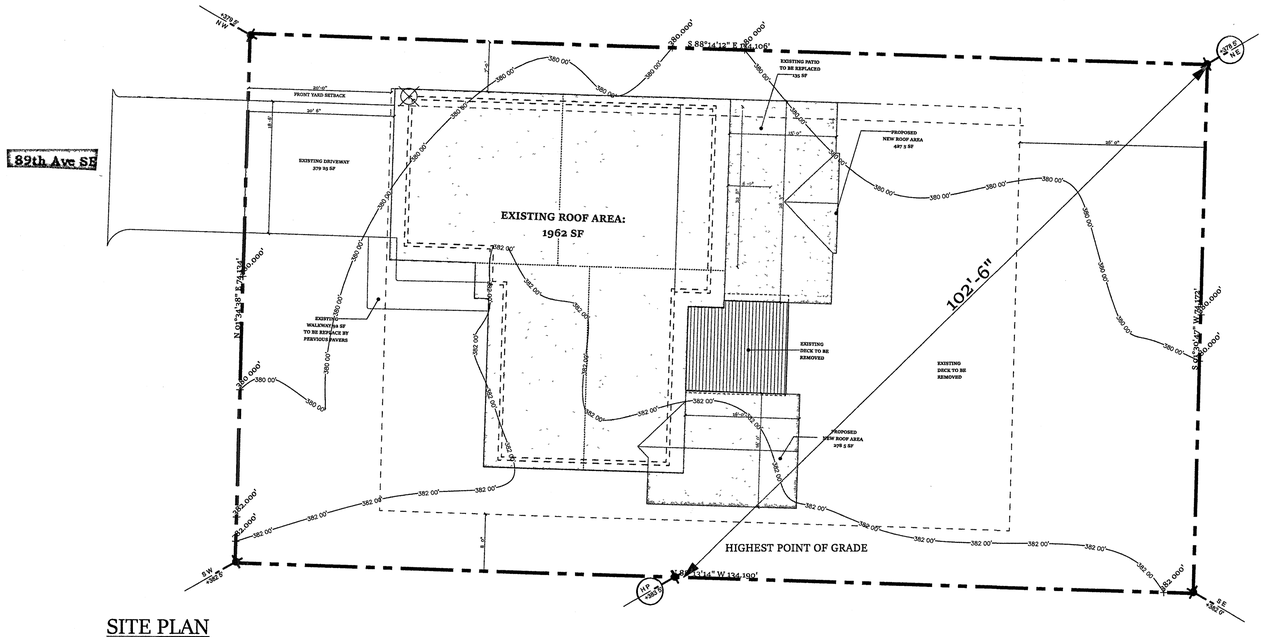
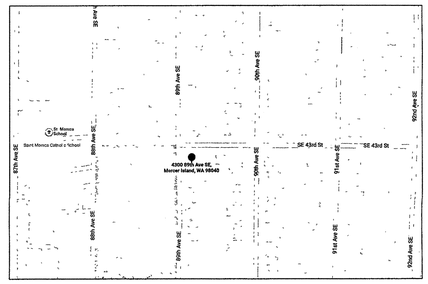
UCHIDA-FURUDATE RESIDENCE
REMODEL-ADDITION



SITE PLAN
SCALE: 1" = 10'-0"

DRAWING INDEX

VICINITY MAP



PROJECT TEAM

OWNER: AKIHIDE UCHIDA & WUKAKO FURUDATE

STRUCTURAL ENGINEER: CUSTOM DESIGN & ENGINEERING, INC
WWW.CDENGR.COM
MUKILTEO, WA
(425) 343-7517
MAIL@CDENGR.COM

GENERAL CONTRACTOR: t.b.d

ARCHITECT: DAVID REED CAHILL
PACIFIC HOMEWORKS
P.O. BOX 87
FREELAND, WA 98249

DESIGN CONSULTANT: AUSILIO DESIGN LLC
P.O. BOX 2658
FRIDAY HARBOR, WA 98250

SITE DATA NOTES

JURISDICTION: THE CITY OF MERCER ISLAND

TAX PARCEL NUMBER: TPN: 4457300480

SITE ADDRESS: 4300 89TH AVE SE MERCER ISLAND, WA 98040

LOT AREA: 10,125 SF (0.23ACRES)

ZONING: SINGLE FAMILY (R-9.6)

CONSTRUCTION TYPE V-N (WOOD FRAME NON-COMBUSTIBLE)

LEGAL DESCRIPTION

LOT 16 BLOCK 6 LUCAS HEIGHTS ADDITION TOGETHER WITH PORTION OF VACATED ALLEY ADJACENT

SQUARE FOOTAGES

LEVEL:	AREA:
1ST FLOOR LIVING AREA	1,430 SF
FINISHED BASEMENT LIVING AREA	430 SF
TOTAL FINISHED LIVING AREA	*1,860 SF*
BASEMENT GARAGE	300 SF

2018 IRC OCCUPANCY

SEPARATE PERMITS

-ELECTRICAL

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2893 REGISTERED ARCHITECT
DAVID R. CAHILL
STATE OF WASHINGTON
04-27-25
Seal

DRAFTED: 3/25/2024

REVISION | DATE | MARK

UCHIDA-FURUDATE RESIDENCE
4300 89TH AVE SE
MERCER ISLAND, WA 98040

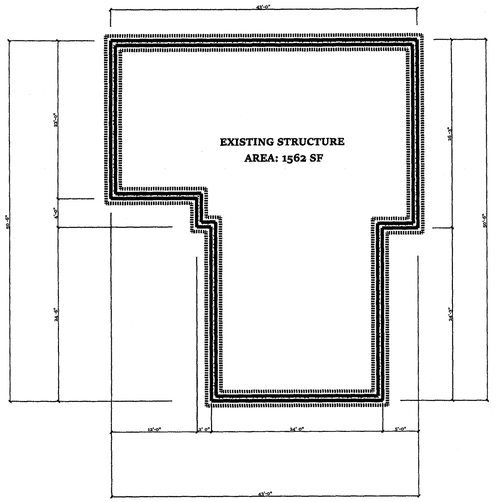
Project Number

Sheet Name
PROJECT INFORMATION

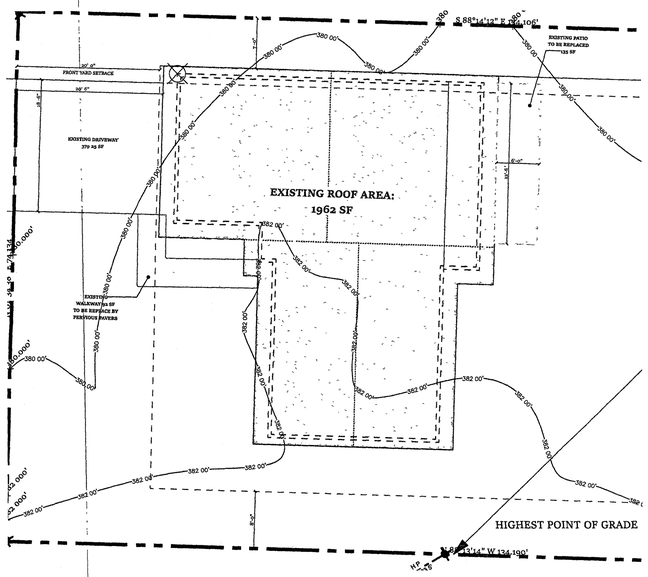
Sheet Number
G100

EXISTING STRUCTURE AREA:

COMPONENT DESCRIPTION:	COMPONENT AREA:	
Existing Structure Area:	1,562.0	sf
Added Structure Area:	0.0	sf
Revised Structure Area:	1,562.0	sf
Total Lot Area:	10,125.0	sf
Total Lot Structure Area:	15.4%	



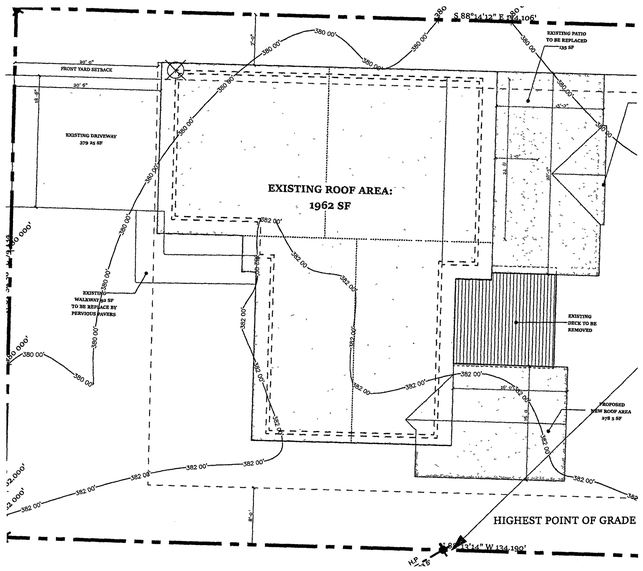
EXISTING STRUCTURE AREA
SCALE: 1" = 10'-0"



EXISTING IMPERVIOUS SURFACE PLAN
SCALE: 1" = 10'-0"

EXISTING IMPERVIOUS SURFACE

COMPONENT DESCRIPTION:	COMPONENT AREA:	
Existing Driveway Area:	379.3	sf
Existing Walkway Area:	92 0	sf
Existing Main Roof Area:	1,961.0	sf
Existing Lower Patio Area:	135 0	sf
Total Existing Impervious Area:	2,567.3	sf (25%)
Allowable Impervious Area (40%)		
Total Lot Area:	10,125.0	sf (0.23 Ac)



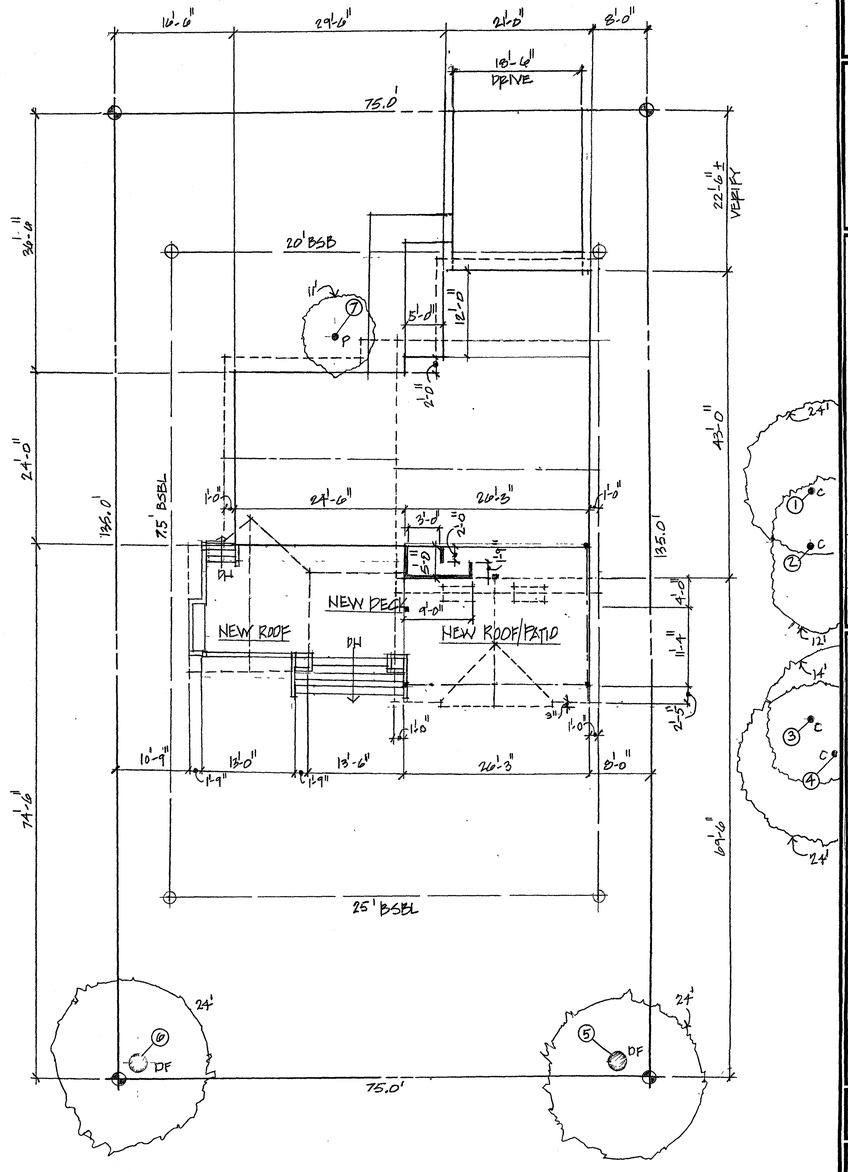
PROPOSED IMPERVIOUS SURFACE PLAN
SCALE: 1" = 10'-0"

PROPOSED IMPERVIOUS SURFACE

COMPONENT DESCRIPTION:	COMPONENT AREA:	
Total Existing Impervious Area:	2,567.3	*sf (25%)*
Net Proposed Patio Roof Area:	292.5	sf
Net Proposed BBQ Roof Area:	278.5	sf
Removed Walkway Area.	-92	sf
Total New Net Impervious Area:	479.0	sf
Total Existing Impervious Area:	*2,567.3*	*25.36%*
Total (existing + proposed) Impervious Area:	3,046.3	30.09%
Total Lot Area:	10,125.0	sf (0.23 Ac)

TREE INVENTORY

TREE	DIA.	STATUS	TYPE	CANOPY	EXCEPT.	HEALTH
#1	12"	RETAIN	CEDAR	24' DIA.	N.A.	FAIR
#2	12"	RETAIN	CEDAR	12' DIA.	N.A.	FAIR
#3	12"	RETAIN	CEDAR	14' DIA.	N.A.	FAIR
#4	12"	RETAIN	CEDAR	24' DIA.	N.A.	FAIR
#5	27"	RETAIN	DG. FIR	24' DIA.	27" DIA.	GOOD
#6	36"	RETAIN	DG. FIR	24' DIA.	36" DIA.	GOOD
#7	11"	RETAIN	PALM	12' DIA.	N.A.	FAIR



SITE PLAN
SCALE: 1" = 10'-0"

TREE INVENTORY

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2693 REGISTERED ARCHITECT DAVID R. CAHILL STATE OF WASHINGTON
Seal
04-27-25

3/25/2024

REVISION
DATE
MARK

UCHIDA-FURUDATE RESIDENCE
4300 89TH AVE SE
MERCER ISLAND, WA 98040

Project Number

Sheet Name
SITE PLAN
STRUCTURE AREA
IMPERVIOUS AREA

Sheet Number
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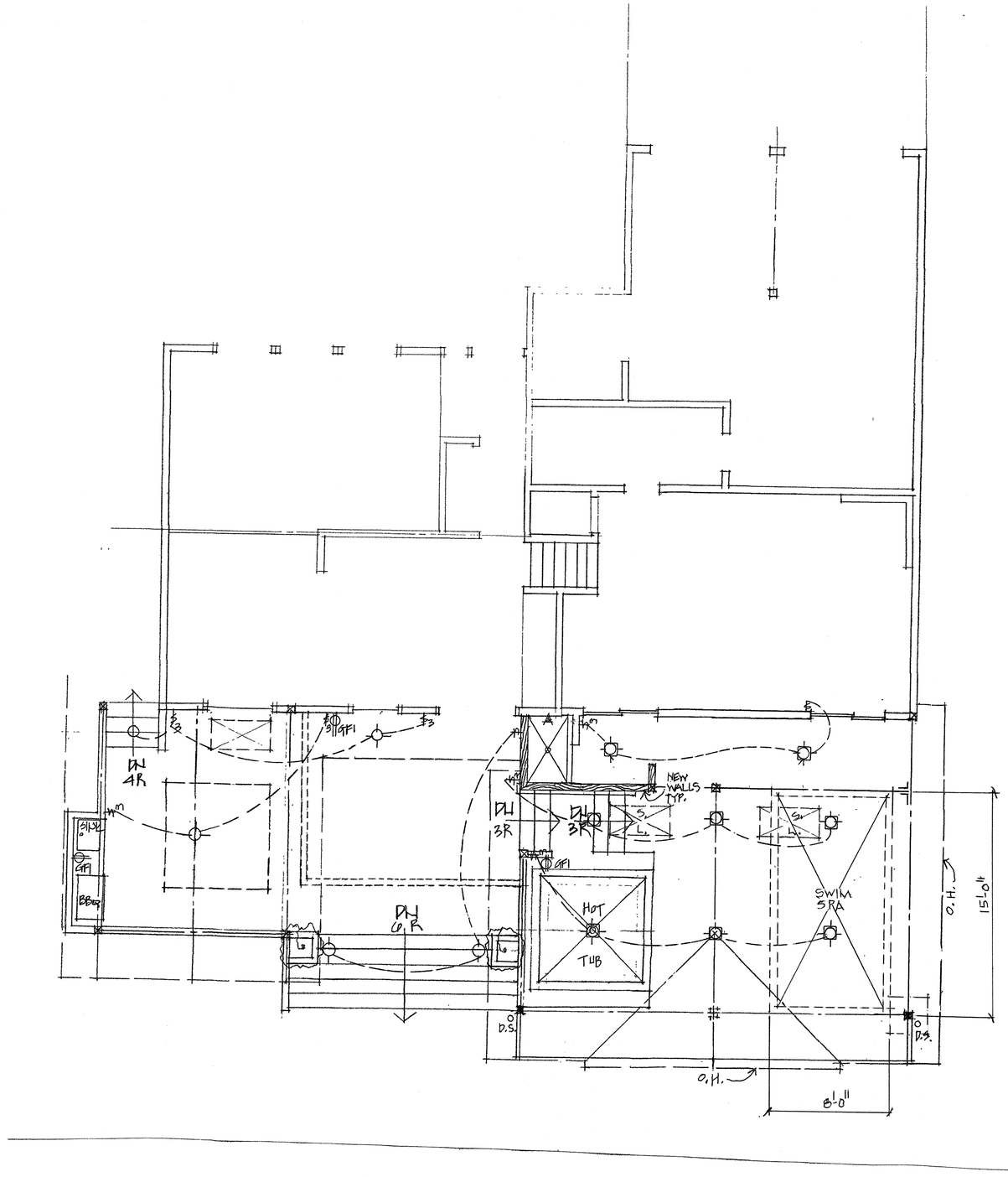

MAIN LEVEL 1-FLOOR PLAN
SCALE: AS NOTED

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STATE OF WASHINGTON
04-27-25
Seal

DRAFTED: 5/7/2025

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UCHIDA RESIDENCE
4300 89TH AVE SE
MERCER ISLAND, WA 98040

Project Number

Sheet Name
MAIN LEVEL 1
FLOOR PLAN

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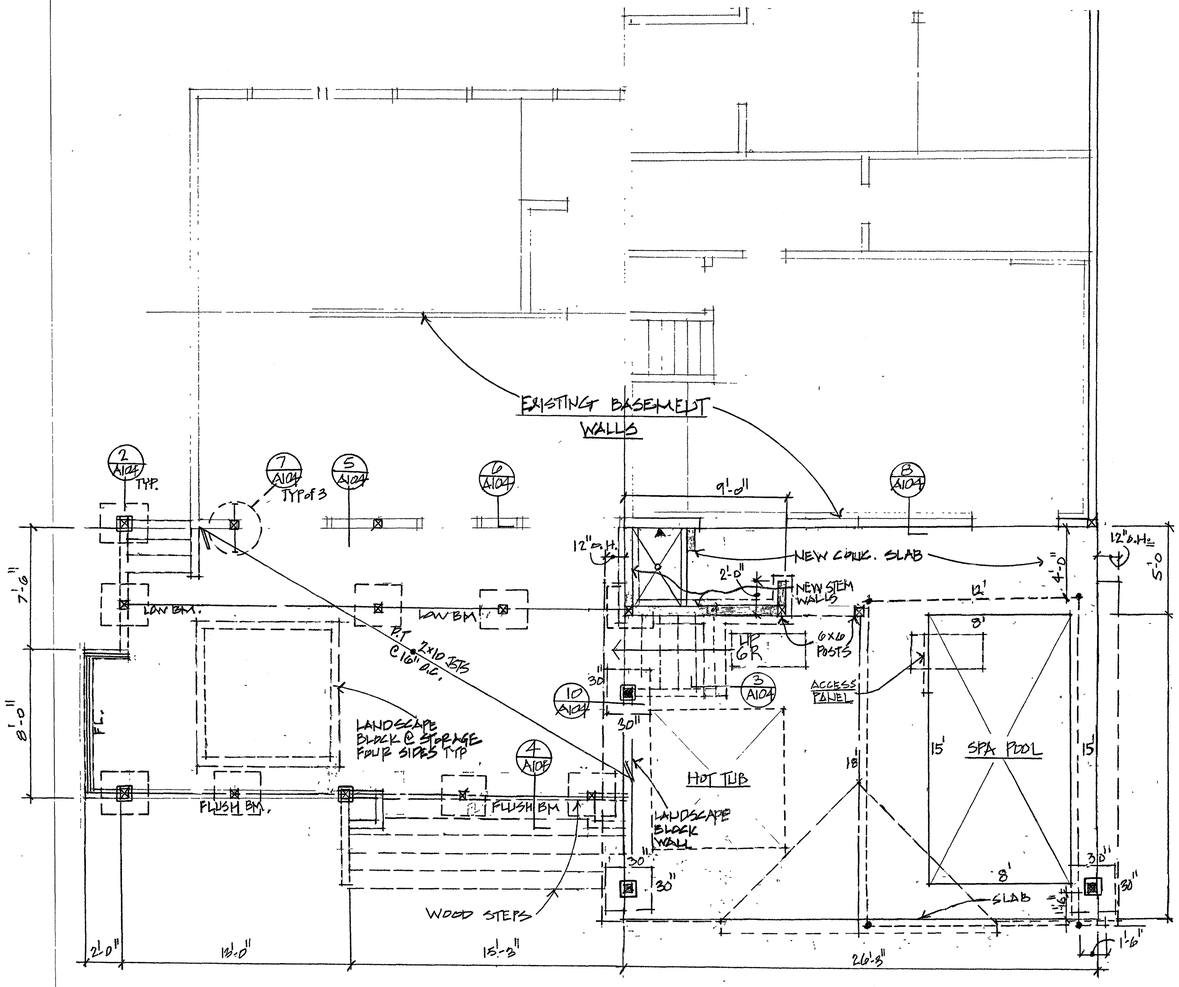
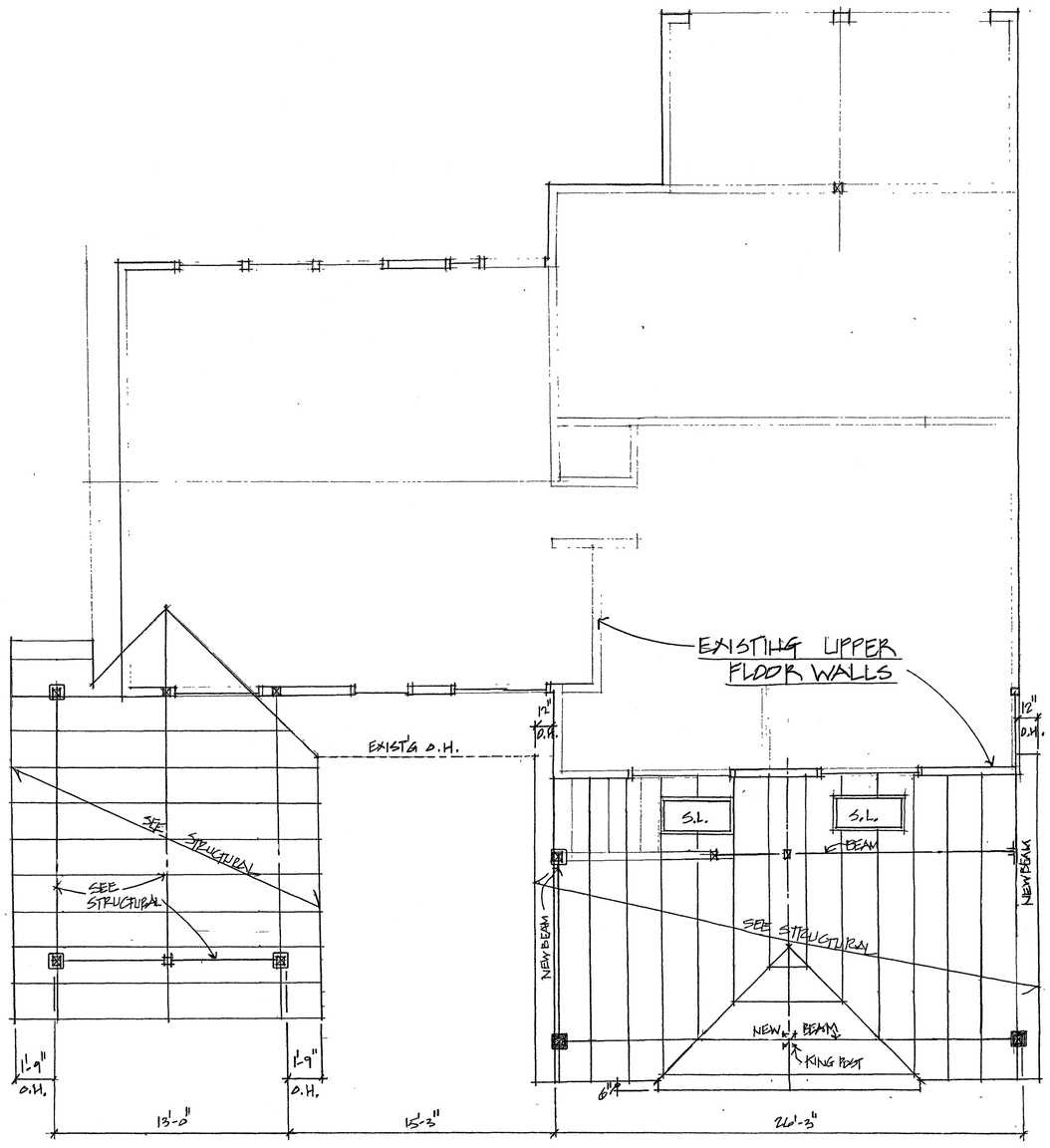


FOUNDATION & DECK FRAMING PLAN

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



ROOF FRAMING PLAN

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

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04-27-25
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UCHIDA-FURUDATE RESIDENCE
4300 89TH AVE SE
MERCER ISLAND, WA 98040

Project Number

Sheet Name
FOUNDATION & DECK FRAMING
ROOF FRAMING PLAN

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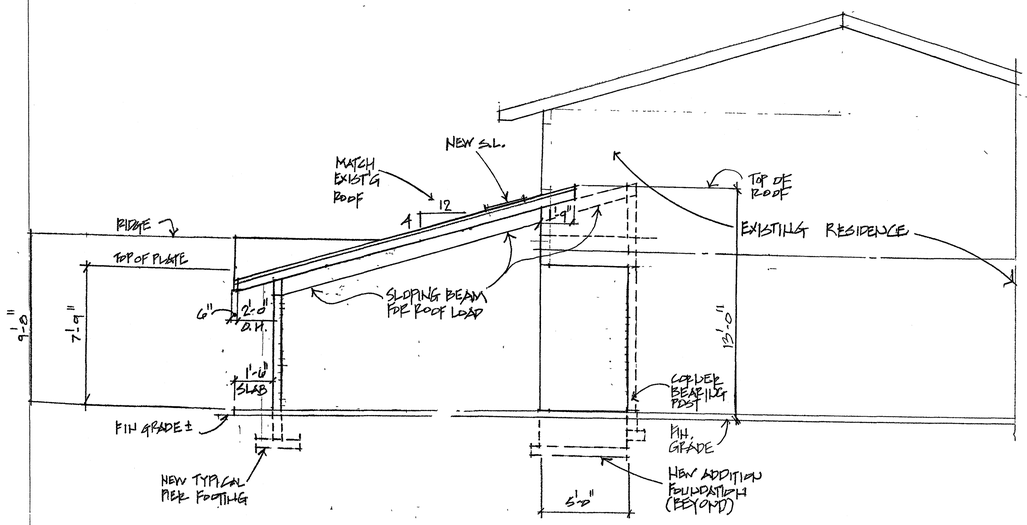
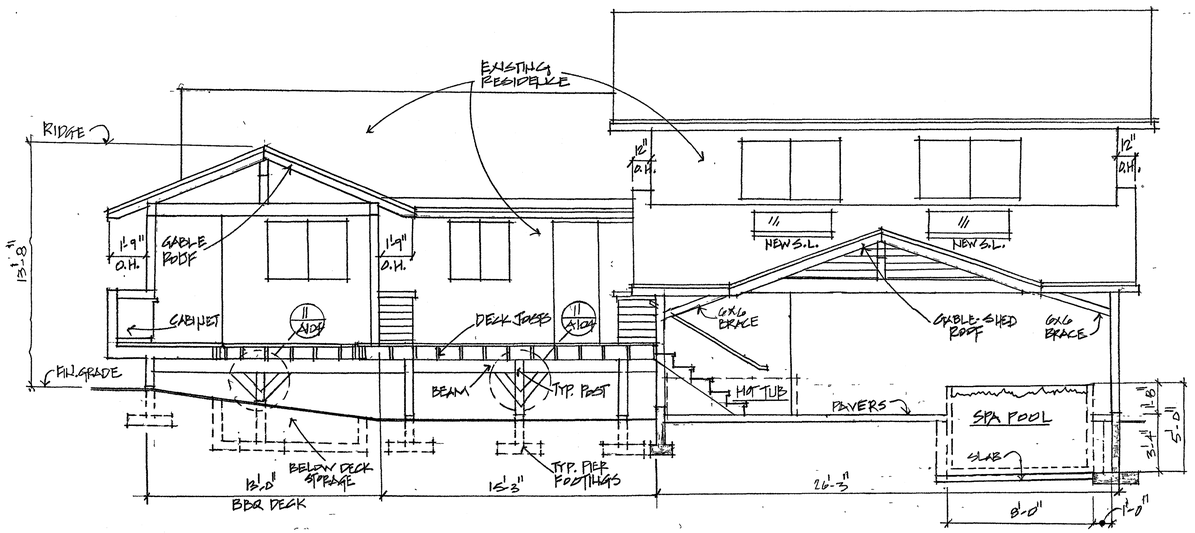


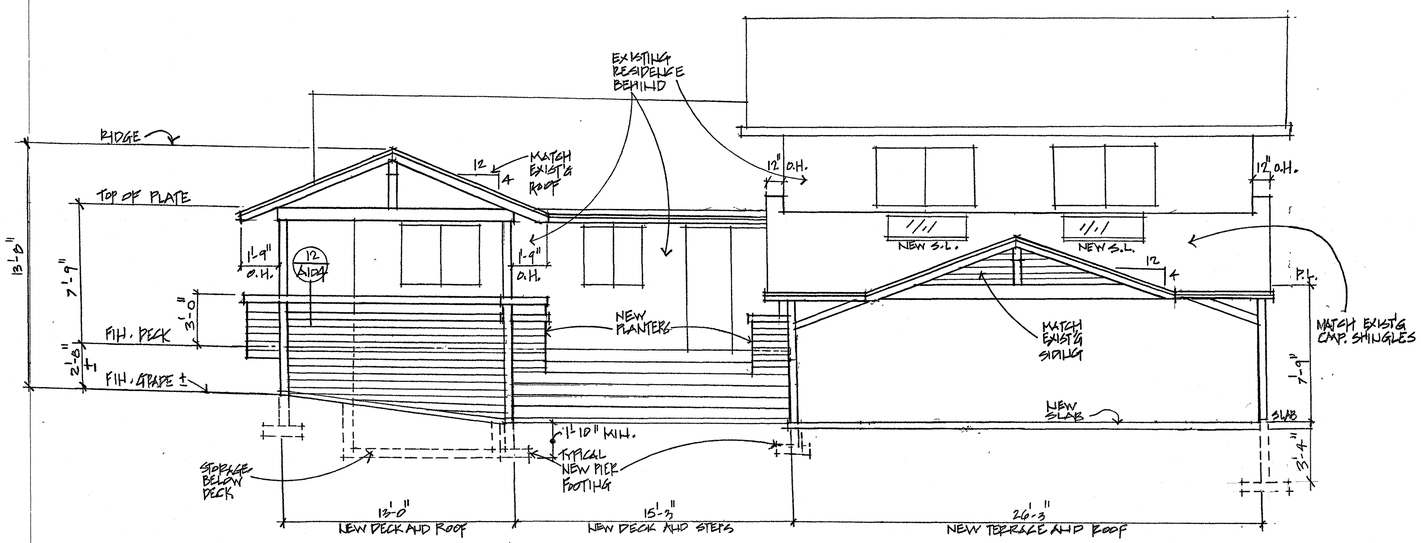
NORTH DECK ELEVATION

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



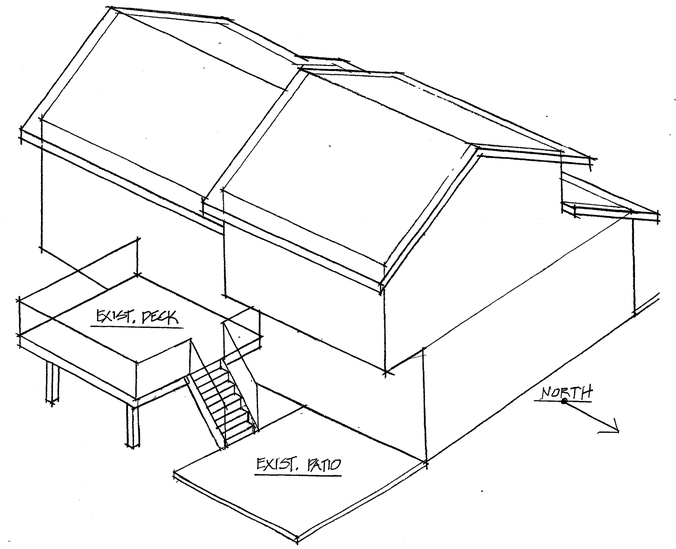
EAST DECK SECTION

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



EAST DECK ELEVATION

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



ROOF

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04-27-25

DRAFTED: 3/25/2024

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UCHIDA-FURUDATE RESIDENCE
4300 89TH AVE SE
MERCER ISLAND, WA 98040

Project Number

Sheet Name
DECK ELEVATIONS

Sheet Number
A102
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CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2015 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED BY THE STATE OF WASHINGTON.

2. SEE "PROJECT SPECIFIC INFO" (THIS PAGE) FOR DESIGN LOADING FOR THIS PROJECT.

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS SHALL SERVE AS THE PRIME CONTRACT DRAWINGS. ANY NOTED DISCREPANCIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, THESE GENERAL NOTES, AND/OR SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT OR DESIGNER WHO SHALL MAKE WRITTEN CORRECTION OF SUCH DISCREPANCY. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCIES SHALL BE DONE SOLELY AT THE RISK OF THE GENERAL CONTRACTOR.

4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND/OR DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSIONS SHALL BE DEFINED BY THE ARCHITECTURAL DRAWINGS, WALLS SECTIONS, BUILDING SECTIONS, AND OTHER RELATED RENDERINGS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS SHOULD UTILIZE DIMENSIONAL INFORMATION OBTAINED FROM BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

5. THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED ACCORDING TO THE SUPPLIED STRUCTURAL DRAWINGS. FOR REFERENCE, SEE ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION.

6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, AND/OR PROCEDURES REQUIRED TO PERFORM THE WORK DESCRIBED HEREIN. THE ENGINEER OF RECORD, AS NOTED ON THESE PLANS, HAS NO GENERAL OR OVERALL SUPERVISORY AUTHORITY AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTION OF THE GENERAL CONTRACTOR, HOMEOWNER, OR ANY SUBCONTRACTOR. THE ENGINEER OF RECORD HAS NO AFFIRMATIVE DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR OTHERWISE REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTOR(S), OR OTHER ENTITIES OR PERSONS.

7. ANY REQUEST FOR CHANGE(S) TO THESE STRUCTURAL DRAWINGS SHALL BE MADE IN WRITING TO THE ARCHITECT/DESIGNER AS WELL AS THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO ACTUAL CHANGES IN CONSTRUCTION METHOD, TECHNIQUE, FABRICATION OR OTHER POTENTIAL CHANGE. CHANGES MADE TO SHOP DRAWINGS PREPARED BY OTHERS WILL NOT BE SATISFACTORY IN FULFILLING THIS REQUIREMENT.

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

9. ALL STRUCTURAL SYSTEMS COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, SHIPPING AND HANDLING, STORAGE, ERECTION AND INSTALLATION IN ACCORDANCE WITH THE MANUFACTURER'S AND/OR SUPPLIER'S INSTRUCTIONS.

GEOTECHNICAL & SOILS

10. FOUNDATION NOTES: THE VALUES UTILIZED BELOW ARE THE ASSUMED SOIL BEARING PRESSURE AND LATERAL EARTH PRESSURE BASED ON THE LOCAL JURISDICTIONAL REQUIREMENTS. THESE VALUES SHALL BE USED UNLESS A GEOTECHNICAL REPORT PROVIDING ALTERNATE VALUES IS PROVIDED FOR THIS PROJECT.

A. ALLOWABLE SOIL BEARING = 1,500 PSF
B. LATERAL EARTH PRESSURE = 55 PCF / 35 PCF
C. ALLOWABLE PASSIVE EARTH PRESSURE (INCLUDES FOS OF 1.5) = 300 PCF

11. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 12 INCHES BELOW ADJACENT FINAL GRADE. FOOTINGS SHALL BE CENTERED UNDER COLUMNS AND BEARING WALLS UNLESS SPECIFICALLY OTHERWISE NOTED.

12. ANY BACKFILL USED BEHIND RETAINING WALLS SHALL BE FREE DRAINING GRANULAR FILL AND SUITABLE FOR SUBSURFACE DRAINAGE.

CONCRETE & REINFORCEMENT

13. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301-16 AND ACI 318-14. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF F'C = 3,000 PSI AND MIX SHALL CONTAIN A MINIMUM OF 5-1/2 SACKS OF CEMENT PER CUBIC YARD, AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. THE DESIGN STRENGTH, BASED ON IBC SECTION 1904 IF F'C = 2,500 PSI.

14. CONCRETE SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN APPROPRIATE AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.

15. REINFORCING STEEL BARS SPECIFIED ON THESE PLANS SHALL BE GRADE 40, FY=40,000 PSI, UNLESS OTHERWISE NOTED. WWM (WELDED WIRE MESH) SHALL CONFORM TO ASTM A-185

16. REINFORCING STEEL DETAILS SHALL BE IN ACCORDANCE WITH ACI 318-14. CONTINUOUS REINFORCEMENT BARS OF #5 AND SMALLER SIZE SHALL BE LAPPED 40 BAR DIAMETERS, MINIMUM OF 24 INCHES. CORNER BARS SHALL BE PROVIDED AT ALL WALL AND FOOTING INTERSECTIONS. LAP SPLICES OF BARS LARGER THAN #5 WILL BE SPECIFIED WHERE APPLICABLE. ADJACENT MATS OF WWM SHALL OVERLAP A MINIMUM OF 8 INCHES AT SIDES AND ENDS.

17. CONCRETE BARS THAT ARE PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD.

18. REINFORCEMENT STEEL SHALL BE COVERED AS FOLLOWS:
A. FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO THE EARTH = 3 INCHES.
B. FORMED SURFACES EXPOSED TO EARTH OR WEATHER FOR #5 BARS AND SMALLER = 1.5 INCHES.
C. COLUM TIES OR SPIRALS AND BEAM STIRRUPS = 1.5 INCHES.
D. CONDITIONS NOT LISTED HERE WILL BE DETAILED AS THEY OCCUR.

19. UNLESS OTHERWISE PROVIDED BY DETAILS, CALCULATIONS OR NOTES ASSOCIATED WITH THIS PLAN SET, CONCRETE WALLS SHALL BE REINFORCED AS FOLLOWS:
A. 6" WALLS = HORIZ. #4 BAR @ 16" O/C | VERT. #4 BAR @ 18" O/C
B. 8" WALLS = HORIZ. #4 BAR @ 12" O/C | VERT. #4 BAR @ 18" O/C

20. CONCRETE WALL PENETRATIONS AND OPENINGS: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION(S) OF DOOR AND WINDOW OPENINGS IN CONCRETE WALLS. REFER TO ARCHITECTURAL DRAWINGS (OR MECHANICAL IF AVAILABLE) FOR LOCATION OF MECHANICAL PENETRATIONS THROUGH CONCRETE OPENINGS.

21. USE OF NON-SHRINK GROUT SHALL BE OF A TYPE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE MANUFACTURER'S PROVIDED INSTRUCTIONS. GROUT STRENGTH SHALL BE A MINIMUM OF 3,000 PSI.

STEEL

22. STRUCTURAL STEEL DESIGN, FABRICATION, INSTALLATION, AND ERECTION SHALL BE BASED ON THE FOLLOWING REFERENCES:
A. AISC 360 STEEL CONSTRUCTION MANUAL AND IBC SECTION 2205.2
B. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

23. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. ROLLED STEEL SHAPES, INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, FY = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, FY = 42 KSI (ROUND) AND FY = 46 KSI (SQUARE AND RECTANGULAR SECTIONS). CONNECTION BOLTS SHALL CONFORM TO ASTM A307.

24. ALL STEEL EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH ANOTHER APPROVED EXTERIOR COATING SYSTEM.

25. PRIMER OF STEEL SHALL BE DONE AT FABRICATION SHOP IN ALL CASES EXCEPT:
A. STEEL ENCASED IN CONCRETE
B. SURFACES TO BE WELDED
C. CONTACT SURFACES WITH HIGH-STRENGTH BOLTS
D. STEEL MEMBERS SUBJECT TO GALVANIZATION
E. STEEL MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES
F. SURFACES TO RECEIVE SPRAY APPLIED FIREPROOFING

26. ALL ANCHORS EMBEDDED IN CONCRETE OR MASONRY SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN SSTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

27. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES.

WOOD & NAILING

28. FRAMING LUMBER SHALL BE S-DRAY, KD, OR MC-19 AND SHALL BEAR THE STAMP OR GRADE MARK IN CONFORMANCE WITH WCLIB STANDARDS OF "GRADING RULES FOR WEST COAST LUMBER #17", OR WWPA STANDARD "WESTERN LUMBER GRADING RULES 2011".

29. FRAMING LUMBER SHALL BE HEM-FIR #2 OR BETTER, UNLESS OTHERWISE SPECIFIED.

30. GLUE LAMINATED MEMBERS SHALL BE FABRICATED IN ACCORDANCE WITH CURRENT ASTM & ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY THE APPROPRIATE CERTIFICATE OF CONFORMANCE. UNLESS OTHERWISE NOTED, GLULAMS SHALL BE VISUALLY GRADED WESTERN 24F-V4 FB = 2,400 PSI, FV = 265 PSI. CAMBER WILL BE ASSUMED TO BE 0" UNLESS OTHERWISE SPECIFIED ON AN INDIVIDUALLY DESIGNED MEMBER.

31. STRUCTURAL COMPOSITE LUMBER INDICATED AS "VERSALAM" CALLED OUT IS A PRODUCT PROVIDED BY BOISE CASCADE. ALTERNATE MANUFACTURED LUMBER PRODUCTS MAY BE SUBSTITUTED ONLY WITH THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

32. MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH MAXIMUM MOISTURE CONTENT OF 12%. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROTECT MANUFACTURED LUMBER FROM EXCESSIVE MOISTURE.

33. PREFABRICATED MANUFACTURED I-JOISTS FOR FLOORING OR ROOF JOIST APPLICATION WILL BE SPECIFIED AS TO MANUFACTURER, SERIES, SIZE, AND ON CENTER SPACING. IN GENERAL, MULTIPLE OPTIONS WILL BE PROVIDED TO ALLOW CONTRACTOR FLEXIBILITY IN PRODUCT SELECTION. IN THE EVENT THE GENERAL CONTRACTOR DESIRES TO SUBSTITUTE FOR A DIFFERENT PRODUCT, WRITTEN APPROVAL FROM THE ENGINEER OF RECORD MUST BE OBTAINED PRIOR TO SUBSTITUTION.

34. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS2. OSB (ORIENTED STRAND BOARD) OF EQUAL THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED AS A SUBSTITUTION. THE FOLLOWING REPRESENT THE MINIMUMS TO BE USED WHEN A LARGER DESIGNED MEMBER IS NOT CALLED OUT:
A. ROOF SHEATHING SHALL BE ½ " (NOMINAL) W/ SPAN RATING 32/16
B. FLOOR SHEATHING SHALL BE ¾" (NOMINAL) WITH SPAN RATING 48/24
C. WALL SHEATHING SHALL BE ½" (NOMINAL) WITH SPAN RATING 24/0

35. UNBLOCKED ROOF SHEATHING EDGES SHALL BE PROVIDED WITH APPROVED PLYWOOD EDGE CLIPS PLACED BETWEEN JOISTS AND TRUSSES AT APPROXIMATELY MID-SPAN.

36. FRAMING LUMBER FOR INTERIOR DRY CONDITIONS SHALL HAVE MAXIMUM WOOD MOISTURE CONTENT OF 19%. OTHER CONDITIONS WILL HAVE SPECIFIED MAXIMUM ALLOWABLE MOISTURE CONTENT.

37. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED USING AN AWPA APPROVED PRESERVATIVE. IN LIEU OF USE OF PRESSURE TREATED LUMBER, THE GENERAL CONTRACTOR MAY REQUEST THE ENGINEER OF RECORD TO SPECIFY AN ALTERNATE BARRIER FOR PROTECTION.

38. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 FOR THE USE CATEGORY EQUAL TO OR GREATER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO THE AWPA UC3B STANDARD. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO THE AWPA UC4A STANDARD.

39. NAIL (FASTENER) SPECIFICATIONS SHALL BE AS FOLLOWS:
SIZE LENGTH DIAMETER
6d 2" 0.113"
8d 2.5" 0.131"
10d 3" 0.148"
12d 3.25" 0.148"
16d BOX 3.5" 0.135"

40. ANY PROPOSAL OF ALTERNATE NAILS OR FASTENERS SHALL BE FIRST APPROVED BY THE ENGINEER OF RECORD IN WRITING.

41. PLYWOOD NAILING TO FRAMING SHALL BE DRIVEN FLUSH TO THE FACE OF THE SHEATHING. COUNTERSINKING IS NOT PERMITTED. TOE-NAILING SHALL OCCUR AT AN APPROXIMATE 30 DEGREE ANGLE.

42. THE USE OF BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM 307. APPROPRIATE WASHERS SHALL BE PROVIDED UNDER THE HEADS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD.

43. NOTCHING AND BORING OF WOOD FRAMING:
A. NOTCHES ON THE ENDS OF SOILD SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ¼ OF THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED 1/6 THE DEPTH AND SHALL NOT BE LOCATED WITHIN THE MIDDLE 1/3 OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED 1/3 OF THE DEPTH OF THE JOIST OR RAFTER.
B. IN EXTERIOR WALLS INCLUDING BEARING WALLS, ANY WOOD STUD MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING ¼ OF ITS WIDTH. THE MAXIMUM PERMISSIBLE BORING IS A HOLE NOT GREATER THAN 40% OF THE DIAMETER OF THE STUD WIDTH. THE EDGE OF ANY BORED HOLE SHALL BE A MINIMUM OF 5/8 INCH FROM THE EDGE OF THE STUD. HOLES BORED IN STUDS SHALL NOT BE LOCATED ADJACENT TO CUTS OR NOTCHES.
C. NOTCHES, CUTS, HOLES, AND OTHER FRAMING MODIFICATIONS TO MANUFACTURED LUMBER AND MANUFACTURED JOISTS SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.

44. ALL WOOD FRAMING DETAILS NOT OTHERWISE PROVIDE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE 2015 IBC, THE AITC "TIMBER CONSTRUCTION MANUAL", AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". UNLESS OTHERWISE NOTED, NAILING SHALL CONFORM TO TABLE 2304.10.1. SIZE AND LOCATION OF OPENINGS SHALL BE DERIVED FROM THE ARCHITECTURAL DRAWINGS.

45. WALL SIZING SHALL BE DERIVED FROM ARCHITECTURAL DRAWINGS. STUDS SHALL BE SPACED AT 16" O/C UNLESS NOTED OTHERWISE. A MINIMUM OF 2 STUDS SHALL BE PROVIDED AT THE END OF ALL WALLS AND ON EACH SIDE OF ALL OPENINGS, AND AT BEAM AND/OR HEADER BEARING LOCATIONS.

46. PLYWOOD JOINTS SHALL BE BLOCKED UNLESS OTHERWISE NOTED.

47. A SINGLE 4"X8" HEADER OR A (2) 2"X8" NAIL LAMINATED FRAMING MEMBERS SHALL SERVE HAS HEADERS UNLESS A SPECIFIC HEADER HAS BEEN DESIGNED AND CALLED OUT.

48. WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. TOP PLATES SHALL BE NAILED TO EACH STUD USING TWO 16D NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TOW 16D NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16D NAILS @ 12" O/C AND LAP DOUBLE TOP PLATES A MINIMUM OF 48 INCHES. PROVIDE 8 16D NAILS @ 4" O/C ON EACH SIDE OF TOP PLATE LAP SPLICE.

49. ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16D NAILS AT 12" O/C OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS AT 48" O/C, EMBEDDED A MINIMUM OF 7" IN TO CONCRETE, UNLESS OTHERWISE NOTED (PER SHEARWALL SCHEDULE).

50. WHEN INDIVIDUAL MEMBERS ARE USED FOR A BUILT UP POST, NAILING LAMINATION SHALL CONSIST OF 2 ROWS OF 16D NAILS @12" O/C.

51. ALL EXTERIOR PLYWOOD PANELS SHALL BE ½" NOMINAL APA RATED SHEATHING (SPAN RATING 24/0) AND NAILED TO ALL EXTERIOR SURFACES WITH 8D NAILS AT 6" O/C ON PANEL EDGES AND AT THE TOP AND BOTTOM PLATE, AND TO ALL INTERMEDIATE FRAMING AT 12" O/C. (SHEARWALL "TYPE 1"). ALL EXTERIOR WALLS TO BE SHEARWALL "TYPE 1" UNO.

52. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL WALLS AND AROUND ALL OPENINGS IN FLOORS AND ROOFS, UNLESS OTHERWISE DESIGNED OR SPECIFIED.

53. UNLESS OTHERWISE SPECIFIED, PLYWOOD FOR ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO THE SUPPORTS AND NAILED AT 6" O/C EDGE NAILING AND 12" O/C FIELD NAILING. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

CONNECTORS

54. FRAMING CONNECTORS WILL BE CALLED OUT AND UNO REFER TO "SIMPSON" BRAND PRODUCTS, AS SPECIFIED IN THE LATEST VERSION OF THEIR CATALOG. SUBSTITUTION OF AN ALTERNATE BRAND OR DEVICE MAY BE DONE PROVIDED A WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER OF RECORD.

55. 2X JOISTS, WHEN FLUSH, SHALL BE CONNECTED TO BEAM/GIRDER USING "LUS" SERIES JOIST HANGERS.

56. PRE-MANUFACTURED TIMBER I-JOISTS SHALL BE CONNECTED WHEN FLUSH USING "ITS" SERIES JOIST HANGERS. ANY DOUBLE-JOIST MEMBERS SHALL BE CONNECTED IF FLUSH USING "MIT" SERIES JOIST HANGARS.

57. WHEN CONNECTION OF 2 MEMBERS IS SPECIFIED USING STRAPPING MATERIAL, THE STRAP AND ASSOCIATED FASTENERS SHOULD BE EQUALLY DISTRIBUTED BETWEEN EACH MEMBER BEING CONNECTED.

58. FASTENERS AND OTHER CONNECTORS USED WITH TREATED WOOD SHALL BE GALVANIZED, HOT DIPPED GALVANIZED, OR STAINLESS STEEL (TYPE 304 OR 316).

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Sheet Name
ARCHITECTURAL SPECIFICATIONS

Sheet Number
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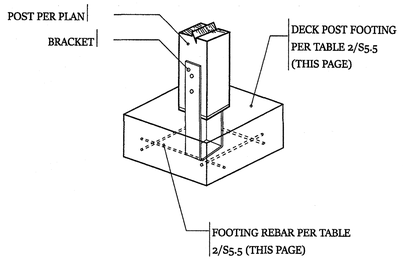
1 TYPICAL DECK POST & FOOTING



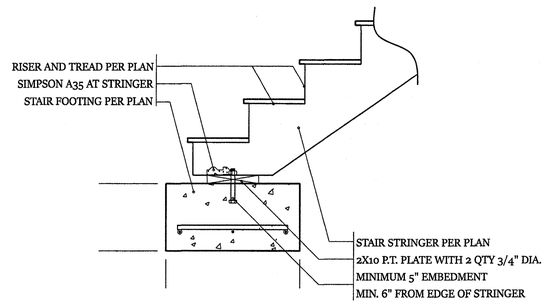
2 POST & FOOTING TABLE

LOCATION	SIZE	REINFORCEMENT
DECK FOOTING (DFTG2)	21" X 21" X 10"	3 QTY #4 REBAR EACH WAY
DECK FOOTING (DFTG1)	16" X16" X 10"	2 QTY #4 REBAR EACH WAY

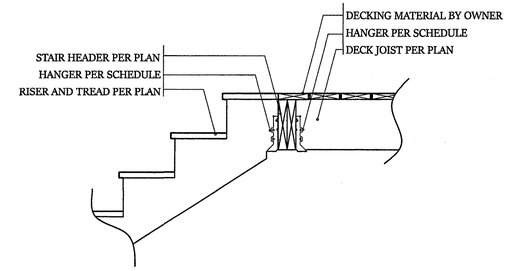
DECK POSTS:
-DFTG1: 4X6 P.T. HF#2
-DFTG1: 6X6 P.T. HF#2

-GALVANIZED HARDWARE REQUIRED FOR ALL DECK POST AND BEAM ASSEMBLIES THAT REQUIRED PRESSURE TREATED LUMBER

3 TYPICAL DECK STAIR FOOTING



4 TYPICAL DECK STRINGER HEADER

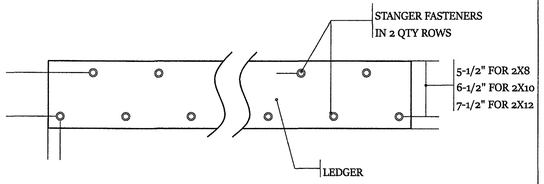


5 DECK LEDGER BOLT SPACING CHART

CONNECTION DETAIL	JOIST SPAN						
	6' & LESS	6'1" TO 8'-0"	8'1" TO 10'-0"	10'1" TO 12'-0"	12'-1" TO 14'-0"	14'-1" TO 16'-0"	16'-1" TO 18'-0"
	BOLT SPACING (CENTER-TO-CENTER)						
1/2 INCH DIAMETER LAG SCREW WITH 1/2 INCH MAXIMUM SHEATHING	22	16	13	11	9	8	7
1/2 INCH DIAMETER BOLT WITH 1/2 INCH MAXIMUM SHEATHING	30	22	18	15	13	11	10
1/2 INCH DIAMETER BOLT WITH 1/2 INCH MAXIMUM SHEATHING	26	19	16	13	11	10	9

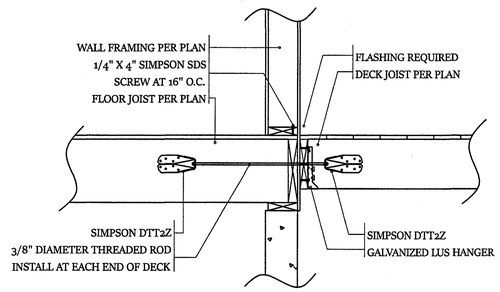
1) DECK LEDGERS REQUIRE FLASHING PER IRC R703-4
2) LAG SCREWS SHALL EXTEND BEYOND THE INSIDE FACE OF THE RIM JOIST.
3) LEDGER BOLT LAYOUT PER 6/S5.3 (THIS PAGE)

6 DECK LEDGER BOLT LAYOUT DIAGRAM



7 LATERAL LOAD CONNECTOR #1

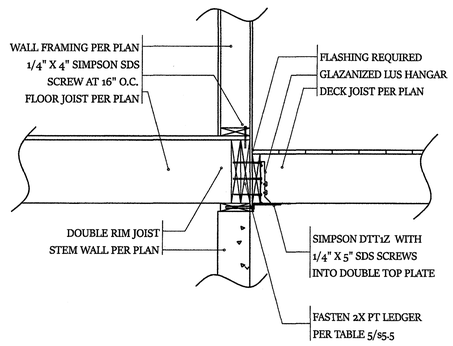
INTERIOR JOIST PARALLEL



PROVIDE 2 ASSEMBLIES PER DECK SECTION. 1 AT EACH END.

8 LATERAL LOAD CONNECTOR #1A

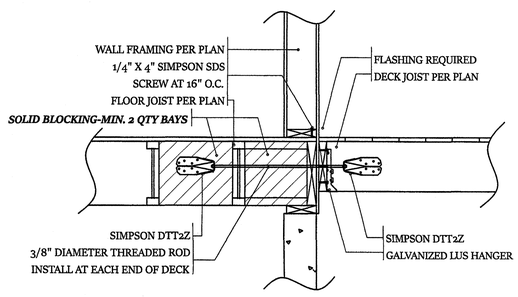
ALTERNATE INTERIOR JOIST PARALLEL



PROVIDE 4 CONNECTORS PER DECK SECTION EVENLY SPACED

9 LATERAL LOAD CONNECTOR #2

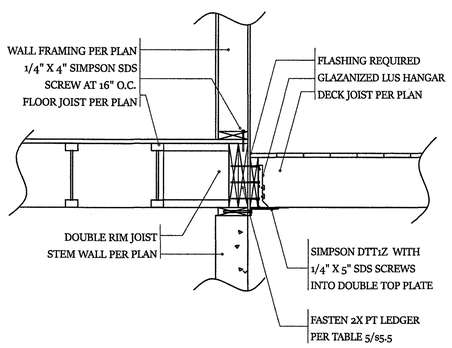
INTERIOR JOIST PERPENDICULAR



PROVIDE 2 ASSEMBLIES PER DECK SECTION. 1 AT EACH END.

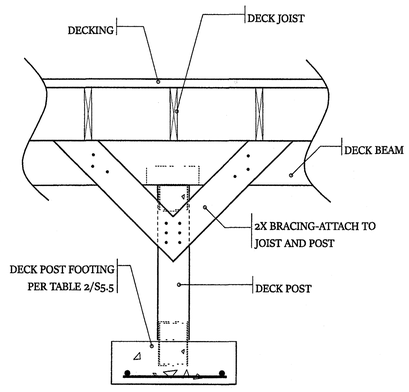
10 LATERAL LOAD CONNECTOR #2A

ALTERNATE INTERIOR JOIST PERPENDICULAR

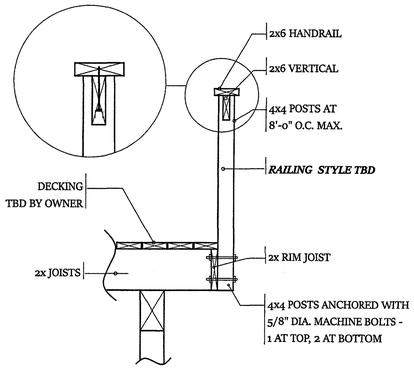


PROVIDE 4 CONNECTORS PER DECK SECTION EVENLY SPACED

11 DECK FRAME CROSS BRACING



12 DECK RAILING POST CONNECTION



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Project Number

Sheet Name
ARCHITECTURAL DETAILS

Sheet Number
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GENERAL

1. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
2. THE ARCHITECT/ENGINEER (ARCH/ENGR) IS NOT RESPONSIBLE FOR THE LOCATION OF PROPERTY LINES AND/OR EASEMENT, SOIL CONDITIONS, MECHANICAL AND ELECTRICAL WORK, AND THE PRESENCE OF UTILITIES NOT REPORTED TO THE ARCH/ENGR IN WRITING BY THE OWNER.
3. THE ENGINEER IS NOT RESPONSIBLE FOR FIELD REVIEW OF CONSTRUCTION UNLESS SPECIFICALLY RETAINED FOR THAT PURPOSE.
4. DRAWINGS SHALL NOT BE SCALED, WRITTEN DIMENSIONS SHALL GOVERN CONSTRUCTION. THE CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCH/ENGR SO THAT CLARIFICATION CAN BE MADE. ALL DIMENSIONS RELATED TO EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ARCH/ENGR FOR REVIEW PRIOR TO CONSTRUCTION. DIMENSIONS FOLLOWED BY A +/- SYMBOL SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO COMMENCEMENT.
5. DETAILS OF CONSTRUCTION NOT SHOWN OR NOTED SHALL BE CONSIDERED OF THE SAME CHARACTER SHOWN FOR SIMILAR CONSTRUCTION, SPECIFICATIONS, WHEN PROVIDED, ARE A PART OF THESE DRAWINGS, SEE SPECIFICATIONS FOR MATERIAL AND WORKMANSHIP REQUIREMENTS.
6. THE CONTRACTOR SHALL PROVIDE ALL LABOR EQUIPMENT, MATERIAL AND SERVICES NECESSARY FOR THE EXECUTION OF ALL CONSTRUCTION WORK AS SHOWN ON THE DRAWINGS AND AS NOTED IN THE SPECIFICATIONS.
7. THE CONTRACTOR SHALL COMPARE THE DRAWINGS AND NOTIFY THE ARCH/ENGR OF ANY DISCREPANCIES PRIOR TO COMMENCING WITH THE WORK.
8. TEMPORARY BRACING AND SHORING NECESSARY TO SUPPORT ANY PORTION OF THE STRUCTURE DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.

FOUNDATIONS

1. REFER TO GEO-TECHNICAL DATA BELOW FOR THE PROJECT DESIGN PARAMETERS. GEOTECHNICAL ENGINEER SHALL VERIFY PLACEMENT OF FILLS AND FOUNDATIONS PRIOR TO PLACEMENT OF FILLS.
2. SPECIFIED CONCRETE MIX AS FOLLOWS:

CONCRETE MIX				
TYPE OF CONSTRUCTION	COMPRESSION STRENGTH @ 28 DAYS, PSI	MAX W/C RATIO	ENTRAINED AIR	SACK MIX
SLAB ON GRADE (INTERIOR)	3000			
SLAB ON GRADE (EXTERIOR)	3000	0.45	5%	
BASEMENT WALL	2500	0.50		5 1/2
FOOTINGS	2500	0.50		5 1/2
CONT. FOOTINGS	2500	0.50		5 1/2

3. CONCRETE REINFORCEMENT SHALL CONFORM TO ASTM A615, AND PER BELOW.

REBAR - PER ASTM A615	
#3 & LESS	GRADE 60
#4 & GREATER	GRADE 60

COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:

FOOTINGS & RETAINING WALLS (CAST AGAINST SOIL)	3" COVER
SURFACES EXPOSE TO EARTH OR WEATHER	2" COVER
COLUMNS & BEAMS	1½" COVER
SLABS & INTERIOR WALLS	¾" COVER

4. FOUNDATION WALL SHALL EXTEND 6" ABOVE FINISHED GRADE.
5. FOUNDATION PLATES SHALL BE PRESSURE TREATED (PT) HF 2.
6. INSTALL FOUNDATION ANCHOR BOLTS 4' ON CENTER (UNO) AND EMBED A MINIMUM 7" IN CONCRETE.
7. INSTALL WATER PROOFING MATERIALS ON FOUNDATION WALL SUPPORTING SOIL.
8. ALL FOOTING EXCAVATIONS SHALL BE NEXT AND AS CLOSE TO FOOTING DIMENSIONS AS PRACTICABLE.
9. ALL FOUNDATIONS SHALL BEAR ON FIRM UNDISTURBED NATIVE SOILS OR ENGINEERED FILLS AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS. ALL SOILS WORK AND SITE GRADING SHALL BE IN ACCORDANCE WITH CHAPTERS 18 OF THE IBC.

GEOTECHNICAL

IN ABSENCE OF GEOTECHNICAL ANALYSIS, THE FOLLOWING DESIGN CRITERIA IS USED:

SOIL BEARING PRESSURE:	1500 PSF
ACTIVE EARTH PRESSURE (RETAINING WALLS):	35 PCF
AT REST EARTH PRESSURE (BASEMENT WALLS):	60 PCF
PASSIVE PRESSURE:	350 PCF
FRICTION COEFFICIENT:	0.35

REPORT PREPARED BY:

PROJECT SPECIFIC DESIGN CRITERIA

Wind Design Data

Wind Design Speed, Vu = 110 MPH, Vasd = 85 MPH
Wind Exposure = B
Wind Importance Factor, Iw = 1.0
Internal Pressure Coefficient = +/- 0.18
Ktz = 1.60
Kd = 0.85

Seismic Design Data

Importance factor = 1.0
Ss = 1.44g, S1 = 0.55g
Site Class = D
SDS = 1.15g, SD1 = 0.64g
SDC = D
Seismic System = 1. Steel special cantilever column systems
Design Base Shear = 11.20 kips
Cs = 0.461
R = 2.5
Analysis procedure: ASCE 11.4, 11.5 & 12.8

Snow Loads

Flat-roof snow load, p_f = 25.0 psf
Snow exposure factor, C_e = 1.00
Snow load important factor, I_s = 1.00
Thermal factor, C_t = 1.00

Gravity Loads*

Roof Dead Load = 15 psf + 5 psf (SOLAR PANELS)
Roof Live Load = 25 psf
Floor Live Load (Office) = 50 psf
Floor Live Load (Residential) = 40 psf, Balcony & Roof Decks = 60 psf
Floor live Load (Corridor) = 100 psf
Partition Loads = 10 psf (residential)
Partition Loads = 20 psf (office)
Floor Dead Loads = 12 psf (residential)
At rest earth pressure = 60 pcf
*As Applicable

DEFLECTION REQUIREMENTS

CONSTRUCTION	LIVE	SNOW	DEAD + LIVE
ROOF MEMBERS	L/360	L/360	L/240
FLOOR MEMBERS (NON TJI)	L/360		L/240
FLOOR MEMBERS (TJI)	L/480		
WALL MEMBERS	L/360	L/360	

NOTES:
1. L = LENGTH OF THE MEMBER IN INCHES.
2. CANTILEVER MEMBERS, L SHALL BE TAKEN TWICE THE LENGTH OF THE CANTILEVER.
3. REFER TO IBC/SBC TABLE 1604.3 FOR ADDITIONAL REQUIREMENTS.

WOOD CONSTRUCTION

NFPA - NATIONAL DESIGN FOR WOOD CONSTRUCTION
ANSI/TPI - NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION.

MATERIAL

SAWN LUMBER			
USE	SIZE	SPECIES/GRADE	MIN. DESIGN VALUE
STUD	2 X 4, 2 X 6, 3 X 4, 3 X 6	HEM-FIR (N)	Fb = 775 psi Fc = 925 psi
Sill Plate	2 X 4, 2 X 6, 3 X 4, 3 X 6	HEM-FIR (N)	Fb = 775 psi Fc = 925 psi
Post / Columns	4 x	DOUG-FIR #1	Fc = 1350 psi
Post / Column	6 x	DOUG-FIR #1	Fc = 1000 psi
JOISTS	2 X 8 TO 2 X 12	HEM-FIR (N) #2	Fb = 850 psi Fv= 95 psi
Beam & Headers	4 x 6 To 4 x 12	HEM-FIR (N) #1	Fb = 850 psi Fv= 95 psi

Glue-Laminated Beams (GLB)	Top Fiber	Btm Fiber stress	Fc (Compression)
24F-V4	1200 psi	2400 psi	
24F-V8	2400 psi	2400 psi	
Parallam Beams (PSL) - 2.0E	2900 psi	2900 psi	2900 psi
Microlam (LSL) - 2.0E	2600 psi	2600 psi	2510 psi

Roof Sheathing - $\frac{15}{32}$ inch DOC PS-1 or PS-2 (APA Performance rated) 32/16 span rating with Exposure I glue.
Sub-Floor Sheathing - $\frac{3}{4}$ inch DOC PS-1 or PS-2 (APA Performance rated) Sturd-I-Floor 24-in o/c rating with Exposure I glue.
Wall structural panels - Refer to Table 1 for thickness. 32/16 index rating - 5 ply with Exposure I glue.

REPLACE SPLIT MEMBERS AND PRE-DRILL HOLES WHERE NAILING MAY CAUSE WOOD TO SPLIT.
METAL FRAMING CLIPS, HANGERS, ETC. SHALL BE SIMPSON STRONG TIE. NAILING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WITH A NAIL PROVIDED FOR EACH PUNCHED HOLE. WHERE NAILS ARE TO BE FURNISHED BY THE MANUFACTURER, THEY SHALL BE USED IN PLACE OF COMMON NAILS.
BOLTS IN NOT PRESSURE TREATED LUMBER SHALL BE UNFINISHED MACHINE BOLTS OF SIZES SHOWN ON DRAWINGS, CONFORMING TO ASTM A307. LENGTH OF BOLTS SHALL NOT PROJECT LESS THAN 1/16" OR MORE THAN 1/2" BEYOND THE END OF NUT. BOLT HOLES IN WOOD SHALL BE 1/32" MIN. 1/16" MAX. LARGER THAN THE BOLT DIAMETER. PROVIDE STANDARD CUT OR MALLEABLE IRON WASHER UNDER BOLT HEAD AND NUT WHERE THEY WOULD BEAR ON WOOD. NUTS SHALL BE TIGHTENED WHEN PLACED AND RETIGHTENED BEFORE CONCEALMENT.
WOOD BELOW MAIN BUILDING PANELS SHALL BE DOUGLAS FIR FOR SUPPORTING BEAMS, AND PRESSURE TREATED.
ROOF TRUSSES SHALL NOT HAVE AREA BETWEEN WEB MEMBERS LARGER THAN 42" HIGH X 24" WIDE UNLESS SPECIFICALLY NOTED ON PLANS.

PRESSURE TREATING:

ALL LUMBER IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED WITH 0.25 POUNDS PWE CUBIC FOOT OF WATERBORNE (ACZA) PRESERVATIVES IN ACCORDANCE WITH AWPA PRESSURE- TREATMENT RETENTIONS FOR WESTERN SPECIES ONLY AND THE CORRESPONDING AWPB QUALITY ASSURANCE PROCEDURE ASSOCIATED WITH THE AWPA STANDARD. PRODUCTS SHALL BEAR THE AWPB MARK. BOLTS, NAILS, WOOD CONNECTORS & SCREWS USED IN EXTERIOR APPLICATIONS, OR IN PRESSURE TREATED MATERIAL SHALL BE HOT-DIPPED GALVANIZED (PER ASTM A153) OR STAINLESS STEEL . HOLD DOWN DEVICES COATED WITH CORROSION PROTECTION PER ASTM A123.

ENGINEERED WOOD CONSTRUCTION REQUIREMENTS

2303.1.1 Lumber. Lumber used for load-supporting purposes, including end-jointed or edge-glued lumber, machine stress-rated or machine evaluated lumber, shall be identified by the grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with DOC PS 20 or equivalent. Grading practices and identification shall comply with rules published by an agency approved in accordance with the procedures of DOCPS 20 or equivalent procedures. In lieu of a grade mark on the material, a certificate of inspection as to species and grade issued by a lumber-grading or inspection agency meeting the requirements of this section is permitted to be accepted for precut, remanufactured or rough-sawn lumber, and for sizes larger than 3 inches (76 mm) nominal thickness. Approved end-jointed lumber is permitted to be used interchangeably with solid-sawn members of the same species and grade.

2303.1.2 Prefabricated wood I-joists. Structural capacities and design provisions for prefabricated wood I-joists shall be established and monitored in accordance with ASTM D 5055.

2303.1.3 Structural glued-laminated timber. Glued-laminated timbers shall be manufactured and identified as required in AITC A190.1 and ASTM D 3737.

2303.1.4 Wood structural panels.Wood structural panels, when used structurally (including those used for siding, roof and wall sheathing, subflooring, diaphragms and built-up members), shall conform to the requirements for their type in DOC PS 1 or PS 2. Each panel or member shall be identified for grade and glue type by the trademarks of an approved testing and grading agency. Wood structural panel components shall be designed and fabricated in accordance with the applicable standards listed in Section 2306.1 and identified by the trademarks of an approved testing and inspection agency indicating conformance with the applicable standard. In addition, wood structural panels when permanently exposed in outdoor applications shall be of exterior type, except that wood structural panel roof sheathing exposed to the outdoors on the underside is permitted to be interior type bonded with exterior glue, Exposure 1.

STRUCTURAL TESTS AND INSPECTIONS

(Where applicable)

1. CONCRETE SPECIMEN TESTING AND PLACING OF REINFORCED CONCRETE PER IBC SECTION 1705.3
2. STEEL REINFORCEMENT PLACING PER IBC TABLE 1705.2
3. STRUCTURAL STEEL WELDING AND BOLT PLACEMENT PER IBC 1704.3.3, STRUCTURAL WELDING PER IBC 1704.3.1. ALL WELDING, SHOP OR FIELD SHALL BE PERFORMED BY WABO CERTIFIED WELDERS.

NAILS SHALL NOT BE DRIVEN CLOSER TOGETHER THAN ½ THEIR LENGTH NOR CLOSER TO THE EDGE OF MEMBER THAN ¼ THEIR LENGTH. NAILING NOT NOTED BELOW OR ON PLANS SHALL BE A MINIMUM OF 2 NAILS AT EACH CONTACT, 8d FOR 1x AND 16d FOR 2x MATERIAL	
JOIST OR RAFTERS AT ALL BEARING – TOE NAIL	3-10d
JOIST OR RAFTERS TO SIDES OF STUD:	
2x8 MEMBER OR SHALLOWER	3-16d
FOR EACH ADDITIONAL FOUR (4) INCHES IN DEPTH	1-16d
DOUBLE JOISTS, RAFTERS, AND HEADERS	2-16d AT 12" O.C.
BLOCKING BETWEEN JOIST OR RAFTERS:	
TO JOIST OR RAFTERSTOE NAILS, EACH SIDE, EACH END	2-10d
TO JOIST OR RAFTERS BEARINGS–TOE NAILS, EACH SIDE	2-10d
BLOCKING BETWEEN STUDS, TOE NAILS, EACH END	2-10d
BUILDUP CORNER STUDS	16d AT 12" O.C.
2" SUBFLOOR TO JOIST OR GRIDER, BLIND AND FACE NAIL	16d AT 16" O.C.
TOP PLATE OR SOLE PLATE TO STUD, END NAIL	2-16d AT 2x4, 3-16d AT 2x6
TOE NAIL	4-8d
DOUBLED STUDS, FACE NAIL	16d AT 12" O.C.
DOUBLED TOP PLATES, FACE NAIL	2-16d AT 16" O.C.
TOP PLATES, LAPS (4'0" MINIMUM), FACE NAIL	12-16d
TOP PLATES, INTERSECTIONS, FACE NAIL	2-16d
CONTINUOUS HEADER TO STUD, TOE NAIL	4-8d
CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	3-16d
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-16d
CEILING JOIST LEDGER–FACE NAIL TO STUDS:	
2x4 AND 2x6	2-16d
2x8 AND UP TO 2x12	3-16d
LEDGER TO STUDS:	
2x8 MEMBER OR SHALLOWER	3-16d
FOR EACH ADDITIONAL 2"	1-16d

STRUCTURAL STEEL

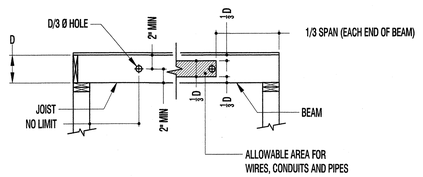
1. ALL STRUCTURAL STEEL FABRICATION AND ERECTION SHALL CONFORM TO THE SPECIFICATIONS AS STATED IN THE MANUAL OF STEEL CONSTRUCTION BY A.I.S.C. SHOP DRAWING SHALL BE SUBMITTED FOR REVIEW BY ENGINEER. STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS, U.O.N.:

WIDE FLANGE AND WT SHAPES ASTM A992
OTHER SHAPES, RODS, AND PLATES ASTM A36
TUBES ASTM A500 GRADE B
PIPE ASTM A53 GRADE B

2. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325. HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM 325X. BOLT HOLES SHALL BE 1/16" LARGER IN DIAMETER THAN THE BOLT, UNLESS OTHERWISE NOTED (U.O.N.) ON THE DRAWINGS. **ASTM F436 WASHERS ARE REQUIRED UNDER HEAD & NUT.**

Shear Connectors: ASTM A 108, Grades 1015 through 1020, headed-stud type,cold-finished carbon steel; AWS D1.1, Type B.

3. ALL WELDING SHALL COMPLY TO AWS D1.1, LATEST EDITION. CONTRACTOR SHALL SUBMIT WELD PROCEDURE SPECIFICATIONS FOR EACH TYPE OF WELD JOINT TO ENGINEER AND SPECIAL INSPECTOR FOR REVIEW PRIOR TO START OF WORK.
4. ALL WELDS SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT MINUS 20 DEGREES F., AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.
5. ALL STRUCTURAL WELDS SHALL BE PERFORMED BY WELDER ACCEPTABLE TO THE ARCH/ENGR. CERTIFICATIONS SHALL BE SUBMITTED TO THE ARCH/ENGR AND THE BUILDING OFFICIAL. MUST BE WABO CERTIFIED.
6. Nonmetallic, Shrinkage-Resistant Grout: Premixed, nonmetallic, noncorrosive,nonstaining grout containing selected silica sands, portland cement, shrinkage compensating agents, plasticizing and water-reducing agents, complying withASTM C 1107, of consistency suitable for application, and a 30-minute working time.
7. UNLESS NOTED OTHERWISE, DRILLED CONCRETE ANCHORS AND SELF-DRILLING ANCHORS SHALL BE BY ITW RAMSET/REDHEAD. CONCRETE INSERTS, COIL LOOP INSERTS AND FERRULE LOOP INSERTS SHALL BE BY BURKE. APPROVED EQUALS MAY BE SUBSTITUTED.



HOLES IN BEAMS & JOISTS

Division	Description
S1.X	NOTES
S2.X	FRAMING PLANS
S3.X	BUILDING SECTIONS
S4.X	FOUNDATION DETAILS
S5.X	CONCRETE SHEAR WALL ELEVATIONS & DETAILS
S6.X	STEEL DETAILS
S7.X	WOOD DETAILS
S8.X	MASONRY SHEAR WALLS, BEAMS & COLUMN DETAILS
S9.X	CONCRETE COLUMN DETAILS
S10.X	CONCRETE BEAM DETAILS

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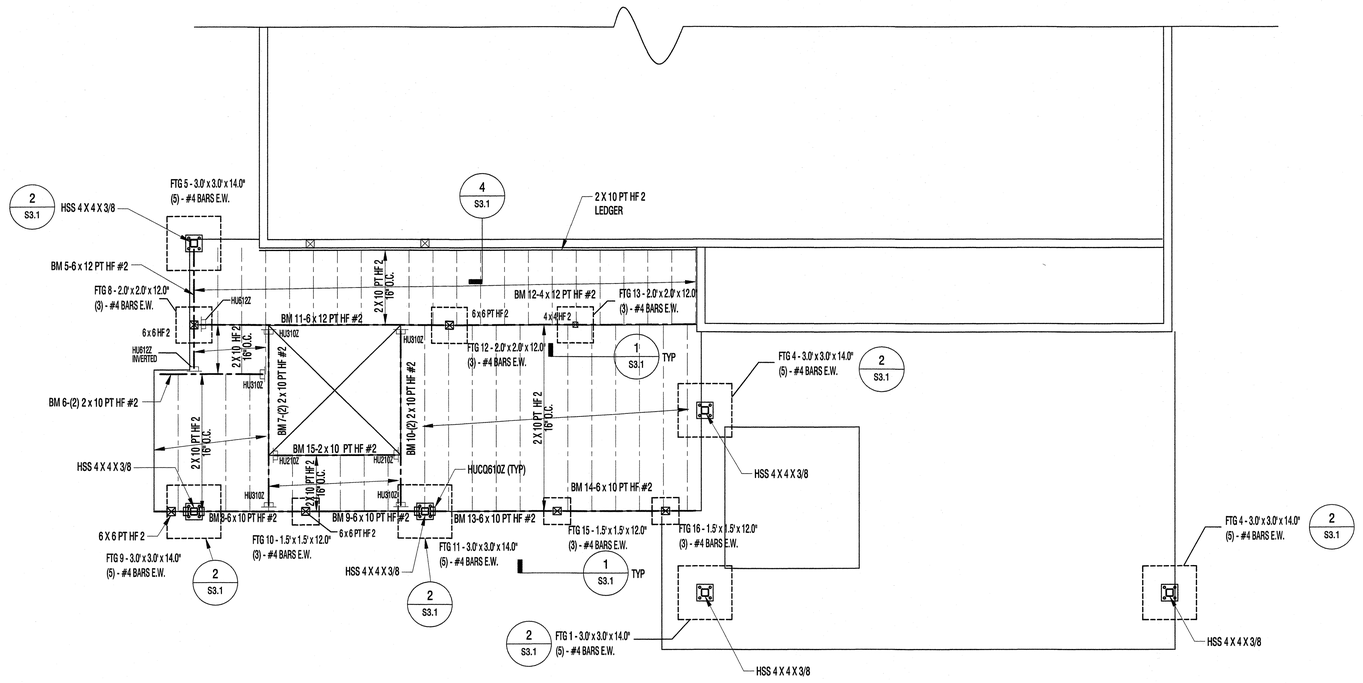
Date 4-02-2025
Revision CURRENT VERSION
Number:

DWG TITLE STRUCTURAL NOTES

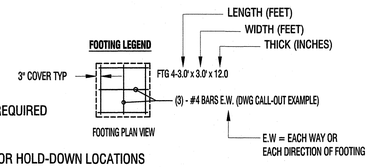
ANDREW K. MORGENSEN — STATE OF WASHINGTON — 36923 — REGISTERED PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

PROJECT # Z9-3299

SHEET NO S1.0



FOUNDATION PLAN



- 3 X 3 X 1/4" GALVANIZED PLATE WASHER IS REQUIRED
- EMBED ANCHOR BOLTS 7.5" MIN
- REFER TO SHEAR WALL PLANS FOR HOLD-DOWN LOCATIONS

- THE FOUNDATION PLAN SHOWN ON THIS SHEET PROVIDES THE FOOTING SIZES AND DIMENSIONS, ALONG WITH THE STRUCTURAL DETAILS. REFER TO THE ARCHITECTURAL DWGS FOR OVERALL DIMENSIONS (WHICH IS THE BASIS OF THE DESIGN).

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DWG TITLE: DECK FRAMING & FOOTING PLAN

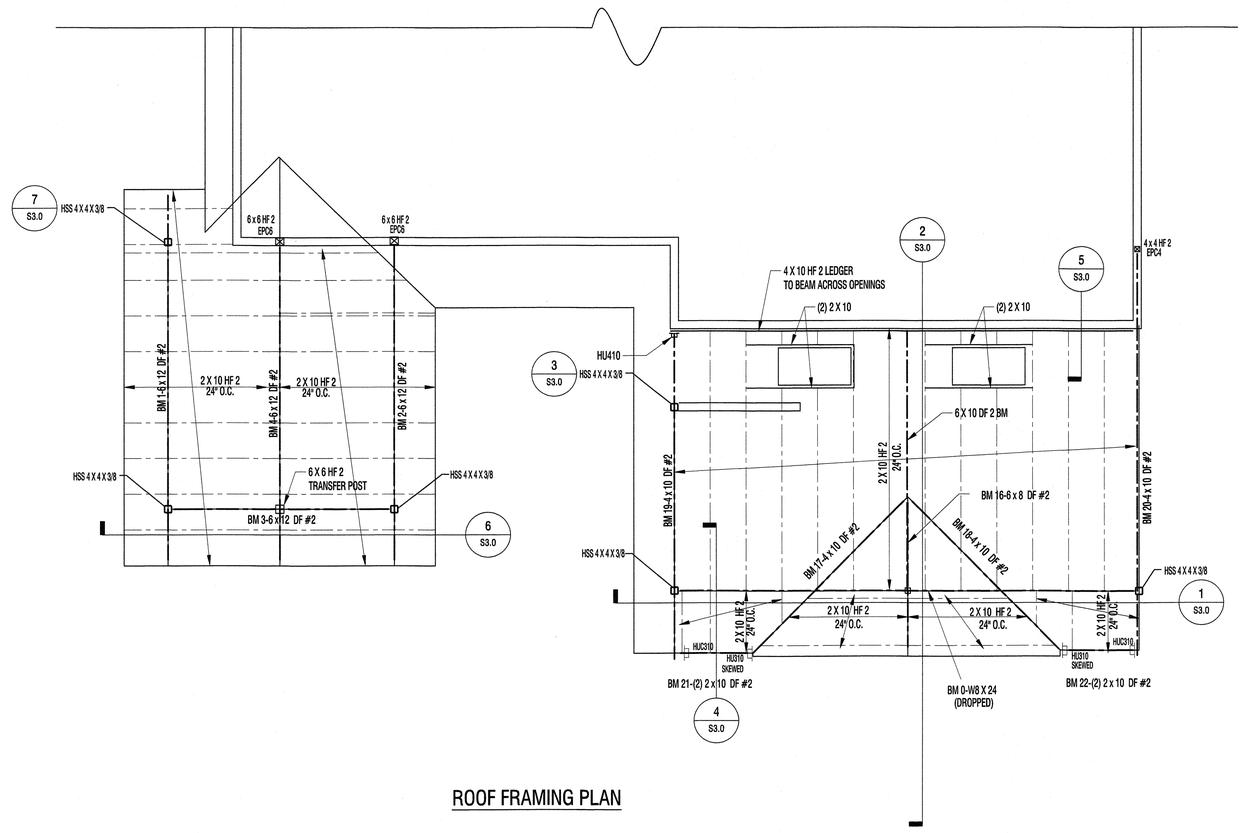
Number: Revision CURRENT VERSION

Date 4-02-2025

ALEXEY K. MOROZ
STATE OF WASHINGTON
24923
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT # Z9-3299

SHEET NO S2.0

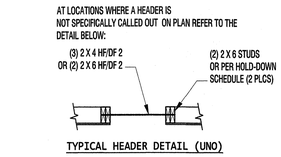


ROOF FRAMING PLAN

FRAMING PLAN NOTES

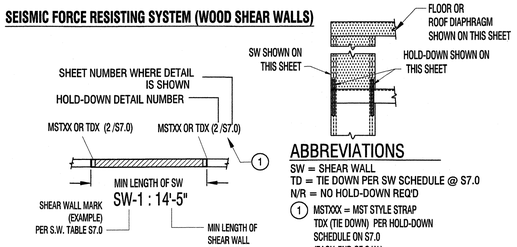
1. ALL BEAMS SHALL BE FLUSH UNLESS NOTE OTHERWISE ON THE PLAN. WINDOWS & DOOR HEADERS SHALL BE DROPPED (SEE NOTE 9). FLUSH BEAMS HAVE FLOOR SHEATHING ATTACHED DIRECTLY. DROPPED BEAMS ARE INSTALLED BELOW FLOOR FRAMING.
2. REFER TO THE TYPICAL HEADER DETAIL ON THIS SHEET FOR HEADERS NOT SPECIFICALLY CALLED OUT ON THIS PLAN. THIS DETAIL IS TYPICAL FOR NON-BEARING EXTERIOR WALLS.
3. UNLESS NOTED OTHERWISE, USE (2) 2 X 4 OR (2) 2 X 6 UNDER ALL HEADERS. (3) 2 X 4 STUDS OR (2) 2 X 6 STUDS MAY BE SUBSTITUTED FOR 4 x 4 POSTS PER PLAN.
4. GARAGE DOOR HEADERS (WHERE APPLICABLE) - UNLESS NOTED OTHERWISE ON THE PLAN. GARAGE DOOR HEADER BEAMS SHALL BE:
   - 4.1. 4 X 10 DF/HF 2 FOR OPENINGS UP TO 9 FT;
   - 4.2. 4 X 12 DF / HF 2 FOR OPENINGS UP TO 12 FT.
   - 4.3. 4 X 4 DF / HF 2 SUPPORT POSTS AT EACH END OF HEADER BEAM.
5. STRAPS SHOWN ON THIS LEVEL ATTACH TO WALLS ABOVE AND BELOW (CENTERED ABOUT THE JOIST RIM.
6. SHEAR WALLS SHOWN ON THIS PLAN OCCUR BELOW THE FLOOR FRAMING.
7. PROVIDE CONTINUOUS SOLID BEARING TO THE FOUNDATION AT GIRDER TRUSSES, HIP MASTERS, BEAMS AND HEADERS.
8. IF MANUFACTURED FLOOR JOISTS ARE USED IN LIEU OF SOLID FRAMING (IF APPLICABLE), PROVIDE SHOP DRAWINGS FOR REVIEW.
9. FLOOR SHEATHING & NAILING:
   - 9.1. FLOOR SHEATHING SHALL BE $\frac{3}{4}$" T & G.
   - 9.2. NAIL WITH 10d @ 6" O.C. AT PERIMETER AND 10d @ 12" O.C. IN THE FIELD - UNLESS OTHERWISE NOTED ON PLAN.
10. WALL TOP PLATE REQUIREMENTS - ALL TOP PLATES OF WALLS SHALL BE DOUBLE 2 X 6 (OR 2 X 4 IF ALLOWED). THE TOP PLATES MUST BE CONTINUOUS OVER HEADERS. DO NOT CUT DOUBLE TOP PLATES UNLESS ALLOWED PER THE FRAMING PLAN.

