

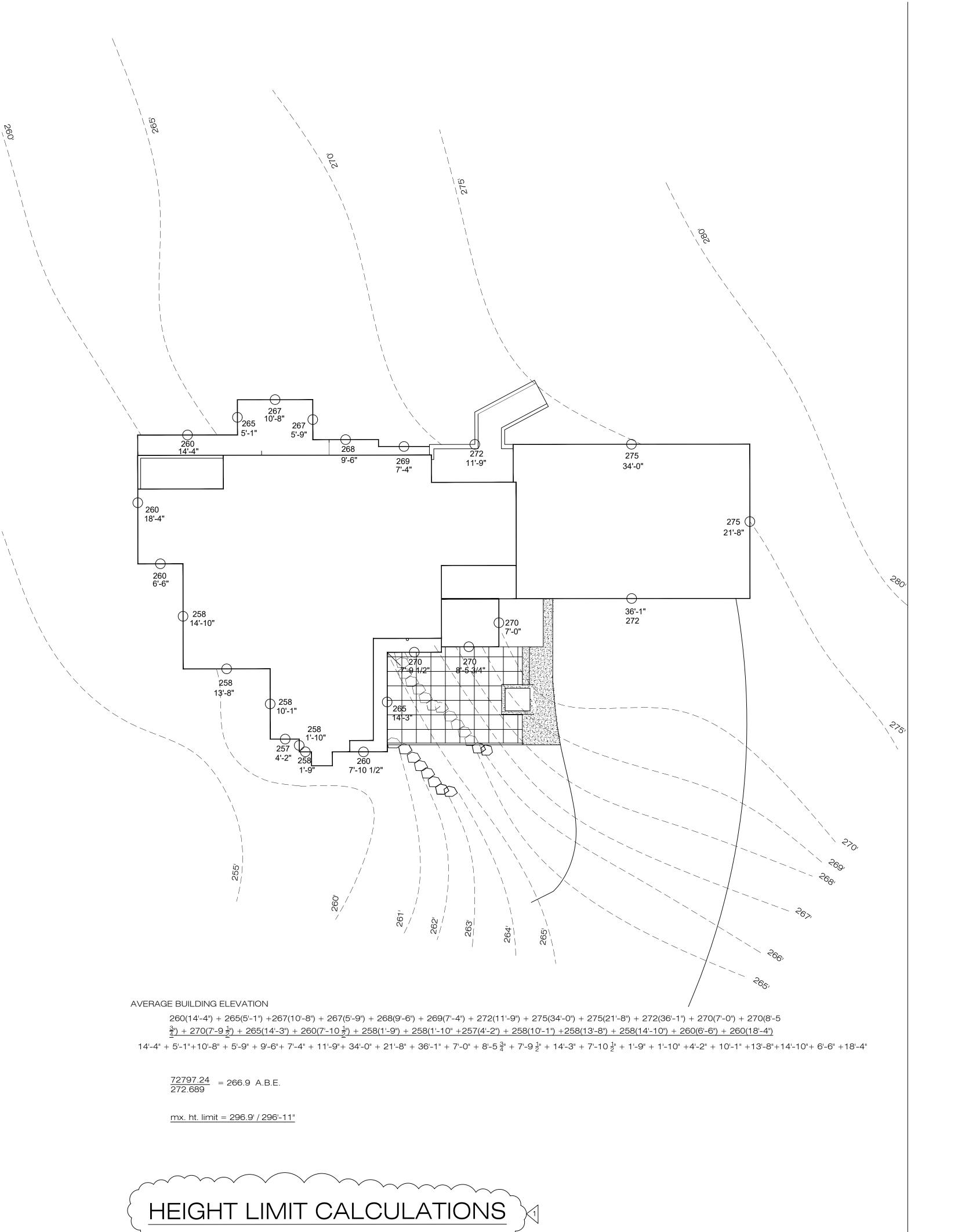
GENERAL NOTES

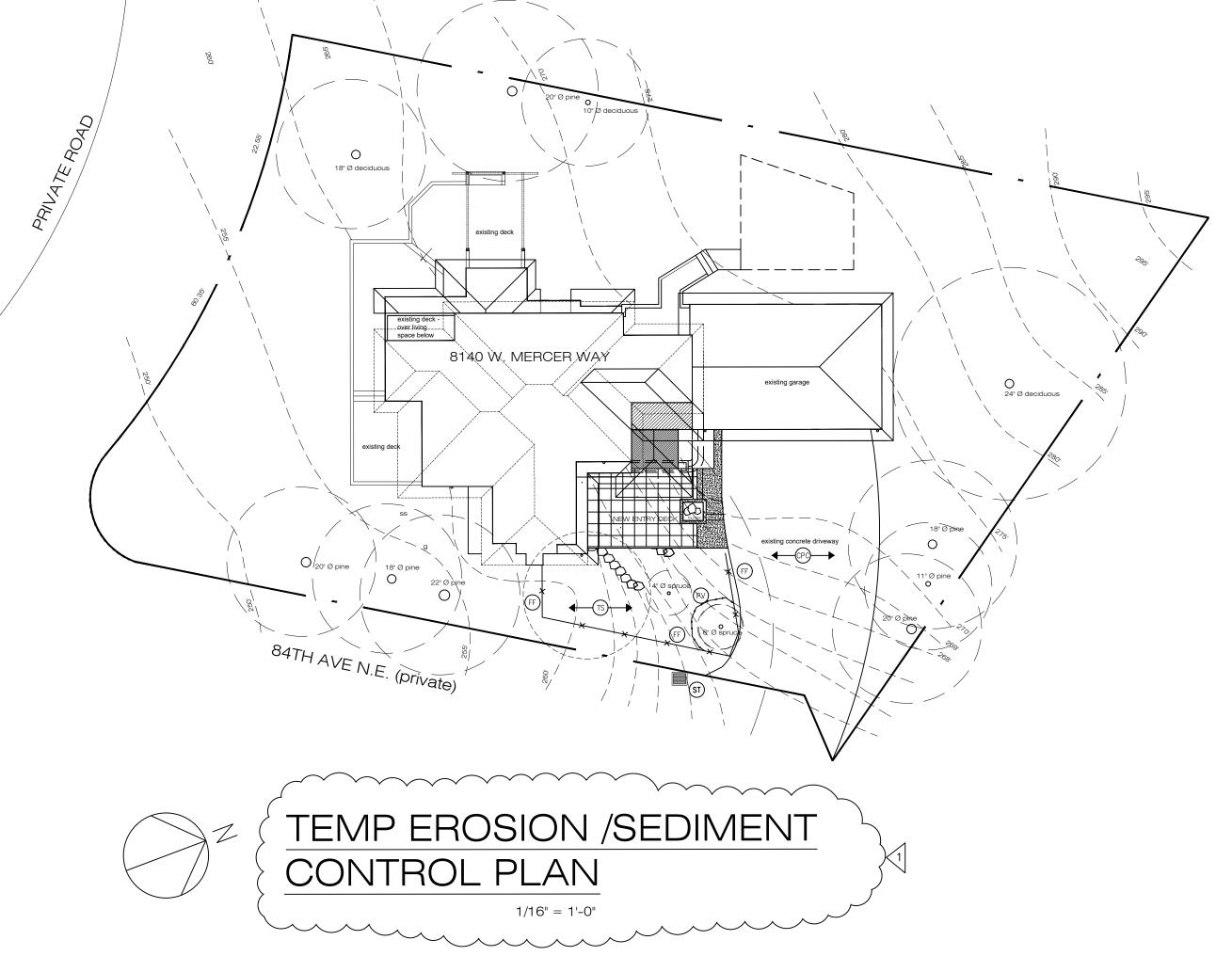
PROPERTY OWNERS: RICHARD AND LYNN DUBEY

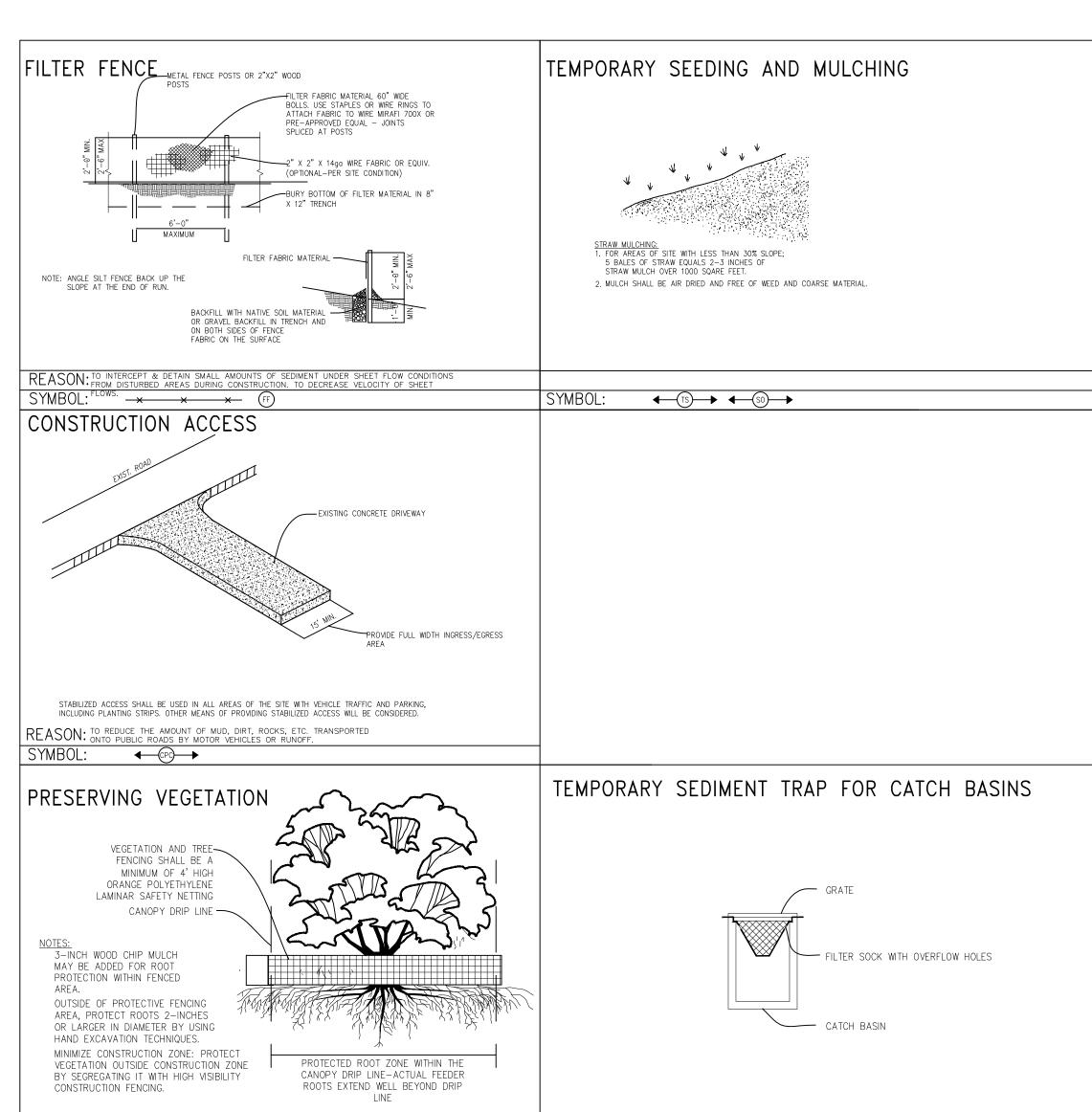
JOB ADDRESS: 8140 W. Mercer Way

A-1 SHEET 1 OF 11

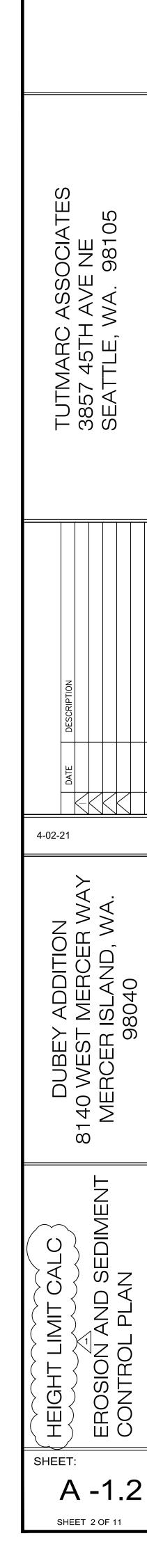
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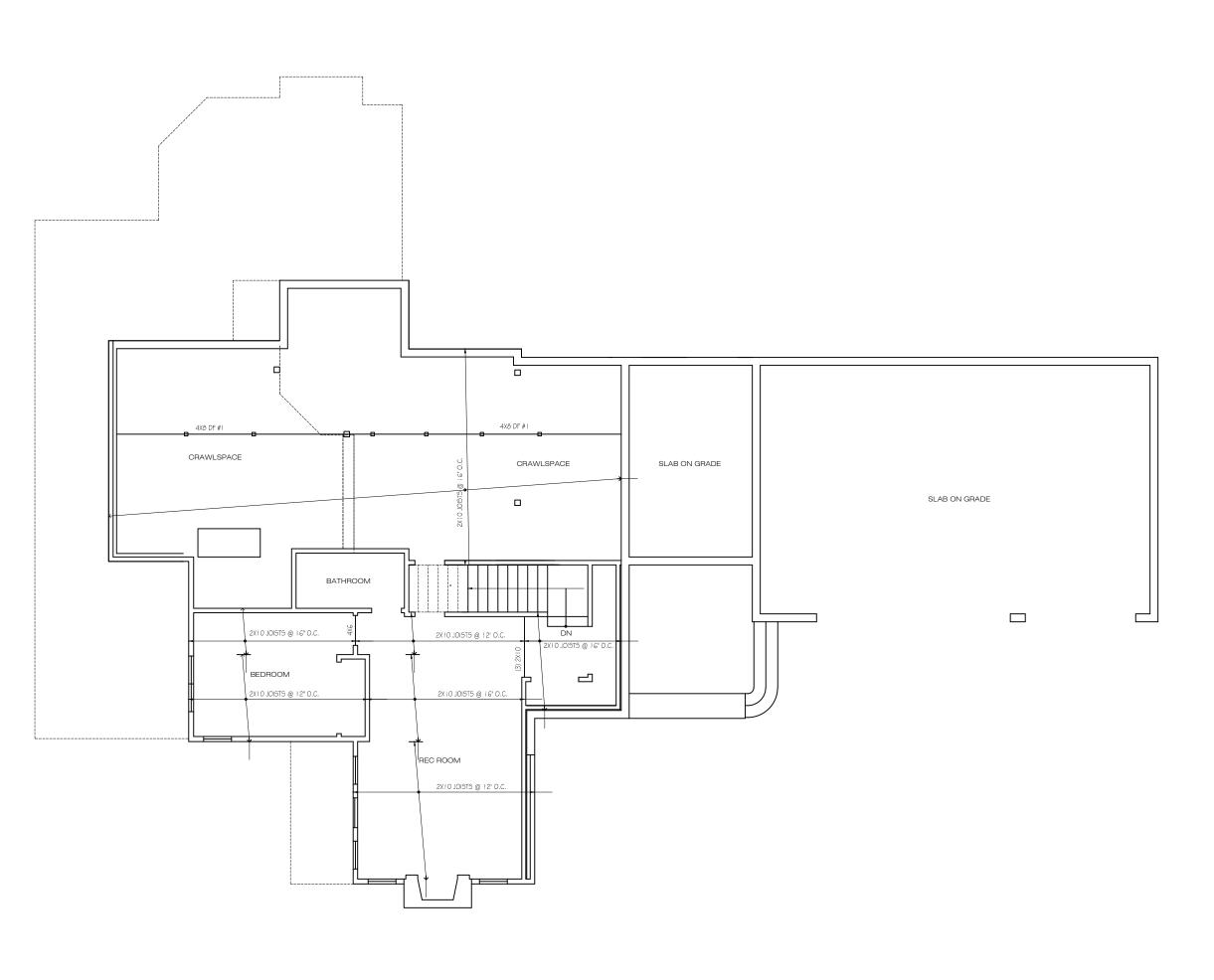




