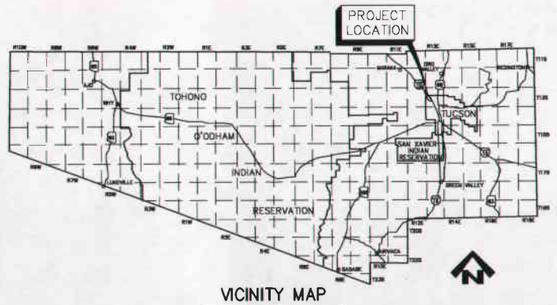


VICINITY MAP

NTS

WORK MAP

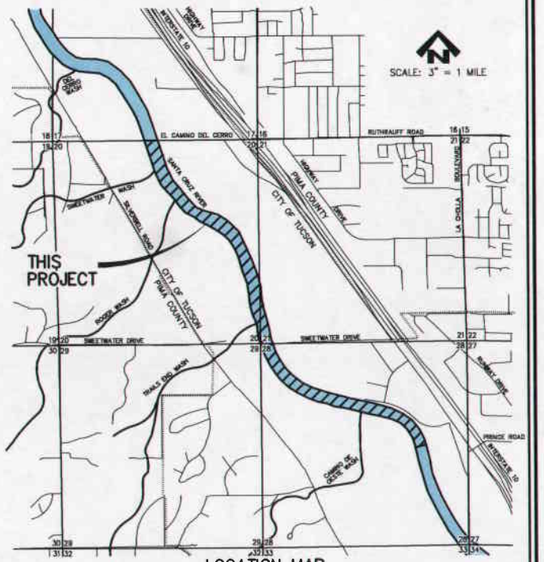
FOR

ROGER ROAD WASTEWATER TREATMENT PLANT LEVEE CERTIFICATION

EAST BANK OF THE SANTA CRUZ RIVER

PROJECT OVERVIEW

SCALE: 1" = 600'



LOCATION MAP

SECTIONS 20, 21 & 28, T13S, R13E, G&SRM
TUCSON, PIMA COUNTY, ARIZONA

NOTE: CROSS SECTIONS CORRESPOND WITH SHEETS 2 & 3
ELEVATIONS: NGVD29 (22XX.XX)

FREEBOARD ANALYSIS

Cross Section	Station	Levee Top	Freeboard	Water Surface Elevation	
				FIS HEC-2	Psomas HEC-RAS
		(ft)	(ft)	(ft)	(ft)
27.99	–			73.02	73.14
27.89	–			68.35	69.05
27.80	–			68.48	68.37
27.70	–			66.24	65.28
27.61	(194+00)	69.53	4.38	64.25	65.15
27.51	189+00	68.87	3.79	62.76	65.08
27.42	184+00	68.06	3.62	61.99	64.44
27.33	179+00	66.43	3.90	60.42	62.53
27.23	174+00	64.93	7.78	57.15	57.01
27.14	169+00	63.15	5.57	57.58	57.55
27.04	164+00	61.94	5.30	56.6	56.64
26.95	159+00	60.46	7.20	53.26	53.05
26.85	154+00	59.27	8.00	51.27	50.95
26.76	149+00	58.26	6.71	51.31	51.55
26.66	144+00	57.32	7.87	48.91	49.45
26.57	139+00	56.83	8.55	47.28	48.06
26.47	134+00	56.04	9.23	46.79	46.81
26.38	129+00	54.83	7.28	47.55	46.99
26.28	124+00	54.30	8.05	44.95	46.25
26.19	119+00	50.03	9.05	40.68	40.98
26.09	04+87.5	47.69	8.65	37.35	39.04
26.00	09+87.5	45.63	7.07	35.71	38.56
25.91	14+77.5	45.65	8.06	34.47	37.79
25.81	19+77.5	41.33	7.48	33.78	33.85

TOE-DOWN ANALYSIS

Cross Section	Section ID	Station	As-Builts (1984)			Survey (2008)	Δ Flow Line	Toe Depth
			Flow Line	Toe	Toe Depth	Flow Line		
			(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
27.99	–	–	–	–	–			
27.89	–	–	–	–	–			
27.80	–	–	–	–	–			
27.70	–	–	–	–	–	46.92		
27.61	–	(194+00)	–	–	–	51.76		
27.51	C	189+00	44.67	36.66	8.01	49.40	4.73	12.74
27.42	C	184+00	43.00	34.99	8.01	48.12	6.12	14.13
27.33	C	179+00	41.33	33.32	8.01	42.40	1.07	9.08
27.23	C	174+00	39.67	31.66	8.01	45.72	6.05	14.06
27.14	C	169+00	38.00	29.99	8.01	44.67	6.67	14.68
27.04	C	164+00	36.33	28.32	8.01	43.23	6.90	14.91
26.95	C	159+00	34.67	26.66	8.01	42.50	7.83	15.84
26.85	B	154+00	33.00	24.99	8.01	33.26	0.26	8.27
26.76	B	149+00	31.33	23.32	8.01	32.20	0.87	8.88
26.66	B	144+00	29.67	21.66	8.01	28.91	-0.76	7.25
26.57	B	139+00	28.00	19.99	8.01	27.38	-0.62	7.39
26.47	B	134+00	26.33	16.33	10.00	26.72	0.39	10.39
26.38	A	129+00	24.67	14.66	10.01	24.76	0.09	10.10
26.28	A	124+00	23.00	12.99	10.01	23.30	0.30	10.31
26.19	A	119+00	21.33	13.33	8.00	26.59	5.26	13.26
26.09	1/2	04+87.5	24.42	16.40	8.02	27.31	2.89	10.91
26.00	1/2	09+87.5	22.75	14.75	8.00	26.27	3.52	11.52
25.91	1/2	14+77.5	21.08	13.08	8.00	26.95	5.87	13.87
25.81	1/2	19+77.5	18.38	11.38	8.00	24.44	5.06	13.06

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WORK MAP
FOR
ROGER ROAD WASTEWATER TREATMENT PLANT LEVEE CERTIFICATION
EAST BANK OF THE SANTA CRUZ RIVER
FIGURE 3

PROJ NO: 08001-01 SCALE: HORIZ 1" = 600'
DATE: MAY 2008

T:\08001\01\HYDRO\DRAINAGE\SHEETS\Worksmap_Levee.dwg Sheet 1 Jacob Prattis Thu, 29 Jun 2008, 9:50am Last Saved By: jprattis

PHOTO 2
EL CAMINO DEL CERRO BRIDGE, FACING DOWNSTREAM

PHOTO 4
42" CMP (PROJECTING), WITH FLAP GATE, FACING DOWNSTREAM

PHOTOS 6, 7 & 8
LEVEE, RIVER-SIDE (LOW), FACING DOWNSTREAM/ LEVEE, RIVER-SIDE (HIGH), FACING DOWNSTREAM/ LEVEE, LAND-SIDE, FACING DOWNSTREAM

PHOTO 12
LEVEE, RIVER-SIDE, FACING DOWNSTREAM

PHOTO 13
42" CMP (SQUARE HEADWALL), WITH FLAP GATE AND STAIR ACCESS

PHOTO 14
LEVEE, RIVER-SIDE AT NATURAL GRADE, FACING UPSTREAM

PHOTO 15
36" CMP (MITERED TO SLOPE), PLUGGED

PHOTO 16
42" CMP (PROJECTING) WITH FLAP GATE, CONCRETE APRON

PHOTO 1
BROAD CRESTED WEIR, RETENTION/DETENTION BASIN OUTLET

SCALE: 1" = 200'

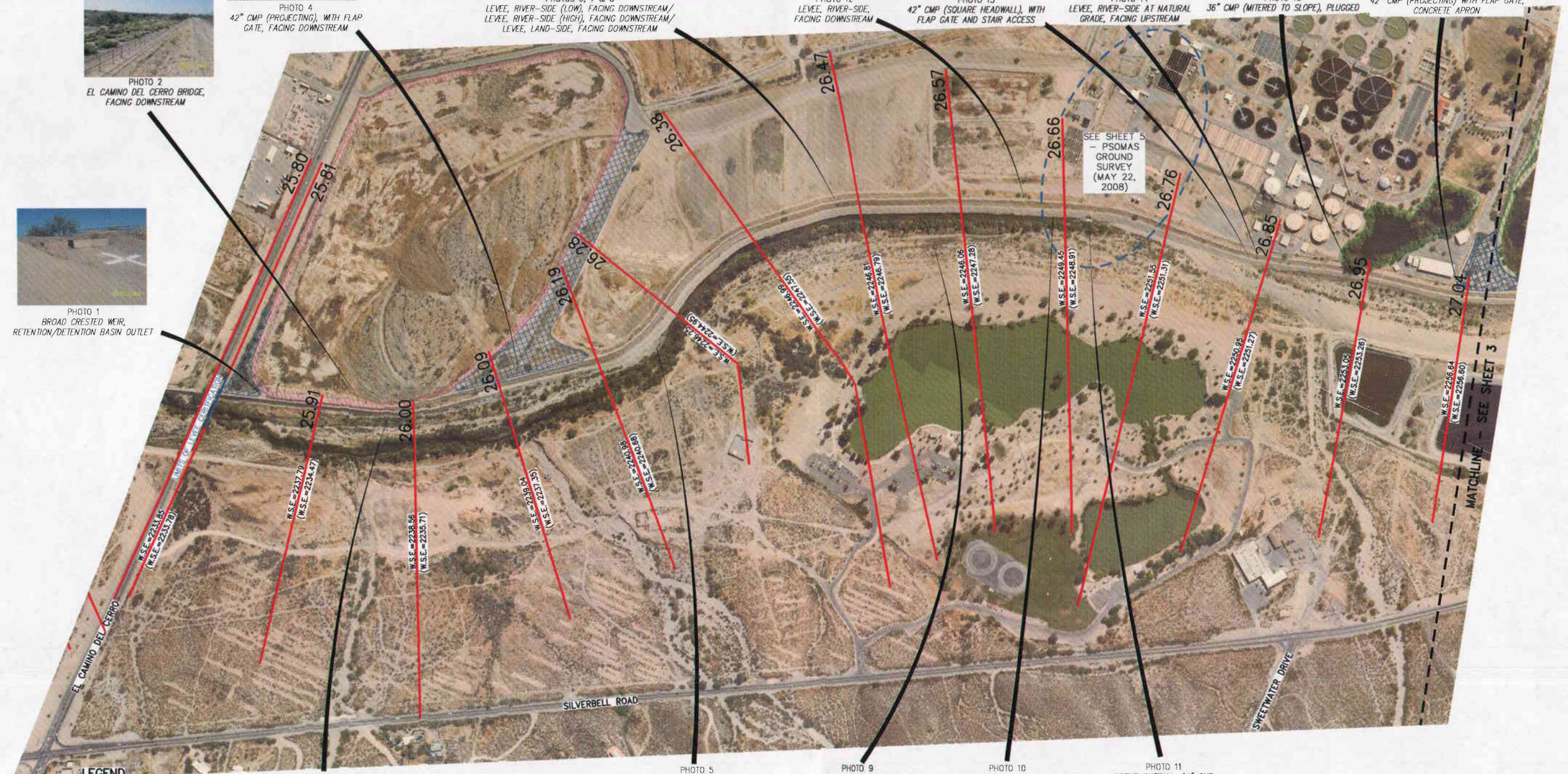

PHOTO 3
ACCESS RAMP, FACING DOWNSTREAM

PHOTO 5
LEVEE, CURVE REVERSAL, FACING DOWNSTREAM

PHOTO 9
SOIL CEMENT UNDERCUTTING AT CONSTRUCTION FLOWLINE

PHOTO 10
ACTIVE OUTFALL, ROGER ROAD WWTP, FACING UPSTREAM

PHOTO 11
ACTIVE OUTFALL, 84" CMP, ROGER ROAD WWTP

LEGEND

W.S.E.=2256.64	PSOMAS HEC-RAS WATER SURFACE ELEVATION (FT)
(W.S.E.=2256.60)	FIS HEC-2 WATER SURFACE ELEVATION (FT)
26.47	FIS CROSS SECTION
	LIMITS OF LEVEE CERTIFICATION
	WWTP TREATMENT BASIN
	REGIONAL RETENTION/ BASIN DETENTION BASIN WITH BROAD CRESTED WEIR OUTLET
	LOCAL WATERSHED WITH NO OUTLET

Q_{100}

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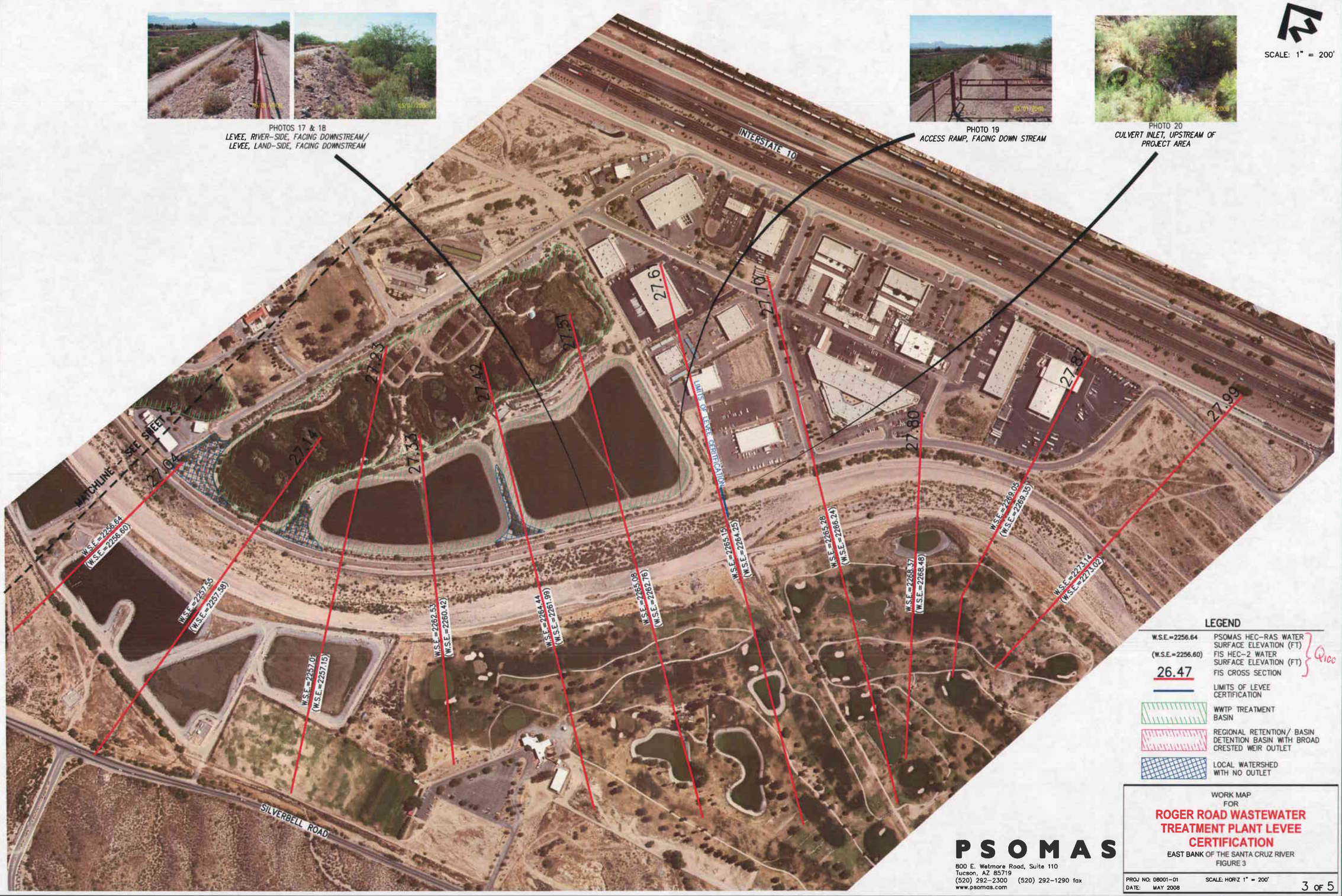
WORK MAP
FOR
ROGER ROAD WASTEWATER TREATMENT PLANT LEVEE CERTIFICATION
EAST BANK OF THE SANTA CRUZ RIVER
FIGURE 3

