

GENERAL CONDITIONS

BEFORE STARTING WORK.

THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER IN WRITING OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS

ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.

SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE THE NOTES, DRAWINGS, AND/OR SPECIFICATIONS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

4. IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK.

WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER OF ANY CONDITION THAT, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS TO THE STRUCTURE.

THE CONTRACTOR SHALL SUPERVISE AND DIRECT HIS WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION. NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.

REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE STRUCTURAL DRAWINGS.

ALL CONSTRUCTION SHALL BE DONE WITH MATERIALS, METHODS, AND WORKMANSHIP ACCEPTED AS GOOD PRACTICE BY THE CONSTRUCTION INDUSTRY AND IN CONFORMANCE WITH THE PROVISIONS OF PREVAILING CODE EDITION OF THE "INTERNATIONAL BUILDING CODE" (IBC) AND STANDARDS REFERENCED THEREIN.

10. PIPES, DUCTS, SLEEVES, OPENINGS, POCKETS, CHASES, BLOCK-OUTS, ETC., SHALL NOT BE PLACED IN SLABS, FOUNDATIONS, ETC., NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR SUCH ITEMS, UNLESS SPECIFICALLY DETAILED ON THESE STRUCTURAL DRAWINGS.

11. ALTERNATE ASSEMBLIES AND MATERIALS WILL BE CONSIDERED FOR REVIEW. ENGINEER MAY REQUEST PAYMENT FOR REVIEW. **FOUNDATION**

STRUCTURAL DESIGN COMPLIES WITH SOILS REPORT PRODUCED BY:

FOOTING BEARING PRESSURE:

1500 PSF (ASSUMED)

LATERAL EARTH PRESSURE ON RETAINING WALLS N.A.

CONSIDERATIONS ARE TO BE IN ACCORDANCE WITH SAID SOILS REPORT.

SUBGRADE PREPARATION, DRAINAGE PROVISIONS, AND OTHER RELEVANT SOIL

DIMENSIONAL LUMBER, ANCHOR BOLT AND NAILING SPECIFICATIONS

1. MEET REQUIREMENTS OF PS 20-70 AND NATIONAL GRADING RULES FOR SOFTWOOD DIMENSIONAL LUMBER. BEAR STAMP OF WWPA.

2. MINIMUM DIMENSIONAL LUMBER GRADES TO BE:

WALL STUDS, 2X, 3 X...... HF STUD GRADE

WALL PLATES, 2X, 3X....... HF STANDARD GRADE U.N.O JOISTS, 2 X 6:....

JOISTS, 2 X 8 AND UP...... DF #2

BEAMS, HEADERS, 6X DF #2 BEAMS, HEADERS, 4X...... DF #2, WWPA GRADING

POSTS, 4X, 6X..... DF #2 U.N.O LUMBER NOT NOTED HERE... DF #2 U.N.O

3. PROVIDE STANDARD CUT WASHERS FOR BOLT HEADS AND NUTS BEARING AGAINST WOOD.

4. ALL SILLS OR PLATES RESTING ON CONCRETE OR MASONRY THAT IS IN CONTACT WITH OR RESTING ON FOUNDATIONS SHALL BE PRESSURE-TREATED DOUGLAS FIR/ HEMFIR IN ACCORDANCE TO WITH AWPA U1 (PLANT/SHOP TREATMENT) AND M4 (FIELD TREATMENT) STANDARDS. ALL BEARING WALL PLATES SHALL HAVE 5/8" Ø x10" J-BOLTS PLACED AT MAXIMUM OF 9" FROM THE END OF A PLATE AND SPACED AT INTERVALS SHOWN ON THE SHEARWALL SCHEDULE (MAXIMUM 4'-0" OC SPACING). PROVIDE BP PLATE WASHER AT ALL FOUNDATION SILL PLATE ANCHOR BOLTS. PROVIDE TWO ANCHOR BOLTS MINIMUM PER SECTION OF SILL. FOR NON-SHEARWALL, PLACE ANCHORS AT 48".

5. BOLTS IN WOOD SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER.

6. NAILS: COMMON WIRE NAILS. NAILING IN ACCORDANCE WITH IBC TABLE 2304.9.1.

7. PRESSURE TREATED WOOD: ALL NAILS INTO PT WOOD SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 OR STAINLESS STEEL. ALL METAL CONNECTORS IN CONTACT WITH PT WOOD SHALL BE HOT DIPPED GALVANIZED AND MEET ASTM A653 CLASS G185 (1.85 OZ OF ZINC PER SQ FT MINIMUM) OR TYPE 304 / 316 STAINLESS STEEL SIMPSON Z-MAX CONNECTORS MEET THIS REQUIREMENT. FASTENERS AND CONNECTORS USED TOGETHER SHALL BE OF THE SAME TYPE (E.G. HOT DIPPED NAILS WITH HOT DIPPED HANGERS)

8. ALL LUMBER WITH A LEAST DIMENSION OF 2" (NOMINAL) SHALL BE STAMPED "SURFACE-DRY" AND SHALL HAVE A MOISTURE CONTENT WHEN SURFACED AND WHEN INSTALLED OF NO MORE THAN 19 PERCENT. LUMBER WITH A LEAST DIMENSION OF 4" (NOMINAL) OR GREATER SHALL BE STAMPED "SURFACE-GREEN" AND AIR-DRIED TO A MOISTURE CONTENT OF NOT MORE THAN 19 PERCENT PRIOR TO ITS USE IN FRAMING THE STRUCTURE.

9. NOTCHING AND BORING OF BEAMS AND JOISTS IS NOT ALLOWED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

2) Complete penetration groove welds 5/16" or greater in risk category II 3) Thermally cut surfaces of access holes when material t > 2" 4) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1 5) Fabricator's NDT reports when fabricator performs NDT 6. Structural steel bolting: a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1) b.Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2) 1) Pre-tensioned and slip-critical joints a) Turn-of-nut with matching markings b) Direct tension indicator c) Twist-off type tension control bolt d) Turn-of-nut without matching markings e) Calibrated wrench 2) Snug-tight joints c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3) 7. Inspection of steel elements of composite construction prior to concrete placement in accordance with QA tasks listed in AISC 360, Table N6.1 1705.2.2 Steel Construction Other Than Structural Steel 1. Material verification of cold-formed steel deck: a. Identification markings b. Manufacturer's certified test reports 2. Connection of cold-formed steel deck to supporting structure: a. Welding b. Other fasteners (in accordance with AISC 360, Section N6) 1) Verify fasteners are in conformance with approved submittal 2) Verify fastener installation is in conformance with approved submittal and manufacturer's 3. Reinforcing steel a. Verification of weldability of steel other than ASTM A706 b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of special concrete structural walls and shear reinforcement c. Shear reinforcement Y N d. Other reinforcing steel 4. Cold-formed steel trusses spanning 60 feet or greater Y N a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package 1705.3 Concrete Construction 1. Inspection of reinforcing steel installation (see 1705.2.2 for welding) 2. Inspection of prestressing steel installation Y N 3. Inspection of anchors cast in concrete where allowable loads have been increased per section 1908.5 or where strength design is used 4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque 5. Verify use of approved design mix 6. Fresh concrete sampling, perform slump and air content tests and determine temperature of 7. Inspection of concrete and shotcrete placement for proper application techniques 8. Inspection for maintenance of specified curing temperature and techniques Inspection of prestressed concrete: a. Application of prestressing force b. Grouting of bonded prestressing tendons in the seismic-force-resisting system 10. Erection of precast concrete members a. Inspect in accordance with construction documents b. Perform inspections of welding and bolting in accordance with Section 1705.2 11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs 12. Inspection of formwork for shape, lines, location and dimensions 13. Concrete strength testing and verification of compliance with construction documents 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional. 2. The list of Special Inspectors may be submitted as a separate document, if noted so above. 3. Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2 4. Observe on a random basis, operations need not be delayed pending these inspections. Perform these tasks for each welded joint, bolted connection, or steel element. 5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator

CONCRETE AND REINFORCING

REQUIRED? (Y/N) MATERIAL / ACTIVITY

Y N

CONCRETE SHALL CONFORM TO THE INDICATED REFERENCE CODES AND STANDARDS **EXCEPT AS MODIFIED BELOW:**

ACI-301 - "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" ACI-318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI-305R - "HOT WEATHER CONCRETING"

ACI-306R - "COLD WEATHER CONCRETING" ACI-304 - "GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE"

CONCRETE MIX SPECIFICATIONS

TOPPING

LOCATION COMP. SRENGTH W/C RATIO AIR CONTENT REMARK FOOTING 2500 PSI (MIN. OF 5.5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE) SLAB ON GRADE 2500 PSI (MIN. OF 5.5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE) FOUNDATION WALL 2500 PSI (MIN. OF 5.5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE)

TOTAL AIR CONTENT IS SPECIFIED IN THE TABLE ABOVE. AIR CONTENT TOLERANCE SHALL BE ± 1% AND SHALL BE MEASURED AT THE POINT OF PLACEMENT. (AFTER PUMPING IF APPLICABLE). ALL CONCRETE EXPOSED TO THE WEATHER SHALL HAVE AN APPROVED ADMIXTURE TO ENTRAIN AIR - 5% TOTAL AIR REQUIRED. CONCRETE THAT CAN BE SUBJECTED TO FREEZING AND THAWING DURING CONSTRUCTION SHALL BE AIR ENTRAINED.

