US Army Corps
of Engineers
Los Angeles District

Gila River Basin

Phoenix, Arizona and Vicinity
(Including New River)

Arizona Canal Diversion Channel

Project Tour
November 7, 1984

Gila River Basin
Phoenix, Arizona and Vicinity
(Including New River)

ARIZONA CANAL DIVERSION CHANNEL
(Including Cave Creek Channel and Sediment Basins on Cave Creek and Cudia City Wash)

CONTENTS

A. Pertinent Data

B. Phoenix, Arizona and Vicinity--Recommended Plan-Flood Control

C. Plan with Typical Sections

D. Aerial Mosaic with Channel Centerline

E. Hydraulic Plan and Profile

F. Planting Plan, Reach 1

G. City of Peoria Reach--Recreation Master Plan and Erosion Control and Esthetic Treatment

H. Cave Creek Sediment Basin--Recreation Master Plan and Erosion Control and Esthetic Treatment

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

PHOENIX, ARIZONA AND VICINITY
(INCLUDING NEW RIVER)

PERTINENT DATA ON
THE ARIZONA CANAL DIVERSION CHANNEL

	LOCATION	Q (cfs)
DESIGN FLOWS	Cudia City Wash	6700
(100 year flood)	Below 16th Street	9300
	Below 10th Street	13,000
	Above Cave Creek	15,000
	Below Cave Creek	25,000
	Near 51st Avenue	26,000
	Above Skunk Creek	29,000

Design:	Configuration	Length	Dimension	Range
	Concrete Retangular	11.6 miles	Base width	36' - 110'
			Height	20' - 25'
	Concrete Trapezoidal	1.2 miles	Base width	80' - 100'
			Height	20' - 21'
	Unlined	3.8 miles	Base width	220'
			Height	20' - 27'

Costs: (Oct 84 PB-3, ACDC only)

Flood Control	$195,392,000
Recreation	10,501,000
Lands and Damages	72,773,000
Utilities	8,303,000
Roads and Bridges	23,332,000
	$310,301,000

Design Schedule

Document	Draft	Final
GDM	Complete	Mar 85
FDM	Feb 85	Aug 85
P&S, Rch 1	Mar 85	Jun 85
P&S, Rch 2	Aug 86	Nov 86
P&S, Rch 3	Jan 88	May 88
P&S, Rch 4	Jul 89	Nov 89

Construction Period

Reach 1	Aug 85 - Sept 87
Reach 2	Jan 87 - Jul 88
Reach 3	Jul 88 - Jan 90
Reach 4	Jan 90 - Jul 91

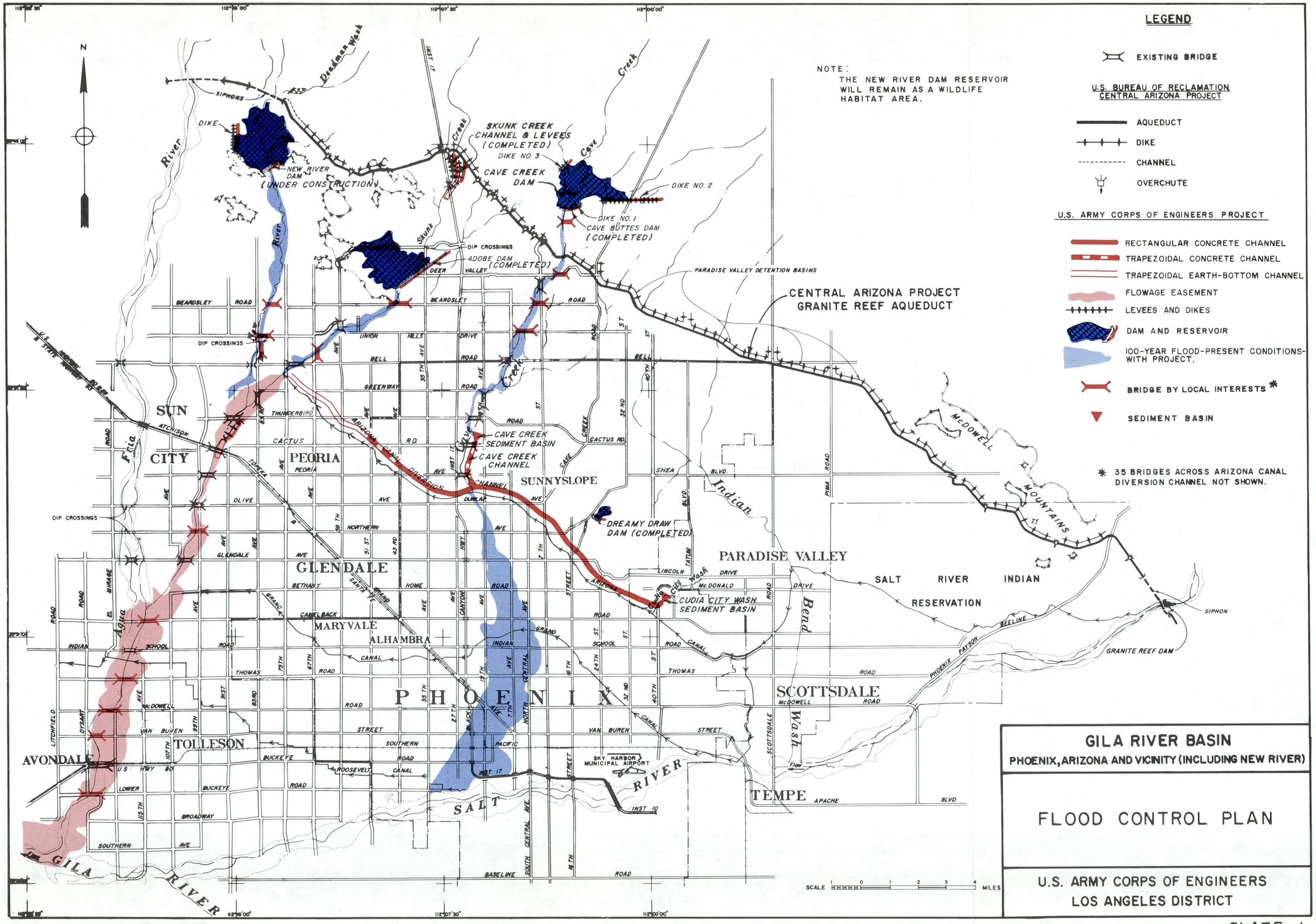
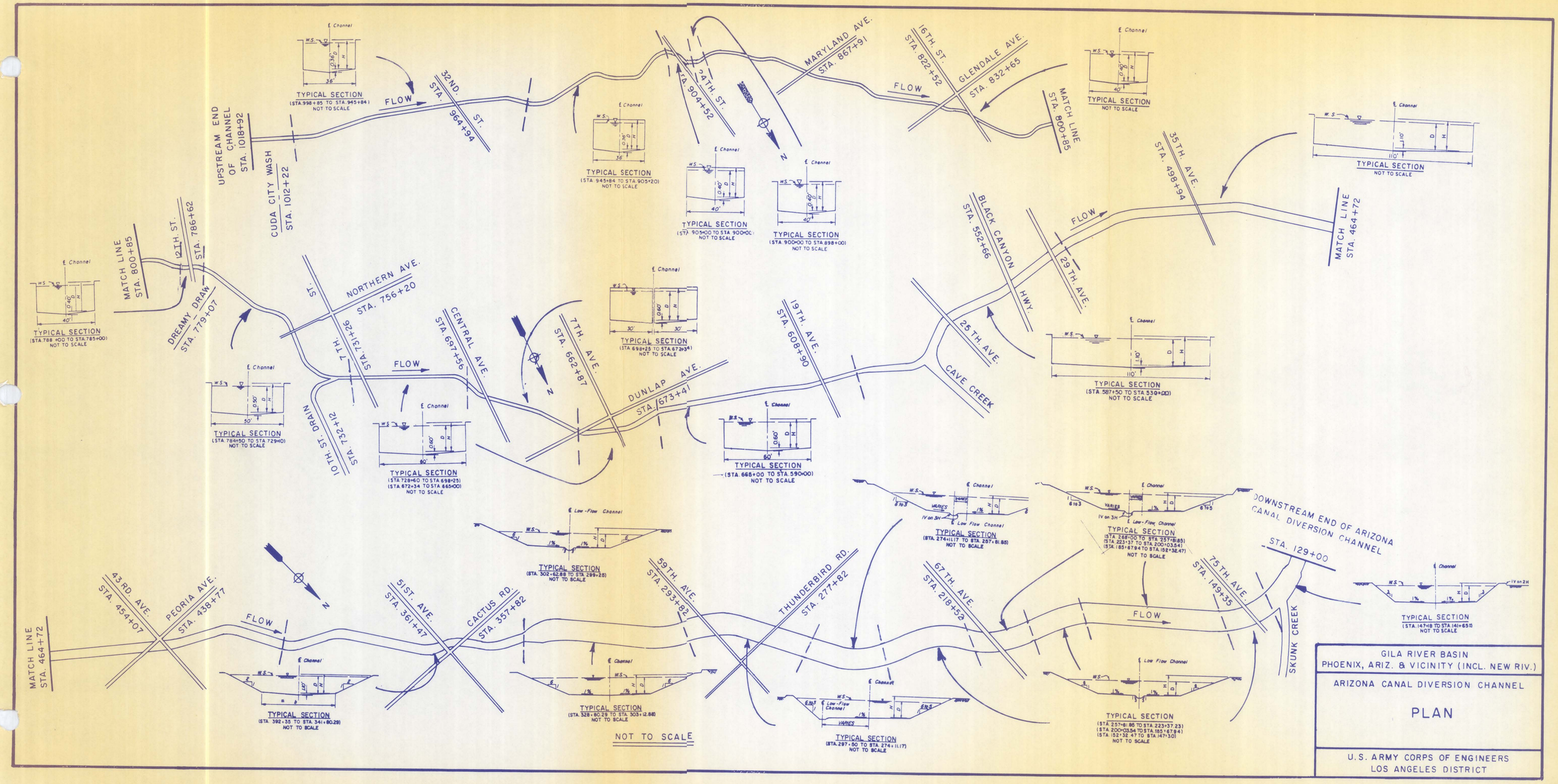

LEGEND
EXISTING BRIDGE
U.S. BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT
AQUEDUCT
DIKE
CHANNEL
OVERCHUTE
U.S. ARMY CORPS OF ENGINEERS PROJECT
RECTANGULAR CONCRETE CHANNEL
TRAPEZOIDAL CONCRETE CHANNEL
TRAPEZOIDAL EARTH-BOTTOM CHANNEL
FLOWAGE EASEMENT
LEVEES AND DIKES
DAM AND RESERVOIR
100-YEAR FLOOD-PRESENT CONDITIONS-WITH PROJECT.
BRIDGE BY LOCAL INTERESTS *
SEDIMENT BASIN
* 35 BRIDGES ACROSS ARIZONA CANAL DIVERSION CHANNEL NOT SHOWN.
NOTE:
THE NEW RIVER DAM RESERVOIR WILL REMAIN AS A WILDLIFE HABITAT AREA.
CENTRAL ARIZONA PROJECT
GRANITE REEF AQUEDUCT
SKUNK CREEK CHANNEL & LEVEES (COMPLETED)
DIKE NO. 3
CAVE CREEK DAM
DIKE NO. 2
DIKE NO. 1
CAVE BUTTES DAM (COMPLETED)
NEW RIVER DAM (UNDER CONSTRUCTION)
ADOBE DAM (COMPLETED)
PARADISE VALLEY DETENTION BASINS
CAVE CREEK SEDIMENT BASIN
CAVE CREEK CHANNEL
DREAMY DRAW DAM (COMPLETED)
CUDIA CITY WASH SEDIMENT BASIN
SIPHONS
DIP CROSSINGS
SUN CITY
PEORIA
SUNNYSLOPE
GLENDALE
MARYVALE
ALHAMBRA
PHOENIX
TOLLESON
AVONDALE
PARADISE VALLEY
SCOTTSDALE
TEMPE
SALT RIVER INDIAN RESERVATION
SKY HARBOR MUNICIPAL AIRPORT
GRANITE REEF DAM
McDOWELL MOUNTAINS
SALT RIVER
GILA RIVER
Indian Bend Wash
Agua Fria
SCALE 1 0 1 2 3 4 MILES
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)
FLOOD CONTROL PLAN
U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLATE I

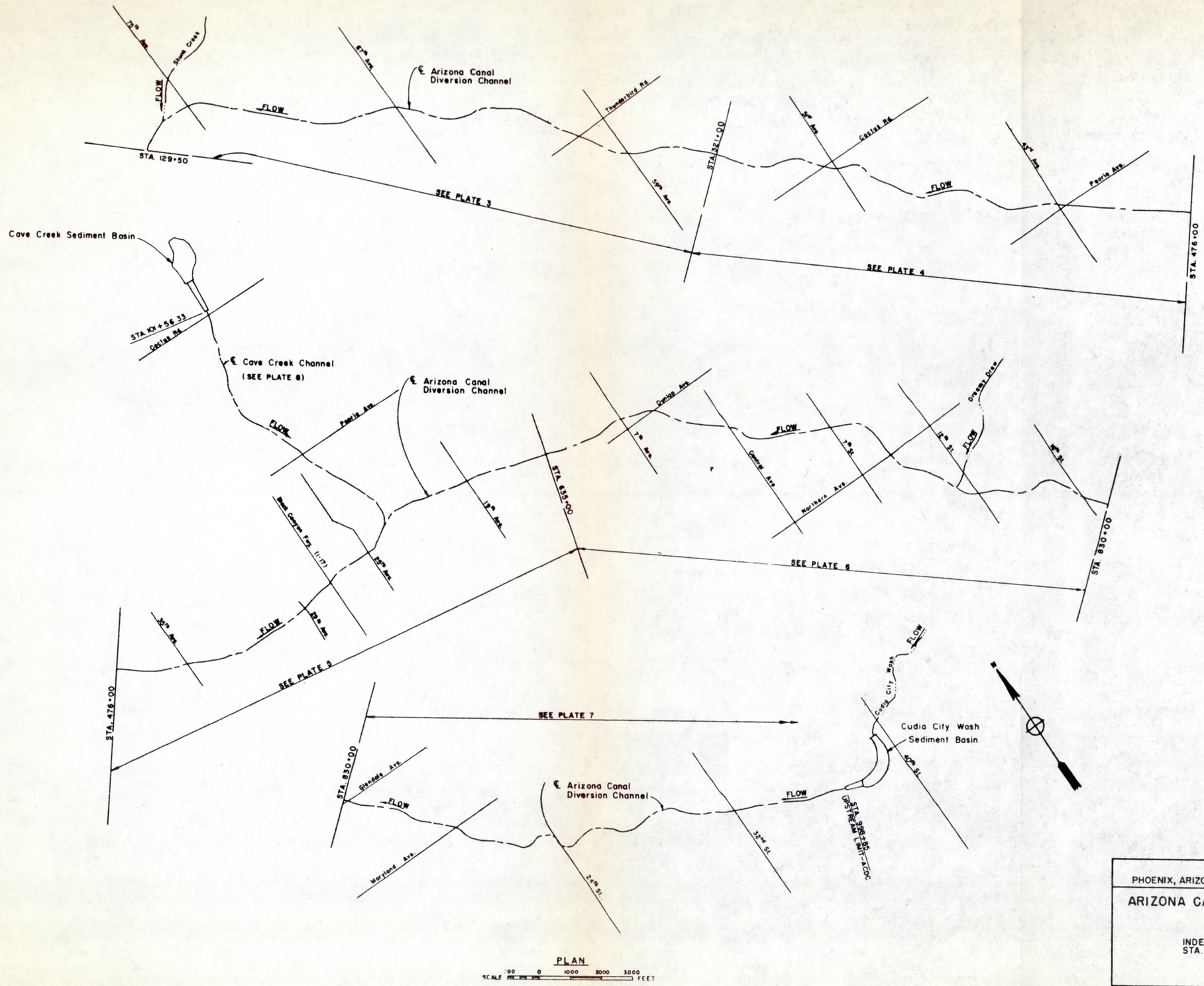


GILA RIVER BASIN
PHOENIX, ARIZ. & VICINITY (INCL. NEW RIV.)

