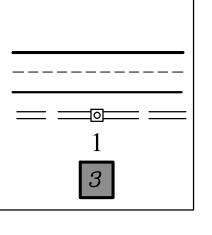
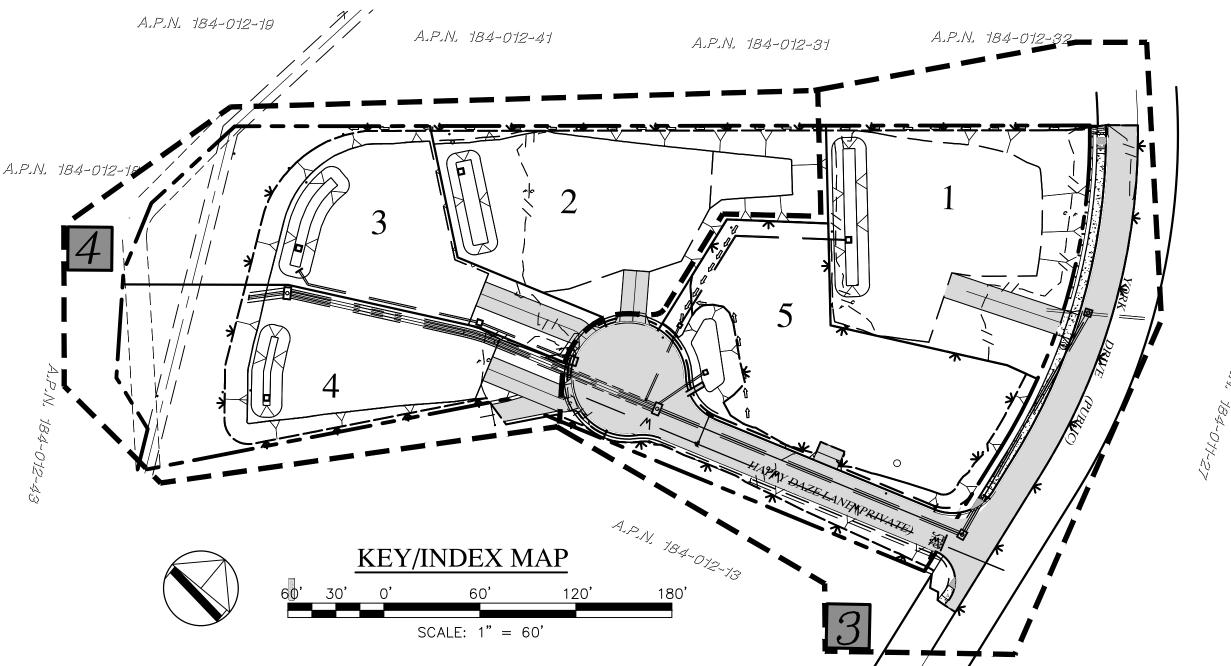


VICINITY MAP

**KEY MAP LEGEND:** SUBDIVISION BOUNDARY.. EXIST. PROPERTY LINE.. PROPERTY LINE.. STORM DRAIN ... LOT NUMBER..

SHEET NUMBER ...





SOILS ENGINEER STATEMENT:

THIS GRADING PLAN HAS BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AS OUTLINED IN OUR SOILS REPORT FOR THIS PROJECT. THE SOILS REPORT SHALL BE CONSIDERED AS A PART OF THIS PLAN, AND ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND RECOMMENDATIONS OF SAID REPORTS DATED: JANUARY 11, 2017, PREPARED BY VINJE & MIDDLETON ENGINEERING. INC.

VINJE & MIDDLETON ENGINEERING, INC. 2450 AUTO PARK WAY ESCONDIDO, CA 92029 760-743-1214

## DEFENSE OF LAWSUITS AND INDEMNITY

THE APPLICANT SHALL:

(1) DEFEND, INDEMNIFY AND HOLD HARMLESS THE COUNTY, ITS AGENTS, OFFICERS AND EMPLOYEES FROM ANY CLAIM. ACTION OR PROCEEDING AGAINST THE COUNTY. ITS AGENTS, OFFICERS AND EMPLOYEES TO ATTACK, SET ASIDE, VOID OR ANNUL THIS APPROVAL OR ANY OF THE PROCEEDINGS ACTS OR DETERMINATIONS TAKEN, DONE OR MADE PRIOR TO THIS APPROVAL: AND

(2) REIMBURSE THE COUNTY, ITS AGENTS, OFFICERS OR EMPLOYEES FOR ANY COURT COSTS AND ATTORNEY'S FEES WHICH THE COUNTY. ITS AGENTS OFFICERS OR EMPLOYEES MAY BE REQUIRED BY A COURT TO PAY AS A RESULT OF SUCH APPROVAL. AT ITS SOLE DISCRETION. THE COUNTY MAY PARTICIPATE AT ITS OWN EXPENSE IN THE DEFENSE OF ANY SUCH ACTION, BUT SUCH PARTICIPATION SHALL NOT RELIEVE THE APPLICANT OF ANY OBLIGATION IMPOSED BY THIS CONDITION. THE COUNTY SHALL NOTIFY THE APPLICANT PROMPTLY OF ANY CLAIM OR ACTION AND COOPERATE FULLY IN THE DEFENSE.

### SOLAR ACCESS CERTIFICATE

I DECLARE THAT THIS GRADING PLAN HAS PRESERVED A MINIMUM OF ONE HUNDRED SQ. FT. OF SOLAR ACCESS FOR EACH LOT CREATED BY THIS SUBDIVISION PURSUANT TO SECTION 81.401 (m) OF THE

SUBDIVISION ORDINANCE.		
RONALD L. HOLLOWAY R.C.E. 29271 EXP. 3/31/17		APPROVED BY: CITY ENGINEER DATE:
OWNER'S/PERMITTEE'S     UDT DATED NOVEMBER 15, 1974     GARY OTTO VAN EIK AND KAREN VAN EIK, TRUSTORS AS OWNERS     NAME:   GARY OTTO VAN EIK, TRUSTEE     ADDRESS:   841 QUAILS TRAIL     VISTA, CA 92081	UNDERGROUND SERVICE ALERT CALL TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG	LD16-018, DWG-4544 BSD AS-BUILTS REVIEWED BY: DATE: REVIEWED BY: DATE: SANITATION DATE:
	DECLARATION OF RES	SPONSIBLE CHARGE
TELEPHONE NO:   (858) 453–1331     SHORT LEGAL DESCRIPTION:   PORTIONS OF LOTS 18 AND 19 OF NEW GARDENS,     ACCORDING TO MAP NO. 2046, TOGETHER WITH A PORTION OF THE     WESTERLY HALF OF CLARENCE DRIVE AS SHOWN ON SAID MAP NO. 2046,     BEING IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA	I HEREBY DECLARE THAT I AM THE E PROJECT, THAT I HAVE EXERCISED RE DESIGN OF THE PROJECT AS DEFINED BUSINESS AND PROFESSIONS CODE, A WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF IFICATIONS BY THE COUNTY OF SAN I AND DOES NOT RELIEVE ME, AS ENGI RESPONSIBILITIES FOR PROJECT DESIG	SPONSIBLE CHARGE OVER THE IN SECTION 6703 OF THE AND THAT THE DESIGN IS CONSISTI PROJECT DRAWINGS AND SPEC- DIEGO IS CONFINED TO REVIEW ON NEER OF WORK, OF MY
APN NO: <u>184–012–12</u> SITE ADDRESS: <u>1505 YORK DRIVE, VISTA, CA</u>	BY:	
	RCE NO:29271	_EXPIRES: <u>3-31-17</u>

# STANDARD SPECIFICATIONS

- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2003) INCLUDING THE REGIONAL AND SAN DIEGO SUPPLEMENT AMENDMENTS
- 2. CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS(FHAWA'S MUTCD 2003 EDITION, AS AMENDED FOR USE IN CALIFORNIA).

# STANDARD DRAWINGS

1. COUNTY OF SAN DIEGO STANDARD DRAWINGS, SEPTEMBER 2012 EDITION 2. CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS.

3. REGIONAL STANDARD DRAWINGS.

# **IMPORTANT NOTICE**

SECTION 4216 14217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR DIGALERT I. D. NUMBER CALL UNDERGROUND SERVICE ALERT.

TOLL FREE: 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG.

# SHEET INDEX

STILLT II	
SHEET 1 SHEET 2	TITLE SHEET NOTES & SECTIONS
SHEET 3	GRADING PLAN
SHEET 4	GRADING PLAN
SHEET 5 -6	DRAINAGE MANAGEMENT AREA L
SHEET 7 SHEET 8	BMP NOTES PLAN & DETAILS EROSION CONTROL & CONSTRU
SHELI U	

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# **GRADING & EROSION CONTROL PLANS FOR:** 1505 YORK DRIVE COUNTY OF SAN DIEGO TRACT NO. 5443 RPL3

EXHIBIT, DETAILS & CALCS

UCTION BMPs

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

NOTICE: IN ORDER TO AVOID IMPACTS TO NESTING MIGRATORY BIRDS AND RAPTORS. WHICH ARE A SENSITIVE BIOLOGICAL RESOURCE PURSUANT TO CEQA. THE MBTA AND FISH AND WILDLIFE CODE. BREEDING SEASON AVOIDANCE SHALL BE IMPLEMENTED ON ALL PLANS. THERE SHALL BE NO BRUSHING, CLEARING AND/OR GRADING SUCH THAT NONE WILL BE ALLOWED DURING THE BREEDING SEASON OF MIGRATORY BIRDS OR RAPTORS, BETWEEN JANUARY 15 AND AUGUST 31. THE DIRECTOR OF PDS MAY WAIVE THIS CONDITION, THROUGH WRITTEN CONCURRENCE FROM THE US FISH AND WILDLIFE SERVICE AND THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, PROVIDED THAT NO NESTING OR BREEDING BIRDS ARE PRESENT WITHIN 300 FEET OF THE BRUSHING, CLEARING OR GRADING (500 FEET FOR RAPTORS) BASED ON A SURVEY CONDUCTED BY A COUNTY-APPRVOED BIOLOGICAL CONSULTANT WITHIN SEVEN DAYS PRIOR TO THE PROPOSED START OF CLEARING/GRADING. IF NESTING BIRDS ARE PRESENT IN THE VICINITY, PRIOR TO GRANTING PERMISSION PDS AND THE WILDLIFE AGENCIES MAY REQUIRE AVOIDANCE MEASURES SUCH AS. BUT NOT LIMITED TO. STAKING AND POSTING AN AREA 300 FEET FROM THE NEST TO PROHIBIT ALL CLEARING, GRUBBING AND CONSTRUCTION WORK WITHIN THE PERIMETER UNTIL THE QUALIFIED BIOLOGIST DETERMINES THAT THE NESTS ARE NO LONGER OCCUPIED WITH WRITTEN NOTIFICATION TO THE APPROVAL OF THE DIRECTOR OF PDS.

#### DISTURBED AREA CALCULATIONS 47,316 PADS SF

= =	•	
SLOPESi	21,537	SF
DRIVEWAYS	525	SF
STREETS	15,254	SF
TOTAL	84,632	SF

RONALD L HOLLOWAY

NO. 29271

#### SOURCE OF TOPOGRAPHY:

PREPARED BY TOWILL, INC. 5933 SEA LION PLACE, STE. 100 CARLSBAD, CA 92008 DATED 11/5/2004

HYDROLOGY/HYDRAULIC REPORT: HYDROLOGY AND HYDRAULIC REPORT, BY: BHA. INC.

#### **OWNER'S CERTIFICATION:**

IT IS FURTHER AGREED THAT THE OWNER SHALL HAVE A REGISTERED CIVIL ENGINEER MAKE SUCH CHANGES. ALTERATIONS OR ADDITIONS TO THESE PLANS WHICH THE DIRECTOR OF PUBLIC WORKS DETERMINES ARE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETION OF THE IMPROVEMENTS.

I FURTHER AGREE TO COMMENCE WORK ON ANY IMPROVEMENTS SHOWN ON THESE PLANS WITHIN EXISTING COUNTY RIGHT-OF-WAY WITHIN 60 DAYS AFTER ISSUANCE OF THE CONSTRUCTION PERMIT AND TO PURSUE SUCH WORK ACTIVELY ON EVERY NORMAL WORKING DAY UNTIL COMPLETED, IRRESPECTIVE AND INDEPENDENT OF ANY OTHER WORK ASSOCIATED WITH THIS PROJECT OR UNDER MY CONTROL.

NAME UDT DATED NOVEMBER 15, 1974 GARY OTTO VAN EIK AND KAREN VAN EIK. TRUSTORS AS OWNERS

ADDRESS 841 QUAILS TRAIL VISTA, CA 92081

GARY OTTO VAN EIK, AS TRUSTEE

### WORK TO BE DONE

GRADING AND DRAINAGE WORK CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS, THE CURRENT SAN DIEGO AREA REGIONAL STANDARD DRAWINGS, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2003 EDITION AND PER THE SAN DIEGO COUNTY GRADING ORDINANCE.

DWG.NO.

QTY.

|--|

PROJECT BOUNDARY		
EXISTING EDGE OF PAVEMENT		
EXISTING CONTOURS		
FINISH CONTOURS		
FLOW LINE ELEVATION		
FINISH GRADE ELEVATION		
CUT SLOPE (1.5:1 MAXIMUM)		
FILL SLOPE (2:1 MAXIMUM)		
DAYLIGHT LINE (LIMITS OF GRADING)		
EARTHEN SWALE		
FLOW DIRECTION		
AC PAVEMENT		
CUT/FILL LINE		
STORM DRAIN PIPES (SIZE & TYPE NOTED)	SEE TM 5443	
<i>TYPE F CATCH BASIN 36"X36" CATCH BASIN</i>		4
TYPE A CLEANOUT	SEE TM 5443	·
TYPE B CURB INLET	SEE TM 5443	
TERRACE BROW DITCH	D-75*	
DRIVEWAY	DS-7*	
BIOFILTRATION RIP RAP (3'x5'x1.1' NO. 2 B	ACKING)	
RIP RAP ENERGY DISSIPATOR AND HEADWALL PER PLAN	D—40* D—30 D—36	3 2 1

\* PER SEPT. 2012 SAN DIEGO REGIONAL STANDARD DRAWINGS

<u>NOTE:</u> CONTRACTOR TO VERIFY THE LOCATION OF ALL land planning, civil engineering, surveying EXISTING FACILITIES PRIOR TO CONSTRUCTION AND PROTECT ALL FACILITIES DURING CONSTRUCTION.