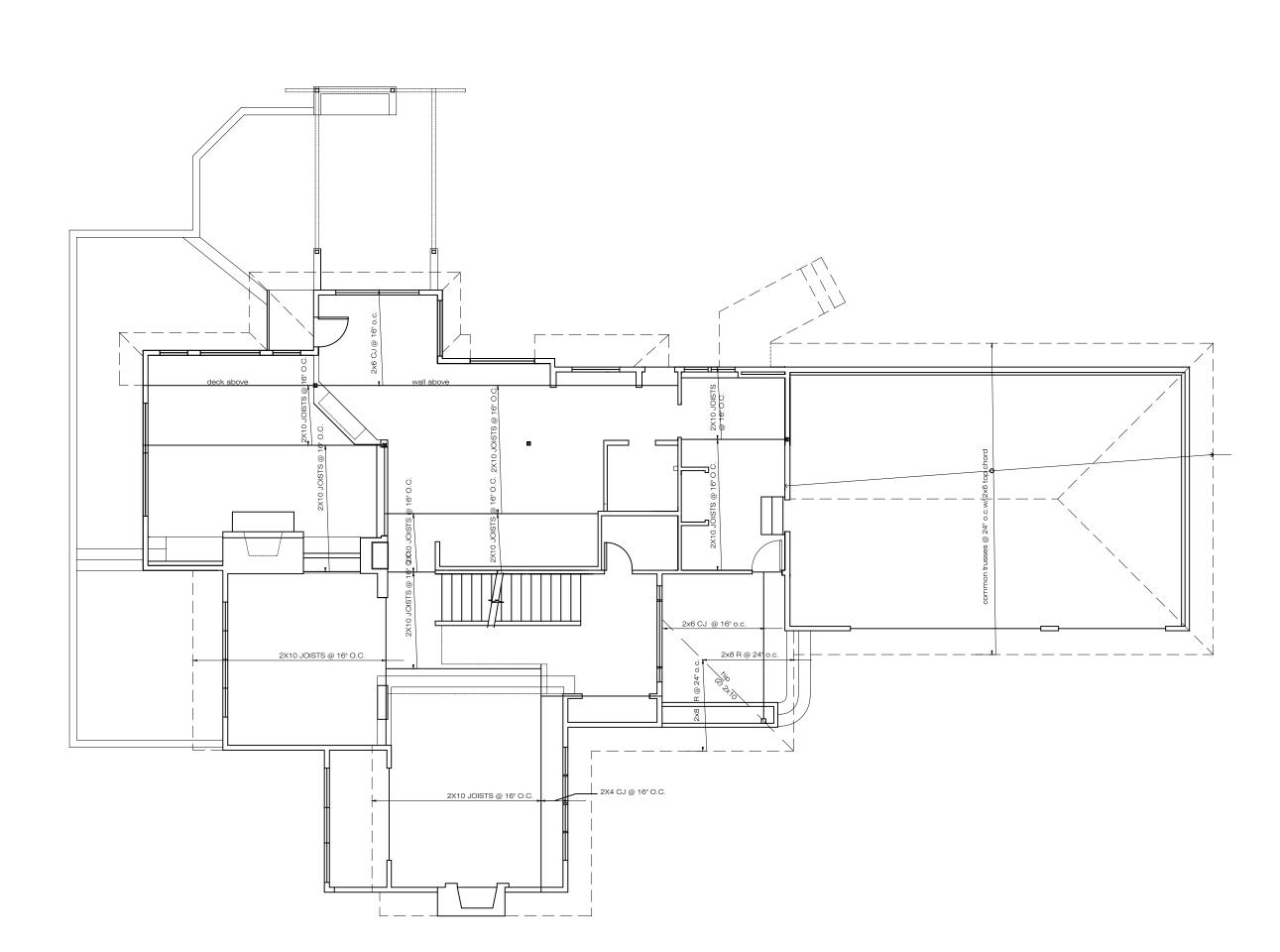


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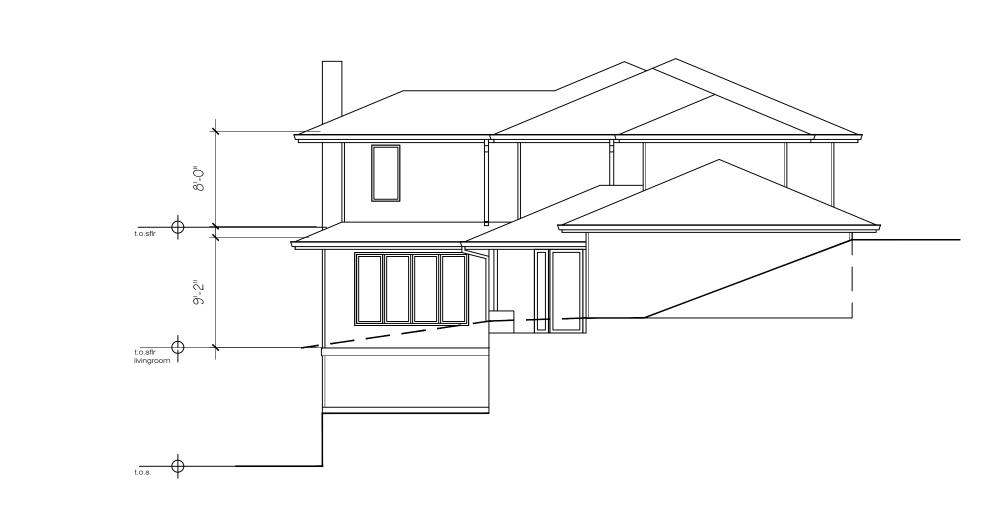






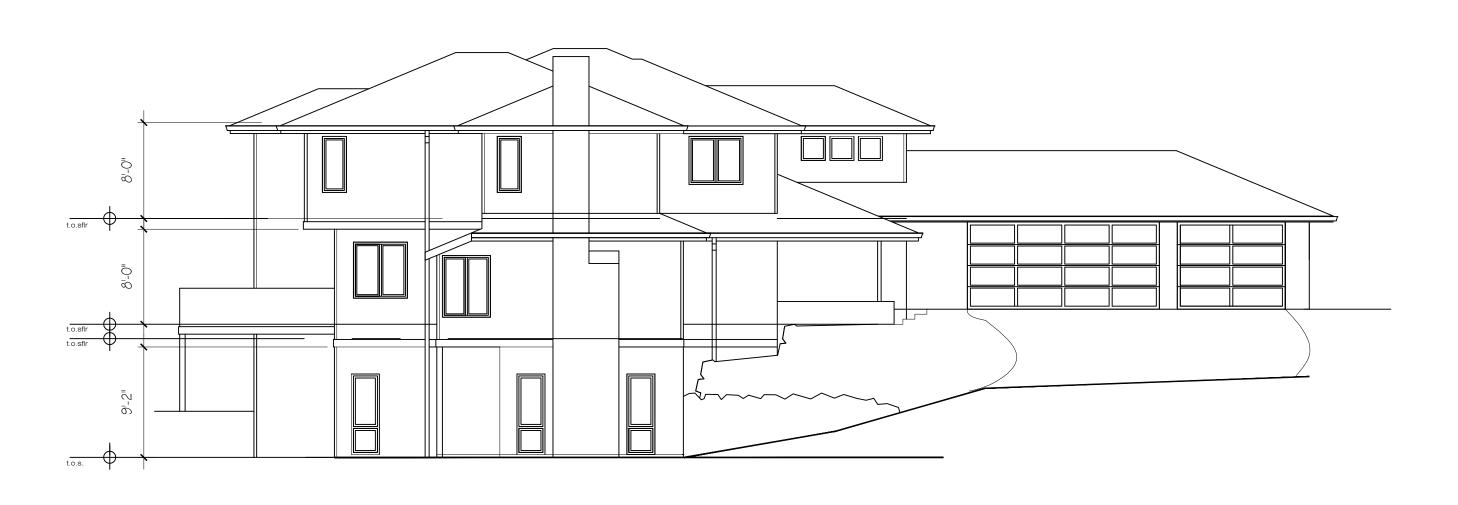






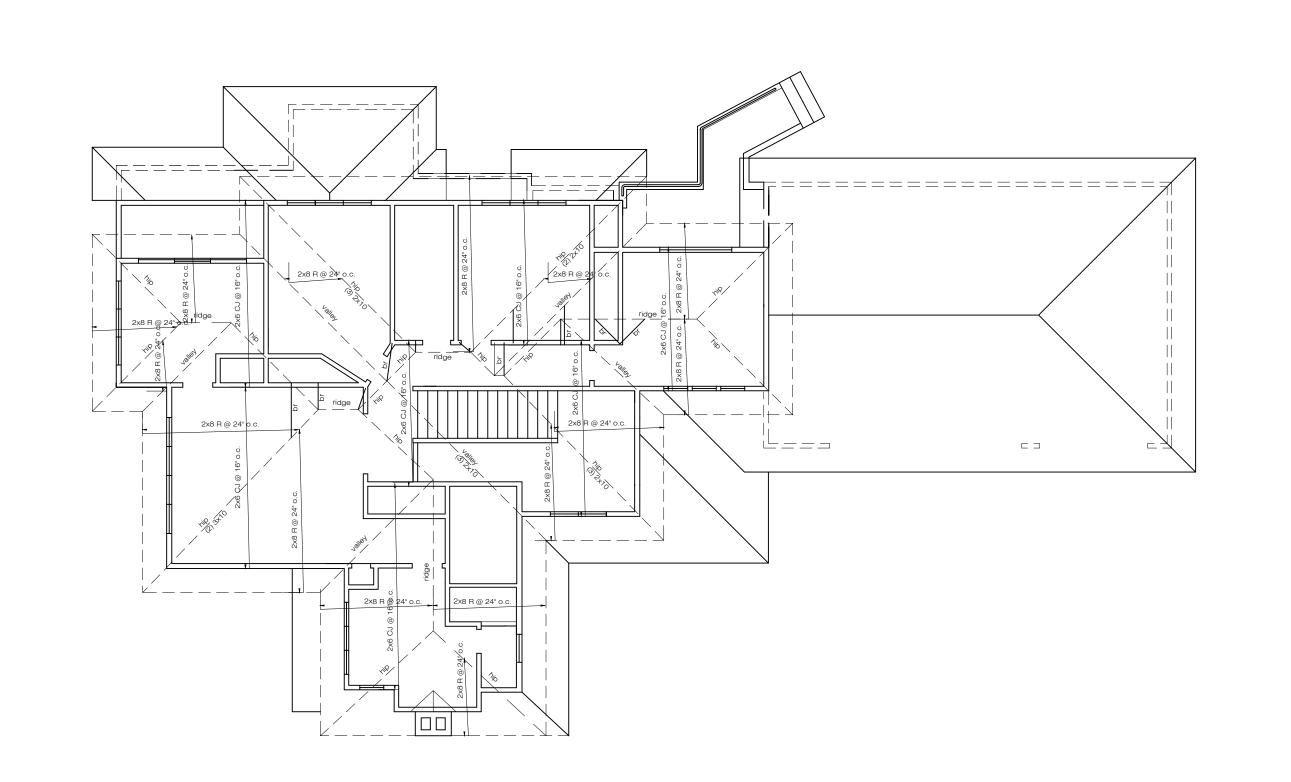
NORTH ELEVATION

1/8" = 1'-0"



EAST ELEVATION

1/8" = 1'-0"



