FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY
DESIGNED	BRENDAN HASTIE
CHECKED	CARL HEWINGS
DELINEATED	BRIAN LEDGERWOOD

REGISTERED PROFESSIONAL ENGINEER — John D. Goddard — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05

INDEX OF SHEETS

No.	Description
1	TITLE SHEET
2	TYPICAL SECTIONS/ABBREVIATIONS
3	EXISTING CONDITIONS/CONSTRAINTS
4	GRADING PLAN
5	DETAILS
6	WATER POLLUTION CONTROL PLAN – CONCEPTUAL
7	WATER POLLUTION CONTROL NOTES/DETAILS
8	BORING LOGS
9	IRRIGATION PLAN, LEGEND & SCHEDULE
10	IRRIGATION DETAILS
11	IRRIGATION DETAILS
12	LANDSCAPE PLANTING PLAN
13	PLANTING SCHEDULE AND DETAILS

REGIONAL STANDARD DRAWINGS, April 2003

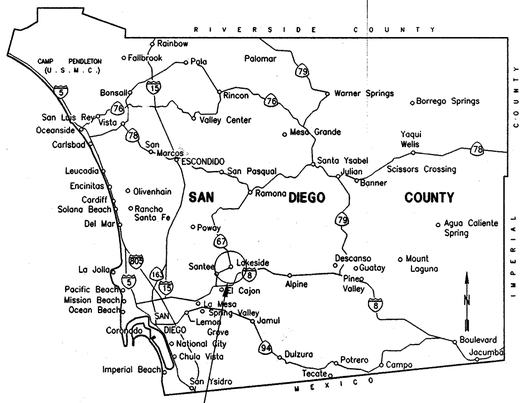
CONCRETE SILL & RIP-RAP PAD D-40
WING TYPE HEADWALL D-34
CHAINLINK FENCE AND GATE M-5, M-6

COUNTY OF SAN DIEGO, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

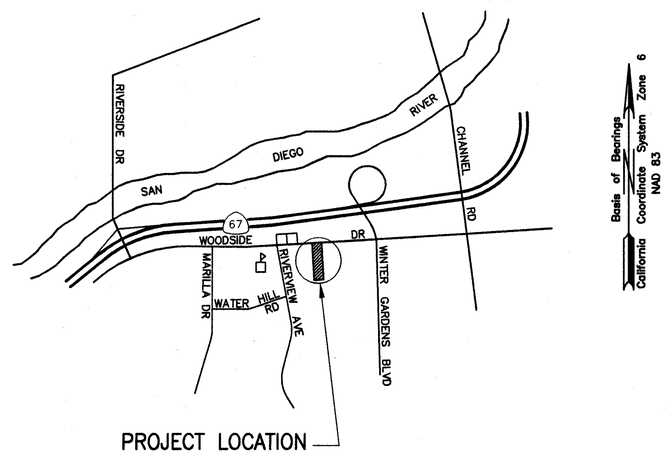
PLANS FOR CONSTRUCTION OF

WOODSIDE AVENUE (R.S. 331) WATER QUALITY BASIN

In The Vicinity of Lakeside



PROJECT LOCATION



PROJECT LOCATION

VICINITY MAP
NO SCALE

RECORD DRAWINGS
APPROVED Carlton B. Snuffer
DATE 01/03/06

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. FORTY-EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT TELEPHONE 1-800-422-4133.

OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICE ALERT, MUST BE INDIVIDUALLY CONTACTED.

SDP: 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RECOMMENDED BY: A. Khoury DATE 4/19/05
DATE
APPROVED BY: Douglas M. Isbell DATE 4/19/05
DOUGLAS M. ISBELL, COUNTY ENGINEER

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX 250 N. 1785 E.
CONST. COMPL. 12/30/05
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
TITLE SHEET

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 1 OF 13

W:\14804\14804-B_Woodside_Avenue\County\CS100\C-SH01-Tdwg, 04/15/05 01:47:17 PM, ato

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

REGISTERED PROFESSIONAL ENGINEER — JOHN D. GODDARD — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
&	AND
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACP	ASBESTOS CEMENT PIPE
BC	BEGINNING OF CURVE
BVC	BEGINNING OF VERTICAL CURVE
BW	BOTTOM OF WALL
C&G	CURB AND GUTTER
CFS	CUBIC FEET PER SECOND
CI	CAST IRON PIPE
CIP	CAST-IN-PLACE
℄	CENTERLINE
CL	CLASS
CO	CLEANOUT
CONC	CONCRETE
CONST	CONSTRUCT
CONST'N	CONSTRUCTION
CSP	CORRUGATED STEEL PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CTSP	CALTRANS STANDARD PLANS
DE	DEAD END
Δ	DELTA
DRAIN	DRAINAGE
DWY	DRIVEWAY
EC	END OF CURVE
EL	ELEVATION
EP	EDGE OF PAVEMENT
EVC	END OF VERTICAL CURVE
EX	EXISTING
EG	EXISTING GROUND
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
HH	HANDHOLE
HWY	HIGHWAY
IE	INVERT ELEVATION
L	ARC LENGTH
LF	LINEAR FOOT
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
NAD	NORTH AMERICAN DATUM
OG	ORIGINAL GROUND
OHD	OVERHEAD
PCC	PORTLAND CEMENT CONCRETE
PCR	POINT OF CURB/CURVE RETURN
PED	PEDESTRIAN
PI	POINT OF INTERSECTION/ANGLE POINT
PL	PLACE
P	PROPERTY LINE
PROF	PROFILE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
Q	RATE OF FLOW
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RS	ROAD SURVEY
RSD	REGIONAL STANDARD DRAWING
RT	RIGHT
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
SDCDS	SAN DIEGO COUNTY DESIGN STANDARD
S/W	SIDEWALK
S	SLOPE
ST	STREET
STA	STATION
SWR	SANITARY SEWER
T	TANGENT LENGTH
TC	TOP OF CURB
TELE	TELEPHONE
TW	TOP OF WALL
USC&GS	UNITED STATES COASTAL & GEODETIC SURVEY
VC	VERTICAL CURVE LENGTH
VCP	VITRIFIED CLAY PIPE
WTR	WATER

HORIZONTAL CONTROL

ALL BEARINGS, DISTANCES, STATIONS AND COORDINATES ARE GRID AND BASED ON THE NORTH AMERICAN DATUM OF 1983(1991.35) CALIFORNIA COORDINATE SYSTEM, ZONE 6, AS DEFINED BY SECTIONS 8801 THROUGH 8819 OF THE CALIFORNIA PUBLIC RESOURCES CODE. CONTROL IS BASED ON FIRST ORDER CONTROL STATIONS 'FIT-2' & 'GF 25-92' PER ROS 16652.

AT STATION: "WAD XP 2"

NORTHING = 1891719.677
EASTING = 6351319.690
EL = 384.19
λ = 0°22'35.01"

THE COMBINATION FACTOR = 0.99997574

GROUND DISTANCE = $\frac{\text{GRID DISTANCE}}{\text{COMBINATION FACTOR}}$

BENCHMARKS

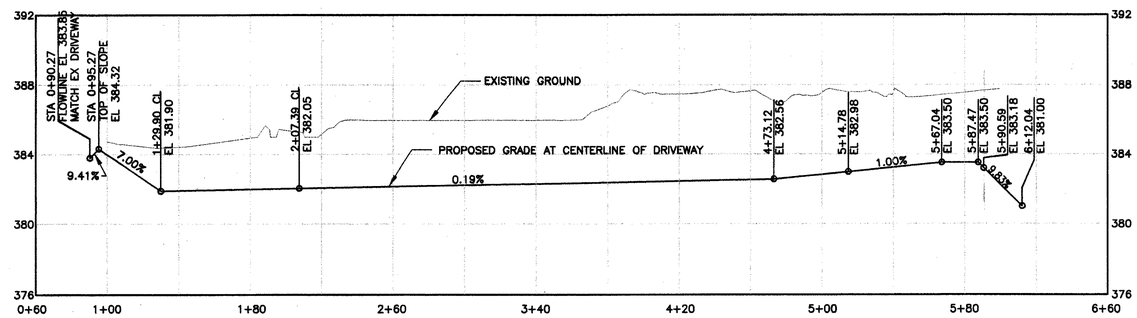
DESIGNATION: 0169

DESCRIPTION: BRASS DISK SET IN CONCRETE BELOW SURFACE

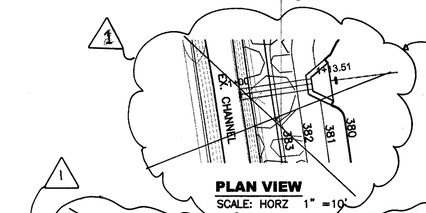
LOCATION: C/L MON ON WINTERGARDENS BLVD APPROX. 2674 FT. N'LY OF INT. OF GAY RIO DRIVE

ELEVATION: 462.558'

DATUM: VERTICAL DATUM IS NGVD 1929.

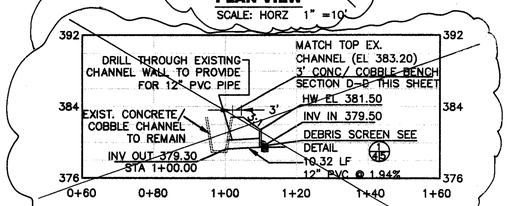


10' MAINTENANCE ACCESS ROAD PROFILE
SCALE HORZ 1" =40'
VERT 1" =4'



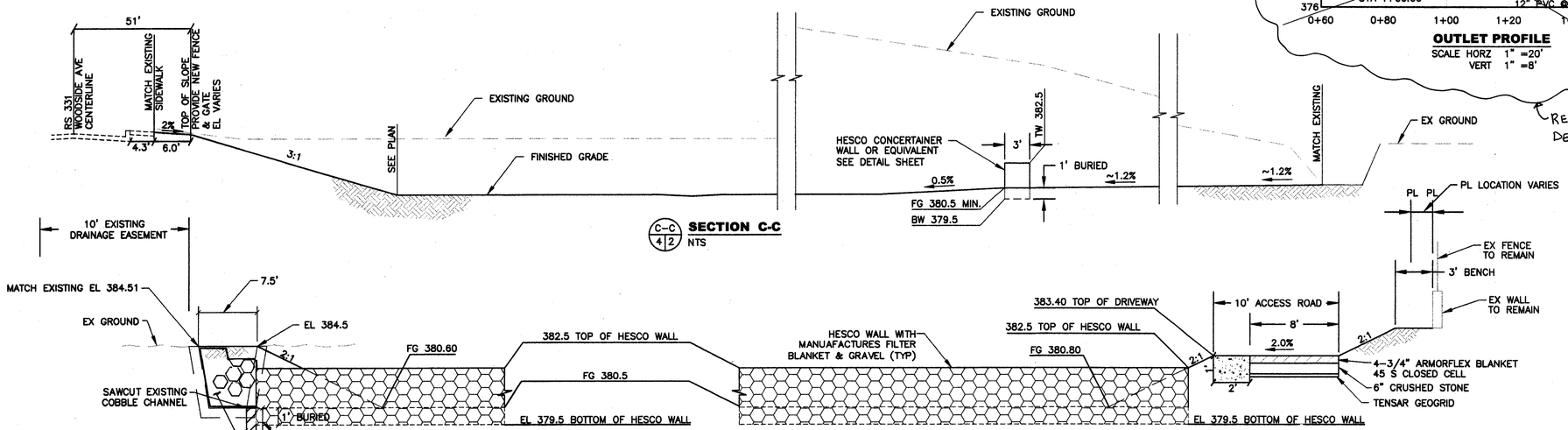
REPLACED WITH DETAIL 1 ON SHEET 4A

PLAN VIEW
SCALE: HORZ 1" =10'



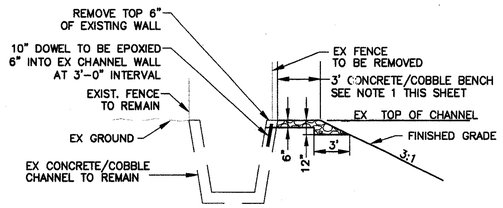
OUTLET PROFILE
SCALE HORZ 1" =20'
VERT 1" =8'

REPLACED WITH DETAIL 2 ON SHEET 4A

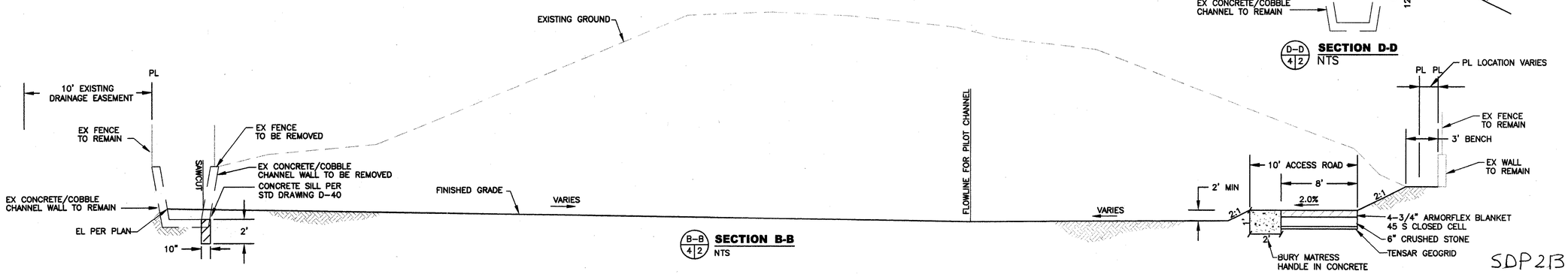


(C-C / 4|2) **SECTION C-C**
NTS

(A-A / 4|2) **SECTION A-A**
NTS



(D-D / 4|2) **SECTION D-D**
NTS



(B-B / 4|2) **SECTION B-B**
NTS

NOTES:

1. USE PORTION OF EXISTING CHANNEL REMOVAL.

(1 / 4|5) DETAIL NUMBER; SHEET DETAIL FOUND; PLAN SHEET REFERENCED

SDP 213

Basis of Bearings: California Coordinate System Zone 6 NAD 83

W:\14804\14804-B_Woodside_Avenue\County\CS100\C-SH02-2.dwg, 04/15/05 01:11:36 PM, gto

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY — San Diego, Riverside, Sacramento, Orange, Phoenix, Tucson — 5620 FRIARS ROAD, SAN DIEGO, CA 92110, 619.291.0707 (FAX)619.291.4165 — rickengineering.com

REVISIONS	BY	APPROVED	DATE
1 RECORD DRAWING REVISIONS	SS		10-31-05

COORDINATE INDEX: 250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
TYPICAL SECTIONS / ABBREVIATIONS

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 2 OF 13

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

REGISTERED PROFESSIONAL ENGINEER — John D. Goddard — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05

NOTE:

ⓐ EXISTING 5' DRAINAGE DITCH EASEMENT TO COUNTY OF SAN DIEGO, BK. 831, P.191, O.R. REC. SEPT. 29, 1983

ⓑ EXISTING 15' DRAINAGE CHANNEL EASEMENT TO SAN DIEGO COUNTY FLOOD CONTROL DISTRICT F/P 86-494409, O.R. REC. OCT 30, 1986

ⓒ EXISTING 35' EASEMENT FOR CHANNEL MAINTENANCE TO WOODSIDE LTD. F/P 83-397266, O.P. REC. NOV. 2, 1983

ⓓ EXISTING 15' DRAINAGE EASEMENT TO COUNTY OF SAN DIEGO PER DOC NO 1997-0475014 OR REC, SEPT. 25, 1997

Basis of Bearings
California Coordinate System Zone 6
NAD 83

SDP 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com
San Diego Riverside Sacramento Orange Phoenix Tucson

REVISIONS	BY	APPROVED	DATE

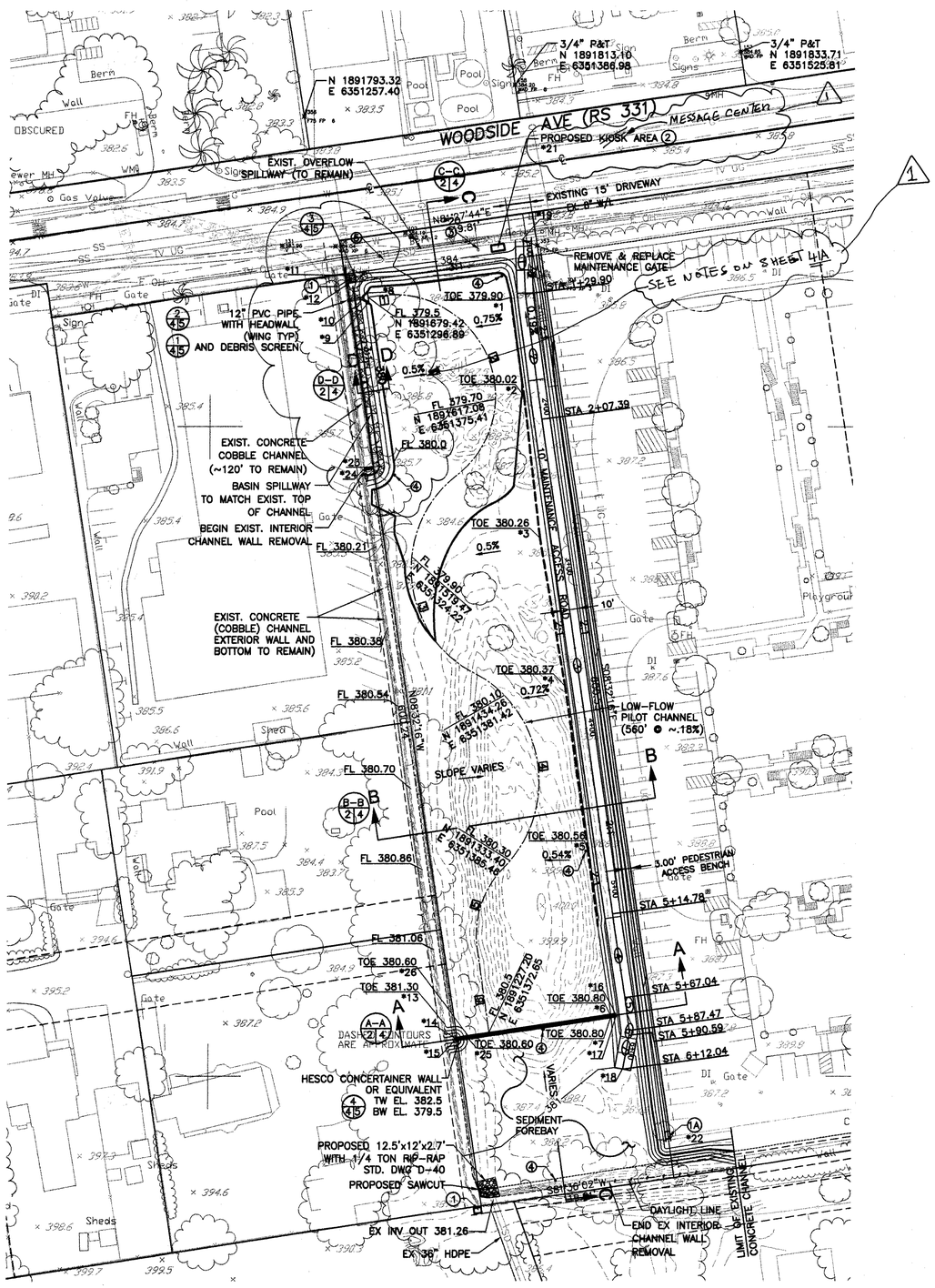
COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

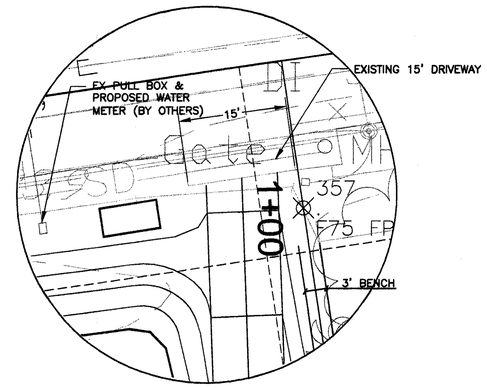
WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
EXISTING CONDITIONS / CONSTRAINTS

SCALE: HOR. 1"=40' VERT. N/A
W.A. YF1531 R.S. 331
SHEET 3 OF 13

W:\14804\14804-B_Woodside_Avenue\County\CS100\C-SH03-CON.dwg, 04/15/05 01:09:48 PM, oto

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES





SCALE: HORZ 1" = 10'

Basis of Bearings
California Coordinate System Zone 6
NAD 83

NOTES:

NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION, AS DETERMINED BY THE ENGINEER, SHALL BE PERFORMED UNTIL THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR, AND APPROVED

THE CONTRACTOR SHALL CONSIDER OTHER MEASURES, AS NECESSARY, TO SUPPLEMENT THE TEMPORARY CONTROL MEASURES SHOWN ON THESE PLANS, IN ORDER TO MEET THE POLLUTION CONTROL OBJECTIVES OF THE SWPPP

THE TOTAL AREA OF SOIL DISTURBANCE FOR THIS PROJECT IS 1.6 ACRES

CONSTRUCTION NOTE:

1. CONSTRUCT 3.5' x 4.5' CONCRETE PAD (4" THICK) FOR SAMPLING BOX.
1A. CONSTRUCT 3' x 4.5' CONCRETE PAD (4" THICK) FOR SAMPLING BOX.
2. CONTRACTOR TO PROVIDE AND INSTALL PREMANUFACTURED KIOSK BY MESSAGE CENTER BARCO PRODUCTS: MODEL KMCP3, SINGLE SIDED, DESERT TAN COLOR (OR EQUAL). DESIGNATED 4" SLAB AREA IS SHOWN AS 4' x 8'. LOCATE FACE OF SLAB ON FUTURE R/W

   ASSUME KIOSK WILL HAVE DUAL 4"x4" POSTS TO BE PLACED IN 12" DIA, 30" DEEP CONCRETE FOOTING
3. EXISTING 1" WATER SERVICE TO REMAIN AND 1" WATER METER TO BE INSTALLED BY OTHERS
4. CONTRACTOR TO INSTALL SEDIMENT DEPTH MARKERS, MARKERS PER DETAIL 5/4D
5. CONTRACTOR TO REMOVE EX FENCE AND GATE AND REPLACE WITH NEW VINYL COATED CHAIN LINK FENCE AND GATE PER STD DWG M-5, M-6. NEW FENCE AND GATE TO BE PLACED ON FUTURE R/W

10' MAINTENANCE ACCESS ROAD CENTERLINE DATA

NO.	DELTA OR BRG	RADIUS	LENGTH	REMARKS
1	S02°10'04"E		34.63'	
2	S07°44'19"E		77.77'	
3	S08°20'13"E		307.39'	
4	S08°32'33"E		52.26'	
5	S07°34'05"E		27.42'	
6	Δ =17°51'23"	10.00'	3.12'	
7	S10°17'18"W		21.45'	

FLOWLINE DATA

NO.	DELTA OR BRG	RADIUS	LENGTH	REMARKS
1	S82°27'29"W		8.79'	
2	Δ=148°39'45"	62.33'	161.73'	
3	Δ=115°36'37"	73.00'	147.30'	
4	Δ=106°28'54"	74.58'	138.61'	
5	Δ =54°14'23"	59.64'	56.46'	
6	N07°51'49"W		49.47'	

NO.	NORTHING	EASTHING	REMARKS
*1	N 1891679.37	E 6351384.54	TOE
*2	N 1891619.46	E 6351392.96	TOE
*3	N 1891531.02	E 6351403.04	TOE
*4	N 1891439.80	E 6351418.79	TOE
*5	N 1891340.38	E 6351433.07	TOE
*6	N 1891238.31	E 6351447.21	TOE
*7	N 1891236.26	E 6351447.36	TOE
*8	N 1891682.05	E 6351296.51	WING WALL
*9	N 1891676.61	E 6351297.29	WING WALL
*10	N 1891678.96	E 6351294.29	12" PVC PIPE INVERT
*11	N 1891688.69	E 6351285.34	SAMPLING PAD
*12	N 1891688.69	E 6351285.94	SAMPLING PAD
*13	N 1891232.05	E 6351345.80	TOE
*14	N 1891223.91	E 6351351.46	NW CORNER OF HESCO WALL
*15	N 1891222.13	E 6351351.73	SW CORNER OF HESCO WALL
*16	N 1891238.81	E 6351450.58	NE CORNER OF HESCO WALL
*17	N 1891237.02	E 6351450.82	SE CORNER OF HESCO WALL
*18	N 1891204.40	E 6351455.09	END OF MAINTENANCE ACCESS ROAD
*19	N 1891716.07	E 6351392.23	BEGIN OF MAINTENANCE ACCESS ROAD
*20	N 1891709.04	E 6351364.44	EXISTING WATER SERVICE
*21	N 1891710.47	E 6351376.58	KIOSK
*22	N 1891164.12	E 6351482.87	SAMPLING PAD
*23	N 1891574.84	E 6351299.13	BEGIN EXISTING INTERIOR CHANNEL WALL REMOVAL
*24	N 1891574.26	E 6351295.22	BEGIN EXISTING INTERIOR CHANNEL WALL REMOVAL
*25	N 1891223.39	E 6351360.10	TOE
*26	N 1891225.17	E 6351359.84	TOE

SDP213

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

REGISTERED PROFESSIONAL ENGINEER — Gordon D. Godsoe — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com
San Diego Riverside Sacramento Orange Phoenix Tucson

REVISIONS	BY	APPROVED	DATE
1 RECORD DRAWING REVISIONS	SS		10-31-05

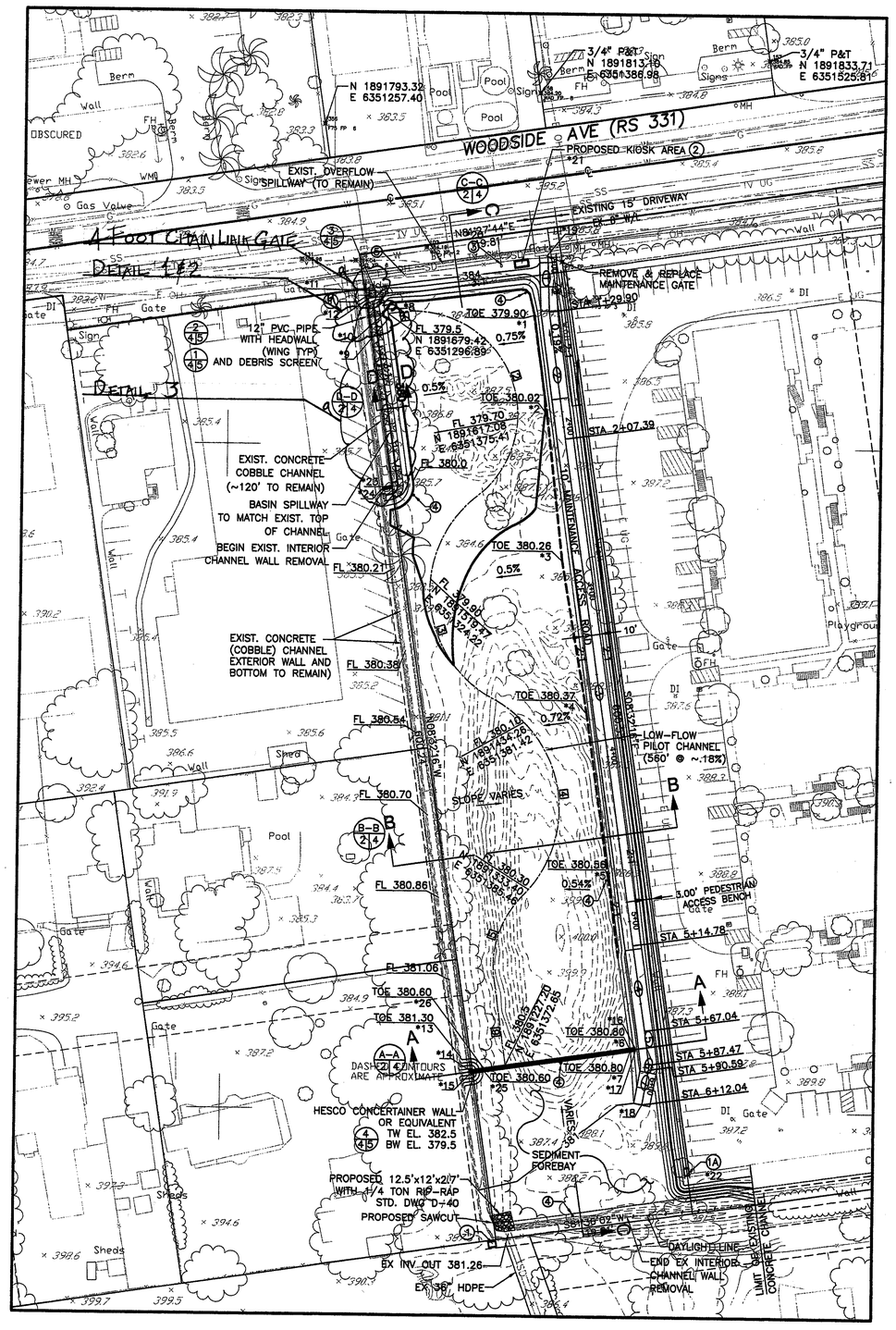
COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

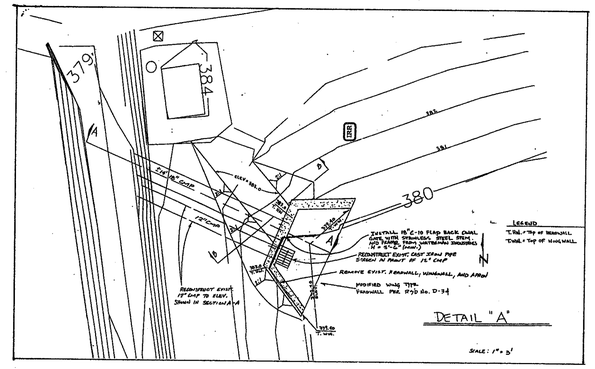
WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
GRADING PLAN

SCALE: HOR. 1"=40' VERT. N/A
W.A. YF1531 R.S. 331
SHEET 4 OF 13

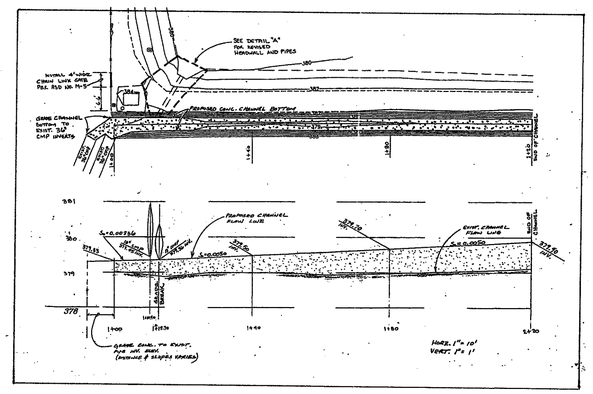
W:\4804A\4804-B_Woodside_Avenue\County\CS100\C-SH04-PL.dwg, 04/15/05 01:43:16 PM, gto

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

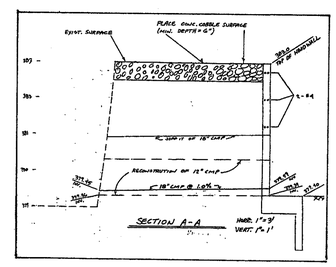




DETAIL 1



DETAIL 3



DETAIL 2

Basis of Bearings
California Coordinate System Zone 6
NAD 83

AS BUILTS CHANGE ORDER # 2
BARTON SWITZER, RESIDENT ENGINEER
12/22/05

CONSTRUCTION NOTE:

1. CONSTRUCT 3.5' x 4.5' CONCRETE PAD (4" THICK) FOR SAMPLING BOX.

1A. CONSTRUCT 3' x 4.5' CONCRETE PAD (4" THICK) FOR SAMPLING BOX.

2. CONTRACTOR TO PROVIDE AND INSTALL PREMANUFACTURED KIOSK BY BARCO PRODUCTS: MODEL KMCP3, SINGLE SIDED, DESERT TAN COLOR (OR EQUAL). DESIGNATED 4" SLAB AREA IS SHOWN AS 4' x 8'. LOCATE FACE OF SLAB ON FUTURE R/W

   ASSUME KIOSK WILL HAVE DUAL 4"x4" POSTS TO BE PLACED IN 12" DIA, 30" DEEP CONCRETE FOOTING

3. EXISTING 1" WATER SERVICE TO REMAIN AND 1" WATER METER TO BE INSTALLED BY OTHERS

4. CONTRACTOR TO INSTALL SEDIMENT DEPTH MARKERS, MARKERS PER DETAIL 5/45

5. CONTRACTOR TO REMOVE EX FENCE AND GATE AND REPLACE WITH NEW VINYL COATED CHAIN LINK FENCE AND GATE PER STD DWG M-5, M-6. NEW FENCE AND GATE TO BE PLACED ON FUTURE R/W

10' MAINTENANCE ACCESS ROAD CENTERLINE DATA

NO.	DELTA OR BRG	RADIUS	LENGTH	REMARKS
1	S02°10'04"E		34.63'	
2	S07°44'19"E		77.77'	
3	S08°20'13"E		307.39'	
4	S08°32'33"E		52.26'	
5	S07°34'05"E		27.42'	
6	Δ =17°51'23"	10.00'	3.12'	
7	S10°17'18"W		21.45'	

FLOWLINE DATA

NO.	DELTA OR BRG	RADIUS	LENGTH	REMARKS
1	S82°27'29"W		8.79'	
2	Δ=148°39'45"	62.33'	161.73'	
3	Δ=115°36'37"	73.00'	147.30'	
4	Δ=106°28'54"	74.58'	138.61'	
5	Δ =54°14'23"	59.64'	56.46'	
6	N07°51'49"W		49.47'	

NO.	NORTHING	EASTHING	REMARKS
*1	N 1891679.37	E 6351384.54	TOE
*2	N 1891619.46	E 6351392.96	TOE
*3	N 1891531.02	E 6351403.04	TOE
*4	N 1891439.80	E 6351418.79	TOE
*5	N 1891340.38	E 6351433.07	TOE
*6	N 1891238.31	E 6351447.21	TOE
*7	N 1891236.26	E 6351447.36	TOE
*8	N 1891682.05	E 6351296.51	WING WALL
*9	N 1891676.61	E 6351297.29	WING WALL
*10	N 1891678.96	E 6351294.29	12" PVC PIPE INVERT
*11	N 1891688.69	E 6351285.34	SAMPLING PAD
*12	N 1891688.69	E 6351285.94	SAMPLING PAD
*13	N 1891232.05	E 6351345.80	TOE
*14	N 1891223.91	E 6351351.46	NW CORNER OF HESCO WALL
*15	N 1891222.13	E 6351351.73	SW CORNER OF HESCO WALL
*16	N 1891238.81	E 6351450.58	NE CORNER OF HESCO WALL
*17	N 1891237.02	E 6351450.82	SE CORNER OF HESCO WALL
*18	N 1891204.40	E 6351455.09	END OF MAINTENANCE ACCESS ROAD
*19	N 1891716.07	E 6351392.23	BEGIN OF MAINTENANCE ACCESS ROAD
*20	N 1891709.04	E 6351364.44	EXISTING WATER SERVICE
*21	N 1891710.47	E 6351376.58	KIOSK
*22	N 1891164.12	E 6351482.87	SAMPLING PAD
*23	N 1891574.84	E 6351299.13	BEGIN EXISTING INTERIOR CHANNEL WALL REMOVAL
*24	N 1891574.26	E 6351295.22	BEGIN EXISTING INTERIOR CHANNEL WALL REMOVAL
*25	N 1891223.39	E 6351360.10	TOE
*26	N 1891225.17	E 6351359.84	TOE

REGISTERED PROFESSIONAL ENGINEER — John D. Goddard — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER _____ DATE

SDP 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY — San Diego, Riverside, Sacramento, Orange, Phoenix, Tucson
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: 250 N. 1785 E.
CONST. COMPL. _____
FIELD REVISIONS _____

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
GRADING PLAN

SCALE: HOR. 1"=40' VERT. N/A
W.A. YF1531 R.S. 331
SHEET 4A OF 13

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

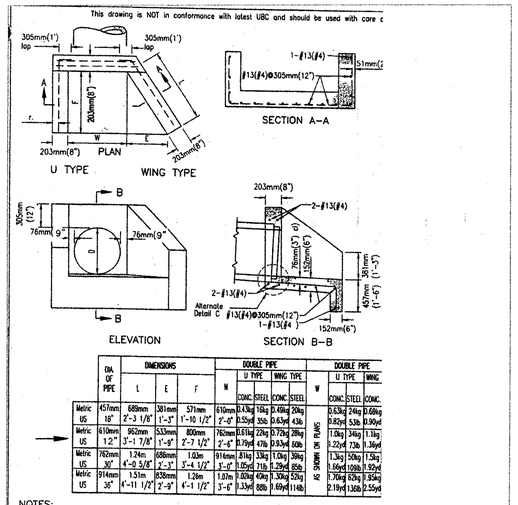
PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

REGISTERED PROFESSIONAL ENGINEER — JOHN D. GOODACRE — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05

This drawing is NOT in conformance with latest UBC and should be used with care c



	DIA. OF PIPE	DIMENSIONS L	E	F	W	DOUBLE PIPE U TYPE CONC.	STEEL	WING TYPE CONC.	STEEL	W	DOUBLE PIPE U TYPE CONC.	STEEL	WING CONC.
Metric	457mm	689mm	381mm	571mm	610mm	0.43kg	16kg	0.49kg	20kg		0.63kg	24kg	0.68kg
US	18"	2'-3 1/8"	1'-2"	1'-10 1/2"	2'-0"	0.95yd	35lb	0.63yd	43lb		0.82yd	53lb	0.90yd
Metric	610mm	962mm	533mm	800mm	762mm	0.61kg	22kg	0.73kg	28kg		1.0kg	34kg	1.1kg
US	1'2"	3'-1 7/8"	1'-8"	2'-7 1/2"	2'-6"	0.79yd	47lb	0.93yd	60lb		1.22yd	73lb	1.36yd
Metric	762mm	1.24m	686mm	1.03m	914mm	.81kg	13kg	1.0kg	38kg		1.34kg	50kg	1.5kg
US	30"	4'-0 5/8"	2'-3"	3'-4 1/2"	3'-0"	1.05yd	21lb	1.29yd	85lb		1.66yd	109lb	1.92yd
Metric	914mm	1.51m	838mm	1.26m	1.07m	1.02kg	40kg	1.30kg	57kg		1.70kg	63kg	1.95kg
US	36"	4'-11 1/2"	2'-9"	4'-1 1/2"	3'-6"	1.33yd	88lb	1.69yd	114lb		2.19yd	138lb	2.55yd

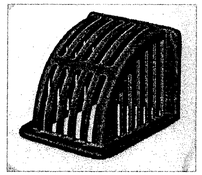
NOTES:
1. Concrete shall be 332kg/M³ -C-22Mpa (560-C-3250)
2. Exposed corners to be chamfered 3/4".
3. Multiple pipes to be set a distance of D/2, with a 305mm(1') minimum between outside diameters of
4. Top of headwall shall be placed approximately parallel to profile grade when the grade is 3% or more.
5. Skewed pipes: Dimension W to be increased in width or length due to skew or multiple pipes.
6. For pipe wall thickness greater than 76mm(3") use alternate Detail-C.

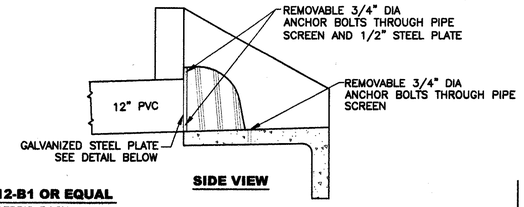
Revision	By	Approved	Date
ORIGINAL		Kercheval	2/75
Add Metric		T. Stanton	03/03

SAN DIEGO REGIONAL STANDARD DRAWING

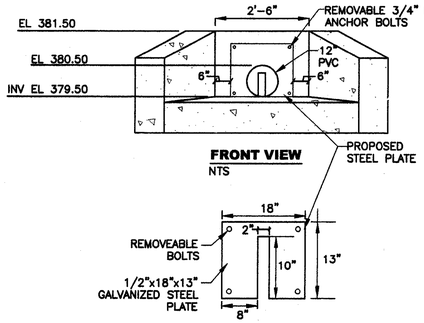
MODIFIED HEADWALL

DETAIL 2/4/5



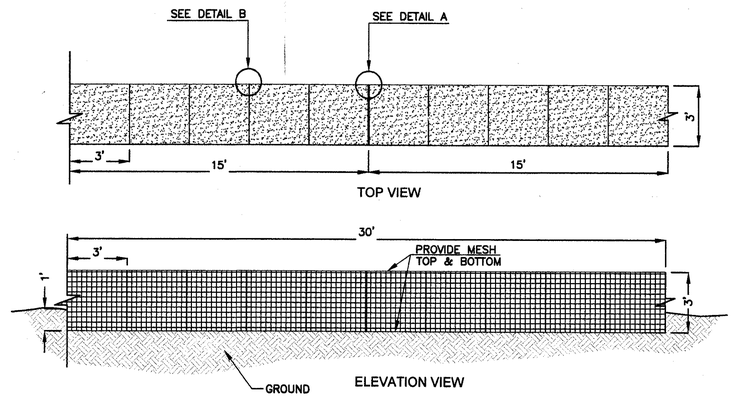


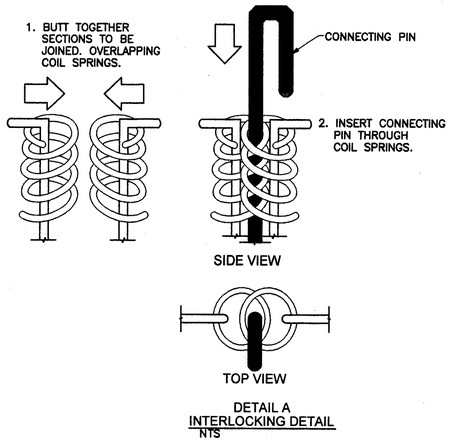
1/4/5 OUTLET PROTECTION ~ NEENAH R-7512-B1 OR EQUAL
CAST IRON PIPE SCREEN FOR 12" PIPE, DEBRIS RACK TO BE MOUNTED TO HEADWALL AND APRON

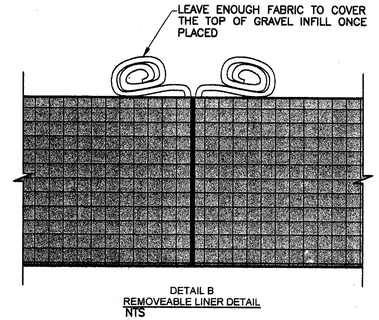


CAST IRON PIPE SCREEN FOR 12" PIPE			
WIDTH	HEIGHT	LENGTH	OPENING
18"	13"	18"	1"

* SIX 3/4" HOLES FOR ANCHOR BOLTS





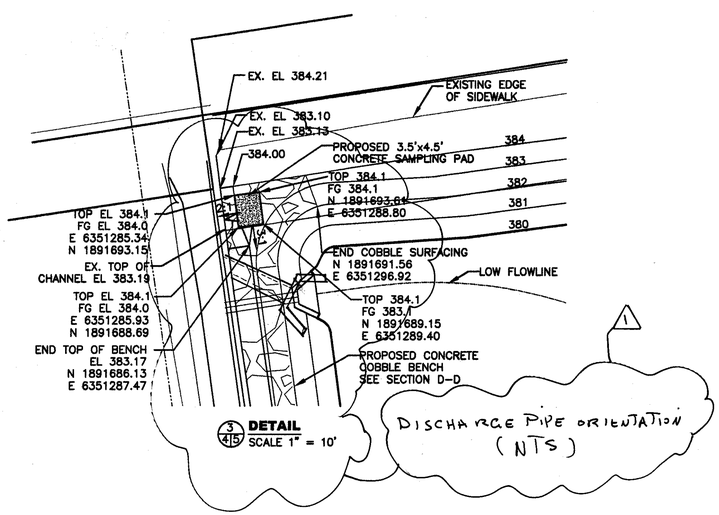


NOTE:

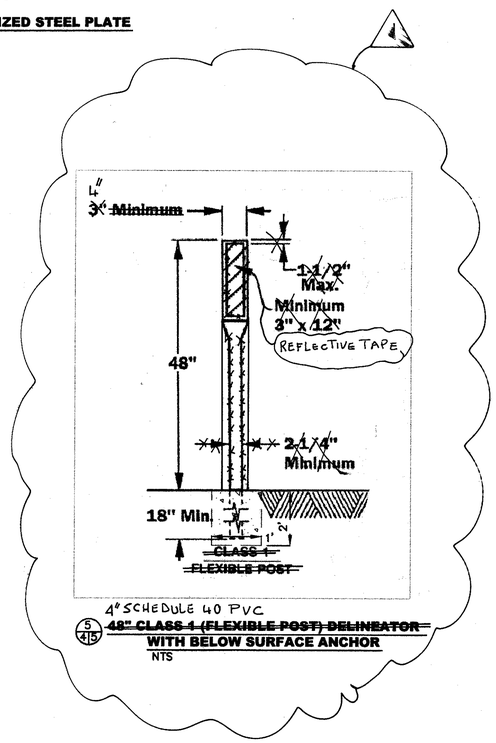
WHEN UNITS ARE JOINED WITH ZIP PINS, THE GEO LINER IS ROLLED BACK, ALLOWING CONTINUOUS 2" MINUS/ GRAVEL INFILL, EFFECTIVELY CREATING A CONTINUOUS BARRIER.

HESCO WALL SYSTEM (OR APPROVED EQUIVALENT) SHALL HAVE WIRE MESH TOP HINGED TO SYSTEM & SECURELY FASTENED.

4/4/5 HESCOWALL INSTALLATION DETAIL
NTS



3/4/5 DETAIL
SCALE 1" = 10'



5/4/5 48" CLASS 1 (FLEXIBLE POST) DELINEATOR WITH BELOW SURFACE ANCHOR
NTS

SDP 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY — 5620 FRIARS ROAD, SAN DIEGO, CA 92110, 619.291.0707, (FAX)619.291.4165 — rickengineering.com — San Diego, Riverside, Sacramento, Orange, Phoenix, Tucson

REVISIONS	BY	APPROVED	DATE
1 RECORD DRAWING REVISIONS	SS		10-31-05

COORDINATE INDEX: 250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
DETAILS

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 5 OF 13

W:\14804\14804-B_Woodside_Avenue\County\CS100\C-SHDS-DET.dwg, 04/15/05 01:17:34 PM, gtc

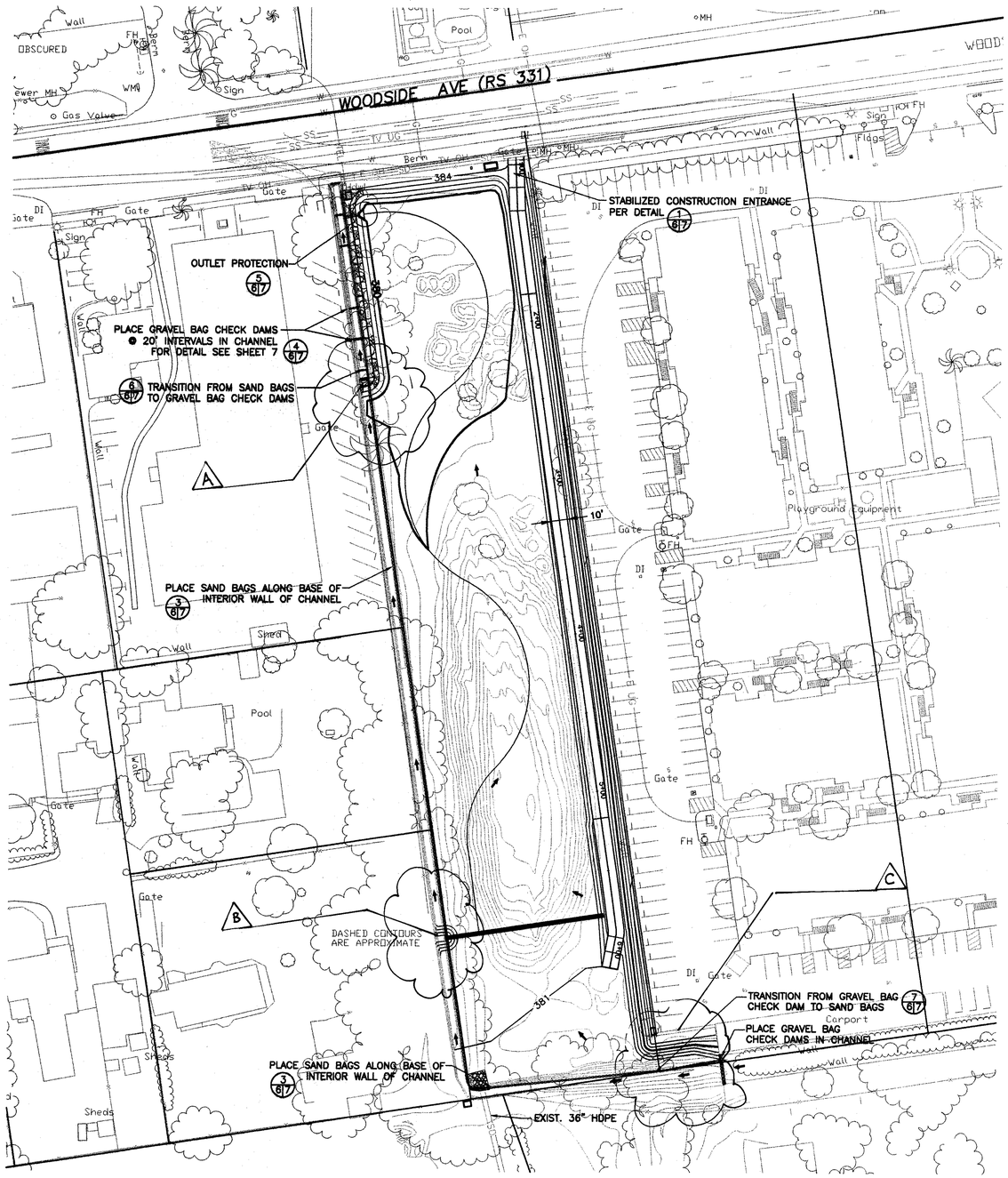
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

REGISTERED PROFESSIONAL ENGINEER — JOHN D. GOODBODY — No. 33637 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05



SEQUENCE OF CONSTRUCTION

1. PERFORM MAJORITY OF WORK WITHIN SITE PRIOR TO REMOVING THE INTERIOR WALL OF THE EXISTING ON-SITE CONCRETE/COBBLE CHANNEL. THIS WILL ALLOW OFF SITE RUNOFF TO CONTINUE ON ITS PRE-PROJECT PATH THROUGH THE SITE WITHOUT COMMINGLING WITH ON-SITE DISTURBED AREAS.
2. STABILIZE ALL DISTURBED AREAS PRIOR TO REMOVING THE INTERIOR CHANNEL WALL AND PLACE TEMPORARY SAND BAGS ALONG BASE OF INTERIOR WALL CHANNEL.

A — PLACED REBAR AND CONCRETE SLURRY ON BACKSIDE COBBLE CHANNEL

B — EXTENDED HESCO WALL 6.6' TO EDGE OF CONCRETE COBBLE CHANNEL

C — PLACED RIP RAP FROM EXCAVATION ON SLOPE

1

Basis of Bearings
California Coordinate System Zone 6
NAD 83

SDP 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com
San Diego Riverside Sacramento Orange Phoenix Tucson

	REVISIONS	BY	APPROVED	DATE
1	RECORD DRAWING REVISIONS	SS		10-31-05

COORDINATE INDEX: 250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
WATER POLUTION CONTROL PLAN-CONCEPTUAL

SCALE: HOR. 1"=40' VERT. N/A
W.A. YF1531 R.S. 331
SHEET 6 OF 13

W:\14504\14504-B_Woodside_Avenue\County\C5100\C-SHD5-ER1.dwg, 04/15/05 01:25:48 PM, qto

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

REGISTERED PROFESSIONAL ENGINEER — John D. Goddard — No. 33037 — Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA. 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05

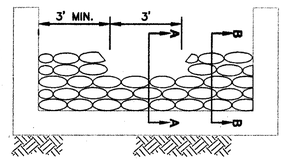
WATER POLLUTION CONTROL NOTES:

1. NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION, AS DETERMINED BY THE ENGINEER, SHALL BE PERFORMED UNTIL THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN SUBMITTED BY THE CONTRACTOR, AND APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL CONSIDER OTHER CONTROL MEASURES, AS NECESSARY, TO SUPPLEMENT THE CRITICAL TEMPORARY CONTROL MEASURES SHOWN ON THESE PLANS, IN ORDER TO MEET THE POLLUTION CONTROL OBJECTIVES OF THE SWPPP.
3. THE TOTAL AREA OF SOIL DISTURBANCE FOR THIS PROJECT IS 1.7 ACRES.

LEGEND

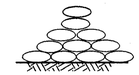
QTY.

1. DIRECTION OF STORMWATER RUNOFF
2. TEMPORARY GRAVEL BAGS (DESILTING BARRIER)
3. EROSION CONTROL (TYPE D2)
4. TEMPORARY SAND FILLED BAGS

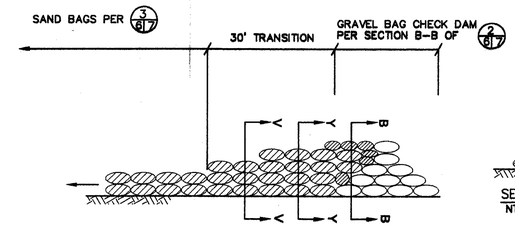


TEMPORARY GRAVEL BAG CHECK DAMS (2 / 6 7)
NTS

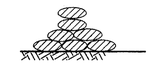
SECTION A–A
NTS



SECTION B–B
NTS



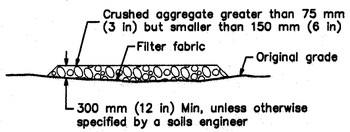
SECTION V–V
NTS



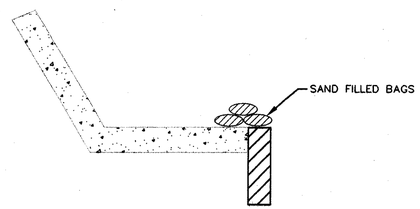
SECTION Y–Y
NTS

SECTION B–B
NTS

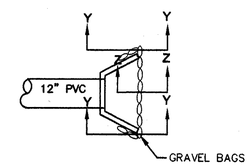
TRANSITION FROM GRAVEL BAG CHECK DAM TO SAND BAGS (7 / 6 7)
NTS



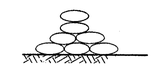
SECTION B-B
NTS



TEMPORARY SAND FILLED BAGS (3 / 6 7)
NTS

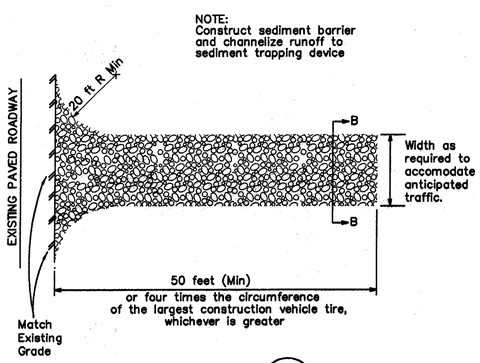


SECTION Z–Z
NTS

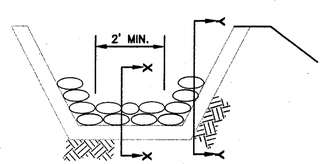


SECTION Y–Y
NTS

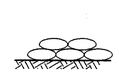
OUTLET PROTECTION (5 / 6 7)
NTS



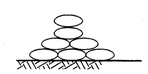
PLAN (1 / 6 7)
NTS



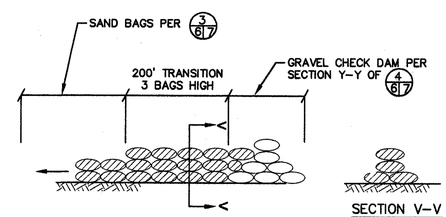
GRAVEL CHECK DAMS (4 / 6 7)
NTS



SECTION X–X
NTS



SECTION Y–Y
NTS



SECTION V–V
NTS

TRANSITION FROM SANDBAGS TO GRAVEL CHECK DAM (6 / 6 7)
NTS

SDP 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com
San Diego Riverside Sacramento Orange Phoenix Tucson

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
WATER POLUTION CONTROL NOTES/ DETAILS

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 7 OF 13

W:\14604\14604-B_Woodside_Avenue\County\CS100\C-SH07-ER2.dwg, 04/15/05 01:26:52 PM, dlo

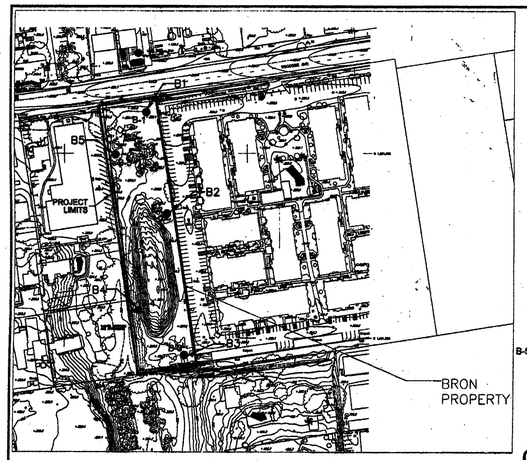
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — John D. Goddard — No. 33037 Exp. 6/30/06 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	BRENDAN HASTIE	
CHECKED	CARL HEWINGS	
DELINEATED	BRIAN LEDGERWOOD	

RICK ENGINEERING
5620 FRIARS RD.
SAN DIEGO, CA, 92110
619-291-0707

REGISTERED CIVIL ENGINEER — DATE 4/15/05



WATER QUALITY BASIN
AT WOODSIDE AVENUE
SANTEE, CALIFORNIA

N
APPROX. SCALE: 1" = 150'

GEOCON LEGEND

B-5 .....APPROX. LOCATION OF BORING

GEOCON INCORPORATED
GEOTECHNICAL CONSULTANTS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159
PROJECT NO. 07426 - 22 - 01
FIGURE 2
SITE PLAN DATE 03-21-2005

PROJECT NO. 07426-22-01

BORING B 1
ELEV. (MSL.) 384' DATE COMPLETED 03-03-2005
EQUIPMENT MOBILE B61

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B1-1			SM	FILL Loose, moist, dark brown, Silty, fine to coarse SAND			
2	B1-2					11	105.9	10.4
4				SM	ALLUVIUM Medium dense, moist, tan-brown, Silty, fine to medium SAND and mica			
6	B1-3					24	100.9	7.2
8	B1-4					25	100.7	12.5
10	B1-5			ML	Stiff, wet, brown, SILT with mica	14		
12								
14			▼	ML	Stiff, saturated, brown, Sandy SILT with mica			
16	B1-6					15		

BORING TERMINATED AT 16 FEET
Water encountered at 15 feet
Hole filled with 5.6 ft³ of bentonite chips

07426-22-01.GPJ

Log of Boring B 1, Page 1 of 1

SAMPLE SYMBOLS: ☐ .. SAMPLING UNSUCCESSFUL; ◧ .. STANDARD PENETRATION TEST; ■ .. DRIVE SAMPLE (UNDISTURBED); ☒ .. DISTURBED OR BAG SAMPLE; ◪ .. CHUNK SAMPLE; ▼ .. WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 07426-22-01

BORING B 2
ELEV. (MSL.) 386' DATE COMPLETED 03-03-2005
EQUIPMENT MOBILE B61

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B2-1				ALLUVIUM Firm, moist, dark brown, SILT with mica			
2	B2-2			ML		7	88.0	20.5
4								
6	B2-3			SM	Moderately dense, moist, brown, Silty, fine to coarse SAND with mica	15		
8	B2-4			ML	Very stiff, moist, brown, SILT with mica	26	93.9	28.4
10	B2-5				Stiff, moist, brown, Sandy SILT with mica	15		
12			▼	ML	-Becomes saturated at 12' 9"			
14								
16	B2-6			SP	Moderately dense, saturated, tan, fine to coarse SAND with mica	28		

BORING TERMINATED AT 16½ FEET
Water encountered at 12 feet 9 inches
Hole filled with 5.6 ft³ of bentonite chips

07426-22-01.GPJ

Log of Boring B 2, Page 1 of 1

SAMPLE SYMBOLS: ☐ .. SAMPLING UNSUCCESSFUL; ◧ .. STANDARD PENETRATION TEST; ■ .. DRIVE SAMPLE (UNDISTURBED); ☒ .. DISTURBED OR BAG SAMPLE; ◪ .. CHUNK SAMPLE; ▼ .. WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 07426-22-01

BORING B 3
ELEV. (MSL.) 387' DATE COMPLETED 03-03-2005
EQUIPMENT MOBILE B61

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B3-1				FILL Loose, moist, brown-tan, Silty, fine to coarse SAND; some debris			
2	B3-2			SM		10	94.4	24.5
4					ALLUVIUM Very stiff, moist, brown, SILT; trace of sand and mica			
6	B3-3			ML		26	109.6	19.7
8	B3-4			SM	Dense, moist, red-brown, Silty, fine to medium SAND	69	107.1	21.8
10	B3-5				Very stiff, wet, red-brown, SILT with mica; trace very fine sand	22	95.9	26.5
12			▼	ML	-Becomes saturated at 11' 5"			
14								
16	B3-6					42		

BORING TERMINATED AT 16 FEET
Water encountered at 11 feet 5 inches
Hole filled with 5.6 ft³ of bentonite chips

07426-22-01.GPJ

Log of Boring B 3, Page 1 of 1

SAMPLE SYMBOLS: ☐ .. SAMPLING UNSUCCESSFUL; ◧ .. STANDARD PENETRATION TEST; ■ .. DRIVE SAMPLE (UNDISTURBED); ☒ .. DISTURBED OR BAG SAMPLE; ◪ .. CHUNK SAMPLE; ▼ .. WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 07426-22-01

BORING B 4
ELEV. (MSL.) 388' DATE COMPLETED 03-03-2005
EQUIPMENT MOBILE B61

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B4-1				ALLUVIUM Firm, moist, dark brown, SILT with mica			
2	B4-2			ML		9	100.3	20.4
4								
6	B4-3					9	88.8	28.7
8	B4-4			ML	Stiff, moist, brown, SILT with mica; trace very fine sand	21		
10	B4-5				Very stiff, moist, dark brown, Clayey SILT with mica	23	89.9	32.2
12			▼	ML	-Becomes saturated at 13' 3"			
14								
16	B4-6				Moderately dense, saturated, red-brown, Clayey, fine to medium SAND	14		
18				SC				
20	B4-7					41	118.3	14.1
22								
24				SM	Moderately dense, saturated, tan-brown, Silty, fine to coarse SAND with mica			
26	B4-8					34		

BORING TERMINATED AT 26½ FEET
Water encountered at 13 feet 3 inches
Hole filled with 9.2 ft³ of bentonite chips

07426-22-01.GPJ

Log of Boring B 4, Page 1 of 1

SAMPLE SYMBOLS: ☐ .. SAMPLING UNSUCCESSFUL; ◧ .. STANDARD PENETRATION TEST; ■ .. DRIVE SAMPLE (UNDISTURBED); ☒ .. DISTURBED OR BAG SAMPLE; ◪ .. CHUNK SAMPLE; ▼ .. WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 07426-22-01

BORING B 5
ELEV. (MSL.) 388' DATE COMPLETED 03-03-2005
EQUIPMENT MOBILE B61

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B5-1				ALLUVIUM Soft, moist, dark brown, Sandy SILT with mica			
2	B5-2			ML		6	96.1	24.8
4								
6	B5-3			SM	Moderately dense, moist, brown, Silty, fine to medium SAND and mica	17	107.6	18.7
8	B5-4			ML	Stiff, moist, brown SILT with mica; trace very fine sand	18	97.7	34.2
10	B5-5				Stiff, moist, brown SILT with mica	11		
12				ML				
14								
16	B5-6		▼	ML	Stiff, saturated, brown, SANDY SILT with mica; some roots	12		

BORING TERMINATED AT 16½ FEET
Water encountered at 16 feet
Hole filled with 5.6 ft³ of bentonite chips

07426-22-01.GPJ

Log of Boring B 5, Page 1 of 1

SAMPLE SYMBOLS: ☐ .. SAMPLING UNSUCCESSFUL; ◧ .. STANDARD PENETRATION TEST; ■ .. DRIVE SAMPLE (UNDISTURBED); ☒ .. DISTURBED OR BAG SAMPLE; ◪ .. CHUNK SAMPLE; ▼ .. WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

SDP 213

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
San Diego — Riverside — Sacramento — Orange — Phoenix — Tucson
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
BORING LOGS

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 8 OF 13

W:\14804\14804-B_Woodside_Avenue\County\CS100\C-SH08-BR.dwg, 04/07/05 08:15:08 AM, clip

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

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

IRRIGATION NOTES:

1. PLANS ARE DIAGRAMMATIC AND APPROXIMATE. ALL PIPING, VALVE BOXES, BACKFLOW PREVENTERS, ETC., SHALL BE LOCATED IN LANDSCAPE AREAS. NO IRRIGATION EQUIPMENT SHALL BE LOCATED IN HARDSCAPE. GROUP VALVE BOXES AND LOCATE IN SHRUB AREAS WHENEVER POSSIBLE. ALL IRRIGATION TO BE PLACED ENTIRELY WITHIN THE PROPERTY LINES.
2. THE IRRIGATION SYSTEM IS DESIGNED TO OPERATE AT 80 PSI. THE CONTRACTOR SHALL VERIFY THE AVAILABLE WATER PRESSURE AT THE P.O.C. AND PROVIDE THE OWNER AND THE LANDSCAPE ARCHITECT WITH TESTING RESULTS, IN WRITING, PRIOR TO THE INITIATION OF ANY LANDSCAPE WORK.
3. SEE SHEET 10 & 11 FOR IRRIGATION DETAILS.
4. IRRIGATION SYSTEM SHALL BE ADJUSTED SO THAT NO OVER-SPRAY ONTO HARDSCAPE.
5. SEE SHEET 12 FOR PLANTING PLAN.
6. WATER METER, BACKFLOW PREVENTER, AND MASTER VALVE TO BE LOCATED ENTIRELY WITHIN 5' BENCH ADJ. TO SIDEWALK.

ADDITIONAL IRRIGATION NOTES

1. UVR/PVC PIPE AND FITTINGS (BROWNLINE OR EQUAL)

A. PRESSURE LINE PIPE SHALL BE PVC 1120, TYPE I GRADE I NSF APPROVED, AS MANUFACTURED BY BROWNLINE PIPE COMPANY (OR EQUAL) IN ACCORDANCE WITH ASTM D-1785 AND SHALL BE OF NOMINAL SCHEDULE 40 PIPE CLASSIFICATION. MATERIAL SHALL MEET ASTM D-1784, CELL CLASS 12454B.

B. ALL PLASTIC PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, NOMINAL PIPE SIZE, UVR-PVC TYPE AND GRADE, PRESSURE RATING IN PSI, NSF APPROVAL AND DATE OF EXTRUSION.

C. ALL FITTINGS SHALL BE UVR/PVC AS MANUFACTURED BY BROWNLINE PIPE COMPANY (OR EQUAL) PVC 1120, TYPE I, GRADE 1 NSF APPROVED, IN ACCORDANCE WITH ASTM D-2466, SCHEDULE 40 SOCKET TYPE WITH THE DIMENSION CONFORMING TO AND INTENDED FOR USE WITH I.P.S. OUTSIDE DIAMETER SCHEDULE 40 PIPE.

D. ALL RISER NIPPLES SHALL BE UVR-PVC SHCEDULE 80, PVC 1120, TYPE I, GRADE I, NSF APPROVED AS MANUFACTURED BY BROWNLINE PIPE COMPANY (OR EQUAL) IN ACCORDANCE WITH ASTM D-1785. MATERIAL SHALL MEET ASTM D-1784 CELL CLASS 12454B. THE NIPPLES SHALL BE 1/2" OR 3/4" I.P.S. DIMENSION WITH LENGTH AS SPECIFIED ON PLANS.

E. STAKES FOR UVR PIPE SHALL BE OF 1/2" SQUARE DIMENSIONAL STEEL TUBING WITH A MINIMUM WALL OF 0.060, THE STAKE POINT BEING CUT AT AN ANGLE OF 60 DEGREES. ALL STAKES FOR USE WITH THE RISER STABILIZER SHALL BE 24" MINIMUM LENGTH. ALL STAKES FOR USE WITH THE PIPE STABILIZER SHALL BE 18" MINIMUM LENGTH UNLESS SPECIFIED ON THE PLANS WITH DIFFERENT LENGTH DIMENSIONS.

IRRIGATION LEGEND

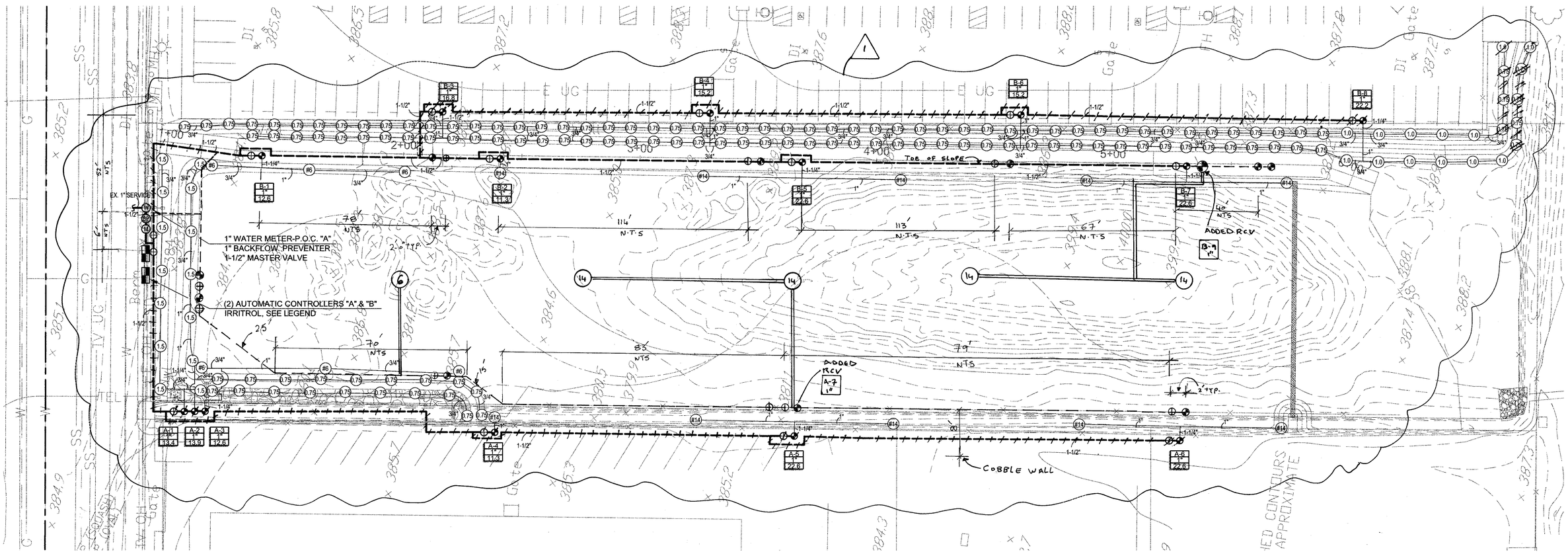
(1.0) NUMBER INDICATES MANUFACTURER AND MODEL NUMBER OF THE IRRIGATION HEAD AND ITS NOZZLE (SEE # LEGEND BELOW) - SEE DET. A, SHT. LI-2

SYM.	DESCRIPTION	MANUF./MODEL	GPM	PSI	RAD.
0.75	STREAM ROTOR HEAD	RAINBIRD 3504-S-PC-SAM-NOZ. 0.75	0.54	25	15'
1.0	STREAM ROTOR HEAD	RAINBIRD 3504-S-PC-SAM-NOZ. 1.0	0.77	25	20'
1.5	STREAM ROTOR HEAD	RAINBIRD 3504-S-PC-SAM-NOZ. 1.5	1.06	25	23'
#6	STREAM ROTOR HEAD	RAINBIRD FALCON 6504-NOZ. 6	4.2	30	43'
#14	STREAM ROTOR HEAD	RAINBIRD FALCON 6504-NOZ. 14	11.3	40	55'

CONTROLLER SEQUENCE NUMBER
VALVE SIZE
MAXIMUM GPM DEMAND

IRRIGATION EQUIPMENT LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER / MODEL	REMARKS	DETAIL
	AUTOMATIC CONTROLLER (A&B)	IRRITROL / IBOC-8PLUS ON PEDESTAL P-2B	BATTERY POWERED (8) STATION AUTOMATIC CONTROLLERS ON PEDESTAL	J / LI-2
W	1" WATER METER	BY OTHERS	INSTALL PER LOCAL WATER AUTHORITY'S REGULATIONS	NA
BP	BACKFLOW PREVENTOR	WATTS 009QT	INSTALL PER LOCAL WATER AUTHORITY'S REGULATIONS	NA
M	1-1/2" MASTER CONTROL VALVE	SUPERIOR CONTROLS / MODEL 3300 (BRASS)	SIZE AS SHOWN. REMOTE CONTROL VALVE WITH CONTROLLER I.D. TAG	H / LI-3
	GATE VALVE (3" AND SMALLER)	NIBCO T-136	FOR ISOLATION ON MAINLINES 3" AND SMALLER	C / LI-2
	REMOTE CONTROL VALVE	HUNTER ICV __G-DC-AS	SIZE AS SHOWN ON PLAN. PRESSURE REGULATING REMOTE CONTROL VALVE FOR OVERHEAD SYSTEMS. INSTALL RCV ASSEMBLY WITH CONTROLLER I.D. TAG.	E / LI-2
NO SYMBOL	CONTROL WIRE	SEE SPECIFICATIONS	CONTROL WIRE TO FOLLOW IRRIGATION MAINLINE IN COMMON TRENCH WHENEVER POSSIBLE.	NA
PB	PULL BOX	SEE SPECIFICATIONS	PULL BOX ES TO BE INSTALLED AT ENDS OF CONTROL WIRE SLEEVES AT ROAD OR DRIVE CROSSINGS. PULL BOXES TO BE INSTALLED AT ALL OTHER PAVING CROSSING IN EXCESS OF 40 LINEAR FEET.	M / LI-3
	PVC MAINLINE PIPE	PACIFIC PLASTICS PVC	1" - 11/2" = PVC SCH 40; 2" AND LARGER = PVC CLASS 315	K / LI-3
	UVR LATERAL LINE PIPE	BROWNLINE OR EQUAL	SCH. 40 UVR PVC (SIZED PER PLAN)	B / LI-2
	PVC SLEEVE	PACIFIC PLASTICS PVC	PVC SCH 40; TWO TIMES DIA. OF PIPE OR WIRE BUNDLE. (2" MIN.)	G / LI-2



SDP 213

LI-1

PLANS	BY	DATE
DESIGNED	ML	
CHECKED	JK	
DELINEATED		

RICK ENGINEERING
9939 HIBERT STREET, SUITE 207
SAN DIEGO, CA. 92110
858-586-6680

REGISTERED LANDSCAPE ARCHITECT DATE

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
San Diego Riverside Sacramento Orange Phoenix Tucson
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com

REVISIONS	BY	APPROVED	DATE
1 RECORD DRAWING REVISIONS	SS		11-1-05

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
IRRIGATION PLAN, LEGEND & SCHEDULE

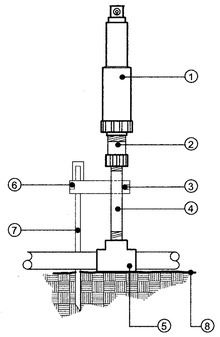
SCALE: HOR. 1"=20' VERT. N/A
W.A. YF1531 R.S. 331
SHEET 9 OF 13

–1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	ML	
CHECKED	JK	
DELINEATED		

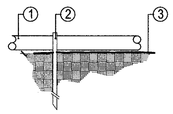
RICK ENGINEERING
9939 HIBERT STREET, SUITE 207
SAN DIEGO, CA. 92110
858-586-6680

REGISTERED LANDSCAPE ARCHITECT DATE



1. ROTOR HEAD, SEE LEGEND
2. ANTI-DRAIN VALVE WHERE REQ'D.
3. THEFT RESISTANT LOCK SCREW
4. 3/4" UVR PVC SCH. 80 NIPPLE LENGTH AS REQ'D. (TYP.)
5. BROWNLINE UVR LATERAL LINE AND FITTINGS.
6. BROWNLINE RISER STABLIZER #RS-150 (1/2"), #RS-200 (3/4")
7. 1/2" X 24" SQ. STEEL STAKE
8. FINISH GRADE

A ROTOR HEAD - ABOVE GROUND
NOT TO SCALE-ELEVATION

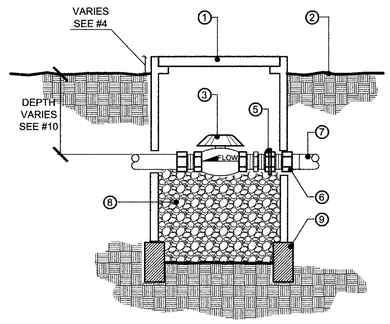


1. SCH 40 LATERAL LINE, SEE PLAN FOR SIZE
2. #4 REBAR J-HOOK SPACED @ 8' O.C. (18" MINIMUM)
3. FINISH GRADE

NOTE:

WHEN UVR PVC PIPING SYSTEMS ARE INSTALLED ABOVE GROUND , THEY MUST BE PROPERLY SUPPORTED TO AVOID UNNECESSARY STRESSES AND POSSIBLE SAGGING. ON HORIZONTAL AND VERTICAL RUNS. SUPPORTS SHOULD BE INSTALLED A MAXIMUM OF 8' O.C.

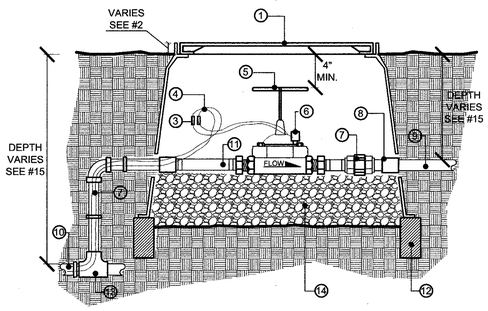
B BROWNLINE LATERAL STABILIZER
NOT TO SCALE-SECTION



1. VALVE BOX WITH LOCKING COVER BRAND LID W/ "BV"
2. FINISH GRADE
3. BALL VALVE
4. 1" IN LAWN AREAS; 2" IN SHRUB AREAS
5. INTEGRAL UNIONS
6. PVC ADAPTER
7. PVC PRESSURE MAINLINE
8. 1 CU. FT. PEA GRAVEL
9. 2" X 4" BRICK OR CONC. BLOCKING
10. DEPTH - SEE SPECS.

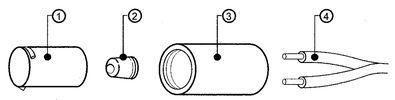
C BALL VALVE
NOT TO SCALE-ELEVATION

D NOT ASSIGNED
NOT TO SCALE-ELEVATION



1. VALVE BOX W/ LOCKING COVER. BRAND LID W/ CONTROLLER SEQ. #
2. 1" IN TURF AREAS: 2" IN SHRUB AREAS
3. APPROVED WIRE CONNECTORS
4. CONTROL WIRES; BUNDLE AND TAPE (W/ 24" MIN. EXTRA WIRE) ADD "CHRISTY" TAG W/ SEQ. #
5. REMOTE CONTROL VALVE (SEE LEGEND)
6. SOLENOID
7. PVC PRESSURE MAINLINE (MANIFOLD)
8. PVC SCH 40 FEMALE ADAPTER (TYP.)
9. PVC NON-PRESSURE PIPE (SEE SPECS.)
10. PVC PRESSURE PIPE (SEE SPECS.)
11. PVC SCH 80 NIPPLE (TYP. LENGTH AS REQ'D)
12. 2" X 4" BRICK OR CONCRETE BLOCKING
13. PVC SCH 40 TEE (SxSxS) OR ELL(SxS) ON MAINLINE
14. 4"(MIN.) DEPTH OF PEA GRAVEL
15. DEPTH - SEE TRENCHING DETAIL

E REMOTE CONTROL VALVE
NOT TO SCALE-ELEVATION

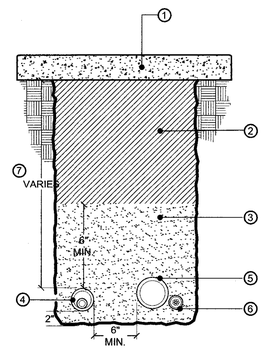


(USE APPROVED WIRE CONNECTOR-THIS STYLE)

1. PLUG
2. CRIMP SLEEVE
3. BODY
4. WIRES

ASSEMBLY INSTRUCTIONS:
1. INSERT WIRES THROUGH HOLES IN BASE OF BODY.
2. JOIN WIRES TOGETHER AND APPLY CRIMP SLEEVE.
3. DRAW WIRES BACK INTO BODY.
4. FILL CAP TO BRIM WITH SEALANT AND ALSO APPLY SEALER TO OUTSIDE OF PLUG.
5. INVERT BODY AND INSERT PLUG INTO BODY UNTIL IT SNAPS TIGHT.
6. BE CERTAIN SEALANT HAS FORMED INTO ALL HOLES IN BODY.
7. SEALANT MUST BE VISIBLE OUTSIDE OF PLUG TO PASS INSPECTION.

F WIRE CONNECTORS
NOT TO SCALE-ELEVATION



1. HARDSCAPE SURFACE, SEE PLANS
2. CLEAN BACKFILL AS REQ'D. REFER TO ENGINEER FOR SPECIFIC MATERIAL AND COMPACTION REQUIREMENTS.
3. CLEAN SAND
4. LATERAL LINE WITH SLEEVE
5. PRESSURE MAINLINE WITH SLEEVE
6. LOW VOLTAGE CONTROL WIRE OR CONTROLLER HARD WIRE, SLEEVE AS REQ'D.
7. MINIMUM COVER: 18" UNDER WALKS 24" UNDER DRIVES 36" UNDER STREETS

NOTES:
1. ALL SLEEVES TO BE PVC SCH. 40 PIPE.
2. ALL SLEEVES TO BE SIZED TWICE THE DIA. OF THE WORKING PIPE.
3. ALL SLEEVES TO RUN A MIN. OF 12" BEYOND HARDSCAPE EDGES.
4. CLEAN BACKFILL MAY BE SUBSTITUTED FOR SAND UNDER WALKS AND DRIVES.

G SLEEVING
NOT TO SCALE-ELEVATION

SDP213

LI-2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
San Diego Riverside Sacramento Orange Phoenix Tucson
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
IRRIGATION DETAILS

SCALE: HOR. VERT.
W.A. YF1531 R.S. 331
SHEET 10 OF 13

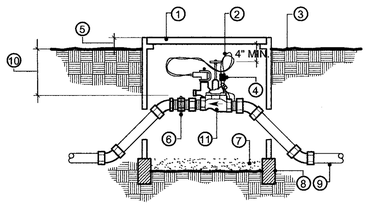
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	ML	
CHECKED	JK	
DELINEATED		

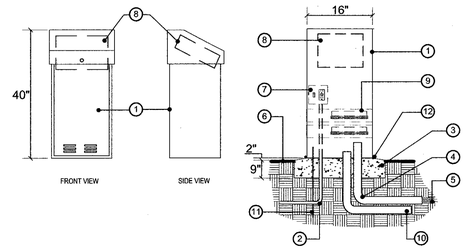
RICK ENGINEERING
9939 HIBERT STREET, SUITE 207
SAN DIEGO, CA. 92110
858-586-6680

REGISTERED LANDSCAPE ARCHITECT DATE

1. GREEN PLASTIC VALVE BOX WITH LOCKING LID BRAND LID W/ "MV".
2. CONTROL WIRE WITH 24" EXPANSION COIL.
3. FINISH GRADE.
4. WATER TIGHT CONNECTORS.
5. 1" IN LAWN AREAS; 2" IN SHRUB AREAS.
6. SCH. 80 UNION AND NIPPLES, TYP.
7. 4" MIN. OF PEA GRAVEL.
8. BRICK OR CONCRETE BLOCKING.
9. MAINLINE. (SEE TRENCHING DETAIL)
10. 6" MINIMUM.
11. MASTER CONTROL VALVE.



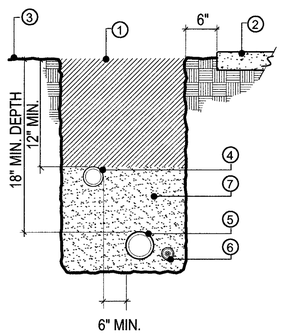
H MASTER VALVE
NOT TO SCALE-ELEVATION



1. HYRDO-SCAPE HS-16 CONTROLLER ENCLOSURE
2. 120-VOLT SERVICE IN CONDUIT
3. POURED CONC. BASE -- 12" MIN. THICKNESS. EXTEND 6" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE W/ 1/2 % SLOPE FOR DRAINAGE. CENTER OF PAD TO HAVE PEA GRAVEL SUMP.
4. PVC LONG SWEEP ELL -- SIZE AS REQ'D.
5. DIRECT BURIAL CONTROL WIRES TO CONTROL VALVES.
6. FINISH GRADE
7. CONTROLLER SUB-ASSEMBLY (CSA) INCLUDES GFI & TERMINAL STRIPS W/ PLACARDS
8. RAIN MASTER DX2 CONTROLLER PANEL
9. RAIN MASTER DX2 STATION TERMINAL STRIPS
10. PVC LONG SWEEP ELL STUBBED TO ADJACENT PULL BOX
11. 3/4" DIA. X 96" ELECTRIC GROUND ROD
12. EPOXY SEALANT ALL EDGES

I NOT ASSIGNED
NOT TO SCALE-ELEVATION

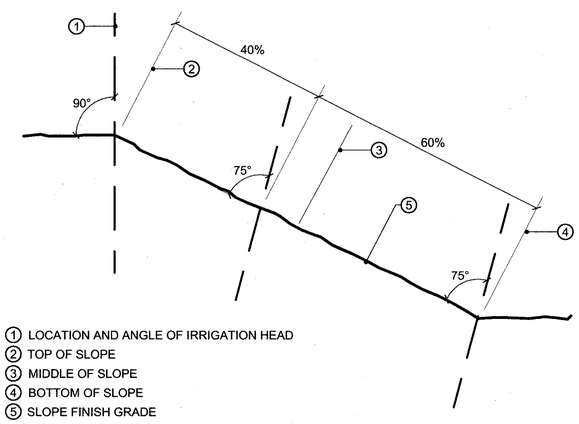
J AUTOMATIC CONTROLLER
NOT TO SCALE-ELEVATION



1. SATURATE & COMPACT BACKFILL TO 90%.
2. FINISH SURFACE.
3. FINISH GRADE.
4. NON-PRESSURE LATERAL LINE.
5. PRESSURE MAINLINE.
6. DIRECT BURIAL LOW VOLTAGE CONTROL RIRES, BUNDLE AT 10 FT. O.C. OR CONTROLLER HARD WIRE.
7. SAND BACKFILL.

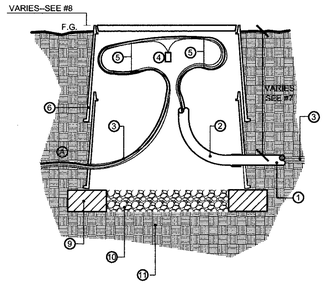
NOTE:
SEE SLEEVING DETAIL FOR TRENCHING

K TRENCHING
NOT TO SCALE-ELEVATION



1. LOCATION AND ANGLE OF IRRIGATION HEAD
2. TOP OF SLOPE
3. MIDDLE OF SLOPE
4. BOTTOM OF SLOPE
5. SLOPE FINISH GRADE

L SLOPE IRRIGATION
NOT TO SCALE-ELEVATION



1. PVC SCH 40 OR 80 SLEEVE
2. 90° SWEEP ELL
3. CONTROL WIRE
4. WATERPROOF WIRE CONNECTORS FOR SPLICED CONNECTION
5. EXPANSION LOOPS (LABEL WIRES W/ CONTROLLER & STATION #)
6. 12" X 18" VALVE BOX W/ EXTENSION
7. 18" MINIMUM (SEE SPECS. AND TRENCH DETAIL)
8. FLUSH IN TURF; 1" IN GROUND COVER
9. BRICK SUPPORT (1- EA. CORNER)
10. 3" DEEP, PEA GRAVEL SUMP
11. UNDISTURBED OR COMPACTED SUB-GRADE

NOTES:
A. IN THE CASE OF HAND HOLES IN MEDIAN ISLAND, SLEEVE RUNS IN BOTH DIRECTIONS.
B. TO BE INSTALLED AT ENDS OF ALL WIRE SLEEVE RUNNING 20' AND LONGER.

M PULL BOX
NOT TO SCALE-ELEVATION

SDP213

LI-3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com
San Diego Riverside Sacramento Orange Phoenix Tucson

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
IRRIGATION DETAILS

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 11 OF 13

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

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	ML	
CHECKED	JK	
DELINEATED		

RICK ENGINEERING
9939 HIBERT STREET, SUITE 207
SAN DIEGO, CA. 92110
858-586-6680

REGISTERED LANDSCAPE ARCHITECT — DATE

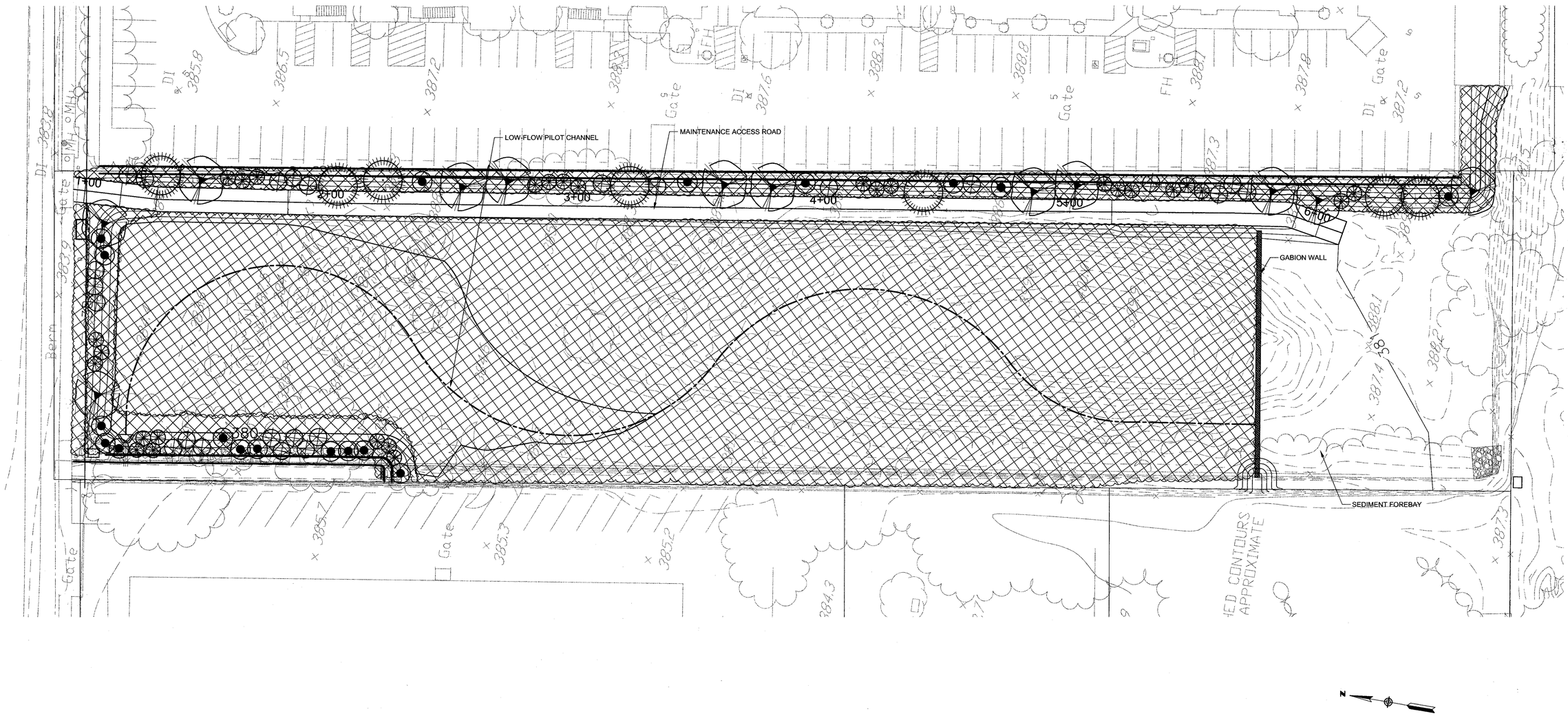
PLANT MATERIAL LEGEND:

SYM. SLOPE TREES & SHRUBS

BOTANICAL NAME / COMMON NAME / SIZE
QUERCUS AGRIFOLIA / COAST LIVE OAK / 15 GAL.
SALIX GOODLINGII / BLACK WILLOW / 15 GAL.
BACCHARIS SALICIFOLIA / MULE FAT / 5 GAL.
JUNCUS MEXICANUS / MEXICAN RUSH / 5 GAL.
MALOSMA LAURINA / LAUREL LEAF SUMAC / 5 GAL.

SYM. HYDROSEED MIX #1

BOTANICAL NAME	LBS. / ACRE
LEYMUS TRITICOIDES	20
FESTUCA RUBRA 'MOLATE'	15
DESCHAMPSIA ELONGATA	5
VULPIA MICROSTACHYS	10
TOTAL	50 LBS. / ACRE



SDP213

LP-1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
San Diego Riverside Sacramento Orange Phoenix Tucson
rickengineering.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
LANDSCAPE PLANTING PLAN

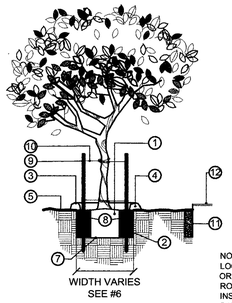
SCALE: HOR. 1"=20' VERT. N/A
W.A. YF1531 R.S. 331
SHEET 12 OF 13

–1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	ML	
CHECKED	JK	
DELINEATED		

RICK ENGINEERING
9939 HIBERT STREET, SUITE 207
SAN DIEGO, CA. 92110
858-586-6680

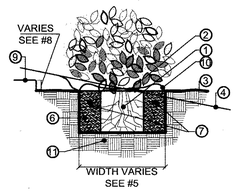
REGISTERED LANDSCAPE ARCHITECT DATE



1. ROOTBALL
2. AMENDED BACKFILL MIX
3. WATER BASIN
4. MULCH
5. FINSISH GRADE
6. WIDTH TWICE DIAMETER OF CONTAINER
7. PLACE ROOTBALL ON NATURAL GRADE
8. FERTILIZER TABLETS
9. (2) 2" DIA. X 10' LONG, LODGE POLES, PLACE OUTSIDE ROOTBALL
10. BLACK PLASTIC CINCH-TIE WITH ONE TWIST NAILED TO STAKES, TOP & BOTTOM
11. ROOTBARRIER W/ GRAVEL BACKFILL
12. CURB OR PAVING

NOTE:
LOCATE ROOT BARRIER WHERE TRUNK IS 6' OR CLOSER TO ADJACENT PAVING OR WHERE ANY TREE IS IN OR WITHIN 10' OF THE PUBLIC RIGHT-OF-WAY. THE ROOT BARRIER IS TO BE PLACED PARRALLEL TO AND AGAINST CURBS OR PAVING. INSTALL ROOT BARRIER AND GRAVEL BACKFILL PER MANUFACTURE'S RECOMMENDATIONS. SEE PLANTING SPEC. FOR ROOT BARRIER SPECIFICATIONS. LENGTH OF ROOT BARRIER SHALL BE EQUAL TO THE MATURE CROWN WIDTH OF THE TREE.

A TREE STAKING
NOT TO SCALE-ELEVATION



1. ROOTBALL
2. CROWN 1" ABOVE FINISH GRADE
3. FINISH GRADE
4. FINISH GRADE AT SLOPE
5. 2 X ROOTBALL DIAMETER
6. BACKFILL (SEE SPECS)
7. PLANT TABLETS (SEE SPECS)
8. SEE SPECIFICATIONS
9. TOP OF PAVING
10. 4" WATERING BASIN (IF REQ'D)
11. UNDISTURBED NATIVE SOIL

B SHRUB PLANTING
NOT TO SCALE-ELEVATION

PLANT MATERIAL SCHEDULE

SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	MIN. HT.	MIN. SPRD.	TOTALS
TREES						
QUERCUS AGRIFOLIA	COAST LIVE OAK	15 Gal.	Straight trunk, full head, stake	6'-7'	5'-6'	7
SALIX GOODLINGII	BLACK WILLOW	15 Gal.	Straight trunk, full head, stake	6'-7'	5'-6'	12
SHRUBS						
BACCHARIS SALICIFOLIA	MULE FAT	5 Gal.	Full & bushy	24"-30"	24"-30"	24
JUNCUS MEXICANUS	MEXICAN RUSH	5 Gal.	Full & bushy	24"-30"	24"-30"	28
MALOSMA LAURINA	LAUREL LEAF SUMAC	5 Gal.	Full & bushy	24"-30"	24"-30"	18

GROUND COVER
HYDROSEED MIX AS NOTED ON LP-1

SDP213

LP-2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RICK ENGINEERING COMPANY
San Diego Riverside Sacramento Orange Phoenix Tucson
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165
rickengineering.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
250 N. 1785 E.
CONST. COMPL.
FIELD REVISIONS

WOODSIDE AVENUE
WATER QUALITY BASIN
In the Vicinity of Lakeside
PLANTING SCHEDULE AND DETAILS

SCALE: HOR. N/A VERT. N/A
W.A. YF1531 R.S. 331
SHEET 13 OF 13