# MIDPENINSULA REGIONAL OPEN SPACE DISTRICT BEAR CREEK STABLES BEAR CREEK REDWOODS OPEN SPACE PRESERVE



PROJECT NO. 385

BEAR CREEK STABLES 19100 Bear Creek Rd. Los Gatos, CA 95033

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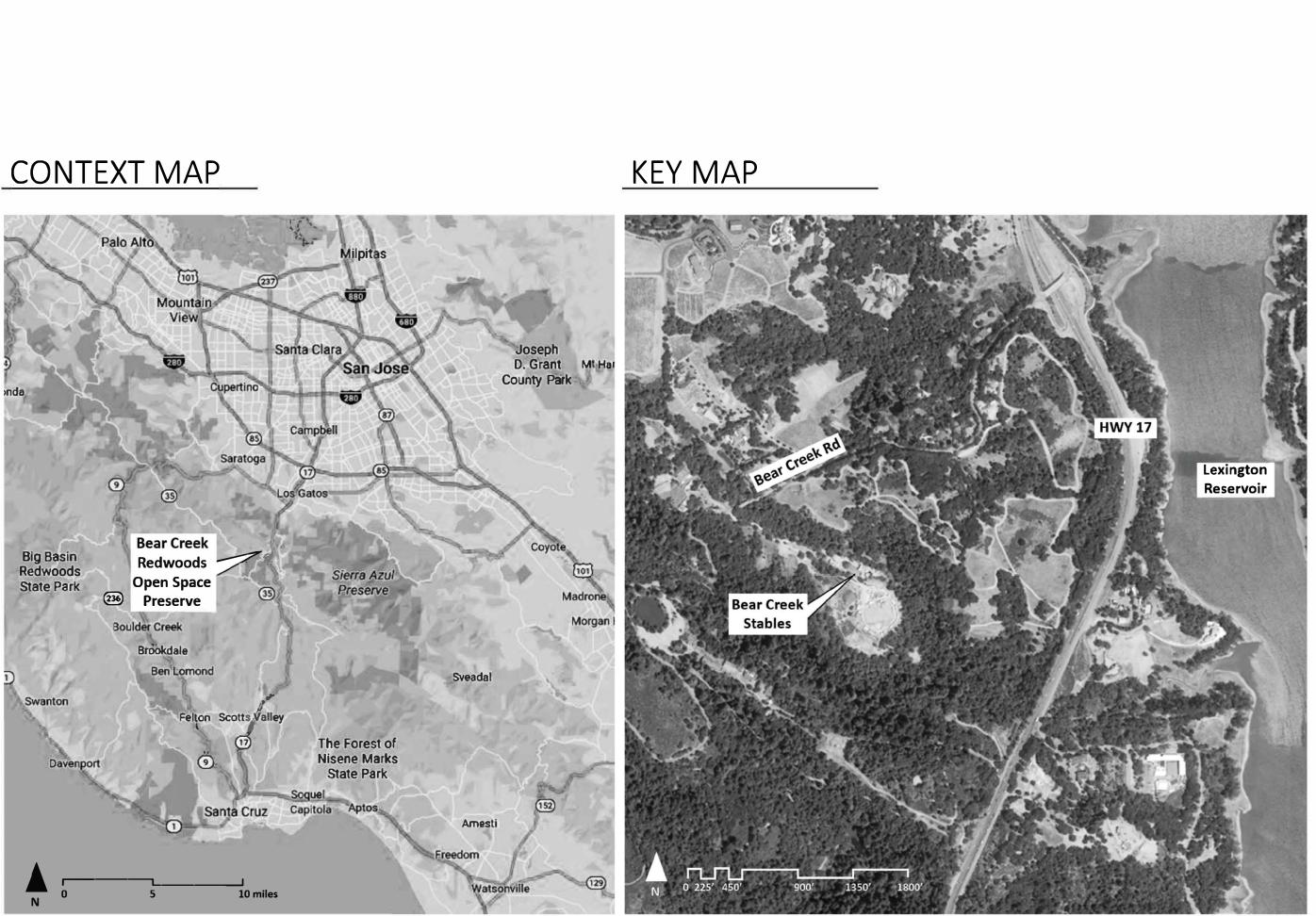
# LIST OF DRAWINGS

G0.0       COVER SHEET         G0.1       SURVEY WEST & SHEET KEY         G0.2       SURVEY EAST & SHEET KEY         G0.1       DEMOLITION PLAN & TREE PROTECTION         L2.0       ENTRANCE ROAD CONCEPT SITE PLAN         L2.1       CONCEPT SITE UTILITY PLAN WEST         C1.1       CONCEPT SITE UTILITY PLAN WEST         C1.2       CONCEPT SITE UTILITY PLAN - 20 SCALE         C1.3       CONCEPT SITE UTILITY PLAN - 20 SCALE         C1.4       DRAINAGE PLAN 20 SCALE         C1.5       STORMWATER CONTROL PLAN 60 SCALE         C1.6       STORMWATER CONTROL PLAN 20 SCALE         C2.0       SLOPE DENSITY EXHIBIT         C3.0       GRADING & DRAINAGE         C4.0       AREA CALCULATION         A0.01       COVER SHEET         A2.11       MAIN BARN PLANS         A2.21       HAY BARN PLANS         A2.21       HAY BARN PLANS         A2.21       CARETAKER RESIDENCE PLANS         A2.31       BREEZEWAY PLANS         A2.41       CARETAKER RESIDENCE PLANS         A3.21       MAIN BARN NORTH & SOUTH ELEVATIONS         A3.31       BREEZEWAY ELEVATIONS         A3.31       BREEZEWAY ELEVATIONS         A3.41       CARETAKER RESIDENCE EL		
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# **PROJECT TEAM**

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**GEOTHECNICAL ENGINEER:** ALAN KROOP & ASSOCIATES 2140 Shattuck Ave, Suite 910 Berkeley, CA, 94704 (510) 841 5095

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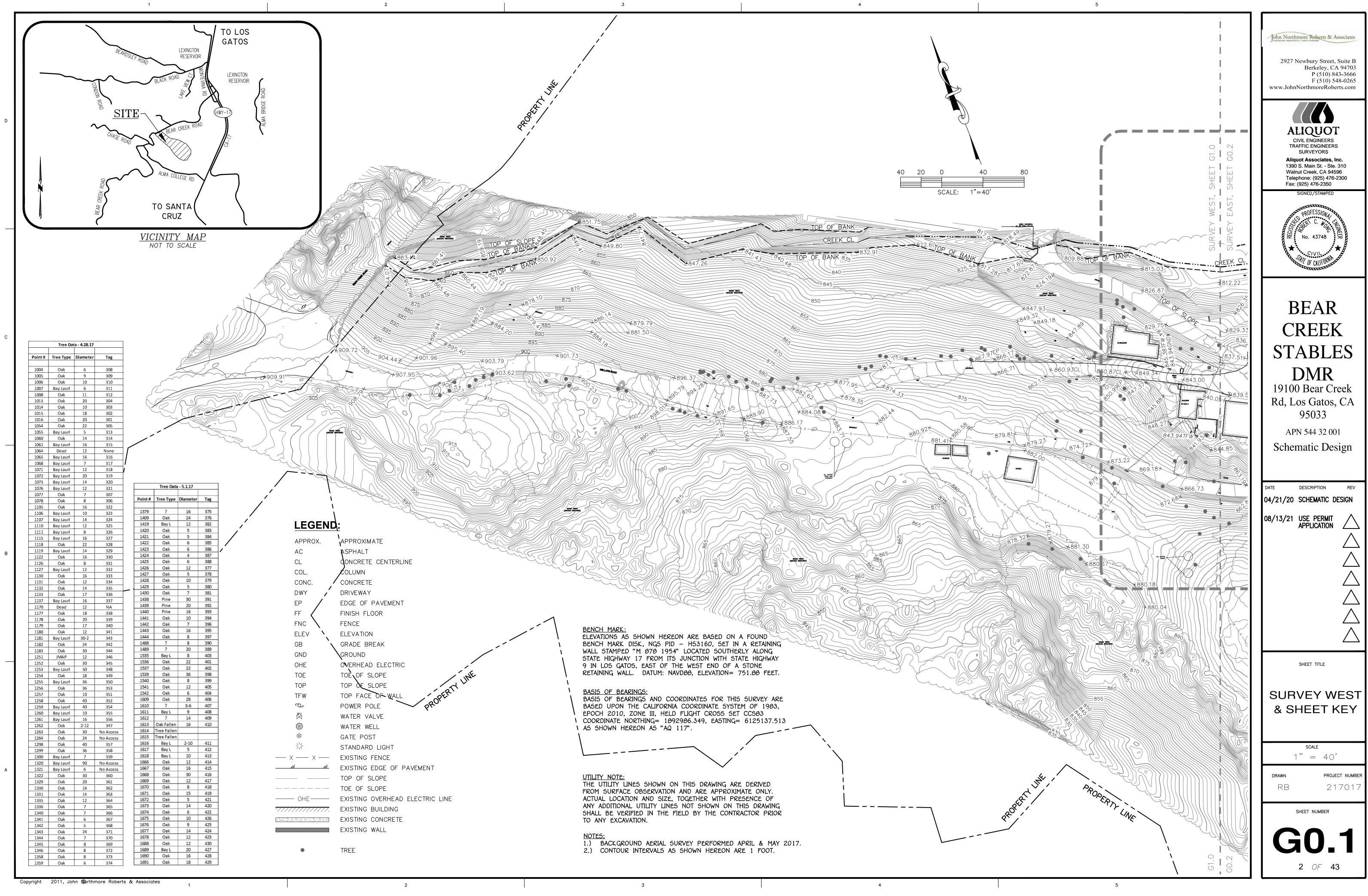
CIVIL ENGINEER: ALIQUOT 953 West MacArthur Blvd. Suite 11 Walnut Creek, CA, 94608 (510) 843 3666

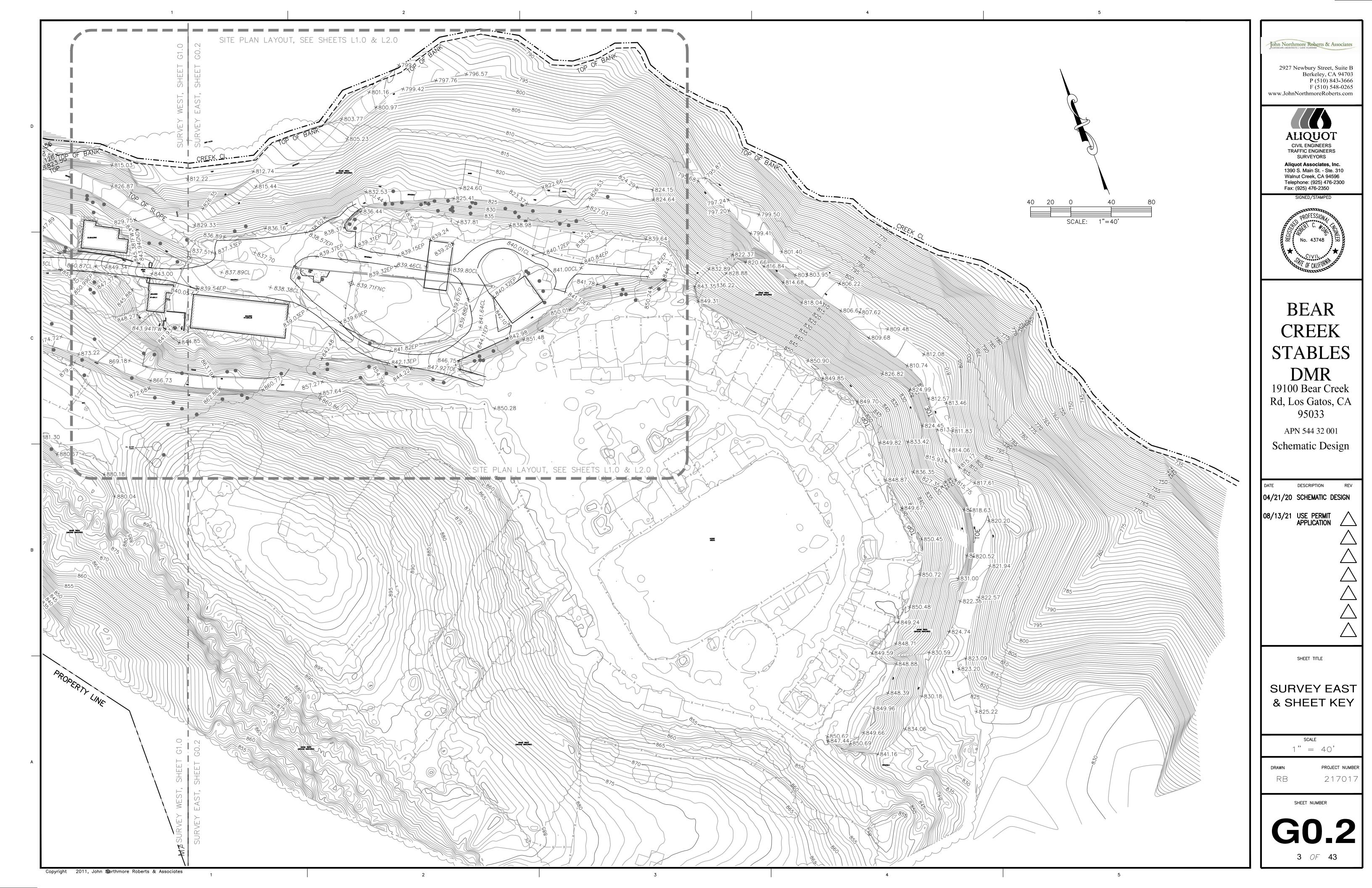
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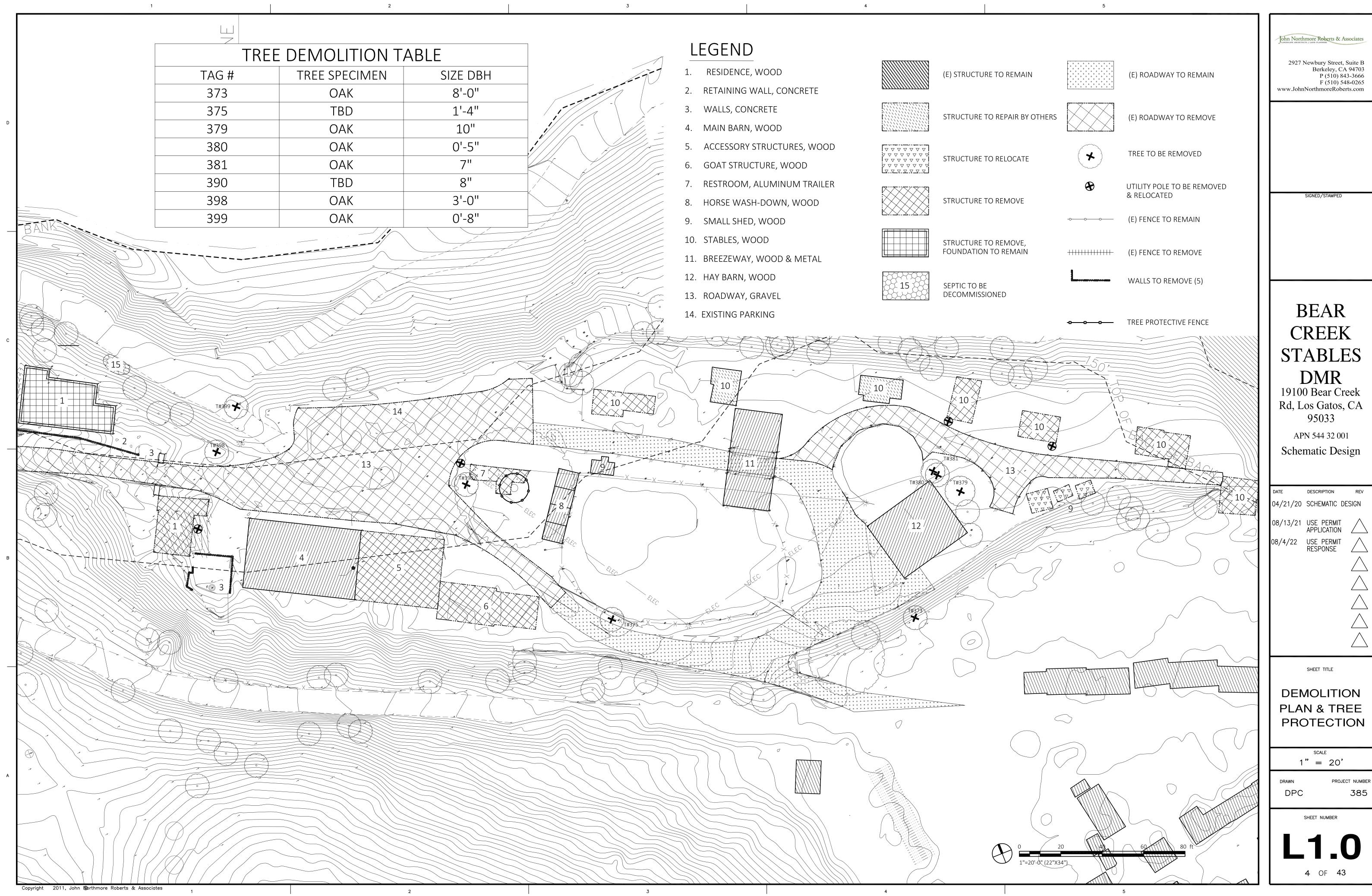
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ELECTRICAL ENGINEER: THE ENGINEERING ENTERPRISE 1305 Marina Village Parkway Alameda, CA, 94501 (510) 769 76 00

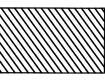
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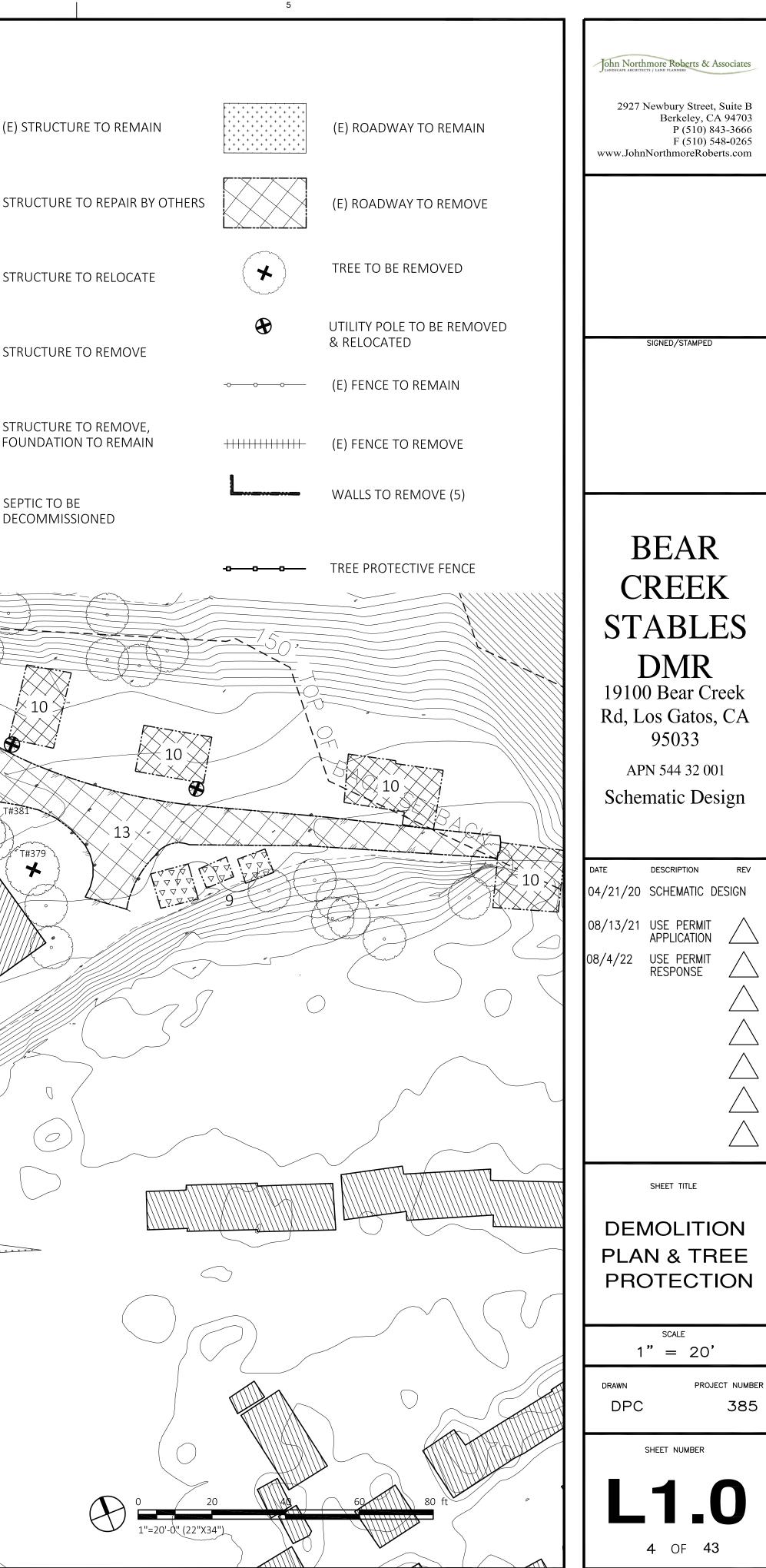




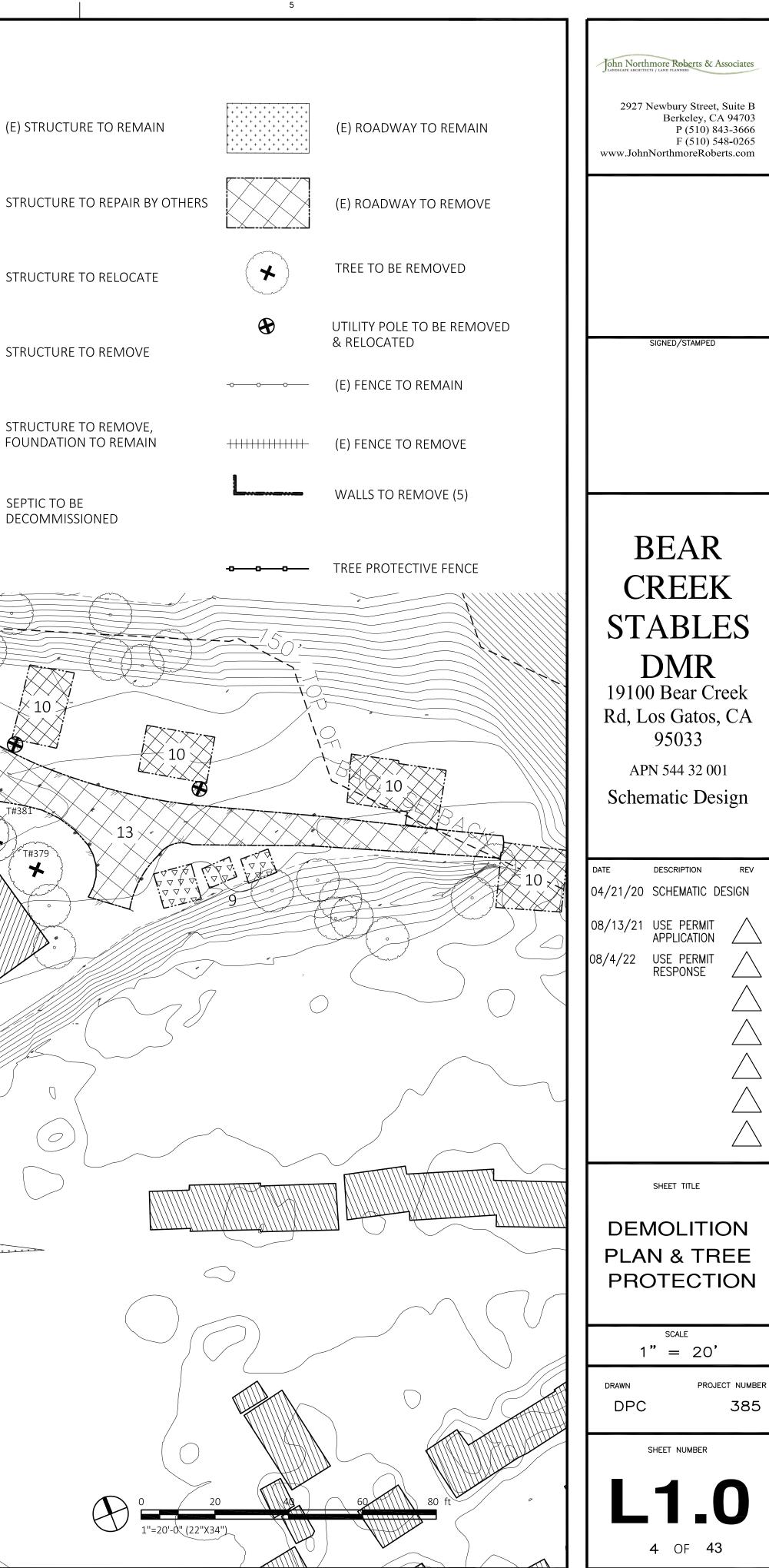




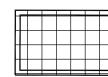


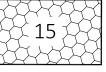


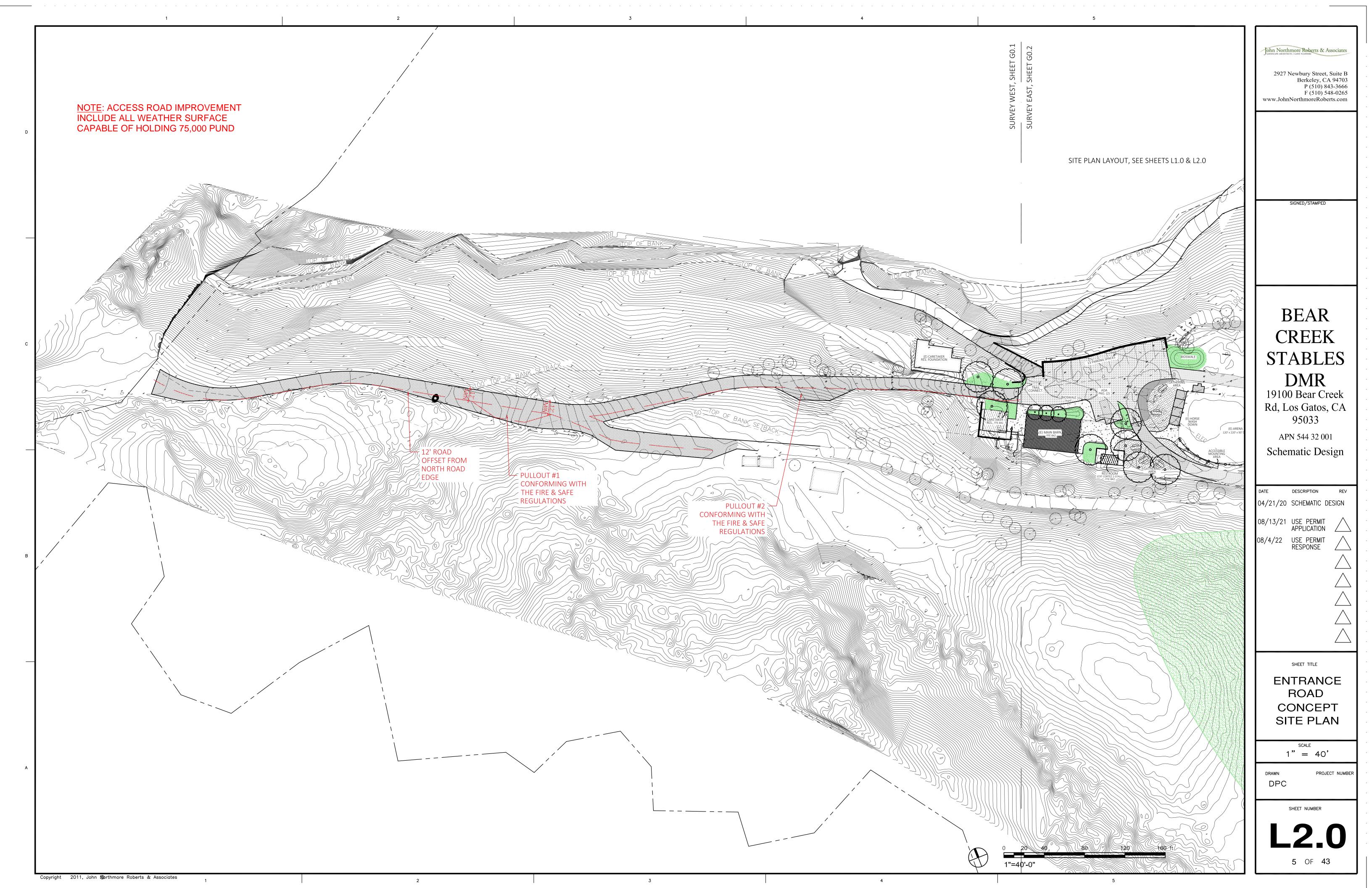


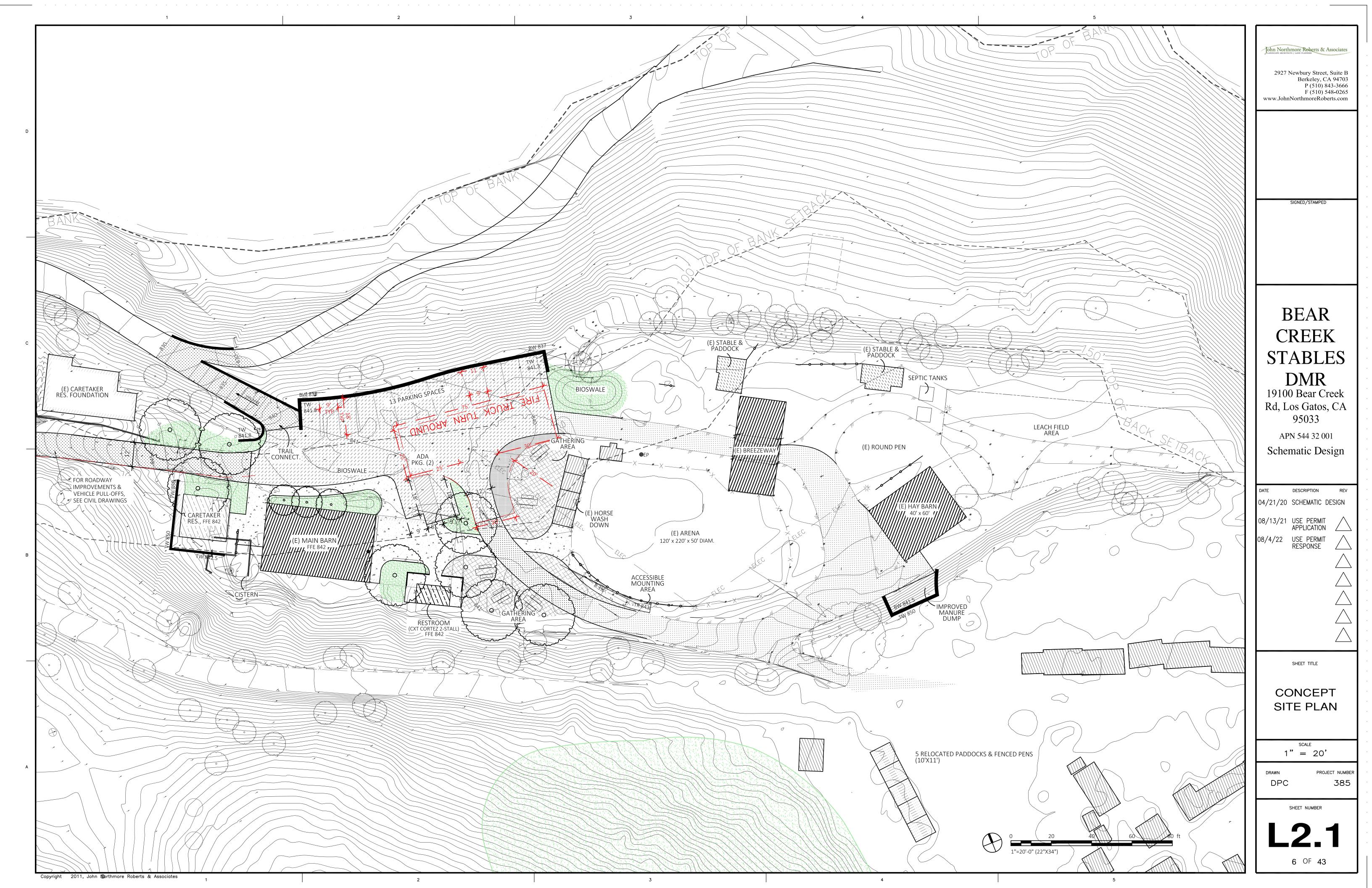


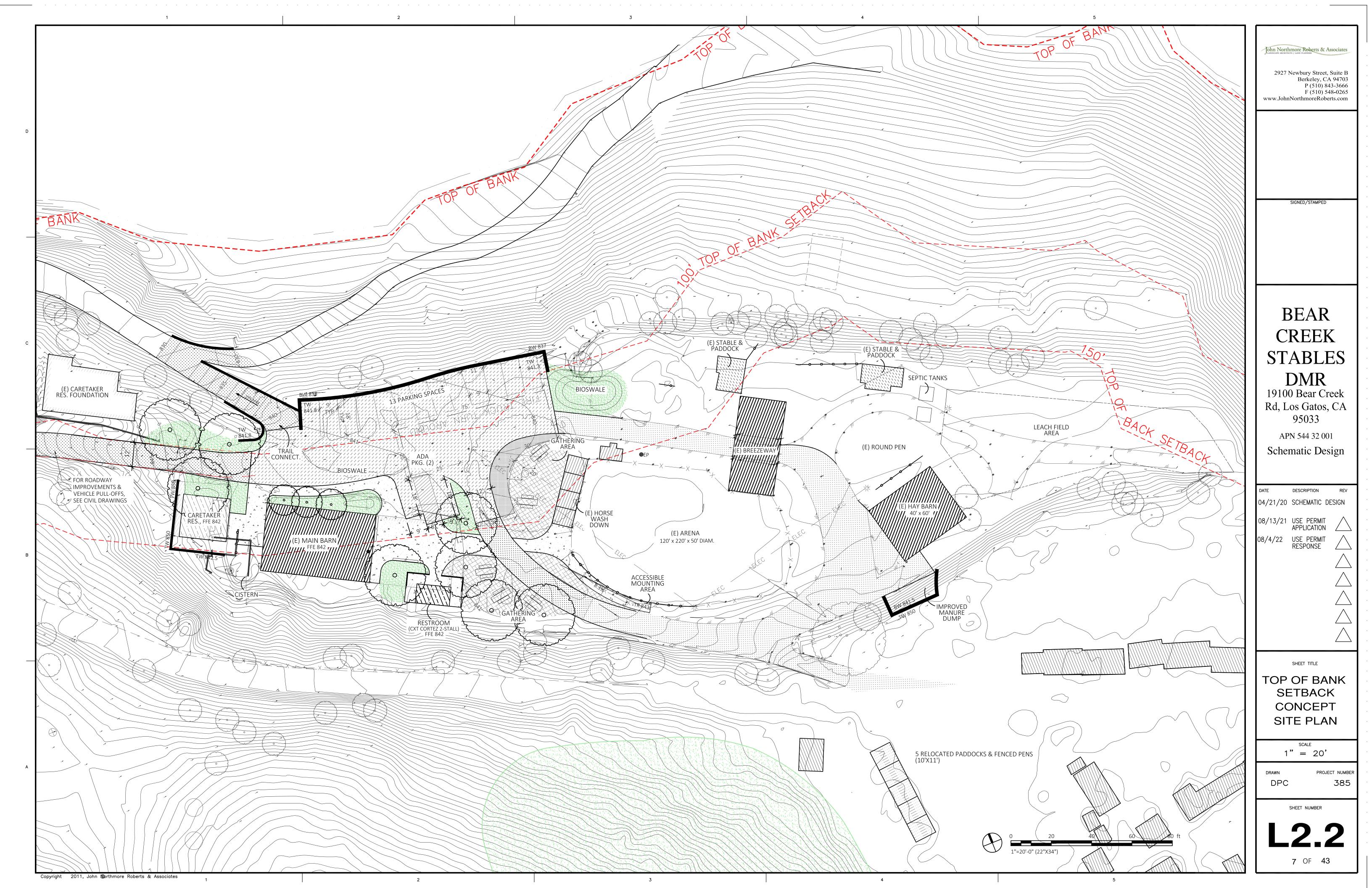












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D				PROPERTURY
		DRIVEWAY PAVING IMPROVEMENT (3"AC ON 6"AB)		
C			MDTH VARIES. 12' MIN Report to the second se	
В	W V FW F RW R RL R SD S SD(R) S R SS S	IRE HYDRANT WATER LINE IRE WATER RECYCLED WATER ROOF LEADER STORM DRAIN FROM BIO-PLANTER VIA POST TREATMENT AND OVERFLOW STORM DRAIN FROM ROOFS FOR RAIN HARVESTING SANITARY SEWER DOMESTIC WATER		
	$ \begin{array}{c} \hline \\ \hline $	RETAINING WALL SWALE MANHOLE CLEAN OUT CATCH BASIN AND PVC STORM DRAIN AREA DRAIN BIO-PLANTER SEPTIC TANK AND PUMP	PROPERTY LINE	
Α	4 $\Rightarrow$ S ((((((((((((((((((((((((((((((((((((	SD RIP-RAP OUTFALL "PERFORATED SUB-DRAIN AND ROCK TRENCH SITE LIGHTING, SEE ELECTRIC PLAN AC PAVEMENT (3"AC ON 6"AB) SRAVEL ROAD (6" AB) CONCRETE PAVEMENT (5"PCC ON 4"AB) EXISTING GRAVEL ROAD SRASSCRETE BLOCKS FILLED WITH GRAVEL	NOTE SEE ELECTRIC UNDERGROUN	

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900 FEET THE ACCESS ROAD FROM BEAR CREEK ROAD TO THE LOWER STABLE REVISED TO 3" AC ON 6" AB: ADDITIONAL DESIGN SITE MEASURES MAY BE REQUIRED PER THE LATEST C.3 REGULATION.

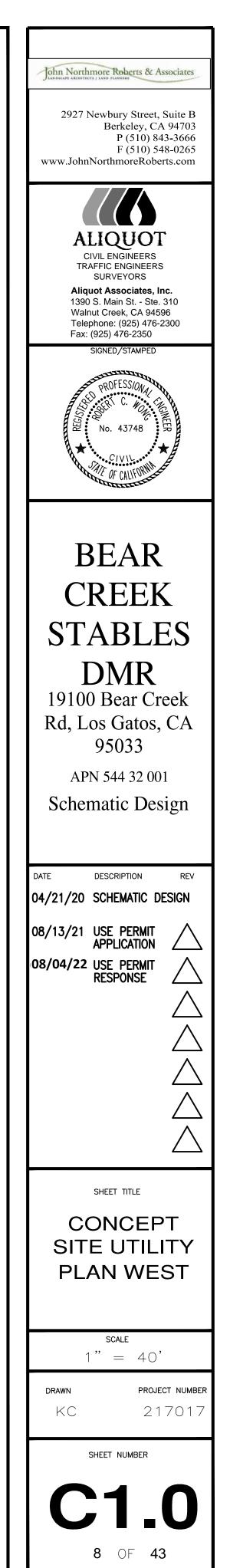
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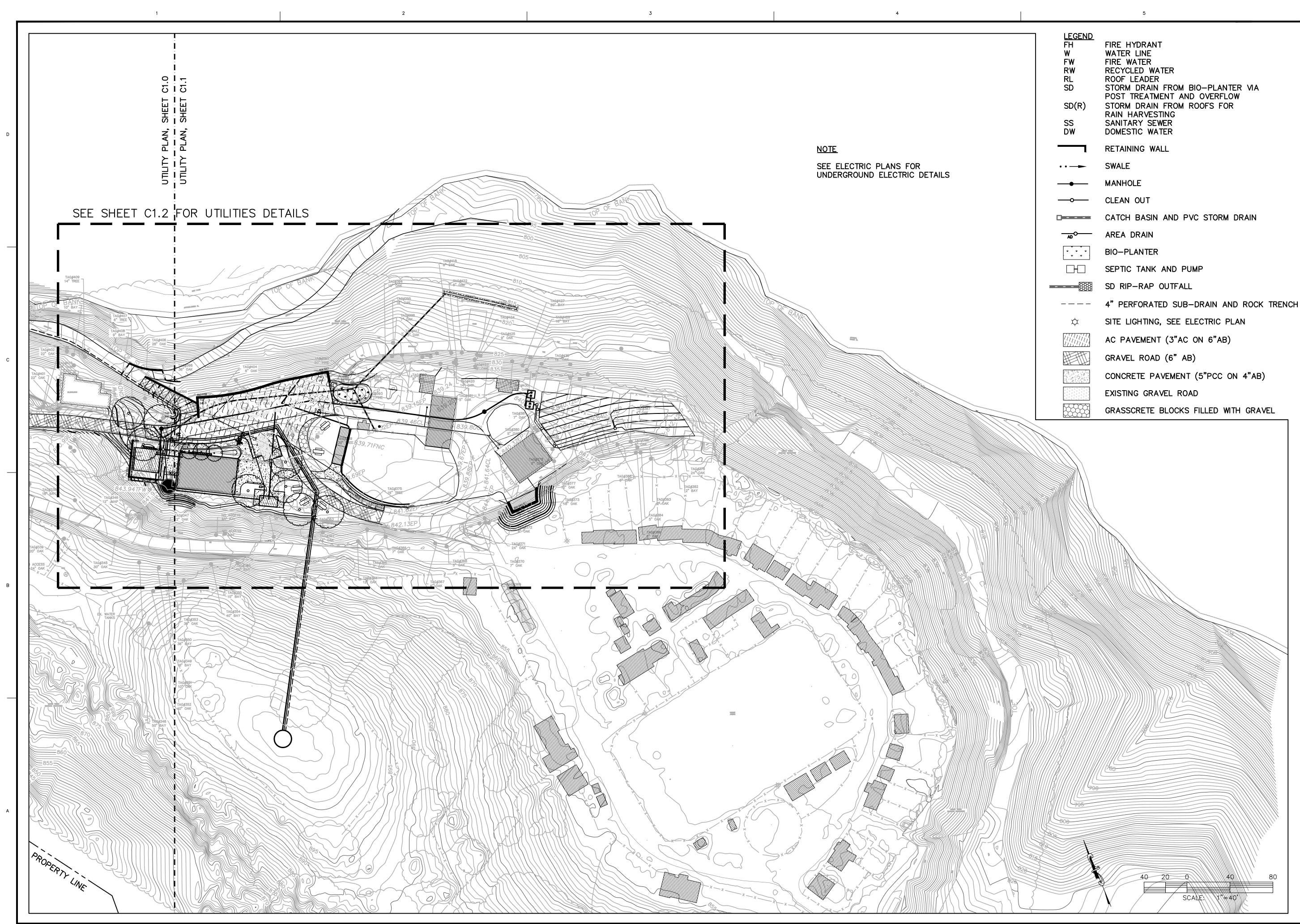
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- APPROXIMATE CREEK CENTERLINE 12' WIDE 6" THICK -AB PAVEMENT 2:1 SLOPE AND VEGETATION WIDTH VARIES, 12' MIN TURN OUT -- HORSE TRAILER PARKING SPACE 12" CURB AT TURNOUT TAG#306 -8" OAK -- 25'-EX. WATER LANS FOR ELECTRIC DETAILS

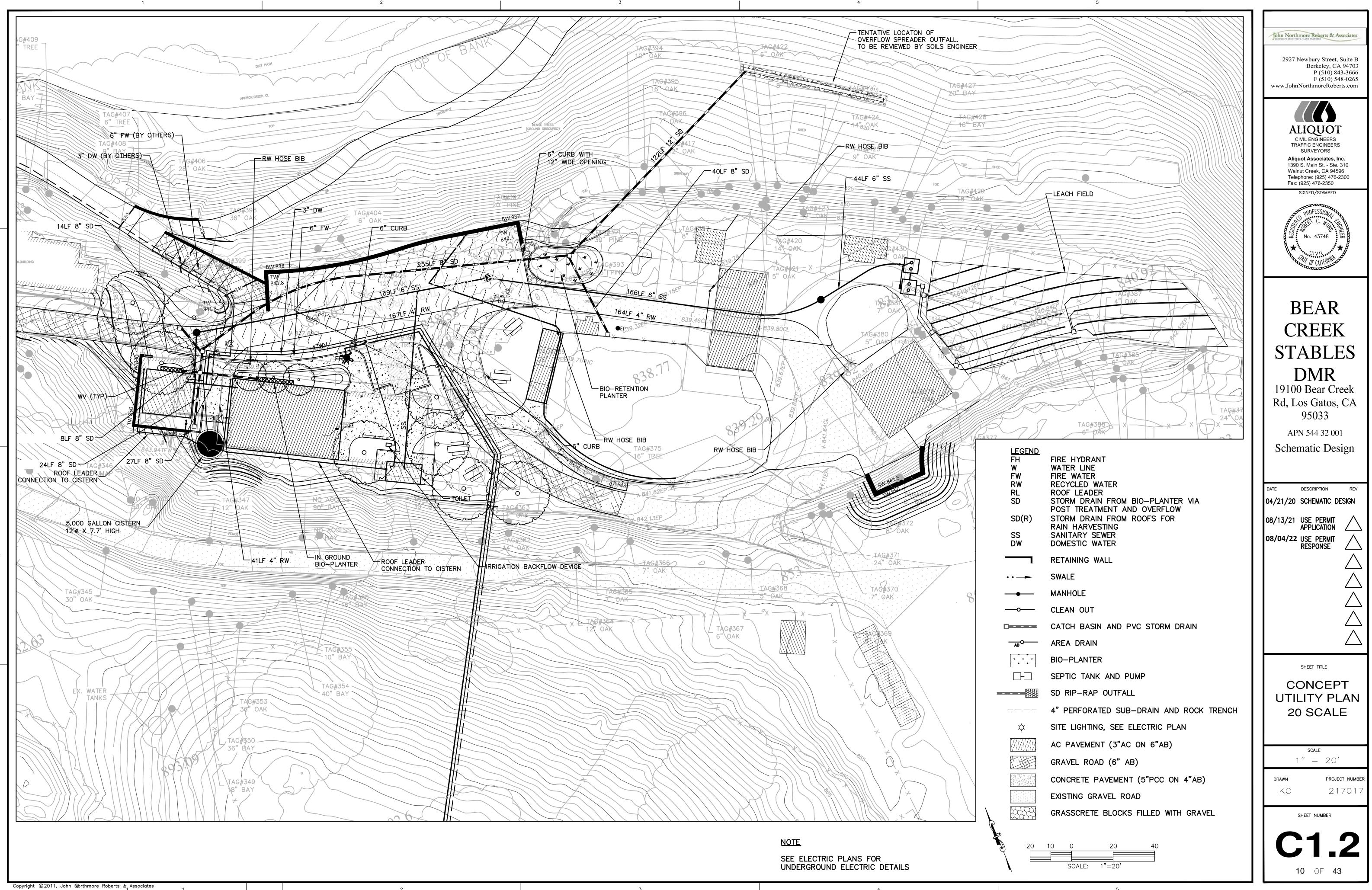
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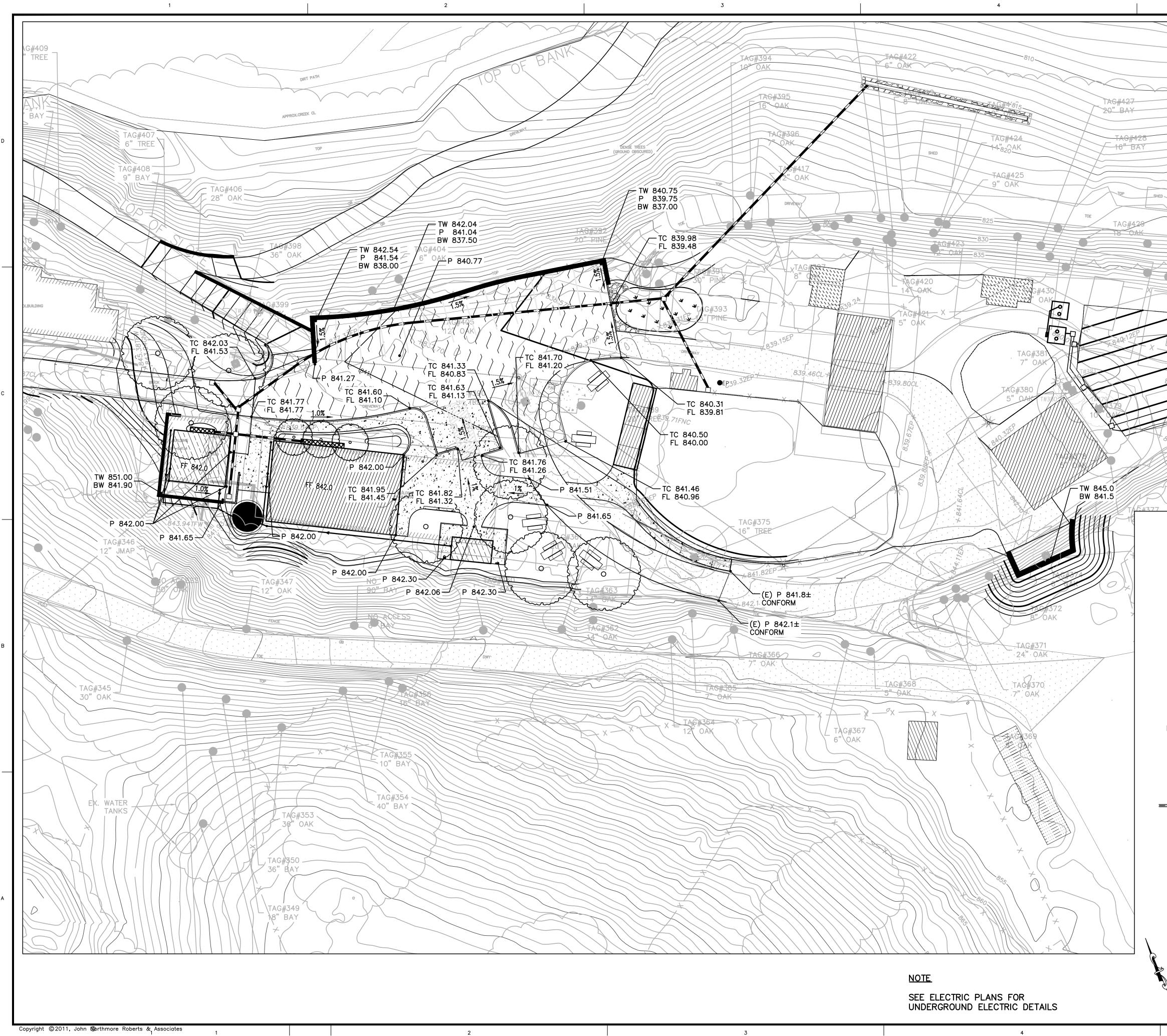




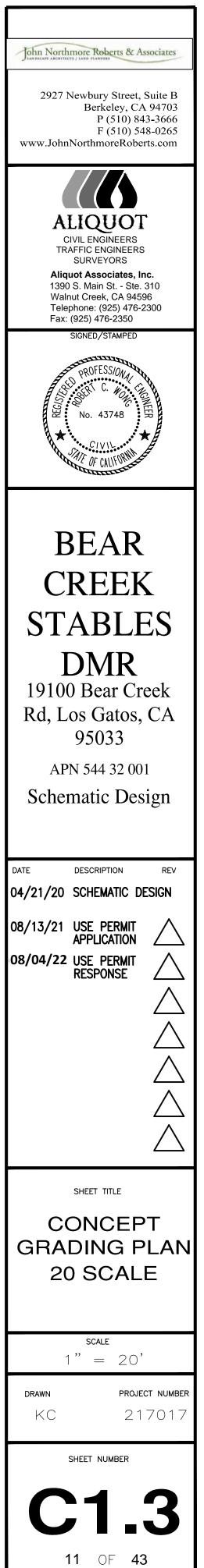


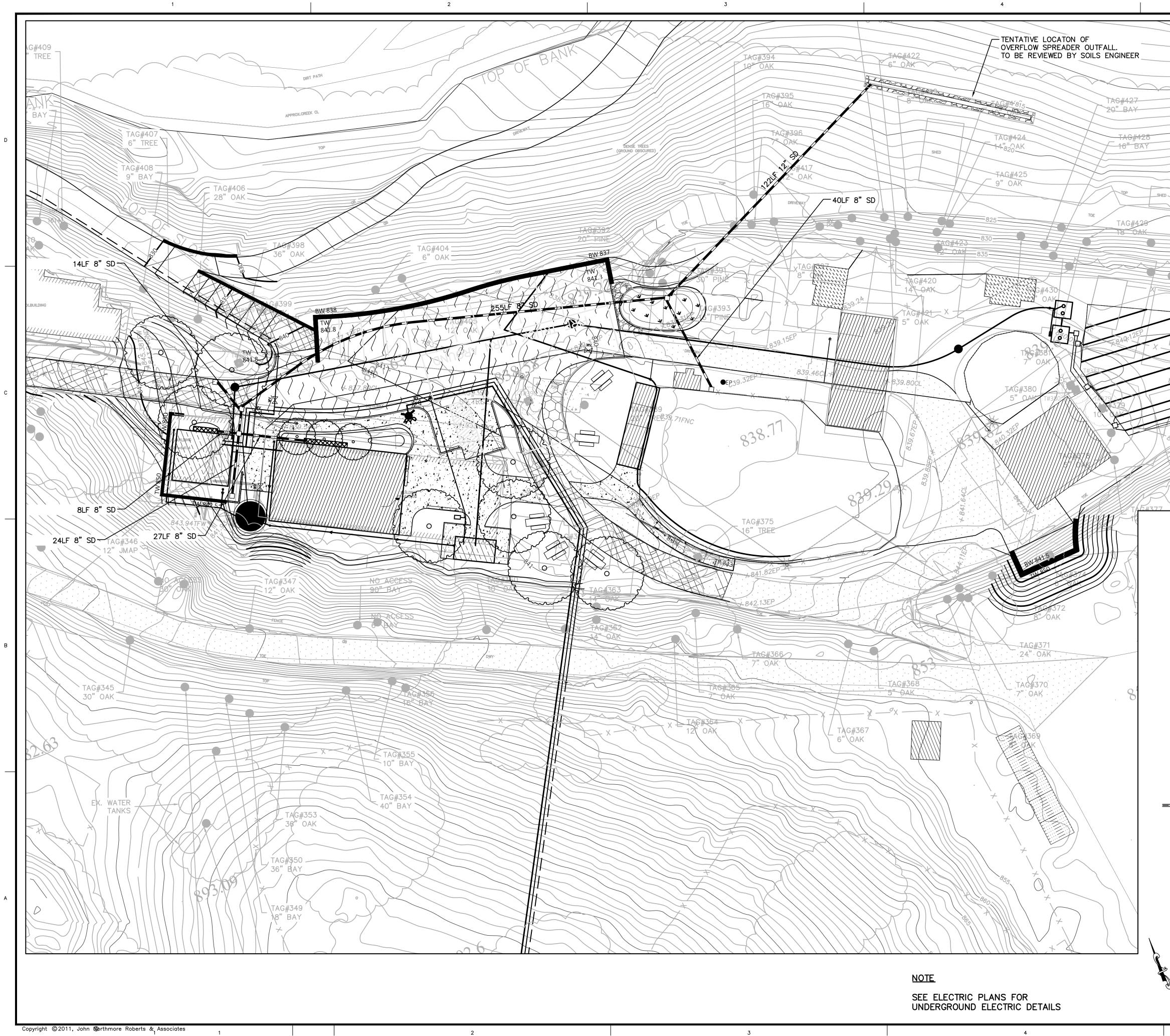






TAG#3 TAG#388 -6" OAK <u>LEGEND</u> FIRE HYDRANT WATER LINE FH W FIRE WATER FW RECYCLED WATER RW DATE RL ROOF LEADER SD STORM DRAIN FROM BIO-PLANTER VIA POST TREATMENT AND OVERFLOW STORM DRAIN FROM ROOFS FOR RAIN HARVESTING SANITARY SEWER SD(R) SS DOMESTIC WATER DW **RETAINING WALL** SWALE ••---MANHOLE CLEAN OUT ----CATCH BASIN AND PVC STORM DRAIN AREA DRAIN **BIO-PLANTER** \* \* \* SEPTIC TANK AND PUMP SD RIP-RAP OUTFALL - - - 3888 ---- 4" PERFORATED SUB-DRAIN AND ROCK TRENCH SITE LIGHTING, SEE ELECTRIC PLAN ¢ AC PAVEMENT (3"AC ON 6"AB) GRAVEL ROAD (6" AB) CONCRETE PAVEMENT (5"PCC ON 4"AB) DRAWN КC EXISTING GRAVEL ROAD GRASSCRETE BLOCKS FILLED WITH GRAVEL 20 10 20 40

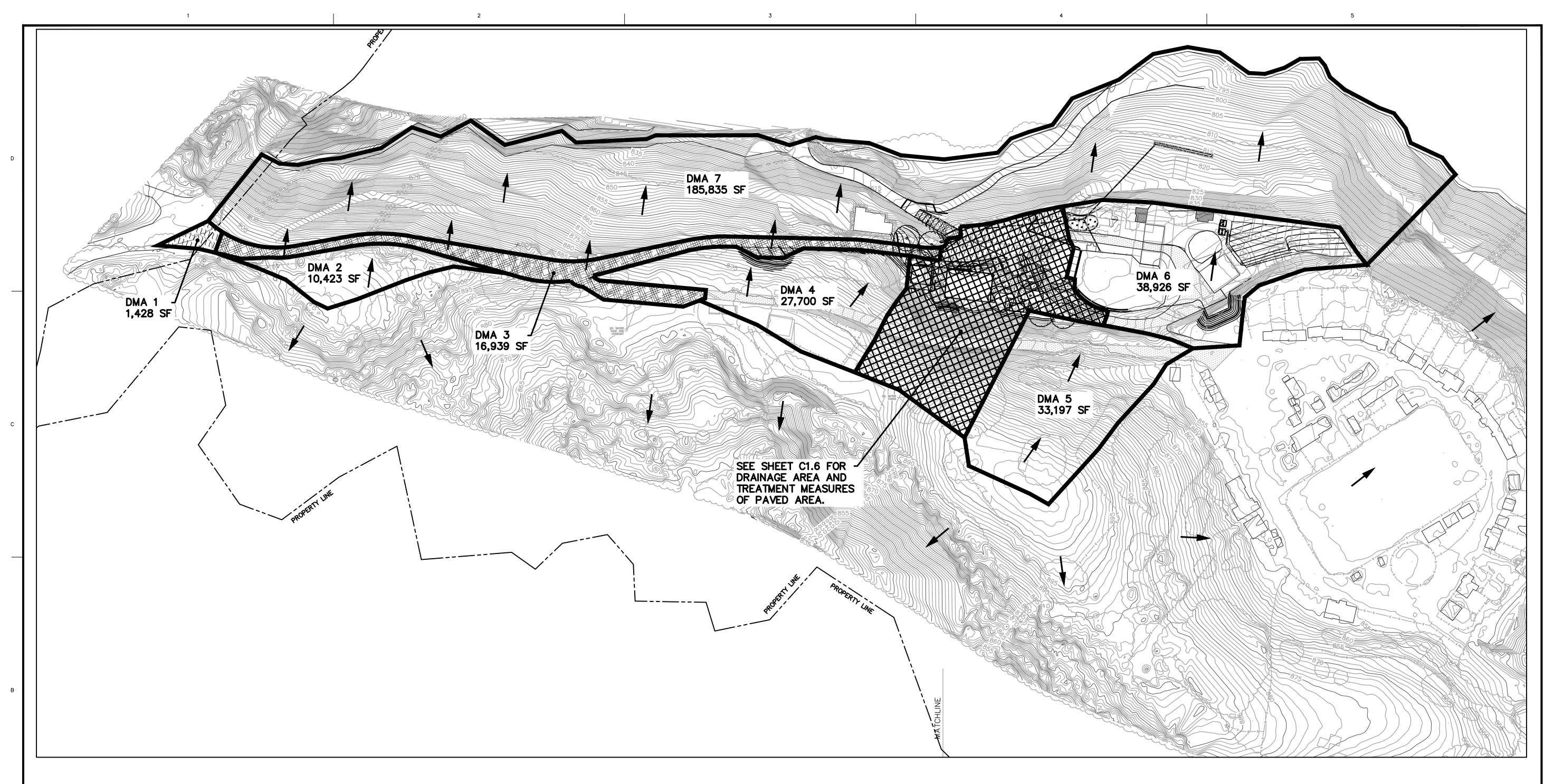




TAG#3 TAG#388 <u>LEGEND</u> FH FIRE HYDRANT WATER LINE W FIRE WATER FW RECYCLED WATER RW RL ROOF LEADER SD STORM DRAIN FROM BIO-PLANTER VIA POST TREATMENT AND OVERFLOW STORM DRAIN FROM ROOFS FOR RAIN HARVESTING SANITARY SEWER SD(R) SS DOMESTIC WATER DW RETAINING WALL SWALE ••---MANHOLE **\_\_\_** CLEAN OUT **—**— CATCH BASIN AND PVC STORM DRAIN AREA DRAIN **BIO-PLANTER** \* \* \* SEPTIC TANK AND PUMP SD RIP-RAP OUTFALL - - - 888 ----- 4" PERFORATED SUB-DRAIN AND ROCK TRENCH SITE LIGHTING, SEE ELECTRIC PLAN Ϋ́ AC PAVEMENT (3"AC ON 6"AB) GRAVEL ROAD (6" AB) CONCRETE PAVEMENT (5"PCC ON 4"AB) EXISTING GRAVEL ROAD GRASSCRETE BLOCKS FILLED WITH GRAVEL 20 10 0 20 40



SCALE: 1"=20'



# DRAINAGE AREA:

DMA	SURFACE TYPE	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	TREATMENT MEASURE	
1	PAVEMENT	1,428	-	SELF RETAINING AREA (DRAINING TO DEPRESSED AREA IN DMA 7)	
2	VEGETATED SLOPE	_	10,423		
3	GRAVEL ROAD	_	16,939		
4	VEGETATED SLOPE	_	27,700	SELF TREATING AREA	
5	VEGETATED SLOPE	_	33,197	SELF IREATING AREA	
6	ARENA	-	38,926		
7	VEGETATED SLOPE	_	185,835		

1

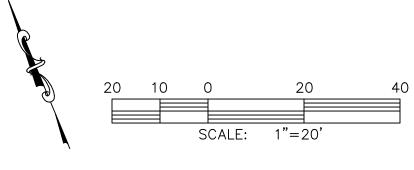
## <u>LEGEND</u>

4

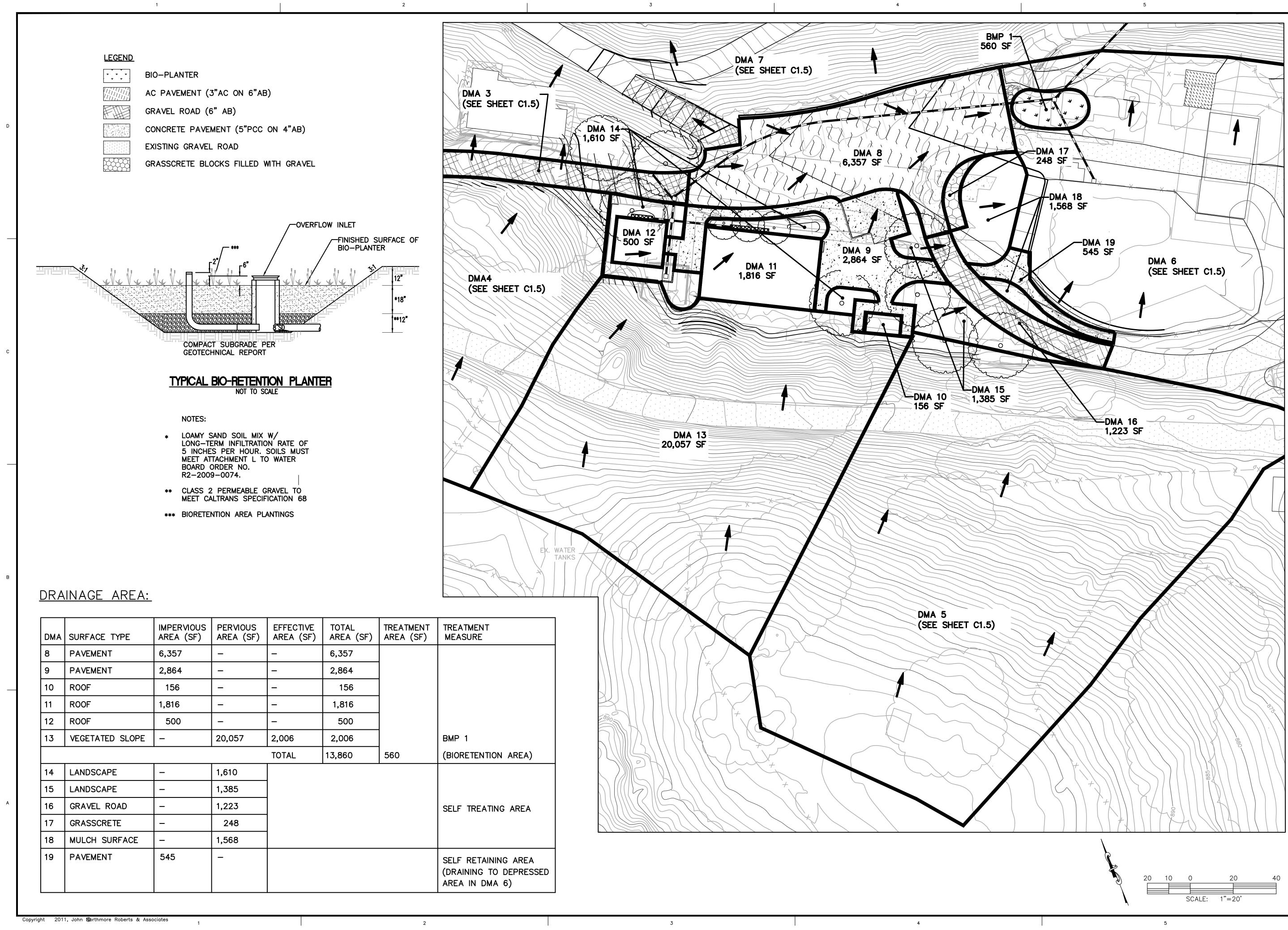
# -<u>H</u>

BIO-PLANTER AC PAVEMENT (3"AC ON 6"AB) GRAVEL ROAD (6" AB)

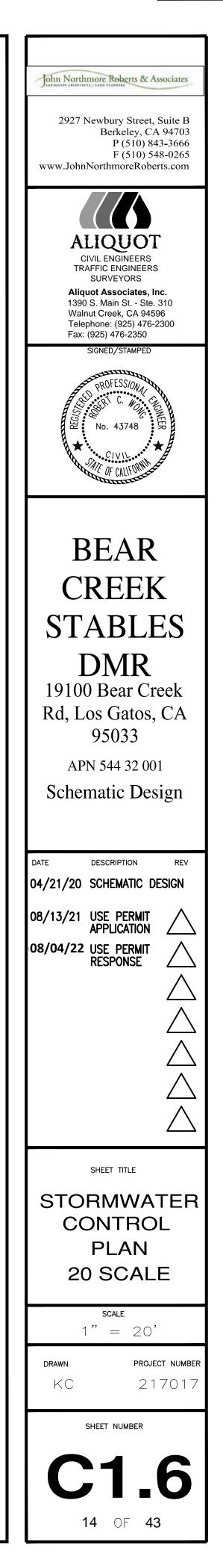
CONCRETE PAVEMENT (5"PCC ON 4"AB) EXISTING GRAVEL ROAD GRASSCRETE BLOCKS FILLED WITH GRAVEL

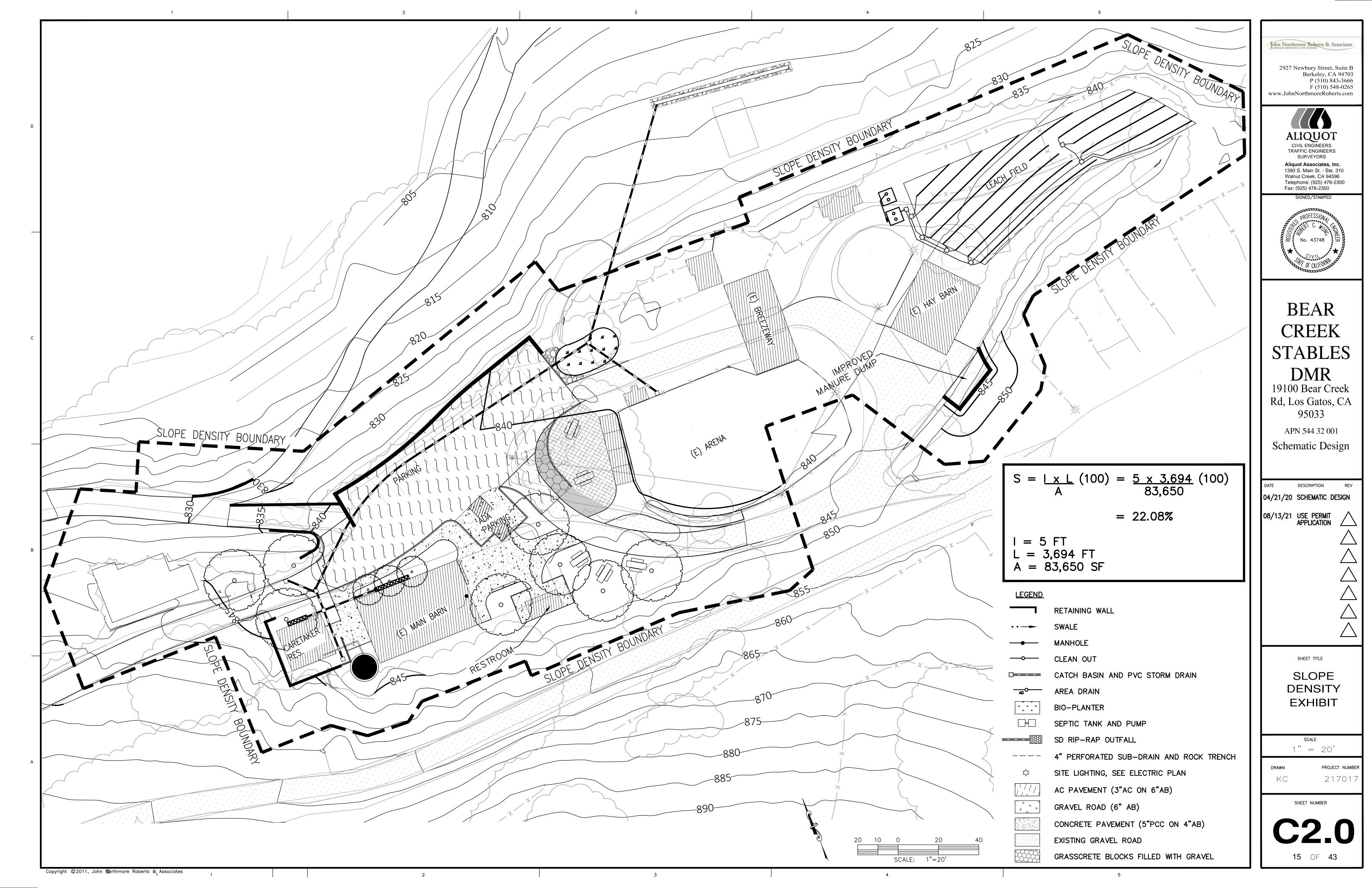


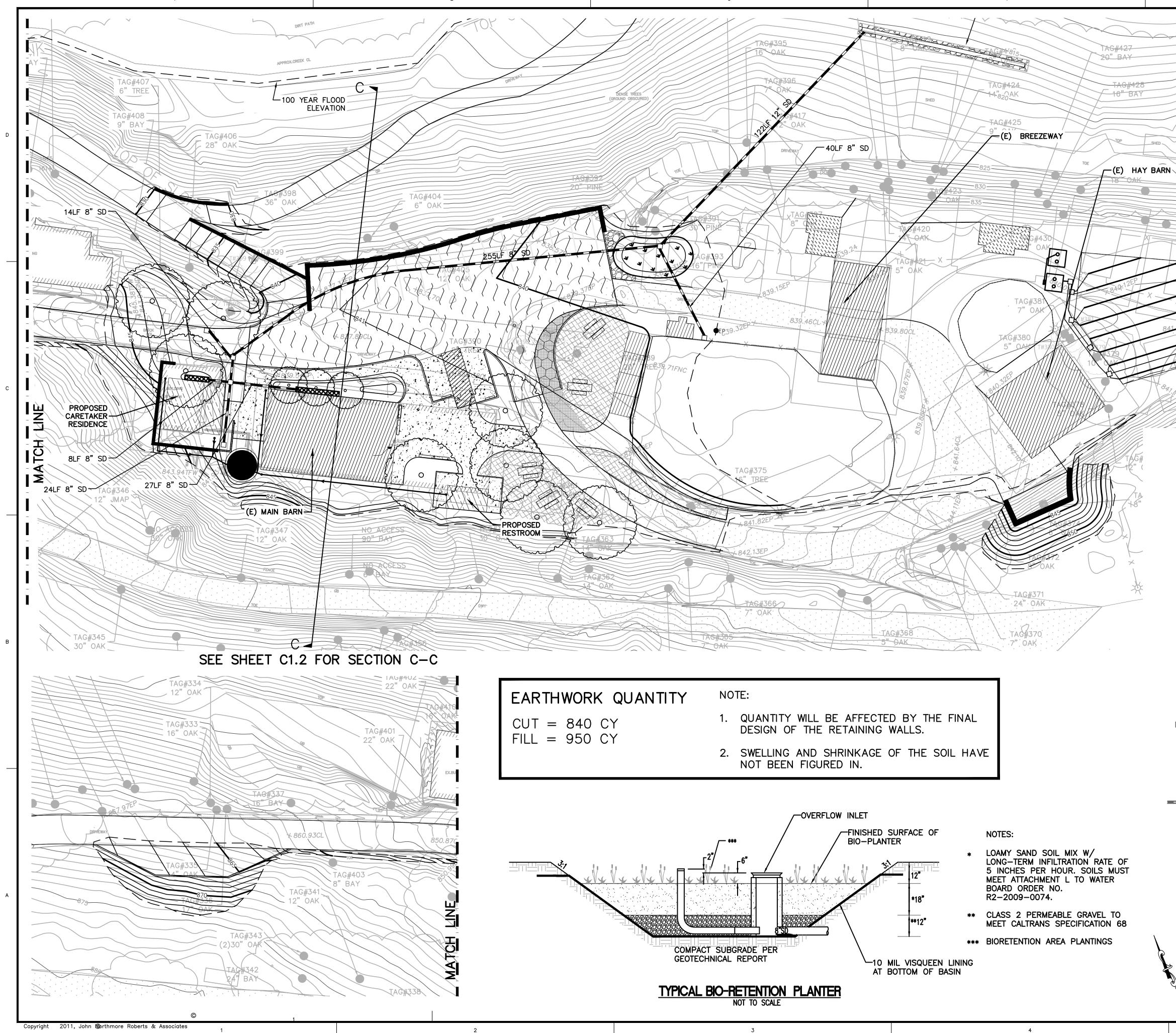




		T			r		
DMA	SURFACE TYPE	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	EFFECTIVE AREA (SF)	TOTAL AREA (SF)	TREATMENT AREA (SF)	TREATMENT MEASURE
8	PAVEMENT	6,357	-	-	6,357		
9	PAVEMENT	2,864	-	-	2,864		
10	ROOF	156	_	-	156		
11	ROOF	1,816	_	-	1,816		
12	ROOF	500	-	-	500		
13	VEGETATED SLOPE	-	20,057	2,006	2,006		BMP 1
				TOTAL	13,860	560	(BIORETENTION A
14	LANDSCAPE	-	1,610		•	•	
15	LANDSCAPE	-	1,385				
16	GRAVEL ROAD	-	1,223				SELF TREATING A
17	GRASSCRETE	-	248				
18	MULCH SURFACE	-	1,568				
19	PAVEMENT	545	-				SELF RETAINING (DRAINING TO DE AREA IN DMA 6)







<u>NOTE</u>

20 10

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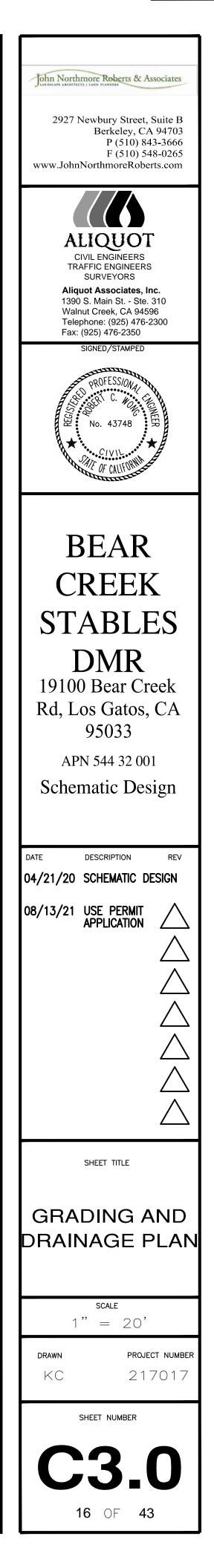
SEE ELECTRIC PLANS FOR UNDERGROUND ELECTRIC DETAILS

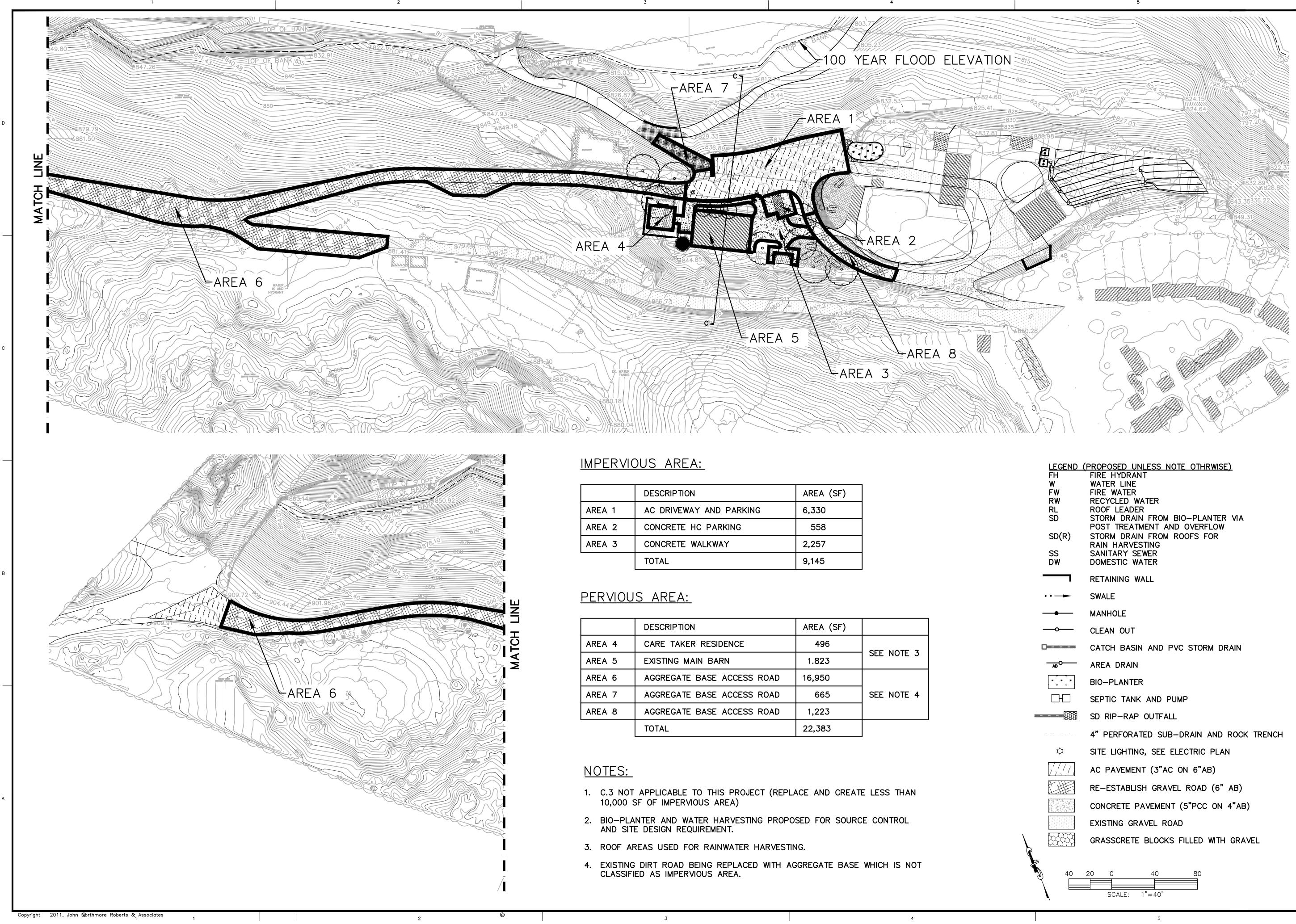
LEGEND ( FH W FW RW RL SD SD(R) SS DW	(PROPOSED UNLESS NOTE OTHRWISE) FIRE HYDRANT WATER LINE FIRE WATER RECYCLED WATER ROOF LEADER STORM DRAIN FROM BIO-PLANTER VIA POST TREATMENT AND OVERFLOW STORM DRAIN FROM ROOFS FOR RAIN HARVESTING SANITARY SEWER DOMESTIC WATER
	RETAINING WALL
••	SWALE
<b></b>	MANHOLE
o	CLEAN OUT
	CATCH BASIN AND PVC STORM DRAIN
	AREA DRAIN
· · · · · · · · · · · · · · · · · · ·	BIO-PLANTER
	SEPTIC TANK AND PUMP
	SD RIP-RAP OUTFALL
	4" PERFORATED SUB-DRAIN AND ROCK TRENCH
¢	SITE LIGHTING, SEE ELECTRIC PLAN
	AC PAVEMENT (3"AC ON 6"AB)
	RE-ESTABLISH GRAVEL ROAD (6" AB)
	CONCRETE PAVEMENT (5"PCC ON 4"AB)
	EXISTING GRAVEL ROAD
	GRASSCRETE BLOCKS FILLED WITH GRAVEL
20	10 0 20 40

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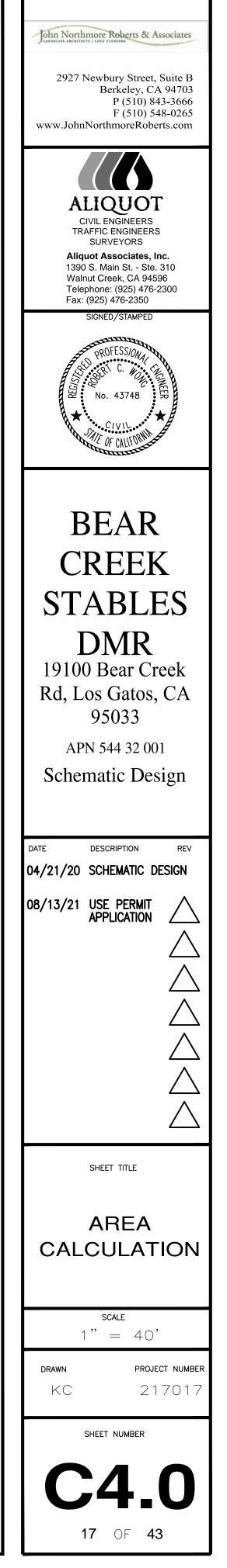
SCALE: 1"=20'





	DESCRIPTION	AREA (SF)
AREA 1	AC DRIVEWAY AND PARKING	6,330
AREA 2	CONCRETE HC PARKING	558
AREA 3	CONCRETE WALKWAY	2,257
	TOTAL	9,145

	DESCRIPTION	AREA (SF)	
AREA 4	CARE TAKER RESIDENCE	496	
AREA 5	EXISTING MAIN BARN	1.823	SEE NOTE 3
AREA 6	AGGREGATE BASE ACCESS ROAD	16,950	
AREA 7	AGGREGATE BASE ACCESS ROAD	665	SEE NOTE 4
AREA 8	AGGREGATE BASE ACCESS ROAD	1,223	
	TOTAL	22,383	



D

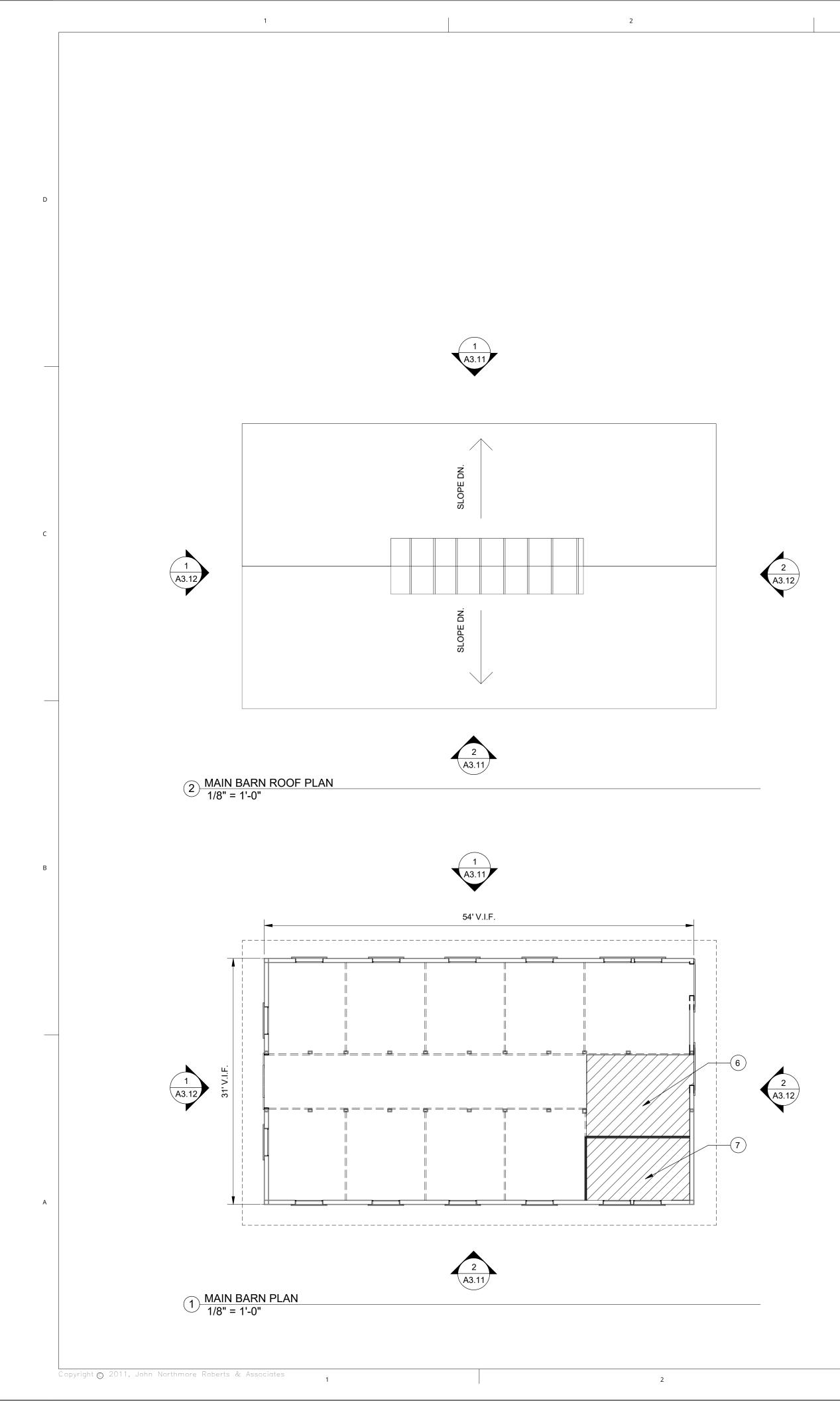
SYMBOLS	LEGEND	FLO	OR ARE	AS				DRAW	VING INDEX
● <u>NAME</u> – 0' - 0"	ELEVATION DATUM	Λ	BUILDING	Area Schedule (Gross Build EXISTING AREA (S	•,	SED AREA (SF)		A0.01 A2.11	COVER SHEET MAIN BARN PLANS
	PROJECT NORTH	MAIN E HAY BA		1670 1197	1670 1197			A2.21 A2.31 A2.41	HAY BARN PLANS BREEZEWAY PLANS CARETAKER RESIDENC
	(E) WALL	BREEZ CARET		1187	1187	occupiable)		A2.51 A3.11	MODULAR TOILETS PL
	DEMO WALL							A3.12 A3.21 A3.31	MAIN BARN EAST AND HAY BARN ELEVATION BREEZEWAY ELEVATIO
	PROPOSED WALL							A3.41 A3.51	CARETAKER RESIDENO MODULAR TOILETS ELI SECTIONS
ALIGN	ALIGN								
	REVISION CLOUD								
1 A201 1	ELEVATION MARKI	ER							
1 A3.00	BUILDING SECTION	N							
1 TYP A3.00	DETAIL SECTION								
	CHANGE IN PLANE								
ABBREVIA	TIONS						PROJECT SUMMARY	CODES	3
ACOUS.ACOUSTICADJ.ADJACENTALT.ALTERNATALUM.ALTERNATALUM.ALUMINUMAPPROX.APPROXIMARCH.ARCHITECB.O.BOTTOM CBD.BOARDBLDG.BUILDINGBLKG.BLOCKINGBOT.BOTTOMCAB.CABINETCL.CENTERLINGCLST.CLOSETCONSTR.CONSTRUC	ISH FLOOR ELEC. AL ELEV. EMER E EQ. EST. ATE EXT. TURAL F.O. F F.O.F. FIN. FLR. GA. GALV. GFRC VE GL. GYP. GYP. E CTION HDWR	ELEVATION EMERGENCY EQUAL ESTIMATED EXTERIOR FACE OF FACE OF FINISH FINISH FLOOR GAUGE GALVANIZED GLASS FIBER GLASS GYPSUM BD. GYPSUM BOARD HARDWARE	MISC. MTD. MTL. N.I.C. N.T.S. NEC. NO. or # NOM. O.C. O.H. O/- OPNG. OFCI. PLY WD. PNL'G PTD. R.O. RAD. REINF. REM.	MISCELLANEOUS MOUNTED METAL NOT IN CONTRACT NOT TO SCALE NECESSARY NUMBER NOMINAL ON CENTER OPPOSITE HAND OVER OPENING OVER FURNISHED CONTRACTOR INSTALLED PRESSURE TREATED PLATE PLYWOOD PANELING PAINTED ROUGH OPENING RADIUS REINFORCED REMOVE(D)	SED SMD SPD SSD S.S. SCHED. SECT. SHT. SIM. SPEC. STD. STL. STRUCT. T.O. THK. TYP. U.O.N. W/- W/O	SEE ELECTRICAL DRAWINGS SEE MECHANICAL DRAWINGS SEE PLUMBING DRAWINGS SEE STRUCTURAL DRAWINGS STAINLESS STEEL SCHEDULE SECTION SHEET SIMILAR SPECIFICATION STANDARD STEEL STRUCTURAL TOP OF THICK TYPICAL UNLESS OTHERWIS NOTED WITH WITHOUT WOOD	PROJECT INCLUDES STABILIZATION, ENVELOPE REHABILITATION, AND VOLUNTARY STRUCTURAL STRENGTHENING OF THE MAIN BARN, THE HAY BARN, AND THE BREEZEWAY. PROJECT ALSO INCLUDES PROCUREMENT AND INSTALLATION OF A NEW, PRE-FABRICATED, ACCESSIBLE TOILET STRUCTURE, AND CONSTRUCTION OF A NEW CARETAKER RESIDENCE. CONSTRUCTION TYPES (PER 2019 CBC SECTION 602) MAIN BARN, HAY BARN, AND BREEZWAY STRUCTURE: V-B CARETAKER RESIDENCE: V-B PRE-FABRICATED TOILET STRUCTURE: V-B OCCUPANCY CLASSIFICATION (PER 2019 CBC SECTION 302.1) AGRICULTURAL BUILDINGS: GROUP U CARETAKER RESIDENCE: GROUP R-3 PRE-FABRICATED TOILET STRUCTURE: GROUP U STRUCTURAL RISK CATEGORY (PER 2019 CBC SECTION 1604.5)	2019 CA ADM 2019 CA BUIL 2019 CA ELEC 2019 CA MEC 2019 CA PLUI 2019 CA ENE 2019 CA ENE 2019 CA EXIS 2019 CA GRE	R, PUBLIC SAFETY, SFM F AINISTRATIVE CODE TITLE LDING CODE (CBC) TITLE CTRICAL CODE (CEC) TITL CHANICAL CODE (CMC) TITLE RGY CODE CCR TITLE 24, E CODE (CFC) TITLE 24, PT STING BUILDING CODE (CE EN BUILDING STANDARD ERENCED STANDARDS TI

SYMBC	LS LEGEND	FLOOR ARE	AS			DRAWING INDEX
NAME - 0' - 0"	ELEVATION DATUM	BUILDING	Area Schedule (Gross Buil EXISTING AREA (S	ding) SF) PROPOSED AREA (SF)		A0.01 COVER SHEET A2.11 MAIN BARN PLANS
	PROJECT NORTH	MAIN BARN HAY BARN	1670 1197	1670 1197		A2.21 HAY BARN PLANS A2.31 BREEZEWAY PLANS A2.41 CARETAKER RESIDE
	(E) WALL	BREEZEWAY CARETAKER'S RESIDE MODULAR TOILET	1187 ENCE 537 (footprint) N/A	1187 560 (497 occupiable) 160		A2.51MODULAR TOILETSA3.11MAIN BARN NORTHA3.12MAIN BARN EAST AN
	DEMO WALL					A3.21 HAY BARN ELEVATIO A3.31 BREEZEWAY ELEVA A3.41 CARETAKER RESIDE
ALIGN	PROPOSED WALL					A3.51 MODULAR TOILETS SECTIONS
	REVISION CLOUD					
	REVISION CEOOD					
1 A201 1 1	ELEVATION MARKER					
1 A3.00	BUILDING SECTION					
1 (A3.00) TYP	DETAIL SECTION					
יייייי היייי	CHANGE IN PLANE					
ABBRE	VIATIONS				PROJECT SUMMARY	CODES
(N)NEV@ATA.B.ANCA.F.F.ABCACOUS.ACCADJ.ADJALT.ALTALUM.ALUAPPROX.APFARCH.ARCB.O.BOTBD.BOABLDG.BUIBLKG.BLCBOT.CAB.CAB.CAECL.CENCLG.CENCONSTR.CONCONTIN.CONCORR.CONCTSK.COUDBL.DOU	DWG. EAOR BOLT EA. DVE FINISH FLOOR ELEC. DUSTICAL ELEV. ACENT EMER. ERNATE EQ. MINUM EST. ROXIMATE EXT. CONTOM OF F.O.F. ROM OF F.O.F. RD FIN. DING FLR. CKING GA. TOM GALV. DING GALV. DINET GFRC ITERLINE GL. ING GYP. SET GYP. BD. NSTRUCTION HDWR. ITINUOUS HORZ. ITRACTOR INSUL. RIDOR INT. ITER JT. JNTERSUNK MAT. JBLE MAX. MOLISH MECH.	DIMENSIONMISC.DOWNMTD.DRAWINGMTL.EACHN.I.C.ELECTRICALN.T.S.ELECTRICALN.T.S.ELEVATIONNEC.EMERGENCYNO. or #EQUALNOM.ESTIMATEDO.C.EXTERIORO.H.FACE OFO/-FACE OF FINISHOPNG.FINISHOFCI.FLOORGALVANIZEDGALVANIZEDP.T.GLASSFIBERGYPSUMPNL'GGYPSUM BOARDPTD.HARDWARER.O.HORIZONTALRAD.INSULATIONREINF.INTERIORREM.JOINTREQ'D.MATERIALRET.MAXIMUMS.C.MANUFACTURERS.F.MINIMUMS.M.	MISCELLANEOUS MOUNTED METAL NOT IN CONTRACT NOT TO SCALE NECESSARY NUMBER NOMINAL ON CENTER OPPOSITE HAND OVER OPENING OVER FURNISHED CONTRACTOR INSTALLED PRESSURE TREATED PLATE PLYWOOD PANELING PAINTED ROUGH OPENING RADIUS REINFORCED REMOVE(D) REQUIRED RETAINING ROOM SOLID CORE SQUARE FEET SHEET METAL	SEDSEE ELECTRICAL DRAWINGSSMDSEE MECHANICAL DRAWINGSSPDSEE PLUMBING DRAWINGSSSDSEE STRUCTURAL DRAWINGSS.S.STAINLESS STEELSCHED.SCHEDULESECT.SECTIONSHT.SHEETSIM.SIMILARSPEC.SPECIFICATIONSTD.STANDARDSTL.STEELSTRUCT.STRUCTURALT.O.TOP OFTHK.THICKTYP.TYPICALU.O.N.UNLESS OTHERWISE NOTEDW/-WITHW/OWITHOUTWD.WOODWP.WATERPROOFWT.WEIGHT	PROJECT INCLUDES STABILIZATION, ENVELOPE REHABILITATION, AND VOLUNTARY STRUCTURAL STRENGTHENING OF THE MAIN BARN, THE HAY BARN, AND THE BREEZEWAY. PROJECT ALSO INCLUDES PROCUREMENT AND INSTALLATION OF A NEW, PRE-FABRICATED, ACCESSIBLE TOILET STRUCTURE, AND CONSTRUCTION OF A NEW CARETAKER RESIDENCE. <u>CONSTRUCTION TYPES</u> (PER 2019 CBC SECTION 602) MAIN BARN, HAY BARN, AND BREEZWAY STRUCTURE: V-B CARETAKER RESIDENCE: V-B PRE-FABRICATED TOILET STRUCTURE: V-B <u>OCCUPANCY CLASSIFICATION</u> (PER 2019 CBC SECTION 302.1) AGRICULTURAL BUILDINGS: GROUP U CARETAKER RESIDENCE: GROUP R-3 PRE-FABRICATED TOILET STRUCTURE: GROUP U <u>STRUCTURAL RISK CATEGORY</u> (PER 2019 CBC SECTION 1604.5) AGRICULTURAL BLIGS: RISK CATEGORY 1 CARETAKER RESIDENCE: RISK CATEGORY 2 PRE-FABRICATED TOILET STRUCTURE: RISK CATEGORY 2	TITLE 19, CCR, PUBLIC SAFETY, SFR 2019 CA ADMINISTRATIVE CODE TIT 2019 CA BUILDING CODE (CBC) TITL 2019 CA ELECTRICAL CODE (CMC) 2019 CA PLUMBING CODE (CPC) TIT 2019 CA ENERGY CODE CCR TITLE 2019 CA FIRE CODE (CFC) TITLE 24, 2019 CA EXISTING BUILDING CODE 2019 CA GREEN BUILDING STANDAR 2019 CA REFERENCED STANDARDS

1 2	3 4	5	
			2927 Newbury Street, Suite B Berkeley, CA 94703 P (510) 843-3666 F (510) 548-0265 www.JohnNorthmoreRoberts.com PAGE & TURNBULL 170 Maiden Lane, 5th floor, San Francisco 94108 T 415 362 5154 F 415 362 5560 www.page-turnbull.com
S LEGEND FLOOR AREAS		DRAWING INDEX	SIGNED/STAMPED
ELEVATION DATUM Area Schedule (Gross Building)		A0.01 COVER SHEET	
BUILDING     EXISTING AREA (SF)     PROPOSED AREA (SF)       PROJECT NORTH     MAIN BARN     1670     1670		A2.11MAIN BARN PLANSA2.21HAY BARN PLANS	
HAY BARN         1197         1197           BREEZEWAY         1187         1187		A2.31BREEZEWAY PLANSA2.41CARETAKER RESIDENCE PLANA2.51MODULAR TOILETS PLAN	BEAR
CARETAKER'S RESIDENCE       537 (footprint)       560 (497 occupiable)         MODULAR TOILET       N/A       160		A3.11MAIN BARN NORTH AND SOUTH ELEVATIONSA3.12MAIN BARN EAST AND WEST ELEVATIONSA3.21HAY BARN ELEVATIONS	CREEK
PROPOSED WALL		A3.31BREEZEWAY ELEVATIONSA3.41CARETAKER RESIDENCE ELEVATIONS	STABLES
ALIGN		A3.51 MODULAR TOILETS ELEVATIONS AND SECTIONS	DMR 19100 Bear Creek
REVISION CLOUD			Rd, Los Gatos, CA 95033
			APN 544 32 001 Schematic Design
ELEVATION MARKER			Senematic Design
BUILDING SECTION			DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN
			08/13/21 USE PERMIT APPLICATION
DETAIL SECTION			
CHANGE IN PLANE			
ATIONS	PROJECT SUMMARY	CODES	
IG DIM. DIMENSION MISC. MISCELLANEOUS SED SEE ELECTRICAL DN. DOWN MTD. MOUNTED DRAWINGS	PROJECT INCLUDES STABILIZATION, ENVELOPE REHABILITATION, AND VOLUNTARY STRUCTURAL STRENGTHENING OF THE MAIN BARN, THE	TITLE 19, CCR, PUBLIC SAFETY, SFM REGULATIONS 2019 CA ADMINISTRATIVE CODE TITLE 24, PT1	
DWG.DRAWINGMTL.METALSMDSEE MECHANICALR BOLTEA.EACHN.I.C.NOT IN CONTRACTDRAWINGSFINISH FLOORELEC.ELECTRICALN.T.S.NOT TO SCALESPDSEE PLUMBING	HAY BARN, AND THE BREEZEWAY. PROJECT ALSO INCLUDES PROCUREMENT AND INSTALLATION OF A NEW, PRE-FABRICATED, ACCESSIBLE TOILET STRUCTURE, AND CONSTRUCTION OF A NEW CARETAKER RESIDENCE.	2019 CA BUILDING CODE (CBC) TITLE 24, PT2 2019 CA ELECTRICAL CODE (CEC) TITLE 24, PT3 2019 CA MECHANICAL CODE (CMC) TITLE 24, PT4 2019 CA PLUMBING CODE (CPC) TITLE 24, PT5	SHEET TITLE
TICALELEV.ELEVATIONNEC.NECESSARYDRAWINGSENTEMER.EMERGENCYNO. or #NUMBERSSDSEE STRUCTURALIATEEQ.EQUALNOM.NOMINALDRAWINGSUMEST.ESTIMATEDO.C.ON CENTERS.S.STAINLESS STEEL	CONSTRUCTION TYPES (PER 2019 CBC SECTION 602)	2019 CA ENERGY CODE CCR TITLE 24, PT6 2019 CA FIRE CODE (CFC) TITLE 24, PT9 2019 CA EXISTING BUILDING CODE (CEBC) TITLE 24, PT10	COVER SHEET
UMEST.ESTIMATEDO.C.ON CENTERS.S.STAINLESS STEELXIMATEEXT.EXTERIORO.H.OPPOSITE HANDSCHED.SCHEDULEECTURALF.O.FACE OFO/-OVERSECT.SECTIONM OFF.O.F.FACE OF FINISHOPNG.OPENINGSHT.SHEET	MAIN BARN, HAY BARN, AND BREEZWAY STRUCTURE: V-B CARETAKER RESIDENCE: V-B	2019 CA GREEN BUILDING STANDARDS TITLE 24, PT11 2019 CA REFERENCED STANDARDS TITLE 24, PT12	
FIN.FINISHOFCI.OWNER FURNISHEDSIM.SIMILARIGFLR.FLOORCONTRACTORSPEC.SPECIFICATIONNGGA.GAUGEINSTALLEDSTD.STANDARD	PRE-FABRICATED TOILET STRUCTURE: V-B		
MGALV.GALVANIZEDP.T.PRESSURE TREATEDSTL.STEELTGFRCGLASS FIBERPL.PLATESTRUCT.STRUCTURALRLINEGL.GLASSPLY WD.PLYWOODT.O.TOP OF	OCCUPANCY CLASSIFICATION (PER 2019 CBC SECTION 302.1) AGRICULTURAL BUILDINGS: GROUP U		As indicated
GYP. GYPSUM PNL'G PANELING THK. THICK GYP. BD. GYPSUM BOARD PTD. PAINTED TYP. TYPICAL RUCTION HDWR. HARDWARE R.O. ROUGH OPENING U.O.N. UNLESS OTHERWISE	CARETAKER RESIDENCE: GROUP R-3 PRE-FABRICATED TOILET STRUCTURE: GROUP U		DRAWN PROJECT NUMBER
IUOUSHORZ.HORIZONTALRAD.RADIUSNOTEDACTORINSUL.INSULATIONREINF.REINFORCEDW/-WITHORINT.INTERIORREM.REMOVE(D)W/OWITHOUTRJT.JOINTREQ'D.REQUIREDWD.WOOD	STRUCTURAL RISK CATEGORY (PER 2019 CBC SECTION 1604.5)		SHEET NUMBER
R JT. JOINT REQ'D. REQUIRED WD. WOOD ERSUNK MAT. MATERIAL RET. RETAINING WP. WATERPROOF E MAX. MAXIMUM RM. ROOM WT. WEIGHT ISH MECH. MECHANICAL S.C. SOLID CORE	AGRICULTURAL BLDGS: RISK CATEGORY 1 CARETAKER RESIDENCE: RISK CATEGORY 2		A0.01

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18 OF 43



MAIN	В
6	R E P
7	R

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3

3

BARN PLAN KEY NOTES

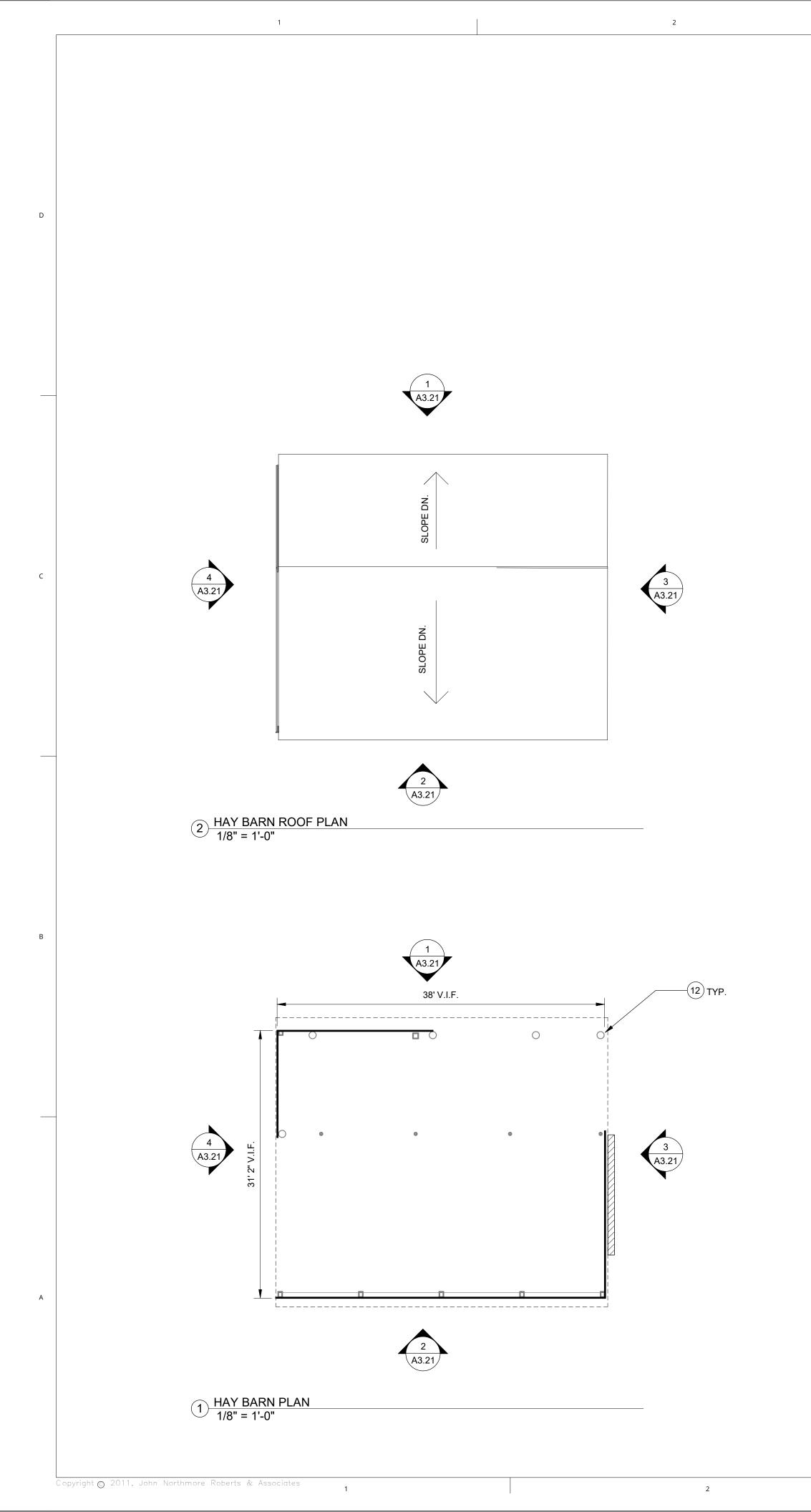
REPLACE FLOOR FRAMING AND SURFACE AT THE EAST ENTRANCE AND THE TACK ROOM TO RESTORE A SOUND PATH OF TRAVEL. RECONSTRUCT TACK ROOM TO REPLACE EXISTING.

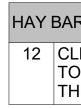
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MAIN BARN SCOPE OUTLINE: 1. ROOFING 2. SIDING 3. DOORS AND WINDOWS 4. FLOOR AND SITE GRADING

John Northmore Roberts & Associates 2927 Newbury Street, Suite B Berkeley, CA 94703 P (510) 843-3666 F (510) 548-0265 www.JohnNorthmoreRoberts.com
PAGE & TURNBULL 170 Maiden Lane, 5th floor, San Francisco 94108 T 415 362 5154 F 415 362 5560 www.page-turnbull.com
BEAR CREEK STABLES
DMR 19100 Bear Creek Rd, Los Gatos, CA 95033 APN 544 32 001 Schematic Design
DATE DESCRIPTION REV
04/21/20 SCHEMATIC DESIGN 08/13/21 USE PERMIT APPLICATION
MAIN BARN PLANS
1/8" = 1'-0"
DRAWN PROJECT NUMBER
SHEET NUMBER A2.11 19 OF 43





3

3



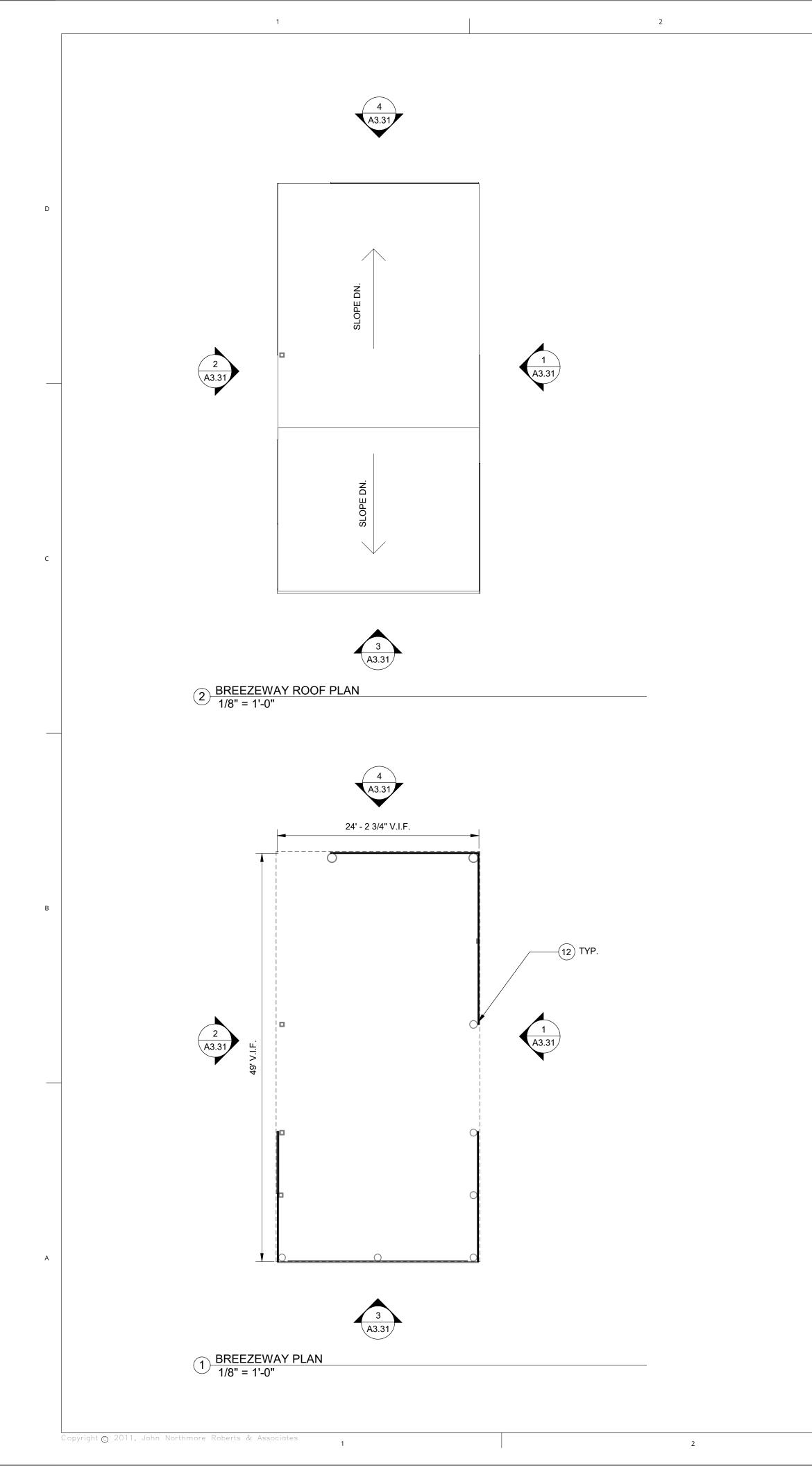
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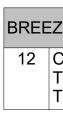
12 CLEAR SOIL AWAY FROM WOOD POSTS AS NECESSARY TO PREVENT THE ENTRAPMENT OF MOISTURE AROUND THE BASE OF THE POSTS.

5

	V Newbury Street, Suite 1 Berkeley, CA 9470 P (510) 843-366 F (510) 548-026 nnNorthmoreRoberts.com	3 6 5
170 Maiden L	<b>&amp;TURNBUL</b> ane, 5th floor, San Francisco 94 54 <b>F</b> 415 362 5560 <b>Irnbull.com</b>	
	SIGNED/STAMPED	
	BEAR	
	CREEK 'ABLES	
	DMR	
	00 Bear Creek Los Gatos, CA	
Al	95033 PN 544 32 001	
Sche	ematic Design	l
DATE	DESCRIPTION RE	V
08/13/21	USE PERMIT	
H.	AY BARN	
	PLANS	
	1/8" = 1'-0"	
DRAWN	PROJECT NUM	IBER
	SHEET NUMBER	
A	2.21	
- 1	20 OF 43	

John Northmore Roberts & Associates





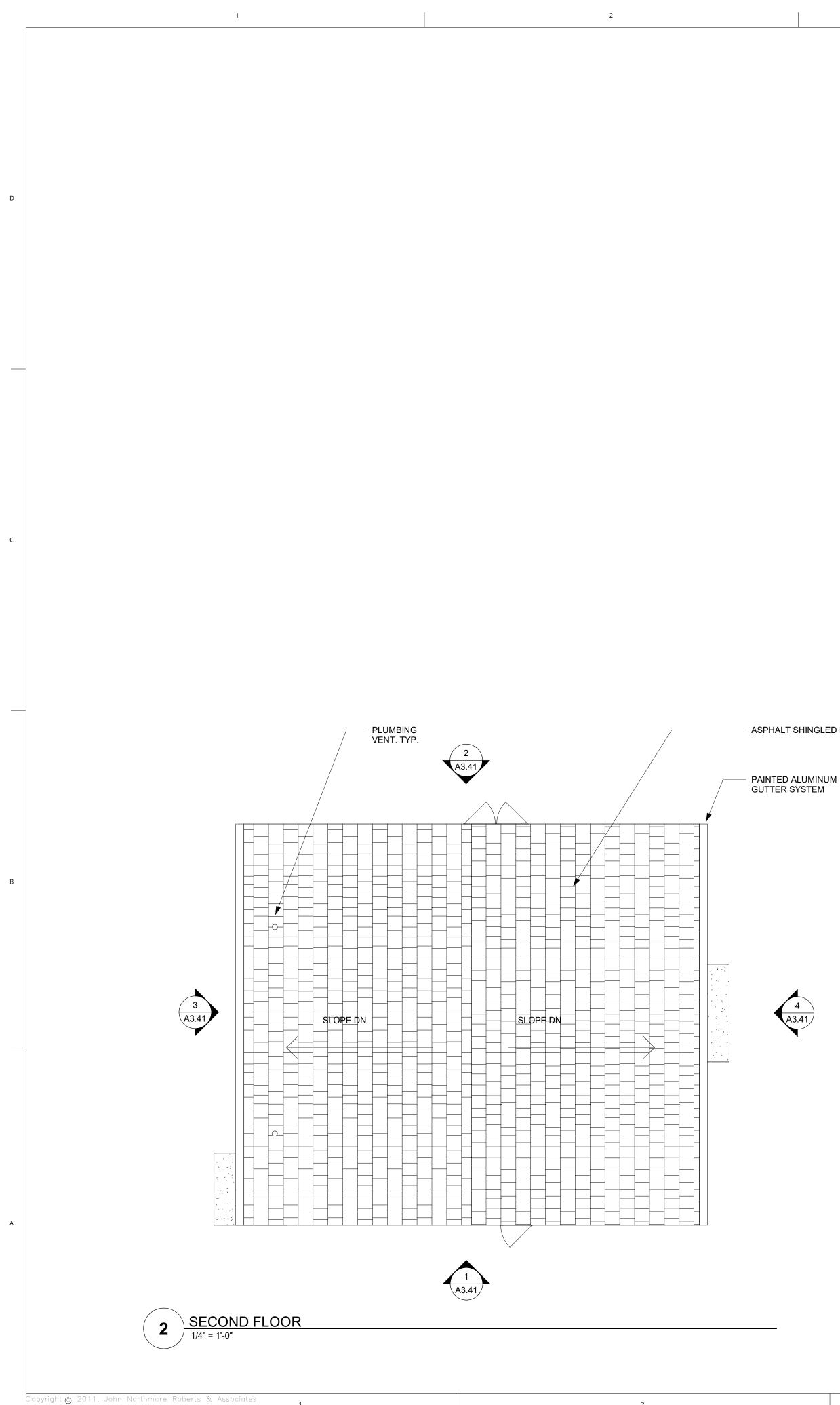


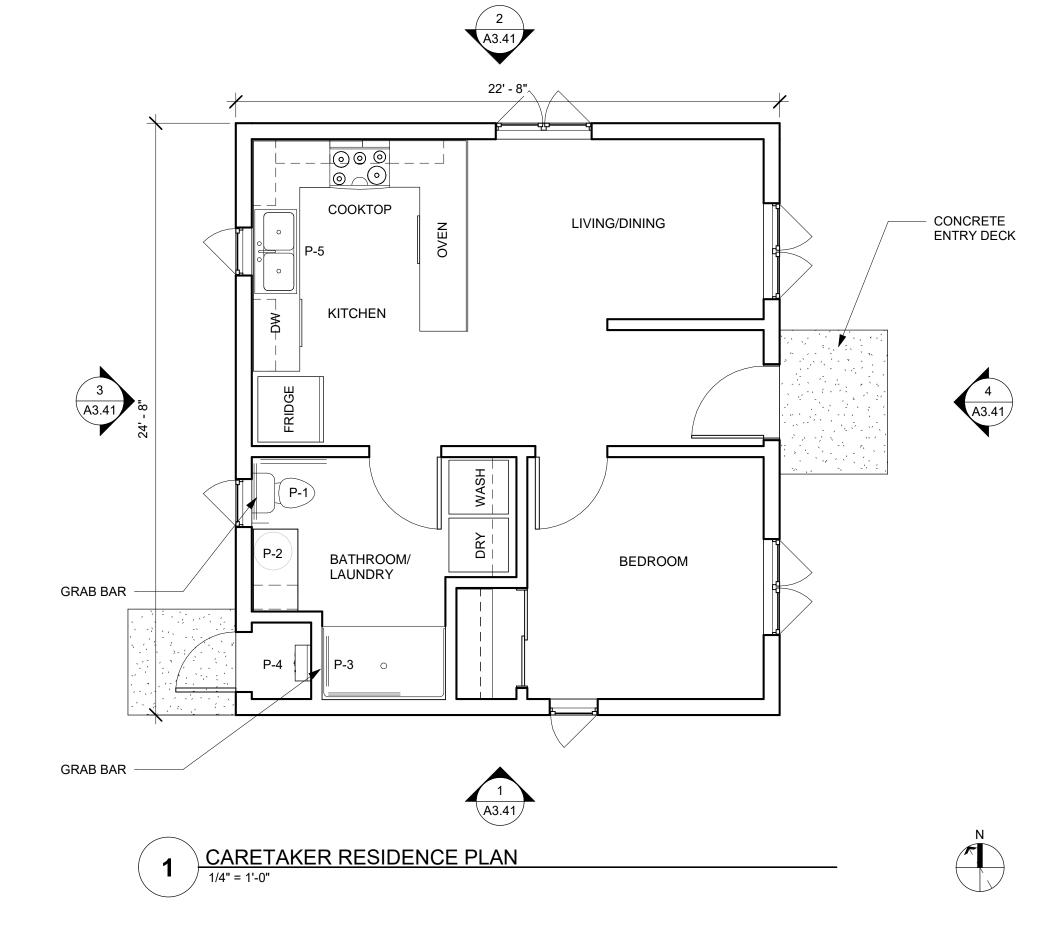
John Nort	hmore Roberts &	c Associates
		CA 94703 843-3666 548-0265
170 Maiden La	&TURN ane, 5th floor, San F 4 <b>F</b> 415 362 5560 nbull.com	
	SIGNED/STAMPED	)
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	ABL	
1910	0 Bear (	Creek
ź	os Gatos 95033 PN 544 32 (	
Sche	matic D	esign
DATE	DESCRIPTION	REV
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A	2.3	31

21 OF 43

BREEZEWAY PLAN KEY NOTES

12 CLEAR SOIL AWAY FROM WOOD POSTS AS NECESSARY TO PREVENT THE ENTRAPMENT OF MOISTURE AROUND THE BASE OF THE POSTS.





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ASPHALT SHINGLED ROOF

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# FAUCET FLOOR 2:

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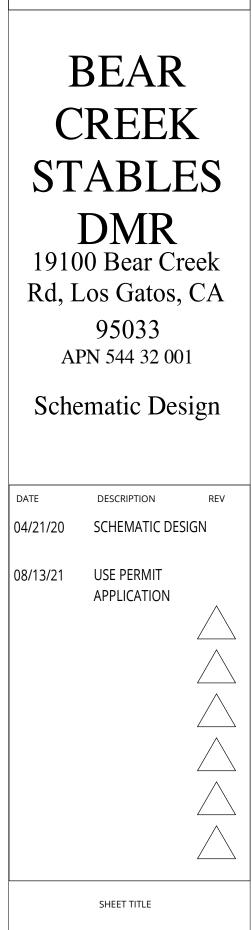
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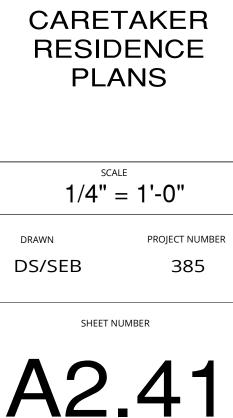
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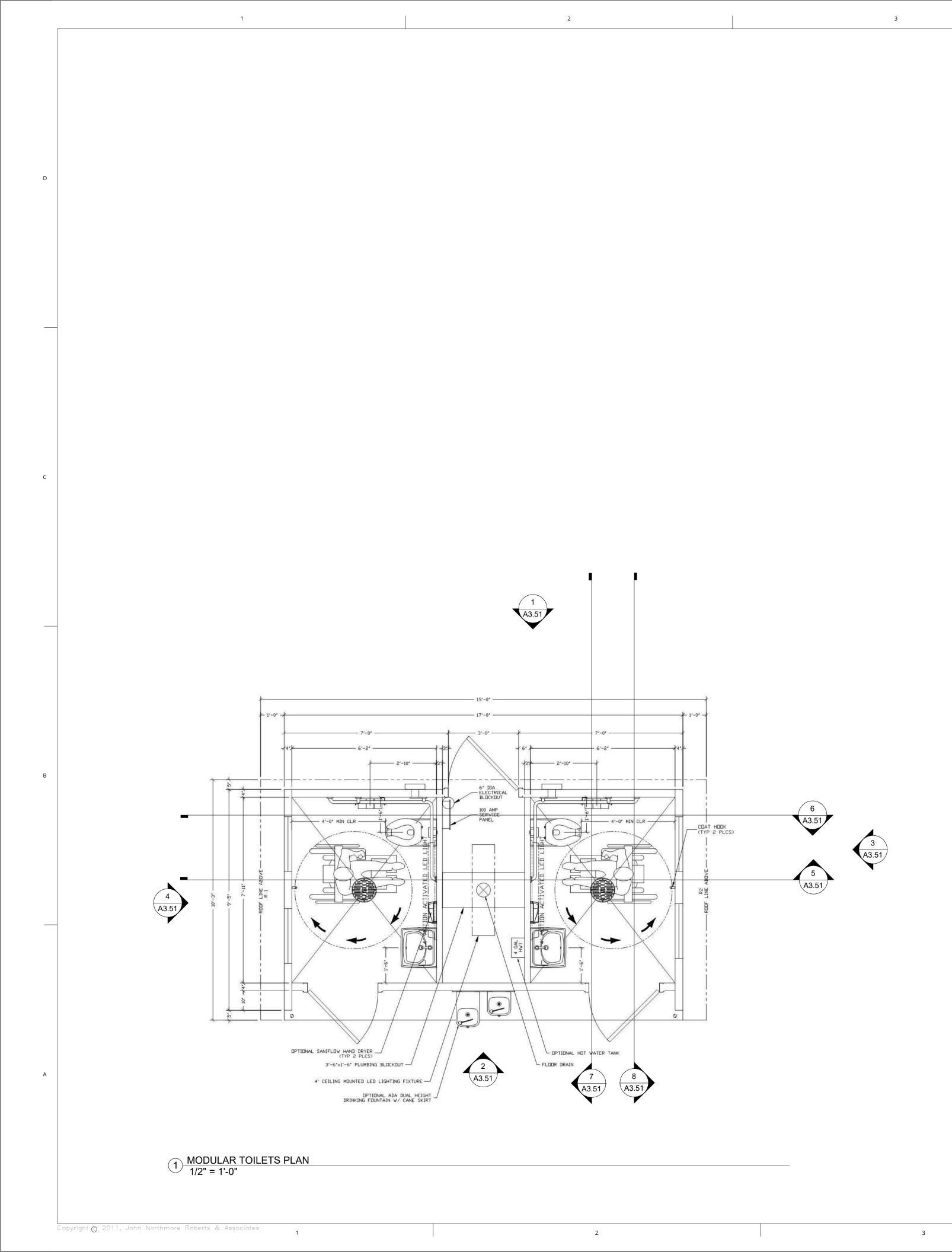


22 OF 43

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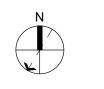
- SHEET NOTES
  - PLANS SHOWN ARE BASIS OF DESIGN CONSTRUCTION TYPE VB, SLAB-ON-GRADE WITH LIGHT WOOD, PRE-CUT FRAME. FIRE SPRINKLER SYSTEM PER NFPA 13D PER SAN MATEO COUNTY CODE SECTION 903.3.1.3; DEFERRED SUBMITTAL. DESIGNS TO BE MANUFACTURED AND DELIVERED BY CALIFORNIA PRE-CUT HOMES, (925) 838 - 2859

- CONSTRUCTION TO BE COMPLIANT WITH CBC 2019 AND CAL GREEN ENERGY CODE ALL APPLIANCES OWNER SUPPLIED AND OWNER INSTALLED.
- PLUMBING SCHEDULE: P-1: FLOOR MOUNTED TOILET AND SEAT P-2: LAVATORY WITH SINK AND FAUCET P-3: ROLL IN SHOWER WITH INTEGRAL WALLS, WALL MOUNTED SHOWERHEAD AND CONTROLS, SHOWER CURTAIN ROD, WITH SHOWER CURTAIN P-4: TANKLESS WATER HEATER P-5: STAINLESS STEEL UNDERMOUNT SINK WITH
- INTERIOR FINISH SCHEDULE: FLOOR 1: ? CARPET, SHEET VINYL KITCHEN CABINETS: PLASTIC LAMINATE COUNTERTOP: CORIAN SOLID SURFACE
- WALLS: PAINTED G.W.B. CEILING: PAINTED G.W.B. TRIM AND BASEBOARD: PAINTED WOOD
- APPLIANCE SCHEDULE AP-1: ELECTRIC/GAS? COOKTOP AP-2: ELECTRIC/GAS? RANGE AP-3: RECIRCULATING RANGE HOOD
- AP-4: DISHWASHER AP-5: GARBAGE DISPOSER AP-6: REFRIGERATOR/FREEZER AP-7: WASHING MACHINE
- AP-8: ELEC/GAS? DRYER



SHEET NOTES 1. PLANS SHOWN REPRESENT CXT PRECAST PRODUCTS "CORTEZ" MODEL SMALL DOUBLE FLUSH, FULLY ACCESSIBLE BUILDING WITH STANDARD FINISHES AS DEFINED IN COMPANY SPECIFICATIONS AVAILABLE AT WWW.CXTINC.COM.

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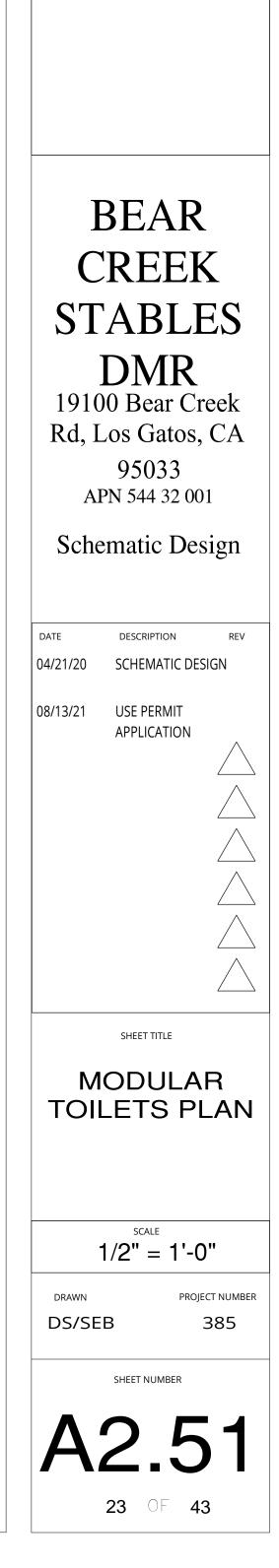
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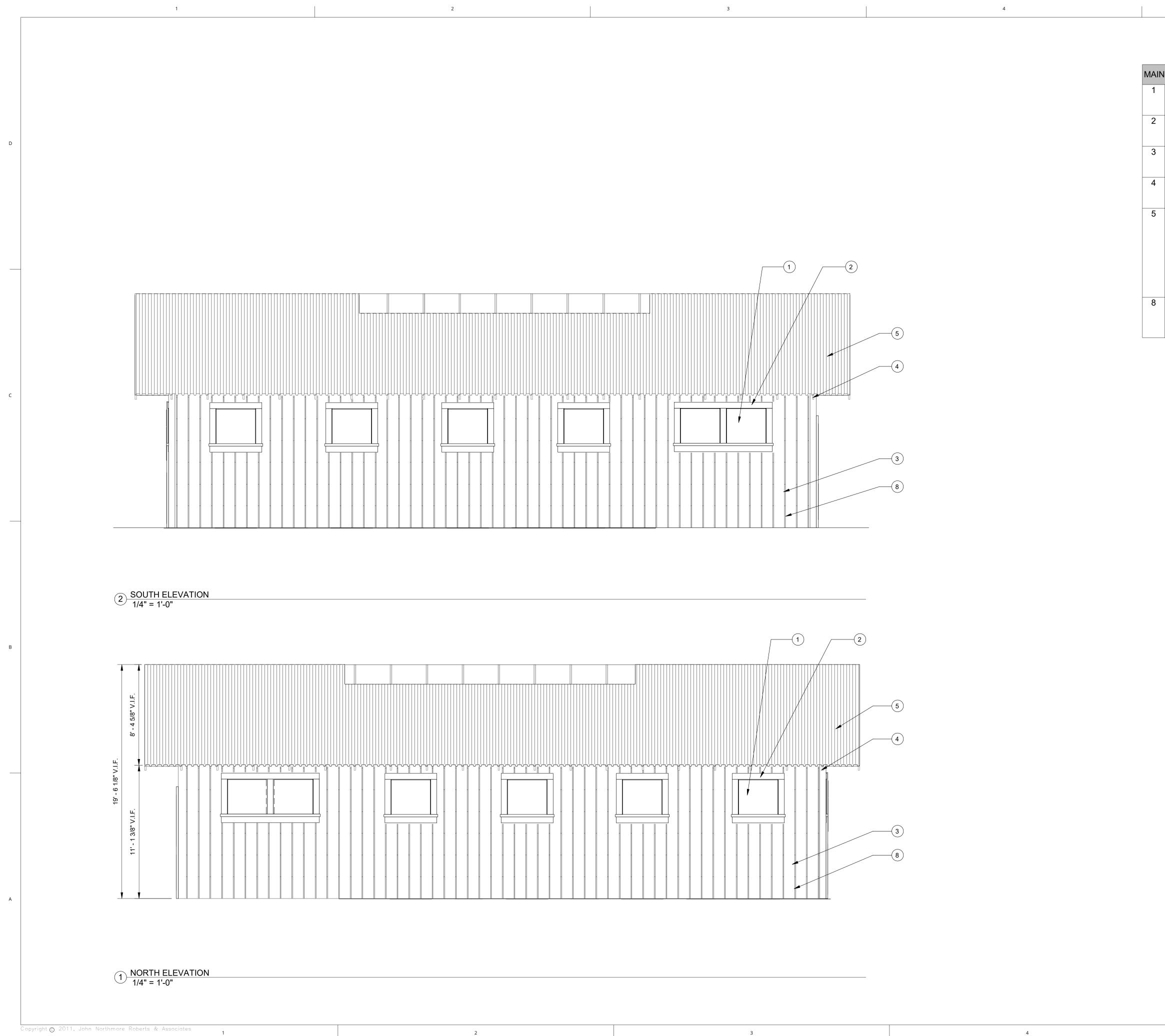
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MAIN BARN ELEVATION KEY NOTES

1 REHABILITATE WINDOW ASSEMBLY: REPLACE BROKEN GLAZING, PATCH AREAS OF DETERIORATION, PREPARE, PRIME AND PAINT.

2 REPLACE WINDOW SASH: REPLACE SASH IN-KIND TO MATCH EXISTING. PREPARE, PRIME, AND PAINT TO MATCH EXISTING.

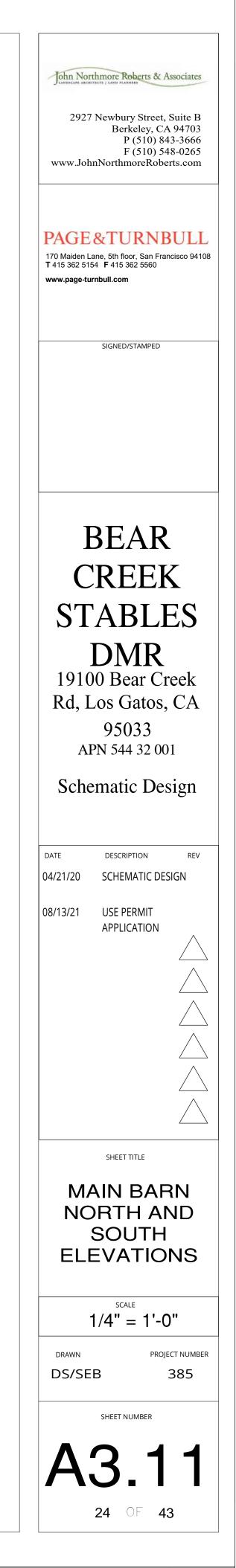
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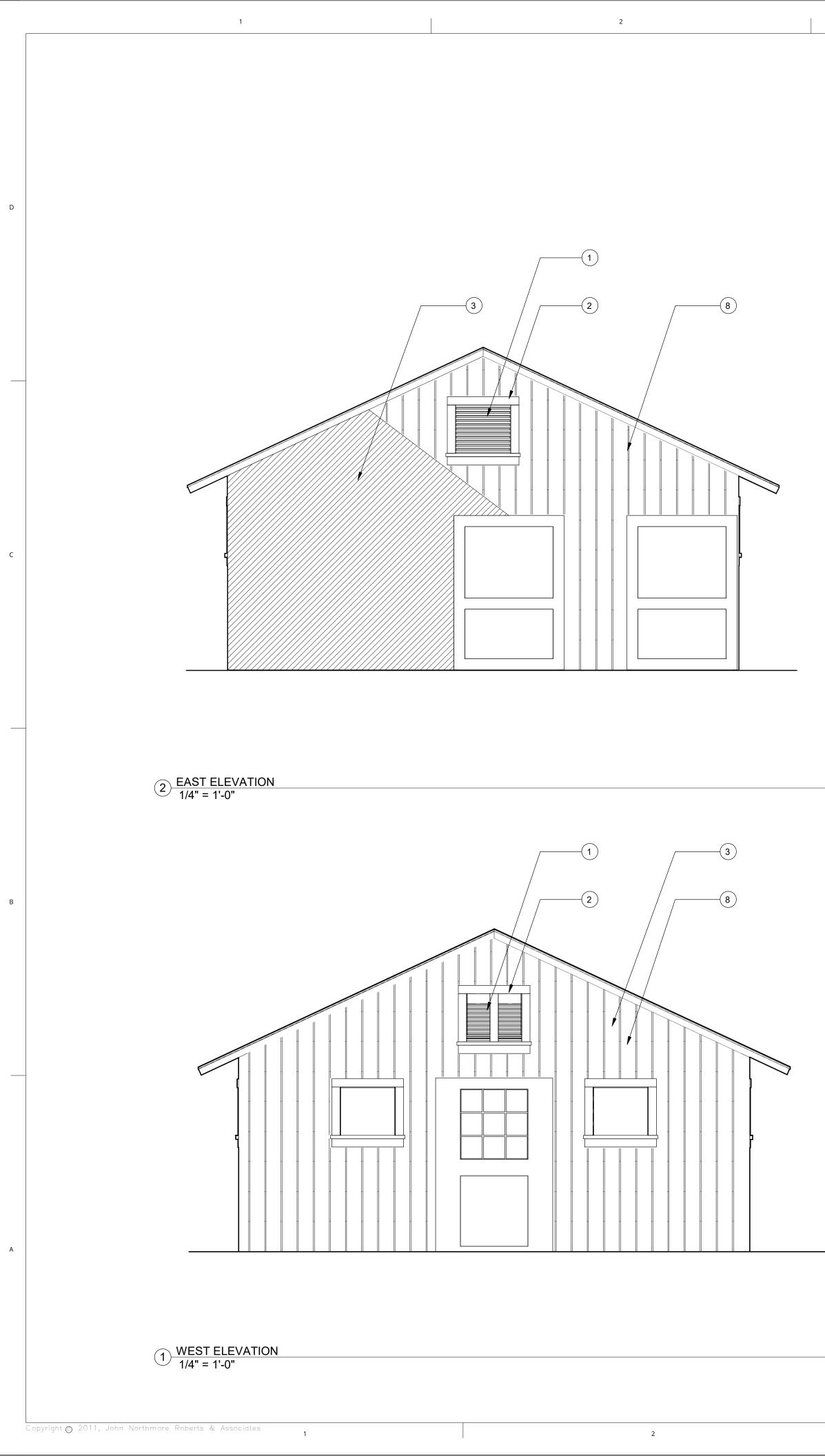
3 REPLACE IN-KIND TO MATCH EXISTING SECTIONS OF BOARD-AND-BATTEN SIDING THAT ARE MISSING OR DETERIORATED BEYOND REPAIR.

4 REPLACE DETERIORATED ENDS OF RAFTER TAILS WITH DUTCHMAN REPAIRS STRUCTURALLY DOWELED INTO SOUND WOOD.

5 REPLACE DETERIORATED ROOF SHEATHING IN-KIND TO MATCH EXISTING. REPLACE CORRUGATED METAL ROOFING THAT IS DEFORMED OR SIGNIFICANTLY COMPROMISED BY CORROSION (INCLUDING NEW PLYWOOD SHEATHING INSTALLED ON TOP OF THE ORIGINAL SHEATHING TO PRESERVE THE INTERIOR CHARACTER OF THE EXPOSED SKIP SHEATHING?) (SALVAGE AND REINSTALL SOUND CORRUGATED METAL ROOFING?)

8 PREPARE, PRIME, AND RE-PAINT ALL EXTERIOR WOODEN ELEMENTS, INCLUDING SIDING, DOORS, LOUVERS, EXPOSED RAFTER TAILS, AND BRACKETS AFTER REPAIRS HAVE BEEN EXECUTED.





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F (510) 548-0265

BARN ELEVATION-KEY NOTES

REHABILITATE WINDOW ASSEMBLY: REPLACE BROKEN GLAZING, PATCH AREAS OF DETERIORATION, PREPARE, PRIME AND PAINT.

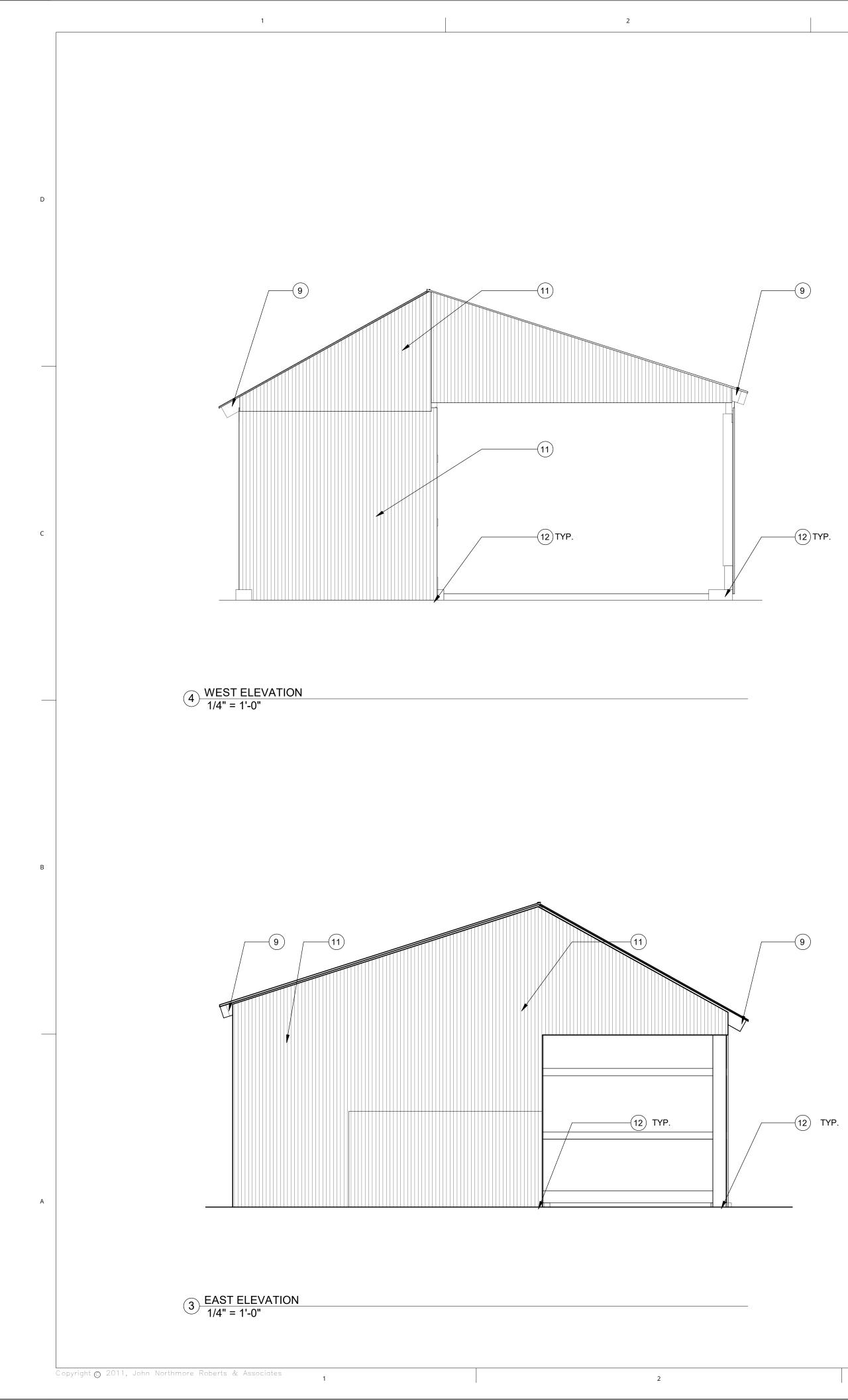
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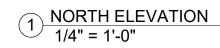
REPLACE WINDOW SASH: REPLACE SASH IN-KIND TO MATCH EXISTING. PREPARE, PRIME, AND PAINT TO MATCH EXISTING.

REPLACE IN-KIND TO MATCH EXISTING SECTIONS OF BOARD-AND-BATTEN SIDING THAT ARE MISSING OR DETERIORATED BEYOND REPAIR.

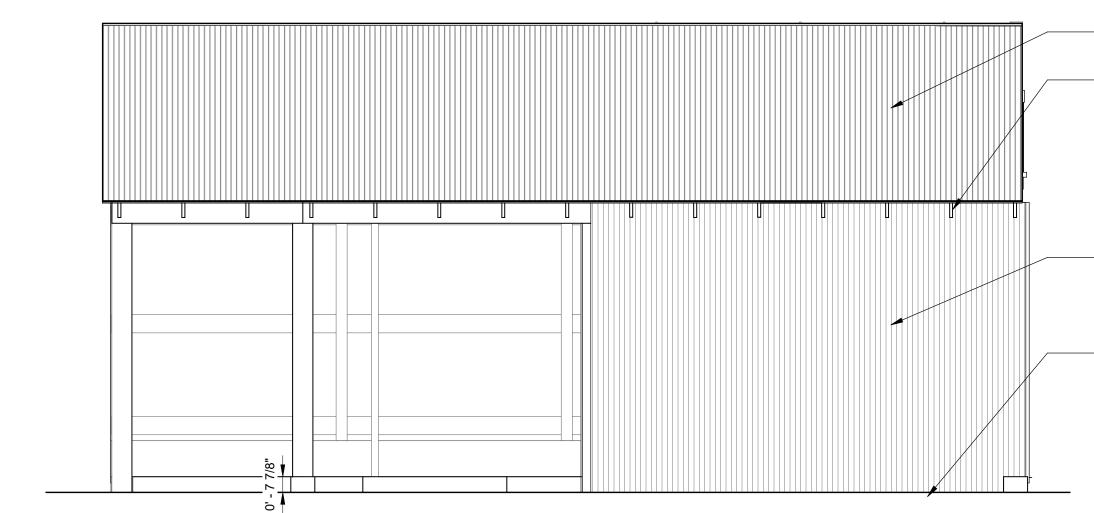
PREPARE, PRIME, AND RE-PAINT ALL EXTERIOR WOODEN ELEMENTS, INCLUDING SIDING, DOORS, LOUVERS, EXPOSED RAFTER TAILS, AND BRACKETS AFTER REPAIRS HAVE BEEN EXECUTED.

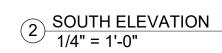
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DMR 19100 Bear Creek		
Rd, Los Gatos, CA 95033		
APN 544 32 001 Schematic Design		
Schematic Design		
DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN		
08/13/21 USE PERMIT APPLICATION		
SHEET TITLE		
MAIN BARN EAST AND		
WEST ELEVATIONS		
SCALE		
1/4" = 1'-0"		
DS/SEB 385		

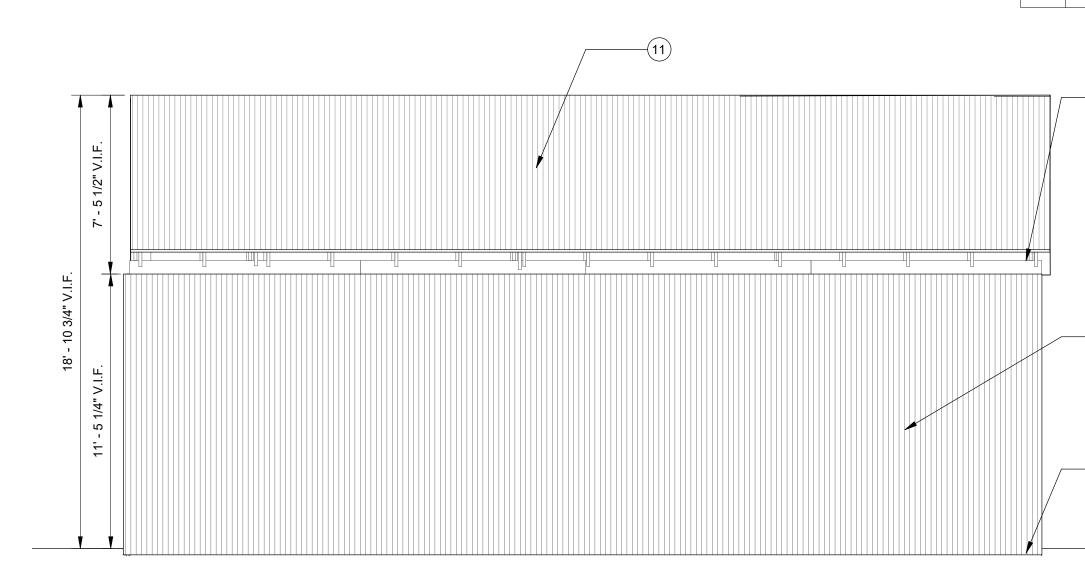








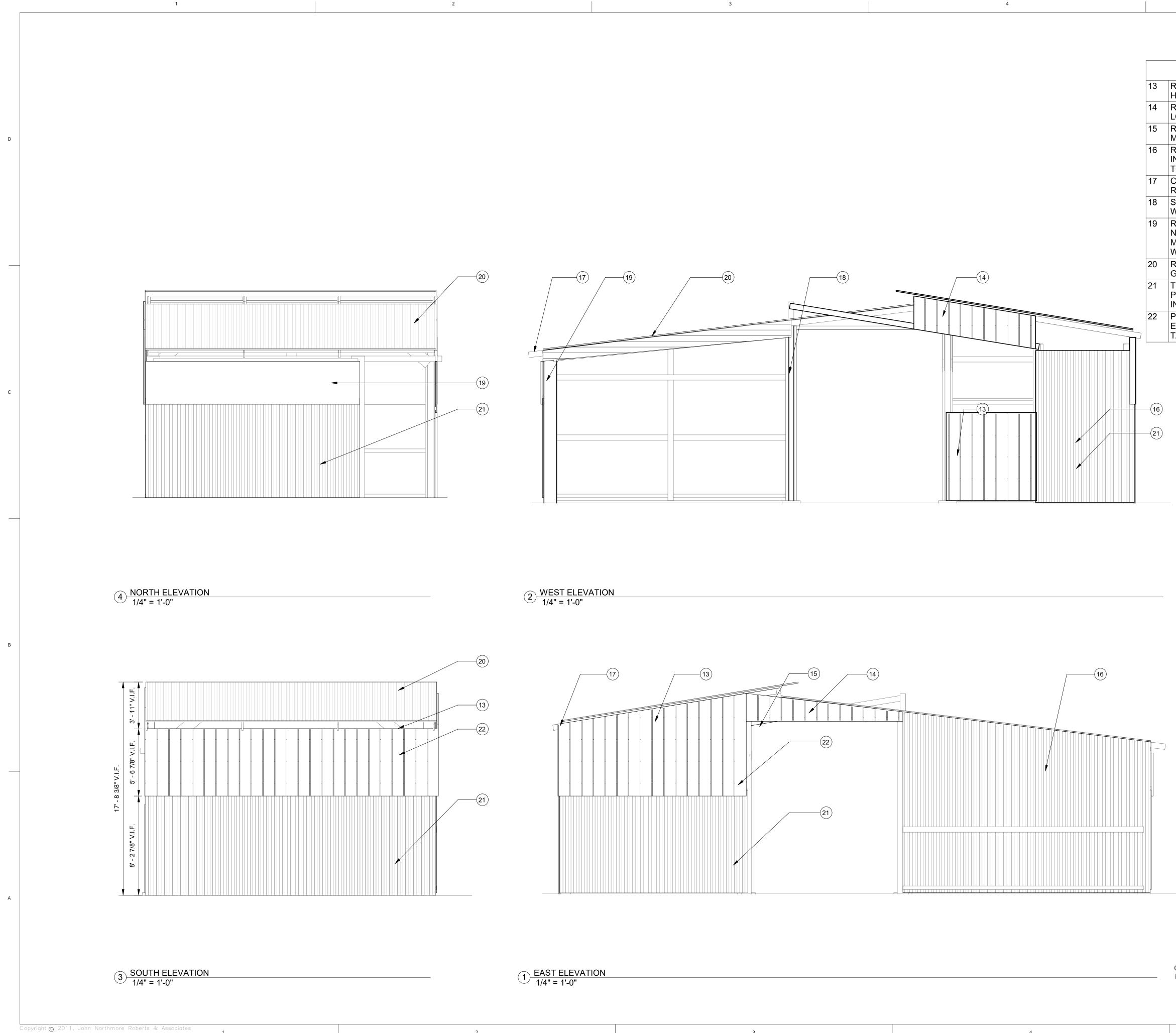






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	John Northmore Roberts & Associates
Y BARN ELEVATIONS KEY NOTES CORRECT PROFILE OF SHEET METAL GUTTERS AND REATTACH DOWNSPOUTS. TREAT SURFACE CORROSION, PREPARE, PRIME AND PAINT CORRUGATED METAL SIDING AND ROOFING TO INHIBIT FUTURE CORROSION.	2927 Newbury Street, Suite B Berkeley, CA 94703 P (510) 843-3666 F (510) 548-0265 www.JohnNorthmoreRoberts.com
CLEAR SOIL AWAY FROM WOOD POSTS AS NECESSARY TO PREVENT THE ENTRAPMENT OF MOISTURE AROUND THE BASE OF THE POSTS.	PAGE & TURNBULL 170 Maiden Lane, 5th floor, San Francisco 94108 T 415 362 5154 F 415 362 5560 www.page-turnbull.com
9	SIGNED/STAMPED
11	BEAR CREEK
12) TYP.	STABLES DMR 19100 Bear Creek
	Rd, Los Gatos, CA 95033 APN 544 32 001 Schematic Design
	DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN
	08/13/21 USE PERMIT APPLICATION
11	SHEET TITLE HAY BARN
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0 2' 4' 8'	SHEET NUMBER
	<b>AJ.Z</b> 26 OF 43



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BREEZEWAY KEY NOTES
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13 RE-SECURE LOOSE BOARDS OF SIDING TO MITIGATE FALL HAZARD.

14 REMOVE LOOSE REMANANT WOOD PIECES THAT ARE NO LONGER PERFORMING A PURPOSE.

15 REMOVE MUDWASP NESTS AND CLEAN AFFECTED MATERIALS

16 REPLACE DAMAGED CORRUGATED METAL SIDING IN-KIND, AND LAP PROPERLY WITH ADJACENT SECTIONS TO SHED WATER.

17 CORRECT PROFILE OF SHEET METAL GUTTERS AND REATTACH DOWNSPOUTS.

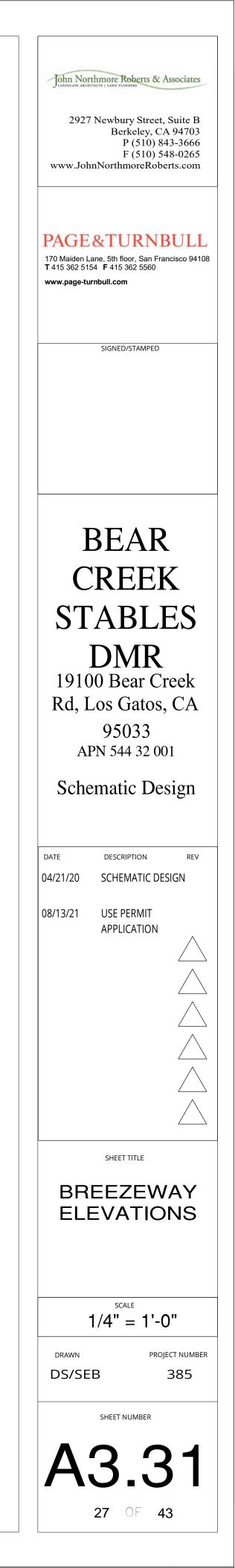
18 SHORE STRUCTURE, REMOVE, AND REPLACE IN-KIND WOOD ELEMENTS AFFECTED BY TERMITES.

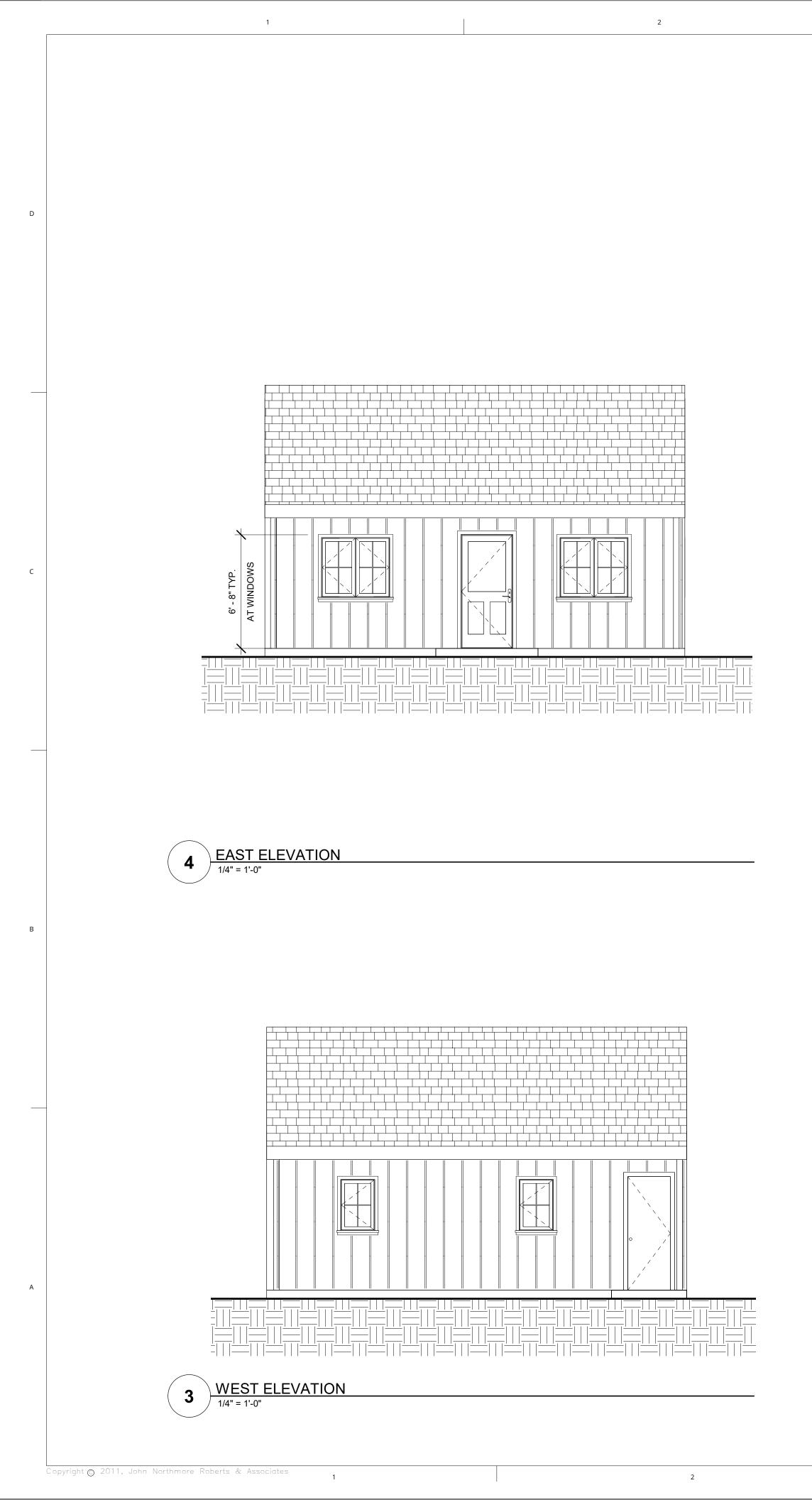
19 REPLACE PLYWOOD SHEATHING ON UPPER HALF OF NORTH WALL WITH CORRUGATED METAL SIDING TO MATCH LOWER HALF AND LAP PROPERLY TO SHED WATER.

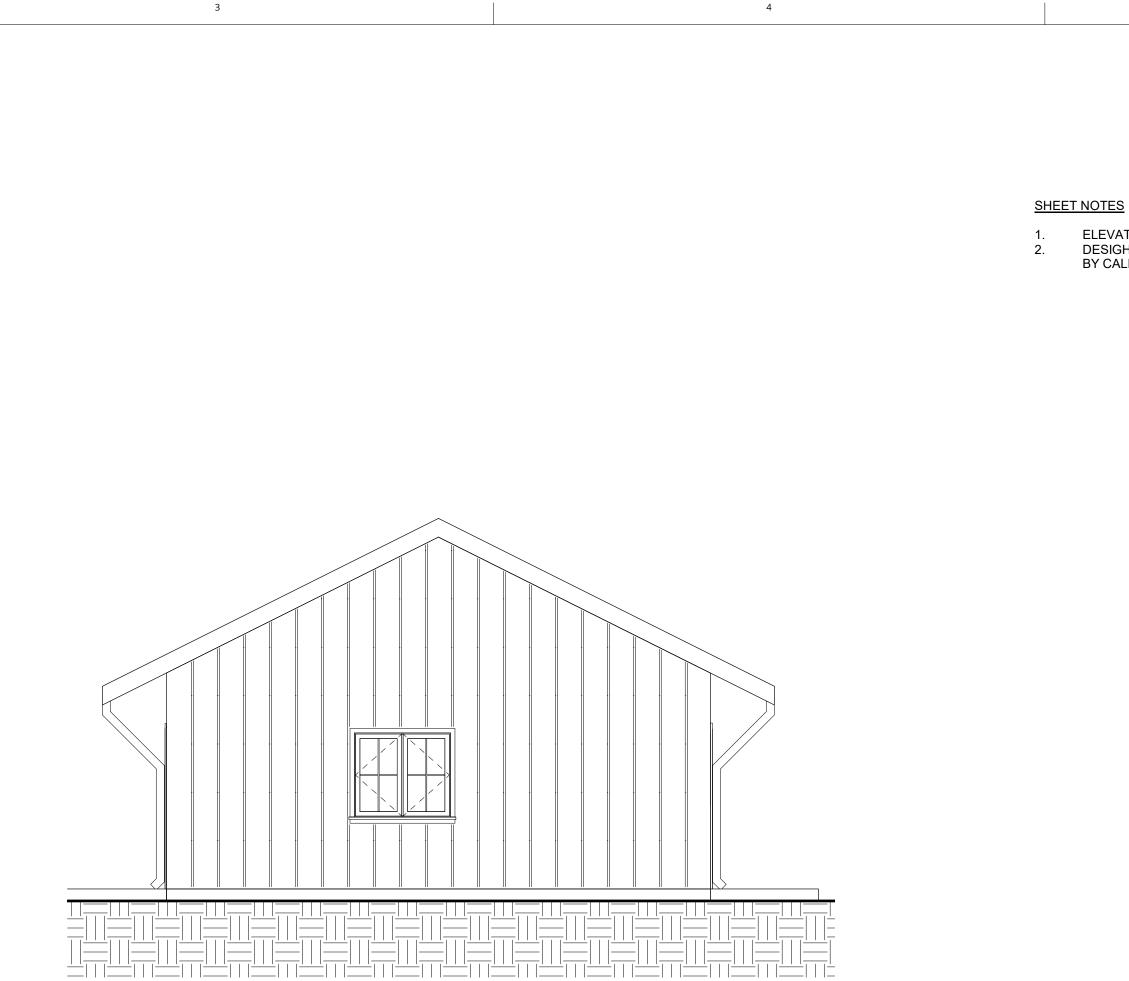
REMOVE AND REPLACE (E) METAL ROOFING WITH GALVANIZED CORRUGATED ROOF SYSTEM. TREAT SURFACE CORROSION, PREPARE, PRIME AND PAINT CORRUGATED METAL SIDING AND ROOFING TO

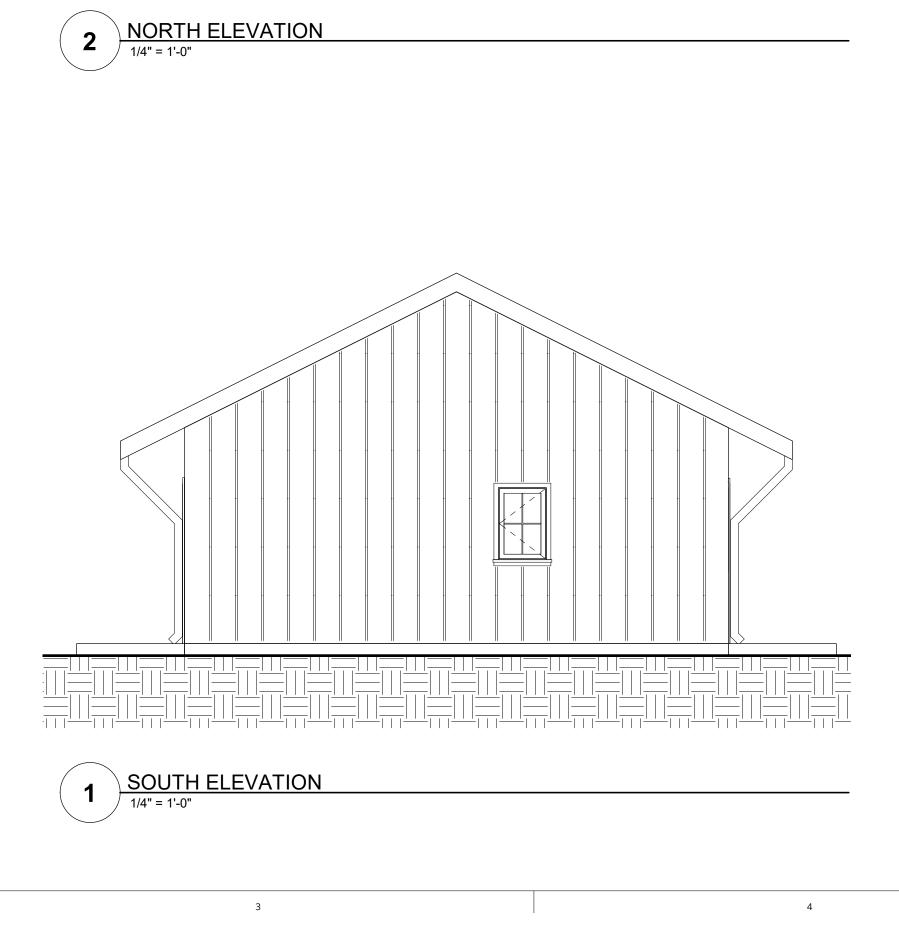
INHIBIT FUTURE CORROSION. PREPARE, PRIME, AND RE-PAINT ALL EXTERIOR WOODEN

ELEMENTS, INCLUDING SIDING, AND EXPOSED RAFTER TAILS AFTER REPAIRS HAVE BEEN EXECUTED.









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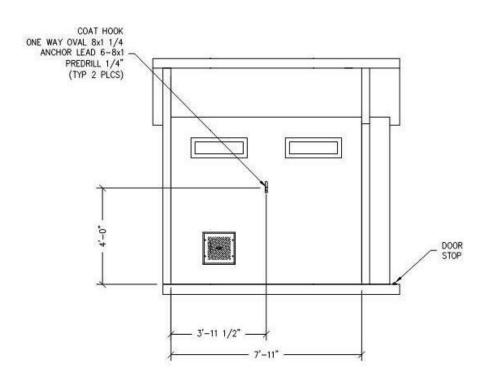
BEAR CREEK **STABLES** DMR 19100 Bear Creek Rd, Los Gatos, CA 95033 APN 544 32 001 Schematic Design DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN 08/13/21 USE PERMIT APPLICATION  $\bigtriangleup$  $\wedge$  $\wedge$  $\wedge$ SHEET TITLE CARETAKER RESIDENCE ELEVATIONS SCALE 1/4" = 1'-0"

DRAWN PROJECT NUMBER DS/SEB 385

SHEET NUMBER

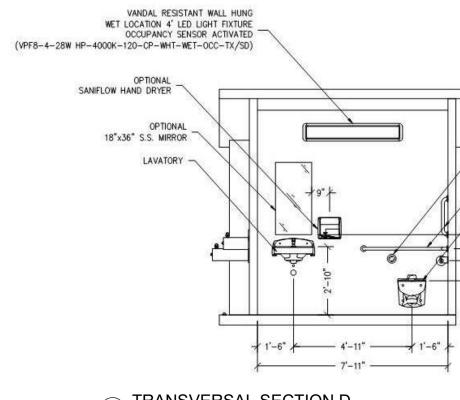


ELEVATIONS SHOWN ARE BASIS OF DESIGN DESIGHS TO BE DELIVERED AND MANUACTURED BY CALIFORNIA PRE-CUT HOMES, (925) 838 - 2859

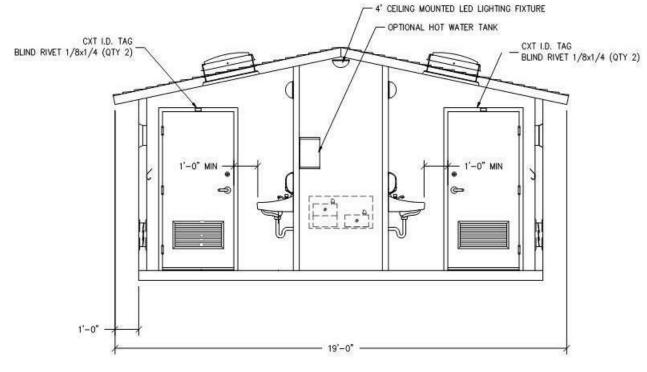


8 TRANSVERSAL SECTION B 1/4" = 1'-0"

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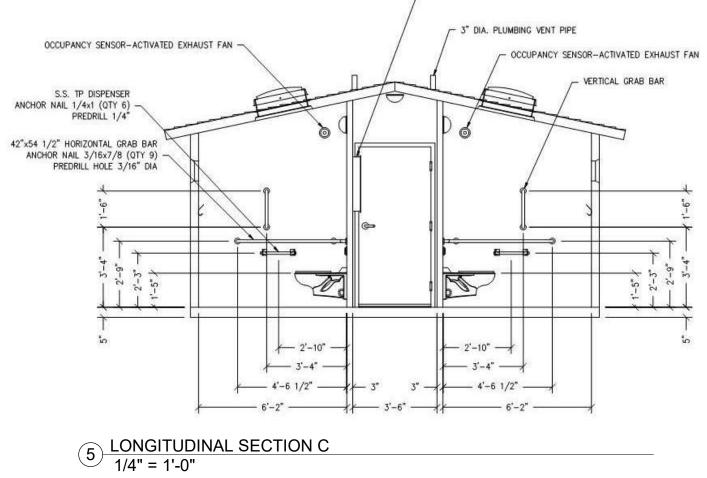


7 TRANSVERSAL SECTION D 1/4" = 1'-0"



6 LONGITUDINAL SECTION A 1/4" = 1'-0"

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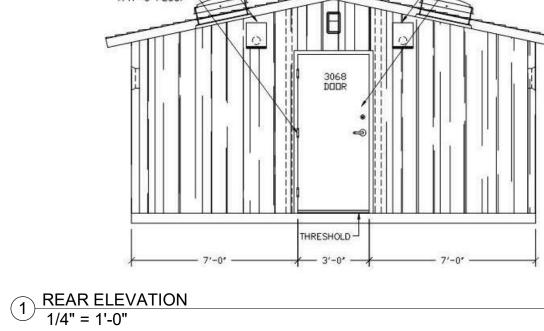
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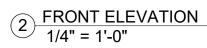
A



CONCEALED TYPE

-FLUSH VALVE BOWL

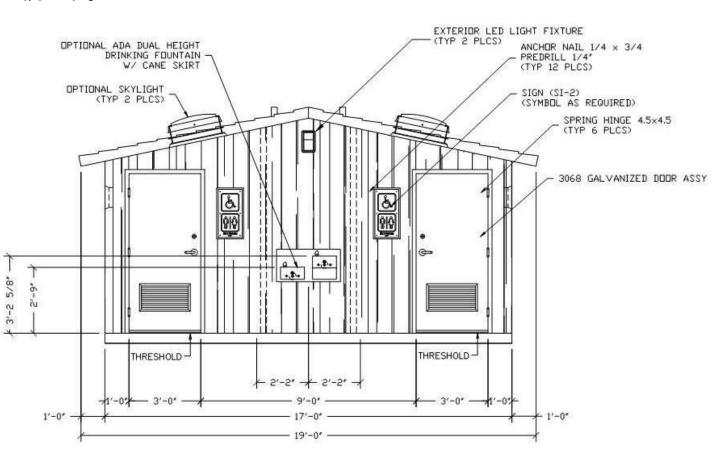




EXHAUST FAN

SPRING HINGE 4.5×4.5 (TYP 3 PLCS)

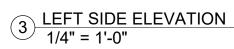
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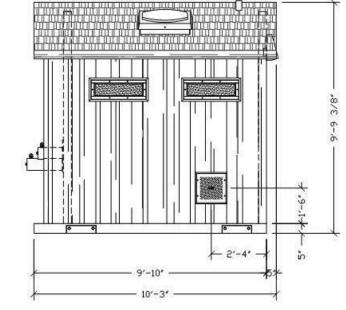


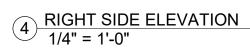
- EXHAUST FAN

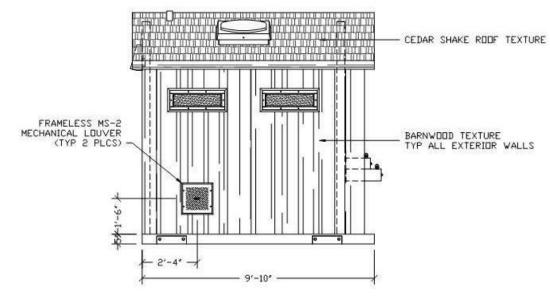
- 3068 GALVANIZED DOOR ASSY

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STABLES
DMR 19100 Bear Creek
Rd, Los Gatos, CA 95033
APN 544 32 001 Schematic Design
Senematic Design
DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN
08/13/21 USE PERMIT APPLICATION
TOILETS ELEVATIONS AND SECTIONS
1/4" = 1'-0"
DRAWN PROJECT NUMBER
SHEET NUMBER
A3.51
<b>29</b> OF <b>43</b>

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## **ABBREVIATIONS**

AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE ADDL ADDITIONAL ADJ ADJACENT AHUAIR HANDLING UNI ALT ALTERNATE AB ANCHOR BOLT L ANGLE APPROX APPROXIMATE ARCH ARCHITECT(URAL) AORARCHITECT OF RECORD B/B BACK TO BACK BKGBACKING **B PLBASE PLATE** BM BEAM BRGBEARING BFF BELOW FINISHED FLOOR BTR BETTER **BTWN BETWEEN** BLKG BLOCKING BO. BOTTOM OF BOT BOTTOM BOSBOTTOM OF STEEL BN BOUNDARY EDGE NAILING BRDG BRIDGING CAMCAMBER CB CARRIAGE BOL CIP CAST-IN-PLACE CLG CEILING CEMCEMENT CTR CENTER CL CENTER LINE CG CENTER OF GRAVITY C CHANNEL CFS COLD-FORMED STEEL CR COLD-ROLLED COL COLUMN CLL COLUMN LINE CONC CONCRETE CMU CONCRETE MASONRY UNIT CONN CONNECTION CJ CONSTRUCTION/CONTROL JOINT CONT CONTINUOUS CSK COUNTER SUN CF CUBIC FEET CY CUBIC YARD DL DEAD LOAD D DEEP PENNY (NAIL) DEMO DEMOLISH, DEMOLITION DEPT DEPARTMENT D-B DESIGN-BUILD DET DETAIL DEV DEVELOPMEN DIAG DIAGONAI DIA DIAMETER DIM DIMENSION DIST DISTANCE DOCDOCUMENT DBI DOUBLE DF DOUGLAS FIF DWG DRAWING EE EACH END EF EACH FACE EW EACH WAY ELEC ELECTRICAL, ELECTRIC EP ELECTRIC PANEL EL ELEVATION ELEV ELEVATOR EMBEMBEDMEN<sup>®</sup> ENCL ENCLOSURE FN FND NAII FNGR FNGINFFR EQ EQUAL. SEISMIC EQL SP EQUALLY SPACED EQUIP EQUIPMENT ECUEVAPORATOR COOLING UNIT EX EXAMPLE EXCL EXCLUDE EFU EXHAUST FAN UNIT E EXISTING, EAST EXP BT EXPANSION BOLT E.I. EXPANSION JOINT EXT EXTERIOR, EXTERNAL FO. FACE OF FOC FACE OF CONCRETE / CURB FOMFACE OF MASONRY FOS FACE OF STUD / SLAB FOW FACE OF WALL FCU FAN COOLING UNIT FT FEET FOOT FIG FIGURE FIL FILLET FIN FINISH FO FINISHED OPENING FLG FLANGE FB FLAT BAR FH FLAT HEAD (SCREW) FLEX FLEXIBLE FLR FLOOR FT/LB FOOT/POUND FTG FOOTING FDTN FOUNDATION FRMG FRAMING GA GAUGE GAL GALLON GALV GALVANIZED GLU LAM GLUE LAMINATED WOOD GRTG GRATING HGRHANGER HDRHEADER HP HEAT PUMP HVAC HEATING / VENTILATING AIR CONDITIONING HD HEAVY DUTY HT HEIGHT, HIGH HS HIGH STRENGTH HIDN HOLDDOWN HSS HOLLOW STEEL SECTION HORIZ HORIZONTAL IN-LB INCH-POUND INCL INCLUDE INFO INFORMATION **IDINSIDE DIAMETER / DIMENSION** IF INSIDE FACE, INTAKE FAN INSP INSPECT INSUL INSULATION INT INTERIOR JT JOINT JST JOIST K THOUSAND, KIP K-FTKIPS-FOOT I AG I AGGING L LARGE, LENGTH, ANGLE LT WT LIGHTWEIGHT LWC LIGHTWEIGHT CONCRETE LCMU LIGHTWEIGHT CONCRETE MASONRY UNIT LF LINEAR FOOT LL LIVE LOAD LOC LOCATION LLH LONG LEG HORIZONTAL

LLV LONG LEG VERTICAL

LONG. LONGITUDE

LBR LUMBER

ABBREVIATIONS

oyright ©201

MACH MACHINE MB MACHINE BOLT MAINT MAINTENANCE MFDMANUFACTURED MFR MANUFACTURE'S RECOMMEDNATION MATL MATERIAL MAXMAXIMUM MECH MECHANICAL ME MECHANICAL ENGINEER MEDMEDIUM MTGMEETING MBRMFMBFR MEMB MEMBRANE MTL METAL MBM METAL BUILDING MANUFACTURER MEZZ MEZZANINE MID MIDDLE MIL MILLIMETER MIN MINIMUM MISC MISCELLANEOUS MTDMOUNTED NT WT NET WEIGHT NOM NOMINAL NLB NONLOADBEARING N NORTH NA NOT APPLICABLE NTE NOT TO EXCEED NTS NOT TO SCALE NIC NOT IN CONTRACT OC ON CENTER OWJ OPEN WEB JOISTS OWSJ OPEN WEB STEEL JOIST OPNG OPENING **OPPOPPOSITE** OPHOPPOSITE HAND **OPT OPTIONAL** ORIG ORIGINAL OZ OUNCE OD OUTSIDE DIAMETER / DIMENSION OF. OUTSIDE FACE 0/0VFR OH OVERHANG OHCD OVERHEAD COILING DOOR PB PANEL BOARD PAR PARALLEL, PARAPET PTN PARTITION PV PAVING. PHOTOVOLTAIC PENPENETRATE D PENNY (NAIL) PERF PERFORATED PERP PERPENDICULAR PL PLATE PLYWD PLYWOOD POSPOSITION, POSITIVE P-T POST-TENSION IB(#) POUND PCCPRECAST CONCRETI PREFAB PREFABRICATED PEMB PRE-ENGINEERED METAL BUILDING PREP PREPARATION PT PRESSURE TREATED, POINT PURPURLIN QA QUALITY ASSURANCE QC QUALITY CONTROL QTY QUANTITY RECT RECTANGLE REF REFERENCE REINF REINFORCE(MENT) REBAR REINFORCING STEEL BAR REQ(D) REQUIRE(D) REVREVISION RTU ROOF TOP UNIT RFGROOFING RO ROUGH OPENING SCHED SCHEDULE SECT SECTION EQ SEISMIC SSMS SELF-TAPPING SHEET METAL SCREW SHTHG SHEATHING SHT SHEET SM SHEET METAL SMSSHEET METAL SCREW SIM SIMILAR SK SKETCH SOGSLAB-ON-GRADE (GROUND) SJ SLIP JOINT SM SMALL S SOUTH SPEC(S) SPECIFICATION(S) SQ SQUARE SF SQUARE FOOT SQ IN SQUARE INCH STD STANDARD SS STAINLESS STEEL STL STEEL STIFSTIFFENER STIR STIRRUP STRUCT STRUCTURAL

SEOR STRUCTURAL ENGINEER OF RECORD SUSP SUSPENDED SYMSYMBOL, SYMMETRICAL TOCTOP OF CONCRETE TEMP TEMPORARY TI TENANT IMPROVEMENT T THCK THICKNESS K THOUSAND, KIP THD THREAD TB THROUGH BOLT **T&MTIME AND MATERIAI T&G TONGUE AND GROOVE** T&B TOP AND BOTTOM TO. TOP OF TOB TOP OF BEAM TOC TOP OF CONCRETE / CURB TFF TOP OF FINISHED FLOOR TOF TOP OF FLOOR / FRAME FOOTING TOJ TOP OF JOIST TOS TOP OF STEEL / SLAB TOP. TOP OF PARAPET TOW. TOP OF WALL TS TUBE STEEL TYP TYPICAL ULT ULTIMATE UNOUNLESS NOTED OTHERWISE **UONUNLESS OTHERWISE NOTED** VARVARIES VIF VERIFY IN FIELD VERT VERTICAL W/C WATER CEMENT RATIO WP WATERPROOF(ING), WORK POINT WH WEEP HOLE WT WEIGHT WWF WELDED WIRE REINFORCING FABRIC WWEST, WIDE, WIDTH WF WIDE FLANGE WL WIND LOAD W/ WITH W/O WITHOUT WD WOOD WS WOOD SCREW

STRUCTURAL OBSERVATION PROGRAM

- CODE REQUIREMENTS: A REPRESENTATIVE OF THE STRUCTURAL ENGINEER OF RECORD OR THE STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE STRUCTURAL OBSERVATION AND OBSERVATION REPORTS PER CBC SECTION 1704.5
- 2. NOTIFICATION AND ELEMENTS REQUIRING OBSERVATION: CONTRACTOR SHALL IOTIFY STRUCTURAL ENGINEER 48 HOURS PRIOR TO COMPLETION OF THE FOLLOWING TO ARRANGE FOR STRUCTURAL OBSERVATION PRIOR TO THE ELEMENT BEING COVERED BY ARCHITECTURAL FINISHES OR CAST IN CONCRETE OR GROUT:
  - 2.1. FOUNDATION AND SLAB REINFORCING
  - 2.2. ROOF SHEATHING NAILING. STRAPPING AND WALL ANCHORAGE
  - 2.3. SHEAR WALL SHEATHING NAILING
- 3. STRUCTURAL OBSERVATION REPORTS: OBSERVED DEFICIENCIES AND/OR THE DATE OF THE OBSERVATION WILL BE DOCUMENTED IN WRITING AND PROVIDED TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR OR INSPECTOR OF RECORD, PRIME CONSULTANT, AND CONTRACTOR. STRUCTURAL OBSERVATION REPORTS MUST BE SUBMITTED TO THE BUILDING OFFICIAL BY THE INSPECTOR OR CONTRACTOR AS A WRITTEN STATEMENT THAT CODE REQUIRED STRUCTURAL OBSERVATIONS HAVE BEEN COMPLETED AND ANY OBSERVED DEFICIENCIES HAVE BEEN REPORTED. TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE. TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE REPORTED DEFICIENCY WILL BE RESOLVED AND THE COMPLIANT CONDITION WILL BE DOCUMENTED BY THE BUILDING INSPECTOR OR INSPECTOR OF RECORD. NOTIFY THE STRUCTURAL OBSERVER IMMEDIATELY OF ANY UNRESOLVED OR UNCLEAR DEFICIENCIES PRIOR TO PROCEEDING WITH CONSTRUCTION. THE STRUCTURAL OBSERVER WILL MAKE ADDITIONAL SITE VISITS AS NECESSARY TO ASSIST WITH RESOLVING THE REPORTED DEFICIENCIES.
- 4. STRUCTURAL OBSERVATION LIMITATIONS: STRUCTURAL OBSERVATION(S) WILL BE PROVIDED BY A STRUCTURAL OBSERVER, BUT DO NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITY FOR BUILDING THE PROJECT, CONTROLLING THE PROGRESS, PROVIDING SAFE WORKING CONDITIONS, AND CORRECTING ANY DEVIATIONS FROM PROJECT REQUIREMENTS. SUCH OBSERVATIONS ARE NOT TO BE CONSTRUED AS INSPECTION OF THE WORK. RESPONSIBILITY FOR RESOLUTION OF ANY ITEMS NOTED DURING OBSERVATION AS NOT BEING IN CONFORMANCE WITH THE CONTRACT DOCUMENTS RESTS WITH THE CONTRACTOR, SUBJECT TO REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.

## SUBMITTALS AND SPECIAL CONDITIONS

- . GEOTECHNICAL: PRIOR TO COMMENCEMENT OF EXCAVATION FOR FOUNDATIONS AT LEAST 48 HOURS) THE CONTRACTOR IS TO CONTACT THE GEOTECHNICAL ENGINEER. WHO IS TO ADVISE THE BUILDING OFFICIAL IN WRITING THAT THE BUILDING PAD AND FOUNDATION GRADING WAS PREPARED AND COMPACTED IN ACCORDANCE WITH THE SOILS REPORT RECOMMENDATIONS AND APPROVED PLANS. A COPY OF THE REPORT SHALL BE GIVEN TO THE STRUCTURAL ENGINEER OF RECORD.
- 2. SPECIAL INSPECTION: SUBMIT REPORTS DIRECTLY TO THE ENFORCEMENT AGENCY PER CBC SECTION 1704.2.4. SEND COPIES OF THE REPORT TO THE ENGINEER, GENERAL CONTRACTOR, PRIME CONSULTANT, AND OWNER. SPECIAL INSPECTORS BACKGROUND AND QUALIFICATIONS SHALL BE FORWARDED TO THE BUILDING DEPARTMENT LEAST 3 DAYS BEFORE ANY INSPECTIONS ARE PERFORMED.
- 3. SHOP DRAWINGS/SUBMITTALS: PROVIDE THE FOLLOWING FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OR DELIVERY. - CONCRETE MIX DESIGN - CONTRACTORS STATEMENT OF RESPONSIBILITY
- PRODUCT SUBSTITUTIONS: MAY BE ALLOWED ONLY IF THEY MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND THE SPECIFICATIONS, AND IF COMPLETE WRITTEN ENGINEERING DATA FOR EACH CONDITION REQUIRED FOR THIS PROJECT IS PROVIDED TO THE STRUCTURAL ENGINEER OF RECORD TWO (2) WEEKS PRIOR TO BID DATE AND APPROVED IN WRITTEN ADDENDA BY THE PRIME CONSULTANT. DATA IS TO INDICATE CODE BASIS BY YEAR, AUTHORITY FOR STRESSES AND STRESS INCREASES, IF ANY, AND AMOUNT OF EXPECTED DEFLECTION FOR FLEXURAL MEMBERS UNDER (1) TOTAL LOAD AND (2) LIVE LOAD ONLY. ALL INCREASED COSTS IN MECHANICAL. SPRINKLER. ELECTRICAL OR GENERAL INSTALLATION, AND ANY ARCHITECTURAL OR STRUCTURAL REDESIGN RESULTING FROM SUBSTITUTION SHALL BE BORNE BY THE GENERAL CONTRACTOR.

WHEN USED IN THESE DOCUMENTS SHALL CONFORM TO THE NATIONAL CAD STANDARD AS WELL AS THE FOLLOWING LIST UNLESS OTHERWISE NOTED. DRAWINGS OF OTHER DISCIPLINES MAY CONTAIN SPECIFIC ABBREVIATIONS, REFERENCES, AND LEGENDS WITH INTERPRETATION INTENDED ONLY FOR THOSE DISCIPLINES

, John Northmore Roberts & Associates -

### **CONTRACTOR RESPONSIBILITY** (CBC 2019 SECTION 1704.4) 1. CONSTRUCTION OF A MAIN WIND- OR SEISMIC- FORCE-RESISTING SYSTEM. DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC- RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS (CBC 2019 SECTION 1705) SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

- 2. READ AND FOLLOW ALL REFERENCED ICC-ES REPORTS OR IAPMO-ES REPORTS FOR NSTALLATION OF ITEMS SHOWN. ALTERNATE INSTALLATION MAY BE SUBMITTED FOR APPROVAL TO THE PROJECT COORDINATOR WITH APPLICABLE ICC-ES OR IAPMO-ES REPORTS.
- 3. COORDINATING THE WORK OF ALL TRADES AND VERIFICATION OF ALL DIMENSIONS, CONDITIONS, AND ELEVATIONS BEFORE STARTING WORK OR FABRICATION ON NEW (N) OR EXISTING (E) CONSTRUCTION, ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, SPECIFICATIONS, GENERAL NOTES, AND THE SITE CONDITIONS SHALL BE IMMEDIATELY CALLED TO THE ATTENTION OF THE PROJECT COORDINATOR AND SHALL BE RESOLVED IN WRITING BEFORE PROCEEDING. ANY WORK PERFORMED BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY, AND PRIOR TO RECEIVING WRITTEN CLARIFICATION, SHALL BE PERFORMED AT THE CONTRACTOR'S RISK.
- 4. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- USE ADEQUATE NUMBERS OF SKILLED WORKMAN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
- 6. ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, THIS REQUIREMENT APPLIES CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE'S STABILITY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO; JOB SITE SAFETY, ERECTION MEANS, METHODS AND SEQUENCES, TEMPORARY SHORING, FORMWORK AND BRACING, USE OF EQUIPMENT, AND CONSTRUCTION PROCEDURES. PROVIDE ADEQUATE RESISTANCE TO LOADS IMPOSED ON THE STRUCTURE(S) DURING CONSTRUCTION PER DESIGN LOADS ON STRUCTURES **DURING CONSTRUCTION (SEI/ASCE 37-02)**.

## **GEOTECHNICAL DESIGN CRITERIA & PREPARATION**

- DESIGN CRITERIA: THE FOUNDATION WAS DESIGNED IS IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED WITHIN THE GEOTECHNICAL INVESTIGATION REPORT SPECIFIED BELOW.
  - GEOTECHNICAL REPORT **#XXXXX** PREPARED BY XXXX
  - DATED MONTH XX, XXXX

### THE SOIL PARAMETERS ARE AS FOLLOWS: 1.1. SOIL CLASSIFICATION: XXXXX

1.2. ALLOWABLE DESIGN PARAMETERS:

PARAMETER	ALLOWABLE CAPACITY
DEAD + LIVE	XXXX PSF
DEAD + LIVE + SEISMIC	XXXX PSF
ACTIVE PRESSURE (DRAINED)	XX PSF
AT REST PRESSURE (DRAINED)	XX PSF
PASSIVE PRESSURE (DRAINED)	XXX PSF*
COEFFICIENT OF FRICTION	X.XX*

\* APPLY FACTOR OF SAFETY (FS) AS FOLLOWS: FS = X.X FOR PASSIVE OR FRICTION ONLY

- FS = X.X FOR PASSIVE AND FRICTION IN COMBINATION
- 2. CONTRACTOR RESPONSIBILITIES:
- REVIEW AND INCORPORATE GEOTECHNICAL RECOMMENDATIONS NOTED IN THE INVESTIGATION REPORTED SPECIFIED NOTE #1 ABOVE.
- BE RESPONSIBLE FOR ALL EXCAVATION PROCEDURES AND FOR 2.2. PROTECTION OF ADJACENT STRUCTURES, STREETS, AND UTILITIES.
- EXERCISE EXTREME CARE DURING EXCAVATION TO AVOID DAMAGE TO 2.3. BURIED LINES, TANKS, AND OTHER CONCEALED ITEMS. UPON DISCOVERY. DO NOT PROCEED WITH WORK UNTIL RECEIVING WRITTEN INSTRUCTIONS FROM ARCHITECT.
- DESIGN AND PROVIDE ADEQUATE SHORING, BRACING AND FORM WORK AS 2.4 REQUIRED FOR THE CONSTRUCTION OF THE BUILDING. PROVIDE TEMPORARY BRACING AS REQUIRED TO HOLD THE VARIOUS ELEMENTS IN PLACE UNTIL FINAL SUPPORT IS SECURELY ANCHORED.
- 2.5. PROVIDE DRAINAGE AND DEWATERING AROUND ALL WORK TO AVOID WATER-SOFTENED FOOTINGS.
- GEOTECHNICAL ENGINEER RESPONSIBILITIES A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE PRESENT DURING ALL SITE CLEARING AND GRADING OPERATIONS TO TEST AND OBSERVE EARTHWORK CONSTRUCTION.
- PRIOR TO PLACEMENT OF REINFORCING STEEL IN FOUNDATION ELEMENTS. 3.2. A REPRESENTATIVE OF THE SOILS ENGINEER OF RECORD SHALL INSPECT ALL FOOTING EXCAVATIONS FOR SUITABILITY OF BEARING SURFACES.
- 4. OVEREXCAVATION AND COMPACTION INFORMATION: SEE DETAIL  $\left(\frac{8}{50.04}\right)$
- 5. BACKFILL AT BASEMENT WALLS: DO NOT BACKFILL AROUND THE EXTERIOR PERIMETER WALL ELEMENTS UNTIL 7 DAYS MINIMUM AFTER COMPLETION OF THE FLOOR SLABS WHICH ARE CONNECTED TO THE TOP AND BOTTOM OF THE WALL ELEMENTS, UNLESS OTHERWISE NOTED.
- 6. BACKFILL AT RETAINING WALLS: DO NOT BACKFILL THE RETAINING WALL HAS BEEN FULLY CONSTRUCTED AND MATERIAL TESTING CONFIRMS DESIGN STRENGTHS HAVE BEEN ACHIEVED UNLESS OTHERWISE NOTED.

### **BASIS OF DESIGN - MAIN BARN** (CALIFORNIA EXISTING BUILDING CODE 2019) LOCATION: LATITUDE

LONGITUDE -121.9993452 DESIGN LOADS ROOF DEAD LOAD ----------- 13 PSF ----- 20 PSF ROOF LIVE LOAD (ROOF LIVE LOAD MAY BE REDUCED PER CBC SECTION 1607.12) EXTERIOR WALL---------- 10 PSF INTERIOR WALL ----- 14 PSF

31.1844293

## 3. <u>SEISMIC FACTORS:</u> RISK CATEGOR

RISK CATEGORY	
IMPORTANCE FACTOR	1.0
Ss	2.438
S1	1.022
SITE CLASS	D
SDS	1.625
SD1	1.158
SEISMIC DESIGN CATEGORY	D
SEISMIC RESPONSE COEFFICIENT(S), Cs	0.19
RESPONSE MODIFICATION FACTOR(S), R	6.5
SEISMIC FORCE RESISTING SYSTEM(S)	WOOD SHEAR WALLS
DESIGN BASE SHEAR (EAST-WEST)	
DESIGN BASE SHEAR (NORTH-SOUTH)	9.7 KIPS
SYSTEM OVERSTRENGTH FACTOR, Ω	
DEFLECTION AMP. FACTOR, Cd	4.0
REDUNDANCY FACTOR, ρ	1.3
ANALYSIS PROCEDURE USED	
	FORCE METHOD
HORIZONTAL STRUCTURAL IRREGULARITIES	NONE
VERTICAL STRUCTURAL IRREGULARITIES	NONE
LOCATION OF BASE	TOP OF FOOTING
WIND FACTORS:	
RISK CATEGORY	1
ULTIMATE DESIGN WIND SPEED	
	D

### WIND EXPOSURE INTERNAL PRESSURE COEFFICIENT ------ +/- 0.18 DESIGN BASE SHEAR (EAST-WEST) ----- 6.9 KIPS DESIGN BASE SHEAR (NORTH-SOUTH) ------ 12.1 KIPS

## **BASIS OF DESIGN - HAY BARN**

(CALIFORNIA EXISTING BUILDING CODE 2019)	
1. <u>LOCATION:</u> LATITUDE	04 40 44000
LONGITUDE	31.1844293
LONGHODE	-121.3333432
2. <u>DESIGN LOADS:</u>	
ROOF DEAD LOAD	
(ROOF LIVE LOAD MAY BE REDUCED PER CBC S	ECTION 1607.12)
EXTERIOR WALL	
INTERIOR WALL	14 PSF
3. <u>SEISMIC FACTORS:</u> RISK CATEGORY	1
IMPORTANCE FACTOR	
Ss	2.438
S1	_
SITE CLASSSDS	D 1.625
SD3	1.158
SEISMIC DESIGN CATEGORY	D
SEISMIC RESPONSE COEFFICIENT(S), Cs	
RESPONSE MODIFICATION FACTOR(S), R	
SEISMIC FORCE RESISTING SYSTEM(S) DESIGN BASE SHEAR (EAST-WEST)	
DESIGN BASE SHEAR (NORTH-SOUTH)	
SYSTEM OVERSTRENGTH FACTOR, $\Omega$	
DEFLECTION AMP. FACTOR, Cd	
REDUNDANCY FACTOR, ρ ANALYSIS PROCEDURE USED	
ANALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE METHOD
HORIZONTAL STRUCTURAL IRREGULARITIES	
VERTICAL STRUCTURAL IRREGULARITIES	NONE
LOCATION OF BASE	TOP OF FOOTING
4. <u>WIND FACTORS:</u> RISK CATEGORY	1
ULTIMATE DESIGN WIND SPEED	86 MPH
WIND EXPOSURE	_
DESIGN BASE SHEAR (EAST-WEST)	0.9 KIPS
BASIS OF DESIGN - BREEZEWAY	
(CALIFORNIA EXISTING BUILDING CODE 2019)	
1. LOCATION:	
LATITUDE	
LONGITUDE	-121.9993452
2. <u>DESIGN LOADS:</u>	
ROOF DEAD LOAD	13 PSF
ROOF LIVE LOAD	20 PSF
(ROOF LIVE LOAD MAY BE REDUCED PER CBC S	ECTION 1607.12)
EXTERIOR WALL	
INTERIOR WALL	10 PSF 14 PSF
3. SEISMIC FACTORS:	
RISK CATEGORY	l
IMPORTANCE FACTORSs	1.0 2.438
SSS1	1.022
SITE CLASS	D
SDS	1.625
	1.158
SEISMIC DESIGN CATEGORY	D 0.19
RESPONSE MODIFICATION FACTOR(S), CS	6.5
SEISMIC FORCE RESISTING SYSTEM(S)	WOOD SHEAR WALLS
DESIGN BASE SHEAR (EAST-WEST)	10.6 KIPS

DESIGN BASE SHEAR (NORTH-SOUTH) ------ 9.7 KIPS

----- 1.3

----- EQUIVALENT LATERAL

----- TOP OF FOOTING

FORCE METHOD

SYSTEM OVERSTRENGTH FACTOR, Ω<sup>´</sup> ------ 2.5

DEFLECTION AMP. FACTOR, Cd ------ 4.0

HORIZONTAL STRUCTURAL IRREGULARITIES ------ NONE

VERTICAL STRUCTURAL IRREGULARITIES ------ NONE

ULTIMATE DESIGN WIND SPEED ------ 86 MPH

INTERNAL PRESSURE COEFFICIENT ------ +/- 0.18

DESIGN BASE SHEAR (EAST-WEST) ------ 6.9 KIPS

DESIGN BASE SHEAR (NORTH-SOUTH) ------ 12.1 KIPS

REDUNDANCY FACTOR, ρ ------

LOCATION OF BASE ------

RISK CATEGORY-----

WIND EXPOSURE -----

WIND FACTORS

ANALYSIS PROCEDURE USED ------

## **GENERAL STRUCTURAL**

- CODE: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE CALIFORNIA EXISTING BUILDING CODE (CEBC 2019) EDITION; AND ALL OTHER PUBLICATIONS AND STANDARDS LISTED HEREIN. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
- 2. INTENT OF STRUCTURAL DRAWINGS: PROVIDE SUFFICIENT INFORMATION TO GUIDE THE GENERAL CONTRACTOR IN REGARD TO THE PRIMARY STRUCTURAL SYSTEM ASPECTS OF THE PROJECT ONLY. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. SOME SECONDARY ELEMENTS ARE NOT DIMENSIONED SUCH AS; WALL CONFIGURATIONS, INCLUDING EXACT DOOR AND WINDOW LOCATIONS, ALCOVES, SLAB SLOPES AND DEPRESSIONS, CURBS, ETC. VERTICAL DIMENSIONAL CONTROL IS DEFINED BY ARCHITECTURAL WALL SECTIONS AND BUILDING SECTIONS. STRUCTURAL DETAILS SHOW DIMENSIONAL RELATIONSHIPS TO CONTROL DIMENSION DEFINED BY ARCHITECTURAL DRAWINGS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- PROJECTS WITH EXISTING STRUCTURES: ALL WORK SHALL BE PERFORMED TO **MINIMIZE DAMAGE TO THE EXISTING STRUCTURE AND FINISHES.**
- 4. GOVERNMENT REQUIREMENTS: ALL WORK SHALL CONFORM TO THE LATEST APPLICABLE CONSTRUCTION SAFETY REQUIREMENTS OF O.S.H.A. AND ANY OTHER GOVERNMENTAL AGENCY HAVING JURISDICTION IN THE AREA OF THE WORK.
- 5. ENGINEER OF RECORD EXCLUSIONS: THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR AND DOES NOT HAVE CONTROL. OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR JOB SITE CONDITIONS, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR AND DOES NOT HAVE CONTROL OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OF THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE CONSTRUCTION WORK. THE CONTRACTOR AGREES TO INDEMNIFY AND HOLD THE STRUCTURAL ENGINEER OF RECORD HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
- STRUCTURAL SYSTEM DURING CONSTRUCTION: THE STRUCTURAL SYSTEMS HAVE BEEN DESIGNED TO RESIST CODE REQUIRED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. AS PRESCRIBED BY THE GOVERNING BUILDING CODES AND IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICES. NO SPECIAL PROVISIONS HAVE BEEN MADE FOR CARRYING CONCENTRATED LOADS FROM STORAGE AND HANDLING OF CONSTRUCTION MATERIALS OR FROM OPERATION OF CONSTRUCTION EQUIPMENT.
- 7. <u>STRUCTURAL NOTES AND DETAILS:</u> GENERAL NOTES AND TYPICAL DETAILS APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OTHERWISE IN THE DRAWINGS. PLAN NOTES AND SPECIFIC DETAILS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, USE DETAILS OF A CHARACTER SIMILAR TO THE CONDITION SHOWN, SUBJECT TO REVIEW BY THE ENGINEER OF RECORD.
- CONTINUITIES WITHIN THE STRUCTURAL SYSTEM: IF NOTE AND DETAILS SPECIFYING THESE CONTINUITIES ARE NOT EVIDENT ON THE DRAWINGS. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR CLARIFICATION
  - 1. CONTINUOUS ROOF FOR THE LENGTH OF THE ROOF SYSTEM
  - 2. CONTINUOUS WALL SHEAR PANELS CONNECTED TO THE ROOF STRUTS
- 9. OPENINGS, POCKETS, ETC.: SHALL NOT BE PLACED IN STRUCTURAL MEMBERS UNLESS DETAILED SPECIFICALLY ON THE STRUCTURAL DRAWINGS. FOR REQUIRED OPENINGS WITHIN STRUCTURAL MEMBERS WHICH ARE NOT SHOWN AND/OR DETAILED ON THE STRUCTURAL DRAWINGS, OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD BEFORE PROCEEDING WITH WORK.
- 10. FLOOR MOUNTED EQUIPMENT: SUPPORT MISCELLANEOUS EQUIPMENT AS DETAILED ON THE DRAWINGS. WHERE NO DETAILS ARE PROVIDED. OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD BEFORE PROCEEDING WITH WORK, ALL EQUIPMENT, MACHINERY, TANKS, AND SILOS SHALL BE PLUMB AND LEVEL UNLESS NOTED OTHERWISE.
- 11. SUSPENDED EQUIPMENT: UNLESS SPECIFICALLY NOTED OTHERWISE, LATERALLY BRACE ALL SUSPENDED EQUIPMENT AND CEILINGS IN CONFORMANCE WITH THE BUILDING CODE.
- 12. EXTERIOR GLAZING AND SUPPORTING FRAMES: SHALL BE DESIGNED A SPECIALTY DESIGN CONSULTANT TO RESIST THE LATERAL LOADS PRESENTED IN THE "BASIS OF DESIGN" SPECIFICATION.
- 13. STRUCTURAL SPECIFICATIONS: SPECIFICATIONS ARE PROVIDED FOR THE PROJECT. THE INFORMATION CONTAINED WITHIN THE SPECIFICATIONS APPLY TO THE PROJECT. IF INFORMATION IN THE GENERAL NOTES OR PLANS CONFLICT WITH THE SPECIFICATIONS IMMEDIATELY NOTIFY THE PROJECT COORDINATOR, WHO WILL RESOLVE THE CONFLICT IN WRITING BEFORE PROCEEDING.
- 14. PROJECT SCOPE: THE PURPOSE OF THIS PROJECT IS TO VOLUNTARILY STRENGTHEN THE EXISTING LATERAL SYSTEMS OF THREE (3) EXISTING STRUCTURES AS PERMITTED BY SECTION 319.12 OF THE CALIFORNIA EXISTING BUILDING CODE (CEBC 2019). THE VOLUNTARY IMPROVEMENT FOR THE TWO (2) EXISTING BARN STRUCTURES CONSIST OF STRUCTURAL ROOF SHEATHING. PLYWOOD SHEAR WALLS, AND LIGHT GAUGE CLIPS ALONG WITH SHALLOW REINFORCED CONCRETE FOUNDATION SYSTEMS. THE VOLUNTARY IMPROVEMENT FOR THE EXISTING BREEZEWAY STRUCTURE CONSIST OF STRUCTURAL ROOF SHEATHING, ADDITIONAL CANTILEVERED TIMBER POLES, AND LIGHT GAUGE CLIPS. ALSO, DETERIORATED MATERIAL WILL BE REPLACED WITH "IN-KIND" OR GREATER MEMBERS AS APPROPRIATE ON ALL THREE (3) EXISTING STRUCTURES.

A FOUNDATION DESIGN IS PROVIDED TO SUPPORT A NEW PREFABRICATED CARETAKER RESIDENCE. THE PREFABRICATED CARETAKER RESIDENCE WILL BE SUPPORTED BY A SHALLOW REINFORCED CONCRETE FOUNDATION SYSTEM. THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODE 2019 WERE FOLLOWED.

SIGNED/STAMPED BEAR CREEK STABLES DMR 19100 Bear Creek Road Los Gatos, CA 95033 APN 544 32 001 Concept Design

DESCRIPTION

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DATE

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03/03/20 SCHEMATIC DESIGN 06/11/20 50% DD 08/13/21 USE PERMIT APPLICATION
SHEET TITLE STRUCTURAL NOTES
scale 12" = 1'-0"
drawn project number ALQ 385
SHEET NUMBER
<b>S0.01</b>
30 OF 43

## SCREW ANCHORS IN CONCRETE

1. APPROVED TYPES: SCREW ANCHORS ARE TO BE THE FOLLOWING;

1.1.HILTI KWIK HUS-EZ ANCHORS AS MANUFACTURED BY HILTI, INC., 7250 DALLAS PARKWAY, SUITE 1000, PLANO, TEXAS 75024. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN ICC-ES REPORT NO. ESR-3027, LATEST EDITION. MINIMUM AND MAXIMUM EMBEDMENT DEPTHS SHALL BE AS FOLLOWS

`	JLLOWS,		
	ANCHOR DIAMETER (INCH)	MIN EMBEDMENT (INCH)	MIN CONCRETE THICKNESS (INCH)
	1/4	1 5/8	3 1/4
	3/8	1 5/8	3 1/4
	1/2	2 1/4	4 1/2
	5/8	3 1/4	5
	3/4	4	6

NOTE: SEE PLANS AND DETAILS FOR SPECIFIC EMBEDMENT DIMENSIONS, ANCHOR LENGTHS, SPACING, EDGE DISTANCES, PLACEMENT, ETC.

1.2.SIMPSON STRONG-TIE TITEN HD ANCHORS AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC., 5956 WEST LAS POSITAS BOULEVARD, PLEASANTON, CALIFORNIA 94588. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN ICC-ES REPORT NO. ESR-2713, LATEST EDITION. MINIMUM AND MAXIMUM EMBEDMENT DEPTHS SHALL BE AS FOLLOWS:

ANCHOR DIAMETER (INCH)	MIN EMBEDMENT (INCH)	MIN CONCRETE THICKNESS (INCH)		
1/4	1 5/8	3 1/4		
3/8	2 1/2	4		
1/2	3 1/4	5		
5/8	4	6		
3/4	5 1/2	8 3/4		

NOTE: SEE PLANS AND DETAILS FOR SPECIFIC EMBEDMENT DIMENSIONS. ANCHOR LENGTHS, SPACING, EDGE DISTANCES, PLACEMENT, ETC.

- EXISTING REINFORCEMENT: WHEN INSTALLING SCREW ANCHORS DO NOT CUT OR AMAGE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE-INCH BETWEEN THE EXISTING REINFORCEMENT AND SCREW ANCHOR.
- SPECIAL INSPECTION REQUIREMENTS: ALL SCREW ANCHORS SHOWN ON THE PLANS AND DETAILS, AND ANY SCREW ANCHORS NOT SPECIFICALLY SHOWN IN THE PLANS AND DETAILS BUT IS PART OF THE STRUCTURAL SCOPE OF WORK, REQUIRE PERIODIC SPECIAL INSPECTION DURING INSTALLATION IN ACCORDANCE WITH SECTION 4.0 IN THE ICC-ES REPORTS. USE MANUFACTURER INSTALLATION TORQUE VALUES FOR TESTING AND INSPECTION PURPOSES.

## EXPANSION ANCHOR IN CONCRETE

1. APPROVED TYPES: EXPANSION ANCHORS ARE THE FOLLOWING;

1.1.HILTI KWIK BOLT TZ ANCHORS AS MANUFACTURED BY HILTI, INC., 7250 DALLAS PARKWAY, SUITE 1000, PLANO, TEXAS 75024. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN ICC-ES REPORT NO. ESR-1917, LATEST EDITION. MINIMUM AND MAXIMUM EMBEDMENT DEPTHS SHALL BE AS 

U	LLOWS;				
	ANCHOR DIAMETER (INCH)	MIN EMB CARBON (INCHES)	MIN EMB SS (INCHES)	MIN CONC THCK CARBON (INCHES)	MIN CONC TH SS (INCHES
	3/8	1 1/2	2	3 1/4	4
	1/2	2	2	4	4
	5/8	3 1/8	3 1/8	5	5
	3/4	3 1/4	3 3/4	5 1/2	6

NOTE: SEE PLANS AND DETAILS FOR SPECIFIC EMBEDMENT DIMENSIONS, ANCHOR LENGTHS, SPACING, EDGE DISTANCES, PLACEMENT, ETC.

1.2.SIMPSON STRONG-TIE STRONG-BOLT 2 ANCHORS AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC., 5956 WEST LAS POSITAS BOULEVARD, PLEASANTON, CALIFORNIA 94588. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN ICC-ES REPORT NO. ESR-3037, LATEST EDITION. MINIMUM AND MAXIMUM EMBEDMENT DEPTHS SHALL BE AS FOLLOWS;

ANCHOR DIAMETER (INCH)	MIN EMB CARBON (INCHES)	MIN EMB SS (INCHES)	MIN CONC THCK CARBON (INCHES)	MIN CONC THCK SS (INCHES)
1/4	1 1/2	1 1/2	3 1/4	3 1/4
3/8	1 1/2	1 1/2	3 1/4	3 1/4
1/2	2 1/4	2 1/4	4 1/2	4 1/2
5/8	2 3/4	2 3/4	5 1/2	5 1/2
3/4	3 3/8	3 3/8	6 3/4	6 3/4
1	4 1/2	-	9	-

NOTE: SEE PLANS AND DETAILS FOR SPECIFIC EMBEDMENT DIMENSIONS, ANCHOR LENGTHS, SPACING, EDGE DISTANCES, PLACEMENT, ETC.

2. EXISTING REINFORCEMENT: WHEN INSTALLING EXPANSION ANCHORS DO NOT CUT OR DAMAGE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE-INCH BETWEEN THE EXISTING REINFORCEMENT AND EXPANSION ANCHOR.

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3. SPECIAL INSPECTION REQUIREMENTS: ALL EXPANSION ANCHORS SHOWN ON THE PLANS AND DETAILS, AND ANY EXPANSION ANCHORS NOT SPECIFICALLY SHOWN IN THE PLANS AND DETAILS BUT IS PART OF THE STRUCTURAL SCOPE OF WORK REQUIRE PERIODIC SPECIAL INSPECTION DURING INSTALLATION IN ACCORDANCE WITH SECTION 4.0 IN THE ICC-ES REPORTS. USE MANUFACTURER INSTALLATION TORQUE VALUES FOR TESTING AND INSPECTION PURPOSES.

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4. SIZE: POLE SIZES SHALL BE AS NOTED ON THE FOUNDATION DRAWINGS. DIAMETERS SHOWN ARE AT THE TOP (TIP). LENGTH DEPENDS ON REQUIRED EMBEDMENT AS DETERMINED BY THE GEOTECHNICAL ENGINEER.

DETAILED OR NOTED OTHERWISE IN THESE DRAWINGS.

ADHESIVE ANCHOR ASSEMBLIES IN CONCRETE

REBAR | ROD DIA | MIN EMB | MAX EMB

(INCHES)

2 3/8

2 3/4

3 1/8

3 1/2

3 1/2

4

SPACING, EDGE DISTANCES, PLACEMENT, ETC.

REBAR | ROD DIA | MIN EMB | MAX EMB

(INCH) (INCHES) (INCHES)

2 3/8

2 3/4

3 1/8

3 1/2

3 1/2

4

SPACING, EDGE DISTANCES, PLACEMENT, ETC.

1.2.SIMPSON STRONG-TIE SET-XP ADHESIVE SYSTEM AS MANUFACTURED BY

PLEASANTON, CALIFORNIA 94588. INSTALL IN ACCORDANCE WITH THE

MANUFACTURER'S RECOMMENDATIONS IN ICC-ES REPORT NO. ESR-2508,

SIMPSON STRONG-TIE COMPANY, INC., 5956 WEST LAS POSITAS BOULEVARD,

LATEST EDITION. MINIMUM AND MAXIMUM EMBEDMENT DEPTHS SHALL BE AS

7 1/2

10

15

20

EXISTING REINFORCEMENT: WHEN INSTALLING ADHESIVE ANCHOR ASSEMBLIES

CLEARANCE OF ONE-INCH BETWEEN THE EXISTING REINFORCEMENT AND THE

SPECIAL INSPECTION REQUIREMENTS: ALL ADHESIVE ANCHORS SHOWN ON THE

REQUIRE SPECIAL INSPECTION DURING INSTALLATION IN ACCORDANCE WITH

GOVERNING CODES: ALL FRAMING DETAILS AND MINIMUM CONSTRUCTION

THE 2019 CBC. SECTION 1810, 2304.11, AND 2304.12, UNLESS SPECIFICALLY

2. SUBMITTALS: SHOP DRAWINGS (COMPONENT DESIGN DRAWINGS) INCLUDING:

REQUIREMENTS MUST SATISFY "CONVENTIONAL CONSTRUCTION PROVISIONS" OF

B. PILE SIZE, LENGTH, GRADE, AND PRESSURE TREATMENT QUALIFICATIONS

3. MATERIALS: DOUGLAS FIR SELECT STRUCTURAL, CONFORM TO ANSI 05.1 "WOOD

PLANS AND DETAILS, AND ANY ADHESIVE ANCHORS NOT SPECIFICALLY SHOWN IN THE PLANS AND DETAILS BUT IS PART OF THE STRUCTURAL SCOPE OF WORK

DO NOT CUT OR DAMAGE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM

NOTE: SEE PLANS AND DETAILS FOR SPECIFIC EMBEDMENT DIMENSIONS.

(INCH)

3/8

1/2

4/8

3/4

7/8

1

3/8

1/2

5/8

3/4

7/8

1

SECTION 4.0 IN THE ICC-ES REPORTS.

A. PLACEMENT LOCATION

SHALL BE AS FOLLOWS:

SIZE

#3

#4

#5

#6

#7

FOLLOWS;

SIZE

#3

#4

#5

#6

#7

#8

ADHESIVE ANCHOR.

**BUILDING POLES** 

#8

1. APPROVED TYPES: ADHESIVE REBAR AND BOLT ASSEMBLIES ARE THE FOLLOWING;

1.1.HILTI HIT-RE 500 V3 ADHESIVE SYSTEM AS MANUFACTURED BY HILTI, INC., 7250

WITH THE MANUFACTURER'S RECOMMENDATIONS IN ICC-ES REPORT NO.

ESR-3814, LATEST EDITION. MINIMUM AND MAXIMUM EMBEDMENT DEPTHS

DALLAS PARKWAY, SUITE 1000, PLANO, TEXAS 75024. INSTALL IN ACCORDANCE

(INCHES)

7 1/2

10

12 1/2

15

NOTE: SEE PLANS AND DETAILS FOR SPECIFIC EMBEDMENT DIMENSIONS,

MIN CONC THCK

(INCHES)

EMB + 1 1/4

EMB + 1 1/4

EMB + 2x(HOLE DIA)

EMB + 2x(HOLE DIA)

MIN CONC THCK

(INCHES)

EMB + 5x(HOLE DIA)

EMB + 5x(HOLE DIA)

EMB + 5x(HOLE DIA)

EMB + 5x(HOLE DIA)

12 1/2 EMB + 5x(HOLE DIA)

17 1/2 EMB + 5x(HOLE DIA)

17 1/2 EMB + 2x(HOLE DIA)

20 EMB + 2x(HOLE DIA)

PRESERVATIVE TREATMENT: ALL POLES SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA C23 "POLE BUILDING CONSTRUCTION - PRESSURE TREATMENT." MINIMUM RETENTION SHALL BE ACZA: 0.60 PCF OR CCA: 0.60 PCF.

## **WOOD - REPLACEMENT NOTES**

POLES - SPECIFICATIONS AND DIMENSIONS."

- 1. "MATCH EXISTING" OR "IN-KIND" LUMBER MATERIAL: USE LUMBER MATERIAL SPECIFIED IN THE SAWN LUMBER SPECIFICATIONS WHEN REPLACING DETERIORATED MEMBERS, UNLESS THE EXISTING MATERIAL IS CONFIRMED TO BE DIFFERENT THAN THOSE IN THE PROJECT SPECIFICATIONS. NOTIFY THE STRUCTURAL ENGINEER OF THE DIFFERING MATERIAL TYPE TO RECEIVE DIRECTION ON "IN-KIND" REPLACEMENT MATERIAL.
- 2. "MATCH EXISTING" OR "IN-KIND" LUMBER SIZE: MEASURE THE DETERIORATED STRUCTURAL MEMBER. PROVIDE AN EXACT SIZE MATCH IF THE MEMBER WILL REMAIN VISIABLE TO BUILDING OCCUPANTS. IF THE MEMBER IS NOT VISIBLE TO OCCUPANTS, THEN THE MEMBER CAN BE AN EXACT MATCH OR WITHIN 1/2" OF WIDTH AND DEPTH DIMENSIONS. (EXAMPLE: REPLACE EXISTING 2" x 6" MEMBER WITH THE SAME SIZE OR 1 1/2" x 3 1/2" MEMBER.) EXCEPTIONS: EQUIVALENT 1" THICK MATERIAL MUST BE 3/4" MINIMUM THICKNESS AND PANEL TYPE SHEATHING OR WOOD SIDING MUST BE AN EXACT THICKNESS MATCH.

## SAWN LUMBER

- **GOVERNING CODES:** ALL FRAMING DETAILS AND MINIMUM CONSTRUCTION REQUIREMENTS MUST SATISFY "CONVENTIONAL CONSTRUCTION PROVISIONS" OF THE 2019 CBC, SECTION 2308 UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE IN THESE DRAWINGS.
- FINISH, TYPE, MOISTURE, GRADE OF STRUCTURAL MEMBERS: CLEAR, SOUND, DRY DOUGLAS FIR-LARCH FINISHED IN A NEAT MANNER READY FOR FINISH MATERIAL. MAXIMUM MOISTURE CONTENT OF 19 PERCENT. GRADE MARKED PER WWPA SPECIFICATIONS AS FOLLOWS (NOMINAL DIMENSIONS, T=THICKNESS, W=WIDTH):

WALL STUDS	NO. 1
MISC. LIGHT FRAMING (T=2"-4",W=2"-4")	NO. 1
JOIST & PLANKS (T=2'-4",W>=5")	NO. 1
DOUBLE TOP PLATES (T=2"-4",W>=5")	NO. 1
SILL PLATES (T=2"-4",Ŵ>=5")	NO. 1
BEAMS & STRINGERS (T>=5",W>T+2")	NO. 1
POSTS & TIMBERS (T>=5",W<=T+2")	NO. 1

- TREATED MEMBERS: PROVIDE PRESERVATIVE PRESSURE-TREATED SAWN LUMBER WHEN WOOD BEARS DIRECTLY, OR IS WITHIN 8 INCHES OF SOIL, OR IS WITHIN 6 INCHES OF CONCRETE OR PAVED SURFACES. EACH PIECE SHALL BEAR THE GRADEMARK OF AN AGENCY CREDITED BY THE AMERICAN LUMBER STANDARDS COMMITTEE. TREAT ALL CUT ENDS OF PRESSURE TREATED MEMBERS WITH AN APPROVED PRESERVATIVE PER AWPA M4.
  - 3.1. ALL PLATES, CONNECTORS, AND FASTENERS IN CONTACT WITH TREATED WOOD SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED. (ALUMINUM AND ELECTROPLATED GALVANIZED FASTENERS ARE NOT ALLOWED).
- 4. CUTTING OR NOTCHING OF STRUCTURAL MEMBERS: MEMBERS CANNOT BE CUT OR NOTCHED UNLESS SPECIFICALLY SHOWN, NOTED, OR APPROVED BY THE ENGINEER OF RECORD IN WRITING.
- ANCHORAGE OF STRUCTURAL WALLS: 5/8 INCH DIAMETER x10 INCH LONG HEX HEAD ANCHOR BOLTS (OR SIMPSON TITEN HD) AT 48 INCHES ON CENTER, UON.
- 6. ANCHORAGE OF NONSTRUCTURAL WALLS: 5/8 INCH DIAMETER x10 INCH LONG HEX HEAD ANCHOR BOLTS (OR SIMPSON TITEN HD) AT 60 INCHES OC, UON.
- . UNLEVEL SURFACE BELOW BEARING WALLS: PROVIDE DRYPACK UNDER ALL SILL PLATES AT BEARING AND SHEAR WALLS WHERE CONCRETE FOUNDATION OR STEM WALL IS NOT FLAT AND LEVEL.
- STRUCTURAL PANEL SHEATHING: SEE DRAWINGS FOR REQUIRED THICKNESS AND PANEL INDEX. SHEATHING PERMANENTLY EXPOSED TO EXPOSED TO WEATHER (SUCH AS OVERHANGS) SHALL BE GRADE C-C EXTERIOR WITH A RANGE INDEX AND NAILING AS SPECIFIED ON THESE DRAWINGS. SHEATHING ELEMENTS CANNOT BE LESS THAN 24 INCHES IN THE LEAST DIMENSION NOR LESS THAN 8 SQUARE FEET IN TOTAL AREA FOR HORIZONTAL DIAPHRAGMS AND NOT LESS THAN 12 INCHES IN THE LEAST DIMENSION NOR LESS THAN 4 SQUARE FEET IN TOTAL AREA FOR SHEAR WALLS.
- NAILING REQUIREMENTS: STRUCTURAL NAILING MUST BE COMMON NAILS. GALVANIZE WHERE EXPOSED TO WEATHER, IN FOUNDATIONS AND AS NOTED ON DRAWINGS. NAIL EQUIVALENCE IS THE FOLLOWING:

6d EQUALS 0.113" DIAMETER, PROVIDE 1 3/8 INCH MIN PENETRATION. 8d EQUALS 0.131" DIAMETER, PROVIDE 1 5/8 INCH MIN PENETRATION. 10d EQUALS 0.148" DIAMETER, PROVIDE \* 1 7/8 INCH MIN PENETRATION. 16d EQUALS 0.162" DIAMETER, PROVIDE \* 2 INCH MIN PENETRATION.

- \* 1 1/2 MIN PENETRATION IN THE LEAST DIMENSION OF 2x MEMBERS.
- 10. MACHINE NAILING: MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL OF THE PROJECT STRUCTURAL ENGINEER OF RECORD. THE APPROVAL IS SUBJECT TO THE CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING IS NOT ALLOWED FOR 5/16 INCH PLYWOOD. IF THE NAIL HEADS PENETRATE THE OUTER PLY ON PANEL SHEATHING BY MORE THAN WOULD BE NORMAL FOR A HAND-HELD HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY AND MACHINE NAILING SHALL BE DISCONTINUED.
- 11. <u>CODE REQUIREMENTS FOR PANEL SHEATHING NAILING:</u> MUST CONFORM TO **CBC** 3. <u>BENDS</u>: BAR BENDS SHALL BE COLD BENT, WHERE REQUIRED. TABLE 2304.9.1, UON AS MORE RESTRICTIVE IN THESE DRAWINGS. ATTACH PANELS BOUNDARIES AND EDGES TO FRAMING WITH 8d AT 6 INCHES ON CENTER AND USE 8d AT 12 INCHES ON CENTER FOR FIELD NAILING IS NOT SPECIFIED.
- 12. DIAPHRAGM NAILING DEFINITIONS: ARE THE FOLLOWING: BN - NAILING AT PANEL EDGES WHICH OCCUR AT BOUNDARIES OF STRUCTURAL ELEMENTS & AT CHORDS, COLLECTORS AND
  - CONTINUOUS PANEL EDGES. EN - NAILING AT OTHER PANEL EDGES.
  - FN NAILING AT SUPPORTS NOT AT PANEL EDGES.
- 13. <u>SCREW REQUIREMENTS:</u> WOOD SCREWS MUST BE STEEL, SATISFYING THE REQUIREMENTS OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. GALVANIZATION OR OTHER CORROSION RESISTANT COATING ARE REQUIRED AT AREAS EXPOSED TO WEATHER OR IN FOUNDATION SYSTEMS.
- 14. BOLT REQUIREMENTS: MUST MEET OR EXCEED THE FOLLOWING: 14.1. ALL BOLTS, BOTH THROUGH AND LAG, MUST CONFORM TO ASTM A307 REQUIREMENTS.
  - 14.2. PROVIDE STANDARD CUT WASHERS UNDER HEADS AND NUTS OF ALL BOLTS BEARING ON WOOD. BOLT HOLES SHALL BE NOMINAL DIAMETER OF BOLT PLUS 1/16 INCH UON. ALL BOLTS SHALL BE RE-TIGHTENED PRIOR TO THE APPLICATION OF SHEATHING, PLASTER, ETC.
  - 14.3. ALL SILL BOLTS SHALL HAVE A MINIMUM OF 3"x3"x1/4" THICK PLATE, UNLESS NOTED OTHERWISE. HOLES IN THE PLATE WASHER FOR SILL BOLTS ARE PERMITTED TO BE DIAGONALLY SLOTTED, PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE DIAGONAL SLOT IN A SILL WASHER CAN HAVE MAXIMUM WIDTH OF UP TO 3/16 INCH LARGER THAN THE BOLT DIAMETER AND A LENGTH NOT TO EXCEED 1 3/4 INCH.
  - 14.4. NO UPSET THREADS ALLOWED ON ANCHOR BOLTS.
  - 14.5. LAG BOLTS SHALL BE SCREWED IN, NOT DRIVEN. LEAD HOLE FOR THREADED PORTION SHALL BE 75% OF THE SHANK DIAMETER.
  - 14.6 SPACE ALL BOLTS IN WOOD 4 DIAMETERS MINIMUM WITH 7 DIAMETERS MINIMUM END DISTANCE, UNLESS NOTED OTHERWISE.
- 15. <u>HARDWARE REQUIREMENTS:</u> CONNECTOR HARDWARE MUST BE MANUFACTURED BY SIMPSON STRONG-TIE, OR EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR MAXIMUM RATED LOADS (ALL HOLES TO RECEIVE NAILS), EXCEPT WHERE NOTED OTHERWISE ON THESE DRAWINGS. SUBSTITUTIONS FOR FRAMING HARDWARE CAN BE SUBMITTED TO THE ENGINEER, BUT CANNOT BE USED UNTIL WRITTEN APPROVAL IS RECEIVED.
- 16. BLOCKING REQUIREMENTS: ARE THE FOLLOWING: 16.1 PLACE 2x SOLID BLOCKING BETWEEN JOISTS OR RAFTERS OVER ALL SUPPORTS. BLOCKING SHALL BE FULL DEPTH OF JOISTS.
  - 16.2 PROVIDE BLOCKING AND BACKING AS REQUIRED FOR HARDWARE AND OTHER EQUIPMENT AS INDICATED ON DRAWINGS.
- 17. PRE-DRILLED HOLES: REQUIRED AT ALL CONNECTIONS WHERE WOOD TENDS TO OR IS KNOW TO SPLIT.

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## CONCRETE MIX, PLACEMENT, AND FINISH

- 1. GOVERNING CODES: THE QUALITY AND DESIGN OF CONCRETE SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE (LATEST EDITION). ITEMS NOT SPECIFICALLY COVERED THEREIN SHALL CONFORM TO THE REQUIREMENTS OF ACI STANDARD FOR STRUCTURAL CONCRETE (ACI 318, LATEST EDITION).
- MIX DESIGN: THE CONTRACTOR SHALL DESIGN CONCRETE MIXES THAT MEET OR EXCEED THE REQUIREMENTS OF THE CONCRETE MIX TABLE. THE MIX DESIGNS SHALL FACILITATE ANTICIPATED PLACEMENT METHODS, WEATHER, REBAR CONGESTION, ARCHITECTURAL FINISHES, CONSTRUCTION SEQUENCING, STRUCTURAL DETAILS, AND ALL OTHER FACTOR REQUIRED TO PROVIDE A STRUCTURALLY SOUNDS, AESTHETICALLY ACCEPTABLE FINISHED PRODUCT WATER REDUCING ADMIXTURES WILL LIKELY BE REQUIRED TO MEET THESE REQUIREMENTS. CONCRETE MIX DESIGNS SHALL CLEARLY INDICATE THE TARGET SLUMP, SLUMP TOLERANCE SHALL BE +/- 1 INCHES.

CONCRETE MIX DESIGN MINIMUM REQUIREMENTS										
USE/LOCATION	f'c (PSI)	CONC WT (PCF)	SLUMP (INCH)	W/C RATIO	MAX AGGR SIZE					
FOUNDATION AND SLAB-ON-GRADE	3,000	NWC	4	0.45 - 0.50	1 " HR					

NOTES:

- A. NORMAL WEIGHT CONCRETE (145 PCF)
- B. ADMIXTURES SHALL BE BY MASTER BUILDERS. W.R.GRACE. OR PRE-APPROVED EQUAL. ALL MANUFACTURERS RECOMMENDATIONS SHALL BE FOLLOWED. NO ADMIXTURES SHALL BE ADDED TO THE MIX DESIGN WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- 3. CONCRETE PLACEMENT: FOLLOWING ALL APPLICABLE ACI RECOMMENDATIONS. CONCRETE SHALL BE PROPERLY CONSOLIDATED PER ACI GUIDE FOR CONSOLIDATION OF CONCRETE (ACI 309, LATEST EDITION) USING INTERIOR MECHANICAL VIBRATORS, DO NOT OVER VIBRATE. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR EXPANSION JOINTS. IF CONCRETE IS PLACED BY THE PUMP METHOD, HORSES SHALL BE PROVIDED TO SUPPORT THE HOSE, THE HOSE SHALL NOT BE ALLOWED TO RIDE ON THE REINFORCING. WEATHER FORECASTS SHALL BE MONITORED AND ACI RECOMMENDATIONS FOR HOT AND COLD WEATHER CONCRETING SHALL BE FOLLOWED AS REQUIRED. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FEET DURING PLACEMENT WITHOUT WRITTEN APPROVAL OF STRUCTURAL ENGINEER.
- MEP LIMITATION IN FOOTINGS: NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE FOOTINGS UNLESS SPECIFICALLY DETAILED.
- CONTROL JOINTS: SHALL BE CONSTRUCTED AS DETAILED AND LOCATED WHERE INDICATED ON PLAN FOR PROPER SHRINKAGE CONTROL. JOINT SPACING ON SOG SHALL BE ON A MAXIMUM 15 FEET SPACING IN EITHER DIRECTION (225 SQUARE FEET). WHERE POSSIBLE, CONTROL JOINTS ARE TO BE LOCATED AT HIGH OR LOW POINTS OF FLOOR SLOPES. SOFT CUTS FOR THE CONTROL JOINTS SHALL BE MADE IN THE SLAB NO LATER THAN 8 HOURS AFTER PLACEMENT. FOR TYPICAL JOINT DETAILS SEE 5 & 6 S0.04 S0.04

# CONCRETE REINFORCING AND CIP ANCHORAGE

- 1. MIX DESIGN: CONCRETE SHALL BE AS SPECIFIED IN THE CONCRETE MIX, PLACEMENT AND FINISH SPECIFICATIONS.
- 2. MATERIAL TYPE AND GRADE: ARE THE FOLLOWING:
  - 2.1. ALL REINFORCING STEEL MUST BE NEW STOCK DEFORMED BARS CONFIRMING TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
  - 2.2. ALL ANCHOR BOLTS MUST BE OF HEX HEAD TYPE CONFORMING TO ASTM F1554, GRADE 55, UON. CLASS 2A WITH SUPPLEMENTARY REQUIREMENT NO. 1 INCLUDING COLOR MARKING, UON. ASTM F1554, GRADE 105, WHERE SPECIFICALLY INDICATED. FOR EXPOSED ENDS, PROVIDE COLOR CODING PER **ASTM F1554** OR PERMANENT IDENTIFICATION MARKS PER ASTM F1554 SUPPLEMENT #2 AND #3 ON EACH ROD FOR IDENTIFICATION.
- 4. <u>SPLICES</u>: LAP PER REQUIREMENTS OF STANDARD DETAIL  $\left(\frac{1}{50.04}\right)$
- SPACING: SEPARATE ADJACENT REINFORCING STEEL BY 1.5 BAR DIAMETERS OR 1 INCH CLEAR, WHICHEVER IS GREATER. REINFORCING STEEL INDICATED AS CONTINUOUS MAY BE FABRICATED IN CONVENIENT LENGTHS, STAGGER LAP SPLICE LOCATIONS A MINIMUM OF 24 INCHES, FABRICATION DETAILS SHALL CONFORM TO CRSI MANUAL OF STANDARD PRACTICE (LATEST EDITION).
- 6. WELDED WIRE REINFORCEMENT FABRIC: SHALL CONFORM TO ASTM A-497 AND ASTM A-185. LAP ONE FULL MESH ON SIDES AND ENDS. WELDED WIRE REINFORCEMENT SHALL BE SUPPORTED TO WITHSTAND CONCRETE PLACEMENT PULLING OF MESH INTO PLACE AFTER PLACEMENT IS NOT ALLOWED.
- MINIMUM CONCRETE COVER: CAST-IN PLACE, NONPRESTRESSED REINFORCING ARE AS FOLLOWS

CONCRETE EXPOSURE	MEMBER TYPE(S)	REINFORCEMENT SIZE / TYPE	MIN. COVER (INCHES)
CAST AGAINST AND PERMANTLY IN CONTACT WITH GROUND	ALL	ALL	3
	ALL	#6 THROUGH #18 REBAR	2
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND		#5 REBAR AND SMALLER, WWF	1 1/2"
	TILT-UP OR PRECAST	#14 AND #18 REBAR	1 1/2"
	WALLS	#11 REBAR AND SMALLER	3/4"
	SLABS, JOISTS, AND	#14 AND #18 REBAR	1 1/2"
	WALLS	#11 REBAR AND SMALLER, WWF	3/4"
	BEAMS, COLUMNS, PEDESTALS & TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1 1/2"
	TILT-UP OR PRECAST	#14 AND #18 REBAR	1 1/4"
	WALLS	#11 REBAR AND SMALLER	5/8"

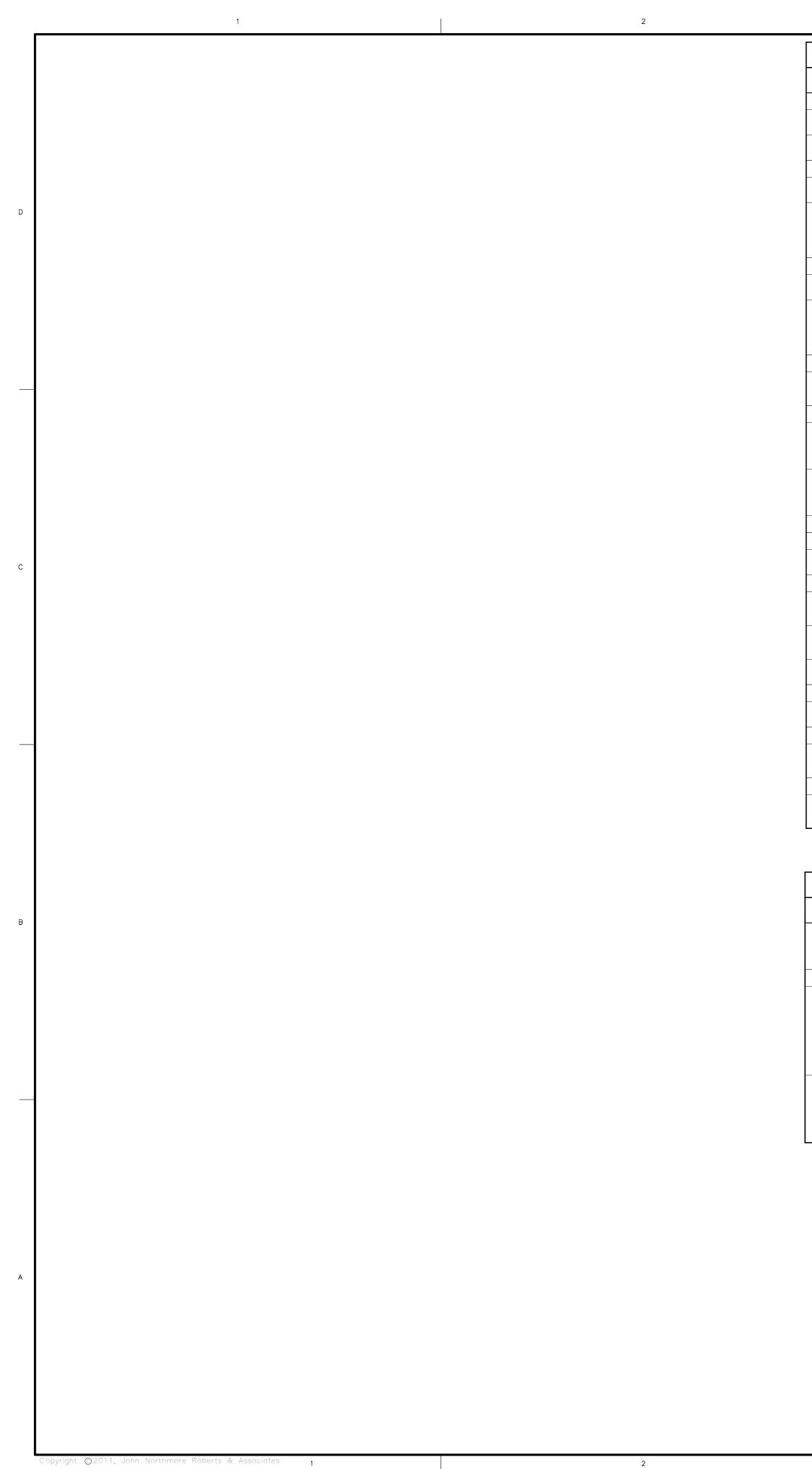
8. PREPARATION REQUIREMENTS FOR CONCRETE POUR:

ALL REINFORCING STEEL, ANCHOR RODS, DOWELS AND OTHER INSERTS SHALL BE IN PLACE AND SHALL BE WELL SECURED IN POSITION PRIOR TO POURING CONCRETE.

8.2. CLEAN FORMWORK OF ALL SCRAP MATERIAL, DEBRIS, AND DIRT.



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	REQUIRED SPECIAL INS	PE	СТ	IONS FOR SEISMIC R	ESISTANCE	
	VERIFICATION AND INSPECTION	с	Р	COMMENTS	REFERENCED STANDARD	CBC REFERENCE
 1.	Structural Steel Special Inspections for Seismic Resis	tance	e:			
	A. Seismic force-resisting systems			Seismic Design Category D, E, or F Exception: R=3 or less	AISC 341 Section J	1705.12.1.1
	B. Structural steel elements including: struts, collectors, chords, and foundations			Seismic Design Category D, E, or F Exception: R=3 or less	AISC 341 Section J	1705.12.1.2
 2.	Structural Wood Special Inspection for Seismic Resist	tance	:		•	
	A. Inspection of field gluing operations of elements of the seismic-force resisting system	x		Seismic Design Category C, D, E, or F		1705.12.2
	B. Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force resisting system, including wood shear walls, panels, diaphragms, collectors, and hold-downs		x	Seismic Design Category C, D, E, or F Exception: Not required where fastener spacing is more than 4 inches O.C.		1705.12.2
 3.	Cold-Formed Steel Light-Frame Construction Special	Inspe	ection	s for Seismic Resistance:		
	A. Inspection during welding operations of elements of the seismic-force resisting system		x	Seismic Design Category C, D, E, or F		1705.12.3
	B. Inspection for screw attachment, bolting, anchoring and other fastening of components within the seismic-force resisting system, including shear walls, diaphragms, collectors, and hold-downs.		x	Seismic Design Category C, D, E, or F Exception: Not required where fastener spacing is more than 4 inches O.C. or gypsum board		1705.12.3
 4.	Designated Seismic Systems Verification:					
	A. Inspect and verify that the component label, anchorage or mounting conforms to the certificate of compliance		x	Seismic Design Category C, D, E, or F	ASCE 7 Section 13.2.2	1705.12.4
 5.	Architectural Components Special Inspections for Seis	smic	Resis	tance:	1	1
	A. Inspection during the erection and fastening of exterior cladding, exterior nonbearing walls, and exterior veneer		x	Seismic Design Category C, D, or F Exception: Cladding or walls are 30 feet or less above grade or walking surface or veneer is 5 psf or less		1705.12.5
	B. Inspection during the erection and fastening of interior nonbearing walls and veneer		x	Seismic Design Category C, D, or F Exception: nonbearing walls are 30 feet or less above grade or walking surface or 15 psf or less		1705.12.5
	C. Inspection during anchorage of access floors		X	Seismic Design Category D, E, or F		1705.12.5.1
 6.	Plumbing, Mechanical and Electrical Components Spe	ecial I	nspe	ctions for Seismic Resistance:	•	
	A. Anchorage of electrical equipment for emergency or standby power systems		x	Seismic Design Category C, D, E, or F		1705.12.6
	B. Anchorage of other electrical equipment		X	Seismic Design Category E or F		1705.12.6
	C. Installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units		x	Seismic Design Category C, D, E, or F		1705.12.6
	D. Installation and anchorage of HVAC ductwork that will contain hazardous materials		x	Seismic Design Category C, D, E, or F		1705.12.6
	E. Installation and anchorage of vibration isolation systems		x	Seismic Design Category C, D, E, or F		1705.12.6
 7.	Storage Racks Special Inspections for Seismic Resist	ance	:			
	A. Inspection during the anchorage of storage racks 8 feet or greater in height		x	Seismic Design Category D, E, or F		1705.12.7
 8.	Seismic Isolation Systems:					
	A. Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system		x	Seismic Design Category B, C, D, E, or F		1705.12.8
 9.	Cold-formed steel special bolted moment frames	•				
	A. Inspection during installation of cold-formed steel special bolted moment frames in the seismic force-resisting system		x	Seismic Design Category D, E, or F		1705.12.9
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REQUIRED INSPEC	TIC	ON	OF WOOD CONSTRU	CTION	
VERIFICATION AND INSPECTION	С	Ρ	COMMENTS	REFERENCED STANDARD	CBC REFERENCE
<ol> <li>Inspect prefabricated wood structural elements and assemblies</li> </ol>			Special inspections are not required where the fabricator is registered and approved in accordance with Section 1704.2.5.1		1704.2.5
 2. Inspect site built assemblies:					
<ul> <li>A. Inspect high-load diaphragms:</li> <li>1) Inspect grade and thickness of structural panel sheathing</li> <li>2) Verify nominal size of framing members at adjoining panel edges. Verify nail or staple diameter and length, number of faster lines, and spacing between fasteners in each line and at edge margins</li> </ul>			Required for high-load diaphragms designed in accordance with Section 2306.2 shall be installed with special in CBC Section 1704.2		1705.5.1
B. Metal-plate-connected wood trusses spanning 60 feet or greater: verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.					1705.5.2

RE	REQUIRED SPECIAL INSPECTIONS AND TESTING OF CONCRETE CONSTRUCTION							
	VERIFICATION AND INSPECTION	С	Ρ	COMMENTS	REFERENCED STANDARD	CBC REFERENCE		
	<ol> <li>Inspect reinforcement, including prestressing tendons and verify placement</li> </ol>		х		ACI 318: Ch. 20, 25.2, 25.3, 26.5.1-26.5.3	Table 1705.3 1908.4		
	2. Reinforcing bar welding:							
	<ul> <li>A. Verify weldability of reinforcing bars other than ASTM A706;</li> </ul>		х		AWS D1.4 ACI 318: 26.5.4	Table 1705.3		
	<ul> <li>B. Inspect single-pass fillet welds, maximum 5/16 inches;</li> </ul>		х					
	C. Inspect all other welds	Х						
	3. Inspect anchors cast in concrete		Х		ACI 318: 17.8.2	Table 1705.3		
	4. Inspect anchors post-installed in hardened concrete m	embe	ers		1			
	<ul> <li>A. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads</li> </ul>	х			ACI 318: 17.8.2.4	Table 1705.3		
	<ul> <li>B. Mechanical anchors and adhesive anchors not defined in 4.a</li> </ul>		х		ACI 318: 17.8.2	Table 1705.3		
	5. Verify use of required design mix.		х		ACI 318: 19, 26.4.3 & 26.4.4	1904.1, 1904.2 1908.2, 1908.3		
	6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	x			ASTM C172 & C31 ACI 318: 26.4.5 & 26.12	1908.10		
	<ol> <li>Inspect concrete and shotcrete placement for proper application techniques</li> </ol>	х			ACI 318: 26.4.5	1908.6, 1908.7 1908.8		
	8. Verify maintenance of specified curing temperature and techniques		х		ACI 318: 26.4.7 & 26.4.9	1908.9		
	9. Inspect of prestressed concrete for:			-				
	A. Application of prestressing forces	Х			ACI 318: 26.9.2.1	Table 1705.3		
	B. Grouting of bonded prestressing tendons	Х			ACI 318: 26.9.2.3	Table 1705.3		
	10. Inspect erection of precast concrete members		Х		ACI 318: 26.8	Table 1705.3		
	11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		х		ACI 318: 26.10.2	Table 1705.3		
	12. Inspect formwork for shape, location and dimensions of the concrete member being formed		х		ACI 318: 26.10.1(B)	Table 1705.3		

5

REQUIRED SPECIAL INSPECTIONS AND TESTING OF DRIVEN DEEP FOUNDATION ELEMENTS									
VERIFICATION AND INSPECTION	С	Ρ	COMMENTS	REFERENCED STANDARD	CBC REFERENCE				
1. Verify element materials, sizes and lengths comply with the requirements	х		By geotechnical engineer or his or her qualified representative.						
2. Determine capacities of test elements and conduct additional load tests as required	х								
3. Inspect driving operations and maintain complete and accurate records for each element	х		By geotechnical engineer or his or her qualified representative.						
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	x		By geotechnical engineer or his or her qualified representative.		Table 1705.7				
<ol> <li>For steel elements, perform additional special inspections in accordance with CBC Section 1705.2</li> </ol>									
6. For concrete elements and concrete-filled elements, perform tests and additional special inspections in accordance with CBC Section 1705.3									
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge									

REQUIRED SPECIAL INSPECTION OF SOILS							
VERIFICATION AND INSPECTION		С	Ρ	COMMENTS	REFERENCED STANDARD	CBC REFERENCE	
	1.	Verify materials below shallow foundations are adequate to achieve the design bearing capacity		х			
	2.	Verify excavations are extended to proper depth and have reached proper material		х			
	3.	Perform classification and testing of compacted fill materials		х			Table 1705.6
	4.	Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	x		By geotechnical engineer or his or her qualified representative.		
	5.	Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly		х	By geotechnical engineer or his or her qualified representative.		

## SPECIAL INSPECTION

4

- SUBMITTED UPON COMPLETION OF WORK.
- AND STRUCTURAL ENGINEER.

4

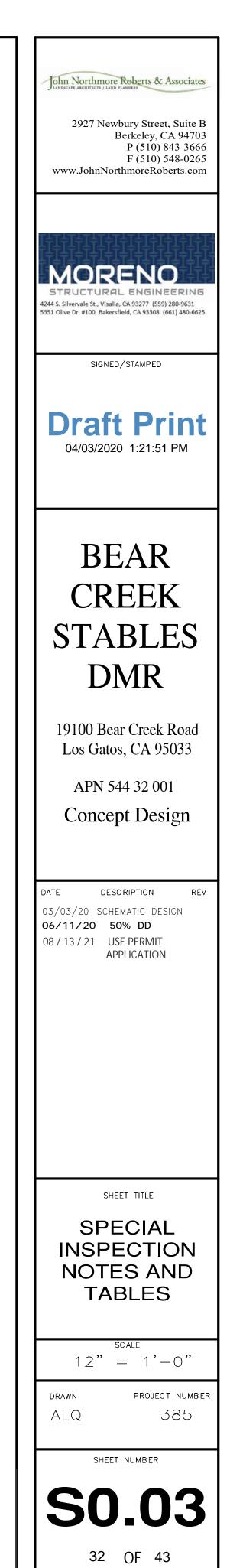
1. IN ACCORDANCE WITH CBC SECTION 110, SECTION 1704, AND SECTION 1705, OWNER SHALL EMPLOY AN INDEPENDENT AGENCY TO PERFORM REQUIRED TESTS AND SPECIAL INSPECTIONS DURING CONSTRUCTION PER THE REQUIREMENTS OF CBC CHAPTER 17, THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION, AND THE CONTRACT DOCUMENTS.

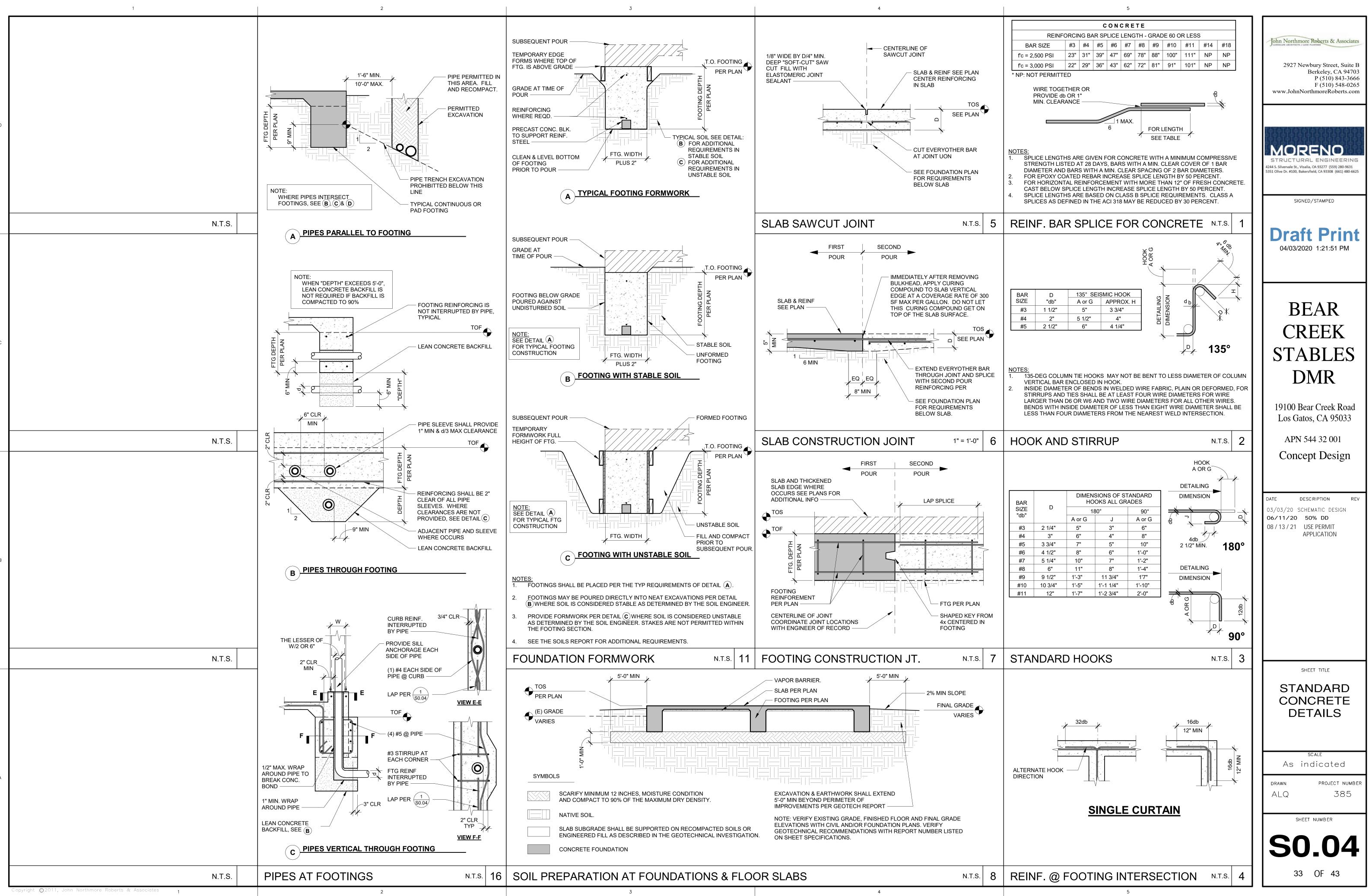
2. TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM FOLLOWING THE CONTINUOUS OR PERIODIC REQUIREMENTS SPECIFIED.

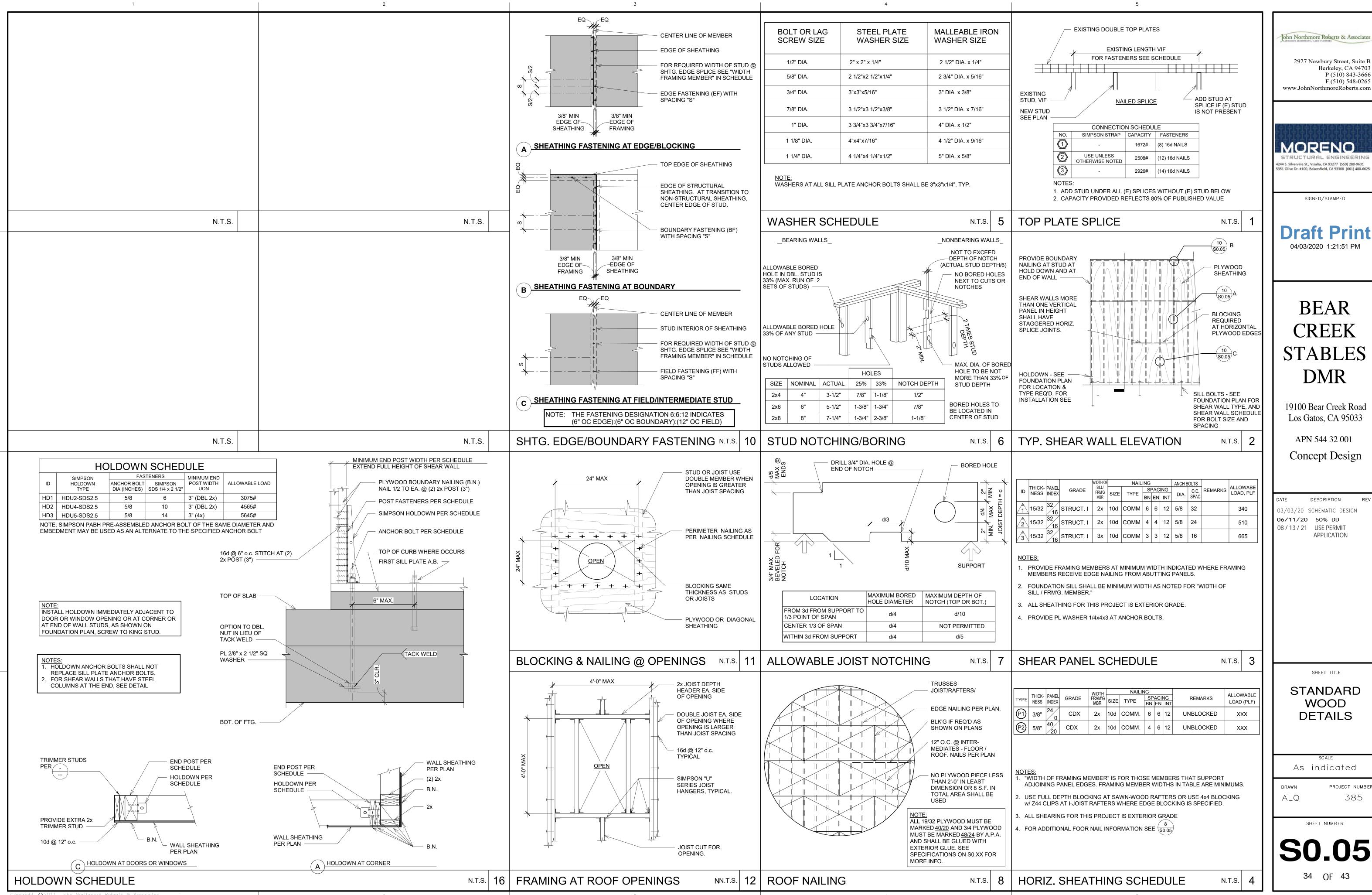
3. REPORTS SHALL INDICATE WETHER THE WORK INSPECTED WAS DONE IN CONFORMANCE OR NONCONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. NONCOMFORMITIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF NOT CORRECTED, THE NONCONFORMITIES SHALL BE BROUGHT TO THE ATTENTION OF THE GOVERNING CODE AUTHORITY AND THE ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO THE COMPLETION OF THAT PHASE OF WORK. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF NONCONFORMITIES SHALL BE

4. TESTING AND SPECIAL INSPECTION REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT

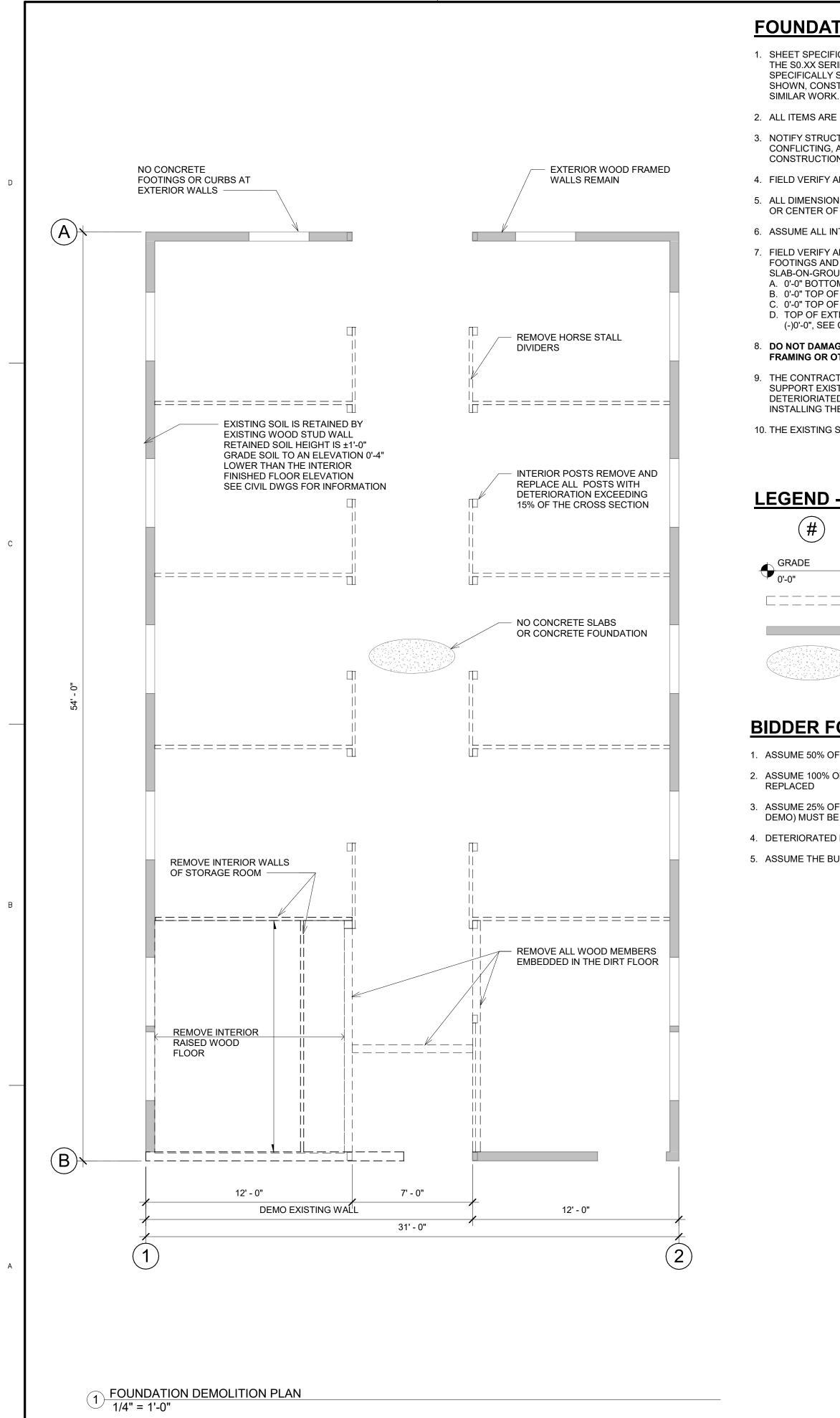
5. TESTING AND SPECIAL INSPECTION SHALL BE PROVIDED ON THE ITEMS AS INDICATED IN THE TABLES FOLLOWING. ALSO, FOR ADDITIONAL TESTING AND INSPECTION REQUIREMENTS SEE THE PROJECT SPECIFICATIONS.







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# **FOUNDATION DEMO NOTES:**

1. SHEET SPECIFICATIONS AND STANDARD DETAILS SHOWN ON THE S0.XX SERIES SHEETS APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OTHERWISE. WHERE NO DETAIL IS SHOWN, CONSTRUCT AS SHOWN IN STANDARD DETAILS FOR

2. ALL ITEMS ARE **EXISTING** AND REMAIN UON

3. NOTIFY STRUCTURAL ENGINEER OF ANY UNCLEAR, CONFLICTING, AND/OR MISSING INFORMATION PRIOR TO CONSTRUCTION

4. FIELD VERIFY ALL DIMENSIONS

5. ALL DIMENSION BETWEEN ELEMENTS ARE TO FACE OF WALL OR CENTER OF POSTS UNLESS OTHERWISE NOTED

6. ASSUME ALL INTERIOR POSTS DO NOT HAVE FOOTINGS

7. FIELD VERIFY ALL ELEVATIONS PRIOR TO EXCAVATING FOOTINGS AND PREPARING THE GRADE FOR THE INTERIOR SLAB-ON-GROUND. ELEVATION ASSUMPTIONS: A. 0'-0" BOTTOM OF POSTS AND SILL PLATES B. 0'-0" TOP OF INTERIOR DIRT FLOOR IS APPROXIMATELY C. 0'-0" TOP OF NEW CONCRETE SLAB-ON-GROUND D. TOP OF EXTERIOR GRADE VARIES ABOVE AND BELOW (-)0'-0", SEE CIVIL DRAWINGS FOR GRADING INFORMATION

### 8. DO NOT DAMAGE OR REMOVE EXISTING STRUCTURAL FRAMING OR OTHER STRUCTURAL ELEMENTS, UON.

9. THE CONTRACTOR MUST TEMPORARILY SHORE AND SUPPORT EXISTING FRAMING WHEN REMOVING DETERIORIATED BUILDING SUPPORT ELEMENTS AND INSTALLING THE FOUNDATION SYSTEM

10. THE EXISTING STRUCTURE LEANS TO THE WEST

# **LEGEND - FOUNDATION DEMO**

GRID BUBBLE AND NUMBER ELEVATION MARK GRADE = TOP OF GRADE TOF = TOP OF FOOTING = BOT OF POST BOP \_ \_ \_ \_ \_ \_ EXISTING ELEMENT (DEMOLISHED) 

EXISTING WALL (REMAIN)

INTERIOR DIRT FLOOR

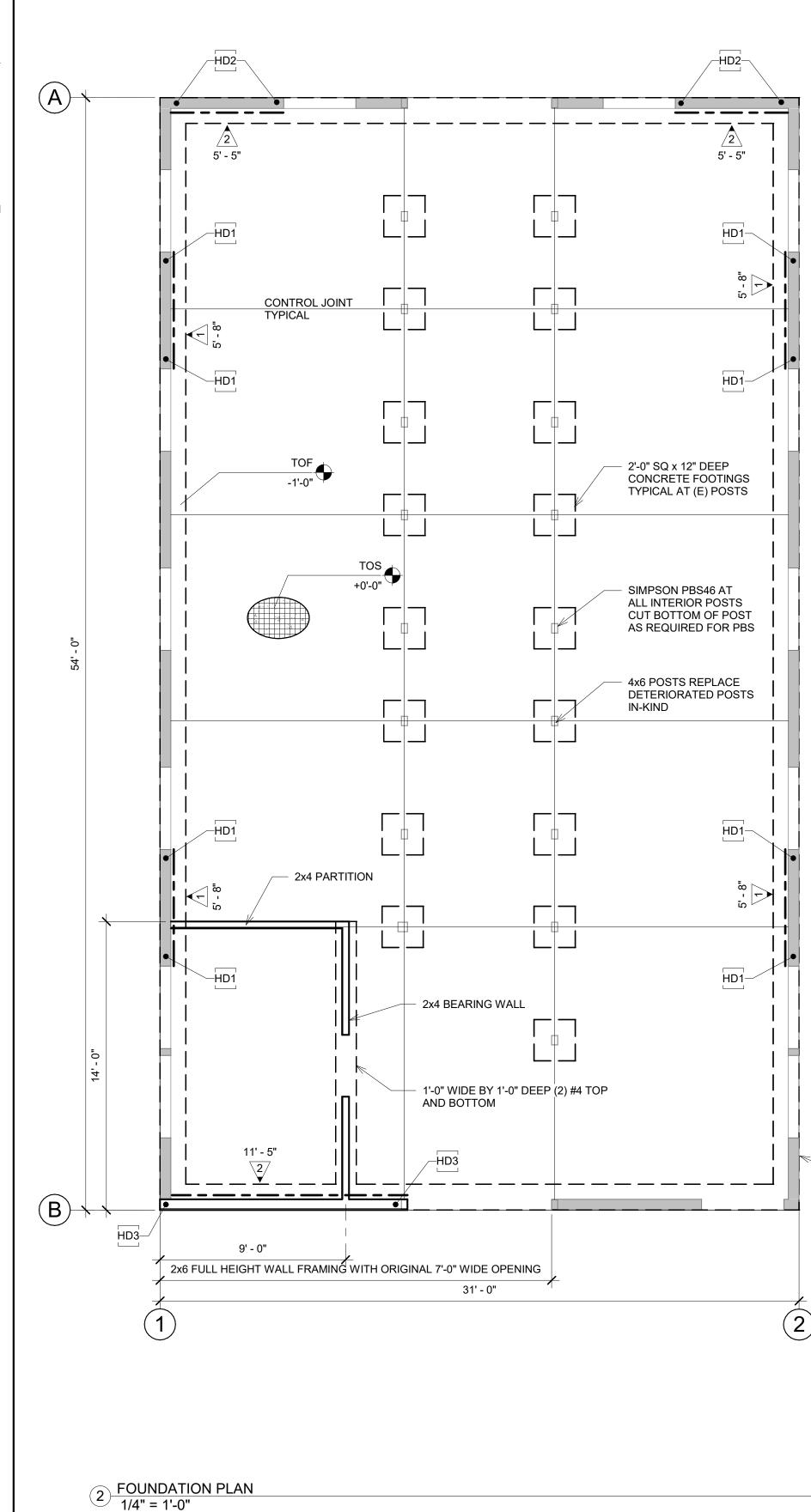
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# **BIDDER FOUNDATION NOTES:**

1. ASSUME 50% OF THE INTERIOR POST MUST BE REPLACED 2. ASSUME 100% OF THE EXTERIOR SILL PLATES MUST BE

3. ASSUME 25% OF THE EXISTING STUDS (100% OF WEST WALL DEMO) MUST BE REPLACED

4. DETERIORATED MATERIAL MUST BE REPLACED IN-KIND 5. ASSUME THE BUILDING MUST BE PLUMBED



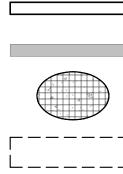


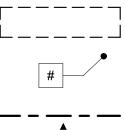
# **FOUNDATION NOTES:**

- 1. SHEET SPECIFICATIONS AND STANDARD DETAILS SHOWN ON THE S0.XX SERIES SHEETS APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OTHERWISE. WHERE NO DETAIL IS SHOWN, CONSTRUCT AS SHOWN IN STANDARD DETAILS FOR SIMILAR WORK.
- 2. ALL ITEMS ARE NEW UNLESS OTHERWISE NOTED
- 3. NOTIFY STRUCTURAL ENGINEER OF ANY UNCLEAR, CONFLICTING, AND/OR MISSING INFORMATION PRIOR TO CONSTRUCTION
- 4. FIELD VERIFY ALL DIMESIONS
- 5. ALL DIMENSION BETWEEN ELEMENTS ARE TO FACE OF WALL OR CENTER OF POSTS UNLESS OTHERWISE NOTED
- 6. CENTER FOOTINGS ON EXISTING POSTS AND NEW WALLS
- 7. DO NOT DAMAGE OR REMOVE EXISTING STRUCTURAL FRAMING, FOOTINGS, OR OTHER STRUCTURAL ELEMENTS, UON
- 8. THE CONTRACTOR MUST PREPARE INTERIOR SOIL PER PRIOR TO INTERIOR SLAB-ON-GROUND CONSTRUCTION
- 9. TOP OF SLAB (TOS) ELEVATION IS 0'-0"
- 10. TOP OF FOOTING (TOF) ELEVATIONS IS (-) 1'-0"
- 11. SEE WOOD SPECIFICATIONS ON S0.02 FOR MATERIAL AND SIZE REQUIREMENTS FOR "IN-KIND" MEMBER REPLACEMENT, SIZES NOTED ON PLANS SUPERCEDE SPECIFICATIONS
- 12. USE 5/8"Øx10" ANCHOR BOLTS OR 5/8"Øx10" SIMPSON TITEN HD BOLTS @ 48" OC AT ALL SILL PLATES UON
- 13. REPLACE ALL SILL PLATES WITH 2x PRESSURE TREATED MEMBERS MATCHING THE DEPTH OF THE EXISTING WALL
- 14. PLUMB STRUCTURE AFTER FOUNDATION CONSRUCTION
- 15. ANCHOR BOLTS FOR HOLDOWNS MUST BE CAST-IN-PLACE
- 16. WALL STRENGTHENING a. ADD FULL HEIGHT 2x STUDS TO EXISTING EXTERIOR WALL FRAMING TO ACHIEVE A SPACING OF 18" OC.
- b. ASSUME EXISTING WALL STUD SPACING IS 36"OC. c. ADD 2x KING AND 2x TRIMMER STUDS ON EACH SIDE OF EXISTING FRAMED WINDOW OPENINGS

## **LEGEND - FOUNDATION**

(# GRADE <del>0'-</del>0"





/#\

10' - 2"

GRID BUBBLE AND NUMBER

ELEVATION MARK = TOP OF SLAB TOS TOF = TOP OF FOOTING

2x6 WOOD STUD FRAMED WALL

EXISTING WALL (REMAIN)

4" THICK CONCRETE SLAB W/ #3 @ 18" OC EW CENTERED IN SLAB OVER 15 MIL VAPOR BARRIER

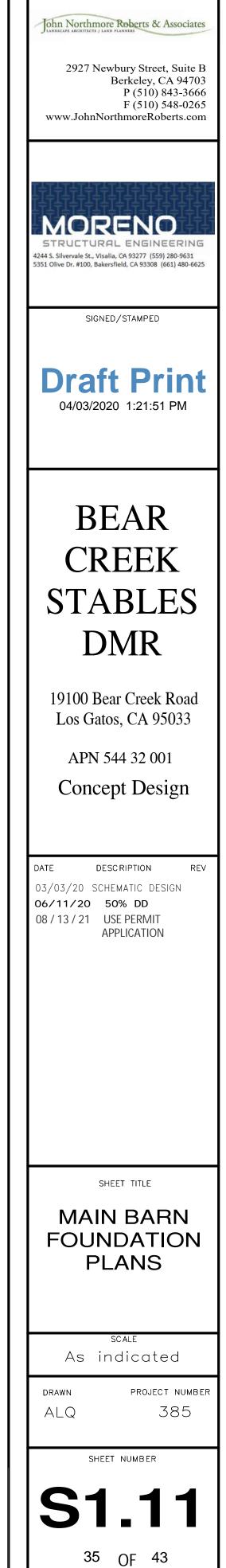
FOOTINGS

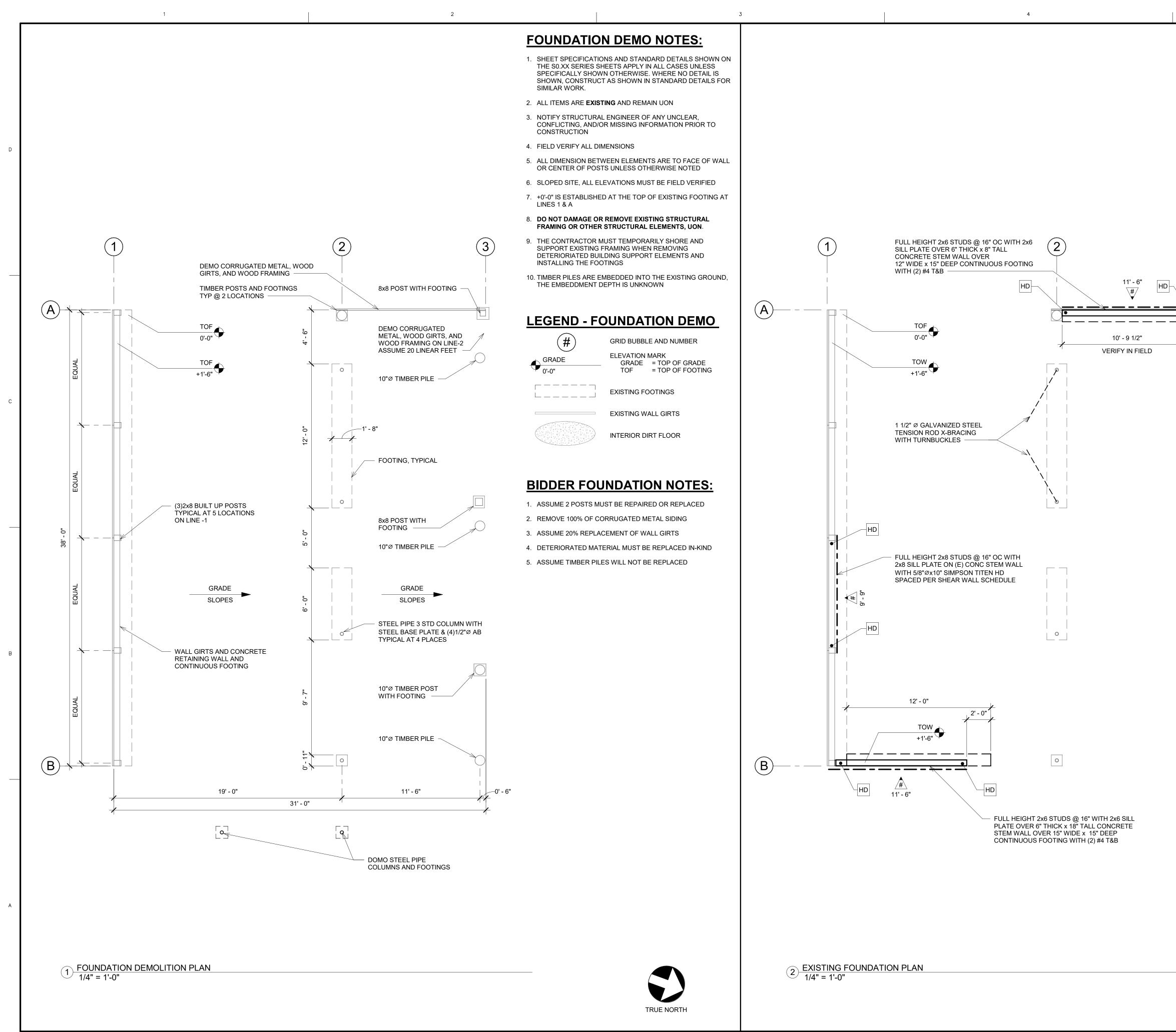
HOLDOWN, SEE SCHEDULE (S0.05)

SHEAR WALL, SEE SCHEDULE (3) SHEET LENGTHS MUST BE CUT OR ADDITIONAL STUDS MUST BE ADDED TO ALIGN JOINTS ON STUDS

1'-3" WIDE BY 1'-8" DEEP CONTINUOUS PERIMETER FOOTING WITH (2) #4 TOP AND BOTTOM







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3

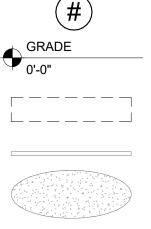
# **FOUNDATION NOTES:**

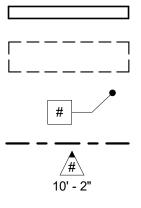
- 1. SHEET SPECIFICATIONS AND STANDARD DETAILS SHOWN ON THE S0.XX SERIES SHEETS APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OTHERWISE. WHERE NO DETAIL IS SHOWN, CONSTRUCT AS SHOWN IN STANDARD DETAILS FOR SIMILAR WORK.
- 2. ALL ITEMS ARE **NEW** UNLESS OTHERWISE NOTED
- 3. NOTIFY STRUCTURAL ENGINEER OF ANY UNCLEAR, CONFLICTING, AND/OR MISSING INFORMATION PRIOR TO CONSTRUCTION
- 4. FIELD VERIFY ALL DIMESIONS
- 5. ALL DIMENSION BETWEEN ELEMENTS ARE TO FACE OF WALL OR CENTER OF POSTS UNLESS OTHERWISE NOTED
- 6. FLUSH EXTERIOR EDGE OF NEW FOOTING TO EXTERIOR EDGE OF EXISTING FOOTINGS AT NEW SHEAR WALLS
- 7. DO NOT DAMAGE OR REMOVE EXISTING STRUCTURAL FRAMING, FOOTINGS, OR OTHER STRUCTURAL ELEMENTS UON
- 8. TOP OF FOOTING (TOF) ELEVATIONS VARY, MATCH TOP OF ADJACENT EXISTING FOOTING
- 9. SEE WOOD SPECIFICATIONS ON \$0.02 FOR MATERIAL AND SIZE REQUIREMENTS FOR "IN-KIND" MEMBER REPLACEMENT, SIZES NOTED ON PLANS SUPERCEDE SPECIFICATIONS
- 10. USE 5/8"Øx10" ANCHOR BOLTS OR 5/8"Øx10" SIMPSON TITEN HD BOLTS @ 48" OC AT ALL SILL PLATES UON
- 11. ANCHOR BOLTS FOR HOLDOWNS MUST BE CAST-IN-PLACE UON

# **LEGEND - FOUNDATION**

GRID BUBBLE AND NUMBER

ELEVATION MARK







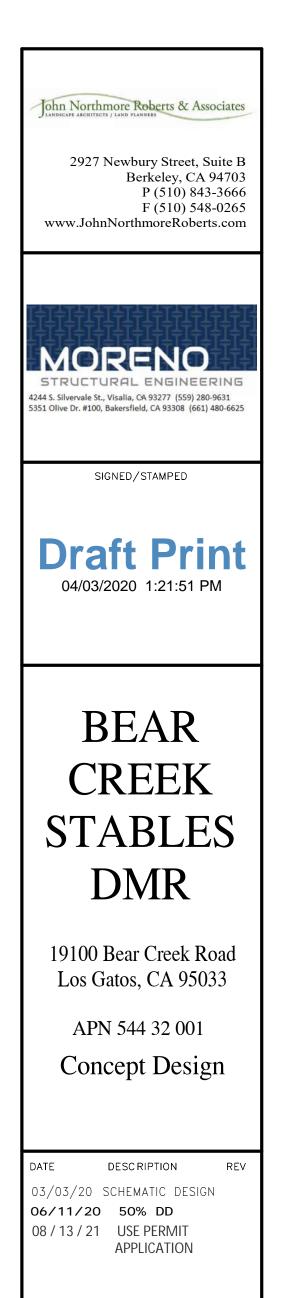
GRADE = TOP OF GRADE

TOF = TOP OF FOOTING

FOOTINGS

HOLDOWN, SEE SCHEDULE  $\begin{pmatrix} 16 \\ \$0.05 \end{pmatrix}$ 

SHEAR WALL, SEE SCHEDULE  $\begin{pmatrix} 3 \\ 80.05 \end{pmatrix}$ 



 $\bigcirc$ 

 $\bigcirc$ 

(3)

 $\bigcirc$ 

4



SCALE As indicated DRAWN PROJECT NUMBER ALQ 385

SHEET TITLE

HAY BARN

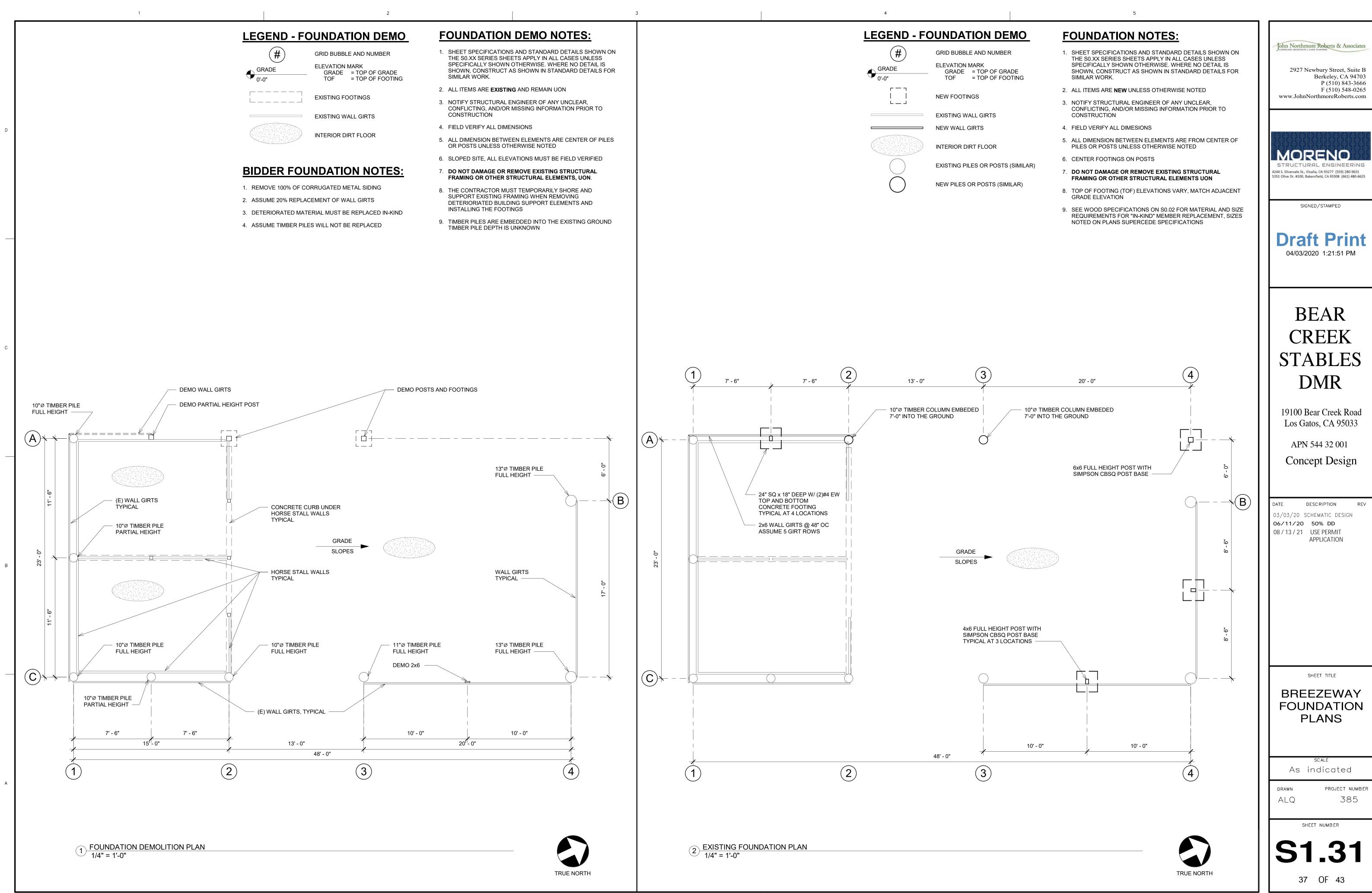
FOUNDATION

PLANS

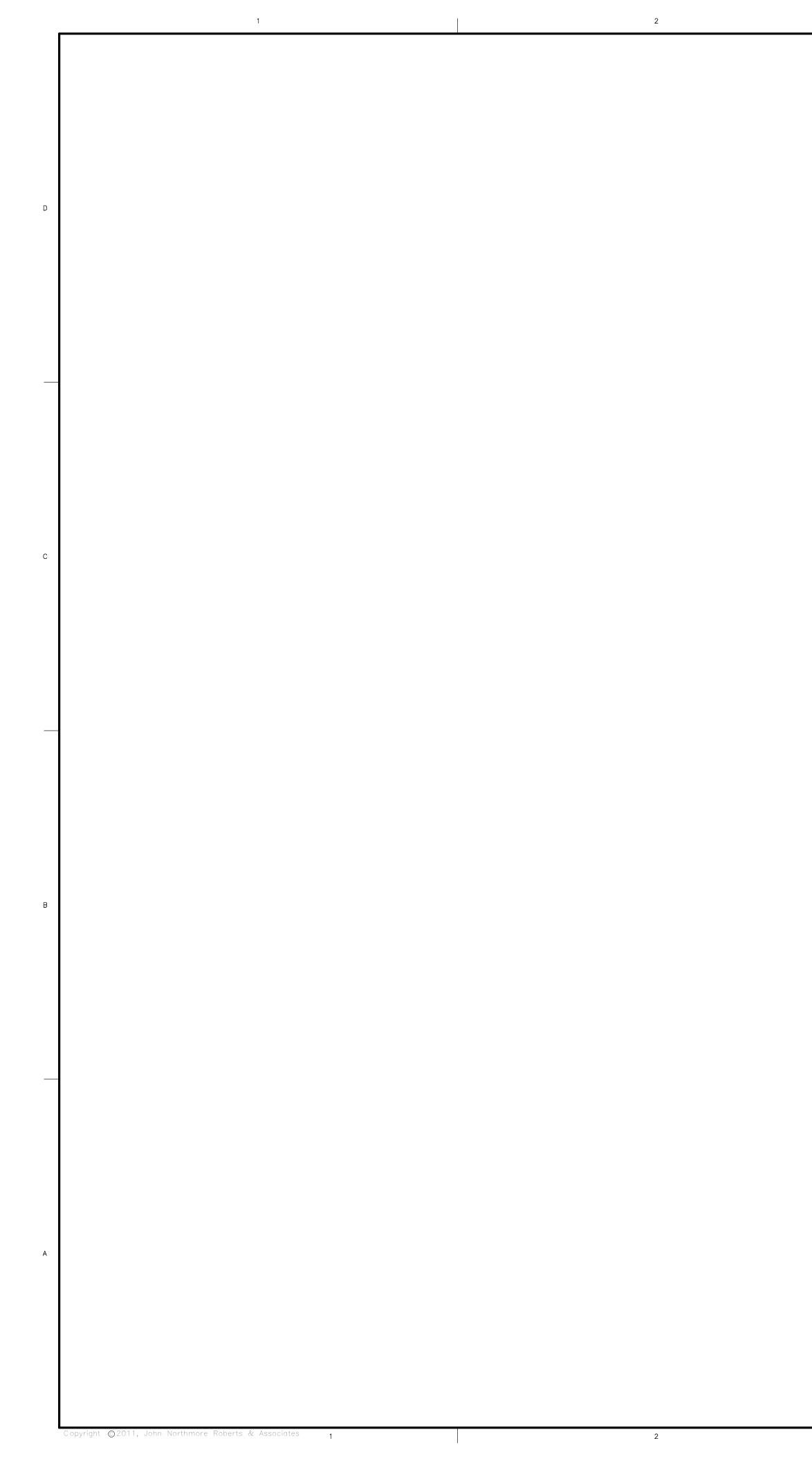
SHEET NUMBER

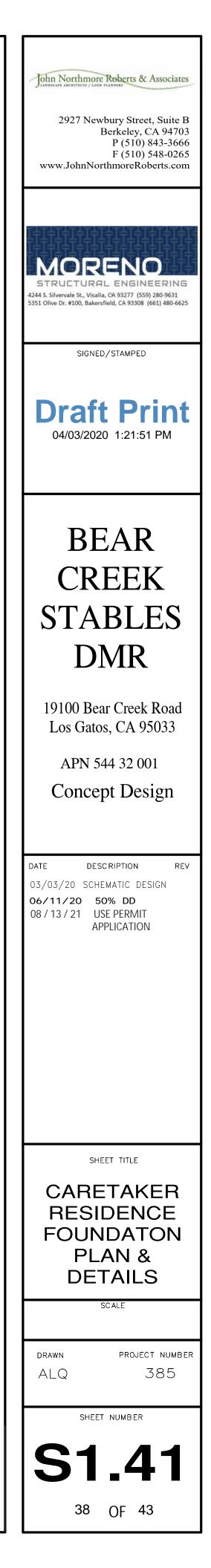


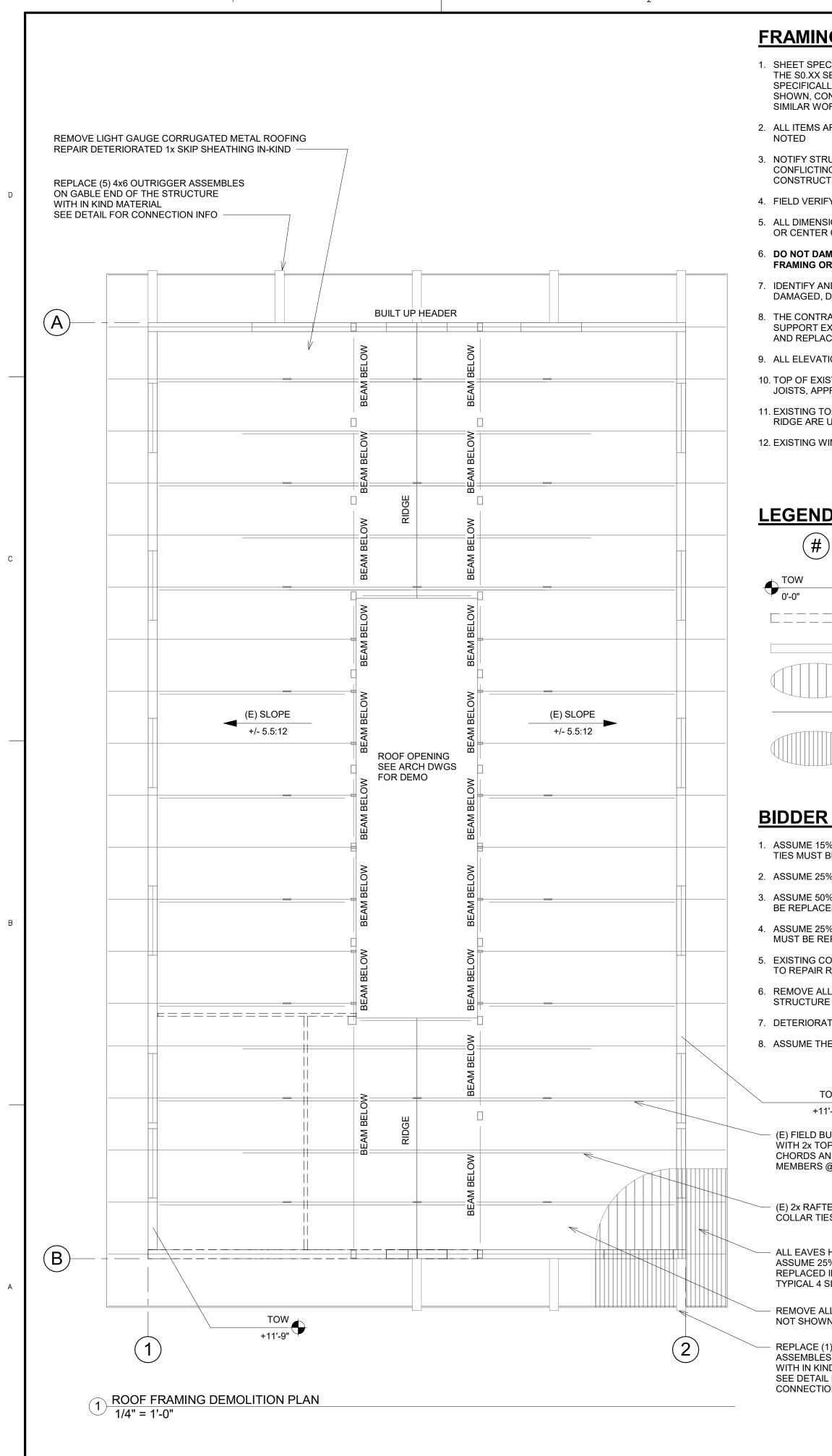
**S1.21** 



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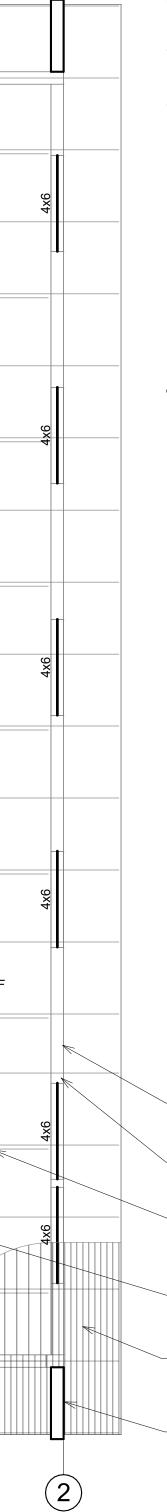
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3

IG DEMO NOTES:							ROC	OF DES	SIGN LO	DADS	<u>):</u>
CIFICATIONS AND STANDARD DETAILS SHOWN ON SERIES SHEETS APPLY IN ALL CASES UNLESS LY SHOWN OTHERWISE. WHERE NO DETAIL IS ONSTRUCT AS SHOWN IN STANDARD DETAILS FOR ORK.							(E) COR (E) WOO (N) 3/8" (E) 1x S	DD SHINGLES PLYWOOD SI KIP SHEATHII	NG	ŇΕ	1.5 PSF 2.0 PSF 1.2 PSF 2.0 PSF
ARE EXISTING AND REMAIN UNLESS OTHERWISE							(E) BEA (N) SPR	VIS INKLERS - FL	USSES @ 36" JTURE		2.1 PSF 0.2 PSF 1.0 PSF
RUCTURAL ENGINEER OF ANY UNCLEAR, NG, AND/OR MISSING INFORMATION PRIOR TO TION			RIGGER ASSEMBLES	5			MÍSCEL TOTAL	CTRICAL - FU LANEOUS IVE LOAD	TURE		0.5 PSF 2.5 PSF 13.0 PSF
TY ALL DIMESIONS	WITH IN KINE	D MATERIA		]			LIVE LO				20.0 PSF REDUCIE
R OF POSTS UNLESS OTHERWISE NOTED											
R OTHER STRUCTURAL ELEMENTS, UON	-		<u> </u>	— <b>—</b>							—П
ND MARK ALL FRAMING MEMBERS THAT ARE DETERIORATED, OR BROKEN	$\frown$										
ACTOR MUST TEMPORARILY SHORE AND XISTING FRAMING WHEN REMOVING REMOVING CING DAMAGED ELEMENTS											
TIONS ARE ESTABLISHED FROM TOP OF SLAB 0'-0" STING BEAMS ARE FLUSH TO BOTTOM OF ROOF PROXIMATELY (+) 11'-9"	-										<b>†</b>
OP OF WALL, TOP OF SHEATHING, AND ROOF UNCHANGED, VERIFY IN FIELD AS REQUIRED		4x6									4x6
INDOW HEADERS ARE 2x6 FLAT TYPICAL, UON						RIDGE					
	-										
D - FRAMING DEMO											
) GRID BUBBLE AND NUMBER	-										
ELEVATION MARK		XG		_					_		9X
EXISTING ELEMENT (DEMOLISHED)	7	4							_		4
EXISTING WALL (REMAIN)		<u>}}}})})))))))))))))))))))))))))))))))</u>					≡⊒-				
EXISTING SKIP SHEATHING			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3							
	5	30XXX 10XXX									
ROOF SLOPE		XXX									I
EXISTING 1x STRAIGHT SHEATHING AT EAVES		4×6									4x6
FRAMING NOTES:	-			<u> </u>		E) ROOF OPEN EE ARCH DWG OR INFO					
% OF 2x RAFTERS, CEILING JOISTS, AND COLLAR BE REPLACED OR STRENGTHENED	e				=						
% OF 1x SKIP SHEATHING MUST BE REPLACED				E) SLOPE +/- 5.5:12					(E) SLOPE +/- 5.5:12	•	
% OF GABLE END OUTRIGGER ASSEMBLIES MUST ED (5 TOTAL PER END)	-						-		=		
% OF 1x STRAIGHT SHEATHING AT THE EAVES EPLACED		4x6									4x6
ORRUGATED METAL ROOFING MUST BE REMOVED ROOF FRAMING AND INSTALL ROOF SHEATHING	-		-		Ę	¥			- SIMPSON C		
L MISC. CEILING FINISHES, ASSUME 30% OF E HAS CEILING FINISHES					3 0.	Ч	4		TYP @ COR (E) ROOF OI	NERS OF	
TED MATERIAL MUST BE REPLACED IN-KIND								4' - 0"			
E BUILDING MUST BE PLUMBED	-	1	-		3' - 0"		+	TYPICAL	+		
		4x6				*	I				1x6
<u>OW</u> 1'-9"	-	7				TOW +11'-9'				K	~
UILT TRUSSES OP AND BOTTOM			-	4x6		+11'-9'					
ND 1x WEB @ 72" OC		4x6		l		RIDGE			K		4x6
ERS WITH 2x	-		-			<u> </u>					
ES @ 72" OC											
HAVE 1x STRAIGHT SHEATHING 5% IS DAMAGED AND WILL BE	B		 	<u></u>		<u>6x8</u>					
IN KIND SIDES			M	7							
LL MISC. CEILING FINISHES /N ON PLANS, VIF	L			<u> </u>			• • •				
1) 4x6 OUTRIGGER S ON GABLE END				REPLICATE (2) OUTRIGGER AS				i JOISTS @ 10 /N) OVER OF			
ND MATERIAL L FOR ON INFO											
	2	EXISTIN 1/4" = 1	IG ROOF FRAM '-0"	IING PLAN							
TRUE NORTH											

4

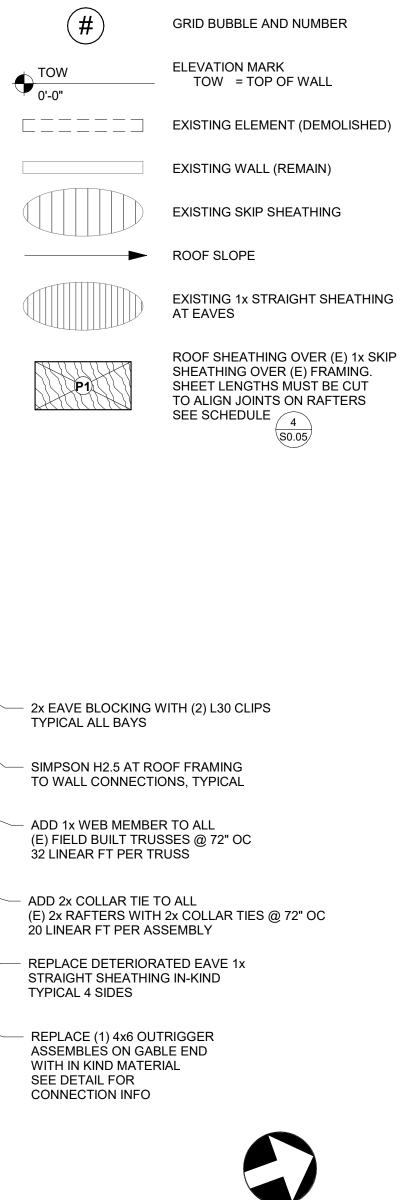
## BLE



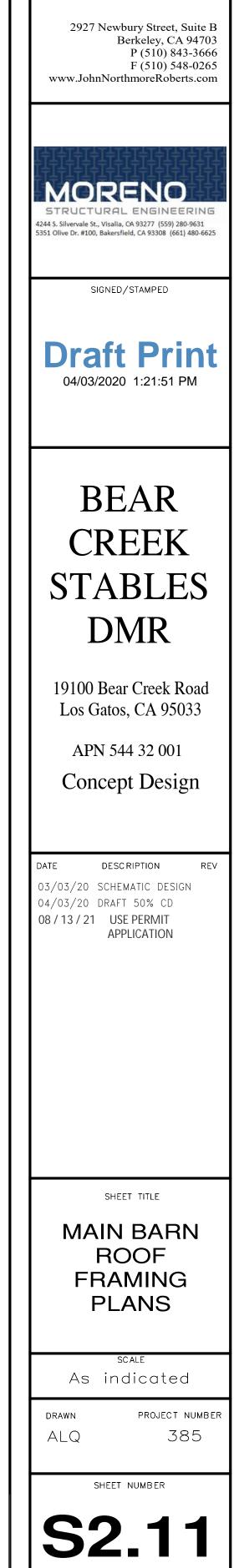
# FRAMING NOTES:

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- 2. ALL ITEMS ARE **NEW** UNLESS OTHERWISE NOTED
- 3. NOTIFY STRUCTURAL ENGINEER OF ANY UNCLEAR, CONFLICTING, AND/OR MISSING INFORMATION PRIOR TO CONSTRUCTION
- 4. FIELD VERIFY ALL DIMESIONS
- 5. ALL DIMENSION BETWEEN ELEMENTS ARE TO FACE OF WALL OR CENTER OF POSTS UNLESS OTHERWISE NOTED
- 6. DO NOT DAMAGE OR REMOVE EXISTING STRUCTURAL FRAMING OR OTHER STRUCTURAL ELEMENTS, UON
- 7. REPLACE DAMAGED FRAMING IN KIND (SIZE AND TYPE) OR CONTACT SEOR FOR REPLACEMENT MEMBER SIZE
- 8. THE CONTRACTOR MUST TEMPORARILY SHORE AND SUPPORT EXISTING FRAMING WHEN REMOVING REMOVING AND REPLACING DAMAGED ELEMENTS
- 9. ALL ELEVATIONS ARE ESTABLISHED FROM TOP OF SLAB 0'-0"
- 10. TOP OF EXISTING BEAMS ARE FLUSH TO BOTTOM OF ROOF JOISTS, APPROXIMATELY (+) 11'-9"
- 11. EXISTING TOP OF WALL, TOP OF SHEATHING, AND ROOF RIDGE UNCHANGED, VERIFY IN FIELD AS REQUIRED
- 12. NO ADDITIONAL EQUIPMENT MAY BE ADDED TO THE STRUCTURE WITHOUT WRITTEN APPROVAL FROM THE SEOR
- 13. 4x6 HEADERS ON LINES 1&2 ARE ROTATED ON THEIR WEAK AXIS. THE HEADERS ARE LOCATED DIRECTLY ON THE EXISTING FLAT 2x6 HEADER. NAIL THE MEMBERS TOGETHER WITH 10d @ 8" OC STAGGERED.

## **LEGEND - FRAMING**

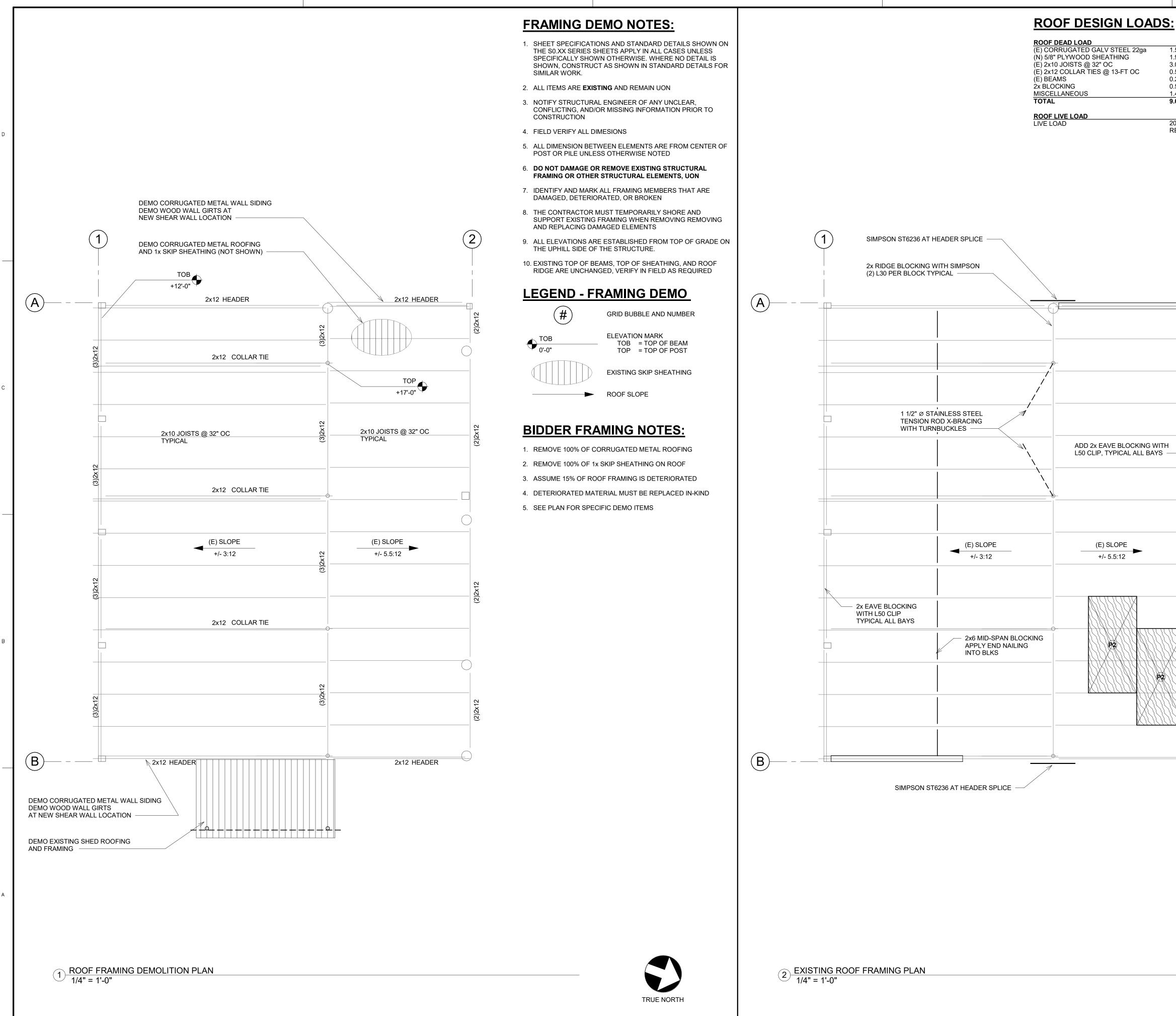


TRUE NORTH



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4

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1.5 PSF
1.9 PSF
3.0 PSF
0.5 PSF
0.2 PSF
0.5 PSF
1.4 PSF
9.0 PSF

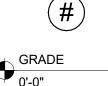
20.0 PSF REDUCIBLE

(2)

# FRAMING NOTES:

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- 7. REPLACE DAMAGED FRAMING IN KIND (SIZE AND TYPE) OR CONTACT SEOR FOR REPLACEMENT MEMBER SIZE
- 8. THE CONTRACTOR MUST TEMPORARILY SHORE AND SUPPORT EXISTING FRAMING WHEN REMOVING REMOVING AND REPLACING DAMAGED ELEMENTS
- 9. ELEVATIONS ARE ESTABLISHED FROM TOF AT LINES 1&A 0'-0"
- 10. EXISTING TOP OF BEAMS, TOP OF SHEATHING, AND ROOF RIDGE ARE UNCHANGED, VERIFY IN FIELD AS REQUIRED
- 11. NO ADDITIONAL EQUIPMENT MAY BE ADDED TO THE STRUCTURE WITHOUT WRITTEN APPROVAL FROM THE SEOR
- 12. INSTALL PLYWOOD SHEATHING DIRECTLY ONTO EXISTING ROOF RAFTERS

## **LEGEND - FRAMING**

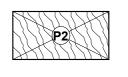


GRID BUBBLE AND NUMBER

₩<u>0'-0"</u>

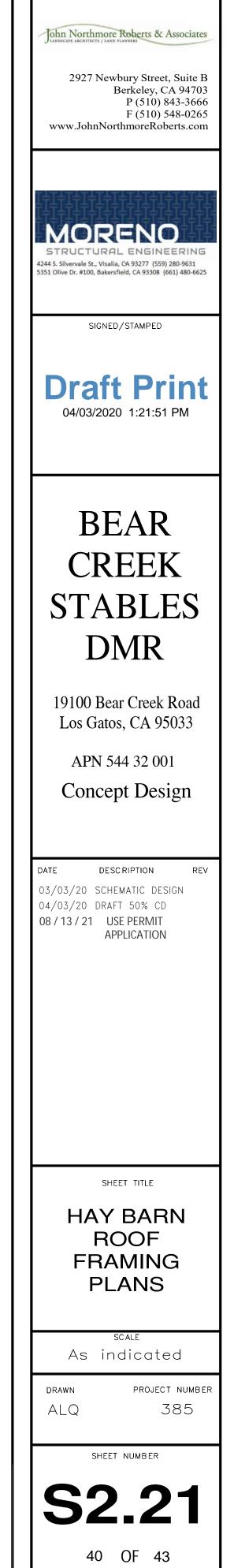
ELEVATION MARK TOP = TOP OF WALL TOR = TOP OF RIDGE EXISTING WALL (REMAIN)

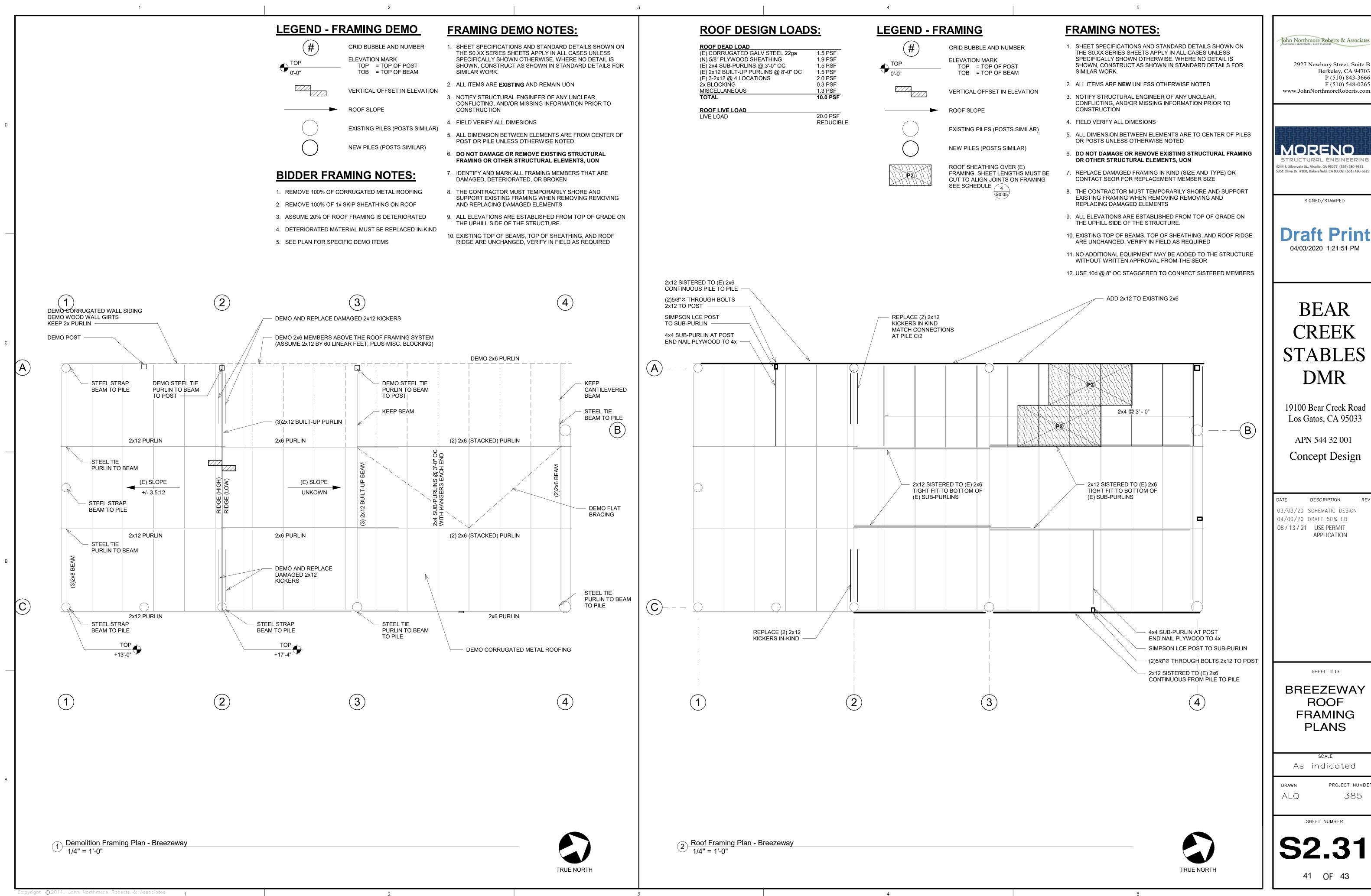
ROOF SLOPE



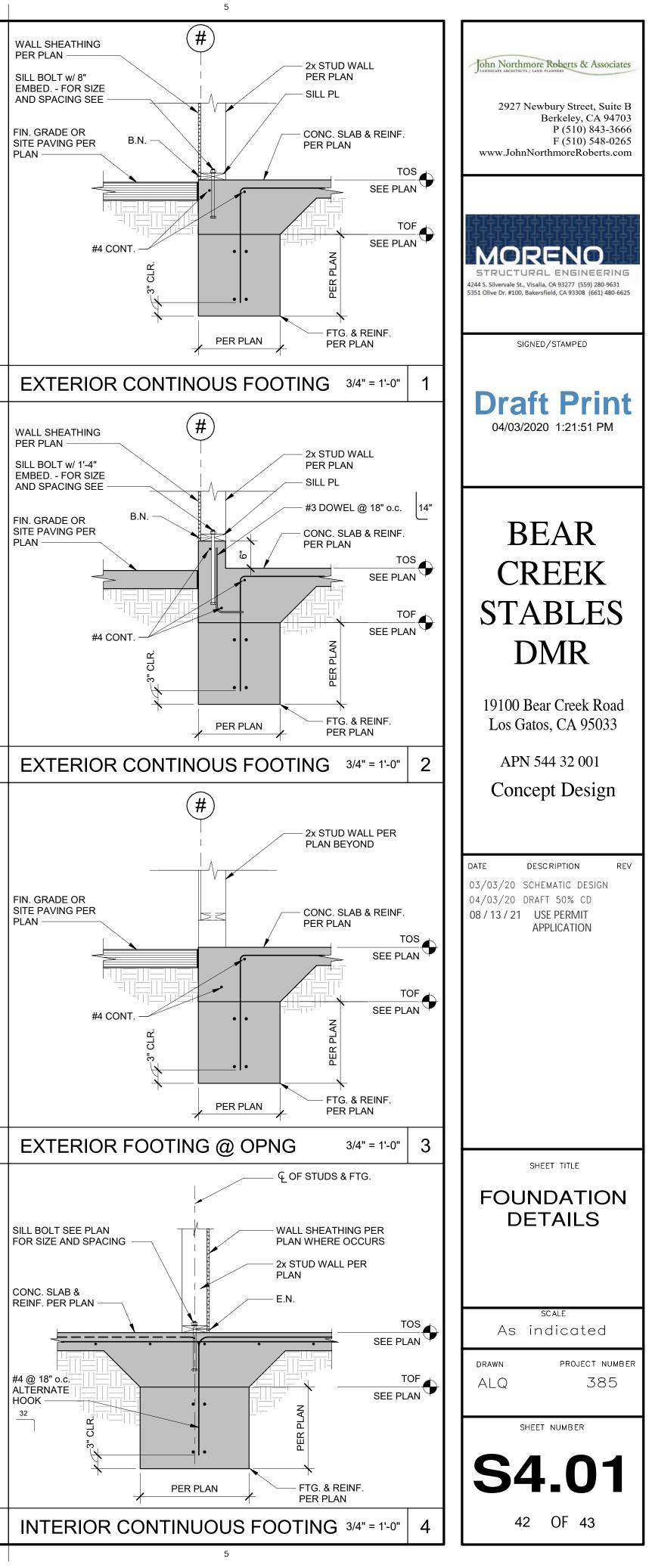
PLYWOOD ROOF SHEATHING OVER (E) FRAMING. SEE SCHEDULE S0.05

