

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



INSPECTION REQUESTS:



voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

CONTACT INFORMATION:

Applicant is to complete the following information.

Applicant Contact information prior to permit issuance: Name, Address, Phone, Email
Applicant Contact information post permit issuance: Name, Address, Phone, Email

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:

It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below.

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR): Engineer of Record, Company, Phone, General Conformance to Construction Documents, Other

SOILS / GEOTECHNICAL: Special Inspector, Company, Phone, Erosion control measures, Subsurface drainage placement, Shoring installation and monitoring, Verify fill material and compaction, etc.

REINFORCED CONCRETE: Special Inspector, Company, Phone, Concrete strength, Retaining wall construction, Reinforcing steel and concrete placement, etc.

STRUCTURAL STEEL: Special Inspector, Company, Phone, Fabrication and shop welds, Moment Frame construction, Structural steel erection, field welds and bolting, etc.

STRUCTURAL MASONRY: Special Inspector, Company, Phone, Mortar strength, Glass unit masonry installation, Masonry unit strength, Wall panel and veneer installation, etc.

WOOD: Special Inspector / Engineer of Record, Company, Phone, Lateral resisting system construction, High strength diaphragm construction, etc.

OTHER SPECIAL INSPECTIONS: Special Inspector, Company, Phone, Epoxy grout installations, Stucco installation, Expansion anchor installations, Infiltration System, etc.

DEFERRED SUBMITTALS:

The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

Connector plate wood trusses, Metal joist / metal trusses, Post tension layout, Exterior cladding, etc.

ENERGY CODE COMPLIANCE INFORMATION:

Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

Building envelope, Air Leakage Testing, Whole house ventilation, Duct Leakage Testing, Energy Credit Information, Postconstruction Test, etc.

TO BE COMPLETED BY DSG

PROJECT ALERTS:

Construction of the project shall be from approved plans only. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island.

Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Site Considerations, ROW restrictions, Additional Fire Code Requirements, etc.

TREE PROTECTION REQUIREMENTS:

Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project.

FIRE PROTECTION REQUIREMENTS:

Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

Fire Sprinkler, NFPA 13D, Monitored Household Fire Alarm per NFPA 72, Monitored Sprinkler, Water Flow Alarm, etc.

WATER SUPPLY REQUIREMENTS:

Fire sprinkler design calculations must be provided prior to determining water supply system requirements. Water Supply system upgrade required, City Installation, etc.

DRAINAGE REQUIREMENTS:

On site detention system required, Direct discharge into the lake, On site infiltration system required, No Storm Water permit required, etc.

SIDE SEWER REQUIREMENTS:

Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties.

APPROVED CODE ALTERNATIVES:

Code alternatives must be inspected. Refer to the Inspection Checklist. CA1, CA2

SURVEY REQUIREMENTS (The following survey information must be submitted when checked):

Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot.

Surveyor, Building height survey, Building setback survey, Impervious surface survey, etc.

GEOTECHNICAL INFORMATION:

Land clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report.

SEASONAL DEVELOPMENT LIMITATION RESTRICTION: Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1.

Permit number, Approved by, Date

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

REQUIRED CONSTRUCTION INSPECTIONS:

It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730.

Inspector shall initial and date appropriate inspection only if approved. Note: Items marked with an "*" require a separate permit. It is the applicants responsibility to apply for and obtain all City of Mercer Island permits.

INSPECTIONS: (Listed in order of typical sequencing) Pre-construction Meeting to Review Conditions of Permit Approval, Tree protection, Erosion control, Sewer disconnect and cap, etc.

TO BE COMPLETED BY DSG

Final Inspection: Tree Restoration, Fire protection, including (but not limited to): Sprinkler, Access Road, Fire Extinguishing System, etc.

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):

Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.

Approved, Start Date, End Date

ADDITIONAL REQUIRED CITY INSPECTIONS:

Call the appropriate contact to arrange the inspection. Required Inspection(s), Contact, Phone, Scheduling

IMPACT FEES:

If applicable. Impact fees apply and are due prior to Final Inspection or on Date, whichever occurs first.

PLAN REVIEW APPROVALS:

Not all review disciplines may be required to review the documents. Building, Planning, Engineering, Tree, Fire

TO BE COMPLETED BY DSG

TO BE COMPLETED BY APPLICANT



CERTIFICATE OF OCCUPANCY issued after all required inspections have been performed and approved.

PROJECT NAME: PROJECT ADDRESS:

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES REVIEWED FOR CODE COMPLIANCE

PERMIT NUMBER

Date

Approved

Date

Approved

GENERAL NOTES

- CONTACT ARCHITECT IMMEDIATELY REGARDING ANY DISCREPANCIES IN THE DRAWINGS OR SPECIFICATIONS PRIOR TO STARTING WORK
- VERIFY ALL FIELD CONDITIONS BEFORE BEGINNING CONSTRUCTION.
- VERIFY DIMENSIONS BEFORE BEGINNING CONSTRUCTION. DIMENSIONS ARE TO FACE OF STUDS AND FACE OF CONCRETE, EXCEPT WHERE OTHERWISE NOTED.
- ALL APPLICABLE CODES, ORDINANCES, AND MINIMUM STRUCTURAL REQUIREMENTS TAKE PRECEDENCE OVER ALL DRAWINGS, NOTES, SPECIFICATIONS, AND SIZES.
- COMPLIANCE IS REQUIRED WITH THE 2018 IBC AND/OR 2018 IRC, WSEC, AND OTHER CODES ADOPTED AS AMENDED BY CITY OF MERCER ISLAND.

EXISTING HOUSE

- WORK AT EXISTING HOUSE IS LIMITED TO STRUCTURAL ATTACHMENT OF THE ADDITION AND THE EXTENSION OF UTILITIES TO THE ADDITION.

DEMOLITION

- ALL MATERIALS AND DEBRIS, NOT SCHEDULED TO BE USED ON SITE ARE TO BE REMOVED FROM SITE AND RECYCLED ACCORDING TO THE SALVAGE ASSESSMENT.

SITE WORK

- EXCAVATED MATERIALS MUST BE DISPOSED AT AN APPROVED DISPOSAL LOCATION
- DOWNSPOUTS TO BE CONNECTED TO EXISTING TIGHTLINES
- ALL STAGING OF MATERIALS MUST BE DONE FROM EXISTING IMPERVIOUS SURFACES
- RESTORE AND LANDSCAPE ALL PAVED AREAS SCHEDULED TO BE REMOVED AND NOT INCORPORATED IN NEW CONSTRUCTION
- CONTRACTOR MUST OBTAIN STREET USE PERMITS FROM CITY OF MERCER ISLAND OR OTHER AGENCIES AS NEEDED
- NO EXCAVATION, FOUNDATION OR SIMILAR WORK BETWEEN OCT. 1 AND APR. 1

MECHANICAL, ELECTRICAL, PLUMBING

- TRADES ARE RESPONSIBLE FOR OBTAINING PERMITS AS REQUIRED
- THESE DRAWINGS ARE "DESIGN/BUILD" FOR MECHANICAL, ELECTRICAL, AND PLUMBING TRADES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THESE TRADES AND NOTIFYING THE ARCHITECT OF ANY CONFLICTS PRIOR TO BEGINNING THE WORK. WHEREVER POSSIBLE, FRAMING MEMBERS SHALL BE LOCATED TO ACCOMMODATE THE WORK OF THESE TRADES. IF THIS CANNOT BE DONE WITHOUT COMPROMISING THE STRUCTURAL REQUIREMENTS, NOTIFY ARCHITECT IMMEDIATELY. PARTICULAR CARE SHOULD BE TAKEN TO ALLOW FOR THE PROPER LOCATION OF RECESSED LIGHT FIXTURES AND HEAT REGISTERS. CUTTING, DRILLING, OR WHOLE CUTTING IN COMPOSITE MATERIALS (PSL, LVL, TJI, ETC.) MUST FOLLOW RECOMMENDATIONS OF MANUFACTURER. DUCTWORK SHALL NOT BE SOFFITED WITHOUT APPROVAL BY ARCHITECT.

GENERAL VENTILATION

- PROVIDE CONTINUOUS 1" MINIMUM AIR SPACE ABOVE INSULATION FOR VENTILATION IN ALL ROOFS. USE INSULATION BAFFLES AS NECESSARY.
- PROVIDE NEW ROOF VENTING WHERE SHOWN
- EAVE BLOCKING TO BE DRILLED AND SCREENED
- PROVIDE MINIMUM OF 1 SQ. FT. VENT SPACE PER 150 SQ. FT. OF AREA TO BE VENTED AT TRUSS ROOF. PLACE NO LESS THAN 40% AND NO MORE THAN 50% OF VENT AREA IN THE UPPER 3 FT. OF THE ROOF TO BE VENTED
- PROVIDE MINIMUM OF 1 SQ. FT. VENT SPACE PER 150 SQ. FT. OF AREA TO BE VENTED AT CRAWLSPACE. ARRANGE VENTS FOR CROSS VENTILATION.
- PROVIDE EXHAUST FANS WHERE SHOWN ON DRAWINGS

PLUMBING FIXTURES

- LAVATORY FAUCET FLOW: 1.2 GPM MAXIMUM
- SHOWER FLOW: 1.8 GPM MAXIMUM
- WATER CLOSET (SINGLE FLUSH): 1.28 GPM MAXIMUM
- WATER CLOSET (DUAL FLUSH): 1.28 GPM AVERAGE
- INSULATE ALL HW DISTRIBUTION PIPES TO R-3 MINIMUM

MOISTURE PROTECTION

- ALL WOOD IN CONTACT WITH CONCRETE OR THE GROUND SHALL BE PRESSURE TREATED.
- WOOD FRAMING WITH LESS THAN 1'-6" CLEARANCE AT CRAWLSPACES TO BE PRESSURE TREATED.
- CLEARANCE BETWEEN WOOD AND EARTH SHALL BE 8" MINIMUM.
- FLASH ALL OPENINGS.
- INSTALL WATERSHIELD AT ALL NEW WINDOW AND DOOR OPENINGS
- PROVIDE MINIMUM 26 GAUGE METAL FLASHING AT ALL HORIZONTAL EXTERIOR TRIM.
- CAULK ALL OPENINGS THOROUGHLY.

LIFE SAFETY

- PROVIDE APPROVED FIREBLOCKING AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES AROUND VENTS, DUCTS, CHIMNEYS, SOFFITS, AT 10 FOOT INTERVALS ALONG WALLS, AND OTHER LOCATIONS AS REQUIRED BY SRC 302.11.
- PROVIDE LINE VOLTAGE SMOKE AND CO DETECTORS WITH BATTERY BACKUP AS SHOWN ON PLANS OR AS REQUIRED BY CODE.
- INTERCONNECT SMOKE DETECTORS
- PROVIDE NFPA 72 MONITORED CHAPTER 29 FIRE ALARM SYSTEM FOR THE ENTIRE RESIDENCE

GLAZING AND DOORS

- GLAZING WITHIN 18" OF FLOOR OR GRADE AND GREATER THAN 18" IN LEAST DIMENSION TO BE APPROVED TEMPERED GLASS
- GLAZING WITHIN 12" ADJACENT TO A DOOR: APPROVED TEMPERED GLASS
- NEW GLAZING IN BATHROOMS SHALL BE APPROVED TEMPERED GLASS.
- GLAZED DOORS, GLAZED SHOWER/TUB ENCLOSURES TO BE GLAZED WITH APPROVED TEMPERED GLASS.
- ALL NEW WINDOWS AND GLAZED DOORS TO MEET MINIMUM U-VALUE OF 0.28 AS DETERMINED BY CURRENT WASHINGTON STATE ENERGY CODE STANDARDS.

ENERGY AND VENTILATION

ENERGY AT ADDITION (NO WORK AT EXISTING HOUSE)

HEATING AND VENTILATION SYSTEMS AT ADDITION AND EXISTING HOUSE ARE FULLY SEPARATE. NO WORK AT EXISTING HOUSE.

- ADDITION AREA: 522 SF HEATED FLOOR AREA
- CREDITS REQUIRED: 3

- 0.5 CREDIT: FUEL NORMALIZATION PER TABLE R406.2 SYSTEM TYPE 4 (DUCTLESS MINI-SPLIT)
- 0.5 CREDIT: EFFICIENT BUILDING ENVELOPE PER TABLE R406.3 OPTION 1.3. SEE VALUES BELOW
- 2.0 CREDITS: HIGH EFFICIENCY HVAC PER TABLE R406.3 OPTION 3.6. DUCTLESS MINI-SPLIT SYSTEM WITH NO ELECTRIC RESISTANCE HEATING IN PRIMARY LIVING AREA. HSPF 10 MIN.

INSULATION

- ROOF: R-49 MINIMUM
- WALLS: R-21 MINIMUM
- FLOORS: R-38 MINIMUM
- HEADERS: R-10
- WINDOWS: U = 0.28 MAX
- INSULATE ALL HW DISTRIBUTION PIPES TO R-3 MINIMUM
- MAINTAIN REQUIRED 1" MIN. AIRSPACE AT ROOF INSULATION
- HEATING UNITS TO MAINTAIN 70 DEGREES F AT 3 FT. ABOVE FLOOR WHEN OUTSIDE TEMPERATURE IS 10 DEGREES F.
- CAULK ALL JOINTS AROUND EXTERIOR OPENINGS AND AT ANY JOINTS IN SIDING OR FLASHING WHERE AIR INFILTRATION IS POSSIBLE.
- RECESSED CAN LIGHT MUST BE IC RATED AND SEALED
- FILL VOIDS AND CRACKS AT EXTERIOR WALLS WITH CAULK, INSULATION OR FOAM.
- PROVIDE WEATHERSTRIPPING AT ALL WINDOWS

WHOLE HOUSE VENTILATION AT ADDITION (NO WORK AT EXISTING HOUSE)

- VENTILATION, INCLUDING WHOLE HOUSE VENTILATION AND POINT OF USE EXHAUST FANS SHALL MEET THE REQUIREMENTS OF IRC M1505.
- WHOLE HOUSE VENTILATION SHALL BE PROVIDED USING EXHAUST FANS PER IRC TABLE M1505.4.3(1). IN CONTINUOUS OPERATION A MINIMUM OF 30 CFM IS REQUIRED. PROVIDE CAPABILITY FOR FAN TO OPERATE EITHER CONTINUOUSLY OR INTERMITTENTLY WITH TIMER.
- EXHAUST FAN LOCATION IS AT LAUNDRY. SPECIFIED FAN IS RATED AT 90 CFM. FAN MAXIMUM SOUND RATING: 1.0 SONE. MINIMUM INTERMITTENT RUN TIME NO LESS THAN 1 HOURS IN EVERY 2 HOUR SEGMENT PER TABLE 1505.4.3(2).
- UNDERCUT LAUNDRY DOOR MINIMUM 1" ABOVE FINISHED FLOOR.
- PROVIDE SCREENED PASSIVE FRESH AIR INLET VENT WITH BACKDRAFT DAMPER AT MEDIA ROOM. (PANASONIC FV-GKF3251 OR EQUIVALENT ALDES AIRLET).

