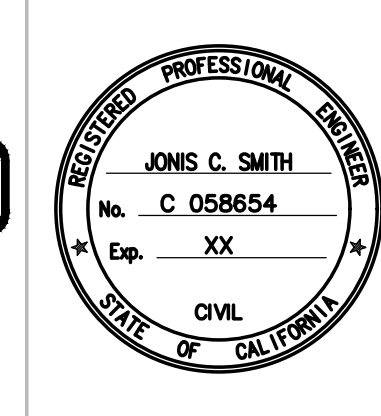


-1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES



PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

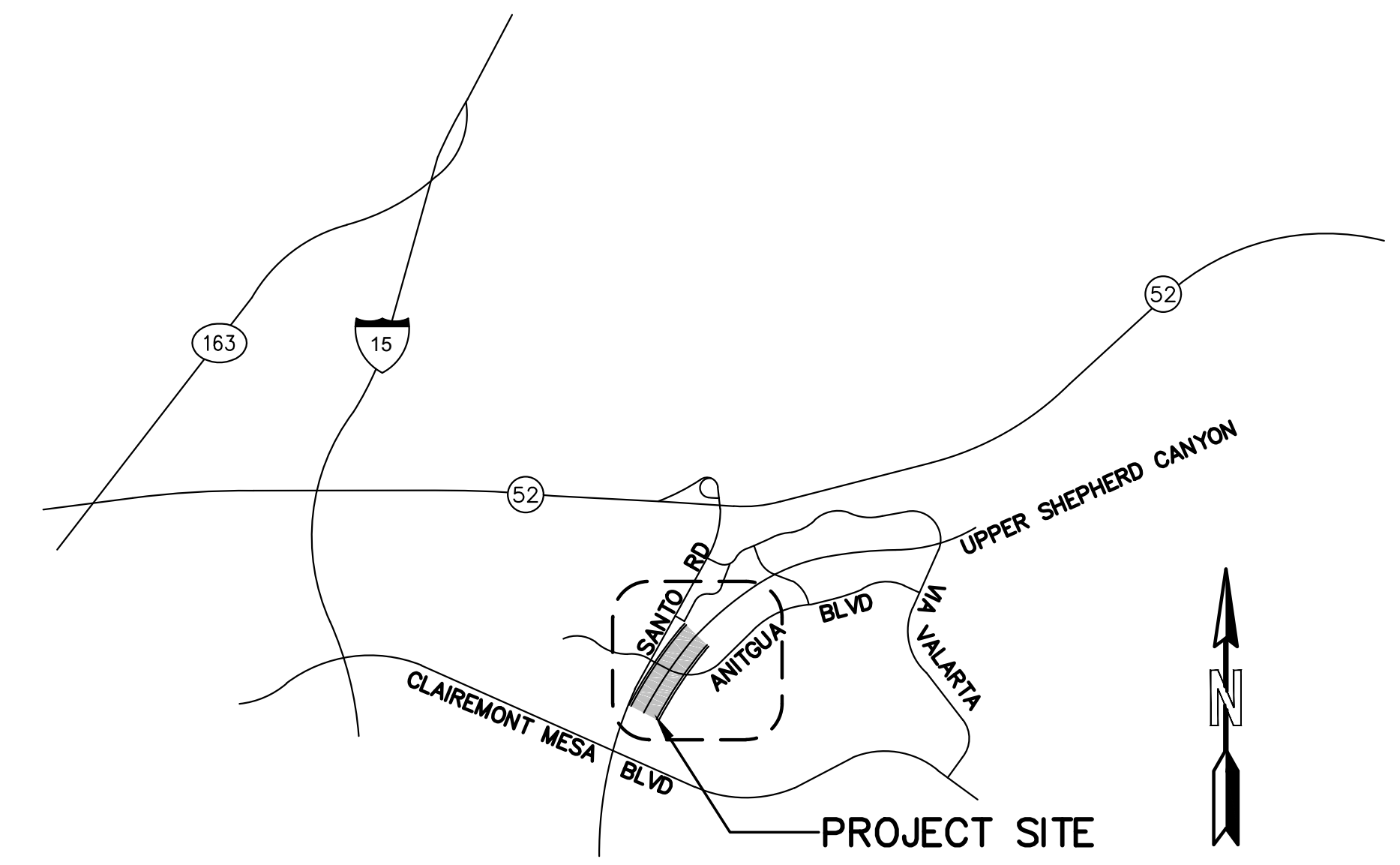
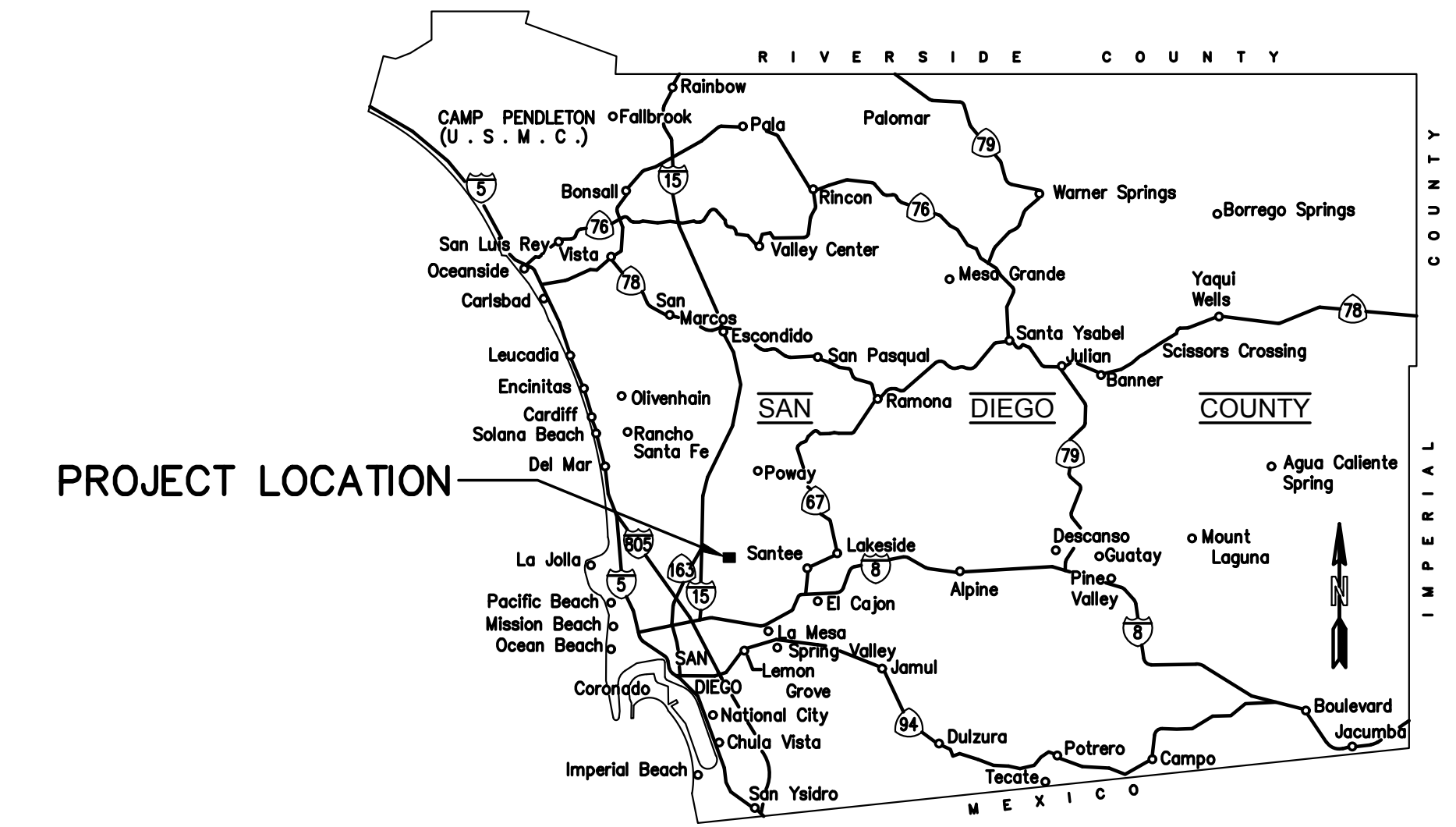
**DUDEK**  
31878 CAMINO CAPISTRANO #200,  
SAN JUAN CAPISTRANO, CA 92675  
949.450.2525  
(NOT RELEASED FOR CONSTRUCTION)  
REGISTERED CIVIL ENGINEER DATE

**90% SUBMITTAL**  
**NOT FOR CONSTRUCTION**

INDEX OF SHEETS	
No.	Description
1	TITLE SHEET
2	GENERAL REFERENCES
3	CIVIL GENERAL NOTES
4	EXISTING CONDITIONS AND DEMOLITION
5	HORIZONTAL CONTROL
6	IMPROVEMENT PLAN - SOUTH
7	TYPICAL SECTION
8	CIVIL DETAILS
9	CIVIL DETAILS 2

COUNTY OF SAN DIEGO, CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS

**PLANS FOR  
CONSTRUCTION OF  
ANTIGUA BOULEVARD CULVERT  
VECTOR HABITAT REMEDIATION  
IMPROVEMENTS**  
In the Vicinity of: ANTIGUA BLVD.  
Net Length: 500 LF



VICINITY MAP  
NOT TO SCALE

**GENERAL NOTES:**

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND UTILITY 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 PERFORMING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. FOURTY-EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICES ALERT AT TELEPHONE 1-800-422-4133.

THE CONTRACTOR MUST ALSO INDIVIDUALLY CONTACT OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICES ALERT.

REVIEWED BY: COUNTY OF SAN DIEGO DFW DESIGN SECTION DATE

P:\01\Engineering\HRS\9369 Antigua Blvd. Drainage\06-Design\CAD\Improvement Plans\C01 - Cover Sheet - 9369.dwg Wednesday, Jan. 04. 2017 5:10pm jobrien

**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



RECOMMENDED BY:	DATE
APPROVED BY:	DATE

Mohamad Fakhreddine, County Engineer

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
210 N.	1731 E.
CONST. COMPL.	
FIELD REVISIONS	

VECTOR HABITAT REMEDIATION  
In the Vicinity of Antigua Blvd.  
TITLE SHEET

SCALE: HOR. NONE	VERT. NONE
W.A.	R.S.
CIVIL PLAN	
SHEET 01 OF 09 SHEETS	

**PROJECT SPECIFICATIONS & STANDARD PLANS**

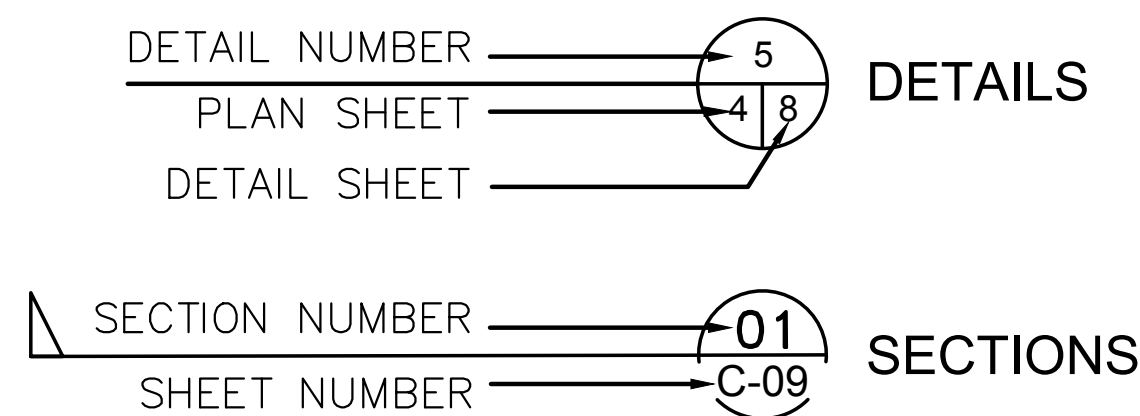
**PROJECT STANDARD SPECIFICATIONS**  
CALTRANS STANDARD SPECIFICATIONS, MAY 2006

**PROJECT STANDARD PLANS**  
SAN DIEGO REGIONAL STANDARD DRAWINGS, 2009 EDITION

**SYMBOLS**

- @ AT
- % PERCENT
- ' FEET OR MINUTES
- " INCHES OR SECONDS
- / PER OR (BETWEEN WORDS)
- ° DEGREE
- ∅ DIAMETER
- ℙ PROPERTY LINE
- ℄ CENTERLINE
- ℒ FLOW LINE