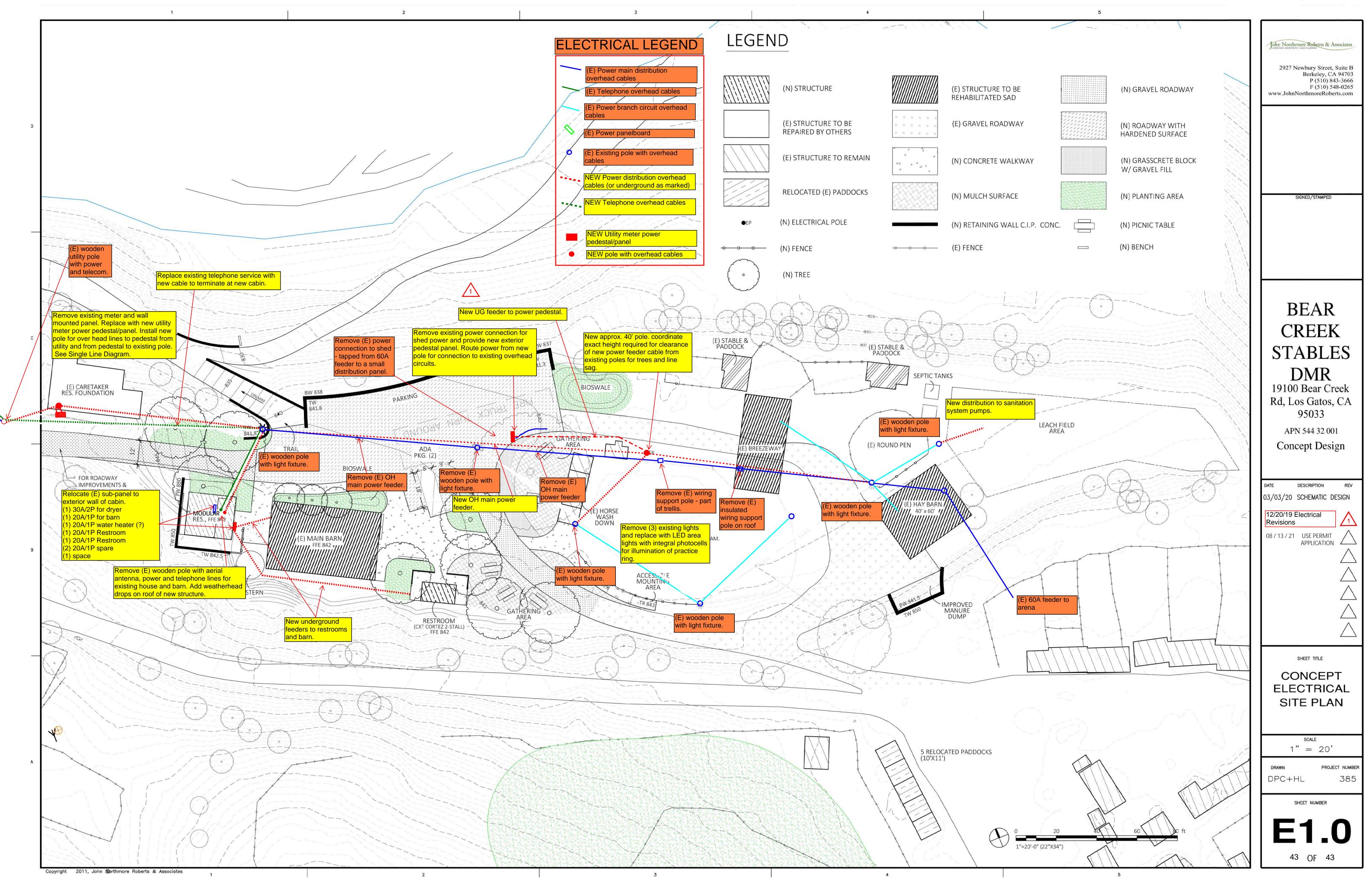


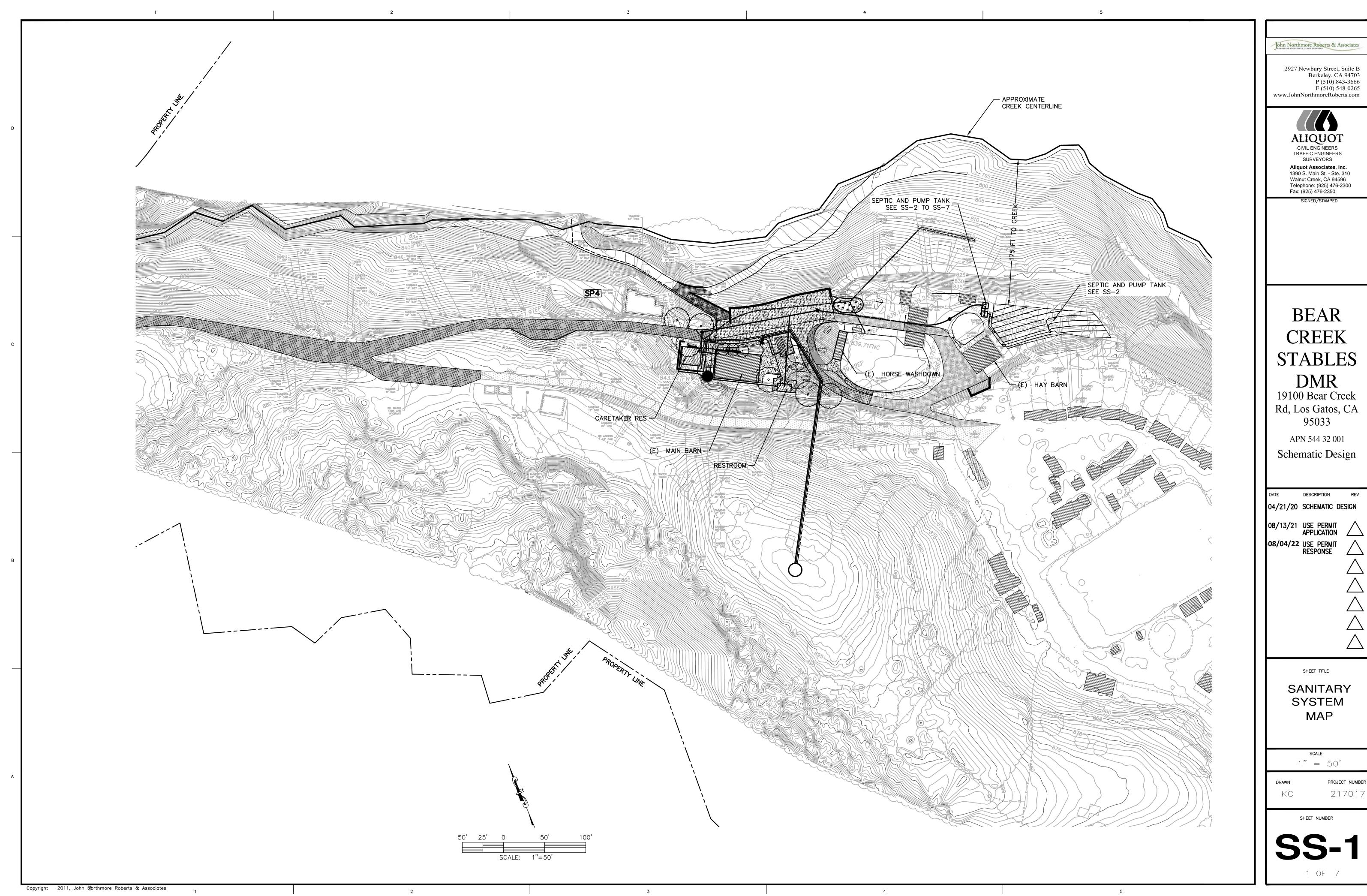




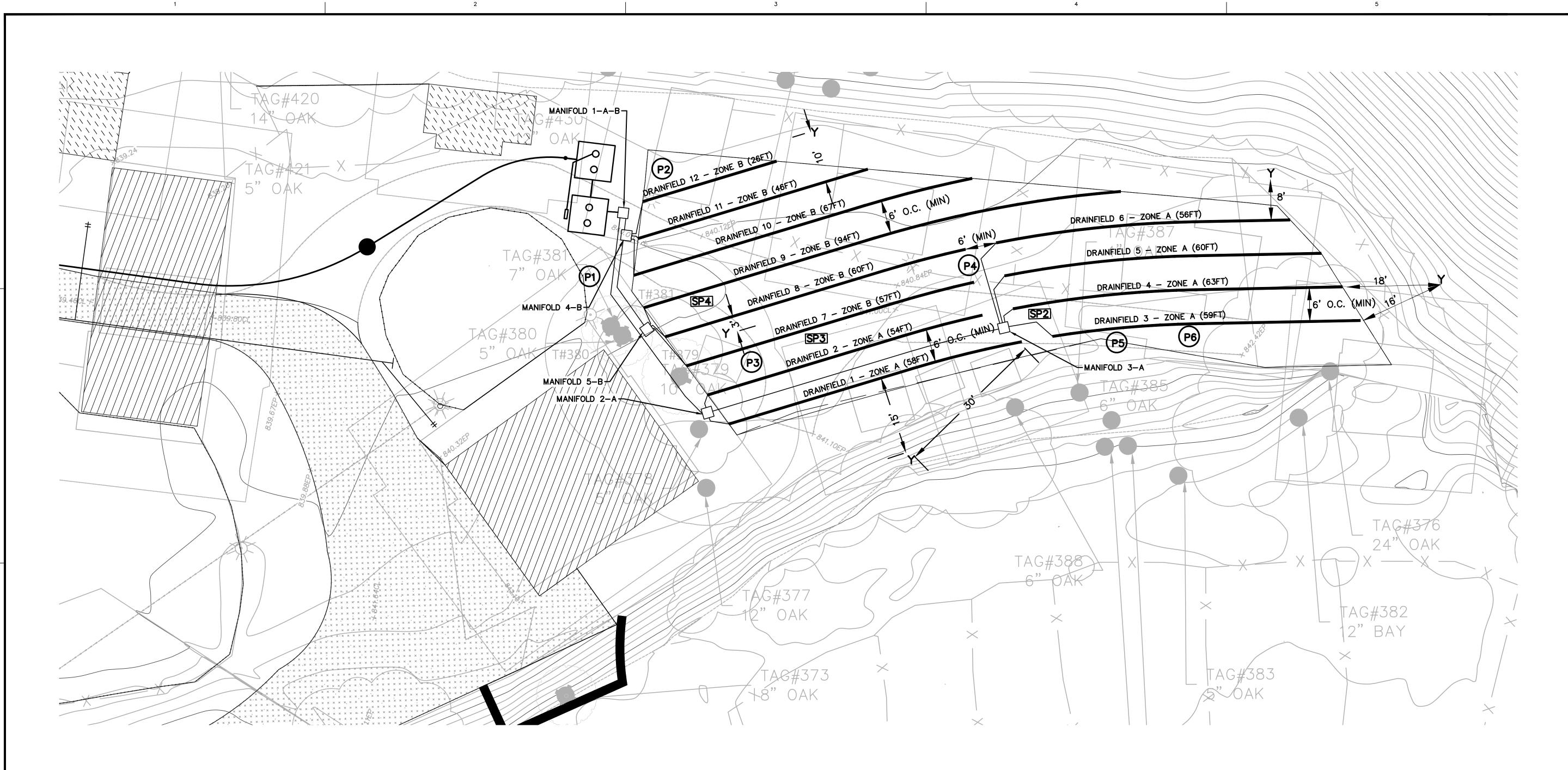
	1	2	3	4
D				3/8" Ø TITEN HD W/ 2 3/4" EMBEDMENT @ 60" OC CONC. SLAB PER PLAN OTS SEE PLAN
c	N.T.S.	N.T.S.	N.T.S.	NON-BEARING WALL ON SLAB       12" = 1'-0"       5
B	N.T.S.	N.T.S.	N.T.S.	N.T.S.
	N.T.S.	N.T.S.	N.T.S.	N.T.S.
	N.T.S. Copyright ©2011, John Northmore Roberts & Associates	N.T.S.	N.T.S.	N.T.S.







REV



### PROPOSED FACILITIES USE:

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- 1) BOARDING FOR UP TO 72 HORSES
- 2) TWO HORSE WASHING STATIONS
- 3) 25 PEAK DAILY VISITORS WITH ACCESS TO TWO SETS OF PUBLIC TOILET FACILITIES(M/W)
  4) PERIODIC ANNUAL EVENTS WILL HOST UP TO 100+ PERSONS. PUBLIC TOILET FACILITIES TO BE LOCKED AND PORTABLE TOILETS PROVIDED DURING SUCH EVENTS.
- 5) FULL TIME GROUNDSKEEPER 1 BR RESIDENCE.

1

PEAK DESIGN FLOW:			
1 BR RESIDENCE:	150 GPD		
PUBLIC RESTROOMS: (25 VISITORS X 5	125 GPD		
HORSE WASHING FACILITIES: (5 HORSES	25 GPD		
MAINTENANCE BLDG & VISITOR CTR FLC	5 GPD		
	TOTAL:	305 GPD	

2

AVERAG

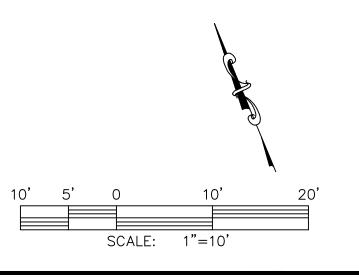
APPLIC INFILTR INFILTR TRENCH 30% R

LTRATIVE AREA & TRENCH LENGTH: (REQUIRED)					
AGE PERCOLATION RATE: (TEST HOLES $#2-6$	119 MPI				
ICATION RATE	0.2 GPD/FT <sup>2</sup>				
TRATION AREA REQUIRED: (30GPD/0.2 GPD/FT <sup>2</sup> )	1,525 FT <sup>2</sup>				
TRATIVE AREA PER LINEAR FT DRAINFIELD TRENCH:	4 FT <sup>2</sup> /FT				
CH LENGTH:	382 FT				
REDUCTION FOR IAPMO LEACHING CHAMBERS:	-115 FT				
TOTAL TRENCH LENGTH REQUIRED: 267					

3

DUAL PRESSURE DOSED TRENCH SYSTEM: (REQUIRED)				
TRENCH WIDTH & DEPTH:	3 FT W x 4 FT D			
INFILTRATOR QUICK 4 HIGH CAPACITY CHAMBERS	34"W x 12"H			
INFILTRATIVE AREA PER LINEAR FT:(3FT <sup>2</sup> BOTTOM + 2FT <sup>2</sup> SIDES)	5 FT <sup>2</sup>			
TRENCH LENGTH PROPOSED: (EACH OF 2 PRESSURE ZONES)	350 FT <sup>2</sup>			
INFILTRATIVE AREA PROPOSED: $(4FT^2/FT \times 350 FT \times 2)$	2,800 FT <sup>2</sup>			

DRAINFIELD TRENCH LENGTHS (FT):						
PRESSURE	ZONE A		PRESSURE	ZONE B		
DF 1	58		DF 7	57		
DF 2	54		DF 8	60		
DF 3	59		DF 9	94		
DF 4	63		DF 10	67		
DF 5	60		DF 11	46		
DF 6	56		DF 12	26		
TOTAL:	350		TOTAL:	350		



] []
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Aliquot Associates, Inc. 1390 S. Main St Ste. 310 Walnut Creek, CA 94596
Telephone: (925) 476-2300 Fax: (925) 476-2350 SIGNED/STAMPED
BEAR
CREEK
STABLES
DMR
19100 Bear Creek
Rd, Los Gatos, CA 95033
APN 544 32 001 Schematic Design
Schematic Design
DATE DESCRIPTION REV
04/21/20 SCHEMATIC DESIGN
08/13/21 USE PERMIT APPLICATION
$\bigtriangleup$
$ \land $
SHEET TITLE
SANITARY SYSTEM
MAP
scale 1 " = 10'
drawnproject numberKC217017
SHEET NUMBER
<b>  SS-2</b>
2 OF 7

### PRESSURE DOSED TRENCH SYSTEM WITH PRIMARY (SEPTIC TANK) TREATMENT RATIONALE:

1

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1

A PRESSURE-DOSED TRENCH SEPTIC SYSTEM WAS SELECTED FOR THIS PROJECT TO ENSURE ADEQUATE SEPARATION TO POSSIBLE GROUNDWATER INDICATED BY A THIN BAND OF MOTTLED CLAY SOIL OBSERVED IN SOIL PROFILE TEST HOLE #4. THE MOTTLED CLAY LAYER, APPROXIMATELY 3" THICK, STARTED AT 7FEET DEEP AT THE TRANSITION FROM THE OVERLAYING SANDY LOAM CLAY SOIL MATRIX TO MORE CONSOLIDATED SANDY CLAY. THE PROPOSED PD TRENCH DEPTH OF 4 FEET WILL MEET THE REGULATORY STANDARD OF 3 FEET SEPARATION FROM TRENCH BOTTOM TO THE POSSIBLE GROUNDWATER BEARING LAYER. THE MOTTLED SOIL OBSERVED MAY BE DUE TO SEASONAL SUBSURFACE MOVEMENT OF INFILTRATION RAIN WATER ALONG THE TOP HORIZON OF THE RELATIVITY IMPERMEABLE SOIL MATRIX SEEN BELOW 7 FEET. THERE WERE NO OTHER MOTTLED SOILS OR OTHER INDICATIONS OF GROUNDWATER SEEN IN SP4 OR IN SP3 OR SP3 WITHIN THE PROPOSED DISPERSAL FIELD. PERCOLATION RATES OBTAINED FROM TESTING AT 3  $\frac{1}{2}$  & 4 FEET DEPTHS VARIED GREATLY WITH HALF OF THE TEST HOLES FALLING ABOVE 120 MPI WHILE NEARBY TEST HOLES DEMONSTRATED GOOD ABSORPTION (41, 21 & 8 MPI). THEREFORE THE PROPOSED DISPERSAL FIELD WAS SIZED USING THE MOST CONSERVATIVE APPLICATION RATE (0.2 GPD/SQ.FT) COUPLED WITH PROVISION OF LEACHING CHAMBERS RESULTING IN APPROXIMATELY 30% OVER-SIZING OF THE DISPERSAL TRENCH SYSTEM AS PER DEH ALLOWANCE FOR THE CHAMBERS INSTALLATION.

#### **CONSTRUCTION INSPECTIONS REQUIRED WITH DESIGNER & DEH**

- 1. LAYOUT INSPECTION ALL COMPONENTS STAKED OR PAINTED
- 2. OPEN TRENCH INSPECTION COMPONENTS IN & NOT COVERED
- 3. PUMP TEST PUMPS, SQUIRT TEST, AND ALARMS OPERATIONAL.
- 4. SEPTIC & PUMP TANK WATER TIGHTNESS TESTING.
- 5. FINAL INSPECTION ALL COMPONENTS COVERED.

	ANNUAL SEPTIC & PUMP TANKS INSPECTION REQUIRED					
1.	ACCESS RISERS & LIDS IN GOOD CONDITIONS.					
2.	STRUCTURAL INTEGRITY – PROBE INTERIOR WALLS/BAFFLES, INLET/OUTLETS T–PIPES.					
3.	CHECK TUF - TITE EFFLUENT FILTER AND CLEAN IF NEEDED.					
4.	SEPTIC TANK LIQUID LEVEL – SHOULD BE AT OUTLET INVERT IN TANK.					
5.	PUMP TANK ELECTRICAL & SIGNAL WIRES IN GOOD CONDITION.					
6.	PUMP TANK PROPER OPERATION OF FLOAT SWITCHES.					
	SEPTIC TANK SHALL BE PUMPED OUT WHENEVER SOLIDS OR FLOATING MATERIAL EXCEED 30% OF TANK VOLUME OR ENCROACH ON INLET/OUTLET'S.					
	MINIMUM SEPTIC TANK PUMPING FREQUENCY IS 3 TO 5 YEARS					
PUN	IP TANK TO BE PUMPED OUT WHEN DEBRIS MAY ENCROACH ON PUMP INTAKE.					

## ELECTRICAL BUILDING PERMIT REQUIRED

### OWNER RESPONSIBILITY FOR ALTERNATIVE TYPE SEPTIC SYSTEM:

OWNER WILL ACKNOWLEDGE THAT THE PROPERTY IS SERVED BY AN ALTERNATIVE PRESSURE - DOSED TRENCH TYPE SEPTIC SYSTEM REQUIRING AN ONGOING SERVICE CONTRACT, MAINTENANCE, AND AN ANNUAL DEH OPERATING PERMIT.

150 PSI PRESSURE RATED PVC PIPING SHALL BE USED FOR ALL PIPES, FITTINGS AND VALVES. ALL JOINTS MUST BE SOLVENT WELDED.

2

	WORK	FREQUENCY
INSPECTION	<ul> <li>CONDUCT ROUTINE VISUAL OBSERVATIONS OF DISPOSAL FIELD AND DOWN SLOPE AREA AND SURROUNDINGS FOR WET AREAS, PIPE LEAKS OR DAMAGE, SOIL EROSION, DRAINAGE ISSUES, ABNORMAL VEGETATION, OR OTHER PROBLEMS.</li> <li>PERFORM ALL INSPECTIONS OF PUMP AND APPURTENANCES (PER 0&amp;M MANUAL AND PERFORMANCE EVALUATION GUIDELINES, PART 5 OF THIS MANUAL).</li> </ul>	• EVERY 6 TO 12 MONTHS
MAINTENANCE	<ul> <li>PURGE LATERALS, SQUIRT AND BALANCE</li> <li>EXERCISE VALVES TO ENSURE FUNCTIONALITY</li> <li>PERFORM ALL MAINTENANCE WORK AS RECOMMENDED BY EQUIPMENT MANUFACTURER FOR ANY SPECIAL VALVES OR OTHER COMPONENTS.</li> <li>INVESTIGATE AND REPAIR EROSION, DRAINAGE OR OTHER DISPOSAL FIELD PROBLEMS, AS NEEDED.</li> <li>INVESTIGATE AND PERFORM DISTRIBUTION SYSTEM CORRECTIVE WORK, AS REQUIRED.</li> <li>RECORD WORK DONE.</li> </ul>	<ul> <li>DISTRIBUTION SYSTEM MAINTENANCE ANNUALLY.</li> <li>OTHER MAINTENANCE AS REQUIRED.</li> </ul>
WATER MONITORING & SAMPLING	<ul> <li>MEASURE AND RECORD WATER LEVELS IN TRENCH OBSERVATION WELLS.</li> <li>MEASURE AND RECORD WATER LEVELS IN DISPERSAL FIELD MONITORING WELLS, AS APPLICABLE, PER PERMIT REQUIREMENTS.</li> <li>OBTAIN AND ANALYZE WATER SAMPLES FROM MONITORING WELLS, AS APPLICABLE, PER PERMIT REQUIREMENTS.</li> </ul>	<ul> <li>MEASURE TRENCH WATER LEVELS ANNUALLY.</li> <li>OTHER MONITORING ACCORDING TO PERMIT CONDITIONS AS APPLICABLICABLE</li> </ul>
REPORTING	<ul> <li>REPORT FINDINGS TO DEH PER PERMIT REQUIREMENTS.</li> <li>STANDARD REPORT TO INCLUDE DATES, OBSERVATION WELL AND MONITORING WELL READINGS AND OTHER DATA COLLECTED, WORK PERFORMED, CORRECTIVE ACTIONS TAKEN, AND PERFORMANCE SUMMARY.</li> <li>REPORT PUBLIC HEALTH/WATER QUALITY EMERGENCY TO DEH IMMEDIATELY.</li> </ul>	ACCORDING TO PERMIT     CONDITIONS, TYPICALLY     EVERY 1 TO 2 YEARS,     DEPENDING ON SYSTEM     SIZE, USAGE, HISTORY,     LOCATION.

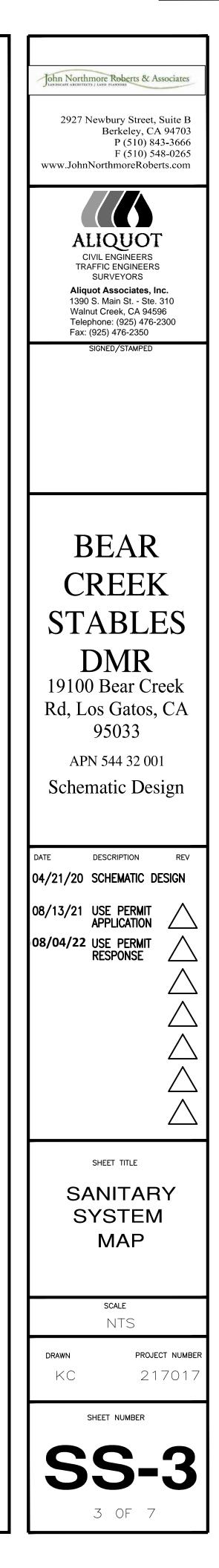
4

	<b>ONGOING MONITORING &amp; REPORTING REQUIREMENTS</b>				
	(MUST BE PERFORMED BY LICENSED PROFESSIONAL OR SERVICE PROVIDER)				
Y	YEARS 1 - 4: SEMI - ANNUALLY YEARS 5+ OF OPERATION: ANNUALLY				
1.)	RECORD WASTEWATER FLOW BASED ON WATER METER READINGS OR OTHER METHOD.				
2.)	MEASUREMENT & RECORDING OF WATER LEVELS IN INSPECTION WELLS & RISERS.				
3.)	INSPECTION OF PUMP OPERATION AND VALVES, INCLUDING SQUIRT TEST.				
4.)	INSPECTION OF DISPERSAL FIELD AND SURROUNDINGS FOR SEEPAGE, EROSION, ETC.				
	MONITORING REPORT SHALL BE SIGNED BY LICENSED PROFESSIONAL AND SUBMITTED TO DEH IN ACCORDANCE WITH THE SYSTEM OPERATING PERMIT				

4

3

## TABLE PD - 3. SHALLOW PRESSURE DISTRIBUTION SYSTEM MANAGEMENT REQUIREMENTS



## COUNTY OF SANTA CLARA - DEPARTMENT OF ENVIRONMENTAL HEALTH SOIL PERCOLATION TEST RECORDED MEASUREMENTS (ELECTRONIC VERSION BY CHRIS DAY, R.E.H.S.)

OWNER/APPLICANT: MIDPEN REG. OPEN SPACE DIST.	SR: 854209	PLN FILE: P, 1 OF 1
LOCATION: 19100 BEAR CREEK RD., LOS GATOS	REHS: DARIUS	HAGHIGHI
CONTACT PERSON: CHRIS DAY, R.E.H.S.	<b>PHONE:</b> 650–293–1045	<b>DATE:</b> 7/6/2017

				3 1/2 FEET	DEPTH: 🕻		HOLE #1
				EVEL	WATER L	TIME	
	MPI	∆ INCH	∆ MIN	FINISH	START	FINISH	START
	120	1/4	30	28	28 1/4	11:28	10:58
	120	1/4	30	27 3/4	28	11:58	11:28
1	120	1/4	30	27 7/8	28 1/8	12:29	11:59
1	120	1/4	30	27 5/8	27 7/8	12:59	12:29
N AS	SHOW						
	4						
1							

D

С

1

	DAR	IUS HAGH	IGHI				
50-	293-1045	DAT	<b>E:</b> 7/6	5/2017			
				3			
	HOLE #2		DEPTH	l: 4 FEET			
		TIME	WATER L	EVEL			
	START	FINISH	START	FINISH	∆ MIN	∆ INCH	MPI
	11:01	11:31	29 1/4	25	30	3 3/4	8
	11:32	12:02	29 3/4	24 3/4	30	5	6
	12:03	12:33	29 3/4	25	30	4 3/4	6
	12:34	1:04	29 3/4	25 1/8	30	4 5/8	6
6 P1	TO P6						
		1	1	1	1	1	
	HOLE #4		DEPTH:	3 1/2 FEET			
		TIME	WATER L	EVEL			
	START	FINISH	START	FINISH	∆ MIN		MPI
	11.06	11.36	.30 1/4	29 3/4	.30	1/2	60

2

HOLE #3		DEPTH	l: 4 FEET			
	TIME	WATER L	EVEL			
START	FINISH	START	FINISH	∆ MIN	∆ INCH	MPI
11:05	11:35	23 1/4	20 1/8	30	3 1/8	10
11:36	12:06	23 1/8	20 7/8	30	2 1/4	13
12:07	12:37	28 1/8	21 1/8	30	2	15
12:38	1:08	28 1/8	21 1/8	30	2	15
1:10	1:40	28 1/8	21 1/8	30	2	15

HOLE #4	OLE #4 DEPTH: 3 1/2 FEET				
	TIME	WATER L	EVEL		
START	FINISH	START	FINISH	∆ MIN	∆ INCH
11:06	11:36	30 1/4	29 3/4	30	1/2
11:38	12:08	30 1/4	30 1/8	30	1/8
12:08	12:39	30 1/8	29 7/8	31	1/4
12:39	1:12	29 7/8	29 3/4	33	1/8

HOLE #5		DEPTH	: 4 FEET				HOLE #6		DEPTH:	3 1/2 FEET			
	TIME	WATER L	EVEL					TIME	WATER L	EVEL			
START	FINISH	START	FINISH	∆ MIN	∆ INCH	MPI	START	FINISH	START	FINISH	∆ MIN	△ INCH	MP
11:08	11:38	27 3/4	27 1/2	30	1/4	120	11:11	11:41	28	26 3/8	30	1 5/8	18
11:38	12:09	27 1/2	27 1/4	31	1/4	124	11:42	12:12	29 3/4	28 3/4	30	1 1/8	27
12:09	12:40	27 1/4	27	31	1/4	124	12:12	12:42	29 3/4	28 3/4	31	1	30
12:40	1:11	27	26 7/8	31	1/8	248	12:43	1:13	29 3/4	28 3/4	33	1	30
		TEST	HOLE #1 I										
HOLE							1	2	3	4	5	6	
STABILIZ	ED MPI (AV	E, OF LAS	Г 3 READIN	GS) R			120	6	15	209	165	29	
ADJUST	ED STABILIZI	ED MPI		R <sub>1</sub> =	R X 1.4		168	8	21	293	231	41	
AVERAGI	E ADJUSTED	STABILIZE	D MPI	R <sub>2</sub> =	= ( R <sub>1</sub> )/# H	HOLES			11	9 MPI			
# BEDR	OOMS	1	FOR OFFI	CE USE O	NLY		TANK SI	ZE (GAL)			LEACH	LINE(FT)	

SOIL ANALYS	SIS TEST DATA
OWNER:	MPROSD
TELEPHONE:	650-691-1200
EMAIL:	JLIN@OPENSPACE.ORG

19100 BE	AR CREEK RD., I	LOS GATOS	5, CA
APN:	542-32-001	(SR08542	09)
BY CHRIS	DAY, R.E.H.S.	TEL. 650-	-293-1045
WITNESSE	D BY DARIUS HAG	GHIGHI, R.	E.H.S.

### PROPOSED FACILITIES USE:

1) BOARDING FOR UP TO 72 HORSES

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- 2) TWO HORSE WASHING STATIONS 3) 25 PEAK DAILY VISITORS WITH ACCESS TO
- TWO SETS OF PUBLIC TOILET FACILITIES(M/W)
- 4) PERIODIC ANNUAL EVENTS WILL HOST UP TO 100+ PERSONS. PUBLIC TOILET FACILITIES TO BE LOCKED AND PORTABLE TOILETS PROVIDED DURING SUCH EVENTS.
- 5) FULL TIME GROUNDSKEEPER 1 BR RESIDENCE.

1

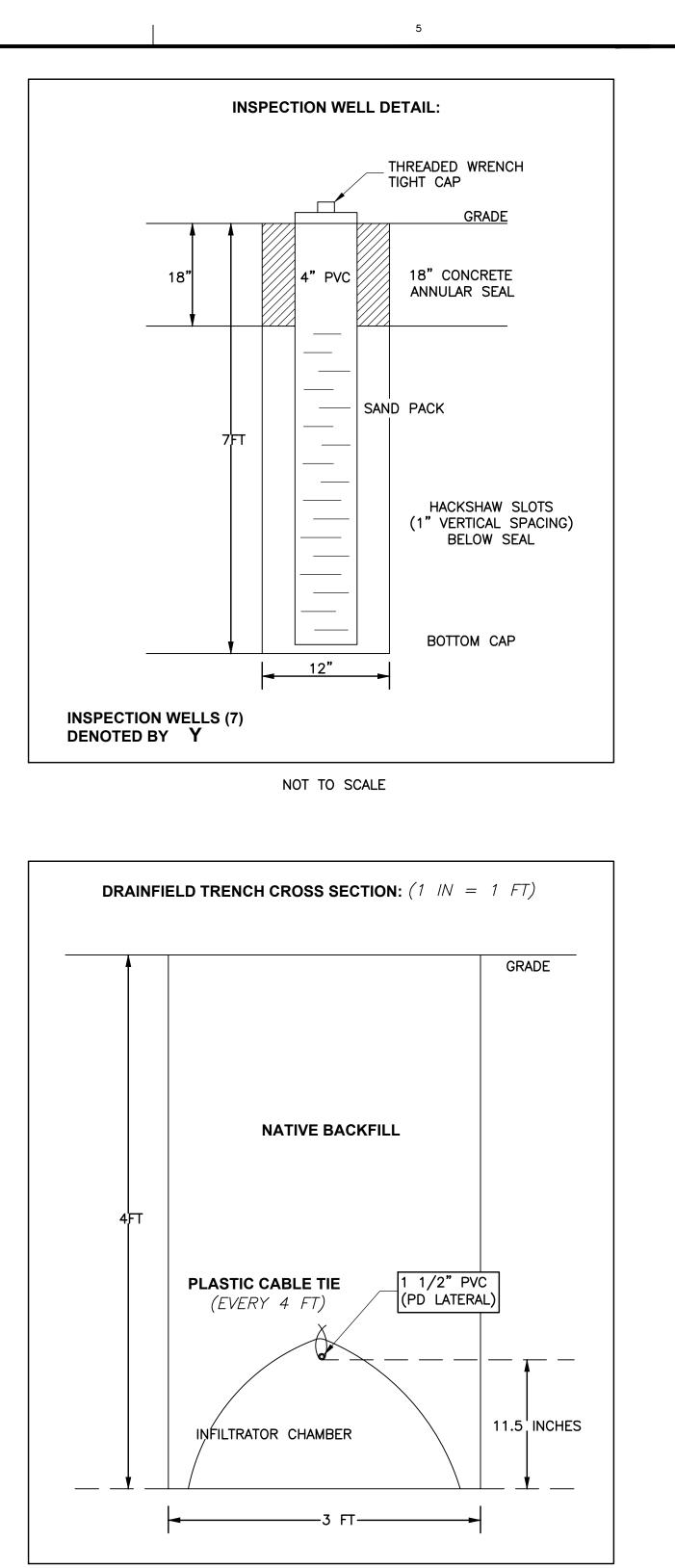
#### PEAK DESIGN FLOW: 1 BR RESIDENCE: 150 GPD PUBLIC RESTROOMS: (25 VISITORS X 5GPD) 125 GPD HORSE WASHING FACILITIES: (5 HORSES X 5GPD) 25 GPD MAINTENANCE BLDG & VISITOR CTR FLOOR DRAINS: 5 GPD TOTAL: 305 GPD

2

СН	MPI
2	60
8	240
4	124
8	264

	HOLE #1 (SP1) DEPTH: 8FT.	6/22/2017
0 TO 24"	SANDY CLAY LOAM ROOTS MEDIUM & COMMON PORES MEDIUM & COMMON WEAK SUBANGULAR STRUCTURE LESS THAN 15% ROCK DRY CONDITION OF SOIL COLOR DARK BROWN NO MOTTLING	NOT RESTRICTIVE
24 TO 96"	SILTY CLAY ROOTS NONE PORES FINE & FEW WEAK SUBANGULAR STRUCTURE LESS THAN 15% ROCK MOIST CONDITION OF SOIL COLOR BLACK PATCHY (MINER) MOTTLING- -FROM 24" TO 36"	NOT RESTRICTIVE
SOIL PROFILE TEST	HOLE #2 (SP2) DEPTH: 13FT.	6/22/2017
0 TO 48"	SANDY CLAY LOAM ROOTS NONE PORES COARSE & COMMON WEAK SUBANGULAR STRUCTURE ABOUT 35% ROCK DRY CONDITION OF SOIL COLOR: LIGHT GREY NO MOTTLING	NOT RESTRICTIVE
48 TO 50"	BURNT ORGANIC MATERIAL (PERHAPS BURIED BURNT LAMP OIL RESIDUE)	NOT RESTRICTIVE (SEE GEOTECH REPORT)
50 TO 72"	CLAY SAND ROOTS NONE PORES COARSE & COMMON WEAK SUBANGULAR STRUCTURE ABOUT 35% ROCK DRY CONDITION OF SOIL COLOR: LIGHT GREY NO MOTTLING	NOT RESTRICTIVE
SP2 CONTINUED:		6/22/2017
72 TO 132" (6 TO 11 FT)	CLAY SAND ROOTS NONE PORES MEDIUM & COMMON WEAK SUBANGULAR STRUCTURE ABOUT 50% ROCK DRY CONDITION OF SOIL COLOR: BROWN NO MOTTLING	NOT RESTRICTIVE
132 TO 156" (11 TO 13 FT)	CLAY SAND ROOTS NONE PORES COARSE & COMMON WEAK SUBANGULAR STRUCTURE GREATER THAN 50% ROCK DRY CONDITION OF SOIL COLOR: BROWN NO MOTTLING	NOT RESTRICTIVE
SOIL PROFILE TEST	HOLE #3 (SP3) DEPTH: 4FT.	6/22/2017
0 TO 48"	SANDY CLAY LOAM ROOTS MEDIUM & FEW PORES FINE & MEDIUM WEAK SUBANGULAR STRUCTURE LESS THAN 15% ROCK MOIST CONDITION OF SOIL COLOR: DARK BROWN NO MOTTLING	NOT RESTRICTIVE
SOIL PROFILE TEST	HOLE #4 (SP4) DEPTH: 10FT.	6/22/2017
0 TO 84" (0 TO 7 FT)	SANDY CLAY LOAM ROOTS MEDIUM & FEW PORES FINE & MEDIUM WEAK SUBANGULAR STRUCTURE LESS THAN 15% ROCK MOIST CONDITION OF SOIL COLOR: DARK BROWN NO MOTTLING	NOT RESTRICTIVE
84 TO 87"	SANDY CLAY ROOTS NONE PORES FINE & FEW WEAK SUBANGULAR STRUCTURE LESS THAN 15% ROCK MOIST CONDITION OF SOIL COLOR: GREY & ORANGE MOTTLED SOIL CONDITION	RESTRICTIVE (MOTTLED CLAY SOIL MAY INDICATED PERCHED GROUNDWATER CONDITION WET WEATHER TESTING COULD BE REQUIRED TO VERIFY GROUNDWATER
87 TO 120"	SAME CHARACTERISTICS AS 0—84" SOIL HORIZON	NO RESTRICTIVE
		•

3



#### 0-84 SUIL HURIZUN 19100 BEAR CREEK RD., LOS GATOS, CA APN:542-32-001 (SR0854209)

## NOTE: SP1 IS NOT SHOWN ON OWTS 1

3

INFILTRATIVE AREA & TRENCH LENGTH: (REQUIRE	.D)
AVERAGE PERCOLATION RATE: (TEST HOLES $#2-6$	119 MPI
APPLICATION RATE	0.2 GPD/FT <sup>2</sup>
INFILTRATION AREA REQUIRED: $(30GPD/0.2 GPD/FT^2)$	1,525 FT <sup>2</sup>
INFILTRATIVE AREA PER LINEAR FT DRAINFIELD TRENCH:	4 FT <sup>2</sup> /FT
TRENCH LENGTH:	382 FT
30% REDUCTION FOR IAPMO LEACHING CHAMBERS:	-115 FT
TOTAL:	305 GPD

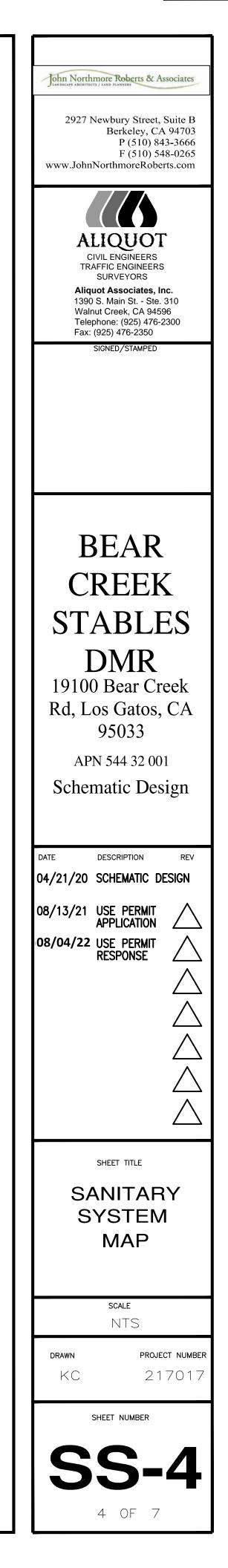
DUAL PRESSURE DOSED TRENCH SYSTEM: (REQUIRED)	
TRENCH WIDTH & DEPTH:	3 FT W x 4 FT D
INFILTRATOR QUICK 4 HIGH CAPACITY CHAMBERS	34"W x 12"H
INFILTRATIVE AREA PER LINEAR FT:(3FT <sup>2</sup> BOTTOM + 2FT <sup>2</sup> SIDES)	5 FT <sup>2</sup>
TRENCH LENGTH PROPOSED: (EACH OF 2 PRESSURE ZONES)	375 FT <sup>2</sup>
INFILTRATIVE AREA PROPOSED: (5FT <sup>2</sup> /FT x 375 FT)	1,875 FT <sup>2</sup>

4

4

NOT TO SCALE

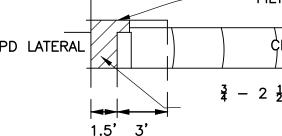
DRAINFIELD TRENCH LENGTHS (FT):				
PRESSURE	ZONE A	PRESSURE	ZONE B	
DF 1	100	DF 7	100	
DF 2	100	DF 2	100	
DF 3	35	DF 3	100	
DF 4	43	DF 4	75	
DF 5	50			
DF 6	47			
TOTAL:	375	TOTAL:	375	

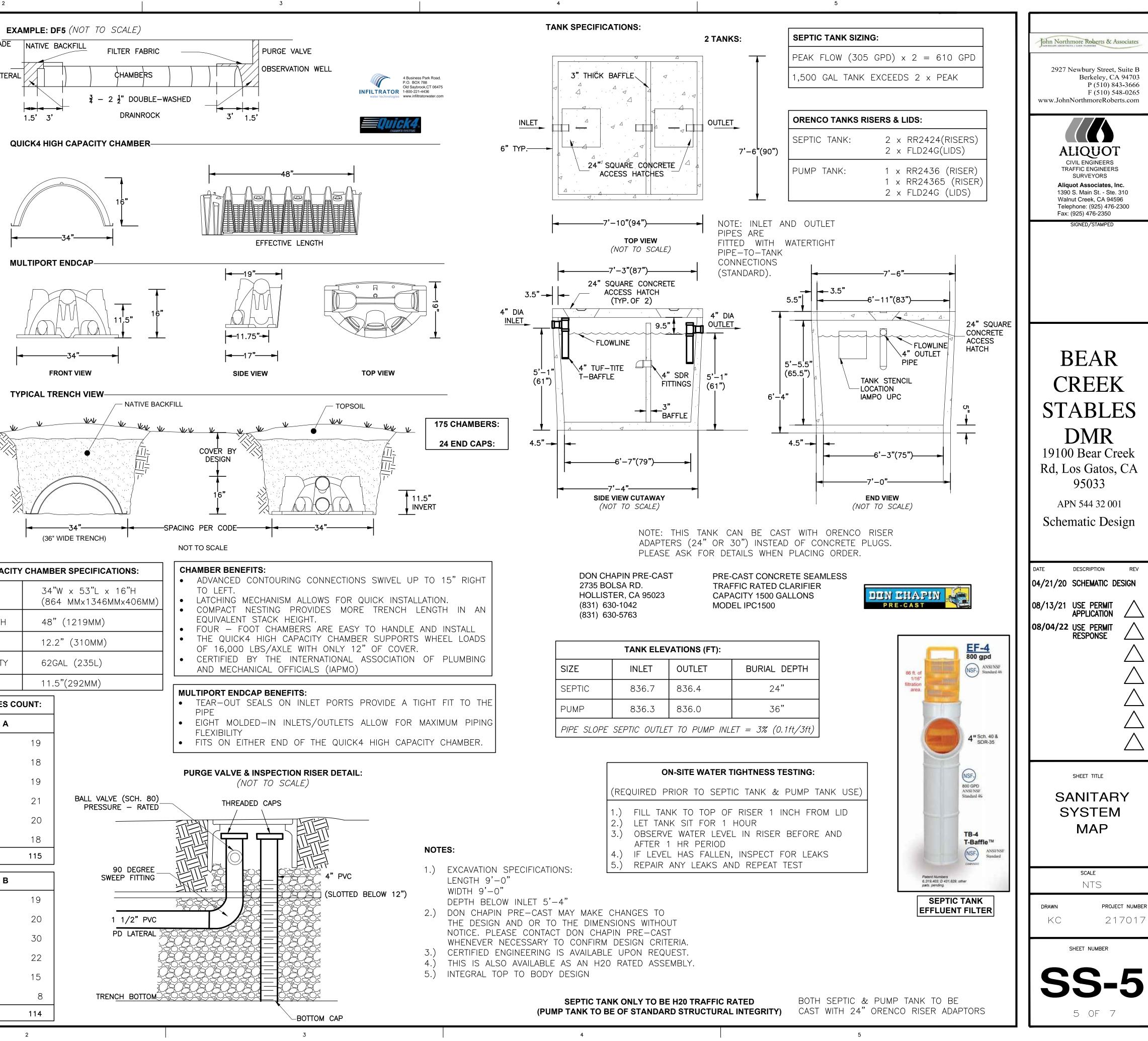


	: 1 <u>1</u> " PV			DRIFICE SPACING: 36" ON	CENTER	
				12 O' CLOCK, EXCEPT H LINE AT 6 O' CLOCK		
N	OTE: ORIF	FICES MUST E	BE DE-BURIE	D AFTER THEY ARE DRILLEI	C	
		INFIL	TRATOR CH	AMBERS LENGTHS (FT)		
	DF#	LENGTH(FT)	NO.OF	LENGTH(FT)	LENGTH(FT)	
	1	58	13	CHAMBERS W/ END CAPS 55	ONLY DRAINRÓCK	
	2	54	12	51	3	
A	3	59	14	59	0	
ZONE	4	63	15	63	0	
	5	60	14	59	1	
	6	56	13	55	1	
	TOTALS:	350	81	342	8	
Ш	7	57	13	55	2	
ZONE	8	60	14	59	1	
2 N	9	94	22	91	3	
	10	67	16	67	0	
	11	46	10	43	3	
		26 375	5 80	23 338	12	
	TOTALS:					
	2.5 FT		6 O'CLC			
1		FIELDS 4 (6 12 O'CLOCK ORIFICE SPA	3 FT): ORIFICES(20) CING 36" 0.C	; 1.5 FT		<b>QUICK4 HIG</b> SIZE
1	 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK	3 FT): ORIFICES(20) CING 36" 0.C I I I I I I 6 O'CLC (60 FT): ORIFICES(19)	1.5 FT  DCK ORIFICES(1)		SIZE
	 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK	3 FT): ORIFICES(20) CING 36" O.C 6 O'CLC 60 FT): ORIFICES(19) CING 36" O.C	1.5 FT  DCK ORIFICES(1)		SIZE
	5 FT DRAINI 5 FT 5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5	3 FT): ORIFICES(20) CING 36" O.C 6 O'CLO 6 O'CLO 6 FT): ORIFICES(19) CING 36" O.C 1 1 1 1 6 O'CLO 6 FT):	1.5 FT 1.5 FT DCK ORIFICES(1) 1.5 FT 1.5 FT CK ORIFICES(1)		SIZE EFFECTIVE LOUVER HE STORAGE C
	1.5 FT DRAINI 1.5 FT 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK	3 FT): ORIFICES(20) CING 36" O.C 6 O'CLC 60 FT): ORIFICES(19) CING 36" O.C 6 O'CLC	1.5 FT 1.5 FT DCK ORIFICES(1) 1.5 FT 1.5 FT CK ORIFICES(1)		SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI
1	1.5 FT DRAINI 1.5 FT 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C 6 O'CLC <i>60 FT):</i> ORIFICES(19) CING 36" 0.C 6 <i>FT):</i> ORIFICES(17) CING 36" 0.C 1 1 1 1	1.5 FT 1.5 FT DCK ORIFICES(1) 1.5 FT 1.5 FT CK ORIFICES(1)		SIZE EFFECTIVE LOUVER HE STORAGE C
1	1.5 FT $DRAINI$ $1.5 FT$ $DRAINI$ $2.5 FT$ $DRAINI$	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA 	3 FT): ORIFICES(20) CING 36" O.C 6 O'CLC 6 O'CLC 6 FT): ORIFICES(19) CING 36" O.C 6 FT): ORIFICES(17) CING 36" O.C 1 1 1 1 6 O'CLC 7 FT):	$\begin{array}{c} 1.5 \text{ FT} \\  \hline 1.5 \text{ FT} \\  \hline 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 1.5 \text{ FT} \\  \hline 1.5 \text{ FT} \\  \hline 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2.5 \text{ FT} \\  \hline 1.5 \text{ FT} \\  \hline 0 \text{CK ORIFICES(1)} \\ \end{array}$		SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI
1	DRAINI DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 2.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C 6 O'CLC 6 O'CLC 6 FT): ORIFICES(19) CING 36" 0.C 6 FT): ORIFICES(17) CING 36" 0.C 1 1 1 1 CING 36" 0.C 1 6 O'CLC	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 2.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ 0 CK ORIFI$		SIZE EFFECTIVE LOUVER HE STORAGE C
1	DRAINI DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 2.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK	3 FT):         ORIFICES(20)         CING 36" 0.C         6 O'CLC         6OFT):         ORIFICES(19)         CING 36" 0.C         6O'CLC         7FT):         0RIFICES(17)         CING 36" 0.C         1         6O'CLC         7FT):         0RIFICES(18)         CING 36" 0.C         1         1         1	$\begin{array}{c} 1.5 \text{ FT} \\  \hline \\  $		SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI 3/16" C
1	1.5 FT DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 2.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA	<i>3 FT):</i> ORIFICES(20) CING 36" O.C 6 O'CLC <i>6 O'CLC</i> <i>6 FT):</i> ORIFICES(19) CING 36" O.C <i>6 FT):</i> ORIFICES(17) CING 36" O.C <i>7 FT):</i> ORIFICES(18) CING 36" O.C <i>7 FT):</i> ORIFICES(18) CING 36" O.C	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 2.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ 0 CK ORIFI$		SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI 3/16" C
1	1.5 FT DRAINI DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>6 FT):</i> ORIFICES(19) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>7 FT):</i> ORIFICES(18) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>7 FT):</i> ORIFICES(18) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>4 FT):</i> ORIFICES(30)	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} $		SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI 3/16" C DF 1 DF 1 DF 2
1	1.5 FT DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 1.5 FT DRAINI 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C 6 O'CLC <i>6 O'CLC</i> <i>6 O'CLC</i> <i>6 O'CLC</i> <i>6 O'CLC</i> <i>6 FT):</i> ORIFICES(19) CING 36" 0.C <i>6 FT):</i> ORIFICES(17) CING 36" 0.C <i>7 FT):</i> ORIFICES(18) CING 36" 0.C <i>7 FT):</i> ORIFICES(18) CING 36" 0.C <i>4 FT):</i>	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} $	2 FT	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HE JINVERT HE DF 1 DF 1 DF 2 DF 3 DF 3 DF 4
1	1.5 FT DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 1.5 FT DRAINI 1.5 FT DRAINI 1.5 FT 2.5 FT DRAINI 1.5 FT	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>6 FT):</i> ORIFICES(19) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>6 FT):</i> ORIFICES(17) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>7 FT):</i> ORIFICES(18) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 0'CLC <i>4 FT):</i> ORIFICES(30) CING 36" 0.C ↓ ↓ ↓ ↓ ↓	$\begin{array}{c} 1.5 \text{ FT} \\ \hline \\ \hline \\ \text{DCK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 1.5 \text{ FT} \\ \hline \\ \hline \\ \text{DCK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2.5 \text{ FT} \\ \hline \\ \hline \\ \text{DCK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 1.5 \text{ FT} \\ \hline \\ \text{DCK ORIFICES(1)} \\ \end{array}$		SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HE DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 5
1	1.5 FT DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 1.5 FT DRAINI 1.5 FT DRAINI 2.5 FT DRAINI 1.5 FT DRAINI	12 O'CLOCK ORIFICE SPA I I I I I FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA I I I I I FIELDS 6 (5 12 O'CLOCK ORIFICE SPA I I I I FIELDS 7 (5 12 O'CLOCK ORIFICE SPA I I I I FIELDS 9 (9 12 O'CLOCK ORIFICE SPA I I I I FIELDS 10 (9	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C 6 O'CLC <i>6 O'CLC</i> <i>6 O'CLC</i> <i>6 O'CLC</i> <i>6 O'CLC</i> <i>6 FT):</i> ORIFICES(19) CING 36" 0.C <i>6 FT):</i> ORIFICES(17) CING 36" 0.C <i>1 1 1 1 1</i> <i>6 O'CLC</i> <i>7 FT):</i> ORIFICES(18) CING 36" 0.C <i>4 FT):</i> ORIFICES(30) CING 36" 0.C <i>4 FT):</i> ORIFICES(30) CING 36" 0.C	1.5 FT 	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HE DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 5 DF 6
1	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (0 12 O'CLOCK	<i>3 FT):</i> ORIFICES(20) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 O'CLC <i>6 FT):</i> ORIFICES(19) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 O'CLC <i>6 FT):</i> ORIFICES(17) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 O'CLC <i>7 FT):</i> ORIFICES(18) CING 36" 0.C ↓ ↓ ↓ ↓ ↓ 6 O'CLC <i>4 FT):</i> ORIFICES(30) CING 36" 0.C ↓ ↓ ↓ ↓ ↓	1.5 FT 	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HE DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 5
1	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (0 12 O'CLOCK	3 FT):         ORIFICES(20)         CING 36" 0.C         6 O'CLC         7 FT):         0RIFICES(17)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         0RIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         0RIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         0RIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         4 FT):         0RIFICES(30)         CING 36" 0.C         1 1 1         67 FT):         0RIFICES(30)         CING 36" 0.C         1 1 1         67 FT):         0RIFICES(21)	1.5 FT 	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HE DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 5 DF 6
1	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 3.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (6 12 O'CLOCK ORIFICE SPA           FIELDS 10 (6 12 O'CLOCK ORIFICE SPA	3 FT):         ORIFICES(20)         CING 36" 0.C	$\begin{array}{c} 1.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 1.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 1.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2.5 \text{ FT} \\ \hline \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$ $\begin{array}{c} 2 \text{ FT} \\ \hline \\ 6 \text{ O'CLOCK ORIFICES(1)} \end{array}$	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 5 DF 6
1	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (1 12 O'CLOCK	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 2.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 3 DF 4 DF 5 DF 6 TOTAL:
1	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (1 12 O'CLOCK	3 FT):         ORIFICES(20)         CING 36" O.C         6 O'CLC         60 FT):         ORIFICES(19)         CING 36" O.C         6 O'CLC         6 FT):         ORIFICES(17)         CING 36" O.C         6 O'CLC         6 O'CLC         7 FT):         ORIFICES(17)         CING 36" O.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" O.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" O.C         1 1 1         6 O'CLC         4 FT):         ORIFICES(14)         CING 36" O.C         1 1 1         67 FT):         ORIFICES(21)         CING 36" O.C         1 1 1         67 FT):         ORIFICES(21)         CING 36" O.C         1 1 1         46 FT):         ORIFICES(14)         CING 36" O.C         1 1 1	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 2.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{ CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{ CLOCK ORIFICES(1)} \\ \end{array} \\ \end{array}$	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 3 DF 4 DF 5 DF 6 TOTAL:
1	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 3.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI 4.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (6 12 O'CLOCK ORIFICE SPA           FIELDS 11 (6 12 O'CLOCK ORIFICE SPA 	3 FT):         ORIFICES(20)         CING 36" O.C         6 O'CLC         60 FT):         ORIFICES(19)         CING 36" O.C         6 O'CLC         6 O'CLC         6 O'CLC         6 O'CLC         7 FT):         ORIFICES(17)         CING 36" O.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" O.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" O.C         1 1 1         6 O'CLC         4 FT):         ORIFICES(30)         CING 36" O.C         1 1 1         60 CLC         46 FT):         ORIFICES(21)         CING 36" O.C         1 1 1         46 FT):         ORIFICES(14)         CING 36" O.C         1 1 1         6 O'CLC	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 2.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array}$	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 3 DF 4 DF 5 DF 6 TOTAL:
1 2 2 2 0'C	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA I I I I I FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA I I I I I FIELDS 6 (5 12 O'CLOCK ORIFICE SPA I I I I FIELDS 7 (5 12 O'CLOCK ORIFICE SPA I I I I FIELDS 9 (9 12 O'CLOCK ORIFICE SPA I I I I FIELDS 10 (1 12 O'CLOCK ORIFICE SPA I I I I FIELDS 11 (1 12 O'CLOCK ORIFICE SPA I I I I FIELDS 12 (1 FIELDS 12 (1)	3 FT):         ORIFICES(20)         CING 36" 0.C         6 O'CLC         60 FT):         ORIFICES(19)         CING 36" 0.C         6 O'CLC         6 FT):         ORIFICES(17)         CING 36" 0.C         6 O'CLC         7 FT):         ORIFICES(17)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         4 FT):         ORIFICES(30)         CING 36" 0.C         1 1 1         67 FT):         ORIFICES(21)         CING 36" 0.C         1 1 1         67 FT):         ORIFICES(14)         CING 36" 0.C         1 1 1         6 O'CLC         26 FT):         6 O'CLC         26 FT):	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 2.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{ CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{ CLOCK ORIFICES(1)} \\ \end{array} \\ \end{array}$	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI DF 1 DF 1 DF 2 DF 3 DF 3 DF 4 DF 3 DF 4 DF 5 DF 6 TOTAL:
1 2 2 2 2 0 2 0 2 0 2 0 2 1 2	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 2.5 $FT$ DRAINI 3.5 $FT$ DRAINI 3.5 $FT$ DRAINI 4.5 $FT$ DRAINI 5.5 $FT$ DRAINI 5.5 $FT$ 1.5 $FT$ DRAINI 6.5 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA           FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA           FIELDS 6 (5 12 O'CLOCK ORIFICE SPA           FIELDS 7 (5 12 O'CLOCK ORIFICE SPA           FIELDS 9 (9 12 O'CLOCK ORIFICE SPA           FIELDS 10 (6 12 O'CLOCK ORIFICE SPA           FIELDS 11 (6 12 O'CLOCK ORIFICE SPA             FIELDS 11 (6 12 O'CLOCK ORIFICE SPA             FIELDS 11 (6 12 O'CLOCK ORIFICE SPA	3 FT):         ORIFICES(20)         CING 36" 0.C         6 O'CLC         60 FT):         ORIFICES(19)         CING 36" 0.C         6 O'CLC         6 FT):         ORIFICES(17)         CING 36" 0.C         6 O'CLC         7 FT):         ORIFICES(17)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         4 FT):         ORIFICES(30)         CING 36" 0.C         1 1 1         67 FT):         ORIFICES(21)         CING 36" 0.C         1 1 1         67 FT):         ORIFICES(14)         CING 36" 0.C         1 1 1         6 O'CLC         26 FT):         6 O'CLC         26 FT):	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \begin{array}{c} 2.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 1.5 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{ CK ORIFICES(1)} \\ \end{array} \\ \begin{array}{c} 2 \text{ FT} \\ 0 \text{ CLOCK ORIFICES(1)} \\ \end{array} \\ \end{array}$	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HEI DF 1 DF 1 DF 2 DF 3 DF 4 DF 3 DF 4 DF 5 DF 4 DF 5 DF 6 TOTAL:
1 2 1 2 2 0'C RIFICE	1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2.5 $FT$ DRAINI 1.5 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI 2 $FT$ DRAINI	12 O'CLOCK ORIFICE SPA I I I I I FIELDS 5,8 ( 12 O'CLOCK ORIFICE SPA I I I I I FIELDS 6 (5 12 O'CLOCK ORIFICE SPA I I I I FIELDS 7 (5 12 O'CLOCK ORIFICE SPA I I I I FIELDS 9 (9 12 O'CLOCK ORIFICE SPA I I I I FIELDS 10 (6 12 O'CLOCK ORIFICE SPA I I I I FIELDS 11 (6 12 O'CLOCK ORIFICE SPA I I I I FIELDS 12 (6 SPA I I I I SPA I I I I I I I SPA I I I I I I I SPA I I I I I I SPA I I I I I I I I SPA I I I I I I I SPA I I I I I I I I SPA I I I I I I I I SPA I I I I I I I I I SPA I I I I I I I I I I SPA I I I I I I I I I I I I I I I SPA I I I I I I I I I I I I I I I I I I I	3 FT):         ORIFICES(20)         CING 36" 0.C         6 O'CLC         60 FT):         ORIFICES(19)         CING 36" 0.C         6 O'CLC         6 FT):         ORIFICES(17)         CING 36" 0.C         6 O'CLC         7 FT):         ORIFICES(17)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         7 FT):         ORIFICES(18)         CING 36" 0.C         1 1 1         6 O'CLC         4 FT):         ORIFICES(30)         CING 36" 0.C         1 1 1         67 FT):         ORIFICES(21)         CING 36" 0.C         1 1 1         67 FT):         ORIFICES(14)         CING 36" 0.C         1 1 1         6 O'CLC         26 FT):         6 O'CLC         26 FT):	$\begin{array}{c} 1.5 \text{ FT} \\ 1.5 \text{ FT} $	<u> </u>	SIZE EFFECTIVE LOUVER HE STORAGE C INVERT HE 3/16" C DF 1 DF 2 DF 3 DF 4 DF 3 DF 4 DF 5 DF 6 TOTAL: DF 7 DF 8 DF 9 DF 10