CARLSBAD, CA. 92008-4387 DATE: \_\_\_\_\_ (760) 931-8700 **VISTA IRRIGATION DISTRICT. COUNTY OF SAN DIEGO COUNTY APPROVED CHANGES PDS ENVIRONMENTAL** THE REVIEW GIVEN HERE IS FOR THE GRADING LAYOUT AND APPROVED DATE IS NOT FOR THE CONSTRUCTION OF ANY WATER FACILITIES NO. DESCRIPTION: APPROVED FOR COMPLIANCE WITH THE THAT MAY BE SHOWN HEREON NOR DOES IT IMPLY THAT ENVIRONMENTAL REVIEW. WATER SERVICE WILL BE PROVIDED. CONSISTEN APPROVED: DISTRICT ENGINEER RCE DATE DATE: \_\_\_\_\_ APPROVAL VALID FOR (2) YEARS FROM DATE. /IEW ONLY **VISTA FIRE BUENA SANITATION DEPARTMENT PROTECTION DISTRICT** SEWER BASIN NO. OV1(69-70)(FOR SEWER IMPROVEMENTS SEE DWG-4501) APPROVED: \_ DATE APPROVED DATE:

**DHA**, Inc.

5115 AVENIDA ENCINAS

SUITE "L"

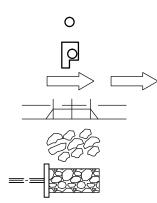
IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS.

DATE

SYMBOL

100 600.0 FL
100 600.0 FL
FG
<u>k</u> kk
3.0%

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PDS

WDID NO.

LANDSCAPE NO.

TENTATIVE MAP NO.

ELEVATION: <u>445.398</u>

- **GENERAL NOTES**
- 1. APPROVAL OF THIS GRADING PLAN DOES NOT CONSTITUTE APPROVAL OF VERTICAL OR HORIZONTAL ALIGNMENT OF ANY PRIVATE ROAD SHOWN HEREON FOR COUNTY ROAD PURPOSES. 2. FINAL APPROVAL OF THESE GRADING PLANS SUBJECT TO FINAL APPROVAL OF THE ASSOCIATED IMPROVEMENT PLANS WHERE APPLICABLE. FINAL CURB ELEVATIONS MAY REQUIRE CHANGES IN THESE PLANS. 3. IMPORT MATERIAL SHALL BE OBTAINED FROM A LEGAL SITE. 4. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE COUNTY RIGHT-OF-WAY. 5. ALL SLOPES OVER THREE FEET IN HEIGHT WILL BE PLANTED IN ACCORDANCE WITH SAN DIEGO COUNTY SPECIFICATIONS. 6. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO THE FOLLOWING AGENCIES: SAN DIEGO GAS & ELECTRIC: TELEPHONE NO. 1-800-422-4133 TELEPHONE NO: 1-800-422-4133 PACIFIC TELEPHONE: TELEPHONE NO: 1-800-422-4133 CATV: TELEPHONE NO: 1-760-726-1340 SEWER: TELEPHONE NO: 1-800-422-4133 WATER: 7. A SOILS REPORT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. 8. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PUBLIC WORKS DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND VALID GRADING PERMIT HAS BEEN ISSUED. 9. THE DIRECTOR OF PUBLIC WORKS' APPROVAL OF THESE PLANS DOES NOT CONSTITUTE COUNTY BUILDING OFFICIAL APPROVAL OF ANY FOUNDATION FOR STRUC-TURES TO BE PLACED ON THE ITEMS COVERED BY THESE PLANS. NO WAIVER OF THE GRADING ORDINANCE REQUIREMENTS CONCERNING MINIMUM COVER EXPANSIVE SOIL IS MADE OR IMPLIED (SECTIONS 87.403 & 87.410). ANY SUCH WAIVER MUST BE OBTAINED FROM THE DIRECTOR OF PLANNING AND LAND USE. 10.ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR. ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT AND ANY OTHER ASSOCIATED GRADING EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 AM AND 6:00 PM EACH DAY. MONDAY THRU SATURDAY, AND NO EARTHMOVING OR GRADING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SUNDAYS OR HOLIDAYS. 11.ALL MAJOR SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CON-TOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES. 12.NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDIANCE AND NOTWITHSTANDING THE APPROVAL OF THESE GRADING PLANS, THE PERMITTEE IS RESPON-IBLE FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION SILTING, SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE COUNTY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF NON-DEDICTED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY. **13.SLOPE RATIOS:** CUT-1.5:1 FOR MINOR SLOPES UNDER 15' HIGH OR IN ROCK 2:1 FOR MAJOR SLOPES FILL-2:1 **EXCAVATION:** 4.200 CY 4,200 CY FILL: WASTE/IMPORT: 0 CY WASTE (NOTE: A SEPARATE VALID PERMIT MUST EXIST FOR EITHER WASTE OR IMPORT AREAS) 14.SPECIAL CONDITION: IF ANY ARCHEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECIEVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS 15.PERMANENT POST-CONSTRUCTION BMP DEVICES SHOWN ON PLAN SHALL NOT BE REMOVED OR MODIFIED WITHOUT THE APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS 16.ALL GRADING DETAILS WILL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARD DRAWINGS DS-8, DS-10, DS-11, AND D-75. 17.THE CONSTRUCTION OF ONE PCC STANDARD RESIDENTIAL DRIVEWAY PER LOT. LOCATION TO BE DETERMINED IN THE FIELD BY ENGINEER OF WORK. PCC SURFACING OF DRIVE-WAY TO EXTEND FROM CURB TO PROPORTY LINE. USE STANDARD DRAWINGS G-14A G-14B, G-14C, G-15 AND G-16 18.FINISHED GRADING SHALL BE CERTIFIED BY A REGISTERED CIVIL ENGINEER AND INSPECTED BY THE COUNTY ENGINEER FOR DRAINAGE CLEARANCE. (APPROVAL OF ROUGH GRADING DOES NOT CERTIFY FINISH BECAUSE OF POTENTIAL SURFACE DRAIN-AGE PROBLEMS THAT MAY BE CREATED BY LANDSCAPING ACCOMPLISHED AFTER ROUGH GRADING CERTIFICATION. STORMWATER STRUCTURAL POLLUTANT CONTROL & HYDROMODIFICATION CONTROL BMPs MAINTENANCE MAINTENANCE SHEET S-BMP ID# REVISIONS DESCRIPTION/TYPE AGREEMENT REC DOC. # CATEGORY BIOFILTRATION BASIN 3.4 BMP 1 - 5 SECOND \* BMP'S APPROVED AS PART OF STORMWATER QUALITY MANAGEMENT PLAN (SWQMP) REVISED \_ \_\_\_ON FILE DPW. AND CHANGES TO THE ABOVE BMP'S WILL REQUIRE SWOMP REVISION AND PLAN CHANGE APPROVALS. PERMITS **PRIVATE CONTRACT** RISK NO. COUNTY OF SAN DIEGO PDS2016-TM-5443TE DEPARTMENT OF PUBLIC WORKS PDS2017-TM-5443 IMPROVEMENT PERMIT NO. PDS2017-LDMJIP-50036 GRADING PLAN TITLE SHEET FOR: **BENCH MARK** DESCRIPTION: COUNTY OF SAN DIEGO MONUMENT "ES 0263 CALIFORNIA COORDINATE INDEX 370-1701 A BRASS DISK IN CONCRETE MONUMENT ENGINEER OF WORK APPROVED FOR WILLIAM P. MORGAN LOCATION: <u>NORTHEAST OF</u> THE INTERSECTION OF SOUTH COUNTY ENGINEER RONALD L. HOLLOWAY R.C.E. 29271 SANTA FE AVE. AND BUENA CREEK ROAD RECORD FROM: COUNTY OF SAN DIEGO PDS2017-LDGRMJ-30120 DATE GRADING PERMIT NO:

### **GRADING AND IMPROVEMENT NOTES**

1. GRADING AND/OR IMPROVEMENT PLANS SHALL INCLUDE THE REQUIREMENT THAT TEMPORARY FENCES SHALL BE PLACED TO PROTECT ALL OPEN SPACE EASEMENTS SHOWN ON THE TENTATIVE MAP WHICH PRECLUDE GRADING, OR BRUSHING OR CLEARING. THE SUBDIVIDER SHALL SUBMIT TO THE DEPARTMENT OF PLANNING AND LAND USE A STATEMENT FROM A CALIFORNIA REGISTERED ENGINEER, OR LICENSED SURVEYOR THAT TEMPORARY FENCES HAVE BEEN PLACED IN ALL LOCATIONS OF THE PROJECT WHERE PROPOSED GRADING OR CLEARING IS WITHIN 100 FEET OF AN OPEN SPACE EASEMENT BOUNDARY. THE TEMPORARY FENCE LOCATION SHALL BE IDENTIFIED IN THE FIELD BY A CALIFORNIA REGISTERED ENGINEER OR LICENSED SURVEYOR AND POSITIONED BETWEEN THE OPEN SPACE EASEMENT BOUNDARY AND ANY AREA OF PROPOSED DISTURBANCE. THE TEMPORARY FENCING SHALL BE REMOVED ONLY AFTER THE CONCLUSION OF SUCH ACTIVITY.

2. PERMANENT FENCES SHALL BE PLACED ALONG THE OPEN SPACE BOUNDARIES AS SHOWN ON FIGURE 1.1-3 OF THE ENVIRONMENTAL IMPACT REPORT PREPARED FOR THIS PROJECT DATED JULY 15. THE PROPERTY OWNER SHALL SUBMIT TO THE DIRECTOR, DEPARTMENT OF PLANNING AND LAND USE ENGINEER, OR LICENSED SURVEYOR THAT PERMANENT FENCES OR WALLS HAVE BEEN PLACED TO PROTECT FROM INADVERTENT DISTURBANCE ALL OPEN SPACE EASEMENT(S) THAT DO NOT ALLOW GRADING, BRUSHING OR CLEARING. PERMANENT FENCING OR WALLS ARE REQUIRED IN ALL LOCATIONS OF THE PROJECT AS SHOWN ON THE FIGURE 1.1-3 OF THE ENVIRONMENTAL IMPACT REPORT DATED JULY 15, 2002 ON FILE AS ER 98-08-021A WITH THE DEPARTMENT OF PLANNING AND LAND USE AT THE CONCLUSION OF THE GRADING ACTIVITY AND PRIOR TO RECORD PLAN APPROVAL. THE PERMANENT FENCE LOCATION(S) SHALL BE IDENTIFIED IN THE FIELD BY A CALIFORNIA REGISTERED ENGINEER OR LICENSED SURVEYOR AND POSITIONED JUST OUTSIDE OF THE OPEN SPACE EASEMENT. PHOTOGRAPHS AND A BRIEF DESCRIPTION OF DESIGN AND MATERIALS USED SHALL BE SUBMITTED WITH THE STATEMENT FROM THE CALIFORNIA REGISTERED ENGINEER. CONSTRUCTION MATERIALS AND FENCE AND/OR WALL DESIGN ARE SUBJECT TO APPROVAL BY THE DEPARTMENT OF PLANNING AND LAND USE. MINIMUM FENCE OR WALL HEIGHT SHALL BE 4 FEET.

3. DRILLING OPERATIONS FOR BLASTING WITHIN 260 FEET OF THE PROPERTY LINE OF A RESIDENTIAL PROPERTY SHALL BE SHIELDED THROUGH PHYSICAL INTERRUPTION IN THE DIRECT LINE OF SIGHT FROM THE SOURCE TO THE RECEIVER.

4. A QUALIFIED ACOUSTICIAN SHALL MONITOR NOISE LEVELS AT THE RESIDENTIAL PROPERTY LINE MOST AFFECTED BY CONSTRUCTION OPERATIONS (I.E, ALONG THE NORTHERN PROJECT SITE BOUNDARY BOTH WEST AND EAST OF CAMINO DEL ARROYO DRIVE). WHEN A DAILY NOISE "DOSE" HAS BEEN ACCUMULATED SUFFICIENT TO EQUAL 75 dB(A) Leg(8), DRILLING OR CONSTRUCTION OPERATIONS SHALL BE TERMINATED FOR THAT DAY.

5. A COUNTY CERTIFIED ARCHAEOLOGIST SHALL FIELD CHECK THE RIDGETOPS WITHIN THE LIMITS OF GRADING FOLLOWING BRUSHING AND CLEARING AND PRIOR TO GRADING ACTIVITIES. SHOULD ARCHAEOLOGICAL RESOURCES BE DISCOVERED DURING MONITORING, A GRADING MONITORING AND DATA RECOVERY PROGRAM SHALL BE IMPLEMENTED. THIS PROGRAM SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, THE FOLLOWING ACTIONS:

A. THE COUNTY CERTIFIED ARCHAEOLOGIST/HISTORIAN SHALL ATTEND THE PRE-GRADING MEETING WITH THE CONTRACTORS TO EXPLAIN AND COORDINATE THE REQUIREMENTS OF THE MONITORING PROGRAM.

B. DURING THE ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS, THE ARCHAEOLOGICAL MONITOR(S) SHALL BE ON-SITE FULL-TIME TO PERFORM PERIODIC INSPECTIONS OF THE EXCAVATIONS. THE FREQUENCY OF INSPECTIONS WILL DEPEND ON THE RATE OF EXCAVATION. THE MATERIALS EXCAVATED, AND THE PRESENCE AND ABUNDANCE OF ARTIFACTS AND FEATURES.

