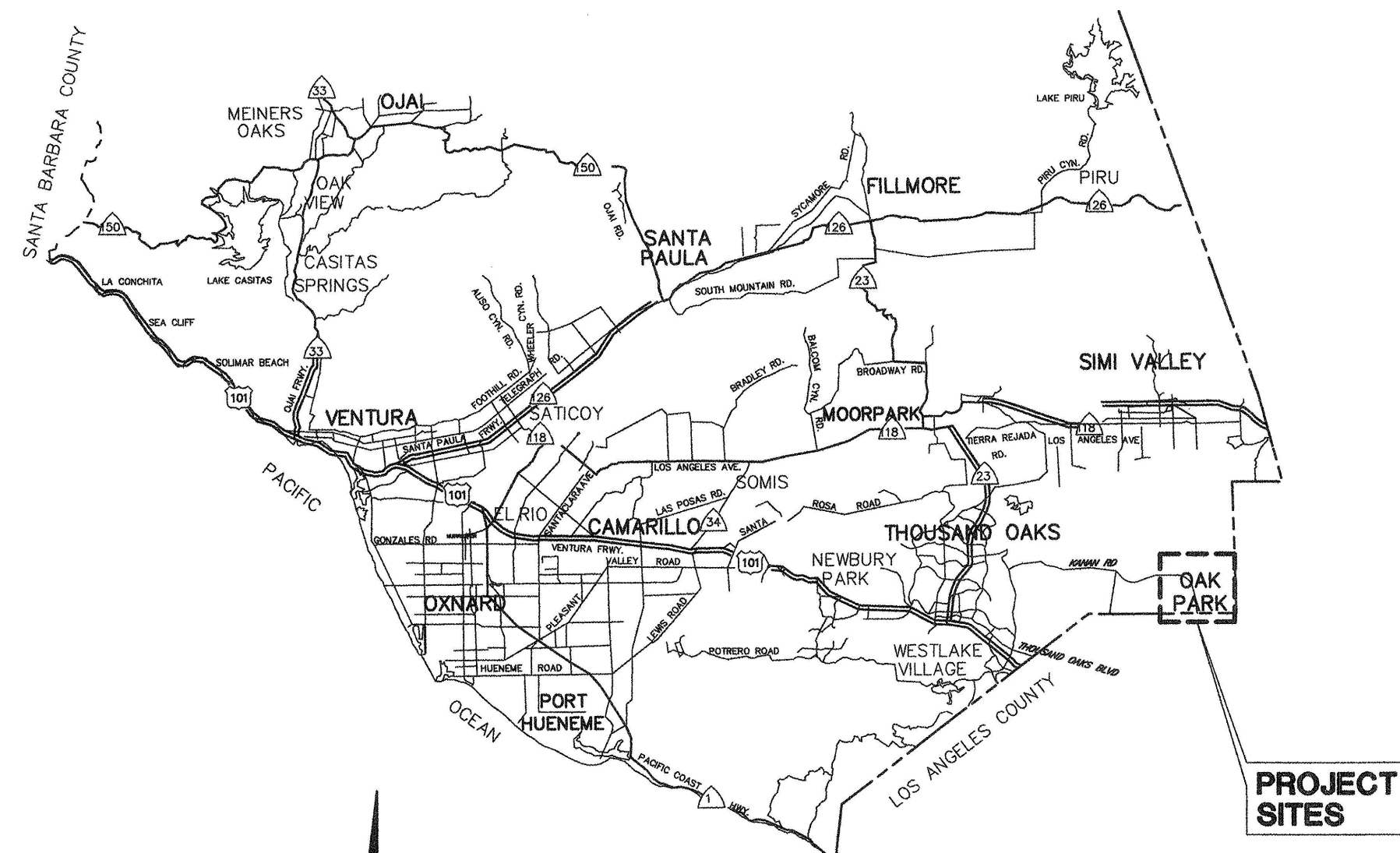


COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
VENTURA COUNTY WATERSHED PROTECTION DISTRICT  
ZONE 4  
OAK PARK GREEN STREETS URBAN RETROFIT  
PHASE 1



VICINITY MAP  
N.T.S.

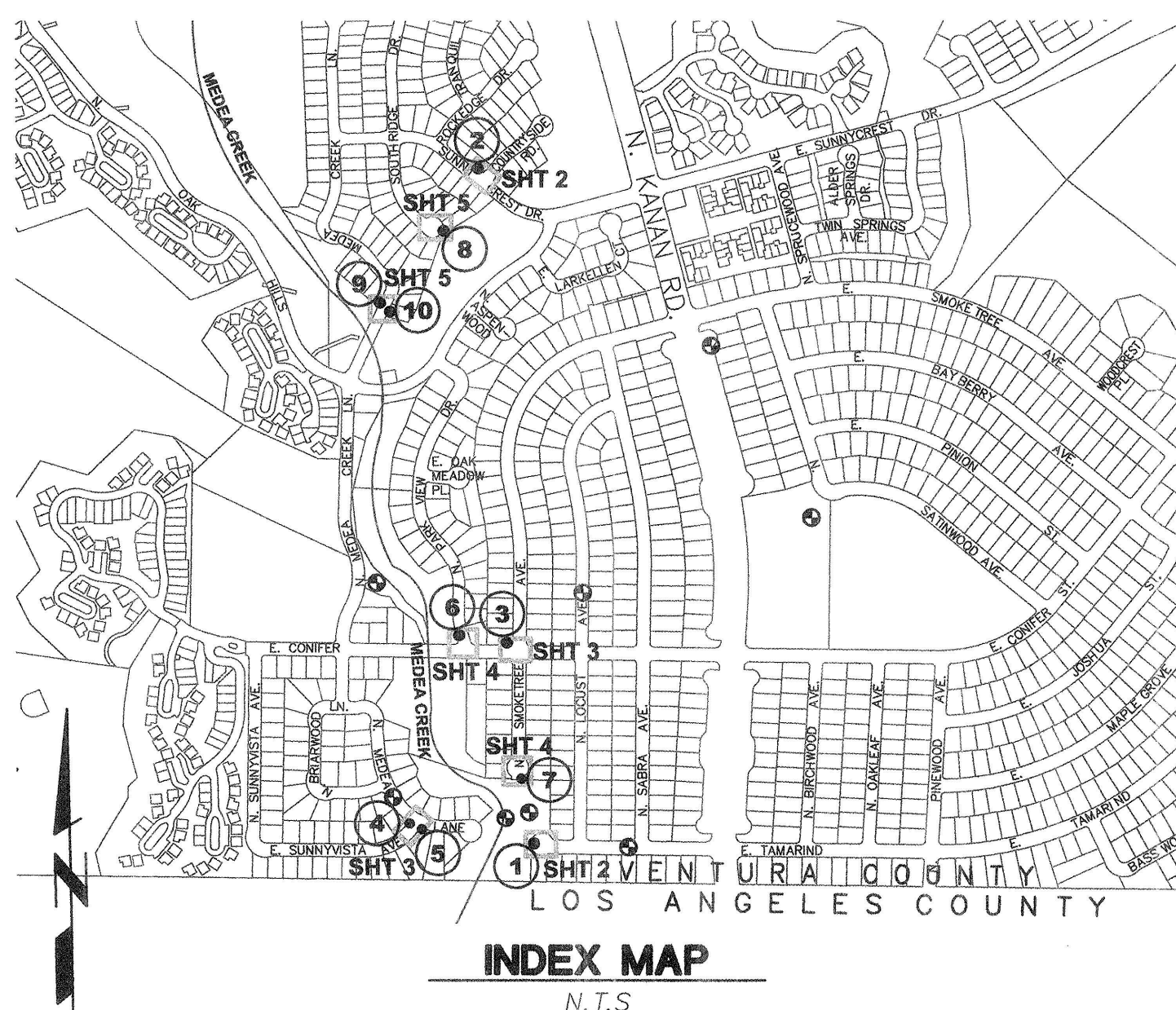
GENERAL NOTES

- ELEVATIONS SHOWN ARE IN US SURVEY FEET. THE BASIS OF BEARINGS & COORDINATES FOR THIS SURVEY ARE CCS83, ZONE 5, EPOCH 2010.0. DEFINED LOCALLY BY TIES TO REAL-TIME NETWORK "CALVRS", USING REAL TIME NETWORK CORRECTIONS TO ESTABLISH CONTROL VALUES.
- THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DEFINED LOCALLY BY TIES TO REAL-TIME NETWORK "CALVRS", USING REAL TIME NETWORK CORRECTIONS AND GEOID12A TO ESTABLISH ORTHOMETRIC HEIGHTS.
- STATIONS SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSES ONLY AND DO NOT CORRESPOND TO ESTABLISHED CENTERLINE STATIONING.
- NUMBERS IN INDICATE BID ITEMS UNDER WHICH PAYMENT WILL BE MADE.
- LETTERS AND NUMBERS IN INDICATE THE DETAIL CALL-OUT AND SHEET ON WHICH REFERENCE DETAIL IS SHOWN.
- NUMBERS IN REFER TO NOTES ON THE SAME SHEET UNLESS OTHERWISE NOTED.
- TOPOGRAPHY SHOWN ON THESE PLANS WAS TAKEN FROM SURVEYS PERFORMED IN SEPTEMBER 2014.
- EXISTING IMPROVEMENTS WITHIN THE RIGHT OF WAY AND WORK AREAS SHALL REMAIN AND SHALL BE PROTECTED UNLESS OTHERWISE NOTED. DAMAGED IMPROVEMENTS SHALL BE REPLACED IN KIND TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
- UTILITIES ARE SHOWN AS KNOWN TO EXIST AT TIME OF SURVEY. UTILITIES MAY HAVE BEEN OMITTED, MISPLACED, AND/OR RELOCATED. CONTRACTOR SHALL EXERCISE CARE IN EXCAVATION AND SHALL PROTECT ALL UTILITIES.
- SYMBOL INDICATES THE LOCATION OF THE HORIZONTAL AND VERTICAL CONTROL POINTS WHICH WILL BE PROVIDED BY THE AGENCY.
- SOIL TEST BORINGS SHOWN FOR THE PROJECT WERE MADE IN MAY 2013 AND JULY 2015. THEIR LOCATIONS ARE MARKED BY THE SYMBOL . REFER TO THE SPECIFICATIONS FOR ADDITIONAL GEOTECHNICAL INFORMATION. SUBSURFACE SOIL INVESTIGATION RESULTS ARE FURNISHED FOR INFORMATION ONLY IN ACCORDANCE WITH SUBSECTION 2-7 OF THE STANDARD SPECIFICATIONS, AND NO WARRANTY IS MADE THEREFORE.
- CONTRACTOR SHALL NOTIFY UTILITY OWNERS A MINIMUM OF 48 HOURS PRIOR TO STARTING WORK IN AREAS AFFECTING THEIR FACILITIES. CONTRACTOR SHALL ALSO COORDINATE WITH UTILITY OWNERS FOR ALL WORK THAT WILL IMPACT/ALTER THEIR FACILITIES.

