GENERAL

1. ONLY STAMPED DRAWINGS APPROVED BY THE BUILDING DEPARTMENT ARE FINAL. NO OTHER PLANS SHALL BE USED.

2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

3. THE ENGINEER SHALL BE CONSULTED IN CASE OF SPECIAL CONDITIONS NOT COVERED BY DETAILS ON THESE DRAWINGS. ALL CONFLICTS MUST BE RESOLVED BEFORE PROCEEDING WITH CONSTRUCTION. NO DEVIATIONS FROM THE STRUCTURAL DETAILS WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.

4. ALL CONSTRUCTIONS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE LOCAL BUILDING CODE, LATEST EDITION. ALL APPLICABLE CODES AND ORDINANCES SHALL BE OF LATEST EDITION OF THE LOCAL AND CALIFORNIA BUILDING CODE, ELECTRICAL CODE, MECHANICAL CODE, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE CODE COMPLIANCE.

5. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY CONSIDERATIONS AND OSHA PROVISIONS. UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS, CONTRACTOR SHALL FURNISH ADEQUATE SHORING, BRACING, ETC., AS REQUIRED TO SAFELY EXECUTE ALL WORK, AND SHALL BE FULLY RESPONSIBLE FOR SAME.

6. NECESSARY PERMITS FROM PUBLIC WORKS SHALL BE SECURED AND NECESSARY BARRICADES, PROTECTION FENCES, AND/OR CANOPIES BE ERECTED ALONG PUBLIC WAYS PRIOR TO STARTING CONSTRUCTION.

7. THE CONTRACTOR TO BID THE JOB BASED ON DETAILED SPECS AGREED BY THE OWNER ON FINISHES AND ALL ITEMS NOT COVERED ON THE DRAWINGS.

8. CONTRACTOR IS TO BID THE FULL JOB NOT LIMITED TO DRAWINGS OR TO THEIR LISTING OF ITEMS. ADVANCED WRITTEN PROVISIONS MAY BE SET UP WITH THE OWNER AS TO PARTIAL BID, REFUNDS ON EXISTING ITEMS, AND TO A REASONABLE LIMITS ON COST OVER-RUNS.

9. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS NOTED OTHERWISE (U.N.O.)

10. THE STRUCTURAL DRAWINGS ILLUSTRATE THE NEW STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.

11. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR DEPRESSIONS, EDGE OF SLAB, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, ETC. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS AND EQUIPMENT.

12. CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED, VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.

13. EXISTING CONDITIONS AS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTOR IS REQUIRED TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT CONDITIONS THAT CONFLICT WITH THE CONTRACT DOCUMENTS TO THE OWNER'S REPRESENTATIVE. DO NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE OWNER'S REPRESENTATIVE.

14. ANY DEVIATION, MODIFICATION & SUBSTITUTION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS & PRIOR TO PROCEEDING WITH THE WORK.

15. THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.

16. A COPY OF ANY REQUIRED LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.

17. ATTACHMENT OF NON-STRUCTURAL COMPONENTS SPECIFIED BY OTHERS TO STRUCTURAL ELEMENTS SHALL BE SPECIFIED BY THE NON-STRUCTURAL COMPONENT DESIGNER/SPECIFIER/INSTALLER. DESIGNER OF NON-STRUCTURAL ELEMENTS SHALL AT A MINIMUM SPECIFY THE CONNECTION TO THE STRUCTURE INCLUDING BUT NOT LIMITED TO: ANY TYPE OF CONNECTING HARDWARE, WIRE, HANGERS, FASTENERS, CLIPS, UNISTRUT MEMBERS. NON STRUCTURAL ELEMENTS SHALL INCLUDE, BUT NOT LIMITED TO: MEP AND HVAC EQUIPMENT & THEIR SUPPORTING PADS, PLATFORMS, FRAMES, ETC.; DUCTWORK, PIPES, CONDUITS, ARTWORK, GRILLES, GRATING, METAL SCREENS, ELEVATOR RAILS, STONE FINISH TILES, STONE CAPS, BRICK VENEER.

18. SPECIFICATIONS RELATED TO WATERPROOFING, INCLUDING BUT NOT LIMITED TO MEMBRANES, WATERSTOPS, SEALANTS, FLASHING, VAPOR BARRIER, ARE AS SPECIFIED BY ARCHITECT/WATER PROOFING CONSULTANT, AND ARE EXCLUDED FROM ILYA ENGINEERING SCOPE.

FOUNDATIONS

1. CONTRACTOR SHALL CONTACT ENGINEER IF EXCAVATIONS REVEAL UNFAVORABLE CONDITIONS. THE SERVICES OF A SOILS ENGINEER AND/OR GEOLOGIST MAY BE REQUIRED.
2. ALL FOOTINGS SHALL BE FOUNDED A MIN OF 24" BELOW THE LOWEST ADJACENT GRADE AND A MINIMUM OF 12" INTO NATIVE SOIL WHICHEVER GOVERNS UNLESS NOTED OTHERWISE.
3. 1500 PSF ALLOWABLE SOIL BEARING PRESSURE WAS USED IN THE DESIGN.
4. EXCAVATION SHALL BE PROPERLY BACKFILLED. ANY FILL SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION.
5. REMOVE ABANDONED FOOTINGS, UTILITIES, ETC. WHICH INTERFERE WITH NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED.
6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.
7. LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING AND/OR AFTER CONSTRUCTION.
8. REMOVE LOOSE SOIL AND STANDING WATER FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING CONCRETE.
9. NOTIFY THE OWNER'S REPRESENTATIVE IF ANY BURIED STRUCTURES NOT INDICATED, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC., ARE FOUND.
10. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.
11. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOIL INVESTIGATION REPORT MAY REQUIRED.
12. SITE SOIL IS ASSUMED TO BE CLAY,SANDY CLAY, SILTY CLAY, CLAYEY SILT,SILT AND SANDY SILT W/ ALLOWABLE VERTICAL BEARING OF 1.5 KSF.

TIMBER

1. PROVIDE GRADE-MARKED DOUGLAS FIR STRUCTURAL LUMBER COMPLYING WITH STANDARD GRADING RULE NUMBER 16 OF THE WEST COAST LUMBER INSPECTION BUREAU. REGARDLESS OF THE MOISTURE CONTENT AT THE TIME OF MANUFACTURE, THE MOISTURE CONTENT UNDER SERVICE CONDITION AT THE TIME OF ENCLOSURE OF THE STRUCTURAL MEMBERS SHALL BE:
   A. 19% EXCEPT AS NOTED BELOW
   B. 15% FOR WOOD JOISTS AND BEAMS WITH MORE THAN 2 FRAMED LEVELS ABOVE THEM

   "S-DRY" LUMBER AND "MC15" LUMBER ARE RECOMMENDED FOR CASES "A" AND "B" ABOVE RESPECTIVELY.

   ALTERNATIVELY, LUMBER WITH HIGHER MOISTURE CONTENT AT THE TIME OF MANUFACTURE THAN THE VALUES SHOWN ABOVE MAY BE UTILIZED IF APPROVED IN WRITING BY THE OWNER. IN SUCH CASE, CONTRACTOR SHALL INFORM THE OWNER AND ADVISE IF VOLUMETRIC CHANGES SUCH AS WARPING, BENDING, TWISTING, ETC. ARE EXPECTED AND HOW THESE MAY AFFECT THE QUALITY OF CONSTRUCTION.
2. ALL LUMBER SHALL BE STRESS GRADED DOUGLAS FIR NO. 2, UNLESS NOTED OTHERWISE. ALL 4x10 BEAMS OR LARGER AND 6x8 BEAMS OR LARGER SHALL BE DOUGLAS FIR NO. 1.
3. ALL LUMBER IN DIRECT CONTACT WITH CONCRETE OR MASONRY, INCLUDING BUT NOT LIMITED TO FOUNDATION SILLS, SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED DOUGLAS FIR.
4. WOOD STRUCTURAL PANELS SHALL COMPLY WITH U.S. PRODUCT STANDARDS FOR ITS TYPE IN PS 1-09 OR PS 2-10 AND BE CLASSIFIED AS EXPOSURE 1. AS A MINIMUM ALL WOOD STRUCTURAL PANELS SHALL BE APA RATED SHEATHING UNLESS NOTED OTHERWISE ON PLANS AND DETAILS. PANEL CONSTRUCTION FOR ALL WOOD STRUCTURAL PANELS SHALL BE 5 PLY PLYWOOD, EXCEPT THAT OSB IS PERMITTED FOR WALL SHEATHING AT NON FIRE TREATED PANELS. MINIMUM GRADE VENEER FOR PLYWOOD SHALL BE "CD". ALL WOOD STRUCTURAL PANELS SHALL BE BLOCKED AT UNSUPPORTED EDGES. WALL PANELS SHALL BE 15/32 INCH, PANEL INDEX (P.I.) 32/16 U.N.O. ALL WOOD STRUCTURAL PANELS MUST BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS.
5. NAILS:
   A. ALL NAILS SHALL BE COMMON WIRE NAILS IN ACCORDANCE WITH THE LATEST EDITION OF THE "NATION DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS)
   B. NAILING TO BE IN ACCORDANCE WITH CBC 2013 NAILING SCHEDULE UNLESS NOTED OTHERWISE.
   C. THE MINIMUM PENETRATION OF NAILS SHALL BE 10 TIMES THE NAIL SHANK DIAMETER OR 1|4", WHICHEVER IS GREATER. PENETRATION IS MEASURED INTO THE PIECE RECEIVING THE NAIL POINT.
   D. BORED HOLES SHALL BE PERMITTED FOR ALL NAILS TO HELP PREVENT WOOD FROM SPLITTING. BORE HOLES SHALL BE MANDATORY FOR 20d NAILS OR LARGER. WHEN UTILIZED, BORED HOLES SHALL HAVE DIAMETER NOT EXCEEDING 75% OF NAIL DIAMETER.
   E. EDGE DISTANCES, END DISTANCES, AND FASTENER SPACING SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD. BORED HOLES MAY BE UTILIZED TO HELP PREVENT WOOD FROM SPLITTING.
   D. ALL NAILS SHALL BE GALVANIZED WHEN EXPOSED TO WEATHER.
6. WOOD SCREWS:
   A. WOOD SCREWS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "NATION DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS).
   B. THE MINIMUM PENETRATION OF WOOD SCREWS SHALL BE 10 TIMES THE SCREW DIAMETER OR 1|4", WHICHEVER IS GREATER. PENETRATION IS MEASURED INTO THE PIECE RECEIVING THE NAIL POINT.
   C. LEAD HOLES SHALL BE ABOUT 7/8 THE DIAMETER OF THE SCREW.
   D. WOOD SCREWS SHALL BE TURNED, NOT DRIVEN, INTO LEAD HOLES. SOAP OR OTHER LUBRICANTS SHALL BE PERMITTED AS NEEDED TO FACILITATE THE INSERTION AND PREVENT DAMAGE OF THE WOOD SCREW.
   E. EDGE DISTANCES, END DISTANCES, AND FASTENER SPACING SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD.
   D. ALL WOOD SCREWS SHALL BE GALVANIZED WHEN EXPOSED TO WEATHER.
7. LAG SCREWS SHALL BE TURNED, NOT DRIVEN, INTO PRE DRILLED HOLES. PROVIDE LEAD HOLE 40% TO 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
8. ALL FRAMING HARDWARE SHALL BE STRONG-TIE CONNECTORS AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND ICC REQUIREMENTS. ALL BOLTS IN HOLD-DOWN ANCHORS SHALL BE TORQUED PER MANUFACTURERS REQUIREMENTS.
9. INSTALL HOLD DOWNS |4 INCH MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING ANCHOR BOLT. THE HOLD DOWN SHALL BE INSTALLED TIGHT TO THE POST WITHOUT FILLERS OR DAPPING. DO NOT BEND HOLD DOWN ANCHORS. HOLD DOWN HARDWARE SHALL BE IN PLACE PRIOR TO FOUNDATION INSPECTION. HOLD DOWN SHALL BE FINGER TIGHT AND ¾ WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. UPPER FLOOR HOLD DOWNS SHALL BE CONTINUED TO THE FOUNDATION PER TYPICAL DETAILS.
10. ALL BOLTS AND ANCHOR BOLTS IN WOOD SHALL BE A-307 STANDARD BOLTS. HOLES SHALL NOT BE MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. A STANDARD CUT WASHER (NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION - APPENDIX TABLE L6), OR METAL PLATE OR METAL STRAP OF EQUAL OR GREATER DIMENSIONS AND THICKNESS SHALL BE PROVIDED BETWEEN THE WOOD AND THE NUT.
11. DO NOT CUT, BORE, COUNTERSINK OR NOTCH WOOD MEMBERS EXCEPT WHERE SHOWN IN THE DETAILS.
12. PROVIDE DOUBLE JOISTS BENEATH ALL PARALLEL WALLS. PROVIDE SOLID BLOCKING BENEATH ALL WALLS PERPENDICULAR TO JOISTS.
13. JOISTS OR RAFTERS FRAMING FROM OPPOSITE SIDES OF BEAMS OR WALLS SHALL HAVE A LAP OF 4" OR MORE AND BE SPLICED WITH 4-16D NAILS, UNLESS NOTED OTHERWISE.
14. STRUCTURAL COMPOSITE LUMBER (SCL) OR ENGINEERED LUMBER
   A. SCL MEMBERS INCLUDE I-JOISTS, PSL, LVL, LSL, BEAMS, HEADERS, POSTS, AND STUDS.
   B. SCL MEMBERS SHALL BE MANUFACTURED BY A LICENSED FABRICATOR.
   C. SUBSTITUTION OF PRODUCTS LISTED BELOW SHALL BE SUBMITTED TO ILYA ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. INCLUDE ICC OR LARR AS APPLICABLE AND COMPARISON TABLES.
   E. EXCEPT I-JOISTS AND LSL, SCL MEMBERS SHALL BE:
      - MEMBER DEPTH 14" OR LESS: "RIGIDLAM" LVL MANUFACTURED BY "ROSEBURG", GRADE 2.0 (ICC-ESR 1210, LARR 25680).
      - MEMBER DEPTH GREATER THAN 14": "PARALLAM" PSL MANUFACTURED BY "WEYERHAEUSER" GRADE 2.2 (ICC-ESR 1387, LARR 25202).
   F. I-JOIST MEMBERS SHALL BE "TJI" JOISTS MANUFACTURED BY "WEYERHAEUSER" (ICC-ESR 1153, L.A. RR 25538).
   G. LSL MEMBERS SHALL BE "TIMBERSTRAND" LSL MANUFACTURED BY "WEYERHAEUSER", GRADE 1.55E (ICC-ESR1387, LARR 25202).

MECHANICAL AND ADHESIVE ANCHORS

1. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO CONCRETE:
   A. "SET-XP" BY SIMPSON STRONG TIE (COLA RR#25744, ESR#2508)
   B. "HIT-HY 200" BY HILTI, INC. (COLA RR#25964, ESR#3187)
   C. "HIT-RE 500 V3" BY HILTI, INC. (COLA RR#26028, ESR#3814)
2. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO GROUT-FILLED MASONRY UNITS:
   A. "SET-XP" BY SIMPSON STRONG TIE (COLA RR#25965, IAPMO#265)
3. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO UNREINFORCED BRICK MASONRY (URM):
   A. "EPOXY-TIE ET-22" BY SIMPSON STRONG TIE, IN CITY OF LOS ANGELES ONLY (COLA RR#25120)
   B. "EPOXY-TIE SET" BY SIMPSON STRONG TIE, NOT IN CITY OF LOS ANGELES (ESR#1772)
4. MECHANICAL ANCHORS INSTALLED INTO CONCRETE:
   A. "STRONG BOLT2" BY SIMPSON STRONG-TIE (COLA RR#25891, ESR#3037)
   B. "KWIK BOLT 3" BY HILTI, INC. NOT IN CITY OF LOS ANGELES (ESR#2302)
   C. "KWIK BOLT TZ" BY HILTI, INC. (COLA RR#25701, ESR#1917)
5. MECHANICAL ANCHORS INSTALLED INTO GROUT-FILLED MASONRY UNITS:
   A. "STRONG BOLT 2" BY SIMPSON STRONG-TIE (COLA RR#25936, IAPMO#240
6. ADHESIVE ANCHORS: ASTM A36 THREADED RODS WITH ASTM A 563 GRADE A NUTS AND ANSI B18.22.1 TYPE A WASHERS, UNLESS OTHERWISE NOTED. ANCHORS DESIGNATED AS ASTM A193 GRADE B7 THREADED RODS TO USE ASTM A 563 GRADE DH HEAVY HEX NUTS AND ASTM F 436 WASHERS.
7. ADHESIVE DOWELS: ASTM A615 GRADE 60 REINFORCING STEEL.
8. ALL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ICC-ES REPORT AND COLA REPORT AND MANUFACTURERS RECOMMENDATIONS.
9. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM EMBEDMENT OF ANCHORS PER ICC-ES REPORT, COLA REPORTS & MANUFACTURERS RECOMMENDATIONS.
10. CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL OR ADHESIVE ANCHORS. AT CONTRACTOR OPTION, OVERSIZED HOLES AND WELDED PLATE WASHERS CAN BE USED IN LIEU OF STANDARD DIAMETER HOLES. SIZE & WELD
11. PRIOR TO ALL DRILLING OR CORING, THE CONTRACTOR SHALL (1) VERIFY THE EXISTING CONCRETE OR MASONRY THICKNESS TO PREVENT DAMAGE TO THE OPPOSITE FACE OF CONCRETE AND MAINTAIN 1-1/2" CLEAR COVER U.N.O., AND (2) IDENTIFY EXISTING REINFORCING LOCATIONS BY PACHHOMETER, PROBING, CHIPPING, ETC. TO AVOID DAMAGE EXISTING REINFORCING.
12. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.
13. ANCHORS SHALL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY. TEST 20% OF ALL ANCHORS.
14. TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.
15. APPLY TEST LOAD BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION ON THE ANCHOR SUCH AS DIRECT PULL WITH A HYDRAULIC JACK, TORQUE WRENCH, OR CALIBRATED SPRING-LOADING DEVICES, ETC.
16. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE OR GROUT HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION
17. FOR EXTERIOR AND FOR EXPOSED APPLICATIONS PROVIDE HOT DIP GALVANIZED OR STAINLESS STEEL ANCHORS.

CONCRETE

1. CONCRETE TO BE 3000 PSI @ 28 DAYS FOR PILES,FOOTING, GRADE BEAMS, STRUCTURAL SLAB AND FRAMES. DEPUTY INSPECTOR REQUIRED OTHERWISE 2500, CALL OUTS ON PLANS & DETAILS SUPERCEDE THESE VALUES.
2. CEMENT TO BE TESTED TYPE I PORTLAND CEMENT, ASTM-C-150. CEMENT TO CONFORM TO THE CBC SECTION 1903A ASTM C 150 FOR PORTLAND CEMENT AND CBC STANDARDS 21A-11 AND 21A-14. USE TYPE V CEMENT.
3. AGGREGATES TO BE MAXIMUM SIZE 1.5" FOR FOOTINGS, ¼" FOR PEA-GRAVEL AND 1" FOR OTHER WORK,ASTM-C-33.
4. ONLY ONE GRADE OF CONCRETE SHALL BE PERMITTED ON THE JOB SITE AT ANY ONE TIME.
5. CURING SHALL BE MAINTAINED ABOVE 40 DEGREES F. INITIAL CURING TO BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER PLACEMENT OF GUNITE. THEREAFTER FOG SPRAY FOR ADDITIONAL 14 DAYS. AS ALTERNATIVE USE APPROVED MOISTURE RETAINING COVER FOR MEMBRANE.
6. REINFORCING STEEL TO BE ASTM-A615-40 FOR BILLET STEEL, INTERMEDIATE GRADE, CLEAN AND UNRUSTED. ASTM-A615-60 FOR STRUCTURAL SLABS, BEAMS AND COLUMNS. LAPS AT SPLICES AND POUR LINES TO BE 40 DIAMETERS OR 24" MINIMUM EXCEPT AS NOTED. 72 DIAMETERS @ MAXIMUM TENSION ZONE AND FULL REBAR STRESS. O.K. TO INTERPOLATE.
7. PROVIDE MECHANICAL DEVICES TO HOLD STEEL IN PLACE AND TO MAINTAIN THE REQUIRED COVER.
8. WELDED WIRE FABRIC: ASTM-A185. LAP 6" ALL EDGES.
9. REMOVAL OF FORMS: MINIMUM 14 DAYS FOR HORIZONTAL SURFACES 4 DAYS FOR VERTICAL SURFACES.

