STRUCTURAL NOTES

GENERAL

1. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. ALL WORK SHALL BE IN CONFORMANCE WITH ALL APPLICABLE CODES AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.

   APPLICABLE CODES INCLUDE:
   THE 2022 EDITION OF:
   - CALIFORNIA BUILDING CODE (CBC)
   - CALIFORNIA RESIDENTIAL CODE (CRC)
   - CALIFORNIA PLUMBING CODE (CPC)
   - CALIFORNIA ELECTRICAL CODE
   - CALIFORNIA MECHANICAL CODE (CMC)
   - CALIFORNIA GREEN BUILDING STANDARDS CODE
   - CALIFORNIA ENERGY CODE
   - CALIFORNIA FIRE CODE (CFC)

2. VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT THE SUBJECT SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING ANY WORK. DO NOT PROCEED WITH CONSTRUCTION IF DISCREPANCIES ARE DETECTED UNTIL THEY ARE RESOLVED. DO NOT SCALE DRAWINGS.

3. UNLESS OTHERWISE SHOWN OR NOTED ALL TYPICAL DETAILS SHALL BE USED WHERE APPLICABLE. ALL DETAILS SHALL BE CONSIDERED TYPICAL AT SIMILAR CONDITIONS.

4. THE CONTRACTOR AND SPECIAL INSPECTOR ARE ENCOURAGED TO CONTACT THE ENGINEER REGARDING ANY QUESTIONS OF INTERPRETATION OF THESE SPECIFICATIONS AND DRAWINGS.

5. SAFETY MEASURES: AT ALL TIMES, THE CONTRACTOR SHALL WORK IN COMPLIANCE WITH CAL/OSHA—TITLE 8 SAFETY REGULATIONS AND SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PEOPLE AND PROPERTY, AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

6. SHORING AND BRACING OF THE SOIL, AND THE EXISTING AND NEW STRUCTURES SHALL BE INSTALLED WHERE NECESSARY TO ADEQUATELY SUPPORT THE IMPOSED VERTICAL AND LATERAL LOADS, AND SHALL BE MAINTAINED UNTIL THE NEW STRUCTURE CAN SUPPORT THE ANTICIPATED LOADS. THE ENGINEER'S JOB SITE VISITS ARE NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE TEMPORARY SHORING AND/OR CONTRACTOR'S SAFETY MEASURES.

7. ANY OPENING, HOLES, CUTS OR DISCONTINUITIES NOT SHOWN ON THE STRUCTURAL DRAWINGS AND EXTENDING INTO OR THROUGH STRUCTURAL ELEMENTS REQUIRE THE PRIOR APPROVAL OF THE ENGINEER.

8. SURFACE GRADES ADJACENT TO THE FOUNDATION SHALL SLOPE AWAY FROM BUILDING AT A MIN OF 5% FOR PERVIOUS SURFACES OR 2% FOR IMPERVIOUS SURFACES FOR MIN 10 FEET.

SPECIAL INSPECTIONS AND CONSTRUCTION OBSERVATIONS

1. TESTS AND SPECIAL INSPECTIONS SHALL BE PROVIDED PER REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE CHAPTER 17.

2. THE FOLLOWING ITEMS SHALL BE INSPECTED AND/OR TESTED BY DAC ASSOCIATES INC. OR A TESTING LAB IN ACCORDANCE WITH CHAPTER 17 OF THE 2019 CALIFORNIA BUILDING CODE. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AT LEAST 72 HOURS PRIOR TO TIME OF INSPECTION.
   a. FOR CONCRETE WITH STRENGTH EQUAL OR MORE THAN 3,000PSI, PLACEMENT, SAMPLING & TESTING FOR STRENGTH
   b. STRUCTURAL WELDING

3. THE FOLLOWING ITEMS SHALL BE INSPECTED BY THE ENGINEER OF RECORD (DAC ASSOCIATES, INC.). THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO TIME OF INSPECTION.
   a. STRUCTURAL STEEL FRAMING ELEMENTS AND CONNECTIONS

4. FOUNDATION EXCAVATIONS AND DRILLED PIERS SHALL BE OBSERVED AND APPROVED IN WRITING BY THE SOIL ENGINEER (DAC ASSOCIATES, INC.) PRIOR TO PLACEMENT OF FORMS OR REINFORCING STEEL. THE CONTRACTOR SHALL NOTIFY THE SOIL ENGINEER AT LEAST 72 HOURS BEFORE EXCAVATION/DRILLING IS SCHEDULED TO BEGIN.

5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AND ENSURING THAT ALL REQUIRED TESTING & INSPECTION IS PERFORMED TO THE SATISFACTION OF THE INSPECTOR.

CONCRETE

1. CONCRETE CEMENT SHALL CONFORM TO THE LATEST ASTM C—150 & C—595, AND SHALL BE TYPE II. TYPE I CEMENT MAY BE USED IN AREAS NOT IN CONTACT WITH EARTH. MINIMUM 6 SAKCS/CU.YD. OF CEMENT. FLY ASH SHALL NOT COMPOSE MORE THAN 25% OF THE CEMENTITIOUS MATERIAL. AGGREGATE SHALL BE FREE OF ALKALI REACTIVITY.

2. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45. ACID SOLUBLE CHOLRIDE—FREE ADMIXTURES AND PLASTICIZERS FOR WORKABILITY MAY BE USED IF APPROVED BY THE TESTING LABORATORY AND ENGINEER. BECAUSE EXCESS WATER REDUCES CONCRETE STRENGTH, ADDING WATER AT THE SITE IS DISCOURAGED AND SHALL NOT EXCEED ONE GALLON PER CUBIC YARD.

3. REINFORCE ALL STRUCTURAL CONCRETE. CONCRETE CONSTRUCTION TOLERANCES SHALL COMPLY WITH ACI 117. INSTALL ALL INSERTS, BOLTS, ANCHORS, AND REINFORCING BARS AND SECURELY TIE PRIOR TO PLACING CONCRETE.

4. CONCRETE SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

LOCATION	28 DAYS STRENGTH	SLUMP	AGGREGATE (ASTM C33)
DRILLED PIERS	3000 PSI	6"	HR, ¾" MAX

5. CONCRETE SHALL BE PLACED IN A CONTINUOUS OPERATION BETWEEN PREDETERMINED AND PREAPPROVED CONSTRUCTION JOINTS.

6. CONCRETE SHALL BE CONTINUOUSLY CURED FOR 7 DAYS AFTER PLACEMENT IN ANY APPROVED MANNER. FOOTINGS ARE EXCEPTED FROM THIS REQUIREMENT.

7. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL, DRAWINGS LOCATING AND DETAILING ALL PROPOSED CONSTRUCTION/CONTROL JOINTS IN CONCRETE PRIOR TO COMMENCING WORK. CONSTRUCTION JOINT SHALL BE ROUGHENED, EXPOSING CLEAN AGGREGATE TO ¼" DEPTH SOLIDLY EMBEDDED IN MORTAR MATRIX, AND SHALL INCLUDE SHEAR KEYS AND DOWELS AS REQUIRED BY THE ENGINEER.

8. THE LOCATION AND PROTECTION OF EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UTILITY PIPES RUN THROUGH, OR WITHIN 24" BELOW, ANY NEW CONCRETE CONSTRUCTION. THE ENGINEER WILL PROVIDE THE CONTRACTOR WITH DESIGN DETAILS UNDER SUCH CIRCUMSTANCES.

9. PATCHING OF CONCRETE: ALL INSERTS HOLES, AND OTHER IMPERFECTIONS ON THE SURFACE OF THE CONCRETE SHALL BE FILLED WITH GROUT, BRUSHED, AND SACKED TO A UNIFORM FINISH. ALL HOLES THROUGH TO THE OUTSIDE OF THE BUILDING MUST BE MADE WATERTIGHT.