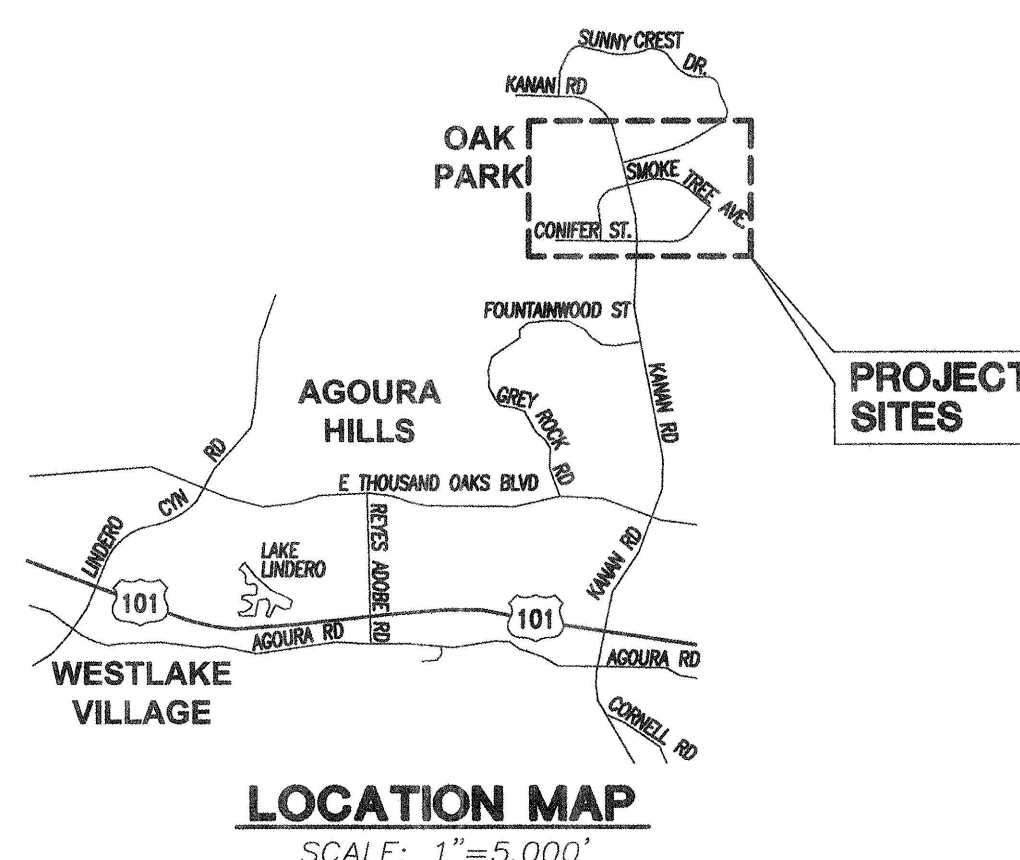
SOUTHERN CALIFORNIA GAS CO  
SOUTHERN CALIFORNIA EDISON CO (SCE)  
FRONTIER COMMUNICATIONS  
AT&T - INQUIRIES  
CHARTER COMMUNICATIONS  
CALLEJAS MUNICIPAL WATER DISTRICT  
TRIUNFO SANITATION DISTRICT & OAK PARK WATER

TEL. NO. (818) 701-3228  
TEL. NO. (805) 494-7040  
TEL. NO. (805) 482-7588  
TEL. NO. (714) 963-7964  
TEL. NO. (805) 477-4410  
TEL. NO. (805) 579-7138  
TEL. NO. (805) 658-4648

JACK RUSSO  
WILLIAM NOBLE  
ROBERT MUSGROVE  
WALTER WERSTIUK  
EDUARDO CALDERON  
TONY GOFF  
RICHARD JONES



INDEX MAP  
N.T.S.



LOCATION MAP  
SCALE: 1"=5,000'

PROJECT SITE LOCATIONS

- TAMARIND STREET AT MEDEA CREEK
- SUNNYCREST DRIVE AND COUNTRYSIDE ROAD
- CONIFER STREET AND SMOKE TREE AVENUE
- MEDEA CREEK LANE AND SUNNYVISTA AVENUE (NORTH CORNER)
- MEDEA CREEK LANE AND SUNNYVISTA AVENUE (SOUTH CORNER)
- PARKVIEW DRIVE AND CONIFER STREET
- SMOKE TREE AVENUE AT MEDEA CREEK
- SOUTHRIDGE DRIVE AT MEDEA CREEK
- MEDEA CREEK LANE (WEST SIDE)
- MEDEA CREEK LANE (EAST SIDE)

LEGEND

- R.O.W.  
 SAWCUT  
 SOLID WALL PVC DRAIN PIPE  
 PORTLAND CEMENT CONCRETE  
 ASPHALT CONCRETE

INDEX TO SHEETS

SHEET NO.	TITLE
1.	GENERAL PLAN
2.	PLAN - SITES 1 & 2
3.	PLAN - SITES 3, 4, & 5
4.	PLAN - SITES 6 & 7
5.	PLAN - SITES 8, 9 & 10
6.	DETAILS
7.	DETAILS
8.	DETAILS

EXISTING SYMBOLS

- BOLLARD  
 CABLE TV  
 CHAINLINK FENCE  
 EDGE OF PAVEMENT  
 GATE  
 ELECTRIC  
 GUY WIRE  
 NATURAL GAS  
 OVERHEAD WIRE  
 POWER POLE  
 PROPERTY LINE  
 SANITARY SEWER  
 SIGN  
 STORM DRAIN  
 STREET LIGHT  
 TELEPHONE  
 VALVE  
 VEGETATION  
 WALL  
 WATER

INDEX OF STANDARD PLANS  
USED BY REFERENCE

SPPWC STANDARD PLANS (LATEST EDITION)  
113-2 SIDEWALK & DRIVEWAY REPLACEMENT  
120-2 CURB AND GUTTER - BARRIER  
313-3 LOCAL DEPRESSIONS AT CATCH BASINS

COUNTY OF VENTURA ROAD STANDARDS

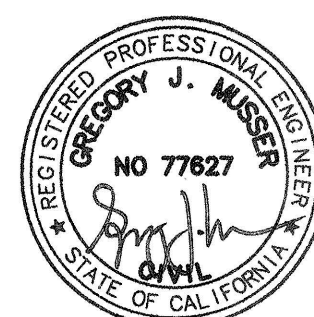
E-10a TRENCH BEDDING AND BACKFILL IN EXISTING PAVEMENT

RECORD DRAWING

DATE PROJECT COMPLETED 10/27/2017  
REVISIONS SUBMITTED BY D. YANT  
DRAWING REVISED BY D. KIRBY  
APPROVED BY D. KIRBY DATE 1/17/18

UNDERGROUND SERVICE ALERT

1-800-422-4133  
CALL USA/SC  
FOR UNDERGROUND LOCATION  
2 WORKING DAYS BEFORE YOU DIG



GREGORY J. MUSSER  
PROJECT ENGINEER  
DATE: 01/11/2017  
R.C.E. 77,627

2/14/17  
2/15/17  
2/16/17

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
WATERSHED PROTECTION DISTRICT

SPEC. NO.  
WP17-11  
PROJ. NO.  
40540

OAK PARK GREEN STREETS URBAN RETROFIT  
PHASE 1  
GENERAL PLAN

SHEET 1  
OF 8  
DRAWING NO.  
Y-4-084

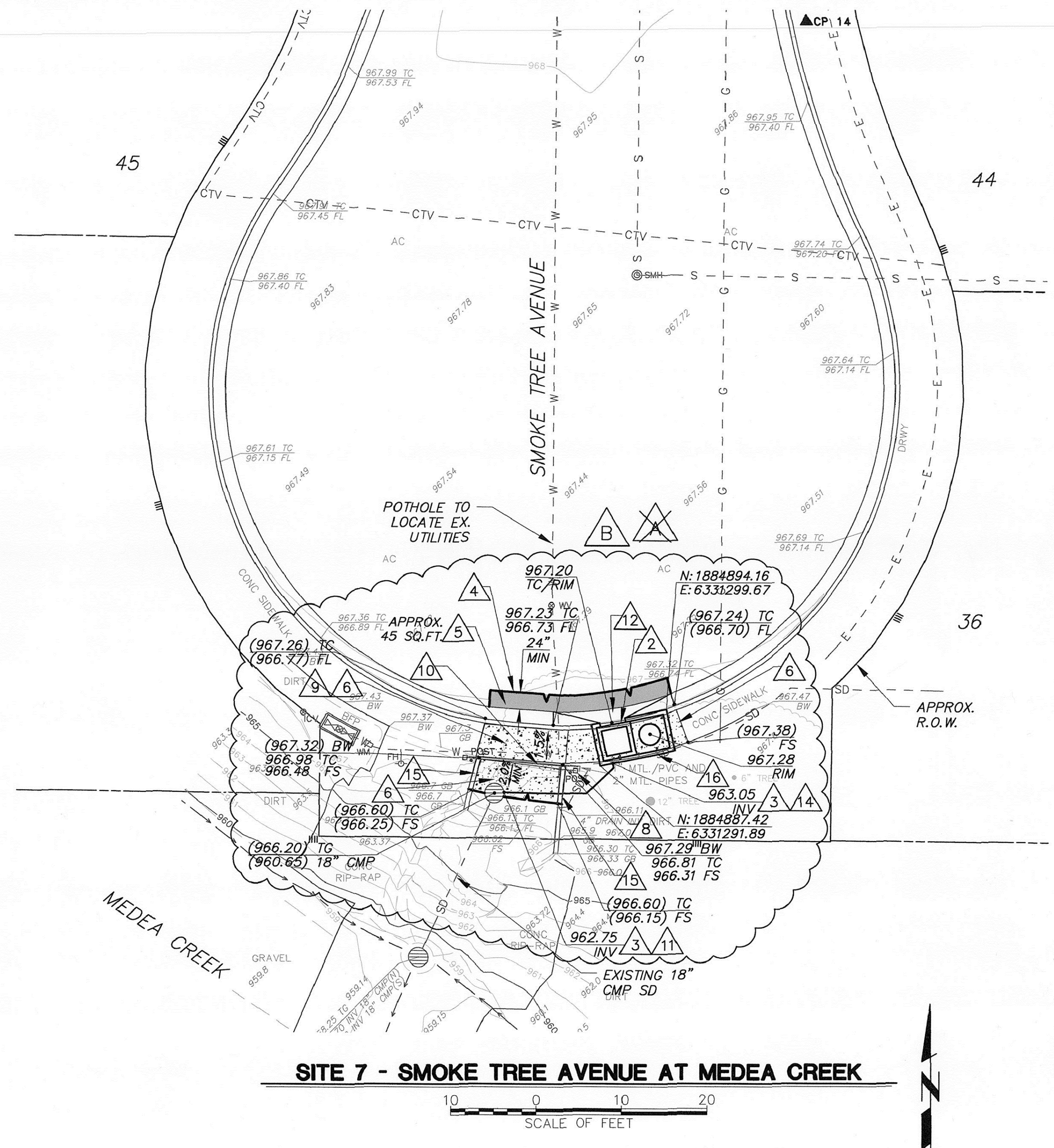
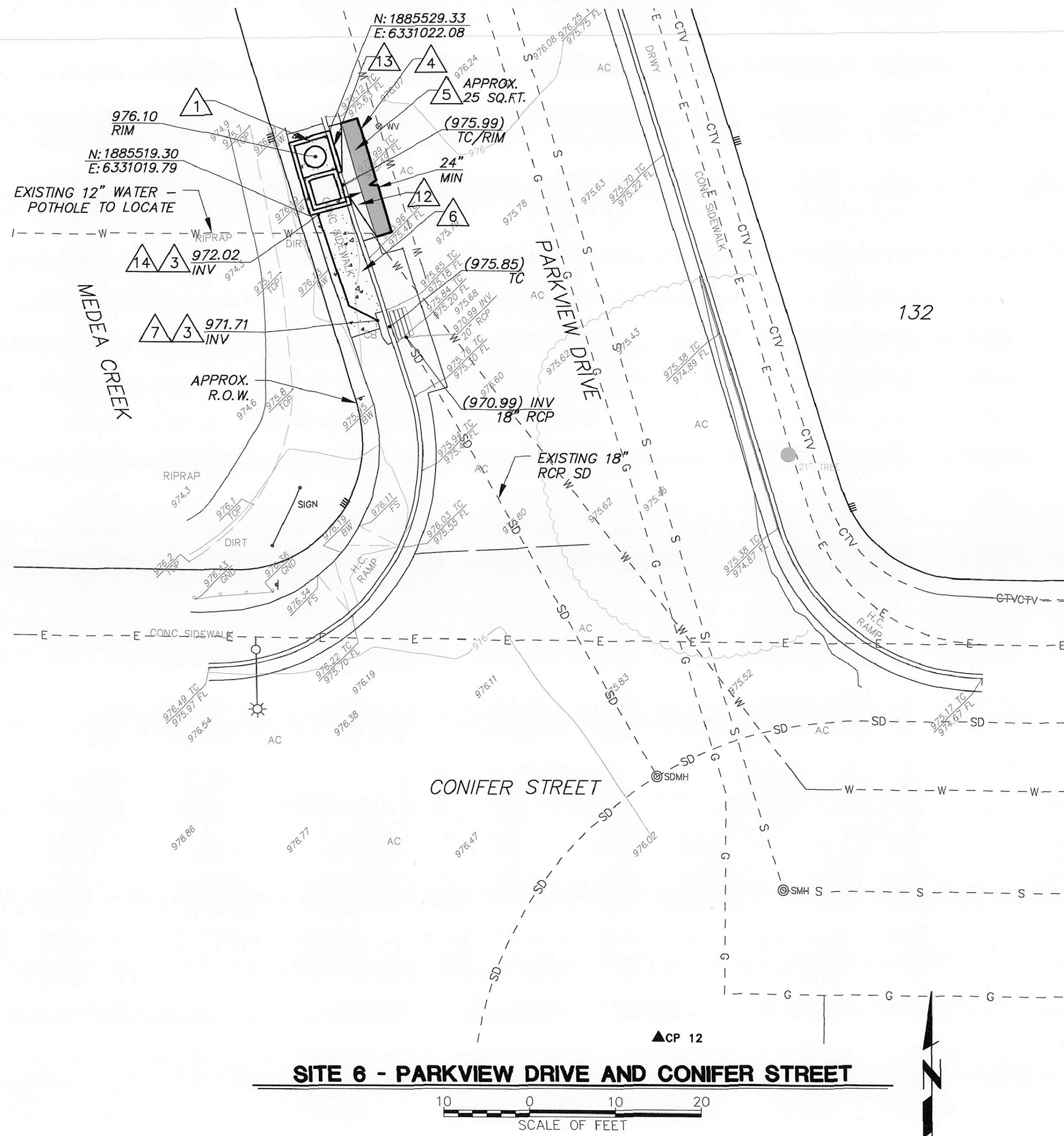










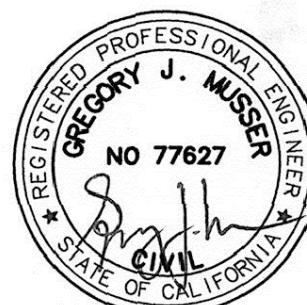


#### CONSTRUCTION NOTES

- FURNISH AND INSTALL 4'X8' (INTERIOR DIMENSIONS) LINEAR MODULAR WETLAND CURB UNIT (OR APPROVED EQUAL) WITH PEDESTRIAN TRAFFIC RATED CONCRETE TOP PER MANUFACTURERS RECOMMENDATION. SEE (H/7) (9a.3) (9c)
- FURNISH AND INSTALL 4'X8' (INTERIOR DIMENSIONS) LINEAR MODULAR WETLAND CURB UNIT (OR APPROVED EQUAL) WITH PEDESTRIAN TRAFFIC RATED CONCRETE TOP PER MANUFACTURERS RECOMMENDATION. SEE (I/7) (9a.3) (9c)
- CONSTRUCT 8" DIAMETER SDR 35 PVC STORM DRAIN AT MINIMUM 1% SLOPE. FURNISH AND INSTALL APPROPRIATE BENDS/FITTINGS AS NEEDED TO CONSTRUCT PER PLAN. SEE (A/2) (7a)
- SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE PAVEMENT TO LIMITS SHOWN.
- CONSTRUCT ASPHALT CONCRETE PAVEMENT. MATCH EXISTING SECTION THICKNESS. (8b)
- SAWCUT AND REMOVE INTERFERING PORTION OF EXISTING CONCRETE SIDEWALK TO NEAREST JOINT. RECONSTRUCT SIDEWALK AS NECESSARY PER SPPWC STANDARD PLAN 113-2.
- CONNECT STORM DRAIN PIPE TO EXISTING CONCRETE CATCH BASIN. SEE (B/2) (7b)
- RE-SET EXISTING BARRICADE AND POST AS NECESSARY. (B)

- REMOVE EXISTING FLOW-THROUGH CURB OPENING. (B)
- AFFIX EXISTING ABOVE-GROUND UTILITY LINES TO BACK OF WALK IN A MANNER IN WHICH IT WILL NOT RESULT IN A TRIP HAZARD.
- CONNECT STORM DRAIN PIPE TO EXISTING CORRUGATED METAL STANDPIPE WITH APPROPRIATE PVC-TO-CORRUGATED PIPE FITTING. (7b)
- CONSTRUCT LOCAL DEPRESSION WITH MONOLITHIC CURB PER SPPWC STANDARD PLAN 120-2 AND 313-3, CASE E. SEE (N/8) (8a)
- SAWCUT AND REMOVE INTERFERING PORTION OF EXISTING CONCRETE CURB & GUTTER TO NEAREST JOINT.
- CONNECT STORM DRAIN PIPE TO MODULAR WETLANDS DEVICE. SEE (B/2)
- CONSTRUCT 6-INCH A1-6 CONC CURB ON BOTH SIDES OF CONC APRON PER SPPWC STANDARD PLAN 120-2.
- RECONSTRUCT EX. 4-INCH SDR 35 PVC DRAIN LINE AS NECESSARY AROUND PROPOSED TREATMENT BOX AT MINIMUM 1% SLOPE. FURNISH AND INSTALL APPROPRIATE BENDS/FITTINGS AS NEEDED. MAINTAIN MINIMUM 12-INCHES CLEAR FROM MODULAR WETLANDS DEVICE. (B)

**RECORD DRAWING**  
 DATE PROJECT COMPLETED 10/27/2017  
 REVISIONS SUBMITTED BY D. YANT  
 DRAWING REVISED BY D. KIRBY  
 APPROVED BY D. KIRBY DATE 1/17/18



SAVE DATE: 10/2/17 GJMUSSER N:\projects\0011\engineering\acad\improvements\21456.01\_MODWET.dwg

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B	CCO#2 ADJUSTMENTS		10/02/2017
A	CCO#1 ADJUSTMENTS		08/29/2017

**ECG**  
 Encompass Consultant Group  
 333 N. LINDEN ST., SUITE 200, CAMARILLO, CA 93010  
 PHONE: 805.322.4443 WWW.ECCGVIL.COM

GREGORY J. MUSSER  
 PROJECT ENGINEER  
 DATE: 01/11/2017  
 R.C.E. 77,627

GJM  
 DESIGNED  
 GJM  
 DRAWN  
 TJS  
 CHECKED

10/4/17  
 DATE  
 10/18/17  
 DATE  
 DISTRICT DIRECTOR

**COUNTY OF VENTURA  
 PUBLIC WORKS AGENCY  
 WATERSHED PROTECTION DISTRICT**

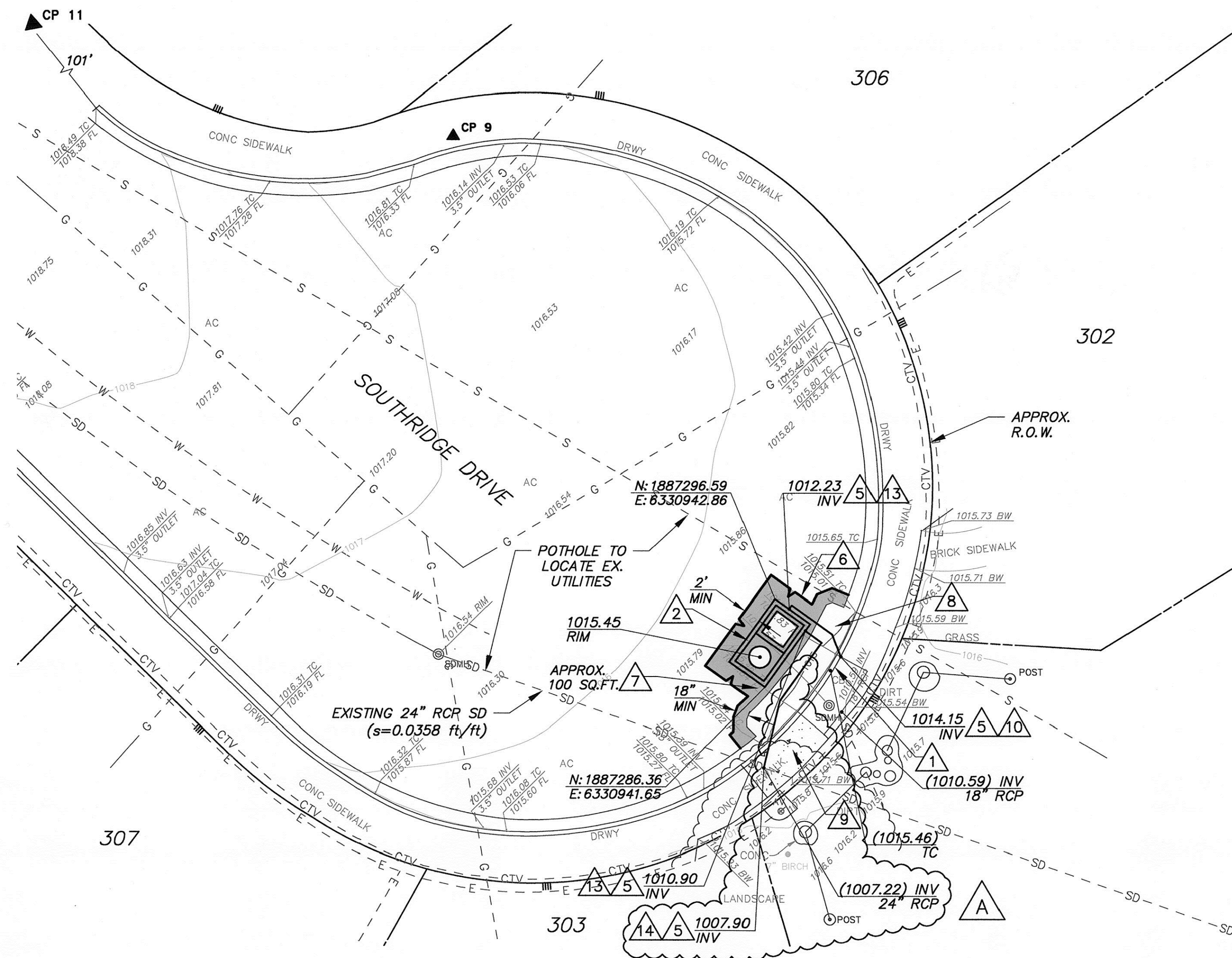
SPEC. NO.  
 WP17-11  
 PROJ. NO.  
 40540

**OAK PARK GREEN STREETS URBAN RETROFIT  
 PHASE 1  
 PLAN - SITES 6 & 7**

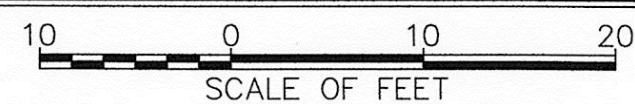
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 OF 8  
 DRAWING NO.  
 Y-4-087

10/2/2017 1:55 PM



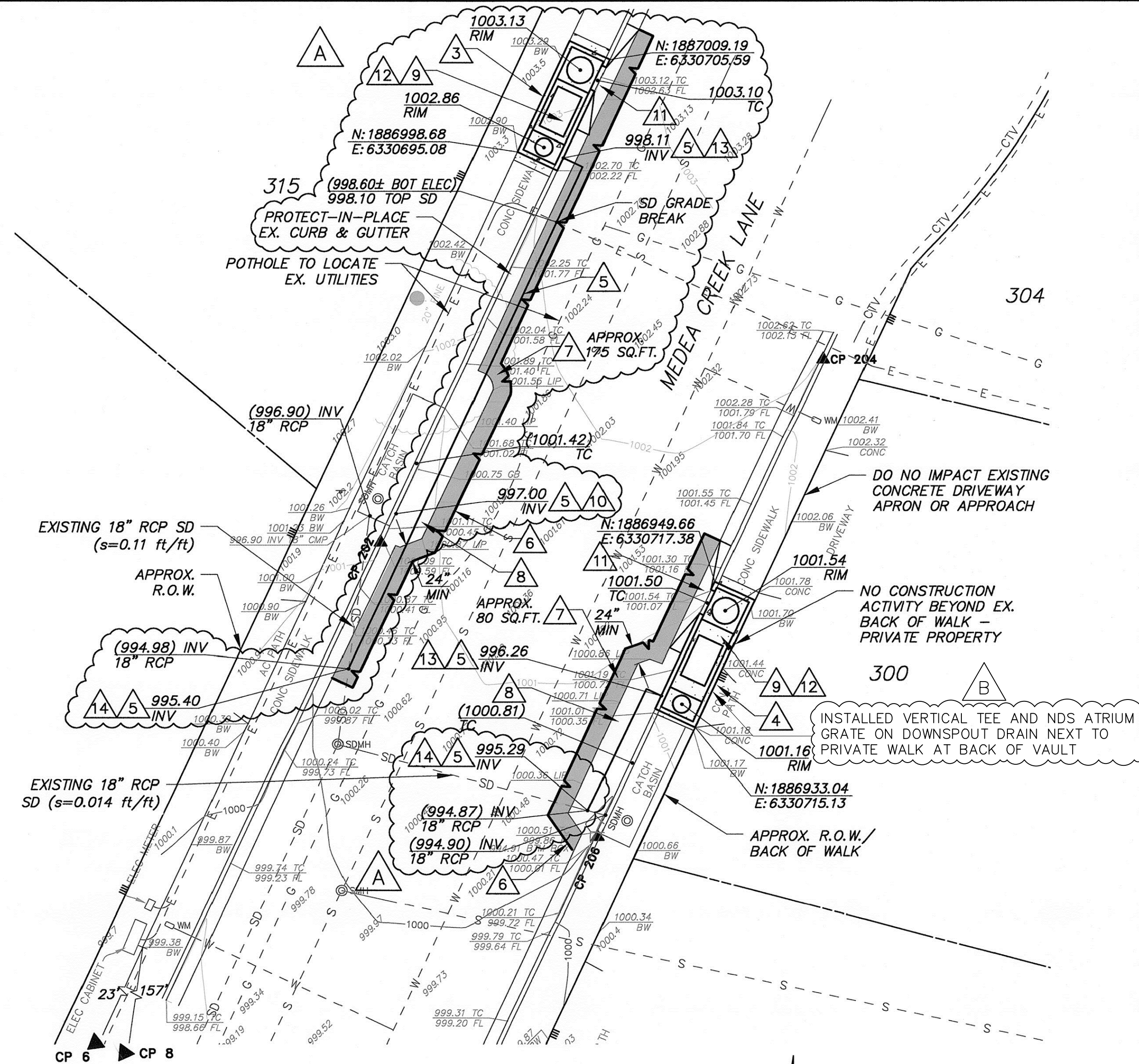


**SITE 8 - SOUTHRIDGE DRIVE AT MEDEA CREEK**

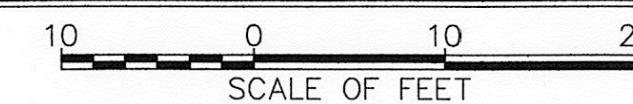


**CONSTRUCTION NOTES**

- FURNISH AND INSTALL FIBERGLASS DVERT TROUGH IN EXISTING CATCH BASIN PER MANUFACTURER'S RECOMMENDATION. SEE (M/8) (9b)
- FURNISH AND INSTALL 4'x8' (INTERIOR DIMENSIONS) LINEAR MODULAR WETLAND VAULT UNIT (OR APPROVED EQUAL) WITH PEDESTRIAN TRAFFIC RATED CONCRETE TOP PER MANUFACTURERS RECOMMENDATION. SEE (J/7) (9a.2) (9c)
- FURNISH AND INSTALL 4'x13' (INTERIOR DIMENSIONS) LINEAR MODULAR WETLAND CURB UNIT (OR APPROVED EQUAL) WITH PEDESTRIAN TRAFFIC RATED CONCRETE TOP PER MANUFACTURERS RECOMMENDATION. SEE (K/8) (9a.5) (9c)
- FURNISH AND INSTALL 4'x15' (INTERIOR DIMENSIONS) LINEAR MODULAR WETLAND CURB UNIT (OR APPROVED EQUAL) WITH PEDESTRIAN TRAFFIC RATED CONCRETE TOP PER MANUFACTURERS RECOMMENDATION. SEE (L/8) (9a.6) (9c)
- CONSTRUCT 8" DIAMETER SDR 35 PVC STORM DRAIN AT MINIMUM 1% SLOPE. FURNISH AND INSTALL APPROPRIATE BENDS/FITTINGS AS NEEDED TO CONSTRUCT PER PLAN. SEE (A/2) (7a)

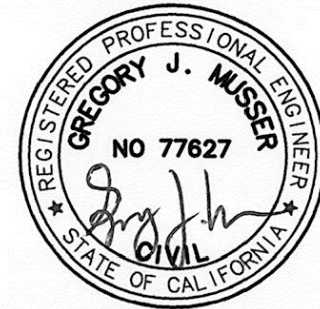


**SITE 9 & 10 - MEDEA CREEK LANE**



- SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE PAVEMENT TO LIMITS SHOWN.
- CONSTRUCT ASPHALT CONCRETE PAVEMENT. MATCH EXISTING SECTION THICKNESS. (8b)
- REMOVE EXISTING CONCRETE LOCAL DEPRESSION AND MONOLITHIC CURB TO NEAREST JOINT. RECONSTRUCT LOCAL DEPRESSION WITH MONOLITHIC CURB TO MATCH EXISTING CONFIGURATION PER SPPWC STANDARD PLAN 120-2 AND 313-3. (8a)
- SAWCUT AND REMOVE INTERFERING PORTION OF EXISTING CONCRETE SIDEWALK TO NEAREST JOINT. RECONSTRUCT SIDEWALK AS NECESSARY PER SPPWC STANDARD PLAN 113-2.
- CONNECT STORM DRAIN PIPE TO EXISTING CONCRETE CATCH BASIN. SEE (B/2) (7b)
- CONSTRUCT LOCAL DEPRESSION WITH MONOLITHIC CURB PER SPPWC STANDARD PLAN 120-2 AND 313-3, CASE E. SEE (N/8) (8a)
- SAWCUT AND REMOVE INTERFERING PORTION OF EXISTING CONCRETE CURB & GUTTER TO NEAREST JOINT. RECONSTRUCT CURB & GUTTER AS NECESSARY PER SPPWC STANDARD PLAN 120-2.
- CONNECT STORM DRAIN PIPE TO MODULAR WETLANDS DEVICE. SEE (B/2)
- CONNECT TO EX. STORM DRAIN PER SPPWC STANDARD PLAN 335-2, CASE 1, AS MODIFIED WITH 4,000 PSI GROUT. (A)

RECORD DRAWING	
DATE PROJECT COMPLETED	10/27/2017
REVISIONS SUBMITTED BY	D. YANT
DRAWING REVISED BY	D. KIRBY
APPROVED BY	D. KIRBY DATE 1/17/18



SAVE DATE: 8/29/17 GJMUSSER N:\projects\001\engineering\acad\improvements\21456.01\_MODWET.dwg

REVISION	DESCRIPTION	APP.	DATE
D			
C	RECORD DRAWING FIELD CHANGES	DK	1/17/2018
B	CCO#1 ADJUSTMENTS		08/29/2017

**ECG**  
Encompass Consultant Group  
333 N. LANTANA ST., SUITE 287, CAMARILLO, CA 93010  
PHONE: 805.322.4463 WWW.ECGCIVIL.COM

GREGORY J. MUSSER  
PROJECT ENGINEER  
DATE: 01/11/2017  
R.C.E. 77,627

GJM  
DESIGNED  
GJM  
DRAWN  
TJS  
CHECKED

PROJECT MANAGER  
DEPUTY DIRECTOR  
DISTRICT DIRECTOR  
DATE: 9/17/17  
DATE: 9/15/17  
DATE: 9/12/17

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
WATERSHED PROTECTION DISTRICT**

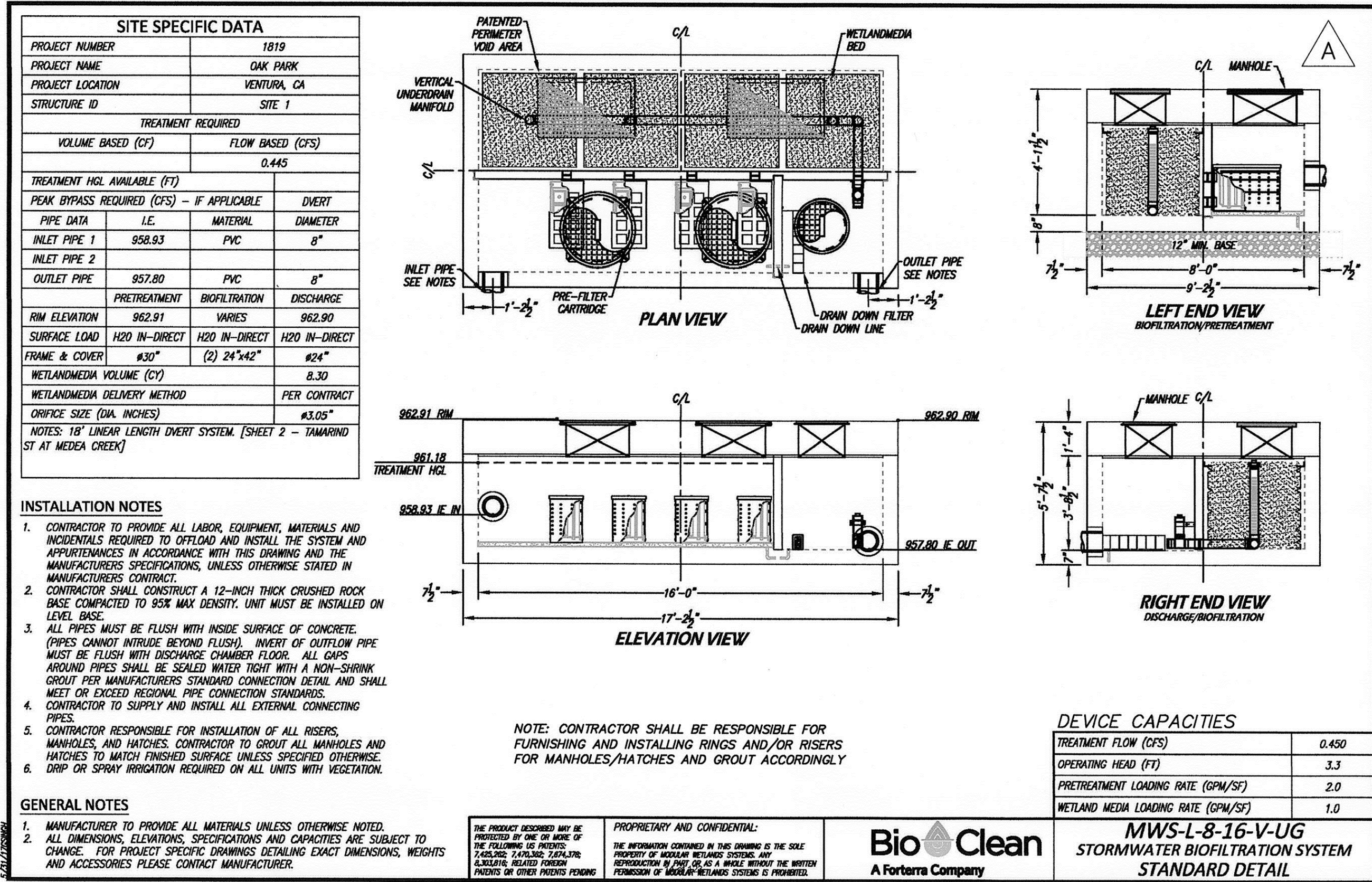
SPEC. NO.  
WP17-11  
PROJ. NO.  
40540

**OAK PARK GREEN STREETS URBAN RETROFIT  
PHASE 1**  
PLAN - SITES 8, 9, & 10

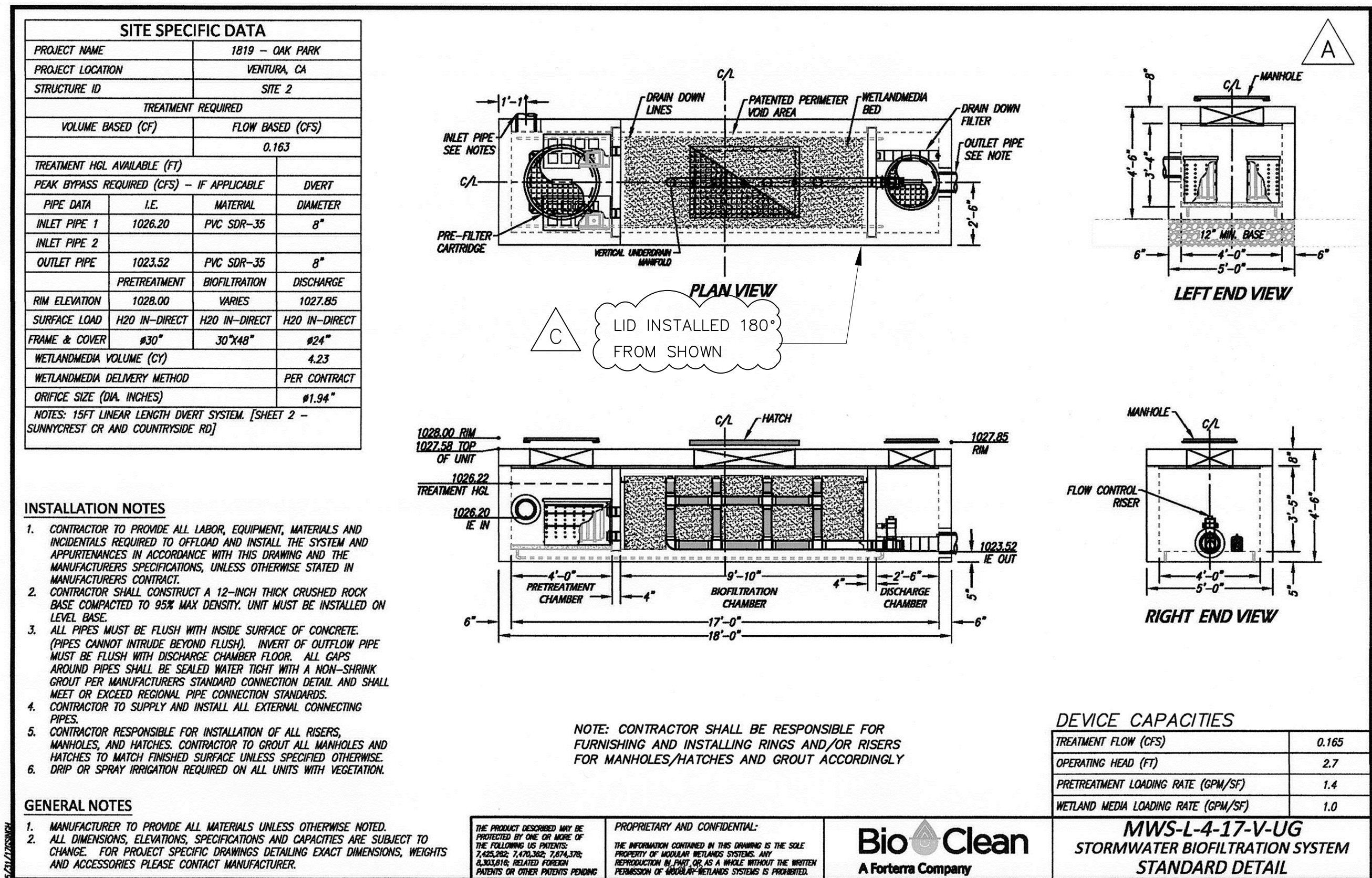
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DRAWING NO. Y-4-088

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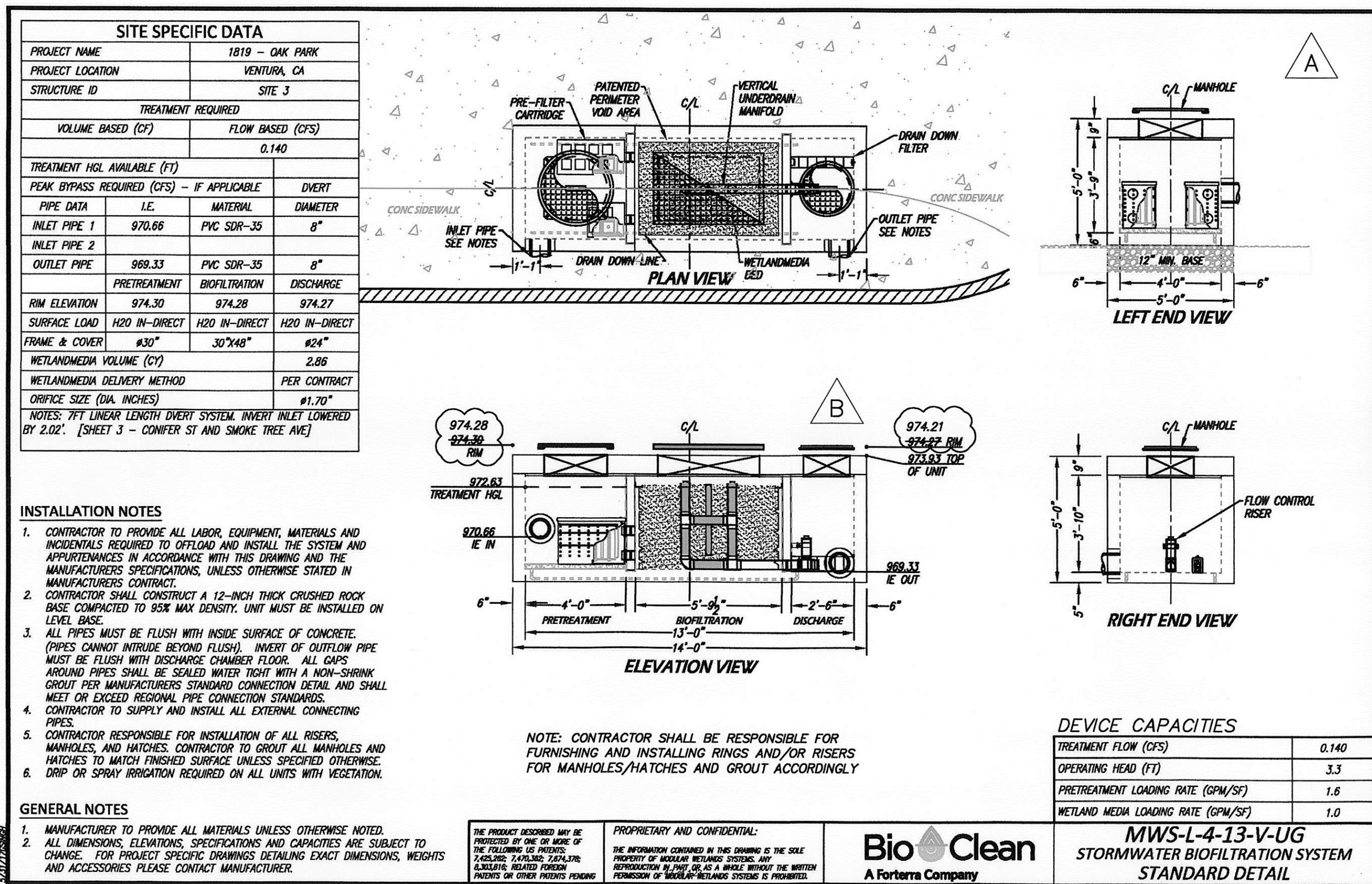




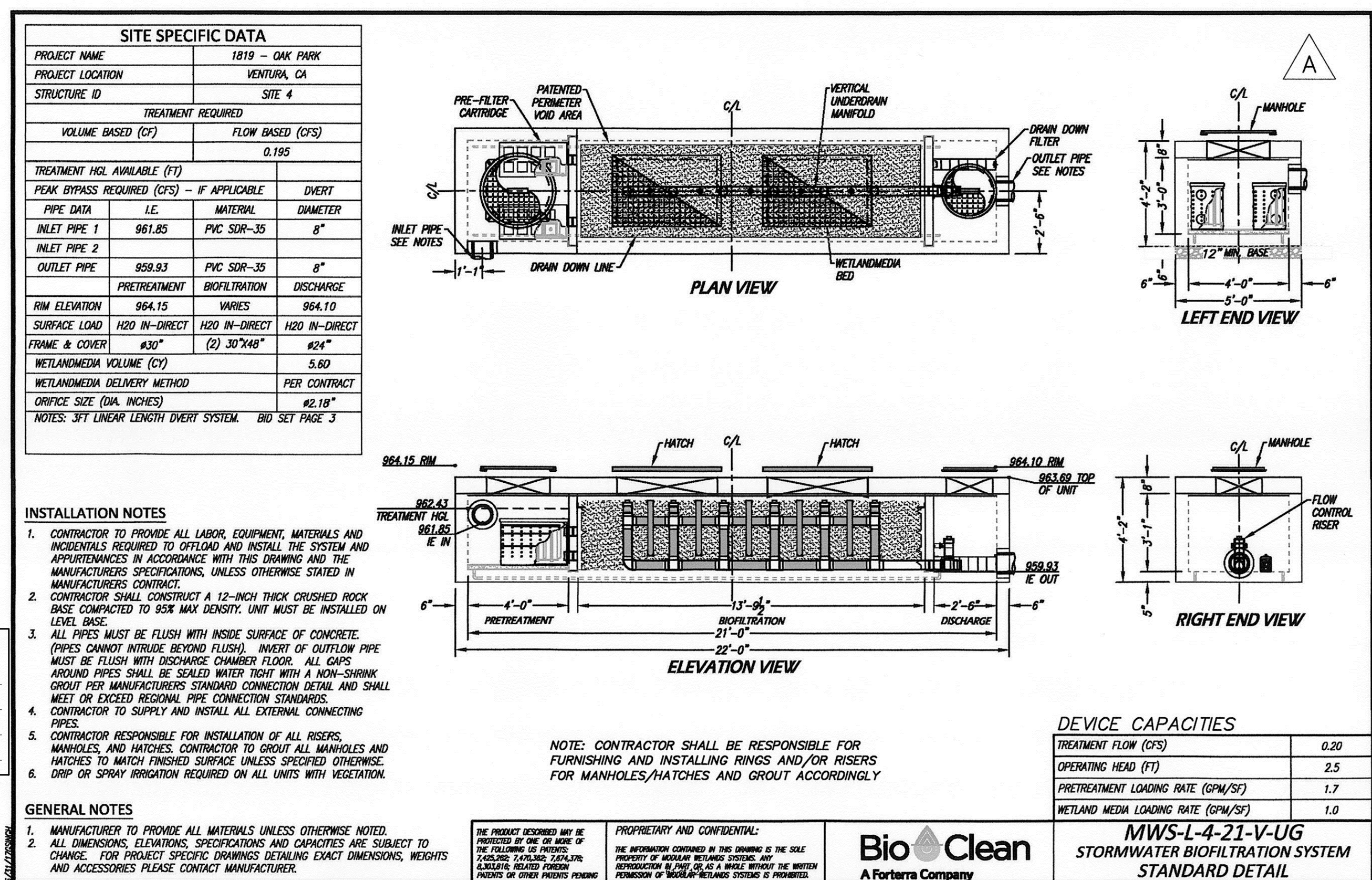
**SITE 1 - 8'x16' LINEAR MODULAR WETLAND VAULT UNIT**



**SITE 2 - 4'x17' LINEAR MODULAR WETLAND VAULT UNIT**



**SITE 3 - 4'x13' LINEAR MODULAR WETLAND VAULT UNIT**



**SITE 4 - 4'x21' LINEAR MODULAR WETLAND VAULT UNIT**

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SAVE DATE: 8/29/17 GJMUSSEY N:\projects\0011\engineering\ood\improvements\21456.01\_MDWET\_DET.DWG

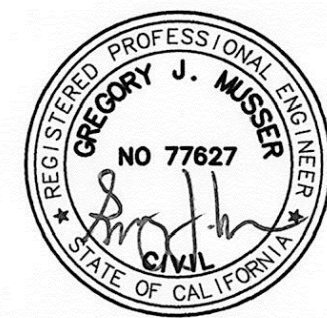
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C	CCO#1 ADJUSTMENTS	08/29/2017	
A	VAULT DETAILS PER MATERIAL SUBMITTAL APPROVAL	06/19/2017	
Δ	REVISION	DESCRIPTION	APP. DATE



GREGORY J. MUSSER  
PROJECT ENGINEER  
DATE: 01/11/2017  
R.C.E. 77,627

GJM  
DESIGNED  
GJM  
DRAWN  
TJS  
CHECKED

0011 12/23/2016  
EGG W.O. PLAN DATE



COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
WATERSHED PROTECTION DISTRICT

SPEC. NO.  
WP17-11  
PROJ. NO.  
40540

OAK PARK GREEN STREETS URBAN RETROFIT  
PHASE 1  
DETAILS

SHEET 6  
OF 8  
DRAWING NO.  
Y-4-089



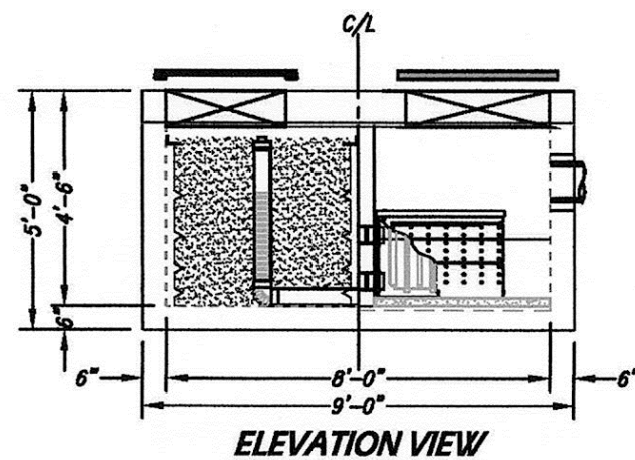
SITE SPECIFIC DATA			
PROJECT NUMBER	1819		
PROJECT NAME	OAK PARK		
PROJECT LOCATION	VENTURA, CA		
STRUCTURE ID	SITE 5		
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.115	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE			DIVERT
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	961.58	PVC	8"
INLET PIPE 2			
OUTLET PIPE	959.20	PVC	8"
PRETREATMENT		BIOFILTRATION	DISCHARGE
RIM ELEVATION	964.26	VARIES 964.21	
SURFACE LOAD	H2O IN-DIRECT	H2O IN-DIRECT	N/A
FRAME & COVER	36"x36"	#30"	N/A
WETLAND/MEDIA VOLUME (CY)			2.09
WETLAND/MEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)	#1.53"		
NOTES: 3FT LINEAR LENGTH OF DIVERT SYSTEM. [SHEET 3 - MEDEA CREEK LN AND SUNNYVALE AVE]			

#### INSTALLATION NOTES

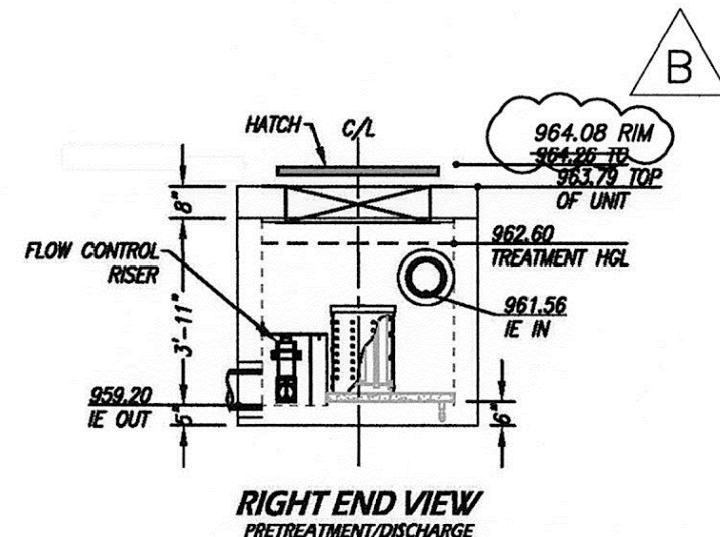
- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
- CONTRACTOR SHALL CONSTRUCT A 12-INCH THICK CRUSHED ROCK BASE COMPACTED TO 95% MAX DENSITY. UNIT MUST BE INSTALLED ON LEVEL BASE.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL CAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

#### GENERAL NOTES

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.



NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING RINGS AND/OR RISERS FOR MANHOLES/HATCHES AND GROUT ACCORDINGLY



#### DEVICE CAPACITIES

TREATMENT FLOW (CFS)	0.115
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MWS-L-4-8-V-UG  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

### SITE 5 - 4'x8' LINEAR MODULAR WETLAND VAULT UNIT

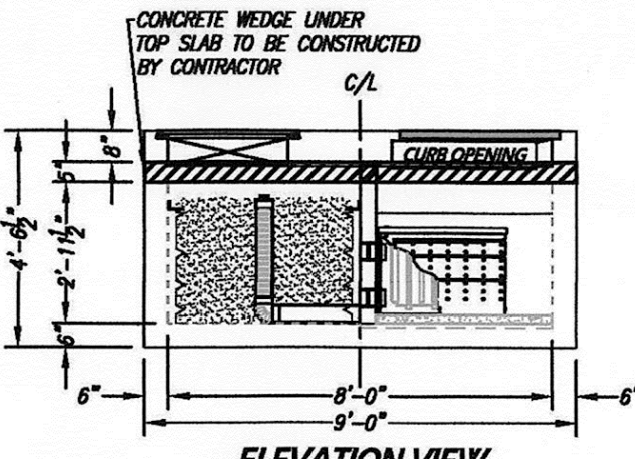
SITE SPECIFIC DATA			
PROJECT NAME		1819 - OAK PARK	
PROJECT LOCATION		VENTURA, CA	
STRUCTURE ID		SITE 7	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.080	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE		4.60	
PIPE DATA		I.E. MATERIAL DIAMETER	
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE		963.05 PVC SDR-35 8"	
PRETREATMENT		BIOTRIFICATION DISCHARGE	
RIM ELEVATION		967.20 967.20 967.20	
SURFACE LOAD		H2O IN-DIRECT H2O IN-DIRECT N/A	
FRAME & COVER		36" x 36" #30" N/A	
WETLANDMEDIA VOLUME (CY)		1.75	
WETLANDMEDIA DELIVERY METHOD		PER CONTRACT	
ORIFICE SIZE (DIA. INCHES)		#1.42"	
NOTES: [SHEET 4 - SMOKE TREE AVE AT MEDA CREEK]			

#### INSTALLATION NOTES

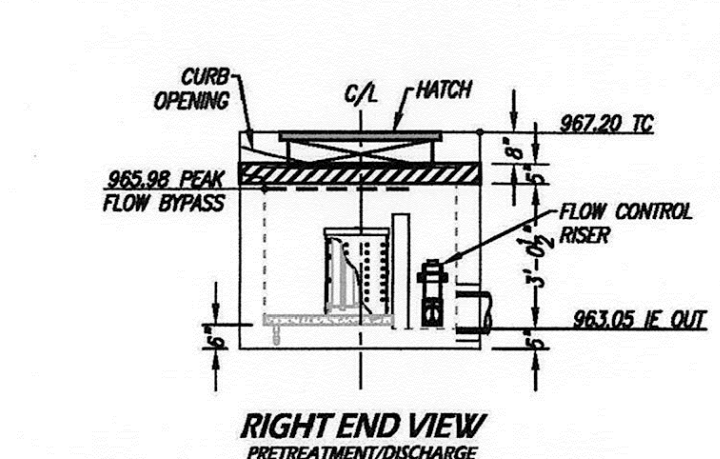
- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
- CONTRACTOR SHALL CONSTRUCT A 12-INCH THICK CRUSHED ROCK BASE COMPACTED TO 95% MAX DENSITY. UNIT MUST BE INSTALLED ON LEVEL BASE.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL CAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

#### GENERAL NOTES

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.



NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING RINGS AND/OR RISERS FOR MANHOLES/HATCHES AND GROUT ACCORDINGLY



#### DEVICE CAPACITIES

TREATMENT FLOW (CFS)	0.081
OPERATING HEAD (FT)	2.4
PRETREATMENT LOADING RATE (GPM/SF)	1.4
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MWS-L-4-8-C-UG  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

### SITE 7 - 4'x8' LINEAR MODULAR WETLAND CURB UNIT

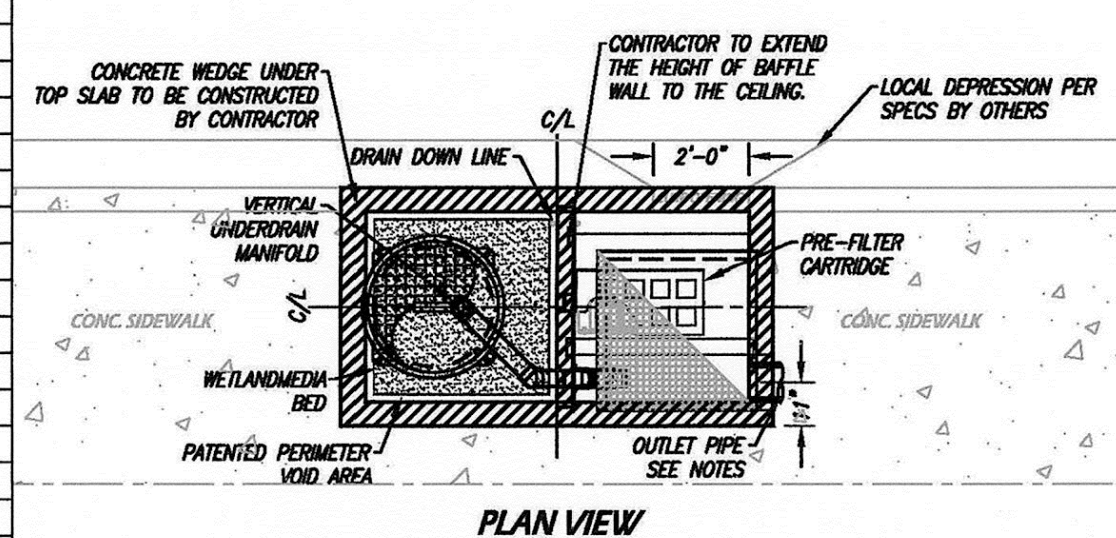
SITE SPECIFIC DATA			
PROJECT NAME		1819 - OAK PARK	
PROJECT LOCATION		VENTURA, CA	
STRUCTURE ID		SITE 6	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.075	
TREATMENT HGL AVAILABLE (FT)		FLOW-BY	
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE			
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE	972.02	PVC	8"
PRETREATMENT		DISCHARGE	
RIM ELEVATION	975.99	975.99	975.99
SURFACE LOAD	H2O IN-DIRECT	H2O IN-DIRECT	
FRAME & COVER	36"x36"	#30"	
WETLAND MEDIA VOLUME (CY)		1.38	
WETLAND MEDIA DELIVERY METHOD		PER CONTRACT	
ORIFICE SIZE (DIA. INCHES)		#1.39"	
NOTES: [SHEET 4 - PARKVIEW DR AND CONIFER ST]			

#### INSTALLATION NOTES

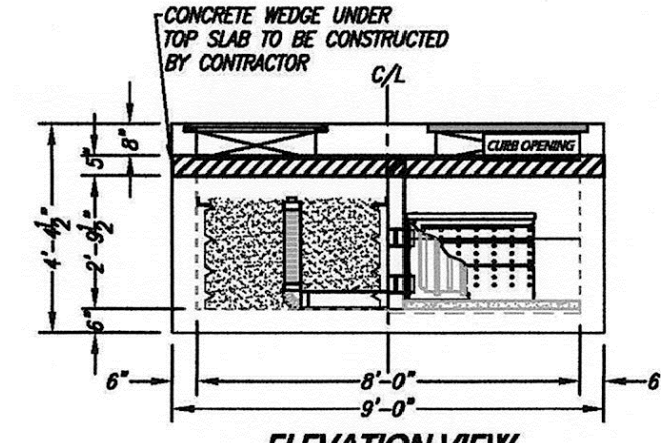
- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
- CONTRACTOR SHALL CONSTRUCT A 12-INCH THICK CRUSHED ROCK BASE COMPACTED TO 95% MAX DENSITY. UNIT MUST BE INSTALLED ON LEVEL BASE.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL CAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

#### GENERAL NOTES

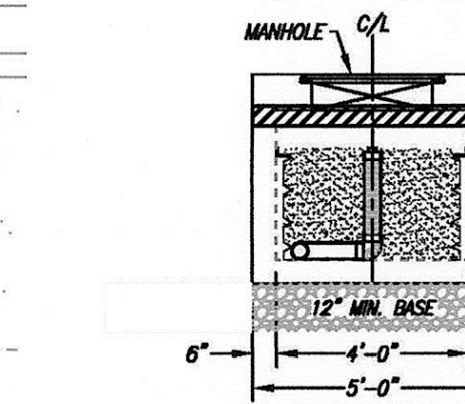
- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.



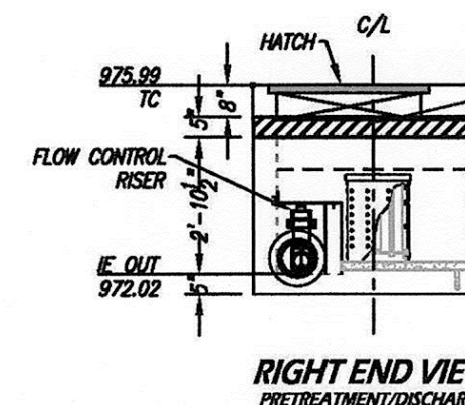
#### PLAN VIEW



#### ELEVATION VIEW



#### LEFT END VIEW



#### RIGHT END VIEW

#### DEVICE CAPACITIES

TREATMENT FLOW (CFS)	0.075
OPERATING HEAD (FT)	2.2
PRETREATMENT LOADING RATE (GPM/SF)	1.3
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MWS-L-4-8-C-UG  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

### SITE 6 - 4'x8' LINEAR MODULAR WETLAND CURB UNIT

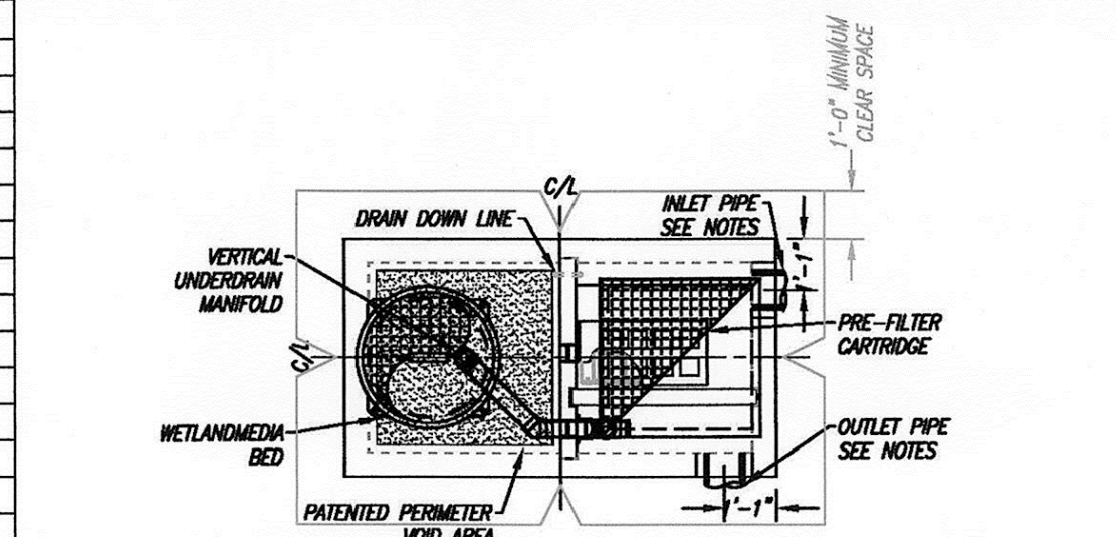
SITE SPECIFIC DATA			
PROJECT NAME	1819 - OAK PARK		
PROJECT LOCATION	VENTURA, CA		
STRUCTURE ID	SITE 8		
TREATMENT REQUIRED			
VOLUME BASED (CF)	FLOW BASED (CFS)		
	0.068		
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE			
PIPE DATA		DIAMETER	
I.E.		MATERIAL	
INLET PIPE 1	1012.23	PVC SDR-35	8"
INLET PIPE 2			
OUTLET PIPE	1010.90	PVC SDR-35	8"
PRETREATMENT		DISCHARGE	
RIM ELEVATION	1015.45	1015.45	1015.45
SURFACE LOAD	H2O IN-DIRECT	H2O IN-DIRECT	
FRAME & COVER	36" x 36"	#30"	N/A
WETLAND MEDIA VOLUME (CY)			1.40
WETLAND MEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)	#1.35"		
NOTES: 7FT LINEAR LENGTH OF DIVERT SYSTEM. [SHEET 5 - SOUTHWIDE DR AT MEDA CREEK]			

#### INSTALLATION NOTES

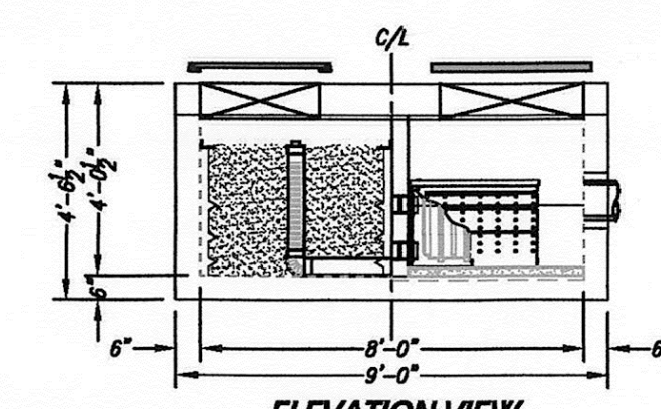
- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
- CONTRACTOR SHALL CONSTRUCT A 12-INCH THICK CRUSHED ROCK BASE COMPACTED TO 95% MAX DENSITY. UNIT MUST BE INSTALLED ON LEVEL BASE.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL CAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

#### GENERAL NOTES

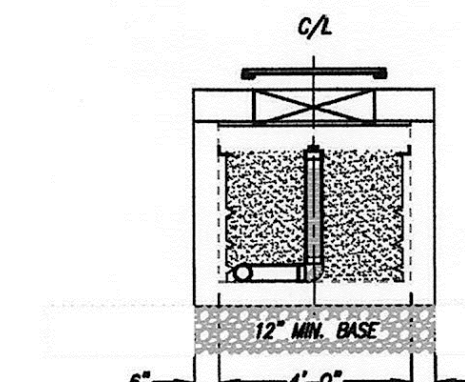
- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.



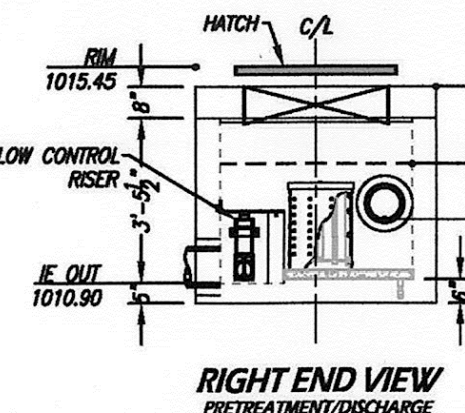
#### PLAN VIEW



#### ELEVATION VIEW



#### LEFT END VIEW



#### RIGHT END VIEW

#### DEVICE CAPACITIES

TREATMENT FLOW (CFS)	0.065
OPERATING HEAD (FT)	2.5
PRETREATMENT LOADING RATE (GPM/SF)	1.5
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MWS-L-4-8-V-UG  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

### SITE 8 - 4'x8' LINEAR MODULAR WETLAND VAULT UNIT

8/29/2017 4:38 PM

SAVE DATE: 8/29/17 GJMUSSER N:\projects\0011\engineering\acad\improvements\21456.01\_MODWET\_DET.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C	CCO#1 ADJUSTMENTS		08/29/2017
B			
A	VAULT DETAILS PER MATERIAL SUBMITTAL APPROVAL		06/19/2017

**ECG**  
Encompass Consultant Group  
333 N. LANTANA ST. SUITE 287, CARPENTRIA, CA 95010  
PHONE: 925.322.4443 WWW.ECGUTL.COM

GREGORY J. MUSSER  
PROJECT ENGINEER  
DATE: 07/11/2017  
R.C.E. 77,627  
0011 12/23/2016  
ECG W.O. PLAN DATE

GJM DESIGNED  
GJM DRAWN  
TJS CHECKED

PROJECT MANAGER  
DEPUTY DIRECTOR  
DISTRICT DIRECTOR  
DATE: 9/7/17  
DATE: 9/14/17  
DATE: 9/12/17

REGISTERED PROFESSIONAL ENGINEER  
GREGORY J. MUSSER  
NO 77627  
STATE OF CALIFORNIA

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
WATERSHED PROTECTION DISTRICT

SPEC. NO.  
WP17-11  
PROJ. NO.  
40540

OAK PARK GREEN STREETS URBAN RETROFIT  
PHASE 1  
DETAILS

SHEET 7  
OF 8  
DRAWING NO.  
Y-4-090



SITE SPECIFIC DATA			
PROJECT NAME	1819 - OAK PARK		
PROJECT LOCATION	VENTURA, CA		
STRUCTURE ID	SITE 9		
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.125	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE		FLOW-BY	
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE	999.44	PVC SDR-35	8"
PRETREATMENT	BIOFILTRATION	DISCHARGE	
RIM ELEVATION	1002.86	VARIES	1001.86
SURFACE LOAD	H2O IN-DIRECT	H2O IN-DIRECT	H2O IN-DIRECT
FRAME & COVER	#30"	30"x48"	#24"
WETLANDMEDIA VOLUME (CY)	3.91		
WETLANDMEDIA DELIVERY METHOD	PER CONTRACT		
ORIFICE SIZE (DIA. INCHES)	#1.65"		
NOTES: [SHEET 5 - MEDIA CREEK LANE]			

#### INSTALLATION NOTES

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
- CONTRACTOR SHALL CONSTRUCT A 12-INCH THICK CRUSHED ROCK BASE COMPACTED TO 95% MAX DENSITY. UNIT MUST BE INSTALLED ON LEVEL BASE.
- ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- Drip or spray irrigation required on all units with vegetation.

#### GENERAL NOTES

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.

THE PRODUCT DESCRIBED MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS: 7,624,982; 7,614,918; 7,614,919; 7,614,920; 7,614,921; 7,614,922; 7,614,923; 7,614,924; 7,614,925; 7,614,926; 7,614,927; 7,614,928; 7,614,929; 7,614,930; 7,614,931; 7,614,932; 7,614,933; 7,614,934; 7,614,935; 7,614,936; 7,614,937; 7,614,938; 7,614,939; 7,614,940; 7,614,941; 7,614,942; 7,614,943; 7,614,944; 7,614,945; 7,614,946; 7,614,947; 7,614,948; 7,614,949; 7,614,950; 7,614,951; 7,614,952; 7,614,953; 7,614,954; 7,614,955; 7,614,956; 7,614,957; 7,614,958; 7,614,959; 7,614,960; 7,614,961; 7,614,962; 7,614,963; 7,614,964; 7,614,965; 7,614,966; 7,614,967; 7,614,968; 7,614,969; 7,614,970; 7,614,971; 7,614,972; 7,614,973; 7,614,974; 7,614,975; 7,614,976; 7,614,977; 7,614,978; 7,614,979; 7,614,980; 7,614,981; 7,614,982; 7,614,983; 7,614,984; 7,614,985; 7,614,986; 7,614,987; 7,614,988; 7,614,989; 7,614,990; 7,614,991; 7,614,992; 7,614,993; 7,614,994; 7,614,995; 7,614,996; 7,614,997; 7,614,998; 7,614,999; 7,615,000; 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