VICINITY MAP

CITY OF MERCER ISLAND

Chapter 19.02 RESIDENTIAL DEVELOPMENT REGULATIONS SUMMARY

ZONE: R-15

MIN. LOT SIZE: 15,000 Square Feet (SF) 90 Feet (FT) MIN. LOT WIDTH:

MIN. LOT DEPTH: 80 FT

MIN. FRONT YARD: 20 FT (10 FT for accessory structures per MICC

19.02.040) 25 FT

MIN. REAR YARD: MIN. SIDE YARD: Lot width is 100'; 17% or 17' is cumulative

required side yards; min. 5 FT.

MAX. LOT COVERAGE: Maximum Impervious Surface Limits for Lots; Sites with slopes between 15% to less than 30%

> maximum coverage = 35% $18,616 \times .35\% = 6,515 \text{ sf}$

MICC 19.02.020: 12,000 – or 40%: 18,616X.40 GROSS FLOOR AREA: = 7,446 (max gross floor area allowed)

5433 Proposed

MAX. NO. OF STORIES:

BUILDING HEIGHT: 30' from base elevation, 30' max downhill facade

MAX. PROJECTIONS INTO YARDS: 18 Inches

Land clearing, grading, filling, and foundation work are not permitted between October $\{1st \text{ and April } 1st \text{ on lots such as this one due to the geologic hazards (erosion, potential)} \}$ slide) per MICC 19.07.020. Any work that is proposed during the wet season must submit a Seasonal Development Limitation Waiver for approval by the Building Official.

ZONING INFO

8243 W. Mercer Way

OWNER

c/o Mei Young 11900 NE 1st Street, Suite 3083

Project Number: PRE-010 (Pre-application meeting project number).

OF PLATS, PAGE 44, IN KING COUNTY, WASHINGTON

EXCEPT THAT PORTION OF SAID TRACT 574 LYING NORTHEASTERLY OF A LINE PARALLEL WITH

WAY (HAVING A RIGHT ANGLE WIDTH OF 60 FEET), EXCEPT THE NORTHEASTERLY 150 FEET OF THE SOUTHEASTERLY 80 FEET THEREOF.

DESCRIPTION:

NEW SINGLE FAMILY HOME ON EXISTING VACANT LOT. EXISTING LOT IS APPROXIMATELY 18,616 SQUARE FEET AND THE PROPOSED SINGLE FAMILY HOME IS 3 LEVELS WITH APPROXIMATELY 5433 GROSS SQUARE FEET



GENERAL PROJECT INFO





CONCEPTUAL VIEW

PROPERTY ADDRESS

Mercer Island, WA 98040

HU WEN + LI CHINAN

Bellevue, WA 98005

CITY OF MERCER ISLAND PROJECT NUMBER:

TAX PARCEL NUMBERS:

3358500454

LEGAL DESCRIPTION:

TRACTS 498, 499, 500, 501 AND 574, C.D. HILLMAN'S SEA SHORE LAKE FRONT GARDEN OF EDEN

UPLANDS, LYING BETWEEN SAID TRACTS AND THE SHORELANDS ADJOINING;

2	DIRECTORY OF CONTACTS	

425.214.7348

(Principal)

206.443.9790

425.881.5904

(Project Manager)

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STRUCTURAL ENGINEER

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Washington Tree Experts

e-mail: wtetree@yahoo.com

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tel: 206-362-3380

Snohomish, WA 98296

000.000.0000

Bellevue, WA 98004

Todd Phillips

P.O.Box 108

SURVEYOR

Danny Slager

ARBORIST

Jennifer Wells

Terrane

Milton, WA 98354

tel: 425.233.6088

OWNER

c/o Mei Young

ARCHITECT

Peter Bocek

Michael Shreve

617 8th Ave S

e-mail:

e-mail:

PB Architects Inc., P.S.

Seattle, WA 98104

CIVIL ENGINEER

191 NE Tari Lane

Nick Bossoff Engineering, Inc.

Stevenson, WA 98648-4201

Nick Bossoff

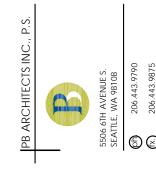
HU WEN + LI CHINAN

Bellevue, WA 98005

11900 NE 1st Street, Suite 3083

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DRAWING INDEX







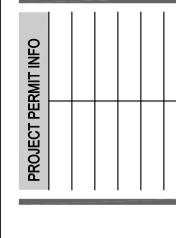








PF0		PROJECT	PROJECT RELEASE			PROJECT R	14
	DATE	DESCRIPTION	DATE	DESCRIPTION		DATE	
	15SEPT17 PRELIM	PRELIM				12JUL2019 SI	S
	12MAR2018	12MAR2018 PRE-APP REVIEW			\bigvee	2 180CT2019 SI	S
	30MAY2018	30MAY2018 90% REVIEW			\leq		
	12JUL2019	12JUL2019 SUBMITTAL REVISIONS			lacksquare		
	180CT2019	18OCT2019 SUBMITTAL REVISIONS			<u> </u>		



- 1. BUILDING CODE: INTERNATIONAL RESIDENTIAL CODE (IRC) 2015. ALL WORK SHALL COMPLY WITH THE APPLICABLE CODES FOR CITY, COUNTY, AND STATE.
- 2. UNDER SEPARATE PERMIT:
- MECHANICALPLUMBING
- ELECTRICAL
- 3. SPECIAL INSPECTIONS:PER CITY REQUIREMENTS
- PER GEOTECHNICAL REPORT REQUIREMENTS
- PER STRUCTURAL REQUIREMENTS.
 THE CONSTRUCTION DOCUMENTS, OF WHICH THESE DRAWINGS ARE A PART OF, ARE CONCEPTUAL IN NATURE. THEY
 SCHEMATICALLY 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 OF
 RECORD. THE CONSTRUCTION DOCUMENTS ARE NOT INTENDED TO BE A COMPLETE SET OF INSTRUCTIONS ON HOW
- TO CONSTRUCT THE BUILDING.

 5. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR ACCURACY OF THE ENGINEERING DATA SUPPLIED BY OTHERS.

 6. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS AMONG ALL DRAWINGS PRIOR TO
- CONSTRUCTION. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED LENGTHS AND HEIGHTS.

 7. IN THE EVENT OF DISCREPANCIES OR CONTRADICTORY INFORMATION ON THE DRAWINGS OR IN THE NOTES OR IN THE
- 7. IN THE EVENT OF DISCREPANCIES OR CONTRADICTORY INFORMATION ON THE DRAWINGS OR IN THE NOTES OR IN THE SPECIFICATIONS OR ANY OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS, IT IS THE OBLIGATION OF THE CONTRACTOR TO NOTIFY THE ARCHITECT OF THE DISCREPANCIES AND TO OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK.
- ALL CONTRACT DOCUMENTS ARE TO BE CONSIDERED AND INTERPRETED FOR BIDDING AND CONSTRUCTION PURPOSES
 AS A COMPLETE WHOLE. NO PART OF THE CONTRACT DOCUMENTS SHALL BE DISTRIBUTED, CONSIDERED OR USED IN
 ANY WAY INDEPENDENT OF THE COMPLETE SET OF DOCUMENTS.
- 9. THE ARCHITECT SHALL HAVE FINAL AUTHORITY WITH REGARDS TO INTERPRETATION OF THE INTENT AND SPIRIT OF THE CONTRACT DOCUMENTS.
- 10. WHEN USED IN THESE DOCUMENTS, THE TERM "ALIGN" MEANS TO ACCURATELY CONSTRUCT SO THAT THE FINISHED SURFACES ARE IN THE SAME PLANE. THE TERM "TYPICAL", ABBREVIATED "TYP.", MEANS THAT THE CONDITION IS REPRESENTATIVE OF OTHER CONDITIONS ON THE PROJECT. THE TERM "SIMILAR", ABBREVIATED "SIM.", MEANS THAT THE CONDITION IS COMPARABLE TO THE CONDITION REFERENCED. SEE THE PLANS, ELEVATIONS, AND SECTIONS FOR ACTUAL DIMENSIONS, LOCATION AND ORIENTATION. THE TERM "PROVIDE" MEANS TO SUPPLY, INSTALL, AND FINISH A PRODUCT OR MATERIAL IN ITS ENTIRETY. THE TERM "SUBMIT" MEANS TO SUBMIT ITEM FOR REVIEW AND APPROVAL PRIOR TO ORDERING, MANUFACTURING, OR INSTALLING THAT ITEM.
- 11. THE CONTRACTOR SHALL CONSIDER THE GEOTECHNICAL REPORT (WHERE APPLICABLE) AS A PART OF THE CONTRACT DOCUMENTS AND SHALL REVIEW AND FOLLOW ALL RECOMMENDATIONS AND REQUIREMENTS SET FORTH IN THE REPORT. IN THE EVENT THAT THERE ARE CONFLICTING REQUIREMENTS BETWEEN THE GEOTECHNICAL REPORT AND THE PLANS, DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING AND AWAIT THE ARCHITECT'S DIRECTION PRIOR TO PROCEEDING WITH THE WORK. ARCHITECTS ASSUMES NO RESPONSIBILITY AS TO WHAT THE PHYSICAL PROPERTIES AND CHARACTERISTICS OF THE SOILS ARE ON THE SITE. THIS ARCHITECT ASSUMES THAT ALL INFORMATION PROVIDED BY OTHER PROFESSIONALS IS CORRECT AND ACCURATE.
- A. COVER WITH PLASTIC, CUT SLOPES AND SOIL STOCKPILES DURING WET WEATHER.
 B. CONTRACTOR TO MONITOR ADJACENT STRUCTURES DURING CONSTRUCTION TO DETECT SOIL MOVEMENTS.
 C. WHERE REQUIRED THE GEOTECH ENGINEER SHALL PROVIDE GEOTECHNICAL CONSULTATION, TESTING, AND OBSERVATION SERVICES DURING CONSTRUCTION. GEOTECH IS CONTRACTED WITH OWNER AND OWNER IS
- RESPONSIBLE FOR PAYMENT OF GEOTECH'S FEES.

 D. IF SOILS ARE FOUND TO BE OTHER THAN INDICATED IN THE GEOTECHNICAL REPORT OR ASSUMED CONDITIONS NOTIFY THE ARCHITECT, GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION DEDESIGN
- REDESIGN.

 E. SILT FENCING, TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES, TREE PROTECTION FENCING AND STEEP SLOPE/SENSITIVE AREA PROTECTION FENCING PER LOCAL STANDARDS. CONTRACTOR SHALL MAINTAIN EROSION CONTROL SYSTEM FOR DURATION OF CONSTRUCTION.
- F. CLEARING AND GRUBBING, AS REQUIRED PER SITE PLAN. SELECTIVE PROTECTION OF EXISTING SIGNIFICANT TREES, PER OWNER. COORDINATE WITH OWNER PRIOR TO CLEARING AND GRUBBING. PROTECT EXISTING TREES DURING THE COURSE OF CONSTRUCTION.
- G. PROVIDE EXCAVATION, FREE-DRAINING BACKFILL AND FILL MATERIALS AS REQUIRED. BACKFILL SUB-GRADE TO 12" BELOW FINISH GRADE UNLESS NOTED OTHERWISE. ALL STRUCTURAL BACKFILL SHALL BE IMPORTED, UNLESS OTHERWISE ALLOWED BY GEOTECH ENGINEER.
- H. EXCAVATION BASED ON DRAWINGS. NOTE ANY REQUIRED OVER-EXCAVATION REQUIRED FOR STANDARD HOUSE FOUNDATION WALLS/FOOTINGS PER THE SOILS REPORT, DEPTHS FOR OVER-EXCAVATION BASED ON SOILS REPORT ROPING FINDINGS
- 12. THE CONTRACTOR SHALL ASSUME THAT THE SAME FINISH MATERIAL SHALL BE USED FOR ALL SURROUNDING, ABUTTING, AND ADJOINING SURFACES FOR AREAS AND ITEMS NOTED ON THE DRAWINGS, INCLUDING BUT NOT LIMITED TO THE INTERIOR ELEVATIONS AND DETAILS, UNLESS NOTED OTHERWISE. AT NO TIME SHALL THE CONTRACTOR CONSIDER, BID OR INSTALL A DIFFERENT MATERIAL OR A MATERIAL OF LESSER QUALITY OR TYPE THAN THAT WHICH IS INDICATED ON THE DRAWINGS, SPECIFICATION SHEET OR THE PROJECT MANUAL. IN THE EVENT THAT THERE ARE CONFLICTING REQUIREMENTS OR QUESTIONS RELATING TO THE SPECIFIC MATERIALS TO BE USED OR THE INTERFACE WITH ADJOINING MATERIALS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING AND AWAIT THE ARCHITECT'S DIRECTION PRIOR TO BIDDING AND PROCEEDING WITH THE WORK.
- 13. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED TO PERFORM THE WORK.
- 14. CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION, AS WELL AS ALL SAFETY PRECAUTIONS. THE CONTRACTOR SHALL COMPLY WITH ALL O.S.H.A. AND W.I.S.H.A. HEALTH AND SAFETY STANDARDS.
 THE CONTRACTOR SHALL MAKE AVAILABLE THE JOB SITE, THE BUILDING UNDER CONSTRUCTION, AND ALL RELATED
- STRUCTURES AND AREAS TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD AND THE OWNER OR THEIR ASSIGNED REPRESENTATIVES AT ALL TIMES DURING THE NORMAL AND ACCEPTED WORK DAY.

 17. THE CONTRACTOR SHALL COORDINATE ALL SUB-CONTRACTORS AND WORK FOR THE PROJECT IN SUCH A METHOD AS
- AND TO MEET ALL THE REQUIREMENTS OF THESE DOCUMENTS AND APPLICABLE CODES.

 18. ALL DIMENSIONS ARE TO FACE OF STUDS OR CONCRETE UNLESS INDICATED OTHERWISE ON THE PLANS. WINDOWS

TO ALLOW CONSISTENT AND REASONABLE PROGRESS TOWARDS COMPLETION OF THE PROJECT IN A TIMELY MANNER

- AND DOORS ARE DIMENSIONED TO THE CENTER OF THE OPENING UNLESS NOTED OTHERWISE.

 19. SITE DRAINAGE SHALL CONFORM TO ALL LOCAL REGULATIONS, CODES AND ORDINANCES AND TO APPLICABLE IBC/IRC CODES. ALL ROOF DRAINS, FOUNDATION DRAINS AND SITE DRAINAGE SYSTEMS TO BE TIGHT-LINED UNDERGROUND TO THE MUNICIPAL STORM SEWER OR AN APPROVED STORM WATER COLLECTION SYSTEM WHEN MUNICIPAL STORM SEWERS ARE NOT AVAILABLE OR WHEN LOCAL REGULATIONS REQUIRE. DO NOT CONNECT THE ROOF DRAINS OR OTHER SITE DRAINAGE SYSTEMS TO THE FOUNDATION AND RETAINING WALL PERIMETER FOOTING DRAINS. FINISH GRADING TO HAVE A POSITIVE SLOPE AWAY FROM THE BUILDING AND SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10'-0". ALL SITE HARD SURFACES TO HAVE A MINIMUM SLOPE TO DRAINAGE SYSTEMS OF 1/4" PER FOOT FOR ASPHALT
- AND 1/8"PER FOOT FOR CONCRETE UNLESS NOTED OTHERWISE ON THE PLANS.

 20. PROVIDE CONTINUOUS 6" ROUND RIGID PERFORATED PERIMETER FOOTING DRAIN IN GRAVEL FILL WITH FILTER FABRIC WRAP AT THE EXTERIOR FACE OF ALL FOUNDATION WALL FOOTINGS. LOCATE THE BOTTOM OF THE DRAINPIPE AT THE LOWEST POINT OF WALL FOOTING AND INSTALL PER THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND THE PLANS AND DRAWINGS. IN THE EVENT THAT THERE ARE CONFLICTING REQUIREMENTS IN THE GEOTECHNICAL REPORT AND THESE DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING AND AWAIT THE ARCHITECT'S DIRECTION PRIOR TO PROCEEDING WITH THE WORK. AS A MINIMUM, ALL WORK SHALL CONFORM TO APPLICABLE IBC/IRC CODES. PROVIDE CAPPED 4" CLEANOUT RISERS TO DAYLIGHT AT FINISHED GRADE AS REQUIRED BY LOCAL MUNICIPAL REGULATIONS AND CODE. WHEN LOCAL REGULATIONS DO NOT DICTATE CLEANOUT REQUIREMENTS, PROVIDE CLEANOUTS AT REGULAR INTERVALS, BUT DO NOT EXCEED 180 DEGREES OF BENDS BETWEEN CLEANOUTS. TIGHT-LINE ALL THE PERIMETER DRAINS TO THE MUNICIPAL STORM SEWER SYSTEM OR TO AN APPROVED DISCHARGE WHEN STORM SEWERS ARE NOT AVAILABLE OR WHEN LOCAL REGULATIONS REQUIRE SEE GENERAL NOTE #16. DO NOT CONNECT THE PERIMETER DRAIN OR PERIMETER DRAIN TIGHT LINE TO ANY OTHER DRAINAGE TIGHT LINES OR
- 21. CONNECT ALL DOWNSPOUTS AND ROOF DRAINAGE LINES TO A 6" ROUND RIGID ROOF DRAIN TIGHT-LINE. CONNECT THE TIGHT-LINE TO THE MUNICIPAL STORM SEWER SYSTEM OR TO AN APPROVED DISCHARGE WHEN STORM SEWERS ARE NOT AVAILABLE OR WHEN LOCAL REGULATIONS REQUIRE- SEE GENERAL NOTE #16. PROVIDE CAPPED RISERS AT ALL DOWNSPOUTS AND ROOF DRAINAGE LINES. SEE THE DRAWINGS FOR DOWNSPOUT (DS) LOCATIONS. DO NOT INTERCONNECT THE ROOF DRAINAGE TIGHT-LINE WITH ANY OTHER DRAINAGE TIGHT LINES OR SITE DRAINAGE SYSTEMS.
- 22. PROVIDE A 6" THICK LAYER OF COMPACTED GRAVEL FILL, SUCH AS CRUSHED ROCK, UNDER ALL INTERIOR CONCRETE SLAB-ON-GRADE FLOORS. PROVIDE A 6 MIL VAPOR RETARDER OVER THE GRAVEL FILL. PROTECT THE VAPOR RETARDER FROM PERFORATION AND DAMAGE. PROVIDE A 4" THICK LAYER OF COMPACTED GRAVEL FILL UNDER ALL EXTERIOR CONCRETE SLABS WHERE MOTOR VEHICLES ARE NOT NORMALLY PARKED OR DRIVEN ON. FOR MOTOR COURTS, DRIVEWAYS, VEHICLE PARKING AREAS AND ALL OTHER EXTERIOR CONCRETE SLABS WHERE MOTOR VEHICLES MAY BE USED, PROVIDE A 6" THICK LAYER OF COMPACTED GRAVEL FILL UNDER THE CONCRETE SLAB.

- 23. APPROVED GRAVEL FILL CONSISTS OF WASHED, CLEAN, FREE DRAINING GRAVEL RANGING FROM 1/4" TO 3/4" IN SIZE, UNLESS NOTED OTHERWISE IN GEOTECHNICAL REPORT.
- 24. APPLY WATERPROOFING TO THE EXTERIOR OF ALL CONCRETE FOUNDATION WALLS FROM TOP OF FOOTING TO FINISH GRADE. UNLESS NOTED OTHERWISE, WATERPROOFING SHALL BE "GREYWALL", MANUFACTURED BY RUBBER POLYMER CORPORATION OR FOLIAL
- 25. ALL EXTERIOR FRAME WALLS TO BE 2X6 STUDS AT 16" O.C. PER THE STRUCTURAL NOTES OF THESE DOCUMENTS, UNI ESS NOTED OTHERWISE
- 26. WOOD FRAMED FLOOR SYSTEMS THAT SPAN OVER CRAWL SPACES, UNEXCAVATED AREAS, OR OTHER AREAS OF EXPOSED GROUND WITHIN THE PERIPHERY OF THE BUILDING FOUNDATION SHALL MAINTAIN THE FOLLOWING MINIMUM CLEARANCES FROM THE BOTTOM OF THE WOOD MEMBER TO THE GROUND: JOISTS- 18" CLEAR; BEAMS OR GIRDERS-13" CLEAR
- 27. EXTERIOR WOOD FRAMED TRELLISES AND OTHER WOOD FRAMED STRUCTURES EXPOSED TO WEATHER SHALL BE CONSTRUCTED OF CEDAR, REDWOOD, OR PRESSURE TREATED (P.T.) LUMBER. P.T. LUMBER TO CONFORM TO CURRENT AMERICAN WOOD PRESERVERS INSTITUTE STANDARDS. THIS INCLUDES ALL PLYWOOD, TRUSSES, SAWN MEMBERS, GLUE-LAMINATED MEMBERS, ETC., UNLESS NOTED OTHERWISE. ALL NAILS AND CONNECTORS SHALL BE HEAVY COAT GALVANIZED. CUT ENDS OF P.T. MEMBERS TO BE PAINTED WITH AN APPROVED PRESERVATIVE PER AWPA SPECIFICATION M-4.
- 28. WOOD IN DIRECT CONTACT WITH CONCRETE TO BE PRESSURE TREATED (P.T.). PRESSURE TREAT WITH .25#/CF PENTACHLOROPHENOL PER CURRENT AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARDS. PAINT OR DIP, WITH AN APPROVED PRESERVATIVE, ALL CUT ENDS OR FACES OF P.T. MEMBERS THAT ARE IN DIRECT CONTACT WITH CONCRETE OR EXPOSED TO WEATHER PER AWPA SPECIFICATION M-4. THIS REQUIREMENT INCLUDES ALL CRAWL SPACE POSTS THAT ARE CONNECTED TO THEIR FOOTINGS WITH POST BASES.
- 29. PROVIDE FIREBLOCKING IN CONCEALED SPACES OF WALLS INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS VERTICALLY AT THE CEILING AND FLOOR LEVEL AND AT 10'-0" O.C. INTERVALS HORIZONTALLY. FIREBLOCK BETWEEN ALL INTERCONNECTIONS OF CONCEALED VERTICAL AND HORIZONTAL SPACES. FIREBLOCK IN OPENINGS AROUND VENTS, PIPES AND DUCTS AT CEILING AND FLOOR LEVELS WITH APPROVED MATERIALS. FIREBLOCK CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF RUN. FIREBLOCK ALL SPACES BETWEEN CHIMNEYS AND THE FLOORS AND CEILINGS THROUGH WHICH THE CHIMNEYS PASS WITH NONCOMBUSTIBLE MATERIAL FASTENED SECURELY IN PLACE. ALL MATERIALS USED FOR FIREBLOCKING SHALL CONFORM TO APPLICABLE IBC/IRC CODES.
- 30. PROVIDE A MINIMUM OF 1-HOUR OCCUPANCY SEPARATION BETWEEN THE HABITABLE SPACES OF THE HOUSE AND THE GARAGE. SUCH SEPARATION AT WALLS SHALL CONSIST OF ONE LAYER OF 5/8" THICK TYPE X GWB, TAPED AND FINISHED, ON THE GARAGE SIDE OF THE COMMON WALL TO EXTEND FROM THE TOP OF THE GARAGE CONCRETE SLAB OR FOUNDATION TO THE BOTTOM OF THE PROTECTED CEILING ASSEMBLY OR BOTTOM OF THE ROOF SHEATHING UNLESS NOTED OTHERWISE ON THESE DRAWINGS. SCREW GWB TO STUDS (@ 16" O.C.) WITH 1\4" TYPE W DRYWALL SCREWS SPACED@ 12" O.C.- STAGGER PANEL JOINTS. WALL ASSEMBLY SHALL MEET GYPSUM ASSOCIATION FILE #WP 3514 REQUIREMENT. THE PROTECTED CEILING ASSEMBLY SHALL CONSIST OF (2) LAYERS OF 5/8" THICK TYPE X GWB APPLIED PERPENDICULAR TO TRUSSES/FRAMING WITH ALL JOINTS BETWEEN LAYERS OFFSET 24". ATTACH BASE LAYER WITH 1-1/4" TYPE W OR S DRYWALL SCREWS @ 12" O.C.. ATTACH FACE LAYER WITH 1" TYPE S DRYWALL SCREWS @ 12" O.C. IN ADDITION, 1-1/2" TYPE G DRYWALL SCREWS SPACED 12" O.C. SHALL BE PLACED 2" BACK FROM EACH SIDE OF FACE LAYER END JOINT. CEILING ASSEMBLY SHALL MEET GYPSUM ASSOCIATION FILE #FC 5406. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS AND CEILINGS OF THE GARAGE THAT SEPARATE THE GARAGE FROM THE DWELLING UNIT SHALL BE CONSTRUCTED OF A MINIMUM OF 26 GAGE SHEET METAL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE GARAGE.
- 31. PROVIDE A MINIMUM 1-HOUR OCCUPANCY SEPARATION ON ALL WALLS AND CEILINGS IN SPACES UNDERNEATH STAIRWAYS. SUCH SEPARATION TO CONSIST OF5/8" TYPE X GWB, TAPED AND FINISHED, ON THE UNDER-STAIR SIDE OF THE WALLS AND CEILINGS. STUDS TO BE A MAXIMUM OF 16" O.C.. SCREW GWB TO STUDS (@ 16" O.C.) WITH 1V." TYPE W DRYWALL SCREWS SPACED@ 12" O.C. STAGGER PANEL JOINTS. WALL ASSEMBLY SHALL CONFORM TO THE
- REQUIREMENTS OF THE GYPSUM ASSOCIATION FILE #WP 3514.

 32. PROVIDE A 20-MINUTE RATED DOOR WITH WEATHER-STRIPPING AND SMOKE SEALED THRESHOLD BETWEEN THE HABITABLE SPACES OF THE HOUSE AND THE GARAGE.
- 33. IN BASEMENTS, GARAGES, MECHANICAL ROOMS OR OTHER AREAS SUSCEPTIBLE TO MOISTURE INTRUSION, HOLD G.W.B. A MINIMUM OF 34" OFF OF CONCRETE SLABS ON GRADE OR FINISHED FLOORS.
- 34. ALL UNDER FLOOR AREAS WITHIN THE PERIPHERY OF THE FOUNDATION SHALL BE ACCESSIBLE BY AN UNOBSTRUCTED MINIMUM CLEAR OPENING OF 18" X 24".
- 35. PROVIDE A MINIMUM OF 22" X 30" UNOBSTRUCTED ACCESS TO ALL ATTICS OF ROOF AREAS WITH A NET CLEAR HEIGHT OF 30" OR GREATER FROM THE TOP OF THE CEILING JOIST TO THE BOTTOM OF THE RAFTERS.
- THE EXTERIOR FOUNDATION WALLS. SUCH OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER FLOOR AREA. OPENINGS WILL HAVE AN APPROVED INSECT SCREEN THAT THE LEAST DIMENSION DOES NOT EXCEED 1/4" AND ONE OPENING SHALL BE LOCATED WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.

36. UN-CONDITIONED UNDER-FLOOR AREAS TO BE VENTILATED BY AN APPROVED MECHANICAL MEANS OR BY OPENINGS IN

- 37. PROVIDE ATTIC VENTILATION OF 1/150 OF ATTIC AREA IF ALL VENTILATION IS LOCATED AT THE SOFFIT- OR- 1/300 OF ATTIC AREA IF 1/2 OF THE REQUIRED VENTILATION IS LOCATED AT THE SOFFIT AND 1/2 IS LOCATED A MINIMUM OF 3'-0" ABOVE THE SOFFIT VENTILATION OR WHERE THERE IS A CONTINUOUS PYA OR POLY FILM VAPOR BARRIER AT THE WARM SIDE OF THE CEILING. SEE ALSO ROOF PLANS AS APPLICABLE FOR ADDITIONAL CALCULATIONS AND
- 38. APPLICATION AND INSTALLATION OF INSULATION AND VAPOR BARRIERS SHALL COMPLY WITH STATE OF WASHINGTON THERMAL INSULATION STANDARDS.
- 39. ALL LOW SLOPE ROOF AND WATERPROOF DECK AREAS TO HAVE A MINIMUM ROOF SLOPE OF 1/4" PER FOOT. PROVIDE 2X WOOD SLEEPERS AT LOW SIDE OF LOW SLOPE ROOFS AND WATERPROOF DECKS TO FORM CRICKETS TO SLOPE THE ROOF TO DRAIN AS REQUIRED. ALL CRICKET "VALLEYS" TO HAVE A MINIMUM SLOPE OF 1/8" PER FOOT. PROVIDE A CONTINUOUS 3 1/2" HIGH 45 DEGREE WOOD CANT STRIP AT THE INTERSECTION OF ALL HORIZONTAL TO VERTICAL PLANES ON LOW SLOPE ROOFS AND WATERPROOF DECKS HAVING SINGLE PLY MEMBRANE ROOFING, INCLUDING BUT
- NOT LIMITED TO PARAPET WALLS, BUILDING WALLS, ETC.

 40. THE ROOFING INSTALLER MUST BE APPROVED BY THE ROOFING PRODUCT MANUFACTURER AND THE ARCHITECT. INSTALL ROOF ONLY WHEN SATISFACTORY CONDITIONS PREVAIL. APPLY NO ROOFING WHEN MOISTURE IN ANY FORM IS PRESENT. INSTALL ROOFING PER MANUFACTURER'S INSTRUCTIONS, RECOMMENDATIONS AND SPECIFICATIONS. FLASH AND COUNTER FLASH ALL ROOF PENETRATIONS. ROOFING MATERIALS, FLASHING AND INSTALLATION TO CONFORM TO APPLICABLE IBC/IRC CODES.
- 41. PLUMBING RISERS AND VENTS ARE NOT SHOWN IN THE CONSTRUCTION DOCUMENTS FOR CLARITY. PROVIDE PLUMBING ROOF JACKS AND SLEEVES AS REQUIRED PRIOR TO INSTALLING THE ROOFING MATERIAL. ALL ROOF JACKS AND SLEEVES TO BE APPROVED BY THE ROOFING MANUFACTURER PRIOR TO INSTALLATION, WITH LOCATIONS APPROVED BY THE ARCHITECT PRIOR TO PLUMBING WORK COMMENCING.
- 42. PROVIDE ROOF DRAINS (R.D.) WITH DOWN SPOUTS (D.S.) WHERE INDICATED ON THE PLAN. ALL ROOF DRAINS IN LOW SLOPE ("FLAT") ROOF AND WATERPROOF DECK AREAS WHERE A ROOFING MEMBRANE IS SPECIFIED TO BE INSTALLED SHALL BE CAST IRON AND APPROVED BY THE ROOFING MANUFACTURER AND ARCHITECT FOR USE WITH THE SPECIFIED MEMBRANE PRODUCT. INSTALL PER ROOFING MANUFACTURER'S SPECIFICATIONS. WHEN INDICATED ON THE PLANS, PROVIDE AN OVERFLOW DRAIN (O.D.) HAVING THE SAME SIZE AS THE ADJACENT ROOF DRAIN. THE OVERFLOW DRAIN INLET SHALL BE LOCATED 2" ABOVE THE LOW POINT OF THE ROOF. WHERE AN OVERFLOW DRAIN DAYLIGHTS, EXTEND THE OVERFLOW DRAIN PIPE 1/2" BEYOND THE FACE OF THE FINISHED SIDING/CLADDING AND SEAL AROUND PIPE. WHEN APPLICABLE, PAINT THE EXPOSED OVERFLOW PIPE TO MATCH THE COLOR OF THE SURROUNDING SIDING/CLADDING SURFACE. WHERE AN OVERFLOW DRAIN TERMINATES AT A SOFFIT, PROVIDE AN OFFSET IN THE DRAIN PIPE TO PREVENT SEEING UP THROUGH THE PIPE FROM BELOW. WHEN NO OVERFLOW DRAIN IS INDICATED, THERE SHALL BE A THRU-WALL OVERFLOW SCUPPER OUTLET HAVING AN OPENING AREA THREE TIMES THE SIZE OF THE ROOF DRAIN, AND A MINIMUM OPENING HEIGHT OF 4". SEE THE PROJECT MANUAL FOR THE OVERFLOW SCUPPER METAL AND FINISH. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO FABRICATION AND INSTALLATION. DO NOT INTERCONNECT THE ROOF DRAINS TO THE FOUNDATION DRAINS. CONNECT ALL ROOF DRAINS TO THE APPROVED STORM SEWER OR DISCHARGE SYSTEM PER GENERAL NOTES #16 AND #18.
- 43. WHEN THRU-WALL ROOF DRAIN SCUPPERS ARE INDICATED ON THE DRAWINGS, PROVIDE CUSTOM METAL CONDUCTOR HEAD (C.H.) PER THE DRAWINGS, WITH INTEGRAL OVERFLOW OUTLETS AND CONNECT C.H. TO DOWNSPOUTS (D.S.). EACH THRU-WALL SCUPPER SHALL HAVE A MINIMUM OPENING AREA EQUALING THREE TIMES THE EQUIVALENT ROOF DRAIN PIPE OR DOWNSPOUT OPENING AREA REQUIRED FOR THE ROOF AREA IT SERVES, WITH A MINIMUM OPENING HEIGHT OF 4". ALL METAL THRU-WALL SCUPPER BOXES IN LOW SLOPE ("FLAT") ROOF AND WATERPROOF DECK AREAS WHERE A ROOFING MEMBRANE IS SPECIFIED TO BE INSTALLED SHALL BE APPROVED BY THE ROOFING MANUFACTURER AND ARCHITECT FOR USE WITH THE SPECIFIED MEMBRANE PRODUCT. INSTALL PER ROOFING MANUFACTURER'S SPECIFICATIONS. EACH CONDUCTOR HEAD SHALL BE PROVIDED WITH AN INTEGRAL OVERFLOW DRAIN OPENING. THE INLET FLOW LINE OF THE OVERFLOW OPENING SHALL BE LOCATED A MINIMUM OF2" ABOVE THE LOW POINT OF THE ADJACENT ROOF. DO NOT INTERCONNECT THE DOWNSPOUTS TO THE FOUNDATION DRAINS. CONNECT ALL DOWNSPOUTS TO THE APPROVED STORM SEWER OR DISCHARGE SYSTEM PER GENERAL NOTES #16 AND #18. SEE THE PROJECT MANUAL FOR MATERIAL AND FINISH OF ALL CONDUCTOR HEADS AND DOWNSPOUTS. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO FABRICATION AND INSTALLATION.

- 44. PROVIDE DOWN SPOUTS (D.S.) WHERE INDICATED ON THE PLANS AND DRAWINGS. ALL EXPOSED DOWN SPOUTS SHALL BE SMOOTH, UN-CORRUGATED 3" ROUND METAL, UNLESS NOTED OTHERWISE. METAL FINISH SHALL BE PER THE FINISH SCHEDULE AND SHALL MATCH METAL FINISH FOR THE BUILDING. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO INSTALLATION. VERIFY METAL COMPATIBILITY WITH GUTTERS AND CONDUCTOR HEADS PRIOR TO INSTALLATION, AND NOTIFY THE ARCHITECT IF INCOMPATIBILITIES EXIST. ATTACH THE DOWNSPOUT TO THE WALL WITH A "BLIND" (HIDDEN) STRAP. WHEN APPLICABLE, DOWN SPOUTS OR ROOF DRAIN PIPES WITHIN WALLS AND ROOF ASSEMBLIES SHALL BE 3" DIAMETER PVC PLASTIC PIPE INSTALLED WITH A MINIMUM OF BENDS AND DAY-LIGHTED BELOW FINISHED EXTERIOR GRADE TO AN APPROVED STORM DRAINAGE SYSTEM. INSULATE ALL ENCLOSED PVC PIPES WITH UN-FACED BATT INSULATION. ALL ROOF DRAIN PIPES NEXT TO OR OVER FINISHED INTERIOR SPACES TO BE SPRAY FOAM INSULATED OR CAST IRON PER THE HEATING AND PLUMBING NOTES. DO NOT INTERCONNECT THE DOWNSPOUTS TO THE FOUNDATION DRAINS. CONNECT ALL DOWNSPOUTS TO THE APPROVED STORM SEWER OR DISCHARGE SYSTEM PER GENERAL NOTES #16 AND #18.
- 45. UNLESS INDICATED OTHERWISE ON THE PLANS AND DRAWINGS, PROVIDE A CONTINUOUS 24 GAUGE HALF ROUND SHEET METAL GUTTER AT THE LOW EAVE SIDE OF ALL SLOPED ROOF AREAS. SEE THE FINISH SCHEDULE FOR THE GUTTER METAL AND FINISH. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO INSTALLATION.
- 46. PROVIDE SHEET METAL FLASHING AT ALL VALLEYS AND CHANGES IN ROOF PITCH. SEE THE FINISH SCHEDULE FOR THE FLASHING FINISH. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO INSTALLATION. ALL ROOFING AND BUILDING PAPER UNDERLAYMENT TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS, AND APPLICABLE IBC/IRC CODES.
- 47. PROVIDE A MINIMUM OF 24 GAUGE FLASHING AND COUNTER FLASHING AT ALL ROOF PENETRATIONS AND INTERSECTIONS OF ROOF PLANES TO VERTICAL SURFACES AND PARAPET CAPS (UNLESS NOTED OTHERWISE ON PLANS AND SPECIFICATIONS). ALL PARAPET CAPS SHALL HAVE STANDING SEAM JOINTS AND A POSITIVE SLOPE BACK ONTO THE ROOF. SEE THE FINISH SCHEDULE FOR THE METAL AND FINISH. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO INSTALLATION.
- 48. PROVIDE DRIP CAPS AND FLASHING AT ALL HORIZONTAL INTERRUPTIONS OF SIDING AND CHANGES FROM ONE SIDING MATERIAL TO ANOTHER. PROVIDE CONTINUOUS DRIP CAPS, WITH NO JOINTS OR SPLICES, OVER ALL DOOR AND WINDOW HEADS NOT PROTECTED BY AN OVERHANG WITHIN 6" OF THE HEAD (UNLESS NOTED OTHERWISE ON PLANS AND SPECIFICATION). SEE THE FINISH SCHEDULE FOR THE METAL AND FINISH. IF THE FINISH IS NOT SPECIFIED, APPROVAL OF THE PROPOSED FINISH BY THE ARCHITECT IS REQUIRED PRIOR TO INSTALLATION.
- 49. ALL FLASHING AND SHEET METAL WORK SHALL CONFORM TO THE MOST CURRENT EDITION OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) ARCHITECTURAL SHEET METAL MANUAL, UNLESS SPECIFIED OTHERWISE IN THE PROJECT MANUAL (WHERE PROVIDED).
- 50. INSTALL SILL, JAMB AND HEAD FLASHING PAPER AROUND ALL WALL PENETRATIONS. CONTRACTOR TO SUBMIT FLASHING PAPER TO THE ARCHITECT FOR APPROVAL PRIOR TO PROCEEDING WITH THE WORK. INSTALL FLASHING PAPER PER MANUFACTURER'S SPECIFICATIONS AND AS DETAILED IN THESE DOCUMENTS. IN THE EVENT THAT THERE ARE DISCREPANCIES OR CONTRADICTORY REQUIREMENTS OR INFORMATION BETWEEN THE MANUFACTURER'S SPECIFICATIONS AND THESE DOCUMENTS, IT IS THE OBLIGATION OF THE CONTRACTOR TO NOTIFY THE ARCHITECT OF THE DISCREPANCIES IN WRITING AND TO OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. INSTALL A WATER RESISTANT BARRIER ON ALL WALL SURFACES. WATER RESISTANT BARRIER FOR ALL CEMENT PLASTER STUCCO OR E.I.F.S. SYSTEMS SHALL BE TWO (2) LAYERS OF 60-MINUTE GRADE D PAPER- STAGGER ALL HORIZONTAL AND VERTICAL JOINTS BETWEEN SUCCESSIVE LAYERS. WATER RESISTANT BARRIERS FOR ALL OTHER SIDING MATERIALS TO BE TYPE #30 ASPHALT. SATURATED FELT OR #30 BITUMINOUS IMPREGNATED BUILDING PAPER UNLESS NOTED OTHERWISE IN THESE DOCUMENTS. NO SUBSTITUTIONS WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT. INSTALL ALL WATER RESISTANT BARRIERS IN SHINGLE FASHION - APPLIED HORIZONTALLY WITH EACH SUCCEEDING LAYER LAPPING THE ONE BELOW BY 4" MINIMUM. END LAPS TO BE 9" MINIMUM AND STAGGERED BETWEEN COURSES. WATER RESISTANT BARRIERS TO BE CONTINUOUS AROUND ALL INSIDE AND OUTSIDE COMERS, ANGLES AND BEHIND CONTROL JOINTS. CUT THE WATER RESISTANT BARRIER WITH A SHARP KNIFE AND FIT TIGHTLY AROUND ALL PENETRATIONS. REMOVE ALL WRINKLES IN FLASHING PAPER AND WATER RESISTANT BARRIERS. INSPECT FLASHING PAPER AND WATER RESISTANT BARRIERS FOR HOLES OR TEARS. REPLACE SECTIONS WITH HOLES OR TEARS IN A SHINGLE FASHION FOLLOWING MINIMUM LAP GUIDELINES SET FORTH IN THESE DOCUMENTS PRIOR TO INSTALLING THE SIDING MATERIAL. DO NOT SEAL THE BASE OF THE WALL, DOOR OR WINDOW HEADS, OR AT OTHER HORIZONTAL INTERRUPTION OF SIDING WITH SEALANTS OR OTHERWISE BLOCK THE ESCAPE OF MOISTURE
- FROM BEHIND THE SIDING MATERIAL.