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

FRAMING / ELE AS-BUILTS

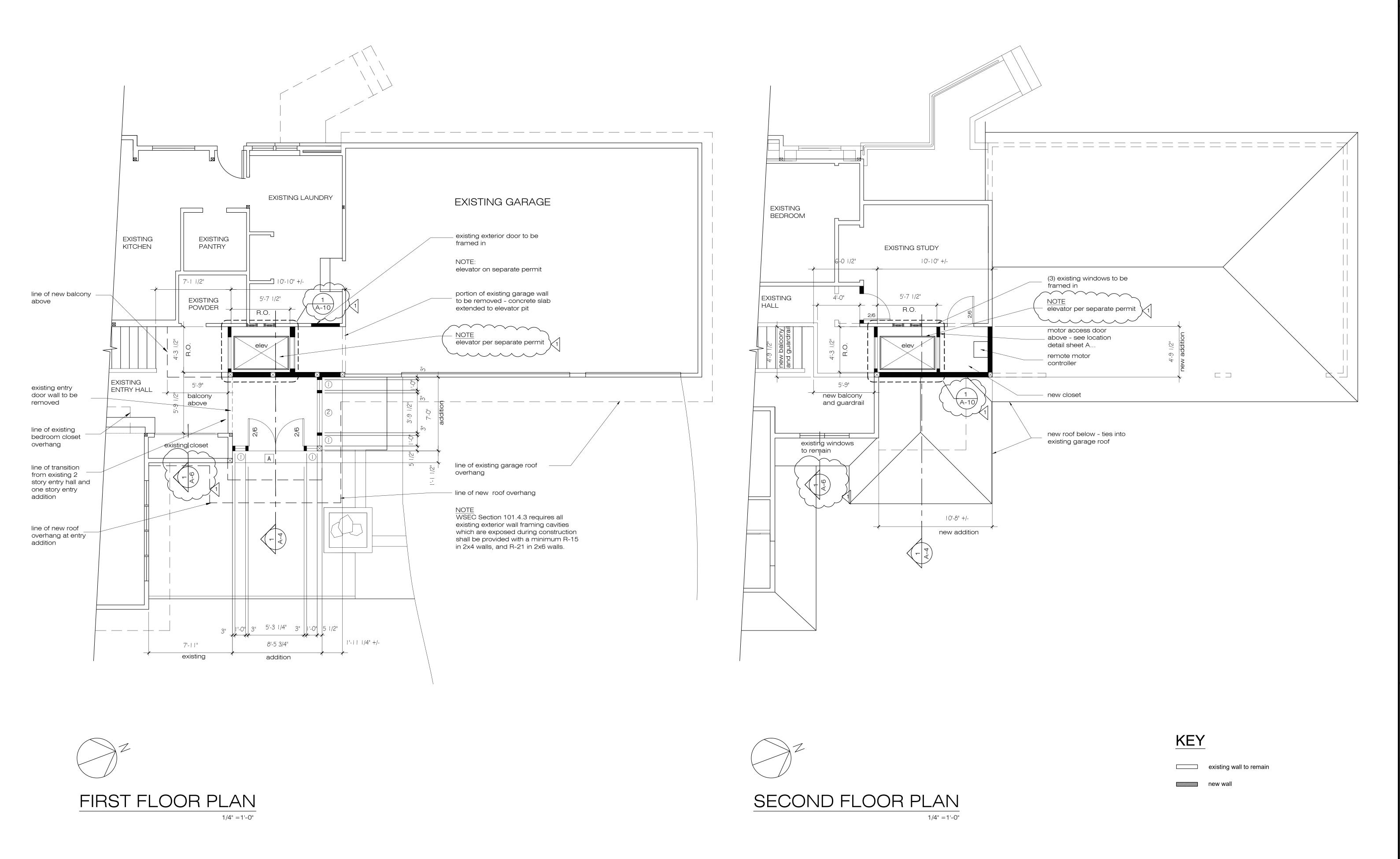
S ASSOCIATES H AVE NE WA. 98105

TUTMARC / 3857 45TH / SEATTLE, W

DUBEY ADDITION 8140 WEST MERCER WA MERCER ISLAND, WA. 98040

4-02-21

SHEET: A-2
SHEET 3 OF 11

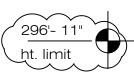


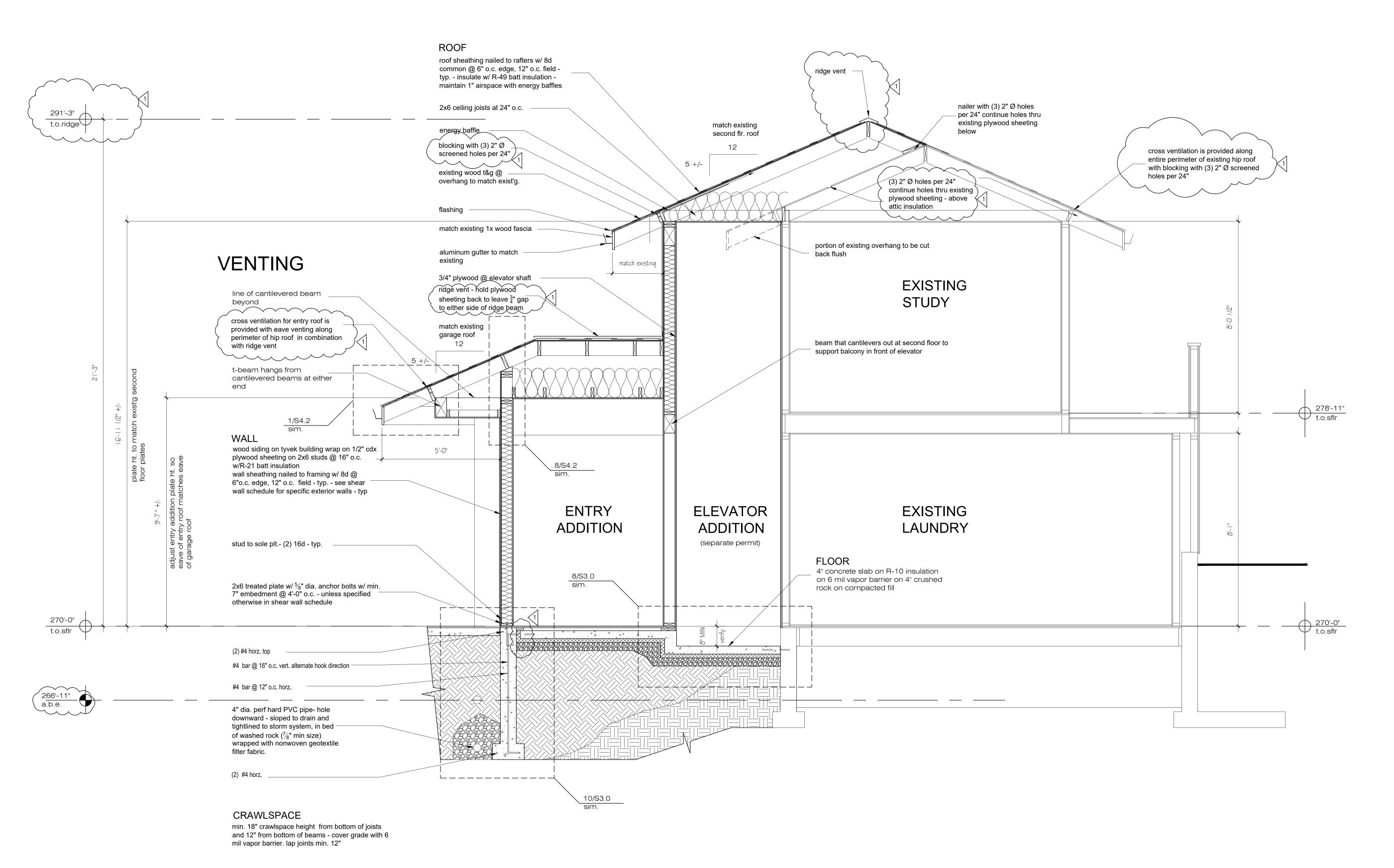
EY ADDITION ST MERCER WA

LOOR PLANS 8140 N

ADDITION FLC

SHEET: **A-3**SHEET 4 OF 11





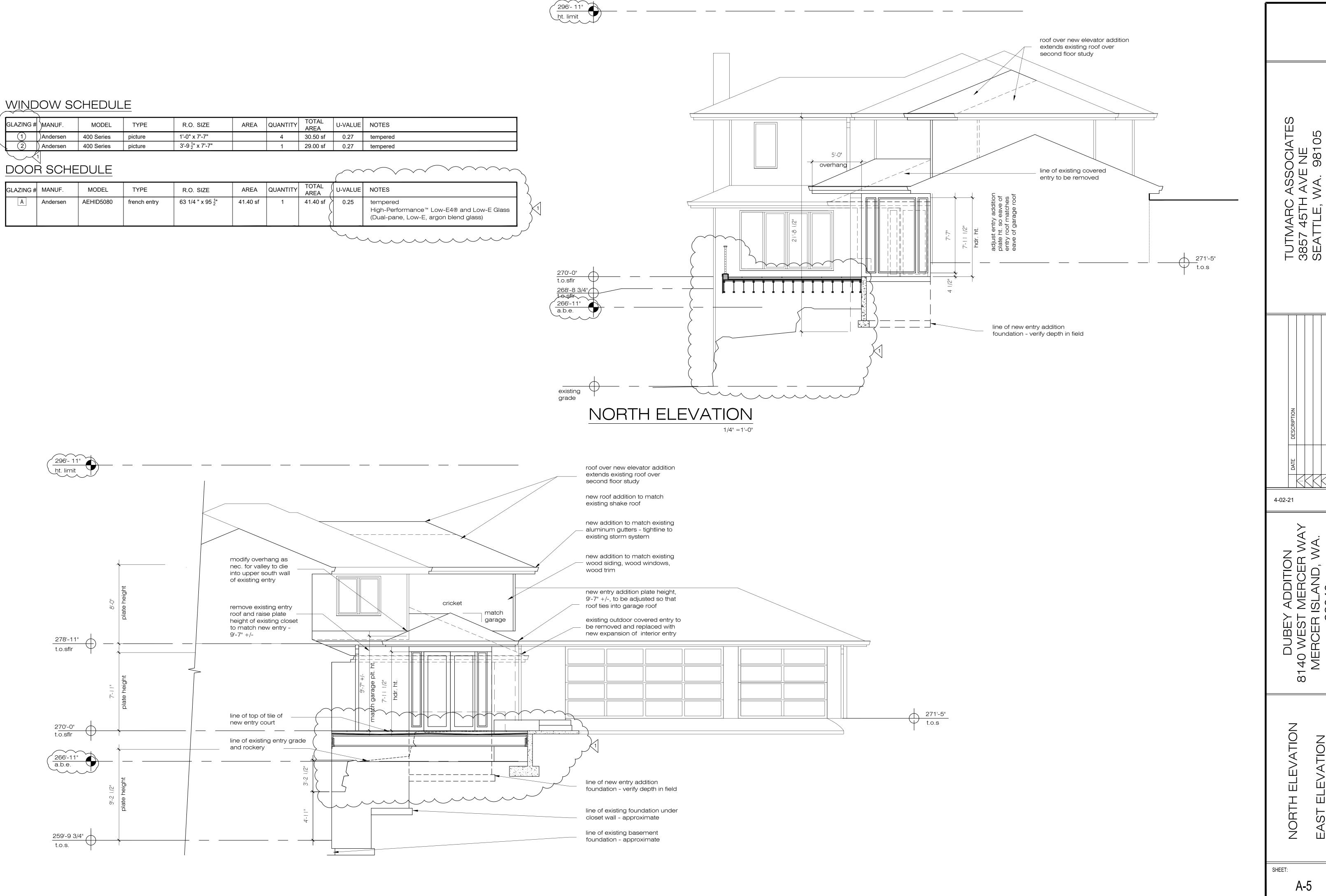


TUTMARC / 3857 45TH SEATTLE, V 4-02-21 DUBEY ADDITION 3140 WEST MERCER WA MERCER ISLAND, WA. 98040

SHEET:

