FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PHOENIX, ARIZONA

FOUNTAIN HILLS AREA DRAINAGE MASTER PLAN FCD 94-16

RECONNAISSANCE STUDY
and
ALTERNATIVE EVALUATION

for

GOLDEN EAGLE PARK DAM

INTERIM REPORT

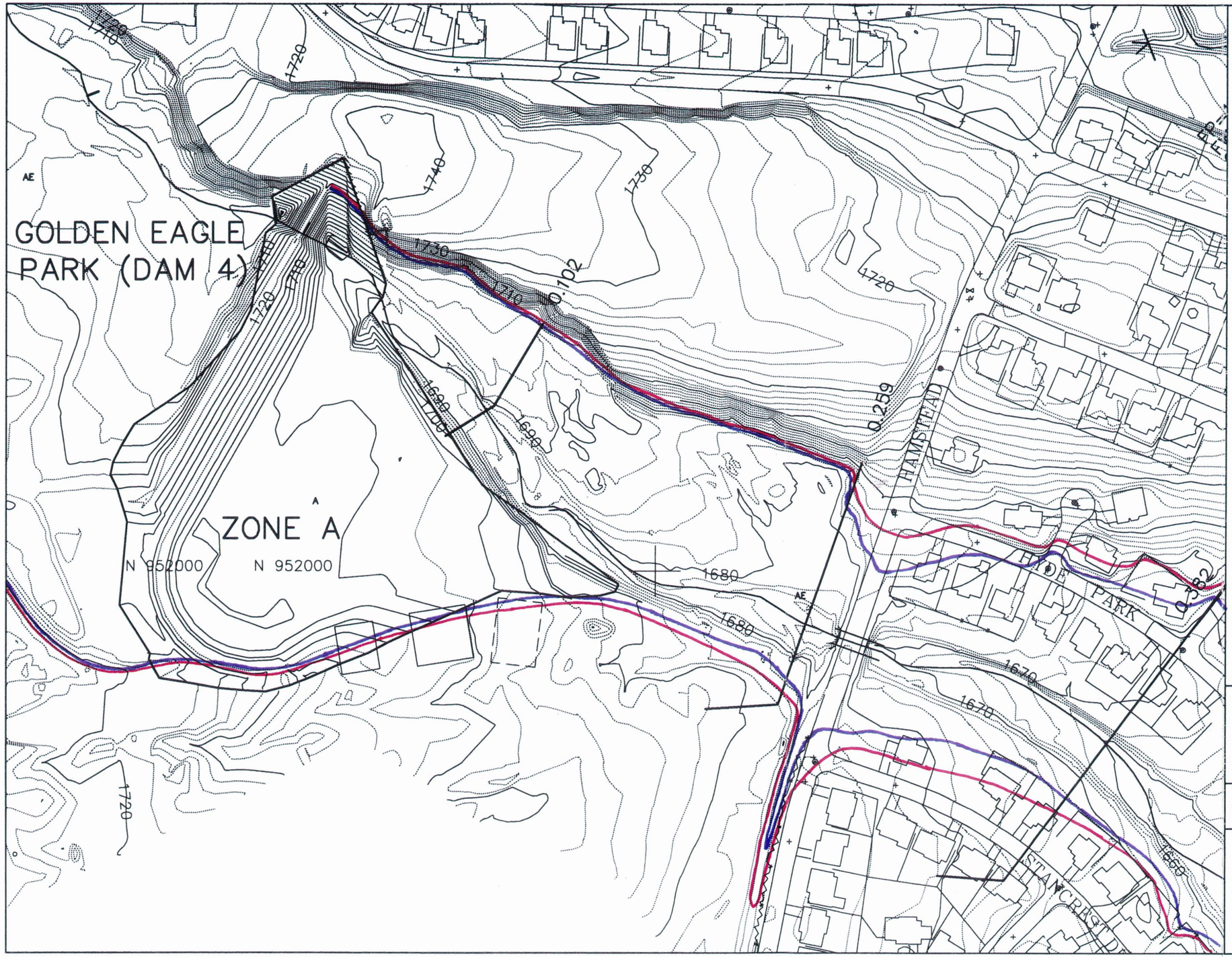
PLATES

George V. Sabol Consulting Engineers, Inc.
Scottsdale, Arizona

NOVEMBER 1996

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP

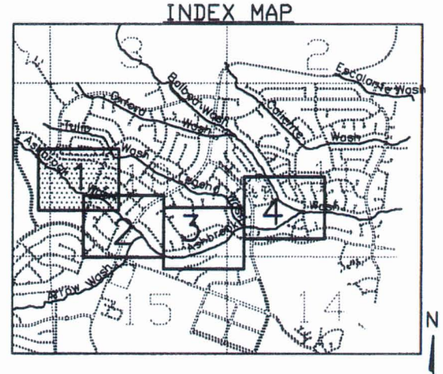
F.C.D. CONTRACT NO. 94–16



LEGEND

- HYDRAULIC BASE LINE & RIVER MILE — 2.0
- 26% PMF INUNDATION (NO DAM FAILURE)
- 26% PMF INUNDATION (WITH DAM FAILURE)
- CROSS SECTION — 0.102

INDEX MAP



SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 1

INUNDATION MAP FOR
"DO–NOTHING" ALTERNATIVE

ALTERNATIVE NO. 1

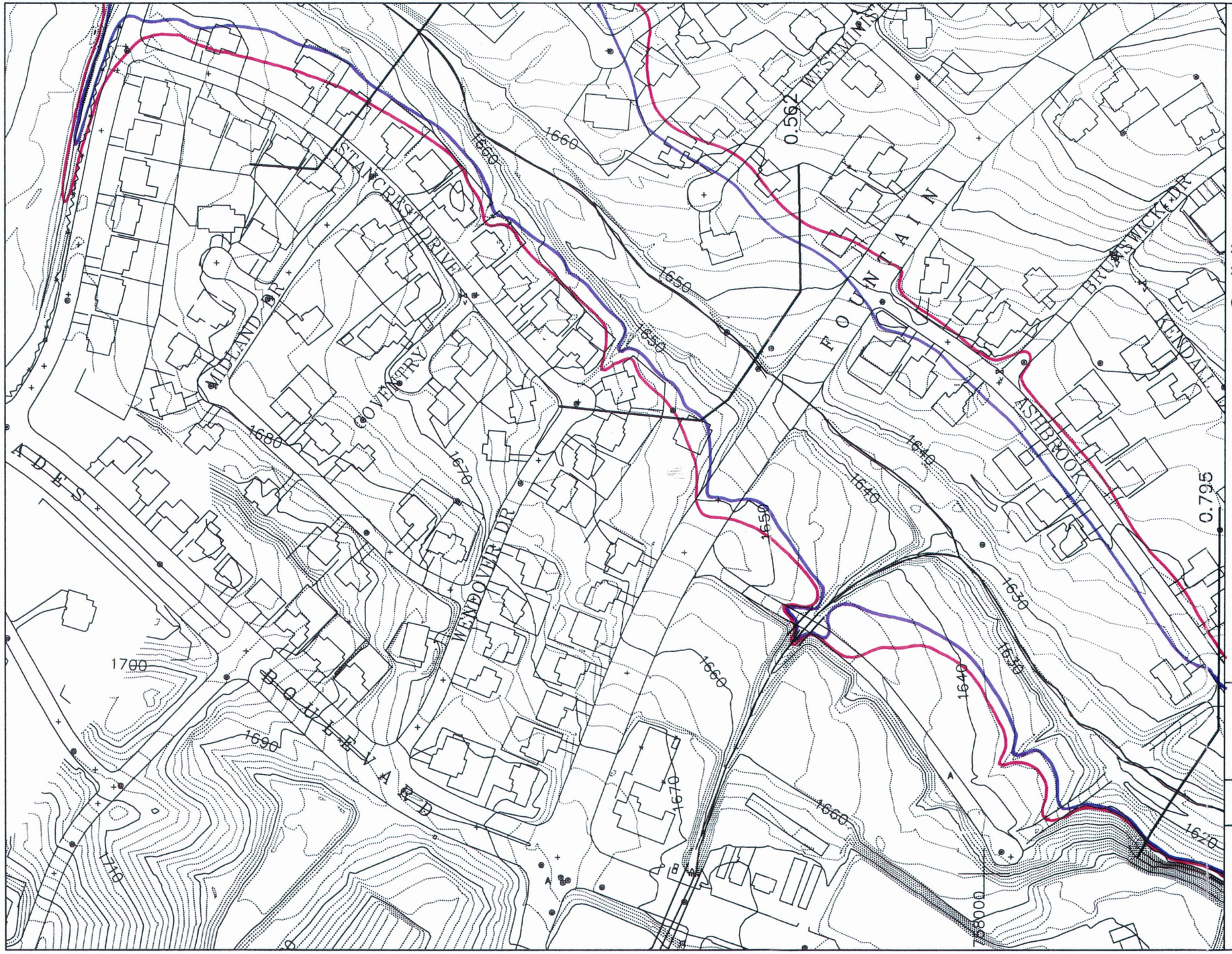
George V. Sabol Consulting Engineers, Inc.