10. CHAMFER ALL CORNERS ¾", EXCEPT TOP EDGES OF SLABS AND BEAMS, UNLESS OTHERWISE NOTED.

11. ALL CONCRETE SHALL BE PLACED ON COMPETENT SUBGRADE, AS DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.

REINFORCING STEEL

1. ALL REINFORCING STEEL BARS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR DEFORMED BILLET—STEEL CONCRETE REINFORCEMENT, ASTM A615 GRADE 60 KSI EXCEPT FOR GRADE 40 KSI FOR #3 STIRRUP/TIE, UNLESS OTHERWISE NOTED.

2. LAP SLICE ALL BARS A MINIMUM OF 36 BAR DIA OR 18" MIN, (UNLESS OTHERWISE NOTED) LAP HORIZ REBAR AT CORNERS AND INTERSECTIONS IN FOOTINGS AND WALLS WITH CORNER BARS OR OTHER METHODS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER.

3. WIRE MESH SHALL CONFIRM WITH ASTM A185—64.

4. UNLESS OTHERWISE NOTED, MAINTAIN COVERAGE TO FACE OF REINFORCING BARS AS FOLLOWS:

LOCATION	MINIMUM CLEAR COVER
CAST AGAINST EARTH:	3"
EXPOSED TO EARTH OR WEATHER:	2" (1½" FOR #5 & SMALLER)
EXTERIOR SURFACES FOR BEAMS & COLUMN	1½"

FOUNDATIONS AND RETAINING WALLS

1. STRUCTURAL DESIGN OF FOUNDATION IS BASED ON OUR VISUAL OBSERVATION OF SITE SUBSURFACE CONDITION AND THEY SHOULD BE VERIFIED AND/OR MODIFIED BY DAC ASSOCIATES INC., DURING THE CONSTRUCTION.

2. DESIGN CRITERIA
   a. SKIN FRICTION IN COMPETENT BEDROCK = 1000 PSF
   b. COEFFICIENT OF FRICTION = 0.3
   c. CREEP PRESSURE = 65 PCF FOR 2 FEET (EQUIVALENT FLUID PRESSURE)
   d. ALLOWABLE PASSIVE PRESSURE IN COMPETENT SUBGRADE = 450 PCF (EQUIVALENT FLUID PRESSURE) APPLIED AGAINST 2 PIER DIAMETERS OR AGAINST VERTICAL FACE OF FOOTINGS
   e. ACTIVE SOIL PRESSURE = 45 PCF FOR LEVEL BACKFILL (ADD 1 PCF FOR EVERY 2 DEGREES OF SLOPE)

3. ALL FOUNDATION AND RETAINING WALL WORK SHALL COMPLY WITH 2022 CBC CHAPTER 18.

4. WATERPROOF MEMBRANE SHALL BE 10MIL MIN THICK; 2" MIN OVERLAP & SECURED W/ TAPE AT ALL EDGES PER MANUFACTURE'S RECOMMENDATION.

5. CONTRACTOR SHALL USE APPROVED DEVICES AND/OR SERVICES TO SCAN FOR UNDERGROUND UTILITIES PRIOR TO START OF EXCAVATION OR GRADING.

6. CONTRACTOR SHALL AVOID EXCAVATION BELOW BOTTOM OF FOOTING AND REMOVING ANY SOIL WHICH MAY SERVE FOR LATERAL RESISTANCE FOR ADJACENT FOOTINGS. UNLESS OTHERWISE NOTED.

7. EXTERIOR FOOTINGS TO BE A MINIMUM OF 18" BELOW FINISHED GRADE (UNLESS OTHERWISE NOTED) BEARING ON NATIVE UNDISTURBED COMPETENT SOIL OR ENGINEERED COMPACTED FILLS WITH 95% RELATIVE COMPACTION (ASTM D1557), APPROVED BY SOIL ENGINEER IN WRITING.

8. DO NOT ALLOW WATER TO STAND IN EXCAVATED HOLES. IF BOTTOMS OF HOLE BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE CONCRETE IS CAST, EXCAVATE SOFTENED MATERIAL AND REPLACE WITH PROPERLY COMPACTED BACKFILL OR CONCRETE AT NO COST TO THE OWNER.

EQUIPMENT, PIPE, AND DUCT SUPPORT

1. THE CONTRACTOR IS RESPONSIBLE FOR THE VERTICAL AND LATERAL SUPPORT OF ALL HVAC AND OTHER EQUIPMENT. SHOP DRAWINGS SHALL BE SUBMITTED FOR THE SUPPORT OF ALL HVAC EQUIPMENT OVER 400 POUNDS, STAMPED AND SIGNED BY A CALIFORNIA—LICENSED CIVIL OR STRUCTURAL ENGINEER. EQUIPMENT AND ANCHORAGE SHALL BE DESIGNED TO RESIST LATERAL SEISMIC FORCES PER 2022 CBC SECTION 1632.2. LATERAL SEISMIC DESIGN FORCES ON ALL LIFE SAFETY EQUIPMENT SHALL BE INCREASED BY A FACTOR OF 1.50.

2. CONDUITS, PIPES AND DUCTS SHALL BE BRACED TO RESIST SEISMIC HAZARD B PER THE CURRENT EDITION OF "SMACNA SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS", EXCEPT THAT THE COMPONENTS OF LIFE SAFETY SYSTEMS SHALL BE BRACED TO RESIST SEISMIC HAZARD LEVEL A.

ROUGH CARPENTRY

1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, NAILING SHALL CONFORM TO THE 2022 CBC, TABLE 2304.9.1 UNLESS OTHERWISE NOTED ON THESE DRAWINGS, ALL NAILS SHALL BE COMMON NAILS (AS OPPOSED TO BOX, SINKER OR COOLER NAILS).

2. SILLS ON CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR. SILLS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE, SPACED NOT MORE THAN 4 FEET APART AND A FASTENER LOCATED NOT MORE THAN 12 INCHES OR SEVEN BOLT DIAMETERS AND NOT LESS THAN 5 INCHES FROM EACH END OF PIECE. USE HOT—DIPPED GALVANIZED FASTENERS WITH PRESSURE TREATED WOOD.

3. FASTEN ALL SILL PLATES AT NON—STRUCTURAL WALLS TO NON—PRESTRESSED CONCRETE SLABS WITH 0.177" DIAMETER POWER DRIVEN FASTENERS AT 16" ON CENTER, WITH 1 ¼" MINIMUM CONCRETE EMBEDMENT, UNLESS OTHERWISE NOTED ON THE DRAWINGS. FASTEN ALL SILL PLATES AT NON—STRUCTURAL WALLS TO PRESTRESSED CONCRETE SLABS WITH 0.145" DIAMETER POWER EMBEDMENT DRIVEN FASTENERS AT 16" ON CENTERS, WITH ¾" MINIMUM AND 1" MAXIMUM CONCRETE EMBEDMENT, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

4. ALL ANCHOR BOLTS (AB) SHALL BE ASTM A307. ALL ANCHOR BOLTS SHALL HAVE PLATE WASHERS, MINIMUM 3"X3" SQUARE BY 0.229" THICK. ANCHOR BOLTS MUST BE SECURELY WIRED IN PLACE AND ALIGNED IN A TRUE STRAIGHT LINE PRIOR TO THE CONCRETE PLACEMENT. ANCHOR BOLTS AND OTHER EMBEDDED STRUCTURAL CONNECTORS MAY NOT BE "WET SET".

5. LAG SCREWS: PRE—DRILL LEAD HOLES WITH ½ TO ⅔ OF SHANK DIAMETER FOR THREADED PORTION OF LAG SCREW, AND FULL DIAMETER FOR THE UNTHREADED SHANK PORTION. LAD SCREWS SHALL BE TORQUED, AND NEVER HAMMERED, INTO POSITION. LUBRICATE THREADS WITH SOAP OR OTHER WOOD—COMPATIBLE LUBRICANT.