A-4

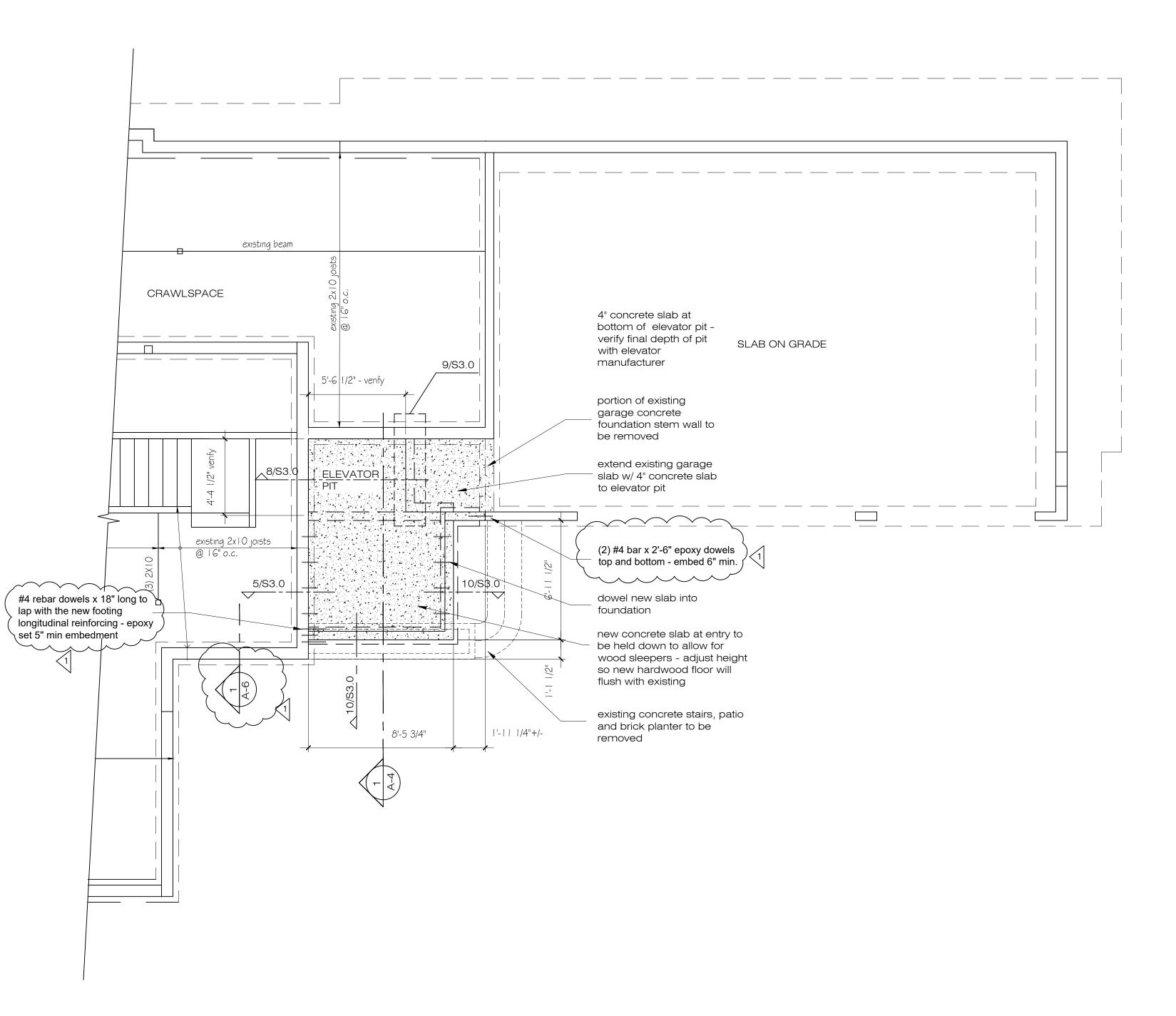
SHEET 5 OF 11



DUBEY ADDITION 3140 WEST MERCER WA MERCER ISLAND, WA. 98040 ELEVATION

SHEET 6 OF 11

EAST



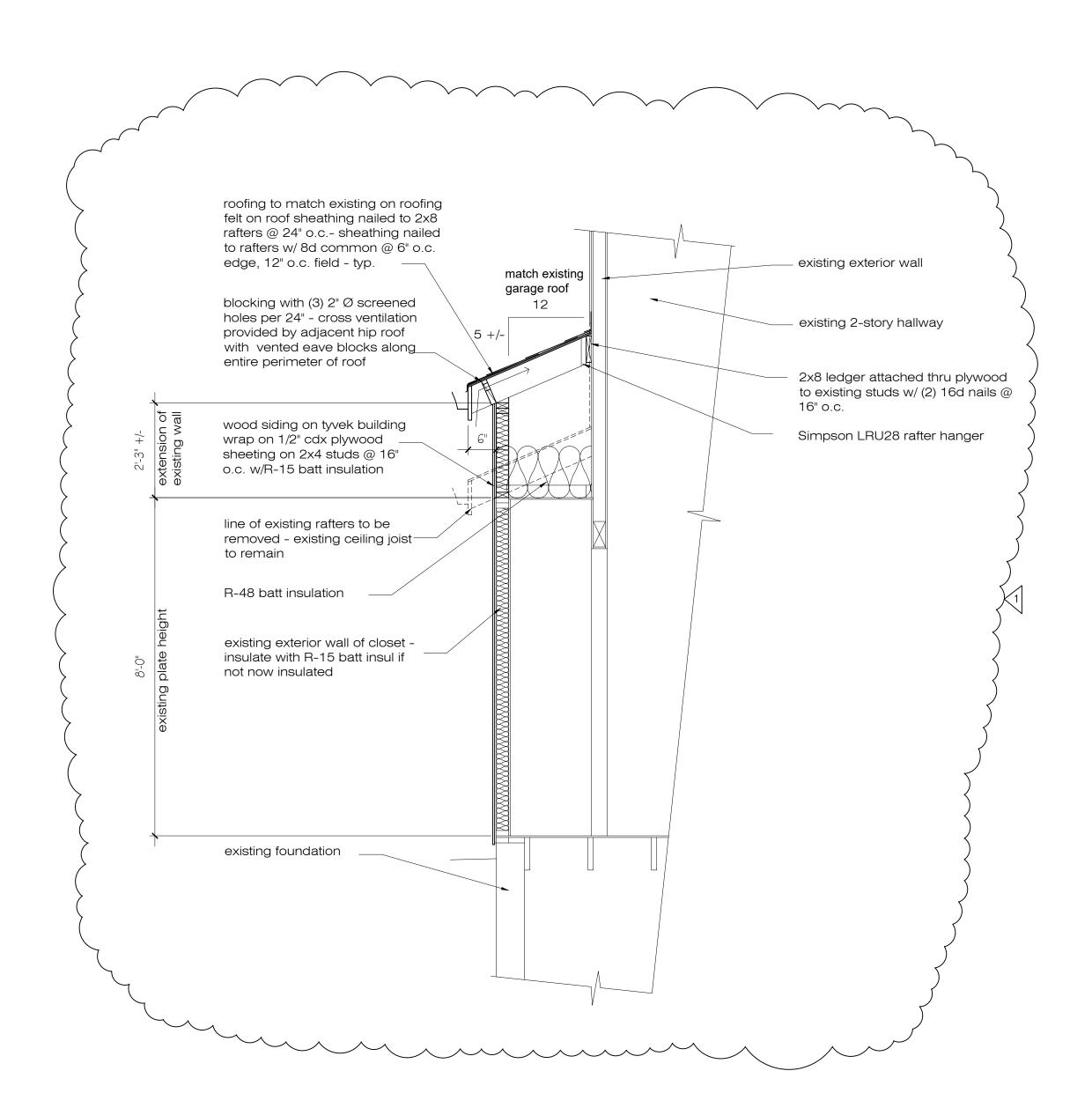
FOUNDATION / FIRST FLOOR FRAMING PLAN



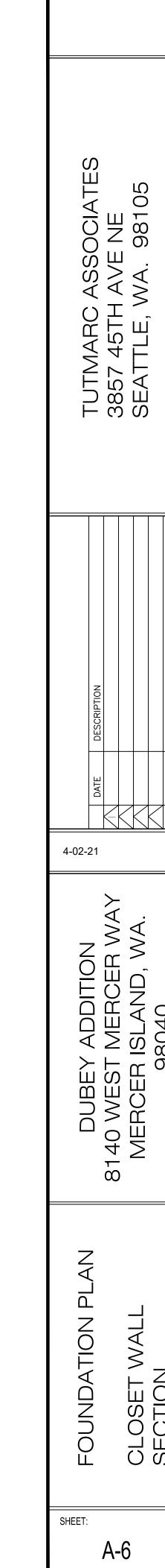
<u>KEY</u>

existing foundation wall

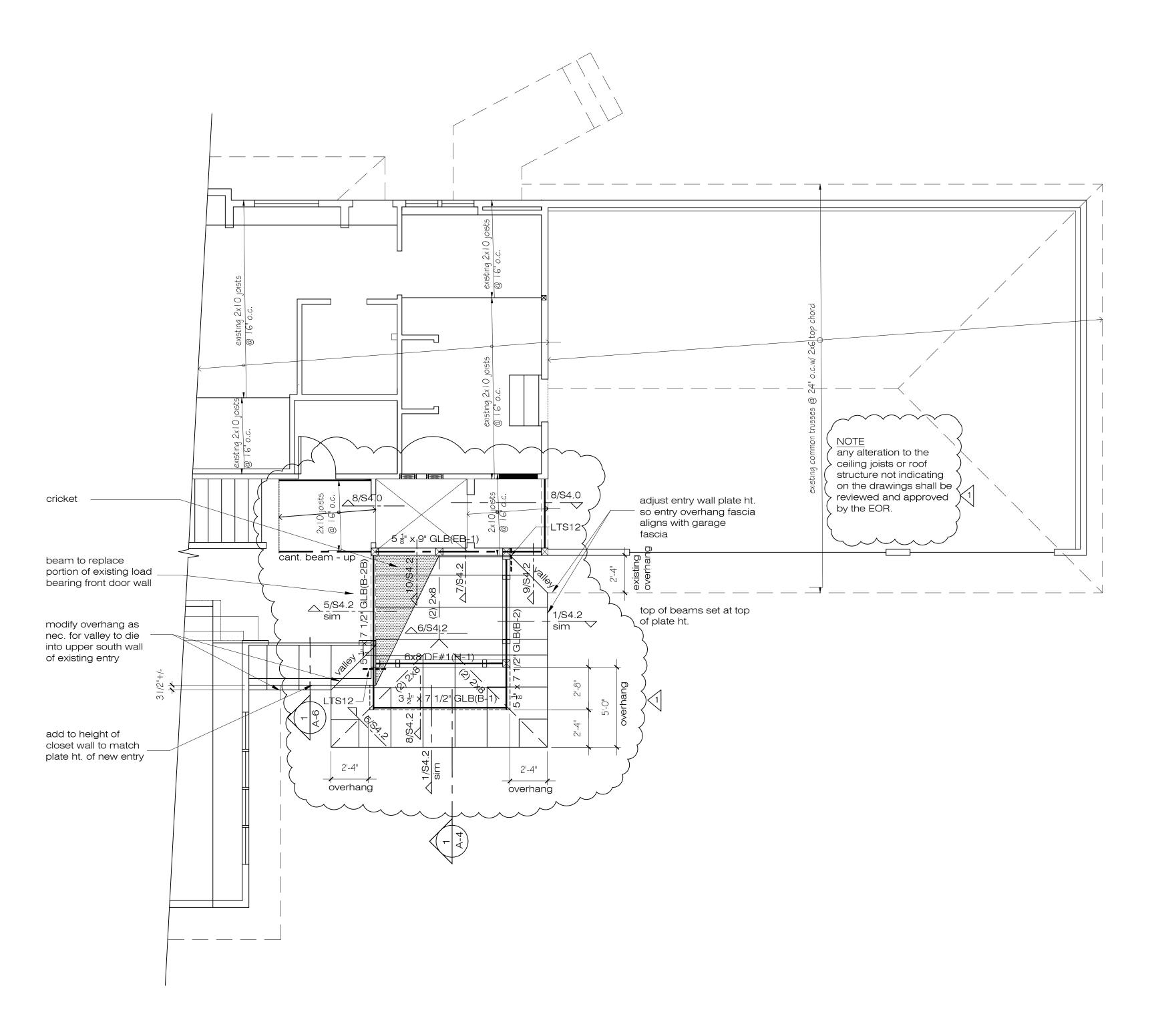
new concrete slab



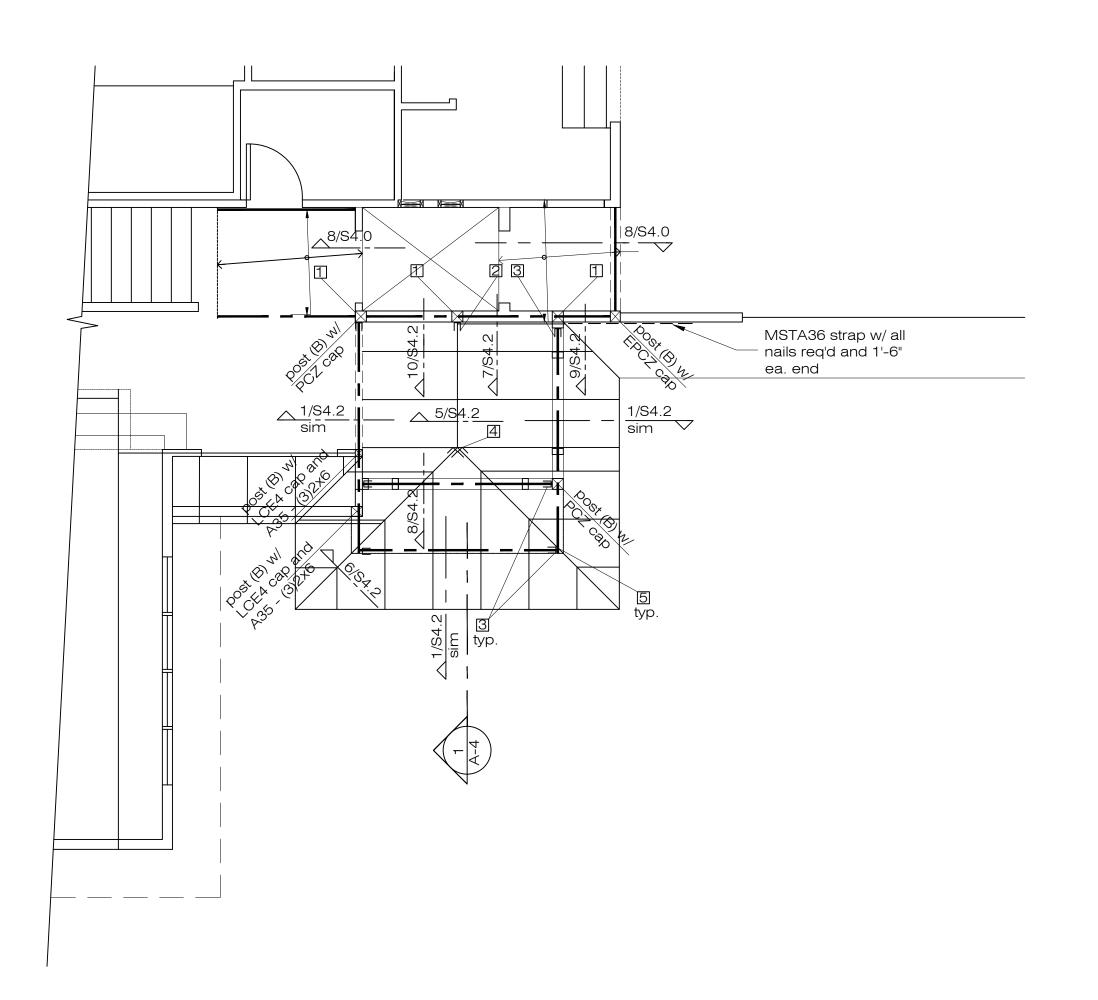


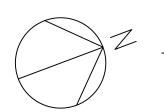


SHEET 7 OF 11









ENTRY ROOF FRAMING CONNECTIONS

1/4" = 1'-0"

KEY

(3) 2x6 w/ A35 ea. side

2 HUC28-2 hanger, all nails req'd.

3 HUCQ hanger, all SDS screws req'd.

HHRC44 hanger-inverted, all SD screws req'd. 1

HCP4Z connector, all nails req'd.

