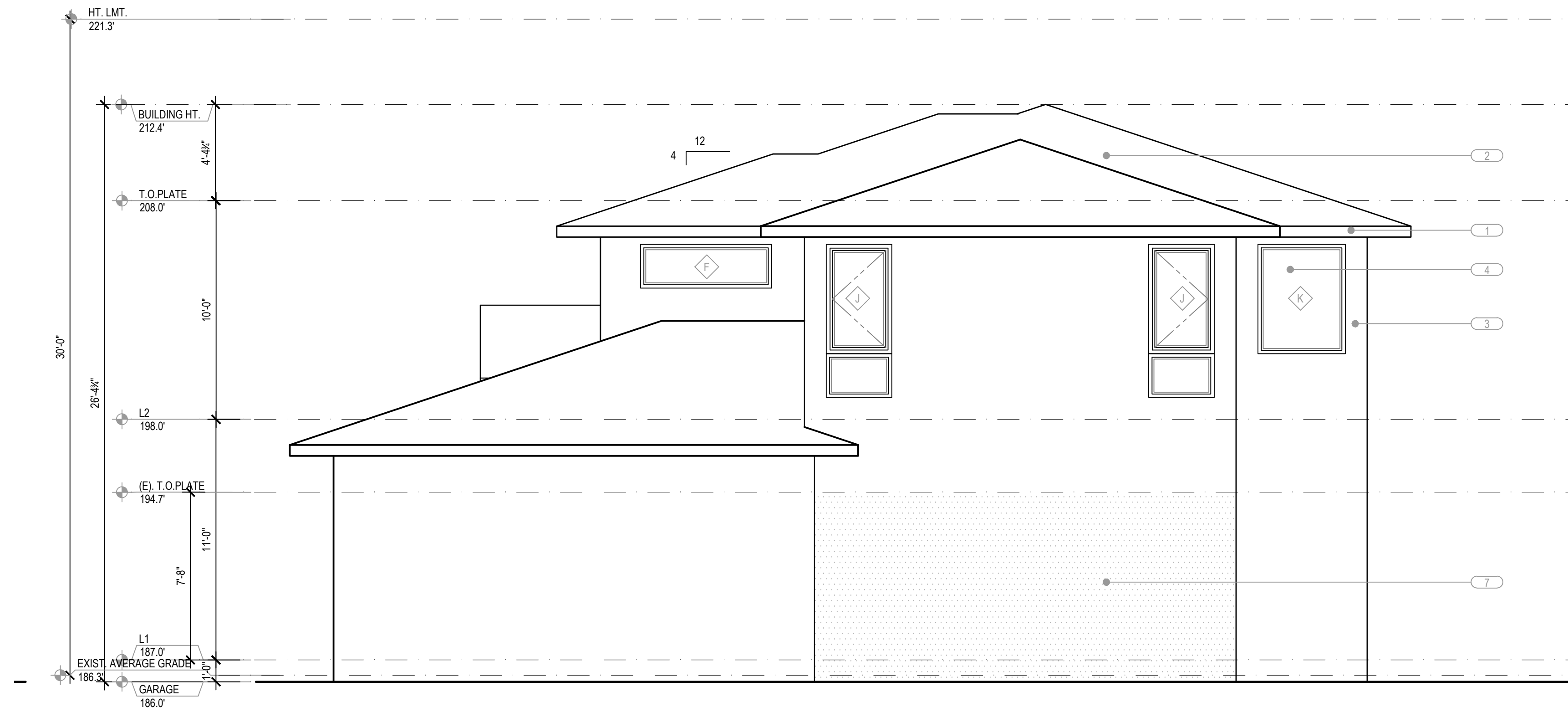
**MJZ
DESIGN**
425.922.5926
mjz.design.wa@gmail.com

| NO. | DATE | DESCRIPTION OF REVISIONS |
|-----|------------|--------------------------|
| | 05/10/2024 | PERMIT SET |

ELEVATIONS

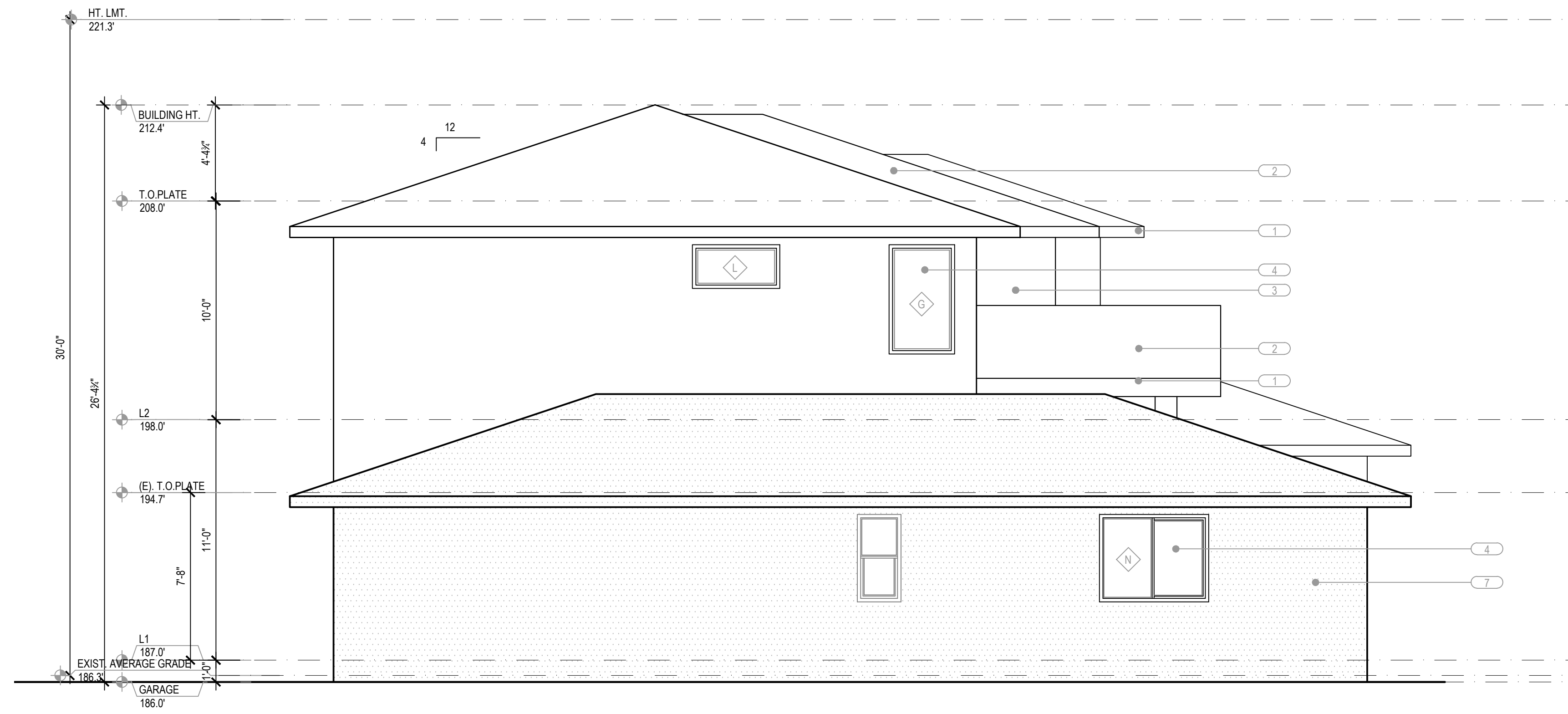
SHEET NUMBER

A3.0



- EXTERIOR FINISH SCHEDULE
- 1, FASCIA
 - 2, COMPOSITE ROOFING
 - 3, FIBER CEMENT SIDING
 - 4, VINYL WINDOW
 - 5, STONE VENEER
 - 6, CONCRETE
 - 7, EXISTING STRUCTURE

