Property of
ood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

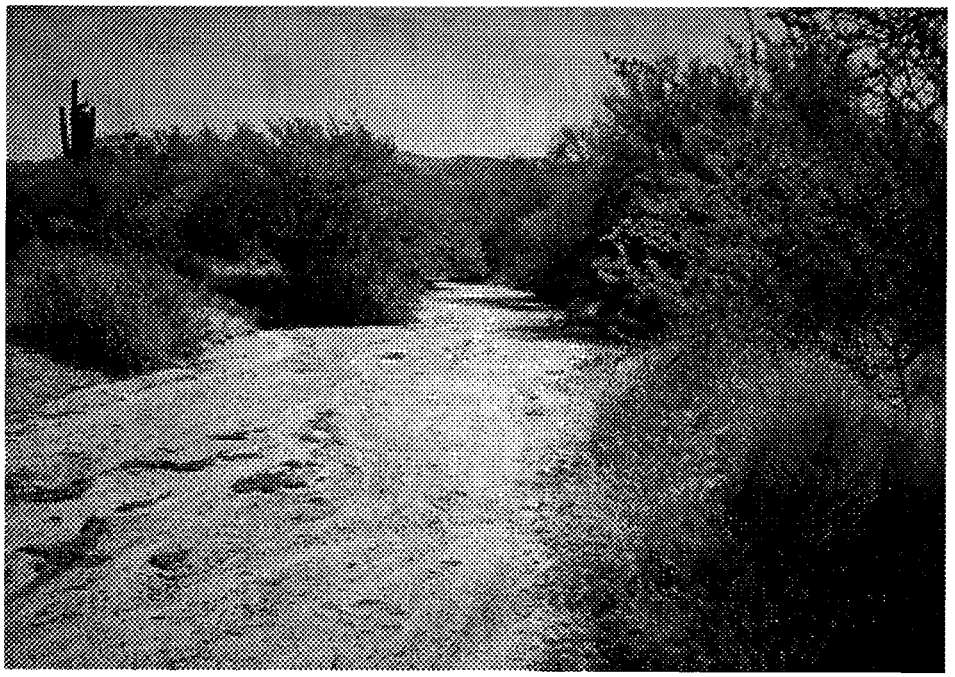
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PHOENIX, ARIZONA

RIO VERDE SOUTH FLOODPLAIN DELINEATION STUDY

FCD 93-07

SURVEY NOTES

APPENDIX B OF THE TECHNICAL DATA NOTEBOOK HYDRAULICS



McLaughlin Kmetty Engineers, Ltd.

Phoenix, Arizona

SEPTEMBER 1995

Name .....

.....

Address .....

.....

Phone .....

Projects ..... INDEX .....

SURVEYORS CERTIFICATION	1
PROJECT TITLE	1
WASH 9 - FOREST ROAD	2
WASH 9 - VIA HERMOSA	4
WASH 9 - PEDESTRIAN BRIDGE	10
WASH 9 - VADO COURT	16
WASH 11 - AGUA VERDE ROAD	22
WASH 9 - QUAIL HAVEN DRIVE	28
WASH 11 - TRAVERSE	34
WASH 11 - AGUILA ROAD	37
WASH 11 - AVENIDA DEL REY	42
ADDITIONAL AERIAL PANEL	47

ELAN Publishing Co., Inc.
Meredith, N.H. 03253

This book is published on a fine 50% cotton-content ledger paper, specially treated for maximum archival service, and protected by a water resistant surface sizing.

DT-0659

I CERTIFY THAT THESE NOTES CORRECTLY REPRESENT A SURVEY MADE UNDER MY SUPERVISION.

Richard Alcocer

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
13168
RICHARD
ALCOCER
Date Signed 6-20-95
ARIZONA, U.S.A.

RIO VERDE SOUTH
FLOOD DELINEATION STUDY

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY, ARIZONA
FCD 93-07

WASH 9
&
FOREST RD.

6-9-94
R ALCOCER
R AYALA
M VENEGAS

CLEAR - HOT

T AT ℄ PANEL POINT # 168555

P.S. ℄ PANEL POINT # 168335
00° 00' 00" DIST = 1359.14

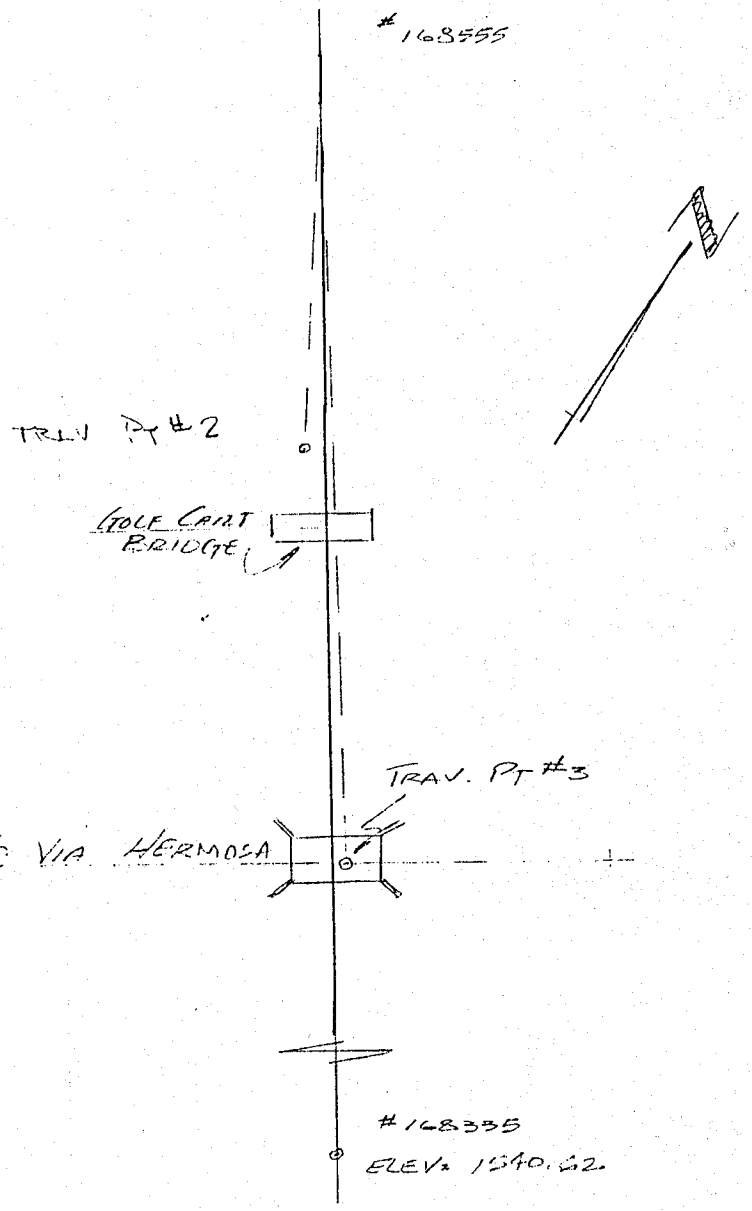
HI = 4.99' + 1561.65 = 1566.64

TARGET HEIGHT: 7.96'

D.E. = -18.32 - ELEV = 1540.56 (-0.06)

F.S. TRAV. POINT # 2
H. ANGLE RT = 00° 05' 05"
H. DIST = 410.47'
TARGET HEIGHT: 4.40
DE: -5.93
ELEV = 1556.91

F.S. TRAV. POINT # 3
H. ANGLE RT = 359° 56' 40"
H. DIST = 835.83'
TARGET HEIGHT: 4.40
DE: -12.56
ELEV = 1549.88



WASH 9

3 - 4' x 10' BOX CULVERT
ALONG
VIA HERMOSA

6.9.92
CLEAR
HOT

T AT TRAV. POINT # 3

B.S. ℄ PANEL POINT # 168555

00° 00'00" HDIST = 895.83'

HI. 4.90' + 1549.88 = 1554.78

ANGLE RT.	DIST.	TARGET	DE.	ELEV.
86-22-40	119.13	8.64	+4.51	1550.65
86-22-10	85.21		+2.66	1548.80
86-22-10	76.62		+1.62	1547.76
86-22-10	66.74		+2.71	1548.85
86-22-10	51.83		+2.82	1548.96
86-22-10	38.15		+2.63	1548.77
86-22-10	27.0		+2.63	1548.77
266-22-10	57.40		+4.84	1550.98
266-22-10	103.13		+5.17	1551.31
266-22-10	145.90		+5.65	1551.79
266-22-10	191.29		+6.10	1557.89
266-22-10	254.90		+6.79	1552.93
266-22-10	305.0		+7.29	1553.43
266-22-10	356.8		+7.74	1553.88

℄ PROFILE OF VIA HERMOSA

N.G. @ R/W OF FOREST ROAD

N.G.

℄ DRAINAGE SWALE

E.P.

℄ FOREST ROAD

E.P.

℄ DRAINAGE SWALE

℄ VIA HERMOSA

CONTINUED

IT AT TRAV. POINT #3

H.I. = 1554.78

CENTERLINE PROFILE WASH #9

ANGLE RT.	DIST.	TARGET	D.E.	ELEV.	
356-42-35	51.0	8.64	0.00	1546.14	℄ OF WASH - BOTTOM OF WASH
	41.0	"	0.00	1546.14	TOP OF 6" x 42' CONC. BREAKER WALL
	40.0	"	-0.60	1545.54	BOTTOM OF WASH
	24.65	12.64	+2.06	1544.20	F.L. BOX CULVERT
	23.38	9.06	+7.94	1553.66	TOP OF WALL
	23.10		+3.72	1549.44	TOP OF CULVERT HEADWALL
	15.28		+3.74	1549.46	E.P.
176-42-35	15.80		+3.62	1548.34	E.P.
	23.12		+3.53	1548.25	TOP OF CULVERT HEADWALL
	23.55		+7.87	1553.59	TOP OF WALL
	24.43	12.64	+1.57	1543.71	F.L. BOX CULVERT
	67.08	"	+1.27	1543.41	℄ OF WASH - BOTTOM OF WASH

CONTINUED

T AT TRAV POINT #3

HI: 1554.78

ANGLE RT	DIST.	TARGET	DE.	ELEV.
214-53-20	85.40	10.40	+4.76	1549.14
197-20-05	73.71		+4.41	1548.79
195-25-30	73.27		+4.01	1548.39
192-16-35	72.37		+1.14	1545.52
176-42-35	71.50		-0.90	1543.48
160-40-50	73.20		-0.70	1543.68
156-46-30	73.55		+3.33	1547.71
156-03-55	74.13		+2.70	1547.08
152-05-10	76.35		+2.15	1546.53
148-26-25	78.80		+2.60	1546.98
141-32-35	91.06		+2.78	1547.16

WASH 9 CROSS SECTION
(20' SOUTH OF CULVERT)

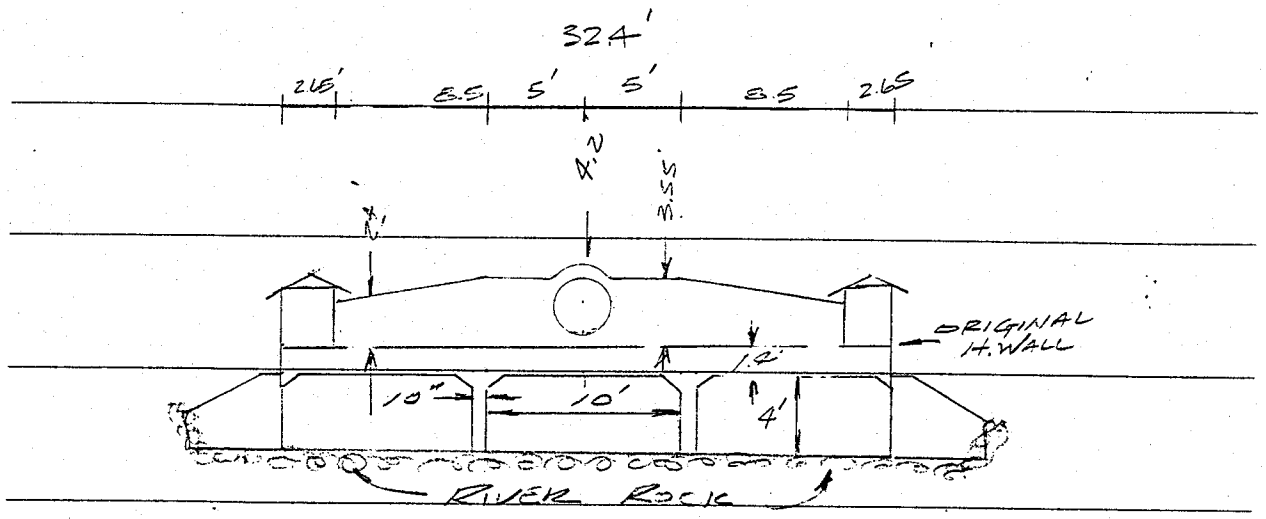
N.G.
N.G.
TOP OF BANK (GABION)
BOTTOM OF WASH
℄ OF WASH
BOTTOM OF WASH
TOP OF BANK (GABION)
N.G.
N.G.
E.P.
℄ FOREST ROAD

CONTINUED

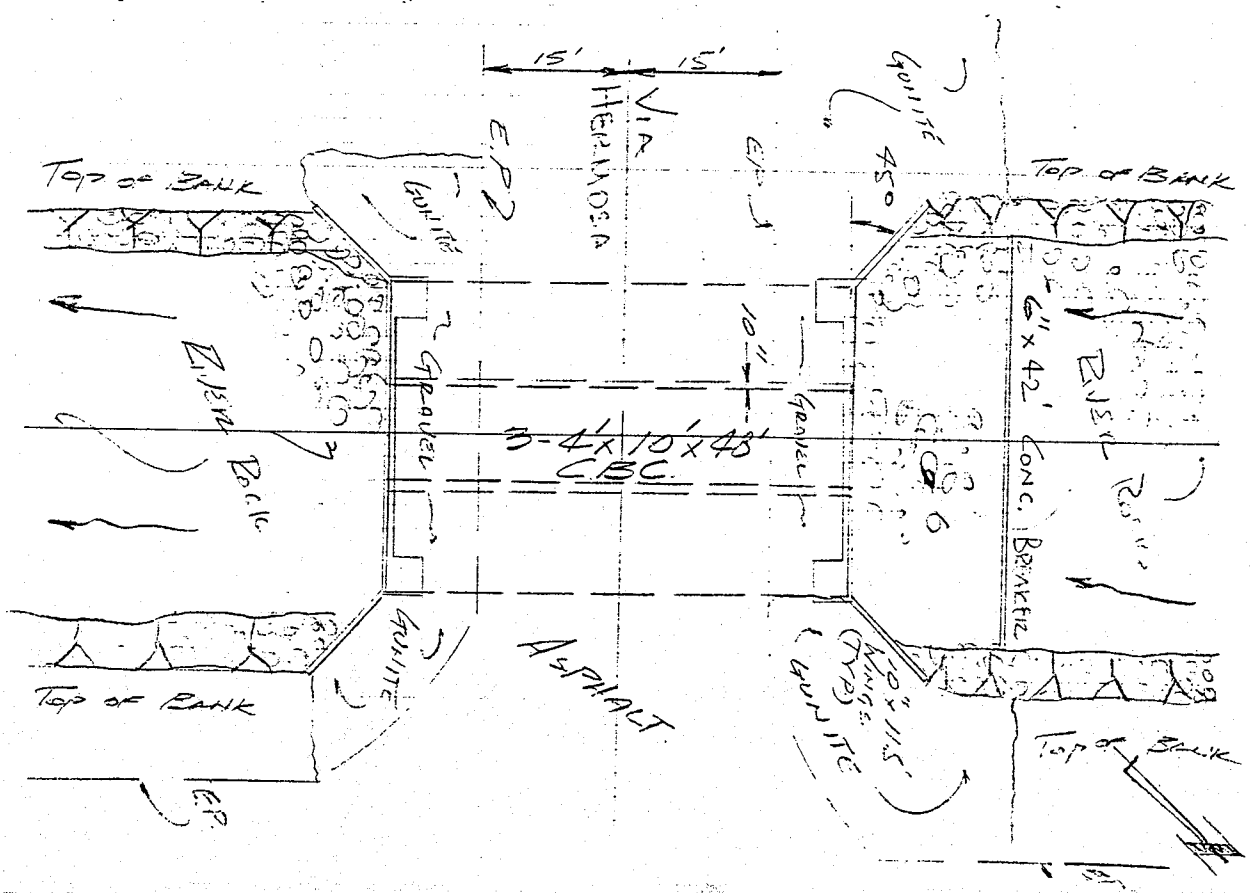
T AT TRAV. POINT #3

H.I. = 1554.78

ANGLE RT	DIST	TARGET	OE	ELEV.	WASH 9 CROSS SECTION (20' NORTH OF CULVERT)
45-14-35	69.25	10.40	+5.46	1549.84	℄ FOREST ROAD
35-28-40	59.90		+5.28	1549.66	E.P.
29-56-00	56.43		+4.61	1548.99	N.G.
25-37-15	54.20		+5.01	1549.39	N.G.
22-42-10	52.93		+4.86	1549.24	TOP OF BANK (GABION)
18-53-30	52.68		+1.22	1545.60	BOTTOM OF WASH
356-42-35	51.42		+1.92	1546.30	℄ OF WASH
335-14-55	56.30		+1.64	1546.02	BOTTOM OF WASH
331-21-30	57.40		+6.12	1550.50	TOP OF BANK (GABION)
329-23-35	58.40		+6.55	1550.93	N.G.
325-22-40	61.10		+6.44	1550.82	N.G.
317-17-10	66.80		+6.87	1551.25	N.G.



324'
2.65'
8.5
5'
5'
8.5
2.65
4.2
3.55
ORIGINAL H. WALL
1.4'
10"
10'
4'
RIVER ROCK



15'
15'
VIA HERMOSA
E.P.
GUNITE
TOP OF BANK
TOP OF BANK
45°
10"
GRAVEL
GRAVEL
3-4'x10'x48' CBC
6"x42' CONC. BREAKER
RIVER ROCK
RIVER ROCK
GUNITE
ASPHALT
10"x11.5' WINGS (TYP)
GUNITE
TOP OF BANK
TOP OF BANK
E.P.

WASH 9

7' x 54.8' CONC. & STEEL
PEDESTRIAN BRIDGE
ALONG
FOREST ROAD

6-10-94
R. ALCOCER
R. AVALA
M. VENEGAS
CLEAR
HOT

T AT TRAV. POINT #2
BS. ℄ PANEL POINT #168335
00°00'00" DIST. 410.47'
H.I. 4.69 + 1556.51 = 1561.20

ANGLE RT	DIST	TARGET	D.E.	ELEV.
175-40-35	101.38	8.64	+3.88	1556.44
190-49-50	104.53		+5.26	1557.82
204-09-20	114.52		+3.91	1561.73
210-05-25	92.67	8.64	+4.11	1556.67
210-46-10	91.69		+3.44	1556.00
219-34-50	75.03		+3.29	1555.85
239-28-45	58.51		+3.35	1555.91
240-55-30	57.44		+4.09	1556.65
178-20-35	80.76	8.64	+3.47	1556.03
178-44-30	76.51		+1.79	1554.35
178-37-55	71.51		+3.81	1556.37

BRIDGE LOCATION
EAST END OF BRIDGE (DECK)
℄ OF GOLF CART BRIDGE (DECK)
WEST END OF BRIDGE (DECK)
CONC. SPILLWAY
SOUTH END CONC SPILLWAY (TOP)
TOE - F.L. SPILLWAY
℄ OF SPILLWAY
TOE - F.L. SPILLWAY
NORTH END CONC. SPILLWAY (TOP)
CONC. SPILLWAY
SOUTH END CONC. SPILLWAY (TOP
F.L. OF SPILLWAY - 2' BOTTOM
NORTH END CONC SPILLWAY (TOP)

CONTINUED
TT AT TRAV. POINT #2
HI = 1561.20

ANGLE RT.	DIST.	TARGET	D.E.	ELEV.	
159-02-10	90.01	B.64	+2.74	1555.30	℄ FOREST ROAD
167-47-55	84.23		+2.46	1555.02	E.P.
178-22-30	83.00		+3.40	1555.96	N.G.
178-56-35	82.48		+3.83	1556.39	TOP OF BANK (ROCK)
181-35-55	81.72		-0.49	1552.07	BOTTOM OF WASH
194-39-15	85.30		-1.01	1551.55	℄ WASH
206-14-40	91.21		-1.14	1551.42	BOTTOM OF WASH
208-34-25	93.88		+3.76	1556.32	TOP OF BANK (ROCK)
209-34-00	95.01		+4.09	1556.65	N.G.
214-40-30	101.81		+2.69	1555.25	N.G.