STATEMENT OF SPECIAL INSPECTION

1. CONTINUOUS AND PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE WORK AS DESCRIBED IN CBC 2022 CHAPTER 17. (SEE INSPECTION SCHEDULE BELOW. ONLY CHECKED ITEMS ARE REQUIRED.) AND QUALITY ASSURANCE PROGRAM OF AISC 360 AND 341 (STEEL),SDI QA/QC(COLD FORMED STEEL DECK),TABLE 1705.2.3 (OPEN-WEB STEEL JOIST AND JOIST GIRDERS), 1705.3 (CONCRETE), TMS402/ACI 530/ASCE 5-13 CH.3 AND TMS602/ACI 503.1/ASCE6 1.4B, 1.6 (MASONRY), TABLES 1705.6 (SOILS), 1705.7(DRIVEN DEEP FOUNDATION), AND 1705.8(CAST IN PLACE DEEP FOUNDATIONS).
2. APPROVAL BY THE INSPECTOR DOES NOT MEAN APPROVAL OF FAILURE TO COMPLY WITH THE PLANS OR SPECIFICATIONS. ANY DETAIL THAT FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE STRUCTURAL ENGINEER FOR INTERPRETATION OR CLARIFICATION.
3. FOR VERIFICATION AND INSPECTION OF SOILS SEE SOILS REPORT.
4. CONTINUOUS SPECIAL INSPECTION PER AWS D1.1 IS REQUIRED FOR ALL STRUCTURAL STEEL WELDING, EXCEPT FOR SINGLE PASS FILLET WELDS NOT EXCEEDING |E" IN SIZE. WELDING INSPECTORS SHALL BE AWS Q.C.-1 CERTIFIED.
5. STRUCTURAL WOOD. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS, AND HOLDOWNS. EXCEPTION: SPECIAL INSPECTION IS NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER COMPONENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM, WHERE THE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4 INCHES ON CENTER (O.C.). INSPECTIONS SHALL BE PERFORMED BEFORE COVERING.
6. CONTRACTORS RESPONSIBLE FOR CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THIS STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH A SYSTEM OR COMPONENT PER SEC 1704.4.
7. WHERE FABRICATION OF MEMBERS AND ASSEMBLIES IS PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED BY THIS SECTION, UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE OF VERIFYING APPROVAL OF FABRICATOR.

STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER

PROJECT ADDRESS: 7705 Norton AveWest Hollywood, CA 90046 PERMIT APPL. NO.:_____

Description of Work: _____

Owner: _____ Architect: _____ Engineer: SAEID MOHAMMADI

STRUCTURAL OBSERVATION
(only checked items are required)

Firm or individual to be responsible for the Structural Observation:

Name: SAEID MOHAMMADI Phone:(818)468-9920 Calif. Registration:C82330

FOUNDATION	WALL	FRAME	DIAPHRAGM
☒ Footing, Stem, Walls, Piers	☐ Concrete	☐ Steel Moment Frame	☐ Concrete
☐ Mat Foundation	☐ Masonry	☐ Steel Braced Frame	☐ Steel Deck
☐ Caisson, Piles, Grade Beams	☒ Wood	☐ Concrete Moment Frame	☒ Wood
☐ Stepping/Retaining Foundation Hillside Special Anchors	☐ Others	☐ Masonry Wall Frame	☐ Others
☐ Others:		☒ Hardy Frame	

DECLARATION BY OWNER:

I, the Owner of the project, declare that the above listed firm or individual is hired to be the Structural Observer.

_____ _____
Signature Date

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

S. Mohammadi C82330 3/3/2023
Signature License No. Date

DESIGN LOADS & FACTORS:

BUILDING SHALL COMPLY WITH THE ASCE 7-16 BUILDING CODE.

1. VERTICAL LIVE LOADS:
   A. ROOF 20 PSF
   B. FLOOR 40 PSF
   C. DECK 60 PSF
2. VERTICAL DEAD LOADS:
   A. ROOF 15 PSF
   B. FLOOR 15 PSF
   C. DECK 15 PSF
3. LATERAL LOADS:
   A. WIND:
      BASIC WIND SPEED: 110 MPH
      WIND IMPORTANCE FACTOR, Iw: 1.0
      EXPOSURE TYPE: C
   B. SEISMIC:
      SITE CLASS: D SEISMIC DESIGN CATEGORY: D
      RISK CATEGORY: II
      SEISMIC IMPORTANCE FACTOR, Ie: 1.0
      SS =2.016g S1 = 0.755g FA = 1.2 FV = 1.70
      SDS =1.68g SD1 =0.75g R = 6.5 CS = 0.259
      EQUIVALENT STATIC FORCE METHOD USED FOR DESIGN.
      V = CS x W

NO.	DATE	REVISIONS
		1

7705 Norton Ave
West Hollywood, CA 90046

GENERAL NOTES

ILYA ENGINEERING & DEVELOPMENT
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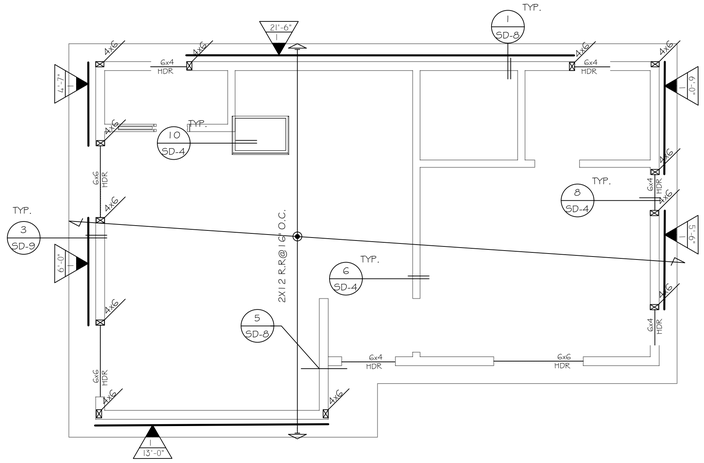
WEB: ILYAENGINEERING.COM
SAM@ILYAENGINEERING.COM

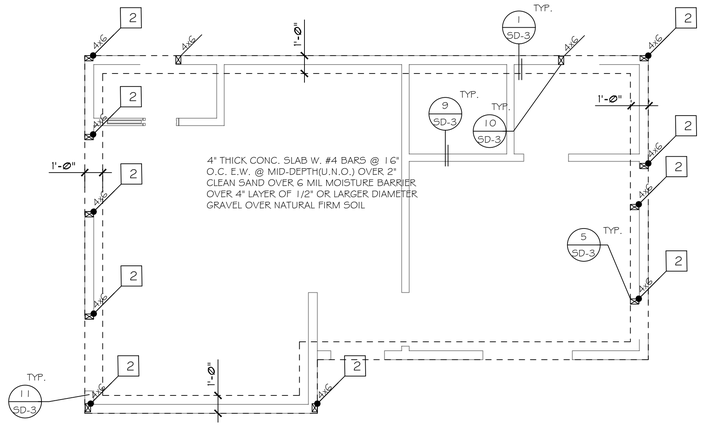
REGISTERED PROFESSIONAL ENGINEER
SAEID MOHAMMADI
No. C82330
Exp. 03-31-2024
CIVIL
STATE OF CALIFORNIA

NAME
DATE 3/3/23
SCALE
CHECKED
SHEET S-1
1 OF 15 SHEETS
JOB NO. 2211-547



ROOF FRAMING PLAN

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



FOUNDATION PLAN

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

	INDICATES WOOD WALLS UNLESS OTHERWISE SPECIFIED ON THE FRAMING PLAN OR WALL STUD SCHEDULE PROVIDE: • EXTERIOR WALLS: S.A.D. OR 2x6 @ 16" O.C., WHICHEVER IS GREATER • INTERIOR WALLS: S.A.D. OR 2x4 @ 16" O.C., WHICHEVER IS GREATER		CONT. BLOCKING AND DRAG STRAP PER TYP. DETAILS
			INDICATES OPENING IN DIAPHRAGM/SLAB
			INDICATES CHANGE IN FLOOR ELEVATION
		⊠P.A.	INDICATES WOOD POST ABOVE
	INDICATES WOOD POST. UNLESS OTHERWISE SPECIFIED ON THE FRAMING PLAN THE POST SIZE SHALL BE THE GREATER OF THE FOLLOWING: • MIN. SIZE PER POST SCHEDULE WHERE PRESENT • 4x DEPTH OF WALL • SIZE INDICATED IN "HOLDOWN SCHEDULE" (FOR POSTS AT ENDS OF SHEAR WALLS ONLY)	⊠KP	INDICATES KING POST
		□	INDICATES HSS
		□C.A.	INDICATES STEEL COLUMN ABOVE
			INDICATES RIGID STEEL BEAM CONN. PER TYP. DETAIL
	MINIMUM LENGTH INDICATES WOOD SHEATHED SHEAR WALL(S-7) TYPE PER SHEAR WALL SCHEDULE UNDER TYP. DETAILS		INDICATES EXTERIOR DECKS
	INDICATES HOLDOWN TYPE PER TYPICAL DETAILS	MEMBER PREFIXES	R = ROOF F = FLOOR G = RIDGE H = HIP C = CEILING D = DECK
	INDICATES EXTENT OF WOOD JOIST INDICATES DIRECTION OF WOOD JOIST		MINIMUM LENGTH PERFORATED SHEAR WALL SYMBOL TYPE PER SHEAR WALL SCHEDULE UNDER TYP.
B-3	MEMBER CALCULATION REFERENCE		POST OR POINT LOAD ABOVE. PROVIDE BLOCKING IN FLOOR SYSTEM TO MATCH POST OR MULTI-STUD BEARING ABOVE (NOT REQUIRED IF FLUSH BEAM IN FLOOR OCCURS)

FRAMING NOTES:

1. FOR GENERAL NOTES AND TYPICAL DETAILS SEE SHEETS S-1. GENERAL NOTES & TYPICAL DETAILS APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR U.N.O.

2. U.N.O ALL EXTERIOR STUD SIZES SHALL BE 2x6 @ 16" O.C. AND 3X6 FOR EXTERIOR SHEAR WALLS TYPE3 THROUGH 7,AND ALL INTERIOR STUD SHALL BE 2x4 @ 16" O.C. AND 3X4 FOR INTERIOR SHEAR WALLS TYPE3 THROUGH 7 AT A MINIMUM (REFER TO ARCH'L DRAWINGS).

3. ALL THE SILL PLATE SHOULD BE 2X , AND TOP PLATE 2—2X .WHERE SILL PLATES AND TOP PLATES RECEIVE PANEL EDGE NAIL TIP IN SHEAR WALLS TYPE 3 TO TYPE 7 SHOULD BE 3X

4. ROOF SHEATHING CONSTRUCTION AT SLOPED AND PITCHED ROOFS: WOOD STRUCTURAL PANEL, 1/2" CD APA RATED PLYWOOD SHEATHING, EXPOSURE 1, SPAN RATING 32/16, NAILED WITH 8d COMMONS SPACED AT 6" O.C. ALONG ALL BOUNDARIES (B.N.) AND CONTINUOUS ADJOINING PANEL EDGES, AND 6" O.C. ALONG OTHER PANEL EDGES (E.N.) AND 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.), BLOCK ALL PANEL EDGES. SEE "TYPICAL SHEATHING ASSEMBLY" PER TYPICAL DETAILS SHEETS.

5. FLOOR AND DECK SHEATHING CONSTRUCTION: WOOD STRUCTURAL PANEL, 23/32" CD APA RATED PLYWOOD SHEATHING, EXPOSURE 1, SPAN RATING 48/24, NAILED WITH 10d COMMONS SPACED AT 6" O.C. ALONG ALL BOUNDARIES (B.N.) AND CONTINUOUS ADJOINING PANEL EDGES, AND 6" O.C. ALONG OTHER PANEL EDGES (E.N.) AND 10" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.), BLOCK ALL PANEL EDGES, GLUE WOOD STRUCTURAL PANELS TO JOISTS AND BLK'G. SEE "TYPICAL SHEATHING ASSEMBLY" PER TYPICAL DETAILS SHEETS.

6. U.N.O. MINIMUM POST SIZE SHALL BE 4x DEPTH OF WALL.

7. VERIFY ALL DIMENSIONS, ELEVATIONS, SLAB EDGES, SLAB . . DEPRESSIONS, SLAB OPENINGS, CURBS, FOOTING, PENETRATIONS, WALL OPENINGS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL & CIVIL DRAWINGS.

8. FOR ALL DIMENSIONS, SEE ARCHITECTURAL DRAWINGS.

9. FOR MINIMUM POST SIZE AT ENDS OF SHEAR WALL, REFER TO HOLDOWN SCHEDULE ON TYPICAL DETAILS.

10. ALL BOLTS IN WOOD SHALL BE A—307 STANDARD BOLTS. ALL BOLT HOLES SHALL BE DRILLED $\frac{1}{32}$" TO $\frac{1}{16}$ " OVERSIZED. PROVIDE PLATE WASHERS AT ALL BOLTS. INSPECTOR TO VERIFY.

11. HOLD—DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD—DOWNS SHALL BE FINGER TIGHT AND $\frac{1}{2}$ " WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES

12. PLYWOOD WALL SHEATHING: AT ALL EXTERIOR WALLS OTHER THAN SHEAR WALLS, 1/2" CDX PLYWOOD NAILED WITH 8d COMMONS SPACED AT 6" O.C. ALONG ALL PANEL EDGES (E.N.) AND 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.)

13. FRAMING CONTRACTOR TO COORDINATE LAYOUT WITH ALL APPLICABLE TRADES INCLUDING PLUMBING, MECHANICAL AND ELECTRICAL.

14. SILL PLATE ANCHOR BOLTS AT WALLS OTHER THAN SHEAR WALLS: $\frac{5}{8}$" ø WITH 9" MIN. EMBEDMENT, INSTALLED WITH PLATE WASHERS, SPACED AT 4'—0" O.C. FOR ALL WALLS, PROVIDE MINIMUM TWO BOLTS PER PIECE OF SILL PLATE & ONE LOCATED WITHIN 12" AND NOT LESS THAN 7 BOLT DIAMETER OR 4$\frac{3}{8}$" OF EACH END OF EACH SILL PLATE.

15. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7.

16. PROVIDE DOUBLE JOISTS BENEATH ALL PARALLEL WALLS. PROVIDE SOLID BLOCK BENEATH ALL WALLS PERPENDICULAR TO JOISTS. SEE "FRAMING AT NON BEARING WALLS" PER TYPICAL DETAILS SHEETS.

17. PROVIDE WALL SHEATHING AT ALL EXTERIOR WALLS OTHER THAN SHEAR WALLS AS FOLLOWS: WOOD STRUCTURAL PANEL, 15/32" CD APA RATED PLYWOOD OR OSB SHEATHING, EXPOSURE 1, SPAN RATING 32/16, NAILED WITH 8d COMMONS SPACED AT 6" O.C. ALONG ALL PANEL EDGES (E.N.) AND 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.)

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		-

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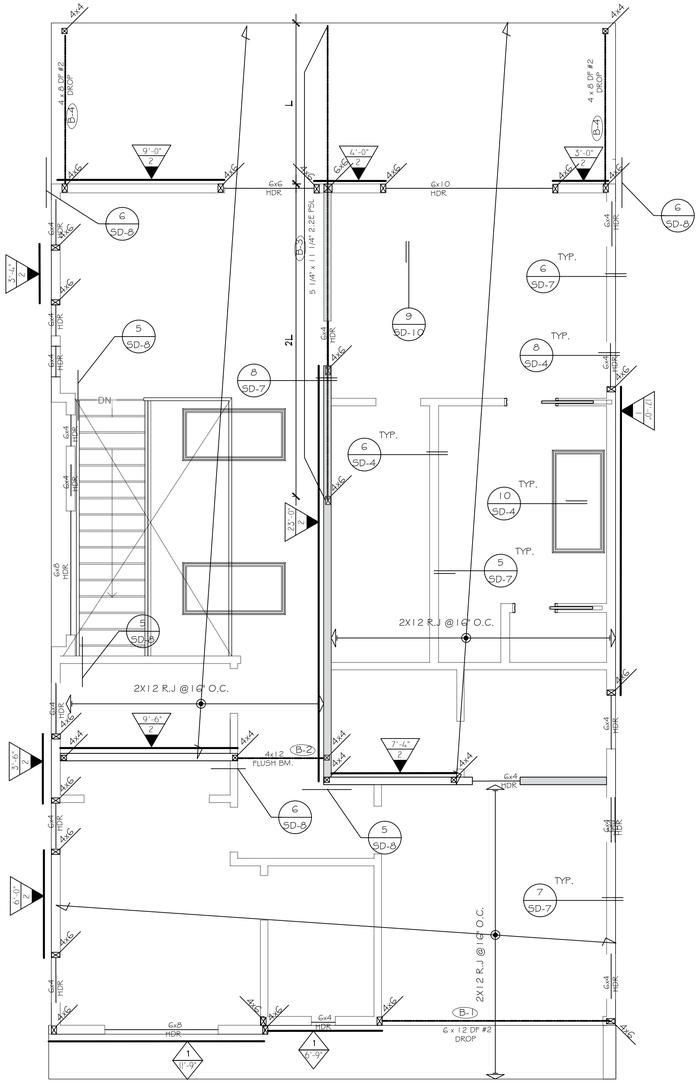
SAM@ILYAENGINEERING.COM

REGISTERED PROFESSIONAL ENGINEER
SAID MOHAMMAD MOSAVI
No. C82330
Exp. 03-31-2024
CIVIL
STATE OF CALIFORNIA

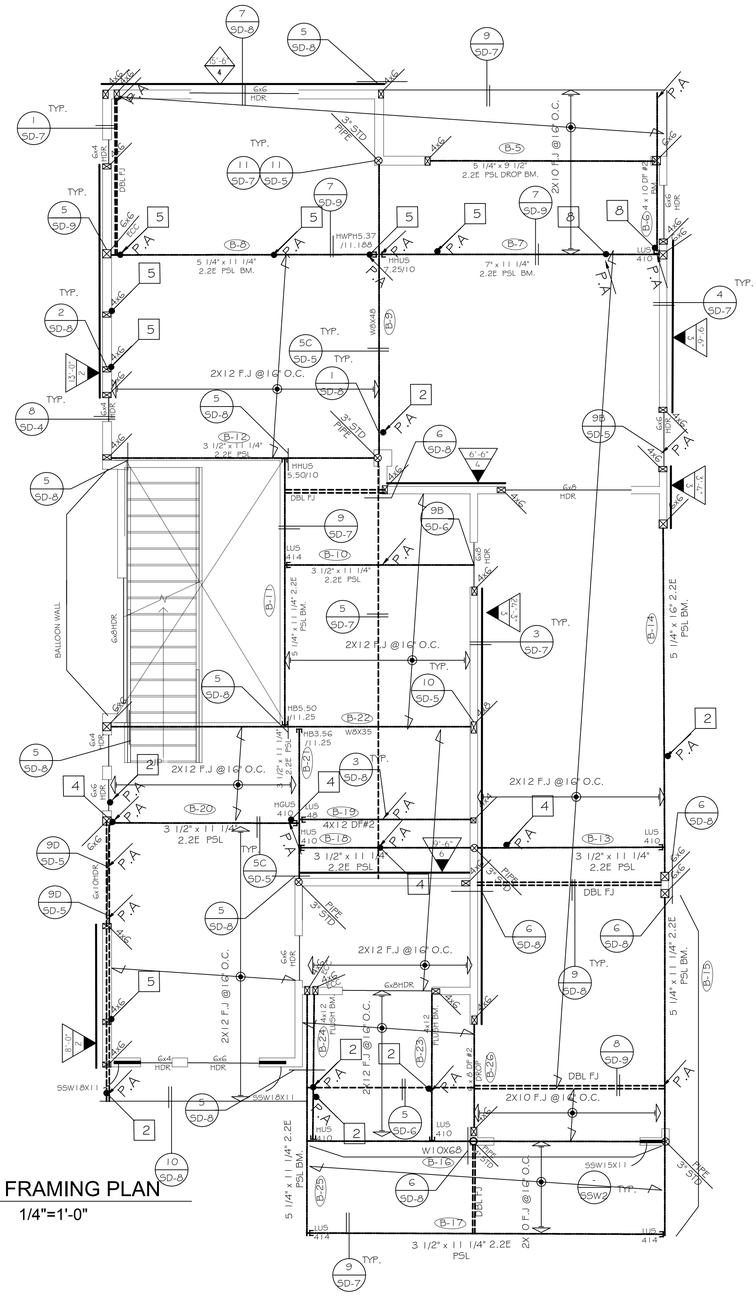
ADU ROOF FRAMING & FOUNDATION PLANS

NAME	
DATE	3/3/23
SCALE	
CHECKED	
SHEET	S-2
	2 OF 15 SHEETS
JOB NO.	2211-547



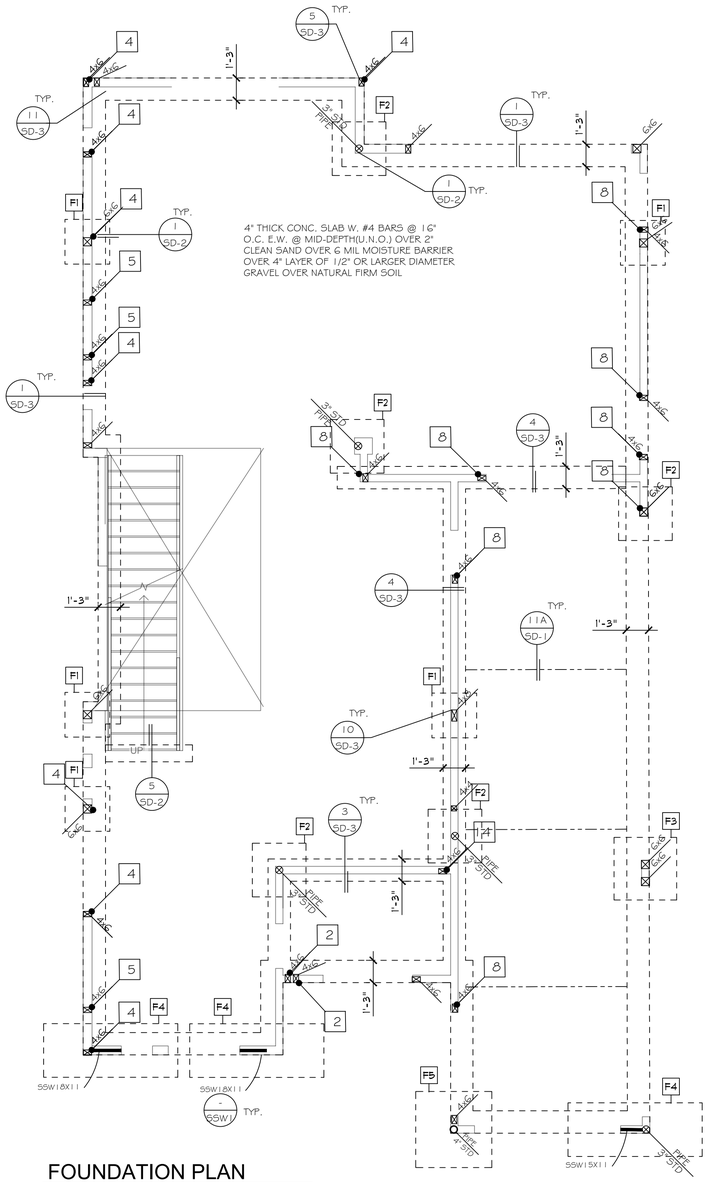
ROOF FRAMING PLAN

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



FLOOR FRAMING PLAN

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



FOUNDATION PLAN

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

	INDICATES WOOD WALLS UNLESS OTHERWISE SPECIFIED ON THE FRAMING PLAN OR WALL STUD SCHEDULE PROVIDE: • EXTERIOR WALLS: S.A.D. OR 2x6 @ 16" O.C., WHICHEVER IS GREATER • INTERIOR WALLS: S.A.D. OR 2x4 @ 16" O.C., WHICHEVER IS GREATER		CONT. BLOCKING AND DRAG STRAP PER TYP. DETAILS
			INDICATES OPENING IN DIAPHRAGM/SLAB
			INDICATES CHANGE IN FLOOR ELEVATION
	INDICATES WOOD POST. UNLESS OTHERWISE SPECIFIED ON THE FRAMING PLAN THE POST SIZE SHALL BE THE GREATER OF THE FOLLOWING: • MIN. SIZE PER POST SCHEDULE WHERE PRESENT • 4x DEPTH OF WALL • SIZE INDICATED IN "HOLDOWN SCHEDULE" (FOR POSTS AT ENDS OF SHEAR WALLS ONLY)	⊠P.A.	INDICATES WOOD POST ABOVE
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		□C.A.	INDICATES STEEL COLUMN ABOVE
		■	INDICATES RIGID STEEL BEAM CONN. PER TYP. DETAIL
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B-3	MEMBER CALCULATION REFERENCE	P.A.	POST OR POINT LOAD ABOVE. PROVIDE BLOCKING IN FLOOR SYSTEM TO MATCH POST OR MULTI-STUD BEARING ABOVE (NOT REQUIRED IF FLUSH BEAM IN FLOOR OCCURS)