ENTRY RC PLAN SECOND PLAN

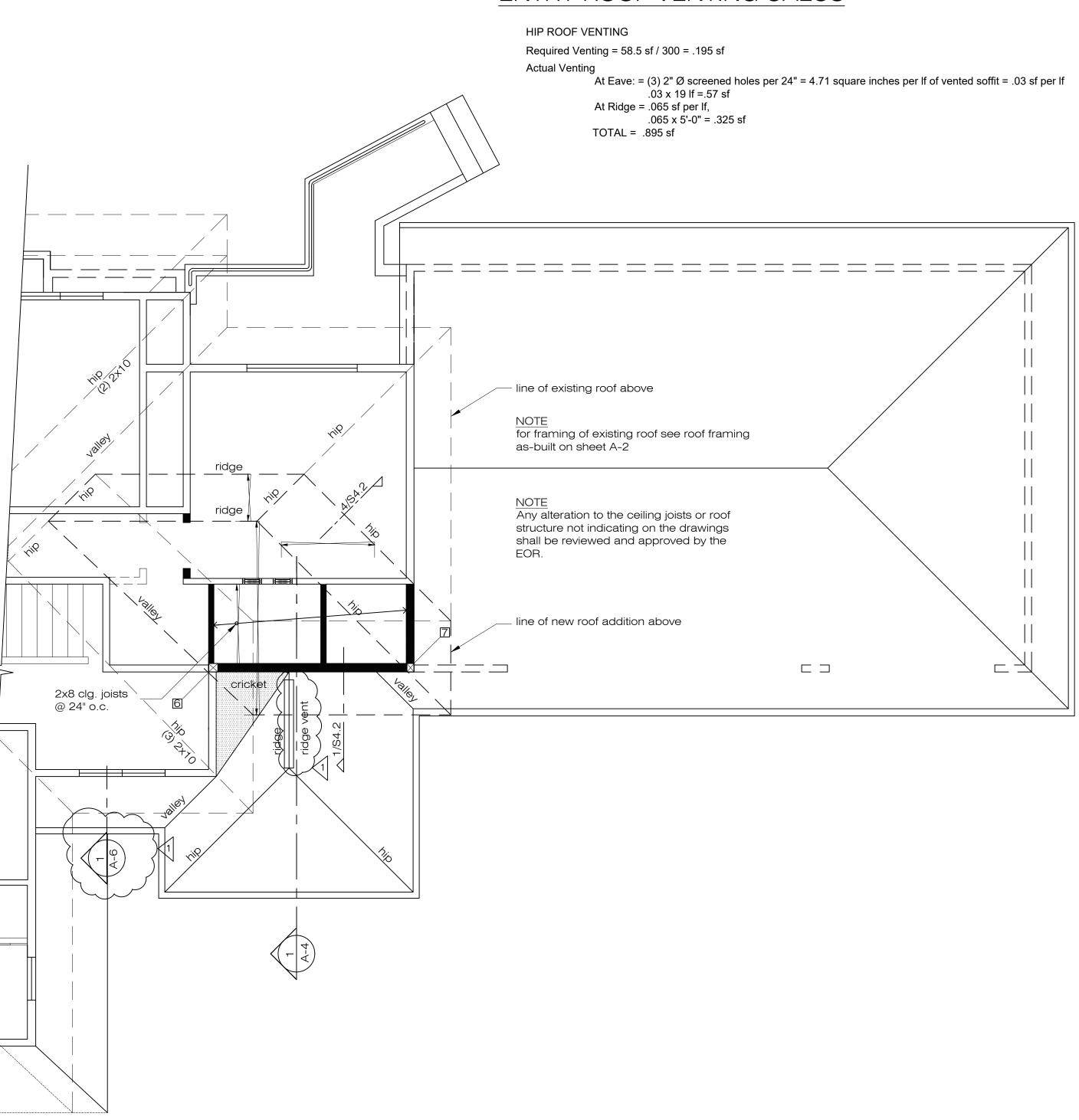
FRAMING

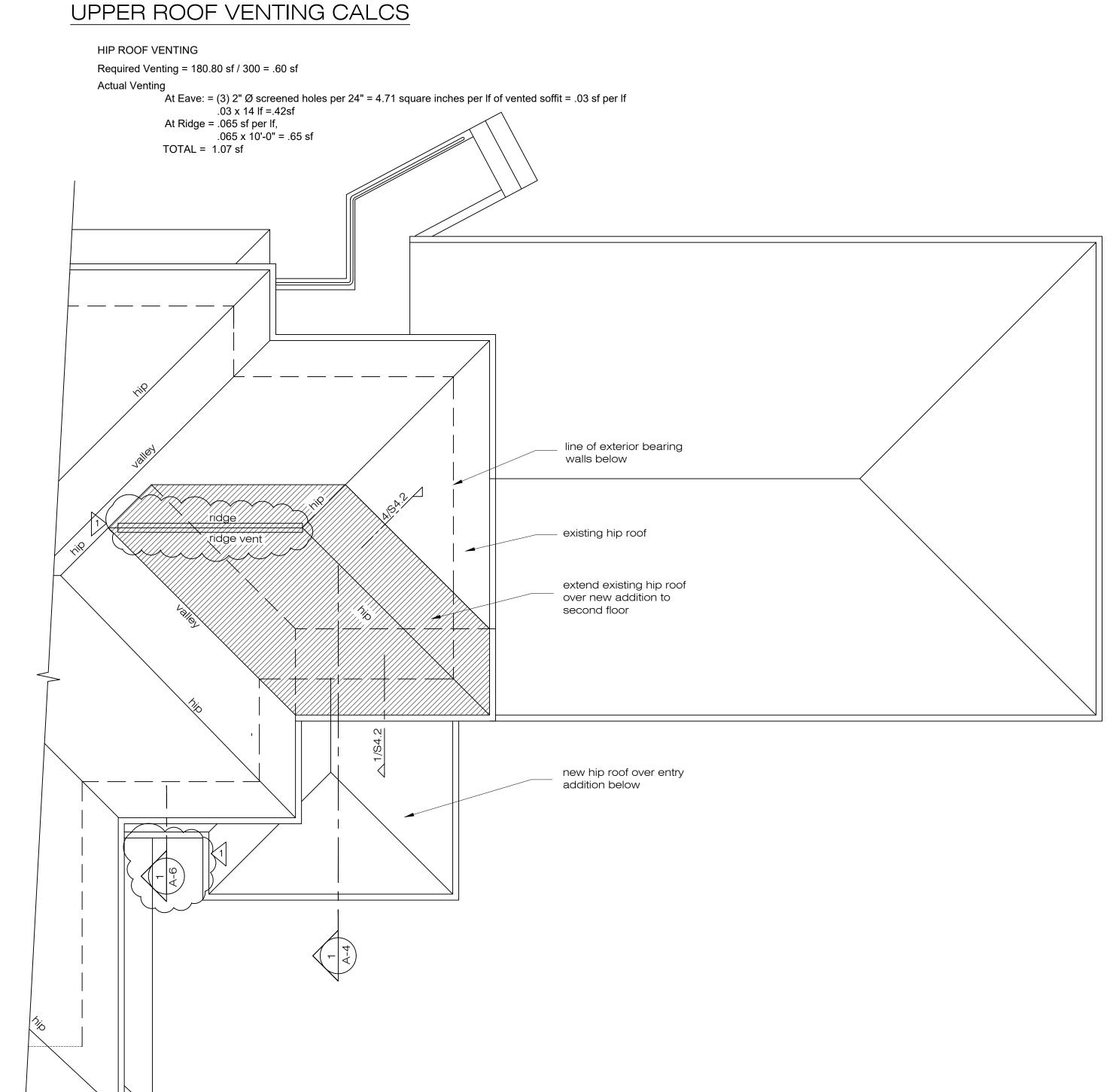
TUTMARC / 3857 45TH SEATTLE, V

4-02-21

SHEET: SHEET 8 OF 11

ENTRY ROOF VENTING CALCS







<u>KEY</u>

6 (4) 2x6 w/ A35 7 (3) 2x6 w/ A35

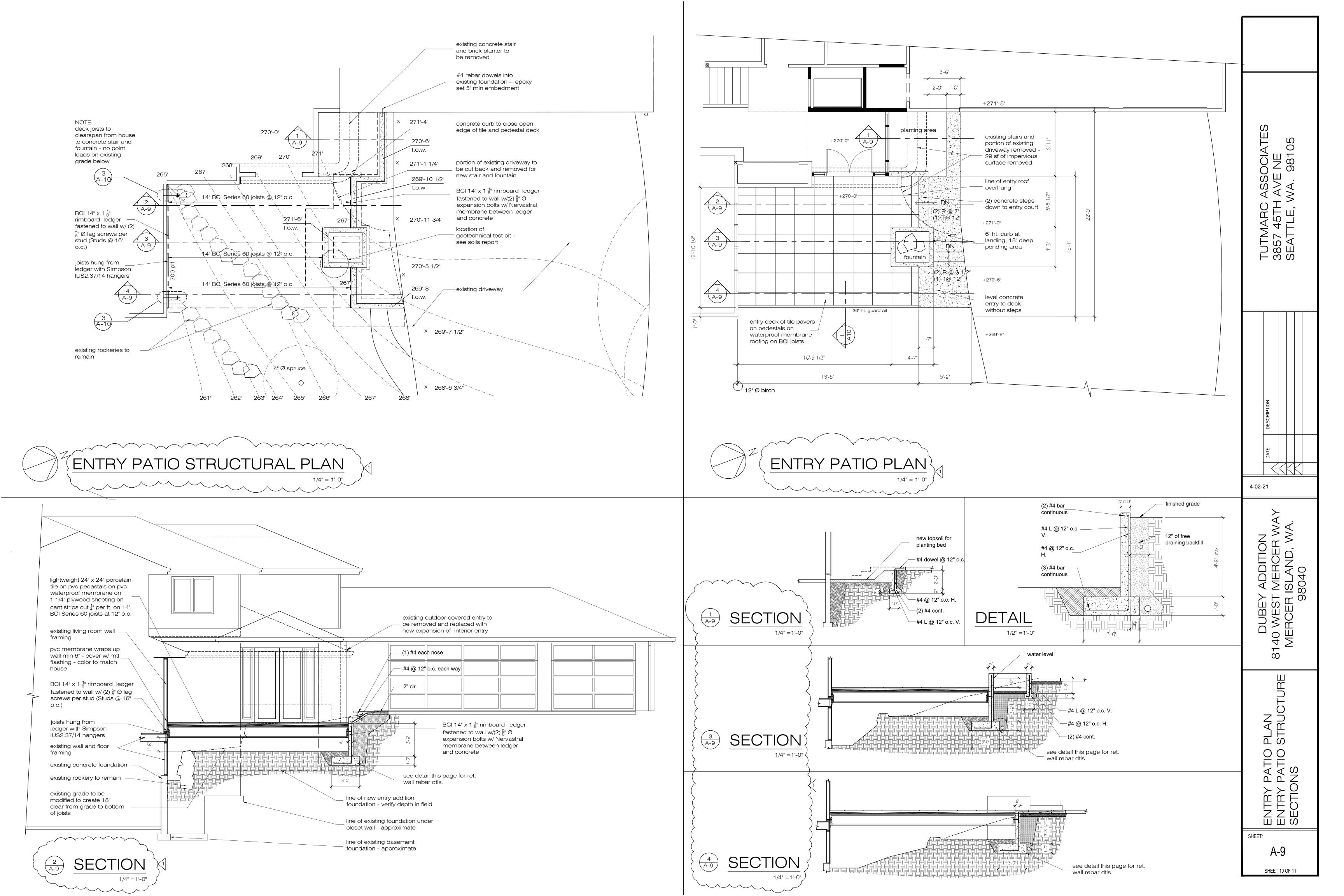


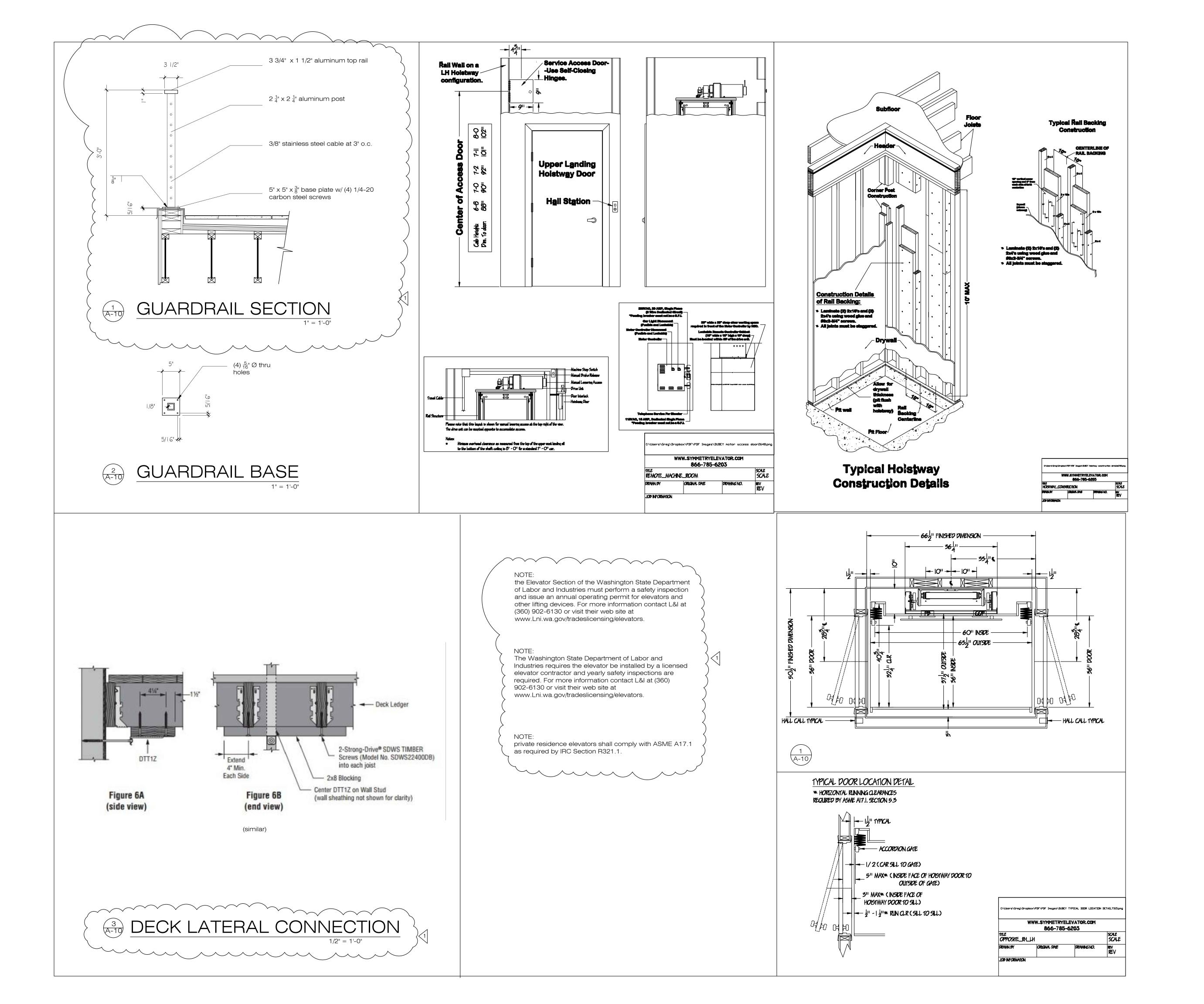
TUTMARC / 3857 45TH SEATTLE, V 4-02-21

ROOF FRAMING PL

SHEET:

SHEET 9 OF 11





TUTMARC 3857 45TH SEATTLE, \

DUBEY ADDITION 3140 WEST MERCER WA MERCER ISLAND, WA. 98040

DETAIL

GUARDRAIL

A-10

SHEET 11 OF 11

SHEET:

4-02-21

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

- I. <u>ALL MATERIALS, MORKMANSHIP, DESIGN, AND CONSTRUCTION</u> SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
- 2. THIS STRUCTURE DOES NOT CONFORM TO PRESENT EARTHQUAKE CODE REQUIREMENTS. IT HAS BEEN ANALYZED AND REINFORCED FOR MINIMUM MAINTENANCE IN ACCORDANCE WITH THE INTERNATIONAL EXISTING BUILDING CODE (IEBC) SECTIONS 402, 403 & 404 AND IS WITHIN THE CURRENT PRACTICE FOR THE RENOVATION OF EXISTING BUILDINGS OF THIS AGE AND TYPE OF CONSTRUCTION. THIS STRUCTURE HAS NOT BEEN ANALYZED OR DESIGNED FOR A COMPLETE SEISMIC UPGRADE.
- 3. <u>DESIGN LOADING CRITERIA</u>

ROOF SNOW LOAD		25 PSF
FLOOR LIVE LOAD (RESIDENTIAL)		40 PSF
FLOOR LIVE LOAD (RESIDENTIAL EXTERIOR DECKS AND	BALCONIES)	60 PSF
GUARDRAILS/BALCONY RAILS (ONE OR TWO UNIT DWELLI)	NG)	200 LBS
MECHANICAL UNITS	WEIGHTS FURNISHED BY	MANUFACTURER

SEE PLANS FOR ADDITIONAL LOADING CRITERIA

- 4. <u>STRUCTURAL</u> <u>DRAWINGS</u> SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 5. <u>CONTRACTOR</u> 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.
- 6. <u>CONTRACTOR</u> SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 7. <u>CONTRACTOR</u> SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR 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 OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 8. <u>CONTRACTOR-INITIATED</u> CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- . <u>DRAWINGS</u> INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.
- IO. <u>ALL STRUCTURAL SYSTEMS</u> WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- I. <u>SHOP DRAWING SUBMITTALS</u> PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.
- 12. MECHANICAL UNIT CONNECTIONS TO THE BUILDING SHALL BE DESIGNED BY THE MANUFACTURER FOR THE DESIGN CRITERIA AND CONDITIONS SHOWN ON THE STRUCTURAL DRAWINGS. MANUFACTURER SHALL SUBMIT DETAIL DRAWINGS AND CALCULATIONS, BOTH OF WHICH BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER. MANUFACTURER'S ENGINEER SHALL BE RESPONSIBLE FOR DESIGN, CODE CONFORMANCE, AND CONNECTION OF THE UNIT TO THE BASIC STRUCTURE. ALL NECESSARY BRACING, TIES, ANCHORAGE, DISTRIBUTION MEMBERS, AND SIMILAR ELEMENTS SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH SUBMITTED DRAWINGS AND CALCULATIONS.
- 13. SPECIAL INSPECTION: EXPANSION BOLTS AND THREADED EXPANSION INSERTS, AND EPOXY GROUTED, INSTALLATION SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

RENOVATION

- 15. <u>DEMOLITION</u>: 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. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. 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.
 - A. ALL NEW OPENINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
 - B. VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.
 - C. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE.
 - D. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, REBAR DOWELS EPOXIED INTO THE EXISTING CONCRETE SHALL BE PROVIDED TO MATCH HORIZONTAL REINFORCING, UNLESS OTHERWISE NOTED ON PLANS.
- 16. <u>CHECK FOR DRYROT</u> AT ALL EXTERIOR WALLS, EXISTING TOILET ROOM FLOORS AND WALLS, AREAS SHOWING WATER STAINS, AND ALL WOOD MEMBERS IN BASEMENT AND CRAWL SPACES. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

17. <u>CONCRETE</u> SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI IIT. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 2,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-I/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED. EXCEPT FOR FOOTINGS AND SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4"

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT OF MERCER ISLAND FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C494 AND C618 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14 TABLE 19.3.3.1. ALL CONCRETE EXPOSED TO THE WEATHER AND SLABS-ON-GRADE SHALL OBTAIN A 28-DAY STRENGTH I'C OF 3,000 PSI IN ACCORDANCE WITH ACI 318 TABLE 19.3.2.1 AND IBC SECTION 1904.1. THIS INCREASE IN REQUIRED STRENGTH IS FOR DURABILITY ONLY (SPECIAL INSPECTION IS NOT REQUIRED). ALL CONCRETE TO RECEIVE A STEEL TROWELED FINISH SHALL NOT BE AIR-ENTRAINED.

18. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT SI), GRADE 60, fy = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS AS GRADE 40 SHALL HAVE fy = 40,000 PSI. REINFORCING STEEL COMPLYING WITH ASTM A615 (SI) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. DI.4 ARE SUBMITTED.

LONGITUDINAL REINFORCING STEEL IN DUCTILE FRAME MEMBERS SHALL COMPLY WITH ASTM A706. ASTM A615 GRADE 60 REINFORCING STEEL IS ALLOWED IN THESE MEMBERS IF (A) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND (B) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.

19. <u>REINFORCING STEEL</u> SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 60 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 60 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS. PROVIDE (2) #5 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-6" PAST CORNERS, TYPICAL.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE "WET-SET" INTO THE CONCRETE.

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

BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL FEBRUARY 15, 2021. BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL FEBRUARY 15, 2021. BASED ON LETTER JN-21018 BY TIMES AND OTHER UNFORMED SURFACES CAST AGAINST EARTH GEOTECHNICAL FEBRUARY 15, 2021.

14. <u>FOUNDATION NOTES:</u> ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THERLIGHT MUCT BE VERIFIED IN THE FIELD. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUND THE PERSON

FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) 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. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE.

THE STRUCTURAL DESIGN IS BASED ON THE FOLLOWING ASSUMED VALUES:

ALLOWABLE SOIL PRESSURE

PASSIVE SOIL PRESSURE

SOIL COEFFICIENT OF FRICTION

O.35

SOIL DENSITY

2000 psf

1,500 PSF

250

0.5

120 PCF

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

WALL THICKNESS VERTICAL BARS HORIZONTAL BARS

8" WALLS #4 @ 16" (I CURTAIN) #4 @ 12" (I CURTAIN)

<u>ANCHORAGE</u>

- 22. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3037 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- 23. <u>EPOXY-GROUTED ITEMS</u> (THREADED RODS OR REINFORCING BAR) INTO CONCRETE SHALL BE INSTALLED USING "SET-3G" ADHESIVE ANCHOR AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-4057, INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

STEE

- 24. <u>STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION</u> SHALL BE BASED ON THE LATEST EDITIONS OF THE A.I.S.C. SPECIFICATIONS AND CODES:
 - A. AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION

 B. CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
 - D. CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
 - C. RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS.
- 25. <u>STRUCTURAL STEEL</u>, WIDE FLANGE (W AND WT) SHAPES SHALL CONFORM TO ASTM A992, Fy = 50 KSI; ALL OTHER ROLLED SHAPES SHALL CONFORM TO ASTM A36, Fy = 36 KSI. STEEL PLATE SHALL CONFORM TO ASTM A36, Fy = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, Fy = 46 KSI.
- 26. <u>ALL A325 CONNECTION BOLTS</u> SHALL BE INSTALLED TO THE SNUG-TIGHT CONDITION PER RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436 OR ASTM F959 TYPE 325. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED.

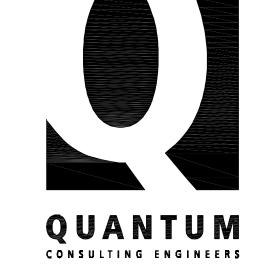
MOOD

27. <u>FRAMING LUMBER:</u> SHALL BE KILN DRIED OR MC-19 (MOISTURE CONTENT LESS THAN 19%), AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS (2X, 3X, AND 4X MEMBERS)	DOUGLAS FIR NO. 2
BEAMS AND STRINGERS (INCLUDING 6 X AND LARGER MEMBERS)	DOUGLAS FIR NO. 1
POSTS AND TIMBERS	DOUGLAS FIR NO. 1
STUDS, PLATES & MISCELLANEOUS LIGHT FRAMING (AS NOTED ON PLANS / DETAILS)	DOUGLAS FIR NO. 2

- 28. <u>GLUED LAMINATED MEMBERS</u> SHALL BE FABRICATED IN CONFORMANCE WITH ASTM D3737 AND ANSI AI90.I STANDARDS. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. CERTIFICATES OF CONFORMANCE MUST BE MADE AVAILABLE TO BUILDING INSPECTORS. CITY INSPECTION IS REQUIRED PRIOR TO COVERING GLUED LAMINATED MEMBERS. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 240 PSI, E = 1,800 KSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 5,000' RADIUS UNLESS SHOWN OTHERWISE ON THE PLANS.
- 29. MOOD SHEATHING SHALL BE APA RATED, EXTERIOR GLUE; EXPOSURE I, IN CONFORMANCE WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PS-I OR PS-2. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS

 UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. PROVIDE APPROVED PLYMOOD EDGE CLIPS CENTERED BETWEEN JOISTS AT
- PERPENDICULAR TO SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW I/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH (2) IOd-F NAILS AT EACH END, UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPACED PER PLANS. WHERE NOT NOTED OTHERWISE, NAIL PANEL EDGES WITH 8d NAILS @ 6" O.C. EDGES, I2" O.C. IN THE FIELD.
- 30. <u>ALL MOOD</u> EXPOSED TO MEATHER, OR BEARING ON UNPROTECTED CONCRETE BELOW GRADE, OR BEARING ON UNPROTECTED CONCRETE LESS THAN 8" FROM EXPOSED EARTH SHALL BE PRESSURE-TREATED, U.O.N. PRESSURE TREATMENT SHALL BE WITH AN APPROVED PRESERVATIVE AND BRANDED WITH A QUALITY CONTROL AGENCY MARK BY THE AMERICAN MOOD PRESERVERS BUREAU OR EQUAL. ALL METAL HARDWARE IN CONTACT WITH TREATED MOOD SHALL BE PROTECTED WITH A GI85 GALVANIZED COATING (ZMAX) OR BETTER. ALL NAILS IN TREATED MOOD SHALL BE HOT-DIP GALVANIZED OR BETTER. PROVIDE 2 LAYERS OF 30# ASPHALT IMPREGNATED BUILDING PAPER BETWEEN NON-PRESSURE-TREATED LEDGERS, BLOCKING, ETC., AND CONCRETE.
- 31. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL BOLTS TIGHTENED TO SNUG TIGHT.



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SHEET NOTES:

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GENERAL STRUCTURAL NOTES

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4/22/20

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

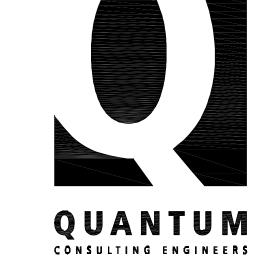
32. WOOD FASTENERS:

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

DRAWING ID	NAIL NAME	NAIL DIAMETER	NAIL LENG
"6d"	6d Common	0.113"	2"
"8d Box"	8d Box	0.113"	2-1/2"
"8d"	8d Common	0.131"	2-1/2"
"IOd-F"	10d Framer	0.131"	3"
"l0d"	10d Shear	0.148"	2-1/4"
"16d"	16d Sinker	0.148"	3-1/4"

- IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.
- B. <u>NAILS</u> SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.
- C. <u>SCREMS</u> SHALL BE MOOD SCREMS OF THE DIAMETER AND LENGTH NOTED ON THE DRAWINGS. SDS FASTENERS ARE SIMPSON STRONG DRIVE SCREMS.
- D. HOT DIPPED GALVANIZED NAILS, BOLTS AND METAL PLATES ALL NAILS, BOLTS AND METAL PLATES IN CONTACT WITH PRESSURE TREATED (INCLUDING FIRE-RETARDANT TREATED) LUMBER SHALL BE HOT DIPPED GALVANIZED.
- 33. WOOD FRAMING NOTES: THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:
 - A. ALL <u>MOOD FRAMING DETAILS</u> NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.IO.I. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS SNUGLY AGAINST WOOD FRAMING AFTER WOOD HAS REACHED SPECIFIED MOISTURE CONTENT.
 - B. <u>MALL FRAMING</u>: ALL BEARING WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2×4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2×6 @ 16" O.C. AT EXTERIOR WALLS, U.O.N ON PLANS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL BEARING AND SHEAR WALLS AND AT EACH SIDE OF ALL OPENINGS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW.
 - ALL BEARING STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 8" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS WITH 3"x3"x1/4" PLATE WASHERS @ 4'-O" O.C., UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH IOd-F NAILS @ 8" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES AND 15/32" APA RATED PLYWOOD ON EXTERIOR SURFACES ATTACHED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH SCREWS AT 8" O.C. USE I-I/4" W #6 SCREWS FOR I/2" GWB AND 5/8" GWB WHERE OCCURS. USE 8D NAILS FOR ATTACHING 15/32" APA EXTERIOR PLYWOOD SHEATHING, WHERE OCCURS. VERIFY THE FIRE ASSEMBLY REQUIREMENTS WHERE APPLICABLE WITH THE ARCHITECT.
 - C. 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 AT ALL BEARING POINTS. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH IOG-F NAILS @ 8" O.C. STAGGERED UNLESS OTHERWISE NOTED.
 - D. <u>POSITIVE</u> <u>CONNECTIONS</u>: PROVIDE THE FOLLOWING SIMPSON CONNECTORS AT TYPICAL FRAMING UNLESS OTHERWISE NOTED ON PLAN OR DETAIL. PROVIDE CCQ/ECCQ CAPS AND PBS BASES AT POSTS. PROVIDE BC BASE WHERE POST BEARS ON WOOD FRAMING BELOW. PROVIDE LUS SERIES HANGERS FOR 2X FLOOR AND ROOF JOISTS. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. All CONNECTORS EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH PRESSURE TREATED WOOD, SHAL BE HOT DIPPED GALVANIZED.