6. ALL MACHINE BOLTS (M.B.) SHALL BE ASTM A307 GRADE A, INSTALLED THROUGH HOLES ⅛" LARGER THAN DIAMETER OF BOLT. RE—TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.

7. USE HOT—DIPPED GALVANIZED NAILS, BOLTS, AND HARDWARE WHERE EXPOSED TO WEATHER AND FOR WHEN IN CONTACT WITH PRESSURE TREATED WOOD.

8. PLACE JOISTS WITH CROWN UP. ADD ONE ADDITIONAL JOIST UNDER ALL PARALLEL PARTITIONS.

9. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2X SOLID BLOCKING. BLOCK AND BRIDGE ROOF JOISTS AT 10 FOOT AND FLOOR JOISTS AT 8 FOOT ON CENTER WHERE CEILING ASSEMBLY IS NOT ATTACHED DIRECTLY TO BOTTOM OF JOISTS.

10. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON COMPANY'S STANDARD FASTENERS OR APPROVED EQUAL.

11. ALL WOOD AND WOOD PRODUCTS IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE—TREATED. SPECIES AND GRADE FOR PRESSURE TREATED PRODUCTS SHALL MATCH THAT SPECIFIED FOR UNTREATED SIMILAR LUMBER OR WOOD PRODUCTS (i.e. PRESSURE—TREATED HEM—FIR MAY NOT BE SUBSTITUTED FOR PRESSURE—TREATED DOUGLAS—FIR), UNLESS OTHERWISE NOTED ON THE DRAWINGS.

12. RE—TIGHTEN ALL BOLTS BEFORE CLOSING IN FRAMING.

13. AT THE TIME OF INSTALLATION, ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19%.

STRUCTURAL STEEL AND MISCELLANEOUS IRON

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AS REVISED BY THE PROJECT SPECIFICATIONS).

2. STEEL SHAPES AND MISCELLANEOUS STEEL SHALL CONFORM TO THE FOLLOWING:
   A. WIDE FLANGES (W) — ASTM A992, GR 50
   B. HOLLOW STRUCTURAL SECTIONS (HSS)
      *SQUARE OR RECTANGULAR — ASTM A1085 GR B (Fy = 46 ksi)
      *ROUND — ASTM A500 GR B (Fy = 42 ksi)
   C. PLATES AND BARS — A36
      *EXCEPT FOR MOMENT FRAME CONNECTIONS (I.E. CONTINUITY, DOUBLER, SPLICE, ETC) WHICH SHALL BE ASTM A572 GR 50
   D. PIPE — ASTM A53 GR B
   E. MISCELLANEOUS SHAPES (I.E. CHANNELS, ANGLES, ETC) — ASTM A36

3. ALL BOLTS FOR STEEL TO STEEL CONNECTIONS SHALL CONFORM TO ASTM A325N—SC, UNLESS OTHERWISE NOTED. BOLTS SHALL BE FULLY PRE—TENSIONED TO SATISFY SLIP—CRITICAL REQUIREMENTS WITH A CLASS—A FAYING SURFACE. FULL PRE—TENSIONING SHALL BE ATTAINED BY "TURN—OF—THE—NUT" OR OTHER METHOD APPROVED BY THE STRUCTURAL ENGINEER.

4. ANCHOR RODS:
   TYPICAL: ASTM F1554 GR 36 W/ ASTM A563 HEAVY HEX NUTS
   WELDABLE: ASTM F1554 GR 55 S1 W/ ASTM A563 HEAVY HEX NUTS
   HIGH STRENGTH: ASTM F1554 GR 105 W/ ASTM A563 GR DH HEAVY HEX NUTS

5. NON—SHRINK GROUT:
   7500 PSI COMPRESSIVE STRENGTH, NON METALLIC CONFORMING TO ASTM 1107. MASTERFLOW 928 OR EQUAL.

6. STEEL NOT RECEIVING FIRE PROOFING SHALL BE SHOP PRIMED OR EQUAL, EXCEPT SURFACES TO RECEIVE WELDS, SHEAR STUDS, FULLY PRE—TENSIONED BOLTS, CONCRETE ENCASEMENT OR SPRAY FIREPROOFING. ALL STEEL OR STEEL FASTENERS EXPOSED TO WEATHER SHALL BE HOT—DIP ZINC GALVANIZED, OR PAINTED WITH TWO COATS OF BITUMINOUS/COAL TAR EPOXY OR WEATHERPROOFED BY AN APPROVED EQUAL U.O.N.

7. WELDING TO CONFORM TO THE LATEST EDITION OF THE AWS SPECIFICATIONS SHALL BE PREFORMED BY CERTIFIED WELDERS. BUTT WELDS ARE TO BE COMPLETE PENETRATION JOINT (CPJ), U.O.N. ALL FILLET WELDS SHOWN ARE MINIMUM REQUIRED BY STRESS, INCREASE WELDS TO AISC MINIMUM SIZES BASED ON THICKNESS OF MATERIAL JOINED U.O.N.

8. ALL ELECTRODES SHALL BE E70XX (70 KSI), U.O.N. ELECTRODES AND FLUXES SHALL BE KEPT CLEAN AND DRY PER AWS D1.1 AND THE FOLLOWING ADDITIONAL REQUIREMENTS. FCAW (WIRE) ELECTRODES SHALL BE CONSUMED WITHIN TWO WEEKS OF OPENING THEIR ORIGINAL PACKAGING. RUSTED ELECTRODES SHALL BE DISCARDED. SMAW (STICK) ELECTRODES SHALL BE LOW HYDROGEN TYPE, SHALL HAVE MOISTURE—RESISTANT COATINGS, AND SHALL BE USED WITHIN 8 HOURS OF OPENING THEIR HERMETICALLY—SEALED CONTAINERS, OR SHALL BE REDRIED PER AWS D1.1, SECTION 4.5.2. SAW FLUX SHALL BE KEPT CLEAN AND DRY PER AWSD1.1, SECTION 4.8.3. SAW FLUX OPEN TO AIR FOR MORE THAN TWO DAYS SHALL BE RE—DRIED FOR AT LEAST TWO HOURS AT BETWEEN 500 AND 900 DEGREES FAHRENHEIT. WET FLUX SHALL BE DISCARDED.

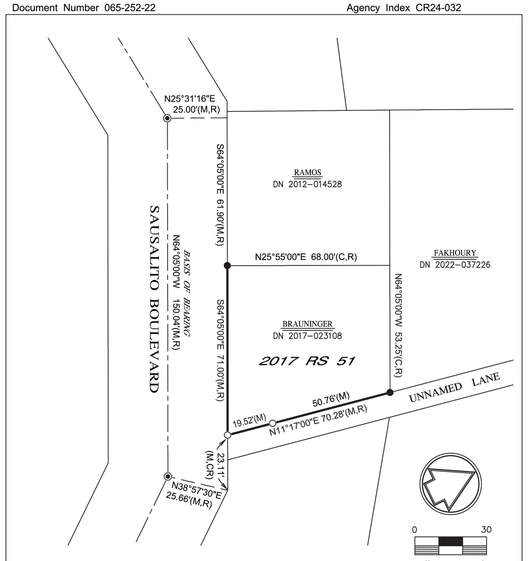
9. SHOP AND ERECTION DRAWINGS CONFORMING WITH AISC SPEC, AWS D1.1 AND RCSC SPEC SHALL BE PROVIDED BY THE STEEL FABRICATOR, AND REVIEWED AND APPROVED BY THE ENGINEER.

10. STEEL MEMBER CONNECTING TO WOOD FRAMING SHALL HAVE WOOD NAILER WITH MIN ⅝"ø NELSON STUD OR THREADED STUDS AT 24"O.C. WITH MIN ⅜"ø FILLET WELDED ALL AROUND TO THE STEEL MEMBER, UNLESS OTHERWISE NOTED.

