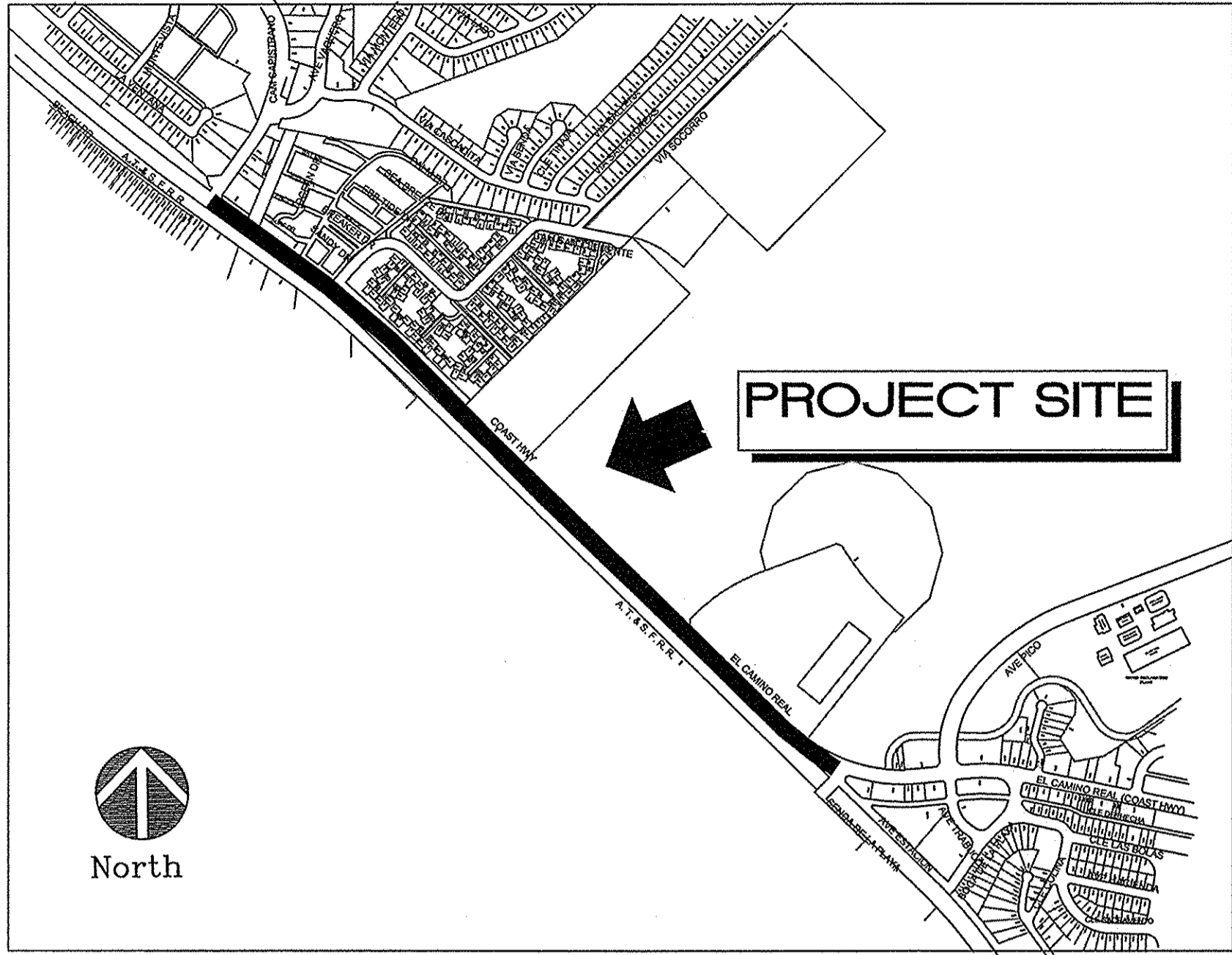


NORTH EL CAMINO REAL STREET AND CLASS I BICYCLE PEDESTRIAN PATH
 (AVENIDA ESTACION TO CAMINO CAPISTRANO)
 PROJECT NO. 13308, 14325 AND 16344
 FEDERAL AID PROJECT NO. HSIPL-5274 (037)



WATER QUALITY MANAGEMENT NOTES:

1. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
2. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO ELIMINATE OR REDUCE SEDIMENT TRANSPORT FROM THE SITE TO THE STREETS, DRAINAGE OF FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
3. APPROPRIATE BMPs FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
4. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL NOT BE DISCHARGE FROM THE CONSTRUCTION SITE
5. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
6. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
7. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT A STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OTHER THAN STORMWATER (NON-STORMWATER DISCHARGES) ARE AUTHORIZED UNDER CALIFORNIA'S GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY ONLY WHERE THEY DO NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD AND ARE CONTROLLED THROUGH IMPLEMENTATION OF APPROPRIATE BMPs FOR ELIMINATION OR REDUCTION OF POLLUTANTS. NON-STORMWATER DISCHARGES MUST BE ELIMINATED OR REDUCED TO THE EXTENT FEASIBLE.

POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, SOLVENTS, DETERGENTS, GLUES, LIME, PESTICIDES, HERBICIDES, FERTILIZERS, WOOD, PRESERVATIVES, AND ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; CONCRETE AND RELATED CUTTING OR CURING RESIDUES; FLOATABLE WASTES, WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; WASTES FROM STREET CLEANING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING AND TESTING.

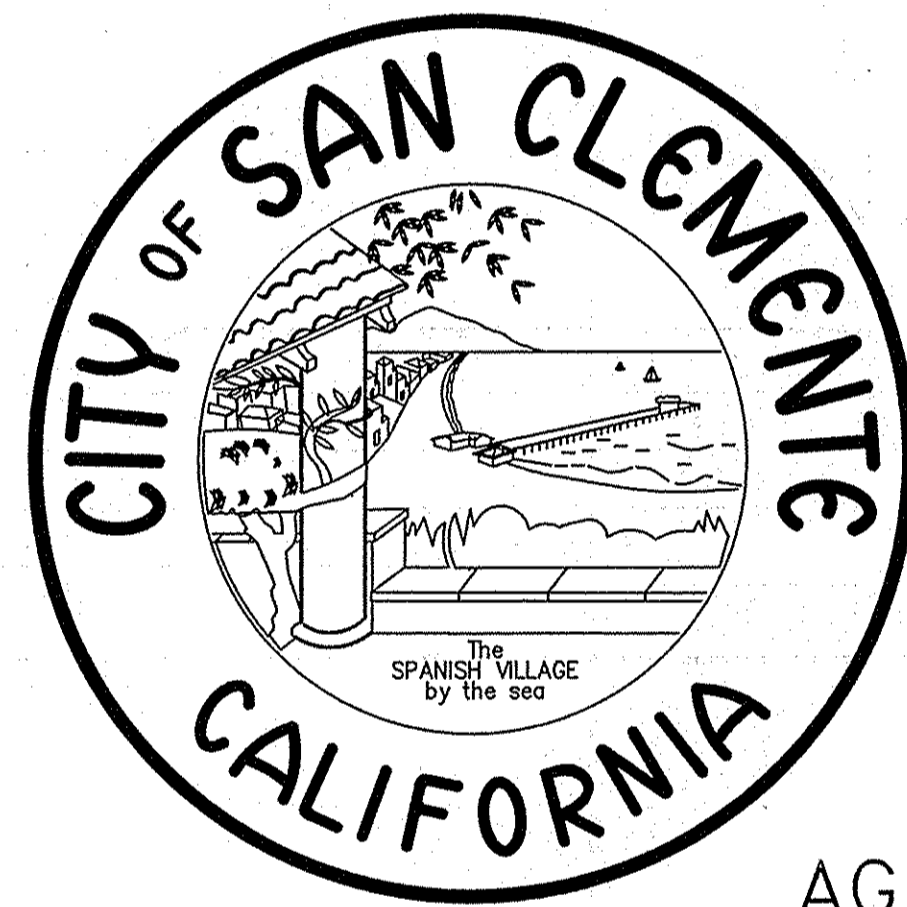
DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

8. DISCHARGING CONTAMINATED GROUNDWATER PRODUCED BY DEWATERING GROUNDWATER THAT HAS INFILTRATED INTO CONSTRUCTION SITE IS PROHIBITED. DISCHARGING OF NON-CONTAMINATED GROUNDWATER PRODUCED BY DEWATERING ACTIVITIES REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD.

9. ANY SPILLAGE OF FUEL, OIL OR HAZARDOUS MATERIALS FROM CONSTRUCTION EQUIPMENT OR VEHICLES OR SIGNIFICANT RELEASES OF SEDIMENT DUE TO CONSTRUCTION ACTIVITIES OR BMP FAILURES IMPACTING DOWNSTREAM CREEK AREAS MUST BE IMMEDIATELY AND PROPERLY CLEANED UP AND DISPOSED OF. FOR SPILLS OF SIGNIFICANT VOLUME, NOTIFICATION MUST BE IMMEDIATELY MADE TO THE CITY OF SAN CLEMENTE'S UTILITY DIVISION AT (949) 366-1553. CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR COSTS TO INVESTIGATE EXTENT OF CONTAMINATION, CLEANUP, WASTE REMOVAL AND IMPLEMENTATION OF AN APPROVED REMEDIAL ACTION PLAN FOR THE RELEASE OF ANY WASTES OR HAZARDOUS MATERIALS. NOTIFICATIONS OF SPILLS AND SIGNIFICANT RELEASES OF SEDIMENT DUE TO CONSTRUCTION ACTIVITIES OR BMP FAILURES IMPACTING DOWNSTREAM AREAS MUST BE IMMEDIATELY MADE TO TOM FRANK, PROJECT MANAGER AT (949) 127-6127. AFTER-HOURS SPILL NOTIFICATION SHOULD BE MADE THROUGH ORANGE COUNTY SHERIFF'S COMMUNICATIONS CONTROL 1 BY DIALING 911

STRIPING GENERAL NOTES

1. ALL WORK AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND SPECIFICATIONS, CURRENT EDITION.
2. THE CONTRACTOR SHALL RESTORE OR REPLACE ALL EXISTING IMPROVEMENTS DISTURBED DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO STREET STRIPING, LANDSCAPING, SIGNS AND TRAFFIC SIGNAL LOOP DETECTORS AND RELATED EQUIPMENT.
3. ALL STRIPING AND PAVEMENT LEGENDS TO BE INSTALLED PER STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. NEW STRIPING SHALL NOT BE PLACED UNTIL SPOTTED AND AND SPOTTING APPROVED BY THE CITY OF SAN CLEMENTE.
4. ALL CONFLICTING STRIPING SHALL BE WET OR VACUUM SANDBLASTED. CONFLICTING RAISED PAVEMENT MARKERS SHALL ALSO BE REMOVED.
5. ALL WORK SHALL BE COORDINATED WITH AND COMPLETED TO THE SATISFACTION OF THE CITY OF SAN CLEMENTE, TRAFFIC DIVISION
6. FIRE HYDRANT RAISED PAVEMENT MARKERS SHALL BE INSTALLED PER CITY OF SAN CLEMENTE STANDARDS.
7. ALL SIGN POSTS SHALL BE SQUARE TUBE (O.C.R. & D.M.D. STANDARD PLAN NO. 1417).
8. ALL SALVAGE MATERIALS SHALL BE DELIVERED TO THE CITY YARD.
9. ALL PAVEMENT ARROWS SHALL CONFORM TO CITY OF SAN CLEMENTE STENCILS (949) 361-8305
10. ALL SIGNS SHALL BE REFLECTORIZED AND SHALL CONFORM TO THE CITY OF SAN CLEMENTE SPECIFICATIONS. INSTALLATION SHALL CONFORM TO O.C.R. & D.M.D. STANDARD PLANS AND TRAFFIC MANUAL.
11. ALL PAVEMENT LEGENDS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE UNLESS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER.
12. INSTALL CROSSWALK, PAVEMENT ARROW MESSAGES, AND LIMIT LINES PER CALTRANS STANDARD PLANS.



BID SET

LOCATION MAP
n.f.s

LEGEND

- 2 ———— DETAIL NO.
- 4 ———— SHEET NO.
- MH ———— EXISTING MANHOLE TO BE ADJUSTED
- WV ———— EXISTING WATER VALVE TO BE ADJUSTED
- ⊕ ———— EXISTING FIRE HYDRANT
- 208 ———— PROPERTY STREET ADDRESS
- STREET CENTER LINE
- RW——— RIGHT OF WAY
- G——— EXISTING GAS LINE
- S——— EXISTING SEWER
- TEL——— EXISTING TELEPHONE
- W——— EXISTING WATER
- =====SD===== EXISTING STORM DRAIN

SHEET INDEX

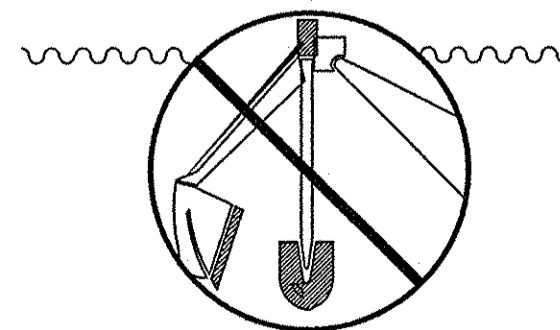
SHEET No.	DESCRIPTION
1	COVER SHEET
2-6	CIVIL IMPROVEMENT PLANS
7-9	TRAFFIC SIGNAL MODIFICATIONS
10-12	SIGNING AND STRIPING PLAN
13-21	IRRIGATION PLANS
22-29	PLANTING PLANS



AGENCY INDEX

AT&T CONTACT : BOB FLEISHER	(949) 870-2941
SAN DIEGO GAS & ELECTRIC CONTACT : STEVE CAMPBELL	(949) 361-8080
SO. CALIF. GAS COMPANY CONTACT: DENNIS CURRAN	(714) 920-5099
SO. CALIF. GAS COMPANY CONTACT : RICK UPCHURCH FIELD SUPERVISOR	(714) 634-3100
COX CABLE COMMUNICATION INC. CONTACT : ED MANRIQUEZ	(949) 546-2820
JOINT REGIONAL WATER SUPPLY SYSTEM CONTACT : FRITZ PETERS JR	(949) 248-2099
CITY OF SAN CLEMENTE SEWER and WATER DEPT. CONTACT: BOB GAMBLE (SEWER) (949) 361-8231 CONTACT: KEVIN LUSSIER (WATER) (949) 361-8392	
MCI CONTACT : TOM GREENE	(800) MCI-WORK
SOUTHCOAST WATER DISTRICT CONTACT : JOSEPH N. McDIVITT	(949) 499-4555

DIAL TOLL FREE
1-800-227-2600

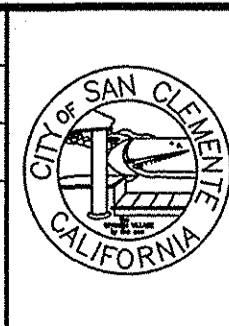


**AT LEAST TWO DAYS
BEFORE YOU DIG**

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT 1-(800)-227-2600

REV.	DATE:	DESCRIPTION	BY:	APP'VD:	DATE:	BY:	SIGNATURE:	TITLE	
REVISIONS					REFERENCES				
APPROVALS					APPROVALS				

ENGINEERING SCALE : AS SHOWN	DATE:
DRAWN BY : SB	DESIGNED BY : TF 11/2015
CHECKED BY : TF	11/2015
APPROVED : <i>Thomas A. Bonigut</i> 12/17/15	DATE
THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER	

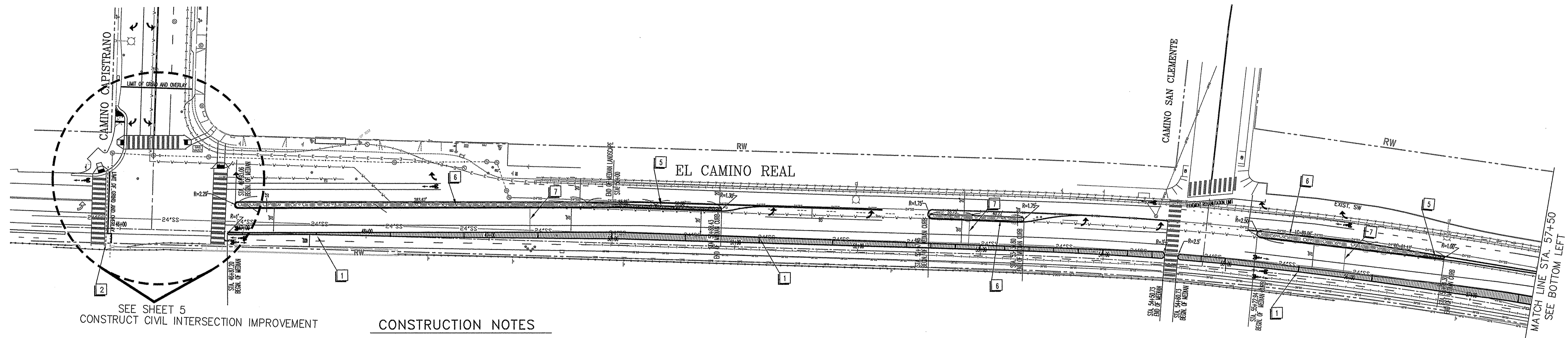


STREET IMPROVEMENT PLANS
TITLE SHEET

CITY OF SAN CLEMENTE

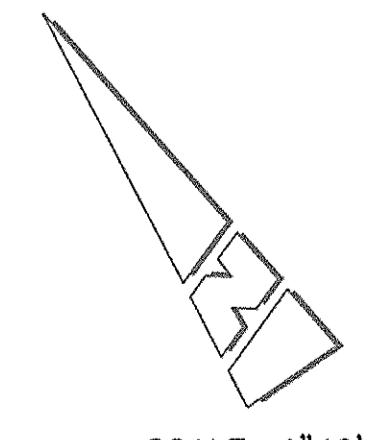
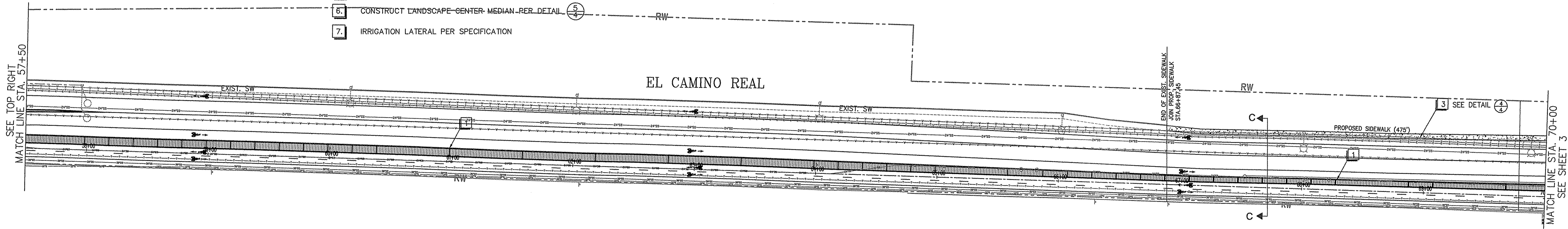
DRAWING NO:	
SHEET	1
OF	29

NORTH EL CAMINO REAL CLASS I BICYCLE PATH PROJECT NO. 13308



CONSTRUCTION NOTES

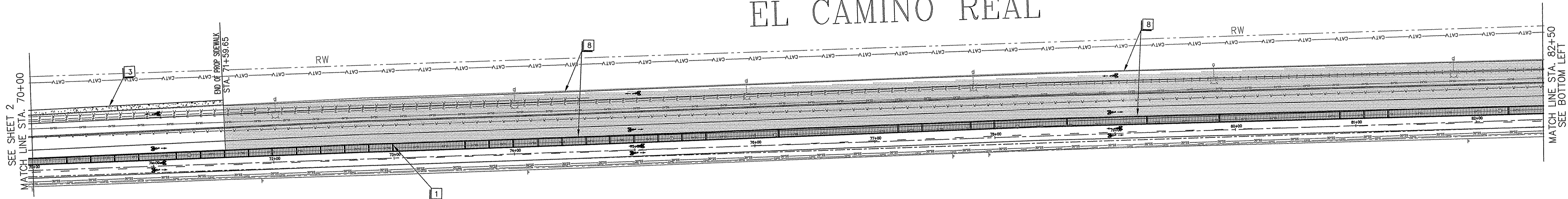
- 1. CONSTRUCT DRAINAGE CHANNEL PER DETAIL $\frac{1}{4}$
- 2. PROTECT IN PLACE EXIST. SIGNAL VEHICLE DETECTION WIRING
- 3. CONSTRUCT SIDEWALK PER DETAIL SHOWN ON DETAIL $\frac{4}{4}$
- 4. CONSTRUCT CURB TYPE C1-6 PER CITY OF SAN CLEMENTE STD. PLAN STD. NO. ST.-6
- 5. CONSTRUCT CONCRETE MEDIAN
- 6. CONSTRUCT LANDSCAPE-CENTER-MEDIAN PER DETAIL $\frac{5}{4}$
- 7. IRRIGATION LATERAL PER SPECIFICATION



SCALE: 1"=40'

REVISIONS				REFERENCES				APPROVALS				ENGINEERING SCALE : 1"=40'	DATE:		CIVIL IMPROVEMENT PLAN NORTH EL CAMINO REAL CAMINO CAPISTRANO TO AVENIDA ESTACION Project No. 13308			DRAWING NO:
REV.	DATE:	DESCRIPTION	BY:	APP'VD:								DRAWN BY : SB DESIGNED BY : TF/SB CHECKED BY : TF APPROVED : <i>Tom Bonigut</i> THOMAS A. BONIGUT LRCE 53961 ASSISTANT CITY ENGINEER	11/2015			SHEET <u>2</u> OF <u>29</u>		
												DATE	12/17/15					

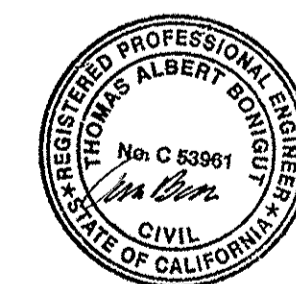
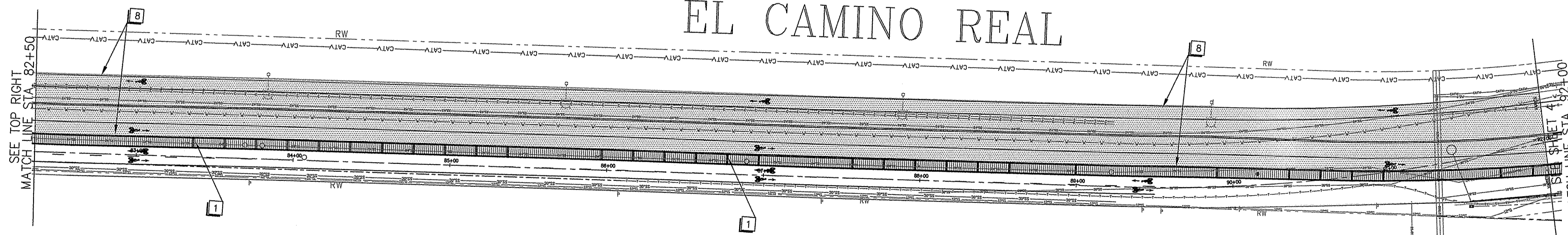
EL CAMINO REAL



CONSTRUCTION NOTES

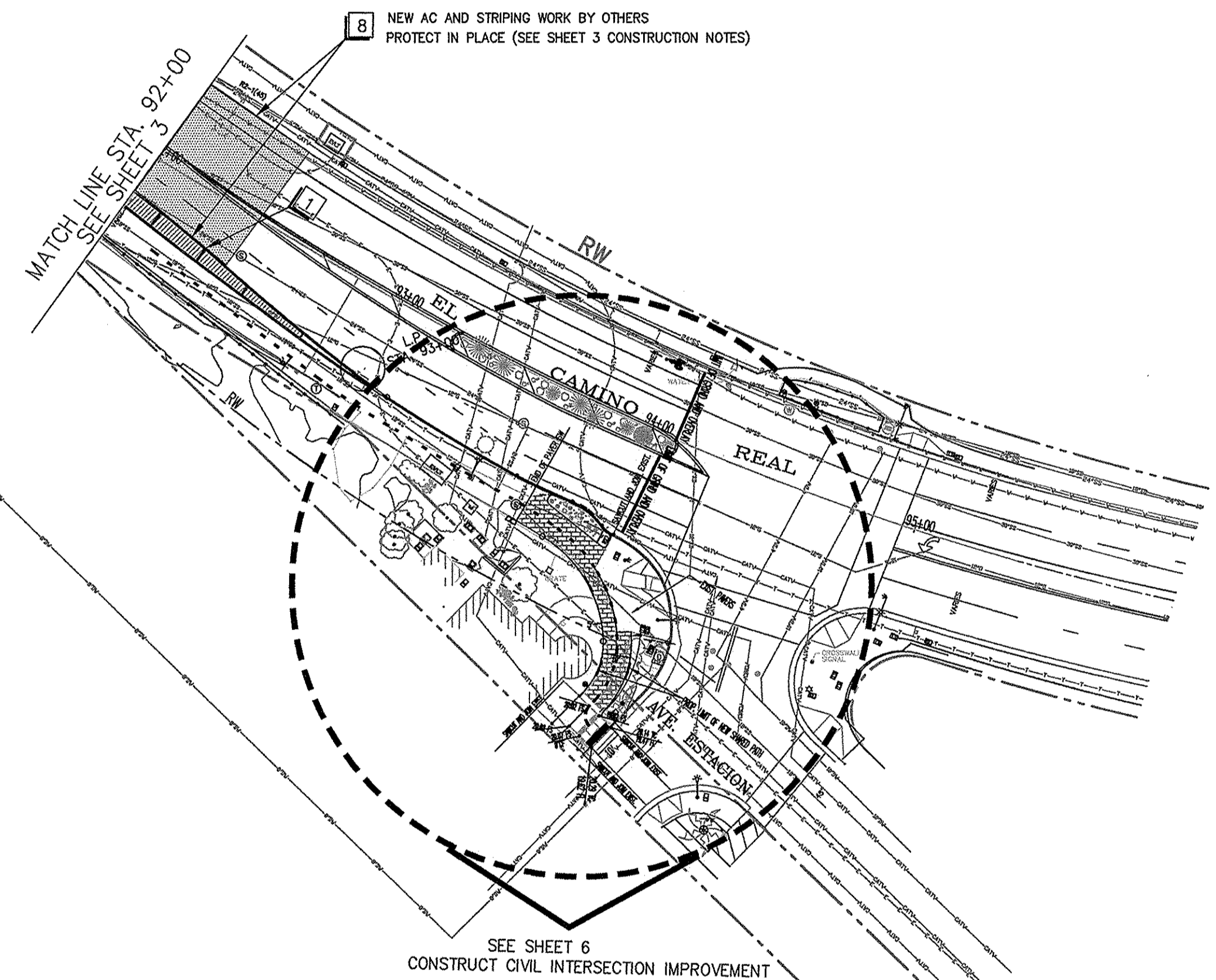
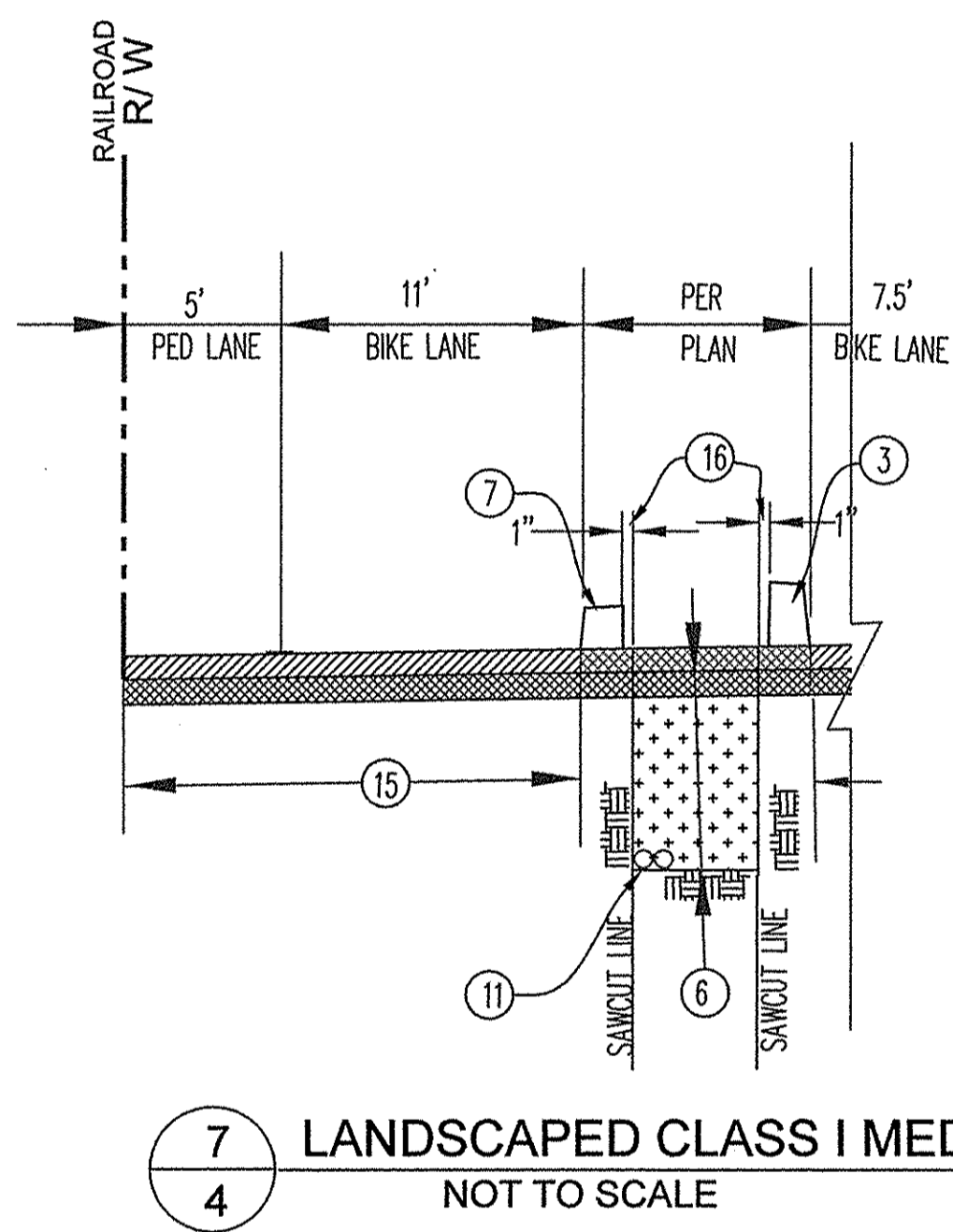
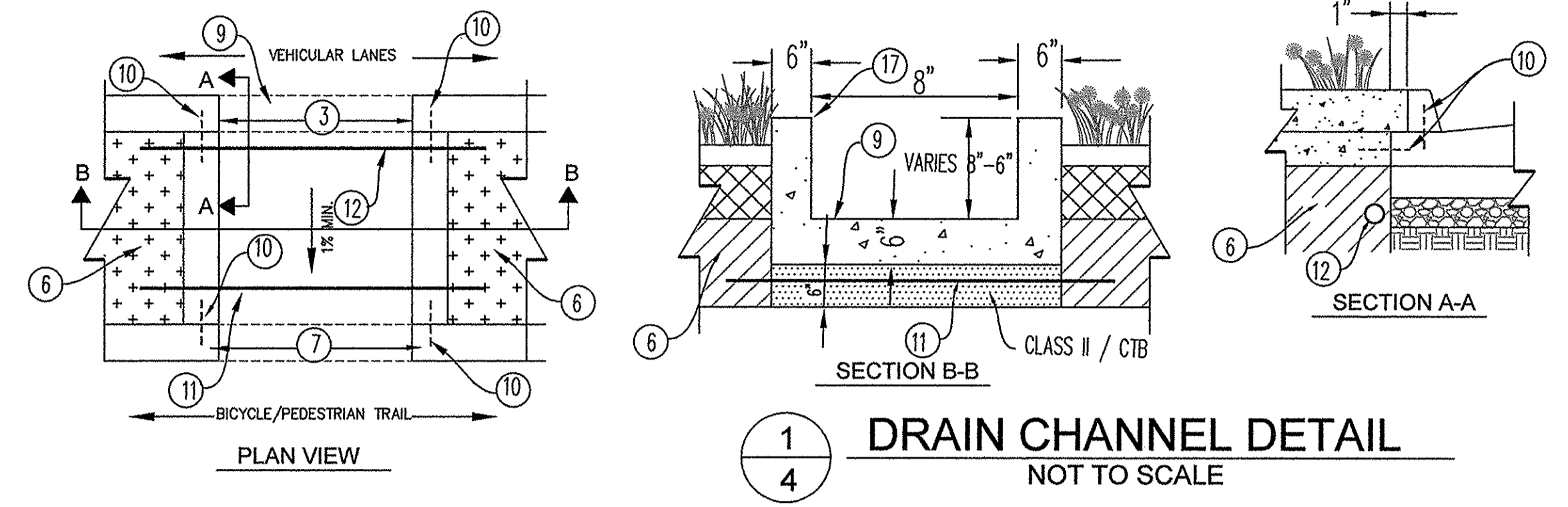
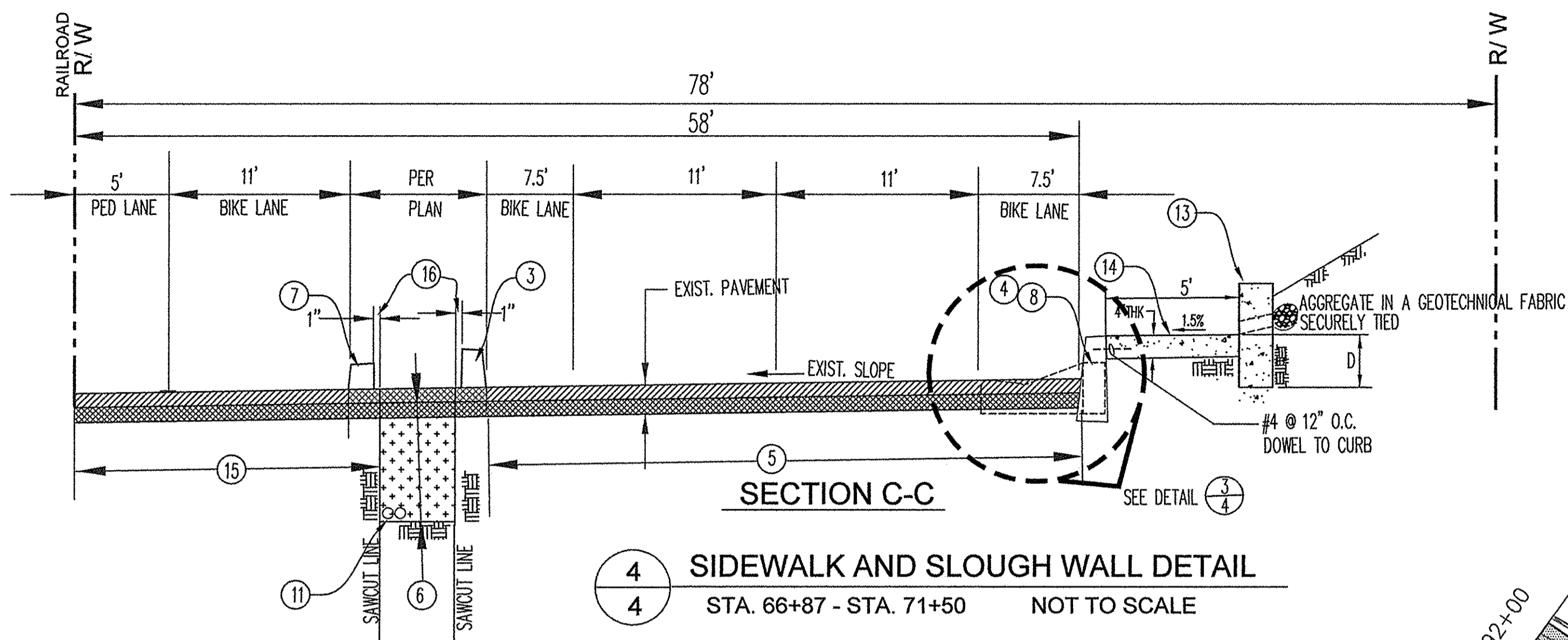
- 1. CONSTRUCT DRAINAGE CHANNEL PER DETAIL $\frac{1}{4}$
- 2. PROTECT IN PLACE EXIST. SIGNAL VEHICLE DETECTION WIRING
- 3. CONSTRUCT SIDEWALK PER DETAIL SHOWN ON DETAIL $\frac{4}{4}$
- 4. CONSTRUCT CURB TYPE C1-6 PER CITY OF SAN CLEMENTE STD. PLAN STD. NO. ST.-6
- 5. CONSTRUCT CONCRETE MEDIAN
- 6. CONSTRUCT LANDSCAPE CENTER MEDIAN PER DETAIL $\frac{5}{4}$
- 7. IRRIGATION LATERAL PER SPECIFICATION
- 8. LIMITS OF WORK BY OTHERS. PROTECT NEW AC AND DELINEATION IN PLACE