FOUNDATION SIZE MAY BE LOCALLY INCREASED AT THE LOCATION OF THE HOLDOWNS PER DETAIL 5/SD-3

FOUNDATION SCHEDULE	
F1	2'-6"X 2'-6" X 24" W/ 3#4 EA.WAY AT BOTTOM
F2	3'-0"X 3'-0" X 24" W/ 3#5 EA.WAY AT BOTTOM
F3	3'-6"X 3'-6" X 24" W/ 4#5 EA.WAY AT BOTTOM
F4	3'-0"X 7'-6" X 24" W/ 4#6 LONG DIR. @ T.&B. #4@8" O.C. SHORT DIR. @ TOP &BOTTOM
F5	4'-3"X 4'-3" X 24" W/ 5#5 EA.WAY AT BOTTOM

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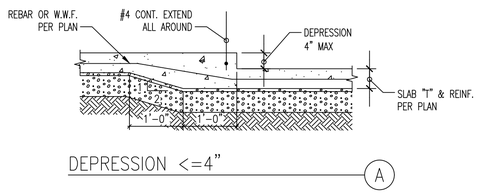
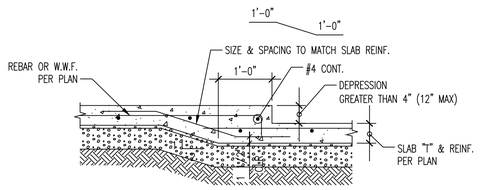
REGISTERED PROFESSIONAL ENGINEER
SAEED MOHAMMADI
No. C82330
Exp. 03-31-2024
CIVIL
STATE OF CALIFORNIA

MAIN HOUSE ROOF/ FLOOR FRAMING & FOUNDATION PLANS

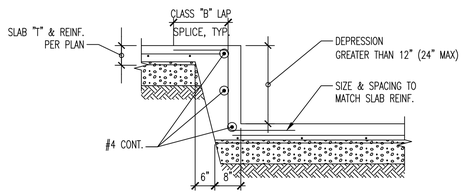
NAME	
DATE	3/3/23
SCALE	
CHECKED	
SHEET	S-3
	3 OF 15 SHEETS
JOB NO.	2211-547



DEPRESSION <=4" (A)

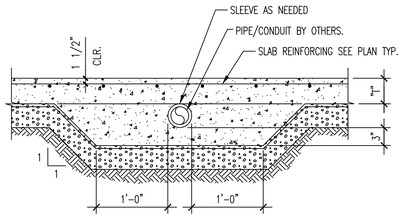


DEPRESSION >4" & <=12" (B)



DEPRESSION >12" & <=24" (C)

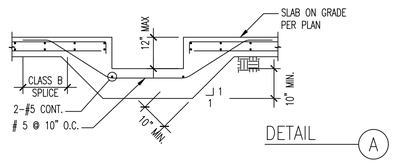
5 SLAB ON GRADE DEPRESSION



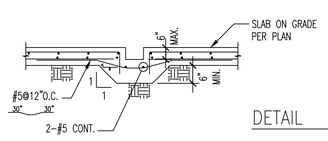
NOTES:

1. SEE PLAN FOR CONCRETE SLAB ON GRADE THICKNESS, "T".

2 TYP. PIPE THRU SLAB ON GRADE

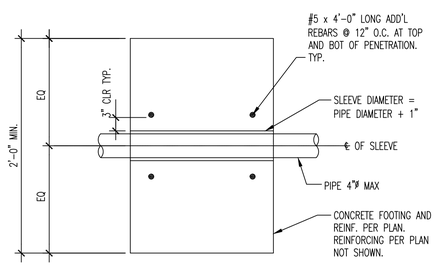


DETAIL (A)

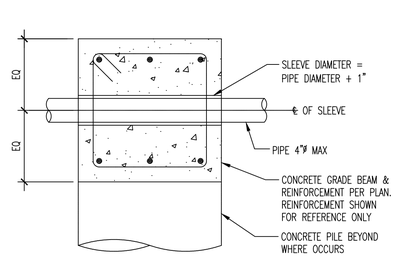


DETAIL (B)

6 TRENCH DRAIN DETAIL

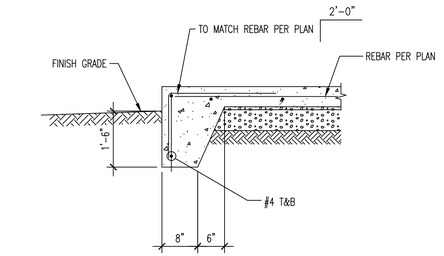


9 TYP. PIPE THRU FOOTING

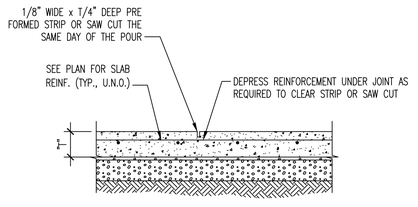


NOTE: PENETRATION SHALL BE LOCATED WITHIN THE BEAM MID THIRD

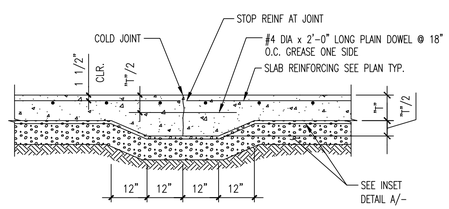
10 TYP. PIPE THRU GRADE BEAM



3 SLAB ON GRADE EDGE DETAIL



CONTROL JOINT (WHERE CONTINOUS POUR IS USED) (A)

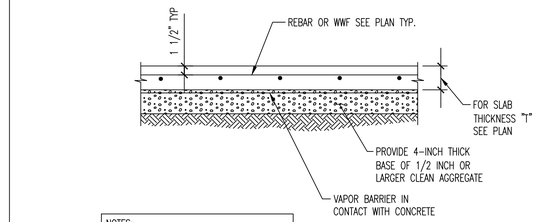


TYPICAL CONSTRUCTION JOINT (B)

NOTES:

1. CONTROL JOINTS TO BE LOCATED AT COLUMN CENTER LINES AND AT 20'-0" O.C. MAX. AND EVERY 400 SQUARE FEET.
2. IF SAW-CUT CONTROL JOINT TO BE USED, SAW-CUT WITHIN 24 HOURS OF POUR.
3. SEE PLAN FOR "T".

11 JOINTS AT SLAB ON GRADE



NOTES:

1. SEE SOILS REPORT FOR ADDITIONAL SUBGRADE PREPARATION REQUIREMENTS
2. VAPOR BARRIERS SPECS NOT PER JLA

4 TYPICAL SLAB ON GRADE

8

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REGISTERED PROFESSIONAL ENGINEER SAMUEL D. MOTAMEDI No. C82330 Exp. 03-31-2024 CIVIL STATE OF CALIFORNIA

DETAILS

NAME	
DATE	3/3/23
SCALE	
CHECKED	
SHEET	SD-1
	4 OF 15 SHEETS
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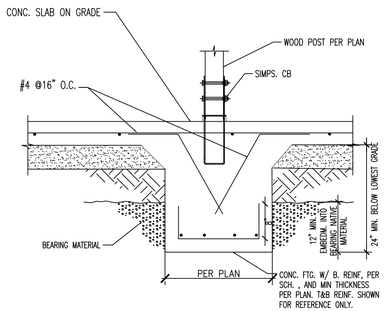
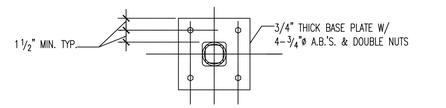
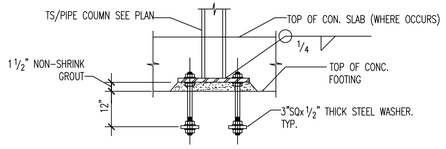


1 PAD FTG DETAIL

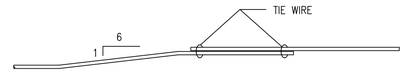


PLAN AT INTERIOR WALL CONDITIONS

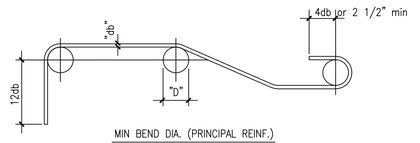


ELEVATION

2 ISOLATED HSS-PIPE COL. BASE PL



OFFSET & SPLICES



MIN BEND DIA. (PRINCIPAL REINF.)

D = 6db FOR #3 THRU #8
D = 8db FOR #9 THRU #11
D = 10db FOR #14 & #18

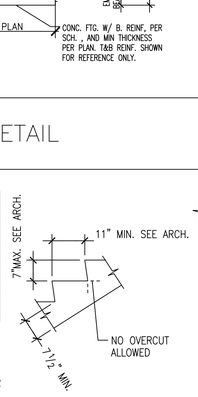
STANDARD HOOK DETAILS FOR PRINCIPAL REINF.

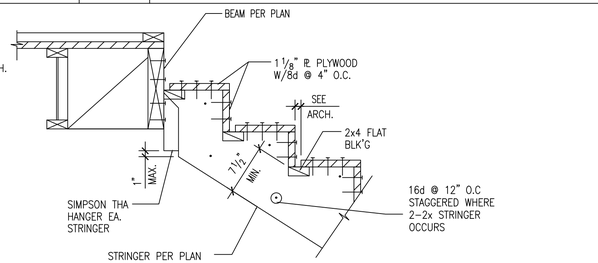
4

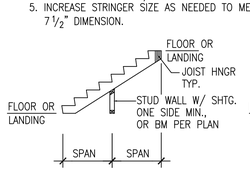
STAIR STRINGER SCHEDULE		
SPAN	MIN STRINGER[8]	SPACING
0 TO 7'-9"	2x14	16"
7'-9" TO 9'-0"	2x14	12"
9'-0" TO 11'-0"	2-2x14	16"
11'-0" TO 13'-0"	2-2x14	12"
13'-0" TO 15'-6"	2-2x14	8"

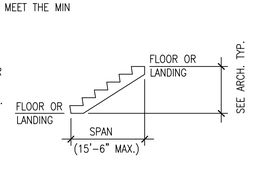
NOTES:

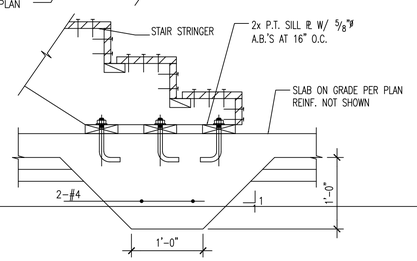
1. FOR APPLICATIONS IN SINGLE UNIT OR SINGLE FAMILY RESIDENCE USE DOUGLAS FIR NO. 2. FOR ALL OTHER APPLICATIONS USE DOUGLAS FIR SELECT STRUCTURAL.
2. FOR STAIR STRINGER SPAN SEE ARCH. DWG
3. SEE ARCH. DWG. FOR TREAD CONSTRUCTION
4. NAIL DOUBLE 2x14 W/ 16d NAILS AT 9" O.C. STAGG.
5. INCREASE STRINGER SIZE AS NEEDED TO MEET THE MIN 7 1/2" DIMENSION.



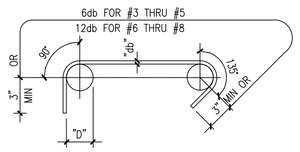








5 TYP. STAIR



MIN. BEND DIA. (STIRRUPS & TIES)

BAR	D
#3	1 1/2"
#4	2"
#5	2 1/2"
#6	4 1/2"

STANDARD HOOK DETAILS FOR STIRRUPS & TIES

MIN EXTENSIONS PER ACI 318-11:
-SEC 7.1.3 FOR STIRRUPS AND TIE HOOKS

7 TYPICAL REINFORCEMENT DETAILS

8

9

10

11

NO.	DATE	REVISIONS
		1

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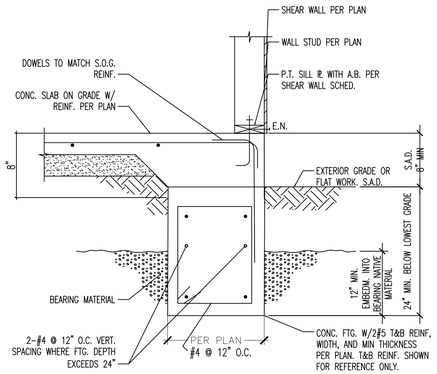
REGISTERED PROFESSIONAL ENGINEER
SAID MOFAKHAMI
No. C82330
Exp. 03-31-2024
CIVIL
STATE OF CALIFORNIA

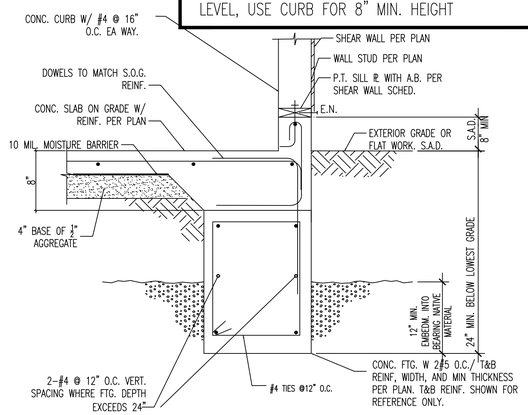
DETAILS

NAME
DATE 3/3/23
SCALE
CHECKED
SHEET
SD-2
5 OF 15 SHEETS
JOB NO. 2211-547

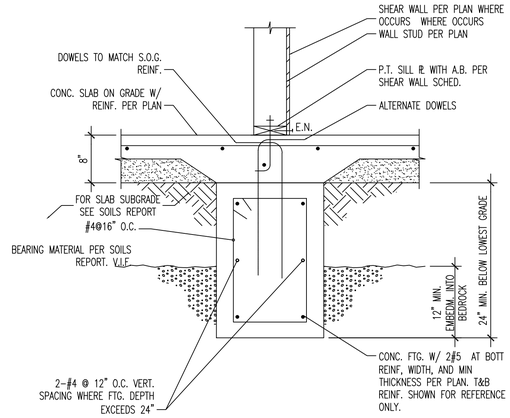


1 EXT. FTG. FOUNDED IN NATIVE SOIL

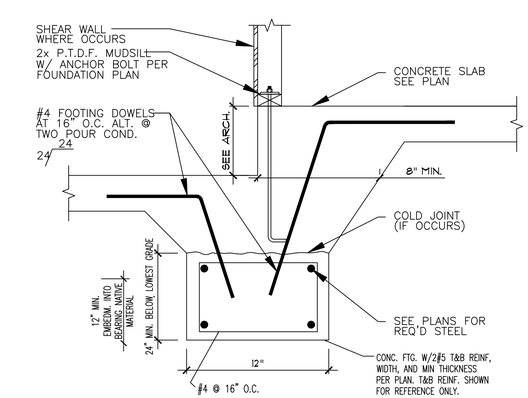
WHEN EXTERIOR GRADE LEVEL IS THE SAME AS SLAB LEVEL, USE CURB FOR 8" MIN. HEIGHT



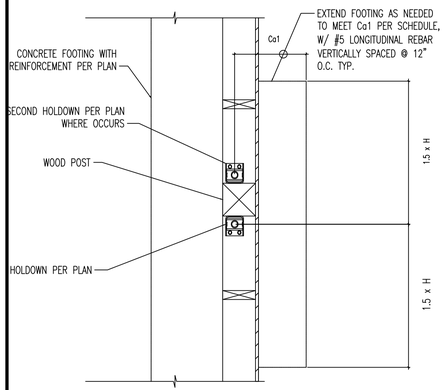
EXT. FTG. FOUNDED IN NATIVE SOIL



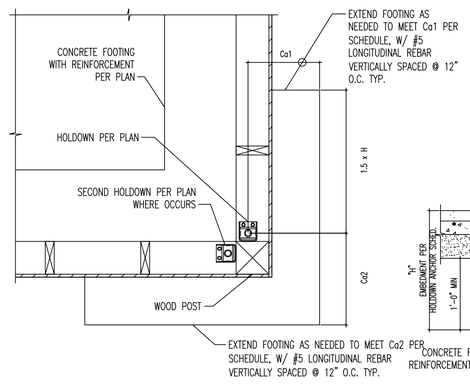
3 INT. FTG. FOUNDED IN NATIVE SOIL



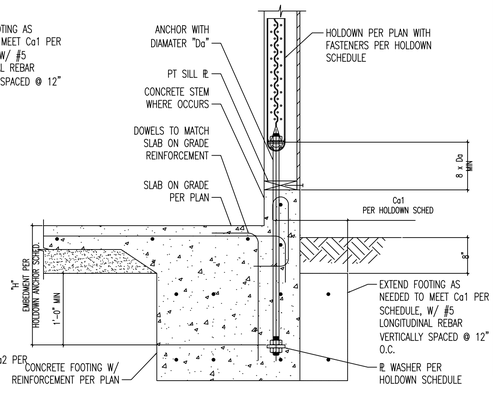
4 SLAB STEP-BEARING



HOLDOWN ANCHOR AT FTG – EDGE CONDITION



HOLDOWN ANCHOR AT FTG – CORNER CONDITION



TYPICAL SECTION OF FOOTING AT HOLDOWN

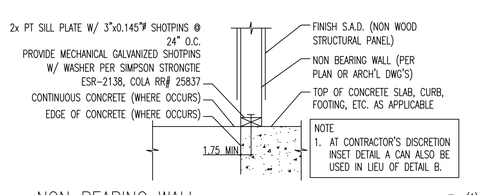
MARK (PER PLAN)	GRADE 36 ROD DIAM. "Da"	℄ WASHER T (IN)	℄ WASHER SIDE (IN)	HOLDOWN ANCHOR IN CONCRETE FOOTING INSTALL.	H MIN	Ca1 MIN	Ca2 MIN	ANCHOR REINF. "NR"	CAPACITY	CAPACITY WITH 25% REDUCTION PER CITY OF LA	HOLDOWN (1)	FASTENER	MIN POST SIZE (2)
2	5/8"	3/8	1 1/2	EDGE/FIELD	12"	4"	NA	NR	3,075 LBS	2,306 LBS	HDU2	6-SDS25212	4x4
				CORNER	12"	4"	4"	NR					
4	5/8"	3/8	1 1/2	EDGE/FIELD	12"	4"	NA	NR	4,565 LBS	3,424 LBS	HDU4	10-SDS25212	4x4
				CORNER	12"	4"	4"	NR					
5	5/8"	3/8	1 1/2	EDGE/FIELD	12"	4"	NA	NR	5,670 LBS	4,253 LBS	HDU5	14-SDS25212	4x6
				CORNER	12"	4"	4"	NR					
8	7/8"	3/8	2	EDGE/FIELD	16"	4"	NA	NR	7,890 LBS	5,918 LBS	HDU8	20-SDS25212	4x8 OR 6x6
				CORNER	20"	4"	8"	NR					
11	1"	3/8	2	EDGE/FIELD	18"	4"	NA	NR	9,535 LBS	7,151 LBS	HDU11	30-SDS25212	6x6
				CORNER	24"	4"	7"	NR					
14	1"	3/8	2	EDGE/FIELD	18"	4"	NA	NR	14,390 LBS	10,793 LBS	HDU14	36-SDS25212	6x6
				CORNER	24"	4"	7"	NR					
12	1 1/8"	3/8	2 1/2	EDGE/FIELD	20"	4"	NA	NR	15,510 LBS	11,633 LBS	HD12	4-1"ø BOLTS	6x6
				CORNER	24"	12"	12"	NR					
19	1 1/4"	3/8	3	EDGE/FIELD	24"	4"	NA	NR	19,360 LBS	14,520 LBS	HD19	5-1"ø BOLTS	4x8 OR 6x8
				CORNER	24"	15"	15"	NR					
14 14	2-1"	3/8	2	EDGE/FIELD	24"	12"	NA	NR	28,780 LBS	21,585 LBS	DOUBLE HDU14	2 x 36-SDS25212	6x6
				CORNER	24"	20"	20"	NR					

NOTES:

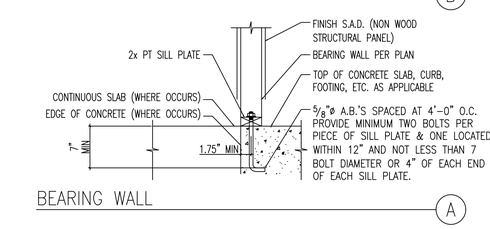
1. HDU SCREW-STYLE HOLDOWNS ARE PER LARR #25720, ICC ESR 2330. BOLT-STYLE HOLD DOWNS PER LARR #25828, IAPMO ESR 0143
2. POST SIZE SHOWN ON THE SCHEDULE ARE MINIMUM SIZES. IF LARGER SIZES ARE SPECIFIED ON THE PLANS THE SIZES SHOWN ON PLANS SHALL BE USED
3. ROD SHALL BE A36 ALL THREADED RODS
4. NUT AT HOLDOWN THREADED ROD SHOULD BE FINGER-TIGHT PLUS 1/2 TURN WITH A HAND WRENCH. DO NOT OVER-TORQUE THE NUT. DO NOT USE IMPACT WRENCHES.
5. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION/OBSERVATION
6. HOLDOWNS MUST BE INSPECTED/OBSERVED BEFORE COVERING WITH SHEATHING.