ABBREVIATIONS

&	AND	HR	HARDROCK
L	ANGLE	HT	HEIGHT
@	AT		
		ID	INSIDE DIAMETER
ACI	AMERICAN CONCRETE INSTITUTE	INT	INTERIOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	JT	JOINT
		JST	JOIST
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	LG	LONG
AWS	AMERICAN WELDING SOCIETY	LS	LOW SHRINKAGE
AB	ANCHOR BOLT		
ABV	ABOVE	MATL	MATERIAL
ADD'L	ADDITIONAL	MAX	MAXIMUM
AGGR	AGGREGATE	MB	MACHINE BOLT
ALT	ALTERNATE	MECH	MECHANICAL
APPROX	APPROXIMATE	MFR	MANUFACTURER
ARCH	ARCHITECT, ARCHITECTURAL	MIN	MINIMUM
ATR	ALL—THREAD ROD	MISC	MISCELLANEOUS
B.E.	BOTH ENDS	(N)	NEW
B.S.	BOTH SIDES	N/A	NOT APPLICABLE
B.W.	BOTH WAYS	NSG	NON—SHRINK GROUT
BETW	BETWEEN	NTS	NOT TO SCALE
BLD'G	BUILDING	NO.#	NUMBER
BLW	BELOW		
BM	BEAM	O/	OVER
BLK	BLOCKING	O.C.	ON CENTERS
BOT	BOTTOM	OD	OUTSIDE DIAMETER
		OPNG	OPENING
C.C.	CENTER TO CENTER	OPP	OPPOSITE
CBC	CALIFORNIA BUILDING CODE	PL	PLATE
CL	CENTERLINE	PLYWD	PLYWOOD
CLR	CLEAR	PT	PRESSURE TREATED
C—I—P	CAST—IN—PLACE		
CO	DRAINAGE CLEAN OUT	REF	REFERENCE/REFER
COL	COLUMN	REINF	REINFORCEMENT
CONC	CONCRETE	REQ	REQUIREMENTS
CONN	CONNECTION	REQ'D	REQUIRED
CONST	CONSTRUCTION	RM	ROOM
CONT	CONTINUOUS	RW	RETAINING WALL
		RO	ROUGH OPENING
DBL	DOUBLE		
DBLR	DOUBLER	S.A.D.	SEE ARCHITECTURAL DRAWINGS
DET	DETAIL		
DF	DOUGLAS FIR	S—O—G	SLAB—ON—GRADE
DN	DOWN	SCHED	SCHEDULE
DIA,ø	DIAMETER	SHT	SHEET
DIAG	DIAGONAL	SIM	SIMILAR
DIM	DIMENSION	STAGG	STAGGER, STAGGERED
DL	DEVELOPMENT	STD	STANDARD
DWG	DRAWING	STIFF	STIFFENER
		STIRR	STIRRUP
(E)	EXISTING	STL	STEEL
EA	EACH	SW	SHEAR WALL
EF	EACH FACE	SWS	SHEAR WALL SCHEDULE
EL	END LENGTH		
EMBED	EMBEDMENT	T&B	TOP AND BOTTOM
EN	EDGE NAILING	THK	THICK, THICKNESS
ENGR	ENGINEER, ENGINEERED	THRD	THREAD, THREADED
EQ	EQUAL/EQUIVLENT	TYP	TYPICAL
EW	EACH WAY		
EXT	EXTERIOR	U.O.N.	UNLESS OTHERWISE NOTED
FDN	FOUNDATION		
FLR	FLOOR	VB	VAPOR BARRIER
FN	FIELD NAILING	VERT	VERTICAL
FTG	FOOTING	V.I.F.	VERIFY IN FIELD
GA	GAGE, GAUGE	W/	WITH
GALV	GALVANIZED	W/O	WITHOUT
GB	GRADE BEAM	WA	WEDGE ANCHOR
		WD	WOOD
HD	HOLDDOWN	WF	WIDE FLANGE
HGR	HANGER	WLD	WELDED
HORI	HORIZONTAL		

Document Number 065-252-22 Agency Index CR24-032



Legend

- ○ = 1/2" iron pipe set (yellow plastic cap stamped "HUGHES PLS 8992")
- ● = 5/8" rebar found (yellow plastic cap stamped "PLS 7053")
- ◉ = 2" brass disk with punch in standard well monument found (stamped "RE 10057")
- R = RS 2017—51
- M = Measured
- C = Calculated

All distances shown hereon are in feet and decimals thereof.

BPELSG-2016 Page 2 of 2

"CORNER RECORD" PREPARED BY JOSEPH L. HUGHES ON APRIL 10, 2024

PROJECT DESCRIPTION

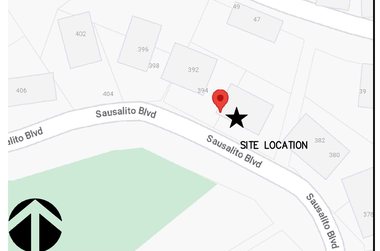
IN FRONT YARD OF AN (E) 2—FAMILY RESIDENCE, REMOVE (E) FAILING WOOD RETAINING WALL.

CONSTRUCT NEW SITE RETAINING WALL AND DRAINAGE. CONSTRUCT (N) EXTERIOR STAIRS. REPLACE (E) WINDOW WITH (N) DOOR TO (N) DECK.

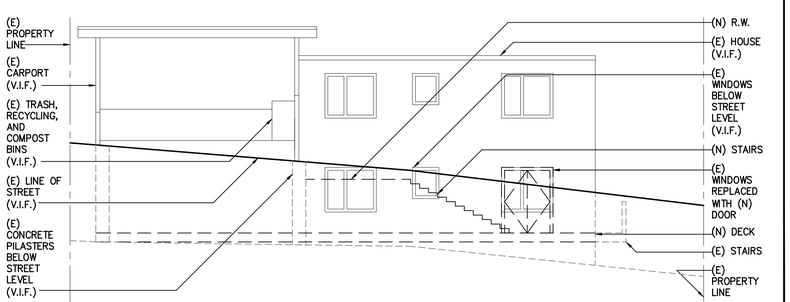
PROJECT DIRECTORY

OWNER:	WILLIAM PEARSON 390 SAUSALITO BLVD, SAUSALITO, CA
ARCHITECT/ DESIGNER:	DELA GARZA, AIA, ARCHITECT STUDIO 266 CALIFORNIA AVE, RENO, NEVADA WWW.DELAGARZASTUDIO.COM (775)323—5999
STRUCTURAL/CIVIL ENGINEER: (DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE)	DAC ASSOCIATES, INC. 7 MOUNT LASSEN DRIVE SUITE A—129 SAN RAFAEL, CA 94903 DARIUS@DACASSOCIATES.NET 415—499—1919

SHEET INDEX



1 S-1.0 VICINITY MAP NTS



2 S-1.0 (E) / (N) ELEVATION SCALE: 1/8" = 1'-0"

REVISIONS	BY

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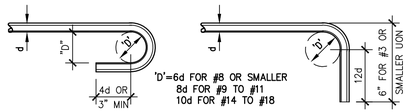
REGISTERED PROFESSIONAL ENGINEER — DARIUSH DARIUS ABOLHASSANI — No. 58778 — CIVIL — STATE OF CALIFORNIA

PEARSON RESIDENCE
390 SAUSALITO BLVD
SAUSALITO, CA 94965
APN: 065-252-22

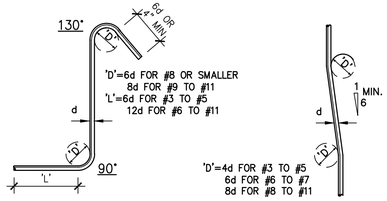
STRUCTURAL GENERAL NOTES

DATE:	2024—10—31
SCALE:	AS SHOWN
DRAWN BY:	WT
JOB NUMBER:	1566—3123S

SHEET 1
S-1.0
OF 5 SHEET



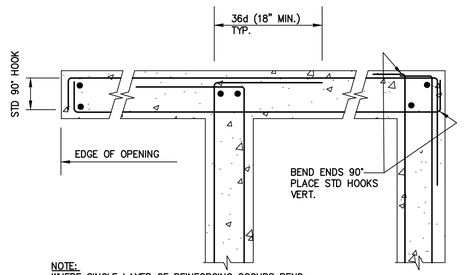
STANDARD 180° HOOK STANDARD 90° HOOK



TIES AND STIRRUPS OFFSET

NOTE:
1. ALL BENDS SHALL BE MADE COLD.
2. #14 AND #18 BARS SHALL BEND TESTED LAB APPROVED PRIOR TO BENDING.
3. DO NOT BEND BARS ALREADY CAST IN CONCRETE UNLESS OTHERWISE NOTED.