WASH 9 - CROSS SECTIONS

±25' NORTH OF BRIDGE

±5' SOUTH OF BRIDGE

152-02-55	122.06	B.64	+2.11	1554.67	N.G.
156-55-25	119.07		+2.16	1554.72	E.P.
162-25-30	114.79		+2.43	1554.99	℄ FOREST ROAD
169-44-35	112.43		+2.19	1554.75	E.P.
173-53-55	111.31		+2.88	1554.44	N.G.
177-29-25	110.71		+3.19	1555.75	N.G.
177-49-20	110.99		+3.43	1555.99	TOP OF BANK (ROCK)
179-24-25	110.20		-0.79	1551.77	BOTTOM OF WASH
189-18-25	116.80		-1.31	1551.25	℄ WASH

CONTINUED

IT AT TRAV. POINT #2

H.I. = 1561.20

ANGLE RT.	DIST.	TARGET	D.E.	ELEV.	
198-27-15	117.71	8.64	-1.96	1550.60	Bottom of MARSH
200-43-20	119.70		+3.02	1555.59	Top of BANK (ROCK)
201-12-15	119.10		+2.98	1555.54	N.G.
202-26-05	120.33		+4.46	1557.02	Top of RR. TIE WALL
202-26-05	120.30		+3.70	1556.26	G.B " " "
214-30-15	137.45		+5.23	1557.79	G.B. " " "
214-30-15	137.50		+3.55	1556.11	GB " " "
221-40-20	153.07		+5.89	1558.45	G.B. " " "
221-40.25	152.67		+3.87	1556.43	GB " " "
224-33-10	161.64		+5.76	1558.32	Top of RR TIE WALL
224-33-10	160.32		+3.50	1556.06	EP
228-32-25	172.32		+3.77	1556.33	℄ of ASPHALT DRIVE
232-01-25	185.17		+3.48	1556.04	E.P.
232-06-30	185.50		+4.42	1556.98	Top of R.R. WALL
232-19-10	186.11		+4.29	1556.85	N.G
235-48-30	202.71		+6.51	1559.07	N.G

CONTINUED

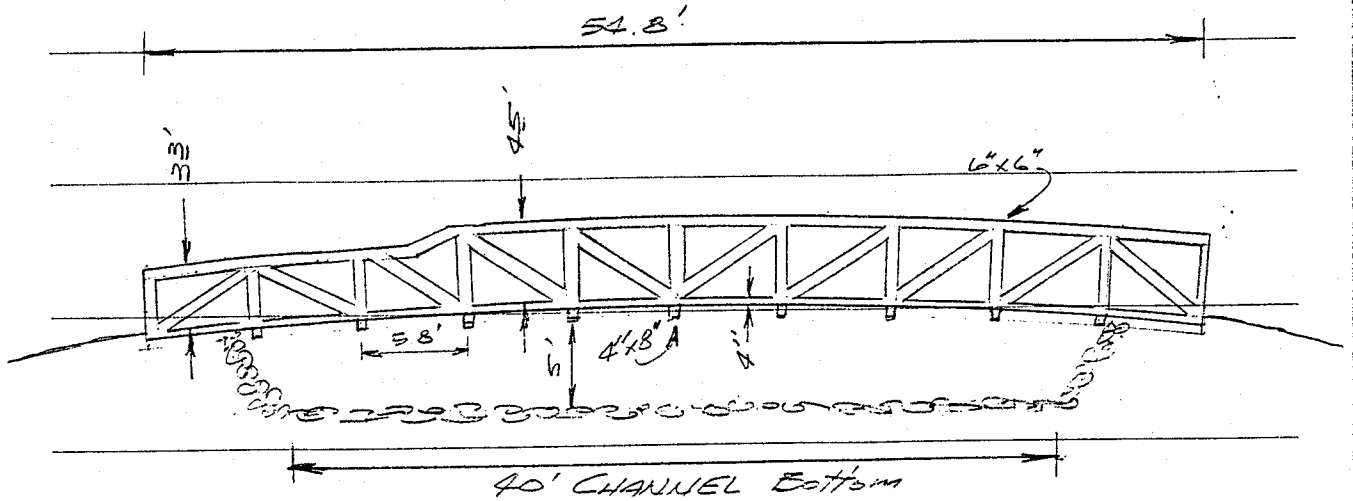
AT TRAV. POINT #2

HI = 1561.20

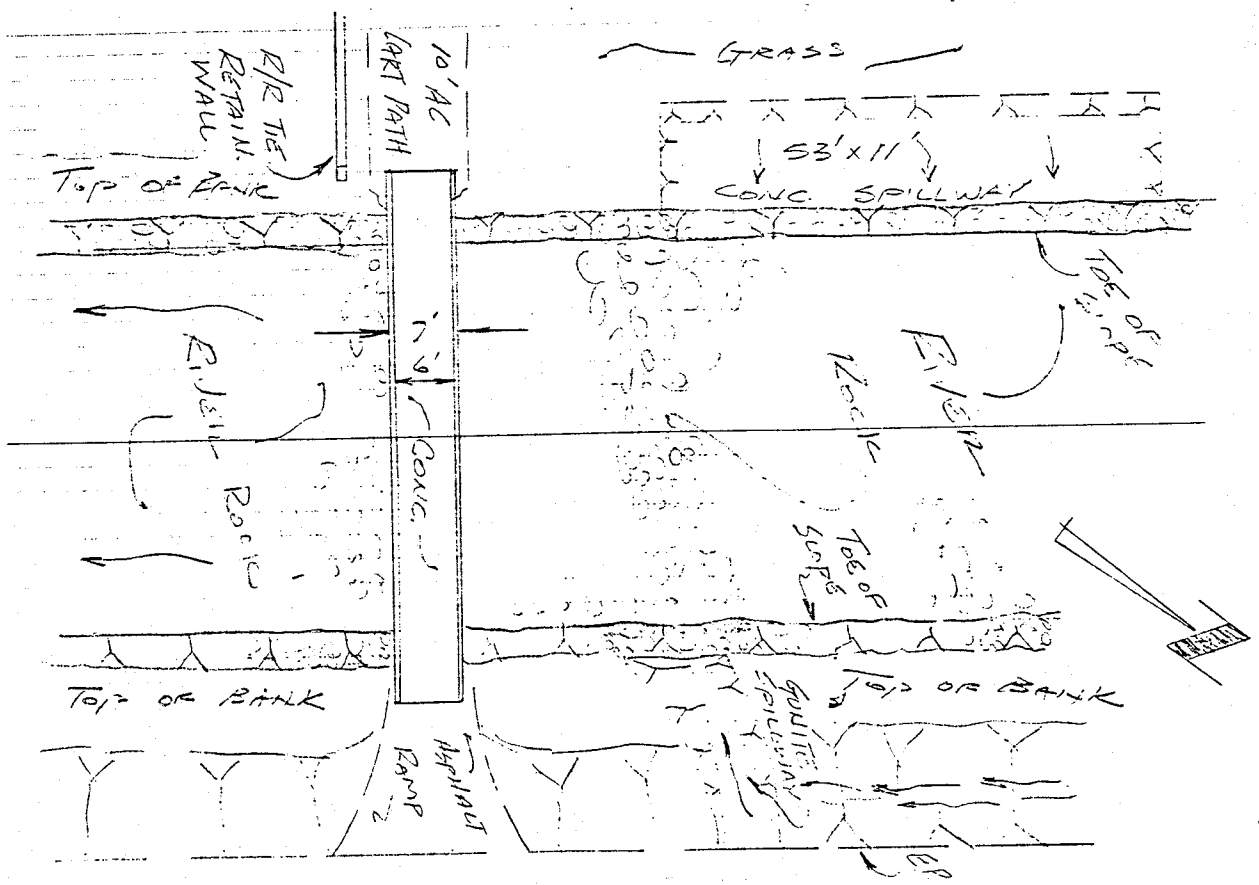
ANGLE RT	DIST.	TARGET	DE.	ELEV.	
164-53-20	134.43	8.64	+2.21	1554.77	℄ FOREST ROAD
171-01-20	131.55		+1.97	1554.53	E.P.
176-36-20	131.10		+2.53	1555.09	N.G.
177-11-20	130.57		+2.90	1555.46	TOP OF BANK (ROCK)
178-14.45	131.35		-0.99	1551.57	B. HORN OF WASH
188-16-40	133.06		-1.86	1550.70	℄ WASH
195-35-25	138.00		-1.70	1550.86	BOTTOM OF WASH
195-13-50	139.07		+2.94	1555.50	TOP OF BANK (ROCK)
198-02-40	139.38		+3 23	1555.79	N.G.
203-59-10	144.12		+3.70	1556.26	N.G.

WASH 9 CROSS SECTION

± 25' SOUTH OF BRIDGE



LOOKING SOUTH



WASH 9

2 - 4' x 8' x 36.6'
BOX CULVERT
ALONG
VADO COURT

6-13-94
R. ALCOCER
R. AYALA
M. VENEGAS

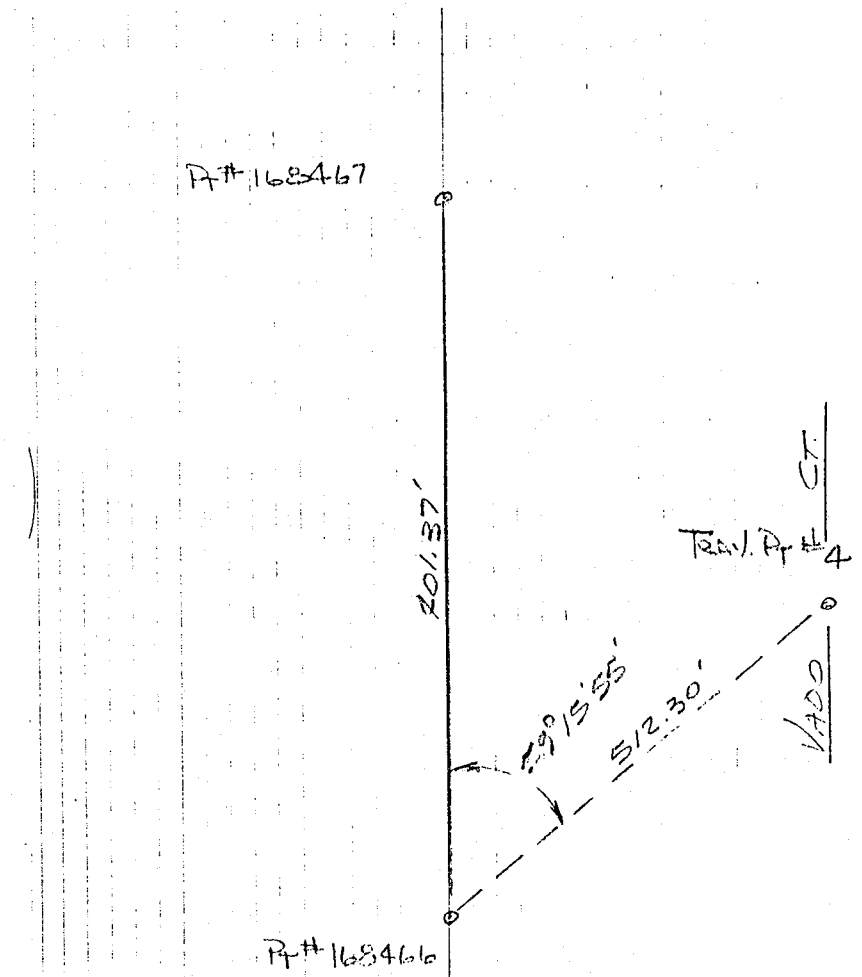
CLEAR. HOT

T AT POINT # 1684666
BS. POINT # 168467
00° 00' 00" DIST. 401.37'
HI: 5.06 + 1650.64 = 1655.70
TARGET HEIGHT: 5.87'
DE. = +2.11

FS TRAV. POINT #4
PK NAIL W & VADO CT &
CULVERT #5
ANGLE RT: 59° 15' 55"
DIST = 512.30 TARGET = 5.17
DE = -10.44

HI = 1655.70
DE = 10.44
TARGET = 5.17

TRAV. PT #4 = 1640.09



T AT TRAN. POINT #4 · ELEV. 1640.09
BS POINT # 168466
00°00'00" DIST. 512.31'
HI: 4.99 + 1640.09 = 1645.08
FS. ℄ BOX CULVERT #3
ANGLE RT: 26° 57'05"

ANGLE RT	DIST.	TARGET	D.E.	ELEV.	
20-04-15	71.92	4.84	-2.51	1637.73	℄ WASH W. END RIP RAP
27-17-20	40.70		-2.28	1636.86	
27-43-45	22.90		-1.45	1635.19	TOP OF GRADE BREAK
27-43-00	22.0		-1.96	1635.28	BOTTOM " "
26-57-05	19.70	8.64	-1.25	1635.19	F.L. BOX CULVERT
26-57-05	18.06	4.84	+0.74	1640.98	TOP HOWELL
26-57-05	17.17		+0.10	1640.34	PAVEMT
207-01-10	17.22		-0.27	1639.97	PAVEMT
207-01-10	17.98		+0.41	1640.65	TOP HOWELL
207-01-20	18.30	8.64	-1.58	1634.86	F.L. BOX CULVERT
207-02-00	21.60		-1.66	1634.78	BOTTOM OF GRADE BREAK
207-02-00	22.60		-1.12	1635.32	TOP OF "
208-02-15	52.20		-1.53	1634.91	℄ OF WASH

CENTERLINE WASH PROFILE

CONTINUED

T AT TRAV. PT #4

HI. 1645.08

ANGLE RT	DIST	TARGET	DE	ELEV
302-15-20	201.35	4.84	-0.02	1640.22
307-07-05	144.32		+0.92	1641.16
312-14-40	97.65		+1.14	1641.38
321-22-15	51.80		+0.59	1640.83
335-43-00	27.07		+0.28	1640.52
341-30-35	25.25		+0.90	1641.14
2-11-50	21.50		+0.72	1640.96
57-09-20	17.72		+0.76	1641.00
100-21-15	26.80		+0.50	1640.74
104-02-25	28.70		-0.05	1640.19
117-58-35	46.64		+0.06	1640.30
125-22-35	71.60		-0.22	1640.02
130-14-15	119.60		-2.29	1637.95
133-45-45	177.25		-3.54	1636.70
135-45-30	229.38		-0.04	1640.20
137-07-55	290.50		+4.46	1644.70
137-37-00	345.00		+6.19	1646.43

WEST EDGE OF ROAD PROFILE

W. EDGE OF PAVEMT

" " " "

" " " "

" " " "

" " " " - END OF CURB

TOP OF CURB AT TRANSITION

S. END OF HEADWALL

N. " " "

TOP OF CURB AT TRANSITION

W. EDGE OF PAVEMT - END OF CURB

W. EDGE OF PAVEMT

CONTINUED

↑ AT TRAV POINT #4

H.I. 1645.08

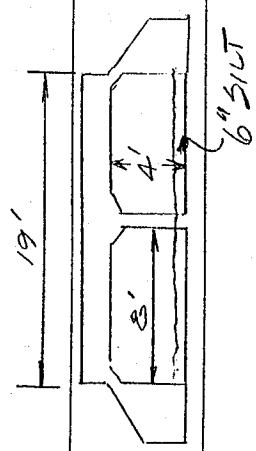
ANGLE RT	DIST	TARGET	D.E.	ELEV	
351-19-25	61.55	4.84	+1.13	1641.37	N.G.
12-49-50	47.45		-0.44	1639.80	Top of R.R. Tie Retain. Wall
13-03-45	469		-3.56	1636.68	Bottom of Wash
25-40-45	42.0		-3.31	1636.93	℄ Wash
38-52-20	42.50		-3.51	1636.73	Bottom of Wash
39-33-15	42.60		-0.62	1639.62	Top of R.R. Tie Retain. Wall
46-19-25	43.80		+0.73	1640.97	N.G.
67-08-40	52.20		+0.58	1640.82	N.G.

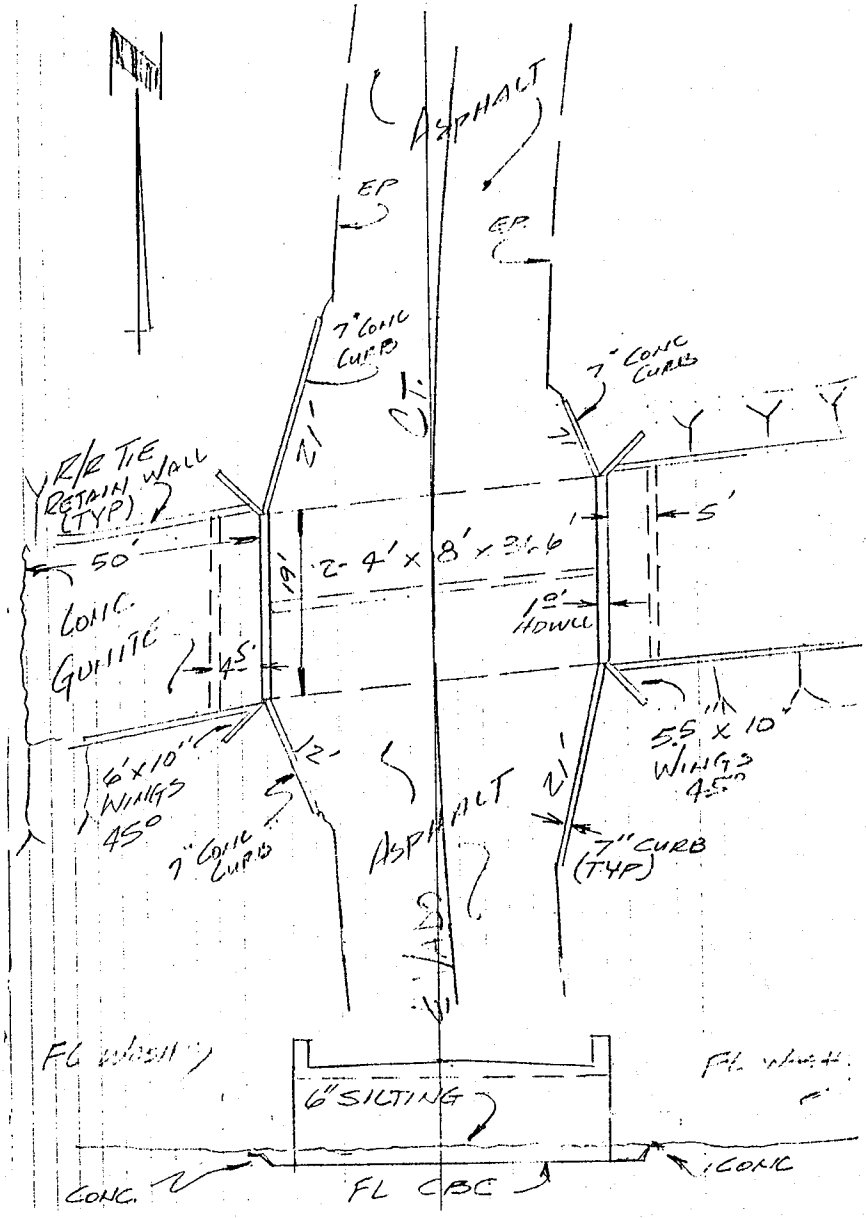
WASH CROSS SECTIONS

20' WEST OF CULVERT

20' EAST OF CULVERT

242-14-00	48.20	4.84	-1.13	1639.11	NG
221-12-00	41.70		-2.22	1638.02	Top RR Tie Retain. Wall
220-35-55	41.50		-4.80	1635.44	Bottom of Wash
207-41-55	41.70		-5.10	1635.14	℄ Wash
194-34-15	43.25		-4.94	1635.30	Bottom of Wash
194-05-25	43.50		-2.00	1638.24	Top of RR Tie Retain Wall
186-13-10	45.60		-0.57	1639.67	N.G.
171-17-15	56.1		-0.02	1640.22	N.G.


19'
4'
8'
6" SILT


ASPHALT
EP
EP
7" CONC CURB
7" CONC CURB
21'
CT.
R/R TIE RETAIN WALL (TYP)
50'
19'
2-4' x 8' x 36.6'
5'
CONC. GUNITE
45'
10' HDWLL
6'x10" WINGS 45°
12'
7" CONC CURB
ASPHALT
21'
5.5" x 10" WINGS 45°
7" CURB (TYP)
FL WASH
6" SILTING
FL WASH
CONC.
FL CBC
CONC

WASH 11

4 - 4' x 10' Box Culvert
ALONG
AGUA VERDE ROAD

6.13.92
CLEAR
HOT

IT AT PANEL POINT # RICH

BS. PANEL POINT # 70.

00°00'00" DIST = 975.90' (+17.71)

H.I. = 4.10' + 1584.77 1588.87

D.E. +4.24 TARGET = 4.84

ELEV = 1589.07

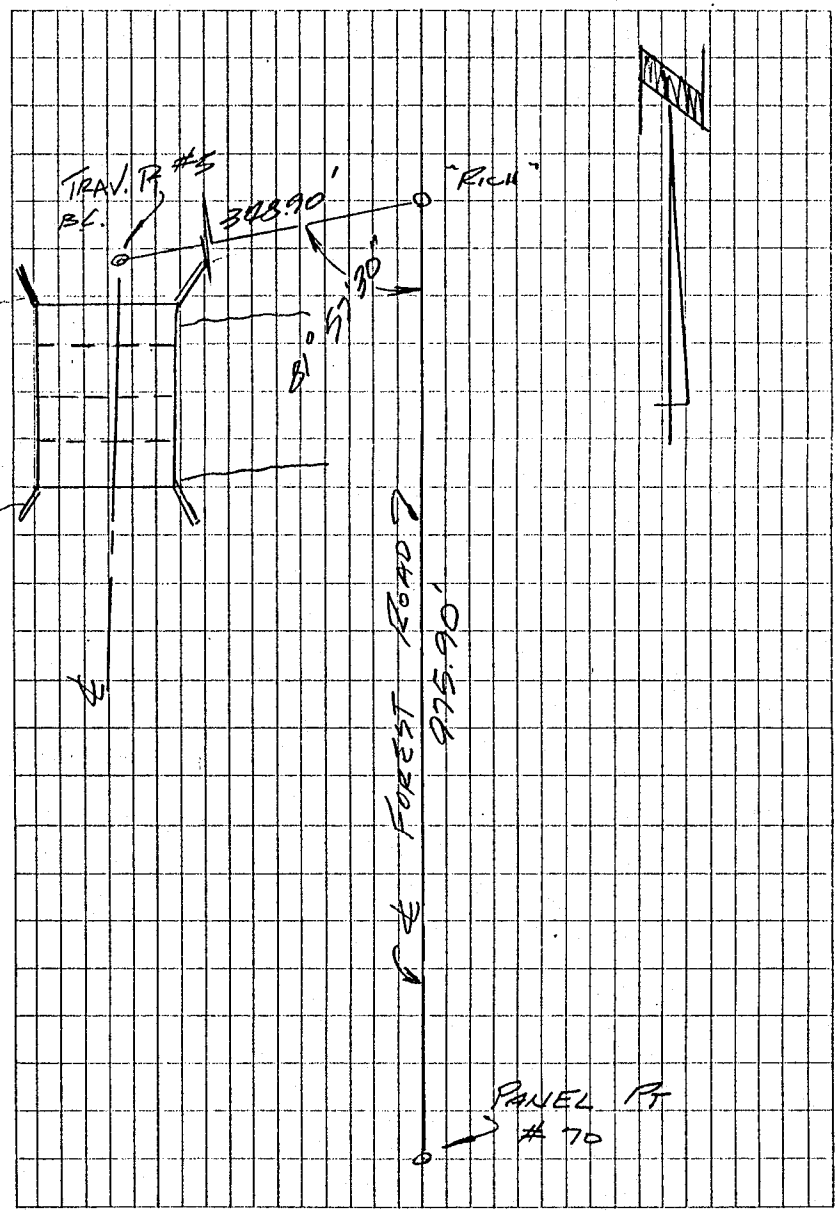
FS. TRAV. POINT #5

ANGLE RT = 81°57'30"

DIST = 348.90'

D.E. = +9.86 TARGET = 4.86'

ELEV = 1593.87



T AT TRAN. POINT #5
BS PANEL POINT "RICH"
00°00'00" DIST: 348.71'
TARGET: 4.84'
HI: 5.34' + 1593.87 = 1599.21

ANGLE RT	DIST	TARGET	DE	ELEV.
111-29-30	229.20	4.84	+1.13	1595.55
109-03-50	182.93		+0.80	1595.17
107-32-30	141.15		+0.62	1594.99
107-32-25	138.70		+0.40	1594.77
107-20-40	92.0		+0.29	1594.08
108-09-35	75.90		+0.33	1594.70
110-14-00	75.50		+0.26	1594.63
125-16-05	34.15		+0.10	1594.47
121-07-55	32.70		+0.21	1594.58
232-03-00	23.50		+0.22	1594.59
238-31-50	27.60		+0.67	1595.04
259-37-05	72.30		+0.72	1595.09
264-32-55	120.0		+0.81	1595.18
266-36-15	169.50		+0.89	1595.26
267-45-25	218.50		+1.02	1595.39
268-33-15	268.0		+1.13	1595.50
269-25-15	316.31		+1.42	1595.79
271-25-35	413.50		+1.97	1596.34

WEST TOP OF CURB

TOP OF ROLL CURB
S
TOP OF CURB @ TRANSITION
BEGIN DEPRESSED CURB (SPILLWAY)
DEPRESSED CURB "
END DEPRESSED CURB "
SW COR. CULVERT (TOP
NW " " " (SPILLWAY)
BEGIN DEPRESSED CURB "
END " " "
TOP OF CURB @ TRANSITION
TOP OF ROLL CURB

CONTINUED

HI = 1593.21

CENTERLINE WASH

ANGLE RT	DIST	TARGET	DE	ELEV	
155-57-05	98.50	4.87	-2.54	1591.83	
129-43-25	60.80		-3.62	1590.55	TOP OF RIVER ROCK
117-05-45	55.35		-4.72	1589.65	F.L. BOX CULVERT
114-47-55	55.13		+0.16	1594.53	TOP OF BOX CULVERT
96-05-15	52.45		-0.10	1591.27	℄ ROAD
77-46-15	56.56		-0.63	1593.74	TOP OF BOX CULVERT
75-11-30	56.70		-5.55	1588.82	F.L. BOX CULVERT
41-16-40	83.0		-7.63	1584.74	TOP OF RIVER ROCK

CONTINUED

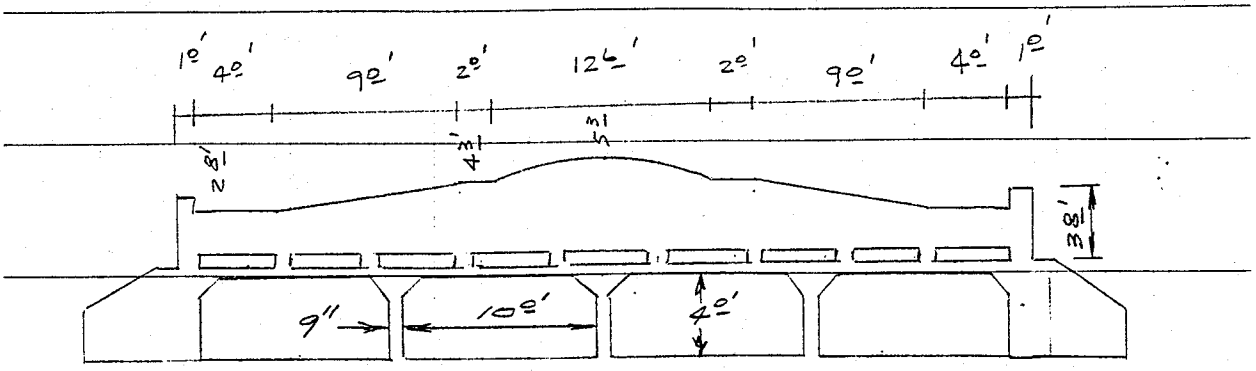
HI = 1599.21

ANGLE RT	DIST	TARGET	DE.		
353-24-20	48.80	4.84	-3.85	1590.52	N.G.
24-36-45	51.30		-3.87	1590.50	Top of BANK (N.G)
26-36-35	52.10		-4.20	1590.17	Top of River Rock
42-41-15	60.0		-8.64	1585.73	Bottom of WASH
56-21-25	70.0		-9.16	1585.21	& WASH
62-11-55	83.50		-8.40	1585.97	Bottom of WASH
66-41-15	95.10		-4.46	1589.91	Top of River Rock
66-56-55	98.50		-3.66	1590.71	Top of BANK (NG)
73-38-35	124.40		-7.52	1591.85	N.G.
191-37-55	52.70	4.84	-1.20	1593.17	Top of BANK (NG)
160-02-05	60.20		-3.38	1590.99	Toe of Slope
144-13-40	74.4		-3.85	1590.52	& of WASH
139-06-15	81.0		-3.69	1590.68	Toe of Slope
129-14-45	104.50		-1.12	1593.25	Top of BANK
124-50-35	126.0		-0.24	1594.13	N.G.