1 SOUTH ELEVATION
1/4" = 1'-0"



2 NORTH ELEVATION
1/4" = 1'-0"

4040 ADDITION
4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ
DESIGN

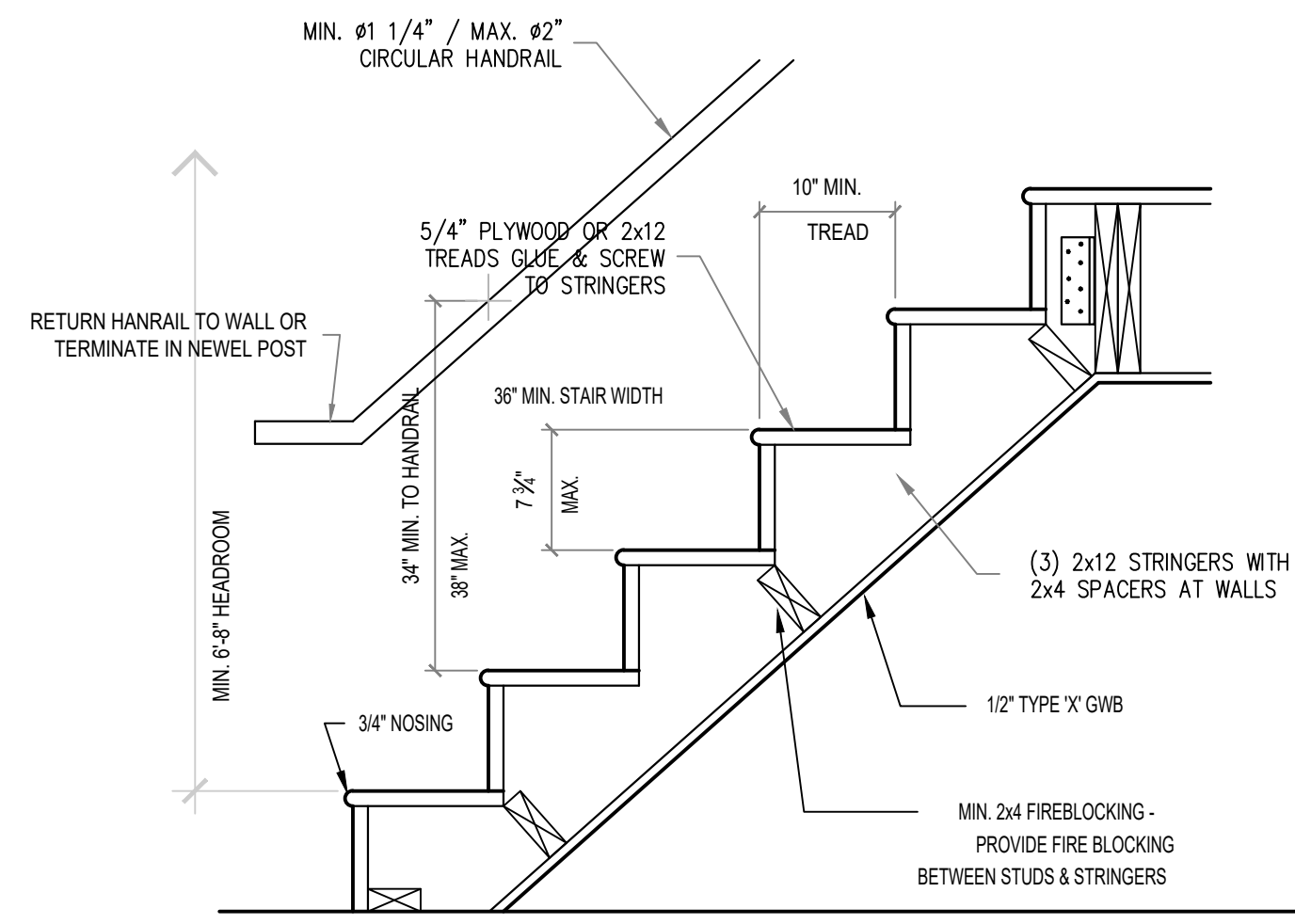
425.922.5926
mjz.design.wa@gmail.com

| NO. | DATE | DESCRIPTION OF REVISIONS |
|-----|------------|--------------------------|
| | 06/10/2024 | PERMIT SET |

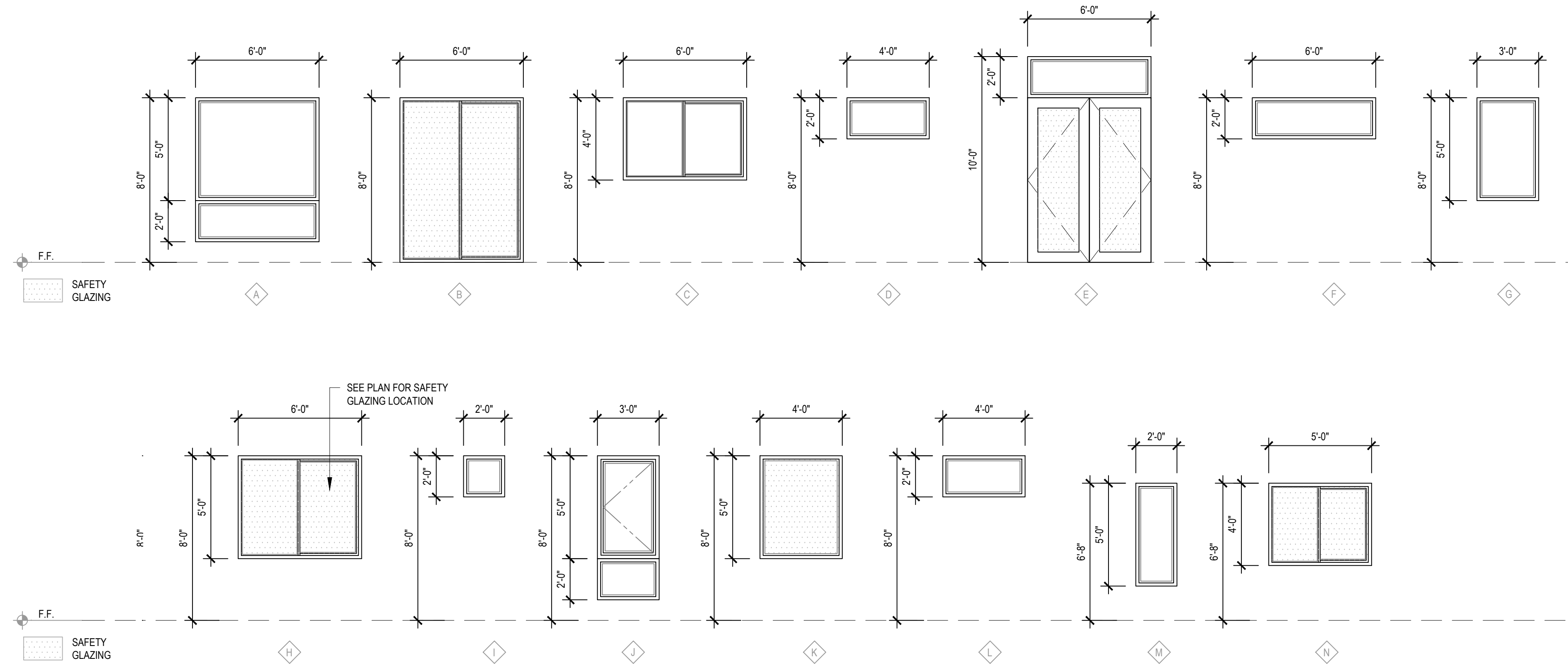
ELEVATIONS

SHEET NUMBER

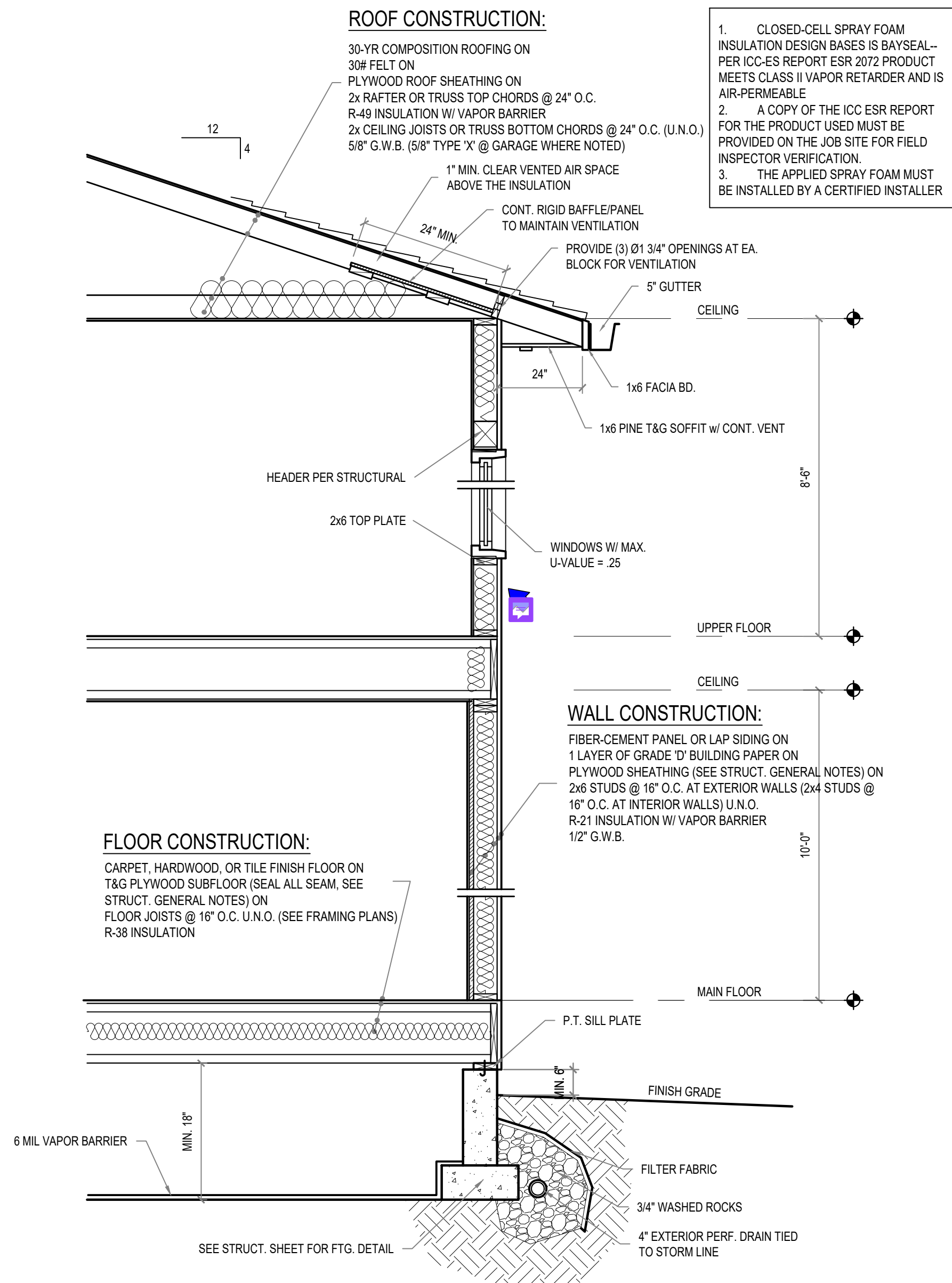
A3.1



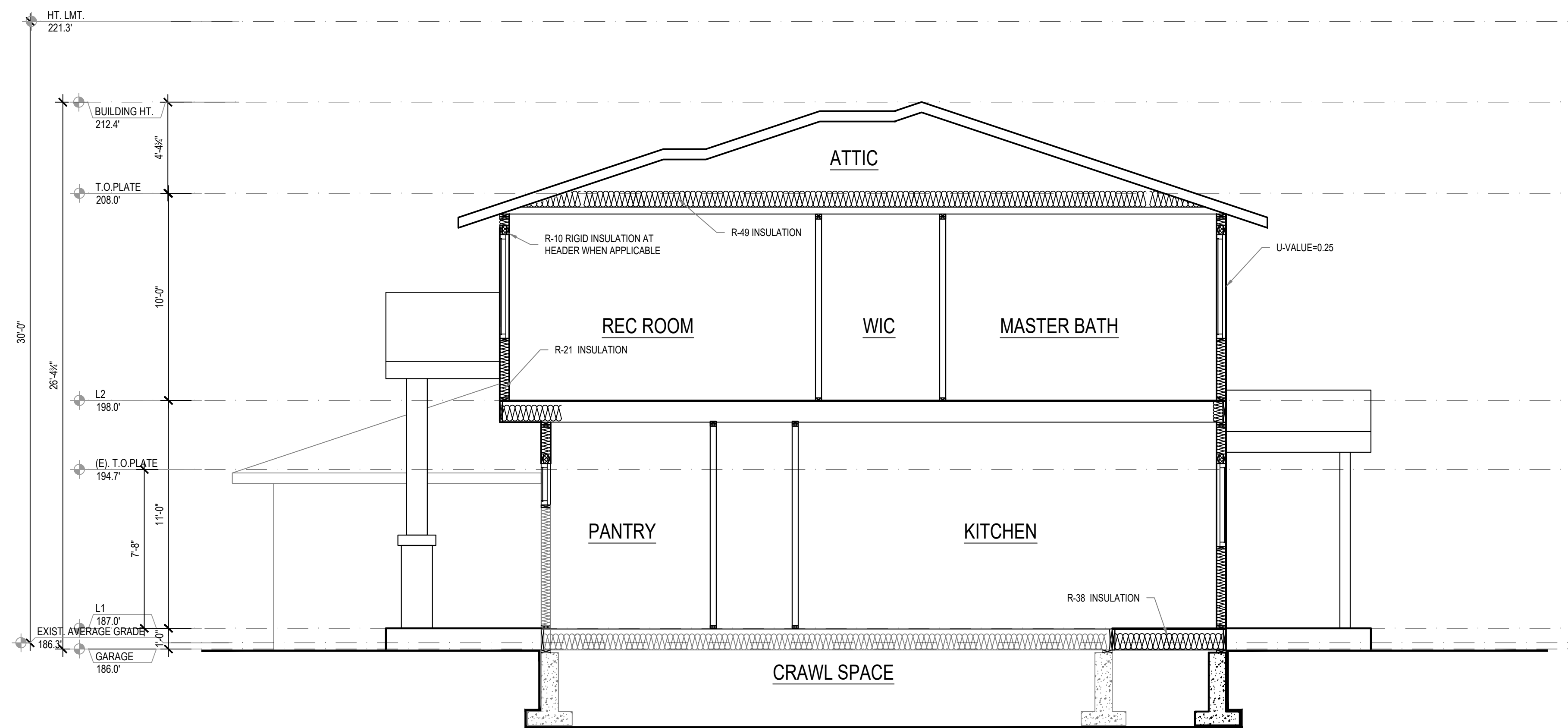
4 TYP. STAIR DETAIL
 1" = 1'-0"



2 WINDOW TYPES
 1/4" = 1'-0"



3 TYP. WALL SECTION
 1/2" = 1'-0"



1 SECTION
 1/4" = 1'-0"

4040 ADDITION
 4040 97TH AVE SE
 MERCER ISLAND WA 98040

MJZ DESIGN
 425.922.5926
 mjz.design.wa@gmail.com

| NO. | DATE | DESCRIPTION OF REVISIONS |
|-----|------------|--------------------------|
| | 06/10/2024 | PERMIT SET |

ELEVATIONS
 SECTION
 DETAILS

SHEET NUMBER
A4.0

GENERAL STRUCTURAL NOTES

(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS.)

A. GENERAL

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION, AS AMENDED BY LOCAL JURISDICTION.

2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM HIS WORK. STRUCTURAL DESIGN OF THE BUILDING IS BASED ON RESISTANCE TO DEAD LOADS, CODE SPECIFIED LATERAL LOADS, AND MAXIMUM EXPECTED SERVICE LOADS. NO CONSIDERATION HAS BEEN GIVEN TO LOADS WHICH WILL BE INDUCED BY ERECTION PROCEDURES. THE CONTRACTOR SHALL VERIFY, TO THE SATISFACTION OF HIMSELF AND THE OWNER, THE ABILITY OF THE STRUCTURE TO RESIST ALL ERECTION LOADS WITHOUT EXCEEDING THE ALLOWABLE STRESSES OF THE MATERIALS USED WHERE ERECTION LOADS WOULD OVERSTRESS THE STRUCTURE. THE CONTRACTOR SHALL SUBMIT DESIGN DOCUMENTS FOR TEMPORARY BRACING AND STRENGTHENING, INCLUDING FABRICATION AND ERECTION DRAWINGS, TO THE ARCHITECT FOR REVIEW. THESE DOCUMENTS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF WASHINGTON. THE CONTRACTOR SHALL PROVIDE, INSTALL AND IF NECESSARY, REMOVE SUCH TEMPORARY WORK AS REQUIRED.

4. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

7. INSPECTIONS: INSPECTIONS OF THE WOOD FRAMING, THE STEEL REBAR AND WOOD FORMS FOR CONCRETE FOOTINGS & FOUNDATIONS, AND CONCRETE SLABS ARE REQUIRED PER IBC SECTION 109.3.

8. PRE-MANUFACTURED, PRE-ENGINEERED STRUCTURAL COMPONENTS SHALL BE DESIGNED BASED ON THE CRITERIA PRESENTED IN THE CONTRACT DOCUMENTS. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE, TEMPORARY AND PERMANENT BRACING AND ALL NECESSARY CONNECTIONS, INCLUDING CONNECTIONS TO THE PRIMARY STRUCTURE, NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE THE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE PRIMARY STRUCTURE. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED AS NOTED PREVIOUSLY.

B. DESIGN CRITERIA

1. DESIGN LOADS
- ROOF SNOW LOAD 25 PSF
- RESIDENTIAL FLOOR LIVE LOAD 40 PSF
- BEDROOM FLOOR LIVE LOAD 30 PSF
- EXTERIOR BALCONY & DECK LIVE LOAD 60 PSF

- WIND (IBC) 110 MPH (LRFD)
EXPOSURE B, Kzt = 1.3
SITE CLASS D
SEISMIC USE GROUP 1 (Ie = 1.0)
SEISMIC DESIGN CATEGORY D
Ss = 1.405 g, S1 = 0.489 g
Sds = 1.124 g
EQUIVALENT LATERAL FORCE PROCEDURE

- ALLOWABLE SOIL PRESSURE 1500 PSF AT 1'-6" DEPTH
- ALLOWABLE LATERAL PRESSURE 50 PCF / 35 PCF (RESTRAINED / UNRESTRAINED)
- ALLOWABLE PASSIVE PRESSURE 300 PCF (F.S. OF 1.5 INCLUDED)
- COEFFICIENT OF FRICTION 0.4 (F.S. OF 1.5 INCLUDED)
- TRAFFIC SURCHARGE PRESSURE 70 PSF (AS APPLICABLE)
- SEISMIC SURCHARGE PRESSURE 7H PSF (AS APPLICABLE)

FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE E.O.R. FOR POSSIBLE FOUNDATION REDESIGN.

2. LATERAL FORCE RESISTANCE SYSTEM
LIGHT-FRAMED WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS, R = 6.5

C. FOUNDATION

1. FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL CONFORM TO SPECIFICATION REQUIREMENTS. THIS CONSTRUCTION WORK, INCLUDING DRAINAGE, SHORING AND SUCH OTHER RELATED WORK AS REQUIRED, SHALL BE CONDUCTED BY THE CONTRACTOR UNDER THE OBSERVATION AND DIRECTION OF THE GEOTECHNICAL ENGINEER.

2. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. MATERIAL TO BE COMPACTED TO 95% MINIMUM OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

3. FOOTINGS MAY BE POURED IN NEAT EXCAVATIONS PROVIDED SIZE IS INCREASED 3" AT EACH INTERFACE WITH SOIL.

4. ALL FOOTING EXCAVATIONS SHALL BE HAND CLEANED PRIOR TO PLACING CONCRETE.

5. ALL ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

6. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING REQUIRED TO SAFELY RETAIN EXCAVATIONS.