STORM DRAINAGE

- NET REDUCTION OF IMPERVIOUS SURFACE OF 14 SF.
- SEE IMPERVIOUS CALCULATIONS ON A-1
- ALL STORM DRAINAGE FROM ADDITION TO BE TIED INTO EXISTING STORM DRAINAGE SYSTEM
- TIE ALL NEW DOWNSPOUTS TO EXISTING.
- NEW SPACED WOOD DECK IS LOCATED OVER EXISTING SOIL. 1/4" SPACING BETWEEN BOARDS.

ADDITION

4524 90th AVENUE SE
MERCER ISLAND, WA

OWNER:

ERIN DILLON and JORDAN NAFTOLIN
4524 90th AVENUE SE
MERCER ISLAND, WA

ARCHITECT:

HERSCHEL PARNES
1604 MADRONA DRIVE
SEATTLE, WA 98122
206-856-5215
parnes.arch@gmail.com

APN: 09110-0140

LEGAL DESCRIPTION:

LOT 12 BLOCK 2 ALLVIEW HEIGHTS ADDITIO
LESS S 5 FT TGW S 10 FT OF LOT 13

LOT COVERAGE

LOT AREA (Core Design Survey): 10163 SF

ALLOWABLE COVERAGE (40%): 4065 SF

HOUSE (existing): 2275 SF
COVERED PATIO (EXIST. GAZEBO): 165 SF
VEHICULAR (existing): 926 SF
EXISTING COVERAGE: 3366 SF

HOUSE (proposed): 2880 SF
COVERED PATIO (EXIST. GAZEBO): 165 SF
VEHICULAR (proposed): 470 SF
PROPOSED COVERAGE: 3515 SF

% LOT COVERAGE (PROPOSED): 34.5 %

IMPERVIOUS SURFACE

HOUSE (existing): 2275 SF
PATIOS (grouted brick, existing): 794 SF
WALKWAY (existing): 84 SF
DRIVEWAY (existing): 926 SF
EXISTING IMPERVIOUS: 4079 SF

HOUSE (w/addition, increased): 2880 SF
PATIOS (grouted brick, reduced): 590 SF
WALKWAY (no change): 84 SF
HOT TUB (new): 41 SF
DRIVEWAY (reduced): 470 SF
PROPOSED IMPERVIOUS: 4065 SF

NET IMPERVIOUS REDUCTION: 14 SF
% PROPOSED IMPERVIOUS: 40.0 %

GROSS FLOOR AREA

EXISTING: 2639 SF
MAIN FLOOR: 1296 SF
2ND FLOOR: 926 SF
GARAGE: 417 SF

PROPOSED: 3207 SF
MAIN LEVEL: 1864 SF
2ND FLOOR: 926 SF
GARAGE: 417 SF

% GROSS FLOOR AREA: 31.6%

HARDSCAPE

9% + BORROWED COVERAGE
915 SF + (4065 - 3515) = 1465 SF ALLOWABLE

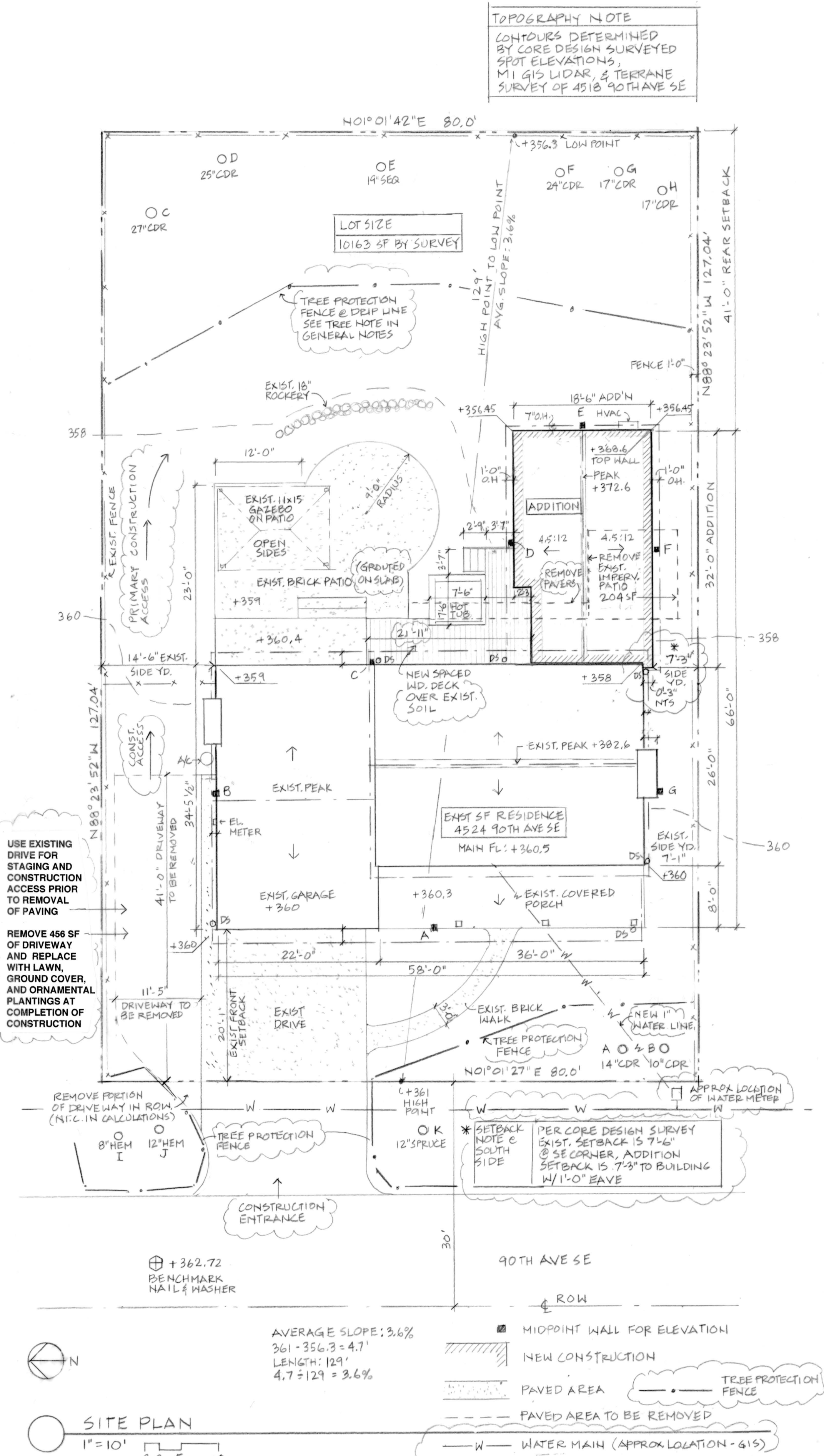
EXISTING: 791 SF
PATIOS: 629 SF
WALKWAY (CONC. AT FRONT; PAVERS ON SOIL AT REAR): 112 SF
ROCKERY: 50 SF

PROPOSED: 747 SF
PATIOS: 425 SF
WALKWAY: 84 SF (28 SF OF PAVERS ON SOIL AT REAR REMOVED)
ROCKERY: 50 SF
SPACED WOOD DECK ABOVE SOIL: 137 SF
STAIRS: 10 SF
HOT TUB: 41 SF

% HARDSCAPE PROPOSED: 7.4%

TREES

TREES ARE NOTED AND NUMBERED ON SITE PLAN AND ON TREE INVENTORY. NO TREES WILL BE REMOVED OR IMPACTED BY THIS PROJECT. FENCE REQUIRED TO PROTECT TREES AT DRIPLINES AS SHOWN ON SITE PLAN. FENCING TO BE CHAIN LINK OR HD POLYETHYLENE (IF APPROVED BY CITY ARBORIST) AND INSTALLED PER MERCER ISLAND GUIDELINES.



AVERAGE BUILDING ELEVATION: +358.96

	ELEV	LENGTH	=	
A	+360.0	x 58.0'	=	20880
B	+360.0	x 34.5'	=	12420
C	+359.1	x 41.8'	=	15010
D	+357.7	x 31.5'	=	11267
E	+356.5	x 18.5'	=	6595
F	+358.0	x 32.0'	=	11456
G	+359.4	x 34.0'	=	12220
TOTALS:		250.3		89848

89848 + 250.3 = +358.96 AVE

DRAWING LIST

- A1 SITE PLAN, GENERAL NOTES, CALCULATIONS, PROJECT INFO
- A2 FLOOR PLANS
- A3 ELEVATIONS, SECTIONS, WINDOW SCHEDULE
- S1 STRUCTURAL GENERAL NOTES
- S1.1 FOUNDATION, MAIN FLOOR FRAMING, ROOF FRAMING (ADDITION)
- S2 STRUCTURAL DETAILS, SW SCHEDULE
- S4 STRUCTURAL DETAILS
- SU PARTIAL SURVEY (SPOT ELEVATIONS, SOUTH SIDE YARD SETBACK)

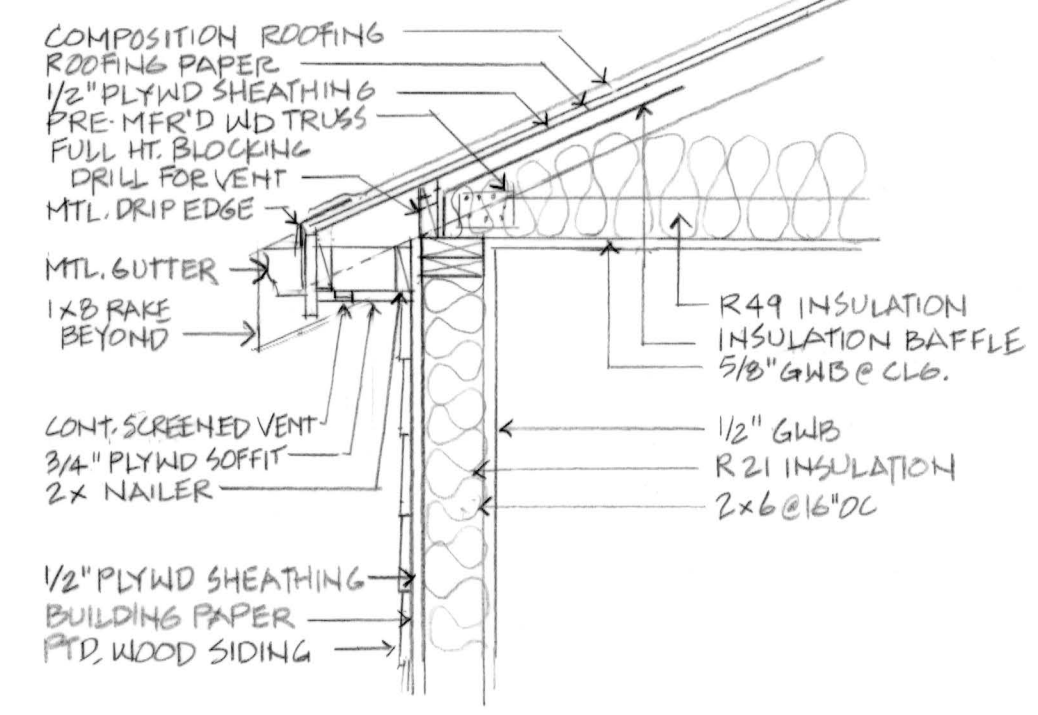
REGISTERED ARCHITECT
HERSCHEL L. D. PARNES
1604 MADRONA DRIVE
SEATTLE, WA 98122
206-856-5215
parnes.arch@gmail.com

STRUCTURAL ENGINEER
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206-443-6612
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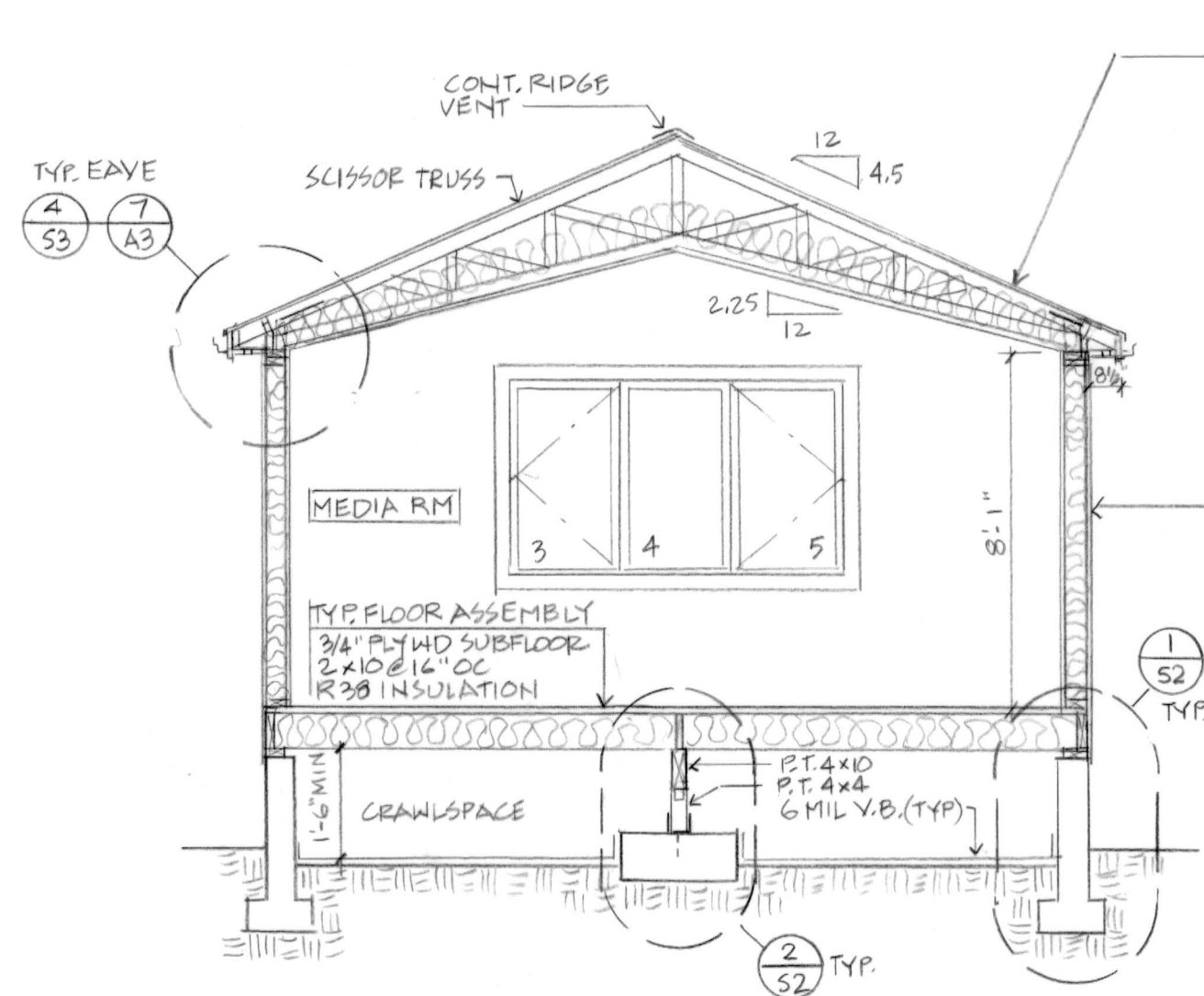
PROJECT
ADDITION
4524 90th AVE S.E.
MERCER ISLAND, WA 98040