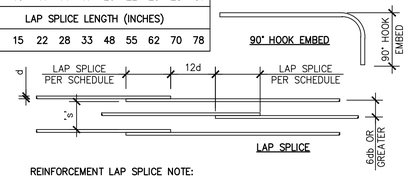
1 / S-1.1 STANDARD REINFORCEMENT HOOKS & BENDS NTS



NOTE:
WHERE SINGLE LAYER OF REINFORCING OCCURS BEND STEEL AS SHOWN FOR OUTSIDE BARS.

2 / S-1.1 (TYP) REINF. HORIZONTAL BEND NTS

WALL AND FOOTING LAP SPLICE SCHEDULE										
f'c CONCRETE STRENGTH	REBAR SIZE									
	GRADE 40		GRADE 60							
	#3	#4	#4	#5	#6	#7	#8	#9	#10	#11
	90° HOOK EMBED (INCHES)									
3000	8	10	11	14	17	20	22	25	28	31
	LAP SPLICE LENGTH (INCHES)									
3000	12	15	22	28	33	48	55	62	70	78



REINFORCEMENT LAP SPLICE NOTE:

1. STAGGERED LAPS BETWEEN ADJACENT BAR SPLICE.
2. MULTIPLY ALL LENGTH BY 1.5 IF EITHER OF THE FOLLOWING ARE TRUE.
   B. CLEAR COVER IS LESS THAN 1 BAR DIAMETER (d)
   A. CLEAR SPACING 's' OF BARS IS LESS THAN 2d
3. NONCONTACT SPLICE WITH MIN 3d SPACING SHALL BE USED FOR SHOTCRETE.

3 / S-1.1 (TYP) REINFORCEMENT LAP SPLICE & HOOK EMBED NTS

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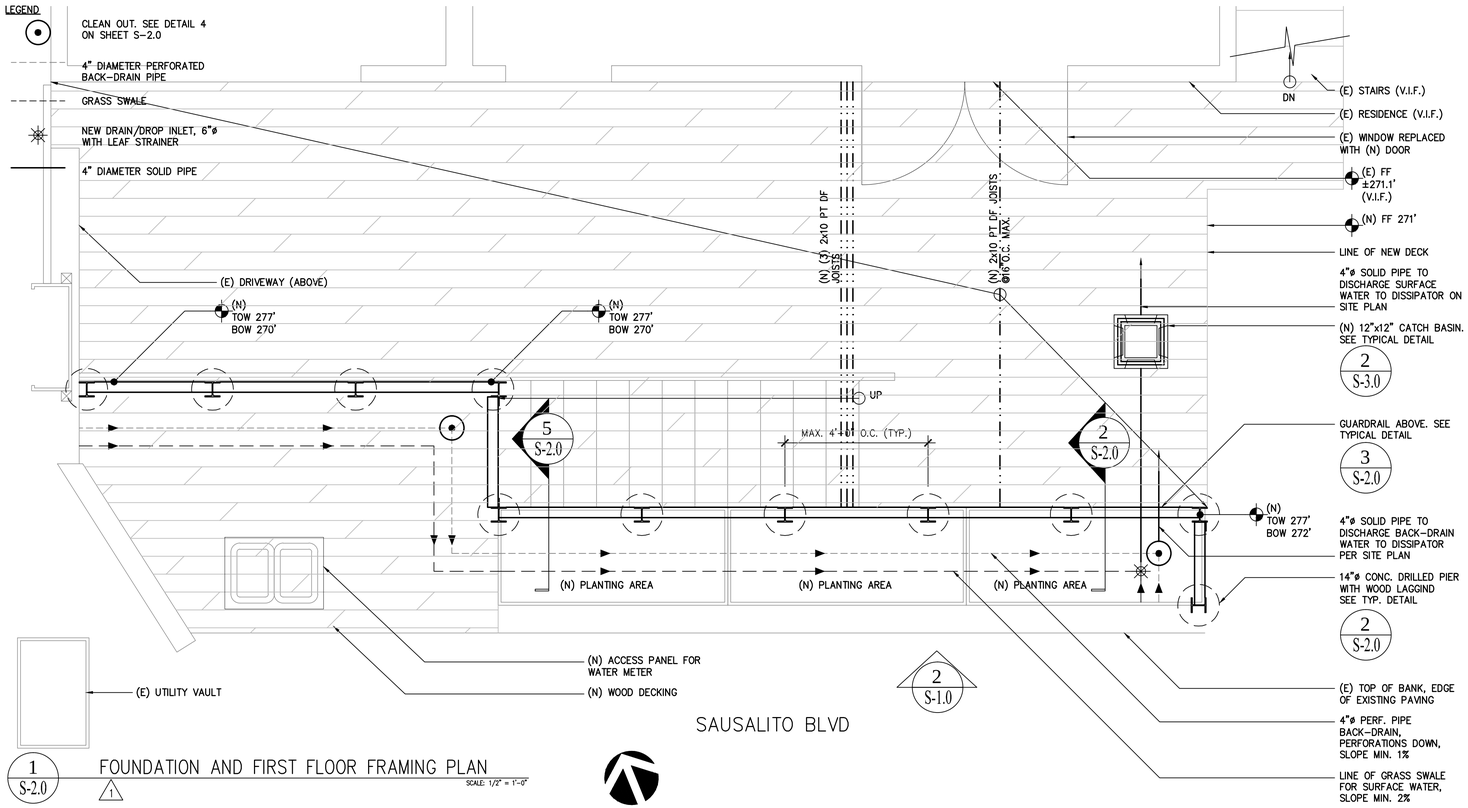
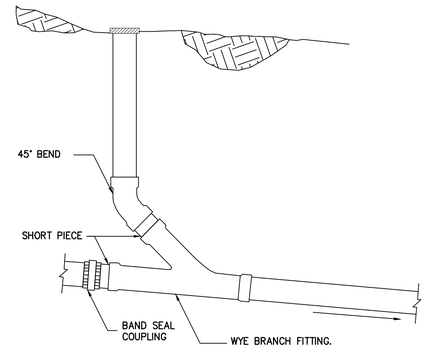
STRUCTURAL TYPICAL DETAILS