**MISC. LEGEND**



**ABBREVIATIONS**

AC	ASPHALT CONCRETE	MAX	MAXIMUM
AGG	AGGREGATES	MIN	MINIMUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	OC	ON CENTER
CALTRANS	CALIFORNIA DEPARTMENT OF TRANSPORTATION	OD	OUTSIDE DIAMETER
CF	CUBIC FOOT	PCC	PORTLAND CEMENT CONCRETE
CFS	CUBIC FOOT PER SECOND	PIP	PROTECT IN-PLACE
CL	CENTER LINE	PL	PROPERTY LINE OR PLACE
CL R	CLEAR	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCT, CONSTRUCTION	R/W	RIGHT OF WAY
CY	CUBIC YARD	REINF	REINFORCED OR REINFORCEMENT
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	S	SLOPE OR SECOND
EA.	EACH	SD	STORM DRAIN
ELEV	ELEVATION	SQFT	SQUARE FOOT
EX	EXISTING	SS	SANITARY SEWER
EXP	EXPANSION	STD	STANDARD
FG	FINISHED GRADE	SW	SIDEWALK
FL	FLOW LINE	TOT	TOTAL
H	HIGH OR HEIGHT	TYP	TYPICAL
HORIZ	HORIZONTAL	VERT	VERTICAL
		W	WATER, WIDER OR WIDTH
		W/	WITH

**LEGEND**

**EXISTING CONDITIONS**

- EXISTING CONTOURS
- EXISTING SEWER PIPE
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING UTILITY EASEMENT
- RIGHT OF WAY
- EXISTING THALWEG
- EXTENTS OF RIPARIAN PONDING

**NEW IMPROVEMENTS**

- TOP OF SLOPE
- TOE OF SLOPE
- DAYLIGHT TO EXISTING

**SYMBOL**

**SURVEY CONTROL**

**BASIS OF COORDINATES**

THE BASIS OF COORDINATES FOR THIS DRAWING IS A WELL MONUMENT IN THE CENTER OF SANTO ROAD APPROXIMATELY 386 FEET IN THE NORTH EASTERLY DIRECTION FROM THE INTERSECTION OF SANTO ROAD AND ANTIGUA BOULEVARD. THE COORDINATES ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (EPOCH 2015.25), CALIFORNIA COORDINATE SYSTEM, ZONE 6, US SURVEY FEET.  
N. 1884360.34 FT  
E. 6300309.32 FT

**BASIS OF BEARINGS**

THE BASIS OF BEARINGS FOR THIS DRAWING IS GEODETIC NORTH AS DERIVED FROM NETWORK RTK SMARTNET, LEICA GEOSYSTEMS. THE GRID BEARING MEASURED BETWEEN THE TWO WELL MONUMENTS IN SANTO ROAD, LOCATED APPROXIMATELY 386 FT AND 2,103 FT RESPECTIVELY IN THE NORTH EASTERLY DIRECTION FROM THE INTERSECTION OF SANTO ROAD AND ANTIGUA BOULEVARD IS:  
NORTH 28°16'04.43"EAST

**BASIS OF ELEVATIONS**

THE BASIS OF ELEVATIONS FOR THIS DRAWING IS FROM THE CITY OF SAN DIEGO VERTICAL CONTROL BENCHMARK, PAGE 561 OF 674, A BRASS PLUG LOCATED AT SOUTH-WEST CORNER OF CLAIRMONT MESA BOULEVARD AND SANTO ROAD. THE MEAN SEA LEVEL (MSL) IS BASED ON THE 1970 U.S.C.G.S. ADJUSTMENT OF THE SEA LEVEL DATUM OF 1929.  
ELEVATION = 353.33 FEET (MSL)

**90% SUBMITTAL**  
**NOT FOR CONSTRUCTION**

PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

**DUDEK**  
31878 CAMINO CAPISTRANO #200,  
SAN JUAN CAPISTRANO, CA 92675  
949.450.2525  
(NOT RELEASED FOR CONSTRUCTION)  
REGISTERED CIVIL ENGINEER      DATE

**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
210 N	1731 E
CONST. COMPL.	
FIELD REVISIONS	

**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**GENERAL REFERENCES**

SCALE: HOR. <u>NONE</u> VERT. <u>NONE</u>
W.A. _____ R.S. _____
<b>CIVIL PLAN</b>
SHEET <u>02</u> OF <u>09</u> SHEETS

**GENERAL NOTES**

- ALL WORK SHALL BE IN ACCORDANCE WITH THESE PLANS, PROJECT SPECIFICATIONS, SAN DIEGO STANDARD SPECIFICATIONS FOR DRAINAGE CHANNELS, SAN DIEGO STANDARD PLANS 2016, THE SAN DIEGO REGIONAL STANDARD DRAWINGS (SDRSD), 2009, THE SAN DIEGO REGIONAL SUPPLEMENT AMENDMENTS TO SSPWC, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) 2009. WHERE CONFLICTS ARISE, THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL.
- THE CONTRACTOR SHALL ENFORCE ALL SAFETY MEASURES. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTIES. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR SHALL REPLACE OR REPAIR IN KIND AND PER CURRENT STANDARD ALL PAVEMENT, SIDEWALKS, CURBS, DIKES, BERMS, GUARD RAILS, FENCING, SIGNAGE, DRIVEWAY, STRIPING, LANDSCAPE, IRRIGATION, MANHOLES AND PIPES DAMAGED DURING CONSTRUCTION.
- THE SEWER OPERATION SHALL NOT BE INTERRUPTED AT ANY TIME DURING CONSTRUCTION.
- THE CONTRACTOR SHALL KEEP MINIMUM 12 INCH VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES UNLESS OTHERWISE SHOWN ON PLANS.
- CONTRACTOR SHALL OBTAIN A PERMIT FOR ANY EXCAVATION WITHIN THE COUNTY RIGHT-OF-WAY.
- ANY DEVIATIONS FROM THE CONTRACT PLANS AND SPECIFICATIONS SHALL BE SUBMITTED AND APPROVED BY THE COUNTY IN WRITING PRIOR TO THE BEGINNING OF WORK.
- ENTRY TO COUNTY MANHOLES IS CONSIDERED CONFINED SPACE ENTRY AS DEFINED IN SECTION 5156, 5157 AND 5158 OF CALIFORNIA OSHA TITLE 8. IN ADVANCE OF SUCH ENTRY, A CONFINED SPACE ENTRY PLAN SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY THE COUNTY.
- CONTRACTOR SHALL AT ALL TIME KEEP THE WORKING AREAS FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THE WORK DURING CONSTRUCTION. DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND DISPOSED AT LEAST ONCE A WEEK.
- CONTRACTOR SHALL COMPLY WITH NOISE LIMITATION REQUIREMENTS OF EACH JURISDICTIONAL AGENCY.
- CONTRACTOR SHALL PREPARE AND SUBMIT THE ODOR CONTROL PLANS TO THE COUNTY FOR APPROVAL TO CONTROL ODORS DURING SEWER BY-PASS OPERATIONS.
- DETAILED RECORD DRAWINGS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION OF THE IMPROVEMENTS, AND SUBMITTED TO THE ENGINEER. FINAL LOCATION AND ELEVATION OF FLOW LINES, SILLS AND ENERGY DISSIPATORS SHALL BE SHOWN ON THE RECORD DRAWINGS.
- CONTRACTOR SHALL VERIFY THE ELEVATIONS OF ALL UTILITY CROSSINGS PRIOR TO EXCAVATION.
- SURVEY MONUMENTS SHALL BE PROTECTED AND PERPETUATED IN PLACE. DISTURBED OR COVERED MONUMENTS SHALL BE RESET BY A REGISTERED CIVIL ENGINEER OR A LICENSED LAND SURVEYOR.
- PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITEE SHALL ENTER INTO A MAINTENANCE AGREEMENT FOR THE ONGOING PERMANENT BMP MAINTENANCE, SATISFACTORY TO THE CITY ENGINEER.
- PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO

MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.

- PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITEE SHALL SUBMIT A WATER POLLUTION CONTROL PLAN (WPCP). THE WPCP SHALL BE PREPARED IN ACCORDANCE WITH THE GUIDELINES IN PART 2 CONSTRUCTION BMP STANDARDS CHAPTER 4 IF THE CITY'S STORM WATER STANDARDS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY NEEDED STAGING AREAS THROUGHOUT THE PROJECT. PRIOR TO CONTRACTOR USE OF ANY PUBLIC OR PRIVATE STAGING AREA, THE CONTRACTOR SHALL PROVIDE A PROJECT SUBMITTAL FOR COUNTY REVIEW, APPROVAL AND RECORD PURPOSES, THAT SHOWS LAND OWNER PROOF OF PERMISSION AND AGREEMENT FOR SUCH USE.

PROJECT NOTES

- ALL MATERIALS PRODUCED AS SPOIL IN THE CONSTRUCTION OF THIS PROJECT SHALL BECOME THE VESTED PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A LEGAL MANNER OFFSITE AT NO ADDITIONAL COST TO THE COUNTY.
- THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTIES FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY THE ENGINEER.
- CONTRACTOR SHALL COORDINATE WITH COUNTY FOR ALL WORK NEEDING MATERIALS TESTING, SUCH AS BUT NOT LIMITED TO: PORTLAND CEMENT CONCRETE.
- ANY WORK DONE WITHOUT INSPECTION AND MATERIALS TESTING IS SUBJECT TO REMOVAL OR CORRECTION AT CONTRACTOR'S EXPENSE.

NOTICE:

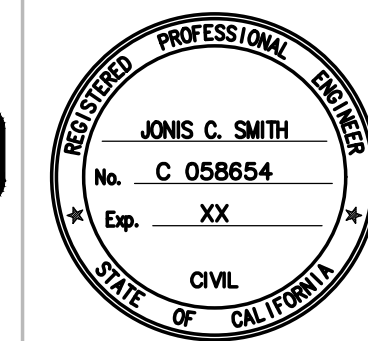
THE ISSUANCE OF THIS PERMIT/APPROVAL BY THE COUNTY OF SAN DIEGO DOES NOT AUTHORIZE THE APPLICANT FOR SAID PERMIT/APPROVAL TO VIOLATE ANY FEDERAL, STATE, OR COUNTY LAWS, ORDINANCES, REGULATIONS, OR POLICIES INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT AND ANY AMENDMENTS THERETO.

SAN DIEGO COUNTY-IMPROVEMENT PLAN GENERAL NOTES:

- A PERMIT SHALL BE OBTAINED FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS FOR ANY WORK WITHIN THE STREET RIGHT-OF-WAY.
- NOT USED
- APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
- NOT USED
- THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER WHICH IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.

FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES

**90% SUBMITTAL  
NOT FOR  
CONSTRUCTION**



PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

**DUDEK**  
31878 CAMINO CAPISTRANO #200,  
SAN JUAN CAPISTRANO, CA 92675  
949.450.2525  
(NOT RELEASED FOR CONSTRUCTION)  
REGISTERED CIVIL ENGINEER DATE

7. THE CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS/HER WORK WITH COMPANY REPRESENTATIVES. NOTICE: ALL ELECTRICAL AND GAS SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF ELECTRICAL CABLES AND GAS PIPING AND APPURTENANCES CONTACT THE SAN DIEGO GAS & ELECTRIC COMPANY. TEL: (\_\_\_\_) \_\_\_\_\_

8. THE CONTRACTOR SHALL NOTIFY THE AT&T TELEPHONE COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS/HER WORK WITH COMPANY REPRESENTATIVES. NOTICE: ALL TELEPHONE SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF CABLE AND APPURTENANCES CONTACT THE AT&T TELEPHONE COMPANY. TEL: (\_\_\_\_) \_\_\_\_\_

9. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS, AND BEAR THE COST OF RELOCATIONS, IF NEEDED.

10. ALL TELEVISION SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF CABLES AND APPURTENANCES CONTACT \_\_\_\_\_ COMPANY AT \_\_\_\_\_.

11. NOT USED

12. NOT USED

13. NOT USED

14. NOT USED

15. NOT USED

16. NOT USED

17. ALL CUT AND FILL SLOPES THREE FEET (3') HIGH CREATED BY GRADING FOR STREETS AND DRIVEWAYS SHALL BE HYDROSEEDED WITH SAN DIEGO COUNTY APPROVED HYDROSEED MIXTURE. HYDROSEEDED SLOPES SHALL BE IRRIGATED BY WATER TRUCK UNTIL THE MIXTURE GERMINATES AND 70% GROWTH IS ESTABLISHED.