3. PROVIDE GRADE 60 KSI (A615) FOR CONCRETE STEEL REINFORCING

			(.,,		
1704.2.5 Inspection of Fabricators Verify fabrication/quality control procedures	Periodic			1705.4 Masonry Construction (A) Level A, B and C Quality Assurance:	
		Υ	N	Verify compliance with approved submittals	Periodic
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's		Υ	N	(B) Level B Quality Assurance: 1. Verification of f'm and f'AAC prior to construction	Periodic
requirements)		Y	N N	(C) Level C Quality Assurance:1. Verification of f'm and f'AAC prior to construction and for every 5,000 SF during construction2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and	Periodic Continuous
1705.2 Steel Construction 1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, chapter N,	Each submittal	V	N	grout other than self-consolidating grout, as delivered to the project site 3. Verify placement of masonry units	Periodic
paragraph 3.2 for compliance with construction documents)		1		(D) Levels B and C Quality Assurance:	
 Material verification of structural steel Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors) 	Periodic Continuous	Y	N	Verification of Slump Flow and Visual Stability Index (VSI) of self-consolidating grout as delivered to the project	Continuous
Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Periodic	Y Y	N N	Verify compliance with approved submittals Verify proportions of site-mixed mortar, grout and prestressing grout for bonded tendons	Periodic Periodic
Structural steel welding:a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA	Observe or Perform as noted (4)	Υ	N	Verify grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	Periodic
tasks listed in AISC 360, Table N5.4-1) b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA	Observe (4)	Y	N N	5. Verify construction of mortar joints6. Verify placement of reinforcement, connectors, and prestressing tendons and anchorages	Periodic Level B - Periodic
tasks listed in AISC 360, Table N5.4-1)	, ,	1 V	N		Level B - Periodic Level C - Continuous Level B - Periodic
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Observe or Perform as noted (4)	Y	IN	7. Verify grout space prior to grouting	Level C - Continuous
d. Nondestructive testing (NDT) of welded joints: see Commentary1) Complete penetration groove welds 5/16" or greater in risk category III or IV	Periodic	Y Y	N N	 Verify placement of grout and prestressing grout for bonded tendons Verify size and location of structural masonry elements 	Continuous Periodic
 Complete penetration groove welds 5/16" or greater in risk category II Thermally cut surfaces of access holes when material t > 2" 	Periodic Periodic	Υ	N	 Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction. 	Level B - Periodic Level C - Continuous
4) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1 5) Fabricator's NDT reports when fabricator performs NDT	Periodic Each submittal (5)	Y	N N	11. Verify welding of reinforcement (see 1705.2.2)12. Verify preparation, construction, and protestion of masonry during cold weather (temperature	Continuous Periodic
6. Structural steel bolting: a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in	Observe or Perform as noted (4)	· V	N	below 40oF) or hot weather (temperature above 90oF) 13. Verify application and measurement of prestressing force	Continuous
accordance with QA tasks listed in AISC 360, Table N5.6-1)	` ,	Ϋ́	N	14. Verify placement of AAC masonry units and construction of thin-bed mortar joints (first 5000 SF of	Continuous
b.Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)1) Pre-tensioned and slip-critical joints	Observe (4)	Υ	N	AAC masonry) 15. Verify placement of AAC masonry units and construction of thin-bed mortar joints (after the first	Level B - Periodic
a) Turn-of-nut with matching markings b) Direct tension indicator	Periodic Periodic	Υ	N	5000 SF of AAC masonry) 16. Verify properties of thin-bed mortar for AAC masonry (first 5000 SF of AAC masonry)	Level C - Continuous Continuous
c) Twist-off type tension control bolt d) Turn-of-nut without matching markings	Periodic Continuous	Υ	N	17. Verify properties of thin-bed mortar forAAC masonry (after the first 5000 SF of AAC masonry)	Level B - Periodic Level C - Continuous
e) Calibrated wrench 2) Snug-tight joints	Continuous Periodic	Υ	N	18. Prepare grout and mortar specimens	Level C - Continuous Level B - Periodic Level C - Continuous
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA	Periodic Perform (4)	Υ	N	19. Observe preparation of prisms	Level B - Periodic
tasks listed in AISC 360, Table N5.6-3) 7. Inspection of steel elements of composite construction prior to concrete placement in accordance	Observe or Perform as noted (4)			1705.5 Wood Construction	Level C - Continuous
with QA tasks listed in AISC 360, Table N6.1		Υ	N	 Inspection of the fabrication process of wood structural elements and assemblies in accordance with Section 1704.2.5 	Periodic
1705.2.2 Steel Construction Other Than Structural Steel 1. Material verification of cold-formed steel deck:		Υ	N	For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans	Periodic
a. Identification markings b. Manufacturer's certified test reports	Periodic Each submittal	Υ	N	3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each	Periodic
Connection of cold-formed steel deck to supporting structure:		V	NI	line and at edge margins agree with approved building plans	Device the
a. Welding b. Other fasteners (in accordance with AISC 360, Section N6)	Periodic	Y	N	4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Periodic
 Verify fasteners are in conformance with approved submittal Verify fastener installation is in conformance with approved submittal and manufacturer's 	Periodic Periodic			1705.6 Soils	
recommendations 3. Reinforcing steel		Υ	N	 Verify materials below shallow foundations are adequate to achieve the design bearing capacity. Verify excavations are extended to proper depth and have reached proper material. 	Periodic
 a. Verification of weldability of steel other than ASTM A706 b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, 	Periodic Continuous	Y	N N	3. Perform classification and testing of controlled fill materials.4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of	Periodic Periodic
boundary elements of special concrete structural walls and shear reinforcement c. Shear reinforcement	Continuous	Ý	N	controlled fill 5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared	Continuous
d. Other reinforcing steel 4. Cold-formed steel trusses spanning 60 feet or greater	Periodic	Υ	N	properly	Periodic
a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved	Periodic			1705.7 Driven Deep Foundations	
truss submittal package		Y Y	N N	 Verify element materials, sizes and lengths comply with requirements Determine capacities of test elements and conduct additional load tests, as required 	Continuous Continuous
1705.3 Concrete Construction 1. Inspection of reinforcing steel installation (see 1705.2.2 for welding)	Periodic.	Y Y	N N	 Observe driving operations and maintain complete and accurate records for each element Verify placement locations and plumbness, confirm type and size of hammer, record number of 	Continuous Continuous
2. Inspection of prestressing steel installation3. Inspection of anchors cast in concrete where allowable loads have been increased per section	Periodic Continuous			blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	
1908.5 or where strength design is used 4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research	Periodic or as required by the research report issued by an	Y	N N	5. For steel elements, perform additional inspections per Section 1705.26. For concrete elements and concrete-filled elements, perform additional inspections per Section	See Section 1705.2 See Section 1705.3
reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment	approved source	Y	N	1705.3 7. For specialty elements, perform additional inspections as determined by the registered design	In accordance with construction documents
and tightening torque	Deviadio	' V	N	professional in responsible charge 8. Perform additional inspections and tests in accordance with the construction documents	
5. Verify use of approved design mix6. Fresh concrete sampling, perform slump and air content tests and determine temperature of	Periodic Continuous	Y	IN		In accordance with construction documents
concrete 7. Inspection of concrete and shotcrete placement for proper application techniques	Continuous	Υ	N	1705.8 Cast-in-Place Deep Foundations 1.Observe drilling operations and maintain complete and accurate records for each element	Continuous
8. Inspection for maintenance of specified curing temperature and techniques9. Inspection of prestressed concrete:	Periodic	Υ	N	Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata	Continuous
a. Application of prestressing force b. Grouting of bonded prestressing tendons in the seismic-force-resisting system	Continuous Continuous	Υ	N	capacity. Record concrete or grout volumes 3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3
Erection of precast concrete members a. Inspect in accordance with construction documents	In accordance with construction documents	Ý	N	Perform additional inspections and tests in accordance with the construction documents	In accordance with construction documents
b. Perform inspections of welding and bolting in accordance with Section 1705.2	In accordance with Section 1705.2	V	N	1705.9 Helical Pile Foundations 1. Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque	Continuous
11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs	Periodic	Υ		and other data as required.	
12. Inspection of formwork for shape, lines, location and dimensions13. Concrete strength testing and verification of compliance with construction documents	Periodic Periodic	Υ	N	2. Perform additional inspections and tests in accordance with the construction documents	In accordance with construction documents
		Υ	N	1705.10.1 Structural Wood Special Inspections For Wind Resistance1. Inspection of field gluing operations of elements of the main windforce-resisting system	Continuous
Notes: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not		Υ	N	Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system	Periodic
by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the				1705.10.2 Cold-formed Steel Special Inspections For Wind Resistance	
Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional.		Y	N N	1.Inspection during welding operations of elements of the main windforce-resisting system 2.Inspections for screw attachment, bolting, anchoring and other fastening of components within the	Periodic Periodic
and/or the Design Professional. 2. The list of Special Inspectors may be submitted as a separate document, if noted so above.		Y	IN	2.Inspections for screw attachment, boiting, anchoring and other fastening of components within the main windforce-resisting system	I GIIUUIU
				1705.10.3 Wind-resisting Components	
3. Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2		Y Y	N N	Roof cladding Wall cladding	Periodic Periodic
4. Observe on a random basis, operations need not be delayed pending these inspections. Perform		Υ	N	1705.11.1 Structural Steel Special Inspections for Seismic Resistance	In accordance with AISC 341
these tasks for each welded joint, bolted connection, or steel element.		-		Inspection of structural steel in accordance with AISC 341	
5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N7.		٧	N	1705.11.2 Structural Wood Special Inspections for Seismic Resistance 1. Inspection of field gluing operations of elements of the seismic-force resisting system	Continuous
эл эррэгээ эу шолшог ноо юлиоо ооо, нг		Ý	N	Inspection of held giding operations of elements of the seismic-force resisting system Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Periodic
				· ,	
		• •		1705.11.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance	Davis di
REINFORCING		Y	N N	Inspection during welding operations of elements of the seismic-force-resisting system Inspections for screw attachment, bolting, anchoring and other fastening of components within the	Periodic Periodic
E SHALL CONFORM TO THE INDICATED REFERENCE CODES AND STANDARDS AS MODIFIED BELOW:				seismic-force-resisting system	
"STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE"	STRUCTURAL AND MISCELLANEOUS STEEL				
"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" - "HOT WEATHER CONCRETING"	STEEL MEMBERS, HARDWARE, FASTENERS SHALL BE H				
- NOT WEATHER CONCRETING - "COLD WEATHER CONCRETING" "GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE"	REQUIREMENTS. ALL CUT, REPAIRED AND EXPOSED SU PAINT PER ASTM A780. COLOR TO MATCH EXISTING.	JRFACE SHA	ALL BE PAII	INTED WITH (2) COAT OF 95% ZINC RICH	
	STEEL SHALL CONFORM TO THE FOLLOWING STANDARI	DS:			
TE MIX SPECIFICATIONS	TUDE 00111111	=		A KOD	

REQUIRED? (Y/N) MATERIAL / ACTIVITY

STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS: TUBE COLUMNS: ASTM A500, GRADE B (Fy = 46 KSI) WIDE FLANGE COLUMNS / BEAVASTM 572 GR50

SCHEDULE 40, CONFORMING TO ASTM A53, TYPE E OR S, GRADE B (Fy = 35 KSI.) STEEL PIPE: ALL OTHER STEEL: ASTM A36 (Fy = 36 KSI) OR ASTM A992 ASTM A307 (WOOD/STEEL CONN)

ASTM A325/A490 WITH LOCK WASHERS (STEEL/STEEL AND STEEL/CONC CONN) BOLTS: ANCHOR BOLTS: ASTM A307 (WOOD FRAMING) ASTM A325 (STEEL FRAMING) ANCHOR BOLTS:

ALL SLIP CRITICAL CONNECTIONS SHALL BE ASTM A325 BOLTS AND SHALL BE ENGINEER-APPROVED, SELF-LOAD INDICATING TYPES, AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

EXTENT

STRUCTURAL STEEL WELDING CONFORM TO THE AWS CODES D1.1 AND D1.3, AND USE ONLY CERTIFIED WELDERS. WELDS NOT SPECIFIED ARE TO BE 1/4" CONTINUOUS FILLET MINIMUM. INCREASE WELD SIZE TO AWS MINIMUM SIZES, BASED ON PLATE THICKNESS. USE DRY E70 ELECTRODES. ALL WELDING SHALL CONFORM TO THE AWS CODES, AND SHALL BE BY CERTIFIED WELDERS. WELDS NOT SPECIFIED SHALL BE 1/4" CONTINUOUS FILLET MINIMUM. USE DRY E70 ELECTRODES.