ARIZONA CANAL DIVERSION CHANNEL

PLAN

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

INDEX MAP OF AERIAL MOSAIC
STA. 129+50 TO STA. 998+85

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

NOTE:

AERIAL PHOTOGRAPHS, DATED 7 DECEMBER 1983, WERE TAKEN BY LANDIS AERIAL SURVEYS, INC., PHOENIX, ARIZONA

GILA RIVER BASIN

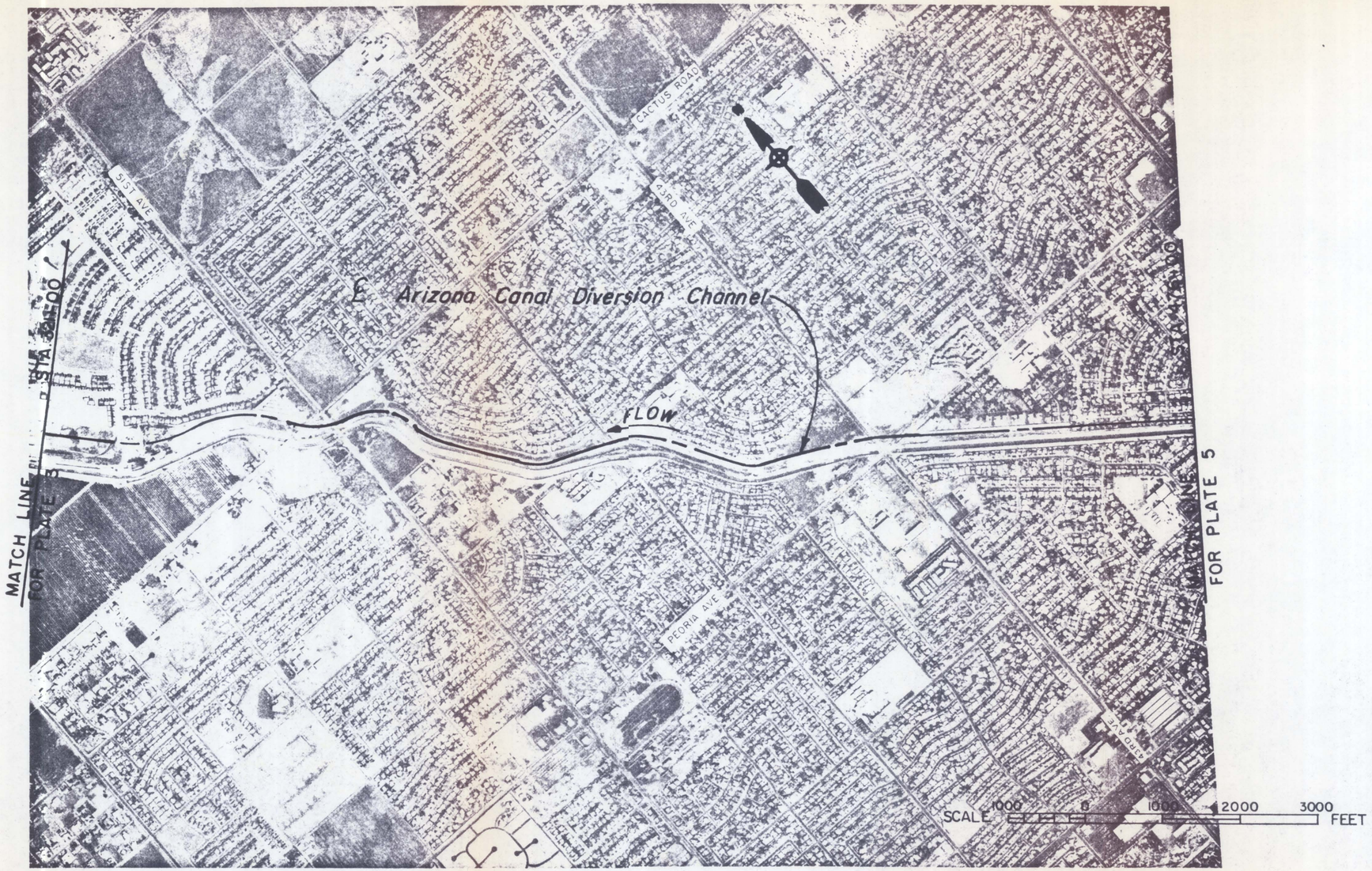
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

AERIAL MOSAIC

STA. 129+50 TO STA. 321+00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



NOTE:

AERIAL PHOTOGRAPHS, DATED 7 DECEMBER 1983, WERE TAKEN BY LANDIS AERIAL SURVEYS, INC., PHOENIX, ARIZONA

GILA RIVER BASIN

PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

AERIAL MOSAIC

STA. 321+00 TO STA. 476+00

U.S. ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

NOTE:

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GILA RIVER BASIN

PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

AERIAL MOSAIC

STA. 476+00 TO STA. 635+00

U.S. ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

NOTE:

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GILA RIVER BASIN

PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

AERIAL MOSAIC

STA. 635+00 TO STA. 830+00

U.S. ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

NOTE:

AERIAL PHOTOGRAPHS, DATED 7 DECEMBER 1983, WERE TAKEN BY LANDIS AERIAL SURVEYS, INC., PHOENIX, ARIZONA

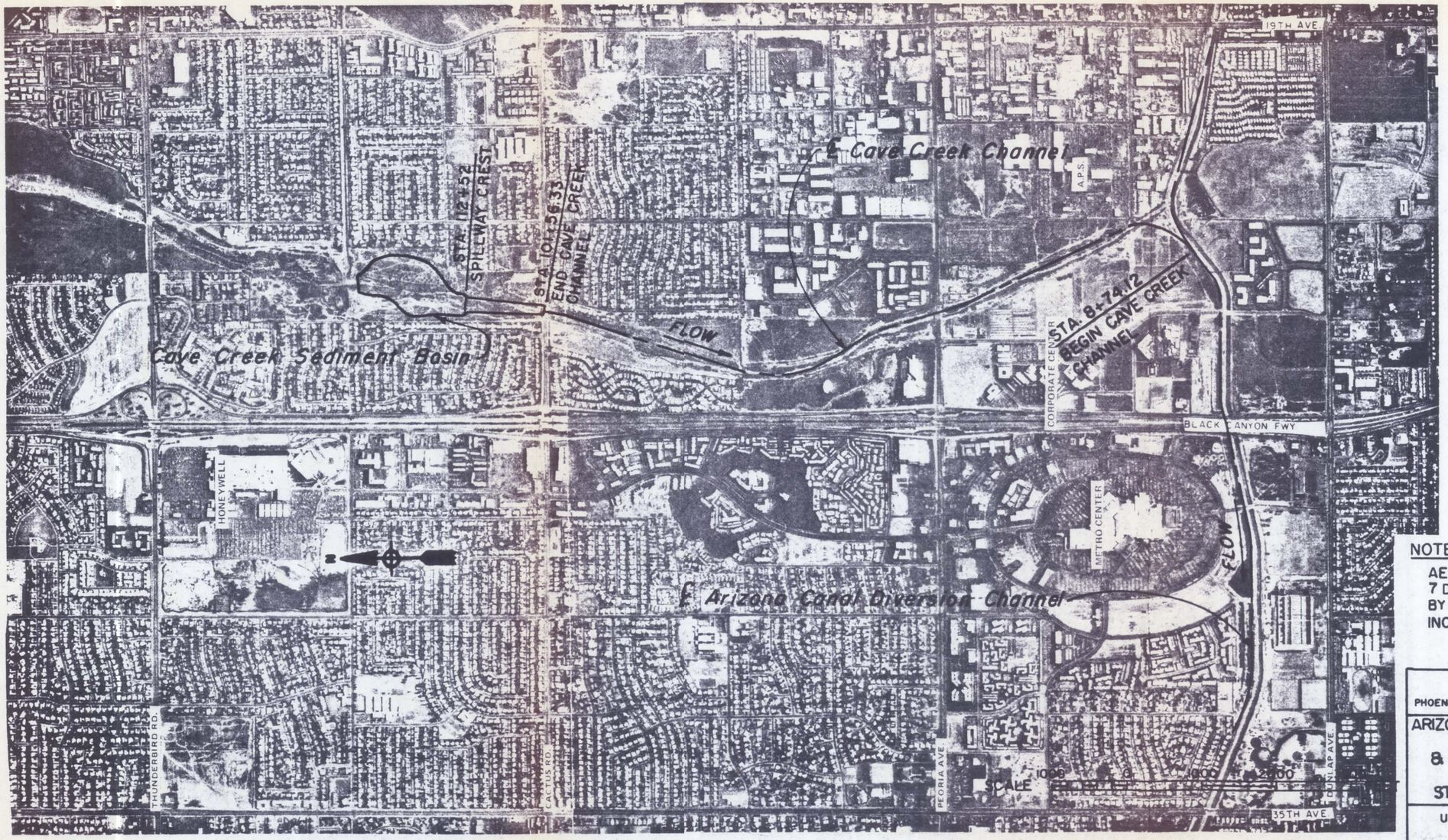
GILA RIVER BASIN

PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL & CUDIA CITY WASH SEDIMENT BASIN AERIAL MOSAIC

STA. 830+00 TO STA. 998+85

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



NOTE:

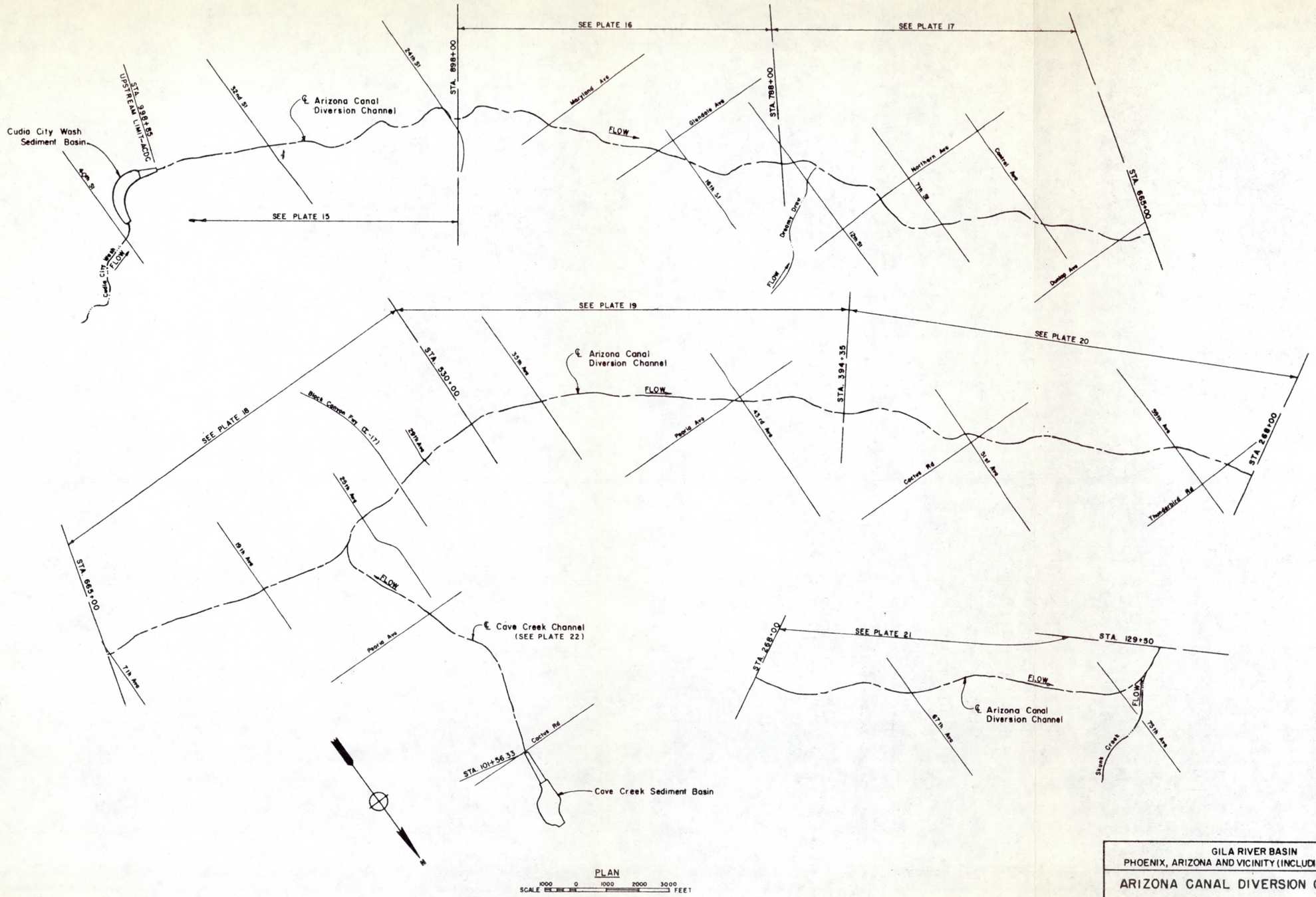
AERIAL PHOTOGRAPHS, DATED 7 DECEMBER 1983, WERE TAKEN BY LANDIS AERIAL SURVEYS, INC., PHOENIX, ARIZONA

GILA RIVER BASIN

PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
CAVE CREEK CHANNEL
& CAVE CREEK SEDIMENT BASIN
AERIAL MOSAIC
STA. 8+74.12 TO STA. 101+56.33

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

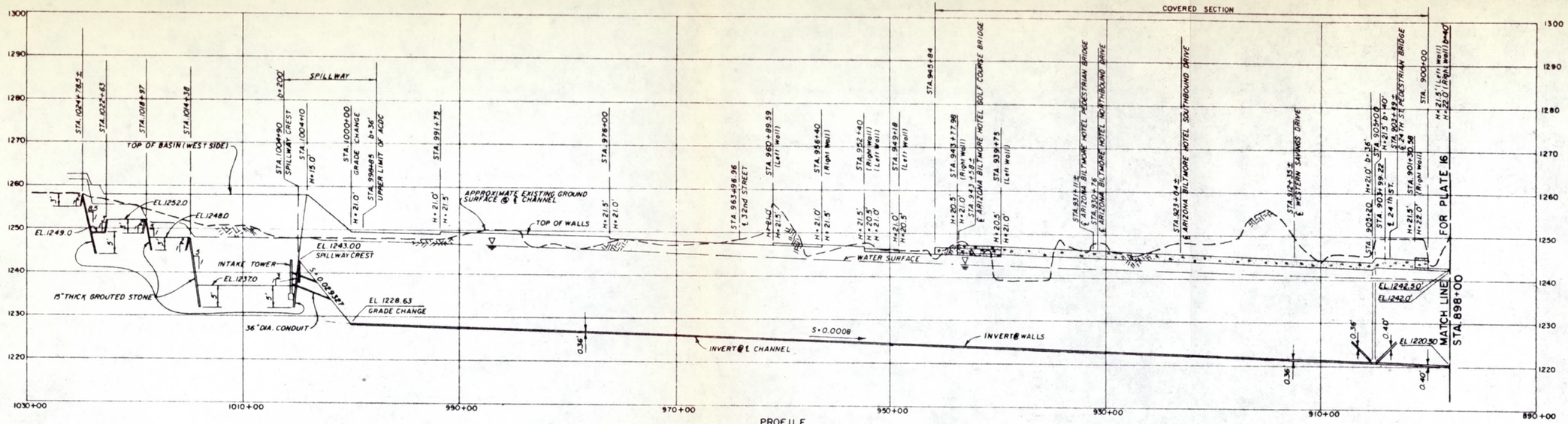


GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

INDEX MAP OF HYDRAULIC PLAN AND PROFILE
STA. 998+85 TO STA. 129+50

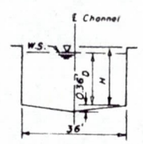
U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