HOLDOWN SCHEDULE

5 HOLDOWN ANCHOR IN CONCRETE FOOTING

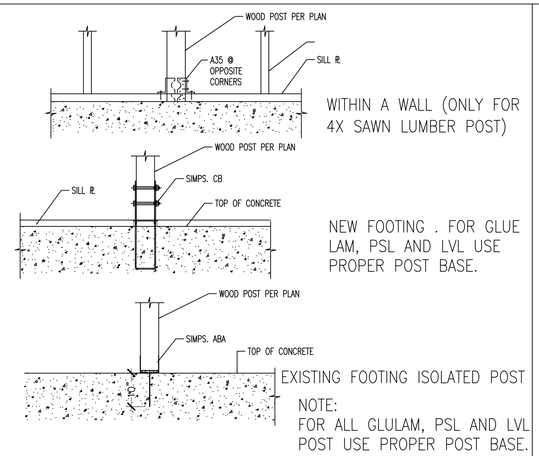


NON BEARING WALL (B)(1)

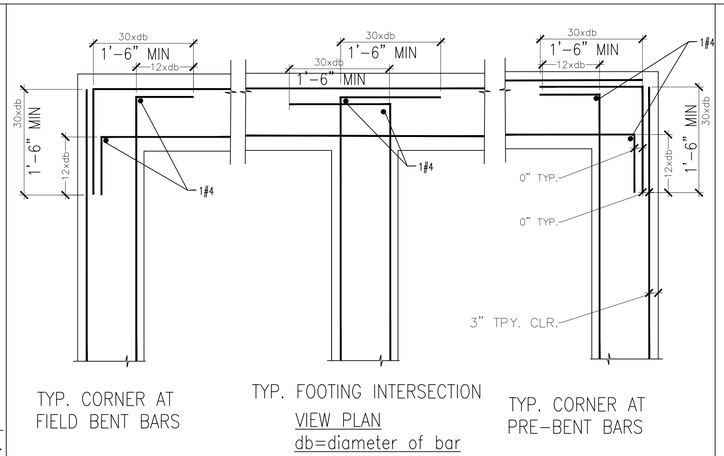


BEARING WALL (A)

9 BASE DETAIL @ NON SHEAT'D WALL



10 TYP. POST BASE



11 TYP. FOOTING REINF.DETAIL

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1 HANGER SCHEDULE

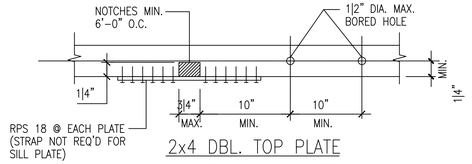
HANGER SCHEDULE – MANUFACTURER: SIMPSON STRONGTIE

TOP MOUNT HANGER (SEE NOTE 1)			FACE MOUNT HANGER (SEE NOTE 1)		
JOIST/BEAM SIZE	HANGER TYPE		JOIST/BEAM SIZE	HANGER TYPE	
ALL SAWN LUMBER U.N.O.	SIMPSON HUTF	ESR-2553 COLA RR25801	ALL SAWN LUMBER U.N.O.	SIMPSON HU	ESR-2549 COLA RR25801
2x6 THRU 2x16	SIMPSON LB	ESR-2553 COLA RR25801	2x6 THRU 2x10	SIMPSON LUS	ESR-2549 COLA RR25801
2–2x6 THRU 2–2x14	SIMPSON HUSTF	ESR-2553 COLA RR25801	2–2x6 THRU 2–2x10	SIMPSON LUS	ESR-2549 COLA RR25801
4x6 THRU 4x14	SIMPSON HUSTF	ESR-2553 COLA RR25801	4x6 THRU 4x16	SIMPSON HHUS	ESR-2552 COLA RR25801
ALL I–JOIST U.N.O.	SIMPSON LBV	ESR-2615 COLA RR25803	ALL I–JOIST U.N.O.	SIMPSON MIU	ESR-2552 COLA RR25801
SINGLE I–JOIST TO WOOD BEAM 9 1/4 THRU 16 DEEP	SIMPSON ITS	ESR-2615 COLA RR25803	SINGLE I–JOIST TO WOOD BEAM 9 1/4 THRU 16 DEEP	SIMPSON IUS	ESR-2552 COLA RR25801
ALL PSL/LVL/LSL BEAMS U.N.O.	SIMPSON HGLTV	ESR-2615 COLA RR25803	ALL PSL/LVL/LSL BEAMS U.N.O.	SIMPSON HGU	ESR-2552 COLA RR25801
3 1/2" AND 5 1/4" PSL/LVL/LSL UP TO 11 7/8" DEEP	SIMPSON GLTV	ESR-2615 COLA RR25803	3 1/2" AND 5 1/4" PSL/LVL/LSL UP TO 11 7/8" DEEP	SIMPSON MGU	ESR-2552 COLA RR25801
ALL GLULAM BEAMS U.N.O.	SIMPSON EG	ESR-2615 COLA RR25803	ALL GLULAM BEAMS U.N.O.	SIMPSON HHGU	ESR-2552 COLA RR25801

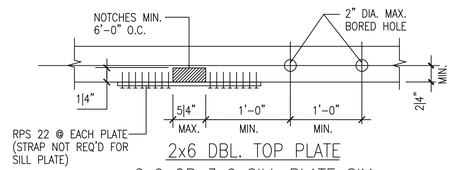
NOTES:
1. PROVIDE TOP MOUNT HANGERS. FACE MOUNT HANGERS SHALL BE ALLOWED ONLY WHERE SPECIFICALLY INDICATED ON THE PLANS OR DETAILS
2. PROVIDE SKEWED, SLOPED HANGERS AS REQ'D
3. PROVIDE OFFSET OR CONCEALED FLANGE HANGERS AT EDGE CONDITIONS AS NEEDED

HANGER SCHEDULE

2 PLATE NOTCHING & BORING

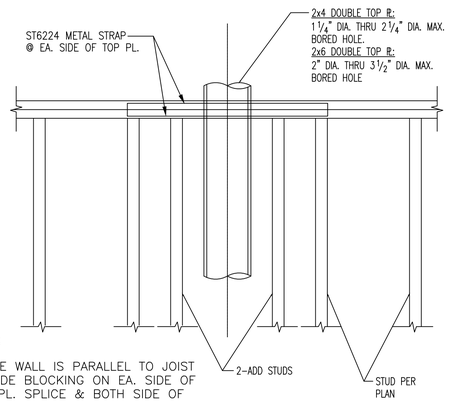


2x4 DBL. TOP PLATE
2x4 OR 3x4 SILL PLATE SIM



2x6 DBL. TOP PLATE
2x6 OR 3x6 SILL PLATE SIM

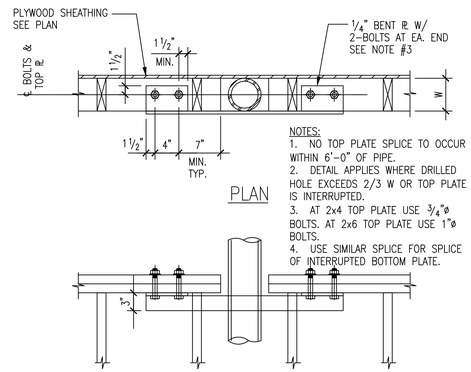
3 SHEAR WALL WITH PIPE DETAIL



NOTE:

WHERE WALL IS PARALLEL TO JOIST PROVIDE BLOCKING ON EA. SIDE OF TOP PL. SPLICE & BOTH SIDE OF WALL

4 TYP. INTERRUPTED TOP/BOTT. PLATE SPLICE



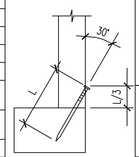
PLAN

ELEVATION

NOTES:
1. NO TOP PLATE SPLICE TO OCCUR WITHIN 6'-0" OF PIPE.
2. DETAIL APPLIES WHERE DRILLED HOLE EXCEEDS 2/3 W OR TOP PLATE IS INTERRUPTED.
3. AT 2x4 TOP PLATE USE 3/4"ø BOLTS. AT 2x6 TOP PLATE USE 1"ø BOLTS.
4. USE SIMILAR SPLICE FOR SPLICE OF INTERRUPTED BOTTOM PLATE.

5 NAILING SCHEDULE

NAILING SCHEDULE	
CONNECTION	NAILING
POST TO PIER PAD, TOE NAIL	3–16d or 4–8d
GIRDER TO POST, TOE NAIL	3–16d or 4–8d
JOIST TO SILL OR GIRDER, TOE NAIL	3–8d
BRIDGING TO JOIST, TOE NAIL EACH END	2–8d
JOIST TO BLOCKING, END NAIL	16d T&B OF EACH JOIST
RIM JOIST TO JOISTS, END NAIL	16d T&B OF EACH JOIST
RIM JOIST TO SILL, TOE NAIL	16d @ 16" O.C.
FLOOR JOIST LAP @ BEARING, FACE NAIL	2–16d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16" O.C.
TOP PLATE TO STUD, END NAIL	2–16d
STUD TO SOLE PLATE	2–16d END NAIL, OR 4–8d TOE NAIL
DOUBLED STUDS, FACE NAIL	16d @ 24" O.C.
DOUBLE TOP PLATES, FACE NAIL	8–16d
DOUBLE TOP PLATES, LAP SPLICE	16d @ 16" O.C.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2–16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3–8d
RIM JOIST TO TOP PLATE, TOENAIL	8d @ 16" O.C.
CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
CEILING JOIST TO PLATE, TOE NAIL	3–8d
CONTINUOUS HEADER TO STUD, TOE NAIL	4–8d
CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	3–16d
CEILING JOIST TO PARALLEL RAFTER, FACE NAIL	3–16d
RAFTER TO RIDGE	3–8d
RAFTER TIES, 2" LUMBER, FACE NAIL	3–16d
RAFTER TIES, 1" LUMBER, FACE NAIL	5–8d
RAFTER TO PLATE, TOE NAIL	3–8d
1"X4" MIN. BRACE TO EACH STUD AND PLATE, FACE NAIL	2–8d
BUILT–UP CORNER STUDS	16d @ 24" O.C.

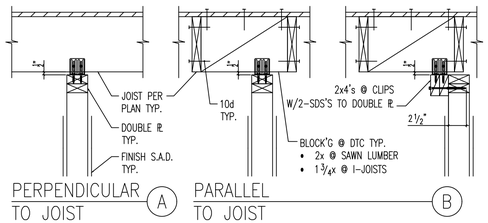


TOE NAIL INSTALLATION

6 TOP CONN. NON BEARING WALL

INDICATES SIMPSON DTC CLIP (IAPMO ER 124, COLA RR25489) WITH SPACING PER SCHEDULE. CONNECT WITH 4–#8 WOOD SCREWS AT THE BASE AND 2–#8 WOOD SCREWS AT THE SLOTS. INSTALL PER MANUFACTURER'S SPECS

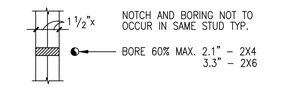
DTC CLIP MAX SPACING		
MAX WALL HEIGHT	SINGLE LAYER OF GYPBOARD EA FACE	MAX DOUBLE LAYER OF GYPBOARD EA FACE OR SINGLE LAYER EA FACE AND TILES
UP TO 12'–0"	DTC @ 48" O.C.	DTC @ 32" O.C.
UP TO 16'–0"	DTC @ 32" O.C.	DTC @ 24" O.C.



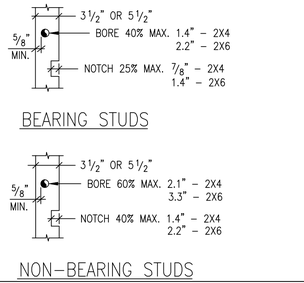
PERPENDICULAR TO JOIST (A) PARALLEL TO JOIST (B)

NOTES:
1. DETAIL APPLIES TO BOTH I–JOIST CONSTRUCTION AND SAWN LUMBER. SAWN LUMBER SHOWN.
2. FOR WALL ASSEMBLIES OTHER THAN WHAT SHOWN ON THE SCHEDULE INCLUDING STONE VENEER CONTACT STRUCTURAL ENGINEER TO CONFIRM CLIP SPACING.

7 TYP. STUD NOTCHING



DOUBLE STUDS–BEARING OR NOT

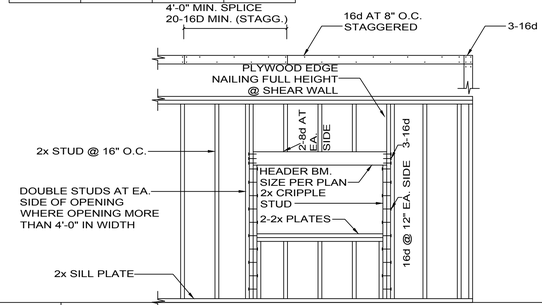


BEARING STUDS

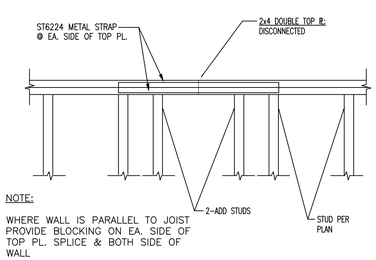
NON–BEARING STUDS

8 TYP. WALL FRAMING OPENING

TYP. MINIMUM ROOF HEADER SCHEDULE U.N.O. (FOR ROOF DECK SEE FLOOR HEADER SCHED.)			
WIDTH OF OPENING	8'–0"	6'–0"	4'–0"
NUMBER OF TRIMMERS	1	1	1
"d" @ 4" WALLS "d" @ 6" WALLS	4x8 6x6	4x6 6x6	4x4 6x6



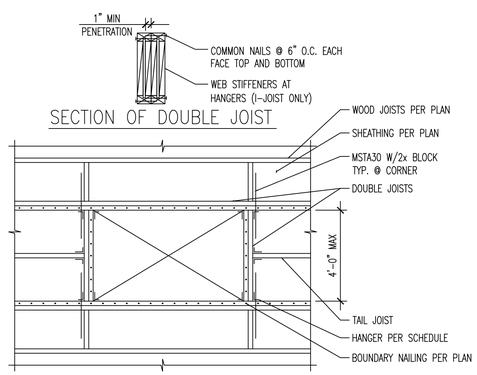
9 (N) TOP PLATE TO (E) TOP PLATE



NOTE:

WHERE WALL IS PARALLEL TO JOIST PROVIDE BLOCKING ON EA. SIDE OF TOP PL. SPLICE & BOTH SIDE OF WALL

10 TYP. FLOOR AND ROOF OPENING

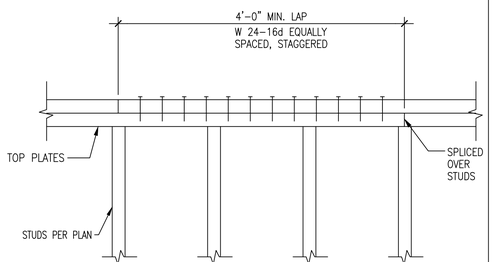


SECTION OF DOUBLE JOIST

PLAN VIEW

NOTE:
SEE ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS

11 TYP. TOP PLATES SPLICE DETAIL



APPLY ALL EXTERIOR WALL

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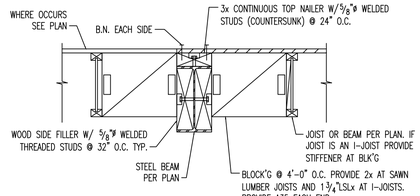
TOP MOUNT HANGER	FACE MOUNT HANGER

HANGER SCHEDULE – MANUFACTURER: SIMPSON STRONGTIE

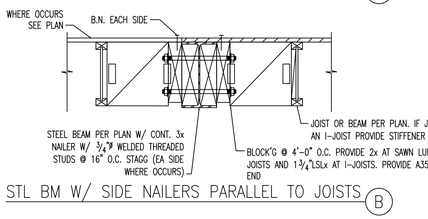
JOIST/BEAM SIZE	HANGER TYPE		JOIST/BEAM SIZE	HANGER TYPE	
ALL SAWN LUMBER U.N.O.	SIMPSON HUTF	ESR-2553 COLA RR25800	ALL SAWN LUMBER U.N.O.	SIMPSON HU	ESR-2549 COLA RR25801 (SEE NOTE 1)
2x6 THRU 2x16	SIMPSON LB	ESR-2553 COLA RR25800	2x6 THRU 2x10	SIMPSON LUS	ESR-2549 COLA RR25801
2-2x6 THRU 2-2x14	SIMPSON HUSTF	ESR-2553 COLA RR25800	2-2x6 THRU 2-2x10	SIMPSON LUS	ESR-2549 COLA RR25801
4x6 THRU 4x14	SIMPSON HUSTF	ESR-2553 COLA RR25800	4x6 THRU 4x16	SIMPSON HHUS	ESR-2552 COLA RR25801
ALL I-JOIST U.N.O.	SIMPSON LBV	ESR-2615 COLA RR25803	ALL I-JOIST U.N.O.	SIMPSON MIU	ESR-2552 COLA RR25801
SINGLE I-JOIST TO WOOD BEAM 9¼ THRU 16 DEEP	SIMPSON ITS	ESR-2615 COLA RR25803	SINGLE I-JOIST TO WOOD BEAM 9¼ THRU 16 DEEP	SIMPSON IUS	ESR-2552 COLA RR25801
ALL PSL/LVL/LSL BEAMS U.N.O.	SIMPSON HGLTV	ESR-2615 COLA RR25803	ALL PSL/LVL/LSL BEAMS U.N.O.	SIMPSON HGU	ESR-2552 COLA RR25801
3½" AND 5¼" PSL/LVL/LSL UP TO 11⅞" DEEP	SIMPSON GLTV	ESR-2615 COLA RR25803	3½" AND 5¼" PSL/LVL/LSL UP TO 11⅞" DEEP	SIMPSON MGU	ESR-2552 COLA RR25801
ALL GLULAM BEAMS U.N.O.	SIMPSON EG	ESR-2615 COLA RR25803	ALL GLULAM BEAMS U.N.O.	SIMPSON HHGU	ESR-2552 COLA RR25801

NOTES:
1. PROVIDE TOP MOUNT HANGERS. FACE MOUNT HANGERS SHALL BE ALLOWED ONLY WHERE SPECIFICALLY INDICATED ON THE PLANS OR DETAILS
2. PROVIDE SKEWED, SLOPED HANGERS AS REQ'D
3. PROVIDE OFFSET OR CONCEALED FLANGE HANGERS AT EDGE CONDITIONS AS NEEDED