SHEET NUMBER	SHEET NAME	ISSUE DATE
S-0	GENERAL NOTES AND SPECIFICATIONS	06-17-21
S-1	BASEMENT/ FOUNDATION PLAN	06-17-21
S-2	MAIN FLOOR FRAMING PLAN	06-17-21
S-3	ROOF FRAMING PLAN	06-17-21
S-4	FRAMING DETAILS	06-17-21
Grand total:	5	

DRAWING LIST

EXTENT

info@b2engineers.com 425-318-7047 (O) 425-318-0031 (C)



2906 74TH AVE

2906 74TH AVE SE, MERCER ISLAND, WA

DRAWING INFO

ISSUE DATE 06-17-21

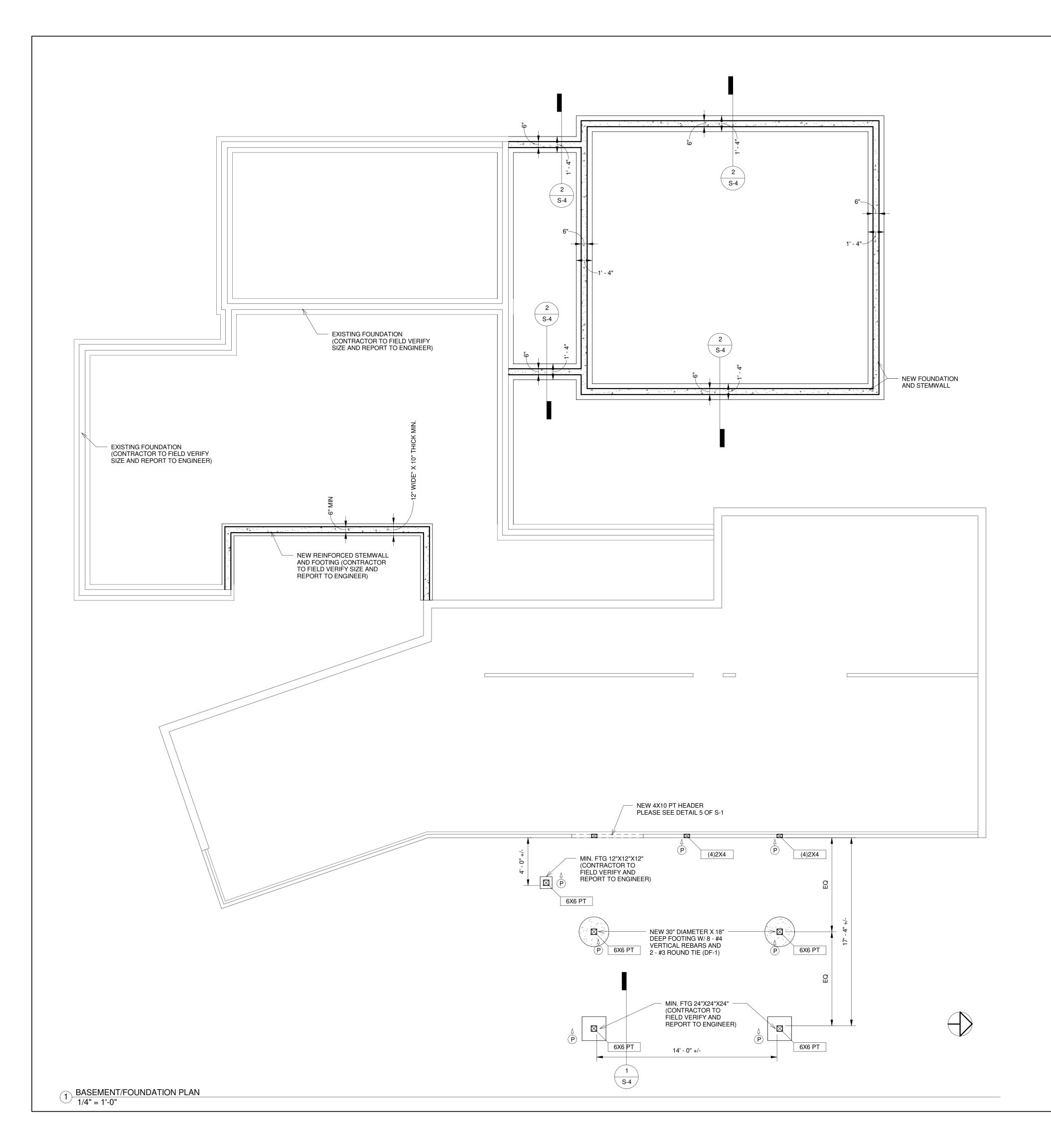
ISSUED FOR PERMIT

PROJECT NO. 20242

ENGINEER BB

REVISION SCHEDULE NO. DATE DESCRIPTION 1 Date 1 Revision 1

GENERAL NOTES SPECIFICATIONS





info@b2engineers.com 425-318-7047 (O) 425-318-0031 (C)



2906 74TH AVE SE REMODEL

2906 74TH AVE SE, MERCER ISLAND, WA 98040

IMPORTANT NOTES ON FIELD VERIFICATIONS AND TEMPORARY SHORING:

AND EXISTING DRAWINGS.

PLEASE SEE S-0

OTHERWISE ON PLAN

AND AT 8" AT FIELD

FRAMING SYMBOLS:

EDGES AND AT 12" AT FIELD

EXISTING FRAMING & DIMENSIONS PRIOR TO ANY FIELD WORK. NOTIFY THE

1. CONTRACTOR SHALL REVIEW STRUCTURAL DRAWINGS AND FIELD VERIFY ALL RELATED

2. CONTRACTOR SHALL FIELD VERIFY AND NOTIFY THE ENGINEER/OWNER OF EXISTING MECHANICAL DUCTS, PLUMBING PIPES, ELECTRICAL WIRES THAT MAY INTERFERE WITH

3. CONTRACTOR IS SOLELY RESPONSIBLE IN PROVIDING PROPER TEMPORARY SHORING PRIOR TO REMOVING ANY STRUCTURAL ELEMENTS. PLEASE CALL ENGINEER FOR

1. ALL FOOTINGS SHALL BEAR ON SUITABLE SOIL SUCH AS MIN. OF MEDIUM DENSE NATIVE SOIL OR COMPACTED STRUCTURAL FILL (NO SOFT OR ORGANIC MATERIALS). GEOTECHNICAL ENGINEER MAY BE REQUIRED TO ASSESS EXISTING SOIL CONDITIONS.