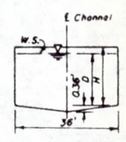
PROFILE

HORIZ. SCALE 500 0 500 1000 FEET

VERT. SCALE 10 0 10 20 30 FEET



TYPICAL SECTION
(STA. 998+85 TO STA. 945+84)
NOT TO SCALE



TYPICAL SECTION
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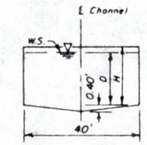
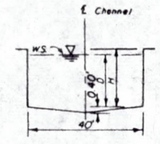
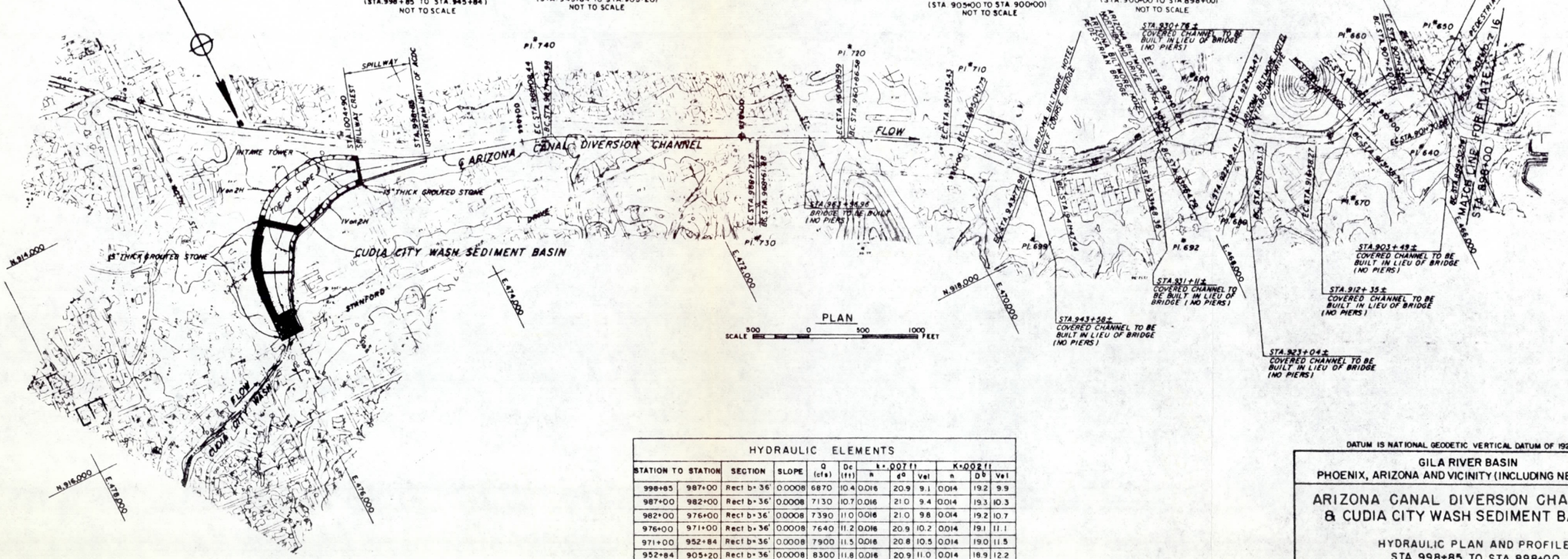


TYPICAL SECTION
(STA. 905+00 TO STA. 900+00)
NOT TO SCALE



TYPICAL SECTION
(STA. 900+00 TO STA. 898+00)
NOT TO SCALE



HYDRAULIC ELEMENTS

STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft)	k=.007 ft			K=.002 ft		
						n	d[a]	Vel	n	D[b]	Vel
998+85	987+00	Rect b=36'	0.0008	6870	10.4	0.016	20.9	9.1	0.014	19.2	9.9
987+00	982+00	Rect b=36'	0.0008	7130	10.7	0.016	21.0	9.4	0.014	19.3	10.3
982+00	976+00	Rect b=36'	0.0008	7390	11.0	0.016	21.0	9.8	0.014	19.2	10.7
976+00	971+00	Rect b=36'	0.0008	7640	11.2	0.016	20.9	10.2	0.014	19.1	11.1
971+00	952+84	Rect b=36'	0.0008	7900	11.5	0.016	20.8	10.5	0.014	19.0	11.5
952+84	905+20	Rect b=36'	0.0008	8300	11.8	0.016	20.9	11.0	0.014	18.9	12.2
905+20	905+00	TRANSITION	0.0008	8300	11.0	0.016	21.0	10.3	0.014	19.1	11.6
905+00	898+00	Rect b=40'	0.0008	8300	11.0	0.016	21.7	9.5	0.014	20.5	10.1

a. Used to determine wall heights
b. Used to compute plotted water surface profile

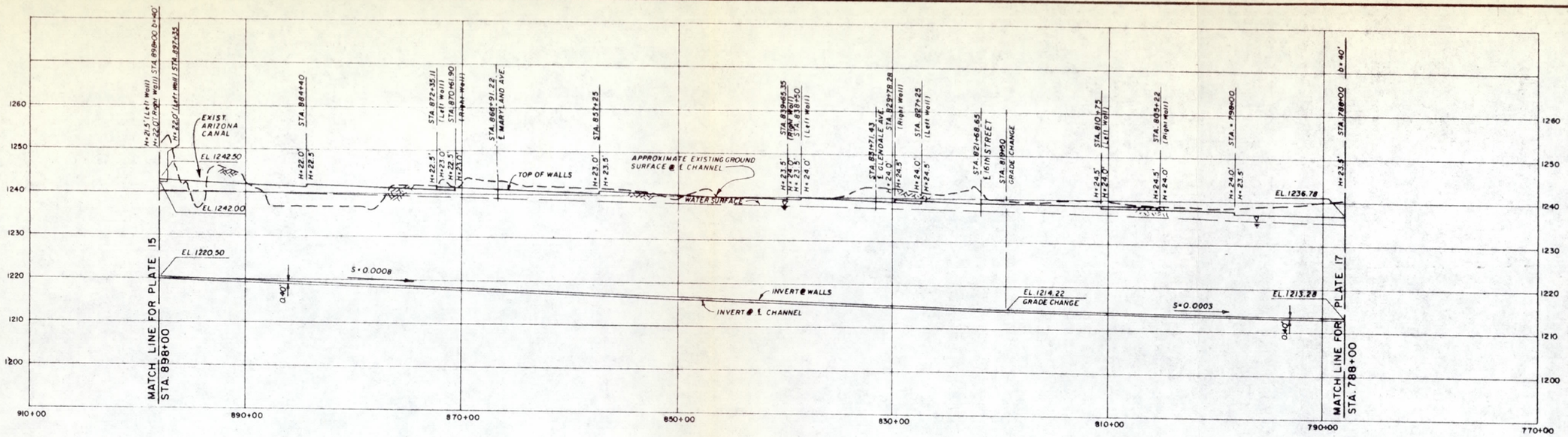
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
& CUDIA CITY WASH SEDIMENT BASIN

HYDRAULIC PLAN AND PROFILE
STA. 998+85 TO STA. 898+00

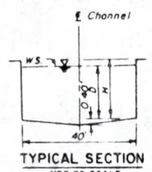
U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



PROFILE

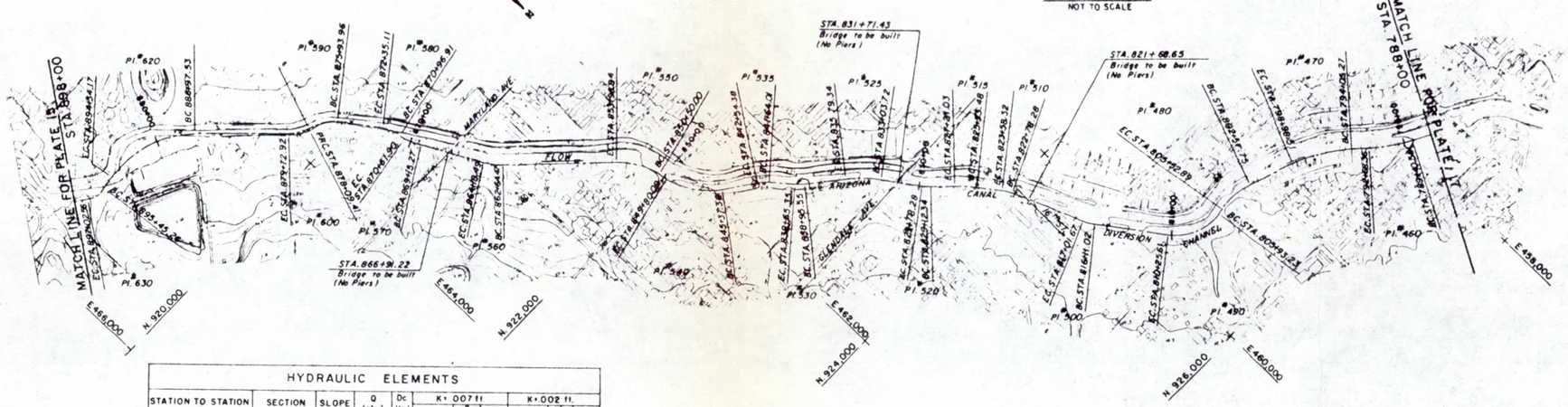
HORIZ. SCALE 500 0 500 1000 FT.

VERT. SCALE: 10 0 10 20 30 FT.



TYPICAL SECTION

NOT TO SCALE



PLAN

SCALE 500 0 500 1000 FT.

HYDRAULIC ELEMENTS

STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft.)	K+ 007 ft			K+ 002 ft.		
						n	D^a	Vel	n	D^b	Vel
898+00	855+00	Rect. b=40'	0.0008	8300	11.0	0.016	21.7	9.5	0.014	20.5	10.1
855+00	819+50	Rect. b=40'	0.0008	8700	11.4	0.016	23.5	9.2	0.014	21.9	9.9
819+50	815+59	Rect. b=40'	0.0003	8700	11.4	0.018	24.3	8.9	0.014	22.6	9.6
815+59	812+00	Rect. b=40'	0.0003	9000	11.6	0.018	24.2	9.3	0.014	22.5	10.0
812+00	798+41	Rect. b=40'	0.0003	9230	11.8	0.016	23.8	9.7	0.014	22.1	10.4
798+41	788+00	Rect. b=40'	0.0003	9440	12.0	0.016	23.3	10.1	0.014	21.5	11.0

a. Used to determine wall heights.
b. Used to compute plotted water surface profile.

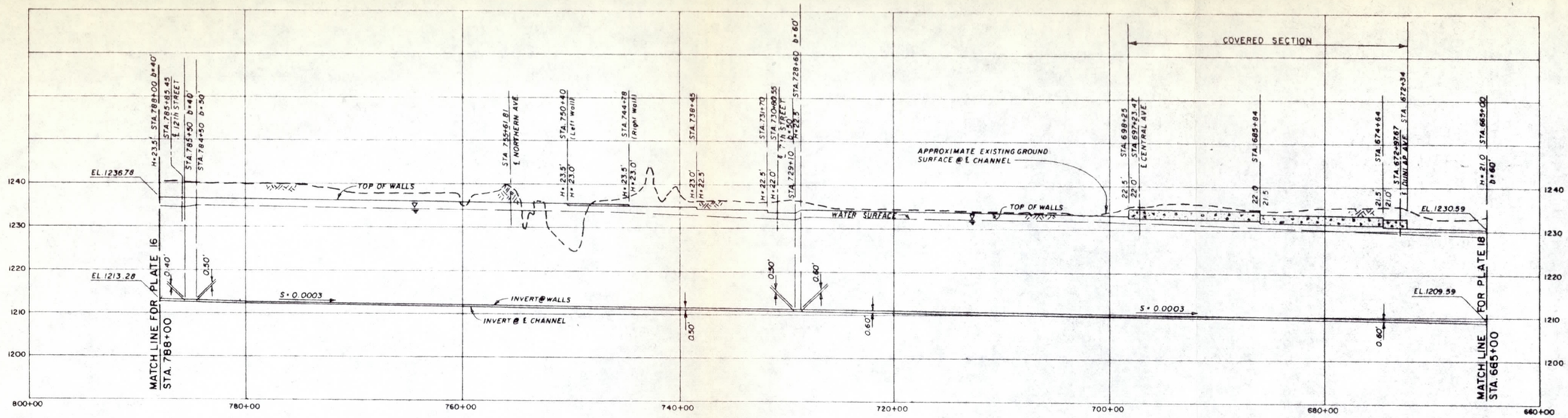
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

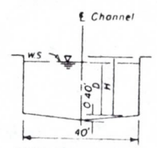
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

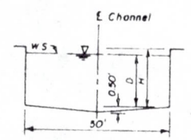
HYDRAULIC PLAN AND PROFILE
STA. 898+00 TO STA. 788+00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT





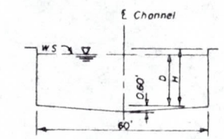
TYPICAL SECTION
(STA 788 +00 TO STA 785+00)
NOT TO SCALE



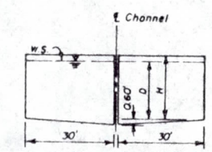
TYPICAL SECTION
(STA 784+50 TO STA 729+10)
NOT TO SCALE

PROFILE

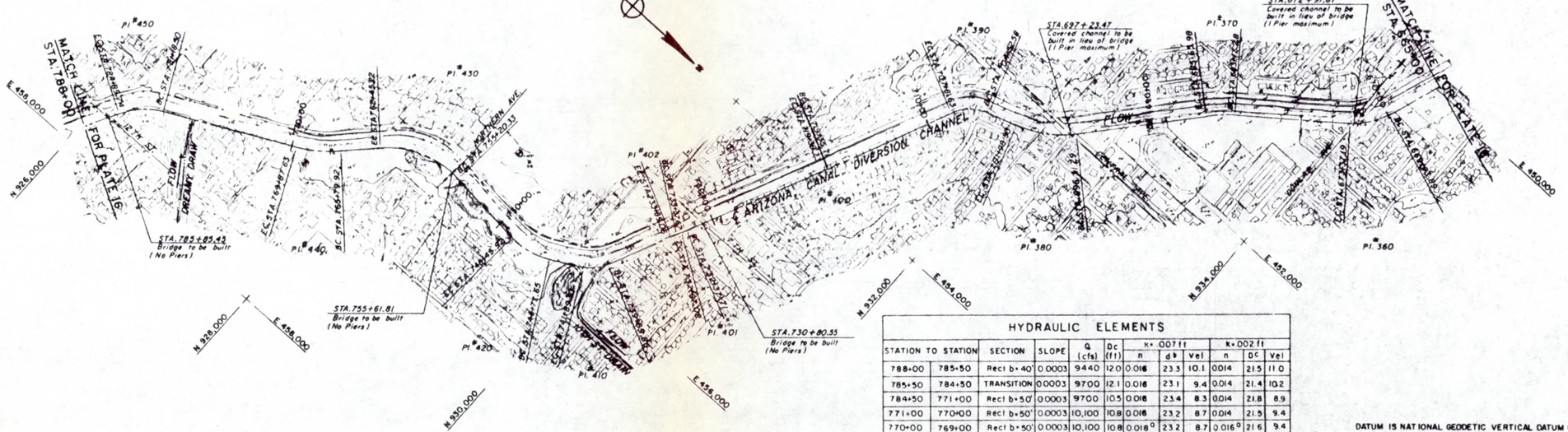
HORIZ. SCALE 500 0 500 1000 FEET
VERT. SCALE 10 0 10 20 30 FEET



TYPICAL SECTION
(STA 728+60 TO STA 698+25)
(STA 672+34 TO STA 665+00)
NOT TO SCALE



TYPICAL SECTION
(STA 698+25 TO STA 672+34)
NOT TO SCALE



PLAN

HORIZ. SCALE 500 0 500 1000 FEET

HYDRAULIC ELEMENTS												
STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft)	K=.007 ft			K=.002 ft			
						n	d[b]	Vel	n	Dc	Vel
788+00	785+50	Rect b=40'	0.0003	9440	12.0	0.016	23.3	10.1	0.014	21.5	11.0
785+50	784+50	TRANSITION	0.0003	9700	12.1	0.016	23.1	9.4	0.014	21.4	10.2
784+50	771+00	Rect b=50'	0.0003	9700	10.5	0.016	23.4	8.3	0.014	21.8	8.9
771+00	770+00	Rect b=50'	0.0003	10,100	10.8	0.016	23.2	8.7	0.014	21.5	9.4
770+00	769+00	Rect b=50'	0.0003	10,100	10.8	0.018[a]	23.2	8.7	0.016[a]	21.6	9.4
769+00	751+22	Rect b=50'	0.0003	10,100	10.8	0.016	23.1	8.7	0.014	21.5	9.4
751+22	746+40	Rect b=50'	0.0003	10,100	10.8	0.018[a]	23.0	8.8	0.016[a]	21.5	9.4
746+40	731+29	Rect b=50'	0.0003	Varies	12.0	0.016	22.5	10.1	0.014	20.9	11.1
731+29	729+10	Rect b=50'	0.0003	12,600	12.6	0.016	21.9	11.5	0.014	20.4	12.4
729+10	728+60	TRANSITION	0.0003	12,600	11.1	0.016	22.1	10.4	0.014	20.5	11.2
728+60	671+00	Rect b=60'	0.0003	12,600	11.3	0.016	22.0	9.8	0.014	20.4	10.6
671+00	670+00	Rect b=60'	0.0003	12,830	11.3	0.016	20.8	10.3	0.014	19.6	10.9
670+00	665+00	Rect b=60'	0.0003	12,830	11.2	0.016	20.8	10.3	0.014	19.3	11.1

a. n Value increased for these reaches to account for anticipated sediment deposition.
b. Used to determine wall heights.
c. Used to compute plotted water surface profile.