C. IN THE EVENT THAT PREVIOUSLY UNIDENTIFIED CULTURAL RESOURCES ARE DISCOVERED, THE ARCHAEOLOGIST SHALL HAVE THE AUTHORITY TO DIVERT, DIRECT OR TEMPORARILY HALT GRADING ACTIVITIES IN THE AREA OF DISCOVERY TO ALLOW EVALUATION OF POTENTIAL SIGNIFICANT CULTURAL RESOURCES. THE ARCHAEOLOGIST SHALL CONTACT THE COUNTY ARCHAEOLOGIST, IN CONSULTATION WITH THE COUNTY ARCHAEOLOGIST, SHALL DETERMINE THE SIGNIFICANCE OF THE DISCOVERED RESOURCES. THE COUNTY ARCHAEOLOGIST MUST CONCUR WITH THE EVALUATION BEFORE CONSTRUCTION ACTIVITIES WILL BE ALLOWED TO RESUME IN THE AFFECTED AREA. ISOLATES AND CLEARLY NON-SIGNIFICANT DEPOSITS WILL BE MINIMALLY DOCUMENTED IN THE FIELD AND THE MONITORED GRADING CAN PROCEED. FOR SIGNIFICANT CULTURAL RESOURCES. A RESEARCH DESIGN AND DATA RECOVERY PROGRAM TO MITIGATE IMPACTS SHALL BE PREPARED BY THE CONSULTING ARCHAEOLOGIST AND APPROVED BY THE COUNTY ARCHAEOLOGIST. THEN CARRIED OUT USING PROFESSIONAL ARCHAEOLOGICAL METHODS. IF ANY HUMAN BONES ARE DISCOVERED. THE COUNTY CORONER SHALL BE CONTACTED. IN THE EVENT THAT THE REMAINS ARE OF NATIVE AMERICAN ORIGIN. THE MOST LIKELY DESCENDENT, AS IDENTIFIED BY THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED IN ORDER TO DETERMINE PROPER TREATMENT AND DISPOSITION OF THE REMAINS.

1) BEFORE CONSTRUCTION ACTIVITIES ARE ALLOWED TO RESUME IN THE AFFECTED AREA, THE ARTIFACTS SHALL BE RECOVERED AND FEATURES RECORDED USING PROFESSIONAL ARCHAEOLOGIST METHODS, ACCORDING TO THE RESEARCH DESIGN AND DATA RECOVERY PROGRAM.

2) ALL CULTURAL MATERIAL COLLECTED DURING THE GRADING MONITORING PROGRAM SHALL BE PROCESSED AND CURATED ACCORDING TO CURRENT PROFESSIONAL REPOSITORY STANDARDS. THE COLLECTIONS AND ASSOCIATED RECORDS SHALL BE TRANSFERRED. INCLUDING TITLE. TO AN APPROPRIATE CURATION FACILITY WITHIN SAN DIEGO COUNTY, TO BE ACCOMPANIED BY PAYMENT OF THE FEES NECESSARY FOR PERMANENT CURATION.

3) A REPORT DOCUMENTING THE FIELD AND ANALYSIS RESULTS AND INTERPRETING THE ARTIFACT AND RESEARCH DATA WITHIN THE RESEARCH CONTEXT SHALL BE COMPLETED AND SUBMITTED TO THE SATISFACTION OF THE DIRECTOR OF PLANNING AND LAND USE PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS. THE REPORT WILL INCLUDE DEPARTMENT OF PARKS AND RECREATION PRIMARY AND ARCHAEOLOGICAL SITE FORMS.

6. A COUNTY CERTIFIED. QUALIFIED ORNITHOLOGIST. SHALL PERFORM A SURVEY TO BE COMPLETED NOT MORE THAN ONE WEEK PRIOR TO INITIATION OF BLASTING, CLEARING AND GRADING ACTIVITIES, AND BASED ON THE SURVEY. CERTIFY IN WRITING TO THE COUNTY DEPARTMENT OF PLANNING AND LAND USE THAT THERE ARE NO NESTING RAPTORS ON THE PROJECT SITE. IF THE ORNITHOLOGIST'S SURVEY LOCATES NESTING RAPTORS, THE ORNITHOLOGIST SHALL CERTIFY THAT AN AREA NOT LESS THAN 800 FEET RADIUS FROM THE NEST(S) HAS BEEN FLAGGED TO IDENTIFY A CONSTRUCTION-FREE ZONE TO AVOID DISTURBANCE TO NESTING RAPTORS.

7. PRIOR TO THE START OF GRADING, DRILLING AND BLASTING ACTIVITIES, A COUNTY CERTIFIED BIOLOGIST SHALL CONDUCT A PROTOCOL SURVEY WITHIN THE NATIVE COASTAL SAGE SCRUB TO DETERMINE IF ANY NESTING CALIFORNIA GNATCATCHER PAIRS ARE PRESENT. IF NESTING PAIRS ARE LOCATED WITHIN 500 FEET OF THE PROPOSED LIMITS OF GRADING (INCLUDES LIMITS OF DRILLING AND BLASTING), ONE OF THE TWO FOLLOWING MITIGATION MEASURES SHALL BE IMPLEMENTED:

A. CONSTRUCTION ACTIVITIES (DRILLING, BLASTING OR GRADING) SHALL BE POSTPONED UNTIL AFTER THE BREEDING SEASON ENDS (BREEDING SEASON IS FEBRUARY 15 THROUGH AUGUST 15), OR

B. TEMPORARY NOISE BARRIERS (EARTHEN BERMS OR SOLID FENCING) SHALL BE ERECTED BETWEEN THE NOISE SOURCE AND RECEIVER TO REDUCE THE NOISE TO A LEVEL THAT WILL NOT DISTURB NESTING GNATCATCHER (60 dB Leq). THE LOCATION AND HEIGHT OF THE TEMPORARY BARRIER SHALL DEPEND UPON WHERE BREEDING PAIRS OF GNÄTCATCHERS ARE FOUND AND UPON THE DISTANCE BETWEEN THE CONSTRUCTION NOISE SOURCE AND THE RECEIVER (BREEDING PAIRS). THE PEAK HOURLY NOISE LEVEL AND REQUIRED BERM HEIGHT TO ACHIEVE THE NECESSARY MITIGATION ARE PROVIDED IN THE ENVIRONMENTAL IMPACT REPORT. APPENDIX F. PAGE 9. NOISE BARRIER MATERIALS SHALL CONSIST OF EITHER AN EARTHEN BERM OR PLYWOOD FENCING. AND SHALL BE LOCATED AT THE EDGE OF THE LIMITS OF GRADING FOR DISTANCES NO GREATER THAN 200–300 LINEAR FEET.

# GENERAL NOTES CONTINUATION

- POSSIBLE AFTER GRADING.

20. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROTECT ALL SURVEY CONTROL MONUMENTS. WHETHER SHOWN ON THESE PLANS OR NOT. WITHIN THE PROJECT AREA. ALL SURVEY MONUMENTS. WHETHER FOR HORIZONTAL OR VERTICAL CONTROL. THAT WILL OR COULD BE DISTURBED OR REMOVED BY THE CONTRACTOR, OR HIS EMPLOYEES, AGENTS, SUBCONTRACTORS, CONSULTANT OR LICENSEES, SHALL BE LOCATED PRIOR TO BEING DISTURBED OR REMOVED AND REPLACED OR RESET, IN ACCORDANCE WITH THE CALIFORNIA BUSINESS & PROFESSIONS CODE SECTION 877(b), AT THE CONTRACTOR'S SOLE EXPENSE, UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. IN ADDITION, A RECORD OF SURVEY OR CORNER RECORD, AS APPLICABLE, SHALL BE FILED AND/OR RECORDED, IN ACCORDANCE WITH THE PROVISIONS OR SAID CODE.

### **REINFORCED CONCRETE PIPE (RCP) NOTES**

- THE FOLLOWING MODIFICATIONS:
- THAN 0.048 PERCENT.

- BACKFILL PH IS BELOW 5.5.
- DESCRIBED IN TABLE B-2.

FOR 100-YEAR

IMPERMEABLE LINER TO PREVENT INFIL TRATION. 20 MIL HDPE OR EQUAL

PVC OUTLET PIPE

18. GRADING AND CLEARING ACTIVITIES ADJACENT TO IDENTIFIED WETLANDS SHALL BE LIMITED TO AREAS SHOWN ON PLAN. STANDARD EROSION CONTROL PROCEDURES SHALL BE USED, AND GRADED SLOPES SHALL BE REVEGETATED AS SHOWN AS

19. FUELING OF CONSTRUCTION VEHICLES OR EQUIPMENT IS PROHIBITED WITHIN 50 FEET OF ALL WETLANDS AND DRAINAGES.

1. AT MINIMUM. RCP'S SHALL BE MANUFACTURED OF TYPE II PORTLAND CEMENT (SEE TABLE B-1). TYPE II PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, WITH

A. CEMENT SHALL NOT CONTAIN MORE THAN 0.6 PERCENT BY WEIGHT ALKALIS. CALCULATED AS THE PERCENTAGE OF NA20 PLUS 0.658 TIMES THE PERCENTAGE OF K20, DETERMINED BY EITHER DIRECT INTENSITY FLAME PHOTOMETRY OR THE ATOMIC ADSORPTION METHOD (PER ASTM C-114).

B. AUTOCLAVE EXPANSION SHALL NOT EXCEED 0.5 PERCENT.

C. MORTAR CONTAINING PORTLAND CEMENT AND SAND SHALL NOT EXPAND IN WATER MORE THAN 0.01 PERCENT AND SHALL NOT CONTRACT IN AIR MORE

2. TYPE V PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, WITH THE MODIFICATIONS LISTED ABOVE FOR TYPE II PORTLAND CEMENT.

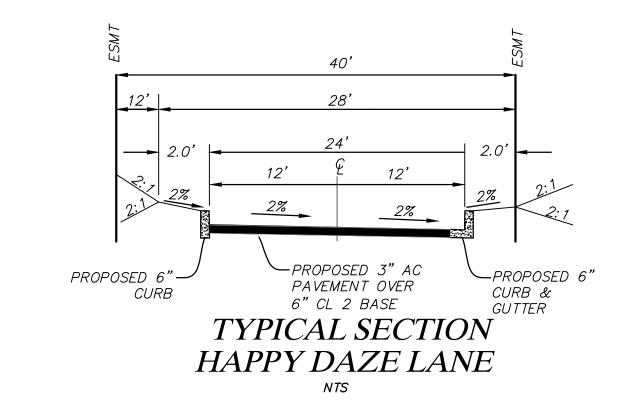
3. VALUES FOR THE SOLUBLE SULFATE CONTENT OF THE PROPOSED BACKFILL, WATERSHED SOIL, OR RUNOFF SHALL BE PROVIDED WHEN THE SOIL RESISTIVITY MEASURES LESS THAN 3000 OHM-CM.

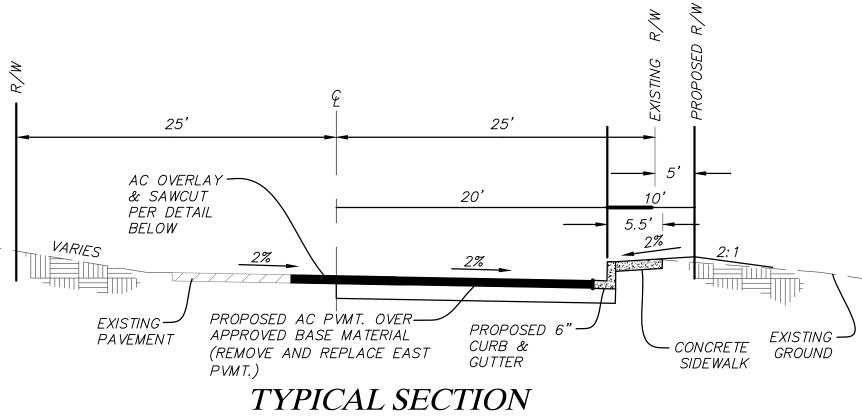
4. USE OF POROUS CONCRETE PIPE WITH SHELL THICKNESS OF 1 INCH OR LESS IS NOT ADVISABLE WHEN SOIL OR BACKFILL PH IS BELOW 6.5.

5. PROTECTIVE COATINGS (E.G., COAL TAR OR EPOXY) SHALL BE USED WHEN SOIL OR

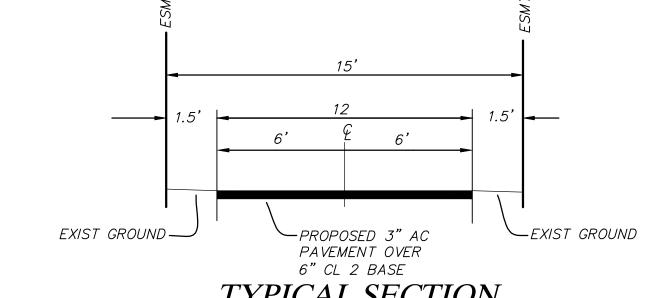
6. PROTECTIVE COVER FOR RCP SHALL BE 2 FT WHEN PLACED UNDER UNPAVED AREAS OR UNDER FLEXIBLE PAVEMENT OR UNDER FLEXIBLE PAVEMENT.