EL CAMINO REAL

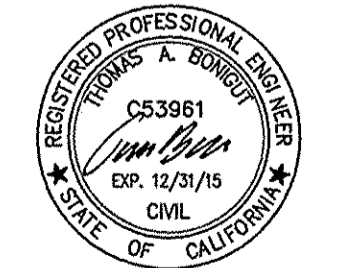
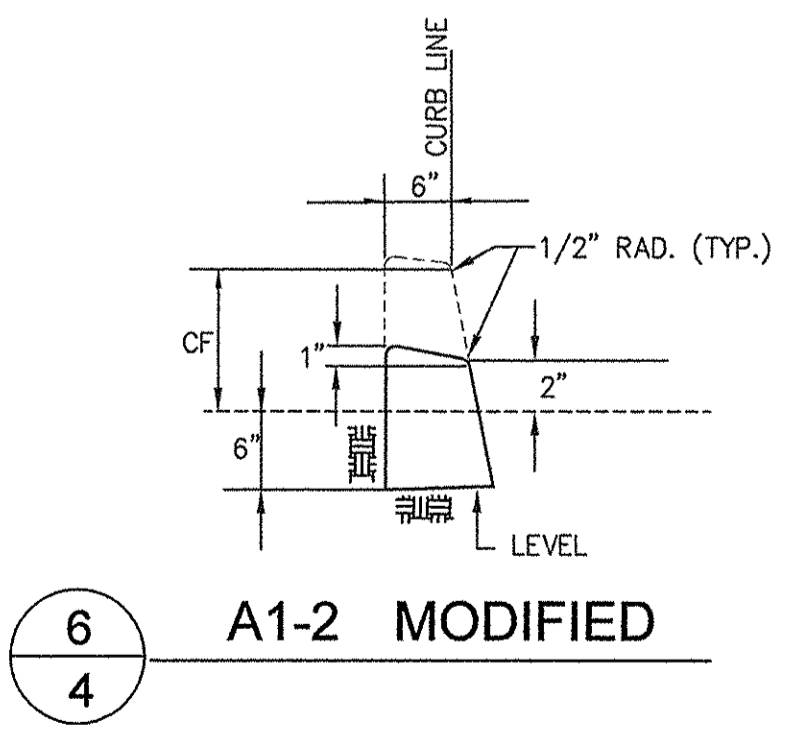
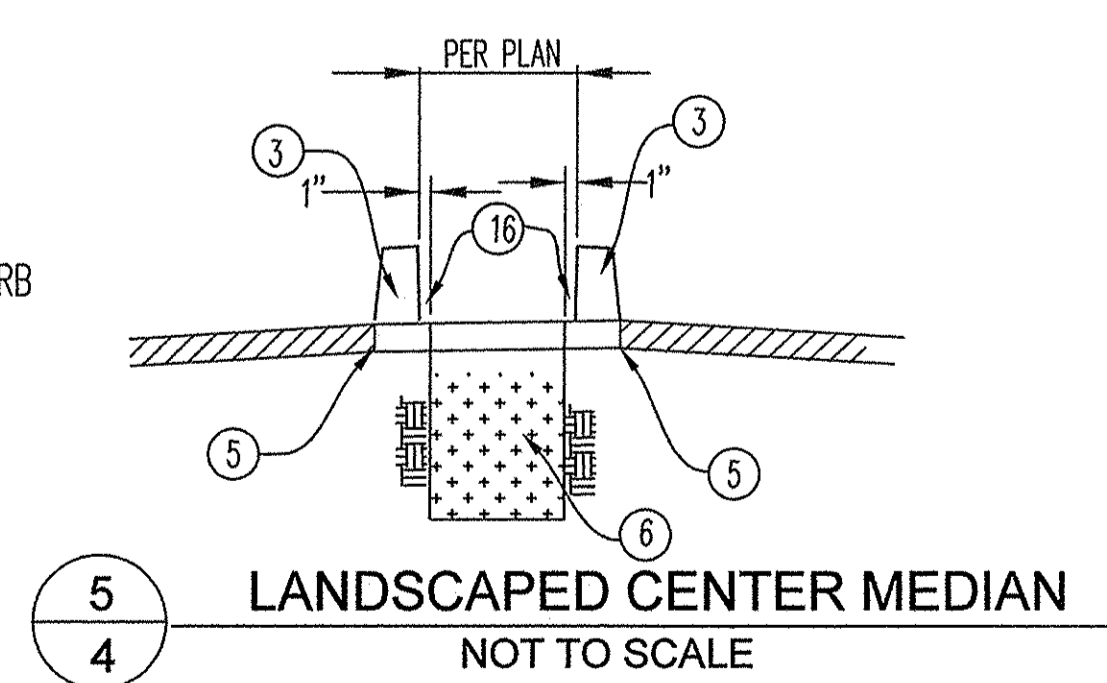
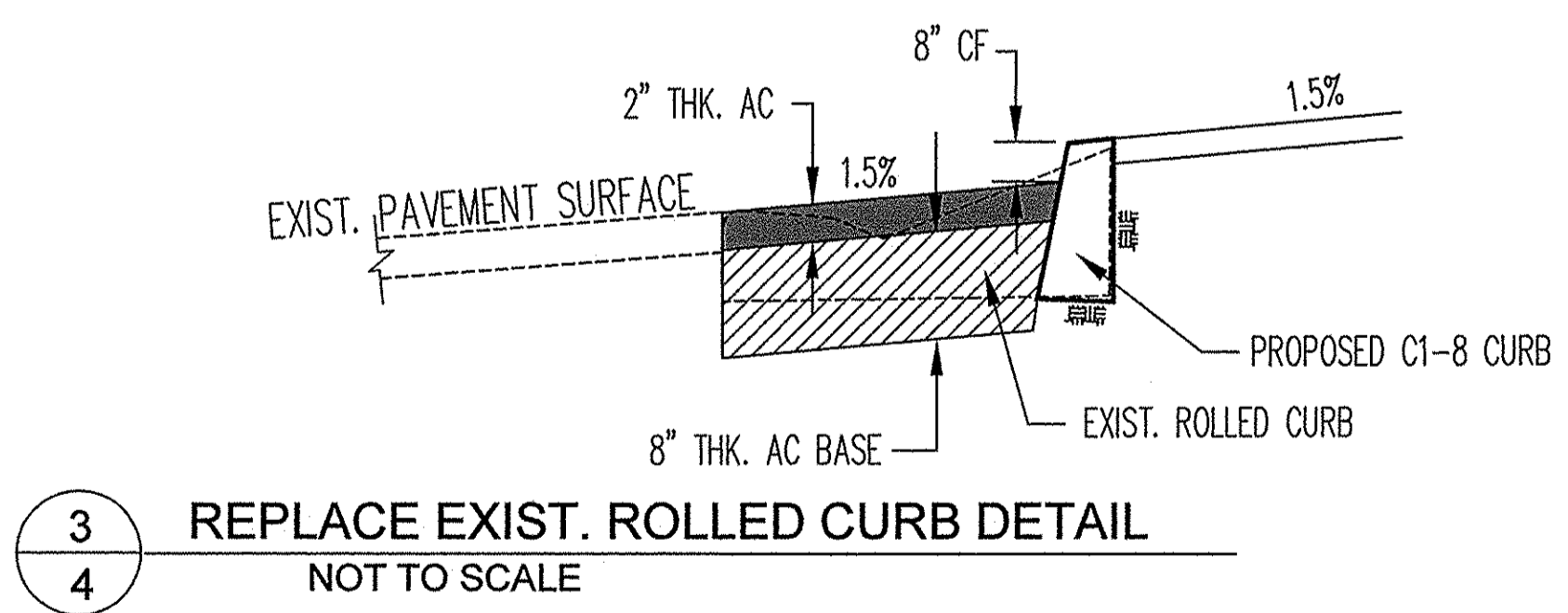
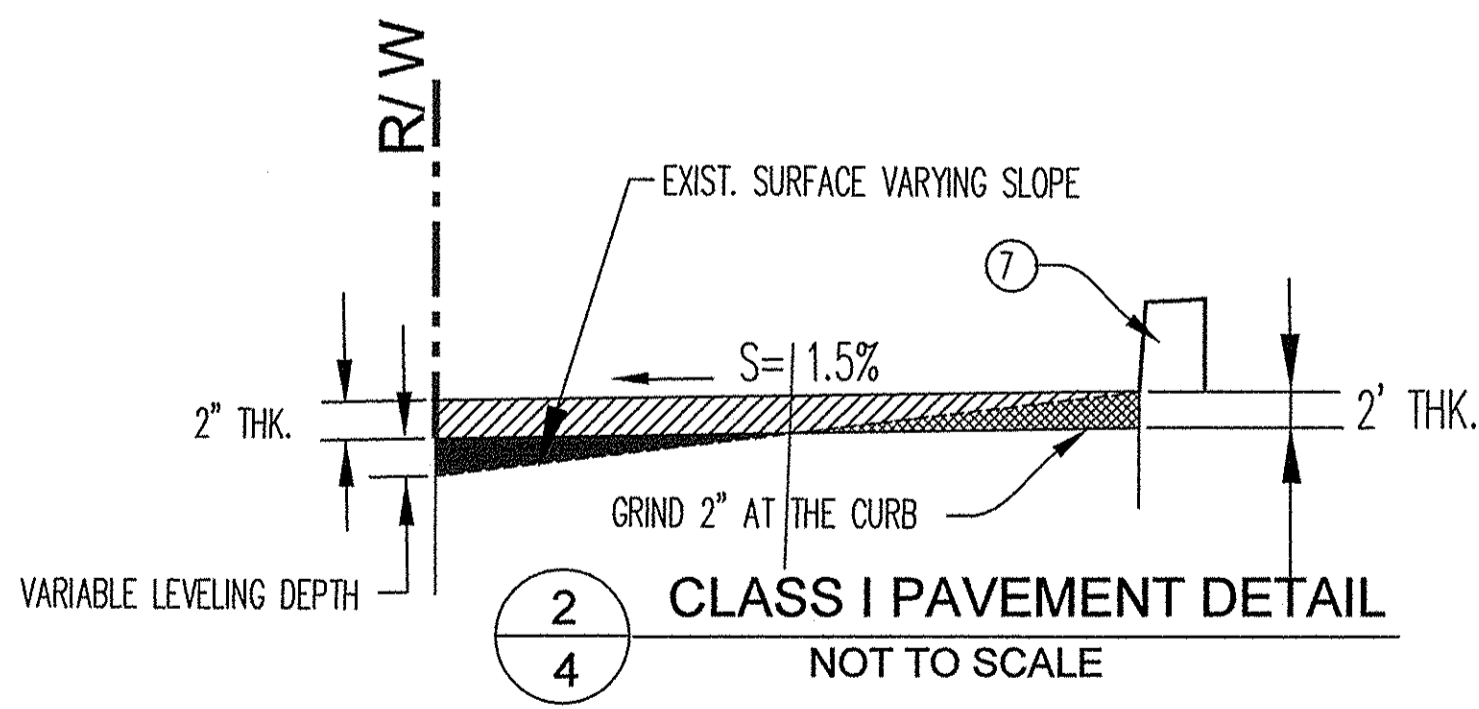


SCALE: 1"=40'

				ENGINEERING SCALE : 1"=40'	DATE: 11/2015		CIVIL IMPROVEMENT PLAN NORTH EL CAMINO REAL CAMINO CAPISTRANO TO AVENIDA ESTACION Project No. 13308	DRAWING NO:	
				DRAWN BY : SB	DESIGNED BY : SB			11/2015	SHEET 3
				CHECKED BY : TF	DATE: 11/2015			OF 29	
REV.	DATE:	DESCRIPTION	BY:	APP'VD:	APPROVED:	 THOMAS A. BONIGLIA RCE 53961 ASSISTANT CITY ENGINEER	CITY OF SAN CLEMENTE		
REVISIONS				REFERENCES	APPROVALS				

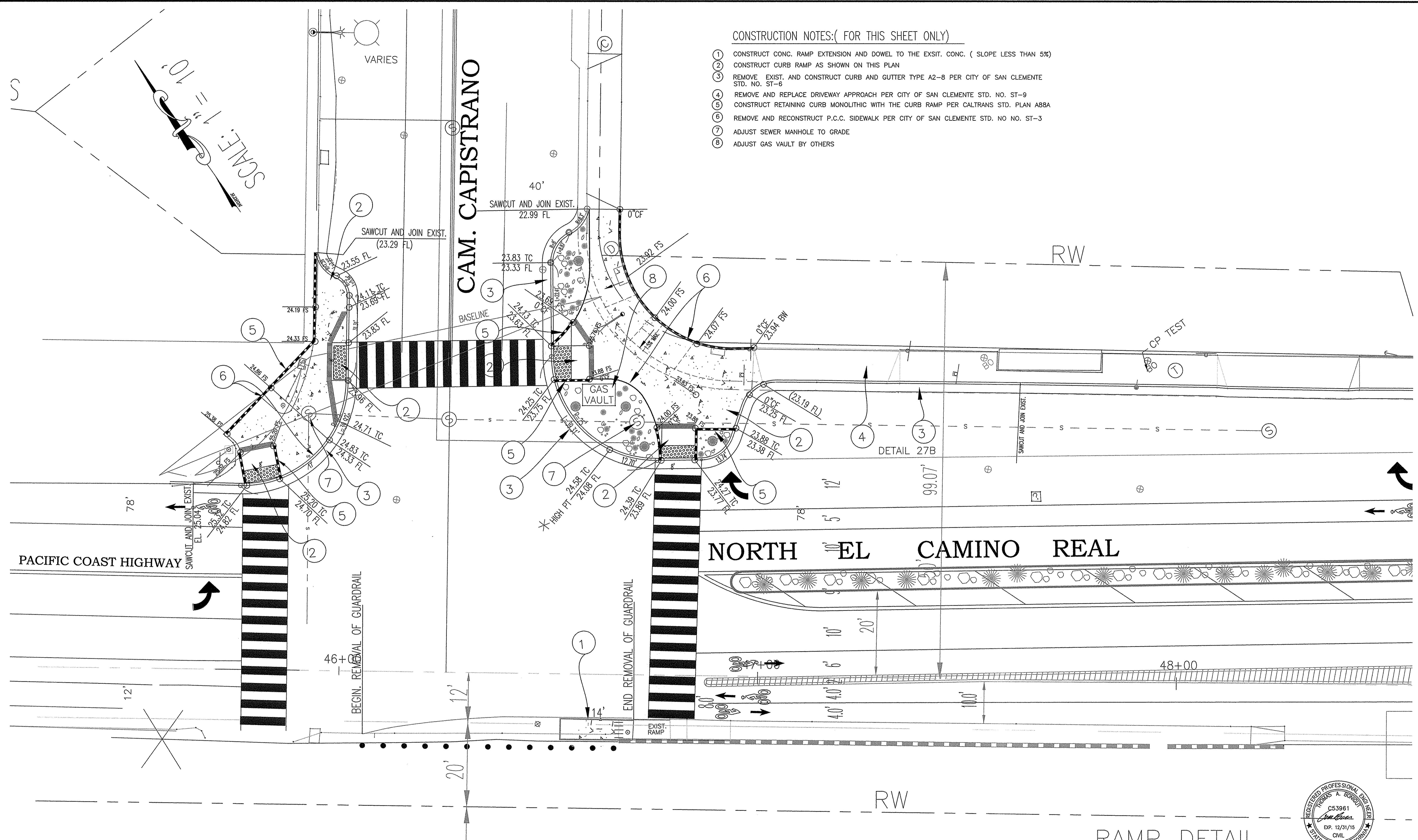


- CONSTRUCTION NOTES: (FOR DETAILS ONLY)
1. CONSTRUCT 2" THK. AC WITH 1/2" MAX. AGGREGATE
 2. CONSTRUCT 8" THK. OF A.C. BASE COURSE WITH 3/4" MAX. AGGREGATE
 3. CONSTRUCT C1-8 CURB AND GUTTER PER CITY OF SAN CLEMENTE STD. PLAN STD. NO. ST-6
 4. REMOVE EXISTING CONCRETE ROLLED CURB
 5. COLDPLANE EXISTING PAVEMENT AND OVERLAY 2" THK. WITH 1/2" MAX. AGGREGATE
 6. REMOVE 15" THK. OF EXIST. PAVEMENT (5"-7" PCC AND 8"-10" AC)
 7. CONSTRUCT C1-8 CURB PER CITY OF SAN CLEMENTE STD. PLAN STD. NO. ST-6
 8. CONSTRUCT A1-8 CURB PER CITY OF SAN CLEMENTE STD. PLAN STD. NO. ST-6
 9. PCC CONCRETE 520-C 250 SMOOTH FINISH FLOWLINE
 10. INSTALL 6"-#3 DOWEL
 11. INSTALL 2-3" DIA. CONDUIT (STA. 46+87 TO STA. 94+50)
 12. INSTALL 2" DIA. IRRIGATION
 13. INSTALL CONCRETE SLOUGH WALL PER LA COUNTY DEPARTMENT OF PUBLIC WORKS STD.PLAN 6203-1
 14. CONSTRUCT CONCRETE SIDEWALK
 15. GRIND EXISTING AC LEVEL AND OVERLAY PER DETAIL 2 SHEET 4
 16. SAWCUT LINE 1" BEHIND BACK OF THE CURB
 17. CONSTRUCT 6" WIDE CONCRETE CHANNEL SIDE WALL. 6" TO 8" HIGH



SCALE: 1"=40'

REVISIONS			REFERENCES			APPROVALS			ENGINEERING SCALE : 1"=40'	DATE: 11/2015		CIVIL IMPROVEMENT PLAN NORTH EL CAMINO REAL CAMINO CAPISTRANO TO AVENIDA ESTACION Project No. 13308 CITY OF SAN CLEMENTE	DRAWING NO:
REV.	DATE:	DESCRIPTION	BY:	APP'VD:				DRAWN BY : SB	DESIGNED BY : SB	11/2015			SHEET
								CHECKED BY : TF		11/2015			OF
									APPROVED :	<i>Thomas A. Bonigut</i>	DATE: 12/17/15	4 29	
									THOMAS A. BONIGUT RCE 53981 ASSISTANT CITY ENGINEER				



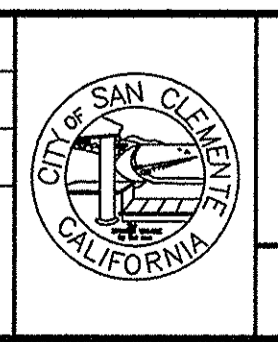
- CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)**
- 1 CONSTRUCT CONC. RAMP EXTENSION AND DOWEL TO THE EXIST. CONC. (SLOPE LESS THAN 5%)
 - 2 CONSTRUCT CURB RAMP AS SHOWN ON THIS PLAN
 - 3 REMOVE EXIST. AND CONSTRUCT CURB AND GUTTER TYPE A2-8 PER CITY OF SAN CLEMENTE STD. NO. ST-6
 - 4 REMOVE AND REPLACE DRIVEWAY APPROACH PER CITY OF SAN CLEMENTE STD. NO. ST-9
 - 5 CONSTRUCT RETAINING CURB MONOLITHIC WITH THE CURB RAMP PER CALTRANS STD. PLAN AB8A
 - 6 REMOVE AND RECONSTRUCT P.C.C. SIDEWALK PER CITY OF SAN CLEMENTE STD. NO. ST-3
 - 7 ADJUST SEWER MANHOLE TO GRADE
 - 8 ADJUST GAS VAULT BY OTHERS

REV.	DATE:	DESCRIPTION	BY:	APP'VD:
REVISIONS				

DATE:	BY:	SIGNATURE:	TITLE
REFERENCES			

DATE:	BY:	SIGNATURE:	TITLE
APPROVALS			

ENGINEERING SCALE :	AS SHOWN	DATE:	11/2015
DRAWN BY :	SB	DESIGNED BY :	SB
CHECKED BY :	BP/TF	DATE:	12/1/15
APPROVED :	<i>Thomas A. Bonigut</i>	DATE:	12/1/15
THOMAS A. BONIGUT RCE 53961		ASSISTANT CITY ENGINEER	



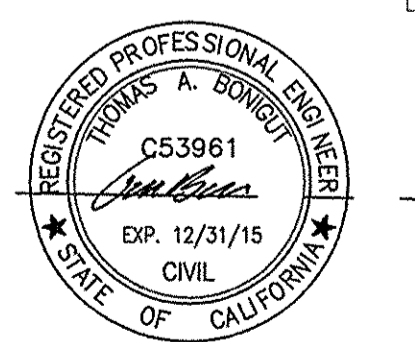
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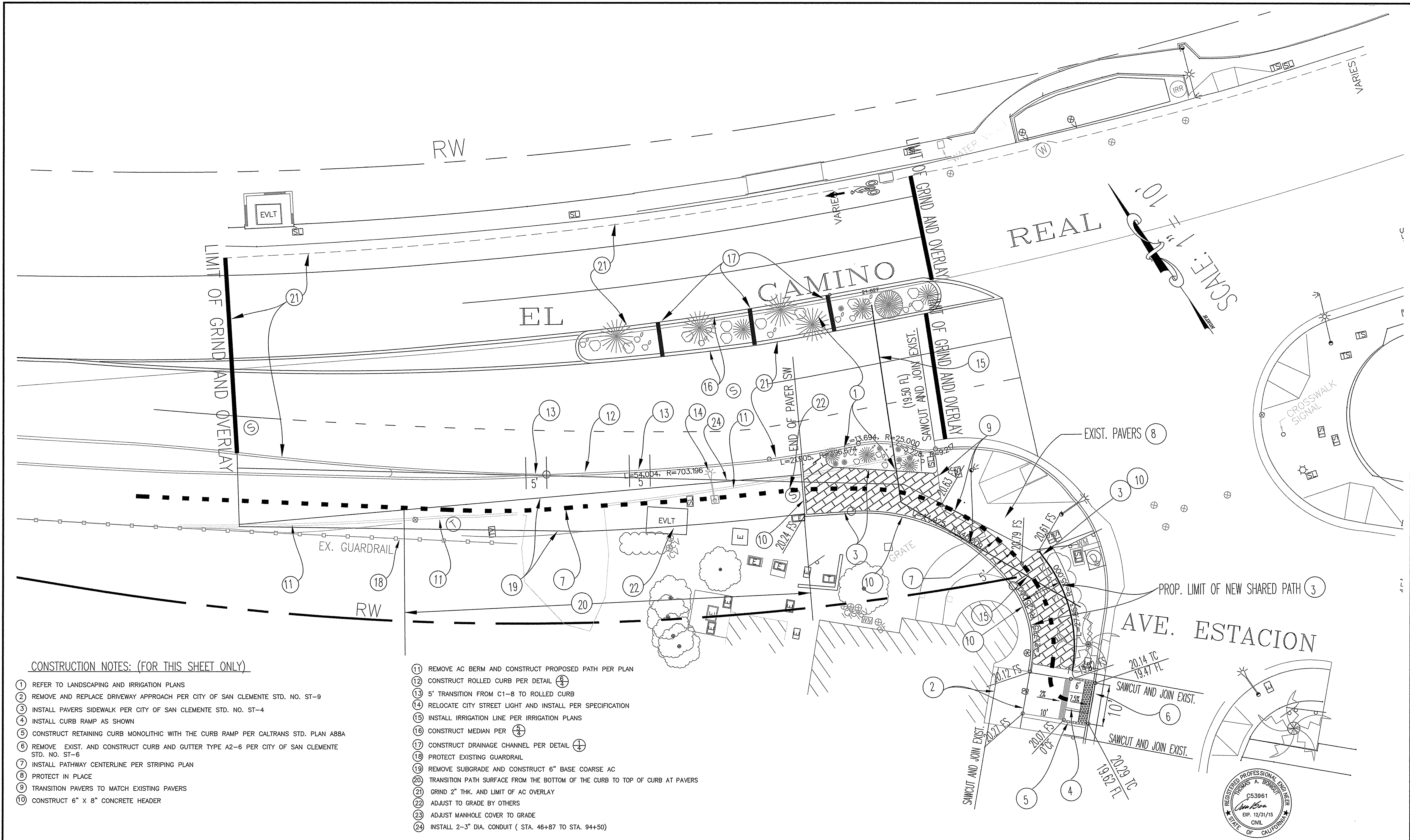
CAM. CAPISTRANO/NORTH ECR HCR

DETAIL

CITY OF SAN CLEMENTE

DRAWING NO:	
SHEET	5
OF	29





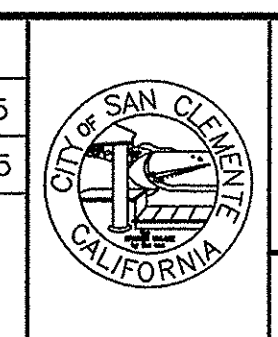
CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

- 1 REFER TO LANDSCAPING AND IRRIGATION PLANS
- 2 REMOVE AND REPLACE DRIVEWAY APPROACH PER CITY OF SAN CLEMENTE STD. NO. ST-9
- 3 INSTALL PAVERS SIDEWALK PER CITY OF SAN CLEMENTE STD. NO. ST-4
- 4 INSTALL CURB RAMP AS SHOWN
- 5 CONSTRUCT RETAINING CURB MONOLITHIC WITH THE CURB RAMP PER CALTRANS STD. PLAN AB8A
- 6 REMOVE EXIST. AND CONSTRUCT CURB AND GUTTER TYPE A2-6 PER CITY OF SAN CLEMENTE STD. NO. ST-6
- 7 INSTALL PATHWAY CENTERLINE PER STRIPING PLAN
- 8 PROTECT IN PLACE
- 9 TRANSITION PAVERS TO MATCH EXISTING PAVERS
- 10 CONSTRUCT 6" X 8" CONCRETE HEADER

- 11 REMOVE AC BERM AND CONSTRUCT PROPOSED PATH PER PLAN
- 12 CONSTRUCT ROLLED CURB PER DETAIL 4
- 13 5' TRANSITION FROM C1-8 TO ROLLED CURB
- 14 RELOCATE CITY STREET LIGHT AND INSTALL PER SPECIFICATION
- 15 INSTALL IRRIGATION LINE PER IRRIGATION PLANS
- 16 CONSTRUCT MEDIAN PER 5/4
- 17 CONSTRUCT DRAINAGE CHANNEL PER DETAIL 4
- 18 PROTECT EXISTING GUARDRAIL
- 19 REMOVE SUBGRADE AND CONSTRUCT 6" BASE COARSE AC
- 20 TRANSITION PATH SURFACE FROM THE BOTTOM OF THE CURB TO TOP OF CURB AT PAVERS
- 21 GRIND 2" THK. AND LIMIT OF AC OVERLAY
- 22 ADJUST TO GRADE BY OTHERS
- 23 ADJUST MANHOLE COVER TO GRADE
- 24 INSTALL 2-3" DIA. CONDUIT (STA. 46+87 TO STA. 94+50)

REV.	DATE:	DESCRIPTION	BY:	APP'VD:	DATE:	BY:	SIGNATURE:	TITLE	
		REVISIONS					REFERENCES		
							APPROVALS		

ENGINEERING SCALE :	AS SHOWN	DATE:	
DRAWN BY :	SB	DESIGNED BY :	SB
CHECKED BY :	BP/TF	DATE:	11/2015
APPROVED :	<i>Thomas A. Bonigut</i>	DATE:	12/14/15
THOMAS A. BONIGUT RCE 53961		ASSISTANT CITY ENGINEER	



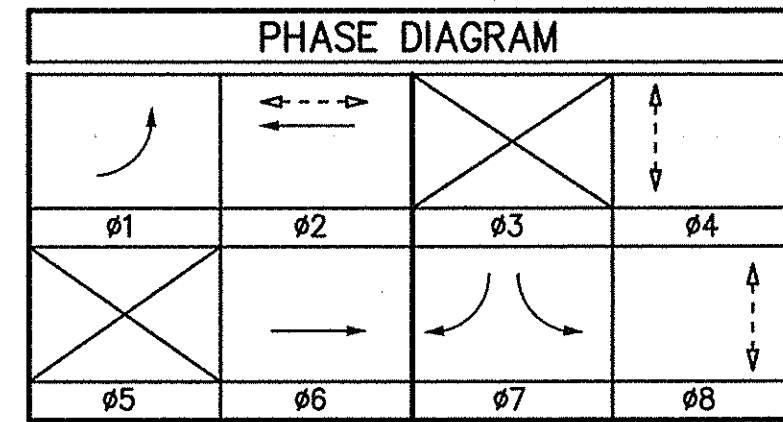
AVE. ESTACION/ EL CAMINO REAL INTERSECTION
DETAIL OF
PROPOSED SHARED PATH
 CITY OF SAN CLEMENTE

DRAWING NO:	
SHEET	6
OF	29

CONDUCTOR TABLE							
AWG	CIRCUITS	RUNS					
		▲	▲	▲	▲	▲	
#14	Ø2	3	3	3	3	3	
	Ø4	3	3	3	3	3	
	Ø5	3	3	3	3	6	
	Ø6	3	3	3	3	6	
	Ø4 PED	2	2	2	2	4	
	Ø6 PED	-	-	-	-	2	
	Ø4 PPB	1	1	1	1	2	
	Ø6 PPB	-	-	-	-	1	
	PPB COM	1	1	1	1	2	
	SPARES	3	3	3	3	6	
	TOTAL	19	19	19	22	38	
	#20	OPTICOM CA	1	2	3	3	3
	#12	USNS	2	2	2	2	-
	DLC	Ø2	-	4	4	4	4
Ø4		-	-	-	3	3	
Ø5		-	1	1	1	1	
Ø6		-	-	-	-	4	
TOTAL DLC		-	5	5	8	12	
#10	LUMINAIRE	2	2	2	2	-	
	SIG COM	1	1	1	1	2	
	TOTAL	3	3	3	3	2	
CONDUIT FILL %		19	33	34	31	14EA	
CONDUIT SIZE		2	2	2	2.5	2.3	

- CONSTRUCTION NOTES:**
- EXISTING CONTROLLER WITH OPTICOM EMERGENCY VEHICLE PRE-EMPTION, SYSTEM IN A TYPE P CABINET. INSTALL 2 CHANNEL LOOP DETECTOR UNIT AND BICYCLE TIMING FOR PHASE 2 AND PHASE 6.
 - RELOCATE POLE AND EQUIPMENT AS SHOWN ON POLE SCHEDULE. REMOVE POLE FOUNDATION.
 - REMOVE AND SALVAGE PPB POST. REMOVE FOUNDATION.
 - INSTALL TYPE 'E', 6" DIAMETER LOOP DETECTORS CENTERED IN LANES OR AS SHOWN. FRONT LOOPS SHALL BE MODIFIED TYPE 'E' WITH DIAGONAL WIRING SIMILAR TO TYPE 'Q' LOOPS PER E5-5B.
 - INSTALL TYPE 'D', 6'X6' LOOP DETECTORS CENTERED IN LANES OR AS SHOWN.
 - INSTALL BICYCLE SIGNAL, SEE POLE SCHEDULE.
 - REMOVE AND SALVAGE Ø2 AND Ø4 PEDESTRIAN HEADS ON POLE 2. TAKE TO CITY YARD. INSTALL NEW TOP MOUNT Ø4 PEDESTRIAN HEAD.

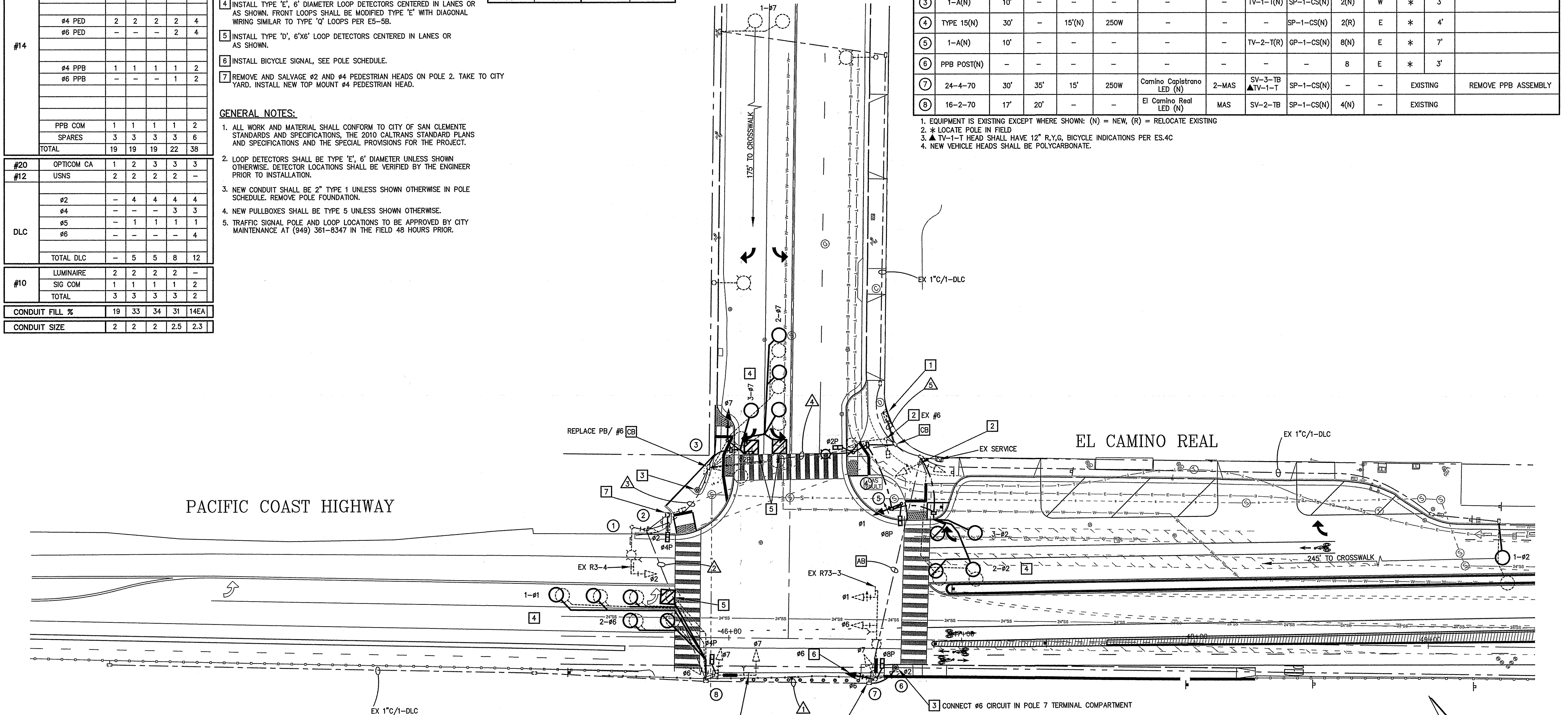
- GENERAL NOTES:**
- ALL WORK AND MATERIAL SHALL CONFORM TO CITY OF SAN CLEMENTE STANDARDS AND SPECIFICATIONS, THE 2010 CALTRANS STANDARD PLANS AND SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR THE PROJECT.
 - LOOP DETECTORS SHALL BE TYPE 'E', 6" DIAMETER UNLESS SHOWN OTHERWISE. DETECTOR LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
 - NEW CONDUIT SHALL BE 2" TYPE 1 UNLESS SHOWN OTHERWISE IN POLE SCHEDULE. REMOVE POLE FOUNDATION.
 - NEW PULLBOXES SHALL BE TYPE 5 UNLESS SHOWN OTHERWISE.
 - TRAFFIC SIGNAL POLE AND LOOP LOCATIONS TO BE APPROVED BY CITY MAINTENANCE AT (949) 361-8347 IN THE FIELD 48 HOURS PRIOR.



POLE SCHEDULE													
NO.	TYPE	HEIGHT	SIG MA	LUM MA	HPSV LUMINAIRE	I.I.S.N.S.	SIGNAL MOUNTING		PED PUSH BTN		POLE LOC		REMARKS
							VEHICLE	PED	PHASE	QUAD	A	B	
1	17-2-70	30'	20'	12'	250W	Camino Capistrano LED (N)	MAS	SV-1-T	SP-1-CS(N)	-	-	EXISTING	
2	1-A	7'	-	-	-	-	-	-	TP-1-CS(N)	4(N)	E	EXISTING	
3	1-A(N)	10'	-	-	-	-	-	TV-1-T(N)	SP-1-CS(N)	2(N)	W	*	3'
4	TYPE 15(N)	30'	-	15'(N)	250W	-	-	-	SP-1-CS(N)	2(R)	E	*	4'
5	1-A(N)	10'	-	-	-	-	-	TV-2-T(R)	GP-1-CS(N)	8(N)	E	*	7'
6	PPB POST(N)	-	-	-	-	-	-	-	-	8	E	*	3'
7	24-4-70	30'	35'	15'	250W	Camino Capistrano LED (N)	2-MAS	SV-3-TB ▲TV-1-T	SP-1-CS(N)	-	-	EXISTING	REMOVE PPB ASSEMBLY
8	16-2-70	17'	20'	-	-	El Camino Real LED (N)	MAS	SV-2-TB	SP-1-CS(N)	4(N)	-	EXISTING	

- EQUIPMENT IS EXISTING EXCEPT WHERE SHOWN: (N) = NEW, (R) = RELOCATE EXISTING
- * LOCATE POLE IN FIELD
- ▲ TV-1-T HEAD SHALL HAVE 12" R,Y,G, BICYCLE INDICATIONS PER ES.4C
- NEW VEHICLE HEADS SHALL BE POLYCARBONATE.

CAMINO CAPISTRANO



APPROVED WITH DANA POINT

DATE _____

Plan Prepared By: _____ Date: 12-15-15

KOA CORPORATION
PLANNING & ENGINEERING
2141 W. Orangewood Avenue, Suite A
Orange, CA. 92668
Tel: (714)573-0317 Fax: (714)573-9534

REGISTERED PROFESSIONAL ENGINEER
MIN 2100
No. C66448
Exp. 06/30/16
CIVIL
STATE OF CALIFORNIA

ENGINEERING SCALE : 1"=20'	DATE: 12/15/15	TRAFFIC SIGNAL MODIFICATION PLAN EL CAMINO REAL AND CAMINO CAPISTRANO Project No. 13308 CITY OF SAN CLEMENTE	DRAWING NO:
DRAWN BY : SV	DESIGNED BY : JJS		SHEET 7
CHECKED BY : MZ	APPROVED : <i>Thomas A. Bonigut</i> THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER	OF 29	

REV.	DATE	DESCRIPTION	BY	APP'VD
REVISIONS				
REFERENCES				
APPROVALS				

CONDUCTOR SCHEDULE				
AWG	CIRCUIT	△	△	△
12 CSC	POLE 1 #2		1	1
	POLE 2 #1, #2			1
	POLE 3 #1, #4, #6	2		2
	POLE 4 #4, #6		1	1
TOTAL 12 CSC		2	2	5
3 CSC	POLE 1 #2 PPB, #4 PPB		1	1
	POLE 2 #2 PPB			2
	POLE 4 #4 PPB	1		1
TOTAL 3 CSC		1	1	4
#12	IISNS	2	2	2
#10	LUMINAIRE	2	2	2
DLC TYPE B	#2 (1-SPARE)		3	3
	#4		2	2
	#5		1	1
	#6 (1-SPARE)			4
	TOTAL DLC			5
EVP CABLE (3M MODEL 138 CABLE)		1	2	1
EXISTING CONDUIT/SIZE		3"	4"	3"
PERCENT FILL				

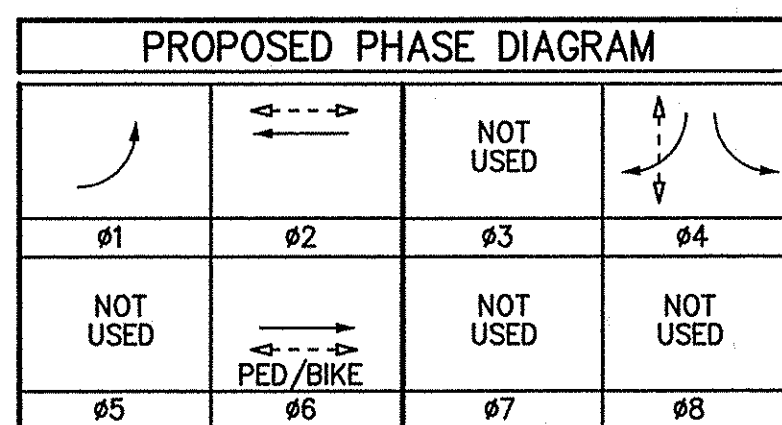
- CONDUCTORS AND CABLES ARE EXISTING.
- SPLICE LOOPS IN ADJACENT PULL BOXES.
- ADD DLC'S FOR PHASE 6.

CONSTRUCTION NOTES:

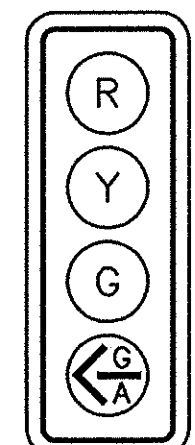
- EXISTING CONTROLLER AND OPTICOM EMERGENCY VEHICLE PRE-EMPTION, AND 10 LOOP DETECTOR CHANNELS IN A TYPE P CABINET. INSTALL BICYCLE TIMING.
- SAW-CUT NEW LOOP DETECTORS TO EXISTING CONDUIT STUB-OUTS WHERE SHOWN. SPLICE TO EXISTING DLC'S IN ADJACENT PULL BOXES.
- INSTALL TYPE 'E', 6" DIAMETER LOOP DETECTORS CENTERED IN LANES OR AS SHOWN. FRONT LOOPS SHALL BE MODIFIED TYPE 'E' WITH DIAGONAL WIRING SIMILAR TO TYPE 'Q' LOOPS PER E5-5B.
- INSTALL TYPE 'D', 6'x6" LOOP DETECTORS CENTERED IN LANES OR AS SHOWN.
- REMOVE AND SALVAGE TO CITY YARD CONTACT (949) 361-8347 TYPE 26 POLE. SEE POLE SCHEDULE FOR REUSED FIXTURES. REMOVE FOUNDATION TO 36" BELOW GRADE.
- INSTALL PPB POST IN MEDIAN NOSE FOR PHASE 4. ARROW TO FACE LEFT.
- INSTALL 12" 3-SECTION SIGNAL HEAD WITH BICYCLE INDICATIONS PER ES-4C.

GENERAL NOTES:

- ALL WORK AND MATERIAL SHALL CONFORM TO THE CITY OF SAN CLEMENTE STANDARDS AND SPECIFICATIONS, THE 2010 CALTRANS STANDARD PLANS AND SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR THE PROJECT.
- LOOP DETECTORS SHALL BE TYPE 'E', 6" DIAMETER UNLESS SHOWN OTHERWISE. DETECTOR LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
- TRAFFIC SIGNAL POLE AND LOOP LOCATIONS TO BE APPROVED BY CITY MAINTENANCE AT (949) 361-8347 IN THE FIELD 48 HOURS PRIOR.



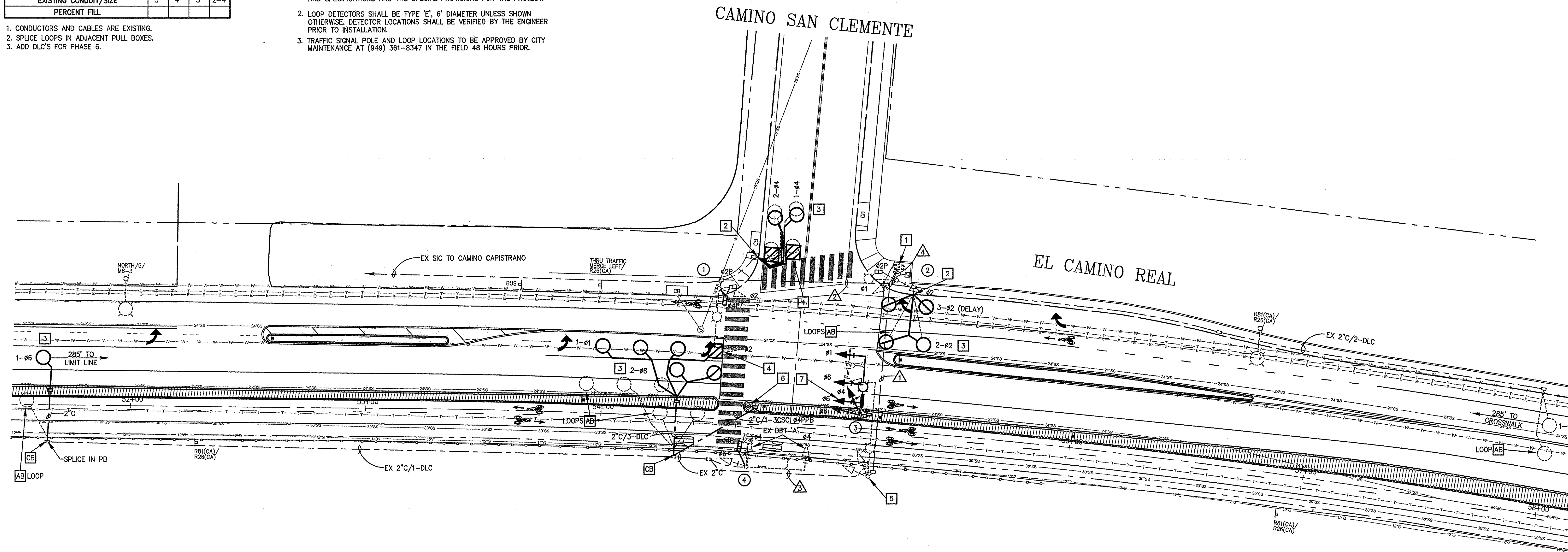
ADD PHASE 6 BIKE AND PED CROSSING.
ADD PHASE 4 PED CROSSING.



DETAIL A

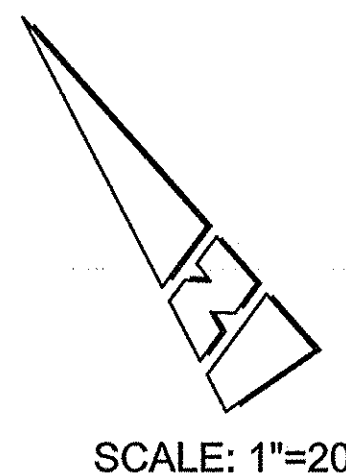
POLE SCHEDULE													
NO.	TYPE	HEIGHT	SIG MA	LUM MA	HPSV LUMINAIRE	I.I.S.N.S.	SIGNAL MOUNTING			PED PUSH BTN	POLE LOC		Remarks
							VEHICLE	PED	PHASE		QUAD	A	
1	19-4-129	30'	25'	12'	250W	Camino San Clemente LED (N)	MAS	SV-1-T	-	2	N	EXISTING	
2	TYPE 15	30'	-	12'	250W	-	-	SV-2-T	SP-1-T	2	N	EXISTING	
3	19-4-100(N)	30'	25'(N)	12'(N)	250W(R)	Camino San Clemente LED (N)	3-MAS (N)	SV-2-TA (N)	SP-1-CS (N)	-	-	* *	
4	19-4-129	30'	25'	12'	250W	El Camino Real LED (N)	MAS	SV-2-T	-	-	-	EXISTING	

- EQUIPMENT IS EXISTING IN PLACE UNLESS SHOWN: (N)=NEW (R)= RELOCATE
- * POLE LOCATION IS LOCATED AT CENTER OF PROPOSED MEDIAN. POLE LOCATION SHALL BE CONFIRMED BY THE ENGINEER PRIOR TO DRILLING FOR CIDH. VEHICLE HEADS SHALL BE POLYCARBONATE PER CITY SPECIFICATIONS.



Plan Prepared By: *[Signature]* Date: 12-15-15

KOA CORPORATION
PLANNING & ENGINEERING
2141 W. Orangewood Avenue, Suite A
Orange, CA. 92668
Tel: (714)573-0317 Fax: (714)573-9534



SCALE: 1"=20'

ENGINEERING SCALE : 1"=20'		DATE: 12/15/15	
DRAWN BY : SV		DESIGNED BY : JJS	
CHECKED BY : MZ		APPROVED : <i>[Signature]</i>	
THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER		DATE: 12/15/15	

TRAFFIC SIGNAL MODIFICATION PLAN EL CAMINO REAL AND CAMINO SAN CLEMENTE			DRAWING NO:
Project No. 13308			SHEET 8
CITY OF SAN CLEMENTE			OF 29

REV.	DATE:	DESCRIPTION	BY:	APP'VD:
REVISIONS				
REFERENCES				
APPROVALS				

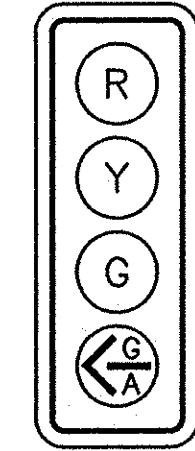
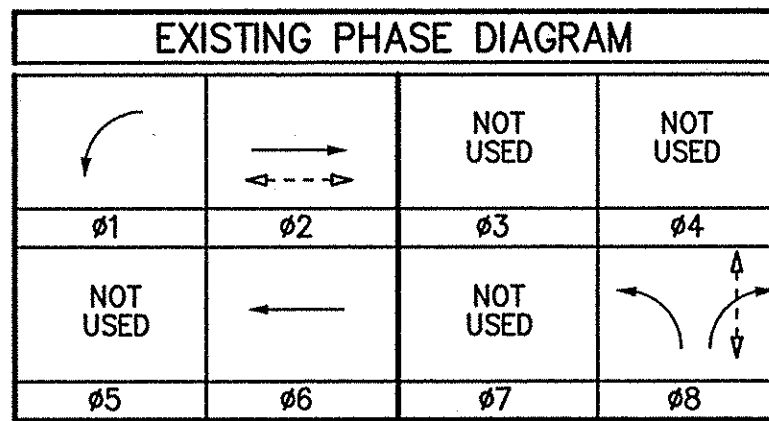
CONDUCTOR SCHEDULE						
AWG	CIRCUIT	△	△	△	△	△
12 CSC	POLE 1 #1, #6, #8				2	2
	POLE 2 #8, #8P	1	1	1		1
	POLE 3 #2, #6, #2P		2	2		2
	POLE 4 #8P			1		1
	POLE 5					
	POLE 6 #1, #2, #2P				1	1
TOTAL		1	3	4	2	3
3 CSC	POLE 1					
	POLE 2 #8 PPB	1	1	1		1
	POLE 3 #8 PPB		1	1		1
	POLE 4 #2 PPB			1		1
	POLE 5 #2 PPB					1
	POLE 6					
TOTAL		1	2	3		4
#12	IISNS	2	2	2	2	2
#10	LUMINAIRE	2	2	2	2	2
DLC TYPE B	#1	1	1	1		1
	#2					3
	#6	3	3	3		3
	#8			1		1
TOTAL		4	4	5		9
VIDEO DETECTION CABLE		1	2	2	1	1
VIDEO DETECTION POWER CABLE		1	2	2	1	1
EVP CABLE (3M MODEL 138 CABLE)		1	2	2	1	1
EXISTING CONDUIT/SIZE		3"	4"	2-4"	3"	4"
PERCENT FILL		26	26	16	20	18

CONSTRUCTION NOTES:

- EXISTING INTELLIGENT X2 CONTROLLER WITH OPTICOM EMERGENCY VEHICLE PRE-EMPTION, ITERIS EDGE VIDEO DETECTION SYSTEM IN A TYPE P-44 CABINET. REMOVE VIDEO DETECTION SYSTEM. INSTALL 5-2 CHANNEL LOOP DETECTOR UNITS AND BICYCLE TIMING FOR PHASE 2, PHASE 6, AND PHASE 8.
- SAW-CUT NEW LOOP DETECTORS + EXISTING 2" CONDUIT STUB-OUTS WHERE SHOWN. SPLICE TO EXISTING DLC'S IN ADJACENT PULL BOXES. REPLACE LOOP DETECTORS IN "P" CABINET.
- REMOVE AND SALVAGE TO CITY EXISTING VIDEO DETECTION CAMERAS AND MOUNTING. PLUG CABLE HOLES WATER TIGHT TO SATISFY CITY.
- INSTALL TYPE 'E', 6" DIAMETER LOOP DETECTORS CENTERED IN LANES OR AS SHOWN. FRONT LOOPS SHALL BE MODIFIED TYPE 'E' WITH DIAGONAL WIRING SIMILAR TO TYPE 'Q' LOOPS PER E5-5B.
- INSTALL TYPE 'D', 6"x6" LOOP DETECTORS CENTERED IN LANES OR AS SHOWN.

GENERAL NOTES:

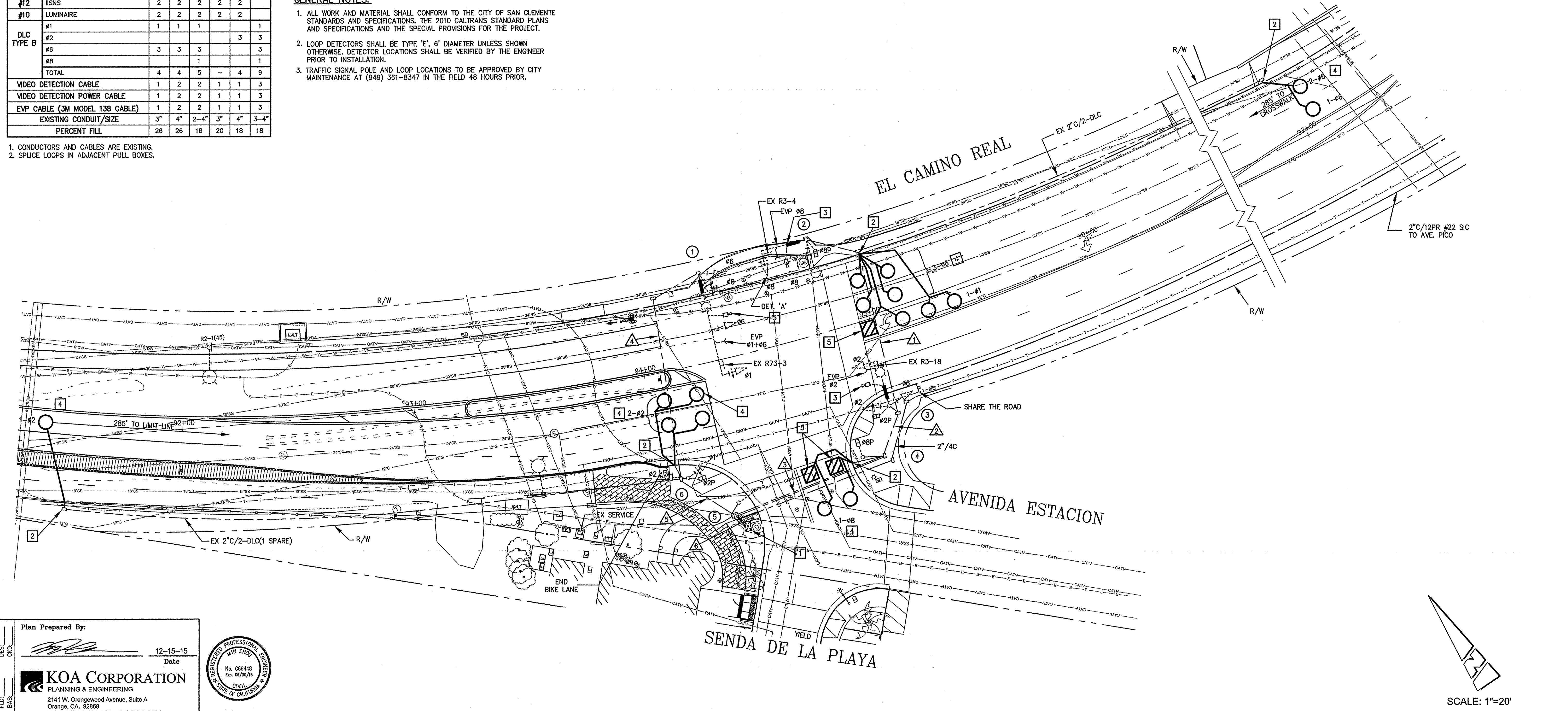
- ALL WORK AND MATERIAL SHALL CONFORM TO THE CITY OF SAN CLEMENTE STANDARDS AND SPECIFICATIONS, THE 2010 CALTRANS STANDARD PLANS AND SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR THE PROJECT.
- LOOP DETECTORS SHALL BE TYPE 'E', 6" DIAMETER UNLESS SHOWN OTHERWISE. DETECTOR LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
- TRAFFIC SIGNAL POLE AND LOOP LOCATIONS TO BE APPROVED BY CITY MAINTENANCE AT (949) 361-8347 IN THE FIELD 48 HOURS PRIOR.



DETAIL A

POLE SCHEDULE														
NO.	TYPE	HEIGHT	SIG MA	LUM MA	HPSV LUMINAIRE	I.I.S.N.S.	SIGNAL MOUNTING			PED PUSH BTN		POLE LOC		REMARKS
							VEHICLE	PED	PHASE	QUAD	A	B		
1	26-4-100	30'	45'	15'	250W	Estacion Ave LED (E)	2-MAS	SV-2-TB	-	-	-	EXISTING	R9-3a / R9-3b(R)	
2	19-4-100	30'	20'	15'	250W	El Camino Real LED (E)	MAS	SV-T	SP-1-CS	8	E	EXISTING	R9-3a / R9-3b(L)(R) Both Sides	
3	19-4-100	30'	20'	15'	250W	Estacion Ave LED (E)	MAS	SV-2-TB	SP-1-CS	2	W	EXISTING		
4	1-A	10'	-	-	-	-	-	-	TP-1	8	N	EXISTING		
5	15TS	30'	-	15'	250W	-	-	-	-	-	-	EXISTING		
6	1-A	10'	-	-	-	-	-	TV-2-T	5P-1-CS	2	N	EXISTING		

- EQUIPMENT IS EXISTING UNLESS SHOWN OTHERWISE.
- LUM MA 90° TO SIGNAL ARM.



Plan Prepared By: *[Signature]* 12-15-15
Date
KOA CORPORATION
PLANNING & ENGINEERING
2141 W. Orangewood Avenue, Suite A
Orange, CA. 92868
Tel: (714)573-0317 Fax: (714)573-9534

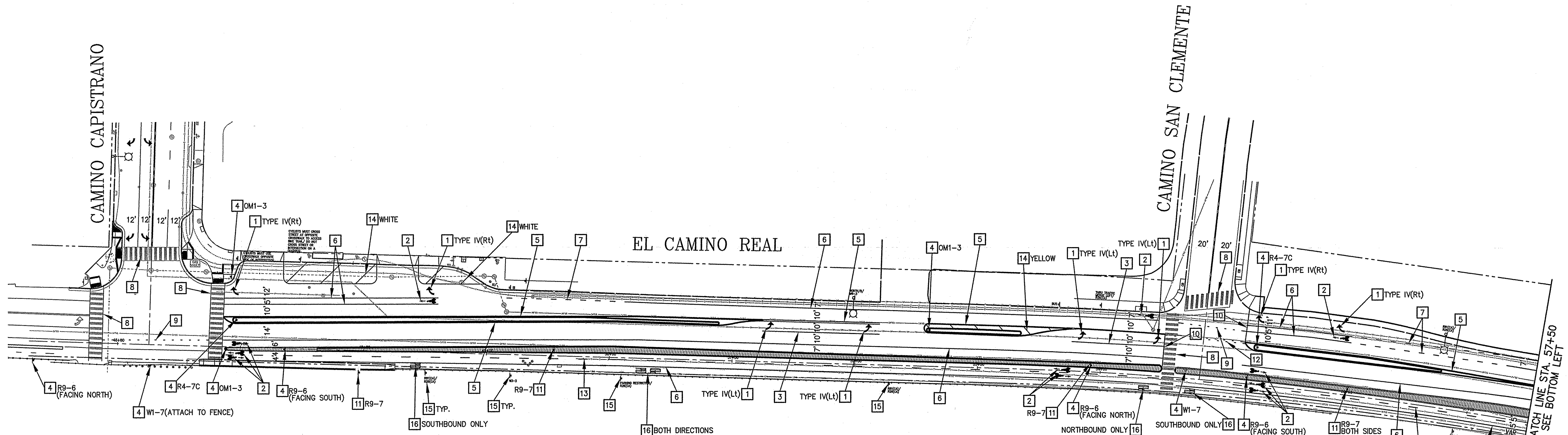


ENGINEERING SCALE : 1"=20'	DATE:		TRAFFIC SIGNAL MODIFICATION PLAN EL CAMINO REAL AND AVENIDA ESTACION Project No. 13308 CITY OF SAN CLEMENTE	DRAWING NO:
DRAWN BY : SV	DESIGNED BY : JJS			SHEET 9
CHECKED BY : MZ	APPROVED : <i>[Signature]</i> 12/15/15 THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER			OF 29

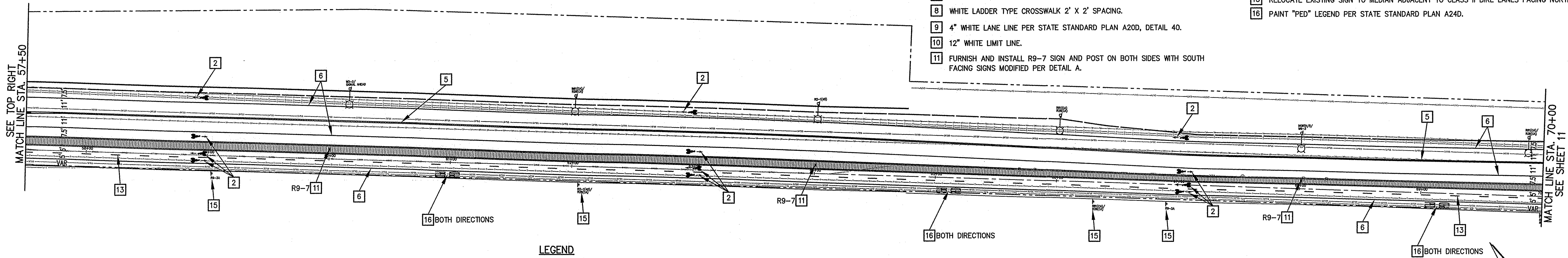
REV.	DATE:	DESCRIPTION	BY:	APP'VD:
REVISIONS				

REFERENCES

APPROVALS



- CONSTRUCTION NOTES:**
- 1 INSTALL PAVEMENT MARKING PER STATE STANDARD PLAN A24 AS INDICATED.
 - 2 PAINT BIKE LEGEND PER CALTRANS STANDARD PLAN A24C AS SHOWN.
 - 3 8" CHANNELIZING LINE PER STATE STANDARD PLAN A20, DETAIL 38.
 - 4 FURNISH AND INSTALL ROAD SIGN AND POST AS SHOWN.
 - 5 4" DOUBLE YELLOW PER STATE STANDARD PLAN A20, DETAIL 23.
 - 6 6" WHITE BIKE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 39.
 - 7 6" WHITE BIKE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 39A.
 - 8 WHITE LADDER TYPE CROSSWALK 2' X 2' SPACING.
 - 9 4" WHITE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 40.
 - 10 12" WHITE LIMIT LINE.
 - 11 FURNISH AND INSTALL R9-7 SIGN AND POST ON BOTH SIDES WITH SOUTH FACING SIGNS MODIFIED PER DETAIL A.
 - 12 PAINT 4" YELLOW LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 41.
 - 13 PAINT 6" DASHED YELLOW CENTERLINE PER MUTCD FIGURE 9C-2A.
 - 14 8" DIAGONAL LINE AT 20' SPACING.
 - 15 RELOCATE EXISTING SIGN TO MEDIAN ADJACENT TO CLASS II BIKE LANES FACING NORTH.
 - 16 PAINT "PED" LEGEND PER STATE STANDARD PLAN A24D.



- LEGEND**
- EXISTING PAVEMENT MARKING TO REMAIN
 - - - PROPOSED PAVEMENT MARKING
 - EXISTING PAVEMENT MARKING TO BE REMOVED
 - EXISTING STRIPING TO REMAIN
 - - - PROPOSED STRIPING
 - - - EXISTING STRIPING TO BE REMOVED

Plan Prepared By: *[Signature]* 12-15-15
Date

KOA CORPORATION
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2141 W. Orangewood Avenue, Suite A
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Tel: (714)573-0317 Fax: (714)573-9534



REV.	DATE	DESCRIPTION	BY:	APP'VD:
REVISIONS				
REFERENCES				
APPROVALS				

ENGINEERING SCALE : 1"=40'

DRAWN BY : SV DESIGNED BY : JJS

CHECKED BY : MZ

APPROVED : *[Signature]* 12/17/15
THOMAS A. BONIGUT RCE 53961 DATE
ASSISTANT CITY ENGINEER



SIGNING AND STRIPING PLAN
NORTH EL CAMINO REAL
CAMINO CAPISTRANO TO AVENIDA ESTACION
Project No. 13308

CITY OF SAN CLEMENTE

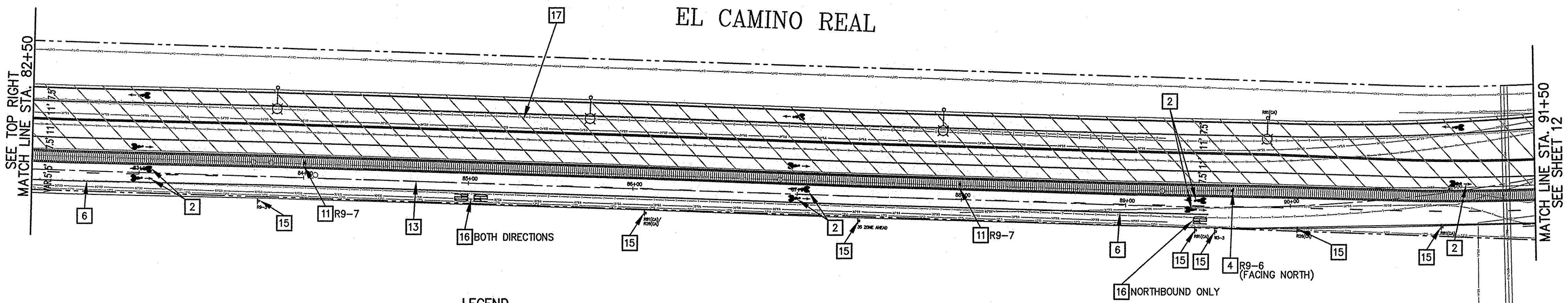
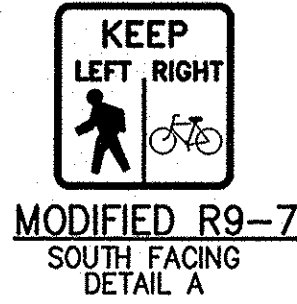
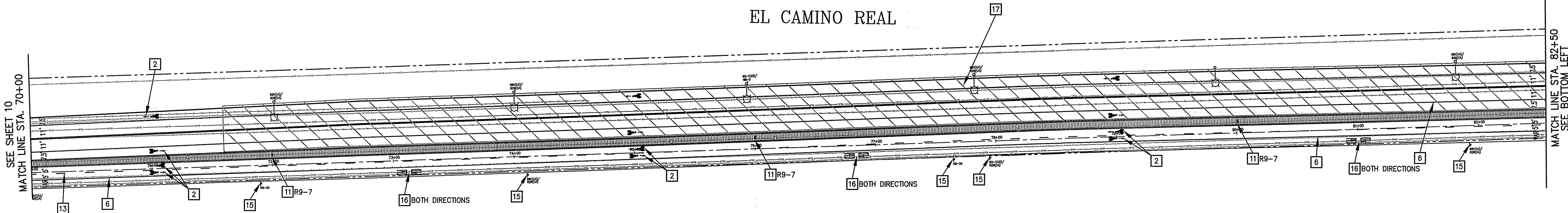
DRAWING NO:

SHEET **10**
OF **29**


SCALE: 1"=40'

CONSTRUCTION NOTES:

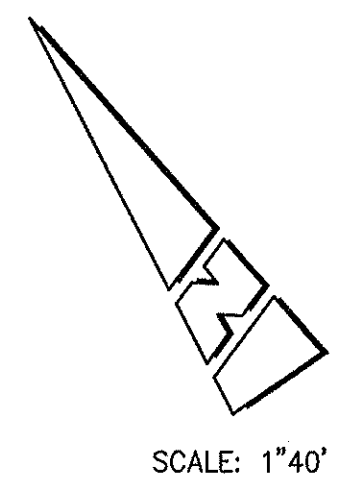
- | | |
|--|--|
| <p>1 INSTALL PAVEMENT MARKING PER STATE STANDARD PLAN A24 AS INDICATED.</p> <p>2 PAINT BIKE LEGEND PER CALTRANS STANDARD PLAN A24C AS SHOWN.</p> <p>3 8" CHANNELIZING LINE PER STATE STANDARD PLAN A20, DETAIL 38.</p> <p>4 FURNISH AND INSTALL ROAD SIGN AND POST AS SHOWN.</p> <p>5 4" DOUBLE YELLOW PER STATE STANDARD PLAN A20, DETAIL 23.</p> <p>6 6" WHITE BIKE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 39.</p> <p>7 6" WHITE BIKE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 39A.</p> <p>8 WHITE LADDER TYPE CROSSWALK 2' X 2' SPACING.</p> <p>9 4" WHITE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 40.</p> <p>10 12" WHITE LIMIT LINE.</p> | <p>11 FURNISH AND INSTALL R9-7 SIGN AND POST ON BOTH SIDES WITH SOUTH FACING SIGNS MODIFIED PER DETAIL A.</p> <p>12 PAINT 4" YELLOW LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 41.</p> <p>13 PAINT 6" DASHED YELLOW CENTERLINE PER MUTCD FIGURE 9C-2A.</p> <p>14 8" DIAGONAL LINE AT 20' SPACING.</p> <p>15 RELOCATE EXISTING SIGN TO MEDIAN ADJACENT TO CLASS II BIKE LANES FACING NORTH.</p> <p>16 PAINT "PED" LEGEND PER STATE STANDARD PLAN A24D.</p> <p>17 SIGNING AND STRIPING BY OTHERS - PROTECT IN PLACE.</p> |
|--|--|



- LEGEND**
- EXISTING PAVEMENT MARKING TO REMAIN
 - PROPOSED PAVEMENT MARKING
 - EXISTING PAVEMENT MARKING TO BE REMOVED
 - EXISTING STRIPING TO REMAIN
 - PROPOSED STRIPING
 - EXISTING STRIPING TO BE REMOVED
 - WORK BY OTHERS

Plan Prepared By:  12-15-15
Date

KOA CORPORATION
PLANNING & ENGINEERING
2141 W. Orangewood Avenue, Suite A
Orange, CA. 92668
Tel: (714)573-0317 Fax: (714)573-9534




SCALE: 1"=40'

REV.	DATE	DESCRIPTION	BY	APP'VD:	REFERENCES	APPROVALS

ENGINEERING SCALE : 1"=40' DATE: _____

DRAWN BY : SV DESIGNED BY : JJS

CHECKED BY : MZ

APPROVED :  DATE: 12/12/15

THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER

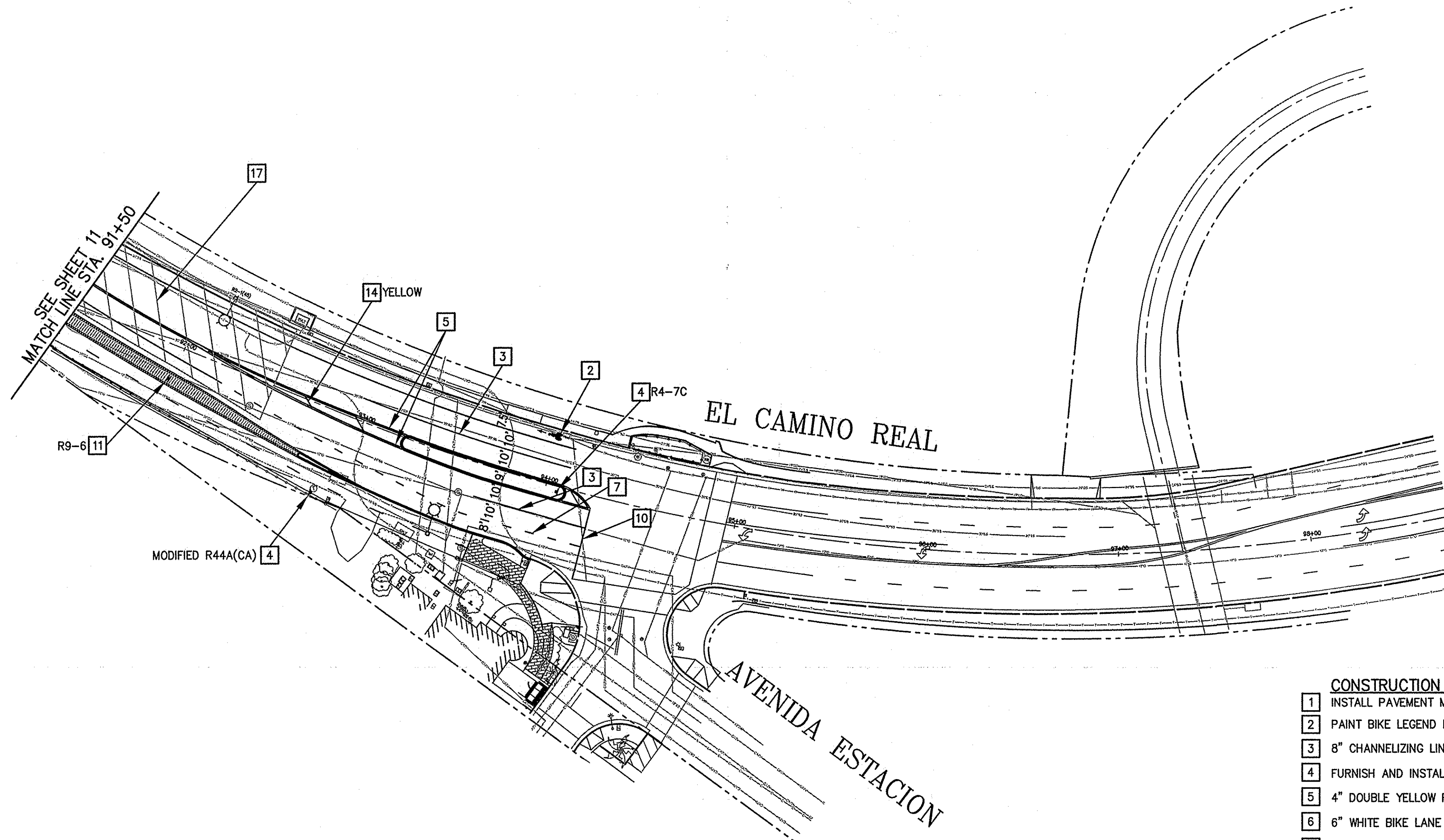
SIGNING AND STRIPING PLAN
NORTH EL CAMINO REAL
CAMINO CAPISTRANO TO AVENIDA ESTACION
Project No. 13308

CITY OF SAN CLEMENTE

DRAWING NO: _____

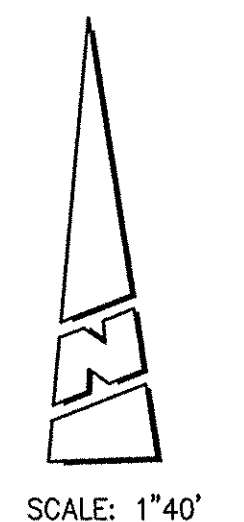
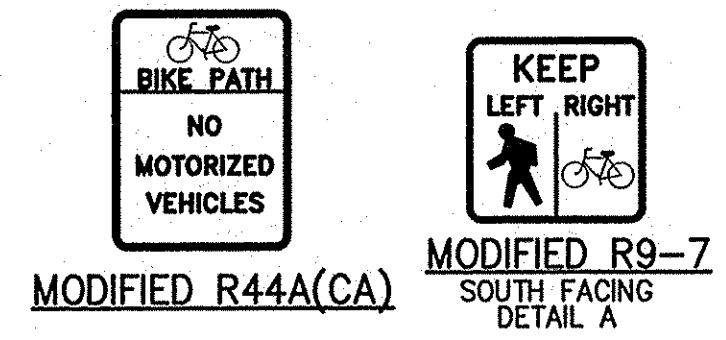
SHEET **11**

OF **29**



- CONSTRUCTION NOTES:**
- 1 INSTALL PAVEMENT MARKING PER STATE STANDARD PLAN A24 AS INDICATED.
 - 2 PAINT BIKE LEGEND PER CALTRANS STANDARD PLAN A24C AS SHOWN.
 - 3 8" CHANNELIZING LINE PER STATE STANDARD PLAN A20, DETAIL 38.
 - 4 FURNISH AND INSTALL ROAD SIGN AND POST AS SHOWN.
 - 5 4" DOUBLE YELLOW PER STATE STANDARD PLAN A20, DETAIL 23.
 - 6 6" WHITE BIKE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 39.
 - 7 6" WHITE BIKE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 39A.
 - 8 WHITE LADDER TYPE CROSSWALK 2' X 2' SPACING.
 - 9 4" WHITE LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 40.
 - 10 12" WHITE LIMIT LINE.
 - 11 FURNISH AND INSTALL R9-7 SIGN AND POST ON BOTH SIDES WITH SOUTH FACING SIGNS MODIFIED PER DETAIL A.
 - 12 PAINT 4" YELLOW LANE LINE PER STATE STANDARD PLAN A20D, DETAIL 41.
 - 13 PAINT 6" DASHED YELLOW CENTERLINE PER MUTCD FIGURE 9C-2A.
 - 14 8" DIAGONAL LINE AT 20' SPACING.
 - 17 SIGNING AND STRIPING BY OTHERS - PROTECT IN PLACE

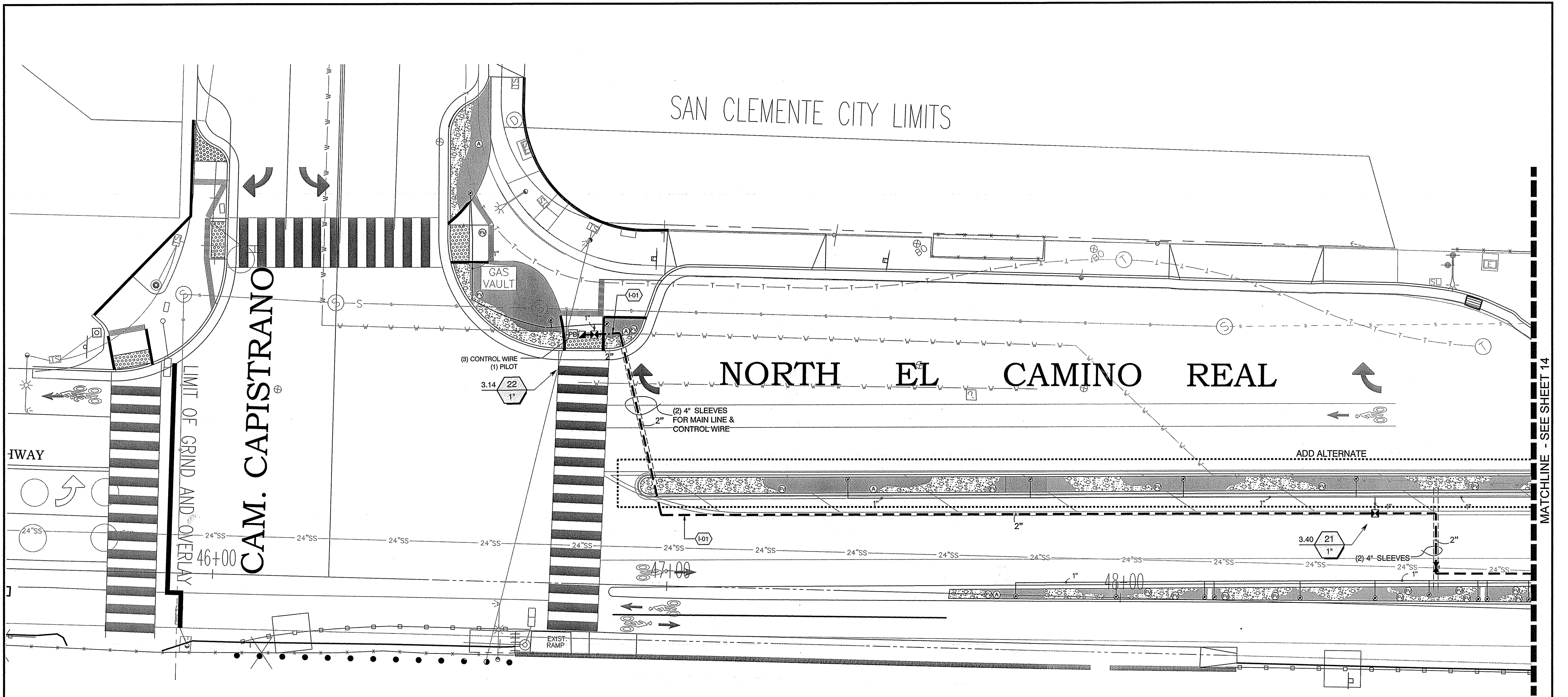
- LEGEND**
- EXISTING PAVEMENT MARKING TO REMAIN
 - PROPOSED PAVEMENT MARKING
 - EXISTING PAVEMENT MARKING TO BE REMOVED
 - EXISTING STRIPING TO REMAIN
 - PROPOSED STRIPING
 - EXISTING STRIPING TO BE REMOVED
 - WORK BY OTHERS



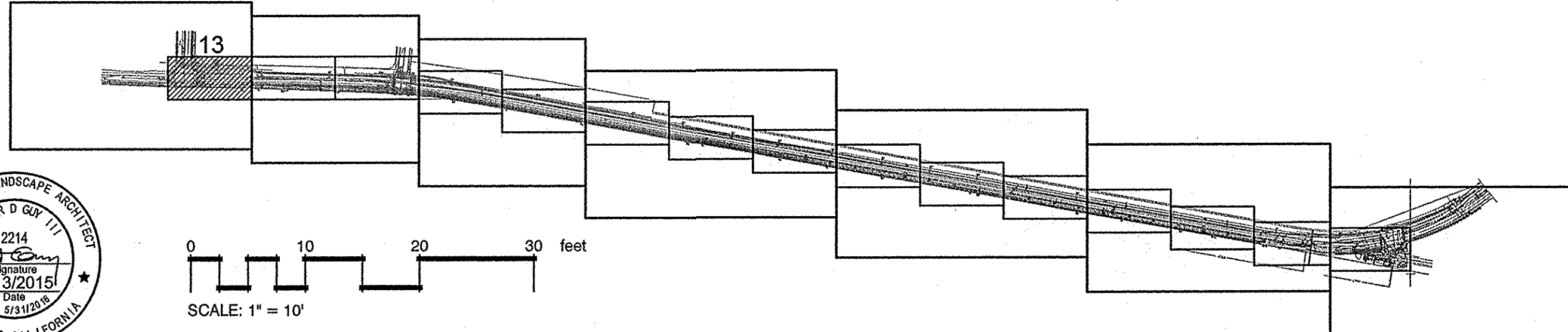
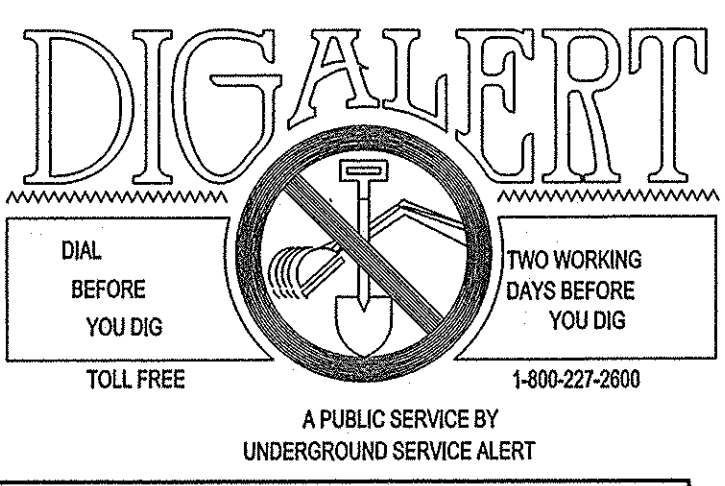
DES. DATE: 12-15-15
 E.D. BY: [Signature]
KOA CORPORATION
 PLANNING & ENGINEERING
 2141 W. Orangewood Avenue, Suite A
 Orange, CA. 92668
 Tel: (714)573-0317 Fax: (714)573-9534



				ENGINEERING SCALE : 1"=40'	DATE:	SIGNING AND STRIPING PLAN NORTH EL CAMINO REAL CAMINO CAPISTRANO TO AVENIDA ESTACION Project No. 13308 CITY OF SAN CLEMENTE	DRAWING NO:
REV.	DATE:	DESCRIPTION	BY:	CHECKED BY : SV	DESIGNED BY : JJS		
REVISIONS				REFERENCES		APPROVALS	
				APPROVED : <i>Thomas A. Bonigut</i> 12/17/15 THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER		SHEET 12 OF 29	



MATCHLINE - SEE SHEET 14



Plan Prepared By: _____ Date: _____
BGB DESIGN GROUP
 Landscape Architecture Planning Urban Design
 3185 C Airway Avenue Costa Mesa, CA 92626
 P: 714-545-2898 F: 714-545-2878 bgb-inc.com



SEE SHEET 21 FOR IRRIGATION LEGENDS, NOTES AND CALCULATIONS

REV.	DATE:	DESCRIPTION	BY:	APP'VD:
REVISIONS				
REFERENCES				
APPROVALS				

SCALE: 1"=10'
 DRAWN BY: CH,CV DESIGNED BY: AG DATE: 10/2015
 CHECKED BY: AG
 APPROVED: *Thomas A. Boniglut* DATE: 12/24/15
 THOMAS A. BONIGLUT RCE 53961 ASSISTANT CITY ENGINEER



IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

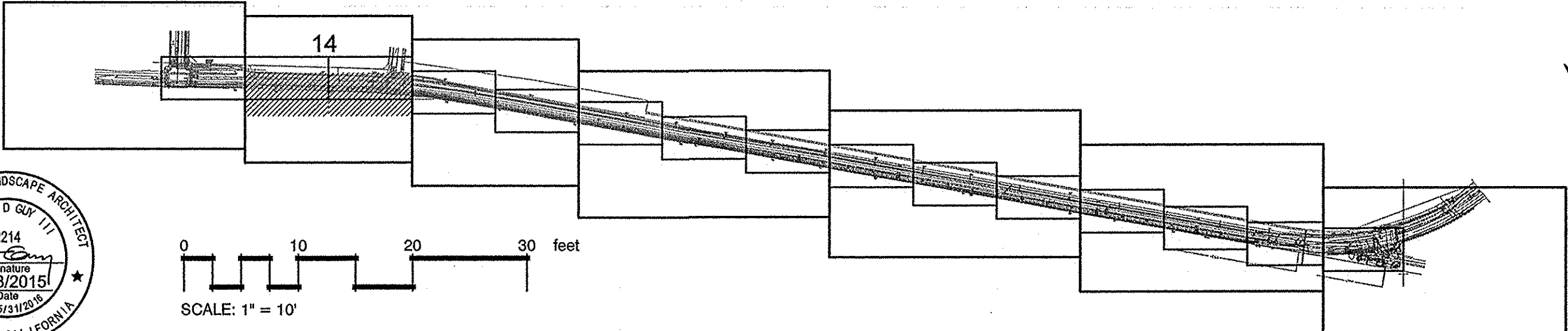
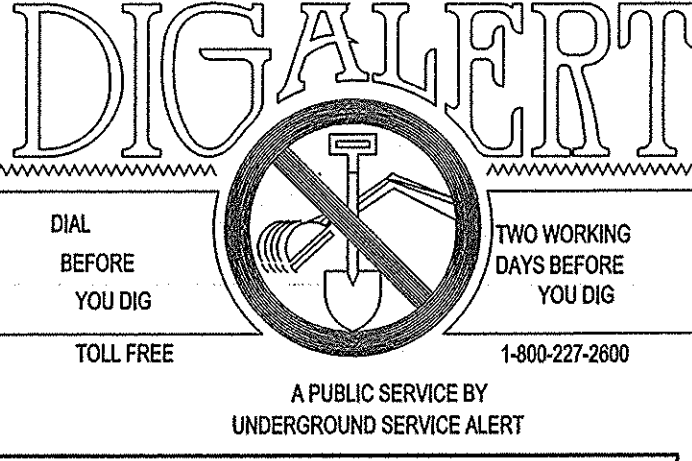
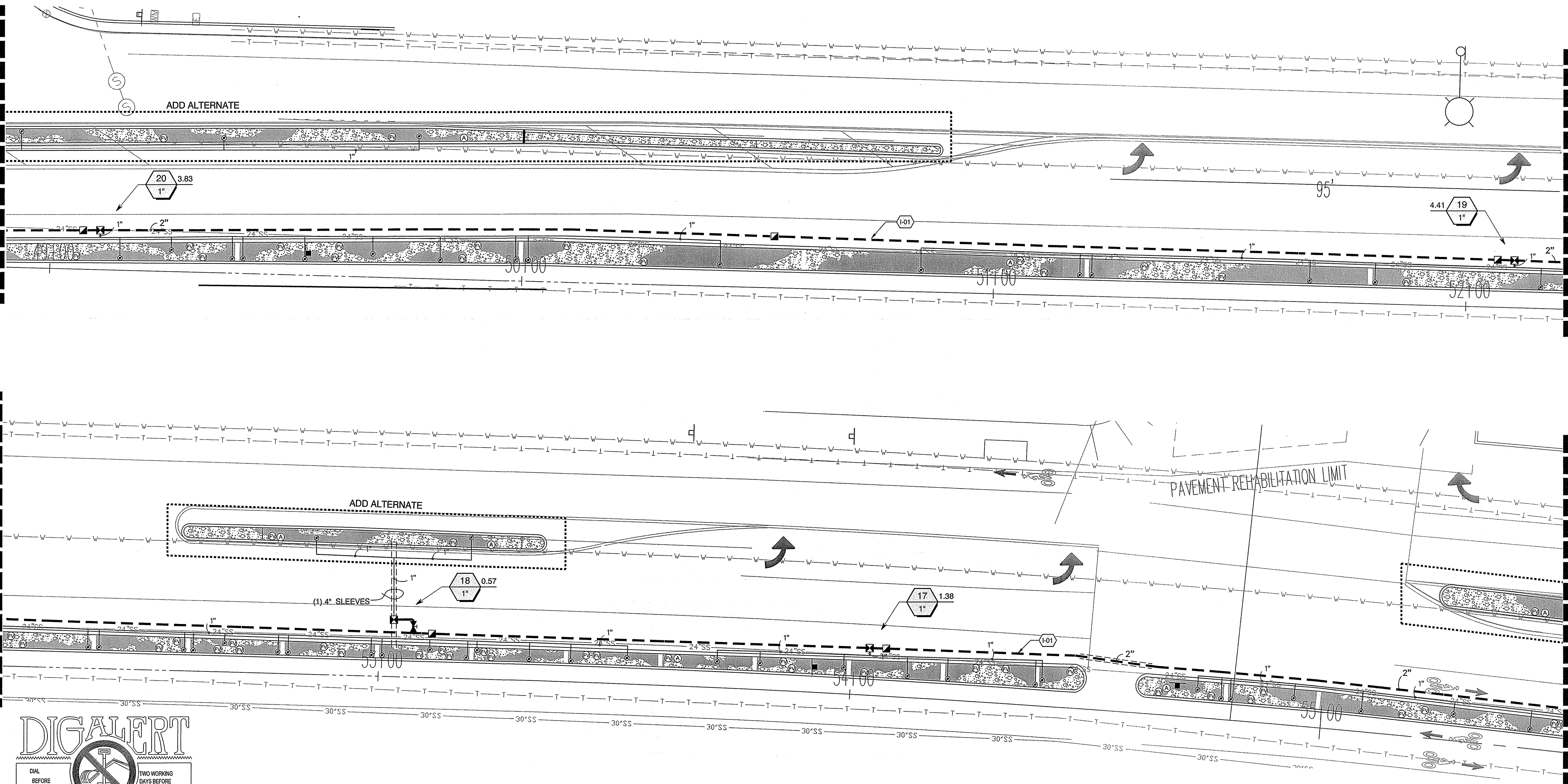
DRAWING NO: _____
 SHEET 13
 OF 29

MATCHLINE - SEE SHEET 13

MATCHLINE 'A' - SEE BOTTOM LEFT 'B'

MATCHLINE 'B' - SEE TOP RIGHT 'A'

MATCHLINE - SEE SHEET 15



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REV.	DATE	DESCRIPTION	BY:	APP'VD:

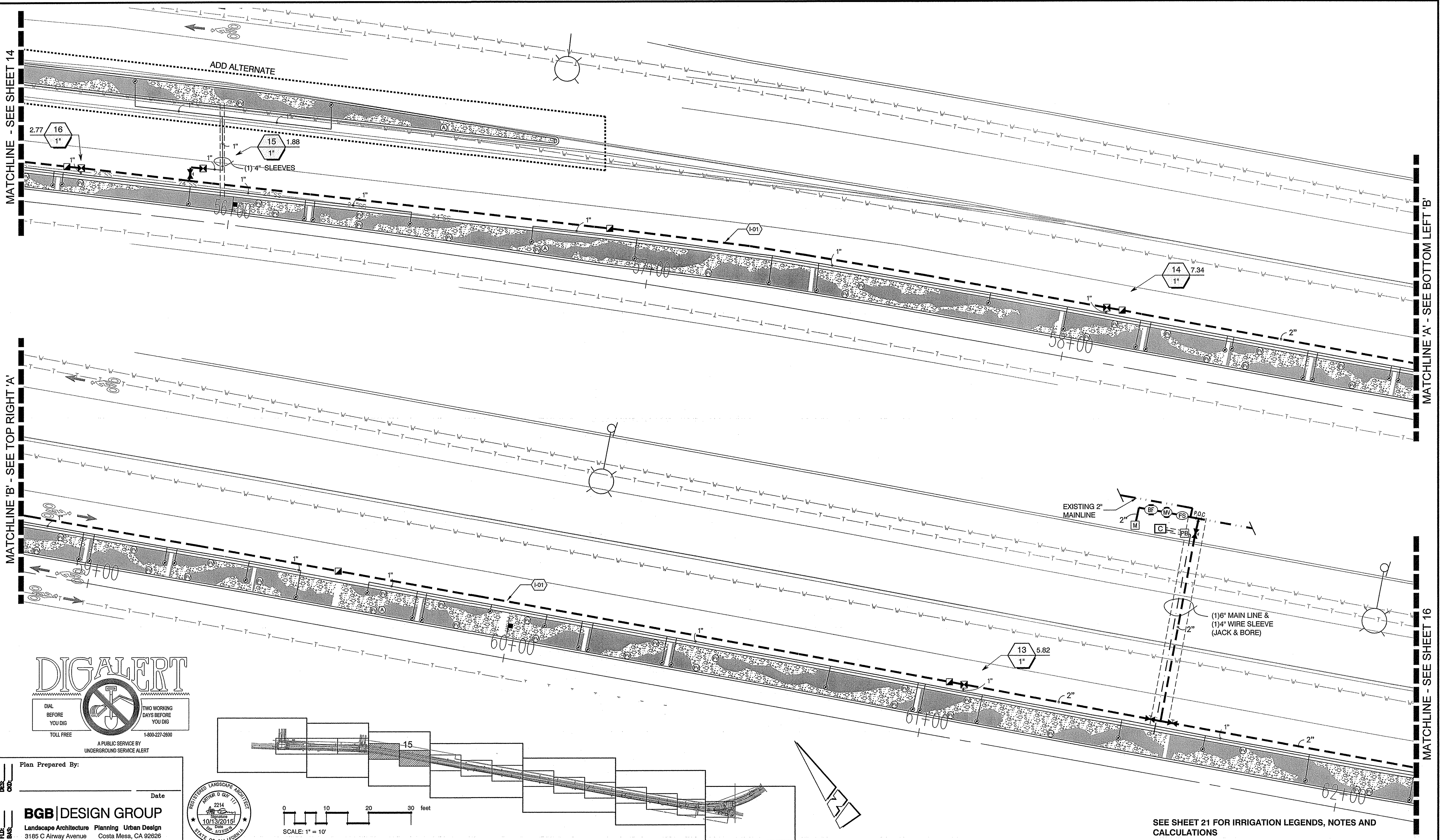
REFERENCES	APPROVALS

SCALE: 1"=10'
 DRAWN BY: CH,CV DESIGNED BY: AG
 CHECKED BY: AG
 APPROVED: *Thomas A. Bonicout* 12/17/15
 THOMAS A. BONICOUT RCE 53961 DATE
 ASSISTANT CITY ENGINEER



IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO: _____
 SHEET 14
 OF 29

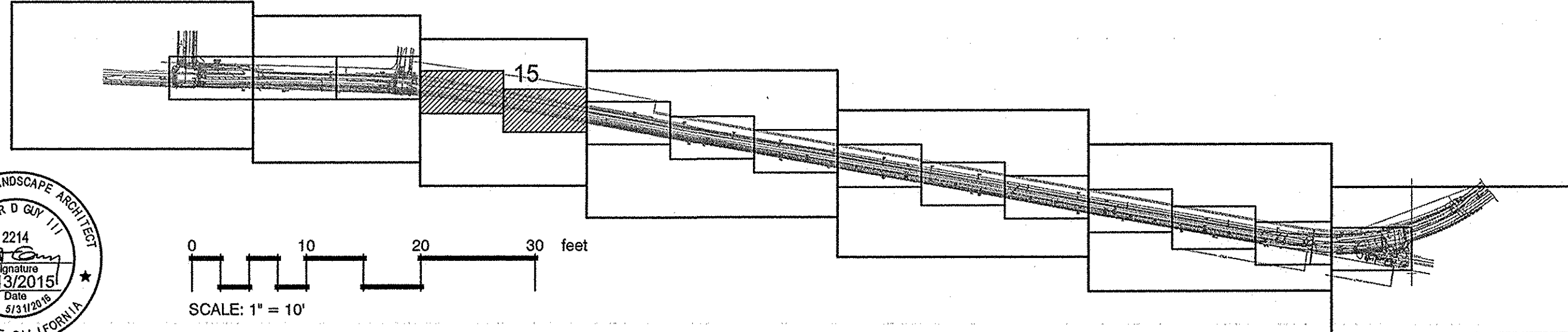


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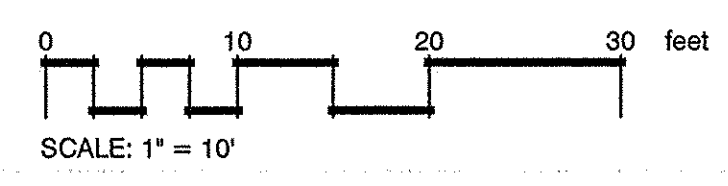
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MATCHLINE 'B' - SEE TOP RIGHT 'A'

MATCHLINE - SEE SHEET 16



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SEE SHEET 21 FOR IRRIGATION LEGENDS, NOTES AND CALCULATIONS

REV.	DATE:	DESCRIPTION	BY:	APP'VD:
REVISIONS				

REFERENCES

APPROVALS

SCALE : 1"=10'
 DRAWN BY : CH,CV DESIGNED BY : AG DATE: 10/2015
 CHECKED BY : AG
 APPROVED : *Thomas A. Bonigut* 12/17/15
 THOMAS A. BONIGUT RCE 53961 DATE
 ASSISTANT CITY ENGINEER



IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO:
 SHEET 15
 OF 29

MATCHLINE - SEE SHEET 15

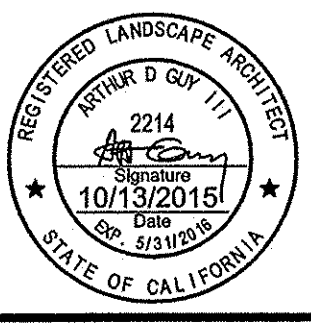
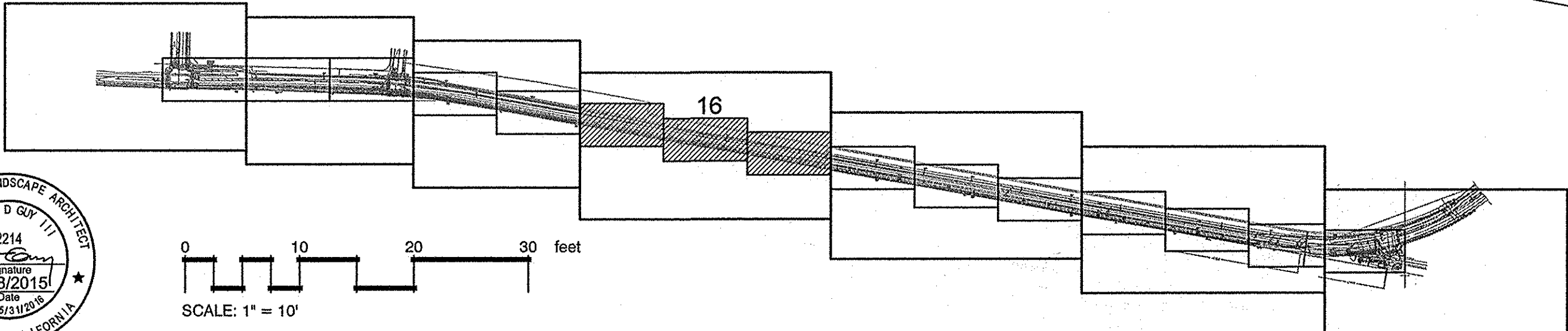
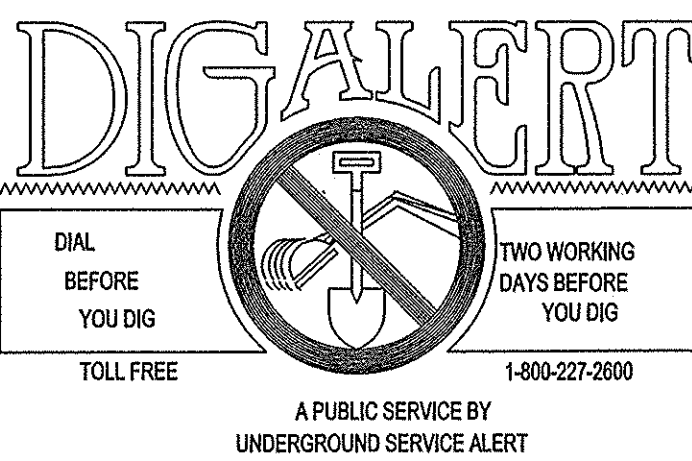
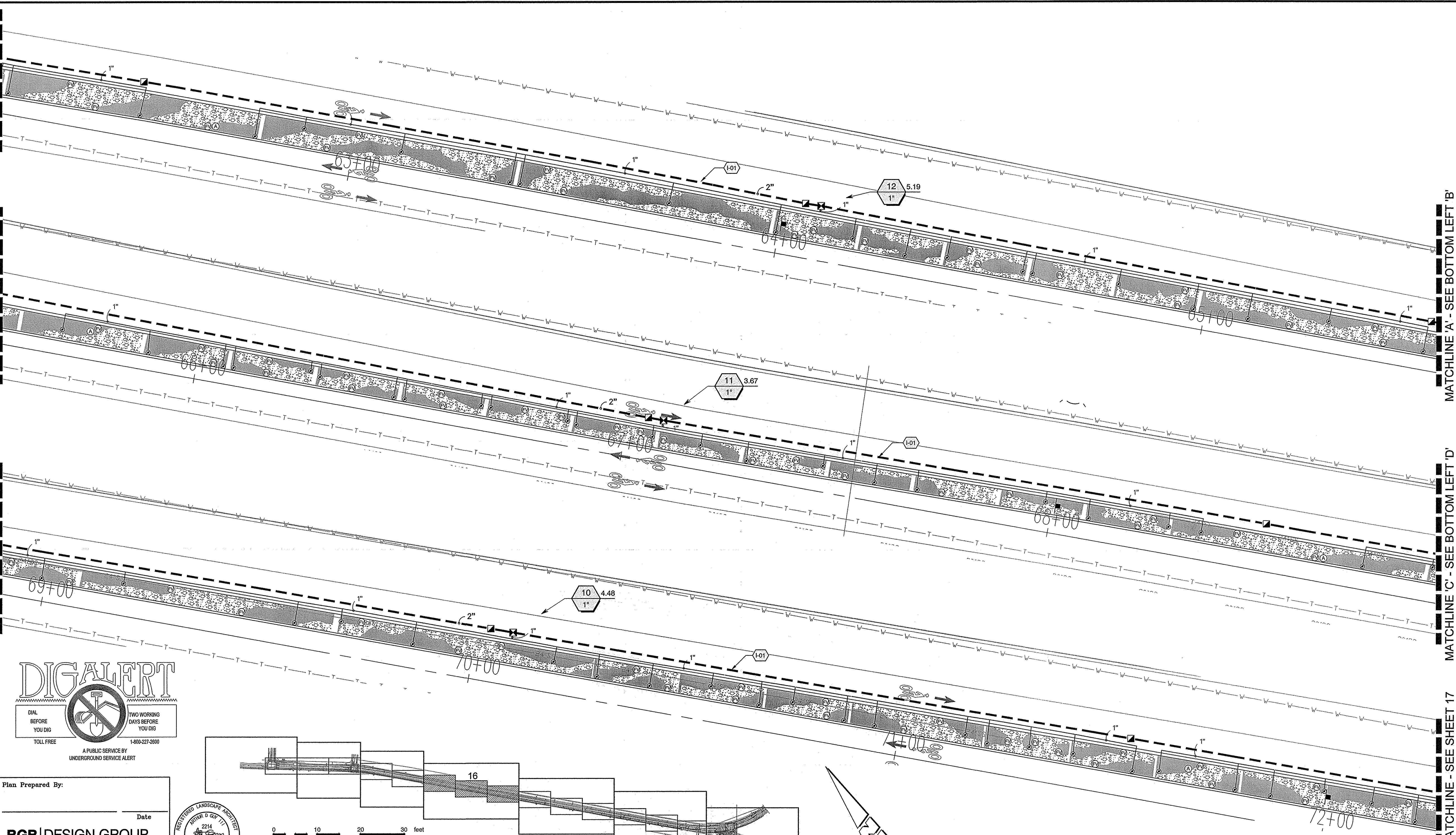
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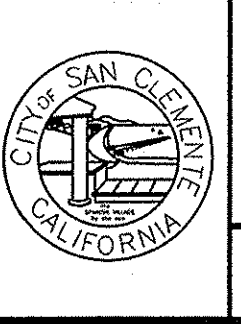
MATCHLINE - SEE SHEET 17



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SEE SHEET 21 FOR IRRIGATION LEGENDS, NOTES AND CALCULATIONS

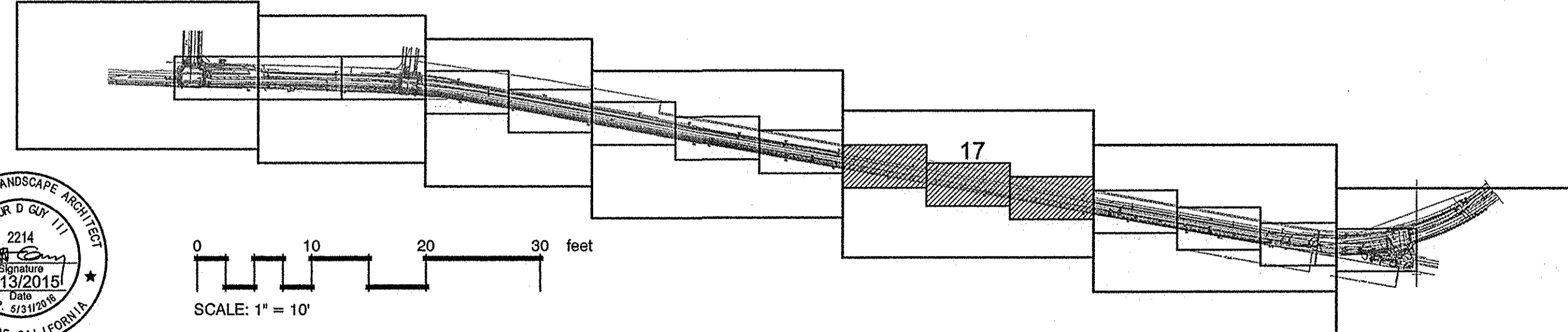
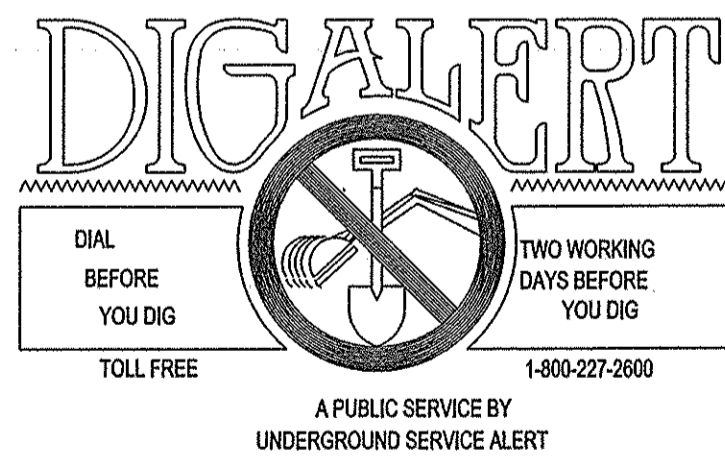
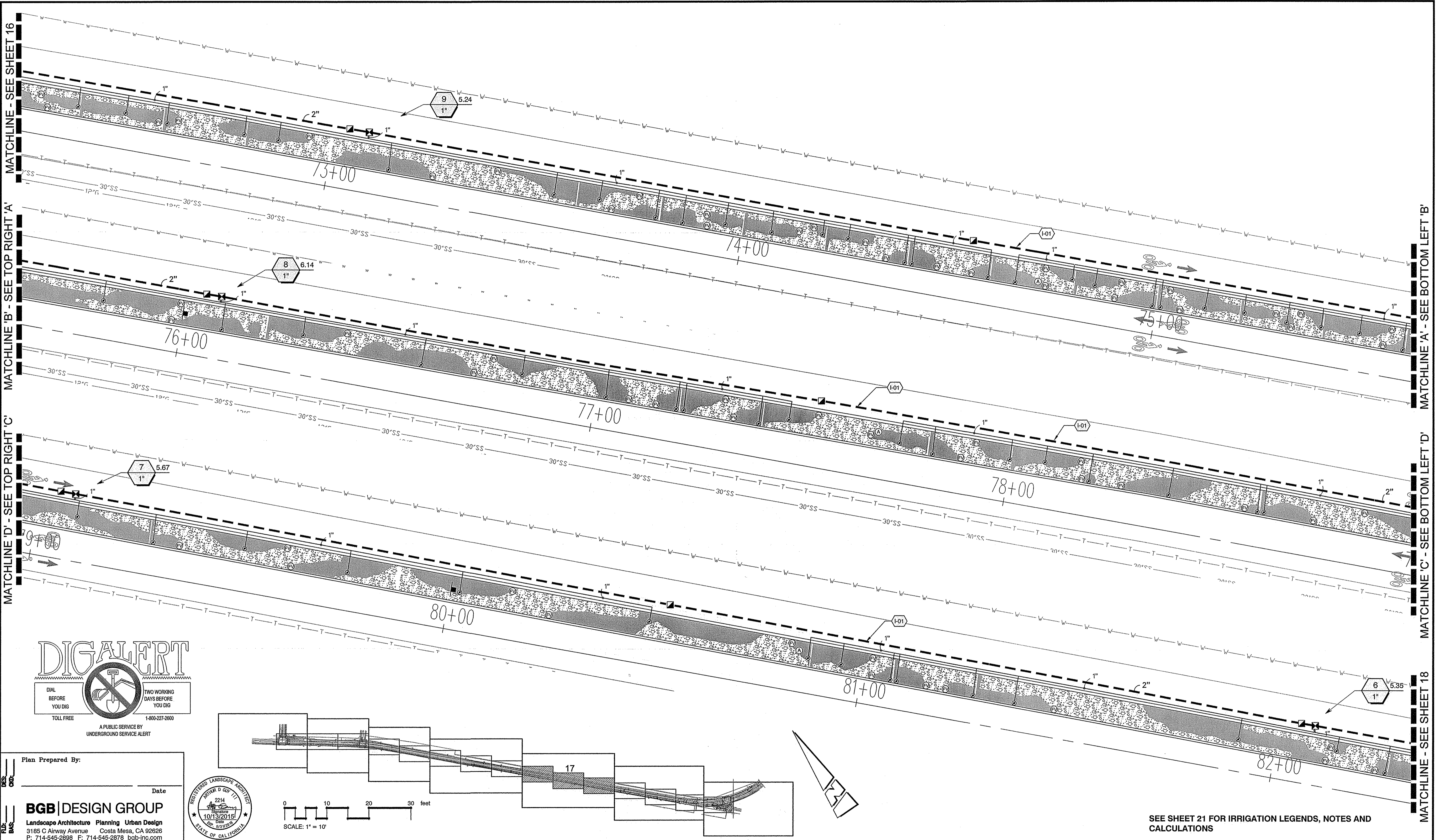
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APPROVED: *Thomas A. Bonigut* 12/17/15
 THOMAS A. BONIGUT RCE 53961 DATE
 ASSISTANT CITY ENGINEER

IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO: _____
 SHEET 16
 OF 29

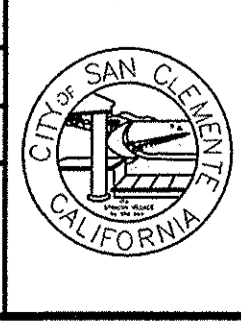


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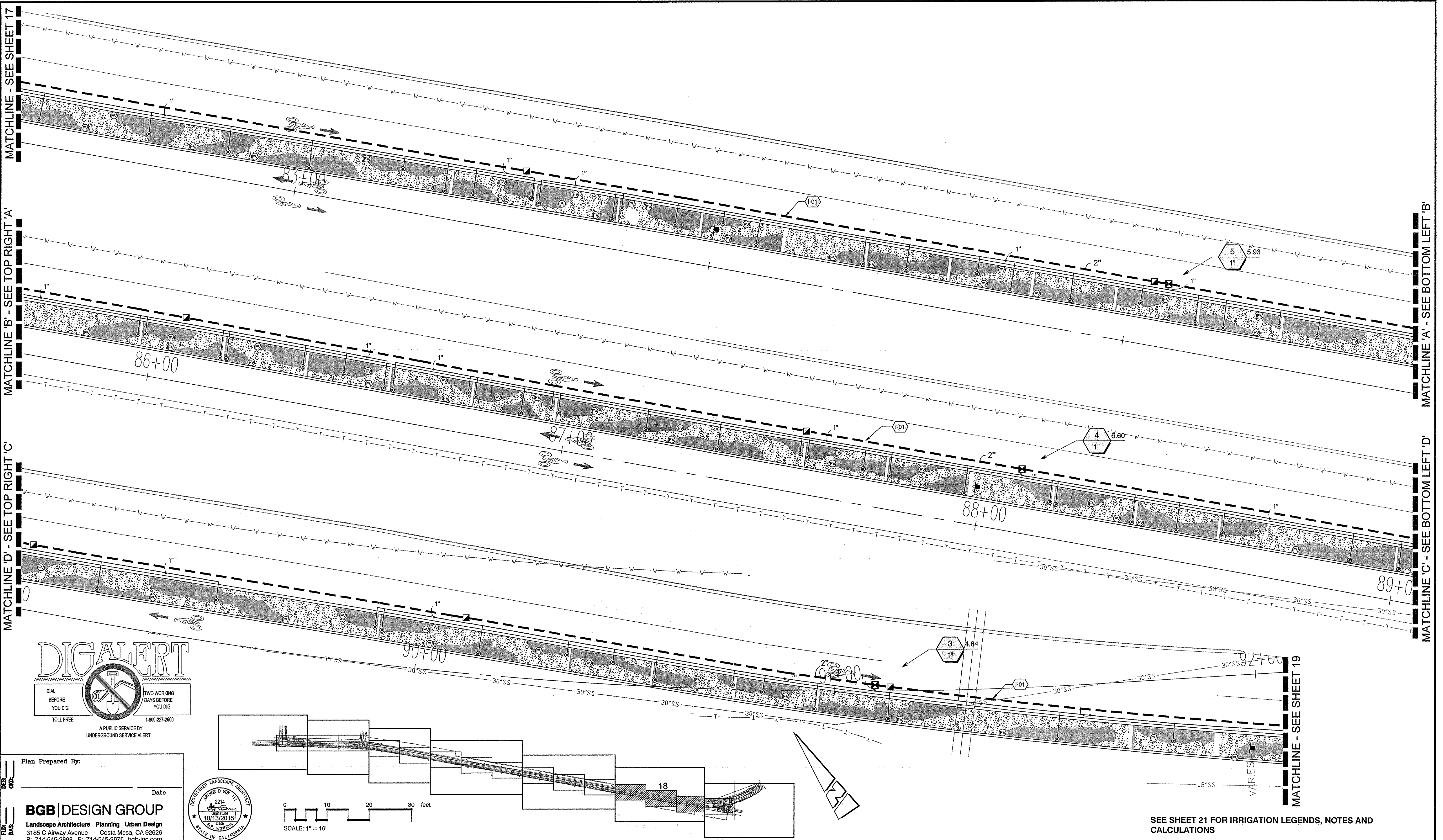
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SCALE : 1"=10'
 DRAWN BY : CH,CV DESIGNED BY : AG
 CHECKED BY : AG
 APPROVED : *Thomas A. Bonigutti* 12/17/15
 THOMAS A. BONIGUTTI RCE 53961 DATE
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IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO:
 SHEET 17
 OF 29



MATCHLINE - SEE SHEET 17

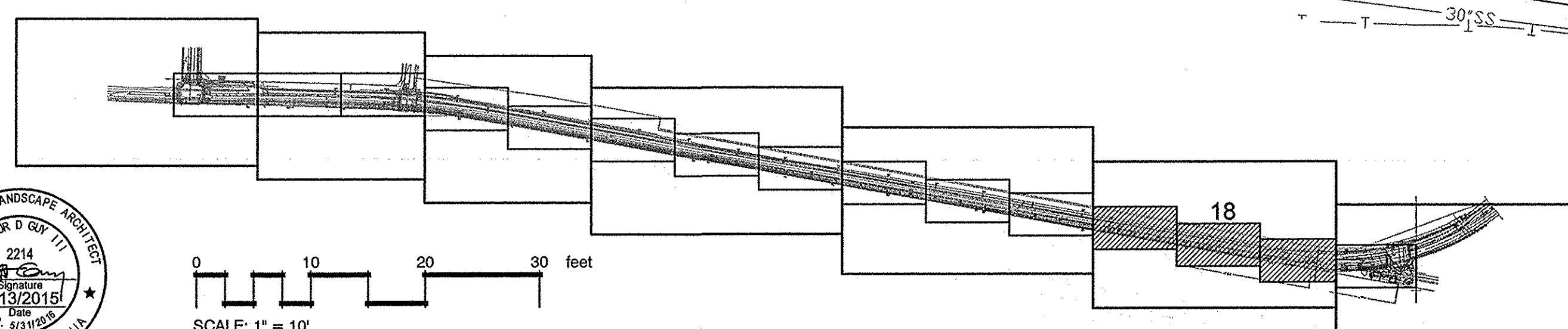
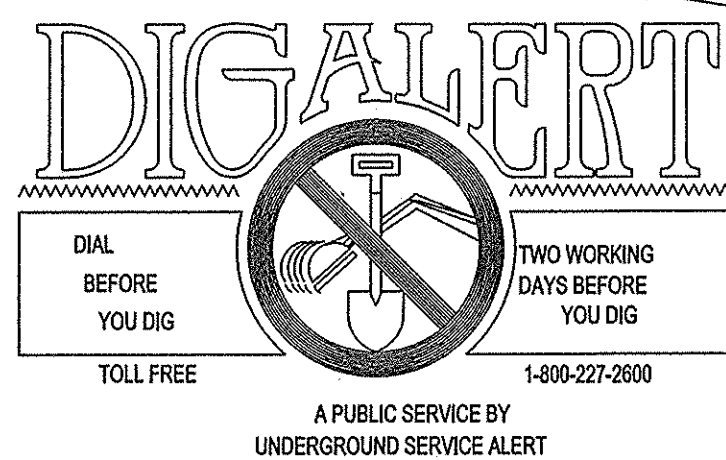
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MATCHLINE 'D' - SEE TOP RIGHT 'C'

MATCHLINE 'A' - SEE BOTTOM LEFT 'B'

MATCHLINE 'C' - SEE BOTTOM LEFT 'D'

MATCHLINE - SEE SHEET 19



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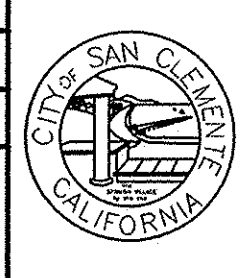


REV.	DATE	DESCRIPTION	BY	APP'VD
REVISIONS				

REFERENCES

APPROVALS

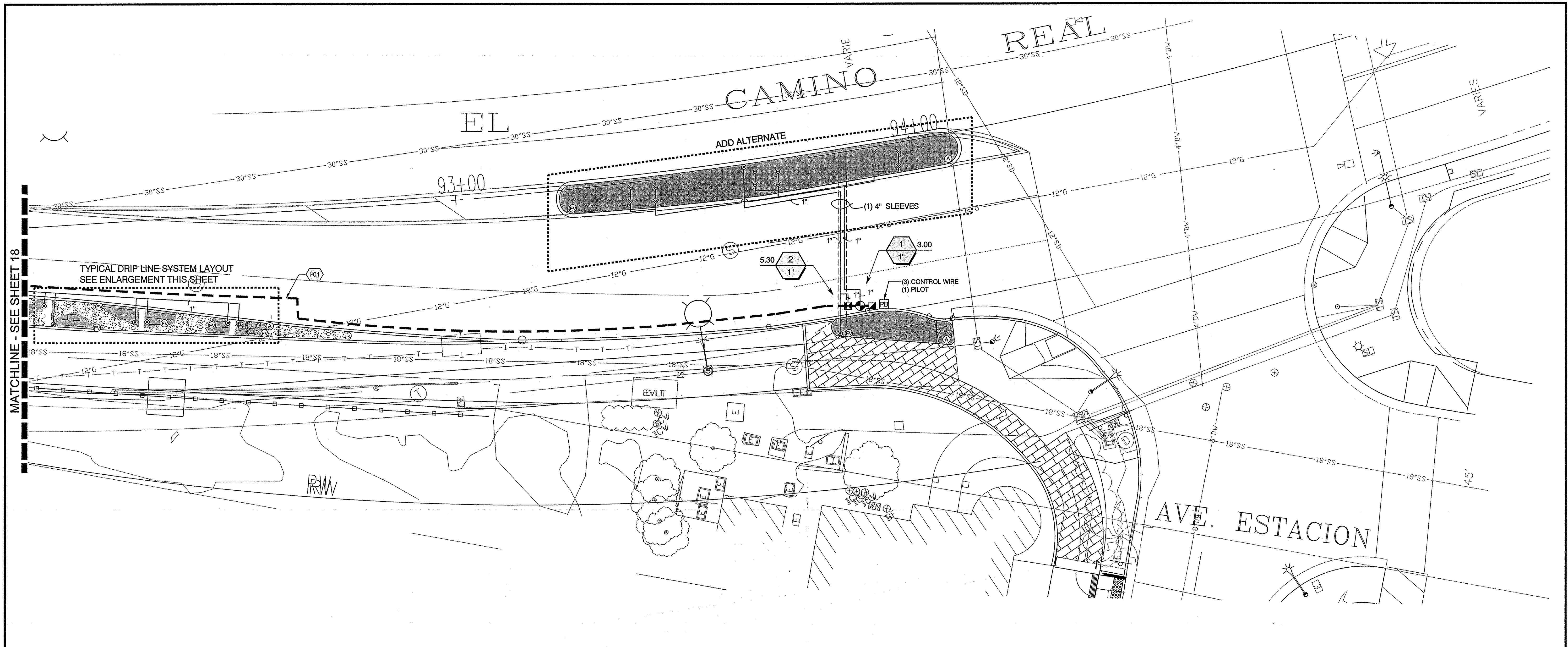
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 DRAWN BY: CH,CV DESIGNED BY: AG DATE: 10/2015
 CHECKED BY: AG
 APPROVED: *Thomas A. Bonigut* 12/17/15
 THOMAS A. BONIGUT RCE 53961 DATE
 ASSISTANT CITY ENGINEER



IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

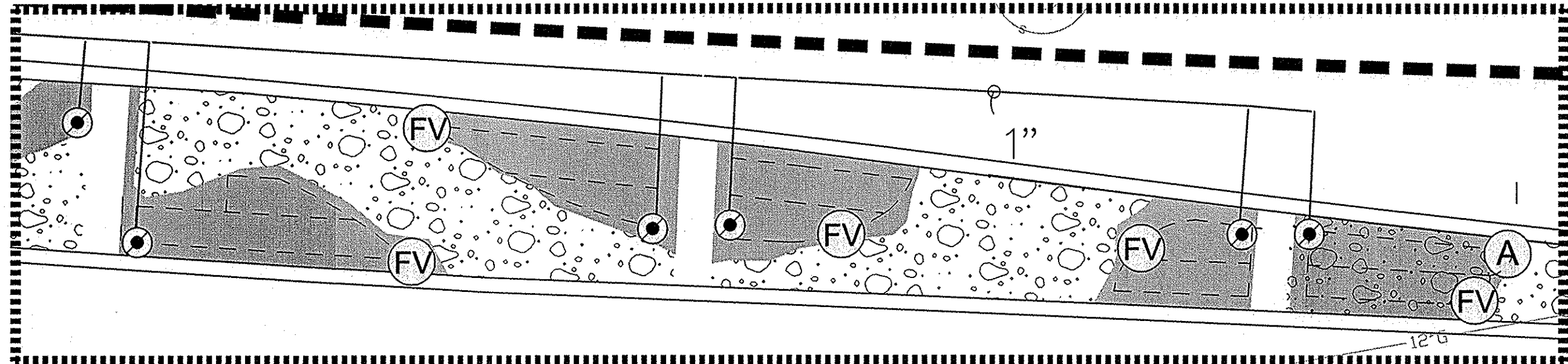
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 OF 29

SEE SHEET 21 FOR IRRIGATION LEGENDS, NOTES AND CALCULATIONS

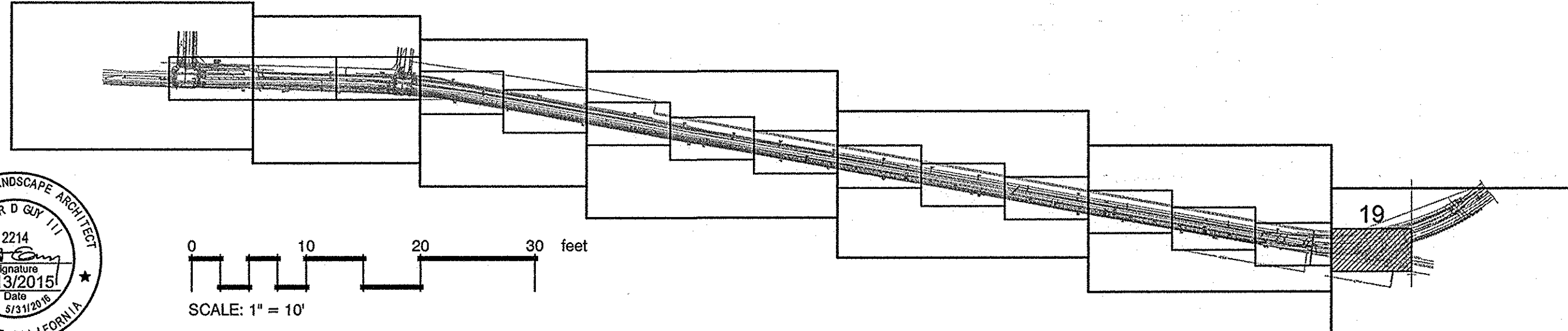
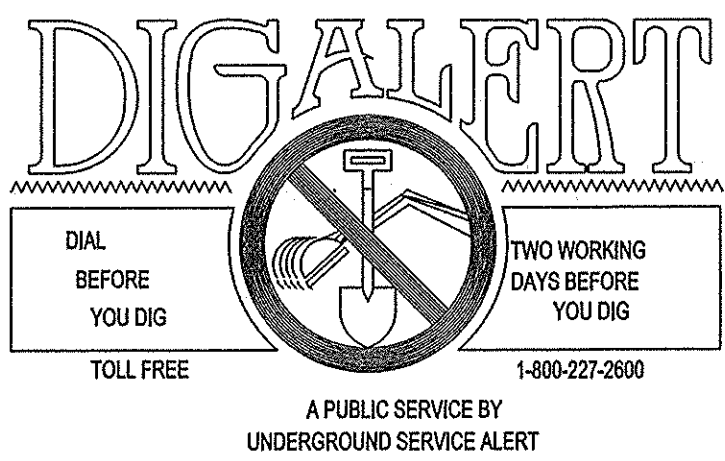


MATCHLINE - SEE SHEET 18

TYPICAL DRIP LINE SYSTEM LAYOUT
SEE ENLARGEMENT THIS SHEET



TYPICAL DRIP LINE SYSTEM LAYOUT
SCALE: 1/4" = 1'-0"



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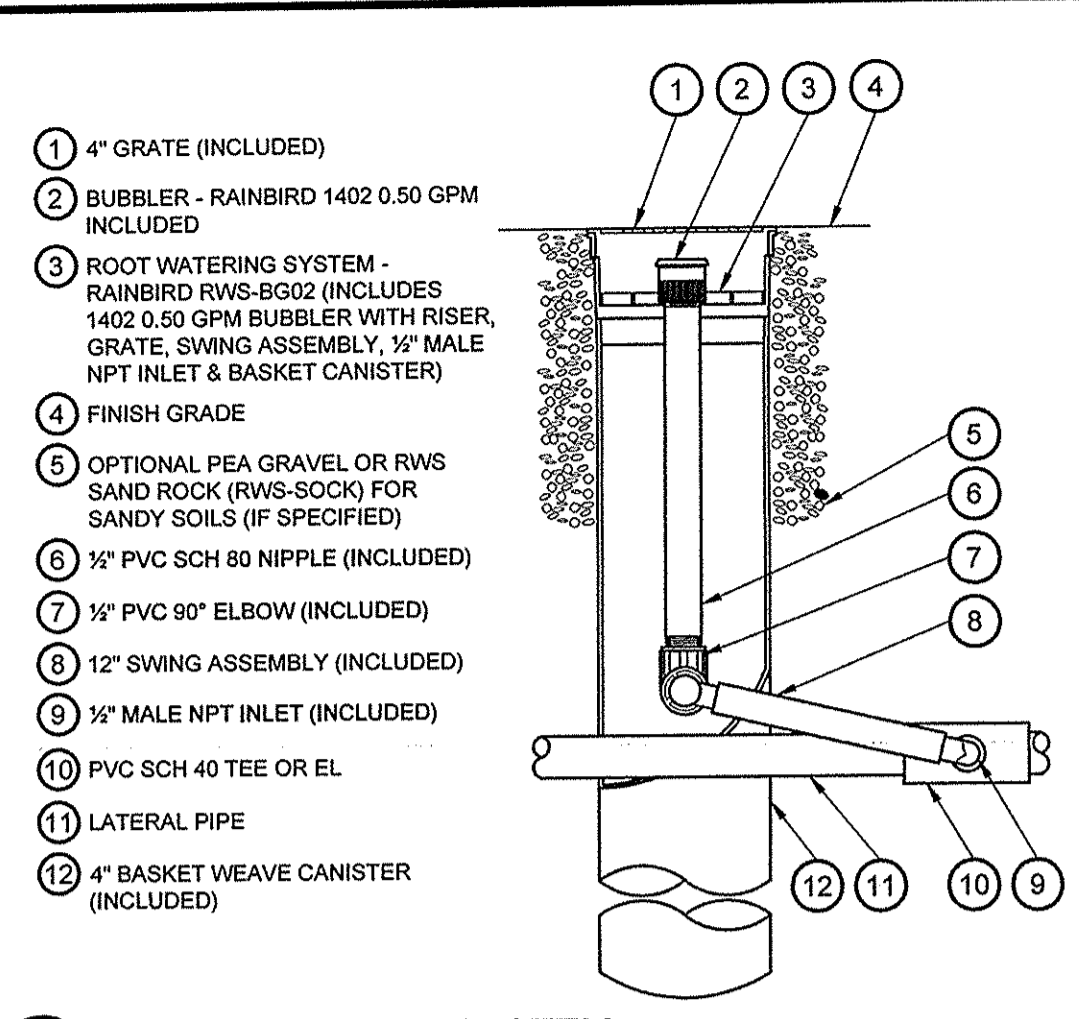
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REVISIONS				
REFERENCES				
APPROVALS				

SCALE: 1"=10'
 DRAWN BY: CH,CV DESIGNED BY: AG DATE: 10/2015
 CHECKED BY: AG
 APPROVED: *Thomas A. Bonigut* 12/17/15
 THOMAS A. BONIGUT RCE 53961 DATE
 ASSISTANT CITY ENGINEER

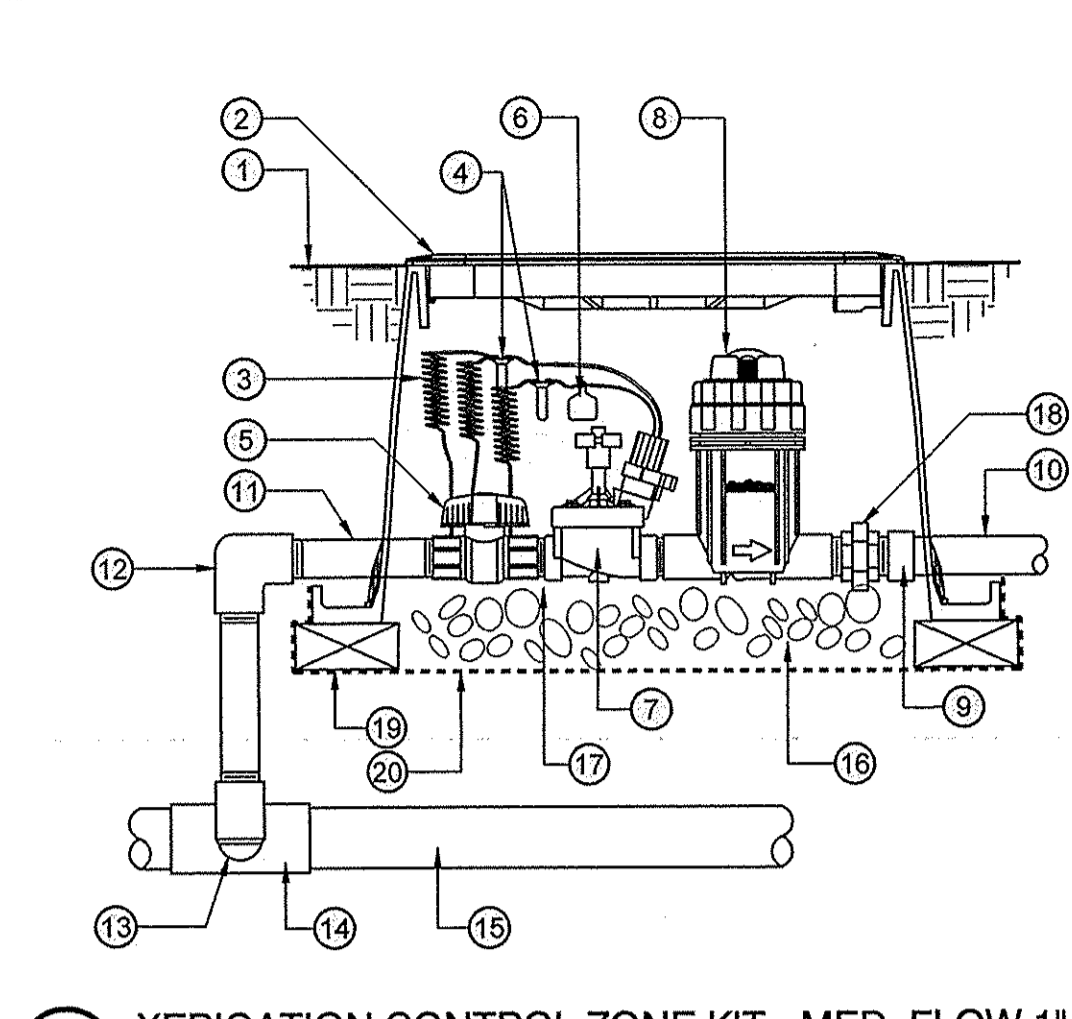


IRRIGATION PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO:
 SHEET 19
 OF 29



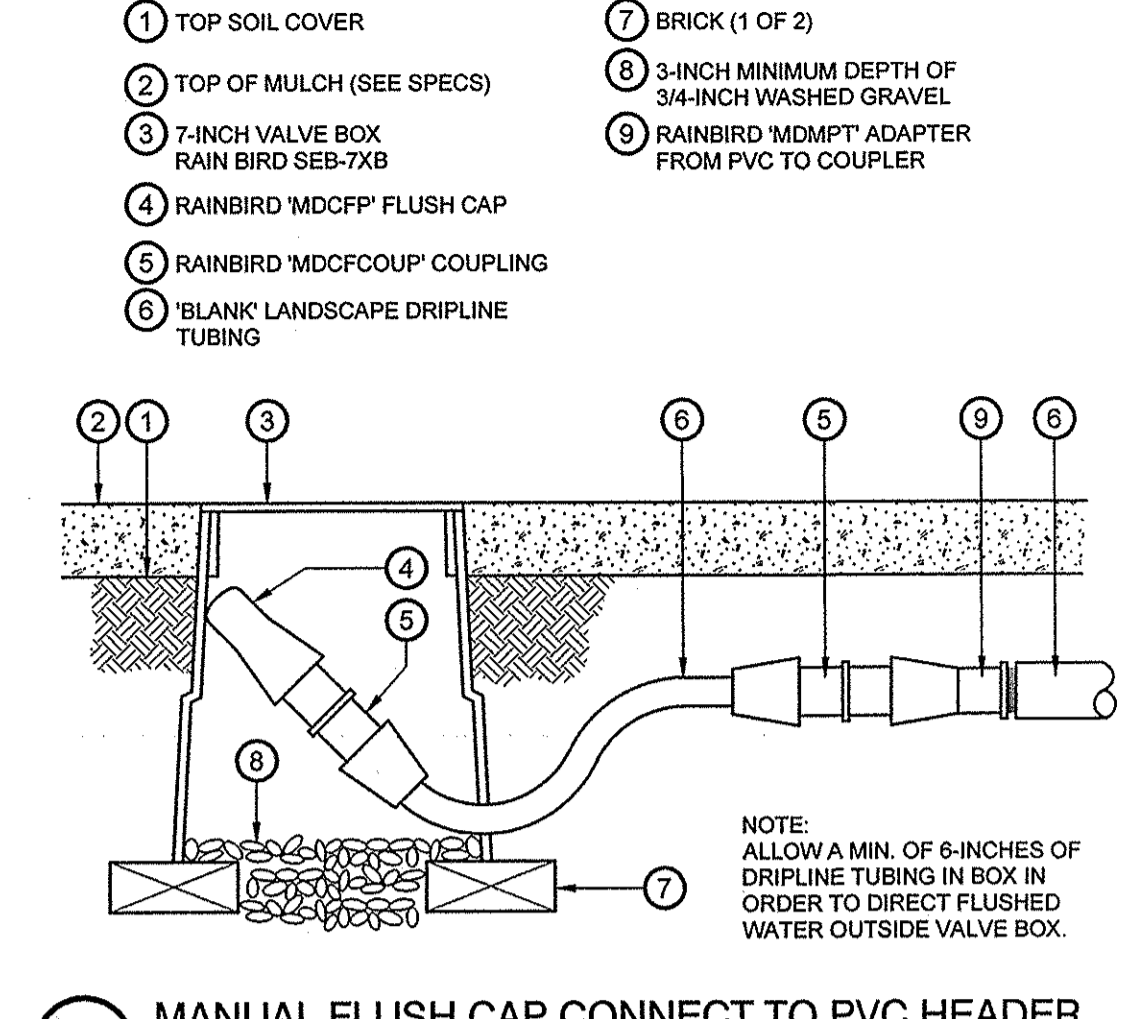
A ROOT WATERING SYSTEM
SCALE: N.T.S.
P-NO-28



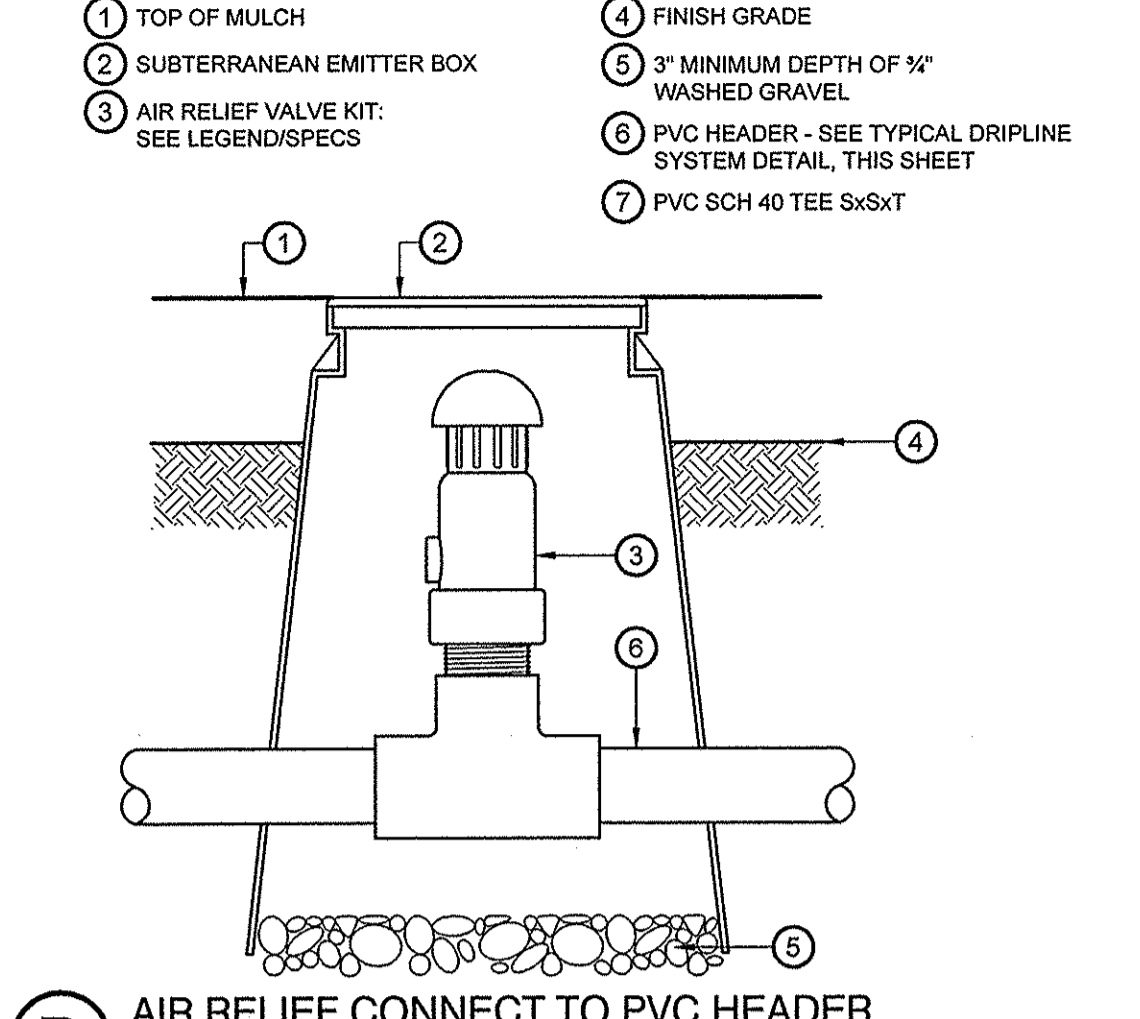
B XERIGATION CONTROL ZONE KIT - MED. FLOW 1"
SCALE: N.T.S.
P-NO-04

- 1 FINISH GRADE / TOP OF MULCH
- 2 VALVE BOX WITH COVER: JUMBO SIZE. HEAT BRAND 'RCV' AND CONTROLLER STATION # ONTO LID.
- 3 30-INCH LINEAR LENGTH OF WIRE, COILED
- 4 WATER PROOF CONNECTOR: USE 3M DBY-6 DIRECT BURY SPLICE KIT (SKOTCH LOK CONNECTOR W/ GEL FILLED POLYPROPYLENE TUBE)
- 5 1-INCH BALL VALVE (INCLUDED IN CONTROL ZONE KIT)
- 6 CHRISTY ID TAG
- 7 REMOTE CONTROL VALVE (INCLUDED ON CONTROL ZONE KIT) SEE PLAN FOR SIZE.
- 8 PRESSURE REGULATING QUICK CHECK BASKET FILTER (INCLUDED IN CONTROL ZONE KIT)
- 9 PVC SCH 40 FEMALE ADAPTOR
- 10 LATERAL PIPE (TO SYSTEM)
- 11 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 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 MIN. DEPTH OF 3/4-INCH WASHED GRAVEL
- 17 PVC SCH 80 NIPPLE, CLOSE (INCLUDED IN CONTROL ZONE KIT)
- 18 PVC UNION
- 19 BRICK (1 OF 4)
- 20 FILTER FABRIC

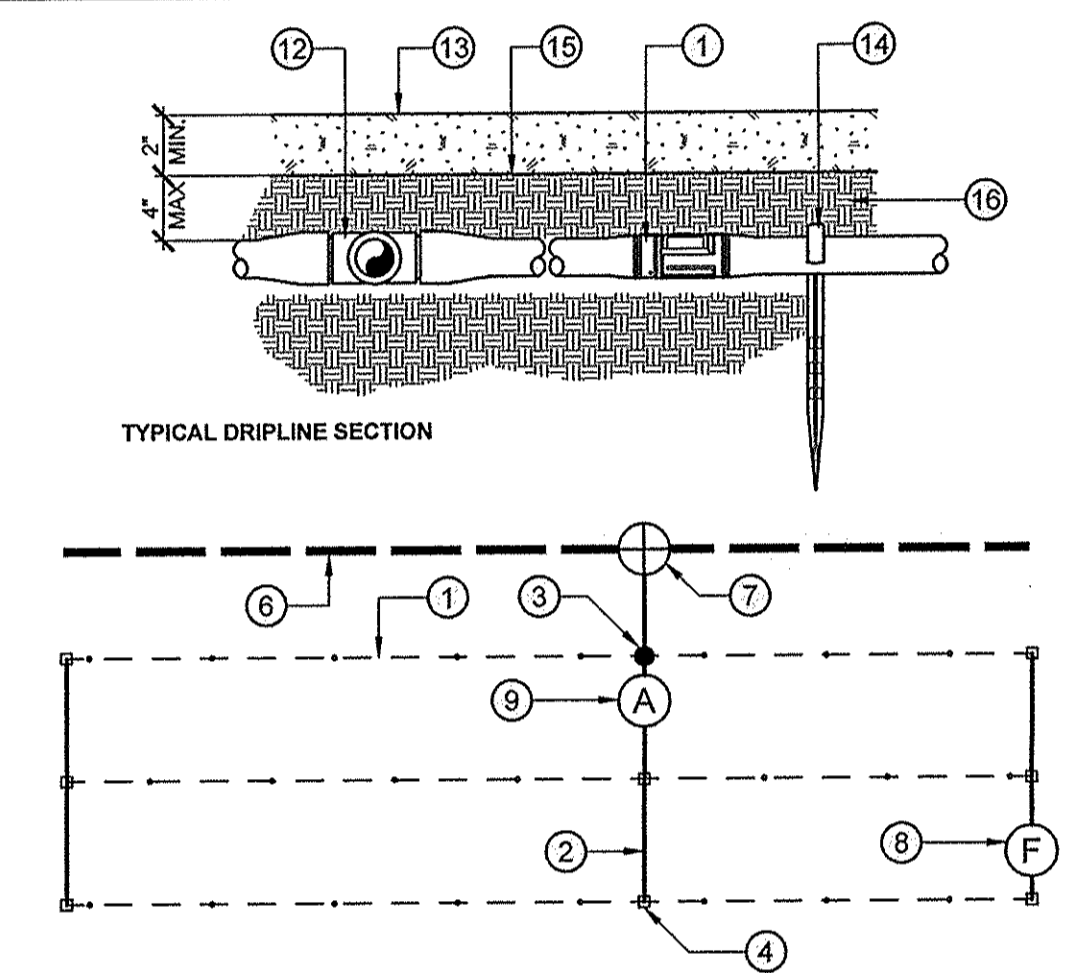
NOTE: VALVE BOX LIDS SHALL BE BRANDED WITH ABBREVIATED INITIALS FOR EACH DEVICE



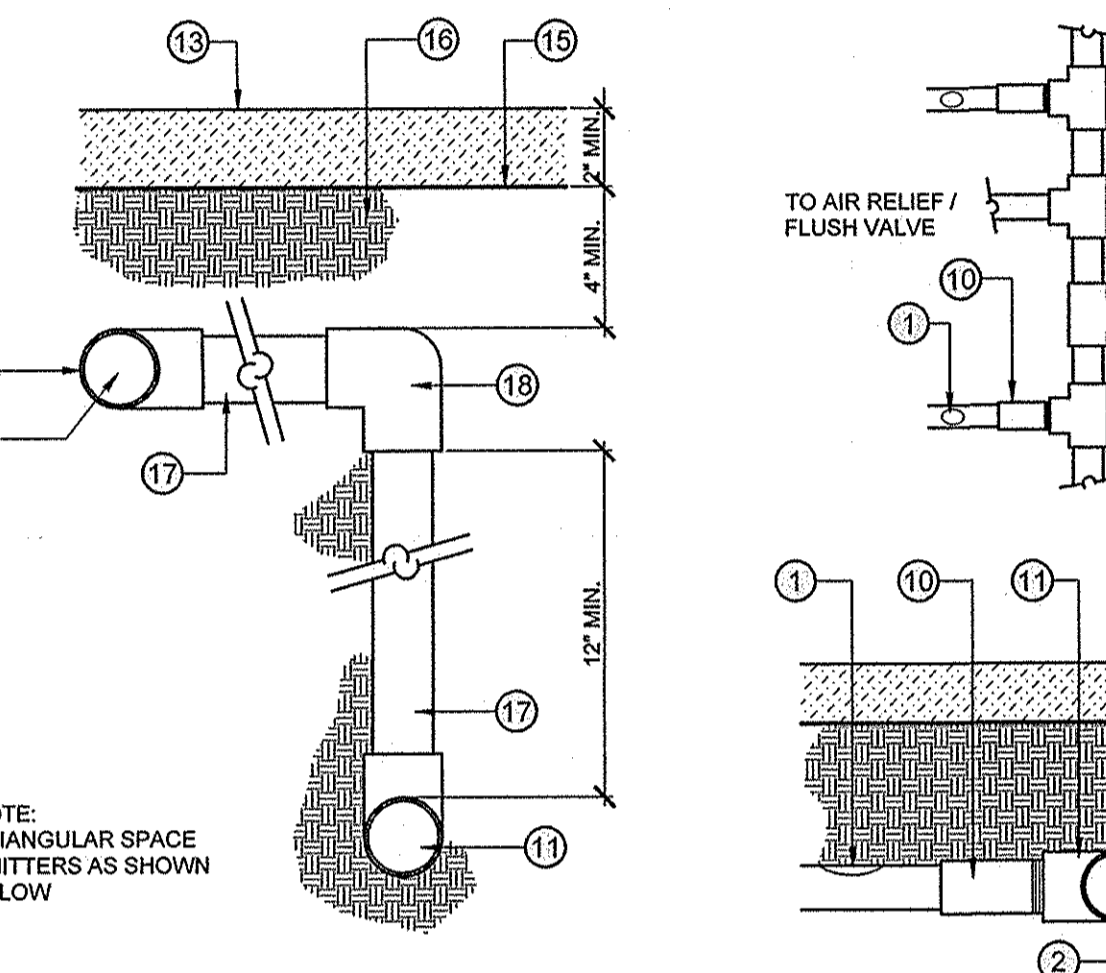
C MANUAL FLUSH CAP CONNECT TO PVC HEADER
SCALE: N.T.S.
P-NO-21



D AIR RELIEF CONNECT TO PVC HEADER
SCALE: N.T.S.
P-NO-20

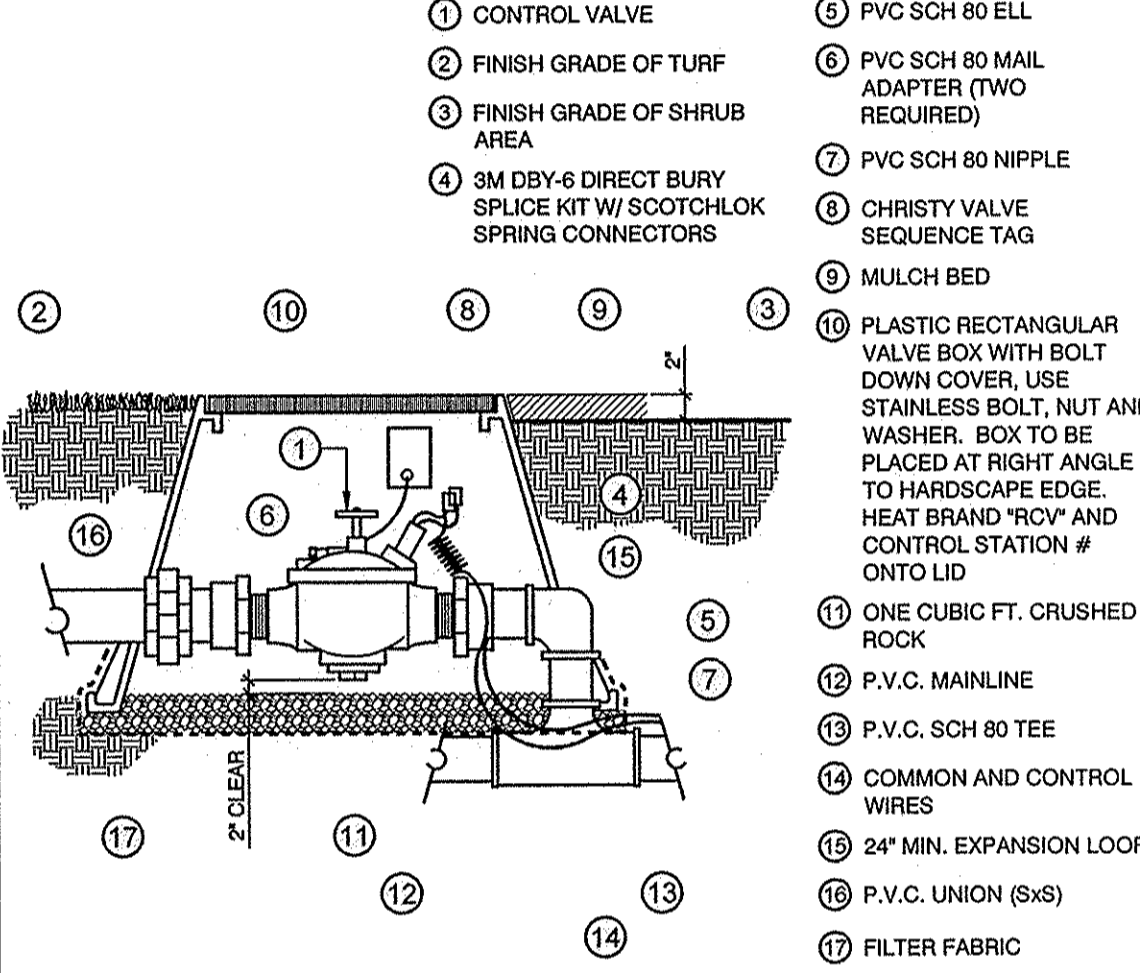


E TYPICAL DRIP LINE SYSTEM LAYOUT
SCALE: 1" = 1"
P-NO-23



F REMOTE CONTROL VALVE
SCALE: 1" = 1"
P-NO-21

- 1 PRESSURE-COMPENSATING IN-LINE EMITTER TUBING: SEE LEGEND
- 2 PVC SUPPLY HEADER
- 3 PVC RISER FROM 12" LATERAL TO 4" SUPPLY HEADER
- 4 PIPE TRANSITION POINT FROM PVC HEADER TO EMITTER TUBING
- 5 PVC MAINLINE - SEE PLAN
- 6 XERIGATION CONTROL VALVE - SEE LEGEND
- 7 FLUSH VALVE AT LOW POINT OF SYSTEM - SEE LEGEND
- 8 AIR RELIEVE VALVE AT HIGH POINT OF SYSTEM - SEE LEGEND
- 9 1/2" COMP X 1/2" MPT ADAPTER
- 10 SCH 40 PVC TEE (SxSxT)
- 11 BARB X BARB TEE
- 12 TOP OF MULCH (SEE SPECS)
- 13 TIE DOWN STAKE @ 6'-0" O.C. AND AT BENDS AND ENDS.
- 14 FINISHED GRADE
- 15 TOP SOIL COVER
- 16 PVC SCH 40
- 17 PVC SCH 40 ELBOW



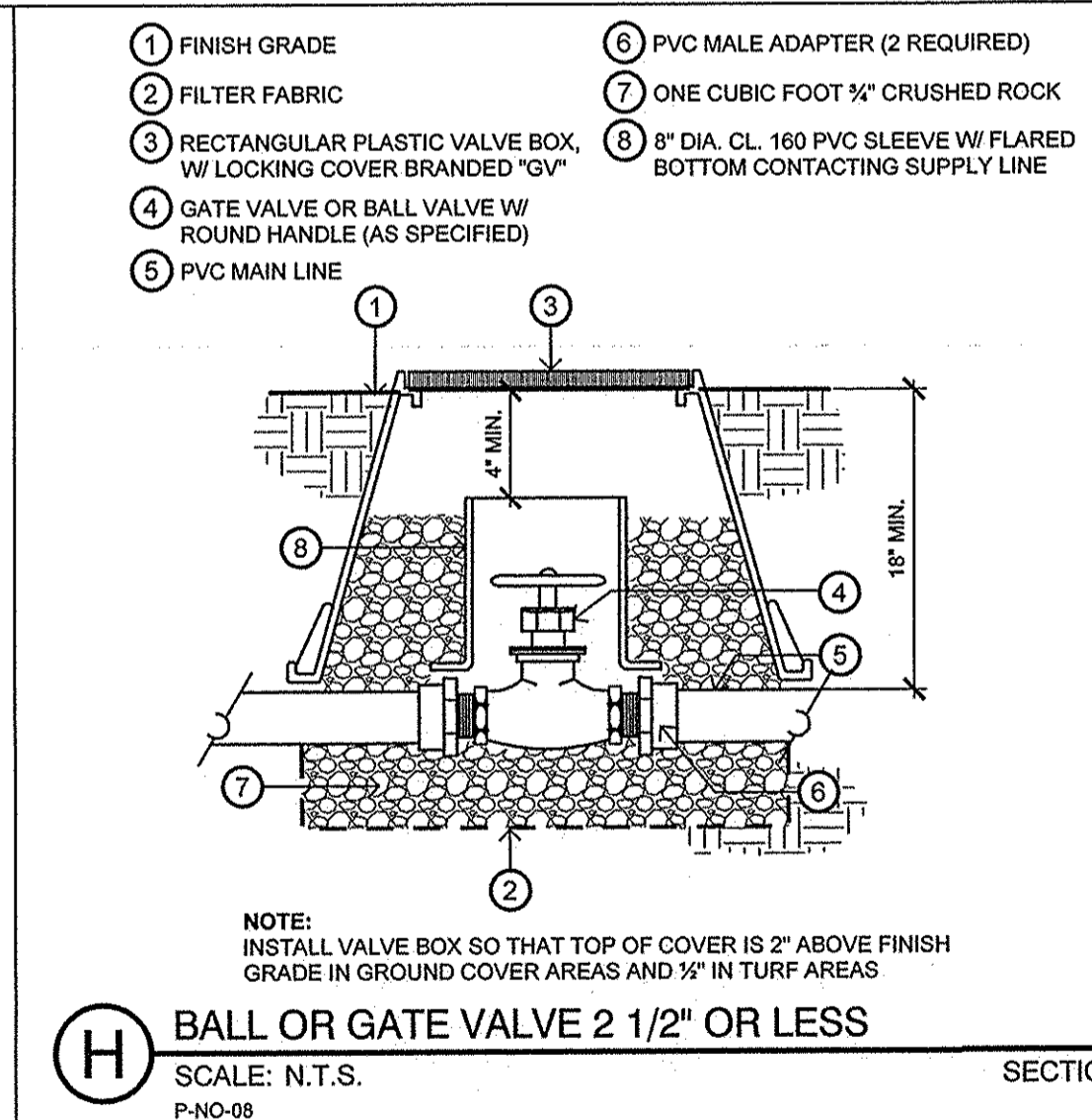
G QUICK COUPLER
SCALE: N.T.S.
P-NO-02

- 1 FINISH GRADE IN TURF AREAS
- 2 PLASTIC ROUND VALVE BOX WITH BOLT DOWN COVER. USE STAINLESS BOLT NUT AND WASHER. HEAT BRAND 'RCV' ONTO LID. SEE LEGEND / SPECS FOR BOX COLOR
- 3 QUICK COUPLER KEY WITH MALE HOSE BIB CONNECTION AS SHOWN. KEY MUST CLEAR VALVE BOX
- 4 FINISH GRADE IN SHRUB AREAS
- 5 QUICK COUPLER VALVE SEE LEGEND FOR SPEC.
- 6 STAINLESS PUNCH LOK CLAMPS (2 REQ.)
- 7 BRASS NIPPLE (LENGTH AS REQ.)
- 8 BRASS TRIPLE SWING JOINT (SIZE PER QCV) USE TWO STREET ELLS, ONE THREADED ELL FOR ASSEMBLY
- 9 MAINLINE (SEE LEGEND/SPECS.)
- 10 #4 x 36" REBAR STAKE
- 11 LANDSCAPE FILTER FABRIC
- 12 3/4" ROCK, 1 CUBIC FT

NOTE: TEFLON TAPE ALL CONNECTIONS



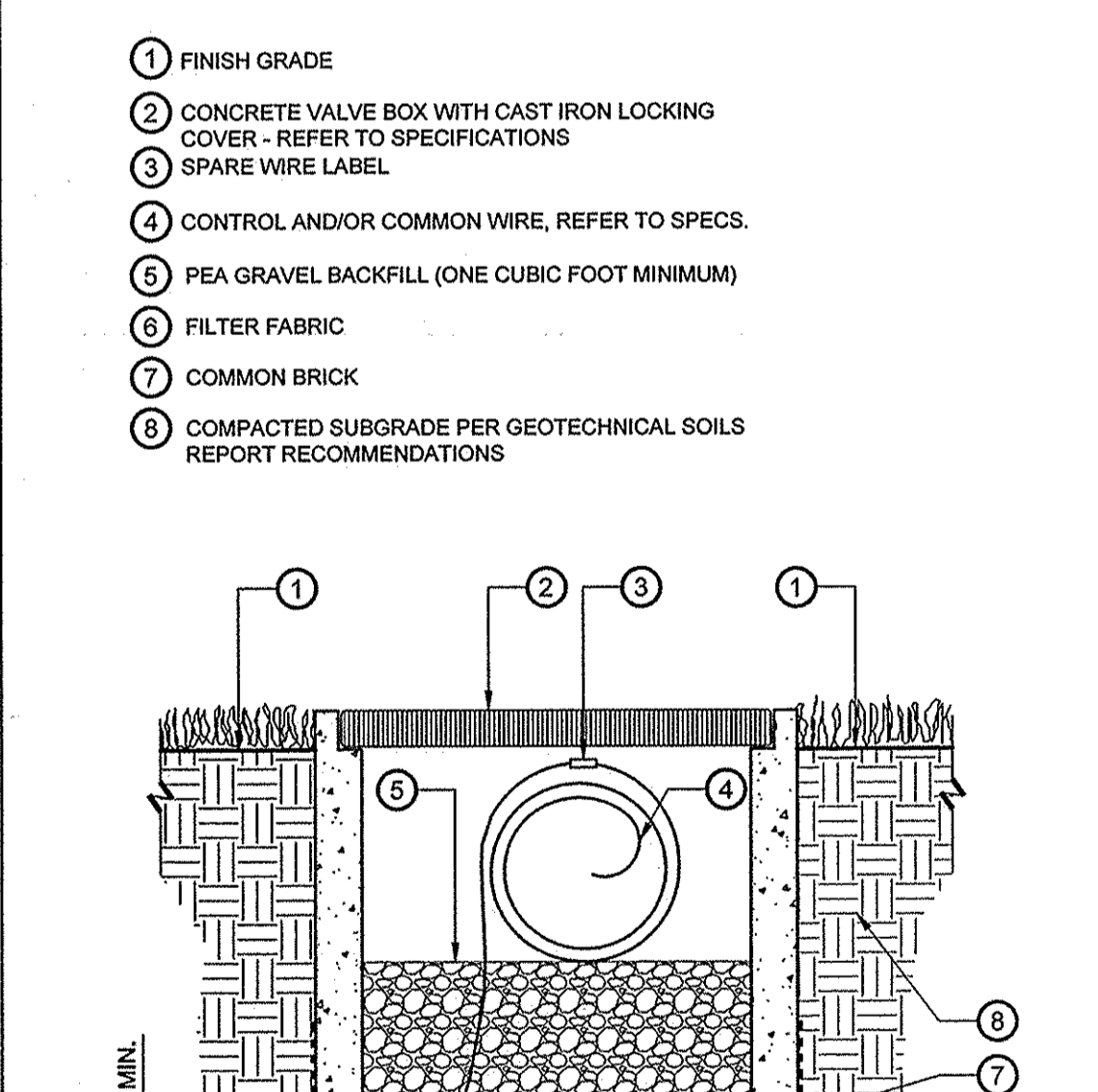
H BALL OR GATE VALVE 2 1/2" OR LESS
SCALE: N.T.S.
P-NO-08



I PIPE SLEEVING AND TRENCHING
SCALE: N.T.S.
P-NO-05

SECTION	DESCRIPTION	MINIMUM DIMENSION
SECTION A	LATERAL PIPES	12"
SECTION B	MAIN LINE & CONTROL WIRES UNDER PAVING	24" x 4"
SECTION C	MAIN LINE AND CONTROL WIRES IN AVERAGE SOIL CONDITIONS	18"

NOTE: TRENCHES TO BE WIDE ENOUGH TO ALLOW 4" MIN. HORIZONTAL CLEARANCE BETWEEN PARALLEL PIPES. COMPACT TRENCH BACKFILL TO COMPACTION SAME AS ADJACENT AREAS AND TO 90% COMPACTION IN PAVED AREAS.



J SPARE WIRE IN VALVE BOX
SCALE: N.T.S.
P-NO-08

Plan Prepared By: _____ Date: _____

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REGISTERED LANDSCAPE ARCHITECT
2214
10/13/2015
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION	BY	APP'VD:

REV.	DATE	DESCRIPTION	BY	APP'VD:

REV.	DATE	DESCRIPTION	BY	APP'VD:

SCALE: AS SHOWN DATE: 10/2015

DRAWN BY: CH,CV DESIGNED BY: AG

CHECKED BY: AG

APPROVED: *Thomas A. Bonigut* 12/17/15

THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER DATE

IRRIGATION DETAILS
NORTH EL CAMINO REAL
CAMINO CAPISTRANO TO AVENIDA ESTACION
Project No. 13308

CITY OF SAN CLEMENTE

DRAWING NO:	
SHEET	20
OF	29

Landscape Water Use Calculations

PROJECT: North el Camino Real Bike Trail
DATE: 10/13/2015

POC: Water Meter#

Table with 4 columns: Description, Area, PF, IE, EAWU. Includes calculations for Total S.F., Total MAWA, and Percent landscape that is turf.

Hydrozone Summary

Table with 5 columns: Description, Area, PF, IE, EAWU. Lists various irrigation methods like Turf Dripline, Turf Spray, Shrub Spray, etc.

Average Plant Factor = 0.6
Total EAWU = 285 cf / yr
EAWU < MAWA = 74 cf / yr

Zone Information

Table with 10 columns: VALVE, HYDROZONE, GPM, PLANT FACTOR, IRRIG. AMOUNT, PREC. RATE, CYCLES PER DAY, MIN. RUNTIME, MIN. SOAK TIME, MAX. RUNTIME. Lists 22 zones.

Historical ET - San Clemente, CA

Table with 13 columns: Month (JAN-DEC), Yearly Eto (46.6), Average Daily Eto (0.06-0.18).

of Watering Days per Month - Established

Table with 13 columns: Month (JAN-DEC), 12 rows of watering days for each month.

of Watering Days per Month - Initial Establishment Period

Table with 13 columns: Month (JAN-DEC), 3 rows of watering days for different hydrozones.

IRRIGATION SCHEDULE - ADD ALTERNATE

Table with 4 columns: SYMBOL, MANUFACTURER/MODEL/DESCRIPTION, QTY, GPM, DETAIL. Lists various irrigation components like Rain Bird RWS-M-B-C, PVC Schedules, etc.

IRRIGATION SCHEDULE - BASE BID

Table with 4 columns: SYMBOL, MANUFACTURER/MODEL/DESCRIPTION, QTY, DETAIL. Lists various irrigation components like Rain Bird XZ2-100-PRB-COM, Pipe Transition Point, etc.

VALVE SCHEDULE

Table with 12 columns: NUMBER, MODEL, SIZE, TYPE, WIRE, PSI, PSI @ POC, GPM, PRECIP. Lists 22 valves.

CRITICAL ANALYSIS

Generated: 2015-10-05 17:28
P.O.C. NUMBER:01
Water Source Information: EXISTING WATER METER
FLOW AVAILABLE
Water Meter Size:
Flow Available: 37.50 gpm
PRESSURE AVAILABLE
Static Pressure at POC: 130.00 psi
Elevation Change: 5.00 ft
Service Line Size: 1 1/4"

IRRIGATION NOTES:

ALL MAIN LINE PIPING AND CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES. MAIN LINE SLEEVE SIZE SHALL BE A MINIMUM OF TWICE THE DIAMETER OF THE PIPE TO BE SLEEVED OR AS INDICATED ON THE DRAWINGS. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES UNDER PAVING.
ALL LATERAL LINE PIPING UNDER PAVING SHALL BE PVC SCHEDULE 40 PIPE AND SHALL BE INSTALLED PRIOR TO PAVING.
PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE SAID TIME OF REJECTION.

Table with 4 columns: SYMBOL, DESCRIPTION, QTY, DETAIL. Lists various irrigation components like Rain Bird XZ2-100-PRB-COM, Pipe Transition Point, etc.

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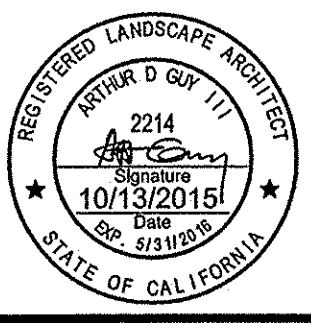
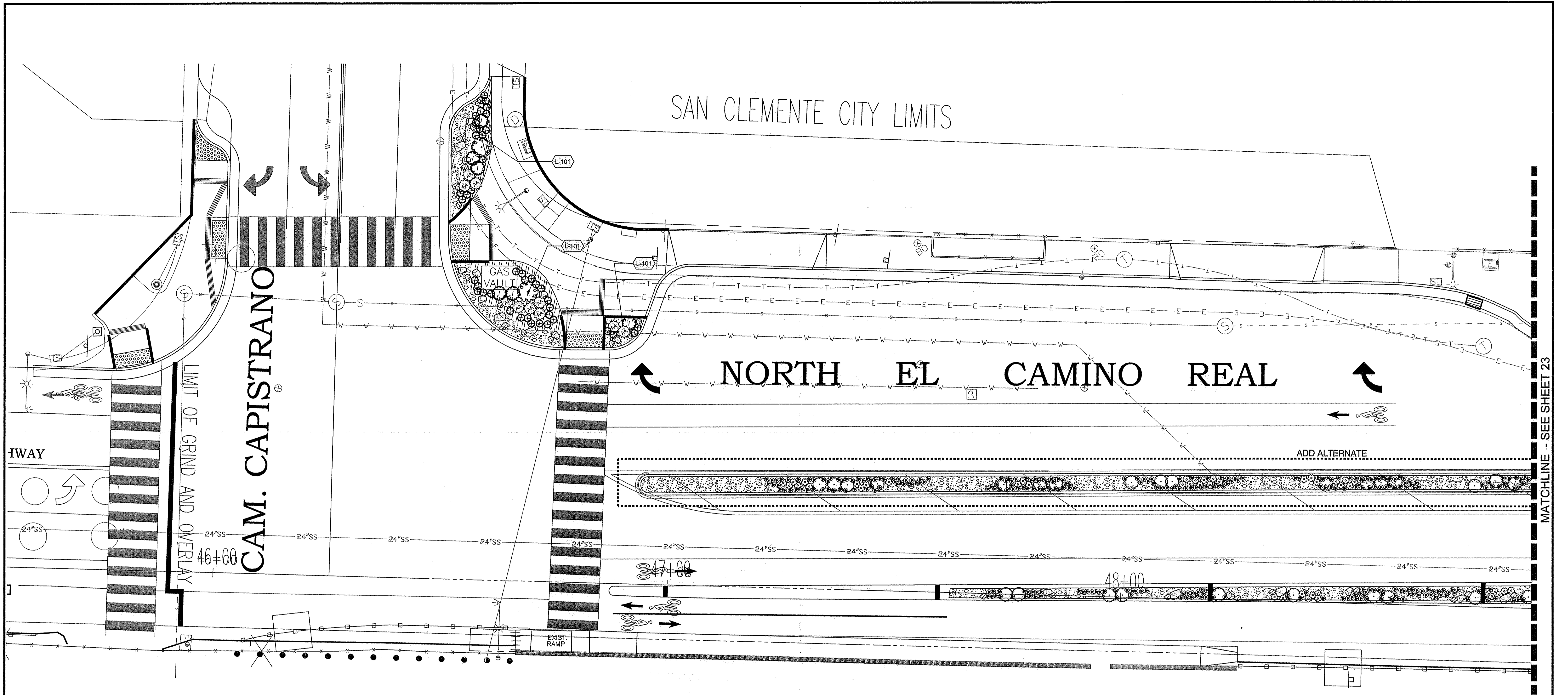


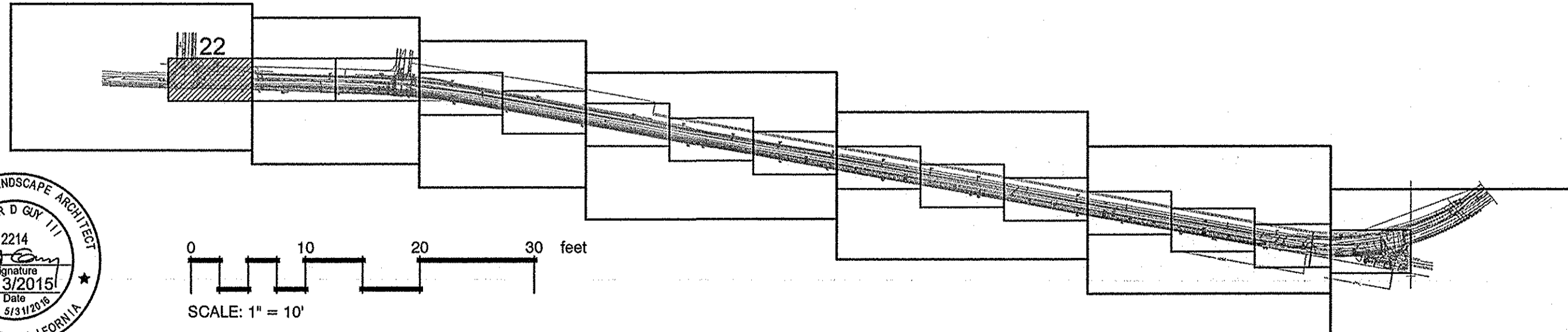
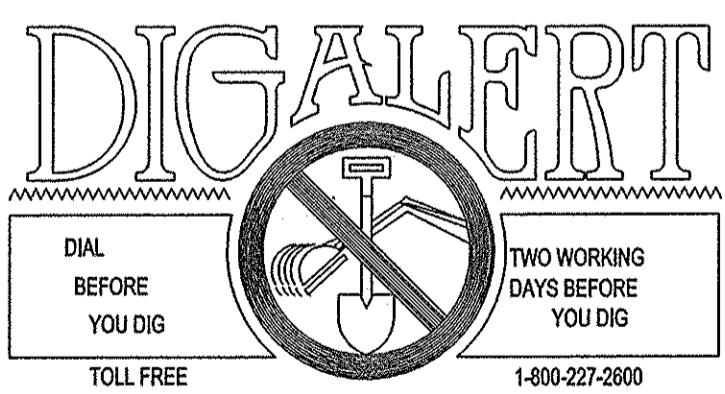
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Table with 3 columns: SCALE: AS SHOWN, DRAWN BY: CH,CV, DESIGNED BY: AG, CHECKED BY: AG, APPROVED: Thomas A. Bonigut, Assistant City Engineer, DATE: 12/17/15.

IRRIGATION LEGEND, NOTES & CALCULATIONS
CITY OF SAN CLEMENTE
DRAWING NO: SHEET 21 OF 29



MATCHLINE - SEE SHEET 23

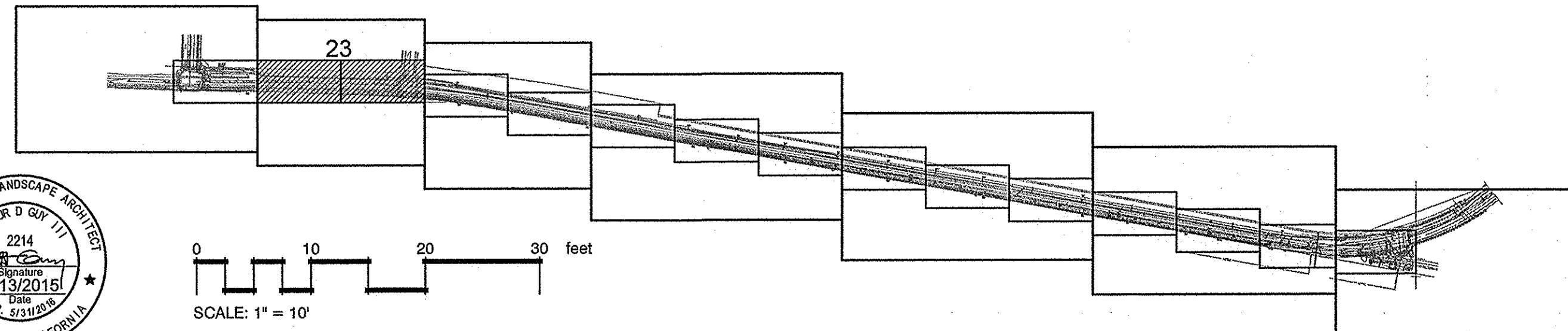
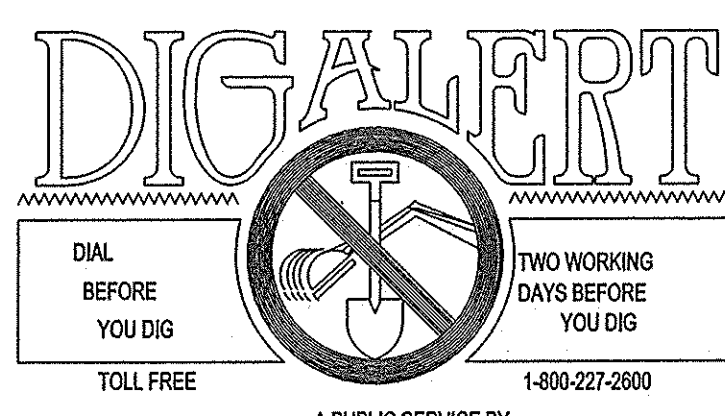
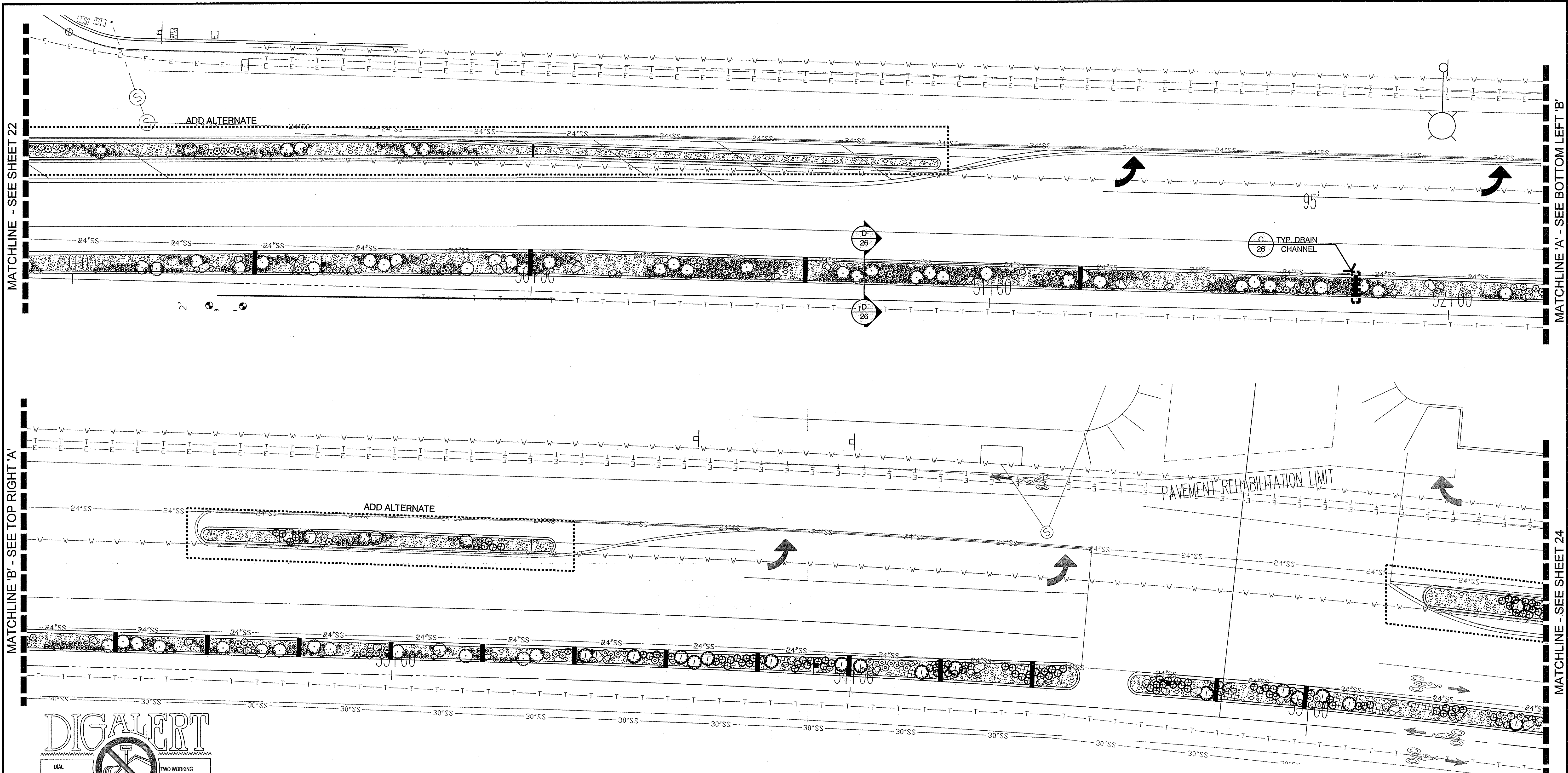


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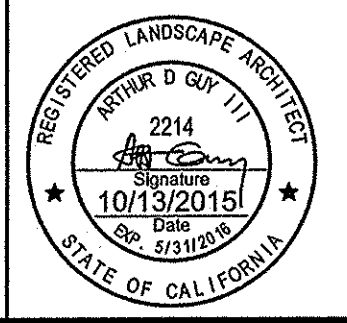


SEE SHEET 29 FOR PLANTING LEGENDS AND DETAILS

REVISIONS			REFERENCES			APPROVALS			SCALE : 1"=10' DRAWN BY : CH,CV DESIGNED BY : AG DATE: 10/2015 CHECKED BY : AG APPROVED : <i>Tom Bonigut</i> 12/17/15 THOMAS A. BONIGUT RCE 53961 DATE ASSISTANT CITY ENGINEER			CITY OF SAN CLEMENTE PLANTING PLAN NORTH EL CAMINO REAL CAMINO CAPISTRANO TO AVENIDA ESTACION Project No. 13308			DRAWING NO: SHEET <u>22</u> OF <u>29</u>		
REV.	DATE:	DESCRIPTION	BY:	APP'VD:													

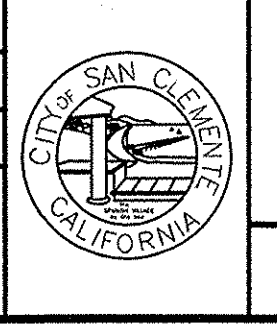


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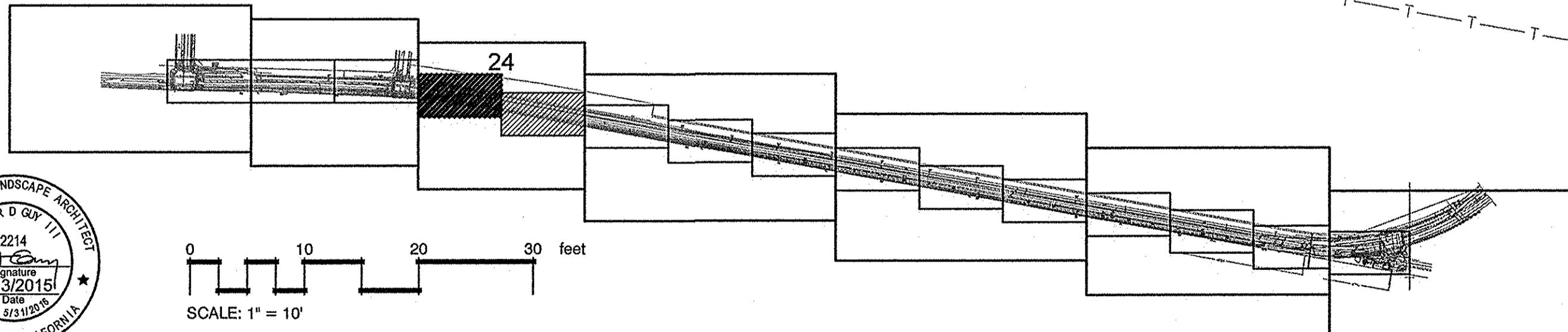
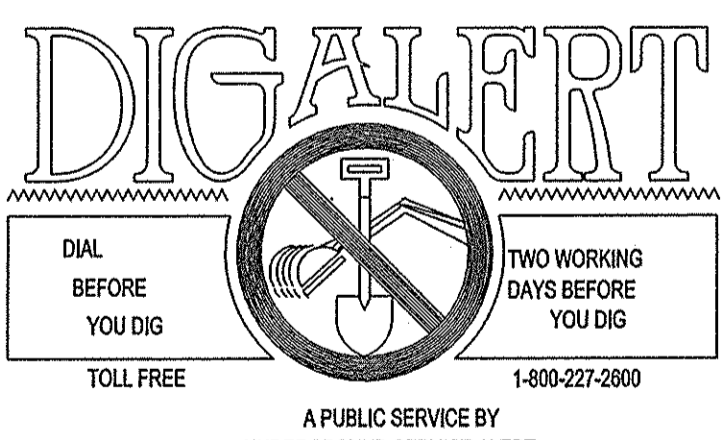
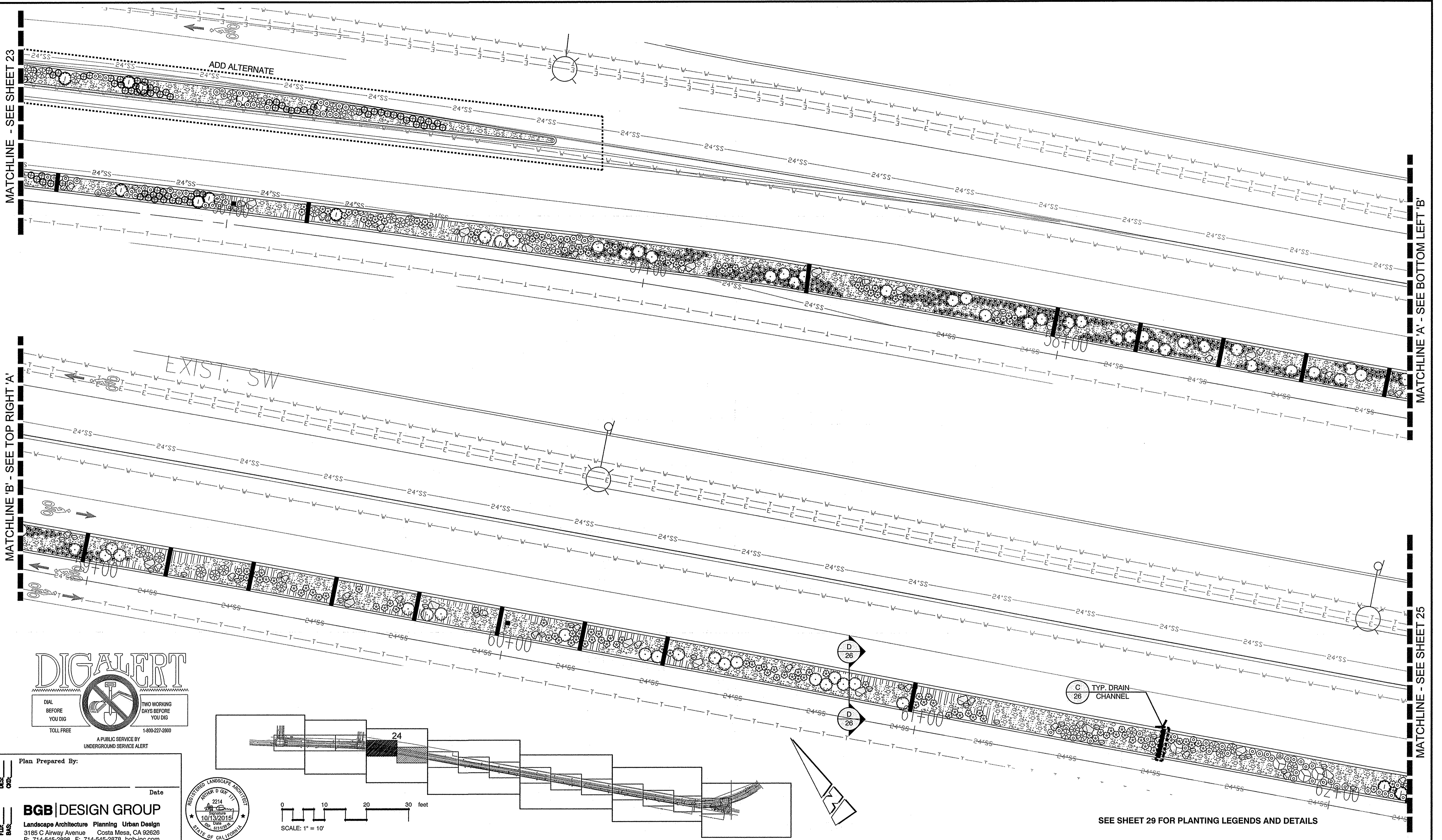
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 CHECKED BY: AG
 APPROVED: *Thomas A. Bonigut* 12/12/15
 THOMAS A. BONIGUT RCE 53961
 ASSISTANT CITY ENGINEER DATE



PLANTING PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO:
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 OF 29



C TYP. DRAIN CHANNEL
D 26

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PLANTING PLAN
NORTH EL CAMINO REAL
CAMINO CAPISTRANO TO AVENIDA ESTACION
Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO:
SHEET 24
OF 29

MATCHLINE - SEE SHEET 24

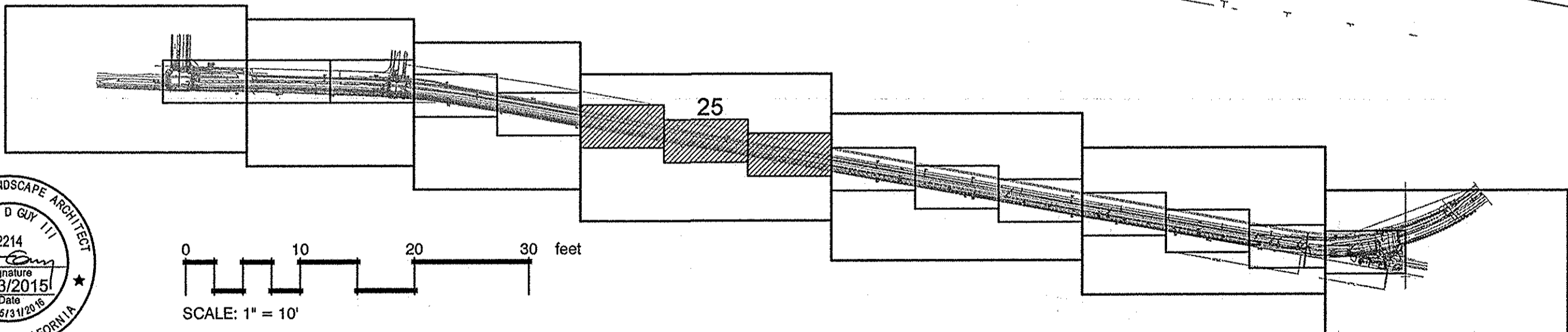
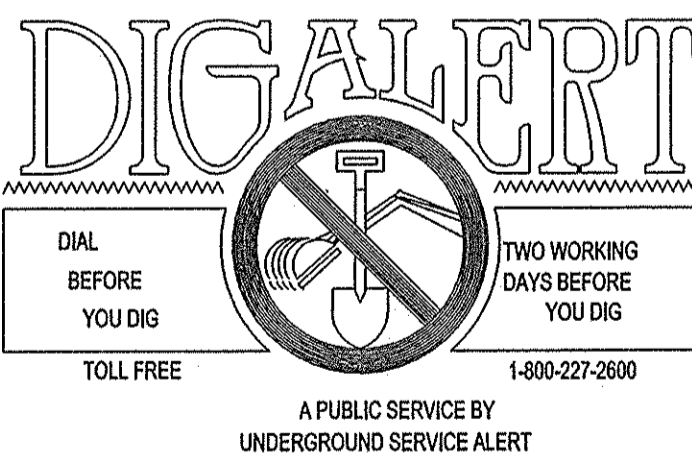
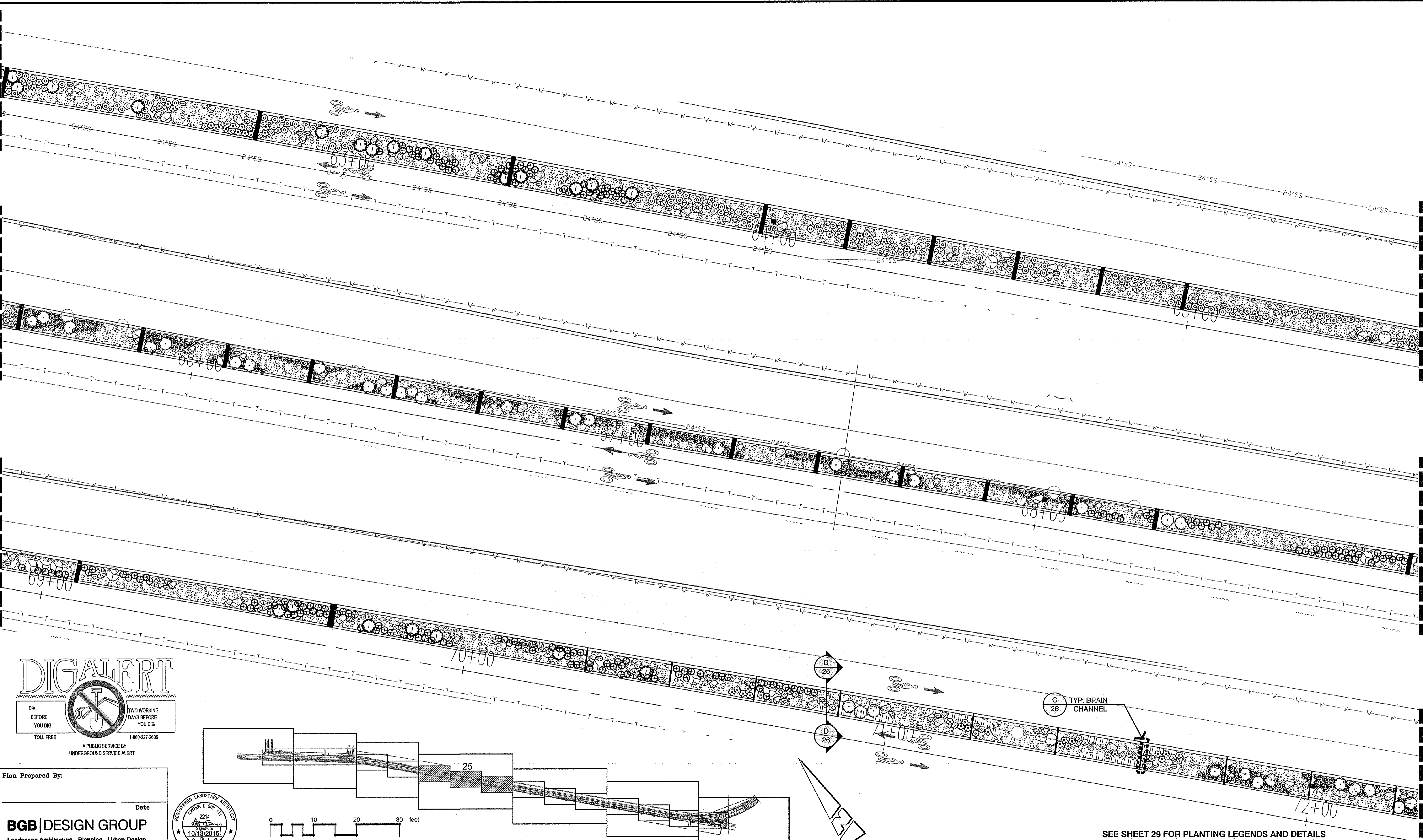
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MATCHLINE 'D' - SEE TOP RIGHT 'C'

MATCHLINE 'A' - SEE BOTTOM LEFT 'B'

MATCHLINE 'C' - SEE BOTTOM LEFT 'D'

MATCHLINE - SEE SHEET 26



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CHECKED BY : AG

APPROVED : *Thomas A. Bonigut* DATE: 12/17/15

THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER

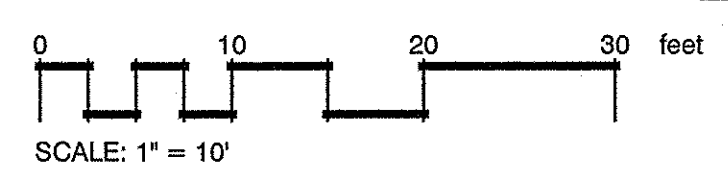
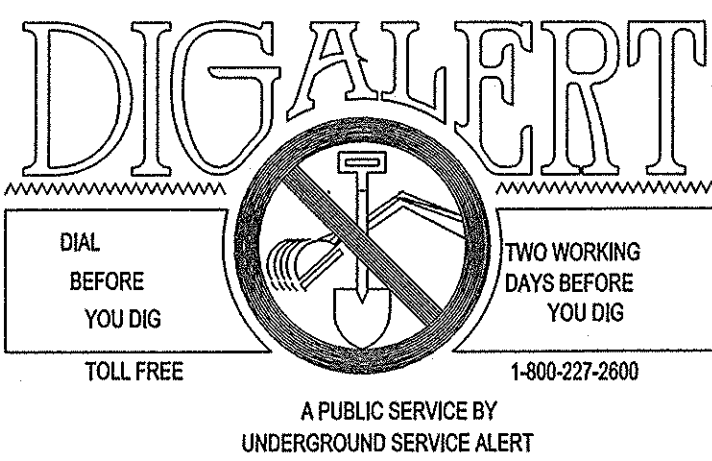
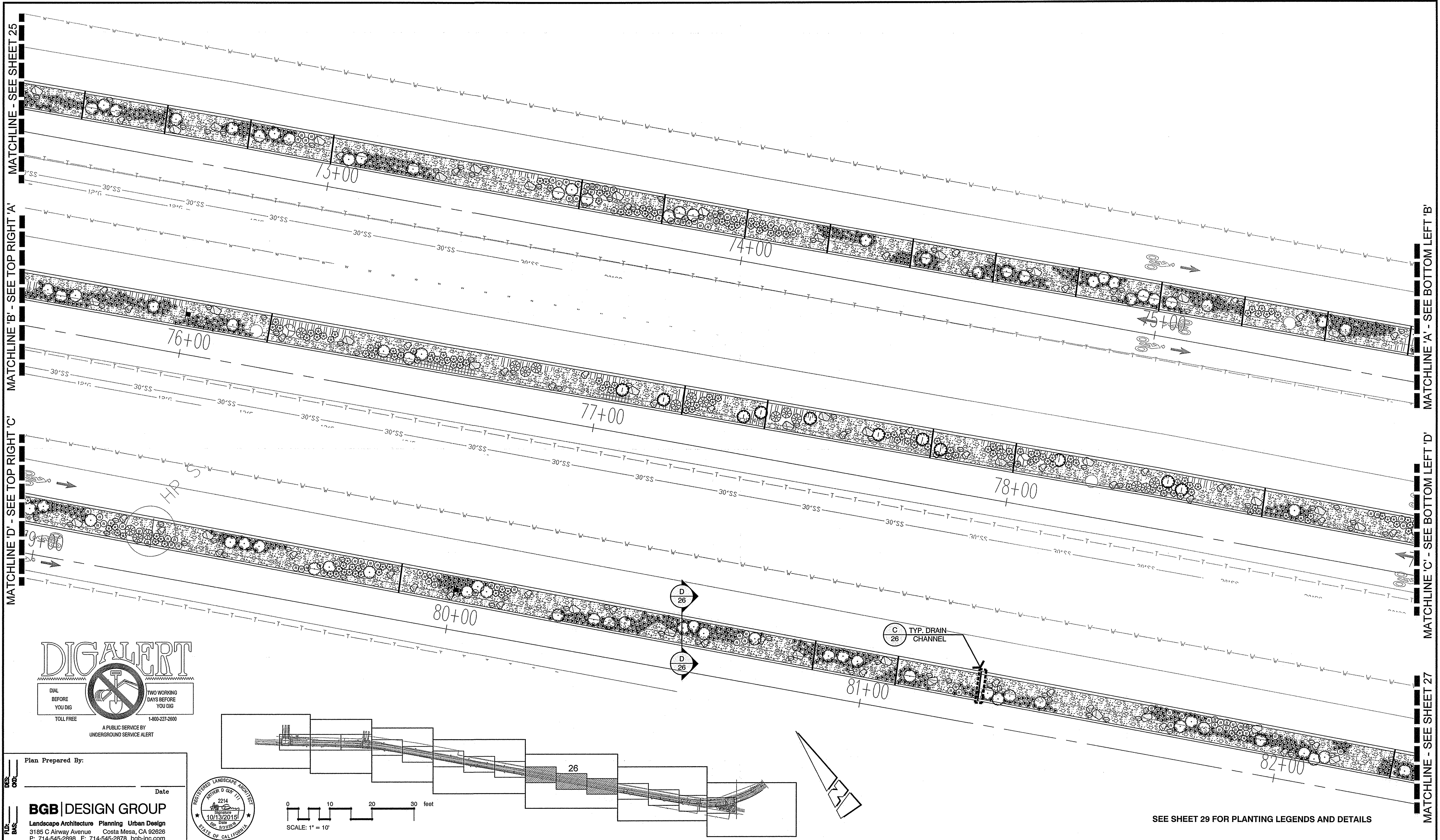


PLANTING PLAN
 NORTH EL CAMINO REAL
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 Project No. 13308

CITY OF SAN CLEMENTE

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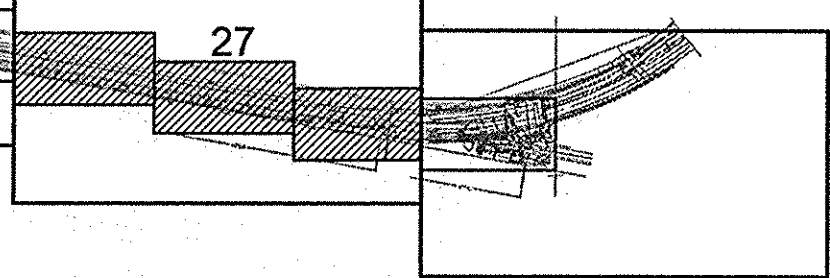
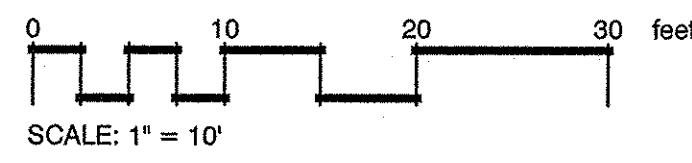
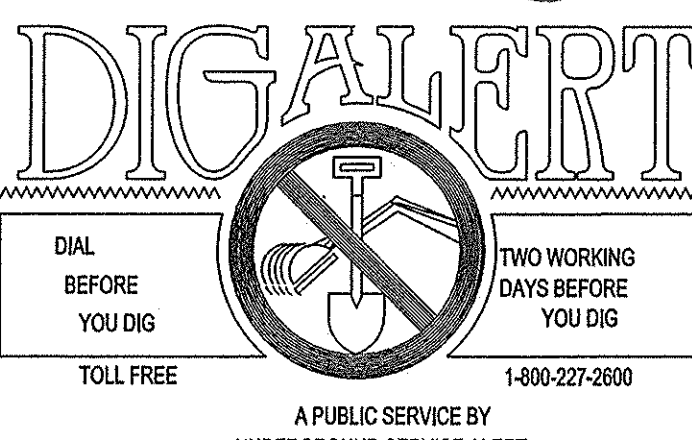
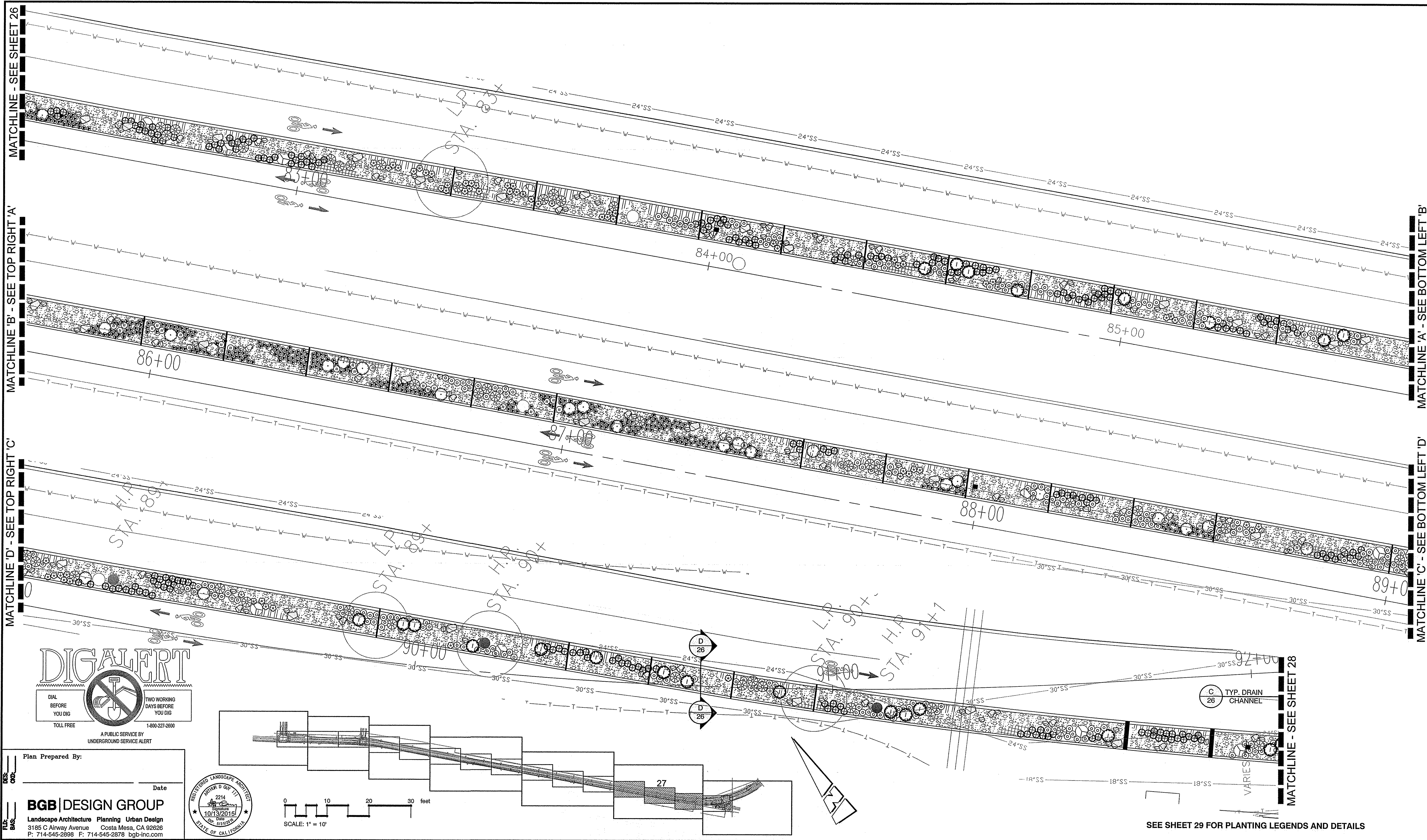
SHEET 25 OF 29



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REVISIONS						REFERENCES	APPROVALS		APPROVED: <i>Tom Bonigut</i> THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER
							CITY OF SAN CLEMENTE		DRAWING NO: SHEET 26 OF 29



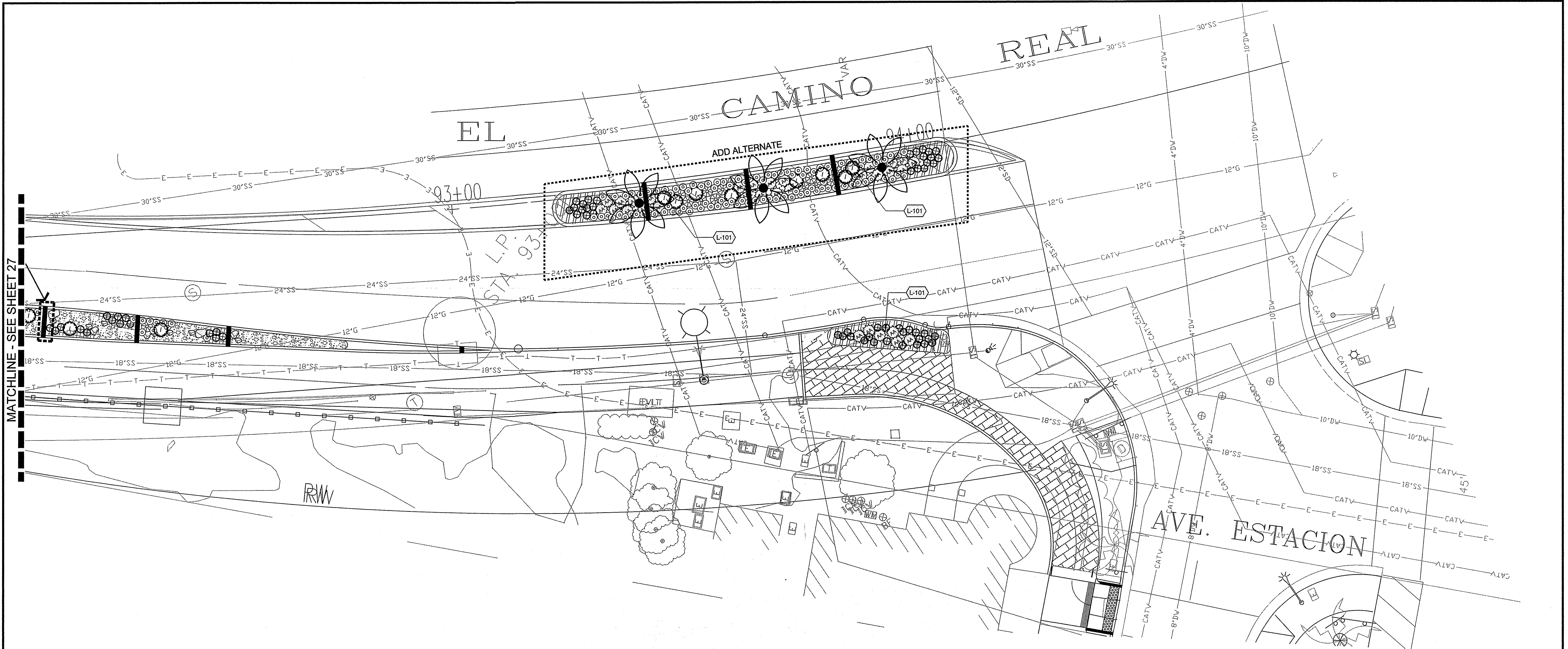
SEE SHEET 29 FOR PLANTING LEGENDS AND DETAILS

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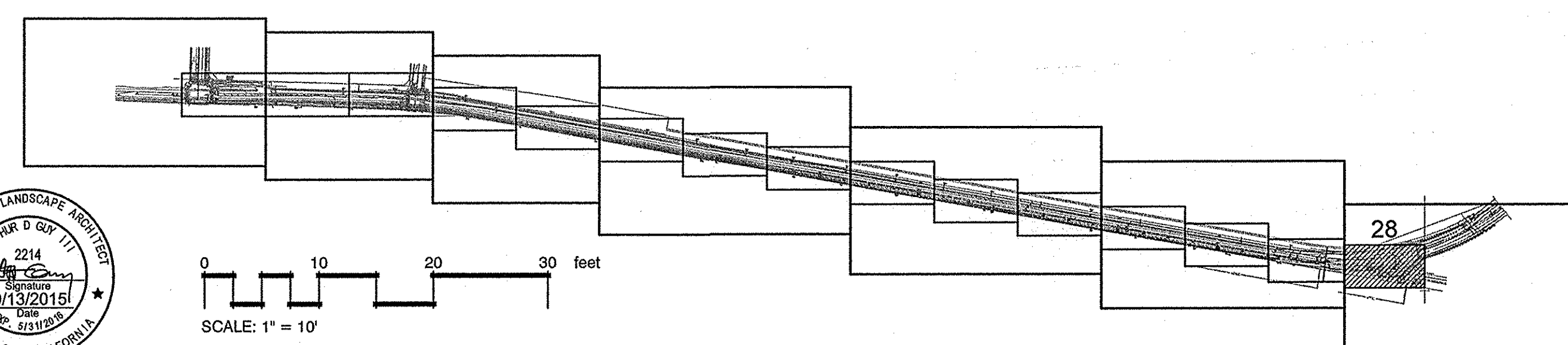
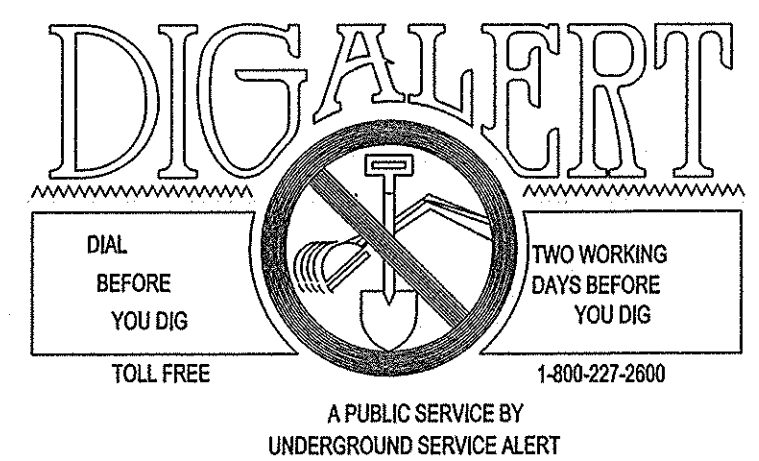
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APPROVED : <i>Tom Bonigut</i>	DATE: 12/15
THOMAS A. BONIGUT RCE 53961 ASSISTANT CITY ENGINEER	

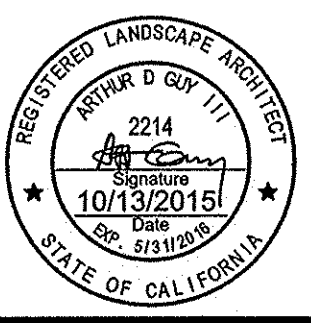
	PLANTING PLAN NORTH EL CAMINO REAL CAMINO CAPISTRANO TO AVENIDA ESTACION Project No. 13308	DRAWING NO:
	CITY OF SAN CLEMENTE	SHEET 27
		OF 29



MATCHLINE - SEE SHEET 27

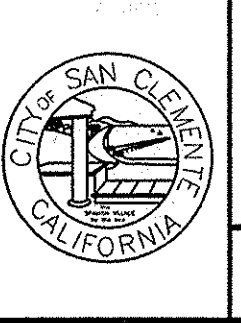


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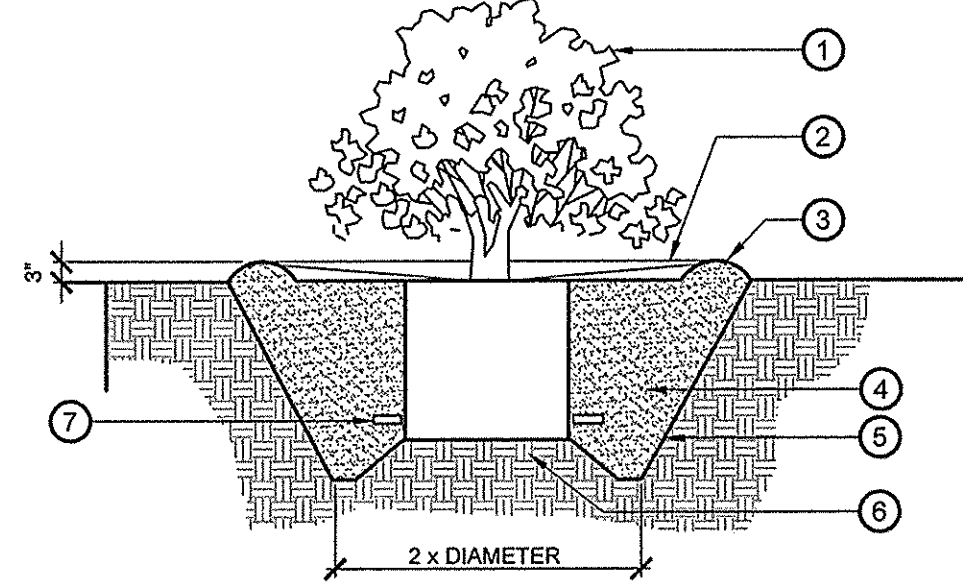
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PLANTING PLAN
 NORTH EL CAMINO REAL
 CAMINO CAPISTRANO TO AVENIDA ESTACION
 Project No. 13308
CITY OF SAN CLEMENTE

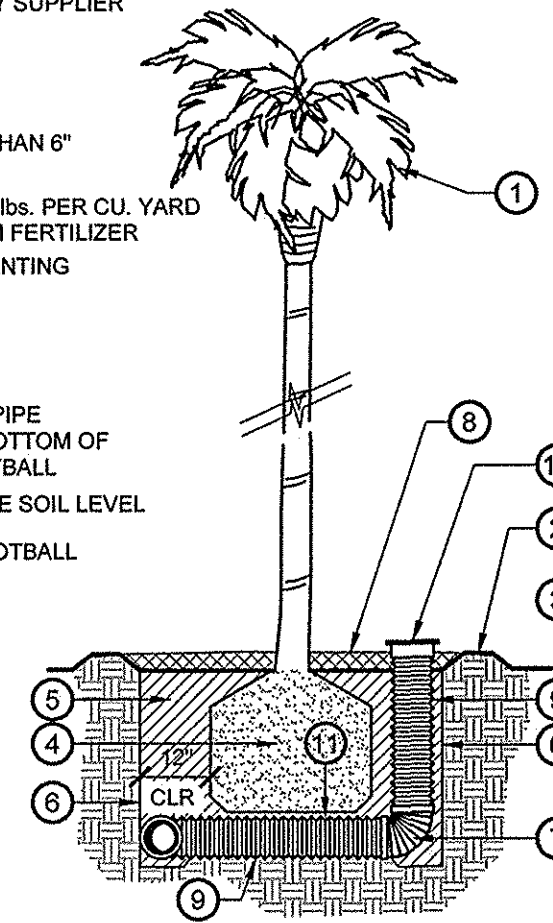
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 SHEET 28
 OF 29

- 1 1, 5 OR 15 GALLON SHRUB SIDES 60"
- 2 2" LAYER OF MULCH EXCEPT @ ROOT CROWN
- 3 WATER BASIN
- 4 AMENDED SOIL FOR PLANTING - SEE PLANTING SPECIFICATIONS
- 5 PLANT PIT EXCAVATION, FLARE SIDES 60"
- 6 NATIVE SOIL MANTLE
- 7 PLANT TABLETS PER SPECIFICATIONS



NOTE:
PROVIDE HUMATE PLUS CONDITIONER (AVAILABLE THROUGH TRI-C ENTERPRISES (800) 927-2811) EVENLY DISTRIBUTED THROUGH BACKFILL AT A RATE OF: 1 TSP / 1 GAL
1 TBL / 5 GAL
3 TBL / 15 GAL.

- 1 FRONDS TIED PRIOR TO DELIVERY - REMOVE TIES ON SCHEDULE AS APPROVED BY SUPPLIER
- 2 3" BERMED WATER BASIN
- 3 FINISH GRADE
- 4 PALM ROOTBALL - PLANT NO MORE THAN 6" BELOW TOP OF CROWN
- 5 100% WASHED PLASTER SAND W/ 10 lbs. PER CU. YARD OF BACKFILL GRO-POWER 9-3-9 PALM FERTILIZER
- 6 SCARIFY SIDES AND BOTTOM OF PLANTING
- 7 4" CORRUGATED TEE
- 8 2" MULCH - PER SPECIFICATIONS
- 9 4" DIA. PERFORATED CORRUGATED PIPE WRAPPED IN SOIL SEPARATOR TO BOTTOM OF PLANT PIT AND WRAP AROUND ROOTBALL
- 10 NDS NO. 11 ROUND GRATE 12" ABOVE SOIL LEVEL
- 11 COMPACTED SAND BASE UNDER ROOTBALL

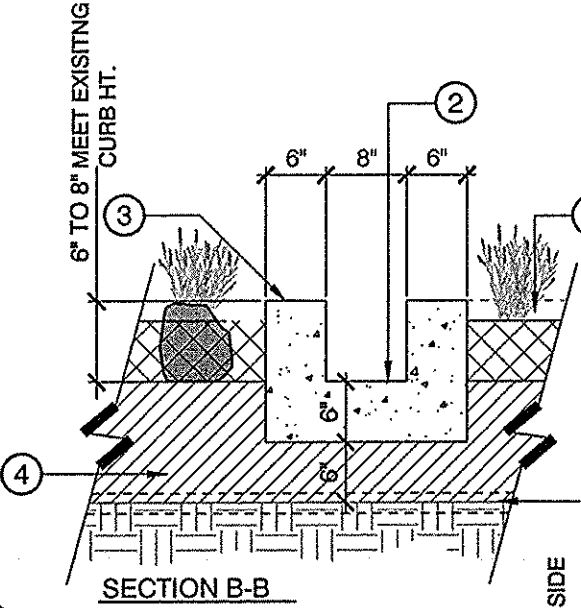


NOTES:
1) ALL PALMS SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING
2) ALL BACKFILL TO BE WATER SET DURING PLANTING FOR MAX. STABILITY
3) CERTIFICATE INDICATING PALMS WERE SHIPPED FREE FROM DISEASE MUST BE PROVIDED FROM SUPPLIER AND SUBMITTED TO LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE

B PALM TREE PLANTING WITH SUMP DRAIN
SCALE: N.T.S.
P-NO-29

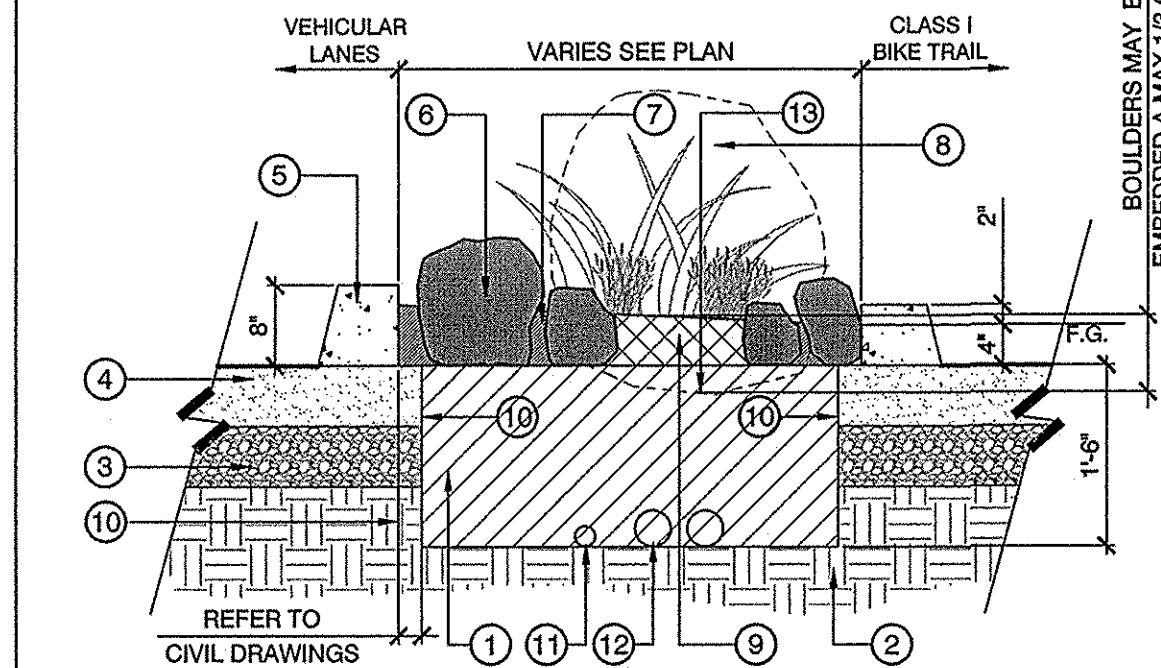
A SHRUB PLANTING
SCALE: N.T.S.
P-NO-15

- 1 DOWELED CURB. REFER TO CIVIL PLANS
- 2 PCC CONCRETE 520-C-2500 BROOM FINISH FLOW LINE
- 3 1/2" RADIUS
- 4 COMPACTED IMPORT
- 5 6" No. 3 DOWEL
- 6 PLANTER
- 7 SAWCUT OPENING
- 8 COLD JOINT
- 9 2" IRRIGATION MAINLINE
- 10 2-3" ELECTRICAL CONDUIT



C DRAIN CHANNEL DETAIL
SCALE: 3/4" = 1'-0"

- 1 EXCAVATE EXISTING ROAD SECTION AND SUBGRADE. BACKFILL WITH SSPWC CLASS 'A' TOPSOIL (COMPACT TO 90% RELATIVE)
- 2 SUBGRADE
- 3 EXISTING ROAD SUBGRADE
- 4 EXISTING ROAD PAVEMENT SECTION
- 5 DOWELED CURB. REFER TO CIVIL PLANS
- 6 9" MINUS CRUSHED RUBBLE (BAJA CRESTA GREY RUBBLE)
- 7 3/8" SCREENED CRUSHED GRAVEL (BAJA CRESTA GREY)
- 8 BOULDER BEYOND (BAJA CRESTA)
- 9 AMENDED CLASS 'A' TOPSOIL. REFER TO PLANTING NOTES
- 10 SAWCUT PAVING EDGE. REFER TO CIVIL DRAWINGS
- 11 2" IRRIGATION MAINLINE
- 12 2-3" ELECTRICAL CONDUIT WITH HAND HOLE AT 700 FT. O.C.
- 13 BOULDERS MAY BE EMBEDDED A MAX 1/3 OF SIZE FOR NATURAL APPEARANCE



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

PLANT SCHEDULE ADD ALTERNATE

TREES	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL	
	PHOENIX DACTYLIFERA 'MEDJOOL'	DATE PALM	20' CLEAR TRUNK HEIGHT	3	B/29	
SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL	
	AGAVE ATTENUATA	AGAVE	15 GAL	25	A/29	
	ALOE RUDIKOPPE	LITTLE RED RIDING HOOD ALOE	1 GAL	97	A/29	
	ALOE VERA	MEDICINAL ALOE	1 GAL	44	A/29	
	CAREX DIVULSA	CAREX	1 GAL	301	A/29	
	CRASSULA ARBORESCENS	SILVER DOLLAR PLANT	15 GAL	21	A/29	
	GRAPTOSEDUM ROSA	NCN	1 GAL	124	A/29	
	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	1 GAL	28	A/29	
	STRELITZIA REGINAE 'DWARF'	DWARF BIRD OF PARADISE	15 GAL	14	A/29	
GROUND COVERS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	DETAIL
	SENECIO MANDRALISCAE	BLUE FINGER	1 GAL	12" o.c.	75	A/29

	QTY
	840 SF
	630 SF

LANDSCAPE SCHEDULE

SYMBOL	DESCRIPTION	QTY
	PLANTING AREA TO RECEIVE 2" MINUS BAJA CRESTA GREY GRAVEL (3" DEEP)	630 SF

PLANT SCHEDULE BASE BID

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL	
	AGAVE ATTENUATA	AGAVE	15 GAL	17	A/29	
	ALOE ARBORESCENS	TREE ALOE	24" BOX	3	A/29	
	ALOE RUDIKOPPE	LITTLE RED RIDING HOOD ALOE	1 GAL	600	A/29	
	ALOE VERA	MEDICINAL ALOE	1 GAL	567	A/29	
	CAREX DIVULSA	CAREX	1 GAL	2,789	A/29	
	CRASSULA ARBORESCENS	SILVER DOLLAR PLANT	15 GAL	108	A/29	
	CRASSULA ARGENTEA	JADE PLANT	15 GAL	24	A/29	
	GRAPTOSEDUM ROSA	NCN	1 GAL	509	A/29	
	LIMONIUM CALIFORNICA	COASTAL STATICE	1 GAL	136	A/29	
	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	1 GAL	254	A/29	
	STRELITZIA REGINAE 'DWARF'	DWARF BIRD OF PARADISE	15 GAL	85	A/29	
GROUND COVERS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	DETAIL
	AEONIUM URBIUM	DINNER PLATE AEONIUM	1 GAL	12" o.c.	272 SF	A/29
	SENECIO MANDRALISCAE	BLUE FINGER	1 GAL	12" o.c.	1,275 SF	A/29

BOULDER/ROCK SCHEDULE

	QTY
	18" (300 LBS) BAJA CRESTA GREY BOULDER 403
	24" (500 LBS) BAJA CRESTA GREY BOULDER 223
	36" (1500 LBS) BAJA CRESTA GREY BOULDER 131
	9" MINUS BAJA CRESTA GREY RUBBLE SEE DETAIL B/30 11,850 SF

LANDSCAPE SCHEDULE

SYMBOL	DESCRIPTION	QTY
	PLANTING AREA TO RECEIVE 2" MINUS BAJA CRESTA GREY GRAVEL (3" DEEP)	365 SF

GENERAL PLANTING NOTES:

- INSTALL 2" DEEP MINIMUM 'FOREST FLOOR' MULCH AS TOPDRESSING IN ALL PLANTER AREAS AT INITIAL PLANT INSTALLATION. YEARLY REPLENISHMENT SHALL OCCUR AS NOTED IN THE MAINTENANCE SPECIFICATIONS. MULCH SHALL BE CONTINUOUSLY MAINTAINED AND REPLACED AS NECESSARY.
- SOIL AMENDMENTS SHALL BE USED FOR INCREASED SOIL PENETRATION AND PLANT HEALTH. SOIL AMENDMENTS AND QUANTITIES SHALL BE BASED ON FINAL HORTICULTURAL SOILS ANALYSIS THROUGH A QUALIFIED AGRICULTURAL LABORATORY. SEE SPECIFICATIONS, FOR GENERAL PURPOSE SPECIFICATION. A MINIMUM OF 2 CUBIC YARDS OF SOIL AMENDMENT SHALL BE USED PER 1000 SQUARE FEET OF PLANTER AREA. SUCH AMENDMENT SHALL BE INCORPORATED INTO AMENDED TO COURSE OF TOP SOIL AND BACKFILL MIX.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS PROTECTION OF ALL PLANT MATERIALS ON-SITE. THE PLACEMENT OF ALL SHRUBS AND GROUNDCOVERS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. ANY SHRUB THAT IS PLANTED WITHOUT PRIOR REVIEW IS SUBJECT TO REMOVAL AND RELOCATION IF DEEMED NECESSARY. ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECT PLANT HEIGHTS ABOVE GRADE.
- ALL PLANTS SHALL MEET THE REQUIREMENTS OF THE CALIFORNIA NURSERY ASSOCIATION WITH REGARD TO SIZE AND CONDITION.

TREE PLANTING NOTES:

- CONTRACTOR SHALL LOCATE ALL STORM DRAIN AND UTILITY LINES IN FIELD PRIOR TO THE INSTALLATION OF TREES. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICT WITH TREE LOCATIONS AND STORM DRAIN/UTILITY LINES. ADJUSTMENTS WILL BE MADE ACCORDINGLY.

REFERENCE NOTES:

- SEE PLANTING DETAIL SHEET FOR PLANTING DETAILS & NOTES
- SEE SPECIFICATIONS FOR PLANTING REQUIREMENTS

PLANT QUANTITIES:

CONTRACTOR SHALL NOTE THAT THE QUANTITIES ON PLANT LEGEND HAVE BEEN PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL PROVIDE HIS OWN QUANTITIES FOR BID PREPARATION. ANY DISCREPANCIES IN PLANT QUANTITIES AND SIZES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

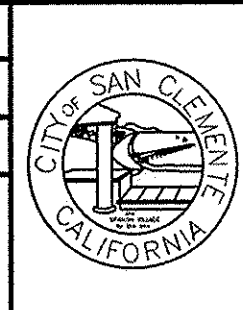
PLANT INSTALLATION

- ALL PLANTS SHALL BE VERIFIED BY LANDSCAPE ARCHITECT BY ON-SITE INSPECTION OR THROUGH PHOTOGRAPHS FROM NURSERY PRIOR TO PLANTING. PLANTS MAY BE SUBJECT TO REPLACEMENT BY THE DISCRETION OF THE LANDSCAPE ARCHITECT. AND / OR CITY REPRESENTATIVE
- PRIOR TO PLANTING, PLANTS SHALL BE LOCATED ABOVE GRADE ON SITE IN THEIR CONTAINERS IN THE LOCATION OF FINAL PLANTING PER THE APPROVED PLANTING PLAN.
- THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED WITHIN 48 HOURS TO INSPECT THE FINAL LOCATIONS FOR ALL PLANT MATERIAL.

Plan Prepared By: _____ Date _____
BGB DESIGN GROUP
Landscape Architecture Planning Urban Design
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SCALE: AS SHOWN DATE: 10/2015
DRAWN BY: CH, CV DESIGNED BY: AG
CHECKED BY: AG
APPROVED: *Thomas A. Bonigut* 12/1/15
THOMAS A. BONIGUT RCE 53961 DATE
ASSISTANT CITY ENGINEER



PLANTING LEGEND, NOTE & DETAILS
NORTH EL CAMINO REAL
CAMINO CAPISTRANO TO AVENIDA ESTACION
Project No. 13308
CITY OF SAN CLEMENTE

DRAWING NO: _____
SHEET 29
OF 29

REV.	DATE:	DESCRIPTION	BY:	APP'VD:
REVISIONS				
REFERENCES				
APPROVALS				