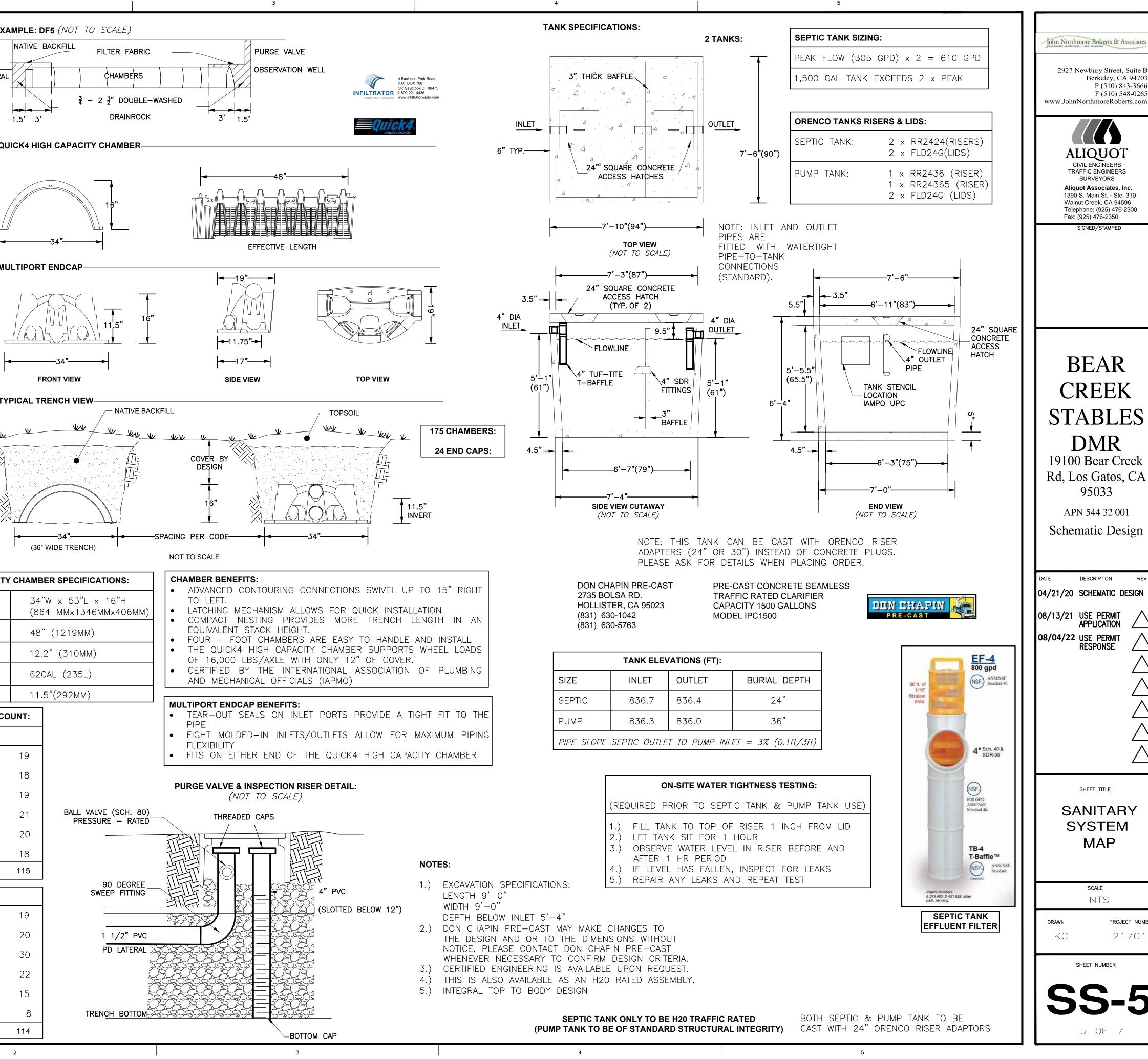
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# GRADE NATIVE BACKFILL





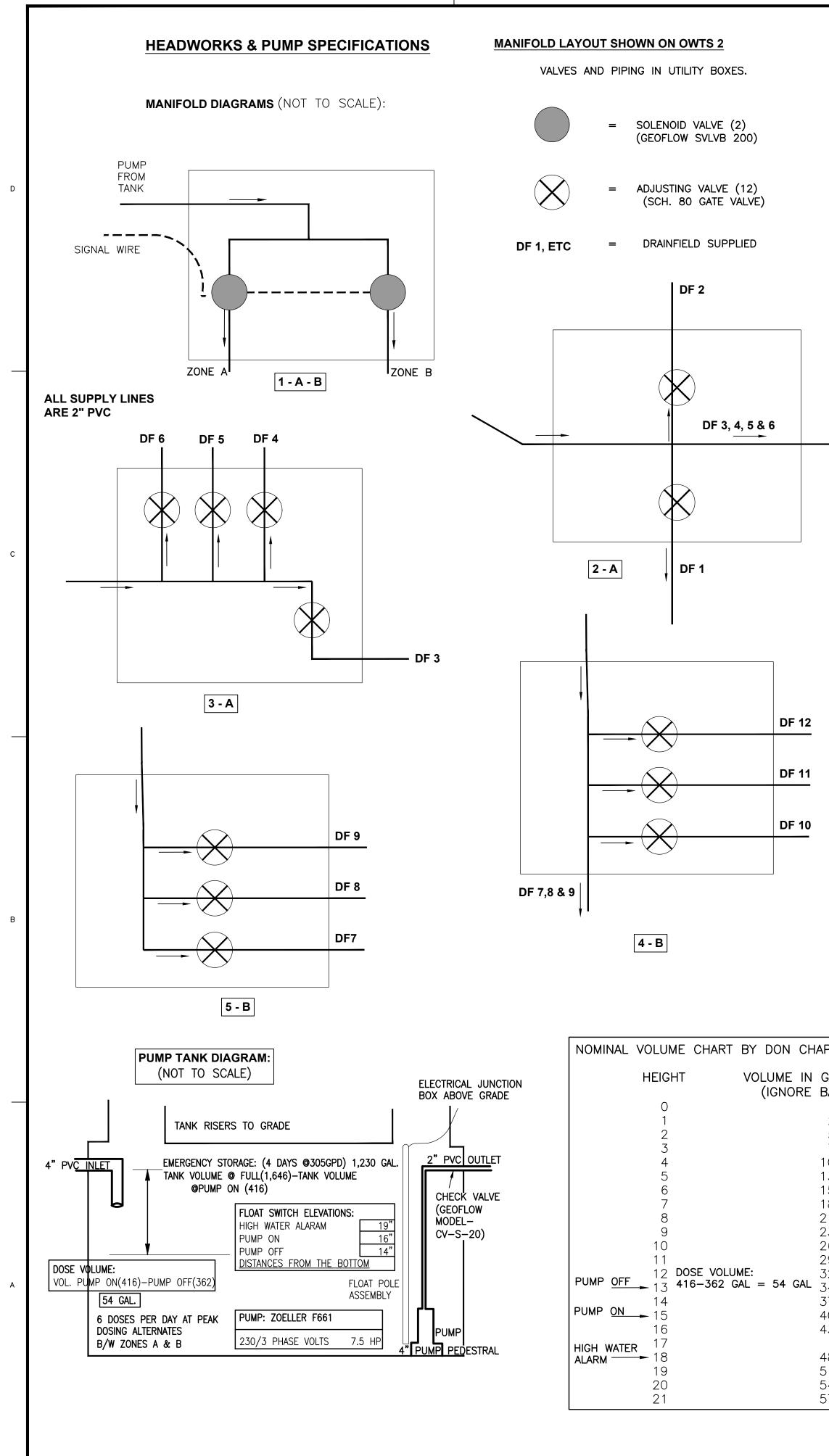
## **MULTIPORT ENDCAP**-





## **CAPACITY CHAMBER SPECIFICATIONS:**

Q	UICK4 HIGH CAPACIT	Y CHAME	SER SPECIFICATIO
SI	ZE		"W x 53"L x 16 54 MMx1346MMx
Ef	FECTIVE LENGTH	48	"(1219MM)
LC	DUVER HEIGHT	12.	2" (310MM)
S	FORAGE CAPACITY	620	GAL (235L)
IN	VERT HEIGHT	11.	5"(292MM)
	3/16" ORIFICES CO	OUNT:	
	ZONE A		
	DF 1	19	
	DF 2	18	
	DF 3	19	
	DF 4	21	BALL VALVE ( PRESSURE
	DF 5	20	
	DF 6	18	
	TOTAL:	115	
	ZONE B		90 SWEEP
	DF 7	19	
	DF 8	20	1 1
	DF 9	30	PD
	DF 10	22	
	DF 11	15	
	DF 12	8	TRENCH
	TOTAL:	114	



	PUMP SELECTION CALCULATIONS:						
FLOW RATE -	THE ORIFICE DISCHARGE RATE F	For 3 DIAME	TER AT 5FT	RESIDUAL HEAD	IS 0.93GPM	I (SOURCE: CO	WA PD D
			ZONE A	113 GPM		(122 ORIFICE	ES x 0.93
FLOW PER DRAI	NFIELD (#ORIFICES):		ZONE B	114 GPM		(123 ORIFICE	ES x 0.93
ZONE A	DF 1 (33) 31GPM	DF 2 (33	5) 31 GPM	DF 3 (11)	10GPM	DF 4 (14)	13GPM
ZONE B	DF 7 (33) 31GPM	DF 8 (33	5) 31 GPM	DF 9 (33)	31GPM	DF 10 (24)	22GPM
PRESSURE- 1	NOTE: ALL PVC IS SCHEDULE 40	D. F =	L(Q/K) <sup>1.85</sup> (So	OURCE: COWA	MANUAL, P.1		E: SOME PI CONSERVA
1. LIFT IN PUI	MP TANK FROM PUMP DISCHARG	GE TO OUTLE	T				
2. ELEVATION	LIFT TO HIGHEST POINT IN DISP	ERSAL FIELD	(839 – 836	FT):			
	PIPE LENGTHS & FITTINGS: MANIFOLD 2 (113 GPM): 11FT	PIPE LENGTH		INGS (1 × CHE BRANCH 12FT,			
B. TO	DF 1 & 2 (31 GPM): 8FT PIP	E LENGTH +	15FT FITTINGS	S (1 x T BRAN	ICH 12FT, 1		3FT) (31 GPM
C. TO	MANIFOLD 3 (52 GPM): 105FT	PIPE LENGTH	+ 10FT FITT	TINGS (2x 45°	3FT, 1 x T	•	T (52 GPI
D. TO	DF 3/4/5/6 (15 GPM): 60FT	PIPE LENGTH	+ 52FT (2 :	x 90° 12FT, 10	) x 45° 25F		FT, 1 x <sup>-</sup> 15 GPM /
4. LONGEST 1	.5" LATERAL (MANIFOLD 2) (31	GPM): (100FT	LENGTH +	6FT (90° SWEE	P))(31 GPM/	/147.5) <sup>1.85</sup> + <sup>-</sup>	75FT(2"-1
		<i>,</i> , ,		·	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	
5. LONGEST 1	.5" LATERAL (MANIFOLD 3) (15	GPM): (50FT	LENGTH + 6	FT (90° SWEEP	))(15 GPM/ <sup>-</sup>	147.5) <sup>1.85</sup> + 75	5FT(2"-1.
5. LONGEST 1 6. RESIDUAL H	· · · · ·	GPM): (50FT	LENGTH + 6	FT (90° SWEEP	))(15 GPM/^	147.5) <sup>1.85</sup> + 75	5FT(2"-1.
	· · · · ·	GPM): (50FT	LENGTH + 6	FT (90° SWEEP	))(15 GPM/ <sup>-</sup>	147.5) <sup>1.85</sup> + 75	5FT(2"—1.
	IEAD	GPM): (50FT	LENGTH + 6	FT (90° SWEEP	))(15 GPM/ <sup>-</sup>	147.5) <sup>1.85</sup> + 75	5FT(2"—1.
<ol> <li>RESIDUAL H</li> <li>ITEMS 1 &amp;</li> <li>2. 2" SUPPLY</li> </ol>	IEAD			``````````````````````````````````````		T, 3×90° 18FT,	2×45°
<ul> <li>6. RESIDUAL F</li> <li>1. ITEMS 1 &amp;</li> <li>2. 2" SUPPLY A. TO</li> </ul>	IEAD 2 ABOVE PIPE LENGTHS & FITTINGS:	PIPE LENGTH	+ 56FT FITT	INGS (1×CHECk	VALVE 19F	T, 3x90° 18FT, 65 0° 12FT, 1xGAT	2x45° FT(113 GF
<ol> <li>RESIDUAL H</li> <li>ITEMS 1 &amp;</li> <li>2. 2" SUPPLY A. TO</li> <li>B. TO</li> </ol>	IEAD 2 ABOVE PIPE LENGTHS & FITTINGS: MANIFOLD 4 (114 GPM): 30FT	PIPE LENGTH E LENGTH +	+ 56FT FITT 39FT FITTINGS	INGS (1×CHECF S (2×T BRANCF	<pre>     VALVE 19F     24FT, 2x90 </pre>	T, 3×90° 18FT, 65 0° 12FT, 1×GAT 46FT 3FT, 1 × T TH	2x45° -T(113 GF E VALVE (31 GPM
<ol> <li>RESIDUAL H</li> <li>ITEMS 1 &amp;</li> <li>2" SUPPLY A. TO</li> <li>B. TO</li> <li>C. TO</li> </ol>	IEAD 2 ABOVE PIPE LENGTHS & FITTINGS: MANIFOLD 4 (114 GPM): 30FT DF 7 & 8 (31 GPM): 7FT PIPI	PIPE LENGTH E LENGTH + PIPE LENGTH	+ 56FT FITT 39FT FITTINGS + 24FT FITT	INGS (1×CHECK S (2×T BRANCK INGS (1×90° 6	< VALVE 19F I 24FT, 2x90 FT, 5x45° 13	T, 3×90° 18FT, 65 0° 12FT, 1×GAT 46FT 3FT, 1 × T TH 129F	2×45° FT(113 GF E VALVE (31 GPM RU 5FT) F (53 GPI E VALVE 3
<ol> <li>RESIDUAL H</li> <li>ITEMS 1 &amp;</li> <li>2" SUPPLY A. TO</li> <li>B. TO</li> <li>C. TO</li> <li>D. TO</li> </ol>	IEAD 2 ABOVE PIPE LENGTHS & FITTINGS: MANIFOLD 4 (114 GPM): 30FT DF 7 & 8 (31 GPM): 7FT PIPE MANIFOLD 5 (53 GPM): 105FT	PIPE LENGTH E LENGTH + PIPE LENGTH 20FT PIPE LE	+ 56FT FITT 39FT FITTINGS + 24FT FITT	- INGS (1×CHEC 5 (2×T BRANC - INGS (1×90° 6 Γ (2 × 90° 12)	<pre></pre> K VALVE 19F 1 24FT, 2x90 FT, 5x45° 13 FT, 2 x 45°	T, 3×90° 18FT, 65 0° 12FT, 1×GAT 46FT 3FT, 1 × T TH 129F 5FT, 1 × GAT	2x45° FT(113 GF E VALVE (31 GPM RU 5FT) F (53 GPI E VALVE 3 52FT (4
<ol> <li>RESIDUAL F</li> <li>ITEMS 1 &amp;</li> <li>2" SUPPLY A. TO</li> <li>B. TO</li> <li>C. TO</li> <li>D. TO</li> <li>4. LONGEST 1</li> </ol>	IEAD 2 ABOVE PIPE LENGTHS & FITTINGS: MANIFOLD 4 (114 GPM): 30FT DF 7 & 8 (31 GPM): 7FT PIPE MANIFOLD 5 (53 GPM): 105FT DRAINFIELDS 9/10 (31 GPM):	PIPE LENGTH E LENGTH + PIPE LENGTH 20FT PIPE LE GPM): (100F1	+ 56FT FITT 39FT FITTINGS + 24FT FITT NGTH + 32F LENGTH +		<pre></pre>	T, 3×90° 18FT, 65 0° 12FT, 1×GAT 46FT 3FT, 1 × T TH 129F 5FT, 1 × GAT 5FT, 1 × GAT	2x45° FT(113 GF E VALVE (31 GPM RU 5FT) I (53 GPI E VALVE 3 52FT (3 75FT(2"—1

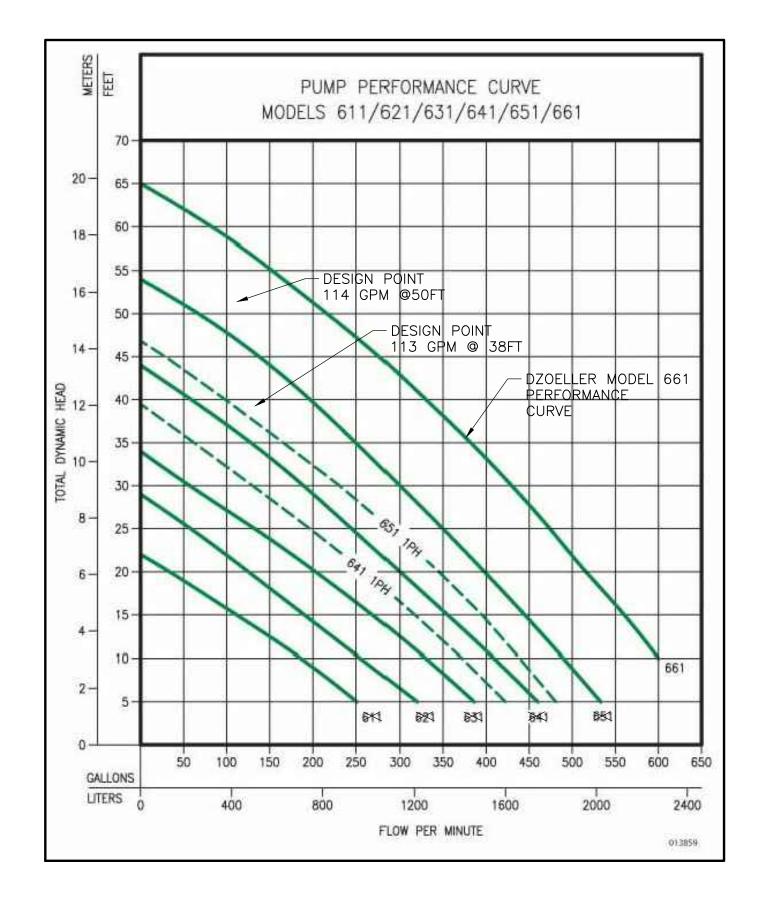
THESE DESIGN POINTS (113 GPM @ 38FT & 114 GPM@50FT) ARE LABELED ON THE PUMP PERFORMANCE CUR

<b>N</b>	1500 – GALLON PII	NNACLE TANK
GALLONS BAFFLES) 0 25.772 51.707 77.805 104.068 130.496 157.088 183.846 210.769 237.859 265.115 292.538 320.128 347.885 375.811 403.905 432.168 460.6 489.202 517.974 546.916 576.028		N GALLONS H BAFFLES) 0 24.795 49.751 74.867 100.144 125.582 151.182 176.944 202.869 228.957 255.208 281.623 308.201 334.045 361.853 388.926 416.165 443.57 471.141 498.879 526.785 554.858

DESIGN MANUAL, I	Þ.153)			
3 GPM)				
3 GPM)				
M DF 5 (16)	15GPM	DF 6	(15)	14G
M				
PIPE LENGTHS, ELEVAT ATIVE CALCULATIONS C				]
			4.0FT	]
			3.0FT	
1x 45° 3FT, M / 284.5) <sup>1.85</sup> = M / 284.5) <sup>1.85</sup> =			11.7FT 0.4 FT	
<sup>D</sup> M / 284.5) <sup>1.85</sup> =	=		4.9 FT	
T BRANCH 12 / 284.5) <sup>1.85</sup> =			0.5 FT	
-1.5" FITTING)(31G	PM/28.5) <sup>1.8</sup>	5 =	7.1 FT	
.5" FITTING)(15GP	M/28.5) <sup>1.85</sup>	=	1.1 FT	
			5.0 FT	
	тоти	AL.	37.7 FT	]
			7.0 FT	]

JRVE FOR THE SE	LECTED PUMP.	
	TOTAL	49.5 FT
		5.0 FT
1.5" FITTING)(31GF	<sup>D</sup> M/28.5) <sup>1.85</sup> =	7.1 FT
1.5" FITTING)(31GF	7.1 FT	
3FT, 1 x T BRAN (31 GPM / 284.5	0.9 FT	
PM / 284.5) <sup>1.85</sup> =		5.8 FT
3FT) 1 / 284.5) <sup>1.85</sup> =		0.8 FT
5FT, 1xT BRANCH PM / 284.5) <sup>1.85</sup> =	H 12FT, 1xSOLENOID =	2FT) 15.8 FT
		/:0 11

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Civil Engineers TRAFFIC Engineers SURVEYORS Aliquot Associates, Inc. 1390 S. Main St Ste. 310 Walnut Creek, CA 94596 Telephone: (925) 476-2300 Fax: (925) 476-2350
SIGNED/STAMPED
BEAR CREEK CREEK STABLES DMR 19100 Bear Creek Rd, Los Gatos, CA 95033 APN 544 32 001 Schematic Design
DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN 08/13/21 USE PERMIT APPLICATION 08/04/22 USE PERMIT RESPONSE $\triangle$ $\triangle$ $\triangle$ $\triangle$ $\triangle$ $\triangle$ $\triangle$ $\triangle$
SHEET TITLE SANITARY SYSTEM MAP
scale NTS
drawn project number KC 217017
SHEET NUMBER <b>SSS-6</b> 6 OF 7



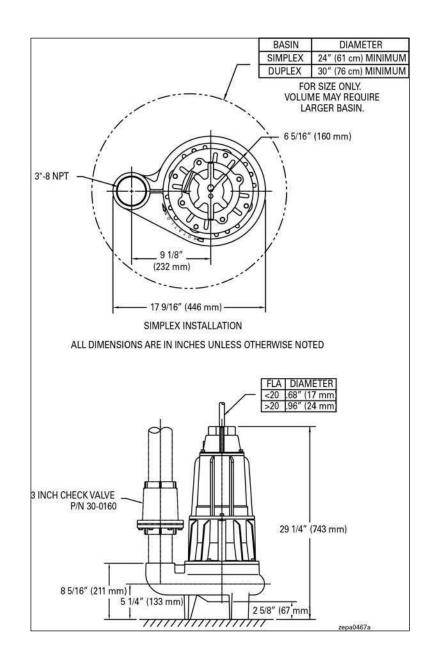
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С

В

## **3" VERTICAL DISCHARGE**



1

PRODUCT INFORMATION PRESENTED HERE REFLECTS CONDITIONS AT THE TIME OF PUBLICATION. CONSULT FACTORY REGARDING DISCREPANCIES OR INCONSISTENCIES

3



4

## TECHNICAL DATA SHEET

SEWAGE WASTE SERIES

MODELS 6<del>11, 621, 631, 641, 651</del>, 661 SUBMERSIBLE SEWAGE PUMPS

4

	HORSE POWER	1(611), 1-1/2(621), 2(631) 3(641), 5(651), 7-1/2(661)				
	VOLTAGE	230, 200 - 575				
	PHASE	1, 3 PH				
MOTOR	HERTZ	60 HZ				
	RPM	1750				
	TYPE	CAPACITOR START CAPACITOR RUN ON 3 PH				
	INSULATION	CLASS F				
	AMPS	1.7 – 28.0				
	OPERATION	NON-AUTOMATIC				
	DISCHARGE SIZE	3" NPT (OPTIONAL 3" OR 4" FLANGE AVAILABLE				
	SOLIDS HANDLING	2-1/2" (63MM) SPHERICAL SOLIDS				
	CORD LENGTH	25' (8m) STANDARD				
PUMP	CORD TYPE	UL LISTED 3-WIRE CORD				
PU	MAX. HEAD	65'(19.8m)				
	MAX. FLOW RATE	800 GPM (2271 LPM)				
	MAX. OPERATING TEMP.	104° F (40° C)				
	COOLING	OIL FILLED				
	MOTOR PROTECTION	THERMAL SENSORS WITH AUTOMATIC RESET				

3

	UPPER BEARING	BALL BEARING		
	LOWER BEARING	BALL BEARING		
S	MECHANICAL SEALS	TANDOM CARBON AND CERAMIC		
MATERIALS	IMPELLER TYPE	SEMI-OPEN		
АТЕ	IMPELLER	DUCTLE IRON		
2	HARDWARE	STAINLESS STEEL		
	MOTOR SHAFT	STAINLESS STEEL		
	GASKET	BUNA-N SQUARE SEALS		

ALL CLASS 30 CAST IRON CONSTRUCTION NOTE: SEE MODEL COMPARISON CHART FOR SPECIFIC DETAILS.

	MODEL COMPARISON								
MODEL	SEAL	MODE	VOLTS	PH	AMPS	HP	ΗZ	LBS	KG
				Γ	<b>Γ</b>				
F661	DOUBLE	NON	230	3	22.0	7-1/2	60	245	111

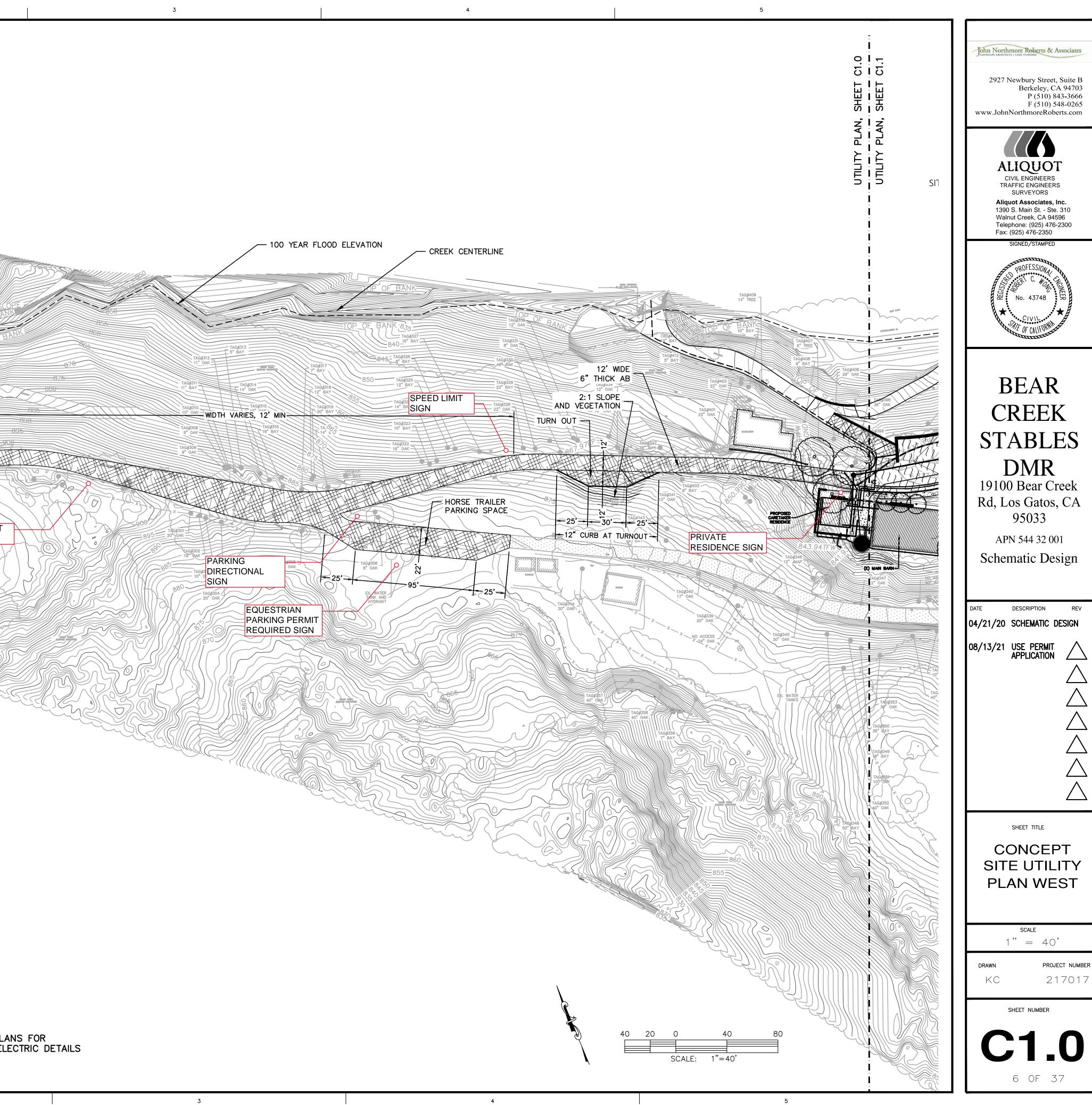
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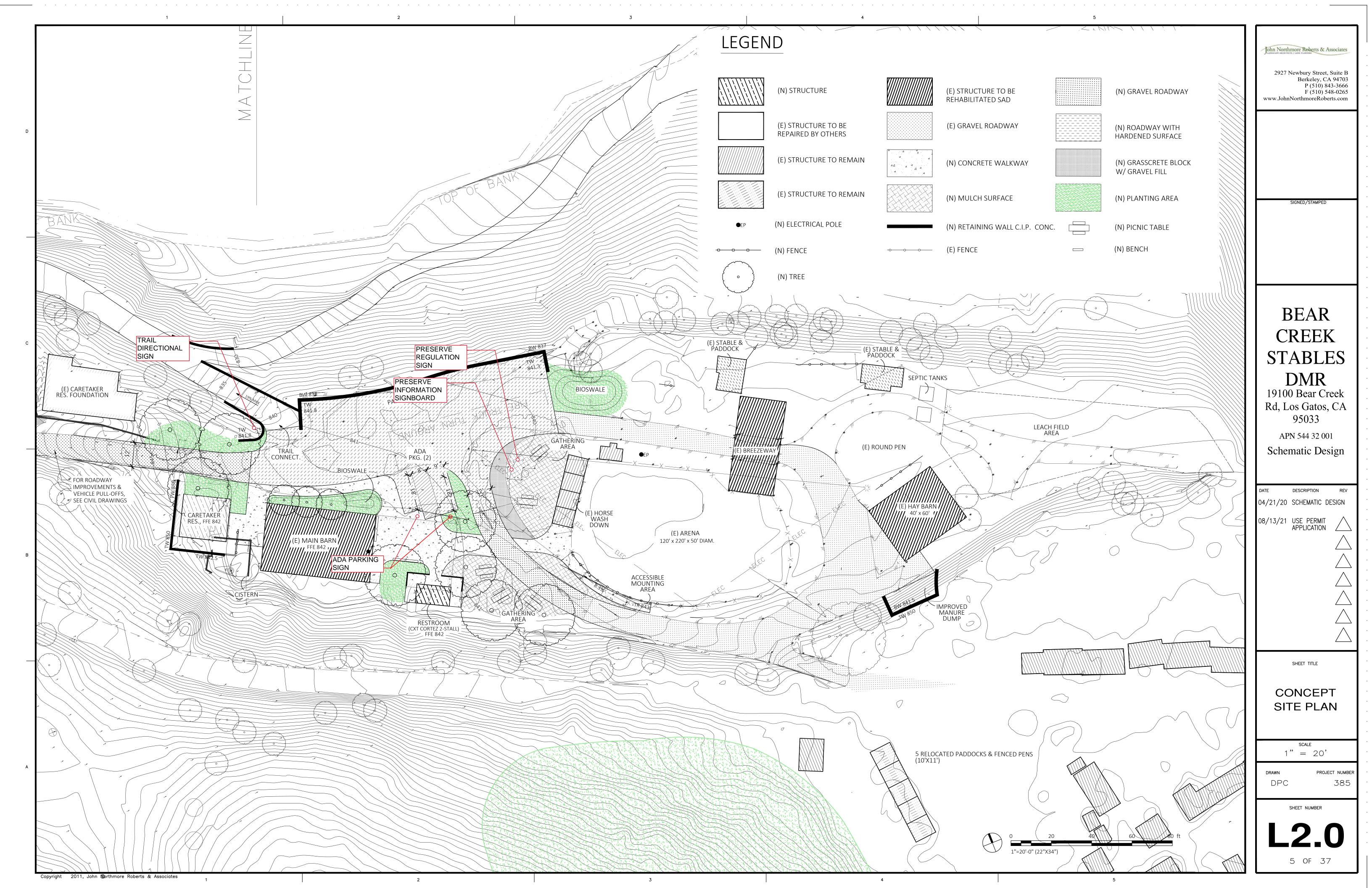
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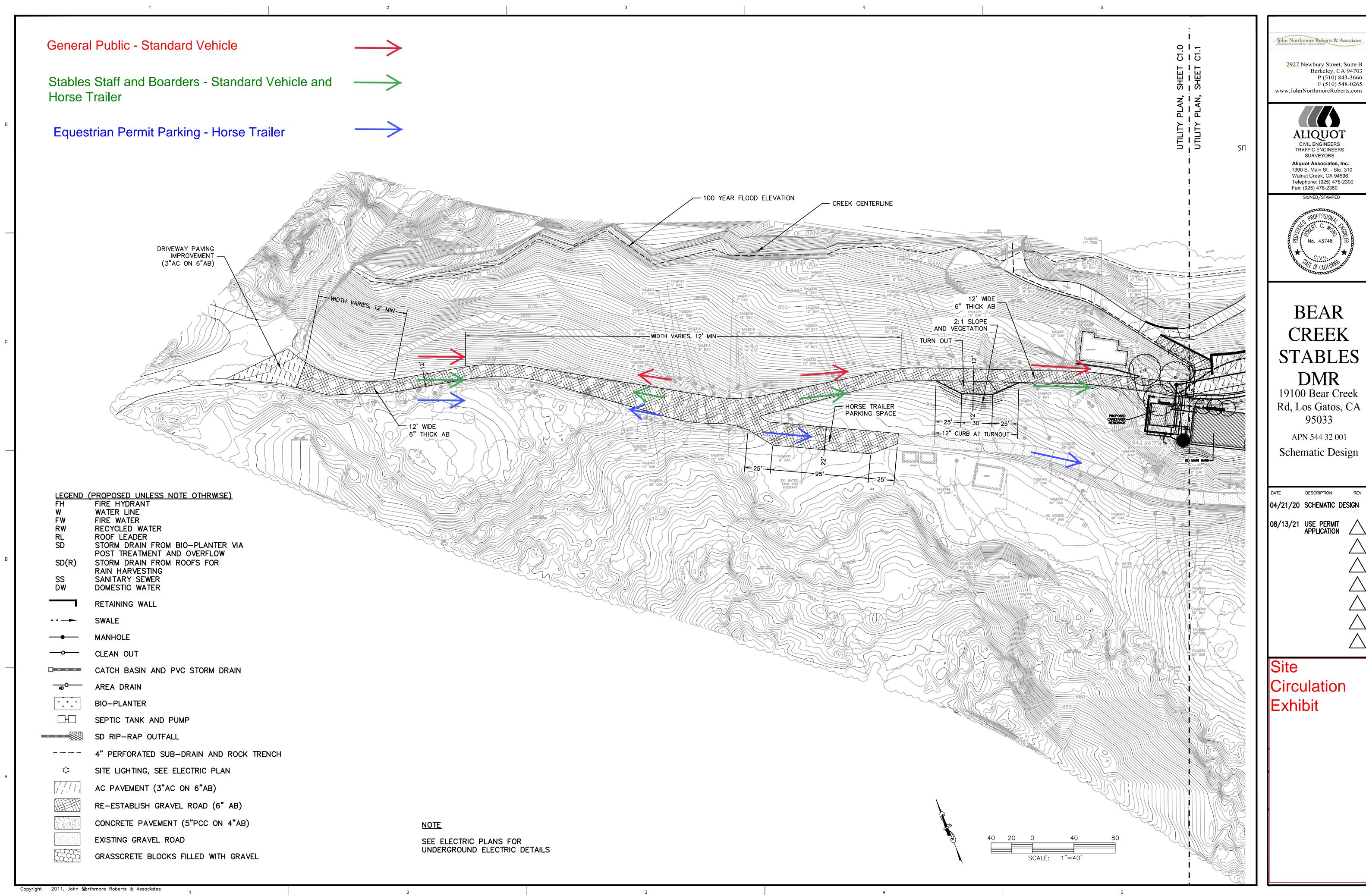
# MODEL: F661

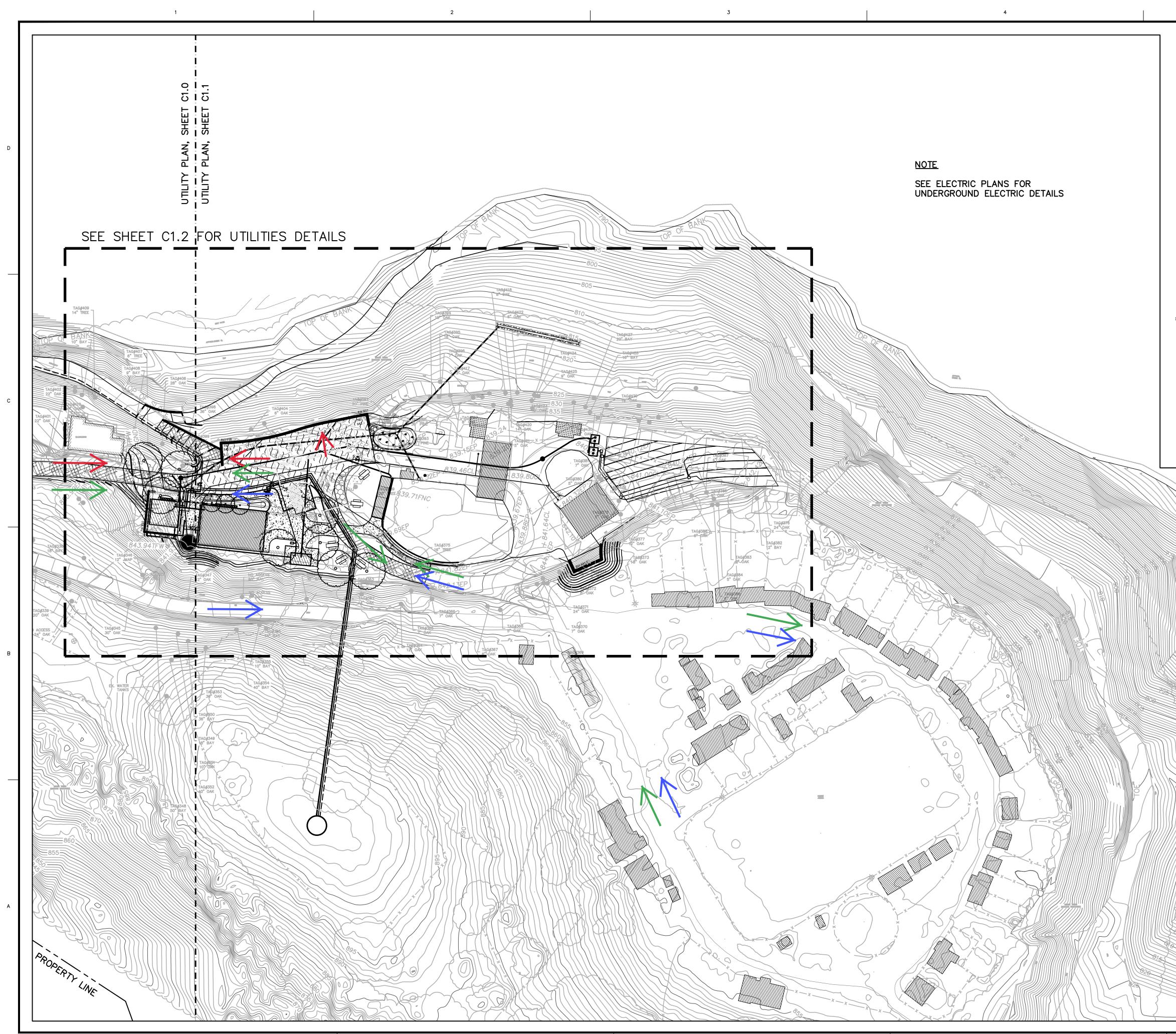
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ALIQUOT CIVIL ENGINEERS TRAFFIC ENGINEERS SURVEYORS Aliquot Associates, Inc. 1390 S. Main St Ste. 310 Walnut Creek, CA 94596 Telephone: (925) 476-2300 Fax: (925) 476-2350 SIGNED/STAMPED
SIGNED/SIAMPED
BEAR
CREEK
STABLES
19100 Bear Creek Rd, Los Gatos, CA
95033 APN 544 32 001
Schematic Design
DATE DESCRIPTION REV 04/21/20 SCHEMATIC DESIGN
08/13/21 USE PERMIT
08/04/22 USE PERMIT RESPONSE
$\overline{\bigtriangleup}$
SHEET TITLE
SANITARY
SYSTEM MAP
scale NTS
DRAWN PROJECT NUMBER
KC 217017
SHEET NUMBER
<b> SS-7</b>
7 OF 7

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D		
	DRIVEWAY PAVING	
	IMPROVEMENT	TOP OF BANK
		IOP OF BAN
	WOTH VAC	
	WIDTH VARIES, 12	
С		
		13
	PRESERVE	12' WIDE SPEED LIMIT
	ENTRANCE SIGN	12' WIDE SPEED LIMIT 6" THICK SIGN
	SIGN	
	LEGEND (PROPOSED UNLESS NOTE OT ADA TOW- FH FIRE HYDRANT AWAY SIGN	
	W WATER LINE FW FIRE WATER	
	RW RECYCLED WATER RL ROOF LEADER	
6	SD STORM DRAIN FROM BIO-PLANTER VIA POST TREATMENT AND OVERFLOW	
В	SD(R) STORM DRAIN FROM ROOFS FOR RAIN HARVESTING	
	SS SANITARY SEWER DW DOMESTIC WATER	
	RETAINING WALL	
	·· SWALE	
	MANHOLE	
	CLEAN OUT	
	CATCH BASIN AND PVC STORM DRAIN	
	AREA DRAIN	
	BIOTEANTER BIOTEANTER BEPTIC TANK AND PUMP	
	BAR SD RIP-RAP OUTFALL	
	4" PERFORATED SUB-DRAIN AND ROCK TRENCH	
	SITE LIGHTING, SEE ELECTRIC PLAN	
A	AC PAVEMENT (3"AC ON 6"AB)	
	RE-ESTABLISH GRAVEL ROAD (6" AB)	
	CONCRETE PAVEMENT (5"PCC ON 4"AB)	NOTE
	EXISTING GRAVEL ROAD	SEE ELECTRIC PLAN
	GRASSCRETE BLOCKS FILLED WITH GRAVEL	UNDERGROUND ELEC





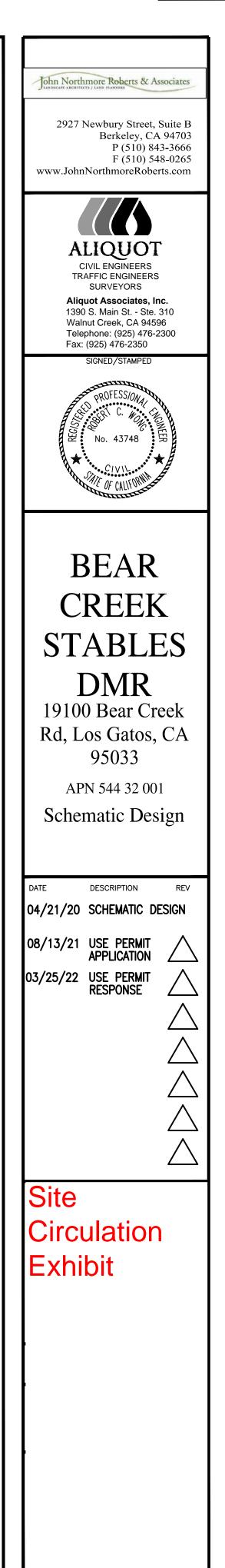




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	5
LEGEND FH W FW RU SD SD(R) SS DW	FIRE HYDRANT WATER LINE FIRE WATER RECYCLED WATER ROOF LEADER STORM DRAIN FROM BIO-PLANTER VIA POST TREATMENT AND OVERFLOW STORM DRAIN FROM ROOFS FOR RAIN HARVESTING SANITARY SEWER DOMESTIC WATER
	RETAINING WALL
••	SWALE
	MANHOLE CLEAN OUT
	CATCH BASIN AND PVC STORM DRAIN
	AREA DRAIN
	BIO-PLANTER
	SEPTIC TANK AND PUMP
	SD RIP-RAP OUTFALL
	4" PERFORATED SUB-DRAIN AND ROCK TRENCH
<b>¢</b>	SITE LIGHTING, SEE ELECTRIC PLAN
$i_{111111111111111111111111111111111111$	AC PAVEMENT (3"AC ON 6"AB)
	GRAVEL ROAD (6" AB)
	CONCRETE PAVEMENT (5"PCC ON 4"AB)
	EXISTING GRAVEL ROAD
	GRASSCRETE BLOCKS FILLED WITH GRAVEL
795	



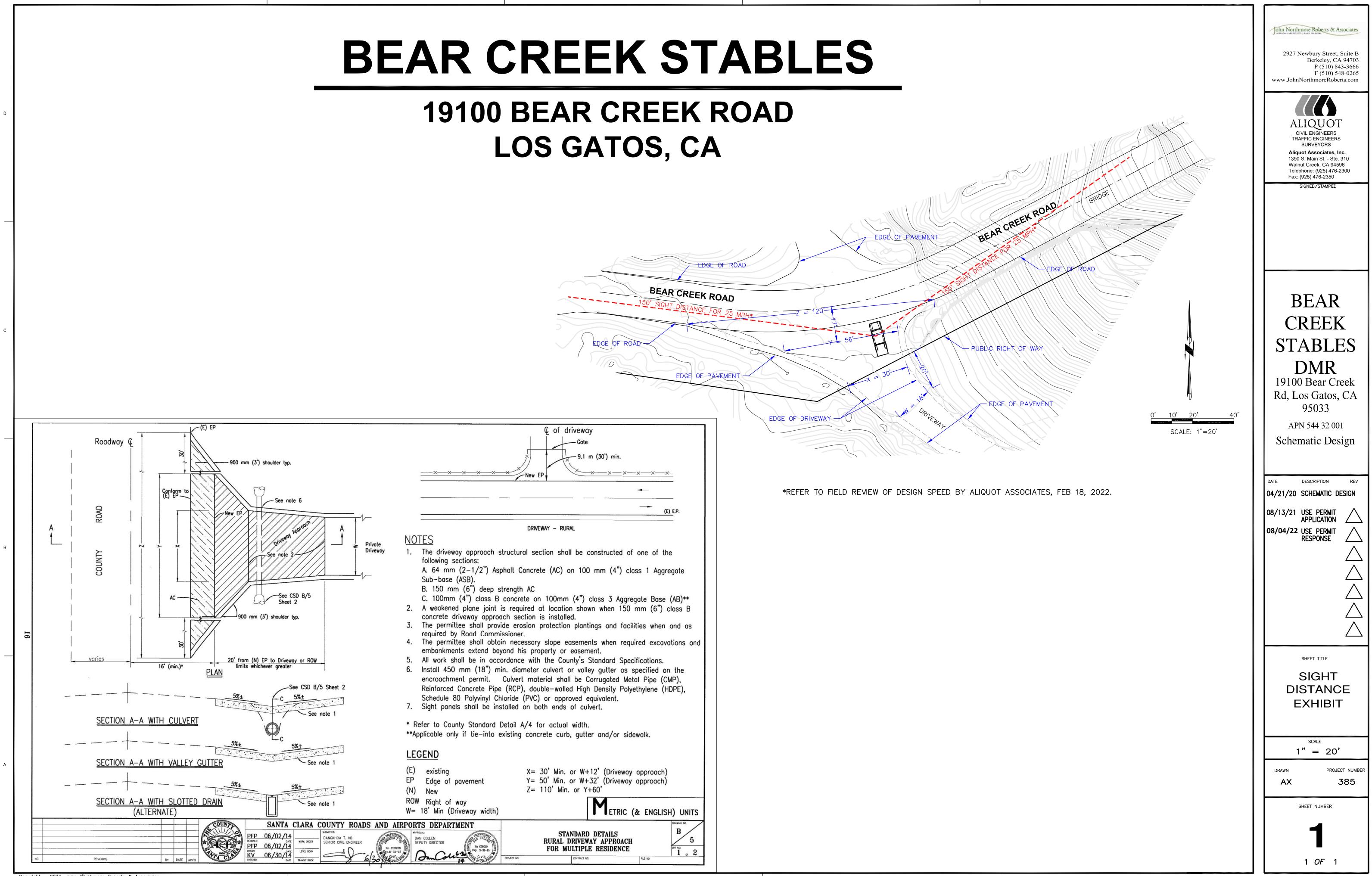
4

40 20 0

SCALE:

\1″⊭40′

# **BEAR CREEK STABLES 19100 BEAR CREEK ROAD** LOS GATOS, CA



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