7. MINIMUM COVER FOR RCP SHALL BE 1 FT WHEN PLACED UNDER RIGID PAVEMENTS. 8. MINIMUM PIPE STRENGTH SHALL BE DETERMINED BY PIPE DIAMETER AND DEPTH OF COVER, WITH APPROPRIATE ACCOUNTING FOR BACKFILL PLACEMENT METHOD. AS

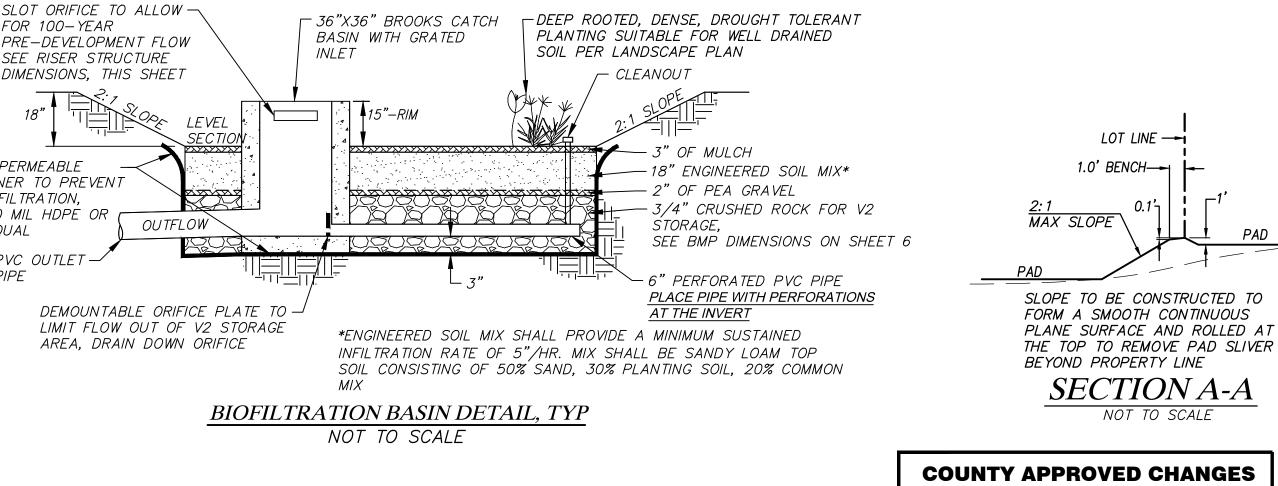




### YORK DRIVE (PUBLIC) NTS



# TYPICAL SECTION SEWER ACCESS ROAD NTS



С	COUNTY APPROVED CHANGES					
NO.	DESCRIPTION:	APPROVED BY:	DATE:			

		LEGEND OF ABBR	REVL	AT	IONS
AB	-	AGGREGATE CONCRETE BASE	ΙE	_	INVERT ELEVATION
AC	_	ASPHALT CONCRETE	LT	-	LEFT
BC	—	BEGIN CURVE	MH	_	MANHOLE
BVC	—	BEGIN VERTICAL CURVE	NTS	_	NOT TO SCALE
BW	—	BOTTOM OF WALL	Р	_	PAVEMENT
C&G	-	CURB AND GUTTER	PCR		POINT OF CURB RETURN
CL	—	CENTERLINE	PRC	_	POINT OF REVERSE CURVE
CO	—	CLEANOUT	PVC RCP	_ _ _	POLYVINYL CHLORIDE
E	—	ELECTRIC	RCP	-	REINFORCED CONCRETE PIPE
EC	—	END CURVE	RT	-	
ECR	_	END CURVE RETURN	RW	-	RIGHT-OF-WAY
EP	-		S	_	
EVC	—	END VERTICAL CURVE	SD	-	STORM DRAIN
ESMT		EASEMENT	SG	_	SUBGRADE
FC	—	FACE OF CURB	SW	_	SIDEWALK
FG	_	FINISHED GRADE	Т	_	TELEPHONE
FL	_	FLOWLINE		_	TOP OF BERM/DIKE
FS	_	FINISHED SURFACE/FIRE SERVICE	TB TC	_	TOP OF CURB
G	_	GAS	TF	_	TOP OF FOOTING
GB	—	GRADE BREAK	TG	_	TOP OF GRATE
HDPE	-	HIGH DENSITY POLYETHYLENE	TW	_	TOP OF WALL
HP	_	HIGH POINT	W	_	WATER
1	_	IRRIGATION			

### SEWER NOTES

1. REFER TO THE IMPROVEMENT PLANS (DRAWING NO. \_\_\_\_) FOR COMPLETE SEWER NOTES.

- 2. ALL SEWER IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH THIS PLAN, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE SAN DIEGO REGIONAL STANDARD DRAWINGS (SDRSD), AND THE CITY OF VISTA STANDARD DRAWINGS (COVSD), ALL AS LAST AMENDED. WHERE CONFLICTS ARISE, THE MORE STRINGENT SHALL PREVAIL.
- 3. THE INTERNAL CONDITION OF ALL SEWER FACILITIES WITHIN THE RIGHT-OF WAY SHALL BE ASSESSED BY CLOSED-CIRCUIT TELEVISED (CCTV) AS FOLLOWS: A. <u>PRE-CONSTRUCTION</u>: NO GRADING OR TRENCHING WILL BE PERMITTED BEFORE
  - CCTV INSPECTION. CCTV INSPECTION PERFORMED ON B. <u>POST-TELEVISING</u> CCTV INSPECTION OF ALL NEW AND EXISTING SEWER IMPROVEMENTS IS REQUIRED BEFORE FINAL PAVING OR ACCEPTANCE OF SEWER
  - MAINS, LATERALS, AND APPURTENANCES. C. <u>CCTV INSPECTION SCHEDULE AND VIDEO TAPE REVIEW FEES:</u> CONTRACTOR IS REQUIRED TO CONTACT THE SANITATION STAFF AT (760) 809-6146, OR 726-1340, EXTENSION 1374 OR -1372 TO SCHEDULE THE TELEVISING
  - INSPECTION AND PAY APPLICABLE FEES. D. <u>SUBMITTAL REQUIREMENTS (MIN.)</u> THE TV INSPECTION SHALL BE PERFORMED ONLY BY A CITY-APPROVED FIRM WITH NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES (NASSCO) CERTIFIED INSPECTORS. THE CONTRACTOR SHALL SUBMIT TO THE CITY/DISTRICT ENGINEER COLOR CCTV ON CD-ROM WITH VERBAL DESCRIPTION, WRITTEN MANUSCRIPT OF THE PERTINENT DIALOGUE, DIGITAL FILE OF THE TV INSPECTION DATABASE, AND STILL PICTURES. MINIMAL INFORMATION SHALL INCLUDE; PROJECT NAME, DRAWING NO., DATE & TIME, LINE ID AND LOCATION, PIPE SIZE AND MATERIAL, FOOTAGE, LATERAL LOCATION FROM THE UPSTREAM MANHOLE, AND ANY DEFECTS OR PROBLEM AREAS. VIDEO AND REPORT SHALL BE PERFORMED USING NASSCO PIPELINE ASSESSMENT AND CERTIFICATION PROGRAM (PACP) STANDARDS AT THE EXPENSE OF THE CONTRACTOR. FINAL ACCEPTANCE OF THE IMPROVEMENTS IS SUBJECT TO DISTRICT REVIEW AND APPROVAL.
- 4. DETAILED RECORD DRAWINGS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND SUBMITTED TO THE ENGINEER OF WORK. "AS BUILT" DRAWINGS SHALL BE SUBMITTED BY THE ENGINEER OF WORK TO THE CITY/DISTRICT INSPECTOR PRIOR TO ACCEPTANCE OF THE PUBLIC SEWER SYSTEM. FINAL LOCATION AND ELEVATION OF SEWER MAIN, MANHOLES, LATERALS, AND CLEANOUTS SHALL BE SHOWN ON THE RECORD DRAWING AND THE "AS-BUILT" DRAWINGS.
- 5. ENTRY TO MANHOLES IS PERMIT-REQUIRED CONFINED SPACE ENTRY (REF. SEC. 5156. 5157. AND 5158 OF CALIFORNIA OSHA TITLE 8 CCR GISO). SAID PERMIT AND PLAN MUST BE ISSUED BEFORE EACH ENTRY, MAINTAINED ONSITE AND PRESENTED TO CITY/DISTRICT ENGINEER UPON REQUEST. NON-COMPLIANCE MAY RESULT IN DEATH. FINES, OR IMPRISONMENT.
- 6. AS EARLY AS POSSIBLE, THE CONTRACTOR SHALL SUBMIT A SANITARY SEWER OVERFLOW PREVENTION AND RESPONSE (SSOP&R) PLAN. PLAN MUST BE APPROVED BY THE CITY/DISTRICT ENGINEER BEFORE ANY WORK THAT MAY AFFECT ACTIVE PRIVATE OR PUBLIC SEWER FLOW. SHOULD A SPILL OCCUR, THE CONTRACTOR SHALL CONTAIN THE SEWAGE FROM ENTERING WATER SURFACE AREAS AND IMMEDIATELY CALL THE DISTRICT WASTEWATER DEPARTMENT AND INSPECTOR FOR INSPECTION, RESPONSE, AND REPORTING:

CITY OF VISTA/BUENA SANITATION DISTRICT (7:30 AM TO 3:30 PM) (760) 726–1340 AMERICAN MESSAGING SERVICE (AFTER WORKING HOURS) (800) 800–9456

THE CONTRACTOR IS LIABLE FOR ANY AND ALL COSTS INCURRED BY THE CITY/DISTRICT FOR RESPONSE AND REPORTING, IN ADDITION TO ANY FINES AND PENALTIES THAT MAY APPLY (REF. COV/BSD SSOP&R, RWQCB 96-04).

7. THE DISTRICT RESERVES THE RIGHT TO APPROVE OR REQUIRE ANY NECESSARY CHANGES TO ENSURE THAT ALL ACTIVE MANHOLES ARE ACCESSIBLE THROUGH ALL PHASES OF CONSTRUCTION, AND THAT ALL FINISHED MANHOLES ARE LEGALLY AND PHYSICALLY ACCESSIBLE TO DISTRICT STANDARDS. [MIN. ESMT. 15' WIDE W / MIN. 12' WIDE DRIVE LANE MEETING: MIN. 4" CL III A.B. TO 10% GRADE, MIN. 2" A.C. OVER 6" CL II A.B. TO 20% WITH DRIVEWAY APRONS AND GATES PER COVSD SWR-21A THROUGH SWR-21D, SWR-22 AND SWR-23 AS REQUIRED].