18. NOT USED

19. NOT USED

20. STREET IMPROVEMENTS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE COUNTY OF SAN DIEGO SPECIAL PROVISIONS AND SPECIFICATIONS FOR THE IMPROVEMENT OF NEW STREETS.

BMP STENCIL PLACEMENT NOTES

A) NOT USED

B) SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING, MUST BE POSTED AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITHIN THE PROJECT AREA.

C) LEGIBILITY OF STENCILS, TILES AND SIGNS MUST BE MAINTAINED AND TILES MUST BE PLACED FLUSH WITH THE TOP OF CONCRETE TO REDUCE TRIPPING BY PEDESTRIANS.

**COUNTY OF SAN DIEGO  
DEPARTMENT OF PUBLIC WORKS  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295**



REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
210 N	1731 E
CONST. COMPL.	
FIELD REVISIONS	

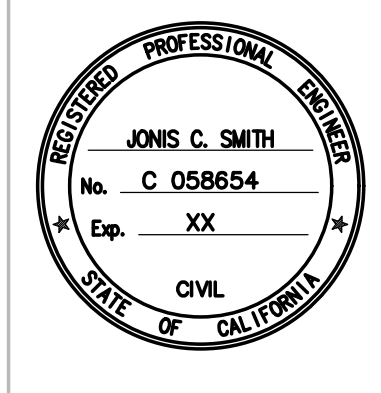
**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**CIVIL PLAN**

SCALE: HOR. <u>NONE</u> VERT. <u>NONE</u>
W.A. _____ R.S. _____
<b>CIVIL PLAN</b>
SHEET <u>03</u> OF <u>09</u> SHEETS

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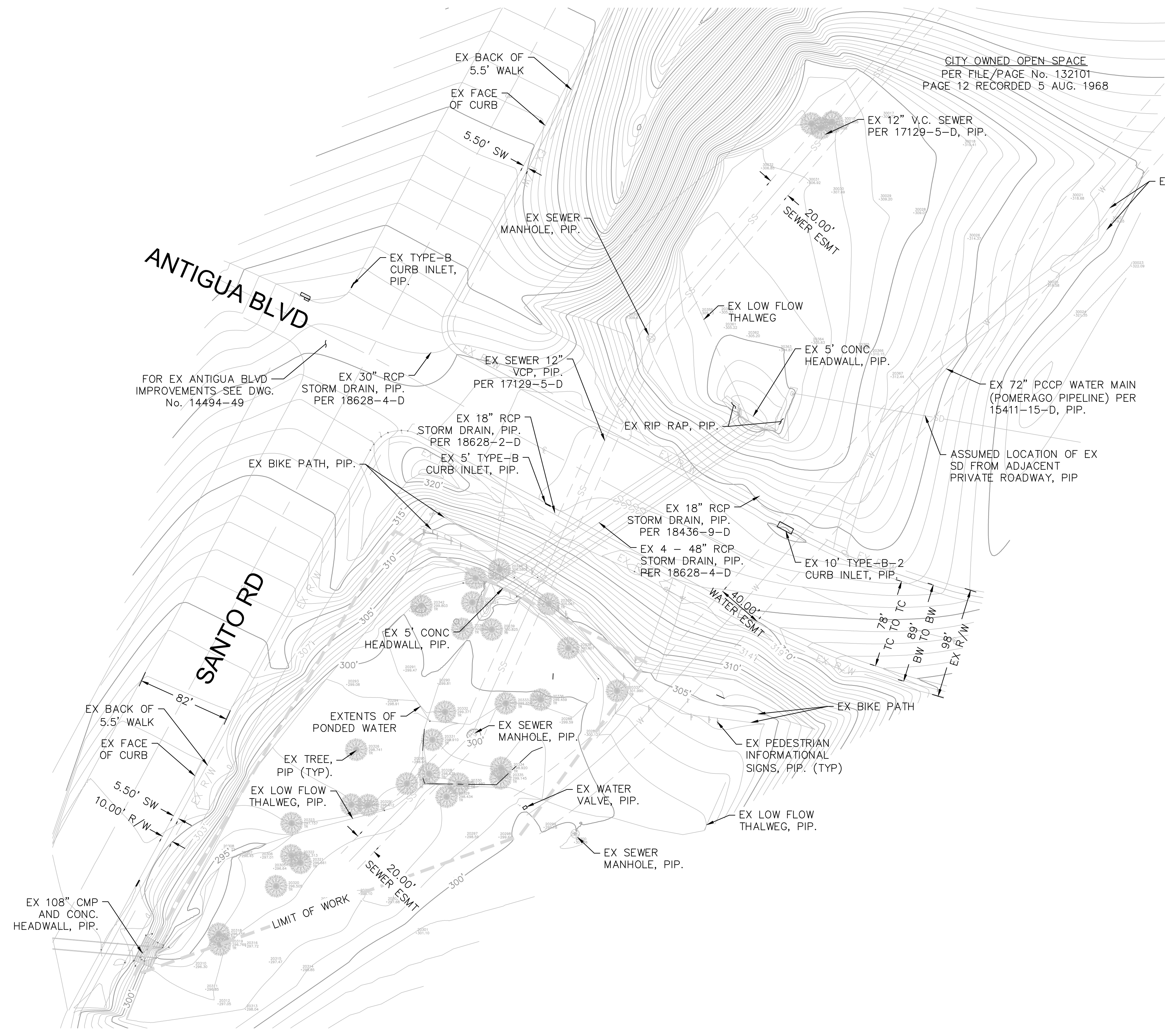
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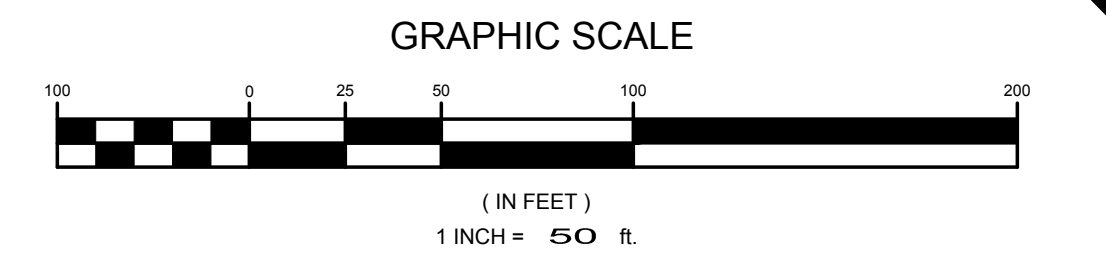
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DELINEATED		

**DUDEK**  
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**DEMOLITION NOTES**

1. CONTRACTOR TO DEWATER AS NECESSARY THE CONSTRUCTION AREA, PRIOR TO INSTALLING RIP RAP APRON.
2. CONTRACTOR SHALL PROTECT IN PLACE THE EXISTING HEADWALL STRUCTURE AND SHORE AS NECESSARY TO PREVENT SLOPE FAILURE, SLIDING OF THE STRUCTURE, AND DAMAGE TO THE HEADWALL STRUCTURE AND STORM DRAINS.
3. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND DEPTH OF EXISTING UTILITIES AND APPURTENANCES, PRIOR TO EXCAVATION OF EXISTING MATERIAL.
4. CONTRACTOR SHALL CLEAR AND GRUB WITHIN PROJECT LIMITS OF WORK ONLY AS NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS AND IN COMPLIANCE WITH PERMIT REQUIREMENTS.



**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
210 N	1731 E
CONST. COMPL.	
FIELD REVISIONS	

**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**EXISTING CONDITIONS AND DEMOLITION**

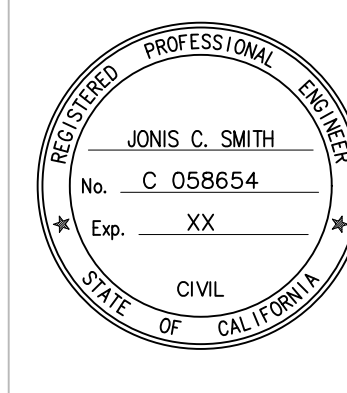
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W.A. _____ R.S. _____
<b>CIVIL PLAN</b>
SHEET <b>04</b> OF <b>09</b> SHEETS

P:\101\Engineering\HRS\9369 Antigua Blvd. Drainage\06-Design\CAD\Improvement Plans\004 - Existing Condition and Demolition.dwg Wednesday, Jan. 04 2017 5:11pm Jobrien

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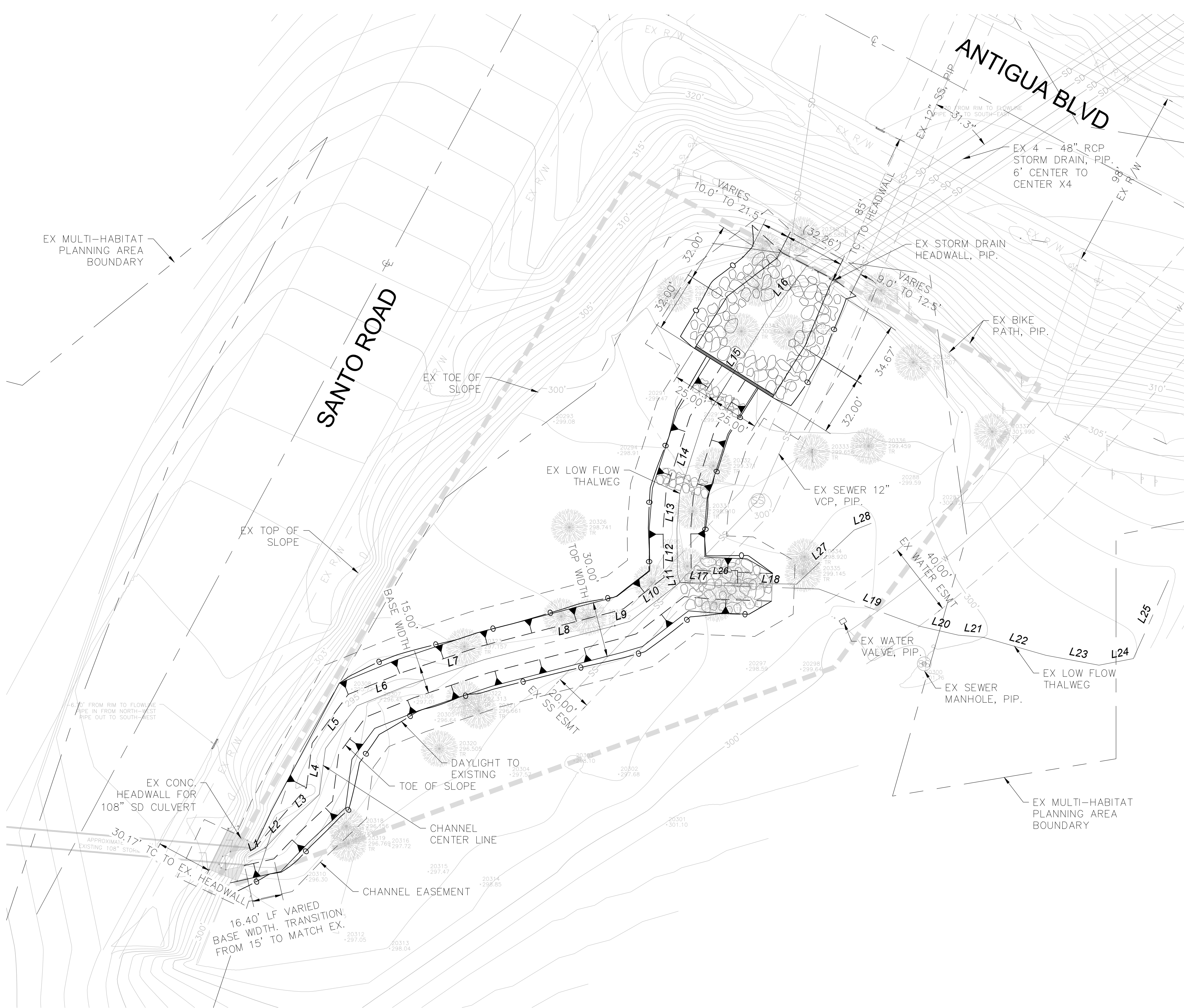
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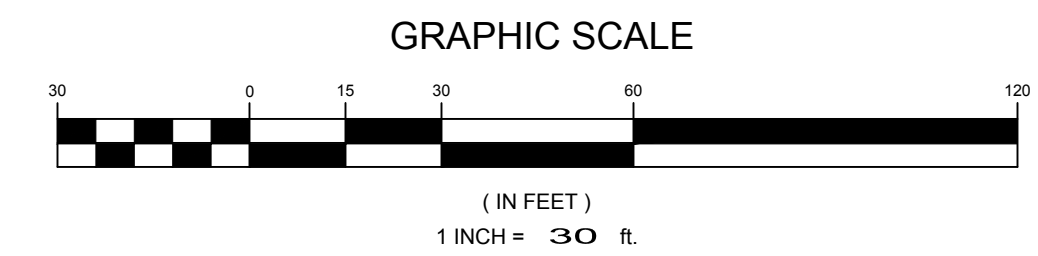
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REGISTERED CIVIL ENGINEER DATE



