GENERAL STRUCTURAL NOTES

(THE FOLLOWING APPLY UNLESS NOTED OTHERWISE ON THE DRAWINGS.)

PRCTI20221460

CRITERIA

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION.

LOAD TYPE	DESIGN LIVE LOAD	ENGINEERING CRITERIA
FLOOR LIVE LOAD	N/A	
ROOF SNOW LOAD	25 PSF	Pg = 25 PSF Ce = 1.0 Is = 1.0 Ct = 1.0 Pf = 14 PSF
WIND DESIGN DATA		RISK CATEGORY II BASIC WIND SPEED (3-SECOND GUST) = 97 MPH (Vult) = 75 MPH (Vasd) EXPOSURE: B Iw = 1.0 Kzt = 1.0 GCpi = ± 0.18 (INTERNAL PRESSURE COEFF.) C&C WIND PRESSURES (MAX - 10 sf) = 22.7 PSF (Pult - ZONE 5) = 13.6 PSF (Pasd - ZONE 5)
EARTHQUAKE DESIGN DATA		RISK CATEGORY II SITE CLASS: D Ss = 1.226g Sds = 1.012g S1 = 0.431g Sd1 = 0.550g SEISMIC DESIGN CATEGORY: D SEISMIC-FORCE-RESISTING-SYSTEM: A.15 (LIGHT FRAME BEARING WALLS WITH SHEAR PANELS) R = 6.5 Ie = 1.0 Cs = 0.156 DESIGN BASE SHEAR = 0.41 KIPS (ASD)

GENERAL CONDITIONS

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS WITH ARCHITECTS DRAWINGS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.

IN THE EVENT OF CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND THE PROJECT SPECIFICATIONS, THE STRUCTURAL DRAWINGS SHALL CONTROL.

SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH WALLS AND FLOORS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS.

CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

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

MATERIAL SUBSTITUTIONS FOR PRODUCTS SPECIFIED IN THE PLANS AND NOTES MAY BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. SUBSTITUTION SUBMITTALS SHALL IDENTIFY EXACTLY WHAT PRODUCTS ARE TO BE SUBSTITUTED, AND INCLUDE AN ICC EVALUATION SERVICE REPORT DEMONSTRATING EQUIVALENT OR GREATER LOAD CAPACITIES THAN THE SUBSTITUTED PRODUCT.

CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA REGULATIONS. SHORING AND RESHORING SHALL BE DESIGNED BY A QUALIFIED DESIGNER AND THE ERECTED SHORING SHALL BE INSPECTED BY A REGISTERED STRUCTURAL ENGINEER, EXPERIENCED IN THE DESIGN OF SHORING SYSTEMS, WHO SHALL SUBMIT AN INSPECTION REPORT TO THE ARCHITECT. FORMWORK SHALL NOT BE REMOVED UNTIL THE CONCRETE HAS REACHED ITS DESIGN STRENGTH AS INDICATED IN THE CONCRETE NOTES.

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE NOT REQUIRED FOR THIS PROJECT.

GEOTECHNICAL

ALLOWABLE SOIL PRESSURES AND LATERAL EARTH PRESSURES HAVE BEEN ASSUMED AND SHALL BE VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER OR APPROVED BY THE BUILDING OFFICIAL.

FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE SOILS AT LEAST 18" BELOW ADJACENT FINISH GRADE. FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS .

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

ALLOWABLE SOIL BEARING PRESSURE ..... 1500 PSF
PASSIVE EARTH PRESSURE ..... 250 PCF
ACTIVE EARTH PRESSURE (RESTRAINED) ..... 50 PCF
ACTIVE EARTH PRESSURE (UNRESTRAINED) ..... 35 PCF

DIVISION 3: CONCRETE

CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905 AND ACI 301. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONCRETE CONSTRUCTION	MIN. COMPRESSIVE STRENGTH, f'c AT 28 DAYS	MAX. W/C RATIO	MINIMUM CEMENT CONTENT PER CUBIC YARD
FOOTINGS	2500 PSI	0.68	5½ SACKS

THE MINIMUM AMOUNTS OF CEMENTITIOUS MATERIAL MAY BE CHANGED IF A CONCRETE MIX DESIGN IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING OFFICIAL FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE MIX DESIGN SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES, AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318, CHAPTER 5. THE REVIEW OF MIX DESIGN SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THE INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-CONTENT CONFORMING TO IBC TABLE 1904.2.1.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy = 60,000 PSI. GRADE 60 REINFORCING BARS TO BE WELDED SHALL CONFORM TO ASTM A706. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. LONGITUDINAL REINFORCEMENT IN DUCTILE FRAME MEMBERS AND IN WALL BOUNDARY MEMBERS SHALL COMPLY WITH ASTM A706.

REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH THE LATEST EDITIONS OF ACI 315 AND 318. REINFORCEMENT MAY BE SPLICED ONLY WHERE INDICATED ON THE DRAWINGS, EXCEPT THAT REINFORCING INDICATED AS "CONTINUOUS" MAY BE SPLICED AS REQUIRED BY THE CONTRACTOR FOR CONSTRUCTIBILITY. DEVELOPMENT AND SPLICE LENGTHS SHALL BE AS FOLLOWS: (d_b REFERS TO BAR DIAMETERS)

CONDITION	BARS	f'c'=3000 PSI		f'c'=4000 PSI	
		CLASS A	CLASS B	CLASS A	CLASS B
st SPLICE LENGTH TENSION	≤ #6 ≥ #7	44 d_b 55 d_b	57 d_b 72 d_b	38 d_b 48 d_b	50 d_b 62 d_b
sc SPLICE LENGTH COMPRESSION	ALL	30 d_b		30 d_b	
d DEVELOPMENT LENGTH	≤ #6 ≥ #7	44 d_b 55 d_b		38 d_b 48 d_b	
dt DEV. LENGTH TOP BARS	≤ #6 ≥ #7	57 d_b 72 d_b		50 d_b 62 d_b	
dh DEV. LENGTH HOOKED BARS	ALL	22 d_b		19 d_b	
dc DEV. LENGTH COMPRESSION	ALL	22 d_b		19 d_b	

BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE MAY NOT BE FIELD BENT UNLESS NOTED OTHERWISE ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.

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

CONDITION	BAR SIZES	CLEAR COVER
UNFORMED SURFACES CAST AGAINST EARTH	ALL	3 INCHES
FORMED AND FINISHED SURFACES EXPOSED TO EARTH OR WEATHER	#5 OR SMALLER #6 OR LARGER	1½ INCHES 2 INCHES
COLUMN AND BEAM REINFORCEMENT INCLUDING TIES AND STIRRUPS	ALL	1½ INCHES
INTERIOR SURFACES OF WALLS AND SLABS	#11 OR SMALLER	¾ INCHES

ADDITIONAL CONCRETE COVER MAY BE REQUIRED FOR FIRE PROTECTION - SEE PLAN NOTES WHERE APPROPRIATE.

NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (4,000 PSI MINIMUM).

ANCHORAGE TO CONCRETE OR MASONRY

CAST-IN-PLACE (CIP) ANCHORS SHALL BE HAVE A 90-DEGREE HOOK WITH AN INSIDE RADIUS OF $3d_b$ PLUS AN EXTENSION OF $1.5d_b$ AT THE FREE END. CIP ANCHORS IN MASONRY SHALL BE SECURED IN PLACE PRIOR TO GROUTING. PROVIDE 1" GROUT MINIMUM AROUND ALL BOLTS IN MASONRY.

CIP ANCHORS IN CONCRETE MAY NOT BE PLACED WHILE THE CONCRETE IS IN A PLASTIC STATE WHEN: 1.) THE ANCHORS ARE NOT DETAILED OR SPECIFIED AS HOOKED AROUND OR TIED TO REINFORCEMENT WITHIN THE CONCRETE; 2.) THE ANCHORS ARE MAINTAINED IN THE CORRECT POSITION WHILE THE CONCRETE REMAINS PLASTIC; AND THE CONCRETE IS PROPERLY CONSOLIDATED AROUND THE ANCHOR. [IBC 1907.5.1]

EXPANSION BOLTS INTO CONCRETE SHALL BE "KWIK BOLT TZ", AND THREADED EXPANSION INSERTS INTO CONCRETE SHALL BE SLEEVE ANCHORS, AS MANUFACTURED BY HILTI CORPORATION. INSTALL IN STRICT ACCORDANCE WITH ICC REPORT NO. ESR-1917, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS.

EPOXY-GROUTED ANCHORS (THREADED ROD OR REINFORCING BAR) SHALL BE GROUTED WITH "SET-XP" BY SIMPSON STRONG-TIE. INSTALL IN STRICT ACCORDANCE WITH ICC REPORT ESR-2508. HOLES FOR EPOXY ANCHORS SHALL BE THOROUGHLY CLEANED WITH A NYLON BRUSH AND PRESSURIZED AIR OR WATER, IN STRICT ACCORDANCE WITH ESR-2508.

SHOT PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE HILTI CORPORATION, SERIES DS, 0.177" DIAMETER. INSTALL IN STRICT ACCORDANCE WITH ICC REPORT NO. ESR-1663. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1⅞". MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE AND 3" BETWEEN FASTENERS.

SHOTPINS AND OTHER POWDER-ACTUATED FASTENERS INTO STEEL SHALL HAVE A MINIMUM EDGE DISTANCE OF ¼" AND BE SPACED AT A MINIMUM OF 1".