7. BACKFILL BEHIND ALL WALLS WITH WELL DRAINING, GRANULAR FILL MATERIAL, AND PROVIDE PERFORATED PIPE DRAINS AS DESCRIBED IN THE SOILS REPORT. BACKFILL BEHIND WALLS SHALL NOT BE PLACED BEFORE THE WALL IS PROPERLY SUPPORTED BY THE FLOOR SLAB, OR TEMPORARY BRACING. ALL FOOTINGS SHALL BE CENTERED BELOW CENTERLINE OF COLUMNS OR WALLS ABOVE, UNLESS NOTED OTHERWISE.

D. CONCRETE

1. ULTIMATE STRENGTH DESIGN PER INTERNATIONAL BUILDING CODE AND ACI 318-14

2. CONCRETE FOR FOOTINGS AND SLABS-ON-GRADE SHALL CONFORM TO A 28-DAY STRENGTH OF $f_c = 2500$ PSI. SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD, AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. CONCRETE EXPOSED TO EARTH OR WEATHER SHALL HAVE A 28-DAY STRENGTH OF $f_c = 3000$ psi. THE MINIMUM AMOUNTS OF CEMENT AND MAXIMUM AMOUNTS OF WATER MAY BE CHANGED IF A CONCRETE DESIGN MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING OFFICIAL FOR APPROVAL TWO WEEKS PRIOR TO PLACEMENT OF CONCRETE. THE CONCRETE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATES, WATER AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318, SECTION 5.3. CONTRACTOR MAINTAINS RESPONSIBILITY FOR SPECIFIED PERFORMANCE OF CONCRETE PRODUCTS. ALL CONCRETE EXPOSED TO FREEZING TEMPERATURES WHILE CURING AND ALL CONCRETE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO IBC SECTION 1904.2. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904.2.1 OF THE INTERNATIONAL BUILDING CODE. NO ADMIXTURES, OTHER THAN FOR AIR-ENTRAINMENT AS NOTED ABOVE, SHALL BE USED WITHOUT PRIOR REVIEW BY THE STRUCTURAL ENGINEER. ALL CONCRETE IN ELEVATED STRUCTURAL SLABS AND BEAMS SHALL BE POURED MONOLITHICALLY UNLESS SHOWN OTHERWISE OR APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, $f_y = 60,000$ PSI. EXCEPTIONS: ANY BARS SPECIFICALLY NOTED ON THE DRAWINGS AS GRADE 40, $f_y = 40,000$ PSI. WELDED WIRE FABRIC: ASTM A82 AND ASTM A185. SPLICE WITH AT LEAST ONE FULL MESH. PLACE AT MID-DEPTH, OR SLIGHTLY ABOVE, OF SLAB. MATERIAL TO BE SUPPLIED IN FLAT SHEETS.

4. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318-14. LAP ALL CONTINUOUS REINFORCEMENT PER NOTE D.5. PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS. LAP CORNER BARS PER NOTE D.5. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

5. REINFORCING STEEL LAPS AND EMBEDMENT SHALL BE AS NOTED BELOW, UNLESS NOTED OTHERWISE, ALL HOOKS SHALL BE "STANDARD" IN ACCORDANCE WITH ACI 318. REINFORCING SHALL NOT BE TACK WELDED:

- DEVELOPMENT LENGTH 48 BAR DIAM.
- DEVELOPMENT LENGTH, top bar* 64 BAR DIAM.
- LAP SPLICE LENGTH 64 BAR DIAM.
- LAP SPLICE LENGTH, top bar* 80 BAR DIAM.

*TOP BARS ARE HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

6. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

- FOOTING AND OTHER UNFORMED SURFACE, EARTH FACE 3"
- FORMED SURFACE EXPOSED TO EARTH (I.E. WALL BELOW GROUND) OR WEATHER 2"
- SLAB AND WALL (INTERIOR FACE) 1-1/2"
- CONCRETE NOT EXPOSED TO WEATHER OR EARTH 3/4"
- PRIMARY REINFORCEMENT, TIES, STIRRUP, SPIRALS 1-1/2"

7. CONCRETE WALL REINFORCING - PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

- 6" WALLS #4 @ 16" HORIZ. #4 @ 18" VERTICAL 1 CURTAIN @ CENTER
- 8" WALLS #5 @ 18" HORIZ. #5 @ 18" VERTICAL 1 CURTAIN @ CENTER

8. EPOXY GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH SIMPSON SET-XP ADHESIVE BY SIMPSON STRONG TIE, PER ESR-2508, FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.

E. CARPENTRY

1. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI STANDARD A190.1. EACH MEMBER SHALL BEAR AN AITC OR APA EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, $F_b = 2,400$ PSI, $F_v = 240$ PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, $F_b = 2,400$ PSI, $F_v = 265$ PSI. CAMBER ALL GLULAM BEAMS TO 2,000' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

2. FRAMING LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

| MEMBER | SIZE | SPECIES GRADE | MIN. BASIC DESIGN STRESS |
|--|-----------|---------------|--------------------------|
| - JOISTS AND RAFTERS | 2x, 3x | DF#2 | $F_b = 875$ PSI |
| - BEAMS AND STRINGERS | 4x | DF#1 | $F_b = 1000$ PSI |
| | 6x/LARGER | DF#1 | $F_b = 1350$ PSI |
| - POSTS AND TIMBERS | 4x | DF#2 | $F_c = 1350$ PSI |
| | 6x/LARGER | DF#1 | $F_c = 1000$ PSI |
| - TOP AND BOTTOM PLATE @ SHEAR AND BEARING WALLS | 2x, 3x | DF#1 | $F_b = 1000$ PSI |
| - STUDS, PLATES & MISC. LIGHT FRAMING | ALL SIZES | DF#2 | $F_b = 875$ PSI |

ALL LUMBER WITH A LEAST DIMENSION OF 2" (NOMINAL) SHALL BE STAMPED SURFACE-DRY AND SHALL HAVE A MOISTURE CONTENT WHEN SURFACED AND WHEN INSTALLED OF NOT MORE THAN 19 PERCENT. LUMBER WITH A LEAST DIMENSION OF 4" (NOMINAL) OR GREATER SHALL BE STAMPED SURFACE-GREEN AND AIR-DRYED TO A MOISTURE CONTENT OF NOT MORE THAN 19 PERCENT PRIOR TO ITS USE IN FRAMING THE STRUCTURE.

3. MANUFACTURED LUMBER SHALL BE AS MANUFACTURED BY TRUS JOIST MacMILLAN OR APPROVED EQUAL. REQUESTS FOR APPROVAL AS EQUAL WILL REQUIRE SUBMITTAL OF ICC-ES EVALUATION REPORT EQUIVALENT TO ESR-1387 FOR PARALLEL STRAND LUMBER (PSL) LAMINATED STRAND LUMBER (LSL), AND LAMINATED VENEER LUMBER (LVL). THE MINIMUM ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:

- PSL BEAM (2.0E) $F_b = 2,900$ PSI; $F_v = 290$ PSI; $E = 2,200,000$ PSI
- LVL BEAM (2.0E) $F_b = 2,600$ PSI; $F_v = 285$ PSI; $E = 2,000,000$ PSI
- LSL BEAM (1.55E) $F_b = 2,325$ PSI; $F_v = 310$ PSI; $E = 1,550,000$ PSI
- PSL COLUMN (1.8E) $F_c, \text{para} = 545$ PSI; $F_c, \text{para} = 2,500$ PSI; $E = 1,800,000$ PSI
- LSL COLUMN (1.3E) $F_c, \text{para} = 710$ PSI; $F_c, \text{para} = 1,835$ PSI; $E = 1,300,000$ PSI

4. SHEATHING SHALL BE APA PERFORMANCE RATED PANELS PER APA "PLYWOOD DESIGN SPECIFICATION", INCLUDING APPLICABLE SUPPLEMENTS, UNLESS NOTED OTHERWISE. PLYWOOD PANELS SHALL BE GRADE C-D AND ALSO CONFORM TO DOC PS-1 OR PS-2. ALL PANELS SHALL BE IDENTIFIED AS EXPOSURE 1 UNLESS NOTED OTHERWISE. PANEL RATING TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:

- ROOF 19/32" THICK, 32/16, (OR 5/8" THICK), 32/16
- WALLS 15/32" THICK, 32/16, (OR 1/2" THICK), 24/0
- FLOORS 23/32" (OR 3/4") THICK, TONGUE & GROOVE, 48/24

UNLESS NOTED OTHERWISE ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 10d NAILS @ 6"oc TO FRAMED PANEL EDGES AND OVER STUD WALLS SHOWN ON PLANS AND @ 12"oc (10"oc AT FLOORS) TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED SHEATHING EDGE CLIPS @ 16"oc UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. TOENAIL BLOCKING TO SUPPORTS WITH 16d NAILS, UNLESS NOTED OTHERWISE.

UNLESS NOTED OTHERWISE ON THE PLANS, WALL SHEATHING MAY BE LAID UP HORIZONTALLY OR VERTICALLY. UNSUPPORTED EDGES SHALL BE BLOCKED AND ALL EDGES SHALL BE NAILED WITH 8d @ 6"oc. NAIL WITH 8d @ 12"oc AT INTERMEDIATE SUPPORTS. NAIL SHEAR WALL SHEATHING TO ALL HOLD-DOWN STUDS USING EDGE NAIL SPACING WHEN HOLD-DOWN STUD DOES NOT OCCUR AT PANEL EDGES.

SHEATHING NAILS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING.

5. ALL WOOD PLATES IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE-TREATED WITH AN APPROVED PRESERVATIVE. PROVIDE TWO LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC., AND CONCRETE OR MASONRY. ALL METAL CONNECTORS TO PRESURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED, INCLUDING WASHERS, NAILS, SCREWS, AND SIMPSON STRONG-TIE HANGERS, STRAPS, AND PLATES, AND BOLTS LESS THAN 1/2" DIAMETER. FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWWA M4.

6. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWWA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. WOOD FOR ABOVE GROUND USE EXPOSED TO ALL WEATHER CYCLES SHALL BE TREATED TO AWWA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWWA UC4A. WOOD EMBEDDED IN PERMANENT CONCRETE FOUNDATION SHALL BE TREATED TO AWWA UC4B.

7. NOTATIONS ON DRAWINGS RELATING TO FRAMING CLIPS, JOIST HANGERS AND OTHER CONNECTING DEVICES REFER TO CATALOG NUMBERS OF CONNECTORS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, SAN LEANDRO, CALIFORNIA. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. SUBMIT MANUFACTURER'S CATALOG AND ICC REPORTS TO ARCHITECT AND ENGINEER FOR REVIEW WHEN REQUESTING SUBSTITUTIONS. ALL SPECIFIED FASTENERS MUST BE USED AND PROPER INSTALLATION PROCEDURES MUST BE OBSERVED IN ORDER TO OBTAIN ICC APPROVED LOAD CAPACITIES. VERIFY THAT THE DIMENSIONS OF THE SUPPORTING MEMBER ARE SUFFICIENT TO RECEIVE THE SPECIFIED FASTENERS.

8. STRUCTURAL CONNECTORS

ALL STRUCTURAL CONNECTORS TO BE BY SIMPSON STRONG TIE OR EQUAL. USE ZMAX/HDG HOT DIPPED GALVANIZED OR STAINLESS-STEEL CONNECTORS AS A MINIMUM. USE FASTENERS GALVANIZED PER ASTM A153. ALL PRESSURE TREATED LUMBER USED SHALL BE COMPATIBLE WITH ZMAX GALV. CONNECTORS, RE: SIMPSON STRONG-TIE CORROSION INFORMATION.

9. WOOD TRUSSES

TRUSSES ARE TO BE METAL PLATED CONNECTED WOOD TRUSSES FABRICATED IN ACCORDANCE WITH THE IBC. TRUSS FABRICATOR TO PROVIDE ALL REQUIRED BRIDGING AND BLOCKING, BOTH FOR ERECTION AND PERMANENT LOADING. SHOP DRAWINGS STAMPED BY A WASHINGTON STATE LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. DESIGN CRITERIA SHALL MEET OR EXCEED THE FOLLOWING:

- ROOF TRUSSES TOP CHORD = 25 PSF LIVE LOAD, 10 PSF DEAD LOAD, 5 PSF WIND UPLIFT
BOTTOM CHORD = 10 PSF LIVE LOAD, 5 PSF DEAD LOAD (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)
TOTAL LOAD = 40 PSF
TOTAL LOAD L/240, LIVE LOAD L/360
- DEFLECTION LIMIT
- OTHER LOADS SPECIFIED ON DRAWINGS

TRUSS SUPPLIERS NOTE: THE TRUSS CONFIGURATIONS, INCLUDING DEPTHS AND MEMBER SIZES, SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE LOAD REQUIREMENTS SPECIFIED WITH THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND TRUSS MANUFACTURER TO VERIFY THE WEIGHT AND LOCATIONS OF ALL MECHANICAL EQUIPMENT PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW. THE DESIGN LOADS LISTED ABOVE SHALL BE APPLIED SIMULTANEOUSLY.

10. WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2x4 STUDS @ 16"oc AT INTERIOR WALLS AND 2x6 STUDS @ 16"oc AT EXTERIOR WALLS. 2x6 STUDS @ 12"oc AT EXTERIOR BALLOON FRAMED WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS AND UNDER THE ENDS OF ALL BEAMS. UNLESS NOTED OTHERWISE A (2) 2x8 HEADER SHALL BE PROVIDED OVER ALL OPENINGS IN 2x4 STUD WALLS AND A (2) 2x10 HEADER OVER ALL OPENINGS IN 2x6 WALLS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORT BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 8' IN HEIGHT. ALL STUD WALLS SHOWN ON STRUCTURAL DRAWINGS SHALL HAVE THEIR LOWER PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d Nails AT 12"oc STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"oc, EMBEDDED 7". UNO REFER TO THE STRUCTURAL PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING.

FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE BRIDGING @ 8'-0"oc AND SOLID BLOCKING AT ALL BEARING POINTS. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. TOENAIL JOISTS TO BEARING SUPPORTS WITH 16d NAILS. UNLESS NOTED OTHERWISE.

JOIST, BEAM AND HEADER SHALL BE CONNECTED TO FLUSH MEMBER WITH THE FOLLOWING SIMPSON SERIES HANGER, U.N.O. ON PLAN, SKEW AND SLOPE ALL CONNECTORS AS REQUIRED:

- 2x JOIST, "LUS" SERIES; DOUBLE 2x JOIST/HEADER, "HU"/"HUS" SERIES
- TJI JOIST, "ITS" SERIES; DOUBLE TJI JOIST, "MIT" SERIES
- 4x MEMBER, "HU" SERIES; 6x MEMBER, "HWP"/"HWPH" SERIES
- 3-1/2"GLB, "HB" SERIES; 5-1/2"GLB, "HWPH" SERIES, 6-3/4"GLB, "HGLT" SERIES
- 1-3/4"SCL, "IUS" SERIES; 3-1/2"SCL, "HB" SERIES, 5-1/4"SCL, "HWPH" SERIES, 7"SCL, "HGLTV" SERIES

*NOTIFY STRUCTURAL ENGINEER IMMEDIATELY SHOULD ANY BEAM, JOIST OR HEADER HANGER IS MISSING IN PLAN DRAWING AND REQUIRED FOR INSTALLATION.

FACE-NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16d SPIKES @ 24"oc STAGGERED.

NAILS SHALL BE MANUFACTURED IN CANADA OR THE UNITED STATES IN SIZES AND TYPES AS FOLLOWS, UNLESS NOTED OTHERWISE:

PNEUMATIC NAILING - PLAIN SHANK, COATED OR GALVANIZED

- 8d 0.131" DIAMETER x 2-1/2" MINIMUM LENGTH
- 10d 0.148" DIAMETER x 3" MINIMUM LENGTH
- 12d 0.148" DIAMETER x 3-1/4" MINIMUM LENGTH
- 16d 0.135" DIAMETER x 3-1/2" MINIMUM LENGTH

F. SPECIAL CONDITIONS

CONTRACTOR TO COORDINATE ALL TRADES AND VERIFY DIMENSIONS IN THE FIELD. OBTAIN OWNERS APPROVAL PRIOR TO ALL FIELD CHANGES. SEE ARCHITECTURAL DRAWINGS FOR ALL FLOOR AND WALL OPENING DIMENSIONS AND LOCATIONS, FLOOR AND WALL FINISHES, ETC.

*DEFLECTION OF CANTILEVERS SHALL BE CLOSELY MONITORED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR TO VERIFY AND CONFIRM ALL POST CAPS AND POST BEARING CONNECTIONS ARE INSTALLED IN STRICT CONFORMANCE TO THE STRUCTURAL DRAWING. CANTILEVERS IN WOOD FRAMING CAN DEFLECT UP TO 1/8" PER FOOT (I.E. 6" CANTILEVER MAY DEFLECT 3/4"). IF DEFLECTION EXCEEDS 1/8" PER FOOT NOTIFY STRUCTURAL ENGINEER IMMEDIATELY. BEFORE FINISHES ARE INSTALLED, FLOORS AT OR ABOVE CANTILEVERS MAY REQUIRE LEVELING COMPOUND AND SOFFITS FURRED TO MAKE THEM LEVEL.

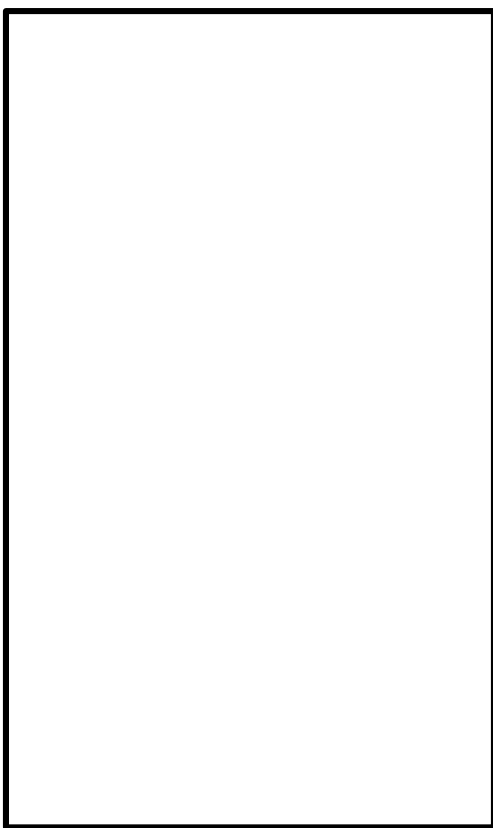
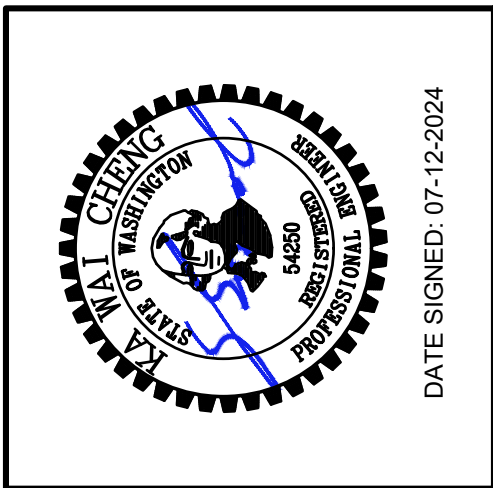
(THIS IS A COMPREHENSIVE LIST OF ABBREVIATIONS, SOME OF WHICH MAY NOT APPEAR ON THESE DRAWINGS.)

| | | | | | | | | | |
|--------|--|--------|----------------------------|--------|----------------------------|-------|-------------------------------|--------|---|
| AB | ANCHOR BOLT | CL | CENTERLINE | (E) | EXISTING | GL | GLUE-LAMINATED | LOC | LOCATION |
| ACI | AMERICAN CONCRETE INSTITUTE | CLR | CLEAR | EA | EACH | GW | GYP | LONGIT | LONGITUDINAL |
| ADDL | ADDITIONAL | CMU | CONCRETE MASONRY UNIT | EF | EACH FACE | GYP | GYP | L | LONG SLOTTED HOLE |
| ADJ | ADJACENT | COL | COLUMN | EL | ELEVATION | LVL | LVL | LWC | LAMINATED VENEER LUMBER LIGHT WEIGHT CONCRETE |
| AFF | ABOVE FINISHED FLOOR | CONC | CONCRETE | ELEC | ELECTRICAL | HDR | HEADER | M | MISC SHAPE |
| AISC | AMERICAN INSTITUTE OF STEEL CONSTRUCTION | CONN | CONNECTION, CONNECT | ELEV | ELEVATOR | HNG | HANGER | MAS | MASONRY |
| ALT | ALTERNATE | CONSTR | CONSTRUCTION | EMB | EMBED, EMBEDDED, EMBEDMENT | HORIZ | HORIZONTAL | MATL | MATERIAL |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE | ENGR | ENGINEER | ENGR | ENGINEER | HP | HP SHAPE | MAX | MAXIMUM |
| APA | AMERICAN PLYWOOD ASSOCIATION | CONTR | CONTRACTOR | EQ | EQUAL | HS | HIGH STRENGTH | MECH | MECHANICAL |
| APPROX | APPROXIMATE; APPROXIMATELY | COORD | COORDINATE | EQUIP | EQUIPMENT | HT | HEIGHT | MFR | MANUFACTURER |
| ARCH | ARCHITECT; ARCHITECTURAL | CP | COMPLETE PENETRATION | ES | EACH SIDE | ID | INSIDE DIAMETER | MIN | MINIMUM, MINUTE |
| ASSY | ASSY | CSK | COUNTERSINK; COUNTERSUNK | EW | EACH WAY | IF | INSIDE FACE | MISC | MISCELLANEOUS |
| ASTM | AMERICAN SOCIETY FOR TESTING & MATERIALS | CTR | CENTER | EXP | EXPANSION; EXPOSED | IN | INCH | NO | MASONRY OPENING |
| AW | AMERICAN WELDING SOCIETY | CU FT | CUBIC FOOT | EXP JT | EXPANSION JOINT | INCL | INCLUDE; INCLUDING; INCLUSIVE | (N) | NEW |
| | | CU IN | CUBIC INCH | EXT | EXTERIOR | INT | INTERIOR | N | NORTH |
| | | CY | CUBIC YARD | FD | FLOOR DRAIN | INT | INTERIOR | NF | NEAR FACE |
| BD | BUILDING | d | PENNY (NAILS) | FDN | FOUNDATION | INT | INTERIOR | N | NORTH |
| BLDG | BLOCKING | DBL | DOUBLE | FF | FAR FACE, FINISHED FLOOR | INT | INTERIOR | NF | NEAR FACE |
| BLKG | BLOCKING | DEPT | DEPARTMENT | FLR | FLOOR; FLOOR LINE | INT | INTERIOR | NFFPA | NATIONAL FOREST PRODUCTS ASSOC |
| BM | BRICK MASONRY UNIT(S) | DET | DETAIL | FLG | FACE OF CONCRETE | K | KIP = 1000 POUNDS | NIC | NOT IN CONTRACT |
| BMU | BOTTOM OF SLAB | DIA | DIAMETER (SEE SYMBOLS) | FOC | FACE OF CONCRETE | KO | KNOCK-OUT | NOM | NOMINAL |
| BOF | BOTTOM | DIAG | DIAGONAL | FOM | FACE OF MASONRY | KSI | KIPS PER SQUARE INCH | NS | NEAR SIDE |
| BOS | BEARING | DIAPH | DIAPHRAGM | FOS | FACE OF STUD | NTS | NOT TO SCALE | NTS | NOT TO SCALE |
| BOT | BOTTOM | DICA | DRILLED-IN CONCRETE ANCHOR | FS | FULL SIZE; FAR SIDE | LAB | LABORATORY | OC | ON CENTER |
| BRG | BEARING | DN | DIMENSION | FT | FEET; FOOT | LB | POUND | OD | OUTSIDE DIAMETER |
| | | DIM | DIMENSION | FTG | FOOTING | LF | LINEAL FOOT | OH | OUTSIDE FACE |
| C | STANDARD CHANNEL | DN | DOWN | | | LLB | LONG LEGS BACK-TO-BACK | OH | OUTSIDE HAND |
| CG | CENTER OF GRAVITY | DWG | DRAWING | GA | GAUGE | LLH | LONG LEGS HORIZONTAL | OP | OPPOSITE HAND |
| CGS | CENTER OF GRAVITY OF STRANDS | DWT | DOWELS | GALV | GALVANIZED | LLV | LONG LEGS VERTICAL | OPNG | OPENING |
| CIP | CAST-IN-PLACE | | | | | | | | |
| CJ | CONSTRUCTION JOINT/CONTROL JOINT | | | | | | | | |

LEGEND

| | | | |
|--|--|----------|--|
| | CONCRETE WALL | (DS) | DRAG STRUT- NAIL THRU SHEATHING w/ 8d @ 4"oc FOR ENTIRE LENGTH OF MEMBER |
| | INTERIOR STUD WALL BELOW; EXTERIOR BEARING STUD WALL BELOW | (2) CS16 | (2) SIMPSON CS16 x 30" DRAG STRAP, U.N.O. |
| | STUD WALL ABOVE | | |
| | COLUMN CONTINUOUS | | HEADER, BEAM OR JOIST END HANGER |
| | COLUMN BELOW FRAMING LEVEL | | PROVIDE 2x BLOCKING AT ALL PLYWOOD DIAPHRAGM EDGES w/ EDGE NAILING |
| | COLUMN ABOVE FRAMING LEVEL | | FLOOR STEP PER ARCH. |
| | COLUMN SIZE / SIMPSON CAP *NOTE, PROVIDE SIMPSON PC POST, CAP, TYP. U.N.O. | | SHEAR WALL ABOVE FRAMING LEVEL |
| | SHEAR WALL HOLD-DOWN AT FRAMING LEVEL | | |