LINE TABLE: ALIGNMENTS

LINE #	LENGTH	DIRECTION	START POINT	END POINT
L1	10.20	N60° 37' 35.88"E	(6300031.02,1883659.98)	(6300039.90,1883664.98)
L2	18.70	N43° 49' 32.64"E	(6300039.90,1883664.98)	(6300052.85,1883678.47)
L3	22.59	N46° 46' 06.65"E	(6300052.85,1883678.47)	(6300069.31,1883693.94)
L4	25.10	N7° 24' 47.87"E	(6300069.31,1883693.94)	(6300072.55,1883718.83)
L5	28.90	N36° 24' 12.92"E	(6300072.55,1883718.83)	(6300089.70,1883742.09)
L6	30.13	N68° 01' 12.95"E	(6300089.70,1883742.09)	(6300117.64,1883753.37)
L7	43.58	N71° 31' 17.02"E	(6300117.64,1883753.37)	(6300158.97,1883767.18)
L8	73.02	N75° 27' 18.29"E	(6300158.97,1883767.18)	(6300229.66,1883785.52)
L9	8.50	N73° 44' 06.76"E	(6300229.66,1883785.52)	(6300237.82,1883787.90)
L10	34.51	N52° 15' 07.23"E	(6300237.82,1883787.90)	(6300265.10,1883809.02)
L11	5.27	N15° 51' 15.77"W	(6300265.10,1883809.02)	(6300263.66,1883814.10)
L12	24.14	N0° 41' 00.91"W	(6300263.66,1883814.10)	(6300263.37,1883838.24)
L13	19.15	N4° 36' 47.86"E	(6300263.37,1883838.24)	(6300264.91,1883857.32)
L14	40.57	N17° 49' 08.52"E	(6300264.91,1883857.32)	(6300277.32,1883895.94)
L15	66.74	N32° 04' 57.83"E	(6300277.32,1883895.94)	(6300312.78,1883952.49)
L16	35.02	N36° 37' 57.48"E	(6300312.78,1883952.49)	(6300333.67,1883980.59)
L17	18.70	S85° 14' 47.52"E	(6300265.10,1883809.02)	(6300283.74,1883807.47)
L18	56.72	S87° 56' 44.86"E	(6300283.74,1883807.47)	(6300340.42,1883805.44)
L19	58.50	S69° 45' 46.63"E	(6300340.42,1883805.44)	(6300395.31,1883785.20)
L20	21.45	S77° 04' 59.74"E	(6300395.31,1883785.20)	(6300416.22,1883780.41)
L21	13.42	S85° 12' 46.65"E	(6300416.22,1883780.41)	(6300429.60,1883779.29)
L22	35.45	S73° 57' 08.18"E	(6300429.60,1883779.29)	(6300463.67,1883769.49)
L23	29.34	S79° 24' 55.33"E	(6300463.67,1883769.49)	(6300492.51,1883764.10)
L24	19.00	N79° 07' 08.10"E	(6300492.51,1883764.10)	(6300511.17,1883767.68)
L25	46.63	N24° 08' 15.56"E	(6300511.17,1883767.68)	(6300530.24,1883810.24)
L26	63.22	S89° 10' 14.41"E	(6300265.10,1883809.02)	(6300328.31,1883808.11)
L27	42.90	N46° 50' 00.10"E	(6300328.31,1883808.11)	(6300359.60,1883837.46)
L28	9.99	N68° 23' 17.30"E	(6300359.60,1883837.46)	(6300368.89,1883841.14)



**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



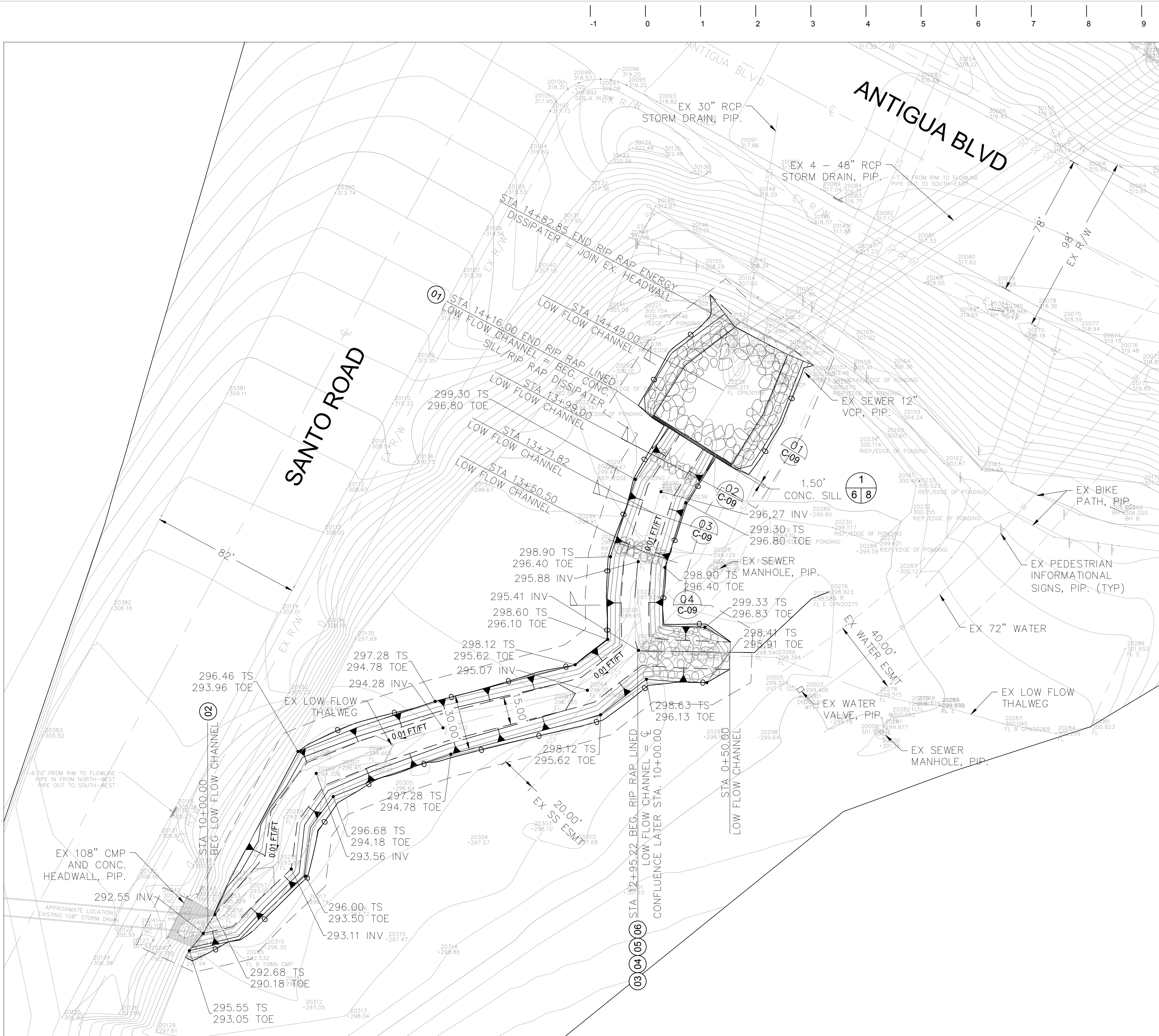
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	210	N	1731	E
CONST. COMPL.				
FIELD REVISIONS				

**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**HORIZONTAL CONTROL**

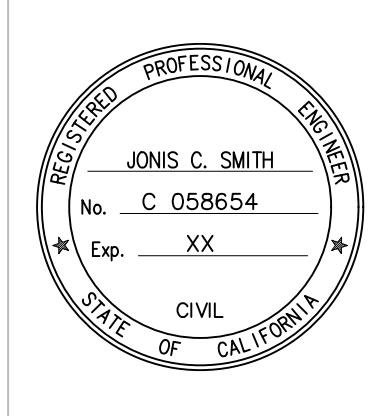
SCALE: HOR. 1"=30'	VERT. NONE
W.A. _____	R.S. _____
CIVIL PLAN	
SHEET 05 OF 09 SHEETS	

P:\101\Engineering\HRS\9369 Antigua Blvd. Drainage\06-Design\CAD\Improvement Plans\C05 - Horizontal Control - 9369-02.dwg Wednesday, Jan. 18 2017 12:27pm j.brien



FOR REDUCED PLANS  
10 ORIGINAL SCALE IS IN INCHES

**90% SUBMITTAL**  
**NOT FOR CONSTRUCTION**



PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

**DUDEK**  
31878 CAMINO CAPISTRANO #200,  
SAN JUAN CAPISTRANO, CA 92675  
949.450.2525  
(NOT RELEASED FOR CONSTRUCTION)  
REGISTERED CIVIL ENGINEER DATE

	CUT (CY)	FILL (CY)	NET (CY)	EXPORT* (CY)	CUT DEPTH (FT)	FILL DEPTH (FT)
TOTAL	-1456	31	-1425	-1639	4.6	1.2

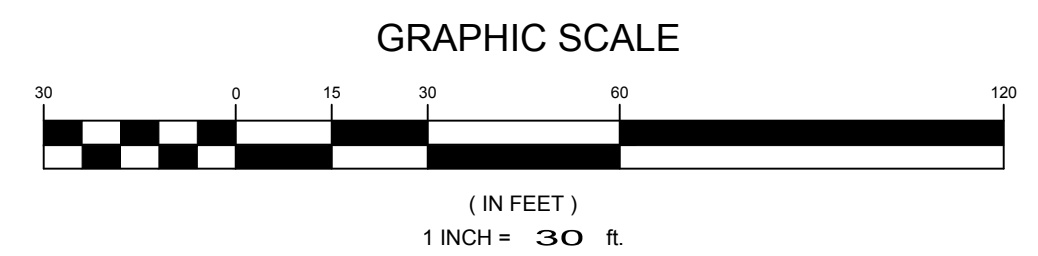
\*EXPORT QUANTITY EQUIVALENT TO NET QUANTITY PLUS 15% BULKING FACTOR.

**CONSTRUCTION NOTES**

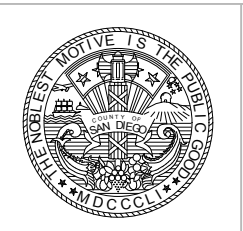
- 01 FURNISH AND INSTALL 1/2 TON, CLASS A GRADATION, RIP RAP ENERGY DISSIPATOR PER DETAIL 4, SHEET C-08.
- 02 INSTALL LOW FLOW CHANNEL PER DETAIL 4, SHEET C-09. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE, ENSURING NO PONDING ALONG FLOW PATH.
- 03 FURNISH AND INSTALL WILLOW STAKES PER DETAIL 2, SHEET C-08.
- 04 FURNISH AND INSTALL WILLOW STAKES IN RIP RAP PER DETAIL 3, SHEET C-08.
- 05 INSTALL 10' WIDE SECTION OF FULLY RIP RAP LINED LOW FLOW CHANNEL PER DETAIL 03, SHEET C-09.
- 06 INSTALL VEGETATED RIP RAP LOW FLOW CHANNEL PER DETAIL 02, SHEET C-09.

**NOTES**

DAYLIGHT TO EXISTING GRADE AT A MINIMUM SLOPE OF 3:1 (H:V).  
CONTRACTOR TO MAINTAIN EXISTING FLOW PATTERN AT ALL POINTS OF CONNECTION, ENSURING POSITIVE DRAINAGE AND NO PONDING OCCURS.  
CONTRACTOR TO FIELD VERIFY THE LOCATION AND DEPTH OF EXISTING 12" SANITARY SEWER LINE. MUST MAINTAIN 12" OF COVER OVER EXISTING PIPE, UNLESS APPROVED BY ENGINEER.