2. FOR FRAMING LUMBER TYPES AND GRADES, AND CONCRETE MIX REQUIREMENTS

5. PROVIDE (2) 2X6 OR (3) 2X4 STUD POSTS AT EACH END OF BEAMS, UNLESS NOTED

7. FLOOR SHEATHING SHALL BE 3/4" PLYWOOD OR OSB WITH 10d AT 6" NAILING AT

IMPORTANT NOTES ON TRUSS AND FLOOR FRAMING DESIGN/SHOP DRAWINGS:

6. SLAB ON GRADE SHALL BE MIN. 4" THICK WITH #3 AT 18" EACH WAY (AT MID-DEPTH) ON 6" COMPACTED CRUSHED ROCK. PROVIDE 1" SAWCUT JOINT AT 15 FT MAX. SPACING

8. ROOF SHEATHING SHALL BE 1/2" PLYWOOD OR OSB WITH 8d AT 6" NAILING AT EDGES

1. TRUSS FRAMING LAYOUT SHOWN IS GENERAL CONCEPT ONLY. CONTRACTOR/ TRUSS

2. TRUSS FRAMING PROFILE/ LAYOUT SHOULD CONFORM TO BOTH STRUCTURAL AND

4. FLOOR/ROOF FRAMING LAYOUT AND CONNECTORS (SUCH AS LUMBER PACKAGE BY SUPPLIERS) MUST BE SUBMITTED FOR ENGINEER'S REVIEW PRIOR TO CONSTRUCTION

ROOF TOTAL LOAD = L/240

ROOF SNOW LOAD = L/300

CONTINOUS

POST STOPS

BELOW THIS FLOOR

POST STARTS AT

POST

ARCHITECTURAL DRAWINGS. ANY DEVIATIONS SHALL BE APPROVED BY ENGINEER/

** MAXIMUM TOTAL LOAD DEFLECTION SHOULD NOT EXCEED 1.0" IN ALL CASES

SUPPLIER MUST SUBMIT TRUSS SHOP DRAWINGS INCLUDING TRUSS TEMPORARY/

STRUCTURAL WORKS FOR COST CONSIDERATIONS PRIOR TO ANY FIELD WORK.

IMPORTANT NOTES ON FOUNDATION AND FRAMING:

3. FOR PLYWOOD/OSB SHEARWALL SCHEDULE, PLEASE SEE S-4 4. FOR COMMON HEADER FRAMING DETAIL AND HEADER SIZE, SEE S-4

PERMANENT BRACING PLANS FOR ENGINEER'S REVIEW

ARCHITECT PRIOR TO TRUSS DESIGN WORK.

SIMPSON WSW STRONG

SHEARWALL HOLDOWN

WALL (24" WIDE)

PLYWOOD

LEGEND AND NOTES

1/4" = 1'-0"

SHEARWALL

3. TRUSS DEFLECTION CRITERIAS:

FLOOR/DECK TOTAL LOAD = L/480 FLOOR/DECK LIVE LOAD = L/600

ENGINEER/OWNER ANY DISCREPANCIES FOUND IN THE FIELD. STRUCTURAL DRAWINGS MAY NOT CORRECTLY REFLECT ALL EXISTING FRAMING DUE TO LIMITED ACCESS TO THE SITE

DRAWING INFO

ISSUE DATE 06-17-21

ISSUED FOR PERMIT

PROJECT NO. 20242

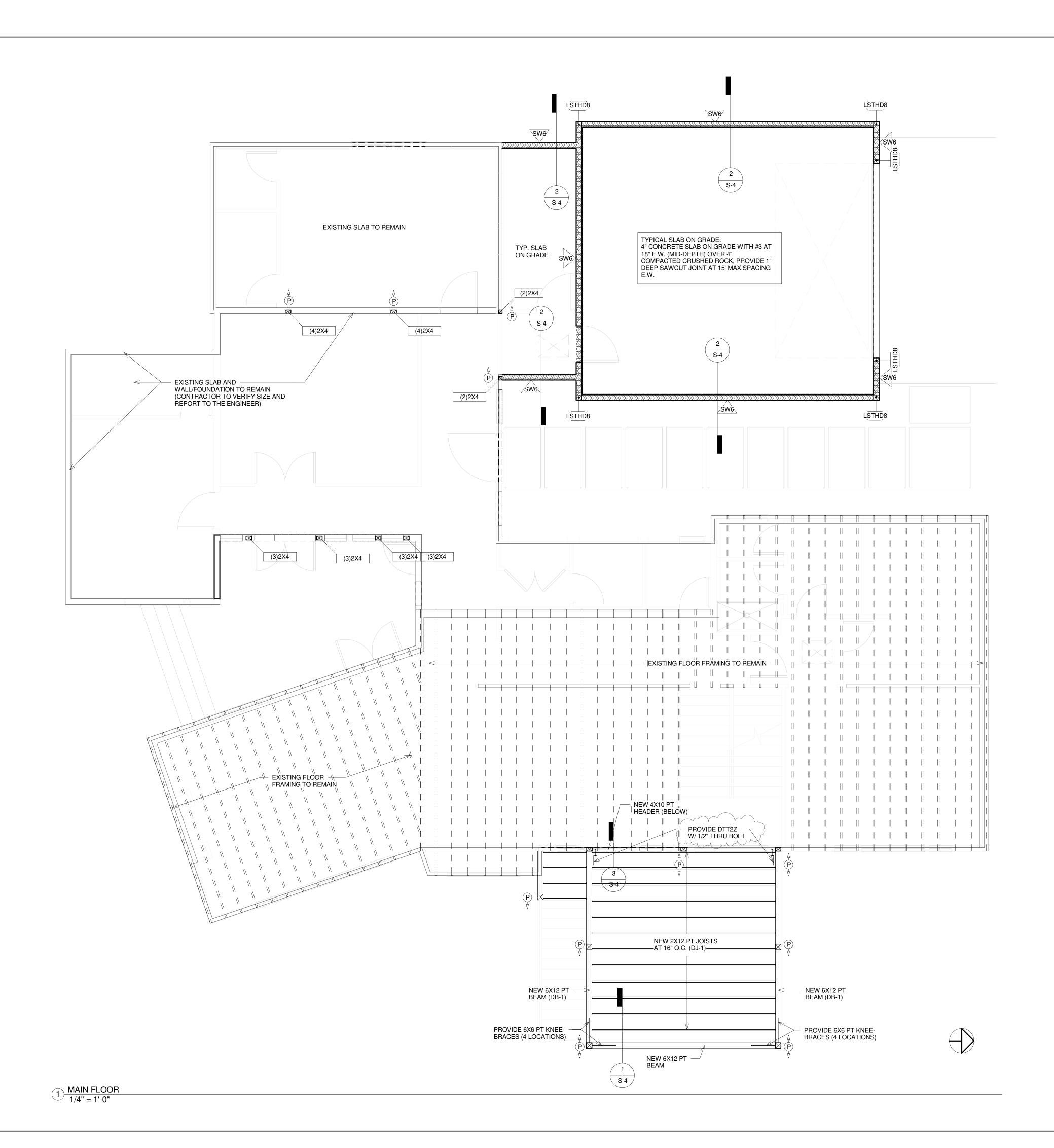
ENGINEER BB

REVISION SCHEDULE

NO. DATE DESCRIPTION

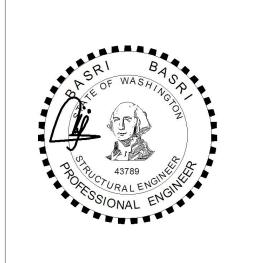
BASEMENT/ FOUNDATION PLAN

S-1





info@b2engineers.com 425-318-7047 (O) 425-318-0031 (C)



2906 74TH AVE SE REMODEL

2906 74TH AVE SE, MERCER ISLAND, WA 98040

DRAWING INFO

ISSUE DATE 06-17-21

ISSUED FOR PERMIT

PROJECT NO. 20242

ENGINEER BB

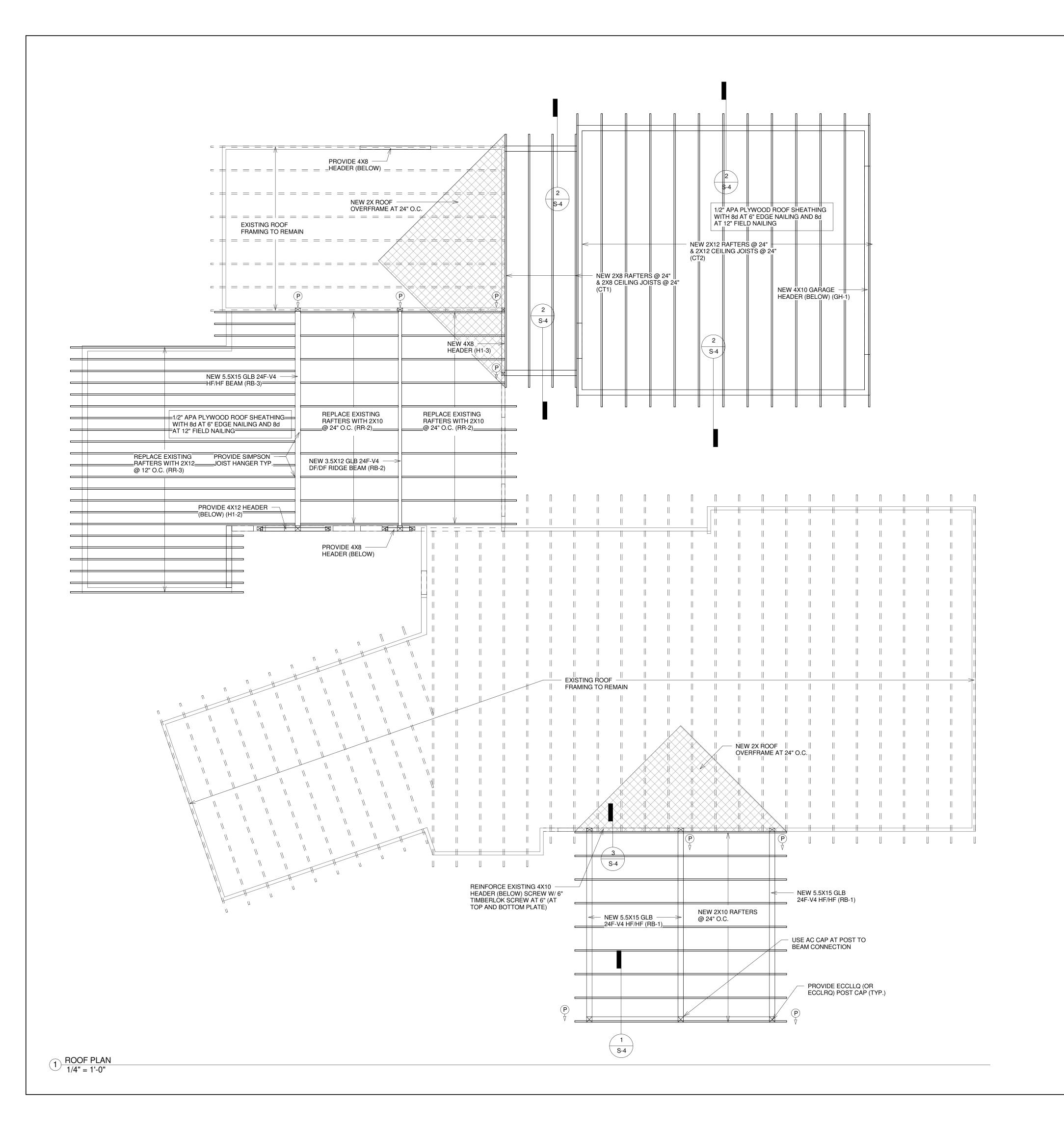
REVISION SCHEDULE

NO. DATE DESCRIPTION

1 Date 1 Revision 1

MAIN FLOOR FRAMING PLAN

S-2





info@b2engineers.com 425-318-7047 (O) 425-318-0031 (C)