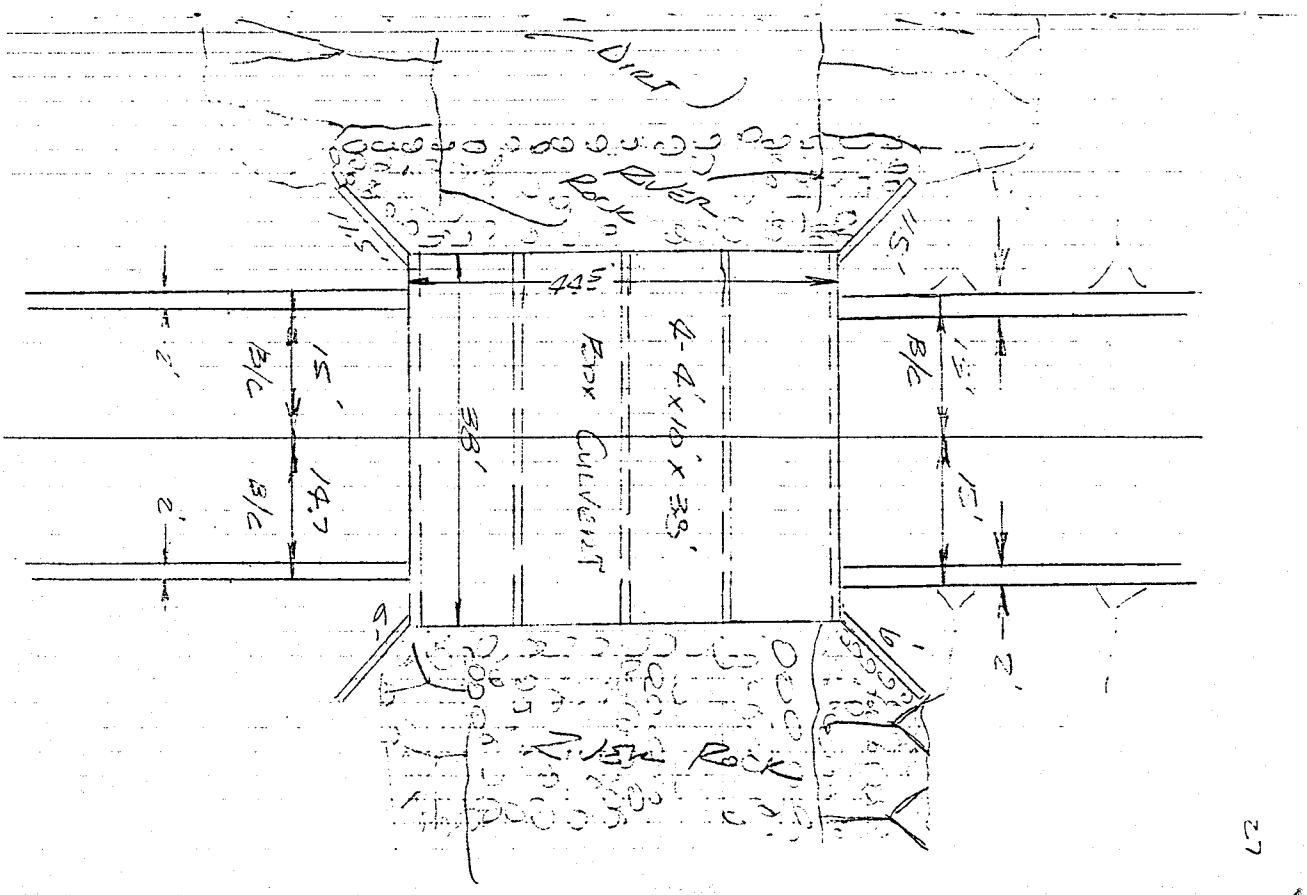
WASH CROSS SECTIONS

EAST OF BOX CULVERT

WEST OF BOX CULVERT



NOTE: 9 - 8" x 48" DRAIN OPENINGS



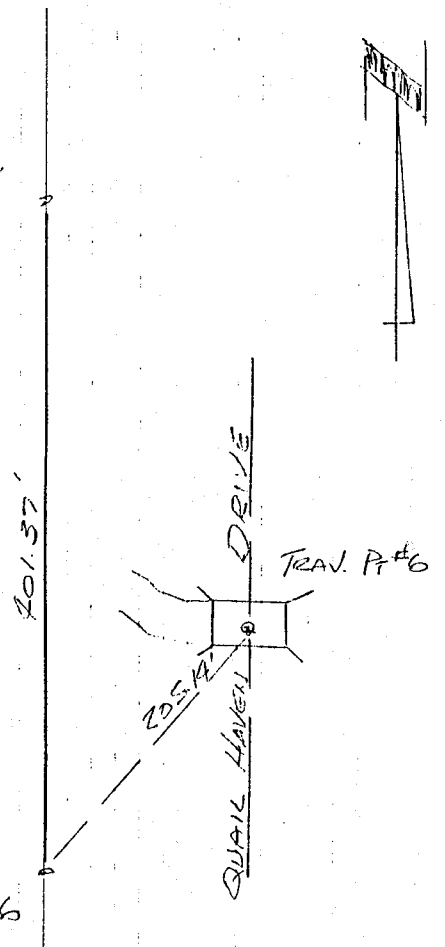
WASH P

2-4'x3'x24'
Box CULVERT
ALONG
QUAIL HAVEN DRIVE

T AT POINT # 1683466
BS. POINT # 1683467
00°00'00" DIST. 401.37'
HI = 4.90 + 1650.64
TARGET HEIGHT = 8.46
D.E. = +2.04

FS. TRAV POINT # 6
"PK" NAIL AT E QUAIL HAVEN DR.
& BOX CULVERT AT WASH 'I

ANGLE RT. 47°45'20"
DIST = 205.14'
TARGET HEIGHT = 8.46
D.E. = 1.14
ELEV = 1645.64



↑ AT TRAV. POINT #6
BS. POINT # 1683466
00° 00' 00" DIST: 401.37
HI: 5.03 + 1645.62 = 1650.67
F.S. ℄ OF BOX CULVERT
ANGLE RT: 27° 11' 25 - ℄ CULVERT
DIST. 18.20

ANGLE RT	DIST.	TARGET	D.E.	ELEV	
55-33-55	140.07	4.84	-0.45	1645.38	CENTERLINE OF WASH
43-33-20	85.90	(	-1.80	1644.03	BEG CONC. RIP RAP
34-05-55	56.30	(	-3.03	1641.00	" " "
34-05-55	23.50	(	.451	1641.32	TOP OF CONC G.B.
34-05-55	22.7	(	-5.01	1640.82	F.L. CONC G.B.
27-11-25	19.20	8.64	-1.25	1640.78	F.L BOX CULVERT
27-11-25	18.20	4.64	+0.10	1646.73	℄ HEADWALL
27-11-25	17.13	(	+0.07	1695.90	PAVEM'T
207-07-35	17.00	(	-0.21	1645.62	"
207-07-35	17.96	(	+0.36	1646.19	℄ HEADWALL
207-07-35	18.20	8.64	-1.62	1640.41	F.L BOX CULVERT
208-00-00	21.40	4.64	-5.43	1640.40	F.L CONC. G.B.
208-00-00	22.50	(	-4.94	1640.89	TOP CONC. GB
207-16-00	52.15	(	-4.73	1641.10	℄ WASH
206-36-25	108.0	(	-5.35	1640.48	"

CONTINUED

HI = 1650.67

ANGLE R	DIST	TARGET	DE	ELEV
307-25-35	163.83	4.84	+0.39	1646.22
313-52-25	119.20		+1.22	1647.05
321-18-25	72.00		+1.29	1647.12
337-59-30	28.20		+0.44	1646.27
342-44-00	26.50		+1.04	1646.87
3-30-55	21.90		+0.73	1646.56
57-24-10	17.70		+0.67	1646.50
102-56-45	26.10		+0.44	1646.27
106-27-00	28.07		-0.20	1645.62
124-22-20	76.80		-0.35	1645.48
127-52-20	129.0		+0.63	1646.46
128-59-25	177.50		+0.43	1646.26
129-46-30	228.50		-0.48	1645.35

WEST SIDE OF ROAD

W. EDGE PAVEMT

BEG. CONC. CURB

TOP CURB - TRANSITION

S. EDGE - TOP OF HEADWALL

N. EDGE " " "

TOP CURB - TRANSITION

W. EDGE PAVEMT

CONTINUED

H/I = 1650.67

ANGLE RT	DIST	TARGET	D.E.	ELEV.
67-15-55	45.3	4.84	+0.14	164597
56-09-05	40.2		+0.07	164590
50.49.30	38.70		-0.77	164484
47-23-40	38.4		-1.03	164480
47-04-20	38.4		-3.33	164250
30-18-35	36.8		-3.34	164249
14-37-20	38.2		-3.54	164249
13-47-50	37.7		-0.34	164549
6-20-50	40.0		+0.28	164611
351-30-55	50.40		+048	164631
240-08-50	46.00	4.84	-1.13	164470
221-27-45	41.30		-2.38	164345
221-04-59	41.20		-4.27	164156
207-44-15	40.50		-4.79	164504
192-23-10	42.0		-4.33	164150
193-56-10	42.0		-2.42	164341
188-12-55	42.80		-2.13	164370
176-40-30	50.0		-1.52	164431

WASH CROSS SECTIONS

20' WEST SIDE OF CULVERT

N.G.

N.G.

N.G.

Top R/R Tie Retain Wall

Bottom of Wash

℄ Wash

Bottom of Wash

Top R/R Tie Retain Wall

20' EAST SIDE OF CULVERT

N.G.

Top R/R Tie Retain Wall

Bottom Wash

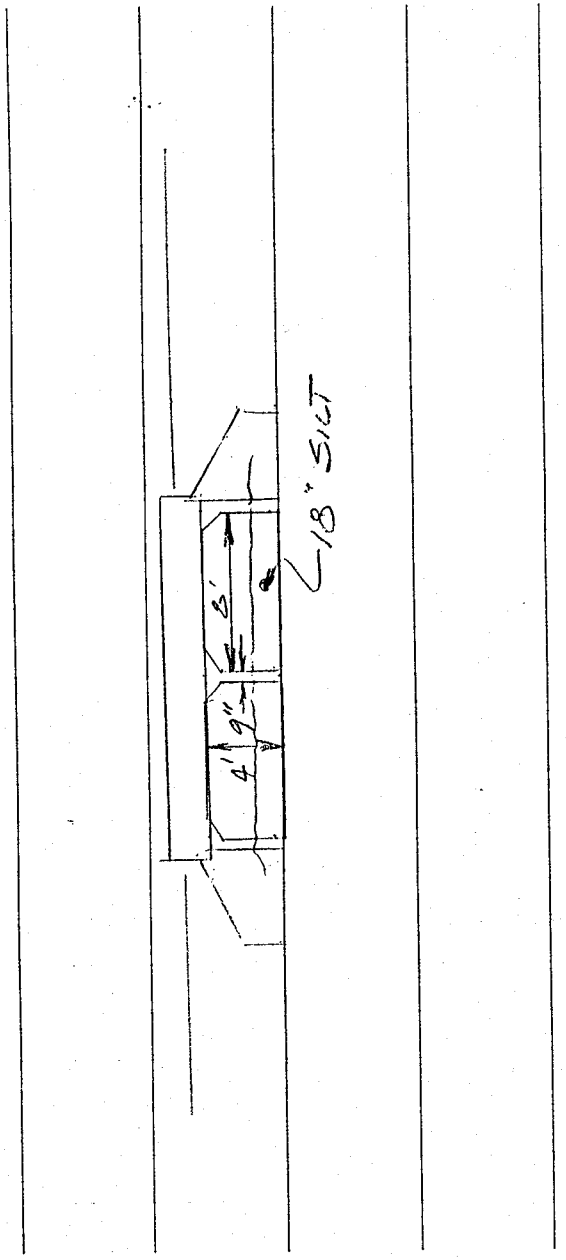
℄ Wash

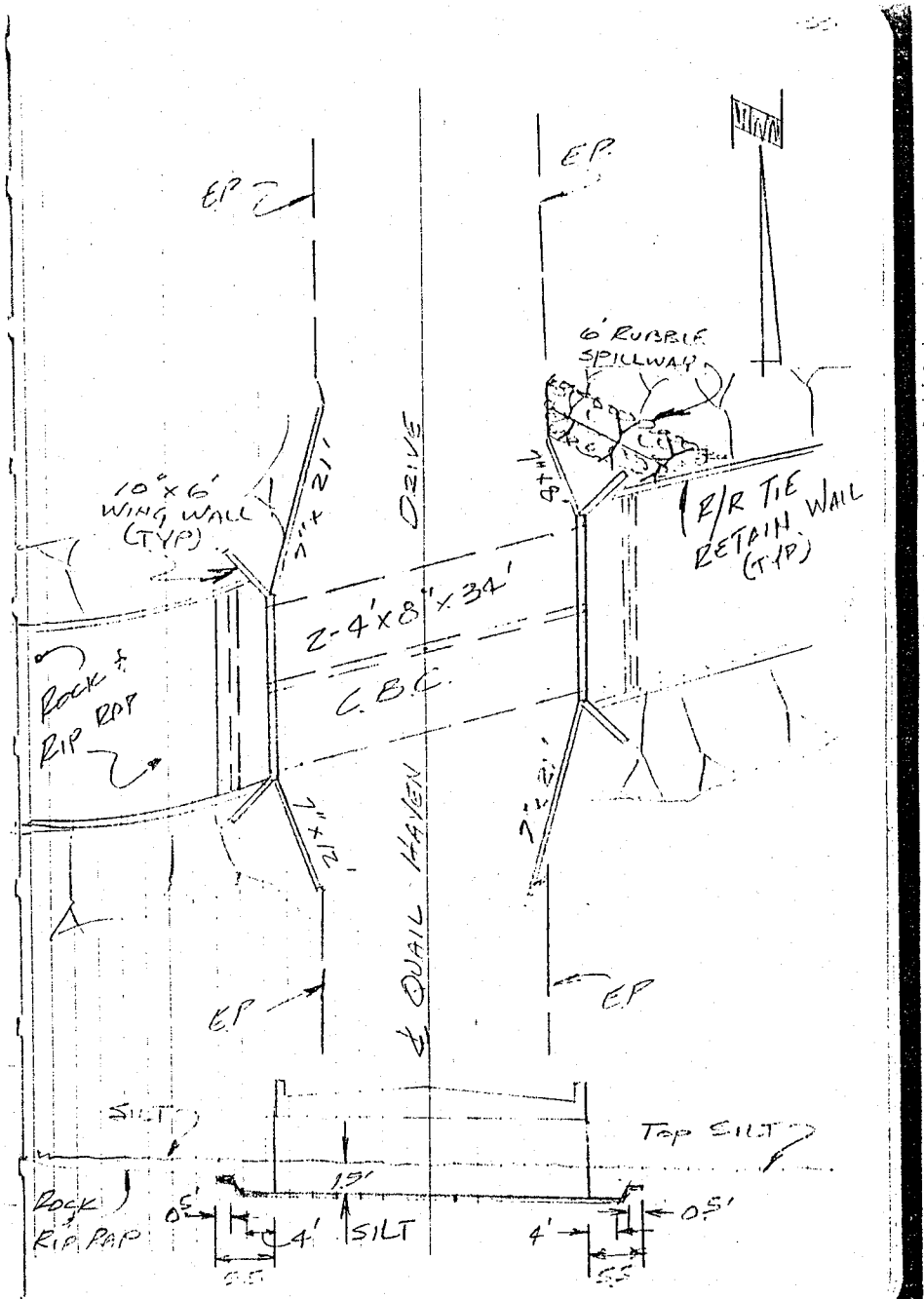
Bottom Wash

Top R/R Tie Retain Wall

N.G.

N.G.


18" SILT
8'
9"
4'

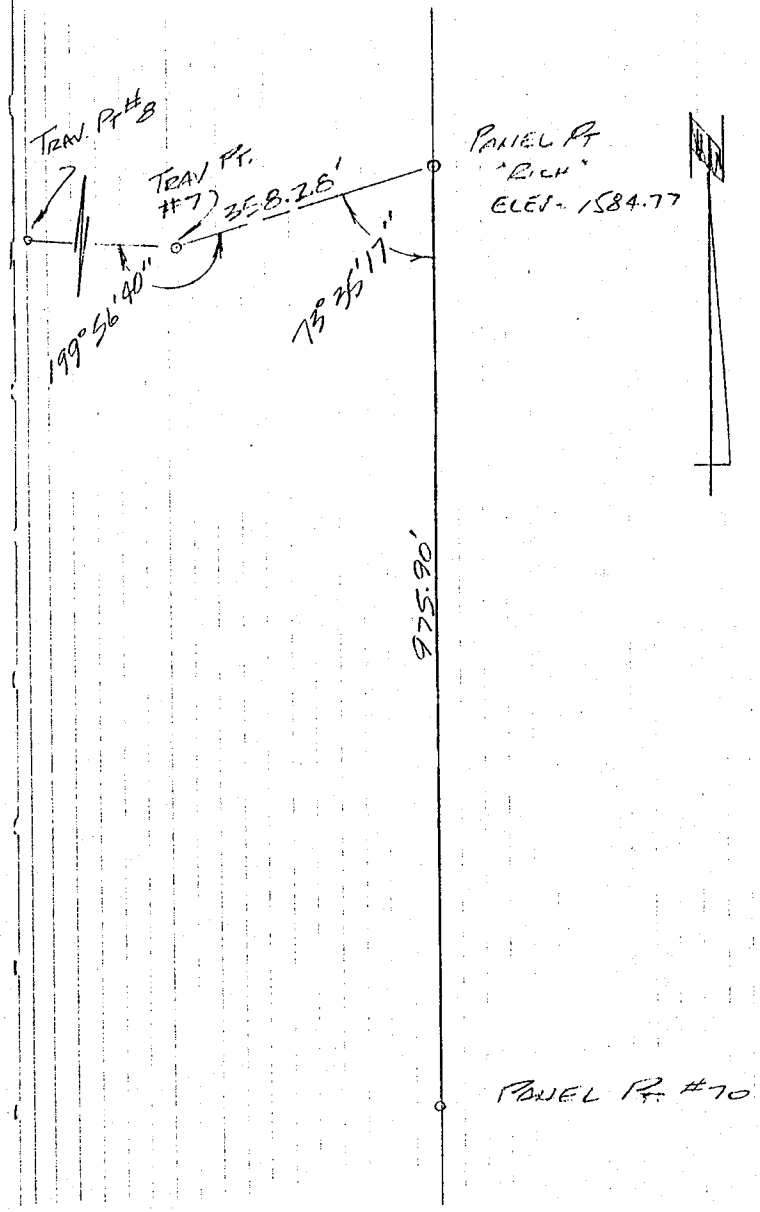

EP
EP
6' RUBBLE SPILLWAY
10'x6' WING WALL (TYP)
7"x21'
DRIVE
R/R TIE RETAIN WALL (TYP)
2-4'x8"x34' C.B.C.
ROCK & RIP RAP
7"x21'
QUAIL HAVEN
EP
EP
SILT
Top SILT
ROCK RIP RAP
0.5'
4'
SILT
15'
4'
0.5'
5.5'
5.5'

WASH 11

TRAVERSE TO POINT #10
ALONG AGUILA ROAD

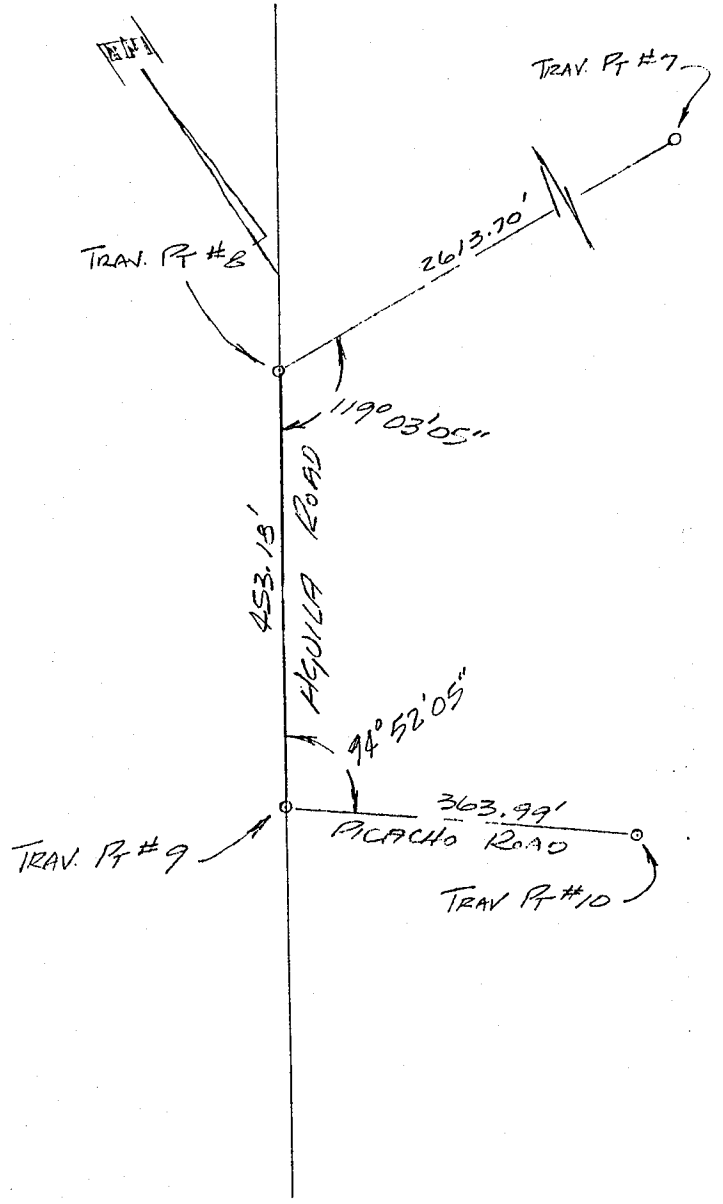
T AT PANEL POINT "RICH"
BS PANEL POINT #70 DIST = 975.90'
HI. 4.87 + 1584.77 = 1589.64
FS. TRAN. POINT #7
ANGLE RT = 73° 35' 17" TARGET = 4.86
DIST 358.28' DE = + 9.44

T AT TRAN. POINT #7
FS. PANEL POINT "RICH"
HI. 4.90 + 1594.22 = 1599.12
FS. TRAN. POINT #8
ANGLE RT = 199° 56' 40"
DIST: 2612.75'
TARGET = 6.73'
DE = + 59.61
ELEV = 1532.73



IT AT TRAV. POINT # 8
B.S. TRAV. POINT #7
00° 00' 00"
HI = 5.06 + 1532.73 = 1537.79
F.S. TRAV. POINT #9
ANGLE RT = 119° 03' 05"
DIST = 453.18'
TARGET = 4.84'
DE = + 3.49'
ELEV = 1536.84

IT AT TRAV. POINT #9
B.S. TRAV. POINT #8
00° 00' 00"
HI = 5.15 + 1536.84 = 1541.99
F.S. TRAV. POINT #10
ANGLE RT = 94° 52' 05"
DIST = 363.99'
TARGET = 4.84'
DE = - 7.70
ELEV = 1529.95



WASH 11 TRIBUTARY
(NOT A STUDY WASH)
3-28" x 40' CMP
AT
AGUILA ROAD & PICACHO ROAD

T AT TRAV. POINT #9
BS. TRAV. POINT #8
=0°00'00"
HI. 5.16 + 1536.84 = 1542.00

ANGLE RT	DIST.	TARGET	DE	ELEV
181-56-15	236.8	4.84	+2.33	
182-57-45	195.58		+1.40	
183-30-00	173.50		+1.27	
185-20-50	123.39		+0.98	
189-31-40	74.13		+0.66	
200-19-00	37.35		+0.48	
201-15-55	35.40		+0.14	
203-46-15	32.0		+0.15	
205-36-35	30.14		+048	
334-07-20	28.25		+0.32	
352-26-55	27.3		+0.14	
356-35-45	129.54		-0.20	
358-17-50	181.7		-0.87	
359-15-35	232.4		-1.52	

TOP OF WEST CURB

NAT. GROUND
T.C. BEG. CURB
T.C.
F.L. DEPRESSED CURB
F.L. " "
T.C.