**COUNTY OF SAN DIEGO**  
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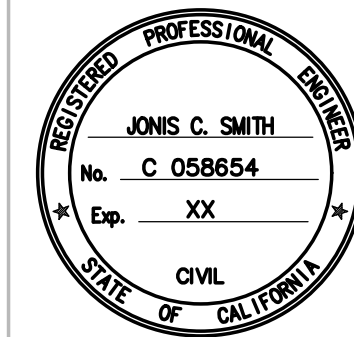
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	VECTOR HABITAT REMEDIATION	SCALE: HOR 1"=30' VERT. NONE
210 N, 1731 E	In the Vicinity of Antigua Blvd.	W.A. _____ R.S. _____
CONST. COMPL. _____	IMPROVEMENT PLAN - SOUTH	CIVIL PLAN
FIELD REVISIONS _____		SHEET 06 OF 09 SHEETS

-1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES

**90% SUBMITTAL**  
**NOT FOR**  
**CONSTRUCTION**

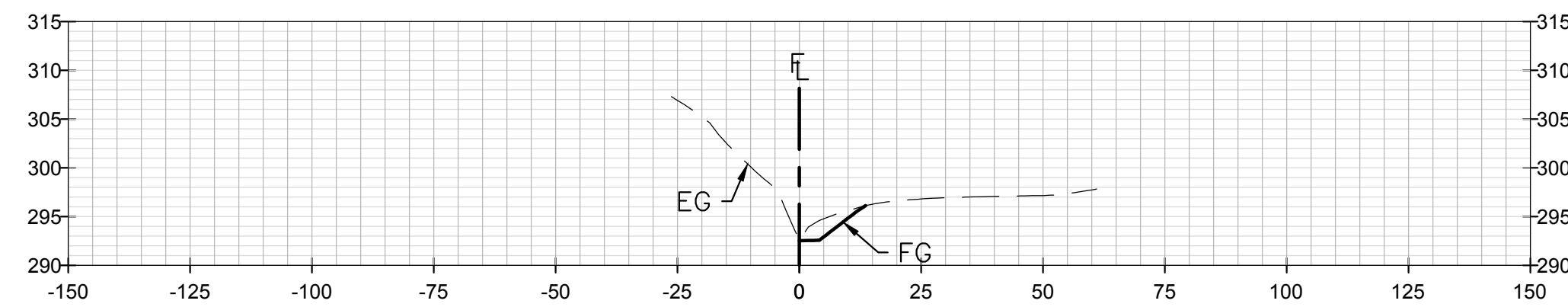


PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

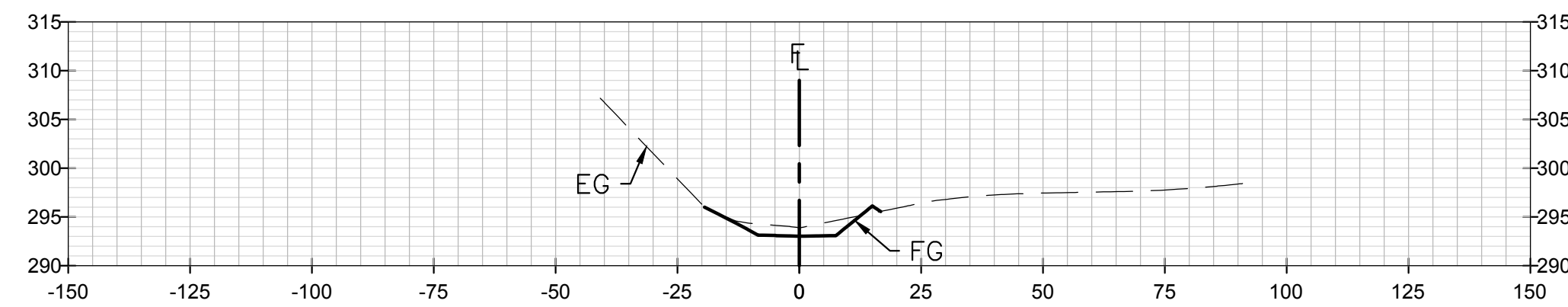
**DUDEK**

31878 CAMINO CAPISTRANO #200,  
SAN JUAN CAPISTRANO, CA 92675  
949.450.2525

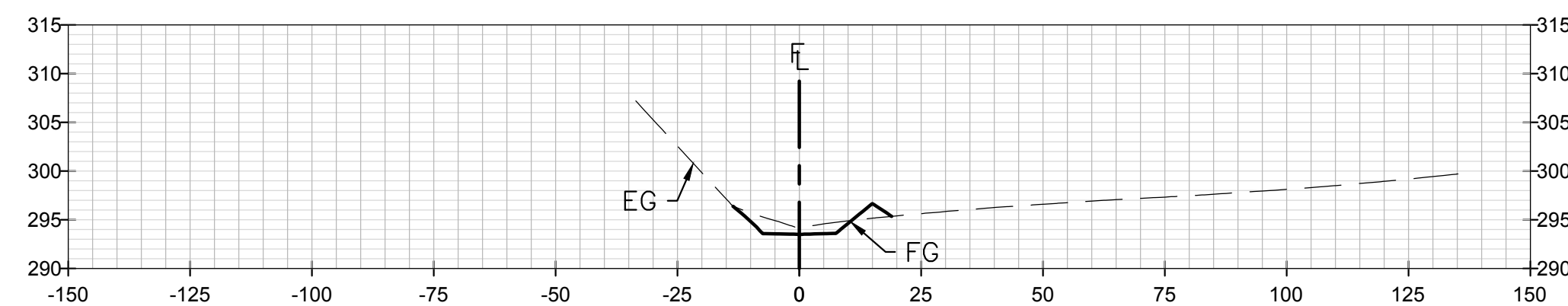
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REGISTERED CIVIL ENGINEER      DATE



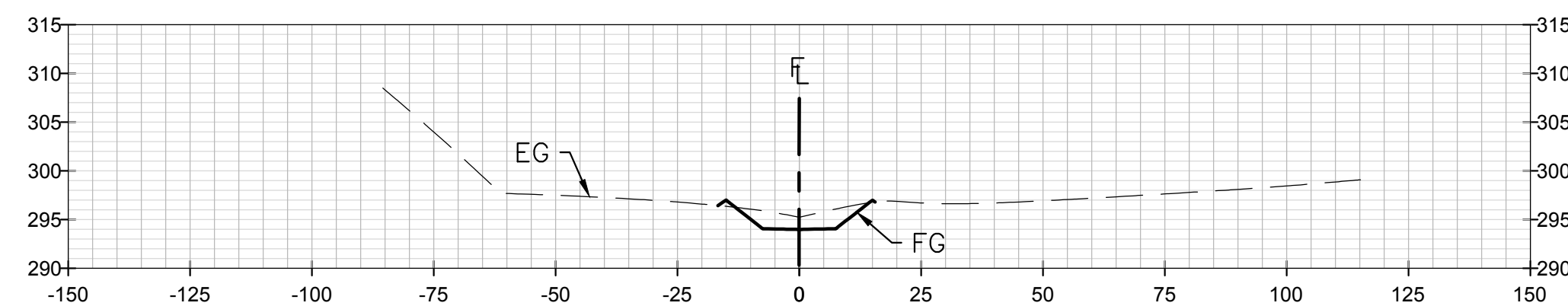
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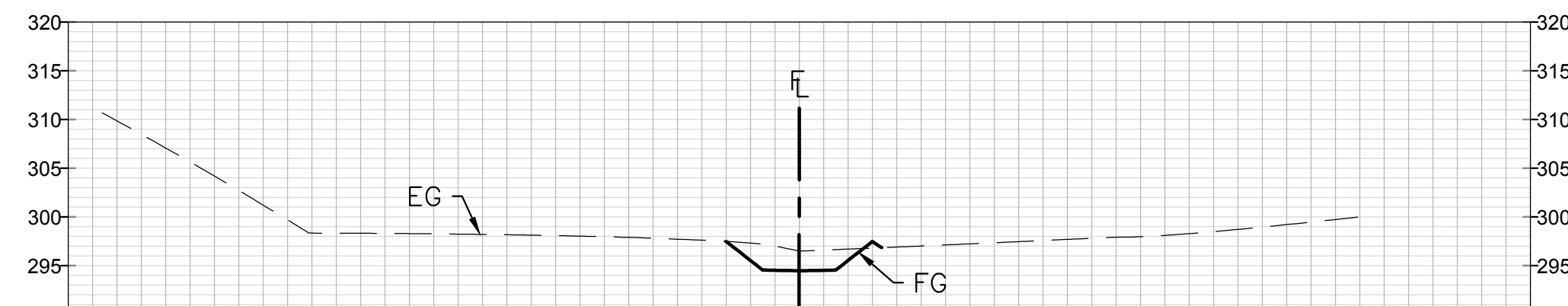
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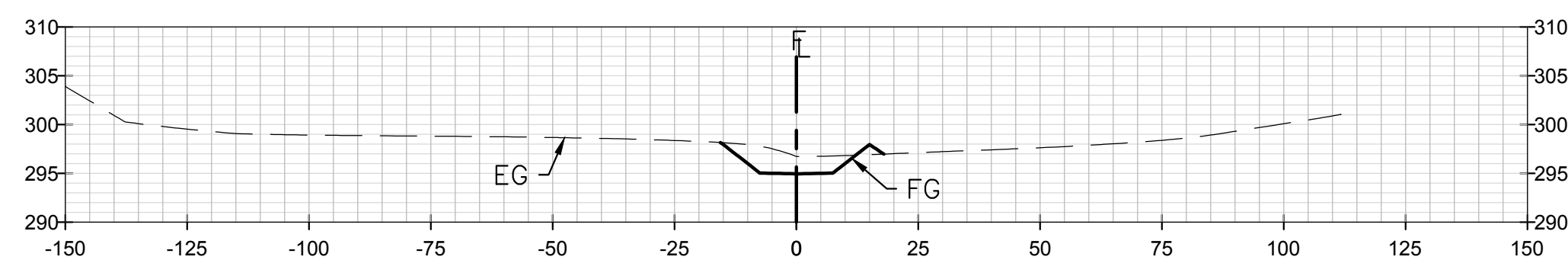
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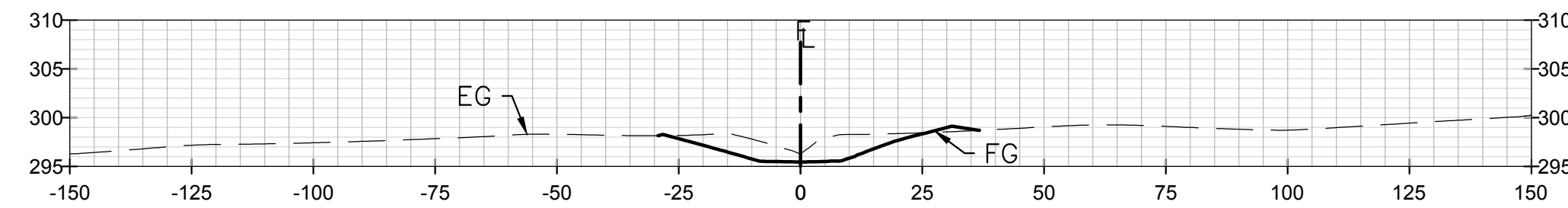
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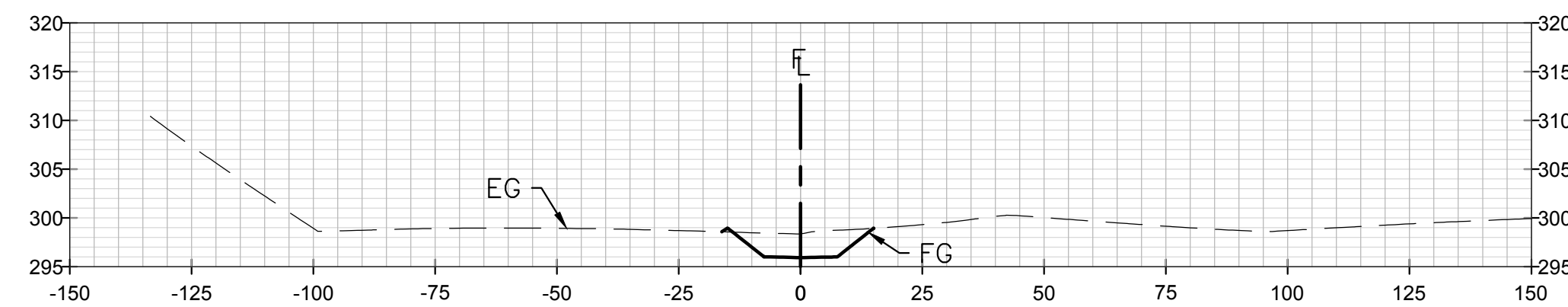
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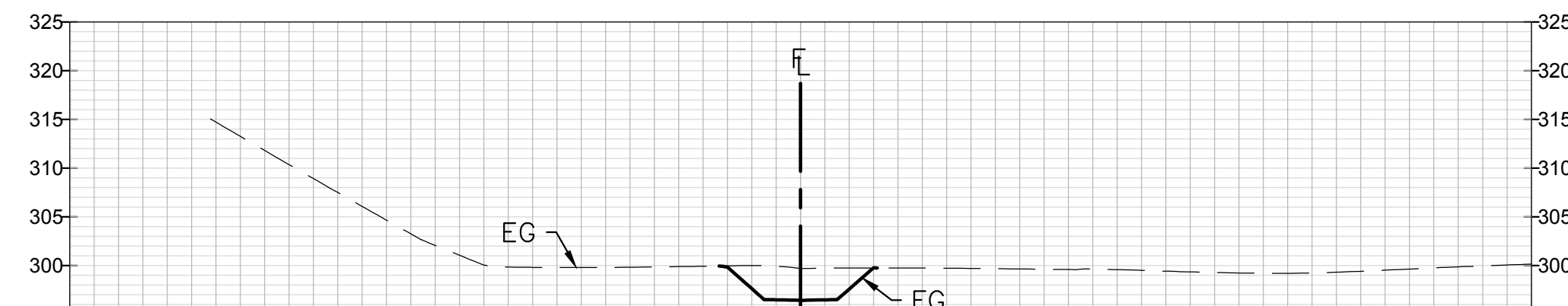
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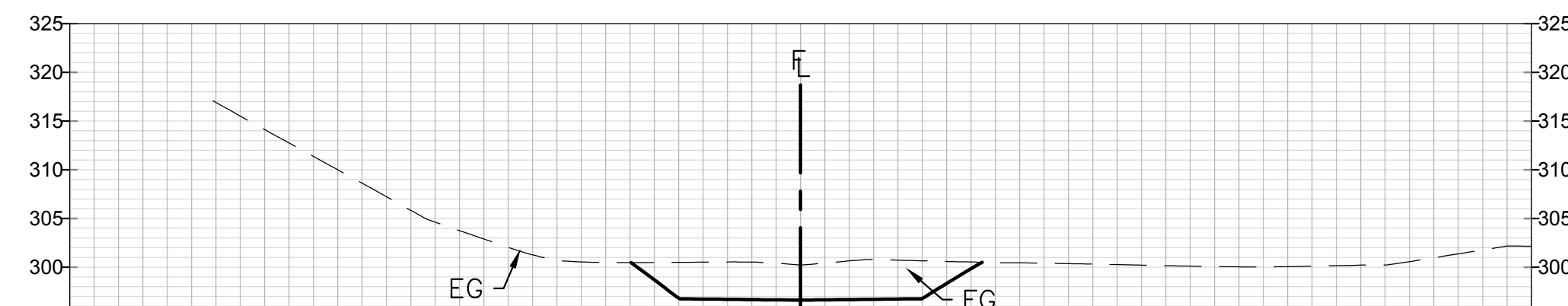
13+00



13+50



14+00



14+50



14+86

**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
210 N	1731 E
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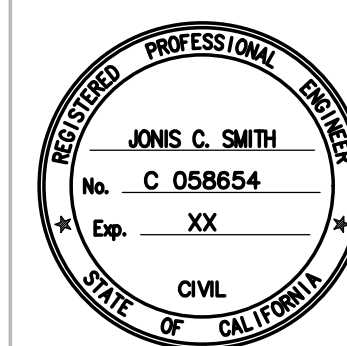
**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**TYPICAL SECTIONS**

SCALE: HOR. 1"=20'	VERT. 1"=5'
W.A. _____	R.S. _____
<b>CIVIL PLAN</b>	
SHEET 07 OF 09 SHEETS	

-1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

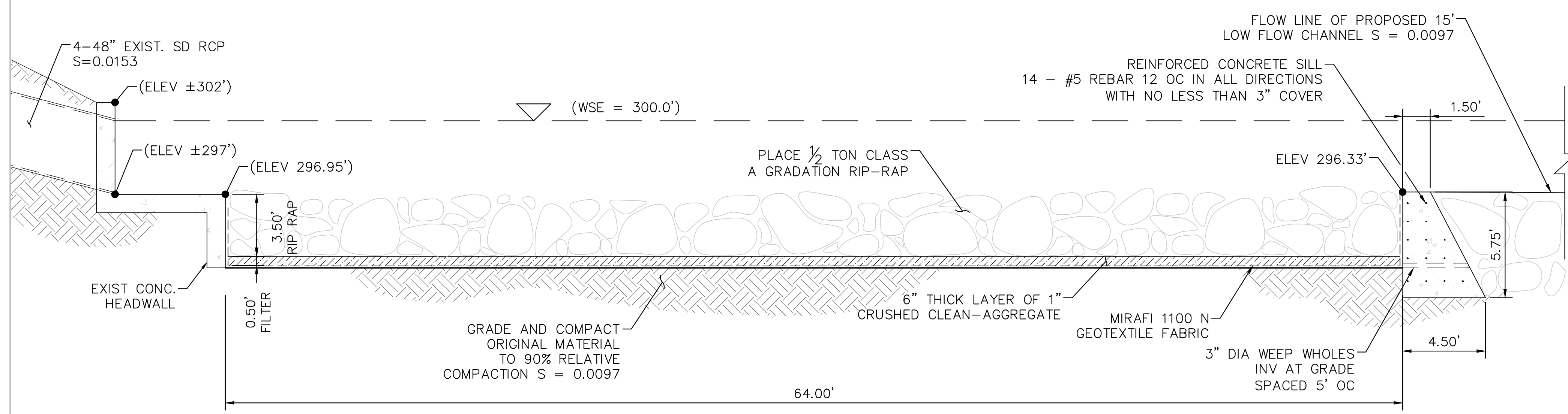
FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES

**90% SUBMITTAL**  
**NOT FOR CONSTRUCTION**

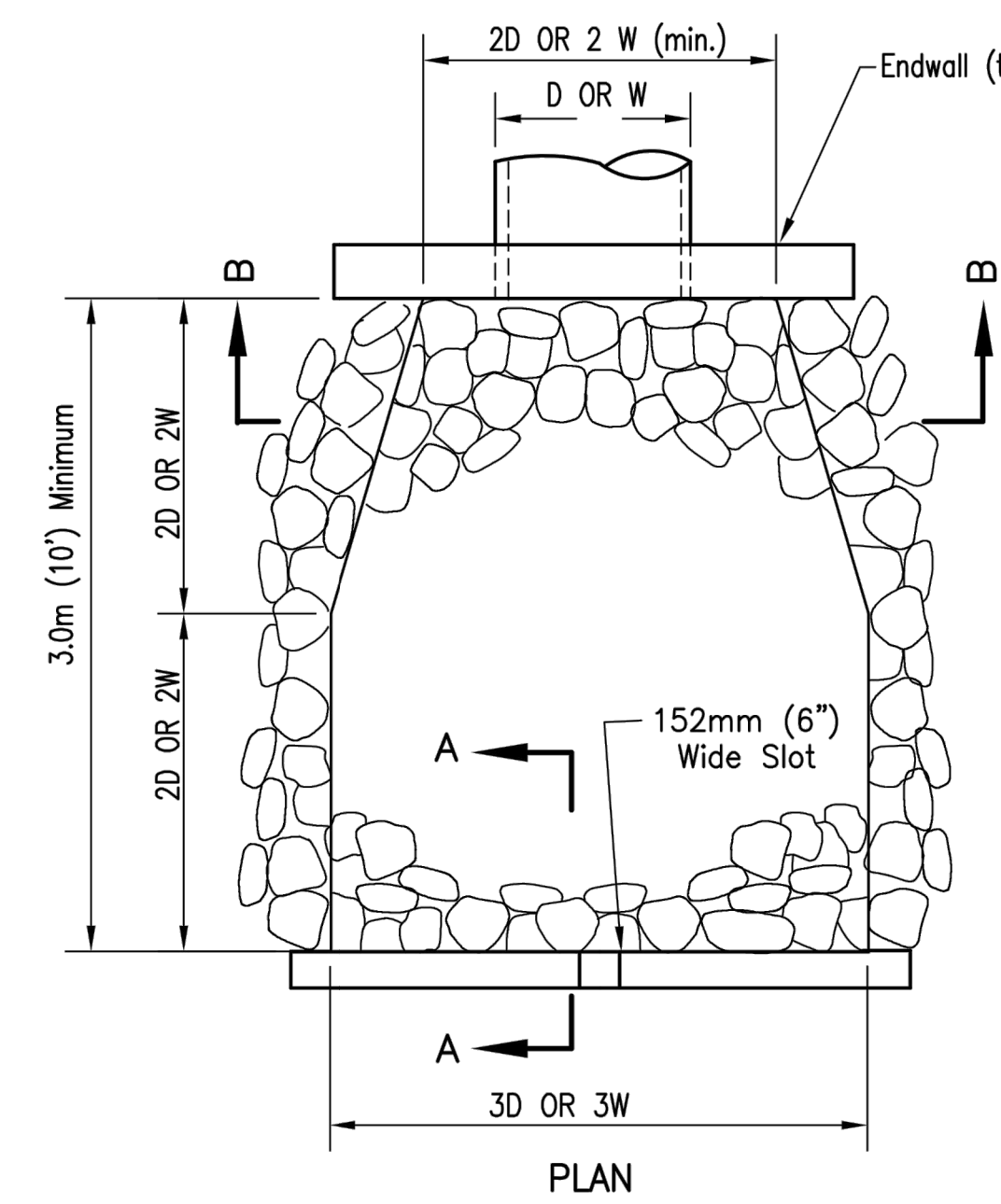


PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

**DUDEK**  
31878 CAMINO CAPISTRANO #200,  
SAN JUAN CAPISTRANO, CA 92675  
949.450.2525  
(NOT RELEASED FOR CONSTRUCTION)  
REGISTERED CIVIL ENGINEER DATE



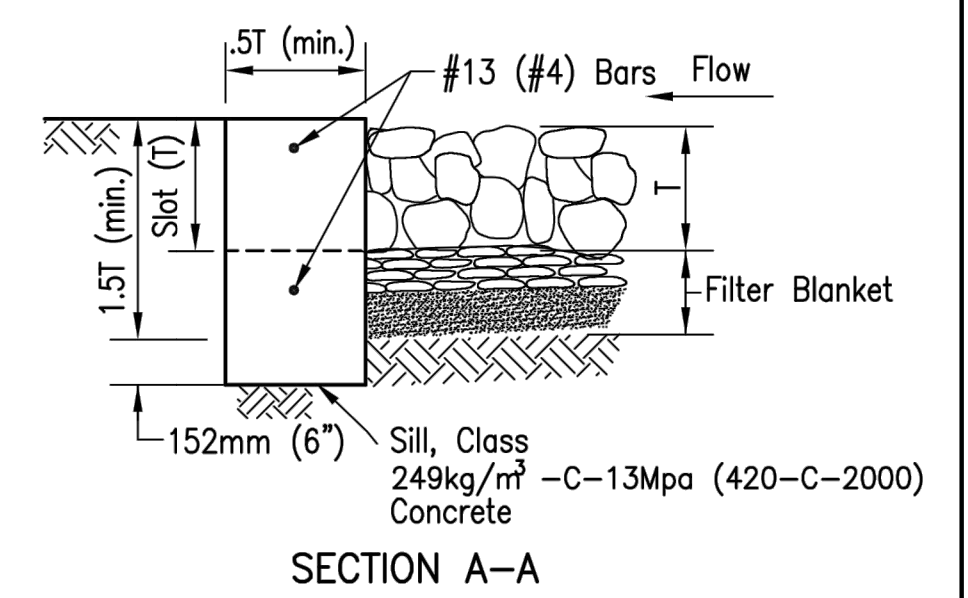
**DETAIL 1: RIP RAP ENERGY DISSIPATOR SECTION**  
NTS



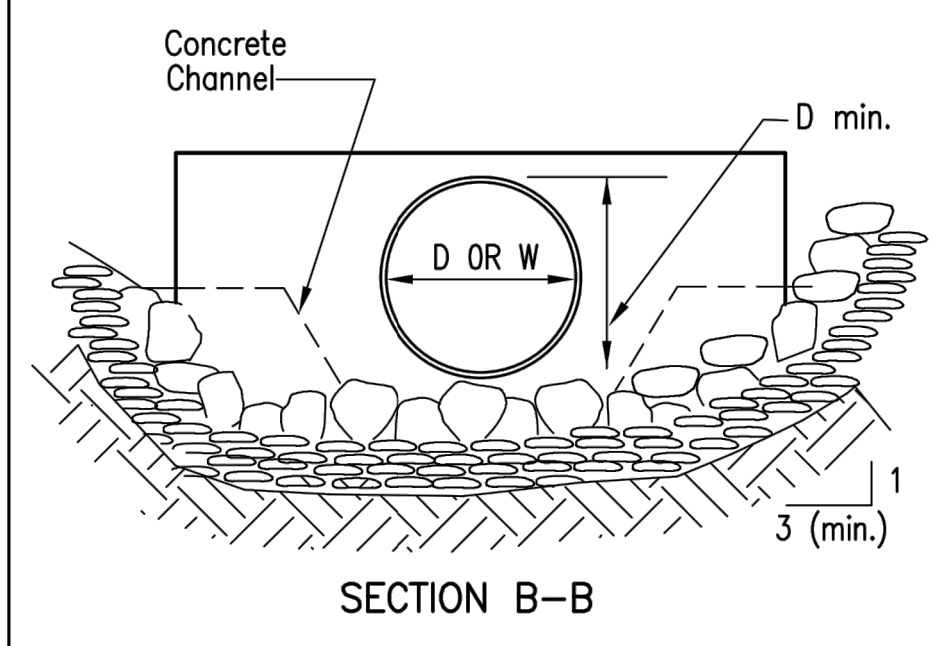
Design Velocity m/sec (ft/sec)*	Rock Classification	T (min)
1.8-3 (6-10)	No. 2 Backing	320mm (1.1ft)
3-3.7 (10-12)	220 kg (1/4 ton)	823mm (2.7ft)
3.7-4.3 (12-14)	450 kg (1/2 ton)	1.1m (3.5ft)
4.3-4.9 (14-16)	900 kg (1 ton)	1.3m (4.4ft)
4.9-5.5 (16-18)	1.8 tonne (2 ton)	1.6m (5.4ft)

\*over 5.5 mps (18 fps) requires special design

D = Pipe Diameter  
W = Bottom Width of Channel



- NOTES**
- Plans shall specify:  
A) Rock Class and thickness (T).  
B) Filter material, number of layers and thickness.
  - Rip rap shall be either quarry stone or broken concrete (if shown on the plans.) Cobbles are not acceptable.
  - Rip rap shall be placed over filter blanket which may be either granular material or filter fabric (woven filter silt film fabric shall not be used).
  - See Regional Supplement Amendments for selection of filter blanket.
  - Rip rap energy dissipators shall be designated as either Type 1 or Type 2. Type 1 shall be with concrete sill; type 2 shall be without sill.

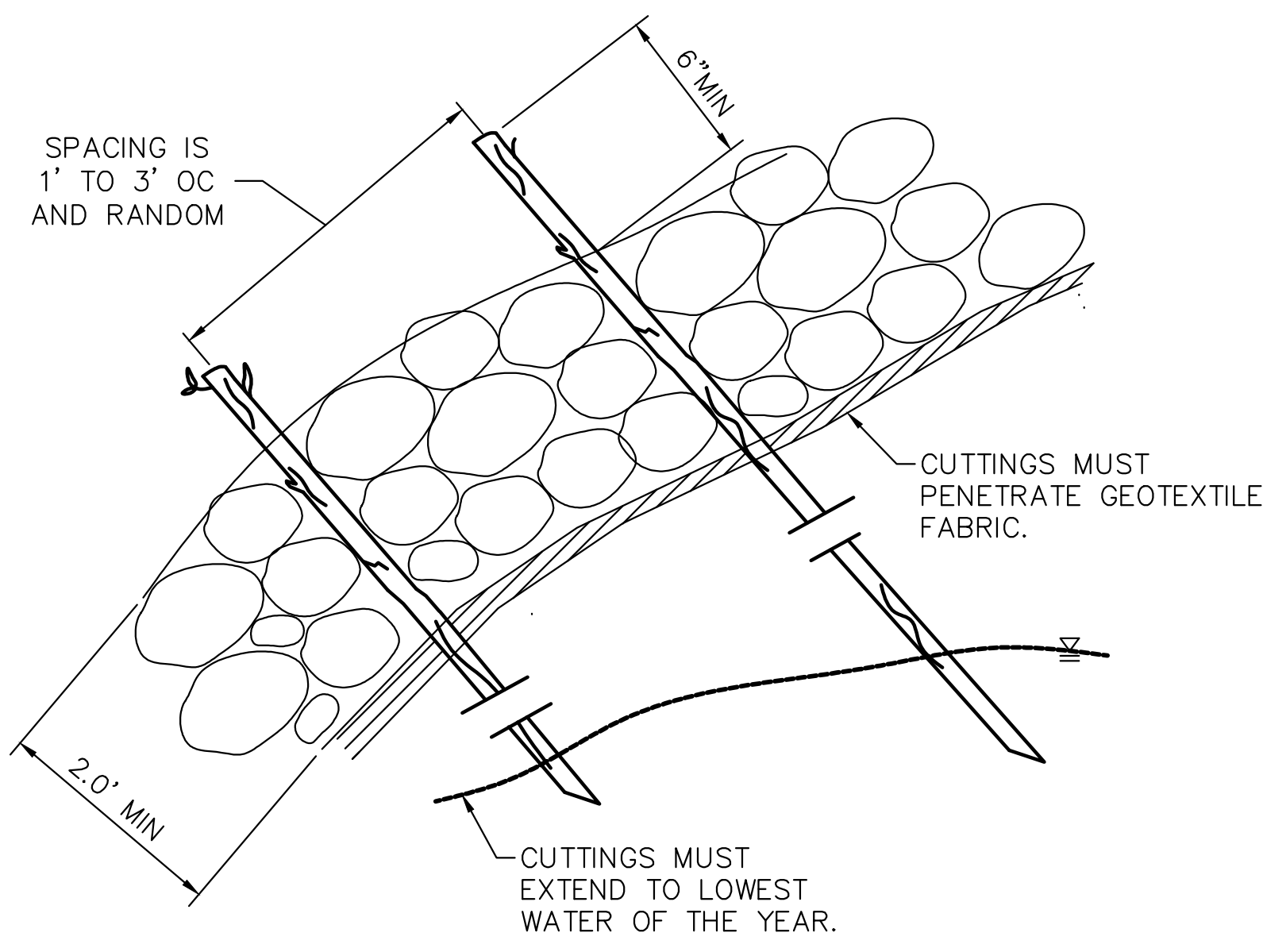


Revision	By	Approved	Date
ORIGINAL		Kercheval	12/75
Add Metric		T. Stanton	03/03
Add Rip Rap Title		S. Brady	04/06

**SAN DIEGO REGIONAL STANDARD DRAWING**  
**RIP RAP ENERGY DISSIPATOR**

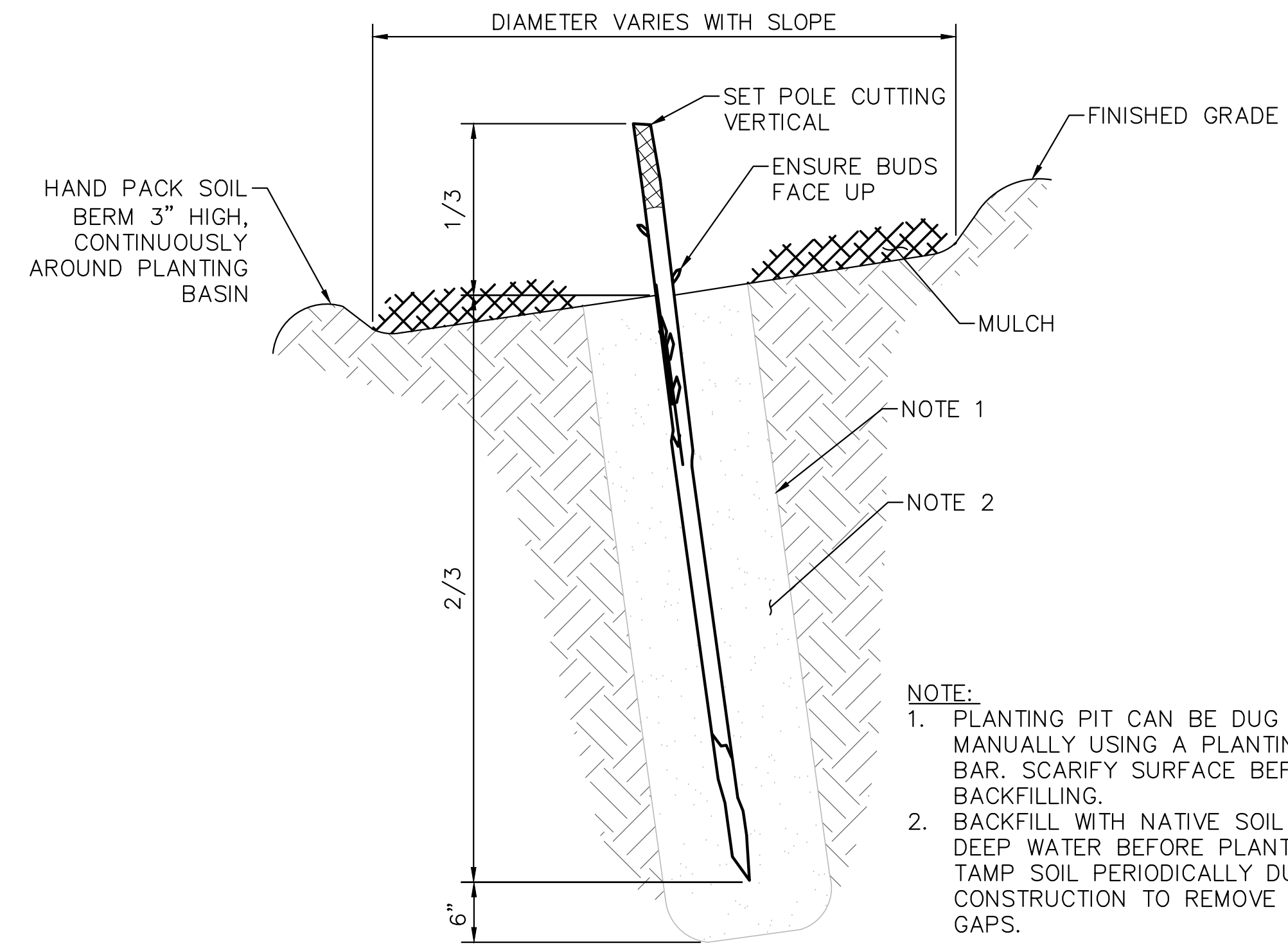
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
Chairperson R.C.E. 19246 Date
DRAWING NUMBER <b>D-40</b>

**DETAIL 4: RIP RAP ENERGY DISSIPATOR**  
NTS



**NOTE:**  
1. HORIZONTAL SPACING OF WILLOW STAKES SHALL VARY FROM 5' TO 10' OC RANDOMLY.

**DETAIL 2: LOW FLOW WILLOW STAKE IN RIP RAP**  
NTS



- NOTE:**
- PLANTING PIT CAN BE DUG MANUALLY USING A PLANTING BAR. SCARIFY SURFACE BEFORE BACKFILLING.
  - BACKFILL WITH NATIVE SOIL AND DEEP WATER BEFORE PLANTING. TAMP SOIL PERIODICALLY DURING CONSTRUCTION TO REMOVE AIR GAPS.