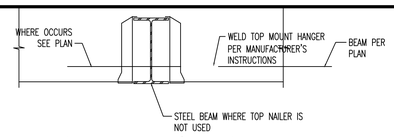
HANGER SCHEDULE (E)



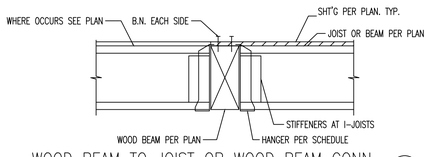
STL BM W/ TOP NAILER PARALLEL TO JOISTS (D)



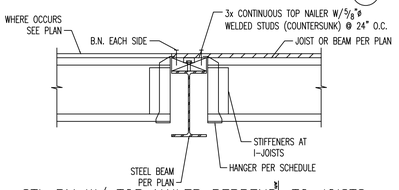
STL BM W/ SIDE NAILERS PARALLEL TO JOISTS (B)



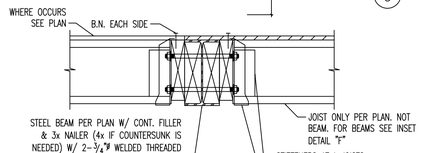
WD BEAM TO STEEL BEAM W/OUT TOP NAILER (F)



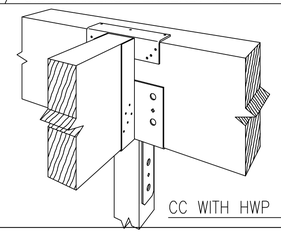
WOOD BEAM TO JOIST OR WOOD BEAM CONN. (H)

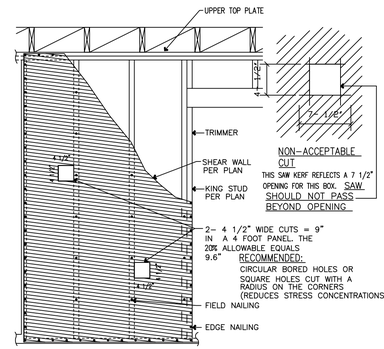


STL BM W/ TOP NAILER PERPEND. TO JOISTS (C)



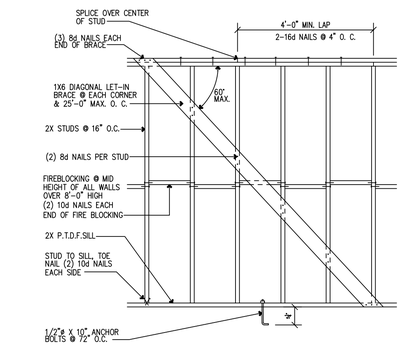
STL BM W/ SIDE NAILERS PERPEND. TO JOISTS (A)



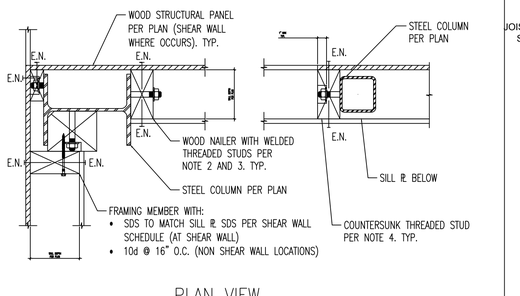


NOTE:
1. THE MAXIMUM ACCUMULATED LENGTH OF OPENING IN A SHEAR WALL SHALL NOT EXCEED 20% OF THE WALL LENGTH.
2. CAUTION SHOULD ALSO BE GIVEN TO OVER CUTTING AS THE CUT WILL BE DETERMINED BY THE LOCATION OF THE SAW KER

3 MECH. PENETRATIONS OF WD SW



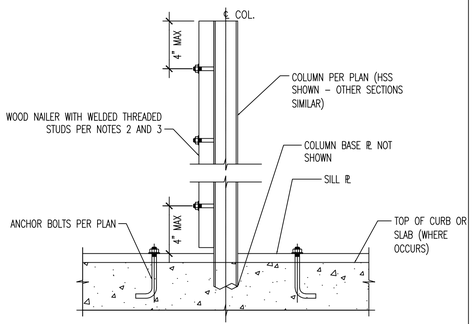
4 TYPICAL WALL CONSTRUCTION



PLAN VIEW

3. WOOD NAILERS SIZE AND CONNECTION: WOOD NAILERS SHALL BE CONNECTED WITH 5/8"ø WELDED THREADED ANCHORS TO THE STEEL SECTIONS. SPACING AND NOMINAL THICKNESS OF WOOD NAILERS SHALL BE:
   A. PER SHEAR WALL SCHEDULE WHERE WOOD NAILERS ARE CONNECTED TO A SHEAR WALL STRUCTURAL PANEL.
   B. 2x MIN WOOD NAILER WITH THREADED ANCHORS @ 24" O.C. WHERE WOOD NAILERS DO NOT OCCUR WITHIN A SHEAR WALL

4. COUNTERSINKING OF WELDED THREADED STUD NUT IN WOOD NAILERS SHALL BE PERMITTED AS FOLLOWS:
   A. AT NAILERS CONNECTED TO SHEAR WALL STRUCTURAL PANELS COUNTERSINK ONLY IF NAILER IS 3x OR LARGER
   B. AT NAILERS NEEDED ONLY FOR INSTALLATION OF FINISH MATERIAL COUNTERSINKING SHALL BE ALLOWED AS NEEDED FOR PROPER INSTALLATION OF FINISH MATERIAL

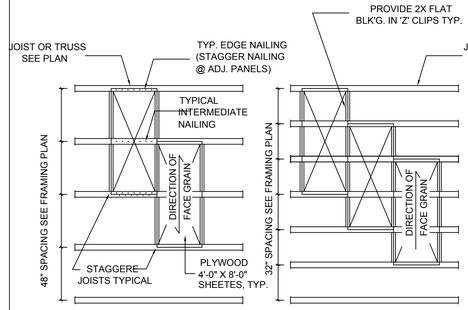


NOTES:

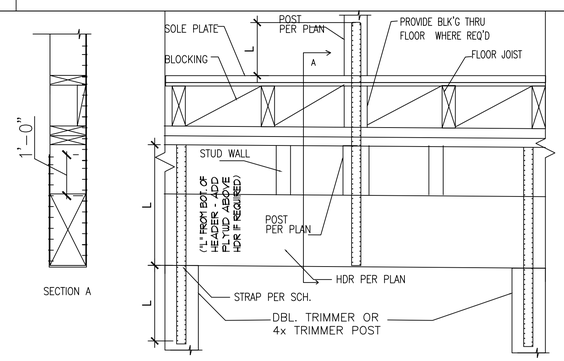
ELEVATION

1. STEEL COLUMN SECTIONS: WIDE FLANGE AND HSS COLUMN SECTIONS ARE SHOWN. SIMILAR REQUIREMENTS FOR WOOD NAILERS SHALL APPLY FOR OTHER TYPES OF STEEL SECTIONS.
2. LOCATION OF WOOD NAILERS: PROVIDE WOOD NAILERS AT ALL LOCATIONS WHERE STEEL COLUMN OCCURS WITHIN SHEAR WALLS. FOR LOCATIONS OTHER THAN SHEAR WALLS PROVIDE WOOD NAILERS AS NEEDED FOR PROPER INSTALLATION OF FINISH MATERIALS.

8 TYP. PLYWOOD LAYOUT

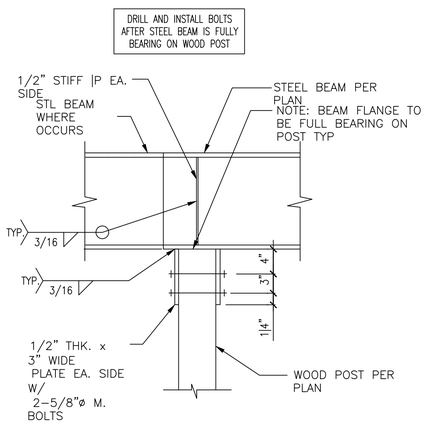


5 TYP. BEAM/JOIST CONNECTIONS



TYPE	STRAP	MIN. L	MIN. NAILS PER L	CAPACITY	75%
A	CS-16	1'-2"	(11) 8d	1705 lbs	1275 lbs
B	(2) CS-16	1'-2"	(11) 8d	3410 lbs	2555 lbs
C	CMSTC-16	2'-0"	(28) 16d SINKER	4585 lbs	3438 lbs
D	CMST-14	3'-0"	(38) 10d	6490 lbs	4865 lbs
E	CMST-12	4'-0"	(50) 10d	9215 lbs	6911 lbs

9 HOLDOWN THRU. FLOOR ON HDR



10 STL BEAM TO ISOLATED WOOD POST CONNECTION

11 STEEL COLUMN IN STUD WALL

NO.	DATE	REVISIONS
		1

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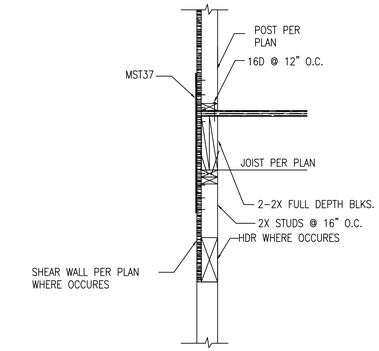
WEB: ILYAENGINEERING.COM
SAM@ILYAENGINEERING.COM

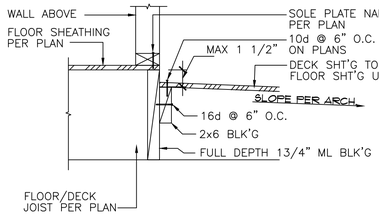
REGISTERED PROFESSIONAL ENGINEER
SAEED TO MOHAMMADI
No. C82330
Exp. 03-31-2024
CIVIL
STATE OF CALIFORNIA

DETAILS

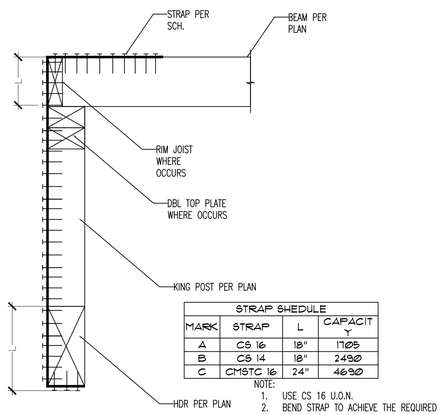
NAME	
DATE	3/3/23
SCALE	
CHECKED	
SHEET	SD-5
	8 OF 15 SHEETS
JOB NO.	2211-547



1 VER. STRAP DET.



5 SHEAR TRANSFER @ DRILL/NOTCH D/J

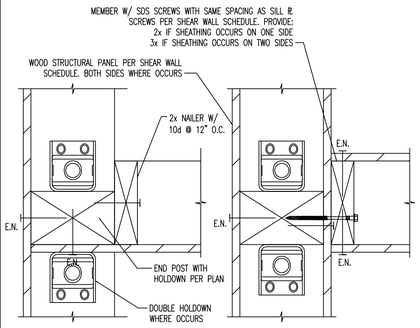


STRAP SHEDULE

MARK	STRAP	L	CAPACITY
A	CS 16	18"	1705
B	CS 14	18"	2490
C	CMSTC 16	24"	4690

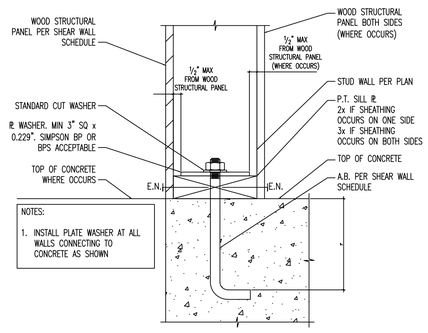
NOTE:
1. USE CS 16 U.O.N.
2. BEND STRAP TO ACHIEVE THE REQUIRED LENGTH
3. USE 0.148x2 1/2 NAILS U.O.N.

9 BM TO HEADER

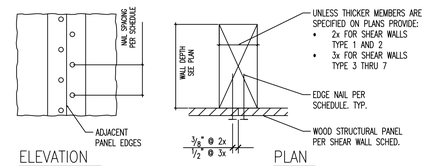


END CONDITION INTERSECTION F3

END CONDITION INTERSECTION F4

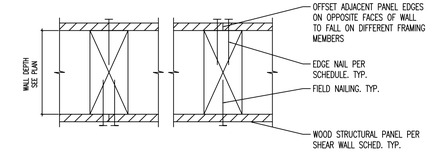


SILL PLATE CONNECTION TO CONCRETE C

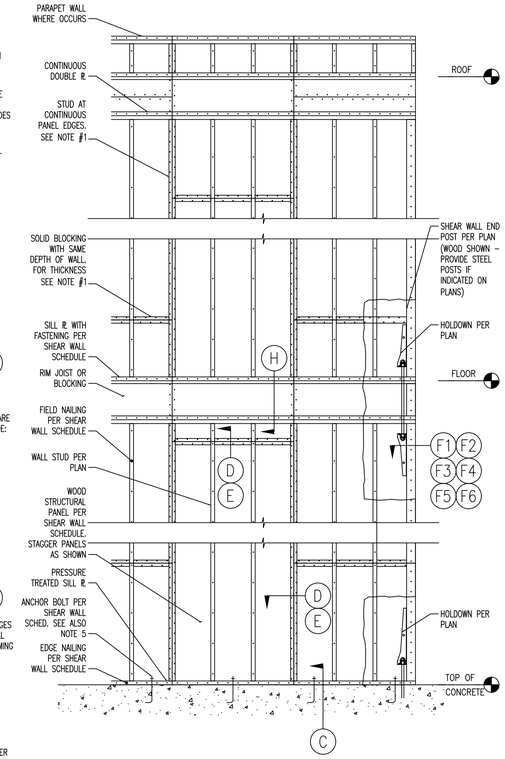


ELEVATION PLAN

FRAMING AT ADJACENT PANEL EDGES D



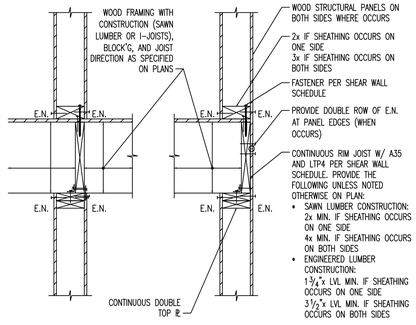
FRAMING AT DOUBLE SIDED WALL E



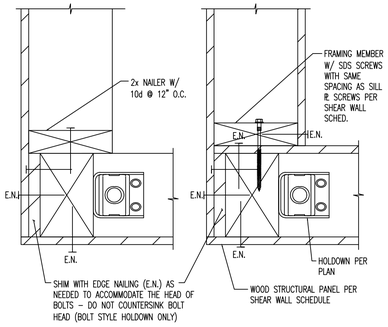
TYPICAL SHEAR WALL ELEVATION AND NOTES A

SHEAR WALL SCHEDULE NOTES:

1. FOR SHEAR WALL WITH SHEAR CAPACITY PER SCHEDULE EXCEEDING 350 #/FT FRAMING MEMBERS AT ADJOINING PANEL EDGES INCLUDING WALL STUDS AND BLOCKING SHALL BE 3" MIN. UNLESS THICKER MEMBERS ARE SPECIFIED ON PLANS. PROVIDE STAGGERED NAILING AT ALL PANEL EDGES.
2. WHERE PANELS ARE APPLIED ON BOTH FACES OF WALL STUDS ADJACENT PANEL EDGES SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. SEE INSET DETAIL E. ALSO SILL PLATE SHALL BE A 3x MEMBER PER INSET DETAILS C AND H.
3. NAILS SHALL BE PLACED NOT LESS THAN ⅜ INCH FROM PANEL EDGES AT 2x MEMBERS (1½ INCH AT 3x MEMBERS) & ⅜ INCH FROM THE EDGE OF THE CONNECTING MEMBERS. ALL SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
4. FOR HOLD-DOWNS TYPE AT THE END OF THE SHEAR WALL SEE PLANS AND HOLDOWN TYPICAL DETAILS AND SCHEDULE.
5. FOR ALL WALLS, PROVIDE MINIMUM TWO ANCHOR BOLTS PER PIECE OF SILL PLATE & ONE LOCATED WITHIN 12" AND NOT LESS THAN 7 BOLT DIAMETER OR 4 3/8" OF EACH END OF EACH SILL PLATE
6. WOOD SCREWS SHALL BE SIMPSON SDS25600 FOR SILL ℄ CONNECTED TO WOOD RIM JOIST OR BLOCKING. PROVIDE SDS25412 FOR SILL PLATE CONNECTED TO TOP NAILER IN STEEL BEAMS
7. AT (E) FOUNDATION, SILL ANCHORS MAY BE UFP W/ 2-½"ø TITEN HD SCREW ANCHORS W/ 5" MIN. EMBED AND W/ 5-¼"ø x 3" LONG SDS SCREWS TO SILL ℄. SPACING SHALL BE AS SAME AS ANCHOR BOLT SPACING PER SHEAR WALL SCHED. (LARR #25726, ICC ESR-2616 FOR UFP; LARR #25741, ICC ESR-2713 FOR TITEN HD)
8. WHEN LTP4 ARE USED, INSTALL LTP4 IN HORIZONTAL CONFIGURATION AS SHOWN ON INSET DETAIL A1
9. OSB OR PLYWOOD WOOD STRUCTURAL PANELS MAY BE USED FOR THE SHEAR WALL CONSTRUCTION, EXCEPT THAT OSB SHALL NOT BE PERMITTED IN SHEAR WALL CONSTRUCTION LABELED AS FIRE RETARDANT TREATED BY THE ARCHITECT. FOR FIRE RETARDANT TREATED SHEAR WALLS THE UNIT SHEAR CAPACITY IS REDUCED TO 84% OF THE ALLOWABLE VALUE PER THE CODE REPORTS FOR THE SPECIFIED FIRE TREATMENT PRODUCT. SEE TIMBER GENERAL NOTES FOR ADDITIONAL INFORMATION.



SHEAR WALL TO FLOOR FRAMING H



END CONDITION CORNER F1

END CONDITION CORNER F2

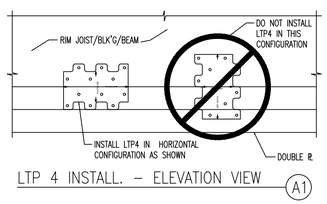
SHEAR WALL ELEVATION SCHEDULE AND DETAILS

SCALE: N.T.S.