2906 74TH AVE SE REMODEL

2906 74TH AVE SE, MERCER ISLAND, WA 98040

DRAWING INFO

ISSUE DATE 06-17-21

ISSUED FOR PERMIT

PROJECT NO. 20242

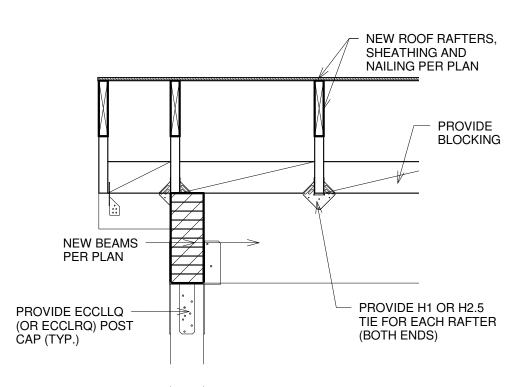
ENGINEER BB

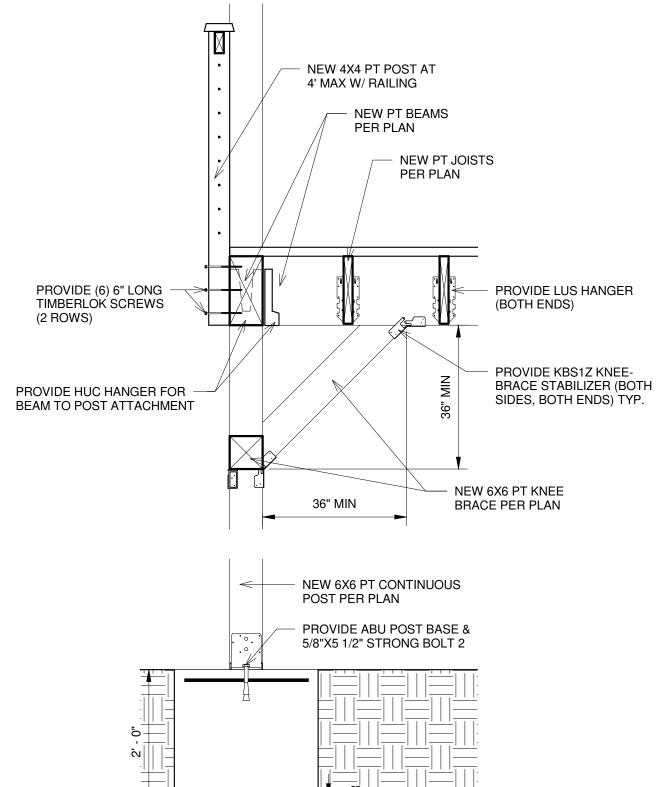
REVISION SCHEDULE

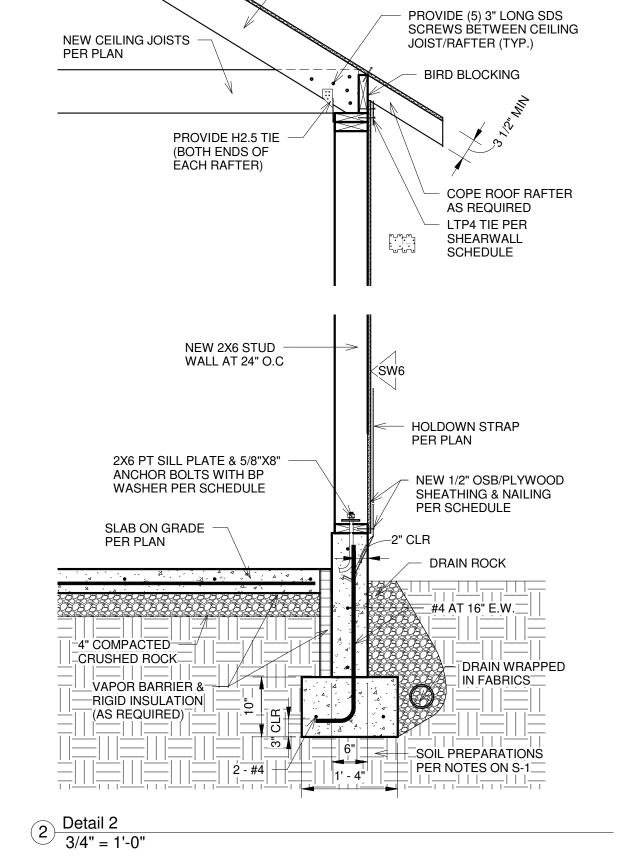
NO. DATE DESCRIPTION

ROOF FRAMING PLAN

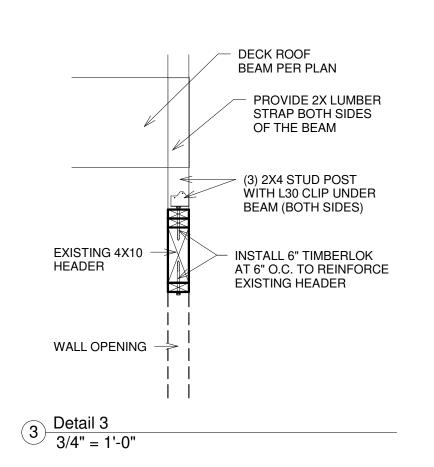
S-3







NEW ROOF RAFTERS, SHEATHING AND NAILING PER PLAN



TYPE	PLYWOOD OR OSB SHEATHING (NOTE 7)	PANEL EDGE NAILING (NOTE 4)	PANEL EDGE STUDS AND BLKG	ANCHOR BOLTS AT SILL PLATE (NOTE 8)	TOP/SILL PLATE TO BLOCKING/ RIM (NOTE 9)	BOTTOM PLATE TO BLOCKING/ RIM (NOTE 4)	CAPACITY (LRFD) (SEISMIC/WIND)
SW6	15/32" PLY/OSB ONE SIDE	10d COM AT 6"	2x	5/8" AT 36" O.C2x	SIMPSON LTP4 AT 24" O.C.	16d COM AT 6" O.CNARROW	496 PLF/ 696 PLF
SW4	15/32" PLY/OSB ONE SIDE	10d COM AT 4"	2x (SEE NOTE 5)	5/8" AT 24" O.C2x	SIMPSON LTP4 AT 16" O.C.	16d COM AT 4" O.CNARROW	736 PLF/ 1032 PLF
SW3	15/32" PLY/OSB ONE SIDE	10d COM AT 3"	3x	5/8" AT 18" O.C2x	SIMPSON LTP4 AT 12" O.C.	16d COM AT 3" O.CWIDE	960 PLF/ 1344 PLF
SW2	15/32" PLY/OSB ONE SIDE	10d COM AT 2"	3x	5/8" AT 12" O.C2x	SIMPSON LTP4 AT 8" O.C.	16d COM AT 2" O.CWIDE	1232 PLF/ 1724 PLF
SW44	15/32" PLY/OSB TWO SIDES	10d COM AT 4"	2x	5/8" AT 18" O.C3x	SIMPSON LTP4 AT 16" O.C. B.S.	(2) 16d COM AT 4" O.CWIDE	1472 PLF/ 2064 PLF
SW33	15/32" PLY/OSB TWO SIDES	10d COM AT 3"	3x	5/8" AT 16" O.C3x	SIMPSON LTP4 AT 12" O.C. B.S.	(2) 16d COM AT 3" O.CWIDE	1920 PLF/ 2688 PLF
SW22	15/32" PLY/OSB TWO SIDES	10d COM AT 2"	3x	5/8"AT 12" O.C3x	SIMPSON LTP4 AT 8" O.C. B.S.	(2) 16d COM AT 2" O.CWIDE	2464 PLF/ 3448 PLF

SHEARWALL SCHEDULE NOTES:

1 Detail 1 3/4" = 1'-0"

1. ALL PANEL EDGES TO OCCUR OVER STUDS, PLATES, RIMS OR HORIZONTAL BLOCKING AT WALLS

— | | | 2' - 0" | SOIL PREPARATIONS | PER NOTES ON S-1

- 2. NAIL SHEATHING TO INTERMEDIATE SUPPORTS/ FIELD NAILING 10d AT 12" O.C.
- 3. ALL NAILS INTO 3x MEMBERS SHALL BE STAGGERED.
- (2)2x STUDS MAY BE USED IN LIEU OF 3x STUDS AT PANEL JOINTS. NAIL STUDS TOGETHER W/2 ROWS 16d COMMON AT 6" O.C. AT SINGLE SIDE SHEATHING AND NAIL WITH 2 ROWS OF 16d COMMON AT 3" O.C. AT DOUBLE SHEATHED WALLS.
- 4. COM DENOTES COMMON NAILS. MIN. NAIL PENETRATION INTO PLATE, RIM OR BLOCKING SHALL BE 1 5/8".
- STAGGER BOTTOM PLATE NAILING 5. FOR SHEARWALL SW4, ALL FRAMING MEMBERS RECEIVING EDGE NAILINGS FROM ABUTTING PANELS
- SHALL BE 3X OR (2) 2X NAILED TOGETHER WITH 16d AT 6" 6. WHERE SHEATHING IS APPLIED TO BOTH SIDES OF WALL, OFFSET PANEL EDGES TO FALL ON DIFFERENT STUDS.
- 7. PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF WALLS NOTED ON PLAN. PROVIDE HOLDOWNS PER PLAN AT EACH END OF WALL, UNO.
 PROVIDE (2) 2X STUDS AT ENDS OF ALL SHEARWALL. FACE NAIL MULTIPLE STUDS WITH 16d AT 12"
- PROVIDE PANEL EDGE NAILING IN EACH HOLDOWN STUD AT END OF WALL.