**DETAIL 3: LOW FLOW WILLOW STAKE IN GRADE**  
NTS

**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	210 N 1731 E
CONST. COMPL.	
FIELD REVISIONS	

**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**CIVIL DETAILS**

SCALE: HOR. <b>NONE</b> VERT. <b>NONE</b>
W.A. _____ R.S. _____
<b>CIVIL PLAN</b>
SHEET <b>08</b> OF <b>09</b> SHEETS

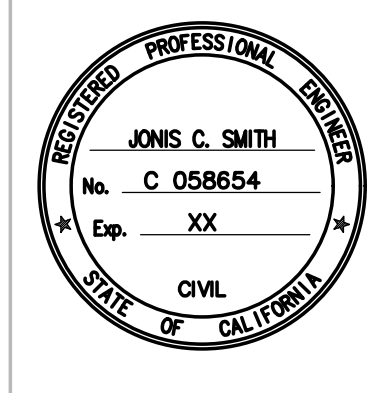
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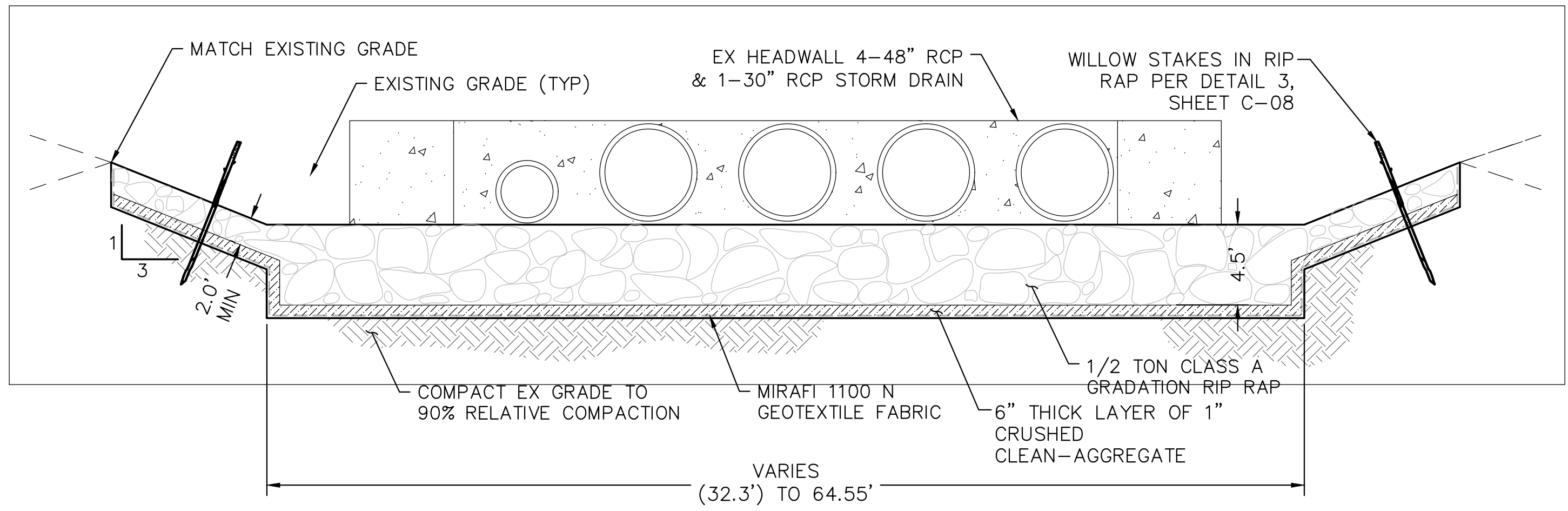
FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES

**90% SUBMITTAL**  
**NOT FOR CONSTRUCTION**

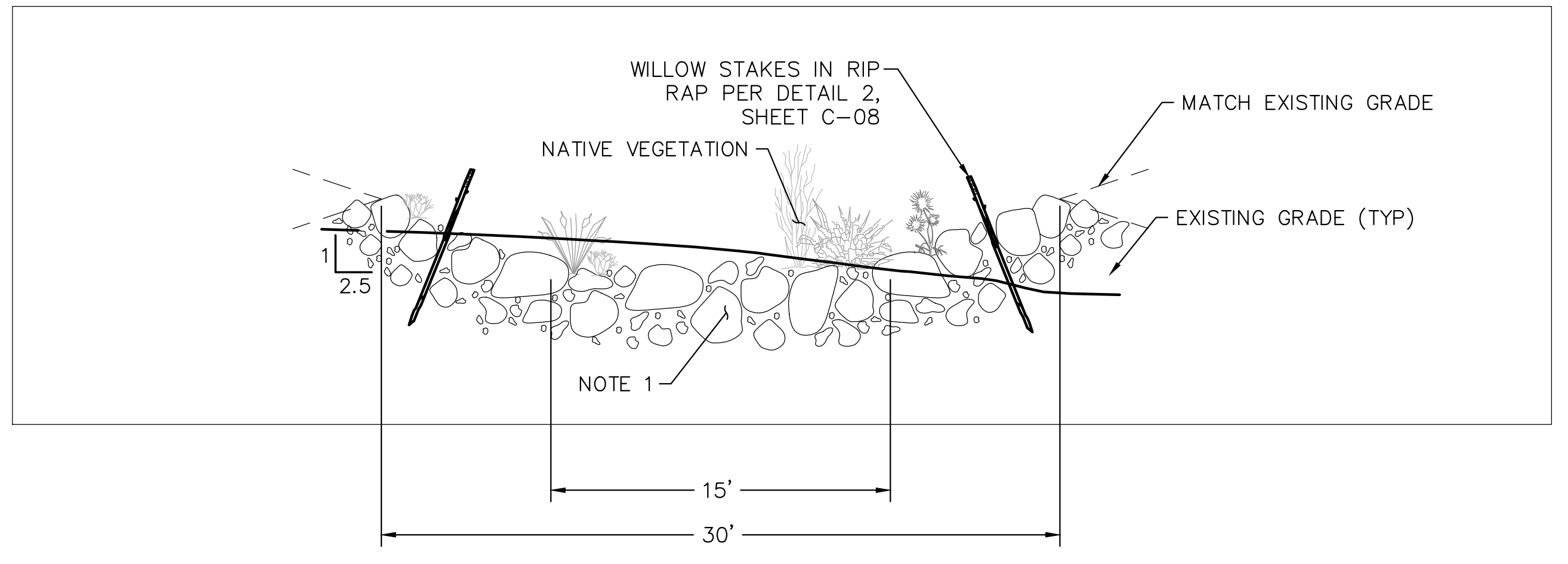


PLANS	BY	DATE
DESIGNED	B. BAIR	
CHECKED	J. SMITH, P.E.	
DELINEATED		

**DUDEK**  
31878 CAMINO CAPISTRANO #200,  
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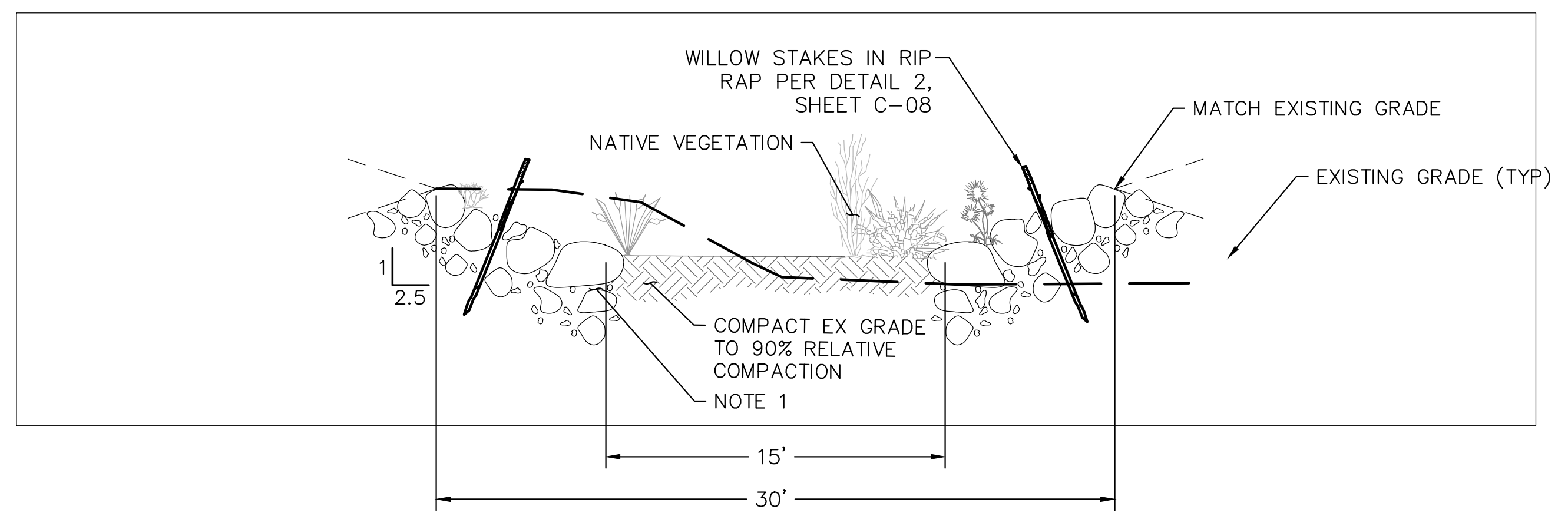


**01 ENERGY DISSIPATOR OUTFALL**  
NTS

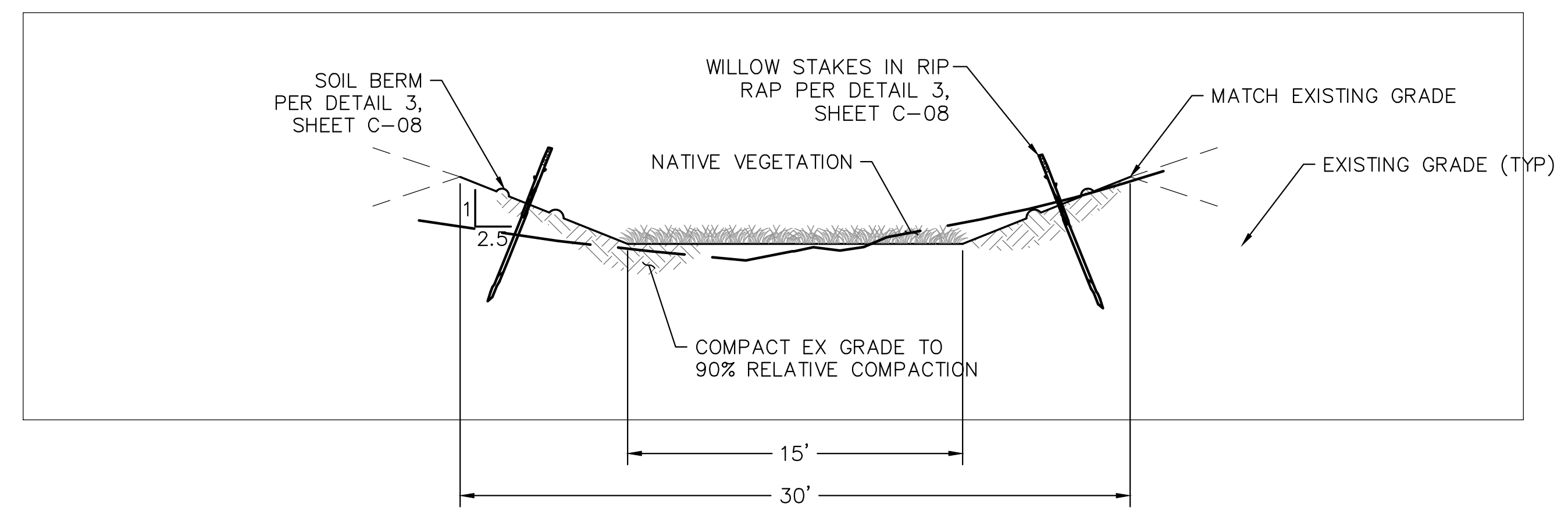


**02 TYPICAL LOW FLOW CHANNEL**  
NTS

NOTE 1: 1/2 TON CLASS A GRADATION RIP RAP WITH 0.75' THICKNESS AND 3' TOE DEPTH.

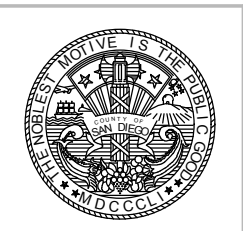


**03 TYPICAL LOW FLOW CHANNEL**  
NTS



**04 TYPICAL LOW FLOW CHANNEL**  
NTS

**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
210 N	1731 E
CONST. COMPL.	
FIELD REVISIONS	

**VECTOR HABITAT REMEDIATION**  
In the Vicinity of Antigua Blvd.  
**CIVIL PLAN**

SCALE: HOR. <u>NONE</u>	VERT. <u>NONE</u>
W.A. _____	R.S. _____
SHEET <b>09</b> OF <b>09</b> SHEETS	

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