ALL THREADED ROD ANCHORS SHALL CONFORM TO ASTM SPECIFICATION A36 (Fy = 36 ksi) .

ANCHOR BOLT TYPES MAY BE SELECTED BY THE CONTRACTOR PER THE FOLLOWING CRITERIA AND THE REQUIREMENTS OF DIVISION 6.1: CHEMICALLY TREATED WOOD & CORROSION OF CONNECTORS & FASTENERS.

TYPE OF ANCHORAGE	TYPE OF ANCHOR
POST AND COLUMN BASES	CIP, EXPANSION* OR EPOXY
LEDGERS TO CONCRETE OR CMU	CIP, EXPANSION* OR EPOXY
WALL TIES TO CONCRETE OR CMU	CIP OR EPOXY
MUDSILL TO FOUNDATION	CIP, EXPANSION* OR EPOXY
HOLDOWN TO FOUNDATION	CIP OR EPOXY
HIGH-STRENGTH ANCHORAGE	CIP
EQUIPMENT ANCHORAGE	CIP OR EPOXY

* EXPANSION ANCHORS MAY NOT BE USED WHERE THE ANCHOR IS EXPOSED TO EARTH OR WEATHER.

ANCHOR BOLTS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

ANCHOR SIZE	STANDARD CONCRETE ANCHOR			STANDARD MASONRY ANCHOR		
	EMBED.	SHEAR	TENSION	EMBED.	SHEAR	TENSION
½"ø	4"	1650#	3000#	4"	850#	970#
⅝"ø	5"	3000#	4400#	5"	1330#	1520#
MUDSILL ANCHORS	7"	3000#	4400#	7"	1330#	1520#
¾"ø	7"	4300#	5400#	7"	1780#	3040#
⅞"ø	8"	4300#	5400#	8"	1920#	3840#
1"ø	9"	4500#	6500#	9"	2050#	4485#
HOLDOWN ANCHORS	PER DETAIL	-	-	PER DETAIL	-	-

ALLOWABLE VALUES ARE BASED ON 3000 PSI CONCRETE OR 1500 PSI MASONRY, WITH ANCHOR BOLTS PLACED WITH AN EDGE DISTANCE OF NOT LESS THAN 10 DIAMETERS. VALUES REFLECT SPECIAL INSPECTION.

DIVISION 6: TIMBER

FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WWPA STANDARD GRADING RULES FOR WEST COAST LUMBER, LATEST EDITION AND FURNISHED TO THE STANDARDS INDICATED ON THE PLANS, SCHEDULES AND DETAILS. THE DESIGN SHOWN IN THESE DRAWINGS IS BASED ON THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (2001-NDS) PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME SPECIES AND GRADE AS MEMBERS CONNECTED.

GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC CERTIFICATE OF CONFORMANCE.

ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 190 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2,400 PSI, Fv = 240 PSI. CAMBER ALL GLULAM BEAMS TO 2,000' RADIUS. GLUED LAMINATED BEAMS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH AN APPROVED PRESERVATIVE.

ALL GLUED LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 5. Fc = 2,400 PSI, Ft = 1,600 PSI, E = 2000 KSI. GLUED LAMINATED COLUMNS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH AN APPROVED PRESERVATIVE.

MANUFACTURED LUMBER PRODUCTS SPECIFIED IN THESE DRAWINGS IS BASED ON LUMBER MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALL JOIST HANGERS AND OTHER HARDWARE NOT SHOWN SHALL BE DESIGNED AND SUPPLIED BY THE MANUFACTURER.

THE FOLLOWING LUMBER PRODUCTS SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NER REPORT NUMBER, AND THE QUALITY CONTROL AGENCY. ALL MEMBERS SHALL BE MANUFACTURED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL STRANDS ORIENTED PARALLEL WITH THE LENGTH OF THE MEMBER.

LUMBER PRODUCT / STRESS	LAMINATED VENEER LUMBER (LVL) 1.9E (REPORT NER-126)	LAMINATED STRAND LUMBER (LSL) 1.5E (REPORT NER-481)	PARALLEL STRAND LUMBER (PSL) 2.0E (REPORT NER-292)
F_b	2600 PSI	2250 PSI	2900 PSI
F_v	285 PSI	400 PSI	290 PSI
$F_{c\|\|}$	2510 PSI	1950 PSI	2900 PSI
$F_{c\perp}$	750 PSI	-	750 PSI
E	$1.9x10^6$ PSI	$1.5x10^6$ PSI	$1.9x10^6$ PSI

ALL COMMON WIRE NAILS AND SPIKES, BOX NAILS AND THREADED, HARDENED-STEEL NAILS AND SPIKES SHALL CONFORM TO THE NOMINAL SIZES SPECIFIED IN ASTM F1667. ALL NAILS SPECIFIED ON THESE DRAWINGS, EITHER DRIVEN WITH A HAMMER OR PNEUMATIC DEVICE, SHALL BE COMMON WIRE NAILS WITH THE PROPERTIES SHOWN IN THE FOLLOWING TABLE:

PENNY-WEIGHT	8d	10d	12d	16d	20d
DIAMETER (INCHES) [1]	0.113	0.148	0.148	0.162	0.192
LENGTH (INCHES)	2½	3	3¼	3½	4

NOTES:
1. TABULATED DIAMETERS APPLY TO NAILS PRIOR TO ANY PROTECTIVE COATING.