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9 - 30 - 22

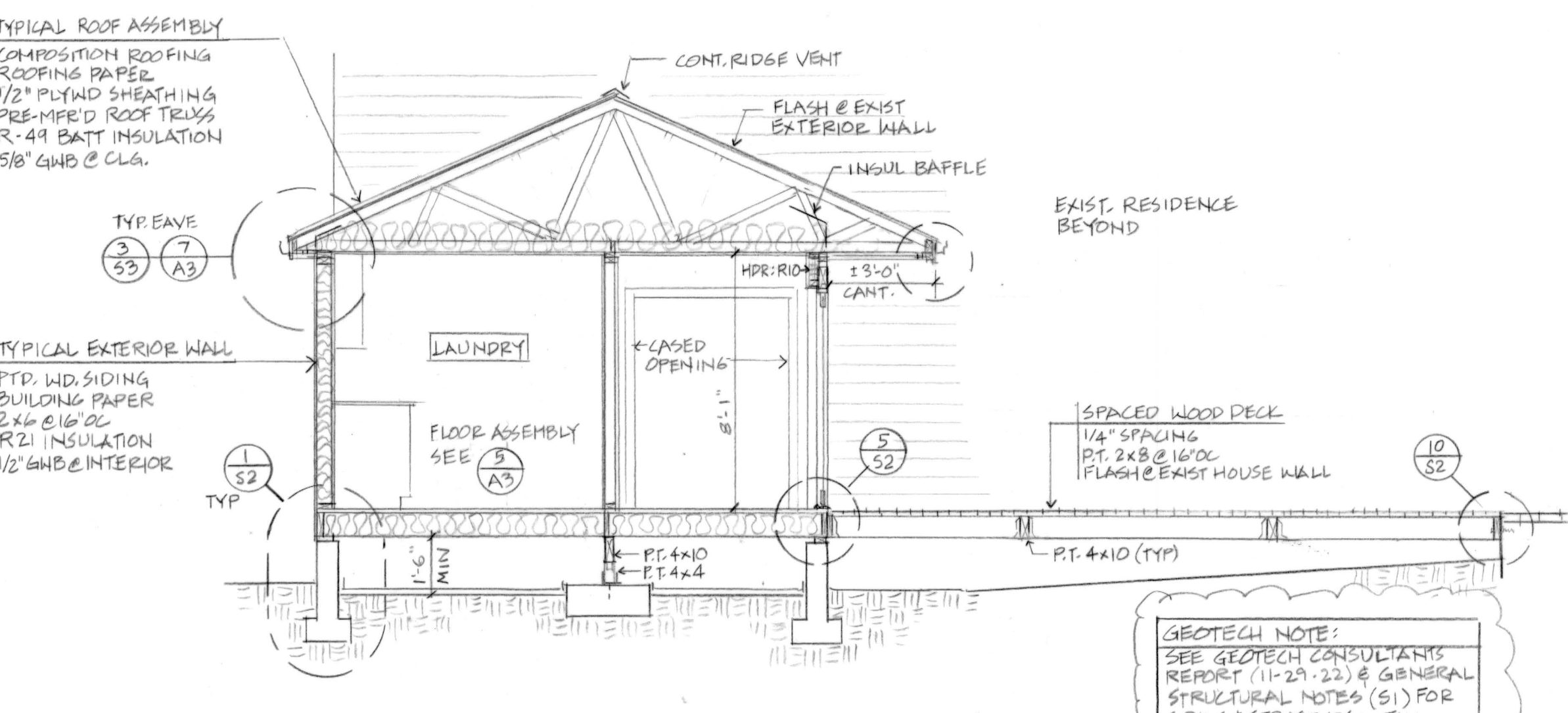
A1



7 DETAIL TYPICAL EAVE @ ADDITION
3/4" = 1'-0"
0 3' 6" 1'



5 SECTION LOOKING EAST - SCISSOR TRUSS - SEE S1, S2, S3
1/4" = 1'-0"
0 1 2 4



6 SECTION LOOKING WEST - COMMON TRUSS - SEE S1, S2, S3
1/4" = 1'-0"
0 1 2 4

WINDOW AND GLAZED DOOR SCHEDULE

1. PROVIDE SCREENS AT OPERABLE WINDOWS.
2. SIZES GIVEN ARE NOMINAL. CONFIRM WITH WINDOW MANUFACTURER AND FRAME TO FIT.

CT: CASEMENT
FG: FIXED GLASS
SL: SLIDER

ALL WINDOWS: MAX U = 0.28

NUMBER	SIZE (W X H)	TYPE	AREA	REMARKS
1	3'-0" X 4'-0"	CT	12.0 SF	EGRESS
2	3'-0" X 4'-0"	CT	12.0 SF	EGRESS
3	2'-6" X 4'-6"	CT	11.25 SF	MULL WDWS 3,4,5
4	2'-6" X 4'-6"	FG	11.25 SF	
5	2'-6" X 4'-6"	CT	11.25 SF	
6	4'-0" X 2'-0"	SL	8.0 SF	TEMPERED

GLAZED DOORS

A	6'-0" X 6'-8"	SL. GL. DR.	40.0 SF	WSTRIP
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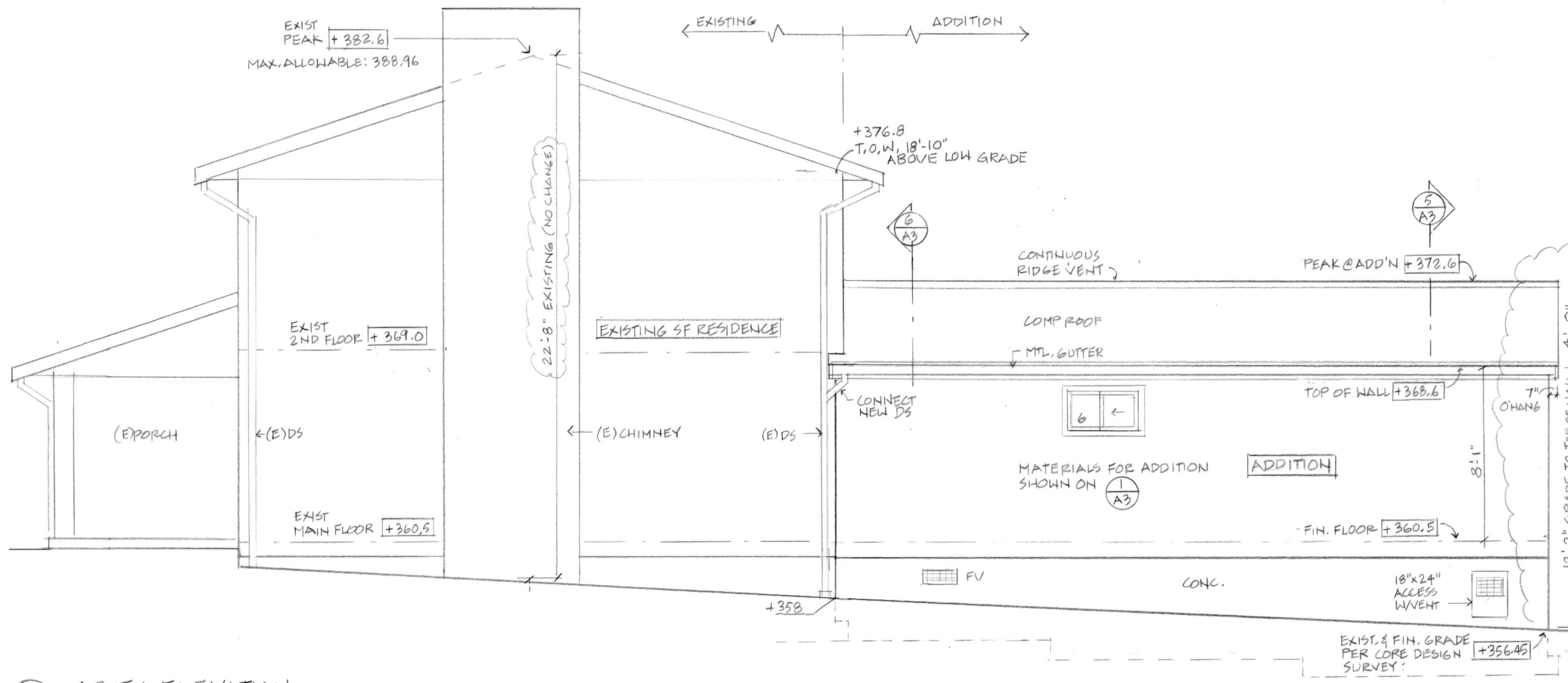
SKYLIGHTS

2	SKYLIGHTS	1'-10 1/2" X 3'0"		
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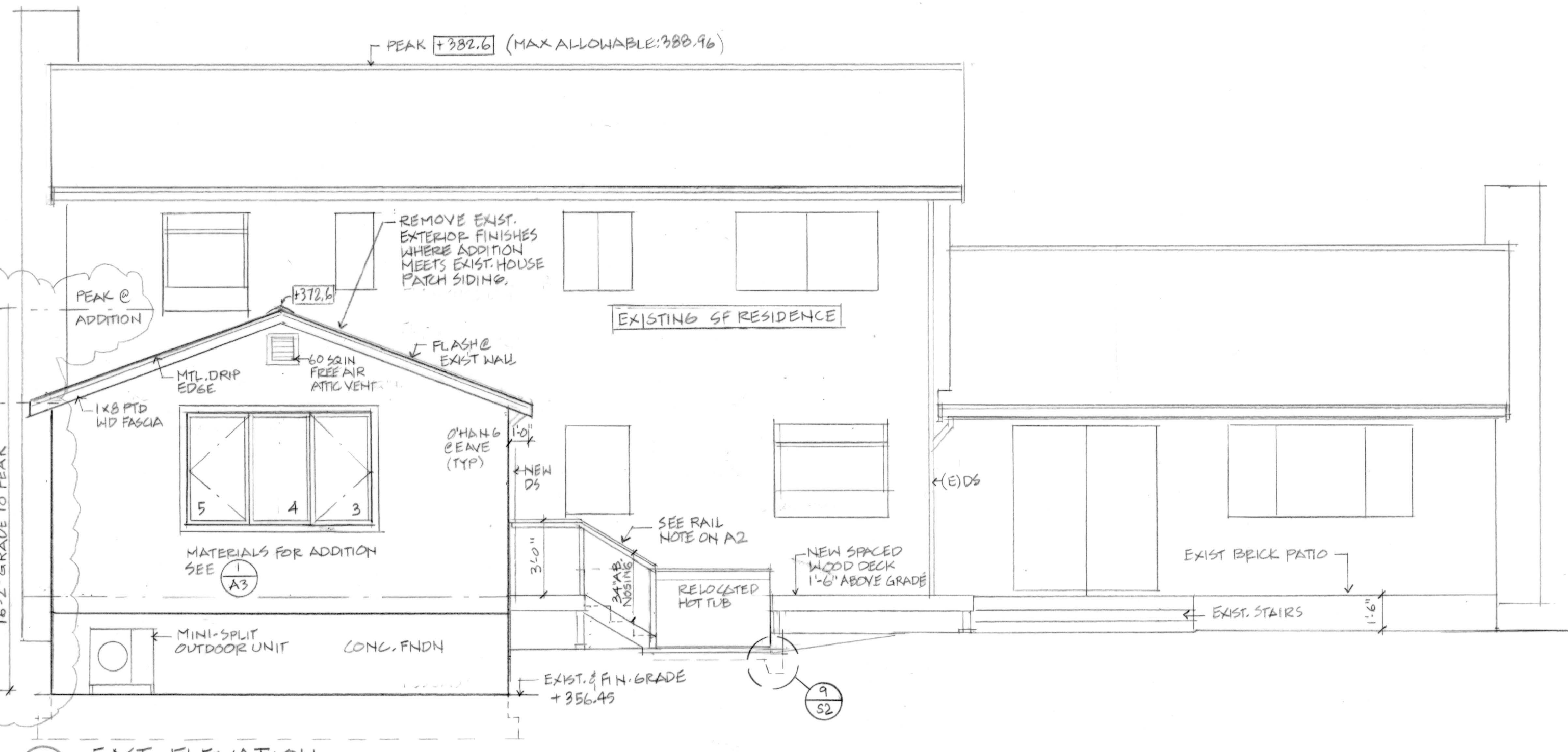
TOTALS

WINDOWS:	65.75 SF
GLAZED DOORS:	40.0 SF
SKYLIGHTS:	5.7 SF

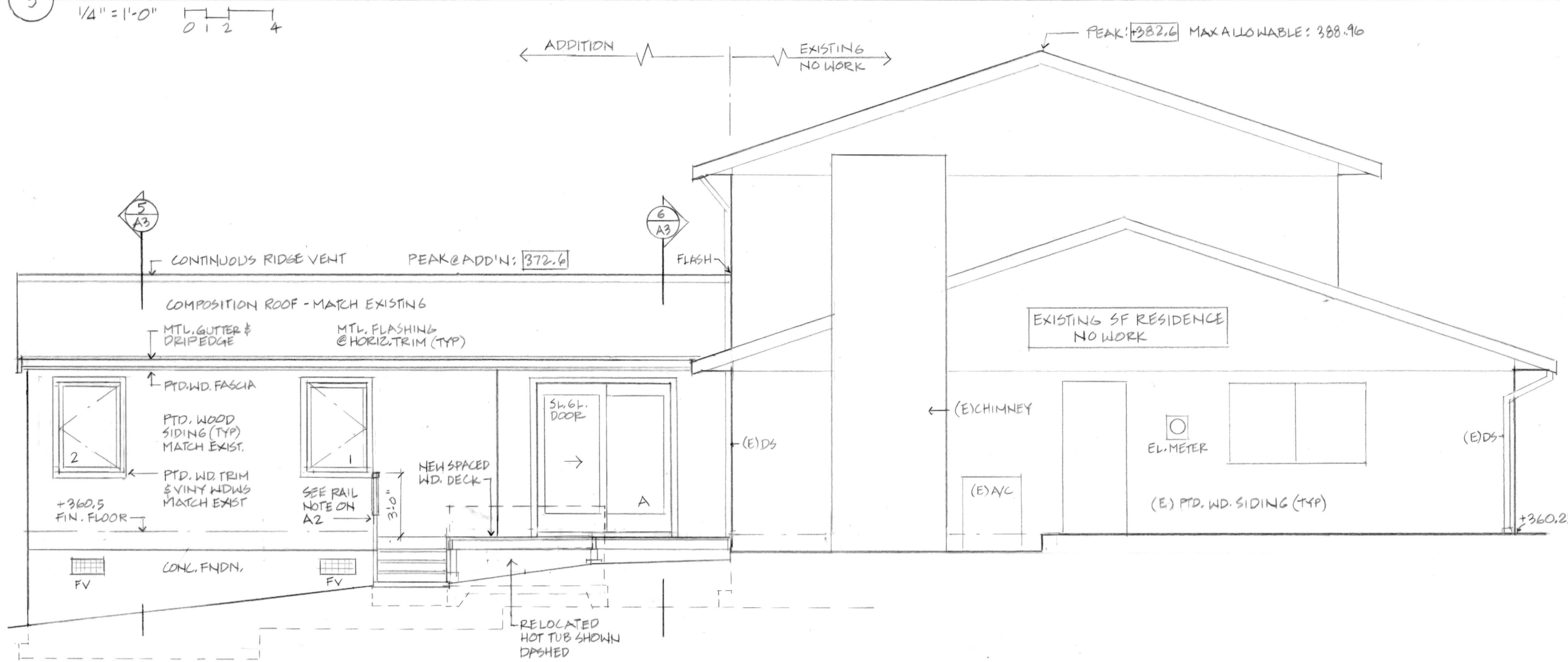
GEOTECH NOTE:
SEE GEOTECH CONSULTANTS REPORT (11-25-22) & GENERAL STRUCTURAL NOTES (S1) FOR SOILS & STRUCTURAL FILL



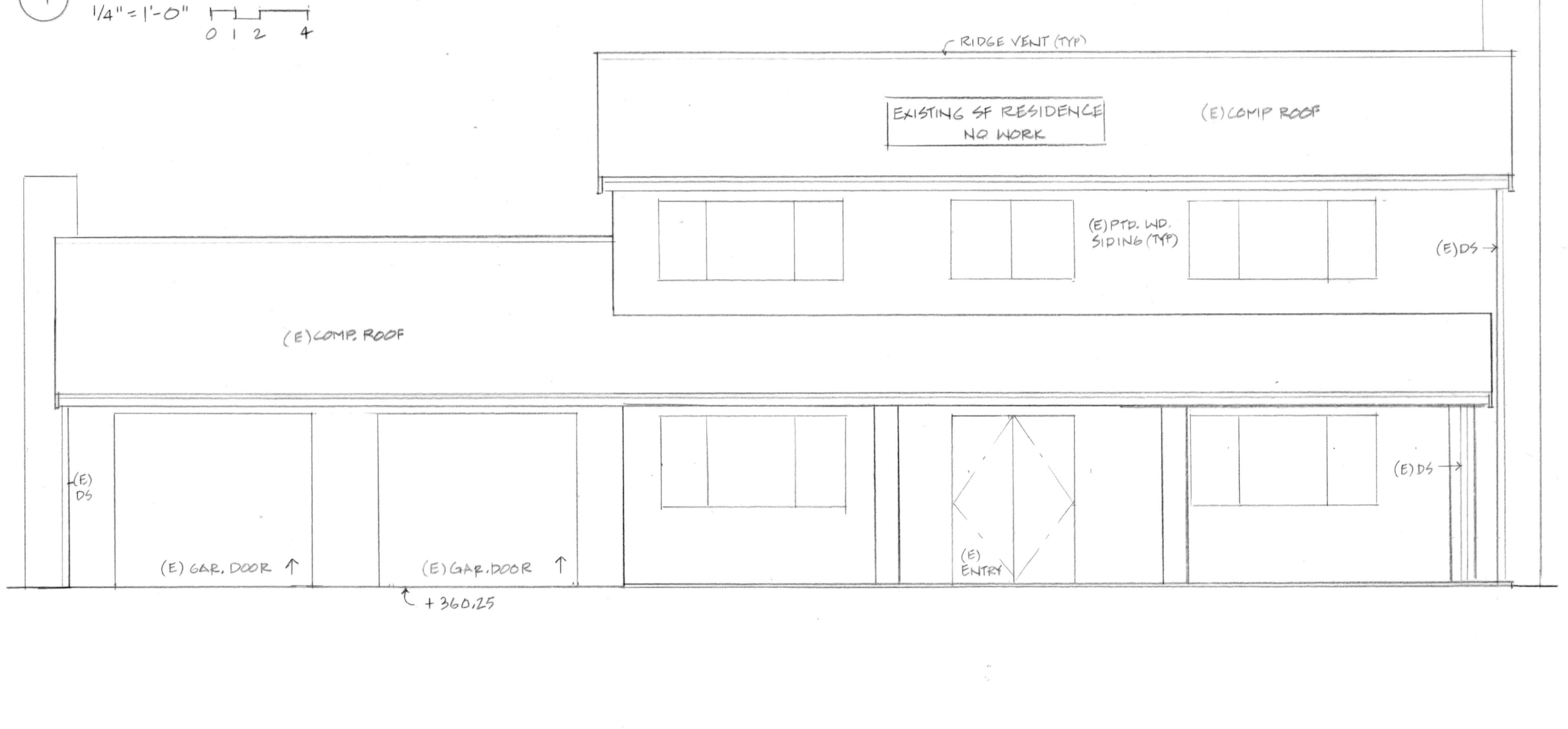
3 SOUTH ELEVATION
1/4" = 1'-0"
0 1 2 4



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



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



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

REGISTERED ARCHITECT
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PROJECT
ADDITION
4824 90TH AVE. S.E.
MERCER ISLAND, WA 98040

Δ 1-5-23
9-30-22

A3

GENERAL STRUCTURAL NOTES

CRITERIA

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2018 EDITION).
- DESIGN LOADING CRITERIA:
RESIDENTIAL - ONE AND TWO-FAMILY DWELLINGS
FLOOR LIVE LOAD 40 PSF
ROOF
ROOF LIVE LOAD 20 PSF
SCHOOLS
FLOOR LIVE LOAD (CLASSROOMS) 40 PSF
FLOOR LIVE LOAD (CORRIDORS ABOVE FIRST FLOOR) 80 PSF
FLOOR LIVE LOAD (LOBBIES AND FIRST-FLOOR CORRIDORS) 100 PSF
FLOOR CONCENTRATED LOAD 1000 LBS
MISCELLANEOUS LOADS
DECKS 60 PSF
DEFLECTION CRITERIA
LIVE LOAD DEFLECTION L/360
TOTAL LOAD DEFLECTION L/240
ENVIRONMENTAL LOADS
RAIN 1.5 IN/HR
SNOW Ce=1.0, Is=1.0, Ct=1.1, Cs=1.0, Pg=25 PSF, Pf=25 PSF
WIND Gcpi=0.18, 100 MPH, RISK CATEGORY II, EXPOSURE "B"
EARTHQUAKE ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS, Vs = 2.1 KIPS
SITE CLASS=D (DFAULT), Ss=1.43, Sds=1.14, si=0.50, SD1=0.60, SDC D, Ie=1.0, R=6.5 Cs=0.18

- CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:
6" WALLS #4 @ 16 HORIZ. #4 @ 18 VERTICAL 1 CURTAIN
8" WALLS #4 @ 12 HORIZ. #4 @ 18 VERTICAL 1 CURTAIN
10" WALLS #4 @ 18 HORIZ. #4 @ 18 VERTICAL 2 CURTAINS
12" WALLS #4 @ 16 HORIZ. #4 @ 18 VERTICAL 2 CURTAINS
- CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

ANCHORAGE

- EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES, F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL AND OVERHEAD INSTALLATIONS.
- CONCRETE SCREW ANCHORS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

WOOD

- FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD No. 17, GRADING RULES FOR WEST COAST LUMBER, 2018, OR WPA STANDARD, WESTERN LUMBER GRADING RULES 2017. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:
JOISTS (2X & 3X MEMBERS) HEM-FIR NO. 2
AND BEAMS MINIMUM BASE VALUE, Fb = 850 PSI
(4X MEMBERS) DOUGLAS FIR-LARCH NO. 1
MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS (INCL. 6X AND LARGER) DOUGLAS FIR-LARCH NO. 1
MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS (4X MEMBERS) DOUGLAS FIR-LARCH NO. 2
MINIMUM BASE VALUE, Fc = 1350 PSI
(6X AND LARGER) DOUGLAS FIR-LARCH NO. 1
MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING: DOUGLAS FIR-LARCH NO. 2
OR HEM-FIR NO. 2

- PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION, ANS/ITP 1" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:
TOP CHORD LIVE LOAD 25 PSF
TOP CHORD DEAD LOAD 10 PSF
BOTTOM CHORD DEAD LOAD 5 PSF
TOTAL LOAD 40 PSF
WIND UPLIFT (TOP CHORD) 5 PSF
BOTTOM CHORD LIVE LOAD 10 PSF
(BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BE SIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC., SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

- PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.
ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.
FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.
WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.
PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.
REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

- ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

- PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWP STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWP UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWP UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWP UC4B.

- FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.
WOOD TREATMENT CONDITION PROTECTION
HAS NO AMMONIA CARRIER INTERIOR DRY C90 GALVANIZED
CONTAINS AMMONIA CARRIER INTERIOR DRY G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653
CONTAINS AMMONIA CARRIER INTERIOR WET TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER EXTERIOR TYPE 304 OR 316 STAINLESS
AZCA ANY TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

- TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.
ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

- WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

- ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

- NOTCHES AND HOLES IN WOOD FRAMING:

- NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

- IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A STUD WITH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.

- NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED.

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

- ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AWC "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

- WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS. END STUDS SHALL HAVE TWO 16d NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C.. LAP TOP PLATES AT JOINTS A MINIMUM 4'-0" AND NAIL WITH TWELVE 16d NAILS @ 4" O.C. EACH SIDE JOINT.
ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM. UNLESS OTHERWISE NOTED, INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @ 12" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

- FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING BETWEEN RAFTERS AND JOISTS AT ALL BEARING POINTS WITH A MINIMUM OF (3) 16d TOE NAILS EACH END. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" ON-CENTER, MINIMUM TWO NAILS PER BLOCK, UNLESS OTHERWISE NOTED.

Plan Notes - Framing Plans

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- ROOF SHEATHING SHALL BE 1/2" A.P.A. RATED PANELS (EXPOSURE 1, SPAN RATING 32/16), FACE GRAIN PERPENDICULAR TO SUPPORTS OVER ROOF FRAMING PER PLAN. NAIL SHEATHING AT ALL FRAMED PANEL EDGES WITH 8d AT 6" O.C. AND TO ALL INTERMEDIATE FRAMING AT 12" O.C.
- HEADERS OVER DOOR AND WINDOW OPENINGS SHALL BE 4X8 MINIMUM. PROVIDE (2) TRIMMER STUDS (MINIMUM) AT EACH END OF ALL HEADERS UNLESS NOTED OTHERWISE ON PLANS. SEE DETAIL 5/S3 FOR TYPICAL INSTALLATION.
- PROVIDE (2) STUDS (MINIMUM) AT EACH END OF ALL BEAMS UNLESS NOTED OTHERWISE ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE AC, PC, OR LPC CAP.
- W # INDICATES SHEAR WALL. SEE SHEARWALL SCHEDULE FOR CONSTRUCTION REQUIREMENTS.
- ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE ON PLANS.
- PROVIDE H1 HURRICANE TIE AT EACH TRUSS/RAFTER WHERE IT BEARS ON EXTERIOR WALL.
- FLOOR SHEATHING SHALL BE 3/4" TONGUE AND GROOVE A.P.A. RATED PANELS (EXPOSURE 1, SPAN RATING 48/24). GLUE AND NAIL AT ALL FRAMED PANEL EDGES WITH 8d AT 6" O.C. AND TO ALL INTERMEDIATE FRAMING AT 12" O.C.

Plan Notes - Foundation

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 18" MINIMUM BELOW GRADE.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
- STEP FOOTINGS AS REQUIRED TO ACCOMMODATE CHANGES IN GRADE
- PROVIDE CORNER BARS PER GEN. NOTE #13 AT ALL WALL AND FOOTING INTERSECTIONS.
- ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE CONTINUOUS FULL BEARING THROUGH FLOORS TO THE FOUNDATION.

- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".
- DEFERRED SUBMITTALS: SHOP DRAWINGS AND CALCULATIONS OF DEFERRED SUBMITTAL COMPONENTS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL PERFORMANCE. ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE INCLUDED. SHOP DRAWINGS SHALL INCLUDE THE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE BASIC STRUCTURE. DESIGN CALCULATIONS SHALL ACCOMPANY ALL DEFERRED SUBMITTALS. THE ARCHITECT OR CONTRACTOR SHALL FORWARD DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL WHERE REQUIRED.

DEFERRED SUBMITTAL BUILDING COMPONENTS FOR THIS PROJECT SHALL INCLUDE:
PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES

GEOTECHNICAL

- FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.
ALLOWABLE SOIL PRESSURE. 1500 PSF
LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED). 55 PCF/35 PCF
ALLOWABLE PASSIVE EARTH PRESSURE (FS OF 1.5 INCLUDED). 300 PCF
COEFFICIENT OF FRICTION (FS OF 1.5 INCLUDED). 0.3

SOILS REPORT REFERENCE: GEOTECH CONSULTANTS, JN 22396, NOV. 29TH, 2022

RENOVATION

- DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.
- CONTRACTOR SHALL CHECK FOR DRY ROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.
- ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI.
- DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 318R-18 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OR LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.
NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
- CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) 2"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER) 1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS 1-1/2"
SLABS AND WALLS (INT. FACE) GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"



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DRAWN: EBG
DESIGN: EBG
CHECKED: EBG
APPROVED: EBG

REVISIONS:

NO.	DESCRIPTION	DATE
1	PERMIT REV. 1	1/4/2023

PROJECT TITLE:
Dillon-Naftolin Residence
4524 90th Ave SE
Mercer Island, WA 98040

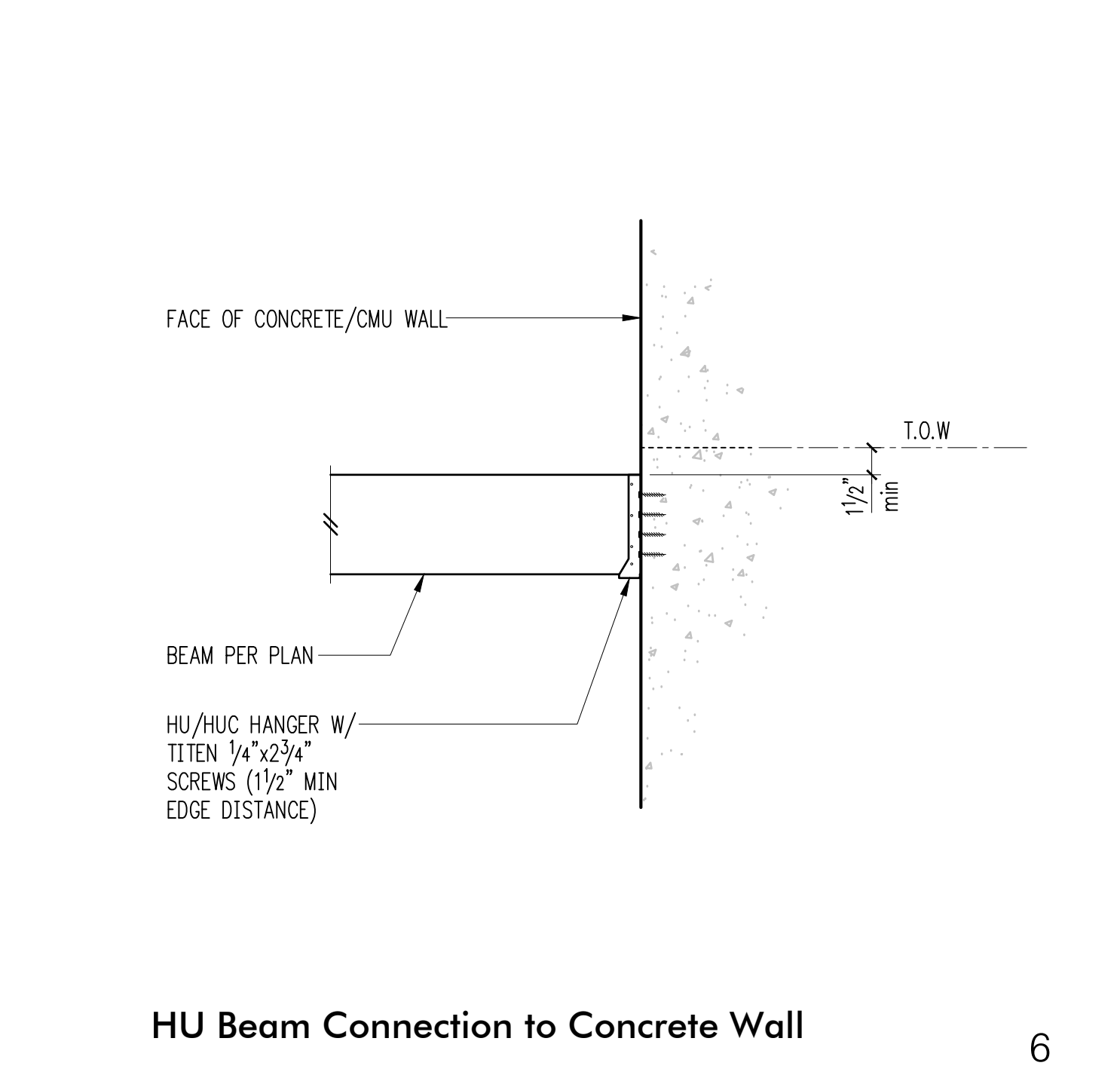
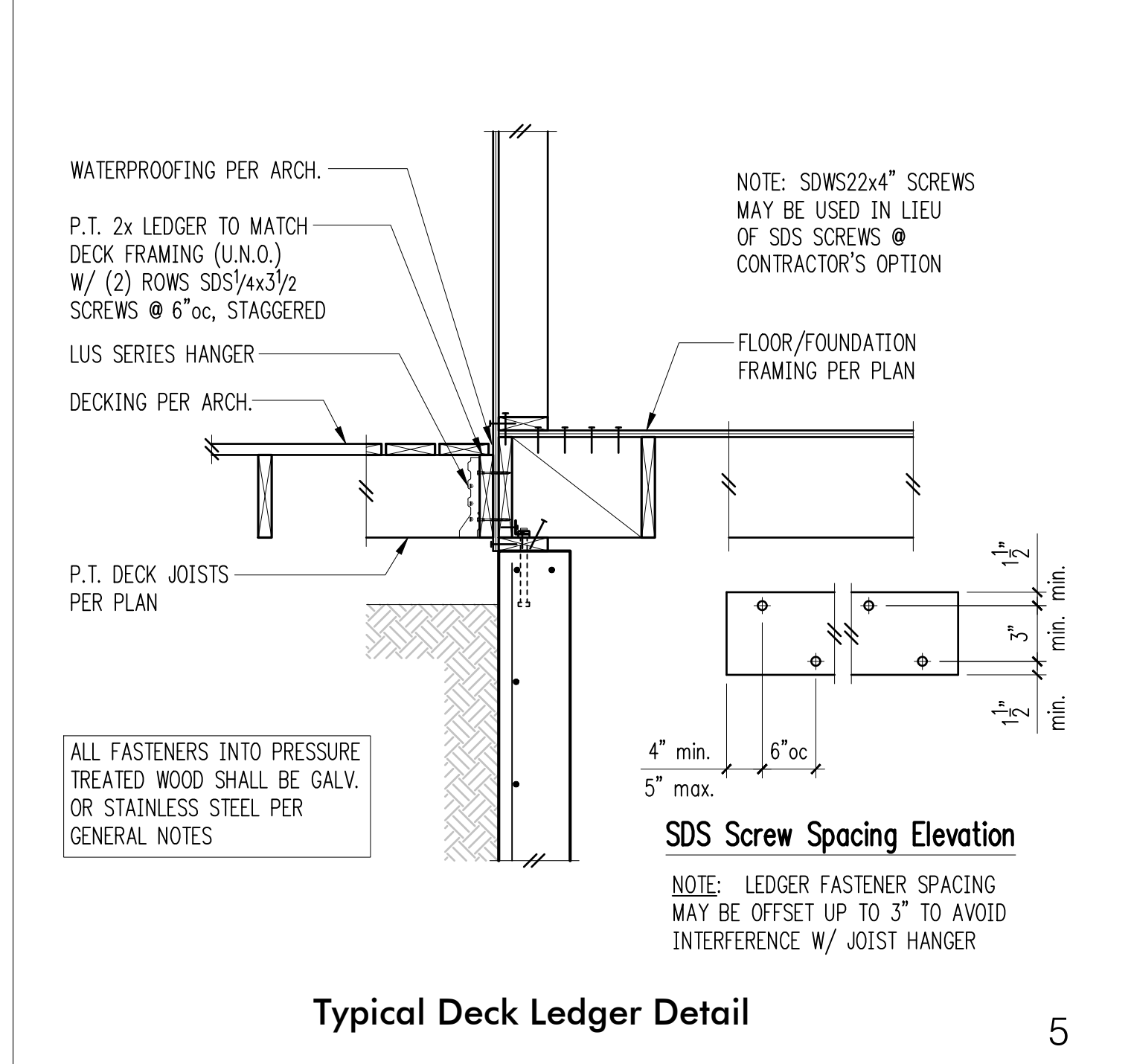
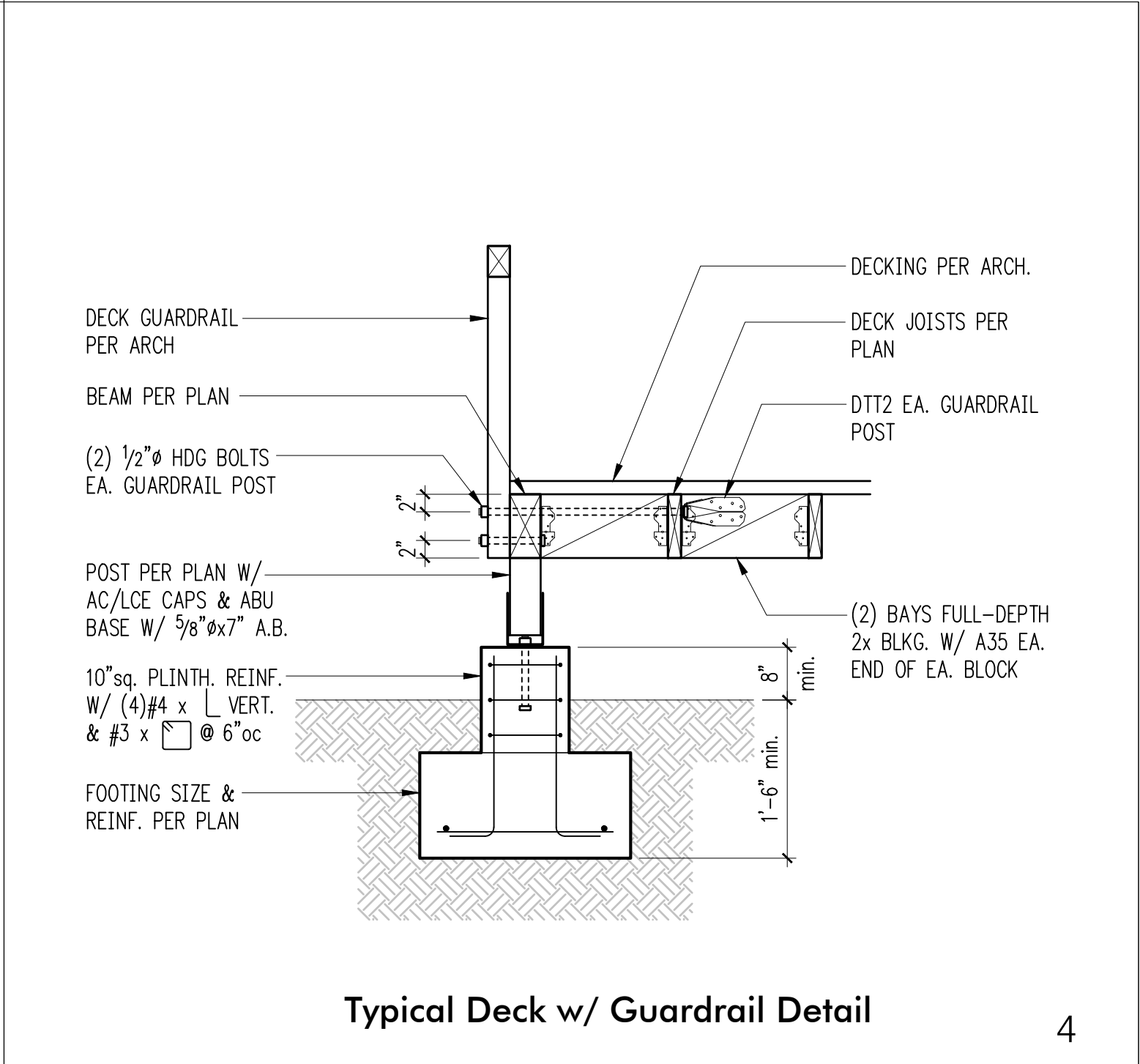
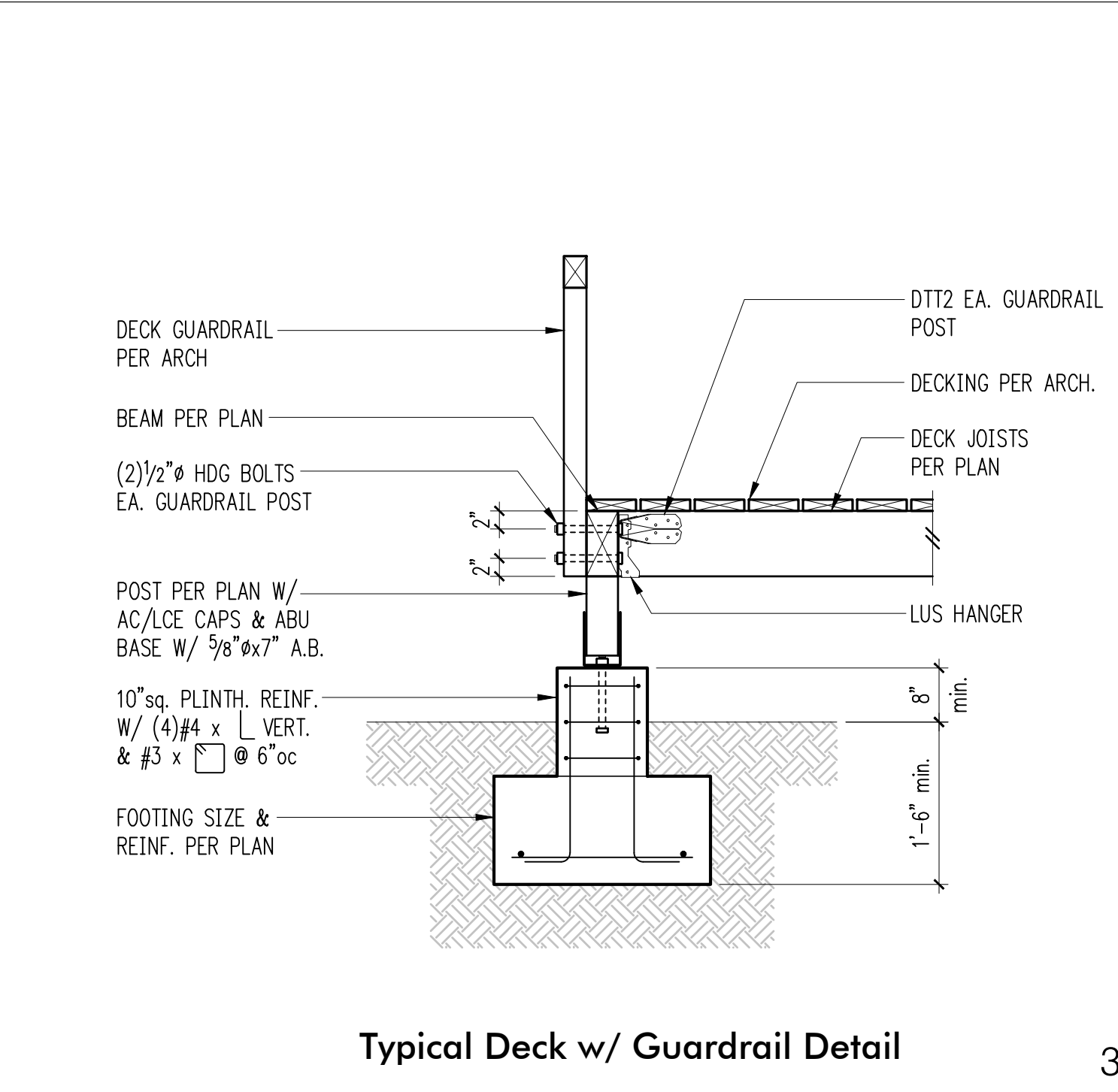
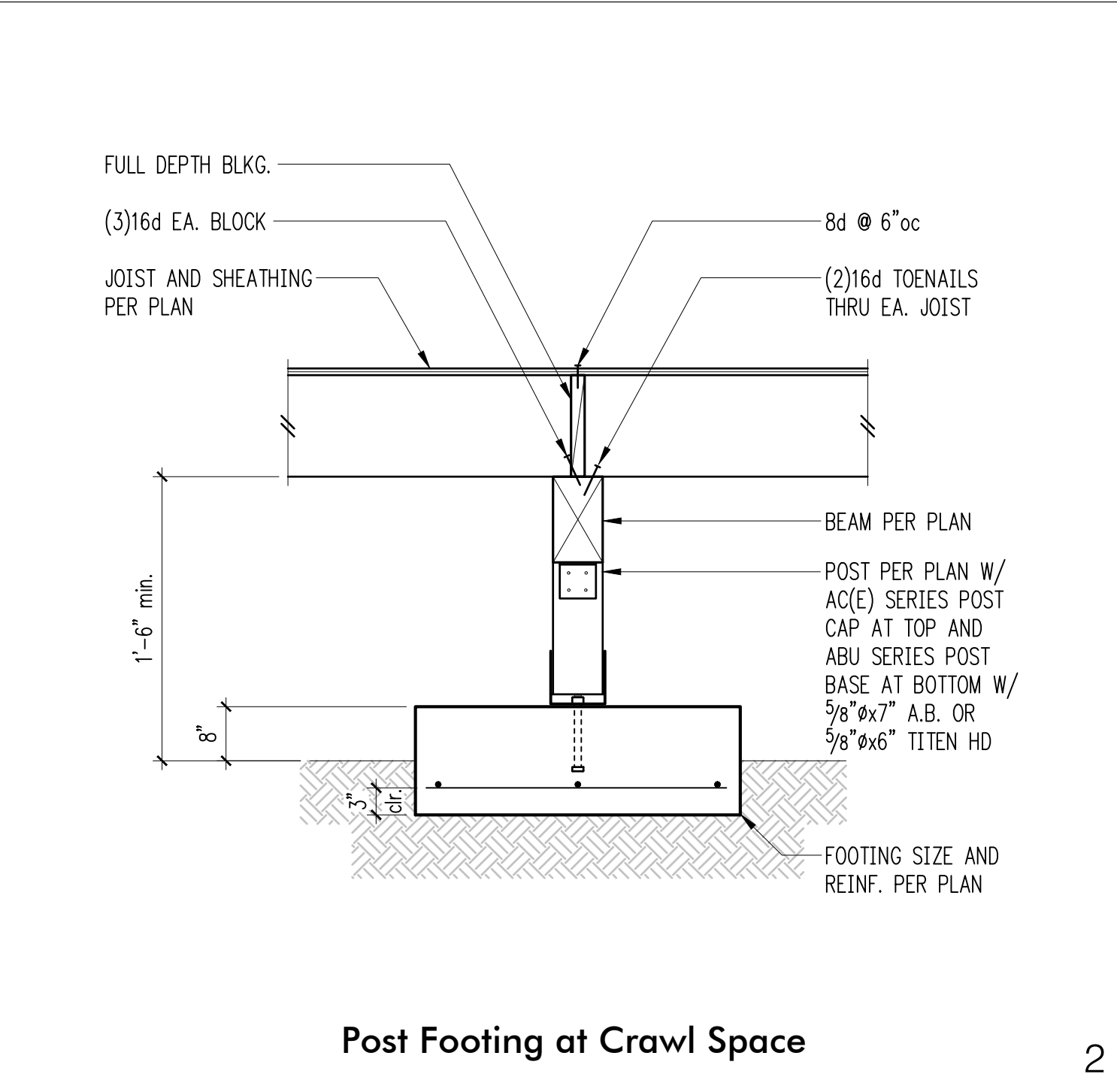
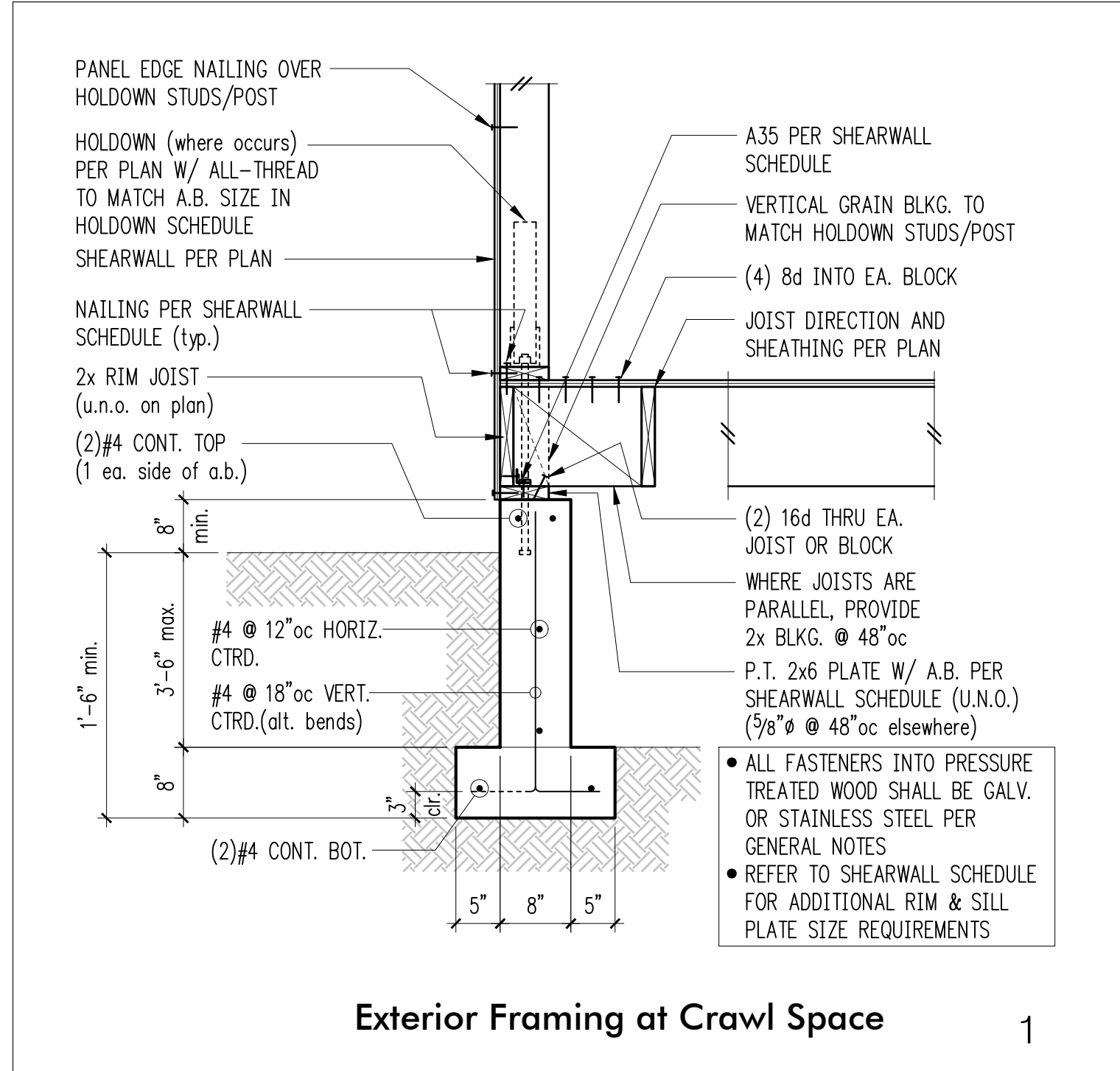
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ISSUE: PERMIT