DATE: 2024–10–31
SCALE: AS SHOWN
DRAWN BY: WT
JOB NUMBER: 1566–3123S

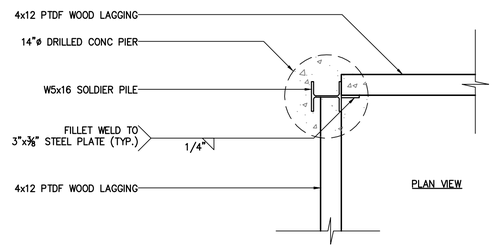
SHEET 2
S-1.1
OF 5 SHEET

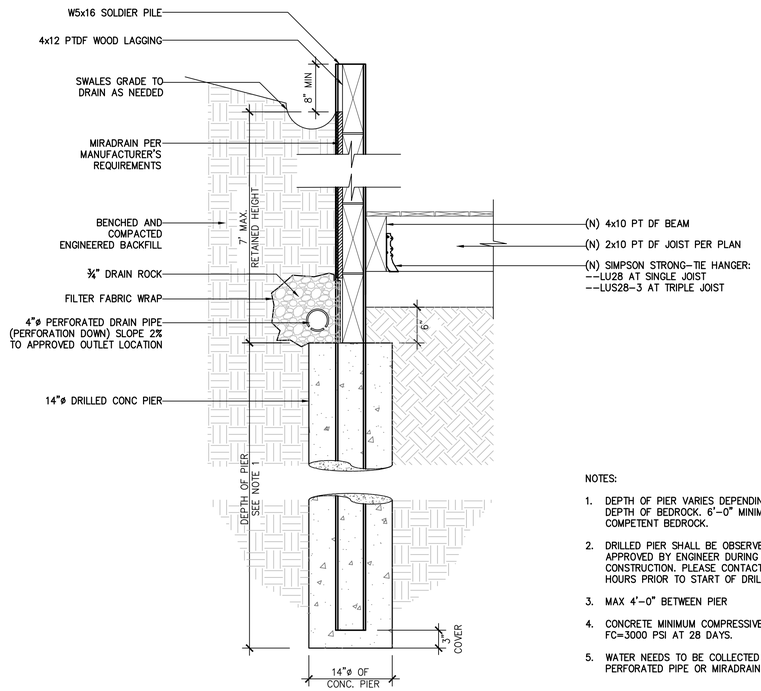


1 S-2.0 FOUNDATION AND FIRST FLOOR FRAMING PLAN
SCALE: 1/2" = 1'-0"



4 S-2.0 TYP. CLEAN-OUT DETAIL
SCALE: 1" = 1'-0"





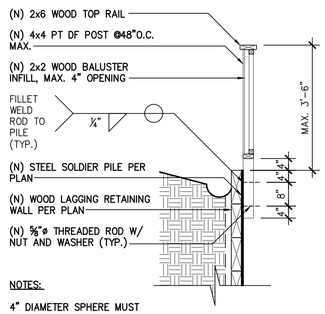
NOTES:

1. DEPTH OF PIER VARIES DEPENDING ON THE DEPTH OF BEDROCK. 6'-0" MINIMUM INTO COMPETENT BEDROCK.
2. DRILLED PIER SHALL BE OBSERVED AND APPROVED BY ENGINEER DURING CONSTRUCTION. PLEASE CONTACT US 72 HOURS PRIOR TO START OF DRILLING.
3. MAX 4'-0" BETWEEN PIER
4. CONCRETE MINIMUM COMPRESSIVE STRENGTH FC=3000 PSI AT 28 DAYS.
5. WATER NEEDS TO BE COLLECTED BY 4" DIA. PERFORATED PIPE OR MIRADRAIN

2 S-2.0 SOLDIER PILE AND WOOD LAGGING RETAINING WALL
SCALE: 1" = 1'-0"

ABBREVIATIONS

BOW	BOTTOM OF WALL
TOW	TOP OF WALL
TS	TOP OF SLAB
FF	FINISHED FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE (V.I.F.)



NOTES:

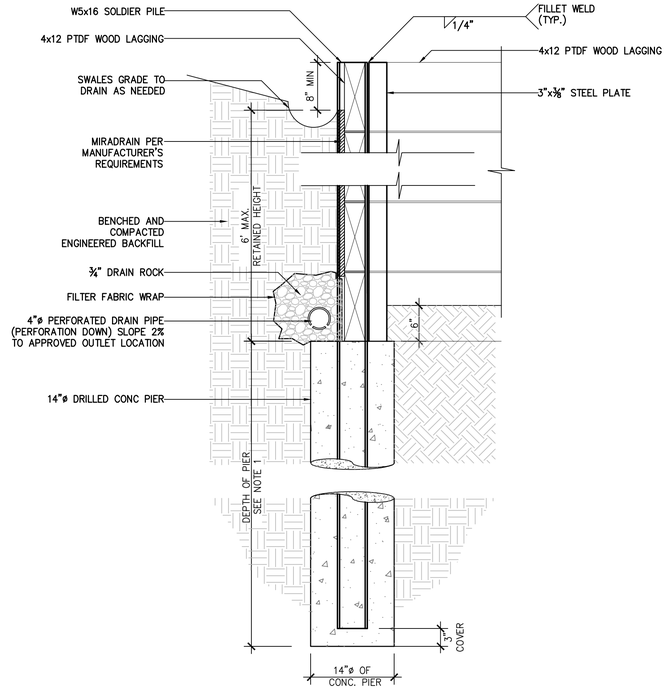
4" DIAMETER SPHERE MUST NOT BE ABLE TO PASS BETWEEN ANY GUARD OPENING.

PER CALIFORNIA RESIDENTIAL CODE (CRC) TABLE R301.5, GUARDRAIL MUST BE ABLE TO BEAR MIN. 200 LBS/SQ. FT. LIVE LOAD.

GUARDRAIL INFILL TO BEAR MIN. 50 LBS./SQ. FT. PER CRC TABLE R301.5.

PT DF MAY BE SUBSTITUTED WITH CEDAR #1.

3 S-2.0 TYP. GUARDRAIL DETAIL
SCALE: 1/2" = 1'-0"



5 S-2.0 SOLDIER PILE AND WOOD LAGGING RETAINING WALL
SCALE: 1" = 1'-0"

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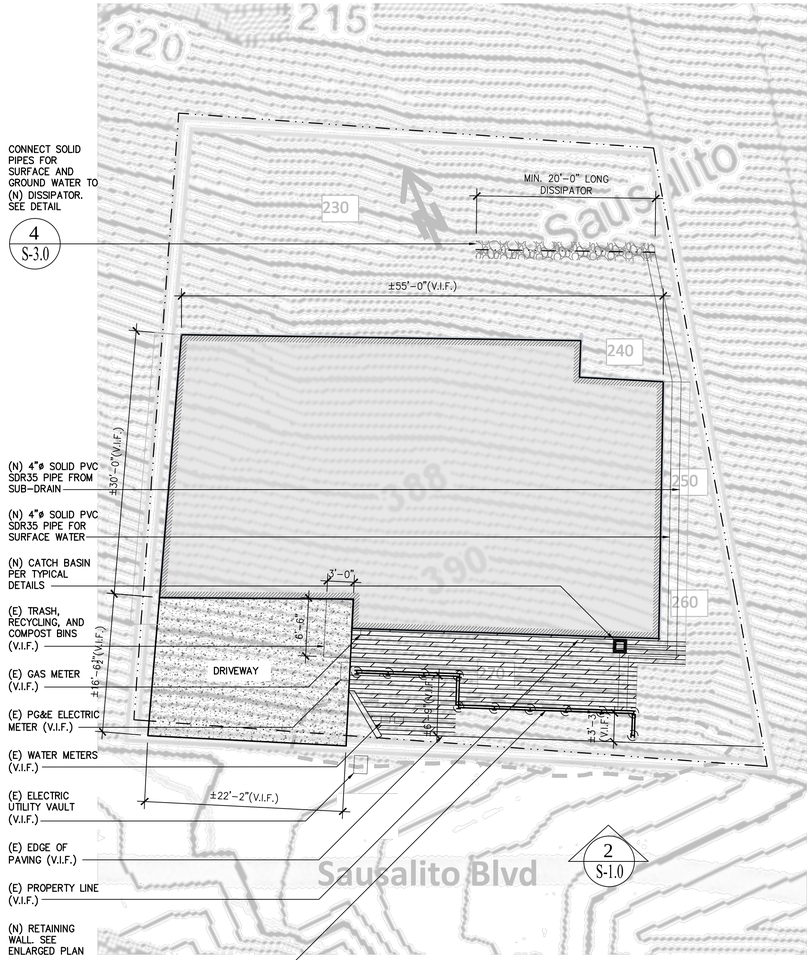
RETAINING WALL PLAN AND STRUCTURAL DETAILS

DATE:	2024-10-31
SCALE:	AS SHOWN
DRAWN BY:	WT
JOB NUMBER:	1566-3123S

SHEET 3

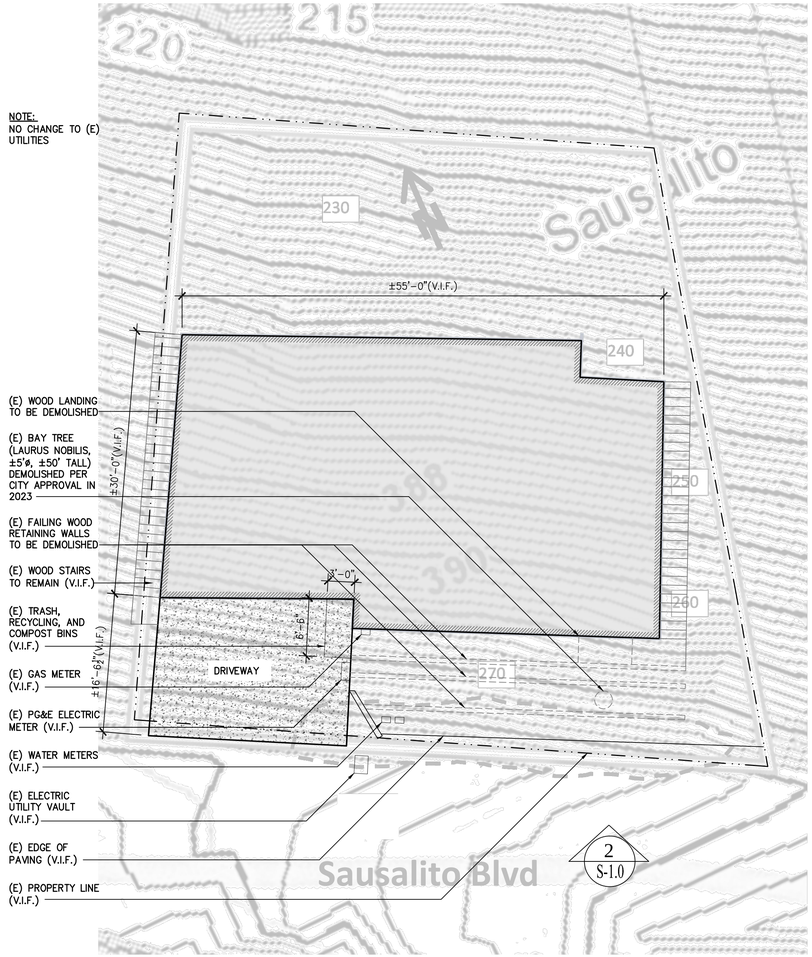
S-2.0

OF 5 SHEET



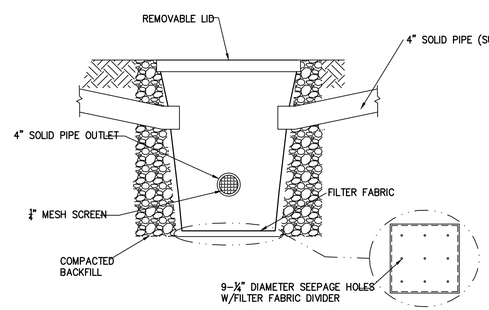
1A S-3.0 PROPOSED SITE PLAN

SCALE: N.T.S



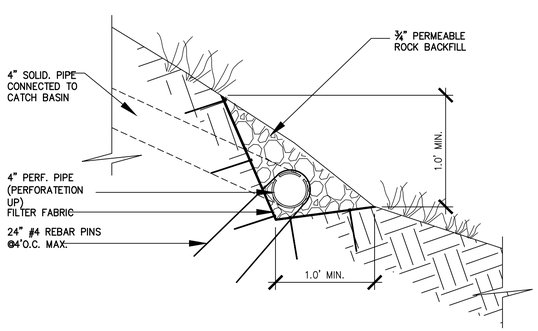
1B S-3.0 EXISTING SITE PLAN

SCALE: N.T.S



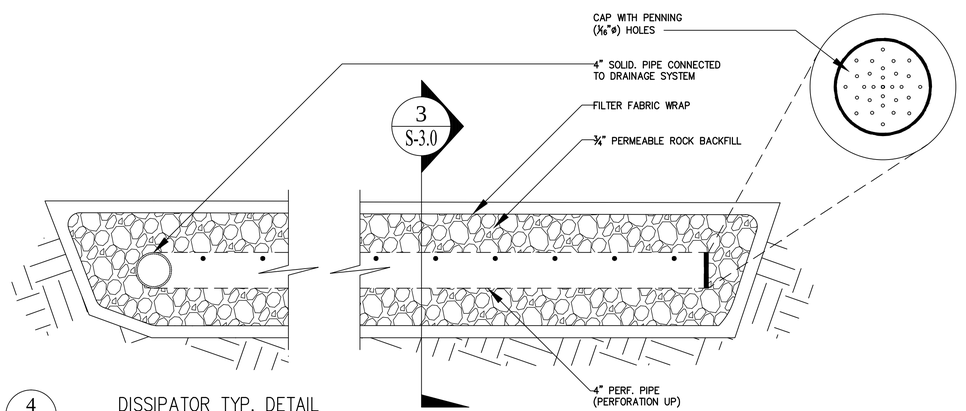
2 S-3.0 CATCH BASIN TYP. DETAIL

SCALE: N.T.S



3 S-3.0 DISSIPATOR TYP. DETAIL

SCALE: N.T.S



4 S-3.0 DISSIPATOR TYP. DETAIL

SCALE: N.T.S

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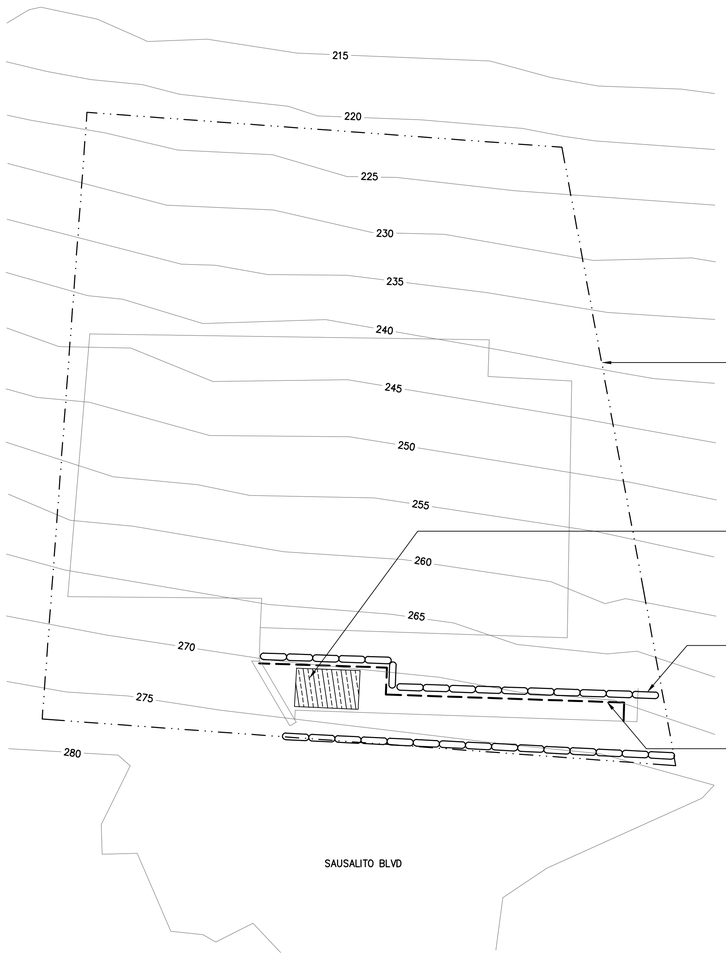
SITE PLAN