FABRICATION AND INSTALLATION OF TIMBER FASTENERS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2001-NDS), PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION. DRILLED HOLES IN WOOD MEMBERS (EXCLUDING MFR. PLYWOOD WEB JOISTS) SHALL BE AS SHOWN IN THE FOLLOWING TABLE:

FASTENERS	LEAD HOLE DIAMETER [1]	SHANK HOLE DIAMETER [1]
BOLTS [4]	-	D + 1/32"
LAG SCREWS [2,3,4]	0.7D	D
WOOD SCREWS [3]	$0.85D_r$	0.85D
NAILS (PRE-DRILLED ONLY)	0.75D	-

NOTES:
1. 'D' INDICATES THE SHANK DIAMETER OF THE FASTENER. D SHALL BE NOT EXCEED 1". D_r INDICATES THE ROOT DIAMETER.
2. THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF THE UNTHREADED SHANK. THE LEAD HOLE OR CLEARANCE HOLE SHALL NOT BE REQUIRED FOR DIAMETERS ⅜" OR LESS, PROVIDED EDGE, END AND SPACING IS TO BE SUFFICIENT TO PREVENT SPLITTING.
3. LAG AND WOOD SCREWS SHALL BE INSTALLED BY TURNING OF A WRENCH OR SCREW DRIVER NOT DRIVEN WITH A HAMMER.
4. ALL BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM SPECIFICATION A307, Fy=36 KSI. WASHERS SHALL BE PLACED UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

WOOD CONSTRUCTION CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG (LATEST EDITION). PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL JOISTS AND MULTIPLE JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "U" SERIES JOIST HANGERS.

NAILING SHALL CONFORM TO IBC TABLE 2304.9.1:

CONNECTION		NAILING
JOIST TO SILL OR GIRDER, TOENAIL		(3) 8d COMMON (3) 3"x0.131" NAILS
BRIDGING TO JOIST, TOENAIL EACH END		(2) 8d COMMON (2) 3"x0.131" NAILS
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL TYP.		16d @ 16"oc 3"x0.131" NAILS @ 8"oc
TOP PLATE TO STUD, END NAIL		(2) 16d COMMON (3) 3"x0.131" NAILS
STUD TO SOLE PLATE	TOENAIL	(4) 8d COMMON (4) 3"x0.131" NAILS
	END NAIL	(2) 16d COMMON (3) 3"x0.131" NAILS OR (2) 20d BOX NAIL AT 3x PLATES IN LIEU OF 16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL		(3) 8d COMMON (3) 3"x0.131" NAILS
RIM JOIST TO TOP PLATE, TOENAIL		8d COMMON @ 6"oc 3"x0.131" NAILS @ 6"oc
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL		(2) 16d COMMON (3) 3"x0.131" NAILS
RAFTER TO PLATE, TOENAIL		(3) 8d COMMON (3) 3"x0.131" NAILS

FOR SAWN LUMBER ROOF AND FLOOR FRAMING PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST SPAN AND AROUND ALL OPENINGS. PROVIDE BRIDGING @ 8'-0"oc AND FULL DEPTH SOLID BLOCKING AT ALL BEARING POINTS. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH (3) 16d @ 12"oc.

FOR MANUFACTURED LUMBER ROOF AND FLOOR FRAMING ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. INSTALLATION OF THE ABOVE ITEMS SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ROOF, FLOOR & WALL SHEATHING SHALL BE APA RATED, EXTERIOR OR EXPOSURE 1, IN CONFORMANCE WITH IBC SECTION 2303.1.4. SEE PLAN NOTES AND SCHEDULES FOR THICKNESS, SPAN RATING, BLOCKING AND NAILING REQUIREMENTS. GLUE FLOOR SHEATHING TO ALL SUPPORTING MEMBERS WITH ADHESIVE CONFORMING TO APA SPECIFICATION AFG-01.

ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS. PROVIDE APPROVED PANEL EDGE CLIPS CENTERED BETWEEN RAFTERS OR TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING SHALL HAVE APPROVED TONGUE AND GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW ⅛" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

STUD WALL FRAMING SHALL BE 2x4 HF#2 STUDS AT 16"oc AT INTERIOR WALLS AND 2x6 HF#2 STUDS AT 16"oc AT EXTERIOR WALLS. STUD WALLS SHALL HAVE DOUBLE 2x TOP PLATES AND 2x SOLE OR SILL PLATES MATCHING STUD SIZE, SPECIES AND GRADE. ALL LOWER WOOD SOLE PLATES SHALL BE ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 12"oc STAGGERED. WOOD SILL PLATES SHALL BE BOLTED TO CONCRETE WITH ⅝" DIAMETER ANCHOR BOLTS (EMBED 7" MIN.) AT 6'-0"oc WITH 3x3 PLATE WASHERS. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PIECE WITH (1) BOLT LOCATED NOT MORE THAN 12" OR LESS THAN (7) BOLT DIAMETERS FROM EACH END OF EACH PIECE.

TWO STUDS (MINIMUM) SHALL BE PROVIDED AT THE ENDS OF WALLS, AT EACH SIDE OF ALL OPENINGS, AND AT THE ENDS OF ALL BEAMS AND HEADERS. POSTS OF BUILT-UP 2x STUDS SHALL BE NAILED TO EACH OTHER PER THE POST SCHEDULE. SOLID BLOCKING FOR WOOD POSTS SHALL BE PROVIDED THROUGH ALL FLOORS TO SUPPORTING MEMBERS (FOUNDATION) BELOW. (2) 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS.

DIVISION 6.1: CHEMICALLY TREATED WOOD & CORROSION OF CONNECTORS & FASTENERS

WOOD MATERIALS REQUIRED TO BE TREATED WITH A PRESERVATIVE PER IBC SECTION 2304.1.1 SHALL BE IDENTIFIED BY A QUALITY MARK IN ACCORDANCE WITH AWPA STANDARDS.

TIMBER CONNECTORS AND FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED OR FIRE-RETARDENT TREATED WOOD MEMBERS SHALL BE HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.

A BARRIER BETWEEN PRESERVATIVE-TREATED OR FIRE RETARDENT TREATED MEMBERS CAN BE USED WHEN APPROVED BY THE ENGINEER AND ARCHITECT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTION OF THE APPROPRIATE CONNECTOR AND FASTENER COATING BASED ON THE INTENDED END USE OF THE CONNECTOR OR FASTENER AND THE CHEMICAL PRESERVATIVE USED IN THE TREATMENT OF MEMBER FOR WHICH IT IS IN CONTACT.

THE FOLLOWING TABLE SHALL BE USED FOR SELECTION OF CONNECTORS BASED ON GALVANIZED COATING OR STAINLESS STEEL. FASTENERS USED SHALL BE MADE OF THE SAME MATERIAL AS THE CONNECTOR.

CHEMICAL [1] / PRESERVATIVE \ PRODUCT COATINGS	0.90 oz/sf (G90)	1.85 oz/sf (G185) HDG PER ASTM A653, A153 OR A123	STAINLESS STEEL
UNTREATED WOOD SBX CCA-C	YES	YES	YES
ACQ-C & ACQ-D CBA-A & CA-B Non-DOT	NO	YES	YES
ACZA	NO	NO	YES

NOTES:
1. SBX = DOT SODIUM BORATE
   CCA-C = CHROMATED COPPER ARSENATE
   ACQ-C & ACQ-D = ALKALINE COPPER QUAT
   CBA-A & CA-B = COPPER AZOTE
   NON-DOT = OTHER BORATE
   ACZA = AMMONIACAL COPPER ZINC ARSENATE

City of Puyallup Building APPROVED

See permit for additional requirements.

JMontgomery
12/20/2022
7:18:22 AM

CITY OF PUYALLUP STATE OF WASHINGTON

THE APPROVED CONSTRUCTION PLANS, DOCUMENTS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR INSPECTION

Approval of submitted plans is not an approval of omissions or oversights by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

CANOPY STRUCTURAL PLANS

SHEET INDEX	
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S2	ENTRY CANOPY FRAMING AND FOUNDATION PLANS
S3	DETAILS

WEDDERMANN ARCHITECTURE
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ELECTRONICALLY SIGNED 12/1/22

PROJECT: CHEERS IN PUYALLUP
ALI KASHANI
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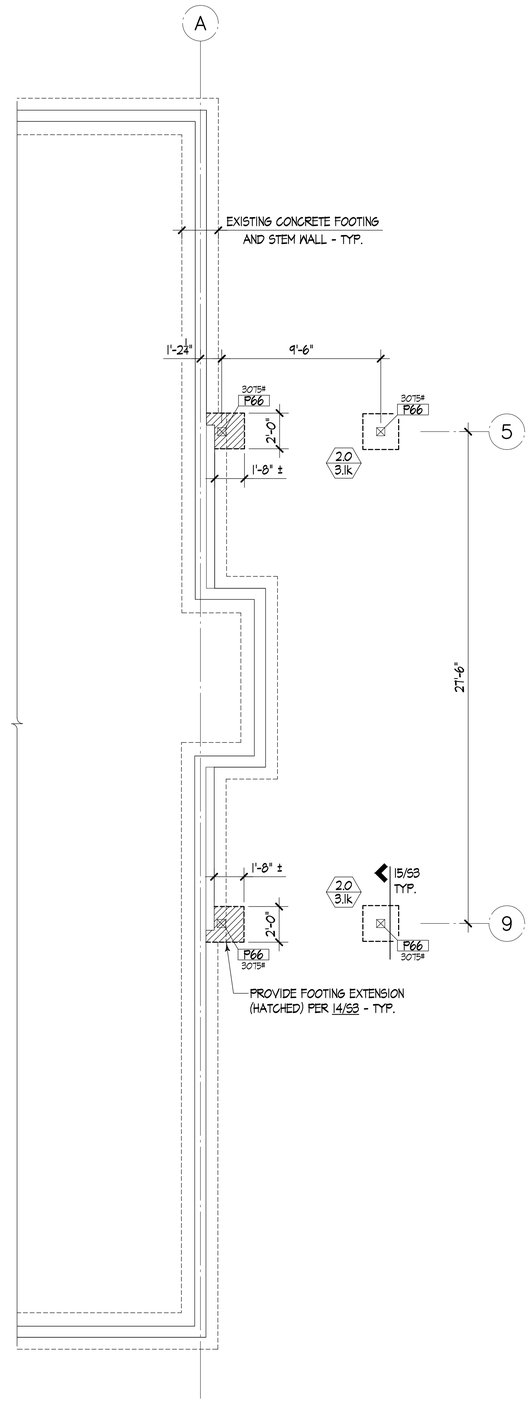
REVISIONS			
INFO	11/18/22	Rev#	Description
	22-074	Date	
	CHEERS IN PUYALLUP		
	12/22		
Start Date:	VEC Project Number:	File Name:	Print Date:

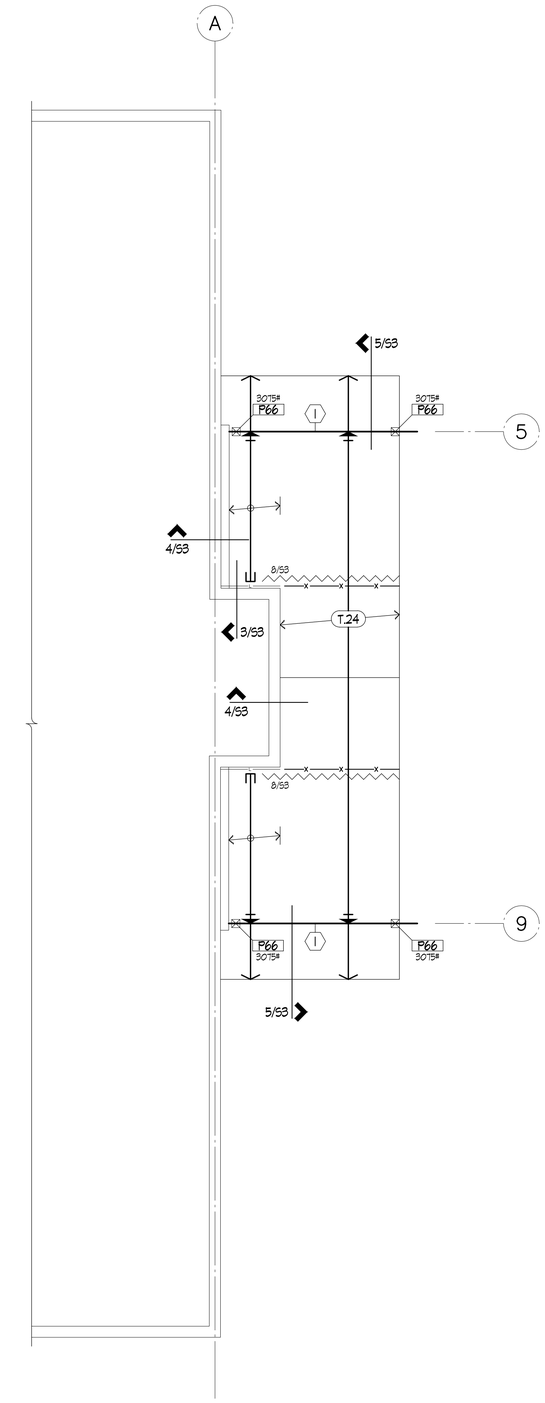
SHEET NAME: GENERAL STRUCTURAL NOTES

SHEET NO. S1



ENTRY CANOPY FOUNDATION PLAN

¼" = 1'-0"



ENTRY CANOPY FRAMING PLAN

¼" = 1'-0"

PLAN NOTES:

1. REFER TO ARCHITECT'S DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. THE DIMENSIONS SHOWN ARE PER THE ARCHITECT'S DRAWINGS AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
2. CANOPY PAD FOOTING DESIGN IS BASED ON NATIVE UNDISTURBED SOIL - 1500 PSF ALLOWABLE BEARING (ASSUMED). BUILDING OFFICIAL OR GEOTECHNICAL ENGINEER SHALL APPROVE PREPARED EXCAVATIONS PRIOR TO PLACEMENT OF CONCRETE.
3. CANOPY ROOF STRUCTURE HAS NOT BEEN DESIGNED FOR A TILE ROOF. TOTAL DESIGN ROOF DEAD LOAD IS 15 PSF.

   THE ROOF DIAPHRAGM SHALL BE 7/16" INDEX 24/0 A.P.A. RATED SHEATHING. NAIL PER DIAPHRAGM SCHEDULE TYPE (D2) W/ 0.131" x 2¼" NAILS U.N.O. (SEE 20/S3)

LEGEND:

- BEARING END OF JOIST, TRUSS OR RAFTER
- CANTILEVERED END OF JOIST, TRUSS OR RAFTER
- HUNG END OF JOIST, TRUSS OR RAFTER - SEE BEAM OR JOIST SCHEDULE FOR HANGER SPECIFICATION.
- INDICATES TIMBER POST LOCATION
- INDICATES BLOCKING PER TRUSS MFR.
- INDICATES DRAG LOCATION WITH STRAP PER 8/S3
- X/SX.X — INDICATES SECTION CUT SEE REFERENCED DETAIL.
- T.24 — PRE-ENGINEERED TRUSS @ 24"oc PROVIDE HANGER PER TRUSS MFR.
- x# P66 — P.T. 6x6 HF#2 POST
  REFER TO 14/S3 FOR CONNECTION TO EXISTING FOOTING
  REFER TO 15/S3 FOR CONNECTION TO PAD FOOTING
  (x# REFERS TO TOTAL POST LOAD, FOR INFORMATION ONLY)
- (1) — 5½ x 9 GLULAM 24F-V4 BEAM
  REFER TO 9/S3 AND 10/S3 FOR CONNECTION TO POST
- 2.0 / R — 2'-0" x 2'-0" x 12" FOOTING.
  REINFORCE W/ (3) #4 EACH WAY - BOTTOM
  f'c = 2500 psi
  (R = TOTAL REACTION, FOR INFORMATION ONLY)

PRCTI20221460

City of Puyallup
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Building	Planning
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33801 1ST WAY SOUTH
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ELECTRONICALLY SIGNED 12/1/22

MIKE VISSER — STATE OF WASHINGTON — 22403 — REGISTERED PROFESSIONAL ENGINEER

PROJECT
ALI KASH
CHEERS
3811 9TH STREET SW
PUYALLUP, WA 98373

REVISIONS

Rev#	Date	Description

INFO
Start Date: 11/18/22
VEC Project Number: 22-074
File Name: CHEERS IN PUYALLUP
Plot Date: 12/1/22

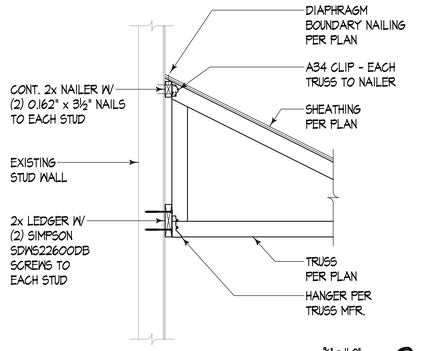
SHEET NAME
ENTRY CANOPY FRAMING AND FOUNDATION PLANS
PRELIMINARY

SHEET NO.
S2

PRCTI20221460

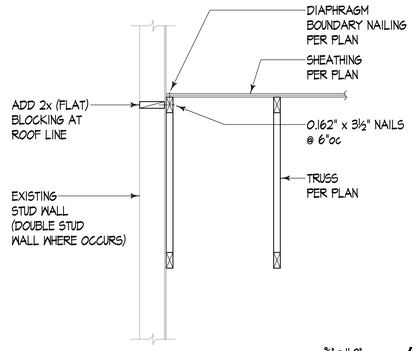
1

2



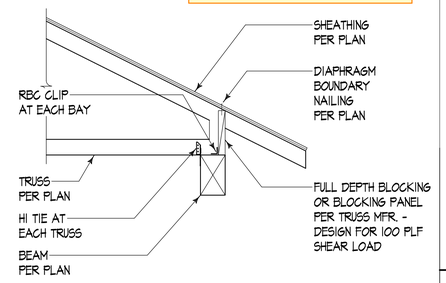
¾" = 1'-0"

Truss to Beam 3



¾" = 1'-0"

Truss to Beam 4

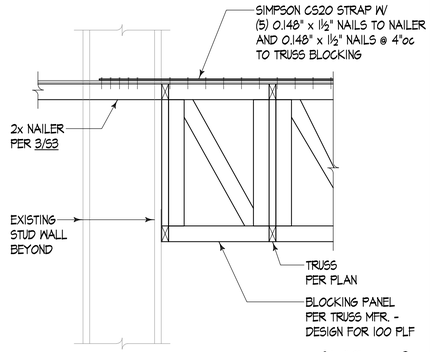


¾" = 1'-0"

Truss to Beam 5

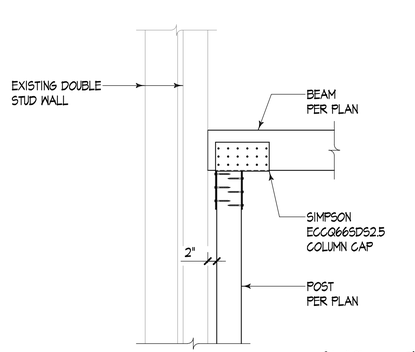
6

7



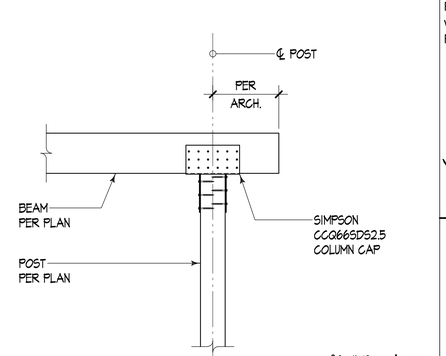
¾" = 1'-0"

Drag Connection 8



¾" = 1'-0"

Beam to Post 9



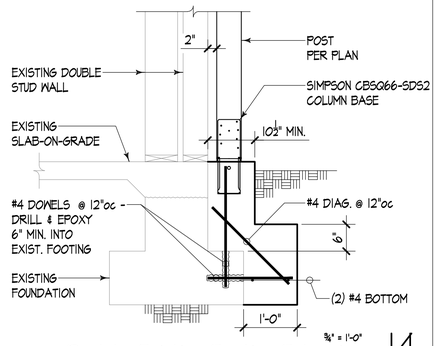
¾" = 1'-0"

Beam to Post 10

11

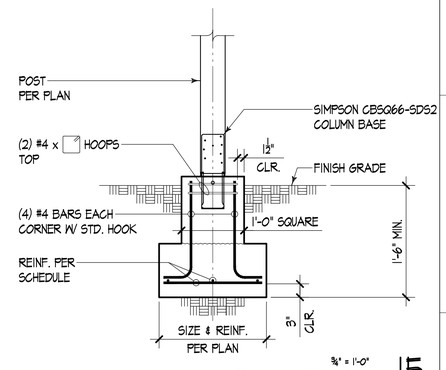
12

13



¾" = 1'-0"

Post to Existing Footing Extension 14



¾" = 1'-0"

Post to Footing 15

16

17

18

DIAPHRAGM SCHEDULE [1, 2, 3]

MARK	PANEL TYPE	BLOCKED	NAILING REQUIREMENTS W/ COMMON NAILS			CLIP SPACING (WHERE INDICATED IN DETAILS)	ALLOWABLE SHEAR [5]	
			DIAPHRAGM BOUNDARIES	SUPPORTED PANEL EDGES	FIELD [4] NAILING		HEM-FIR FRAMING	DOUG-FIR FRAMING
D2	7/16" APA APPROVED CDX PLYWOOD, INDEX 24/0	YES	0.131" x 2½" @ 6"oc	0.131" x 2½" @ 6"oc	0.131" x 2½" @ 12"oc	CLIP @ 16"oc	237 PLF	255 PLF

NOTES:

1. APA RATED ORIENTED STRAND BOARD SHEATHING MAY BE SUBSTITUTED FOR CDX PLYWOOD WITH NO REDUCTION IN STRENGTH.
2. PLYWOOD SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS BELOW AND END JOINTS SHALL BE STAGGERED.
3. ALL NAILS SHALL BE COMMON WITH THE NOMINAL DIAMETER AND LENGTH SPECIFIED IN THE GENERAL STRUCTURAL NOTES, DIVISION 6.
4. FIELD NAILING SHALL BE SPACED @ 6"oc (MAX.) WHERE SUPPORTING MEMBERS ARE SPACED @ 48"oc.
5. ALLOWABLE SHEAR CAPACITIES SHALL BE INCREASED 40% FOR WIND.

No Scale

Diaphragm Schedule 20

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S3