SHEET TITLE:
STRUCTURAL NOTES

SCALE:
DATE: 9/30/2022
PROJECT NO: 00059-2022-01
SHEET NO:

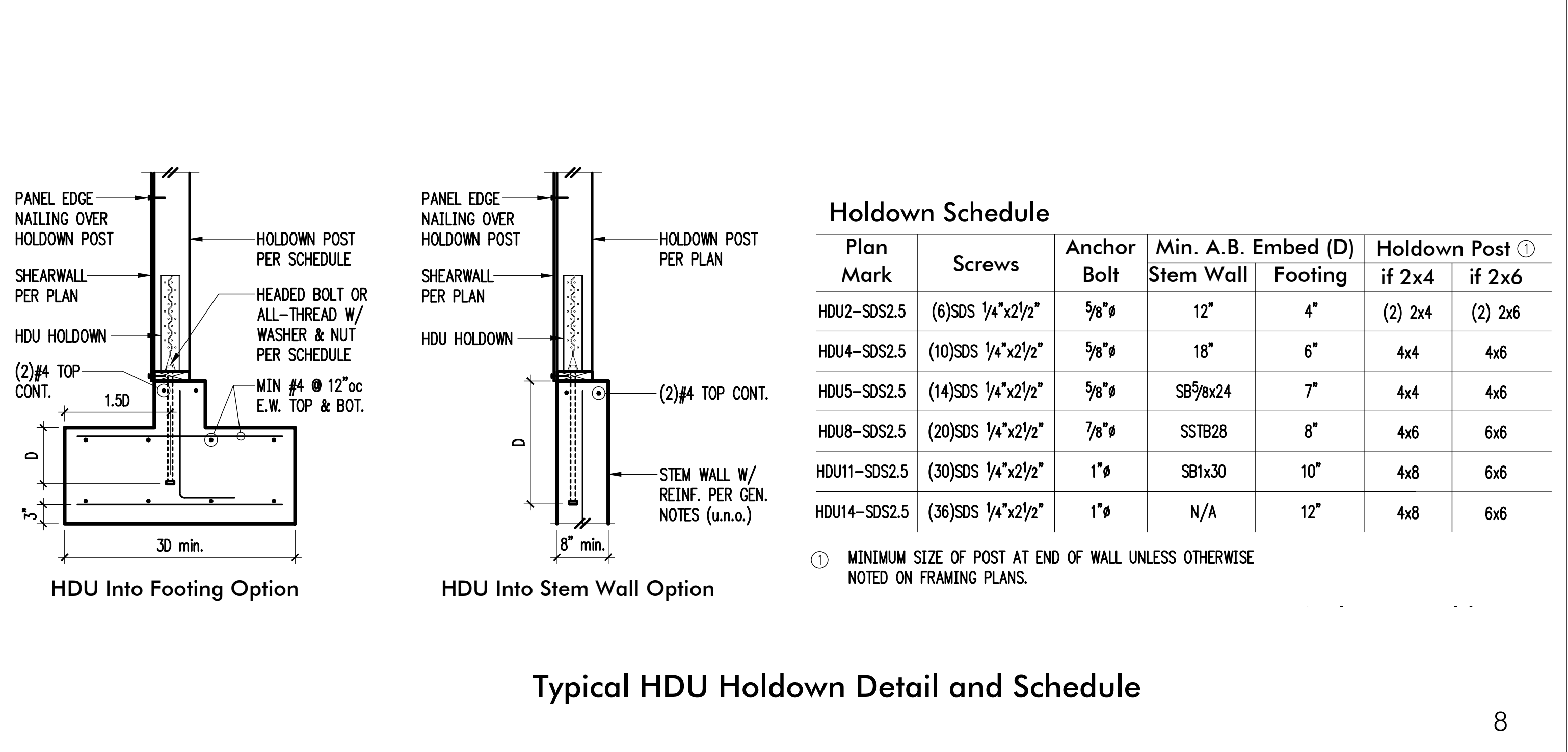
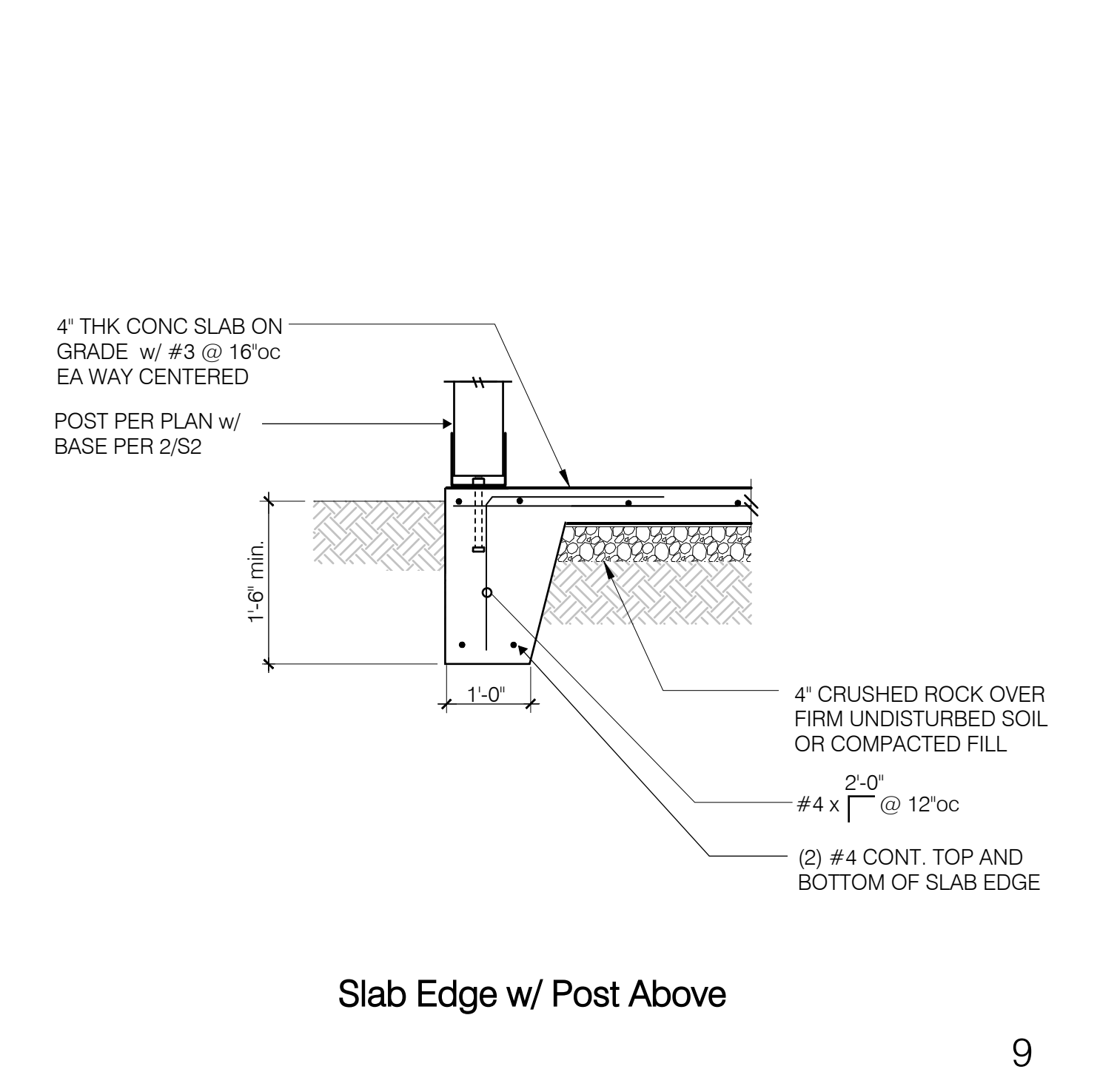
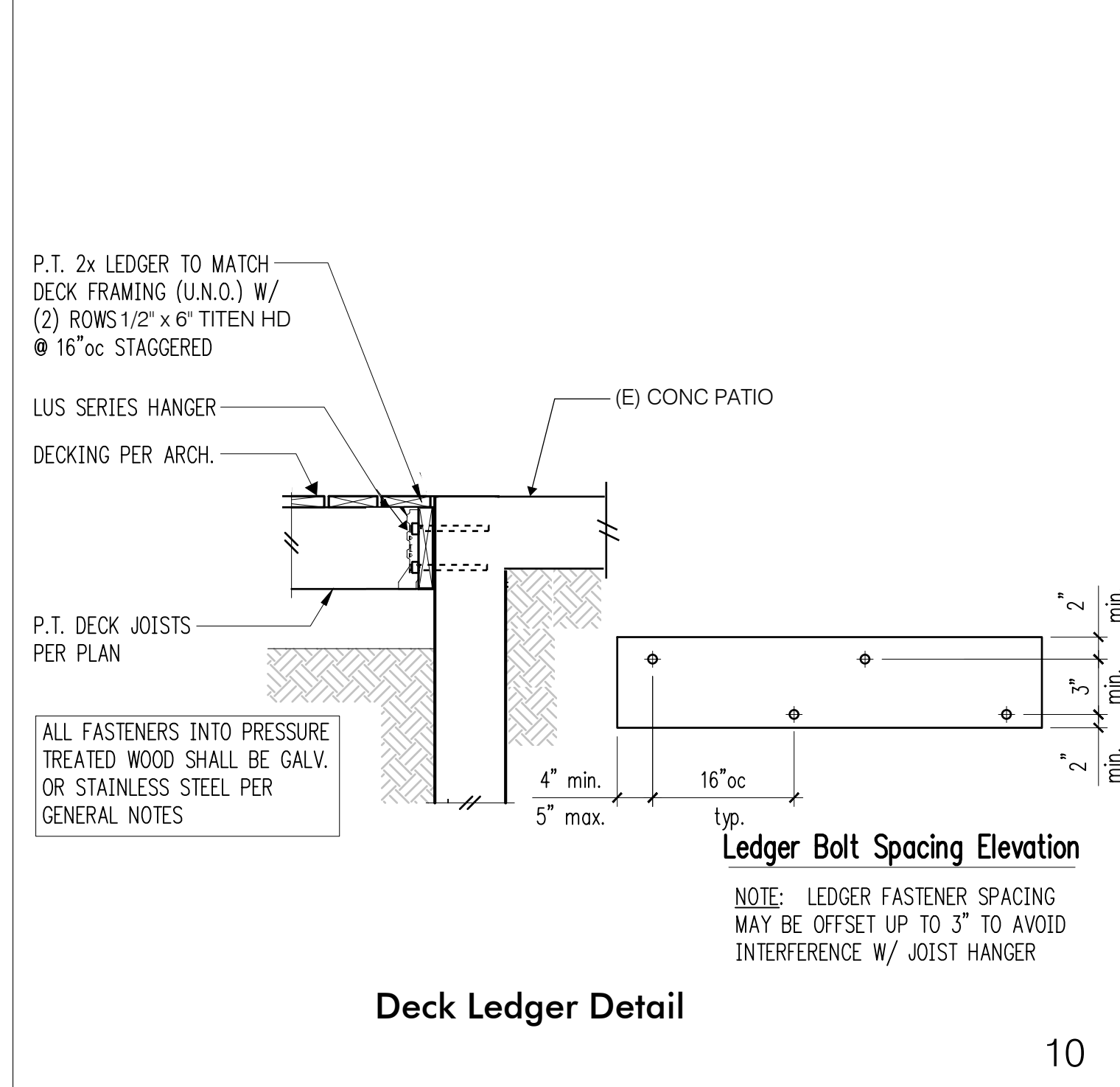
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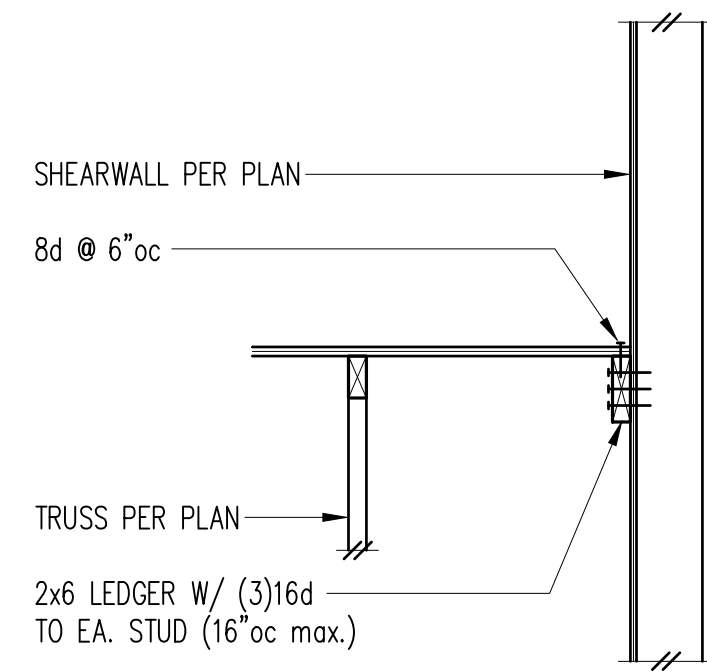