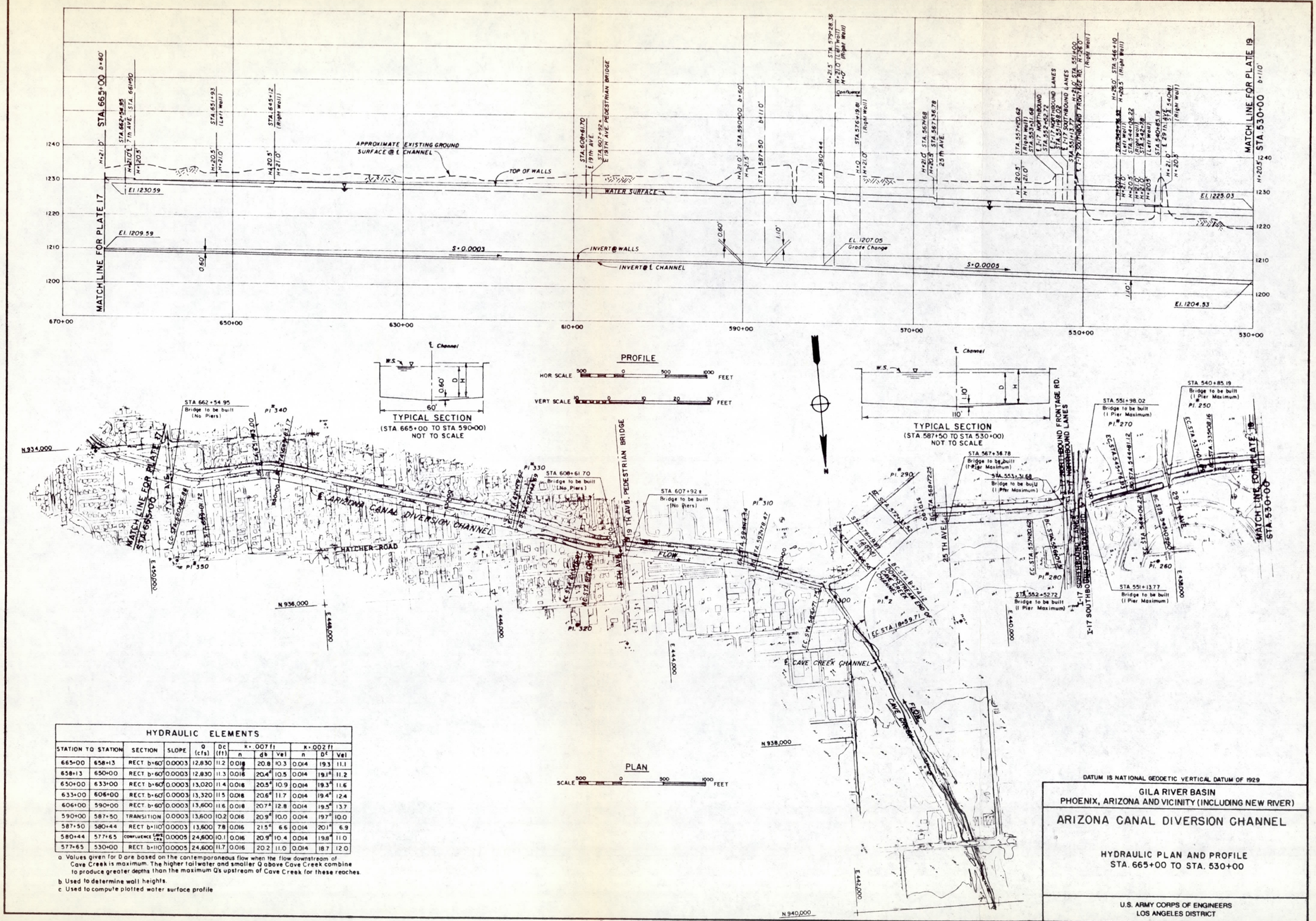
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

HYDRAULIC PLAN AND PROFILE
STA. 788+00 TO STA. 665+00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



HYDRAULIC ELEMENTS											
STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft)	K=.007 ft			K=.002 ft		
						n	db	Vel	n	Dc	Vel
665+00	658+13	RECT b=60'	0.0003	12,830	11.2	0.016	20.8	10.3	0.014	19.3	11.1
658+13	650+00	RECT b=60'	0.0003	12,830	11.3	0.016	20.4[a]	10.5	0.014	19.1[a]	11.2
650+00	633+00	RECT b=60'	0.0003	13,020	11.4	0.016	20.5[a]	10.9	0.014	19.3[a]	11.6
633+00	606+00	RECT b=60'	0.0003	13,320	11.5	0.016	20.6[a]	11.7	0.014	19.4[a]	12.4
606+00	590+00	RECT b=60'	0.0003	13,600	11.6	0.016	20.7[a]	12.8	0.014	19.5[a]	13.7
590+00	587+50	TRANSITION	0.0003	13,600	10.2	0.016	20.9[a]	10.0	0.014	19.7[a]	10.0
587+50	580+44	RECT b=110'	0.0003	13,600	7.8	0.016	21.5[a]	6.6	0.014	20.1[a]	6.9
580+44	577+65	CONFLUENCE Cave Crek	0.0005	24,600	10.1	0.016	20.9[a]	10.4	0.014	19.8[a]	11.0
577+65	530+00	RECT b=110'	0.0005	24,600	11.7	0.016	20.2	11.0	0.014	18.7	12.0

a. Values given for D are based on the contemporaneous flow when the flow downstream of Cave Creek is maximum. The higher tailwater and smaller Q above Cave Creek combine to produce greater depths than the maximum Q's upstream of Cave Creek for these reaches.

b. Used to determine wall heights.

c. Used to compute plotted water surface profile

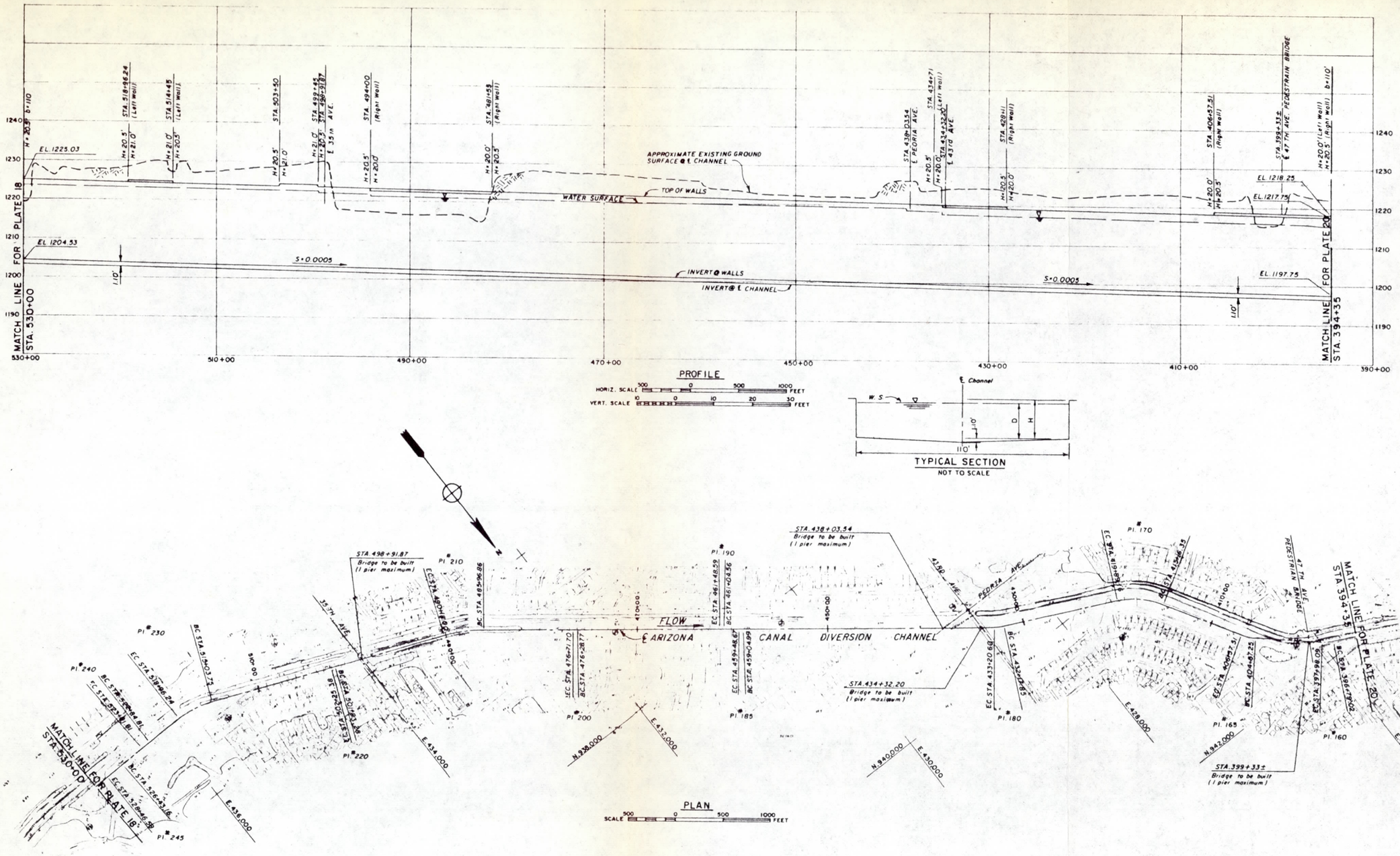
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

HYDRAULIC PLAN AND PROFILE
STA. 665+00 TO STA. 530+00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



HYDRAULIC ELEMENTS

STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft)	K=.007 ft			K=.002 ft		
						n	do	Vel	n	db	Vel
530+00	494+00	RECT b=110'	0.0005	24,600	11.6	0.016	20.2	11.1	0.014	18.8	11.9
494+00	434+71	RECT b=110'	0.0005	25,400	11.8	0.016	20.0	11.5	0.014	18.5	12.5
434+71	397+63	RECT b=110'	0.0005	26,000	12.0	0.016	19.6	12.1	0.014	18.0	13.1
397+63	395+63	TRANSITION	0.0005	26,500	12.8	0.016	19.6	11.8	0.014	17.8	13.1
395+63	395+00	TRAP b=80'	0.0005	26,500	13.4	0.016	19.7	11.3	0.014	18.0	12.7
395+00	394+35	TRAP b=80'	0.0005	26,700	13.4	0.016	19.7	11.3	0.014	17.9	12.9

a. Used to determine wall heights
b. Used to compute plotted water surface profile

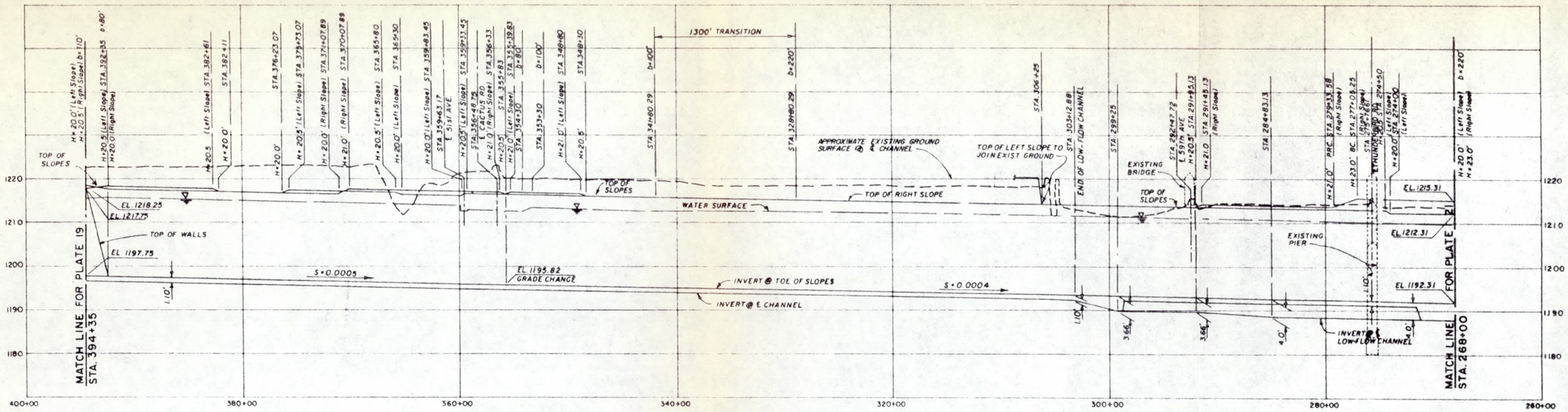
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

HYDRAULIC PLAN AND PROFILE
STA. 530+00 TO STA. 394+35

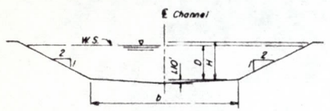
U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



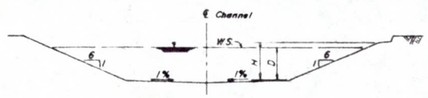
PROFILE

HORIZ. SCALE 500 0 500 1000 FEET

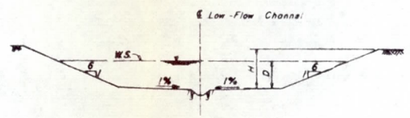
VERT. SCALE 10 0 10 20 30 FEET



TYPICAL SECTION
(STA. 392+35 TO STA. 341+80.29)
NOT TO SCALE



TYPICAL SECTION
(STA. 328+80.29 TO STA. 303+12.88)
NOT TO SCALE



TYPICAL SECTION
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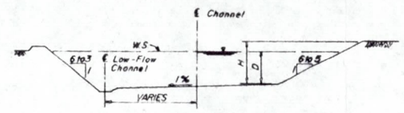
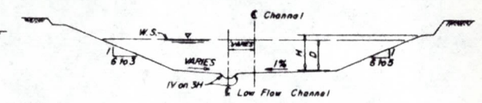
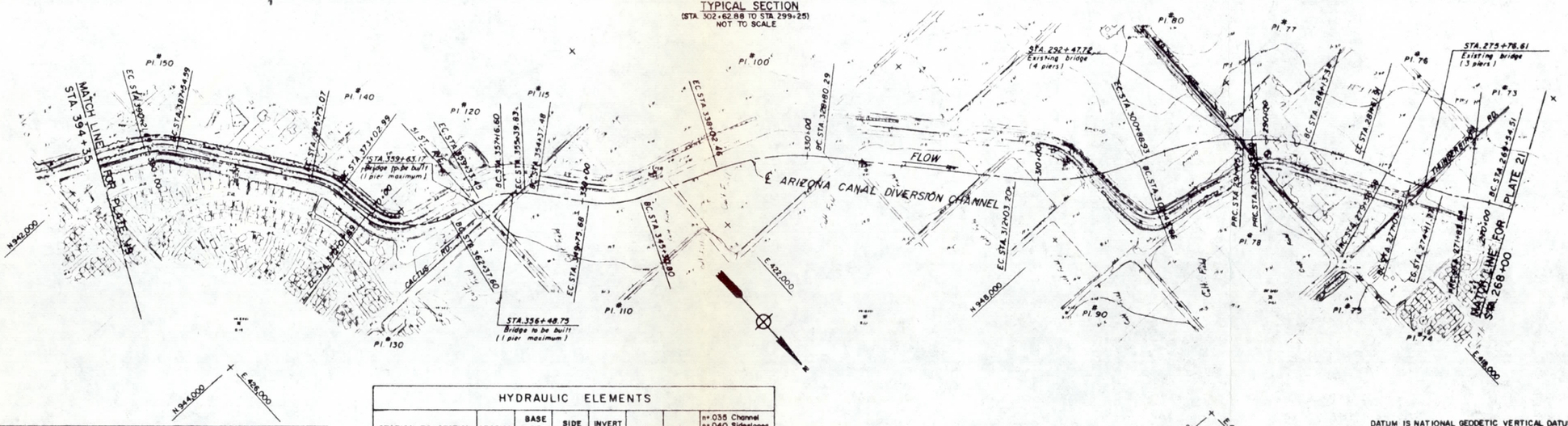
NOT TO SCALE



TYPICAL SECTION
(STA. 297+50 TO STA. 274+11.17)
NOT TO SCALE



TYPICAL SECTION
(STA. 274+11.17 TO STA. 257+81.85)
NOT TO SCALE



PLAN

SCALE 500 0 500 1000 FEET

HYDRAULIC ELEMENTS											
STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft)	k=.007 ft			k=.002 ft		
						n	d[a]	Vel	n	D[b]	Vel
394+35	359+98	TRAP b=80'	0.0005	26,700	13.4	0.016	19.7	11.3	0.014	17.9	12.9
359+98	355+83	TRAP b=80'	0.0005	27,000	13.7	0.016	19.2	11.9	0.014	16.5	14.7
355+83	354+30	TRAP b=80'	0.0004	27,000	13.5	0.016	19.3	11.8	0.014	16.6	14.3
354+30	353+30	TRANSITION	0.0004	27,000	12.8	0.016	19.5	10.7	0.014	17.0	12.9
353+30	345+02	TRAP b=100'	0.0004	27,000	12.1	0.016	19.8	9.7	0.014	17.5	11.4
345+02	341+80.29	TRAP b=100'	0.0004	27,300	12.2	0.016	19.8	9.9	0.014	17.3	11.7

a. Used to determine wall heights.
b. Used to compute plotted water surface profile