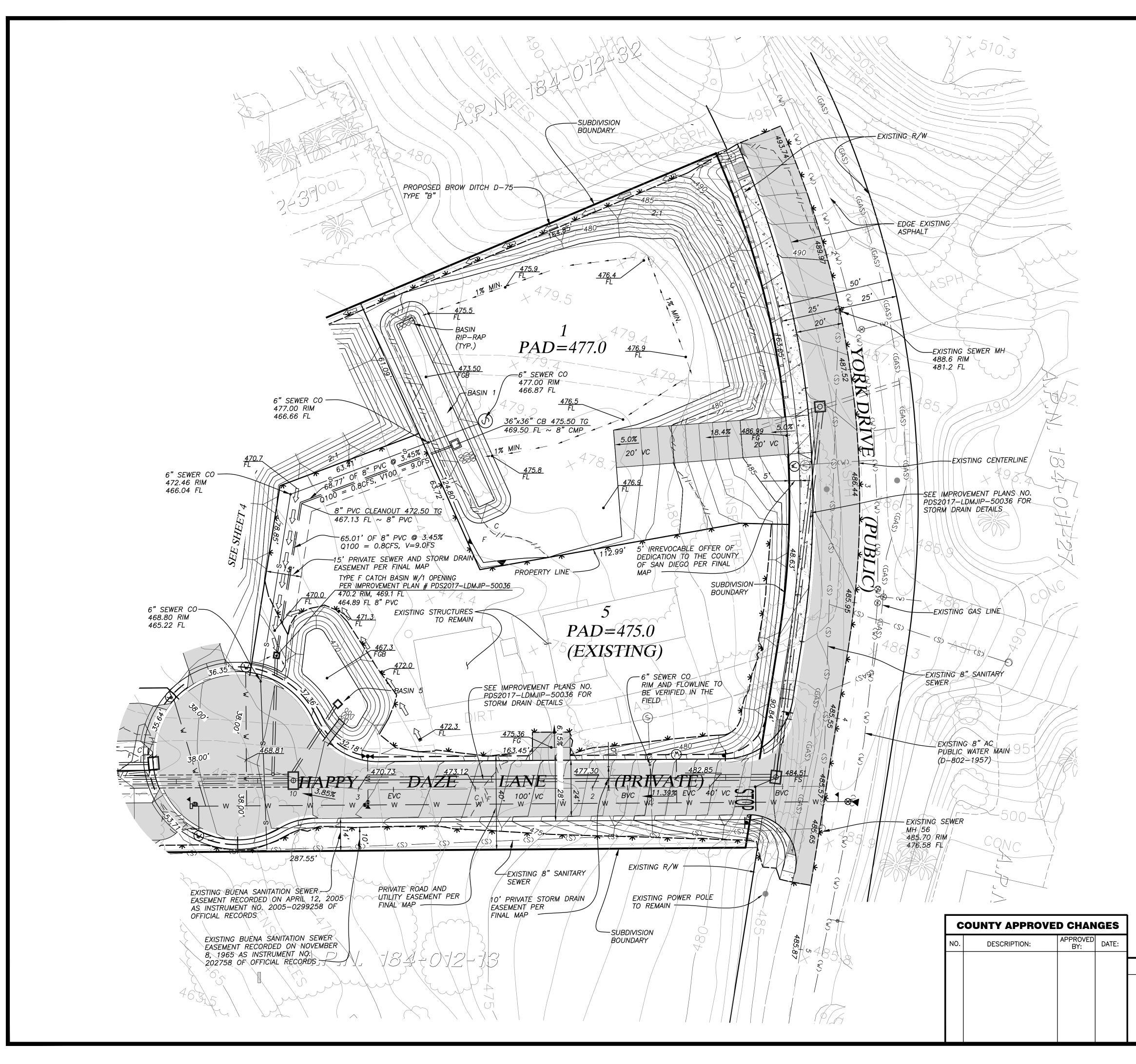
RONALD L. HOLLOWAY NO. 29271

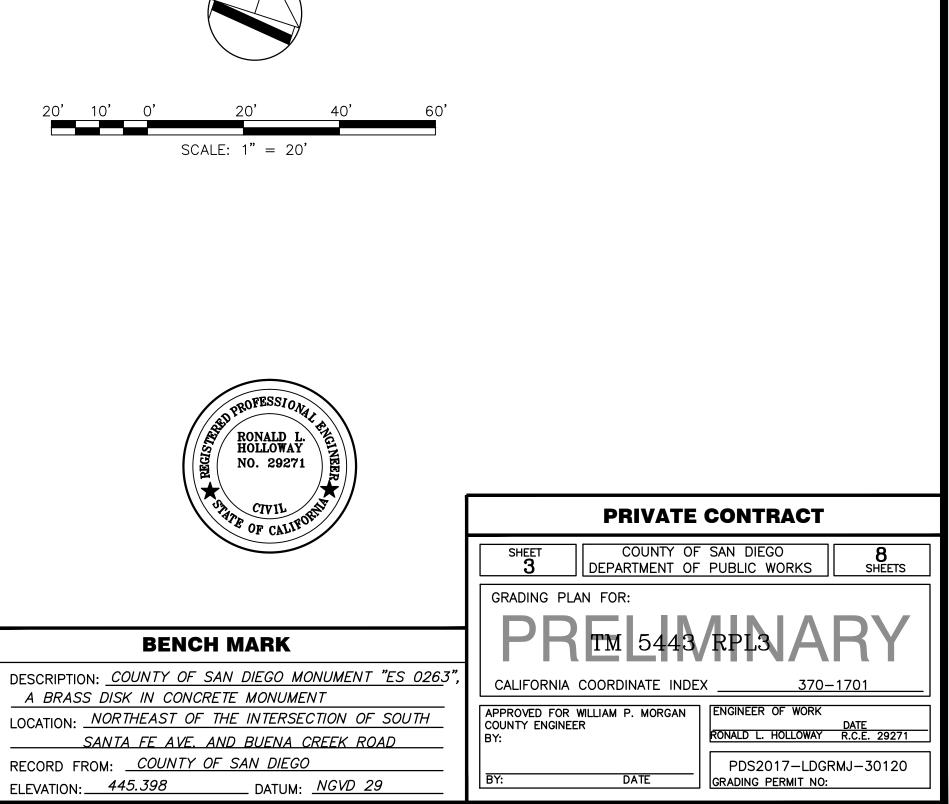
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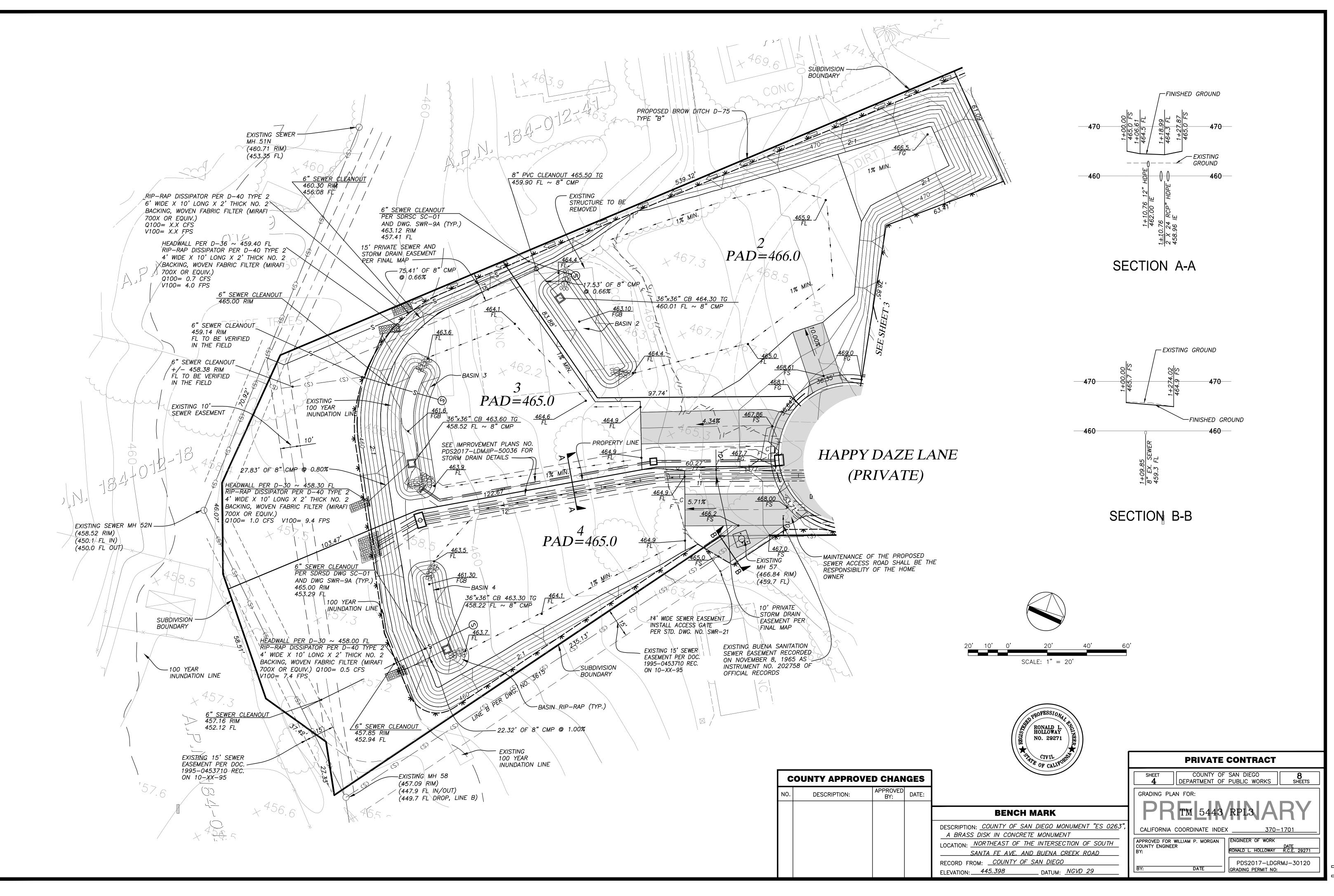
ENGINEER STATEMENT: I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED PLANS AND THAT THE PLANS PROVIDE FOR MANHOLE ACCESS BY IMPROVED AND RECORDED EASEMENT IN COMPLIANCE WITH SANITATION STANDARDS.

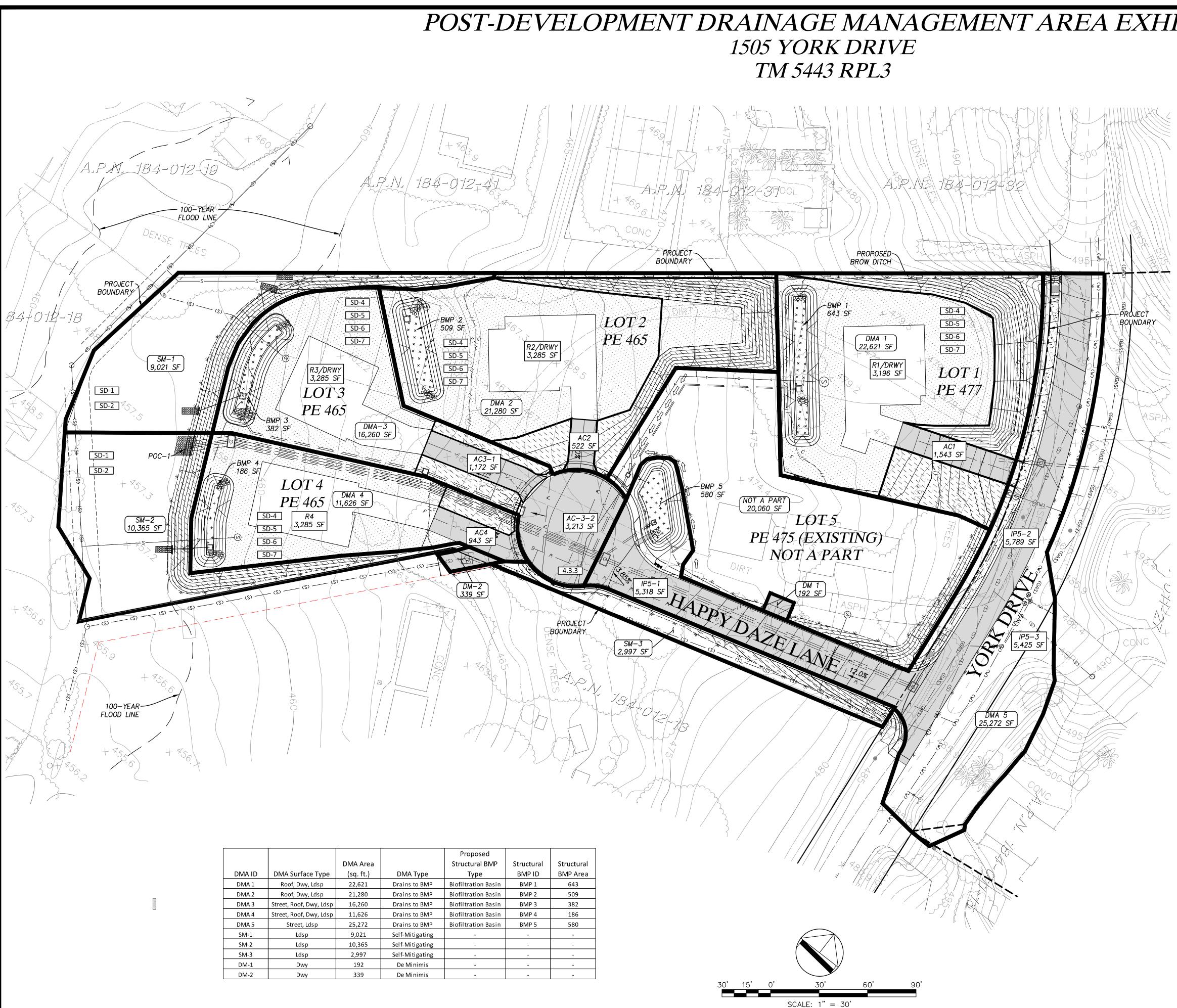
RONALD L. HOLLOWAY RCE 29271 EXP. 3/31/19 DATE

<b>bha, Inc.</b> land planning, civil engineering, surveying	PRIVATE CONTRACT
5115 AVENIDA ENCINAS SUITE "L" CARLSBAD, CA. 92008–4387 (760) 931–8700	SHEET COUNTY OF SAN DIEGO 8   2 DEPARTMENT OF PUBLIC WORKS SHEETS   NOTES & SECTIONS FOR: SHEETS
BENCH MARK	PREM 5443/RPI3ARY
ESCRIPTION: <u>COUNTY OF SAN DIEGO MONUMENT "ES 026</u> 3", A BRASS DISK IN CONCRETE MONUMENT	CALIFORNIA COORDINATE INDEX
DCATION: <u>NORTHEAST OF THE INTERSECTION OF SOUTH</u> SANTA FE AVE. AND BUENA CREEK ROAD ECORD FROM: <u>COUNTY OF SAN DIEGO</u> LEVATION: <u>445.398</u> DATUM: <u>NGVD 29</u>	AFFICIVED FOR WILLIAM P. WORGAN Date   COUNTY ENGINEER DATE   BY: PDS2017-LDGRMJ-30120   GRADING PERMIT NO: County Engineer









				Proposed		
		DMA Area		Structural BMP	Structural	Stru
DMA ID	DMA Surface Type	(sq. ft.)	DMA Type	Туре	BMP ID	BM
DMA 1	Roof, Dwy, Ldsp	22,621	Drains to BMP	Biofiltration Basin	BMP 1	-
DMA 2	Roof, Dwy, Ldsp	21,280	Drains to BMP	Biofiltration Basin	BMP 2	
DMA 3	Street, Roof, Dwy, Ldsp	16,260	Drains to BMP	Biofiltration Basin	BMP 3	,
DMA 4	Street, Roof, Dwy, Ldsp	11,626	Drains to BMP	Biofiltration Basin	BMP 4	
DMA 5	Street, Ldsp	25,272	Drains to BMP	Biofiltration Basin	BMP 5	
SM-1	Ldsp	9,021	Self-Mitigating	-	-	
SM-2	Ldsp	10,365	Self-Mitigating	-	-	
SM-3	Ldsp	2,997	Self-Mitigating	-	-	
DM-1	Dwy	192	De Minimis	-	-	
DM-2	Dwy	339	De Minimis	-	-	

Τ	<b>B</b> ]	T

PROJECT CHARAC	TERISTICS	HYI	JROL	OGIC UNIT	CONTRIBU	JTION (WA	(TERSHED)
PROJECT AREA	2.82 ACRES	WATER	RSHED	HYDROLOGIC	HYDROLOGIC SUB-AREA	DOWNSTREAM W	NATERBODIES
DISTURBED AREA	2.63 ACRES	ı		AREA 904.3 AGUA			A CREEK AGUA
PROPOSED IMPERVIOUS AREA	0.85 ACRES	904 CA	ARLSBAD	HEDIONDA	904.32 BUENA	AGUA HEDIONDA CREEK, AGUA HEDIONDA LAGOON	
PROPOSED PERVIOUS AREA	1.78 ACRES			<u> </u>			
SOIL TYPE	А	1		IMPA	IRED WAT	TER BODIES	S
DEPTH TO GROUNDWATER	> 20 FEET	I		RED WATERBODY		ENTS OF CONCERN	 \
LEGEND dma name	AGUA I	AGUA HEDIONDA CREEK AGUA HEDIONDA CREEK AGUA HEDIONDA CREEK SULFATES, TOTAL DISSOLVED SOLIDS, NITROGEN AS N, TOXICITY			, SELENIUM,		
AREA (SQUARE FEET)	21 SF	AGUA I			INDICATOR BACTERIA, INVASIVE SPECIES, SEDIMENTATION/SILTATION		
SELF-MITIGATING DMA		M—1					
DMA POINT OF COMPLIANCE	(POC) POC	J—1		POLL	UTANTS C	F CONCER	?N
DMA BOUNDARY							
PROJECT BOUNDARY BIOFILTRATION BASIN		+ +		POLLUTANT CATEGORY	ANTICIPATED/ POTENTIAL	DOWNSTREAM IMPAIRMENT	PRIMARY POLLUTANT OF CONCERN
		+ +	SEDIM	<b>JENT</b>	Х	Х	X
VEGETATED SLOPES			NUTRI		Х	Х	X
IMPERVIOUS AREA DISPERSION	N		HEAV	Y METALS	Х	Х	Х
CONCRETE			ORGA COMP	ANIC POUNDS	Х	X	Х
ASPHALT			TRAS	H & DEBRIS	Х		Х
FLOW DIRECTION	-	_		GEN DEMANDING TANCES	X	X	Х
BROW DITCH	$\langle \Box \langle \cdot$		OIL &	GREASE	Х		Х
RIP RAP ENERGY DISSIPATER	2	<i>₽</i> ₹	BACTF	ERIA & VIRUSES	Х	Х	X
AF LINENGT DISSIFATER			PESTICIDES		X		X

## CRITICAL COARSE SEDIMENT YIELD AREAS:

PRIORITY DEVELOPMENT PROJECTS (PDPS) MUST SATISFY CRITICAL COURSE SEDIMENT YIELD AREA (CCSYA) REQUIREMENTS AS ADDRESSED IN APPENDIX H OF THE COUNTY OF SAN DIEGO BMP DESIGN MANUAL.