 51. ALL HINGED SHOWER DOORS SHALL OPEN OUTWARD AND SHALL NOT REQUIRE ANY SPECIAL KNOWLEDGE TO OPEN.

 52. ALL DOORS SHALL CONFORM TO THE MOST CURRENT EDITION OF THE ARCHITECTURAL WOODWORK INSTITUTE (AWI)
 QUALITY STANDARDS, CUSTOM GRADE, UNLESS SPECIFIED OTHERWISE IN THE PROJECT MANUAL. DOOR HARDWARE SHALL
 CONFORM TO THE DOOR AND HARDWARE INSTITUTE (DHI) STANDARDS, UNLESS SPECIFIED OTHERWISE IN THE PROJECT
 MANUAL. IN THE EVENT THAT THERE ARE CONFLICTING REQUIREMENTS IN AWI AND DHI STANDARDS, THE CONTRACTOR
 SHALL NOTIFY THE ARCHITECT IN WITH A BOLD AND EXAMELED AND RECEIVED ROOF OF THE WITH A BOLD AND A WITH A BOLD AND A
- 53. ALL NEW GLAZING SHALL COMPLY WITH APPLICABLE IBC/IRC CODES AND WASHINGTON STATE SAFETY GLASS LAW.
 54. GLAZING IN LOCATIONS SUBJECT TO HUMAN IMPACT SHALL BE WIRE REINFORCED, FULLY TEMPERED GLASS, LAMINATED SAFETY GLASS OR SHATTER RESISTANT PLASTIC. THE FOLLOWING AREAS SHALL BE CONSIDERED SPECIFIC HAZARDOUS AREAS SUBJECT TO HUMAN IMPACT: GLAZING IN ANY DOOR, FIXED PANEL OR OPERABLE PANEL. GLAZING IN DOORS OR ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, AND SHOWERS OR ANY BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE STANDING SURFACE OR DRAIN INLET. GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHEN THE NEAREST EDGE IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND THE BOTTOM OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE. GLAZING IN RAILINGS. GLAZING WHERE THE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR, THE EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SF., THE EXPOSED TOP EDGE IS GREATER THAN 36" ABOVE THE FLOOR, AND THERE IS ONE OR MORE WALKING SURFACES WITHIN 36" HORIZONTALLY OF THE PLANE OF GLAZING. GLAZING IN WALLS OR FENCES USED AS BARRIERS FOR INDOOR OR OUTDOOR SWIMMING POOLS. GLAZING AT STAIR LANDINGS OR WITHIN 5'-0" FROM THE TOP OR BOTTOM OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LOCATED LESS THAN 60" ABOVE A WALKING SURFACE.
- 55. UNLESS NOTED OTHERWISE IN THE DOCUMENTS, ALL EXTERIOR GLAZING SHALL BE DOUBLE-GLAZED AND COMPLY WITH THE

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 56. EGRESS SHALL BE PROVIDED FROM EACH SLEEPING ROOM. EGRESS WINDOWS SHALL BE PROVIDED WHERE DOORS WHICH
 OPEN DIRECTLY TO THE EXTERIOR FROM THE SLEEPING ROOM ARE NOT PROVIDED. EGRESS WINDOWS SHALL HAVE A
 MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24"; MIN. NET
 CLEAR OPENING WIDTH DIMENSION SHALL BE 20". THE FINISHED SILL HEIGHT SHALL NOT BE MORE THAN 44" ABOVE THE
 FLOOR
- 57. SITE BUILT SHOWER COMPARTMENTS SHALL BE PER PLANS AND DRAWINGS. ALL SHOWERS SHALL MEET THE MINIMUM REQUIREMENTS OF APPLICABLE IBC/IRC CODES, BUT MAY EXCEED THE MINIMUM REQUIREMENTS IF INDICATED SO ON PLANS AND DRAWINGS. TILE OR OTHER NON-ABSORBENT SURFACE MATERIAL SHALL BE INSTALLED IN ALL SHOWERS OR TUB/SHOWER COMBINATIONS AND SHALL EXTEND ABOVE THE DRAIN INLET PER THE INTERIOR ELEVATIONS AND PROJECT MANUAL, BUT AT NO TIME SHALL IT EXTEND LESS THAN 72" ABOVE THE DRAIN INLET. PROVIDE WATERPROOF SHOWER LINING AND RECEPTORS ON ALL SITE-BUILT SHOWER WALLS AND FLOORS PER APPLICABLE IBC/IRC CODES. PROVIDE A WATERPROOF VINYL SHOWER SUB-PAN MEMBRANE AT ALL TILE SHOWER FLOORS. PROVIDE AN APPROVED FLANGED DRAIN AT ALL SHOWER SUB-PANS AND LININGS. RUN THE WATERPROOF SHOWER SUB-PAN MEMBRANE OVER THE SHOWER DRAIN FLANGE AND SECURE WITH A CLAMPING RING OR OTHER DEVISE TO MAKE A WATER TIGHT CONNECTION BETWEEN THE SUB-PAN MEMBRANE AND THE DRAIN. INSTALL ALL WALL TILE OR OTHER NON-ABSORBENT SURFACE IN SHOWERS AND TUB/SHOWER COMBINATIONS OVER A WATERPROOF MEMBRANE APPLIED OVER CEMENTITIOUS BACKING BOARD. WATERPROOF MEMBRANE AND BACKER BOARD TO EXTEND THE FULL HEIGHT OF TILE OR NON-ABSORBENT MATERIAL. WATERPROOF MEMBRANES SHALL EXTEND OVER AND INTO ALL RECESSES, LEDGES, SILLS, CURBS, BENCHES AND OTHER ARCHITECTURAL FEATURES IN THE SHOWER OR TUB/SHOWER COMBINATION AREA. SLOPE ALL CURBS AND RECESSES TO DRAIN INTO THE SHOWER. THE CONTRACTOR SHALL CONFIRM THE COMPATIBILITY OF THE WATERPROOF SHOWER PAN MEMBRANE AND THE WATERPROOF WALL MEMBRANE. AFTER CONFIRMING THE COMPATIBILITY, THE CONTRACTOR SHALL SUBMIT BOTH MEMBRANES TO THE ARCHITECT FOR APPROVAL PRIOR TO PROCEEDING WITH THE WORK.
- 58. INSTALL ALL PREFABRICATED FIREPLACES, STOVES AND RELATED ASSEMBLIES IN ACCORDANCE WITH U.L. APPROVED MANUFACTURER'S SPECIFICATIONS AND APPLICABLE IBC/IRC CODES. DO NOT ALTER STRUCTURAL FRAMING MEMBERS TO ACCOMMODATE THESE INSTALLATIONS WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT AND THE STRUCTURAL ENGINEER OF RECORD. UNLESS SHOWN OTHERWISE, WHEN A FLUSH HEARTH IS INDICATED ON THE PLANS AND DRAWINGS IT IS THE DESIGN INTENT THAT THE FINISHED SURFACE OF THE PREFABRICATED FIREPLACE FIREBOX AND THE FINISHED FACE OF THE HEARTH ALIGN WITH THE FINISHED FLOOR SURFACE OF THE ROOM. THE GENERAL CONTRACTOR SHALL ADJUST THE FLOOR FRAMING ACCORDINGLY TO ACCOMMODATE THIS RELATIONSHIP AND SHALL VERIFY THE FRAMING REQUIREMENTS, INCLUDING BUT NOT LIMITED TO CLEARANCES TO COMBUSTIBLES, RECESSED FRAMING REQUIREMENTS, HEARTH REQUIREMENTS, ETC., FOR PREFABRICATED FIREPLACES WITH THE APPLIANCE MANUFACTURER PRIOR TO BEGINNING FRAMING. IN THE EVENT THAT THERE ARE CONFLICTING REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING AND AWAIT THE ARCHITECT'S DIRECTION PRIOR TO PROCEEDING WITH THE WORK. PROVIDE MANUFACTURER RECOMMENDED CLEARANCES FROM THE FIREPLACE TO ALL COMBUSTIBLES. ALL METAL CHIMNEYS TO BE STAINLESS STEEL UNLESS NOTED OTHERWISE IN THESE DOCUMENTS. ANCHOR ALL METAL CHIMNEYS AT EACH FLOOR AND ROOF WITH TWO 1-1/2" BY L/8" METAL STRAPS LOOPED AROUND THE OUTSIDE OF THE CHIMNEY INSTALLATION AND NAILED WITH NOT LESS THAN (6) 8D NAILS PER STRAP AT EACH JOIST. PROVIDE A NON-COMBUSTIBLE HEARTH AND FIREPLACE SURROUND FOR ALL PREFABRICATED FIREPLACES PER THESE DRAWINGS AND SPECIFICATIONS, HOWEVER, AT NO TIME SHALL THE HEARTH OR SURROUND BE LESS THAN THAT WHICH IS REQUIRED BY THE MANUFACTURER.
- SHALL THE HEARTH OR SURROUND BE LESS THAN THAT WHICH IS REQUIRED BY THE MANUFACTURER.

 59. PROVIDE A MINIMUM OF 2" CLEAR FROM FIREPLACES, SMOKE CHAMBERS AND CHIMNEYS TO ALL COMBUSTIBLES. SEE

 APPLICABLE MASCAURY FIREDIACE AND CHIMNEY NOTES FOR FURTHER REQUIREMENTS.
- APPLICABLE MASONRY FIREPLACE AND CHIMNEY NOTES FOR FURTHER REQUIREMENTS.

 60. ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR

- AREA, EXCEPT WHERE MECHANICAL VENTILATION AND ARTIFICIAL LIGHT IS PROVIDED. NATURAL VENTILATION SHALL BE THROUGH WINDOWS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOORS. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA, EXCEPT IN ROOMS SUPPLIED WITH MECHANICAL VENTILATION PRODUCING .35 AIR CHANGES PER HOUR OR SERVED BY A WHOLE HOUSE VENTILATION SYSTEM SUPPLYING L5 CFM OF OUTSIDE AIR PER OCCUPANT.
- 61. VENT ALL CLOTHES DRYERS, EXHAUST FANS, AND COOKTOP/RANGE-HOODS TO THE OUTSIDE. LOCATE ALL EXTERIOR BUILDING ENVELOP (WALLS, SOFFITS, ROOF, ETC.) PENETRATIONS BY VENTS PER THESE DRAWINGS. WHEN NOT INDICATED ON THE DRAWINGS, CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS TO THE ARCHITECT FOR APPROVAL PRIOR TO PROCEEDING WITH THE WORK. BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH A MECHANICAL VENTILATION SYSTEM CAPABLE OF PROVIDING 50 CFM FOR INTERMITTENT VENTILATION OR 20 CFM FOR CONTINUOUS VENTILATION. INTAKE OPENINGS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY HAZARDOUS OR NOXIOUS CONTAMINANT SUCH AS VENTS, CHIMNEYS, OR STREETS. EXHAUST OPENING SHALL BE LOCATED SO AS NOT TO CREATE A NUISANCE, AND NOT DIRECTED ONTO ANY WALKWAYS. EXHAUST FAN LOCATIONS INDICATED ON THE PLANS ARE SCHEMATIC. ALIGN ALL EXHAUST FANS WITH OTHER CEILING FIXTURES. SEE THE ELECTRICAL PLANS (WHERE APPLICABLE) OR ELECTRICAL CONTRACTOR FOR SCHEMATIC EXHAUST FAN LOCATIONS AND RELATIONSHIPS TO OTHER ELECTRICAL FIXTURES. SEE THE SPECIFICATIONS FOR EXHAUST FAN MANUFACTURER, CFM, AND MODEL NUMBERS AS REQUIRED BY THE WSEC.
- 62. PROVIDE SMOKE ALARMS AND DETECTORS AS REQUIRED BY IRC SECTION R313. INTERCONNECT ALL SMOKE, HEAT, CARBON MONOXIDE (CO) AND NATURAL GAS DETECTORS IN THE BUILDING IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS. WHEN NATURAL GAS FIRED MECHANICAL UNITS ARE SPECIFIED, PROVIDE A NATURAL GAS DETECTOR IN THE MECHANICAL ROOM IN ADDITION TO THE SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR. ALL DETECTORS SHALL BE 110V WITH BATTERY BACK-UP. SEE THE ARCHITECTURAL FLOOR PLANS FOR SCHEMATIC DETECTOR LOCATIONS. IN THE EVENT THAT THERE ARE CONFLICTING REQUIREMENTS FOR DETECTOR PLACEMENT OR ADDITIONAL DETECTORS ARE REQUIRED BY CODE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING AND AWAIT THE ARCHITECT'S DIRECTION PRIOR TO PROCEEDING WITH THE WORK. ALIGN ALL DETECTORS WITH OTHER CEILING FIXTURES. SEE THE ELECTRICAL PLANS (WHERE APPLICABLE) OR ELECTRICAL CONTRACTOR FOR THE PLACEMENT OF OTHER FIXTURES, AND FURTHER NOTES. S.D. INDICATES DETECTOR ON FLOOR PLANS.
- 63. PROVIDE GUARDRAILS PER THE PLANS AND DRAWINGS. ALL GUARDRAILS SHALL MEET THE MINIMUM REQUIREMENTS OF THE APPLICABLE IBC/IRC CODES, BUT MAY EXCEED THE MINIMUM REQUIREMENTS IF INDICATED SO ON PLANS AND DRAWINGS. GUARDRAILS NOT LESS THAN 36" IN HEIGHT SHALL BE PLACED AT THE OPEN SIDE OF ALL PORCHES, BALCONIES AND RAISED FLOOR AREAS, WHICH ARE MORE THAN 30 INCHES ABOVE GRADE OR FLOOR BELOW. OPEN SIDES OF STAIR WITH A TOTAL RISE OF MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 34" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. OPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL PATTERN, WHICH WILL NOT ALLOW A 4" INCH DIAMETER SPHERE TO PASS THROUGH. THE TRIANGULAR OPENINGS FORMED BY THE RISER/TREAD AND THE BOTTOM OF ELEMENT OF A GUARDRAIL AT THE OPEN SIDE OF A STAIR MAY BE OF SUCH SIZE THAT WILL NOT ALLOW A 6" DIAMETER SPHERE TO PASS THROUGH.
- ONE HANDRAIL SHALL BE PROVIDED AT EVERY STAIRWAY HAVING FOUR OR MORE RISERS. PROVIDE 2 HANDRAILS WHERE INDICATED ON PLANS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. THE TOP OF HANDRAILS SHALL BE PLACED ABOVE THE NOSING OF TREADS PER THE PLANS AND DRAWINGS, BUT NEVER LESS THAN 34" NOR MORE THAN 38". HANDRAILS ADJACENT TO WALLS SHALL HAVE A CLEAR SPACE OF NOT LESS THAN 1-1/2" BETWEEN THE WALL AND THE HANDRAIL. HANDGRIP PORTION OF HANDRAILS SHALL BE NOT LESS THAN 1-11/4" NOR MORE THAN 2" IN CROSS SECTIONAL DIMENSION, SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS, AND SHALL TERMINATE INTO WALLS OR NEWEL POSTS. STAIR RISER HEIGHT AND TREAD DEPTH SHALL BE PER THESE DOCUMENTS. BUT, IN NO CASE SHALL THE RISER HEIGHT EXCEED 7-3/4" NOR SHALL THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS EXCEED THE SMALLEST BY MORE THAN 3/8". IN NO CASE SHALL THE TREAD DEPTH BE LESS THAN 10" NOR SHALL THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS EXCEED THE SMALLEST BY MORE THAN 3/8". STAIR WIDTH SHALL BE PER THESE DOCUMENTS. BUT, IN NO CASE SHALL THE TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS EXCEED THE SMALLEST BY MORE THAN 3/8". STAIR WIDTH SHALL BE PER THESE DOCUMENTS. BUT, IN NO CASE SHALL THE STAIRWAY BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE PERMITTED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4-1/2" ON EITHER SIDE OF THE STAIRWAY, BUT THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL, INCLUDING TREADS & LANDINGS, SHALL NOT BE LESS THAN 31-1/2" WHEN A HANDRAIL IS INSTALLED ON ONE SIDE AND 27" WHEN HANDRAILS ARE INSTALLED ON NOTH SIDES.

A/C ADJ	AIR CONDITIONING ADJUSTABLE	GA GALV	GAUGE GALVANIZE(D)	REQ'D RM	REQUIRED ROOM
AFF	ABOVE FINISH FLOOR	GC	GENERAL CONTRACTOR	R.O.	ROUGH OPENING
APPR	APPROXIMATELY	GRND	GROUND	14.01	NOOGH OF ENITO
ASTM	AMERICAN SOCIETY FOR	GWB	GYPSUM WALL BOARD	S	SOUTH
	TESTING AND			SCHED	SCHEDULE
	MATERIALS	HDWD	HARDWOOD	SD	SMOKE DETECTOR
AWG	AMERICAN WIRE GAUGE	HORIZ	HORIZONTAL	SHT	SHEET
		HR	HOUR	SIM.	SIMILAR
BLDG	BUILDING	HT	HEIGHT	SKYLT	SKYLIGHT
BLK	BLOCK	HVAC	HEATING, VENTING AND	SOG	SLAB-ON-GRADE
B/S	BUILDING STANDARD		AIR CONDITIONING	SPEC	SPECIFICATION
				SQ	SQUARE
CLG	CEILING	I.D.	INSIDE DIA.	SS	STAINLESS STEEL
CLR	CLEAR	IN	INCH	STL.	STEEL
CONC	CONCRETE	INFO	INFORMATION	STRUC	STRUCTURAL
CONST	CONSTRUCTION	INSUL	INSULATION	SUSP.	SUSPENDED
CONT	CONTINUOUS	INT	INTERIOR	S.V.	SHEET VINYL
CO.	COMPANY	LD(C)	DOLIND(C)	S.W.	SIDEWALK
DDI	DOUBLE	LB(S)	POUND(S)	TUDU	TUDOLICU
DBL DIA., Ø	DOUBLE DIAMETER	MAX	MAXIMUM	THRU TNND	THROUGH TINNED
DIAG., Ø	DIAGONAL	MECH	MECHANICAL	T.O.C.	TOP OF CONCRETE
DIAG	DIMENSION	MTL	METAL	T.O.C. T.O.M.	TOP OF CONCRETE
DN	DOWN	MANUF	MANUFACTURER	T.O.IVI.	TUBE STEEL
DS	DOWNSPOUT	MGR	MANAGER	TYP	TYPICAL
DTL, DETL		MIN	MINIMUM		TITIONE
DWG	DRAWING	MISC	MISCELLANEOUS	UBC	UNIFORM BUILDING CODE
E	EAST	N	NORTH	UL	UNDERWRITERS LAB
EA.	EACH	NA	NOT APPLICABLE	UNO	UNLESS NOTED
EL, ELEV	ELEVATION	NIC	NOT IN CONTRACT	0110	OTHERWISE
ELECT	ELECTRICAL	NTS	NOT TO SCALE		OTTLERWIGE
EQ.	EQUAL			VERT	VERTICAL
EQUIP	EQUIPMENT	O.C.	ON CENTER	VIF	VERIFY IN FIELD
E.W	EACH WAY	OD	OUTSIDE DIAMETER	VT	VINYL TILE
EX.	EXISTING	OPG	OPENING		
EXT	EXTERIOR	OPP	OPPOSITE	W	WEST
				W/	WITH
FIN	FINISH	PLYWD	PLYWOOD	WDW	WINDOW
FLUoR	FLUORESCENT	PR	PAIR	W/O	WITHOUT
FLR	FLOOR	PROJ	PROJECT	W.P.	WORKING POINT
FT	FOOT	PROP	PROPERTY		
		PT	PRESSURE TREATED		

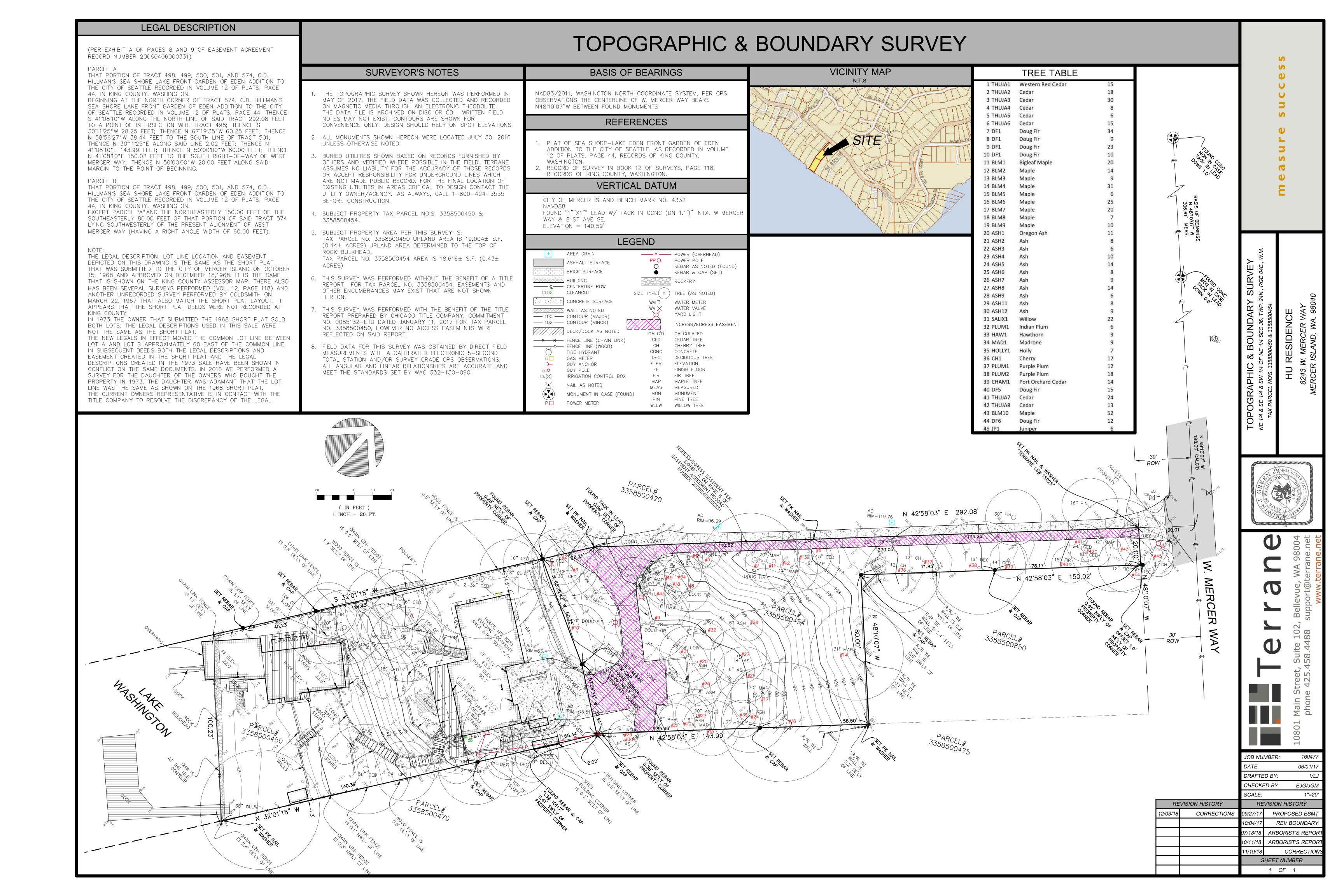
4	ANGLE	<u> </u>	REVISION	1 A-1.00	DETAIL REFERENCE
&	AND		KEY	2	ELEVATION
@	AT	9)—	NOTE	A-3.00	REFERENCE
Ę	CENTER LINE	XX# —	ASSEMBLY TYPE	A-5.00	SECTION REFERENCE
#	NUMBER	100	ROOM	(1)	GRID
ዊ	PROPERTY LINE	100	NUMBER		LABEL
SD	SMOKE DETECTOR	EXH	EXHAUST FAN	W01	EXT. OPENING TAG
SDCM	SMOKE/CARBON MONO DETECTOR	WH	WHOLE HOUSE FAN	D01	DOOR TAG

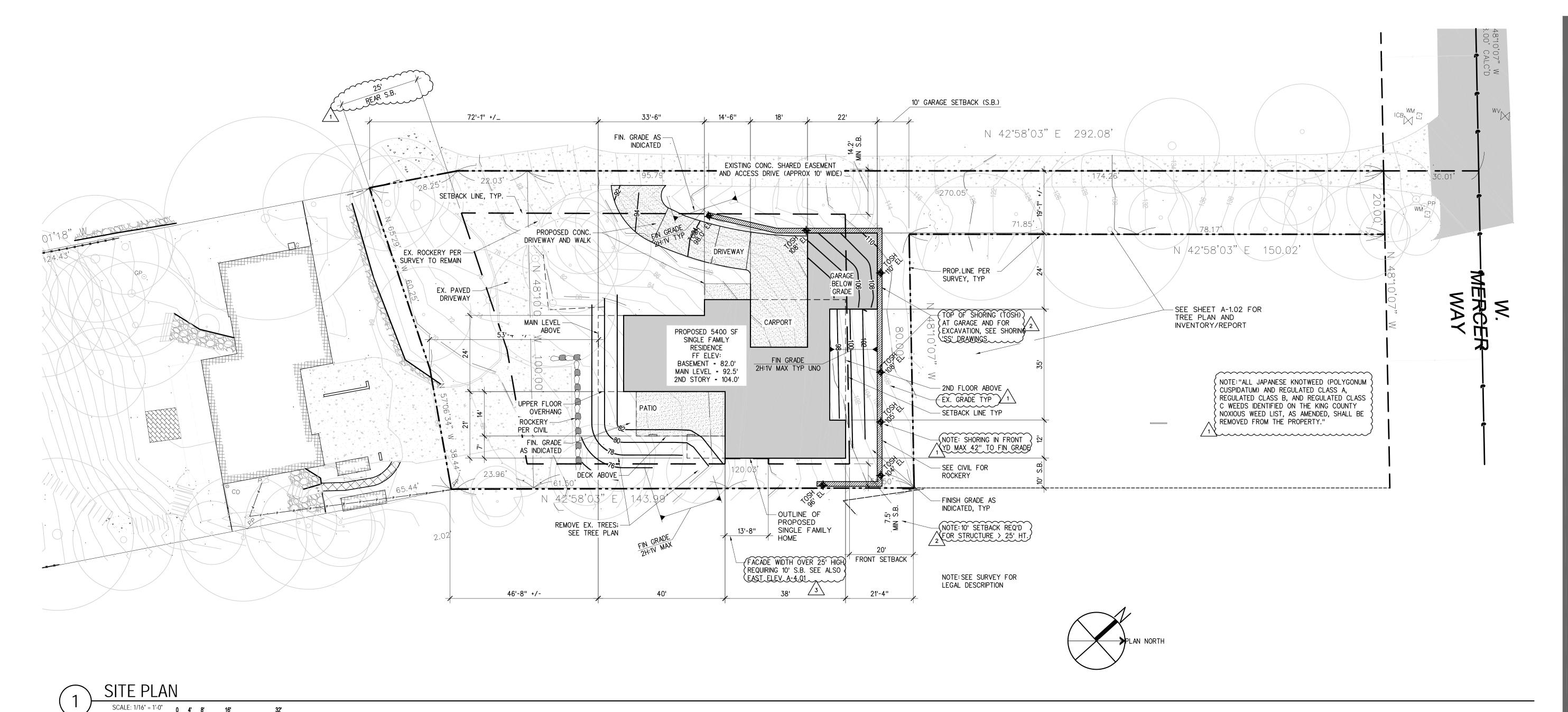
DEVINTIONS & SVMBOLS

FB ARCHITECTS INC., P.S.

SEGOR OF THE STATE STA

SITE DRAINAGE SYSTEMS.





TOTALS COMMENTS MIDPOINT ELEVATION wall segment length 1,812.0 24.0 81.9 25.5 2,088.5 86.4 5.0 432.0 88.2 14.5 1,278.9 89.3 15.0 1,339.5 18.0 1,641.6 91.2 96.0 15.0 1,440.0 99.2 h 5.0 496.0 NA-wall segment 0.0 0.0 below grade NA-wall segment 0.0 K 101.0 k 5.0 102.0 35.0 3,570.0

5.0

12.0

38.0

21.0 32.0

270.0

Average building Elevation (ABE) =

99.3

82.5

78.5

493.0

1,191.6

3,465.6

1,732.5

2,512.0

23,998.2

88.9 (23998.2/270.0)

AVERAGE BUILDING ELEVATION - SEE ALSO ELEVATIONS SHEETS A-4.01, A-4.02

LEGAL DESCRIPTION (SEE SURVEY)

(PER STATUTORY WARRANTY DEED UNDER RECORDING NUMBER 20170227001016) TAX PARCEL NUMBER 3358500454:

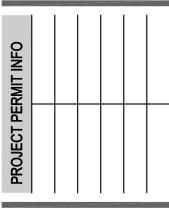
TRACTS 498, 499, 500, 501 AND 574, C.D. HILLMAN'S SEA SHORE LAKE FRONT GARDEN OF EDEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 44, IN KING COUNTY, WASHINGTON; EXCEPT THAT PORTION OF SAID TRACT 574 LYING NORTHEASTERLY OF A LINE PARALLEL WITH AND DISTANT 270 FEET FROM (AS MEASURED AT RIGHT ANGLES TO) THE SOUTHWESTERLY LINE OF THE PRESENT ALIGNMENT OF WEST MERCER WAY (HAVING A RIGHT ANGLE WIDTH OF 60 FEET);

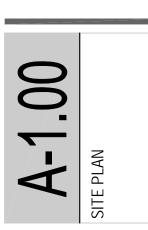
TOGETHER WITH SECOND CLASS SHORELANDS ADJOINING; AND TOGETHER WITH ANY UNPLATTED UPLANDS, LYING BETWEEN SAID TRACTS AND THE SHORELANDS AD IOINING:

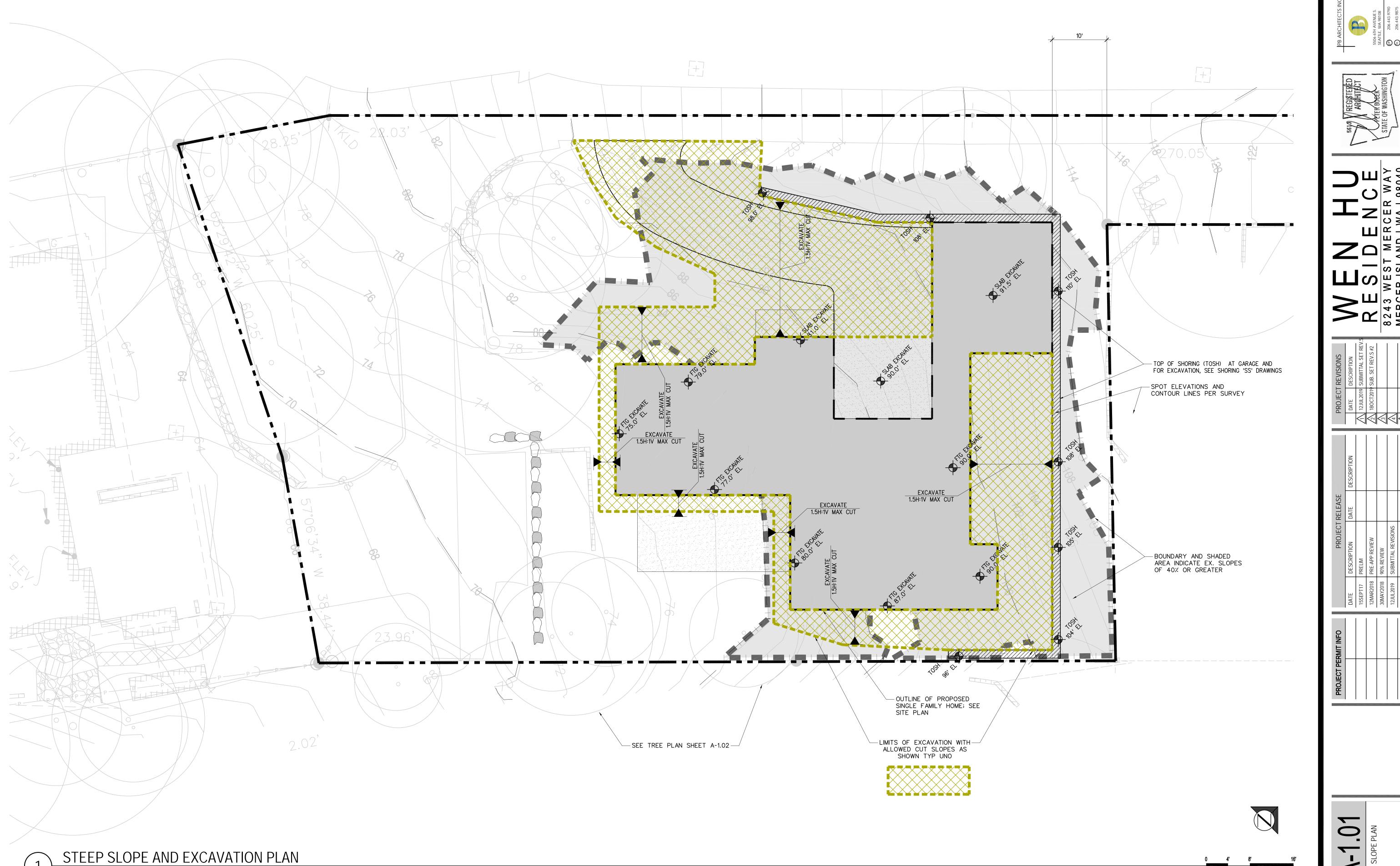
ALSO TOGETHER WITH THE NORTHEASTERLY 270 FEET OF THAT PORTION OF TRACT 574, C.D. HILLMAN'S SEA SHORE LAKE FRONT GARDEN OF EDEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 44, IN KING COUNTY, WASHINGTON, LYING SOUTHWESTERLY OF THE PRESENT ALIGNMENT OF WEST MERCER WAY (HAVING A RIGHT ANGLE WIDTH OF 60 FEET), EXCEPT THE NORTHEASTERLY 150 FEET OF THE SOUTHEASTERLY 80 FEET THEREOF.

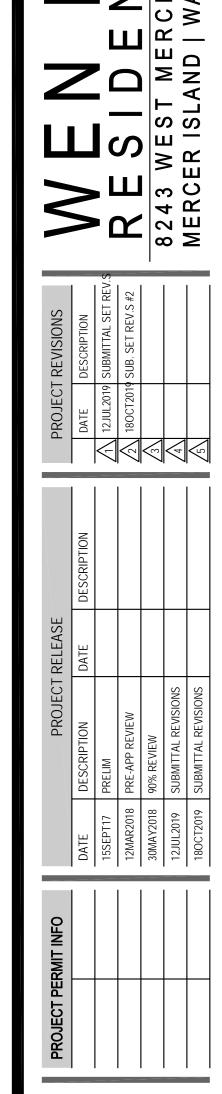
	PRUJEUI	PRUJECI REVISIONS	
	DATE	DESCRIPTION	
\bigvee	12JUL2019	12JUL2019 SUBMITTAL SET REV.S	
\bigcirc	18OCT2019	18OCT2019 SUB. SET REV.S #2	
	14JAN2020	14JAN2020 SUB. SET REV.S #3	
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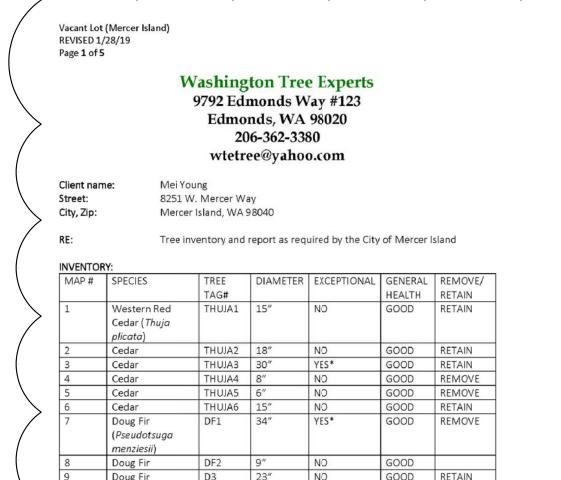
w.	DESCRIPTION	14JAN2020 SUBMITTAL REVISIONS				
RELEASI	DATE	14JAN2020				
PROJECT RELEASE	DESCRIPTION	PRELIM	12MAR2018 PRE-APP REVIEW	30MAY2018 90% REVIEW	12JUL2019 SUBMITTAL REVISIONS	18OCT2019 SUBMITTAL REVISIONS
	DATE	15SEPT17	12MAR2018	30MAY2018	12JUL2019	18OCT2019
	ı	l	I	1	ı	ı











Maple

BLM8 7

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HAZARD

FAIR REMOVE
FAIR REMOVE

FAIR RETAIN

21	U311	ASITE	10	INO	LIOUN	IVEION
22	Ash	ASH3	6"	NO	FAIR	RETAIN
23	Ash	ASH4	10"	NO	FAIR	RETAIN
24	Ash	ASH5	14"	NO	FAIR	REMOVE
25	Ash	ASH6	8"	NO	FAIR	REMOVE
26	Ash	ASH7	9"	NO	FAIR	REMOVE
27	Ash	ASH8	14"	NO	FAIR	REMOVE
28	Ash	ASH9	6"	NO	FAIR	REMOVE
29	Ash	ASH11	8"	NO	FAIR	RETAIN
30	Ash	ASH12	9"	NO	FAIR	RETAIN
31	Willow (Salix	SALIX1	22"	YES^	FAIR	REMOVE
	scouleriana)					
32	Indian Plum	PLUM1	6"	NO	FAIR	REMOVE
	(Oemleria					
	cersiformis)					
33	Hawthorn	HAW1	9"	NO	GOOD	RETAIN
	(Crataegus sp.)					
34	Madrone	MAD1	9"	YES^	GOOD	RETAIN
	(Arbutus					
	menziesii)					
35	Holly (Ilex	HOLLY1	7"	NO	GOOD	RETAIN
	aquifolium)					
36	Cherry (Prunus	CH1	12"	NO	FAIR	RETAIN
	serrulata)					
37	Purple Plum	PLUM1	12	NO	FAIR	RETAIN
	(Prunus					
	cerasifera)					
38	Purple Plum	PLUM2	18"	NO	FAIR	RETAIN
39	Port Orford Cedar	CHAM1	14"	NO	GOOD	RETAIN
	(Chamaecyparis					
	lawsoniana)					
40	Doug Fir	DF5	15"	NO	GOOD	RETAIN
41	Cedar	THUJA7	24"	NO	GOOD	RETAIN
42	Cedar	THUJA8	13"	NO	GOOD	RETAIN
43	Maple	BLM10	52"	YES*	POOR/	REMOVE
					HAZARD	
	Doug Fir	DF6	12"	NO	GOOD	RETAIN
44		JP1	6"	NO	GOOD	RETAIN

Vacant Lot (Mercer Island)

REVISED 1/28/19

Page 2 of 5

Protection recommendations:

The best way to protect trees during construction is to limit the amount of disturbance in the critical root zone (CRZ). A common rule to establish the CRZ is protect all tree roots within the dripline.

To protect the trees for retention during construction restrict the following within the critical root zone (CRZ) which is equal to the drip line:

- erect barriers or sturdy fencing around to tree to define the tree protection area to be installed prior to and remain in place for the life of the development project to ensure protection

-no grade changes.
-no heavy equipment driven in the protection zone.
-no piling of soil or debris in protection zone.
-no digging or excavating in the CRZ.

-if roots are found outside the CRZ no cutting of roots more than 4" diameter and clean straight cuts on 1-3.9" roots with a handsaw to promote wound closure and prevent the spread of decay in the root crown.

-for all digging operations, insist that exposed roots be cut cleanly to promote quick wound

closure and regenerations. Minimize damage by keeping the plants well-watered before and after digging; and covering exposed roots with soil, mulch, or damp burlap as soon as possible.

SPECIES	TREE	DIAMETER	GENERAL	VIABLE	CRZ
	TAG#		HEALTH		
Western Red Cedar (<i>Thuja</i> plicata)	THUJA1	15"	GOOD	Υ	Dripline
Cedar	THUJA2	18"	GOOD	Υ	Dripline
Cedar	THUJA3	30"	GOOD	Υ	Dripline
Cedar	THUJA6	15"	GOOD	Υ	Dripline
Doug Fir	DF2	9"	GOOD	Υ	6' radius
Doug Fir	D3	23"	GOOD	Υ	10'radius
Doug Fir	DF4	10"	GOOD	Υ	Dripline
Maple	BLM3	9"	FAIR	Υ	Dripline
Maple	BLM8	7"	FAIR	Υ	Dripline
Maple	BLM9	10"	FAIR	Υ	Dripline
Ash	ASH2	8"	FAIR	Υ	Dripline
Ash	ASH3	6"	FAIR	Υ	Dripline
Ash	ASH4	10"	FAIR	Υ	Dripline
Ash	ASH11	8"	FAIR	Υ	Dripline
Ash	ASH12	9"	FAIR	Υ	Dripline
Hawthorn (<i>Crataegus</i> sp.)	HAW1	9"	GOOD	Υ	Dripline
Madrone (<i>Arbutus menziesii</i>)	MAD1	9"	GOOD	Υ	Dripline

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Vacant Lot (Mercer Island) REVISED 1/28/19 Page **4** of 5

HOLLY1	7"	GOOD	Υ	Dripline
CH1	12"	FAIR	Υ	Dripline
PLUM1	12	FAIR	Υ	Dripline
PLUM2	18"	FAIR	Υ	Dripline
CHAM1	14"	GOOD	Υ	Dripline
DF5	15"	GOOD	Υ	Dripline
THUJA7	24"	GOOD	Υ	Dripline
THUJA8	13"	GOOD	Υ	Dripline
DF6	12"	GOOD	Υ	Dripline
JP1	6"	GOOD	Υ	Dripline
	PLUM1 PLUM2 CHAM1 DF5 THUJA7 THUJA8 DF6	CH1 12" PLUM1 12 PLUM2 18" CHAM1 14" DF5 15" THUJA7 24" THUJA8 13" DF6 12"	CH1 12" FAIR PLUM1 12 FAIR PLUM2 18" FAIR CHAM1 14" GOOD DF5 15" GOOD THUJA7 24" GOOD THUJA8 13" GOOD DF6 12" GOOD	CH1 12" FAIR Y PLUM1 12 FAIR Y PLUM2 18" FAIR Y CHAM1 14" GOOD Y DF5 15" GOOD Y THUJA7 24" GOOD Y THUJA8 13" GOOD Y DF6 12" GOOD Y

The CRZ is equal to the dripline. All disturbance should be outside of the CRZ except for the following: $\frac{1}{2}$

Tree Doug Fir (DF2) can be retained and preserved despite the driveway construction in the dripline. It is healthy and young Doug Fir that can tolerate the minimum disturbance intrusion into the CRZ. NO disturbance to the structural root plate which is approximately 6' radius. No more than 10% of the CRZ should be interrupted which is equal to approximately 12' radius. After care should include an organic layer of mulch at a depth of 2-3" in the dripline and adequate water during the dry season. Upon completion of the project tree should be monitored for the two following growing seasons to inspect for health and vigor.

Tree Doug Fir (DF3) can be retained and preserved despite the building construction in the dripline. The amount of disturbance represents a very small percentage of the CRZ, and the tree can tolerate some intrusion as it is of normal vigor and health. Fencing should be constructed to protect as much of the dripline as possible. There should only be an allowance on the southwest side of the dripline. NO disturbance to the structural root plate which is approximately 10' radius and no more than 10% of the CRZ should be interrupted which is equal to approximately 30' radius. After care should include an organic layer of mulch at a depth of 2-3" in the dripline and adequate water during the dry season. Upon completion of the project tree should be monitored for the two following growing seasons to inspect for health and vigor.

If the protection measures are taken, the necessary removals will not negatively impact the trees for retention. Most of the trees for retention are young and viable and have a higher tolerance for disturbance than their more mature counterparts. Neighboring trees will not be adversely affected.

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Significant trees on adjacent properties will not be affected by the proposed removals.

Vacant Lot (Mercer Island) REVISED 1/28/19 Page 5 of 5

Replacement trees:
As per the City of Mercer Island replacement trees should be mostly native. I would recommend
a variety as to avoid a monoculture. The following is a list of species that would be suitable:
-Vine Maple (Acer circinatum)
-Serviceberry (Amelenchier sp.)
Share Dirac (Dirac contests of contests)

-Shore Pine (Pinus contorta v. contorta)
-Limber Pine (Pinus flexis)
-Pacific Yew (Taxus brevifolia)
-Pacific Dogwood (Cornus nutallii)
-Cascara (Rhamnus purshiana)

Jennifer Wells

ISA Certified Consulting Arborist #PN6209A ISA Qualified Tree Risk Assessor

My firm has been hired on a consult only basis.

To evaluate and to prepare this report I have drawn upon my 20 plus years of experience in the field and my formal education in Forestry and Horticulture. I also followed the protocol of the International Society of Arboriculture (ISA) for tree risk assessment while looking at the overall health of the trees and site conditions. I have been providing consultation regarding the protection of trees during construction and after care for 10 years for residential and commercial clients.

Waiver of Liability This information rep

This information represents the tree health assessment at this point in time. My findings do not guarantee future safety nor are they predictions of future event. Information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection. The inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. All data has been verified to the best of my knowledge. The report represents the opinion of the arborist and the fees are in no way contingent upon reporting. Amy alterations made to this report automatically invalidates this report.