HYDRAULIC ELEMENTS										
STATION TO STATION		SECTION	BASE WIDTH (ft)	SIDE SLOPES	INVERT SLOPE	Q (cfs)	Dc (ft)	n=.035 Channel n=.040 Sideslopes	
								D (ft)	V (fps)
341+80.29	335+00	TRAP	VARIES 100 TO 162.7	VARIES from 2H to 1V on 40H	0.0004	27,300	10.7	17.5	8.68
335+00	332+80	TRAP	VARIES	VARIES	0.0004	27,300	9.2	17.6	6.45
332+80	328+80.29	TRAP	VARIES	VARIES	0.0004	27,400	8.1	17.7	5.04
328+80.29	315+00	TRAP	220	1V on 6H	0.0004	27,400	8.1	17.7	5.04
315+00	301+00	TRAP	220	1V on 6H	0.0004	27,500	8.1	17.6	5.09
301+00	291+95.13	TRAP	220	1V on 6H	0.0004	27,800	8.1	17.6	5.17
291+95.13	284+83.13	TRAP	220 to 255	WARPED	0.0004	27,800	7.8	18.0	5.20
284+83.13	271+00	TRAP	255	1V on 5H Right 1V on 5H Left	0.0004	27,800	7.7	17.5	5.18
271+00	270+00	TRAP	255	1V on 5H Right 1V on 5H Left	0.0004	27,900	7.7	17.5	5.21
270+00	268+00	TRAP	255	1V on 5H Right 1V on 5H Left	0.0004	27,900	7.7	17.5	5.22

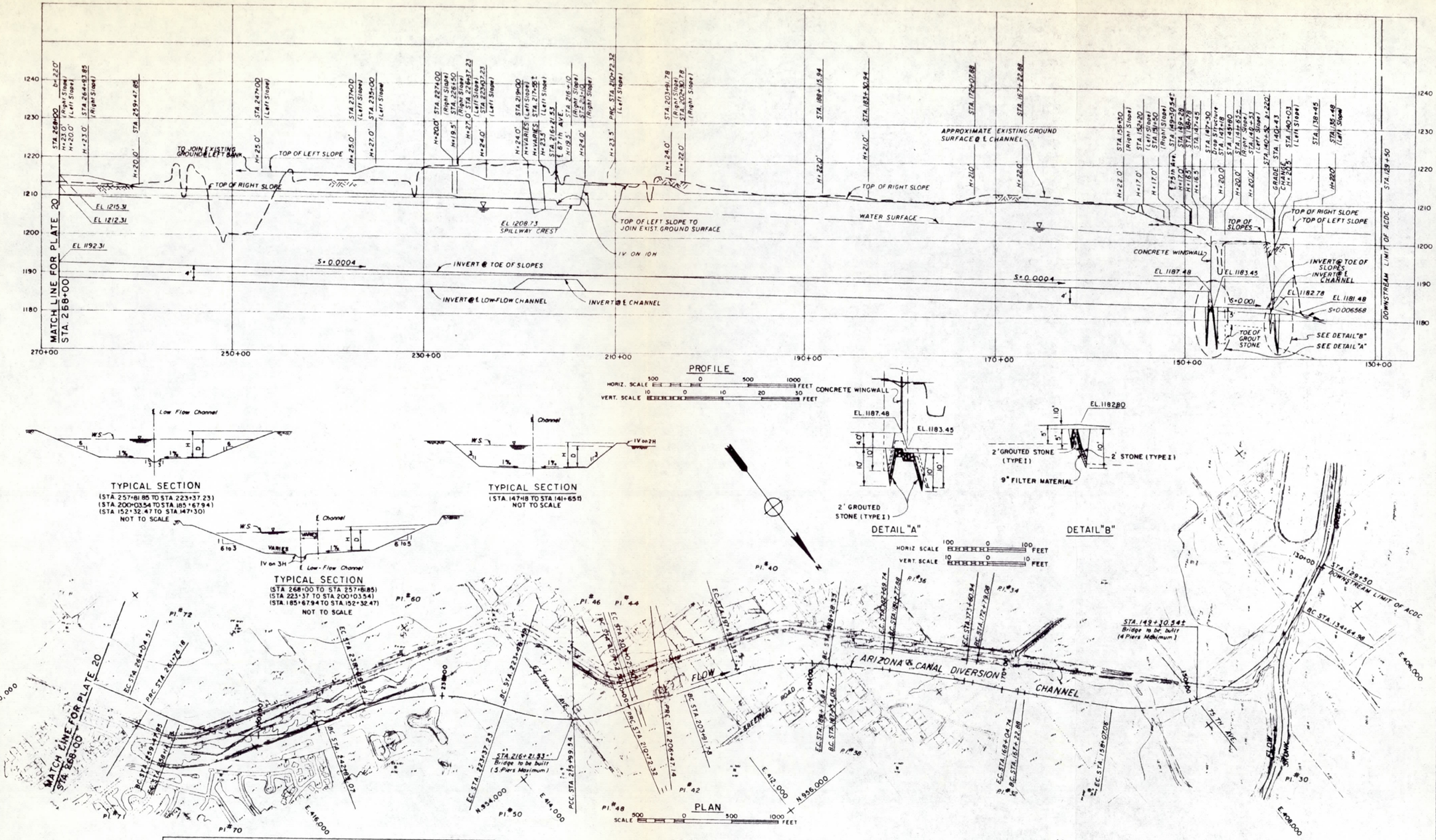
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

HYDRAULIC PLAN AND PROFILE
STA. 394+35 TO STA. 268+00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



HYDRAULIC ELEMENTS									
STATION TO STATION		SECTION	BASE WIDTH (ft)	SIDE SLOPES	INVERT SLOPE	Q (cfs)	Dc (ft)	n= .035 CHANNEL n= .040 SIDESLOPE	
								D (ft)	V (fps)
268+00	264+93.85	TRAP	225	1V on 3H R 1V on 3H L	0.0004	27,900	7.7	17.5	5.22
264+93.85	257+81.85	TRAP	255 to 220	WARPED	0.0004	27,900	8.0	17.4	5.26
257+81.85	256+00	TRAP	220	1V on 6H	0.0004	27,900	8.2	17.4	5.25
256+00	242+00	TRAP	220	1V on 6H	0.0004	28,100	8.2	17.3	5.32
242+00	240+00	TRAP	220	1V on 6H	0.0004	28,200	8.2	17.2	5.40
240+00	227+00	TRAP	220	1V on 6H	0.0004	28,200	8.2	17.1	5.44
227+00	215+99.54	TRAP	220	1V on 6H	0.0004	28,300	8.2	17.5	5.53
215+99.54	209+64	TRAP	220 to 254	WARPED	0.0004	28,300	8.1	16.8	5.74
209+64	208+01.54	TRAP	254	1V on 3H R WARPED L	0.0004	28,500	7.9	16.7	5.66
208+01.54	205+00	TRAP	254 to 250	1V on 3H R WARPED L	0.0004	28,500	7.8	16.7	5.64
205+00	203+91.78	TRAP	250 to 220	1V on 5H R WARPED L	0.0004	28,500	8.0	16.6	5.70

HYDRAULIC ELEMENTS									
STATION TO STATION		SECTION	BASE WIDTH (ft)	SIDE SLOPES	INVERT SLOPE	Q (cfs)	Dc (ft)	n= .035 CHANNEL n= .040 SIDESLOPE	
								D (ft)	V (fps)
203+91.78	200+03.54	TRAP	230 to 220	WARPED	0.0004	28,500	8.1	16.6	5.7
200+03.54	198+00	TRAP	220	1V on 6H	0.0004	28,500	8.3	16.5	5.8
198+00	183+00	TRAP	220	1V on 6H	0.0004	28,600	8.3	16.2	5.9
183+00	168+00	TRAP	220	1V on 6H	0.0004	28,700	8.3	15.7	6.2
168+00	154+00	TRAP	220	1V on 6H	0.0004	28,900	8.3	15.0	6.65
154+00	147+30	TRAP	220	1V on 6H	0.0004	29,000	8.4	14.2	7.23
147+30	147+18	TRAP	220	1V on 6H	0.3358	29,000	8.5	16.9	9.90
147+18	140+66	TRAP	220	1V on 3H	0.001	29,000	8.5	17.0	6.59
140+66	137+72	TRAP	VARIES	VARIES	VARIES	35,300	9.0	17.7	6.65
137+72	135+00	TRAP	VARIES	VARIES	VARIES	35,300	11.6	18.6	6.54

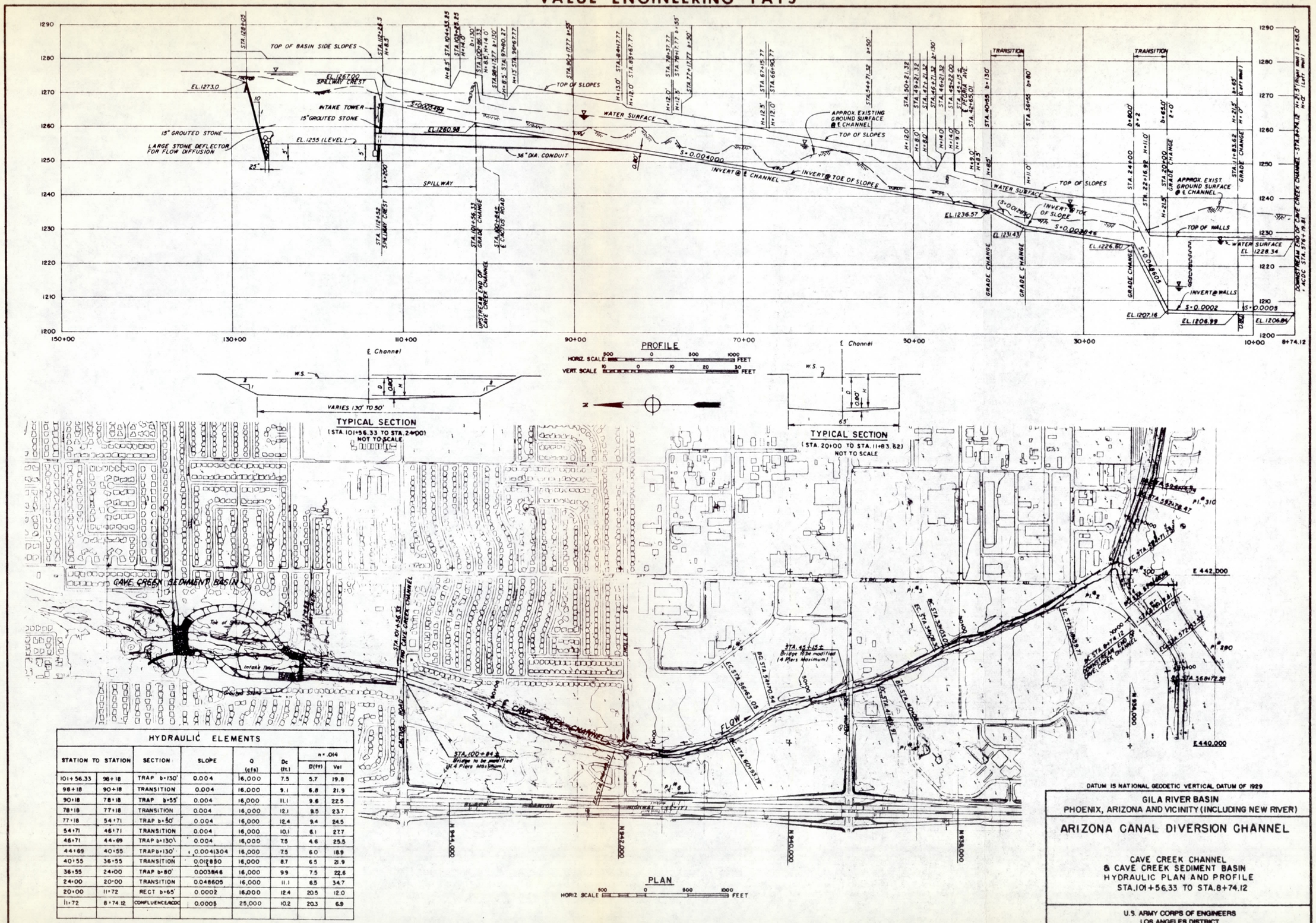
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

HYDRAULIC PLAN AND PROFILE
STA. 268+00 TO STA. 129+50

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



HYDRAULIC ELEMENTS

STATION TO STATION		SECTION	SLOPE	Q (cfs)	Dc (ft.)	n=.014 D(ft)	n=.014 Vel
101+56.33	98+18	TRAP b=130'	0.004	16,000	7.5	5.7	19.8
98+18	90+18	TRANSITION	0.004	16,000	9.1	6.8	21.9
90+18	78+18	TRAP b=55'	0.004	16,000	11.1	9.6	22.5
78+18	77+18	TRANSITION	0.004	16,000	12.1	9.5	23.7
77+18	54+71	TRAP b=50'	0.004	16,000	12.4	9.4	24.5
54+71	46+71	TRANSITION	0.004	16,000	10.1	8.1	27.7
46+71	44+69	TRAP b=130'	0.004	16,000	7.5	4.6	25.5
44+69	40+55	TRAP b=130'	0.0041304	16,000	7.5	6.0	18.9
40+55	36+55	TRANSITION	0.012850	16,000	8.7	6.5	21.9
36+55	24+00	TRAP b=80'	0.003846	16,000	9.9	7.5	22.6
24+00	20+00	TRANSITION	0.048605	16,000	11.1	6.5	34.7
20+00	11+72	RECT b=65'	0.0002	16,000	12.4	20.5	12.0
11+72	8+74.12	CONFLUENCE/ACDC	0.0005	25,000	10.2	20.3	6.9

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

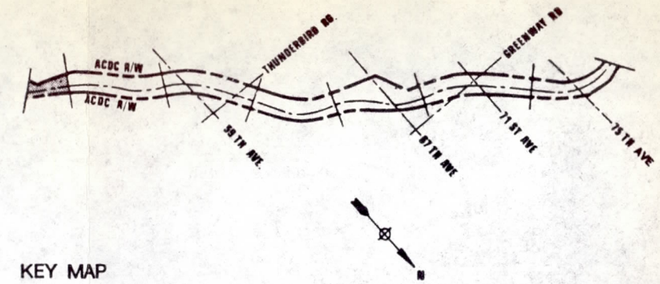
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

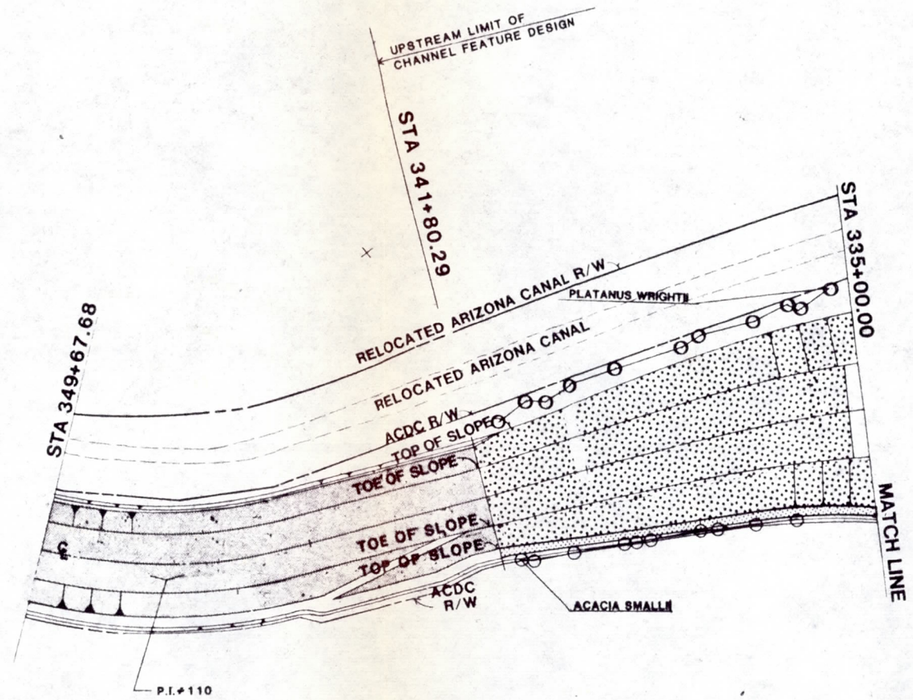
CAVE CREEK CHANNEL
& CAVE CREEK SEDIMENT BASIN
HYDRAULIC PLAN AND PROFILE
STA. 101+56.33 TO STA. 8+74.12

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

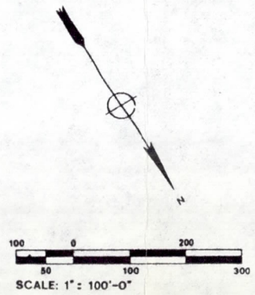
PLANT LIST	QUANTITY
ACACIA SMALLII	10
PLATANUS WRIGHTII	11



KEY MAP



NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 3.



DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

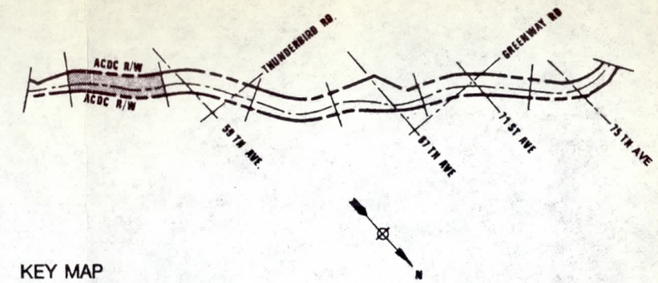
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

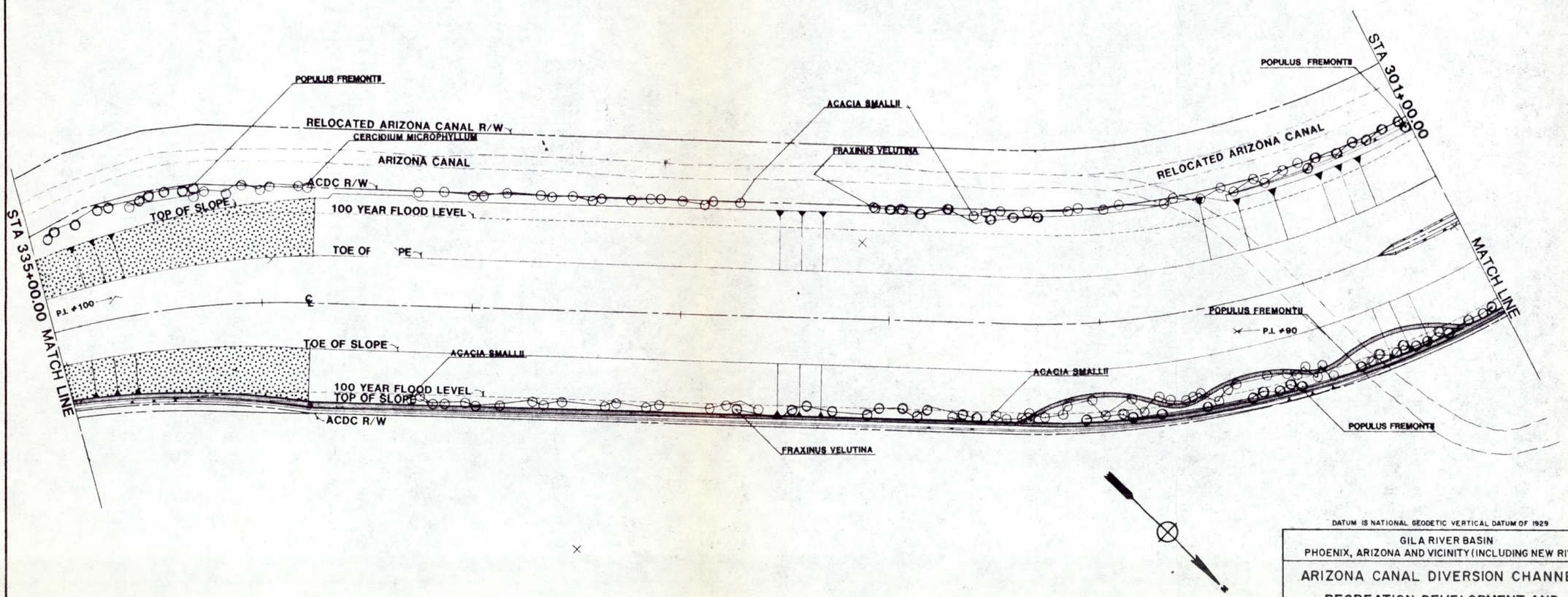
PLANTING PLAN STA 341+80.29-335+00.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLANT LIST	QUANTITY
ACACIA SMALLII	78
CERCIDIUM MICROPHYLLUM	9
FRAXINUS VELUTINA	19
POPULUS FREMONTII	40



KEY MAP



NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 4.

100 0 200
50 100 300
SCALE: 1" = 100'-0"

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

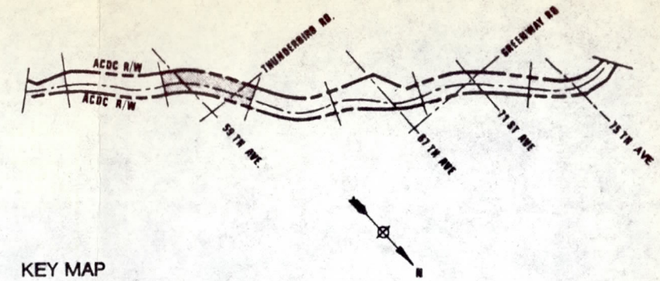
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

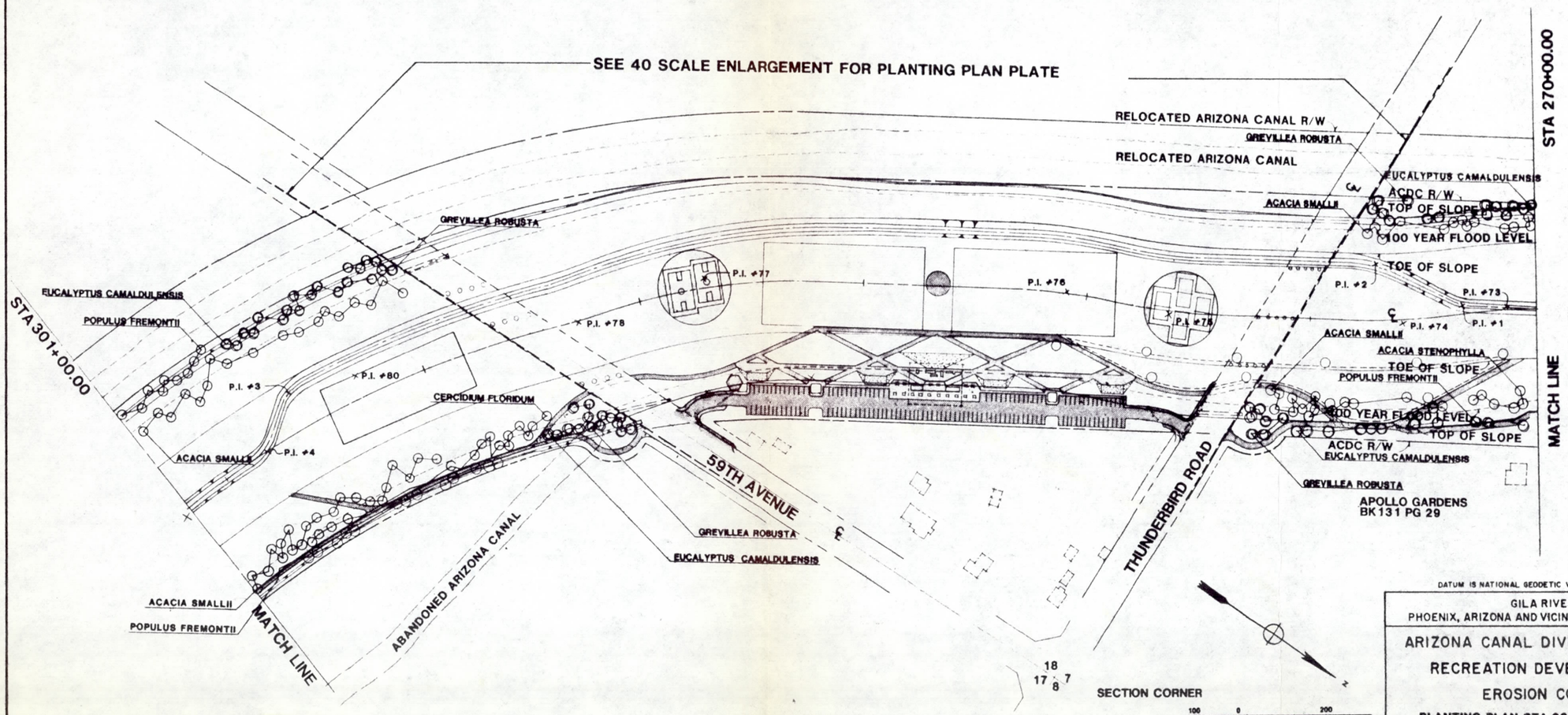
PLANTING PLAN STA 335+00.00–301+00.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLANT LIST	QUANTITY
ACACIA SMALLII	67
ACACIA STENOPHYLLA	6
CERCIDIUM FLORIDUM	22
EUCALYPTUS CAMALDULENSIS	31
GREVILLEA ROBUSTA	18
POPULUS FREMONTII	25



KEY MAP



NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 5.

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

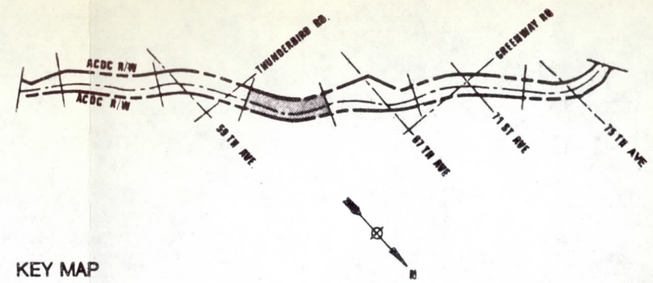
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

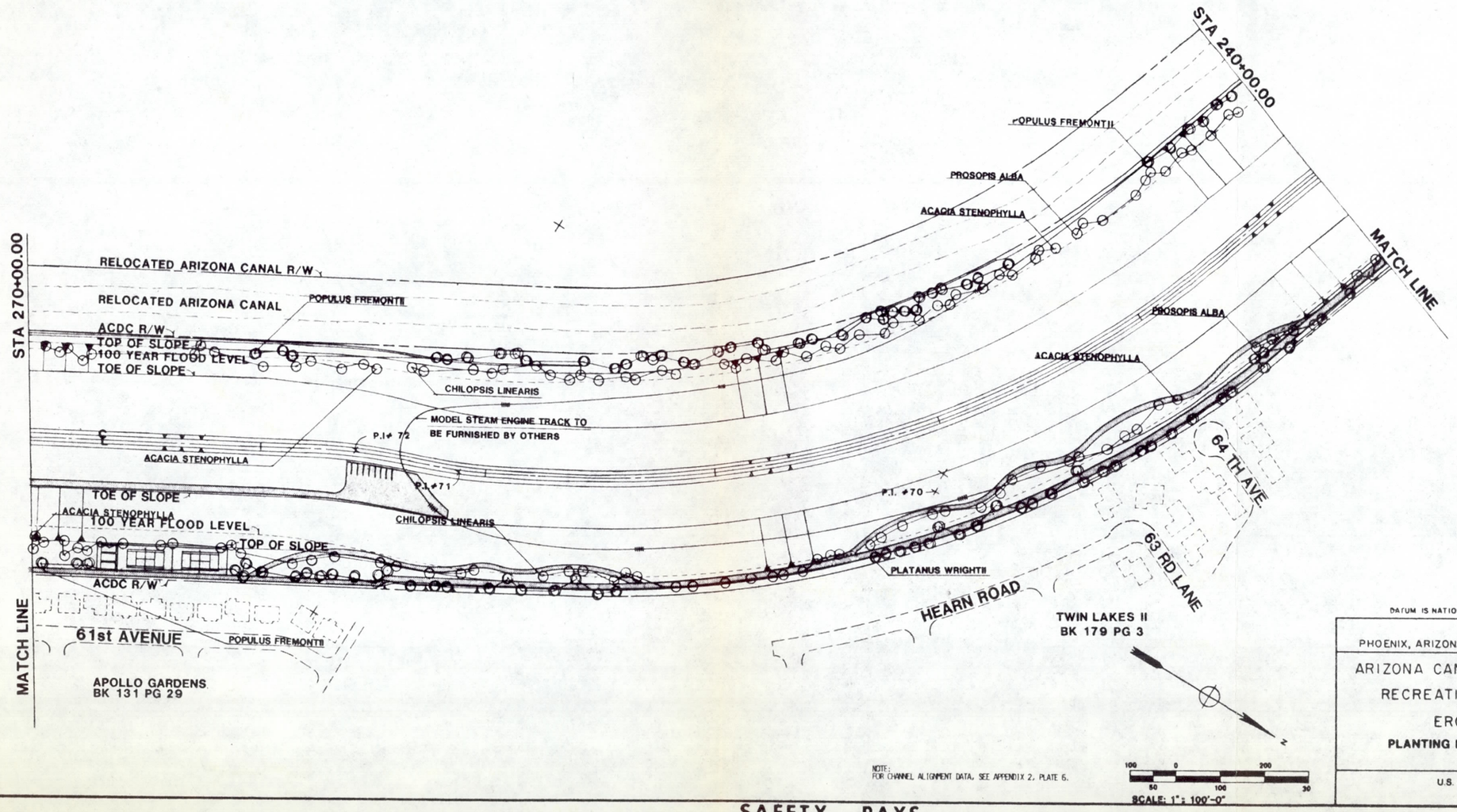
PLANTING PLAN STA 301+00.00 270+00.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLANT LIST	QUANTITY
ACACIA STENOPHYLLA	73
CHILOPSIS LINEARIS	30
PLATANUS WRIGHTII	26
POPULUS FREMONTII	64
PROSOPIS ALBA	21



KEY MAP



NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 6.

100 0 200
50 100 300
SCALE: 1" = 100'-0"

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

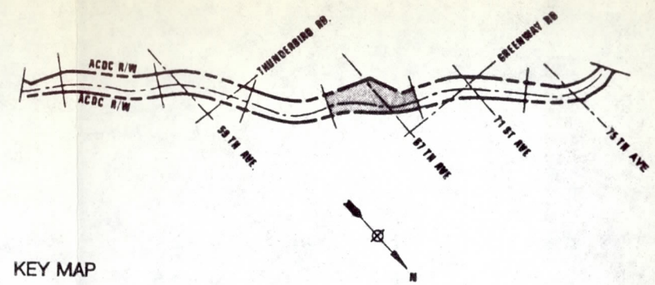
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

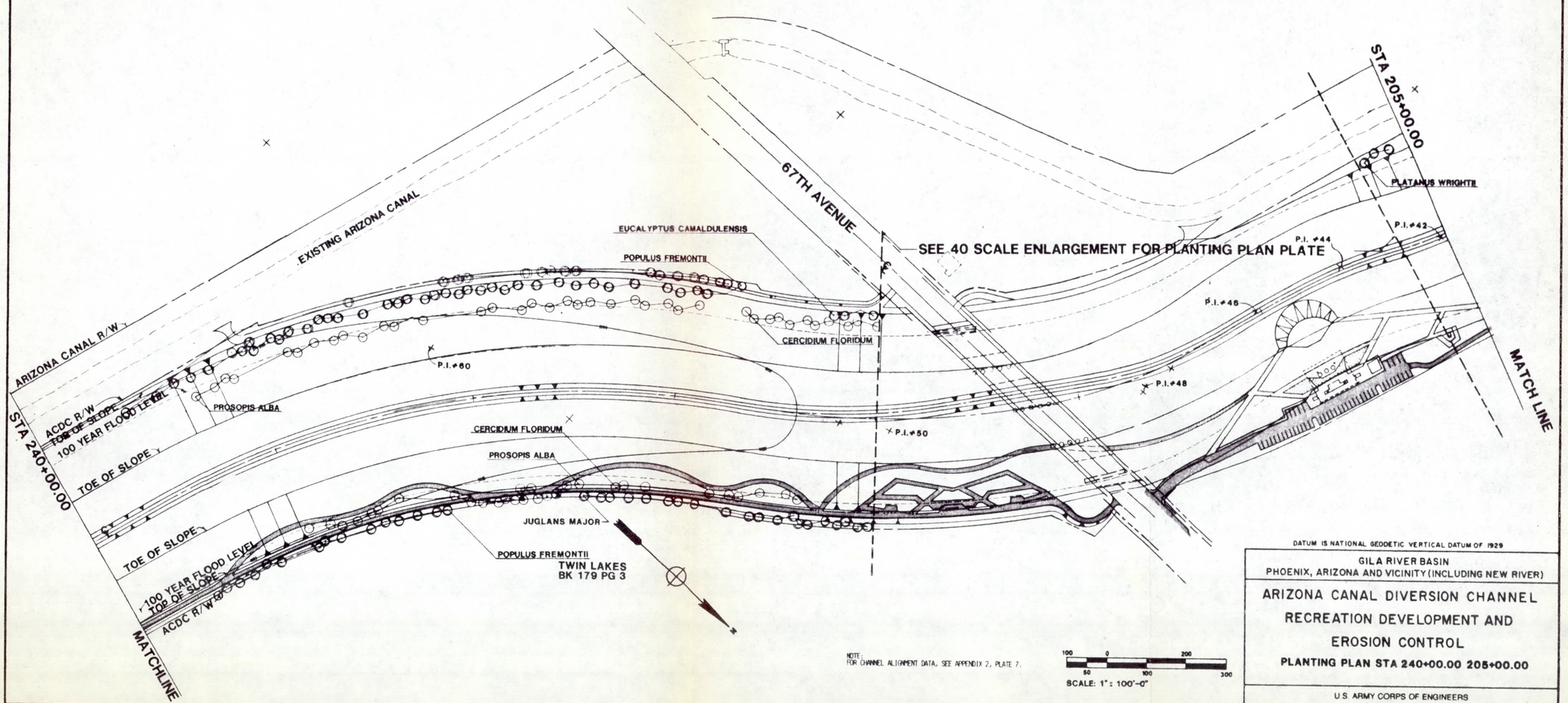
PLANTING PLAN 270+00.00 - 240+00.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLANT LIST	QUANTITY
CERCIDIUM FLORIDUM	20
EUCALYPTUS CAMALDULENSIS	3
JUGLANS MAJOR	20
PLATANUS WRIGHTII	3
POPULUS FREMONTII	71
PROSOPIS ALBA	48