Shearwall Schedule ①②③④⑤⑥⑦

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if Wood	at Wood	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6" oc	16d @ 6" oc	A35 @ 24" oc	16d @ 6" oc	5/8" A.B. @ 48" oc
W4	15/32" CDX PLYWOOD	8d @ 4" oc	16d @ 4" oc	A35 @ 16" oc	(2) rows 16d @ 6" oc	5/8" A.B. @ 32" oc
W3	15/32" CDX PLYWOOD	8d @ 3" oc	(2) rows 16d @ 4" oc	A35 @ 12" oc	(2) rows 16d @ 6" oc	5/8" A.B. @ 24" oc
W2	15/32" CDX PLYWOOD	8d @ 2" oc	(2) rows 16d @ 4" oc	A35 @ 9" oc	(2) rows 16d @ 4" oc	5/8" A.B. @ 16" oc

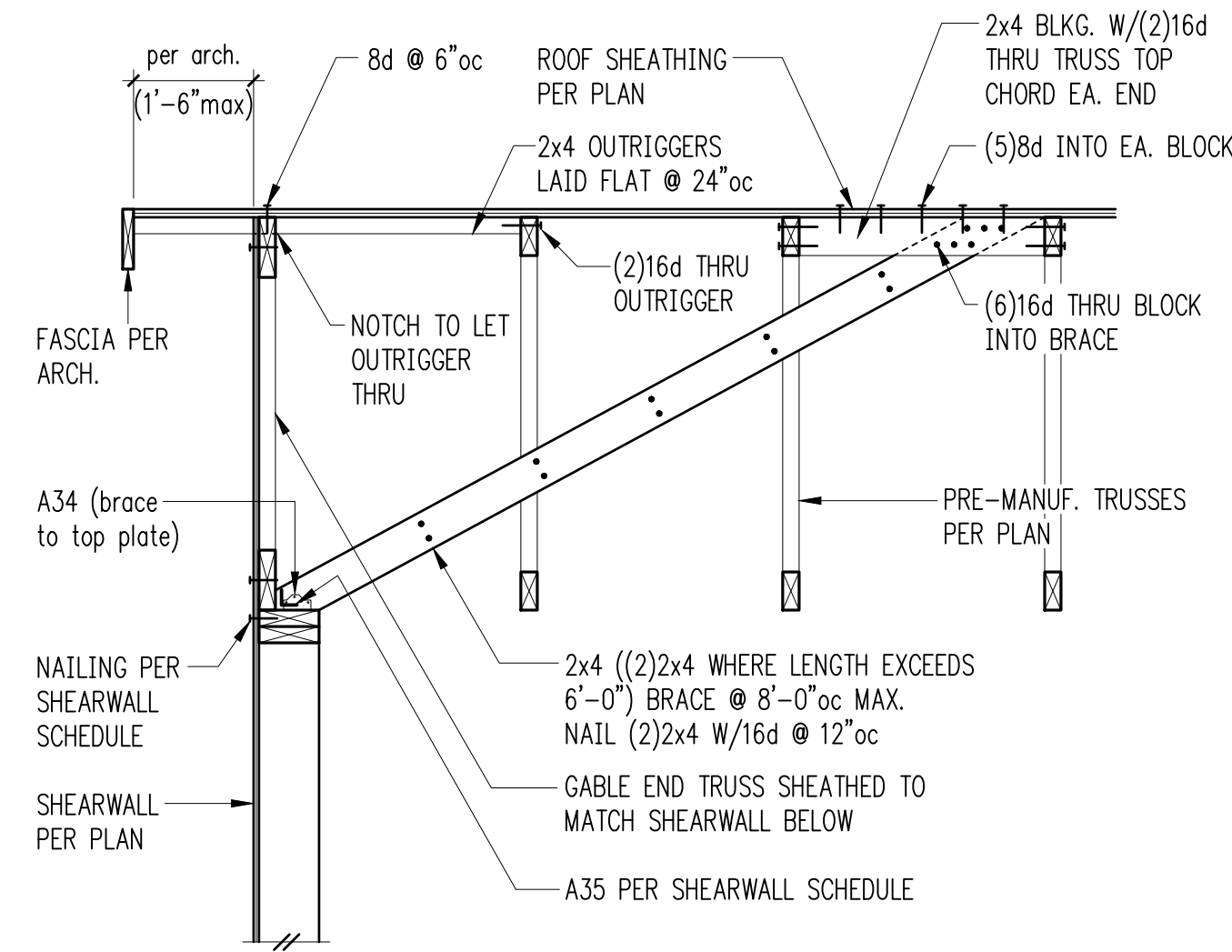
① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12" oc.
 ② 8d NAILS SHALL BE 0.131" x 2 1/2" (common) - 16d NAILS SHALL BE 0.135" x 3 1/2" (box)
 ③ EMBED ANCHOR BOLTS AT LEAST 7". DRILLED AND EPOXIED THREADED ROD MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 6" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.
 ④ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
 ⑤ TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.
 ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
 ⑦ 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX.
 ⑧ LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
 ⑨ A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
 ⑩ AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.
 ⑪ PROVIDE (3) ROWS 16d @ 6" oc AT LVL. RIMS.





