

**GENERAL NOTES**

- CODE COMPLIANCE**  
ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IRC, 2018 IFGC, 2018 NATIONAL FUEL GAS CODE, NFPA 54, 2018 LIQUEFIED PETROLEUM GAS CODE, NFPA 58, 2018 IFG, 2018 UPC, 2018 WSEC, WAC 51-11, 2018 WAC, WAC 51-13, 2018 NEC, AND WITH ALL LOCAL CODES AND ORDINANCES.
- DIMENSIONS**  
A. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK.  
B. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +/- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED.  
C. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.
- DOCUMENT REVIEW/VERIFICATION**: CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK.
- ROUGH OPENINGS/BACKING**: VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.
- FURRING**: PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.

- GRADES**: VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).
- FLOOR LINES**: "FLOOR LINE" REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.
- REPETITIVE FEATURES**: OFTEN DRAWN ONLY ONCE AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
- DOORS**: DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR; ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.
- WOOD ON CONCRETE**: WOOD MEMBERS IN CONTACT WITH CONCRETE AND/OR EXPOSED TO WEATHER, PROVIDE PRESSURE TREATED SILL PLATES.
- FRAMING**: INTERIOR FURRING & PARTITION WALLS TO BE 2x4 @ 16" O.C.
- VENTILATION**: VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED.
- FLUES**: FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.
- BASEMENT**: NO LPG PROPANE GAS APPLIANCES ARE ALLOWED IN THE BASEMENT.
- OTHER DOCUMENTATION**: REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES AND SYMBOLS.
- PROTECTION**: PROTECT ALL EXISTING FINISHES & SURFACES. ANY DAMAGE TO BE REPAIRED @ NO ADDITIONAL EXPENSE TO OWNER.

**ENERGY NOTES**

**CODE(S)**: 2018 INTERNATIONAL BUILDING CODE (IBC) (2018 INTERNATIONAL RESIDENTIAL CODE (IRC)) (2018 WASHINGTON ENERGY CODE (WEC))

**CLIMATIC ZONE**: 4C - MARINE  
**SPACE HEAT TYPE**: NATURAL GAS, FORCED AIR  
**INSULATION VALUES**: PRESCRIPTIVE METHOD (ALL NEW AREA)

**WALLS**: R-21  
**FLAT ATTICS/CEILING**: R-49/R-38  
**FLOORS** (OVER UNHEATED SPACES): R-38  
**VAULTED CEILING**: R-38  
**SLAB-ON-GRADE**: R-10

**THERMAL STANDARDS FOR OPENINGS UNLIMITED OPTION**  
**AIR INFILTRATION**: MANUFACTURED DOORS/WINDOWS: CONFORM TO SECTION 502.1.5 OF THE WASHINGTON STATE ENERGY CODE  
**EXTERIOR JOINTS/OPENINGS**: SEAL, GASKET OR WEATHERSTRIP TO LIMIT AIR LEAKAGE AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF; OPENINGS AT PENETRATIONS OF UTILITY SERVICES AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE.  
**MOISTURE CONTROL**: VAPOR RETARDER BONDED TO BATT INSULATION; INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH; OR VAPOR RETARDER OF ONE PERM PERM CUP RATING (4 MIL POLYETHYLENE)

**ATTICS/CEILING**: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE). INSTALL CONTINUOUSLY.  
**CRAWL SPACE**: CONTINUOUS 6 MIL. POLYETHYLENE  
**VENTILATION**: ATTICS WITH BATTS: BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE  
**ENCLOSED JOIST OR RAFTER SPACE**: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION, TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION  
**HEATING & COOLING**: FORCED AIR NATURAL GAS HEATING SYSTEM.  
**TEMP. CONTROL**: FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FAHRENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.  
**DUCT INSULATION**: THERMALLY INSULATE ALL PLENUMS, DUCTS AND ENCLOSURES IN ACCORDANCE WITH TABLE 406.2 OF THE 2018 WASHINGTON STATE ENERGY CODE.

**LIGHTING**: RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE 12" MIN. FROM WALLS AND 18" MIN. FROM CEILING.  
**PIPE INSULATION**: NON RECIRCULATING HOT AND COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE SHALL BE INSULATED TO R-3 MIN.  
**WHOLE HOUSE VENTILATION**: VENTILATION TO BE SUPPLIED BY FORCED AIR FURNACE  
a. FAN SIZE TO BE DESIGNED BY MECHANICAL CONTRACTOR, MEET CURRENT WSEC.  
R403.1.1 PROGRAMMABLE THERMOSTAT, WHERE THE PRIMARY HEATING SYSTEM IS A FORCED-AIR FURNACE, AT LEAST ONE THERMOSTAT PER DWELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY. THE THERMOSTAT SHALL ALLOW FOR, AT A MINIMUM, A 5-PROGRAMMABLE SCHEDULE (WEEKDAYS/WEEKENDS) AND BE CAPABLE OF PROVIDING AT LEAST TWO PROGRAMMABLE SETBACK PERIODS PER DAY. THIS THERMOSTAT SHALL INCLUDE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C). THE THERMOSTAT SHALL INITIALLY BE PROGRAMMED BY THE MANUFACTURER WITH A HEATING TEMPERATURE SET POINT NO HIGHER THAN 70°F (21°C) AND A COOLING TEMPERATURE SET POINT NO LOWER THAN 78°F (26°C). THE THERMOSTAT AND/OR CONTROL SYSTEM SHALL HAVE AN ADJUSTABLE DEADBAND OF NOT LESS THAN 10°F.  
EXCEPTIONS:  
1. SYSTEMS CONTROLLED BY AN OCCUPANT SENSOR THAT IS CAPABLE OF SHUTTING THE SYSTEM OFF WHEN NO OCCUPANT IS SENSED FOR A PERIOD OF UP TO 30 MINUTES.  
2. SYSTEMS CONTROLLED SOLELY BY A MANUALLY OPERATED TIMER CAPABLE OF OPERATING THE SYSTEM FOR NO MORE THAN TWO HOURS.

**ENERGY CREDITS = 6.0**

(PRESCRIPTIVE)  
TABLE 406.2 ENERGY CREDITS (SINGLE FAMILY)

| Option              | Description   | Credit |
|---------------------|---|--------|
| HEATING OPTIONS # 2 | HEAT PUMP   | = 1.0  |
| ENERGY OPTIONS 1.3  | EFFICIENT BUILDING ENVELOPE   | = 0.5  |
| 2.2                 | AIR LEAKAGE CONTROL & EFFICIENT VENTILATION (COMPLIANCE BASED ON SECT. 402.4.1.2) | = 1.0  |
| 3.5                 | AIR SOURCE, CENTRALLY DUCTED HEAT PUMP (MINIMUM HSPF OF 11.0)                     | = 1.5  |
| 5.5                 | EFFICIENCY WATER HEATER (MEETING STANDARDS OF Tier III OF NEEA'S SPEC.'S)         | = 2.0  |

**6.0 TOTAL ENERGY CREDITS**

**ENERGY CODE**

-HEATING SYSTEM IS A NATURAL GAS FURNACE FORCED AIR SYSTEM.  
-CONSTRUCTION SHALL ADHERE TO :

**GLAZING RATIO**

CLIMATE ZONE: 4C - MARINE  
PRESCRIPTIVE PATH :  
MARINE IIX  
WINDOWS - 0.28 U-FACTOR  
DOORS - 0.20 U-FACTOR

**(A. B. E.) AVERAGE BUILDING ELEVATION**

| MARK  | WALL LENGTH | GRADE / ELEVATION | CALCULATION |
|-------|-------------|-------------------|-------------|
| A     | 12'         | +298.7'           | 5618.5      |
| B     | 2.5'        | +299.0'           | 1157        |
| C     | 6.5'        | +299.0'           | 7271        |
| D     | 2.5'        | +299.0'           | 661         |
| E     | 34'         | +298.9'           | 7271        |
| F     | 21.5'       | +298.9'           | 330.5       |
| G     | 21'         | +298.9'           | 3305        |
| H     | 21'         | +295.0'           | 6951        |
| I     | 31.5'       | +291.0'           | 5461.5      |
| J     | 33.5'       | +294.5'           | 3144.5      |
| TOTAL | = 177'      |                   | 52,464.4    |

**A.B.E. = +296.4'**

**LOT INFORMATION**

ZONE : R-8.4 PARCEL No. : 1300301381  
LOT : 7,500 s.f.  
LOT SLOPE :  
HIGH ELEVATION = +300'  
LOW ELEVATION = +287.5'  
DISTANCE BETWEEN : 125' = 10.0% SLOPE

**GROSS FLOOR AREA(S) (G.F.A.)**

UPPER FLOOR : 1,509.25 S.F.  
MAIN FLOOR : 1,039 S.F.  
GARAGE : 451.5 S.F.  
TOTAL G.F.A. = 2,999.75 S.F.  
Or 3 9 . 9 %  
MAX. G.F.A. = 40% Or 3,000 s.f.

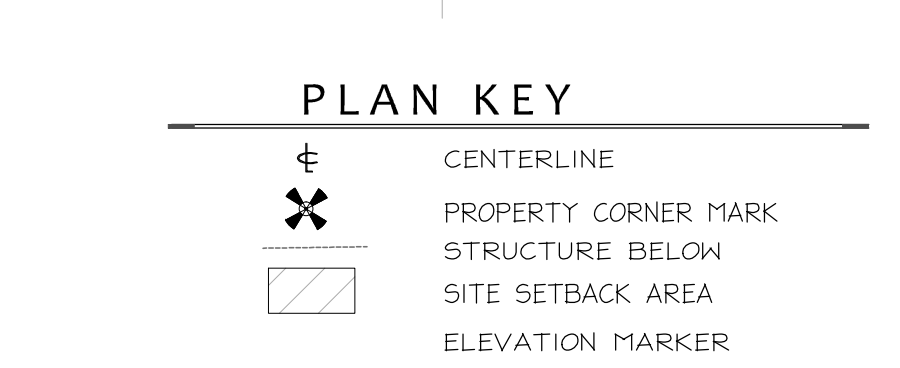
**LOT COVERAGE**

MAIN STRUCTURE ROOF AREA : 2,027.75 S.F. (Includes All Attached Porches)  
VEHICULAR USE : 336 S.F.  
TOTAL COVERAGE : 2363.75 S.F.  
Or 3 1 . 5 %  
MAX. G.F.A. = 40% Or 3,000 s.f.

**LOT HARDSCAPE**

WALKWAY : 140 S.F.  
ROCKERY : 80 S.F.  
TOTAL HARDSCAPE : 220 S.F. Or 2.9 %  
MAX. HARDSCAPE = 9% or 675 S.F.

**PLOT PLAN**  
SCALE: 1/8" = 1'-0"



**LEGAL DESCRIPTION**

PER STATUTORY WARRANTY DEED RECORDING # 7305080073  
LOT 6, 7 AND THE NORTH HALF OF LOT 3, BLOCK 5, C. C. CALKINS 1st ADDITION TO EAST SEATTLE, ACCORDING TO PLAT RECORDED IN VOLUME 4 OF PLATS, PAGE 88, IN KING COUNTY, WASHINGTON

**SITE NOTES**

- PLACE COMPOST SOCKS, COMPOST BERMS, FILTER FABRIC FENCING, STRAW BAILS, STRAW WATTLES, OR OTHER APPROVED PERIMETER CONTROLL BMP'S TO ELIMINATE CONSTRUCTION STORMWATER RUN-OFF.
- ELIMINATE UNCONTROLLED CONVEYANCE OF MUD & DIRT INTO THE RIGHT-OF-WAY (R.O.W)
- COVER BARE SOILS WITH COMPOST BLANKETS, STRAW, MULCH, MATTING, OR OTHER APPROVED EQUAL TO CONTROL CONSTRUCTION STORMWATER RUN-OFF.
- COVER STOCKPILES OF BARE SLOPES WITH COMPOST BLANKETS, TARPS, MATTING OR OTHER APPROVED EQUAL TO CONTROL CONSTRUCTION STORMWATER RUN-OFF.
- MERCER ISLAND - MICC 19.02.030(F)(3)(d) ALL JAPANESE KNOTWEED, (POLYGONUM CUSPIDATUM), & REGULATED CLASS 'A', REGULATED CLASS 'B', REGULATED CLASS 'C' WEEDS, IDENTIFIED ON KING COUNTY NOXIOUS WEED LIST SHALL BE REMOVED FROM PROPERTY PURSUANT TO SUBSECTION 19.02.020(F)(3)(a.)
- REMOVE ALL EXISTING CONCRETE WALKWAYS AND ROCKERY EXCEPT AS SHOWN AT NORTH SIDE OF PROPERTY

**RFA ARCHITECTS**  
RICHARD A FISHER ARCHITECTS  
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**BK CONSTRUCTION**  
RESIDENCE  
3419 72nd Place S.E.  
Mercer Island, WA 98040

SET TITLE: PERMIT SET  
SHEET TITLE: GENERAL NOTES & PLOT PLAN

STAMP:  
4884  
RICHARD A. FISHER  
STATE OF WASHINGTON

PROJECT #: 22010  
DATE: AUGUST 5, 2022  
DRAWN BY: N.F.W.  
REVISIONS:  
Tag Description

SHEET No.:  
**A1.0**

|                           |                         |
|---------------------------|-------------------------|
| PROJECT NAME:             | PROJECT ADDRESS:        |
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|                           | 3419 72nd Place S.E.    |
|                           | Mercer Island, WA 98040 |

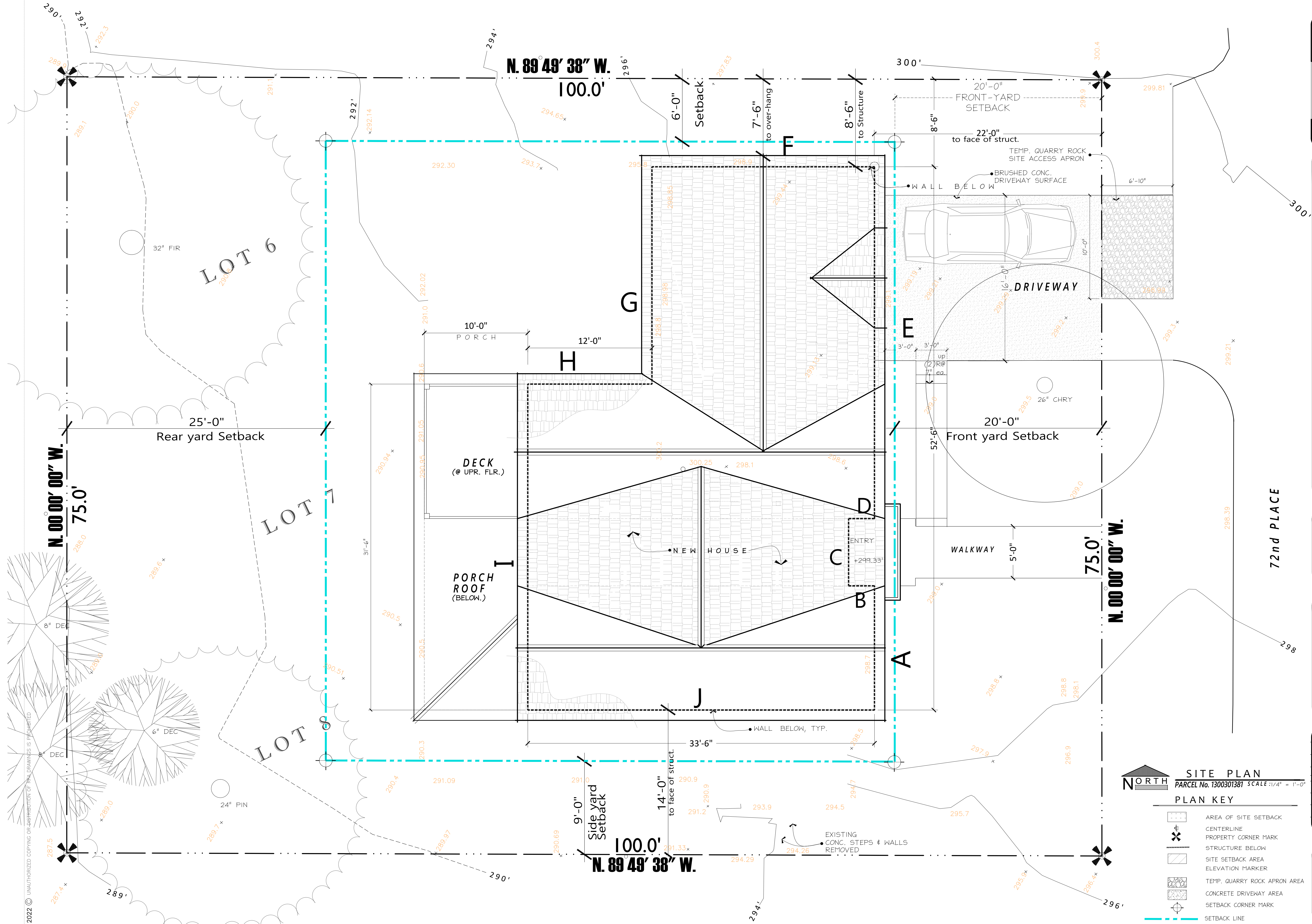
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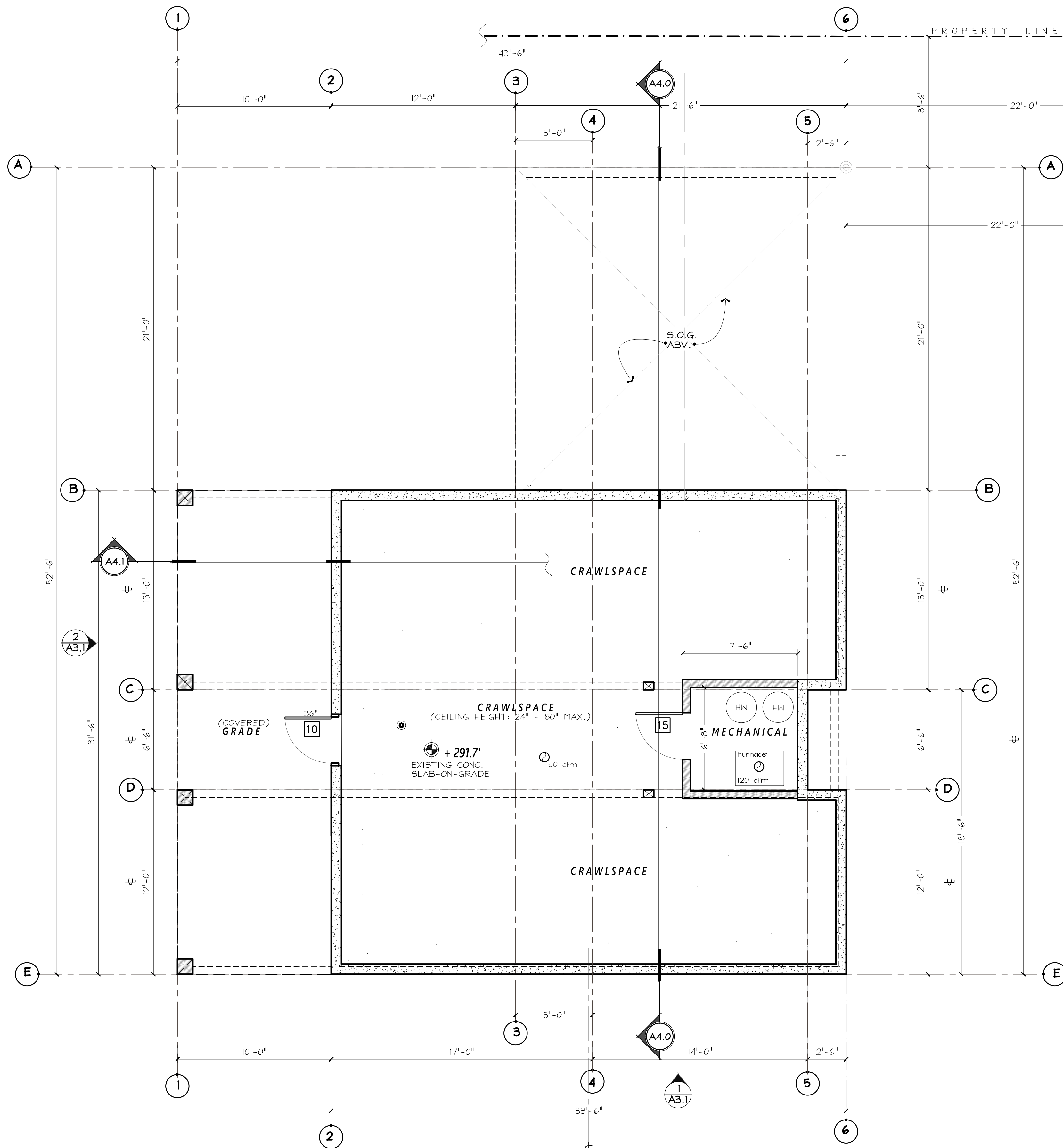
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RICHARD A. FISHER  
STATE OF WASHINGTON

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| PROJECT #: | 22010          |
| DATE:      | AUGUST 5, 2022 |
| DRAWN BY:  | N.F.W.         |
| REVISIONS: |                |
| Tag        | Description    |
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SHEET No.:  
**A1.1**





**DOOR SCHEDULE**

| TAG | DIMENSIONS<br>(R.O. = w x h.) | TYPE       | NOTES  |
|-----|-------------------------------|------------|--|
| 1   | 3'-0" X 8'-0"                 | ENTRY      | SOLID WD./SAFETY GLAZE / LOCKSET   |
| 2   | (2) 3'-0" X 8'-0"             | SLIDER     |  |
| 3   | (2) 3'-0" X 6'-8"             | EXT. GLASS | 'FRENCH-HUNG'  |
| 4   | 16'-0" X 8'-0"                | GARAGE     | 'CARRIAGE STYLE'   |
| 5   | 3'-0" X 6'-8"                 | SEPARATION | 1-HR. FIRE RATED w/ INTEGRAL SMOKE GASKETS 'SELF-CLOSER' REQUIRED PER I302.5.1 |
| 6   | 2'-6" X 6'-8"                 | STND. WOOD |  |
| 7   | (2) 2'-6" X 6'-8"             | STND. WOOD |  |
| 8   | 2'-6" X 6'-8"                 | STND. WOOD |  |
| 9   | 3'-0" X 6'-8"                 | STND. WOOD |  |
| 10  | 3'-0" X 6'-0"                 | METAL      | 'INSULATED ACCESS'   |
| 11  | 2'-6" X 6'-8"                 | POCKET     | SLIDER HARDWARE  |
| 12  | 22.5" X 36"                   | ACCESS     | REMOVABLE / INSULATED PANEL  |
| 13  | 22.5" X 48"                   | ACCESS     | INSULATED PULL-DOWN LADDER   |
| 14  | (2) 2'-2" X 6'-8"             | STND. WOOD | CUSTOM SIZE  |
| 15  | 3'-0" X 6'-0"                 | METAL      | CUSTOM SIZE - AIR VENTED DOOR  |

- NOTES:**
- 'SG' = SAFETY GLAZING.
  - DOOR 'U-FACTOR' = 0.20
  - WINDOW 'U-FACTOR' = 0.28

**WINDOW SCHEDULE**

| TAG | DIMENSIONS<br>(R.O. = w x h.) | TYPE          | NOTES                 |
|-----|-------------------------------|---------------|-----------------------|
| A   | (2) 2'-6" X 5'-0"             | CSPMNT/CSPMNT | EGRESS - SAFETY GLAZE |
| B   | 1'-0" X 5'-0"                 | SIDELITE      | SAFETY GLAZE          |
| C   | (2) 3'-0" X 6'-0"             | CSPMNT/CSPMNT |                       |
| D   | 3'-0" X 6'-0"                 | CASEMENT      |                       |
| E   | (2) 2'-6" X 6'-0"             | CSPMNT/CSPMNT | SAFETY GLAZE          |
| F   | (2) 3'-0" X 4'-6"             | CSPMNT/CSPMNT | EGRESS - SAFETY GLAZE |
| G   | 3'-0" X 4'-6"                 | CASEMENT      |                       |
| H   | (2) 2'-6" X 4'-6"             | CSPMNT/CSPMNT |                       |
| I   | 3'-0" X 3'-0"                 | CASEMENT      |                       |
| J   | (2) 3'-0" X 5'-0"             | CSPMNT/CSPMNT |                       |
| K   | 3'-0" X 5'-0"                 | CASEMENT      |                       |
| L   | (2) 2'-6" X 4'-6"             | CSPMNT/CSPMNT |                       |
| M   | 2'-6" X 3'-6"                 | CASEMENT      |                       |
| N   | 3'-0" X 2'-6"                 | TRANSOM       |                       |
| O   | 2'-6" X 4'-0"                 | CASEMENT      |                       |

- NOTES:**
- 'SG' = SAFETY GLAZING.
  - DOOR 'U-FACTOR' = 0.20
  - WINDOW 'U-FACTOR' = 0.28

**PLAN NOTES**

- WHOLE HOUSE VENTILATION TO BE PROVIDED BY FORCED AIR FURNACE WITH DIRECT OUTSIDE AIR.
- SMOKE DETECTORS SHALL BE HARD-WIRED & PROVIDED IN EXISTING SPACES WITH BATTERY BACK-UP PER IRC 313 & INSTALLED PER IRC 314.2.2
- ALL OUTLETS @ COUNTER HEIGHT, (@BATHS, KITCHEN, LAUNDRY) SHALL BE G.F.C.I.
- DO NOT SCALE OFF DRAWINGS, NOTED DIMENSIONS SHALL @ ALL TIMES TAKE PRECEDENT, DIMS. ARE TO FACE OF FRAMING, TYP.-WDN. & DOOR DIMS. ARE TO ROUGH OPENING
- SEE SHEET A2.0 FOR WINDOW & DOOR SCHEDULE. SCHEDULE.
- 36" MECHANICAL RM. DOOR: PER IMC SECTION 303.3, ALL COMBUSTIBLE AIR MUST BE TAKEN FROM OUTDOORS IN ACCORDANCE WITH IMC CHAPTER 7. MECHANICAL RM. DOORS SHALL BE SOLID CORE WITH EXTERIOR WEATHER STRIPPING & APPROVED SELF-CLOSING DEVICE.

**PLAN KEY**

- PROPERTY CORNER MARK
- 6" EXTERIOR WALL
- 4" PARTITION WALL
- SMOKE DETECTOR
- MECHANICAL VENT FAN (CUBIC FEET PER MINUTE)
- ELEVATION MARKER
- CARBON MONOXIDE DETECTOR (APPROVED PER IRC315.1)
- CENTERLINE
- SETBACK LINE
- PROPERTY LINE
- CRAWLSPACE VENT



**FOUNDATION PLAN**

CRAWLSPACE AREA:

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



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|                         |                         |
|-------------------------|-------------------------|
| PROJECT NAME:           | PROJECT ADDRESS:        |
| <b>B K CONSTRUCTION</b> | 3419 72nd Place S.E.    |
| RESIDENCE               | Mercer Island, WA 98040 |

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| SHEET TITLE: | FOUNDATION PLAN |

STAMP:

PROJECT #: 22010  
 DATE: AUGUST 5, 2022  
 DRAWN BY: N.F.W.  
 REVISIONS:

| Tag | Description |
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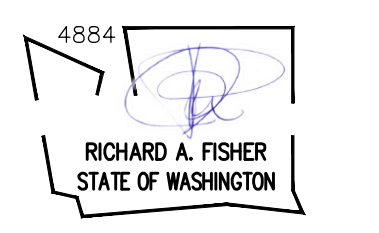
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**A2.0**

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| PROJECT NAME:                                   | PROJECT ADDRESS: |
| <b>B K CONSTRUCTION</b>                         | RESIDENCE        |
| 3419 72nd Place S.E.<br>Mercer Island, WA 98040 |                  |

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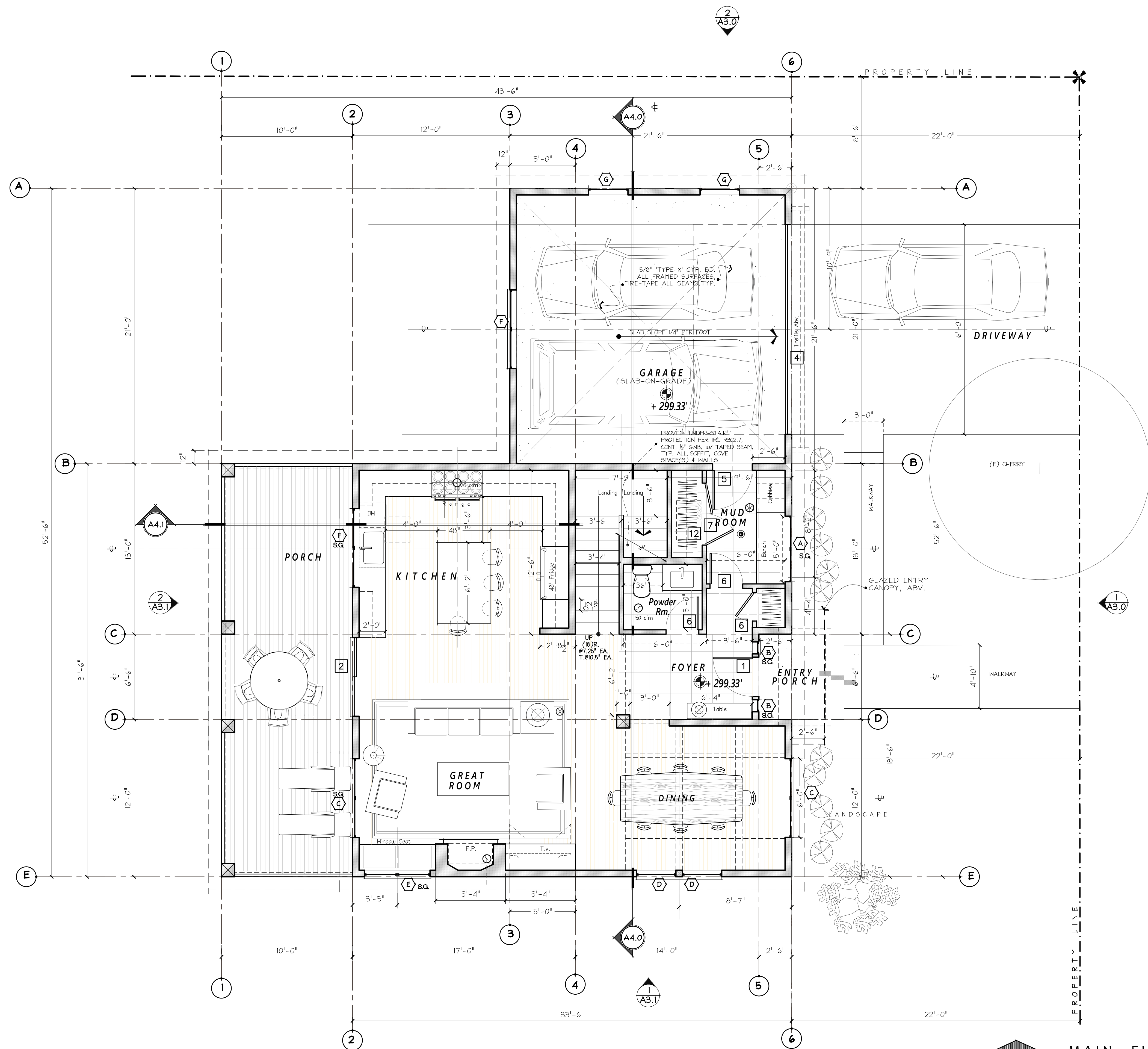
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| DATE:      | AUGUST 5, 2022 |
| DRAWN BY:  | N.F.W.         |
| REVISIONS: |                |
| Tag        | Description    |
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SHEET No.:

# A2.1



**PLAN NOTES**

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- SMOKE DETECTORS SHALL BE HARD-WIRED & PROVIDED IN EXISTING SPACES WITH BATTERY BACK-UP PER IRC 313 & INSTALLED PER IRC 314.2.2
- STAIR HANDRAILS TO CONFORM TO I.R.C. SECT. 311.5.6. w/ 36" ht. FROM TREAD NOSING, TYP.
- ALL OUTLETS @ COUNTER HEIGHT, (@BATHS, KITCHEN, LAUNDRY) SHALL BE G.F.C.I.
- DO NOT SCALE OFF DRAWINGS, NOTED DIMENSIONS SHALL @ ALL TIMES TAKE PRECEDENCE. DIMS. ARE TO FACE OF FRAMING, TYP. -INDIC. & DOOR DIMS. ARE TO ROUGH OPENING
- SEE SHEET A2.0 FOR WINDOW & DOOR SCHEDULE. SCHEDULE.
- CONTRACTOR SHALL VERIFY TO INSPECTOR ALL GUARDS & RAILINGS SHALL BE CAPABLE OF RESISTING 200 LB. LOAD ON TOP RAIL ACTING IN ANY DIRECTION AS REQUIRED BY IRC TABLE R301.5.
- 3/8" MECHANICAL RM. DOOR: PER IMC SECTION 303.3, ALL COMBUSTIBLE AIR MUST BE TAKEN FROM OUTDOORS IN ACCORDANCE WITH IMC CHAPTER 7. MECHANICAL RM. DOORS SHALL BE SOLID CORE WITH EXTERIOR WEATHER STRIPPING & APPROVED SELF-CLOSING DEVICE.
- SEE SHEET A2.0 FOR WINDOW & DOOR SCHEDULES.