KEY MAP



DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

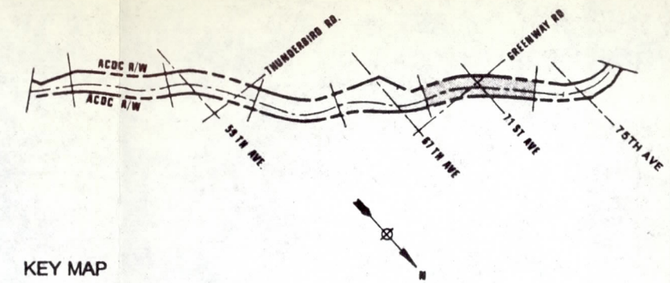
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

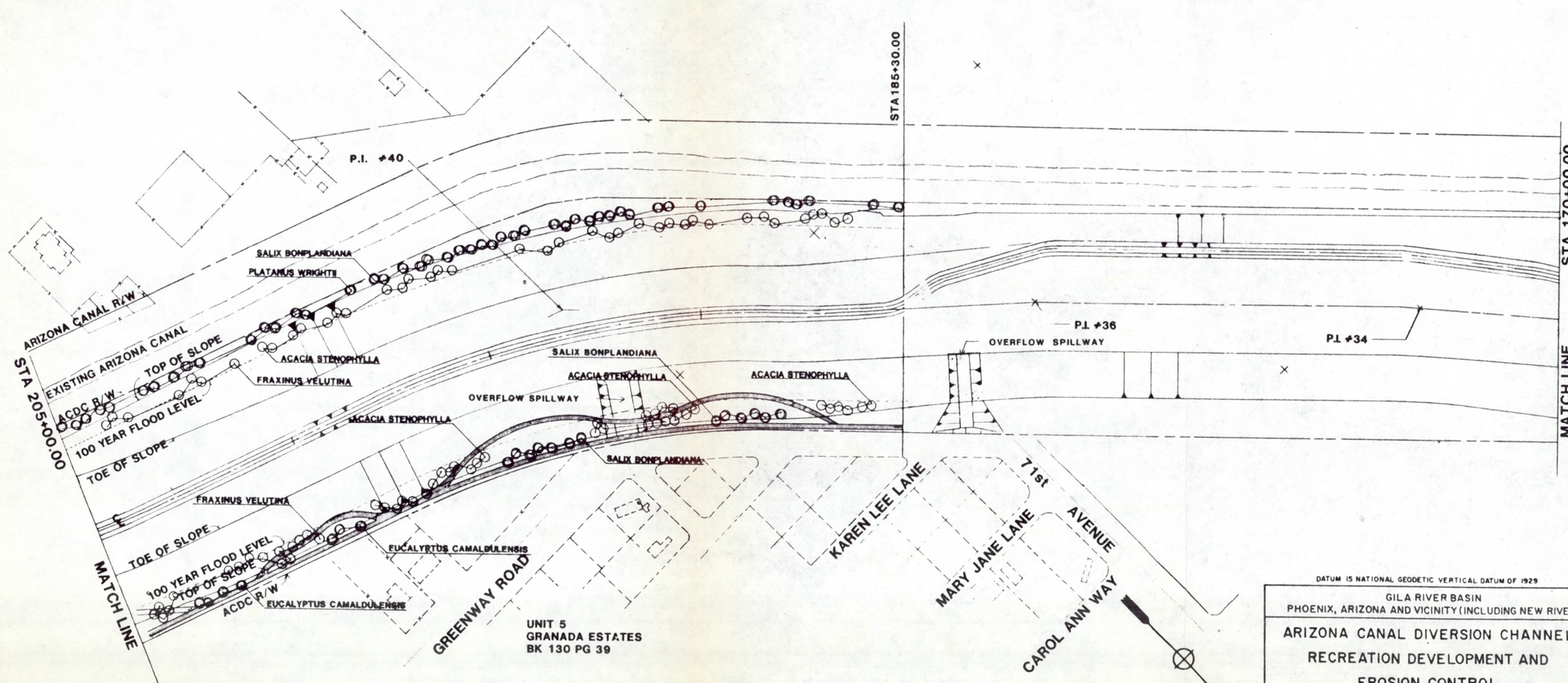
PLANTING PLAN STA 240+00.00 205+00.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLANT LIST	QUANTITY
ACACIA STENOPHYLLA	66
EUCALYPTUS CAMALDULENSIS	7
FRAXINUS VELUTINA	23
PARKINSONIA ACULEATA	0
PLATANUS WRIGHTII	16
SALIX BONPLANDIANA	43



KEY MAP



NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 6

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

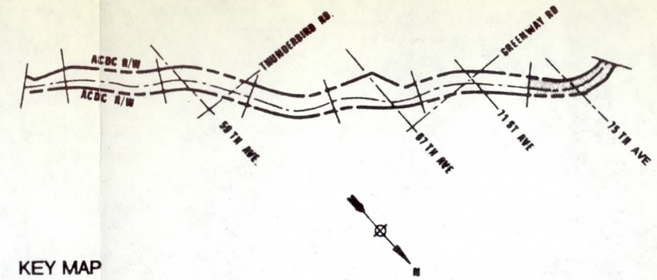
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

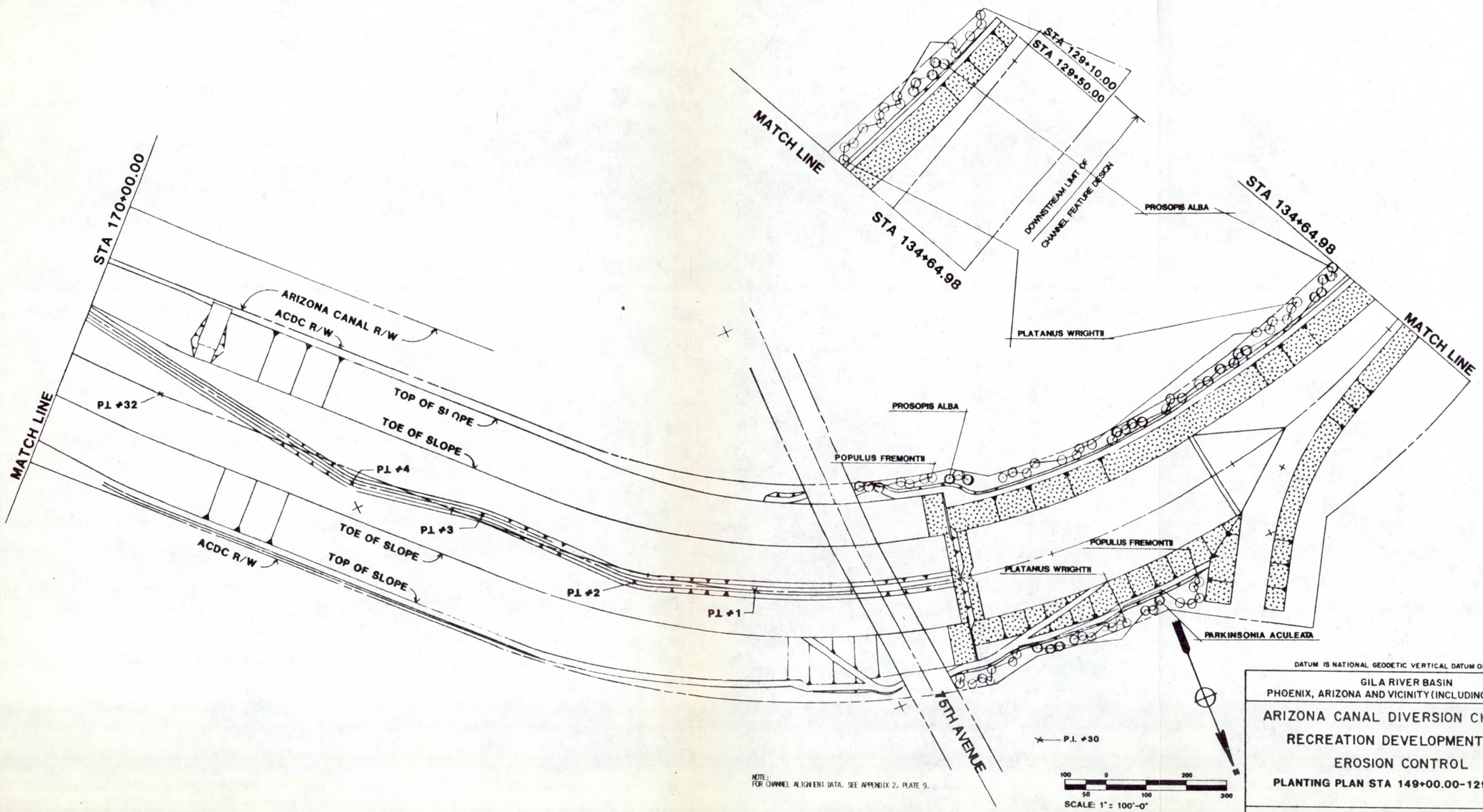
PLANTING PLAN STA 205+00.00 - 185+30.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

PLANT LIST	QUANTITY
PARKINSONIA ACULEATA	4
PLATANUS WRIGHTII	21
POPULUS FREMONTII	20
PROSOPIS ALBA	22



KEY MAP



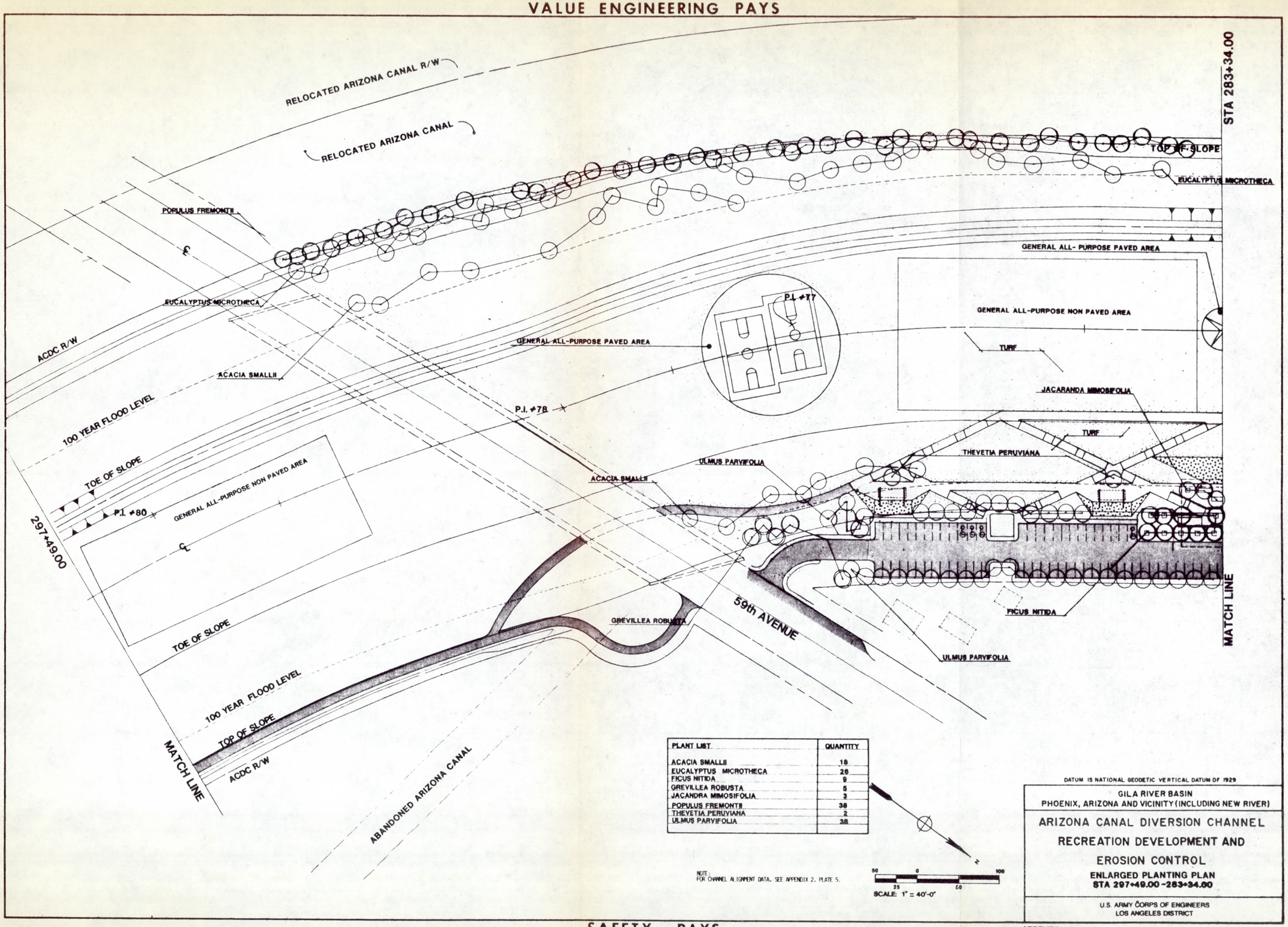
NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 9.

