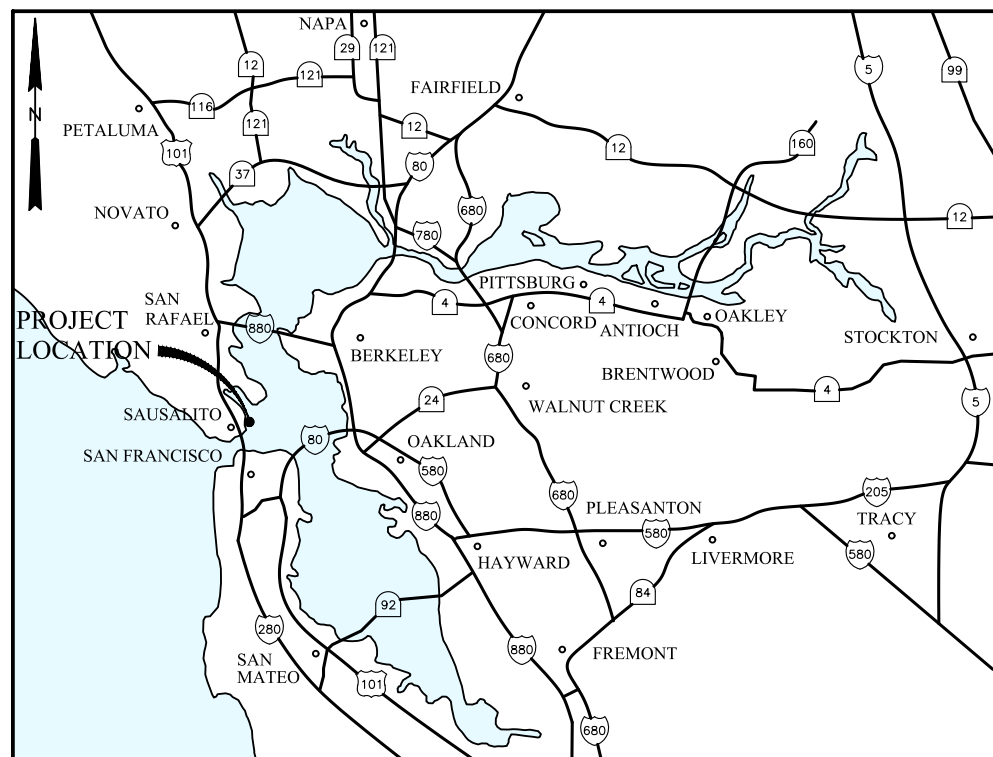




SAUSALITO - MARIN CITY SANITARY DISTRICT

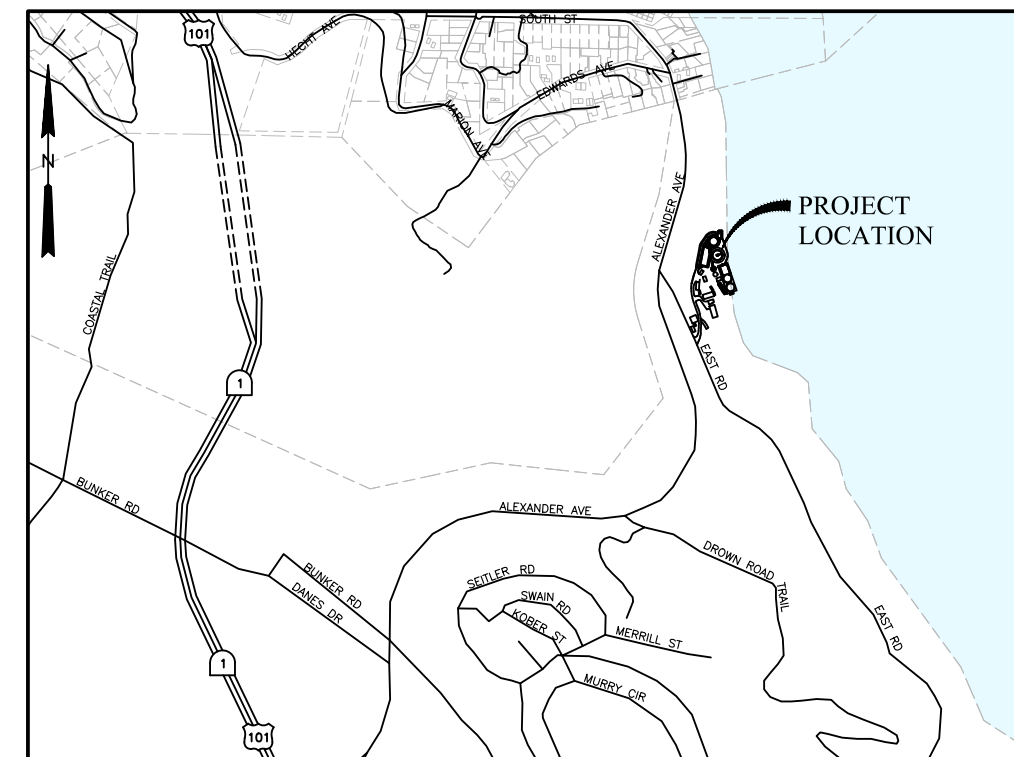
TREATMENT AND WET WEATHER FLOW UPGRADE

PROJECT NO. 0055-006



VICINITY MAP
NTS

CONTRACT
DRAWINGS
VOLUME 3 (1 of 2)
MARCH 2017



LOCATION MAP
SCALE: 1"=2000'

CONFORMED
DRAWINGS

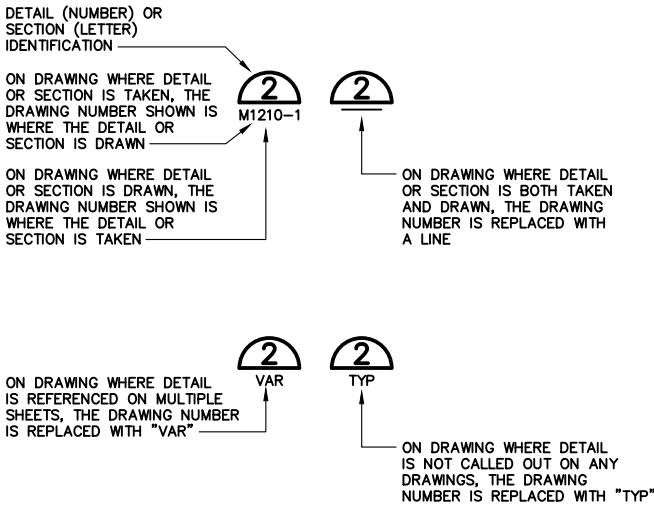


ENGINEERS, INC.

ABBREVIATIONS

●	AT	E	EAST	JT	JOINT
AB	ANCHOR BOLT, AGGREGATE BASE	EA	EACH		
ABC	AGGREGATE BASE COURSE	EC	END CURVE		
	(CALTRANS CLASS 2 AGGREGATE BASE)	ECB	EROSION CONTROL BLANKET	KIP	THOUSAND POUNDS
ABS	ACRYLONITRILE-BUTADIENE- STYRENE	ECC	ECCENTRIC	KW	KILOWATT
AC	ASBESTOS CEMENT, ASPHALTIC CONCRETE	EF	EACH FACE, EXHAUST FAN		
AC/HR	AIR CHANGES PER HOUR	EL, ELEV	ELEVATION		
ACI	AMERICAN CONCRETE INSTITUTE	ELEC	ELECTRIC, ELECTRICAL	L	ANGLE, LENGTH
ADH	ADHESIVE, ANCHOR BOLT	ELL	ELBOW	LAB	LABORATORY
ADJ	ADJACENT, ADJUSTABLE	ENGR	ENGINEER	LAV	LAVATORY
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	EO	EMERGENCY OVERFLOW	LB	POUNDS
AL	ALUMINUM	EP	EDGE OF PAVEMENT	LB/CU FT	POUNDS PER CUBIC FOOT
ALT	ALTERNATE	EQ	EQUAL	LF	LINEAR FEET
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	EQPT	EQUIPMENT	LONG.	LONGITUDINAL
APPROX	APPROXIMATE	EQ SP	EQUALLY SPACED, EQUAL SPACES	LP	LOW PRESSURE
ARCH.	ARCHITECTURAL	ESMT	EASEMENT	LR	LONG RADIUS
ARV	AIR RELEASE VALVE	EVC	END OF VERTICAL CURVE	LT	LEFT
AUX	AUXILIARY	EW	EACH WAY		
AWG	AMERICAN WIRE GAGE	EWEF	EACH WAY, EACH FACE		
AWT	ADVANCED WASTE TREATMENT	EXC	EXCAVATE		
		EXH	EXHAUST	MAG	MAGNETIC
BC	BOLT CIRCLE, BEGIN CURVE	EXP	EXPOSED	MATL	MATERIAL
BD	BOARD	EXP JT	EXPANSION JOINT	MAX	MAXIMUM
BF	BLIND FLANGE, BOTTOM FLAT	EXST	EXISTING	MCC	MOTOR CONTROL CENTER
BFV	BUTTERFLY VALVE			MECH	MECHANICAL
BGS	BELOW GROUND SURFACE	FA	FOUL AIR	MFR	MANUFACTURER
BLDG	BUILDING	FAB	FABRICATION	MGD	MILLION GALLONS PER DAY
BM	BENCH MARK, BEAM	FC	FLEXIBLE COUPLING	MH	MANHOLE
BO	BLOWOFF	FCA	FLANGED COUPLING ADAPTER	MIN	MINIMUM
BOT	BOTTOM	FCO	FLOOR CLEAN OUT	MISC	MISCELLANEOUS
BRG	BEARING	FD	FLOOR DRAIN	MJ	MECHANICAL JOINT
BS	BUTT STRAP	FDS	FINAL DIGESTED SLUDGE	ML	MIXED LIQUOR
BV	BALL VALVE	FDN	FOUNDATION	MLCSP	MORTAR LINED AND COATED STEEL PIPE
BVC	BEGINNING OF VERTICAL CURVE	FE	FLANGED END, FINAL EFFLUENT	MSNRY	MASONRY
		FEXT	FIRE EXTINGUISHER	MO	MASONRY OPENING
C	CHANNEL (BEAM)	FF	FINISH FLOOR	MT	MITER
CAV	COMBINATION AIR AND VACUUM VALVE	FG	FINISH GRADE	MTR	METER
CB	CATCH BASIN	FHY	FIRE HYDRANT	MTS	MILL TYPE STEEL PIPE
CDF	CONTROLLED DENSITY FILL	FI	FILTER INFLUENT	MWS	MAXIMUM WATER SURFACE
CFM	CUBIC FEET PER MINUTE	FIG.	FIGURE		
CFS	CUBIC FEET PER SECOND	FL	FLOOR	N	NORTH
CHEM	CHEMICAL	FLG	FLOW LINE	NIC	NOT IN CONTRACT
CIP	CAST IRON PIPE	FLH	FLANGE	NO.	NUMBER
CIRC	CIRCUMFERENTIAL	FLTR	FLAT HEAD	NPT	NATIONAL PIPE THREAD
CJ	CONSTRUCTION JOINT	FM	FILTER	NTS	NOT TO SCALE
CLR	CLEAR	FO	FORCE MAIN		
CLS	CHLORINE SOLUTION HYPOCHLORITE	FOD	FIBER OPTIC	OC	ON CENTER
CLSM	CONTROLLED LOW STRENGTH MATERIAL	FOC	FACE OF CONCRETE, FIBER OPTIC CABLE	OD	OUTSIDE DIAMETER
C	CENTERLINE	FOCC	FIBER OPTIC CABLE CONDUIT	OF.	OUTSIDE FACE, OVERFLOW
CMP	CORRUGATED METAL PIPE	FORN	FUEL OIL RETURN	OSD	OPEN SITE DRAIN
CMU	CONCRETE MASONRY UNIT	FOS	FUEL OIL SUPPLY	OPNG	OPENING
CO	CLEANOUT	FRP	FIBERGLASS REINFORCED PLASTIC	OZ	OUNCE
COL	COLUMN	FT	FOOT OR FEET		
COMP	COMPRESSOR(S)	FTG	FOOTING	PC	POINT OF CURVE
CONC	CONCRETE, CONCENTRIC	FUT	FUTURE	PCC	PORTLAND CEMENT CONCRETE, POINT OF COMPOUND CURVATURE
COND	CONDUIT	FWD	FORWARD	PCO	PRESSURE CLEANOUT
CONN	CONNECTION	F	DEGREE FAHRENHEIT	PD	PUMPED DRAIN
CONT	CONTINUOUS			PE	PLAIN END
COORD	COORDINATE	GA	GAGE	PH	POTHOLE
CPLG	COUPLING	GAL	GALLON	PI	POINT OF INTERSECTION
CPVC	CHLORINATED POLYVINYL CHLORIDE	GALV	GALVANIZED	PL	PLASTIC, PROPERTY LINE, PLATE
CT	CERAMIC TILE	GC	GROOVED COUPLING	PL	PLATE (STEEL)
CTD	CENTERED	GCO	GRADE CLEAN OUT	PLYWD	PLYWOOD
CTJ	CONTROL JOINT	GL	GROOVED END	PRC	POINT OF REVERSE CURVE
CTR	CENTER	GL	GLASS	PREFAB	PREFABRICATED
CTS	CORROSION TEST STATION	GPD	GALLONS PER DAY	PRESS.	PRESSURE
C TO C	CENTER TO CENTER	GPH	GALLONS PER HOUR	PRI	PRIMARY
CU	CUBIC	GPM	GALLONS PER MINUTE	PROP	PROPERTY
CU FT	CUBIC FOOT	CSP	GALVANIZED STEEL PIPE	PSF	POUNDS PER SQUARE FOOT
CU IN.	CUBIC INCH	GV	GATE VALVE	PS	PUMP STATION
CU YD	CUBIC YARD	GVL	GRAVEL	PSI	POUNDS PER SQUARE INCH
CV	CHECK VALVE			PSIG	POUNDS PER SQUARE INCH, GAUGE
°C	DEGREE CELSIUS	HD	HUB DRAIN	PT	POINT, POINT OF TANGENCY
		HDG	HOT DIP GALVANIZED	PV	PLUG VALVE
		HDPE	HIGH DENSITY POLYETHYLENE, HDPE PIPE	PVC	POLYVINYL CHLORIDE PLASTIC, PVC PIPE
		HDR	HEADER	PVMT	PAVEMENT
		HDW	HARDWARE		
d	PENNY (NAIL SIZE)	HGT	HEIGHT	R	RADIUS
D	DRAIN	HM	HOLLOW METAL	RAS	RETURN ACTIVATED SLUDGE
DBL	DOUBLE	HORIZ	HORIZONTAL	RCP	REINFORCED CONCRETE PIPE
DET	DETAIL	HP	HORSEPOWER	RD	ROOF DRAIN, ROAD
DFT	DRY FILM THICKNESS	HR	HOSE RACK, HANDRAIL, HOUR	RDCR	REDUCER
DI	DROP INLET, DUCTILE IRON	HV	HOSE VALVE	RDW	REDWOOD
DIA	DIAMETER	HWR	HOT WATER RETURN	RECIRC	RECIRCULATION
DIAG	DIAGONAL	HWS	HOT WATER SUPPLY	REF	REFER OR REFERENCE
DIP	DUCTILE IRON PIPE	H2E	HOOK TWO ENDS	REINF	REINFORCED, REINFORCING, REINFORCE
DIR	DIRECTION			REQD	REQUIRED
DN	DOWN	ID	INSIDE DIAMETER	RM	ROOM
DWG	DRAWING	IF.	INSIDE FACE	RO	ROUGH OPENING
		IJTS	INSULATING JOINT TEST STATION	RPVC	REINFORCED POLYVINYL CHLORIDE
		IN.	INCH	RSFM	RAW SEWAGE FORCE MAIN
		INFL	INFLUENT	RSU	RETURN SUPERNATANT
		INSTM	INSTRUMENTATION	RT	RIGHT
		INSUL	INSULATE	RTN	RETURN
		INVT	INVERT	RV	ROOF VENT
		IRR, IRRIG	IRRIGATION	RW	RECYCLED WATER
		IE	INVERT ELEVATION	R/W	RIGHT-OF-WAY

SECTION AND DETAIL IDENTIFICATION



STANDARD DETAIL IDENTIFICATION

DISCIPLINES:

- C CIVIL
- CP CATHODIC PROTECTION
- L LANDSCAPING AND IRRIGATION
- M MECHANICAL
- A ARCHITECTURAL
- E ELECTRICAL
- P INSTRUMENTATION AND CONTROL
- S STRUCTURAL

NOTE:

STANDARD DETAIL IDENTIFICATIONS ARE SHOWN ON THE PLANS AND ON THE STANDARD DETAIL DRAWINGS. THERE IS NO SPECIFIC CROSS REFERENCING OF DRAWINGS. STANDARD DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO ALL SIMILAR SITUATIONS OCCURRING ON THIS PROJECT, WHETHER OR NOT THEY ARE REFERENCED TO IN EACH APPLICABLE LOCATION. CONSULT THE ENGINEER FOR REVIEW OF THE USE OF STANDARD DETAILS PRIOR TO BIDDING.

NOTES:

- THIS IS A STANDARD ABBREVIATION SHEET. SOME ABBREVIATIONS THAT APPEAR ON THIS SHEET ARE NOT USED ON THIS PROJECT.
- FOR PROCESS FLUID ABBREVIATIONS SEE SHEET G-6.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



△			
△			
△			
△			
△			
REV	DATE	BY	APVD

CONFORMED DRAWING

NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED **NOVEMBER 2016** AND
SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO

DRAWN S. JUNG

CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

ABBREVIATIONS AND SYMBOLS

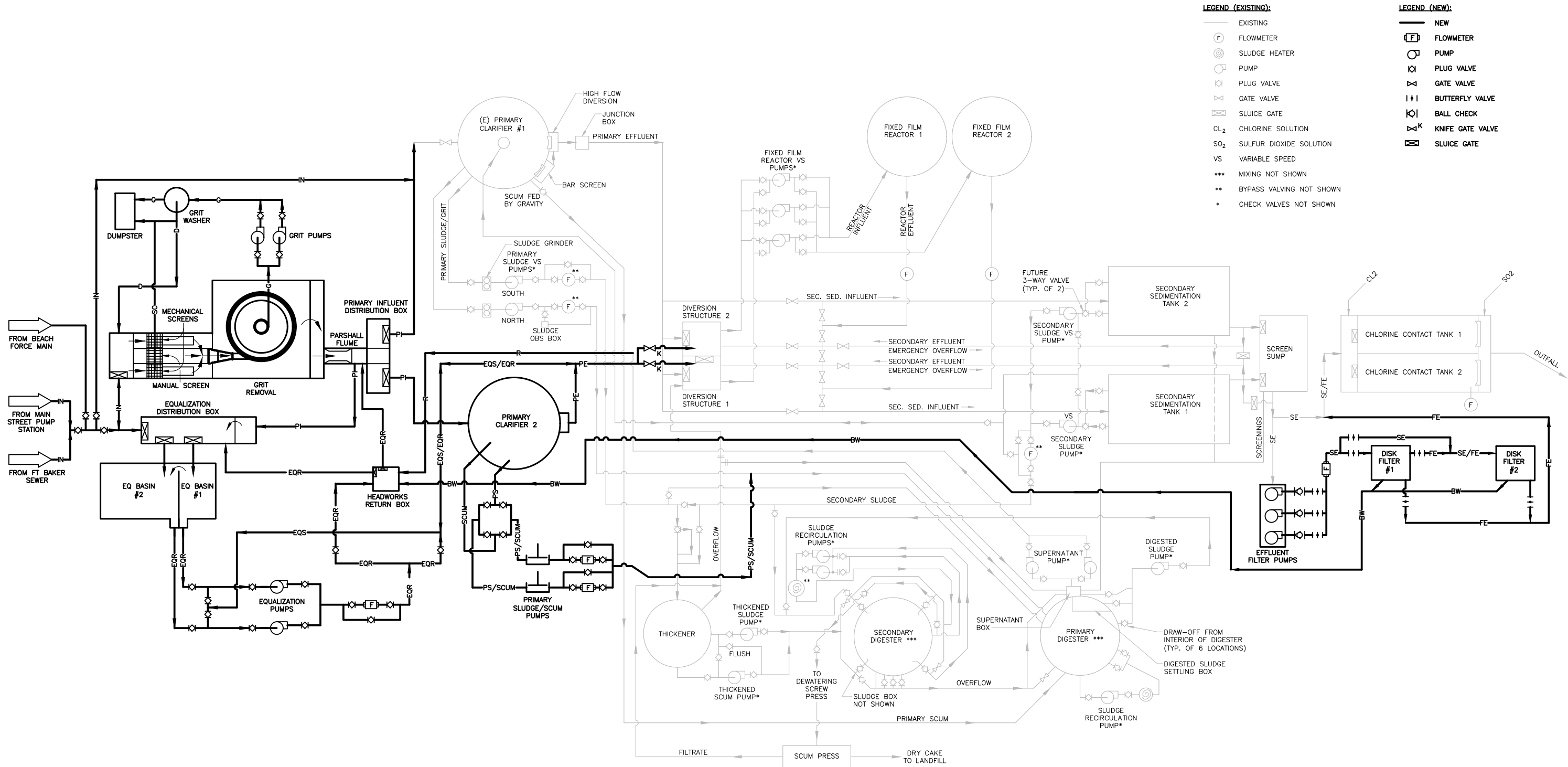
DWG NO G-2

SHEET NO 3 OF 226

PROJ NO 055-006

DATE MARCH 2017

FILENAME: 0055-006-G-3 3-13-17 12:44pm s:jung XREFS: X-SMCSB-TBLK M Takemoto-PE-stamp kcc--



- LEGEND (EXISTING):**

 - EXISTING
 - FLOWMETER
 - SLUDGE HEATER
 - PUMP
 - PLUG VALVE
 - GATE VALVE
 - SLUICE GATE
 - CHLORINE SOLUTION
 - SULFUR DIOXIDE SOLUTION
 - VARIABLE SPEED
 - MIXING NOT SHOWN
 - BYPASS VALVING NOT SHOWN
 - CHECK VALVES NOT SHOWN
- LEGEND (NEW):**

 - NEW
 - FLOWMETER
 - PUMP
 - PLUG VALVE
 - GATE VALVE
 - BUTTERFLY VALVE
 - BALL CHECK
 - KNIFE GATE VALVE
 - SLUICE GATE



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SIZE DRAWING.
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LONG ON THIS
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SCALES ACCORDINGLY



REV	DATE	BY	APVD

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DOCUMENTS DATED **NOVEMBER 2016** AND
SUBSEQUENT ADDENDA

DESIGNED	M. TAKEMOTO	SUBMITTED: <u>MARK TAKEMOTO</u> RMC PROJECT ENGINEER CE-64369
DRAWN	C. TO	
CHECKED	M. NAKAMOTO	
		APPROVED: <u>STEVE CLARY</u> RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
OVERALL PROCESS FLOW SCHEMATIC

DWG NO	G-3
SHEET NO	4 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-G-4_3-29-17_08:19am_sjung || XREFS: X-SMCSB-TBLK | M-Takemoto-PE-stamp | <<--

Criteria	Value	Units	Criteria	Value	Units	Criteria	Value	Units	Criteria	Value	Units	Criteria	Value	Units
Design Flow			Grit Pumps			EQ Return Pumps			Secondary Treatment			Tertiary Filtration		
Average Dry Weather Flow	1.3	MGD	Type	Recessed Impeller	-	Type	Self Priming	-	FFR Feed Pumps			Type	Rotating Disk	-
Peak Day Wet Weather Flow	6	MGD	Number	2	-	Number	2	-	Type	Centrifugal	-	Units	2	-
5-Year Peak Wet Weather Flow (Instantaneous)	12.3	MGD	Capacity (Each Pump)	250	gpm	Capacity (Each)	1390	gpm	Number	3	-	Disks Per Unit	8	-
10-Year Peak Wet Weather Flow (Instantaneous)	13	MGD	TDH	24	ft	TDH	61	feet	Capacity (Each Pump)	3,125	gpm	Filter Area Per Disk	54	ft ²
Headworks			Motor Size	10	HP	Motor Size	40	HP	TDH	62	feet	Nominal Pore Size	10 (Disk Filter No. 1) 5 (Disk Filter No. 2)	micron
Mechanical Screens			Grit Handling			Primary Treatment			Motor Size	75	HP	Total Submerged Filter Area	861	ft ²
Type	Sieve auger screen	-	Type	Fuidized Bed	-	Primary Clarifier			Fixed Film Reactor			Design Loading Rate	2.42	gpm/ft ²
Number	2	-	Number	1	-	Number	2 (1 new/1 existing)	-	Media Type	Cross Flow	-	Maximum Loading Rate	4.84	gpm/ft ²
Openings	0.25	inch	Capacity (1 Unit)	250	gpm	Type	Circular	-	Media Surface Area/Volume	32	ft ² /ft ³	Maximum Backwash (% of average flow)	5	%
Capacity (Each Screen)	3	MGD	Influent Metering			Maximum Design Flow (each)	6 to 7	MGD	Reactor Surface Area (Total, 2 FFRs)	2,514	ft ²	Filter Backwash Pumps		
Manual Screen			Type	Parshall Flume	-	Diameter	55	feet	Media Depth	32	ft	Type	Centrifugal	-
Type	Bar	-	Number	1	-	Side Water Depth	9.5	feet	Volume (Total, 2 FFRs)	81,060	ft ³	Number	4	-
Number	1	-	Throat Width	18	inch	Surface Area (Each Tank)	2,376	ft ²	Tertiary Treatment			Capacity (Each Pump)	130	gpm
Screen Opening Width	0.75	inch	Equalization			Overflow Rate at Average Dry Weather Flow (1.3 MGD)	631	gpd/ft ²	Filter Feed Pumps			TDH	45	feet
Capacity	10	MGD	EQ Storage Tank			Overflow Rate at 10-Year Peak Wet Weather Flow (13.0 MGD with 2 Units in Service)	2,736	gpd/ft ²	Type	Submersible	-	Motor Size	3	HP
Grit Chamber			Compartments	2	-	Primary Sludge/Scum Pumps			Number	3	-	Turn Table		
Type	Hydraulic Vortex	-	Volume (Total)	0.6	MG	Type	Double Disc	-	Capacity (Each Pump)	2,085	gpm	Diameter	25	feet
Number	1	-	EQ Activated @ Influent Flow of	9	MGD	Number	2	-	TDH	31	feet	Motor Size	2	HP
Diameter	9	ft				Capacity (Each Pump)	100	gpm	Motor Size	20	HP			
Capacity	13	MGD				TDH	20	feet						
						Motor Size	5	HP						



0"=1" VERIFY SCALES
BAR IS ONE INCH LONG ON FULL SIZE DRAWING.
IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



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△			
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△	3/17	SM	SC
REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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DESIGNED M. TAKEMOTO
DRAWN S. JUNG
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

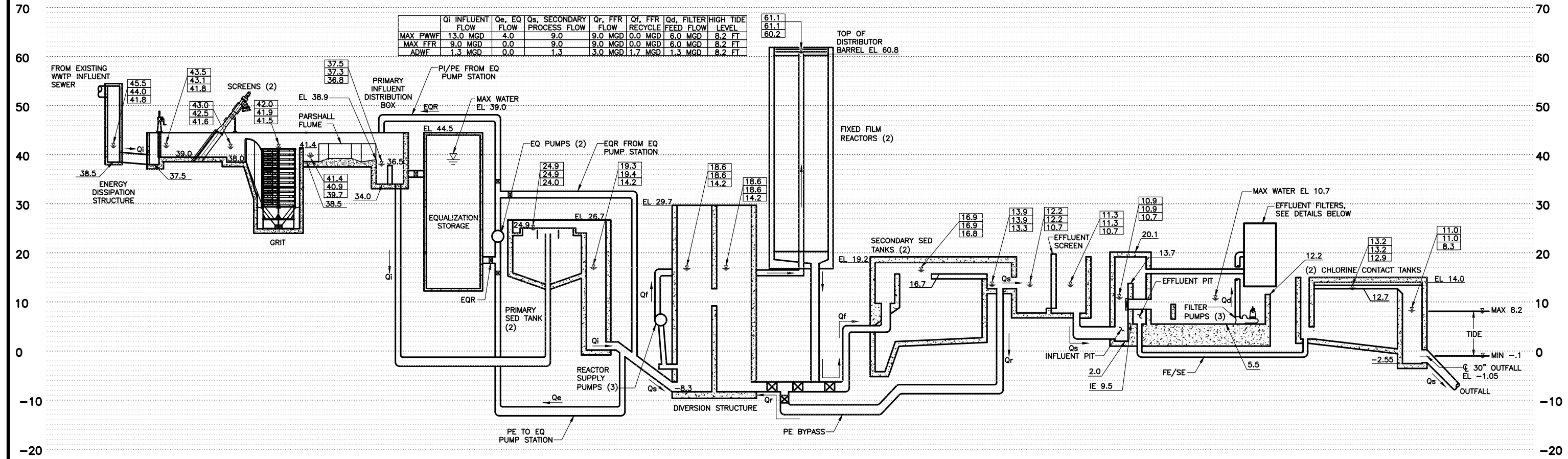


TREATMENT AND WET WEATHER FLOW UPGRADE

DESIGN CRITERIA

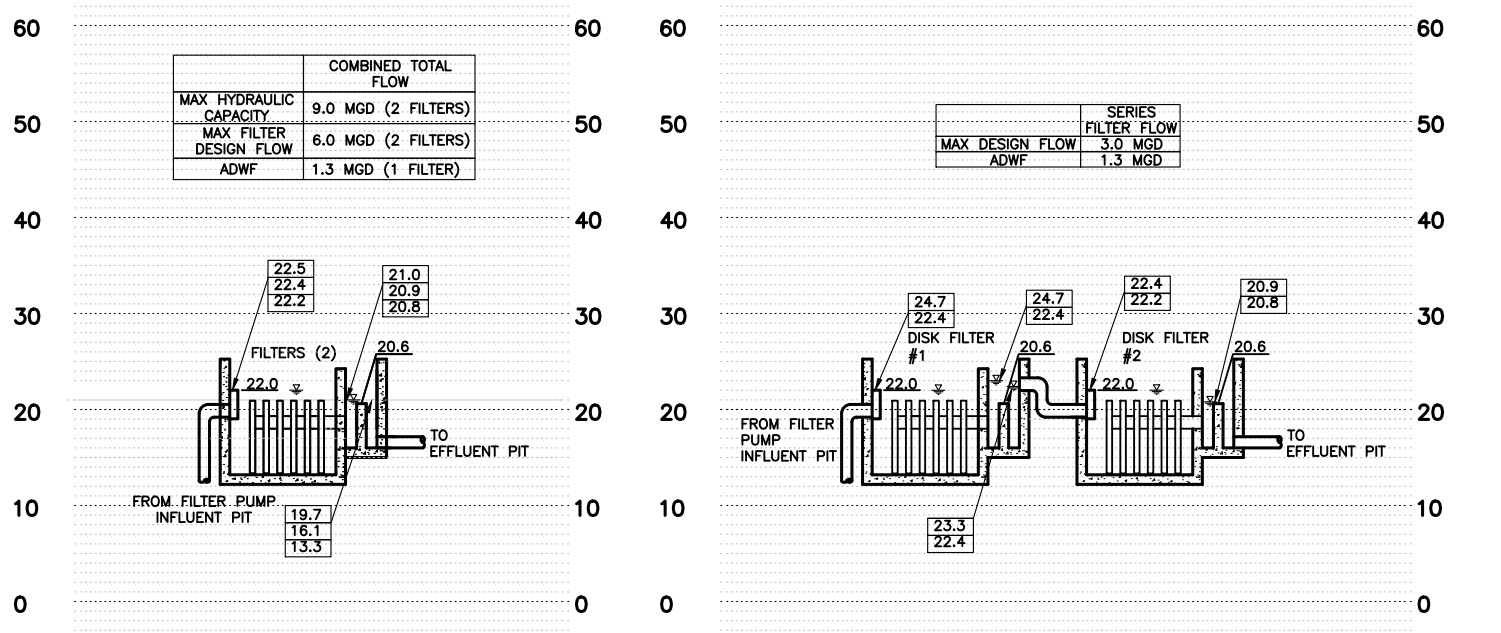
DWG NO G-4
SHEET NO 5 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-G-5 3-13-17 12:48pm sJung XREFS: X-SACS0-TBLK M Takemoto-PE-stamp <-->



TREATMENT PLANT
HORIZONTAL NTS, VERTICAL 1"=10'

NOTES:
1. HYDRAULIC PROFILE BASED ON EQUALIZATION OF PRIMARY EFFLUENT AT MAX PWWF CONDITION.



FILTERS IN PARALLEL OPERATION
HORIZONTAL NTS, VERTICAL 1"=10'

FILTERS IN SERIES OPERATION
HORIZONTAL NTS, VERTICAL 1"=10'



0" = 1" VERIFY SCALES — BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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DESIGNED	S. MASUDA	SUBMITTED: <u>MARK TAKEMOTO</u> RMC PROJECT ENGINEER CE-64369
DRAWN	J. MAY	
CHECKED	M. NAKAMOTO	
		APPROVED: <u>STEVE CLARY</u> RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
HYDRAULIC PROFILE

DWG NO	G-5
SHEET NO	6 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-G-6_3-13-17_12:12pm_sjung || XREFS || X-SACS-D-TBLK || Makenato-BE-atomp Kcc--

PROCESS FLUID PIPE SCHEDULE

FLUID ABBREV	PROCESS FLUID	Pipe Type (1)		Pipe Testing (2)		Special Requirements
		Buried	Exposed	Pressure (PSI)	Fluid	
1W	POTABLE WATER	41.91	41.91	125	WATER	
2W	NON-POTABLE WATER	NA	NA	NA	NA	
3W	TREATED PLANT EFFLUENT	91,92,96	22,41,91	150	WATER	
AL	ALUM	NA	NA	NA	NA	
BW	EFFLUENT FILTER BACKWASH	91,96	25,27,91,96	50	WATER	
CA	COMPRESSED AIR	NA	NA	NA	NA	
CHA	CHANNEL AIR	NA	45	25	AIR	
CLS	CHLORINE SOLUTION, HYPOCHLORITE	NA	NA	NA	NA	
D	DRAIN	91,93	91	PER SPEC 02640	WATER	
DG	DIGESTER GAS	91	91	25	AIR	
DG	DIGESTER OVERFLOW	NA	NA	NA	NA	
FOR	DIESEL FUEL RETURN	21	21	50	WATER	
FOS	DIESEL FUEL SUPPLY	21	21	50	WATER	
DS	DIGESTED SLUDGE	NA	NA	NA	NA	
DSM	DIGESTED SLUDGE MIXING	NA	NA	NA	NA	
DSR	DIGESTED SLUDGE RETURN	NA	NA	NA	NA	
DSU	DIGESTED SUPERNATANT	NA	NA	NA	NA	
EA	EXHAUST AIR	NA	NA	NA	NA	
EGR	EQUALIZATION BASIN RETURN	91,96	11,27,91,96	50	WATER	
EQS	EQUALIZATION BASIN SUPPLY	91,96	11,27,91,96	50	WATER	
FC	FERRIC CHLORIDE	96	91,98	30	WATER	
FDS	FINAL DIGESTED SLUDGE	NA	NA	NA	NA	
FE	FINAL EFFLUENT	91,92,96	25,27,91,96	60	WATER	
FS	FIRE SPRINKLER	NA	NA	NA	NA	
FLE	FILTER EFFLUENT	91,92	25,27,91	25	WATER	
FT	FILTRATE	NA	NA	NA	NA	
G	GRIT	11,25,91	11,25,91	50	WATER	
HRSD	HEATED RECIRCULATED SLUDGE	NA	NA	NA	NA	
HWR	HOT WATER RETURN	NA	NA	NA	NA	
HWS	HOT WATER SUPPLY	NA	NA	NA	NA	
IA	INSTRUMENT AIR	NA	NA	NA	NA	
INF	INFLUENT SEWER	96	96	PER SPEC 02640	WATER	
NG	NATURAL GAS	NA	NA	NA	NA	
OA	OUTSIDE AIR	NA	NA	NA	NA	
OF	OVERFLOW	91,96	91,95	25	WATER	
P	POLYMER	NA	NA	NA	NA	
PD	PUMPED DRAIN	91,96	25,27,91,96	50	WATER	
PDS	PRIMARY DIGESTED SLUDGE	NA	NA	NA	NA	
PE	PRIMARY EFFLUENT	91,92,95	25,27,91,95	60	WATER	
PI	PRIMARY INFLUENT	91,92,95	25,27,91,96	90	WATER	
PS	PRIMARY SLUDGE	91,96	25,27,91,96	60	WATER	
R	PLANT DRAINAGE RETURN	91,96	25,27,91,96	50	WATER	
SB	SODIUM BISULFITE	NA	NA	NA	NA	
SBR	SPENT BACKWASH RETURN	25	91	50	WATER	
SC	SCREENINGS	91	91	25	WATER	
SCUM	SCUM	91	91	100	WATER	
SD	STORM DRAIN	93,97	NA	PER SPEC 02640	WATER	
SE	SECONDARY EFFLUENT	91,92,96	25,27,91,95	50	WATER	
SEP	SEPTAGE	NA	NA	50	WATER	
SG	SLUDGE GAS	NA	NA	NA	NA	
SLUDGE	SLUDGE	NA	NA	NA	NA	
SS	SANITARY SEWER	91,93,96	91,96	PER SPEC 02640	WATER	
SW	SEAL WATER	NA	41, 91	125	WATER	
TS	THICKENED SLUDGE	NA	NA	NA	NA	
TWAS	THICKENED WASTE SLUDGE	NA	NA	NA	NA	
V	VENT	NA	21,91	125	WATER	
WS	WASTE SLUDGE	NA	NA	NA	NA	

JOINT TYPES	
BF	BUTT FUSION
BLO	BUTT LAMINATED OVERLAY
BSG	BELL SPIGOT, GASKET
BSW	BELL SPIGOT WELD
BW	BUTT WELD
CJ	COMPRESSION JOINTS
CW	SOCKET WELDED
F	FLANGED
FJ	FLARED JOINTS
GC	GROOVED COUPLING
GTG	GROUTED TONGUE AND GROOVE
MJ	MECHANIAL JOINT
SC	SLEEVE COUPLING
SE	SCREWED ENDS
SJ	SOLDERED JOINTS
SW	SOLVENT WELDED
THD	THREADED

NOTES:
(1) A PIPE MATERIAL SPECIFICALLY DESIGNATED ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER OPTIONAL MATERIALS SHOWN IN THE TABLE. THIS SYMBOL  INDICATES A PIPE MATERIAL CHANGE.
(2) REFER TO SPECIFICATION SECTION 02640 – PIPELINE TESTING AND DISINFECTION FOR HYDRAULIC TESTING REQUIREMENTS AND LEAKAGE ALLOWANCES.
(3) INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE PLUMBING CODE.

PIPE MATERIAL SCHEDULE

Pipe Mtl	PIPE	Specification	Type/	Joint Type (a)		SPECIAL THRUST RESTRAINT REQUIREMENTS (NOTE 3)	CORROSION PROTECTION REQUIREMENTS (NOTE 4)
				Buried	Exposed		
Number	MATERIAL DUCTILE IRON	Section	Rating				
11	DIP, C-151, CML	02565	250	BSG,F	F,GC	MECH. RESTRAINTS OR ANCHOR BLOCKS AT BENDS	CATHODIC PROTECTION
	STEEL PIPE						
21	STEEL, ASTM A53 (<3 INCH)	15025	SCH 40	SC,BW,CW	SC,F,BW,CW		COATING AND CATHODIC PROTECTION
	STEEL, ASTM A53 (3 - 12 INCH)	15025	SCH 40	GC,BSW	F,GC,BW		COATING AND CATHODIC PROTECTION
	STEEL, ASTM A53 (> 12 INCH)	15025	1/4" Wall	GC,BSW	F,GC,BW		COATING AND CATHODIC PROTECTION
22	GALV STEEL, ASTM A106	15025	SCH 40	SE	GC,BW		
23	STEEL, ASTM A106	15025	SCH 80	CW	CW		COATING AND CATHODIC PROTECTION
25	STEEL, AWWA C200, CML&C	02570	1/4" Wall	BSW	F,GC,BW		CORROSION MONITORING OR CATHODIC PROTECTION
27	TEEL, AWWA C200, FUSION BONDED EPOX	02571	1/4" Wall	BSW	F,GC,BW		CORROSION MONITORING OR CATHODIC PROTECTION
	ALLOY						
41	COPPER	15036	Type K	SJ,F,J,CJ,SE	SJ,F,J,CJ,SE		
45	STAINLESS STEEL - 316		SCH 10	BW,SC,F	BW,SC,F		
46	STAINLESS STEEL - 316 (UP TO 2.5 INCH)	15030	SCH 40	SE	SE		
	STAINLESS STEEL - 316 (>3 INCH)	15030	SCH 40	BW,CW	BW,CW,F		
47	STAINLESS STEEL - 304	15030	SCH 10	BW,SC,F	BW,SC,F		
	FRP						
61	FRP DUCTING	02510		BLO	BLO		
	PLASTIC						
91	PVC (1)	15060	SCH 80	SW	SW		
92	PVC C-900,905	02597	DR-18	BSG	BSG	MECH. RESTRAINTS OR ANCHOR BLOCKS AT BENDS	CATHODIC PROTECTION ON ALL METALLIC COMPONENTS
93	PVC GRAVITY SEWER PIPE	02595	SDR-35	BSG	BSG		CATHODIC PROTECTION ON ALL METALLIC COMPONENTS
95	HDPE, SOLID WALL, C-906, DIPS (OD)	02590	DR-21	BF	BF,F		CATHODIC PROTECTION ON ALL METALLIC COMPONENTS
96	HDPE, SOLID WALL, C-906	02590	DR-9	BF	BF,F		CATHODIC PROTECTION ON ALL METALLIC COMPONENTS
98	RPVC TUBING IN PVC CONTAINMENT PIPE	15061	100	SW	SW		

NOTES:
(1) SCH 80 PVC MAY ONLY BE USED FOR PIPE DIAMETERS 10 INCHES AND SMALLER.
(2) THIS SCHEDULE IDENTIFIES CERTAIN THRUST RESTRAINT AND CORROSION PROTECTION REQUIREMENTS, FOR CLARITY. NOT ALL REQUIREMENTS ARE IDENTIFIED. CONTRACTOR SHALL FULLY COMPLY WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
(3) MECHANICAL RESTRAINTS PER PIPE SPECIFICATIONS. ANCHOR BLOCKS PER DETAIL C250, C251 AND C252.
(4) CORROSION PROTECTION REQUIREMENTS PER CP DRAWINGS AND SPECIFICATIONS.
(5) STEEL OR DUCTILE IRON PIPE SHALL BE USED AT ALL PENETRATIONS THROUGH CONCRETE STRUCTURES.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



△			
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△			
△			
△	3/17	SM	SC
REV	DATE	BY	APVD

CONFORMED DRAWING

NOTICE:
THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED **NOVEMBER 2016** AND SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO
DRAWN S. JUNG
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



YARD PIPING LEGEND

24" FM	FORCEMAIN
	BLOWOFF (PLAN)
	AIR RELEASE VALVE
12" SD	STORM DRAIN MAIN
8" SS	SANITARY SEWER MAIN
8" W	WATER MAIN
E	ELEC CONDUIT (UNDERGROUND)
E (O/H)	ELEC CABLES (OVERHEAD)
T	TELECOM (POSSIBLY FIBRE OPTIC) CONDUIT
FO	TELECOM/FIBRE OPTIC CONDUIT
8" GAS	GAS PIPELINE
18" SD??	EXISTENCE OR SIZE OF UTILITY NOT CONFIRMED (??)
	STORM DRAIN INLET
	MANHOLE
	WATER METER
	FIRE HYDRANT
	WATER VALVE

VALVES

	GATE
	KNIFE GATE
	BALL
	GLOBE
	BUTTERFLY
	VEE BALL
	ECCENTRIC PLUG
	NEEDLE
	PLUG OR COCK
	BALL CHECK
	SWING OR SILENT CHECK
	DOUBLE DOOR CHECK
	PINCH
	DIAPHRAGM
	HOSE VALVE
	PRESSURE RELIEF
	REGULATED SIDE
	PRESSURE CONTROL
	AIR RELIEF VALVE
	AIR AND VACUUM RELIEF VALVE

MISCELLANEOUS PIPING COMPONENTS

	BALANCING DAMPER
	FLEXIBLE (ELASTOMER) PIPE CONNECTION
	WYE-STRAINER
	BASKET STRAINER
	QUICK DISCONNECT COUPLING
	HOSE RACK
	SAFETY SHOWER/EYEWASH
CO 	CLEANOUT
HD 	HUB DRAIN
FD 	FLOOR DRAIN
	FLUSHING CONNECTION
	TYPICAL INSTRUMENT BUBBLE (SEE I&C LEGEND)

GENERAL PIPING NOTES

- SYMBOLS SHOWN HERE FOR SINGLE LINE FITTINGS ARE SHOWN WITH SOCKET TYPE ENDS. END CONNECTIONS SHALL BE PER SPECIFICATIONS.
- THIS IS A STANDARD LEGEND SHEET. NOT ALL ITEMS SHOWN ARE USED ON THIS PROJECT.
- SOME SYMBOLS MAY BE SHOWN DIFFERENTLY ON DRAWINGS AND LABELED ACCORDINGLY.
- NOT ALL PIPING AND VALVES ARE SHOWN ON THE MECHANICAL DRAWINGS. SEE INSTRUMENTATION AND CONTROL DRAWINGS FOR ADDITIONAL PIPING AND VALVES.

TREATMENT AND WET WEATHER FLOW UPGRADE

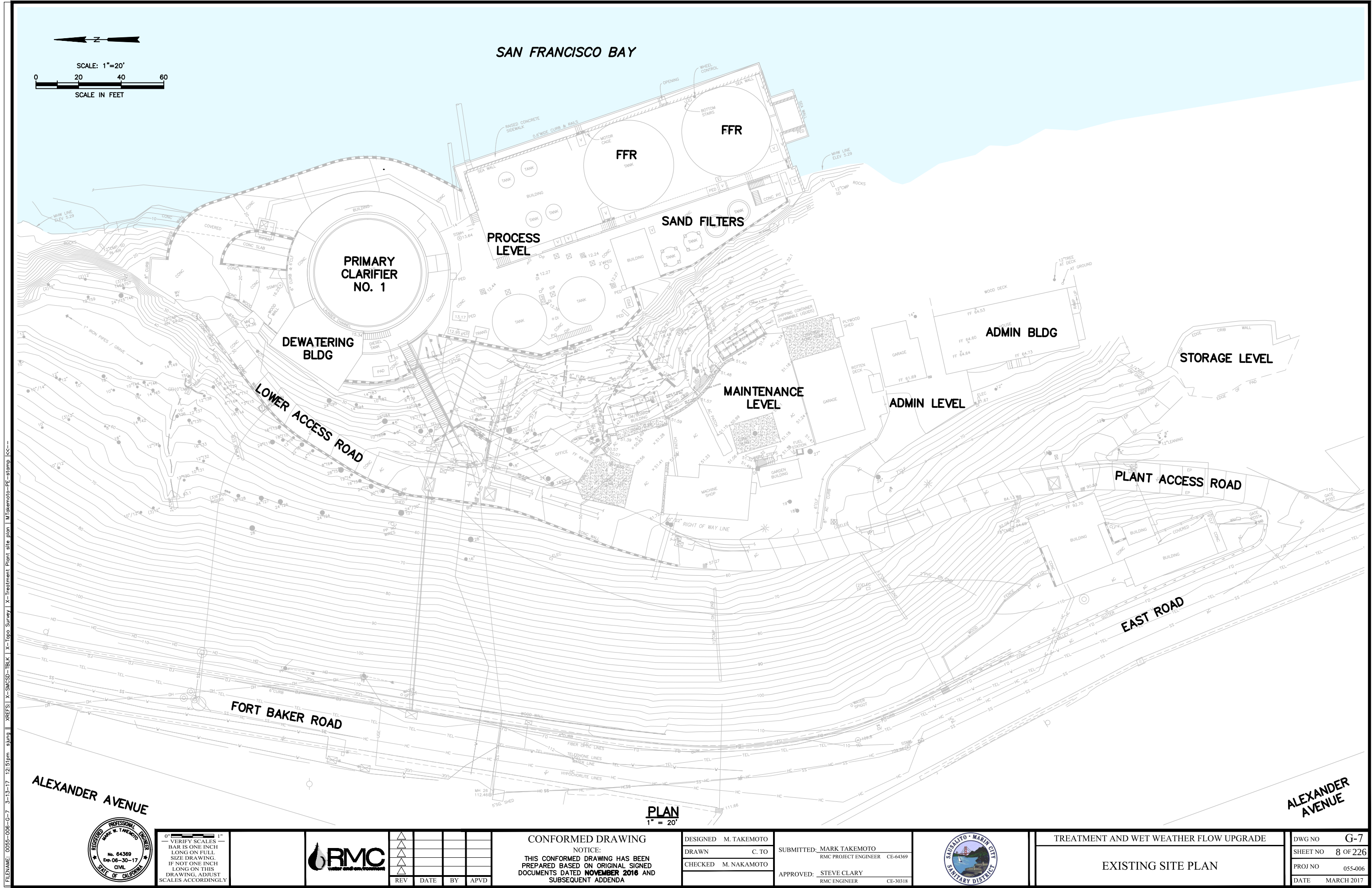
PIPE SCHEDULE AND LEGENDS

DWG NO G-6

SHEET NO 7 OF 226

PROJ NO 055-006

DATE MARCH 2017



FILENAME: 0055-006-G-7 3-13-17 12:51pm sjung || XREFS || X-SACS-D-TBLK || X-Treatment Plant site plan || Midemoto-PF-stamp || K<<--

ALEXANDER AVENUE

ALEXANDER AVENUE



0" = 1" SCALE
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IF NOT ONE INCH
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DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE		DWG NO	G-7
EXISTING SITE PLAN		SHEET NO	8 OF 226
		PROJ NO	055-006
		DATE	MARCH 2017

FILENAME: 0055-006-G-8_3-13-17 12:53pm sjung | XREFS: X-SMCSO-TBLK | X-Topo Survey | X-Treatment Plant site plan | Mtkemoto-PE-stamp | K<--

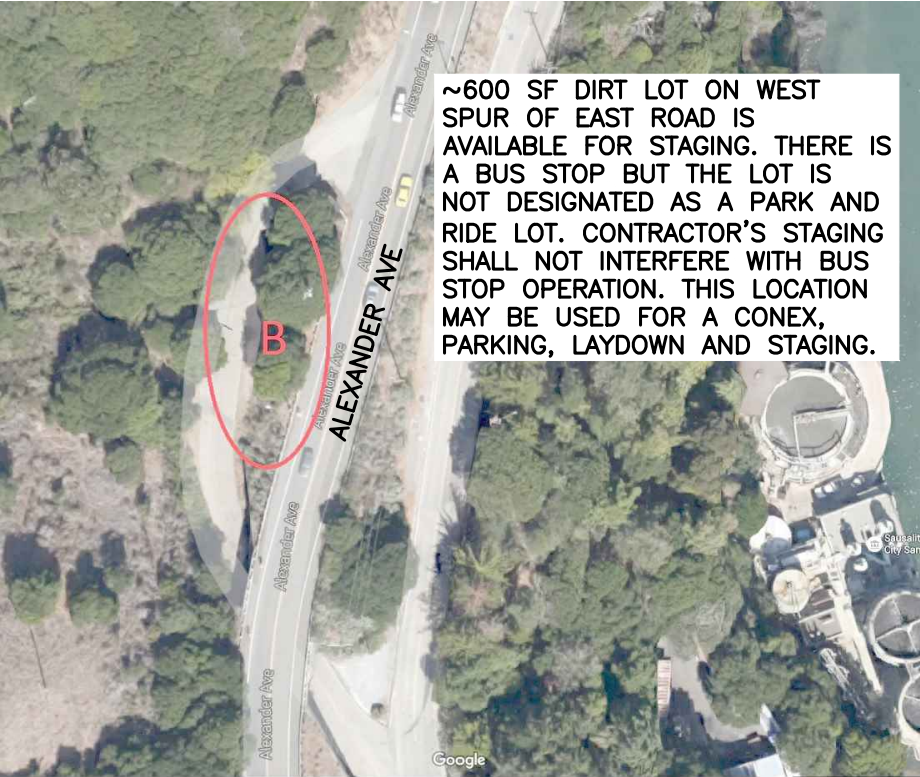


STAGING AREAS PLAN
1" = 1700'

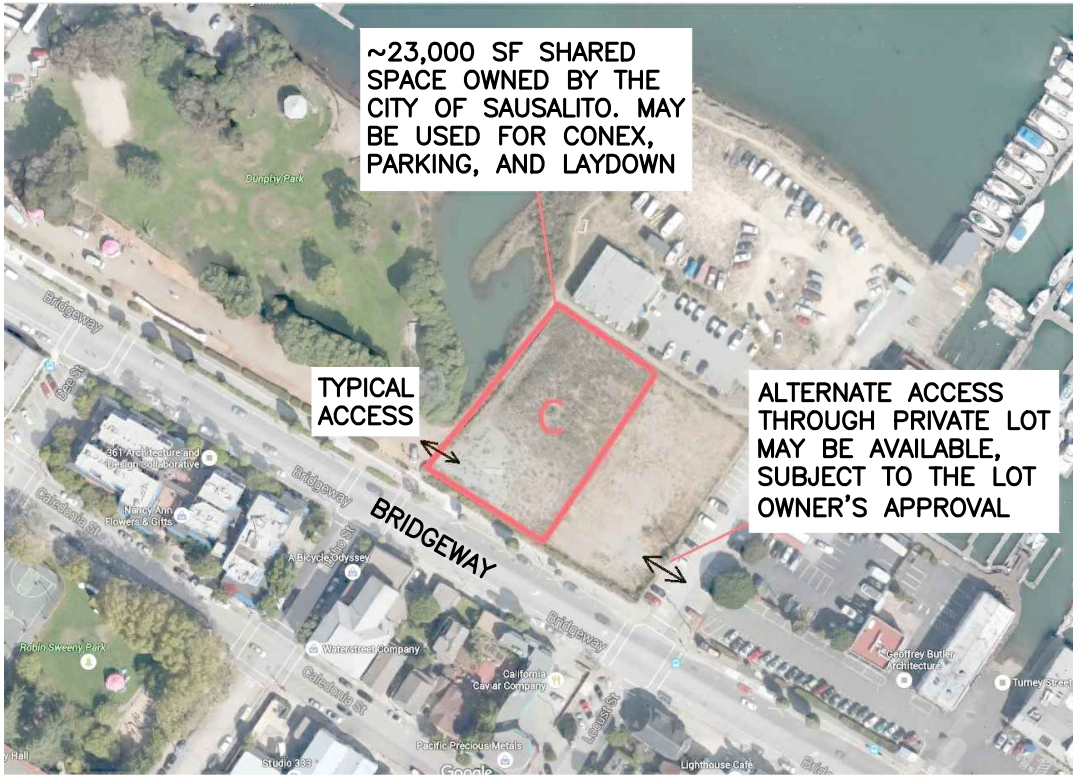
- NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SECURITY FOR STAGING AREAS. THE DISTRICT SHALL NOT BE RESPONSIBLE FOR ANY STOLEN OR DAMAGED EQUIPMENT, MATERIALS, ETC.
 2. THE STORAGE YARD AT THE WWTP, JUST DOWNHILL FROM THE ENTRANCE, MAY BE USED FOR CONTRACTOR STAGING AS LONG AS ACCESS IS MAINTAINED FOR DISTRICT STAFF. TEMPORARY RELOCATION OF TOTES, ETC. TO MAKE ROOM FOR LARGE EQUIPMENT MAY BE ACCEPTABLE WITH PRIOR APPROVAL FROM THE CONSTRUCTION MANAGER.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH LEASING OR RENTING STAGING AREAS.
 4. USE OF STAGING AREAS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 01500.



STAGING AREA A PLAN
NOT TO SCALE



STAGING AREA B PLAN
NOT TO SCALE



STAGING AREA C PLAN
NOT TO SCALE



STAGING AREA D PLAN
NOT TO SCALE



0" 1"
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1	3/17	SM	SC

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CHECKED M. NAKAMOTO

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RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
STAGING AREA LOCATIONS

DWG NO G-8
SHEET NO 9 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-D-1 3-13-17 12:56pm sJung || XREFS || X-SACS0-TBLK | MTakemoto-PE-stamp Kc--

DEMOLITION LEGEND

	SOIL BORING
	BENCHMARK/CONTROL POINT
	POTHOLE
	RIGHT OF WAY LINE
	CONTOUR LINE
	STREET LIGHT (SINGLE ARM)
	STREET LIGHT (DOUBLE ARM)
	STREET SIGN
	SPOT ELEVATION
	SLOPE DIRECTION
	FENCE
	FLOW LINE
	ABANDONED
	TO BE REMOVED
	DEMOLITION

GENERAL DEMOLITION NOTES:

1. REFERENCE DRAWINGS FOR STRUCTURES TO BE DEMOLISHED ARE INCLUDED AT THE END OF THE DRAWING SET.
2. DEMOLITION SHALL BE IN ACCORDANCE WITH SECTION 02050 RECONSTRUCTION AND SEQUENCING AND CONSTRAINTS IN SECTION 01010.
3. FOR PIPELINES TO BE CUT AND CAP, CONTRACTOR SHALL INSTALL THRUST RESTRAINT AS NECESSARY TO PREVENT CAP PIPELINES FROM DISCONNECTION AND LEAKAGE DURING OPERATION.
4. ALL MATERIALS/ITEMS IDENTIFIED "TO BE REMOVED" AND/OR "REMOVE" SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. TRENCHES FOR DEMOLITION SHALL BE BACKFILLED AND FINISHED IN ACCORDANCE SECTION 02200 EARTHWORK.
6. DEMOLITION SHALL BE IN ACCORDANCE WITH THE HAZARDOUS MATERIALS TESTING REPORT AND SECTION 02081 HAZARDOUS MATERIALS ABATEMENT
7. CONTRACTOR SHALL PROVIDE TEMPORARY BARRIERS AND/OR FALL PROTECTION AROUND FALL HAZARDS CREATED DURING AND AFTER DEMOLITION.



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DESIGNED	M. TAKEMOTO
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CHECKED	M. NAKAMOTO

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	RMC PROJECT ENGINEER CE-64369
APPROVED:	STEVE CLARY
	RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

DEMOLITION LEGEND AND NOTES

DWG NO	D-1
SHEET NO	10 OF 226
PROJ NO	055-006
DATE	MARCH 2017



REMOVE TOP PORTION OF CONCRETE WALL.
REMAINING PORTION OF THE WALL SHALL BE FLUSH
WITH EXISTING GRADE. CONTRACTOR SHALL REPAIR
THE EXPOSED TOP OF WALL SURFACE TO PROVIDE
A CLEAN AND FINISHED APPEARANCE ↗

— CAUSEWAY HAS A FLOOR
LOADING CAPACITY OF 250 LBS
PER SQUARE FOOT

SEE C100-2 FOR BOUNDARY
OF WALL REMOVAL

PROTECT MANHOLE IN PLACE

DEMOLISH ODOR CONTROL DUCTS
AS REQUIRE FOR NEW DUCT
INSTALLATION. SEE M100-4

CAUTION! EXISTING UNDERGROUND
PG&E PRIMARY DUCT 3'± CO
ENCASEMENT (HIGH VOLTAGE)

FOR ENLARGED AREA
SEE DWG D-3

— REMOVE FFR MEDIA SEE D300-2

— DEMOLISH EFFLUENT SCREEN
SEE D400-1

REMOVE FILTER FEED PUMPS SEE D400-1

DEMOLISH SAND FILTERS SEE D400-1

— REMOVE PAVING AND
HILLSIDE CUT SEE
DWG C100-3

REMOVE TREES AS
NEEDED – SEE L1.1
FOR TREE
PRESERVATION PLAN

PLANT ACCESS ROAD

— REMOVE TREES AS
NEEDED — SEE L1.1
FOR TREE
PRESERVATION PLAN

- PREVIOUSLY ABANDONED
DIGESTED SLUDGE, 4" F
AND 2-1/2" RW.
DEMOLISH AS REQUIRED
FOR SOIL NAIL WALL
CONSTRUCTION.

ABANDON
SEE D-3

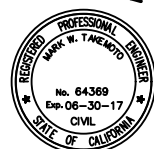
TELEPHONE LINE

CAUTION! EXISTING UNDERGROUND

28" INF SEWER

FORT BAKER ROAD

ALEXANDER AVENUE



0"  1"
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	3/17	SM	SC
REV	DATE	BY	APVD

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DESIGNED	M. TAKEMOTO
DRAWN	C. TO
CHECKED	M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

OVERALL SITE DEMOLITION PLAN

DWG NO	D-2
SHEET NO	11 OF 226
PROJ NO	055-006
DATE	MARCH 2017

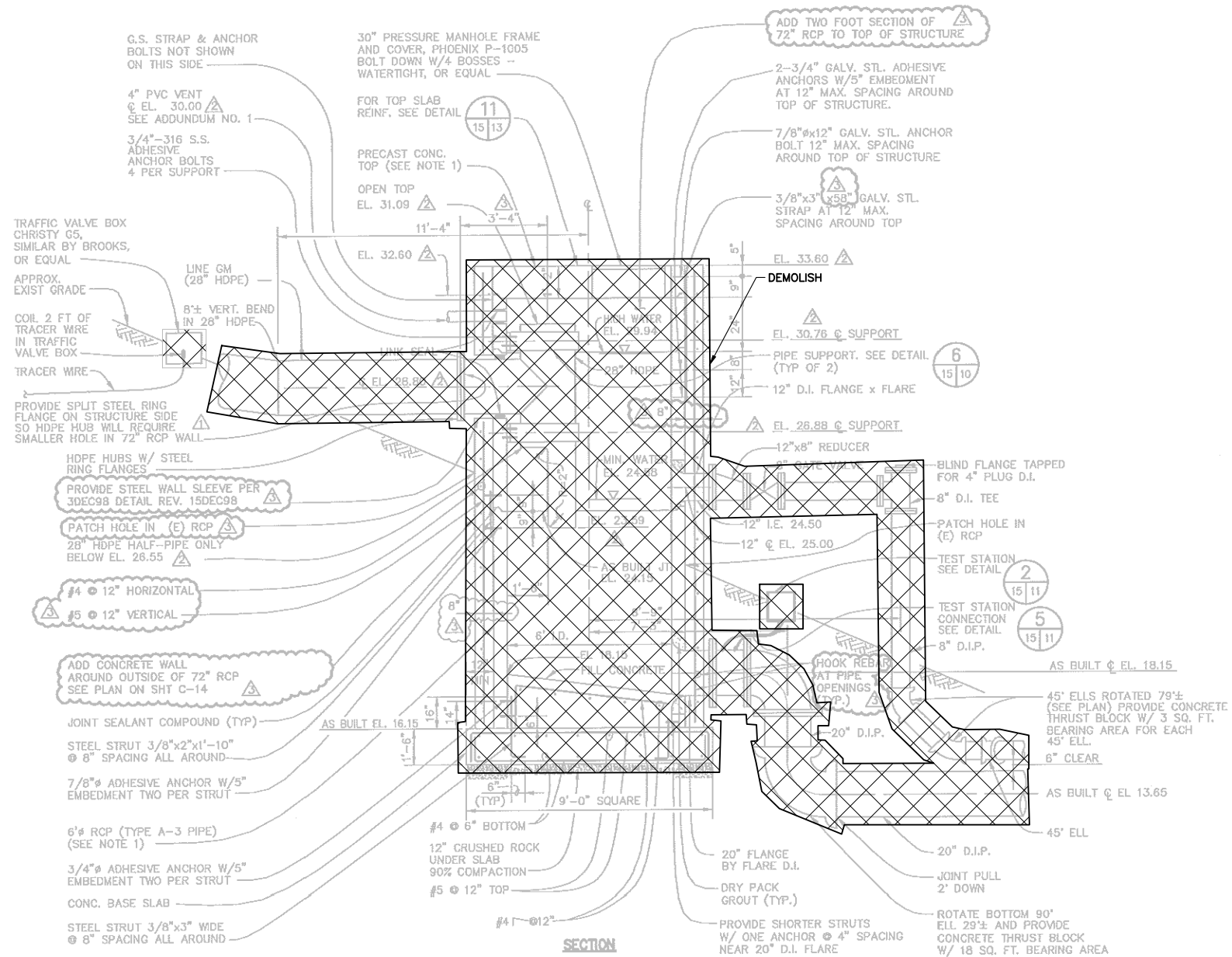
NOTES:

1. LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY UTILITY LOCATION AND SERVICE IN THE FIELD PRIOR TO DEMOLITION.
2. ALL UTILITIES AND STRUCTURES ON THE TREATMENT PLANT SIDE OF THE BOUNDARY OF DEMOLITION SHALL BE DEMOLISHED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF UNKNOWN UTILITIES OR STRUCTURES ARE ENCOUNTERED. AT THE DISCRETION OF THE CONSTRUCTION MANAGER THESE UTILITIES OR STRUCTURES SHALL BE DEMOLISHED AT NO ADDITIONAL COST TO THE OWNER.
3. SEE SHEET E100-2 FOR ELECTRICAL, INSTRUMENTATION AND COMMUNICATION DEMOLITION REQUIREMENTS.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.

FILENAME:	0055-006-D-2	3-13-17	01:04pm	sjung	XREFS:	X-SMCSD-TBLK	X-2012_topo_survey	X-Treatment	Plant site	plan	X-Site	MTakemoto-PE-stamp	<<--
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Last Saved By: sjung 1-13-17 05:02pm

FILENAME:	0055-006-D-2	3-13-17	01:06pm	sjung	sjung	XREFS:	X-SMCD-TBLK	X-2012_topo_survey	X-Treatment	Plant	site	plan	X-Site	MTakemoto-PE-stamp	<<---
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NOTES:

1. PROVIDE FACTORY APPLIED PVC LINER INSIDE RCP, UNDERSIDE OF TOP AND INSIDE HATCH OPENING, AMERON T-LOCK OR EQUAL. SEAL JOINTS IN FIELD.
2. CORE DRILL PIPE HOLES THROUGH PVC LINER IN FIELD.
3. PIPES ARE SHOWN ROTATED INTO SECTION VIEW FOR CLARITY. SEE PLAN VIEW DETAILS FOR PROPER ORIENTATION.
4. MINIMUM WATER ELEVATION SHALL BE THE BOTTOM ELEVATION OF THE V-NOTCH WEIR IN THE PRIMARY CLARIFIER. V-NOTCH FIELD MEASURED AT EL. 24.68 ON 2 OCT 98.

ENERGY DISSIPATOR/VENT STRUCTURE DETAIL

N.T.S.



0"  1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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△			
REV	DATE	BY	APVD

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SUBSEQUENT ADDENDA

DESIGNED	M. TAKEMOTO
DRAWN	C. TO
CHECKED	M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

ENERGY DISSIPATION STRUCTURE DEMOLITION DETAILS

FWG NO	D-4
SHEET NO	13 OF 226
PROJ NO	055-006
DATE	MARCH 2017

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NOTES:

- CLOSE VALVE ON FORT
BAKER SEWER PIPE.
SEE NOTE 3. SEE
PHOTO 4 ON D-10.

ABANDON IN
PLACE 8" SS (

EL 1.01'

DIGESTER FLOOR PLAN

PLAN
NTS

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DESIGNED M. TAKEMOTO

DRAWN S. IJUNG

DRAWN	S. JUNG
CHECKED	M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

EXISTING PRIMARY CLARIFIER
DEMOLITION PLAN - 1

DWG NO D-5

SHEET NO. 14 OF 226

PROJ NO 055-006

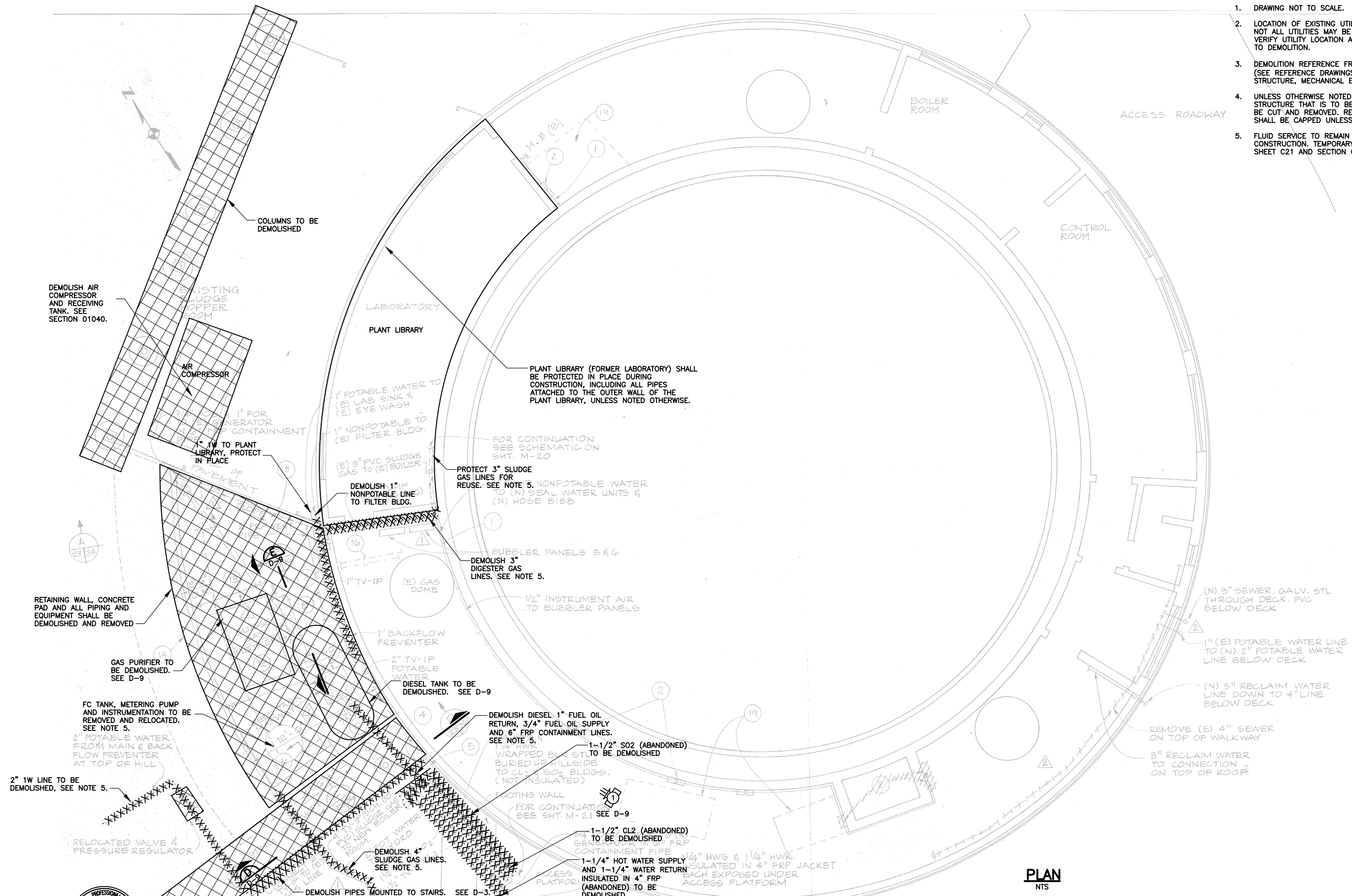
DATE MARCH 2017



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REV	DATE	BY	APVD

NOTES:

1. DRAWING NOT TO SCALE.
2. LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY UTILITY LOCATION AND SERVICE IN THE FIELD PRIOR TO DEMOLITION.
3. DEMOLITION REFERENCE FROM 1988 DRAWING (M-23) SET (SEE REFERENCE DRAWINGS). CONTRACTOR SHALL REMOVE STRUCTURE, MECHANICAL EQUIPMENT, AND UTILITIES.
4. UNLESS OTHERWISE NOTED, PIPING WITHIN 10 FEET OF THE STRUCTURE THAT IS TO BE TAKEN OUT OF SERVICE SHALL BE CUT AND REMOVED. REMAINING ABANDONED PIPELINES SHALL BE CAPPED UNLESS OTHERWISE NOTED.
5. FLUID SERVICE TO REMAIN IN SERVICE DURING CONSTRUCTION. TEMPORARY REROUTING REQUIRED. SEE SHEET C21 AND SECTION 01040.



0" = 1" SCALE
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DESIGNED: M. TAKEMOTO
DRAWN: S. NGUYEN
CHECKED: M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
**EXISTING PRIMARY CLARIFIER
DEMOLITION PLAN - 2**

DWG NO: D-6
SHEET NO: 15 OF 226
PROJ NO: 055-006
DATE: MARCH 2017

pulleys, gears & other moving parts as req'd by the General Industrial Safety Orders, issued by the Calif. Div. of Industrial Safety.
See Equipment Floor Slab Loading Requirements on Floor Plan Note 3 Sh. 6.

PROTECT 4" SUMP DISCHARGE IN PLACE FOR REUSE. SEE M100-2.

DEWATERING BUILDING STRUCTURE AND ALL EQUIPMENT AND PIPING IN THE STRUCTURE SHALL BE DEMOLISHED

DEMOLISH 4" SUMP PUMP DISCHARGE. SEE NOTE 6.

STAIRS TO BE DEMOLISHED

LIME SLURRY SUPPLY TANK & MIXER (See Specs.)

FERRIC CHLORIDE SUPPLY TANK & MIXER (See Specs.)

FERRIC CHLORIDE FEEDER (See Specs.)

DEMOLISH 6" DRAIN LINE

LIME FEEDER (See Specs.)

6" P.W.C. Drain Line

PLANT LIBRARY (BELOW) SHALL BE PROTECTED IN PLACE

STAIRS TO BE DEMOLISHED

3" DICESTER GAS LINES. SEE NOTE 6.

STAIRS TO BE DEMOLISHED

DEMOLISH 2" 1W. CAP AT TEE. SEE NOTE 6.

STAIRS TO BE DEMOLISHED

STAIRS TO BE DEMOLISHED

STAIRS TO BE DEMOLISHED

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STAIRS TO BE DEMOLISHED

STAIRS TO BE DEMOLISHED

STAIRS TO BE DEMOLISHED

STAIRS TO BE DEMOLISHED

SECTION W-W

SECTION X-X
No Scale

PLAN
NTS

NOTES:

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3. DEMOLITION REFERENCE FROM 1972 DRAWING (3 OF 13) SET (SEE REFERENCE DRAWINGS). CONTRACTOR SHALL REMOVE STRUCTURE, MECHANICAL EQUIPMENT, AND UTILITIES.
4. UNLESS OTHERWISE NOTED, PIPING WITHIN 10 FEET OF THE STRUCTURE THAT IS TO BE TAKEN OUT OF SERVICE SHALL BE CUT AND REMOVED. REMAINING ABANDONED PIPELINES SHALL BE CAPPED UNLESS OTHERWISE NOTED.
5. THE VACUUM FILTER WAS PREVIOUSLY REPLACED WITH A BELT FILTER PRESS. CONTRACTOR SHALL DEMOLISH ALL EQUIPMENT LOCATED WITHIN THE DEWATERING BUILDING INCLUDING THE BELT PRESS.
6. FLUID SERVICE TO REMAIN IN SERVICE DURING CONSTRUCTION. TEMPORARY REROUTING REQUIRED. SEE SHEET C21 AND SECTION 01040.
7. ASBESTOS AND OTHER HAZARDOUS MATERIALS HAVE BEEN IDENTIFIED IN THE DEWATERING BUILDING. DEMOLITION SHALL BE IN ACCORDANCE WITH SECTION 02081.

INSTALL RESIDUAL CONTROLLER IN ROOM BELOW (See Diagram Sh.5 & Specs.)

INSTALL 4" P.W.C. Drain Line

EXIST. SHOWER IN ROOM BELOW

CUT OPENG. IN REINF. CONC. WALL & INSTALL POWER WALL EXHAUSTER NO. 1, & 1'-0" ABOVE CHLOR. RM. FLOOR (See Note At Left)

INSTALL CHLORINATOR ADJACENT TO EXISTING CHLORINATOR IN CHLORINATOR ROOM BELOW (See Diagram Sh.5 & Specs.)

EXIST. CHLORINATOR

EXIST. AIR COMPRESSOR (In Chlor. Rm.)

EXIST. FLOW SIGNAL CONVERTER (In Chlor. Rm.)

CUT 1'-0" SQUARE OPENING IN REINF. CONC. WALL, (Bottom of Opening 3" above floor.) Install Louver. See Note below.

INSTALL SIGNAL & POWER AIR LINES FROM EQUIP. IN CHLOR. ROOM TO CHEM. FEED PUMP. See Diagram Sh.5

INSTALL 1 1/2" P.W.C. RECL. WATER LINE

EXIST. 4" W.S. SLUDGE LINE

EXIST. 4" W.S. SLUDGE LINE

EXIST. 4" W.S. SLUDGE LINE

EXIST. 4" W.S. SLUDGE LINE

EXIST. 4" W.S. SLUDGE LINE

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DRAWN S. JUNG

CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

DEWATERING BUILDING
DEMOLITION PLAN - 1

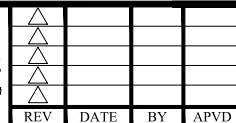
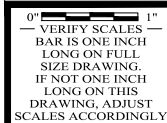
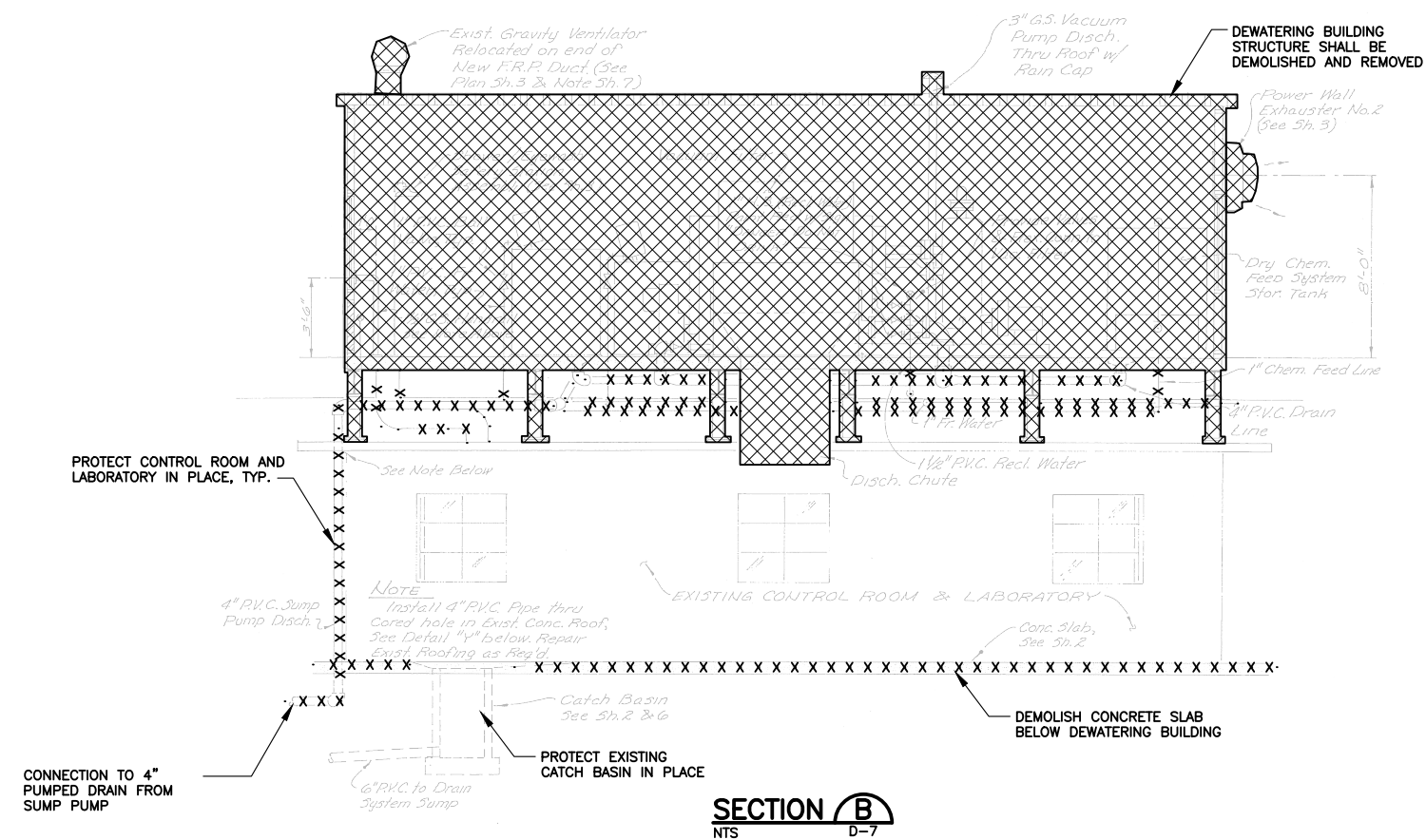
DWG NO D-7

SHEET NO 16 OF 226

PROJ NO 055-006

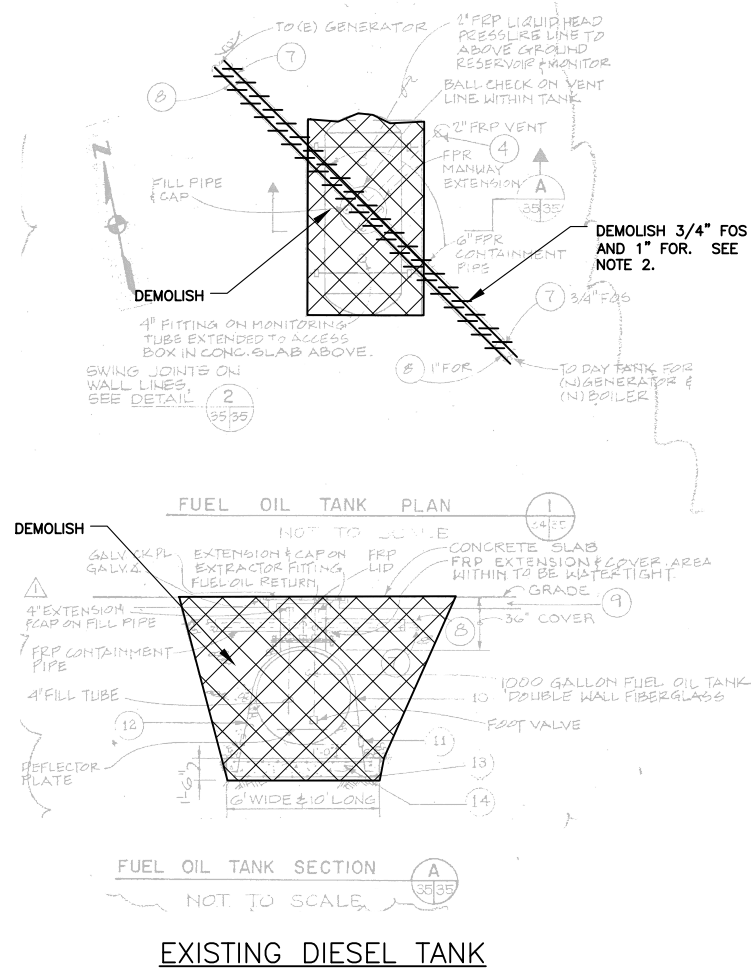
DATE MARCH 2017

1. DRAWING NOT TO SCALE.
2. DEMOLITION REFERENCE FROM 1972 DRAWING (4 OF 13) SET (SEE REFERENCE DRAWINGS). CONTRACTOR SHALL REMOVE STRUCTURE, MECHANICAL EQUIPMENT, AND UTILITIES.
3. UNLESS OTHERWISE NOTED, PIPING WITHIN 10 FEET OF THE STRUCTURE THAT IS TO BE TAKEN OUT OF SERVICE SHALL BE CUT AND REMOVED. REMAINING ABANDONED PIPELINES SHALL BE CAPPED UNLESS OTHERWISE NOTED.
4. THE VACUUM FILTER WAS PREVIOUSLY REPLACED WITH A BELT FILTER PRESS. CONTRACTOR SHALL DEMOLISH ALL EQUIPMENT LOCATED WITHIN THE DEWATERING BUILDING INCLUDING THE BELT PRESS.
5. FLUID SERVICE TO BE MAINTAINED IN SERVICE DURING CONSTRUCTION. TEMPORARY REROUTING REQUIRED. SEE SHEET C21 AND SECTION 01040.
6. ASBESTOS AND OTHER HAZARDOUS MATERIALS HAVE BEEN IDENTIFIED IN THE DEWATERING BUILDING. DEMOLITION SHALL BE IN ACCORDANCE WITH SECTION 02081.

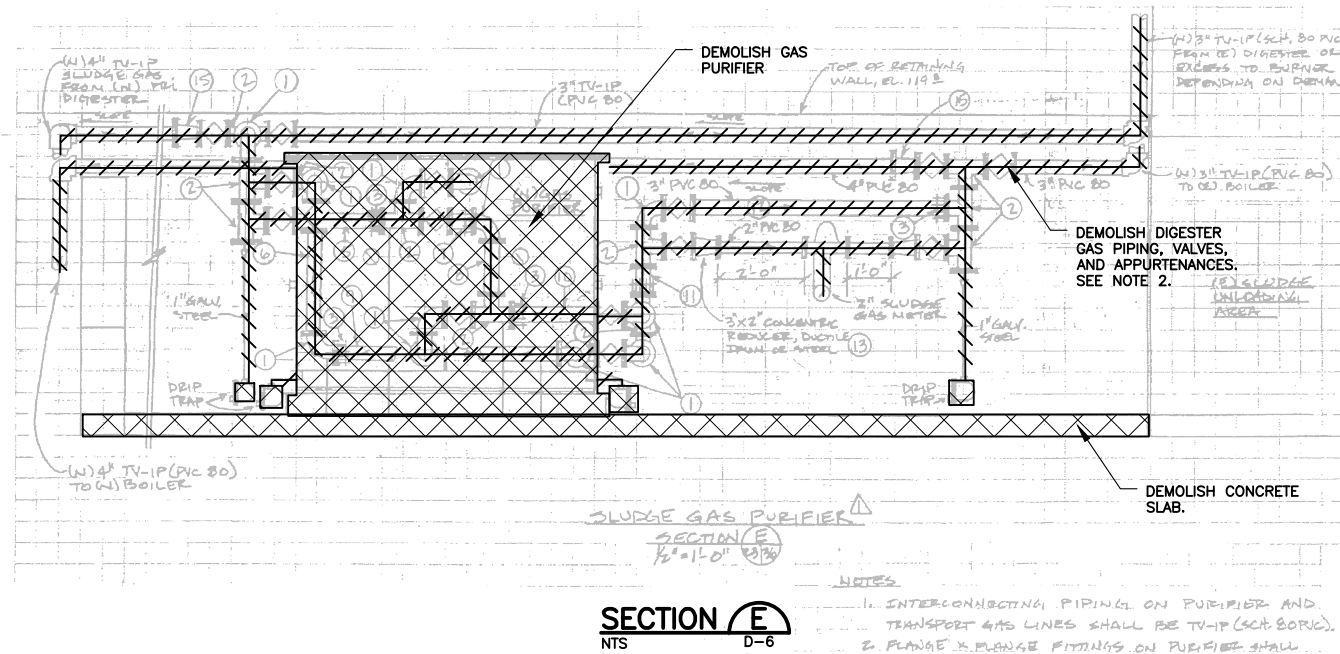
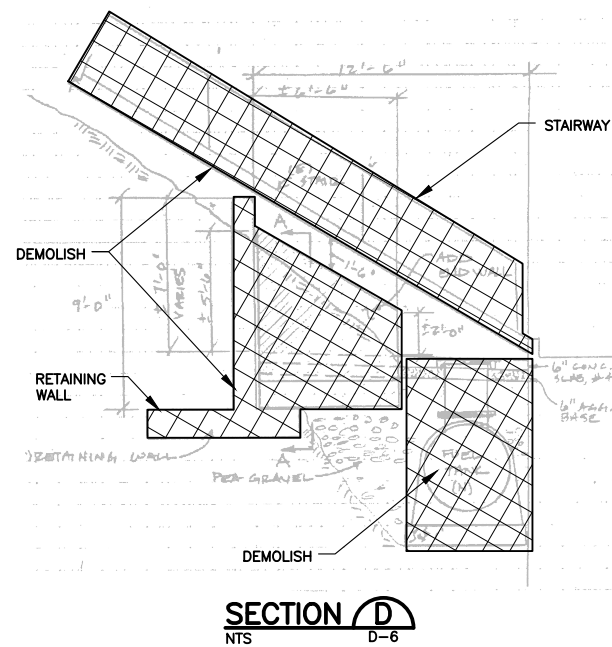


DESIGNED	M. TAKEMOTO
DRAWN	S. JUNG
CHECKED	M. NAKAMOTO

DWG NO	D-8
SHEET NO	17 OF 226
PROJ NO	055-006
DATE	MARCH 2017



- NOTES:
1. LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY UTILITY LOCATION AND SERVICE IN THE FIELD PRIOR TO DEMOLITION.
 2. FLUID SERVICE TO REMAIN IN SERVICE DURING CONSTRUCTION. TEMPORARY REROUTING REQUIRED. SEE SHEET C21 AND SECTION 01040.
 3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.
 4. GAS SCRUBBER/PURIFIER MEDIA IS A POTENTIAL FIRE HAZARD AND SHALL BE DEMOLISHED IN ACCORDANCE WITH SECTION 02050.



RFD #22-WATERWORKS TAKE-OFF FOR SLUDGE GAS SYSTEM MODIFICATIONS

ITEM	QTY	SIZE	DESCRIPTION	MATERIAL
1	16	3"	90 DEGREE ELBOW-FL X FL	CAST IRON
2	10	3"	TEE-FL X FL X FL	CAST IRON
3	5	3"	FCA-SUIT D.I. PIPE O.D.	MANF STND COATING
4	2	3"	FCA-SUIT STEEL PIPE O.D.	MANF STND COATING
5	1	3"	1'-11" FL X PE SPOOL	DUCTILE IRON
6	1	3"	2'-4 5/8" FL X FL SPOOL	DUCTILE IRON
7	1	3"	0'-5 7/8" FL X FL SPOOL	DUCTILE IRON
8	1	3"	1'-2 1/2" FL X FL SPOOL	DUCTILE IRON
9	1	3"	5'-2 1/4" FL X PE SPOOL	DUCTILE IRON
10	1	3"	1'-11" FL X PE SPOOL	DUCTILE IRON
11	1	3"	0'-6" FL X PE SPOOL	DUCTILE IRON
12	1	3"	5'-7 5/8" FL X PE SPOOL	DUCTILE IRON
13	2	3"	3" X 2" FL X FL CONC RED	CAST IRON
14	4	2"	COMPANION FLANGE	CAST IRON
15	2	4"	4" X 3" FL X FL CONC RED	CAST IRON
16	57	3"	1/8" FULL FACED GASKETS	BLACK NEOPRENE
17	244		5/8" X 2 1/2" BOLTS	ELECTROPLATED
18	244		5/8" NUTS	ELECTROPLATED
19	2	4"	1/8" FULL FACED GASKETS	BLACK NEOPRENE
20	6	3"	COMPANION FLANGE	CAST IRON
21	6	3"	1/8" FULL FACED GASKETS	BLACK NEOPRENE
22	1	6"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
23	1	6"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
24	1	6"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
25	1	6"	FL X PE STEEL PIPE SPOOL	F.E.C. & L.
26	1	6"	FCA TO SUIT STEEL PIPE O.D.	MANF STND COATING
27	1	6"	FL X FL STEEL 90 DEGREE ELBOW	F.E.C. & L.
28	1	6"	6" X 6" X 4" FL X FL TEE	F.E.C. & L.
29	11	6"	1/8" FULL FACED GASKETS	BLACK NEOPRENE
30	88		3/4" X 3 1/4" BOLTS	ELECTROPLATED
31	88		3/4" NUTS	ELECTROPLATED
32	1	2"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
33	1	2"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
34	1	2"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
35	1	2"	FL X FL STEEL PIPE SPOOL	F.E.C. & L.
36	2	2"	COMPANION FLANGE	CAST IRON
37	5	2"	1/8" FULL FACED GASKET	BLACK NEOPRENE
38	20		5/8" X 2 1/4" BOLTS	ELECTROPLATED
39	20		5/8" NUTS	ELECTROPLATED



0" = 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING

NOTICE:

THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED **NOVEMBER 2016** AND SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO

DRAWN M. TAKEMOTO

CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO

RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY

RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

DIESEL TANK AND GAS PURIFIER DEMOLITION

DWG NO D-9

SHEET NO 18 OF 226

PROJ NO 055-006

DATE MARCH 2017

FILENAME: 0055-006-D-10 3-13-17 01:16pm sjung XREFS: X-SMCSB-TBLK MTakemoto-PE-stamp K&C--

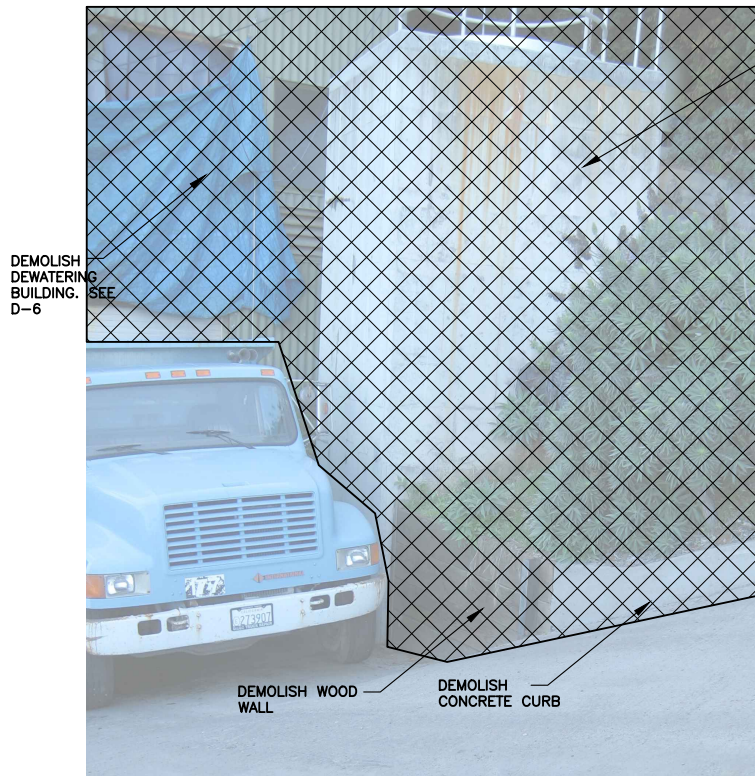


PHOTO 1
D-2

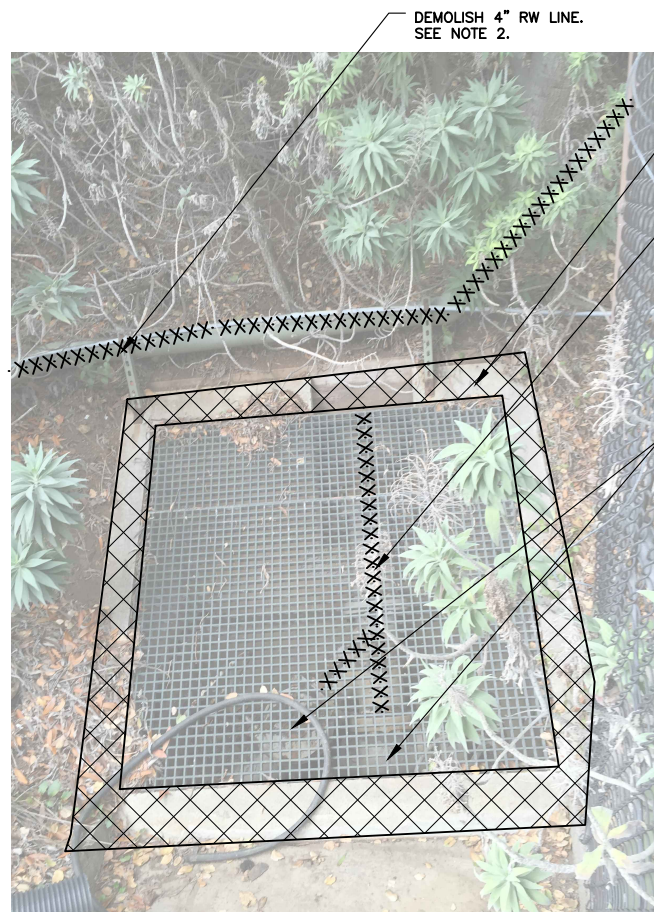


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D-3

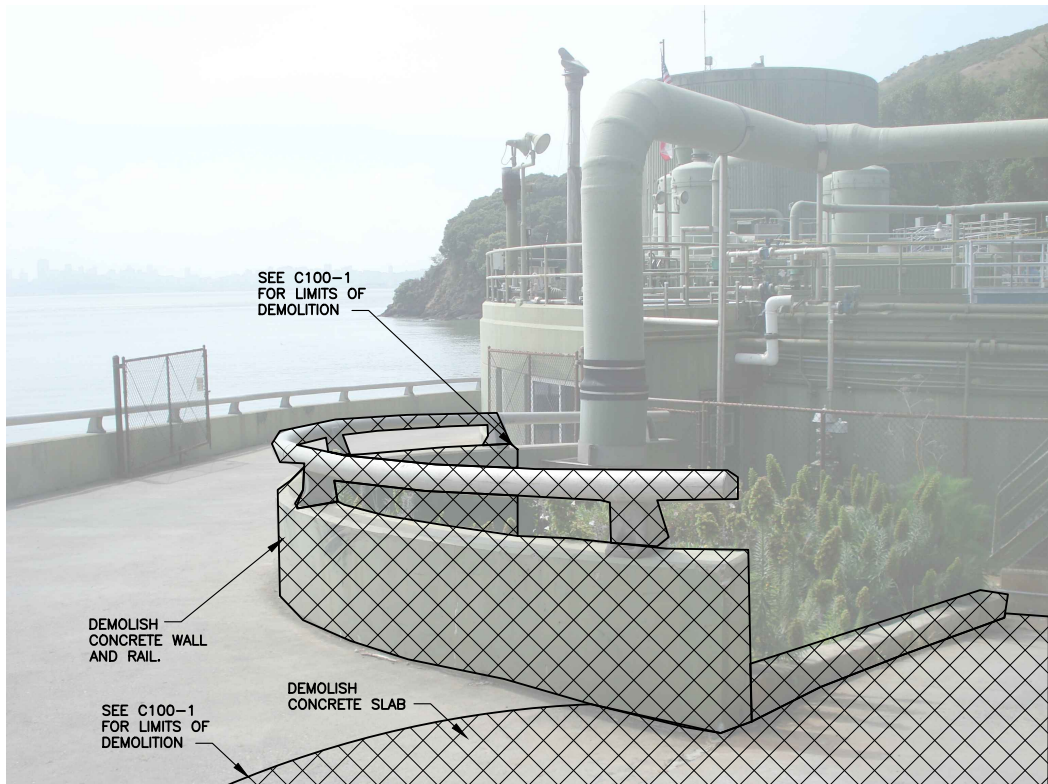


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D-2

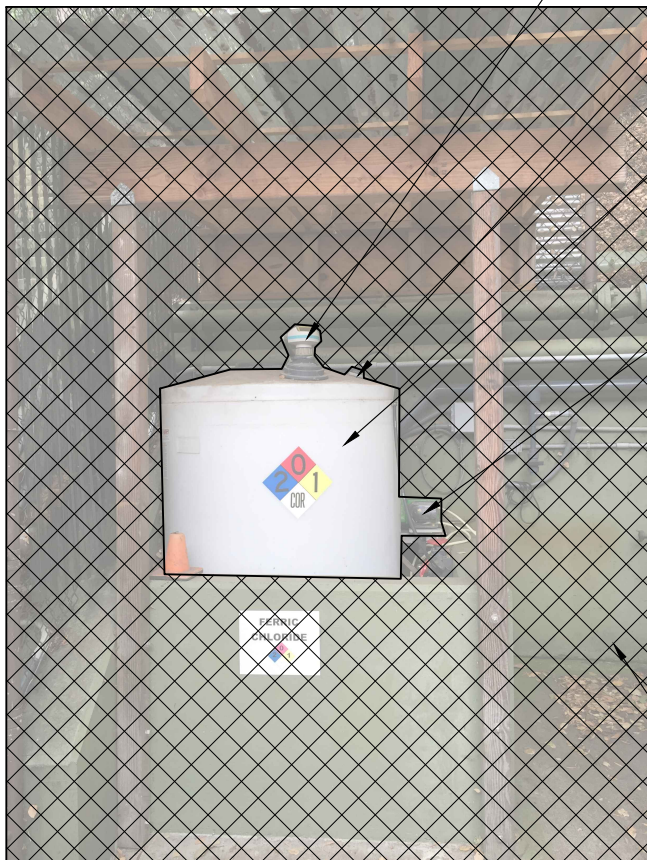


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D-3

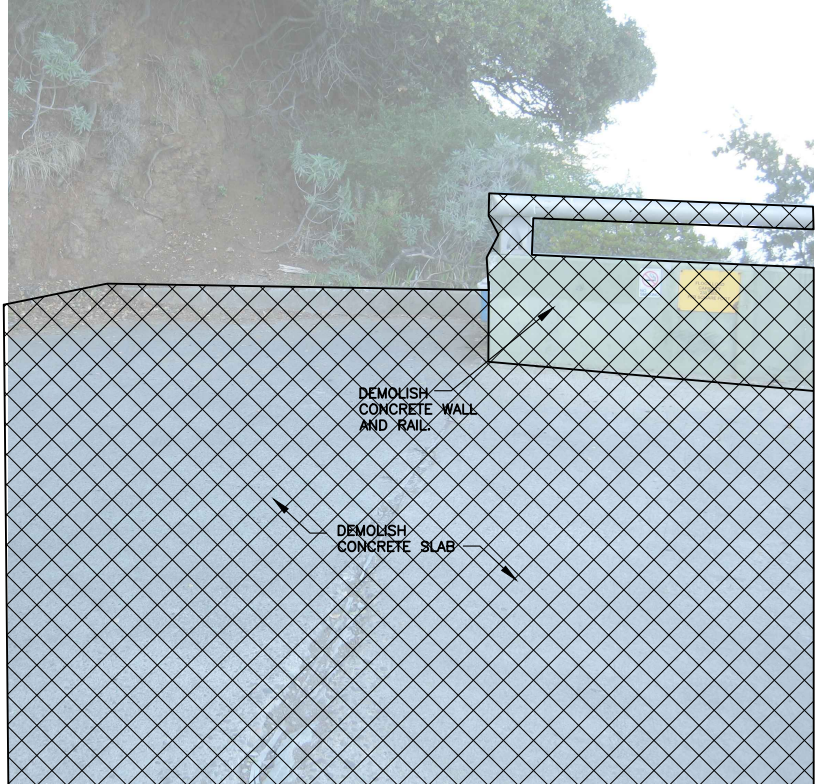


PHOTO 3
D-2

- NOTES:
1. LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY UTILITY LOCATION AND SERVICE IN THE FIELD PRIOR TO DEMOLITION.
 2. FLUID SERVICE TO REMAIN IN SERVICE DURING CONSTRUCTION. TEMPORARY REROUTING REQUIRED. SEE SHEET C21 AND SECTION 01040.
 3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01030 AND SECTION 01040.



0" = 1" —
VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO
DRAWN M. TAKEMOTO
CHECKED M. NAKAMOTO

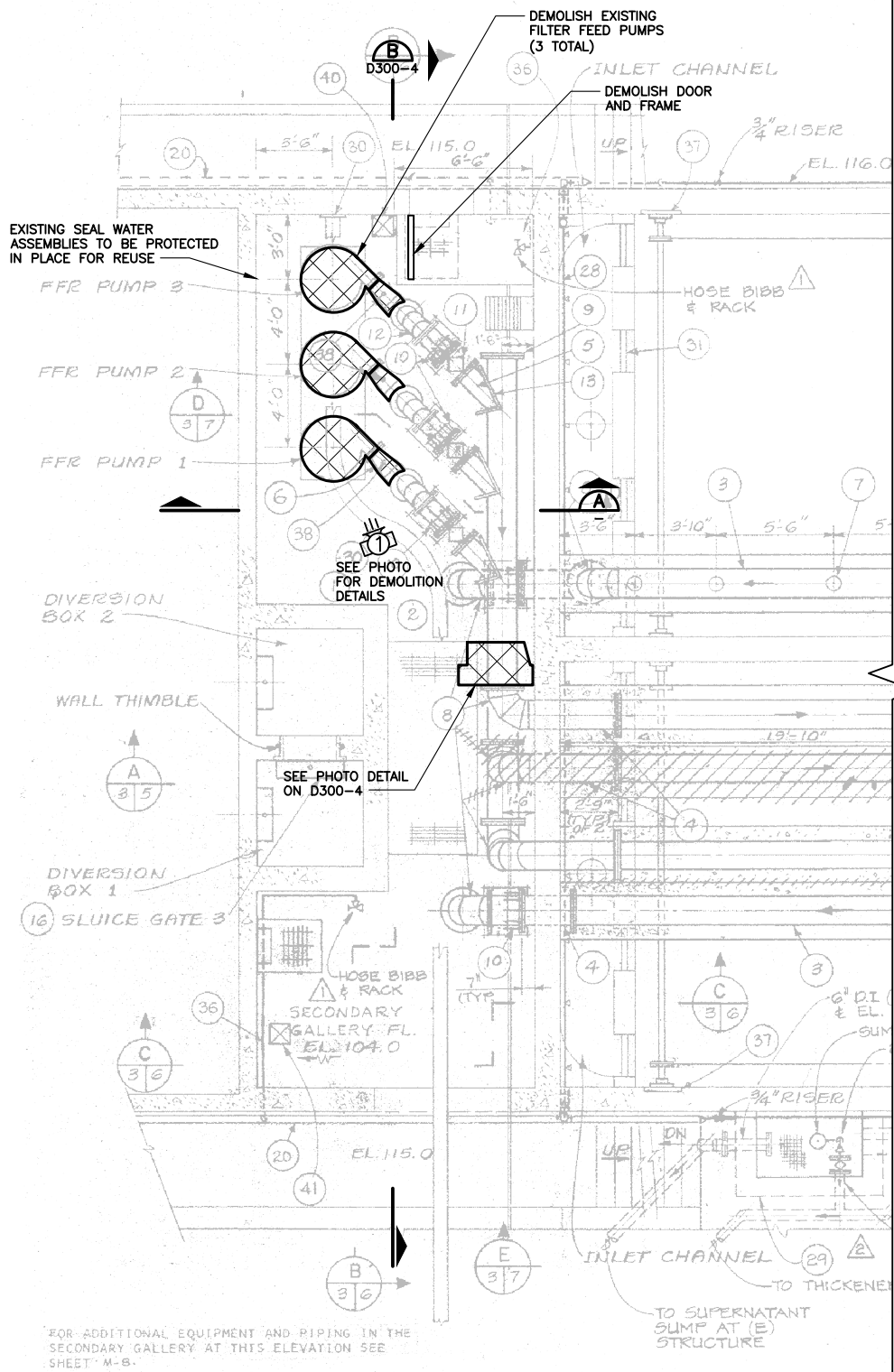
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



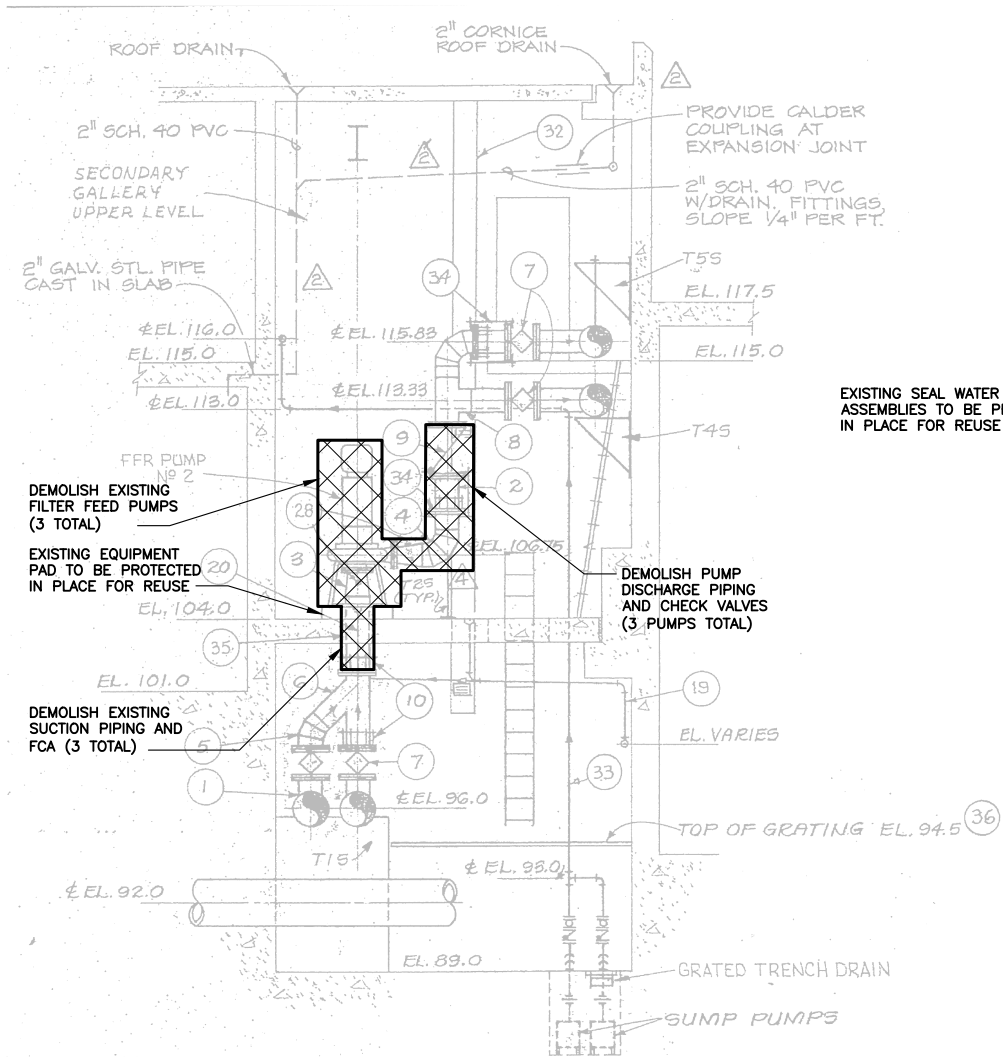
TREATMENT AND WET WEATHER FLOW UPGRADE
MISC. DEMOLITION
DETAILS

DWG NO D-10
SHEET NO 19 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-D300-1 3-13-17 01:17pm 9Jung XREFS: X-SMCSO-TBLK M Takemoto-PE-stamp Kc--



PLAN
NTS



SECTION A
NTS

DEMOLISH EXISTING FFR
PUMP, DISCHARGE PIPING
AND DISCHARGE PIPING
SUPPORTS (TYP OF 3)



EXISTING EQUIPMENT
PAD TO BE PROTECTED
IN PLACE FOR REUSE

PHOTO 1

NOTES:

1. CONTRACTOR SHALL DEMOLISH EXISTING FFR PUMPS, PIPING, AND VALVES AS SHOWN.
2. CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.
3. MECHANICAL BACKGROUND TAKEN FROM 1988 DRAWING SET (SHEETS M-3, M-7, SEE REFERENCE DRAWINGS).
4. REFERENCE DRAWING DATUM IS USGS 1929 MSL+100.



0"=1" SCALE
1"=1' SCALE
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED **NOVEMBER 2016** AND
SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO
DRAWN S. JUNG
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

FFR PUMP
DEMOLITION PLAN

DWG NO D300-1
SHEET NO 20 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-D300-2 3-13-17 01:19pm SJUNG XREFS: X-SMCSB-TBLK M-Takemoto-PE-stamp Kc--

- NOTES:**
1. WORK SHOWN APPLIES TO BOTH FIXED FILM REACTORS.
 2. ONLY ONE FFR MAY BE REMOVED FROM SERVICE AT A TIME. SEE SECTION 01040.
 3. ESTIMATED VOLUME OF THE EXISTING FFR MEDIA IS 81,000 CU FT (TOTAL BOTH FFRs).
 4. EXISTING MEDIA IS A PLASTIC CROSS FLOW MEDIA.
 5. THE FFRs ARE A CONFINED SPACE.
 6. MECHANICAL REFERENCE FROM WASTEWATER PLANT IMPROVEMENTS 1988 RECORD DRAWING (M-2) SET (SEE REFERENCE DRAWINGS).
 7. REFERENCE DRAWING DATUM USGS 1929 MSL+100.



0" 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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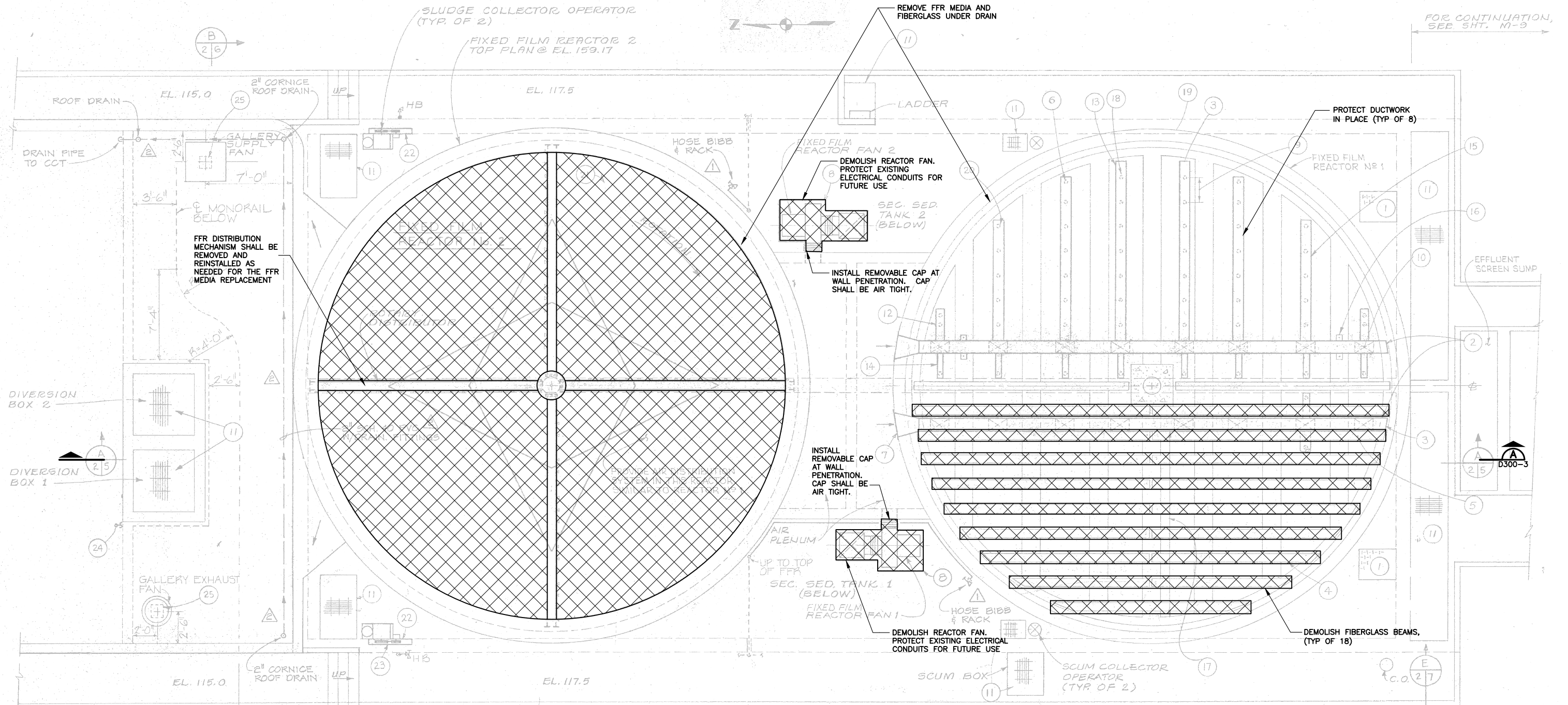
DESIGNED M. TAKEMOTO
DRAWN S. JUNG
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
FFR MEDIA DEMOLITION PLAN

DWG NO **D300-2**
SHEET NO **21 OF 226**
PROJ NO **055-006**
DATE **MARCH 2017**



Record Drawing
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. Kennedy/Jenkel, Chilton is not responsible for any errors or omissions in this document as a result of information provided by others.
Date: 4-24-19 88

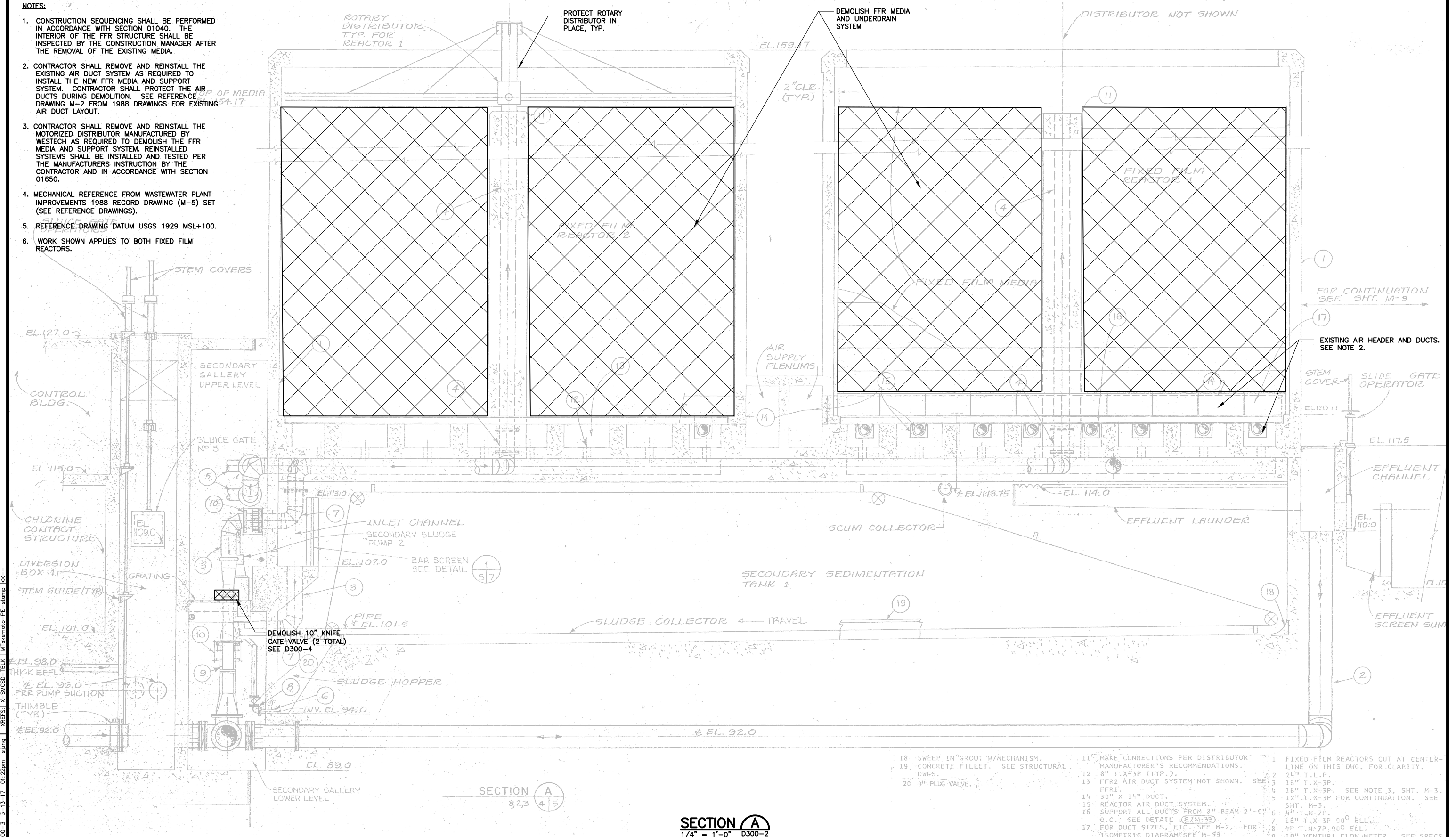
Record Drawing
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. Kennedy/Jenkel, Chilton is not responsible for any errors or omissions in this document as a result of information provided by others.
Date: 4-24-19 88

PLAN
NTS

GRAPHIC SCALE

1. 7-1/2" DIAMETER OPENINGS IN BOTTOM OF 10" DIAMETER ROUND DUCT. (4 DUCTS PER REACTOR).
2. 2-2 1/2" DIAMETER OPENINGS IN BOTTOM OF 8" DIAMETER DUCT (4 DUCTS PER REACTOR).
3. 10" DIAMETER DUCT, LENGTH AS SHOWN (12 PER REACTOR).
4. 6" DIAMETER DUCT (16 DUCTS PER REACTOR), 2 1/2" DIAMETER OPENING IN BOTTOM OF EACH.
5. FOR TYPICAL BRANCH DUCT SUPPORT, SEE DETAIL (2/M-33).
6. 1 1/4" X 4" X 4" X 6" LONG PVC ANGLES CONTINUOUS WELDED TO DUCT AND BOLT TO CONCRETE BEAM W/1/4" DIAMETER 5-5. BOLTS. 4 PER DUCT MAIN.
7. DUCTWORK IN THIS AREA SIMILAR BUT MIRROR IMAGE TO THAT SHOWN FOR EASTERN HALF OF FIXED FILM REACTOR (ABOVE).
8. 2'-6" X 3'-0" HATCH. (SEE SPECS).
9. 14" X 30" DUCT MAIN. FULL LENGTH OF REACTOR (TWO PER REACTOR).
10. AIR TIGHT CAP (TYP. 3).
11. FIBERGLASS BEAMS, SEE STRUCTURAL DWGS.
12. FIBERGLASS BEAMS, SUPPORT ALL ROUND PVC DUCT FROM BEAM. SEE DETAIL (2/M-33).
13. 7-2 1/2" DIAMETER OPENINGS IN BOTTOM OF 10" DIAMETER ROUND DUCT (4 DUCTS PER REACTOR).
14. 14" X 18" DEEP DUCT DROP (16 PER REACTOR).
15. 2'-6" X 3'-0" HATCH. (SEE SPECS).
16. 14" X 30" DUCT MAIN. FULL LENGTH OF REACTOR (TWO PER REACTOR).
17. AIR TIGHT CAP (TYP. 3).
18. FIBERGLASS BEAMS, SEE STRUCTURAL DWGS.
19. FIBERGLASS BEAMS, SUPPORT ALL ROUND PVC DUCT FROM BEAM. SEE DETAIL (2/M-33).
20. 7-2 1/2" DIAMETER OPENINGS IN BOTTOM OF 10" DIAMETER ROUND DUCT (4 DUCTS PER REACTOR).
21. 14" X 18" DEEP DUCT DROP (16 PER REACTOR).
22. 2'-6" X 3'-0" HATCH. (SEE SPECS).
23. 14" X 30" DUCT MAIN. FULL LENGTH OF REACTOR (TWO PER REACTOR).
24. AIR TIGHT CAP (TYP. 3).
25. FIBERGLASS BEAMS, SEE STRUCTURAL DWGS.

1. CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040. THE INTERIOR OF THE FFR STRUCTURE SHALL BE INSPECTED BY THE CONSTRUCTION MANAGER AFTER THE REMOVAL OF THE EXISTING MEDIA.
2. CONTRACTOR SHALL REMOVE AND REINSTALL THE EXISTING AIR DUCT SYSTEM AS REQUIRED TO INSTALL THE NEW FFR MEDIA AND SUPPORT SYSTEM. CONTRACTOR SHALL PROTECT THE AIR DUCTS DURING DEMOLITION. SEE REFERENCE DRAWING M-2 FROM 1988 DRAWINGS FOR EXISTING AIR DUCT LAYOUT.
3. CONTRACTOR SHALL REMOVE AND REINSTALL THE MOTORIZED DISTRIBUTOR MANUFACTURED BY WESTECH AS REQUIRED TO DEMOLISH THE FFR MEDIA AND SUPPORT SYSTEM. REINSTALLED SYSTEMS SHALL BE INSTALLED AND TESTED PER THE MANUFACTURERS INSTRUCTION BY THE CONTRACTOR AND IN ACCORDANCE WITH SECTION 01650.
4. MECHANICAL REFERENCE FROM WASTEWATER PLANT IMPROVEMENTS 1988 RECORD DRAWING (M-5) SET (SEE REFERENCE DRAWINGS).
5. REFERENCE DRAWING DATUM USGS 1929 MSL+100.
6. WORK SHOWN APPLIES TO BOTH FIXED FILM REACTORS.



0"  1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED **NOVEMBER 2016** AND
SUBSEQUENT ADDENDA

DESIGNED	S. MASUDA
DRAWN	S. JUNG
CHECKED	M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

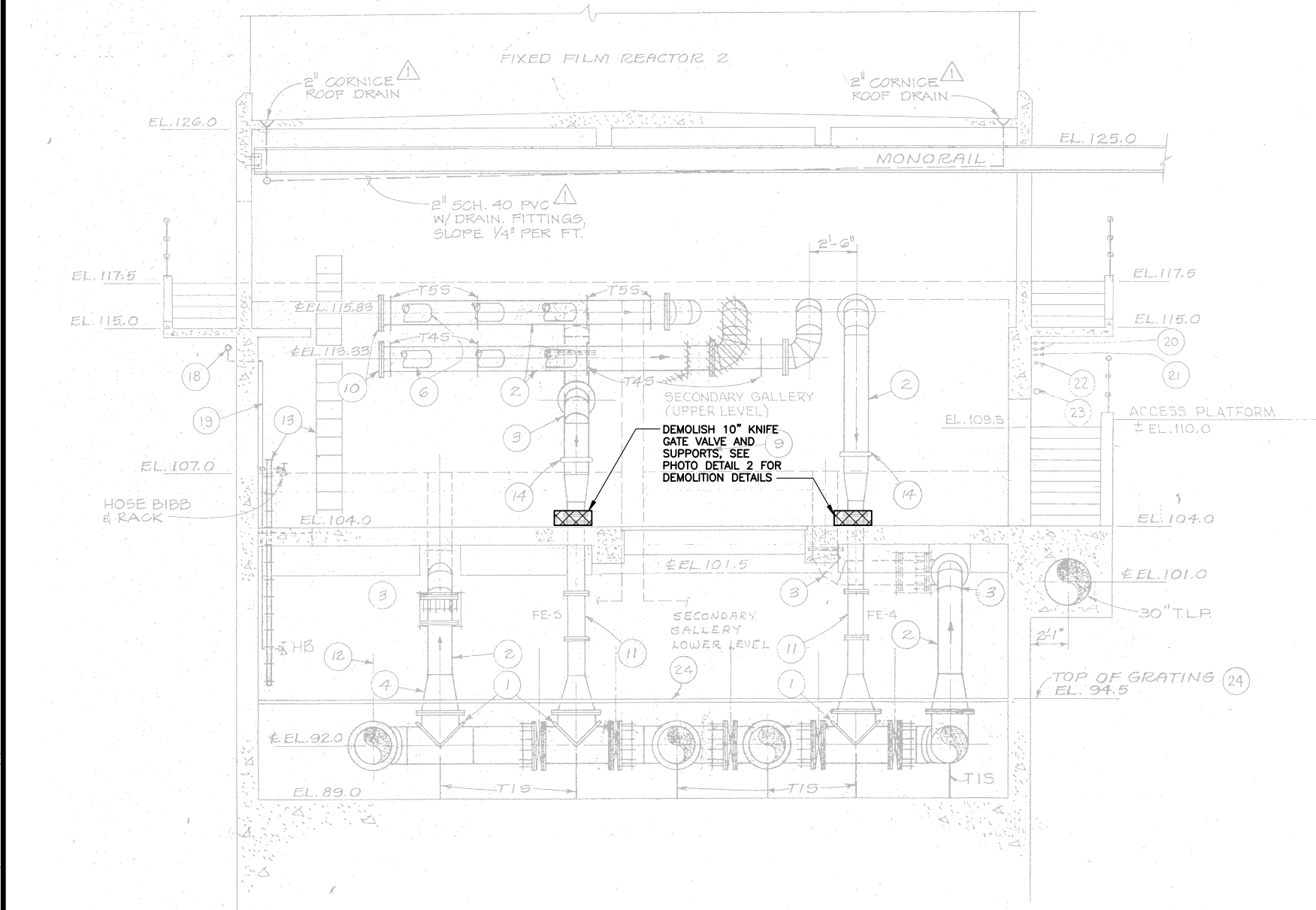


TREATMENT AND WET WEATHER FLOW UPGRADE

FFR MEDIA
DEMOLITION SECTIONS

DWG NO	D300-3
SHEET NO	22 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-D300-3 3-13-17 01:23pm sjung XREFS: X-SMCSB-TBLK | Wakenoto-PE-stamp.kc



SECTION **B**
1/4" = 1'-0" D300-1

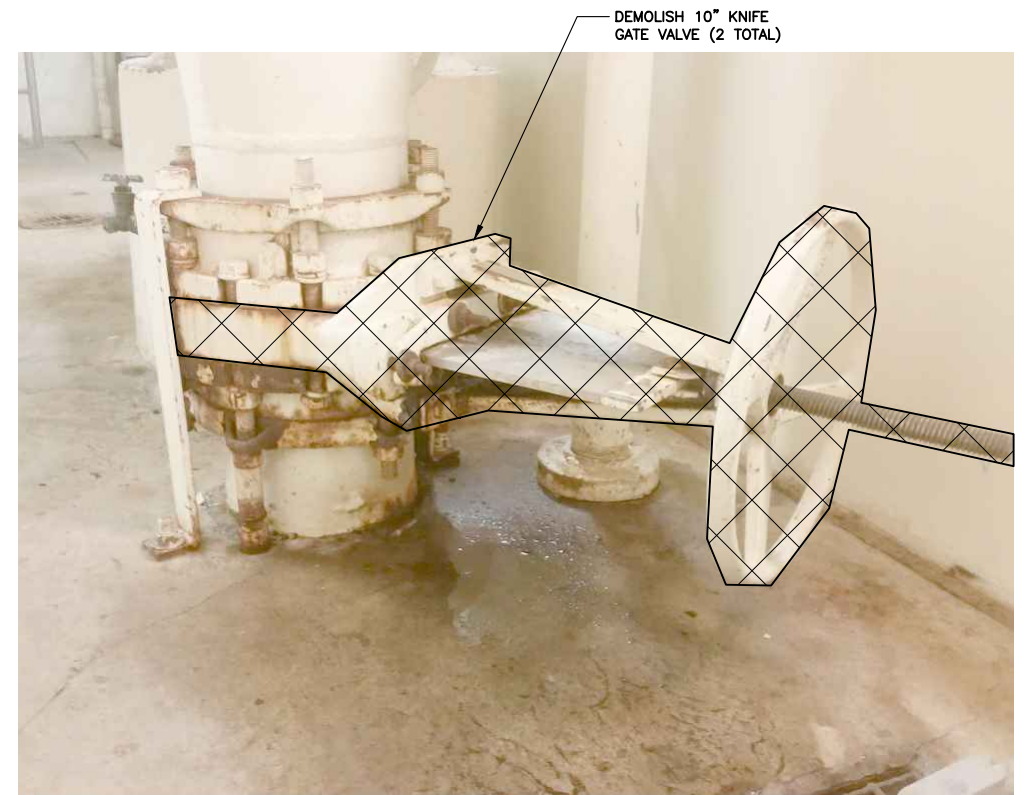


PHOTO **2**



0" = 1" —
VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY

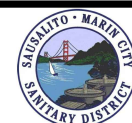


REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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PREPARED BASED ON ORIGINAL SIGNED
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DESIGNED	S. MASUDA
DRAWN	S. JUNG
CHECKED	M. NAKAMOTO

SUBMITTED:	MARK TAKEMOTO	
	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	
	RMC ENGINEER	CE-30318

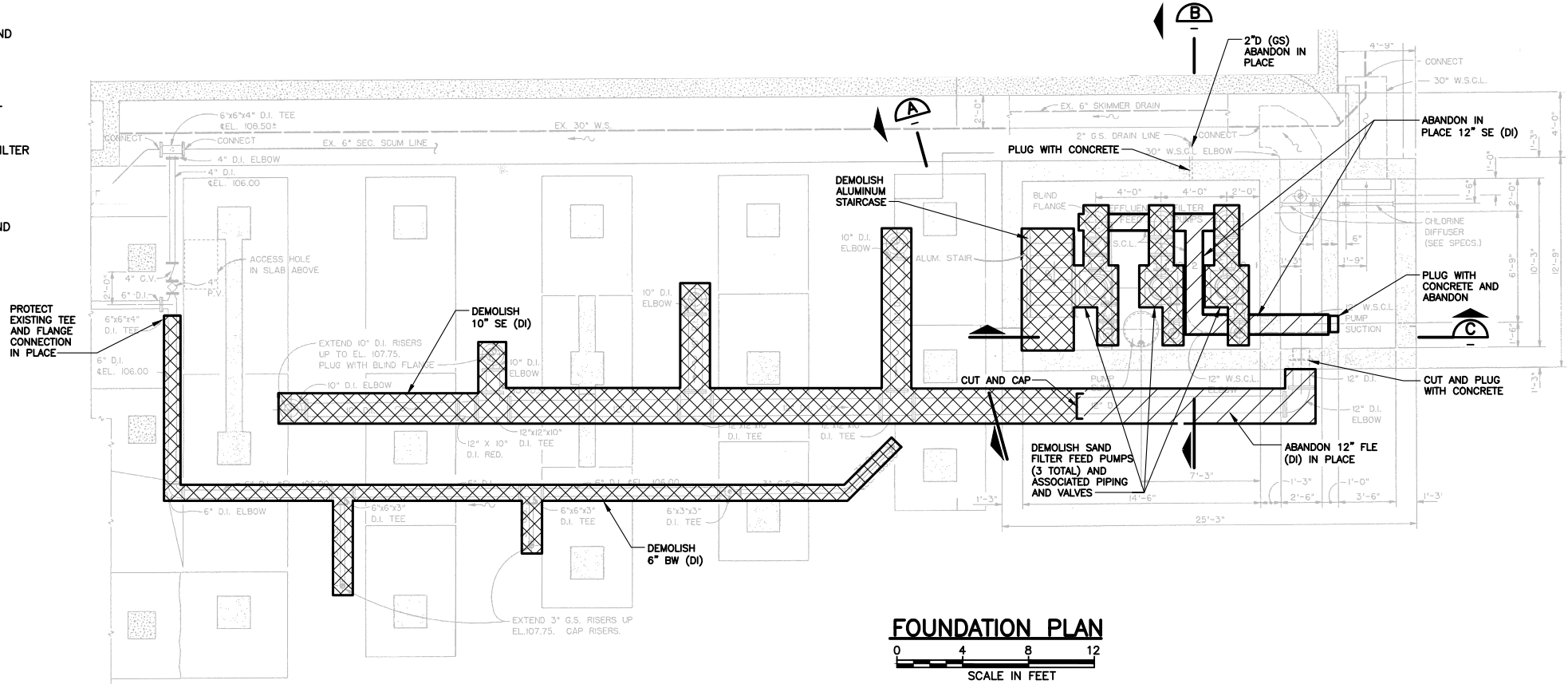


TREATMENT AND WET WEATHER FLOW UPGRADE
**FFR PIPING
DEMOLITION SECTIONS**

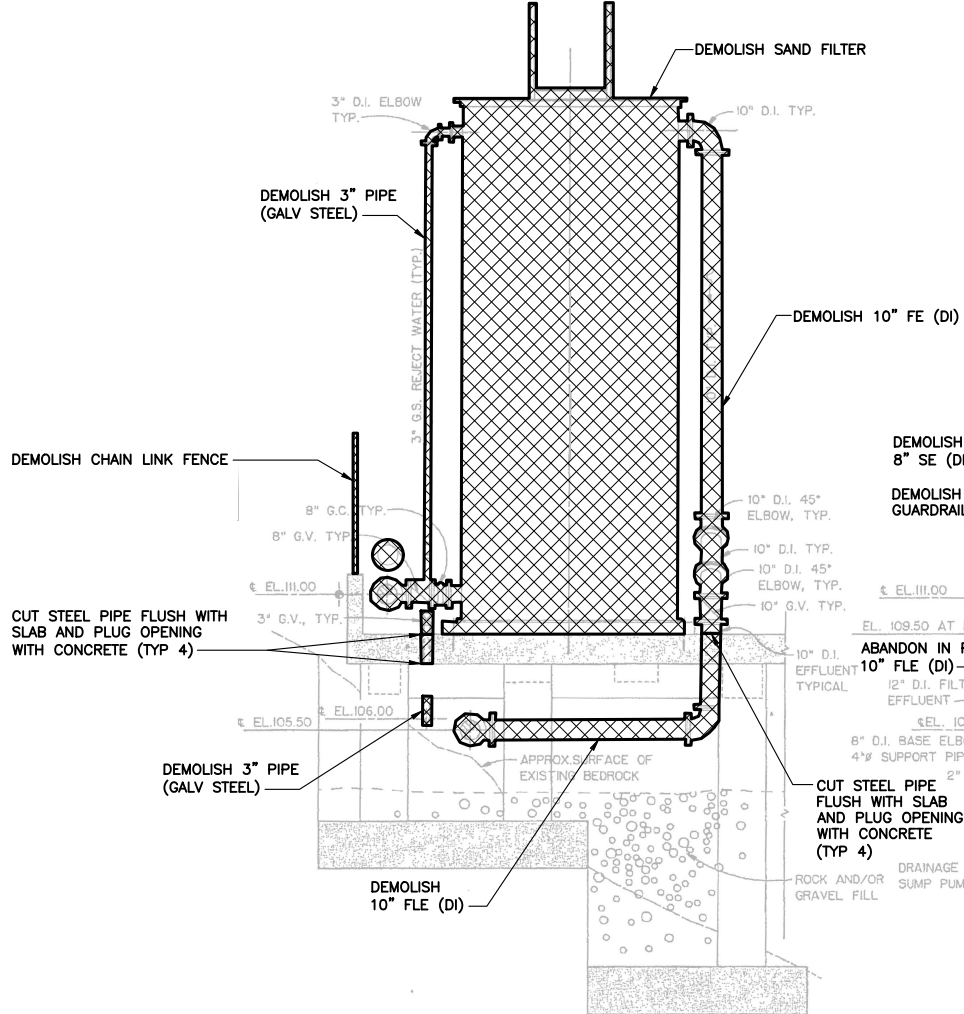
DWG NO	D300-4
SHEET NO	23 OF 226
PROJ NO	055-006
DATE	MARCH 2017

NOTES:

1. CONTRACTOR SHALL DEMOLISH EXISTING FILTER PUMPS, SAND FILTERS, PIPING, AND VALVES AS SHOWN.
2. CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.
3. MECHANICAL BACKGROUND TAKEN FROM 1990 DRAWING SET (SHEETS 3 AND 4 OF 16, SEE REFERENCE DRAWINGS).
4. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL SAND FILTER EQUIPMENT INCLUDING BUT NOT LIMITED TO PIPES, PUMPS, VALVES, FILTER COMPONENTS AND MEDIA.
5. REFERENCE DRAWING DATUM IS USGS 1929 MSL+100.
6. SEE DWG M400-2 AND M400-3 FOR ADDITIONAL PIPING AND EQUIPMENT TO BE DEMOLISHED.

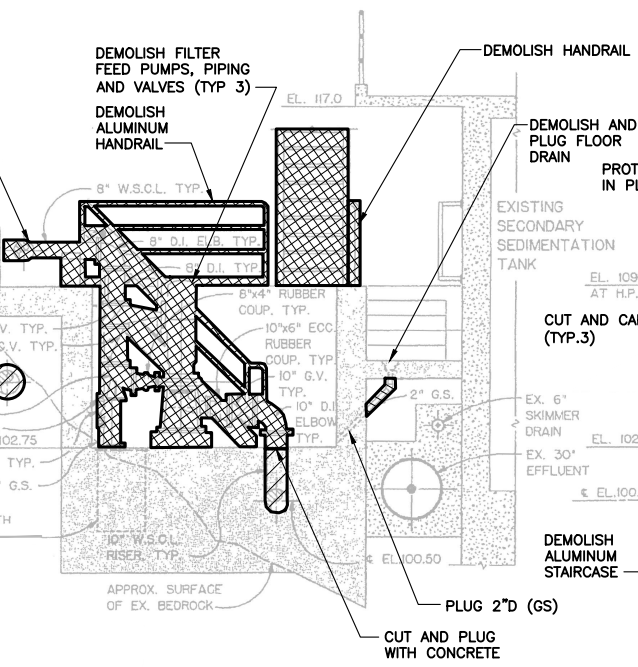


FOUNDATION PLAN



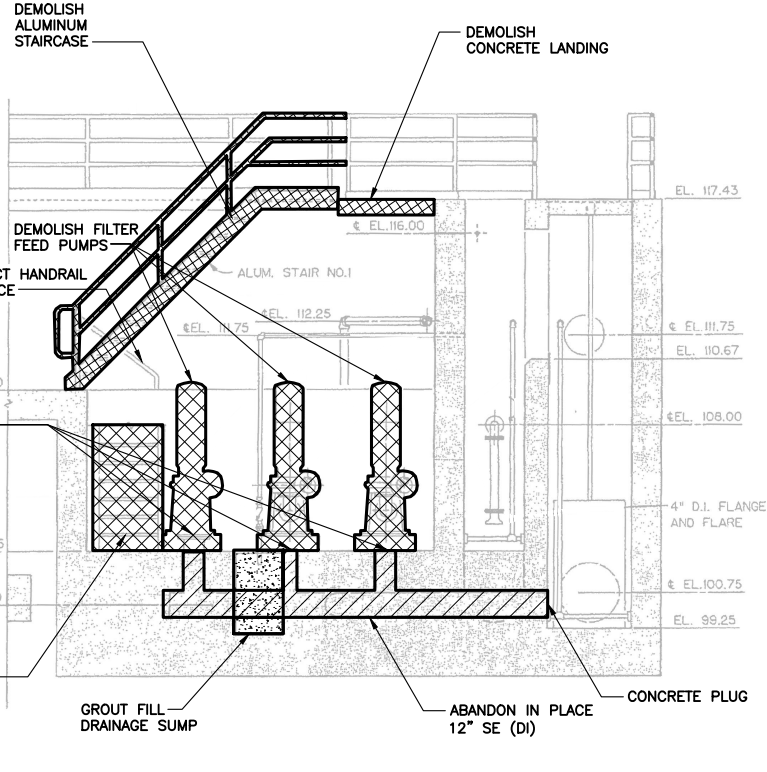
SECTION A

NTS



SECTION B

NTS



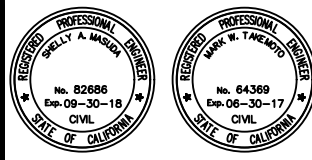
SECTION C

NTS

NOTES:

1. DRAWING NOT TO SCALE.
2. DEMOLITION REFERENCE FROM 1990 DRAWING (5 OF 19) SET (SEE REFERENCE DRAWINGS). CONTRACTOR SHALL REMOVE STRUCTURE, MECHANICAL EQUIPMENT, AND UTILITIES.
3. UNLESS OTHERWISE NOTED, PIPING WITHIN 10 FEET OF THE STRUCTURE THAT IS TO BE TAKEN OUT OF SERVICE SHALL BE CUT AND REMOVED. REMAINING ABANDONED PIPELINES SHALL BE CAPPED UNLESS OTHERWISE NOTED.
4. REFERENCE DRAWING DATUM IS USGS 1929 MSL+100.

FILENAME: 0055-006-D400-1 3-13-17 01:25pm SJUNG XREFS: X-SMCSB-TBLK | M Takemoto-PE-stamp | K--



0"=1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED NOVEMBER 2016 AND SUBSEQUENT ADDENDA

DESIGNED	S. MASUDA
DRAWN	S. JUNG
CHECKED	M. NAKAMOTO

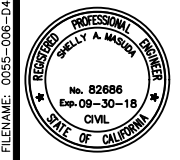
SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
SAND FILTERS
DEMOLITION PLAN & SECTIONS - 1

DWG NO	D400-1
SHEET NO	24 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-D400-1 3-13-17 01:25pm 9Jung XREFS: X-SMCSB-TBLK | M Takamoto-PE-stamp | Kc--



0" = 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED **NOVEMBER 2016** AND SUBSEQUENT ADDENDA

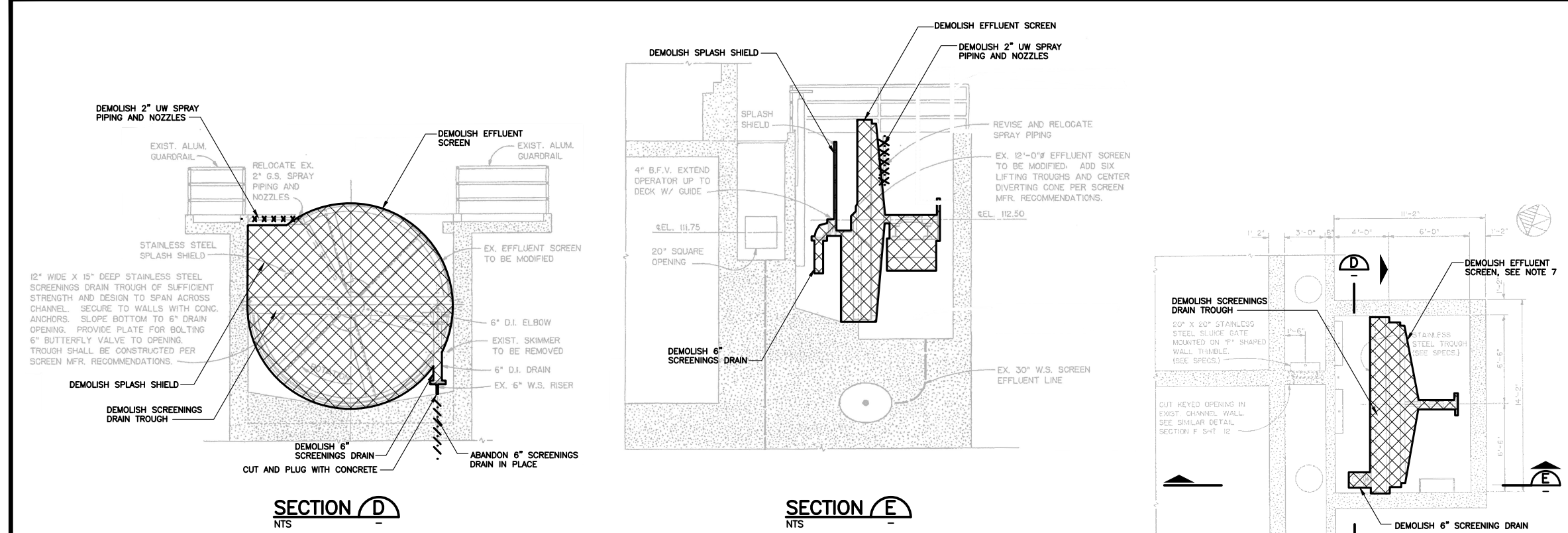
DESIGNED S. MASUDA
DRAWN S. JUNG
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKAMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

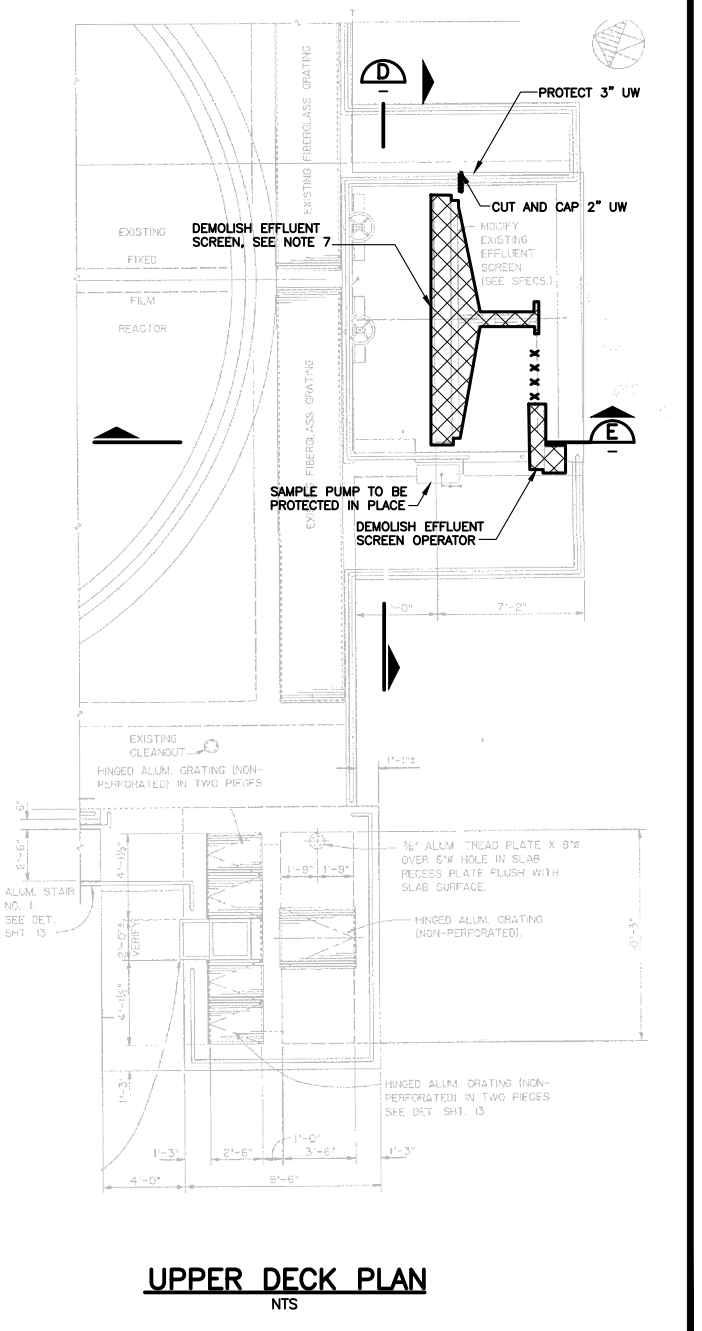
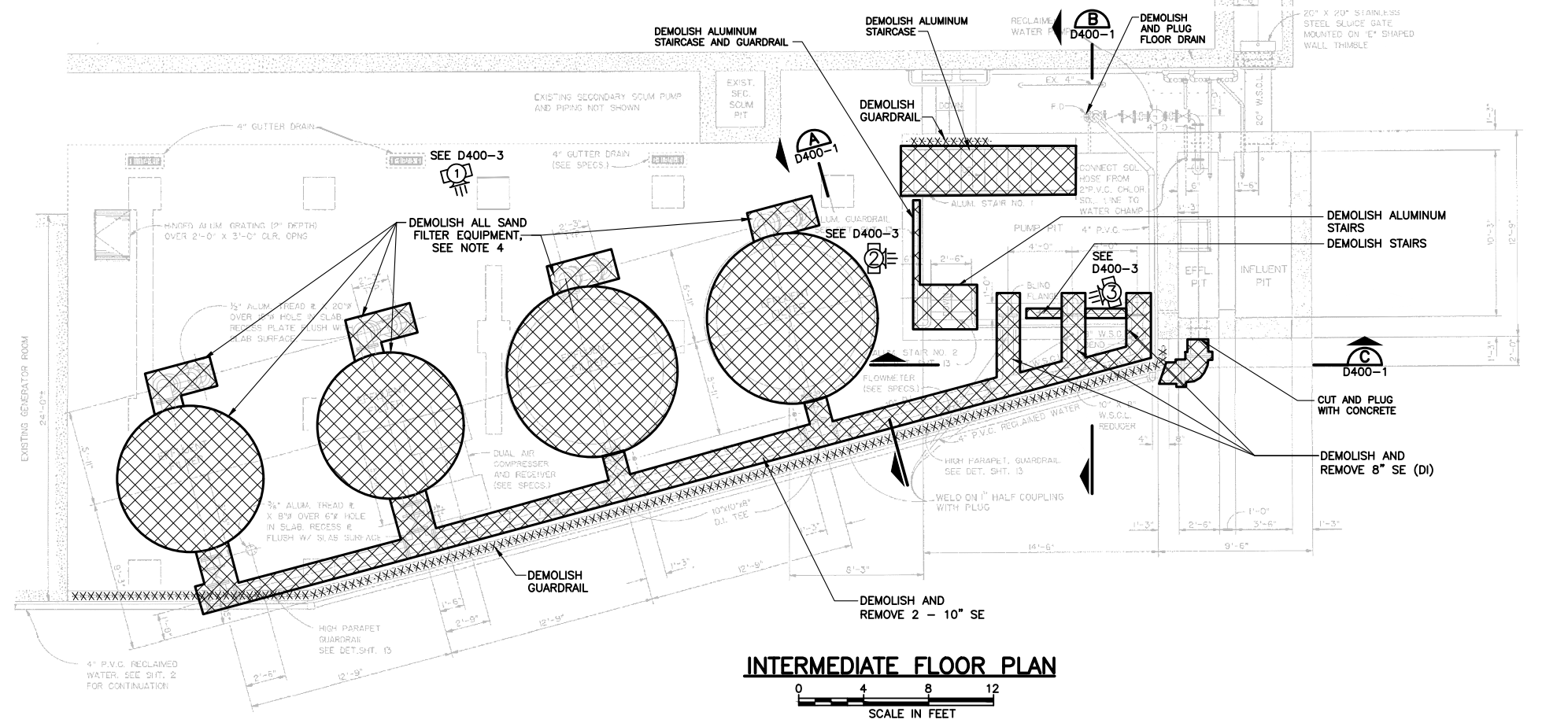


TREATMENT AND WET WEATHER FLOW UPGRADE
SAND FILTERS
DEMOLITION PLAN & SECTIONS - 2

DWG NO **D400-2**
SHEET NO **25 OF 226**
PROJ NO 055-006
DATE MARCH 2017



- NOTES:**
- CONTRACTOR SHALL DEMOLISH EXISTING FILTER PUMPS, SAND FILTERS, PIPING, AND VALVES AS SHOWN.
 - CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.
 - MECHANICAL BACKGROUND TAKEN FROM 1990 DRAWING SET (SHEETS 3 AND 4 OF 16, SEE REFERENCE DRAWINGS).
 - CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL SAND FILTER EQUIPMENT INCLUDING BUT NOT LIMITED TO PIPES, PUMPS, VALVES, FILTER COMPONENTS AND MEDIA.
 - REFERENCE DRAWING DATUM IS USGS 1929 MSL+100.
 - SEE DWG M400-1 AND M400-3 FOR ADDITIONAL PIPING AND EQUIPMENT TO BE DEMOLISHED.
 - DEMOLITION OF AND DISPOSAL OF EFFLUENT SCREEN SHALL NOT BEGIN UNTIL COMMISSIONING OF ROTATING DISC FILTERS. CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.



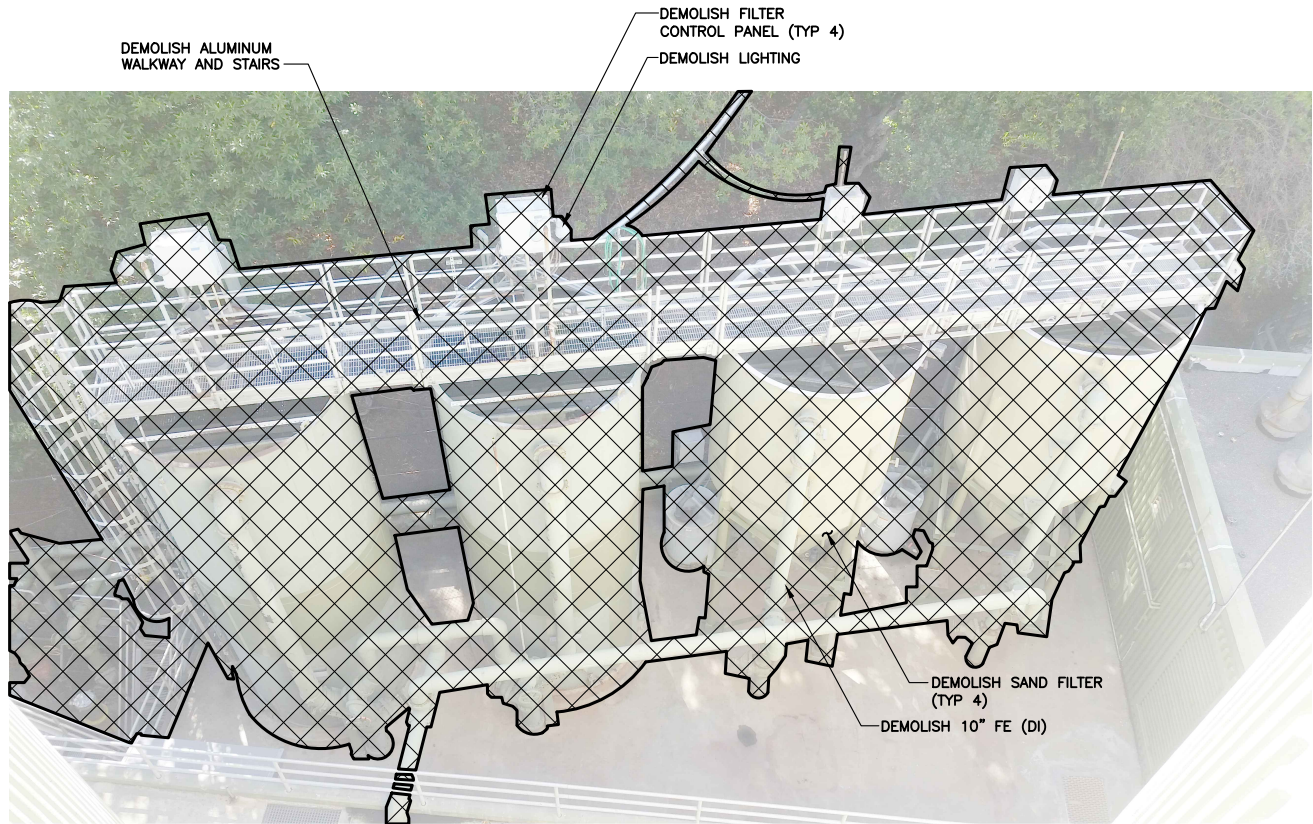


PHOTO 1
D400-1

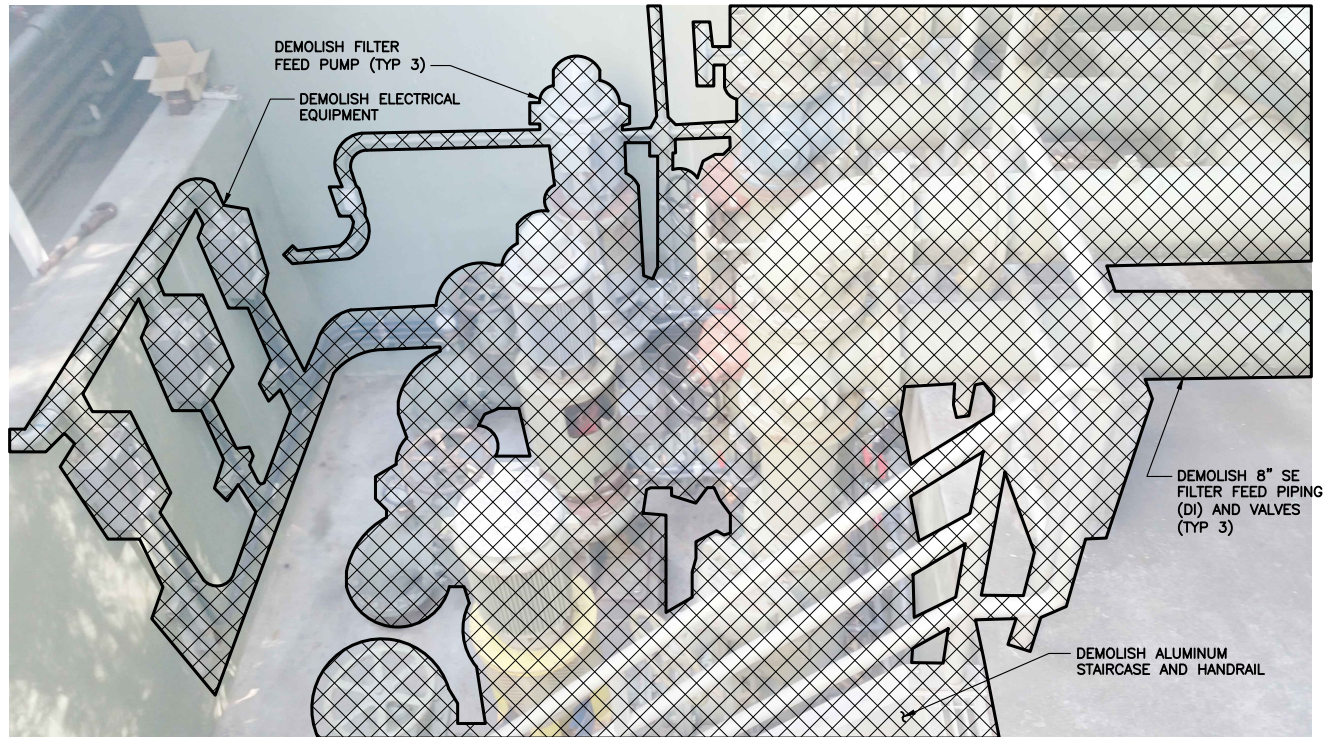


PHOTO 2
D400-1

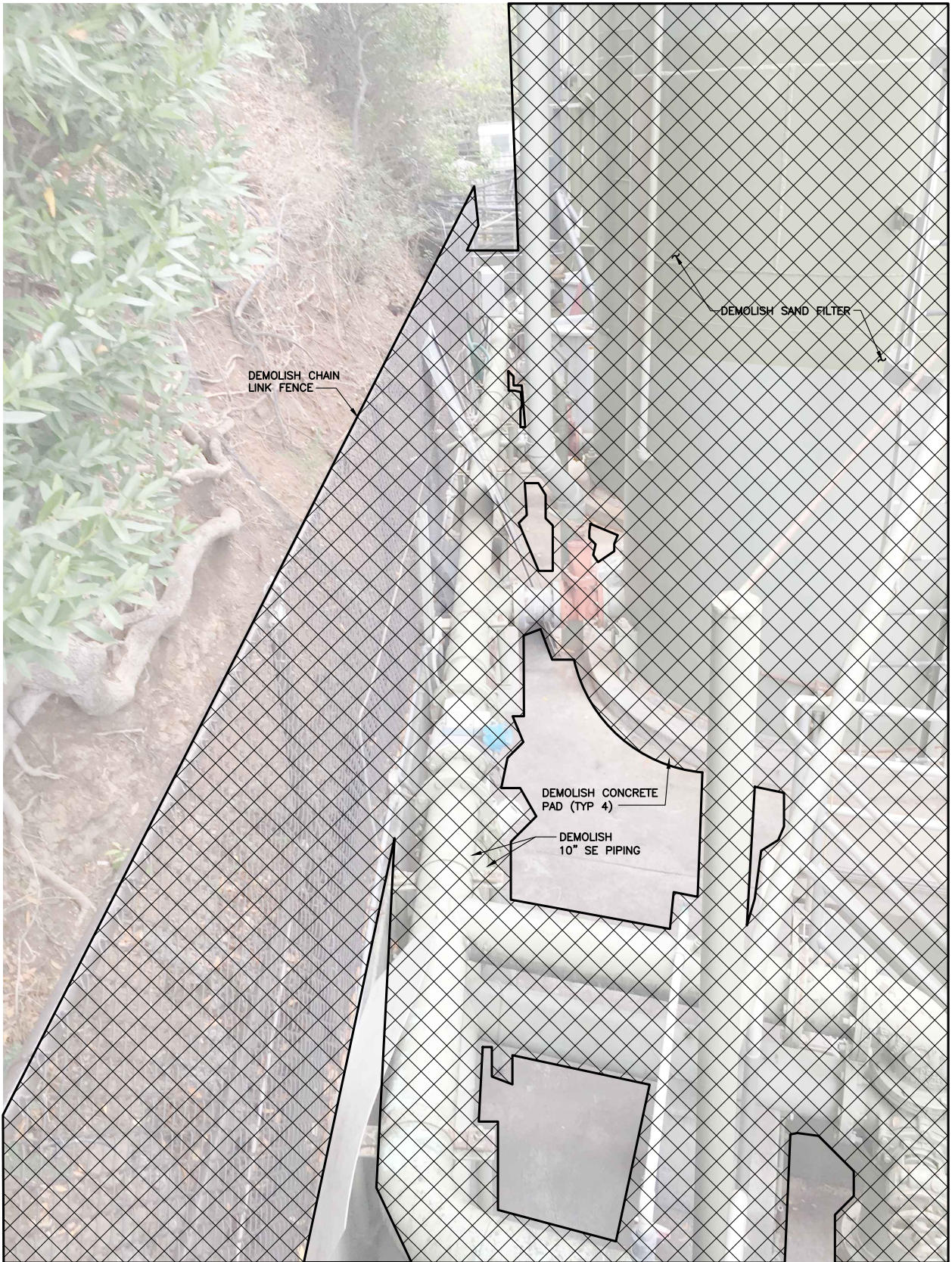


PHOTO 3
D400-1



0" = 1" —
VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED **NOVEMBER 2016** AND
SUBSEQUENT ADDENDA

DESIGNED S. MASUDA
DRAWN J. MAY
CHECKED M. NAKAMOTO

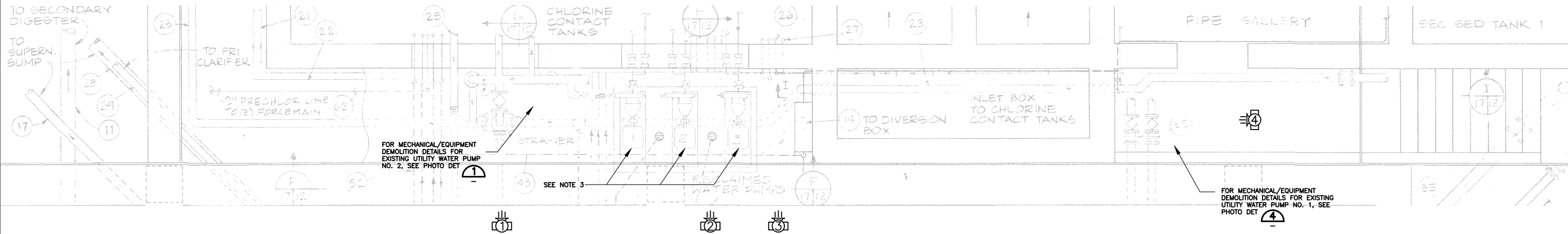
SUBMITTED: MARK TAKAMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
**SAND FILTERS
DEMOLITION DETAILS**

DWG NO **D400-3**
SHEET NO **26 OF 226**
PROJ NO 055-006
DATE MARCH 2017

- NOTES:
1. CONTRACTOR SHALL DEMOLISH EXISTING UTILITY WATER PUMPS, PIPING, VALVES, SUPPORTS, AND HANGARS AS SHOWN.
 2. CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.
 3. MECHANICAL BACKGROUND TAKEN FROM 1988 DRAWING SET (SHEET M-17, SEE REFERENCE DRAWINGS). THREE PUMPS SHOWN WERE REMOVED AND REPLACED WITH TWO INLINE VERTICAL MULTISTAGE PUMPS. LOCATIONS OF EXISTING PUMPS ARE INDICATED ON PHOTOS 1 AND 4.
 4. PIPING NOT SHOWN TO BE DEMOLISHED SHALL BE PROTECTED IN PLACE.



TOP PLAN
NTS

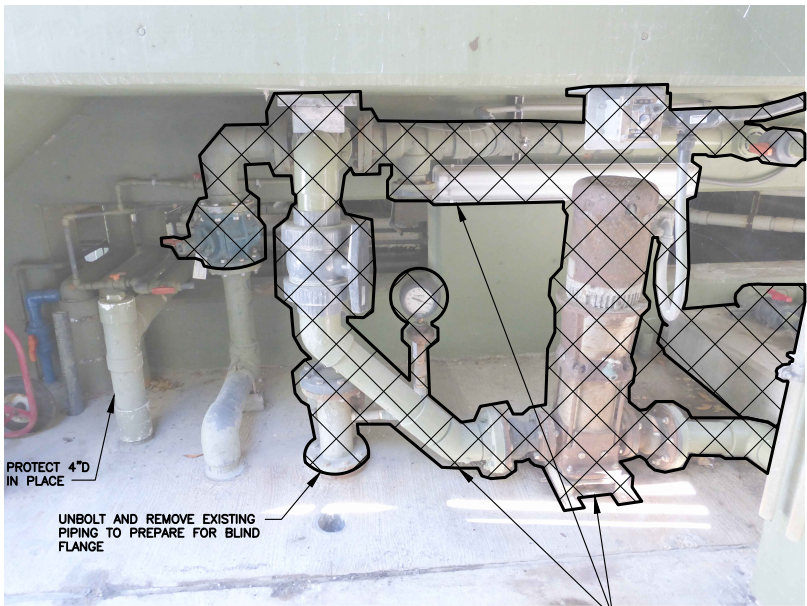


PHOTO 1

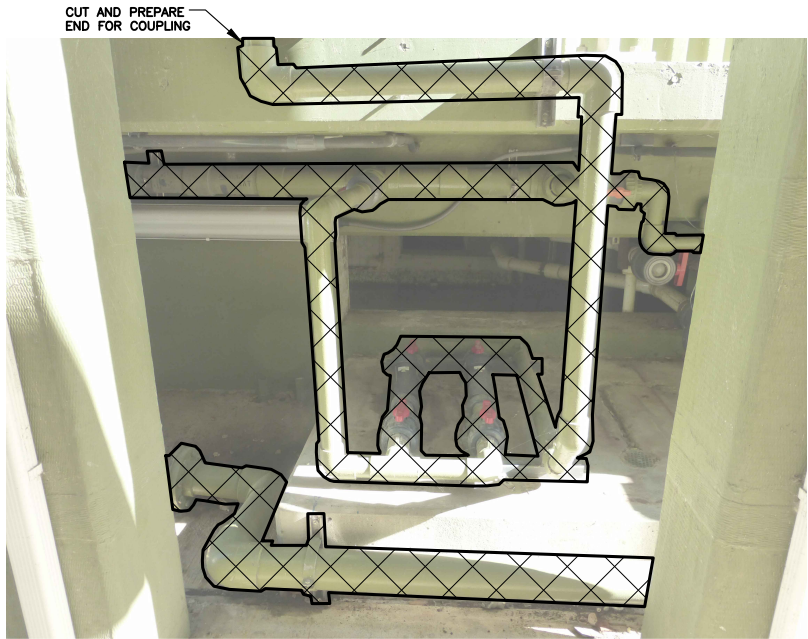


PHOTO 2

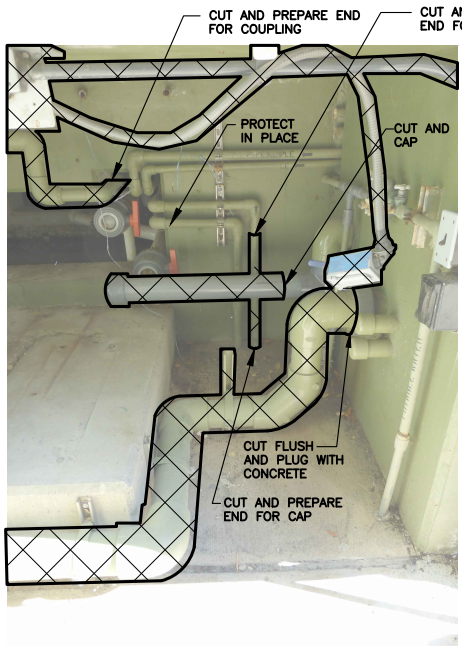


PHOTO 3

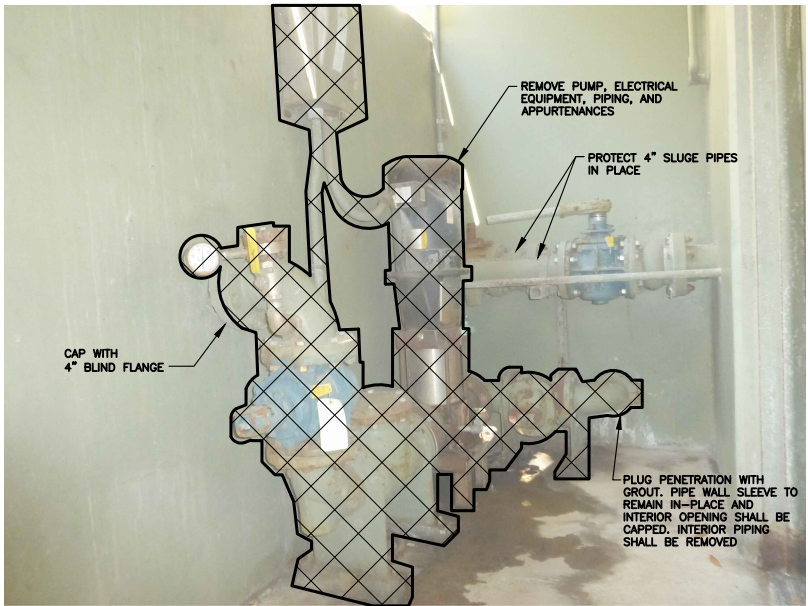
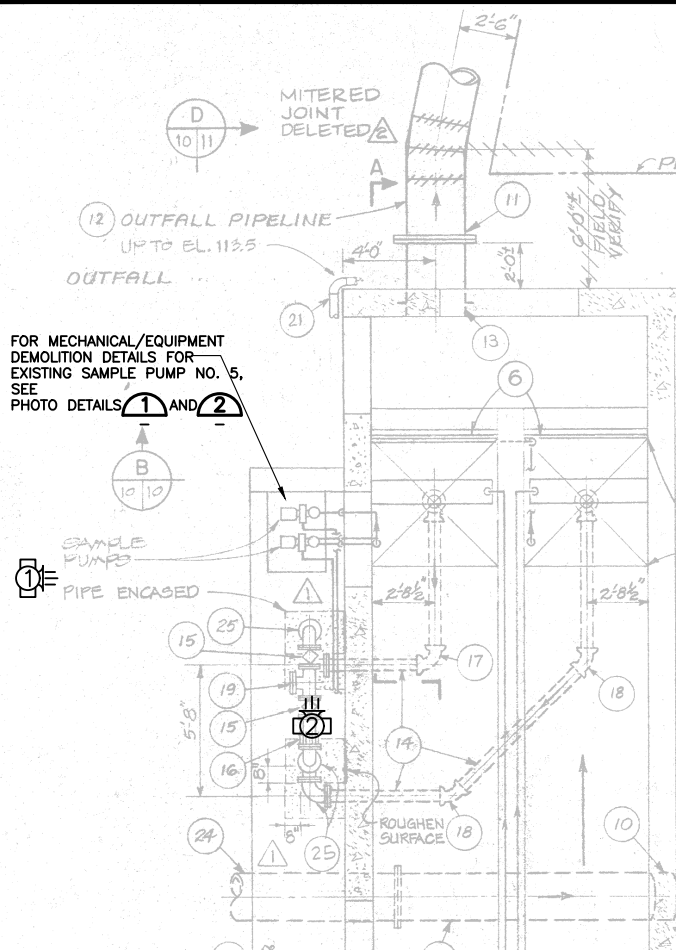


PHOTO 4



TOP PLAN
NTS

NOTES:

1. CONTRACTOR SHALL REMOVE AND RELOCATE EXISTING SAMPLE PUMP AND DEMOLISH PIPING AND VALVES AS SHOWN.
2. CONSTRUCTION SEQUENCING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.
3. MECHANICAL BACKGROUND TAKEN FROM 1988 DRAWING SET (SHEET M-10, SEE REFERENCE DRAWINGS).
4. REFERENCE DRAWING DATUM IS USGS 1929 MSL +100.
5. CONTRACTOR SHALL REMOVE APPROXIMATELY 33' OF 2" PVC PIPING IN CHLORINE CONTACT TANKS INCLUDING VALVES, SUPPORTS AND HANGARS.
6. CONTRACTOR SHALL REMOVE APPROXIMATELY 53' OF 3/4" PVC PIPING UNDER PLATFORM INCLUDING VALVES, SUPPORTS AND HANGARS. SEE D600-1 FOR EXTENT OF DEMOLITION.



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 SIZE DRAWING.
 IF NOT ONE INCH
 LONG ON THIS
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 SCALES ACCORDINGLY



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DRAWN J. MAY
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
SAMPLE PUMP NO.5
DEMOLITION PLAN AND DETAILS

DWG NO D600-2
SHEET NO 28 OF 226
PROJ NO 055-006
DATE MARCH 2017

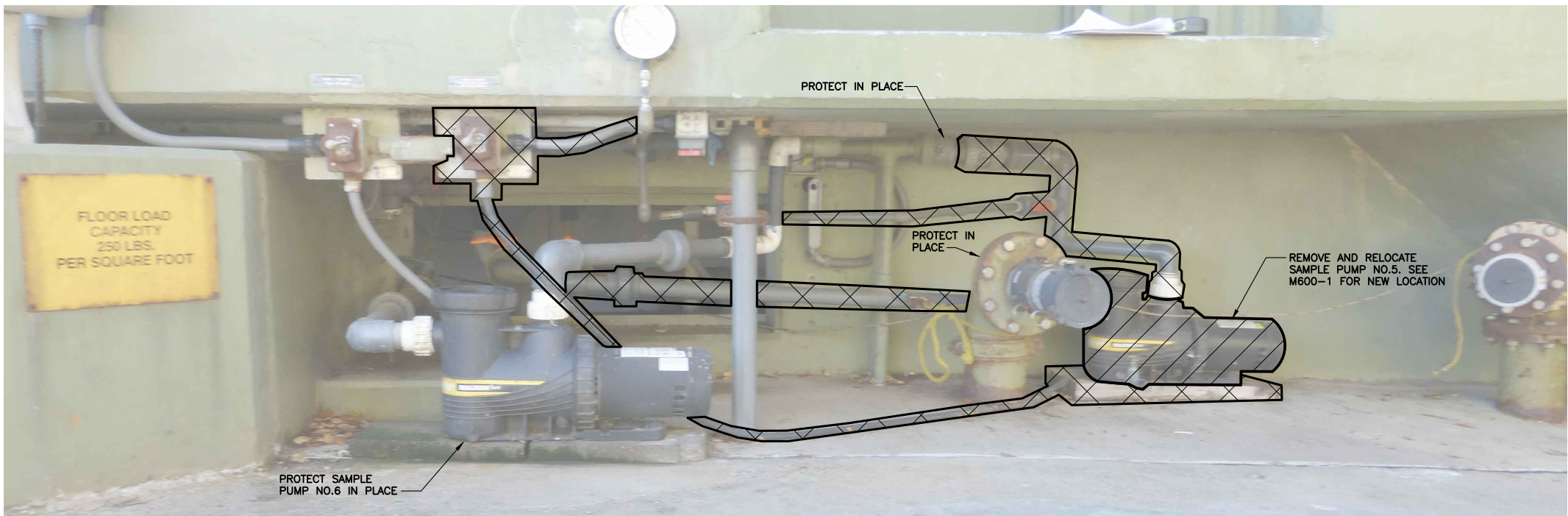


PHOTO 1

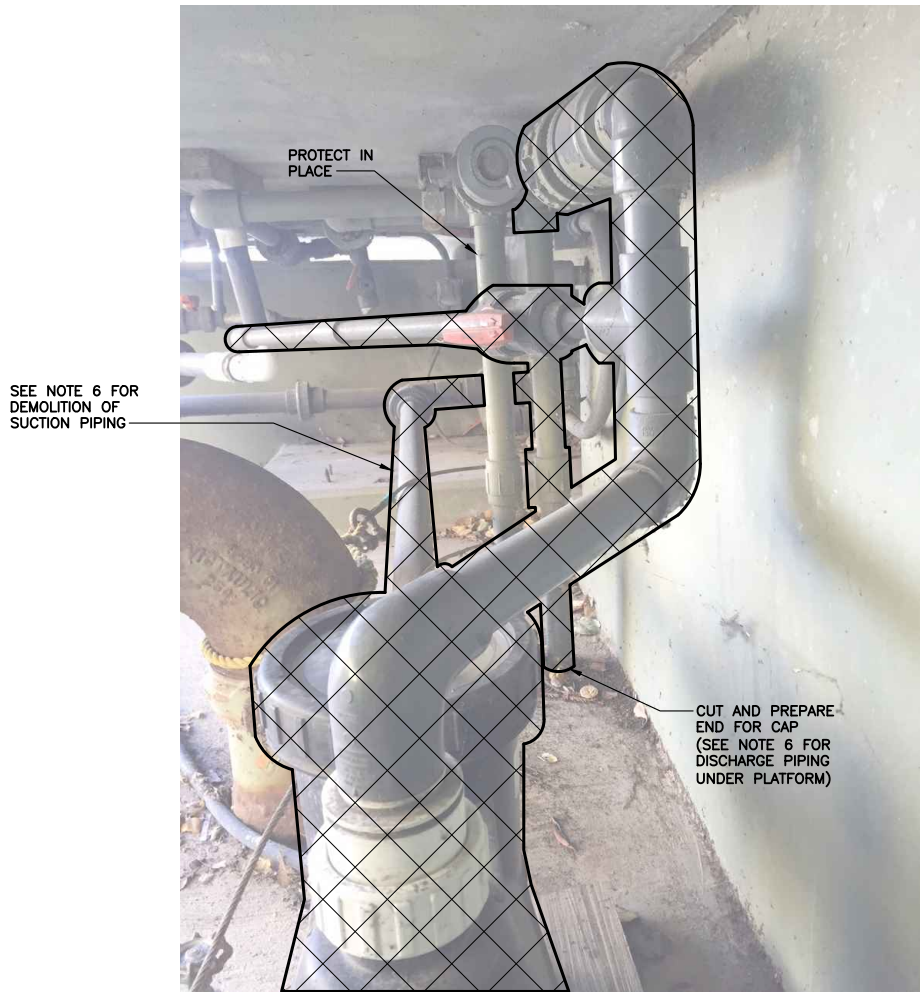


PHOTO 2

FILENAME: 0055-006-C-1 3-21-17 09:00am sjung XREFS: X-SACS0-TBLK MTakemoto-PE-stamp <-->

CIVIL LEGEND

	SOIL BORING
	BENCHMARK/CONTROL POINT
	POTHOLE
	RIGHT OF WAY LINE
	CONTOUR LINE
	STREET LIGHT (SINGLE ARM)
	STREET LIGHT (DOUBLE ARM)
	STREET SIGN
	SPOT ELEVATION
	SLOPE DIRECTION
	FENCE
	FLOW LINE
	EXISTING ABANDONED
	ABANDONED
	TO BE REMOVED
	STAGING AREA
	ELECTRICAL AND CONTROL DUCT BANKS
	GRAVEL
	AC PAVING (SECTION)
	CONCRETE PAVING (PLAN)
	NATIVE FILL OR GROUT IN STRUCTURES
	GRIND AND OVERLAY PAVING OR SLURRY SEAL
	GRASS OR LANDSCAPING AREA (TOP SOIL)
	EARTH
	CATCH BASIN
	ELECTRICAL OR CONTROL DUCT BANK, JUNCTION BOX
	MANHOLE (MH)
	REMOVAL GUARD POST C142

GENERAL GRADING NOTES:

GG1	ALL SPOT ELEVATIONS, SLOPES AND CONTOURS SHOWN ARE APPROXIMATE LOCATION AND CAN BE SCALED FROM THE DRAWING LOCATIONS. SPOT ELEVATIONS SHOWN JUST OUTSIDE BUILDINGS ARE TO BE LOCATED AT THE EXTERIOR ABOVE GROUND FACE OF WALL. SPOT ELEVATION SLOPES AND CONTOURS LOCATED BY DIMENSIONS, STATIONING OR IN PROFILE ARE TO BE ESTABLISHED AS SHOWN.
GG2	TRANSITIONS BETWEEN SLOPES SHALL BE SMOOTH AND UTILIZE VERTICAL CURVES UNLESS NOTED OTHERWISE.
GG3	FINISHED GRADING SHALL DRAIN TO CATCH BASINS. NO PONDING OR STANDING WATER SHALL BE ALLOWED.
GG4	GRADING AND PAVING DRAWINGS SHOW RIM ELEVATIONS FOR CATCH BASINS AND AREA DRAINS. FOR DRAIN PIPE SIZES AND INVERTS SEE YARD PIPING DRAWINGS.
GG5	RIM ELEVATIONS FOR CATCH BASINS ARE ALONG THE FLOWLINE OF GUTTER.
GG6	WHERE GROUND IS DISTURBED CONTRACTOR SHALL INSTALL 4" OF CALIFORNIA CERTIFIED WEED FREE RICE STRAW. STRAW SHALL BE COVERED WITH 600 GR COIR FABRIC. COIR SHALL BE OVERLAPPED BY A MINIMUM 12" AT ALL SEAMS. FABRIC SHALL BE TOED IN TO THE TOP AND BOTTOM OF THE SLOPE AS PER GGNRA BMP HANDBOOK. FABRIC SHALL BE SECURELY STAKED USING A METAL U-STAKE OR WOODEN STAKE, DEPENDING ON FINISH SITE CONDITIONS. STAKES SHALL BE INSTALLED ALONG ALL SEAMS, AS WELL AS THROUGHOUT EROSION CONTROL INSTALLATION TO SECURE FABRIC FIRMLY AND ENSURE NO STRAW MOVEMENT.

GENERAL PAVING NOTES:

GP1	FOR PAVING LOCATIONS SEE GRADING AND PAVING DRAWINGS. SEE ELECTRICAL, MECHANICAL, AND YARD PIPING DRAWINGS FOR UTILITY TRENCH PAVING.
GP2	ALL PAVED AREA SHALL DRAIN TO EXISTING OR NEW CATCH BASIN UNLESS NOTED OTHERWISE.
GP3	WHERE AREAS ARE TO BE REPAVED UTILITY BOXES AND VAULTS SHALL BE PROTECTED IN PLACE. PAVED AREAS SHALL BE GRADED TO DRAIN TO CATCH BASINS UNLESS OTHERWISE NOTED.
GP4	STRIPING SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATION SECTION 84.
GP5	FOR AREAS IDENTIFIED TO BE GRIND AND OVERLAY PAVING OR SLURRY SEAL OR CRACK SEAL, THE CONTRACTOR SHALL SUBMIT PAVING PLANS TO THE ENGINEER DESIGNATING PAVEMENT RESURFACING PLANS. ENGINEER SHALL RECEIVE AND ACCEPT PLAN.

GENERAL CATHODIC PROTECTION NOTES:

GCP1	CONTRACTOR SHALL INSTALL CATHODIC PROTECTION SYSTEMS AS REQUIRED BY THE SPECIFICATIONS AND IN ACCORDANCE WITH DRAWING CP-1 TO CP-2 AND THE PIPE SCHEDULES ON DRAWING G-6.
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GENERAL YARD PIPING NOTES:

GYP1	ALL YARD PIPING SHALL BE AS IDENTIFIED ON YARD PIPING AND MECHANICAL DRAWINGS AND SPECIFICATION SECTION 02500 AND 15000 – PIPING GENERAL.
GYP2	LOCATIONS FOR LARGE YARD PIPE, 12-INCHES IN DIAMETER AND LARGER, ARE IDENTIFIED BY COORDINATES ON THE DRAWINGS.
GYP3	LOCATIONS FOR SMALL YARD PIPE, LESS THAN 12-INCHES IN DIAMETER, ARE APPROXIMATE AND CAN BE SCALED FROM THE DRAWINGS FOR APPROXIMATE LOCATION.
GYP4	ALL DRAINAGE OR GRAVITY FLOW PIPE SHALL MAINTAIN AN AVERAGE SLOPE BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. THE PIPE MAY BE DEFLECTED TO CLEAR AN INTERFERENCE. IN NO CASE SHALL THE PIPE SLOPE BE LESS THAN 0.0020 UNLESS NOTED OTHERWISE.
GYP5	ALL NEW PRESSURE (NON GRAVITY) PIPE SHALL BE INSTALLED WITH A SLOPE TO ALLOW FREE DRAINAGE TO BLOW-OFF VALVES OR STRUCTURES. ELEVATIONS ON THE DRAWINGS ARE MAXIMUM AND CAN BE LOWERED TO ACCOMMODATE INTERFERENCES, PROVIDED FREE DRAINAGE IS MAINTAINED.
GYP6	SLOPES OF PRESSURE PIPES BETWEEN STRUCTURES, WHEN NO INTERMEDIATE BLOW-OFFS ARE SHOWN, CAN BE ADJUSTED, PROVIDED ADEQUATE ADJUSTMENT EXISTS INSIDE STRUCTURES TO PROVIDE FREE DRAINAGE.
GYP7	ALL PIPES SHALL HAVE A MINIMUM COVER GREATER THAN 2'-6" UNLESS NOTED OTHERWISE.
GYP8	PIPES SHOWN AS CONCRETE ENCASED UNDER STRUCTURES SHALL BE CONCRETE ENCASED TO A MINIMUM HORIZONTAL DISTANCE BEYOND THE STRUCTURE AS SHOWN IN (C254).
GYP9	CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL CROSSING UTILITIES EXPOSED DURING CONSTRUCTION.
GYP10	CONTRACTOR SHALL VERIFY THE TYPE, SIZE AND CONDITION OF EXISTING PIPE PRIOR TO INSTALLING NEW PIPE. THE PIPE SHALL BE INSPECTED FOR CORROSION OR OTHER CONDITIONS THAT WOULD PREVENT AN ADEQUATE CONNECTION.
GYP11	LOCATIONS OF EXISTING PIPES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY CONNECTION LOCATIONS PRIOR TO STARTING WORK OR DETAILING SHOP DRAWINGS.
GYP12	UNLESS NOTED OTHERWISE ALL PIPES ENTERING OR LEAVING STRUCTURES EXCEPT AIR, GAS, AND SOLVENT WELDED PLASTIC PIPE SHALL BE PROVIDED WITH 2 FLEXIBLE COUPLINGS OR THREE TO FOUR FOOT SECTIONS OF BELL SPIGOT GASKETED PIPE AS SHOWN IN (C234) .
GYP13	WHERE BURIED GAS LINES ARE INSTALLED, TWO CONTINUOUS WARNING TAPES SPACED 9-INCHES APART, CENTERED ALONG EACH PIPE, SHALL BE BURIED ONE FOOT BELOW FINISHED GRADE. WHERE GAS LINES CROSS ROADS, WARNING TAPES MAY BE PLACED ON THE SUBGRADE, BELOW ROAD BASE, IN LIEU OF ONE FOOT CRITERIA. IN ADDITION, WARNING SIGNS INDICATING BURIED GAS LINES SHALL BE PLACED ALONG THE PIPELINE ALIGNMENT, SPACED NO FARTHER APART THAN 250 FEET. WHERE GAS PIPELINES ARE BURIED UNDER A ROAD, WARNING SIGNS SHALL BE PLACED ALONG THE SHOULDER AND SHALL INDICATE BURIED GAS LINES UNDER ROAD.
GYP14	NEW ELECTRICAL MANHOLES SHOWN ON ELECTRICAL YARD DRAWINGS ARE SHOWN ON THE YARD PIPING DRAWINGS. THE YARD PIPING AND YARD ELECTRICAL UTILITIES SHALL BE COORDINATED AND SEQUENCED TO MINIMIZE INTERFERENCE DURING CONSTRUCTION. WHERE UTILITIES MUST CROSS UNDER EXISTING OR NEW CONCRETE DUCT BANKS, CONCRETE PIPE, OR OTHER RIGID UTILITIES, UTILITY SUPPORT DETAIL (C248) SHALL BE USED TO FACILITATE INSTALLATION.
GYP15	SOME OF THE SMALL EXISTING UTILITIES THAT ARE ADJACENT TO EACH OTHER ARE REPRESENTED AS A SINGLE LINE.
GYP16	CONTRACTOR SHALL INSTALL 4" OF CALIFORNIA CERTIFIED WEED FREE RICE STRAW. STRAW SHALL BE COVERED WITH 600 GR COIR FABRIC. COIR SHALL BE OVERLAPPED BY A MINIMUM 12" AT ALL SEAMS. FABRIC SHALL BE TOED IN TO THE TOP AND BOTTOM OF THE SLOPE AS PER GGNRA BMP HANDBOOK. FABRIC SHALL BE SECURELY STAKED USING A METAL U-STAKE OR WOODEN STAKE, DEPENDING ON FINISH SITE CONDITIONS. STAKES SHALL BE INSTALLED ALONG ALL SEAMS, AS WELL AS THROUGHOUT EROSION CONTROL INSTALLATION TO SECURE FABRIC FIRMLY AND ENSURE NO STRAW MOVEMENT.

STRUCTURE COORDINATE:

POINT ID.	NORTHING	EASTING
(S1)	2135783.386	5990756.646
(S2)	2135658.571	5990684.345
(S3)	2135735.428	5990699.480
(S4)	2135759.395	5990705.440
(S5)	2135807.063	5990772.577
(S6)	2135837.386	5990782.804
(S7)	2135837.385	5990799.616
(S8)	2135799.651	5990799.615
(S9)	2135793.449	5990783.350
(S10)	2135647.233	5990741.983
(S11)	2135565.610	5990790.417
(S12)	2135559.777	5990781.686
(S13)	2135802.959	5990710.042
(S14)	2135805.264	5990704.196
(S15)	2135744.346	5990680.002
(S16)	2135738.459	5990678.845
(S17)	2135640.558	5990683.787
(S18)	2135629.478	5990679.500
(S19)	2135565.610	5990790.417
(S20)	2135559.777	5990781.686

PIPING COORDINATE:

POINT ID.	NORTHING	EASTING	INVERT
(P1)	2135780.514	5990672.150	CONTRACTOR TO SPEC.
(P2)	2135779.804	5990675.758	CONTRACTOR TO SPEC.
(P3)	2135770.400	5990682.072	CONTRACTOR TO SPEC.
(P4)	2135740.178	5990685.624	CONTRACTOR TO SPEC.
(P5)	2135754.094	5990688.365	CONTRACTOR TO SPEC.
(P6)	2135764.018	5990690.316	CONTRACTOR TO SPEC.
(P7)	2135807.061	5990718.938	CONTRACTOR TO SPEC.
(P8)	2135820.387	5990732.204	CONTRACTOR TO SPEC.
(P9)	2135827.162	5990748.457	CONTRACTOR TO SPEC.
(P10)	2135827.199	5990764.848	CONTRACTOR TO SPEC.
(P11)	2135820.743	5990780.533	CONTRACTOR TO SPEC.
(P12)	2135806.428	5990794.912	CONTRACTOR TO SPEC.
(P13)	2135798.141	5990793.039	CONTRACTOR TO SPEC.
(P14)	2135778.528	5990805.371	CONTRACTOR TO SPEC.
(P15)	2135752.888	5990694.501	CONTRACTOR TO SPEC.
(P16)	2135769.924	5990697.846	CONTRACTOR TO SPEC.
(P17)	2135820.796	5990772.522	CONTRACTOR TO SPEC.
(P18)	2135804.127	5990789.266	CONTRACTOR TO SPEC.
(P19)	2135798.748	5990788.050	CONTRACTOR TO SPEC.
(P20)	2135773.282	5990804.123	CONTRACTOR TO SPEC.
(P21)	2135772.821	5990720.018	CONTRACTOR TO SPEC.
(P22)	2135757.618	5990722.716	CONTRACTOR TO SPEC.
(P23)	2135753.222	5990745.080	CONTRACTOR TO SPEC.
(P20)	2135669.372	5990728.594	CONTRACTOR TO SPEC.
(P25)	2135660.949	5990771.431	CONTRACTOR TO SPEC.
(P26)	2135610.981	5990788.445	CONTRACTOR TO SPEC.

ROAD COORDINATE:

POINT ID.	NORTHING	EASTING
(R1)	2135644.049	5990673.337
(R2)	2135758.872	5990695.911
(R3)	2135768.539	5990700.069
(R4)	2135805.122	5990726.090
(R5)	2135796.608	5990791.740
(R6)	2135498.909	5990658.153
(R7)	2135495.698	5990643.481
(R8)	2135459.107	5990667.425
(R9)	2135464.688	5990678.118
(R10)	2135412.873	5990705.156
(R11)	2135419.225	5990717.329
(R12)	2135297.158	5990648.387
(R13)	2135291.573	5990635.148
(R14)	2135244.485	5990654.536
(R15)	2135249.623	5990667.213
(R16)	2135337.093	5990687.940
(R17)	2135341.601	5990701.918
(R18)	2135321.191	5990719.822
(R19)	2135334.880	5990733.615

CALTRANS ST-40 BARRIER COORDINATE:

POINT ID.	NORTHING	EASTING
(CX1)	2135735.484	5990699.991
(CX2)	2135758.775	5990705.809
(CX3)	2135766.344	5990708.939
(CX4)	2135798.940	5990732.123
(CX5)	2135812.241	5990759.552

TREATMENT AND WET WEATHER FLOW UPGRADE

CIVIL LEGEND AND NOTES

DWG NO	C-1
SHEET NO	29 OF 226
PROJ NO	055-006
DATE	MARCH 2017

GENERAL SURVEY NOTES:

CONTROL POINT LIST

POINT	NORTHING	EASTING	ELEVATION
18	2135368.790	5990589.520	109.54
19	2135451.920	5990552.320	119.56

SURVEY NOTES

THE HORIZONTAL DISTANCES AND BASIS OF BEARINGS FOR THIS SURVEY ARE NAD '83, CALIFORNIA COORDINATES, ZONE THREE. ELEVATIONS ARE REFERENCED TO NAVD88 BASED ON U.S.C. & O.S. PT. M108 1932 ELEV = 11.97 NAV88.

MANHOLE AND CATCH BASIN INVERT AND COORDINATE:

POINT ID.	INV.	NORTHING	EASTING
MH1	96.7±	2135646.932	5990574.385
CB2	14.5	2135759.275	5990730.916
CB3	10.5	2135747.975	5990754.780
CB4	7.5	2135662.963	5990735.976
CB5	41.5	2135643.028	5990664.286
CB6	18.0	2135827.762	5990778.051
CB7	19.0	2135803.164	5990796.840
CB8	19.5	2135797.437	5990784.042
CB9	40.5	2135662.427	5990669.832
CB10	40.0	2135656.816	5990682.969



0"=1" VERIFY SCALES — BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



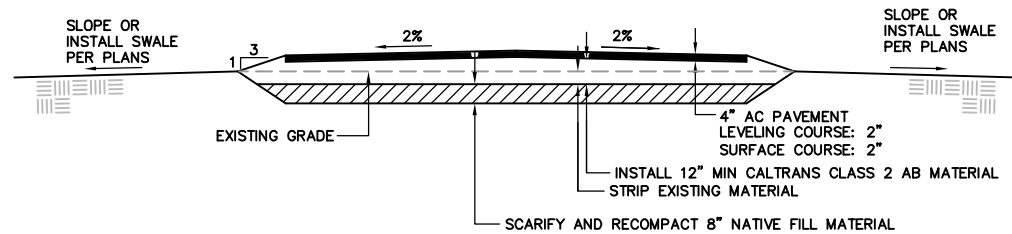
REV	DATE	BY	APVD
1	3/17	SM	SC

CONFORMED DRAWING
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DESIGNED	M. TAKEMOTO
DRAWN	C. TO
CHECKED	M. NAKAMOTO

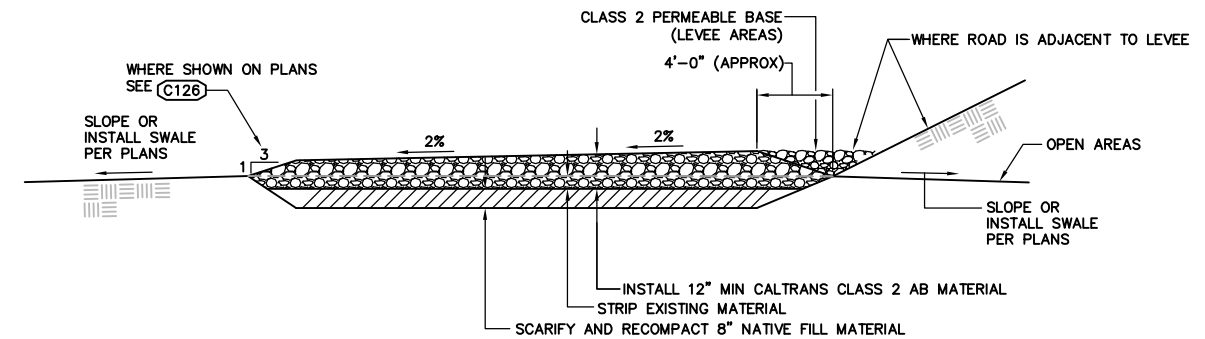
SUBMITTED: MARK TAKEMOTO RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY RMC ENGINEER CE-30318





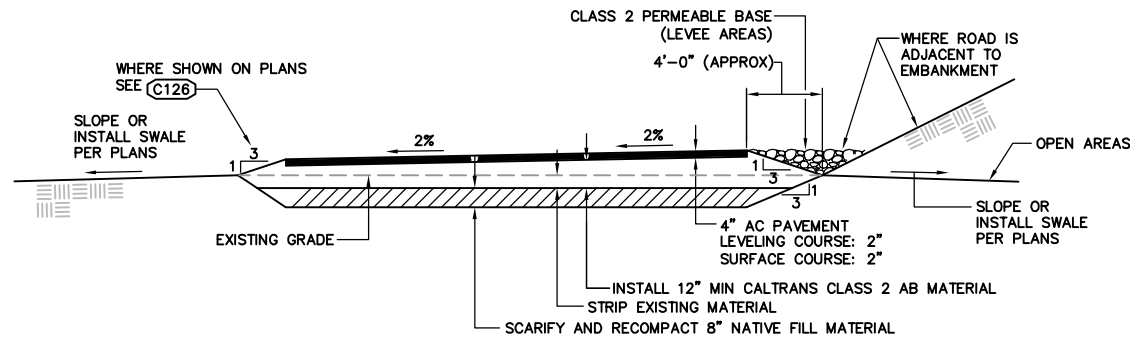
TYPICAL ROAD SECTION – CROWNED – NO CURBS
NTS

C102



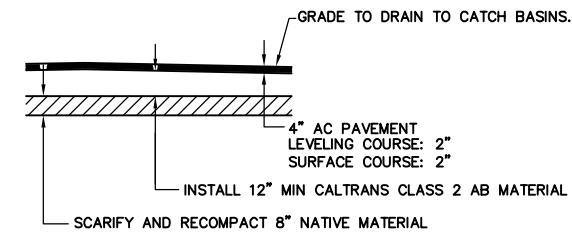
TYPICAL GRAVEL ROAD SECTION
NTS

C106



TYPICAL ROAD SECTION – UNIFORM SLOPE – NO CURBS
NTS

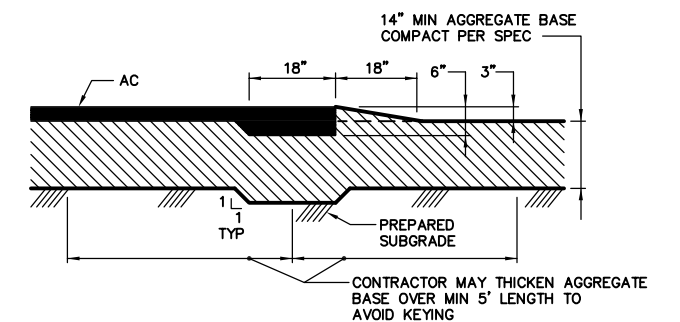
C103



- NOTES:
- EXISTING GRADES SHALL BE CUT OR FILLED AS REQUIRED.
 - EXISTING PAVED AREAS SHALL BE SAW CUT AND PAVEMENT AND UNSUITABLE MATERIAL SHALL BE REMOVED.

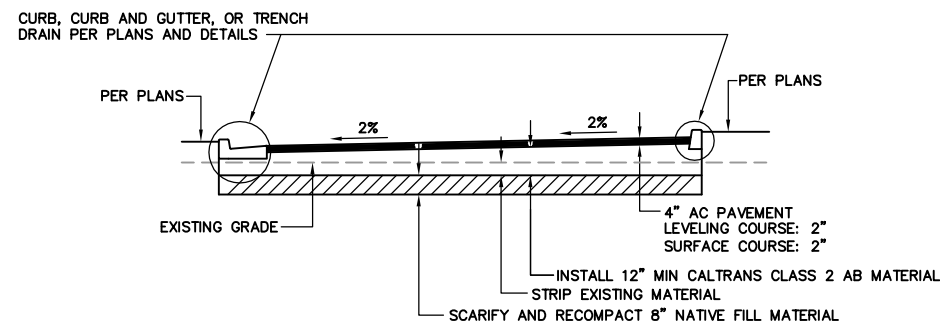
TYPICAL PAVED AREA
NTS

C107



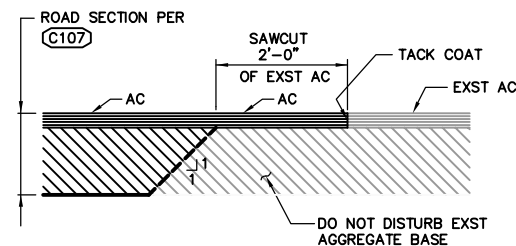
ELEVATION
AC ROAD/GRAVEL ROAD TRANSITION
NTS

C108



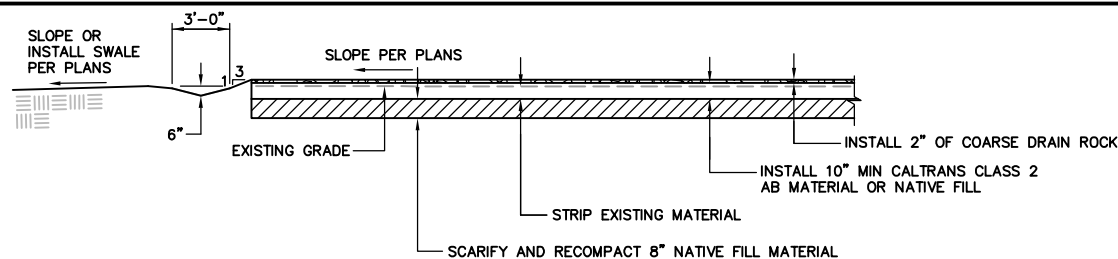
TYPICAL ROAD SECTION – UNIFORM SLOPE – CURBED
NTS

C104



ELEVATION
NEW/ EXST AC ROAD TRANSITION
NTS

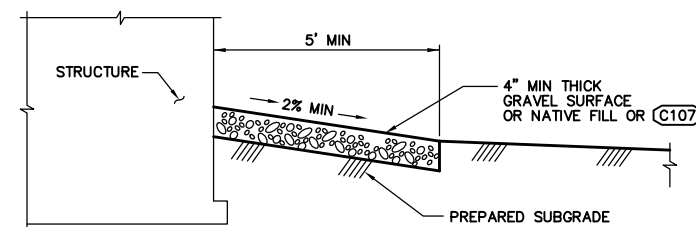
C109



- NOTES:
- FOR CONSTRUCTION STAGING, INSTALL FIRST 8" OF CLASS 2 AB OR NATIVE FILL TOPPED WITH 2" GRAVEL. AFTER CONSTRUCTION TRAILERS, EQUIPMENT AND MATERIALS ARE DEMOBILIZED FROM THIS AREA, REPAIR ALL DAMAGE, THEN SCARIFY AND RECOMPACT TOP 4" OF MATERIAL, AND TOP WITH 2" OF ADDITIONAL COARSE DRAIN ROCK. SLOPE PER PLANS.

STAGING AREA
NTS

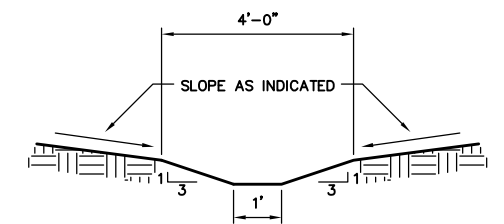
C105



- NOTES:
- SUBGRADE BENEATH GRAVEL SHALL BE SLOPED SAME AS SURFACE.

TYPICAL GRADING AT STRUCTURES
NTS

C110



TYPICAL SWALE ELEVATIONS
NTS

C114



0" = 1' SCALE
1" = 1' SCALE
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED **NOVEMBER 2016** AND
SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

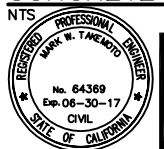
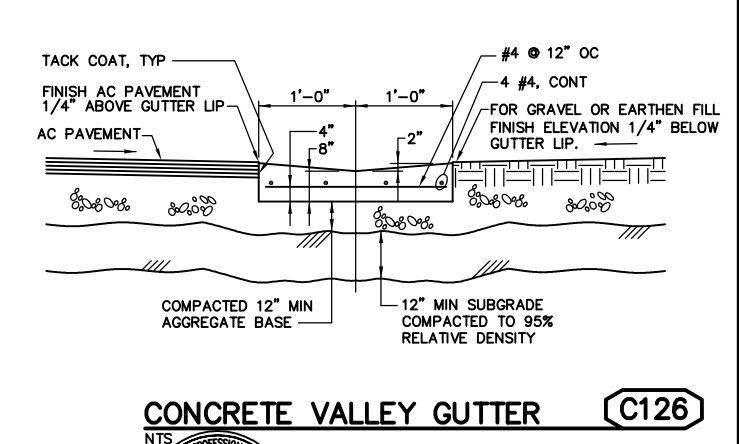
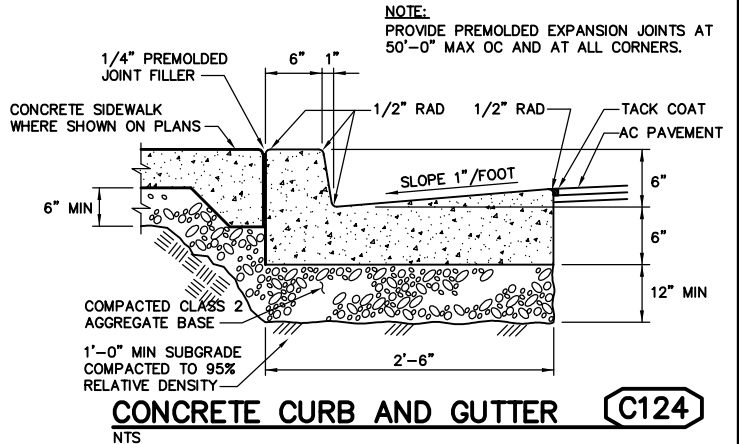
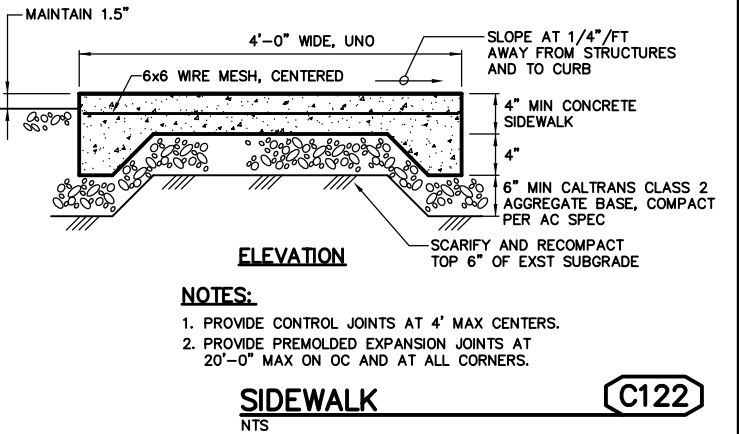
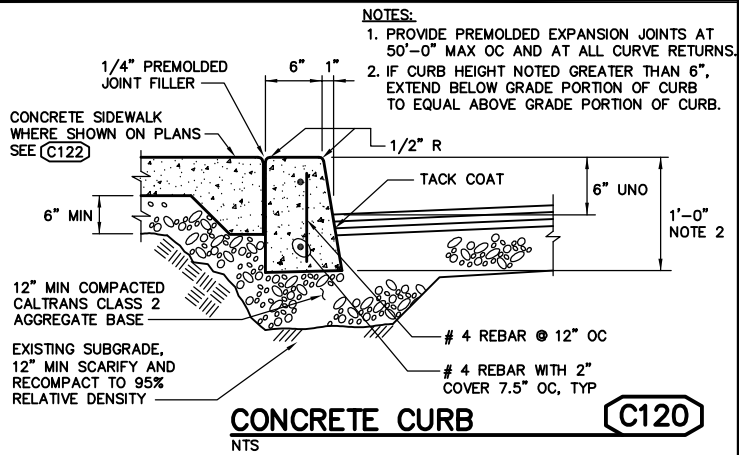
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
CIVIL STANDARD DETAILS - 1

DWG NO C-2
SHEET NO 30 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-C-2 3-21-17 09:03am sjung XREFS: X-SNCSO-TBLK | MTakemoto-PE-stamp | cc--



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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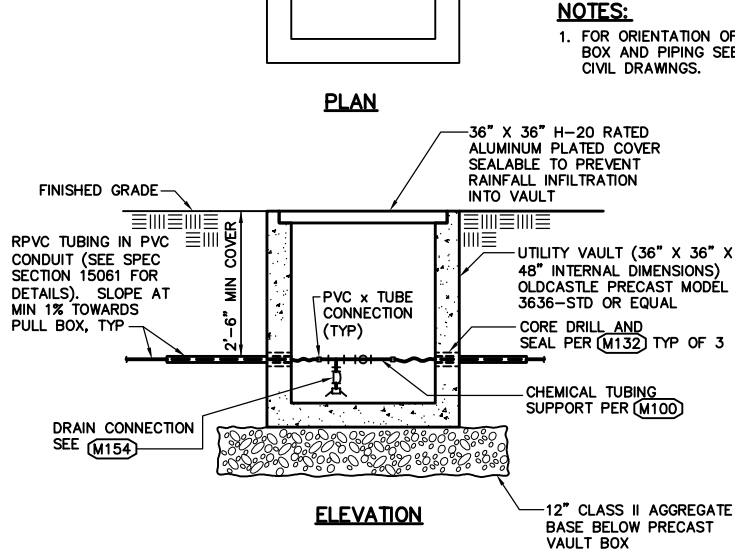
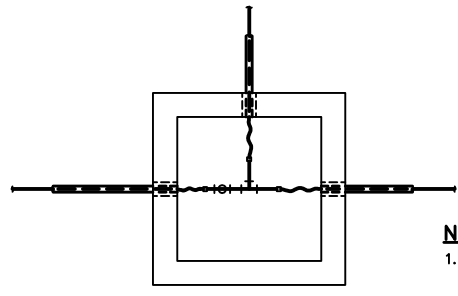
DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

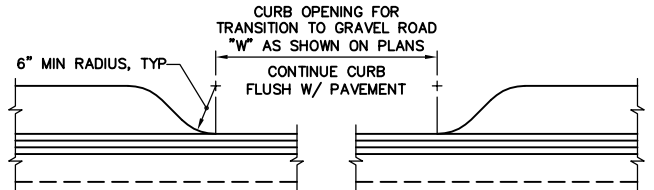


TREATMENT AND WET WEATHER FLOW UPGRADE
CIVIL STANDARD DETAILS - 2

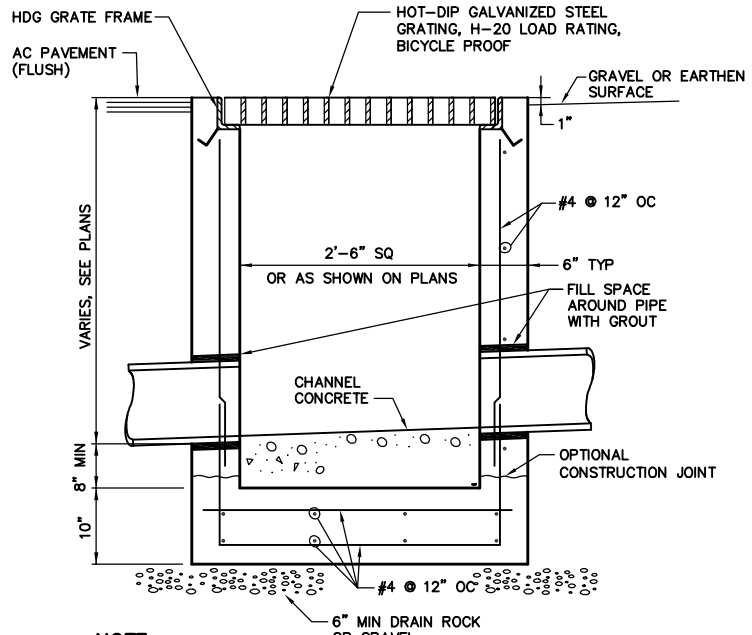
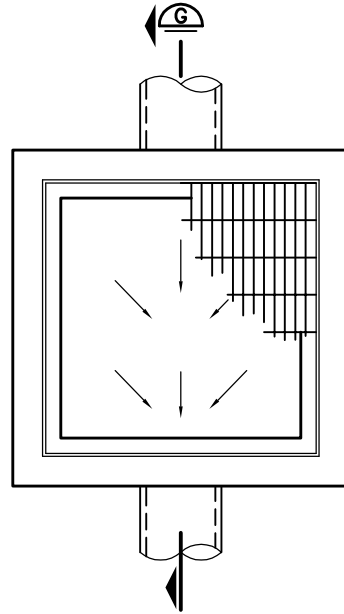
DWG NO C-3
SHEET NO 31 OF 226
PROJ NO 055-006
DATE MARCH 2017



CHEMICAL TUBING PULL BOX (C128)
NTS



CONCRETE CURB OPENING (C143)
NTS

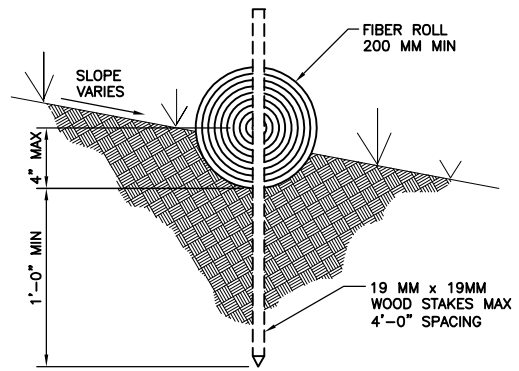


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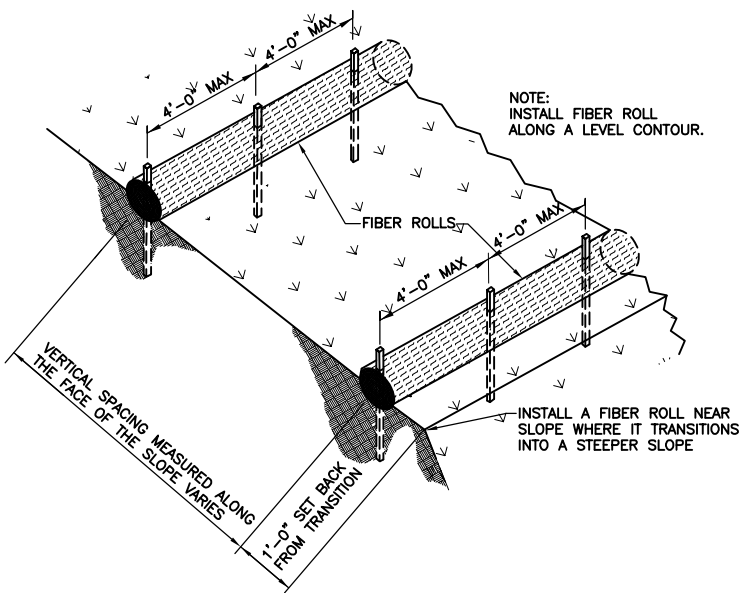
1. PRECAST CATCH BASIN IS ACCEPTABLE ALTERNATIVE WITH ENGINEER APPROVAL. DIMENSION MAY BE MODIFIED FOR STANDARD PRECAST PRODUCTS.
2. PRECAST CATCH BASIN SHALL BE H-20 LOAD.

SECTION G
NTS

TYPICAL CATCH BASIN (C182)
NTS



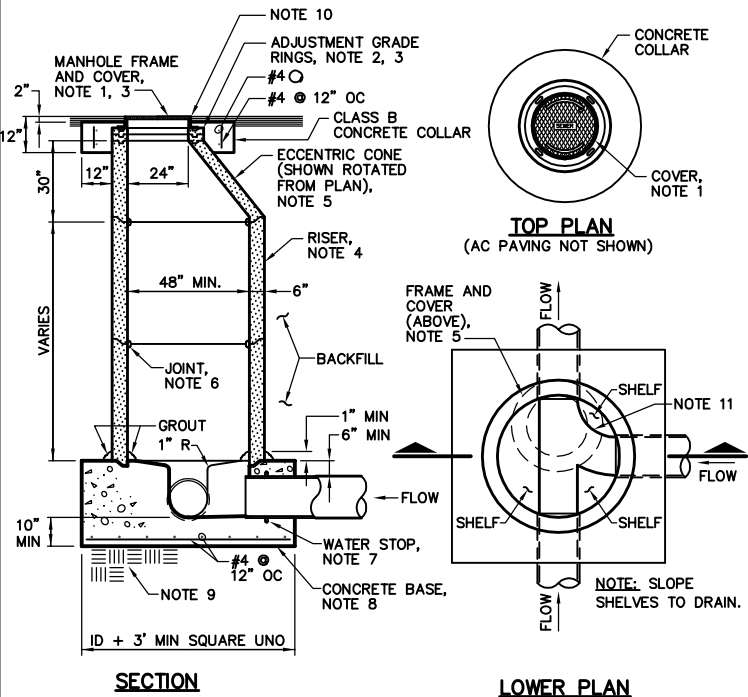
ENTRENCHMENT DETAIL
N.T.S.



TYPICAL FIBER ROLL INSTALLATION
N.T.S.

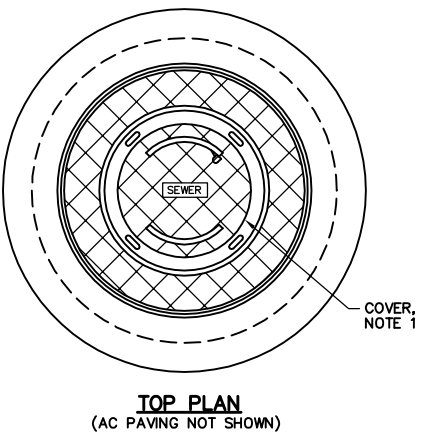
TYPICAL FIBER ROLL INSTALLATION (C183)
NTS

FILENAME: 0055-006-C-2 3-21-17 09:03am sjung || XREFS: X-SNCSB-TBLK | M-Takemoto-PE-stamp | cc--



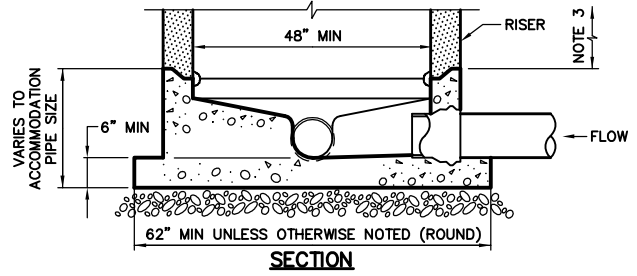
- NOTES:**
1. MANHOLE FRAME AND COVER SHALL HAVE 30" MIN CLEAR OPENING AND SEALED BLIND PICK HOLE. COVER SHALL BE LABELED "SEWER" AND SHALL BE RATTLE FREE WITHOUT USE OF SEALANT.
 2. TOP OF CONE TO TOP OF FRAME SHALL NOT EXCEED 15". ADJUSTMENT GRADE RINGS SHALL BE 3" OR 6" DEEP.
 3. GRADE RINGS AND MANHOLE FRAME SHALL BE SEALED AT EACH JOINT WITH BUTYL RUBBER (CONSEAL CS-102 OR EQUAL) AND GROUTED ON THE INSIDE.
 4. UNLESS OTHERWISE NOTED, MANHOLE RISERS SHALL BE 48" MIN. INSIDE DIAMETER, PRECAST CONCRETE CONFORMING TO ASTM C478-94 FOR PRECAST REINFORCED MANHOLE SECTIONS.
 5. ECCENTRIC CONE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478-94 FOR PRECAST REINFORCED MANHOLE SECTIONS. STRAIGHT SIDE OF CONE SHALL BE POSITIONED OVER MANHOLE OUTLET. CONCENTRIC CONES MAY ONLY BE USED IN SPECIAL CASES WITH WRITTEN CONSENT OF ENGINEER.
 6. JOINTS SHALL BE SET WITH PREFORMED MASTIC SEALANT (HENRY COMPANY RAM-NEK, KENT SEAL, OR EQUAL). INSIDE OF JOINTS SHALL BE GROUTED WITH NON-SHRINK GROUT.
 7. PROVIDE WATER STOPS FOR ENCASED PIPE.
 8. CONCRETE POUR SHALL NOT FALL OVER 6 FEET UNLESS AN "ELEPHANT'S TRUNK" OR AN "ADJUSTABLE PIPE" IS USED. CONCRETE WORK IN FLOW CHANNEL SHALL BE STEEL TROWEL FINISHED. SHELVES SHALL BE BROOM FINISHED. BASE SHALL BE MONOLITHICALLY PLACED. A STEEL IMPRESSION RING SHALL BE USED TO FORM GROOVE FOR FIRST RISER SECTION.
 9. WHEN IN GROUNDWATER, PROVIDE 6" DEEP CRUSHED ROCK WRAPPED IN GEOTEXTILE BENEATH MANHOLE BASE. OTHERWISE, SCARIFY AND RECOMPACT NATIVE MATERIAL TO 90%.
 10. PROVIDE 1/4" LIP AT NEW PAVEMENT AND NO LIP FOR EXISTING PAVEMENT.
 11. ALL DIRECTION CHANGES TO BE SMOOTH WIDE SWEEPS.

STANDARD SEWER MANHOLE **C200**
NTS



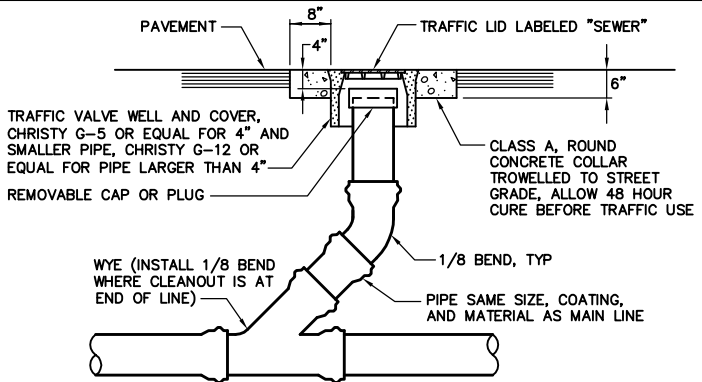
- NOTES:**
- MANHOLE FRAME AND COVER SHALL HAVE 48" MIN CLEAR OPENING AND SEALED BLIND PICK HOLE. COVER SHALL BE LABELED "SEWER" AND SHALL BE RATTLE FREE WITHOUT USE OF SEALANT.

PRECAST MANHOLE SLAB TOP **C201**
NTS

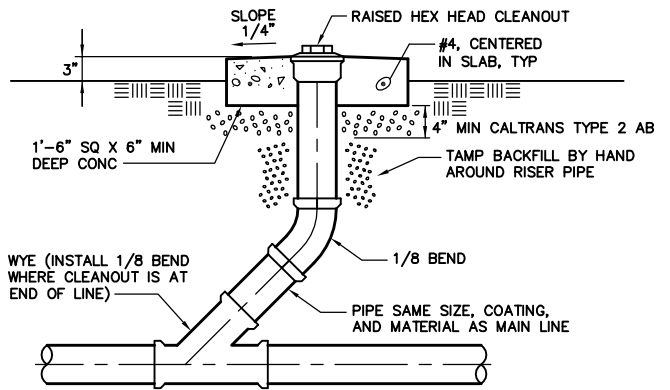


- NOTES:**
1. MANHOLE BASE SHALL BE PLACED ON A MINIMUM 6" CLEAN SAND OR GRAVEL OVER NATIVE MATERIAL THAT IS UNDISTURBED OR COMPACTED TO 95%.
 2. SEE DETAIL C200 FOR DETAILS AND NOTES OF CONSTRUCTION ABOVE PRECAST BASE.

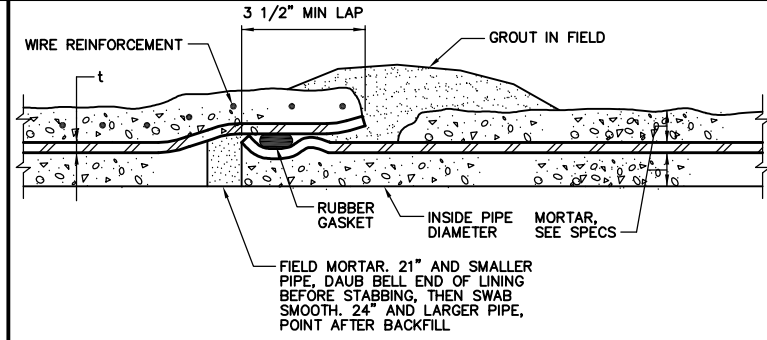
PRECAST SEWER MANHOLE BASE **C202**
NTS



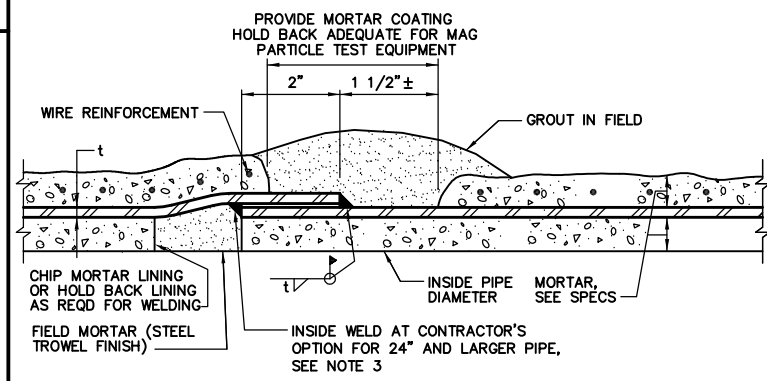
TRAFFIC AREA CLEANOUT **C214**
NTS



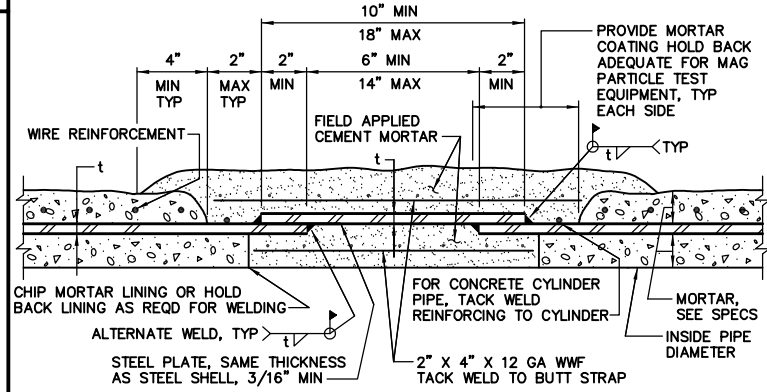
NON-TRAFFIC AREA CLEANOUT **C216**
NTS



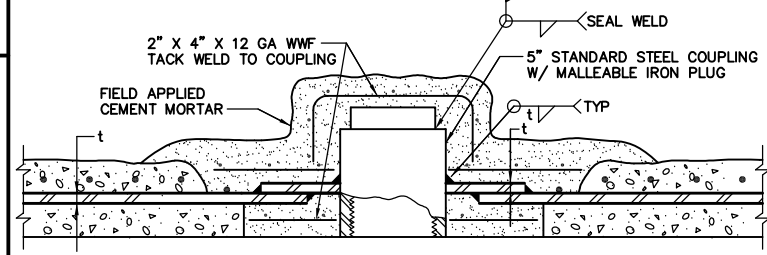
BELL AND SPIGOT RUBBER GASKET JOINT



LAP WELDED SLIP JOINT



BUTT STRAP JOINT



TYPICAL HANDHOLE FOR BUTT STRAP JOINT

- NOTES:**
1. HANDHOLE REQUIRED ON PIPE SMALLER THAN 24" DIAMETER.
 2. PROVIDE ADEQUATE HOLDBACK OF CEMENT MORTAR LINING AND COATING FOR WELDING AND TESTING OF WELDS.
 3. WHERE DOUBLE LAP WELD IS SHOWN ON THE DRAWINGS, WELD INSIDE AND OUTSIDE.
 4. FIELD WELDS SHALL NOT BE MORTARED UNTIL APPROVED BY OWNER

MORTAR LINED & COATED STEEL PIPE **C220**
NTS



0" 1" VERITY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

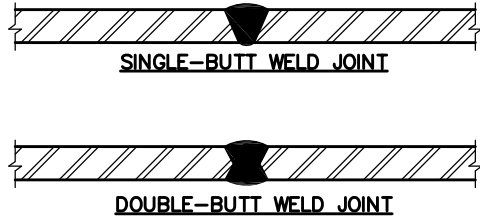


TREATMENT AND WET WEATHER FLOW UPGRADE

CIVIL STANDARD DETAILS - 3

DWG NO C-4
SHEET NO 32 OF 226
PROJ NO 055-006
DATE MARCH 2017

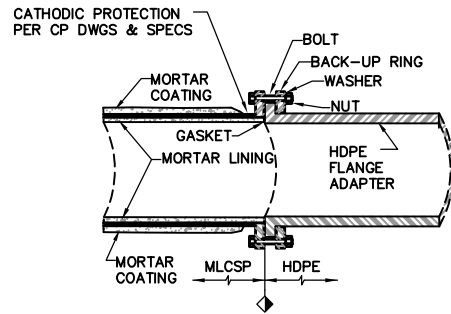
FILENAME: 0055-006-C-2 3-21-17 09:03am sjung || XREFS: X-SMCSB-TBLK | M-Takenoto-PE-stamp | cc--



NOTE: BUTT WELDS SHALL BE FULL PENETRATION, TYP.

WELDED STEEL PIPE BUTT WELDS C222

NTS

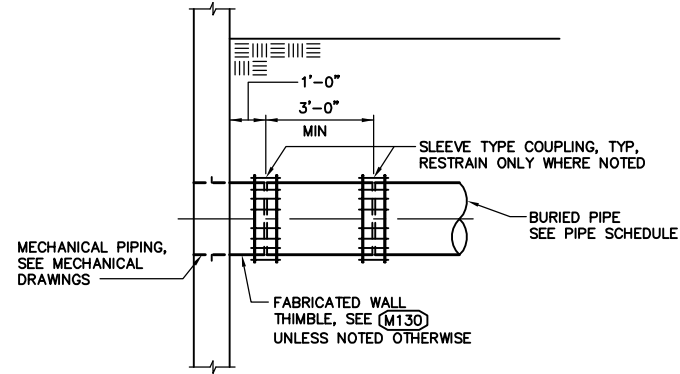


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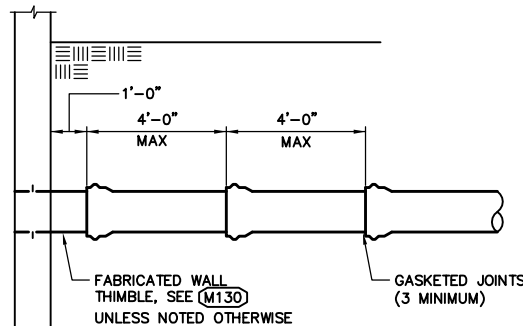
1. CONTRACTOR SHALL ENSURE FLANGE BOLT HOLE PATTERN FOR HDPE AND MLSP MATCH UP.
2. SEE HDPE SPEC FOR MORE INFORMATION.

STEEL PIPE TO HDPE TRANSITION C231

NTS



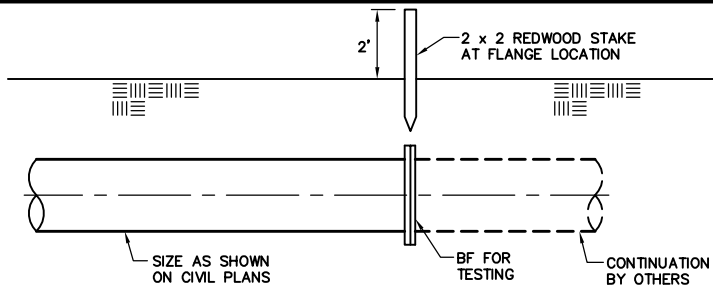
WELDED OR FUSED PIPE



GASKETED PIPE

BURIED PIPE AT STRUCTURE C234

NTS

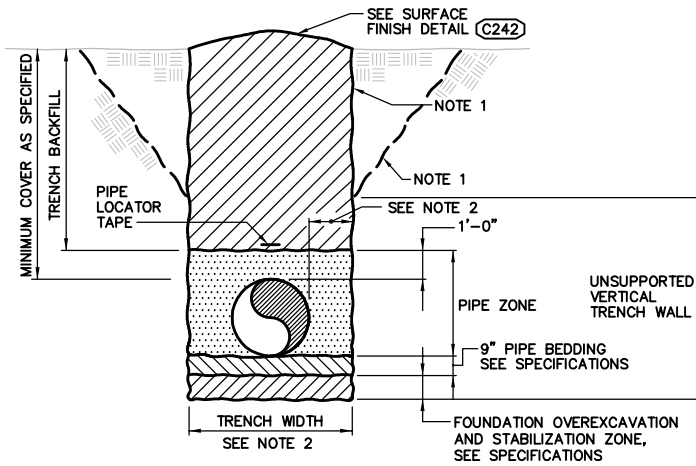


NOTES:

1. CONTRACTOR SHALL PROVIDE SUFFICIENT TEMPORARY THRUST RESTRAINT FOR TESTING.

TYPICAL PIPE END OF CONTRACT DETAIL C238

NTS

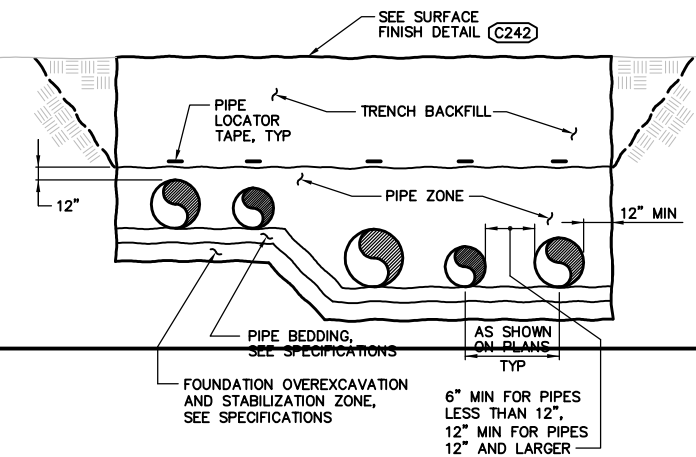


NOTES:

1. ALTERNATE TRENCH SECTIONS SHOWN ARE FOR USE WHERE COMPACT, STABLE SOIL CONDITIONS EXIST. WHERE LARGE ROCKS OR STRUCTURES ARE ENCOUNTERED, TRENCH SECTIONS MAY BE DEEPER AND WIDER THAN THOSE SHOWN. COMBINATION OF SLOPING AND VERTICAL TRENCH WALLS:
 - a. TRENCH DEPTHS NOT EXCEEDING 5'-0" SHALL HAVE VERTICAL WALLS IN PIPE ZONE UNLESS NOTED OTHERWISE.
 - b. FOR TRENCH DEPTHS EXCEEDING 5'-0" SEE SPECIFICATION 2200.
2. TRENCH WIDTH SHALL BE A MINIMUM OF THE PIPE OD PLUS 24". THE MAXIMUM SHALL BE THE PIPE OD PLUS 36".
3. WHERE WET AND UNSTABLE SOIL IS ENCOUNTERED, SOLID SHEATHING IS REQUIRED FOR ALL VERTICAL TRENCH WALLS.
4. SEE SPECIFICATION 02200 FOR BACKFILL REQUIREMENTS.

PIPE TRENCH SECTION C240

NTS



NOTES:

1. PIPES LOCATED WITHIN MULTIPLE PIPE TRENCHES SHALL BE DESIGNED FOR POSITIVE PROJECTING EMBANKMENT CONDITION. SEE SPECS.
2. DESIGN OF PIPE SHALL BE CARRIED OUT FOR EACH INSTANCE OF MULTIPLE PIPE TRENCHES, ACCOUNTING FOR THE GEOMETRY OF THE PIPE TRENCH.

MULTIPLE PIPE TRENCH SECTION C244

NTS



0" 1"
VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

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DESIGNED M. TAKEMOTO

DRAWN C. TO

CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO

RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY

RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

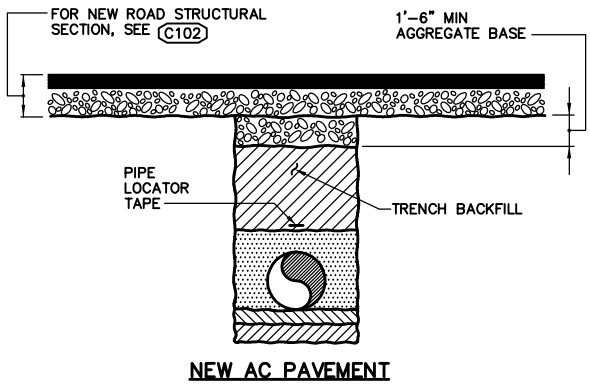
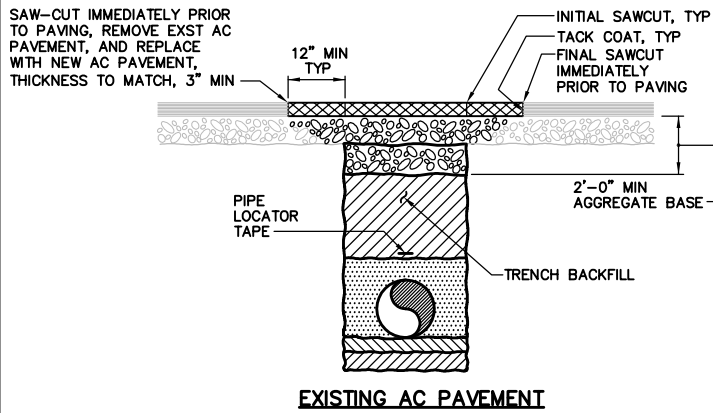
CIVIL STANDARD DETAILS - 4

DWG NO C-5

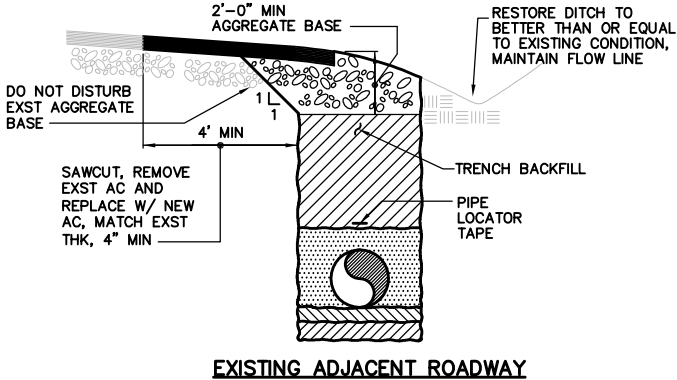
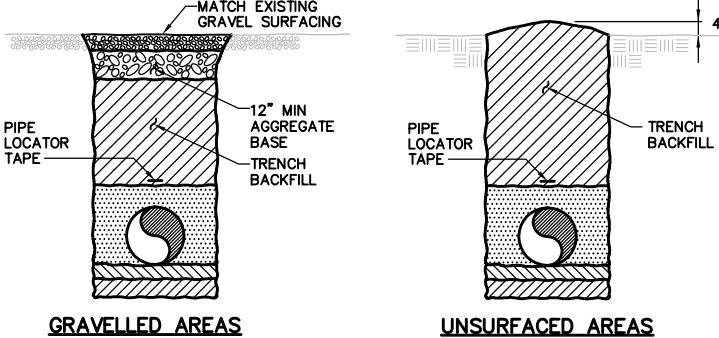
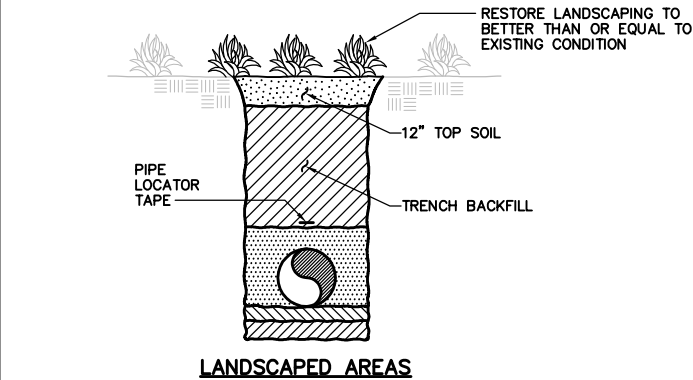
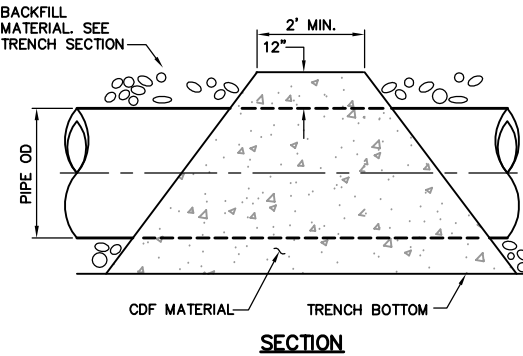
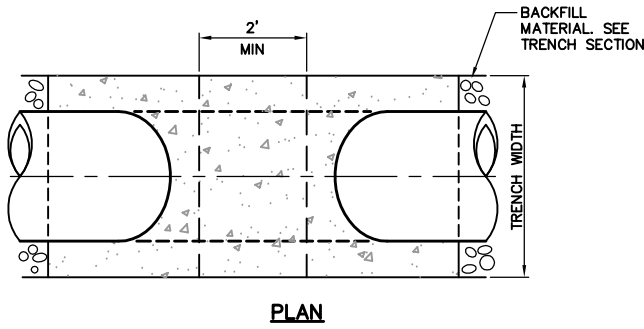
SHEET NO 33 OF 226

PROJ NO 055-006

DATE MARCH 2017

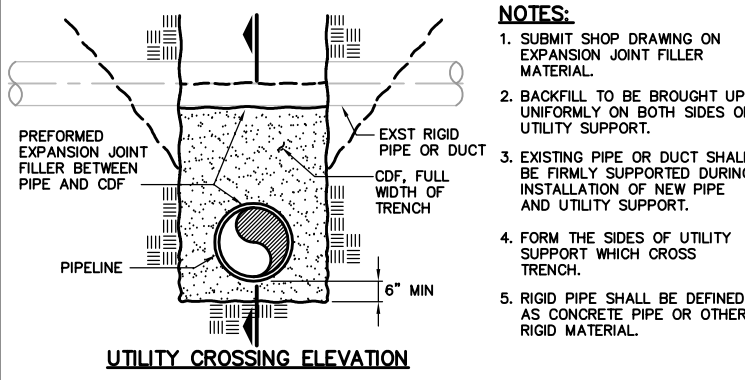
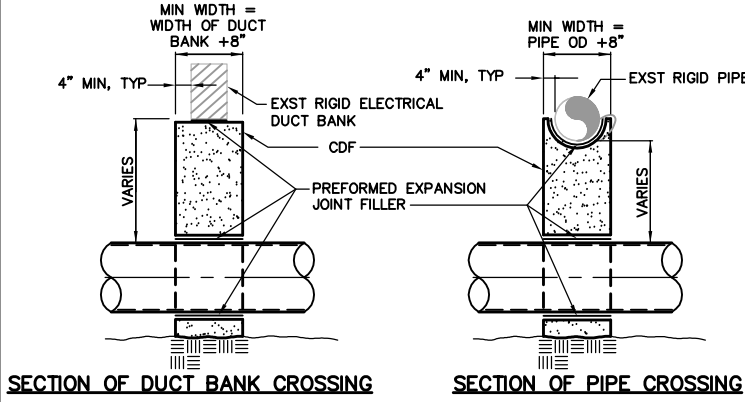


- NOTES:**
1. VERTICAL WALL TRENCH IS SHOWN. COMBINED SLOPING AND VERTICAL WALL TRENCH IS SIMILAR. ADJUST SURFACE WIDTHS AND SAW-CUT LINES FROM EDGE OF SLOPING WALLS.
 2. SEE SPECIFICATIONS FOR BACKFILL MATERIAL AND COMPACTION REQUIREMENTS.
 3. PIPE LOCATOR TAPE OR TRACING WIRE SHALL BE BROUGHT TO SURFACE AT STRUCTURE CONNECTIONS. PRECAST CONCRETE HANDHOLE SHALL BE PROVIDED TO TERMINATE LOCATOR TAPE OR TRACING WIRE.

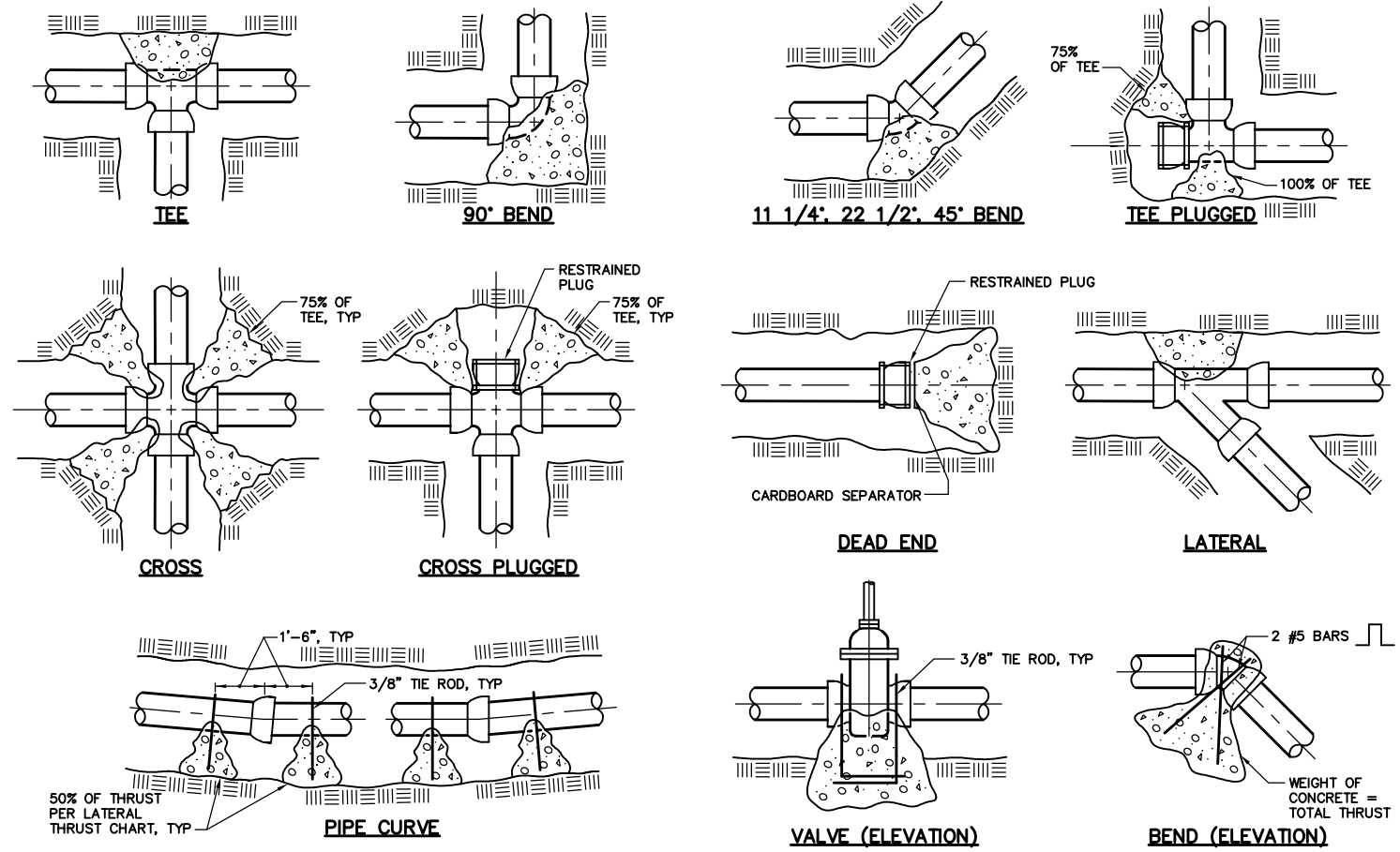


TRENCH SURFACE FINISH C242
NTS

TRENCH PLUG C246
NTS



UTILITY CROSSING ELEVATION C248
NTS



THRUST PER PSI OF HYDROTEST PRESSURE						
PIPE SIZE	90° ELBOW	45° ELBOW	22 1/2° ELBOW	11 1/4° ELBOW	TEE OR DEAD END	LATERAL
4"	28	16	8	6	20	16
6"	56	30	16	10	40	30
8"	96	52	26	14	68	52
10"	154	84	44	22	110	84
12"	220	120	62	32	156	120
14"	298	162	82	42	210	162
16"	384	210	106	54	272	210
18"	494	270	138	70	352	270
20"	612	334	170	86	434	334
24"	878	478	244	122	624	478

EXAMPLE:
12" 45° ELBOW AT 150 PSIG TEST PRESSURE
150 (PSIG) X 120 (FROM CHART) = 18,000 POUNDS
SEE SOILS REPORT FOR SOIL BEARING STRENGTH
(2000 PSF USED FOR EXAMPLE)
18,000/2000 = 9 SQ FT THRUST BLOCK BEARING AREA REQUIRED

LATERAL THRUST PER PSI PER DEGREE OF DEFLECTION			
PIPE SIZE		PIPE SIZE	
4"	.36	14"	3.80
6"	.72	16"	4.86
8"	1.22	18"	6.68
10"	1.98	20"	7.92
12"	2.78	24"	11.50

- NOTES:**
1. THRUST BLOCKS NOT REQUIRED FOR SOLVENT WELDED PVC PIPE OR PIPE WITH RESTRAINED JOINT TYPE FITTINGS.
 2. POUR THRUST BLOCKS AGAINST UNDISTURBED EARTH. LOOSE OR OTHERWISE DISTURBED EARTH IS UNACCEPTABLE FOR THRUST BLOCK FOUNDATION.
 3. USE CLASS A CONCRETE FOR THRUST BLOCKS.
 4. THRUST BLOCK FOUNDATION SOILS SHALL HAVE A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 1,200 PSF AS MEASURED BY ENGINEER WITH POCKET PENETROMETER, OR EQUAL.

CONCRETE THRUST BLOCKS C250



VERIFY SCALES
BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



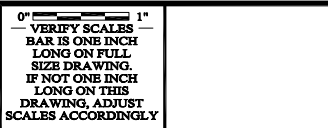
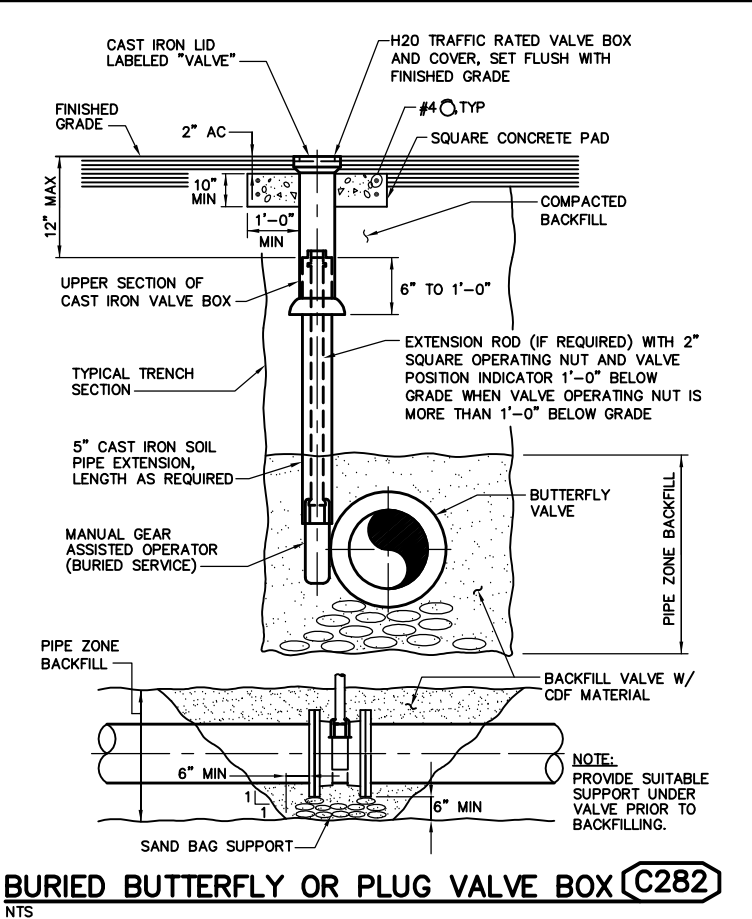
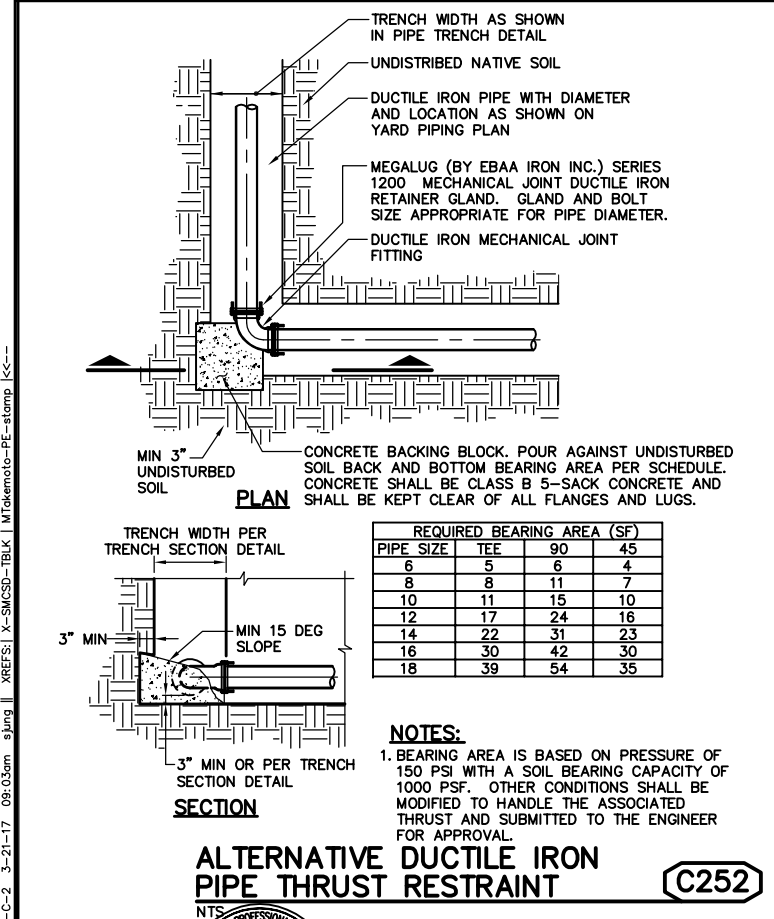
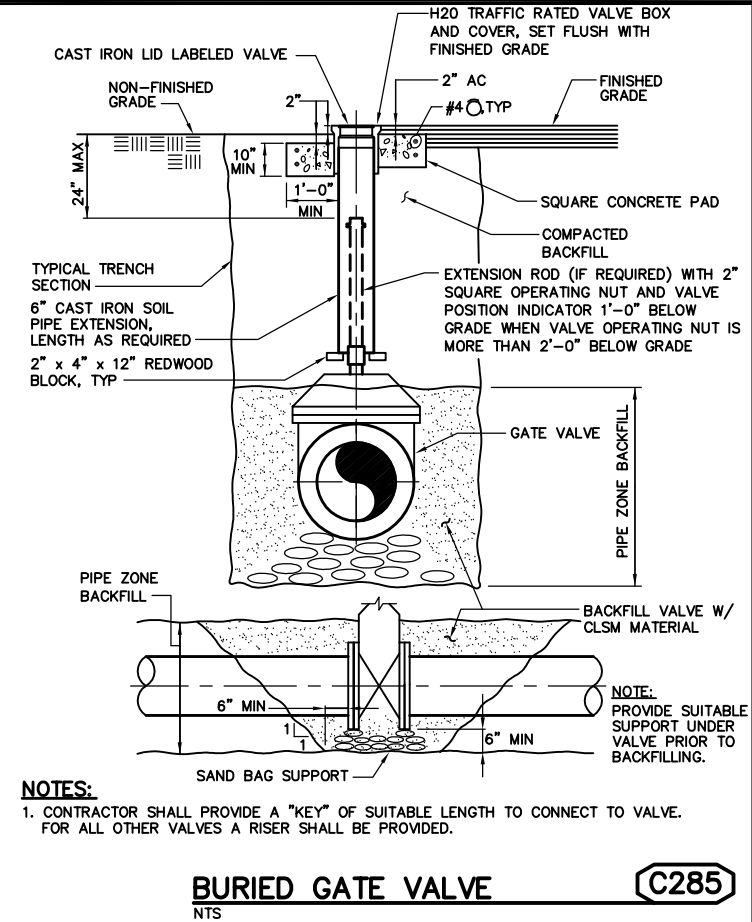
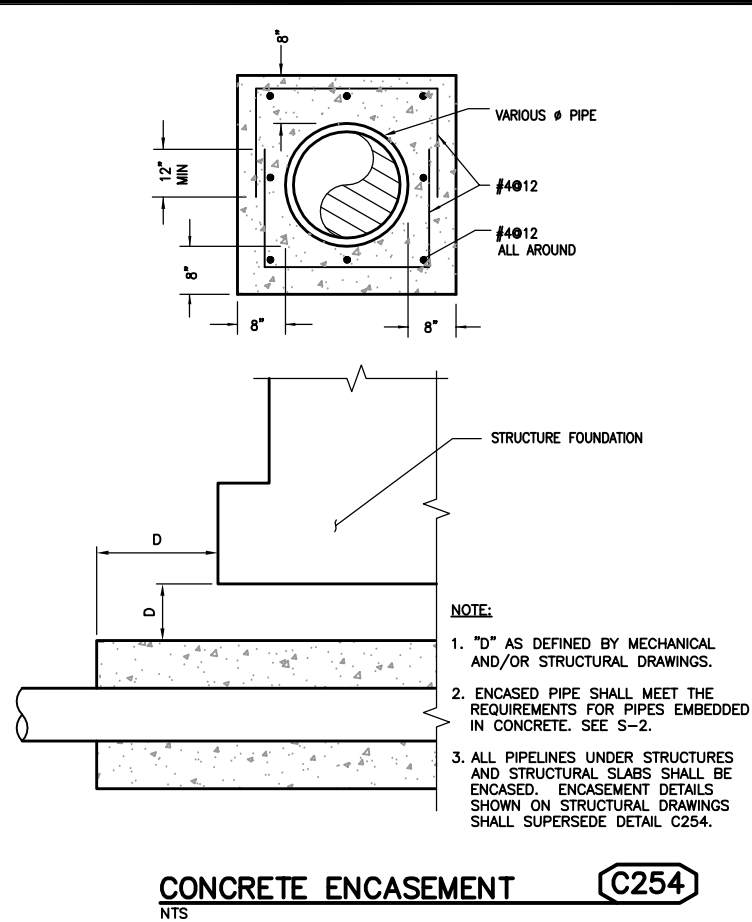
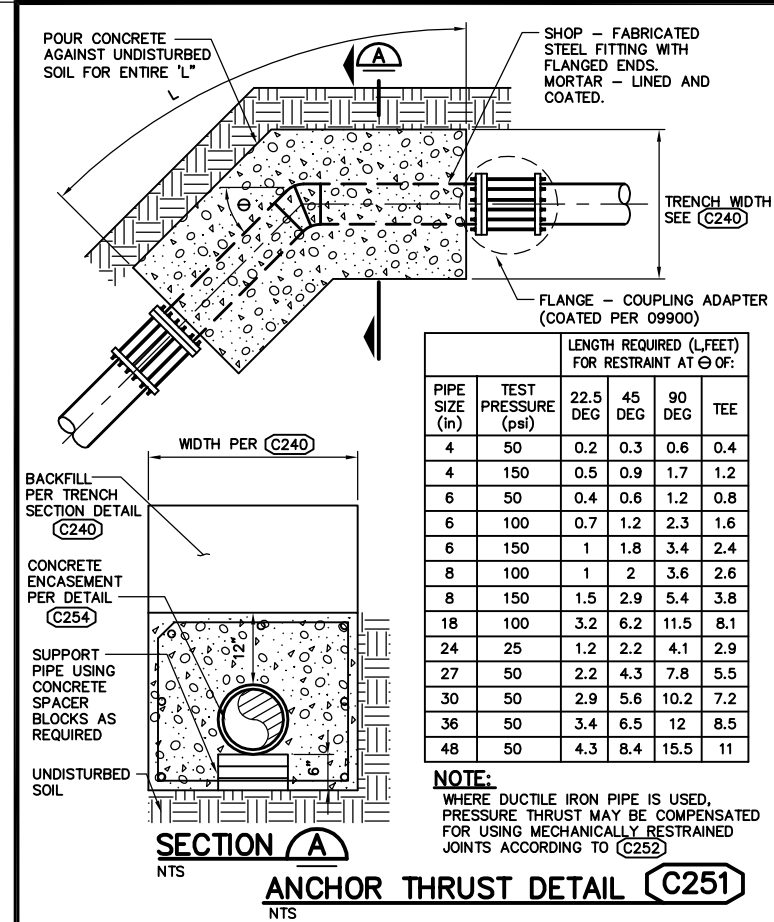
REV	DATE	BY	APVD

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THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED **NOVEMBER 2016** AND SUBSEQUENT ADDENDA

DESIGNED	M. TAKEMOTO	SUBMITTED	MARK TAKEMOTO
DRAWN	C. TO		RMC PROJECT ENGINEER CE-64369
CHECKED	M. NAKAMOTO	APPROVED	STEVE CLARY
			RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE	DWG NO	C-6
CIVIL STANDARD DETAILS - 5	SHEET NO	34 OF 226
	PROJ NO	055-006
	DATE	MARCH 2017



REV	DATE	BY	APVD

CONFORMED DRAWING

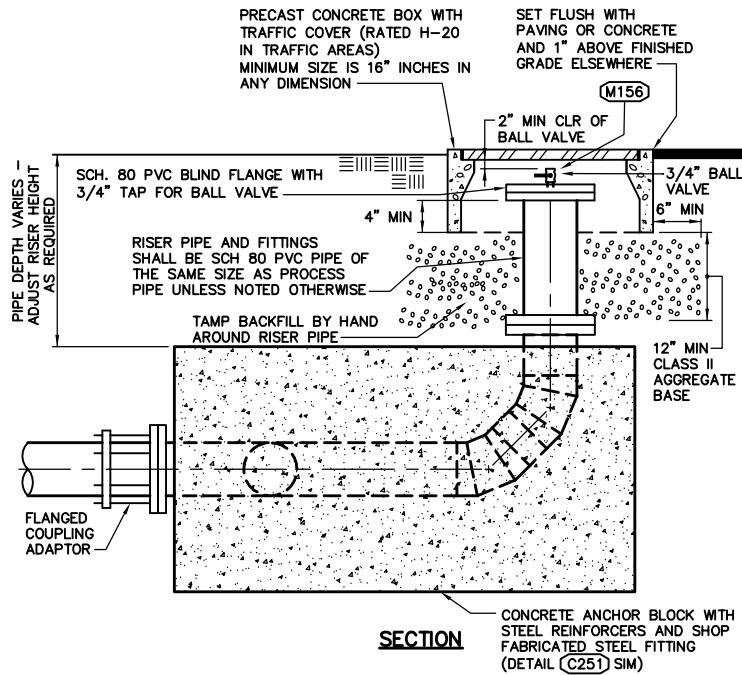
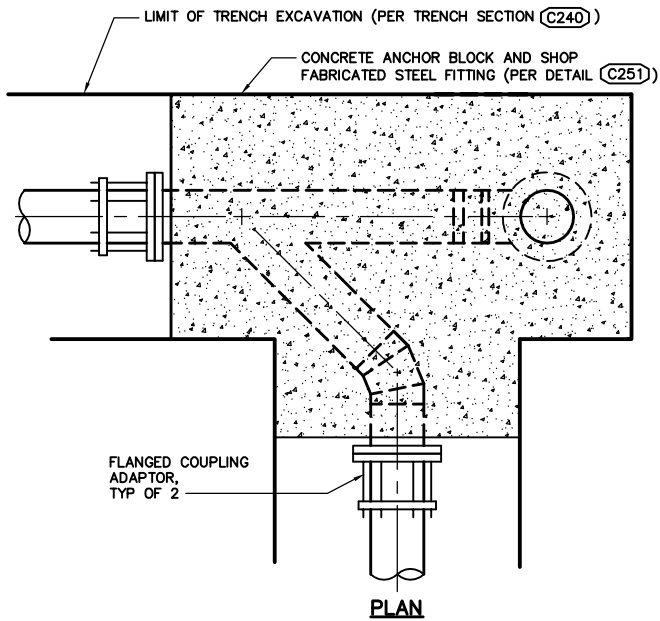
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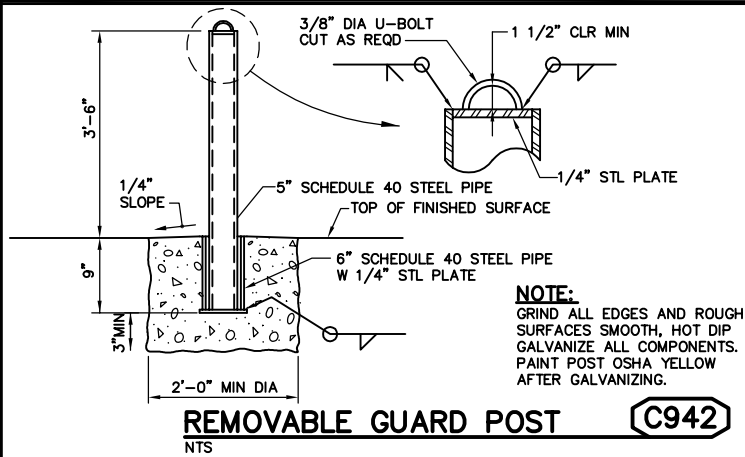
DESIGNED	M. TAKEMOTO
DRAWN	C. TO
CHECKED	M. NAKAMOTO
SUBMITTED:	MARK TAKEMOTO RMC PROJECT ENGINEER CE-64369
APPROVED:	STEVE CLARY RMC ENGINEER CE-30318



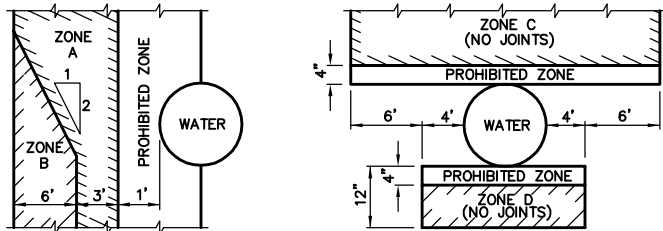
TREATMENT AND WET WEATHER FLOW UPGRADE	DWG NO C-7
CIVIL STANDARD DETAILS - 6	SHEET NO 35 OF 226
	PROJ NO 055-006
	DATE MARCH 2017



SLUDGE PIPE AIR RELEASE/CLEANOUT **C301**
NTS



SITUATION: LOCATION OF NEW RECYCLED WATER AND SEWER LINES TO EXISTING DOMESTIC WATER LINES.



PARALLEL CONSTRUCTION

PERPENDICULAR CROSSING

IF ANY RECYCLED WATER OR SEWER PIPELINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE	RECYCLED WATER
A	DO NOT LOCATE ANY PARALLEL RECYCLED WATER OR SEWER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
B	USE CLASS 200 DIP, CLASS 200 PVC - AWWA C900, WELDED STEEL, HDPE OR FUSED PVC PIPE
C	USE CLASS 200 DIP, CLASS 200 PVC - AWWA C900 OR WELDED STEEL, HDPE OR FUSED PVC PIPE
D	USE CLASS 200 DIP OR CLASS 200 PVC - AWWA C900 OR WELDED STEEL, HDPE OR FUSED PVC PIPE

BASIC SEPARATION STANDARDS

1. PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN PRESSURE DOMESTIC WATER AND RECYCLED WATER MAINS AND SEWER LINE SHALL BE AS SHOWN.
2. PERPENDICULAR CONSTRUCTION (CROSSING): PRESSURE WATER MAINS SHALL BE AT LEAST ONE FOOT ABOVE SANITARY SEWER AND RECYCLED WATER LINES WHERE THESE LINES MUST CROSS.
3. SPECIAL PROVISIONS: ALTERNATIVE CONSTRUCTION CRITERIA WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ARE SHOWN ABOVE.

GENERAL NOTES

1. NO PIPE JOINTS SHALL BE PERMITTED WITHIN ZONE D. IT IS THE INTENT OF THESE SPECIFICATIONS THAT NO JOINTS SHALL OCCUR WITHIN ZONE C. IF THAT CANNOT BE ACCOMPLISHED, THE NEW PIPELINE SHALL BE ENCASED IN CONCRETE FOR THE FULL LENGTH OF ZONE C.
2. ALL DIP MUST HAVE HOT DIP BITUMINOUS COATING AND ALL PVC SHALL BE CLASS 200 PER AWWA C900 OR EQUIVALENT.
3. SEWER FORCE MAINS SHALL NOT BE PERMITTED IN ZONES A THROUGH D.
4. THIS CRITERIA DOES NOT APPLY FOR A RECYCLED WATER LINE CROSSING ANOTHER RECYCLED WATER LINE.
5. THE CONSTRUCTION CRITERIA APPLIES TO HOUSE LATERALS THAT CROSS ABOVE A PRESSURE WATER MAIN BUT NOT TO THOSE HOUSE LATERALS THAT CROSS BELOW A PRESSURE WATER MAIN.