O. ALL I CONDATION O	ILL I LATILO OTTALL DE L'I MILMBETTO AND THE ATTOM	OTT BOETO OTTALE TIATVE WITH. OF A
EMBEDMENT WITH '	1/4" x 3" x 3" PLATE WASHER OR SIMPSON'S BP/ BPS	S PLATE.
END OF WALL ANCH	HOR BOLTS SHALL BE LOCATED MAX 12" AND MIN 5"	FROM END OF THE PLATE.
9. WHERE NOTED IN D	ETAILS, USE SIMPSON A35 IN LIEU OF LTP4 PLATES	S SPACE AT 2/3 OF LTP4 SPACING.
SIMPSON HOLDOWN	SIMPSON ANCHOR BOLTS*	SIMPSON EPOXY ALL THREAD ANCHOR
HDU2	SSTB16 (5/8"ANCHOR WITH 12 5/8" MIN. EMBED.)	5/8" (12" EMBED WITH SET-XP)
HDU4	SB 5/8X 24 (5/8"ANCHOR WITH 18" MIN. EMBED.)	5/8" (14" EMBED WITH SET-XP)
HDU5	SB 5/8X 24 (5/8"ANCHOR WITH 18" MIN. EMBED.)	5/8" (16" EMBED WITH SET-XP)
HDI I8	SB 7/8X 24 (7/8"ANCHOR WITH 18" MIN, EMBED)	. ,

	THO TIBE I THINKE EDI	GE 11/11E111G 111 E/10/1111GEBG1111 G1GE	, , () E		
E	MBEDMENT WITH 1	LL PLATES SHALL BE PT MEMBERS A /4" x 3" x 3" PLATE WASHER OR SIMPS OR BOLTS SHALL BE LOCATED MAX 1	SON'S BP/ BPS PLATE		- 7"
9. V	VHERE NOTED IN DI	ETAILS, USE SIMPSON A35 IN LIEU OF	LTP4 PLATES SPACE	E AT 2/3 OF LTP4 SPACIN	IG.
SIM	PSON HOLDOWN	SIMPSON ANCHOR BOLTS*	SIMP	SON EPOXY ALL THREAD	O ANCHORS'
HDI	J2	SSTB16 (5/8"ANCHOR WITH 12 5/8" M	IIN. EMBED.) 5	5/8" (12" EMBED WITH SE	T-XP)
HDI	J4	SB 5/8X 24 (5/8"ANCHOR WITH 18" MI		5/8" (14" EMBED WITH SE	T-XP)
HDI	J5	SB 5/8X 24 (5/8"ANCHOR WITH 18" MI	N. EMBED.) 5	5/8" (16" EMBED WITH SE	T-XP)
HDI	J8	SB 7/8X 24 (7/8"ANCHOR WITH 18" MI	N. EMBED.)	•	,
HDI	J11	SB 1X 30 (1" ANCHOR WITH 24" MIN.		ALL ANCHORS SHALL BE	2.5" MIN.
HDI	J14	SB 1X 30 (1" ANCHOR WITH 24" MIN.		FROM EDGE OF CONCRE	TE WALL

PANEL EDGE NAILING 10d 2x BOTTOM PLATE SIMPSON STRAP PER PLAN (MIN. OF 48" LONG) SIMPSON LTP4 OR A35 CLIP (SEE NOTE 9) PANEL EDGE NAILING TO UPPER TOP PLATE WALL REFERENCE PER PLAN AND SCHEDULE HOLDOWN PER PLAN (FOR SIMPSON HDU, SEE ANCHOR EMBED. DEPTH SCHEDULE) ANCHOR BOLT PER SCHEDULE FOUNDATION PLATE WASHER (NOTE 8) P.T. SILL PLATE 2x OR 3x PER SCHEDULE 47" EMBED MIN.	8" O.C. B.S.	(2) 16d COM AT 2'	' O.CWIDE	2464 PLF/ 3448 PLF
PER PLAN (MIN. OF 48" LONG) SIMPSON LTP4 OR A35 CLIP (SEE NOTE 9) PANEL EDGE NAILING TO UPPER TOP PLATE WALL REFERENCE PER PLAN AND SCHEDULE HOLDOWN PER PLAN (FOR SIMPSON HDU, SEE ANCHOR EMBED. DEPTH SCHEDULE) ANCHOR BOLT PER SCHEDULE PLATE WASHER (NOTE 8) P.T. SILL PLATE 2x OR 3x PER SCHEDULE 47" EMBED MIN.		\	<i>Y</i>	
OR A35 CLIP (SEE NOTE 9) PANEL EDGE NAILING TO UPPER TOP PLATE WALL REFERENCE PER PLAN AND SCHEDULE HOLDOWN PER PLAN (FOR SIMPSON HDU, SEE ANCHOR EMBED. DEPTH SCHEDULE) ANCHOR BOLT PER SCHEDULE PLATE WASHER (NOTE 8) P.T. SILL PLATE 2x OR 3x PER SCHEDULE 47" EMBED MIN.	PER PLAN (■
NAILING TO UPPER TOP PLATE WALL REFERENCE PER PLAN AND SCHEDULE HOLDOWN PER PLAN (FOR SIMPSON HDU, SEE ANCHOR EMBED. DEPTH SCHEDULE) ANCHOR BOLT PER SCHEDULE PLATE WASHER (NOTE 8) P.T. SILL PLATE 2x OR 3x PER SCHEDULE 47" EMBED MIN.	OR A35 C	CLIP		
WALL REFERENCE PER PLAN AND SCHEDULE HOLDOWN PER PLAN (FOR SIMPSON HDU, SEE ANCHOR EMBED. DEPTH SCHEDULE) ANCHOR BOLT PER SCHEDULE PLATE WASHER (NOTE 8) P.T. SILL PLATE 2x OR 3x PER SCHEDULE 4 7" EMBED MIN.	NAILING T	O UPPER		
PANEL EDGE NAILING 10d ANCHOR BOLT PER SCHEDULE PLATE WASHER (NOTE 8) P.T. SILL PLATE 2x OR 3x PER SCHEDULE 4 7" EMBED MIN.	PER PLAN	AND	HOLD	OWN PER PLAN (FOR
P.T. SILL PLATE 2x OR 3x PER SCHEDULE 4 4 4 7" EMBED MIN.		\ 3.1	EMBE	D. DEPTH SCHEDULE)
A 47" EMBED MIN.	FOUNDA	TION —	P.T. SI	LL PLATE 2x OR 3x
	→ .	A A A	△	ED MIN.

DBL STUD BELO	1		-SOLID 2x4 BL	KG (VER	T GRAIN)	AREA (O MATCH ————————————————————————————————————	
		1				-(5) 16d EA END		
							R AND 2 KING STUD R OR POST PER PLA	
SEE HEADER —						LEVEL	OPENING	HEADER
SCHEDULE -						ALL	4 FT MAX.	4X8 DF #2 U.N.O.
(2) 2x6 SILL —						ALL	6 FT MAX.	4X10 DF #2 U.N.O.
						NOTE: AT STUD/PI	LATE ON, PROVIDE	
						(4) 8d TOEN (2) 16d END	IAIL OR	
			\					

A SHEARWALL SCHEDULE 3/4" = 1'-0"

B TYP. WALL OPENING FRAMING
3/4" = 1'-0"

info@b2engineers.com

425-318-7047 (O) 425-318-0031 (C)



2906 74TH AVE

2906 74TH AVE SE, MERCER ISLAND, WA

DRAWING INFO

ISSUE DATE 06-17-21

ISSUED FOR PERMIT

PROJECT NO. 20242

ENGINEER BB REVISION SCHEDULE

NO. DATE DESCRIPTION

FRAMING DETAILS