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

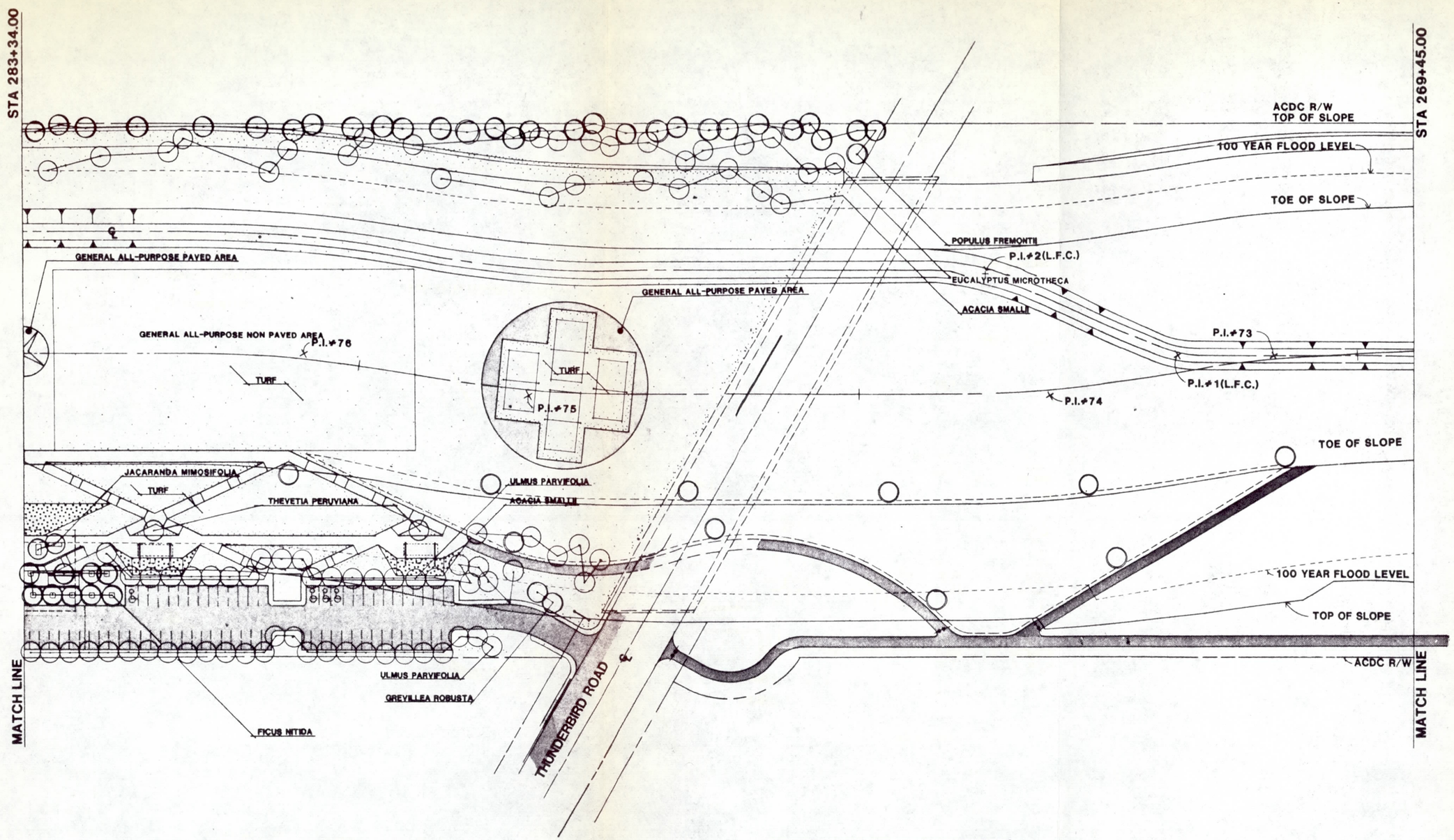
GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL
PLANTING PLAN STA 149+00.00-129+50.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



PLANT LIST	QUANTITY
ACACIA SMALLII	18
EUCALYPTUS MICROTHECA	26
FICUS NITIDA	9
GREVILLEA ROBUSTA	5
JACANDRA MIMOSIFOLIA	3
POPULUS FREMONTII	38
THEVETIA PERUVIANA	2
ULMUS PARVIFOLIA	38



PLANT LIST	QUANTITY
ACACIA SMALLII	14
EUCALYPTUS MICROTHECA	20
FICUS NITIDA	9
GREVILLEA ROBUSTA	2
JACARANDA MIMOSIFOLIA	2
POPULUS FREMONTII	30
THEVETIA PERUVIANA	2
ULMUS PARVIFOLIA	50

NOTE:
FOR CHANNEL ALIGNMENT DATA, SEE APPENDIX 2, PLATE 5.

50 0 100
25 50
SCALE: 1" = 40'-0"

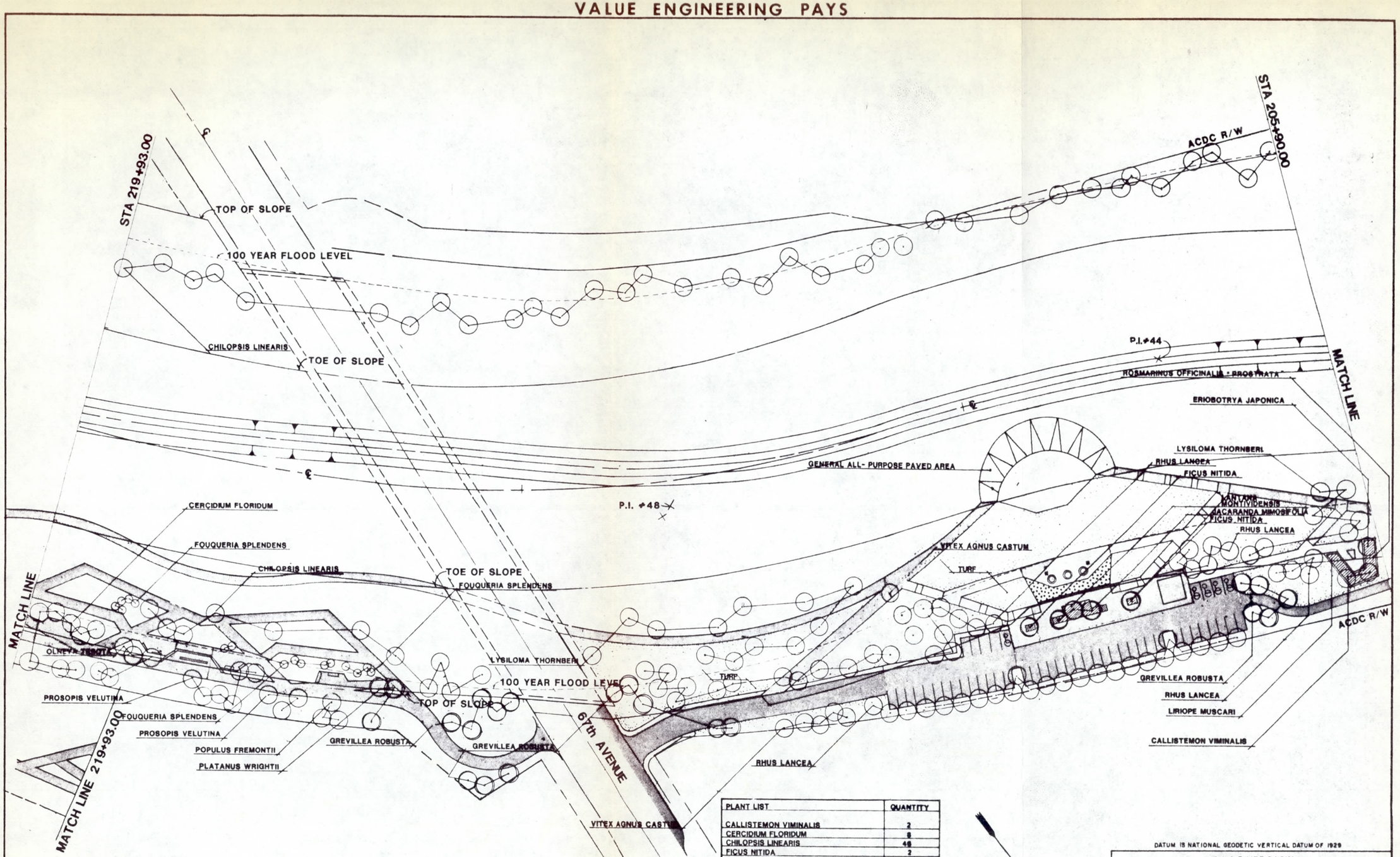
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

ENLARGED PLANTING PLAN
STA 283+34.00-269+45.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



PLANT LIST	QUANTITY
CALLISTEMON VIMINALIS	2
CERCIDIUM FLORIDUM	8
CHILOPSIS LINEARIS	49
FICUS NITIDA	2
FOQUERIA SPLENDENS	18
GREVILLEA ROBUSTA	18
JACARANDA MIMOSIFOLIA	3
LANTANA MONTIVIDENSIS	
LIRIOPE MUSCARI	
LYSILOMA THORNBERI	19
OLNEYA TESOTA	6
PLATANUS WRIGHTII	3
POPULUS FREMONTII	3
PROSOPIS VELUTINA	8
RHUS LANCEA	36
VITEX AGNUS CASTUM	21
ERIOBOTRYA JAPONICA	1

NOTE:
FOR CHANNEL ALIGNMENT DATA SEE APPENDIX 2, PLATE 7.

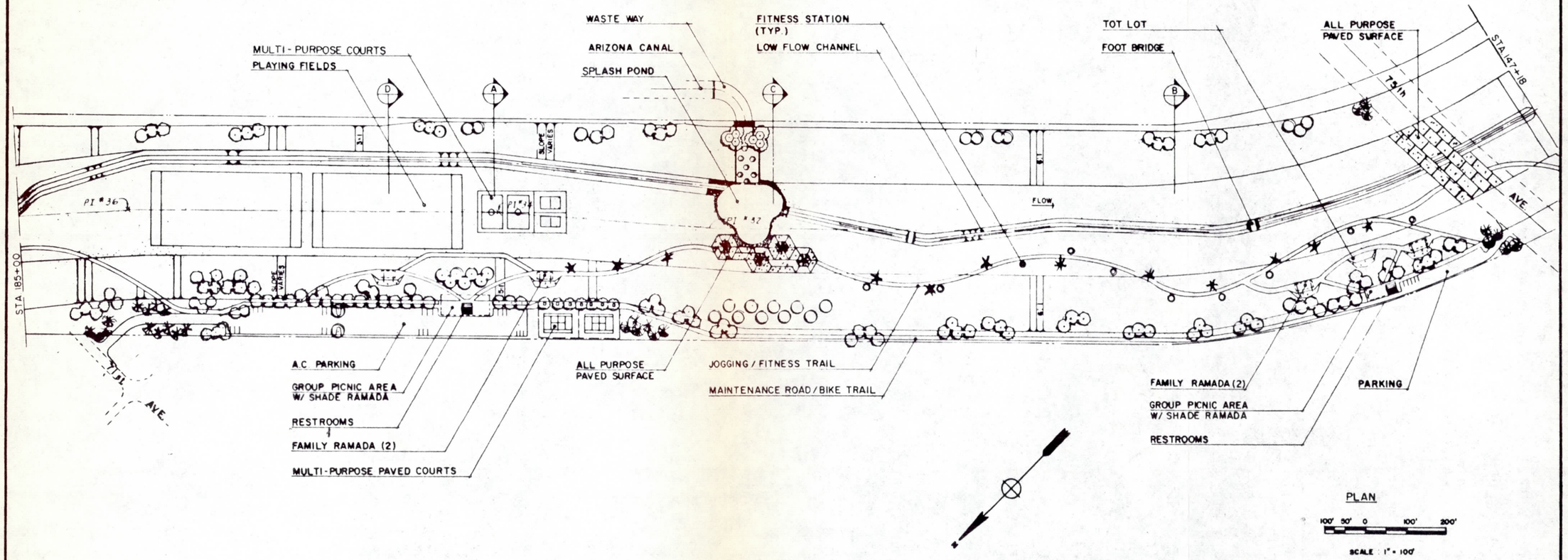
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL
RECREATION DEVELOPMENT AND
EROSION CONTROL

ENLARGED PLANTING PLAN
STA 219+93.00-205+90.00

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



THIS PLATE REFLECTS MASTER PLAN LEVEL DESIGN. FEATURE DESIGN LEVEL DETAIL WILL BE PRESENTED IN A SUBSEQUENT RECREATION DESIGN MEMORANDUM

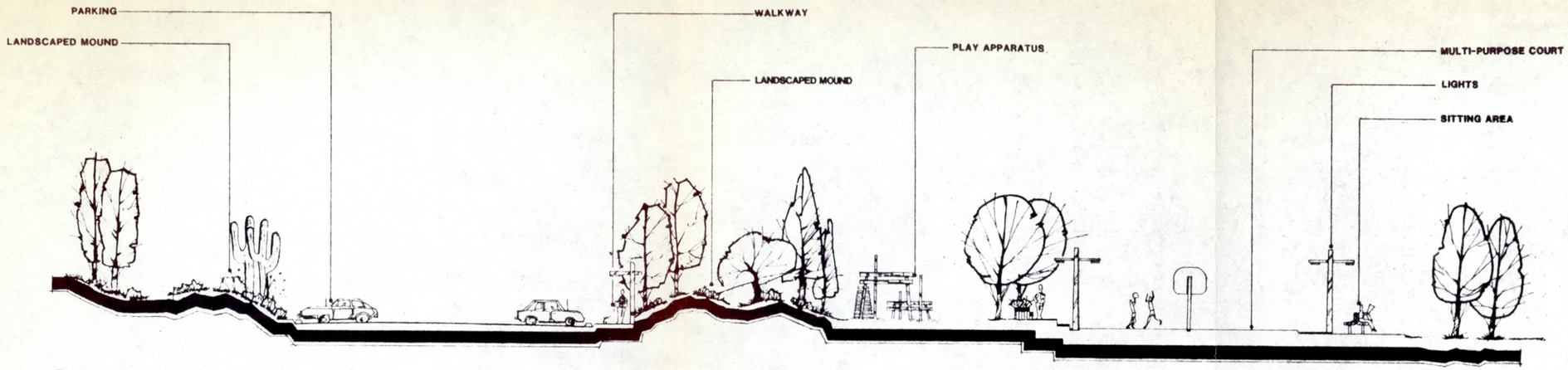
DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

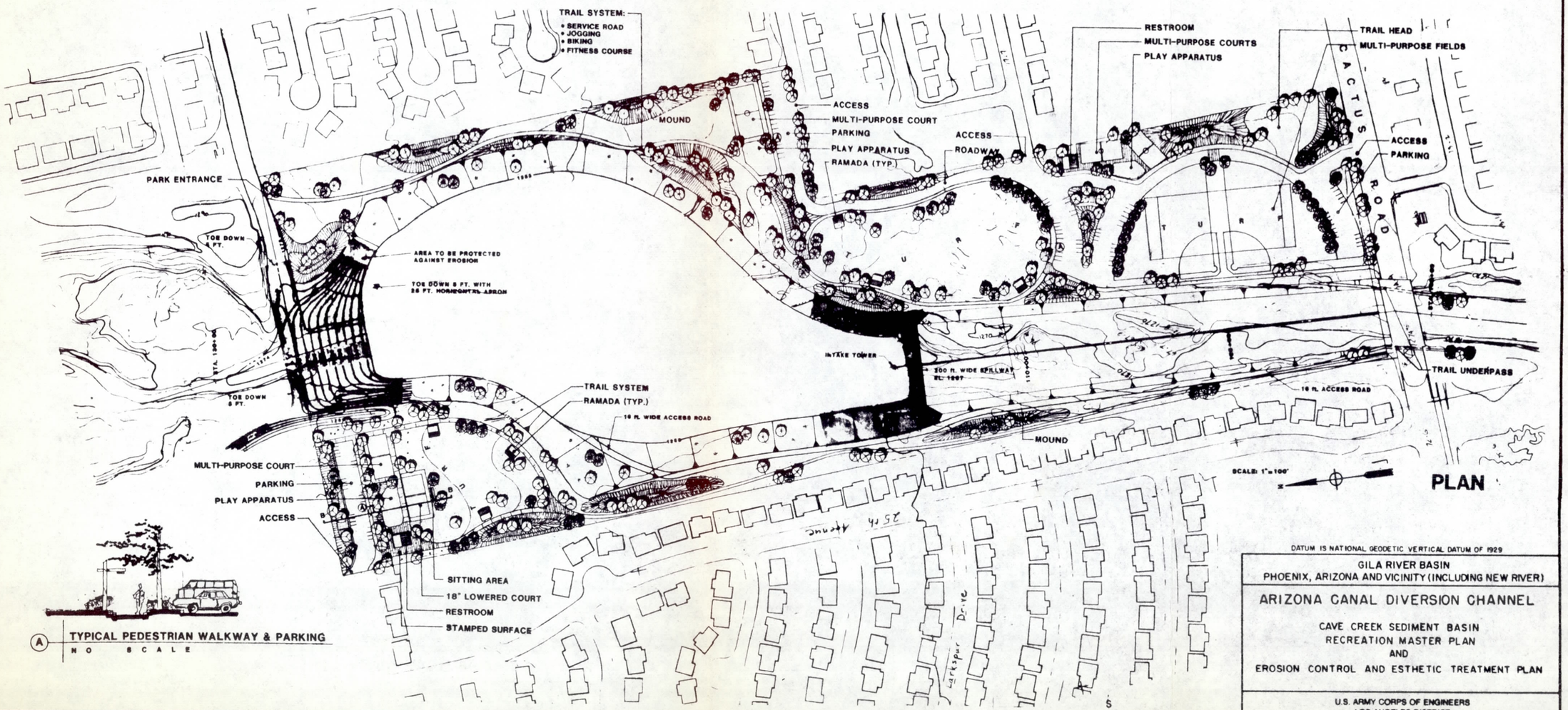
ARIZONA CANAL DIVERSION CHANNEL

CITY OF PEORIA REACH
RECREATION MASTER PLAN
AND
EROSION CONTROL AND ESTHETIC TREATMENT PLAN

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT



B-B SECTION / ELEVATION • SCALE: 1" = 10'



(A) TYPICAL PEDESTRIAN WALKWAY & PARKING
NO SCALE

DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929

GILA RIVER BASIN
PHOENIX, ARIZONA AND VICINITY (INCLUDING NEW RIVER)

ARIZONA CANAL DIVERSION CHANNEL

CAVE CREEK SEDIMENT BASIN
RECREATION MASTER PLAN
AND
EROSION CONTROL AND ESTHETIC TREATMENT PLAN

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT