

Q:\12\2023\TM\TM1\WQIP\220329a02-WQIP source control.dwg [Feb-20-2013, 11:39]



SEE SHEET 3

SEE SHEET 3

SOURCE CONTROL BMPs

SOURCE CONTROL BMPs	PROJECT IMPLEMENTATION	PERMIT COMPLIANCE MET
① ON-SITE/FUTURE PUBLIC ROAD STORM DRAIN INLETS	MARK ALL INLETS WITH THE WORDS "NO DUMPING ! DRAINS TO WATERWAYS" AND "NO CONTAMINE" IN SPANISH. (X LOCATION(S) SEE DETAIL HEREON)	YES
② LANDSCAPE/OUTDOOR PESTICIDE USE	LANDSCAPING HAS BEEN DESIGNED TO MINIMIZE IRRIGATION AND RUNOFF, AND TO MINIMIZE THE USE OF FERTILIZERS AND PESTICIDES THAT CAN CONTRIBUTE TO STORM WATER	YES
③ SIDEWALKS, PARKING LOTS AND ROADS	SIDEWALKS, PARKING LOTS AND ROADS SHALL BE SWEEPED REGULARLY TO PREVENT THE ACCUMULATION OF LITTER AND DEBRIS. DEBRIS FROM PRESSURE WASHING WILL BE COLLECTED TO PREVENT ENTRY INTO THE STORM DRAIN SYSTEM. WASH WATER CONTAINING ANY CLEANING AGENT OR THE GREASER SHALL BE COLLECTED AND DISCHARGED TO THE SANITARY SEWER AND NOT DISCHARGED TO A STORMDRAIN	YES

SITE DESIGN LID

- THIS PROJECT INCORPORATES THE FOLOWING LID STRATEGIES:
- OPTIMIZING THE SITE LAYOUT
 - DETAIN AND RETAIN RUNOFF THROUGHOUT THE SITE
 - MINIMIZE IMPERVIOUS/ DIRECTLY CONNECTED IMPERVIOUS AREAS
 - DIRECT RUNOFF FROM IMPERVIOUS AREA TO BIO-RETENTION FACILITIES

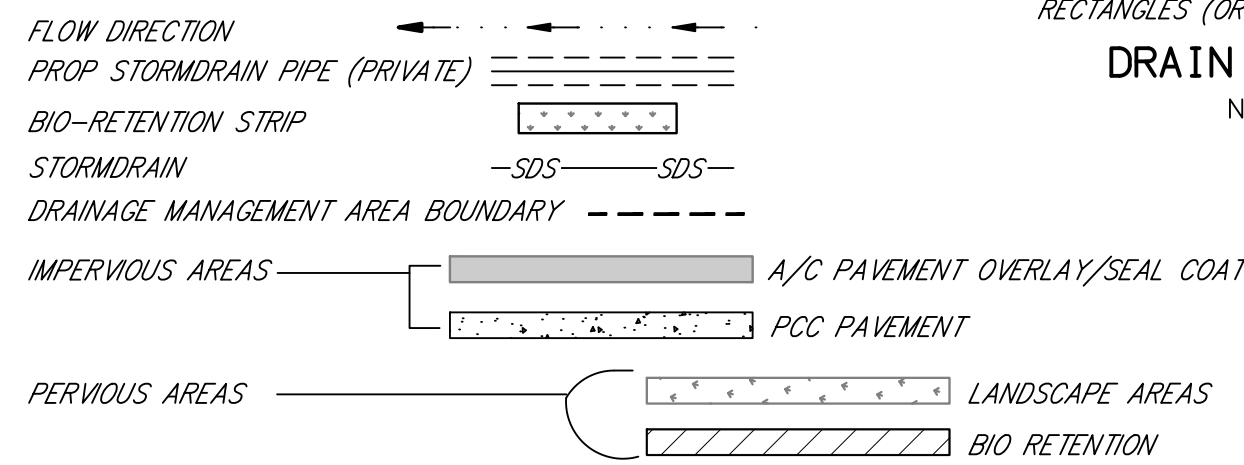


CITY STANDARD CURB MARKER #NDW AVAILABLE AT:
dasmanufacturing.com/storm_drain.html
3 INCHES X 5.25 INCHES ROUNDED CORNER
RECTANGLES (OR CITY APPROVED EQUAL)

DRAIN INLET MARKER

NOT TO SCALE

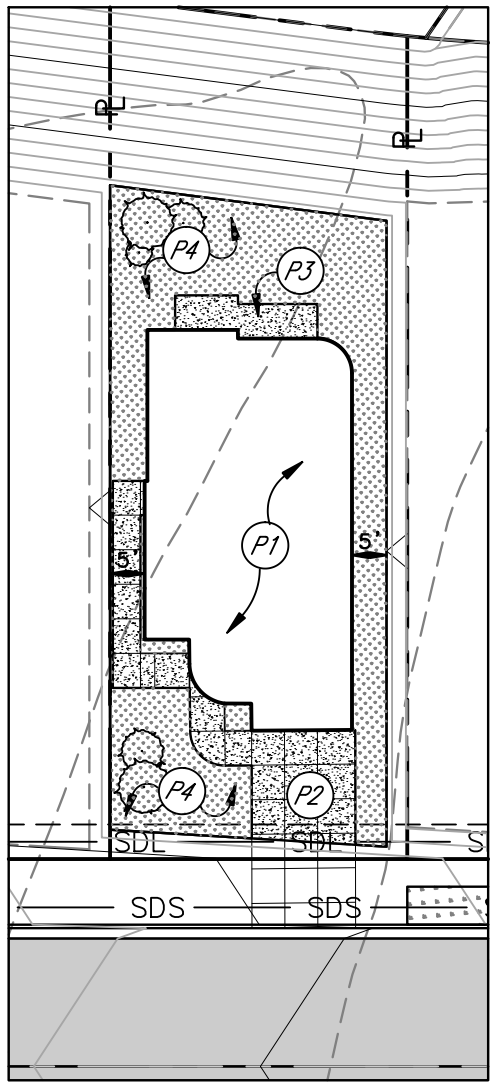
LEGEND



IMP = BIO RETENTION POND				
DMA NAME	AREA	SURFACE TYPE	IMP NAME	IMP AREA
DMA - D	11.06 AC	SEE DETAIL "A"	WATER QUALITY POND D	0.319 AC
DMA - E	1.27 AC	SEE DETAIL "A"	WATER QUALITY POND E	0.038 AC
DMA - F	1.54 AC	SEE DETAIL "A"	WATER QUALITY POND F	0.039 AC
DMA - B	1.02 AC	SEE DETAIL "A"	WATER QUALITY POND B	0.012 AC

IMP = BIO RETENTION STRIP				
DMA NAME	AREA	SURFACE TYPE	IMP NAME	IMP AREA
A1	0.083 AC	ASPHALT PAVEMENT	A-1	0.002 AC
A2	0.066 AC	ASPHALT PAVEMENT	A-2	0.003 AC
A3	0.061 AC	ASPHALT PAVEMENT	A-3	0.003 AC
A4	0.062 AC	ASPHALT PAVEMENT	A-4	0.003 AC
A5	0.053 AC	ASPHALT PAVEMENT	A-5	0.003 AC
A6	0.063 AC	ASPHALT PAVEMENT	A-6	0.003 AC
A7	0.054 AC	ASPHALT PAVEMENT	A-7	0.003 AC
A8	0.076 AC	ASPHALT PAVEMENT	A-8	0.003 AC
A9	0.068 AC	ASPHALT PAVEMENT	A-9	0.003 AC
A10	0.074 AC	ASPHALT PAVEMENT	A-10	0.003 AC
A11	0.055 AC	ASPHALT PAVEMENT	A-11	0.003 AC
A12	0.066 AC	ASPHALT PAVEMENT	A-12	0.003 AC
A13	0.057 AC	ASPHALT PAVEMENT	A-13	0.003 AC
A14	0.073 AC	ASPHALT PAVEMENT	A-14	0.003 AC
A15	0.037 AC	ASPHALT PAVEMENT	A-15	0.002 AC
A16	0.054 AC	ASPHALT PAVEMENT	A-16	0.003 AC
A17	0.073 AC	ASPHALT PAVEMENT	A-17	0.003 AC
A18	0.074 AC	ASPHALT PAVEMENT	A-18	0.003 AC
A19	0.166 AC	ASPHALT PAVEMENT	A-19	0.006 AC
A20	0.096 AC	ASPHALT PAVEMENT	A-20	0.003 AC
A21	0.085 AC	ASPHALT PAVEMENT	A-21	0.003 AC
A22	0.099 AC	ASPHALT PAVEMENT	A-22	0.003 AC
A23	0.056 AC	ASPHALT PAVEMENT	A-23	0.003 AC
A24	0.210 AC	ASPHALT PAVEMENT	A-24	0.008 AC
A25	0.062 AC	ASPHALT PAVEMENT	A-25	0.003 AC
A26	0.209 AC	ASPHALT PAVEMENT	A-26	0.009 AC
B1	0.073 AC	ASPHALT PAVEMENT	B-1	0.003 AC
B2	0.072 AC	ASPHALT PAVEMENT	B-2	0.003 AC
B3	0.068 AC	ASPHALT PAVEMENT	B-3	0.003 AC
B4	0.090 AC	ASPHALT PAVEMENT	B-4	0.003 AC
B5	0.061 AC	ASPHALT PAVEMENT	B-5	0.003 AC
B6	0.065 AC	ASPHALT PAVEMENT	B-6	0.003 AC
B7	0.040 AC	ASPHALT PAVEMENT	B-7	0.002 AC
B8	0.038 AC	ASPHALT PAVEMENT	B-8	0.002 AC
B9	0.175 AC	ASPHALT PAVEMENT	B-9	0.008 AC
B10	0.173 AC	ASPHALT PAVEMENT	B-10	0.009 AC
C1	0.053 AC	ASPHALT PAVEMENT	C-1	0.003 AC
C2	0.065 AC	ASPHALT PAVEMENT	C-2	0.003 AC
C3	0.064 AC	ASPHALT PAVEMENT	C-3	0.003 AC
C4	0.059 AC	ASPHALT PAVEMENT	C-4	0.003 AC
C5	0.082 AC	ASPHALT PAVEMENT	C-5	0.003 AC
C6	0.065 AC	ASPHALT PAVEMENT	C-6	0.003 AC
C7	0.085 AC	ASPHALT PAVEMENT	C-7	0.003 AC
C8	0.066 AC	ASPHALT PAVEMENT	C-8	0.003 AC
C9	0.108 AC	ASPHALT PAVEMENT	C-9	0.004 AC
C10	0.059 AC	ASPHALT PAVEMENT	C-10	0.003 AC
C11	0.079 AC	ASPHALT PAVEMENT	C-11	0.004 AC
C12	0.064 AC	ASPHALT PAVEMENT	C-12	0.003 AC
C13	0.067 AC	ASPHALT PAVEMENT	C-13	0.003 AC
C14	0.067 AC	ASPHALT PAVEMENT	C-14	0.008 AC
D1	0.230 AC	ASPHALT PAVEMENT	D-1	0.006 AC
D2	0.250 AC	ASPHALT PAVEMENT	D-2	0.010 AC
D3	0.225 AC	ASPHALT PAVEMENT	D-3	0.012 AC
D4	0.273 AC	ASPHALT PAVEMENT	D-4	0.012 AC
D5	0.221 AC	ASPHALT PAVEMENT	D-5	0.011 AC
D6	0.156 AC	ASPHALT PAVEMENT	D-6	0.007 AC

IMP = BIO RETENTION STRIP				
DMA NAME	AREA	SURFACE TYPE	IMP NAME	IMP AREA
L1	0.153 AC	ASPHALT PAVEMENT	L-1	0.005 AC
L2	0.146 AC	ASPHALT PAVEMENT	L-2	0.005 AC
L3	0.219 AC	ASPHALT PAVEMENT	L-3	0.008 AC
L4	0.086 AC	ASPHALT PAVEMENT	L-4	0.003 AC
L5	0.083 AC	ASPHALT PAVEMENT	L-5	0.003 AC
L6	0.085 AC	ASPHALT PAVEMENT	L-6	0.003 AC
L7	0.097 AC	ASPHALT PAVEMENT	L-7	0.003 AC
L8	0.075 AC	ASPHALT PAVEMENT	L-8	0.003 AC
L9	0.086 AC	ASPHALT PAVEMENT	L-9	0.002 AC
L10	0.094 AC	ASPHALT PAVEMENT	L-10	0.003 AC
L11	0.109 AC	ASPHALT PAVEMENT	L-11	0.003 AC
L12	0.086 AC	ASPHALT PAVEMENT	L-12	0.003 AC
L13	0.099 AC	ASPHALT PAVEMENT	L-13	0.003 AC
L14	0.081 AC	ASPHALT PAVEMENT	L-14	0.002 AC
L15	0.099 AC	ASPHALT PAVEMENT	L-15	0.003 AC
L16	0.082 AC	ASPHALT PAVEMENT	L-16	0.003 AC
L17	0.098 AC	ASPHALT PAVEMENT	L-17	0.003 AC
L18	0.054 AC	ASPHALT PAVEMENT	L-18	0.003 AC
L19	0.060 AC	ASPHALT PAVEMENT	L-19	0.003 AC
L20	0.202 AC	ASPHALT PAVEMENT	L-20	0.008 AC
L21	0.226 AC	ASPHALT PAVEMENT	L-21	0.008 AC
L22	0.100 AC	ASPHALT PAVEMENT	L-22	0.004 AC
L23	0.087 AC	ASPHALT PAVEMENT	L-23	0.004 AC



DETAIL "A"
TYPICAL DRAINAGE MANAGEMENT FOR EACH LOT
NOT TO SCALE

IMP = BIORETENTION POND		
DMA NAME	AREA	SURFACE TYPE
P1	1576 SF	ROOF
P2	465 SF	CONCRETE DRIVEWAY
P3	103 SF	CONCRETE PATIO
P4	1530 SF	TURF

EACH PAD DRAINS TO PRIVATE STORMDRAIN AND ULTIMATELY DRAINS TO BIO-RETENTION POND

SAN MARCOS STORMWATER PROGRAM MANAGER	
By:	ERICA RYAN, SW PROGRAM MANAGER
Date:	

SAN MARCOS FIRE DEPARTMENT		VALLECITOS WATER DISTRICT FOR GRADING PERMIT ONLY		ENGINEER OF WORK		CITY APPROVED CHANGES				RECOMMENDED FOR APPROVAL		APPROVED FOR CONSTRUCTION		BENCH MARK		CITY OF SAN MARCOS ENGINEERING DIVISION		City Drawing No.			
By: _____ Fire Marshal		By: _____ KENNETH J. GERDES <i>DATE</i>		By: _____ Date: _____ Name: <i>ROBERT D. DENTINO</i>		No.	Description	City	VMD	Date	By: _____ PETER KUEY, PRINCIPAL CIVIL ENGINEER		By: _____ MICHAEL D. EDWARDS, CITY ENGINEER		<div></div>		WATER QUALITY IMPROVEMENT PLAN DRAINAGE MANAGEMENT AREA & SOURCE CONTROL BMP	XX-00-00 (00X)	GP-		
Date: _____		R.C.E. 39307 EXP: 12/13		Drawn By: _____ R.C.E.: 45629 exp: 12-31-14							R.C.E.: 44034 exp.: 06-30-2013	R.C.E.: 32977 exp.: 06-30-2014									
																SAN MARCOS HIGHLANDS			Sheet 2 of 7		

THIS PROJECT INCORPORATES THE FOLLOWING LID STRATEGIES:

- ① OPTIMIZING THE SITE LAYOUT
 - DETAIN AND RETAIN RUNOFF THROUGHOUT THE SITE
 - MINIMIZE IMPERVIOUS/DIRECTLY CONNECTED IMPERVIOUS AREAS
- ② DIRECT RUNOFF FROM IMPERVIOUS AREA TO BIO-RETENTION FACILITIES



<p align="center">SAN MARCOS STORMWATER PROGRAM MANAGER</p>	
<p>By: _____ ERICA RYAN, SW PROGRAM MANAGER</p>	<p>DATE: _____</p>

	SOURCE CONTROL BMPs	PROJECT IMPLEMENTATION	PERMIT COMPLIANCE MET
①	ON-SITE/FUTURE PUBLIC ROAD STORM DRAIN INLETS	MARK ALL INLETS WITH THE WORDS "NO DUMPING DRAINS TO WATERWAYS" AND "NO CONTAMINE" IN SPANISH. (X LOCATION(S) SEE DETAIL HEREON)	YES
②	LANDSCAPE/OUTDOOR PESTICIDE USE	LANDSCAPING HAS BEEN DESIGNED TO MINIMIZE IRRIGATION AND RUNOFF, AND TO MINIMIZE THE USE OF FERTILIZERS AND PESTICIDES THAT CAN CONTRIBUTE TO STORM WATER	YES
③	SIDEWALKS, PARKING LOTS AND ROADS.	SIDEWALKS, PARKING LOTS AND ROADS SHALL BE SWEEPED REGULARLY TO PREVENT THE ACCUMULATION OF LITTER AND DEBRIS. DEBRIS FROM PRESSURE WASHING WILL BE COLLECTED TO PREVENT ENTRY INTO THE STORM DRAIN SYSTEM. WASH WATER CONTAINING ANY CLEANING AGENT OR THE GREASER SHALL BE COLLECTED AND DISCHARGED TO THE SANITARY SEWER AND NOT DISCHARGED TO A STORMDRAIN	YES

Diagram illustrating the components of a stormwater management system cross-section:

- FLOW DIRECTION:** Indicated by an arrow pointing left.
- PROP STORMDRAIN PIPE (PRIVATE):** A horizontal pipe structure.
- BIO-STRIP RETENTION:** A rectangular area containing a bio-strip.
- STORMDRAIN:** A horizontal pipe structure.
- DRAINAGE AREA BOUNDARY:** Indicated by a dashed line.
- IMPERVIOUS AREAS:**
 - A/C PAVEMENT OVERLAY/SEAL COAT:** A thick, light-colored layer.
 - PCC PAVEMENT:** A thick, light-colored layer.
- PERVIOUS AREAS:**
 - LANDSCAPE AREAS:** A rectangular area with a pattern of small circles.
 - BIO RETENTION:** A rectangular area with a pattern of small circles.

IMP = BIO RETENTION POND				
DMA NAME	AREA	SURFACE TYPE	IMP NAME	IMP AREA
DMA - G	13.74 AC	SEE DETAIL "A" ON SHEET 2	WATER QUALITY POND G	0.407 AC

IMP = BIO STRIP RETENTION					
DMA NAME	AREA	SURFACE TYPE	IMP NAME	IMP AREA	
(A27)	0.974 AC	ASPHALT PAVEMENT	A-27	0.039 AC	
(A28)	0.803 AC	ASPHALT PAVEMENT	A-28	0.036 AC	
(L24)	0.109 AC	ASPHALT PAVEMENT	L-24	0.004 AC	
(L25)	0.086 AC	ASPHALT PAVEMENT	L-25	0.004 AC	
(L26)	0.102 AC	ASPHALT PAVEMENT	L-26	0.004 AC	
(L27)	0.088 AC	ASPHALT PAVEMENT	L-27	0.004 AC	
(L28)	0.077 AC	ASPHALT PAVEMENT	L-28	0.004 AC	
(L29)	0.083 AC	ASPHALT PAVEMENT	L-29	0.004 AC	
(L30)	0.103 AC	ASPHALT PAVEMENT	L-30	0.004 AC	
(L31)	0.083 AC	ASPHALT PAVEMENT	L-31	0.004 AC	
(L32)	0.105 AC	ASPHALT PAVEMENT	L-32	0.004 AC	
(L33)	0.085 AC	ASPHALT PAVEMENT	L-33	0.004 AC	
(L34)	0.112 AC	ASPHALT PAVEMENT	L-34	0.004 AC	
(L35)	0.092 AC	ASPHALT PAVEMENT	L-35	0.004 AC	
(L36)	0.108 AC	ASPHALT PAVEMENT	L-36	0.004 AC	
(L37)	0.087 AC	ASPHALT PAVEMENT	L-37	0.004 AC	
(L38)	0.102 AC	ASPHALT PAVEMENT	L-38	0.004 AC	
(L39)	0.089 AC	ASPHALT PAVEMENT	L-39	0.004 AC	
(L40)	0.107 AC	ASPHALT PAVEMENT	L-40	0.004 AC	
(L41)	0.089 AC	ASPHALT PAVEMENT	L-41	0.004 AC	
(L42)	0.105 AC	ASPHALT PAVEMENT	L-42	0.004 AC	
(L43)	0.086 AC	ASPHALT PAVEMENT	L-43	0.004 AC	
(L44)	0.106 AC	ASPHALT PAVEMENT	L-44	0.004 AC	
(L45)	0.087 AC	ASPHALT PAVEMENT	L-45	0.004 AC	
(L46)	0.108 AC	ASPHALT PAVEMENT	L-46	0.004 AC	
(L47)	0.088 AC	ASPHALT PAVEMENT	L-47	0.004 AC	
(L48)	0.108 AC	ASPHALT PAVEMENT	L-48	0.004 AC	
(L49)	0.089 AC	ASPHALT PAVEMENT	L-49	0.004 AC	
(L50)	0.106 AC	ASPHALT PAVEMENT	L-50	0.004 AC	
(E5)	0.080 AC	ASPHALT PAVEMENT	E-5	0.003 AC	
(E6)	0.068 AC	ASPHALT PAVEMENT	E-6	0.003 AC	
(E7)	0.091 AC	ASPHALT PAVEMENT	E-7	0.003 AC	
(E8)	0.080 AC	ASPHALT PAVEMENT	E-8	0.003 AC	
(E9)	0.082 AC	ASPHALT PAVEMENT	E-9	0.003 AC	
(E10)	0.078 AC	ASPHALT PAVEMENT	E-10	0.003 AC	
(E11)	0.079 AC	ASPHALT PAVEMENT	E-11	0.004 AC	
(E12)	0.085 AC	ASPHALT PAVEMENT	E-12	0.004 AC	
(E13)	0.070 AC	ASPHALT PAVEMENT	E-13	0.003 AC	
(E16)	0.069 AC	ASPHALT PAVEMENT	E-16	0.003 AC	
(E17)	0.077 AC	ASPHALT PAVEMENT	E-17	0.003 AC	
(E18)	0.080 AC	ASPHALT PAVEMENT	E-18	0.003 AC	
(E19)	0.074 AC	ASPHALT PAVEMENT	E-19	0.003 AC	
(E20)	0.071 AC	ASPHALT PAVEMENT	E-20	0.003 AC	

DMA NAME	AREA	SURFACE TYPE	IMP NAME	IMP AREA
(A29)	0.038 AC	ASPHALT PAVEMENT	A-29	
(A30)	0.040 AC	ASPHALT PAVEMENT	A-30	
(A31)	0.852 AC	ASPHALT PAVEMENT	A-31	
(A32)	0.634 AC	ASPHALT PAVEMENT	A-32	
(E1)	0.057 AC	ASPHALT PAVEMENT	E-1	
(E2)	0.048 AC	ASPHALT PAVEMENT	E-2	
(E3)	0.086 AC	ASPHALT PAVEMENT	E-3	
(E4)	0.094 AC	ASPHALT PAVEMENT	E-4	
(E13)	0.609 AC	ASPHALT PAVEMENT	E-13	
(E14)	0.411 AC	ASPHALT PAVEMENT	E-14	
(F1)	0.338 AC	ASPHALT PAVEMENT	F-1	
(F2)	0.286 AC	ASPHALT PAVEMENT	F-2	

SAN MARCOS FIRE DEPARTMENT		VALLECITOS WATER DISTRICT FOR GRADING PERMIT ONLY		ENGINEER OF WORK		CITY APPROVED CHANGES			RECOMMENDED FOR APPROVAL		APPROVED FOR CONSTRUCTION		BENCH MARK		CITY OF SAN MARCOS ENGINEERING DIVISION		City Drawing No.
By: _____ Fire Marshal		By: _____ KENNETH J. GERDES DATE _____		By: _____ Date: _____ Name: ROBERT D. DENTINO					By: PETER KUEY, PRINCIPAL CIVIL ENGINEER		By: MICHAEL D. EDWARDS, CITY ENGINEER				WATER QUALITY IMPROVEMENT PLAN DRAINAGE MANAGEMENT AREA XX-00-00 (00X) & SOURCE CONTROL BMP SAN MARCOS HIGHLANDS		GP-
Date: _____		R.C.E.: 39307 EXP: 12/13		Drawn By R.C.E.: 45629 exp: 12-31-14					R.C.E.: 44034 exp.: 06-30-2013		R.C.E.: 32977 exp.: 06-30-2014						Sheet 3 of 7
									Date: _____		Date: _____				V.W.D. PROJECT NO.		V.W.D.

V.W.D.