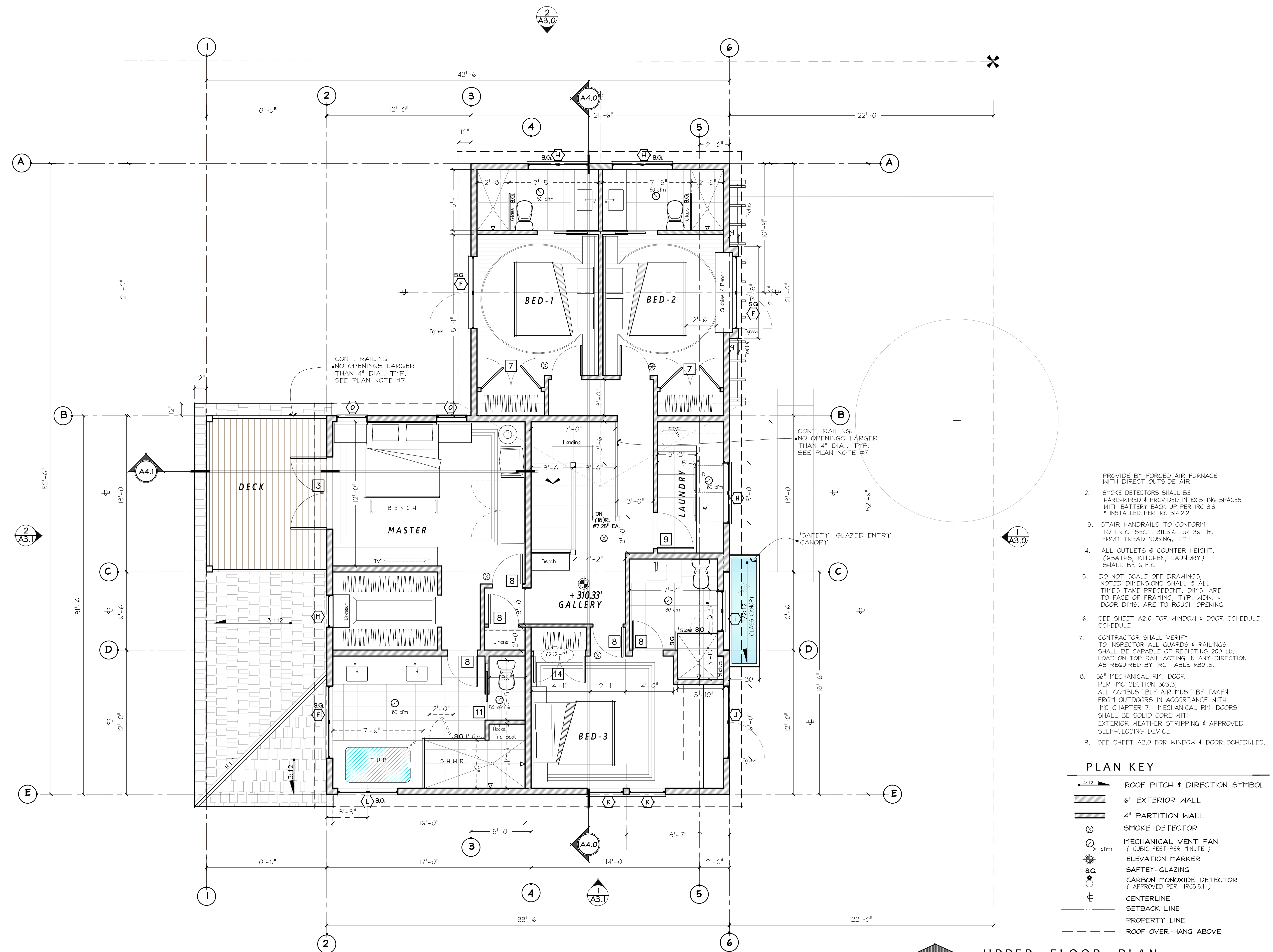
**PLAN KEY**

- PROPERTY CORNER MARK
- 6" EXTERIOR WALL
- 4" PARTITION WALL
- SMOKE DETECTOR
- MECHANICAL VENT FAN (CUBIC FEET PER MINUTE)
- ELEVATION MARKER
- SAFTEY-GLAZING
- CARBON MONOXIDE DETECTOR (APPROVED PER IRC315.1)
- CENTERLINE
- SETBACK LINE
- PROPERTY LINE
- AREA OF PERVIOUS DECKING

**MAIN FLOOR PLAN**

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

MAIN FLOOR AREA:  
GARAGE AREA:  
UPPER FLOOR AREA:  
TOTAL AREA:

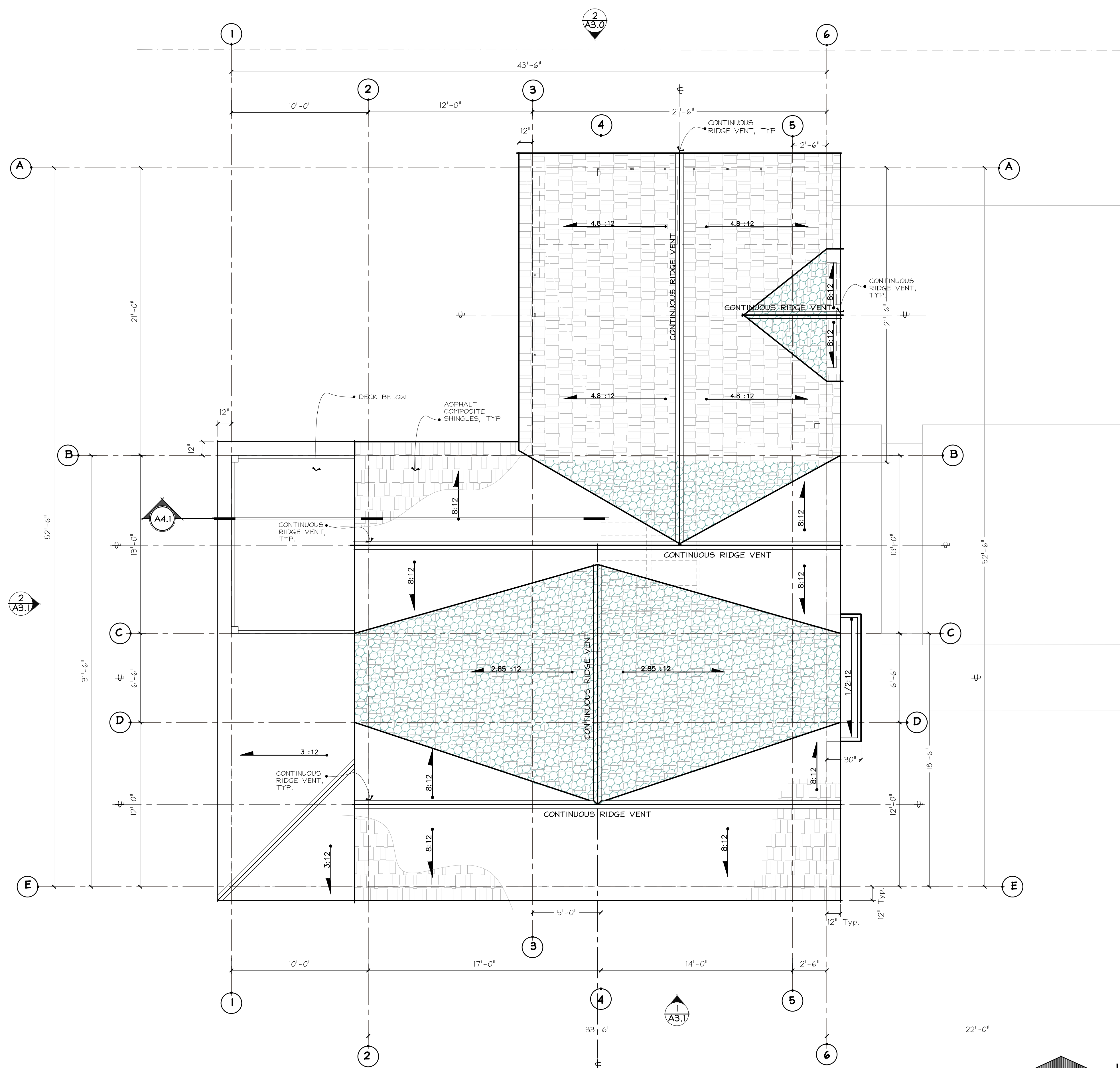


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- SMOKE DETECTORS SHALL BE HARD-WIRED & PROVIDED IN EXISTING SPACES WITH BATTERY BACK-UP PER IRC 313 & INSTALLED PER IRC 314.2.2
- STAIR HANDRAILS TO CONFORM TO I.R.C. SECT. 311.5.6, w/ 36" ht. FROM TREAD NOSING, TYP.
- ALL OUTLETS @ COUNTER HEIGHT, (@BATHS, KITCHEN, LAUNDRY) SHALL BE G.F.C.I.
- DO NOT SCALE OFF DRAWINGS, NOTED DIMENSIONS SHALL @ ALL TIMES TAKE PRECEDENT. DIMS. ARE TO FACE OF FRAMING, TYP.-INDX. & DOOR DIMS. ARE TO ROUGH OPENING
- SEE SHEET A2.0 FOR WINDOW & DOOR SCHEDULE. SCHEDULE.
- CONTRACTOR SHALL VERIFY TO INSPECTOR ALL GUARDS & RAILINGS SHALL BE CAPABLE OF RESISTING 200 LB. LOAD ON TOP RAIL ACTING IN ANY DIRECTION AS REQUIRED BY IRC TABLE R301.5.
- 36" MECHANICAL RM. DOOR: PER IMC SECTION 303.3, ALL COMBUSTIBLE AIR MUST BE TAKEN FROM OUTDOORS IN ACCORDANCE WITH IMC CHAPTER 7. MECHANICAL RM. DOORS SHALL BE SOLID CORE WITH EXTERIOR WEATHER STRIPPING & APPROVED SELF-CLOSING DEVICE.
- SEE SHEET A2.0 FOR WINDOW & DOOR SCHEDULES.

**PLAN KEY**

|  |  |
|--|--|
|  | ROOF PITCH & DIRECTION SYMBOL                    |
|  | 6" EXTERIOR WALL                                 |
|  | 4" PARTITION WALL                                |
|  | SMOKE DETECTOR                                   |
|  | MECHANICAL VENT FAN (CUBIC FEET PER MINUTE)      |
|  | ELEVATION MARKER                                 |
|  | SAFTEY-GLAZING                                   |
|  | CARBON MONOXIDE DETECTOR (APPROVED PER IRC315.1) |
|  | CENTERLINE                                       |
|  | SETBACK LINE                                     |
|  | PROPERTY LINE                                    |
|  | ROOF OVER-HANG ABOVE                             |

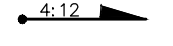
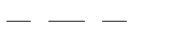
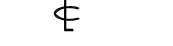

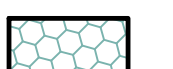

**UPPER FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



**ATTIC CALCULATIONS**

WHOLE HOUSE ATTIC AREA: 1509 S.F.  
CALCULATION  
1509 / 300 = 5.03 SQ. IN. = 724 Sq. in.  
RIDGE VENT PROVIDED: 88 L.F. X 16 Sq.in. = 1,408 Sq. in. PROVIDED.  
  
SOFFIT VENTS PROVIDED: 100 L.F. X 24 Sq.in. = 24 Sq. in.  
= 2,400 Sq. in. PROVIDED.

**PLAN KEY**

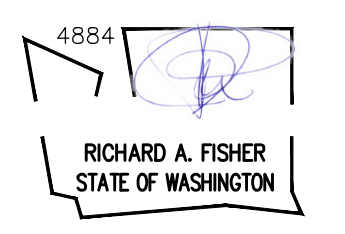
-  ROOF PITCH & DIRECTION SYMBOL
-  WALL BELOW
-  CENTERLINE
-  AREA OF ASPHALT COMP. ROOFING
-  AREA OF ROOF OVER-FRAMING
-  CONTINUOUS RIDGE VENT

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

|                           |                         |
|---------------------------|-------------------------|
| PROJECT NAME:             | PROJECT ADDRESS:        |
| <b>R K K CONSTRUCTION</b> | 3419 72nd Place S.E.    |
| RESIDENCE                 | Mercer Island, WA 98040 |

|              |            |
|--------------|------------|
| SET TITLE:   | PERMIT SET |
| SHEET TITLE: | ROOF PLAN  |

STAMP:

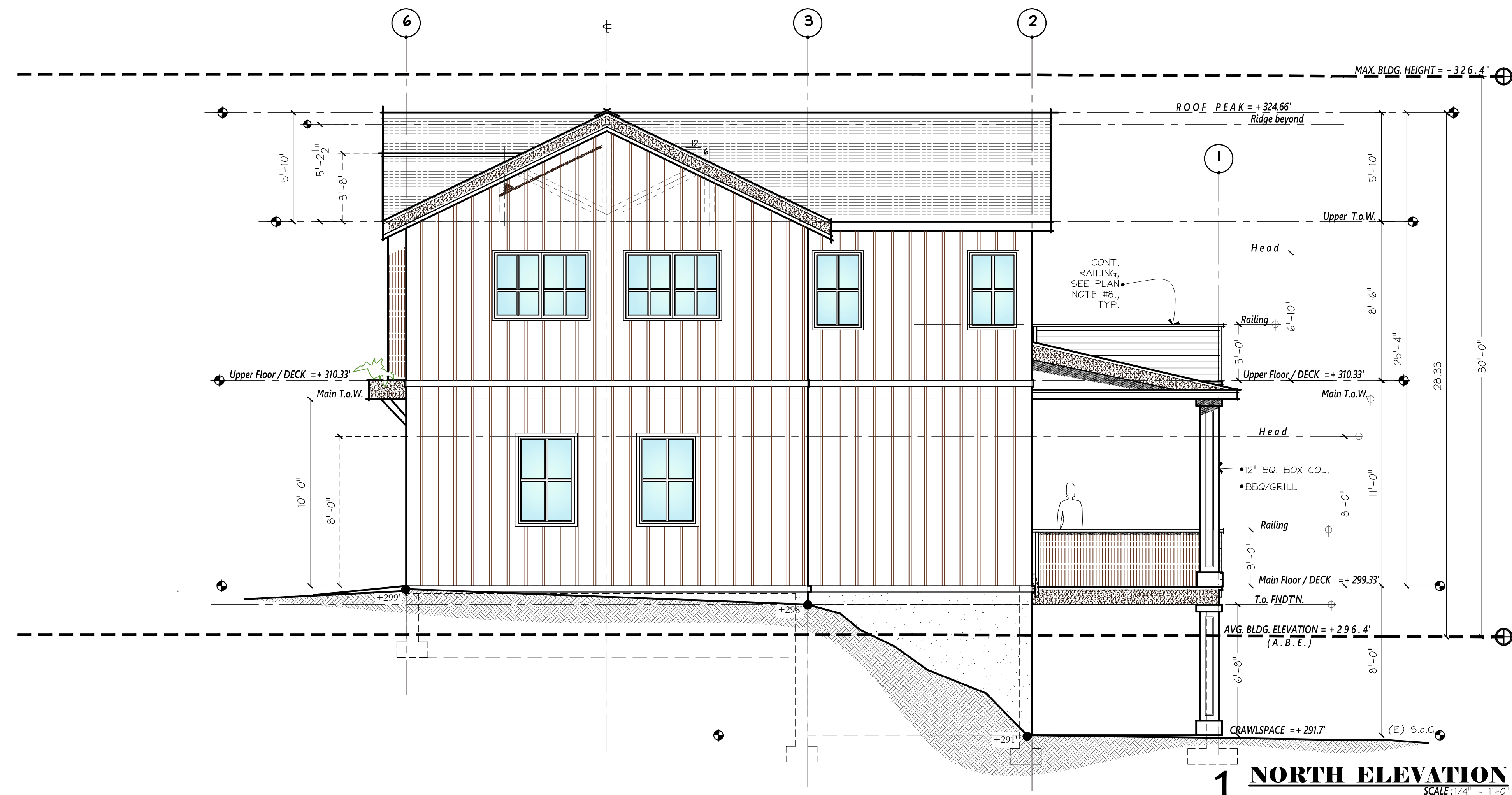


RICHARD A. FISHER  
STATE OF WASHINGTON

|            |                |
|------------|----------------|
| PROJECT #: | 22010          |
| DATE:      | AUGUST 5, 2022 |
| DRAWN BY:  | N. F. W.       |
| REVISIONS: |                |
| Tag        | Description    |
|            |                |

SHEET No.:

**A2.3**



|                           |                         |
|---------------------------|-------------------------|
| PROJECT NAME:             | PROJECT ADDRESS:        |
| <b>B K K CONSTRUCTION</b> | 3419 72nd Place S.E.    |
| RESIDENCE                 | Mercer Island, WA 98040 |

|              |                     |
|--------------|---------------------|
| SET TITLE:   | PERMIT SET          |
| SHEET TITLE: | EXTERIOR ELEVATIONS |

STAMP:

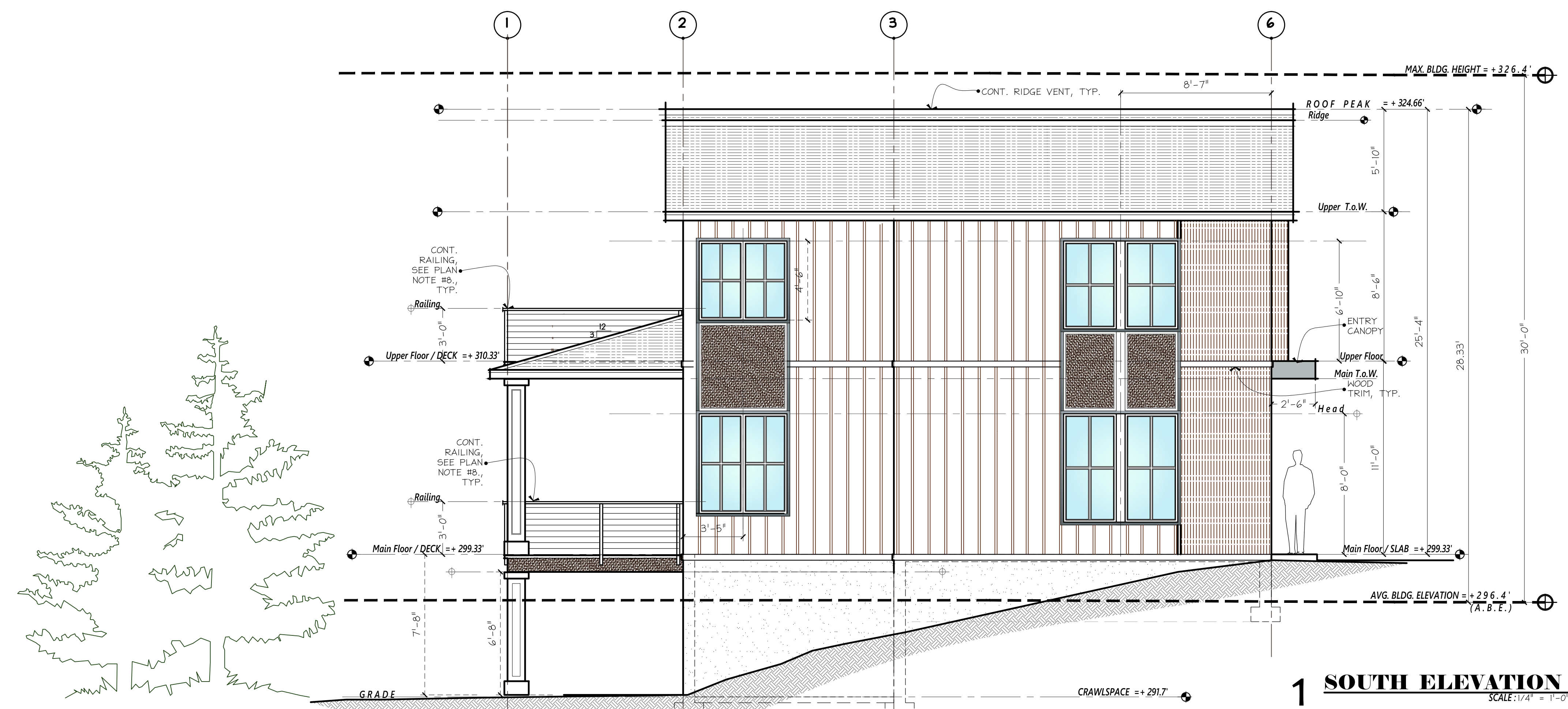
RICHARD A. FISHER  
STATE OF WASHINGTON

|            |                |
|------------|----------------|
| PROJECT #: | 22010          |
| DATE:      | AUGUST 5, 2022 |
| DRAWN BY:  | N. F. W.       |
| REVISIONS: |                |
| Tag        | Description    |

SHEET No.:

**A3.0**

|                        |                         |
|------------------------|-------------------------|
| PROJECT NAME           | PROJECT ADDRESS         |
| <b>BK CONSTRUCTION</b> | 3419 72nd Place S.E.    |
| RESIDENCE              | Mercer Island, WA 98040 |



|             |                     |
|-------------|---------------------|
| SET TITLE   | PERMIT SET          |
| SHEET TITLE | EXTERIOR ELEVATIONS |

STAMP:

RICHARD A. FISHER  
STATE OF WASHINGTON

|            |                |
|------------|----------------|
| PROJECT #: | 22010          |
| DATE:      | AUGUST 5, 2022 |
| DRAWN BY:  | N. F. W.       |
| REVISIONS: |                |
| Tag        | Description    |
|            |                |
|            |                |

SHEET No.:

**A3.1**



PROJECT NAME: **BK CONSTRUCTION**  
PROJECT ADDRESS: **RESIDENCE**  
**3419 72nd Place S.E.**  
**Mercer Island, WA 98040**

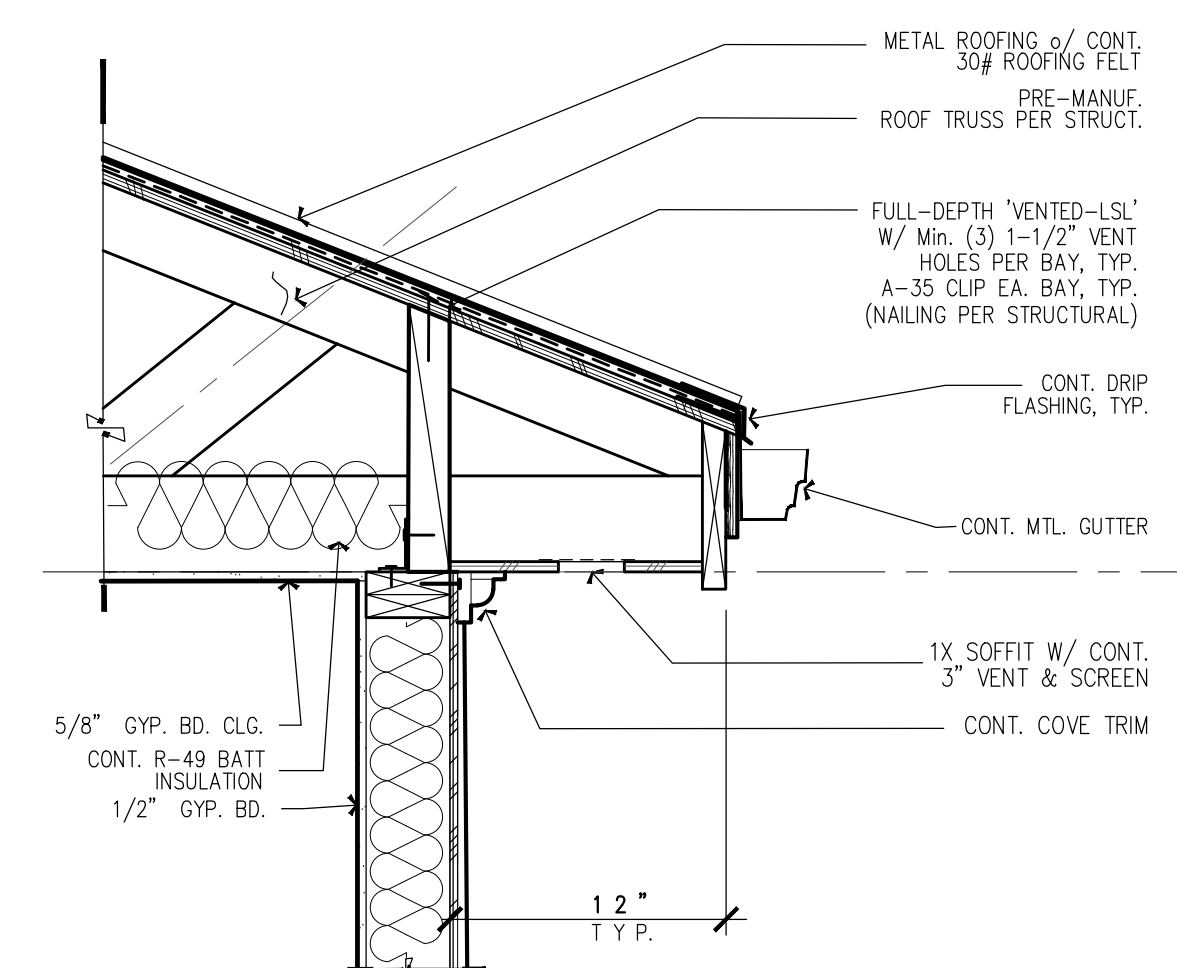
SET TITLE: **PERMIT SET**  
SHEET TITLE: **BUILDING SECTION**

STAMP:  
4884  
RICHARD A. FISHER  
STATE OF WASHINGTON

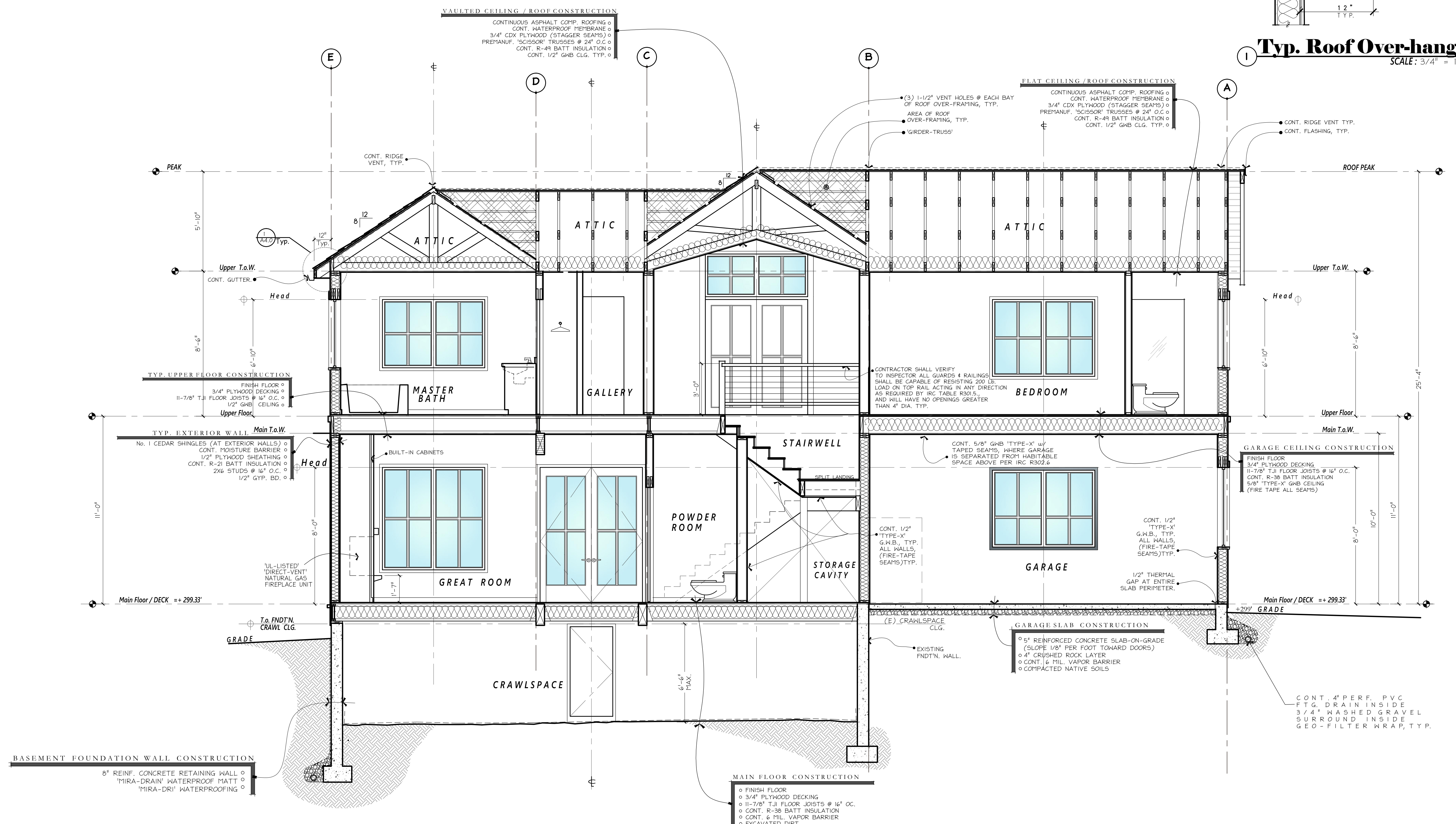
PROJECT #: **22010**  
DATE: **AUGUST 5, 2022**  
DRAWN BY: **N.F.W.**  
REVISIONS:

| Tag | Description |
|-----|-------------|
|     |             |
|     |             |
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SHEET No.: **A4.0**



**Typ. Roof Over-hang**  
SCALE: 3/4" = 1'-0"

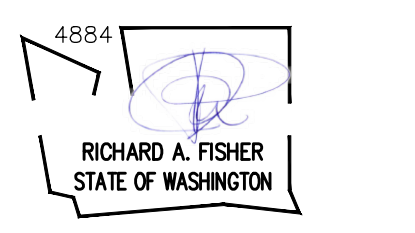


**SECTION**  
SCALE: 3/8" = 1'-0"

|                         |   |
|-------------------------|---|
| PROJECT NAME:           | PROJECT ADDRESS:                                |
| <b>R K CONSTRUCTION</b> | RESIDENCE                                       |
|                         | 3419 72nd Place S.E.<br>Mercer Island, WA 98040 |

|              |              |
|--------------|--------------|
| SET TITLE:   | PERMIT SET   |
| SHEET TITLE: | WALL SECTION |

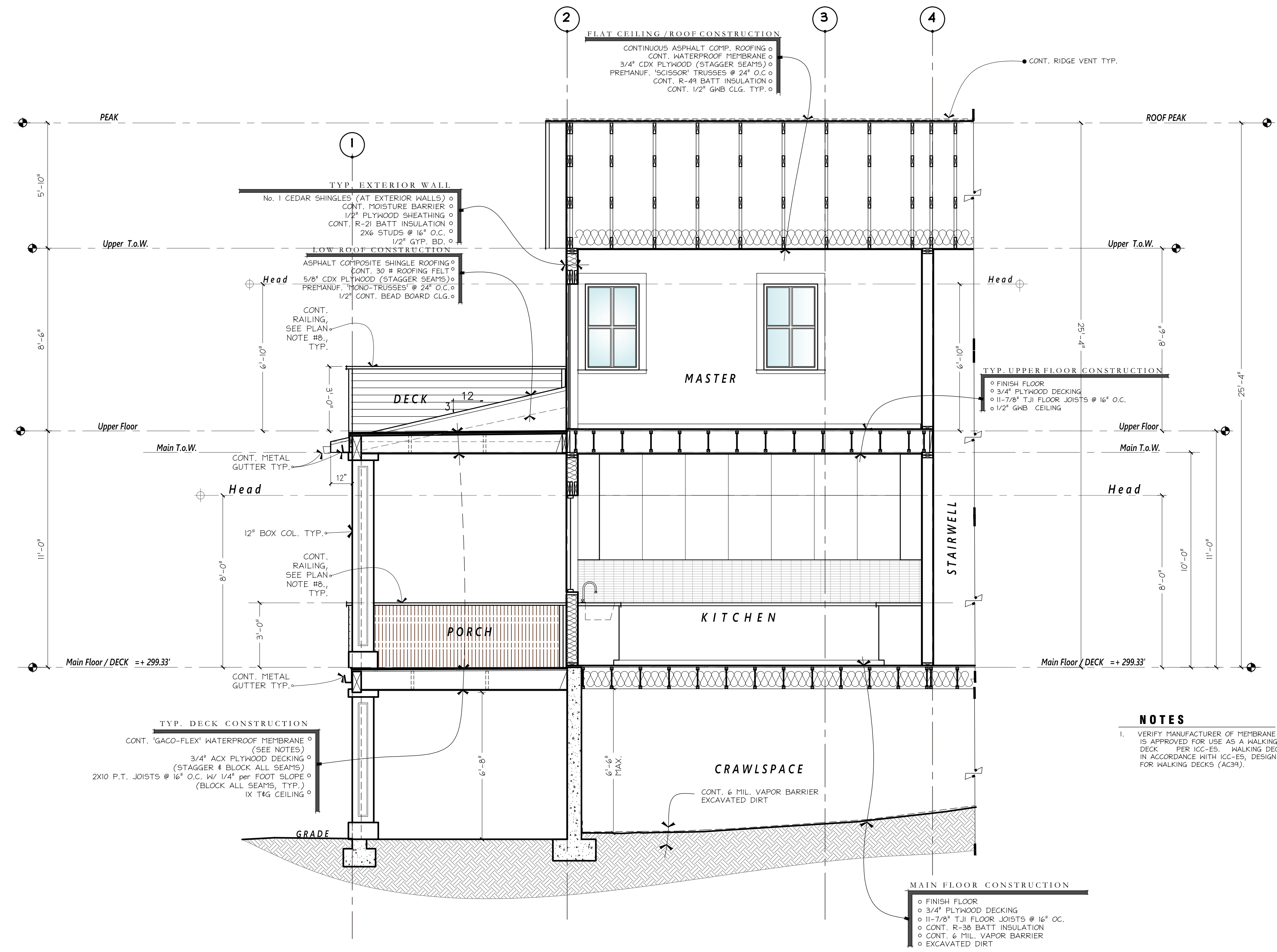
STAMP:



|            |                |
|------------|----------------|
| PROJECT #: | 22010          |
| DATE:      | AUGUST 5, 2022 |
| DRAWN BY:  | N. F. W.       |
| REVISIONS: |                |
| Tag        | Description    |
|            |                |

SHEET No.:

# A4.1



**WALL SECTION**  
SCALE: 3/8" = 1'-0"

**LEGAL DESCRIPTION**

(PER STATUTORY WARRANTY DEED RECORDING# 7305080073)

LOTS 6, 7 AND THE NORTH HALF OF LOT 3, BLOCK 5, C. C. CALKINS 1ST ADDITION TO EAST SEATTLE, ACCORDING TO PLAT RECORDED IN VOLUME 4 OF PLATS, PAGE 88, IN KING COUNTY, WASHINGTON.

**BASIS OF BEARINGS**

ACCEPTED THE BEARING OF N 89°54'00" E, BETWEEN MONUMENTS FOUND ALONG THE CENTERLINE OF 32ND AVE SE, PER R1.

**REFERENCES**

- R1. BOUNDARY LINE ADJUSTMENT, VOL. 226, PG. 146,
- R2. RECORD OF SURVEY, VOL. 207, PG. 33
- R3. C.C. CALKINS FIRST ADDITION, VOL. 7 OF PLATS, PG. 88 RECORDS OF KING COUNTY, WASHINGTON.

**VERTICAL DATUM**

NAVD 88 PER WGS SURVEY DATA WAREHOUSE 6457 DESCRIPTION: 2" BRASS CAP WITH CHISELED "X" IN CONC. MON (DN 1.0') LOCATION: 5' OFFSET MON AT INTX SE 32ND ST & 74TH AVE SE ELEVATION: 324.56'

SITE TEMP. BENCHMARK DESCRIPTION: SET SPIKE IN UTILITY POLE LOCATION: NEAR SE PROPERTY CORNER ELEVATION: 297.29'

**SURVEYOR'S NOTES**

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN FEBRUARY OF 2022. 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 OR CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 130030-1381
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 7,500 ±S.F. (0.17 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
8. 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.

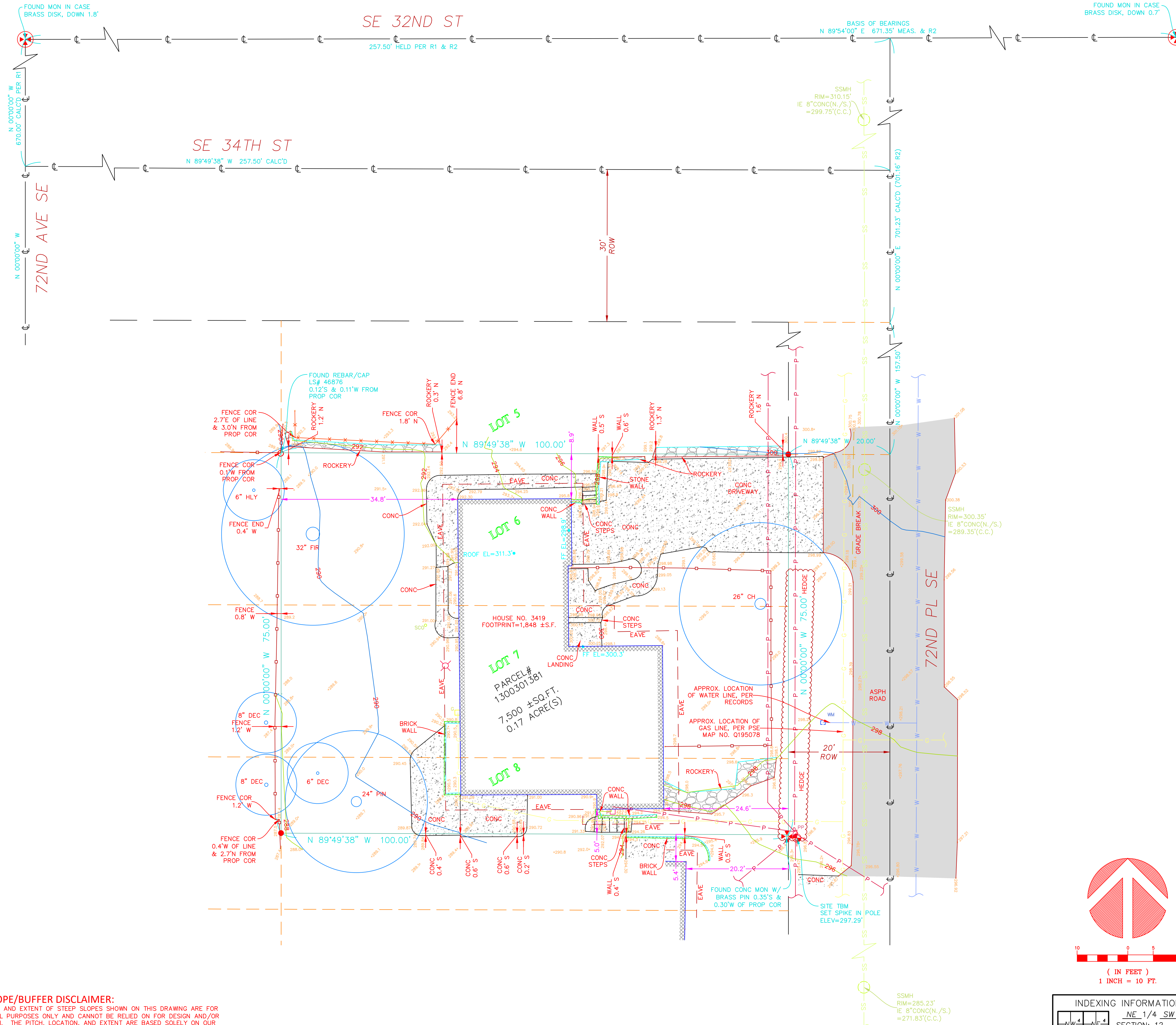
**LEGEND**

- |  |                           |  |                        |
|--|---------------------------|--|------------------------|
|  | ASPHALT SURFACE           |  | POWER METER            |
|  | BENCHMARK                 |  | POWER (OVERHEAD)       |
|  | BUILDING                  |  | POWER POLE             |
|  | CENTERLINE ROW            |  | REBAR & CAP (SET)      |
|  | SS CLEANOUT               |  | REBAR AS NOTED (FOUND) |
|  | CONCRETE SURFACE          |  | RETAINING WALL         |
|  | FENCE LINE (CHAIN LINK)   |  | ROCKERY                |
|  | FENCE LINE (WOOD)         |  | SEWER LINE             |
|  | GAS LINE                  |  | SEWER MANHOLE          |
|  | GAS METER                 |  | TREE (AS NOTED)        |
|  | HEDGE FOLIAGE LINE        |  | WATER LINE             |
|  | MONUMENT (IN CASE, FOUND) |  | WATER METER            |
|  | MONUMENT (SURFACE, FOUND) |  | YARD LIGHT             |

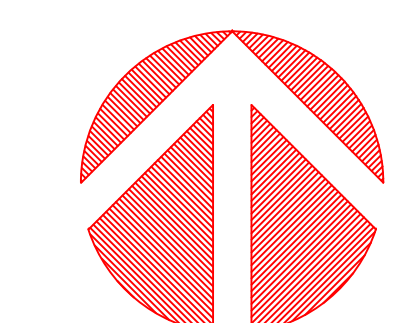
**VICINITY MAP N.T.S.**



**TOPOGRAPHIC & BOUNDARY SURVEY**



**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.



**INDEXING INFORMATION**

|                  |
|------------------|
| NE 1/4 SW 1/4    |
| SECTION: 12      |
| TOWNSHIP: 24N    |
| RANGE: 04E, W.M. |
| COUNTY: KING     |

**TOPOGRAPHIC & BOUNDARY SURVEY**  
 PARCEL NO. 1300301381  
**VAN HOOK RESIDENCE**  
 3419 72ND PL SE  
 MERCER ISLAND, WA 98040

**TERRANE**  
 10801 Main Street, Suite 102  
 Bellevue, WA 98004  
 p: 425-458-4488 | e: info@terrane.net

**JOB NUMBER:** 220111  
**DATE:** 02/25/2022  
**DRAFTED BY:** IDV / RF  
**CHECKED BY:** JS  
**SCALE:** 1" = 1'  
**REVISION HISTORY**

| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |
|     |             |

**SHEET NUMBER**  
 1 OF 1

We are the measure | terrane.net

**LEGAL DESCRIPTION**

PER STATUTORY WARRANTY DEED RECORDING #7305080073)

LOTS 6, 7 AND THE NORTH HALF OF LOT 3, BLOCK 5, C. C. CALKINS 1ST ADDITION TO EAST SEATTLE, ACCORDING TO PLAT RECORDED IN VOLUME 4 OF PLATS, PAGE 88, IN KING COUNTY, WASHINGTON.

**ORGANIC SOIL REQUIREMENT**

**MINIMUM 10% ORGANIC MULCH & COMPOST SOIL REQUIRED**

**SOIL AMENDMENT REQUIRED**

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

ESTIMATED TOPSOIL IMPORT = 31 CY

**SOIL INSPECTION REQUIRED BY ENGINEER**

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

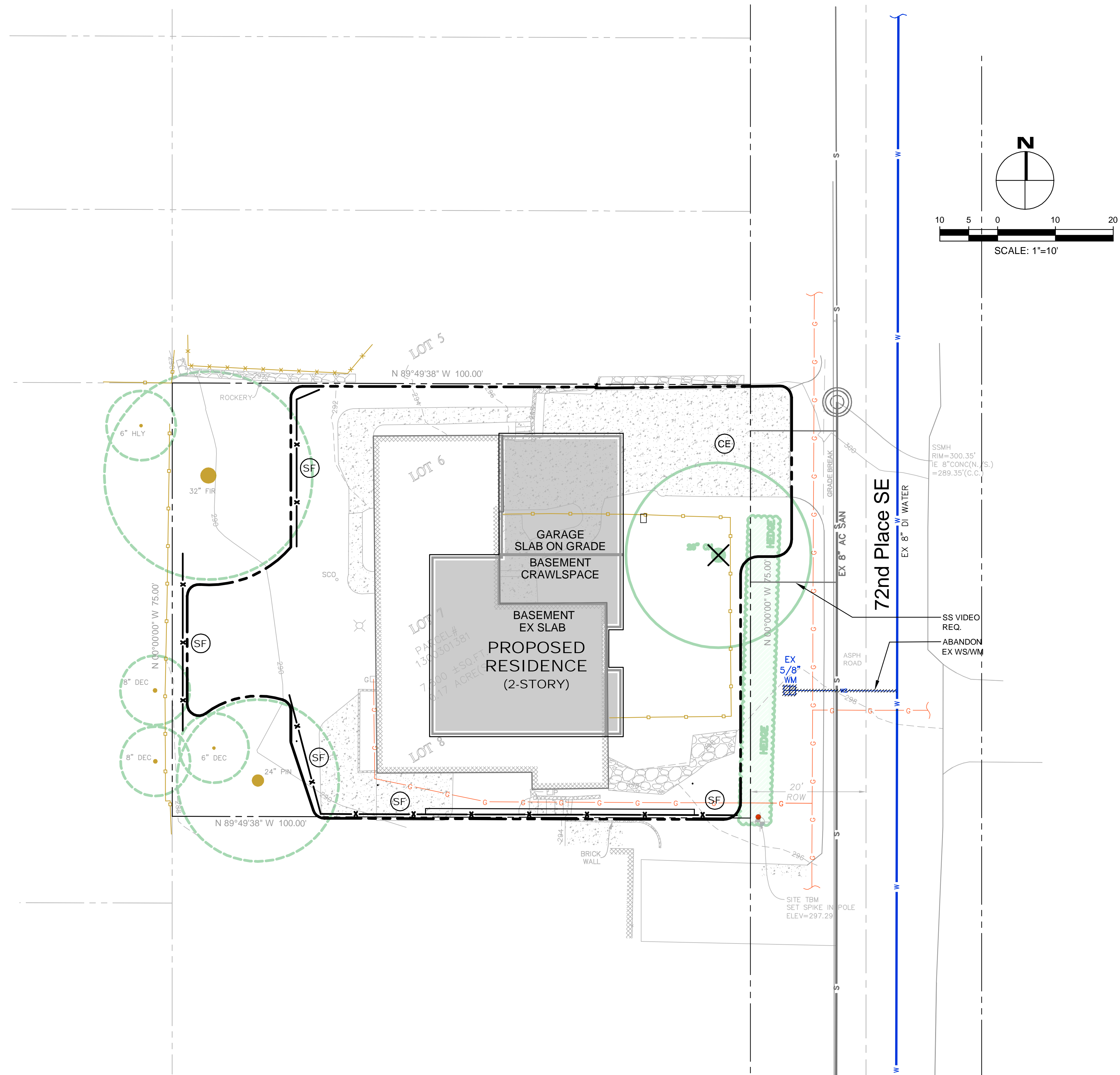
**EROSION CONTROL LEGEND**

|                                       |               |
|---------------------------------------|---------------|
| LIMITS OF DISTURBANCE                 |               |
| FILTER FABRIC FENCE (SILT FENCE)      |               |
| STABILIZED CONSTRUCTION ENTRANCE      |               |
| CATCH BASIN INLET PROTECTION          |               |
| INTERCEPTOR SWALE<br>SEE COR DWG 504. |               |
| TYPE A TEMPORARY SWALE                |               |
| TREE PROTECTION FENCING               |               |
| CHECK DAM                             |               |
| STRAW WATTLES                         |               |
|                                       | USE AS NEEDED |

**TREE PROTECTION NOTES (SOURCED FROM ARBORIST)**

(REF: SEATTLE TREE CONSULTING, DOUGLAS SMITH, CERTIFIED ARBORIST)

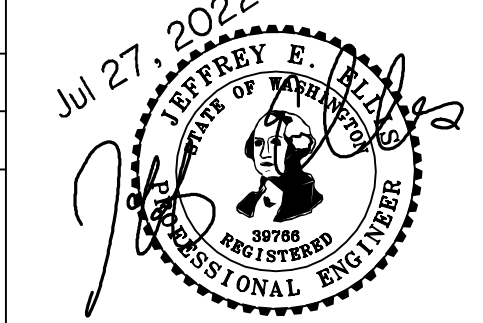
- FOR THE TREES BEING RETAINED, TREE PROTECTION FENCING SHOULD BE INSTALLED AT THE OUTER EDGE OF THE DRIP LINE OR AS CLOSE TO IT AS IS PRACTICALLY POSSIBLE.
- FENCING SHOULD BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES AND REMAIN IN PLACE FOR THE DURATION OF THE PROJECT. FENCING SHOULD ONLY BE MOVED TEMPORARILY IF MINOR DISTURBANCES MUST OCCUR WITHIN THE DRIP LINE AND THE FENCING SHOULD BE REPLACED IMMEDIATELY ONCE THAT PORTION OF THE WORK IS COMPLETED.
- THE TREE PROTECTION AREA IS DESIGNATED TO BE AN AREA OF NO IMPACT, NO STORING OF MATERIALS, NO ENCROACHMENT AND NO STAGING OF DEBRIS.
- THE TREE PROTECTION FENCING SHOULD HAVE SIGNS EVERY 8' FACING ACCESS THAT INDICATE THE AREA IS A TREE PROTECTION ZONE.
- TRENCHING THROUGH THE CRZ FOR UTILITIES IS NOT PERMITTED (TUNNELING IS THE PREFERRED METHOD).
- GRADE CHANGES IN THE CRZ ARE NOT PERMITTED.
- VEHICLE MAINTENANCE AND WASHING OF EQUIPMENT (ESPECIALLY CONCRETE), IS NOT PERMITTED.
- NO ATTACHING ANYTHING TO THE TREE WITH CINCHING KNOTS OR HARDWARE.
- ROOT FLARE SHOULD BE PROTECTED WITH CHIPS SO THAT LAWN MAINTENANCE EQUIPMENT DOES NOT HAVE TO WORK CLOSE TO THE SYSTEM.
- PROPER CLEARANCES SHOULD BE MONITORED.
- THE CRZ OR CRITICAL ROOT ZONE NEEDS TO BE PROTECTED. THE INNER CRZ IS 50 % OF THE RADIUS OF THE CRZ AND THERE SHOULD BE ZERO DISTURBANCE IN THIS ZONE. A DISTURBANCE OF UP TO 33 % OF THE OUTER CRZ IS PERMISSIBLE PROVIDED THAT ANY HEAVY DIGGING EQUIPMENT WORKS TOWARD THE TREE, AND THAT ANY ROOTS ENCOUNTERED THAT ARE OVER 1" IN DIAMETER ARE EXCAVATED AROUND WITH HAND TOOLS AND CUT CLEAN WITH A SHARP SAW BEHIND THE EXCAVATION ZONE SO THAT THE ROOT CAN BIFURCATE AND CONTINUE TO GROW. IN SOME CASES, IF EXCESSIVE PRUNING HAS BEEN DONE, THE CRZ CAN BE LARGER THAN THE DRIP LINE RADIUS.



| NO. | DATE | BY | REVISIONS |
|-----|------|----|-----------|
|     |      |    |           |

APPLICANT  
 JASON KOHLER  
 RKK CONSTRUCTION  
 3056 70th AVENUE SE  
 MERCER ISLAND, WA 98040  
 (206) 236-2920

DATE: Jul 27, 2022  
 JOB#: 2036  
 DRAFTED: SS DESIGN: SS  
 DIGITAL SIGNATURE



**CIVIL ENGINEERING SOLUTIONS**  
 102 NW CANAL STREET SEATTLE, WA 98107  
 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

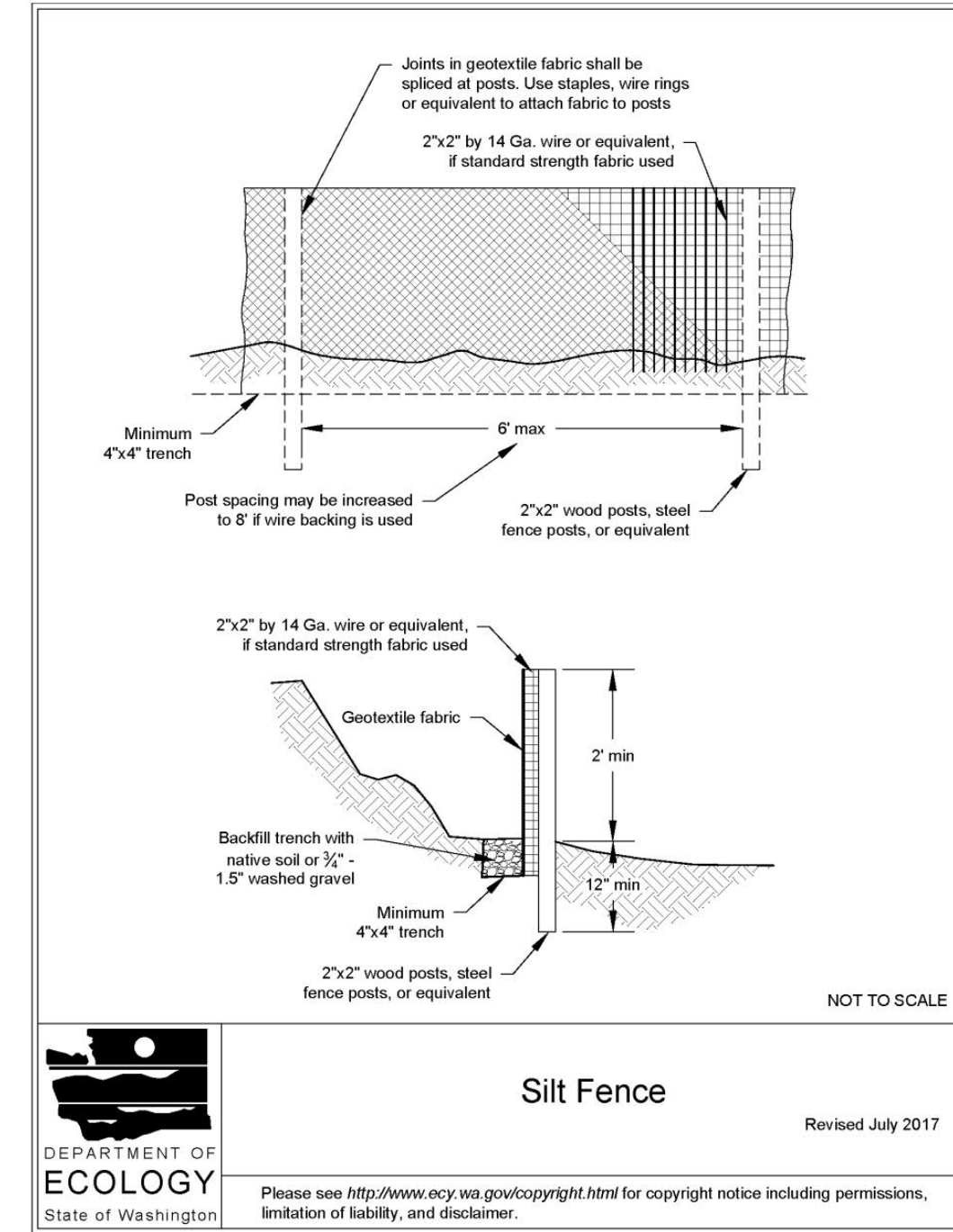
**TESC PLAN TREE RETENTION PLAN**  
 RKK CONSTRUCTION RESIDENCE  
 3419 72nd PLACE SE, MERCER ISLAND, WA 98040

DRAWING NO:  
**C1.0**  
 APN 130030-1381

**SILT FENCE DETAIL**

DOE

Figure II-3.22: Silt Fence



**Silt Fence**  
Revised July 2017  
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2019 Stormwater Management Manual for Western Washington  
Volume II - Chapter 3 - Page 371

**RECOMMENDED CONSTRUCTION SEQUENCE**

A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:

- HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
- POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
- 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 PONDS AND TRAPS.
- GRADE AND STABILIZE CONSTRUCTION ROADS.
- CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND 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 CITY OF MERCER ISLAND TESC REQUIREMENTS.
- COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
- STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
- SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

**EROSION CONTROL NOTES**

D.8.2 STANDARD ESC PLAN NOTES  
THE STANDARD ESC PLAN NOTES MUST BE INCLUDED ON ALL ESC PLANS. AT THE APPLICANT'S DISCRETION, NOTES THAT IN NO WAY APPLY TO THE PROJECT MAY BE OMITTED; HOWEVER, THE REMAINING NOTES MUST NOT BE RENUMBERED. FOR EXAMPLE, IF ESC NOTE #3 WERE OMITTED, THE REMAINING NOTES SHOULD BE NUMBERED 1, 2, 4, 5, 6, ETC.

- APPROVAL OF THIS EROSION AND 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.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- 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 AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- 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 FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

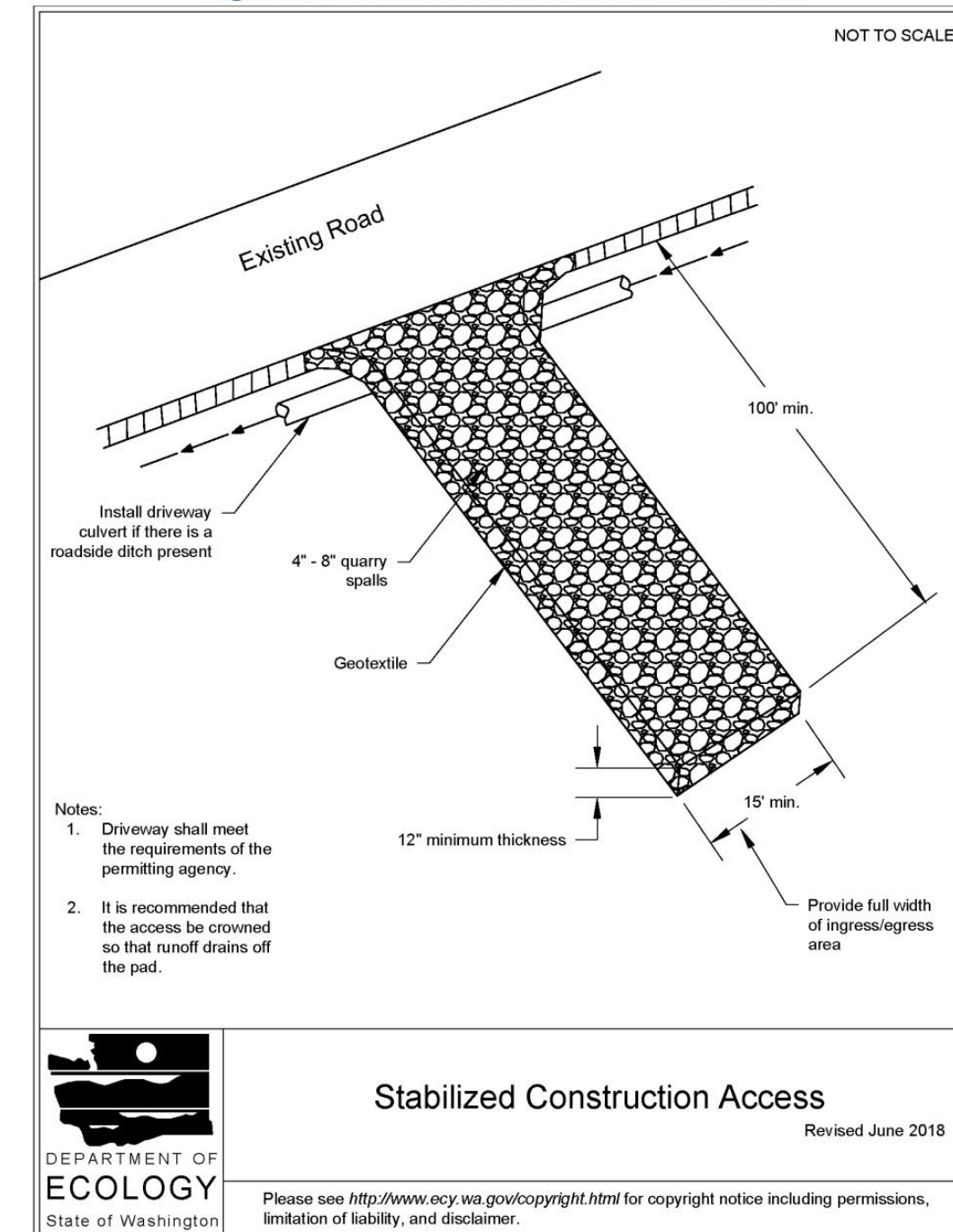
**CITY NOTES**

- ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
- APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
- CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
- CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITIES.
- AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
- DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED
- EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:
- PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.
- CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
- PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
- ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
- INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
- OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
- POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
- REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
- ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
- SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
- WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
- REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
- THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. 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. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.
- NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
- POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
- THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

**CONSTRUCTION ENTRANCE**

DOE

Figure II-3.1: Stabilized Construction Access



**Stabilized Construction Access**  
Revised June 2018  
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2019 Stormwater Management Manual for Western Washington  
Volume II - Chapter 3 - Page 279

**DENUDED AREAS REQUIREMENTS**

APRIL 1 TO SEPT 30  
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 7 DAYS OF CONSTRUCTION. PLEASE READ ALL CITY TESC NOTES ON SHEET C1.2.

OCT 1 TO MARCH 31  
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING. IF AN EROSION PROBLEM ALREADY EXISTS ON THE SITE, OTHER COVER PROTECTION AND EROSION CONTROL WILL BE REQUIRED.

| NO. | DATE | BY | REVISIONS |
|-----|------|----|-----------|
|     |      |    |           |

APPLICANT  
JASON KOHLER  
RKK CONSTRUCTION  
3056 70th AVENUE SE  
MERCER ISLAND, WA 98040  
(206) 236-2920

DATE: Jul 25, 2022  
JOB#: 2036  
DRAFTED: SS DESIGN: DE  
DIGITAL SIGNATURE



**CIVIL ENGINEERING SOLUTIONS**  
102 NW CANAL STREET SEATTLE, WA 98107  
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

**TESC & CITY NOTES  
TESC DETAILS**

RKK CONSTRUCTION RESIDENCE  
3419 72nd PLACE SE, MERCER ISLAND, WA 98040

DRAWING NO:  
**C1.2**  
APN 130030-1381

**SANITARY SEWER IMPROVEMENTS**

- 1 -
- 2 - 6" SDR 35 PVC SANITARY SEWER(SS) @ MIN 1.0 %.
- 3 -
- 4 -
- 7 - LOCATE AND VIDEO CONDITION OF EXISTING SANITARY SIDE SEWER. REPLACE LINE IF FOUND DEFECTIVE AS DETERMINED BY CITY INSPECTOR.

**WATER IMPROVEMENTS**

- 10 - EW SF RESIDENTIAL WATER SERVICE & METER PIT. CONFIRM REQUIRED SIZE WITH BUILDING PERMIT REVIEW. INSTALL PER MERCER ISLAND DETAIL W-13, W-14, OR W-14A DEPENDING ON SIZE REQUIREMENT.
- 11 - 1.5" 250 PSI PRIVATE HDPE WATER (ASTM D2239) FROM METER TO HOUSE. RECOMMENDED DEPTH=36". COORDINATE HOUSE ENTRY WITH BUILDER/OWNER.
- 12 -
- 14 -

**STORM DRAIN**

- 20 - 4" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE
- 21 - 4" FOUNDATION DRAIN (3034 PVC) @ MIN 1 % GRADE
- 22 - 6" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE
- 23 -
- 24 - 12" STORM DRAIN (HDPE N12 OR EQUAL). SEE PROFILE SHEET.
- 25 - STORM DRAIN FORCE MAIN @ MIN. 30" DEPTH
- 26 -

**STORM DRAIN STRUCTURES**

- 30 -
- 31 -
- 32 - TYPE 1 CB WITH SOLID LID
- 33 - TYPE 40 CB (OR EQUAL), SPILL CONTROL STYLE. PROVIDE RISOR WITH TURNED-DOWN ELBOW IN DRIVEWAY.
- 34 -
- 35 -
- 36 - 6" WIDE NDS DURASLOPE CHANNEL DRAIN OR EQUAL. CLASS B VEHICLE RATED GRATE.
- 39 -
- 40 -
- 41 -
- 43 - 48" ID DUPLEX STORM PUMP STRUCTURE. SOLID LID. SEE PROFILE C4.9 FOR DEPTH CALCULATION. SEE PUMP CYCLE FLOATS FOR 18" PUMP CYCLE. SEE PUMP SPECS ON SHEET C4.0.
- 46 - DUPLEX STORM PUMPS REQUIRED. USE MIN 30" DIAMETER RIBBED PVC BASIN. SEE C5.0 FOR ALL PUMP DETAILS AND ASSOCIATED CALCULATIONS.
- 47 -
- 48 -

**STORM BMP's**

- 50 - COMPOST AMENDED SOIL TO ALL DISTURBED AREAS (SEE DETAIL SHEET C3.5). TILL 2-3" OF COMPOST INTO UPPER 8" OF SOIL. LOOSEN COMPACTED SUBSOIL, IF NEEDED BY RIPPING TO 12" DEPTH. MULCH LANDSCAPE BEDS AFTER PLANTING.
- 51 -
- 52 -
- 53 -
- 54 -
- 55 -
- 56 -
- 57 -
- 58 -

**MINIMUM 10% ORGANIC - COMPOST & MULCH REQUIRED**

**SOILS**

NO REPORT FOR THIS PROJECT, TO ENGINEER'S KNOWLEDGE  
 MERCER ISLAND SHOWS GLACIAL TILL  
 MERCER ISLAND INFILTRATION MAP SHOWS MODERATE POTENTIAL

**SURVEYOR**

TOPOGRAPHIC SURVEY BY:  
 TERRANE  
 10801 MAIN STREET, SUITE 102  
 BELLEVUE, WA 98004  
 PHONE 425-458-4488

**VERTICAL DATUM**

NAVD 88 PER WGS SURVEY DATA WAREHOUSE 6457  
 SEE SURVEY

**LEGAL DESCRIPTION**

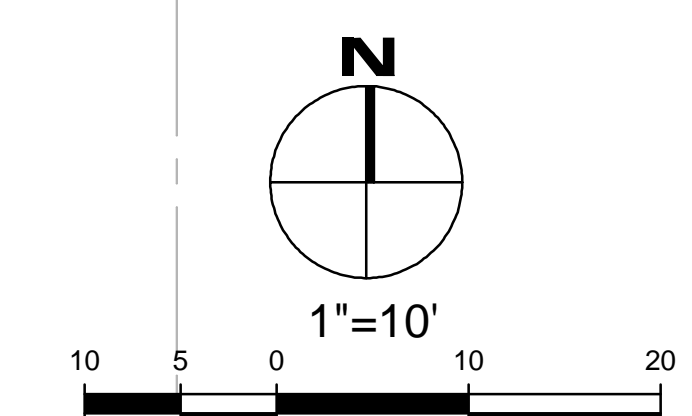
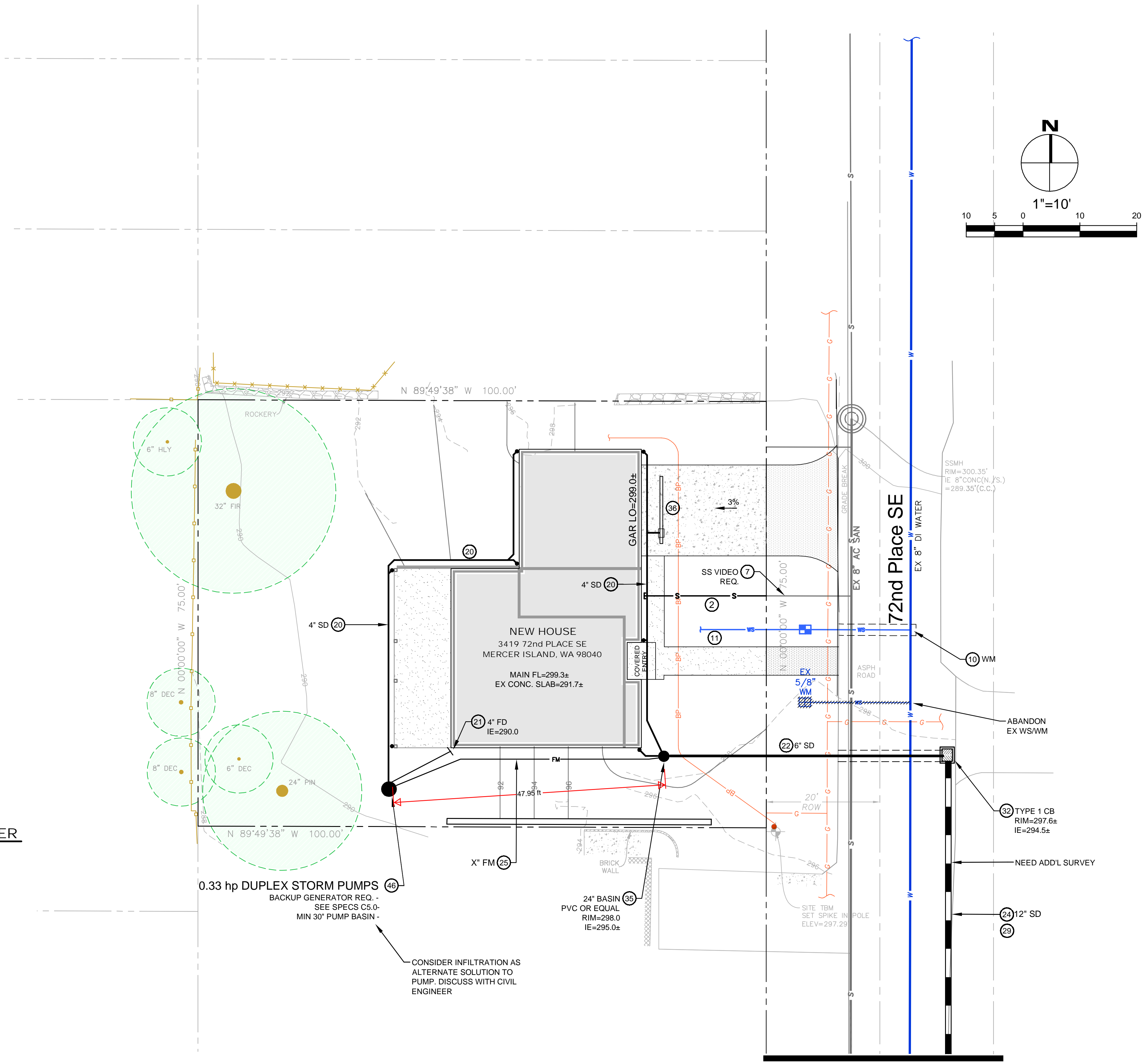
SEE C1.0

**SOIL AMENDMENT REQUIRED**

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

**SOIL INSPECTION REQUIRED BY ENGINEER**

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.