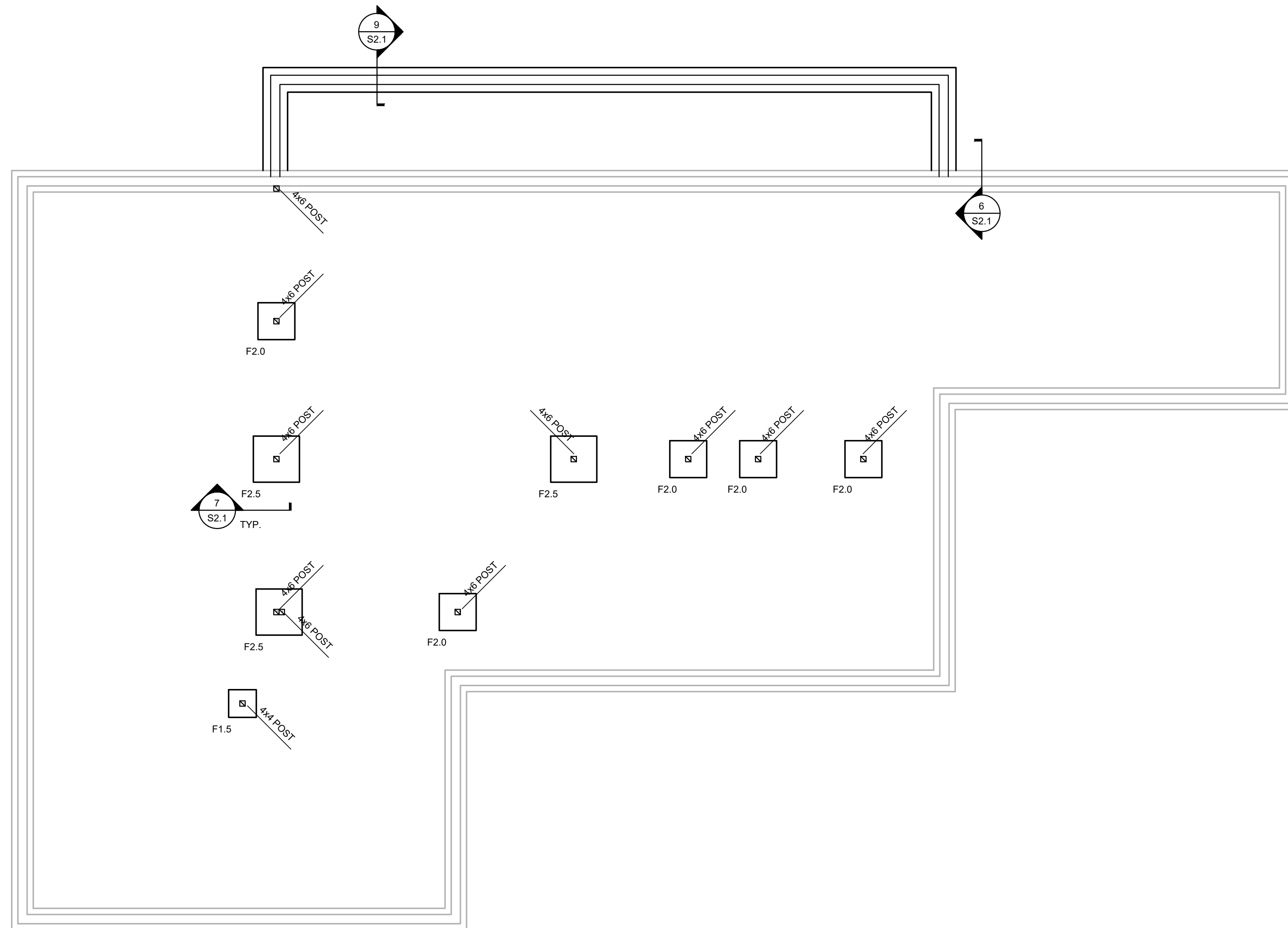
| NO. | DRAWING SUBMITTALS / REVISIONS | DATE |
|-----|--------------------------------|------------|
| | SUBMIT FOR PERMIT | 07-24-2024 |
| | SUBMIT FOR BID | |
| | SUBMIT FOR CONSTRUCTION | |



STRUCTURAL GENERAL NOTES

SHEET CONTENTS:

EXISTING RESIDENCE ADDITION
4040 97TH AVE SE.,
MERCER ISLAND, WA



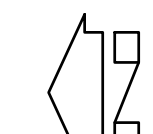
| FOOTING SCHEDULE | | |
|------------------|---------------------|--------------------|
| MARK | SIZE | REINFORCEMENT |
| F1.5 | 1'-6" x 1'-6" x 10" | 3- #4 EA. WAY BOT. |
| F2.0 | 2'-0" x 2'-0" x 10" | 3- #4 EA. WAY BOT. |
| F2.5 | 2'-6" x 2'-6" x 11" | 4- #4 EA. WAY BOT. |
| F3.0 | 3'-0" x 3'-0" x 11" | 5- #5 EA. WAY BOT. |
| F3.5 | 3'-6" x 3'-6" x 11" | 6- #5 EA. WAY BOT. |
| F4.0 | 4'-0" x 4'-0" x 12" | 7- #5 EA. WAY BOT. |

- NOTE:
- SEE GENERAL NOTES FOR DESIGN BEARING CAPACITY
 - CENTER ALL FOOTING ON COLUMN OR WALL. TYP. U.N.O.
 - AT LOCATIONS WHERE (N) FOOTINGS ARE SHOWN SHARING A COMMON BEARING AREA, CAST MONOLITHICALLY WITH INDIVIDUAL REINFORCING PER SCHEDULE AND OVERLAP AS REQUIRED.
 - AT LOCATIONS WHERE (N) FOOTING ARE SHOWN SHARING A COMMON BEARING AREA WITH (E) FOOTING, DOWEL (N) FOOTING REINFORCEMENT INTO (E) FOOTING w/ SIMPSON SET-XP (EMBED 3 1/2" MIN.).
 - FOOTING SCHEDULE IS PROVIDED FOR GENERAL INFORMATION. NOT ALL OF THE FOOTING SIZE IS REQUIRED, SEE FOUNDATION PLAN FOR FOOTING SIZE CALL-OUT

CONTRACTOR TO FIELD VERIFY ALL EXISTING FOUNDATION WALL AND FOOTING LOCATIONS ARE MATCHING WITH PLAN DRAWING. VERIFY EXISTING CRAWLSPACE FOUNDATION AND/OR SLAB-ON-GRADE CONDITION ARE MATCHING WITH PLAN DRAWING. NOTIFY E.O.R. IMMEDIATELY FOR ANY DISCREPANCY.

FOUNDATION PLAN

- DO NOT SCALE DRAWINGS.
- VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
- FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE SOIL OR STRUCTURAL FILL COMPACTED TO 95% MAXIMUM WET DENSITY PLACED IN MAX. 12" LIFTS.
- BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, U.N.O.



1/4" = 1'-0"

| NO. | DRAWING SUBMITTALS / REVISIONS | DATE |
|-----|--------------------------------|------------|
| | SUBMIT FOR PERMIT | 07-24-2024 |
| | SUBMIT FOR BID | |
| | SUBMIT FOR CONSTRUCTION | |



DATE SIGNED: 07-12-2024

FOUNDATION PLAN

SHEET CONTENTS:

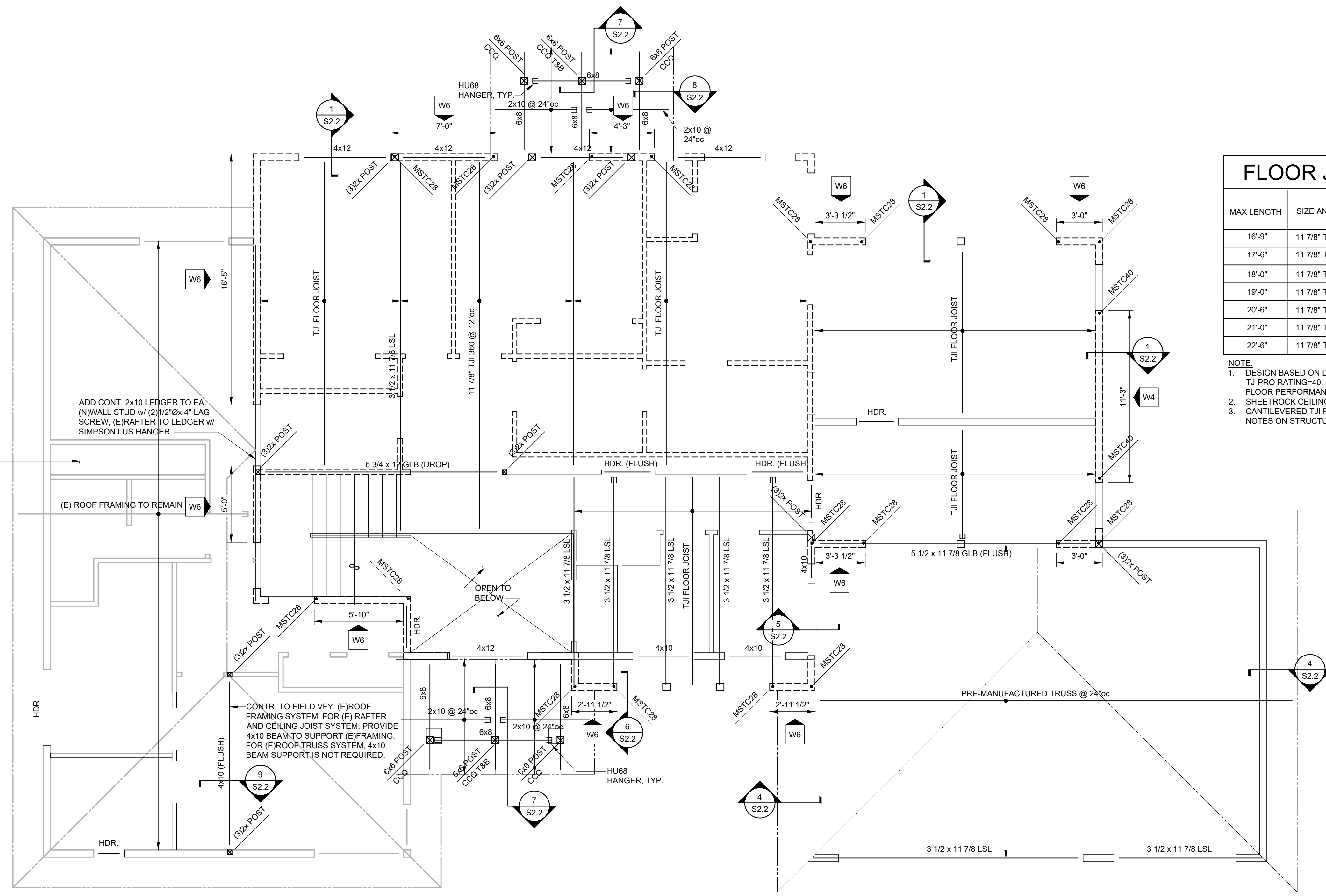
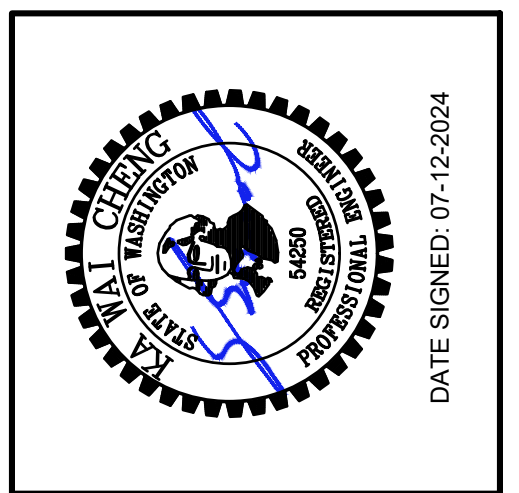
EXISTING RESIDENCE ADDITION
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 06-30-2024

SHEET NO:

S1.1

| NO. | DRAWING SUBMITTALS / REVISIONS | DATE |
|-----|--------------------------------|------------|
| | SUBMIT FOR PERMIT | 07-24-2024 |
| | SUBMIT FOR BID | |
| | SUBMIT FOR CONSTRUCTION | |



FLOOR JOIST SCHEDULE

| MAX LENGTH | SIZE AND SPACING | FACE MOUNT HANGER | TOP MOUNT HANGER |
|------------|-------------------------|-------------------|------------------|
| 16'-9" | 11 7/8" TJI 110 @ 16"oc | IUS 1.81/11.88 | ITS 1.81/11.88 |
| 17'-6" | 11 7/8" TJI 210 @ 16"oc | IUS 2.06/11.88 | ITS 2.06/11.88 |
| 18'-0" | 11 7/8" TJI 230 @ 16"oc | IUS 2.37/11.88 | ITS 2.37/11.88 |
| 19'-0" | 11 7/8" TJI 360 @ 16"oc | IUS 2.37/11.88 | ITS 2.37/11.88 |
| 20'-6" | 11 7/8" TJI 560 @ 16"oc | IUS 3.56/11.88 | ITS 3.56/11.88 |
| 21'-0" | 11 7/8" TJI 210 @ 12"oc | MIU 4.28/11 | MIT 4.28/11.88 |
| 22'-6" | 11 7/8" TJI 560 @ 12"oc | HU412-2 | HWP7.12 H=11.875 |

NOTE:
 1. DESIGN BASED ON DL=15PSF, LL=40PSF, LL DEFLECTION LIMITS= L/480, TJI-PRO RATING=40, NOTIFY E.O.R. IMMEDIATELY FOR ADDITIONAL FLOOR PERFORMANCE REQUIREMENT.
 2. SHEETROCK CEILING APPLIED TO BOTTOM FACE OF FLOOR JOIST.
 3. CANTILEVERED TJI FLOOR JOIST SIZE AND SPACING SHALL FOLLOW NOTES ON STRUCTURAL FRAMING PLAN.

CONTRACTOR TO FIELD VERIFY (E) ROOF FRAMING, FOR ROOF RAFTER AND CEILING JOIST SYSTEM, STRUCTURAL SECTIONS ON SHEET S2.2 SHALL BE FOLLOWED, NOTIFY E.O.R. IMMEDIATELY FOR (E) ROOF TRUSS SYSTEM.

ADD CONT. 2x10 LEDGER TO EAST WALL STUD w/ (2) 1/2" x 4" LAG SCREW, (E) RAFTER TO LEDGER w/ SIMPSON LUS HANGER

(E) ROOF FRAMING TO REMAIN

CONTR. TO FIELD VFY. (E) ROOF FRAMING SYSTEM. FOR (E) RAFTER AND CEILING JOIST SYSTEM, PROVIDE 4x10 BEAM TO SUPPORT (E) FRAMING. FOR (E) ROOF TRUSS SYSTEM, 4x10 BEAM SUPPORT IS NOT REQUIRED.