STANDARD CLEARANCES TO SEWERS AND DOMESTIC WATER MAINS **C384**
NTS



0" = 1' VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

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DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

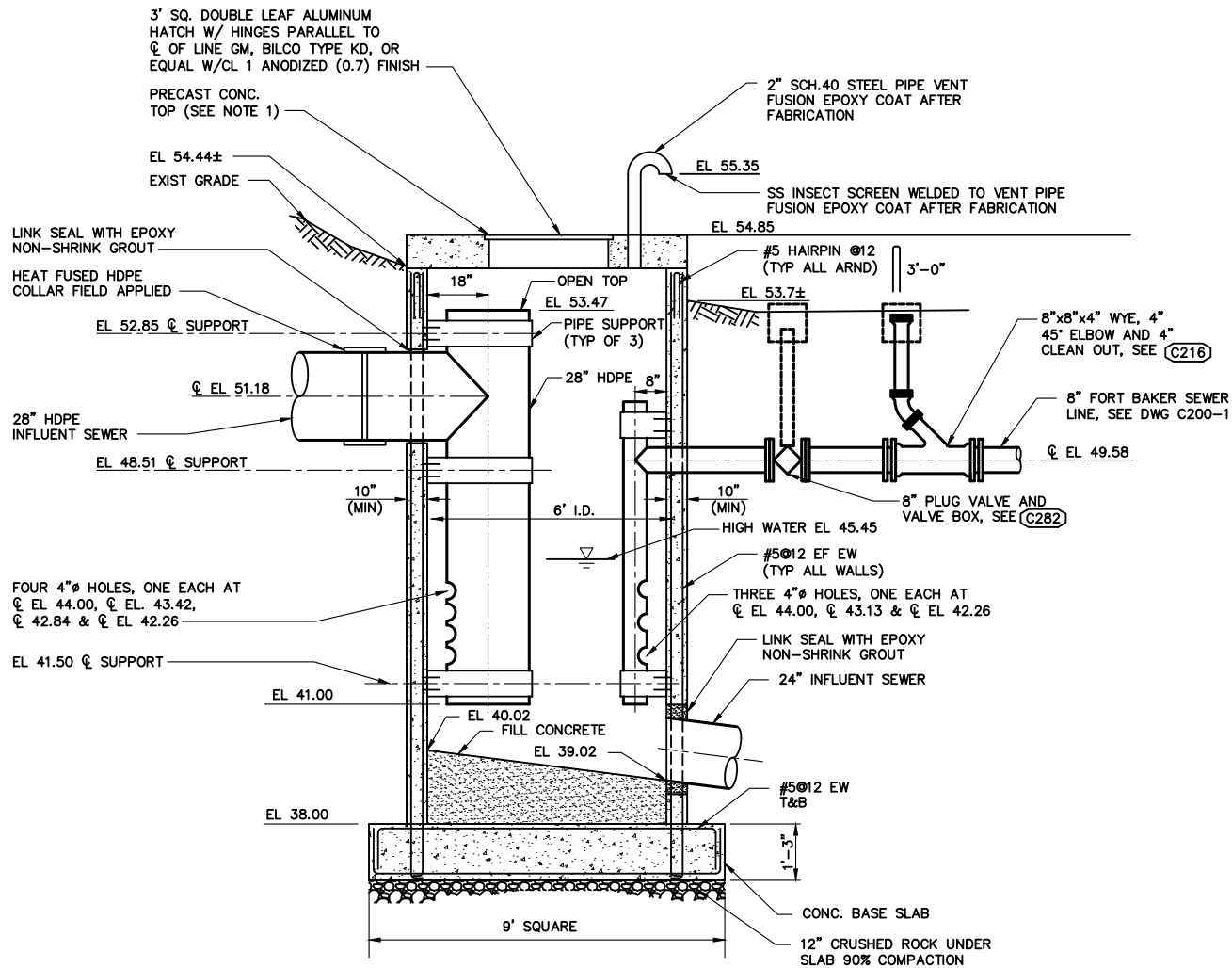
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RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
CIVIL STANDARD DETAILS - 7

DWG NO **C-8**
SHEET NO **36 OF 226**
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-C-9 3-21-17 09:55am aJung XREFS: X-SMCSB-TBLK M Takamoto-PE-stamp C-9



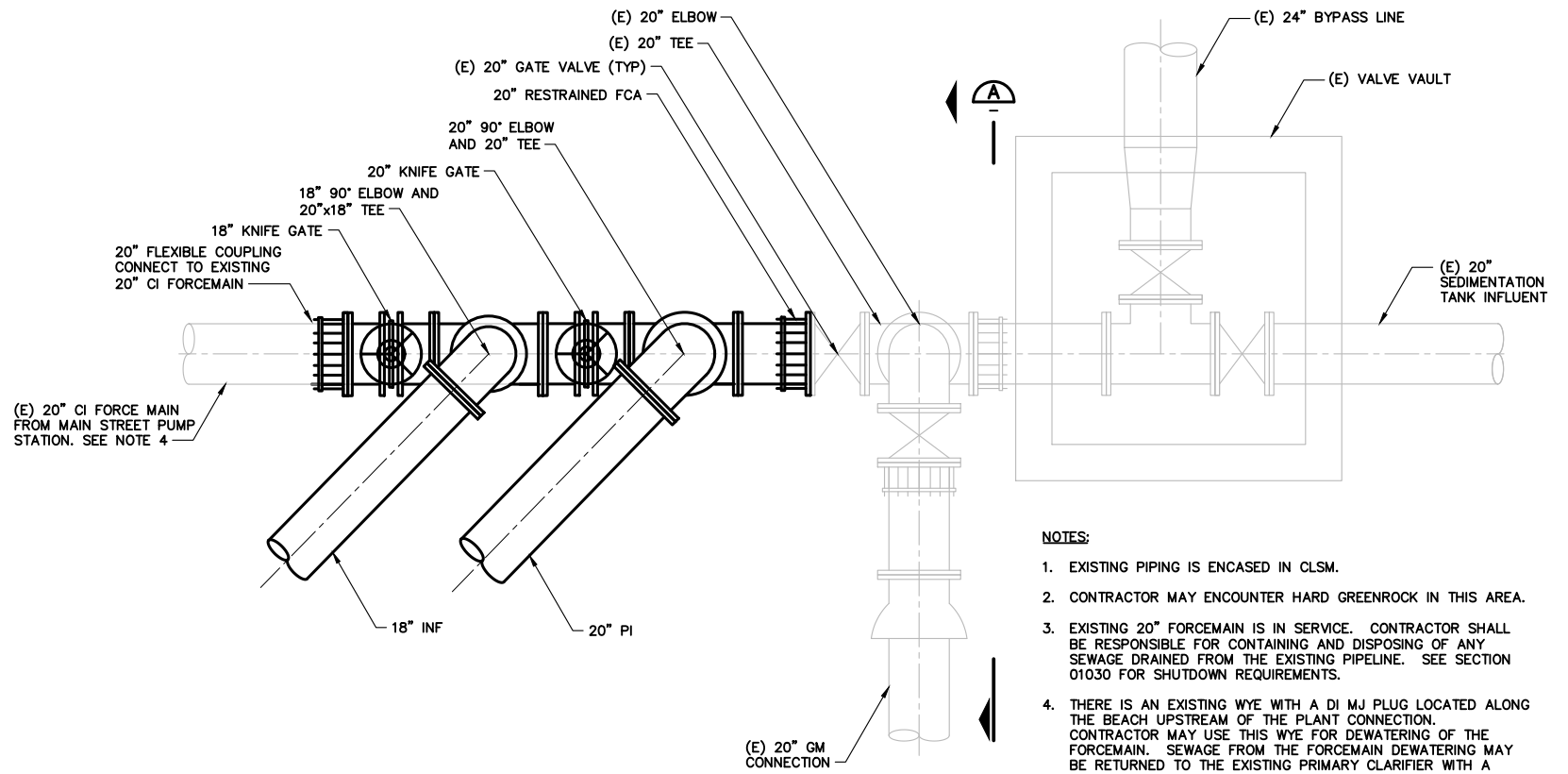
NOTES:

1. PROVIDE PVC LINER INSIDE MANHOLE, UNDERSIDE OF TOP AND INSIDE HATCH OPENING, PER SECTION 06620, SEAL JOINTS IN FIELD. PRECAST LID SHALL BE POSITIVELY ATTACHED TO CAST-IN-PLACE WALLS. USE OF SELF WEIGHT ONLY IS NOT PERMISSIBLE. CONTRACTOR SHALL COORDINATE WITH PRECAST SUPPLIER PRIOR TO PLACING WALLS.
2. PIPES ARE SHOWN ROTATED INTO SECTION VIEW FOR CLARITY. SEE PLAN VIEW FOR PROPER ORDINATION.

ENERGY DISSIPATION
STRUCTURE DETAIL (1)

NTS

C200-1



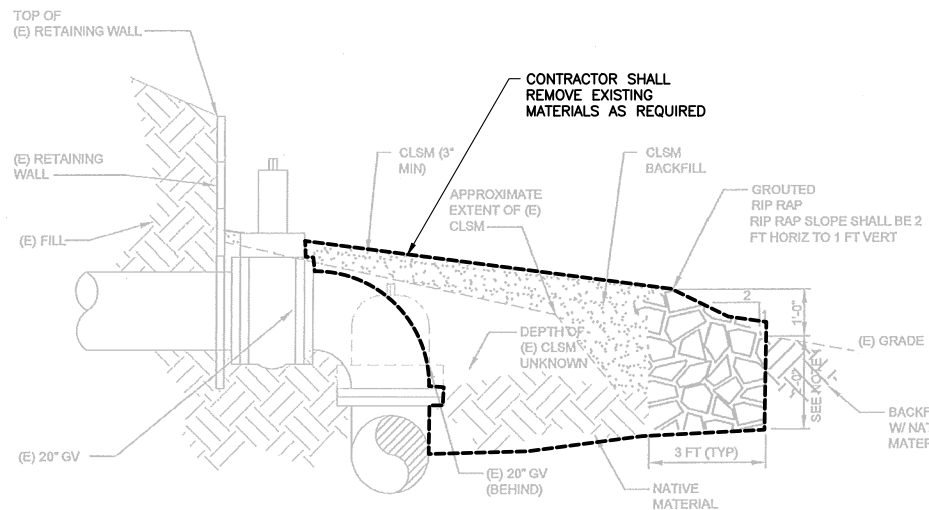
NOTES:

1. EXISTING PIPING IS ENCASED IN CLSM.
2. CONTRACTOR MAY ENCOUNTER HARD GREENROCK IN THIS AREA.
3. EXISTING 20\" FORCEMAIN IS IN SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING AND DISPOSING OF ANY SEWAGE DRAINED FROM THE EXISTING PIPELINE. SEE SECTION 01030 FOR SHUTDOWN REQUIREMENTS.
4. THERE IS AN EXISTING WYE WITH A DI MJ PLUG LOCATED ALONG THE BEACH UPSTREAM OF THE PLANT CONNECTION. CONTRACTOR MAY USE THIS WYE FOR DEWATERING OF THE FORCEMAIN. SEWAGE FROM THE FORCEMAIN DEWATERING MAY BE RETURNED TO THE EXISTING PRIMARY CLARIFIER WITH A FILTER SOCK INSTALLED ON THE DISCHARGE HOSE.

NEW PRIMARY INFLUENT CONNECTION
AT EXISTING PRIMARY CLARIFIER DETAIL (2)

NTS

C200-1



SECTION A

NTS



0" 1" —
VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	3/17	SM	SC

CONFORMED DRAWING

NOTICE:
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SUBSEQUENT ADDENDA

DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

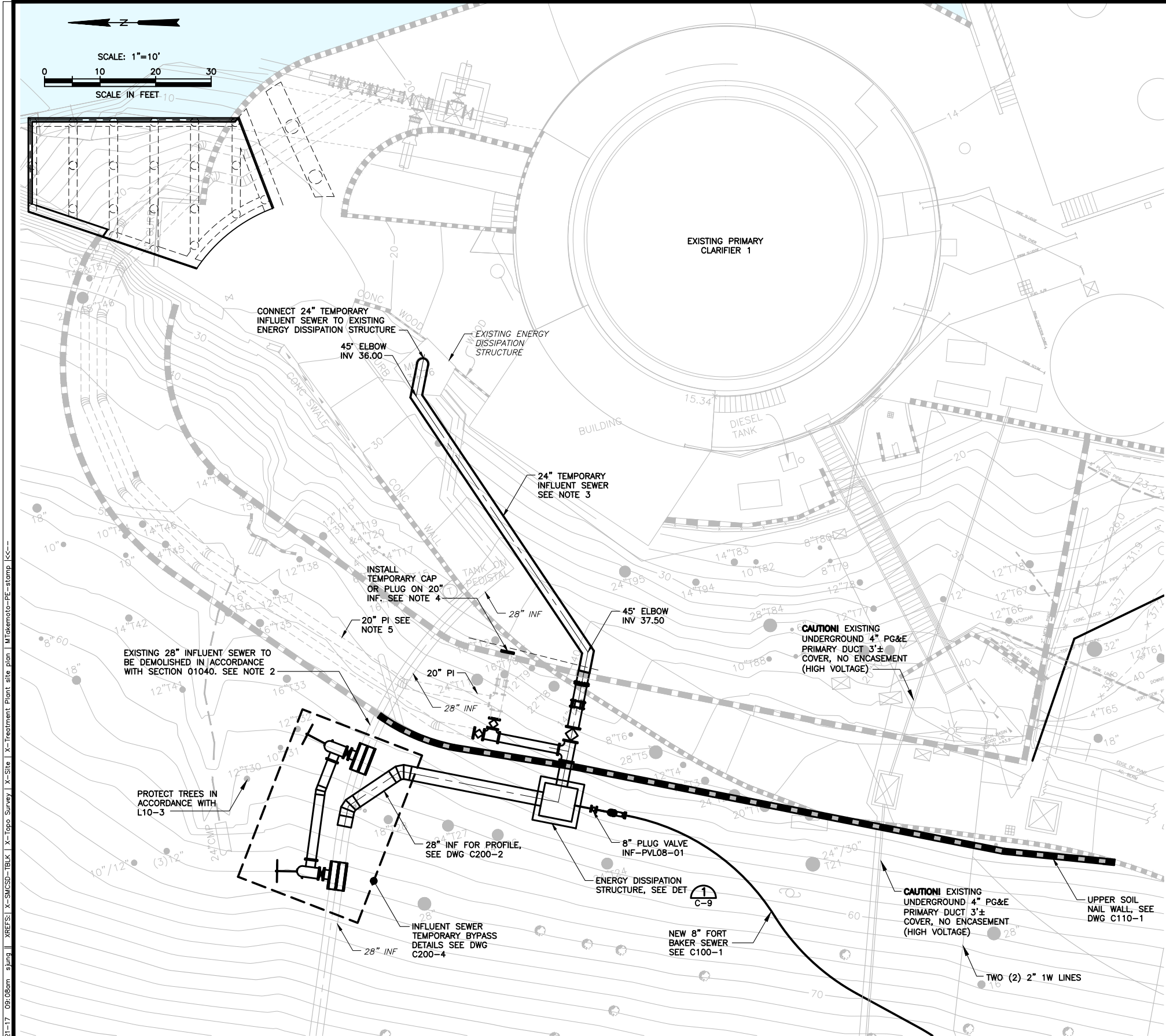
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

CIVIL MISCELLANEOUS DETAILS

DWG NO C-9
SHEET NO 37 OF 226
PROJ NO 055-006
DATE MARCH 2017



- NOTES:
1. LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY UTILITY LOCATION AND SERVICE IN THE FIELD PRIOR TO DEMOLITION.
 2. THE 24" TEMPORARY INFLUENT SEWER LINE SHALL BE PLACED INTO SERVICE PRIOR TO DEMOTION OF THE EXISTING 28" INFLUENT SEWER.
 3. CONTRACTOR USE TEMPORARY SUPPORTS AND/OR RESTRAINTS AS NEEDED TO SUPPORT THE 24" TEMPORARY INFLUENT SEWER. CONTRACTOR SHALL MAINTAIN VEHICLE ACCESS TO THE TREATMENT PLANT PROCESS AREA AS REQUIRED IN SECTION 01040. CONTRACTOR SHALL PROTECT THE 24" TEMPORARY INFLUENT SEWER WITH TRENCH PLATES OR OTHER METHODS TO ALLOW FOR VEHICLE TRAFFIC.
 4. THE TEMPORARY CAP OR PLUG SHALL REMAIN IN PLACE UNTIL THE PERMANENT 24" INFLUENT SEWER CONNECTION TO THE NEW HEADWORKS IS COMPLETE AND PLACED INTO SERVICE.
 5. THE CONTRACTOR MAY USE THE NEW 20" INF LINE AS A TEMPORARY INFLUENT SEWER BYPASS LINE AFTER CONSTRUCTION OF THE NEW 20" INF HAS BEEN COMPLETED.
 6. TYPICAL DRY WEATHER FLOW THROUGH THE 28" INF LINE RANGES FROM 0.5 MGD TO 2.0 MGD.
 7. TYPICAL DRY WEATHER FLOW THROUGH THE 8" FT BAKER INFLUENT SEWER LINE RANGES FROM 0.05 MGD TO 0.02 MGD.

FILENAME: 0055-006-C20_3-21-17 09:08am sjung || XREFS: X-SACS0-TBLK | X-Topo Survey | X-Site | X-Treatment Plant site plan | MTakemoto-PE-stamp | CC--



0" 1"
 VERIFY SCALES —
 BAR IS ONE INCH
 LONG ON FULL
 SIZE DRAWING.
 IF NOT ONE INCH
 LONG ON THIS
 DRAWING, ADJUST
 SCALES ACCORDINGLY



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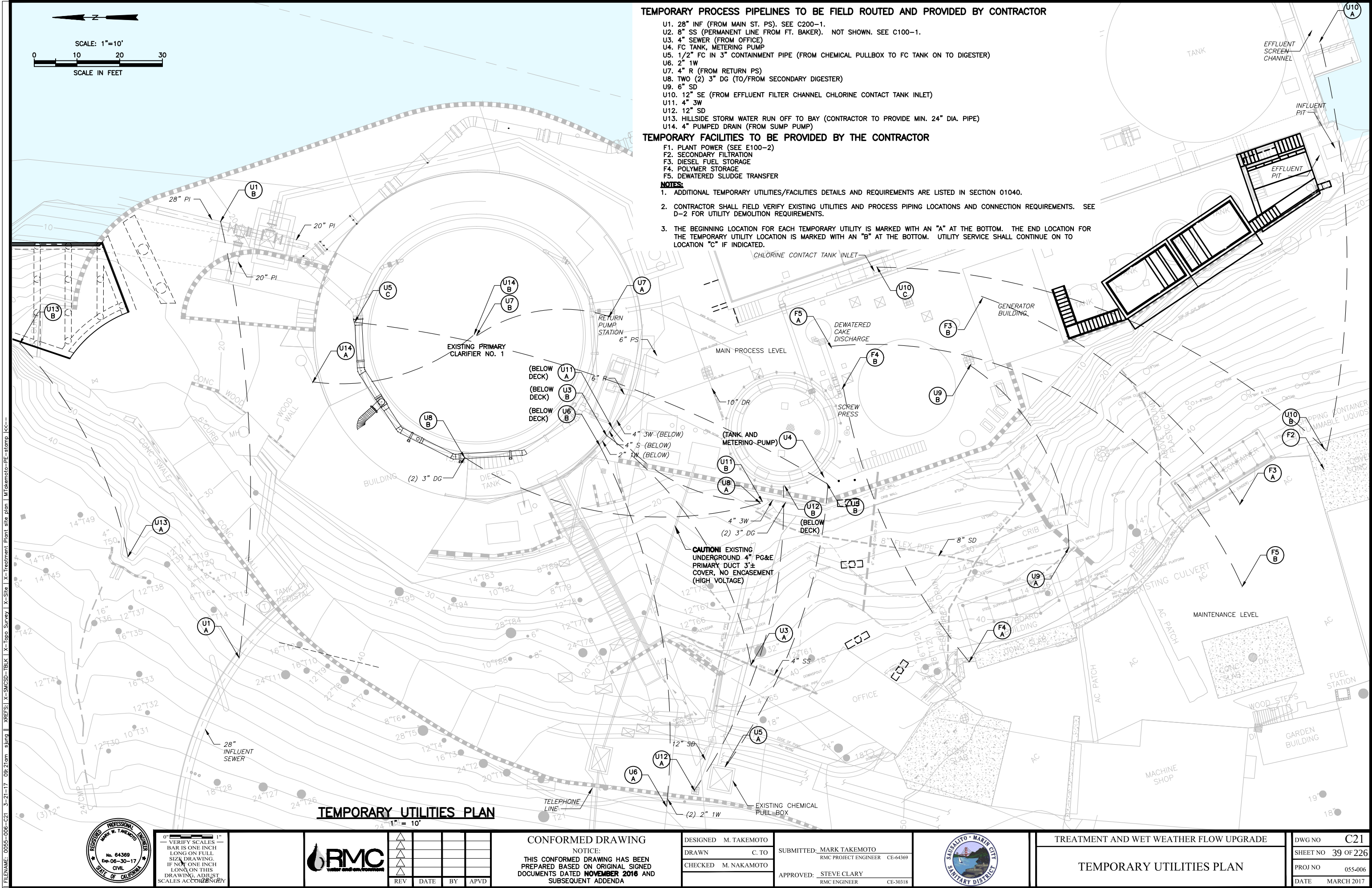
DESIGNED M. TAKEMOTO
 DRAWN C. TO
 CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
 RMC PROJECT ENGINEER CE-64369
 APPROVED: STEVE CLARY
 RMC ENGINEER CE-30318

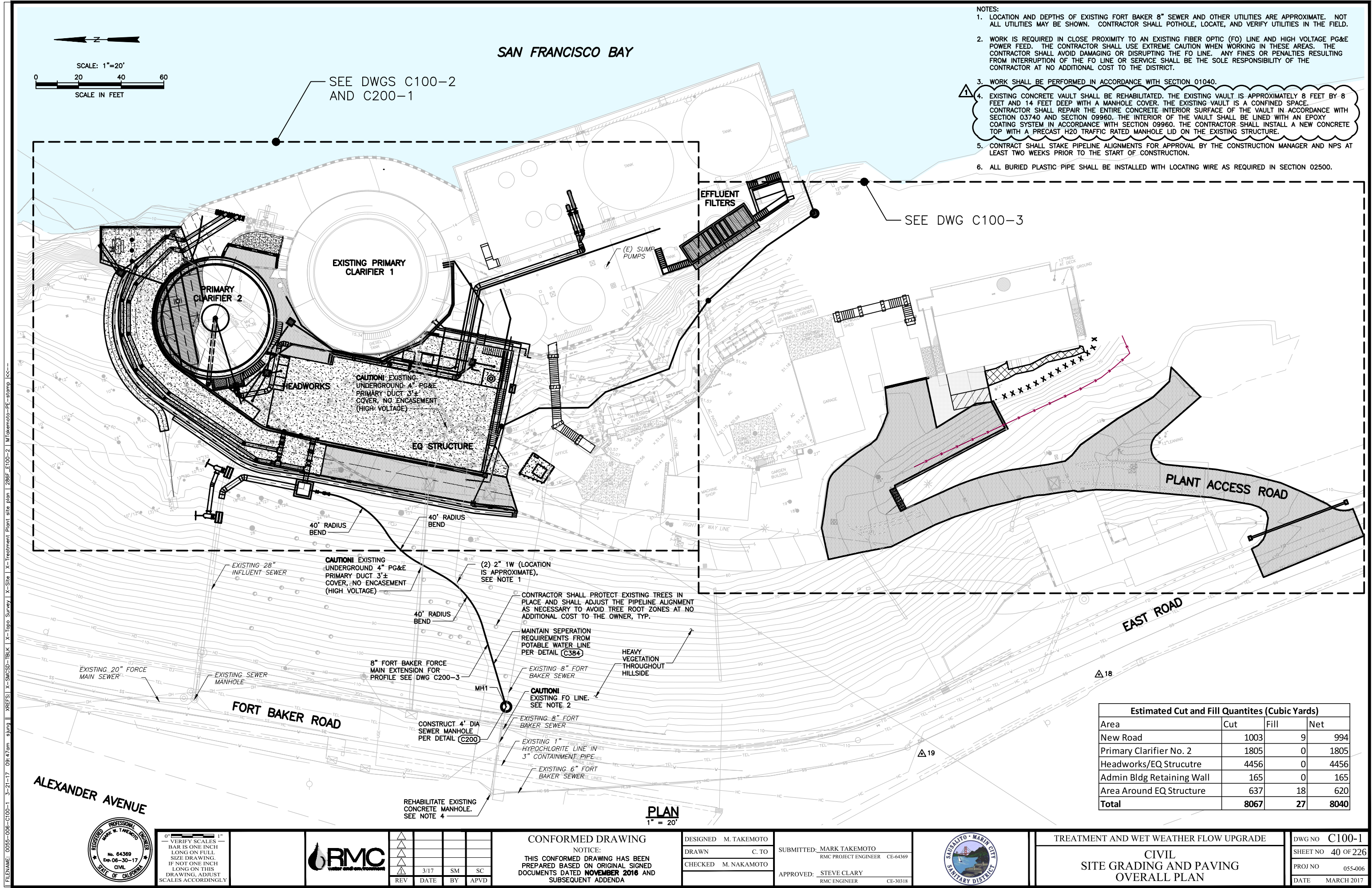


TREATMENT AND WET WEATHER FLOW UPGRADE
 TEMPORARY INFLUENT SEWER PLAN

DWG NO C20
 SHEET NO 38 OF 226
 PROJ NO 055-006
 DATE MARCH 2017

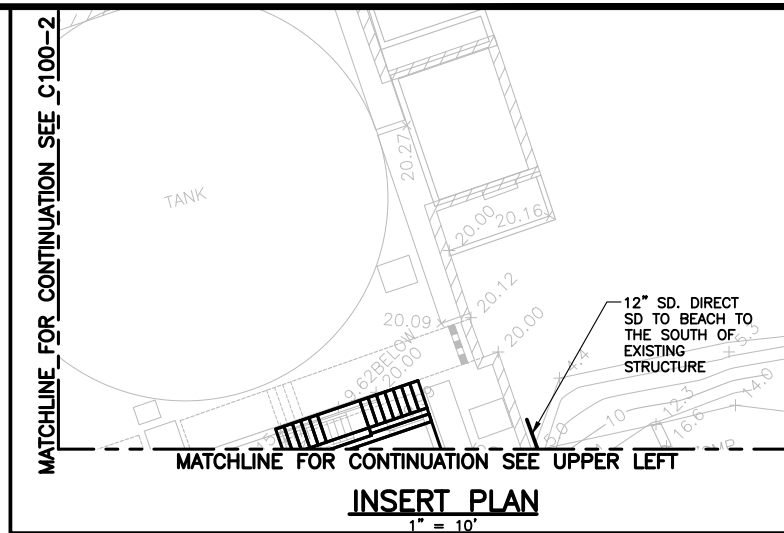


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FILENAME: 0055-006-C100-1 3-21-17 09:47am sjung XREFS: X-SMCSB-TBLK X-Topo Survey X-Site X-Treatment Plant alte plan 2865_E100-2 Makenato-PE-stamp Kc--

Lost Saved By: sjung 3-21-17 09:41am



DURING ROADWORK, INSTALL TWO (2) 1" CONDUITS AND TERMINATE IN NEW 12"x18" CHRISTY BOXES AT EACH SIDE. CONFIRM EXACT LOCATION WITH OWNER.

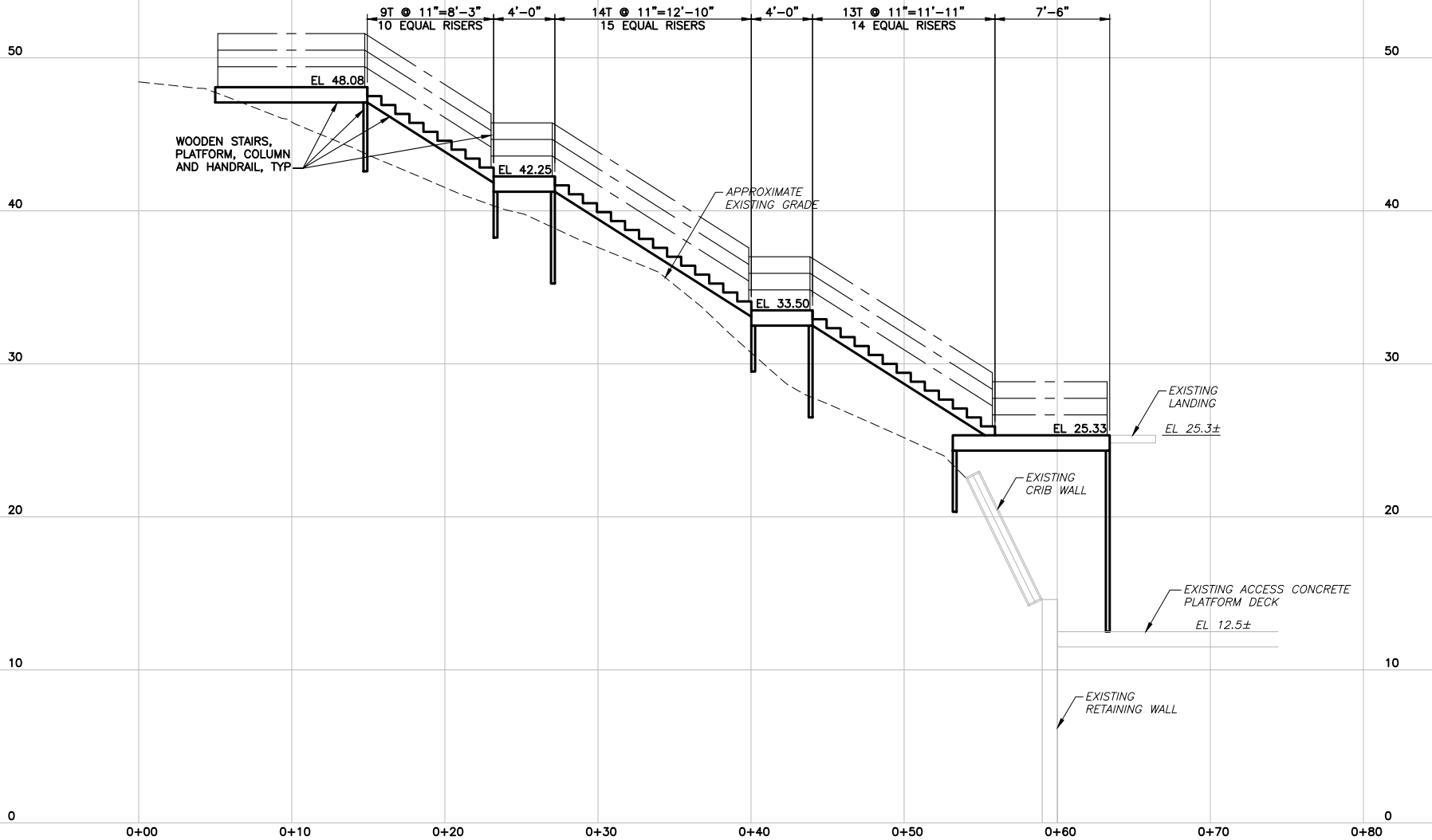
0"  1"
— VERIFY SCALES —
BAR IS ONE INCH
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SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
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SCALES ACCORDINGLY



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DWG NO	C100-3
SHEET NO	42 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-C100-1_3-21-17_09:51am.sjunc | X-REFS: X-SMCSO-TBLK | X-Tops Survey | X-Site | X-Treatment Plant site plan | 286F_E100-2 | MTakemoto-PE-stamp | Cc--



TEMPORARY STAIRS PROFILE (FOR PLAN SEE DWG C100-2)
1" = 5'

- NOTES:
1. THIS DRAWING FOR TEMPORARY STAIRS IS CONCEPTUAL ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING EXISTING FIELD CONDITIONS AND THEN DESIGNING AND CONSTRUCTING TEMPORARY STAIRS TO PROVIDE GENERAL ACCESS BETWEEN THE OFFICE AND PLANT FACILITIES DURING CONSTRUCTION. THE DESIGN OF THE TEMPORARY STAIRS SHALL BE PREPARED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA AND SHALL COMPLY WITH ALL APPLICABLE CODES AND SAFETY REGULATIONS.
 2. THE TEMPORARY STAIRS SHALL BE PROVIDED WITH HAND/GUARD RAILING AND LIGHTING. THE MINIMUM TREAD WIDTH SHALL BE 36".
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REGULARLY INSPECTING AND MAINTAINING IN GOOD CONDITION THE TEMPORARY STAIRS.
 4. THE CONTRACTOR SHALL COMPLETELY DEMOLISH THE TEMPORARY STAIRS ONCE PERMANENT STAIR ACCESS HAS BEEN CONSTRUCTED AND ACCEPTED BY THE ENGINEER.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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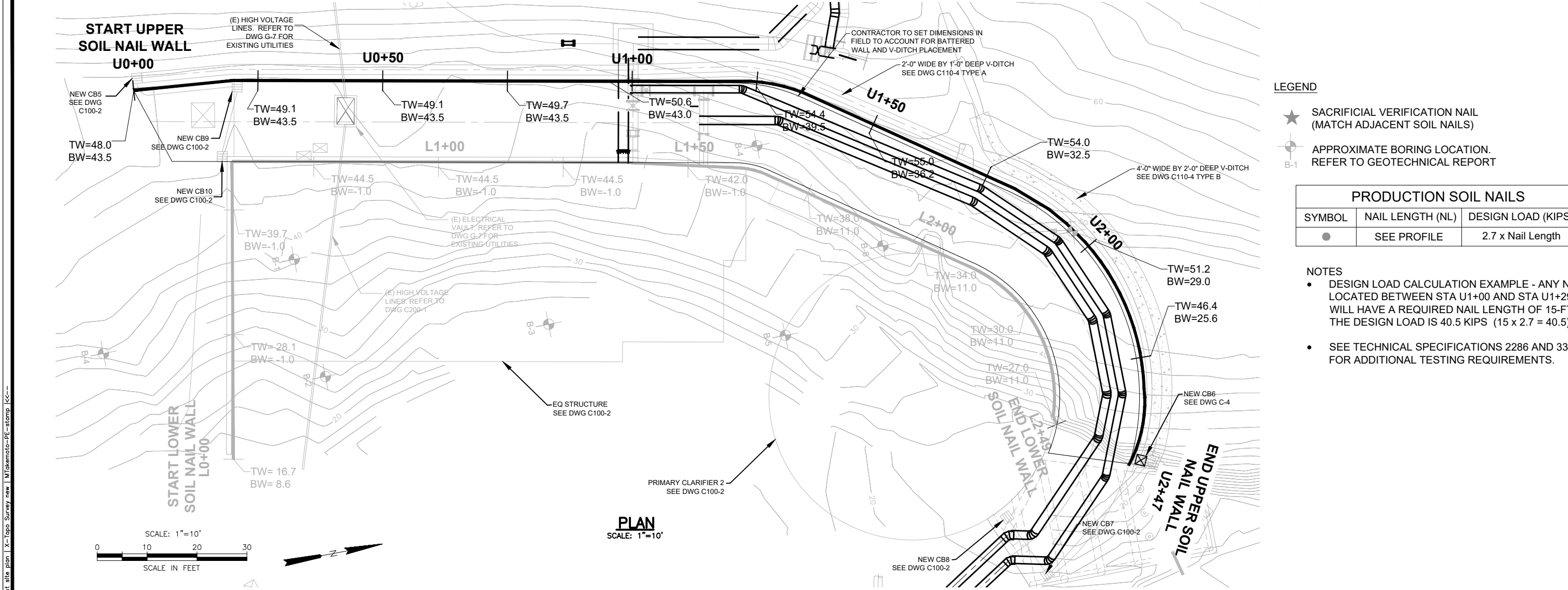
DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
CIVIL
TEMPORARY STAIRS

DWG NO C100-4
SHEET NO 43 OF 226
PROJ NO 055-006
DATE MARCH 2017

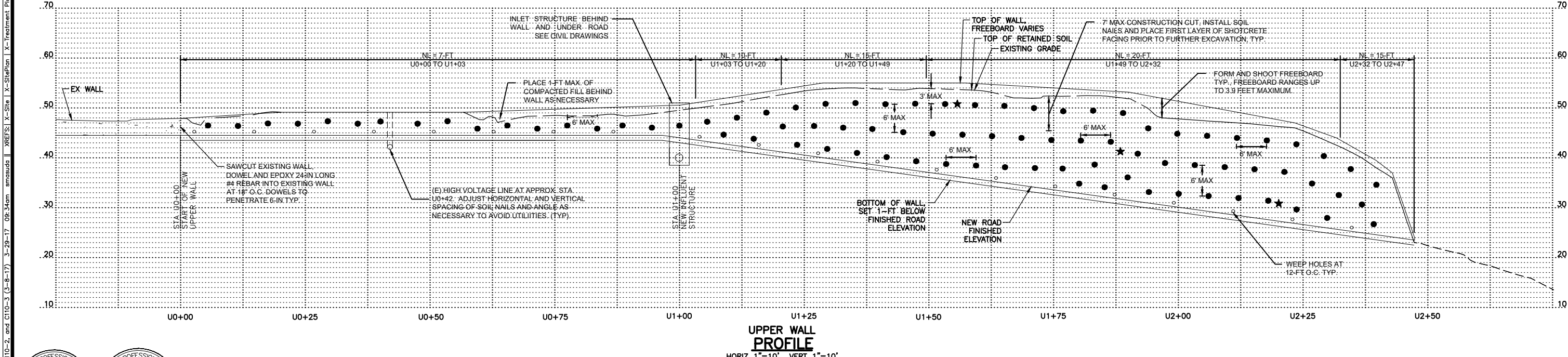


LEGEND

- SACRIFICIAL VERIFICATION NAIL (MATCH ADJACENT SOIL NAILS)
- APPROXIMATE BORING LOCATION. REFER TO GEOTECHNICAL REPORT

PRODUCTION SOIL NAILS		
SYMBOL	NAIL LENGTH (NL)	DESIGN LOAD (KIPS)
●	SEE PROFILE	2.7 x Nail Length

- NOTES
- DESIGN LOAD CALCULATION EXAMPLE - ANY NAIL LOCATED BETWEEN STA U1+00 AND STA U1+29 WILL HAVE A REQUIRED NAIL LENGTH OF 15-FT. THE DESIGN LOAD IS 40.5 KIPS (15 x 2.7 = 40.5).
 - SEE TECHNICAL SPECIFICATIONS 2286 AND 3360 FOR ADDITIONAL TESTING REQUIREMENTS.



REGISTERED PROFESSIONAL ENGINEER
SCOTT A. STEPHENS
No. 2398
Exp. 6/30/17
CIVIL
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
SCOTT A. STEPHENS
No. C 50482
Exp. 6/30/17
CIVIL
STATE OF CALIFORNIA

0"=1' 1"=1' VERIFY SCALES — BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY

RMC
Water and Wastewater

REV	DATE	BY	APVD

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DESIGNED	R. AREND
DRAWN	R. AREND
CHECKED	S. STEPHENS

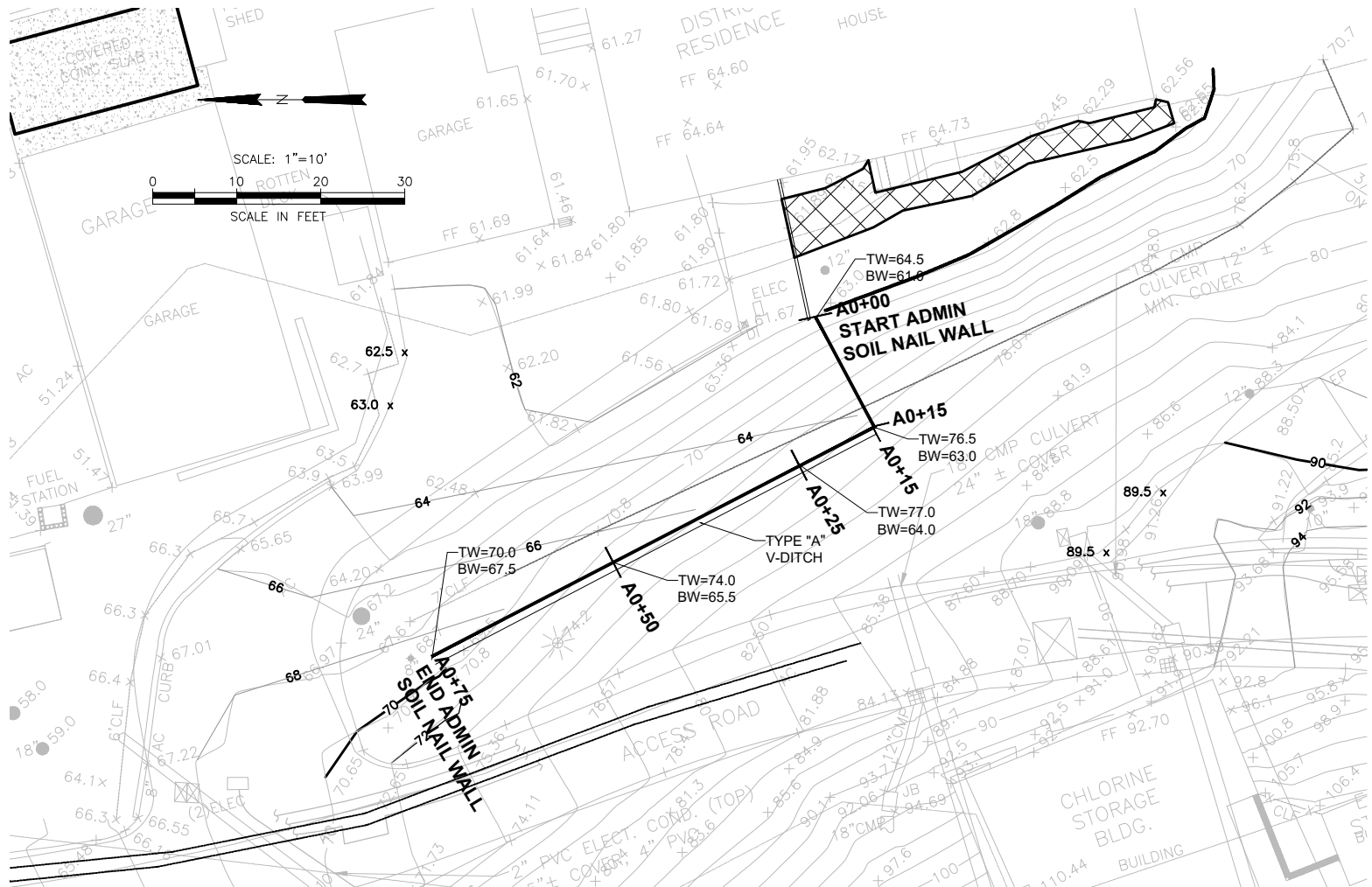
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APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318

SHUMLITO • MARIN CITY
SANITARY DISTRICT

TREATMENT AND WET WEATHER FLOW UPGRADE	
GEOTECHNICAL SOIL NAIL UPPER WALL PROFILES	

DWG NO	C110-1
SHEET NO	44 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: C110-4 (3-29-17) 3-29-17 11:20am smauda XREFS: X-Topo Survey site X-Topo Survey new X-Topo Survey_Road 0055-008-M400-1 X-SitePlan X-Treatment Plant site plan 286F-E100-2 Markemoto-PE-stump <<--



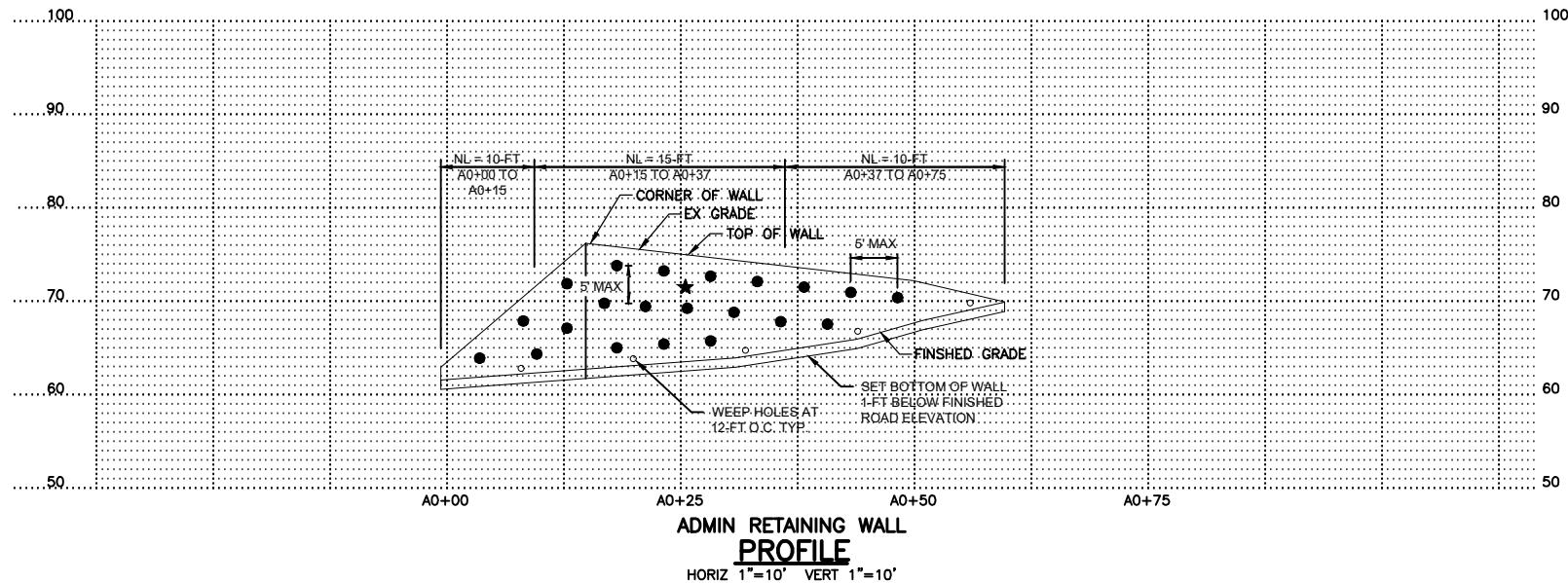
LEGEND

- ★ SACRIFICIAL VERIFICATION NAIL (MATCH ADJACENT SOIL NAILS)

PRODUCTION SOIL NAILS		
SYMBOL	NAIL LENGTH (NL)	DESIGN LOAD (KIPS)
●	SEE PROFILE	0.8 x Nail Length

NOTES

- DESIGN LOAD CALCULATION EXAMPLE - ANY NAIL LOCATED BETWEEN STA A0+10 AND STA A0+55 WILL HAVE A REQUIRED NAIL LENGTH OF 15-FT. THE DESIGN LOAD IS 12 KIPS (15 x 0.8 = 12).
- SEE TECHNICAL SPECIFICATIONS 2286 AND 3360 FOR ADDITIONAL TESTING REQUIREMENTS.



0" 1"
VERIFY SCALES
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LONG ON FULL
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DESIGNED S. STEPHENS
DRAWN R. AREND
CHECKED S. STEPHENS

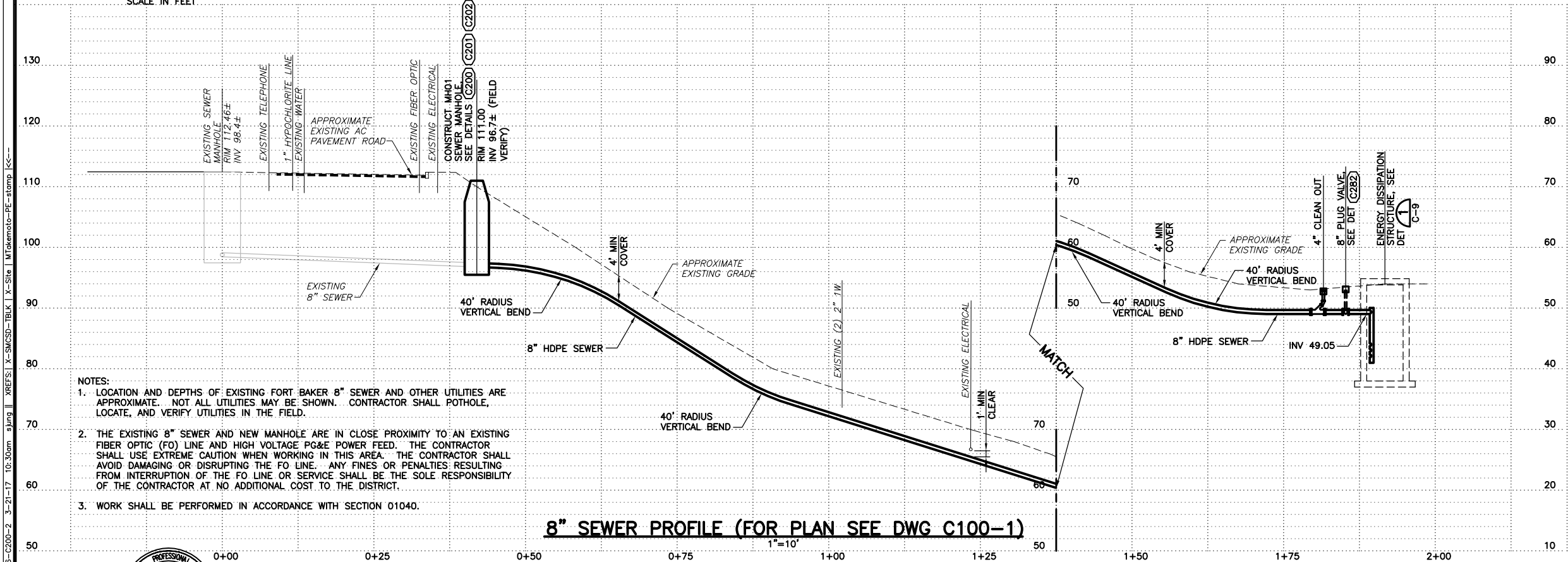
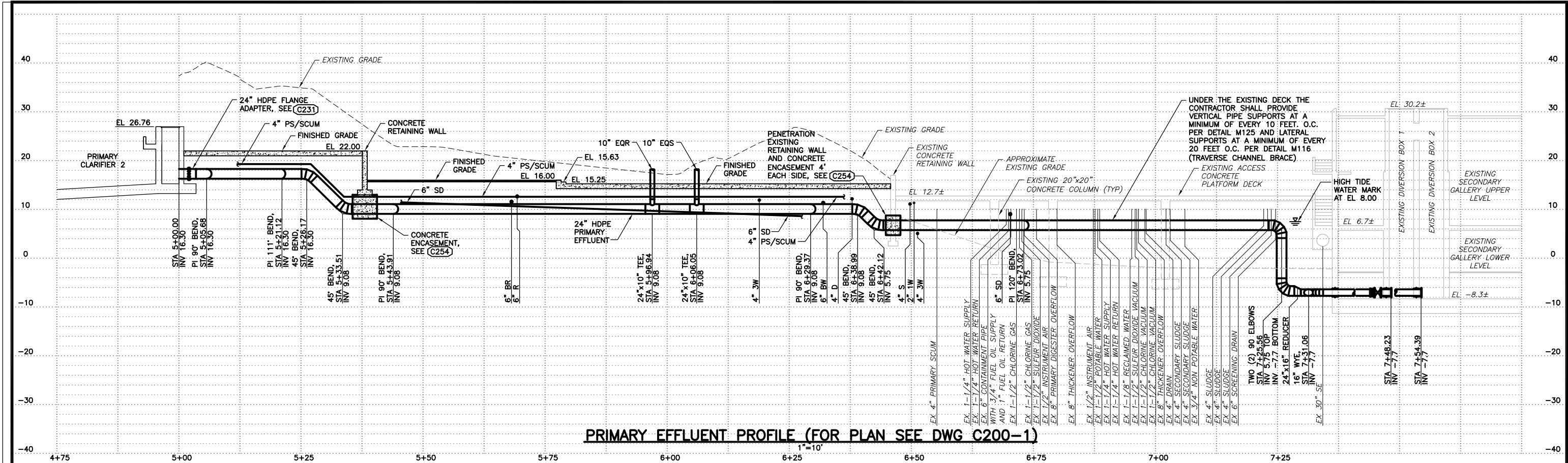
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
GEOTECHNICAL
SOIL NAIL ADMIN WALL PROFILE

DWG NO C110-3
SHEET NO 46 OF 226
PROJ NO 055-006
DATE MARCH 2017





- NOTES:
1. LOCATION AND DEPTHS OF EXISTING FORT BAKER 8" SEWER AND OTHER UTILITIES ARE APPROXIMATE. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL POT-HOLE, LOCATE, AND VERIFY UTILITIES IN THE FIELD.
 2. THE EXISTING 8" SEWER AND NEW MANHOLE ARE IN CLOSE PROXIMITY TO AN EXISTING FIBER OPTIC (FO) LINE AND HIGH VOLTAGE PG&E POWER FEED. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. THE CONTRACTOR SHALL AVOID DAMAGING OR DISRUPTING THE FO LINE. ANY FINES OR PENALTIES RESULTING FROM INTERRUPTION OF THE FO LINE OR SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE DISTRICT.
 3. WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01040.



0" = 10' 1" = 1' VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



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CHECKED M. NAKAMOTO

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RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

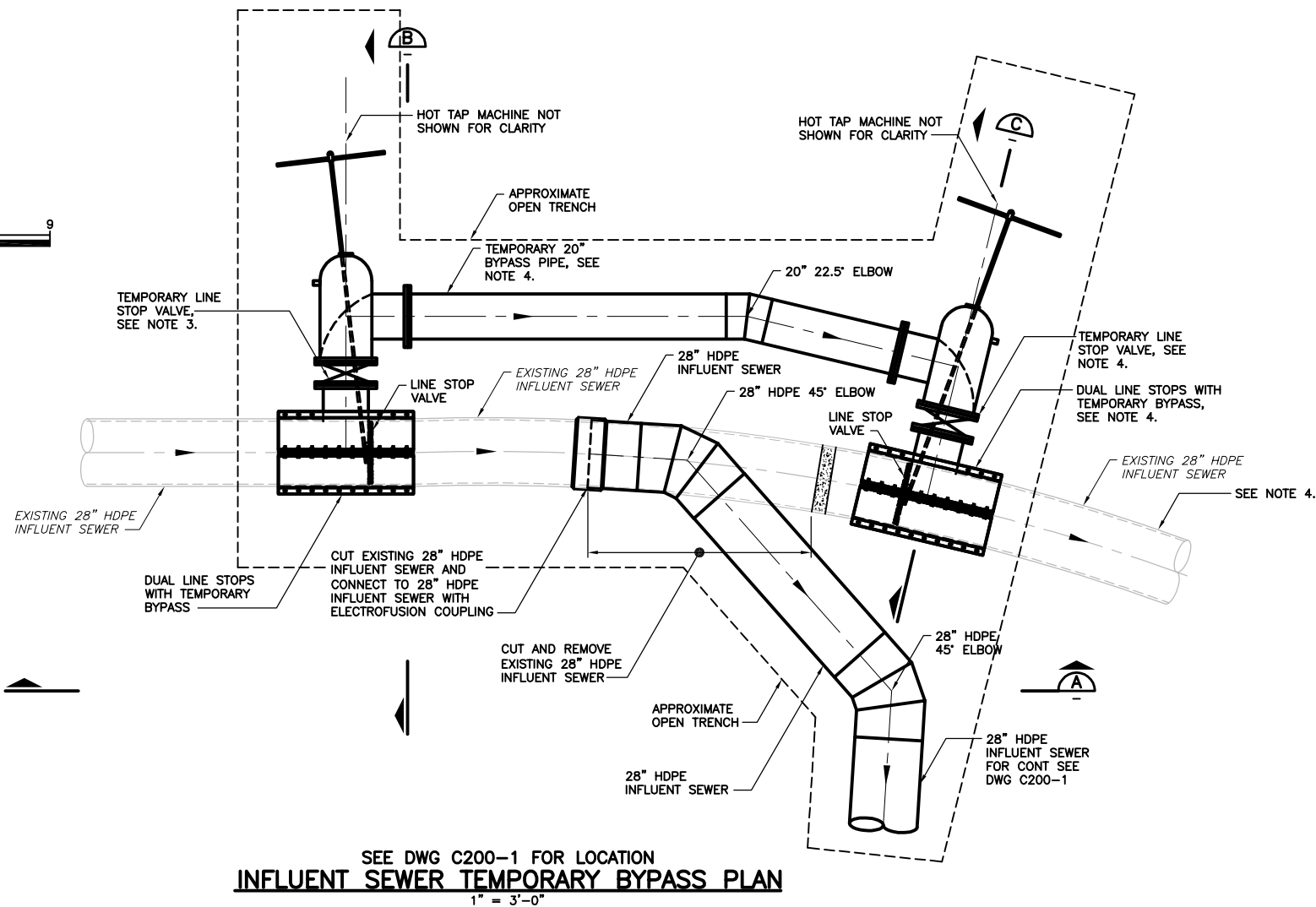
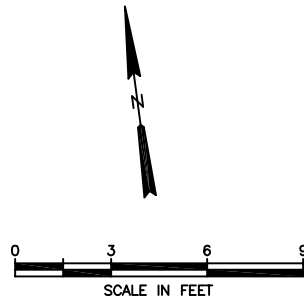


TREATMENT AND WET WEATHER FLOW UPGRADE

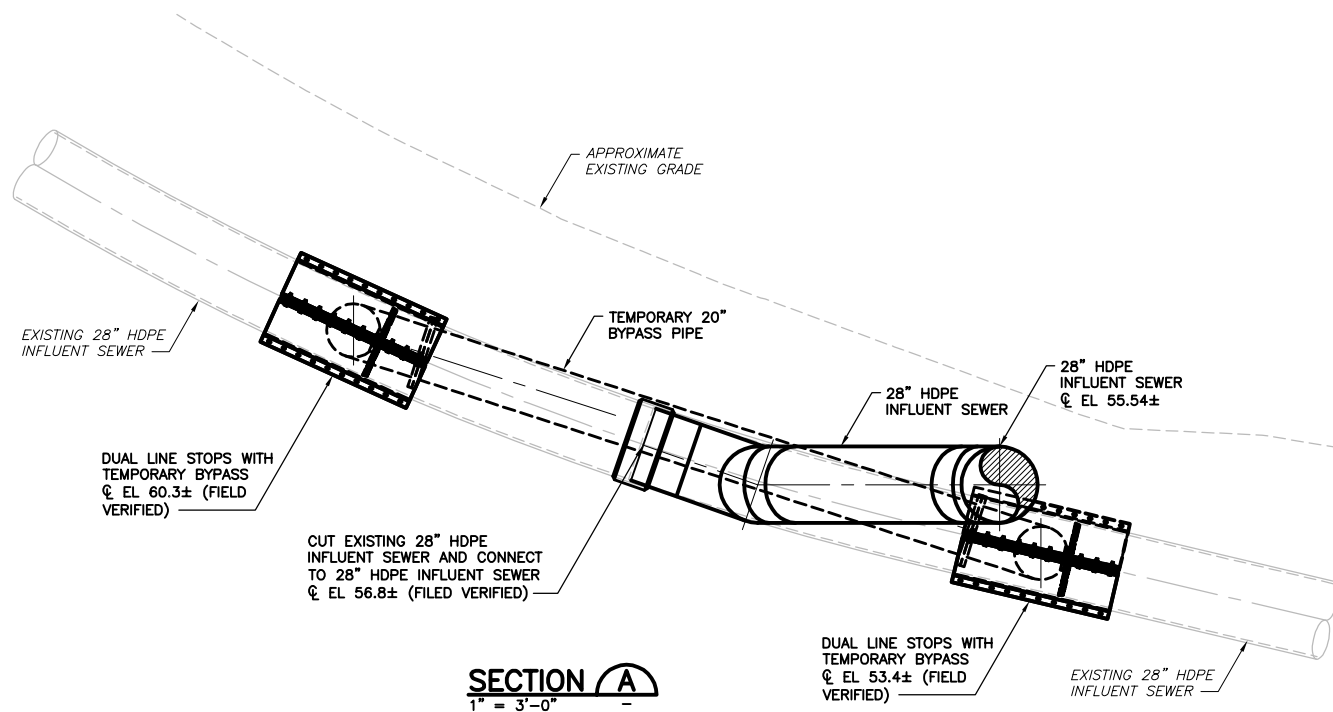
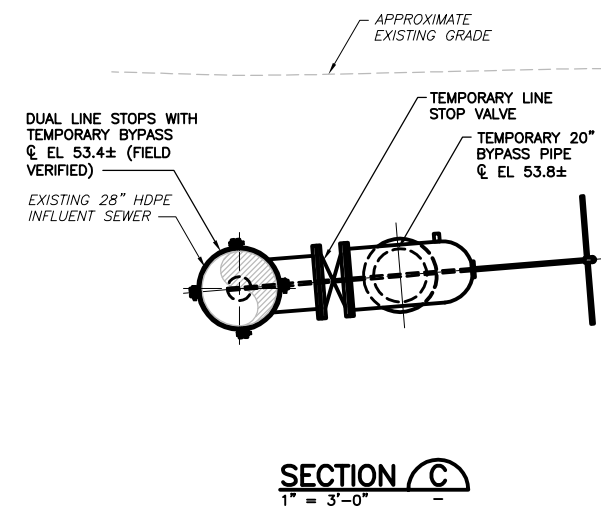
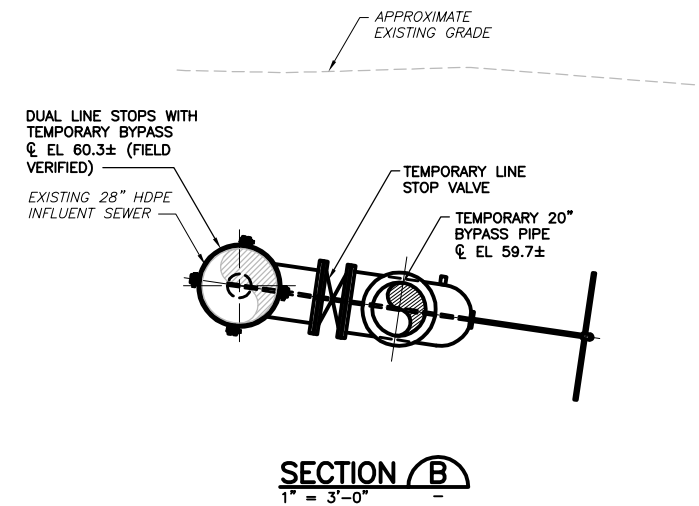
PIPE PROFILES - 2

DWG NO C200-3
SHEET NO 50 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-C200-2 3-21-17 10:30am sjung X-REFS: X-SMCSB-TBLK X-Site MTakemoto-PE-stamp [cc--



SEE DWG C200-1 FOR LOCATION
INFLUENT SEWER TEMPORARY BYPASS PLAN
1" = 3'-0"



NOTES:

1. SHUTDOWNS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 01030.
2. ADDITIONAL SEQUENCING AND CONSTRAINTS ARE LISTED IN SECTION 01040.
3. TEMPORARY STOP VALVE AND LINE STOP FITTING SHALL MEET THE REQUIREMENTS OF SECTION 15200 AND SHALL REMAIN IN PLACE PER DETAIL C286. CONTRACTOR SHALL PLACE A BLIND FLANGE ON THE DOWNSTREAM SIDE OF THE FITTING.
4. ITEM SHALL BE REMOVED AFTER THE NEW 28" HDPE INFLUENT SEWER CONNECTION HAS BEEN TESTED AND ACCEPTED.
5. CONTRACTOR SHALL VERIFY LOCATION OF AND CONNECTION REQUIREMENTS FOR EXISTING UTILITIES IN THE FIELD.



0" = 1" VERIFICATION SCALES
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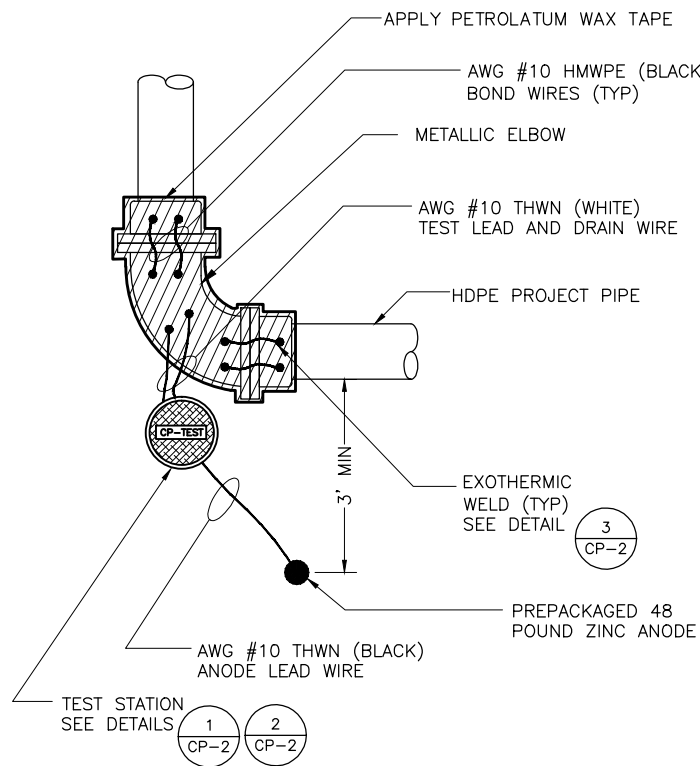
DESIGNED M. TAKEMOTO
DRAWN C. TO
CHECKED M. NAKAMOTO

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



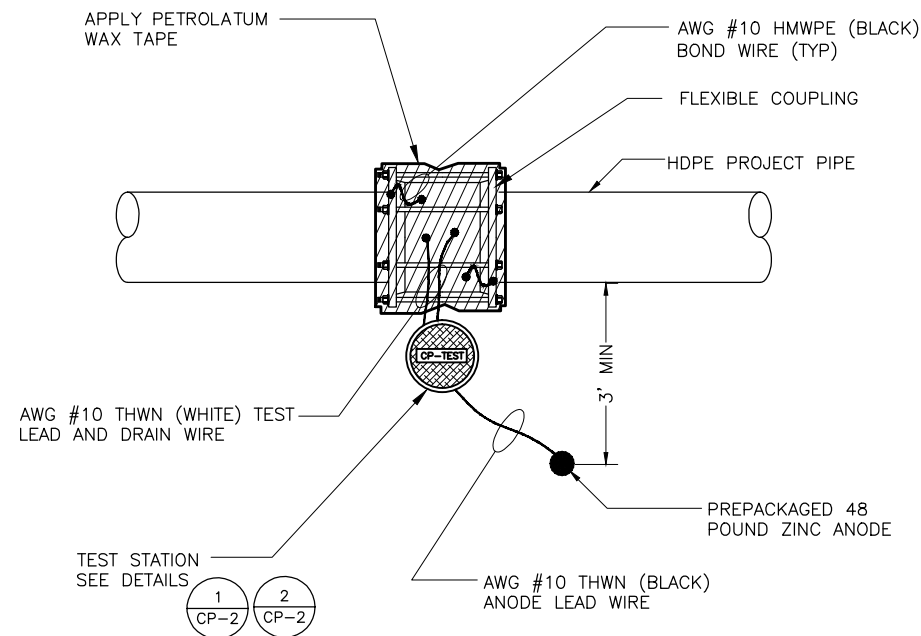
TREATMENT AND WET WEATHER FLOW UPGRADE
**INFLUENT SEWER TEMPORARY BYPASS
PLAN AND SECTIONS**

DWG NO **C200-4**
SHEET NO **51** OF 226
PROJ NO 055-006
DATE MARCH 2017



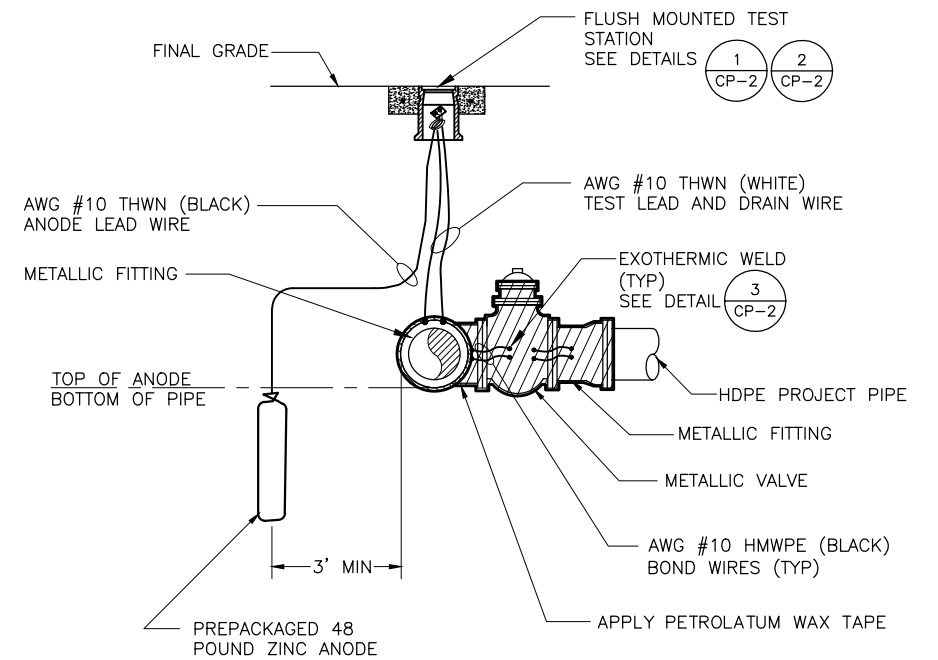
TYPICAL ANODE INSTALLATION
AT ELBOW
NTS

1
-
-



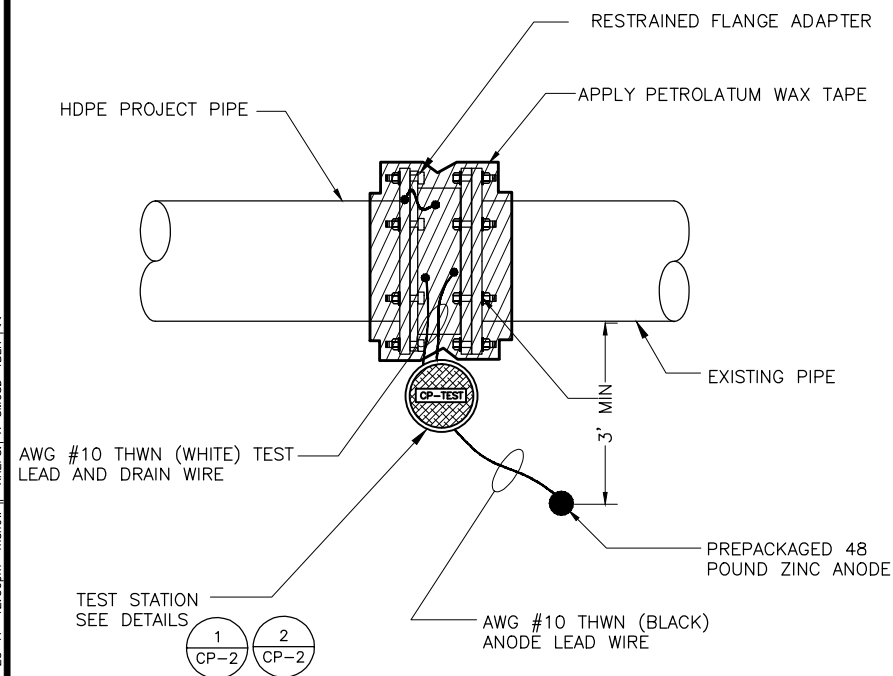
TYPICAL ANODE INSTALLATION
AT FLEXIBLE COUPLING
NTS

2
-
-



ANODE INSTALLATION
AT GATE VALVE
NTS

3
-
-



TYPICAL PETROLATUM WAX TAPE WRAP
AROUND RESTRAINED FLANGE ADAPTER
NTS

4
-
-

GENERAL NOTES:

1. THESE DETAILS ARE TYPICAL. THE NUMBER, AND ARRANGEMENT OF FITTINGS AND VALVES MAY VARY. THE DETAIL THAT IS MOST SIMILAR TO THE ACTUAL ARRANGEMENT SHOULD BE USED.
2. INSTALL AN ANODE ON ALL METALLIC VALVES, FITTINGS, TEES, CROSSES, AND OTHER METALLIC APPURTENANCES AS SHOWN ON THE DRAWINGS AND INDICATED IN THE SPECIFICATIONS
3. TOP OF ANODE SHOULD BE AT THE PIPE'S INVERT DEPTH

CONFORMED DRAWING

NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED CIT
DRAWN MQT
CHECKED GHW

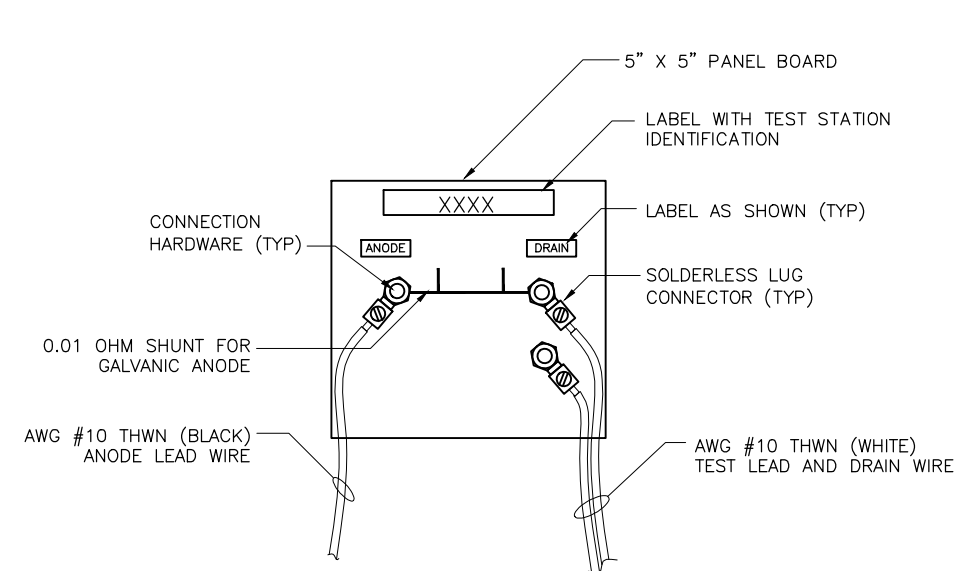
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



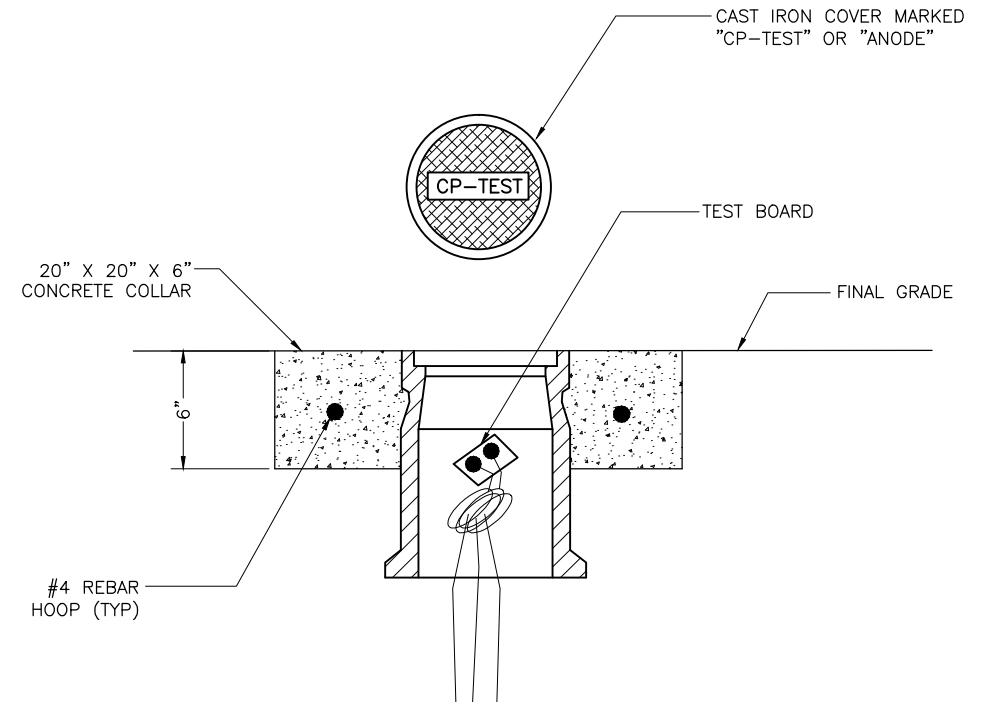
TREATMENT AND WET WEATHER FLOW UPGRADE

CORROSION CONTROL DETAILS

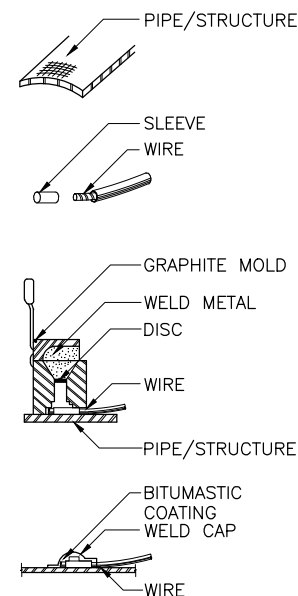
DWG NO CP-1
SHEET NO 52 OF 226
PROJ NO 055-006
DATE MARCH 2017



ANODE TEST STATION
TEST BOARD
NTS



FLUSH MOUNTED TEST STATION
NTS



1. FILE PIPE/STRUCTURE TO BARE METAL AND CLEAN SURFACE.
2. STRIP INSULATION FROM WIRE AND ATTACH SLEEVE.
3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR. IGNITE WITH FLINT GUN REMOVE SLAG FROM CONNECTION WITH CHIPPING HAMMER.
4. COVER CONNECTION WITH BITUMASTIC COATING OVER ALL EXPOSED METAL, PLACE WELD CAP OVER CONNECTION. REPAIR ALL DAMAGE TO COATING AND LINING IN ACCORDANCE WITH MFG RECOMMENDATIONS.

EXOTHERMIC WELD
NTS



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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DESIGNED	CIT
DRAWN	MQT
CHECKED	GHW

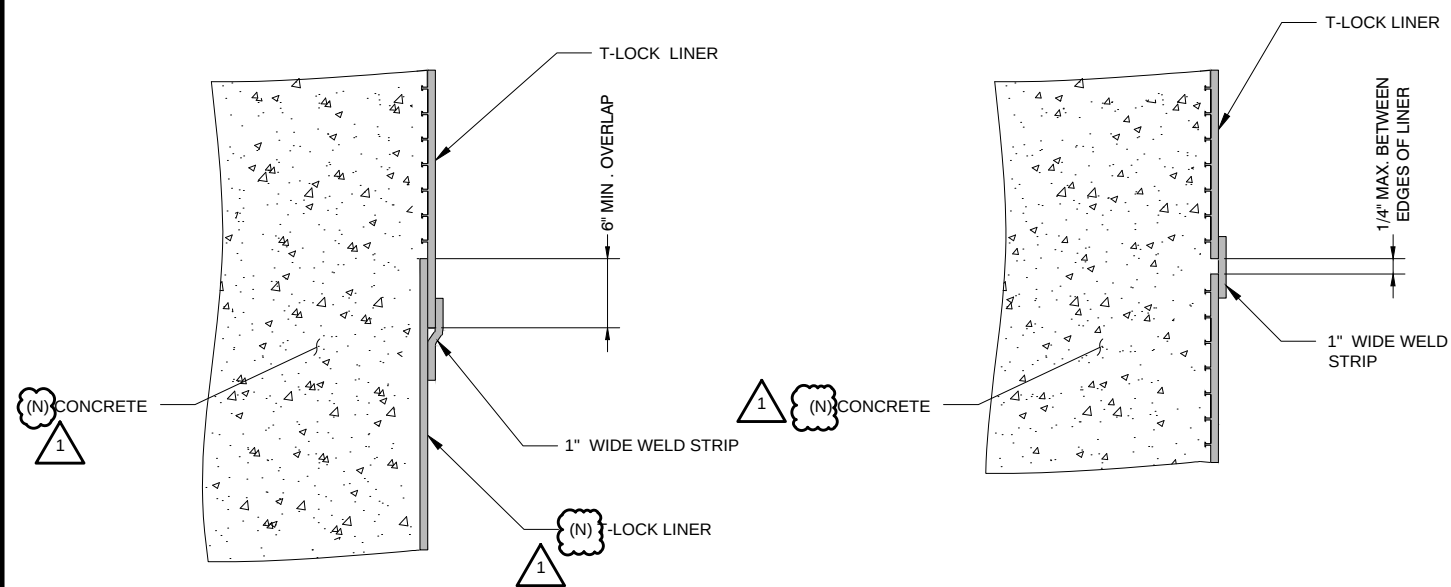
SUBMITTED:	MARK TAKEMOTO	CE-64369
	RMC PROJECT ENGINEER	
APPROVED:	STEVE CLARY	CE-30318
	RMC ENGINEER	



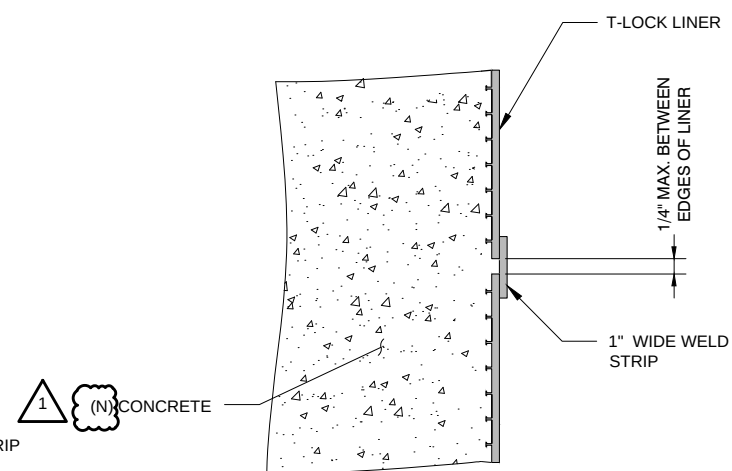
TREATMENT AND WET WEATHER FLOW UPGRADE

CORROSION CONTROL DETAILS

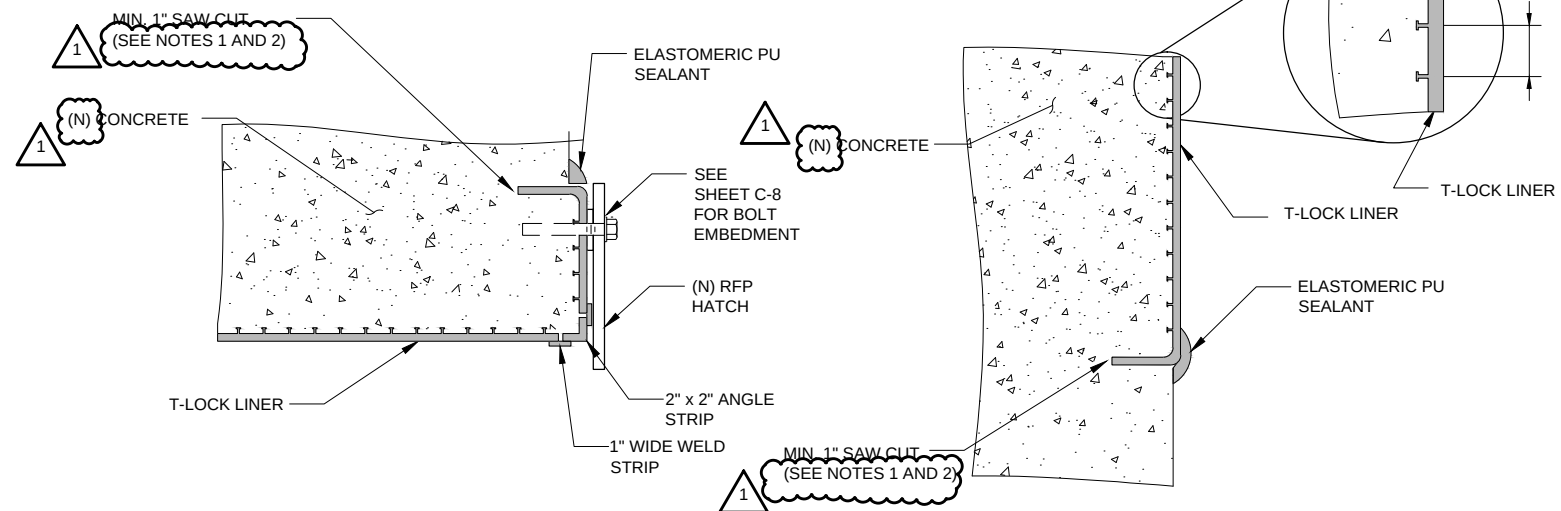
DWG NO	CP-2
SHEET NO	53 OF 226
PROJ NO	055-006
DATE	MARCH 2017



TERMINATION OF EXISTING LINER 1
NTS -



TERMINATION AT JOINT 2

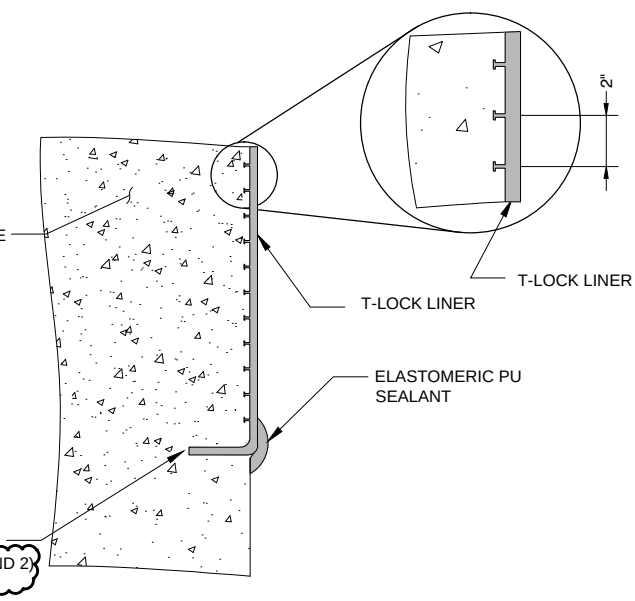


RFP HATCH TERMINATION DETAIL

NTS

3

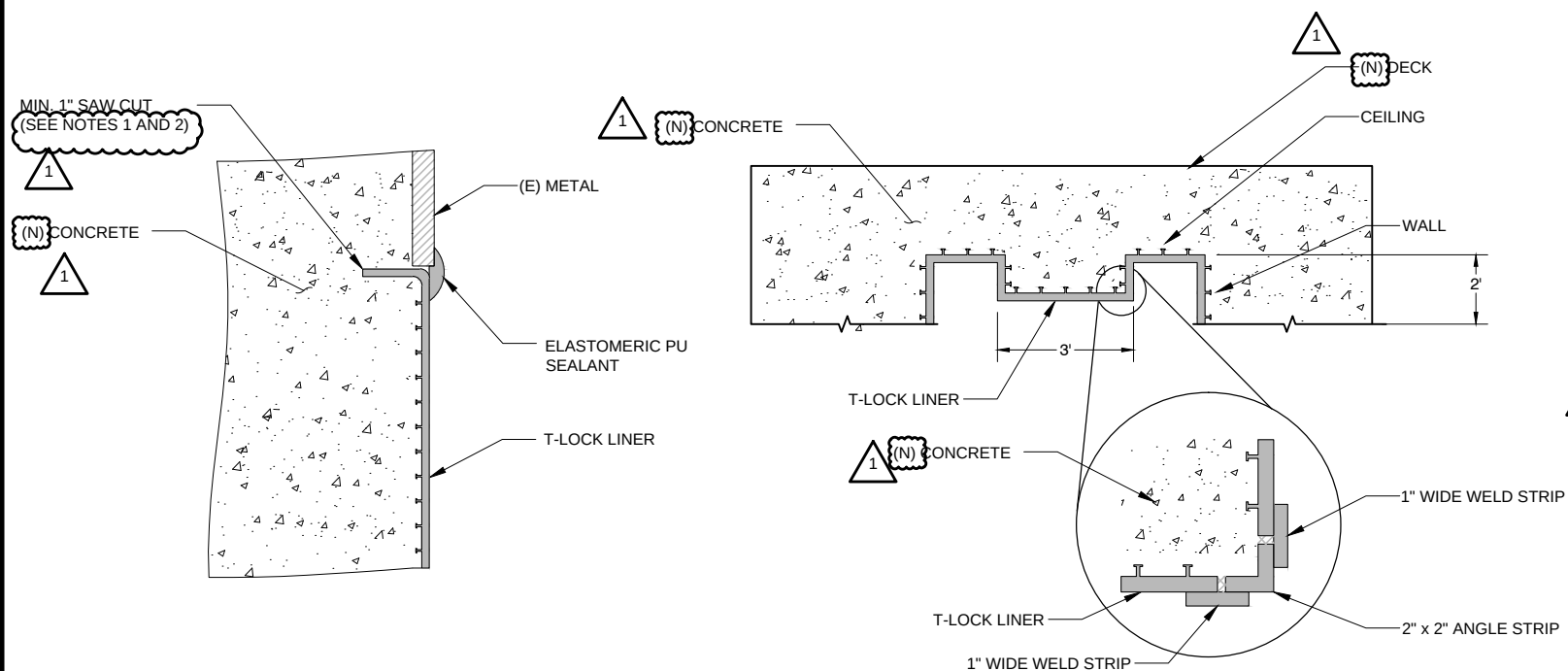
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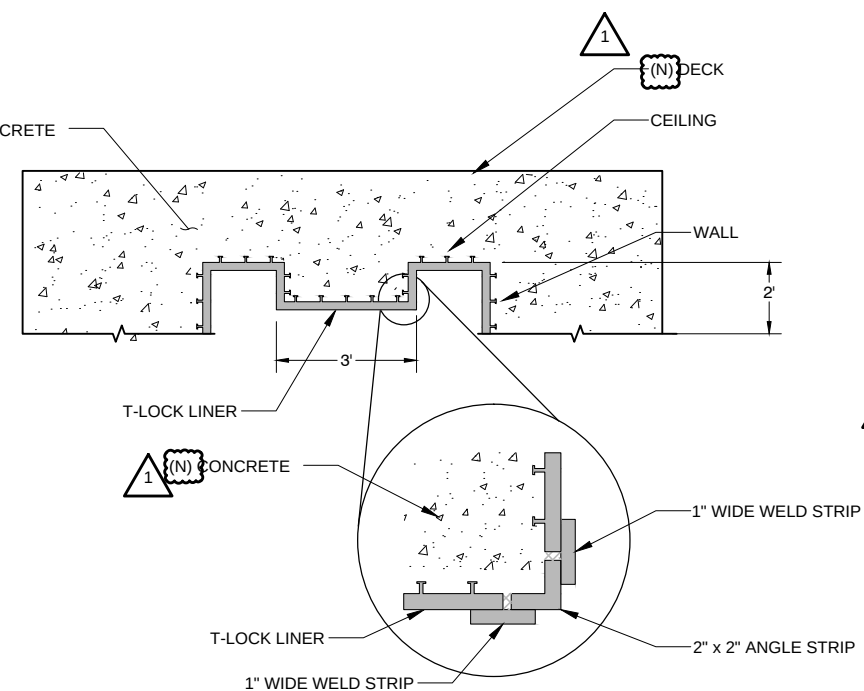
LOWER EMBEDDED
TERMINATION DETAIL

NTS

4
-



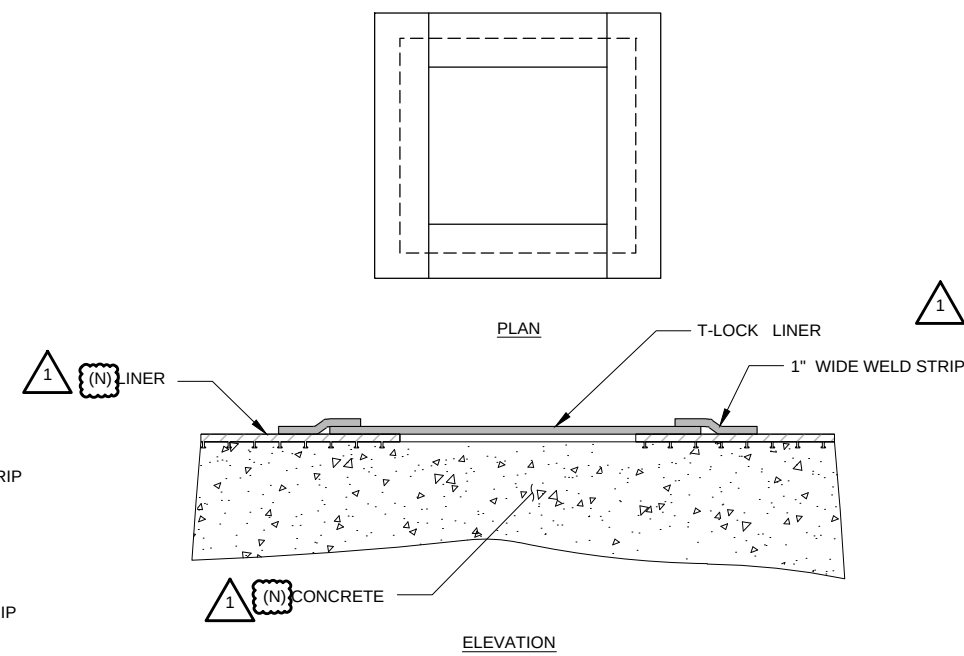
TERMINATION AT EXISTING
METAL PARTS THAT CANNOT BE REMOVED (5
NTS



CEILING DETAIL

NTS

6
-

REPAIR DETAIL FOR HOLE IN LINER (7)
NTS -

- } NOTES:

1. THESE DETAILS ARE TO BE IMPLEMENTED IN AREAS THAT ARE NOT IMMERSUED AND SUBJECT TO A FOUL AIR ENVIRONMENT OR ABOVE THE WASTEWATER SURFACE.
2. THE SAW CUT INDICATED SHALL BE INSTALLED AFTER THE CONCRETE HAS CURED FOR 28 DAYS. THE PVC LINER FLAP TO BE EMBEDDED SHALL HAVE ITS T-SHAPED EXTENSIONS REMOVED PRIOR TO THE PLACEMENT OF THE CONCRETE AND SECURED TO THE CONCRETE FORM. AFTER THE FORM HAS BEEN REMOVED, THE PVC LINER FLAP SHALL BE PEELED AWAY FROM THE CONCRETE SURFACE WITHOUT DAMAGING THE LINER. THE PVC LINER FLAP SHALL BE INSERTED INTO THE SAW CUT AND A SEALANT BE APPLIED PER DETAIL.



0"  1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



△			
△			
△			
△	3/17	MN	JLV
REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	MN
DRAWN	MQT
CHECKED	JLV

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

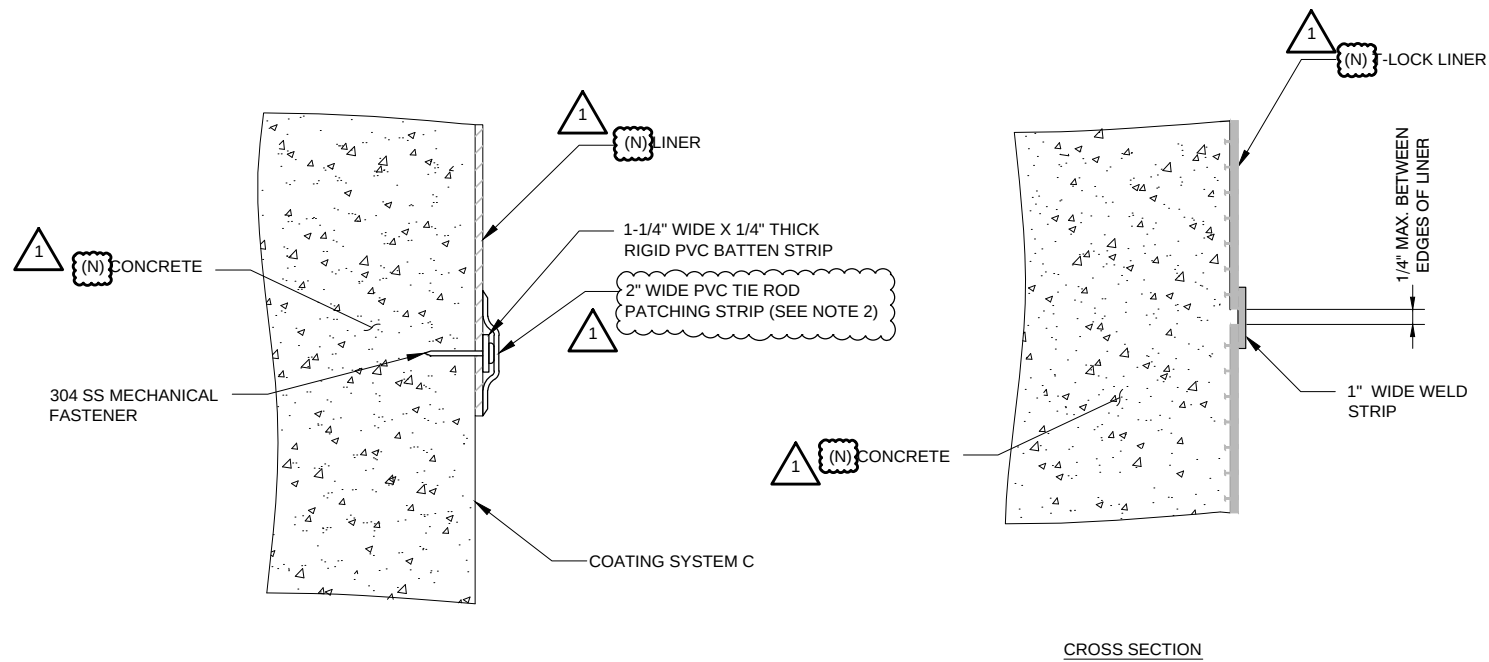


TREATMENT AND WET WEATHER FLOW UPGRADE

CONCRETE REPAIR AND LINING
DETAILS

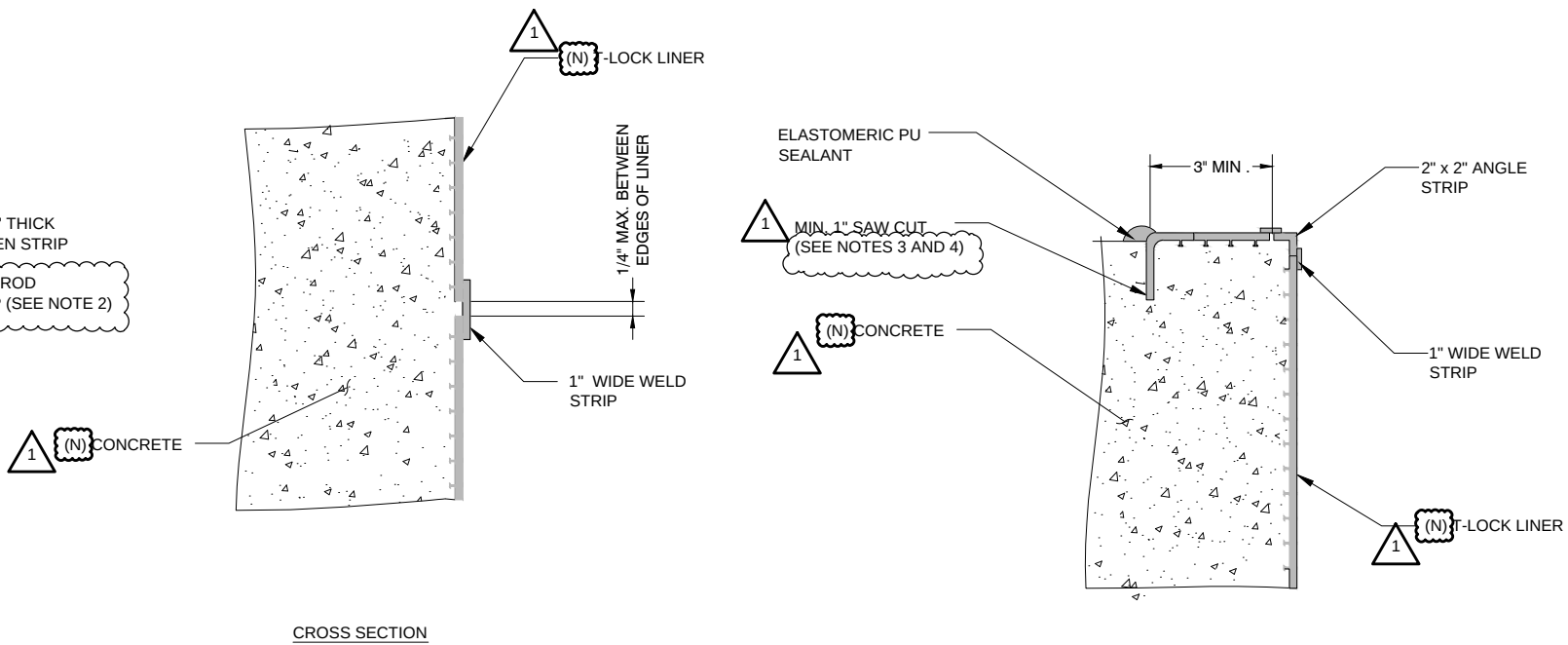
DWG NO	CP-3
SHEET NO	54 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 13-0046 Coating Details_Rev_3/12/2017 3-28-17 12:27pm msnw XREFS: X-SMSD-TBLK Kc--



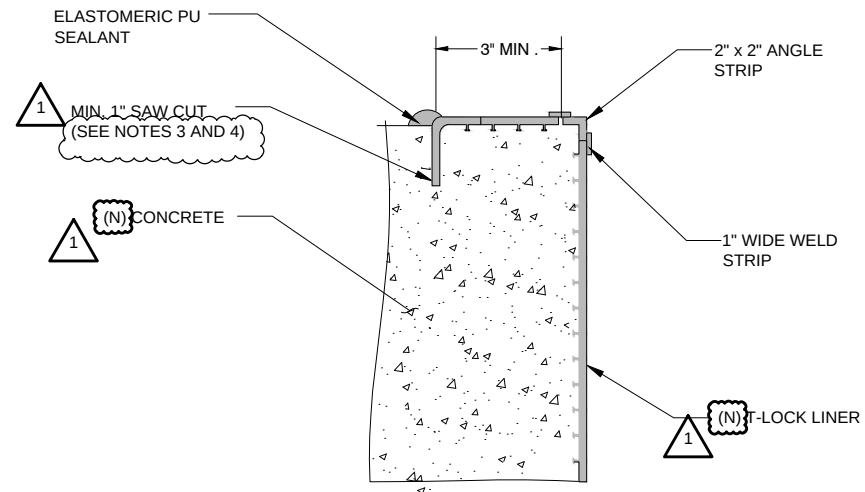
CROSS SECTION

TERMINATION OF EXSITING LINER 1
NTS



CROSS SECTION

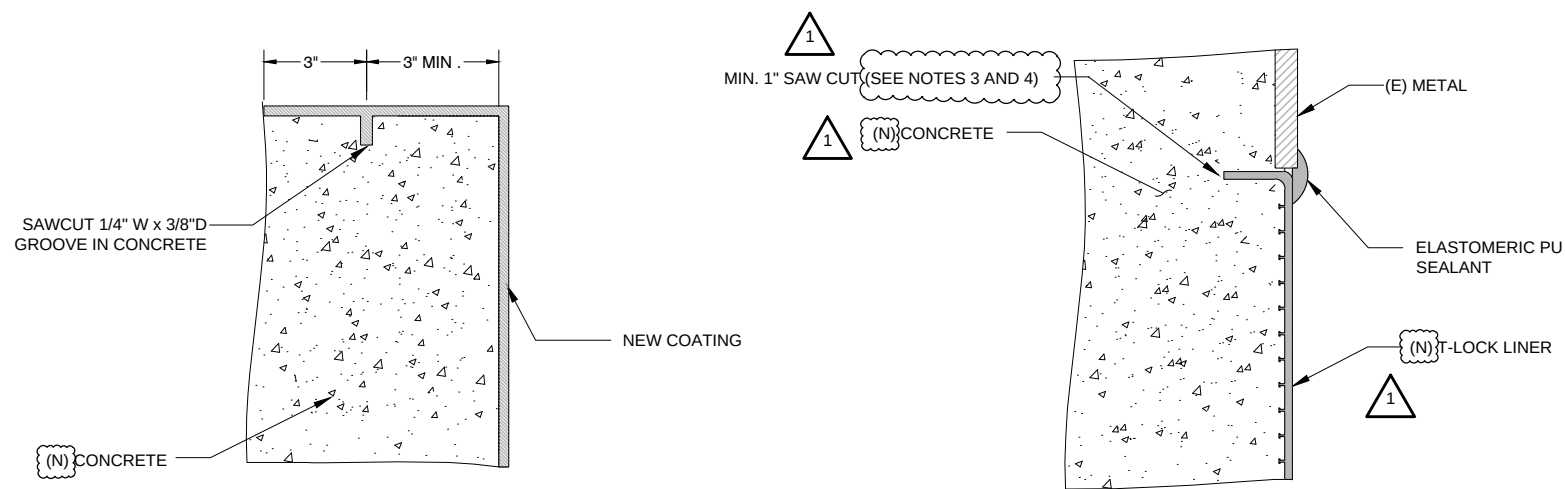
TERMINATION AT JOINT 2
NTS



PLAN

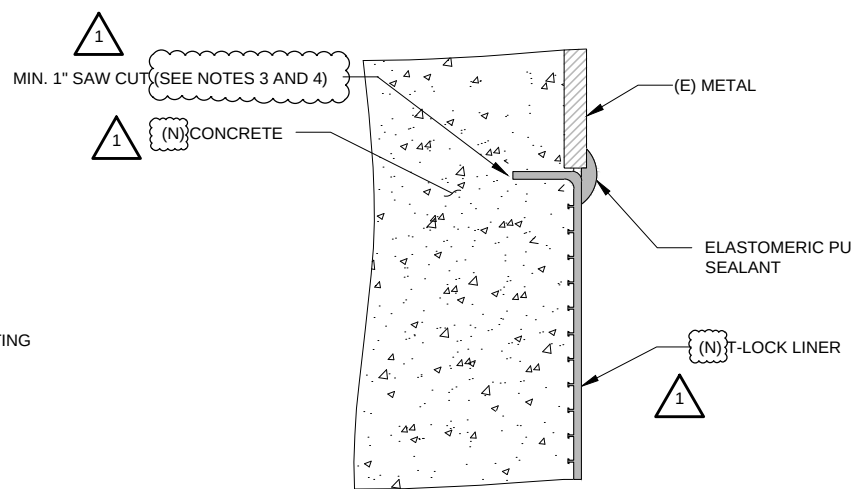
TOP OF WALL TERMINATION DETAIL 3
NTS

- NOTES:
1. BEND SHEETS APPROXIMATELY 6-24" AROUND CORNER OF WALL CAREFULLY NOTCH T'S AS REQUIRED TO BEND.
 2. PLACE NAILS WITHIN 1/4" OF SHEET EDGES.
 3. THESE DETAILS ARE TO BE IMPLEMENTED IN AREAS THAT ARE NOT IMMERSED AND SUBJECT TO A FOUL AIR ENVIRONMENT OR ABOVE THE WASTEWATER SURFACE.
 4. THE SAW CUT INDICATED SHALL BE INSTALLED AFTER THE CONCRETE HAS CURED FOR 28 DAYS. THE PVC LINER FLAP TO TO BE EMBEDDED SHALL HAVE ITS T-SHAPED EXTENSIONS REMOVED PRIOR TO THE PLACEMENT OF THE CONCRETE AND SECURED TO THE CONCRETE FORM. AFTER THE FORM HAS BEEN REMOVED, THE PVC LINER FLAP SHALL BE PEELED AWAY FROM THE CONCRETE SURFACE WITHOUT DAMAGING THE LINER. THE PVC LINER FLAP SHALL BE INSERTED INTO THE SAW CUT AND A SEALANT SHALL BE APPLIED PER DETAIL.



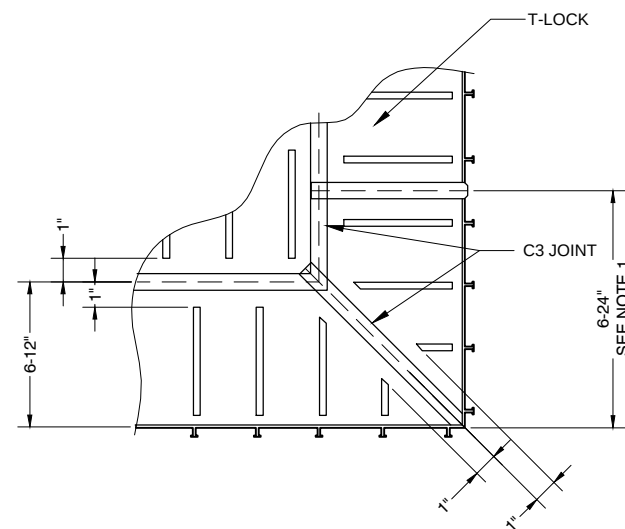
PLAN

TOP OF WALL TERMINATION DETAIL 4
NTS

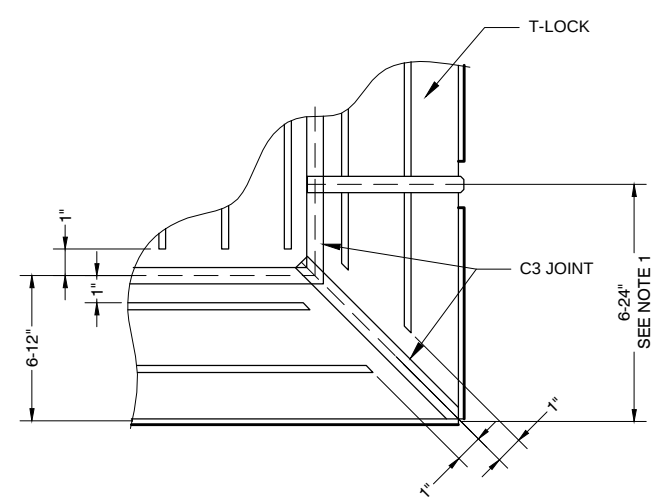


CROSS SECTION

TERMINATION AT EXISTING METAL PARTS THAT CANNOT BE REMOVED 5
NTS



T'S VERTICAL IN WALL



T'S HORIZONTAL IN WALL

T-LOCK CORNER DETAIL 6
NTS



0" 1" VERIFY SCALES BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	3/17	MN	JLV

CONFORMED DRAWING
NOTICE:
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DESIGNED	MN
DRAWN	MQT
CHECKED	JLV

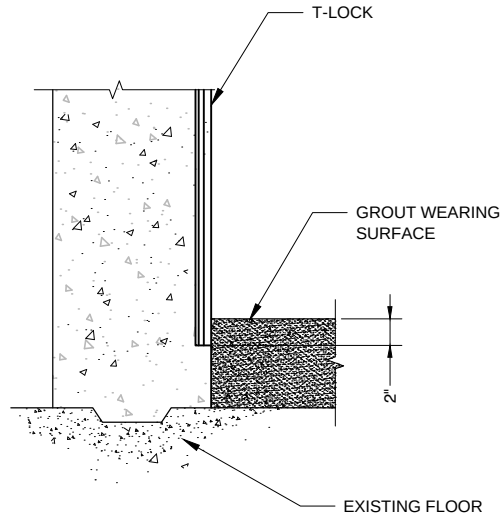
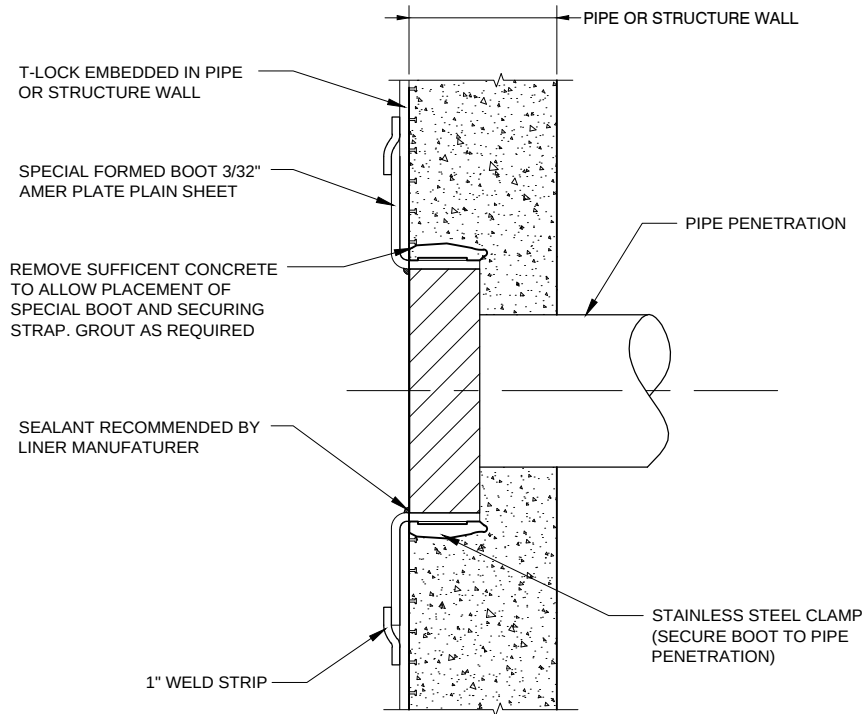
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



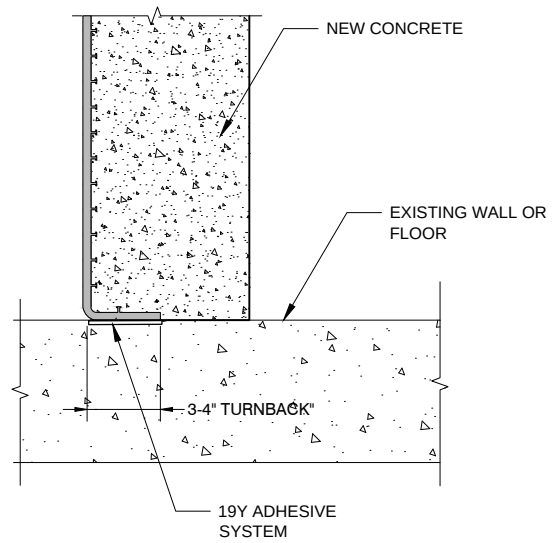
TREATMENT AND WET WEATHER FLOW UPGRADE
CONCRETE REPAIR AND LINING
DETAILS

DWG NO	CP-4
SHEET NO	55 OF 226
PROJ NO	055-006
DATE	MARCH 2017

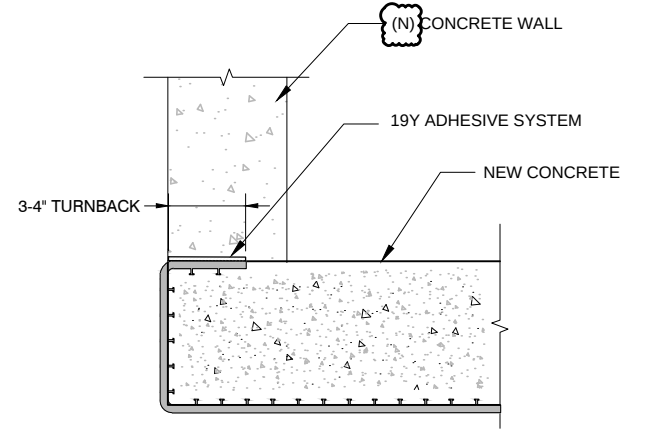
FILENAME: 13-0046 Coating Details_Rev_3/12/2017 3-28-17 12:28pm msnw XREFS: X-SMSD-TBLK Kc--



DETAIL A



DETAIL B



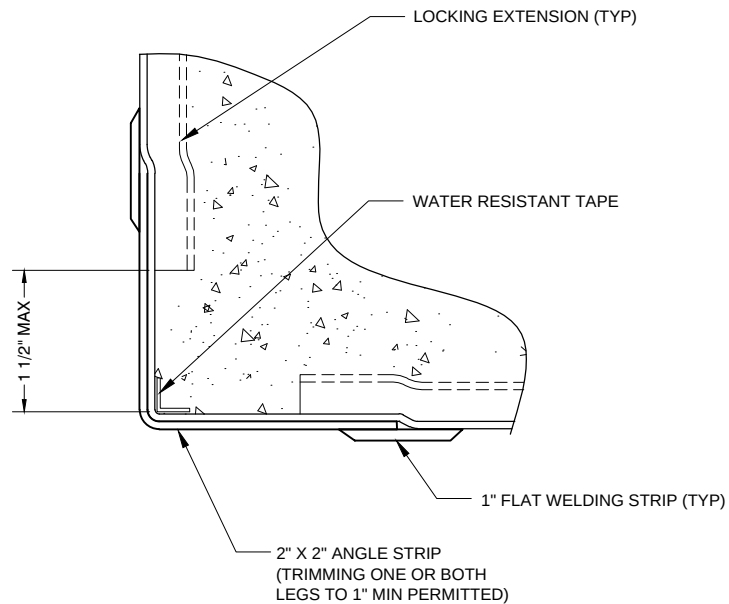
DETAIL C

SEALING FLANGE PENETRATIONS
THRU T-LOCK LINED WALL
NTS

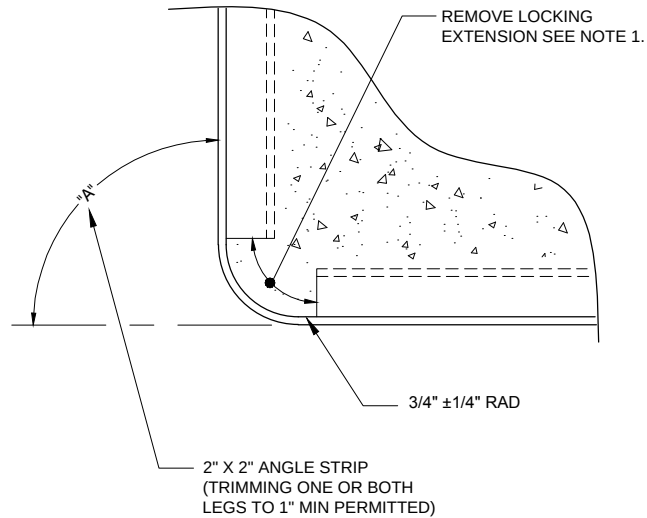
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TERMINATION OF T-LOCK AT EXISTING
CONCRETE WALL OR UNLINED FLOOR
NTS

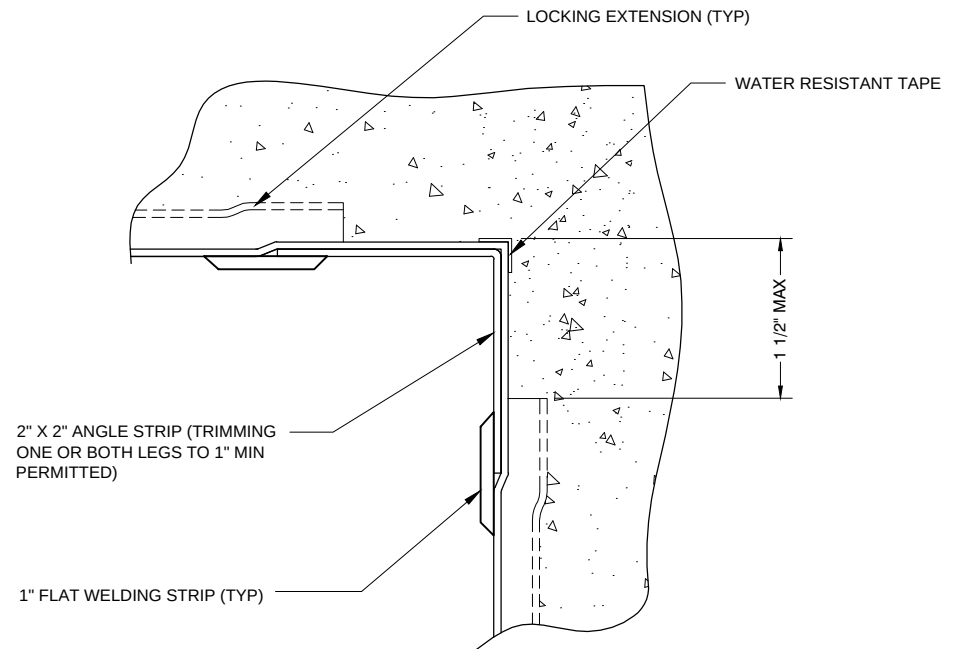
2



DETAIL A



DETAIL B



DETAIL C

AMER-PLATE CORNER DETAIL
NTS

2

NOTES:

1. THE LOCKING EXTENSIONS SHALL BE REMOVED TO WITHIN 1/32" OF THE FACE OF THE MAIN SHEET.
2. SHEET MUST BE ABOVE 50°F TO PERMIT BENDING AND HIGHER TEMPERATURES ARE RECOMMENDED TO IMPROVE HANDLING



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	3/17	MN	JLV

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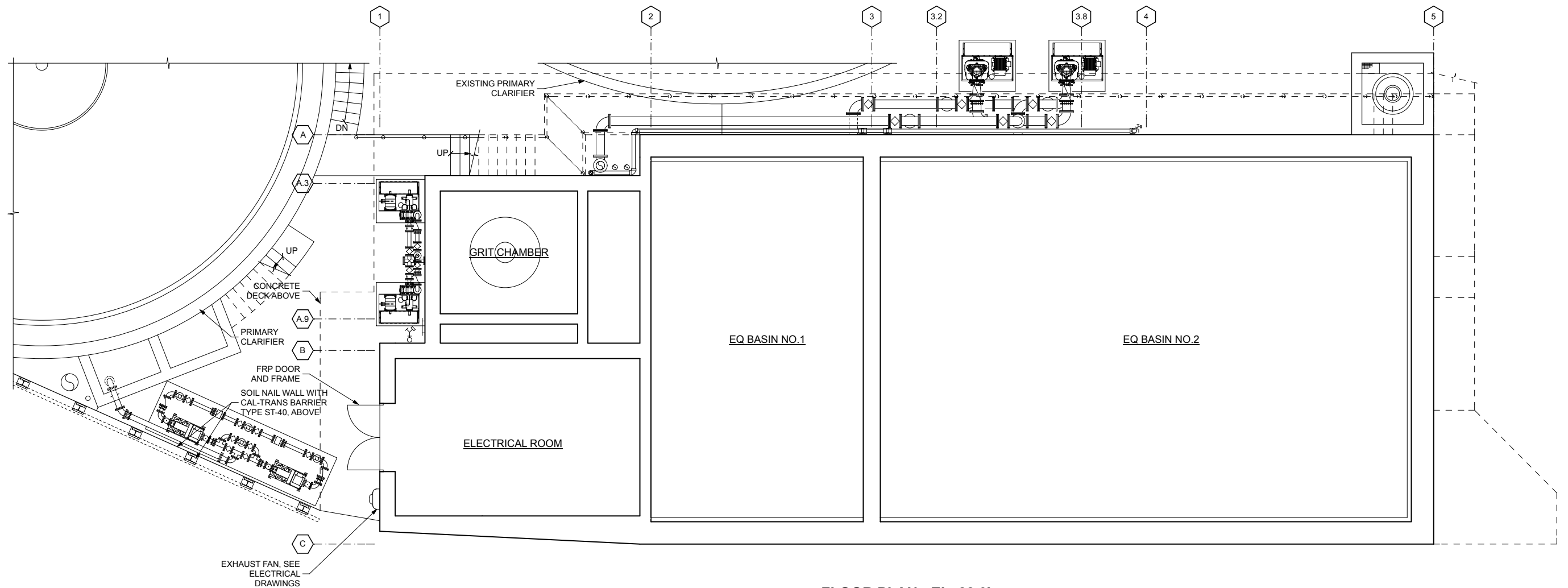
DESIGNED	MN
DRAWN	MQT
CHECKED	JLV

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APPROVED: STEVE CLARY
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TREATMENT AND WET WEATHER FLOW UPGRADE
CONCRETE REPAIR AND LINING
DETAILS

DWG NO	CP-5
SHEET NO	56 OF 226
PROJ NO	055-006
DATE	MARCH 2017



FLOOR PLAN - EL. 22.0'
3/16" = 1'-0"

NOTE:
SEE STRUCTURAL AND
MECHANICAL DRAWINGS
FOR ADDITIONAL
INFORMATION.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY

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AND SUBSEQUENT ADDENDA

DESIGNED K. BURKS
DRAWN M. GILROY
CHECKED K. BURKS

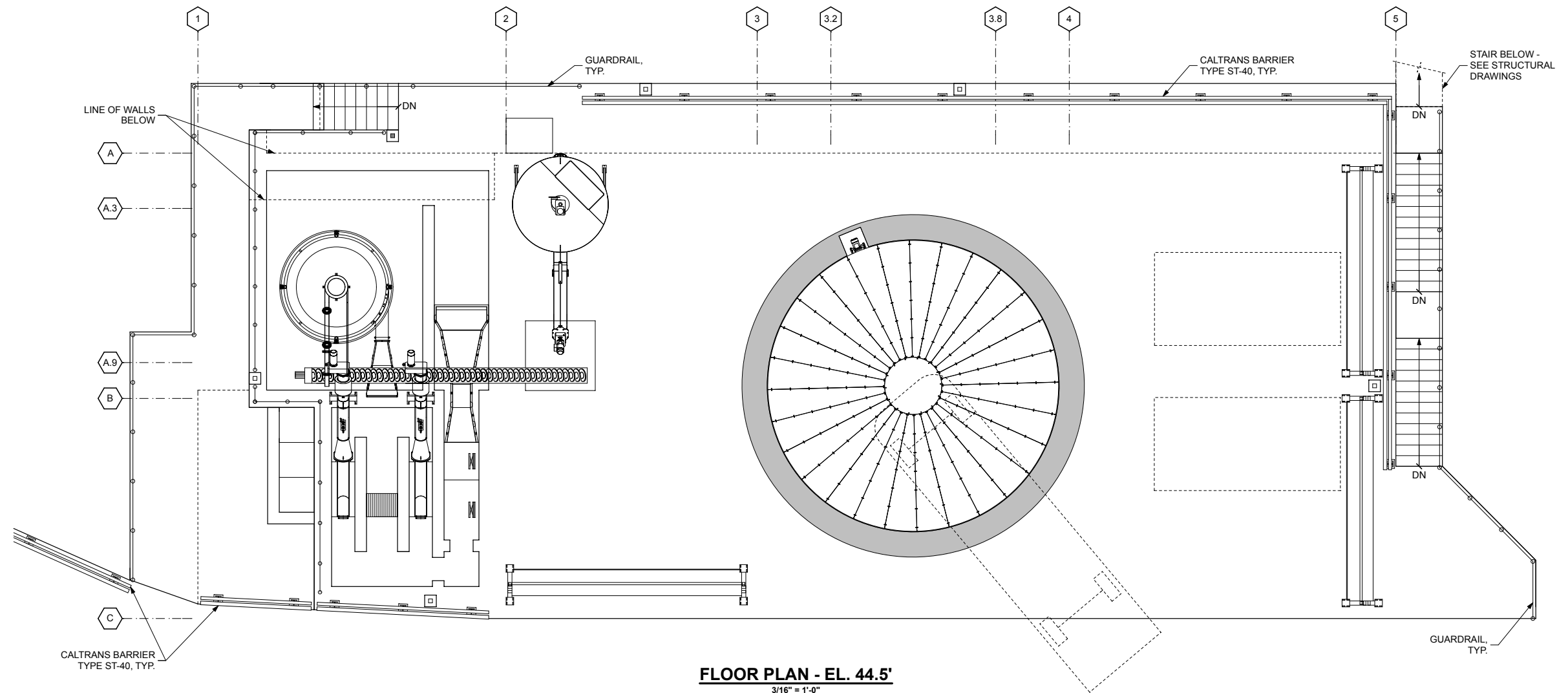
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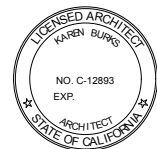
**HEADWORK/GRIT AND EQ BASIN
ARCHITECTURAL FLOOR PLAN**

DWG NO **A100-1**
SHEET NO 57 OF 226
PROJ NO 055-006
DATE MARCH 2017



FLOOR PLAN - EL. 44.5'
3/16" = 1'-0"

NOTE:
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MECHANICAL DRAWINGS
FOR ADDITIONAL
INFORMATION.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
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LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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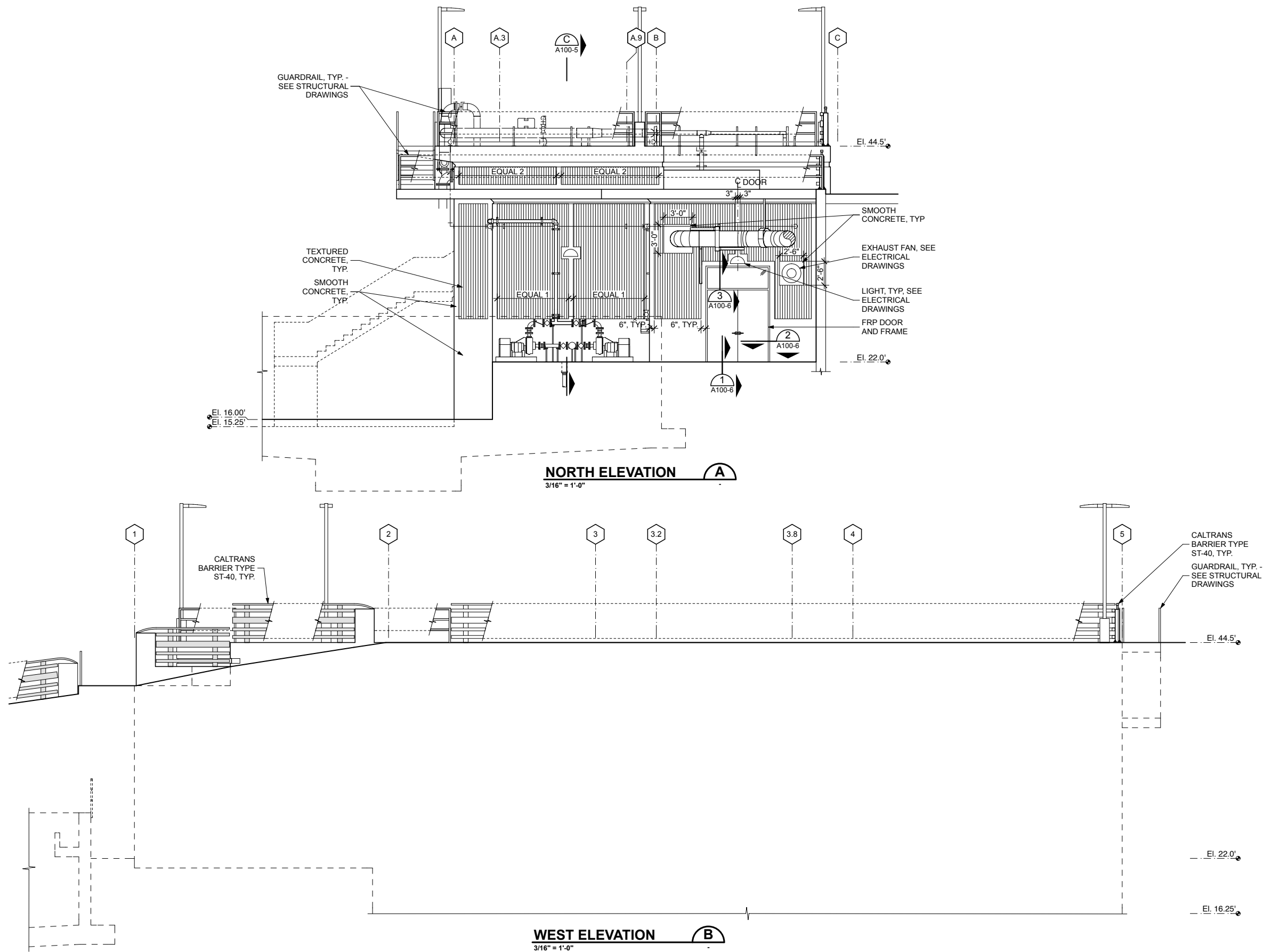
DESIGNED	K. BURKS
DRAWN	M. GILROY
CHECKED	K. BURKS

SUBMITTED	MARK TAKEMOTO
	RMC PROJECT ENGINEER CE-64369
APPROVED	STEVE CLARY
	RMC ENGINEER CE-30318



SAUSALITO - MARIN CITY SANITARY DISTRICT
HEADWORK/GRIT AND EQ BASIN
ARCHITECTURAL FLOOR PLAN

DWG NO	A100-2
SHEET NO	58 OF 226
PROJ NO	055-006
DATE	MARCH 2017



NOTE:
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0" 1"
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SIZE DRAWING.
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LONG ON THIS
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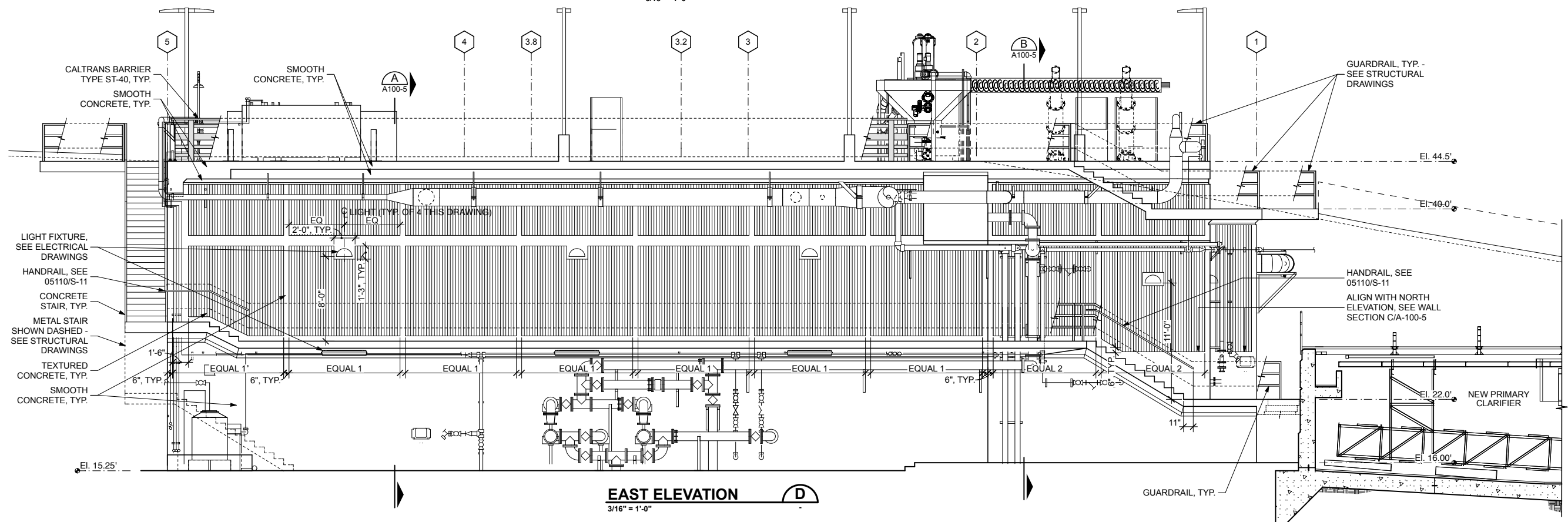
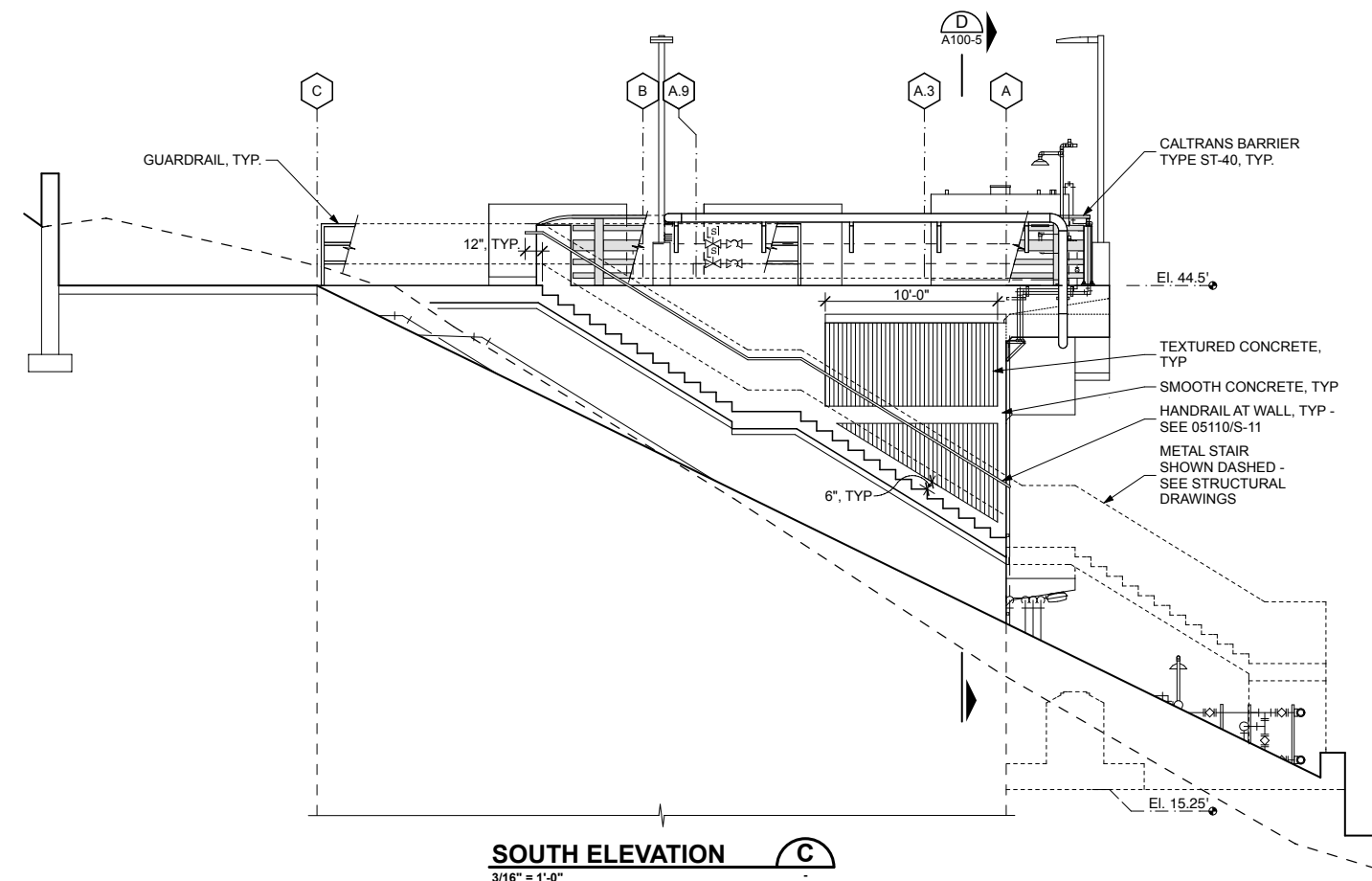
DESIGNED K. BURKS
DRAWN M. GILROY
CHECKED K. BURKS

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

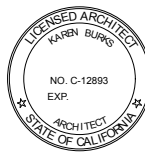


SAUSALITO - MARIN CITY SANITARY DISTRICT
HEADWORK/GRIT AND EQ BASIN
ARCHITECTURAL ELEVATIONS

DWG NO **A100-3**
SHEET NO **59 OF 226**
PROJ NO **055-006**
DATE **MARCH 2017**



NOTE:
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MECHANICAL DRAWINGS
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INFORMATION.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY

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Architects

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REV	DATE	BY	APVD

CONFORMED DRAWING
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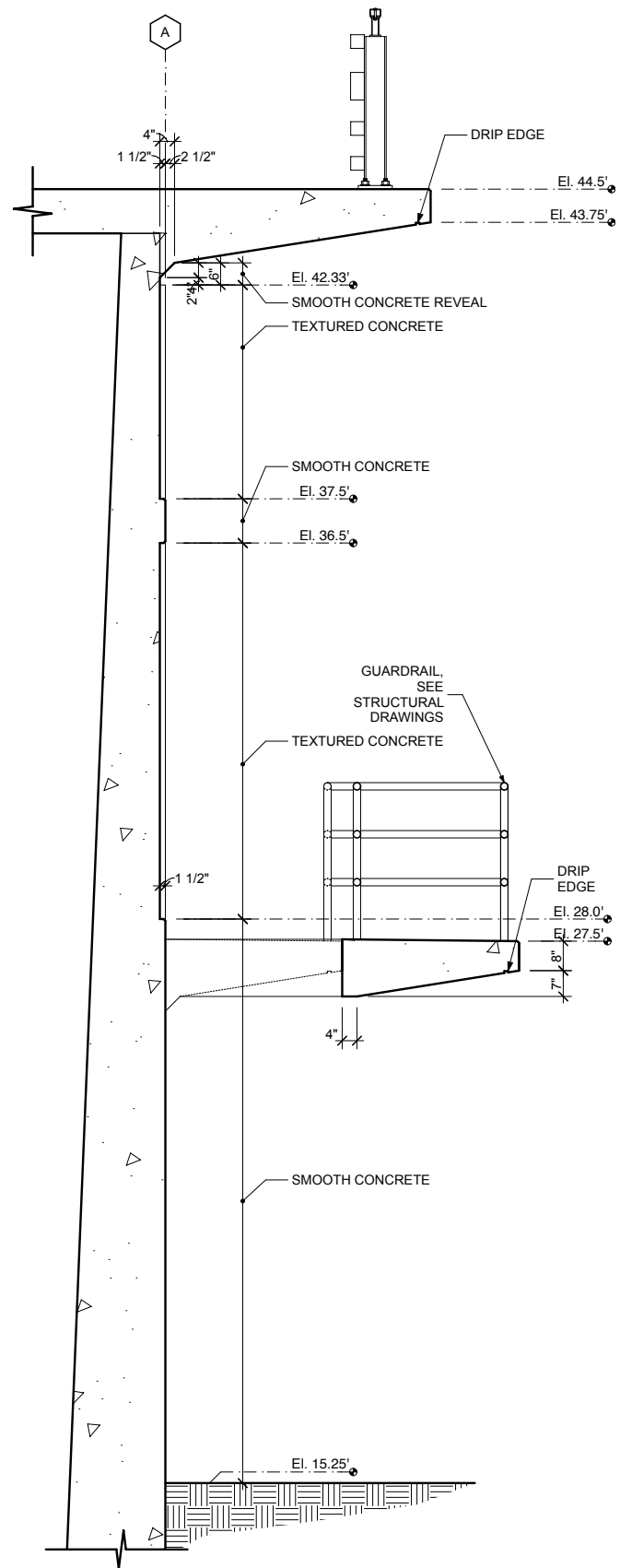
DESIGNED K. BURKS
DRAWN M. GILROY
CHECKED K. BURKS

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RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

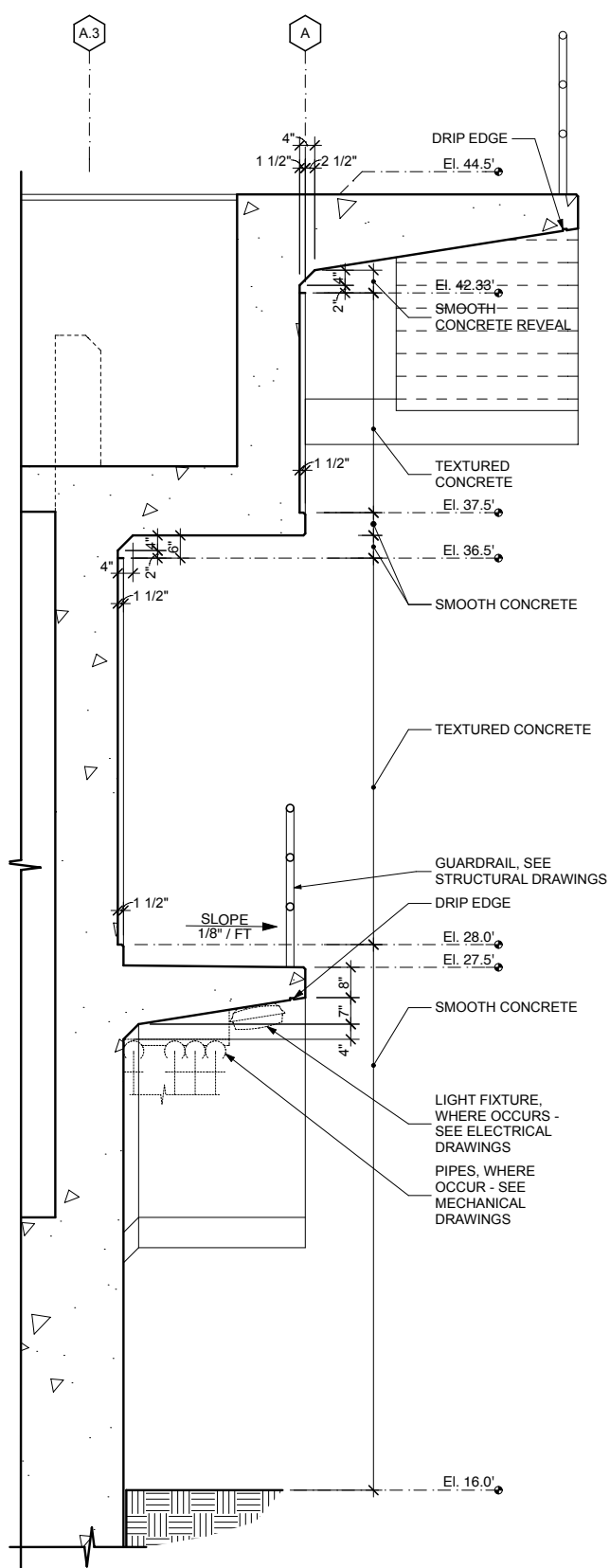


SAUSALITO - MARIN CITY SANITARY DISTRICT
HEADWORK/GRIT AND EQ BASIN
ARCHITECTURAL ELEVATIONS

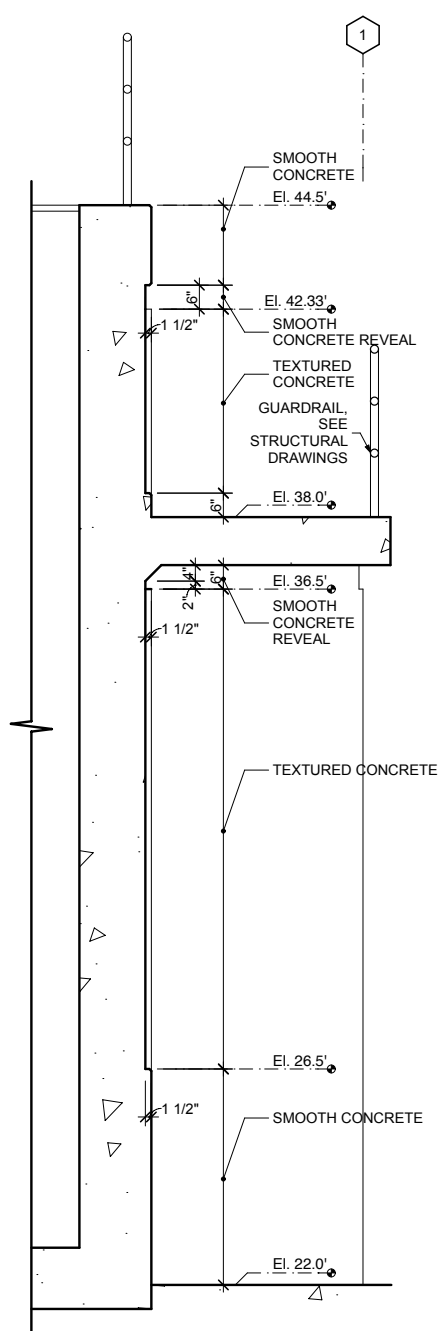
DWG NO **A100-4**
SHEET NO **60 OF 226**
PROJ NO 055-006
DATE MARCH 2017



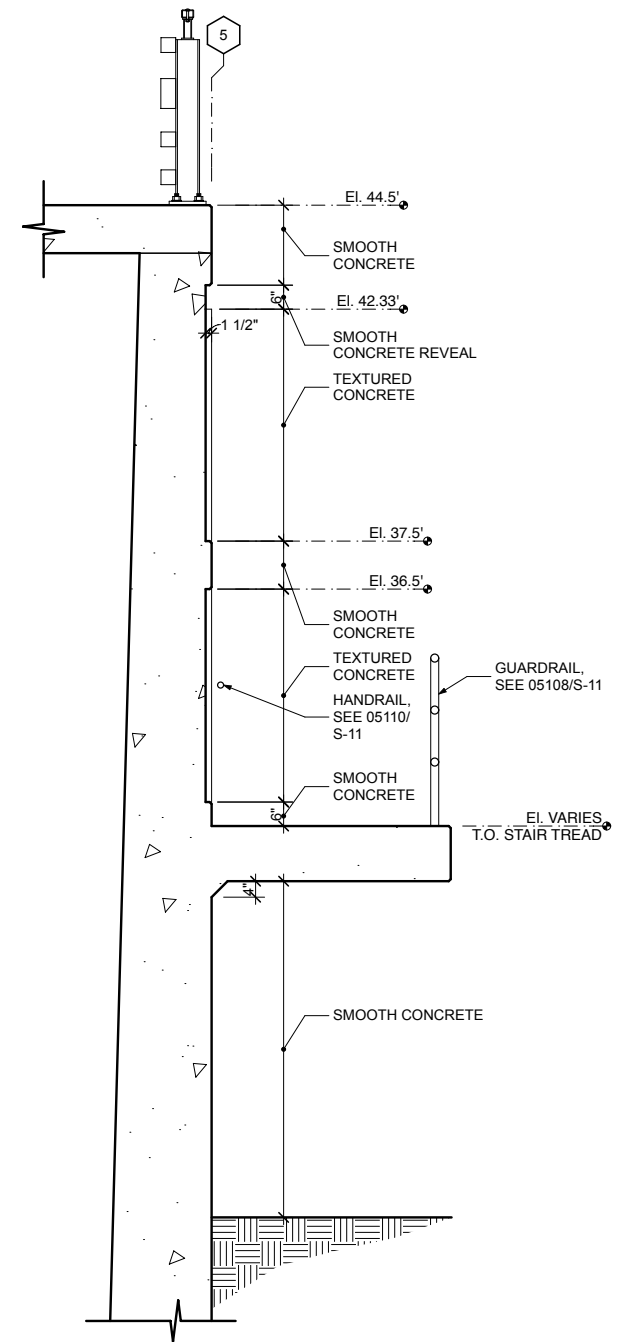
WALL SECTION A
1/2" = 1'-0" A100-4



WALL SECTION B
1/2" = 1'-0" A100-4

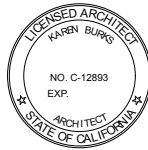


WALL SECTION C
1/2" = 1'-0" A100-3



WALL SECTION D
1/2" = 1'-0" A100-4

NOTE:
SEE STRUCTURAL AND
MECHANICAL DRAWINGS
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0" 1"
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BurksToma
Architects

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Water and Environment

REV	DATE	BY	APVD

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DESIGNED K. BURKS
DRAWN M. GILROY
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SUBMITTED MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

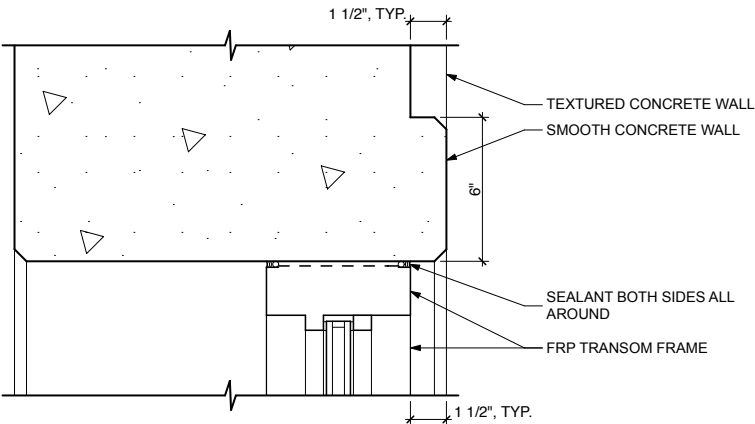
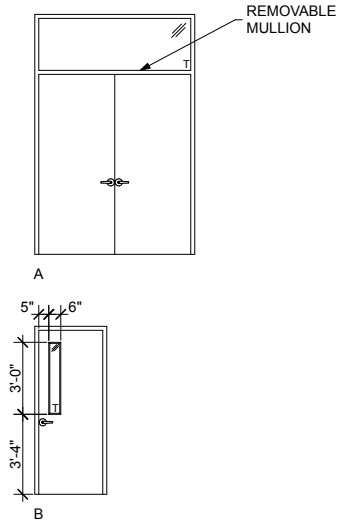


SAUSALITO - MARIN CITY SANITARY DISTRICT
**HEADWORK/GRIT AND EQ BASIN
SECTIONS AND DETAILS**

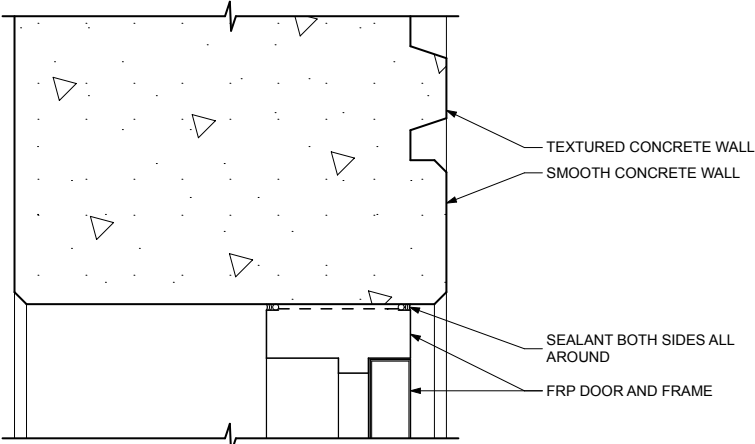
DWG NO **A100-5**
SHEET NO **61 OF 226**
PROJ NO 055-006
DATE MARCH 2017

DOOR SCHEDULE																			
NOTE: ALL DOORS AND WINDOWS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT PER CBC SECTION 1008.1.8																			
FRP = FIBERGLASS REINFORCED PLASTIC ALUM = ALUMINUM EXIT = EXIT DEVICE FAC = FACTORY FINISH INS = INSULATED PTD = PAINTED SGL = SINGLE STL = STEEL TEMP = TEMPERED WC = PRIVACY SHADES																			
NO.	DOOR						FRAME					DETAILS			DOOR HARDWARE		GLAZING	REMARKS	NO.
	WIDTH	HEIGHT	THICK	TYPE	MAT'L	FINISH	WIDTH	HEIGHT	DEPTH	MAT'L	FINISH	HEAD	JAMB	THRESHOLD	GROUP	TYPE			
-	(2)3'-2"	7'-6"	1 3/4"	A	FRP	FAC	6'-8"	10'-0"	6"	FRP	FAC	3/A100-6	2/A100-6	1/A100-6	1	LEVER	INS	(1), (2), (3)	-
-	2'-8"	6'-10"	1 3/4"	B	FRP	FAC	3'-0"	7'-0"	6"	FRP	FAC	-	-	-	2	LEVER	INS	(1), (2), (3), (4)	-

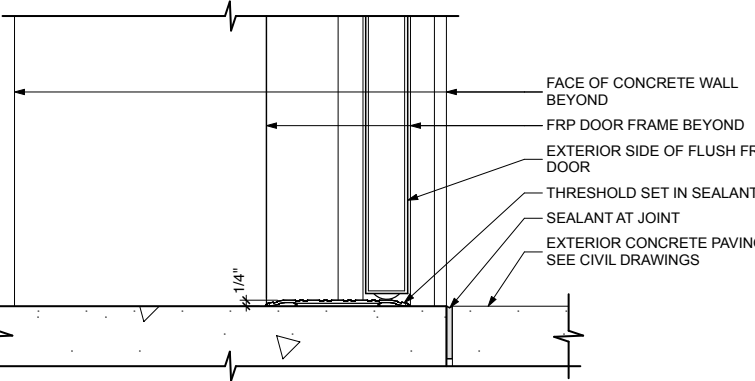
- 1) REQUIRED EXIT DOOR.
2) ALL GLAZING TO BE TEMPERED AS INDICATED BY 'T'.
3) DOOR AND FRAME DIMENSIONS ARE NOMINAL, V.I.F.
4) NEW DOOR AND FRAME IN EXISTING OPENING ON SOUTH END OF EAST ELEVATION AT CONTROL BUILDING.



FRP DOOR - HEAD
1/2" = 1'-0" 3
A100-3



FRP DOOR - JAMB
1/2" = 1'-0" 2
A100-3



FRP DOOR - THRESHOLD
1/2" = 1'-0" 1
A100-3

NOTE:
SEE STRUCTURAL AND
MECHANICAL DRAWINGS
FOR ADDITIONAL
INFORMATION.



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



△			
△			
△			
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REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED **NOVEMBER 2016**
AND SUBSEQUENT ADDENDA

DESIGNED K. BURKS
DRAWN M. GILROY
CHECKED K. BURKS

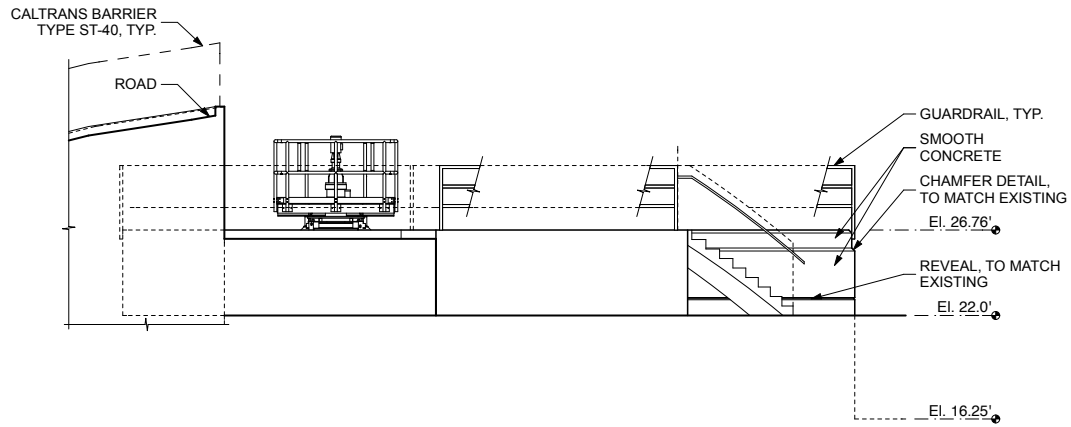
SUBMITTED MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

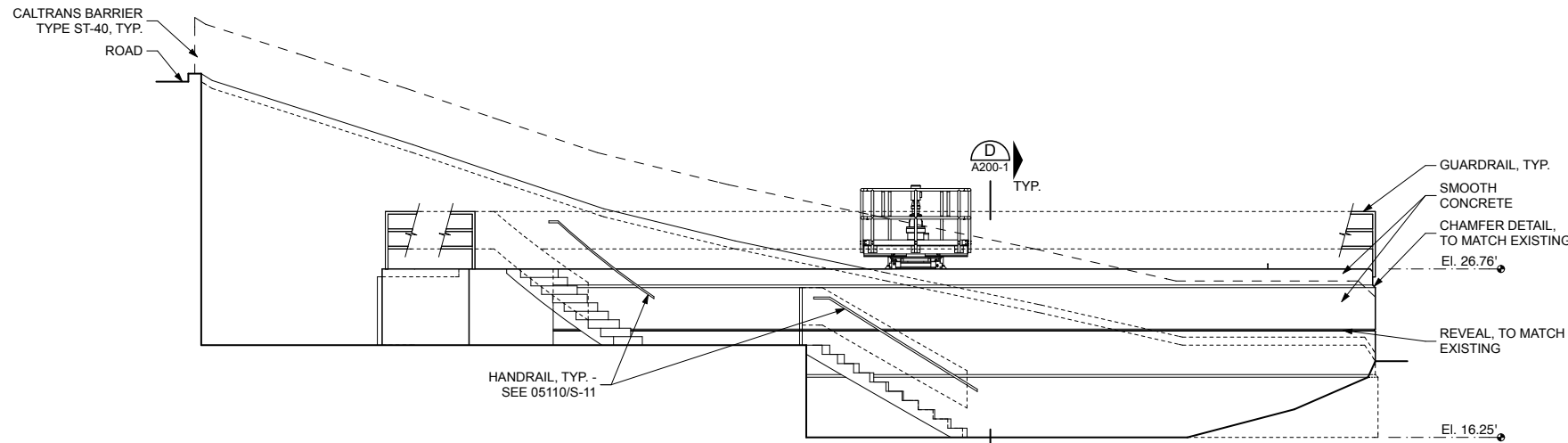


SAUSALITO - MARIN CITY SANITARY DISTRICT
HEADWORK/GRIT AND EQ BASIN
SCHEDULES AND DETAILS

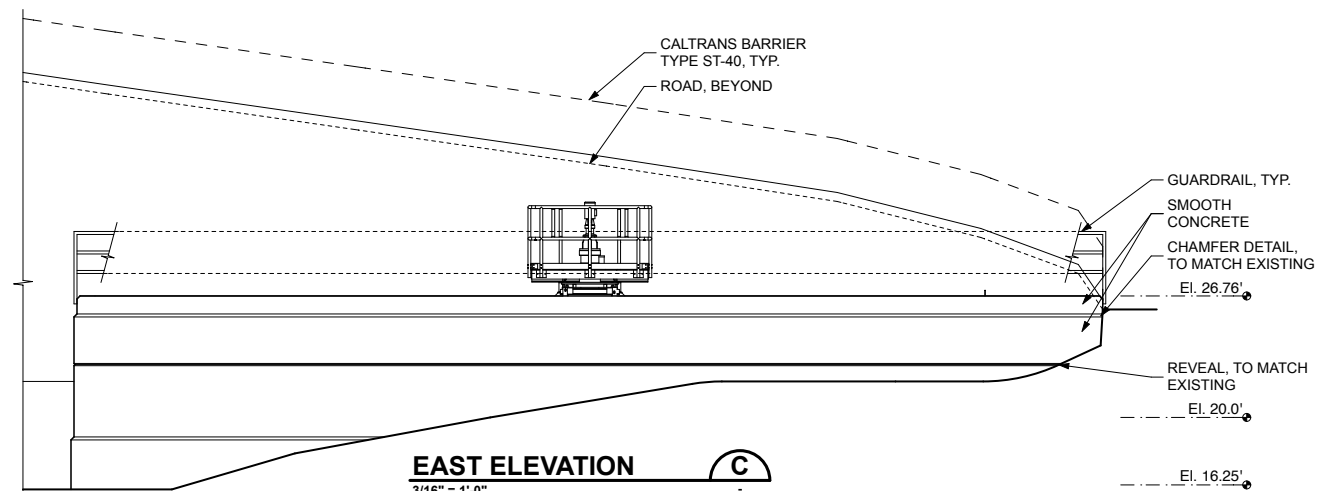
DWG NO A100-6
SHEET NO 62 OF 226
PROJ NO 055-006
DATE MARCH 2017



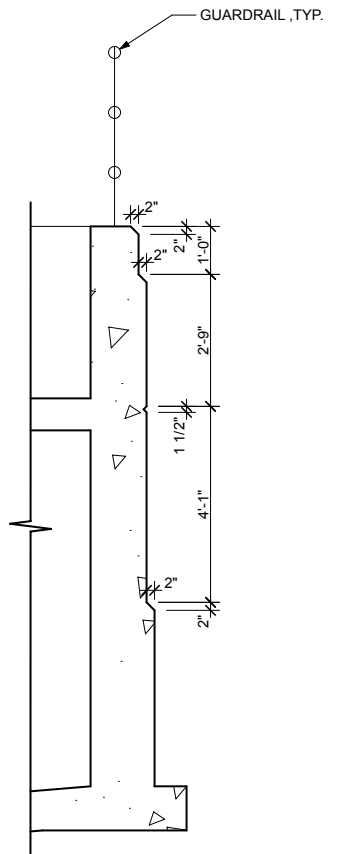
WEST ELEVATION **A**
3/16" = 1'-0"



SOUTH ELEVATION **B**
3/16" = 1'-0"

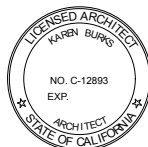


EAST ELEVATION **C**
3/16" = 1'-0"



WALL SECTION **D**
1/2" = 1'-0"

NOTE:
SEE STRUCTURAL AND
MECHANICAL DRAWINGS
FOR ADDITIONAL
INFORMATION.



0" 1"
— VERIFY SCALES —
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SIZE DRAWING.
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BurksToma
Architects

RMC
Water and Environment

REV	DATE	BY	APVD

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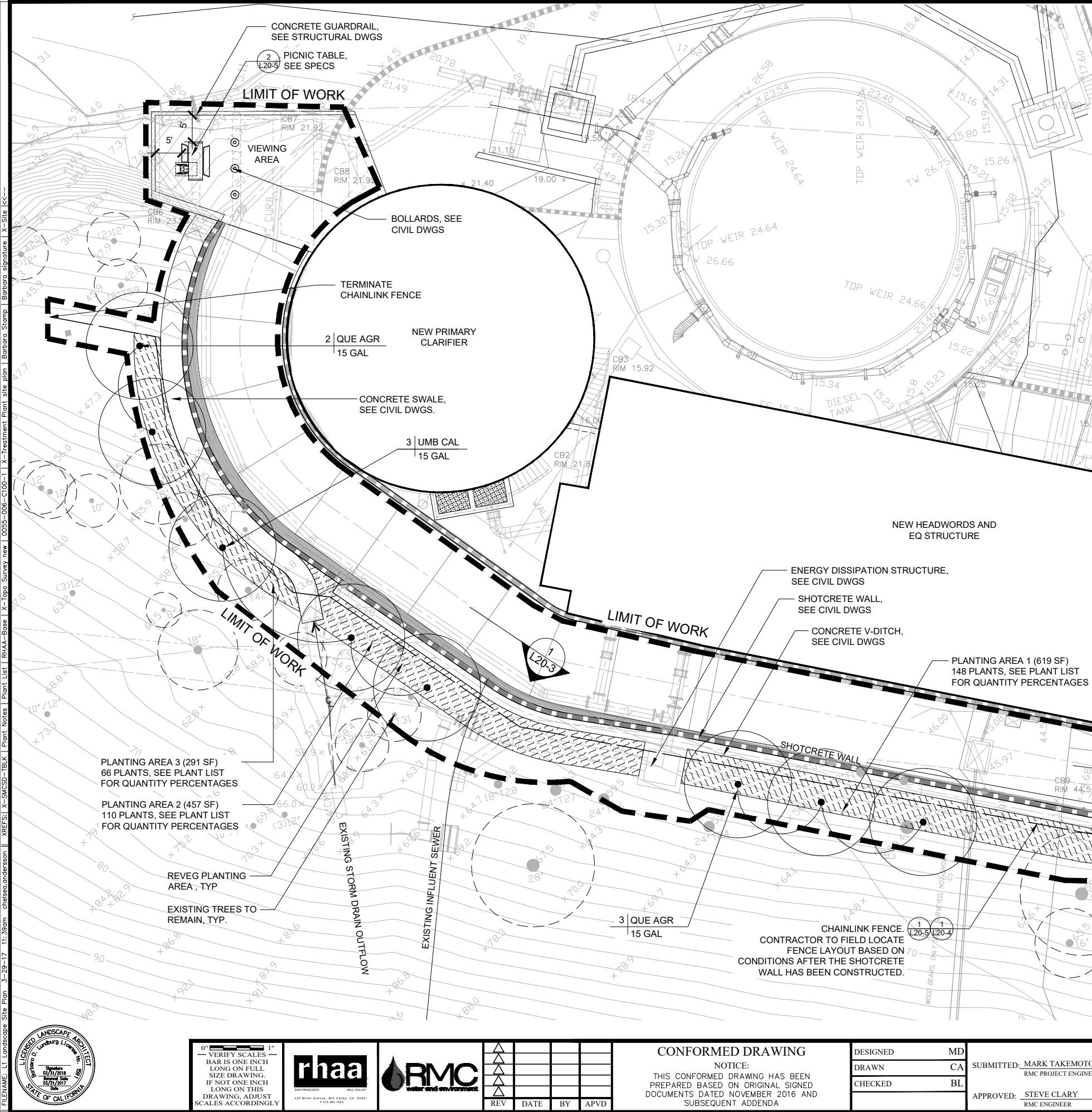
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RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



SAUSALITO - MARIN CITY SANITARY DISTRICT
PRIMARY CLARIFIER
ARCHITECTURAL ELEVATIONS

DWG NO **A200-1**
SHEET NO **63 OF 226**
PROJ NO **055-006**
DATE **MARCH 2017**

FILENAME: L1 Landscape Site Plan 3-29-17 11:38am chelsea.andersson | X-REFS: X-SMCSB-TBLK | Plant List | RHAAs-Base | X-Topo Survey new | 0055-006-C100-1 | X-Treatment Plant site plan | Barbara Stomp | Barbara Stomp | X-Site | KCC--



PLANT LIST

SYMBOL	QTY	ABBR.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
TREES							
	5	QUE AGR	Quercus agrifolia	Coast Live Oak	15 Gal	20' O.C.	L
	5	UMB CAL	Umbellularia californica	California Bay Laurel	15 Gal	20' O.C.	L
	10	SUBTOTAL					
REVEG PLANTINGS							
	170	ART CAL	Artemisia californica	California Sagebrush	1 Gal	12" O.C.	L
	51	BAC PIG	Baccharis pilularis 'Pigeon Point'	Coyote Brush Pigeon Point	1 Gal	24" O.C.	L
	51	BAC CON	Baccharis pilularis 'Consanguinea'	Dwarf Coyote Brush	1 Gal	24" O.C.	L
	51	CEA HOR	Ceanothus griseus horizontalis	Carmel Creeper	1 Gal	24" O.C.	L
	51	HET ARB	Hetromeles arbutifolia	Toyon	1 Gal	24" O.C.	L
	170	LON HIS	Lonicera hispidula	California Honeysuckle	1 Gal	12" O.C.	L
	51	RIB AUR	Ribes aureum	Golden Penny	1 Gal	24" O.C.	L
	170	SAL MEL	Salvia mellifera repens	Creeping Black Sage	1 Gal	12" O.C.	L
	765	SUBTOTAL					
FERNS							
	252	POL CAL	Polypodium californicum	California Polypody	1 Gal	18" O.C.	M
	252	SUBTOTAL					

PLANT NOTES

1. PLANTING TO RECEIVE MULCH PER SPECS.
2. PLANT QUANTITY TOTALS ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES.
3. SEE PLANT LIST FOR PLANT SPACING.
4. SHRUBS ARE TO EXTEND UNDER TREE PLANTINGS FOR FULL COVERAGE. SPACE SHRUBS 18" FROM TREES.

0" = 1' VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY.

REV	DATE	BY	APVD

CONFORMED DRAWING

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DRAWN	CA
CHECKED	BL

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RMC PROJECT ENGINEER CE-64369

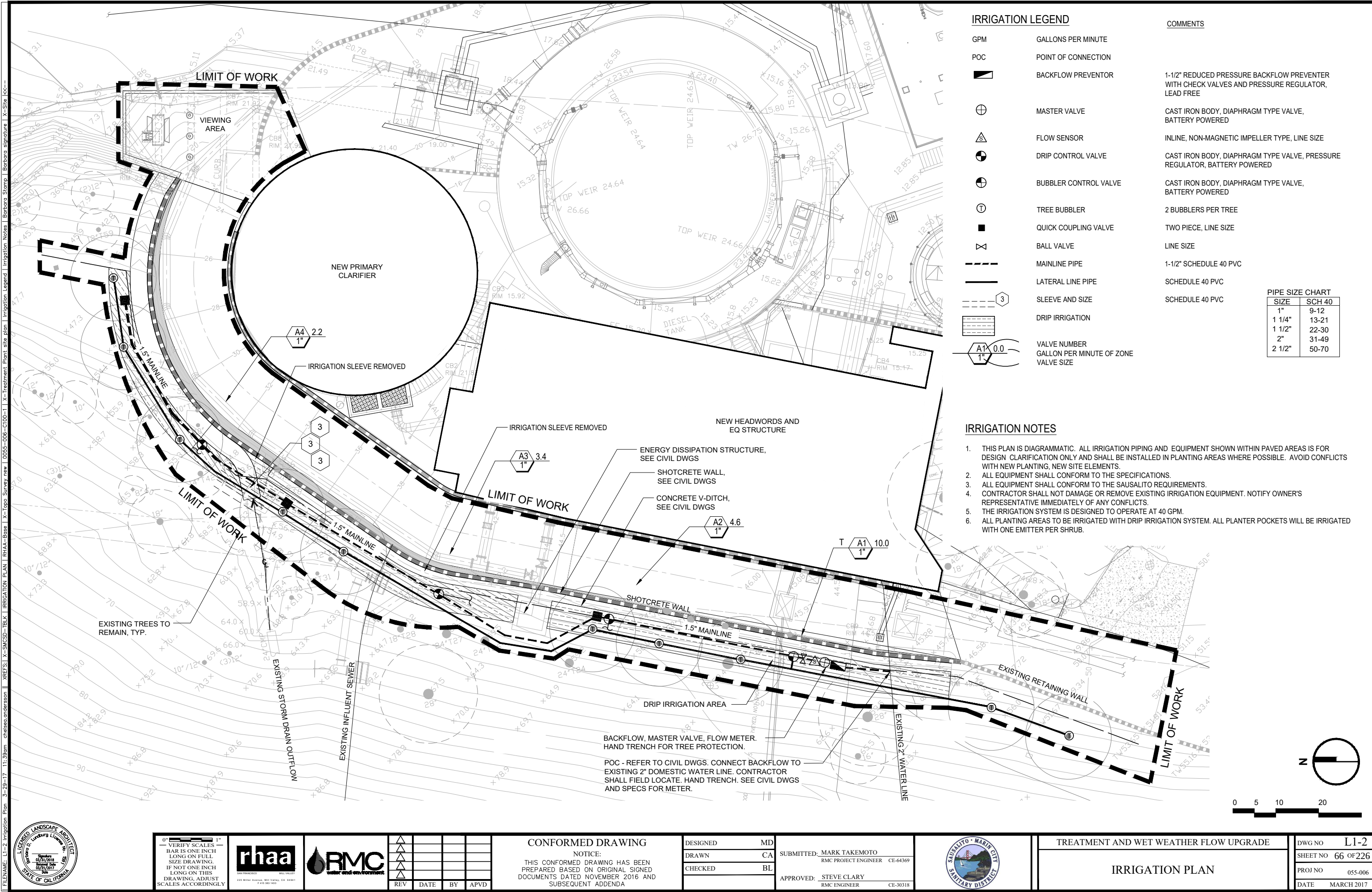
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

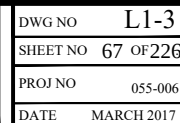
TREATMENT AND WET WEATHER FLOW UPGRADE

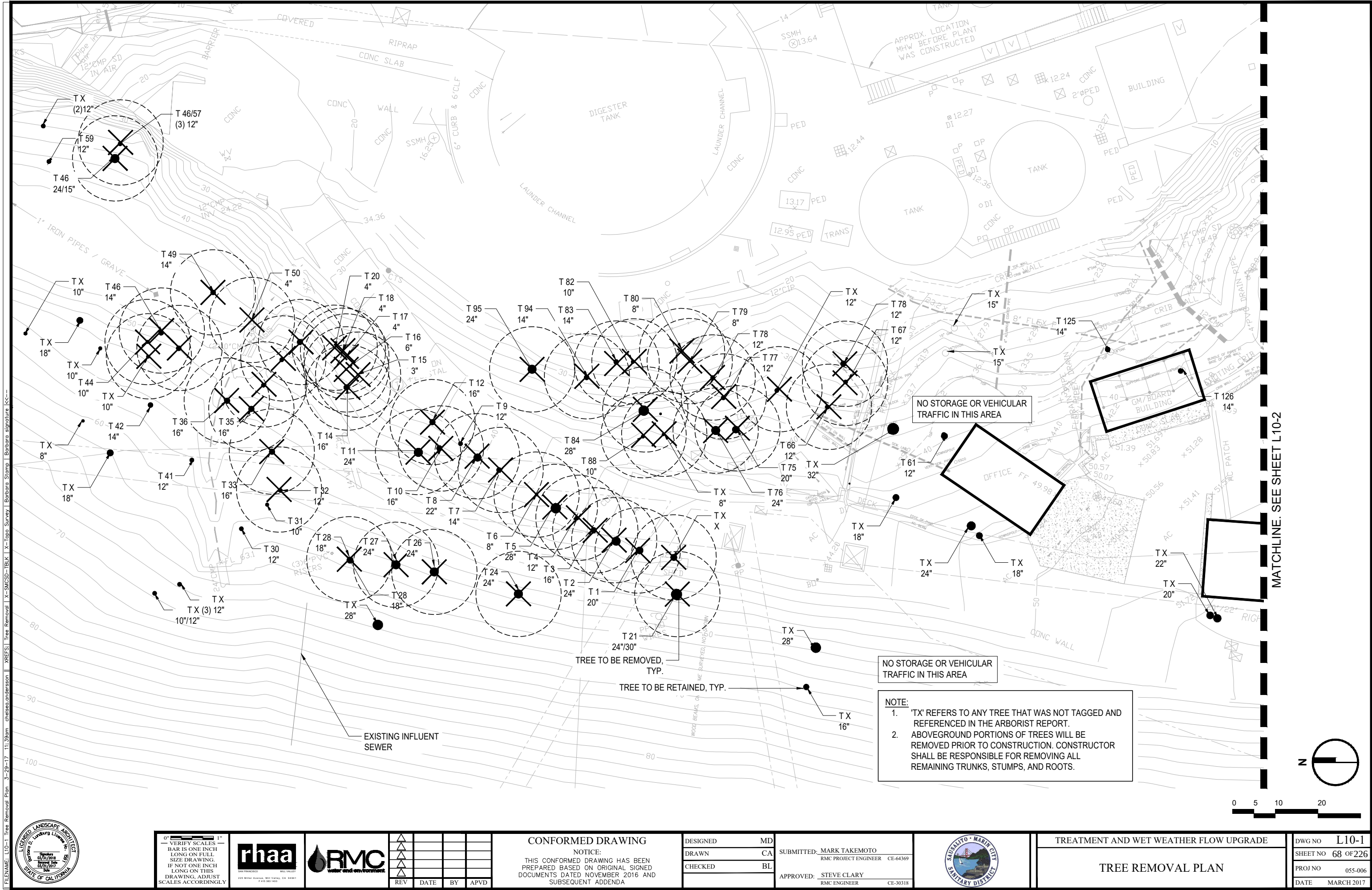
LANDSCAPE CONSTRUCTION AND PLANTING PLAN

DWG NO	L1
SHEET NO	64 OF 226
PROJ NO	055-006
DATE	MARCH 2017

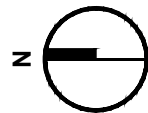








MATCHLINE. SEE SHEET L10-2



0 5 10 20



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
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DRAWN	CA
CHECKED	BL

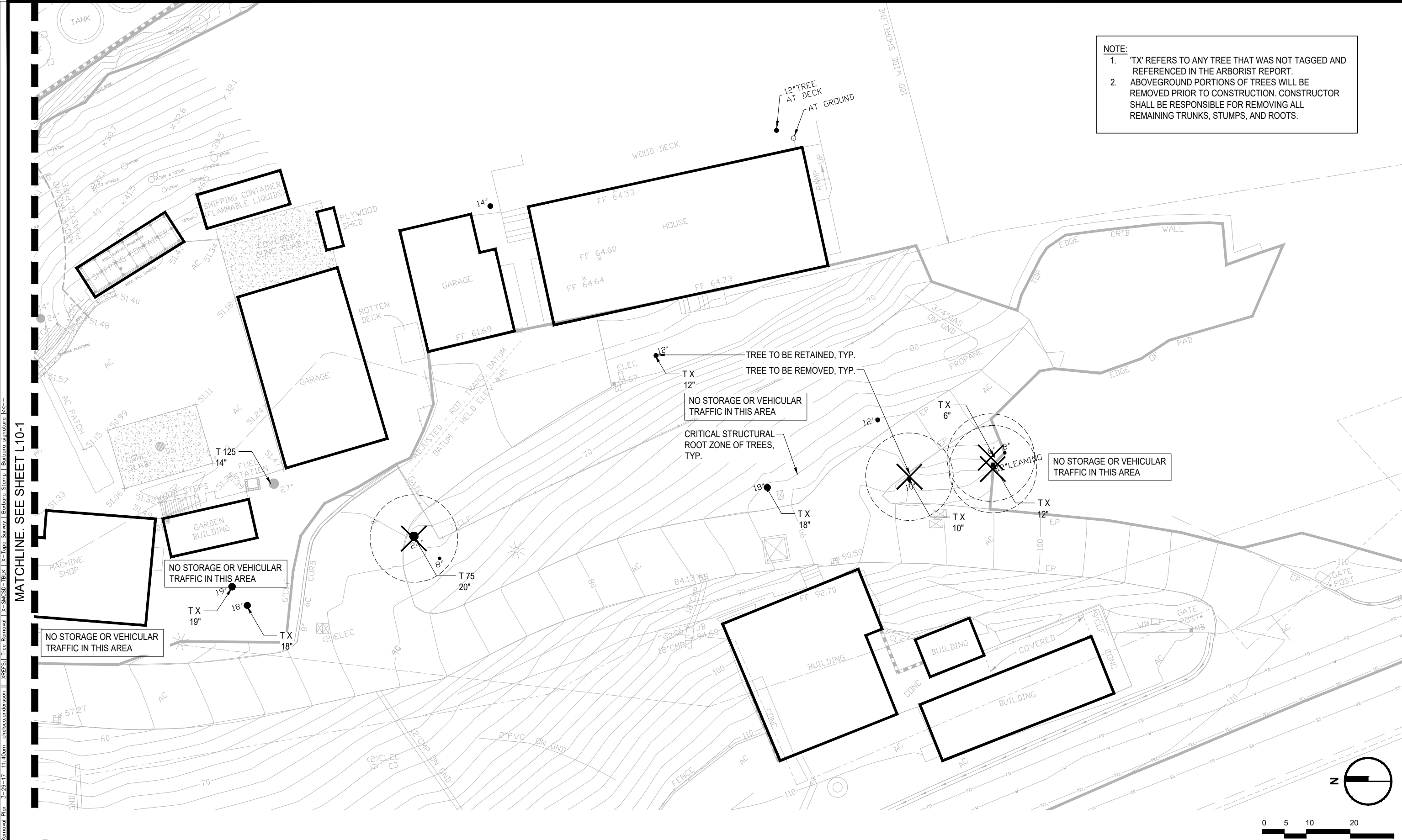
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
TREE REMOVAL PLAN

DWG NO L10-1
SHEET NO 68 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: L10-2 Tree Removal Plan 3-29-17 11:40am chelsea.andersonson | XREFS: Tree Removal | X-SMCD-TBL | X-Topo Survey | Barbara Stamp | Barbara Signature | K<<--
MATCHLINE. SEE SHEET L10-1



NOTE:
1. 'TX' REFERS TO ANY TREE THAT WAS NOT TAGGED AND REFERENCED IN THE ARBORIST REPORT.
2. ABOVEGROUND PORTIONS OF TREES WILL BE REMOVED PRIOR TO CONSTRUCTION. CONSTRUCTOR SHALL BE RESPONSIBLE FOR REMOVING ALL REMAINING TRUNKS, STUMPS, AND ROOTS.



0" 1"

VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



225 Miller Avenue, Mill Valley, CA 94041
P 415.983.1423

REV	DATE	BY	APVD

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DRAWN	CA	
CHECKED	BL	
APPROVED: STEVE CLARY RMC ENGINEER CE-30318		



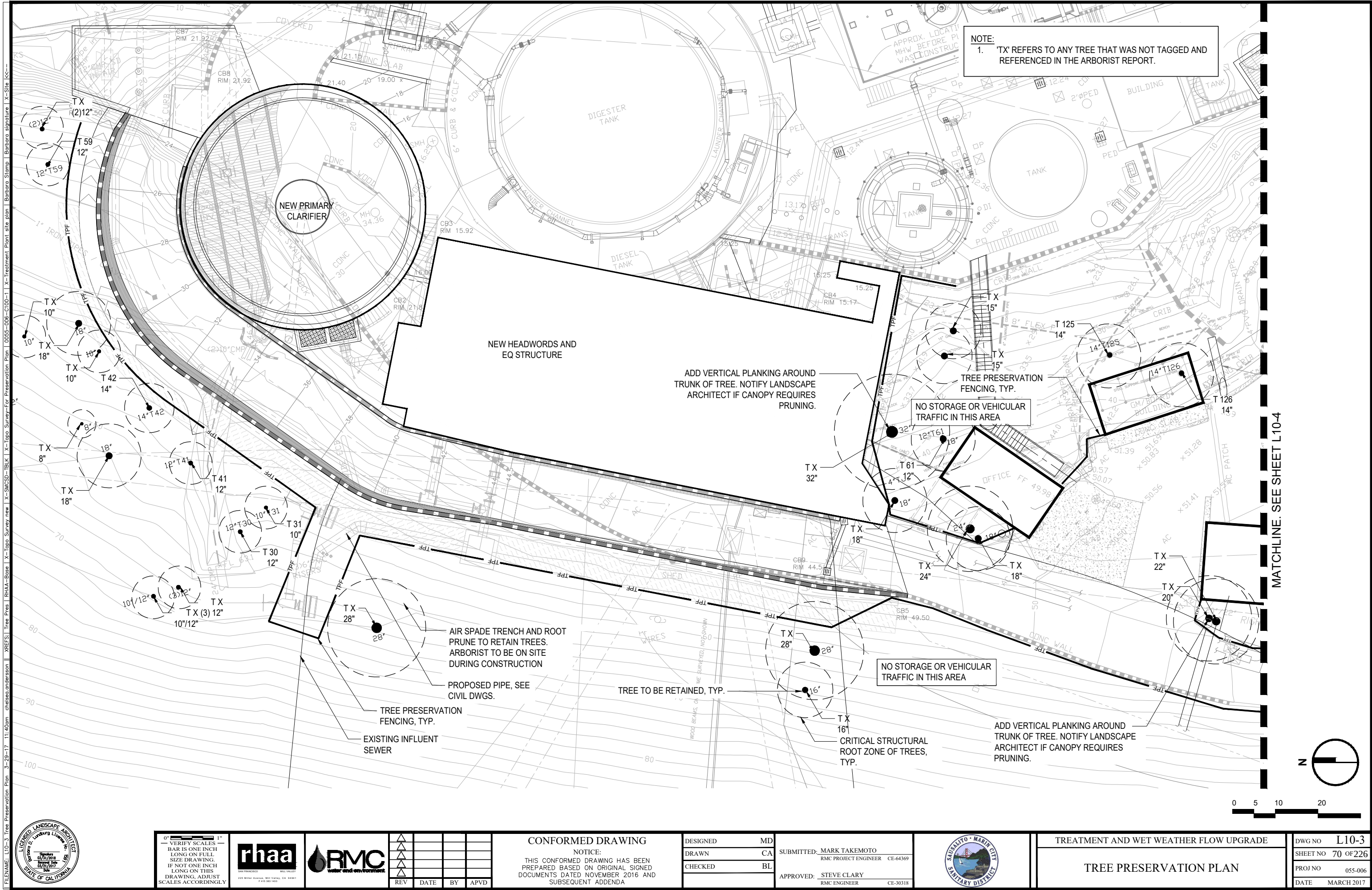
SAN MATEO COUNTY
SANITARY DISTRICT

TREATMENT AND WET WEATHER FLOW UPGRADE

TREE REMOVAL PLAN

DWG NO	L10-2
SHEET NO	69 OF 226
PROJ NO	055-006
DATE	MARCH 2017

Last Saved By: chelsea.andersonson 3-29-17 11:24am



NOTE:
1. 'TX' REFERS TO ANY TREE THAT WAS NOT TAGGED AND REFERENCED IN THE ARBORIST REPORT.

MATCHLINE. SEE SHEET L10-4



0" = 1"
VERIFY SCALES
BAR IS ONE INCH LONG ON FULL SIZE DRAWING.
IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

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DESIGNED	MD
DRAWN	CA
CHECKED	BL

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RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



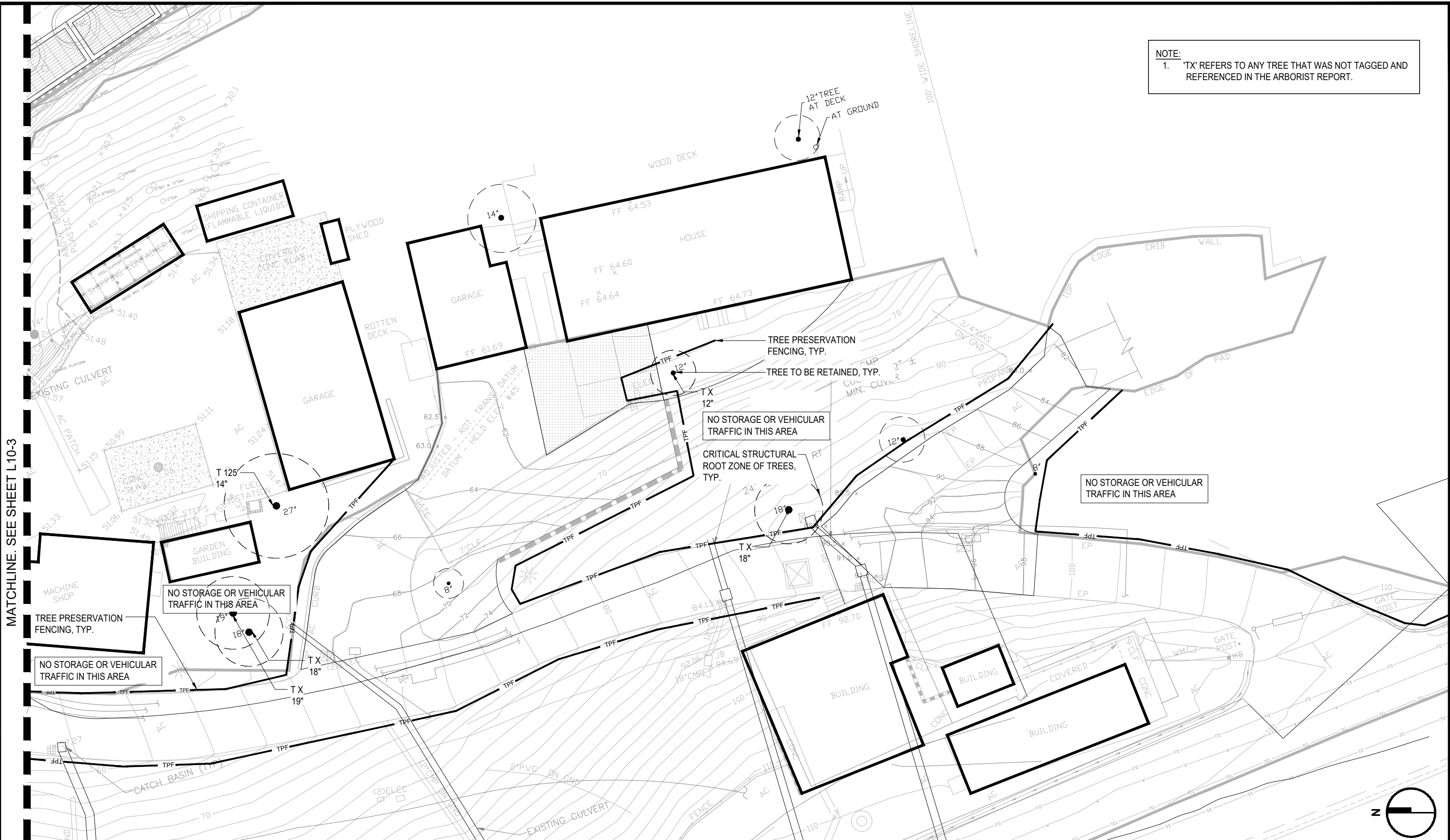
TREATMENT AND WET WEATHER FLOW UPGRADE

TREE PRESERVATION PLAN

DWG NO	L10-3
SHEET NO	70 OF 226
PROJ NO	055-006
DATE	MARCH 2017

MATCHLINE SEE SHEET 10-3

NOTE:
1. 'TX' REFERS TO ANY TREE THAT WAS NOT TAGGED AND REFERENCED IN THE ARBORIST REPORT.



0"  1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
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DRAWING, ADJUST
SCALES ACCORDINGLY



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△			
REV	DATE	BY	APVD

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SUBSEQUENT ADDENDA

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DRAWN	CA
CHECKED	BL

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

TREE PRESERVATION PLAN

DWG NO	L10-4
SHEET NO	71 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: L20-1 Wall Elevation 3-29-17 11:40am chelsea.andersson | XREFS: X-SMCSB-TBLK | Wall Elevation | WALL-2 | X-Wall | Barbara Stamp | Barbara signature |<<--



0" 1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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△			
REV	DATE	BY	APVD

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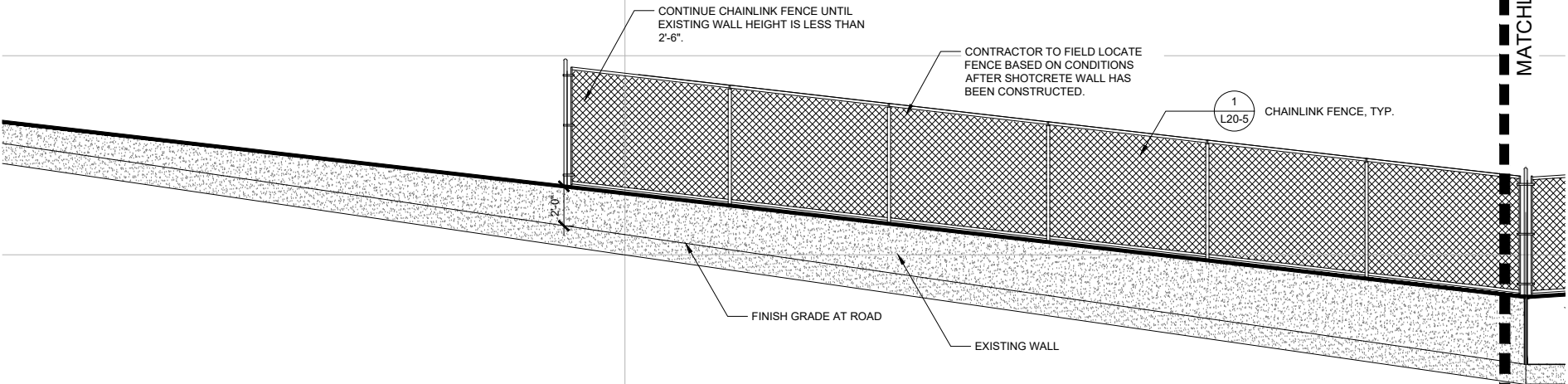
DESIGNED	MD
DRAWN	CA
CHECKED	BL

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
WALL ELEVATION

DWG NO	L20-1
SHEET NO	72 OF 226
PROJ NO	055-006
DATE	MARCH 2017

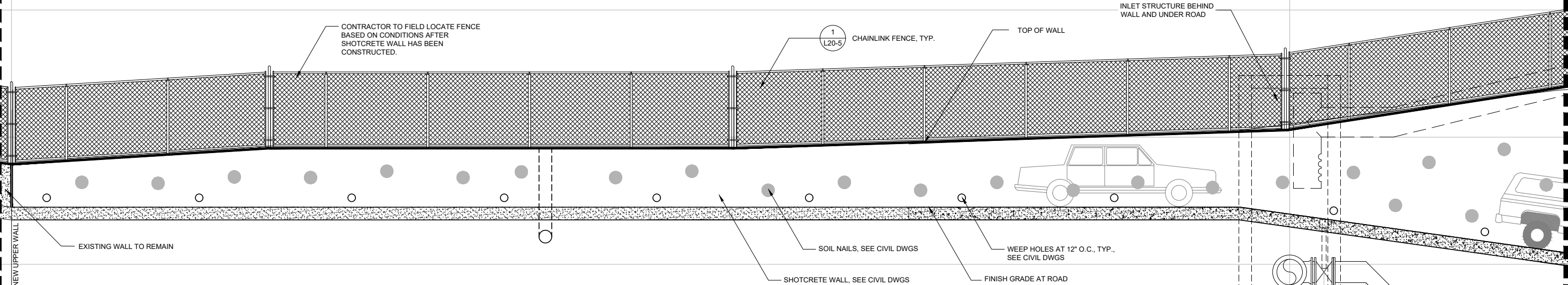


1 WALL ELEVATION
1/4" = 1' - 0"

FILENAME: L20-2 Wall Elevation 3-29-17 11:40am chelsea.andersson | XREFS: X-SWCSB-TBLK | Wall Elevation | WALL-2 | X-Wall | Barbara Stamp | Barbara Signature |<<--

MATCHLINE. SEE SHEET L20-1

STA U0+00
START OF NEW UPPER WALL



MATCHLINE. SEE SHEET L20-3

STA U1+00
NEW INFLUENT STRUCTURE

24"x20" TEE,
STA 2+00.00
INV 38.39
20" KNIFE GV, SEE
STA 2+02.69
45° BEND, STA 2+05.98
INV 38.56
45° BEND, STA 2+10.55
INV 34.00
20" TEE,
STA 2+14.18
INV 34.00

2 WALL ELEVATION

1/4" = 1' - 0"



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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CHECKED	BL

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APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

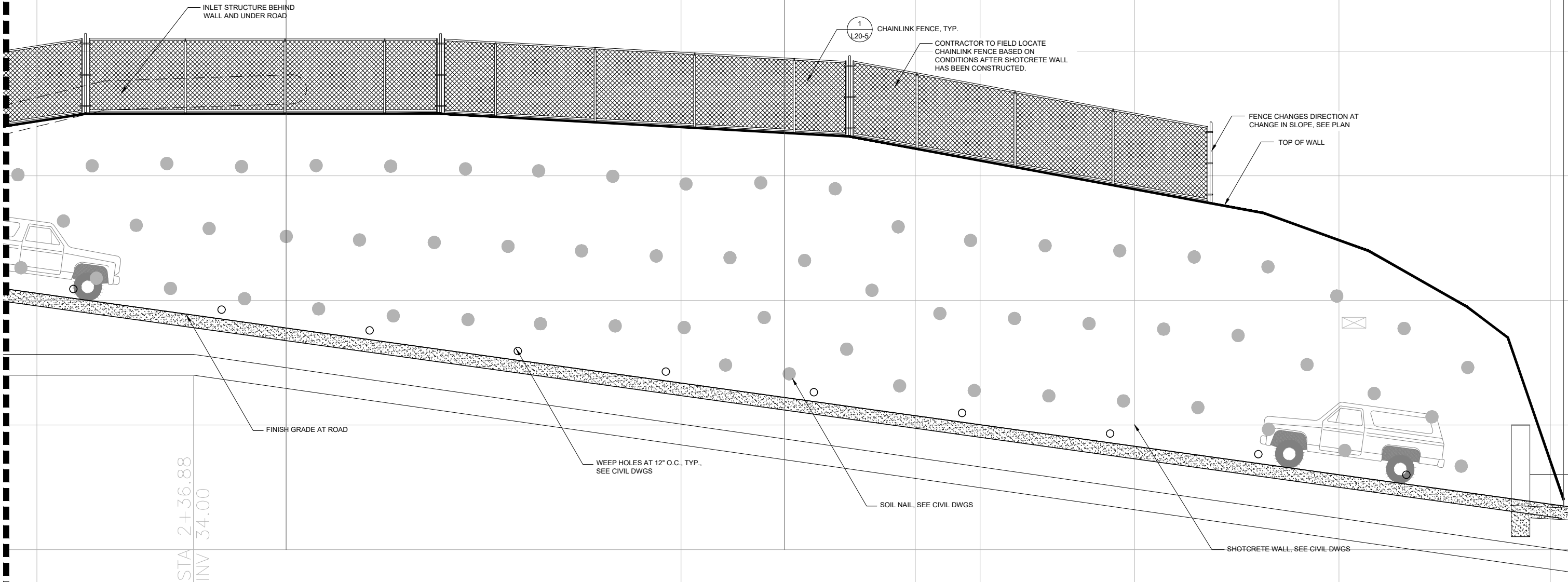


TREATMENT AND WET WEATHER FLOW UPGRADE
WALL ELEVATION

DWG NO L20-2
SHEET NO 73 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: L20-3 Wall Elevation 3-29-17 02:53pm chelsea.andersson XREFS: X-SMCSB-TBLK X-Wall Barbara Stamp Barbara Signature L20-2

MATCHLINE. SEE SHEET L20-2



NOTE: SHOTCRETE WALL PLANTER POCKETS REMOVED

1 WALL ELEVATION
1/4" = 1' - 0"



0" 1"
VERIFY SCALES
BAR IS ONE INCH LONG ON FULL SIZE DRAWING.
IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



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△	03/2017	CA	BL
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RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

WALL ELEVATION

DWG NO	L20-3
SHEET NO	74 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: L20-4 Wall Section 3-29-17 11:40am chelsea.andersson XREFS: X-SMCSO-TBLX | Planter Pockets | Vine Pocket-16 | Barbara Stomp | Barbara signature | X-SitePlan | Chelsea.andersson | XREFS: X-SMCSO-TBLX | Planter Pockets | Vine Pocket-16 | Barbara Stomp | Barbara signature | X-SitePlan | Chelsea.andersson



0" 1"
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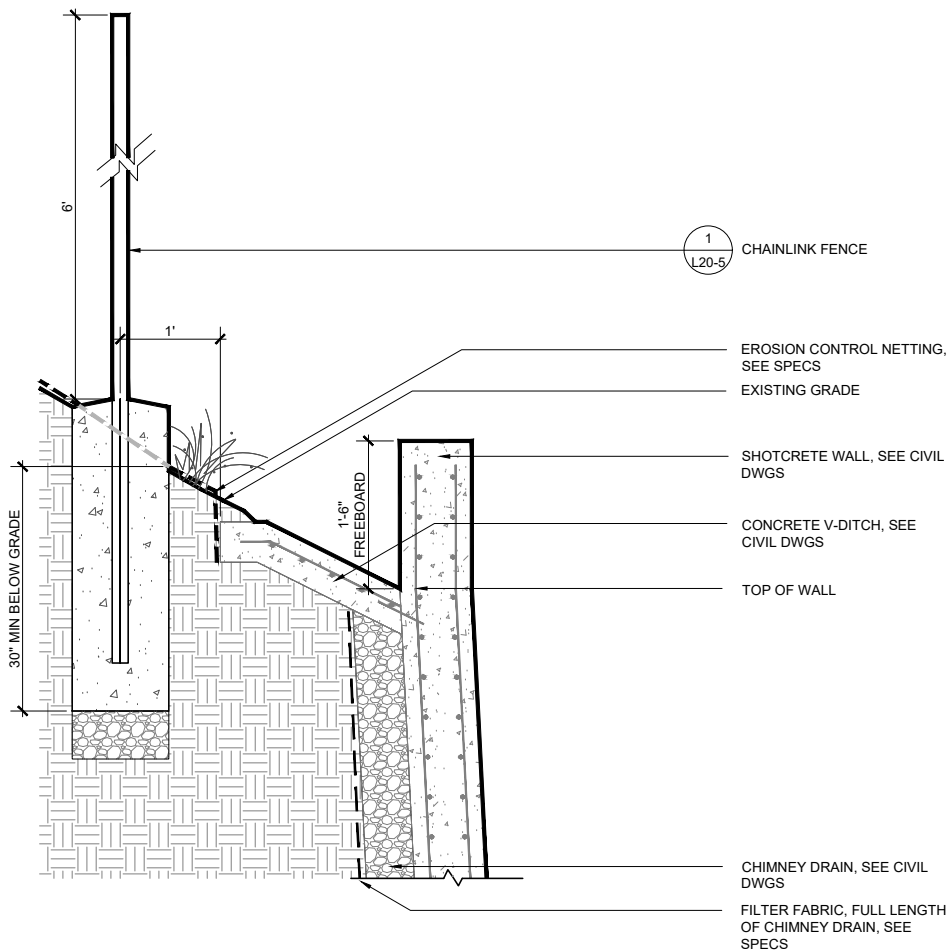
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TREATMENT AND WET WEATHER FLOW UPGRADE

CONSTRUCTION DETAILS

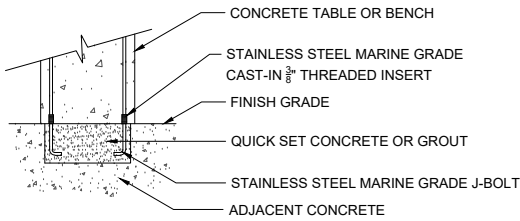
DWG NO	L20-4
SHEET NO	75 OF 226
PROJ NO	055-006
DATE	MARCH 2017



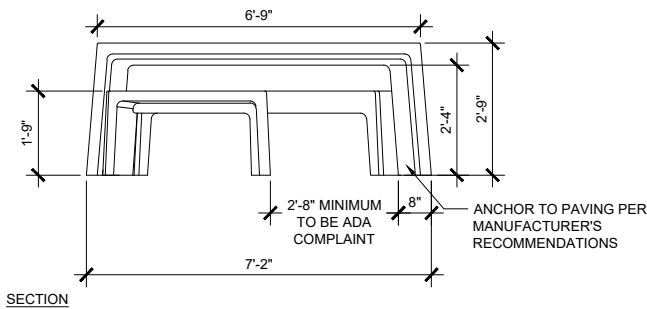
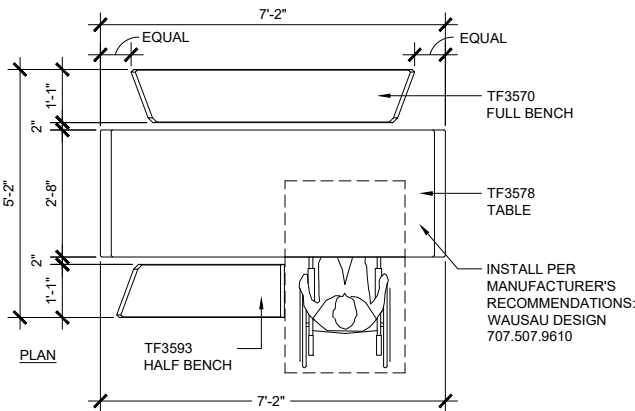
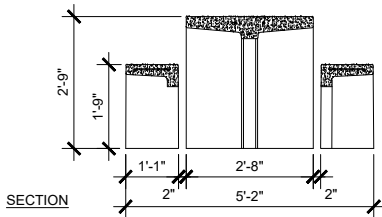
1 CONCRETE V-DITCH WITH FENCE SECTION
1" = 1'-0"

FILENAME: L20-5 Fence Details 3-29-17 11:40am chelsea.andersson XREFS: X-SIGCB-TBLK | CABLE RAIL | Barbara Stamp | Barbara signature | TF3195 - v | Chainlink Fence On Slope 24 |<<--

- NOTE:
1. ALL STAINLESS STEEL SHALL BE 316 MARINE GRADE.
 2. CONTRACTOR TO SUBMIT FASTENER SAMPLE AND PRODUCT DATA FOR APPROVAL.

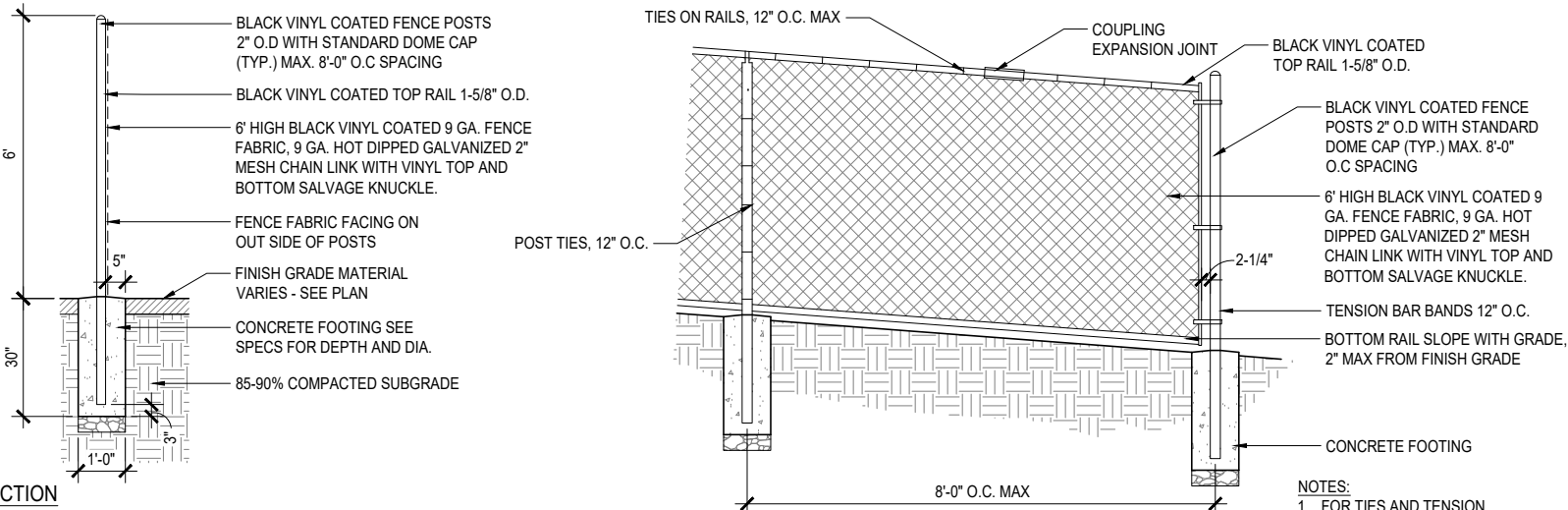


ATTACHMENT ENLARGEMENT
NTS



2 PICNIC TABLE

NTS



1 CHAINLINK FENCE ON SLOPE

SCALE: 1/2" = 1'-0"



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
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SCALES ACCORDINGLY



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DRAWN	CA
CHECKED	BL

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

CONSTRUCTION DETAILS

DWG NO L20-5
SHEET NO 76 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: L20-6 Planting Details 3-29-17 11:41am chelsea.andersson XREFS: X-SMCSB-TBLK | Plant Spacing_24 | Planting on Slope_16 | PLT_shrub | Barbara Stamp | Barbara signature | Tree Planting_16 | K&C--



0" 1"
— VERIFY SCALES —
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SIZE DRAWING.
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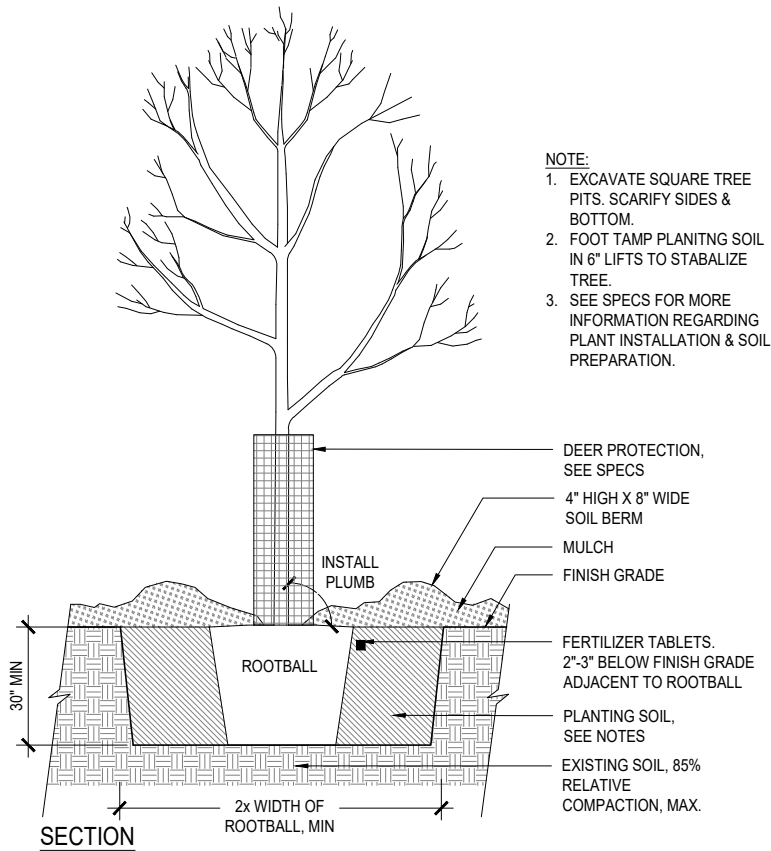
DESIGNED	MD
DRAWN	CA
CHECKED	BL

SUBMITTED:	MARK TAKEMOTO	CE-64369
	RMC PROJECT ENGINEER	
APPROVED:	STEVE CLARY	
	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
PLANTING DETAILS

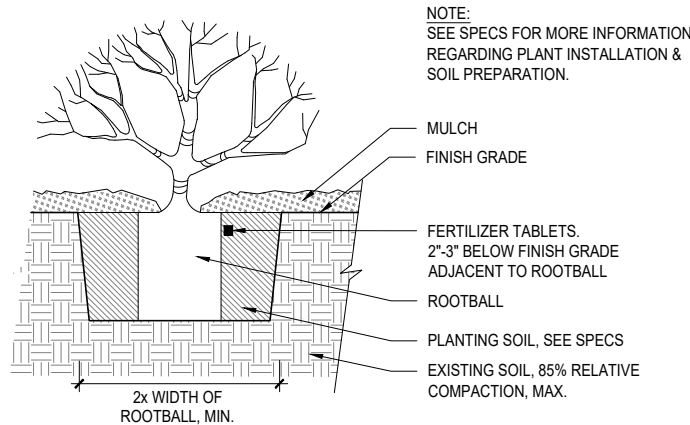
DWG NO	L20-6
SHEET NO	77 OF 226
PROJ NO	055-006
DATE	MARCH 2017



- NOTE:
1. EXCAVATE SQUARE TREE PITS. SCARIFY SIDES & BOTTOM.
 2. FOOT TAMP PLANITNG SOIL IN 6" LIFTS TO STABALIZE TREE.
 3. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION & SOIL PREPARATION.

4 TREE PLANTING

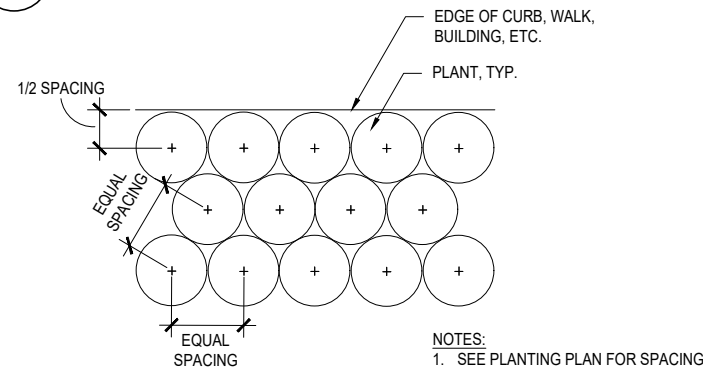
NTS



SECTION

1 SHRUB PLANTING

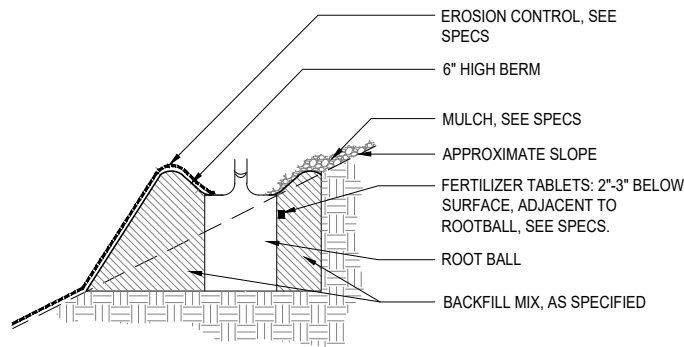
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PLAN

2 SHRUB PLANTING - LAYOUT

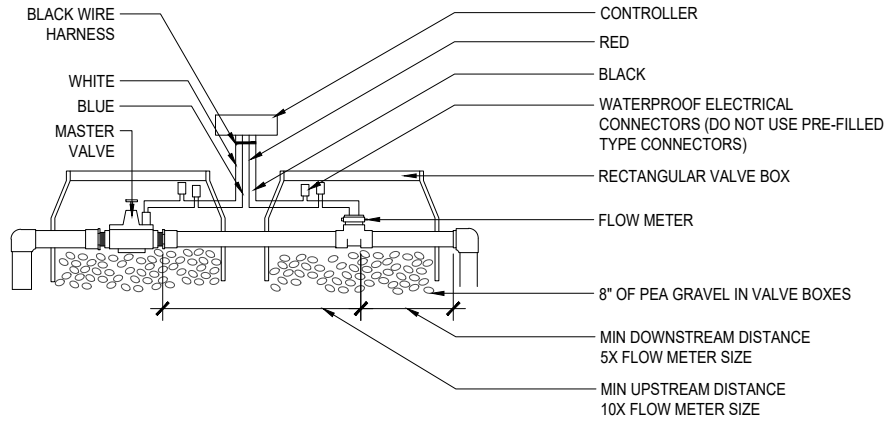
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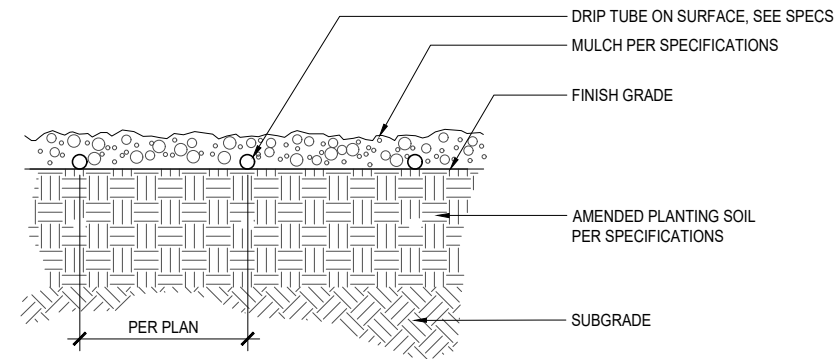
SECTION

3 PLANTING ON SLOPE

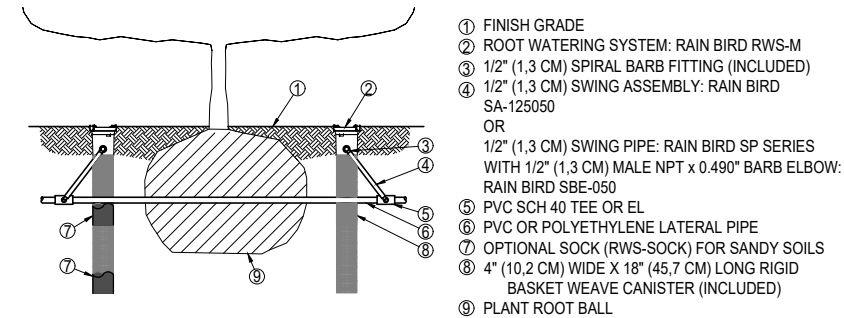
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6 MASTER VALVE AND FLOW METER

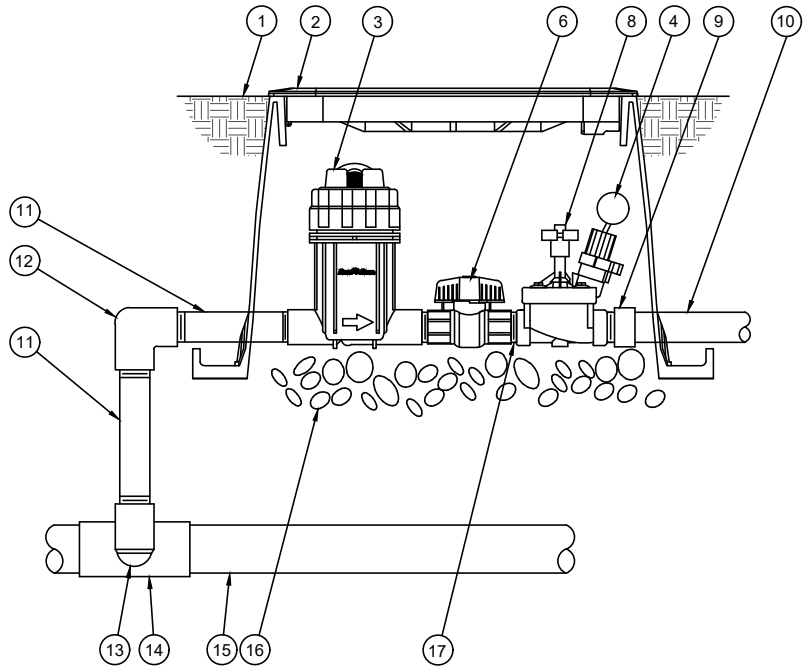


7 DRIPLINE INSTALLATION



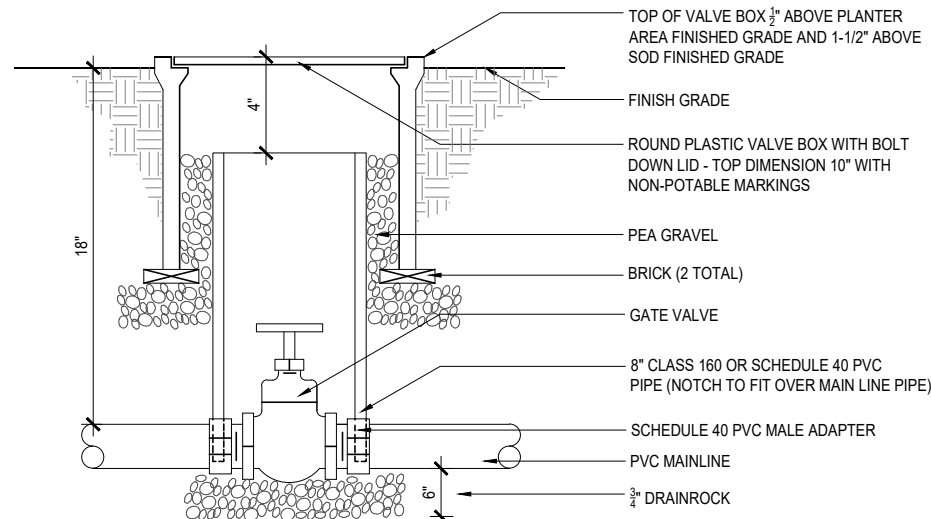
- NOTES:
1. POSITION EVENLY SPACED AROUND PLANT.
 2. INSTALL PRODUCT WITH TOP EVEN WITH FINISH GRADE
 3. RWS-M SERIES AVAILABLE IN THE FOLLOWING MODELS:
RWS-M-B-C-1401: 0.25 GPM (0.95 L/M), CHECK VALVE
RWS-M-B-1401: 0.25 GPM (0.95 L/M)
RWS-M-B-C-1402: 0.5 GPM (1.9 L/M), CHECK VALVE
RWS-M-B-1402: 0.5 GPM (1.9 L/M)
 4. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1.9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
 5. ONCE RWS-M HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.
 6. OPTIONAL RWS-SOCK FOR USE IN SANDY SOILS.

8 TREE BUBBLER



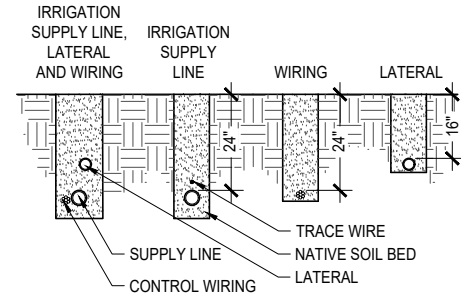
4 REMOTE CONTROL VALVE DRIP EMITTER AND BATTERY

- NOTES:
1. HEAT BRAND LID W/GV. TYPICAL ON ALL BOXES.
 2. GATE VALVE AND FITTINGS SHALL BE LINE SIZE UNLESS NOTED OTHERWISE.
 3. PLACE 3/4" DIA. ROCK PRIOR TO INSTALLATION OF VALVE BOX.
 4. USE TEFLON TAPE ON ALL THREADED FITTINGS.

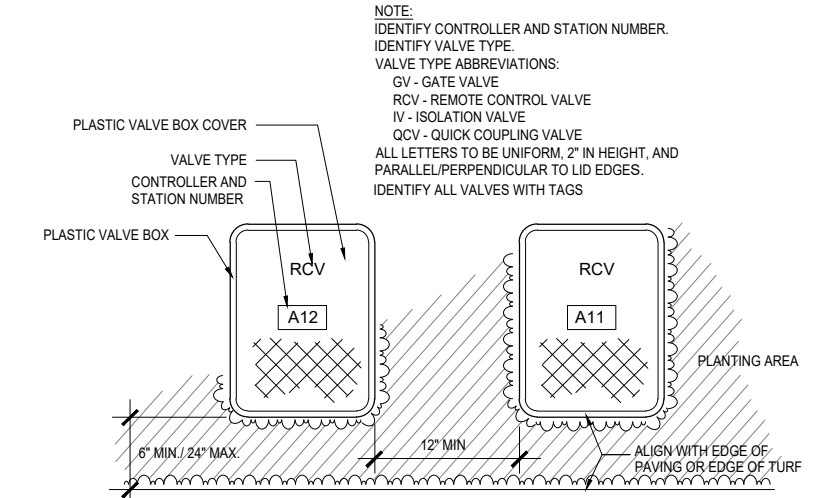


5 ISOLATION GATE VALVE

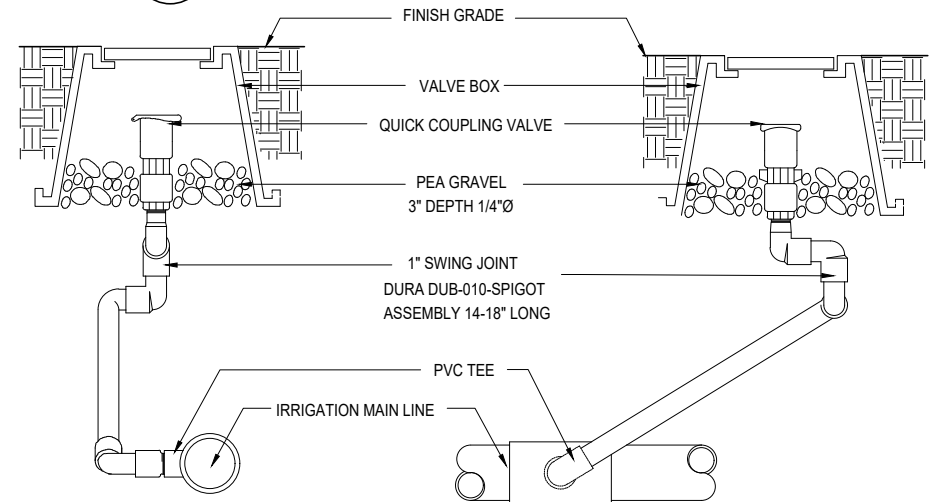
- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER:
- 3 PRESSURE REGULATING QUICK CHECK BASKET FILTER: RAIN BIRD PRB-QKCHK-100 (INCLUDED IN XCZ-PRB-100-COM KIT)
- 4 BATTERY POWERED SOLENOID
- 5 NOT USED
- 6 1-INCH BALL VALVE (INCLUDED IN XCZ-PRB-100-COM KIT)
- 7 NOT USED
- 8 REMOTE CONTROL VALVE: RAIN BIRD PESB (INCLUDED IN XCZ-PRB-100-COM KIT)
- 9 PVC SCH 40 FEMALE ADAPTOR
- 10 LATERAL PIPE
- 11 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 12 PVC SCH 40 ELL
- 13 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 14 PVC SCH 40 TEE OR ELL
- 15 MAINLINE PIPE
- 16 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 17 PVC SCH 80 NIPPLE, CLOSE (INCLUDED IN XCZ-PRB-100-COM KIT)



1 TRENCHING



2 VALVE BOXES



3 QUICK COUPLER VALVE



0" 1" — VERIFY SCALES
BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED NOVEMBER 2016 AND SUBSEQUENT ADDENDA

DESIGNED	MD
DRAWN	CA
CHECKED	BL

SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE	DWG NO	L30-1
IRRIGATION DETAILS	SHEET NO	78 OF 226
	PROJ NO	055-006
	DATE	MARCH 2017

STRUCTURAL NOTES

GENERAL

1. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND SHOP DRAWINGS AND THE PROJECT SPECIFICATIONS (IF ANY).
2. CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE 2013 CALIFORNIA BUILDING CODE (CBC). THE CBC SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR THESE DOCUMENTS ARE MORE RESTRICTIVE.
3. NOTHING SHOWN OR OMITTED FROM THESE DOCUMENTS SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
4. THE CONTRACTOR ALONE IS RESPONSIBLE FOR JOB SITE SAFETY. SITE REVIEW OF THE CONSTRUCTION BY THE ENGINEER IS TO DETERMINE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. IT DOES NOT ENCOMPASS SAFETY PROCEDURES OR OPERATIONS.
5. WITHOUT EXCLUSION OF ANY REFERENCE IN THE CONSTRUCTION DOCUMENTS TO ANY RULE OR REGULATION, THE ENGINEER IS NOT ASSUMING ANY PROVISIONS OF SUPERVISION OF CONSTRUCTION METHODS OR PROCESSES.
6. STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURES, DURING CONSTRUCTION, BRACING OR SHORING SHALL SUPPORT STRUCTURES WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR.
7. SEE ALL OTHER PROJECT DOCUMENTS FOR REGLETS, PIPE SLEEVES, CONDUITS AND OTHER ITEMS TO BE EMBEDDED OR PASSED THROUGH THE CONCRETE.
8. PENETRATIONS THROUGH WALLS OR SLABS LESS THAN 12 INCHES IN DIAMETER MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ASSOCIATED DRAWINGS FOR LOCATIONS.
9. WRITTEN DIMENSIONS SHALL BE USED FOR CONSTRUCTION. DO NOT SCALE DRAWINGS.
10. STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO MECHANICAL AND/OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
11. MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND EMBEDMENTS NOT SHOWN ON THE DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.
12. DIMENSIONS INDICATED WITH AN * SHALL BE COORDINATED WITH MECHANICAL AND/OR ELECTRICAL DRAWINGS AND EQUIPMENT SUPPLIED.
13. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. SHOULD CONFLICTS OR INTERFERENCE OCCUR, THEY SHALL BE RESOLVED WITH THE ENGINEER. EXISTING FIELD CONDITIONS AT VARIANCE WITH THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ANY WORK IS PERFORMED.
14. USE PERTINENT STANDARD DETAILS SHOWN, EVEN THOUGH THEY MAY NOT BE CALLED OUT AT LOCATIONS WHERE THEY APPLY.
15. CONDITIONS NOT SPECIFICALLY SHOWN OR INDICATED SHALL BE CONSTRUCTED SIMILAR TO DETAILS SHOWN FOR THE RESPECTIVE MATERIALS OR CONDITIONS.

DEFERRED SUBMITTALS

1. THE FOLLOWING PORTIONS OF THE PROJECT ARE DEFERRED SUBMITTAL ITEMS. DEFERRED SUBMITTALS LISTED BELOW ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.

a) FABRICATED ENGINEERED STRUCTURE - CLARIFIER COVER

b) METAL STAIRS AND LANDINGS

c) METAL PLANK GRATING AND PLATFORM SYSTEMS

d) FRP COMPOSITE TRENCH COVERS

e) HANDRAILS

f) GUARDRAILS

g) CALTRANS ST-40 BRIDGE RAIL

h) HATCHES

i) EQUIPMENT ANCHORAGE

j) PIPE SUPPORTS

k) CONDUIT SUPPORTS, INCLUDING CABLE TRAY SYSTEMS
2. UNLESS OTHERWISE NOTED, DEFERRED SUBMITTAL ITEMS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
3. DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL DURING THE CONSTRUCTION PHASE OF THE PROJECT.
4. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE ENGINEER OF RECORD HAS REVIEWED THE SUBMITTAL DOCUMENTS AND INDICATED THAT THEY HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS.
5. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN FAVORABLY REVIEWED BY THE OWNER.

DESIGN LOADS

1. LIVE LOADS:

USE OR OCCUPANCY	UNIFORM LOAD (psf)	CONCENTRATED LOAD (lbs)
WALKWAYS, STAIRWAYS	100	300 ⁽¹⁾
EQUIPMENT ROOM FLOORS	250	┐ ⁽²⁾
ROOFS (NON-CONCRETE)	20 ⁽³⁾	-
ROOFS (CONCRETE)	50	-
UNRESTRICTED VEHICULAR AREAS	640	┐ ⁽⁴⁾
PROCESS AREA	200	-

(1) MINIMUM CONCENTRATED LOAD ON STAIR TRENDS ONLY.

(2) REFER TO EQUIPMENT MANUFACTURER'S DRAWINGS FOR CONCENTRATED LOAD.

(3) MAY BE REDUCED AS ALLOWED BY THE CBC.

(4) DESIGN LOAD CONFORMS TO THE REQUIREMENTS FOR AASHTO HL93 LANE LOADING WHERE APPLICABLE.
2. WIND:

BASIC WIND SPEED (3-SECOND GUST):	115
RISK CATEGORY:	III
WIND EXPOSURE CATEGORY:	D
INTERNAL PRESSURE COEFFICIENT	N/A
C&C PRESSURES FOR DEFERRED SUBMITTALS	N/A
3. SEISMIC:

SEISMIC IMPORTANCE FACTOR (I _e)	1.25
RISK CATEGORY:	III
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	S _s = 1.500g, S ₁ = 0.639g
SITE CLASS	B
SPECTRAL RESPONSE COEFFICIENTS:	S _{DS} = 1.000, S _{D1} = 0.426g
SEISMIC DESIGN CATEGORY:	D
BASIC SEISMIC-FORCE-RESISTING SYSTEM:	ORDINARY REINFORCED CONCRETE SHEAR WALLS
RESPONSE MODIFICATION FACTOR:	R ₁ = 2.0 & R ₂ = 1.0
ANALYSIS PROCEDURE USED:	CHAPTER 12 - EQUIVALENT LATERAL FORCE PROCEDURE CHAPTER 15 - WATER STORAGE AND WATER TREATMENT TANKS (ACI 350)

SNOW:

GROUND SNOW LOAD (P _g):	20 PSF
FLAT-ROOF SNOW LOAD (P _f):	30 PSF
SNOW EXPOSURE FACTOR (C _e):	N/A
SNOW LOAD IMPORTANCE FACTOR (I _s):	N/A
THERMAL FACTOR (C _t):	N/A

SITE WORK

1. A SOIL REPORT HAS BEEN PREPARED FOR THE PROJECT BY MILLER PACIFIC ENGINEERING GROUP. A COPY OF THE REPORT IS ON FILE AT THE OFFICE OF THE ENGINEER AND MAY BE REVIEWED WITH PROPER ADVANCED NOTIFICATION.
2. EXCAVATION FOR PADS AS SHOWN ON THE DRAWINGS: THE BOTTOMS OF ALL EXCAVATIONS SHALL BE LEVEL, TAMPED FIRM, CLEAN AND FREE FROM ALL DEBRIS OR FOREIGN MATTER.
3. OVER-EXCAVATION SHALL EXTEND Laterally BEYOND THE OUTSIDE EDGE OF FOOTINGS BY A MINIMUM OF 1/2 THE DEPTH OF OVER-EXCAVATION BELOW THE FOOTING OR 12-INCHES.
4. WHERE PRACTICABLE, SIDES OF FOOTINGS SHALL BE CUT NEAT AND CONCRETE POURED DIRECTLY AGAINST THE EXCAVATION. IF FORMING IS REQUIRED, THE TRENCHES SHALL BE EXCAVATED WIDE ENOUGH TO PERMIT THE ERECTION AND REMOVAL OF FORMS.
5. THE BOTTOM OF ALL EXCAVATIONS SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES, MOISTURE CONDITIONED TO WITHIN 5 PERCENT (±1 PERCENT) OVER THE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A LEAST 89 PERCENT (±1 PERCENT) RELATIVE COMPACTION.
6. CLASS 2 AGGREGATE BASEROCK SHALL CONSIST OF MATERIAL FREE FROM DEBRIS AND ORGANIC OR OTHER DELETERIOUS MATERIALS. BACKFILL MATERIAL SHALL BE PLACED IN 8-INCH LAYERS, LEVELED, RAMMED AND TAMPED IN PLACE. COMPACTION OF ALL LAYERS SHALL BE A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557.

SOIL PARAMETERS

1. FOUNDATION DESIGN CRITERIA:

	FOUNDATION TYPE	
	SHALLOW FOOTING	DRILLED PIERS
MINIMUM WIDTH / DIAMETER	12 IN.	Ø 18 IN.
MINIMUM EMBEDMENT	12 IN. ⁽¹⁾	5 FT.
ALLOWABLE BEARING PRESSURE		
DEAD+LIVE	5000 psf ⁽²⁾⁽³⁾	-
BASE FRICTION COEFFICIENT	0.4	-
SKIN FRICTION ⁽⁴⁾		
FILL		IGNORE
BEDROCK		4,000 psf
LATERAL PASSIVE RESISTANCE ⁽⁵⁾		
FILL	-	IGNORE
BEDROCK	-	450 pcf ⁽⁶⁾

(1) MAINTAIN MINIMUM 7-FEET HORIZONTAL CONFINEMENT FROM THE FACE OF ADJACENT SLOPES.

(2) MAY BE INCREASED BY 1/3 FOR TOTAL DESIGN LOADS (INCLUDING WIND AND SEISMIC).

(3) ALL FOUNDATION TO BEAR DIRECTLY ON FIRM BEDROCK.

(4) UPLIFT RESISTANCE IS EQUAL TO 80% OF TOTAL SKIN FRICTION.

(5) EQUIVALENT FLUID PRESSURE, NOT TO EXCEED 10 TIMES VALUE IN psf.

(6) APPLY VALUES OVER EFFECTIVE WIDTH OF 2 PIER DIAMETERS.
2. RETAINING WALL DESIGN CRITERIA:

LATERAL EARTH PRESSURE	UNRESTRAINED ⁽¹⁾⁽²⁾	RESTRAINED ⁽¹⁾⁽³⁾	
LEVEL	45 pcf	25 x H psf	
2:1 SLOPE	65 pcf	40 x H psf	
SEISMIC SURCHARGE ⁽³⁾	15 x H PSF		
SOIL NAILS / TIEBACKS ⁽⁷⁾	PHI ⁽⁴⁾	C ⁽⁵⁾	GAMMA ⁽⁶⁾
FILL / COLLUVIUM / RESIDUAL SOIL	32	350 psf	130 pcf
CHERT / GREENSTONE BEDROCK	40	2,000 psf	140 pcf
MINIMUM DIAMETER HOLES	6 IN.		
SKIN FRICTION:			
FILL / COLLUVIUM / RESIDUAL SOIL	1,000 psf		
BEDROCK	3,000 psf		

(1) INTERPOLATE EARTH PRESSURE FOR INTERMEDIATE SLOPES.

(2) EQUIVALENT FLUID PRESSURE.

(3) RECTANGULAR UNIFORM PRESSURE DISTRIBUTION (H = HEIGHT OF WALL)

(4) ANGLE OF INTERNAL FRICTION (DEGREES), EFFECTIVE STRESS, (UNITLESS).

(5) APPARENT (EFFECTIVE) COHESION, FOR SEISMIC CONDITIONS 500 psf OF ADDITIONAL COHESION MAY BE INCLUDED.

(6) UNIT WEIGHT OF SOIL.

(7) SOIL NAILS AND TIEBACKS SHALL BE DESIGNED FOR LOAD TESTING UP TO 150% OF THE DESIGN LOAD.

CONCRETE

1. REINFORCED CONCRETE SHALL CONFORM TO ACI 318.
2. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE II. ONE BRAND OF CEMENT SHALL BE USED THROUGHOUT THE WORK.
3. ALL AGGREGATES SHALL CONFORM TO ASTM C33. THE MAXIMUM SIZE AGGREGATE SHALL BE 1 INCH.
4. CONCRETE COMPRESSIVE STRENGTH SHALL MEET THE MINIMUM REQUIREMENTS LISTED BELOW.

LOCATION	MIN 28 DAY STRENGTH (psi)
STRUCTURAL CONCRETE	4,500
CONCRETE SIDEWALKS AND PAVEMENTS	3,000
CONCRETE FILL	2,500
5. ALL CONCRETE SHALL HAVE AIR ENTRAINMENT OF 4.0 ± 1.0 PERCENT.
6. CONSTRUCTION JOINTS SHALL NOT BE PLACED AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER OF RECORD.
7. ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE 3/4" MINIMUM CHAMFER, UNLESS NOTED OTHERWISE.

CONCRETE REINFORCING

1. REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ASTM SPECIFICATION A706 OR A615, GRADE 60.
2. REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CRSI MANUAL OF STANDARD PRACTICE.
3. REINFORCING SHALL HAVE THE FOLLOWING CLEAR CONCRETE COVER, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

CONDITION	COVER (INCHES)
UNFORMED SURFACES IN CONTACT WITH EARTH	3
FORMED SURFACES EXPOSED TO EARTH, WATER AND/OR WEATHER	2
BOTTOM SURFACES FOR SLAB OVER WATER	2
CONCRETE SURFACES FOR DRY CONDITIONS	
WALLS, SLABS AND JOISTS	1 1/2
BEAMS AND COLUMNS:	
PRIMARY REINFORCING	2
STIRRUPS, SPIRALS AND TIES	1 1/2
4. SPLICED BARS SHALL HAVE A MINIMUM CLASS B CONTACT LAP AS SPECIFIED IN THE LATEST EDITION OF ACI 315 DETAILING MANUAL AND ACI 318 UNLESS OTHERWISE NOTED ON THE DRAWINGS. WHERE SHOWN ON THE DRAWINGS, L = DEVELOPMENT LENGTH AS DEFINED IN THE STANDARD DETAILS OF THESE DRAWINGS. HOOKS OF REINFORCING STEEL SHALL COMPLY WITH ACI 318.
5. WRITTEN SPACING AND LOCATION OF REINFORCING SHALL TAKE PRECEDENCE OVER DEPICTED SPACING AND LOCATION.
6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, REINFORCING BARS SHOWN TERMINATING WITH A HOOK SHALL BE FABRICATED WITH A STANDARD HOOK AS DEFINED WITHIN ACI 318. WHERE SECTION THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, TILT HOOK UNTIL HOOK FITS. ALTERNATIVELY CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.
7. IN CASES WHERE REINFORCING BARS CANNOT BE EXTENDED AS FAR AS REQUIRED DUE TO THE LIMITED EXTENT OF THE ADJACENT CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND BE TERMINATED WITH A STANDARD HOOK.
8. AT FOOTING CORNERS AND INTERSECTIONS, EXTEND BARS AROUND CORNERS AND LAP A MINIMUM OF 40 BAR DIAMETERS.

CONCRETE JOINTS

1. REINFORCING STEEL SHOWN IS FOR CLARITY ONLY. SEE PLANS AND SECTIONS FOR REINFORCING SIZES, SPACING, LOCATIONS AND DETAILS.
2. ALL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SPECIFICATION SECTION 03150.
3. EXCEPT WHERE OTHERWISE NOTED ON THE DETAILS JUNCTION BARS (JB) SHALL BE THE SAME SIZE AS THE LARGER OF WALL OR SLAB REINFORCING.
4. ALL LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP.
5. UNLESS OTHERWISE NOTED, SEALANT SHALL BE PROVIDED IN JOINTS WHERE SHOWN ON THE DRAWINGS AND WHERE INDICATED BY THE FOLLOWING:

a) CONTROL JOINTS FOR WALLS AND SLABS IN LIQUID CONTAINMENT STRUCTURES SHALL HAVE SEALANT APPLIED TO THE LIQUID SIDE(S) OF THE JOINT.

b) EXPANSION JOINTS SHALL HAVE SEALANT APPLIED TO BOTH SIDES OF THE JOINT, EXCEPT FOR THE SOIL SIDE OF A JOINT FOR A BASE SLAB.

c) CONSTRUCTION JOINTS WILL NOT REQUIRE SEALANT, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. UNLESS OTHERWISE NOTED, WATERSTOPS SHALL BE PROVIDED IN JOINTS WHERE SHOWN ON THE DRAWINGS AND WHERE INDICATED BY THE FOLLOWING:

a) IN ALL JOINTS IN WALLS AND SLABS OF LIQUID CONTAINMENT STRUCTURES TO PREVENT EXFILTRATION OF LIQUID INTO SOIL OR DRY AREAS OF THE STRUCTURE.

b) IN ALL BELOW-GRADE JOINTS IN WALLS AND SLABS TO PREVENT INFILTRATION OF GROUNDWATER INTO STRUCTURE.
7. WATERSTOP SHALL BE PLACED AT CENTER OF WALL OR SLAB, UNLESS OTHERWISE NOTED.



0"=1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



▲			
▲			
▲			
▲			
REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED NOVEMBER 2016 AND SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED: STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

GENERAL NOTES

DWG NO	S-1
SHEET NO	79 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: GS Sheets 3-23-17 10:04am andria XREFS: X-SMCSO-TBLK X-Site X-Topo Survey RKT California Kc---

CONDUITS AND PIPES EMBEDDED IN CONCRETE

1. CONDUIT, PIPES, AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE AND WITHIN LIMITATIONS OF THE PROJECT DRAWINGS AND SPECIFICATIONS, AND ACI 318 MAY BE PERMITTED TO BE EMBEDDED IN CONCRETE SUBJECT TO PRIOR APPROVAL BY THE ENGINEER OF RECORD, PROVIDED THEY ARE NOT CONSIDERED, BY THE ENGINEER OF RECORD, TO DISPLACE STRUCTURAL CONCRETE, EXCEPT AS PROVIDED HEREIN.
2. CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE.
3. CONDUITS AND PIPES, WITH THEIR FITTINGS, EMBEDDED WITHIN A COLUMN SHALL NOT DISPLACE MORE THAN 4-PERCENT OF THE AREA OF THE CROSS SECTION ON WHICH THE STRENGTH IS CALCULATED OR WHICH IS REQUIRED FOR FIRE PROTECTION. THE ENGINEER OF RECORD SHALL DETERMINE IF THE STRENGTH OF THE CONSTRUCTION HAS BEEN SIGNIFICANTLY IMPAIRED.
4. CONDUITS AND PIPES EMBEDDED WITHIN A SLAB, WALL, OR BEAM SHALL SATISFY THE FOLLOWING:

a) THEY SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 THE OVERALL THICKNESS OF SLAB, WALL, OR BEAM IN WHICH THEY ARE EMBEDDED.

b) MINIMUM CENTER-TO-CENTER SPACING BETWEEN CONDUIT AND/OR PIPING RUNS SHALL BE 3 TIMES OUTSIDE DIAMETER OR WIDTH.

c) THEY SHALL BE LOCATED IN SUCH A MANNER AS TO MAINTAIN A MINIMUM OF 1-INCH CLEAR SPACE BETWEEN THE EMBEDDED ITEM AND CONCRETE REINFORCEMENT.

d) THEY SHALL NOT SIGNIFICANTLY IMPAIR THE STRENGTH OF THE CONSTRUCTION. THE ENGINEER OF RECORD SHALL DETERMINE IF THE STRENGTH OF THE CONSTRUCTION HAS BEEN SIGNIFICANTLY IMPAIRED.
5. NO LIQUIDS, GAS, OR VAPOR, EXCEPT WATER NOT EXCEEDING 90 DEGREES FAHRENHEIT NOR 50 PSI, SHALL BE PLACED IN THE PIPES UNTIL THE CONCRETE HAS ATTAINED ITS DESIGN STRENGTH.
6. IN SOLID SLABS, CONDUITS AND/OR PIPING SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCEMENT AT THE CENTERLINE OF THE SLAB. AT A MINIMUM, THEY SHALL BE LOCATED IN SUCH A MANNER AS TO MAINTAIN A MINIMUM OF 1-INCH CLEAR SPACE BETWEEN THE EMBEDDED ITEM AND PRIMARY REINFORCEMENT.
7. CONCRETE COVER FOR PIPES, CONDUITS, AND FITTINGS SHALL NOT BE LESS THAN 2-INCHES FOR CONCRETE EXPOSED TO EARTH, CONTAINED LIQUIDS, OR WEATHER, NOR LESS THAN 1-INCH FOR CONCRETE NOT EXPOSED TO CONTAINED LIQUIDS, WEATHER OR IN CONTACT WITH GROUND.
8. REINFORCEMENT WITH AN AREA NOT LESS THAN 0.002 TIMES THE AREA OF CONCRETE SECTION SHALL BE PROVIDED NORMAL TO THE CONDUIT AND/OR PIPING.
9. CONDUITS AND/OR PIPING SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED.
10. PIPES PASSING THROUGH WALLS OF A LIQUID - CONTAINING STRUCTURE SHALL INCLUDE AN INTEGRAL WATERSTOP.

CONCRETE ANCHORS

1. CAST-IN ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36.
2. POST-INSTALLED CONCRETE ANCHORS, INCLUDING ADHESIVE AND EXPANSION ANCHORS, SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND THE APPROPRIATE ICC-ES AND/OR IAPMO-UES EVALUATION SERVICES REPORT (ER). ANCHORS WITHOUT AN ICC-ES AND/OR IAPMO-UES ER SHALL NOT BE USED.
3. UNLESS OTHERWISE INDICATED, ALL ADHESIVE AND EXPANSION ANCHORS FOR INSTALLATION IN CONCRETE SHALL HAVE SATISFIED THE REQUIREMENTS OF THE SIMULATED SEISMIC TESTS OF ACI 355.4 OR ACI 355.2. NO SUBSTITUTION SHALL BE ALLOWED.
4. CONTRACTOR SHALL LOCATE EXISTING REBAR USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING HOLES FOR POST-INSTALLED ANCHORS. ADJUST SPACING OF ANCHORS TO MISS EXISTING REINFORCING. TOTAL NUMBER OF ANCHORS PROVIDED SHALL BE EQUAL TO THAT SHOWN ON THE DRAWINGS.
5. ADHESIVE ANCHORS SHALL CONSIST OF A TWO-COMPONENT RESIN ADHESIVE. THE PACKAGES CONTAINING EACH COMPONENT SHALL BE ATTACHED TO A DISPENSING MANIFOLD. AN AUGER STYLE NOZZLE SHALL BE ATTACHED FOR PROPER MIXING OF THE ADHESIVE COMPONENTS. WHERE THREADED RODS ARE REQUIRED, RODS SHALL CONFORM TO ASTM A193 GRADE B7. WHERE STAINLESS STEEL IS CALLED FOR ON THE DRAWINGS, CONTRACTOR SHALL USE ALLOY GROUP 1 TYPE 304 CONDITION CW.

SPECIAL INSPECTION

1. SPECIAL INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN CHAPTER 17 OF THE CBC. UNLESS OTHERWISE NOTED IN THE PROJECT SPECIFICATIONS, SPECIAL INSPECTION SHALL BE PROVIDED BY AND PAID FOR BY THE DISTRICT. THE FOLLOWING ITEMS, AS A MINIMUM, SHALL RECEIVE SPECIAL INSPECTION:

ITEM	STRUCTURAL STEEL INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
1.	MATERIAL VERIFICATION OF STRUCTURAL STEEL:	—	—
	A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS.		X
2.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS:	—	—
	A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X
3.	INSPECTION OF WELDING:	—	—
	A. STRUCTURAL STEEL:	—	—
	1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	X	
	2) MULTI-PASS FILLET WELDS.	X	
	3) SINGLE-PASS FILLET WELDS > 5/16"	X	
	4) SINGLE-PASS FILLET WELDS ≤ 5/16"		X
	5) FLOOR AND ROOF DECK WELDS.		X
	B. REINFORCING STEEL:		
	1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.		X
	2) BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	X	
	3) SHEAR REINFORCEMENT.	X	
	4) OTHER REINFORCING STEEL.		X

ITEM	CONCRETE INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECTION OF REINFORCING STEEL AND PLACEMENT.		X
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B.	X	
3.	INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.		X
4.	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	X	
5.	VERIFYING USE OF REQUIRED DESIGN MIX.		X
6.	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	
7.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	
8.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X
9.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X
	SPECIAL PROVISIONS FOR SEISMIC RESISTANCE		
10.	VERIFY SUBMITTAL OF CERTIFIED MILL TEST REPORTS FOR EACH SHIPMENT OF REINFORCING STEEL USED IN BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS.		X
11.	TEST ASTM A 615 REINFORCING STEEL USED IN WALL BOUNDARY ELEMENTS OF SHEAR WALLS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F, PER ACI 318.		X
12.	TEST ASTM A 615 REINFORCING STEEL THAT IS TO BE WELDED, CHEMICAL TESTS SHALL BE PERFORMED TO DETERMINE WELDABILITY IN ACCORDANCE WITH SECTION 3.5.2 OF ACI 318.		X

ITEM	WATERSTOP INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECTION OF FIELD WELDS OF WATERSTOP.		X
2.	MANUFACTURER SHALL PROVIDE FIELD TRAINING OF WATERSTOP WELDERS AND SPECIAL INSPECTORS.	—	—

ITEM	FOUNDATION INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
	SOILS		
1.	VERIFY SUBGRADE MATERIALS BELOW THE FOOTING FOR DESIGN BEARING CAPACITY.		X
2.	VERIFY DEPTH OF EXCAVATION AND TYPE OF SUBGRADE MATERIALS REACHED.		X
3.	PERFORM CLASSIFICATION AND COMPACTION TESTING OF CONTROLLED BACKFILL MATERIALS.		X
4.	VERIFY MATERIALS USED, LAYERED THICKNESSES AND COMPACTION OF BACK FILLS.	X	
5.	VERIFY THE SUBGRADE AND SITE PREPARATIONS FOR CONTROLLED FILL.		X
	PIER FOUNDATIONS		
6.	OBSERVE DRILLING OPERATIONS TO MONITOR AND RECORD - DRILLED LENGTHS, DIAMETERS AND BELL SIZE (IF APPLICABLE) FOR EACH PIER.	X	
7.	VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM PIER DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY.	X	
8.	FOR CONCRETE PIERS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH "CONCRETE INSPECTIONS AND VERIFICATION".	—	—

ITEM	INSPECTIONS AND VERIFICATION FOR SEISMIC RESISTANCE IN OTHER BUILDING SYSTEMS	FREQUENCY	
		CONTINUOUS	PERIODIC
	MECHANICAL & ELECTRICAL COMPONENTS		
1.	ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F.		X
2.	PIPING SYSTEMS INTENDED TO CARRY FLAMMABLE, COMBUSTIBLE OR HIGHLY TOXIC CONTENTS AND THEIR ASSOCIATED MECHANICAL UNITS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F.		X
3.	HVAC DUCTWORK THAT WILL CONTAIN HAZARDOUS MATERIALS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F.		X
4.	VIBRATION ISOLATION SYSTEMS OF EQUIPMENT IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F WHERE THE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 0.25 INCHES (6.4 MM) OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT.		X
	STORAGE RACKS AND ACCESS FLOORS		
1.	INSPECT THE ANCHORAGE OF ACCESS FLOORS AND STORAGE RACKS 8 FEET (2438 MM) OR GREATER IN HEIGHT IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F.		X

NOTATION:
"X" DENOTES EITHER CONTINUOUS OR PERIODIC INSPECTIONS.
"—" DENOTES AN ACTIVITY THAT IS EITHER A ONE TIME ACTIVITY OR ONE WHOSE FREQUENCY IS DEFINED IN SOME OTHER MANNER

DEFINITIONS:
CONTINUOUS - SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED (CBC, SECTION 202)

PERIODIC - SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED (CBC, SECTION 202)

SPECIAL INSPECTOR - A QUALIFIED PERSON EMPLOYED OR RETAINED BY THE OWNER AND APPROVED BY THE AUTHORITY HAVING JURISDICTION AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION.



0"=1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	

SUBMITTED: MARK TAKEMOTO	
RMC PROJECT ENGINEER	CE-64369
APPROVED: STEVE CLARY	
RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

GENERAL NOTES

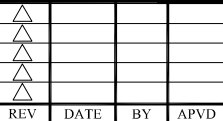
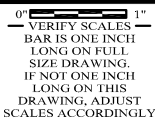
DWG NO	S-2
SHEET NO	80 OF 226
PROJ NO	055-006
DATE	MARCH 2017

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LEGEND:

GRATING:

- SELECT

PAVEMENT
SIDEWALK

NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

ABBREVIATIONS & STANDARD DETAILS

W:\TJCAA - 2008 Projects\108049 - RMC, SWCSD Headworks\108049 - Stru\ GS Sheets 11/17/16 12:29 andria XREFS: X-SMCSD-TBLK, RKT California, X-Site, X-Topo Survey



1. PROVIDE GUTTER AND GUTTER OUTLET PER PROJECT SPECIFICATIONS.
2. WIDTH OF SHEAR KEY SHALL BE TW + 2" MINIMUM (1" MINIMUM EACH FACE) TO PROVIDE 3" MINIMUM CONCRETE COVER TO REINFORCING STEEL. PLACE CONCRETE FOR SHEAR KEY AGAINST UNDISTURBED MATERIAL EXCEPT AS PERMITTED BY THE ENGINEER.
3. THICKNESS OF WALL IS CONTROLLED BY FINAL WALL HEIGHT, TOP OF WALL THICKNESS AND BATTER.
4. PLACE CONCRETE IN TOE AGAINST UNDISTURBED MATERIAL EXCEPT AS PERMITTED BY THE ENGINEER.

DETAIL 02006
NTS VAR



--- DENOTES ADDED WALL REINFORCING WHERE NOTED ON DRAWINGS.

A = 1/4 CLEAR SPAN, BUT NOT LESS THAN REQUIRED FOR CLASS B TENSION CONTACT LAP NOR GREATER THAN 10-FEET.

B = CLASS B TENSION CONTACT LAP. ASSUME "TOP BAR" LAPS WHERE MORE THAN 12" OF CONCRETE IS CAST IN ONE LIFT BENEATH THE BAR.

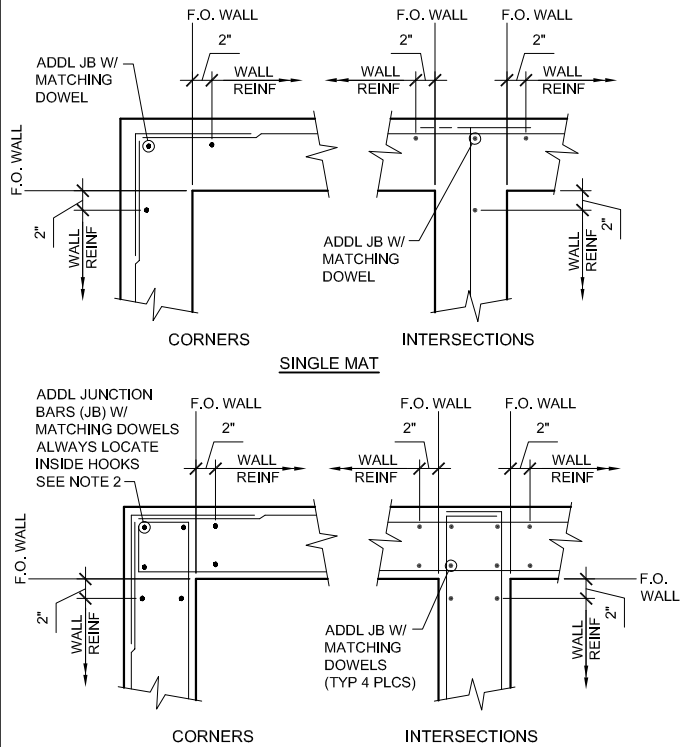
SPLICE BARS TO BE SAME SIZE & SPACING AS LARGER OF BARS BEING SPLICED,
UON. SPLICE BARS SHALL BE CONTACT LAPPED WITH TYPICAL WALL
REINFORCING.

EXTEND BAR HOOKED ENDS TO FAR FACE OF WALL. WHERE WALL THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, TILT (DOWN/UP) UNTIL HOOK FITS INTO WALL. ALTERNATIVELY, CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.

ALTERNATE THE TYPICAL AND ADDED BARS. ADDED BARS TO BE IN SAME VERTICAL PLANE AS TYPICAL REINFORCING.

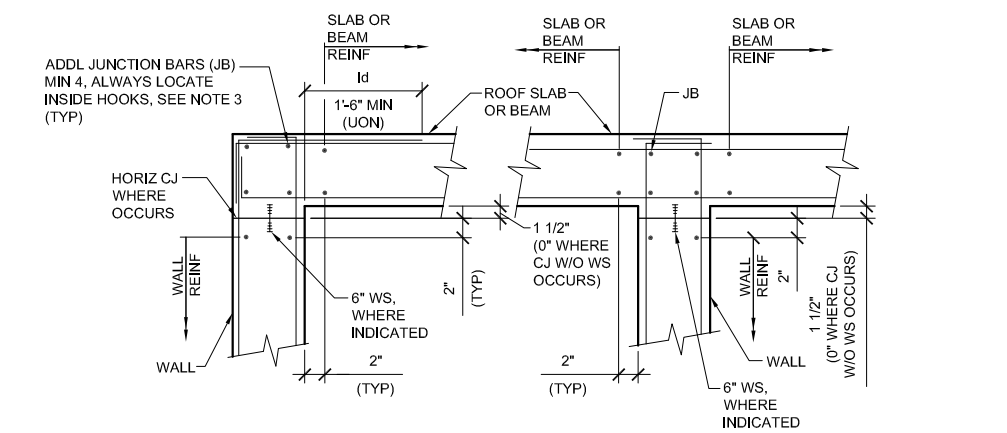
SOME VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

FILENAME: GS Sheets 3-01-17 10:54am andria X-REFS: X-SMCSO-TBLK X-Site X-Topo Survey RKT-SIG KCC--

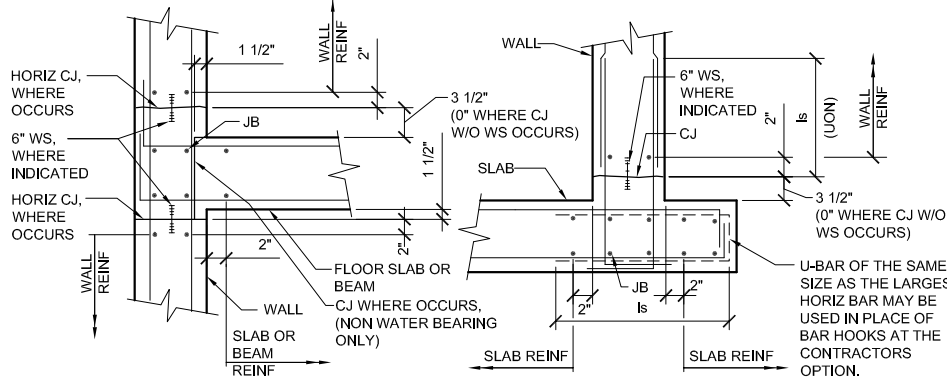


- NOTES:
- REINFORCING IS SHOWN FOR CLARITY ONLY. SEE PLANS AND SECTIONS FOR REINFORCING SIZES, SPACING, LOCATIONS AND DETAILS.
 - JUNCTION BARS SHALL BE SAME SIZE AS THE WALL VERTICAL REINFORCING EXCEPT WHERE OTHERWISE NOTED ON THE DETAILS OR DRAWINGS. THESE ARE ADDITIONAL BARS TO THOSE CALLED OUT FOR WALLS.
 - SEE PLANS AND SECTIONS FOR LOCATIONS OF JOINTS. SEE DETAIL FOR BALANCE OF INFORMATION.
 - UNLESS OTHERWISE NOTED, WITHIN CONTRACT DRAWINGS, REINFORCING BARS SHALL TERMINATE WITH A STANDARD HOOK. WHERE SECTION THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, TILT HOOK UNTIL IT FITS. ALTERNATIVELY CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.

WALL REINFORCING PLANS
DETAIL 03001/A
NTS VAR

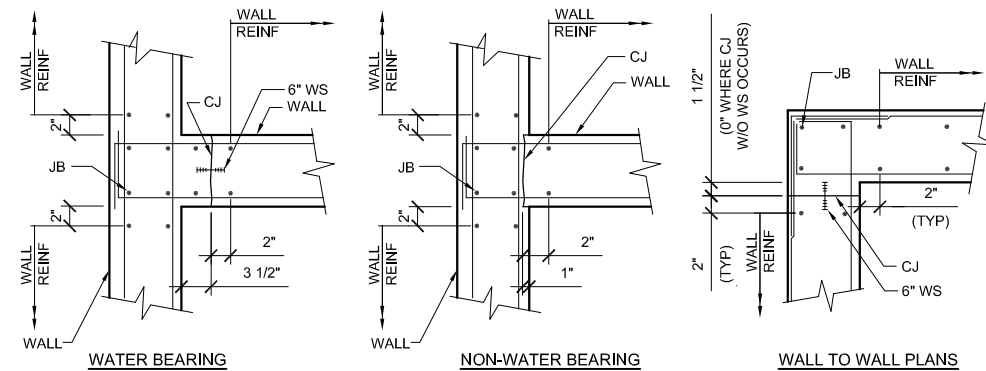


WALL TO TOP SLAB (SECTION)



WALL TO INTERMEDIATE SLAB (SECTION)

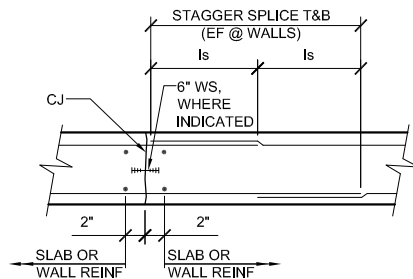
WALL TO BOTTOM SLAB (SECTION)



WATER BEARING

NON-WATER BEARING

WALL TO WALL PLANS

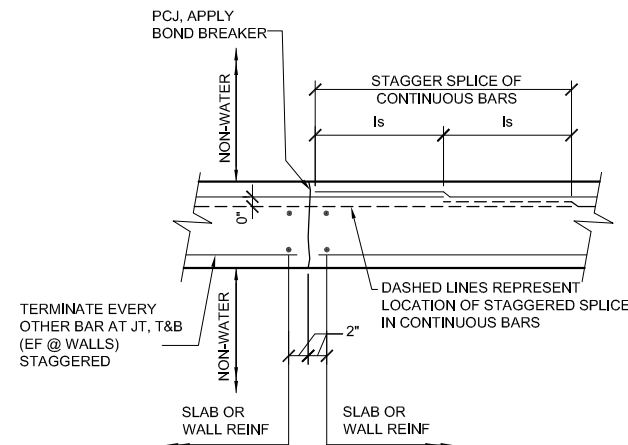


SLAB OR WALL CONTINUATION

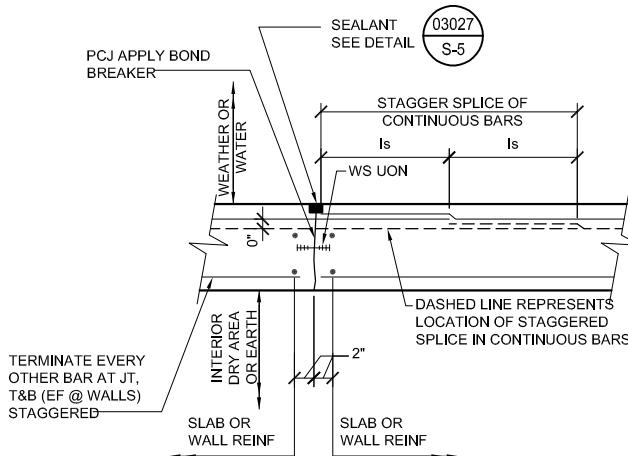
CONSTRUCTION JOINT (CJ)
DETAIL 03002
NTS VAR

CONSTRUCTION JOINT NOTES:

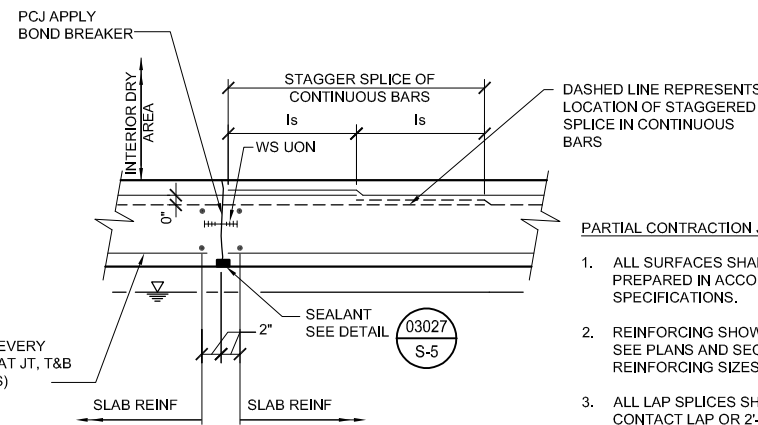
- REINFORCING SHOWN IS FOR CLARITY ONLY. SEE PLANS AND SECTIONS FOR REINFORCING SIZES, SPACING, LOCATION AND DETAILS.
- ALL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- JUNCTION BARS SHALL BE SAME SIZE AS THE LARGER OF WALL OR SLAB REINFORCING EXCEPT WHERE OTHERWISE NOTED ON THE DETAILS OR DRAWINGS. THESE ARE ADDITIONAL BARS TO THOSE CALLED OUT FOR WALLS & SLABS.
- ALL LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP.
- WATERSTOP SHALL BE PLACED AT CENTER OF WALL OR SLAB, UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE NOTED WATERSTOP SHALL BE PLACED AT ALL CONSTRUCTION JOINTS FOR BELOW GRADE OR WATER RETENTION STRUCTURES.
- SEE PLANS & SECTIONS FOR LOCATION OF JOINTS.
- WHERE SECTION THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, ROTATE HOOK UNTIL HOOK FITS. ALTERNATIVELY, CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.



NON-WATER RETENTION SLAB OR WALL



WATER RETENTION SLAB OR WALL



WATER RETENTION ELEVATED SLAB

PARTIAL CONTRACTION JOINT NOTES:

- ALL SURFACES SHALL BE ROUGHENED AND PREPARED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- REINFORCING SHOWN IS FOR CLARITY ONLY. SEE PLANS AND SECTIONS FOR REINFORCING SIZES AND LOCATIONS.
- ALL LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP OR 2'-0", WHICHEVER IS GREATER. ASSUME "TOP BAR" LAPS WHERE MORE THAN 12" OF CONCRETE IS CAST IN ONE LIFT BENEATH THE BAR.

CONTROL JOINT (CTJ)
DETAIL 03003
NTS VAR



0" = 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING

NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318

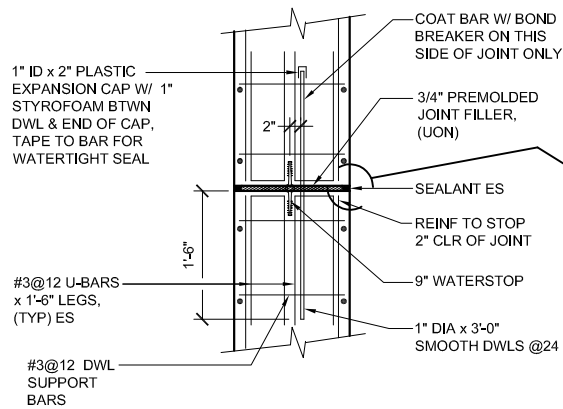


TREATMENT AND WET WEATHER FLOW UPGRADE

STANDARD DETAILS

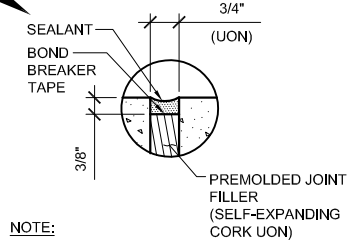
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SHEET NO	82 OF 226
PROJ NO	055-006
DATE	MARCH 2017

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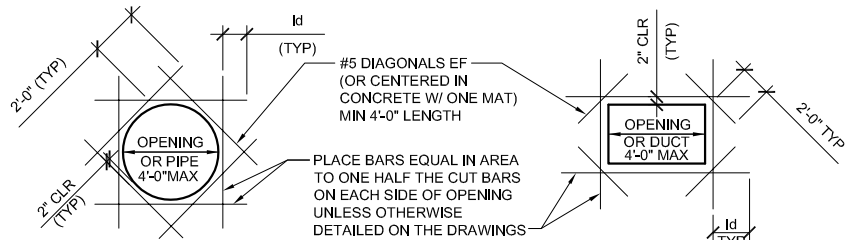
EXPANSION JOINT (EXP JT)

DETAIL 03004
NTS VAR



NOTE:

FOR LOCATIONS REQUIRING SEALANT AND WATERSTOPS, SEE CONCRETE JOINT NOTES AND DRAWINGS. ELSEWHERE PROVIDE EDGE CHAMFER, EXCEPT ON UNDERSIDE OF SLAB.



NOTES:

1. PROVIDE STANDARD HOOK IF INDICATED LENGTH IS NOT POSSIBLE.
2. REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.
3. DETAIL IS TYPICAL FOR ALL OPENINGS GREATER THAN 10 INCHES AND LESS THAN OR EQUAL TO 4 FEET IN THE LARGER DIMENSION IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE DETAILED ON THE DRAWINGS.
4. EXTRA BARS ARE NOT REQUIRED AT AN OPENING EDGE PARALLEL TO AND WITHIN 6 INCHES OF A WALL OR BEAM.

ADDITIONAL TRIM
REINFORCEMENT AT OPENINGS

DETAIL 03025
NTS VAR

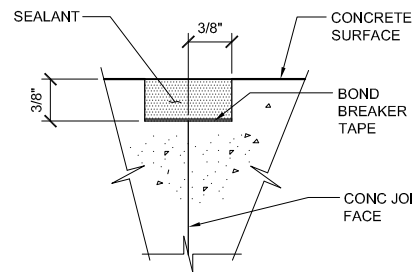
BAR SIZE	ld (INCHES)		ls (INCHES)		ldh (INCHES)
	TOP BAR	OTHER	TOP BAR	OTHER	
#3	24	19	32	25	9
#4	32	25	42	33	12
#5	39	30	51	39	15
#6	47	37	62	49	18
#3	22	17	29	23	9
#4	29	23	38	30	11
#5	36	28	47	37	14
#6	43	34	56	45	17
#3	18	14	24	19	7
#4	24	19	32	25	9
#5	30	24	39	32	12
#6	35	27	46	36	14
#7	51	40	67	52	16
#8	59	46	77	60	18
#9	66	51	86	67	21
#10	74	57	97	75	23

NOTES:

1. ld: DEVELOPMENT LENGTH FOR A STRAIGHT REINFORCING BAR IN TENSION.
ls: CLASS B TENSION LAP SPlice LENGTH.
ldh: DEVELOPMENT LENGTH FOR STANDARD HOOKS IN TENSION.
2. LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP SPLICES TYPICAL, UNLESS OTHERWISE NOTED ON DRAWINGS.
3. TOP BAR IS ANY HORIZONTAL BAR WITH MORE THAN 12" CONCRETE CAST IN ONE LIFT BENEATH THE BAR.
4. SPLICES IN HORIZONTAL BARS SHALL BE STAGGERED.
5. UNLESS OTHERWISE DETAILED ON THE DRAWINGS, SPLICES IN TWO CURTAINS SHALL NOT OCCUR IN THE SAME LOCATION.

LAP SPlice LENGTH

DETAIL 03026
NTS VAR

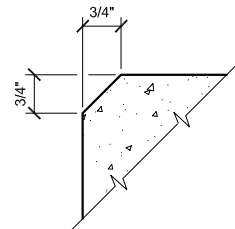


NOTE:

DO NOT COAT SEALANT GROOVE WITH BOND BREAKER.

SEALANT GROOVE

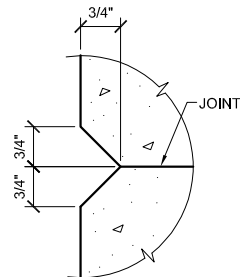
DETAIL 03027
NTS VAR



UON ON DRAWINGS

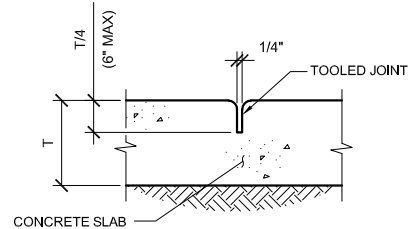
CONCRETE CHAMFER

DETAIL 03028
NTS VAR



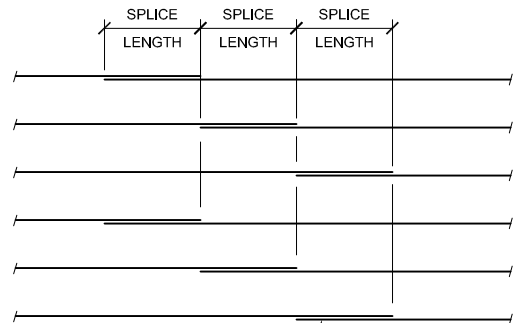
V-GROOVE JOINT

DETAIL 03029
NTS VAR



TOOLED CONTROL JOINT

DETAIL 03030
NTS VAR



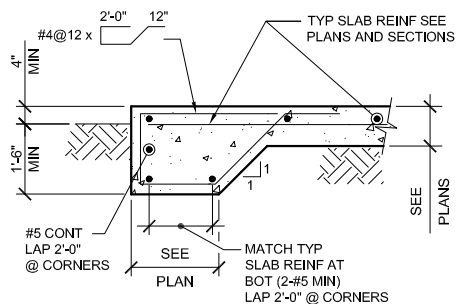
NOTE:

SPLICE LENGTH IS CLASS B TENSION CONTACT LAP SPlice (3'-0" MIN)

PARTIAL WALL ELEVATION

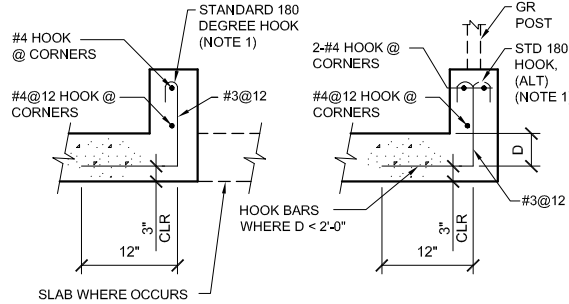
CIRCULAR CONCRETE TANK WALL
STAGGERED SPLICE

DETAIL 03031
NTS VAR



THICKENED SLAB EDGE

DETAIL 03032
NTS VAR



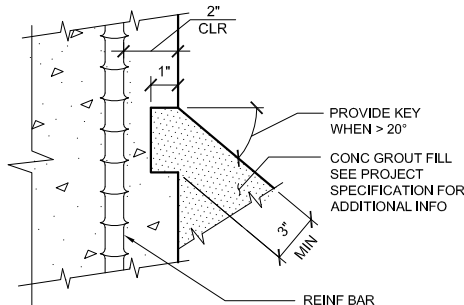
SEE PLANS FOR CURB DIMENSIONS

NOTE:

1. WHERE CURB SECTION DOES NOT ALLOW FOR FULL HOOK EXTENSION, ROTATE HOOK UNTIL IT FITS.

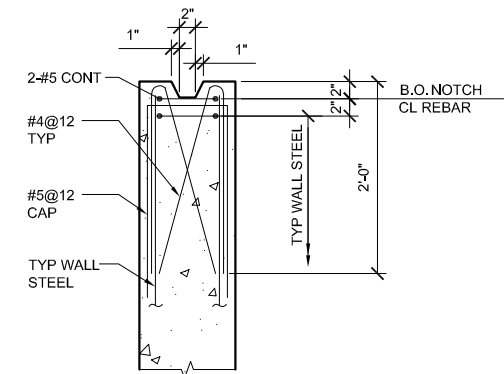
CONCRETE CURB

DETAIL 03033
NTS VAR



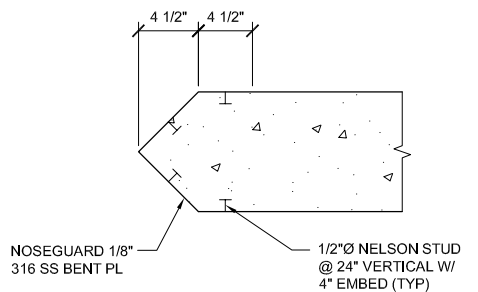
KEY AT CONCRETE FILL

DETAIL 03034
NTS VAR



STOP LOG

DETAIL 03037
NTS VAR



NOTE:

1. EXTEND NOSING UP TO ALLOW GRATING TO BE SUPPORTED UPON IT.

NOSEGUARD

DETAIL 03038
NTS VAR



0" = 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD
1			
2			
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CONFORMED DRAWING

NOTICE:
THIS CONFORMED DRAWING HAS BEEN PREPARED BASED ON ORIGINAL SIGNED DOCUMENTS DATED NOVEMBER 2016 AND SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

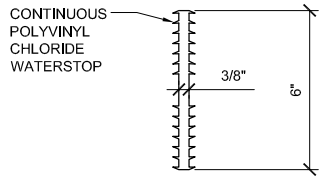


TREATMENT AND WET WEATHER FLOW UPGRADE

STANDARD DETAILS

DWG NO	S-5
SHEET NO	83 OF 226
PROJ NO	055-006
DATE	MARCH 2017

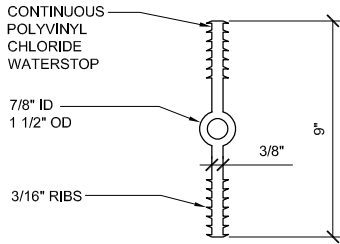
FILENAME: GS Sheets 3-01-17 10:52am andria || XREFS: X-SMCD-TBLK | X-Site | X-Topo Survey | RKT California | RKT_SIG |<<--



SEE JT NOTES & DWGS FOR REQD LOCATIONS

6" PVC JOINT WATERSTOP

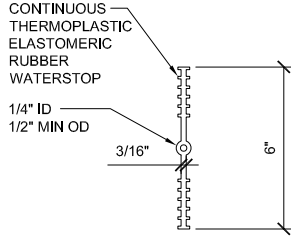
DETAIL 03102
NTS VAR



SEE JT NOTES & DWGS FOR REQD LOCATIONS

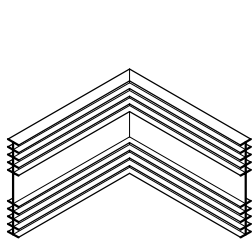
9" PVC EXPANSION JOINT WATERSTOP

DETAIL 03103
NTS VAR

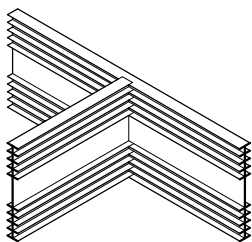


6" TPER JOINT WATERSTOP

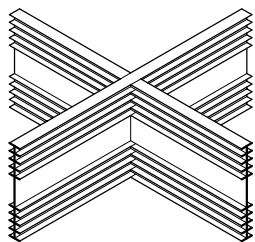
DETAIL 03104
NTS VAR



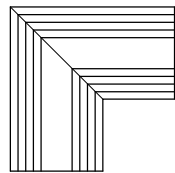
VERTICAL ELL



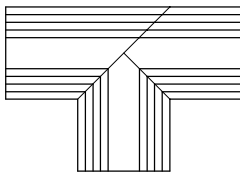
VERTICAL TEE



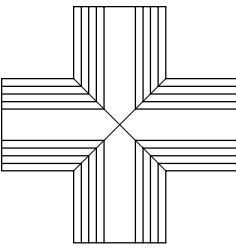
VERTICAL CROSS



FLAT ELL



FLAT TEE



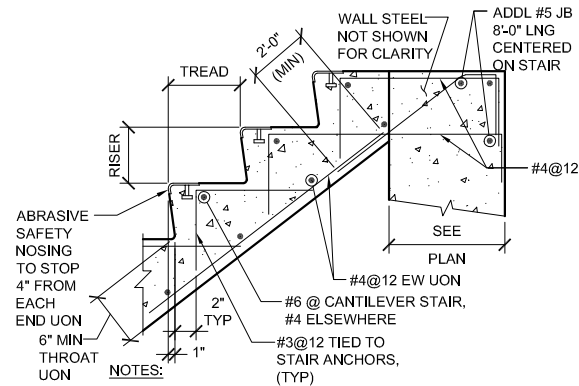
FLAT CROSS

NOTES:

- PVC WATERSTOPS SHOWN, SIMILAR FOR THERMOPLASTIC ELASTOMERIC RUBBER WATERSTOPS.
- ALL FITTINGS SHALL BE FACTORY MADE OR SHOP WELDED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- ONLY STRAIGHT BUTT SPLICES MAY BE MADE IN FIELD.

WATERSTOP FITTINGS

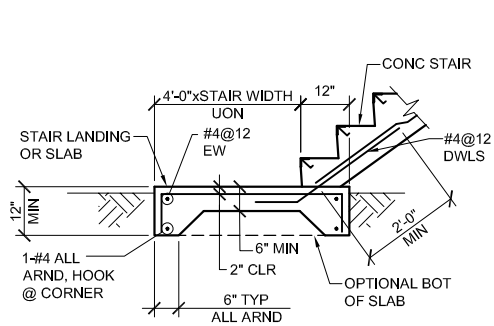
DETAIL 03106
NTS VAR



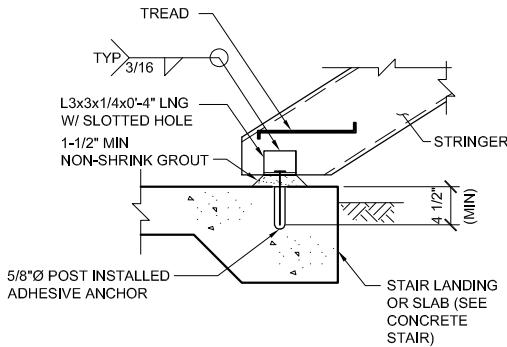
- NOSING SHALL NOT BE USED WHERE CONTAINMENT COATING IS APPLIED.
- RAILING NOT SHOWN, SEE DRAWINGS.

CONCRETE STAIR

DETAIL 03125
NTS VAR



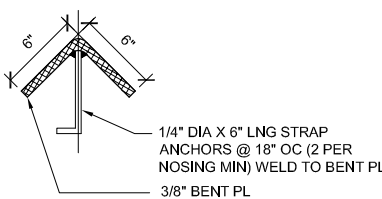
CONCRETE STAIR



METAL STAIR

STAIR TO CONCRETE SLAB CONNECTION

DETAIL 03127
NTS VAR

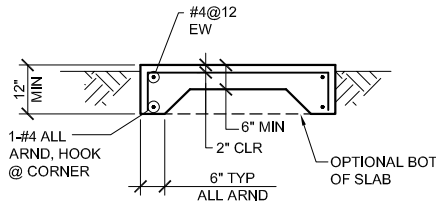


NOTES:

- ALL ALUMINUM CONSTRUCTION (UON)
- ALUMINUM IN CONTACT WITH OR EMBEDDED IN CONCRETE SHALL RECEIVE A BITUMINOUS OR SIMILAR COATING.

STAIR NOSING

DETAIL 03129
NTS VAR



CONCRETE LANDING

DETAIL 03131
NTS VAR



0" 1" VERIFY SCALES BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING

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SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

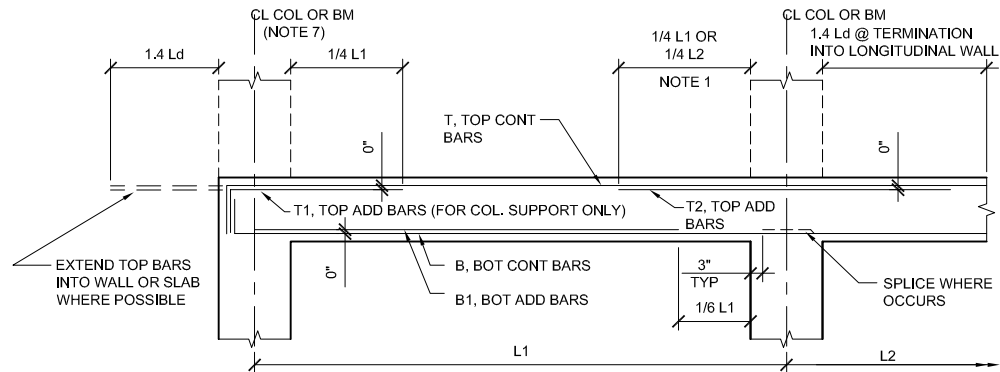


TREATMENT AND WET WEATHER FLOW UPGRADE

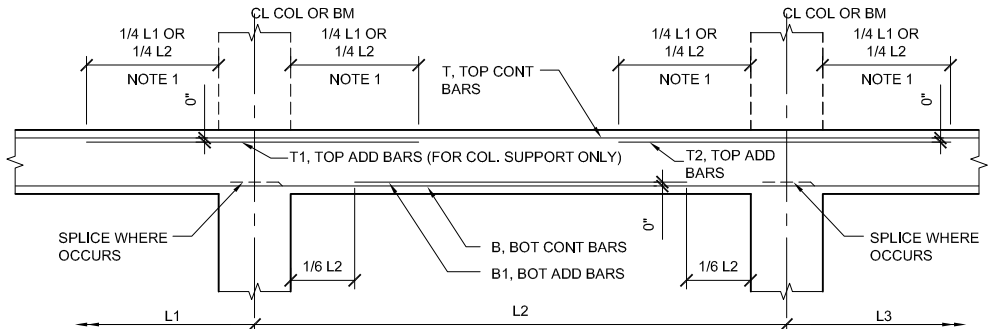
STANDARD DETAILS

DWG NO	S-7
SHEET NO	85 OF 226
PROJ NO	055-006
DATE	MARCH 2017

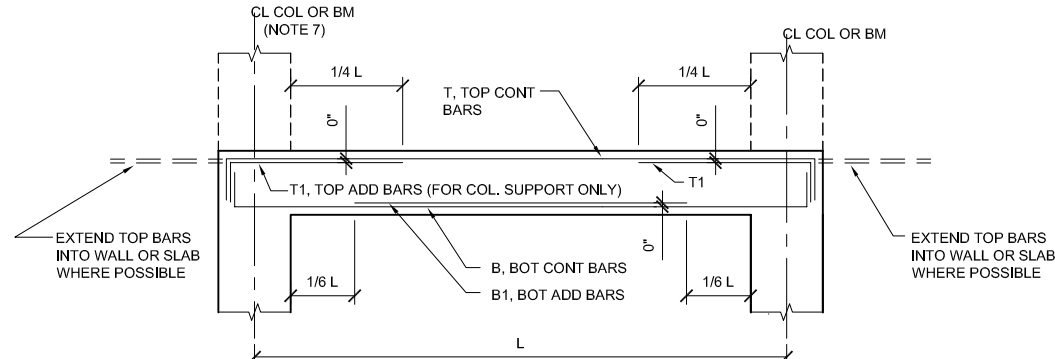
FILENAME: GS Sheets 3-01-17 10:52am andria XREFS: X-SMCSO-TBLK X-Site X-Topo Survey RKT California RKT_SIC KCC--



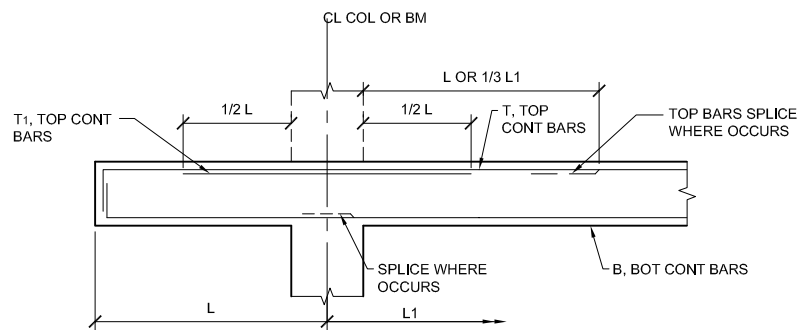
TYPE E-END SPAN



TYPE I-INTERIOR SPAN



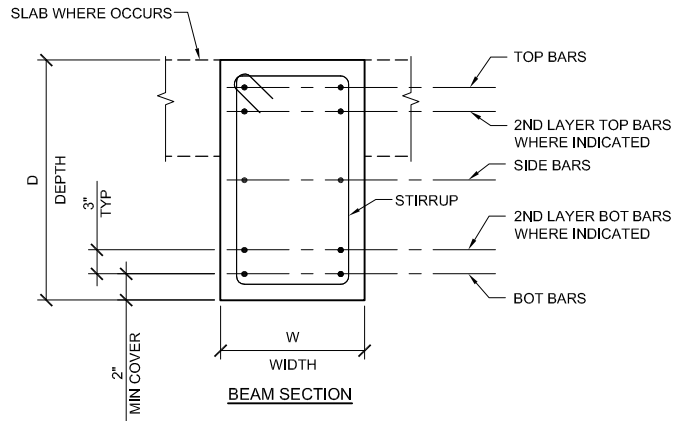
TYPE S-SINGLE SPAN



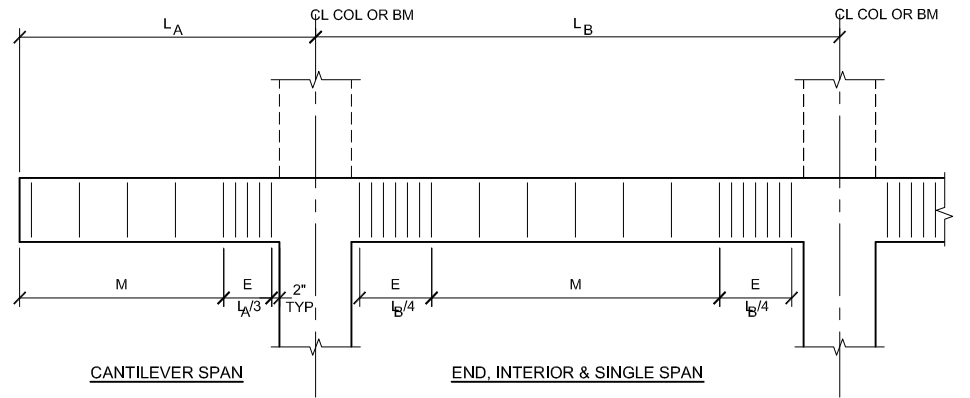
TYPE C - CANTILEVER SPAN
NON-DUCTILE BEAM LONGITUDINAL
REINFORCEMENT DETAIL

NOTES:

- WHICHEVER IS GREATER, BUT NOT LESS THAN DEVELOPMENT LENGTH.
- TOP CONTINUOUS BARS SPLICE AT MIDSPAN.
- BOTTOM CONTINUOUS BARS SPLICE AT SUPPORT.
- SIDE BARS TO BE CONTINUOUS, STAGGER SPLICE AT MIDSPAN.
- END SPAN AND CANTILEVER SPAN MAY BE OPPOSITE HAND.
- SEE TYPICAL DETAIL SHEET FOR REQUIRED LAP SPLICES.
- AT CONTRACTOR'S OPTION MAY SUBSTITUTE REBAR TERMINATORS IN-LIEU OF STANDARD HOOKS.
- BEAM DEPTHS SHOWN ARE MINIMUMS.



BEAM SECTION

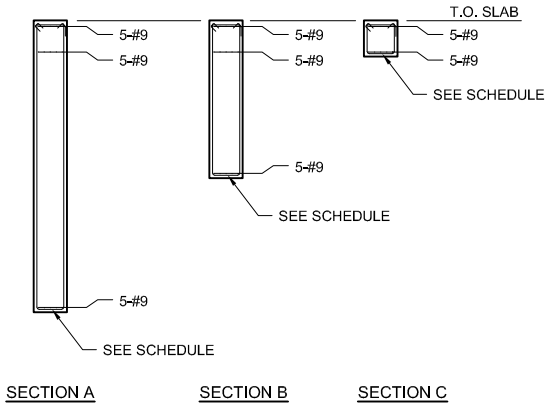
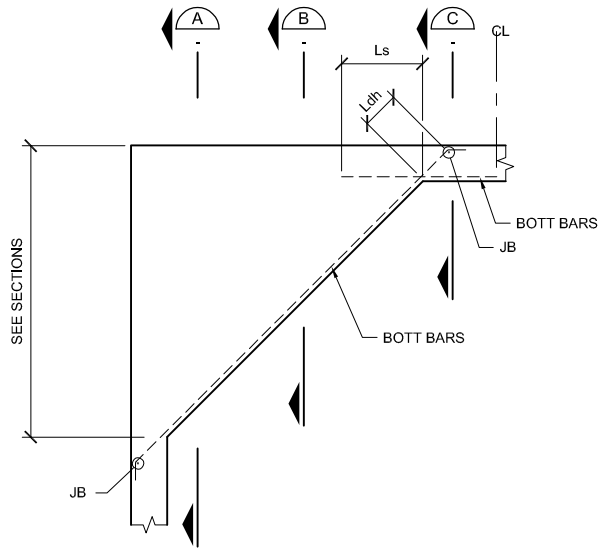


STIRRUP SPACING LAYOUT

Beam Schedule													
Mark	Size WxD (NOTE 8)	Type	Longitudinal Reinforcement						Side Bars EF	Stirrups			Remarks
			Bottom			Top				Size & Type	Spacing		
			B	B1	T	T1	T2				E	M	
30-1	18x18	VARIES	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	FOOTNOTE 1
100-1	18xVARIES	S	-	-	-	-	-	-	#5@12	#3-B2	12	8	
100-2	18x36	S	4-#10	-	4-#10	-	-	-	4-#9	#4-A4	4	8	
100-3	12x18	S	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	
100-4	12x18	S	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	
100-5	12x18	S	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	
100-6	12x18	S	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	
100-7	12x18	I	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	
100-8	12x18	I	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	
100-9	18x36	S	4-#7	-	4-#7	-	-	-	#5@12	#4-A2	4	8	
100-10	18xVARIES	S	4-#7	-	4-#7	-	-	-	#5@12	#4-B2	8	12	
100-11	12x18	C	2-#6	-	2-#6	-	-	-	-	#4-A2	6	6	
100-12	18x36	C	3-#6	-	3-#6	-	-	-	6-#7	#4-A2	4	4	
100-13	18x78	S	3-#6	-	3-#6	-	-	-	#5@12	#4-A2	4	8	

FOOTNOTE:

- 4-#9 SIDE BARS AT SOUTHERN END ONLY, EXTEND 1/4(L) INTO BEAM. LAP WITH #5@12 SIDE BARS REMAINDER OF BEAM.



BM 100-1

SCHEDULE AND BEAM DETAILS

DETAIL 03301
NTS VAR



0"=1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

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DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

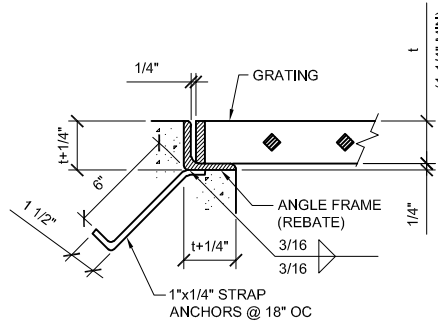


TREATMENT AND WET WEATHER FLOW UPGRADE

STANDARD DETAILS

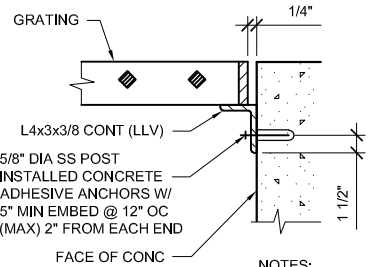
DWG NO	S-8
SHEET NO	86 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: GS Sheets 3-01-17 10:51am andria XREFS: X-SMCD-TBLK X-Site X-Topo Survey RKT California RKT-SG KCC--



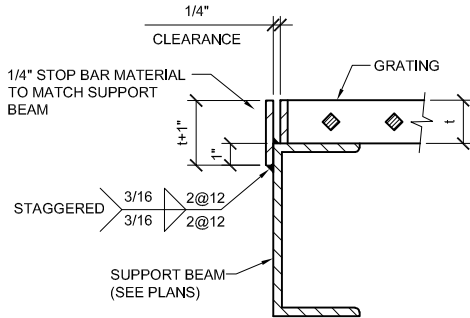
- NOTES:
1. t = GRATING THICKNESS SEE GRATING NOTES
 2. SIMILAR FOR PLANK GRATING

GRATING SEAT
DETAIL 05051
NTS VAR



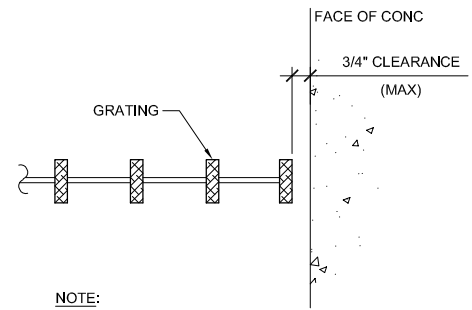
- NOTES:
1. SIMILAR FOR PLANK GRATING

GRATING WALL SUPPORT
DETAIL 05052
NTS VAR



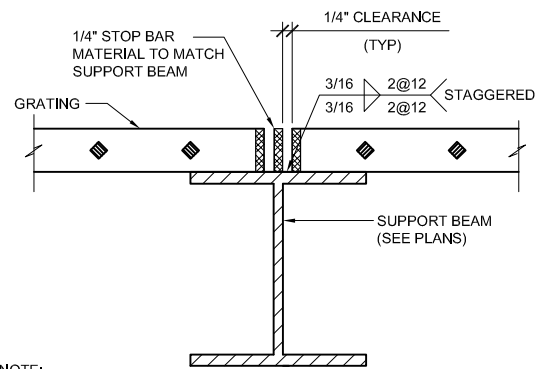
- NOTES:
1. SIMILAR FOR PLANK GRATING

GRATING STOP PLATE
DETAIL 05053
NTS VAR



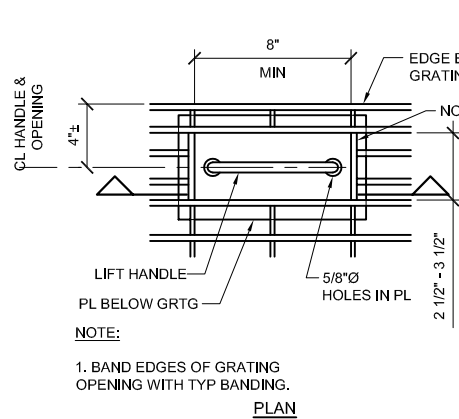
- NOTE:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS FOR GRATING THICKNESS (t) AND MATERIAL.
 2. SIMILAR TO PLANK GRATING (NON-SUPPORT)

GRATING END CONDITION
DETAIL 05054
NTS VAR

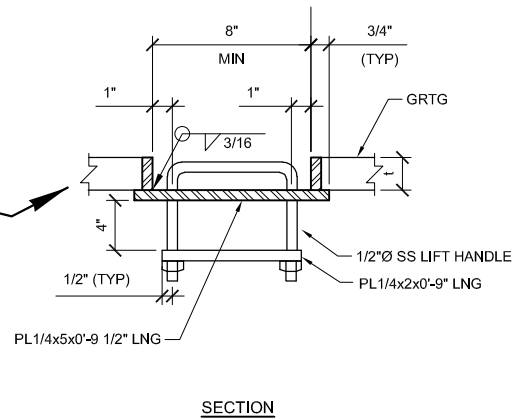


- NOTE:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS FOR GRATING THICKNESS (t) AND MATERIAL.
 2. SIMILAR TO PLANK GRATING

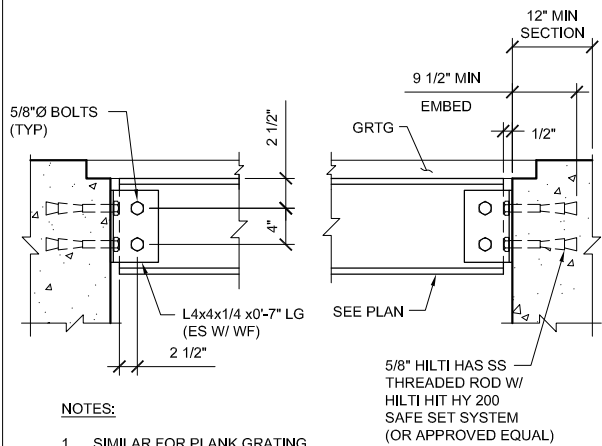
INTERMEDIATE GRATING SUPPORT
DETAIL 05055
NTS VAR



LIFT HANDLE AT GRATING
DETAIL 05056
NTS VAR

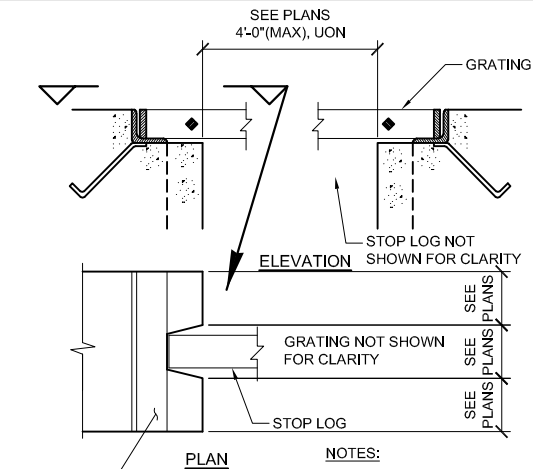


- NOTE:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS FOR GRATING THICKNESS (t) AND MATERIAL.



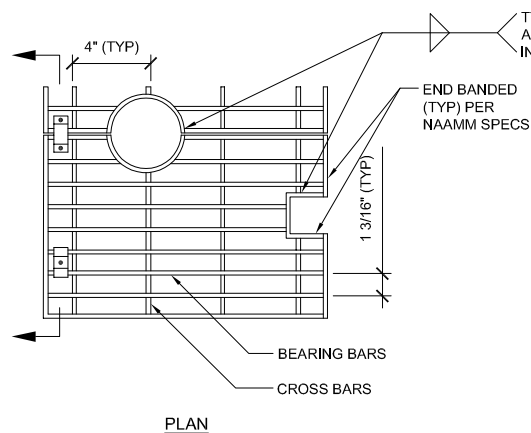
- NOTES:
1. SIMILAR FOR PLANK GRATING

GRATING END SUPPORT
DETAIL 05058
NTS VAR

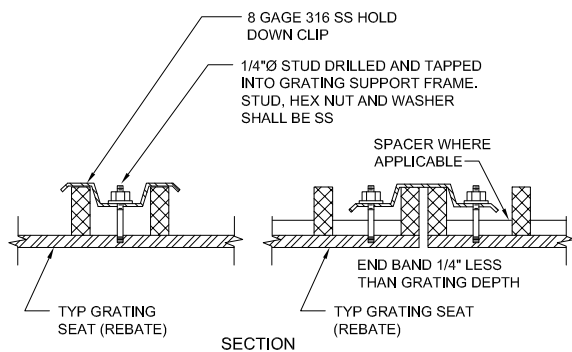


- NOTES:
1. SIMILAR FOR PLANK GRATING

DETAIL 05059
NTS VAR



GRATING
DETAIL 05061
NTS VAR



- NOTES:
1. GRATING SHALL CONFORM TO THE METAL BAR GRATING MANUAL OF NAAMM. UNLESS OTHERWISE SPECIFIED, GRATING SHALL BE OF ALUMINUM.
 2. GRATING SHALL BE SWAGED AND FORGED.
 3. GRATING SHALL BE REMOVABLE.
 4. PROVIDE 4 GRATING CLIPS APPROXIMATE 4" FROM THE CORNERS OF EACH PIECE. ADJACENT PIECES MAY BE ANCHORED WITH ONE CLIP AND TWO STUDS.
 5. CLEAR SPAN SHALL BE PLAN DIMENSION, FACE TO FACE OF OPENING.
 6. PROVIDE 1/8" THICK NEOPRENE ISOLATION BETWEEN ALUM GRATING AND GALVANIZED STEEL SUPPORTS.
 7. END BAND TO BE A 1/4" LESS THAN GRATING DEPTH.
 8. GRATING SHALL BE DESIGNED AS SPECIFIED IN SPECIFICATIONS UNLESS OTHERWISE SHOWN.



0" = 1" VERIFY SCALES BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



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DRAWN	ADM
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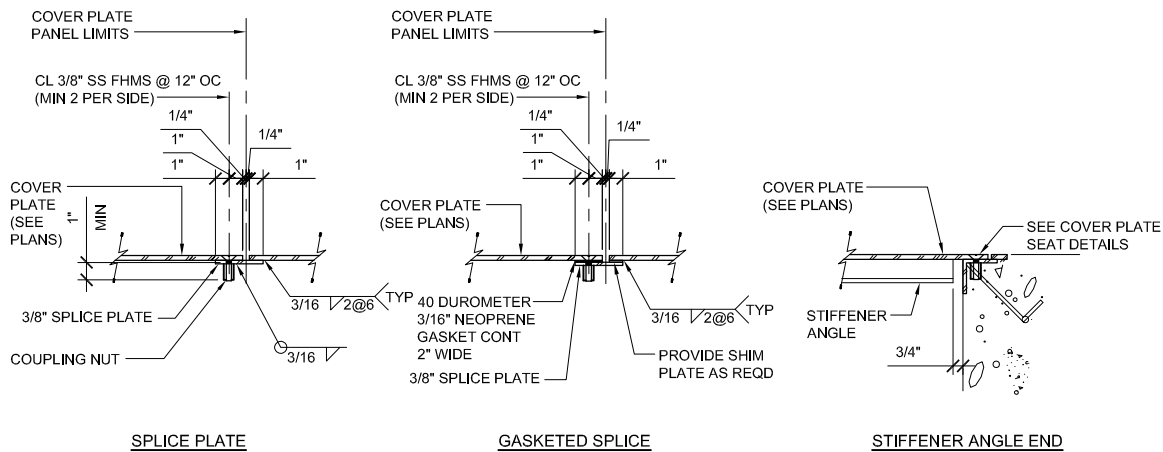
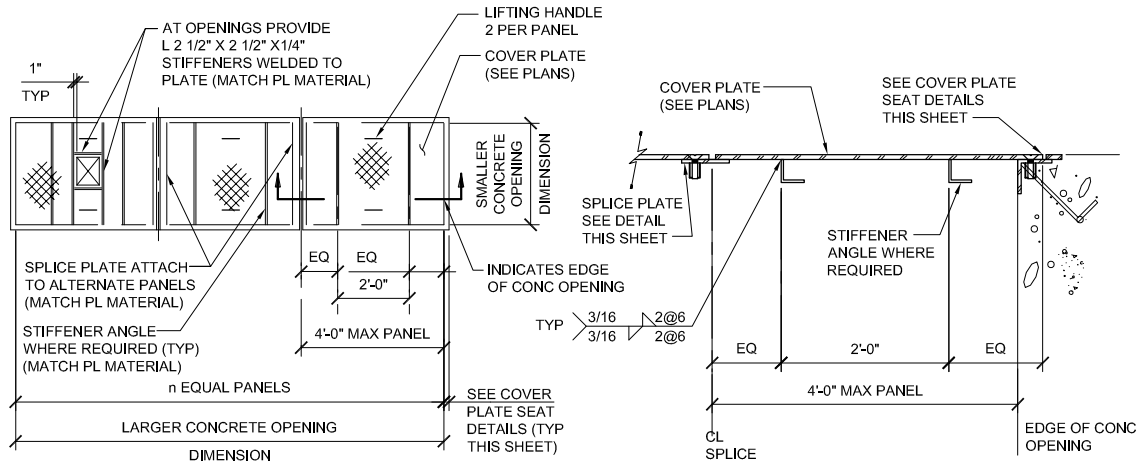
SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
STANDARD DETAILS

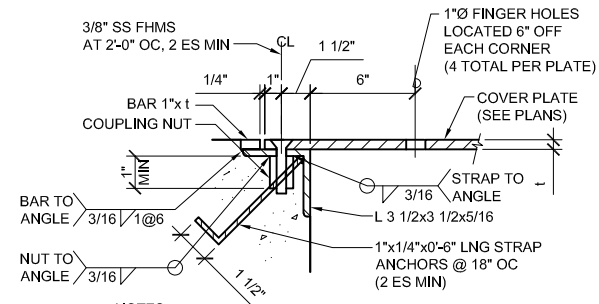
DWG NO	S-9
SHEET NO	87 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: GS Sheets 3-01-17 10:50am andria X-REFS: X-SMCSO-TBLK | X-Site | X-Topo Survey | RKT California | RKT_SIG | CC--



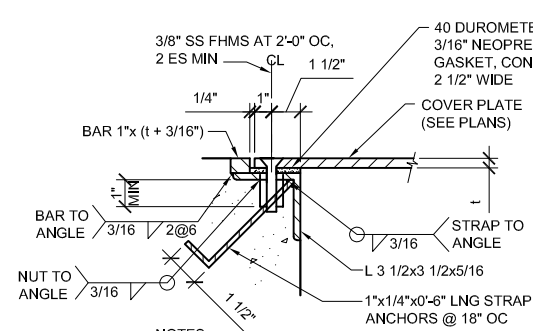
MULTIPLE COVER PLATE
DETAIL 05075
NTS VAR

- NOTE:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS, FOR PLATE THICKNESS AND MATERIAL.



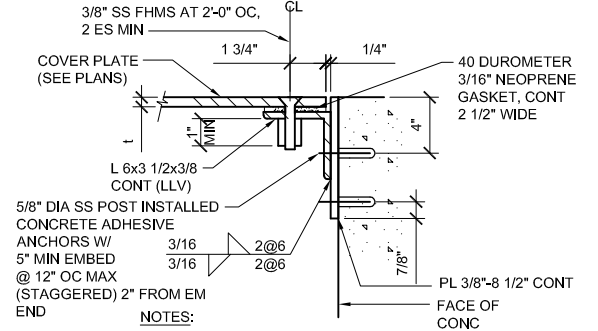
- NOTES:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS, FOR PLATE THICKNESS AND MATERIAL.
 2. PROVIDE FINGER HOLES FOR COVER PLATES < 4 SQ FT IN SIZE UON.
 3. t = 3/8" UON ON DRAWINGS

COVER PLATE SEAT
DETAIL 05076
NTS VAR



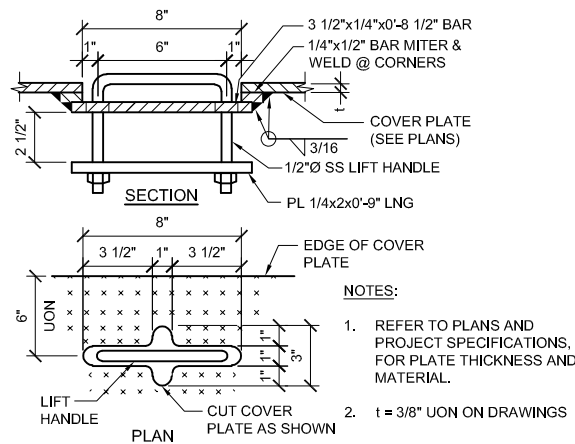
- NOTES:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS, FOR PLATE THICKNESS AND MATERIAL.
 2. t = 3/8" UON ON DRAWINGS

GASKETED COVER PLATE SEAT
DETAIL 05077
NTS VAR

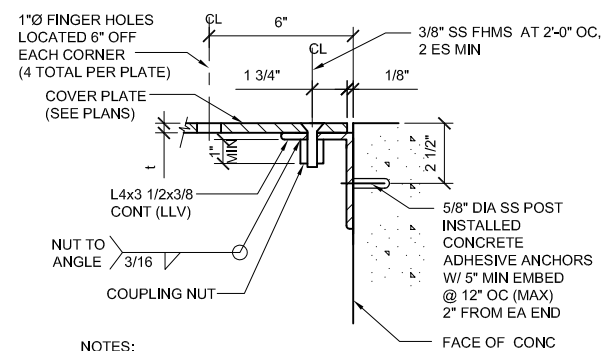


- NOTES:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS, FOR PLATE THICKNESS AND MATERIAL.
 2. t = 3/8" UON ON DRAWINGS
 3. SEE DETAIL 5077, FOR BALANCE OF INFORMATION.

GASKETED COVER PLATE WITH BACKUP PLATE
DETAIL 05078
NTS VAR

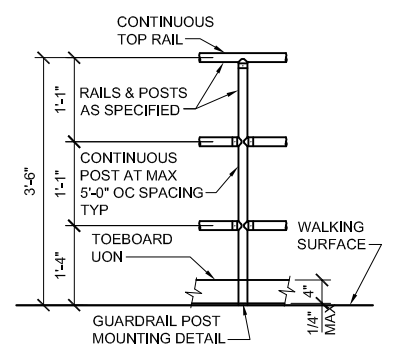


LIFT HANDLE AT COVER PLATE
DETAIL 05079
NTS VAR



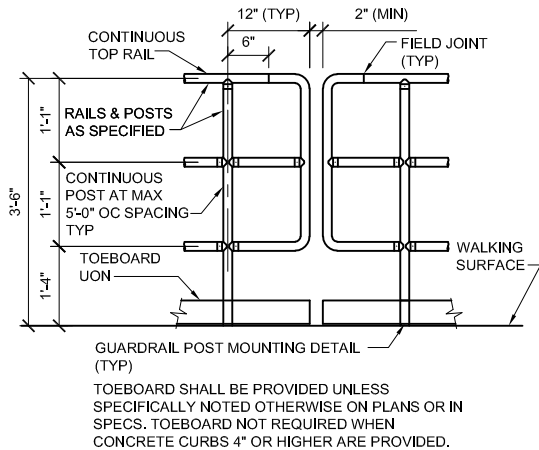
- NOTES:
1. REFER TO PLANS AND PROJECT SPECIFICATIONS, FOR PLATE THICKNESS AND MATERIAL.
 2. t = 3/8" UON ON DRAWINGS
 3. SEE DETAIL 5077, FOR BALANCE OF INFORMATION.

COVER PLATE
DETAIL 05080
NTS VAR

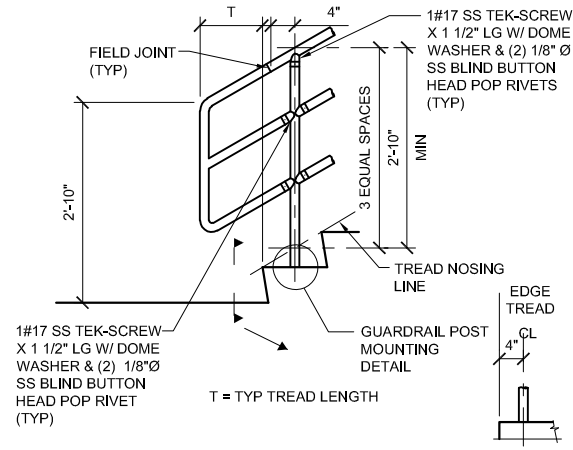


TOEBOARD SHALL BE PROVIDED UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS OR IN SPECS. TOEBOARD NOT REQUIRED WHEN CONCRETE CURBS 4" OR HIGHER ARE PROVIDED.

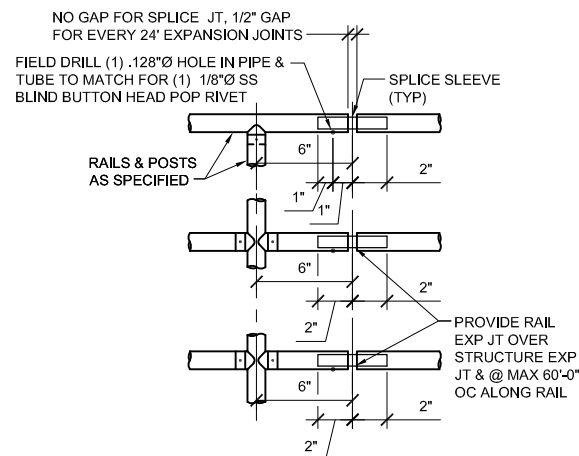
TYPICAL GUARDRAIL
DETAIL 05101
NTS VAR



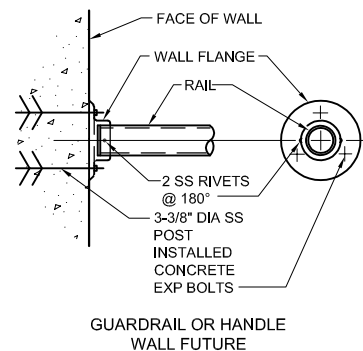
TYPICAL GUARDRAIL END POST
DETAIL 05102
NTS VAR



TYPICAL GUARDRAIL END POST AT STAIR
DETAIL 05103
NTS VAR



TYPICAL GUARDRAIL JOINT
DETAIL 05105
NTS VAR



GUARDRAIL OR HANDLE WALL FUTURE
DETAIL 05106
NTS VAR



0" 1"
VERIFY SCALES -
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



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APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
STANDARD DETAILS

DWG NO	S-10
SHEET NO	88 OF 226
PROJ NO	055-006
DATE	MARCH 2017

DETAIL 05108
NTS VAR

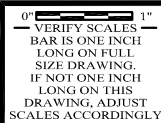
DETAIL 05110
NTS VAR

DETAIL 05111
NTS VAR

DETAIL 05112
NTS VAR

DETAIL 05113
NTS VAR

DETAIL 05129
NTS VAR



△			
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REV	DATE	BY	APVD

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APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

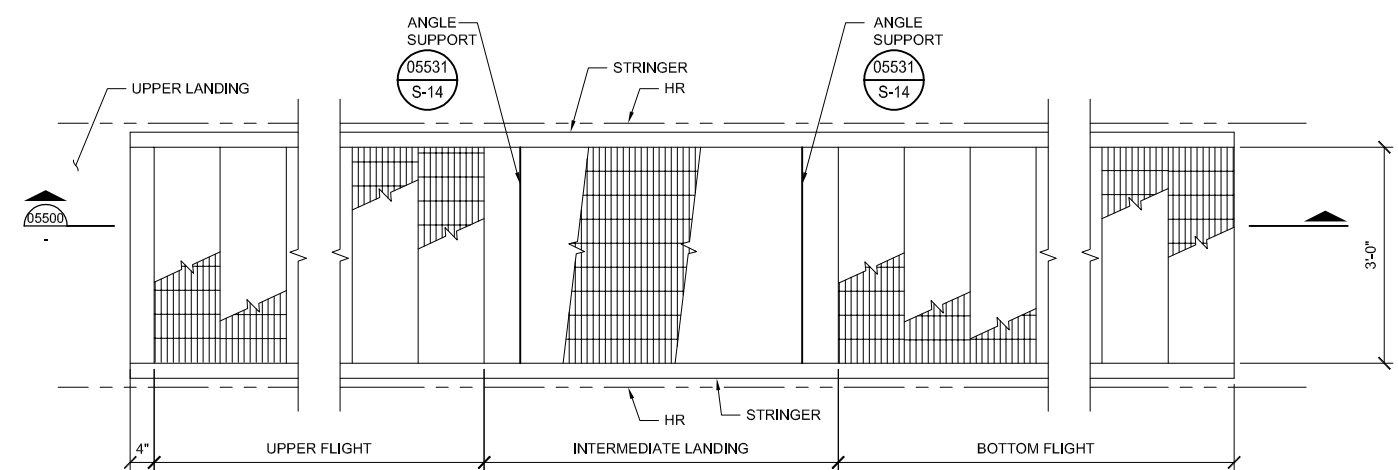


TREATMENT AND WET WEATHER FLOW UPGRADE

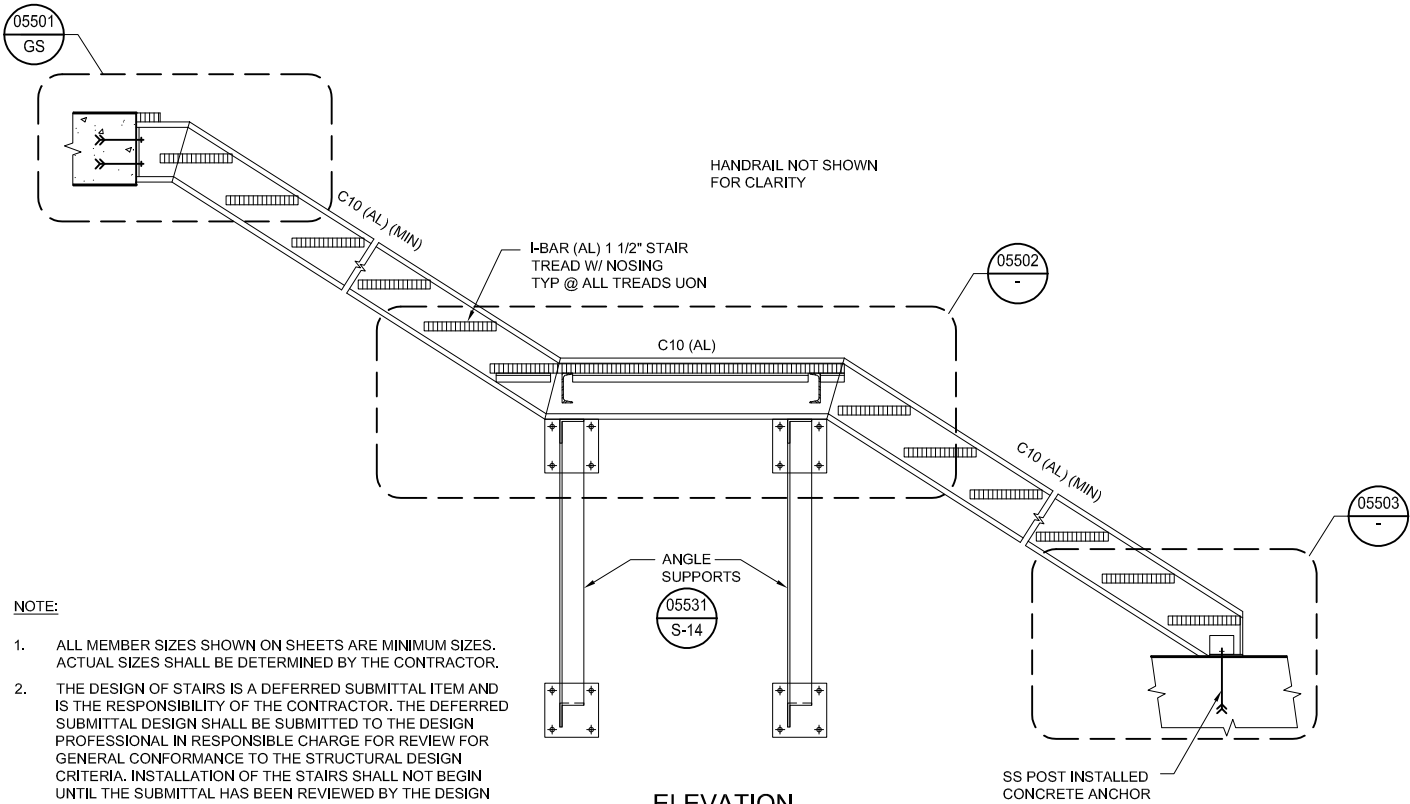
STANDARD DETAILS

DWG NO	S-11
SHEET NO	89 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: GS Sheets 3-01-17 10:40am andria XREFS: X-SMCSO-TBLK X-Site X-Topo Survey RKT California RKT-SIG KCC--



PLAN



ELEVATION

- NOTE:
- ALL MEMBER SIZES SHOWN ON SHEETS ARE MINIMUM SIZES. ACTUAL SIZES SHALL BE DETERMINED BY THE CONTRACTOR.
 - THE DESIGN OF STAIRS IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DEFERRED SUBMITTAL DESIGN SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW FOR GENERAL CONFORMANCE TO THE STRUCTURAL DESIGN CRITERIA. INSTALLATION OF THE STAIRS SHALL NOT BEGIN UNTIL THE SUBMITTAL HAS BEEN REVIEWED BY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE PROJECT AND THE SUBMITTAL HAS BEEN DEEMED ACCEPTABLE BY THE OWNER.
 - ALL MATERIALS FOR STAIRS SHALL BE ALUMINUM UON.
 - WIDTH OF STAIR SHOWN ON DRAWINGS IS THE DISTANCE BETWEEN STRINGERS.

TYPICAL STAIR
DETAIL 05500
NTS VAR



0" 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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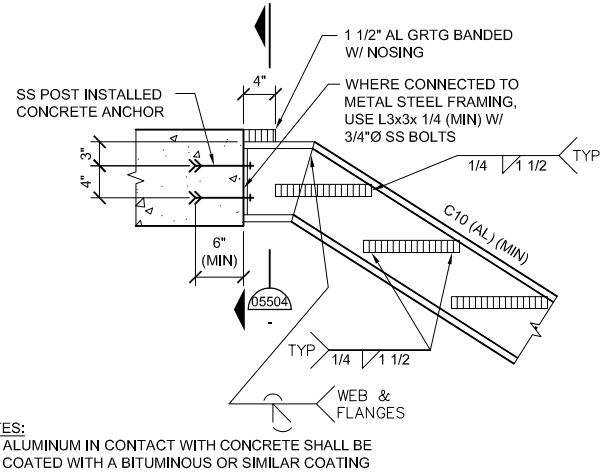
DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

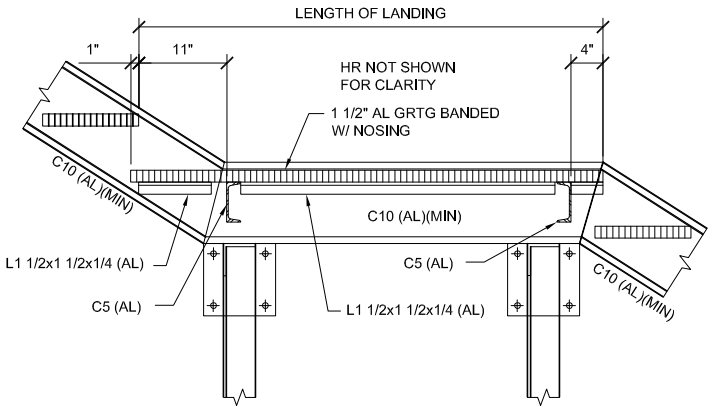


TREATMENT AND WET WEATHER FLOW UPGRADE
STANDARD DETAILS

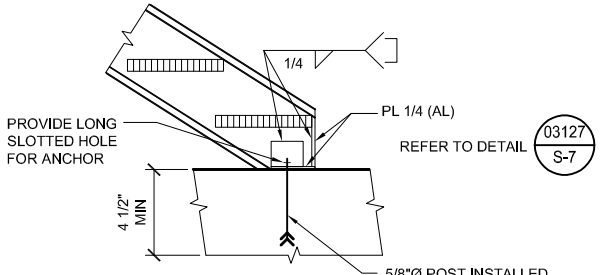
DWG NO S-12
SHEET NO 90 OF 226
PROJ NO 055-006
DATE MARCH 2017



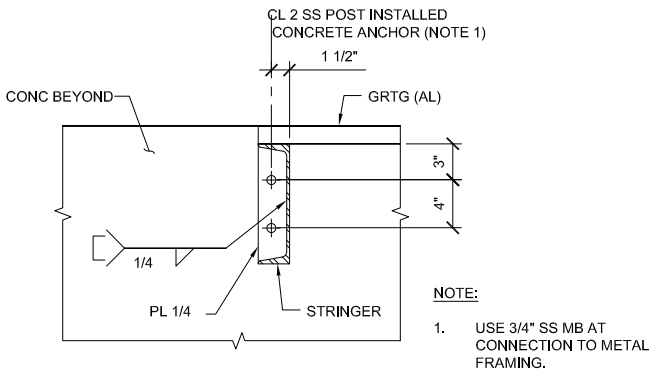
UPPER CONNECTION AT CONCRETE
DETAIL 05501
NTS VAR



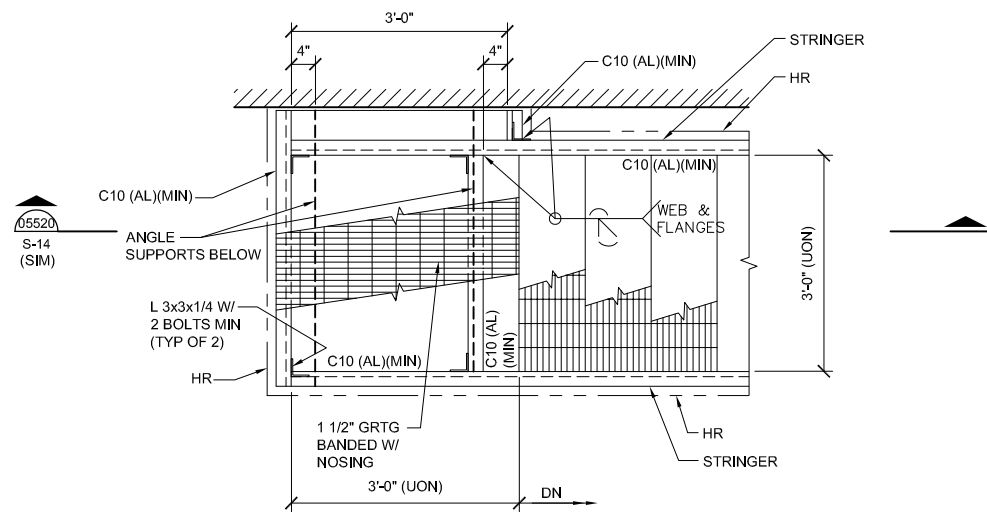
INTERMEDIATE LANDING
DETAIL 05502
NTS VAR



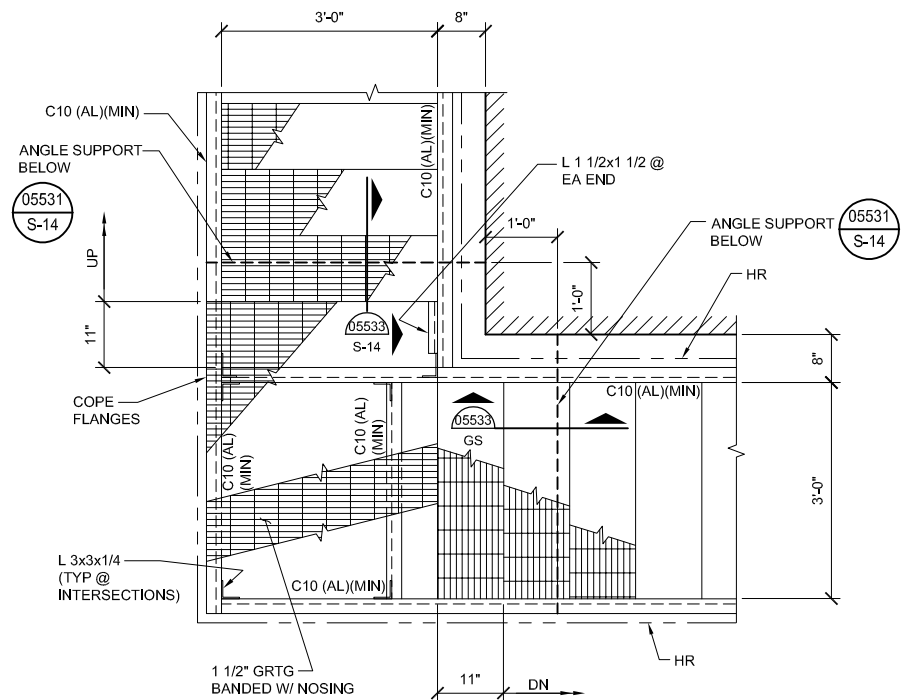
BOTTOM ANCHOR AT CONCRETE
DETAIL 05503
NTS VAR



DETAIL 05504
NTS VAR



TOP LANDING AT STAIRS
DETAIL 05510
NTS VAR



NOTE:
1. EXTERIOR CORNER SHOWN. INTERIOR CORNER SIMILAR.

PLAN AT CORNER
DETAIL 05513
NTS VAR

FILENAME: GS Sheets 3-01-17 10:40am andria || XREFS: X-SMUCSD-TBLK | X-Site | X-Topo Survey | RKT California | RKT_SIG |<<--



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD
△			
△			
△			

CONFORMED DRAWING
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SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

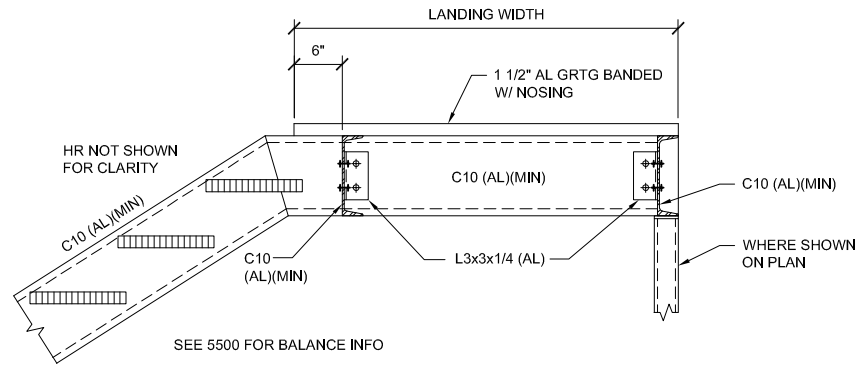
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
STANDARD DETAILS

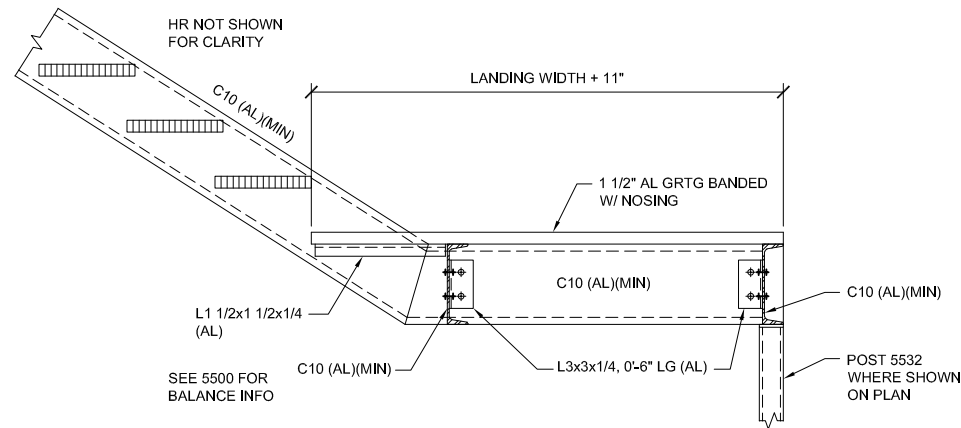
DWG NO	S-13
SHEET NO	91 OF 226
PROJ NO	055-006
DATE	MARCH 2017

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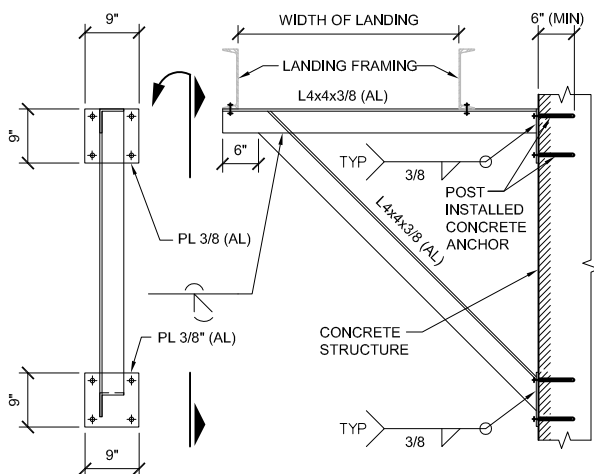
TRANSITION FROM LANDING TO "DOWN" FLIGHT

DETAIL 05520
NTS VAR



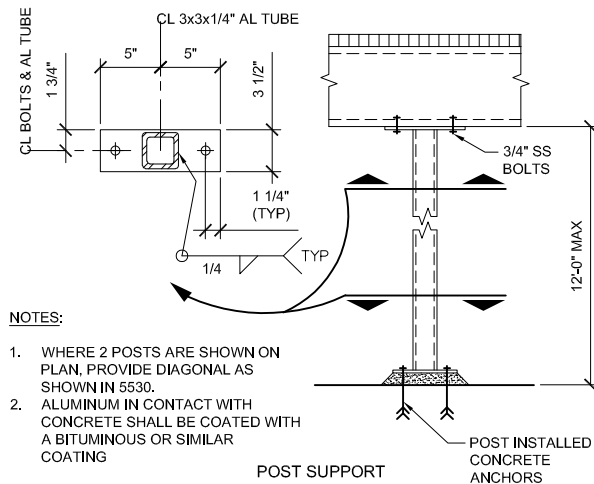
TRANSITION FROM LANDING TO "UP" FLIGHT

DETAIL 05521
NTS VAR



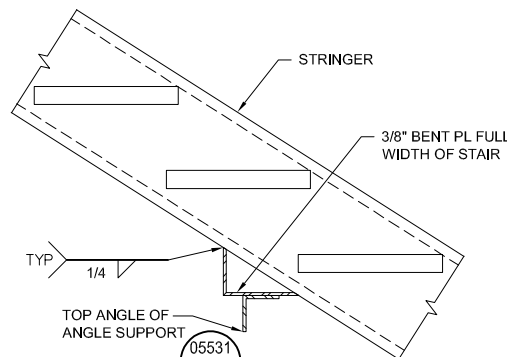
ANGLE SUPPORT

DETAIL 05531
NTS VAR



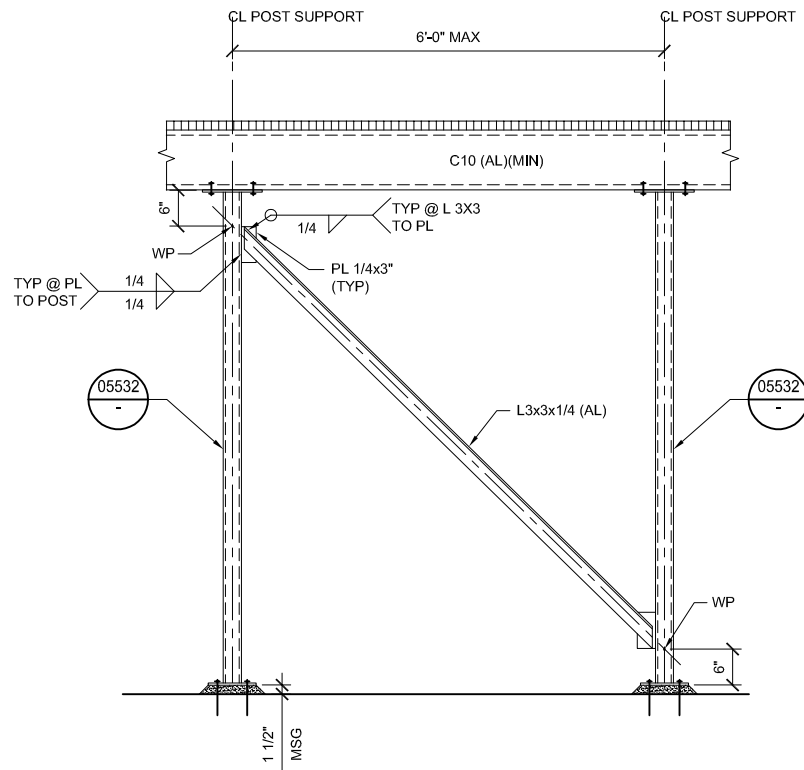
POST SUPPORT

DETAIL 05532
NTS VAR



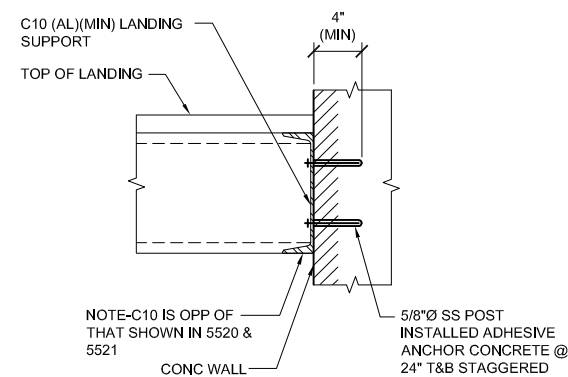
SUPPORT AT SLOPED STRINGER

DETAIL 05533
NTS VAR



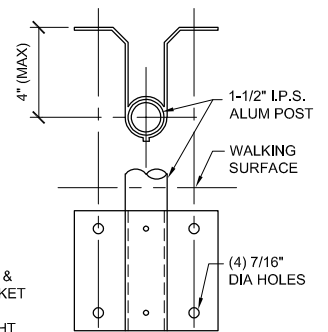
POST SUPPORT AT INTERMEDIATE LANDING

DETAIL 05530
NTS VAR



INTERMEDIATE LANDING SUPPORT AT CONCRETE WALL

DETAIL 05534
NTS VAR



SIDE MOUNT BRACKET

DETAIL 05535
NTS VAR

NOTES:
1. ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMINOUS OR SIMILAR COATING

NOTES:

- WHERE 2 POSTS ARE SHOWN ON PLAN, PROVIDE DIAGONAL AS SHOWN IN 5530.
- ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMINOUS OR SIMILAR COATING

NOTES:

- ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMINOUS OR SIMILAR COATING

NOTES:

- ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMINOUS OR SIMILAR COATING



0"=1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING

NOTICE:
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DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

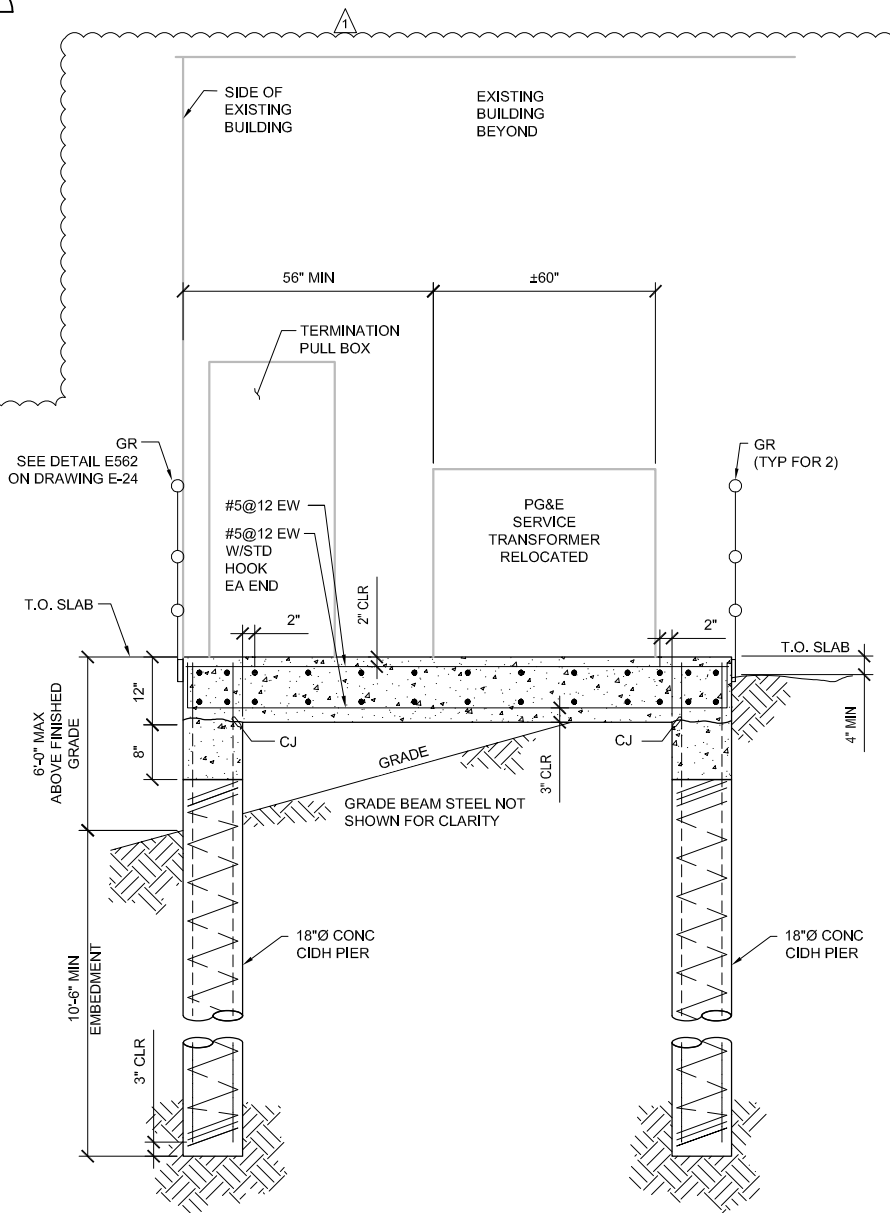
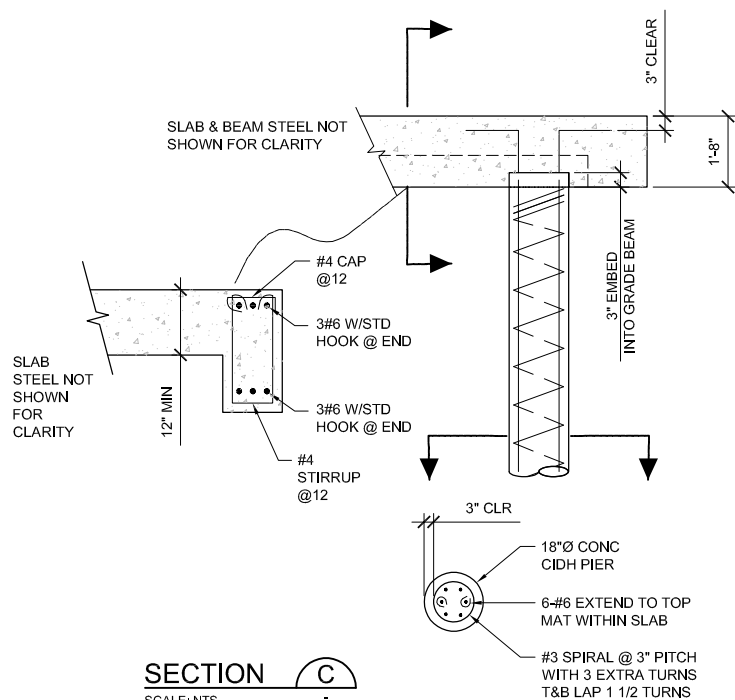
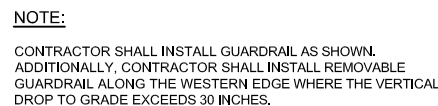
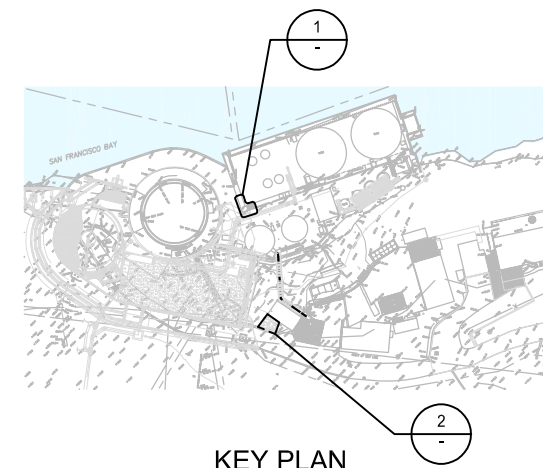
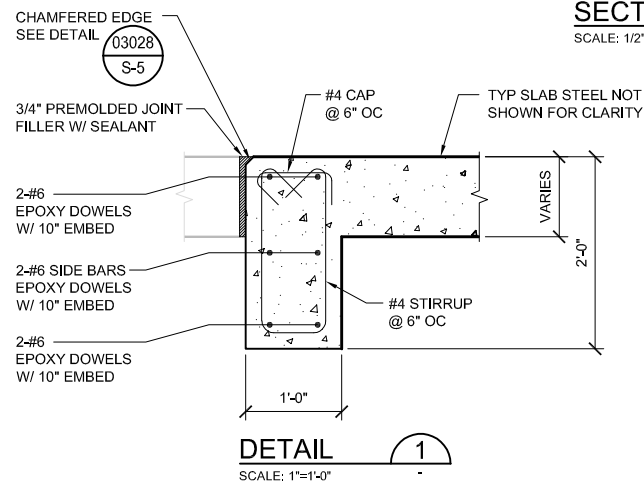
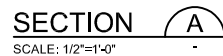
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

STANDARD DETAILS

DWG NO	S-14
SHEET NO	92 OF 226
PROJ NO	055-006
DATE	MARCH 2017



CONCRETE SLAB CROSS SECTION DETAIL

SCALE: NTS



0"  1"
— VERIFY SCALES —
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



△			
△			
△			
△			
①	03/17	RKT	TJC
REV	DATE	BY	APVD

CONFORMED DRAWING

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PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

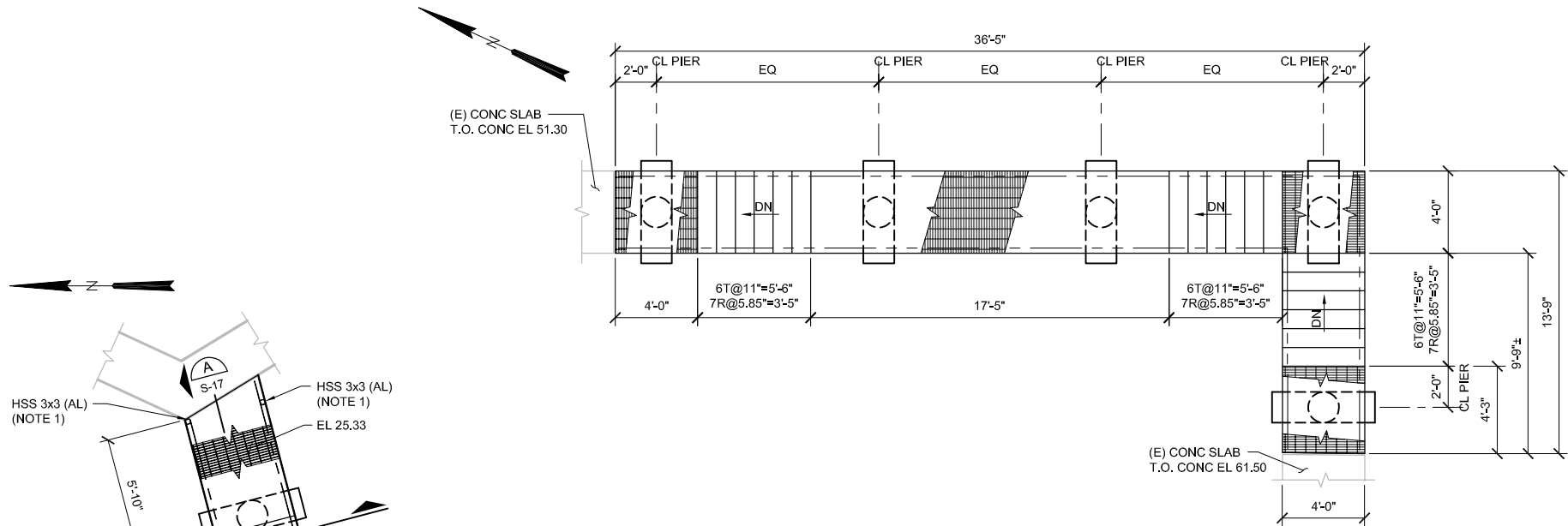


TREATMENT AND WET WEATHER FLOW UPGRADE

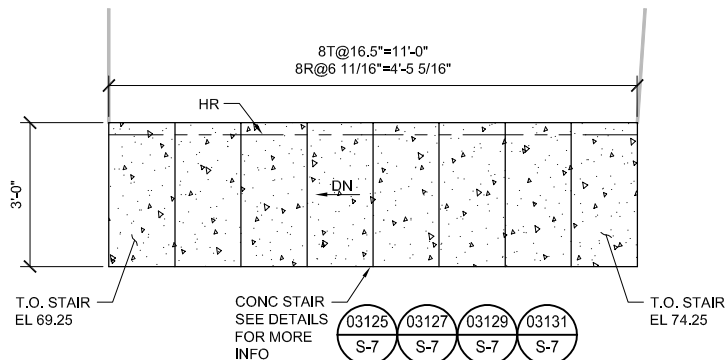
STANDARD DETAILS

DWG NO	S-15
SHEET NO	93 OF 226
PROJ NO	055-006
DATE	MARCH 2017

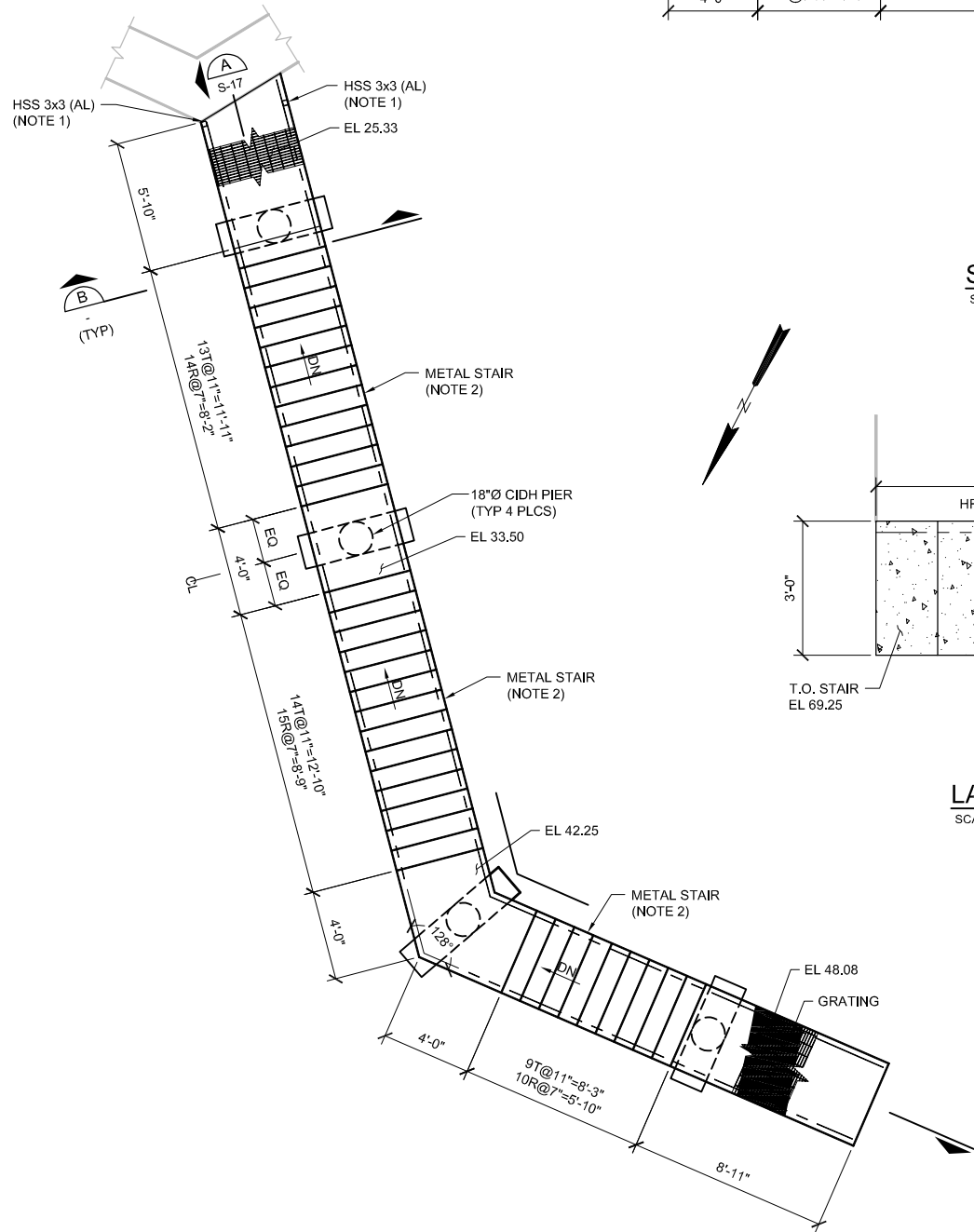
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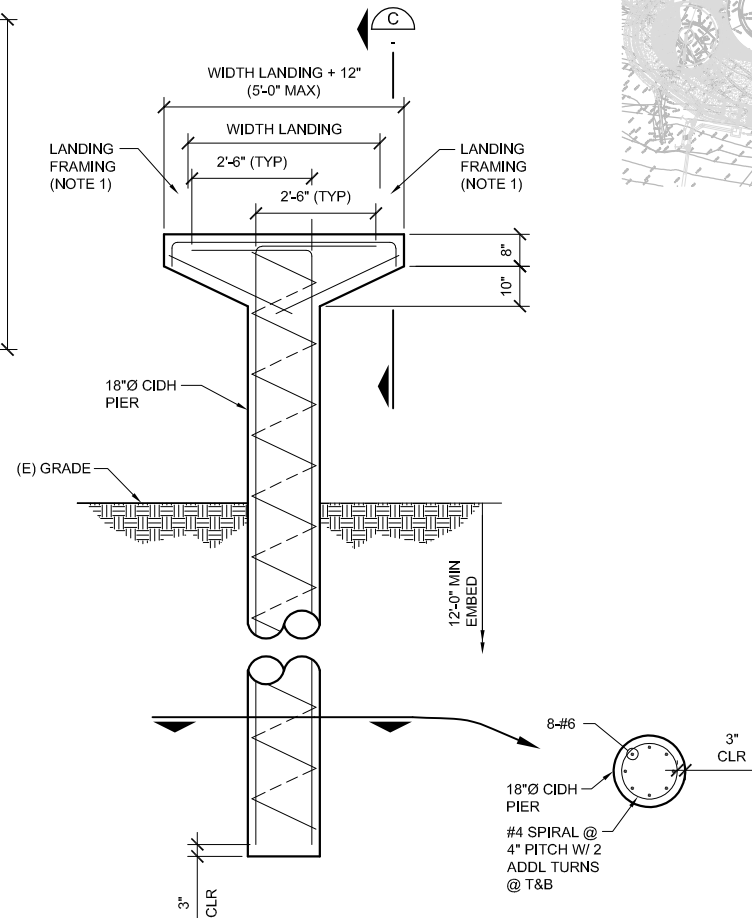
STAIR PLAN
SCALE: 1/4"=1'-0"



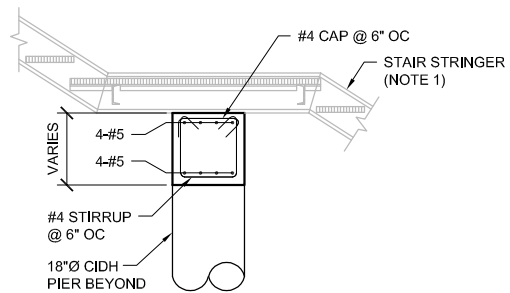
LANDSCAPE STAIR PLAN
SCALE: 3/4"=1'-0"



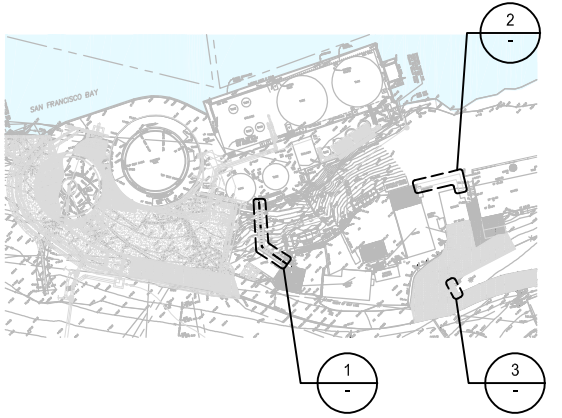
STAIR PLAN
SCALE: 1/4"=1'-0"



SECTION B
SCALE: 1/2"=1'-0"



SECTION C
SCALE: 1/2"=1'-0"



STAIR KEY PLAN

- NOTE:
- MEMBER SIZES SHOWN ON SHEETS ARE MINIMUM SIZES. ACTUAL SIZES SHALL BE DETERMINED BY THE CONTRACTOR.
 - THE DESIGN OF STAIRS IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DEFERRED SUBMITTAL DESIGN SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW FOR GENERAL CONFORMANCE TO THE STRUCTURAL DESIGN CRITERIA. INSTALLATION OF THE STAIRS SHALL NOT BEGIN UNTIL THE SUBMITTAL HAS BEEN REVIEWED BY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE PROJECT AND THE SUBMITTAL HAS BEEN DEEMED ACCEPTABLE BY THE OWNER.
 - ALL MATERIALS FOR STAIRS SHALL BE ALUMINUM UON.
 - WIDTH OF STAIR SHOWN ON DRAWINGS IS THE DISTANCE BETWEEN STRINGERS.