CONTINUED

HT = 1542.00

ANGLE RT	DIST.	TARGET	DE	ELEV
257-43-50	100.6	4.84	-1.42	
233-00-25	45.4	4.84	-3.13	
231-54-20	35.9	8.64	+0.71	
227-03-15	38.2	〃	+0.68	
222-55-10	40.8	〃	+0.60	
226-34-25	37.9	4.84	+1.06	
225-10-50	37.2	〃	+0.43	
206-55-45	28.28	〃	+0.47	
204-52-50	27.51	〃	+0.16	
179-48-50	24.11	〃	-0.15	
151-50-04	26.36	〃	-0.64	
149-27-55	27.26	〃	-0.30	
125-31-20	57.35	〃	-1.20	
124-07-50	38.60	〃	-0.16	
118-15-45	36.50	〃	-4.28	
123-39-10	38.86	〃	-4.35	
127-45-35	41.28	〃	-4.36	
117-23-45	46.18	〃	-4.41	
101-05-15	94.4	〃	-4.90	
99-48-50	104.0	〃	-5.37	

℄ PROFILE WASH 11

℄ 6' BOTTOM WASH
F.L. CONC.
F.L. N. CMP (INLET)
FL CENTER CMP 〃
FL S. CMP 〃
CENTER HEADWALL (TOP)
N.G.
TOP CURB
GUTTER
℄ ROAD
GUTTER
TOP CURB
N/G.
CENTER HEADWALL - (TOP)
F.L. N. CMP (OUTLET)
FL CENTER CMP
FL S. CMP
EL CONC
℄ 6' BOTTOM WASH TOP RIVER ROCK
℄ 〃 〃 〃 DIRT

CONTINUED

HI = 1542.00

ANGLE RT	DIST	TARGET	DE	ELEV
85-53-20	56.85	4.84	-1.51	
97-11-25	58.70		-1.73	
98-34-00	58.70		-1.43	
100-08-20	59.8		-1.96	
105-22-30	61.6		-4.62	
108-28-30	63.3		-4.30	
112-03-20	65.15		-4.40	
117-05-00	67.65		-2.01	
127-48-50	79.2		-2.35	
257-01-35	45.3		+0.27	
249-14-35	47.2		+0.60	
242-04-20	50.21		-2.50	
239-23-40	53.4		-2.82	
236-03-45	55.0		-2.71	
230-44-15	58.8		+0.50	
219-42-55	71.2		+0.66	

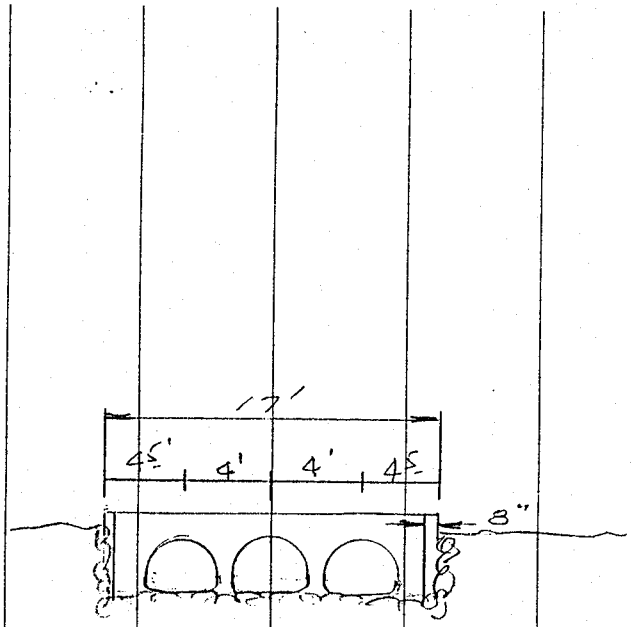
WASH CROSS SECTIONS

20' EAST SIDE of CULVERT

℄ ROAD
GUTTER
TOP CURB
TOP of BANK
BOTTOM WASH (RIVER ROCK)
℄ WASH
BOTTOM WASH (RIVER ROCK)
TOP of BANK
N.G.

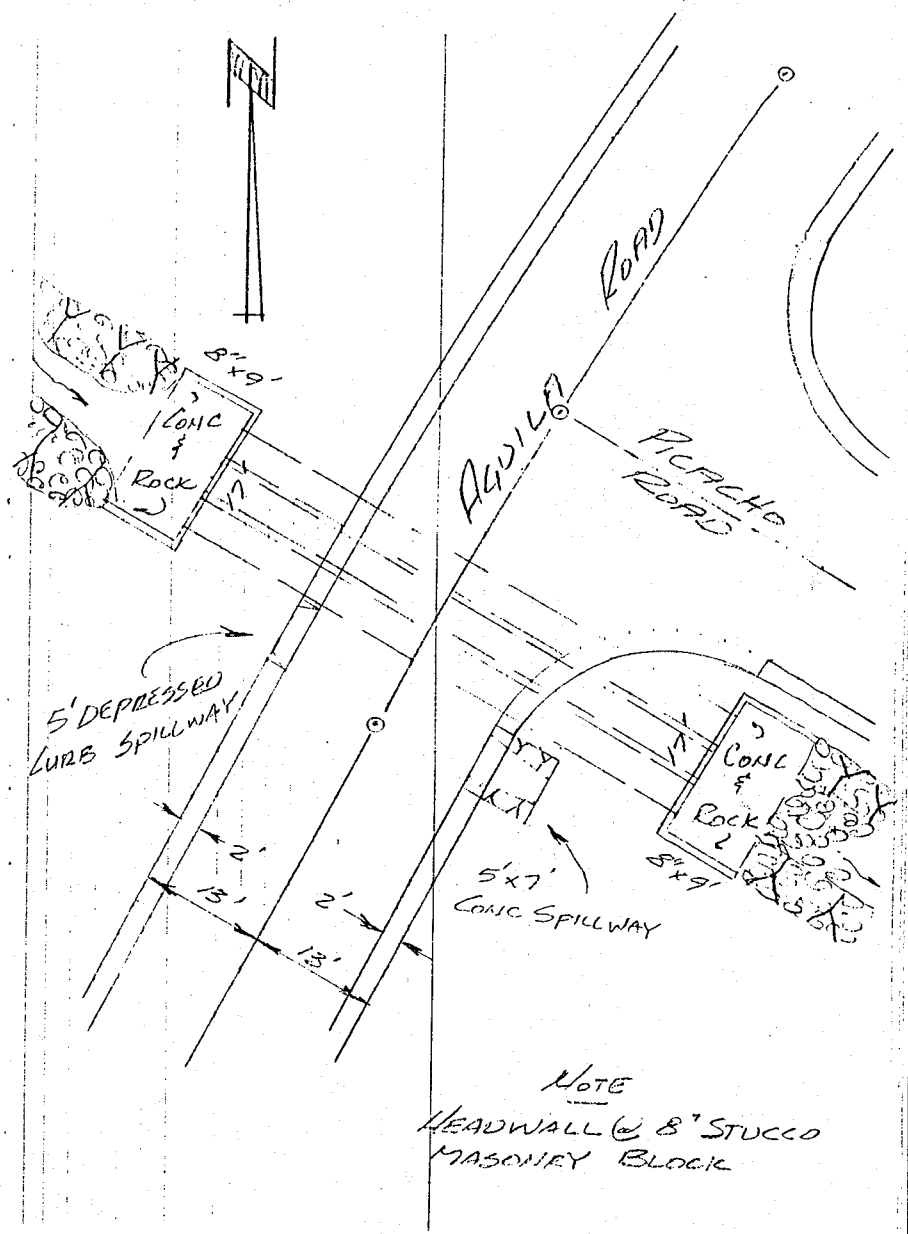
20' WEST SIDE of CULVERT

N.G.
TOP of BANK
BOTTOM WASH (RIVER ROCK)
℄ WASH
BOTTOM WASH (RIVER ROCK)
TOP of BANK
NG



3- 28" x 40' CMP's

STRUCTURE IS STUCCO MASONRY BLOCK



NOTE
HEADWALL @ 8" STUCCO MASONRY BLOCK

WASH 11 TRIBUTARY
(NOT A STUDY WASH)

CULVERTS @ NORTH END
AVENIDA DEL REY

AT: TRAV POINT #10
BS. TRAV. POINT #9
00°00'00"
HI = 4.97 + 1529.45 = 1534.42

ANGLE RT	DIST	TARGET	DE	ELEV.
10-24-55	89.5	4.84	-1.52	
1-54-35	22.8		-3.02	
18-00-10	15.8		-3.13	
1-51-10	15.2		-3.17	
347-08-20	15.6		-3.02	
1-35-40	14.75		+1.04	
1-03-00	14.9		-0.25	
1-43-25	7.70		-0.07	
181-15-10	7.63		-0.28	
181-15-10	14.3		-0.64	
181-15-10	14.84		+0.44	
166-03-25	15.72		-3.80	
181-15-10	15.21		-3.80	
196-55-45	15.80		-3.74	
180-42-30	37.45		-4.00	
177-24-55	75.0		-4.55	

CENTER OF WASH PROFILE

CENTER WASH
" " BEG CONC RIP RAP
F.L. N CMP
F.L. CENTER CMP
F.L. S. CMP
CENTER HEADWALL (TOP)
NG
W EDGE CONC. CART PATH
E " " "
NG.
CENTER HEADWALL (TOP)
FL N CMP
FL CENTER CMP
FL S CMP
CENTER WASH END CONC RIP RAP
CENTER WASH

CONTINUED

AI = 1534.8 ±

ANGLE RT	DIST	TARGET	DC	ELEV.
294-47-05	78.9	484	+2.54	
302-51-20	30.3		+042	
320-13-00	20.1		+0.66	
331-41-00	17.15		+0.26	
332-58.40	16.85		+1.09	
30-56-45	17.05		+1.07	
32-31-35	17.2		-0.07	
47-19-00	20.40		+0.25	
74-33-20	53.30		+0.23	
77-25-10	68.0		-0.17	
79-30-00	61.40		+0.05	
79-30-00	83.12		-0.28	
61-18-35	95.70		-0.14	

CROSS SECTION @ HEADWALL

N.G.

TOP S. EDGE HEADWALL

" N " "

N.G.

W. EDGE GOLF CART

E " "

N.G.

T.C.

GUTTER

& ROAD

CONTINUED

H.I = 15.34.82

ANGLE RT	DIST	TARGET	DE	ELEV
48-30-50	47.6	4.84	+0.33	
31-12-25	40.5		-0.07	
18-49-40	39.2		+0.05	
10-27-05	39.7		-2.38	
5-56-40	40.2		-2.53	
2-20-10	40.55		-2.50	
350-36-25	42.3		+0.81	
338-36-15	47.5		+1.25	
202-12-15	53.9	4.84	-0.98	
192-26-20	50.8		-0.44	
184-00-15	50.0		-3.60	
180-55-45	49.85		-4.18	
[illegible]-47-15	50.1		-4.02	
166-02-30	49.7		-0.96	
149-24-30	55.6		-1.35	

WASH CROSS SECTIONS

20' WEST SIDE OF CULVERT

NG

NG

TOP NORTH BANK

BOTTOM WASH

℄ WASH

BOTTOM WASH

TOP SOUTH BANK

NG

30' EAST SIDE OF CULVERT

NG

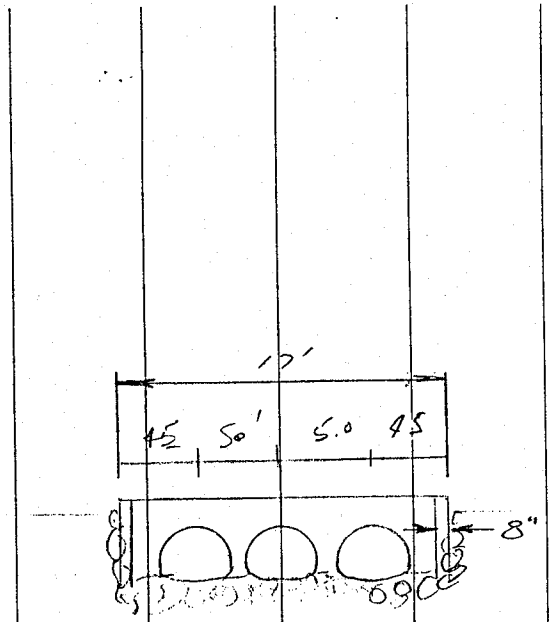
TOP SOUTH BANK

BOTTOM WASH (RIVER ROCK)

℄ WASH

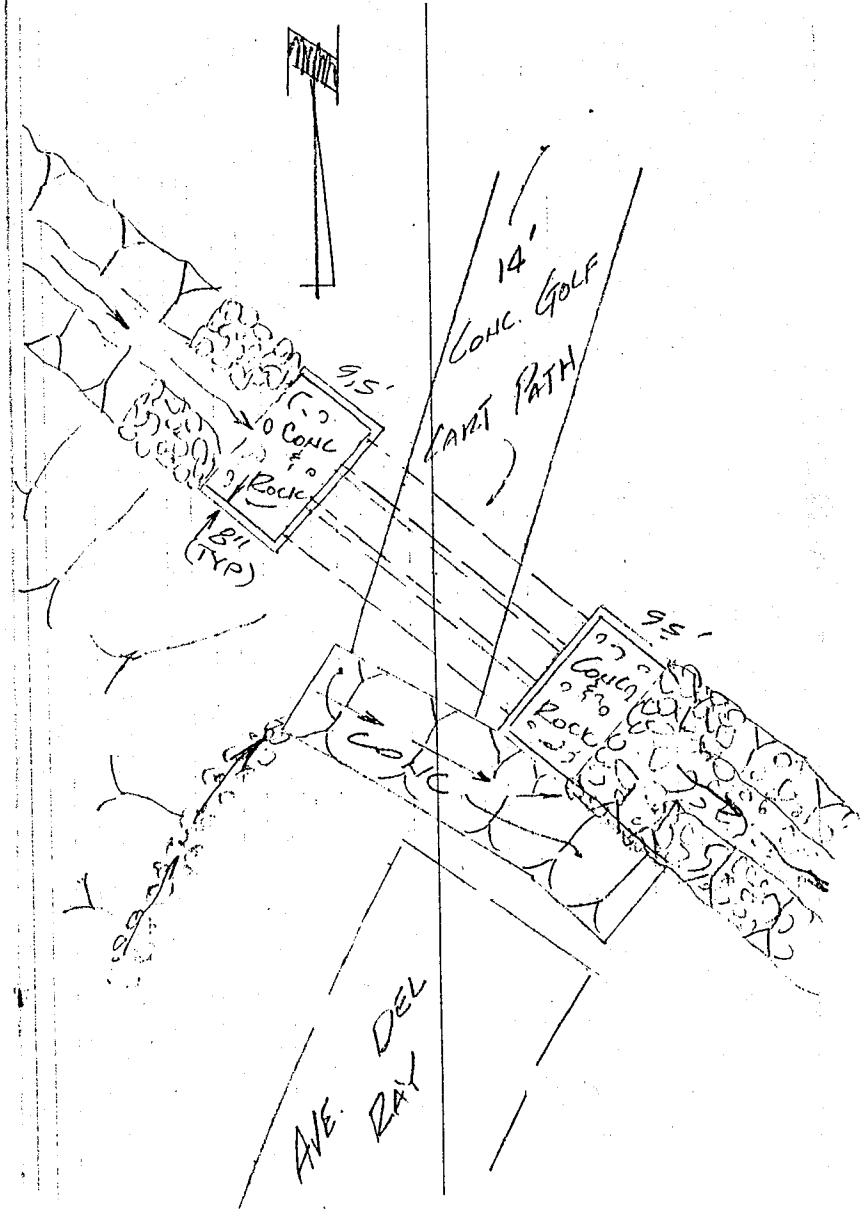
TOP NORTH BANK

NG



3- 40" x 28" CMP's

STRUCTURE IS STUCCO MASONRY BLOCK



ADDITIONAL AERIAL PANEL

3.19.94

R. ALCOLEA
U. VENEGAS

T AT INTERSECTION of FOREST RD & TONTO VERDE DR.

BS. AERIAL POINT #168470

N: 774399.7774 E. 992516.8753

DIST: 1667.59'

FS. BC AT INTERSECTION TONTO VERDE DR. & CIRCULO DR. (TP#2)

∠ 115-39-25

∠ 462-37-35

M = 115-39-24

DIST = 702.70

N: 776349.812 E: 991877.873

T AT BC. INTERSECTION TONTO VERDE DR & CIRCULO DR (TP#2)

BS. INTERSECTION of FOREST RD. & TONTO VERDE DR.

FS. TRAV. POINT #3 (SET NAIL)

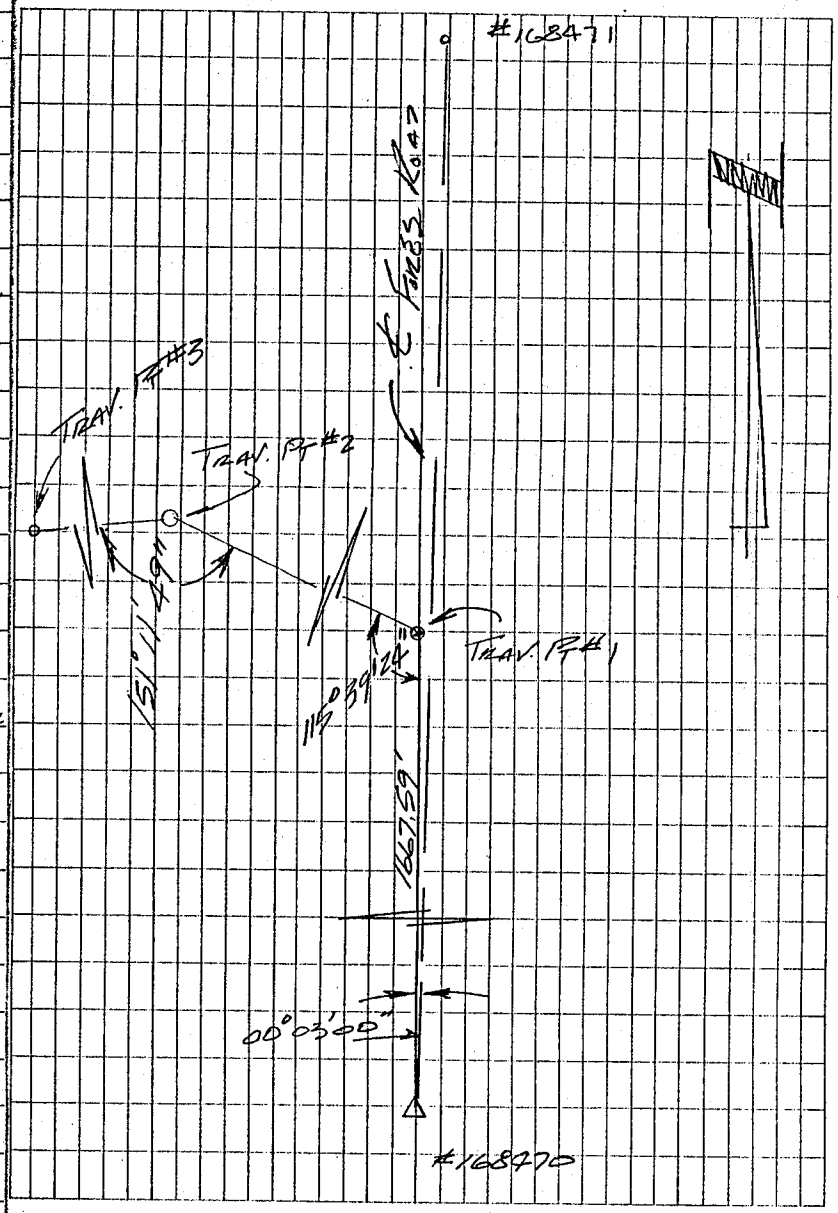
∠ 151-17-55

∠ 605-11-15

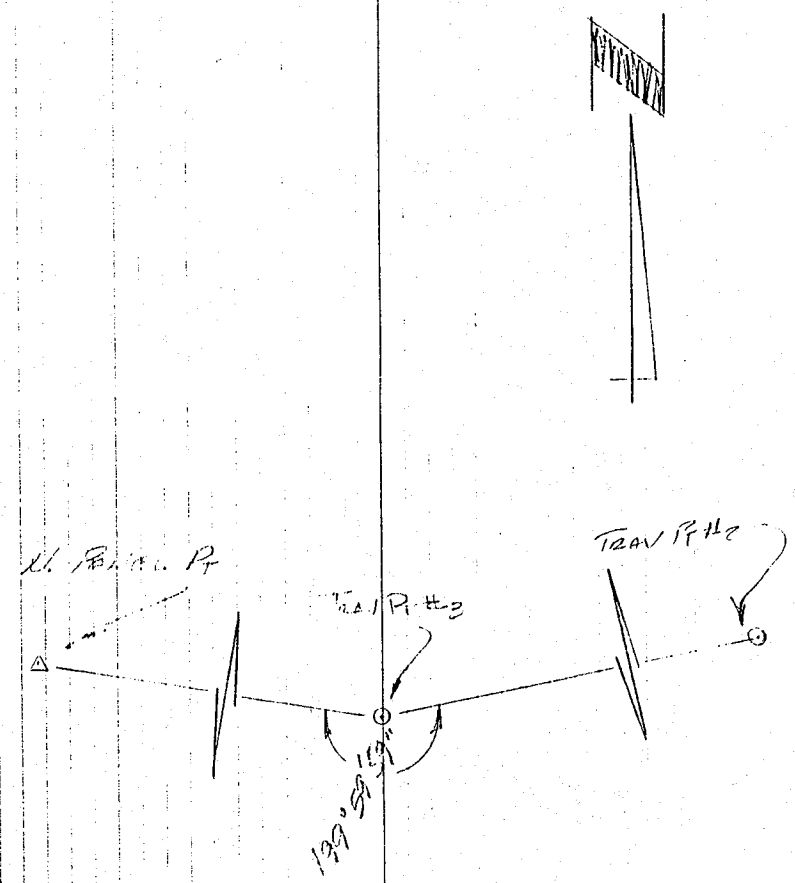
M: 151-11-09

DIST = N04.19'

N: 776306.085 E: 990775.523



π AT TRAV. POINT #3 (SET NAIL)
BS. INTERSECTION OF TONTO VALLEY DR.
& CIRCULO DR
FS. NEW PANEL POINT (SET 1/2" PERM.
1. 200-00-05
4. 799-59-55
M= 199-59-59
DIST = 288.02'
N=776388.807 E=990499.638



STA	+	HI	-	ELEV
#168542				1611.525 ~~1611.755~~
	9.13	1620.885		
T.P.			1.66	1619.245
	8.87	1628.115		
T.P.			1.21	1626.905
	8.13	1635.035		
PANEL PT.			1.24	1633.795 ~~1633.775~~
		RETURN		
	1.64	1635.435		
T.P.			9.41	1626.025
	2.31	1628.415		
TP			9.16	1619.255
	1.24	1620.495		
#168542			8.75	1611.745

FND PANEL POINT 1/2" PINCH

SET 1/2" REBAR

-0.01

NOTE: NEED TO (+) 0.23' DUE TO WRONG STARTING POINT.

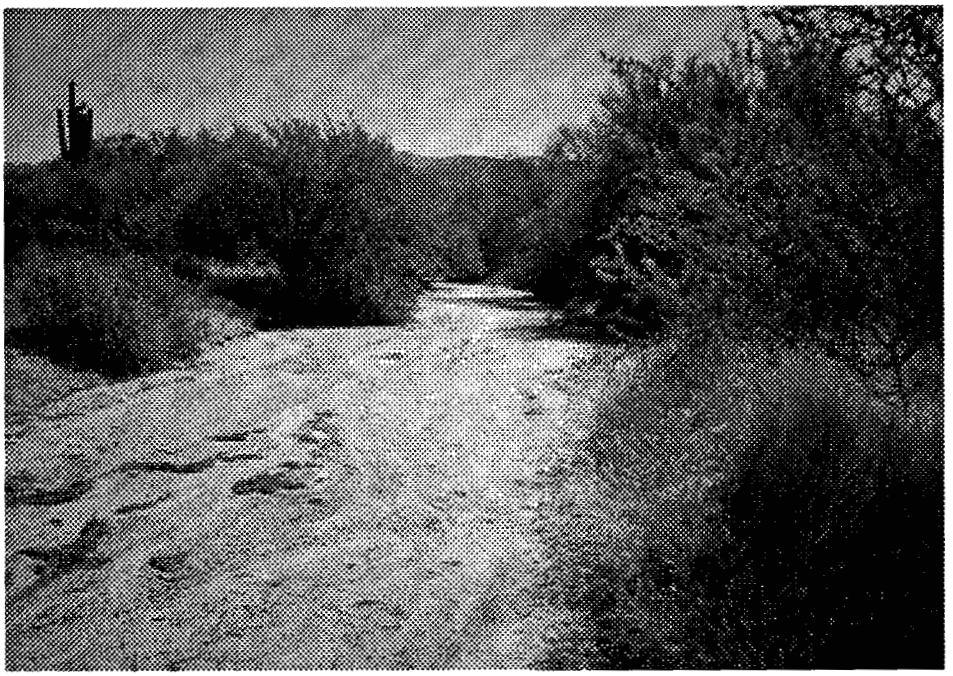
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PHOENIX, ARIZONA

RIO VERDE SOUTH FLOODPLAIN DELINEATION STUDY

FCD 93-07

SURVEY NOTES

APPENDIX B OF THE TECHNICAL DATA NOTEBOOK HYDRAULICS



McLaughlin Kmetty Engineers, Ltd.

Phoenix, Arizona

SEPTEMBER 1995

Name .....

.....

Address .....

.....

Phone .....

Projects ..... INDEX .....

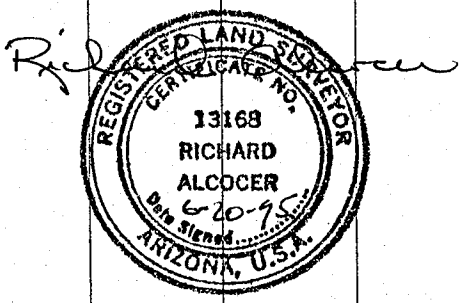
SURVEYORS CERTIFICATION ... 1
PROJECT TITLE ... 1
WASH 9 - FOREST ROAD ... 2
WASH 9 - VIA HERMOSA ... 4
WASH 9 - PEDESTRIAN BRIDGE ... 10
WASH 9 - VADO COURT ... 16
WASH 11 - AGUA VERDE ROAD ... 22
WASH 9 - QUAIL HAVEN DRIVE ... 28
WASH 11 - TRAVERSE ... 34
WASH 11 - AQUILA ROAD ... 37
WASH 11 - AVENIDA DEL REY ... 42
ADDITIONAL AERIAL PANEL ... 47

ELAN Publishing Co., Inc.
Meredith, N.H. 03253

This book is published on a fine 50% cotton-content ledger paper, specially treated for maximum archival service, and protected by a water resistant surface sizing.

DT-0659

I CERTIFY THAT THESE NOTES CORRECTLY REPRESENT A SURVEY MADE UNDER MY SUPERVISION.



RIO VERDE SOUTH FLOOD DELINEATION STUDY

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, ARIZONA

FCD 93-07

WASH 9
&
FOREST RD.

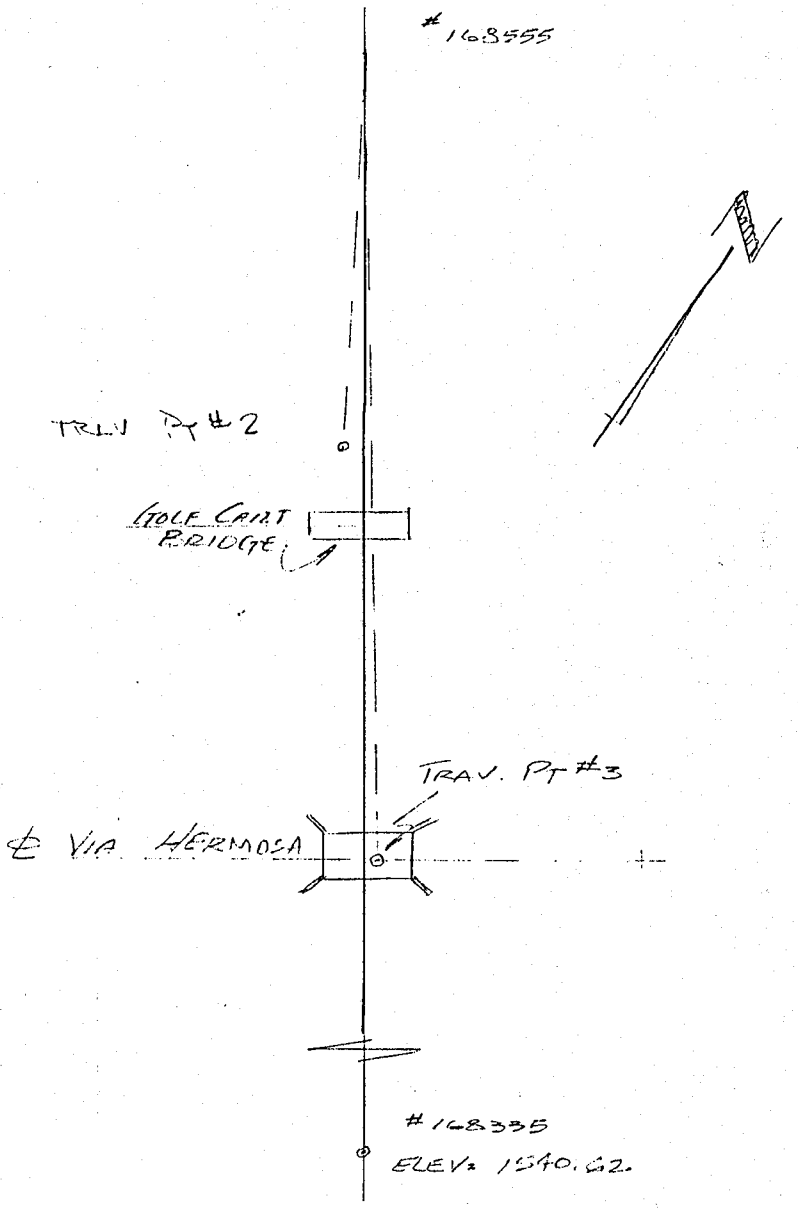
6-9-98
R ALCOCER
R AYALA
M VENEGAS

CLEAIZ - HOT

T AT ℄ PANEL POINT # 168555
B.S. ℄ PANEL POINT # 168335
00° 00' 00" DIST = 1359.44
HI = 4.99' + 1561.85 = 1566.84
TARGET HEIGHT = 7.96'
D.E. = -15.32 ELEV = 1540.56 (-0.06)

F.S. TRAV. POINT # 2
H. ANGLE Rt = 00° 05' 05"
H. DIST = 410.47'
TARGET HEIGHT = 4.40
DE = -5.93
ELEV = 1556.91

F.S. TRAV. POINT # 3
H. ANGLE Rt = 359° 56' 40"
H. DIST = 835.83'
TARGET HEIGHT = 4.40
DE = -12.56
ELEV = 1549.88



WASH 9

3 - 4'x10' BOX CULVERT
ALONG
VIA HERMOSA

6.9.92
CLEAR
HOT

T AT TRAV. POINT # 3

BS. ℄ PANEL POINT # 168555

00° 00'00" HDIST=895.83'

HI. 4.90 + 1549.88 = 1554.78

ANGLE RT.	DIST.	TARGET	DE.	ELEV.
86-22-10	119.13	8.64	+4.51	1550.65
86-22-10	85.21		+2.66	1548.80
86-22-10	76.62		+1.62	1547.76
86-22-10	66.74		+2.71	1548.85
86-22-10	51.83		+2.82	1548.96
86-22-10	38.15		+2.63	1548.77
86-22-10	27.0		+2.63	1548.77
266-22-10	57.40		+4.84	1550.98
266-22-10	103.13		+5.17	1551.31
266-22-10	145.90		+5.65	1551.79
266-22-10	191.29		+6.10	1557.89
266-22-10	254.90		+6.79	1552.93
266-22-10	305.0		+7.29	1553.43
266-22-10	356.8		+7.74	1553.88

℄ PROFILE OF VIA HERMOSA

N.G @ R/W OF FOREST ROAD

N.G.

℄ DRAINAGE SWALE

E.P.

℄ FOREST ROAD

E.P.

℄ DRAINAGE SWALE

℄ VIA HERMOSA

CONTINUED

IT AT TRAV. POINT #3

H.I. = 1554.78

ANGLE RT.	DIST.	TARGET	D.E.	ELEV.	
356-42-35	51.0	8.64	0.00	1546.14	℄ OF WASH - BOTTOM OF WASH
	41.0	"	0.00	1546.14	TOP OF 6" x 42' CONC. BREAKER WALL
	40.0	"	-0.60	1545.54	BOTTOM OF WASH
	24.65	12.64	+2.06	1544.20	F.L. BOX CULVERT
	23.38	9.06	+7.94	1553.66	TOP OF WALL
	23.10		+3.72	1549.44	TOP OF CULVERT HEADWALL
	15.28		+3.74	1549.46	E.P.
176-42-35	15.80		+3.62	1548.34	E.P.
	23.12		+3.53	1548.25	TOP OF CULVERT HEADWALL
	23.55		+7.87	1553.59	TOP OF WALL
	24.43	12.64	+1.57	1543.71	F.L. BOX CULVERT
	67.08	"	+1.27	1543.41	℄ OF WASH - BOTTOM OF WASH

CENTERLINE PROFILE WASH #9

CONTINUED

T AT TRAV POINT #3

HI: 1554.78

ANGLE RT	DIST.	TARGET	DE.	ELEV.
214-53-20	85.40	10.40	+4.76	1549.14
197-20-05	73.71		+4.41	1548.79
195-25-30	73.27		+4.01	1548.39
192-16-35	72.37		+1.14	1545.52
176-42-35	71.50		-0.90	1543.48
160-40-50	73.20		-0.70	1543.68
156-46-30	73.55		+3.33	1547.71
156-03-55	74.13		+2.70	1547.08
152-05-10	76.35		+2.15	1546.53
148-26-25	78.80		+2.60	1546.98
141-32-35	91.06		+2.78	1547.16

WASH 9 CROSS SECTION
(20' SOUTH OF CULVERT)

N.G.
N.G.
TOP OF BANK (GABION)
BOTTOM OF WASH
℄ OF WASH
BOTTOM OF WASH
TOP OF BANK (GABION)
N.G.
N.G.
E.P.
℄ FOREST RD 90

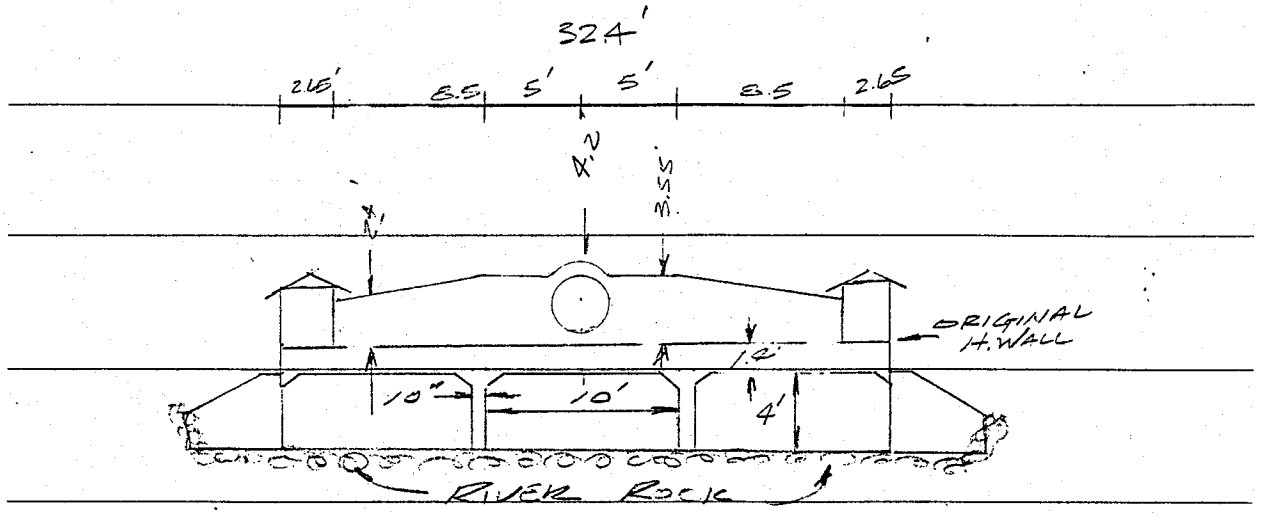
CONTINUED

T AT TRAV. POINT #3

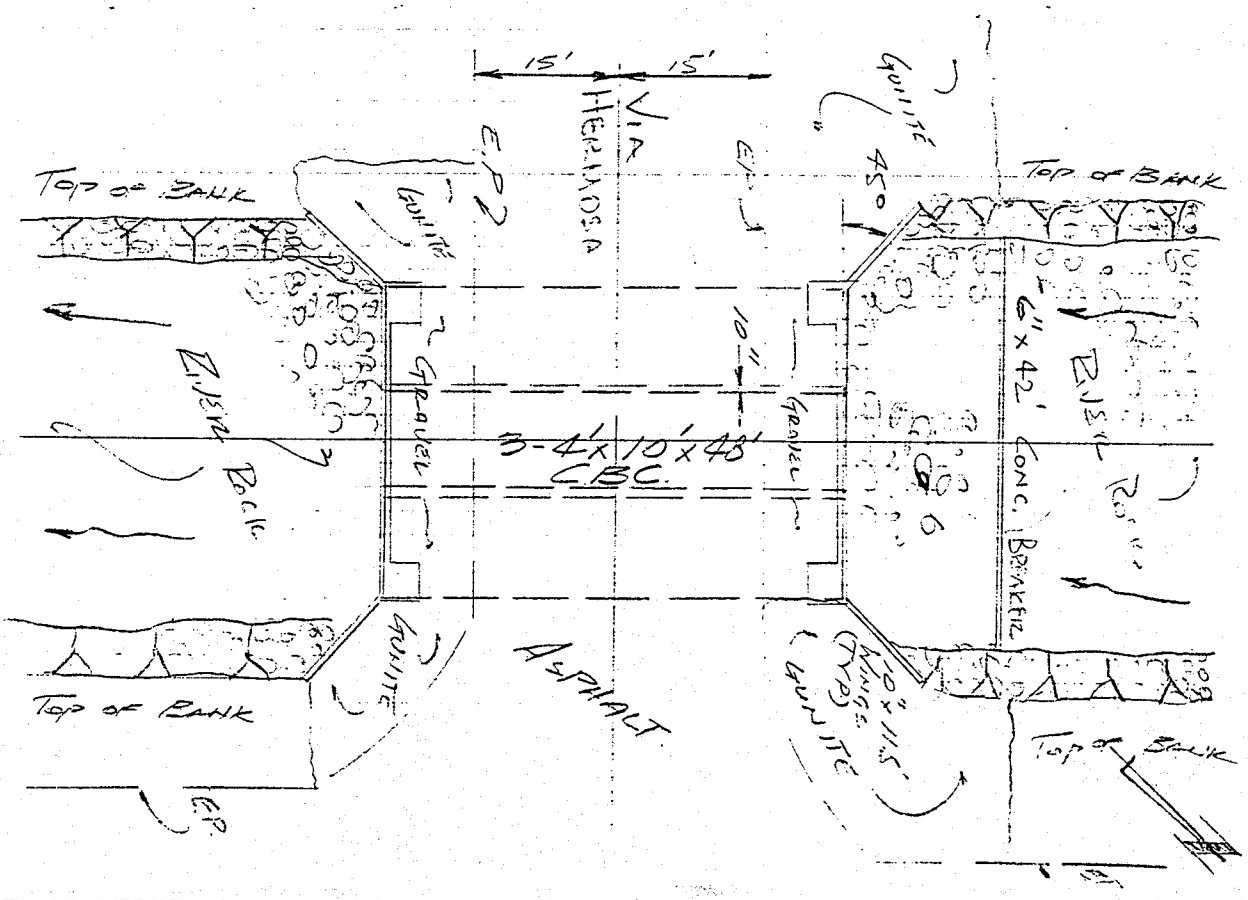
H.I. = 1554.78

WASH 9 CROSS SECTION (20' NORTH OF CULVERT)

ANGLE RT	DIST	TARGET OE	ELEV.	
45-14-35	69.25	10.40	+5.46	1549.24	℄ FOREST ROAD
35-28-40	59.90		+5.28	1549.06	E.P.
29-56-00	56.43		+4.61	1548.39	N.G.
25-37-15	54.20		+5.01	1549.39	N.G.
22-42-10	52.93		+4.86	1549.24	TOP OF BANK (GABION)
18-53-30	52.68		+1.22	1545.60	BOTTOM OF WASH
356-42-35	51.42		+1.92	1546.30	℄ OF WASH
335-14-55	56.30		+1.64	1546.02	BOTTOM OF WASH
331-21-30	57.40		+6.12	1550.50	TOP OF BANK (GABION)
329-23-35	58.40		+6.55	1550.93	N.G.
325-22-40	61.10		+6.44	1550.82	N.G.
317-17-10	66.80		+6.87	1551.25	N.G.



32.4'
2.65'
8.5
5'
5'
8.5
2.65
4.2
3.55
ORIGINAL H. WALL
1.4'
10"
10'
4'
RIVER ROCK



15'
15'
VIA HERMOSA
E.P.
GUNITE
45°
TOP OF BANK
TOP OF BANK
RIVER ROCK
GRAVEL
10"
GRAVEL
3-4'x10'x48' CBC
6"x42' CONC. BREAKER
RIVER ROCK
GUNITE
ASPHALT
10"x11.5' WINGS (TYP)
GUNITE
TOP OF BANK
TOP OF BANK
E.P.

WASH 9

7' x 54.8' Conc. & Steel
Pedestrian Bridge
Along
Forest Road

6-10-94
R. Alcocer
K. Ayala
M. Venegas
Clear
Hot

T AT TRAV. POINT #2
BS. ℄ PANEL POINT #168335
00°00'00" DIST. 410.47'
HI: 4.69 + 1556.51 = 1561.20

ANGLE RT	DIST	TARGET	D.E.	ELEV.
175-40-35	101.38	8.64	+3.88	1556.44
190-49-50	104.53	⎫	+5.26	1557.82
204-09-20	114.52	⎭	+3.91	1561.73
210-05-25	92.67	8.64	+4.11	1556.67
210-46-10	91.69	⎫	+3.44	1556.00
219-34-50	75.03	⎪	+3.29	1555.85
239-28-45	58.51	⎪	+3.35	1555.91
240-55-30	57.44	⎭	+4.09	1556.65
178-20-35	80.76	8.64	+3.47	1556.03
178-44-30	76.51	⎫	+1.79	1554.35
178-37-55	71.51	⎭	+3.81	1556.37

BRIDGE LOCATION
EAST END OF BRIDGE (DECK)
℄ OF GOLF CART BRIDGE (DECK)
WEST END OF BRIDGE (DECK)
CONC. SPILLWAY
SOUTH END CONC. SPILLWAY (TOP)
TOE - F.L. SPILLWAY
℄ OF SPILLWAY
TOE - F.L. SPILLWAY
NORTH END CONC. SPILLWAY (TOP)
CONC. SPILLWAY
SOUTH END CONC. SPILLWAY (TOP
F.L. OF SPILLWAY - 2' BOTTOM
NORTH END CONC. SPILLWAY (TOP)

CONTINUED
IT AT TRAV. POINT #2
HI = 1561.20

WASH 9 - CROSS SECTIONS
±25' NORTH OF BRIDGE

ANGLE RT.	DIST.	TARGET	D.E.	ELEV	
159-02-10	90.01	8.64	+2.74	1555.30	℄ FOREST RD.
167-47-55	84.23		+2.46	1555.02	E.P.
178-22-30	83.00		+3.40	1555.96	N.G.
178-56-35	82.48		+3.83	1556.39	TOP OF BANK (ROCK)
181-35-55	81.72		-0.49	1552.07	BOTTOM OF WASH
192-39-15	85.30		-1.01	1551.55	℄ WASH
206-14-40	91.21		-1.14	1551.42	BOTTOM OF WASH
208-34-25	93.88		+3.76	1556.32	TOP OF BANK (ROCK)
209-34-00	95.01		+4.09	1556.65	N.G.
214-40-30	101.81		+2.69	1555.25	N.G.
					±5' SOUTH OF BRIDGE
152-02-55	122.06	8.64	+2.11	1554.67	N.G.
156-55-25	119.07		+2.16	1554.72	E.P.
162-25-30	114.79		+2.43	1554.99	℄ FOREST ROAD
169-44-35	112.43		+2.19	1554.75	E.P.
173-53-55	111.31		+2.88	1554.44	N.G.
177-29-25	110.71		+3.19	1555.75	N.G.
177-49-20	110.99		+3.43	1555.99	TOP OF BANK (ROCK)
179-24-25	110.20		-0.79	1551.77	BOTTOM OF WASH
189-18-25	116.80		-1.31	1551.25	℄ WASH

CONTINUED

IT AT TRAV. POINT #2

H.I. = 1561.20

ANGLE RT.	DIST.	TARGET	D.E.	ELEV.	
198-27-15	117.71	864	-1.96	1550.60	BOTTOM OF WASH
200-43-20	119.70		+3.03	1555.59	TOP OF BANK (ROCK)
201-12-15	119.10		+2.98	1555.54	N.G.
202-26-05	120.33		+4.46	1557.02	TOP OF RR TIE WALL
202-26-05	120.30		+3.70	1556.26	G.B " " "
214-30-15	137.45		+5.23	1557.79	G.B. " " "
214-30-15	137.50		+3.55	1556.11	G.B " " "
221-40-20	153.07		+5.89	1558.45	G.B. " " "
221-40-25	152.67		+3.87	1556.43	G.B " " "
224-33-10	161.64		+5.76	1558.32	TOP OF RR TIE WALL
224-33-10	160.32		+3.50	1556.06	EP
228-32-25	172.32		+3.77	1556.33	℄ OF ASPHALT DRIVE
232-01-25	185.17		+3.48	1556.04	E.P.
232-06-30	185.50		+4.42	1556.98	TOP OF R.R. WALL
232-19-10	186.11		+4.29	1556.85	N.G.
235-48-30	202.71		+6.51	1559.07	N.G.

CONTINUED

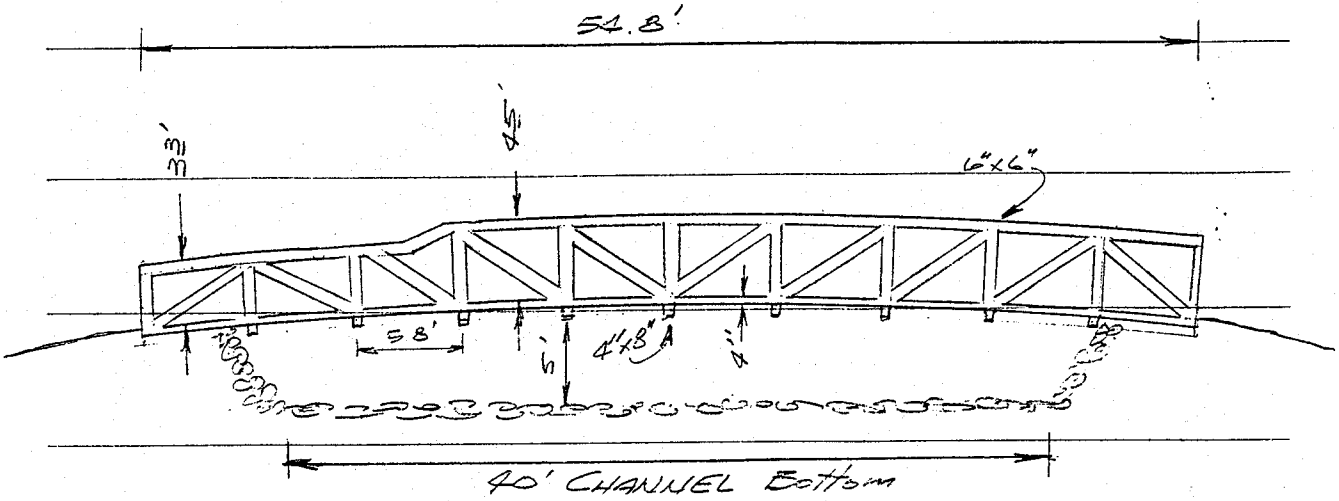
T AT TRAV. POINT #2

HI = 1561.20

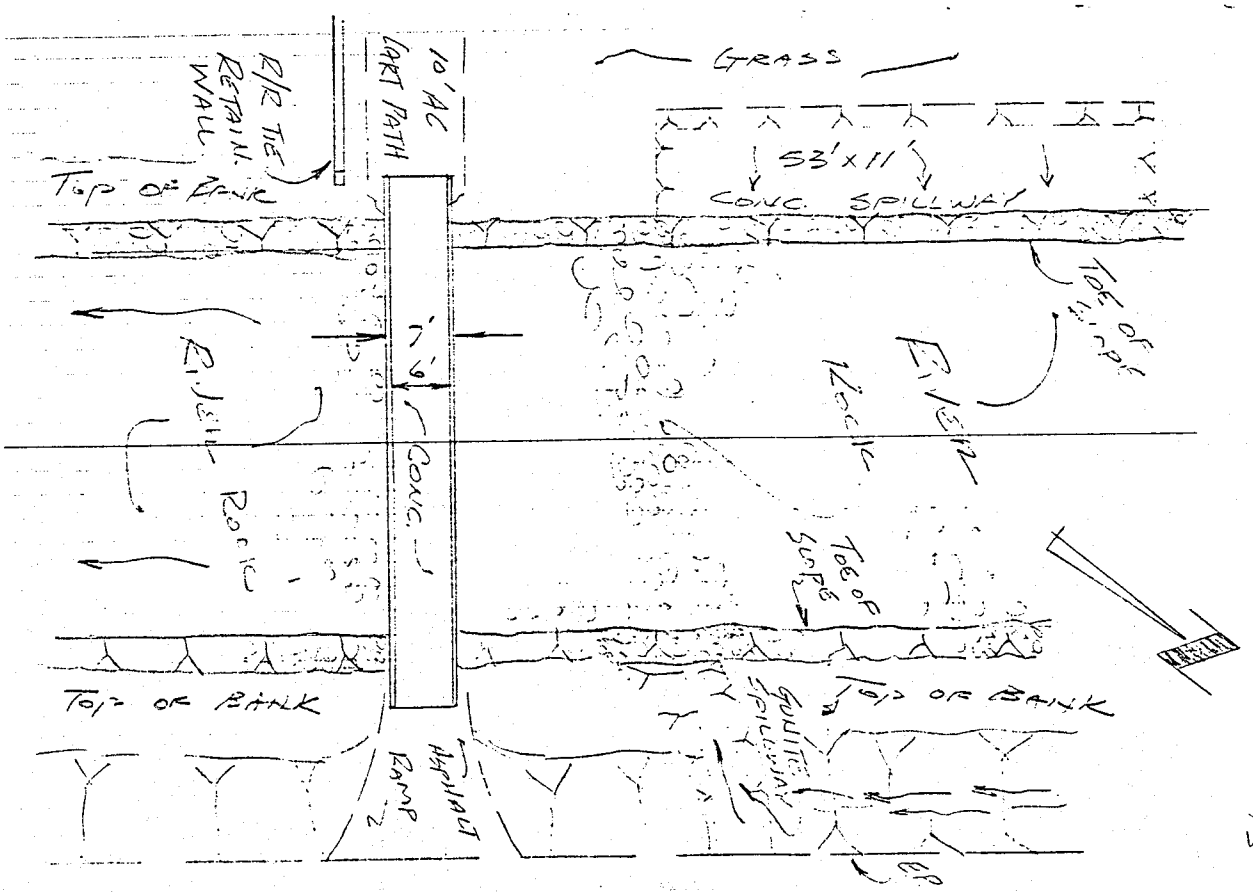
WASH 9 CROSS SECTION

±25' SOUTH OF BRIDGE

ANGLE RT	DIST.	TARGET	DE.	ELEV.	
164-53-20	134.43	8.64	+2.21	1554.77	℄ FOREST ROAD.
171-01-20	131.55		+1.97	1554.53	E.P.
176-36-20	131.10		+2.53	1555.09	N.G.
177-11-20	130.57		+2.90	1555.46	TOP OF BANK (ROCK)
178-14-45	131.35		-0.99	1551.57	BOTTOM OF WASH
188-16-40	133.06		-1.86	1550.70	℄ WASH
195-35-25	138.00		-1.70	1550.86	BOTTOM OF WASH
195-13-50	139.07		+2.94	1555.50	TOP OF BANK (ROCK)
198-02-40	139.38		+3.23	1555.79	N.G.
203-59-10	144.12		+3.70	1556.26	N.G.



LOOKING SOUTH



WASH 9

2 - 4' x 8' x 36.6'
BOX CULVERT
ALONG
VADO COURT

6-13-94
R. ALCOCER
R. AYALA
M. VENEGAS

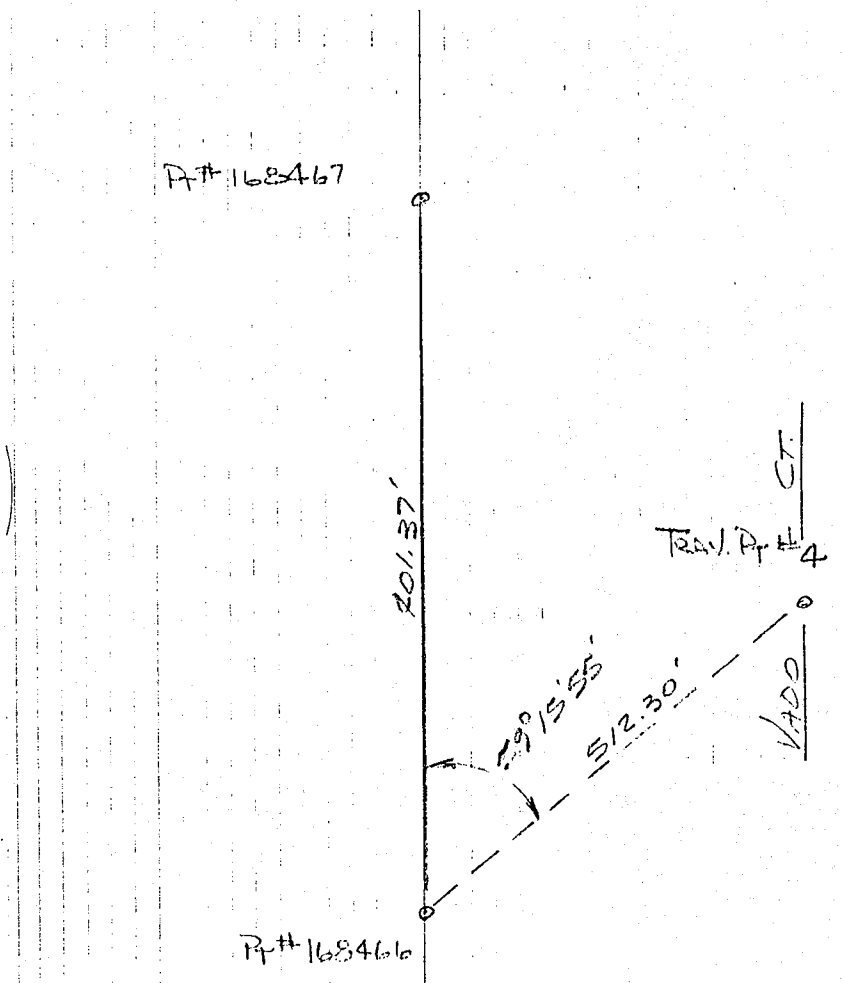
CLEAR: HOT

T AT POINT # 168466
BS. POINT # 168467
00° 00' 00" DIST. 401.37'
HI: 5.06 + 1650.64 = 1655.70
TARGET HEIGHT = 8.87'
DE = +2.11

FS TRAV. POINT #4
PK NAIL W & VADO CT &
CULVERT #5
ANGLE RT = 59° 15' 55"
DIST = 512.30 TARGET = 5.17
DE = -10.44

HI = 1655.70
DE - 10.44
TARGET - 5.17

TRAV. PT #4 = 1640.09



T AT TRAN. POINT # 4 · ELEV. 1640.09
BS POINT # 1683466
00°00'00" DIST. 512.31'
HI: 4.99 + 1640.09 = 1695.08
FS ℄ BOX CULVERT #3
ANGLE RT = 26° 57'05"

CENTERLINE WASH PROFILE

ANGLE RT.	DIST.	TARGET	D.E.	ELEV.	
20-04-15	71.92	4.84	-2.51	1637.73	℄ WASH W. EDGE RIP RAP
27-17-20	40.70	⎫	-2.28	1636.86	
27-43-45	22.90	⎬	-4.45	1635.19	TOP OF GRADE BREAK
27-43-00	22.0	⎭	-4.96	1635.28	BOTTOM " "
26-57-05	19.70	8.64	-1.25	1635.19	F.L. BOX CULVERT
26-57-05	18.06	4.84	+0.74	1640.98	TOP HEADWALL
26-57-05	17.17	⎫	+0.10	1640.34	PAVEMENT
207-01-10	17.22	⎬	-0.27	1639.97	PAVEMENT
207-01-10	17.98	⎭	+0.41	1640.65	TOP HEADWALL
207-01-20	18.30	8.64	-1.58	1634.86	F.L. BOX CULVERT
207-02-00	21.60	⎫	-1.66	1634.78	BOTTOM OF GRADE BREAK
207-02-00	22.60	⎭	-1.12	1635.32	TOP OF " "
208-02-15	52.20		-1.53	1634.91	℄ OF WASH

CONTINUED

T AT TRAV. POINT #4

HI. 1645.08

ANGLE RT	DIST	TARGET	DE	ELEV
302-15-20	201.35	4.84	-0.02	1640.22
307-07-05	144.32		+0.92	1641.16
312-14-40	97.65		+1.14	1641.38
321-22-15	51.80		+0.59	1640.83
335-43-00	27.07		+0.28	1640.52
341-30-35	25.25		+0.90	1641.14
2-11-50	21.50		+0.72	1640.96
57-09-20	17.72		+0.76	1641.00
100-21-15	26.80		+0.50	1640.74
104-02-25	28.70		-0.05	1640.19
117-58-35	46.64		+0.06	1640.30
125-22-35	71.60		-0.22	1640.02
130-14-15	119.60		-2.29	1637.95
133-45-45	177.25		-3.54	1636.70
135-45-30	229.38		-0.04	1640.20
137-07-55	290.50		+4.46	1644.70
137-37-00	345.00		+6.19	1646.43

WEST EDGE OF ROAD PROFILE

W. EDGE OF PAVEMT

" " " "

" " " "

" " " " - END OF CURB

TOP OF CURB AT TRANSITION

S. END OF HEADWALL

N. " " "

TOP OF CURB AT TRANSITION

W. EDGE OF PAVEMT - END OF CURB

W. EDGE OF PAVEMT

CONTINUED

T AT TRAV POINT #4

H.I. 1645.08

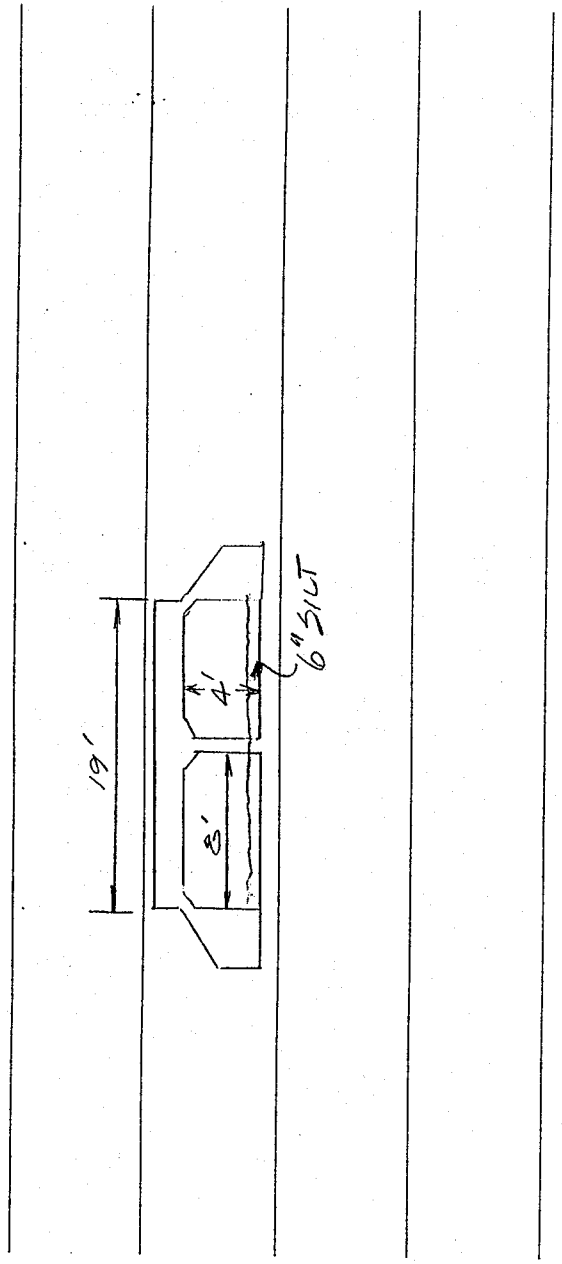
ANGLE RT	DIST.	TARGET	D.E.	ELEV.	
351-19-25	61.55	4.84	+1.13	1641.37	N.G.
12-49-50	47.45		-0.44	1639.80	Top of R.R TIE RETAIN. WALL
13-03-45	46.9		-3.56	1636.68	Bottom of WASH
25-40-45	42.0		-3.31	1636.93	℄ WASH
38-52-20	42.50		-3.51	1636.73	Bottom of WASH
39-33-15	42.60		-0.62	1639.62	Top of R.R. TIE RETAIN. WALL
46-19-25	43.80		+0.73	1640.97	N.G.
67-08-40	52.20		+0.58	1640.82	N.G.

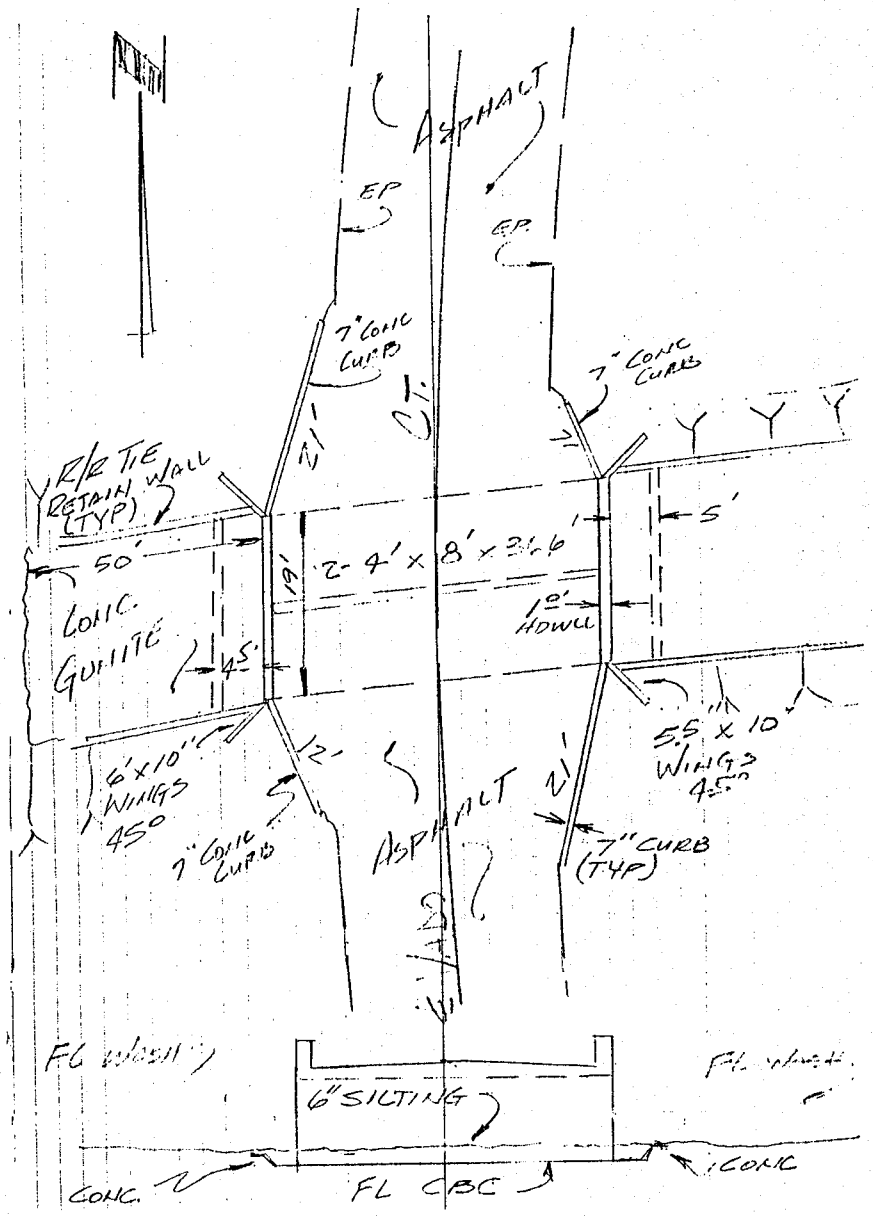
WASH CROSS SECTIONS

20' WEST OF CULVERT

20' EAST OF CULVERT

242-14-00	48.20	4.84	-1.13	1639.11	NG
221-12-00	41.70		-2.22	1638.02	Top R.R TIE RETAIN. WALL
220-55-55	41.50		-4.80	1635.44	Bottom of WASH
207-41-55	41.70		-5.10	1635.14	℄ WASH
194-34-15	43.25		-4.94	1635.30	Bottom of WASH
194-05-25	43.50		-2.00	1638.24	Top of RR TIE RETAIN WALL
186-13-10	45.60		-0.57	1639.67	N.G
171-17-15	56.1		-0.02	1640.22	N.G.


19'
4'
8'
6" SILT


ASPHALT
EP
EP
7" CONC CURB
7" CONC CURB
R/R TIE RETAIN WALL (TYP)
50'
CONC. GUTTER
4.5'
19'
2- 4' x 8' x 31.6'
5'
10' HOWELL
5.5' x 10' WINGS 45°
6' x 10' WINGS 45°
12'
7" CONC CURB
ASPHALT
7" CURB (TYP)
6" SILTING
CONC.
FL CBC
CONC.