REGIONAL-LEVEL MAPPING OF POTENTIAL CRITICAL COARSE SEDIMENT YIELD AREAS WAS PREPARED USING REGIONAL DATA SETS INCLUDED IN THE "SAN DIEGO COUNTY REGIONAL WMAA"

PDPS ARE REQUIRED TO CHECK THE MAP INCLUDED IN THE WMAA FOR THE WATERSHED IN WHICH THE PROJECT RESIDES TO DETERMINE IF POTENTIAL CRITICAL COARSE SEDIMENT YIELD AREAS EXIST WITHIN THE PROJECT DRAINAGE BOUNDARIES. CCORDING TO THE REGIONAL WMAA, NO PCCSYAS EXIST WITHIN THE PROJECT DRAINAGE BOUNDARIES. THEREFORE THE

PROJECT IS (A) ENTIRELY EXEMPT/NOT SUBJECT TO RPO REQUIREMENTS WITHOUT UTILIZATION OF RPO EXEMPTIONS AND (B) AS THERE ARE NO AREAS UPSTREAM OF THE PROJECT TO PROTECT, THEN THE PROJECT IS NOT REQUIRED TO AVOID ONSITE CCSYAS AS NONE WERE IDENTIFIED (IN OTHER WORDS, NO AREAS IDENTIFIED ON THE DMA EXHIBIT ARE PCCSYAS THAT BECOME NON-CCSYAS.

REFER TO THE SWQMP FOR 1505 YORK DRIVE DATED SEPTEMBER 2017 BY BHA, INC. FOR CCSYA EXEMPTION METHODOLOGY.

# SELF-MITIGATING DMAS:

VEGETATION IN THE NATURAL OR LANDSCAPE AREA IS NATIVE OR NON-NATIVE DROUGHT TOLERANT SPECIES.

SOILS ARE UNDISTURBED NATIVE TOPSOIL, OR DISTURBED SOILS HAVE BEEN AMENDED AND AERATED TO PROMOTE WATER RETENTION CHARACTERISTICS EQUIVALENT TO UNDISTURBED NATIVE TOPSOIL.

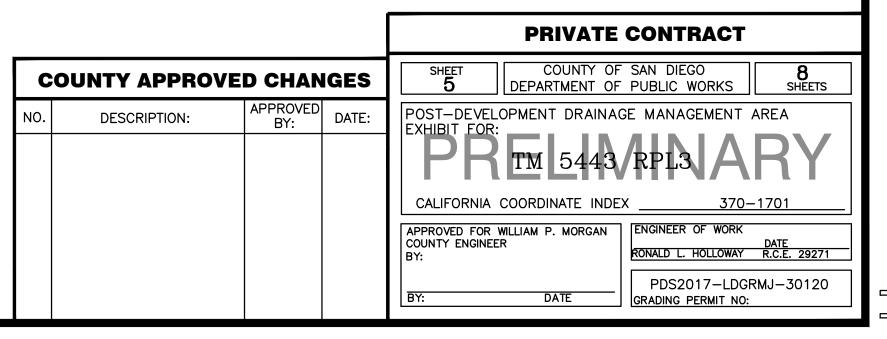
INCIDENTAL IMPERVIOUS AREAS ARE LESS THAN 5 PERCENT OF THE SELF-MITIGATING AREA. IMPERVIOUS AREAS CALCULATED WITHIN THE SELF-MITIGATED AREA SHOULD NOT BE HYDRAULICALLY CONNECTED TO OTHER IMPERVIOUS AREAS UNLESS IT IS A STORM WATER CONVEYANCE SYSTEM (SUCH AS BROW DITCHES). THE SELF-MITIGATING AREA IS HYDRAULICALLY SEPARATE FROM DMAS THAT CONTAIN PERMANENT STORM WATER POLLUTION CONTROL BMPS.

### SOURCE CONTROL BMPS:

- SC-1 PREVENTION OF ILLICIT DISCHARGES INTO THE MS4
- SC-2 STORM DRAIN STENCILING AND SIGNAGE
- SC-6 ADDITIONAL BMPS BASED ON POTENTIAL RUNOFF POLLUTANTS:
- A ON-SITE STORM DRAIN INLETS
- D NEED FOR FUTURE INDOOR & STRUCTURAL PEST CONTROL
- E LANDSCAPE/OUTDOOR PESTICIDE USE

### LID AND SITE DESIGN:

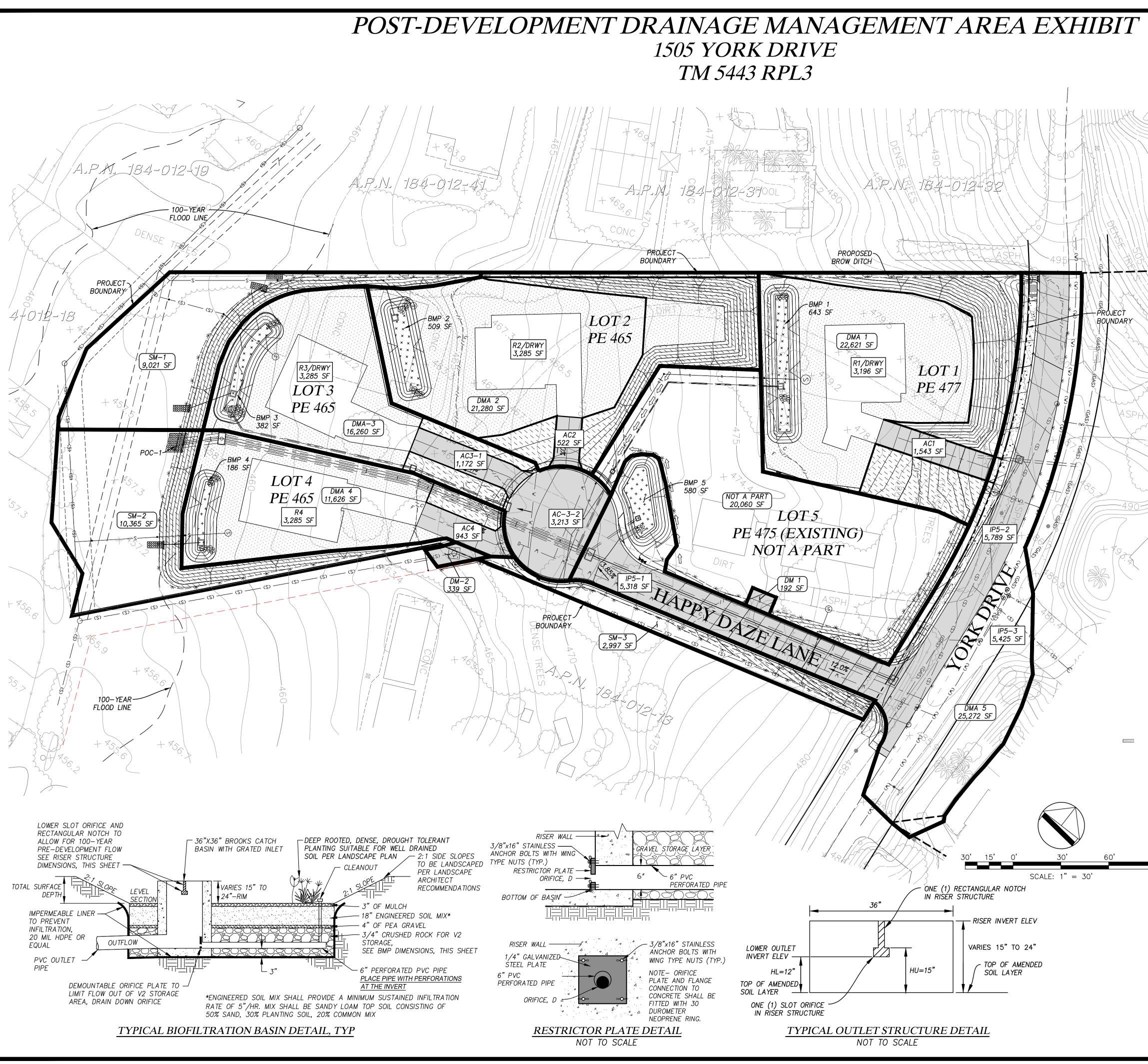
- SD-1 MAINTAIN NATURAL DRAINAGE PATHWAYS AND HYDROLOGIC FEATURES
- SD-2 CONSERVE NATURAL AREAS, SOILS, AND VEGETATION SD-3 MINIMIZE IMPERVIOUS AREA
- SD-4 MINIMIZE SOIL COMPACTION
- SD-5 IMPERVIOUS AREA DISPERSION
- SD-6 RUNOFF COLLECTION
- SD-7 LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT SPECIES



SIGNAGE DETAIL

NOT TO SCALE

()



# TREATMENT CONTROL BMPS

#### DEVELOPED CONDITIONS

STORM WATER RUNOFF FROM THE PROPOSED PROJECT SITE IS ROUTED TO ONE (1) POC, LOCATED AT THE WESTERLY BOUNDARY OF THE PROJECT SITE. RUNOFF FROM THE DEVELOPED PROJECT SITE IS DRAINED TO FIVE (5) ONSITE RECEIVING BIOFILTRATION BMPS. ONCE FLOWS ARE ROUTED VIA THE PROPOSED BIOFILTRATION BMPS, DEVELOPED FLOWS ARE THEN DISCHARGED TO THE EXISTING POINT OF DRAINAGE FROM THE PROJECT SITE.

3 SMALL VEGETATION AREAS (SM-1, SM-2, AND SM-3) ARE UNABLE TO DRAIN TO THE RECEIVING BIOFILTRATION BASINS AND BYPASS THESE FACILITIES, DRAINING DIRECTLY TO POC-1. **TABLE 1 - SUMMARY OF DEVELOPED CONDITIONS** 

POC	DMA	Tributary Area, A	Impervio
	DIVIA	(Ac)	us
	DMA-1	22,621	21%
	DMA-2	21,280	18%
	DMA-3	16,260	47%
	DMA-4	11,626	36%
1	DMA-5	25,272	65%
Ţ	SM-1	9,021	0%
	SM-2	10,365	0%
	SM-3	2,997	0%
	DM-1	192	100%
	DM-2	339	100%

FIVE (5) BIOFILTRATION BASINS WITH NO INFILTRATION ARE LOCATED WITHIN THE PROJECT SITE AND IS RESPONSIBLE FOR HANDLING HYDROMODIFICATION REQUIREMENTS FOR POC-1. IN DEVELOPED CONDITIONS, THE BASINS WILL HAVE A TOTAL DEPTH OF FROM 17 TO 24 INCHES AND AN INTERNAL OUTLET STRUCTURE (SEE DIMENSIONS IN TABLE 2). FLOWS WILL THEN DISCHARGE FROM THE BASIN VIA THE OUTLET STRUCTURE OR INFILTRATE THROUGH THE BASE OF THE FACILITIES TO THE RECEIVING AMENDED SOIL AND LOW FLOW ORIFICE. THE RISER STRUCTURE WILL ACT AS A SPILLWAY SUCH THAT PEAK FLOWS CAN BE SAFELY DISCHARGED TO THE RECEIVING STORM DRAIN SYSTEM.

BENEATH THE BASIN'S INVERT LIES THE PROPOSED LID BIOFILTRATION PORTION OF THE DRAINAGE FACILITY. THIS PORTION OF THE BASIN IS COMPRISED OF A 3-INCH LAYER OF MULCH, AN 18 TO 21-INCH LAYER OF AMENDED SOIL (A HIGHLY SANDY, ORGANIC RICH COMPOSITE WITH AN INFILTRATION CAPACITY OF AT LEAST 5 INCHES/HR) AND A RESERVOIR LAYER OF GRAVEL. AN UNDERDRAIN PIPE WITH LOW FLOW ORIFICE WILL BE PROVIDED AT THE BOTTOM OF THE BASIN TO CARRY WAY FILTERED RUNOFF. THE UNDERDRAIN PIPE WILL B ABOVE THE GRAVEL LAYER INVERT. THE BOTTOM OF THE BASINS WILL BE LINED WITH AN IMPERMEABLE LINER TO PREVENT INFILTRATION INTO NATIVE SOILS. A RISER STRUCTURE WILL BE CONSTRUCTED WITHIN THE BMPS WITH AN EMERGENCY OVERFLOW WEIR, SUCH THAT PEAK FLOWS CAN BE SAFELY DISCHARGED TO THE RECEIVING STORM DRAIN SYSTEM (SEE DIMENSIONS IN TABLE 3

SINCE THE PROJECT IS LOCATED UPSTREAM FROM A RECEIVING WATER THAT IS 303d LISTED FOR A NUTRIENT POLLUTANT, NUTRIENT SENSITIVE MEDIA DESIGN (BF-2) WAS SELECTED FOR THE BIOFILTRATION BMPS TO MINIMIZE THE POTENTIAL FOR EXPORT OF NUTRIENTS FROM THE MEDIA.

THE BIOFILTRATION FACILITIES HAVE BEEN MODELED USING SWMM 5.1. THE SWMM USES CONTINUOUS SIMULATION MODELING TO DETERMINE THE MINIMUM REQUIRED HYDROMODIFICATION MANAGEMENT VOLUMES FOR EACH PROPOSED BIOFILTRATION BASIN.

IT IS ANTICIPATED THAT THE BIOFILTRATION BASINS MAY ALSO FULFILL WATER QUALITY REQUIREMENTS. THEREFORE, THE BASINS WILL BE DUAL PURPOSE TO ACHIEVE THE FLOW-DURATION REQUIREMENTS SET FORTH IN THE COUNTY HMP, AS WELL AS ADDRESS THE STORM WATER QUALITY REQUIREMENTS SET FORTH IN THE MS4 PERMIT AS REGIONAL POST-CONSTRUCTION TREATMENT BMPS FOR THE DEVELOPED AREA. SEE ATTACHMENT 1 OF THE "PRIORITY DEVELOPMENT PROJECT (PDP) STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR 1505 YORK DRIVE" FOR POLLUTANT CONTROL COMPLIANCE AS PRESENTED IN APPENDIX B OF THE COUNTY OF SAN DIEGO BMP DESIGN MANUAL.

### BMP MODELING FOR WATER QUALITY PURPOSES

MODELING OF DUAL PURPOSE WATER QUALITY/HMP BMPS

FIVE (5) BMPS ARE PROPOSED FOR WATER QUALITY TREATMENT FOR THE PROJECT SITE. TABLE 2 ILLUSTRATES THE DIMENSIONS REQUIRED FOR POLLUTANT CONTROL COMPLIANCE.

TABLE 2 - SUMMARY OF DEVELOPED DUAL PURPOSE BMPS: BIOFILTRATION WITH SURFACE PONDING

	BMP DIMENSIONS									
BMP		BMP Area <sup>(1)</sup>	Underdrain	Graval	Depth Riser	Total	Total Sub-			
			Orifice, D			Surface	Surface			
	Area (ac)	(ft <sup>2</sup> ) (in) <sup>(2)</sup> Depth (in) <sup>(2)</sup>	Depth (in) <sup>(3)</sup>	Invert''' (in)	Depth <sup>(5)</sup> (ft)	Depth <sup>(6)</sup> (ft)				
1	0.52	643	0.37"-dia	21	2.00	1.6	3.83			
2	0.49	509	0.35"-dia	12	1.25	1.3	3.08			
3	0.37	382	0.81"-dia	12	2.00	1.6	3.08			
4	0.27	186	0.25"-dia	12	2.00	1.5	3.08			
5	0.58	580	0.81"-dia	21	2.00	2.0	3.83			

Notes: (1): BMP Area = Gravel Area = Amended Soil Area. Amended soil depth equal to 18 inches for the BMPs. (2): Diameter of the orifice in gravel layer with invert at bottom of layer; tied with hydromod min

threshold (10%Q<sub>2</sub>).

(3): Total depth of gravel layer including 3 inches of saturated storage below underdrain pipe.

(4): Depth from top of amended soil layer to invert of emergency overflow weir.

(5): The total surface ponding depth from the top of amended soil layer.

(6): The total sub-surface depth from the invert of the gravel layer to top of amended soil layer.

#### **TABLE 3 - SUMMARY OF RISER DIMENSIONS**

	Lower	Orifice Dir	nensions	Upper Orifice Dimensions			Emergency Weir	
BMP	Outlet	Invert	Dimensions	Outlet	Invert	Dimensions	Riser Invert	Weir
DIVIE	Type <sup>(1)</sup>	Elev, HL <sup>(2)</sup>	Length x	Type <sup>(1)</sup>	Elev,	(3)	Elev, Htop <sup>(4)</sup>	Perimeter
	туре	(in)	Height <sup>(3)</sup>	туре	HU <sup>(2)</sup> (in)		(in)	Length <sup>(5)</sup> (ft)
1	Slot	12	(1) 3" x 6"	Vertical	15	2" Wide x	24	12
-	5101	12	(1) 5 × 0	Notch	1.5	9" High	27	12
2	Slot	12	(1) 3" x 3"	N/A	N/A	N/A	15	12
	0.00		(1) 0 1 0	,,,	,	,,,	10	
3	Slot	12	(1) 3" x 9"	Vertical	15	2" Wide x	24	12
5	5101	12		Notch	15	9" High	27	12
4	Slot	12	(1) 3" x 9"	Vertical	15	2" Wide x	24	12
-	5101	12	(1)3 × 5	Notch	15	9" High	24	12
5	Slot	Slot 12	12 (1) 3" x 12	Vertical	15	2" Wide x	24	12
			(1) 5 X 1Z	Notch	12	9" High	24	12

Notes: (1): Shape of orifice opening in riser structure. (2): Depth from top of a mended soil layer to invert of lower orifice or weir.

(3): Number of orifices - (#).

(4): Depth from bottom of pond to invert of emergency overflow weir.

(5): Overflow length, the internal perimeter of the riser is 12 ft (3 ft x 3 ft internal dimensions).

			PRIVATE CONTRACT
COUNTY APPROVE	D CHAN	GES	SHEETCOUNTY OF SAN DIEGO86DEPARTMENT OF PUBLIC WORKSSHEETS
Htop DESCRIPTION:	APPROVED BY:	DATE:	POST-DEVELOPMENT DRAINAGE MANAGEMENT AREA EXHIBIT FOR: PREMI 5443 (RPL3 ARY) CALIFORNIA COORDINATE INDEX 370–1701 APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER BY: BY: DATE PDS2017–LDGRMJ–30120 GRADING PERMIT NO:

#### **EROSION CONTROL NOTES**

1. ALL BUILDING PADS TO BE DIKED AND THE DIKES MAINTAINED TO PREVENT WATER FROM FLOWING FROM THE PAD UNTIL THE STREETS AND DRIVEWAYS ARE PAVED AND WATER CAN FLOW FROM THE PADS WITHOUT CAUSING EROSION. OR CONSTRUCT DRAINAGE FACILITIES TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS THAT WILL ALLOW WATER TO DRAIN FROM THE PAD WITHOUT CAUSING EROSION. 2. TOPS OF ALL SLOPES TO BE DIKED OR TRENCHED TO PREVENT WATER FROM FLOWING OVER THE CREST OF SLOPES.

MANUFACTURED SLOPES AND PADS SHALL BE ROUNDED VERTICALLY AND HORIZONTALLY AS APPROPRIATE TO BLEND WITH THE SURROUNDING TOPOGRAPHY.

4. AS SOON AS CUTS OR EMBANKMENTS ARE COMPLETED, BUT NOT LATER THAN OCTOBER 1 ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITH A HYDROMULCH MIXTURE OR AN EQUAL TREATMENT APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS BETWEEN OCTOBER 1 AND APRIL 30. APPROVED SLOPE PROTECTION MEASURES SHALL PROCEED IMMEDIATELY BEHIND THE EXPOSURE OF CUT SLOPES AND/OR THE CREATION OF EMBANKMENT SLOPES.

5. CATCH BASINS, DESILTING BASINS AND STORM DRAIN SYSTEM SHALL BE INSTALLED TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS.

GRAVEL BAG CHECK DAMS TO BE PLACED IN A MANNER APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS IN UNPAVED STREETS WITH GRADIENTS IN EXCESS OF 2% AND ON OR IN OTHER GRADED OR EXCAVATED AREAS AS REQUIRED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.

7. THE DEVELOPER TO MAINTAIN THE PLANTING AND EROSION CONTROL MEASURES DESCRIBED ABOVE UNTIL RELIEVED OF THE SAME BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER TO REMOVE ALL SOIL INTERCEPTED BY THE GRAVEL BAGS, CATCH BASINS AND DESILTING BASINS AND KEEP THESE FACILITIES CLEAN AND FREE OF SILT AND SAND AS DIRECTED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER SHALL REPAIR ANY ERODED SLOPES AS DIRECTED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.

#### SILTATION AND SEDIMENT CONTROL MEASURES NOTES:

1. THE SEDIMENT BASINS SHALL BE PROVIDED AT THE LOWER END OF EVERY DRAINAGE AREA PRODUCING SEDIMENT RUNOFF. THE BASINS SHALL BE MAINTAINED AND CLEANED TO DESIGN CONTOURS AFTER EVERY RUNOFF PRODUCING STORM. THE BASINS SHOULD BE SEMI-PERMANENT STRUCTURES THAT WOULD REMAIN UNTIL SOIL STABILIZING VEGETATION HAS BECOME WELL ESTABLISHED ON ALL ERODIBLE SLOPES. 2. SEDIMENTATION BASINS MAY NOT BE REMOVED OR MADE INOPERATIVE WITHOUT PRIOR APPROVAL OF THE COUNTY ENGINEER.

3. UTILITY TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES SHALL BE PLUGGED WITH GRAVEL BAGS FROM TOP OF PIPE TO TOP OF DIKE.

4. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP ELEVATION TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES. THE INTERVALS PRESCRIBED BETWEEN GRAVEL BAG BLOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE BUT NOT TO EXCEED THE FOLLOWING

	GRADE OF THE STR	REET		INTE	RVAL	NO.	OF	BAGS	HIGH
	LESS THAN 2%			AS F	REQUIRED			1	
	2% TO 4%			100	FEET			1	
	4% TO 6%			50	FEET			1	
	6% TO 10%			50	FEET			2	
	OVER 10%			25	FEET			2	
ER	UTILITY TRENCHES	ARE	BACKFILLED	AND	COMPACTED,	THE	SUR	FACES	OVER

5. AFTEI SUCH TRENCHES SHALL BE MOUNDED SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET

6. ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE BASE OF ALL DRIVEWAYS DRAINING INTO THE STREET PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS AT THE

INTERVALS INDICATED BELOW:	
GRADE OF CHANNEL	INTERVALS BETWEEN CHECK DAMS
LESS THAN 3%	100 FEET
3% TO 6%	50 FEET
OVER 6%	25 FEET

PROVIDE VELOCITY CHECK DAMS IN ALL STREET AREAS ACCORDING TO INTERVALS INDICATED BELOW. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL, TIMBER, OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE COUNTY ENGINEER, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.

GRADE OF STREET	INTERVAL	NUMBER OF BAGS HIGH
LESS THAN 2%	AS REQUIRED	
	200 FEET MAX.	1
2% – 4%	100 FEET	1
4% — 6%	50 FEET	1
6% — 10%	50 FEET	2
OVER 10%	25 FEET	2

PROVIDE A GRAVEL BAG SILT BASIN OR TRAP BY EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING DRAIN SYSTEM.

10. GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.

11. CLEARED SLOPES FLATTER THAN 3 TO 1 MUST BE PROTECTED FROM EROSION USING EITHER AN APPROVED BMP OR BY USING HYDROMULCH WITH A GUAR BINDER. FLAT AREAS OF LESS THAN 5% (LIKE BUILDING PADS, PARKING AREAS, LEACH FIELDS) SHALL HAVE 100% PROTECTION USING GEOTEXTILES. MATS (SS-7 OR ESC20), OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES, OS USING TRACKING AND SOIL STABILIZERS/BINDERS (SS-5), TEMPORARY SEEDING (SS-4), MULCH/WOOD CHIPS (SS-3, SS-6, SS-8), OR JUTE MATTING (SS-7).

12. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM, IF POSSIBLE, MAINTENANCE CREWS WOULD BE REQUIRED TO HAVE ACCESS TO ALL AREAS.

13. PROVIDE ROCK RIPRAP ON CURVES AND STEEP DROPS IN ALL EROSION PRONE DRAINAGE CHANNELS DOWNSTREAM FROM THE DEVELOPMENT. THIS PROTECTION WOULD REDUCE EROSION CAUSED BY THE INCREASED FLOWS THAT MAY BE ANTICIPATED FROM DENUDED SLOPES, OR FROM IMPERVIOUS SURFACES.

14. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES: I.E., COUNTY ENGINEER, DEPARTMENT OF SANITATION AND FLOOD CONTROL, OFFICE OF ENVIRONMENTAL MANAGEMENT, ETC.

#### STABILIZED FIBER MATRIX (SFM)

THE USE OF SFM IS SUBJECT TO THE FOLLOWING LIMITATIONS AND RESTRICTIONS: \* SFM MAY BE USED FOR TEMPORARY EROSION CONTROL FOR DISTURBED AREAS WITH A SLOPE RATIO OF 1 VERTICAL TO 2 HORIZONTAL OR SHALLOWER, INCLUDING PAD AND SEPTIC FIELD AREAS.

- \* THE SFM SHALL BE APPLIED AT LEAST 24 HOURS BEFORE OR AFTER RAINFALL AND SHALL BE APPLIED TO PROVIDE 100% COVERAGE (I. E. APPLIED FROM MULTIPLE DIRECTIONS AND ANGLES)
- \* THE APPLICATION AREA MUST BE PROTECTED BY BROW DITCHES AND OR DIVERSION BERMS AT TOP OF SLOPES TO DIVERT FLOW FROM THE FACE OF THE PROTECTED SLOPE.
- \* FOR PERMANENT EROSION CONTROL PURPOSES. SFM MUST BE INSTALLED IN CONJUNCTION WITH SEEDED EROSION CONTROL VEGETATION OR HAND PLANTINGS. AS WITH ALL OTHER APPLICATIONS, SFM WILL NOT BE CONSIDERED PERMANENT UNTIL 70% C. THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT VEGETATION ESTABLISHMENT.
- \* APPLICATION RATES SHALL BE 3500 POUNDS PER ACRE MINIMUM FOR 2:1 OR SHALLOWER SLOPES AND 4000 POUNDS PER ACRE FOR SLOPES STEEPER THAN 2:1. \* A LETTER FROM THE HYDROSEED CONTRACTOR CERTIFYING THE SFM WAS INSTALLED IN ACCORDANCE WITH APPROVED APPLICATION RATES. COVERAGE, AND MANUFACTURER'S ILLUSION RATIO SHALL BE SUBMITTED TO THE COUNTY INSPECTOR FOR APPROVAL.

### CONTROL PLANS EROSION

#### STORMWATER PROTECTION NOTES

1. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER IN THE EVENT OF A RAINSTORM. 125% OF ALL SUPPLIES NEEDED FOR BMP MEASURES SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN. ALL OTHER BMP'S SHALL BE DEPLOYED ON AN ON-GOING BASIS.

2. THE ACTIVE DISTURBED AREA SHALL NOT EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY DPW DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 10 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED, THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES SHALL REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD

3. THE PROPERTY OWNER IS OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORMWATER REGULATIONS AT ALL TIMES. THE BMP'S (BEST MANAGEMENT PRACTICES) THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO EFFECTIVELY PREVENT THE POTENTIALLY NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORMWATER QUALITY. THE MAINTENANCE OF THE BMP'S IS THE PERMITTEE'S RESPONSIBILITY, AND FAILURE TO PROPERLY INSTALL OR MAINTAIN THE BMP'S MAY RESULT IN ENFORCEMENT ACTION BY THE COUNTY OF SAN DIEGO OR OTHERS. IF INSTALLED BMP'S FAIL, THEY MUST BE REPAIRED OR REPLACED WITH AN ACCEPTABLE ALTERNATE WITHIN 24 HOURS, OR AS SOON AS SAFE TO DO SO.

4. A NOTICE OF INTENT (NOI) HAS BEEN, OR WILL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) AND THAT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN OR WILL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CASOOO002) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE NOI NUMBER ASSIGNED BY SWRCB FOR THIS PROJECT IS WDID #\_\_\_\_(TO BE PROVIDED)\_. THE PERMITTEE SHALL KEEP A COPY OF THE SWPPP ON SITE AND AVAILABLE FOR REVIEW BY COUNTY.