PROJ NO: 08001-01 SCALE: HORIZ 1" = 200'
DATE: MAY 2008

T:\08001\01\HYDRO\DRAINAGE\SHEETS\Workmap_Levee.dwg Sheet 2 Jacob Prietto Thu, 05 Jun 2008, 10:03am Last Saved By: jprietto



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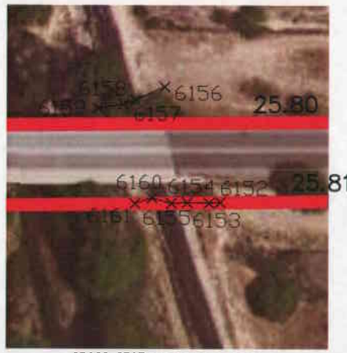
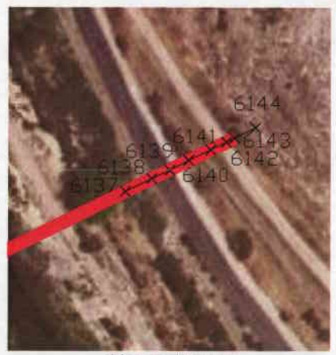
WORK MAP
FOR
ROGER ROAD WASTEWATER TREATMENT PLANT LEVEE CERTIFICATION
EAST BANK OF THE SANTA CRUZ RIVER
FIGURE 3

PROJ NO: 08001-01 SCALE: HORIZ 1" = 200'
DATE: MAY 2008

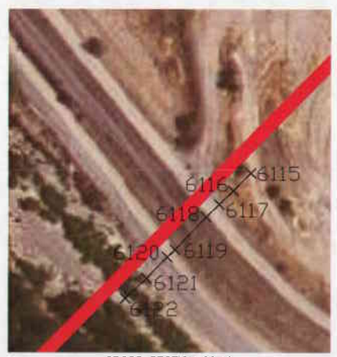


CROSS SECTIONS: 25.80 & 25.81

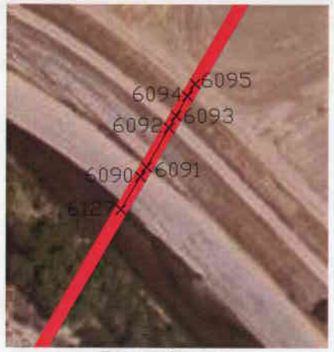
CROSS SECTION: 25.91


CROSS SECTION: 26.00

CROSS SECTION: 26.09


CROSS SECTION: 26.19

CROSS SECTION: 26.28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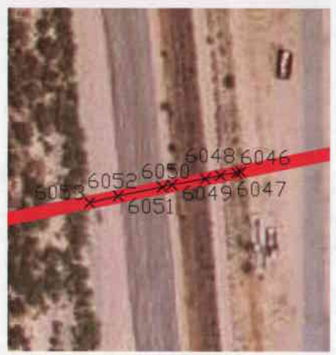
CROSS SECTION: 26.47

CROSS SECTION: 26.57

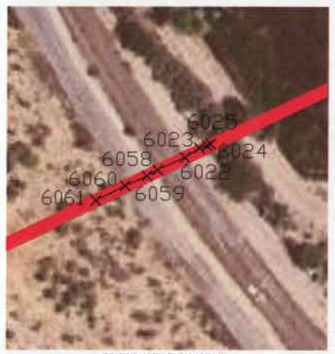
CROSS SECTION: 26.66


CROSS SECTION: 26.76

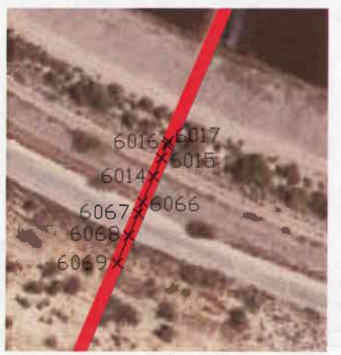
CROSS SECTION: 26.85

CROSS SECTION: 26.95

CROSS SECTION: 27.04


CROSS SECTION: 27.14

CROSS SECTION: 27.23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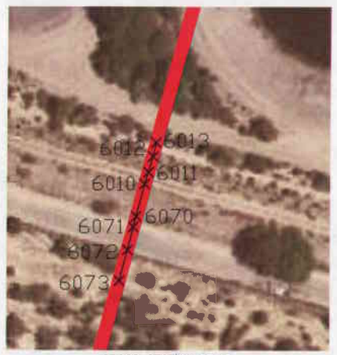
CROSS SECTION: 27.42

CROSS SECTION: 27.51

CROSS SECTION: 27.61

CROSS SECTION: 27.70

NOTE:
POINT NUMBERS RELATE TO ELEVATIONS FOUND IN PSOMAS GROUND SURVEY (MARCH 21, 2008 & APRIL 1, 2008) – APPENDIX 3

N

SCALE: 1" = 50'

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WORK MAP
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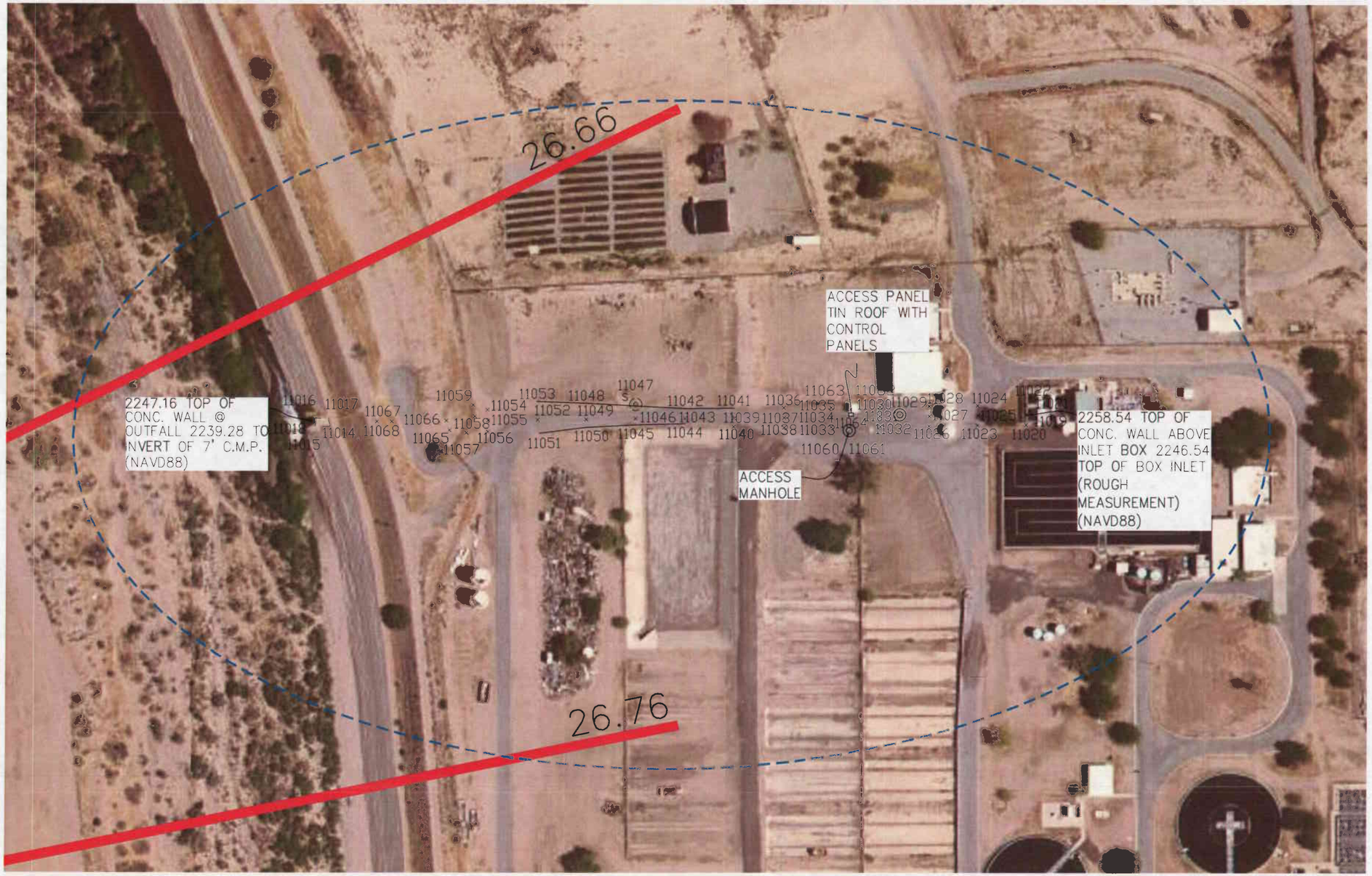
PSOMAS GROUND SURVEY MARCH 21, 2008 & APRIL 1, 2008
FIGURE 3

PROJ NO: 08001-01 SCALE: HORIZ 1" = 50'
DATE: MAY 2008



SCALE: 1" = 50'

ASBUILT POINTS FOR RRWWTP ACTIVE OUTFALL

NOTE:
POINT NUMBERS RELATE TO ELEVATIONS FOUND IN PSOMAS GROUND SURVEY (MAY 22, 2008) – APPENDIX 3

LEGEND

W.S.E.=2256.64	PSOMAS HEC-RAS WATER SURFACE ELEVATION (FT)
(W.S.E.=2256.60)	FIS HEC-2 WATER SURFACE ELEVATION (FT)
26.47	FIS CROSS SECTION
	LIMITS OF LEVEE CERTIFICATION
	WWTP TREATMENT BASIN
	REGIONAL RETENTION/ BASIN DETENTION BASIN WITH BROAD CRESTED WEIR OUTLET
	LOCAL WATERSHED WITH NO OUTLET

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WORK MAP
FOR
ROGER ROAD WASTEWATER TREATMENT PLANT LEVEE CERTIFICATION
PSOMAS GROUND SURVEY MAY 22, 2008
FIGURE 3

PROJ NO: 08001-01 SCALE: HORIZ 1" = 50'
DATE: MAY 2008

Psomas 100 yr.

HEC-RAS Plan: NGVD29 River: RIVER-1 Reach: Reach-1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Levee El Right	R Levee Frbrd	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	27.99	10 Year	16800.00	252.70	262.50				264.97	0.003173	12.61	1332.47	178.26	0.81
Reach-1	27.99	50 Year	41000.00	252.70	267.88			266.89	272.66	0.003215	17.57	2358.52	204.37	0.88
Reach-1	27.99	100 Year	60000.00	252.70	273.14			273.14	276.95	0.001783	16.38	5676.89	1167.77	0.69
Reach-1	27.99	500 Year	93000.00	252.70	276.20			276.20	280.38	0.001826	18.48	9429.04	1312.62	0.72
Reach-1	27.89	10 Year	16800.00	251.30	262.57			259.11	263.68	0.001120	8.56	2084.06	276.48	0.50
Reach-1	27.89	50 Year	41000.00	251.30	268.95			264.05	270.96	0.001081	11.69	3987.27	732.67	0.53
Reach-1	27.89	100 Year	60000.00	251.30	269.06			266.95	273.30	0.002264	16.98	4019.79	746.12	0.77
Reach-1	27.89	500 Year	93000.00	251.30	273.06			273.06	276.50	0.001645	16.90	10645.54	1744.54	0.68
Reach-1	27.8	10 Year	16800.00	250.00	259.48			259.39	262.48	0.004852	13.88	1210.24	192.96	0.98
Reach-1	27.8	50 Year	41000.00	250.00	264.47			264.47	269.69	0.004270	18.35	2250.20	793.78	0.99
Reach-1	27.8	100 Year	60000.00	250.00	268.37			267.62	271.96	0.002341	16.51	6171.32	1308.79	0.77
Reach-1	27.8	500 Year	93000.00	250.00	271.30			271.30	274.87	0.002126	17.83	10442.83	1586.42	0.76
Reach-1	27.7	10 Year	16800.00	246.92	258.84	267.04	8.20	256.54	260.50	0.002213	10.33	1626.98	224.96	0.68
Reach-1	27.7	50 Year	41000.00	246.92	263.83	267.04	3.21	261.87	266.93	0.002355	14.13	2934.00	281.47	0.75
Reach-1	27.7	100 Year	60000.00	246.92	265.28	267.04	1.76	264.61	270.43	0.003375	18.25	3348.35	888.80	0.91
Reach-1	27.7	500 Year	93000.00	246.92	269.38	267.04	-2.34	269.38	273.61	0.002251	17.94	9079.89	1696.34	0.78
Reach-1	27.61	10 Year	16800.00	247.00	256.58	269.53	12.95	256.24	258.91	0.004453	12.25	1371.82	250.72	0.92
Reach-1	27.61	50 Year	41000.00	247.00	263.34	269.53	6.19	260.60	265.68	0.001785	12.32	3405.74	354.99	0.65
Reach-1	27.61	100 Year	60000.00	247.00	265.15	269.53	4.38	263.15	268.56	0.002204	15.05	5036.09	1282.25	0.74
Reach-1	27.61	500 Year	93000.00	247.00	270.00	269.53	-0.47	268.11	271.90	0.001196	12.67	23511.72	3599.75	0.56
Reach-1	27.51	10 Year	16800.00	244.60	256.63	268.87	12.24	252.78	257.60	0.000969	7.92	2122.04	232.17	0.46
Reach-1	27.51	50 Year	41000.00	244.60	263.05	268.87	5.82	257.41	264.88	0.000990	10.95	4419.33	1085.74	0.50
Reach-1	27.51	100 Year	60000.00	244.60	265.06	268.87	3.79	260.43	267.47	0.001175	13.00	7056.38	1370.06	0.56
Reach-1	27.51	500 Year	93000.00	244.60	270.24	268.87	-1.37	266.50	271.26	0.000512	10.26	21968.77	3055.00	0.39
Reach-1	27.42	10 Year	16800.00	243.30	255.55	268.06	12.51	252.54	256.93	0.001708	9.42	1783.67	231.72	0.60
Reach-1	27.42	50 Year	41000.00	243.30	262.73	268.06	5.33	258.00	264.31	0.000991	10.48	5047.25	660.28	0.50
Reach-1	27.42	100 Year	60000.00	243.30	264.44	268.06	3.62	261.49	266.84	0.001359	13.14	6200.01	722.31	0.60
Reach-1	27.42	500 Year	93000.00	243.30	266.08	268.06	1.98	264.00	270.45	0.002245	17.93	7534.75	900.99	0.78
Reach-1	27.33	10 Year	16800.00	242.40	251.71	266.43	14.72	251.71	255.34	0.005002	15.31	1097.49	199.85	1.00
Reach-1	27.33	50 Year	41000.00	242.40	260.11	266.43	6.32	260.11	263.44	0.002060	15.21	3922.62	964.11	0.71
Reach-1	27.33	100 Year	60000.00	242.40	262.53	266.43	3.90	262.53	265.88	0.002271	16.31	5147.24	938.25	0.75
Reach-1	27.33	500 Year	93000.00	242.40	265.15	266.43	1.28	265.15	269.12	0.002576	18.78	8636.08	974.17	0.81
Reach-1	27.23	10 Year	16800.00	242.00	249.98	264.93	14.95	248.81	251.58	0.002705	10.15	1655.43	276.42	0.73
Reach-1	27.23	50 Year	41000.00	242.00	254.91	264.93	10.02	252.69	257.62	0.002372	13.23	3098.24	313.35	0.74
Reach-1	27.23	100 Year	60000.00	242.00	257.01	264.93	7.92	255.48	260.75	0.002656	15.65	4438.03	1001.34	0.81
Reach-1	27.23	500 Year	93000.00	242.00	260.29	264.93	4.64	260.07	264.26	0.002316	16.97	7933.90	1132.04	0.78
Reach-1	27.14	10 Year	16800.00	239.50	249.15	263.15	14.00	247.48	250.30	0.001963	8.59	1955.35	328.57	0.62
Reach-1	27.14	50 Year	41000.00	239.50	254.76	263.15	8.39	251.08	256.44	0.001332	10.45	4362.30	1014.81	0.56
Reach-1	27.14	100 Year	60000.00	239.50	257.55	263.15	5.60	253.40	259.32	0.001139	11.14	7481.07	1214.99	0.54
Reach-1	27.14	500 Year	93000.00	239.50	260.97	263.15	2.18	257.73	262.87	0.001031	12.21	11862.56	1350.36	0.53
Reach-1	27.04	10 Year	16800.00	237.40	247.98	261.94	13.96	245.90	249.31	0.001906	9.27	1812.26	263.40	0.62
Reach-1	27.04	50 Year	41000.00	237.40	253.55	261.94	8.39	250.32	255.68	0.001562	11.82	4115.76	923.51	0.61
Reach-1	27.04	100 Year	60000.00	237.40	256.64	261.94	5.30	254.24	258.69	0.001221	12.24	7191.87	1058.31	0.56
Reach-1	27.04	500 Year	93000.00	237.40	259.89	261.94	2.05	257.28	262.26	0.001195	13.85	10749.53	1122.34	0.58
Reach-1	26.95	10 Year	16800.00	235.30	244.72	260.46	15.74	244.72	247.68	0.005125	13.81	1216.37	205.45	1.00
Reach-1	26.95	50 Year	41000.00	235.30	249.82	260.46	10.64	249.82	254.21	0.004492	16.81	2438.53	277.37	1.00
Reach-1	26.95	100 Year	60000.00	235.30	253.05	260.46	7.41	253.05	257.52	0.003193	17.26	4117.47	728.53	0.88
Reach-1	26.95	500 Year	93000.00	235.30	256.73	260.46	3.73	256.73	261.22	0.002484	18.24	7588.21	1013.45	0.82
Reach-1	26.85	10 Year	16800.00	233.26	243.46	259.27	15.81	241.86	245.05	0.002290	10.10	1663.29	245.39	0.68
Reach-1	26.85	50 Year	41000.00	233.26	248.18	259.27	11.09	246.33	251.33	0.002490	14.25	2896.43	377.68	0.77
Reach-1	26.85	100 Year	60000.00	233.26	250.95	259.27	8.32	249.48	254.94	0.002409	16.20	4125.66	830.25	0.78
Reach-1	26.85	500 Year	93000.00	233.26	256.10	259.27	3.17	254.84	258.82	0.001293	14.75	10985.92	1461.21	0.60
Reach-1	26.76	10 Year	16800.00	231.81	243.28	258.26	14.98	240.12	244.08	0.001017	7.17	2343.75	315.00	0.46
Reach-1	26.76	50 Year	41000.00	231.81	248.52	258.26	9.74	243.94	250.09	0.001046	10.06	4198.23	436.70	0.51
Reach-1	26.76	100 Year	60000.00	231.81	251.55	258.26	6.71	246.34	253.60	0.001034	11.60	5612.35	1085.73	0.52
Reach-1	26.76	500 Year	93000.00	231.81	256.58	258.26	1.68	250.06	258.00	0.000607	10.76	15439.11	1884.49	0.42
Reach-1	26.66	10 Year	16800.00	228.91	241.95	257.32	15.37	240.22	243.31	0.002098	9.36	1795.42	278.08	0.65
Reach-1	26.66	50 Year	41000.00	228.91	246.75	257.32	10.57	244.37	249.26	0.002059	12.77	3226.64	344.82	0.70
Reach-1	26.66	100 Year	60000.00	228.91	249.45	257.32	7.87	246.96	252.77	0.002008	14.70	4276.12	414.75	0.71
Reach-1	26.66	500 Year	93000.00	228.91	254.68	257.32	2.64	250.73	257.46	0.001221	14.32	10362.48	1587.07	0.59
Reach-1	26.57	10 Year	16800.00	227.38	238.92	256.83	17.91	238.92	241.60	0.005308	13.13	1279.65	239.18	1.00
Reach-1	26.57	50 Year	41000.00	227.38	243.36	256.83	13.47	243.36	247.63	0.004563	16.59	2471.29	289.64	1.00
Reach-1	26.57	100 Year	60000.00	227.38	246.06	256.83	10.77	246.06	251.21	0.004057	18.23	3353.68	374.87	0.98
Reach-1	26.57	500 Year	93000.00	227.38	250.25	256.83	6.58	249.92	256.22	0.003098	19.85	5202.53	1436.70	0.91
Reach-1	26.47	10 Year	16800.00	226.72	238.42	256.04	17.62	235.90	239.54	0.001536	8.50	1975.44	280.19	0.56
Reach-1	26.47	50 Year	41000.00	226.72	243.57	256.04	12.47	240.17	245.69	0.001527	11.70	3613.97	462.40	0.61
Reach-1	26.47	100 Year	60000.00	226.72	246.81	256.04	9.23	242.83	249.32	0.001340	12.94	5346.08	576.61	0.59
Reach-1	26.47	500 Year	93000.00	226.72	251.58	256.04	4.46	246.96	254.41	0.001107	14.18	10235.52	1732.84	0.57
Reach-1	26.38	10 Year	16800.00	224.76	237.75	254.83	17.08	234.84	238.75	0.001479	8.01	2096.54	315.94	0.55
Reach-1	26.38	50 Year	41000.00	224.76	243.34	254.83	11.49	239.39	244.86	0.001125	9.94	4501.75	692.12	0.52
Reach-1	26.38	100 Year	60000.00	224.76	246.99	254.83	7.84	241.70	248.51	0.000829	10.29	7378.99	835.16	0.47
Reach-1	26.38	500 Year	93000.00	224.76	252.05	254.83	2.78	245.57	253.63	0.000633	10.92	13697.71	1719.22	0.43
Reach-1	26.28	10 Year	16800.00	223.30	236.74	254.30	17.56	233.98	237.91	0.001821	8.68	1935.07	301.75	0.60
Reach-1	26.28	50 Year	41000.00	223.30	242.54	254.30	11.76	238.77	244.22	0.001348	10.42	4047.63	493.92	0.56