SHEAR WALL SCHEDULE (2019 CBC - 2018 AF&PA SDPWS - TABLE 4.3A)

MARK	WOOD STRUCTURAL PANELS (9) (5-PLY PLYWOOD OR OSB U.N.O. ON THE PLANS)	NUMBER OF SIDES	NAILING		SHEAR CLIPS (8) (A35 OR LTP4)	SILL ℄ ATTACHMENT U.N.O.		WELDED THREADED STUDS AT WOOD NAILERS (WHERE OCCURS)	ALLOWABLE SHEAR (PLF)	ALLOW. SHEAR AT FIRE TREATED WALLS (PLF)
			EDGE (E.N.)	FIELD (F.N.)		FRAMED FLOOR (8)	CONCRETE			
1	15/32" APA RATED SHEATHING (PI 32/16)	1	8d @ 6" O.C.	8d @ 12" O.C.	1 @ 16" O.C.	SDS @ 16" O.C.	5/8"ø A.B. @ 48" O.C.	5/8"ø @ 24" O.C.	260	
2	15/32" APA RATED SHEATHING (PI 32/16)	1	8d @ 4" O.C.	8d @ 12" O.C.	1 @ 16" O.C.	SDS @ 12" O.C.	5/8"ø A.B. @ 48" O.C.	5/8"ø @ 24" O.C.	380	
3	15/32" APA RATED STRUCT-I SHEATHING (PI 32/16)	1	10d @ 4" O.C.	10d @ 12" O.C.	1 @ 16" O.C.	SDS @ 8" O.C.	5/8"ø A.B. @ 32" O.C.	5/8"ø @ 24" O.C.	510	
4	15/32" APA RATED STRUCT-I SHEATHING (PI 32/16)	1	10d @ 3" O.C.	10d @ 12" O.C.	1 @ 12" O.C.	SDS @ 6" O.C.	5/8"ø A.B. @ 24" O.C.	5/8"ø @ 24" O.C.	665	
5	15/32" APA RATED STRUCT-I SHEATHING (PI 32/16)	1	10d @ 2" O.C.	10d @ 12" O.C.	1 @ 8" O.C.	SDS @ 4" O.C.	5/8"ø A.B. @ 20" O.C.	5/8"ø @ 24" O.C.	870	
6	15/32" APA RATED STRUCT-I SHEATHING (PI 32/16)	2	10d @ 3" O.C.	10d @ 12" O.C.	1 @ 6" O.C. OR 2 @ 12"	SDS @ 3" O.C.	5/8"ø A.B. @ 16" O.C.	5/8"ø @ 16" O.C.	1330	
7	15/32" APA RATED STRUCT-I SHEATHING (PI 32/16)	2	10d @ 2" O.C.	10d @ 12" O.C.	2 @ 8" O.C.	2 ROWS SDS @ 4" O.C.	5/8"ø A.B. @ 12" O.C.	5/8"ø @ 12" O.C.	1740	

TYPICAL SHEAR WALL SCHEDULE



LTP 4 INSTALL. - ELEVATION VIEW A1

REVISIONS

NO.	DATE	REVISIONS
		1

7705 Norton Ave
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ILYA ENGINEERING & DEVELOPMENT
STRUCTURAL,ARCHITECTURAL CIVIL, AND CONSTRUCTION SERVICES
17412 VENTURA BLVD. #21
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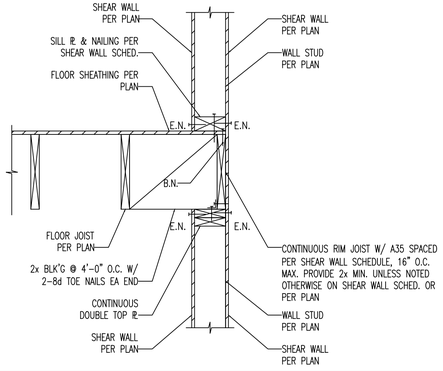
WEB: ILYAENGINEERING.COM
SAM@ILYAENGINEERING.COM

REGISTERED PROFESSIONAL ENGINEER SAEID MOHAMMADI No. C82330 Exp. 03-31-2024 CIVIL STATE OF CALIFORNIA

DETAILS

NAME
DATE 3/3/23
SCALE
CHECKED
SHEET SD-6
9 OF 15 SHEETS
JOB NO. 2211-547



1 DETAIL
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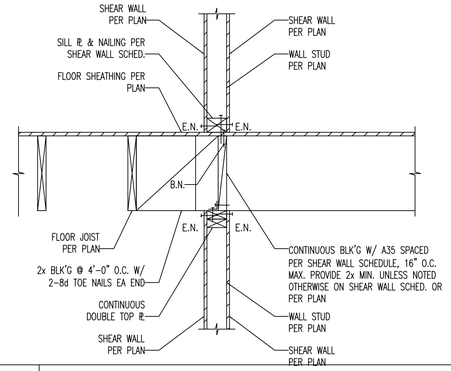

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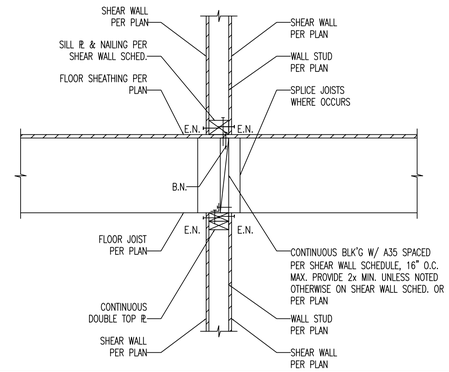

3 DETAIL
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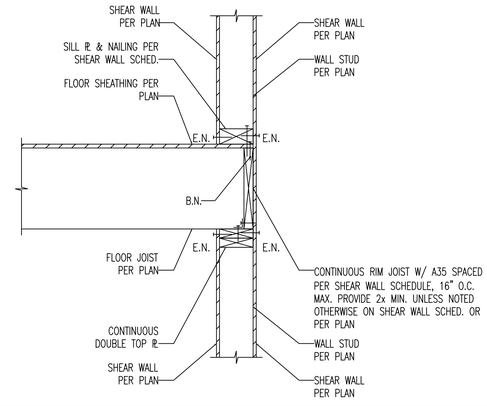

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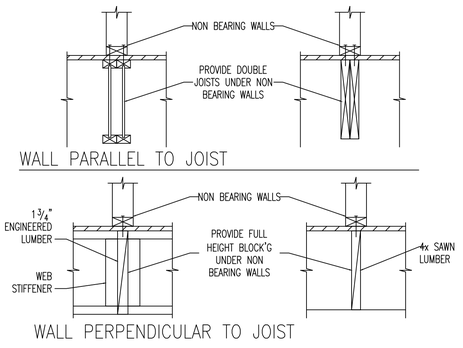
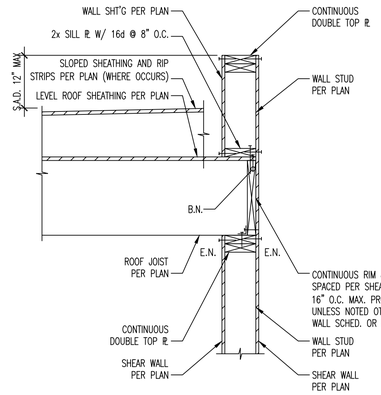


5 FRAMING AT NON BEARING WALLS



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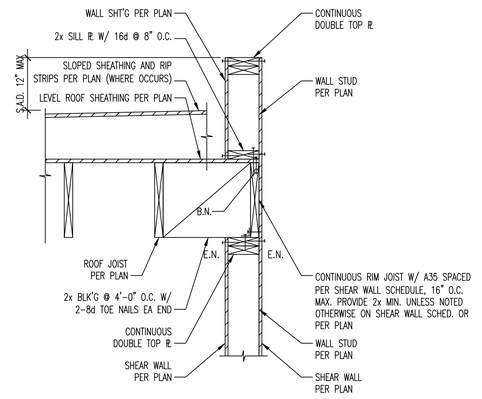

7 DETAIL
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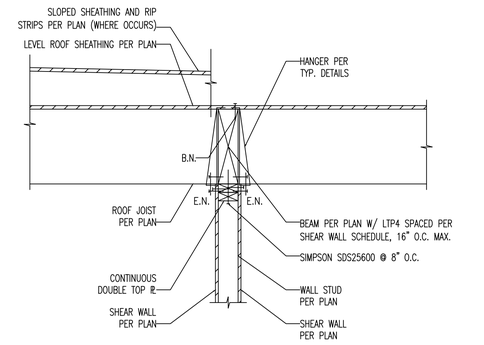

8 DETAIL
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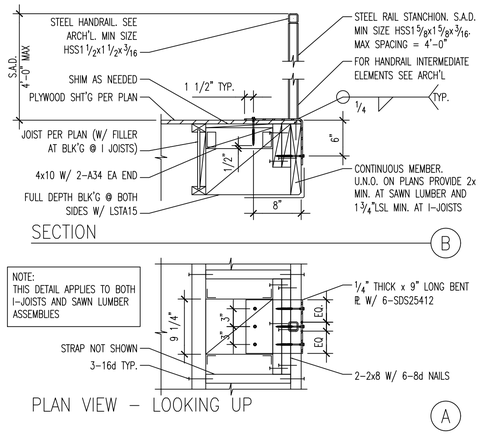
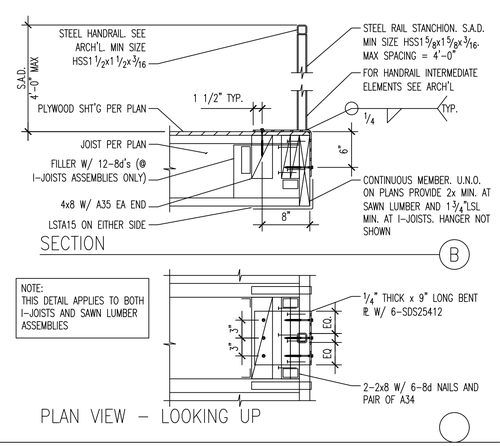
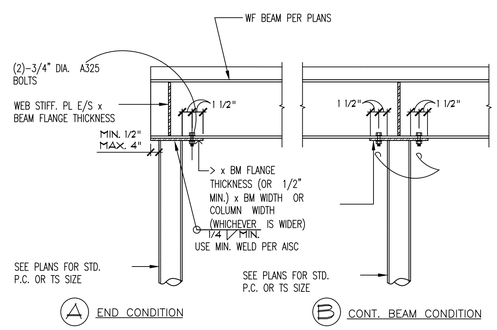


9 TOP MOUNT STEEL RAIL DETAIL



TOP MOUNT STEEL RAIL DETAIL



11 Wx BEAM TO PIPE COLUMN

NO.	DATE	REVISIONS
		1

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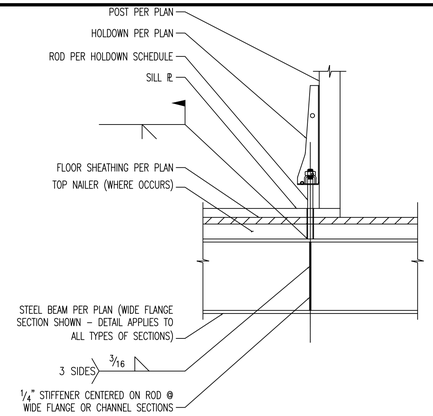
SAM@ILYAENGINEERING.COM

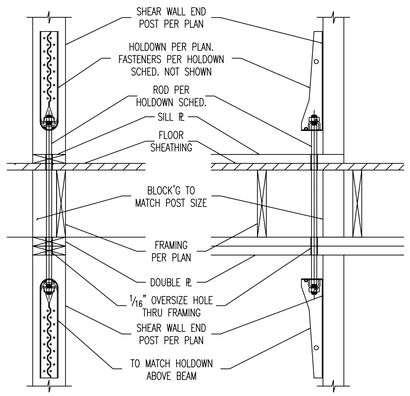
REGISTERED PROFESSIONAL ENGINEER
SAM D. MOHAMMADZADEH
No. C82330
Exp. 03-31-2024
CIVIL
STATE OF CALIFORNIA

DETAILS

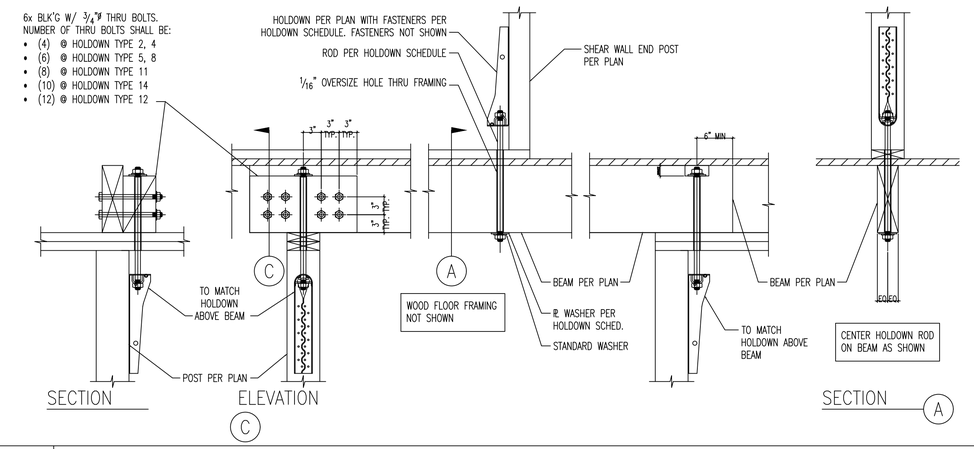
NAME	
DATE	3/3/23
SCALE	
CHECKED	
SHEET	SD-7
	10 OF 15 SHEETS
JOB NO.	2211-547



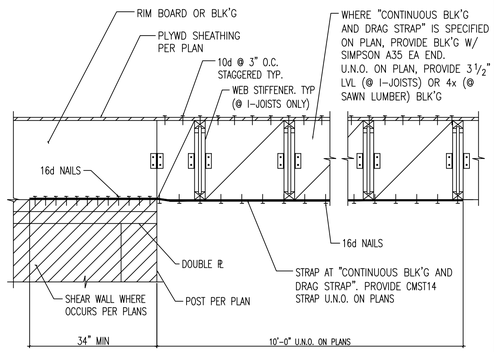
1 HOLDOWN ON STEEL BEAM



2 HOLDOWN AT WOOD FLOOR



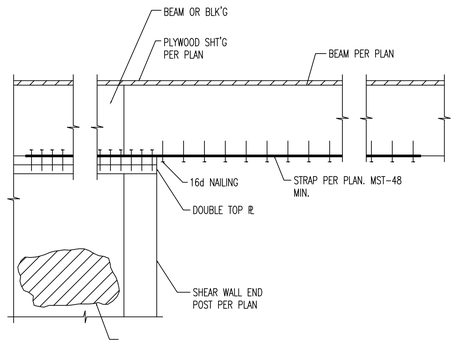
3 HOLDOWN LANDING ON WOOD BEAM



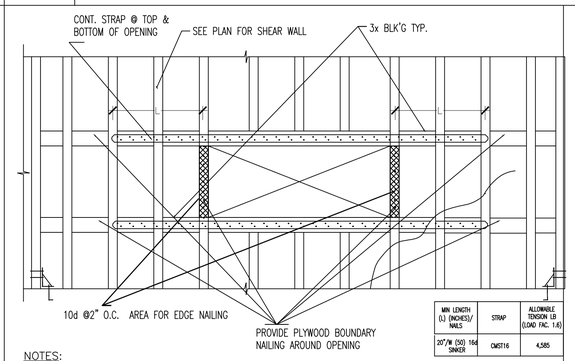
NOTES:

1. DETAIL APPLIES TO BOTH I-JOIST AND SAWN LUMBER CONSTRUCTION
2. WHERE SHEAR WALL DOES NOT OCCUR, NAIL STRAP TO BEAM ABOVE

5 CONT. BLK'G AND DRAG STRAP



6 TYP. FLUSH BM. DRAG CONN.

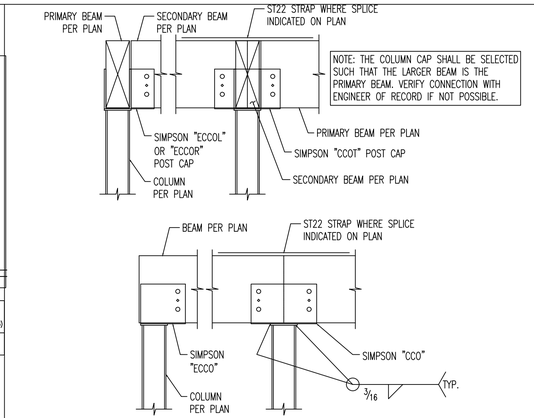


MIN LENGTH (L) (INCHES)/ NAILS	STRAP	ALLOWABLE TENSION LB (LOAD FAC. 1.6)
20"/# (50) 16d SINKER	CMST16	4,585

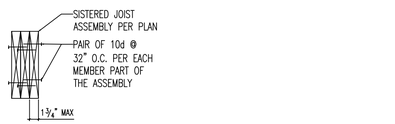
NOTES:

1. PROVIDE PERFORATIONS IN SHEAR WALL PER THIS DETAIL ONLY WHERE NOTED ON PLANS, OR OBTAIN ENGINEER'S APPROVAL.
2. AT SHEARWALLS W/ PLYWOOD ON BOTH SIDES PROVIDE STRAPS EA. SIDE OF WALL

7 OPENING IN SHEAR WALL



8 CONNECTION TO PIPE STEEL COLUMN

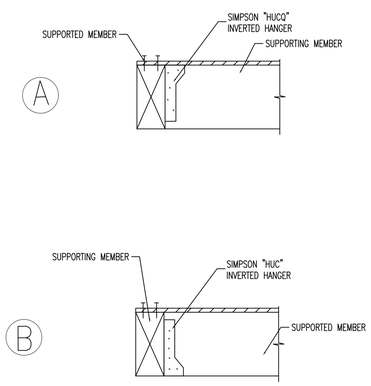


SISTERED JOISTS

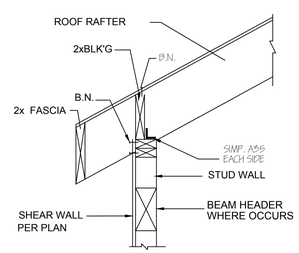
NOTES:

1. THIS DETAIL ADDRESSES THE CONNECTION OF MEMBERS FORMING A "SISTERED" OR "BUILTUP" ASSEMBLY (JOISTS OR BEAMS). NUMBER AND SIZE OF SISTERING MEMBERS FORMING THE ASSEMBLY ARE AS SPECIFIED ON PLAN. SCALE: N.T.S.

9 BUILTUP BEAM/SISTERED JOIST



10 BEAM TO BEAM CONN.



APPLY ALL EXTERIOR WALL

11 TYP. CONN. AT SHEAR WALL

NO.	DATE	REVISIONS
		1

7705 Norton Ave
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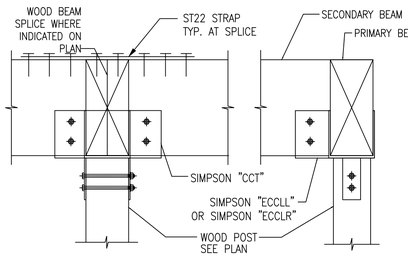
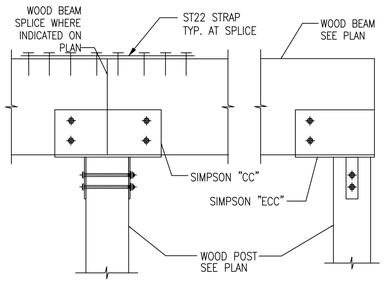
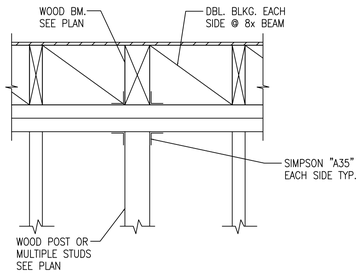


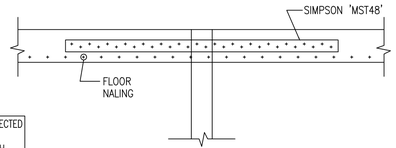


ISOLATED POST (A)

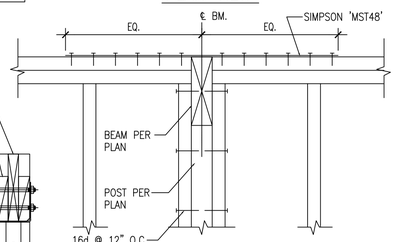


POST WITHIN WALL (B)

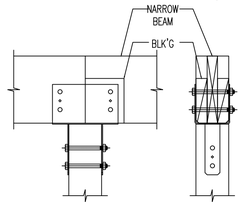
NOTE: THE COLUMN CAP SHALL BE SELECTED SUCH THAT THE LARGER BEAM IS THE PRIMARY BEAM. VERIFY CONNECTION WITH ENGINEER OF RECORD IF NOT POSSIBLE.



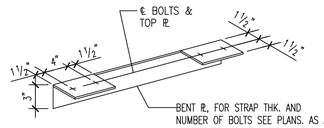
PLAN VIEW

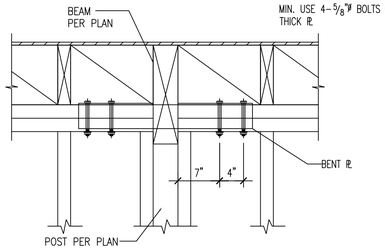


DROP BEAM (C)

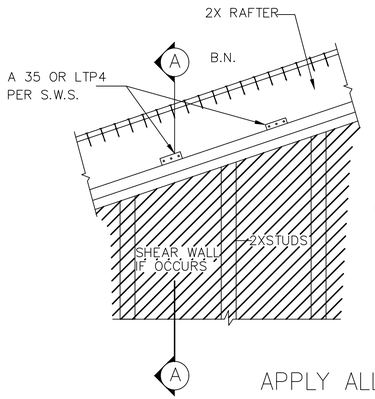


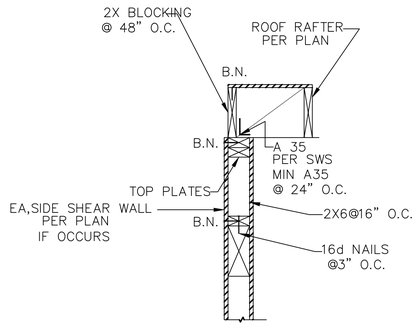
BEAM WITH DIFFERENT WIDTH (E)





DROP BEAM (D)

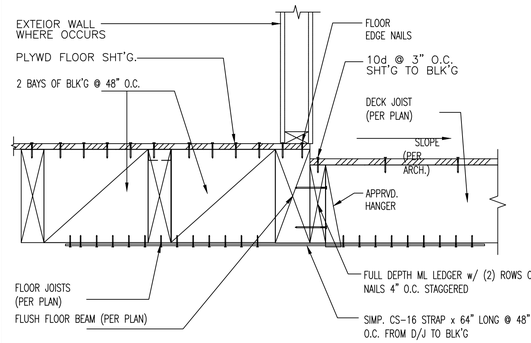




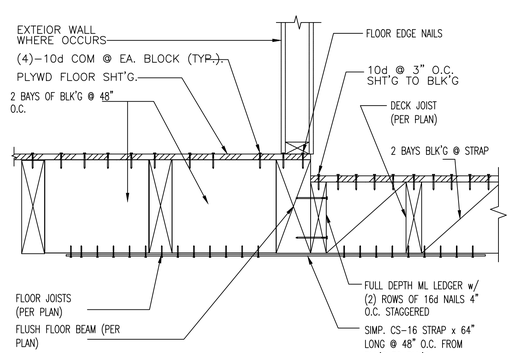
SECTION A-A

APPLY ALL EXTERIOR WALL

3 SHEAR WALL TO ROOF DET.



7 SHEAR TRANSFER @ DECK



8 SHEAR TRANSFER @ DECK

5 TYP. BEAM TO POST CONN. DETAIL

9

10

11

12

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		1

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12 OF 15 SHEETS
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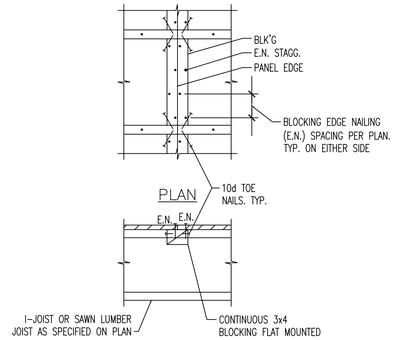
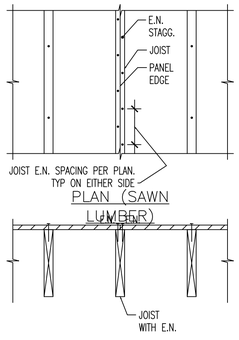
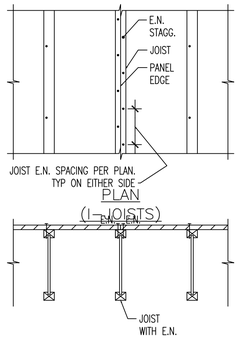
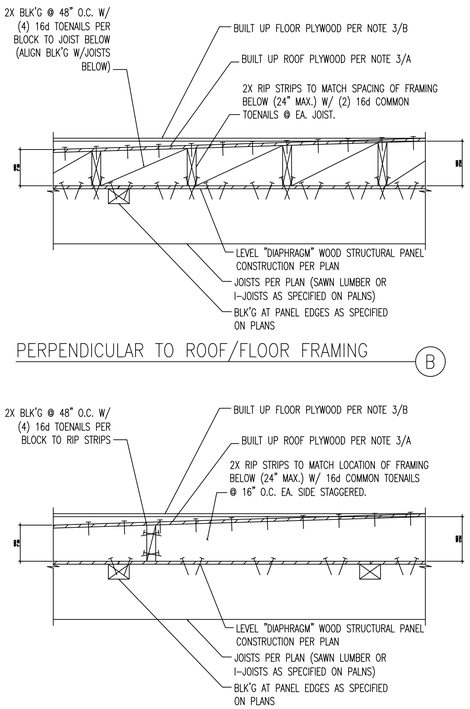






ADJOINING PANEL EDGES – NAILING TO CONT. BLK'G SAWN LUMBER AND I-JOISTS (D)

ADJOINING PANEL EDGES – NAILING TO JOISTS NAIL SPACING GREATER THAN 3" (B)



PERPENDICULAR TO ROOF/FLOOR FRAMING (B)

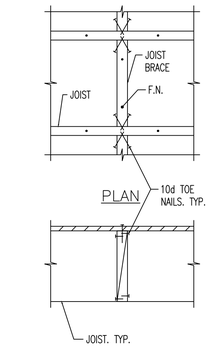
PARALLEL TO ROOF/FLOOR FRAMING (A)

NOTES:

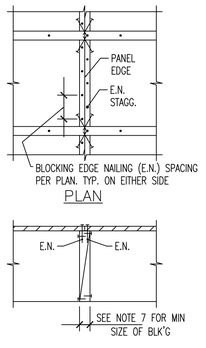
1. THIS DETAIL ADDRESSES THE CONSTRUCTION OF "SLOPED" SHEATHING OVER RIP STRIPS OVER LEVEL SHEATHING. THE DETAIL APPLIES TO ROOF OR FLOOR AS APPLICABLE.
2. FOR SLOPE TO DRAIN S.A.D.
3. UNLESS OTHERWISE SPECIFIED ON PLANS, BUILT UP SHEATHING SHALL BE AS FOLLOWS:
   A. ROOF: WOOD STRUCTURAL PANEL, 5/8" CD APA RATED PLYWOOD SHEATHING, EXPOSURE 1, SPAN RATING 32/16, NAILED WITH 8d COMMONS SPACED @ 6" O.C. ALONG ALL BOUNDARIES (B.N.) AND PANEL EDGES (E.N.), 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.)
   B. FLOOR/OCCUPIED DECK: WOOD STRUCTURAL PANEL, 3/4" CD APA RATED PLYWOOD SHEATHING, EXPOSURE 1, SPAN RATING 48/24, NAILED WITH 8d COMMONS SPACED @ 6" O.C. ALONG ALL BOUNDARIES (B.N.) AND PANEL EDGES (E.N.), 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.)

TYPICAL BUILT UP FLOOR/ROOF

SCALE: N.T.S.

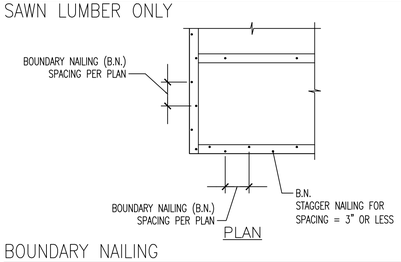


JOIST BRACE (E1)

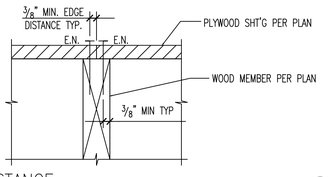


JOIST BRACE @ ADJ. PANEL EDGES (E2)

JOIST BRACING – FULL DEPTH BLK'G SAWN LUMBER ONLY (E)

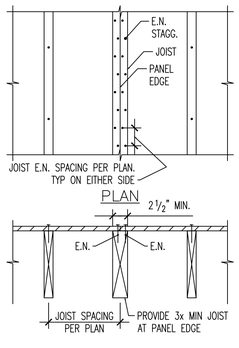


BOUNDARY NAILING SAWN LUMBER AND I-JOISTS (F)

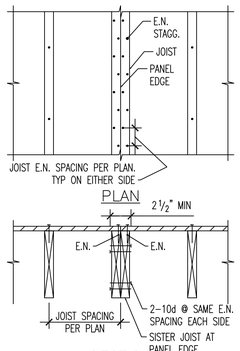


NAILING EDGE DISTANCE (G)

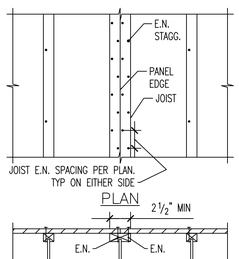
SCALE: N.T.S.



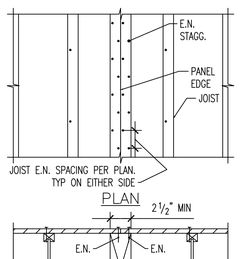
SAWN LUMBER (C3)



SAWN LUMBER (C4)



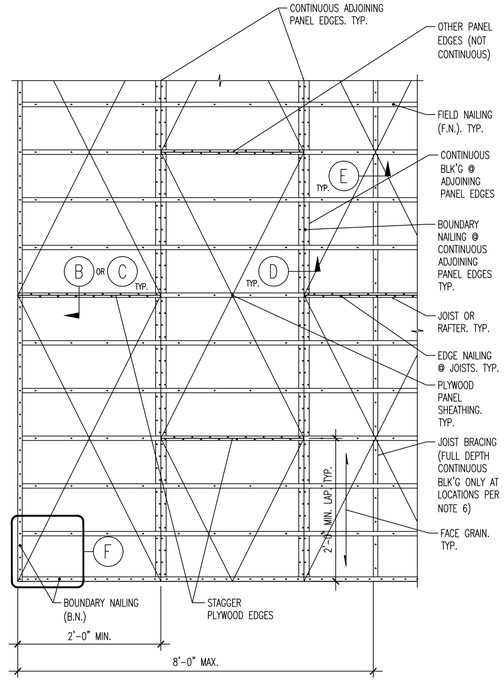
I-JOISTS (C1)



I-JOISTS (C2)

NOTE:
DETAILS C1 AND C2 CAN BE INTERCHANGEABLY USED AT I-JOISTS ASSEMBLY. DETAILS C3 AND C4 CAN INTERCHANGEABLY BE USED AT SAWN LUMBER ASSEMBLIES

ADJOINING PANEL EDGES – NAILING TO JOISTS NAIL SPACING = 3" OR LESS (C)



NOTES:

1. FOR SHEATHING THICKNESS AND GRADE SEE PLANS
2. FOR NAIL SIZE AND SPACING OF BOUNDARY NAILING (B.N.), EDGE NAILING (E.N.) AT JOISTS, EDGE NAILING AT BLOCK'G, AND FIELD NAILING (F.N.), SEE PLANS
3. PROVIDE MIN. 3/8" NAIL EDGE DISTANCE FROM PLYWOOD AND FRAMING MEMBERS. SEE INSET DETAIL "G"
4. FOR JOIST OR RAFTER SIZE AND SPACING SEE PLANS. PROVIDE SAWN LUMBER OR I-JOISTS MEMBERS AS SPECIFIED ON PLANS
5. BLOCK ALL PANEL EDGES AS SHOWN UNLESS OTHERWISE SPECIFIED EXPRESSLY ON THE PLANS. TONGUE AND GROOVE CANNOT BE USED AS SUBSTITUTION OF PANEL EDGES BLOCKING
6. FULL DEPTH CONTINUOUS JOIST BRACING: AT SAWN LUMBER JOISTS WITH NOMINAL DEPTH-TO-THICKNESS RATIO EXCEEDING 6:1 PROVIDE FULL DEPTH CONTINUOUS JOIST BRACING MEMBERS @ 8'-0" MAX SPACING AS INDICATED ON THE PLAN ABOVE. AT ENGINEERED LUMBER JOISTS PROVIDE CONTINUOUS BRACING MEMBERS ONLY IF SPECIFIED PER MANUFACTURER'S RECOMMENDATIONS
7. (SAWN LUMBER ONLY) JOIST BRACING MEMBERS SHALL CONSISTS OF FULL DEPTH BLOCKING AS SHOWN PER INSET DETAIL "E". AS A MINIMUM PROVIDE 2x MEMBERS. IT SHALL BE PERMITTED TO USE JOIST BRACING BLOCKING AS PANEL EDGE BLOCKING PER INSET DETAIL "E2", PROVIDED THAT THE NAILED FACE OF FULL DEPTH BLOCKING MEETS THE LIMITATIONS SET FORTH ON NOTE 8.
8. THE MIN WIDTH OF NAILED FACE OF FRAMING AND BLOCKING AT ADJOINING PANEL EDGES SHALL BE AS FOLLOWS:
   – 1½" ACTUAL (2x NOMINAL) IF E.N. OR B.N. SPACING IS GREATER THAN 3". SEE INSET DETAILS "B", "D", AND "E2".
   – 2½" ACTUAL (3x NOMINAL) IF E.N. OR B.N. SPACING IS 3" OR LESS. SEE INSET DETAILS "C", "D", AND "E2".
9. ALL PLYWOOD END JOINTS SHALL BE STAGGERED 2'-0" MIN AS INDICATED
10. LONG DIMENSION OF PLYWOOD SHEATHING SHALL BE LAID PERPENDICULAR TO JOIST AS INDICATED
11. NOT USED
12. DIAPHRAGM NAILING TO BE OBSERVED BY STRUCTURAL ENGINEER BEFORE COVERING
13. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7 OF THE CBC

TYP. LAYOUT AND NOTES (A)

TYP. SHEATHING ASSEMBLY – FLOOR, DECK, AND ROOF

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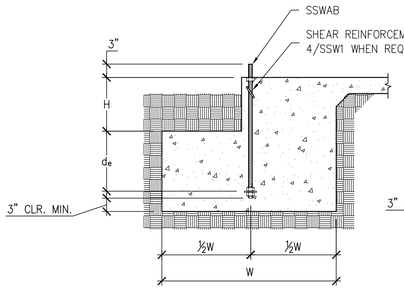
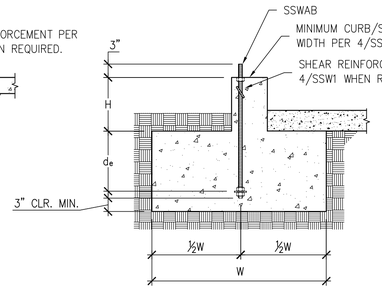
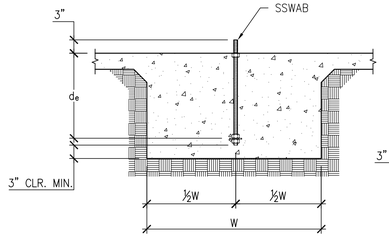


SLAB ON GRADE FOUNDATION

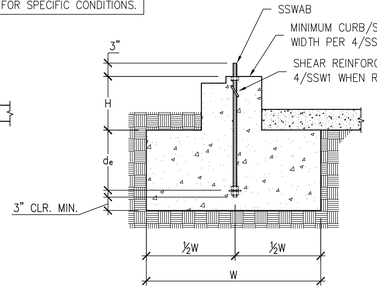


CURB OR STEMWALL FOUNDATION

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



INTERIOR FOUNDATION

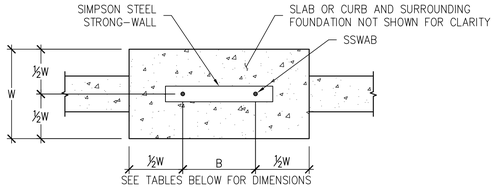


BRICK LEDGE FOUNDATION

NOTES :
1. SEE 2/SSW1 AND 3/SSW1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 4/SSW1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = l_e – d_e. SEE 5/SSW1 AND 6/SSW1 FOR l_e.

STEEL STRONG–WALL ANCHORAGE – TYPICAL SECTIONS

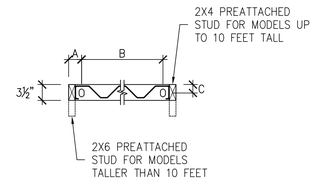
1



FOUNDATION PLAN VIEW

STEEL STRONG–WALL ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB ¾" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)	SSWAB 1" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	8,800	22	8	16,100	33	11
			9,600	24	8	17,100	35	12
		HIGH STRENGTH	18,500	36	12	33,000	51	17
			19,900	38	13	35,300	54	18
	UNCRACKED	STANDARD	8,800	19	7	15,700	28	10
			9,600	21	7	17,100	30	10
		HIGH STRENGTH	18,300	31	11	32,300	44	15
			19,900	33	11	35,300	47	16
WIND	CRACKED	STANDARD	5,100	14	6	6,200	16	6
			7,400	18	6	11,400	24	8
		HIGH STRENGTH	9,600	22	8	17,100	32	11
			11,400	24	8	21,100	36	12
	UNCRACKED	STANDARD	13,600	27	9	27,300	42	14
			15,900	30	10	31,800	46	16
		HIGH STRENGTH	19,900	35	12	35,300	50	17
			5,000	12	6	6,400	14	6
			7,800	16	6	12,500	22	8
			9,600	19	7	17,100	28	10
			12,500	22	8	21,900	32	11
			14,300	24	8	26,400	36	12
			17,000	27	9	31,500	40	14
			19,900	30	10	35,300	43	15



STEEL STRONG–WALL® ANCHOR BOLT LAYOUT

WALL MODEL	DISTANCE FROM END OF WALL TO CENTER OF SSWABs (A) (in.)	DISTANCE FROM CENTER TO CENTER OF SSWABs (B) (in.)	DISTANCE FROM EXTERIOR FACE OF WALL TO CENTER OF ALL SSWABs (C) (in.)
SSW12	2⅜	6⅞	2
SSW15	2⅞	9¼	1⅞
SSW18	2⅞	12¼	1⅞
SSW21	2⅞	15¼	1⅞
SSW24	2⅞	18¼	1⅞

NOTES :
1. ANCHORAGE DESIGNS CONFORM TO ACI 318–19, ACI 318–14 AND ACI 318–11 APPENDIX D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF SSWAB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318–19 SECTION 17.10.5.3, ACI 318–14 SECTION 17.2.3.4.3 AND ACI 318–11 SECTION D.3.3.4.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/SSW1 FOR d_e.

SSWAB TENSION ANCHORAGE SCHEDULE 2500 PSI

2

STEEL STRONG–WALL ANCHORAGE SOLUTIONS FOR 3500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB ¾" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)	SSWAB 1" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	9,000	20	7	15,700	29	10
			9,600	21	7	17,100	31	11
		HIGH STRENGTH	18,200	32	11	33,000	46	16
			19,900	34	12	35,300	48	16
	UNCRACKED	STANDARD	8,800	17	6	15,700	25	9
			9,600	19	7	17,100	27	9
		HIGH STRENGTH	18,600	28	10	32,600	40	14
			19,900	30	10	35,300	42	14
WIND	CRACKED	STANDARD	6,000	14	6	7,300	16	6
			7,300	16	6	13,500	24	8
		HIGH STRENGTH	9,600	20	7	17,100	29	10
			11,800	22	8	27,700	34	12
	UNCRACKED	STANDARD	13,500	24	8	27,400	38	13
			17,000	28	10	32,300	42	14
		HIGH STRENGTH	19,900	32	11	35,300	45	15
			6,000	12	6	7,500	14	6
			7,500	14	6	12,800	20	7
			9,600	17	6	17,100	25	9
			12,800	20	7	21,300	28	10
			14,800	22	8	26,000	32	11
			16,900	24	8	31,300	36	12
			19,900	27	9	35,300	39	13

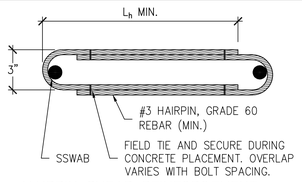
STEEL STRONG–WALL ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB ¾" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)	SSWAB 1" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	8,700	18	6	16,000	27	9
			9,600	20	7	17,100	29	10
		HIGH STRENGTH	17,800	29	10	32,100	42	14
			19,900	32	11	35,300	45	15
	UNCRACKED	STANDARD	9,100	16	6	15,700	23	8
			9,600	17	6	17,100	25	9
		HIGH STRENGTH	17,800	25	9	32,500	37	13
			19,900	27	9	35,300	39	13
WIND	CRACKED	STANDARD	5,400	12	6	6,800	14	6
			8,300	16	6	11,600	20	7
		HIGH STRENGTH	9,600	18	6	17,100	26	9
			11,600	20	7	21,400	30	10
	UNCRACKED	STANDARD	13,400	22	8	25,800	34	12
			17,300	26	9	31,000	38	13
		HIGH STRENGTH	19,900	29	10	35,300	42	14
			6,800	12	6	6,800	12	6
			8,500	14	6	12,400	18	6
			9,600	16	6	17,100	23	8
			12,400	18	6	21,600	26	9
			14,500	20	7	26,700	30	10
			16,800	22	8	32,200	34	12
			19,900	25	9	35,300	36	12

NOTES :
1. ANCHORAGE DESIGNS CONFORM TO ACI 318–19, ACI 318–14 AND ACI 318–11 APPENDIX D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF SSWAB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318–19 SECTION 17.10.5.3, ACI 318–14 SECTION 17.2.3.4.3 AND ACI 318–11 SECTION D.3.3.4.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. SEE 1/SSW1 AND 2/SSW1 FOR W AND d_e.

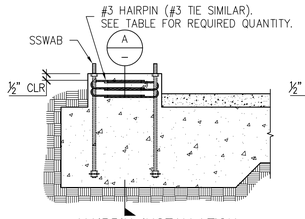
SSWAB TENSION ANCHORAGE SCHEDULE 3500/4500 PSI

3



HAIRPIN SHEAR REINFORCEMENT

TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)

SECTION A

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

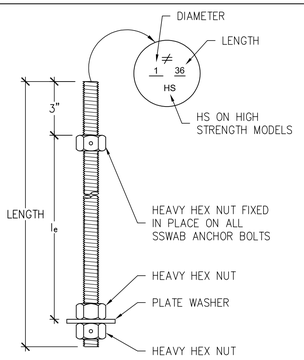
STEEL STRONG–WALL SHEAR ANCHORAGE

MODEL	SEISMIC[3] l_t OR l_h (in.)	SEISMIC[3] SHEAR REINFORCEMENT	SEISMIC[3] MIN. CURB/STEMWALL WIDTH (in.)	WIND[4] SHEAR REINFORCEMENT	WIND[4] MIN. CURB/STEMWALL WIDTH (in.)	WIND[4] ASD ALLOWABLE SHEAR LOAD V (lbs.)[6] 6" MIN CURB/STEMWALL UNCRACKED	6" MIN CURB/STEMWALL CRACKED	8" MIN CURB / STEMWALL UNCRACKED	8" MIN CURB / STEMWALL CRACKED
SSW12	9	(1) #3 TIE	6	NONE REQUIRED	–	1230	880	1440	1030
SSW15	12	(2) #3 TIES	6	NONE REQUIRED	–	1590	1135	1810	1295
SSW18	14	(1) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE STEEL STRONG–WALL PANEL			
SSW21	15	(2) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6				
SSW24	17	(2) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6				

NOTES :
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318–19, ACI 318–14 AND ACI 318–11 AND ASSUME MINIMUM f'_c=2,500 PSI CONCRETE. SEE DETAILS 1/SSW1 TO 3/SSW1 FOR TENSION ANCHORAGE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR PANELS INSTALLED ON A WOOD FLOOR, INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
5. MINIMUM CURB/STEMWALL WIDTH IS 6" WHEN STANDARD STRENGTH SSWAB IS USED.
6. USE (1) #3 TIE FOR SSW12 AND SSW15 WHEN THE STEEL STRONG–WALL PANEL DESIGN SHEAR FORCE EXCEEDS THE TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
7. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318–19 SECTION 17.9.2, ACI 318–14 SECTION 17.7.2 AND ACI 318–11 D.8.2.