#### **EROSION CONTROL PLANTING AND IRRIGATION OPTION 1**

ALL PERMANENT AND TEMPORARY EROSION CONTROL PLANTING AND GEOTEXTILE MATTING SHALL BE INSTALLED AND MAINTAINED AS REQUIRED AND AS FOLLOWS:

1. ALL SLOPES THAT ARE GRADED STEEPER THAN 3:1 (HORIZONTAL TO

A. GEOTEXTILE MATTING SHALL BE APPLIED TO:

- VERTICAL) 2. AREAS GRADED FLATTER THAN 3:1 WHEN ANY OF THE FOLLOWING
- CONDITIONS EXIST: a. NOT SCHEDULED FOR IMPROVEMENTS (CONSTRUCTION OR GENERAL LANDSCAPING) WITHIN 60 DAYS OF ROUGH GRADING. b. IDENTIFIED BY THE DIRECTOR OF PUBLIC WORKS AS HIGHLY
- VISIBLE TO THE PUBLIC. c. HAVE ANY SPECIAL CONDITION IDENTIFIED BY THE DIRECTOR OF PUBLIC WORKS THAT WARRANTS IMMEDIATE TREATMENT.
- GEOTEXTILE MATERIAL SHALL BE TO THE SATISFACTION OF THE COUNTY DIRECTOR OF PUBLIC WORKS.

C. GEOTEXTILE MATTING INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

D. AREAS TO RECEIVE GEOTEXTILE MATTING SHALL BE PREPARED PRIOR TO INSTALLATION PER MANUFACTURER'S RECOMMENDATION.

E. GEOTEXTILE MATTING AREAS SHALL BE MAINTAINED UNTIL THE PROJECT IS PERMANENTLY LANDSCAPED AND THE PROJECT IS COMPLETED.

#### **EROSION CONTROL PLANTING AND IRRIGATION OPTION 2**

THE FOLLOWING BONDED FIBER MATRIX (B.F.M.) EROSION CONTROL MATERIAL HAS BEEN APPROVED FOR USE BY THE COUNTY OF SAN DIEGO ON ALL SOIL SLOPE SURFACES FOR THE PURPOSE OF EROSION CONTROL. THE USE OF B.F.M. IS SUBJECT TO THE FOLLOWING LIMITATION AND RESTRICTIONS

\* APPLICATION RATES SHALL BE 3500 POUNDS PER ACRE MINIMUM FOR 2:1 OR SHALLOWER SLOPES AND 4000 POUNDS PER ACRE FOR SLOPES STEEPER THAN 2:1.

\* B.F.M. SHALL BE APPLIED AT LEAST 24 HOURS BEFORE OR AFTER RAINFALL. \* THE SITE MUST BE PROTECTED WITH BROW DITCHES AND/OR DIVERSION BERMS AT

THE TOP OF SLOPES TO DIVERT FLOW FROM THE FACE OF THE SLOPE.

\* B.F.M. SHALL BE APPLIED TO PROVIDE 100% COVERAGE (i.e. APPLICATION FROM MULTIPLE ANGLES).

\* FOR PERMANENT EROSION CONTROL PURPOSES, B.F.M. MUST BE INSTALLED IN CONJUNCTION WITH SEEDED EROSION CONTROL VEGETATION.

\* A LETTER FROM THE HYDROSEED CONTRACTOR CERTIFYING THAT THE B.F.M. HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED APPLICATION RATES AND COVERAGE REQUIREMENTS SHALL BE SUBMITTED TO THE COUNTY INSPECTOR FOR APPROVAL

RAINY SEASON REQUIREMENTS (OCTOBER 1 THROUGH APRIL 30) IN ADDITION TO THE REQUIREMENTS LISTED UNDER THE DRY SEASON REQUIREMENTS:

A. PERIMETER PROTECTION AND SEDIMENT CONTROL BMP'S MUST BE UPGRADED IF NECESSARY TO PROVIDE SUFFICIENT PROTECTION FOR STORMS LIKELY TO OCCUR DURING THE RAINY SEASON.

B. ADEQUATE PHYSICAL OR VEGETATION EROSION CONTROL BMP'S MUST BE INSTALLED AND ESTABLISHED FOR ALL COMPLETED SLOPES PRIOR TO THE START OF THE RAINY SEASON. THESE BMP'S MUST BE MAINTAINED THROUGHOUT THE RAINY SEASON. IF A SELECTED BMP FAILS, IT MUST BE REPAIRED AND IMPROVED, OR REPLACED WITH AN ACCEPTABLE ALTERNATE AS SOON AS IT IS SAFE TO DO SO. THE FAILURE OF A BMP SHOWS THAT THE BMP, AS INSTALLED, WAS NOT ADEQUATE FOR THE CIRCUMSTANCES IN WHICH IT WAS USED. REPAIRS OR REPLACEMENTS MUST THEREFORE PUT A MORE ROBUST BMP IN PLACE.

WHICH CAN BE ADEQUATELY PROTECTED BY DEPLOYING STANDBY EROSION CONTROL AND SEDIMENT CONTROL BMP'S PRIOR TO A RAINSTORM

D. A DISTURBED AREA THAT IS NOT COMPLETED BUT THAT IS NOT BEING ACTIVELY GRADED MUST BE FULLY PROTECTED FROM EROSION IF LEFT FOR 15 OR MORE DAYS. THE ABILITY TO DEPLOY STANDBY BMP MATERIALS IS NOT SUFFICIENT FOR THESE AREAS. BMP'S MUST ACTUALLY BE DEPLOYED.

#### **GENERAL EROSION CONTROL NOTES**

1. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT GARY VAN EIK, AT (858) 453–1331

EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

COUNTY OF

3. DEVICES SHOWN ON PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE ENGINEERING INSPECTOR.

4. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE PROJECT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.

5. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE COUNTY DIRECTOR OF PUBLIC WORKS DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

7. ALL EROSION CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON.

8. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.

9. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE (5) DAY RAIN PROBABILITY FORECAST EXCEEDS FORTY PERCENT (40%). SILT AND OTHER DEBRIS SHALL BE REMOVED AFTER EACH RAINFALL

10. ALL GRAVEL BAGS SHALL BE BURLAP TYPE OR NYLON MESH WITH 3/4 INCH MINIMUM AGGREGATE.

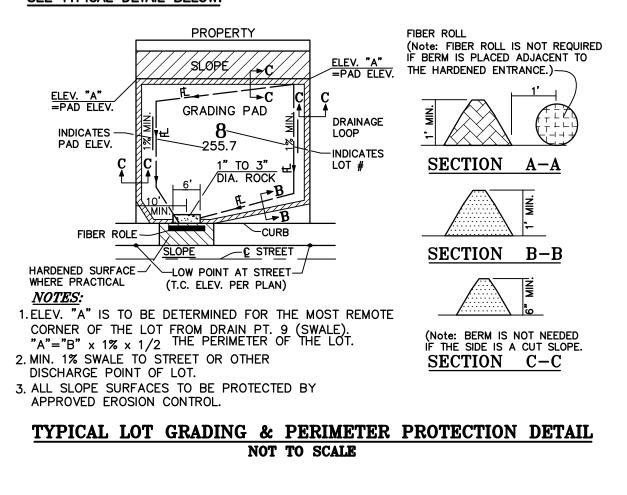
11. SHOULD GERMINATION OF HYDROSEEDED SLOPES FAIL TO PROVIDE EFFECTIVE EFFECTIVE COVERAGE OF GRADED SLOPES (90% COVERAGE) PRIOR TO AUGUST 15 AND ESTABLISHED BY OCTOBER 1, THE SLOPES SHALL BE STABILIZED BY PUNCH STRAW INSTALLED IN ACCORDANCE WITH SECTION 35.023 OF THE EROSION AND SEDIMENT CONTROL HANDBOOK OF THE DEPARTMENT OF CONSERVATION, STATE OF CALIFORNIA, BY GEOTEXTILES, FIBER ROLLS OR B.F.M. MATS OR OTHER MATERIAL APPROVED BY THE COUNTY OF SAN DIEGO.

#### **STANDARD GRADED PAD PERIMETER CRITERIA**

ALL GRADED PADS SHOWN HEREON SHALL OPERATE AS INDIVIDUAL DESILTATION BASINS BASED UPON THE FOLLOWING REQUIREMENTS AND INSTALLATION CRITERIA IN ALLOWDANCE WITH THE TYPICAL SKETCH DETAIL SHOWN BELOW.

#### MINIMUM CONSTRUCTION STANDARDS: \* MAXIMUM HOLDING TIME IS 72 HOURS.

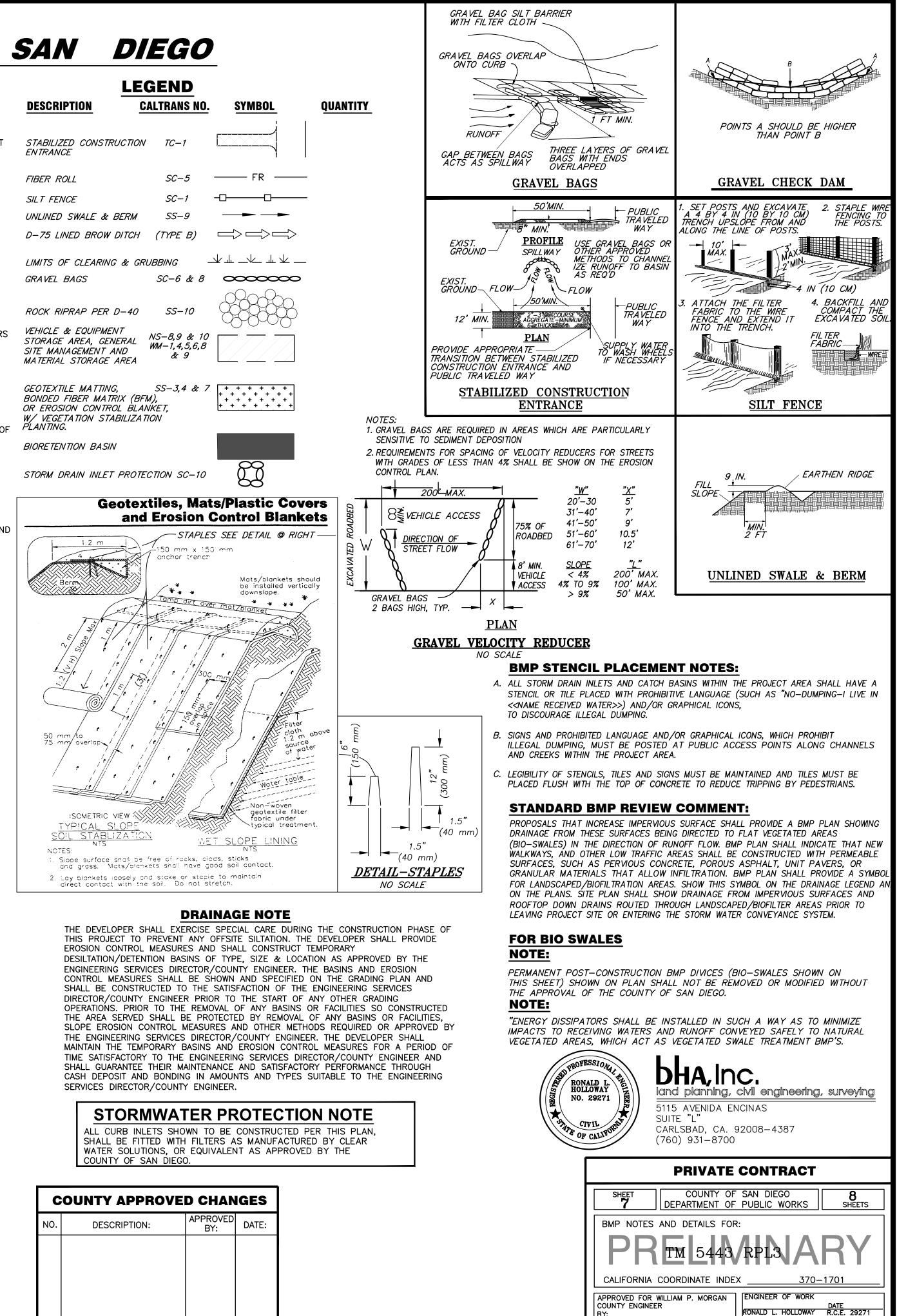
- \* MAXIMUM SIZE FOR USING LOT PERIMETER PROTECTION IS 1 ACRE OF DISTURBED AREA.
- \* BASIN SHALL BE SIZED FOR THE ENTIRE PAD. EACH PAD SHALL BE TREATED SEPARATELY.
- \* A BERM WITH A MINIMUM HEIGHT OF 1 FOOT. SHALL BE PLACED AND COMPACTED ALONG THE OUTLET SIDE. A BERM, WITH A MINIMUM HEIGHT OF 6 INCHES, SHALL BE INSTALLED AND COMPACTED AROUND THE REMAINING PERIMETER OF THE PAD.
- \* A ROCK FILTER SHALL BE PLACED AT THE OUTLET LOCATION TO SLOWLY RELEASE THE CAPTURED FLOWS. THE ROCK FILTER SHALL BE 6 FEET IN I FNGTH
- \* THE ROCK FILTER SHALL HAVE A MINIMUM WIDTH OF 1 FOOT. \* THE MINIMUM HEIGHT OF THE ROCK FILTER SHALL BE 1 FOOT.
- \* THE ROCK SIZE SHALL BE BETWEEN 1 TO 3 INCHES IN DIAMETER. \* FIBER ROLL WITH THE EQUIVALENT LENGTH OF THE ROCK FILTER SHALL BE PROPERLY PLACED 1 FOOT DOWNSTREAM OF THE ROCK FILTER. \* ACCESS TO THE PAD SHALL BE RESTRICTED TO PREVENT TRACKING OFF
- OF THE PAD OR APPROPRIATE TRACKING CONTROL INSTALLED. SEE TYPICAL DETAIL BELOW:



NOTE: SEE SHEET 8 FOR EROSION CONTROL PLANS.

# **CALTRANS NO.** SYMBOL TC-1 -SS-9 <u>.SS-10</u> NS**-8.9** & 10 WM—1,4,5,6,8 & 9

BONDED FIBER MATRIX (BFM). OR EROSION CONTROL BLANKET, W/ VEGETATION STABILIZATION **PLANTING** 



С	COUNTY APPROVED CHANGES								
NO.	DESCRIPTION:	APPROVED BY:	DATE:						

PDS2017-LDGRMJ-30120

GRADING PERMIT NO:

DATE