Existing Roger Rd. WWTF

Proposed Roger Rd.

Proposed Roger Rd. Plant

HEC-RAS Plan: NGVD29 River: RIVER-1 Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Levee El Right	R. Levee Frbrd	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Reach-1	26.28	100 Year	60000.00	223.30	246.25	254.30	8.05	241.37	**248.04**	0.000990	10.91	6393.65	718.67	0.51
Reach-1	26.28	500 Year	93000.00	223.30	251.37	254.30	2.93	245.02	**253.26**	0.000746	11.62	10655.45	932.14	0.47
Reach-1	26.19	10 Year	16800.00	225.80	**233.54**	250.03	**16.49**	**233.54**	236.32	0.005176	**13.37**	1256.96	**225.56**	1.00
Reach-1	26.19	50 Year	41000.00	225.80	**238.20**	250.03	**11.83**	238.20	242.81	0.004410	17.24	2379.11	259.70	1.00
Reach-1	26.19	100 Year	60000.00	225.80	240.98	250.03	9.05	240.98	246.76	0.004001	19.30	3136.84	300.22	0.99
Reach-1	26.19	500 Year	93000.00	225.80	245.96	250.03	4.07	245.96	252.19	0.002782	20.36	5466.09	682.84	0.88
Reach-1	26.09	10 Year	16800.00	224.40	232.11	**247.69**	15.58	229.83	233.26	**0.001693**	8.61	1951.98	275.95	0.57
Reach-1	26.09	50 Year	41000.00	224.40	236.58	**247.69**	11.11	233.89	239.11	**0.002132**	12.80	3238.62	306.60	0.67
Reach-1	26.09	100 Year	60000.00	224.40	239.04	**247.69**	8.65	236.47	242.65	**0.002423**	15.30	4056.93	371.59	0.73
Reach-1	26.09	500 Year	93000.00	224.40	242.35	**247.69**	5.34	240.00	247.57	**0.002692**	18.63	6034.12	915.13	0.80
Reach-1	26	10 Year	16800.00	222.80	231.40	**245.63**	**14.23**	**229.23**	232.41	**0.001535**	8.07	2081.14	318.34	0.56
Reach-1	26	50 Year	41000.00	222.80	236.00	**245.63**	**9.63**	**232.91**	238.04	**0.001607**	11.46	3577.87	332.13	0.62
Reach-1	26	100 Year	60000.00	222.80	238.56	**245.63**	**7.07**	**235.25**	241.40	**0.001733**	13.52	4459.76	422.94	0.66
Reach-1	26	500 Year	93000.00	222.80	242.33	**245.63**	**3.30**	**238.93**	246.07	**0.001692**	15.76	7003.24	859.78	0.68
Reach-1	25.91	10 Year	16800.00	221.20	230.01	245.85	**15.84**	**228.79**	**231.42**	**0.002566**	9.53	1763.30	308.21	0.70
Reach-1	25.91	50 Year	41000.00	221.20	234.56	245.85	**11.29**	**232.50**	**237.08**	**0.002194**	12.77	3384.85	504.92	0.71
Reach-1	25.91	100 Year	60000.00	221.20	237.79	245.85	**8.06**	**235.29**	**240.51**	**0.001735**	13.55	5388.71	736.76	0.66
Reach-1	25.91	500 Year	93000.00	221.20	242.18	245.85	3.67	239.13	245.06	0.001368	14.49	9228.54	1057.70	0.61
Reach-1	25.81	10 Year	16800.00	219.60	227.08	241.33	14.25	227.08	229.51	0.005470	12.50	1344.06	276.37	1.00
Reach-1	25.81	50 Year	41000.00	219.60	231.06	**241.33**	10.27	231.06	235.37	0.004583	16.65	2461.98	285.45	1.00
Reach-1	25.81	100 Year	60000.00	219.60	233.85	**241.33**	7.48	233.85	239.02	0.003884	18.28	3418.25	425.92	0.96
Reach-1	25.81	500 Year	93000.00	219.60	238.11	241.33	3.22	238.08	243.80	0.002955	19.62	5808.57	701.64	0.88