WASH 11

4 - 4' x 10' BOX CULVERT
ALONG
AGUA VERDE ROAD

6.13.92
CLEAR
HOT

IT AT PANEL POINT # RICH

BS. PANEL POINT # 70

00°-00'-00" DIST = 975.90' (+17.71)

HI = 4.10' + 1584.77 1588.87

D.E. +4.24 TARGET = 4.84

ELEV = 1589.07

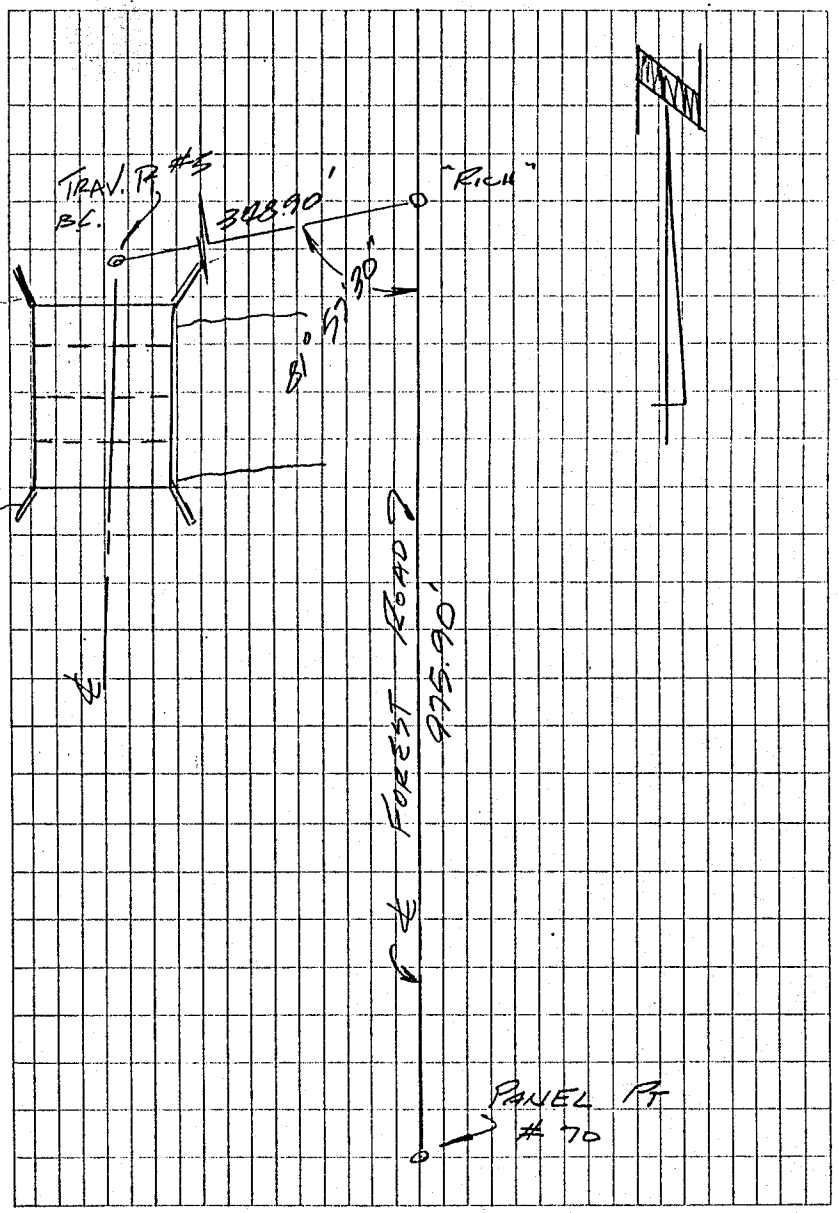
FS TRAV. POINT #5

ANGLE RT = 81°57'30"

DIST = 348.90'

D.E. = +9.86 TARGET = 4.86'

ELEV = 1593.87



K AT TRAN. POINT #5
BS PANEL POINT "RICH"
00°00'00" DIST: 348.71'
TARGET: 4.84'
HI: 5.34 + 1593.87 = 1599.21

ANGLE RT	DIST	TARGET	DE	ELEV.	
111-29-30	229.20	4.84	+1.13	1595.55	TOP OF ROLL CURB
109-03-50	182.93		+0.80	1595.17	S
107-32-30	141.15		+0.62	1594.99	TOP OF CURB @ TRANSITION
107-32-25	138.70		+0.40	1594.77	BEGIN DEPRESSED CURB (SPILLWAY)
107-20-40	92.0		+0.29	1594.08	DEPRESSED CURB "
108-09-35	75.90		+0.33	1594.70	END DEPRESSED CURB "
110-14-00	75.50		+0.26	1594.63	SW COR. CULVERT (TOP
125-16-05	34.15		+0.10	1594.47	NW " " " (SPILLWAY)
121-07-55	32.70		+0.21	1594.58	BEGIN DEPRESSED CURB "
232-03-00	23.50		+0.22	1594.59	END " " "
238-31-50	27.60		+0.67	1595.04	TOP OF CURB @ TRANSITION
259-37-05	72.30		+0.72	1595.09	TOP OF ROLL CURB
264-32-55	120.0		+0.81	1595.18	
266-36-15	169.50		+0.89	1595.26	
267-45-25	218.50		+1.02	1595.39	
268-33-15	268.0		+1.13	1595.50	
269-25-15	316.31		+1.42	1595.79	
271-25-35	413.50		+1.97	1596.34	

WEST TOP OF CURB

CONTINUED

HI = 1593.21

ANGLE RT	DIST	TARGET	DE	ELEV	
155-54-05	98.50	4.87	-2.54	1591.83	
129-43-25	60.80		-3.82	1590.55	TOP OF RIVER ROCK
117-05-45	55.35		-4.72	1589.65	F.L. BOX CULVERT
114-47-55	55.13		+0.16	1594.53	TOP OF BOX CULVERT
96-05-15	52.45		-0.10	1594.27	℄ ROAD
77-46-15	56.56		-0.63	1593.74	TOP OF BOX CULVERT
75-11-30	56.70		-5.55	1588.82	F.L. BOX CULVERT
41-16-40	83.0		-9.63	1584.74	TOP OF RIVER ROCK

CENTERLINE WASH

CONTINUED

HI - 1599.21

WASH CROSS SECTIONS

EAST OF BOX CULVERT

ANGLE RT	DIST	TARGET	DE.		
353-24-20	48.30	4.84	-3.85	1590.52	N.G.
24-36-45	51.30		-3.87	1590.50	Top of BANK (N.G)
26-36-35	52.10		-4.20	1590.17	Top of River Rock
42-41-15	60.0		-8.64	1585.73	Bottom of WASH
56-21-25	70.0		-9.16	1585.21	℄ WASH
62-11-55	83.50		-8.40	1585.97	Bottom of WASH
66-41-15	95.10		-4.46	1589.91	Top of River Rock
66-56-55	98.50		-3.66	1590.71	Top of BANK (NG)
73-38-35	124.40		-2.52	1591.85	N.G.

WEST OF BOX CULVERT

191-37-55	52.70	4.84	-1.20	1593.17	Top of BANK (NG)
160-02-05	60.20		-3.38	1590.99	Toe of Slope
144-13-40	74.4		-3.85	1590.52	℄ of WASH
139-06-15	81.0		-3.69	1590.68	Toe of Slope
129-14-45	104.50		-1.12	1593.25	Top of BANK
124-50-35	126.0		-0.24	1594.13	N.G.

NOTE: 9 - 8"x 48" DRAIN OPENINGS

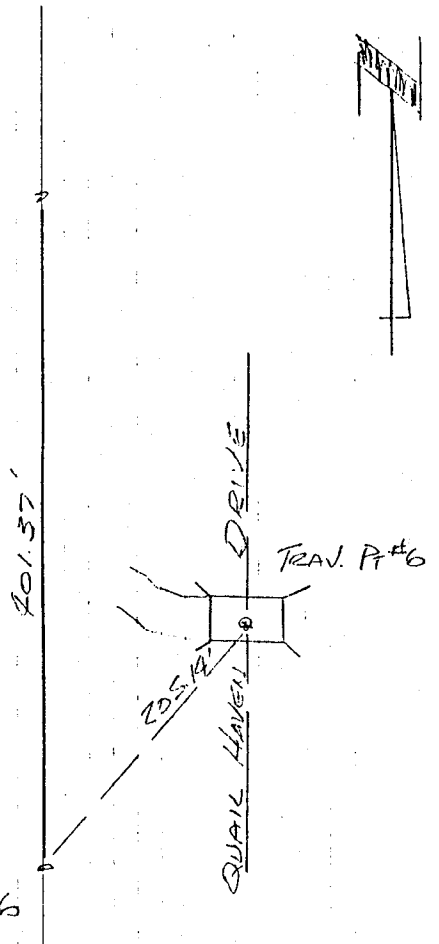
WASH 9

2 4' x 8' x 34'
BOX CULVERT
ALONG
QUAIL HAVEN DRIVE

T AT POINT # 168466
BS. POINT # 168467
00° 00' 00" DIST = 401.37'
HI = 4.90 + 1650.64
TARGET HEIGHT = 8.46
D.E. = +2.04

FS. TRAV POINT # 6
"PK" NAIL AT E QUAIL HAVEN DR.
& BOX CULVERT AT WASH 7

ANGLE RT = 47° 45' 20"
DIST = 205.14'
TARGET HEIGHT = 8.46
D.E. = -1.14
ELEV = 1645.64



↑ AT TRAV. POINT #6
BS. POINT # 168466
00° 00' 00" DIST: 401.37
HI: 5.03 + 1645.64 = 1650.67
F.S. ℄ OF BOX CULVERT
ANGLE RT: 27° 11' 25 - ℄ CULVERT
DST. 18.20

ANGLE RT	DIST.	TARGET	DE.	ELEV	
55-33-55	140.07	4.84	-0.45	1645.38	CENTERLINE OF WASH
43-33-20	85.90	(	-1.80	1644.03	BEG CONC. RIP RAP
34-05-55	56.30	(	-3.03	1641.00	" " "
34-05-55	23.50	(	-.451	1641.32	TOP OF CONC F.B.
34-05-55	22.7	(	-5.01	1640.82	F.L. CONC F.B.
27-11-25	19.20	8.64	-1.25	1640.78	F.L. BOX CULVERT
27-11-25	18.20	4.64	+0.10	1646.73	℄ HEADWALL
27-11-25	17.13	(	+0.07	1695.90	PAVEMT
207-07-35	17.00	(	-0.21	1645.62	"
207-07-35	17.96	(	+0.36	1646.19	℄ HEADWALL
207-07-35	18.20	8.64	-1.62	1640.21	F.L. BOX CULVERT
208-00-00	21.40	4.64	-5.43	1640.40	F.L. CONC. F.B.
208-00-00	22.50	(	-4.94	1640.89	TOP CONC. GE
207-16-00	52.15	(	-4.73	1641.10	℄ WASH
206-36-25	108.0	(	-5.35	1640.48	"

CONTINUED

HI = 1650.67

ANGLE RT	DIST	TARGET	DE	ELEV
307-25-35	163.85	4.84	+0.39	1646.22
313-52-25	119.20		+1.22	1647.05
321-18-25	72.00		+1.29	1647.12
337-59-30	28.20		+0.44	1646.27
342-44-00	26.50		+1.04	1646.87
3-30-55	21.90		+0.73	1646.56
57-24-10	17.70		+0.67	1646.50
102-56-45	26.10		+0.44	1646.27
106-27-00	28.07		-0.20	1645.62
124-22-20	76.80		-0.35	1645.48
127-52-20	129.0		+0.63	1646.46
128-59-25	177.50		+0.43	1646.26
129-46-30	228.50		-0.48	1645.35

WEST SIDE OF ROAD

W. EDGE PAVEMT

EOC, CONC. CURB

TOP CURB - TRANSITION

S. EDGE - TOP OF HEADWALL

N. EDGE " " "

TOP CURB - TRANSITION

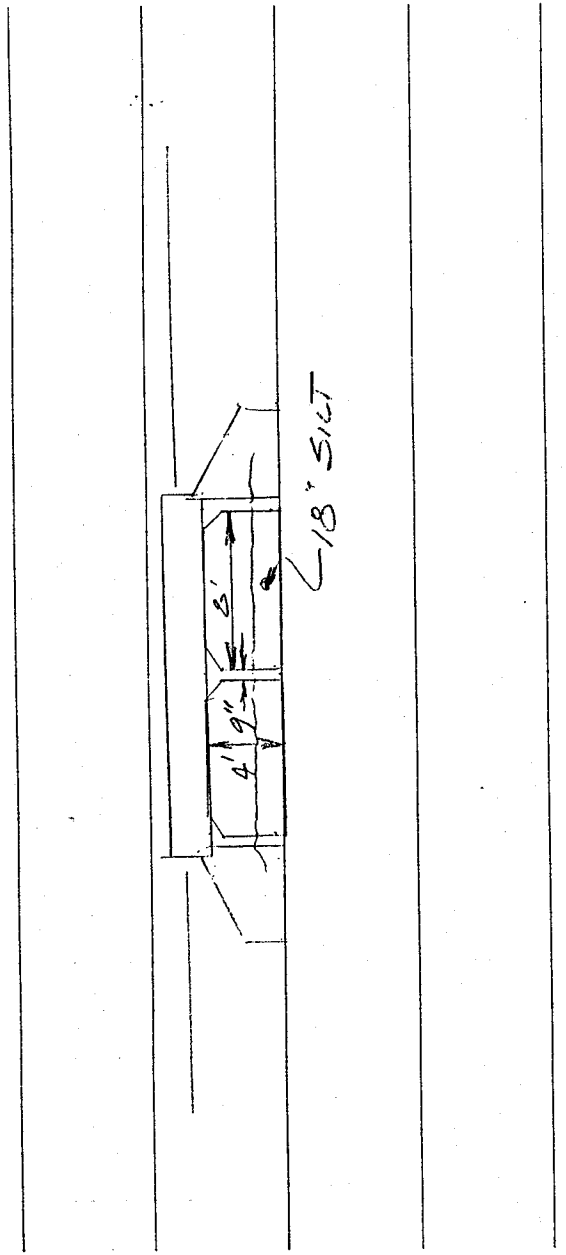
W. EDGE PAVEMT

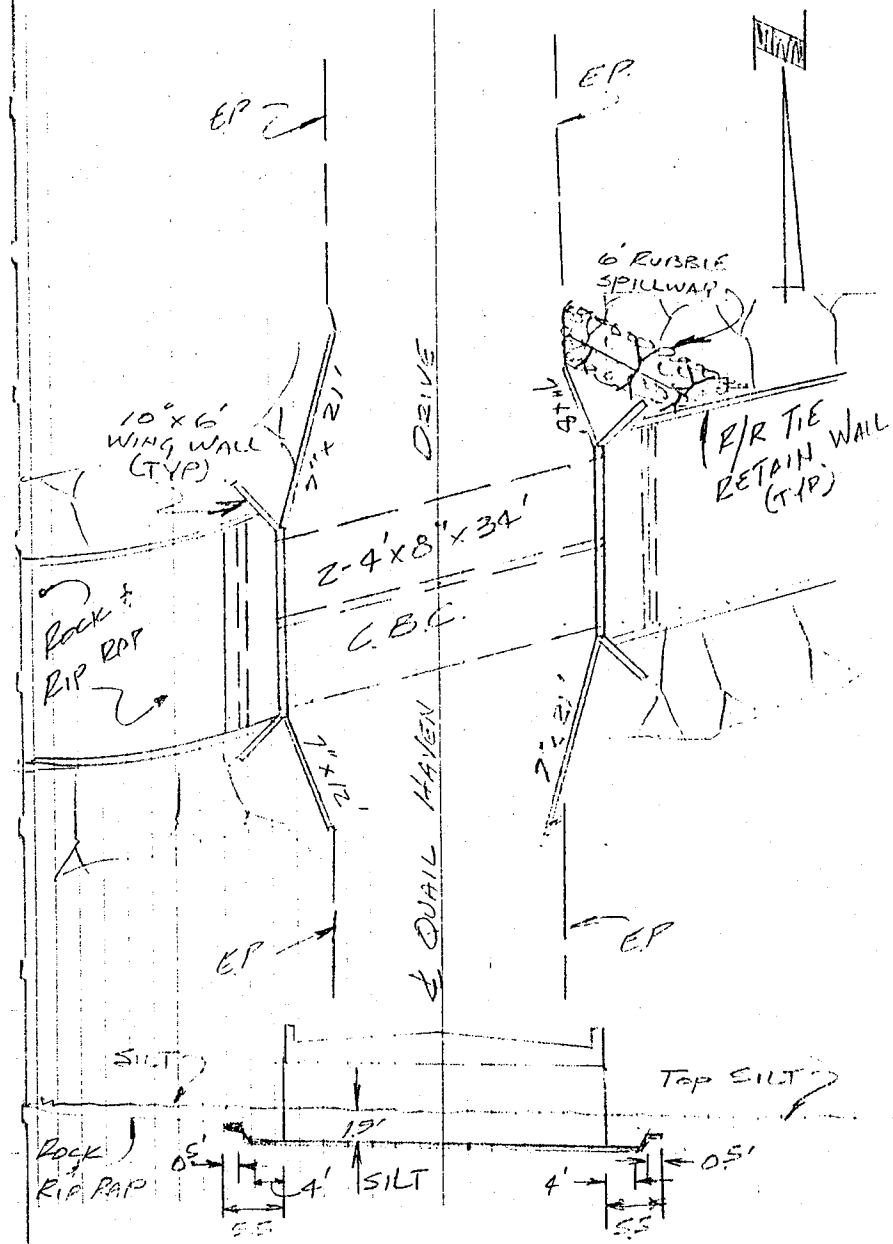
CONTINUED
HI = 1650.67

ANGLE RT	DIST	TARGET	D.E.	ELEV.	
67-15-55	25.3	4.84	+0.14	164597	N.G.
56-09-05	40.2		+0.07	164590	N.G.
50.49 30	28.70		-0.99	164484	N.G.
47-23-40	38.4		-1.03	164480	Top R/R Tie Retain Wall
47-04-20	38.4		-3.33	164250	Bottom of Wash
30-18-35	36.8		-3.34	164249	℄ Wash
14-37-20	38.2		-3.54	164249	Bottom of Wash
13-47-50	37.7		-0.34	164549	Top R/R Tie Retain Wall
6-20-50	40.0		+0.28	164611	
351-30-55	50.40		+0.48	164631	
240-08-50	46.00	4.84	-1.13	164470	N.G.
221-27-45	41.30		-2.38	164345	Top R/R Tie Retain Wall
221-04-55	41.20		-4.27	164156	Bottom Wall
207-44-15	40.50		-4.79	164504	℄ Wash
192-23-10	42.0		-4.33	164150	Bottom Wash
193-26-10	42.0		-2.42	164341	Top R/R Tie Retain Wall
188-12-55	42.80		-2.13	164370	N.G.
176-40-30	50.0		-1.52	164431	N.G.

WASH CROSS SECTIONS
20' WEST SIDE OF CULVERT

20' EAST SIDE OF CULVERT


18" SILT
8'
9"
4'

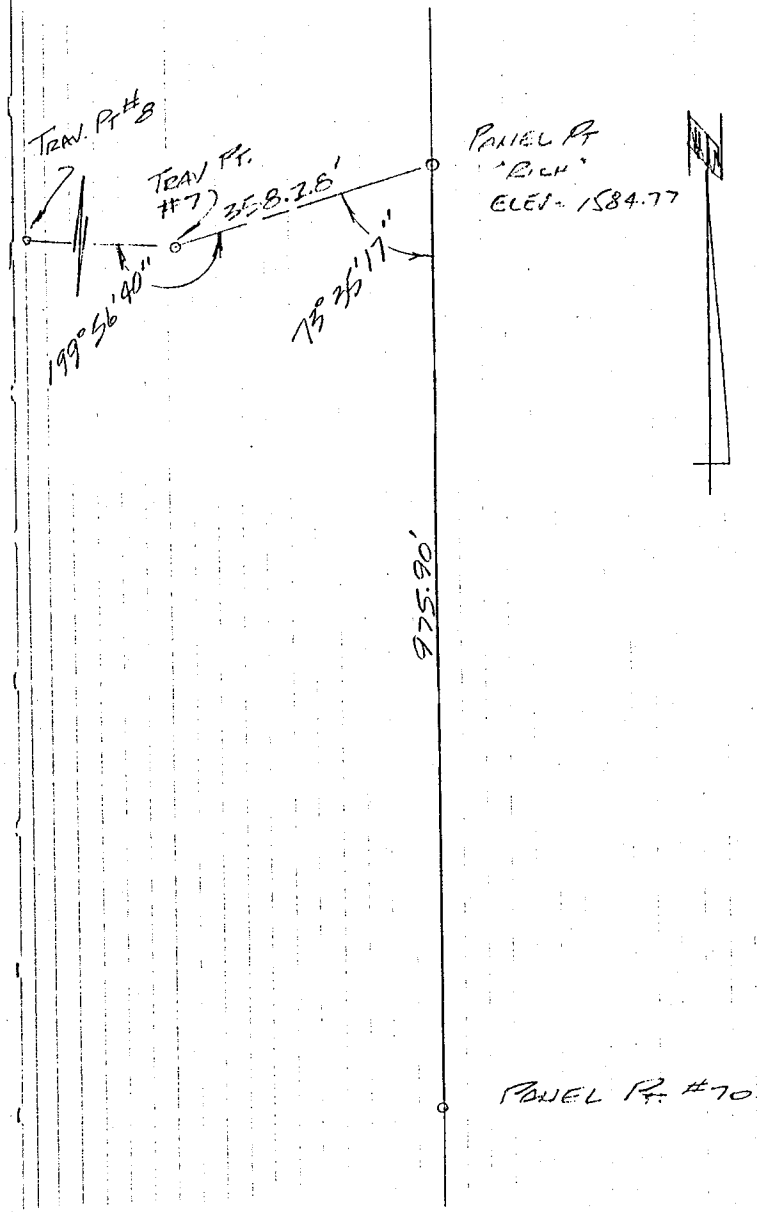

EP
EP
6' RUBBLE SPILLWAY
10"x6' WING WALL (TYP)
7"x21'
DRIVE
R/R TIE RETAIN WALL (TYP)
2-4'x8"x34'
C.B.C.
Rock & Rip Rap
7"x21'
7"x21'
℄ QUAIL HAVEN
EP
EP
SILT
Top SILT
Rock & Rip Rap
0.5'
4'
1.5'
SILT
4'
0.5'
5.5
5.5

WASH 11

TRAVERSE TO POINT #10
ALONG AGUILA ROAD

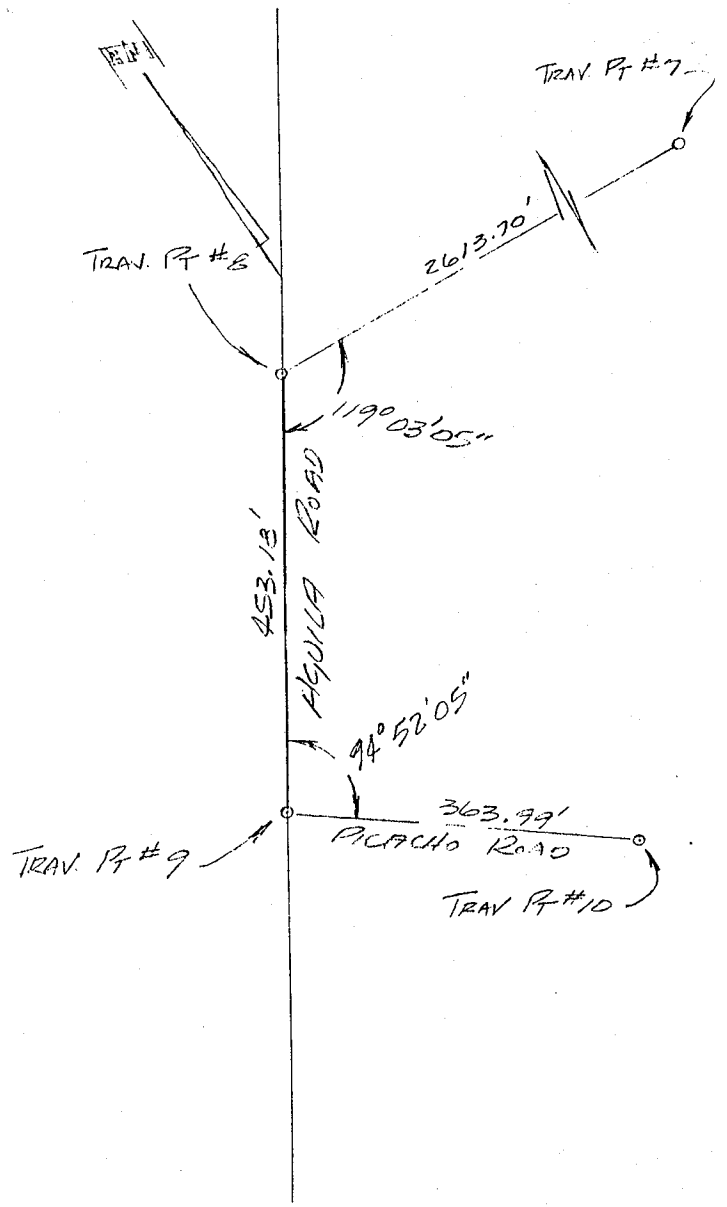
T AT PANEL POINT "RICH"
BS PANEL POINT #70 DIST = 975.30'
HI = 4.87 + 1584.77 = 1589.64
F.S. TRAV. POINT #7
ANGLE RT = 73°35'17 TARGET = 4.86
DIST 358.28' DE = + 9.94

T AT TRAV. POINT #7
B.S. PANEL POINT "RICH"
H.I. = 4.90 + 1594.22 = 1599.12
F.S. TRAV. POINT #8
ANGLE RT = 199°56'40"
DIST = 2612.70'
TARGET = 6.78'
D.E. = + 59.61
ELEV = 1532.73



IT AT TRAV. POINT #8
B.S. TRAV. POINT #7
00°00'00"
HI = 5.06 + 1532.73 = 1537.79
F.S. TRAV. POINT #9
ANGLE RT = 119° 03'05"
DIST = 453.18'
TARGET = 4.84'
DE = +3.49'
ELEV = 1536.84

IT AT TRAV. POINT #9
B.S. TRAV. POINT #8
00°00'00"
HI = 5.15 + 1536.84 = 1541.99
F.S. TRAV. POINT #10
ANGLE RT = 94°52'05"
DIST = 363.99'
TARGET = 4.84'
DE = -7.70
ELEV = 1529.45



WASH 11 TRIBUTARY
(NOT A STUDY WASH)
3-28" x 40' CMP
AT
HAILA ROAD & RICACHO ROAD

T AT TRAN. POINT #9

BS. TRAN. POINT #8

=0°00'00"

HI: 5.16 + 1536.84 = 1542.00

ANGLE RT	DIST.	TARGET	DE.	ELEV
181-56-15	236.8	4.84	+2.33	
182-57-45	195.58		+1.40	
183-30-00	173.50		+1.27	
185-20-50	123.39		+0.98	
189-31-40	74.13		+0.66	
200-19-00	37.35		+0.48	
201-15-55	35.40		+0.14	
203-46-15	32.0		+0.15	
205-36-35	30.14		+0.48	
334-07-20	28.25		+0.32	
352-26-55	77.3		+0.14	
356-35-45	129.54		-0.20	
358-17-50	181.7		-0.87	
359-15-35	232.4		-1.52	

TOP OF WEST CURB

NAT'L GROUND

T.C BEG. CURB

T.C.

F.L. DEPRESSED CURB

F.L. " "

T.C.

CONTINUED

HI = 1542.00

ANGLE RT	DIST.	TARGET	DE	ELEV
257-43-50	100.6	4.84	-1.42	
233-00-25	45.4	4.84	-3.13	
231-54-20	35.9	8.64	+0.71	
227-03-15	38.2	〉	+0.68	
222-55-10	40.8		+0.60	
226-34-25	37.9	4.84	+1.06	
225-10-50	37.2		+0.43	
206-55-45	28.28		+0.47	
204-52-50	27.51		+0.16	
179-48-50	24.11		-0.15	
151-50-04	26.36		-0.64	
149-27-55	27.26		-0.30	
125-31-20	37.35		-1.20	
124-07-50	38.60		-0.16	
118-15-45	36.50		-4.28	
123-39-10	38.86		-4.35	
127-45-35	41.28		-4.36	
117-23-45	46.18		-4.41	
101-05-15	94.4		-4.90	
99-48-50	104.0		-5.37	

℄ PROFILE WASH 11

℄ 6' BOTTOM WASH
F.L. CONC.
F.L. N. CMP (INLET)
FL CENTER CMP "
FL S. CMP "
CENTER HEADWALL (TOP)
N.G.
TOP CURB
GUTTER
℄ ROAD
GUTTER
TOP CURB
N.G.
CENTER HEADWALL - (TOP)
FL N. CMP (OUTLET)
FL CENTER CMP
FL S. CMP
FL CONC
℄ 6' BOTTOM WASH TOP RIVER ROCK
℄ " " " DIRT

CONTINUED

HI = 1542.00

ANGLE RT	DIST	TARGET	DE	ELEV
85-53-20	56.85	4.84	-1.51	
97-11-25	58.70		-1.73	
98-34-00	58.70		-1.43	
100-48-20	57.8		-1.96	
105-22-30	61.6		-4.62	
108-28-30	63.3		-4.30	
112-03-20	65.15		-4.40	
117-05-00	67.65		-2.01	
127-48-50	79.2		-2.35	
257-01-35	45.3		+0.27	
249-14-35	47.2		+0.60	
242-04-20	50.21		-2.50	
239-23-40	53.4		-2.82	
236-03-45	55.0		-2.71	
230-44-15	58.8		+0.50	
219-42-55	71.2		+0.66	

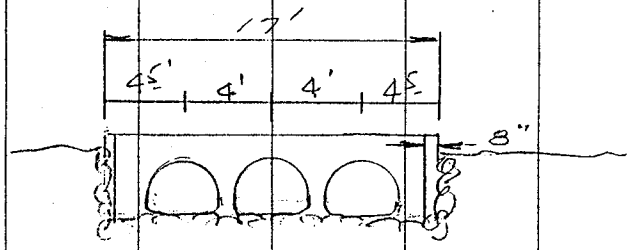
WASH CROSS SECTIONS

20' EAST SIDE OF CULVERT

℄ Road
Gutter
Top Cut
Top of Bank
Bottom Wash (River Rock)
℄ Wash
Bottom Wash (River Rock)
Top of Bank
N.G.

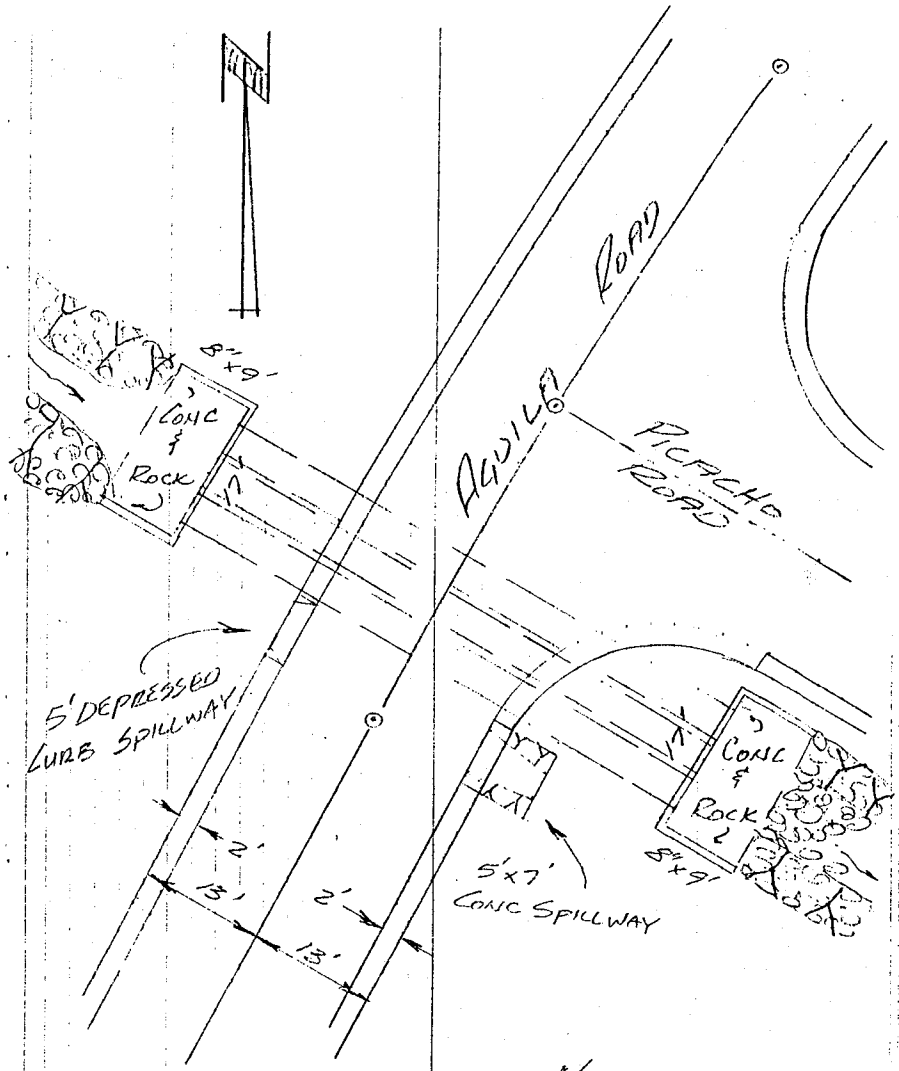
20' WEST SIDE OF CULVERT

N.G.
Top of Bank
Bottom Wash (River Rock)
℄ Wash
Bottom Wash (River Rock)
Top of Bank
N.G.



3- 28" x 40" CMP's

STRUCTURE IS STUCCO MASONRY BLOCK



NOTE

HEADWALL @ 8" STUCCO MASONRY BLOCK

WASH 11 TRIBUTARY
(NOT A STUDY WASH)

CULVERTS @ NORTH END
AVENIDA DEL REY

AT: TRAV POINT #10
BS. TRAV. POINT #9
00°00'00"
HI = 4.97 + 1529.45 = 1534.42

ANGLE RT	DIST	TARGET	DE	ELEV.
10-24-55	89.5	0.84	-1.52	
1-54-35	22.8		-3.02	
18-00-10	15.8		-3.13	
1-51-10	15.2		-3.17	
347-08-20	15.6		-3.02	
1-35-40	14.75		+1.04	
1-03-00	14.9		-0.25	
1-43-25	7.70		-0.07	
181-15-10	7.63		-0.28	
181-15-10	14.3		-0.64	
181-15-10	14.84		40.44	
166-03-25	15.72		-3.80	
181-15-10	15.21		-3.80	
196-55-45	15.80		-3.74	
180-42-30	37.45		-4.00	
177-24-55	75.0		-4.55	

CENTER OF WASH PROFILE

CENTER WASH
" " BEG CONC RIP RAP
F.L. N CMP
F.L. CENTER CMP
F.L. S. CMP
CENTER HEADWALL (TOP)
NG
W EDGE CONC. CART PATH
℄ " " "
NG
CENTER HEADWALL (TOP)
FL N CMP
FL CENTER CMP
FL S CMP
CENTER WASH END CONC RIP RAP
CENTER WASH

CONTINUED

HI = 1534.82

ANGLE RT	DIST	TARGET	DE	ELEV	CROSS SECTION @ HEADWALL
294-47-05	78.9	4.84	+2.54		N.G.
302-51-20	30.3		+0.42		
320-13-00	20.1		+0.66		
331-41-00	17.15		+0.26		
332-58-40	16.85		+1.09		TOP S EDGE HEADWALL
30-56-45	17.05		+1.07		" N " "
32-31-35	17.2		-0.07		NG
47-19-00	20.40		+0.25		W. EDGE GOLF CART
74-33-20	53.30		+0.23		E " " "
77-25-10	68.0		-0.17		NG
79-30-00	81.40		+0.05		T.C.
79-30-00	83.14		-0.28		GUTTER
81-18-35	95.70		-0.14		℄ ROAD

CONTINUED

H.I = 1234.82

ANGLE RT	DIST	TARGET	DE	ELEV
48-30-50	47.6	4.84	+0.33	
31-12-25	40.5		-0.01	
18-49-40	39.2		+0.05	
10-27-05	39.7		-2.38	
5-56-40	40.2		-2.53	
2-20-10	40.55		-2.50	
350-36-25	42.3		+0.81	
338-36-15	47.5		+1.25	
202-12-15	53.9	4.84	-0.98	
192-26-20	50.8		-0.44	
184-00-15	50.0		-3.60	
150-55-45	49.85		-4.19	
125-47-15	50.1		-4.02	
166-02-30	49.7		-0.96	
149-24-30	55.6		-1.35	

WASH CROSS SECTIONS

20' WEST SIDE OF CULVERT

N/G

N/G

TOP NORTH BANK

BOTTOM WASH

℄ WASH

BOTTOM WASH

TOP SOUTH BANK

N/G

30' EAST SIDE OF CULVERT

N/G

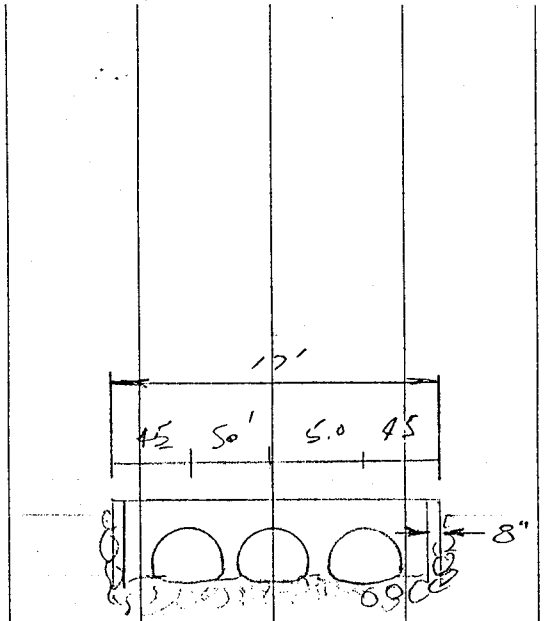
TOP SOUTH BANK

BOTTOM WASH (SMALL ROCK)

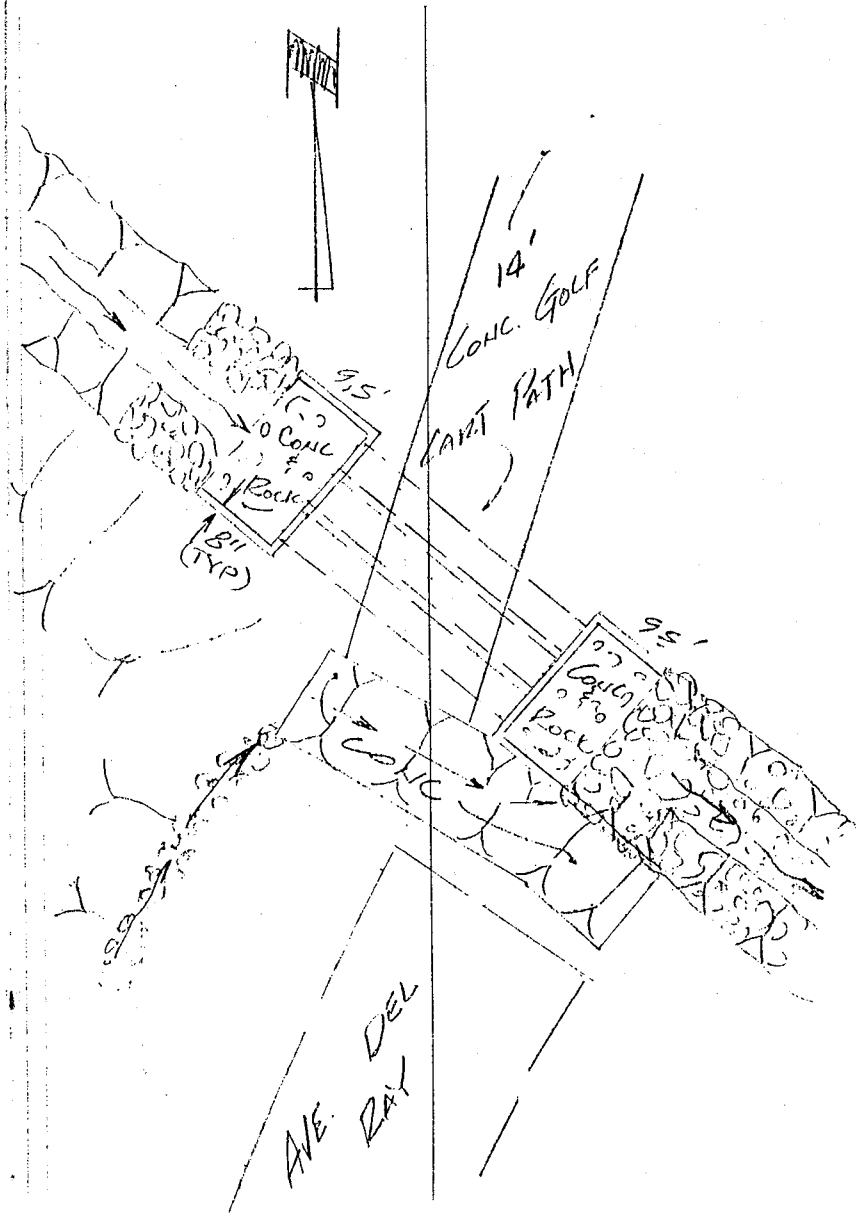
℄ WASH

TOP NORTH BANK

N/G



STRUCTURE IS STUCCO MASONRY BLOCK



ADDITIONAL AERIAL PANEL

3.19.94

R. Alcoler
M. Venegas

T AT INTERSECTION of FOREST RD & TONTO VERDE DR.

B.S. AERIAL POINT #168470

N: 774399.7774 E: 992516.8753

DIST: 1667.59'

F.S. BC AT INTERSECTION TONTO VERDE DR. & CIRCULO DR. (TP#2)

∠ 115-39-25

∠ 462-37-35

M = 115-39-24

DIST = 702.70

N: 776369.812 E: 991877.873

T AT BC. INTERSECTION TONTO VERDE DR & CIRCULO DR (TP#2)

B.S. INTERSECTION of FOREST RD. & TONTO VERDE DR.

F.S. TRAV. POINT #3 (SET NAIL)

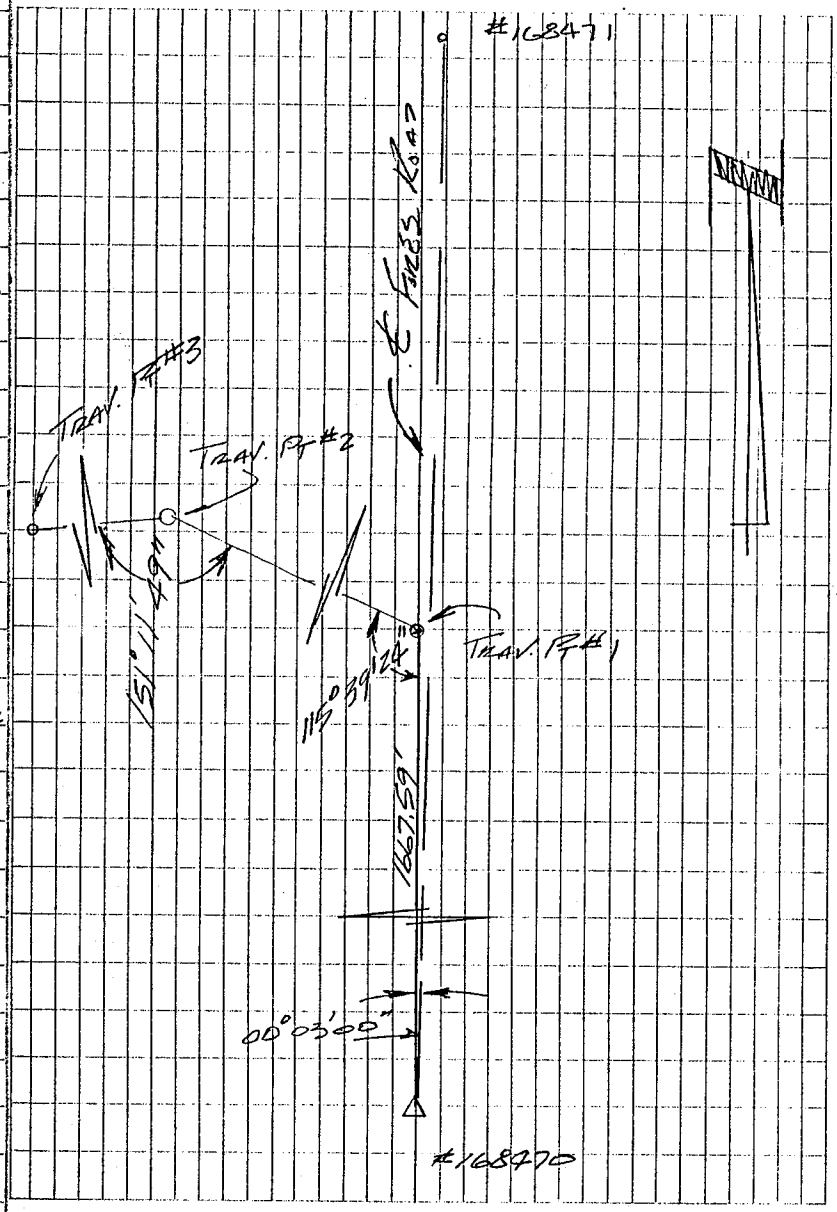
∠ 151-17-55

∠ 605-11-15

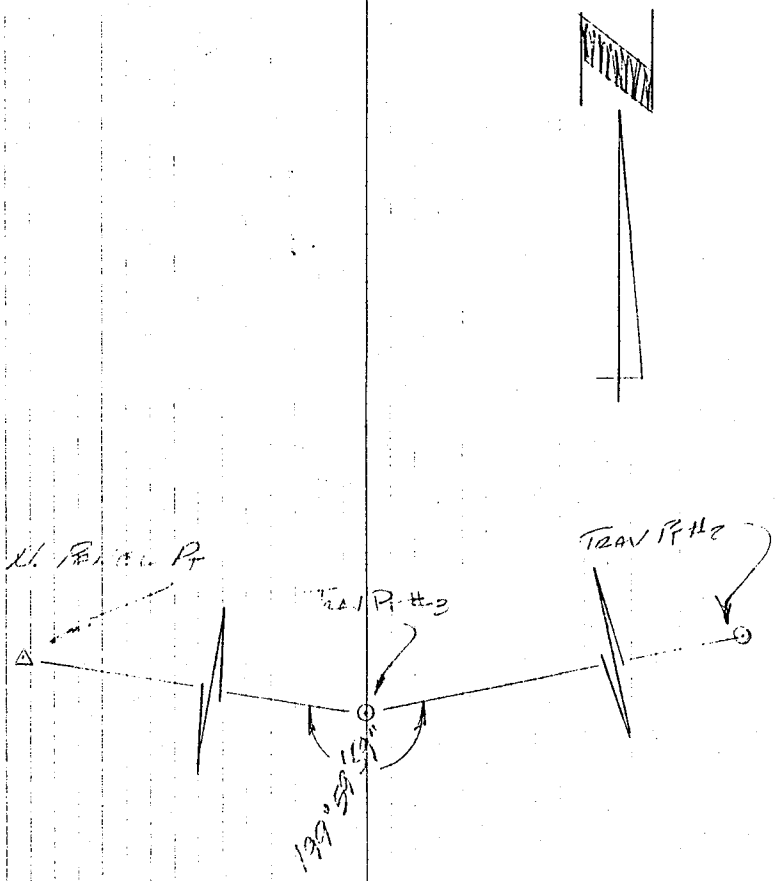
M: 151-11-09

DIST: 1104.19'

N: 776306.085 E: 990775.523



π AT TRAV. POINT #3 (SET NAIL)
BS. INTERSECTION OF TONTO VALLEY DR.
& CIRCULO DR.
FS. NEW PANEL POINT (SET 1/2" REBAR)
1. 200-00-05
4. 799-59-55
M = 199-59-59
DIST = 288.02'
N = 776388.807 E = 990499.638



STA	+	HI	-	ELEV		
#168542				1611.~~755~~ 525	FND PANEL POINT	1/2" PLAN
	9.13	1620.885				
T.P.			1.66	1619.245		
	8.87	1628.115				
T.P.			1.21	1626.905		
	8.13	1635.035				
PANEL PT.			1.24	1633.~~775~~ 565	SET 1/2" REBAR	
		RETURN				
	1.64	1635.435				
T.P.			9.41	1626.025		
	2.39	1628.415				
TP			9.16	1619.255		
	1.24	1620.495				
#168542			8.75	1611.745	-0.01	

NOTE: NEED TO (-) 0.23' DUE TO WRONG STARTING POINT.