ANALYSIS	BY	CCC/DTP
DRAFTING		LKF/MCG
REVIEW		GVS
SHEET 1 OF 4		

TOPOGRAPHY MAP– KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP

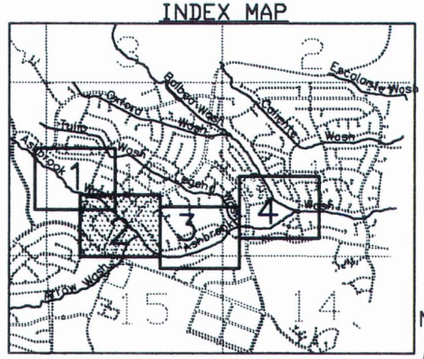
F.C.D. CONTRACT NO. 94-16



LEGEND

- HYDRAULIC BASE LINE & RIVER MILE — 2.0
- 26% PMF INUNDATION (NO DAM FAILURE)
- 26% PMF INUNDATION (WITH DAM FAILURE)
- CROSS SECTION — 0.102

INDEX MAP



SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 1

INUNDATION MAP FOR
"DO-NOTHING" ALTERNATIVE

ALTERNATIVE NO. 1

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 2 OF 4	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FOUNTAIN HILLS ADMP

F.C.D. CONTRACT NO. 94-16

LEGEND

HYDRAULIC BASE LINE & RIVER MILE	2.0
26% PMF INUNDATION (NO DAM FAILURE)	
26% PMF INUNDATION (WITH DAM FAILURE)	
CROSS SECTION	0.102

INDEX MAP

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 1

INUNDATION MAP FOR "DO-NOTHING" ALTERNATIVE

ALTERNATIVE NO. 1

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET	3 OF 4

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

LEGEND

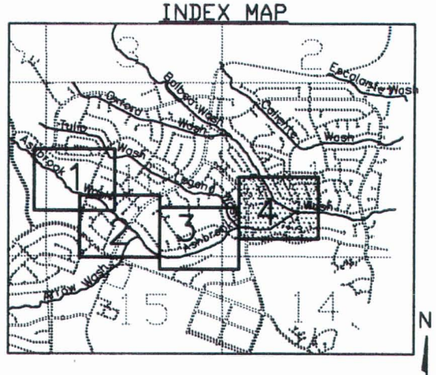
HYDRAULIC BASE LINE & RIVER MILE — 2.0

26% PMF INUNDATION (NO DAM FAILURE)

26% PMF INUNDATION (WITH DAM FAILURE)

CROSS SECTION — 0.102

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 1
INUNDATION MAP FOR
"DO-NOTHING" ALTERNATIVE

ALTERNATIVE NO. 1

George V. Sabol Consulting Engineers, Inc.

ANALYSIS	BY CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 4 OF 4	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

GOLDEN EAGLE PARK (DAM 4)

ZONE A

FP=1693.18
Q=970

FP=1689.08
Q=970

FP=1682.15
Q=970

FP=1678.86
Q=970

FP=1678.39
Q=970

FP=1674.04
Q=970

FP=1669.49
Q=970

FP=1662.91
Q=970

N 952000

N 952000

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

LEGEND

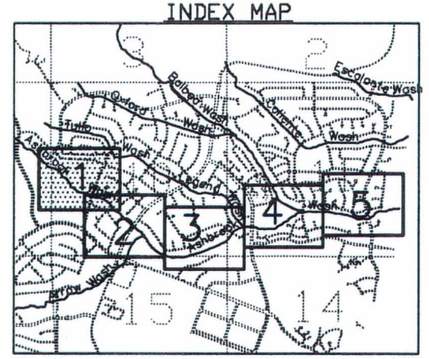
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM)

CROSS SECTION — FP=1678.86 / Q=970 — 5.519

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

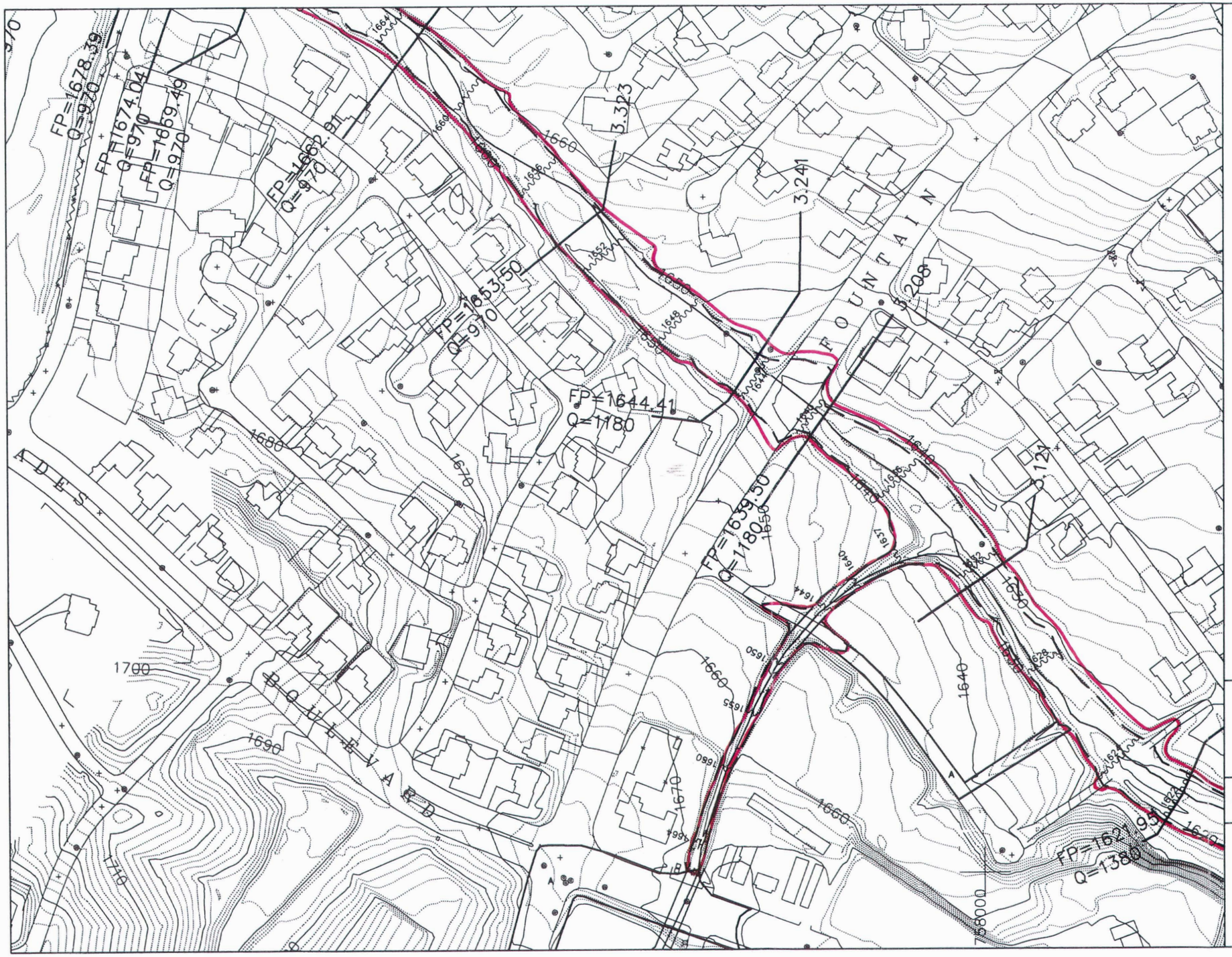
PLATE 2
INUNDATION MAP FOR EXISTING CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS

SHEET 1 OF 5

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

LEGEND

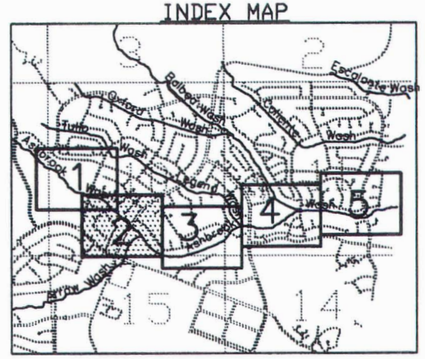
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM)

CROSS SECTION — FP=1678.86 / Q=970 — 5.519

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 2
INUNDATION MAP FOR EXISTING CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 2 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FOUNTAIN HILLS ADMP

F.C.D. CONTRACT NO. 94–16

LEGEND

HYDRAULIC BASE LINE & RIVER MILE — 2.0

100–YR INUNDATION (NO DAM)

100–YR INUNDATION (WITH DAM)

CROSS SECTION — FP=1678.86 / Q=970 — 5.519

INDEX MAP

N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 2

INUNDATION MAP FOR EXISTING CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 3 OF 5	

TOPOGRAPHY MAP– KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

LEGEND

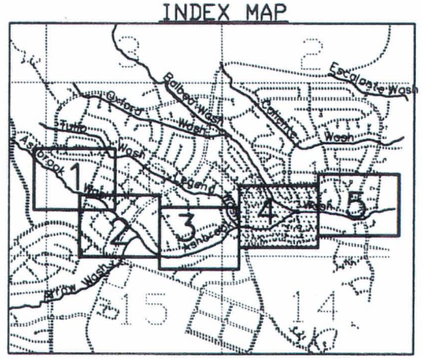
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM)

CROSS SECTION — FP=1678.86 / Q=970 — 5.519

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 2
INUNDATION MAP FOR EXISTING CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

ANALYSIS	BY CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 4 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP

F.C.D. CONTRACT NO. 94-16

LEGEND

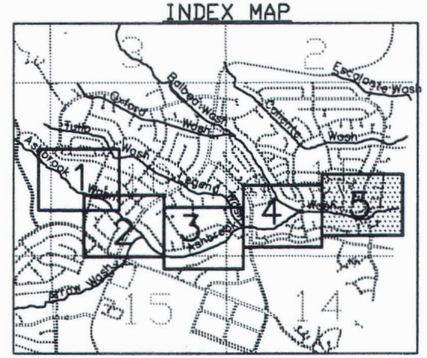
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM)

CROSS SECTION — FP=1678.86 / Q=970 — 5.519

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 2

INUNDATION MAP FOR EXISTING CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 5 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

GOLDEN EAGLE PARK (DAM 4)

ZONE A

N 952000

FP=1693.18
Q=970

FP=1689.08
Q=970

FP=1682.15
Q=970

FP=1678.86
Q=970

FP=1678.39
Q=970

FP=1674.04
Q=970

FP=1669.49
Q=970

FP=1662.91
Q=970

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

LEGEND

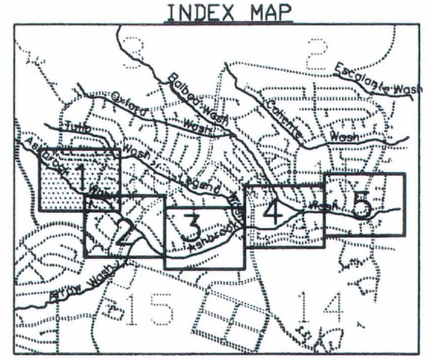
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM, EXISTING)