ABBREVIATIONS				
@	At	L	Angle	
<u>d</u>	Penny (Nails)	LL	Live Load	
φ	Diameter	LLH	Long Leg Horizontal	
		LLV	Long Leg Vertical	
A.B.	Anchor Bolt	LONGIT.	Longitudinal	
ADD'L	Additional	LT. MT.	Lightweight	
ALT.	Alternate	\		
APPROX.	Approximate	MATL.	Material	
ARCH.	Architect	MAX.	Maximum	
211	Post of	MECH.	Mechanical	
3.U.	Built-up	MEZZ	Mezzanine	
3/ ==	Bottom of Braced Frame	MF	Moment Frame	
BF BLKG.		MFR. MIN.	Manufacturer	
BLDG.	Blocking Building	MISC.	Minimum Miscellaneous	
3M.	Beam	MK.	Mark	
30T.	Bottom	1*IN.	Mark	
3RG.	Bearing	N.	North	
BTWN.	Between	N.S.	Near Side	
> 1 7 H V.	200110011	NIC	Not in Contract	
ī	Centerline	NO.	Number	
£	Camber	NOM.	Nominal	
CTOC	Center to Center	NTS	Not to Scale	
JP .	Cast In Place		1.00 00 0000	
	struction Joint or Control Joint	O.C.	On Center	
SLG.	Ceiling	O.D.	Outside Diameter	
CLR.	Clear	0.F.	Outside Face	
SMU	Concrete Masonry Unit	O.H.	Opposite Hand	
INTR.	Center	OPNG.	Opening	
COL.	Column	OPP.	Opposite	
CONC.	Concrete			
CONN.	Connections	PAF	Powder Actuated Fastener	
CONST.	Construction	PC	Precast	
CONT.	Continuous	PERM.	Permanent	
JP	Complete Joint Penetration	PERP.	Perpendicular	
SK.	Countersink	PL or P	Plate	
	223.00.3111	PLF	Pounds per linear Foot	
OBA.	Deformed Bar Anchor	PLYWD	Plymood	
OBL.	Double	PJP	Partial Joint Penetration	
DEG.	Degree	PREFAB.	Prefabricated	
DET.	Detail	PROJ.	Project	
DF	Doug Fir-Larch	PSF	Pounds per Square Foot	
NΑ.	_ Diameter	PSI	Pounds per Square Inch	
DIAG.	Diagonal	P.T.	Post-Tensioning	
NAPH.	Diaphragm	P/T	Pressure-Treated	
DIM.	Dimension			
ON.	Down	RAD.	Radius	
00	Ditto	REF.	Reference	
DMG.	Drawing	REINF.	Reinforce or Reinforcement	
· ›		REQD.	Required	
E)	Existing	REV.	Revise	
= 	East	R.O.	Rough Opening	
EA.	Each	_	Caulla	
≣.F. ≣L.	Each Face Elevation	S. SCH. or SCHE	South Schodula	
-L. ELEV.	Elevation	SECT.	ED. Schedule Section	
EMBED.	Embedment Length	SHT.	Sheet	
ENGR.	Engineer	SIM.	Similar	
E.W.	Each Way	506	Slab On Grade	
XP.	Expansion	SPEC.	Specification	
XT.	Exterior	SQ.	Square	
-,	_/	SQ. FT.	Square Feet	
FDN.	Foundation	SQ. IN.	Square Inch (inches)	
FIN.	Finish	STD.	Standard	
LR.	Floor	STIFF.	Stiffener Stiffener	
RP	Fiber Reinforced Polymer	STL.	Steel	
=.S.	Far Side	STR.	Structural	
.J. =T.	Foot or Feet	SUB.	Substitute	
TG.	Footing	SYM.	Symmetrical	
			<u> </u>	
5A.	Gauge	T/	Top of	
SALV.	Galvanized	T&B	Top and Bottom	
5L	Glue Laminated	T\$G	Tonque & Groove	
RD.	Grade	THRU	Through	
SMB	Gypsum Wall Board	TEMP.	Temporary	
	ار 	T.O.C.	Top of Concrete	
#F	Hem Fir	T.O.S.	Top of Steel	
IGR.	Hanger	T.O.M.	Top of Wall	
HORIZ.	Horizontal	TRANS.	Transverse	
155	Hollow Structural Section	TS	Tube Steel	
I T.	Height	TYP.	Typical	
	-		2.	
.D.	Inside Diameter	UON or UNO	Unless Otherwise Noted	
.F.	Inside Face			
N.	Inch	VERT.	Vertical	
NFO.	Information	VIF	Verify in Field	
NT.	Interior		•	
		M.	West	
lΤ.	Joint	W or w	Mith	
		MD	Wood	
SF	Kips per Square Foot	W.H.S.	Welded Headed Stud	
(SI	Kips per Square Inch	WO	Mithout	
	1 1 V	MP	Work Point	
		W.T.S.	Melded Threaded Stud	
		MME	Welded Wire Fabric	
			-	
		X SECT.	Cross Section	
		\/	– 1 – 2 ·	
		X-STR	Extra Strong	



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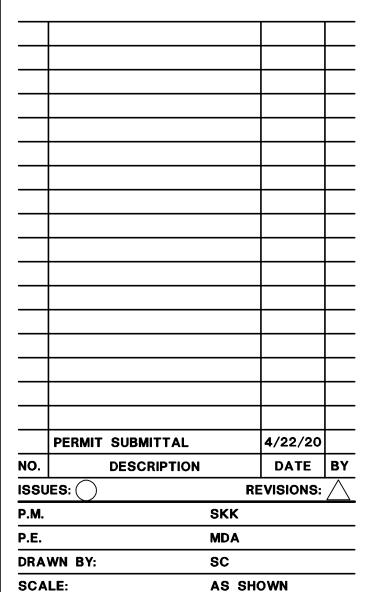


PROJECT:

DUBEY RESIDENCE

8140 WEST MERCER WAY MERCER ISLAND, WA 98040

SHEET NOTES:



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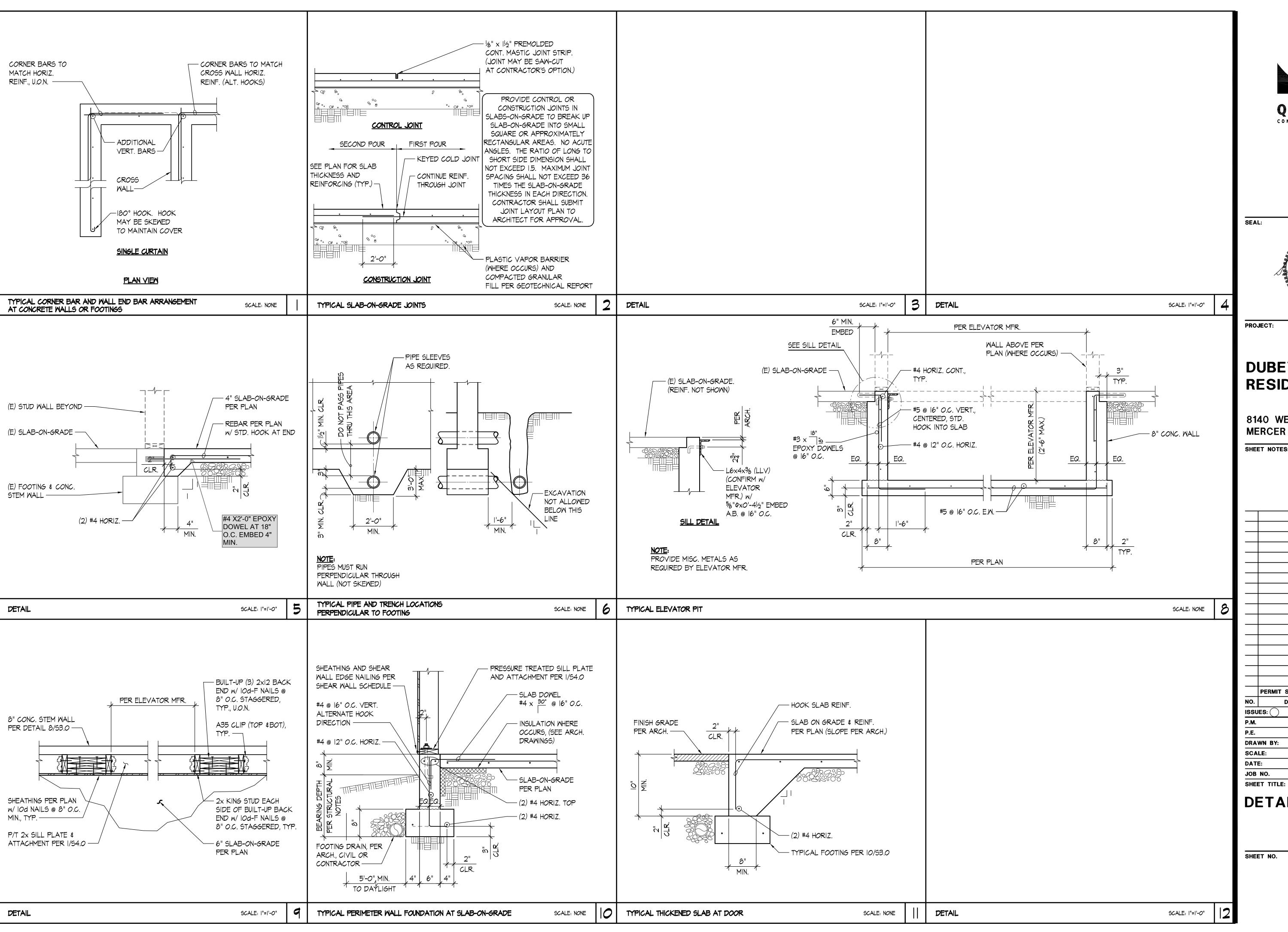
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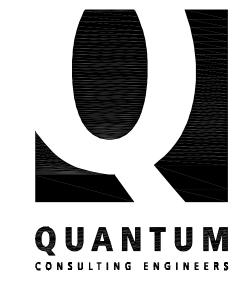
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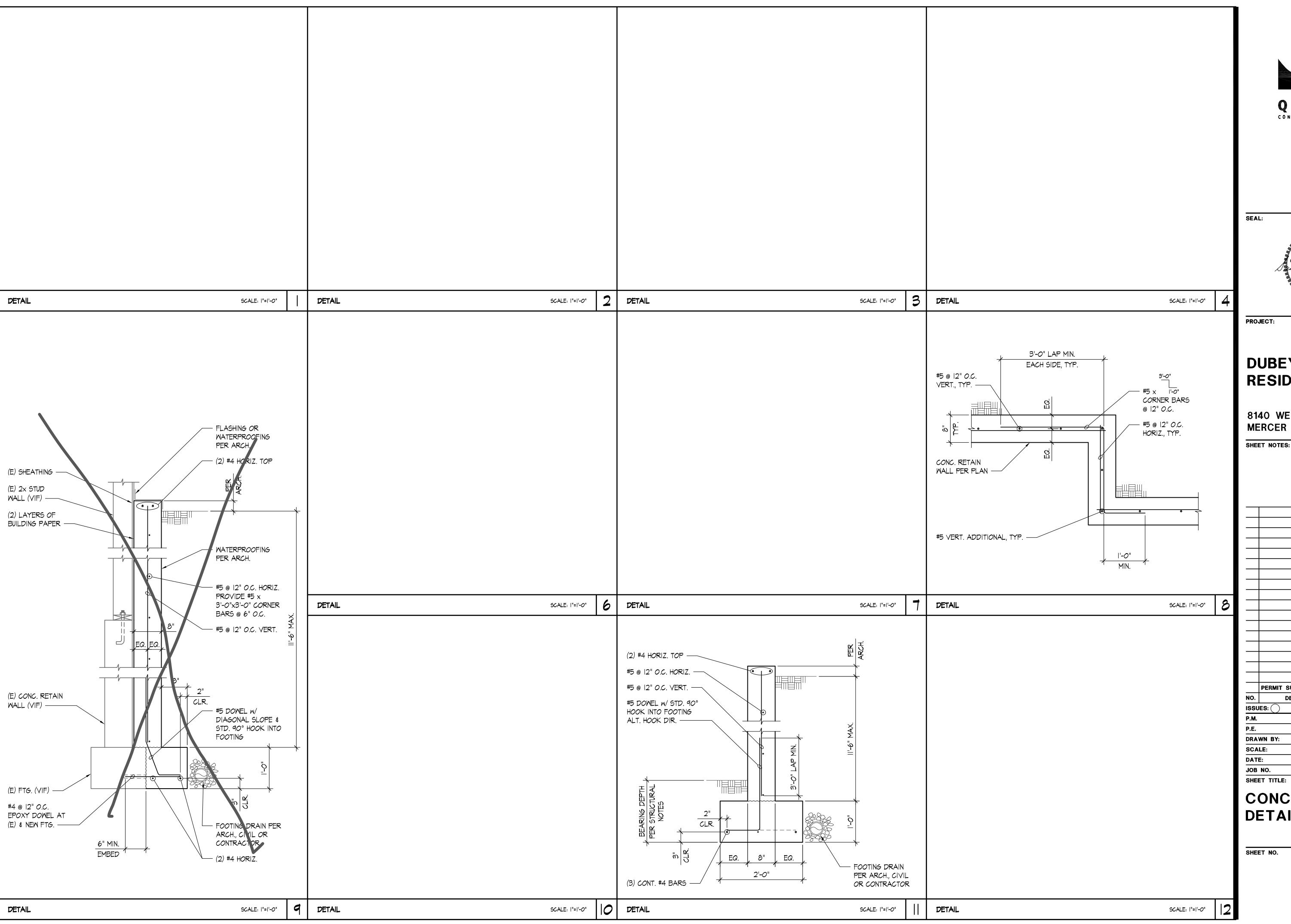
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DETAILS