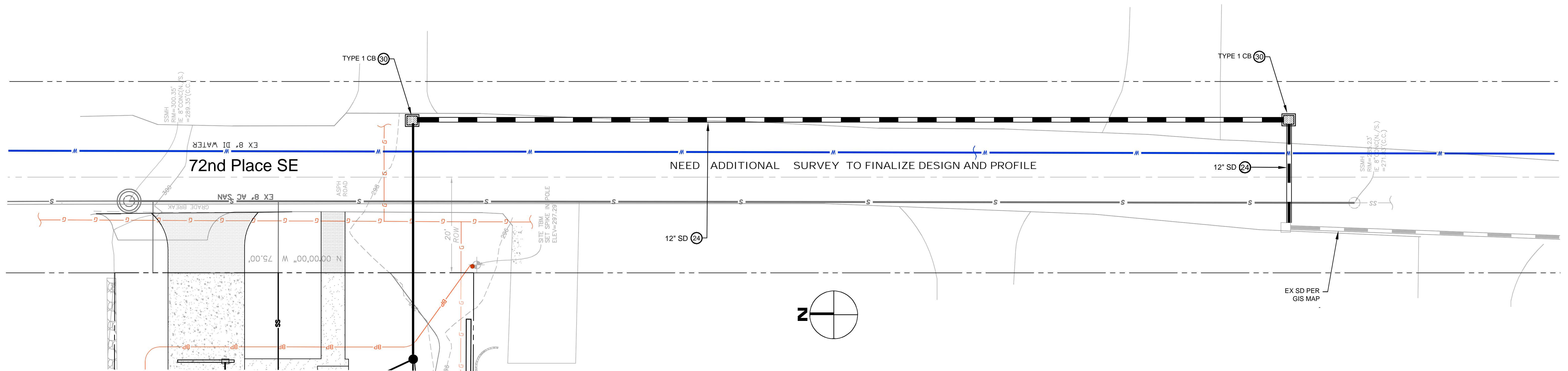
MATCHLINE - SEE C3.0

| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 10%;">BY</th> <th style="width: 80%;">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> | NO.  | DATE | BY        | REVISIONS |  |  |  |  | <p>APPLICANT<br/>                 JASON KOHLER<br/>                 RKK CONSTRUCTION<br/>                 3056 70th AVENUE SE<br/>                 MERCER ISLAND, WA 98040<br/>                 (206) 236-2920</p> | <p>DATE: Jul 27, 2022<br/>                 JOB# 2036<br/>                 DRAFTED: DE DESIGN: DE<br/>                 DIGITAL SIGNATURE</p> |  | <p><b>CIVIL ENGINEERING SOLUTIONS</b></p> <p>102 NW CANAL STREET SEATTLE, WA 98107<br/>                 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US</p> | <p><b>DRAINAGE / CIVIL PLAN</b></p> <p>RKK CONSTRUCTION RESIDENCE<br/>                 3419 72nd PLACE SE, MERCER ISLAND, WA 98040</p> | <p>DRAWING NO:<br/> <b>C2.0</b></p> <p>APN 130030-1381</p> |
|---|------|------|-----------|-----------|--|--|--|--|--|---|--|--|--|--|
| NO.   | DATE | BY   | REVISIONS |           |  |  |  |  |  |   |  |  |  |  |
|   |      |      |           |           |  |  |  |  |  |   |  |  |  |  |

# PROFILE PENDING

## 12" STORM DRAIN EXTENSION

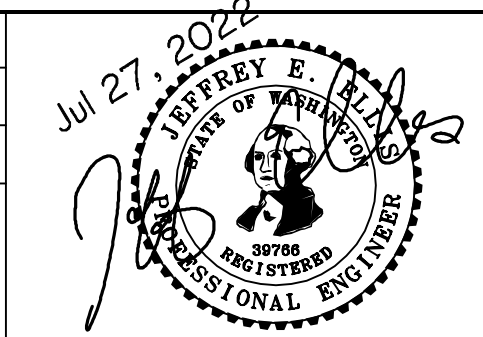
SCALE: 1"=10'



| NO. | DATE | BY | REVISIONS |
|-----|------|----|-----------|
|     |      |    |           |

APPLICANT  
 JASON KOHLER  
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 3056 70th AVENUE SE  
 MERCER ISLAND, WA 98040  
 (206) 236-2920

DATE: Jul 27, 2022  
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 102 NW CANAL STREET SEATTLE, WA 98107  
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**STORM DRAIN EXTENSION**  
 RKK CONSTRUCTION RESIDENCE  
 3419 72nd PLACE SE, MERCER ISLAND, WA 98040

DRAWING NO:  
**C3.0**  
 APN 130030-1381

**MINIMUM 10% ORGANIC - COMPOST SOIL REQUIRED**

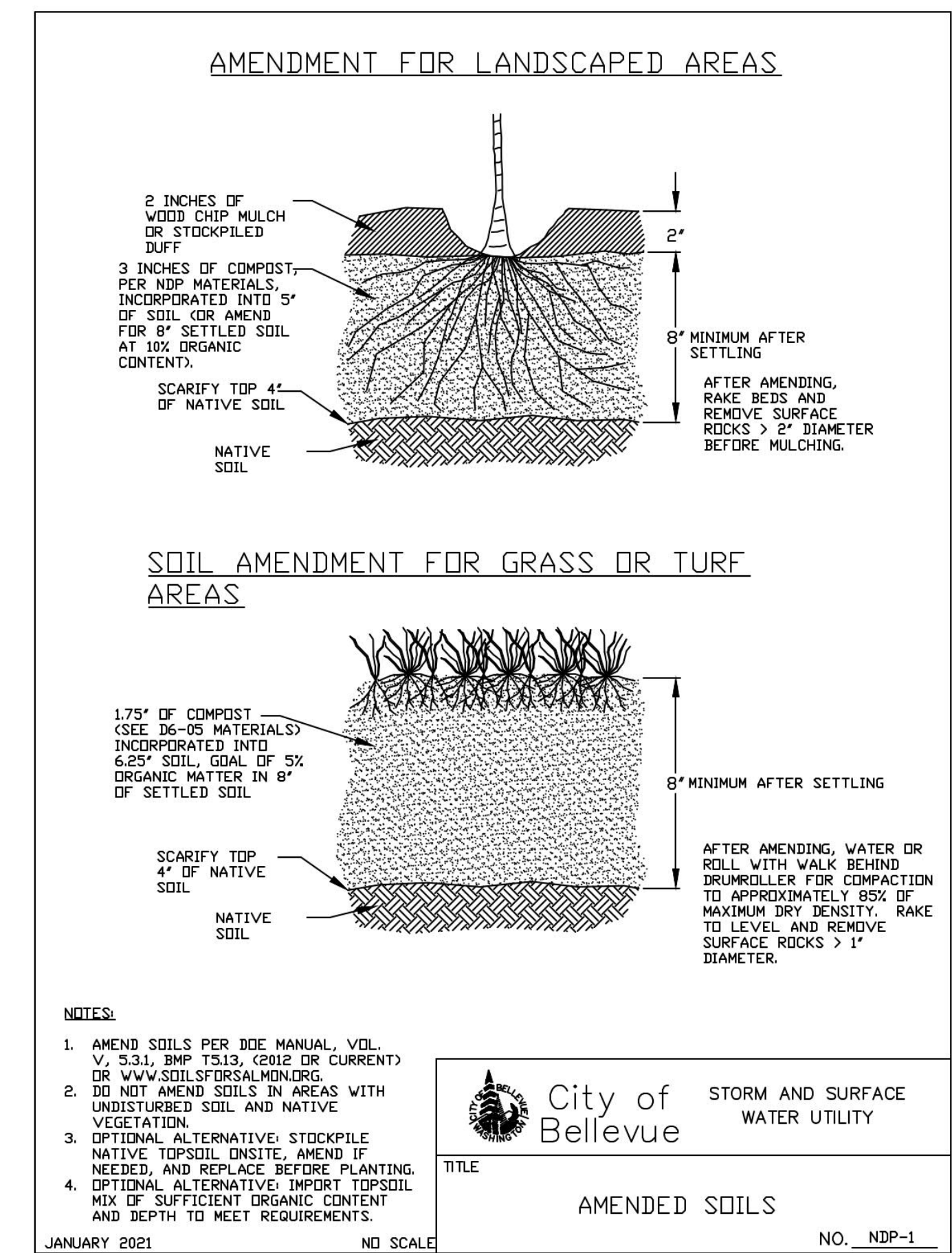
**SOIL AMENDMENT REQUIRED**

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL BELOW.

**SOIL INSPECTION REQUIRED BY ENGINEER**

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

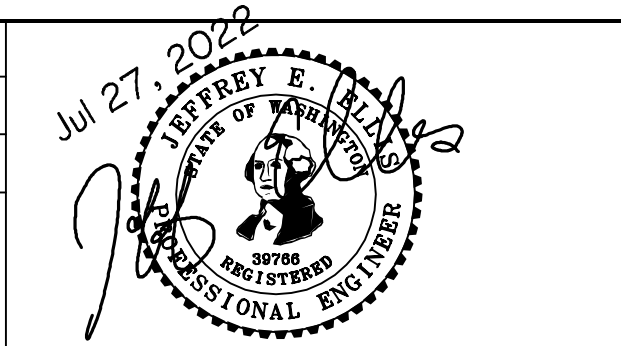
**COMPOST AMENDED SOIL SPEC**



| NO. | DATE | BY | REVISIONS |
|-----|------|----|-----------|
|     |      |    |           |

APPLICANT  
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DATE: Jul 27, 2022  
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**CIVIL ENGINEERING SOLUTIONS**  
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**STORM, BMP DETAILS**  
 RKK CONSTRUCTION RESIDENCE  
 3419 72nd PLACE SE, MERCER ISLAND, WA 98040

DRAWING NO:  
**C3.5**  
 APN 130030-1381



## RHOMBUS 122 PANEL

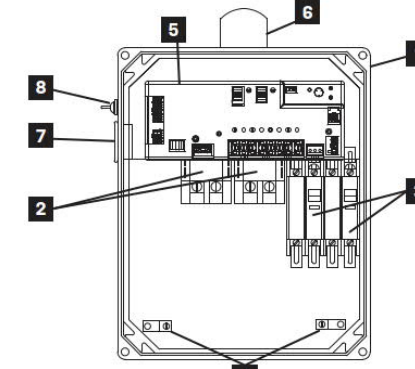
### MODEL 122 Control Panel

Single phase, duplex alternating pump control with override.

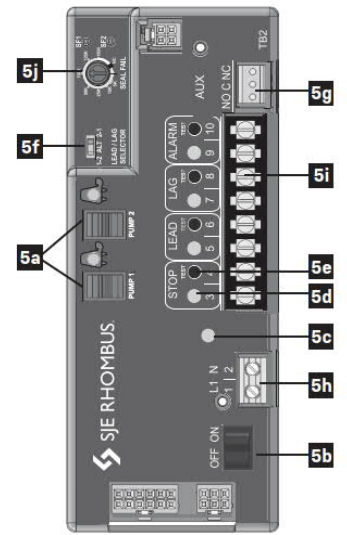
The Model 122 control panel is designed to alternately control two 120, 208, or 240 VAC single phase pumps in water and sewage installations. The controller is provided with a pump selector switch that can be set to alternate the pumps to equalize wear or to call either pump to activate first with the other pump to activate in lag condition. If an alarm occurs, the alarm activates the audible-visual system. The alarm conditions include: high water, float out-of-sequence, pump fail-to-run, seal failure (optional). Common applications include: lift stations, pump chambers, and irrigation systems.

#### PANEL COMPONENTS

- Enclosure** measures 12x10x6 inches (30.48x25.4x15.24). Choice of NEMA 1 (steel for indoor use) or NEMA 4X (ultraviolet stabilized thermoplastic, padlockable with integral mounting flanges, drip shield, (2) heavy duty cover latches, and stainless steel 1/2" turn set screws for outdoor or indoor use). Note: standard options may change enclosure size and enclosure features.
- Magnetic Motor Contactors** control pumps by switching electrical lines.
- Circuit Breakers** (optional) provide pump disconnect and branch circuit protection.
- Ground Lugs**
- Duplex Controller** provides pump control, alternation and alarm; elevated in the enclosure for easy access and field wiring
  - HQA switches for manual control Hand/Off/Automatic
  - Control Power ON/OFF switch
  - Power ON green LED indicator
  - Float status red LED indicators
  - Float push-to-test buttons
  - Pump selector switch: All, 1-lead 2-lag, 2-lead 1 lag
  - Auxiliary alarm contacts Form C
  - Terminal block: incoming power
  - Terminal block: float switches
  - Option:** adjustable seal failure circuits and red LED indicators (must select option SE when ordering)



Model Shown  
1221W14X6A10E19B LISTED



NOTE: Schematic Diagram is located inside the panel on enclosure cover.

#### STANDARD ALARM PACKAGE

- Red Alarm Beacon** provides 360° visual check of alarm condition.
- Alarm Horn** provides audible alarm warning (83 to 85 decibel rating).
- Exterior Alarm Test/Normal/Silence Switch** allows horn and light to be tested and horn to be silenced in an alarm condition. Alarm automatically resets once alarm condition is cleared unless the controller is programmed to manual alarm reset.

NOTE: other options available.

#### FEATURES

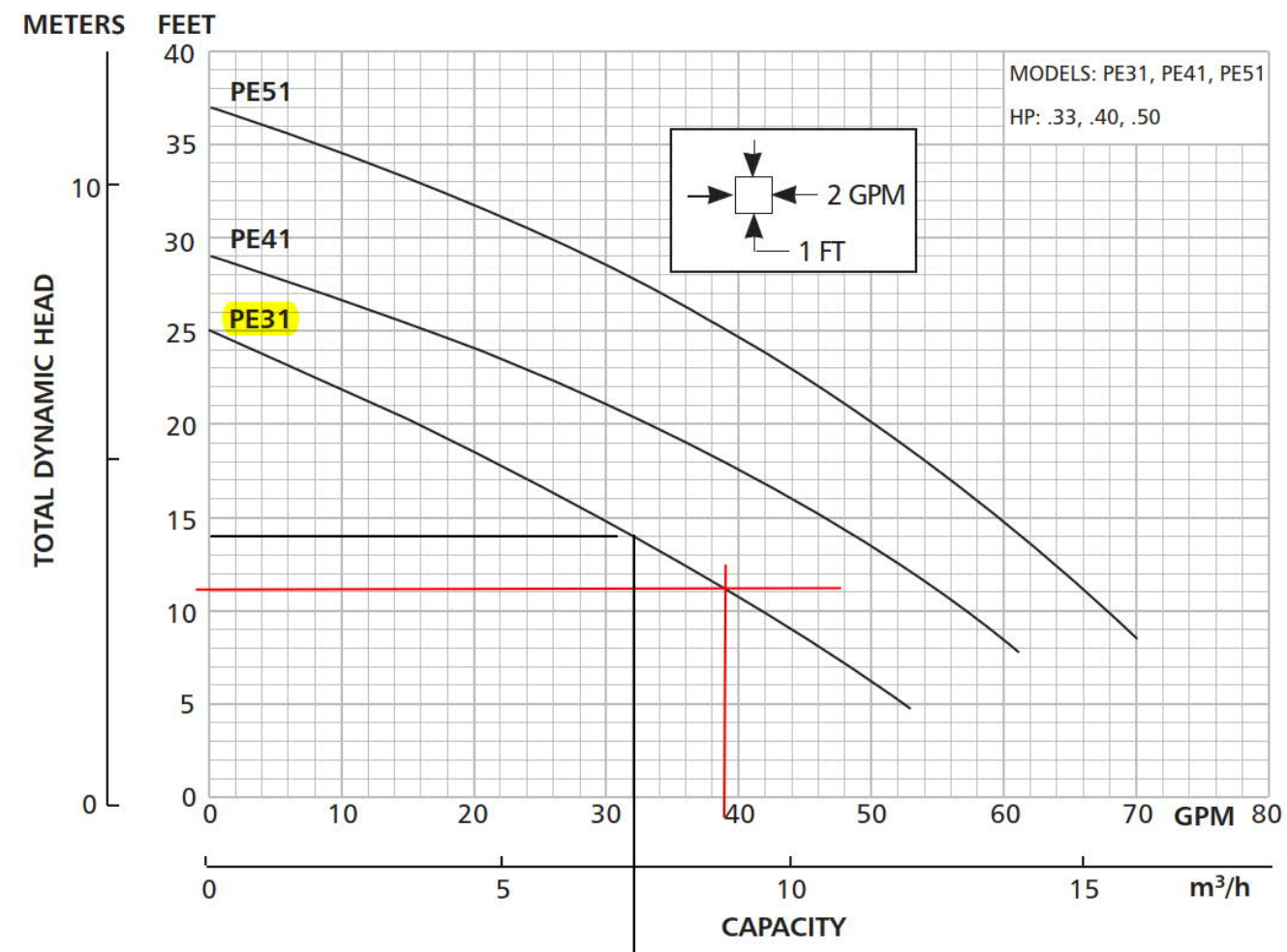
- Touch safe circuit board housing and low voltage 12 VDC float circuits
- Alarm (field programmable to flash)
- Alarm automatic reset (held programmable to manual alarm reset)
- Float out-of-sequence detection
- Pump fail-to-run detection (field programmable to deactivate)
- Controller protected by four auto resettable fuses, no fuse replacement
- Three second lag pump delay time, prevents simultaneous pump start-up
- Standard package includes three 20' control switches or EZconnect® float system
- Five-year limited warranty.

California Prop 65 requires the following: **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov  
SEE REVERSE SIDE FOR ORDERING INFORMATION.  
SEE PRICE BOOK FOR LIST PRICE.



**SJE RHOMBUS**  
1-888-DIAL-SJE • 1-206-847-1317  
1-206-847-4677 Fax  
email: customer-service@sjeinc.com  
www.sjerhombus.com B.39

## GOULDS PE31 STORM PUMP CURVE



## STORM PUMP SPEC

### TECHNICAL BROCHURE BFE

**FEATURES**

- Corrosion resistant construction
- Cast iron body
- Thermoplastic impeller and cover.
- Upper sleeve and lower heavy duty ball bearing construction.
- Motor is permanently lubricated for extended service life.
- Powered for continuous operation.
- All ratings are within the working limits of the motor.
- Quick disconnect power cord, 20' standard length, heavy duty 16/3 SJTW with 115 or 230 volt grounding plug.
- Complete unit is heavy duty, portable and compact.
- Mechanical seal is carbon, ceramic, BUNA and stainless steel.
- Stainless steel fasteners

**Goulds Water Technology**

**Wastewater**

**APPLICATIONS**  
Specially designed for the following uses:  
• Mound Systems  
• Effluent Dosing Systems  
• Low Pressure Pipe Systems  
• Basement Draining  
• Heavy Duty Sump/De-watering

**SPECIFICATIONS**  
**Pump - General:**  
• Discharge: 1 1/2" NPT  
• Temperature: 104°F (40°C) maximum, continuous when fully submerged.  
• Solids handling: 1/2" maximum sphere.  
• Automatic models include a float switch.  
• Manual models available.  
• Pumping range: see performance chart or curve.

**PE31 Pump:**  
• Maximum capacity: 53 GPM  
• Maximum head: 25' TDH

**PE41 Pump:**  
• Maximum capacity: 61 GPM  
• Maximum head: 29' TDH

**PE51 Pump:**  
• Maximum capacity: 70 GPM  
• Maximum head: 37' TDH

**PUMP INFORMATION**

| Order No. | HP   | Volts | Amps | Minimum Circuit Breaker | Phase | Float Switch Style     | Cord Length | Discharge Connection | Minimum Basin Diameter | Maximum Basin Size | Shipping Weight lbs/kg |
|-----------|------|-------|------|-------------------------|-------|------------------------|-------------|----------------------|------------------------|--------------------|------------------------|
| PE31M     | 0.33 | 115   | 1.2  | 20                      |       | Manual / No Switch     |             |                      |                        |                    |                        |
| PE31P     | 0.33 | 115   | 1.2  | 20                      |       | Piggyback Float Switch |             |                      |                        |                    |                        |
| PE41M     | 0.4  | 230   | 3.7  | 10                      | 1     | Manual / No Switch     | 20'         | 1.5"                 | 18"                    | .5'                | 31 / 14.1              |
| PE41P     | 0.4  | 230   | 3.7  | 10                      | 1     | Piggyback Float Switch |             |                      |                        |                    |                        |
| PE42P     | 0.5  | 230   | 4.7  | 10                      |       | Piggyback Float Switch |             |                      |                        |                    |                        |
| PE51M     | 0.5  | 230   | 4.7  | 10                      |       | Manual / No Switch     |             |                      |                        |                    |                        |
| PE51P     | 0.5  | 230   | 4.7  | 10                      |       | Piggyback Float Switch |             |                      |                        |                    |                        |
| PE52M     |      |       |      |                         |       | Manual / No Switch     |             |                      |                        |                    |                        |
| PE52P     |      |       |      |                         |       | Piggyback Float Switch |             |                      |                        |                    |                        |

**GOULDS WATER TECHNOLOGY**  
a xylem brand

## PUMPING DEPTH CALCULATOR

### Storm Pump-Float Depth / Pump Interval Calculator

|   | Value | Units   | Comments                      |
|---|-------|---------|-------------------------------|
| Input Pump Basin Diameter (feet)=             | 2.5   | feet    |                               |
| Calculate pump basin radius=                  | 1.3   | feet    |                               |
| Calculate cross section Area of basin=        | 4.91  | sf      |                               |
| Input a pump depth to achieve 2 min run time= | 2.0   | feet    |                               |
| Calculate volume of water per pump cycle=     | 9.8   | cf      |                               |
| Convert volume to gallons                     | 73.4  | gallons | convert to gallons pumped     |
| Input pump rate based on pump curve and TDH   | 33    | gpm     |                               |
| Calculated time for pump to operate per cycle | 2.2   | Minutes | Ensure greater than 2 minutes |

— RECOMMENDED PUMP CYCLE DEPTH

## PUMP DESIGN HYDROLOGY

| Peak Flow Rates in Puget Sound        |       |            |       |            |       |                          |
|---------------------------------------|-------|------------|-------|------------|-------|--------------------------|
| 100 year, 24 hour storm event         |       |            |       |            |       |                          |
| I=4.0 inches/24 hours per isopluvials |       |            |       |            |       |                          |
| Impervious Area                       | Acres | SBUH (CFS) |       | SBUH (GPM) |       | Comments                 |
|                                       |       | Tc=6.3     | Tc=10 | Tc=10      | Tc=10 |                          |
| 500                                   | 0.011 | 0.01       | 4     | 0.011      | 5     |                          |
| 1,000                                 | 0.023 | 0.02       | 9     | 0.023      | 10    |                          |
| 2,000                                 | 0.046 | 0.041      | 18    | 0.045      | 20    | tributary area ~1,200 sf |
| 3,000                                 | 0.069 | 0.062      | 28    | 0.067      | 30    |                          |
| 4,000                                 | 0.092 | 0.082      | 38    | 0.085      | 38    |                          |
| 5,000                                 | 0.115 | 0.103      | 46    | 0.112      | 50    |                          |
| 6,000                                 | 0.138 | 0.124      | 55    | 0.135      | 60    |                          |
| 7,000                                 | 0.161 | 0.143      | 64    | 0.156      | 69    |                          |
| 8,000                                 | 0.184 | 0.164      | 73    | 0.179      | 80    |                          |

GIVEN DUPLEX PUMPS, SIZE EACH PUMP FOR 50% OF 30 GPM SINCE BOTH CAN ACTIVATE DURING LARGER STORM FLOWS

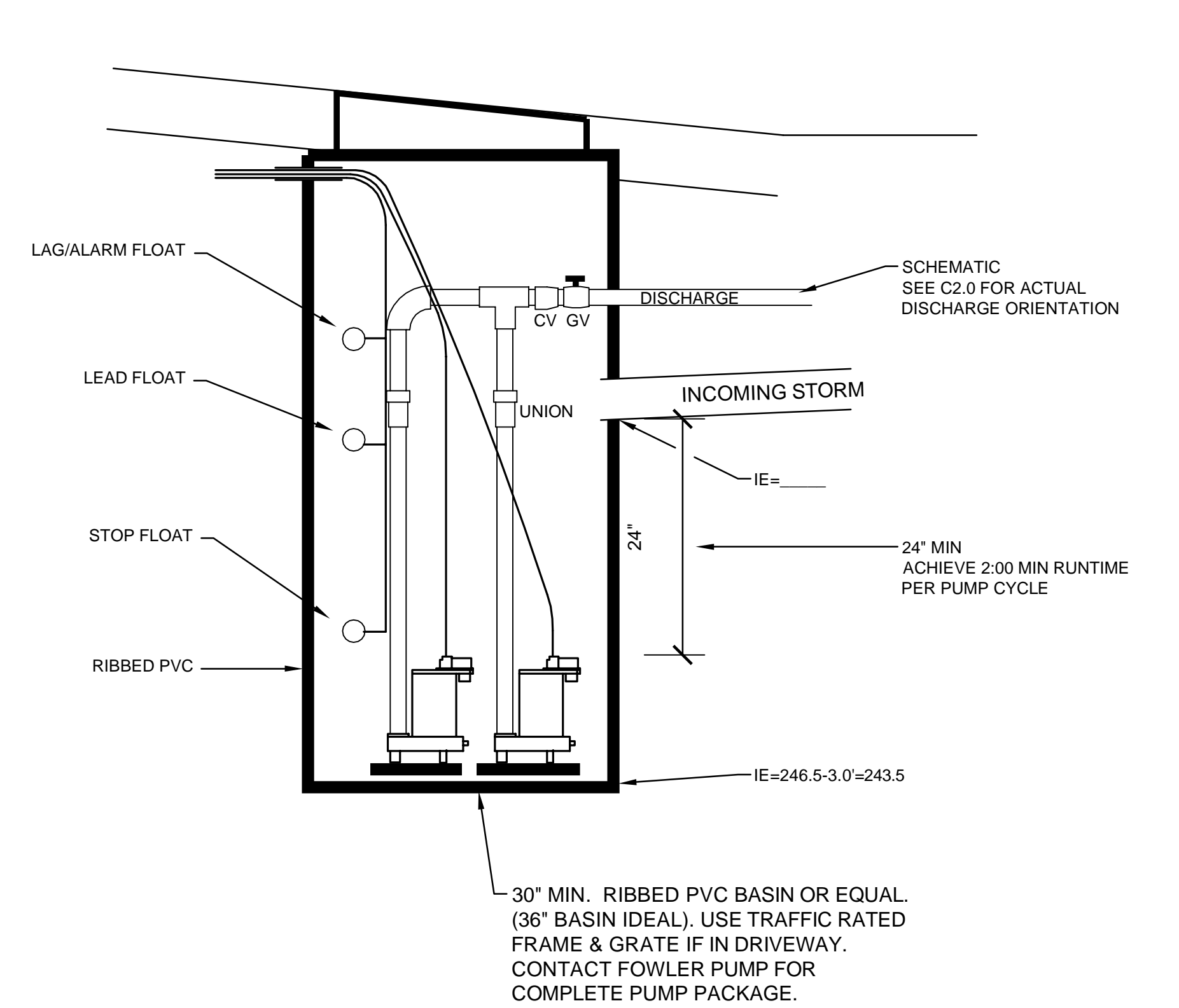
## TOTAL DYNAMIC HEAD CALCULATOR

### Total Dynamic Head (TDH) Calculator

|  |         |   |
|--|---------|---|
| Flow Rate  | 32      | GPM   |
| Pipe Diameter  | 1.5     | inch inside diameter  |
| Pipe Length  | 50      | ft Total length   |
| Differential Elevation                                     | 10      | ft From water drawdown level to highest point in the pipe set up. Water drawdown level is defined as the lowest water level in the well, after long time pumping.   |
| Pipe Material  | Plastic |   |
| Pressure required (Check for Yes) <input type="checkbox"/> | 0       | PSI The average pressure in a domestic water systems with a pressure tank used; or the pressure that is required for an application if a pressure tank is not used (e.g. a direct driven sprinkler system). |
| Total Dynamic Head TDH:                                    | 14.17   | ft  |

## STORM PUMP & PVC PUMP BASIN SCHEMATIC

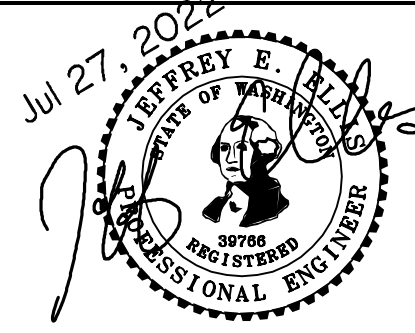
### 3-FLOAT DUPLEX



| NO. | DATE | BY | REVISIONS |
|-----|------|----|-----------|
|     |      |    |           |

APPLICANT  
JASON KOHLER  
RKK CONSTRUCTION  
3056 70th AVENUE SE  
MERCER ISLAND, WA 98040  
(206) 236-2920

DATE: Jul 27, 2022  
JOB# 2036  
DRAFTED: DE DESIGN: DE  
DIGITAL SIGNATURE



**CIVIL ENGINEERING SOLUTIONS**

102 NW CANAL STREET SEATTLE, WA 98107  
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

## STORM PUMPS

RKK CONSTRUCTION RESIDENCE  
3419 72nd PLACE SE, MERCER ISLAND, WA 98040

DRAWING NO:

**C5.0**

APN 130030-1381

**BUILDING CODE:** 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), AND BY REFERENCE THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY LOCAL JURISDICTION.  
**ROOF LIVE LOAD** = 25 PSF SNOW (GROUND SNOW = 30 PSF)  
**ROOF DEAD LOAD** = 15 PSF  
**FLOOR LIVE LOAD** = 40 PSF (30 PSF AT SLEEPING AREAS)  
**FLOOR DEAD LOAD** = 15 PSF  
**BALCONIES & DECKS** = 60 PSF (LIVE LOAD) + 10 PSF (DEAD LOAD)  
**WIND SPEED (NORMAL 3 SEC GUST)** = 100 MPH FOR RISK CATEGORY 1, EXPOSURE "C", Kzt+1+0  
**SOIL SITE CLASSIFICATION** = SEISMIC CATEGORY D1/D2 Ss=1.42, Sds=1.125  
**OCCUPANCY GROUP:** R-3 **CONSTRUCTION TYPE:** V-B

CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO ARCHITECT AND/OR ENGINEER OF RECORD FOR RESOLUTION PRIOR TO COMMENCING WORK. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS. ARCHITECT AND/OR ENGINEER OF RECORD ARE NOT RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

**DEFERRED SUBMITTAL ITEMS**

THE FOLLOWING IS A LIST OF ITEMS THAT ARE NOT INCLUDED IN THIS PLAN AND SHOULD BE PROVIDED BY THE BUILDER AT TIME OF APPLICATION FOR PERMIT OR AS A DEFERRED SUBMITTAL ITEM:  
 - ALTERNATIVE 1-JOIST/BEAM/ MANUFACTURER PLANS.  
 - MANUFACTURED TRUSS DESIGNS AND LAYOUTS

**GENERAL**

FOUNDATION DESIGN IS BASED ON AN ALLOWABLE SOIL BEARING OF 1500 PSF. EXTERIOR FOOTINGS SHALL BEAR (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACKFILL TO BE THOROUGHLY COMPACTED.  
 BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 0.225"x3"x3" PLATE WASHERS. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.  
 FOUNDATION SILL BOLTS (MIN. 1" EMBED) TO BE 5/8" DIAMETER AT 6'-0" O.C. (4'-0" AT BUILDINGS OVER 2 STORIES) UNO. METAL FRAMING CONNECTORS TO BE SIMPSON STRONG-TIE OR USP STEEL CONNECTORS

**CONCRETE**

MINIMUM COMPRESSIVE STRENGTH OF CONCRETE:

| TYPE OR LOCATION OF CONCRETE CONSTRUCTION  | MINIMUM COMPRESSIVE STRENGTH (f <sub>c</sub> ) AT 28 DAYS |
|--|---|
| BASEMENT WALLS, FOUNDATION FOOTINGS, BASEMENT SLABS, & INTERIOR SLABS ON GRADE (EXCEPT GARAGE) NOT EXPOSED TO THE WEATHER              | 2500 psi  |
| BASEMENT WALLS, FOUNDATION WALLS, EXTERIOR WALLS, PORCHES, STEPS, GARAGE & CARPORT SLABS, & OTHER CONCRETE WORK EXPOSED TO THE WEATHER | 3000 psi (6% air entrained +/- 1%)                        |

CONCRETE MIXTURE SHALL CONTAIN AT LEAST 5 1/2 BAGS OF CEMENT PER CUBIC YARD. CONCRETE "BATCH TICKET" SHALL BE AVAILABLE ON SITE FOR REVIEW BY BUILDING OFFICIAL. VERTICAL REINFORCING STEEL TO COMPLY WITH ASTM A615 GRADE 40 (GRADE 60 AT WALLS RETAINING MORE THAN 4FT OF SOIL)

**CARPENTRY**

**GENERAL**  
 ALL NAILING TO COMPLY WITH REQUIREMENTS OF IRC TABLE R602.3(1) AND/OR IBC TABLE 2304.10. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED. FIELD CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESSURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. PER IRC 310.3. FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER.  
 6" MIN. CLEARANCE BETWEEN WOOD AND EARTH.  
 12" MIN. CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.  
 18" MIN. CLEARANCE BETWEEN FLOOR JOIST AND EARTH.

**FASTENER DIMENSIONS**  
 ALL NAILS SPECIFIED ON THIS PLAN SHALL BE OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX L OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (ND5):  
 8d COMMON (0.131" DIA, 2-1/2" LONG), 8d BOX (0.113" DIA, 2-1/2" LONG), 10d COMMON (0.148" DIA, 3" LONG), 10d BOX (0.128" DIA, 3" LONG), 16d COMMON (0.162" DIA, 3-1/2" LONG), 16d SINKER (0.148" DIA, 3-1/4" LONG), 5d COOLER (0.086" DIA, 1-5/8" LONG), 6d COOLER (0.092" DIA, 1-7/8" LONG)

**LUMBER GRADES**  
 FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN PRODUCTS ASSOCIATION OR THE WEST COST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING UNADJUSTED MINIMUM DESIGN PROPERTIES, UNLESS NOTED OTHERWISE.

| JOISTS:        | WOOD TYPE:   |
|----------------|--|
| 2x4 TO 2x8     | DF-L F2 - Fb+900 psi, Fv+180 psi, Fc+1350 psi, E+1600000psi  |
| 2x10 OR LARGER | DF-L F2 - Fb+900 psi, Fv+180 psi, Fc+1350 psi, E+1600000psi  |
| BEAM           | WOOD TYPE:   |
| 4x             | DF-L F2 - Fb+900 psi, Fv+180 psi, Fc+1350 psi, E+1600000psi  |
| 6x OR LARGER   | DF-L F2 - Fb+875 psi, Fv+170 psi, Fc+600 psi, E+1300000psi   |
| STUDS          | WOOD TYPE:   |
| 2x4 & 2x6      | DF-STUD - Fb+700 psi, Fv+180 psi, Fc+850 psi, E+1400000psi   |
| 2x8 OR LARGER  | DF-L F2 - Fb+900 psi, Fv+180 psi, Fc+1350 psi, E+1600000psi  |
| FLOOR          | WOOD TYPE:   |
| 4x4            | DF-L F2 - Fb+900 psi, Fv+180 psi, Fc+1350 psi, E+1600000psi  |
| 4x6            | DF-L F2 - Fb+900 psi, Fv+180 psi, Fc+1350 psi, E+1600000psi  |
| 6x6 OR LARGER  | DF-L F1 - Fb+1200 psi, Fv+170 psi, Fc+1000 psi, E+1600000psi |

**GLUED-LAMINATED BEAM (GLB)**  
 SHALL BE 24F-V4 FOR SINGLE SPANS & 24F-V8 FOR CONTINUOUS OR CANTILEVER SPANS WITH THE FOLLOWING MINIMUM PROPERTIES:  
 Fb = 2400 PSI, Fv = 165 PSI, Fc = 650 PSI (PERPENDICULAR), E = 1800000 PSI.

**ENGINEERED WOOD BEAMS AND JOIST**  
 CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL BY BUILDING OFFICIAL. DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST ICC EVALUATION REPORT.

BEAMS DESIGNATED AS "L8L" SHALL HAVE THE MINIMUM PROPERTIES:  
 Fb = 2325 PSI, Fv = 310 PSI, Fc = 800 PSI (PERPENDICULAR), E = 1550000 PSI.

BEAMS DESIGNATED AS "LVL" SHALL HAVE THE MINIMUM PROPERTIES:  
 Fb = 2600 PSI, Fv = 285 PSI, Fc = 750 PSI (PERPENDICULAR), E = 1900000 PSI.

BEAMS DESIGNATED AS "PSL" SHALL HAVE THE MINIMUM PROPERTIES:  
 Fb = 2300 PSI, Fv = 230 PSI, Fc = 750 PSI (PERPENDICULAR), E = 2000000 PSI.

CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. DEFLECTION SHALL BE LIMITED AS FOLLOWS:  
 FLOOR LIVE LOAD MAXIMUM = L/480, FLOOR TOTAL LOAD MAXIMUM = L/240.

**PREFABRICATED WOOD TRUSSES:**  
 PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOADS + IMPOSED DEAD LOADS AS STATED IN THE GENERAL NOTES. TRUSSES SHALL BE DESIGNED & STAMPED BY A REGISTERED DESIGN PROFESSIONAL AND FABRICATED ONLY FROM THOSE DESIGNS. NON-BEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD W/ AN APPROVED FASTENER (SUCH AS SIMPSON STC) TO ENSURE THAT THE TRUSS BOTTOM CHORD DOES NOT BEAR ON THE WALL. ALL PERMANENT TRUSS MEMBER BRACING SHALL BE INSTALLED PER THE TRUSS DESIGN DRAWINGS.

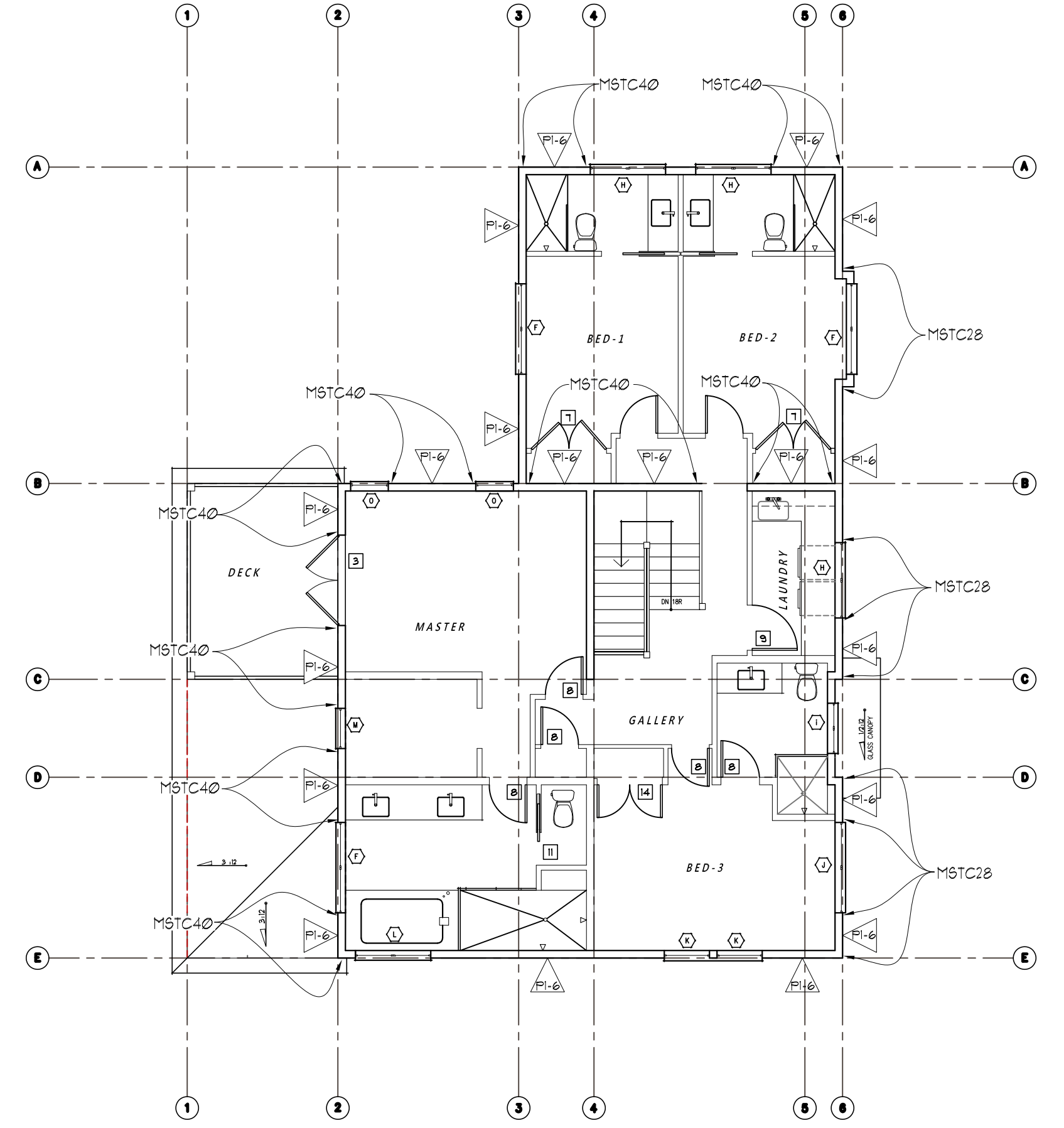
**ROOF/WALL/FLOOR SHEATHING:**  
 ROOF SHEATHING SHALL BE MINIMUM 5/8" SHEATHING W/ 3/4" SPAN INDEX UNO. WALL SHEATHING INCLUDING GABLES SHALL BE 5/8" SHEATHING W/ 3/4" SPAN INDEX MINIMUM UNO. FLOOR SHEATHING SHALL BE MINIMUM 3/4" SHEATHING W/ 40% SPAN INDEX MINIMUM UNO. MINIMUM NAILING SHALL BE 8d COMMON NAILS @ 6" O.C. @ PANEL EDGES & 12" O.C. IN PANEL FIELD UNO ON SHEAR WALL SCHEDULE. ROOF AND FLOOR SHEATHING SHALL BE LAID UNO. LONG DIMENSION PERPENDICULAR TO FRAMING MEMBERS W/ END LAP STAGGERED. WALL SHEATHING INCLUDING GABLES SHALL BE FULLY BLOCKED & EDGE NAILED AT ALL UNSUPPORTED SHEATHING PANEL EDGES.

**STAIR FRAMING:**  
 UNLESS NOTED OTHERWISE SPECIFIED, TYPICAL STAIR FRAMING SHALL CONSIST OF 2x12 STAIR STRINGERS SPACED AT NO MORE THAN 18" O.C. AND REINFORCED W/ 2x6 SCABS ATTACHED W/ 10d COMMON NAILS STAGGERED AT 8" O.C. STRINGERS SHALL BE SUPPORTED AT UPPER END BY BEARING ON TOP PLATE OF WALL OR APPROVED CONSOLE OR TO FLOOR BEAM SUCH AS SIMPSON LRU OR LSC. LANDINGS SHALL CONSIST OF CONVENTIONAL PLATFORM FRAMING W/ MINIMUM 2x6 JOISTS @ 16" O.C.

**SHEAR WALL SCHEDULE**

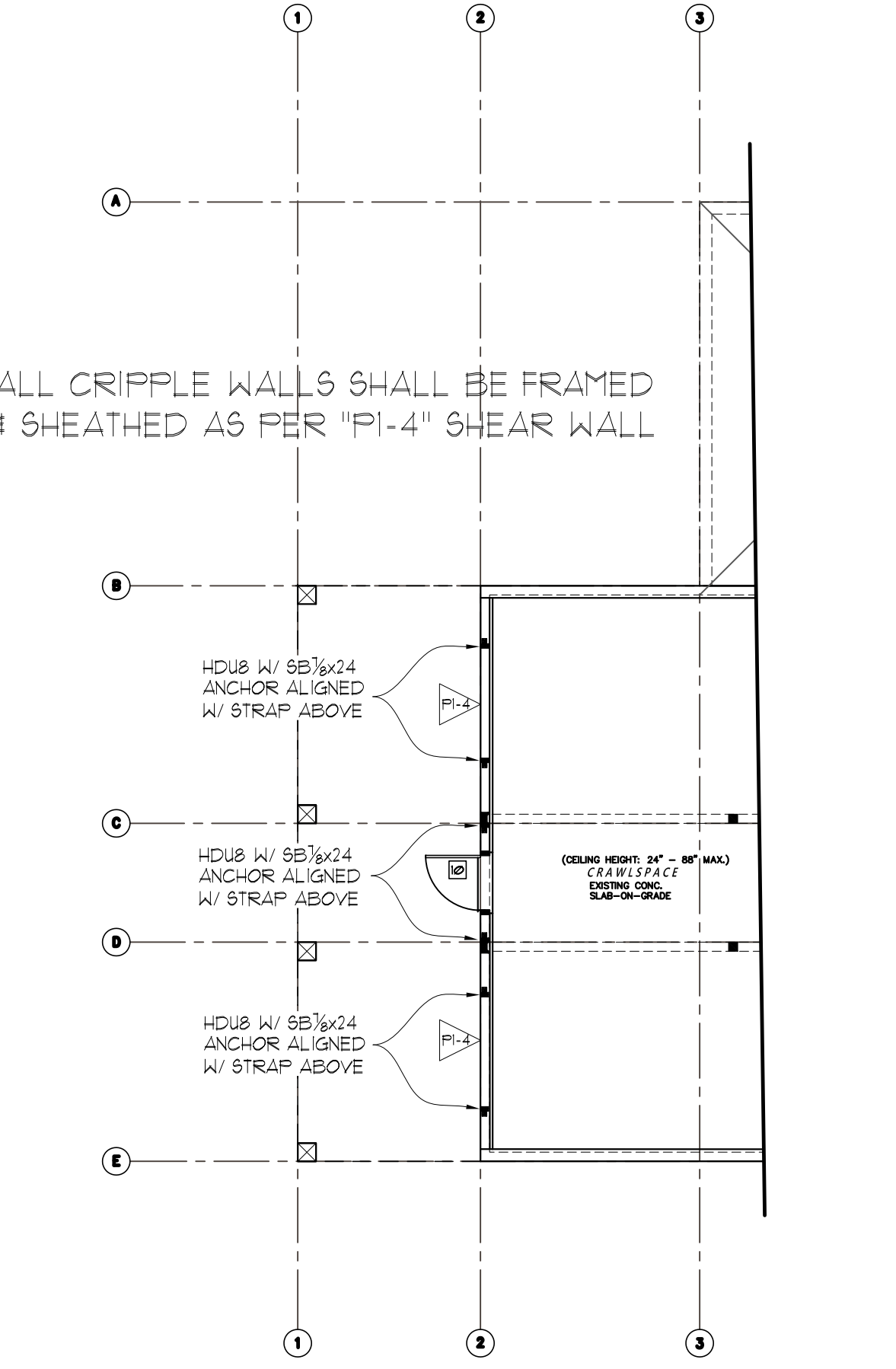
| WALL MARK | SHEATHING (MINIMUM)     | EDGE NAILING  | FIELD NAILING | FRAMING @ ADJOINING PANEL EDGES | SOLE PLATE NAILING (STAGGER)               | MINIMUM RIM BOARD OR BLOCKING WIDTH BELOW WALL | SILL PLATE | ANCHOR BOLT DIA. & SPACING |
|-----------|-------------------------|---|---------------|---------------------------------|--|--|------------|----------------------------|
| PI-6      | 5/8" SHEATHING ONE SIDE | 8d (0.131"x2.5") AT 6" O.C.   | 12" O.C.      | 2X                              | (1) ROW 16d SINKER (0.148"x3/4") @ 6" O.C. | 125" LSL (13E) UNLESS NOTED OTHERWISE          | 2X         | 5/8" DIA. @ 60" O.C.       |
| PI-4      | 5/8" SHEATHING ONE SIDE | 8d (0.131"x2.5") AT 4" O.C.   | 12" O.C.      | 2X                              | (1) ROW 16d SINKER (0.148"x3/4") @ 4" O.C. | 125" LSL (13E) UNLESS NOTED OTHERWISE          | 2X         | 5/8" DIA. @ 36" O.C.       |
| H3        | 5/8" SHEATHING ONE SIDE | SEE DETAIL H3 ON SHEET 96 FOR FRAMING CONFIGURATION & SPECIFICATION OF NAILING, STRAPS & HOLDDOWNS (REFER TO APA TECHNICAL TOPIC T1-100, "A PORTAL FRAME W/ HOLDDOWNS FOR ENGINEERED APPLICATIONS") |               |                                 |  |  |            |                            |

- FRAMING SHALL BE 2X DOUG-FIR @ 16" O.C. MAX UNLESS NOTED OTHERWISE IN SCHEDULE.
- SHEATHING PANELS MAY BE LAYED VERTICAL OR HORIZONTAL. BLOCK ALL ADJOINING HORIZONTAL EDGES W/ 2x OR 3x BLOCKING PER SCHEDULE.
- ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS SHALL RECEIVE APA RATED SHEATHING OR ALL VENEER PLYWOOD SIDING OF EQUIVALENT THICKNESS AT POINT OF FASTENING ON PANEL EDGES, FULLY BLOCKED WITH MINIMUM NAILING OF 8d (0.131"x2.5") @ 6" O.C. EDGE & 12" O.C. FIELD.
- NAILING APPLIES TO ALL STUDS, TOP PLATES, SOLE PLATES, SILL PLATES, & BLOCKING. PANEL EDGE AND SILL/SOLE PLATE NAILING SHALL BE STAGGERED.
- ANCHOR BOLT SPACING IS 6'-0" O.C. (4'-0" AT BUILDINGS OVER 2 STORIES) UNLESS NOTED OTHERWISE IN SCHEDULE. MINIMUM OF 2 ANCHOR BOLTS PER PIECE OF FOUNDATION PLATE. ANCHOR BOLTS SPACED NO GREATER THAN 12" AND NO LESS THAN 1 TIMES THE ANCHOR BOLT DIAMETER AT ENDS AND SPICES. PROVIDE 0.225"x3"x3" WASHERS AT ANCHOR BOLTS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE SHEATHED EDGE OF THE SILL PLATE ON WALLS W/ EDGE NAILING AT 4" O.C. OR TIGHTER. DIAGONALLY SLOTTED WASHERS MAY BE USED W/ A STANDARD CUT WASHER PROVIDED BETWEEN PLATE WASHER & NUT. DO NOT RECESS BOLTS.
- ALL NAILS FOR SHEAR WALLS SHALL BE COMMON OR GALVANIZED BOX NAILS (UNO). ALL SPECIFIED NAILS SHALL HAVE THE FOLLOWING DIMENSIONS: 8d (0.131" DIA x 2.5" LONG), 10d (0.148" DIA x 3" LONG), 16d COMMON (0.162" DIA x 3.5" LONG), 16d SINKER (0.148" DIA x 3.25" LONG)
- IN LIEU OF 3X STUDS OR BLOCKING AT ADJOINING PANEL EDGES, 2-2X FACE NAILED W/ 10d COMMON NAILS (0.148" DIA x 3" LONG) STAGGERED AT THE SAME SPACING AS PANEL EDGE NAILING MAY BE SUBSTITUTED. SHEATHING EDGES SHALL BE CENTERED BETWEEN THE 2-2X MEMBERS (SHALL NOT APPLY TO WALLS SHEATHED ON BOTH SIDES UNLESS ADJOINING PANEL EDGES ARE STAGGERED ON OPPOSITE FACES)
- HOLDDOWNS AND STRAPS OF EQUIVALENT CAPACITY (W/ CURRENT ICC EVALUATION REPORT OR SIMILAR) MAY ONLY BE SUBSTITUTED FOR THOSE SPECIFIED ON PLAN WITH PRIOR APPROVAL OF BUILDING OFFICIAL OR ENGINEER OF RECORD.
- HOLDDOWNS IN FLOOR JOIST CAVITY IS REQUIRED AT ENDS OF SHEAR WALLS WHERE FULL BEARING IS NOT PROVIDED BY THE FRAMING BELOW. BLOCKING SHALL HAVE WOOD GRAIN ORIENTED VERTICALLY UNLESS NOTED OTHERWISE.
- SIMPSON MAS4P MUDSILL ANCHORS, MAY BE SUBSTITUTED (1) FOR (1) AT 2X SILL PLATES FOR THE 5/8" DIA. SILL PLATE ANCHOR BOLTS SPECIFIED.



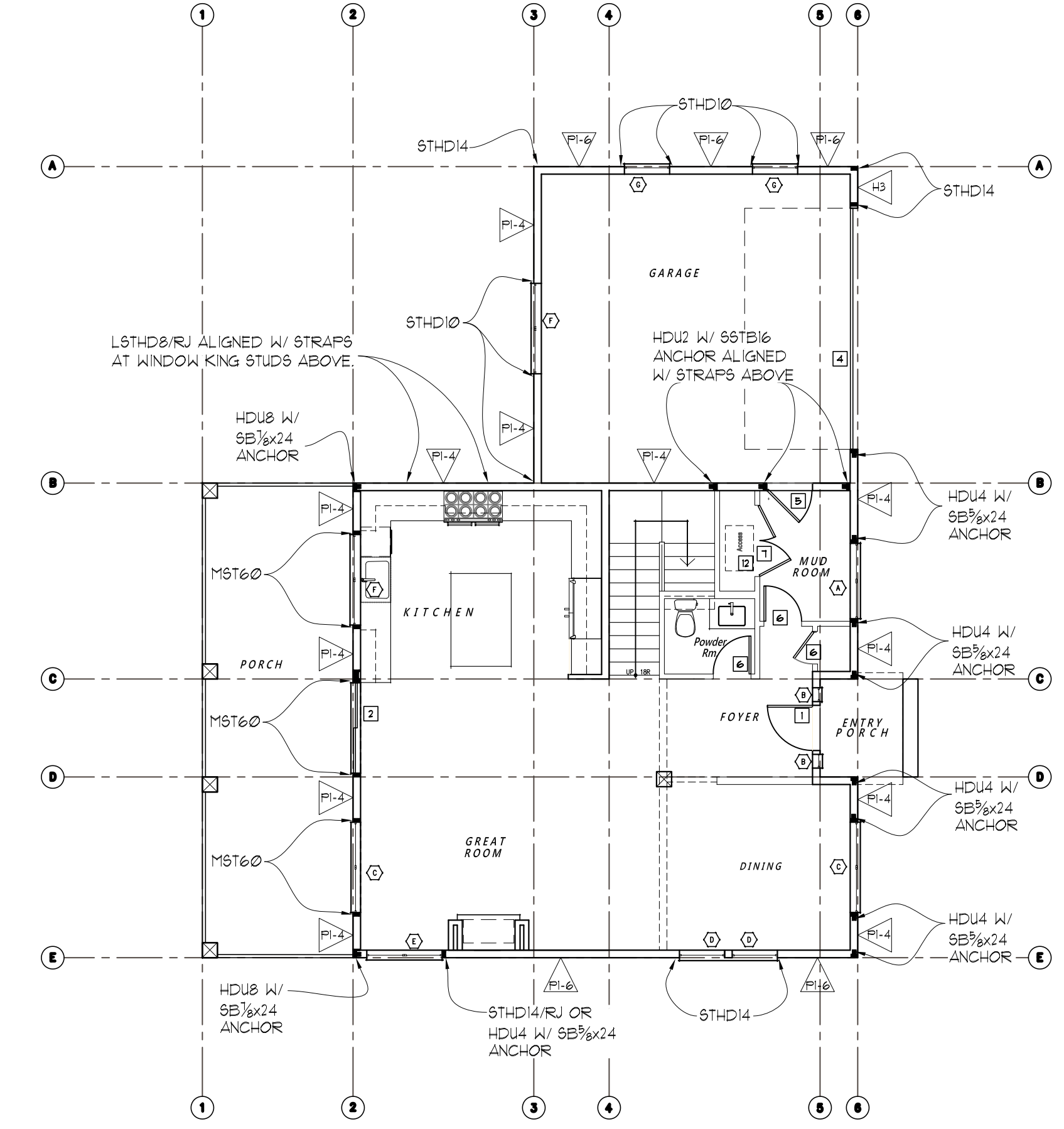
UPPER FLOOR SHEAR WALL KEY PLAN  
 SCALE: 1/8"=1'-0"

SEE SHEET 96 FOR TYPICAL INSTALLATION DETAILS FOR STRAPS & FOUNDATION ANCHORS



LOWER LEVEL SHEAR WALL KEY PLAN  
 SCALE: 1/8"=1'-0"

SEE SHEET 96 FOR TYPICAL INSTALLATION DETAILS FOR STRAPS & FOUNDATION ANCHORS



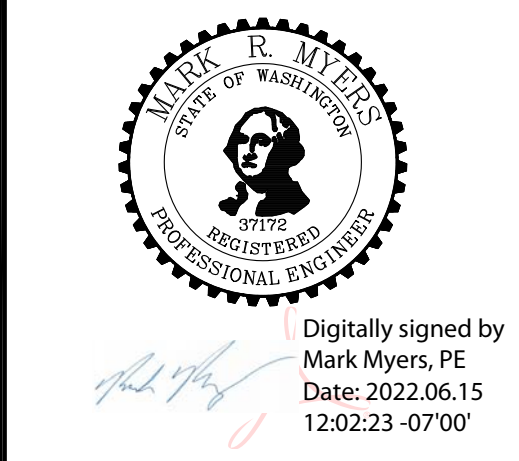
MAIN FLOOR SHEAR WALL KEY PLAN  
 SCALE: 1/8"=1'-0"

SEE SHEET 96 FOR TYPICAL INSTALLATION DETAILS FOR STRAPS & FOUNDATION ANCHORS

STRUCTURAL PLANS

**RKK CONSTRUCTION**  
 3419 72nd PLACE SE  
 MERCER ISLAND, WA

**Myers Engineering, LLC**  
 3206 50th Street Court, Ste. 210-B  
 Gig Harbor, WA 98335  
 PH: 253-858-3248  
 Email: myengineering@centurytel.net

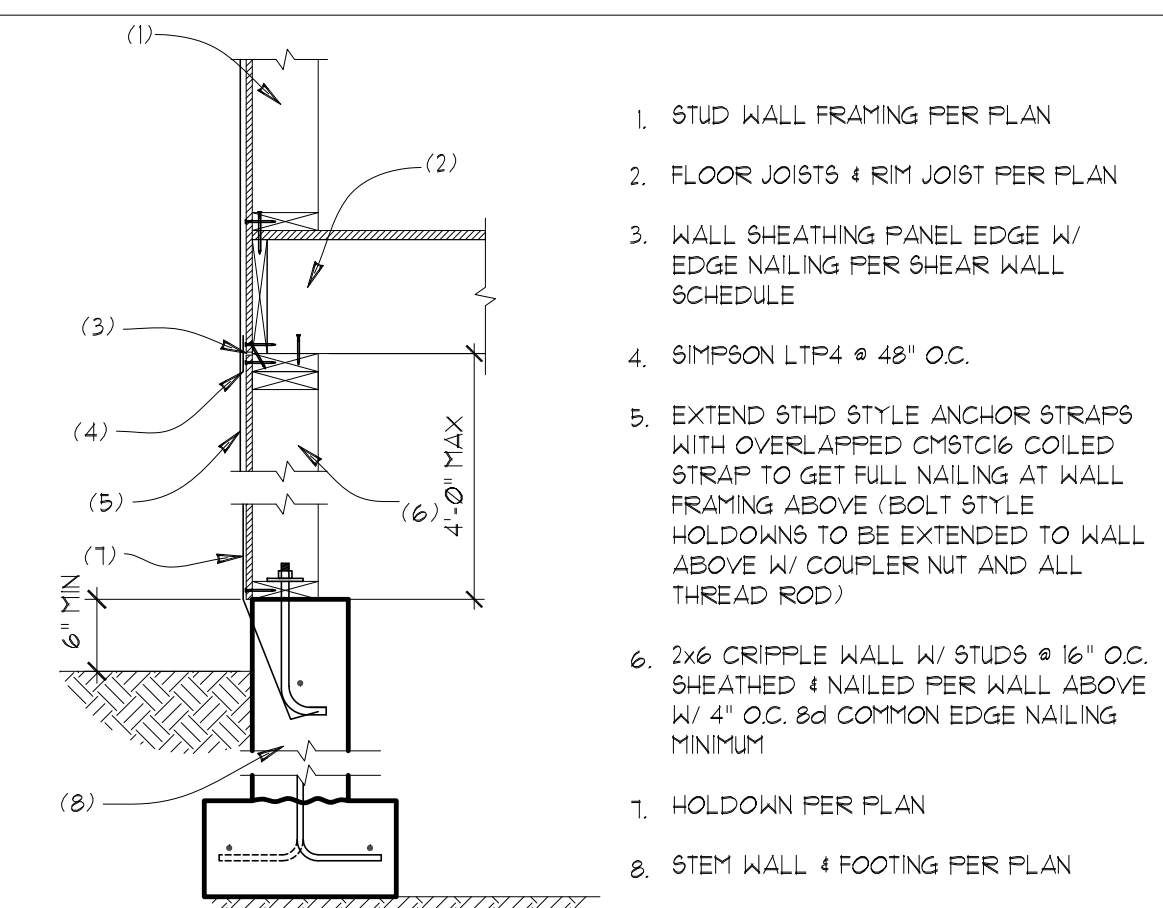
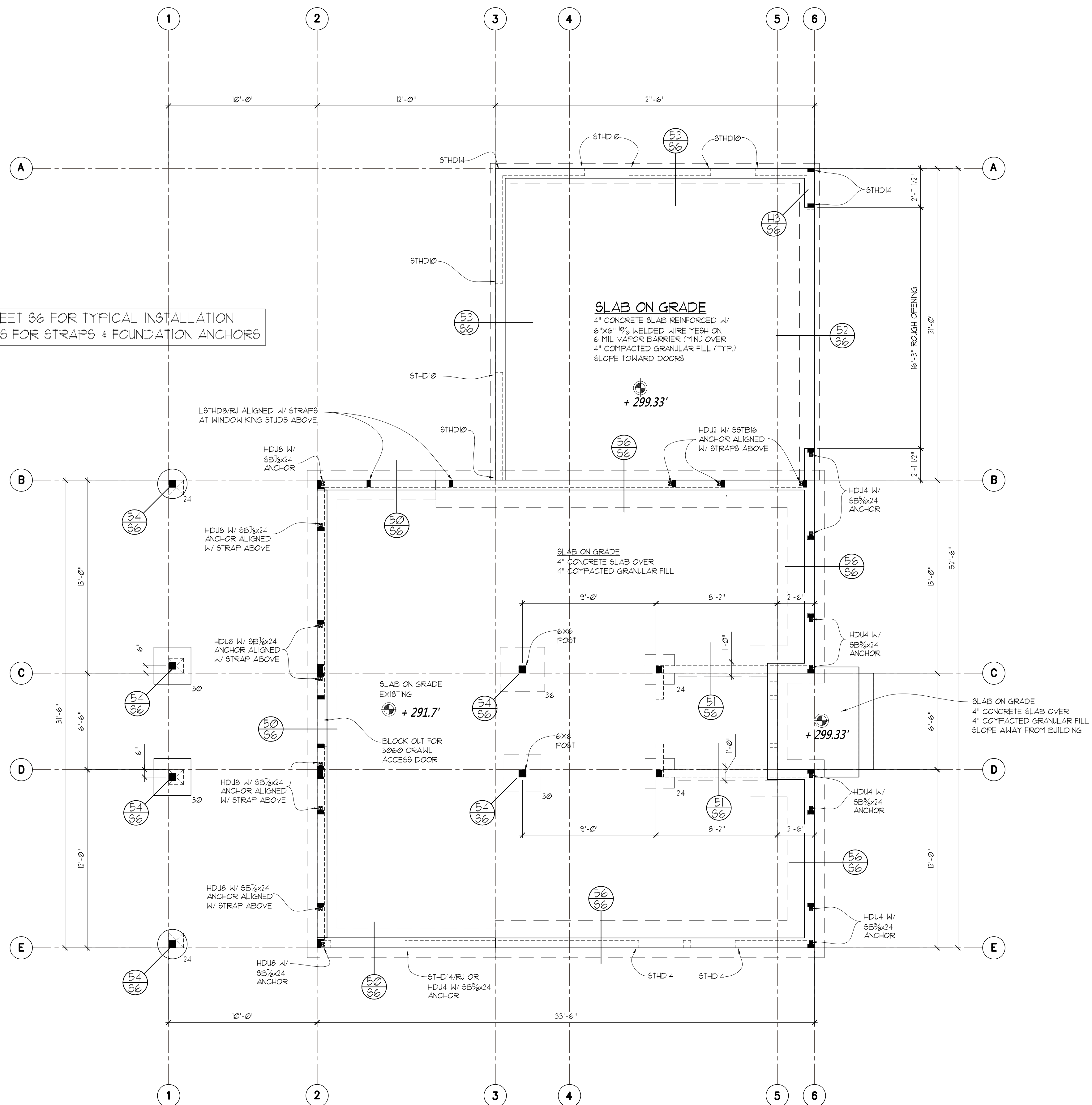


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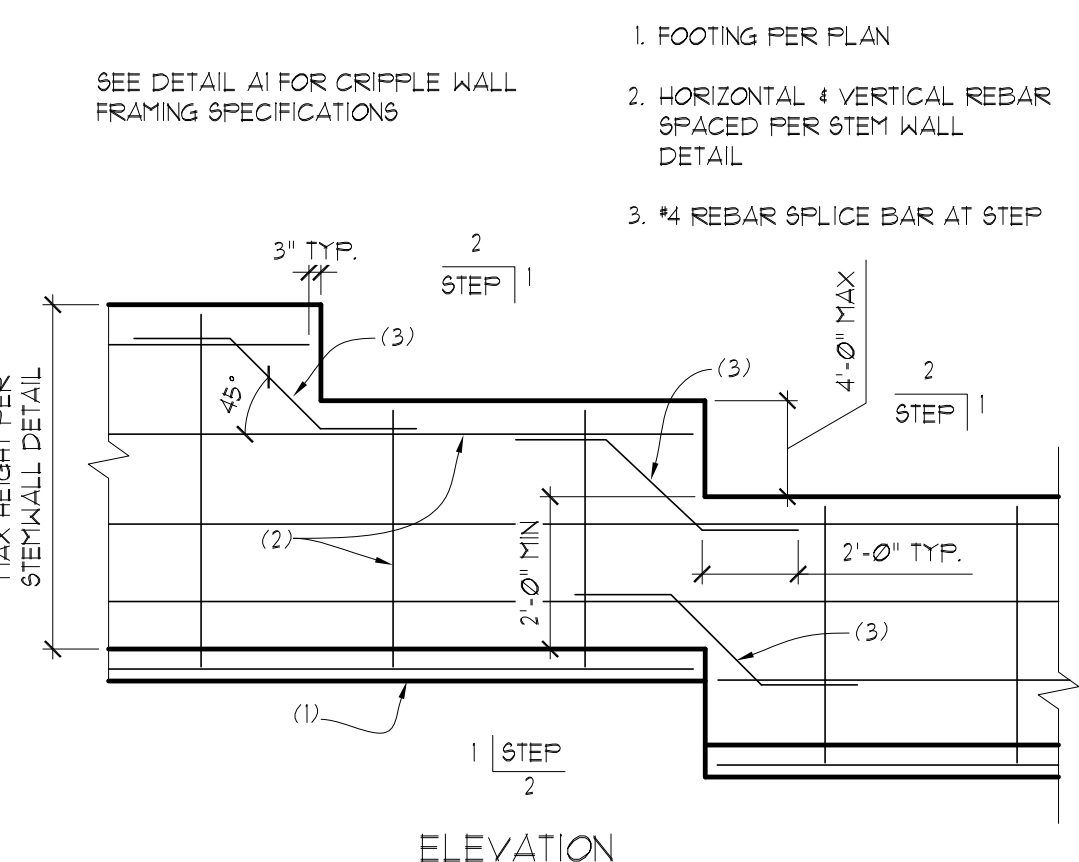
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| <b>S1</b> | DATE:<br>6-15-2022 |
|           | INITI:<br>MM       |
|           | PROJECT #:<br>2431 |

SEE SHEET S6 FOR TYPICAL INSTALLATION  
DETAILS FOR STRAPS & FOUNDATION ANCHORS



**A1** CRIPPLE WALL FOR SLOPED LOTS  
SCALE: 3/4"=1'



**A2** STEPPED FOOTING AT SLOPED LOT  
SCALE: NTS

SEE SHEET S6 FOR TYPICAL INSTALLATION  
DETAILS FOR STRAPS & FOUNDATION ANCHORS

### FOUNDATION PLAN

- ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED
- SOFFIT, VENT, AND INSULATE ALL CANTILEVERED AREAS
- PROVIDE SOLID BLOCKING OVER SUPPORTS
- ALL FOOTINGS TO REST ON UNDISTURBED SOIL
- PROVIDE COPY OF CONCRETE "BATCH TICKET" ON SITE FOR REVIEW BY BUILDING OFFICIAL

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

#### CRAWL SPACE # 1 VENTILATION

|  |   |
|--|---|
| CRAWL AREA                                 | = NET VENT AREA REQ'D (N.V.A.)<br>(ASSUMES CROSS VENTILATION) |
| 300  |   |
| 990  | = 3.3 SQ. FT. N.V.A. REQUIRED                                 |
| 300  |   |
| IF 14" x 7" SCREENED FOUNDATION VENTS USED |   |
| (1) VENT = 0.52 SQ. FT. NET FREE VENT AREA |   |
| N.V.A.                                     | = QTY. OF VENTS REQUIRED                                      |
| 0.52                                       |   |
| 3.30                                       | = 6.35 ( 7 ) 14"x7" VENTS REQUIRED                            |
| 0.52                                       |   |

#### FOOTING SCHEDULE

NOTE: USE MIN. 6" WIDE POST BELOW BEAM SPLICES  
USE P.T. 4 X 4 POSTS BELOW 4 X BEAMS U.N.O.  
USE P.T. 6 X 6 POST BELOW 6 X BEAMS U.N.O.

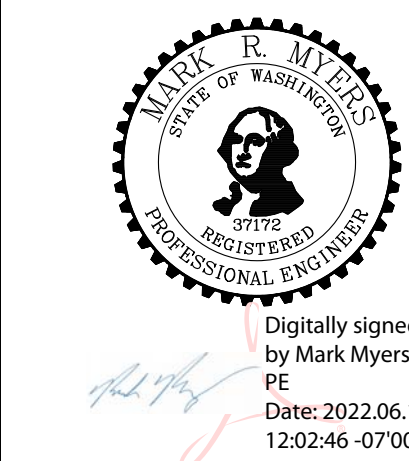
|    |  |
|----|--|
| 24 | P.T. POST ON 24" DIA. X 10" THICK PLAIN CONC. FOOTING                    |
| 24 | P.T. POST ON 24" X 24" X 10" THICK CONC. FOOTING W/ 2- # 4 BARS EACH WAY |
| 30 | P.T. POST ON 30" X 30" X 12" THICK CONC. FOOTING W/ 3- # 5 BARS EACH WAY |
| 36 | P.T. POST ON 36" X 36" X 12" THICK CONC. FOOTING W/ 4- # 5 BARS EACH WAY |
| 42 | P.T. POST ON 42" X 42" X 12" THICK CONC. FOOTING W/ 4- # 5 BARS EACH WAY |

FOOTING SIZES BASED ON 1500 PSF SOIL BEARING CAPACITY

# STRUCTURAL PLANS

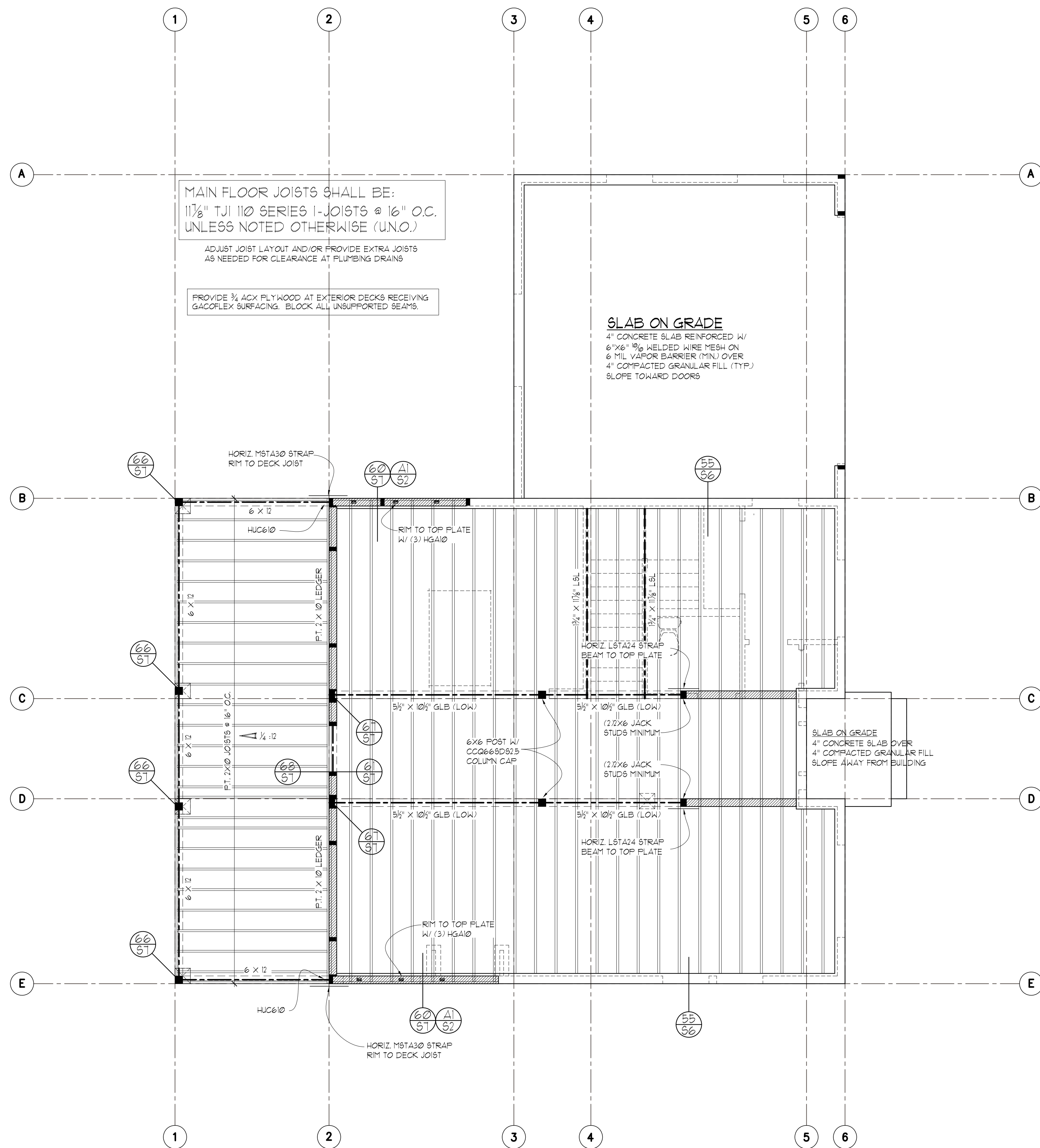
**RKK CONSTRUCTION**  
3419 72nd PLACE SE  
MERCER ISLAND, WA

**Myers Engineering, LLC**  
3206 50th Street Court, Ste. 210-B  
Gig Harbor, WA 98335  
PH: 253-858-3248  
Email: myengineer@centurytel.net

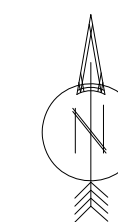


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|            |        |                    |
| <b>S2</b>  |        | DATE:<br>6-15-2022 |
| PROJECT #: |        | INIT:<br>MM        |
| 2431       |        |                    |



### MAIN FLOOR FRAMING PLAN



- SCALE : 1/4" = 1'-0"
- ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED
  - SOFFIT, VENT, AND INSULATE ALL CANTILEVERED AREAS
  - ALL DOOR/WINDOW HEADERS AT THIS LEVEL TO BE 4X10 DF #2 AT BEARING WALLS , U.N.O., 6'-0" MAX. SPAN
  - EXTERIOR WALLS TO BE 2X6 AT 16" O.C., U.N.O.
  - INTERIOR PARTITIONS TO BE 2X4 AT 16" O.C. (2X6 @ PLUMBING WALLS) U.N.O.
  - HEADERS 8FT OR LONGER SHALL BE PROVIDED W/ (2) TRIMMER (JACK) STUDS AT EACH END U.N.O.
  - PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
  - PROVIDE SUPPLEMENTAL BLOCKING IN FLOOR CAVITY BELOW SUPPORT POSTS FOR GIRDERS, BEAMS, AND END POSTS FOR SHEAR WALLS TO MATCH FULL WIDTH OF POSTS IN WALL ABV. W/ GRAIN ORIENTED VERTICALLY AND PROVIDE MATCHING POSTS IN WALL BELOW UNLESS LARGER POSTS ARE SPECIFIED ON PLAN

## STRUCTURAL PLANS

RKK CONSTRUCTION  
3419 72nd PLACE SE  
MERCER ISLAND, WA

Myers Engineering, LLC  
3206 50th Street Court, Ste. 210-B  
Gig Harbor, WA 98335  
PH: 253-858-3248  
Email: myengineer@centurytel.net

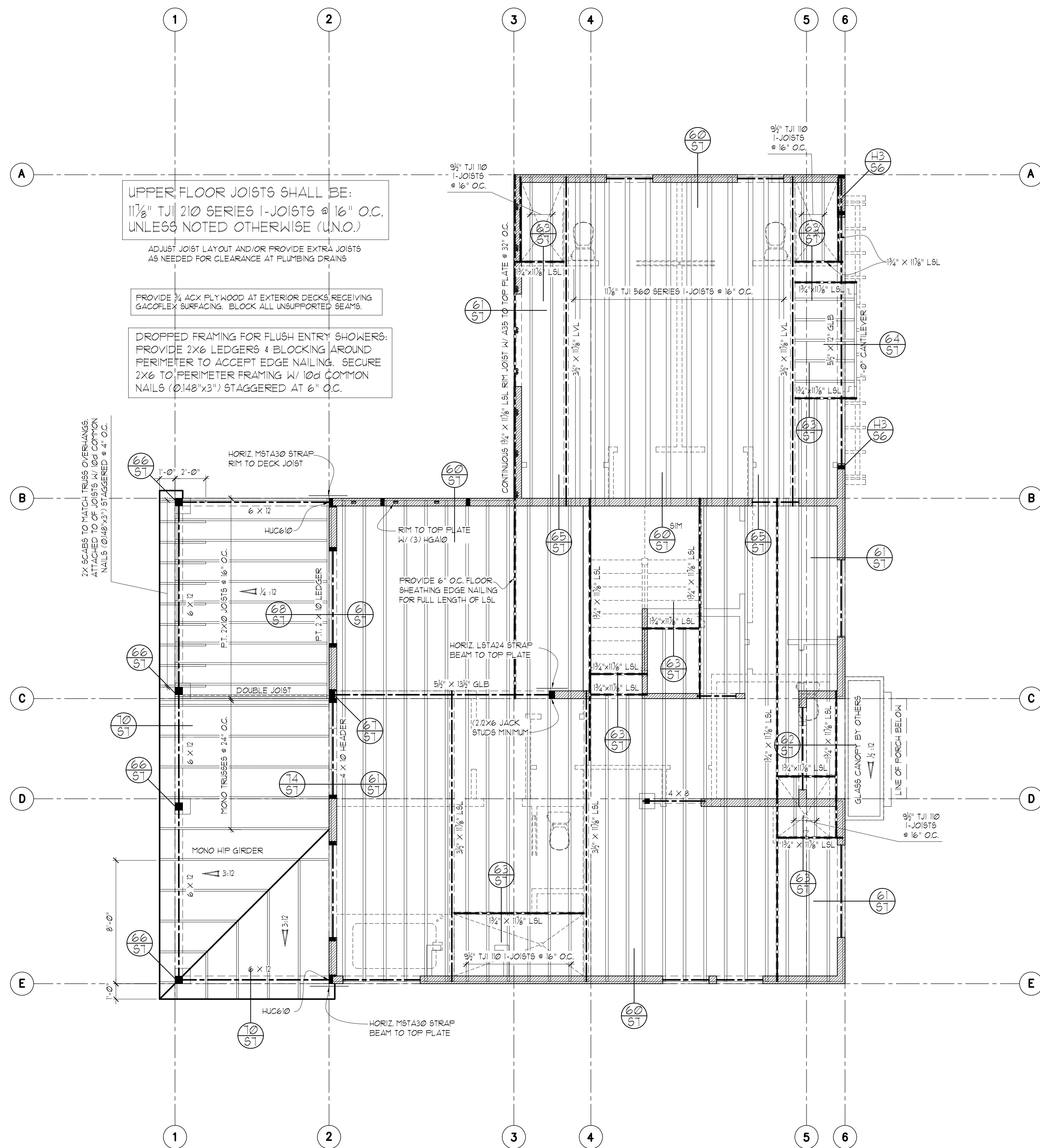


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by Mark Myers,  
PE  
Date: 2022.06.15  
12:03:08 -07'00'

BUILDING DEPT. APPROVAL STAMPS:

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| S3 | DATE:<br>6-15-2022 |
|    | INIT:<br>MM        |
|    | PROJECT #:<br>2431 |



### UPPER FLOOR FRAMING PLAN

- SOFFIT, VENT, AND INSULATE ALL CANTILEVERED AREAS
- EXTERIOR WALLS TO BE 2X6 AT 16" O.C., U.N.O.
- ALL DOOR/WINDOW HEADERS AT THIS LEVEL TO BE 4X10 DF #2 AT BEARING WALLS, U.N.O., 6'-0" MAX. SPAN
- INTERIOR PARTITIONS TO BE 2X4 AT 16" O.C. (2X6 @ PLUMBING WALLS) U.N.O.
- HEADERS 8FT OR LONGER SHALL BE PROVIDED W/ (2) TRIMMER (JACK) STUDS AT EACH END U.N.O.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- PROVIDE SUPPLEMENTAL BLOCKING IN FLOOR CAVITY BELOW SUPPORT POSTS FOR GIRDERS, BEAMS, AND END POSTS FOR SHEAR WALLS TO MATCH FULL WIDTH OF POSTS IN WALL ABV. W/ GRAIN ORIENTED VERTICALLY AND PROVIDE MATCHING POSTS IN WALL BELOW UNLESS LARGER POSTS ARE SPECIFIED ON PLAN

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

# STRUCTURAL PLANS

**RKK CONSTRUCTION**  
 3419 72nd PLACE SE  
 MERCER ISLAND, WA

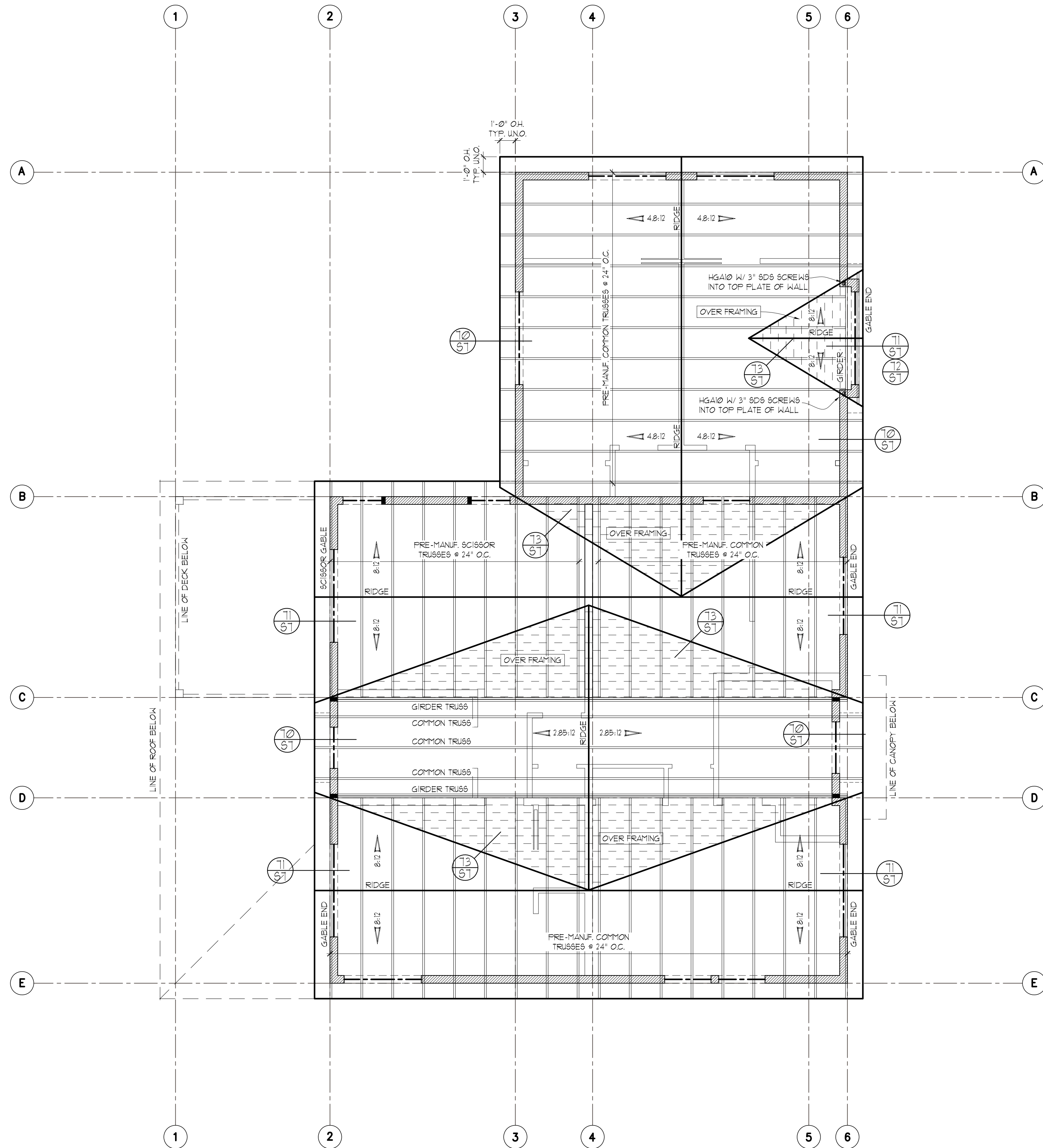
**Myers Engineering, LLC**  
 3206 50th Street Court, Ste. 210-B  
 Gig Harbor, WA 98335  
 PH: 253-858-3248  
 Email: myengineer@centurytel.net

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 Date: 2022.06.15 12:03:28 -0700

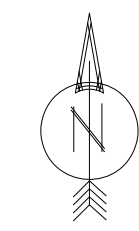
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|    | PROJECT #:<br>2431 |



## ROOF FRAMING PLAN



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

- PROVIDE VENTED BLOCKING AT REQUIRED TRUSS/RAFTER BAYS
- ALL MANUFACTURED TRUSSES:
  - \* SHALL HAVE DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION
  - \* SHALL NOT BE FIELD ALTERED WITHOUT ENGINEER'S APPROVAL
  - \* SHALL BE INSTALLED AND BRACED TO MANUFACTURER'S SPECIFICATION
  - \* SHALL CARRY MANUFACTURER'S STAMP ON EACH TRUSS
- ALL BEAMS AND HEADERS AT THIS LEVEL TO BE 4X8 DF #2 AT BEARING WALLS, U.N.O., 6'-0" MAX. SPAN
- HEADERS 8FT OR LONGER SHALL BE PROVIDED W/ (2) TRIMMER (JACK) STUDS AT EACH END U.N.O.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- PROVIDE SUPPLEMENTAL BLOCKING IN FLOOR CAVITY BELOW SUPPORT POSTS FOR GIRDERS, BEAMS, AND END POSTS FOR SHEAR WALLS TO MATCH FULL WIDTH OF POSTS IN WALL ABV. W/ GRAIN ORIENTED VERTICALLY AND PROVIDE MATCHING POSTS IN WALL BELOW UNLESS LARGER POSTS ARE SPECIFIED ON PLAN

# STRUCTURAL PLANS

**RKK CONSTRUCTION**  
 3419 72nd PLACE SE  
 MERCER ISLAND, WA

**Myers Engineering, LLC**  
 3206 50th Street Court, Ste. 210-B  
 Gig Harbor, WA 98335  
 PH: 253-858-3248  
 Email: myengineer@centurytel.net

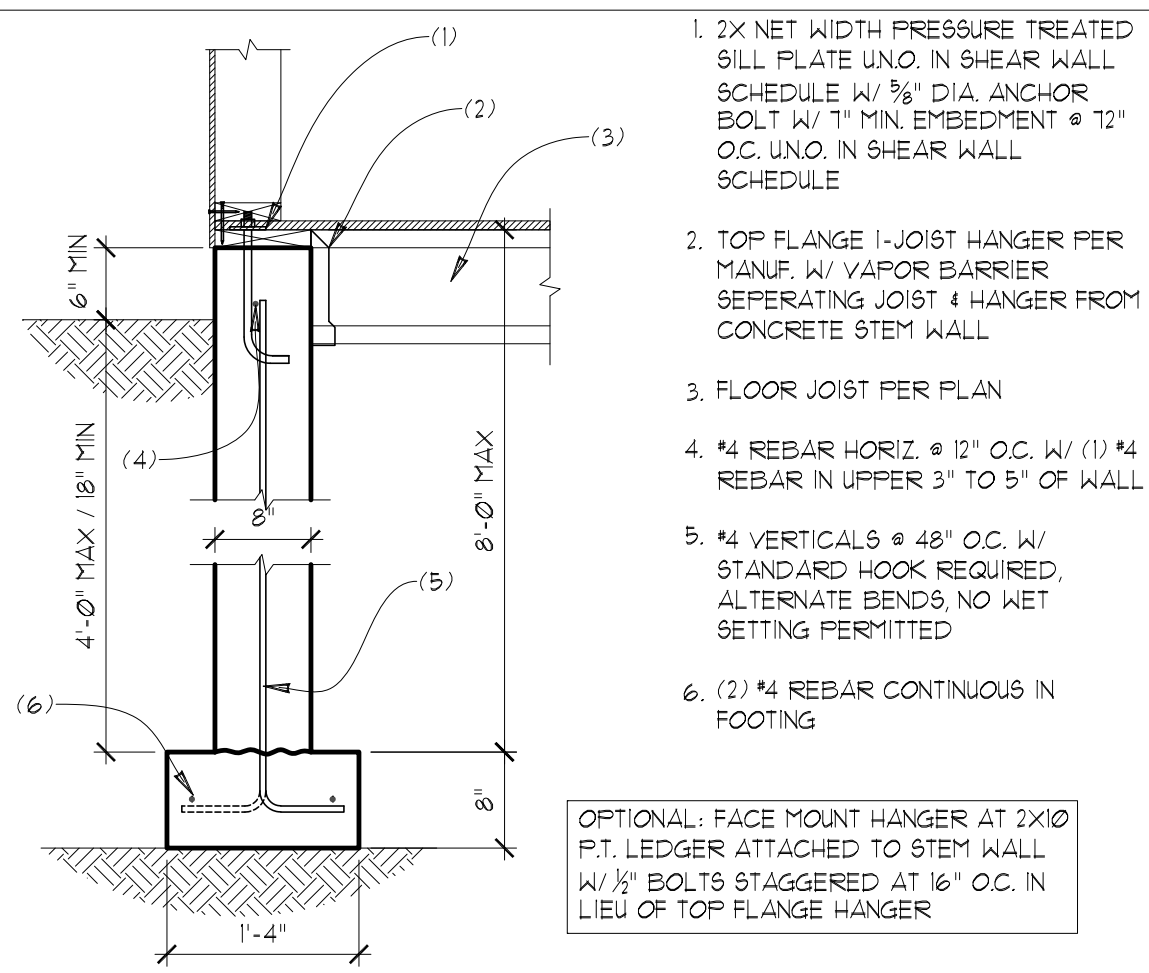


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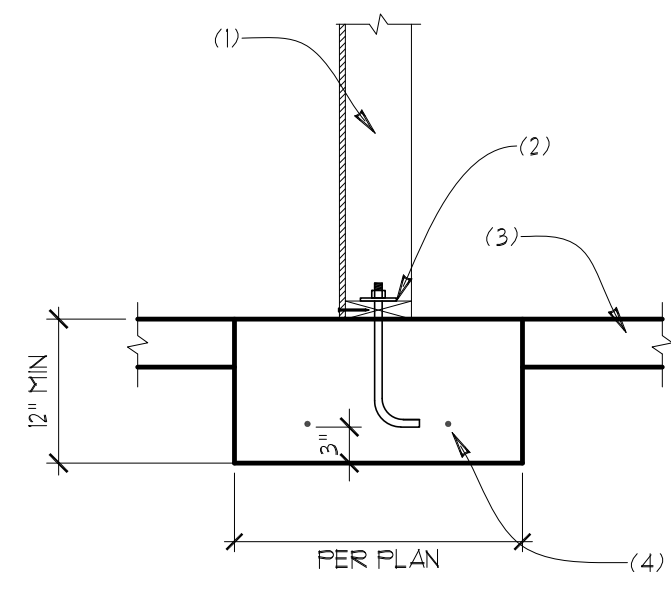
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|    | PROJECT #:<br>2431 |



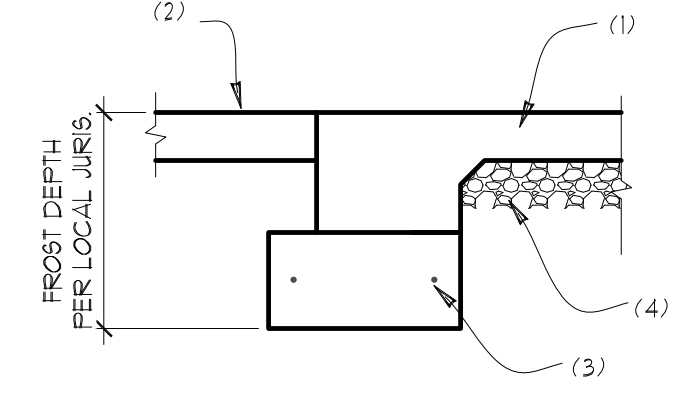
- 2x NET WIDTH PRESSURE TREATED SILL PLATE UNO. IN SHEAR WALL SCHEDULE W/ 3/8" DIA. ANCHOR BOLT W/ 1" MIN. EMBEDMENT @ 12" O.C. UNO. IN SHEAR WALL SCHEDULE
  - TOP FLANGE I-JOIST HANGER PER MANUF. W/ VAPOR BARRIER SEPERATING JOIST & HANGER FROM CONCRETE STEM WALL
  - FLOOR JOIST PER PLAN
  - #4 REBAR HORIZ. @ 12" O.C. W/ (1) #4 REBAR IN UPPER 3" TO 5" OF WALL
  - #4 VERTICALS @ 48" O.C. W/ STANDARD HOOK REQUIRED, ALTERNATE BENDS, NO WET SETTING PERMITTED
  - (2) #4 REBAR CONTINUOUS IN FOOTING
- OPTIONAL: FACE MOUNT HANGER AT 2X10 P.T. LEDGER ATTACHED TO STEM WALL W/ 1/2" BOLTS STAGGERED AT 16" O.C. IN LIEU OF TOP FLANGE HANGER

50 8" STEM WALL AT DROPPED JOISTS  
SCALE: 3/4"=1'



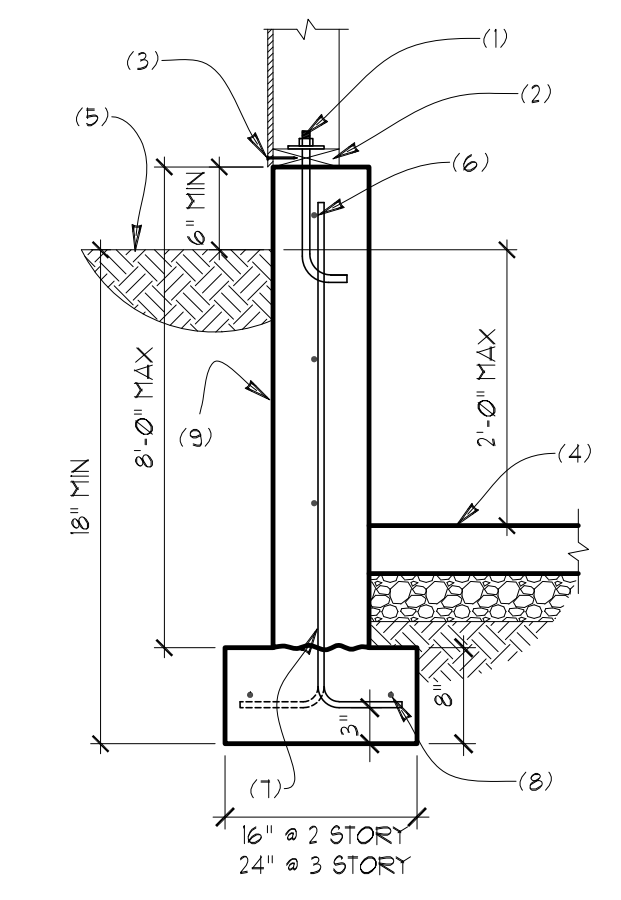
- 2x STUD WALL PER PLAN
  - 2x PRESSURE TREATED SILL PLATE UNO. IN SHEAR WALL SCHEDULE W/ 3/8" DIA. J-BOLT W/ 1" MIN. EMBEDMENT @ 12" O.C. UNO. IN SHEAR WALL SCHEDULE
  - CONCRETE SLAB PER PLAN
  - (2) #4 REBAR CONTINUOUS IN FOOTING
- OPTION: 3/8" DIA WEDGE ANCHORS OR TITEN HD ANCHORS W/ 4" MINIMUM EMBEDMENT MAY BE USED IN LIEU OF J-BOLTS SPECIFIED

51 INTERIOR CONT. THICKENED FOOTING  
SCALE: 3/4"=1'



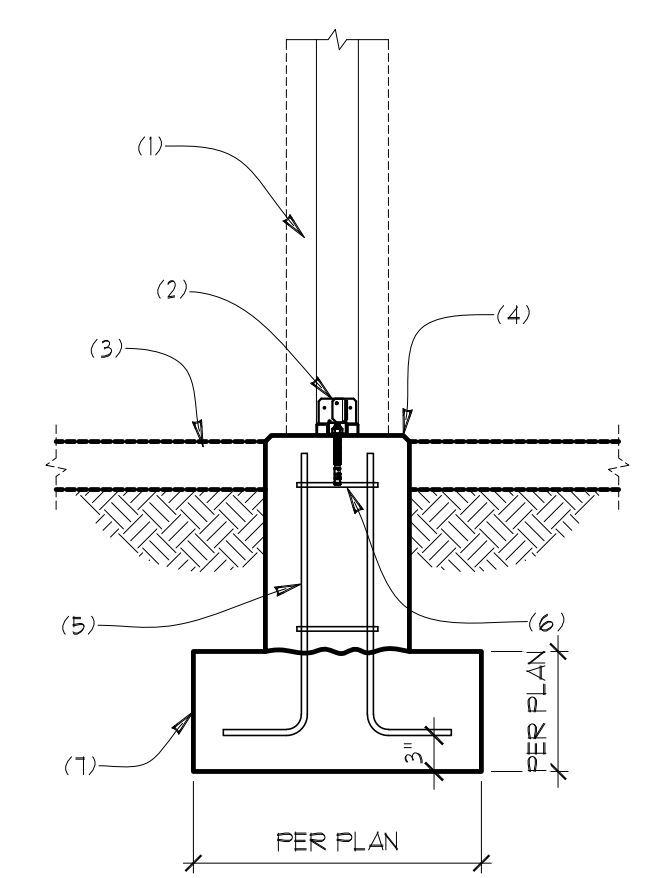
- 4" CONCRETE SLAB PER PLAN W/ THICKENED EDGE AT DOOR OPENING
- FINISH GRADE OR SLAB AS OCCURS
- (2) #4 REBAR IN CONTINUOUS FOOTING
- 4" COMPACTED GRANULAR FILL

52 THICKENED SLAB EDGE AT GARAGE  
SCALE: 3/4"=1'



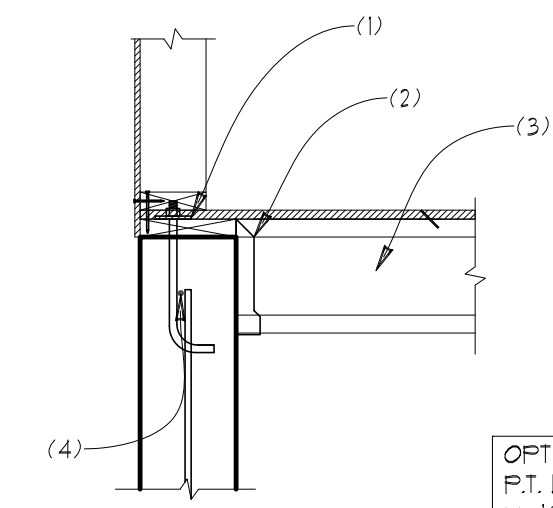
- 3/4" DIA. ANCHOR BOLT @ 12" O.C. UNO. IN SHEAR WALL SCHEDULE W/ 1" MIN. EMBEDMENT
- 2x PRESSURE TREATED SILL PLATE UNO. IN SHEAR WALL SCHEDULE
- SHEAR WALL EDGE NAILING PER SHEAR WALL SCHEDULE
- 4" CONCRETE SLAB OVER 4" COMPACT FILL
- FINISH GRADE OR SLAB AS OCCURS
- #4 HORIZ. REBAR @ 12" O.C. W/ (1) #4 REBAR IN UPPER 3" TO 5" OF WALL
- #4 VERTICALS @ 18" O.C. W/ STANDARD HOOK REQUIRED, ALTERNATE BENDS, NO WET SETTING PERMITTED
- (2) #4 REBAR CONTINUOUS IN FOOTING
- INSTALL DAMPPROOFING OR WATERPROOFING PER IRC R408 WHERE INTERIOR SLAB IS BELOW EXTERIOR GRADE

53 8" STEM WALL AT SLAB ON GRADE  
SCALE: 3/4"=1'



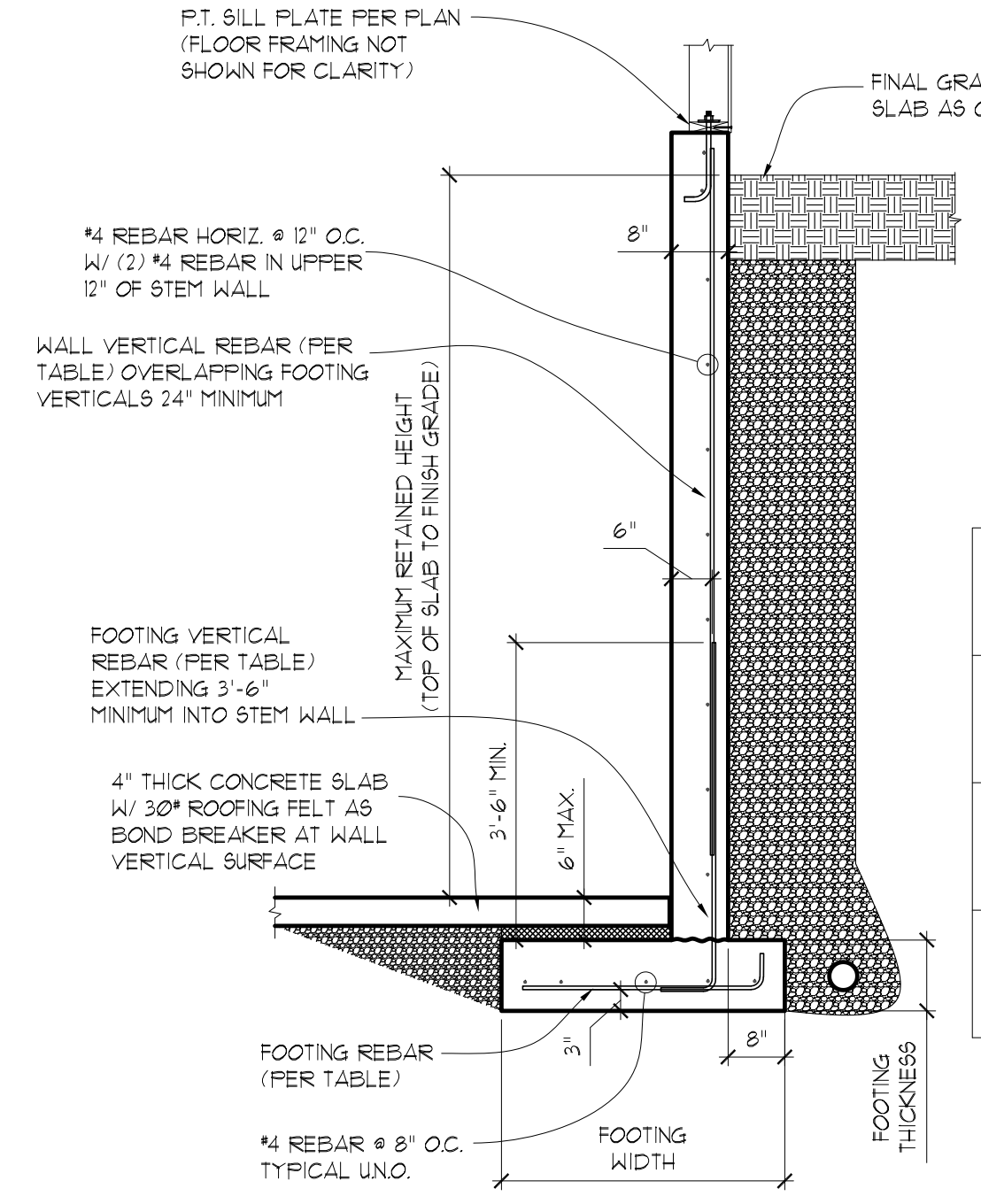
- WOOD POST W/ ARCHITECTURAL COVER PER PLAN
  - SIMPSON ABUZ OR CPTZ POST BASE WITH CAST IN PLACE OR EPOXIED ANCHOR PER MANUF. SPECS.
  - FINISHED GRADE OR SLAB AS OCCURS
  - OPTIONAL 12" DIA OR SQUARE CONCRETE PEDESTAL
  - (4) #4 VERTICALS W/ STANDARD HOOK AT CONCRETE PEDESTAL
  - #3 TIES AT 8" O.C.
1. ISOLATED OR CONTINUOUS FOOTING PER PLAN