Washington Tree Experts Certified Arborist



5506 6TH AVENUE S.
SEATILE, WA 98108

O) 206.443.9790

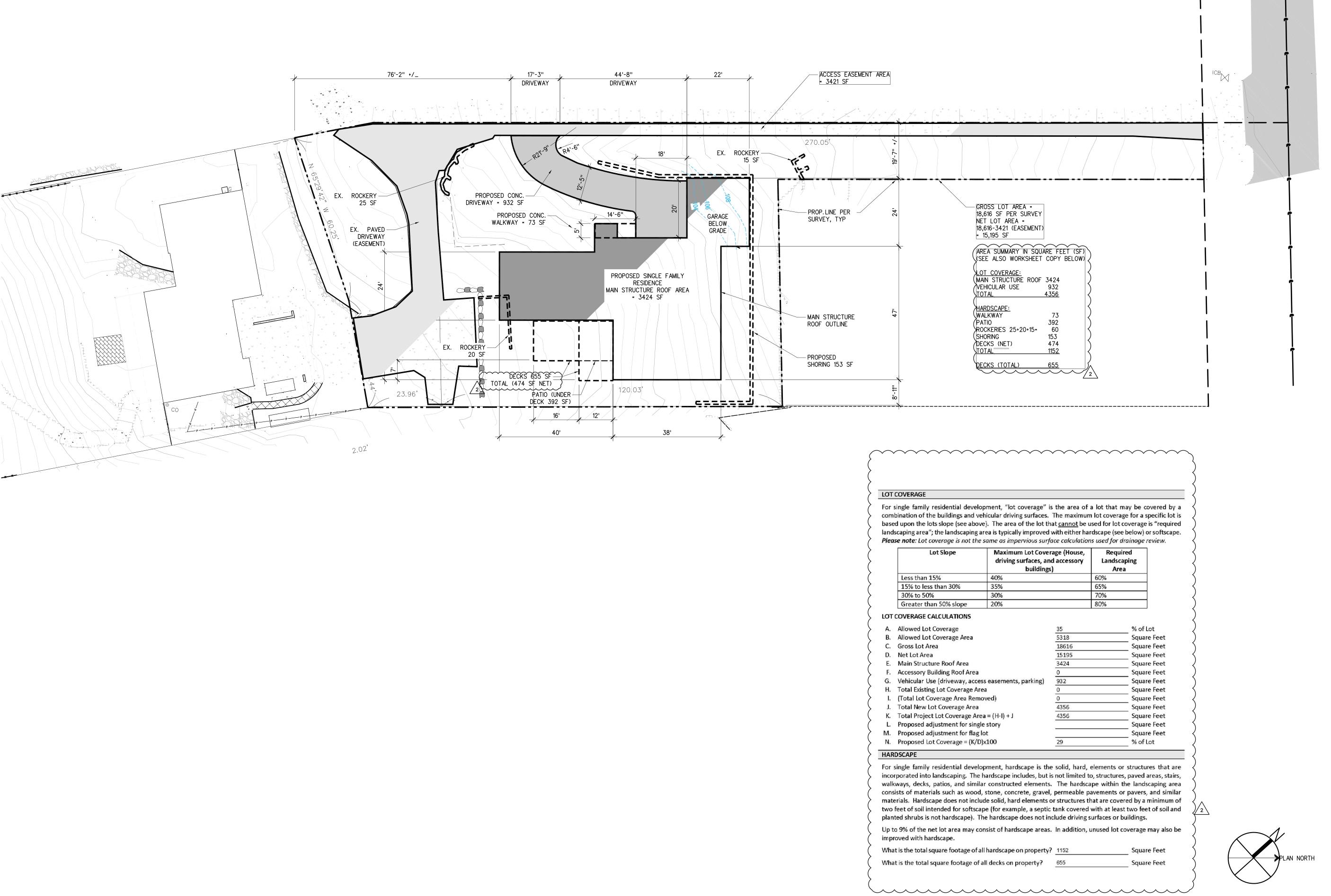
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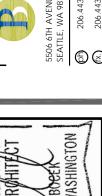
RESIDENCER WAY

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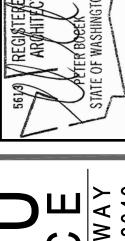
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PROJECT RELEASE	DATE				
PROJECT	DESCRIPTION	PRELIM	12MAR2018 PRE-APP REVIEW	30MAY2018 90% REVIEW	12JUL2019 SUBMITTAL REVISIONS
	DATE	15SEPT17	12MAR2018	30MAY2018	12JUL2019







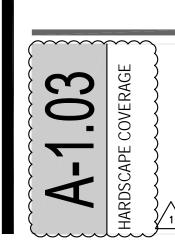




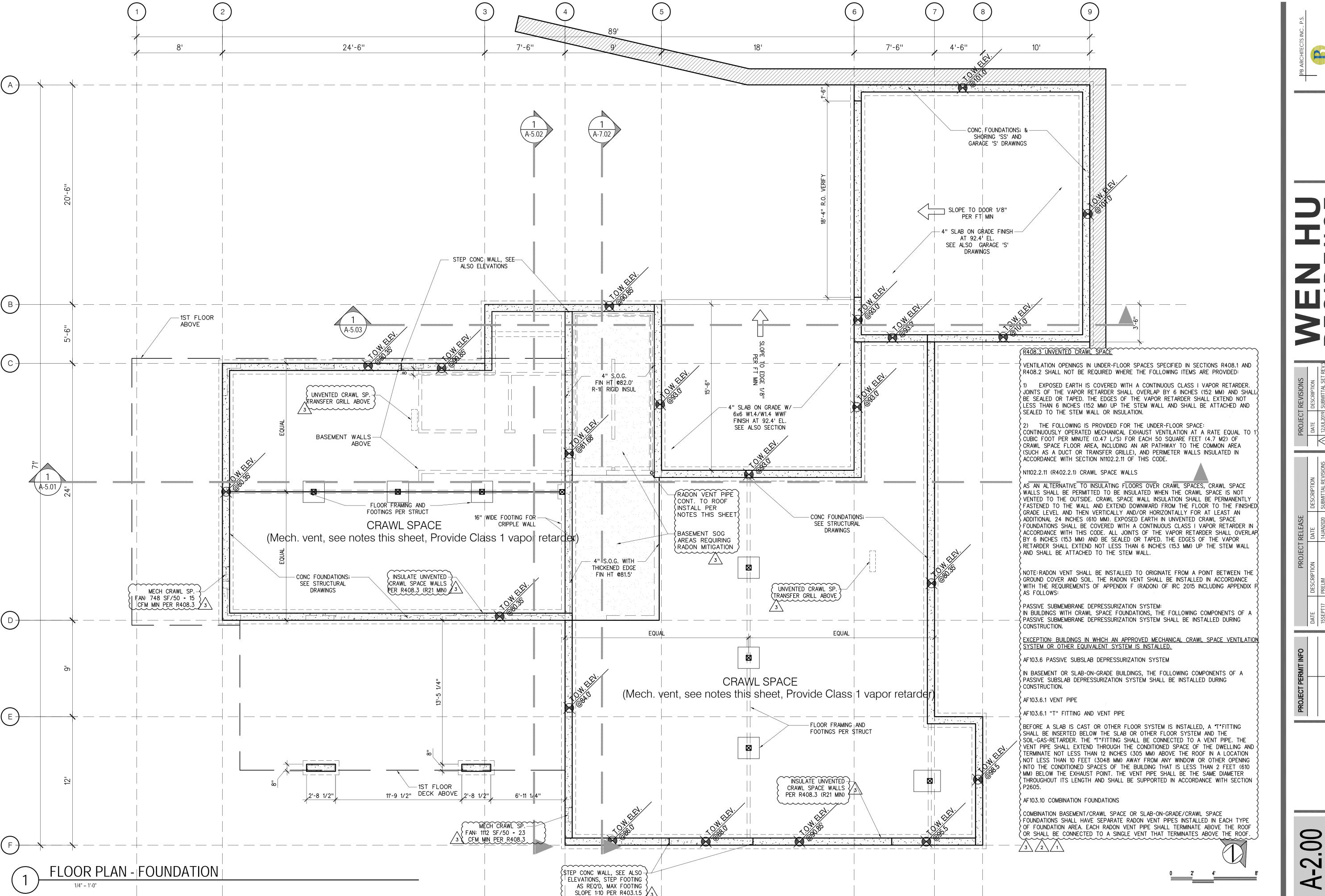
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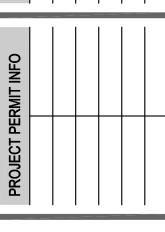
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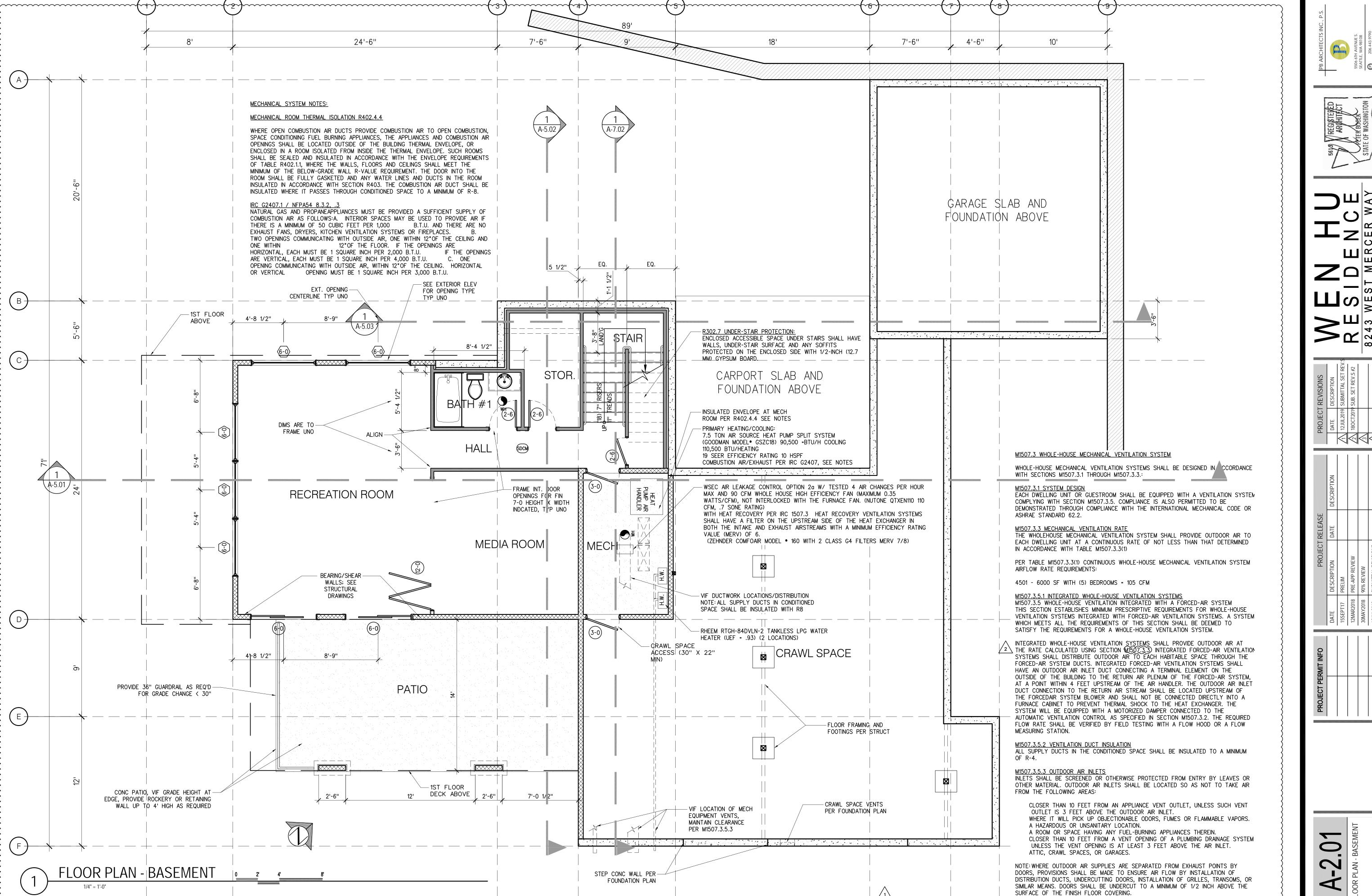


0 4' 8' 16' 32'





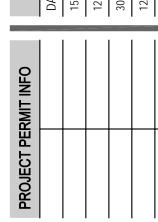
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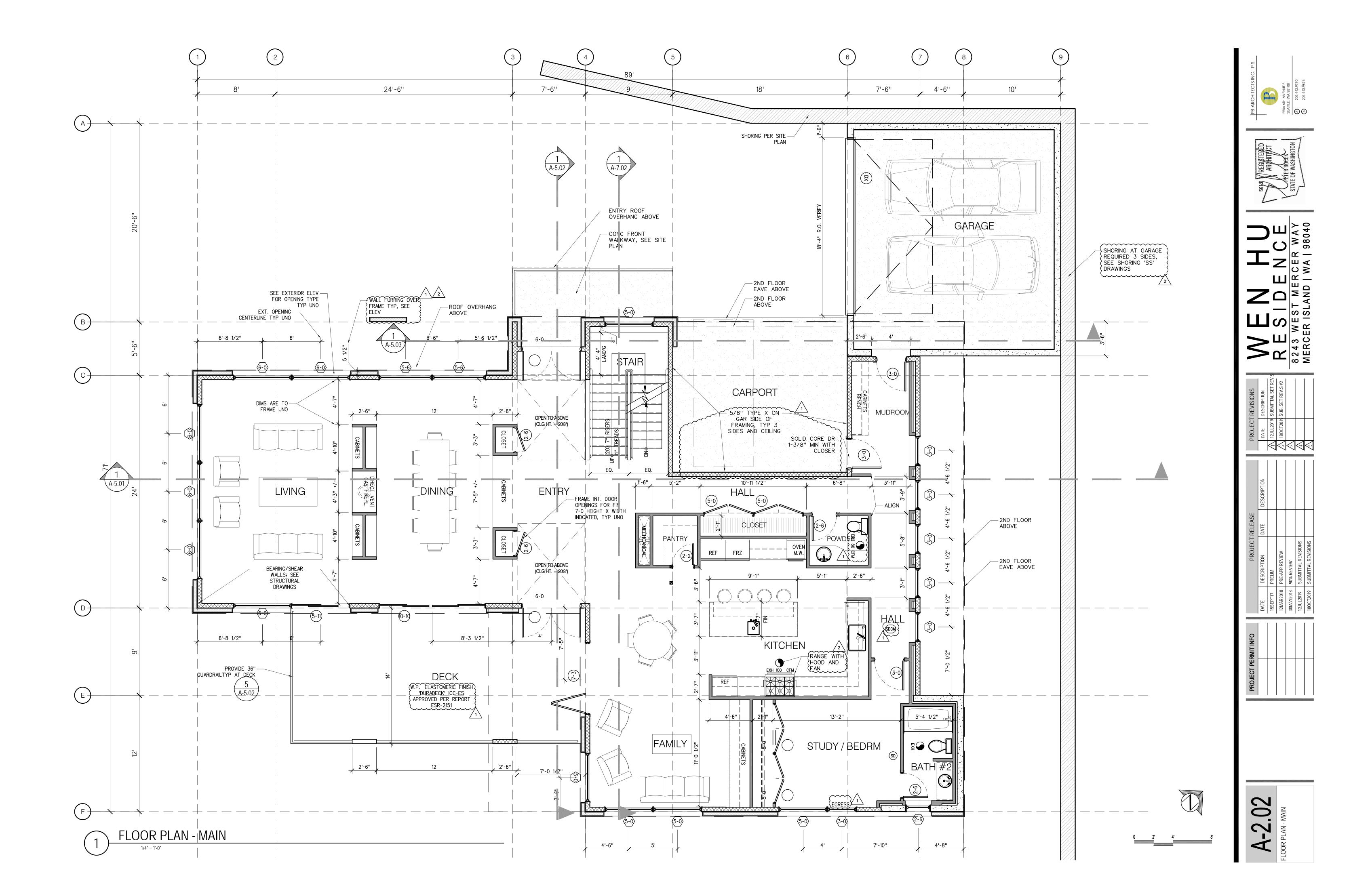


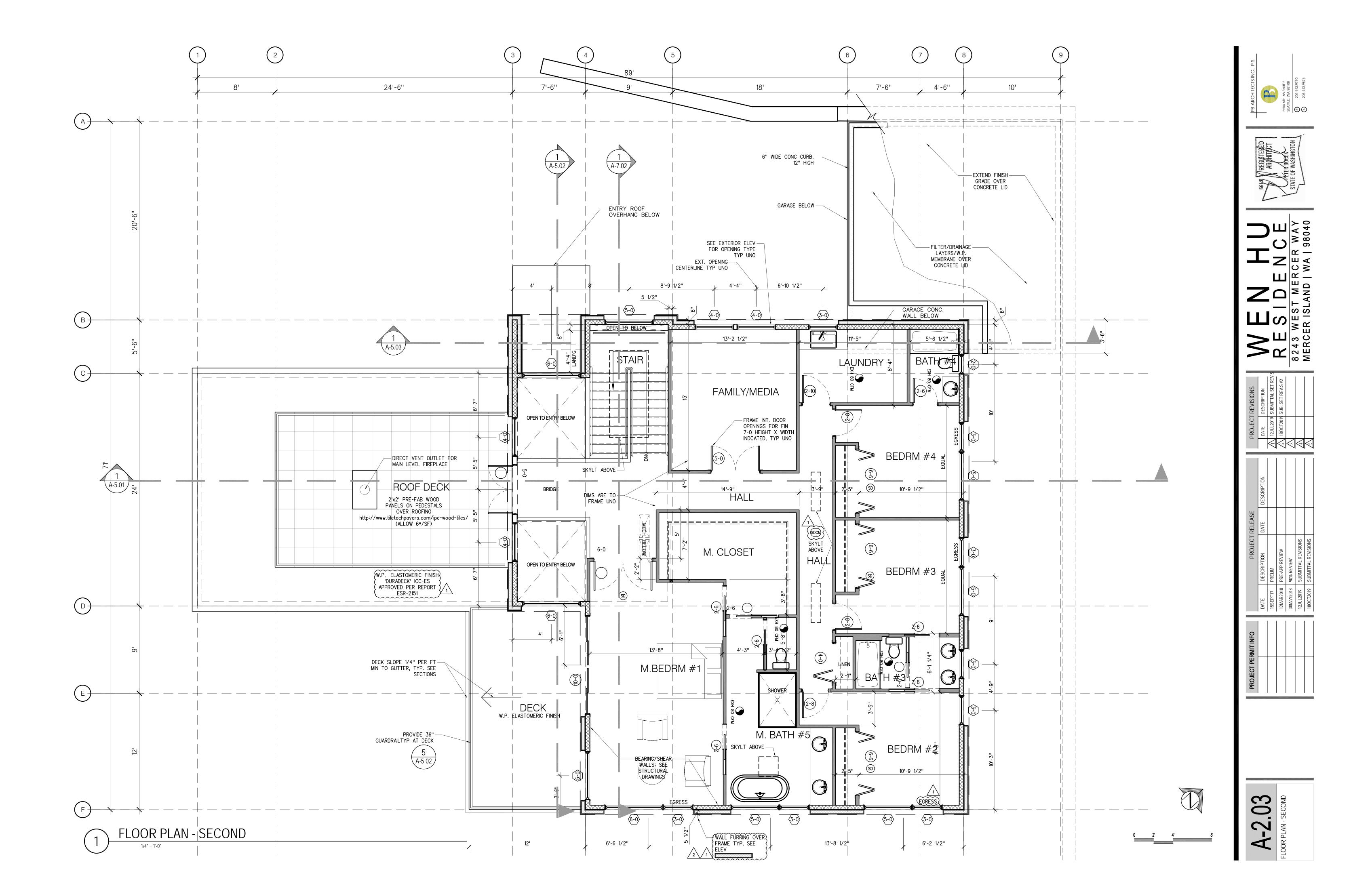


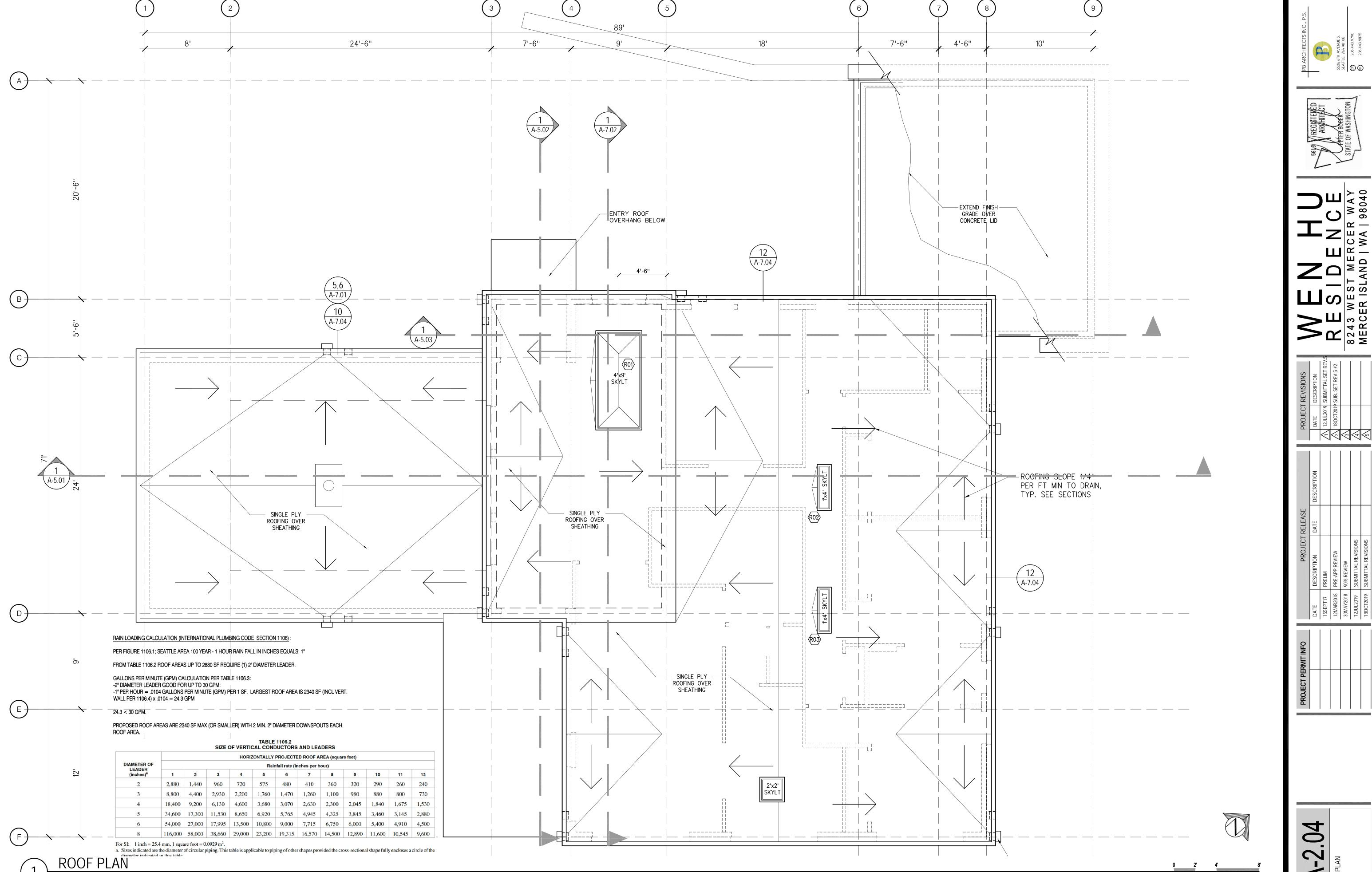
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	PROJECT	PROJECT RELEASE	
DATE	DESCRIPTION	DATE	DESCRIPTION
15SEPT17	PRELIM		
12MAR2018	12MAR2018 PRE-APP REVIEW		
30MAY2018	30MAY2018 90% REVIEW		
12JUL2019	12JUL2019 SUBMITTAL REVISIONS		
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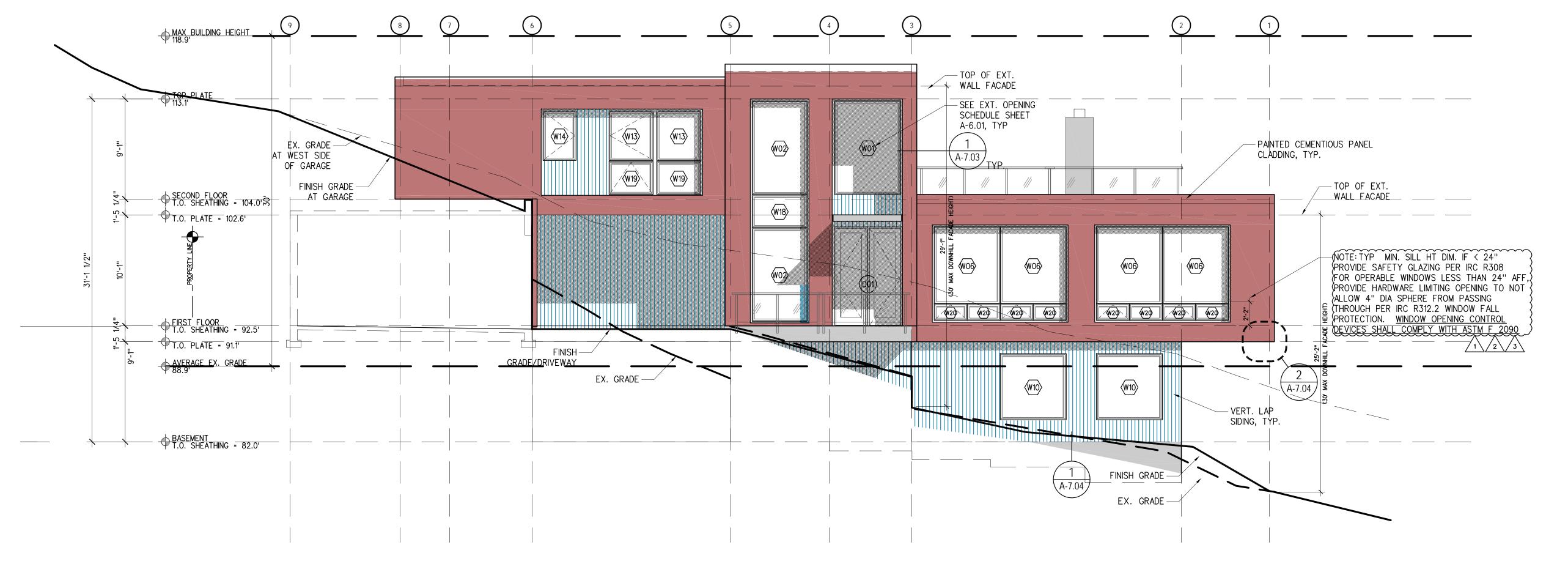


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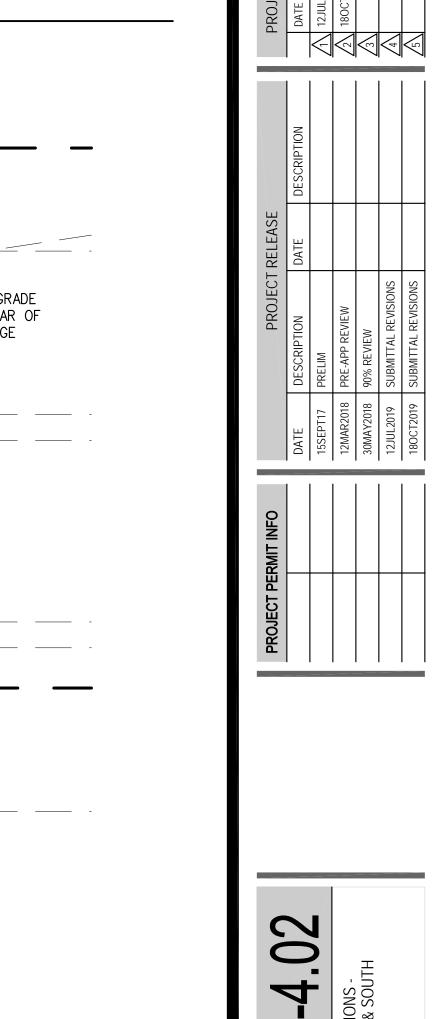
-4.01	ONS - EAST & WEST

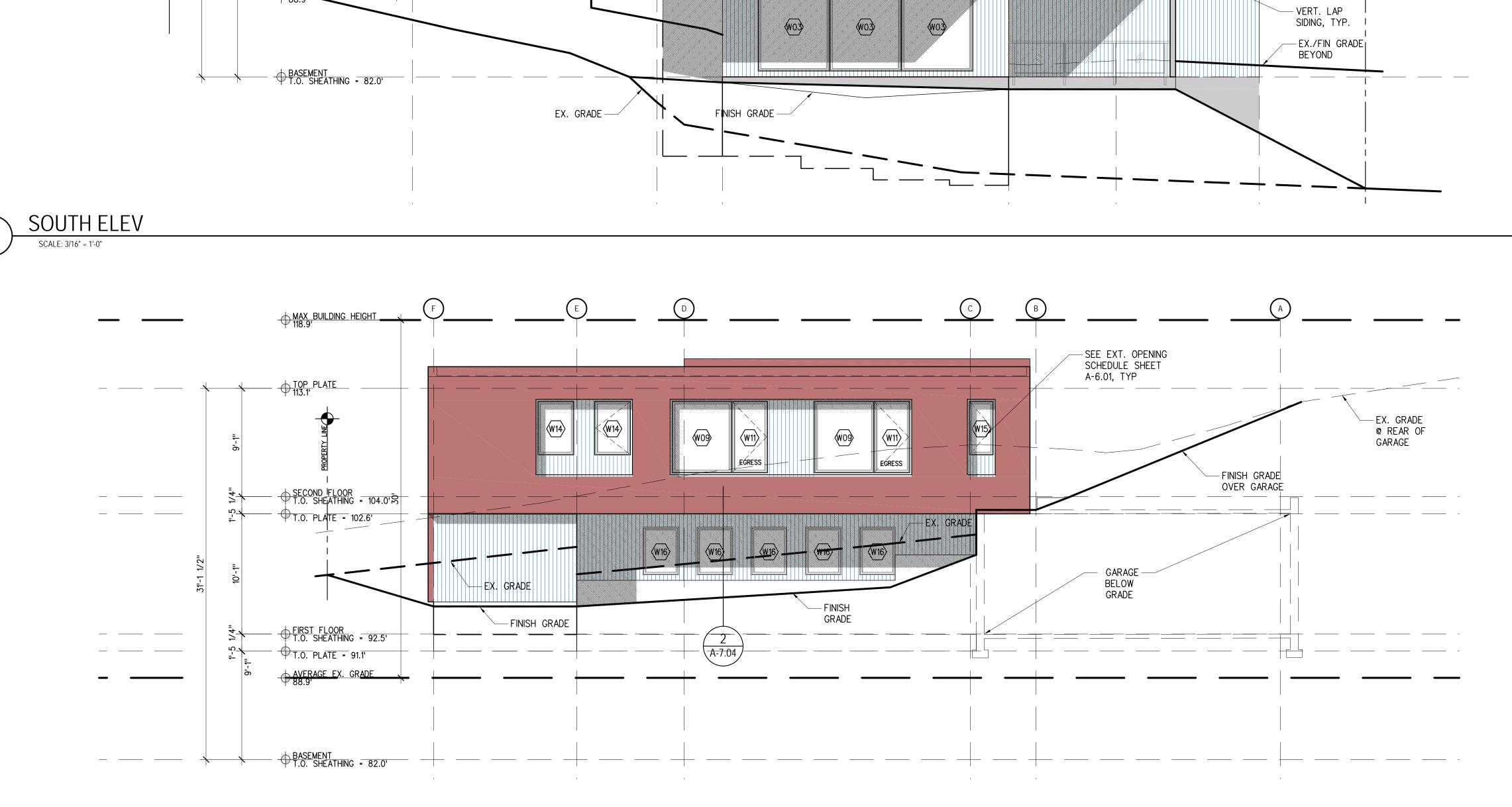


WEST ELEV SCALE: 3/16" = 1'-0"



EAST ELEV SCALE: 3/16" = 1'-0"





(WO6)

(WO6)

— SEE EXT. OPENING SCHEDULE SHEET A-6.01, TYP

— BREAK SHAPE METAL CLADDING ⊚ DECKS, TYP.

₩0**4**

(005)

— PAINTED CEMENTIOUS PANEL CLADDING, TYP.

009 (W21) (W21) (W20) (W20) (W20) (W20) (W20) FIRST FLOOR T.O. SHEATHING = 92.5' T.O. PLATE = 91.1 FINISH GRADE — BEYOND

W05

NORTH ELEV SCALE: 3/16" = 1'-0"

MAX BUILDING HEIGHT

A

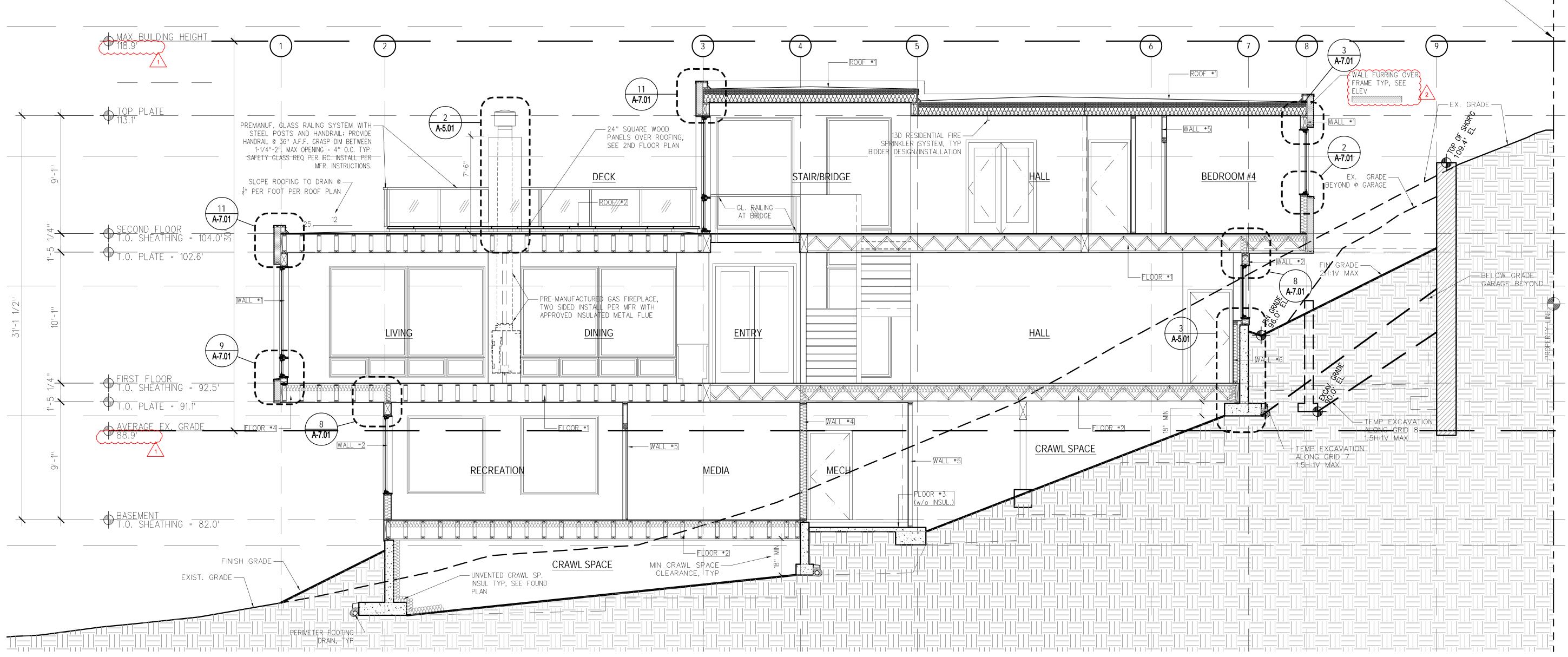
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EX. GRADE BEYOND
© FRONT OF GARAGE

113.1' PLATE

T.O. PLATE = 102.6'

SECOND FLOOR T.O. SHEATHING = 104.01



NOTE: SEE A-5.02 FOR ASSEMBLY TYPES

5506 6TH AVENUE S.
SEATTLE, WA 98108

1 206.443.975

В WAY

REST MERCER WA

PROPERTY LINE -

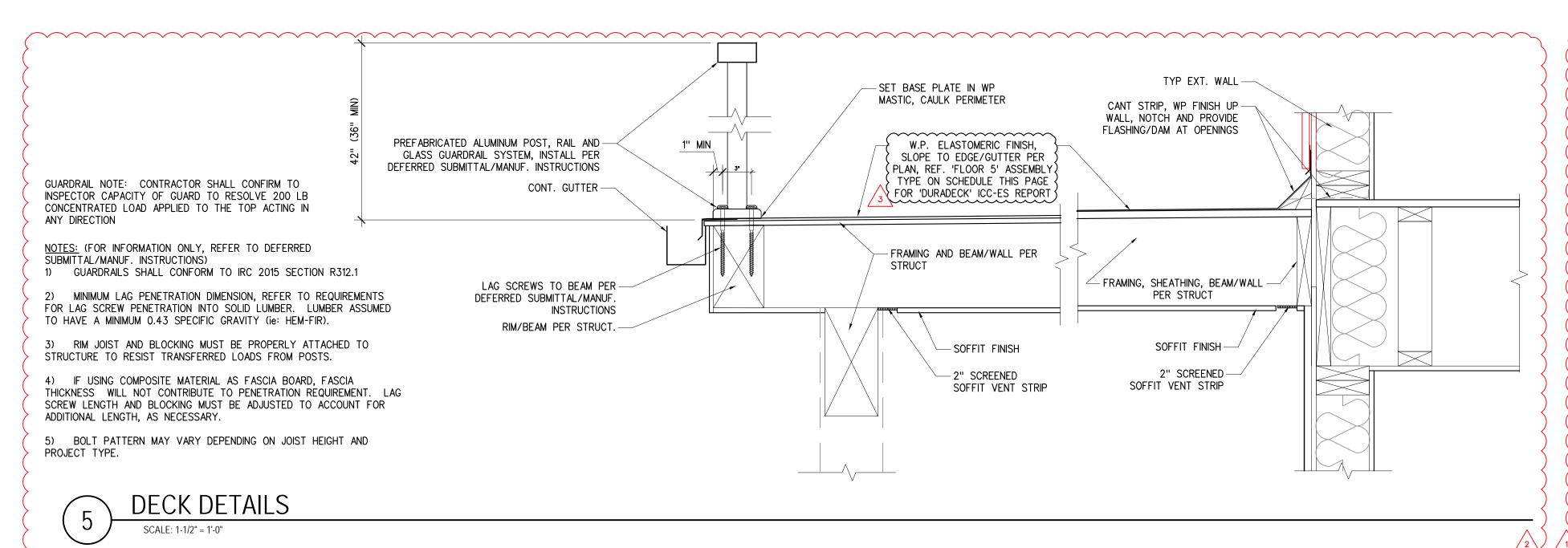
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PROJECT	DATE	12JUL2019	180CT2019	14JAN2020	
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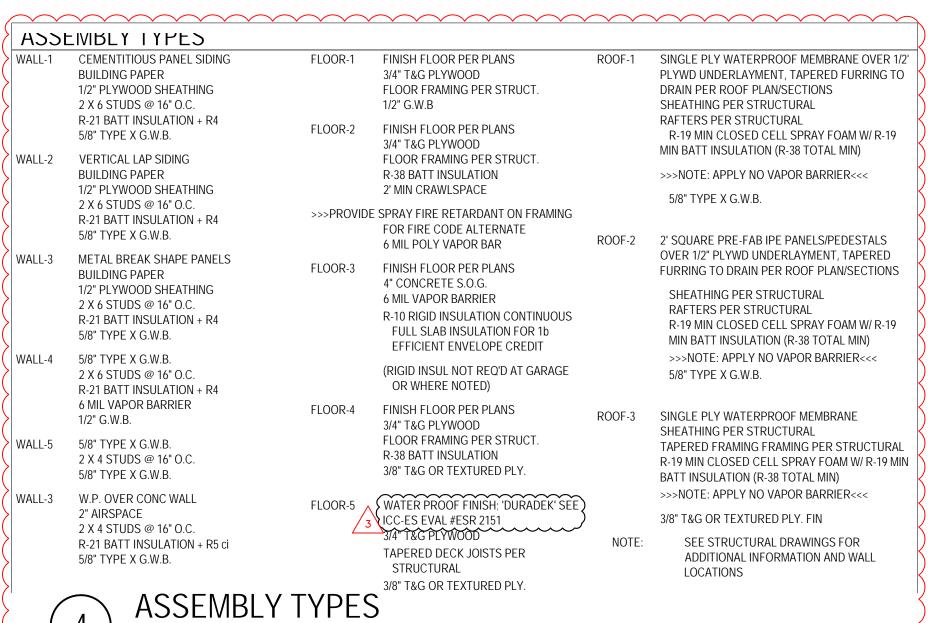
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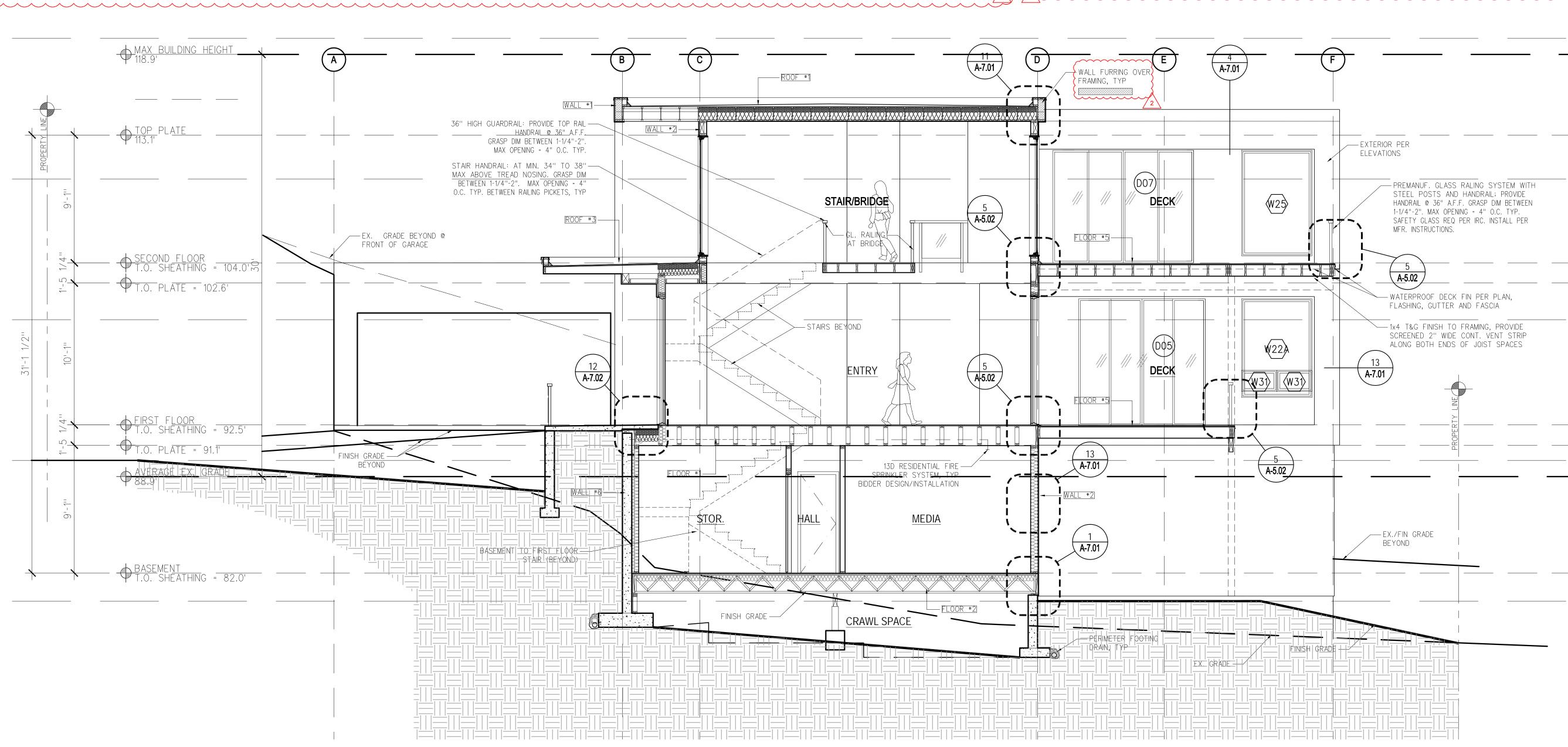
PROJECT PERMIT INFO

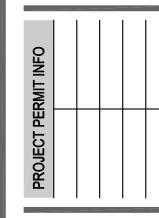
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A-5.01

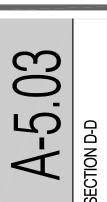


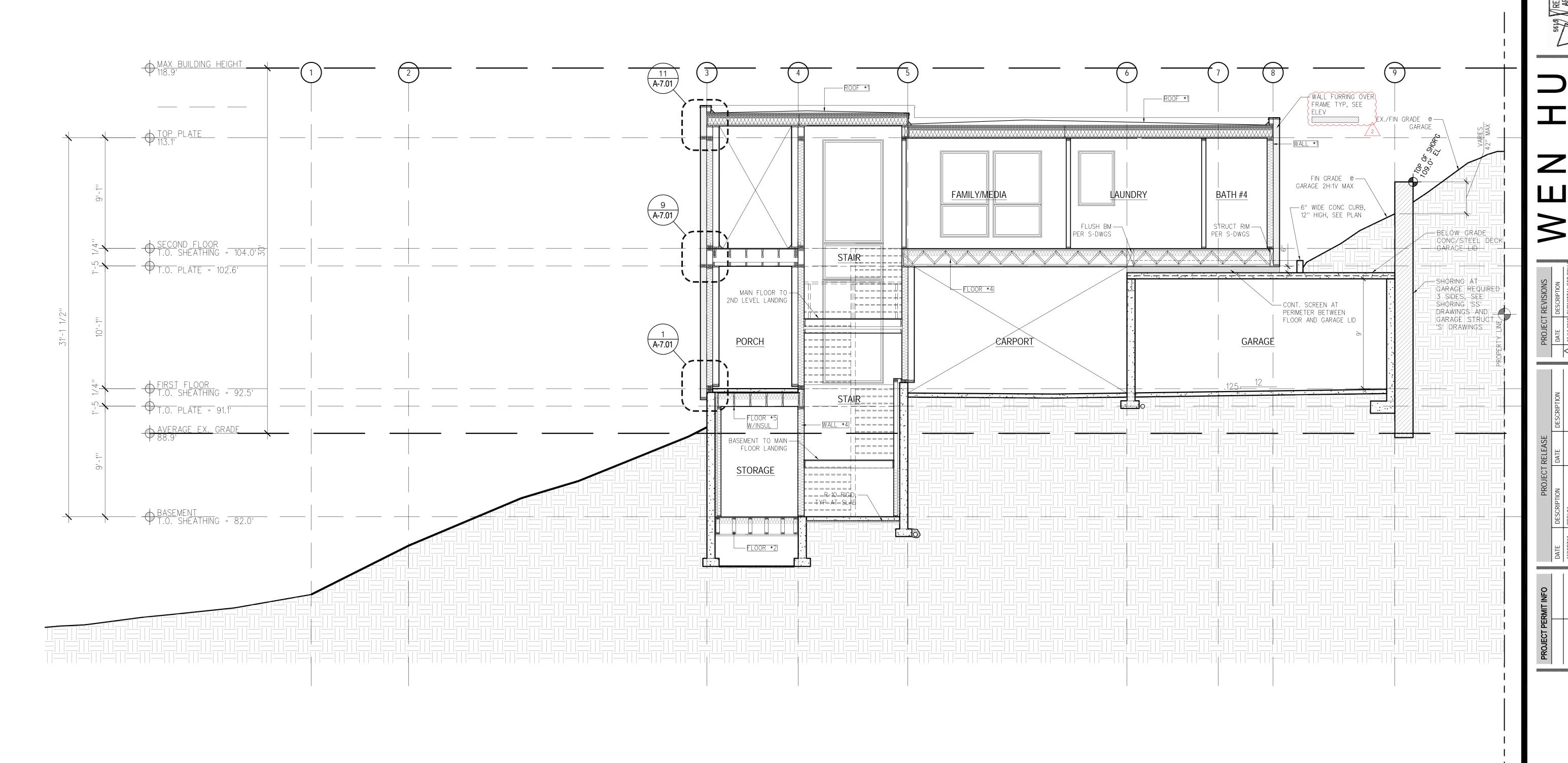






A-5.02









EXTERIOR SKYLIGHT SCHEDULE

INT DO	OR SCI	HEDULE	-
Style	TYPE	Width	Count
BI-FOLD	4-0	4'-0"	1
BI-FOLD	6-6	6'-6"	3
BI-FOLD	12-0	12'-0"	1
DOOR	2-2	2'-2"	1
DOOR	2-6	2'-6"	8
DOOR	2-8	2'-8"	3
DOOR	2-10	2'-10"	1
DOOR	3-0	3'-0"	3
DOUBLE DOOR	5-0	5'-0"	5
DOUBLE DOOR	6-0	6'-0"	1
POCKET DOOR	2-6	2'-6"	7

INTERIOR DOOR SCHEDULE

______ 1) "EGRESS" WINDOWS NOTED ON PLAN/ELEV PER IRC R310.2:
MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQ. FT. ELSEWHERE, AND MINIMUM NET CLEAR OPENABLE WIDTH OF 20", AND

MINIMUM NET CLEAR OPENABLE HEIGHT OF 24", AND BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44".

2) SAFETY GLAZING: PROVIDE SAFETY GLAZING PER IRC R308 AND SPECIFICALLY IN WINDOWS PER BELOW:

(R308.4.3 GLAZING IN WINDOWS; GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE

FOLLOWING CONDITIONS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION:

THE EXPOSED AREA OF AN INDIVIDUAL PANE IS LARGER THAN 9 SQUARE FEET (0.836 M2),

THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES (457 MM) ABOVE THE FLOOR,

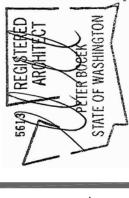
THE TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES (914 MM) ABOVE THE FLOOR; AND

ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES (914 MM), MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.

		EXT	OPENIN	IGS SCH	IEDULE	•		
OPENING TYPE	TYPE	STYLE	HEIGHT	WIDTH	Count	Area	Safety Glazing	Fall Protection
Door	D01	Double	9'-0"	6'-0"	2	108.00	Х	
Door	D02	Double Sliding	9'-0"	11'-10"	1	106.50	Х	
Door	D03	Single Sliding	9'-0"	6'-0"	1	54.00	Х	
Door	D04	Single Sliding	8'-0"	6'-0"	2	96.00	Х	
Door	D05	Double Sliding	9'-0"	9'-0"	1	81.00	Х	
Door	D06	Double	8'-0"	5'-0"	1	40.00	Х	
Door	D07	Double Sliding	8'-0"	10'-0"	1	80.00	Х	
Door	D08	Single	8'-0"	3'-0"	1	24.00	Х	
Door	D09	Garage Door	8'-0"	18'-0"	1	144.00	Х	
Window	W01	FIXED	8'-6"	6'-0"	2	102.00		
Window	W02	FIXED	8'-6"	5'-0"	2	85.00		
Window	W03	FIXED	7'-6"	6'-0"	3	135.00	Х	
Window	W04	FIXED	7'-6"	5'-0"	1	37.50		
Window	W05	FIXED	7'-6"	4'-0"	2	60.00		
Window	W06	FIXED	7'-0"	6'-0"	8	336.00		
Window	W07	FIXED	7'-0"	5'-0"	4	140.00		
Window	W08	CASEMENT	7'-0"	3'-0"	1	21.00		
Window	W09	FIXED	6'-0"	5'-0"	4	120.00		
Window	W10	FIXED	6'-0"	6'-0"	3	108.00		
Window	W11	CASEMENT	6'-0"	3'-0"	5	90.00		
Window	W13	CASEMENT	4'-6"	4'-0"	1	18.00		
Window	W13	FIXED	4'-6"	4'-0"	1	18.00		
Window	W14	FIXED	4'-6"	3'-0"	3	40.50		
Window	W15	FIXED	4'-6"	2'-0"	1	9.00		
Window	W16	FIXED	4'-0"	3'-0"	5	60.00		
Window	W17	CASEMENT	4'-0"	2'-6"	1	10.00		
Window	W18	FIXED	3'-0"	5'-0"	1	15.00		
Window	W19	AWNING	3'-0"	4'-0"	1	12.00		
Window	W19	FIXED	3'-0"	4'-0"	1	12.00		Х
Window	W20	AWNING	1'-6"	3'-0"	3	13.50		Х
Window	W20	FIXED	1'-6"	3'-0"	16	72.00		Х
Window	W21	FIXED	1'-6"	2'-6"	6	22.50		Х
	ı	ı		1		2,270.50		

EXTERIOR OPENINGS SCHEDULE





PROJECT REVISIONS DATE DESCRIPTION 12JUL2019 SUBMITTAL SET REV.S 18OCT2019 SUB. SET REV.S #2					' °	ò :
JECT	- REVISIONS	DESCRIPTION	DESCRIPTION SUBMITTAL SET REV.S	SUB. SET REV.S #2		
PRO. 12JUI	PROJECT	DATE	DATE 12JUL2019	18OCT2019		
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PR	DA	12.	18	$\langle \cdot \rangle$	₹	\\
	DESCRIPTION					
PROJECT RELEASE	DATE					
PROJECT	DESCRIPTION	PRELIM	:MAR2018 PRE-APP REVIEW	MAY2018 90% REVIEW	JUL2019 SUBMITTAL REVISIONS	SUBMITTAL DEVISIONS
	ATE	SEPT17	:MAR2018	MAY2018	JUL2019	0100TJ00

	DATE	15SEPT17	12MAR2018	30MAY2018	12JUL2019	180CT2019
PROJECT PERMIT INFO						

Additions less than 500 SF: 0.5 credits

S:\DSG\FORMS\2017\Building\2015_WSEC_IRC_Ventilation.pdf

TION	DESCRIPTION	CREDIT(S
1a	EFFICIENT BUILDING ENVELOPE 1a: Vertical fenestration U = 0.28 Floor R-38	0.5
	Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab. OR Compliance based on Section R402.1.4: Reduce the Total UA by 5%.	
1b ✓	EFFICIENT BUILDING ENVELOPE 1b: Vertical fenestration U = 0.25 Wall R-21 plus R-4 Floor R-38 Basement wall R-21 int plus R-5 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab. OR Compliance based on Section R402.1.4: Reduce the Total UA by 15%.	1.0
1c	EFFICIENT BUILDING ENVELOPE 1c: Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.22 Ceiling and single-rafter or joist-vaulted R-49 advanced Wood frame wall R-21 int plus R-12 ci Floor R-38 Basement wall R-21 int plus R-12 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab OR Compliance based on Section R402.1.4: Reduce the Total UA by 30%.	2.0
1d	EFFICIENT BUILDING ENVELOPE 1d: Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.24. Projects using this option may not use Option 1a, 1b or 1c.	0.5
2a	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a: Compliance based on R402.4.1.2: Reduce the tested air leakage to 3.0 air changes per hour maximum AND All whole house ventilation requirements as determined by Section M1507.3 of the <i>international Residential Code</i> shall be met with a high efficiency fan (maximum 0.35 watts/cfm), not interlocked with the furnace fan. Ventilation systems using a furnace including an ECM motor are allowed, provided that they are controlled to operate at low speed in ventilation only mode. To qualify to daim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the qualifying ventilation system.	0.5
2b √	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b: Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a heat recovery ventilationsystem with minimum sensible heat recovery efficiency of 0.70. To qualify to daim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.	1.0
2c	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c: Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5 air changes per hour maximum. AND All whole house ventilation requirements as determined by Section M1507.3 of the international Residential Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.85. To qualify to daim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.	1.5
3a	HIGH EFFICIENCY HVAC EQUIPMENT 3a: Gas, propane or oil-fired furnace with minimum AFUE of 94%, or Gas, propane or oiled-fired boiler with minimum AFUE of 92%. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0
3b √	HIGH EFFICIENCY HVAC EQUIPMENT 3b: Air-source heat pump with minimum HSPF of 9.0. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0
3с	HIGH EFFICIENCY HVAC EQUIPMENT 3c: Closed-loop ground source heat pump; with a minimum COP of 3.3 OR Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. To qualify to daim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.5
3d	HIGH EFFICIENCY HVAC EQUIPMENT 3d: Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0

OPTION	DESCRIPTION	CREDIT
4	HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM: All heating and cooling system components installed inside the conditioned space. This includes all equipment and distribution system components such as forcedair ducts, hydronic piping, hydronic floor heating loop, convectors and radiators. All combustion equipment shall be direct vent or sealed combustion. For forced air ducts: A maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts may be located outside the conditioned space. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic. If flex ducts are used, they cannot contain splices. Flex ductconnections must be made with nylon straps and installed using a plastic strapping tensioning tool. Ducts located outside the conditioned space must be insulated to a minimum of R-8. Locating system components in conditioned crawl spaces is not permitted under this option. Electric resistance heat and ductless heat pumps are not permitted under thisoption. Direct combustion heating equipment with AFUE less than 80% is not permitted under this option. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and shall show the location of the heating and cooling equipment and all the ductwork.	1.0
5a	EFFICIENT WATER HEATING 5a: All showerhead and kitchen sink faucets installed in the house shall be rated at 1.75 GPM or less. All other lavatory faucets shall be rated at 1.0 GPM or less. Plumbing Fixtures Flow Ratings. Low flow plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirements: 1. Residential bathroom lavatory sink faucets: Maximum flow rate - 3.8 L/min (1.0 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. 2. Residential kitchen faucets: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. 3. Residential showerheads: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum flow rates for all showerheads, kitchen sink faucets, and other lavatory faucets.	0.5
5b	EFFICIENT WATER HEATING 5b: Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.74 OR Water heater heated by ground source heat pump meeting the requirements of Option 3c. OR For R-2 occupancy, a central heat pump water heater with an EF greater than 2.0 that would supply DHW to all the units through a ceminimum pipe insulation. To qualify to daim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and theminimum equipment efficiency.	1.0
5c	EFFICIENT WATER HEATING 5c: Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.91 OR Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating Systems OR Electric heat pump water heater with a minimum EF of 2.0 and meeting the standards of NEEA's Northern Climate Specifications for Heat Pump Water Heaters To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and theminimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.	1.5
5d	EFFICIENT WATER HEATING 5d: A drain water heat recovery unit(s) shall be installed, which captures waste water heat from all the showers, and has a minimum efficiency of 40% if installed for equalflow or a minimum efficiency of 52% if installed for unequal flow. Such units shall be rated in accordance CSA B55.1 and be so labeled. To qualify to daim this credit, the building permit drawings shall include a plumbing diagram that specified the drain water heat recovery units and the plumbing layout needed to install it and labels or other documentation shall be provided that demonstrates that the unit complies with the standard.	0.5
6	RENEWABLE ELECTRIC ENERGY: For each 1200 kWh of electrical generation per each housing unit provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 3 credits. Generation shall be calculated as follows: For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTs. Documentation noting solar access shall be Included on the plans. For wind generation projects designs shall document annual power generation based on the following factors: The wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and height of the tower. To qualify to daim this credit, the building permit drawings shall specify the option being selected and shall show the photovoltaic or wind turbine equipment type, provide documentation of solar and wind access, and include a calculation of the minimum annual energy power production.	0.5

	check the applica eighted Average							eighted ave	erage" U-Factor	of
me we	eans that some window eighted average is U-0.3 ilding permit.		-						chance bedding bringer	_
	welling units less 00 SF of conditioned fl						using the	option for	new dwellings	le
Electro	nic version availa	ble at: <u>h</u>	ttp://www.ene	ergy, wsu.ec	u/Docum	nents/201	5%20Glazi	ng%20Sche	edule.xlsx	
			Glazing			dth	Hei		Gla	zi
	Exemptions	Ref	U-Factor	Qt.	Feet	Inch	Feet	Inch	Area	ļ
	oor (24 SF Max)			\vdash				-		ł
Glazed F	enestration (15 SF	1								
Max)	,									
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Sum of Vertical Fenestration Area and UA 2270.5 567.6 Area Weighted U = UA/Area OVERHEAD GLAZING (SKYLIGHT) ID Description 32 8.96 A-2.04 Skylights 3/A-6.01 .28 2.24 11.2 40 Sum of Overhead Glazing Area and UA Area Weighted U = UA/Area Total Sums of Area and UA for Vertical Fenestration and Overhead Glazing Area and UA:

		ding the heating system for this pro orm below may be used if a compu			
	Conditioned Floor Area (sq ft)	5433			
	Average Ceiling Height (ft)	_x 9.3			
	Conditioned Volume (cuft)	50527			
Glazing and [Doors	U-Factor	Х	Area = 2270 sf	UA 567.6
Skylights		U-Factor	x	Area =	UA
		u= .28		40 sf	11.2
Insulation					
	Attic	u= U-Factor	Χ	Area = 2723 sf	70.79
	Single Rafter or	U-Factor	X	Area =	UA
	Joist Vaulted Ceilings	u=		sf	
	Above Grade Walls	u= U-Factor	X	Area = 2883 sf	UA 115.3
	Floors	U-Factor u= .026	Х	Area = 2472 sf	UA 64.27
	Below Grade Walls	U-Factor u= .038	х	Area = 477 sf	UA 18.1
	Slab Below Grade	f= F-Factor	х	Length =	UA 54.6
	Slab on Grade	F-Factor f=	х	Length =	UA
				Sum of UA	901.86
		Envelope Heat Load			41583 Btu /
		Sum of UA x 45			24556 Btu /
		Air Leakage Heat Load Volume x 0.6 x 45 x .018			24556 Btu /
		Building Design Heat Load			65139 Btu /
		707 703			
		Air Leakage Heat Load + Enve	ope Heat	Load	
		Air Leakage Heat Load + Envel Building and Duct Heat Load	ope Heat	: Load	71653 Btu /

Maximum Heat Equipment Output

Building and Duct Heat Load \times 1.40 for Forced Air Furnace Building and Duct Heat Load x 1.25 for Heat Pump

100315 Btu / Hour

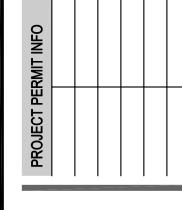
	ct Leakage Affid	avit (New Con	struction	1)	
Permit #:					
House address or lot number:					
City:	Zip:	/ <u></u>	- 2		
Cond. Floor Area (ft²):	Sou	rce (circle one):	Plans	Estimated	Measured
Duct tightness testing is not re entirely within the building therms					
Air Handler in conditioned space	yes no	Air Handler pres	sent during t	est? yes [no
Circle Test Method:	_eakage to Outside	Total	Leakage		
Maximum duct leakage: Post Construction, total duct le					
Post Construction, leakage to o					5 Pa
STOREST AND STORE SHOW SHOW THE PROPERTY OF THE STORES			oo v 03) -	CFM	@25 Pa
Rough-In, total duct leakage wi	th air handler not i	nstalled: (floor ar	eax.03) -	F145081	
		nstalled: (Tloor ar	ев х .03) -	F112081	
Test Result:CF	M@25Pa			□3	
Test Result:CF	M@25Pa □Open	<u></u> 1 [<u></u> 2	W	
Rough-In, total duct leakage wi Test Result:CF Ring (circle one if applicable): Duct Tester Location:	M@25Pa □Open	1 [Pressure Tap	2 Location:	*==*	
Test Result:CF Ring (circle one if applicable): Duct Tester Location:	M@25Pa Open e rates are accurate	☐ 1 [Pressure Tap e and determined	2 Location: I using star	ndard duct te	sting protocol.

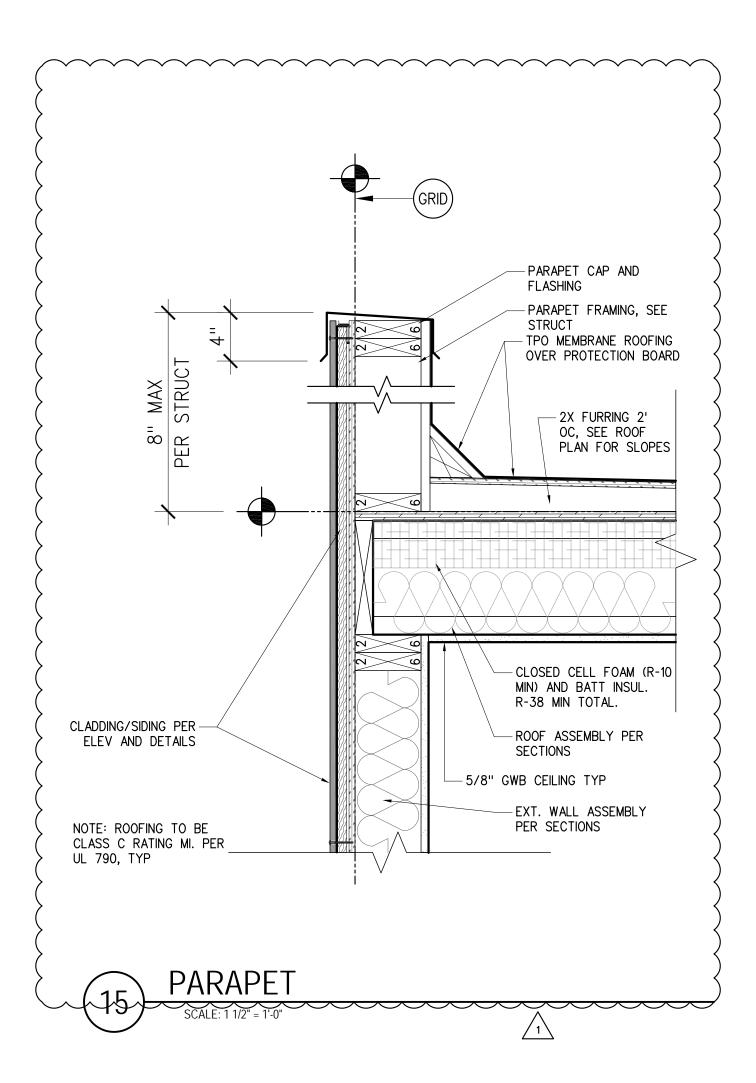
Property	Address:					
Conditio	ned Floor A	rea		Date:	1	1
Builder	or registered	l desigi	ı professio	nal:		
Signatur	e:					
			R-Va	lues		
Ceiling:	Vaulted	R	Floors:	Over unconditio	ned spac	ce R
	Attic	R		Slab on g	rade flo	or R
Walls: A	Above grade	R-	Doors:	5759		R-
1	Below, int.	R	- 19 - 19 - 19			R-
I	Below, ext.	R-				R-
		ı	J-Factors o	and SHGC		
NRFC ra	ting (or)		Win	ndows U-	SH	GC- N/A
Default r	ating (Appendix	A WSEC	2012) Sky	lights U-	SH	GC- N/A
Table 40	6.2 Option(s))	8	Total 406.2 Ci	edits	
	Hee	iting, C	Cooling & I	Domestic Hot Wat	er	
System			Турс			Efficiency
Heating			mis			
Cooling						
DHW						
	27	Duct	& Buildin	g Air Leakage		
All ducts	& HVAC in	condit	ioned space	(yes/no)	insulatio	on R-
Air hand	ler present (yes / no	o)			
Test Targ	get	CFM(@25Pa	Test Result	10	CFM@25Pa
Building a	air leakage tar	get: AC	$H_{50} \le 5.0$ -	Tested leakage; AC	H ₅₀ =	
	Onsite l	Renewo	ible Energ	v Electric Power S	System	
	ype:		40000	annual generation		Kw

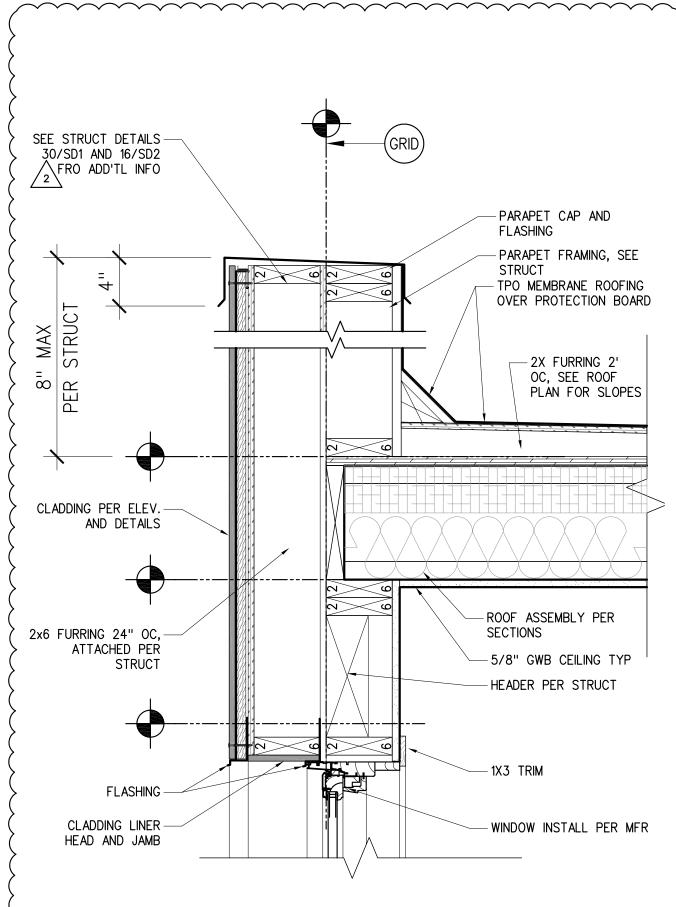
Certificate (Electronic version available at: http://www.energy.wsu.edu/Documents/WSEC-2012-Avery-6878 4 Per Sheet.pdf)

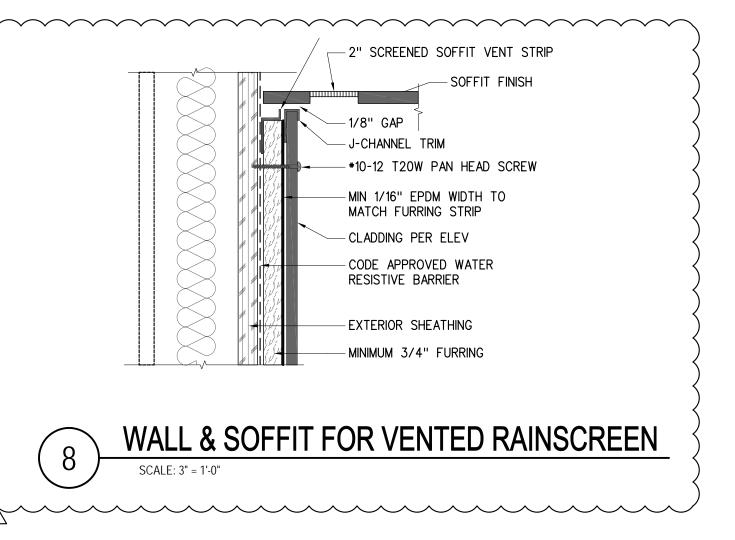
A permanent certificate shall be posted within three feet of the electrical distribution panel. The certificate shall be











- CAP FLASHING

DO NOT USE HARDIE TRIM OR

BOARD AS CAP FLASHING

UNDERLAY TO PROVIDE ISOLATION -OF METAL FLASHING TO TIMBER

SELF-ADHERED FLASHING -

MIN 1/16" EPDM WIDTH TO-

MINIMUM 3/4" FURRING-

MATCH FURRING STRIP

CLADDING PER ELEV -

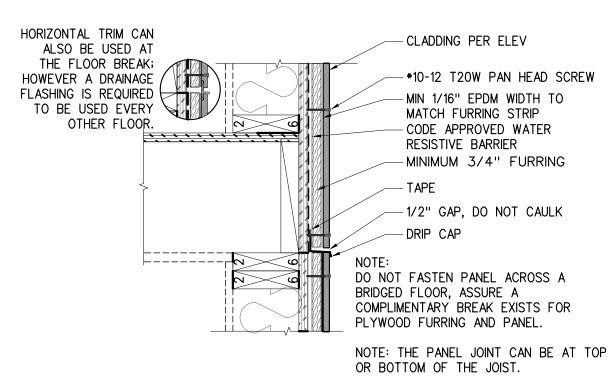
EXTERIOR SHEATHING -

RESISTIVE BARRIER

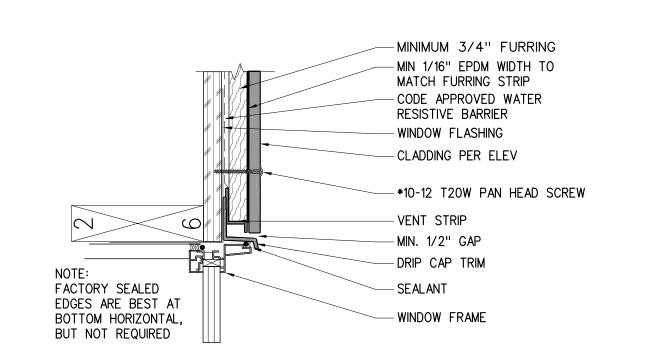
CODE APPROVED WATER -

*10-12 T20W PAN HEAD SCREW —

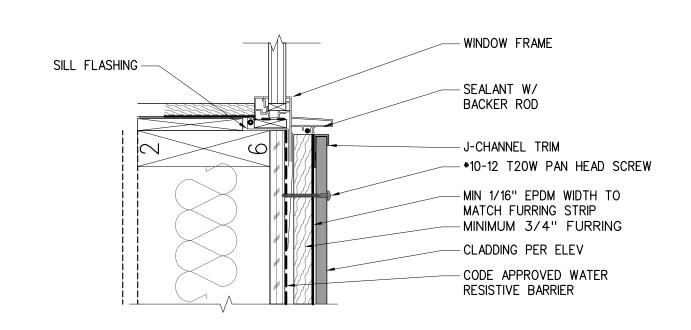
1/8" GAP -



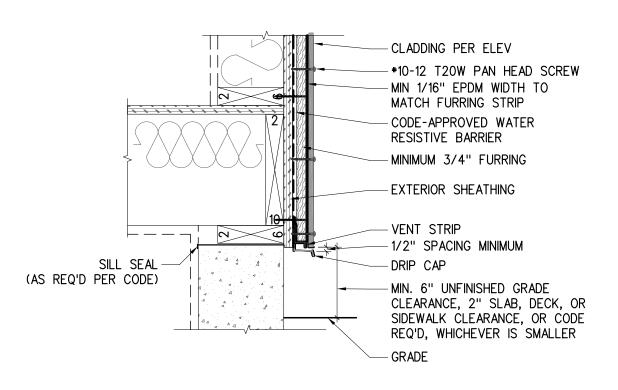
PANEL W/ HORIZ. TRIM @ FLOOR BREAK

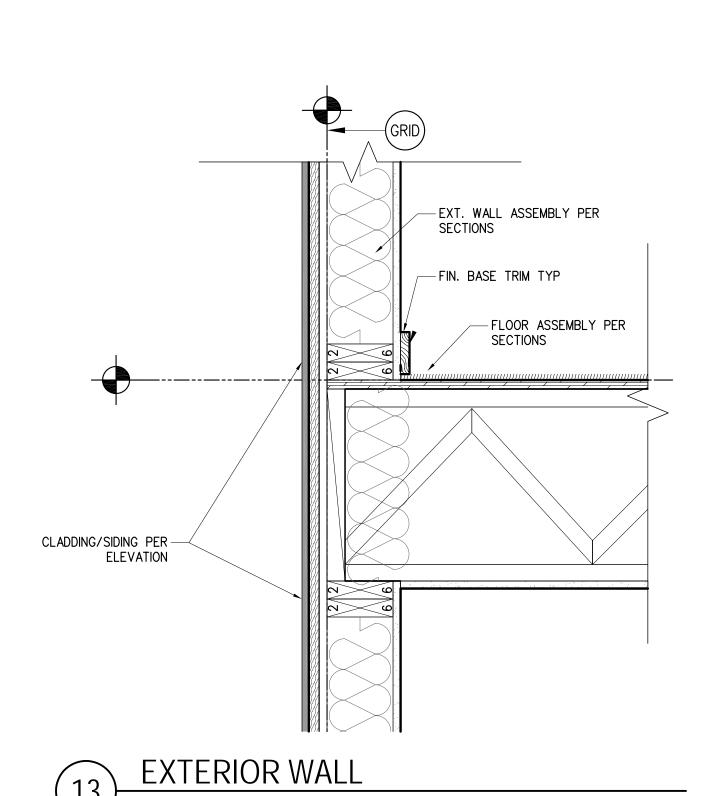


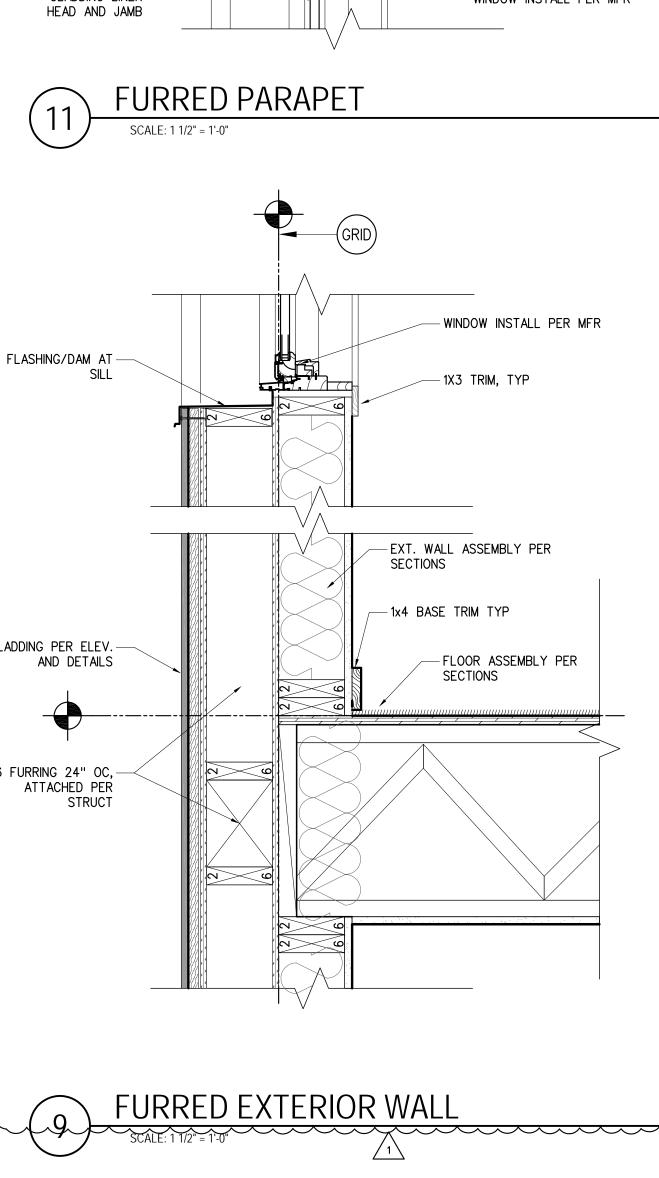


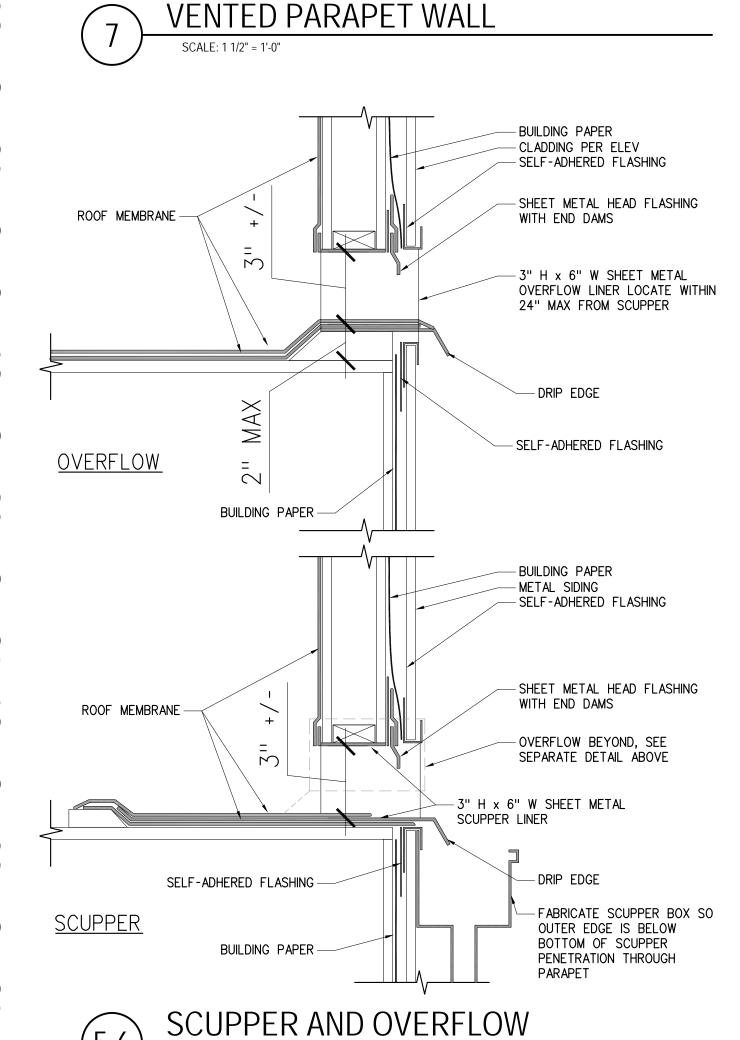


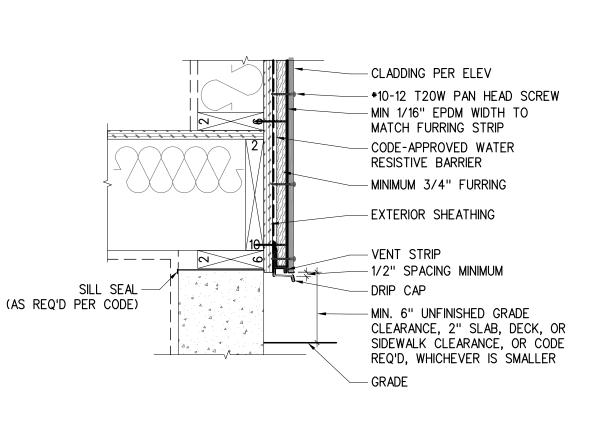




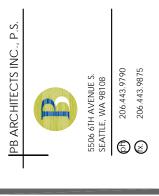


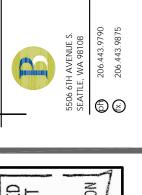








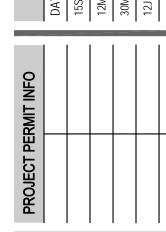






PROJECT REVISIONS	DESCRIPTION	12JUL2019 SUBMITTAL SET REV.S	180CT2019 SUB. SET REV.S #2			
PROJECT	DATE	12JUL2019	180CT2019			
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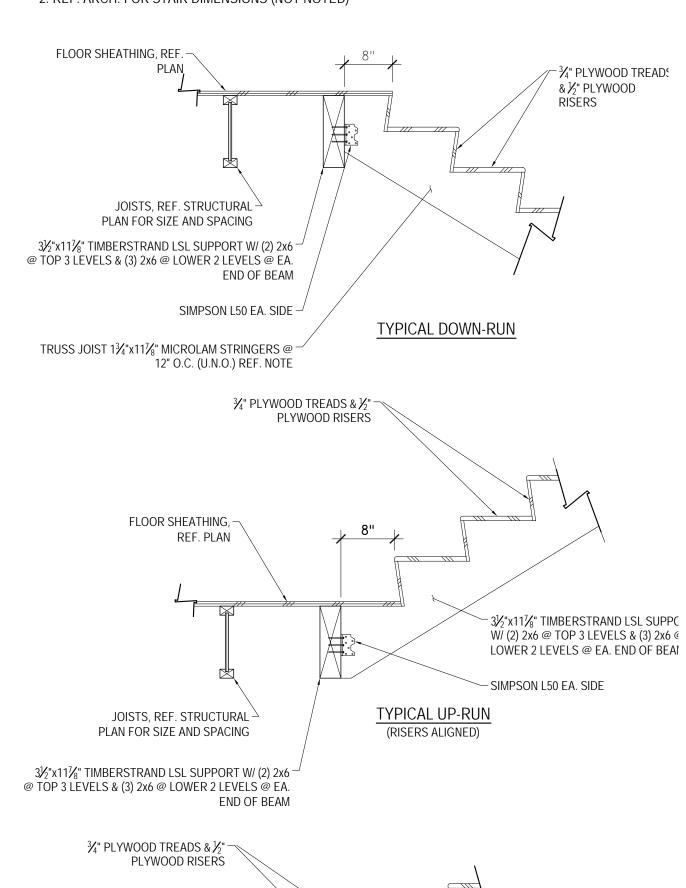
				<u> </u>	4	< -
	DESCRIPTION					
PROJECT RELEASE	DATE					
PROJECT	DESCRIPTION	PRELIM	12MAR2018 PRE-APP REVIEW	30MAY2018 90% REVIEW	12JUL2019 SUBMITTAL REVISIONS	SHIDMITTAL DEVISIONS
	DATE	15SEPT17	12MAR2018	30MAY2018	12JUL2019	190CT2010

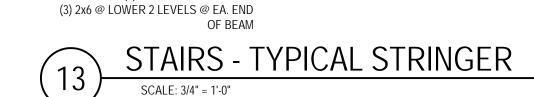


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TYPICAL STAIR ON GRADE

1. USE TRUSS JOIST 3½" X 11½" MICROLAM STRINGERS @ 6"O.C. FOR STAIR RUNS WITH 11 OR MORE RISERS
2. REF. ARCH. FOR STAIR DIMENSIONS (NOT NOTED)





- 3½"x11½" TIMBERSTRAND LSL SUPPORT W/ (2) 2x6 @ TOP 3 LEVELS & (3) 2x6 @ LOWER 2 LEVELS @ EA.

END OF BEAM

TYPICAL UP-RUN

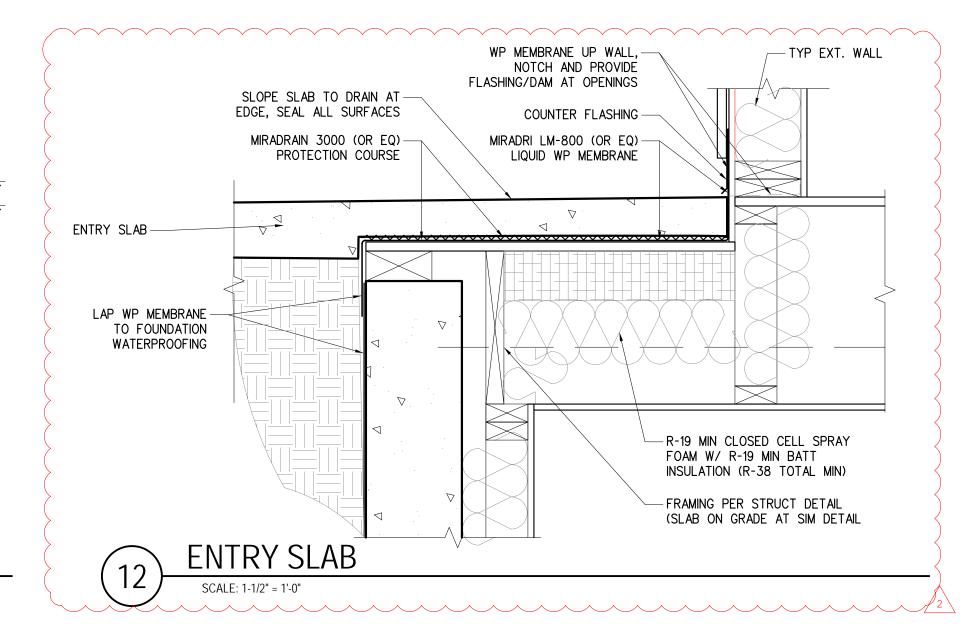
(RISERS OFFSET)

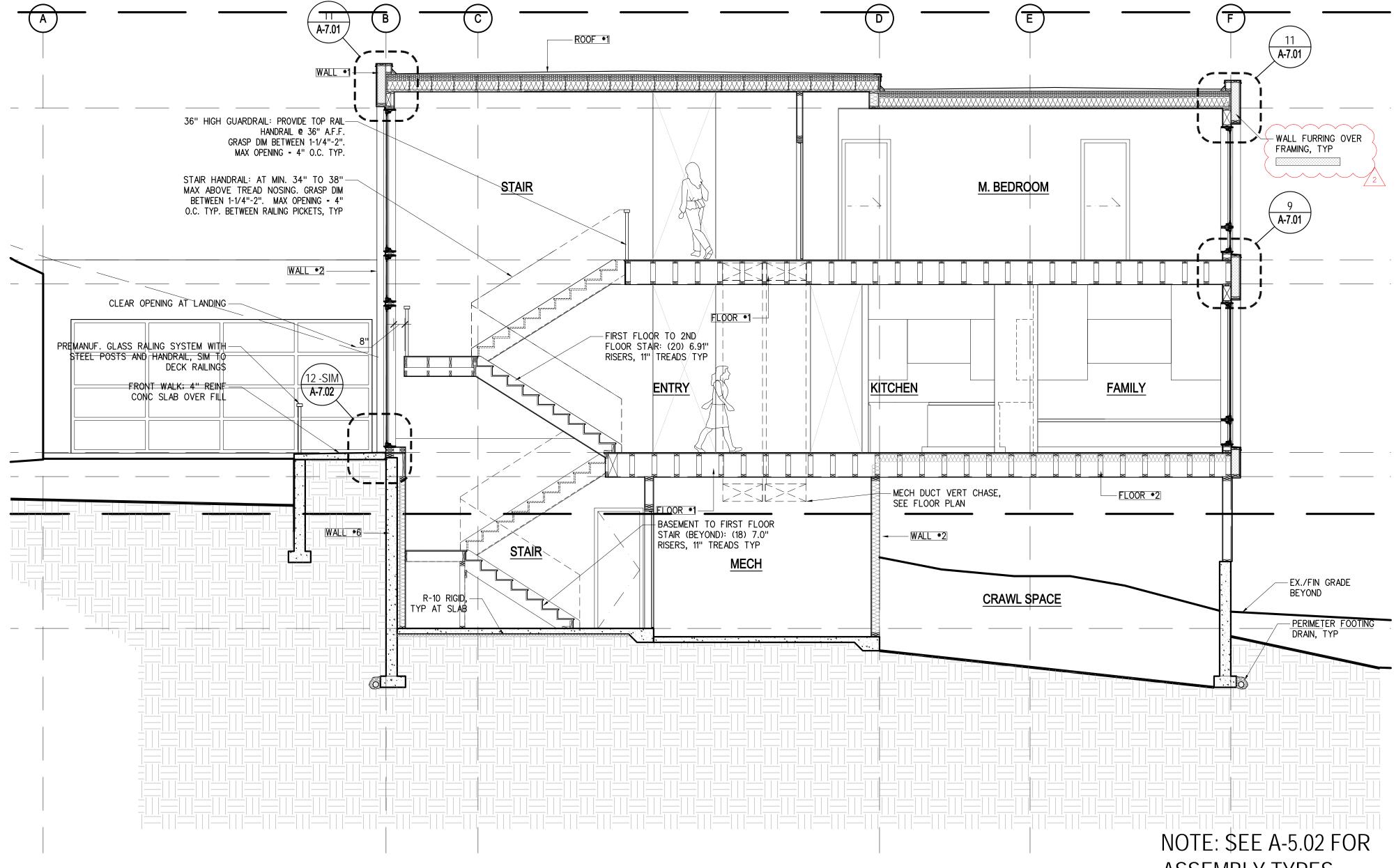
SIMPSON L50 EA. SIDE

FLOOR SHEATHING, REF. -

JOISTS, REF. STRUCTURAL $^{\perp}$ PLAN FOR SIZE AND SPACING

3½"x11½" TIMBERSTRAND LSL -SUPPORT W/ (2) 2x6 @ TOP 3 LEVELS &







5506 6TH AVENUE S.
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(R) 206.443.9875





NCE WAY

WEST MERCER WA

PROJECT REVISIONS

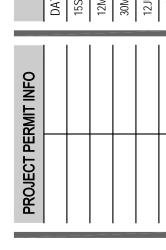
DATE DESCRIPTION

12JUL2019 SUBMITTAL SET REV.S

2 18OCT2019 SUB. SET REV.S #2

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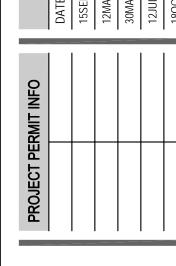
DETAILS - STAIRS





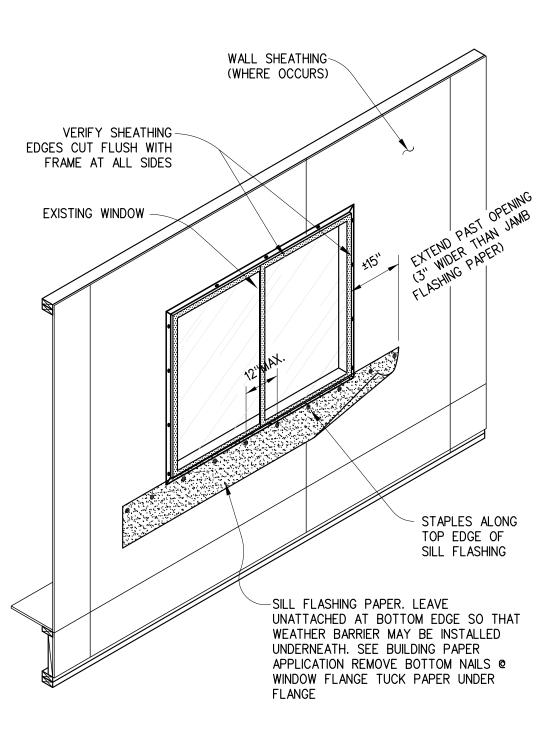
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	DESCRIPTION				
RELEASE	DATE				
PROJECT RELEASE	DESCRIPTION	PRELIM	PRE-APP REVIEW	90% REVIEW	SUBMITTAL REVISIONS

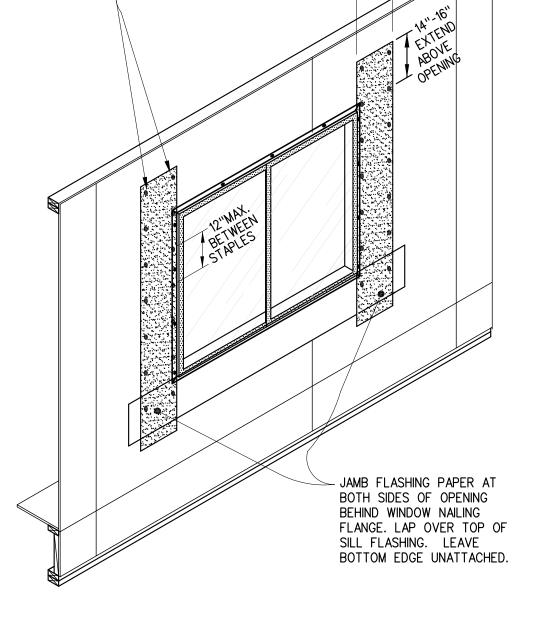
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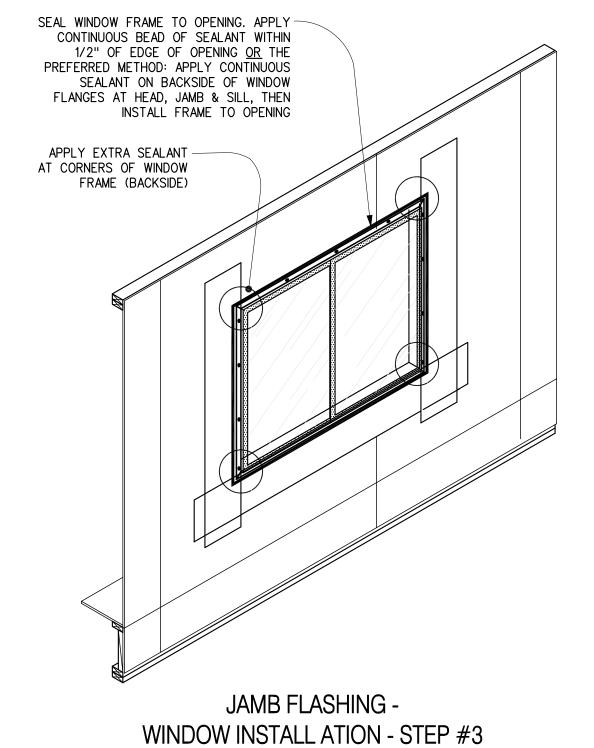








-TWO ROWS OF STAPLES



EXTERIOR WALL FINISH: SIDING MATERIAL PER

COORDINATE BOTTOM EDGE OF WEATHER BARRIER WITH

EXTERIOR WALL BASE DETAIL

ELEVATION: LEAVE GAP BETWEEN EDGE OF SIDING &

WINDOW FRAME PER WINDOW MANUFACTURER. APPLY SEALANT IN GAP BETWEEN SIDING EDGE & WINDOW FRAME AT JAMBS & SILL BUT <u>NOT</u> AT HEAD

SILL FLASHING - STEP #1



INSTALL WEATHER BARRIER —

TOP OF WALL.

3rd COURSE

OF WEATHER BARRIER

2nd COURSE OF WEATHER BARRIER

1st COURSE OF WEATHER

BARRIER

OF WINDOW FRAME

APPLIED WEATHERBOARD FASHION STARTING FROM BOTTOM TO

INSTALL WEATHER BARRIER <u>OVER</u> HEAD FLASHING PAPER AND OVER TOP OF NAIL-ON HEAD FLANGE

SLIP BOTTOM OF JAMB PAPER & SILL FLASHING PAPER <u>OVER</u>

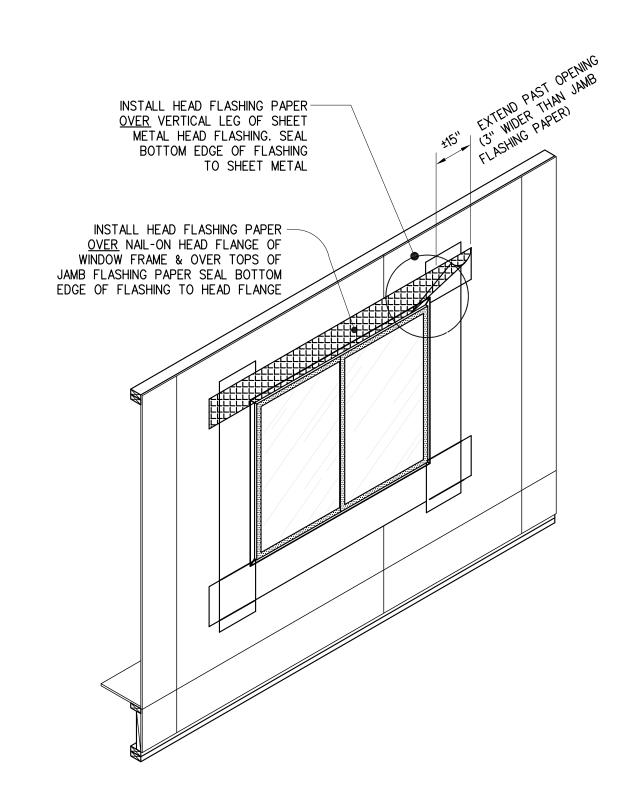
WEATHER BARRIER APPLICATION - STEP #5

WEATHER BARRIER AT

NOTE: ATTEMPT TO KEEP FASTENER FOR TRIM & SIDING AWAY FROM WINDOW. FIN AS MUCH AS POSSIBLE, ESPECIALLY NEAR CORNERS.

BOTTOM OF WINDOW SILL.





WINDOW WEATHERPROOFING

LEAVE ±8" GAP AT SIDING/WINDOW JUNCTURE AT JAMBS AND SILL, INSERT BACKER ROD AND SEALANT AT JAMBS AND SILL ONLY. DO NOT SEAL HEADS. STEP 4

APPLY VERTICAL STRIP OF SELF-ADHERED FLASHING ALONG FULL HEIGHT OF BOTH JAMBS,

EXTEND SELF-ADHERED FLASHING ONTO OPENING AND OVER SHEET

METAL JAM DAM. SLIT

SELF-ADHERED FLASHING AT

SILL, AND ADHERE AS SHOWN TO

DOUBLE-UP SILL END DAM. SEAL

ALL LAPS AT SILL WITH LIQUID

SEAL TOP OF— SHEET METAL FLASHING WITH

SELF-ADHERED FLASHING AS

APPLY BEAD OF SIKAFLEX 15LM

SEALANT BEHIND NAIL

FLANGE @ HEAD &

BOTH JAMBS, DO NOT SEAL UNDER

SILL NAIL FLANGE

STEP 3

STEP 2

SHOWN

MEMBRANE

IF SOLDERING OF END DAMS IS NOT FEASIBLE, CORNERS CAN BE

SEALED WITH

SELF-ADHERED FLASHING AND/OR SEALANT

-INSTALL SHEET

TO DRAIN AS

SHOWN, WITH

DAMS ABOVE

JAMBS AS SHOWN

SOLDERED UP-TURNED END

DOUBLE LAYER BUILDING

TUCK BOTH LAYERS OF

BUILDING PAPER. SEAL JUNCTURE WITH STRIP OF

SELF-ADHERED FLASHING

TUCK BOTH LAYERS OF BUILDING PAPER UNDER

FLASHING TO NAIL FLANGE, THEN STAPLE DOWN PENETRATION FLASHING

SILL PENETRATION

-INSTALL SIDING

OVER BUILDING

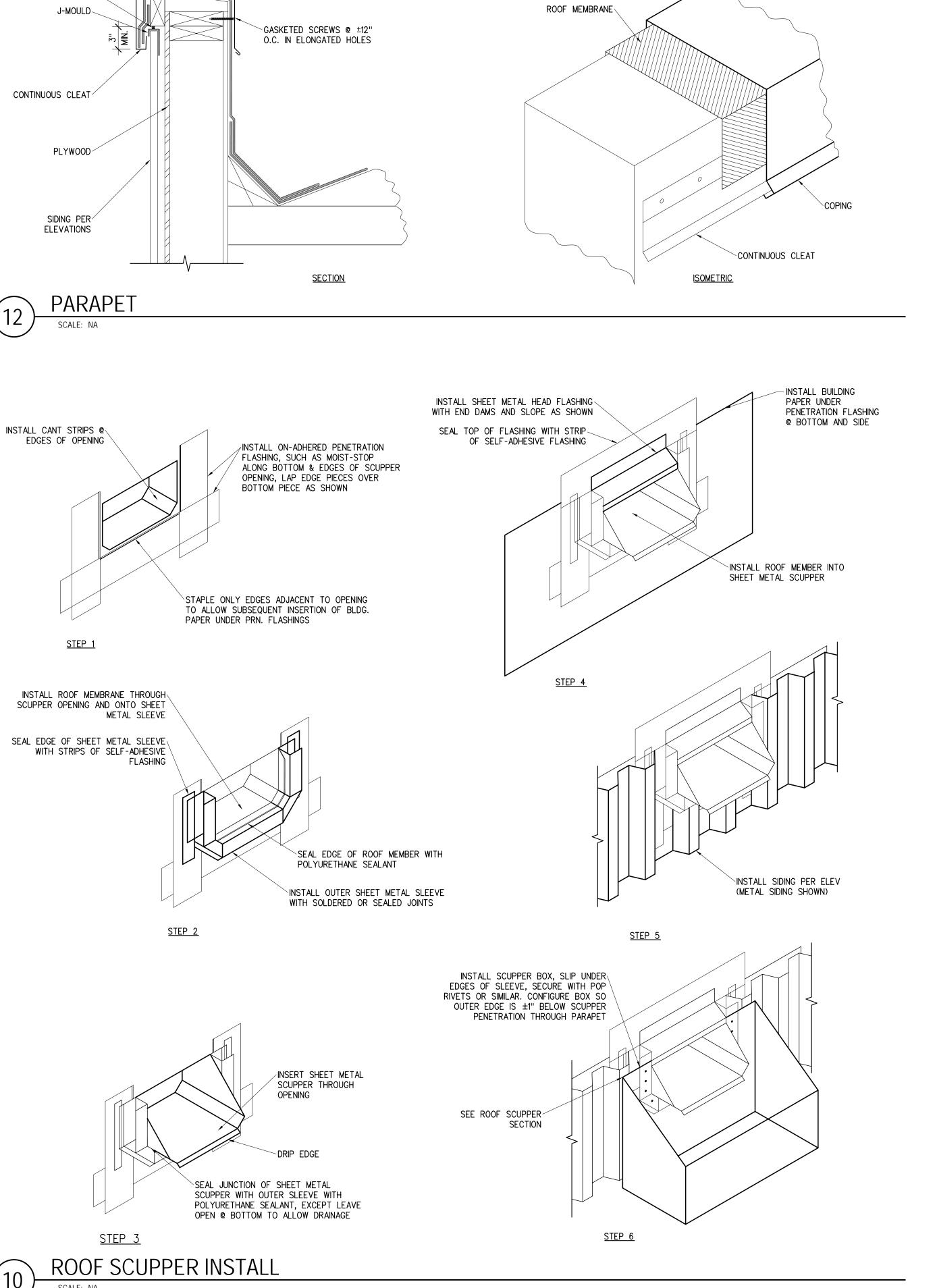
BUILDING PAPER UNDER JAMB PENETRATION FLASHING TO

NAIL FLANGE. STAPLE DOWN

PENETRATION FLASHING OVER

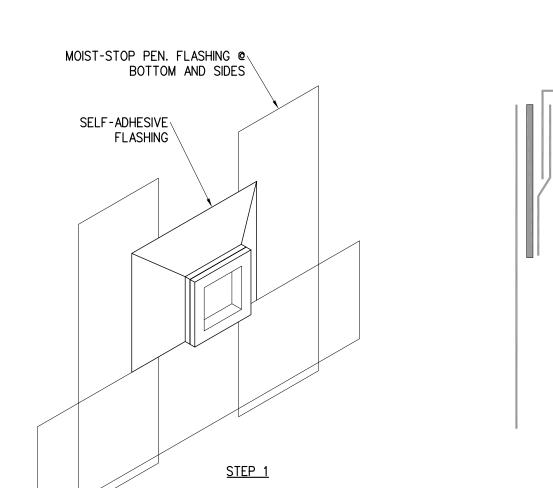
METAL HEAD FLASHING, SLOPED

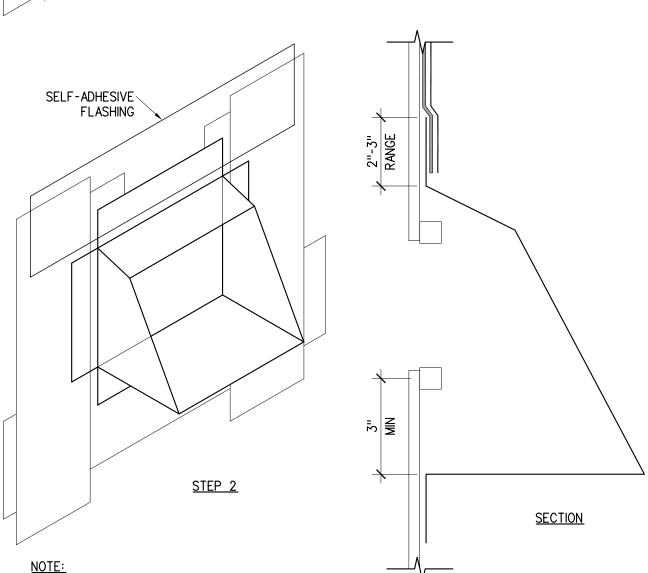
ALT. WINDOW WEATHERPROOFING



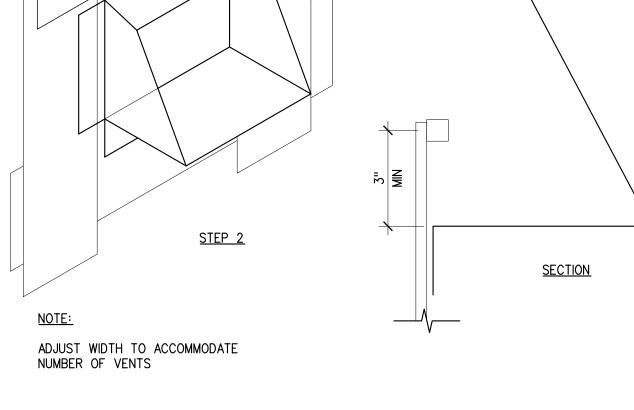
SEALANT

-ROOF MEMBRANE

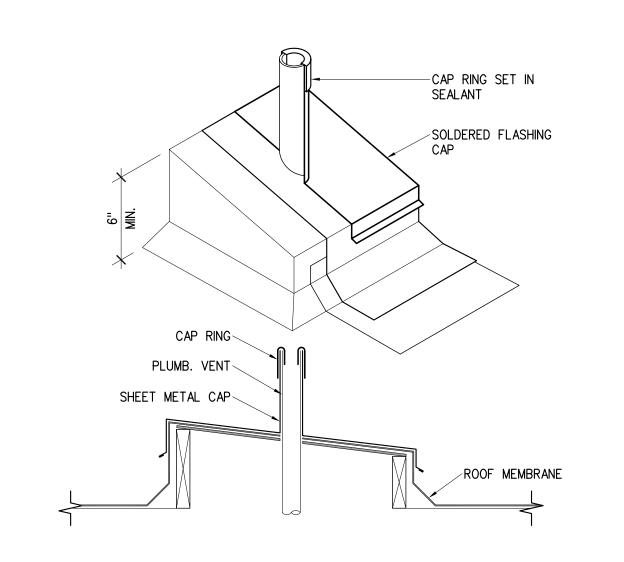




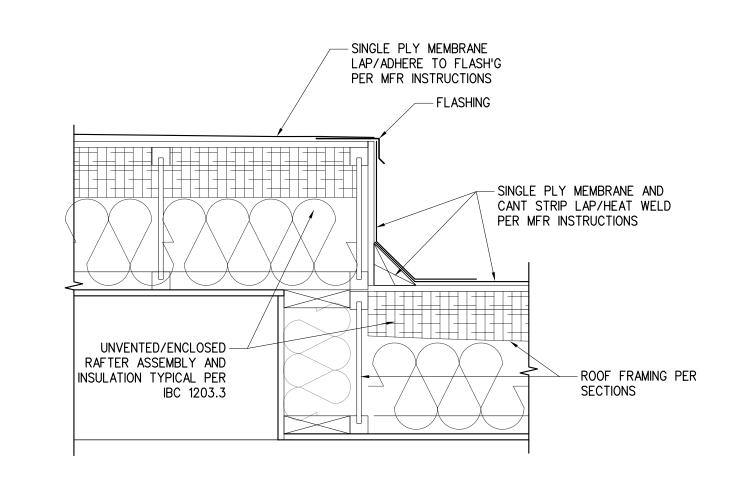
<u>JAMB</u>



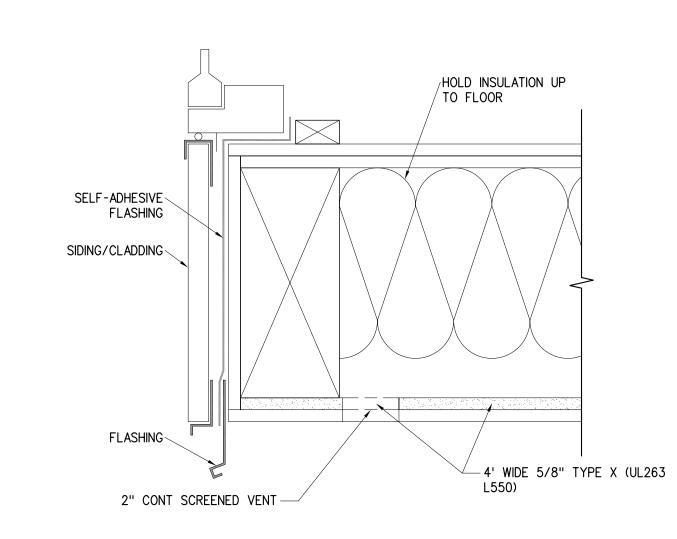




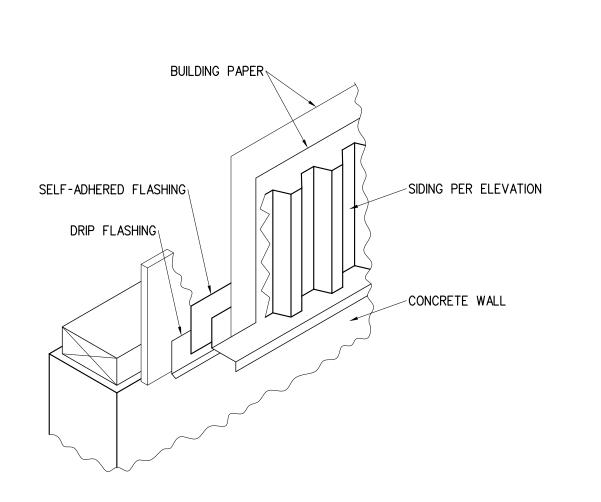
ROOF SCUPPER VENT



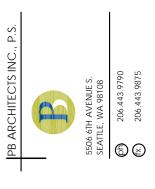




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	DATE	15SEPT17	12MAR2018	30MAY2018	12JUL2019	1000T0010
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PROJECT PERMIT INFO						

Construction observation by the Structural Engineer is for conformance with design aspects only and is not intended in any way to review the General Contractor's construction procedures.

STANDARDS:

All methods, materials and workmanship shall conform to the 2015 International Building Code (IBC) as amended and adopted by the local Building Official or applicable jurisdiction.

DESIGN LOADS

ROOF LOAD: SNOW 30 PSF, DEAD 20 PSF

FLOOR LOADS: LIVE 40 PSF, DECK LIVE 60 PSF, DEAD 15 PSF WIND SPEED: Vs 3-Sec= 110 MPH, Iw=1.0, EXPOSURE "C" SEISMIC: DESIGN CATEGORY "D", Ss=1.47, S₁=0.56, Ie=1.0, Site Class "D", R=6.5

SOILS:

Allowable soil bearing pressure of 3000 PSF is used per project soils report project No. 17-405 by PanGEO dated 2/8/18. It is the contractors responsibility to verify that all footings bear on firm, undisturbed earth or compacted "Structural Backfill" that meet or exceed allowable soil bearing pressure.

FOUNDATIONS:

Bottom of exterior footings shall be a minimum of 18" below finished grade bearing on undisturbed native soils. Back fill with dry soils. Backfill next to retaining walls with a minimum of 12" gravel or free draining soil. Soils under footings and slabs to be 95% compacted to a Modified Proctor Density (ASTM D1557). All construction on fill soil shall be reviewed by a licensed Geotechnical engineer.

CONCRETE:

All concrete materials and placement shall conform to the current ACI code. Concrete shall be made with Portland Cement ASTM C-150 Type II or Type I and shall be Ready-Mixed per ASTM C-94. Min. compressive strength shall be 3000 PSI* at 28 days with a min. water/cement ratio of .45. All concrete shall be air entrained $5 \pm 1\%$. Max aggregate size = $\frac{7}{8}$ ".

*Special Inspection not required. 3000 PSI compressive strength has been specified for weathering protection. *Structural design of concrete based on 2500 PSI compressive strength*.

REINFORCING STEEL:

All reinforcing steel to be GRADE 60 PER ASTM A-615. Lap all splices shall be the greater of 32 bar diameters or 18". Lap horizontal steel at corners and intersections in footings and walls with continuous corner bars.

Minimum concrete cover over reinforcing steel:

- INTERIOR FACES OF SLAB AND WALL BARS = 1½ "
- EXPOSED TO WEATHER OR EARTH = 1½" AT #5 AND SMALLER AND 2" AT #6 AND LARGER.
- CONCRETE CAST AGAINST SOIL = 3"

WOOD FRAMING AND CARPENTRY

General Requirements: Provide minimum nailing per 2015 IBC table 2304.10.1 or as indicated on the drawings. Do not notch or drill structural members, except as permitted by the engineer.

Framing Connectors: Only ICC approved connectors shall be used in framing applications as manufactured by Simpson Strong-Tie or equivalent. Provide maximum size and quantity of fasteners shown in the manufacturer's catalog U.N.O.

Fasteners:

Bolts shall be per ASTM A-307 with standard cut washers or malleable iron washers. Post-installed anchors require engineering confirmation prior to installation. Contact Phillips Structural Engineering for possible alternatives. Nails shall be common wire nails or equivalent pneumatically drive nails (P-nails), American or Canadian manufacturer only as indicated below. P-nails shall be installed per the manufacturer's guidelines.

COMMON WIRE NAIL	DIAMETER (INCHES)	MINIMUM LENGTH (INCHES)	NAIL APPLICATION
8d COMMON	0.131	2½"	SHEATHING
10d COMMON	0.148	2½"	SHEATHING
N/A	0.131	3"	FRAMING
12d COMMON	0.148	3¼"	FRAMING
16d COMMON	0.162	3%"	FRAMING

Wood Sheathing (Structural):

Roof sheathing shall be $\frac{1}{2}$ " CDX or $\frac{7}{16}$ " OSB nailed w/ 8d @ 6" o.c. along panel edges, and 12" o.c. in field. Span index shall be 24/0. Plywood Sub Flooring shall be $\frac{3}{4}$ " T&G CDX or OSB (glued & nailed). Nailing shall be 10d @ 6"o.c. along panel edges, and 12"o.c. in field (U.N.O.) Span index shall be 48/24. Stagger all end laps. All sheathing shall bear the grade trademark of the American Plywood Association (APA).

Studs:

All studs shall be kiln dried (KD) or surface dried (SD). Each stud shall bear the stamp of the West Coast Lumber Inspection Bureau (WCLIB) or Western Wood Products Association (WWPA) showing grade mark or approved equal. All studs shall 2x minimum material and Doug-Fir meeting the following minimum strength properties: Fb= 900psi, Fv=180psi, E=1,600,000psi.

Headers:

All headers not specified or otherwise noted on the plan with spans ≤5'-0" are to be 4x8 DF#2 or (2)2x10 HF#2 with at least one cripple and one king stud at each end. Spans greater than 5'-0" shall have at least two cripples and one king stud U.N.O. Heavy Timbers:

All timbers above sizes listed above including posts and beams shall be Doug-Fir #2 or better.

Glu-Laminated Beams (GLB):

All GLB shall be in conformance with ANSI A190.1, American National Standards for Structural Glue-Laminated Timber. Grade 24F-V4 shall meet or exceed the following: Fb=2400psi, Fv=240psi, E=1,800,000psi and shall be used at simple spans. Grade 24F-V8 shall be used at continuous spans.

Laminated Veneer Lumber (LVL):

All LVL shall be in conformance with ASTM D2559. LVL shall be made of Doug-Fir (DF)and meet or exceed the following: Fb= 2,600psi, Fv=285psi, E=1,900,000psi. Parallel Strand Lumber (PSL):

All PSL shall be in conformance with ASTM D2559 and NER-292. PSL strength requirements shall meet or exceed the following: Fb=2,900psi, Fv=290psi, E=2,000,000psi.

Preservative Treatment (P.T.):

All exposed framing including lumber, plywood and deck materials shall be pressure treated with 0.25#/cf pentachlorophenol per AWPA specification P-5 or other approved treatment. All cutting and boring after pressure treatment shall be cared for in accordance with AWPA specification M-4. Exposed framing includes, but is not limited to:

- 1. Joists, girders and subfloor that is closer than 18" to exposed ground in crawl
- 2. Wood framing (including sheathing) that rest on exterior foundation stem walls and is 8" or less from exposed earth.
- 3. Any other wood product in direct contact with concrete or masonry. Wood Connectors at P.T. Conditions:

Metal connectors which are in contact with pressure treated wood shall be protected with on of the following: Simpson "ZMAX" G185 Galvanization, Triple Zinc Coated, hot Dipped Galvanized or other approved method.

Pre-Engineered Floor Trusses:

RIM JOIST/BLOCKING -

NTERMEDIATE FRAMING

(FIELD) MEMBER NAILING (12" O.C. MAX. SPACING)

) PROVIDE APA APPROVED GLUE,

NAIL ALL PLYWOOD TO JOISTS PER GENERAL NOTES

.) STAGGER PANELS TO OFFSET

3/4" T&G PLYWOOD OR OSB-

SHEATHING AT FLOOR & 7/16"

SHEATHING AT ROOF (APA RATED)

JOINTS AS SHOWN.

All prefabricated floor trusses shall be designed by or under the direct supervision of a licensed professional engineer registered in the state where the structure is located. The truss shop drawings shall bear the stamp of that engineer and shall be fabricated and installed per the latest Truss Plate Institute standards. All necessary temporary and permanent bridging, blocking, pre-notched plates, hangers, etc. for the stability of the truss elements under gravity and lateral loads shall be designed and detailed/specified and furnished by the manufacturer. The truss manufacturer shall verify all setbacks, dimensions and bearing points prior to fabrication. Maximum allowable deflections shall be as follows:

~Floor Total Load = L/480 or $\frac{5}{8}$ " (whichever is less)

~Floor Live Load = L/600 or $\frac{1}{2}$ " (whichever is less)

Trusses shall be designed for the spans and conditions shown and be constructed from Doug-Fir timber and be furnished and installed in conformance with the manufacturer's published specifications. Additional concentrated loads from mechanical units and misc. equipment shall be accounted for/coordinated with sub-contractors, the designer of record and truss engineer. Framing has been designed assuming Hem-Fir plates w/ 405psi crushing capacity, truss engineer to confirm compatibility.

Where trusses align with shear walls, truss engineer to design and provide a truss that has been designed to transfer lateral wind and seismic forces as shown on the plans. Loading indicated (100plf minimum)shall be designed by the truss engineer to transfer from floor sheathing to shearwall below. Shop drawings including truss engineering shall be submitted to the Engineer of Record for approval prior to submittal to the jurisdiction and fabrication.

Alteration of the truss layout indicated on the plans may require supporting structural and foundation changes, therefore prior approval by the designer and structural engineer is required. Trusses shall not be field altered in any way without written approval from the licensed truss engineer of record.

PANEL EDGE NAILING

AT INTERMEDIATE BEAM MEMBERS PROVIDE 6" O.C. NAIL SPACING FOR FULL LENGTH OF MEMBER (TYP. @ FLOOR AND ROOF LOCS.)

TYPICAL HORIZONTAL PLYWOOD DIAPHRAGM LAYOUT

(ROOF AND FLOOR)

(STAGGER NAILING @ PANEL EDGES)

- JOISTS/TRUSS/RAFTER PER PLAN

		HOLDOWN AND	STRAP TABLE		
	O. O. T.	Strap/Holdown Attachme	nt and Required Fasteners		
Holdown Label (G)	Simpson Strong—Tie Product Label (SKU) (A) (B) (C) (F) (G)	Required <u>NAILING</u> and Boundary Studs	Required <u>SCREWS</u> and Boundary Studs	Anchorage to Foundation (D) (E)	
[1]	STHD14/STHD14RJ	(2) 2X STUDS W/ (30) 16d Sinker	N/A	EMBEDDED STRAP	
[1]Alt	HDU5-SDS2.5	N/A	(2) 2X STUDS W/ (14) SDS SCREWS	SIMPSON SB%x24	
[2]	HDQ8-SDS3	N/A	(3) 2X STUDS W/ (20) SDS SCREWS	SIMPSON SB%X24 (SEE NOTE E)	
[3]	HHDQ11-SDS2.5	N/A	6x6 DF#2 POST W/ (24) SDS SCREWS	SIMPSON PAB8	
[4]	MST48 STRAP	(2) 2X STUDS W/ (34) 16d	N/A	N/A	
[5]	MST60 STRAP	(2) 2X STUDS W/ (34) 16d	N/A	N/A	
[6]	MSTC48B3 STRAP	(2) 2x STUDS W/ (38) 10d	N/A	N/A	
[7]	MSTC66B3 STRAP	(2) 2x STUDS W/ (38) 10d	N/A	N/A	
MANDATORY NOTES					
A. INSTALLATION OF ALL HOLDOWN ANCHORS AND STRAPS SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS.					
B. ALL METAL CONNECTORS IN CONTACT WITH PRESSURE TREATED (P.T.) MATERIAL SHALL BE COATED WITH SIMPSON "Z-MAX" (G-185) GALVANIZATION, TRIPLE ZINC COATED FOR CORROSION PROTECTION.					
GALVA	ANIZATION, TRIPLE ZINC	COATED FOR CORROSION PROTECTION.			
	SUPPLEMENTAL N				

. IF 6" STEMWALLS ARE USED, THREADED ROD WITH DOUBLE NUT AND PLATE EXTENDED INTO THE FOOTING IS REQ'D. SEE ALTERNATI

IMPORTANT FRAMING NOTE: GENERAL CONTRACTOR/FRAMER SHALL VERIFY ALL CONCENTRATED LOADS FROM ABOVE TO HAVE SOLID BEARING CONTINUOUS TO THE FOUNDATION (INCLUDING SQUASH BLOCKING IN CRAWLSPACE/FLOOR FRAMING). ANY CHANGES TO FOUNDATION AND STRUCTURE FROM ARCHITECTURAL PLANS SHALL BE NOTED AND ALL AFFECTED PARTIES SHALL BE NOTIFIED.

ALTERNATE HOLDOWN TYPES MAY BE ACCEPTABLE WITH WRITTEN APPROVAL OF PHILLIPS STRUCTURAL ENGINEERING

ALTERNATE ADHESIVE ANCHORS MAY BE AVAILABLE, CONTACT PHILLIPS STRUCTURAL ENGINEERING

STHD10RJ & STHD14RJ HOLDOWNS ARE TYPICALLY TO BE INSTALLED WHERE A RIM JOIST OCCURS.

SIMPSON HDU5-SDS2.5 MAY BE USED AS AN ALTERNATE TO STHD10(RJ) OR STHD14(RJ).

DETAILING. SB%"X24 MAY ONLY BE USED IN 8" STEMWALLS.

SYMBOL & ABBREVIATIONS LEGEND:

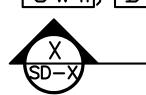


HOLD DOWN CALLOUT (REF. HOLDOWN TABLE)

BEAM # CALLOUT (REF. CALCULATIONS)

SW#, DW#

SHEARWALL CALLOUT (REF. SHEARWALL TABLE)



SECTION REFERENCE

VERIFY IN FIELD

A.B.
AFF
C.I.P.
CONC.
(E)
E.N.
E.W.
FDN.
G.T.
GWB
HDR
MFR
(N)
O.C.
P.E.
S.W.
T.O.F.
T.O.W.
U.N.O.
V.I.F.

ANCHOR BOLT ABOVE FINISHED FLOOR CAST IN PLACE CONCRETE **EXISTING** SHEARWALL EDGE NAIL EACH WAY FOUNDATION GIRDER TRUSS GYPSUM WALL BOARD HEADER (SEE STRUCTURAL NOTES FOR SIZE) MANUFACTURER NFW PRE-ENGINEERED SHEARWALL TOP OF FRAMING TOP OF WALL UNLESS NOTED OTHERWISE

-SIMPSON ST6224 W/ (28) 16d NAILS

 \downarrow (2) ROWS OF (4) 16d NAILS

-DOUBLE 2X CRIPPLE W/

(1) 2X KING

DOUBLE 2X TOP PLATE

BEAM FLUSH TO DBL TOP PLATE

LTP4 @ 36"OC OR 12d @ 4" O.C. 5%" @ 48" O.C. SW6 260/365 %6"OSB (1) Side 0.131x2½" @ 6" O.C. LTP4 @ 20"OC 16d @ 4" O.C. OR 12d @ 2½" O.C. %" @ 32" O.C. SW4 380/532 76"OSB (1) Side 0.131x2½" @ 4" O.C. SW3 490/685 7/6"OSB (1) Side 0.131x2½" @ 3" O.C. LTP4 @ 12"OC | 16d @ 3½" O.C. | 5½" @ 18" O.C SW2 640/895 7/6"OSB (1) Side 0.131x21/2" @ 2" O.C. O.C. & LTP4 @ 16" OC AT BLK'G TO PLATE (2) ROWS 16d @ 4" 760/1065 76"OSB Each Side 0.131x21/2" @ 4" O.C. LTP4 @ 8"OC LTP4 @ 6"OC O.C. & LTP4 @ 16" OC AT BLK'G TO PLATE (2) ROWS 16d @ 4" DW3 980/1370 1/36"OSB Each Side 0.131x21/2" @ 3" O.C. DW2 | 1280/1790 | 1/6"OSB Each Side | 0.131x2½" @ 2" O.C. LTP4 @ 6"0C MANDATORY NOTES A. ALL SHEATHING PANELS SHALL BE INSTALLED HORIZONTALLY WHERE FRAMING EXCEEDS 16" O.C. SPACING. BLOCK ALL PANEL EDGES. WHEN SHEATHING IS APPLIED TO BOTH SIDES OF SHEARWALL (DW4 & DW3), STAGGER PANEL EDGES ON OPPOSITE SIDES OF WALL SHEARWALL SHEATHING/NAILING SHALL BE PROVIDED THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT SHEARWALLS ARE DESIGNATED BY EXTERIOR BUILDING CORNERS, CORRIDORS, WALL PENETRATIONS OR AS DESIGNATED ON THE PLANS. SEE PLANS & TABLE FOR REQUIRED HOLDOWNS (PERFORATED SHEARWALLS REQUIRE SHEATHING ABOVE & BELOW OPENINGS). EDGE NAIL SHEATHING AT ALL HOLDOWN POST/STUDS. EDGE NAILING IS REQUIRED TO EACH STUD USED IN A BUILT-UP HOLDOWN POST (MULTIPLE 2X STUDS). SEE TYPICAL DETAILS FOR FURTHER INFORMATION INTERMEDIATE STUDS SHALL BE 2X_ MINIMUM AND NAILED WITH 0.131" Ø X 2½" FIELD NAILING AT 12" O.C USE 0.131"øx2½" NAILS TYPICALLY FOR LTP CLIPS WHEN INSTALLING OVER SHEATHING. IF LTP CLIPS ARE INSTALLED DIRECTLY TO 3. FRAMING, 0.131"ØX1½" NAILS MAY BE USED. A35 OR RBC CLIPS MAY BE USED WHEN ATTACHING ROOF BLOCKING TO TOP PLATE. 1. LTP4'S NOT REQ'D WHERE RIM SHEATHING OVERLAPS THE SECOND FLOOR BOTTOM PLATE. SHEATHING SHALL BE CONTINUOUS OVER BOTTOM PLATE AND RIM OR SILL PLATE PER TYPICAL DETAILING WITH EDGE NAILING AT EACH. WHEN TWO ROWS OF NAILING ARE REQ'D AT DOUBLE SIDED SHEARWALLS SEE TYPICAL DETAILING FOR FASTENERS AND BLKG. ALL ANCHOR BOLTS SHALL HAVE STEEL PLATE WASHERS 0.229"x3"X3". ANCHOR BOLTS W/ STANDARD 90" BEND SHALL BE EMBEDDED 7" INTO CONCRETE. PLATE WASHERS SHALL EXTEND TO WITHIN ½" OF SHEATHING EDGE.

SHEAR WALL (SW) AND ANCHORAGE SCHEDULE (0)

Blocking Size

© Adjoining

Panel Edges

Block Connection To Top Plate (G) (H); (Does

Nailina To Wood

(ø)Anchor Bolt To Sill Plate Concrete Below Size

(J) (K) (M)

L. WHERE 3x STUDS ARE REQ'D AT ADJOINING PANEL EDGES (2) 2x STUDS MAY BE NAILED TOGETHER IN PLACE OF USING A SINGLE 3x. FACE NAIL STUDS TOGETHER W/ 16d AT SAME SPACING SHOWN IN 2X BOTTOM PLATE ATTACHMENT COLUMN. PANEL EDGE NAILING IS REQUIRED TO EACH OF THE DOUBLE STUDS AND SHALL BE STAGGERED.

M. POST INSTALLED ANCHORS MAY NOT BE A VIABLE ALTERNATIVE. CONTACT PHILLIPS STRUCTURAL ENGINEERING FOR CONSULTATION.

PROVIDE "HOT-DIPPED" GALVANIZED NAILS/BOLTS AND METAL CONNECTORS WHEN ATTACHING TO PRESSURE TREATED MATERIALS.

M. POST INSTALLED ANCHORS MAY NOT BE A VIABLE ALTERNATIVE. CONTACT PHILLIPS STRUCTURAL ENGINEERING FOR CONSUL N APA RATED PLYWOOD MAY BE USED IN PLACE OF OSB.

N. APA RATED PLYWOOD MAY BE USED IN PLACE OF USB.

TYPICAL FRAMING NOTES:

Minimum Required
APA Rated Panel Edge Nailing

Sheathing (panel)
(A) (B) (C) (D)

Seismic/Wind (M) (K) (N)

© Edges (D) (E)

Roof and floor diaphragm nailing per Wood Sheathing Notes.
 Solid blocking shall be provided between the bearings of every rafter or

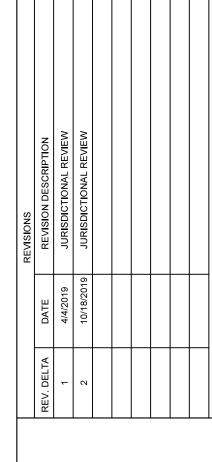
- 2. Solid blocking shall be provided between the bearings of every rafter or truss and attach to framing with Simpson H2.5T or clip indicated in typical detailing.
- 3. *Provide solid built-up studs or posts* under all girder trusses, roof beams and floor beams. Solid blocking (squash blocking) is required in all floor cavities under built-up studs/posts. Built-ups or posts shall run continuous to the foundation.
- 4. Exterior walls shall be nailed per SW6 U.N.O. All panel edges shall be blocked per shearwall table.
- 5. Where (2) shearwalls meet at a corner/intersection, the sheathing of each wall shall be edge nailed to the studs/post which the holdown is attached to.
- 6. *Provide solid rim* where floor joist bear on exterior walls per typical details.
- 7. Where floor framing runs parallel to exterior walls, install 2x blocking panels between rim joist and first joist @ 48" o.c. ~ nail sheathing to blocking w/ 8d @ 3" o.c. (crawlspace framing where rim joist bears on concrete stemwalls are omitted from this requirement).
- 8. Roof and floor joists/trusses are shown schematically on the plan and are not intended to show every location of every joist/truss.
- 9. *Provide double joists* under interior partition walls when running parallel to each other.
- 10. *Top plates* are assumed to be continuous and may be spliced per typical detailing on this sheet.
- 11. All columns not specified or shown on the plans are to be a minimum of (2) 2x studs spike laminated together with 16d nails @ 6" o.c. (stagger).
- 12. All post-beam intersections shall contain positive connections to resist against uplift and/or lateral displacement. Anchorage of walls to the foundation shall be provided in accordance with the shearwall schedule.
- 13. *Typical Walls* shall be framed with Hem-Fir U.N.O. Walls shall be anchored to the foundation per the minimum requirements of SW6 ($\frac{5}{8}$ "Ø A.B. @ 48" o.c. embedded 7" and no more than 12" from ends of each sill and 2 bolts minimum)with $3"x3"x\frac{1}{4}"$ square washers firmly attached between plate and nut. All walls over 10' tall shall have bracing/blocking at 48" o.c. (flat or on edge).

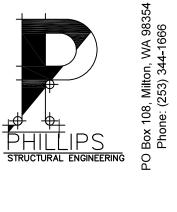
<u>PLAN VERACITY</u>: Every attempt has been made to insure the accuracy of these engineered documents, site conditions, product availability, etc. All information listed above must be verified prior to construction and fabrication. Any changes or deficiencies on or to the plan must be transmitted to Phillips Structural Engineering for written approval.

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- 2. Ownership of Engineering Calculations and Drawings: Phillips Structural Engineering shall retain "Title 17 USC Rights and Ownership" of the Copyright Law of The United States of America of these Engineering Documents and all subsequent copies of the engineering. The Licensee is not permitted unlimited reuse of these documents without prior consent.
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 Unauthorized copying of the Engineering is strictly forbidden. The Engineering is permitted to be used by the Licensee only, and may not be transferred to a 3rd party without prior written consent of Phillips Structural Engineering.







ORIGINAL STAMP MUST BE RED FOR VALIDITY

ALL VARIATIONS FROM DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS SHALL BE REPORTED TO THE DESIGNER FOR RESOLUTION WITH THE ENGINEER PRIOR TO PROCEEDING WITH WORK; FAILURE TO COMPLY BY THE CONTRACTOR SHALL BE THEIR SOLE RESPONSIBILITY FOR ANY COSTS NECESSARY FOR REMEDIAL WORK.

REUSE OF DOCUMENTS UNAUTHORIZED ALTERATION OF ANY OF THE INFORMATION ON THIS DOCUMENT WILL INVALIDATE THE

SIGNATURE.
THE DESIGNS AND IDEAS
INCORPORATED HEREIN, AS A TOOL OF
PROFESSIONAL SERVICE, IS THE
PROPERTY OF PHILLIPS STRUCTURAL
ENGINEERING AND IS NOT TO BE USED
IN PART OR IN WHOLE BY ANY PARTY
FOR ANY OTHER PROJECT WITHOUT
WRITTEN AUTHORIZATION FROM

PHILLIPS STRUCTURAL ENGINEERING.

DOCUMENT, ENGINEER'S SEAL AND

GENERAL	NOTES

WIND EXPOSURE:

ROOF SNOW LOAD:

DRAWN BY:

DRAWING DATE:

OCT. 30, 2018

SCALE:

N.T.S. (U.N.O.)

PSE NUMBER:

PSE 18.094

SHEET NO:

PHILLIPS STRUCTURAL ENGINEERING

TYPICAL TOP CHORD SPLICE

— TYPICALLY — FACE NAIL DOUBLE TOP PLATES

1-1/2" MIN —

· (10) 0.148"ø x 3" LONG P-NAIL @ EACH SPLICE U.N.O.

STUD @ BOT SPLICE -

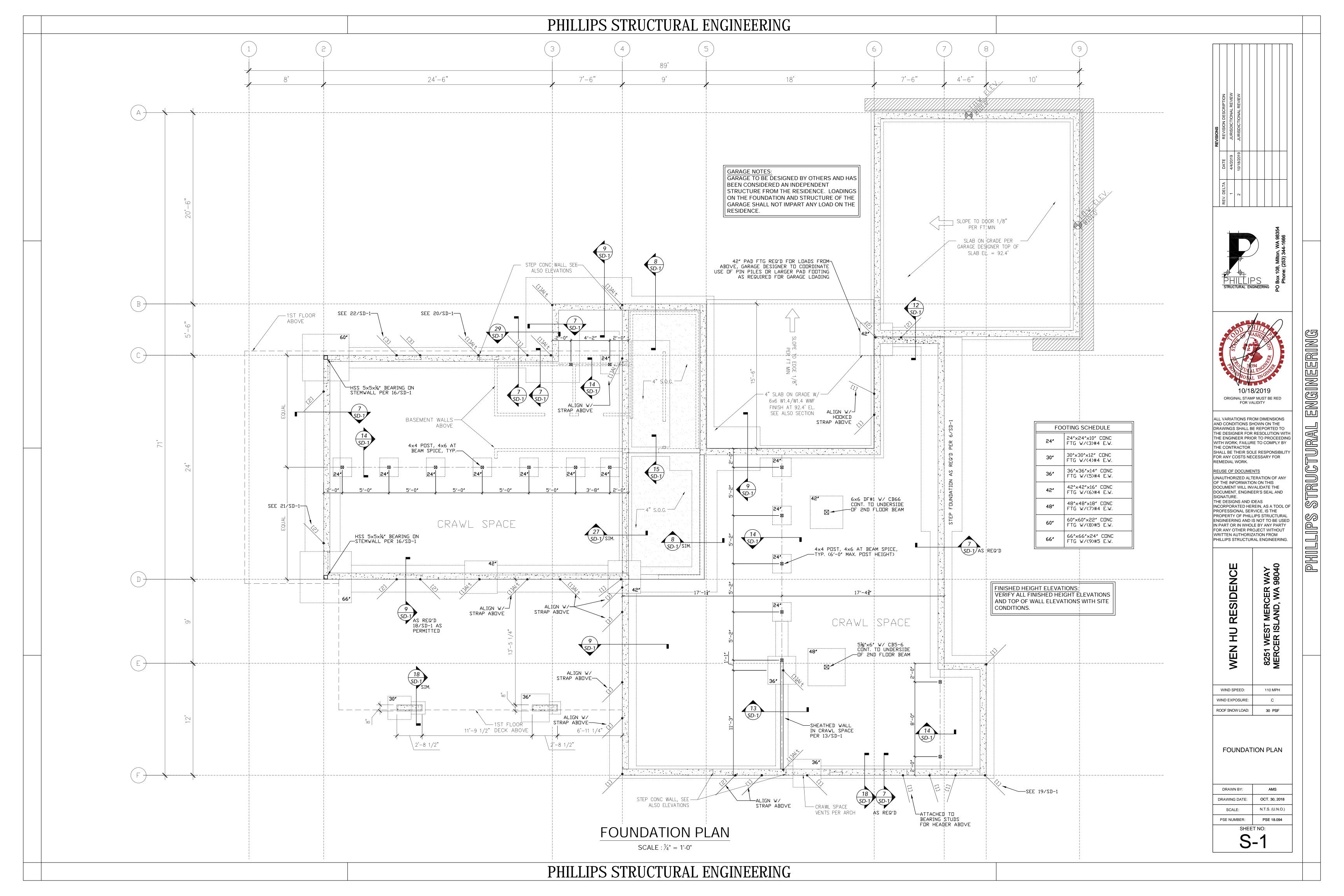
W/ 0.148"ø X 3" @ 16" O.C. STAGGERED

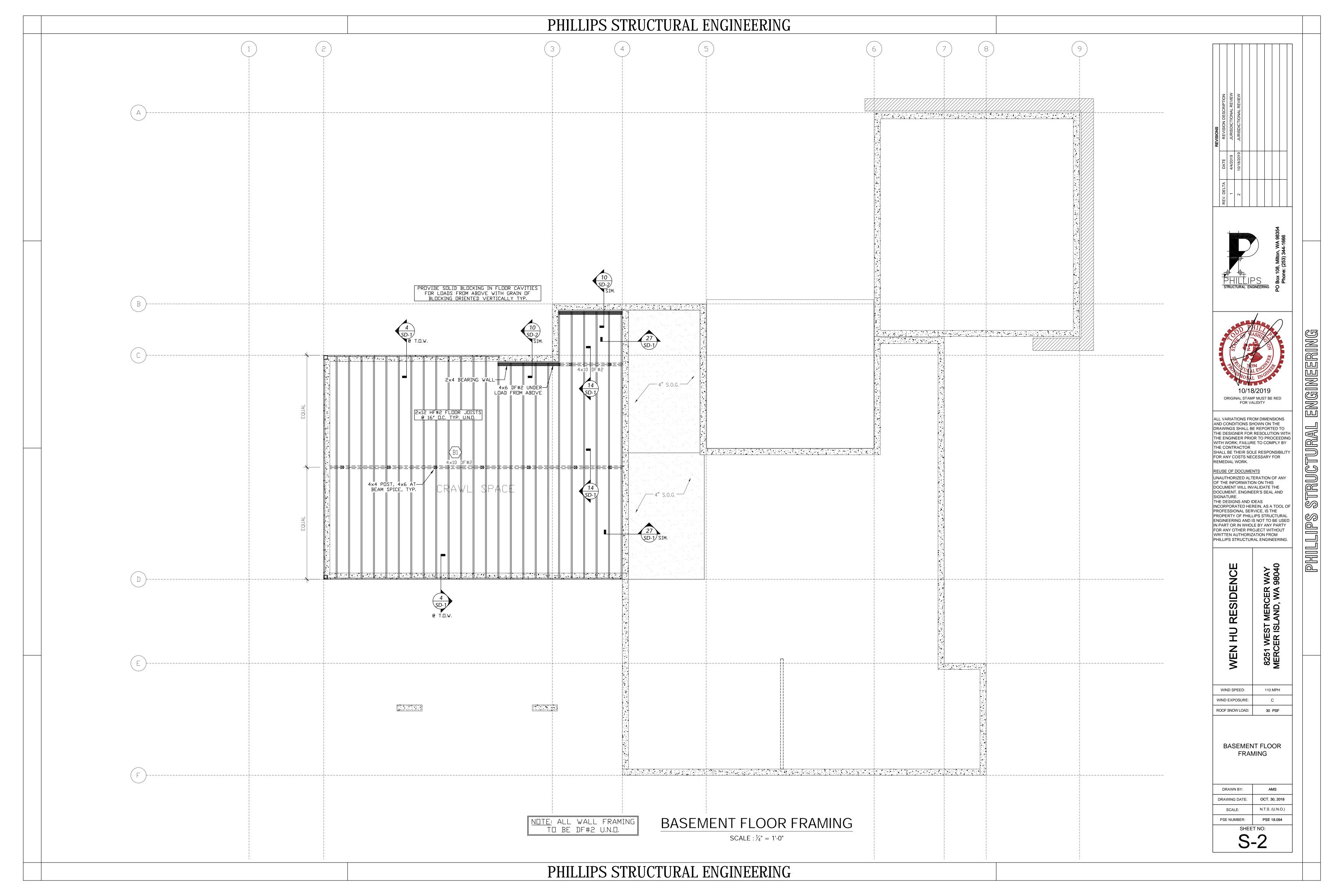
WHERE PLATE DISCONTINUITIES ARE CREATED BY BEAMS

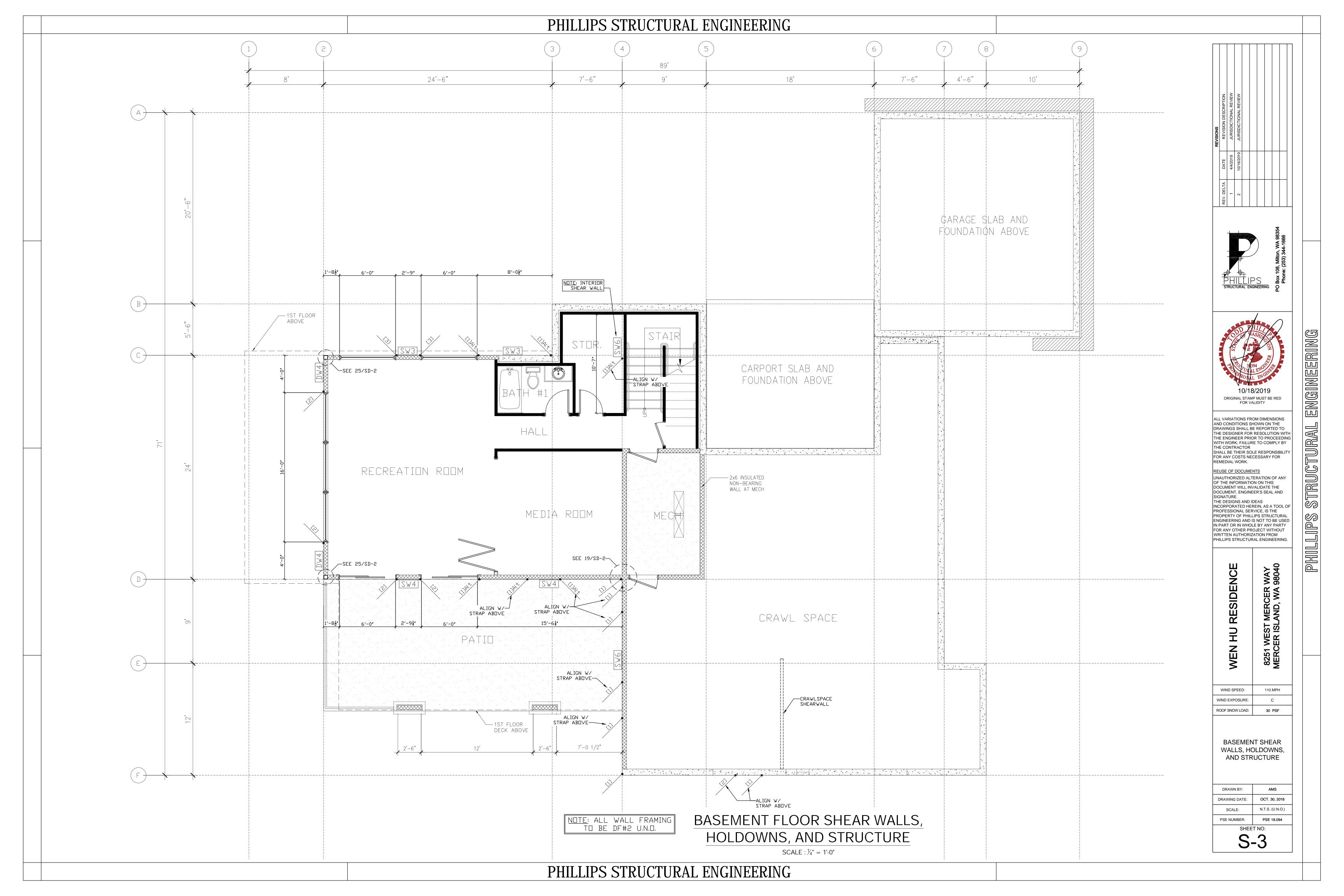
& PIPES, ETC. STRAP W/ (1)—SIMPSON ST6236 UNLESS NOTED OTHERWISE. STRAP MAY BE PLACED ON TOP

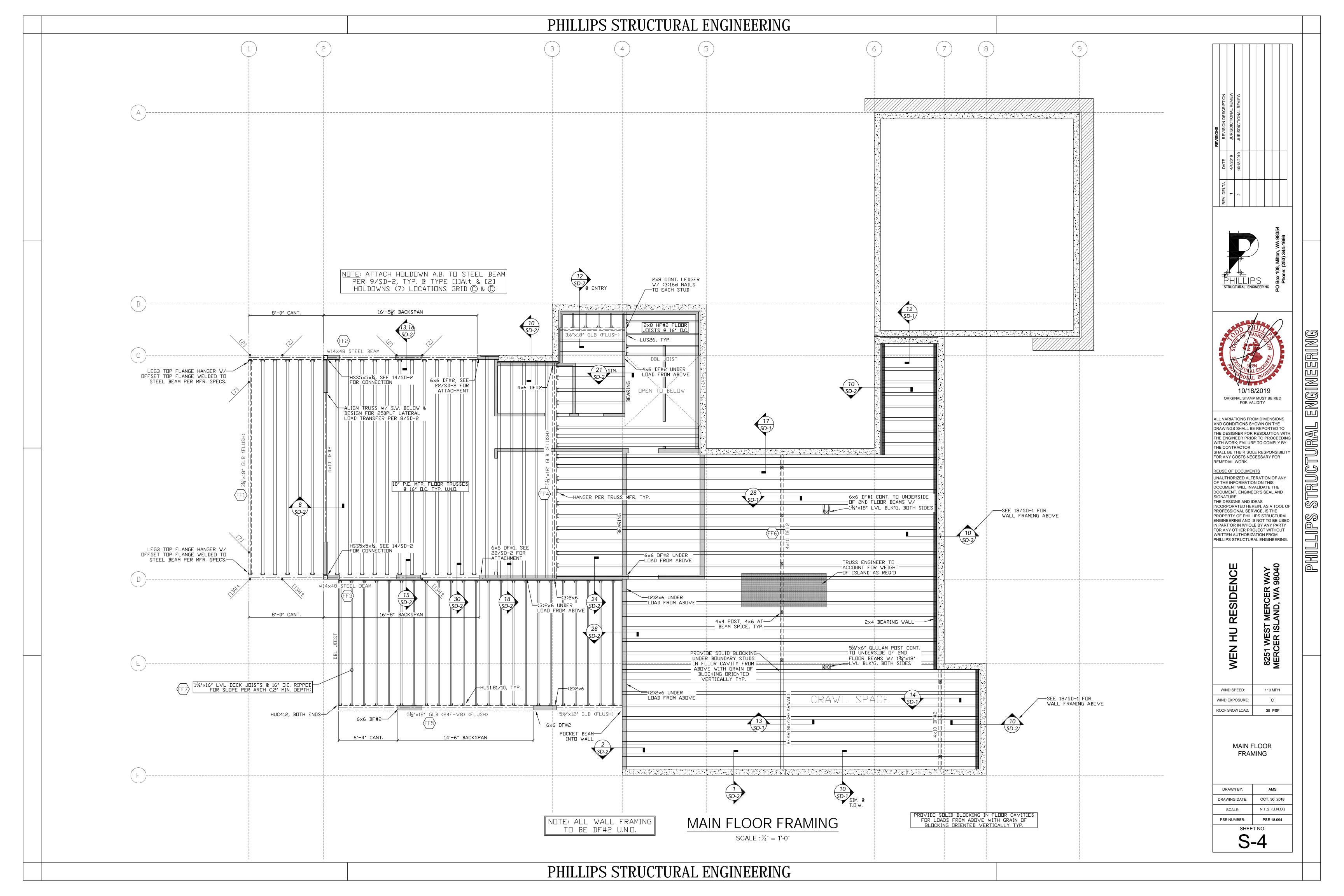
OR SIDE OF PLATES @ CONTRACTOR'S OPTION.

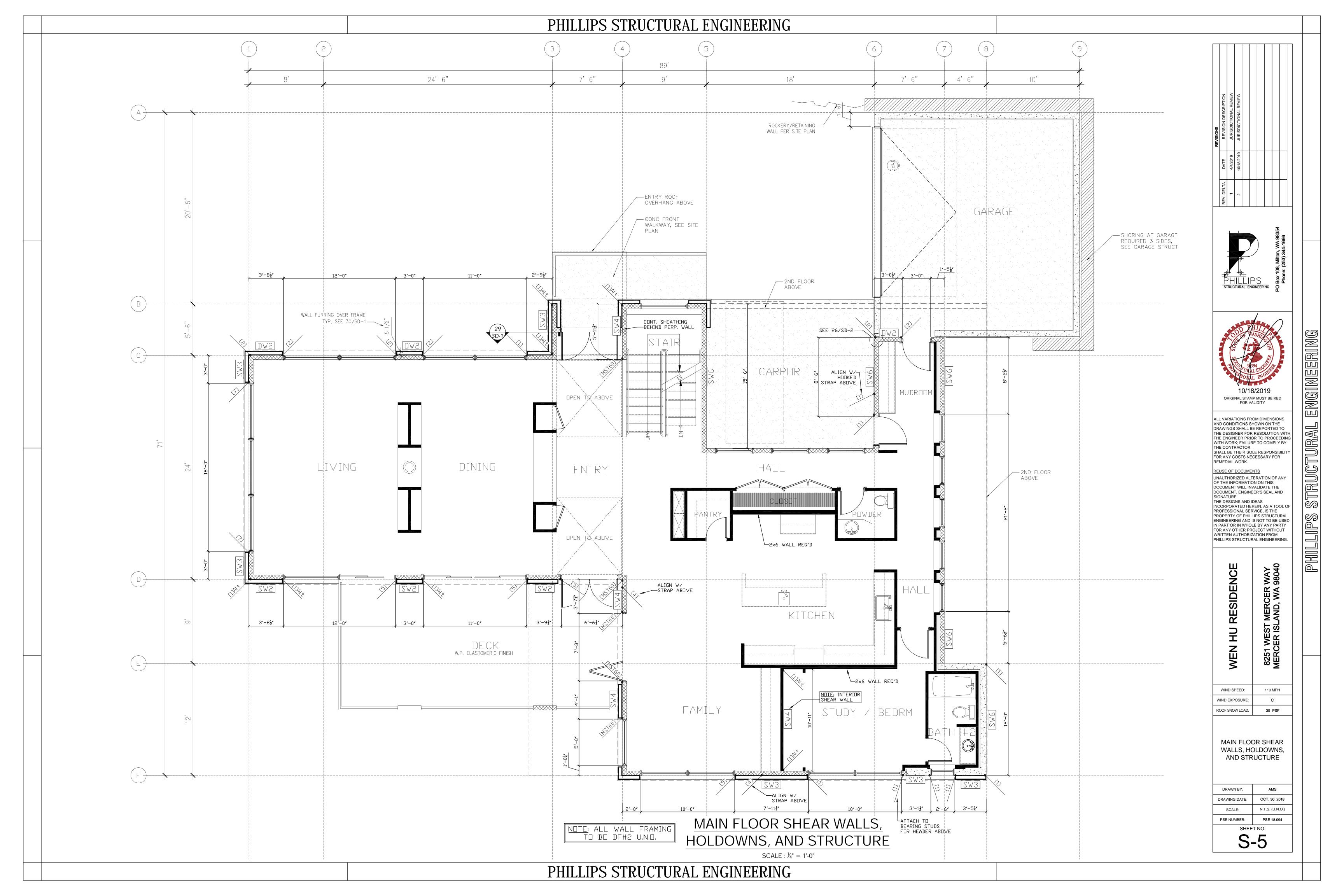
1-1/2"— MIN

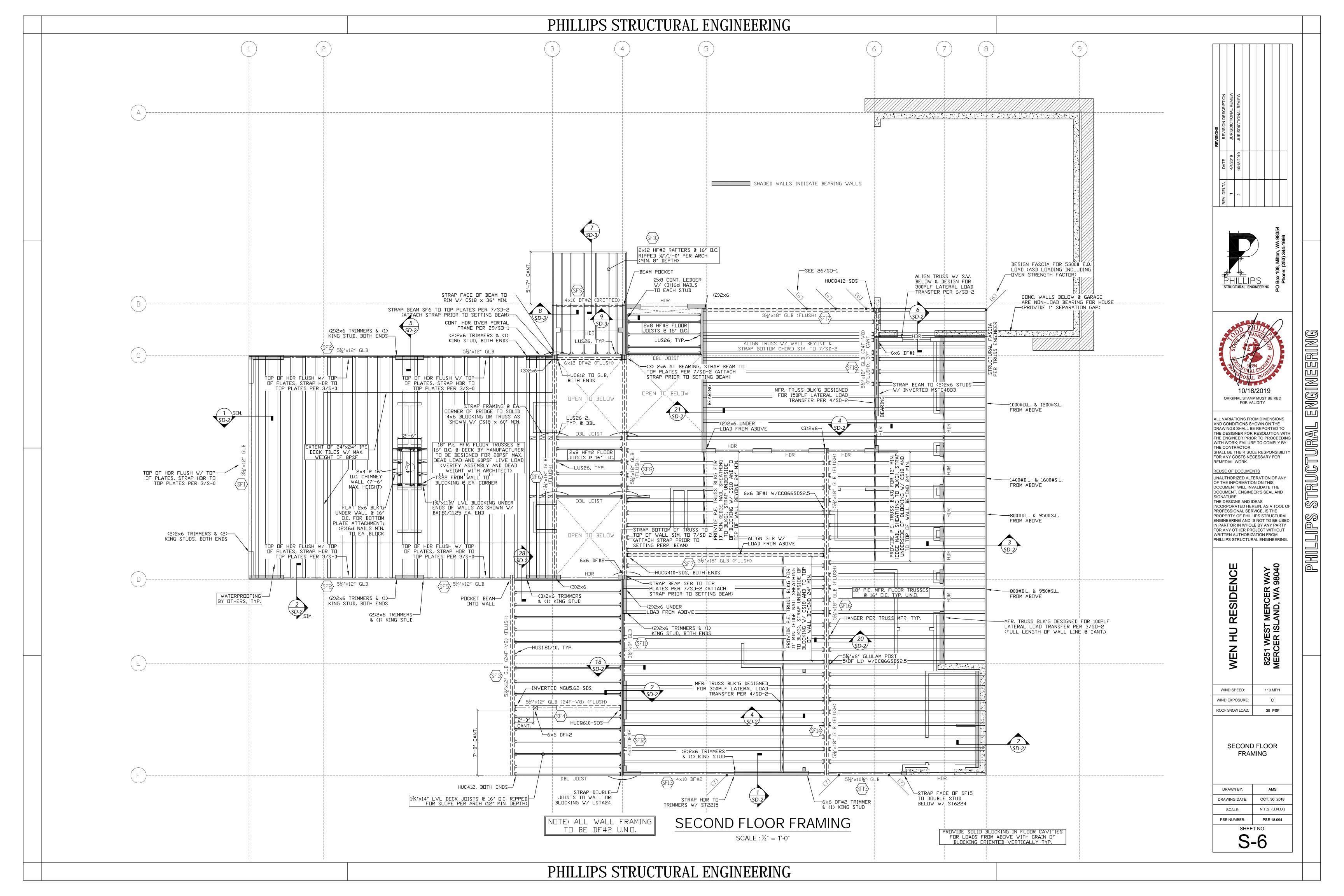


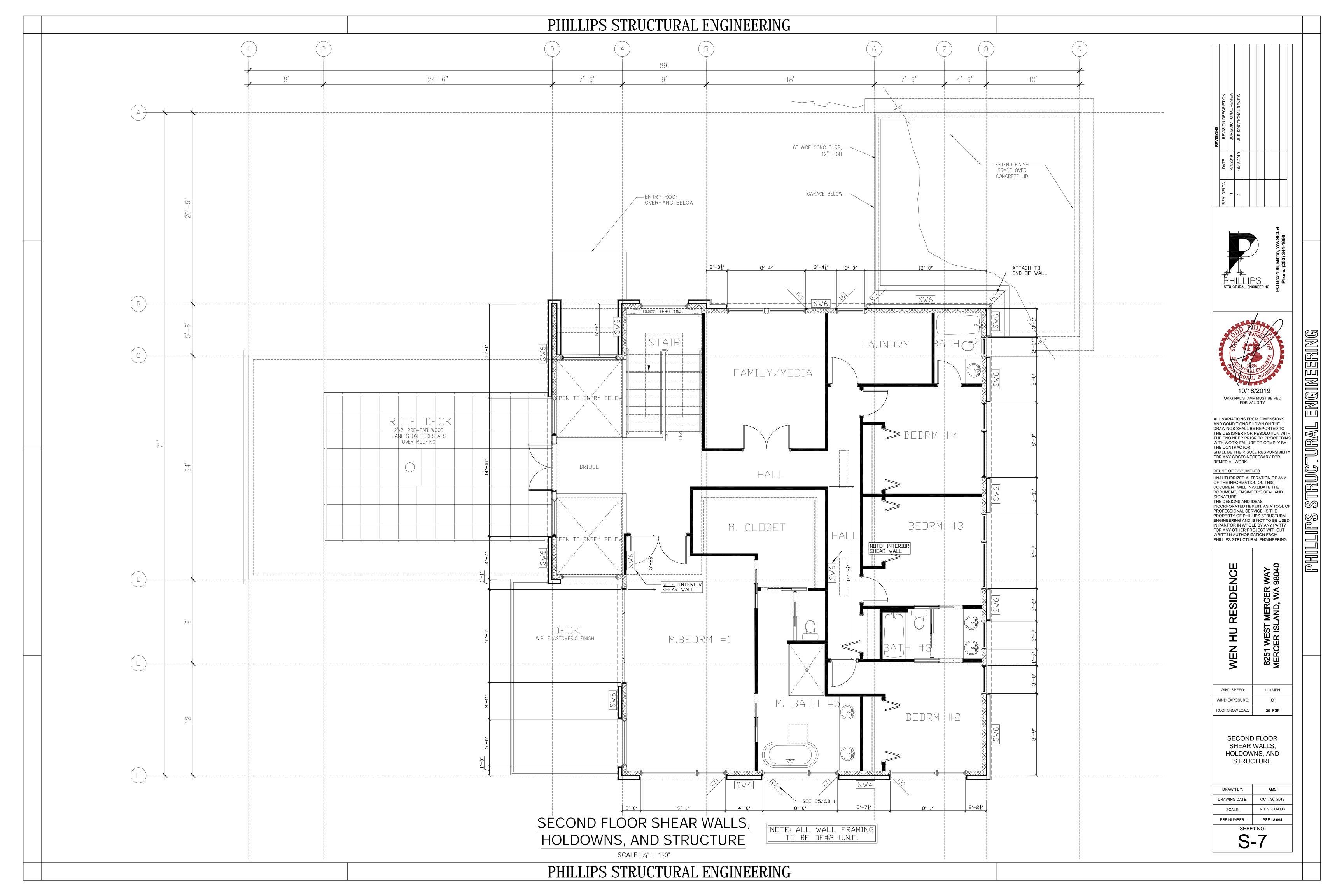


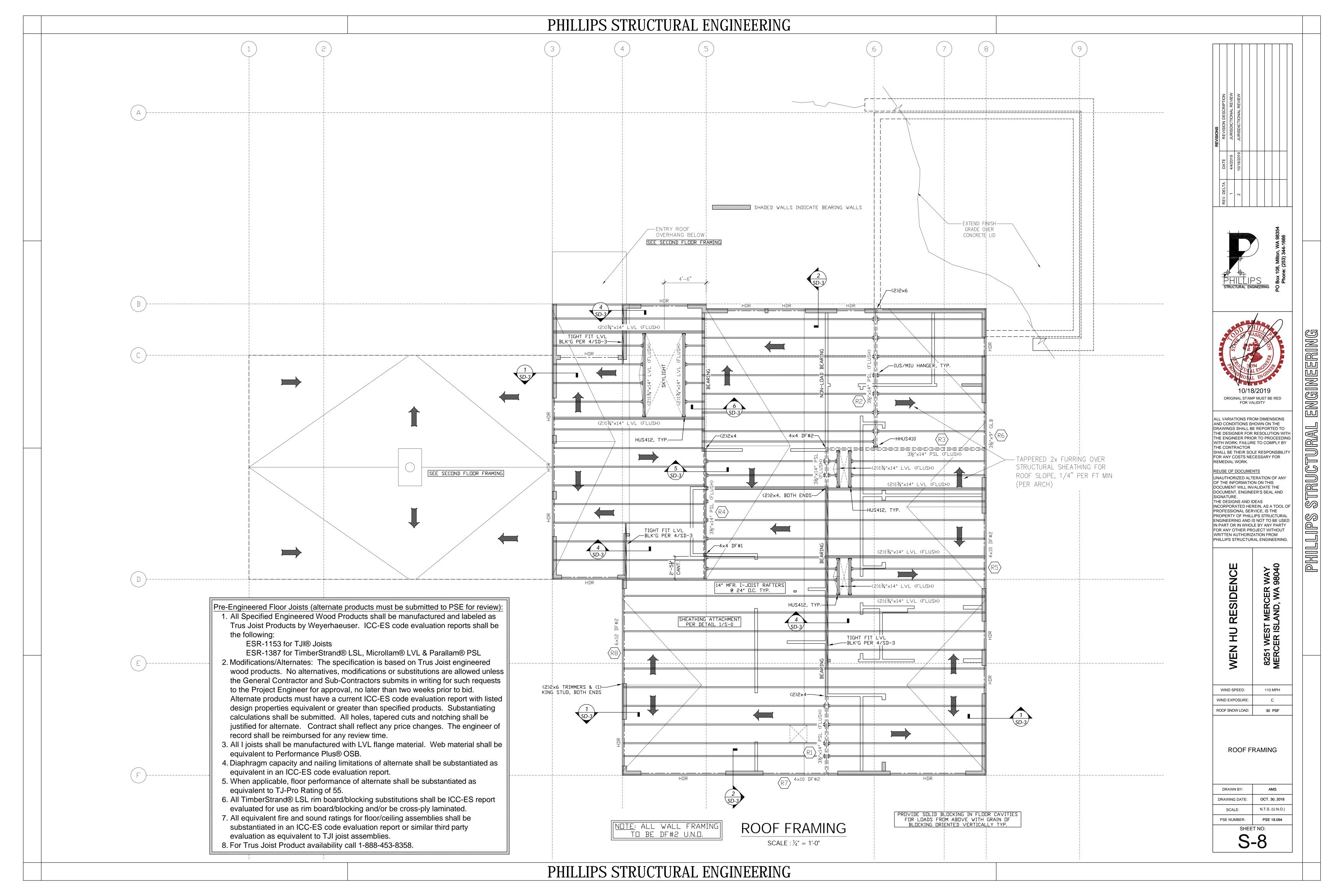


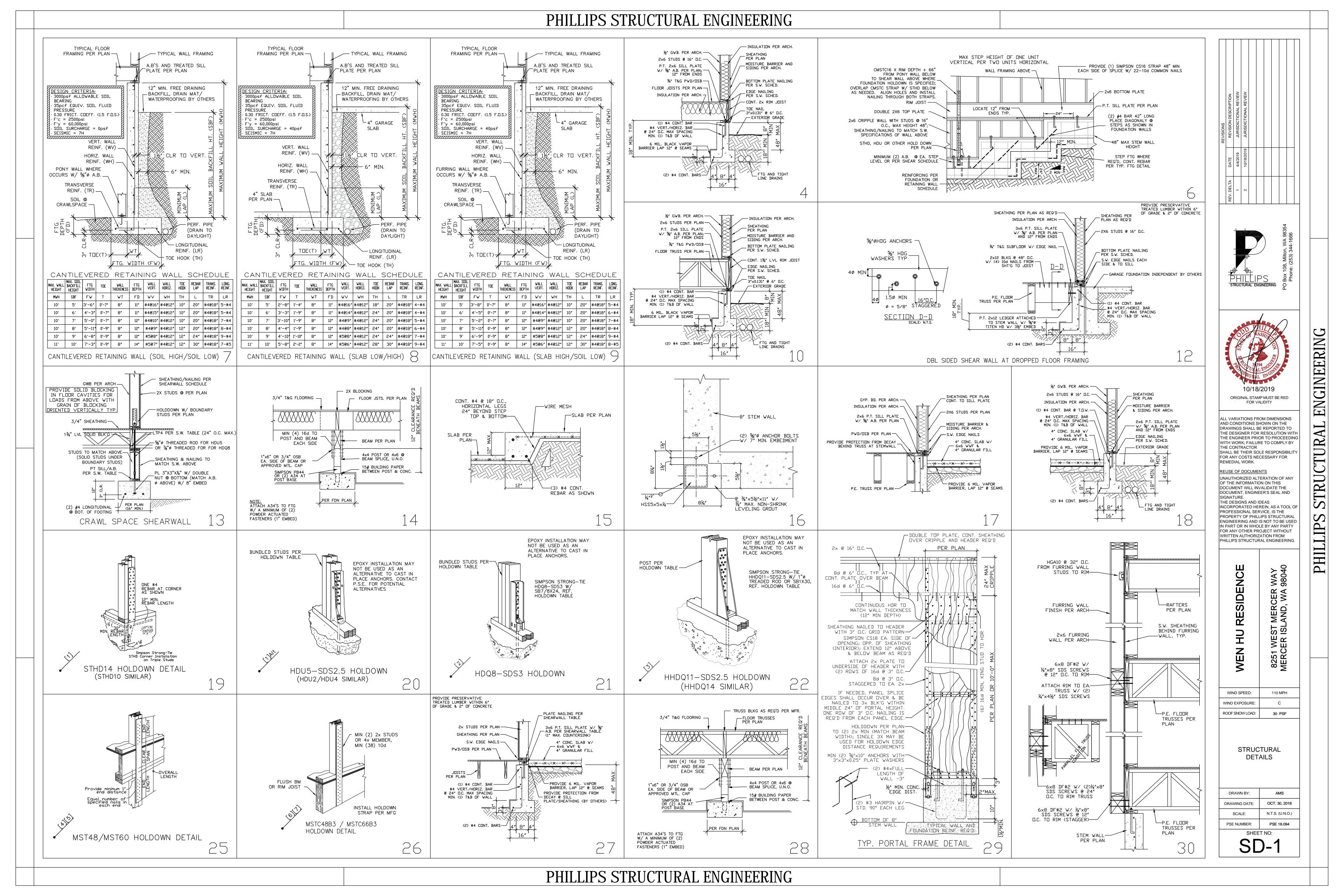








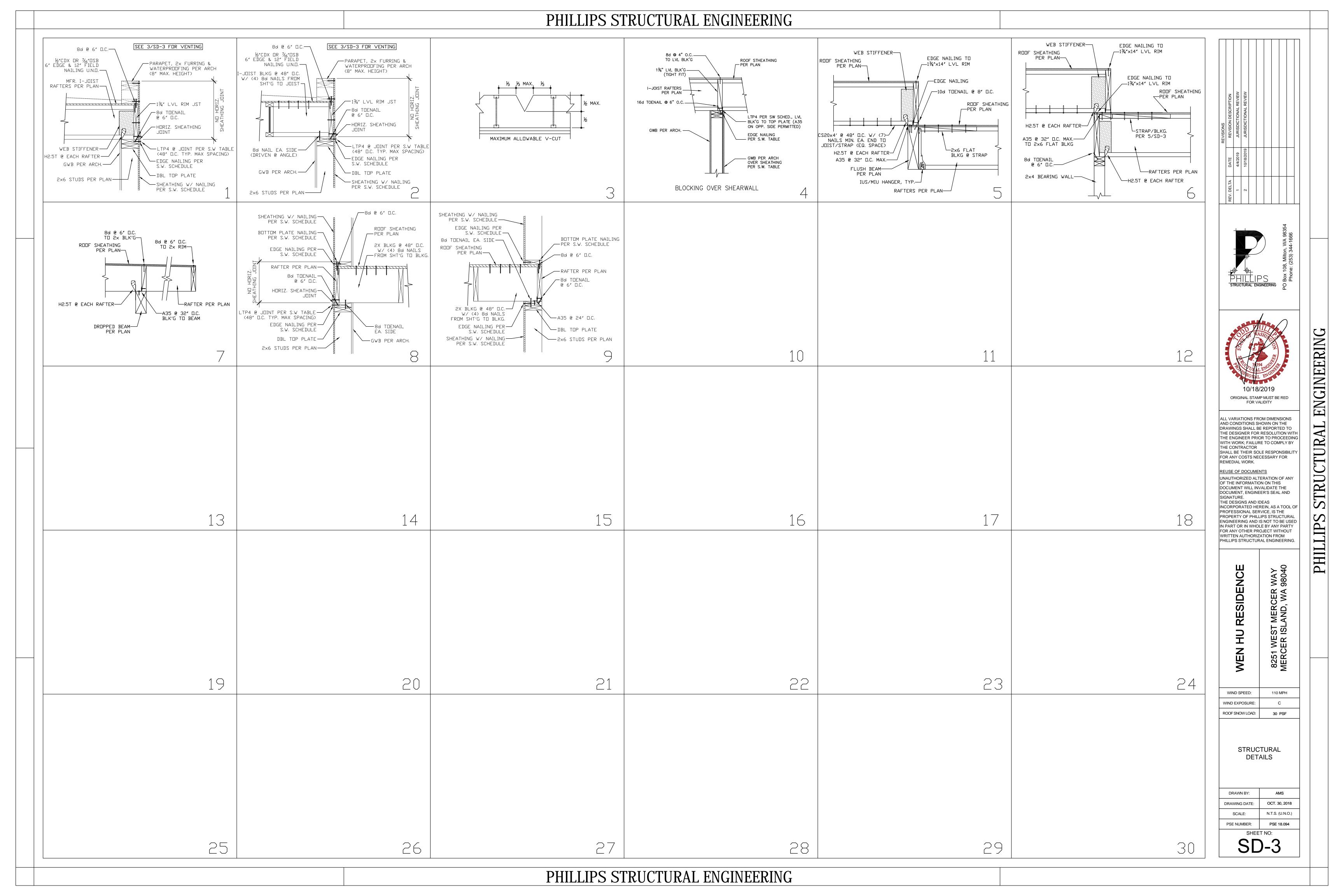


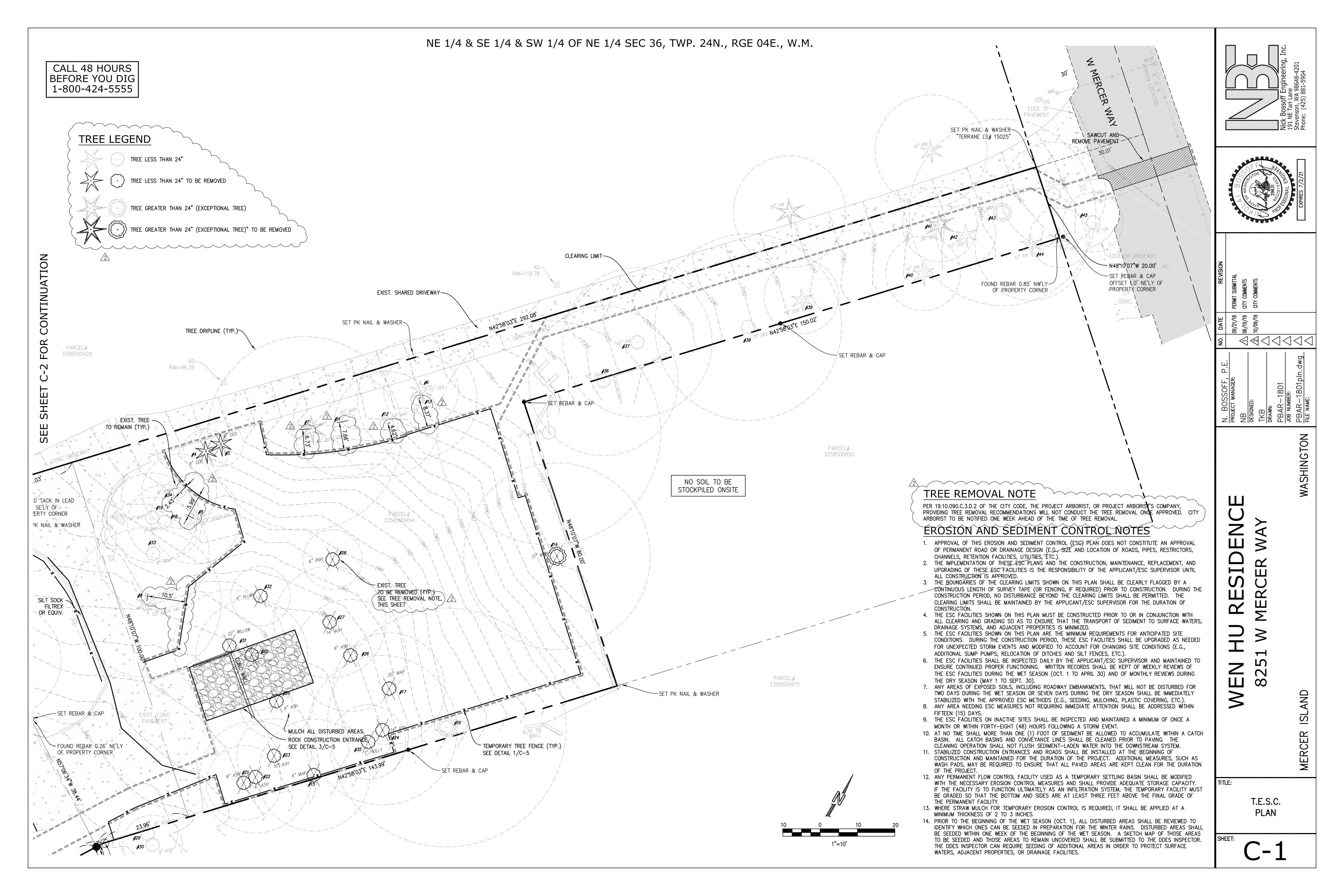


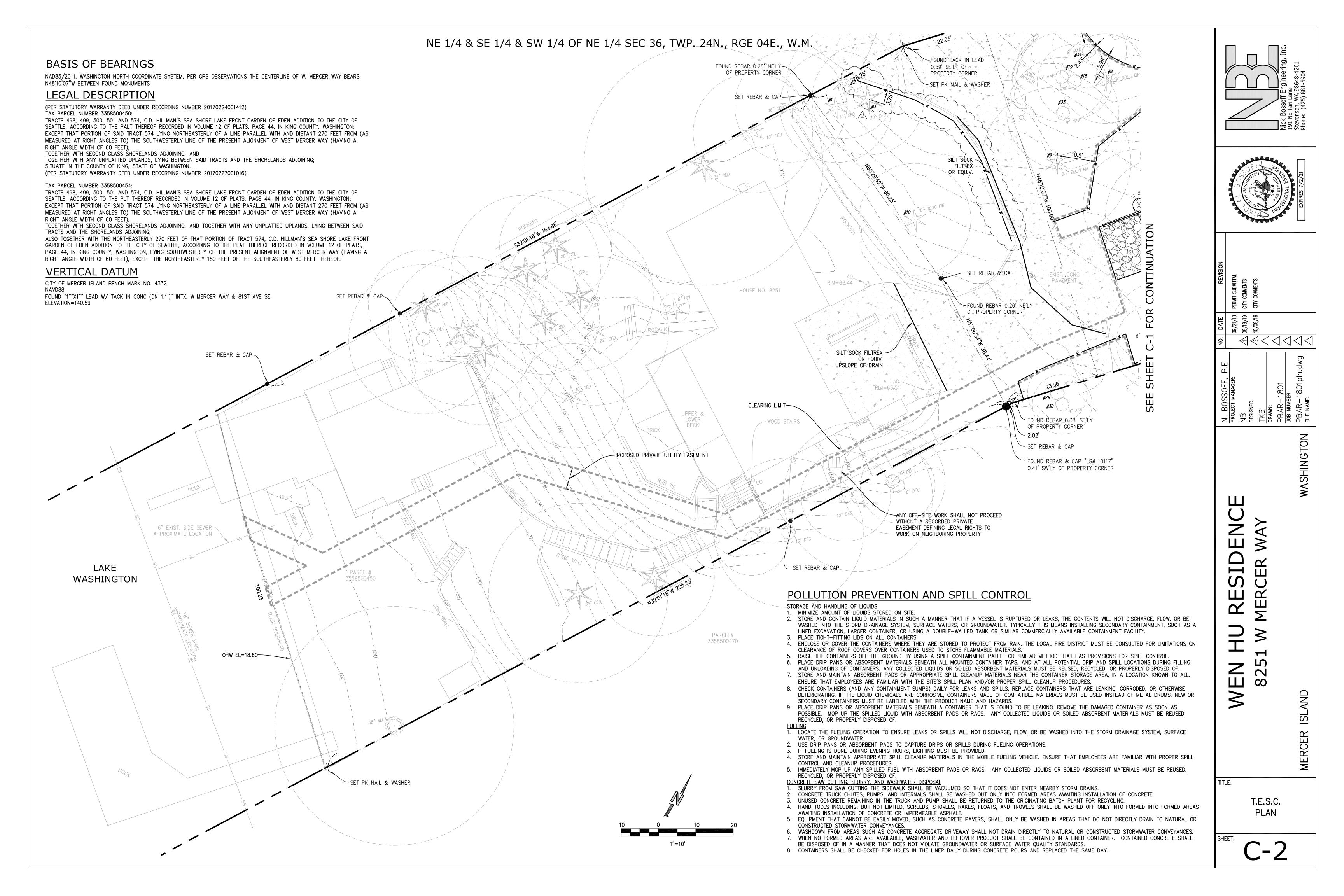
PHILLIPS STRUCTURAL ENGINEERING

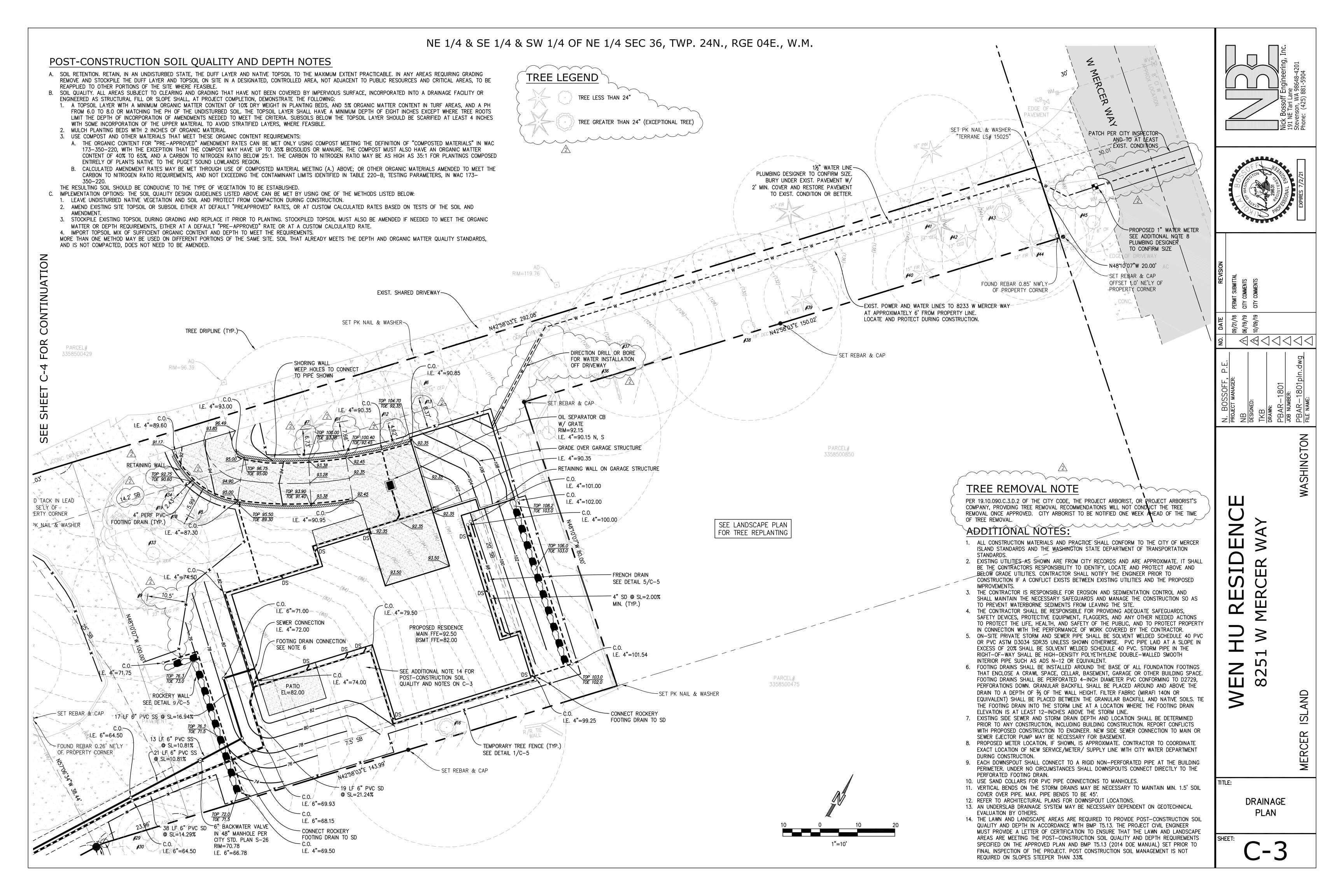
ENGINEERIN

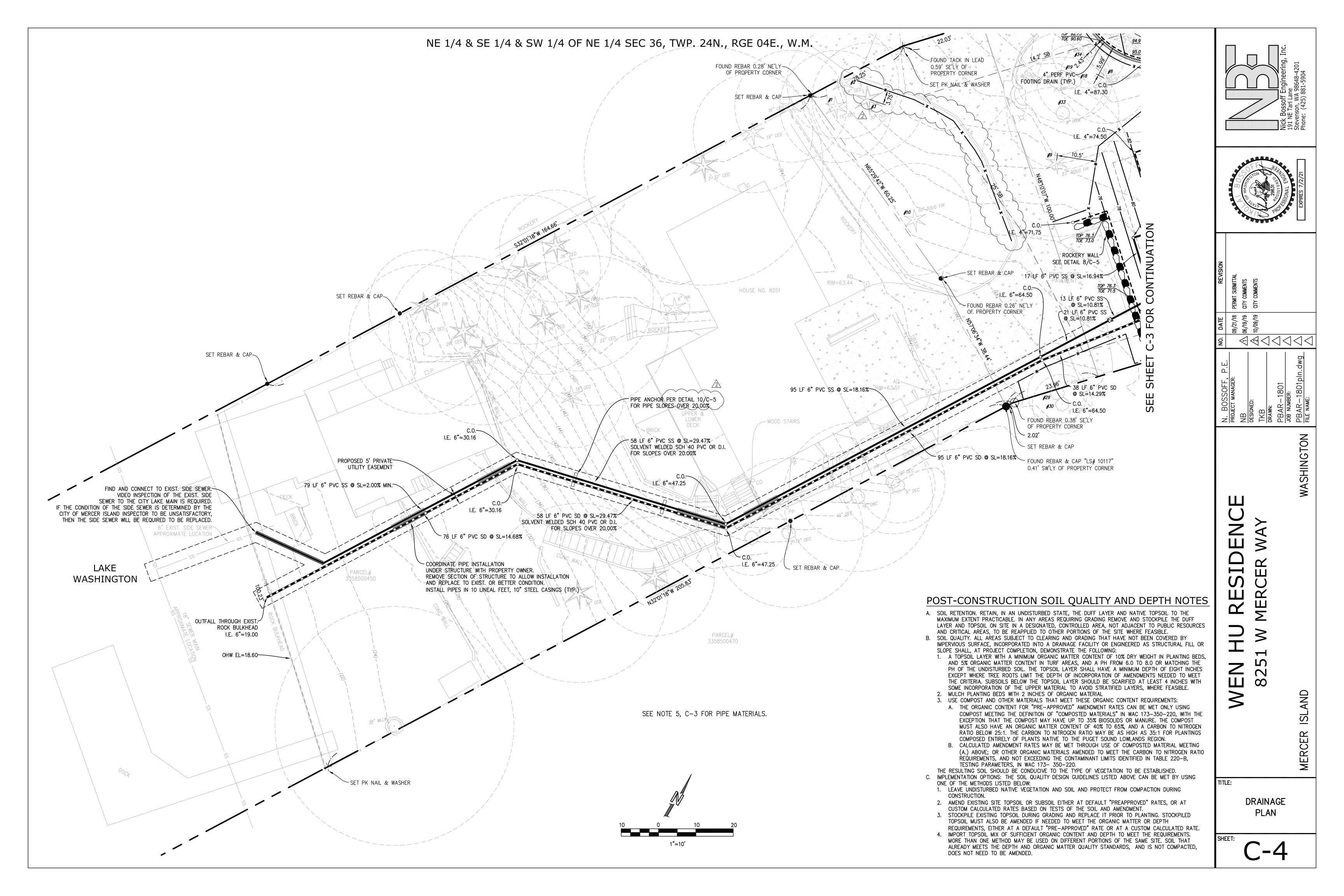
2











TREE PROTECTION DURING CONSTRUCTION

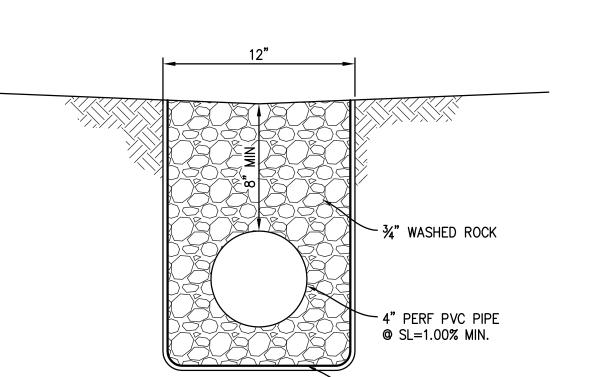
- 1. 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- 2. FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE

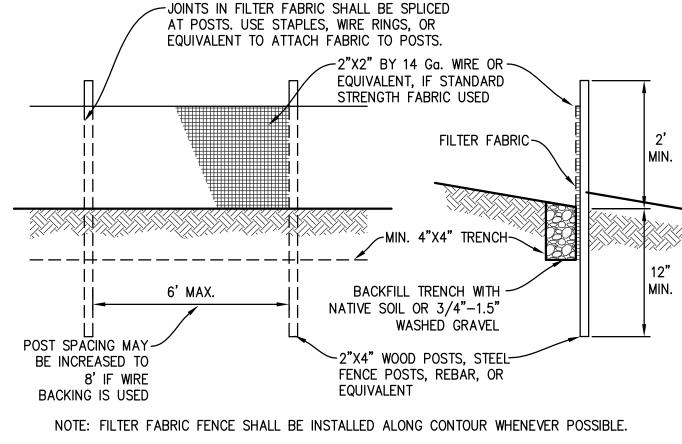
TREE PROTECTION

LIMIT OF THE FENCING.

FRENCH DRAIN

SCALE: NTS



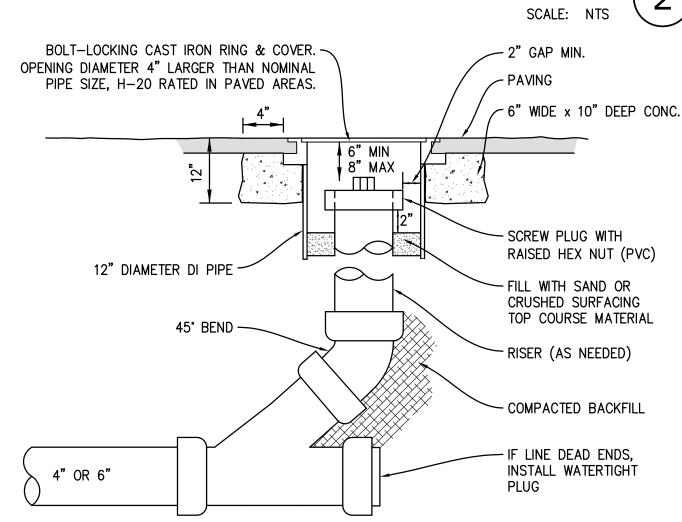


- MAINTENANCE STANDARDS ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
- 2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND
- CONVEYED TO A SEDIMENT TRAP OR POND. 3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGN OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE

5. IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

FENCE. IF THIS OCCUR, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH.

SILT FENCE



THIS DETAIL IS FOR PAVED AREAS. FOR UNPAVED AREAS, BURY PVC END CAP 6" BELOW GRADE.

SCALE: NTS

FILTER FABRIC MIRAFI 140N OR EQUIV.

SCALE: NTS

CLEANOUT (PAVED AREAS)

QUARRY SPALLS, WITH 4-INCH MAXIMUM SIZE, OR OTHER MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER. STRUCTURAL FILL. SUBGRADE PRIOR TO FILL. ~EXISTING SLOPE

OPTIMUM MOISTURE CONTENT. 4. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET OF THE BACK OF THE ROCKERY. 5. THE ROCKERY CONSTRUCTION SHALL BE OBSERVED BY THE GEOTECHNCIAL ENGINEER ON A PERIODIC OR FULL-TIME BASIS AS APPROPRIATE. TESTING OF THE COMPACTED

1. ROCKERY SHALL BE INSTALLED BY A LICENSED ROCKERY CONTRACTOR AND IN ACCORDANCE WITH THE CITY OF

THE REQUIRED COMPACTION DENSITY AS REQUIRED. 3. BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM

DRY DENSITY AS DETERMINED BY ASTM D1557. THE

2. BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE HAND COMPACTION IS USED, OR 8 TO 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT

IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE

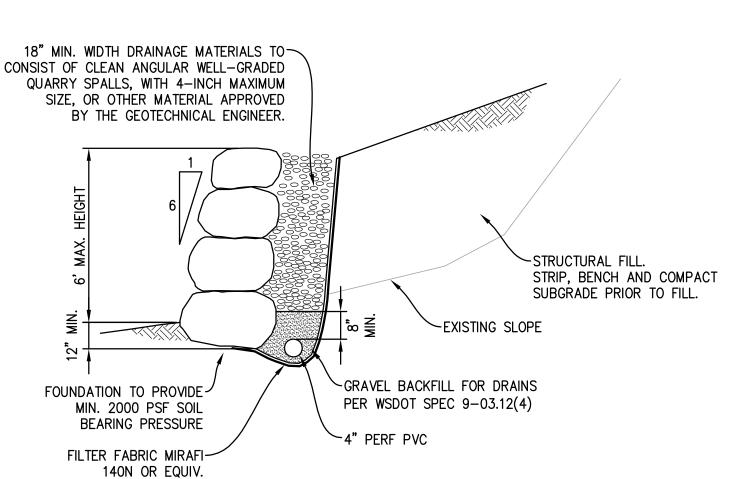
MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO

AND DURING COMPACTION SHALL BE AT OR NEAR THE

MERCER ISLAND STANDARDS AND GUIDELINES.

ROCKERY NOTES:

BACKFILL SHALL BE PERFORMED BY THE GEOTECHNCIAL 6. GEOTECH ENGINEER TO MODIFY DESIGN AS NECESSARY FOR SPECIFIC SITE CONDITIONS.



INSTALL DRIVEWAY CULVERT IF THERE IS A ROADSIDE DITCH PRESENT 4"-8" QUARRY SPALLS **GEOTEXTILE** 12" MIN. THICKNESS PROVIDE FULL WIDTH INGRESS/EGRESS AREA

EXISTING ROAD

R=10' MIN.

MAINTENANCE STANDARDS

NE 1/4 & SE 1/4 & SW 1/4 OF NE 1/4 SEC 36, TWP. 24N., RGE 04E., W.M.

- 1. QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE
- 2. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- 3. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A
- SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP. 4. ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE 5. IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION

4" 45° BEND ~

ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC. ROCK CONSTRUCTION ENTRANCE

SCALE: NTS

ADAPTOR SKIRT-RETRIEVAL TRIM TO WITHIN 3" - 5" OF GRATE OVERFLOW BYPASS FOR PEAK STORM GEOTEXTILE -VOLUMES FABRIC SEDIMENT ACCUMULATION

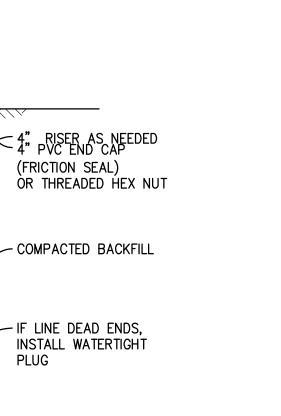
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR

- 2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
- 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

UPON PLACEMENT OF A NEW CATCH BASIN.

CB INSERT

SCALE: NTS



SCALE: NTS

CLEANOUT (UNPAVED AREAS)

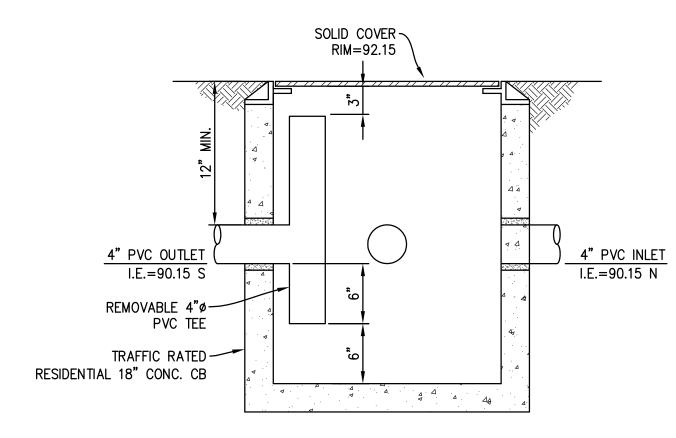
#6 REBAR PIPE SHACKLE -W/ 6" MIN. HOOKS. HOT GALV. AFTER FABRICATION. - EXIST. GROUND - PIPE LAID W/ SIDE OF TRENCH WALL BELLS UPSTŘEAM 18" 3000 PSI CONC. (CAST IN PLACE) PIPE (TYP.) BEDDING MATERIAL **PROFILE** WIDTH OF TRENCH PLUS 36"

3000 PSI CONC. (CAST IN PLACE) **ELEVATION** - NO. 6. REBAR COAT EXPOSED PORTION WITH ROYSTON ROSKOTE. 6" D.I. PIPE (TYP.) SEE CITY STD. PLAN W-5 FOR DETAILS.

PIPE ANCHORS TO BE USED ONLY AS APPROVED BY THE ENGINEER. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI 3. TIE ROD ASSEMBLIES SHALL BE COATED WITH ROYSTON ROSKOTE #612SM OR APPROVED EQUAL.

PIPE ANCHOR

SCALE: NTS



OIL SEPARATOR CB

SCALE: NTS

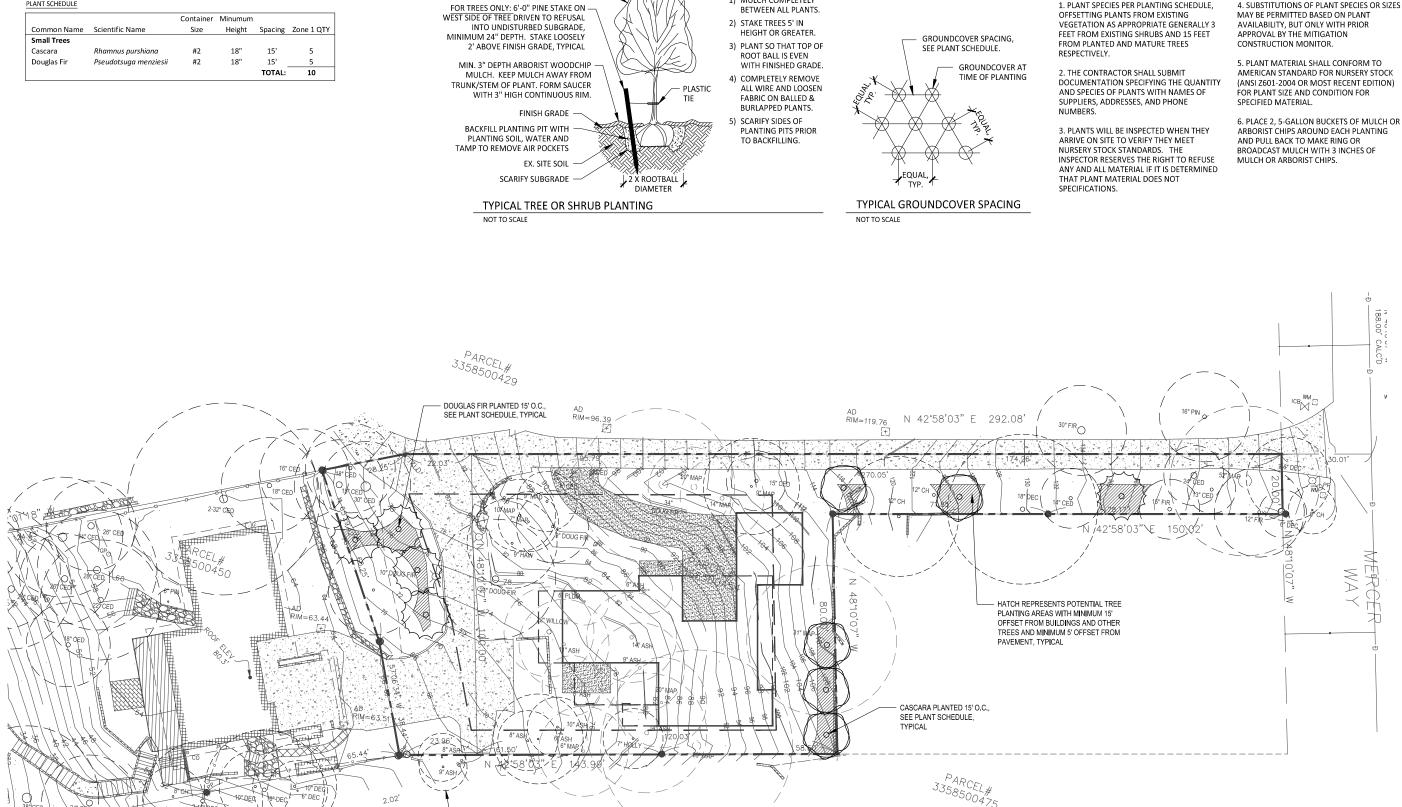
> Ш ∞

444444

DETAILS

ROCKERY

SCALE: NTS



NOTES:

1) MULCH COMPLETELY

EXISTING TREE TO BE REMOVED, TYPICAL

TREE OR SHRUB

EXISTING TREE TO REMAIN, TYPICAL

PLANT SCHEDULE

GENERAL NOTES:

1. PLANT SPECIES PER PLANTING SCHEDULE, OFFSETTING PLANTS FROM EXISTING
VEGETATION AS APPROPRIATE GENERALLY 3

SCALE: 1/16" = 1'-0"

32'

48'

4. SUBSTITUTIONS OF PLANT SPECIES OR SIZES MAY BE PERMITTED BASED ON PLANT

AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z601-2004 OR MOST RECENT EDITION) FOR PLANT SIZE AND CONDITION FOR

ARBORIST CHIPS AROUND EACH PLANTING AND PULL BACK TO MAKE RING OR BROADCAST MULCH WITH 3 INCHES OF

Northwest Environmental Consulting, LLC

TERRACE, WA 98043

PLANTING PLAN AND DETAILS

WEN HU RESIDENCE 8243 WEST MERCER WAY MERCER ISLAND, WA 98040

REVISION: DATE: DESCRIPTION: DATE:

8/15/2019

SHEET NO. W-1

> OF SHEETS

01000 - GENERAL REQUIREMENTS

THE STRUCTURAL NOTES SUPPLEMENT THE PLANS AND SPECIFICATIONS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, SITE CONDITIONS, AND ARCHITECTURAL PLANS SHALL BE REPORTED TO THE ARCHITECT WHO SHALL CORRECT THE DISCREPANCY IN WRITING. ANY WORK COMPLETED AFTER DISCOVERY OF THE DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK. REFER TO ARCHITECTURAL PLANS FOR OPENINGS, ARCHITECTURAL TREATMENTS, AND DIMENSIONS NOT SHOWN. CONSULT MECHANICAL PLANS FOR DUCTS AND PIPES ETC. NOT SHOWN.

THE CONTRACTOR SHALL PROVIDE BRACING AND SUPPORT REQUIRED FOR TEMPORARY CONSTRUCTION LOADS AND FOR STRUCTURAL COMPONENTS AS REQUIRED DURING ERECTION. BACKFILL BEHIND WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK INCLUDING BUT NOT LIMITED TO EXCAVATION. SHORING. AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES. CALL THE UTILITY LOCATE SERVICE PRIOR TO ANY WORK AT 1-800-424-5555.

01001 - CODE REQUIREMENTS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE AS ADOPTED BY MERCER ISLAND, WASHINGTON.

01100 - DESIGN LOADS

DEAD LOADS:

ACTUAL WEIGHT OF MATERIALS OF CONSTRUCTION AND PERMANENT EQUIPMENT.

FLOOR LIVE LOADS: FLOORS (RESIDENTIAL) 40 PSF **ROOF LIVE LOADS:** 20 PSF

SNOW LOAD DESIGN DATA: Pg = 20 PSF, Pf = 20 PSF, Ce = 0.9, Is = 1.0, Ct = 1.0, 25 PSF UNIFORM

WIND DESIGN DATA: BASIC WIND SPEED

110 MPH (3-SECOND GUST) WIND IMPORTANCE FACTOR lw = 1.0WIND EXPOSURE EXPOSURE B TOPOGRAPHICAL FACTOR Ktz = 2.00INTERNAL PRESSURE COEFFICIENT GCpi = +/- 0.18COMPONENT/CLADDING WIND PRESSURE P(C) = 25 PSF

EARTHQUAKE DESIGN DATA:

SEISMIC IMPORTANCE FACTOR le = 1.0OCCUPANCY CATEGORY Ss = 1.466 S1 = 0.557 SPECTRAL RESPONSE ACCELERATIONS

SITE CLASS SPECTRAL RESPONSE COEFFICIENTS SDS = 0.977 SD1 = 0.571 SEISMIC DESIGN CATEGORY CONCRETE LEVEL - BEARING WALL SYSTEM R = 5.0 Cs = 0.194

01200 - FOUNDATIONS

EARTHWORK AND FOUNDATIONS SHALL BE CONSISTENT WITH GEOTECHNICAL ENGINEERING RECOMENDATIONS. ALL FOUNDATIONS SHALL BE FOUNDED ON COMPETENT NATIVE MATERIAL OR BY OTHER MEANS AS DEFINED BY THE GEOTECHNICAL ENGINEER.

SEE THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY PANGEO INC., (PROJECT 17-405) DATED FEBRUARY 8, 2018. FOUNDATIONS SHALL BE SUPPORTED ON CONVENTIONAL FOOTINGS WITH ALLOWABLE BEARING PRESSURE OF 3000 PSF.

DESIGN PARAMETERS ARE AS FOLLOWS:

ACTIVE EARTH PRESSURE (YIELDING) 35 PCF ACTIVE EARTH PRESSURE (AT-REST) 55 PCF PASSIVE EARTH PRESSURE 300 PCF (ALLOWABLE) COEFFICIENT OF FRICTION 0.30 (ALLOWABLE) SEISMIC SURCHARGE 7H UNIFORM SOIL PROFILE SITE CLASS D

01300 - SHOP DRAWING SUBMITTAL PROCESS

SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION. IF SHOP DRAWINGS DIFFER FROM THE APPROVED DESIGN DRAWINGS, NEW DESIGN DRAWINGS BEARING THE SEAL AND SIGNATURE OF A LICENSED STATE OF WASHINGTON STRUCTURAL ENGINEER SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO FABRICATION.

01400 - INSPECTIONS AND SPECIAL INSPECTIONS

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT. SPECIAL INSPECTION FOR ELEVATED CONCRETE SLAB IS REQUIRED.

SPECIAL INSPECTIONS ARE NOT REQUIRED FOR GROUP R-3 OCCUPANCIES UNLESS OTHERWISE REQUIRED BY THE BUILDING OFFICIAL.

01402: QUALITY ASSURANCE REQUIREMENTS

THE QUALITY ASSURANCE PLAN SHALL BE TO VERIFY THAT THE SPECIAL INSPECTIONS NOTED IN SECTION 01400 AND THE STRUCTURAL OBSERVATION NOTED IN SECTION 01500 HAVE BEEN COMPLETED AND THAT SUPPORTING DOCUMENTATION NOTED IN SUCH SECTIONS HAS BEEN PROVIDED.

QUALITY ASSURANCE PLAN IS NOT REQUIRED FOR STRUCTURES OF LIGHT WOOD FRAMING WITH DESIGN SPECTRAL RESPONSE AT SHORT PERIODS, SDS, NOT EXCEEDING 0.50g.

QUALITY ASSURANCE PLAN IS NOT REQUIRED FOR WIND EXPOSURE B WHERE BASIC WIND SPEED IS LESS

SUMMARY: A QUALITY ASSURANCE PLAN IS NOT REQUIRED BY CODE FOR THIS STRUCTURE.

01500 - STRUCTURAL OBSERVATION

STRUCTURAL OBSERVATION IS NOT REQUIRED.

01600 - QUALITY ASSURANCE REQUIREMENTS

THE QUALITY ASSURANCE PLAN SHALL BE TO VERIFY THAT THE SPECIAL INSPECTIONS NOTED IN SECTION 01400 AND THE STRUCTURAL OBSERVATION NOTED IN SECTION 01500 HAVE BEEN COMPLETED AND THAT SUPPORTING DOCUMENTATION NOTED IN SUCH SECTIONS HAS BEEN PROVIDED.

QUALITY ASSURANCE PLAN IS NOT REQUIRED FOR STRUCTURES OF LIGHT WOOD FRAMING WITH DESIGN SPECTRAL RESPONSE AT SHORT PERIODS, SDS, NOT EXCEEDING 0.50g.

QUALITY ASSURANCE PLAN IS NOT REQUIRED FOR WIND EXPOSURE B WHERE BASIC WIND SPEED IS LESS THAN 120 MPH.

SUMMARY: A QUALITY ASSURANCE PLAN IS NOT REQUIRED BY CODE FOR THIS STRUCTURE.

01700 - EXECUTION REQUIREMENTS

INSTALLATION OF ALL STRUCTURAL COMPONENTS SHALL BE AS REQUIRED PER ALL LOCAL CODES.

ALL SITE CONSTRUCTION SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS AS NOTED IN THE GEOTECHNICAL ENGINEERING REPORT (SEE SECTION 01300) AND IN SUBSEQUENT DIRECTIVES.

02100 - EXCAVATION SUPPORT AND PROTECTION

EXCAVATION FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE.

EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOT BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS.

INSTALLATION OF CONSTRUCTION SHORING, IF REQUIRED, SHALL BE PER THE SHORING DRAWINGS, NOTES, AND SPECIFICATIONS.

02200 - BACKFILL AND COMPACTION

BACKFILL SHALL NOT BE PLACED UNTIL THE REMOVAL OF FORMWORK AND OF ANY DEBRIS. BACKFILL BEHIND ALL WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED. ALL BACKFILL MATERIAL AND PLACEMENT PROCEDURES SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING

03000 - CAST-IN-PLACE CONCRETE

NOT BE USED.

4000

CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE STANDARD ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

CEMENT AND CONCRETE SHALL CONFORM TO IBC SECTION 1903. ADMIXTURES SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHALL COMPLY WITH ACI 318-14 SECTION 3.6. CONCRETE EXPOSED TO FREEZING AND THAWING SHALL HAVE AN AIR ENTRAINING ADMIXTURE CONFORMING TO IBC SECTION 1904.2. THE USE OF WATER SOLUBLE CHLORIDE ION SHALL

CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS: (1) 28 DAY MAX. STRENGTH fc [PSI] (2) MAX. WATER / CEMENT RATIO (3) MAX. SLUMP [IN] (4) AIR ENTRAINMENT [%] (5) SPECIAL INSPECTION REQUIRED (6) MIN. 90 LB SACKS OF CEMENT (7) LOCATION AND

APPLICATION.	,					· ,	. ,
(1) 3000 3000	(2) 0.45 0.45	(3) 4+/-1 4+/-1	(4) 5+/-1 0+/-1	(5) NO NO	(6)	(7) EXTERIOR SLAB ON GRADE INTERIOR SLAB ON GRADE	

CHAMFER ALL EXPOSED CORNERS PER THE ARCHITECTURAL PLANS OR 3/4 INCH IF NOT SPECIFIED BY

FOOTINGS

ELEVATED SLABS

WALLS

03100 - REINFORCING STEEL

REINFORCING STEEL DETAILING, FABRICATION, AND PLACEMENT SHALL BE PER ACI 318-14. REINFORCING STEEL SHALL MEET THE FOLLOWING REQUIREMENTS:

ASTM A-615 DEFORMED BARS GRADE 40 (fy=40 KSI) FOR #3 BARS ONLY ASTM A-615 DEFORMED BARS GRADE 60 (fy=60 KSI) FOR #4 BARS AND LARGER ASTM A-706 DEFORMED BARS GRADE 60 (fy=60 KSI) FOR ALL WELDABLE BARS ASTM A-185 SMOOTH BAR (fy=60 KSI) FOR WELDED WIRE FABRIC

0.50 5+/-1 0+/-1 NO

0.45 5+/-1 5+/-1 NO

REINFORCING FOR SLABS ON GRADE SHALL BE 6X6 W1.4XW1.4 WELDED WIRE FABRIC OR FIBER MESH UNLESS NOTED OTHERWISE. PROVIDE LAP SPLICES PER THE LAP SPLICE SCHEDULE ON SHEET S6.0. REINFORCING STEEL AT ALL WALLS, SLABS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS ELSE CORNER BARS SHALL BE PROVIDED.

COVER REQUIREMENTS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH

ALL BAR SIZES . . FORMED SURFACE EXPOSED TO EARTH OR WEATHER #6 AND LARGER . #5 AND SMALLER . CONCRETE NOT EXPOSED TO EARTH OR WEATHER WALLS AND JOISTS .1 1/2" #14 AND #18 BARS #11 BARS AND SMALLER 3/4" SLABS AND JOISTS . .1 1/2" #14 AND #18 BARS . #11 BARS AND SMALLER . . BEAMS, COLUMNS PRIMARY REINFORCEMENT 1 1/2" TIES, STIRRUPS, AND SPIRALS ... 1 1/2"

REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT. REINFORCING STEEL SHALL NOT BE FIELD BENT EXCEPT AS NOTED IN THE DESIGN DRAWINGS. WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD EXCEPT AS NOTED ON THE DESIGN DRAWINGS.

03200 - CONCRETE WALL REINFORCING

PLACE TWO HORIZONTAL #5 BARS AT EACH FLOOR LEVEL OR TOP OF WALL ELEVATION. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCEMENT AT EACH WALL CORNER AND INTERSECTION. PROVIDE TWO VERTICAL #5 BARS AT EACH WALL CORNER AND INTERSECTION. AT ALL WALL OPENING PROVIDE TWO #5 BARS OVER, UNDER, AND AT THE SIDES OF THE OPENINGS. EXTEND THE HORIZONTAL BARS THE LAP SPLICE DISTANCE PAST THE OPENING OR EXTEND AS FAR AS POSSIBLE AND HOOK. PROVIDE ONE #5 BAR BY 4'-0" LONG DIAGONALLY AT EACH CORNER OF THE WALL OPENING. ALL CONCRETE SHALL BE PLACED AND CONSOLIDATED WALLS SHALL BE REINFORCED PER SCHEDULE BELOW U.N.O.:

WALL THICKNESS	HORIZONTAL	VERTICAL	LOCATION
6"	#4 AT 14"OC	#5 AT 18"OC	CENTERLINE
8"	#4 AT 10"OC	#5 AT 15"OC	CENTERLINE
10"	#4 AT 16"OC	#5 AT 18"OC	EACH FACE
12"	#4 AT 12"OC	#5 AT 18"OC	EACH FACE

EPOXY ALL HORIZONTAL STEEL INTO EXISTING FOUNDATION WITH FOUR INCH EMBEDMENT. RE: NOTES SECTION 08100 FOR EPOXY TYPE.

05000 - STRUCTURAL STEEL

DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "AISC 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS". MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING U.N.O.:

STRUCTURAL W SHAPE	ASTM A-992	Fy = 50 KSI
S, M, AND C SHAPES	ASTM A-36	Fy = 36 KSI
STEEL ANGLES	ASTM A-36	Fy = 36 KSI
PLATE MATERIAL	ASTM A-36	Fy = 36 KSI
STRUCTURAL PIPE	ASTM A-53 GRADE B	Fy = 35 KSI
STRUCTURAL HSS	ASTM A-500 GRADE B	Fy = 46 KSI
ANCHOR RODS	ASTM F1554	Fy = 36 KSI
WOOD CONNECTION BOLTS	ASTM A-307 GRADE A	•
WELDING ELECTRODES	E7018	

ALL WELDING SHALL CONFORM TO THE AWS D1.4 "STRUCTURAL WELDING CODE". ALL WELDING SHALL BE PERFORMED BY A WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) AND AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDERS. ALL COMPLETE PENETRATION (CP) WELDS SHALL BE ULTRASONICALLY TESTED. ALL FILLET WELDS SHALL BE VISUALLY INSPECTED RE: S1.1.

STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM A-123. ALL FIELD WELDS EXPOSED TO WEATHER SHALL BE COATED WITH BRUSH APPLIED ZINC-RICH PAINT COMPLYING WITH ASTM A-780.

ALL STRUCTURAL STEEL TO RECEIVE ONE COAT OF PAINT (PRIME COAT). PROVIDE A MINIMUM FRY-FILM THICKNESS OF ONE MIL. PREPARE SURFACE TO MEET REQUIREMENTS OF SSPC-SP2. TOUCHUPS OF ABRASIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR. UNO. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION RELATING TO FINISH PAINT OR OTHER

08100 - EPOXY ADHESIVE ANCHORS

EPOXY SPECIFIED IN THE DRAWINGS SHALL BE SIMPSON STRONG-TIE SET-XP EPOXY ADHESIVE. ANCHOR ROD, THREADED ROD, OR REINFORCING DIAMETER AND EMBEDMENT PER PLAN. INSTALLATION PER ESR-2508.

08200 - EXPANSION ANCHORS

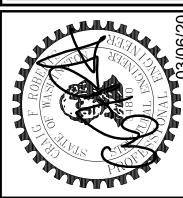
CONCRETE EXPANSION ANCHORS SPECIFIED IN THE DRAWINGS SHALL BE SIMPSON STRONG-TIE STRONG-BOLT WEDGE ANCHOR. ANCHOR DIAMETER AND EMBEDMENT PER PLAN. INSTALLATION PER SECTION 4.3 OF ESR-1771.

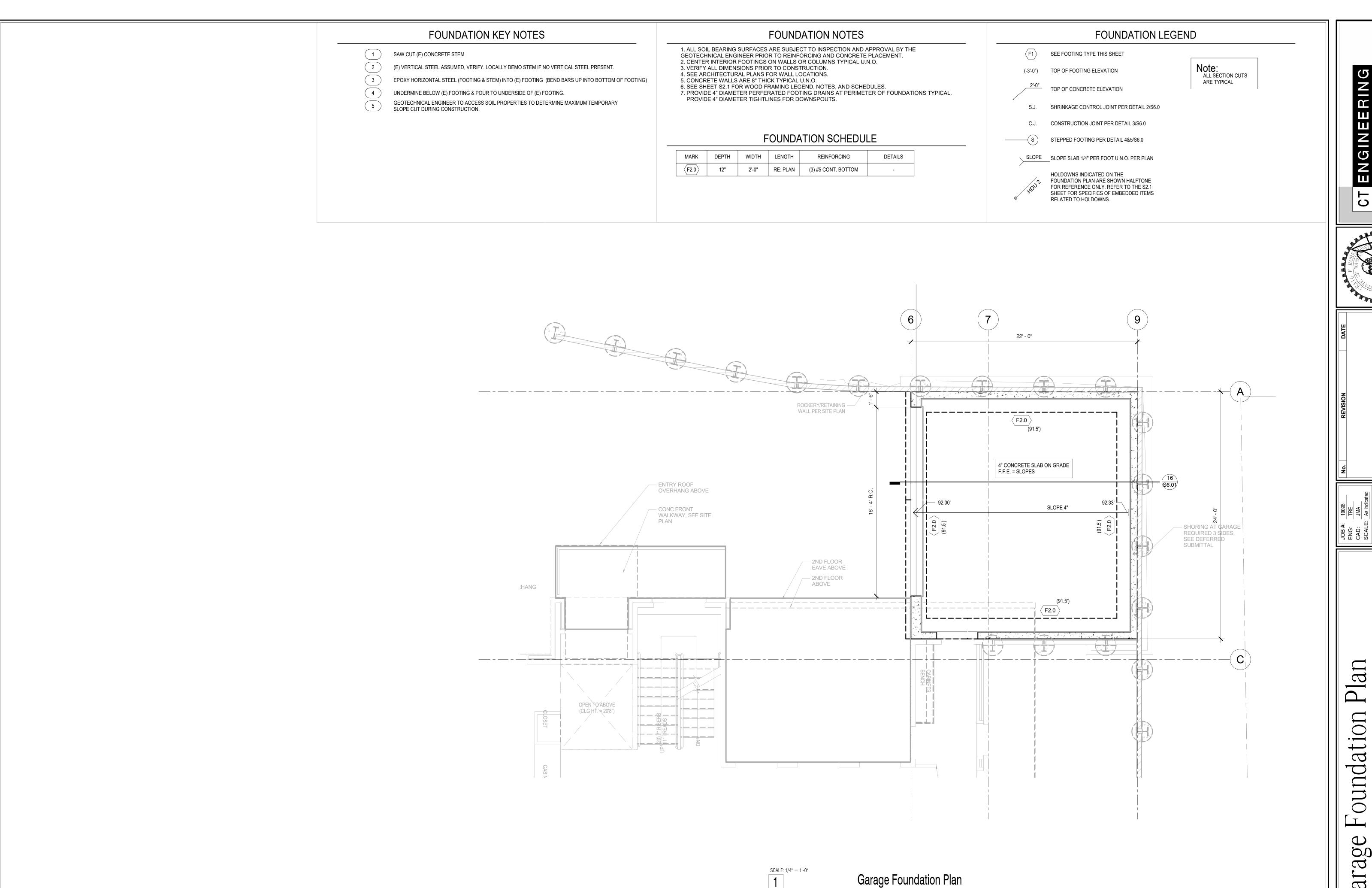
08300 - SCREW ANCHORS

SCREW ANCHORS SPECIFIED IN THE DRAWINGS SHALL BE SIMPSON STRONG-TIE TITEN HD. ANCHOR DIAMETER AND EMBEDMENT PER PLAN. INSTALLATION PER ESR-2713.

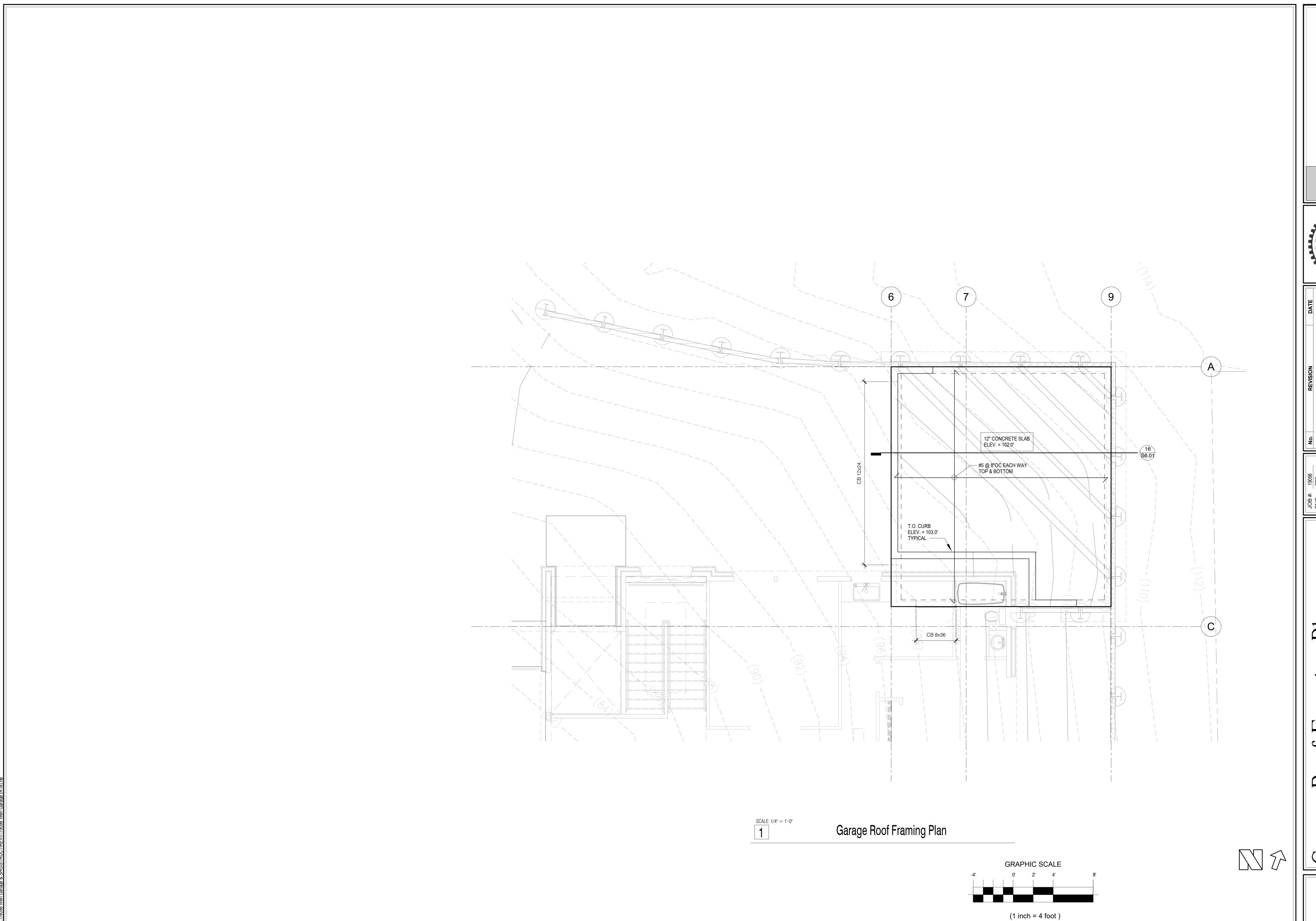
STRUCTURAL DRAWING LIST

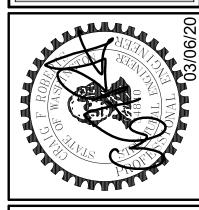
		Sheet Issue		Rev
SHEET	DESCRIPTION	Date	Rev	Date
S1.01	Structural Notes	03/06/20		
S2.01	Garage Foundation Plan	03/06/20		
S2.02	Garage Roof Framing Plan	03/06/20		
S6.01	Typical Concrete Details	03/06/20		





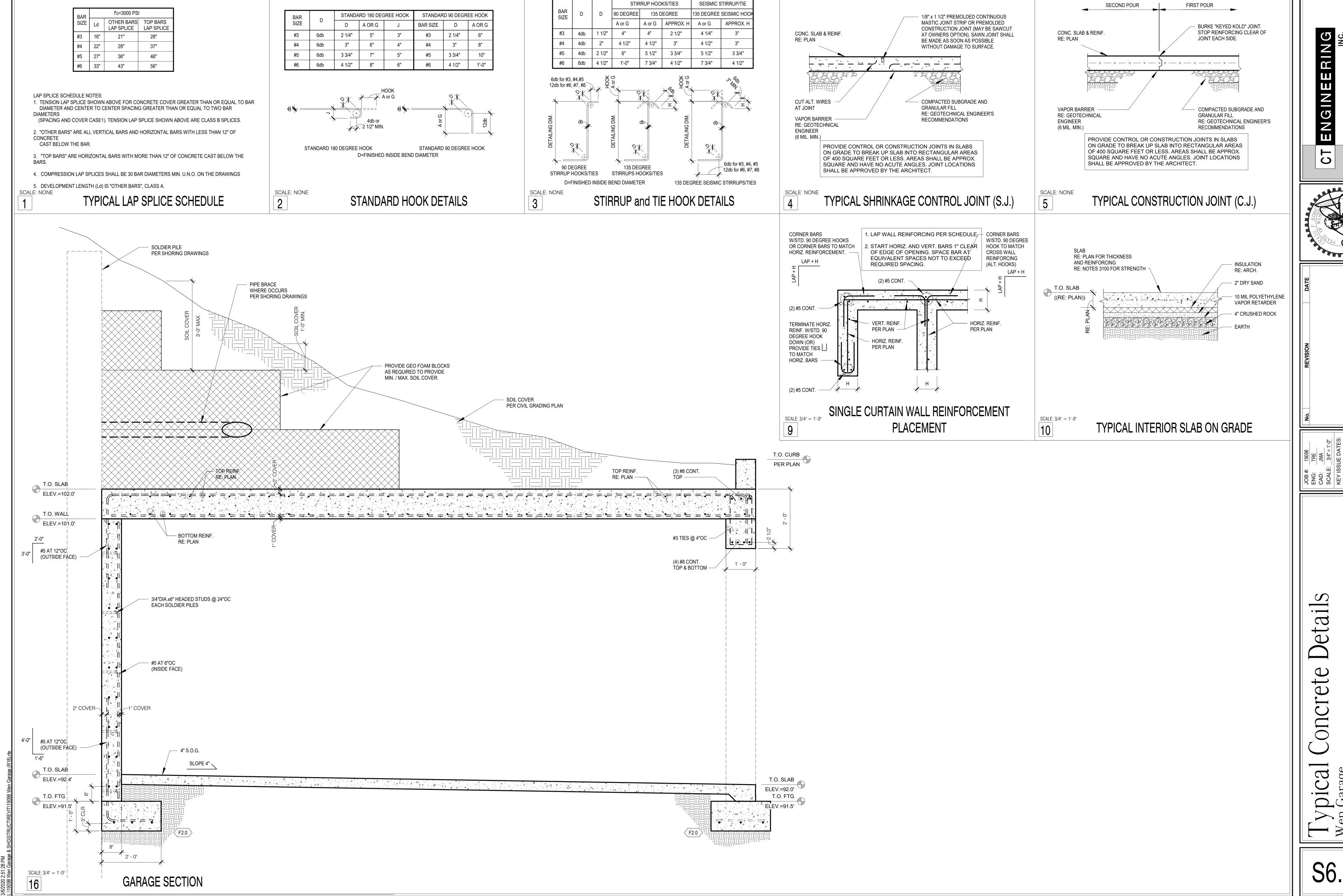
S2.01

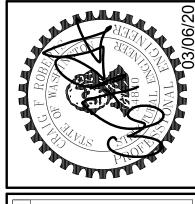




Plan Framing

S2.02





00100- CODE REQUIREMENTS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE, AS AMENDED BY THE CITY OF MERCER ISLAND.

00101- EASEMENTS

ALL EASEMENTS, IF REQUIRED, SHALL BE THE RESPONSIBILITY OF THE OWNER.

00200- DESIGN LOADS AND CONSIDERATIONS

EARTHWORK AND FOUNDATIONS SHALL BE CONSISTENT WITH GEOTECHNICAL ENGINEERING RECOMENDATIONS. SEE THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY PANGEO INC. (PROJECT 17-405) DATED FEBRUARY 8,2018.

SEE DETAILS ON SS4 FOR SPECIFIC DESIGN LOADING DIAGRAMS. DESIGN PARAMETERS

- ARE AS FOLLOWS: ACTIVE EARTH PRESSURE (LEVEL) 45 PCF
- ACTIVE EARTH PRESSURE (SLOPING)55 PCF PASSIVE EARTH PRESSURE 300 PCF (ALLOWABLE)
- COEFFICIENT OF FRICTION 0.30 (ALLOWABLE) SEISMIC SURCHARGE 7H UNIFORM

THE SHORING SYSTEM IS PERMANENT

SOIL PROFILE SITE CLASS D

00300- UTILITIES AND ADJACENT PROPERTIES

STABILITY AND EROSION PROTECTION OF EXISTING & CUT SLOPES, AND THE COORDINATION OF THE EXCAVATION, SHORING AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES IS THE RESPONSIBILTY OF THE CONTRACTOR PRIOR TO DRILLING AND EXCAVATION.

LOCATE AND DISCONNECT ANY UNDERGROUND POWER, COMMUNICATION, GAS AND WATER LINES PRIOR TO DRILLING & EXCAVATION. CONTRACTOR SHALL VERIFY OVERHEAD CLEARANCES PRIOR TO MOBILIZATION AND CONSTRUCTION.

THE CONTRACTOR SHALL VERIFY THE EXACT ELEVATION, LOCATION AND SIZE OF ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO SHORING INSTALLATION. TIEBBACKS SHALL BE NO CLOSER THAN 3 FEET TO ANY UTILITY, UNLESS OTHERWISE SHOWN.

00301- DRAINAGE CONTROL

THE CONTRACTOR SHALL TAKE MEASURES TO CONTROL ALL SURFACE WATER RUNOFF FLOW AND FLOWS FROM EXISTING SUBSURFACE DRAINAGE FEARTURES INCLUDING PERCHED WATER. IN NO CASE SHALL THE CONTRACTOR ALLOW THE WALL SYSTEM TO BE EXPOSED TO HYDROSTATIC PRESSURES OR ALLOW SURFACE WATER TO FLOW INTO THE EXCAVATION.

00400- BASELINE SURVEY AND MONITORING

GRADE CHANGES ARE SIGNIFICANT, BUT THE TIEBACK SYSTEM UTILIZED SHOULD MINIMIZE ANY GROUND MOVEMENTS DURING CONSTRUCTION. HOWEVER, EXISTING STRUCTURES OR IMPROVEMENTS TO BE SAVED THAT ARE NEAR THE CONSTRUCTION ZONE SHOULD HAVE BASELINE PHYSICAL LOCATION DATA ESTABLISHED PRIOR TO BEGINNING WORK. AS A MINIMUM, OPTICAL SURVEY POINTS (POINTS KNOWN, OR PK'S) SHOULD BE ESTABLISHED AT THE CORNERS AND MIDPOINT OF THE RESIDENTIAL STRUCTURE. THE SELECTION OF MONITORING POINTS SHOULD BE MADE WITH CONCURRENCE OF THE GEOTECHNICAL ENGINEER.

THE MONITORING PROGRAM SHOULD INCLUDE MEASUREMENT OF CHANGES IN BOTH THE HORIZONTAL AND VERTICAL DIRECTIONS. THE MONITORING SHOULD BE PERFORMED AT LEAST WEEKLY WHILE ACTIVE WALL CONSTRUCTION IS UNDERWAY. THE MONITORING SHOULD BE BY A LICENSED SURVEYOR. AND THE RESULTS BE PROMPTLY SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR REVIEW. THE RESULTS OF THE MONITORING WILL ALLOW THE DESIGN TEAM TO CONFIRM DESIGN PARAMETERS, AND FOR THE CONTRACTOR TO MAKE ADJUSTMENTS TO MEANS AND METHODS OF CONSTRUCTION, IF NECESSARY.

00401- MONITORING AND QUALITY CONTROL

THE OWNER SHALL PROVIDE MONITORING AND QUALITY CONTROL OF ALL SHORING WALLS INCLUDINGSOLDIER PILE WALLS, BERMS, AND ADJACENT GROUND SYRFACES AND BUILDINGS OF STRUCTURES AS FOLLOWS:

THE GEOTECHNICAL ENGINEER OF RECORD SHALL PROVIDE FULL TIME OBSERVATION MONITORING OF THE EXCAVATION, SOLDIER PILE INSTALLATION, TIEBACK INSTALLATION, AND VERFICATION AND PROOF TESTING. INSTALLATION INCLUDES DRILLING OF PILE & TIE BACK HOLES AND PLACEMENT OF LEAN MIX AND STRUCTURAL GROUT. A COMPLETE AND ACCURATE RECORD SHALL BE KEPT OF ALL PILE AND TIEBACK DEPTHS, QUANTITIES OF LEAN MIX AND STRUCTURAL GROUT PER PILE AND TIEBACK AND ANY UNUSUAL CONDITIONS ENCOUNTERED.

A QUALIFIED TESTING AGENCY SHALL PERFORM WELDING INSPECTIONS AND STRUCTRAL GROUT SAMPLING AND TESTING.

THE CONTRACTOR SHALL PROVIDE TESTING EQUIPMENT THAT HAS BEEN CALIBRATED IN THE PAST 60 DAYS. MEASUREMENTS OF ANCHOR MOVEMENT SHALL BE OBTAINED WITH EQUIPMENT ACCURATE TO 0.001 INCH.

A LICENSED SURVEYOR HIRED BY THE OWNER. SHALL ESTABLISH BASELINE READINGS OF BENCHMARKS AND MONITORING POINTS ON THE GROUND SURFACE AND SETTLEMENT-SENSITIVE STRUCTURES BEHIND THE SHORING WALL ALIGNMENT PRIOR TO EXCAVATION AND INSTALLATION OF THE SHORING SYSTEM. STATIONARY BENCHMARKS SHALL BE SET AT LEAST 40 FEET AWAY FROM THE MONITORING POINTS. MONITORING POINTS ESTABLISHED ALONG THE CURBLINE AND CENTERLINE OF ADJACENT ROADWAYS NEED TO BE MONITORED WHEN TOTAL WALL MOVEMENTS REACH 0.5 INCH OR AT SDOT REQUEST. THE MINIMUM MONITORING POINT SPACING ALONG THE TOP OF ALL SOIL NAIL WALLS SHALL BE 20 FEET AND AT THE TOP OF EVERY OTHER SOLDIER PILE. THE SURVEY SHALL HAVE AN ACCURACY OF 0.01 FEET. A VISUAL AND PHOTGRAPHIC SURVEY SHALL BE MADE OF ADJACENT BUILDINGS PRIOR TO CONSTRUCTION.

REPORTS:

SURVEY MONITORING RESULTS SHALL BE TRANSMITTED TO THE GEOTECHNICAL ENGINEER AND GENERAL CONTRACTOR WITHIN 24 HOURS OF EACH SURVEY. THE GEOTECHNICAL ENGINEER SHALL REVIEW SURVEY DATA AND PROVIDE AN EVALUATION OF WALL PERFORMANCE AND A GRAPHICAL REPRESENTATION OF WALL MOVEMENT VERSUS TIME ALONG WITH THE SURVEY DATA TO GENERAL CONTRACTOR, SHORING INSTALLER, SHORING ENGINEER, DPD AND ON AT LEAST A WEEKLY BASIS.

CONSTRUCTION MONITORING:

THE GENERAL CONTRACTORS SHALL OBSERVE THE CONDITIONS ABOVE THE SHORING ON A DAILY BASIS FOR SIGNS OF GROUND OR BUILDING MOVEMENTS. THE GEOTECHNICAL, SHORING ENGINEER SHALL BE IMMEDIATELY AND DIRECTLY NOTIFIED IF SIGNS OF MOVEMENT SUCH AS: NEW CRACKS IN STRUCTURES, INCREASED SIZE OF OLD CRACKS OR SEPARATION OF JOINTS IN STRUCTURES, FOUNDATIONS, STREETS OR PAVED AND UNPAVED SURFACES ARE OBSERVED.

THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER SHORING ENGINEER, DPD IMMEDIATELY AND DIRECTLY IF MORE THAN 0.5 INCH OF DISPLACEMENT OCCURS. AT THAT TIME THE GEOTECHNICAL ENGINEER AND SHORING ENGINEER SHALL PREPARE A REMEDIAL PLAN. REMEDIAL MEASURES SHALL BE

DRILLLING AND EXCAVATION OPERATIONS SHALL BE IMMMEDIATELY SUSPENDED IF GROUND SUBSIDENCE IS OBSERVED, OR IF ADJACENT STRUCTURES ARE DAMAGED AS A RESULT OF THE DRILLING OR EXCAVATION OPERATION.

SHORING INSTALLATION AND EXCAVATION IN AREAS ADJACENT TO BUILDINGS: THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER, SHORING ENGINEER AND DPD IMMEDIATELY AND DIRECTLY IF THE 0.5 INCH DAMAGE THRESHOLD IS APPROACHED. SHORING INSTALLATION AND EXCAVATION SHALL NOT CONTINUE UNTIL REMEDIAL ACTION IS TAKEN TO ENSURE THAT 0.5 INCH IS NOT

CONTINUOUS OBSERVATION BY THE GEOTECHNICAL ENGINEER IS REQUIRED FOR THE

SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR. SPECIAL INSPECTION IS REQUIRED FOR SHORING WELDING AND CORROSION PROTECTION. TESTING OF LEAN MIX CONCRETE IS NOT REQUIRED.

00600- MATERIALS

LEAN MIX CONCRETE 1 1/2 SACK MIX (ABOVE BOE)

STRUCTURAL 3000PSI MIX IN TOE OF HOLE (BELOW BOE) CONCRETE

STRUCTURAL STEEL WF SECTIONS ASTM A992 Fy = 50 KSI CHANNELS ASTM A36 Fy = 36 KSI STEEL ANGLES ASTM A36 Fy = 36 KSI PLATE MATERIAL ASTM A36 Fy = 36 KSI ASTM A53 Fy = 35 KSI GRADE B STRUCTURAL PIPE STRUCTURAL BOLTS **ASTM A 325-N**

WELDED HEADED STUDS (WHS) ASTM A -108 WELDING ELECTRODES E70-XX WITH CHARPY V-NOTCH TOUGHNESS OF AT LEAST 20 FT-LBS AT 0 DEGREES F

TIMBER LAGGING P.T. HF NO. 2 4X12

TIMBER LAGGING SHALL BE PRESERVATIVE TREATED WITH WATER BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1 (A OR F) TO A MINIMUM RETENTION OF 0.4 LBS/CU. FT. (0.21 LBS/CU. FT. FOR CA-B) ANY SAWN ENDS OF SUCH TREATED LAGGING SHALL BE FIELD TREATED WITH TWO BRUSHED COATS OF THE SAME PRESERVATIVE. LAGGING SHALL BE GAPPED PER THE GEOTECHNICAL ENGINEER TO PERMIT SEEPAGE.

DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE 14TH EDITION OF THE AISC "STEEL CONSTRUCTION MANUAL AND THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360-10.

00601- CORROSION PROTECTION1

THE PILES AND PIPE BRACES FOR THIS PROJECT ARE PERMANENT AND DO REQUIRE CORROSION PROTECTION. USE ZINC CLAD II ETHYL SILICATE INORGANIC ZINC-RICH COATING TO 5.0 MIL THICKNESS ON ALL SOLDIER PILES. COATING SHALL BE APPLIED TO EACH PILE FOR THE "UPSTAND HEIGHT" PLUS 2FT.

00602- WELDING

WELDING SHALL CONFORM TO AWS D1-04 "STRUCTURAL WELDING CODE." WELDING ELECTRODES SHALL BE E70XX. ALL WELDING SHALL BE PERFORMED BY WABO AND AWS CERTIFIED WELDERS. ALL COMPLETE PENETRATION WELDS (CP) SHALL BE ULTRASONIC TESTED. ALL SINGLE PASS FILLET WELDS SHALL BE VISUALLY INSPECTED. MINIMUM WELD SIZE IS 1/4" CONTINUOUS FILLET.

00603- SUBMITTALS

SUBMITTALS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION;

- CONSTRUCTION SEQUENCE NARRATIVE & DESCRIPTION INCLUDING EQUIPMENT LIST AND KEY PERSONNEL
- 2. LEAN CONCRETE MIX & STRUCTURAL CONCRETE MIX DESIGN
- 3. CERTIFIED STEEL MILL REPORTS
- 4. STRUCTURAL GROUT MIX DESIGN FOR TIEBACKS AS NEEDED
- 5. STRUCTURAL STEEL AND EMBEDDED ITEMS

00604- EXCAVATION

THE DISPOSAL SITE FOR EXCAVATION SPOILS, INCLUDING FACILITY NAME AND ADDRESS SHALL BE PROVIDED TO THE BUILDING DEPARTMENT SITE DEVELOPMENT INSPECTOR AT THE PRECONSTRUCTION MEETING.

ANY VOIDS BETWEEN THE FACE OF THE EXCAVATION AND THE LAGGING SHALL BE FILLED IMMEDIATELY WITH AN PERMEABLE, FREE DRAINING MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER. THIS SHALL INCLUDE CDF OR LEAN CONCRETE GROUT BEHIND THE UPPER TWO-THIRDS OF THE CUT FACE OF THE SHORING SYSTEM IF APPROVED BY THE GEOTECHNICAL ENGINEER. NO EXCAVATION FOR A LOWER LIFT SHALL PROCEED UNTIL THE INSTALLATION OF THE LIFT ABOVE IS COMPLETED, INCLUDING BACKFILLING BEHIND THE

THE CONTRACTOR SHALL LIMIT THE OPEN FACE OF THE EXCAVATION TO 4 FEET VERTICAL, UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL EXCAVATE THE WALL FACE AND INSTALL THE TIMBER LAGGING IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK AREA AND AVOID EXCESSIVE SLOUGHING, CAVING OR OVERBREAK. THE CONTRACTOR SHALL RESPONSIBLE FOR THE MEANS AND METHODS USED FOR TEMPORARY FACE STABILITY AND MEANS TO CONTROL EXCESSIVE OVERBREAK, AS APPROVED BY THE GEOTECHNICAL ENGINEER. EXCAVATION SHALL PROCEED TO A BOTTOM OF EXCAVATION (BOE) DEPTH NO GREATER THAN SHOWN ON THE PLANS.

REMOVE LEAN MIX FROM THE PILE TO ALLOW PLACEMENT OF WOOD LAGGING. CARE BY THE EXCAVATOR SHALL BE TAKEN TO PREVENT EXCESSIVE POUNDING OR SHAKING OF THE SHORING WALL.

ANY VOIDS BETWEEN THE FACE OF THE EXCAVATION AND THE LAGGING SHALL BE FILLED WITH AN APPROVED PERMEABLE, FREE DRAINING MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER.

THE GEOTECHNICAL REPORT INDICATES THAT THE GROUNDWATER TABLEN IS UNLIKELY TO BE ENCOUNTERED ABOVE THE BOTTOM OF EXCAVATION ELEVATION - LOCAL PERCHED GROUNDWATER MAY BE ENCOUNTERED. REFER TO THE GEOTECHNICAL REPORT.

00605 - SLOPE PROTECTION

THE CONTRACTOR SHALL PROTECT CUT SLOPES WITH PLASTIC IF CONSTRUCTION OCCURS DURING WET WEATHER. PLASTIC SHEETING SHALL BE OVERLAPPED AT LEAST 12 INCHES. SURFACE DRAINAGE AROUND THE EXCAVATION SHALL BE CONTROLLED BY THE CONTRACTOR TO PREVENT WATER FROM FLOWING INTO THE EXCAVATION. CUT SLOPES SHALL BE EXCAVATED TO INTERSECT THE BACKSIDE OF THE DRILLED HOLE.

CLEAR PLASTIC SHALL HAVE A MINIMUM THICKNESS OF 6 MIL AND SHALL MEET THE REQUIREMENTS OF WSDOT / APWA SECTION 9-14.5.

CONTRACTOR SHALL MONITOR SLOPES FOR ANY SIGNS OF DISTRESS AND TAKE CORRECTIVE ACTIONS AS REQUIRED BY THE GEOTECHNICAL ENGINEER.

00700- SOLDIER PILES

SOLDIER PILES ARE TO BE INSTALLED IN 24 INCH DIAMETER HOLES U.N.O AND BACKFILLED WITH LEAN MIX CONCRETE, TYPICAL U.N.O. REFER TO SHORING ELEVATIONS. ALL HOLES SHALL BE DRILLED IN AN ACCEPTABLE MANNER WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES TO THE GEOTECHNICAL ENGINEERS

TEMPORARY CASING OR OTHER APPROVED METHODS SHALL BE USED AS REQUIRED FOR PILE INSTALLATION TO MINIMIZE GROUND LOSS SHOULD CAVING SOIL CONDITIONS BE ENCOUNTERED. WHEN CASING HOLES ARE REQUIRED, THE CASING SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND ALL INSTALLATION AND REMOVAL STRESSES, TO PREVENT DISTORTION CAUSED BY PLACING ADJACENT PILES AND TO PREVENT COLLAPSE DUE TO SOIL OR HYDROSTATIC PRESSURE.

ALTERNATE PILE PLACEMENT AT LEAST 24 HOURS TO ALLOW CONCRETE TO HARDEN PRIOR

INSTALLATION TOLERANCES SHALL BE AS FOLLOWS;

1 INCH PERPENDICULAR TO WALL

ELEVATION

SHOULD GROUNDWATER BE ENCOUNTERED DURING DRILLING FOR SOLDIER PILES. THE CONTRACTOR SHALL BE PREPARED TO USE TEMPORARY CASING OR OTHER METHODS TO

THAT THE CONTRACTORS DRILLING METHOD AND PROCEDURES ARE APPROPRIATE FOR THE GROUND CONDITIONS

00200- DESIGN LOADS AND CONSIDERATIONS

EARTHWORK AND FOUNDATIONS SHALL BE CONSISTENT WITH GEOTECHNICAL

SEE DETAILS ON SS4 FOR SPECIFIC DESIGN LOADING DIAGRAMS. DESIGN PARAMETERS

ACTIVE EARTH PRESSURE (LEVEL) 45 PCF ACTIVE EARTH PRESSURE (SLOPING)55 PCF

COEFFICIENT OF FRICTION 0.30 (ALLOWABLE) SEISMIC SURCHARGE 7H UNIFORM SOIL PROFILE SITE CLASS D

THE SHORING SYSTEM IS PERMANENT.

09990 ADDITIONAL CITY COMMENTS

NOTE THAT NO GRADING SHALL BE PERFORMED BETWEEM OCTOBER SEASON 31st. AND APRIL 1st.

Structural Drawing List (Shoring)						
SHEET	DESCRIPTION	Issued	Rev	Rev Date		
				,		
SS1.0	Shoring Notes	03/06/20				
SS2.0	Shoring and Excavation Plan	03/06/20				
SS3.0	Shoring Elevations	03/06/20				
SS4.0	Shoring Details	03/06/20				

YARD

EXTRA STRONG

DOUBLE EXTRA STRONG

X-STG

YD

HT.

HEIGHT

PRECONSTRUCTION BASELINE SURVEY:

IMPLEMENTED TO PREVENT DEFLECTIONS FROM EXCEEDING 1.0 INCH.

EXCEEDED.

00405 - INSPECTION

SHORING SYSTEM INSTALLATION INCLUDING DRILLING OF PILE HOLES. INSTALLATION OF SOLDIER PILES AND LEAN MIX CONCRETE. A COMPLETE & ACCURATE RECORD SHALL KEPT OF ALL PILE DEPTHS, QUANTITY OF LEAN MIX PER PILE, AND ANY UNUSUAL CONDITIONS

TO DRILLING ADHACENT PILES.

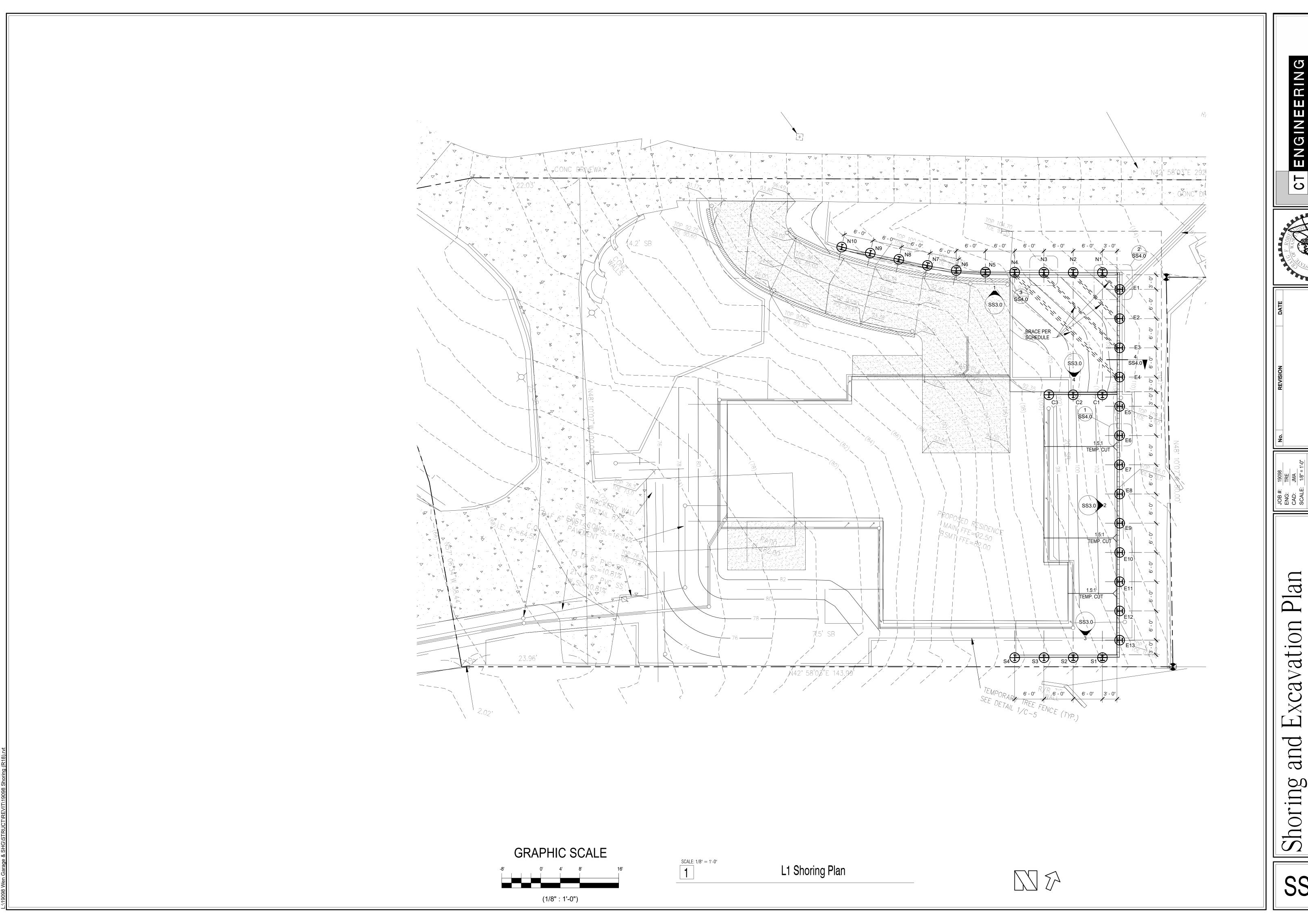
3 INCHES PARALLEL TO WALL PLAN DIRECTION VERTICAL DIRECTION 1 1/2% OF TOTAL LENGTH, 3" MAXIMUM IN

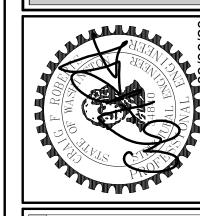
KEEP THE SIDEWALLS OF THE HOLE OPEN WITHOUT SIGNIFICANT RAVELING OR CAVING. GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING DRILLING OPERATION TO VERIFY

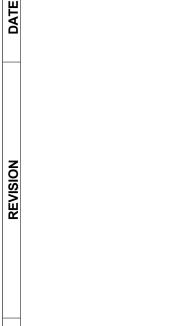
ENGINEERING RECOMENDATIONS. SEE THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY PANGEO INC. (PROJECT 17-405) DATED FEBRUARY 8,2018.

ARE AS FOLLOWS:

PASSIVE EARTH PRESSURE 300 PCF (ALLOWABLE)

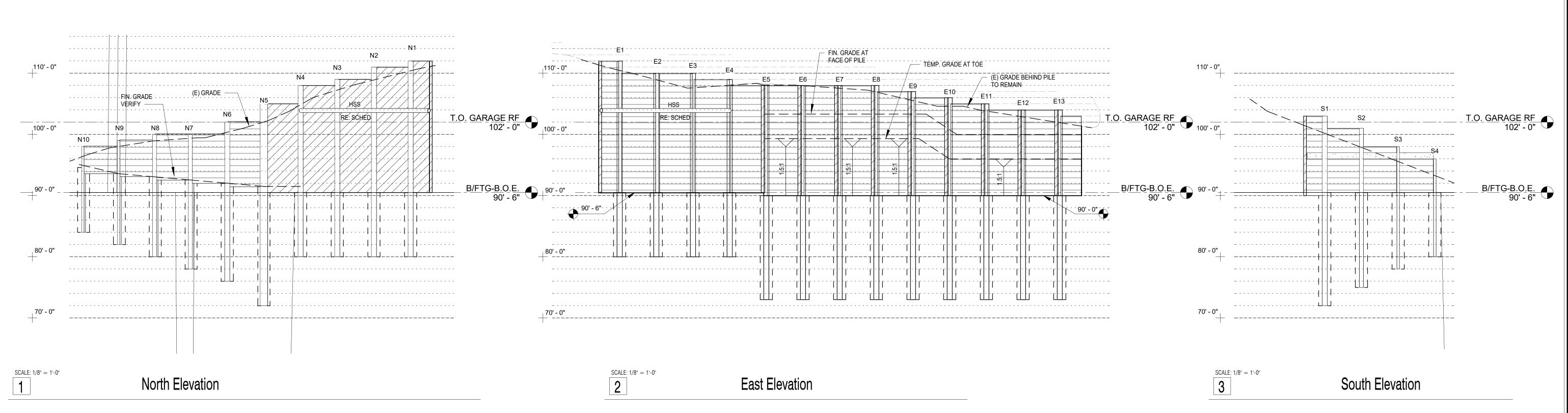


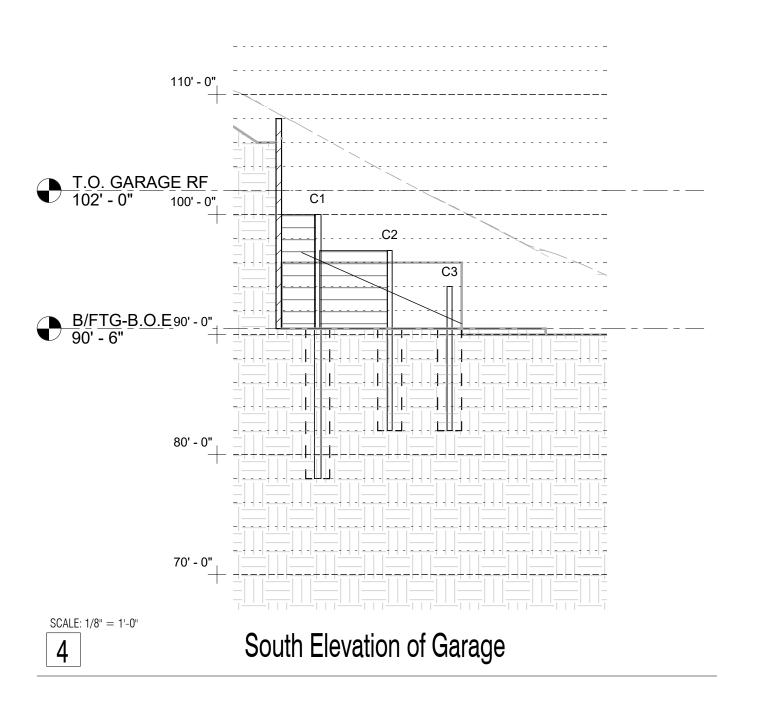




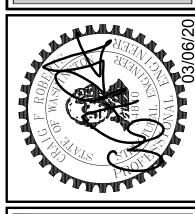
JOB #: ENG: CAD: SCALE: KEY ISS

SS2.0





Structural Shoring Schedule						
Pile No`	Pile	Hole	T.O.P.	B.O.P.	Brace	Pile No`
		DIA			Elev	Brace
C1	W14X30	24"	100' - 0"	78' - 0"	0' - 0"	
C2	W14X22	24"	97' - 0"	82' - 0"	0' - 0"	
C3	W14X22	24"	94' - 0"	82' - 0"	0' - 0"	
E1	W14X82	24"	112' - 0"	80' - 0"	104' - 0"	HSS 6" DIA. SCHED 80
E2	W14X82	24"	110' - 0"	80' - 0"	104' - 0"	HSS 6" DIA. SCHED 80
E3	W14X82	24"	110' - 0"	80' - 0"	104' - 0"	HSS 6" DIA. SCHED 80
E4	W14X82	24"	109' - 0"	80' - 0"	104' - 0"	HSS 8" DIA. SCHED 80
E5	W14X61	24"	108' - 0"	73' - 0"	0' - 0"	
E6	W14X61	24"	108' - 0"	73' - 0"	0' - 0"	
E7	W14X61	24"	108' - 0"	73' - 0"	0' - 0"	
E8	W14X61	24"	108' - 0"	73' - 0"	0' - 0"	
E9	W14X61	24"	107' - 0"	73' - 0"	0' - 0"	
E10	W14X61	24"	106' - 0"	73' - 0"	0' - 0"	
E11	W14X61	24"	105' - 0"	73' - 0"	0' - 0"	
E12	W14X61	24"	104' - 0"	73' - 0"	0' - 0"	
E13	W14X61	24"	104' - 0"	73' - 0"	0' - 0"	
N1	W14X82	24"	112' - 0"	80' - 0"	104' - 0"	HSS 6" DIA. SCHED 80
N2	W14X82	24"	111' - 0"	80' - 0"	104' - 0"	HSS 6" DIA. SCHED 80
N3	W14X82	24"	109' - 0"	80' - 0"	104' - 0"	HSS 6" DIA. SCHED 80
N4	W14X82	24"	108' - 0"	80' - 0"	104' - 0"	HSS 8" DIA. SCHED 80
N5	W14X99	24"	105' - 0"	72' - 0"	0' - 0"	
N6	W14X61	24"	102' - 0"	76' - 0"	0' - 0"	
N7	W14X43	24"	100' - 0"	78' - 0"	0' - 0"	
N8	W14X43	24"	100' - 0"	80' - 0"	0' - 0"	
N9	W14X22	24"	99' - 0"	82' - 0"	0' - 0"	
N10	W14X22	24"	98' - 0"	84' - 0"	0' - 0"	
S1	W14X82	24"	103' - 0"	72' - 0"	0' - 0"	
S2	W14X43	24"	101' - 0"	75' - 0"	0' - 0"	
S3	W14X22	24"	98' - 0"	78' - 0"	0' - 0"	
S4	W14X22	24"	96' - 0"	80' - 0"	0' - 0"	



JOB #: ENG: CAD: SCALE: KEY ISSU

Elevations

SS3.0