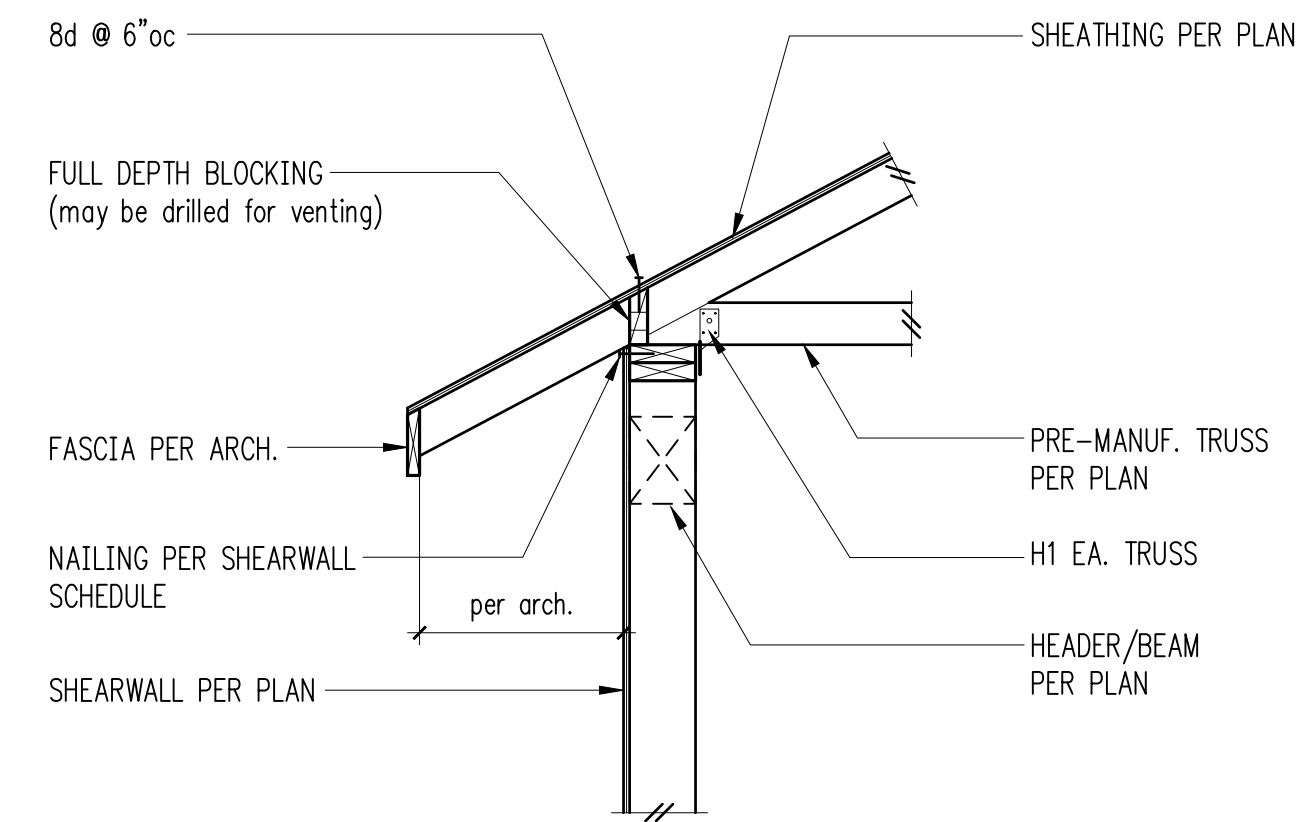
Trusses Parallel to Exterior Wall

1



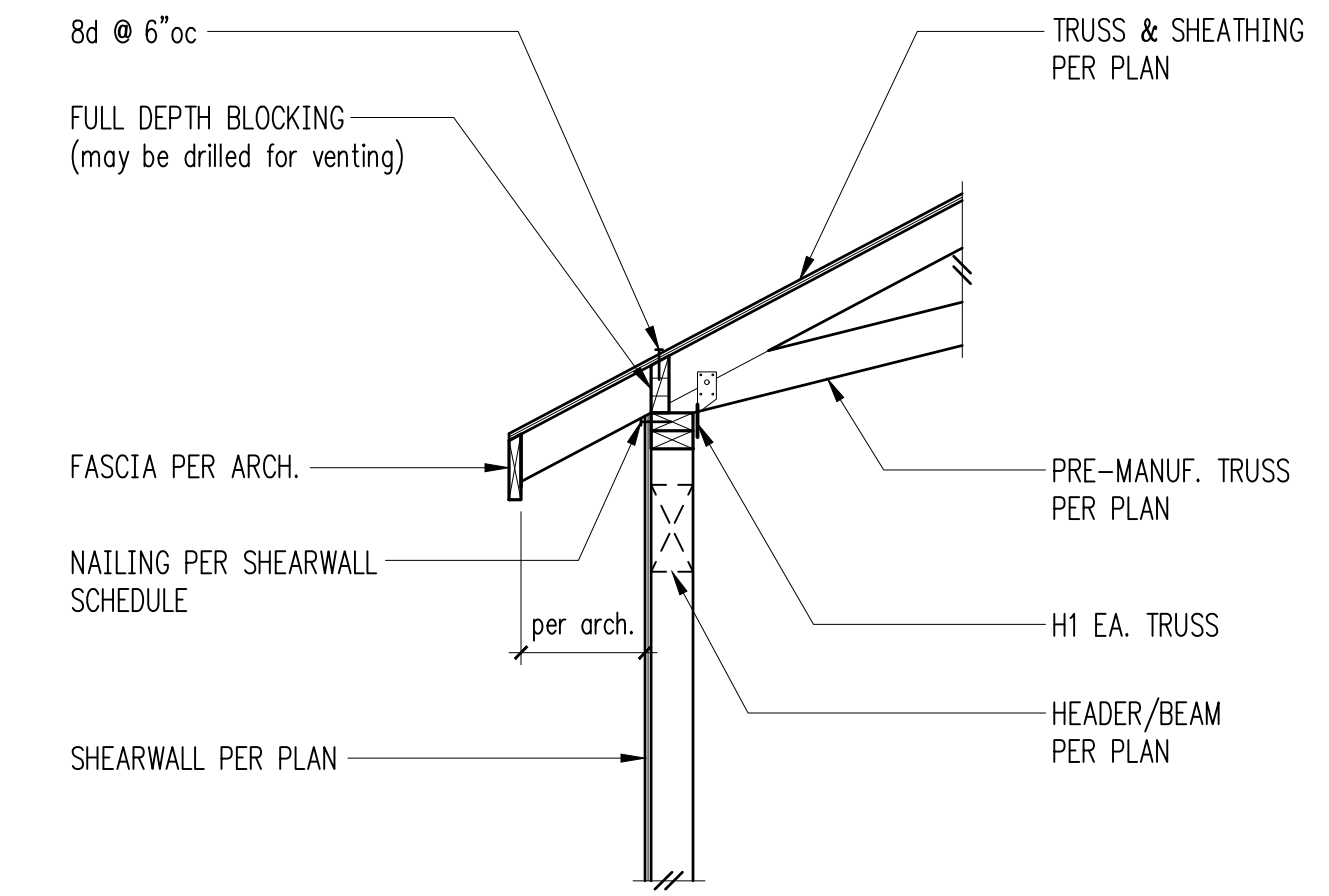
Exterior Non-Bearing Wall

2



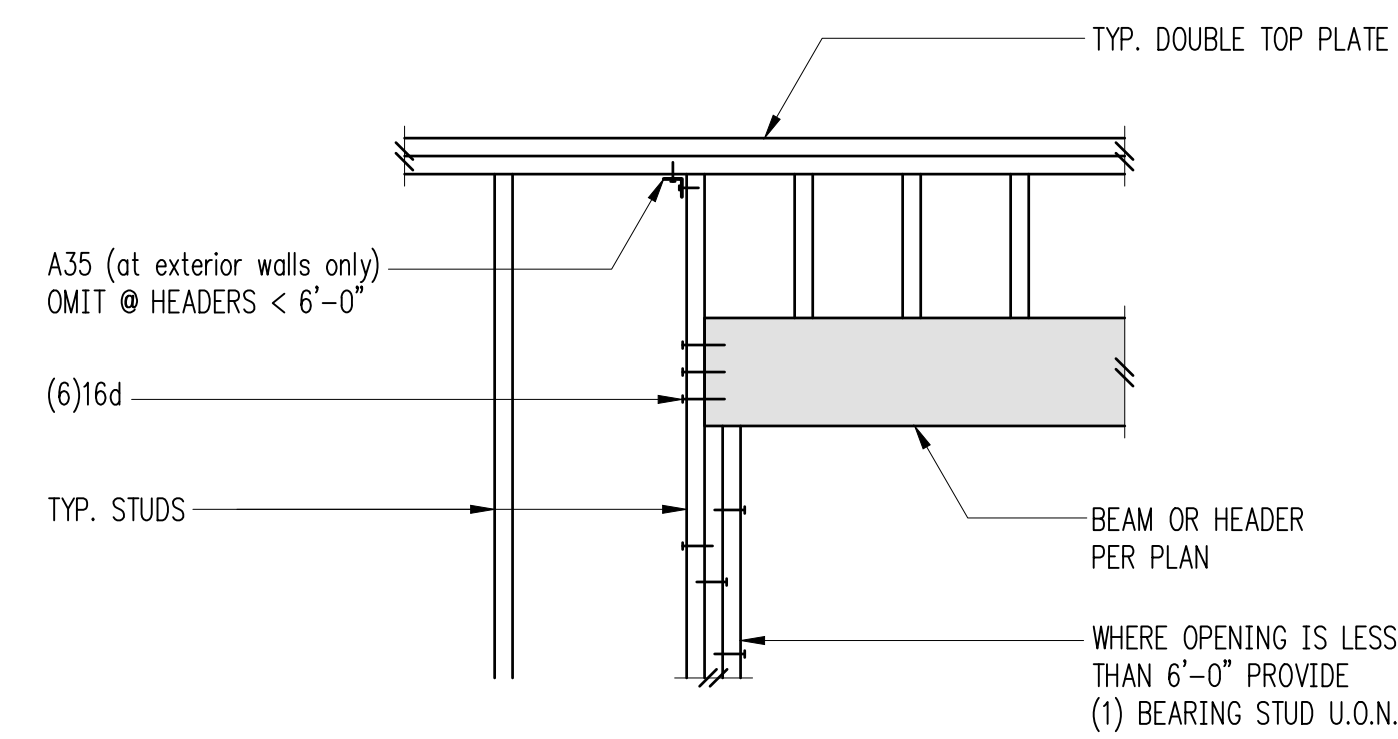
Exterior Bearing Wall

3



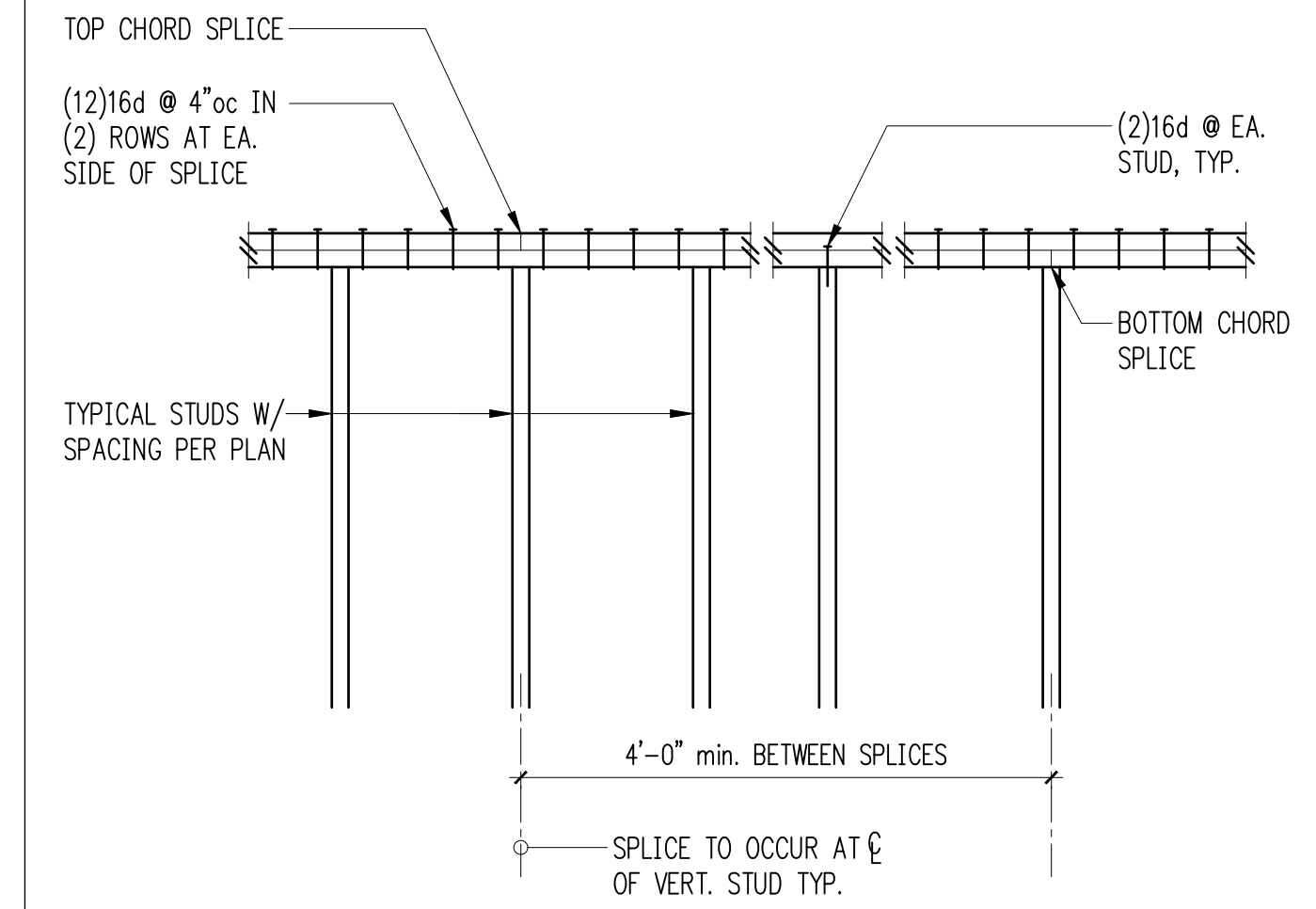
Scissors Trusses Exterior Bearing Wall

4



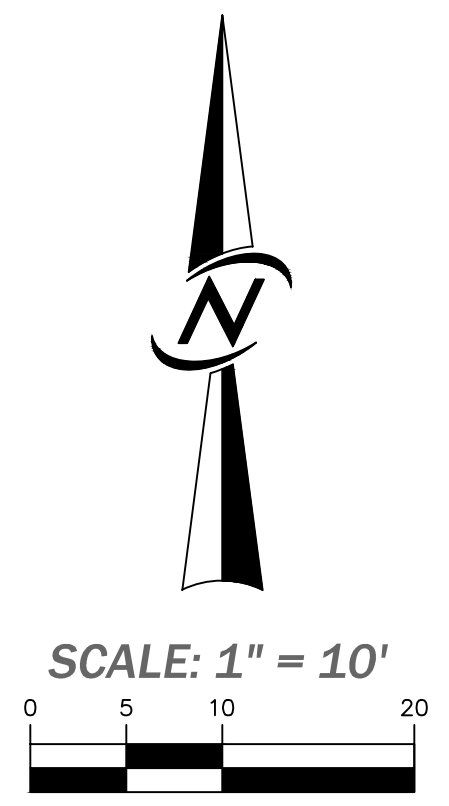
Typical Header Support

5



Typical Top Plate Splice

6



LEGEND

○ FOUND SURVEY MARKER, AS NOTED

— x — FENCE LINE

VERTICAL DATUM
NAVD88 PER GNSS OBSERVATIONS

PROJECT BENCHMARKS
SET NAIL AND WASHER
MARKED "CORE CONTROL" SEE MAP FOR LOCATION
ELEVATION = 362.72

BASIS OF BEARINGS
N01°01'27"E BETWEEN THE TWO FOUND PROPERTY CORNERS ALONG THE EASTERLY RIGHT-OF-WAY MARGIN OF 90TH AVENUE NE.

REFERENCES

- CITY OF MERCER ISLAND SHORT PLAT NUMBER SUB18-006, RECORDED UNDER KING COUNTY RECORDING NUMBER 20191210900008.

LEGAL DESCRIPTION
THE NORTH 70 FEET OF LOT 12, AND THE SOUTH 10 FEET OF LOT 13, IN BLOCK 2 IF ALLWEH HEIGHTS ADDITION TO SEATTLE, AS PER PLAT RECORDED IN VOLUME 16 OF PLATS, PAGE 20, RECORDS OF KING COUNTY.

NOTES

- THE LEGAL DESCRIPTION OF THIS PROPERTY HAS BEEN TAKEN FROM STATUTORY WARRANTY DEED RECORDED UNDER KING COUNTY RECORDING NUMBER 20210623001468. NO INDEPENDENT TITLE RESEARCH HAS BEEN PERFORMED BY CORE DESIGN, INC. THIS SURVEY DOES NOT REPORT ANY ENCUMBRANCES ON THE PROPERTY WHICH MAY BE REPORTED BY A TITLE AGENCY. CORE DESIGN THEREFOR QUALIFIES THIS SURVEY TO THAT EXTENT.
- THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON APRIL 4, 2022. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN APRIL, 2022.
- PROPERTY AREA = 10,163± SQUARE FEET (0.2333± ACRES).
- ALL DISTANCES ARE IN US FEET AT GROUND LEVEL.
- BOUNDARY INFORMATION SHOWN HEREON IS DERIVED FROM OBSERVATION OF CONTROLLING MONUMENTATION AND INTERPRETATION OF RECORD DESCRIPTIONS AND OTHER EVIDENCE. TOPOGRAPHIC INFORMATION SHOWN HEREON IS RELATED TO THE BOUNDARY BY DIRECT FIELD OBSERVATION FROM CONTROLLING MONUMENTATION.
- THIS IS A FIELD TRAVERSE SURVEY. A THREE SECOND COMBINED ELECTRONIC TOTAL STATION WAS USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN WAC 332-130-090. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

NO.	REVISIONS	DATE

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
PLANNING
SURVEYING

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877

**EXISTING SETBACK SURVEY
DILLON-NATTOLIN PROPERTY
ERIN DILLON AND JORDAN NAFTOLIN**

4524 90TH AVENUE SE
MERCER ISLAND, WA 98040

DATE: APRIL 6, 2022
DESIGNED: JEREMY REEFF
DRAWN: JEREMY REEFF
APPROVED: ROBERT D WEST, PLS
JEREMY REEFF
PROJECT MANAGER

SHEET	OF
1	1
PROJECT NUMBER	
22107	