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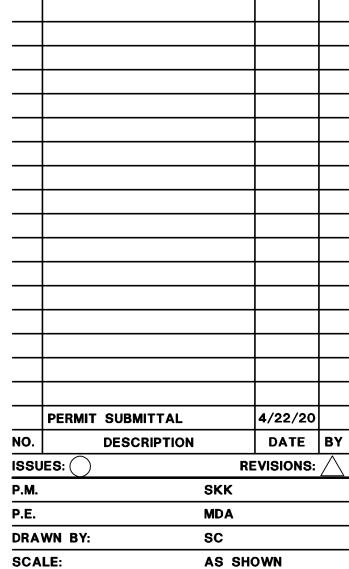


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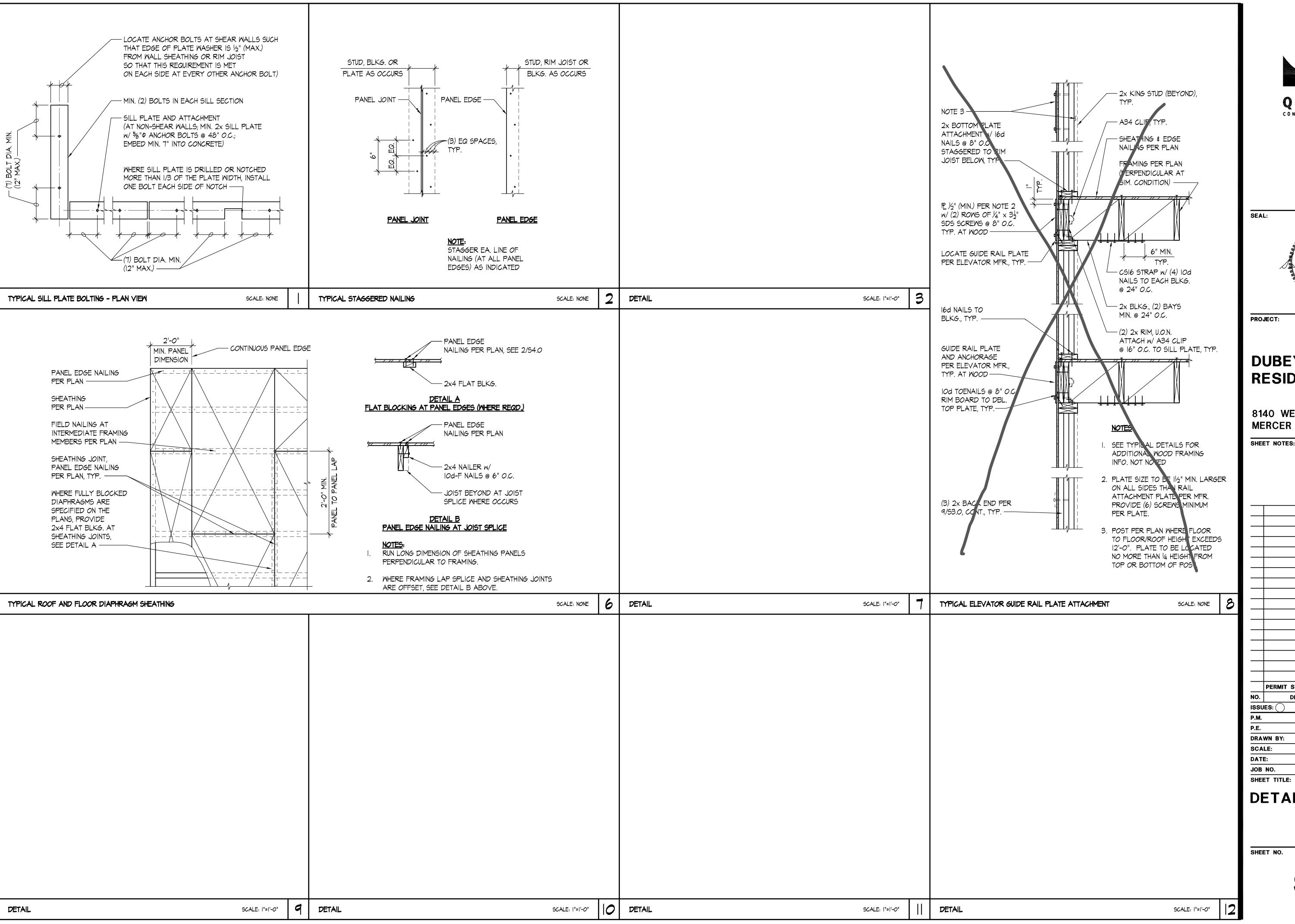


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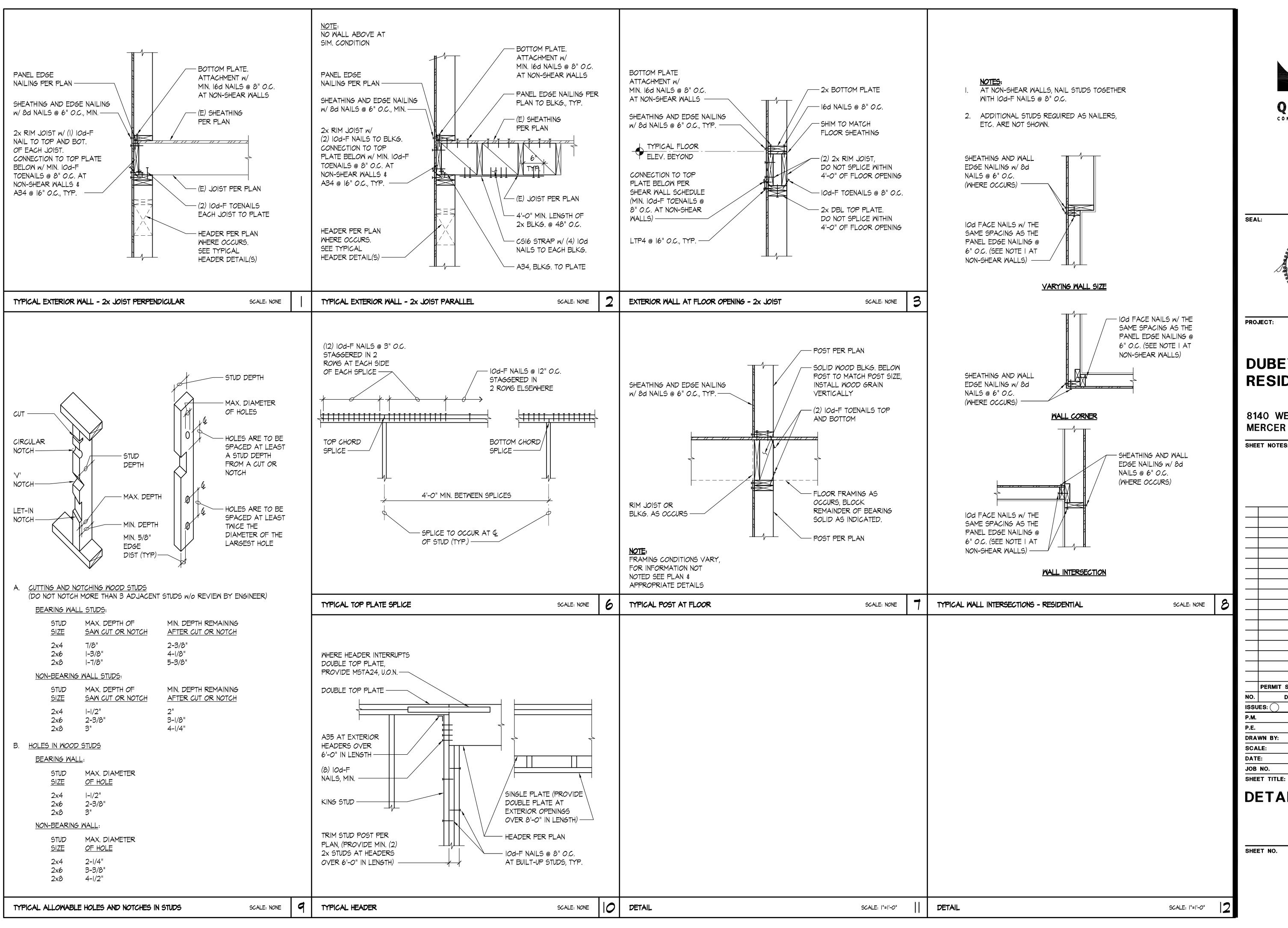
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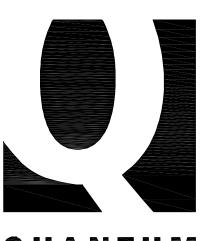
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DETAILS

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QUANTUM CONSULTING ENGINEERS 1511 THIRD AVENUE

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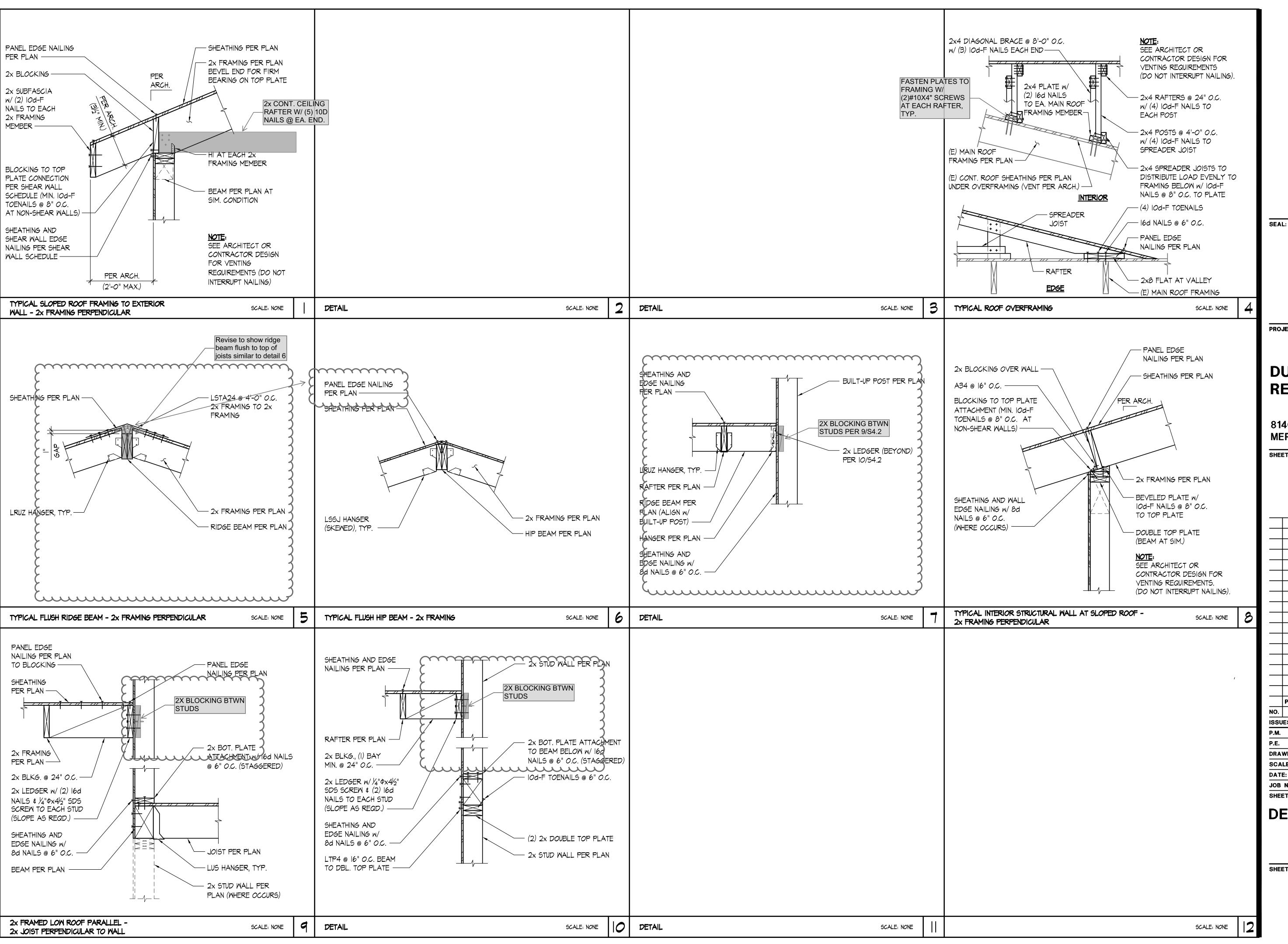
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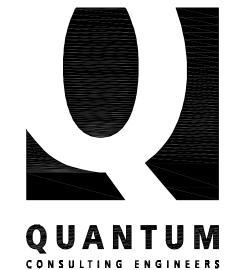
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