0"=1' 1" VERIFY SCALES BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

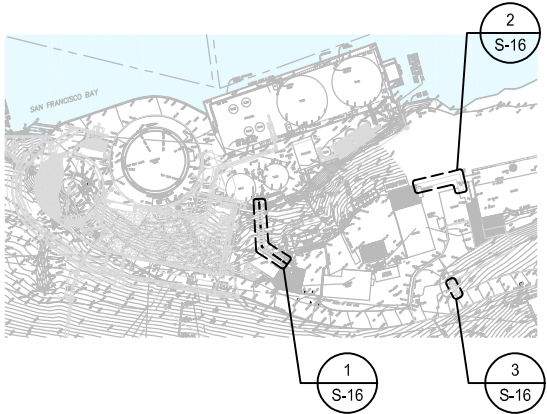
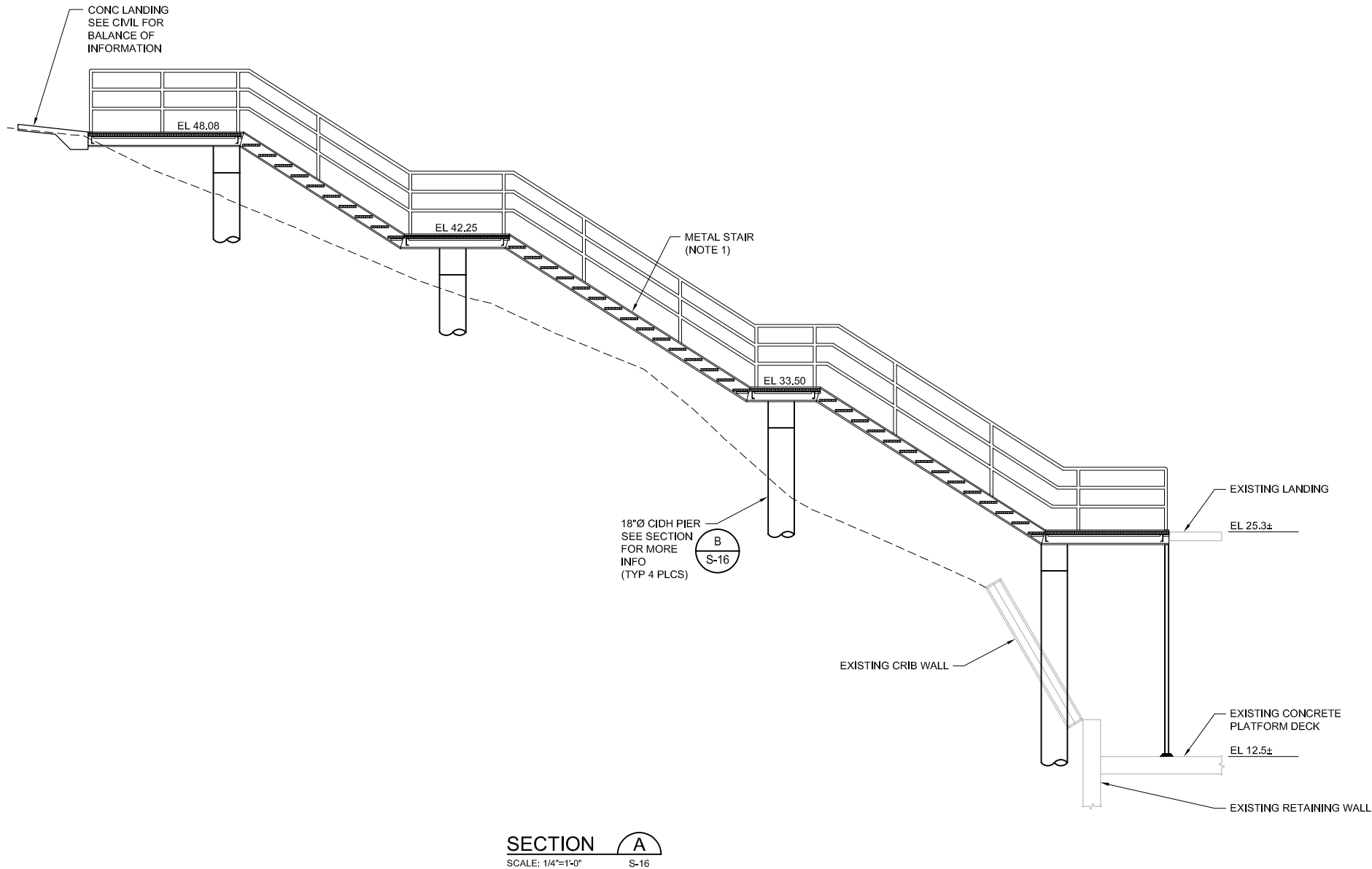
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
MISCELLANEOUS STAIRS

DWG NO S-16
SHEET NO 94 OF 226
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-S17 3-01-17 01:13pm andria || XREFS: X-SMCSO-TBLK | RKT California | S-HEADWORKS-SECT | X-Site | X-Topo Survey | Cc--



STAIR KEY PLAN

- NOTE:
- MEMBER SIZES SHOWN ON SHEETS ARE MINIMUM SIZES. ACTUAL SIZES SHALL BE DETERMINED BY THE CONTRACTOR.
 - THE DESIGN OF STAIRS IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DEFERRED SUBMITTAL DESIGN SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW FOR GENERAL CONFORMANCE TO THE STRUCTURAL DESIGN CRITERIA. INSTALLATION OF THE STAIRS SHALL NOT BEGIN UNTIL THE SUBMITTAL HAS BEEN REVIEWED BY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE PROJECT AND THE SUBMITTAL HAS BEEN DEEMED ACCEPTABLE BY THE OWNER.
 - ALL MATERIALS FOR STAIRS SHALL BE ALUMINUM UON.
 - WIDTH OF STAIR SHOWN ON DRAWINGS IS THE DISTANCE BETWEEN STRINGERS.



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD
▲			
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CONFORMED DRAWING
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DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	TJC

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

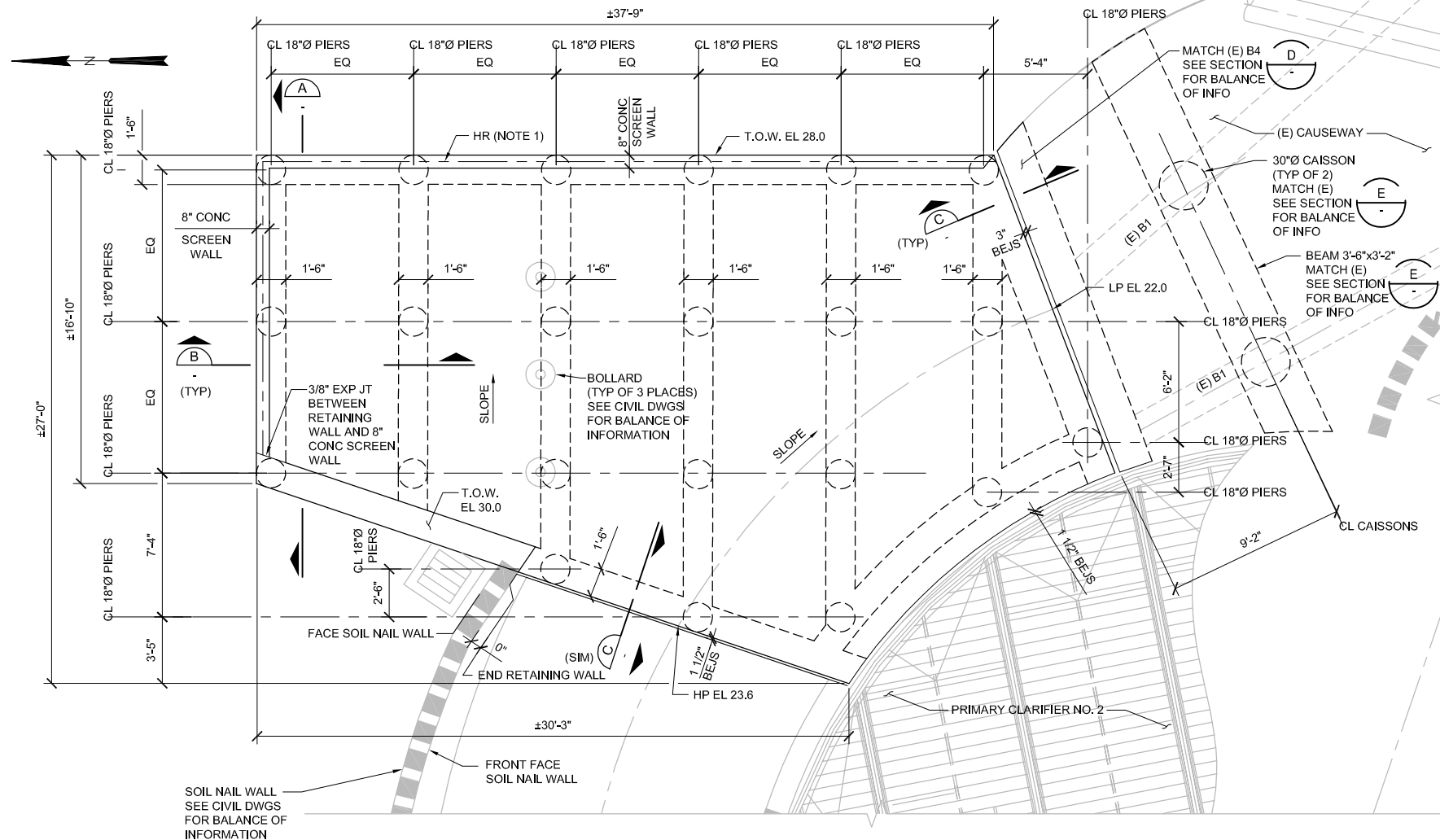


TREATMENT AND WET WEATHER FLOW UPGRADE

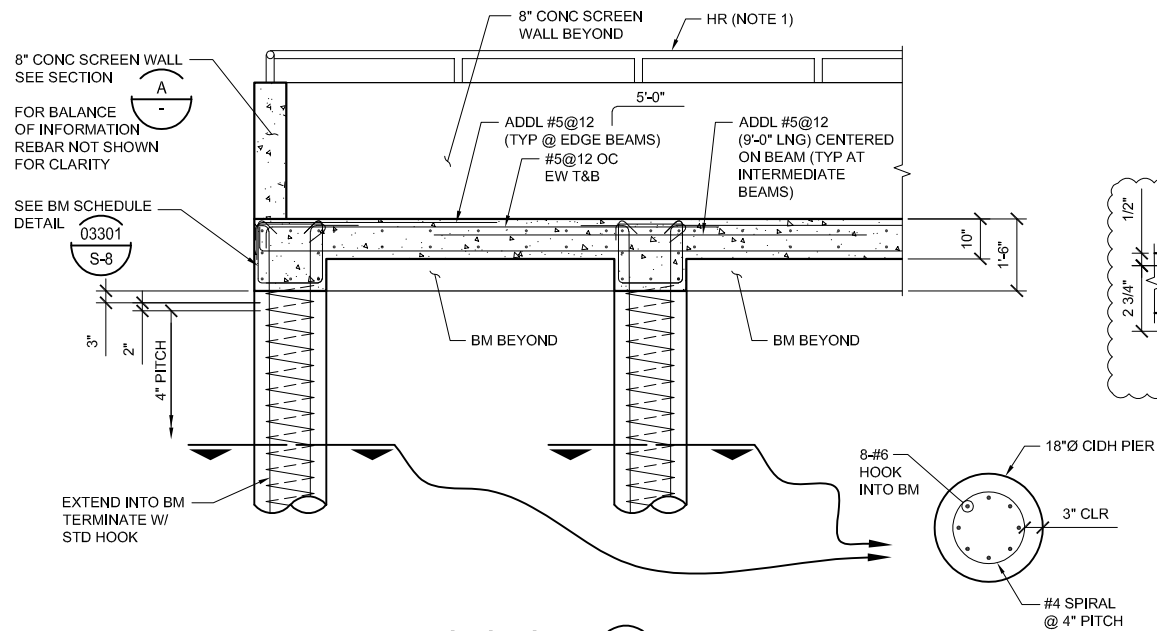
STAIR SECTIONS

DWG NO	S-17
SHEET NO	95 OF 226
PROJ NO	055-006
DATE	MARCH 2017

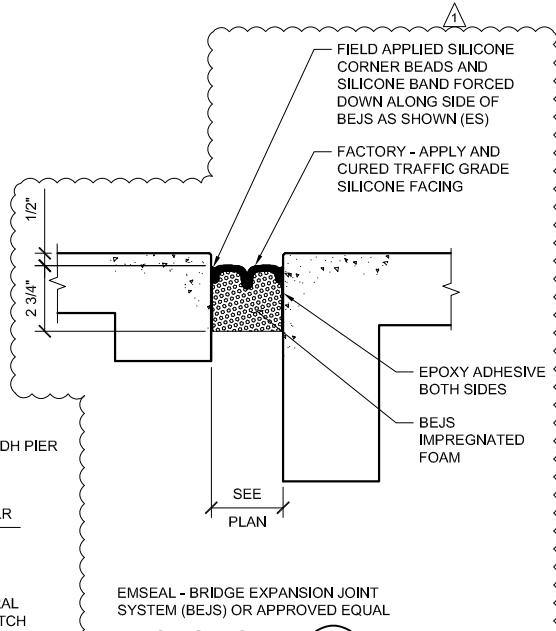
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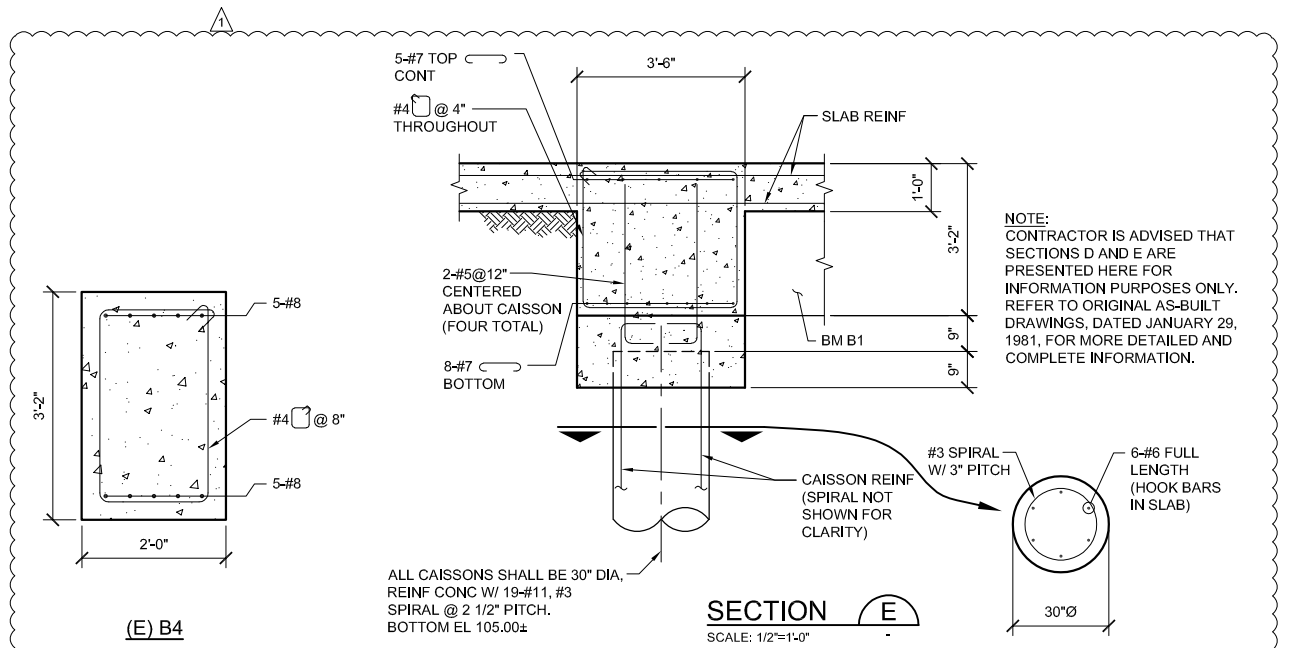
VIEWING AREA PLAN
SCALE: 1/4"=1'-0"



SECTION B
SCALE: 1/2"=1'-0"



SECTION C
SCALE: NTS



SECTION D
SCALE: 3/4"=1'-0"

SECTION E
SCALE: 1/2"=1'-0"

NOTES:

- HANDRAIL IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.



0"=1' SCALE
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	03/17	RKT	TJC
2			
3			

CONFORMED DRAWING
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PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

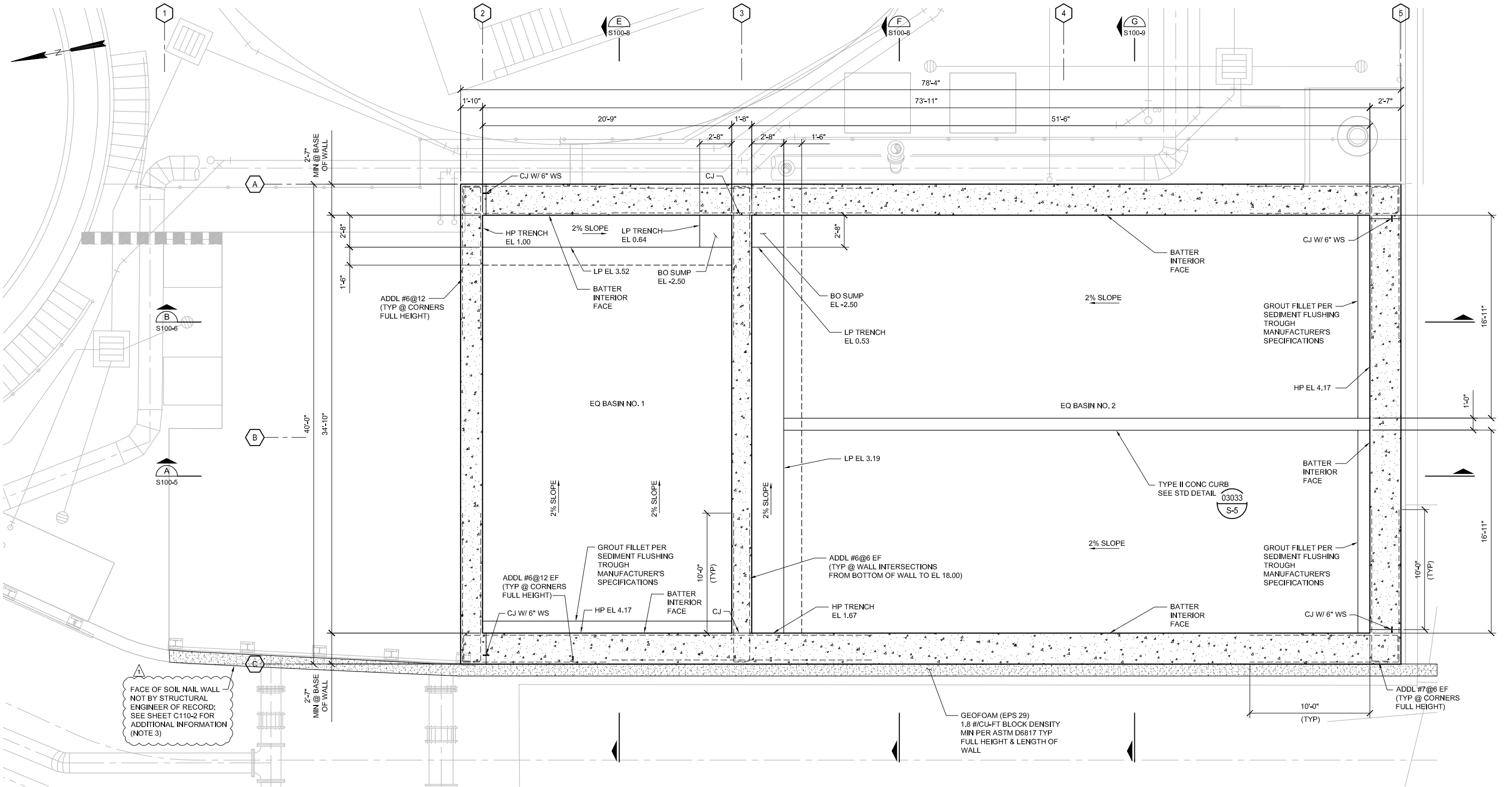
SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
VIEWING AREA

DWG NO	S030-1
SHEET NO	96 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-S100-01 3-07-17 10:12am andria || X-REFS: X-SMCSO-TBLK | S-HEADWORKS-PLAN | X-SitePlan | X-Treatment Plant site plan | X-Topo Survey new | X-Site | RKT California | RKT_SIG |<<--



EQ BASIN
FOUNDATION PLAN EL 4.17
SCALE: 1/4"=1'-0"

- NOTES:
- ALL CORNERS AND INTERSECTIONS SHALL HAVE "ADDED" WALL REINFORCEMENT AS SHOWN ON STANDARD DETAILS 3001 & 3002.
 - SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF TEXTURED CONCRETE WALL AREAS. COORDINATE WALL REINFORCEMENT WITH STANDARD DETAIL 03040 TO ENSURE PROPER CONCRETE COVER.
 - ANCHOR DOWELS/ANCHORAGE DEVICE SHALL NOT BE EMBEDDED WITHIN THE CONCRETE OF THE STRUCTURE.



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	03/17	RKT	TJC

CONFORMED DRAWING
NOTICE:
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PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

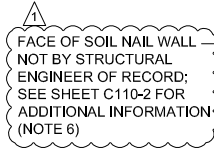
DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
EQ BASIN
FOUNDATION PLAN EL 4.17

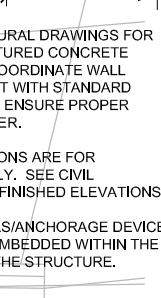
DWG NO	S100-1
SHEET NO	97 OF 226
PROJ NO	055-006
DATE	MARCH 2017

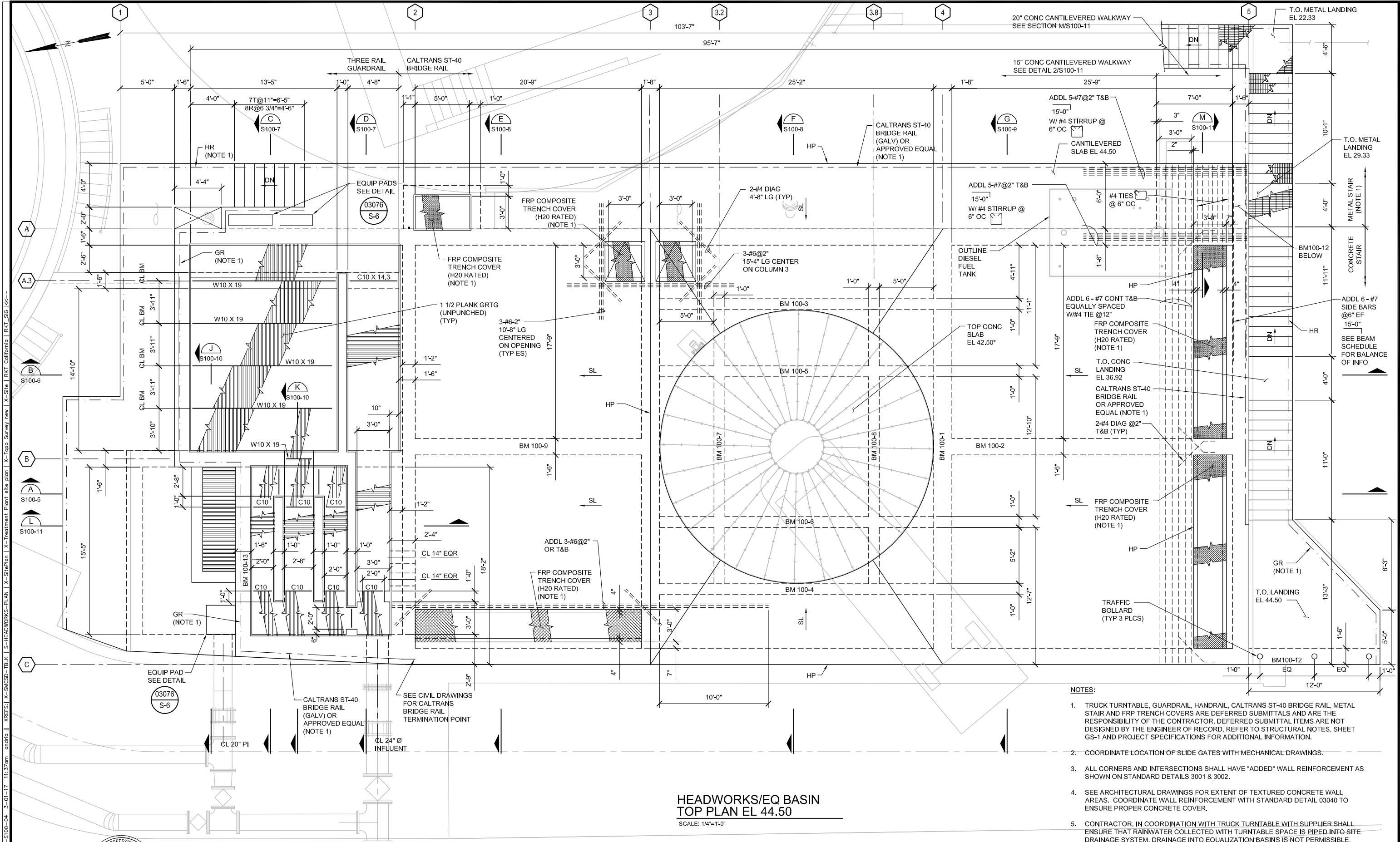


SCALE: 1/4"=1'-0"

DESIGNED	RKT	SUBMITTED: <u>MARK TAKEMOTO</u> RMC PROJECT ENGINEER CE-64369 APPROVED: <u>STEVE CLARY</u> RMC ENGINEER CE-30318
DRAWN	ADM	
CHECKED	DMY	

DWG NO	S100-3
SHEET NO	99 OF 226
PROJ NO	055-006
DATE	MARCH 2017

- | NOTES: | 10'-0"
(TYP) | VA |
|---|--|---|
| <p>1. GUARDRAIL AND METAL STAIR ARE DEFERRED SUBMITTALS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS ARE NOT DESIGNED BY THE ENGINEER OF RECORD, REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.</p> <p>2. COORDINATE LOCATION OF SLIDE GATES WITH MECHANICAL.</p> <p>3. ALL CORNERS AND INTERSECTIONS SHALL HAVE "ADDED" WALL REINFORCEMENT AS SHOWN ON STANDARD DETAILS 3001 & 3002.</p> | <p>4. SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF TEXTURED CONCRETE WALL AREAS. COORDINATE WALL REINFORCEMENT WITH STANDARD DETAIL 03040 TO ENSURE PROPER CONCRETE COVER.</p> <p>5. GRADE ELEVATIONS ARE FOR REFERENCE ONLY. SEE CIVIL DRAWINGS FOR FINISHED ELEVATIONS.</p> <p>6. ANCHOR DOWELS/ANCHORAGE DEVICE SHALL NOT BE EMBEDDED WITHIN THE CONCRETE OF THE STRUCTURE.</p> |  |



HEADWORKS/EQ BASIN
TOP PLAN EL 44.50
SCALE: 1/4"=1'-0"

- NOTES:
1. TRUCK TURNTABLE, GUARDRAIL, HANDRAIL, CALTRANS ST-40 BRIDGE RAIL, METAL STAIR AND FRP TRENCH COVERS ARE DEFERRED SUBMITTALS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS ARE NOT DESIGNED BY THE ENGINEER OF RECORD, REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. COORDINATE LOCATION OF SLIDE GATES WITH MECHANICAL DRAWINGS.
 3. ALL CORNERS AND INTERSECTIONS SHALL HAVE "ADDED" WALL REINFORCEMENT AS SHOWN ON STANDARD DETAILS 3001 & 3002.
 4. SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF TEXTURED CONCRETE WALL AREAS. COORDINATE WALL REINFORCEMENT WITH STANDARD DETAIL 03040 TO ENSURE PROPER CONCRETE COVER.
 5. CONTRACTOR, IN COORDINATION WITH TRUCK TURNTABLE WITH SUPPLIER SHALL ENSURE THAT RAINWATER COLLECTED WITH TURNTABLE SPACE IS PIPED INTO SITE DRAINAGE SYSTEM. DRAINAGE INTO EQUALIZATION BASINS IS NOT PERMISSIBLE.



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
THIS CONFORMED DRAWING HAS BEEN
PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

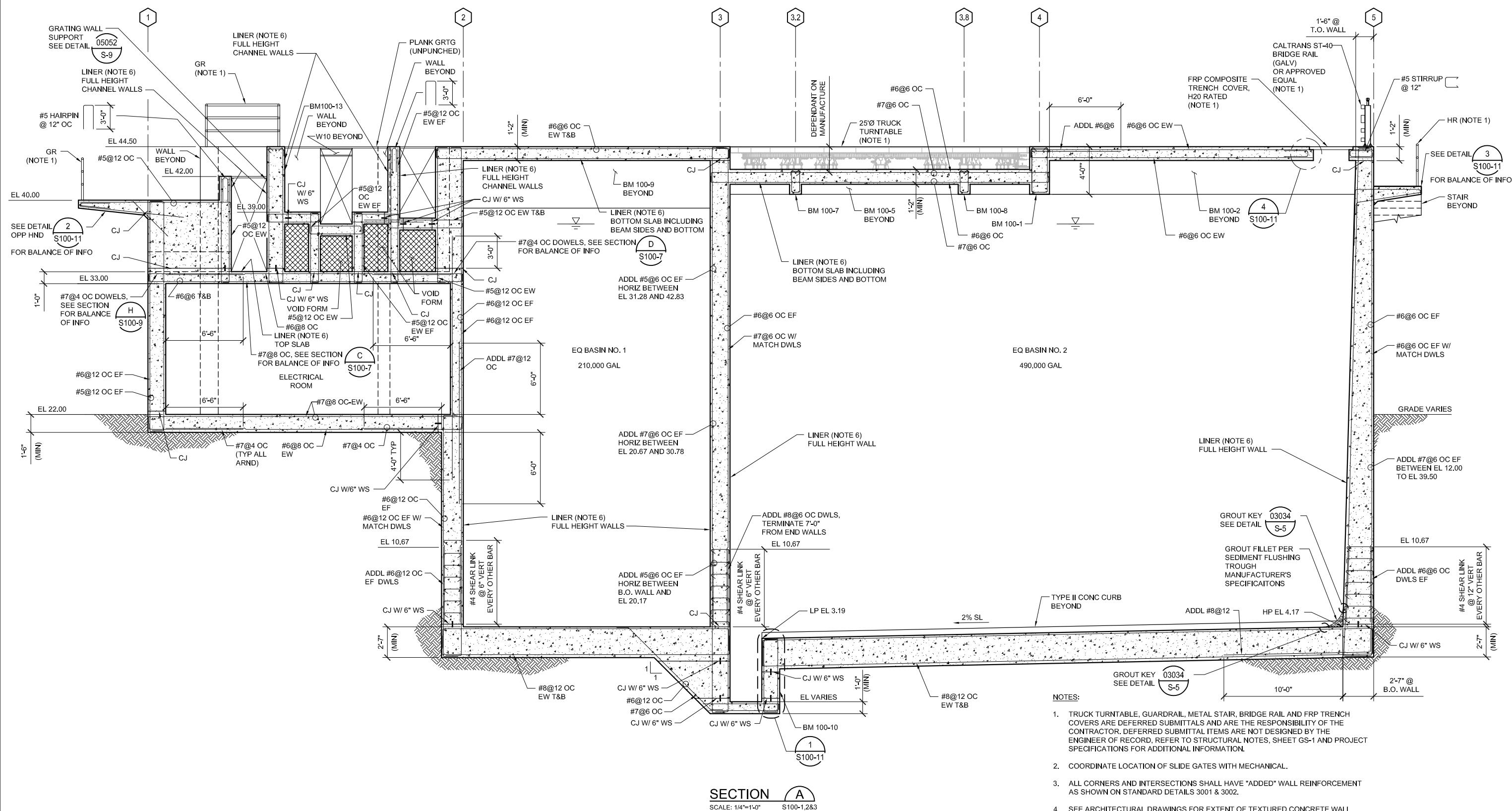
SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

HEADWORKS/EQ BASIN
TOP PLAN EL 44.50

DWG NO	S100-4
SHEET NO	100 OF 226
PROJ NO	055-006
DATE	MARCH 2017



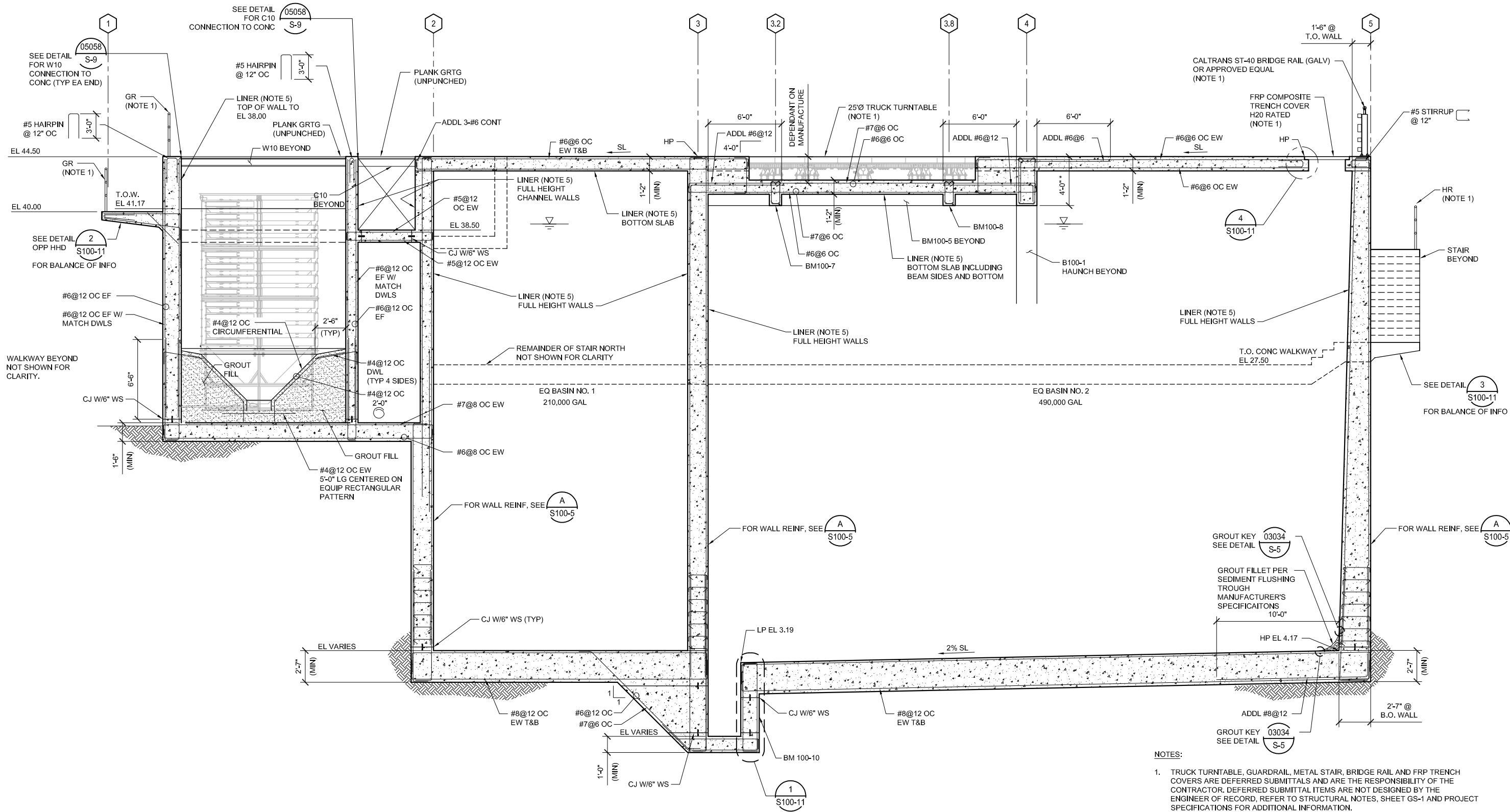
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REV	DATE	RY	APVD

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY



DWG NO	S100-5
SHEET NO	101 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-S100-06 3-01-17 11:40am andria X-REFS: X-SACSD-TBLK X-HEADWORKS-SECT RKT California RKT_SIG X-cc--



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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PREPARED BASED ON ORIGINAL SIGNED
DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

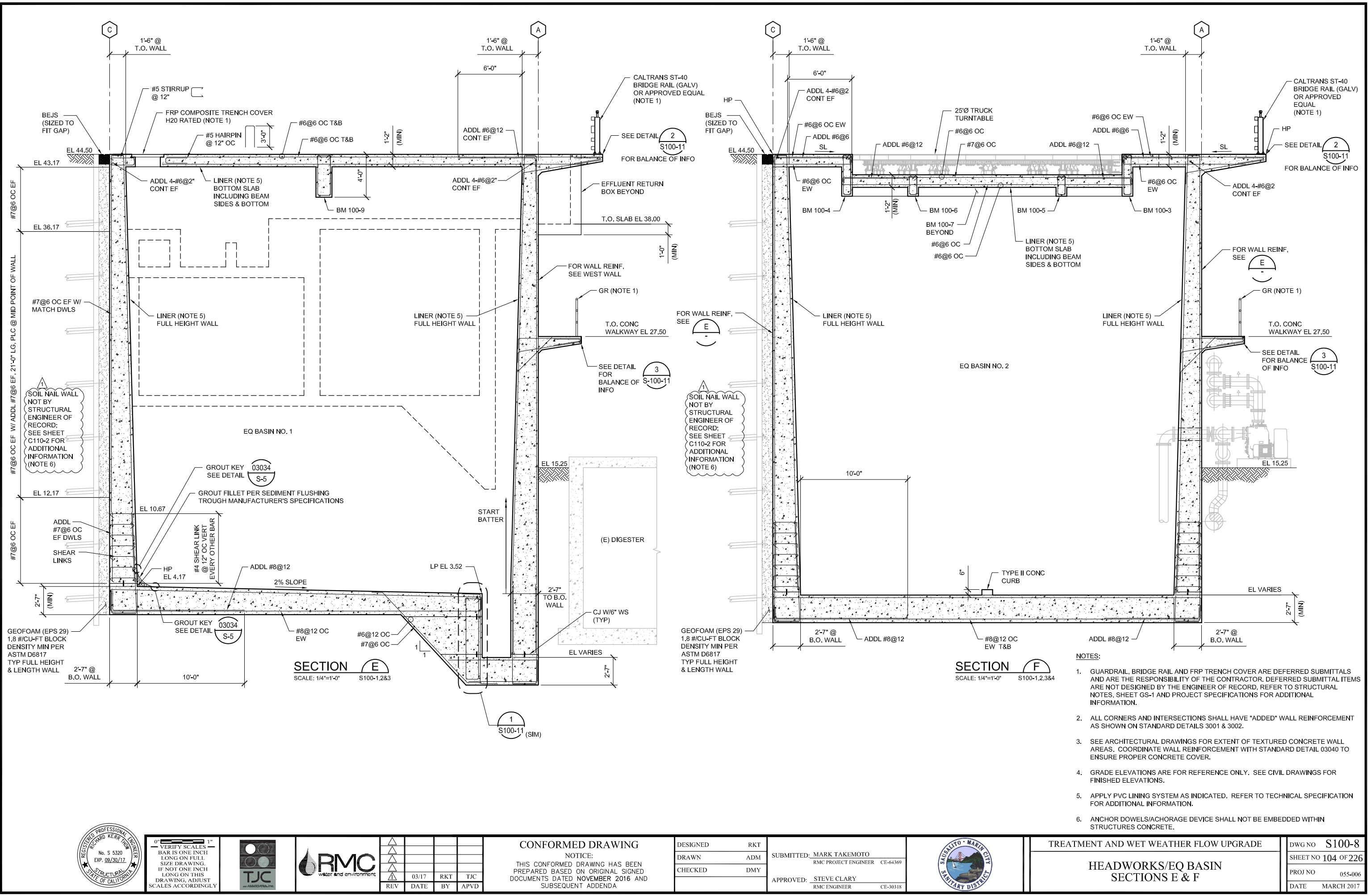
DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

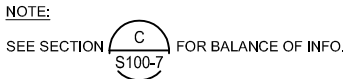
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
HEADWORKS/EQ BASIN
SECTION B

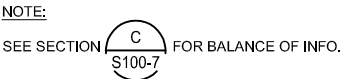
DWG NO S100-6
SHEET NO 102 OF 226
PROJ NO 055-006
DATE MARCH 2017





J

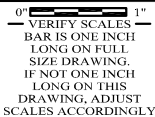
SCALE: 1/4"=1'-0" S100-2,3&4



K

SCALE: 1/4"=1'-0" S100-2,3&4

1. GUARDRAIL AND BRIDGE RAIL ARE DEFERRED SUBMITTALS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS ARE NOT DESIGNED BY THE ENGINEER OF RECORD, REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. COORDINATE LOCATION OF SLIDE GATES WITH MECHANICAL.
3. ALL CORNERS AND INTERSECTIONS SHALL HAVE "ADDED" WALL REINFORCEMENT AS SHOWN ON STANDARD DETAILS 3001 & 3002.
4. SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF TEXTURED CONCRETE WALL AREAS. COORDINATE WALL REINFORCEMENT WITH STANDARD DETAIL 03040 TO ENSURE PROPER CONCRETE COVER.
5. GRADE ELEVATIONS ARE FOR REFERENCE ONLY. SEE CIVIL DRAWINGS FOR FINISHED ELEVATIONS.
6. APPLY PVC LINING SYSTEM AS INDICATED. REFER TO TECHNICAL SPECIFICATION FOR ADDITIONAL INFORMATION.
7. ANCHOR DOWELS/ACHORAGE DEVICE SHALL NOT BE EMBEDDED WITHIN STRUCTURES CONCRETE.



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△	03/17	RKT	TJC
REV	DATE	BY	APVD

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DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

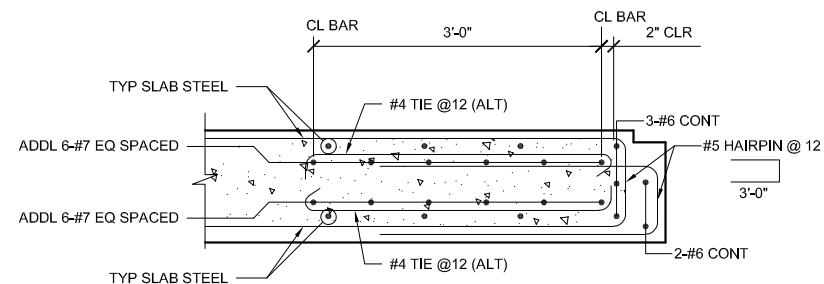
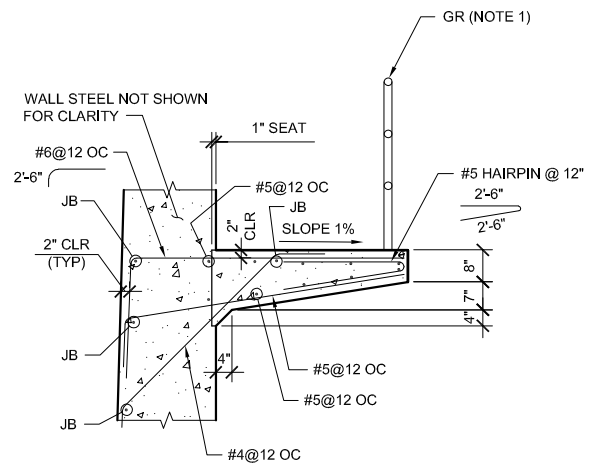
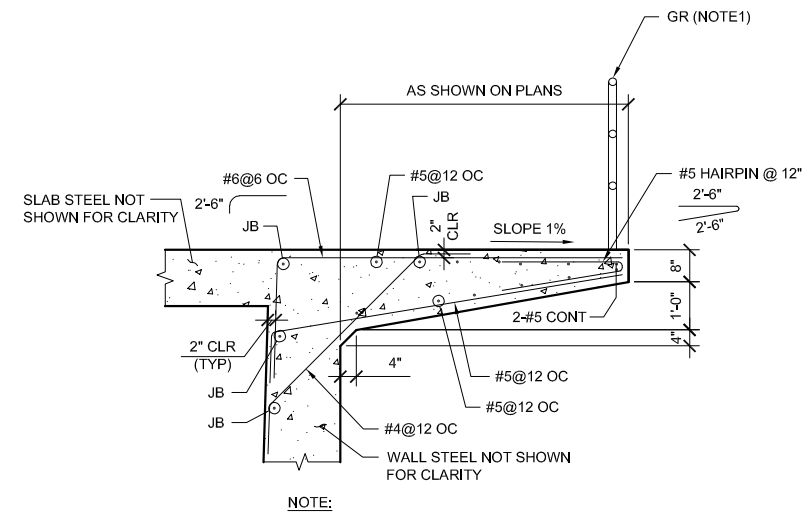
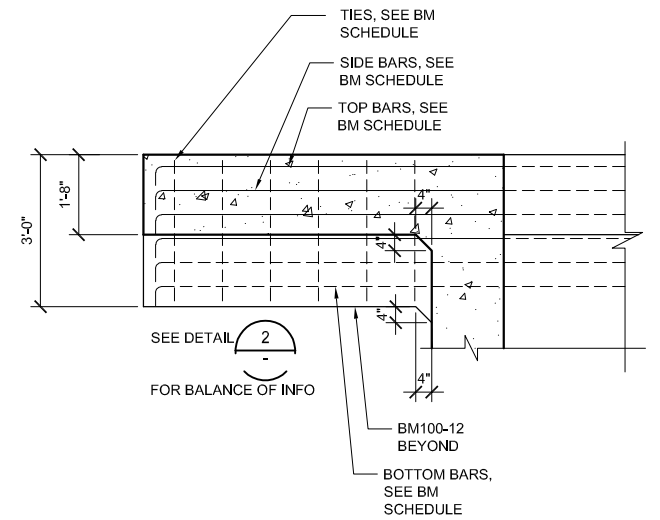
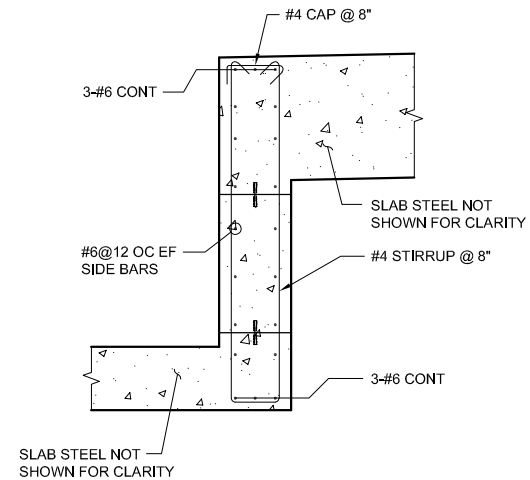
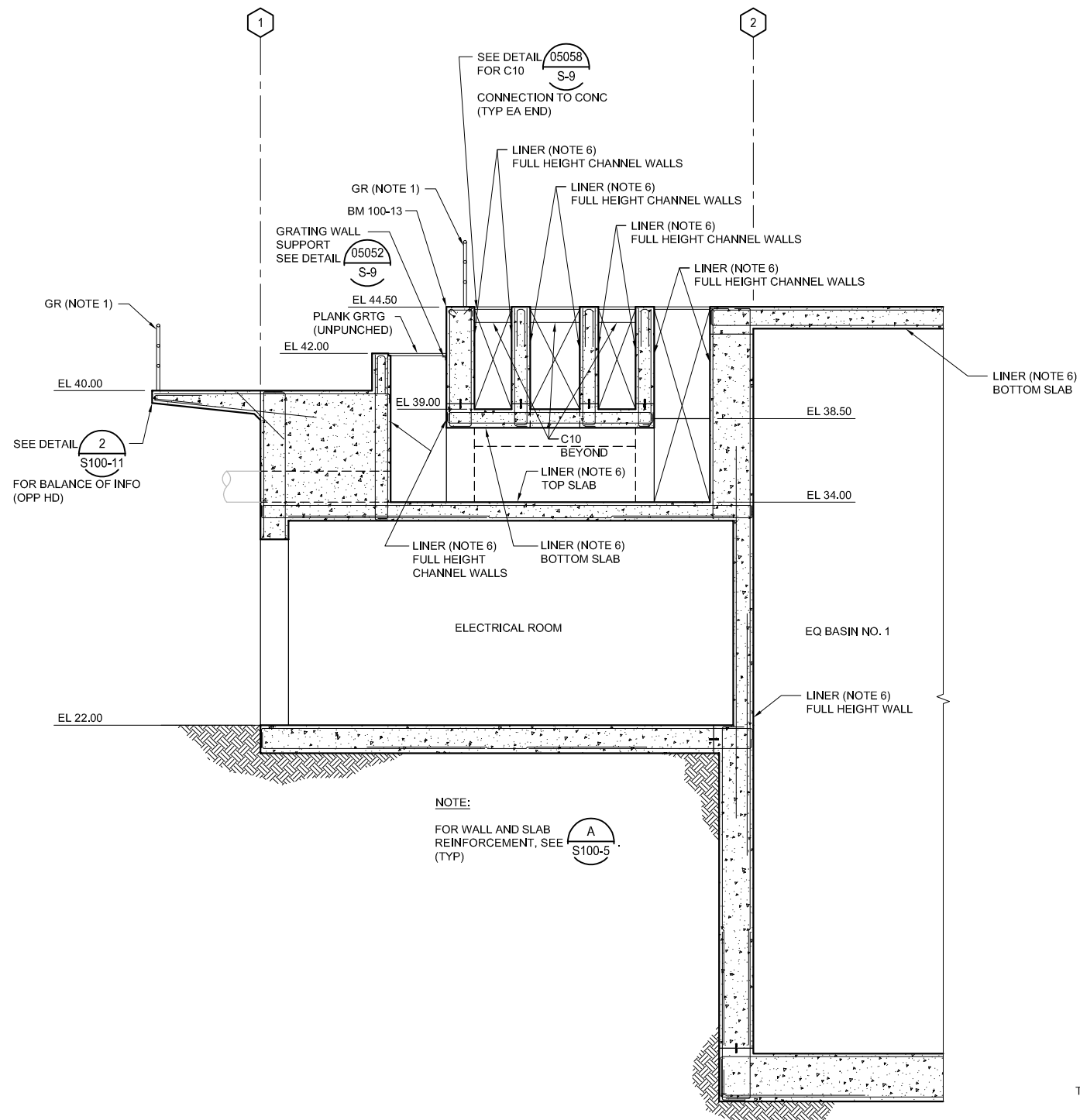
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

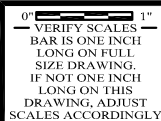


HEADWORKS/EQ BASIN SECTIONS J & K

DWG NO	S100-10
SHEET NO	106 OF 226
PROJ NO	055-006
DATE	MARCH 2017



- NOTES:**
1. GUARDRAIL AND BRIDGE RAIL ARE DEFERRED SUBMITTALS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS ARE NOT DESIGNED BY THE ENGINEER OF RECORD, REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. COORDINATE LOCATION OF SLIDE GATES WITH MECHANICAL.
 3. ALL CORNERS AND INTERSECTIONS SHALL HAVE "ADDED" WALL REINFORCEMENT AS SHOWN ON STANDARD DETAILS 3001 & 3002.
 4. SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF TEXTURED CONCRETE WALL AREAS. COORDINATE WALL REINFORCEMENT WITH STANDARD DETAIL 03040 TO ENSURE PROPER CONCRETE COVER.
 5. GRADE ELEVATIONS ARE FOR REFERENCE ONLY. SEE CIVIL DRAWINGS FOR FINISHED ELEVATIONS.
 6. APPLY PVC LINING SYSTEM AS INDICATED. REFER TO TECHNICAL SPECIFICATION FOR ADDITIONAL INFORMATION.



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REV	DATE	BY	APVD

CONFORMED DRAWING
NOTICE:
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DOCUMENTS DATED NOVEMBER 2016 AND
SUBSEQUENT ADDENDA

DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318

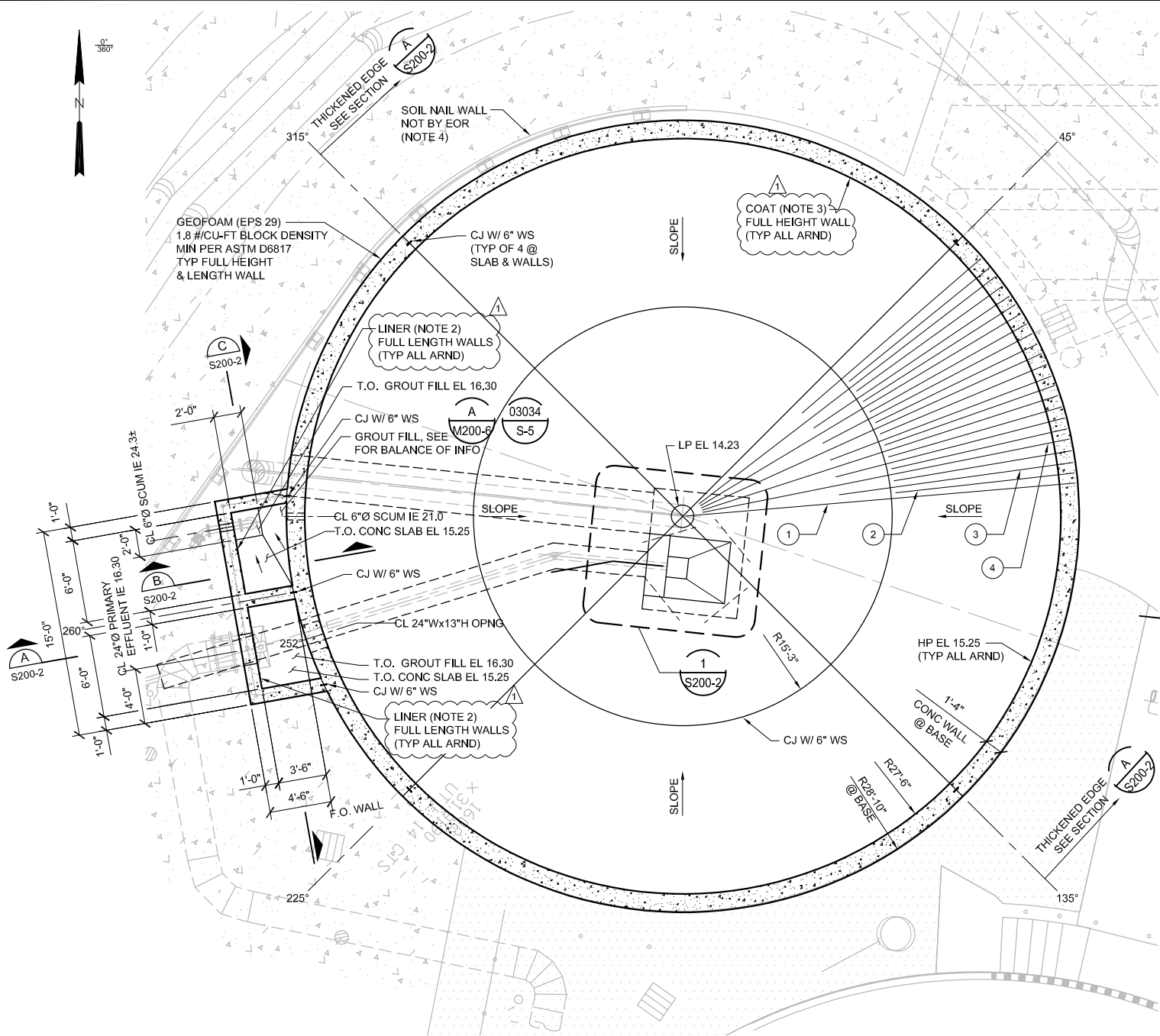


TREATMENT AND WET WEATHER FLOW UPGRADE

HEADWORKS/EQ BASIN SECTIONS & DETAILS

PROJECT NO	S100-11
SHEET NO	107 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-S200-01 3-07-17 10:17am andria || XREFS: S-TANK-PLAN | X-SMCSO-TBLK | X-SitePlan | X-Treatment Plant site plan | X-Topo Survey new | X-Site | RKT California | Kc--



BAR SCHEDULE BOTTOM MAT

MARK	SIZE	COUNT	LENGTH	COMMENT
1	#6	16	30'-7"	NOTES 1 & 2
2	#8	174	15'-2"	NOTES 1 & 2
3	#6	87	19'-4"	NOTES 1 & 2
4	#6	71	29'-4"	NOTES 1 & 2

BAR SCHEDULE TOP MAT

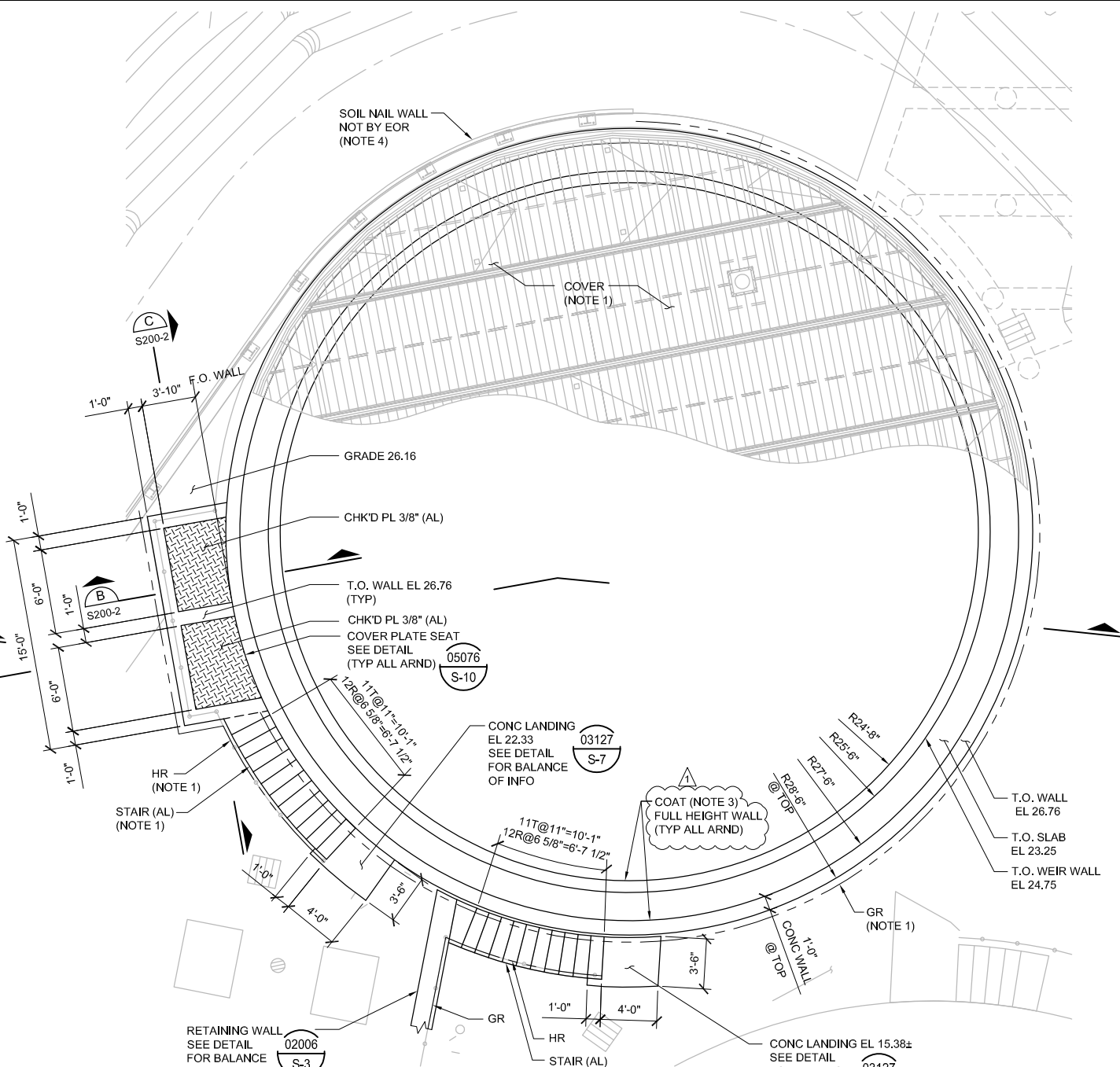
MARK	SIZE	COUNT	LENGTH	COMMENT
1	#6	16	30'-7"	NOTES 1 & 2
2	#6	174	15'-2"	NOTES 1 & 2
3	#6	87	19'-4"	NOTES 1 & 2
4	#6	71	29'-4"	NOTES 1 & 2

BAR SCHEDULE NOTES:

- LENGTHS SHOWN ARE APPROXIMATE, CONTRACTOR IS RESPONSIBLE FOR VERIFYING BAR LENGTHS PRIOR TO FABRICATION AND DELIVERY TO PROJECT SITE.
- BARS SHALL BE EQUALLY SPACED AROUND PERIMETER OF THE TANK IN THE PATTERN DETAILED ON THE PLAN.
- REFER TO STANDARD DETAIL 03003 FOR REQUIREMENTS AT CONSTRUCTION JOINT.
- TRIM BARS, AS REQUIRED, AT SLUDGE HOPPER AND PRIMARY INFLUENT PIPE PENETRATION.

PRIMARY CLARIFIER NO.2 FOUNDATION PLAN

SCALE: 3/16"=1'-0"



NOTES:

- CLARIFIER COVER, METAL STAIR, HANDRAIL AND GUARD RAIL ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
- APPLY PVC LINING SYSTEM TO OUTER WALL OF EFFLUENT TROUGH, EFFLUENT AND SCUM BOX, AND ANY EXPOSED CONCRETE ABOVE WATER LINE. REFER TO TECHNICAL SPECIFICATION FOR ADDITIONAL INFORMATION.
- APPLY COATING SYSTEM (P100 OR APPROVED EQUAL) AS INDICATED. REFER TO TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ANCHOR DOWELS/ANCHORAGE DEVICE SHALL NOT BE EMBEDDED WITHIN THE CONCRETE STRUCTURE.

PRIMARY CLARIFIER NO.2 TOP PLAN

SCALE: 3/16"=1'-0"



0"=1' 1" VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	03/17	RKT	TJC

CONFORMED DRAWING

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DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED:	MARK TAKEMOTO	CE-64369
APPROVED:	STEVE CLARY	CE-30318

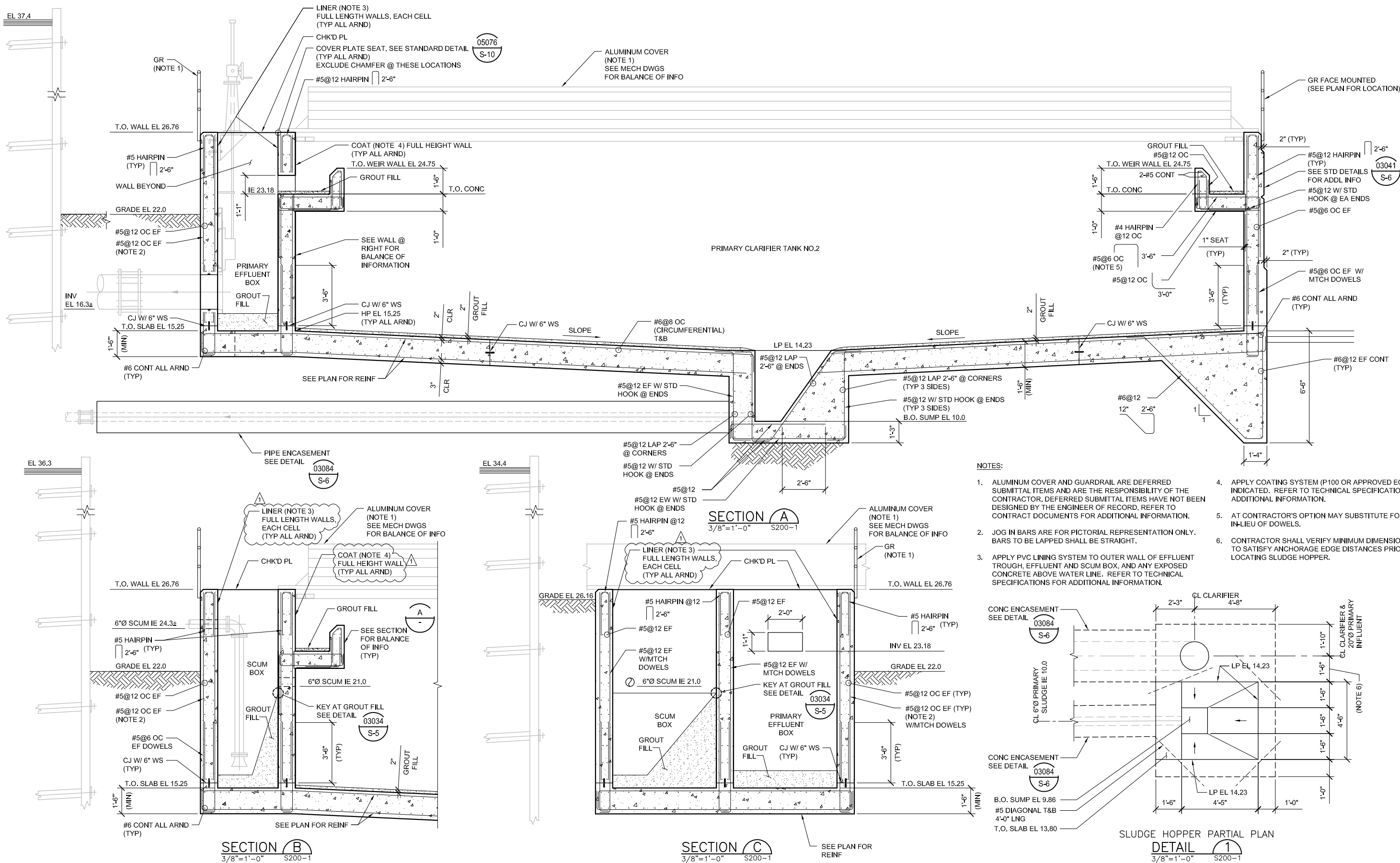


TREATMENT AND WET WEATHER FLOW UPGRADE

PRIMARY CLARIFIER NO.2 FOUNDATION AND TOP PLANS

DWG NO	S200-1
SHEET NO	108 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-S200-02 3-07-17 10:18am andria XREFS: X-SWCSO-TBLK | S-TANK-SECT | S-TANK-PLAN | RKT California | cct--



0"=1' VERIFY SCALES - BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD
1	03/17	RKT	TJC

CONFORMED DRAWING
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DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

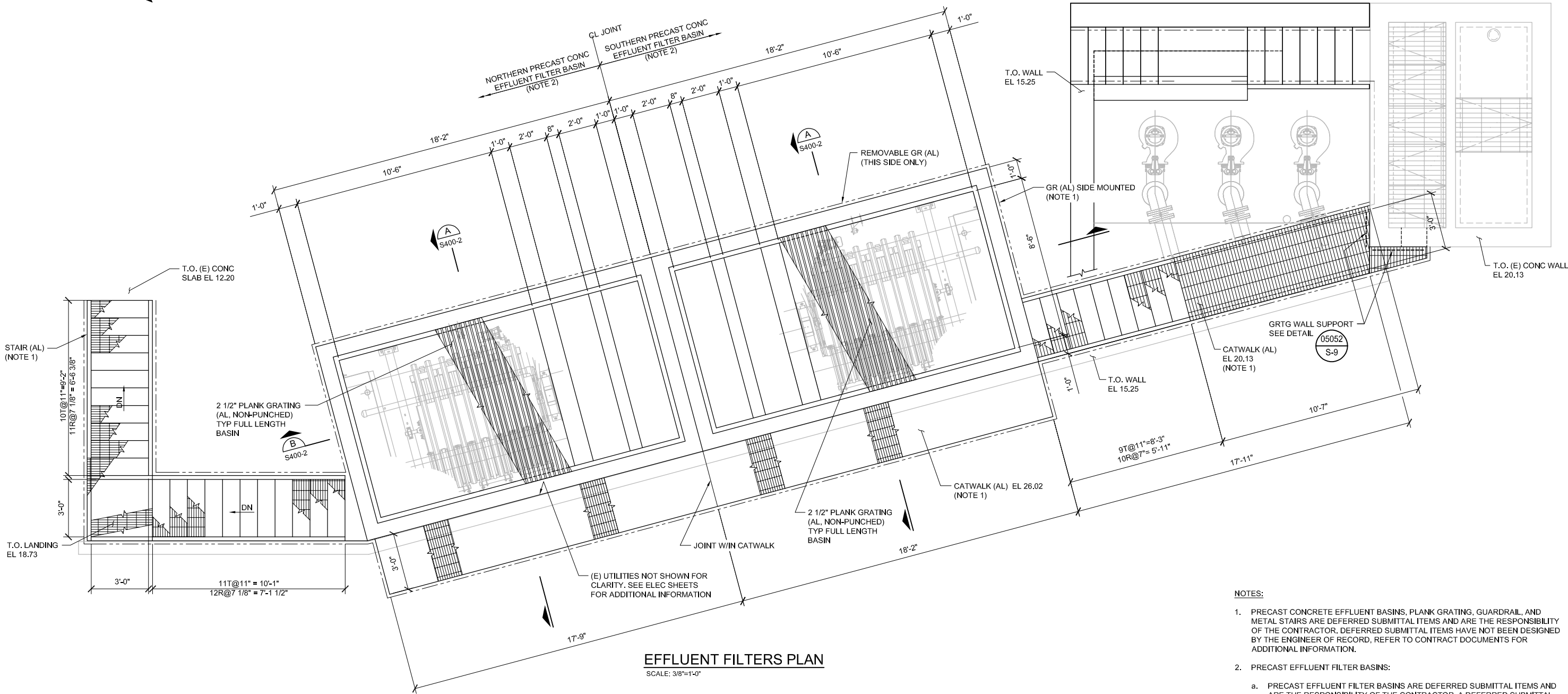
SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369
APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE
PRIMARY CLARIFIER NO. 2 SECTIONS AND DETAIL

DWG NO **S200-2**
SHEET NO **109 OF 226**
PROJ NO 055-006
DATE MARCH 2017

FILENAME: 0055-006-S400-01 3-01-17 12:24pm andria || XREFS: X-SMCSO-TBLK | S-EFFLUENT_FILTERS-PLAN | S-HEADWORKS-PLAN | X-Headworks | X-StepPlan | X-Treatment Plant site plan | X-Topo Survey new | X-Site | RKT California | RKT_SG |<<--



- NOTES:
1. PRECAST CONCRETE EFFLUENT BASINS, PLANK GRATING, GUARDRAIL, AND METAL STAIRS ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
 2. PRECAST EFFLUENT FILTER BASINS:
 - a. PRECAST EFFLUENT FILTER BASINS ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. A DEFERRED SUBMITTAL ITEM HAS NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
 - b. UNLESS OTHERWISE NOTED, PRECAST EFFLUENT FILTER BASINS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
 - c. PRECAST EFFLUENT FILTER BASINS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION, IN THE OPINION OF THE ENGINEER, WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED ELEMENTS AT HIS/HER EXPENSE.
 - d. APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.
 - e. CONTRACTOR SHALL PATCH ALL LIFTING DEVICE HOLES IN ACCORDANCE WITH PROJECT SPECIFICATIONS, WITH A MINIMUM OF 1-INCH OF COVER OVER HARDWARE TO BE LEFT IN-PLACE BOTH TOP AND BOTTOM.



0"=1" VERIFY SCALES
BAR IS ONE INCH LONG ON FULL SIZE DRAWING. IF NOT ONE INCH LONG ON THIS DRAWING, ADJUST SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED:	MARK TAKEMOTO	RMC PROJECT ENGINEER	CE-64369
APPROVED:	STEVE CLARY	RMC ENGINEER	CE-30318

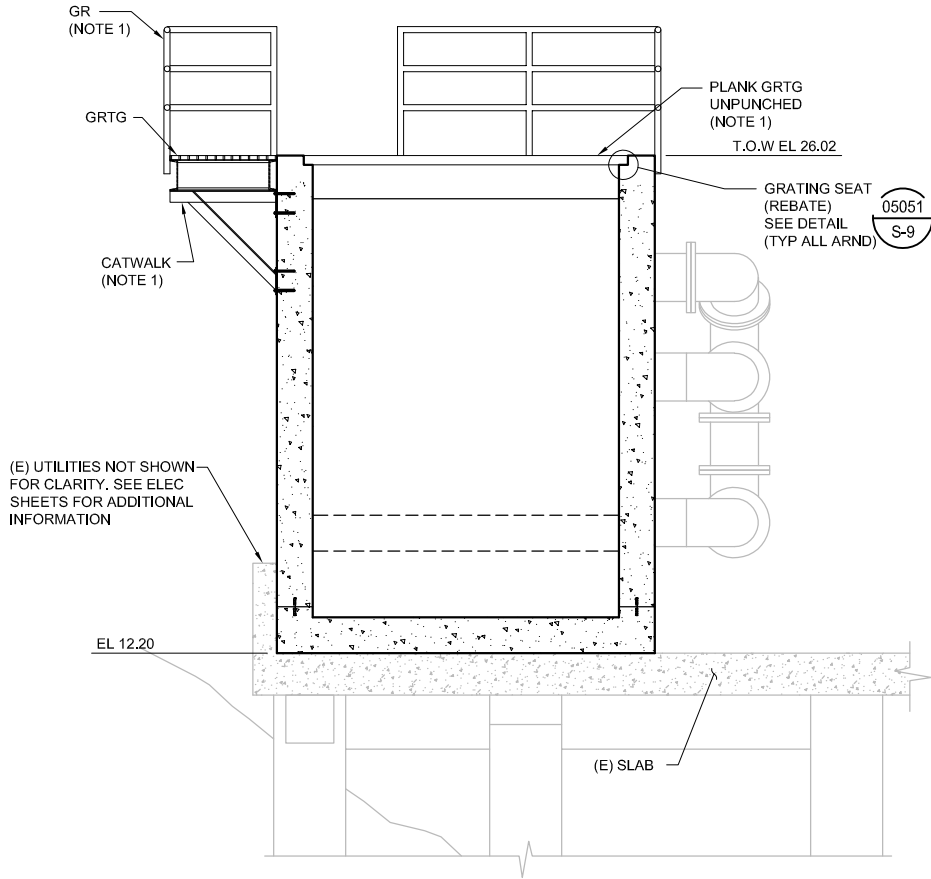


TREATMENT AND WET WEATHER FLOW UPGRADE

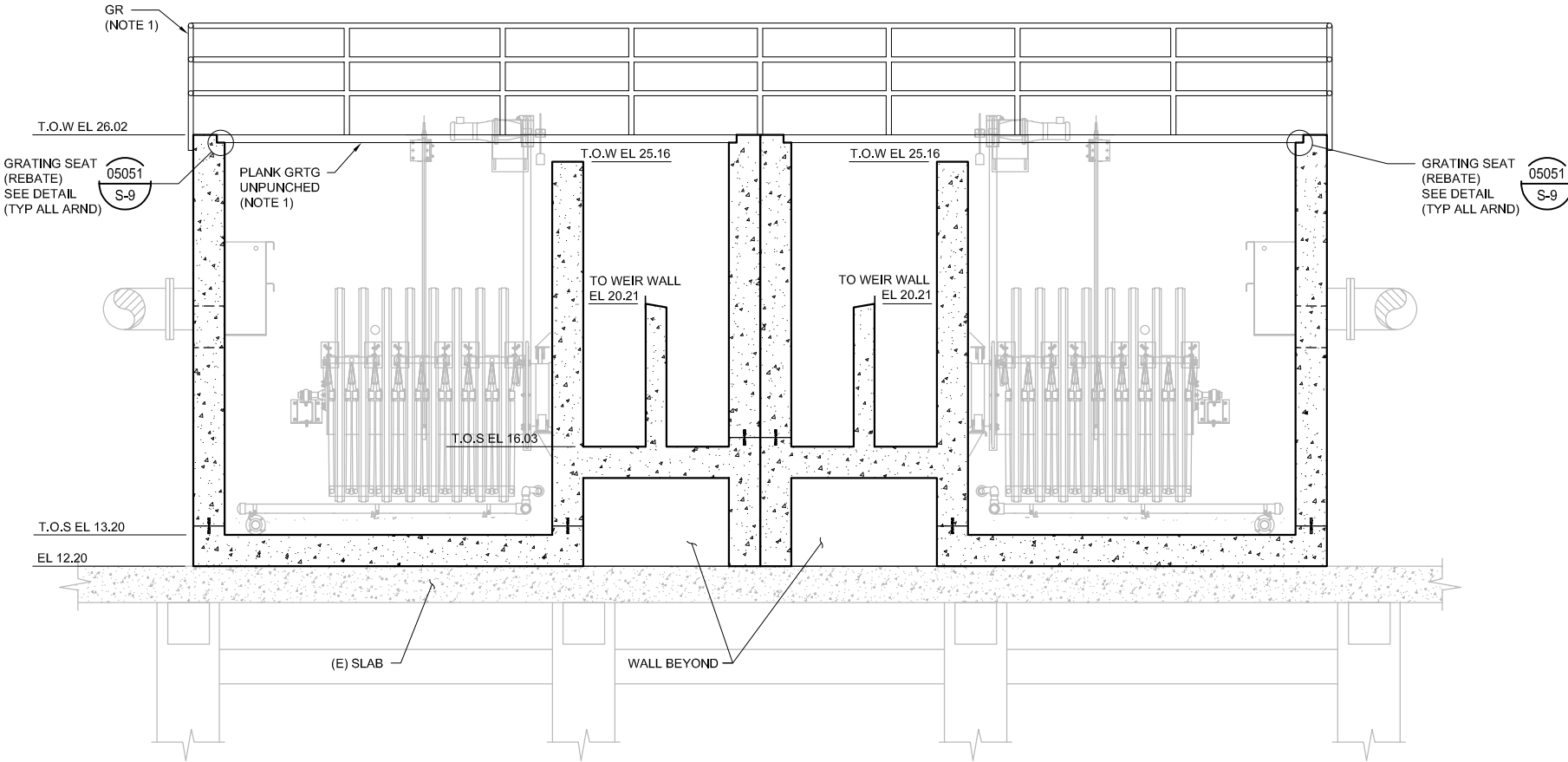
EFFLUENT FILTERS PLAN

DWG NO	S400-1
SHEET NO	110 OF 226
PROJ NO	055-006
DATE	MARCH 2017

FILENAME: 0055-006-S400-02 3-01-17 12:33pm andia XREFS: X-SMCSO-TBLK J S-EFFLUENT_FILTERS-PLAN J S-EFFLUENT_FILTERS-SECT J RKT California J S-EFFLUENT_FILTERS-PLAN J X-Headworks J S-HEADWORKS-PLAN J X-SitePlan J X-Site J X-Topo Survey new, RKT_SIG J X-Treatment Plant site plan Kc--



SECTION A
SCALE: 3/8"=1'-0"



SECTION B
SCALE: 3/8"=1'-0"

- NOTES:
1. PRECAST CONCRETE EFFLUENT BASINS, PLANK GRATING, GUARDRAIL, AND METAL STAIRS ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
 2. PRECAST EFFLUENT FILTER BASINS:
 - a. PRECAST EFFLUENT FILTER BASINS ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. A DEFERRED SUBMITTAL ITEM HAS NOT BEEN DESIGNED BY THE ENGINEER OF RECORD, REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
 - b. UNLESS OTHERWISE NOTED, PRECAST EFFLUENT FILTER BASINS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
 - c. PRECAST EFFLUENT FILTER BASINS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION, IN THE OPINION OF THE ENGINEER, WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED ELEMENTS AT HIS/HER EXPENSE.
 - d. APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.
 - e. CONTRACTOR SHALL PATCH ALL LIFTING DEVICE HOLES IN ACCORDANCE WITH PROJECT SPECIFICATIONS, WITH A MINIMUM OF 1-INCH OF COVER OVER HARDWARE TO BE LEFT IN-PLACE BOTH TOP AND BOTTOM.



0" 1"
VERIFY SCALES
BAR IS ONE INCH
LONG ON FULL
SIZE DRAWING.
IF NOT ONE INCH
LONG ON THIS
DRAWING, ADJUST
SCALES ACCORDINGLY



REV	DATE	BY	APVD

CONFORMED DRAWING
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DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

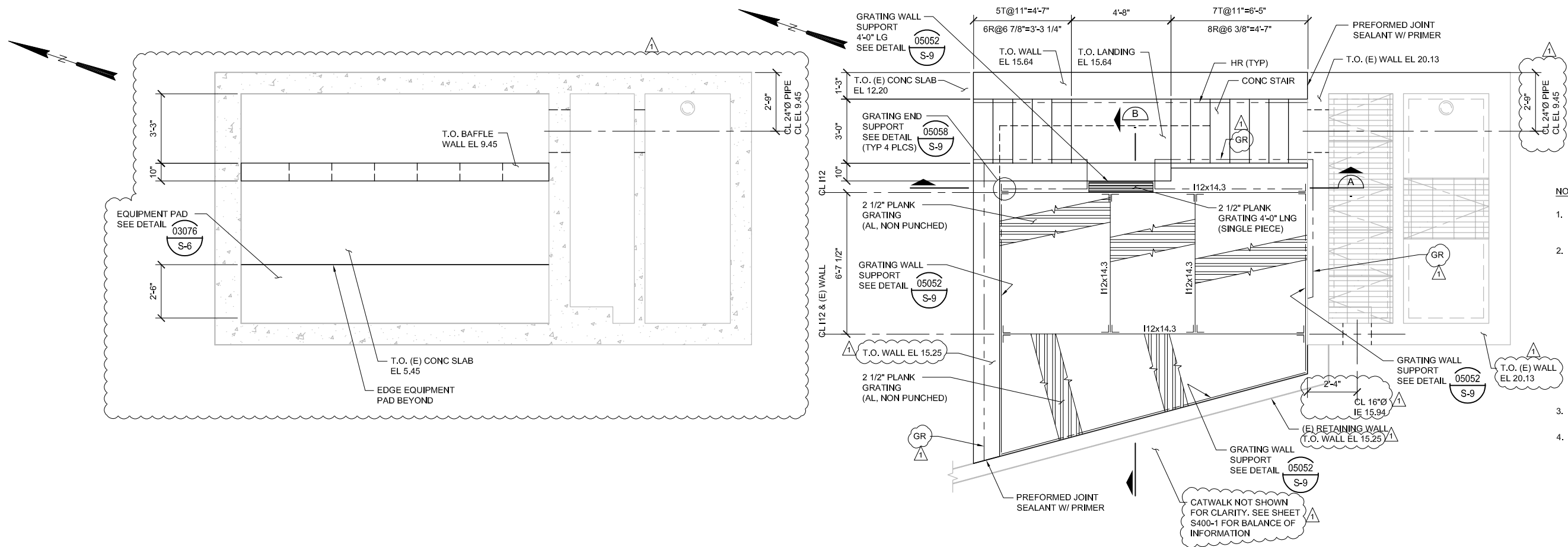
SUBMITTED:	MARK TAKEMOTO	CE-64369
APPROVED:	STEVE CLARY	CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

EFFLUENT FILTERS SECTIONS

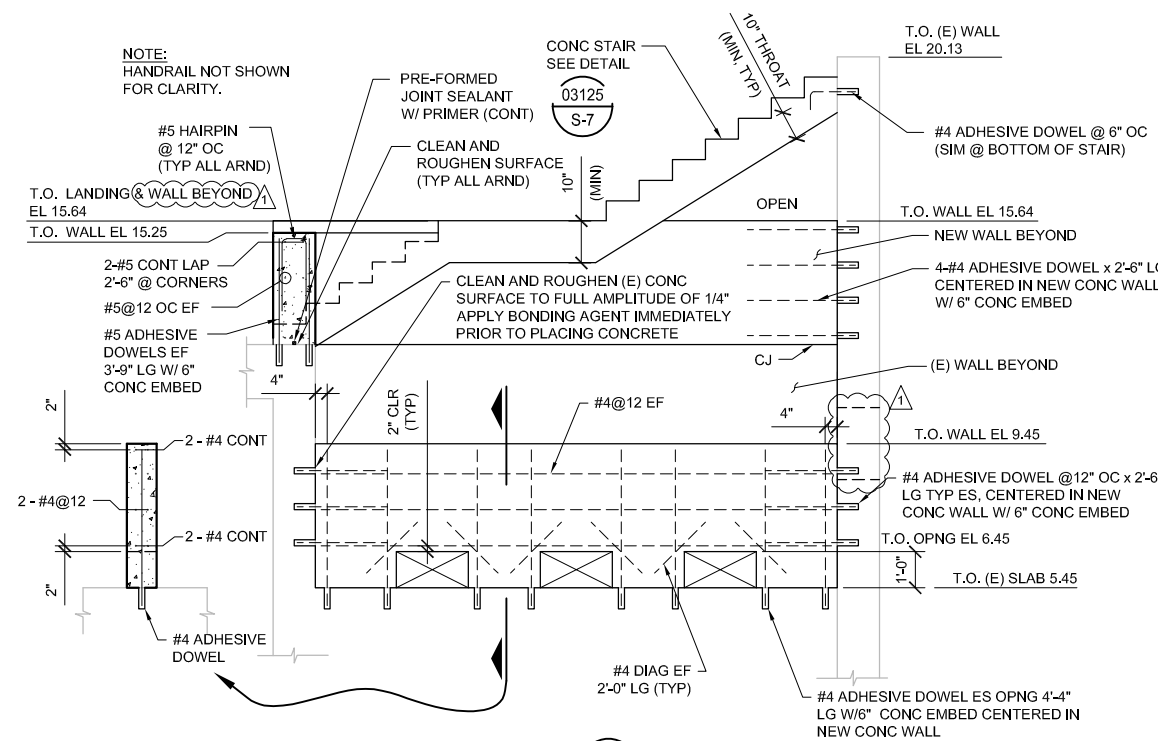
DWG NO	S400-2
SHEET NO	111 OF 226
PROJ NO	055-006
DATE	MARCH 2017



- NOTES:**
1. ALL MEMBER SIZES SHOWN ON SHEETS ARE MINIMUM SIZES. ACTUAL SIZES SHALL BE DETERMINED BY THE CONTRACTOR.
 2. THE DESIGN OF STAIRS IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DEFERRED SUBMITTAL DESIGN SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW FOR GENERAL CONFORMANCE TO THE STRUCTURAL DESIGN CRITERIA. INSTALLATION OF THE STAIRS SHALL NOT BEGIN UNTIL THE SUBMITTAL HAS BEEN REVIEWED BY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE PROJECT AND THE SUBMITTAL HAS BEEN DEEMED ACCEPTABLE BY THE OWNER.
 3. ALL MATERIALS FOR STAIRS SHALL BE ALUMINUM UON.
 4. WIDTH OF STAIR SHOWN ON DRAWINGS IS THE DISTANCE BETWEEN STRINGERS.

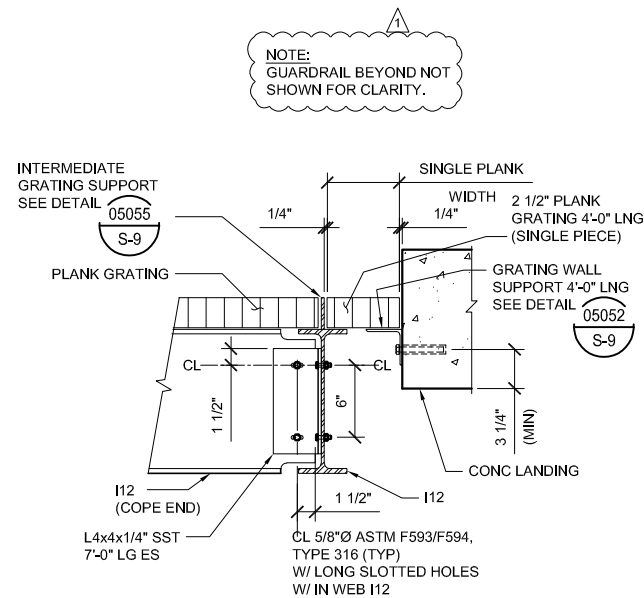
EFFLUENT FILTERS INTERMEDIATE PLAN

SCALE: 3/8"=1'-0"



SECTION

SCALE: 3/8"=1'-0"

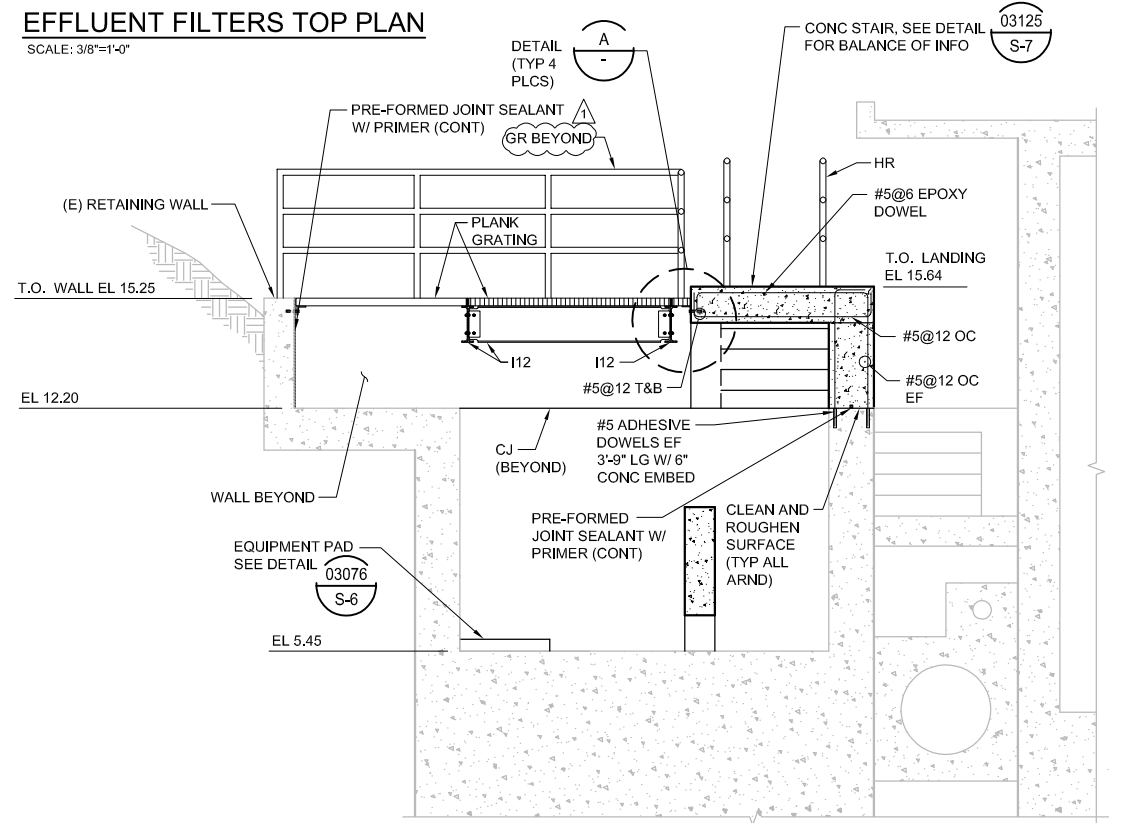


DETAIL

SCALE: 1 1/2"=1'-0"

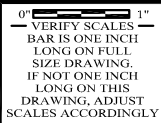
EFFLUENT FILTERS TOP PLAN

SCALE: 3/8"=1'-0"



SECTION

SCALE: 3/8"=1'-0"



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①	03/17	RKT	TJC
REV	DATE	BY	APVD

CONFORMED DRAWING

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DESIGNED	RKT
DRAWN	ADM
CHECKED	DMY

SUBMITTED: MARK TAKEMOTO
RMC PROJECT ENGINEER CE-64369

APPROVED: STEVE CLARY
RMC ENGINEER CE-30318



TREATMENT AND WET WEATHER FLOW UPGRADE

MISCELLANEOUS STAIRS

WG NO S400-3

SHEET NO 112 OF 226

PROJ NO	055-006
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DATE MARCH 2017