OPEN TO BELOW

NOTE TO ROOF TRUSS DESIGNER:
 1. SEE STRUCTURAL GENERAL NOTES FOR REQUIRED ROOF TRUSS DESIGN LOADING.
 2. SEE STRUCTURAL GENERAL NOTES FOR ADDITIONAL INFORMATION ON TRUSS CONFIGURATION SHOWN ON STRUCTURAL PLAN DRAWING.
 3. TRUSS DESIGNER SHALL PROVIDE DESIGN FOR ALL REQUIRED TRUSS TO TRUSS HANGER CONNECTION.
 4. ALL TRUSS DESIGN SHALL BE SIMPLE SPAN BETWEEN SUPPORTS, INCLUDING COLUMN POST, GIRDER TRUSS AND EXTERIOR WALL. ALL INTERIOR WALLS ARE NON-BEARING U.N.O. NOTIFY THE E.O.R. IMMEDIATELY IF ANY UNNOTED INTERIOR WALLS ARE REQUIRED TO BE USED FOR TRUSS BEARING.
 5. THE TRUSS CONFIGURATIONS SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT AND NOTIFY THE E.O.R. IMMEDIATELY.

CONTRACTOR TO FIELD VERIFY ALL EXISTING FRAMING SHOWN ON THIS PLAN DRAWING, INCLUDING INFORMATION FOR ALL FRAMING MEMBER SIZE, SPAN LENGTH, SPAN ORIENTATION AND ON-CENTER SPACING. NOTIFY E.O.R. IMMEDIATELY FOR ANY DISCREPANCY.

UPPER FLOOR FRAMING PLAN

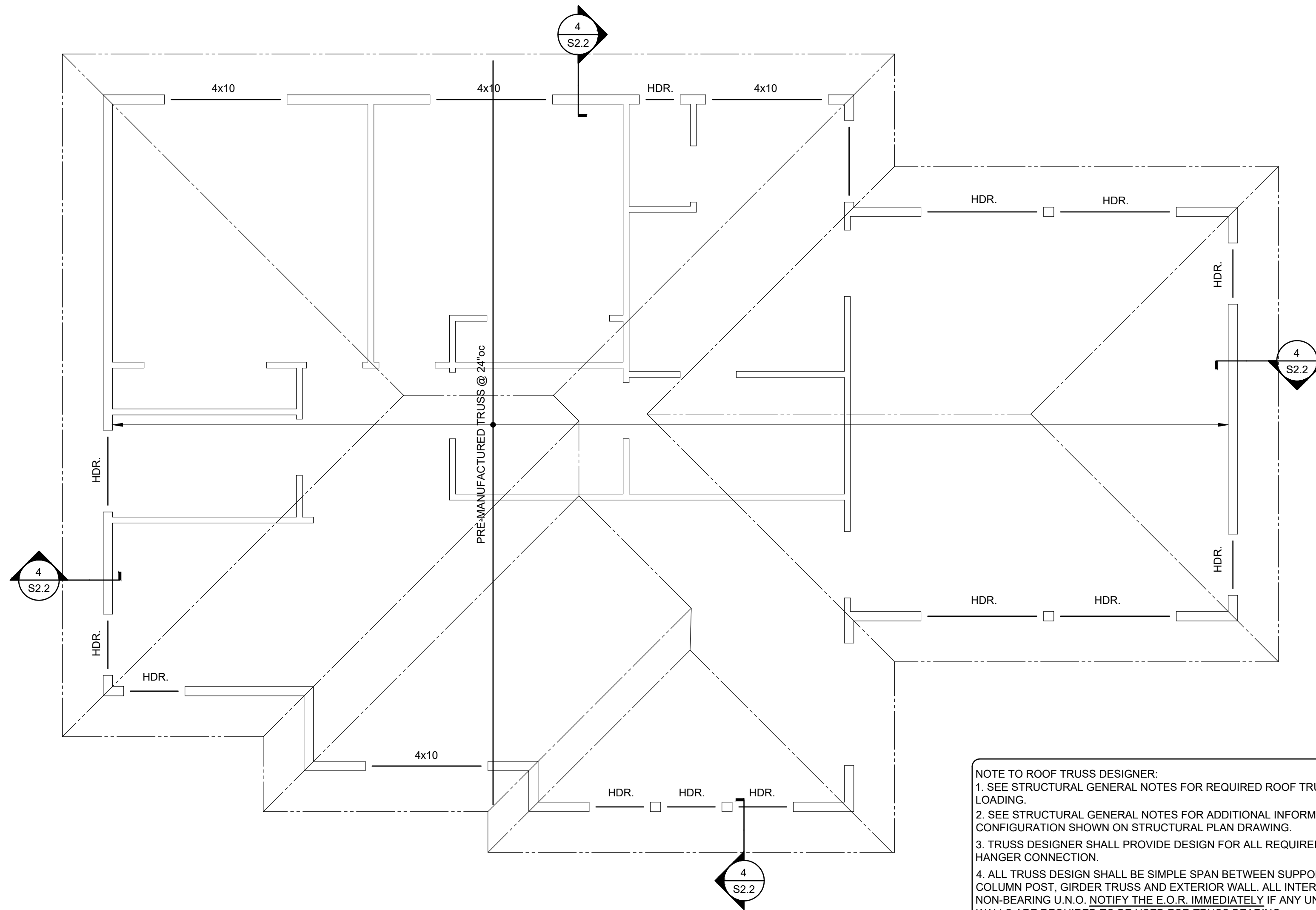
- DO NOT SCALE DRAWINGS
- VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
- TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G PLYWOOD SHEATHING ON FLOOR JOISTS. NAIL ALL SUPPORTED PANEL EDGES WITH 10d NAILS @ 6"oc & ALL INTERMEDIATE SUPPORTS WITH 10d NAILS @ 12"oc. PROVIDE BLOCKING FOR ALL EDGES.
- TYPICAL FLOOR JOISTS SHALL BE 11 7/8" TJI 110 OR BETTER UNLESS OTHERWISE NOTED. REFER TO PLAN FOR JOIST SPACING (16"oc IF NOT NOTED). PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
- TYPICAL EXTERIOR WALL SHALL BE FRAMED WITH 2x6 DF STUDS @ 16"oc, U.N.O. TYPICAL INTERIOR WALL SHALL BE FRAMED WITH 2x4 DF STUDS @ 16"oc U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO WALL THICKNESS.
- TYPICAL EXTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x10 DF#2. TYPICAL INTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x8 DF#2, U.N.O.
- ALL EXTERIOR WALL TO BE DETAILED AS SHEAR WALL TYPE W6 PER SHEAR WALL SCHEDULE, U.N.O.

1/4" = 1'-0"

UPPER FLOOR FRAMING PLAN

EXISTING RESIDENCE ADDITION
 4040 97TH AVE SE.,
 MERCER ISLAND, WA 98040

| |
|--------------------------|
| CHECKED: KWC |
| DATE: 06-30-2024 |
| SHEET NO: S1.3 |



NOTE TO ROOF TRUSS DESIGNER:

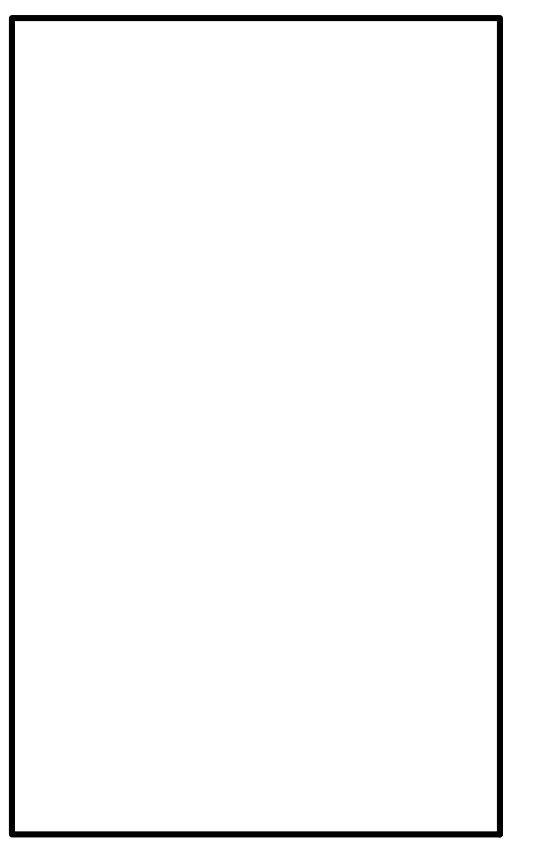
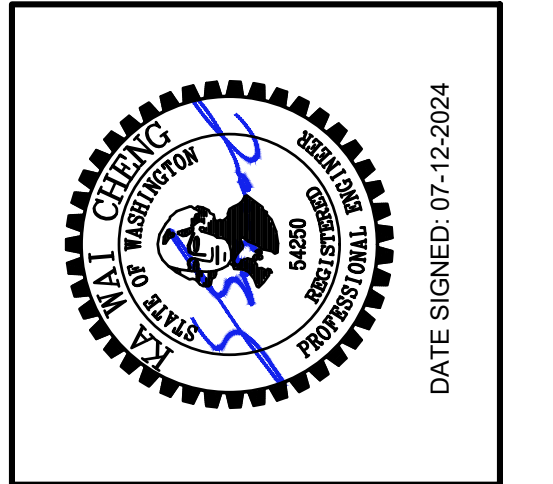
1. SEE STRUCTURAL GENERAL NOTES FOR REQUIRED ROOF TRUSS DESIGN LOADING.
2. SEE STRUCTURAL GENERAL NOTES FOR ADDITIONAL INFORMATION ON TRUSS CONFIGURATION SHOWN ON STRUCTURAL PLAN DRAWING.
3. TRUSS DESIGNER SHALL PROVIDE DESIGN FOR ALL REQUIRED TRUSS TO TRUSS HANGER CONNECTION.
4. ALL TRUSS DESIGN SHALL BE SIMPLE SPAN BETWEEN SUPPORTS, INCLUDING COLUMN POST, GIRDER TRUSS AND EXTERIOR WALL. ALL INTERIOR WALLS ARE NON-BEARING U.N.O. NOTIFY THE E.O.R. IMMEDIATELY IF ANY UNNOTED INTERIOR WALLS ARE REQUIRED TO BE USED FOR TRUSS BEARING.
5. THE TRUSS CONFIGURATIONS SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT AND NOTIFY THE E.O.R. IMMEDIATELY.

ROOF FRAMING PLAN

1/4" = 1'-0"

1. DO NOT SCALE DRAWINGS
2. VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
3. TYPICAL ROOF FRAMING CONSISTS OF 5/8" PLYWOOD ON ENGINEERED WOOD TRUSSES OR RAFTERS. NAIL ALL SUPPORTED PANEL EDGES WITH 10d NAILS @ 6"oc & ALL INTERMEDIATE SUPPORTS WITH 10d NAILS @ 12"oc
4. TYPICAL ROOF TRUSSES SHALL BE SPACED @ 24"oc. U.N.O. TRUSS SUPPLIER TO SUBMIT A PROPOSED LAYOUT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SEE GENERAL NOTES FOR MORE INFORMATION.
5. TYPICAL EXTERIOR WALL SHALL BE FRAMED WITH 2x6 DF STUDS @ 16"oc. U.N.O. TYPICAL INTERIOR WALL SHALL BE FRAMED WITH 2x4 DF STUDS @ 16"oc U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO WALL THICKNESS.
6. TYPICAL EXTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x8 DF#2. TYPICAL INTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x8 DF#2. U.N.O.

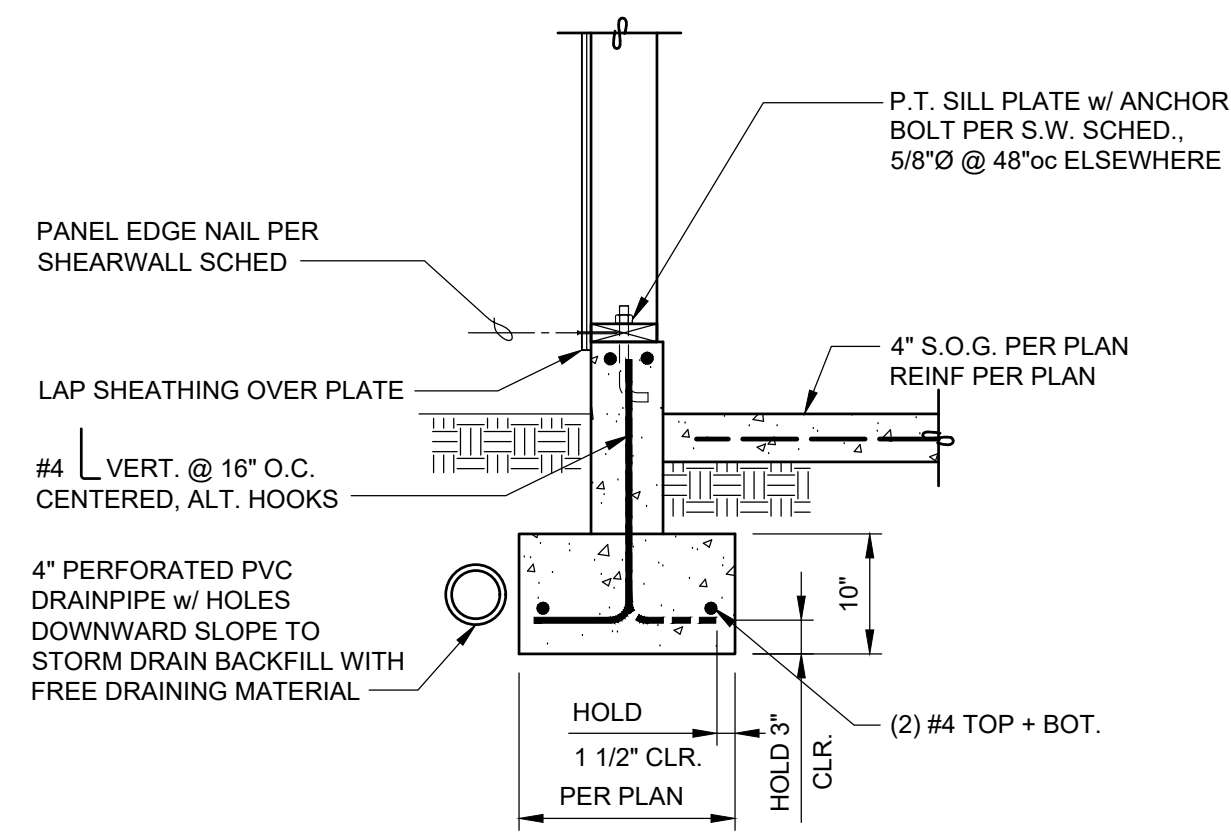
| NO. | DRAWING SUBMITTALS / REVISIONS | DATE |
|-----|--------------------------------|------------|
| | SUBMIT FOR PERMIT | 07-24-2024 |
| | SUBMIT FOR BID | |
| | SUBMIT FOR CONSTRUCTION | |
| | | |
| | | |