SSW ANCHOR BOLTS

5

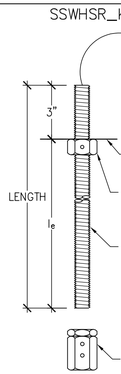


STEEL STRONG–WALL WIDTH	MODEL NO.	DIAMETER	LENGTH	l_e
12" MODEL	SSWAB3/4x24	¾"	24"	19"
	SSWAB3/4x24HS	¾"	24"	19"
	SSWAB3/4x30	¾"	30"	25"
	SSWAB3/4x30HS	¾"	30"	25"
	SSWAB3/4x36HS	¾"	36"	31"
15", 18", 21" AND 24" MODELS	SSWAB1x24	1"	24"	19"
	SSWAB1x24HS	1"	24"	19"
	SSWAB1x30	1"	30"	25"
	SSWAB1x30HS	1"	30"	25"
	SSWAB1x36HS	1"	36"	31"

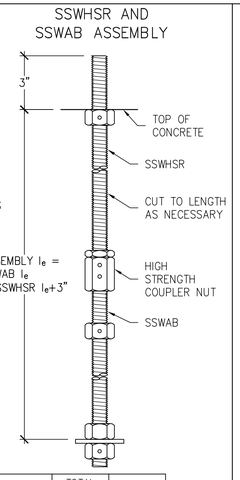
SSW ANCHOR BOLT EXTENSION

6

SSWHSR_KT



SSWHSR AND SSWAB ASSEMBLY

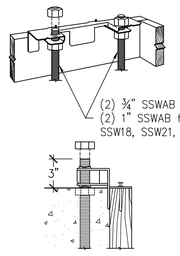


SSW WIDTH	MODEL NO.	DIAMETER	TOTAL LENGTH	l_e
12" MODEL	SSWHSR3/4–2KT	¾"	24"	21"
	SSWHSR3/4–3KT	¾"	36"	33"
15", 18", 21" AND 24" MODELS	SSWHSR1–2KT	1"	24"	21"
	SSWHSR1–3KT	1"	36"	33"

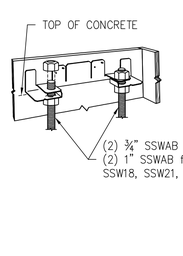
SSW ANCHOR BOLT TEMPLATES

7

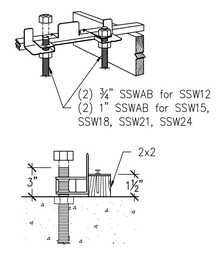
SSWT EXTERIOR INSTALLATION



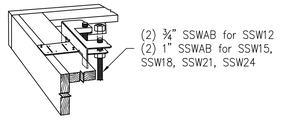
SSWTPF PANEL FORM INSTALLATION



SSWT INTERIOR INSTALLATION



SSWTBL BRICK LEDGE INSTALLATION



NO.	DATE	REVISIONS
1	09-21-2009	2006 IBC REVISIONS
2	04-16-2014	2012 IBC REVISIONS
3	08-08-2016	2015 IBC REVISIONS
4	06-15-2020	2018 IBC REVISIONS
5	03-16-2021	2021 IBC REVISIONS

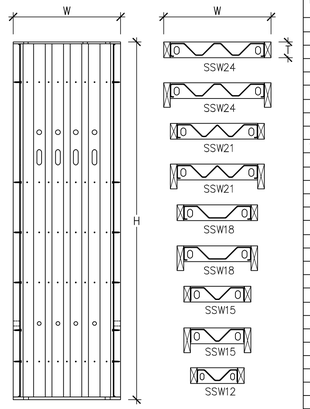
SIMPSON Strong-Tie, Co. Inc.
• 5956 W. Las Positas Blvd.
Pleasanton, CA 94588
• Tel: (800) 999-5099
• Website: www.strongtie.com

SIMPSON Strong-Tie THERE IS NO EQUAL.

STEEL STRONG-WALL
ANCHORAGE DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie THERE IS NO EQUAL.

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	SSW1
OF	SHEETS
JOB NO.	

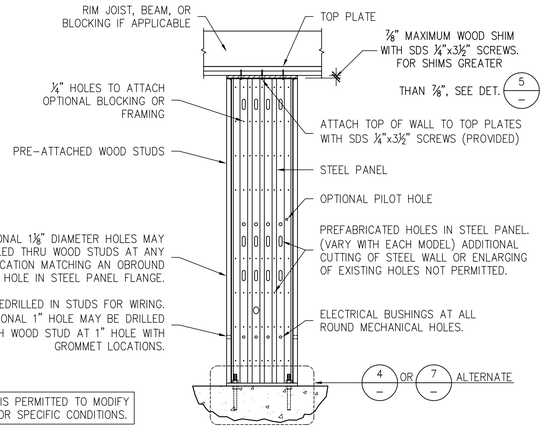


WALL PROFILES

STEEL STRONG-WALL MODELS					
STD. WALL MODEL NO.	-STK WALL MODEL NO.	H(in)	T(in)	HOLDOWN ANCHOR BOLTS[2]	QTY.OF TOP OF WALL SCREWS[1]
SSW12x7	--	80	3½	2-¾"	4
SSW15x7	--	80	3½	2-1"	6
SSW18x7	--	80	3½	2-1"	9
SSW21x7	--	80	3½	2-1"	12
SSW24x7	--	80	3½	2-1"	14
SSW12x7.4	--	85½	3½	2-¾"	4
SSW15x7.4	--	85½	3½	2-1"	6
SSW18x7.4	--	85½	3½	2-1"	9
SSW21x7.4	--	85½	3½	2-1"	12
SSW24x7.4	--	85½	3½	2-1"	14
SSW12x8	--	93¼	3½	2-¾"	4
SSW15x8	SSW15x8-STK	93¼	3½	2-1"	6
SSW18x8	SSW18x8-STK	93¼	3½	2-1"	9
SSW21x8	SSW21x8-STK	93¼	3½	2-1"	12
SSW24x8	SSW24x8-STK	93¼	3½	2-1"	14
SSW12x9	--	105¼	3½	2-¾"	4
SSW15x9	SSW15x9-STK	105¼	3½	2-1"	6
SSW18x9	SSW18x9-STK	105¼	3½	2-1"	9
SSW21x9	SSW21x9-STK	105¼	3½	2-1"	12
SSW24x9	SSW24x9-STK	105¼	3½	2-1"	14
SSW12x10	--	117¼	3½	2-¾"	4
SSW15x10	SSW15x10-STK	117¼	3½	2-1"	6
SSW18x10	SSW18x10-STK	117¼	3½	2-1"	9
SSW21x10	SSW21x10-STK	117¼	3½	2-1"	12
SSW24x10	SSW24x10-STK	117¼	3½	2-1"	14
SSW15x11	SSW15x11-STK	129¼	5½	2-1"	6
SSW18x11	SSW18x11-STK	129¼	5½	2-1"	9
SSW21x11	SSW21x11-STK	129¼	5½	2-1"	12
SSW24x11	SSW24x11-STK	129¼	5½	2-1"	14
SSW15x12	SSW15x12-STK	141¼	5½	2-1"	6
SSW18x12	SSW18x12-STK	141¼	5½	2-1"	9
SSW21x12	SSW21x12-STK	141¼	5½	2-1"	12
SSW24x12	SSW24x12-STK	141¼	5½	2-1"	14
SSW18x13	SSW18x13-STK	153¼	5½	2-1"	9
SSW21x13	SSW21x13-STK	153¼	5½	2-1"	12
SSW24x13	SSW24x13-STK	153¼	5½	2-1"	14

TABLE NOTES :
1. SDS ¼"x3½" SCREWS PROVIDED WITH WALL.
2. SEE SHEET SSW1 FOR ANCHORAGE SOLUTIONS.

STEEL STRONG-WALL MODELS | 1



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

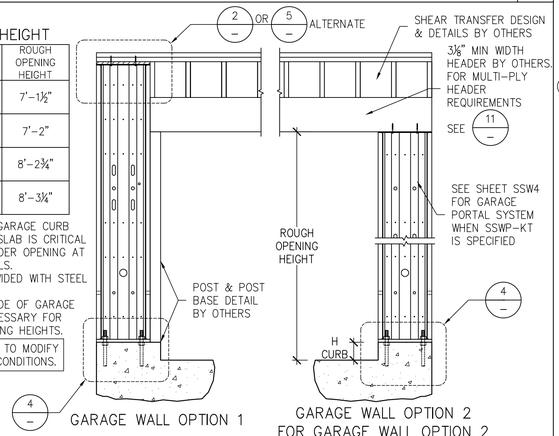
SINGLE-STORY SSW ON CONCRETE | 2

GARAGE HEADER ROUGH OPENING HEIGHT

MODEL NO.	H CURB	ROUGH OPENING HEIGHT
SSW12X7 SSW15X7 SSW18X7 SSW21X7 SSW24X7	5½"	7'-1½"
	6"	7'-2"
SSW12X7 SSW15X7 SSW18X7 SSW21X7 SSW24X7	5½"	8'-2¾"
	6"	8'-3¼"

1. THE HEIGHT OF THE GARAGE CURB ABOVE THE GARAGE SLAB IS CRITICAL FOR THE ROUGH HEADER OPENING AT GARAGE RETURN WALLS.
2. SHIMS ARE NOT PROVIDED WITH STEEL STRONG-WALL.
3. FURRING ON UNDERSIDE OF GARAGE HEADER MAY BE NECESSARY FOR LESSER ROUGH OPENING HEIGHTS.

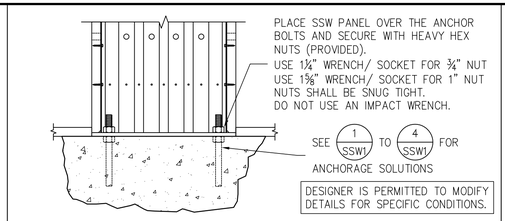
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



NOTE:
7-FT. HIGH STEEL STRONG-WALL MODELS ARE 80", 2" TALLER THAN 7-FT. HIGH WOOD STRONG-WALL SHEARWALLS

DESIGNER SHALL DESIGN FOR:
1. SHEAR TRANSFER
2. OUT OF PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

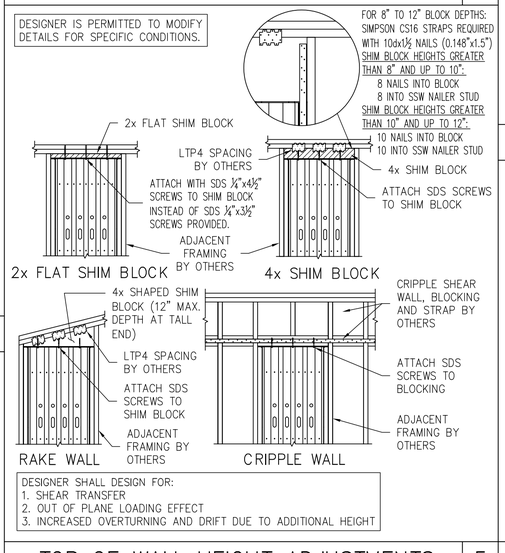
ALTERNATE GARAGE WALL OPTIONS | 3



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

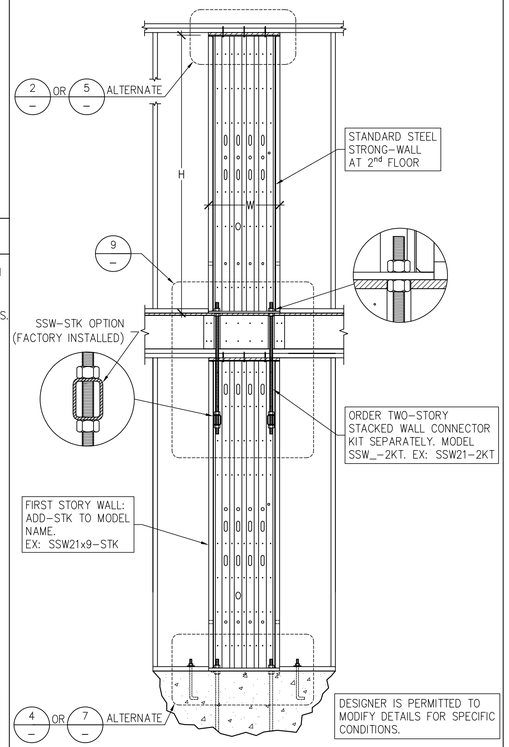
STRONG-WALL ON CONCRETE | 4

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



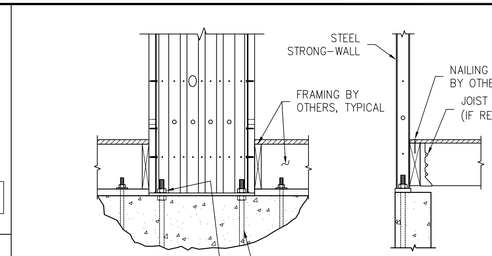
DESIGNER SHALL DESIGN FOR:
1. SHEAR TRANSFER
2. OUT OF PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

TOP OF WALL HEIGHT ADJUSTMENTS | 5



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

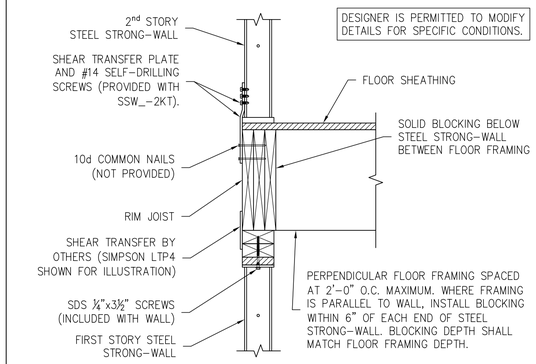
TWO-STORY STACKED | 6



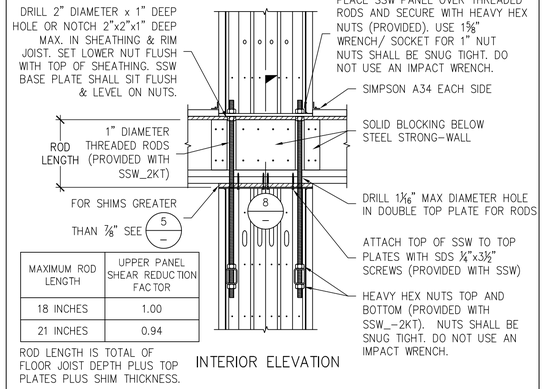
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

ALTERNATE 1ST FLOOR WOOD FRAMING | 7

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

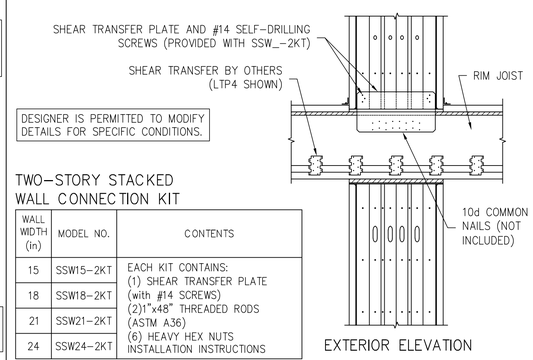


TWO-STORY STACKED FLOOR SECTION | 8



MAXIMUM ROD LENGTH	UPPER PANEL SHEAR REDUCTION FACTOR
18 INCHES	1.00
21 INCHES	0.94

ROD LENGTH IS TOTAL OF FLOOR JOIST DEPTH PLUS TOP PLATES PLUS SHIM THICKNESS.

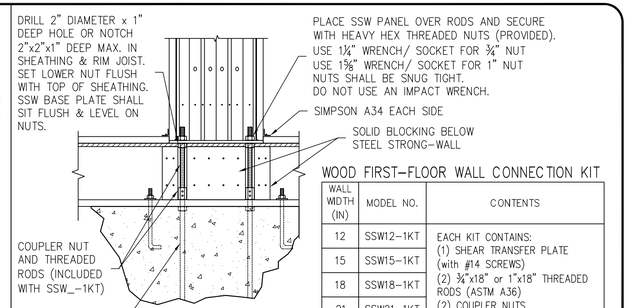


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

TWO-STORY STACKED WALL CONNECTION KIT

WALL WIDTH (in)	MODEL NO.	CONTENTS
15	SSW15-2KT	EACH KIT CONTAINS: (1) SHEAR TRANSFER PLATE (with #14 SCREWS) (2)1"x48" THREADED RODS (ASTM A36) (6) HEAVY HEX NUTS INSTALLATION INSTRUCTIONS
18	SSW18-2KT	
21	SSW21-2KT	
24	SSW24-2KT	

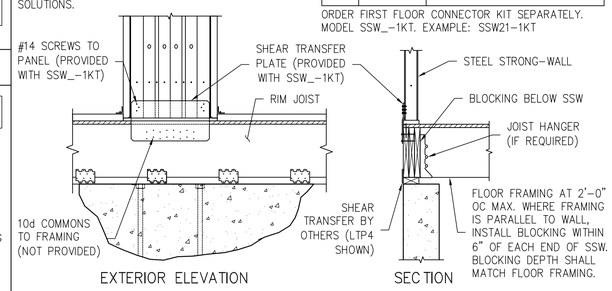
TWO-STORY STACKED FLOOR FRAMING | 9



WOOD FIRST-FLOOR WALL CONNECTION KIT

WALL WIDTH (IN)	MODEL NO.	CONTENTS
12	SSW12-1KT	EACH KIT CONTAINS: (1) SHEAR TRANSFER PLATE (with #14 SCREWS) (2) ¾"x18" or 1"x18" THREADED RODS (ASTM A36) (2) COUPLER NUTS (2) HEAVY HEX NUTS INSTALLATION INSTRUCTIONS
15	SSW15-1KT	
18	SSW18-1KT	
21	SSW21-1KT	
24	SSW24-1KT	

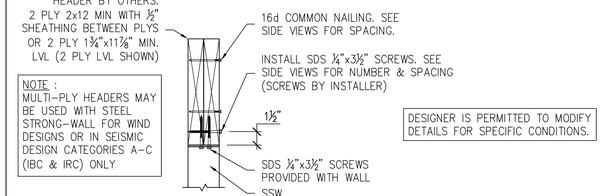
ORDER FIRST FLOOR CONNECTOR KIT SEPARATELY. MODEL SSW_-1KT. EXAMPLE: SSW21-1KT



FIRST FLOOR AT WOOD FRAMING NOTES :
1. USE WOOD FIRST-FLOOR ALLOWABLE LOAD TABLES FROM THE STRONG-WALL CATALOG FOR THIS INSTALLATION.
2. USE ALTERNATE DETAIL 7/– TO ACHIEVE MAXIMUM ON-CONCRETE ALLOWABLE LOADS.
3. FOR TWO-STORY STACKED STEEL STRONG-WALLS WITH WOOD FIRST FLOOR, USE ALTERNATE DETAIL 7/–
4. DESIGNER SHALL DESIGN FOR SHEAR TRANSFER FROM RIM JOIST TO SILL PLATE AND SILL PLATE TO FOUNDATION.

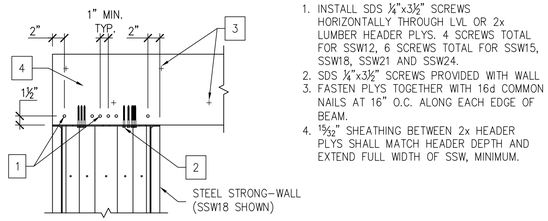
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

FIRST FLOOR AT WOOD FRAMING | 10



NOTE :
MULTI-PLY HEADERS MAY BE USED WITH STEEL STRONG-WALL FOR WIND DESIGNS OR IN SEISMIC DESIGN CATEGORIES A-C (IBC & IRC) ONLY

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



1. INSTALL SDS ¼"x3½" SCREWS HORIZONTALLY THROUGH LVL OR 2x LUMBER HEADER PLYS. 4 SCREWS TOTAL FOR SSW12, 6 SCREWS TOTAL FOR SSW15, SSW18, SSW21 AND SSW24.
2. SDS ¼"x3½" SCREWS PROVIDED WITH WALL.
3. FASTEN PLYS TOGETHER WITH 16d COMMON NAILS AT 16" O.C. ALONG EACH EDGE OF BEAM.
4. 1⅝" SHEATHING BETWEEN 2x HEADER PLYS SHALL MATCH HEADER DEPTH AND EXTEND FULL WIDTH OF SSW, MINIMUM.

MULTI-PLY HEADERS | 11

1. STEEL STRONG-WALL SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY, INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY, INC." IS AN ISO 9001 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE SPECIFIER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STEEL STRONG-WALL SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE SPECIFIER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE SPECIFIER.
7. SIMPSON STRONG-TIE COMPANY, INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.

NOTES | 12

NO.	DATE	REVISIONS
1	09-21-2009	2006 IBC REVISIONS
2	04-16-2014	2012 IBC REVISIONS
3	08-08-2016	2015 IBC REVISIONS
4	06-15-2020	2018 IBC REVISIONS
5	03-16-2021	2021 IBC REVISIONS

SIMPSON Strong-Tie, Co. Inc.
• 5956 W. Las Positas Blvd. Pleasanton, CA 94588
• Tel: (800) 999-5099 • Website: www.strongtie.com

SIMPSON StrongTie THERE IS NO EQUAL

STEEL STRONG-WALL
FRAMING DETAILS
ENGINEERED DESIGNS

SIMPSON StrongTie THERE IS NO EQUAL

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	SSW2
	OF SHEETS
JOB NO.	