54 FOOTING AT WOOD COLUMN  
SCALE: 3/4"=1'



- 2x NET WIDTH PRESSURE TREATED SILL PLATE UNO. IN SHEAR WALL SCHEDULE W/ 3/8" DIA. ANCHOR BOLT W/ 1" MIN. EMBEDMENT @ 12" O.C. UNO. IN SHEAR WALL SCHEDULE
  - TOP FLANGE I-JOIST HANGER PER MANUF. W/ VAPOR BARRIER SEPERATING JOIST & HANGER FROM CONCRETE STEM WALL
  - FLOOR JOIST PER PLAN
  - #4 REBAR HORIZ. @ 12" O.C. W/ (1) #4 REBAR IN UPPER 3" TO 5" OF WALL
- OPTIONAL: FACE MOUNT HANGER AT 2X12 P.T. LEDGER ATTACHED TO STEM WALL W/ 1/2" BOLTS STAGGERED AT 16" O.C. IN LIEU OF TOP FLANGE HANGER

55 FLOOR JOISTS AT A RAISED STEM WALL  
SCALE: 3/4"=1'

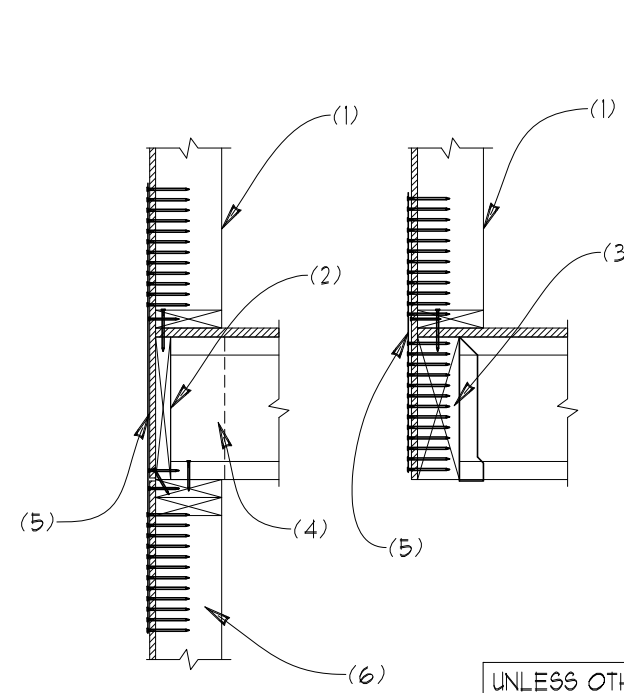


DESIGN CRITERIA:  
1500 PCF ALLOWABLE SOIL BEARING PRESSURE  
35 PCF ACTIVE EARTH PRESSURE  
300 PCF PASSIVE EARTH PRESSURE  
0.35 COEFFICIENT OF FRICTION

BACKFILL FOUNDATION WALLS WITH 18" OF PROPERLY COMPACTED GRANULAR FILL CONTAINING LESS THAN 5% FINES TO WITHIN 12" OF FINAL GRADE (COMPACT TO 92% OF MAX DRY DENSITY PER MODIFIED PROCTOR METHOD).  
INSTALL 4" DIA. PERFORATED SMOOTH PVC FOOTING DRAINS ALONG THE BASE OF THE DRAINAGE ZONE BEHIND THE WALL TO DIRECT ANY ACCUMULATED WATER TO AN APPROPRIATE DISCHARGE. A NONWOVEN GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE DRAINAGE MATERIAL AND THE REMAINING WALL BACKFILL. FILTER FABRIC SHALL EXTEND OVER THE TOP OF THE DRAINAGE MATERIAL.

| RETAINED HEIGHT | FOOTING WIDTH | FOOTING VERTICAL REBAR | FOOTING REBAR       | WALL VERTICAL REBAR | FOOTING THICKNESS |
|-----------------|---------------|------------------------|---------------------|---------------------|-------------------|
| 3'-0"           | 2'-0"         | #4 REBAR @ 10" O.C.    | N/A                 | #4 REBAR @ 12" O.C. | 10"               |
| 5'-0"           | 2'-8"         | #4 REBAR @ 10" O.C.    | #4 REBAR @ 10" O.C. | #4 REBAR @ 10" O.C. | 10"               |
| 7'-0"           | 3'-8"         | #4 REBAR @ 8" O.C.     | #4 REBAR @ 9" O.C.  | #4 REBAR @ 12" O.C. | 10"               |

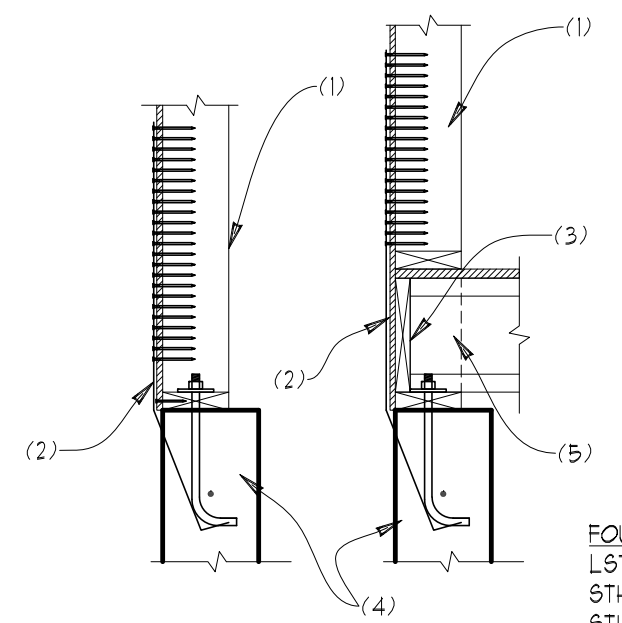
56 CANTILEVER RETAINING WALL  
SCALE: 1/2"=1'



- UPPER FLOOR WALL PER PLAN W/ DBL STUDS AT STRAP MINIMUM
- RIM BOARD PER PLAN
- BEAM PER PLAN
- PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY
- STRAP TIE PER PLAN CENTER STRAP ON RIM @ WALL TO WALL & CENTER STRAP ON FLOOR DIAPHRAGM @ WALL TO BEAM
- LOWER FLOOR WALL OR BEAM PER PLAN W/ DBL STUDS AT STRAP MINIMUM

UNLESS OTHERWISE NOTED:  
MSTCxx4 MSTCxxB3 STRAPS SHALL BE INSTALLED W/ 10d COMMON NAILS (Ø148"x33")  
ALL OTHER STRAPS SHALL BE INSTALLED W/ 16d COMMON NAILS (Ø162"x35")

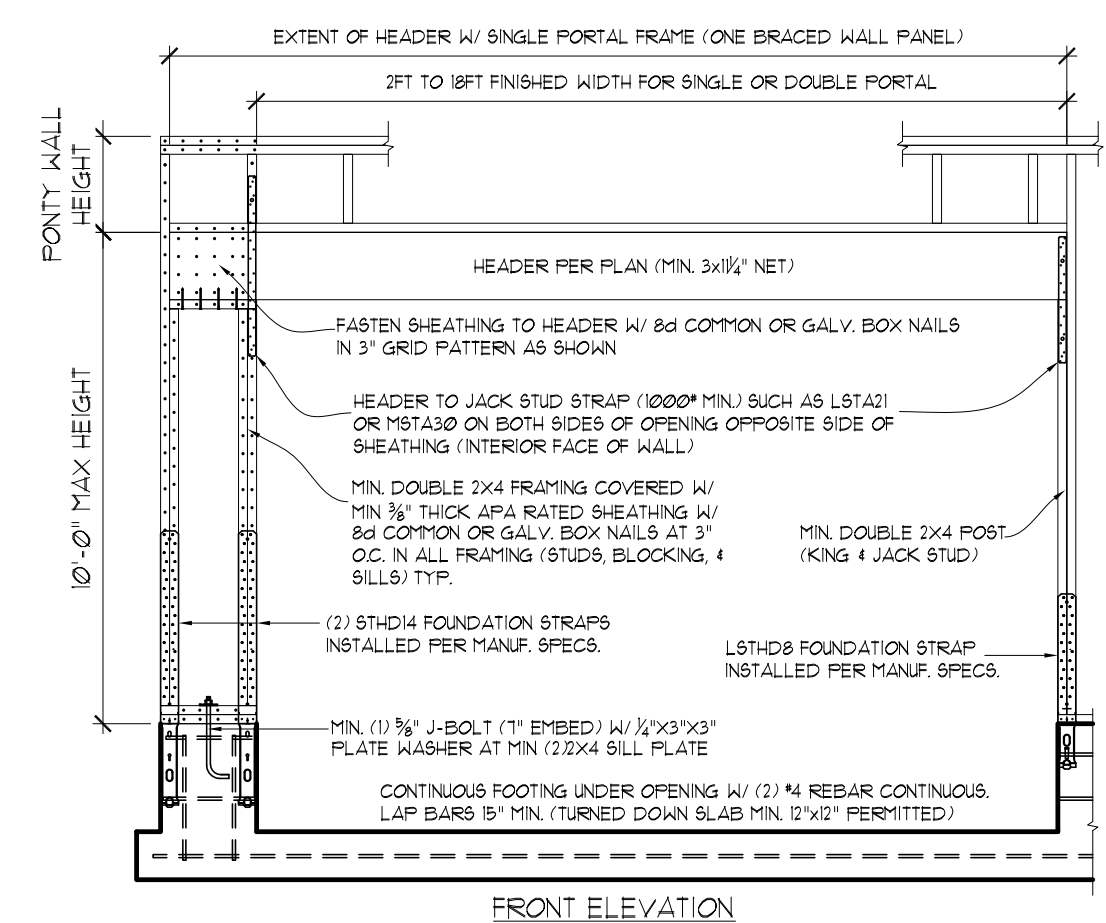
H1 TYPICAL STRAP TIE @ UPPER FLOORS  
SCALE: 3/4"=1'



- DBL 2x STUDS MINIMUM AT HOLDOWN UNLESS NOTED OTHERWISE
- STRAP TIE HOLDOWN PER PLAN INSTALLED PER MANUF. SPECS. W/ 16d SINKER (Ø148"x33") OR 10d COMMON (Ø148"x33") NAILS
- RIM BOARD PER PLAN
- CONCRETE STEM WALL PER PLAN W/ #4 REBAR IN UPPER 3" TO 5" OF STEM WALL
- PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY

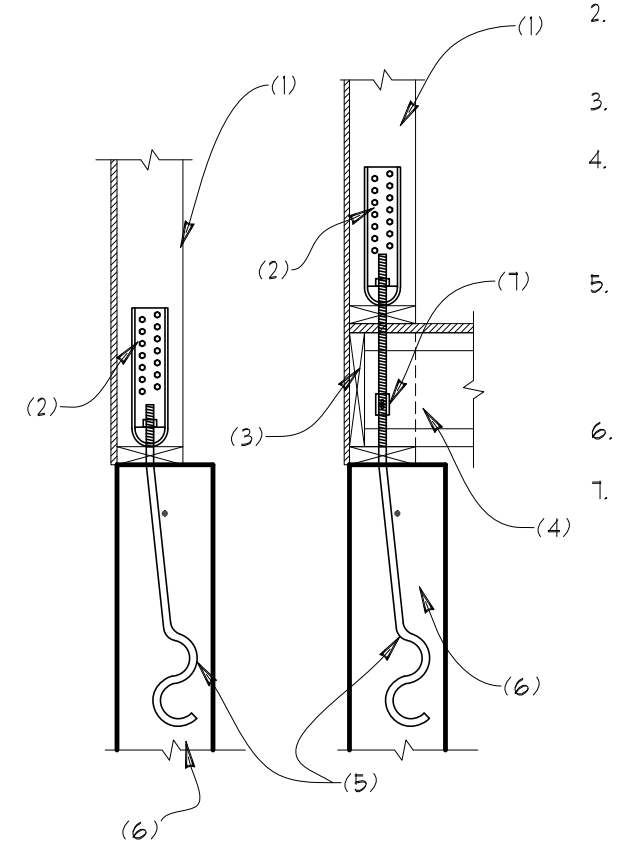
| FOUNDATION STRAP | NAILS INTO END POST |
|------------------|---------------------|
| L5THD8/L5THD8RJ  | 20                  |
| 5THD10/5THD10RJ  | 24                  |
| 5THD14/5THD14RJ  | 30                  |

H2 TYPICAL STRAP TIE HOLDOWN  
SCALE: 3/4"=1'



- EXTENT OF HEADER W/ SINGLE PORTAL FRAME (ONE BRACED WALL PANEL) 2FT TO 18FT FINISHED WIDTH FOR SINGLE OR DOUBLE PORTAL
- STRAP TIE HOLDOWN PER PLAN INSTALLED PER MANUF. SPECS. W/ 16d SINKER (Ø148"x33") OR 10d COMMON (Ø148"x33") NAILS
- RIM BOARD PER PLAN
- CONCRETE STEM WALL PER PLAN W/ #4 REBAR IN UPPER 3" TO 5" OF STEM WALL
- PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY

H3 PORTAL FRAME CONSTRUCTION (FIELD BUILT)  
SCALE: NTS



- DBL 2x STUDS MINIMUM AT HOLDOWN UNLESS NOTED OTHERWISE
- ANCHOR BOLT STYLE HOLDOWN PER PLAN INSTALLED PER MANUF. SPECS.
- RIM BOARD PER PLAN
- PROVIDE SQUASH BLOCKS IN FLOOR CAVITY TO MATCH POST IN SHEAR WALL. GRAIN ORIENTED VERTICALLY
- ANCHOR BOLT INSTALLED PER MANUF. SPECS. (SEE BELOW FOR SIZE PER HOLDOWN) MAINTAIN 5" CLEARANCE FROM INDNT VENTS.
- CONCRETE STEM WALL PER PLAN
- EXTEND ANCHOR BOLT W/ COUPLER NUT & ALL THREAD ROD

| ANCHOR                       | EMBED.  |
|------------------------------|---------|
| S5TB16 (DIA. = 3/8")         | 12 3/4" |
| S5TB20 (DIA. = 1/2")         | 16 3/8" |
| S5TB24 (DIA. = 5/8")         | 20 3/8" |
| S5TB28 (DIA. = 3/4")         | 24 3/8" |
| S5TB34, S5TB36 (DIA. = 7/8") | 28 3/8" |
| S5TB42, S5TB44               | 18"     |
| S5TB50                       | 24"     |

H4 TYPICAL ANCHOR BOLT HOLDOWN  
SCALE: 3/4"=1'

STRUCTURAL PLANS

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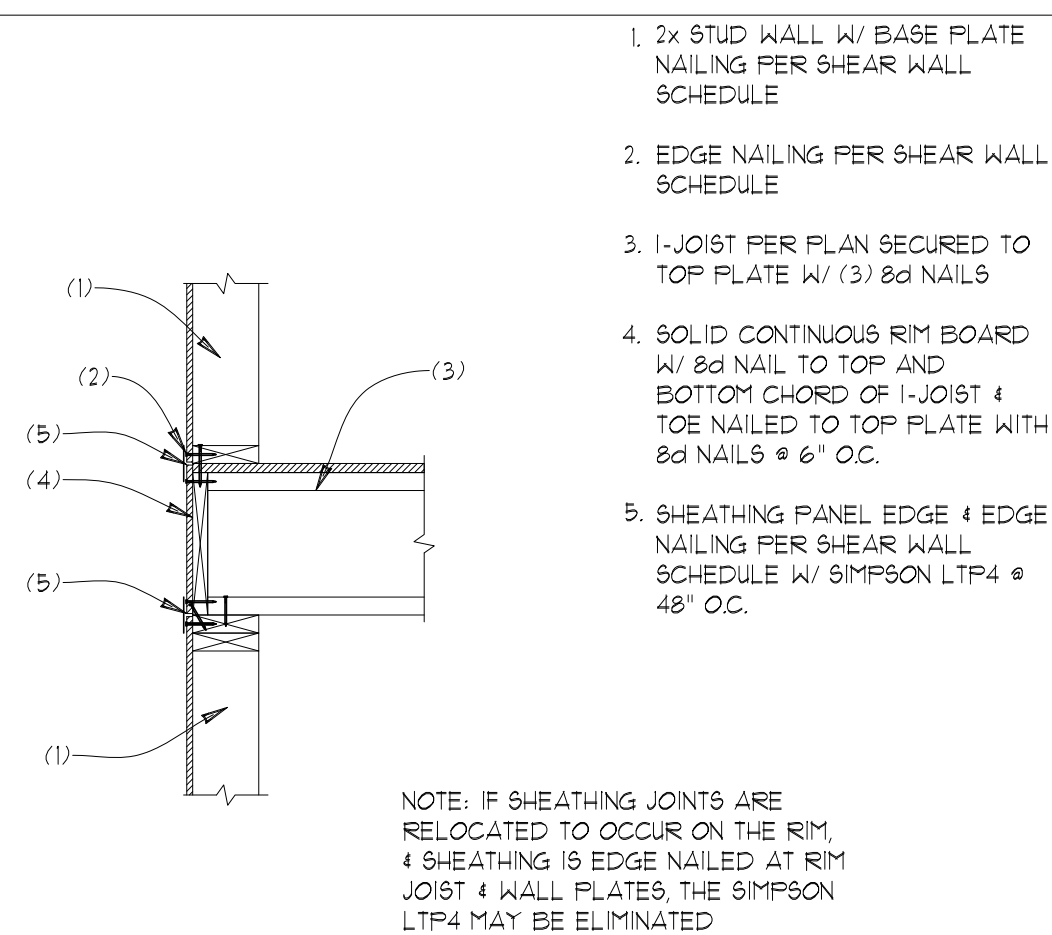


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by Mark Myers, PE  
Date: 2022.06.15  
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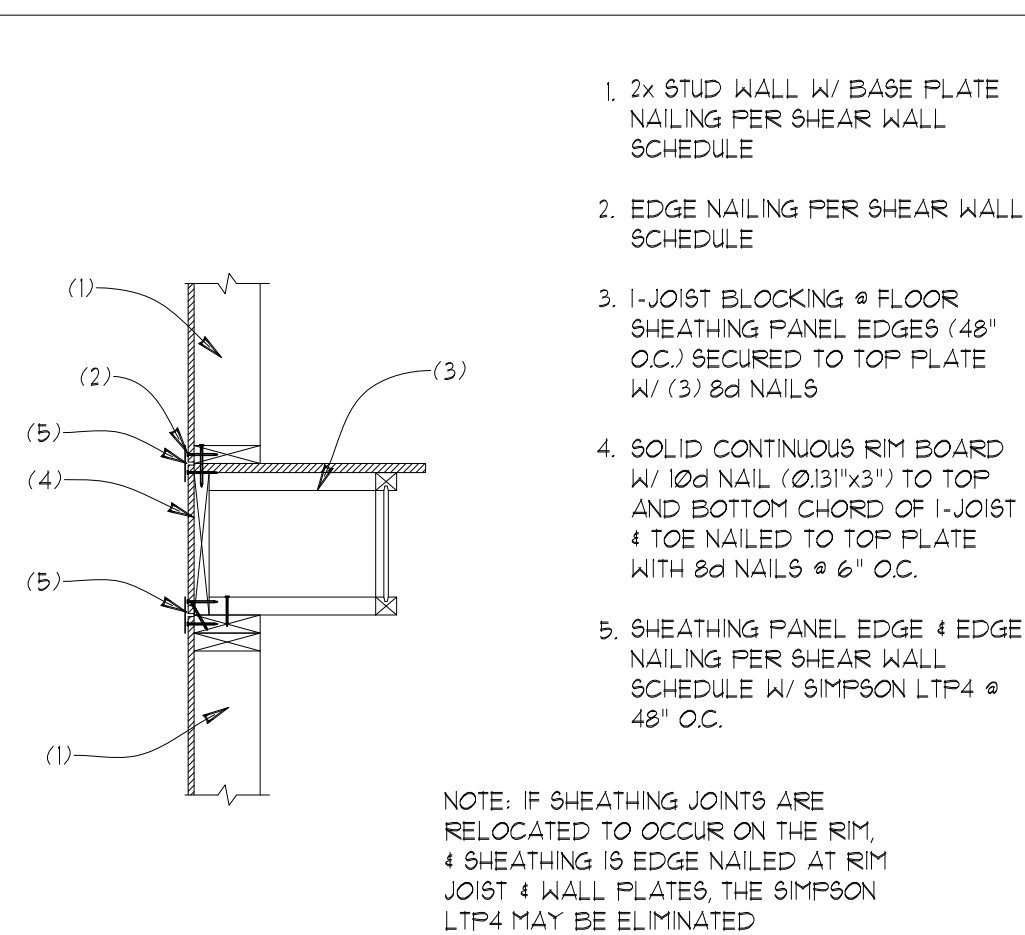
S6  
DATE: 6-15-2022  
INIT: MM  
PROJECT #: 2431



- 2x STUD WALL W/ BASE PLATE NAILING PER SHEAR WALL SCHEDULE
- EDGE NAILING PER SHEAR WALL SCHEDULE
- 1-JOIST PER PLAN SECURED TO TOP PLATE W/ (3) 8d NAILS
- SOLID CONTINUOUS RIM BOARD W/ 10d NAIL TO TOP AND BOTTOM CHORD OF 1-JOIST & TOE NAILED TO TOP PLATE WITH 8d NAILS @ 6" O.C.
- SHEATHING PANEL EDGE & EDGE NAILING PER SHEAR WALL SCHEDULE W/ SIMPSON LTP4 @ 48" O.C.

NOTE: IF SHEATHING JOINTS ARE RELOCATED TO OCCUR ON THE RIM, SHEATHING IS EDGE NAILED AT RIM JOIST & WALL FLATES, THE SIMPSON LTP4 MAY BE ELIMINATED

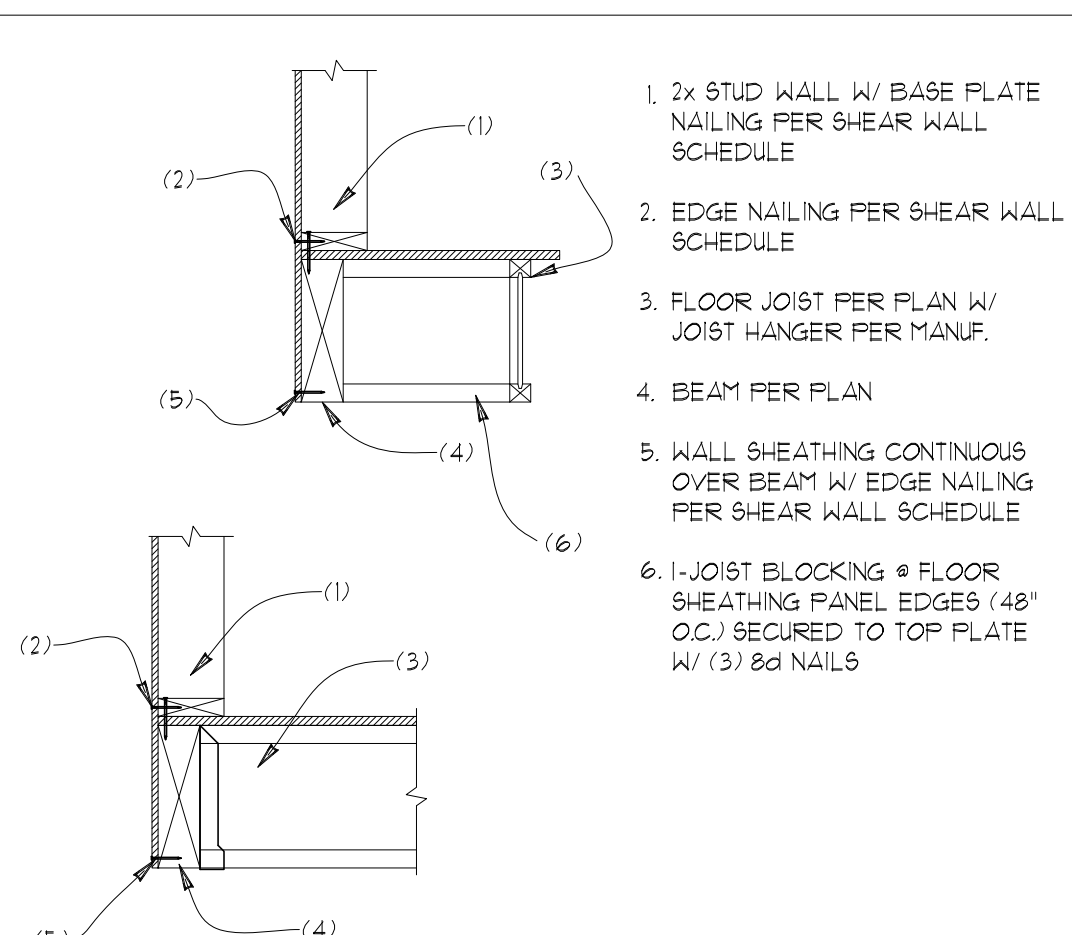
60 FLOOR JOIST BEARING AT STUD WALL  
SCALE: 3/4"=1"



- 2x STUD WALL W/ BASE PLATE NAILING PER SHEAR WALL SCHEDULE
- EDGE NAILING PER SHEAR WALL SCHEDULE
- 1-JOIST BLOCKING @ FLOOR SHEATHING PANEL EDGES (48" O.C.) SECURED TO TOP PLATE W/ (3) 8d NAILS
- SOLID CONTINUOUS RIM BOARD W/ 10d NAIL (2) 13"x3" TO TOP AND BOTTOM CHORD OF 1-JOIST & TOE NAILED TO TOP PLATE WITH 8d NAILS @ 6" O.C.
- SHEATHING PANEL EDGE & EDGE NAILING PER SHEAR WALL SCHEDULE W/ SIMPSON LTP4 @ 48" O.C.

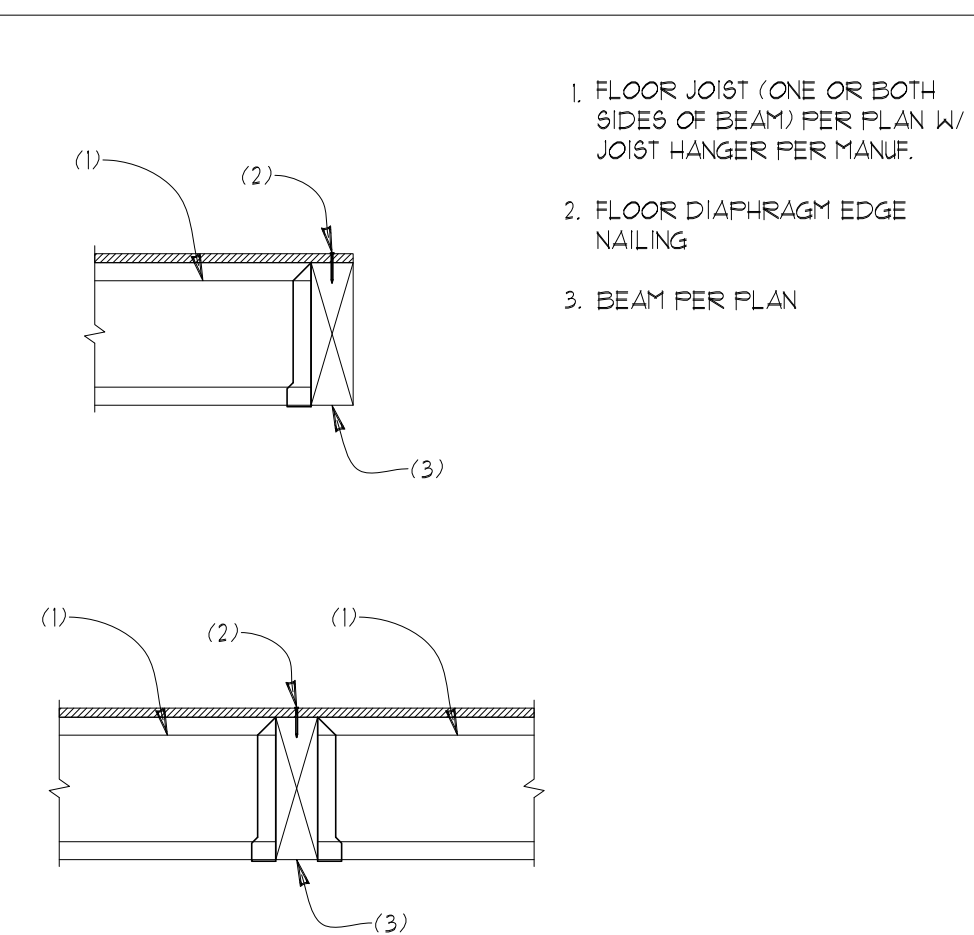
NOTE: IF SHEATHING JOINTS ARE RELOCATED TO OCCUR ON THE RIM, SHEATHING IS EDGE NAILED AT RIM JOIST & WALL FLATES, THE SIMPSON LTP4 MAY BE ELIMINATED

61 FLOOR JOIST PARALLEL TO STUD WALL  
SCALE: 3/4"=1"



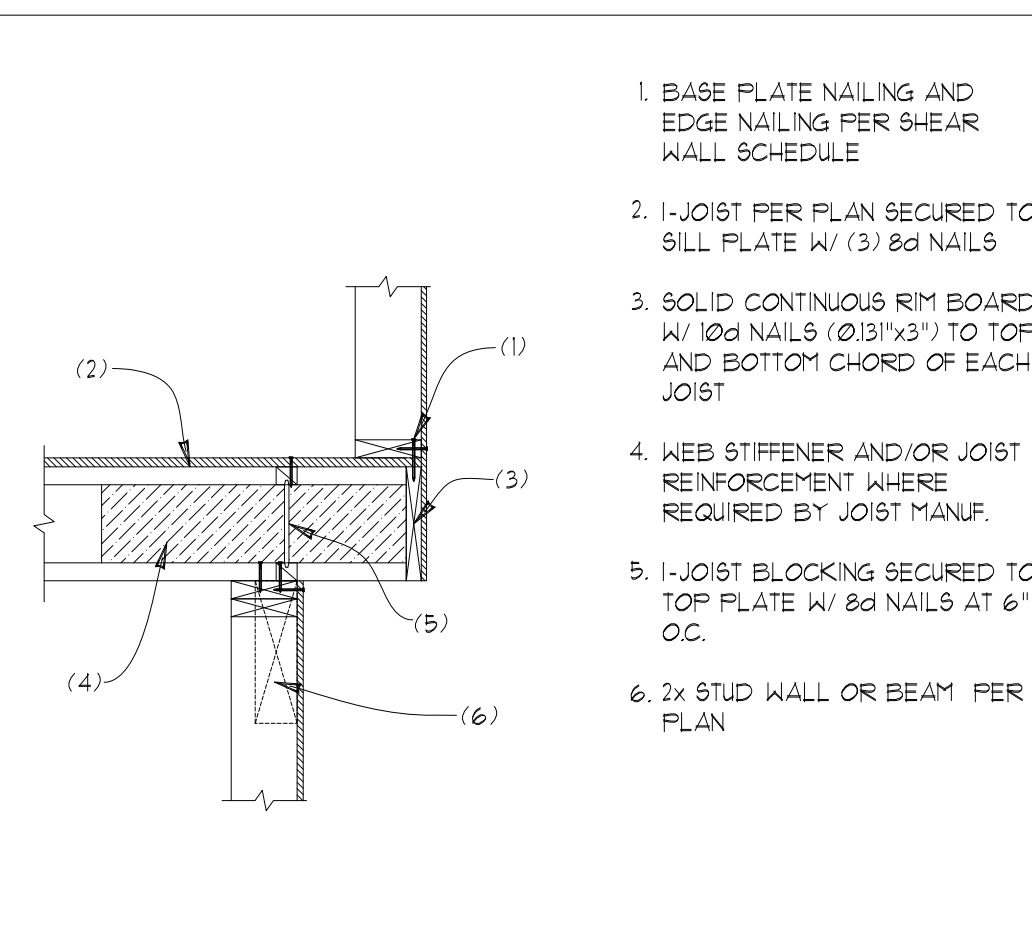
- 2x STUD WALL W/ BASE PLATE NAILING PER SHEAR WALL SCHEDULE
- EDGE NAILING PER SHEAR WALL SCHEDULE
- FLOOR JOIST PER PLAN W/ JOIST HANGER PER MANUF.
- BEAM PER PLAN
- WALL SHEATHING CONTINUOUS OVER BEAM W/ EDGE NAILING PER SHEAR WALL SCHEDULE
- 1-JOIST BLOCKING @ FLOOR SHEATHING PANEL EDGES (48" O.C.) SECURED TO TOP PLATE W/ (3) 8d NAILS

62 FLOOR JOIST AT BEAM  
SCALE: 3/4"=1"



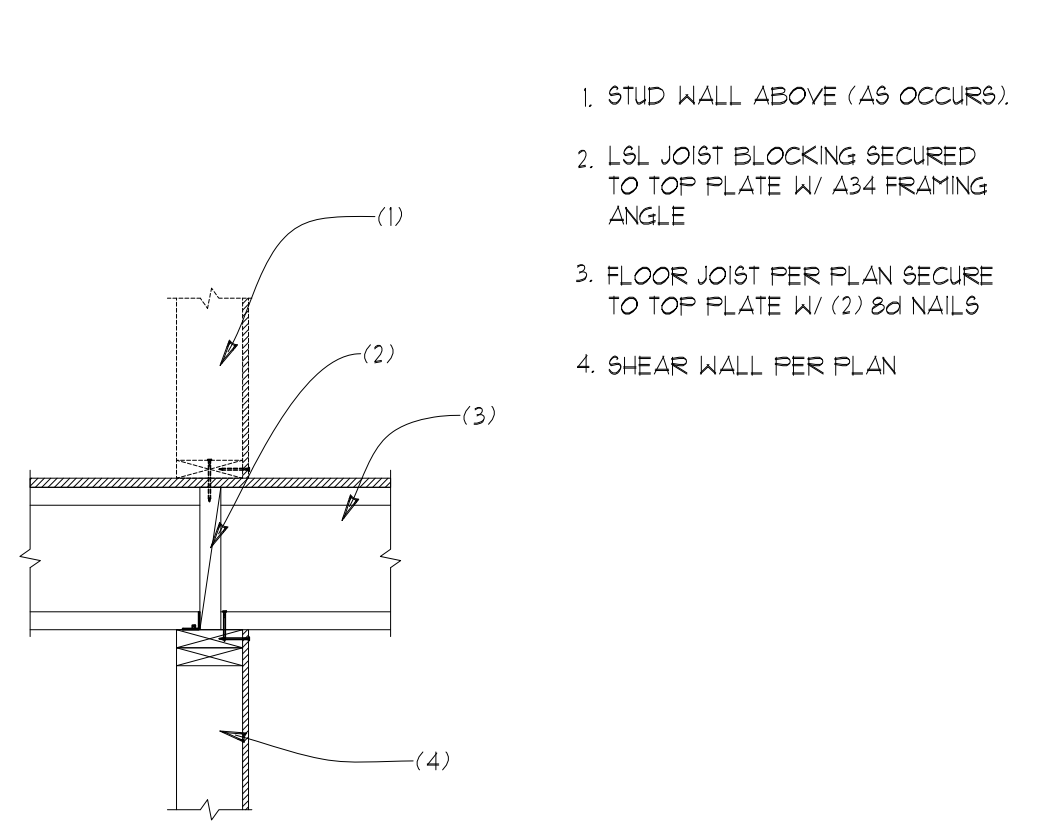
- FLOOR JOIST (ONE OR BOTH SIDES OF BEAM) PER PLAN W/ JOIST HANGER PER MANUF.
- FLOOR DIAPHRAGM EDGE NAILING
- BEAM PER PLAN

63 FLOOR JOIST AT BEAM  
SCALE: 3/4"=1"



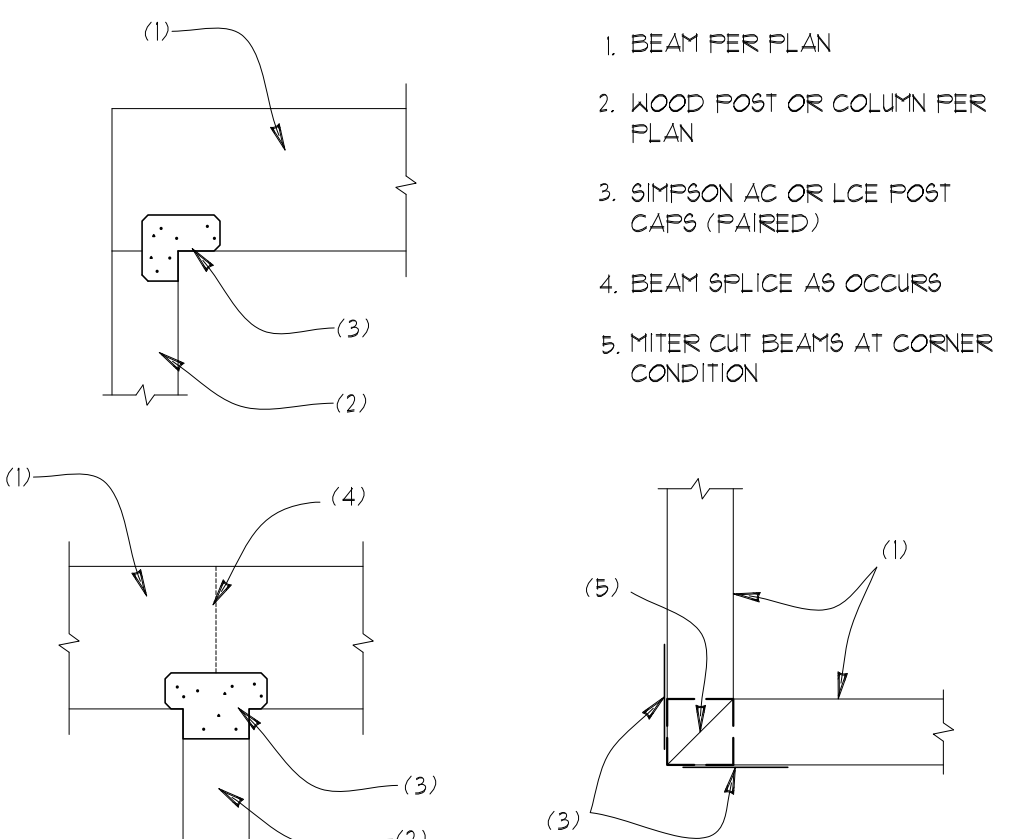
- BASE PLATE NAILING AND EDGE NAILING PER SHEAR WALL SCHEDULE
- 1-JOIST PER PLAN SECURED TO BILL FLATE W/ (3) 8d NAILS
- SOLID CONTINUOUS RIM BOARD W/ 10d NAILS (2) 13"x3" TO TOP AND BOTTOM CHORD OF EACH JOIST
- WEB STIFFENER AND/OR JOIST REINFORCEMENT WHERE REQUIRED BY JOIST MANUF.
- 1-JOIST BLOCKING SECURED TO TOP PLATE W/ 8d NAILS @ 6" O.C.
- 2x STUD WALL OR BEAM PER PLAN

64 1-JOIST CANTILEVER  
SCALE: 3/4"=1"



- STUD WALL ABOVE (AS OCCURS)
- LSL JOIST BLOCKING SECURED TO TOP PLATE W/ A34 FRAMING ANGLE
- FLOOR JOIST PER PLAN SECURE TO TOP PLATE W/ (2) 8d NAILS
- SHEAR WALL PER PLAN

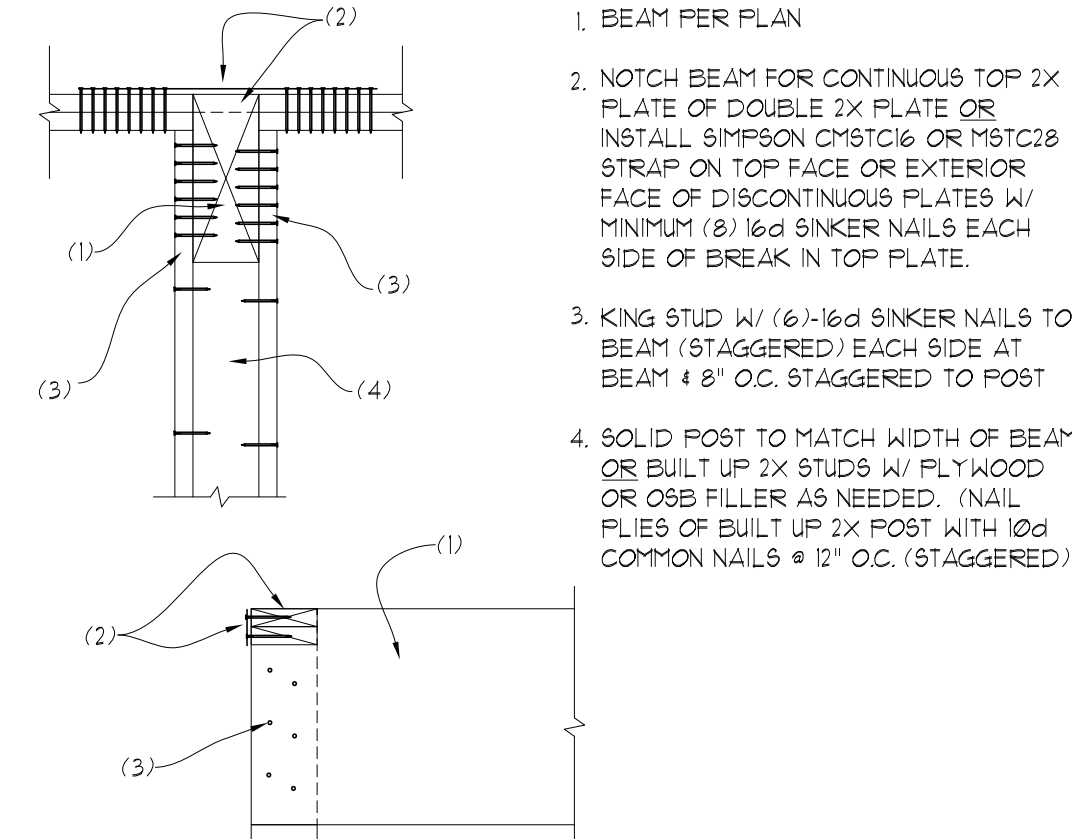
65 FLOOR JOIST AT INT. WALL OR BEAM  
SCALE: 3/4"=1"



- BEAM PER PLAN
- WOOD POST OR COLUMN PER PLAN
- SIMPSON AC OR LCE POST CAPS (PAIRED)
- BEAM SPLICE AS OCCURS
- MITER CUT BEAMS AT CORNER CONDITION

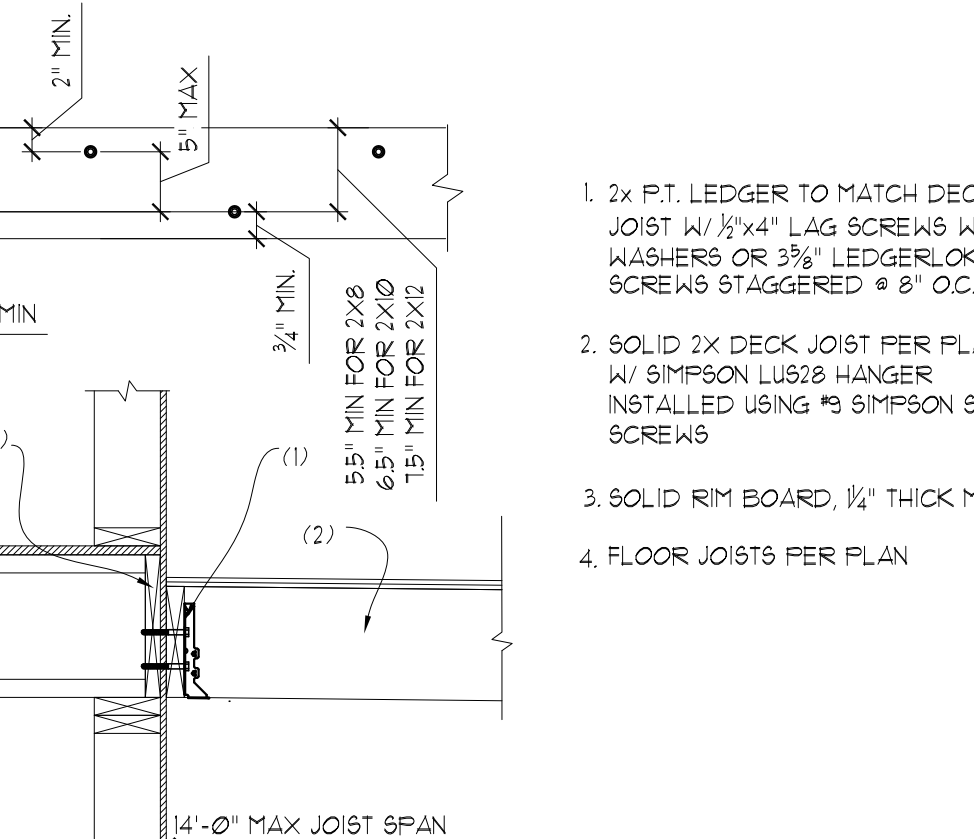
PLAN VIEW AT CORNER

66 WOOD BEAM AT WOOD POST  
SCALE: 3/4"=1"



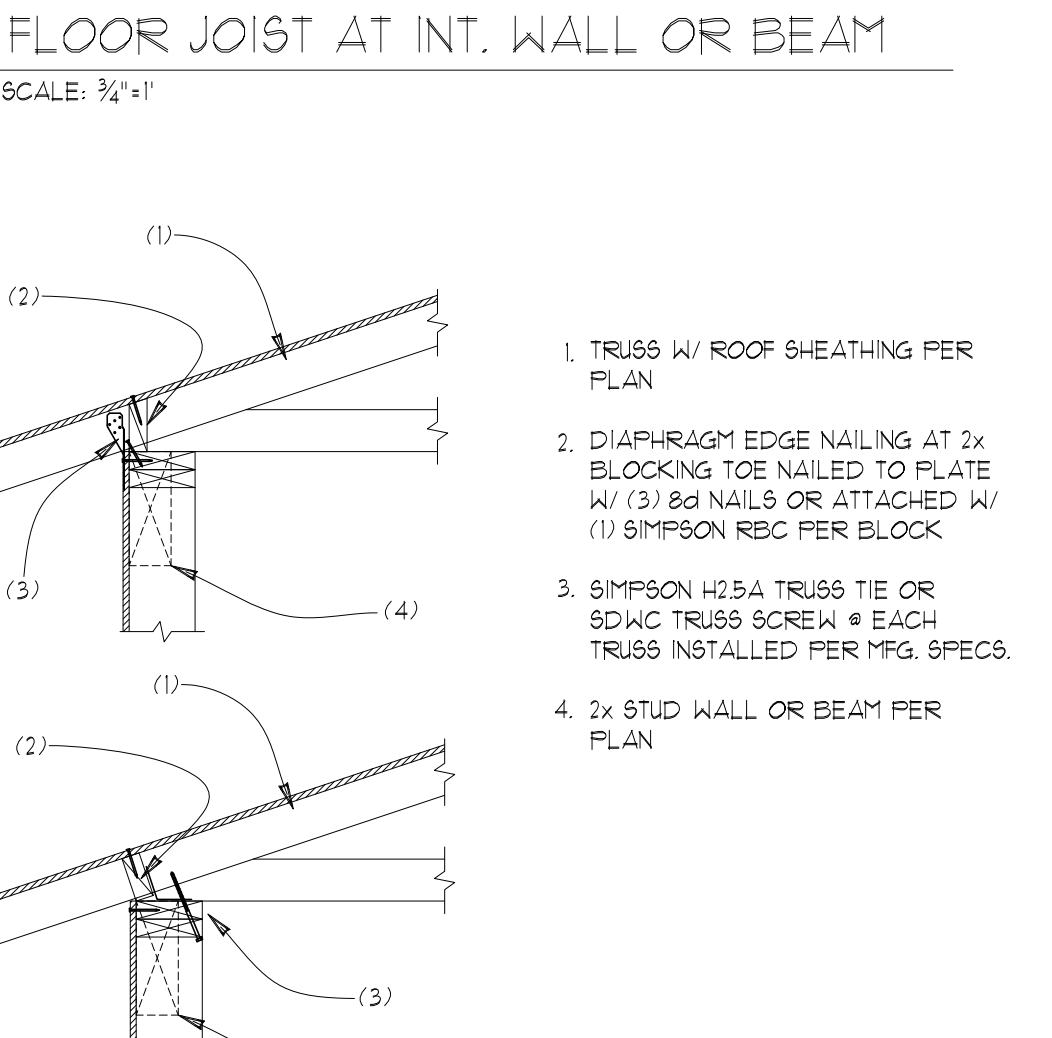
- BEAM PER PLAN
- NOTCH BEAM FOR CONTINUOUS TOP 2X PLATE OF DOUBLE 2X PLATE OR INSTALL SIMPSON CHST216 OR M5TC28 STRAP ON TOP FACE OR EXTERIOR FACE OF DISCONTINUOUS FLATES W/ MINIMUM (8) 16d SINKER NAILS EACH SIDE OF BREAK IN TOP PLATE.
- KING STUD W/ (6) 16d SINKER NAILS TO BEAM (STAGGERED) EACH SIDE AT BEAM & 8" O.C. STAGGERED TO POST
- SOLID POST TO MATCH WIDTH OF BEAM OR BUILT UP 2x STUDS W/ PLYWOOD OR OSB FILLER AS NEEDED. (NAIL FLIES OF BUILT UP 2x POST WITH 10d COMMON NAILS @ 12" O.C. (STAGGERED))

67 BEAM POCKET AT WALL  
SCALE: 3/4"=1"



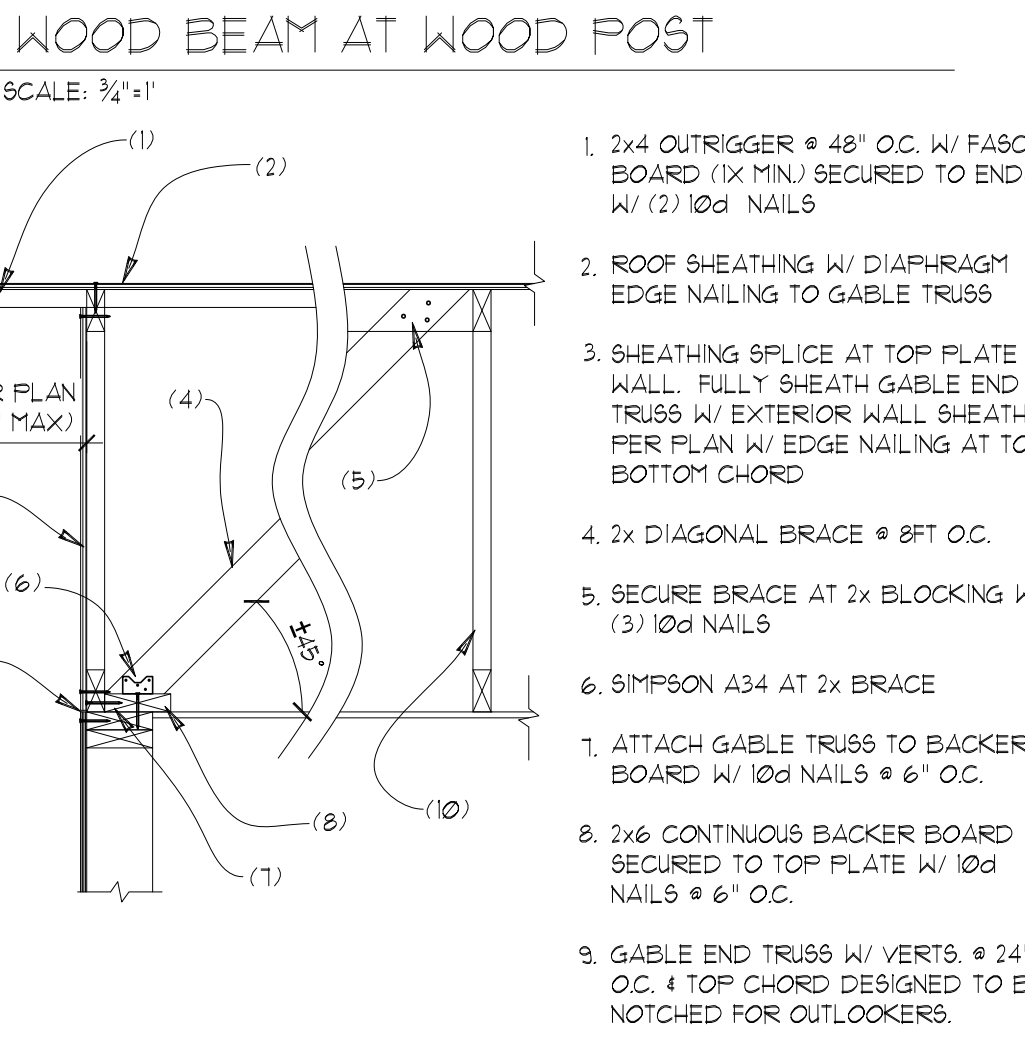
- 2x P.T. LEDGER TO MATCH DECK JOIST W/ 1/2"x4" LAG SCREWS W/ WASHERS OR 3/8" LEDGERLOK® SCREWS STAGGERED @ 8" O.C.
- SOLID 2X DECK JOIST PER PLAN W/ SIMPSON LUS28 HANGER INSTALLED USING #8 SIMPSON SD SCREWS
- SOLID RIM BOARD, 1/2" THICK MIN.
- FLOOR JOISTS PER PLAN

68 DECK LEDGER AT RIM BOARD  
SCALE: 3/4"=1"



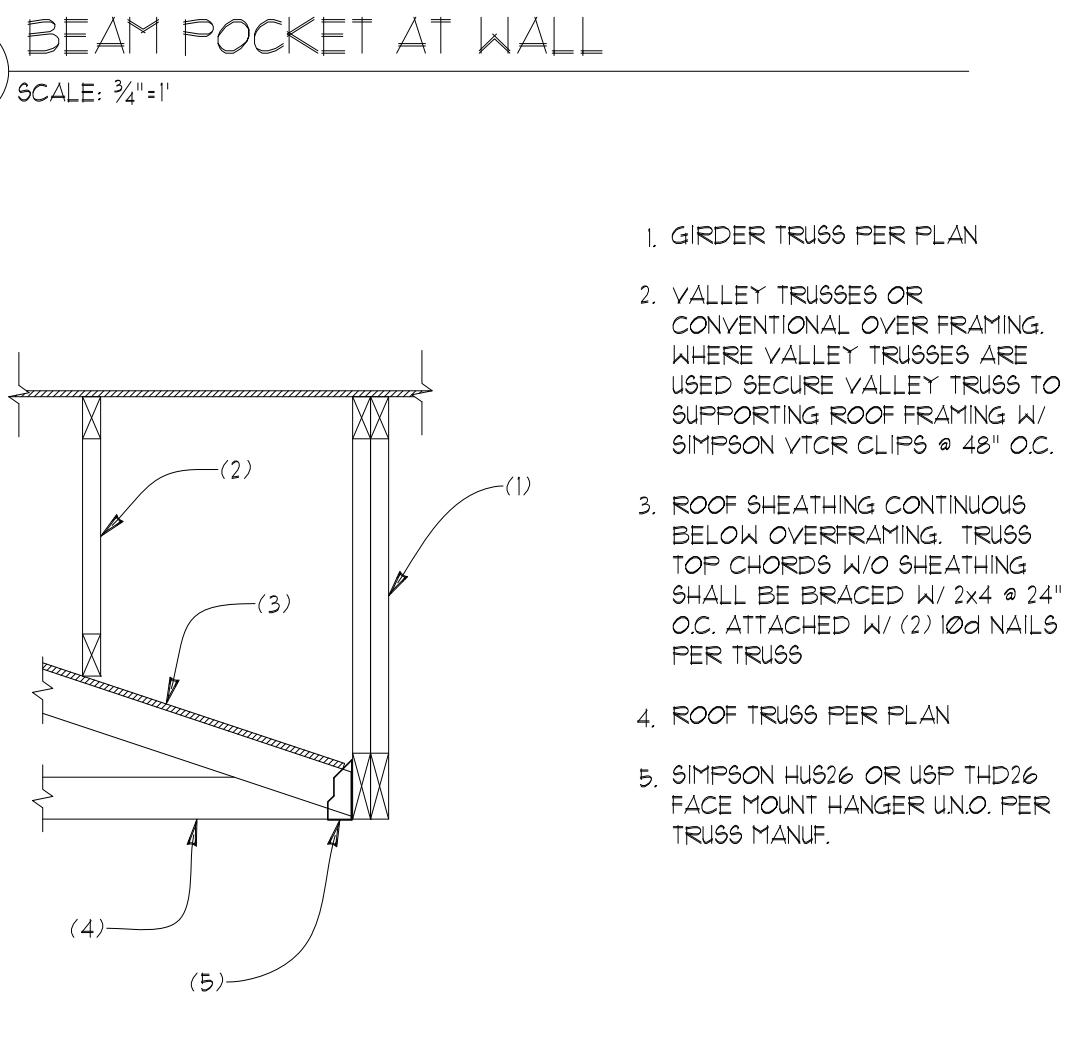
- TRUSS W/ ROOF SHEATHING PER PLAN
- DIAPHRAGM EDGE NAILING AT 2x BLOCKING TOE NAILED TO PLATE W/ (3) 8d NAILS OR ATTACHED W/ (1) SIMPSON RBC PER BLOCK
- SIMPSON HD24 TRUSS TIE OR SDAC TRUSS SCREW @ EACH TRUSS INSTALLED PER MFG. SPECS.
- 2x STUD WALL OR BEAM PER PLAN

69 ROOF TRUSS AT BEARING  
SCALE: 3/4"=1"



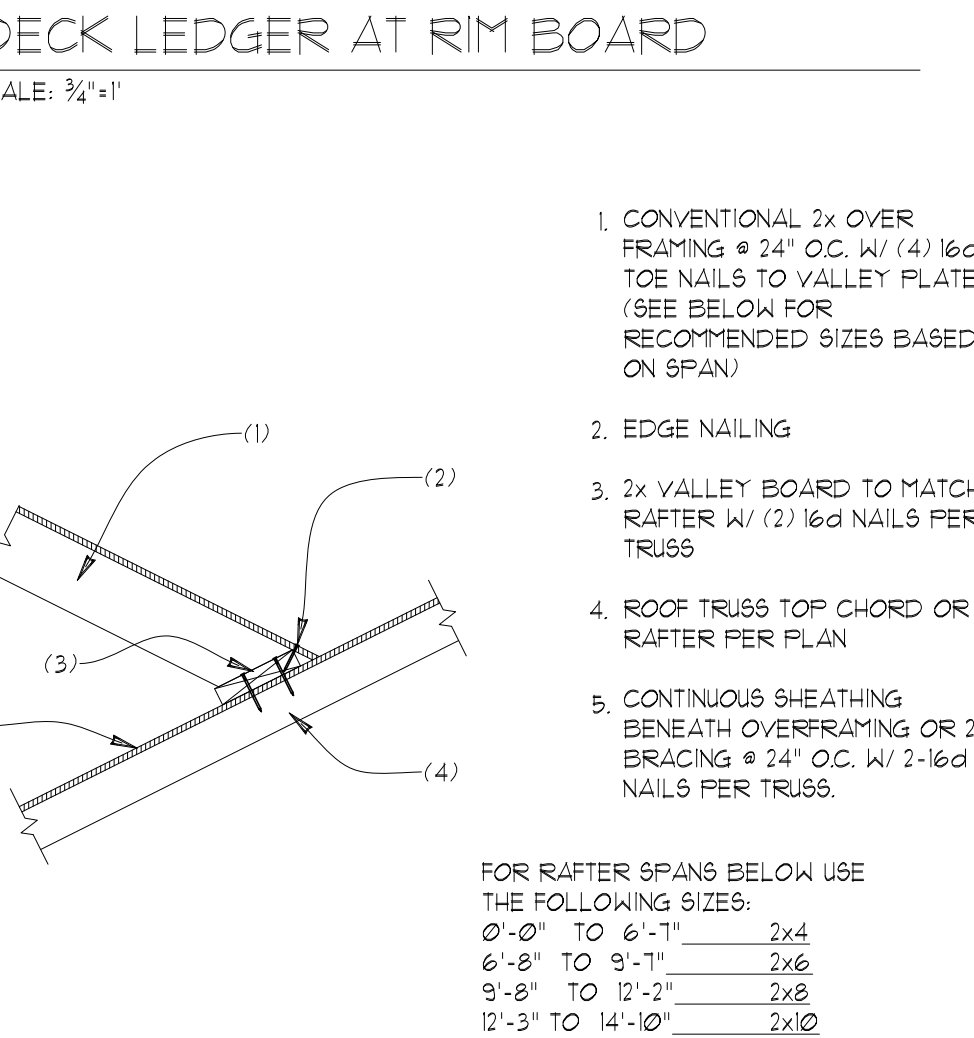
- 2x4 OUTRIGGER @ 48" O.C. W/ FASCIA BOARD (1x MIN) SECURED TO ENDS W/ (2) 10d NAILS
- ROOF SHEATHING W/ DIAPHRAGM EDGE NAILING TO GABLE TRUSS
- SHEATHING SPLICE AT TOP PLATE OF WALL. FULLY SHEATH GABLE END TRUSS W/ EXTERIOR WALL SHEATHING PER PLAN W/ EDGE NAILING AT TOP & BOTTOM CHORD
- 2x DIAGONAL BRACE @ 8FT O.C.
- SECURE BRACE AT 2x BLOCKING W/ (3) 10d NAILS
- SIMPSON A34 AT 2x BRACE
- ATTACH GABLE TRUSS TO BACKER BOARD W/ 10d NAILS @ 6" O.C.
- 2x6 CONTINUOUS BACKER BOARD SECURED TO TOP PLATE W/ 10d NAILS @ 6" O.C.
- GABLE END TRUSS W/ VERTS @ 24" O.C. & TOP CHORD DESIGNED TO BE NOTCHED FOR OUTLOOKERS.
- ROOF TRUSSES @ 24" O.C. PER PLAN

70 GABLE END TRUSS  
SCALE: 3/4"=1"



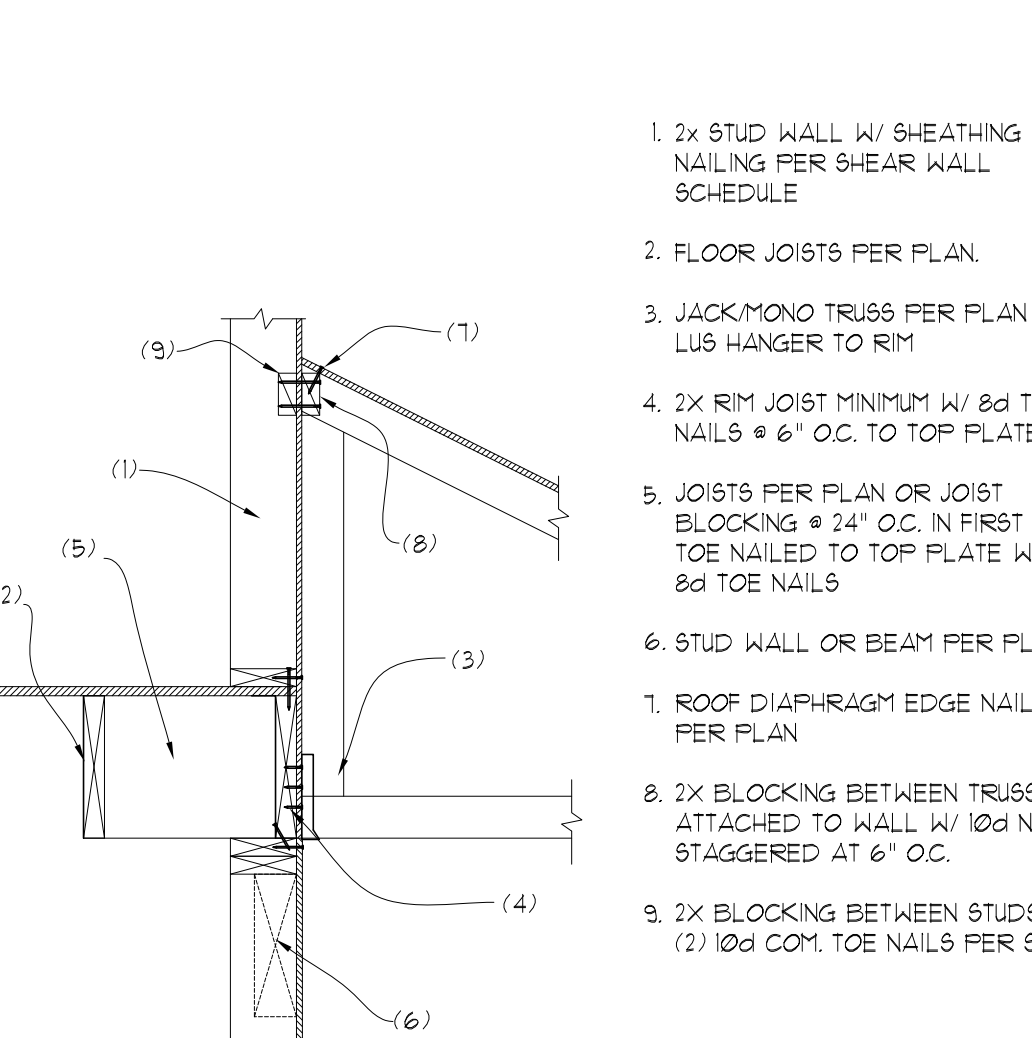
- GIRDER TRUSS PER PLAN
- VALLEY TRUSSES OR CONVENTIONAL OVER FRAMING WHERE VALLEY TRUSSES ARE USED SECURE VALLEY TRUSS TO SUPPORTING ROOF FRAMING W/ SIMPSON VTGR CLIPS @ 48" O.C.
- ROOF SHEATHING CONTINUOUS BELOW OVERFRAMING. TRUSS TOP CHORDS W/O SHEATHING SHALL BE BRACED W/ 2x4 @ 24" O.C. ATTACHED W/ (2) 10d NAILS PER TRUSS
- ROOF TRUSS PER PLAN
- SIMPSON HUS26 OR USF THD26 FACE MOUNT HANGER UNO. PER TRUSS MANUF.

71 GIRDER TRUSS AT OVERFRAMING  
SCALE: 3/4"=1"



FOR RAFTER SPANS BELOW USE THE FOLLOWING SIZES:  
0'-0" TO 6'-1" 2x4  
6'-0" TO 9'-1" 2x6  
9'-0" TO 12'-2" 2x8  
12'-3" TO 14'-10" 2x10  
14'-1" TO 17'-3" 2x12  
(ASSUMES RAFTERS @ 24" O.C. LL=30PSF & DL=10PSF PER TABLE R202.5.1.3 FOR HF #2)

72 VALLEY FRAMING  
SCALE: 3/4"=1"



- 2x STUD WALL W/ SHEATHING & NAILING PER SHEAR WALL SCHEDULE
- FLOOR JOISTS PER PLAN
- JACK/MONO TRUSS PER PLAN W/ LUS HANGER TO RIM
- 2x RIM JOIST MINIMUM W/ 8d TOE NAILS @ 6" O.C. TO TOP PLATE
- JOISTS PER PLAN OR JOIST BLOCKING @ 24" O.C. IN FIRST BAY, TOE NAILED TO TOP PLATE W/ (2) 8d TOE NAILS
- STUD WALL OR BEAM PER PLAN
- ROOF DIAPHRAGM EDGE NAILING PER PLAN
- 2x BLOCKING BETWEEN TRUSSES ATTACHED TO WALL W/ 10d NAILS STAGGERED AT 6" O.C.
- 2x BLOCKING BETWEEN STUDS W/ (2) 10d COM. TOE NAILS PER STUD

73 MONO/JACK TRUSS TO RIM  
SCALE: 3/4"=1"

# STRUCTURAL PLANS

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MERCER ISLAND, WA

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Digitally signed  
by Mark Myers, PE  
Date: 2022.06.15  
12:04:30 -0700

BUILDING DEPT. APPROVAL STAMPS:

| REVISION: | INIT: | DATE: |
|-----------|-------|-------|
|           |       |       |
|           |       |       |

**S7**

DATE:  
6-15-2022

INIT:  
MM

PROJECT #:  
243