HEADERS IN NON LOAD BEARING WALLS



TYPICAL HEADER DETAIL (UNO)

SEISMIC FORCE RESISTING SYSTEM (WOOD SHEAR WALLS)



ABBREVIATIONS

SW = SHEAR WALL
TD = TIE DOWN PER SW SCHEDULE @ S7.0
N/R = NO HOLD-DOWN REQ'D
(1) MSTXXX = MST STYLE STRAP
TDX (TIE DOWN) PER HOLD-DOWN SCHEDULE ON S7.0 (EACH-END OF S.W.)

DRAWING SYMBOL LEGEND

= POST/COLUMN SUPPORTED BY A BEAM. DOES NOT CONTINUE TO FLOOR BELOW.

= POST/COLUMN SUPPORTING A BEAM. (CONTINUES THRU THE FLOOR)

= MULTI-PLY (2 MAX) 2 X STUD COLUMN. USE 2 -2 X 4 FOR 2 X 4 WALLS & 2 - 2 X 6 FOR 2 X 6 WALLS. TYPICAL (UNO)

TYPICAL BEAM TO BEAM CONNECTION

GT = GIRDER TRUSS

TYPICAL MULTI PLY BEAM EXAMPLE BM 6-(2) 2 x 6 DF #2
NUMBER OF PLIES

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Number: Revision: CURRENT VERSION

Date: 4-08-2025

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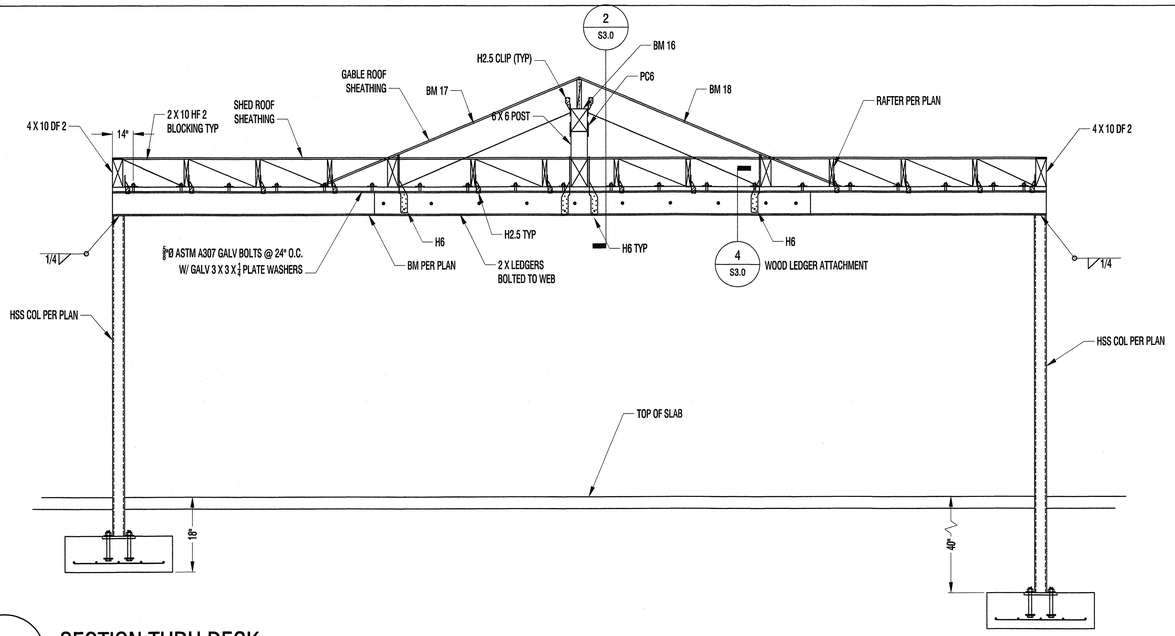
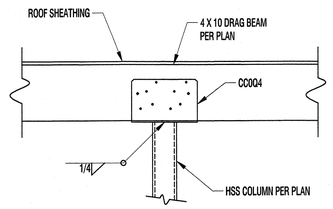
PROFESSIONAL ENGINEER

PROJECT # Z9-3299

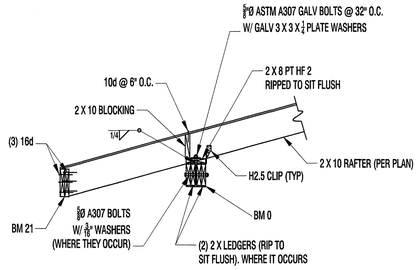
SHEET NO S2.1



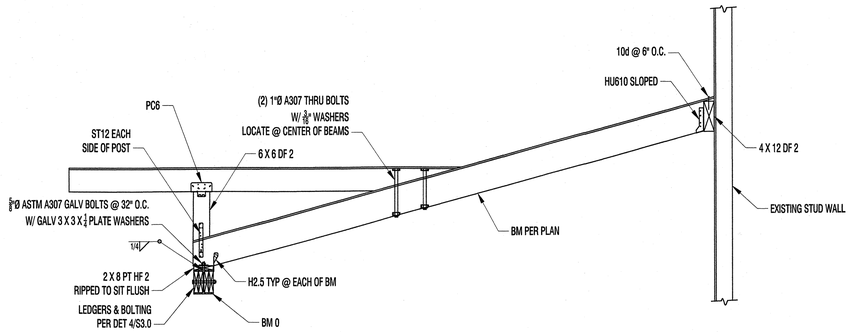
1 SECTION THRU DECK
NO SCALE



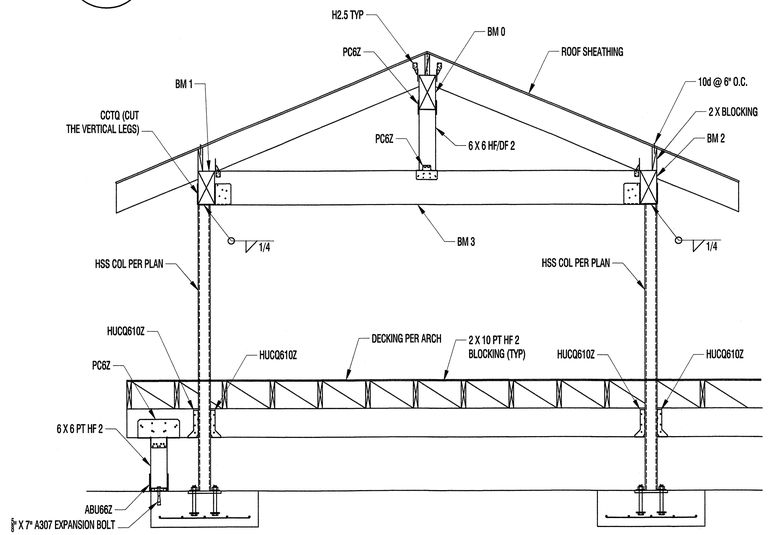
3 HSS COLUMN TO 4 X 10 DRAG BEAM CONNECTION
NO SCALE



4 RAFTER TO BM ATTACHMENT
NO SCALE



2 SECTION THRU RIDGE AND HIP BEAM SUPPORT
NO SCALE



6 RAFTER TO BM ATTACHMENT
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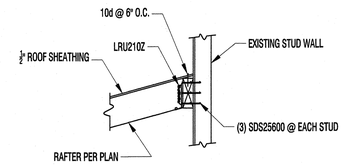

5 RAFTER TO BM ATTACHMENT
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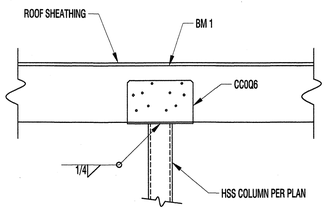

7 HSS COLUMN TO BM 1
NO SCALE

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DWG TITLE: STRUCTURAL SECTIONS

Number: Revision CURRENT VERSION

Date 4-02-2025

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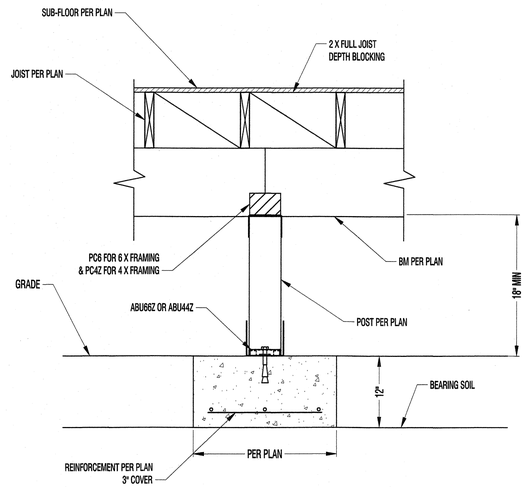
PROJECT # Z9-3299

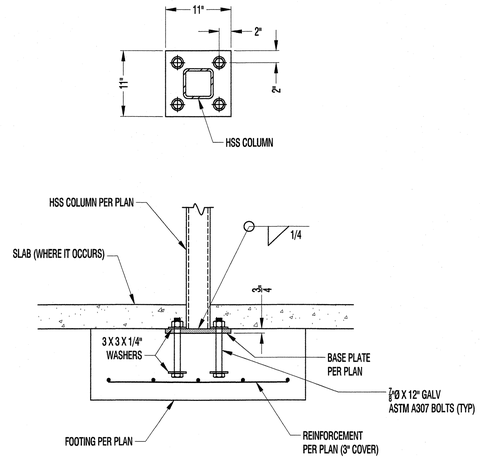
SHEET NO S3.0



1 ISOLATED FOOTING SUPPORTING BM DETAIL

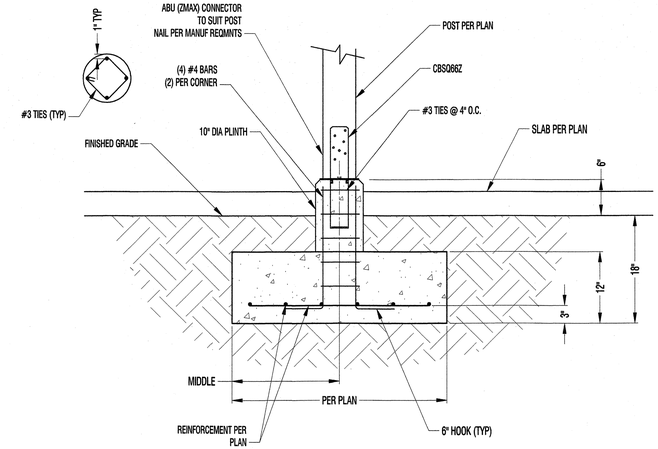
(NO SCALE)

NOTES:
1. USE SIMPSON TITEN HD OR EQUAL FOR THE EXPANSION BOLT.
2. 3" COVER REQUIRED FOR ALL REINFORCEMENT.
3. ATTACH A35 CLIP TO FOOTING W/ 9 GAUGE MASONRY/CONCRETE NAILS (GALVANIZED)



2 HSS COLUMN SUPPORT FOOTING

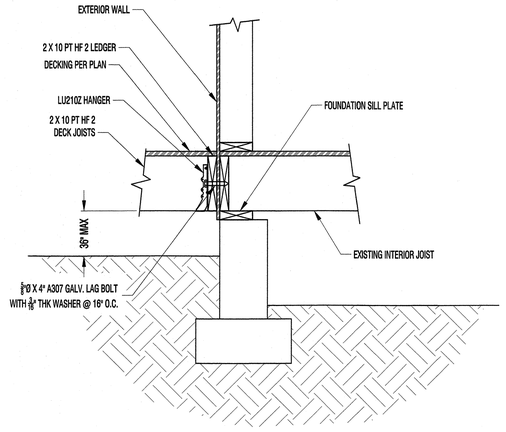
(NO SCALE)



3 FOOTING AT EXTERIOR GRADE

(NO SCALE)

NOTES
1) REINFORCEMENT IN EACH DIRECTION
2) 3" COVER IS REQUIRED



4 DECK LEDGER ATTACHMENT DETAIL (FOR DECKS ABOVE GRADE)

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SHEET NO S3.1