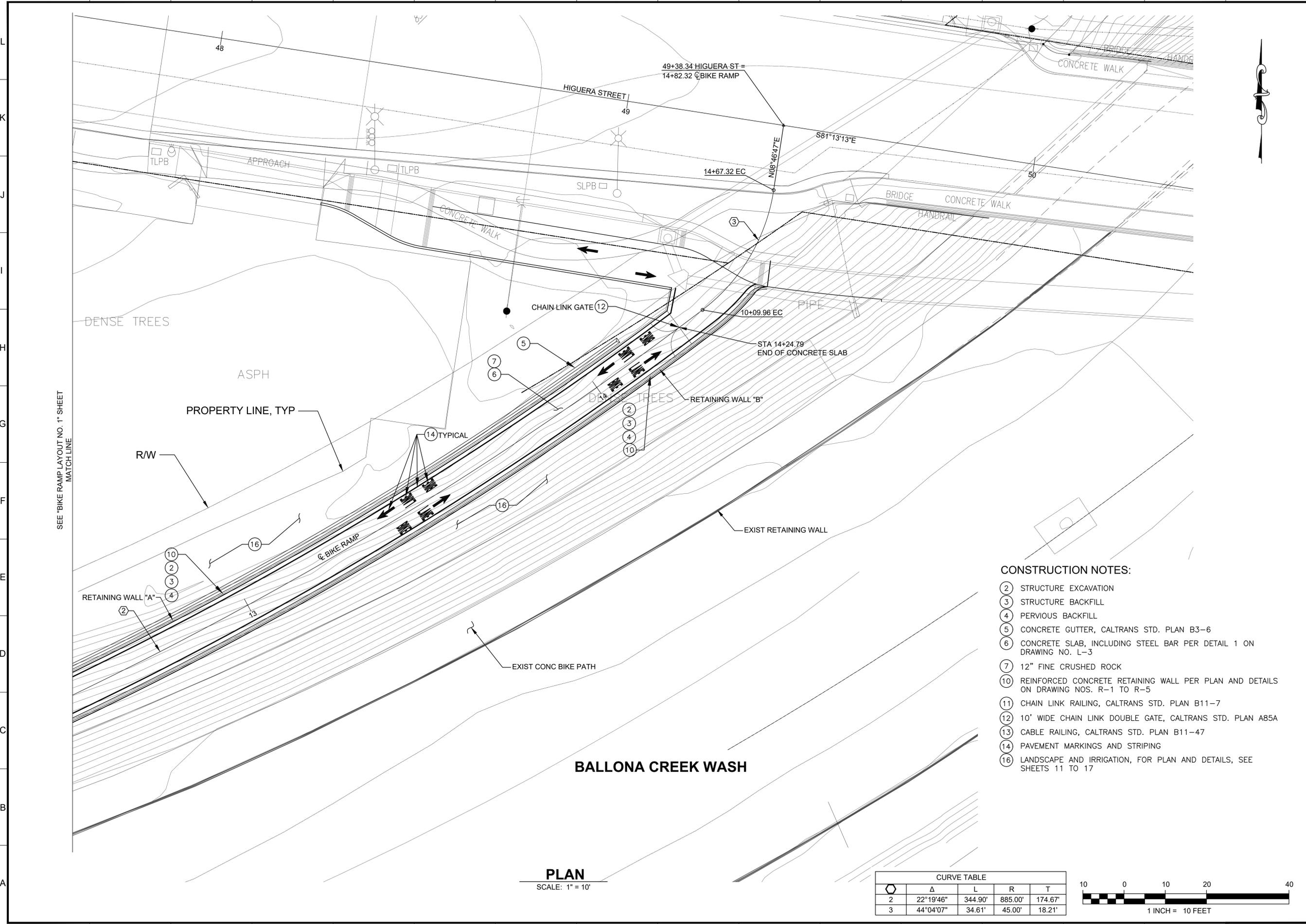


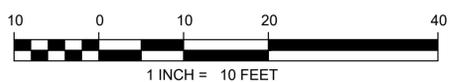
24
 C:\1_IDC_Project\Higuera Bike Ramp\Higuera Final Ramp\BikeRamp_1a001.dwg [1-2] Tue, 22 Oct 2019, 8:25 AM - EVIRA
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 REVISION DATES (DESIGN STAGE ONLY) 03/20/14
 03/20/14



BALLONA CREEK WASH

PLAN
SCALE: 1" = 10'

CURVE TABLE				
Curve No.	Δ	L	R	T
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3	44°04'07"	34.61'	45.00'	18.21'

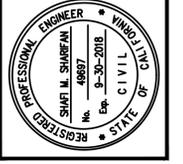
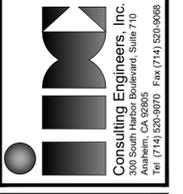


CONSTRUCTION NOTES:

- ② STRUCTURE EXCAVATION
- ③ STRUCTURE BACKFILL
- ④ PERVIOUS BACKFILL
- ⑤ CONCRETE GUTTER, CALTRANS STD. PLAN B3-6
- ⑥ CONCRETE SLAB, INCLUDING STEEL BAR PER DETAIL 1 ON DRAWING NO. L-3
- ⑦ 12" FINE CRUSHED ROCK
- ⑩ REINFORCED CONCRETE RETAINING WALL PER PLAN AND DETAILS ON DRAWING NOS. R-1 TO R-5
- ⑪ CHAIN LINK RAILING, CALTRANS STD. PLAN B11-7
- ⑫ 10' WIDE CHAIN LINK DOUBLE GATE, CALTRANS STD. PLAN A85A
- ⑬ CABLE RAILING, CALTRANS STD. PLAN B11-47
- ⑭ PAVEMENT MARKINGS AND STRIPING
- ⑯ LANDSCAPE AND IRRIGATION, FOR PLAN AND DETAILS, SEE SHEETS 11 TO 17



DATE: BY:	
NO. REVISIONS:	

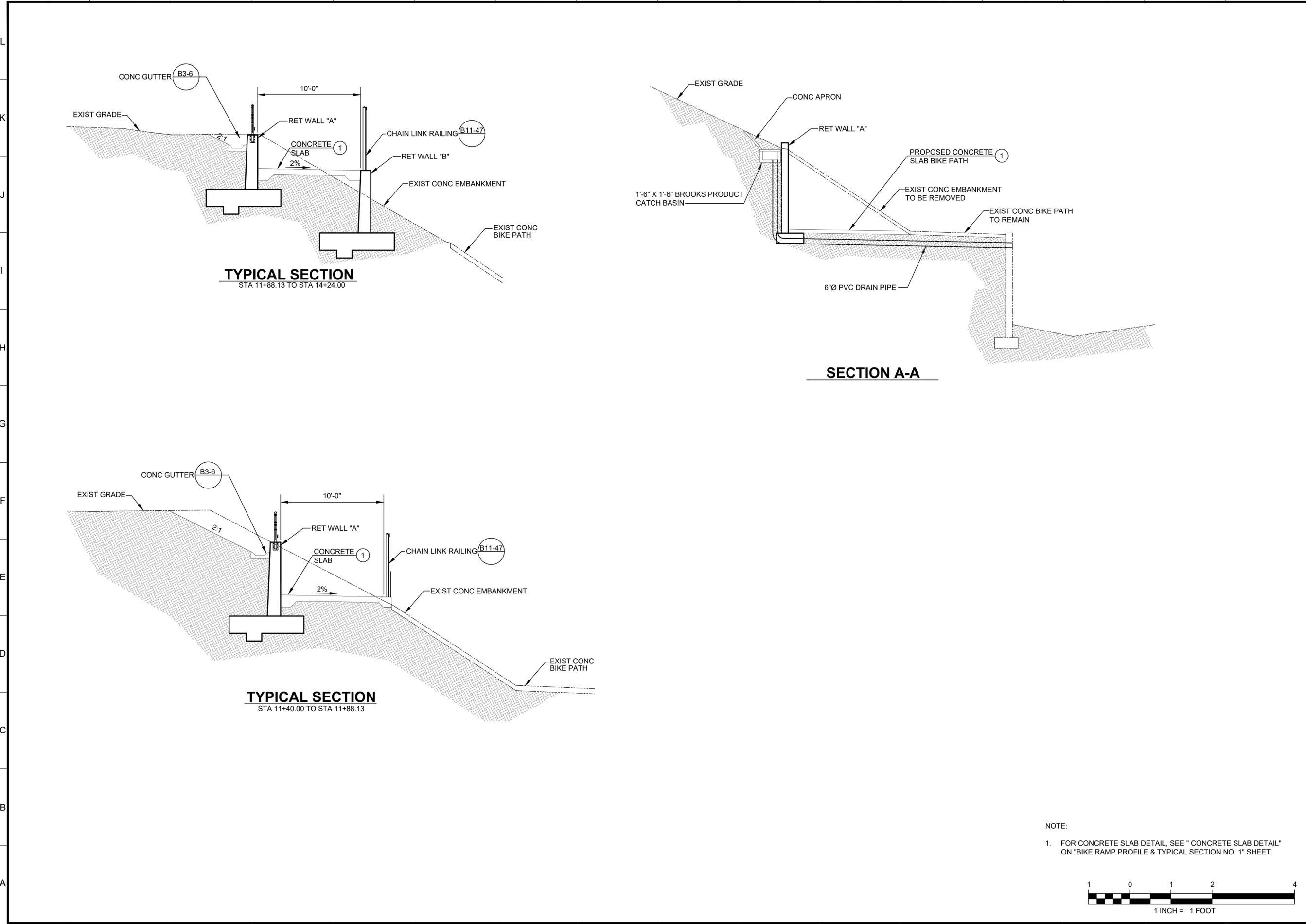


APPROVED	DATE
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

SHEET TITLE:	BIKE RAMP LAYOUT PLAN NO. 2
PROJECT:	BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS:	HIGUERA STREET CULVER CITY CALIFORNIA

WORK ORDER NO.	E6000591
DRAWING NO.	

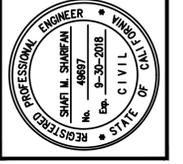
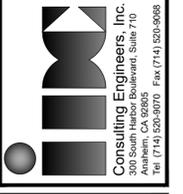
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NOTE:
 1. FOR CONCRETE SLAB DETAIL, SEE "CONCRETE SLAB DETAIL" ON "BIKE RAMP PROFILE & TYPICAL SECTION NO. 1" SHEET.



DATE:	BY:
NO.	REVISIONS:



APPROVED		DATE
CITY REVIEWER: SAMMY ROMO		9/2/2016
PROJECT ENGINEER: S. SHARIFAN		9/2/2016
DESIGNED BY: L. LIU		9/2/2016
DRAWN BY: G. ESTEPA		9/2/2016

SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL	
SHEET TITLE:	BIKE RAMP TYPICAL SECTION NO. 2
PROJECT:	BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS:	HIGUERA STREET CULVERCITY CALIFORNIA

WORK ORDER NO. E6000591
 DRAWING NO.

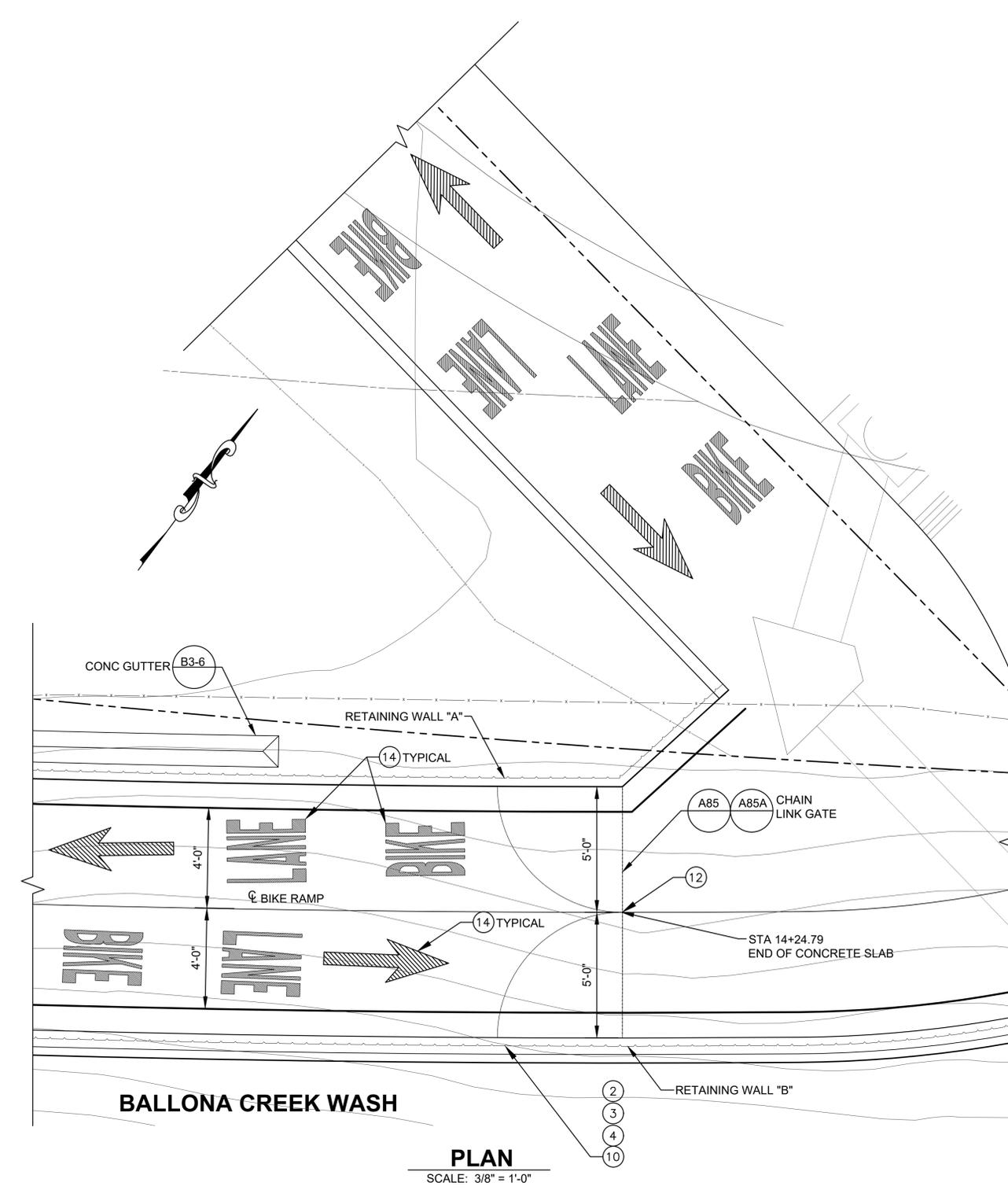
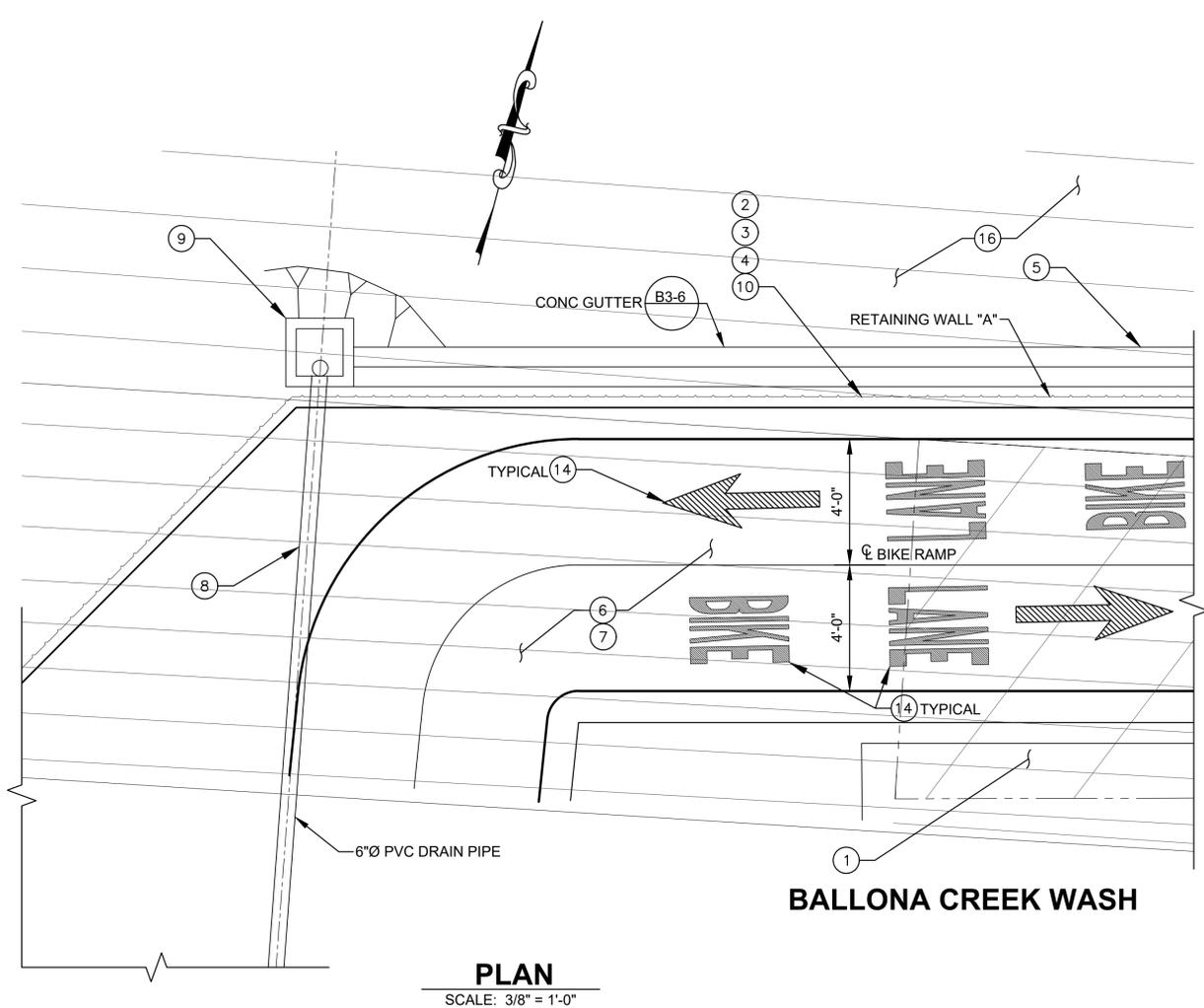
L-4
 SHEET 5 OF 17 SHEETS

DEPARTMENT OF PUBLIC WORKS

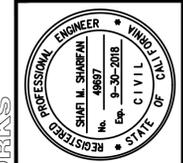
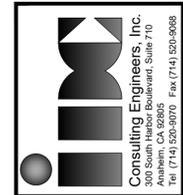
03/28/2014 (DESIGN STAGE ONLY)
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CONSTRUCTION NOTES:

- ① REMOVE CONCRETE EMBANKMENT INCLUDES SAW-CUT
- ② STRUCTURE EXCAVATION
- ③ STRUCTURE BACKFILL
- ④ PERVIOUS BACKFILL
- ⑤ CONCRETE GUTTER, CALTRANS STD. PLAN B3-6
- ⑥ CONCRETE SLAB, INCLUDING STEEL BAR PER DETAIL 1 ON DRAWING NO. L-3
- ⑦ 12" FINE CRUSHED ROCK
- ⑧ 6" DIA. PVC DRAIN PIPE, SCH. 40 PER SECTION A-A ON DRAWING NO. L-4
- ⑨ 1'-6"x1'-6" CATCH BASIN
- ⑩ REINFORCED CONCRETE RETAINING WALL PER PLAN AND DETAILS ON DRAWING NOS. R-1 TO R-4
- ⑫ 10' WIDE CHAIN LINK DOUBLE GATE, CALTRANS STD. PLAN A85A
- ⑭ PAVEMENT MARKINGS AND STRIPING
- ⑯ LANDSCAPE AND IRRIGATION, FOR PLAN AND DETAILS, SEE SHEETS 11 TO 17



DATE:	BY:
NO.	REVISIONS:



APPROVED	DATE
CITY ENGINEER	
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

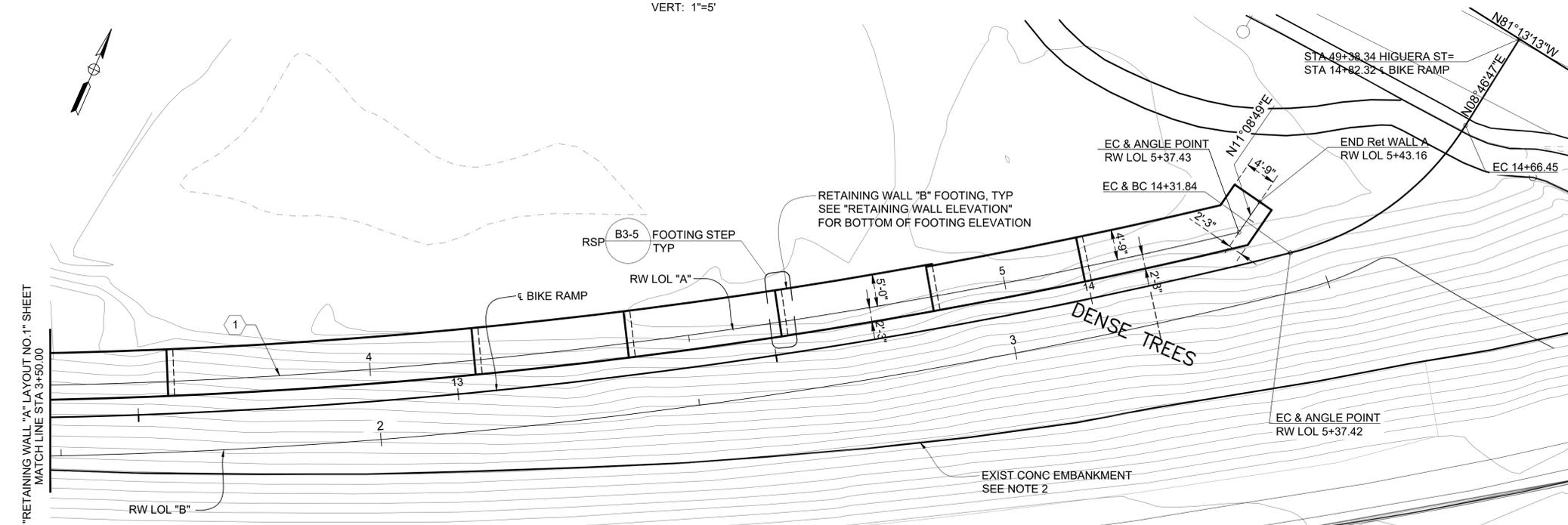
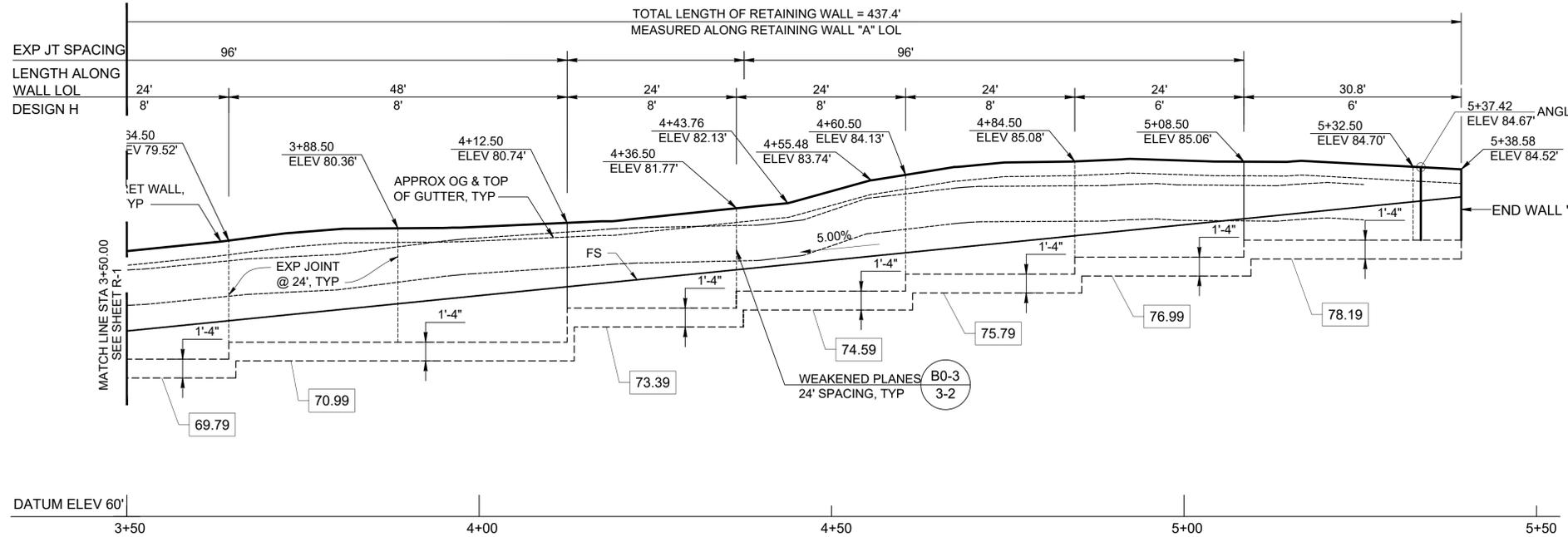
SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL
SHEET TITLE: PAVEMENT DELINEATION PLAN
PROJECT: BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS: HIGUERA STREET CULVER CITY CALIFORNIA

WORK ORDER NO. E6000591
DRAWING NO.

L-5
SHEET 6 OF 17 SHEETS

CITY OF CULVER CITY DEPARTMENT OF PUBLIC WORKS

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 REVISION DATES (DESIGN STAGE ONLY) 03/20/14



CURVE DATA				
	R (FT)	L (FT)	T (FT)	
1	880.00	21°52'23"	335.95	170.04

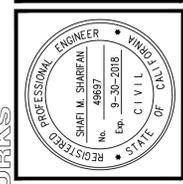
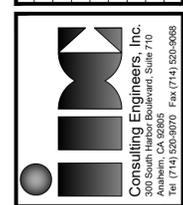
- NOTES:**
- FOR RETAINING WALLS TYPICAL SECTIONS, SEE "RETAINING WALL DETAILS" SHEET.
 - EXIST CONC EMBANKMENT SHALL BE RECONSTRUCTED TO ITS ORIGINAL CONDITION WHERE IT IS DAMAGED DURING CONSTRUCTION. SEE "RETAINING WALL DETAILS" SHEET.

LEGEND:

66.43 BOTTOM OF FOOTING ELEVATION



DATE:	BY:
NO.	REVISIONS:



APPROVED	DATE
CITY ENGINEER	
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

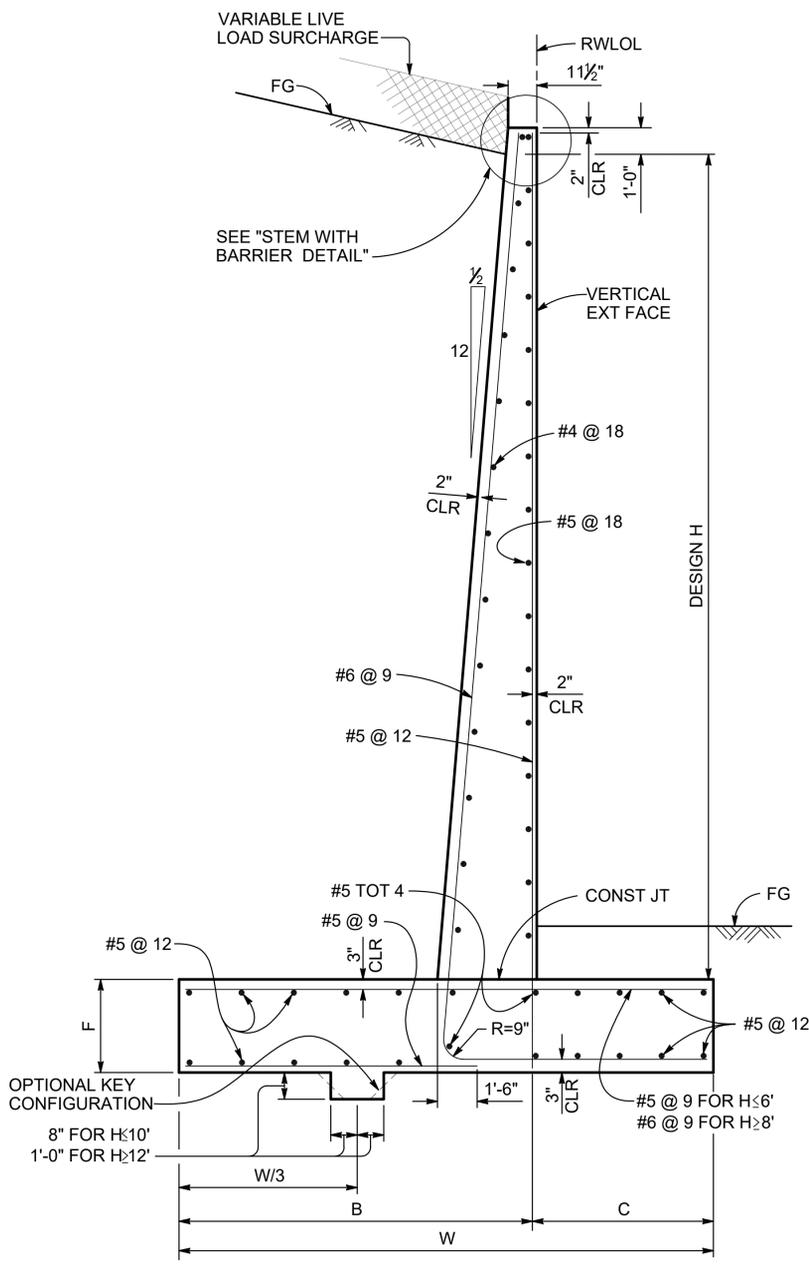
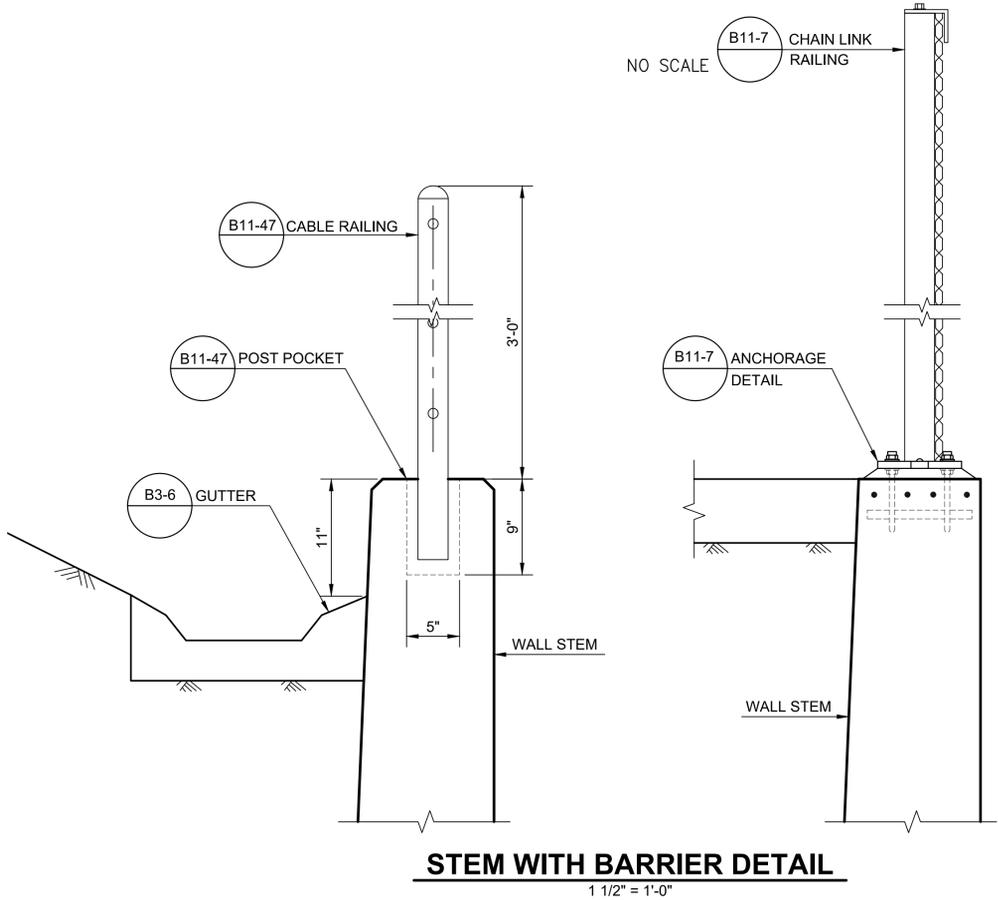
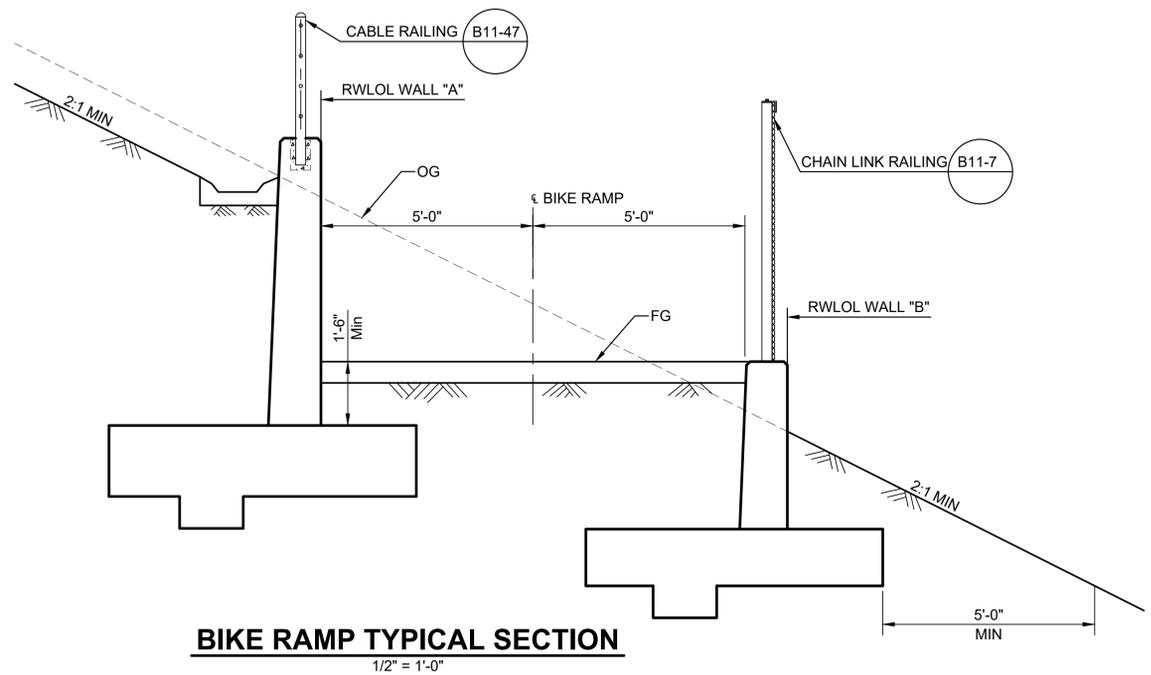
SHEET TITLE:	RETAINING WALL "A" LAYOUT NO. 2
PROJECT:	BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS:	HIGUERA STREET CULVER CITY CALIFORNIA

WORK ORDER NO. E6000591
 DRAWING NO.

R-2
 SHEET 8 OF 17 SHEETS

CITY OF CULVER CITY DEPARTMENT OF PUBLIC WORKS

C:\1_IDC_Project\Higuera Bike Ramp\Higuera\Bike Ramp\Higuera\FINAL\Bike Ramp\Bike Ramp.dwg [R-4] Tue, 22 Oct 2019, 8:26 AM - EVIRA
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RETAINING WALL DIMENSIONS & DATA						
DESIGN H	4'	6'	8'	10'	12'	
W	6'-10"	7'-0"	7'-3"	7'-7"	8'-4"	
C	2'-2"	2'-3"	2'-3"	2'-4"	2'-6"	
B	4'-8"	4'-9"	5'-0"	5'-3"	5'-10"	
F	1'-4"	1'-4"	1'-4"	1'-4"	1'-6"	
SER: B', q _o	6.8, 0.7	6.5, 1.0	6.2, 1.3	6.0, 1.6	6.3, 2.0	
STR: B', q _o	6.6, 1.6	5.0, 1.8	3.6, 2.3	3.0, 3.3	3.2, 4.0	
EXT I: B', q _o	5.2, 1.1	4.7, 1.5	3.9, 2.2	3.1, 3.4	2.8, 4.8	
EXT II: B', q _o	2.6, 2.2	2.7, 2.6	2.8, 3.1	2.9, 3.6	3.7, 3.6	

DESIGN CONDITIONS:
 DESIGN H MAY BE EXCEEDED BY 6" BEFORE GOING TO THE NEXT SIZE. SPECIAL FOOTING DESIGN IS REQUIRED WHERE FOUNDATION MATERIAL IS INCAPABLE OF SUPPORTING BEARING STRESS LISTED IN THE TABLE.

DESIGN NOTES:
 DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH CALIFORNIA AMENDMENTS
 LS: VARIED SURCHARGE ON LEVEL GROUND SURFACE
 DC: STEM ARCHITECTURAL TREATMENT OF THICKNESS UP TO 6" OF CONCRETE (75 PSF) CONSIDERED
 CT: 54 KIP TRANSVERSE FORCE APPLIED AT HE = 32", DISTRIBUTED OVER 10 FEET AT THE TOP OF WALL AND 1:1 DISTRIBUTION DOWN AND OUTWARD. DISTRIBUTION BELOW FOOTING TAKEN NO LESS THAN 40".

SEISMIC: k_h = 0.2, k_v = 0.0
 SOIL: Ø = 34°, γ = 120 PCF
 REINFORCED CONCRETE: f_c = 3,600 PSI, f_y = 60,000 PSI

LOAD COMBINATIONS AND LIMIT STATES:
 SERVICE I Q = 1.00DC + 1.00EV + 1.00EH + 1.00LS
 STRENGTH I Q = αDC + βEV + ηEH + 1.75LS
 EXTREME I Q = 1.00DC + 1.00EV + 1.00EH + 1.00EQD + 1.00EQE
 EXTREME II Q = 1.00DC + 1.00EV + 1.00EH + 1.00CT

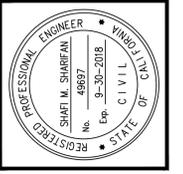
WHERE:
 Q: FORCE EFFECTS
 α: 1.25 OR 0.90, WHICHEVER CONTROLS DESIGN
 β: 1.35 OR 1.00, WHICHEVER CONTROLS DESIGN
 η: 1.50 OR 0.90, WHICHEVER CONTROLS DESIGN
 DC: DEAD LOAD OF STRUCTURE COMPONENTS
 EH: HORIZONTAL EARTH FILL PRESSURE
 EV: VERTICAL EARTH PRESSURE FROM EARTH FILL WEIGHT
 LS: LIVE LOAD SURCHARGE
 EQE: SEISMIC EARTH PRESSURE
 EQD: SOIL AND STRUCTURAL AND NONSTRUCTURAL COMPONENTS INERTIA
 CT: VEHICULAR COLLISION FORCE

SYMBOLS:
 SER - SERVICE LIMIT STATE I
 STR - STRENGTH LIMIT STATE I
 EXT I - EXTREME EVENT LIMIT STATE I
 EXT II - EXTREME EVENT LIMIT STATE II
 B' - EFFECTIVE FOOTING WIDTH (FT)
 q_o - NET BEARING STRESS (KSF), OG ASSUMED TO BE FG AT TOE
 q_o - GROSS UNIFORM BEARING STRESS (KSF)

NOTES:
 1. FOR DETAILS NOT SHOWN AND DRAINAGE NOTES, SEE RSP B3-5
 2. FOR WALL STEM JOINT DETAILS, SEE B0-3 3-3 AND B0-3 3-4
 3. AT (a) & (c) BARS: H ≤ 6', NO SPLICES ARE ALLOWED WITHIN 1'-8" ABOVE THE TOP OF FOOTING. H > 6', NO SPLICES ARE ALLOWED WITHIN H/4 ABOVE THE TOP OF FOOTING.
 4. PROVIDE #6 @ 10" X 15'-0" (c) BARS OVER A DISTANCE OF 8'-0" MEASURED FROM ALL EXPANSION JOINTS, BEGIN WALL AND END WALL LOCATIONS. FOR H ≤ 14', HOOK (c) BAR INTO FOOTING AND REDUCE BAR LENGTH AS NEEDED TO MAINTAIN MIN CLR COVER.
 5. PROVIDE #6 @ 8" (a) BARS IN ADDITION TO TABULATED (a) BARS OVER A DISTANCE OF 8'-0" MEASURED FROM ALL EXPANSION JOINTS, BEGIN WALL AND END WALL LOCATIONS.
 6. THE SHALLOW FOUNDATIONS SHOULD BE PLACED AT A DEPTH OF AT LEAST 3 FEET BELOW THE LOWEST ADJACENT FINAL GRADE, AND A MINIMUM SETBACK OF 4 FEET FROM THE FACE OF ANY SLOPES (MEASURED FROM TOP OF FOOTING TO SLOPE FACE). WHERE NATURAL SOIL CONDITION AT THE CUT IS NOT ACCEPTABLE PER SOIL REPORT THEN THE SHALLOW FOUNDATION SHALL BE FOUNDED ON CALTRANS STRUCTURE FILL OF AT LEAST 3 FEET IN THICKNESS.



DATE:	BY:
REVISIONS:	



APPROVED:	DATE:
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL

SHEET TITLE: RETAINING WALL DETAILS No. 1

PROJECT: BALLONA CREEK BIKE PATH ON/OFF RAMP

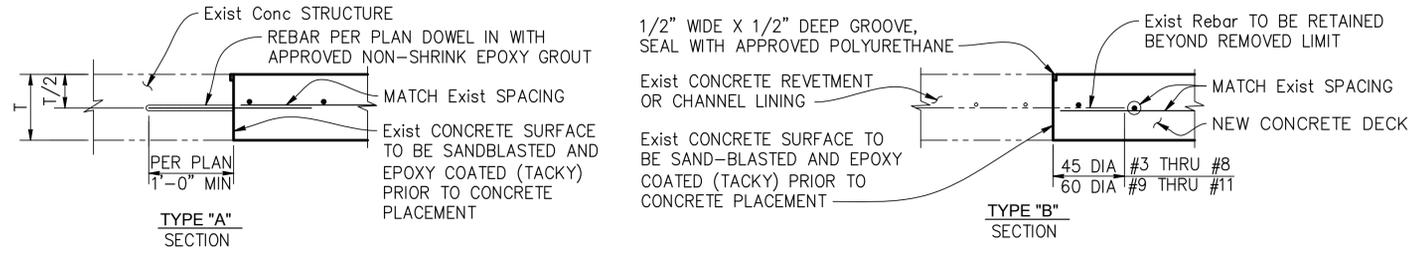
ADDRESS: HIGUERA STREET CULVER CITY CALIFORNIA

WORK ORDER NO. E6000591

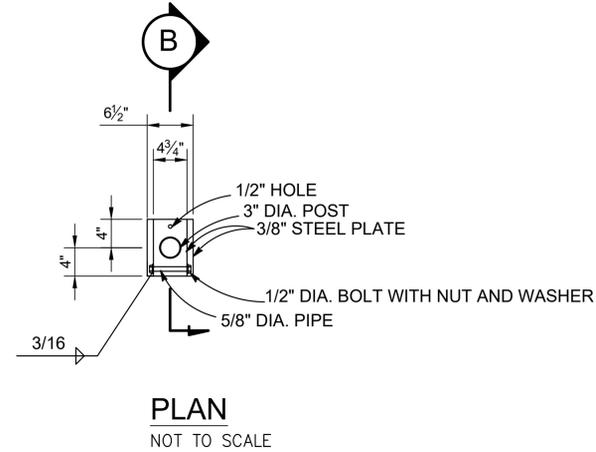
DRAWING NO. R-4

SHEET 10 OF 17 SHEETS

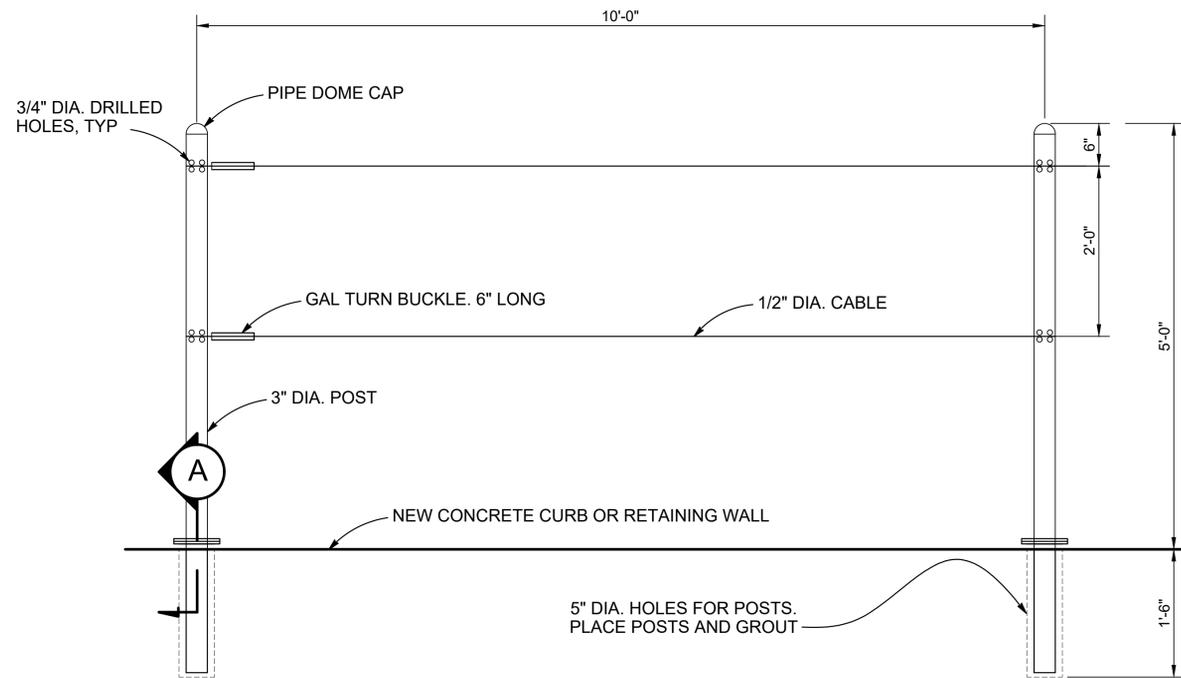
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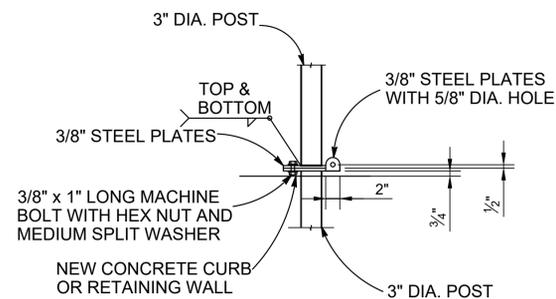
CONC EMBANKMENT REVETMENT DETAIL
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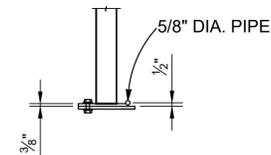
PLAN
NOT TO SCALE



STEM WITH COLLAPSIBLE RAILING DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE

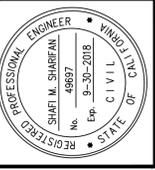
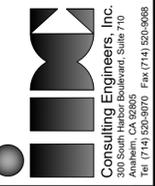


SECTION B-B
NOT TO SCALE

COLLAPSIBLE FENCING DETAIL



DATE:	BY:
REVISIONS:	

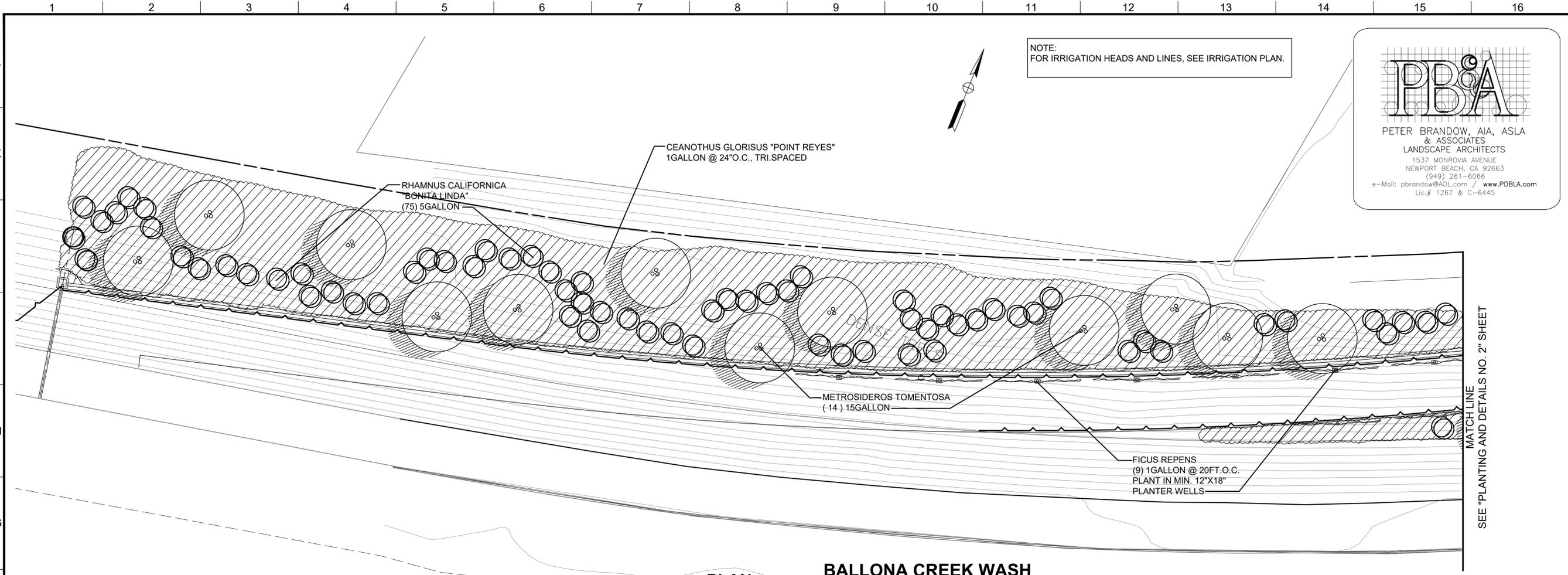


APPROVED	DATE
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL
SHEET TITLE: RETAINING WALL DETAILS No. 2
PROJECT: BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS: HIGUERA STREET CULVER CITY CALIFORNIA

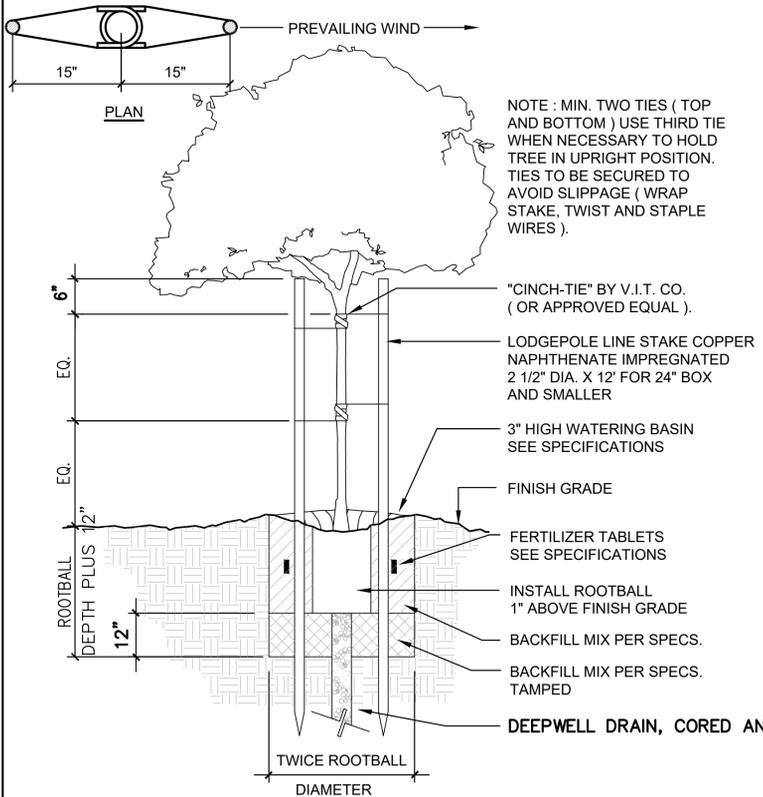
WORK ORDER NO. E6000591
DRAWING NO. R-5

03/20/2014 (REVISION DATES (DESIGN STAGE ONLY))
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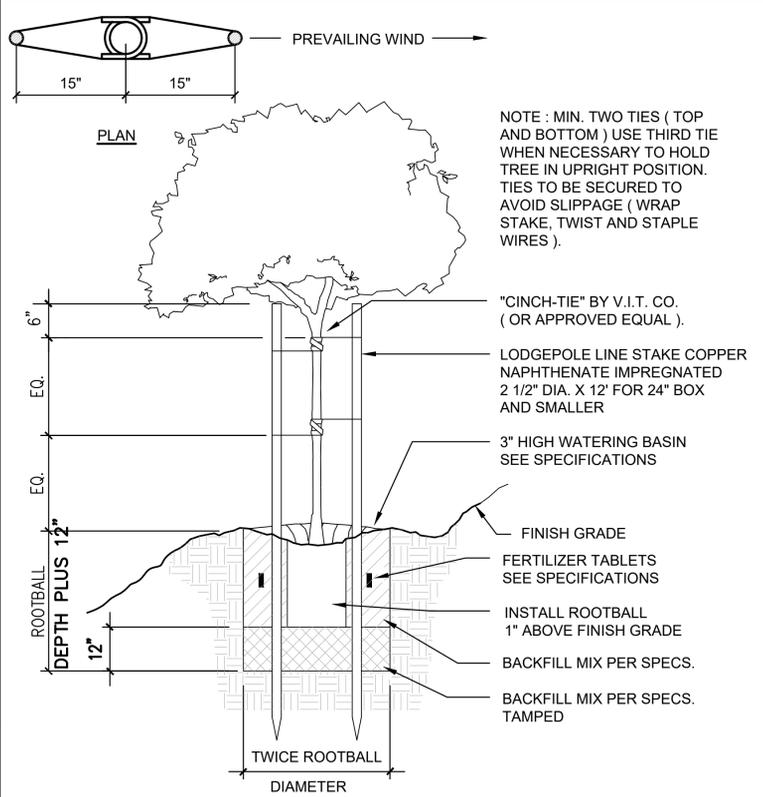


BALLONA CREEK WASH

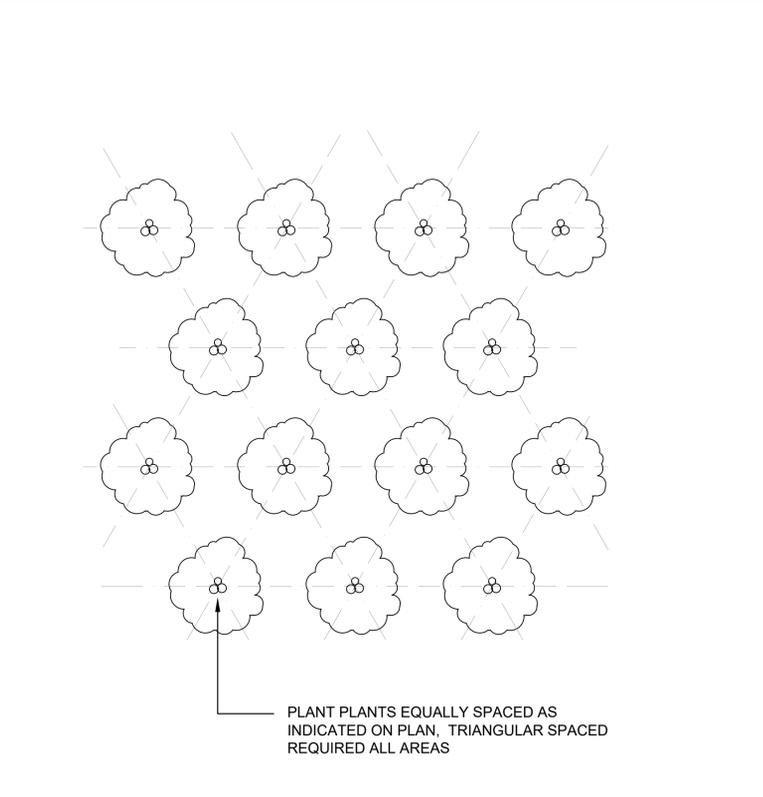
PLAN
1" = 10'



A DOUBLE STAKING DETAIL



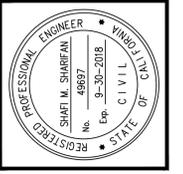
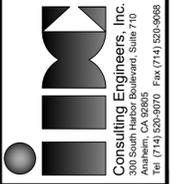
B TREE SLOPE PLANTING DETAIL



C GROUNDCOVER SPACING



DATE:	
BY:	
NO. REVISIONS:	



APPROVED	DATE
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL
WORK ORDER NO. E6000591
DRAWING NO. PL-2
SHEET TITLE: PLANTING PLAN AND DETAILS NO. 1
PROJECT: BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS: HIGUERA STREET CULVER CITY CALIFORNIA

GENERAL 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 (2X) THE DIAMETER OF THE PIPE TO BE SLEEVED. 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 THE 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 TIME OF SAID REJECTION.
- FINAL LOCATION OF THE AUTOMATIC CONTROLLER SHALL BE APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE.
- 120 VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER.
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
- THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVERSPRAY ONTO WALKS, STREETS, WALLS, ETC. THIS SHALL INCLUDE REGULATING THE PRESSURE AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE. THE CONTRACTOR SHALL LOCATE ALL VALVES IN SHRUB AREAS.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS THROUGH WALLS, UNDER ROADWAYS AND PAVING, ETC.
- DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILED INFORMATION.
- ADV (ANTI-DRAIN VALVES) UNITS AS SHOWN IN THE DETAILS ARE FOR TYPICAL INSTALLATION ONLY, AND MAY NOT BE REQUIRED ON ALL HEADS. PRIOR TO INSTALLATION THE CONTRACTOR SHALL VERIFY WITH THE ON-SITE GRADES. IF THERE IS AN ELEVATION DIFFERENCE OF 24" OR MORE BETWEEN THE HIGHEST HEAD AND THE LOWEST HEAD ON A SYSTEM, THE ADV'S SHALL BE INSTALLED PER DETAIL.
- THE CONTRACTOR SHALL VERIFY THE STATIC PRESSURE TO BE AS STATED ON THE SYSTEM REQUIREMENTS. SHOULD THE STATIC PRESSURE EXCEED 20%, INSTALL A "WILKINS" 600 SERIES PRESSURE REGULATING VALVE (IN A SEPARATE VALVE BOX) DIRECTLY DOWN STREAM OF THE BACKFLOW PREVENTION DEVICE. SET THE REGULATING VALVE AT 10% HIGHER THAN THE STATED SYSTEM REQUIREMENTS. SHOULD THE STATIC PRESSURE BE LESS THAN THE STATED PRESSURE, NOTIFY THE ARCHITECT IMMEDIATELY.
- ALL STATED GALLONAGES IN VALVE CALL-OUTS ARE ROUNDED UP TO THE NEAREST GALLON.
- THE SYSTEM IS DESIGNED FOR THE MINIMUM OPERATING PRESSURE AS SHOWN AT EACH POINT OF CONNECTION. THE MAXIMUM DEMAND OF GALLONS PER MINUTE IS AS SPECIFIED. THE IRRIGATION CONTRACTOR SHALL VERIFY THE AVAILABLE WATER PRESSURE ON THE SITE PRIOR TO THE START OF INSTALLATION.
- ALL LOW VOLTAGE WIRE FROM CONTROLLER TO VALVES SHALL BE SOLID COPPER UF #14 DIRECT BURIAL TYPE. USE BLACK INSULATED WIRE FOR CONTROL AND WHITE FOR COMMON. INSTALL IN A COMMON TRENCH WITH PRESSURE MAINLINE PIPING WHERE POSSIBLE. BUNDLE AND TAPE TO PIPE AT 10 FOOT INTERVALS.

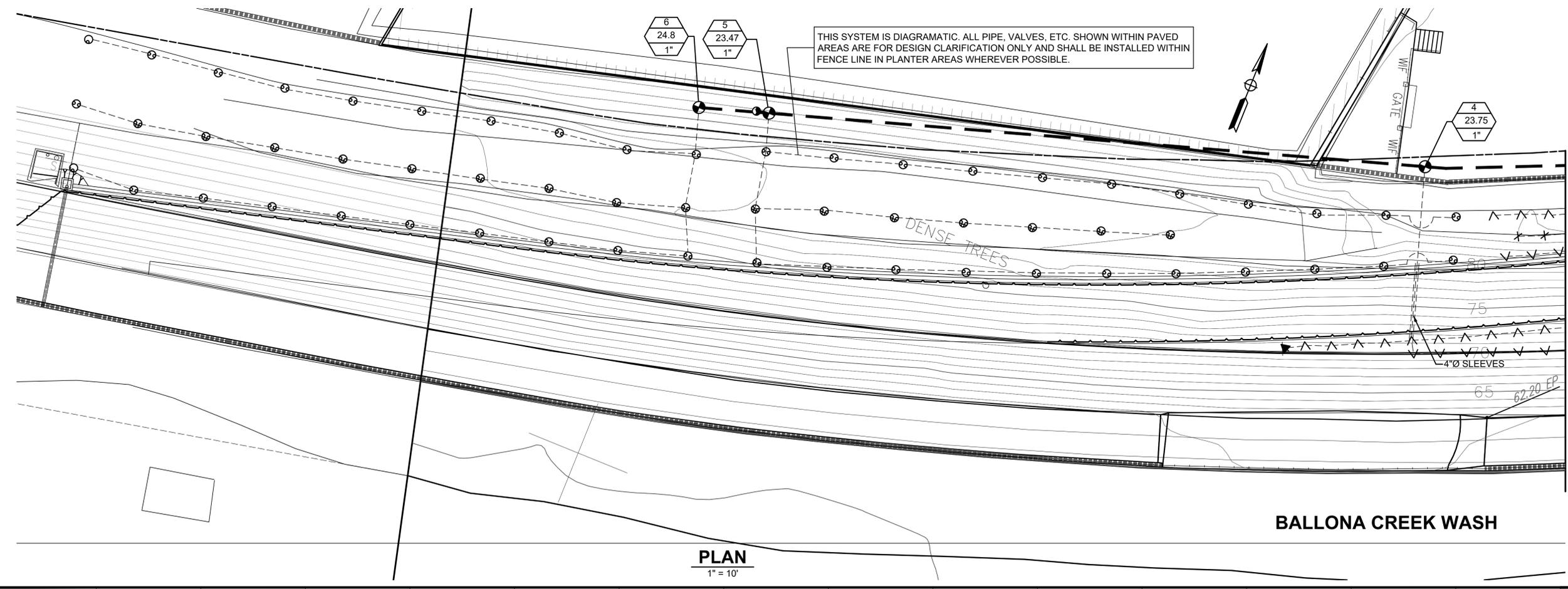
- PROVIDE A MINIMUM OF 18" COVER OVER ALL PRESSURE MAINLINE PIPE AND 12" MIN. COVER OVER ALL NON-PRESSURE LATERAL LINE. ALL PIPE UNDER PAVED AREAS IS TO BE INSTALLED IN PVC SCH. 40 SLEEVE WITH 36" MIN. COVER. SLEEVE LOCATIONS TO BE AS SHOWN ON IRRIGATION PLANS AND INSTALLED PER DETAIL.
- ALL QUICK COUPLER VALVES ARE TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHENEVER POSSIBLE AND WITHIN 18" OF THE HARDSCAPE. ALL QUICK COUPLER VALVES LOCATED IN TURF AREAS SHALL BE INSTALLED IN 8" DIA. GREEN PLASTIC VALVE BOX.
- ALL THREADED PIPE CONNECTIONS MADE TO SLIP JOINT PVC PIPE SHALL BE MADE WITH A PVC THREADED COUPLING. ALL THREADED ADAPTERS AND COUPLINGS ARE TO BE 'DURA' DEEP SOCKET TYPE.
- INSTALL ALL SPRAY HEADS WITH NOZZLES OF THE APPROPRIATE DEGREE OF RADIUS FOR THE AREA TO BE COVERED. ADJUST ALL NOZZLES TO ELIMINATE SPRAYING WATER ON BUILDINGS AND HARDSCAPE. ADJUST ALL VALVES FLOW CONTROLS TO PROVIDE OPTIMUM PERFORMANCE.
- ALL LANDSCAPE MATERIAL TO HAVE A 1 YEAR WARRANTY.
- IRRIGATION TO PROVIDE 100% COVERAGE OF ALL LANDSCAPE AREAS.
- IRRIGATION SYSTEM IS TO BE AUTOMATIC AND HAVE A 1 YEAR WARRANTY.
- ALL IRRIGATION MAIN LINES AND LATERALS SHALL BE INSPECTED BY THE CITY'S PARKS MANAGER PRIOR TO BEING COVERED.



IRRIGATION EQUIPMENT LEGEND

SYM.	MFR.	MODEL #	DESCRIPTION	NOZZLE	PSI	RADIUS	GPM	PATTERN
X	RAINBIRD	1806-SAM-PRS	6" POP-UP SHRUB HEAD	MPR 8F	20	5'-7"	.75	FULL
∇	RAINBIRD	1806-SAM-PRS	6" POP-UP SHRUB HEAD	MPR 8H	20	5'-7"	.38	HALF
▽	RAINBIRD	1806-SAM-PRS	6" POP-UP SHRUB HEAD	MPR 8Q	20	5'-7"	.19	QUARTER
▼	RAINBIRD	1806-SAM-PRS	6" POP-UP SHRUB HEAD	6-VAN	20	5'-7"	.88	270° ARC
▼	RAINBIRD	1806-SAM-PRS	6" POP-UP SHRUB HEAD	6-VAN	20	5'-7"	.49	180° ARC
▼	RAINBIRD	1806-SAM-PRS	6" POP-UP SHRUB HEAD	6-VAN	20	5'-7"	.30	90° ARC
⊙	RAINBIRD	1804-SAM-PRS	4" POP-UP LAWN ROTOR	R13-18F	20	13'-18"	1.31	FULL
⊙	RAINBIRD	1804-SAM-PRS	4" POP-UP LAWN ROTOR	R13-18TQ	20	13'-18"	.98	THREE QUARTER
⊙	RAINBIRD	1804-SAM-PRS	4" POP-UP LAWN ROTOR	R13-18TT	20	13'-18"	.87	TWO THIRD
⊙	RAINBIRD	1804-SAM-PRS	4" POP-UP LAWN ROTOR	R13-18H	20	13'-18"	.65	HALF
⊙	RAINBIRD	1804-SAM-PRS	4" POP-UP LAWN ROTOR	R13-18T	20	13'-18"	.44	THIRD
⊙	RAINBIRD	1804-SAM-PRS	4" POP-UP LAWN ROTOR	R13-18Q	20	13'-18"	.33	QUARTER
⊙	RAINBIRD	PEB-PRS SERIES	ELECTRIC REMOTE CONTROL VALVE- SIZE PER PLAN					
⊙	RAINBIRD	#33	QUICK COUPLING VALVE W/LOCKING YELLOW VINYL COVER. SIZE: 3/4". MAX SPACING: 150 FT OC					
⊙	FEBCO	825Y	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE. SIZE: 1 1/2"					
⊙	NIBCO	1 1/2"	T-113 LINE SIZE GATE VALVE					
M	EXISTING		DOMESTIC WATER METER BY OTHERS					
C	CALSENSE		ESP-SMTE SERIES ELECTRIC OUTDOOR PEDESTAL MOUNT SMART CONTROLLER IN BULLETPROOF ENCLOSURE.					
---	APPROVED		LATERAL LINE, SCH. 40 PVC PIPE, SIZE AS NOTED					
---	APPROVED		MAINLINE 1 1/2" & SMALLER SCH. 40 PVC PIPE, 2" & LARGER CL. 315 PVC PIPE					
---	APPROVED		SLEEVE, SCH. 40 PVC PIPE 2 1/2" X DIA. OF PIPE MIN. INSTALL 24" BELOW FINISHED GRADE. EXTEND 12" PAST EDGE OF PAVING					

NOTE: IF DESIRED, RISERS MAY BE USED IN AREAS WITH NO AUTO OR PEDESTRIAN TRAFFIC. PLEASE VERIFY WITH OWNER BEFORE INSTALLATION.



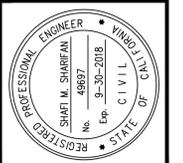
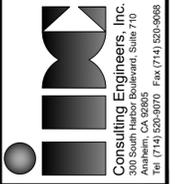
PLAN
1" = 10'

BALLONA CREEK WASH

SEE "IRRIGATION PLAN AND DETAILS NO. 2" SHEET



DATE:	
BY:	
NO.:	
REVISIONS:	



APPROVED:	DATE:
CITY REVIEWER: SAMMY ROMO	DATE:
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

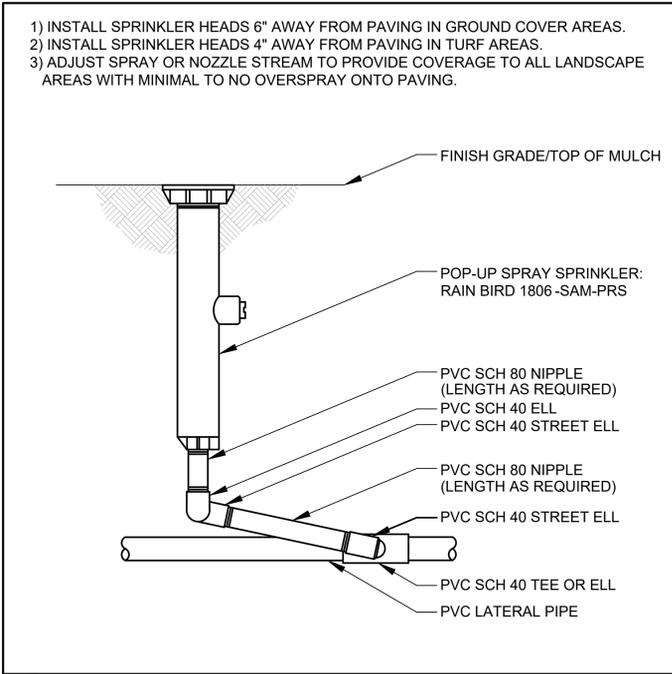
SHEET TITLE:	IRRIGATION PLAN AND DETAILS NO. 1
PROJECT:	BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS:	HIGUERA STREET CULVERCITY CALIFORNIA

WORK ORDER NO. E6000591
DRAWING NO.

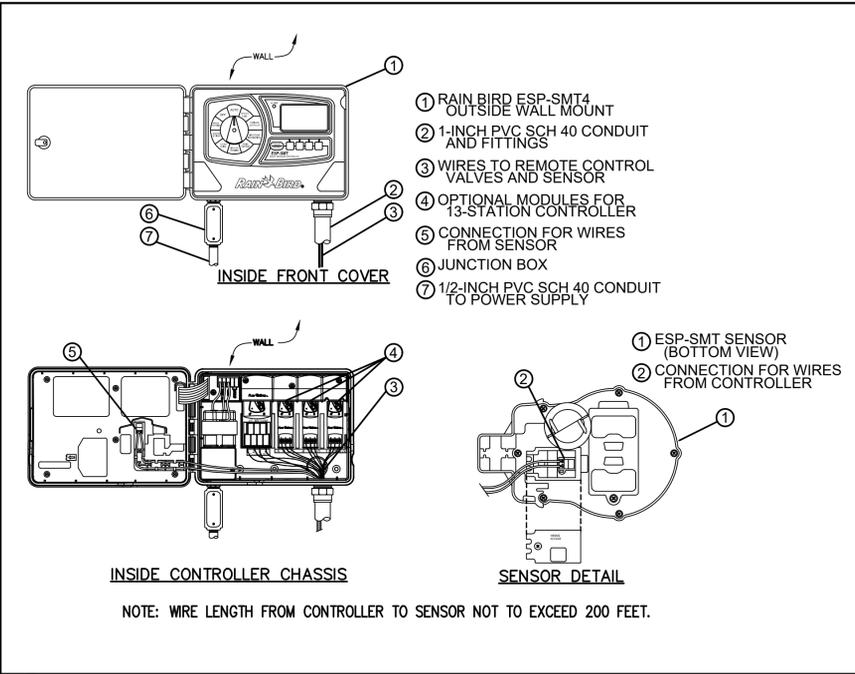
IR-1
SHEET 15 OF 17 SHEETS

03/28/2014
 REVISION DATES (DESIGN STAGE ONLY)
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 THE CITY OF CULVERCITY OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

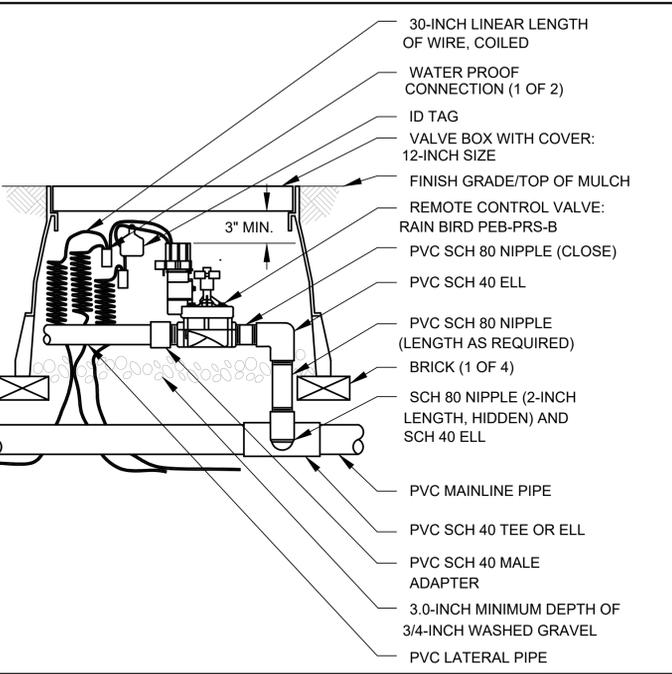
03/28/2014 (REVISION DATES (DESIGN STAGE ONLY))
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A POP-UP SPRAY SPRINKLER



B ESP-SMT SMART CONTROL SYSTEM - OUTDOOR



C REMOTE CONTROL VALVE

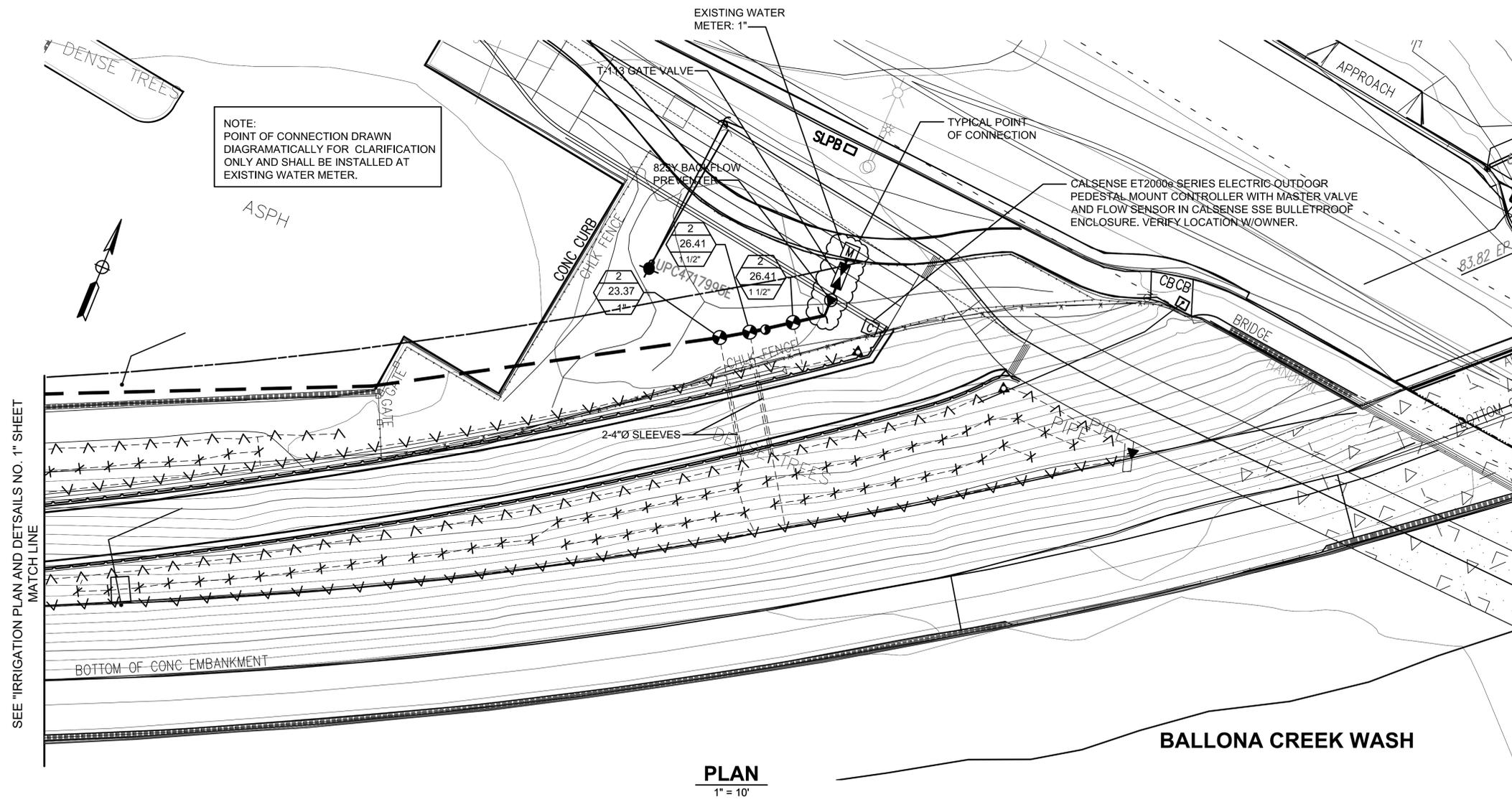
PETER BRANDOW, AIA, ASLA & ASSOCIATES
 LANDSCAPE ARCHITECTS
 1537 MONROVIA AVENUE
 NEWPORT BEACH, CA 92663
 (949) 261-6066
 e-Mail: pbrandow@AOL.com / www.PDBLA.com
 Lic # 1267 & C-6445

PVC CLASS 200 PIPE SIZING CHART

SIZE	GPM
1/2"	0-5
3/4"	6-10
1"	11-17
1 1/4"	18-28
1 1/2"	29-39
2"	39+

PVC SCH 40 PIPE SIZING CHART

SIZE	GPM
1/2"	0-6
3/4"	6-11
1"	12-17
1 1/4"	18-28
1 1/2"	28-38
2"	39+



PLAN
1" = 10'

THIS SYSTEM IS DIAGRAMATIC. ALL PIPE, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTER AREAS WHEREVER POSSIBLE.



DATE: BY: []
 NO. REVISIONS: []

Consulting Engineers, Inc.
 1537 MONROVIA AVENUE
 NEWPORT BEACH, CA 92663
 (949) 261-6066
 Lic # 1267 & C-6445

SHARI M. SHARIFAN
 No. 48697
 Exp. 9-30-2018
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA

PATRICK REYNOLDS, PARKS MANAGER

APPROVED DATE: []

CHARLES D. HERBERTSON, P.E., L.S.
 CITY ENGINEER

APPROVED	DATE
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL

IRRIGATION PLAN AND DETAILS NO. 2

PROJECT: BALLONA CREEK BIKE PATH ON/OFF RAMP

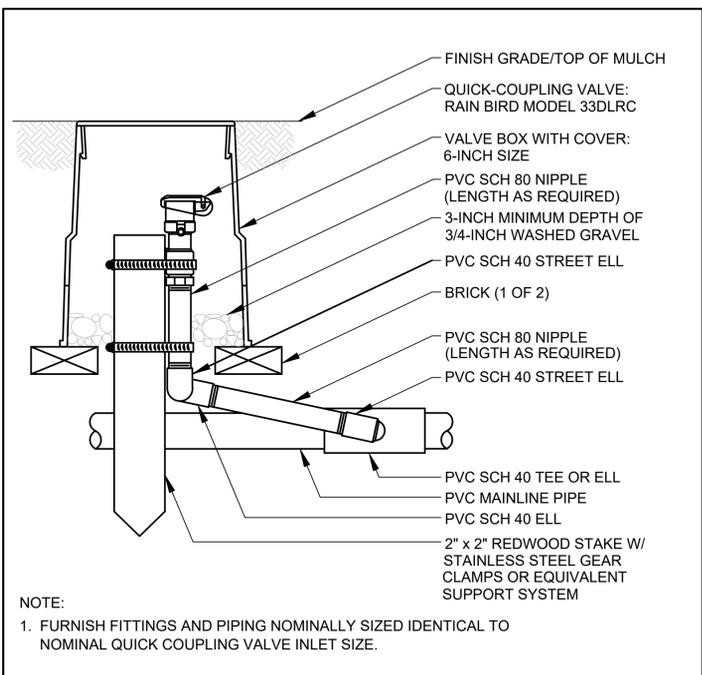
ADDRESS: HIGUERA STREET
CULVERCITY CALIFORNIA

WORK ORDER NO. E6000591

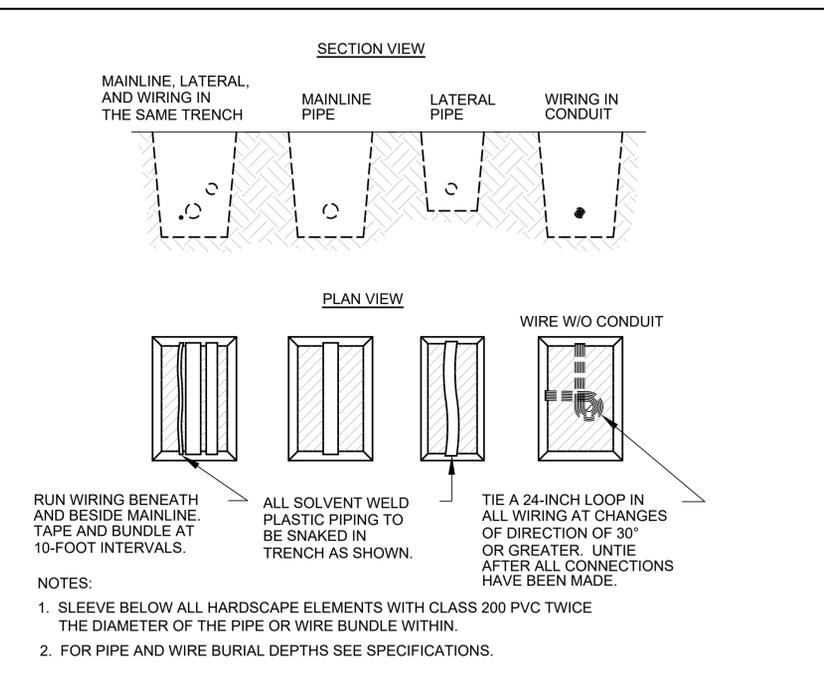
DRAWING NO. **IR-2**

SHEET 16 OF 17 SHEETS

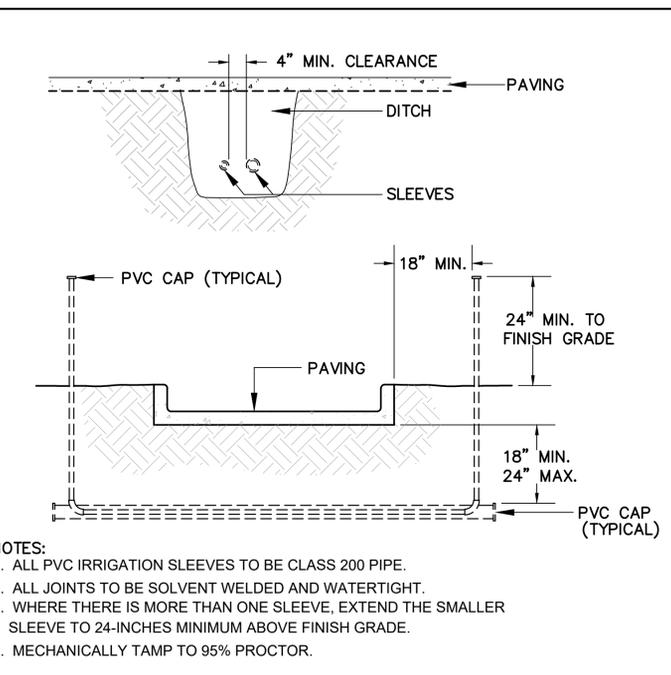
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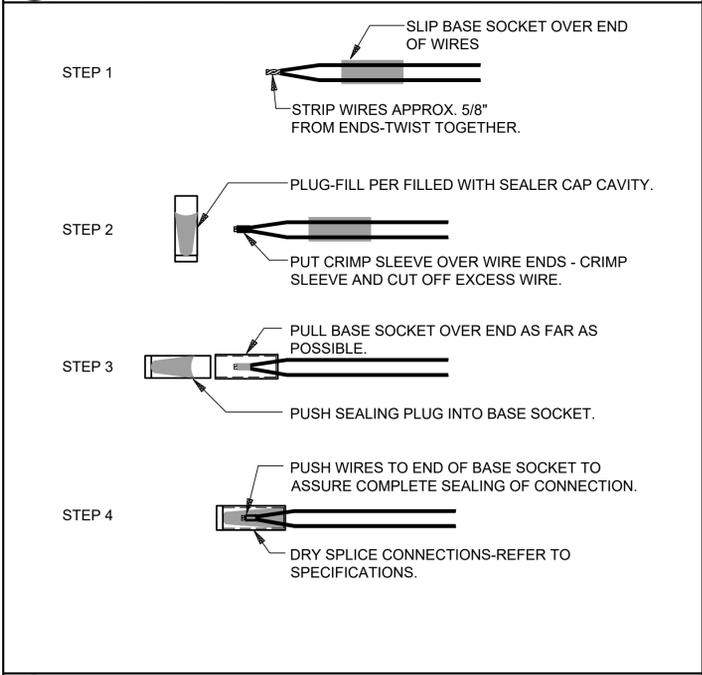
D QUICK-COUPLING VALVE



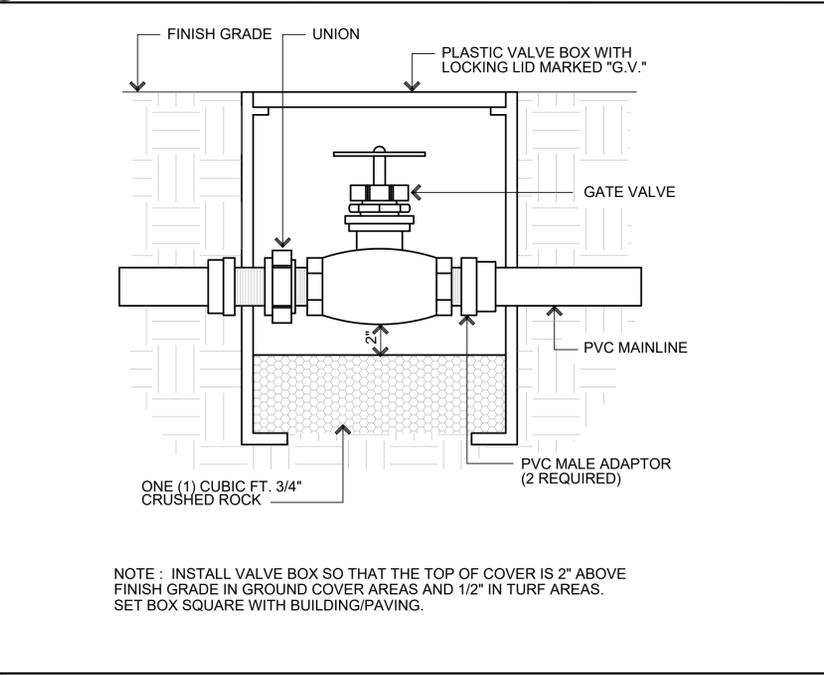
E PIPE & WIRE TRENCHING



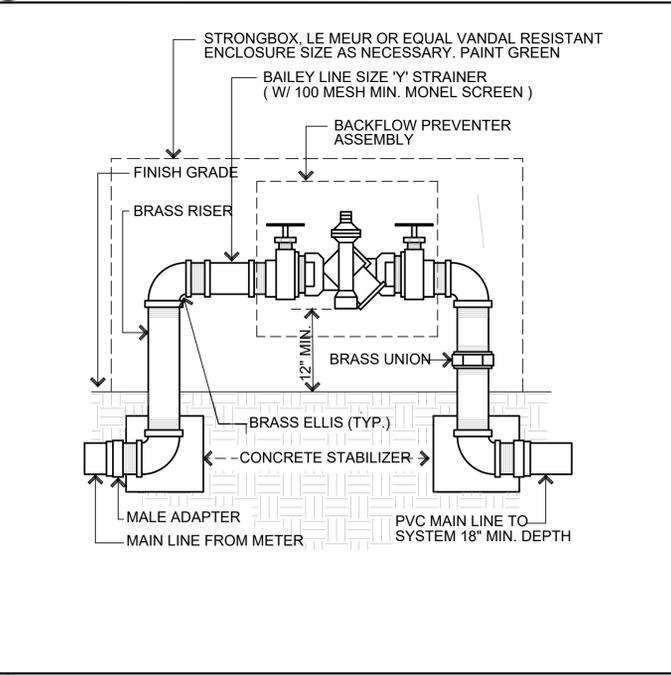
F SLEEVING



G WIRE CONNECTORS



H GATE VALVE



I BACKFLOW PREVENTER

PDB&A
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DATE:	
BY:	
NO.	
REVISIONS:	

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 1500 S. GARDEN ST. SUITE 110
 ANAHEIM, CA 92805
 TEL: (714) 520-9070 FAX: (714) 520-9068

REGISTERED PROFESSIONAL ENGINEER
 SHAI M. SHARFAN
 No. 48697
 Exp. 9-30-2018
 CIVIL ENGINEER
 STATE OF CALIFORNIA

APPROVED	DATE
PATRICK REYNOLDS, PARKS MANAGER	
DEPARTMENT OF PUBLIC WORKS	
APPROVED	
DATE	
CITY REVIEWER: SAMMY ROMO	9/2/2016
PROJECT ENGINEER: S. SHARIFAN	9/2/2016
DESIGNED BY: L. LIU	9/2/2016
DRAWN BY: G. ESTEPA	9/2/2016

SEE SHEET T-1 FOR HORIZONTAL AND VERTICAL CONTROL
SHEET TITLE: IRRIGATION DETAILS NO. 3
PROJECT: BALLONA CREEK BIKE PATH ON/OFF RAMP
ADDRESS: HIGUERA STREET CULVER CITY CALIFORNIA

WORK ORDER NO. E6000591
DRAWING NO.