ROOF FRAMING PLAN

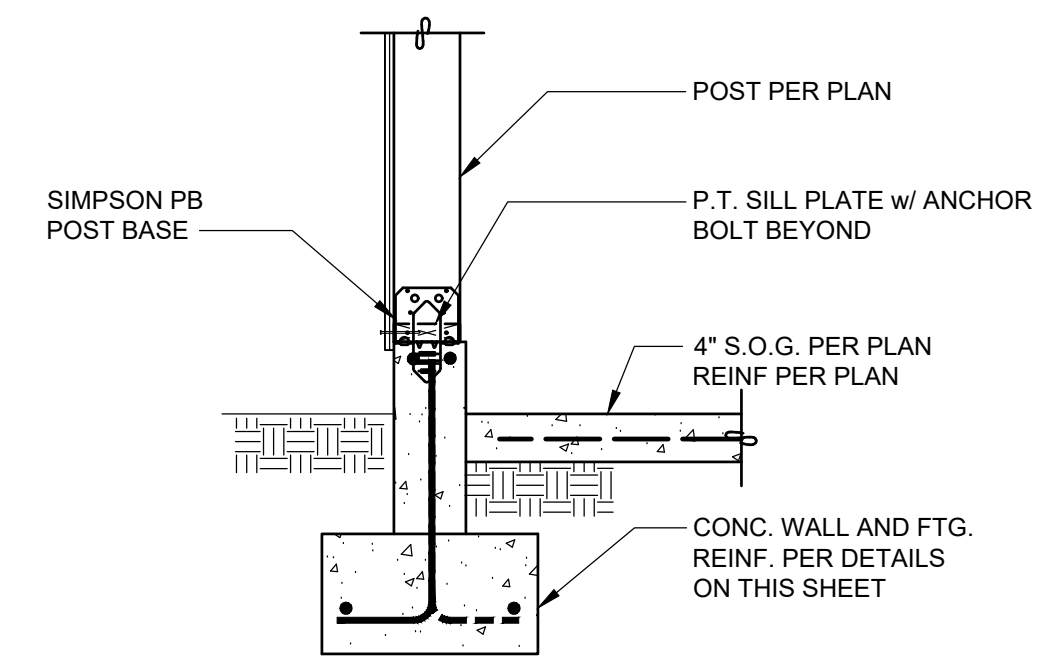
EXISTING RESIDENCE ADDITION
 4040 97TH AVE SE.,
 MERCER ISLAND, WA 98040

CHECKED: KWC
 DATE: 06-30-2024
 SHEET NO:
S1.4



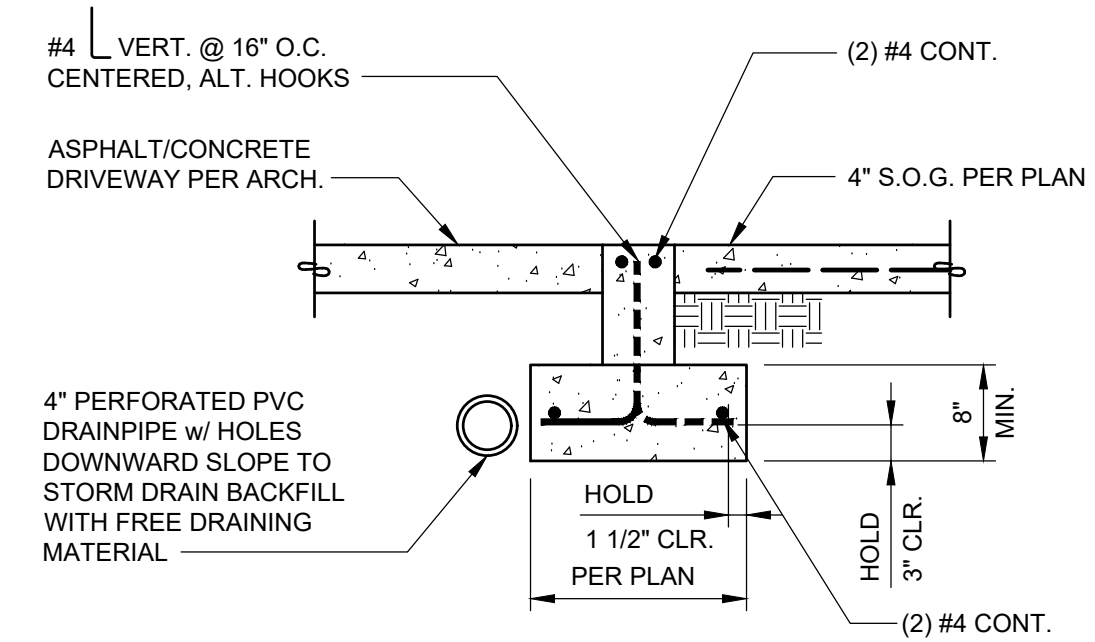
TYPICAL S.W. FOOTING

1 SECTION
3/4" = 1'-0"



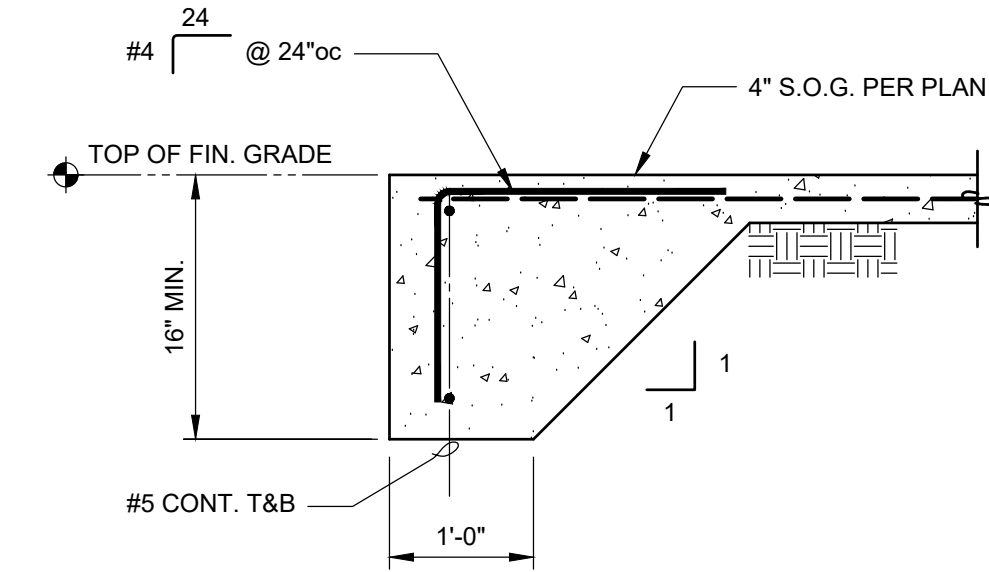
TYPICAL EXTERIOR WALL POST TO FTG.

2 SECTION
3/4" = 1'-0"



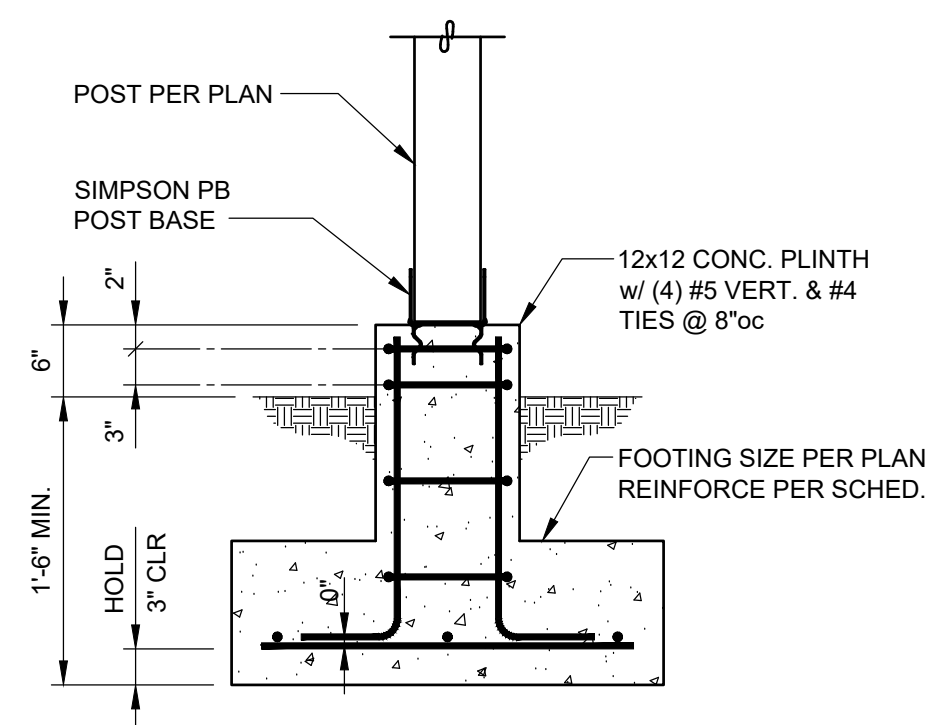
TYPICAL FOOTING AT DOORWAY/GARAGE (S.O.G.)