DATE:	2024-10-31
SCALE:	AS SHOWN
DRAWN BY:	WT
JOB NUMBER:	1566-3123S

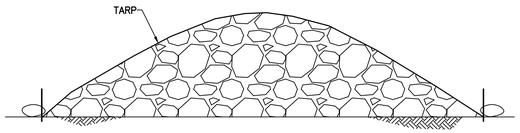
SHEET 4

S-3.0

OF 5 SHEET

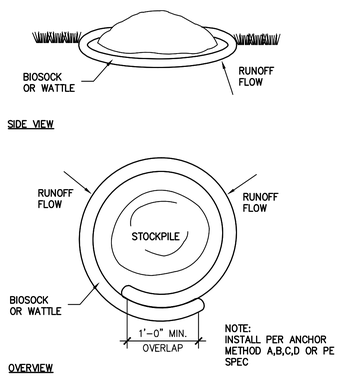


1 / S-4.0 SITE PLAN
SCALE: 1/8" = 1'-0"



NOTE:
STOCKPILE SLOPE NOT STEEPER THAN 5:1 (HORIZONTAL: VERTICAL)

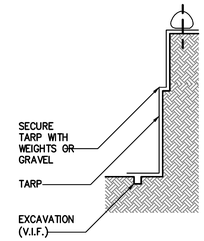
2 / S-4.0 MATERIAL STOCKPILE
NTS



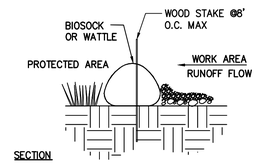
3 / S-4.0 MATERIAL STOCKPILE CONTAINMENT
NTS

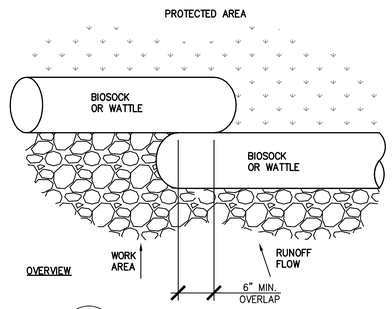
SWPPP NOTES

1. SITE PLAN IS BASED UPON PLANS PREPARED BY THE PROJECT ARCHITECT.
2. ANY SILT THAT BUILDS UP BEHIND THE SILT FENCE SHALL BE REMOVED. REGULARLY MONITOR THE EROSION CONTROL FACILITIES.
3. MINIMIZE THE AMOUNT OF EARTHWORK EXPOSED AT ANY ONE TIME.
4. ALL MODIFICATIONS AND ALL EROSION CONTROL REPAIRS SHALL BE NOTED ON THIS PLAN AND KEPT UPDATED BY THE CONTRACTOR IN THE FIELD DURING CONSTRUCTION.
5. ALL EROSION CONTROL FEATURES SHALL BE REGULARLY MONITORED AND REPLACED IF NECESSARY.
6. AFTER STORM EVENTS, ALL EROSION CONTROL MEASURES SHALL BE CHECKED AND THEIR OPERATION VERIFIED.
7. ANY EXCAVATED MATERIAL STOCKPILED ON SITE SHALL BE COVERED WITH 15 MIL PLASTIC (TARP) AND THE ENDS HELD DOWN WITH SAND BAGS. ALTERNATIVELY, OTHER CONTROL MEASURES SUCH AS BIOSOCK SHALL BE UTILIZED.
8. ANY MATERIAL OR DEBRIS STOCKPILED ON SITE SHALL BE CONTAINED BY WATTLES (OR EQUIVALENT).
9. MINIMIZE THE AMOUNT OF MATERIAL STOCKPILED ON SITE.
10. ADDITIONAL SANDBAGS, WATTLES, AND OTHER EROSION CONTROL MATERIAL SHALL BE STORED ON SITE TO ALLOW FOR IMMEDIATE REPAIR OF PROPOSED FACILITY.
11. REMOVE SEDIMENT BEFORE ACCUMULATION REACHES ½ OF THE BARRIER HEIGHT.
12. THE ACTUAL AMOUNT AND TYPES OF EROSION CONTROL DEVICES WILL VARY BASED ON CONSTRUCTION METHODOLOGIES AND STAGING. THIS PLAN SHOWS A MINIMUM REQUIREMENT AND SHALL BE SUPPLEMENTED AS NEEDED.
13. WATTLE DIKES OR EQUIVALENT SYSTEMS SHALL BE INSTALLED AT LOCATIONS WHERE SLOPE RUNOFF ARE LEADING TO STORMWATER INLET FACILITIES.
14. HYDROSEED ALL EXPOSED AREAS OF EARTH PRIOR TO START OF RAINY SEASON. IF RAIN IS IMMINENT OR GRASS IS NOT MATURE PRIOR TO OCTOBER 15TH, COVER EXPOSED EARTH WITH STRAW AND TACKIFIER.
15. IN DRY WEATHER CONDITION, MINIMIZE DUST PRODUCTION BY FREQUENTLY SPRAYING WATER IN THE AREAS WHERE EXCAVATION/GRADING OPERATIONS ARE BEING PERFORMED.D
16. BEFORE A REQUEST FOR A FINAL INSPECTION, ANY AREA WHERE SOIL IS DISTURBED MUST BE RE-VEGETATED WITH A GROUND COVER ACCEPTABLE TO THE CITY OF SAUSALITO, OR A PERMANENT EROSION CONTROL SYSTEM SUCH AS AN EROSION CONTROL BLANKET OR MULCH COVERED WITH A TACKIFIER. THERE ARE NO EXCEPTIONS TO THIS REQUIREMENT AND TEMPORARY PLANTING MAY BE REQUIRED TO COMPLY. FOR INFORMATION AND DETAILS ON PERMANENT EROSION CONTROL METHODS, REFER TO MCSTOPP.ORG. TREATMENT FOR STABILIZING ANY BARE SOIL MUST BE CLEARLY DESCRIBED ON THE DRAWINGS.

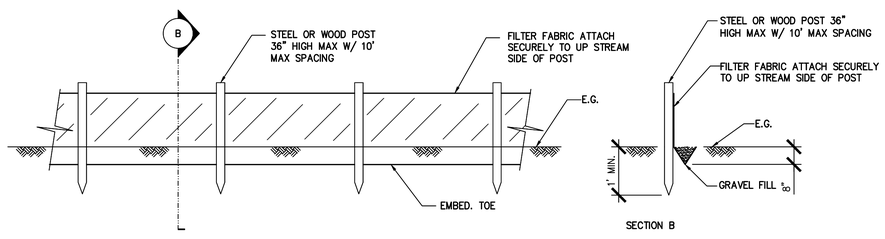


7 / S-4.0 WINTERIZATION SECTION
SCALE N.T.S.

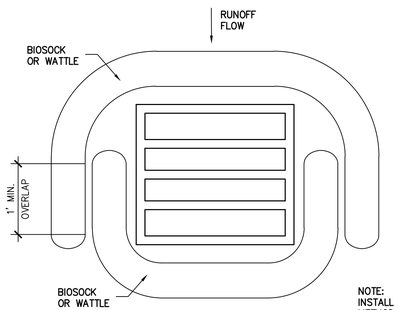




6 / S-4.0 BIOSOCK INSTALLATION
NTS



4 / S-4.0 SILT FENCE
NTS



5 / S-4.0 INLET PROTECTION
NTS

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EROSION CONTROL
WINTERIZATION PLAN

DATE:	2024-10-31
SCALE:	AS SHOWN
DRAWN BY:	WT
JOB NUMBER:	1566-3123S

SHEET 5
S-4.0
OF 5 SHEET