3 SECTION
3/4" = 1'-0"



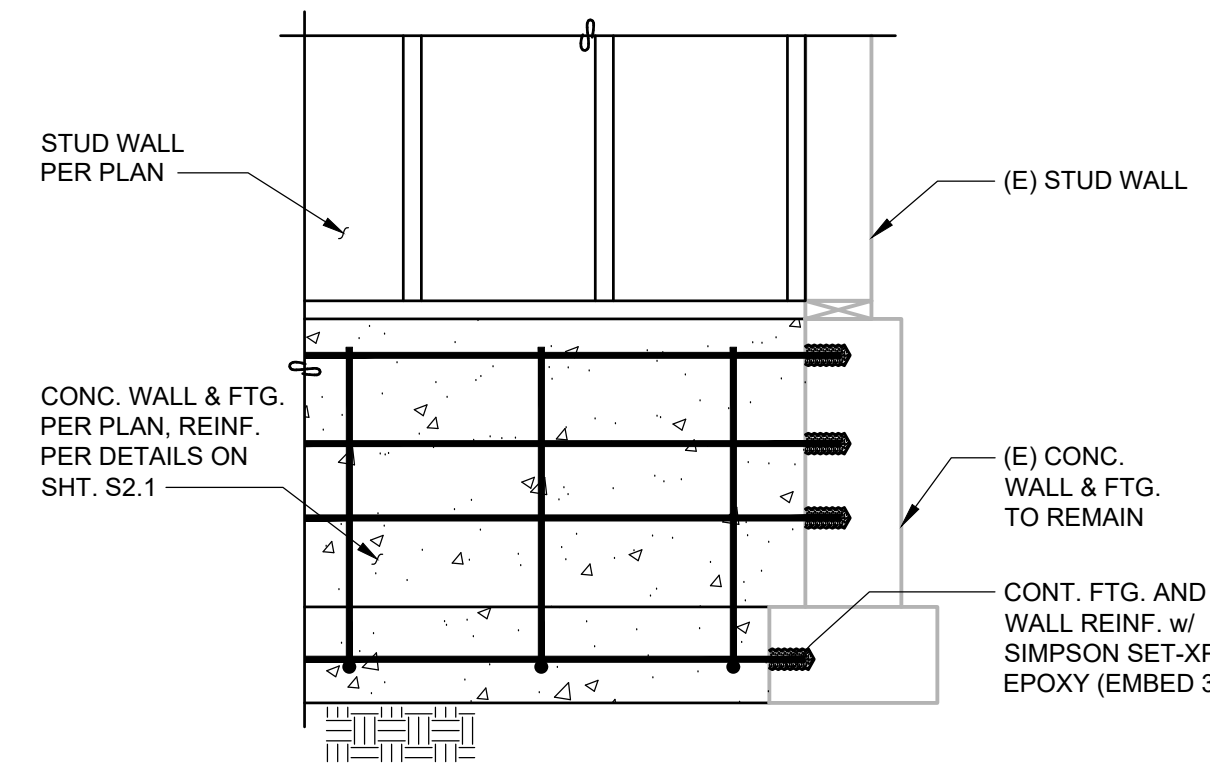
TYPICAL HAUNCH FOOTING

4 SECTION
3/4" = 1'-0"



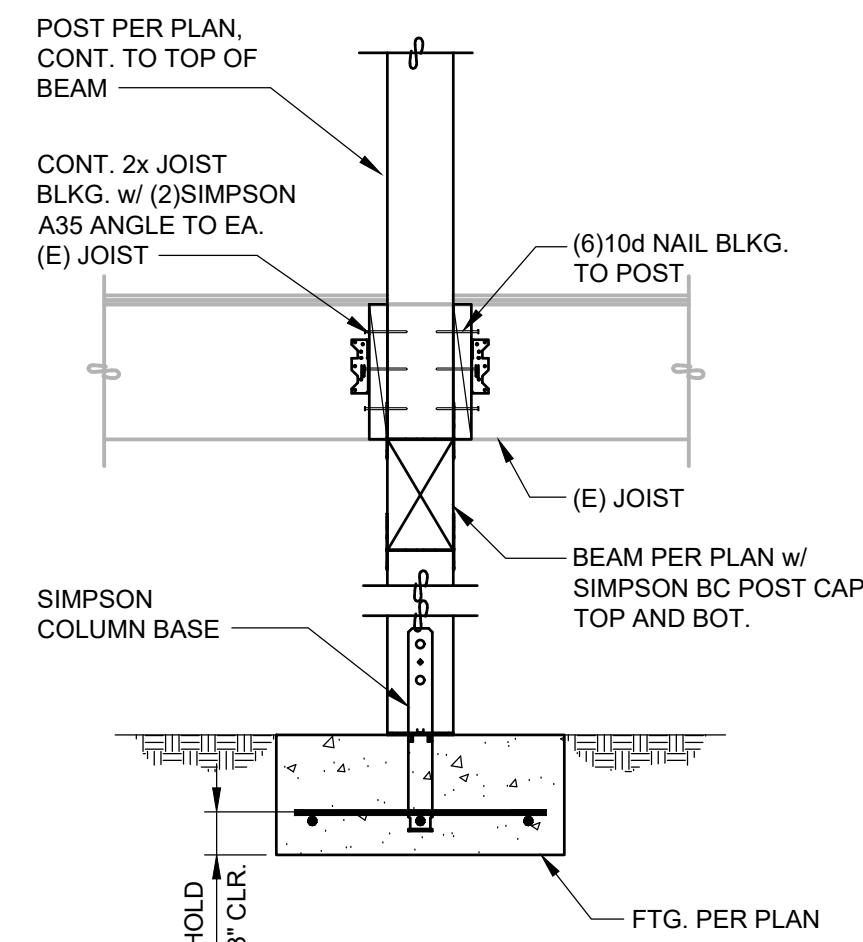
TYPICAL EXTERIOR COL. FOOTING

5 SECTION
3/4" = 1'-0"

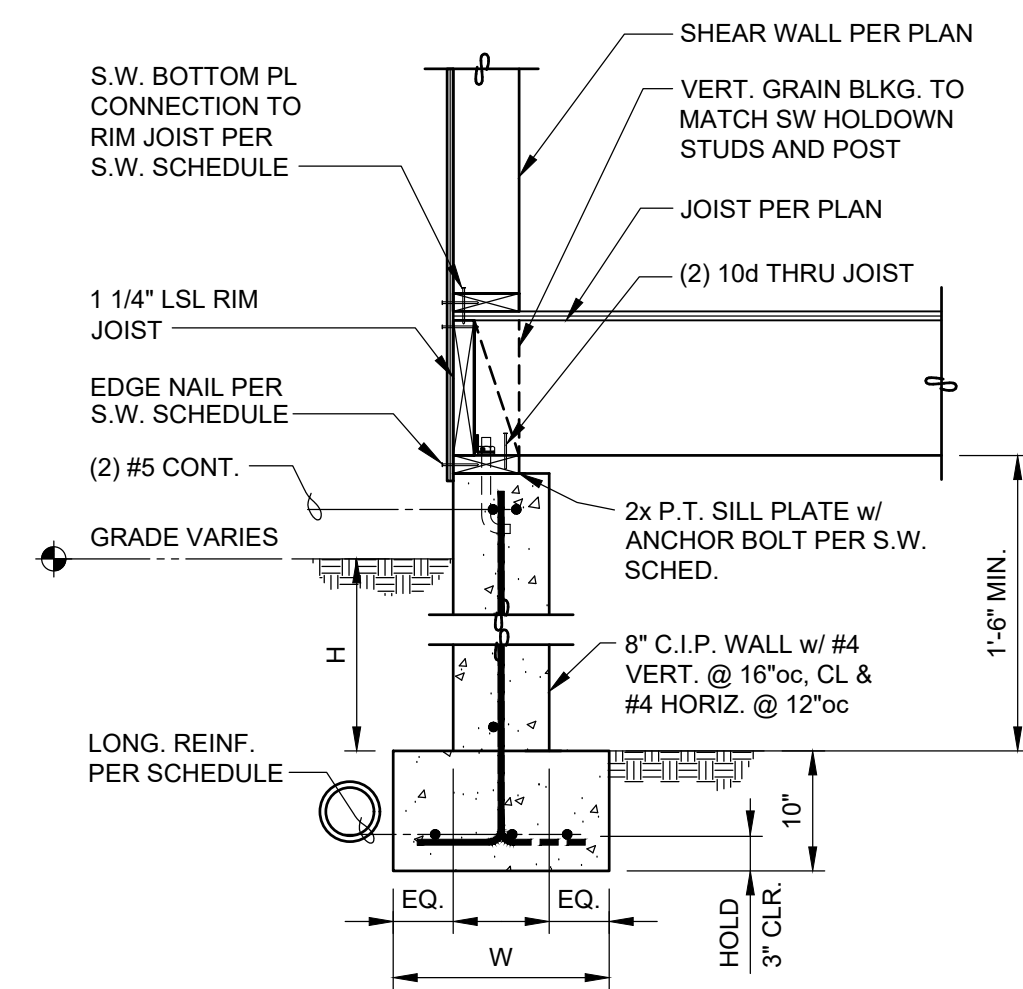


NEW WALL FOOTING TIE TO (E) FOOTING

6 SECTION
3/4" = 1'-0"



7 SECTION
3/4" = 1'-0"

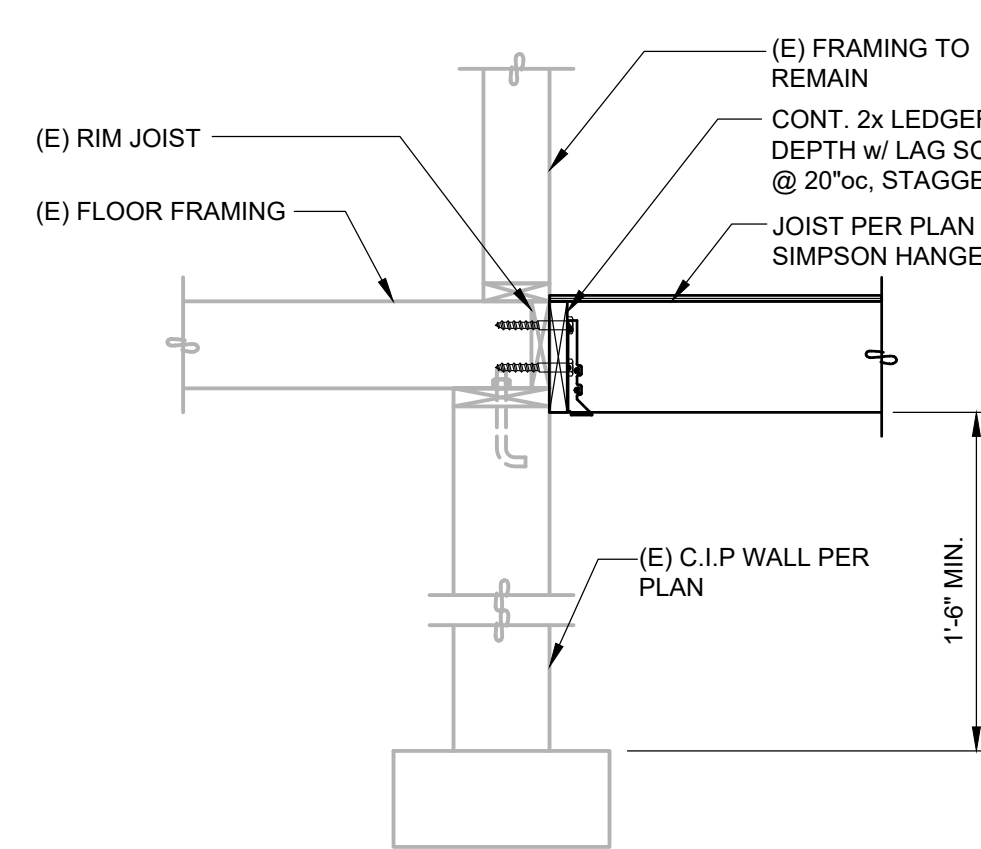


TYPICAL S.W. FOOTING (CRAWL SPACE)

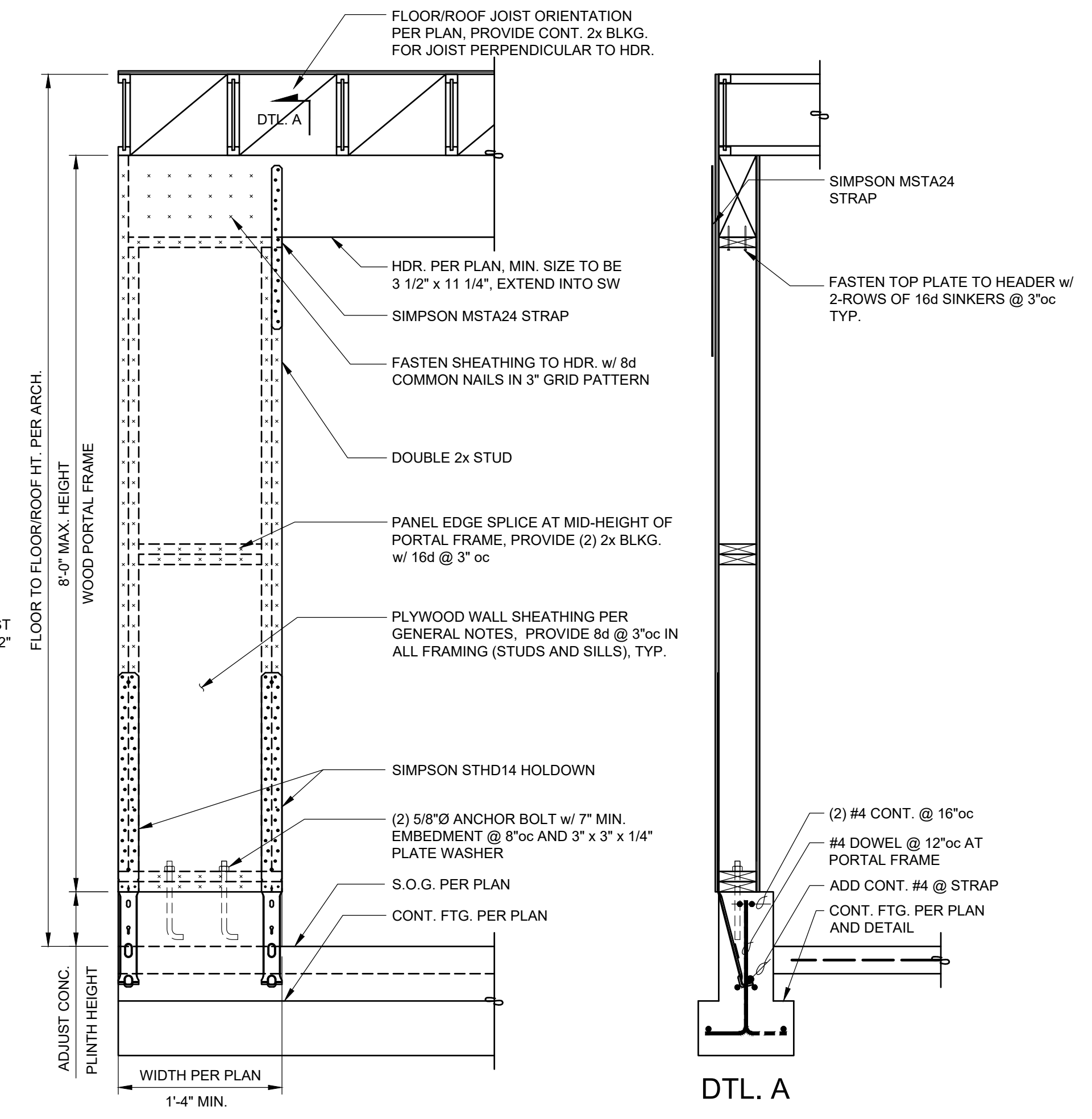
9 SECTION
3/4" = 1'-0"

| 8" CRAWLSPACE WALL SCHEDULE | | | | |
|-----------------------------|-------|------------------|------------|----------------|
| DIMENSIONS | | STEM WALL REINF. | | FOOTING REINF. |
| H | W | VERT. | HORIZ | LONG. |
| 2'-0" | 1'-6" | #4 @ 16"oc | #4 @ 12"oc | (3)#4 |
| 3'-0" | 2'-2" | #4 @ 16"oc | #4 @ 12"oc | (4)#4 |
| 4'-0" | 3'-8" | #4 @ 16"oc | #4 @ 12"oc | (5)#4 |
| 5'-0" | 5'-2" | #4 @ 16"oc | #4 @ 12"oc | (7)#4 |

NOTE:
1. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED PER SOILS ENGINEER RECOMMENDATIONS. MINIMUM 12" WIDE LAYER OF FREE DRAINING MATERIAL FROM COURSE TO MEDIUM (1 3/4" TO 3/8"). PROVIDE 4" PERFORATED PVC DRAINPIPE w/ HOLES DOWNWARD SLOPE TO STORM DRAIN DISCHARGE. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON APPROVED DISCHARGE DESIGN.
2. RETAINING WALL SHALL BE IN STRENGTH, MINIMUM 14 DAYS CURING, PRIOR BACKFILLING BEHIND ALL RETAINING WALL. BACKFILL SHALL BE DONE IN 4'-0" LIFT MAXIMUM, DISTRIBUTED EVENLY ALONG WALL LINE.



11 SECTION
3/4" = 1'-0"



TYPICAL PORTAL FRAME w/ HOLDOWNS

12 SECTION
3/4" = 1'-0"

| NO. | DRAWING SUBMITTALS / REVISIONS | DATE |
|-----|--------------------------------|------------|
| | SUBMIT FOR PERMIT | 07-24-2024 |
| | SUBMIT FOR BID | |
| | SUBMIT FOR CONSTRUCTION | |



DATE SIGNED: 07-12-2024

FOUNDATION SECTIONS

SHEET CONTENTS:

EXISTING RESIDENCE ADDITION
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC

DATE: 06-30-2024

SHEET NO:

S2.1