CROSS SECTION FP=1678.86 Q=970 5.519

INDEX MAP



N

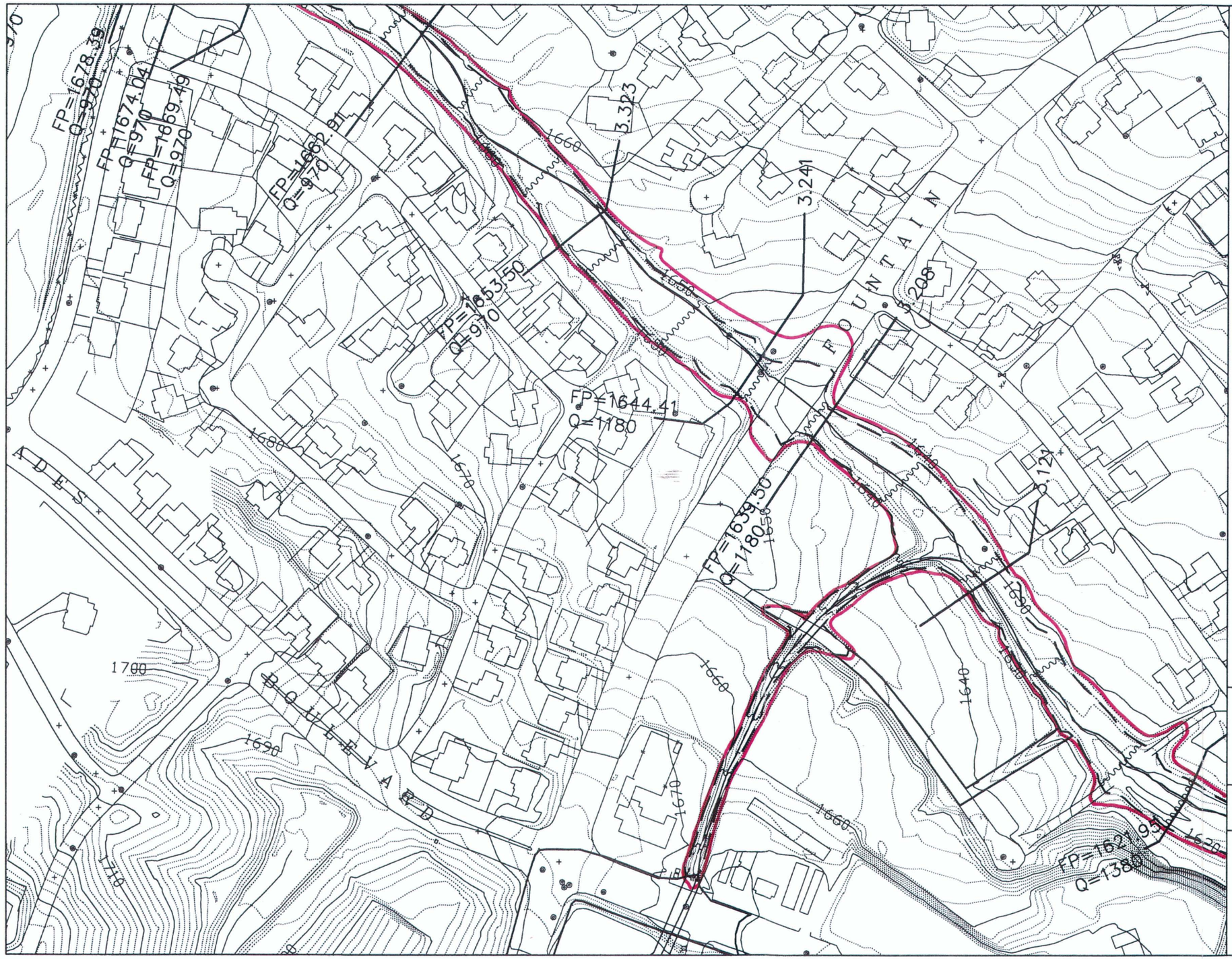
SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 3
INUNDATION MAP FOR FUTURE CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

ANALYSIS	BY CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 1 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY PHOTOGRAPHY 29 AUG. 91



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP

F.C.D. CONTRACT NO. 94-16

LEGEND

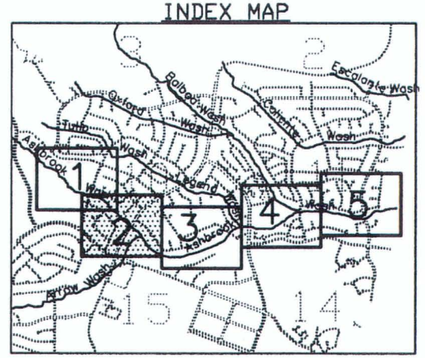
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM, EXISTING)

CROSS SECTION FP=1678.86 / Q=970 — 5.519

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 3

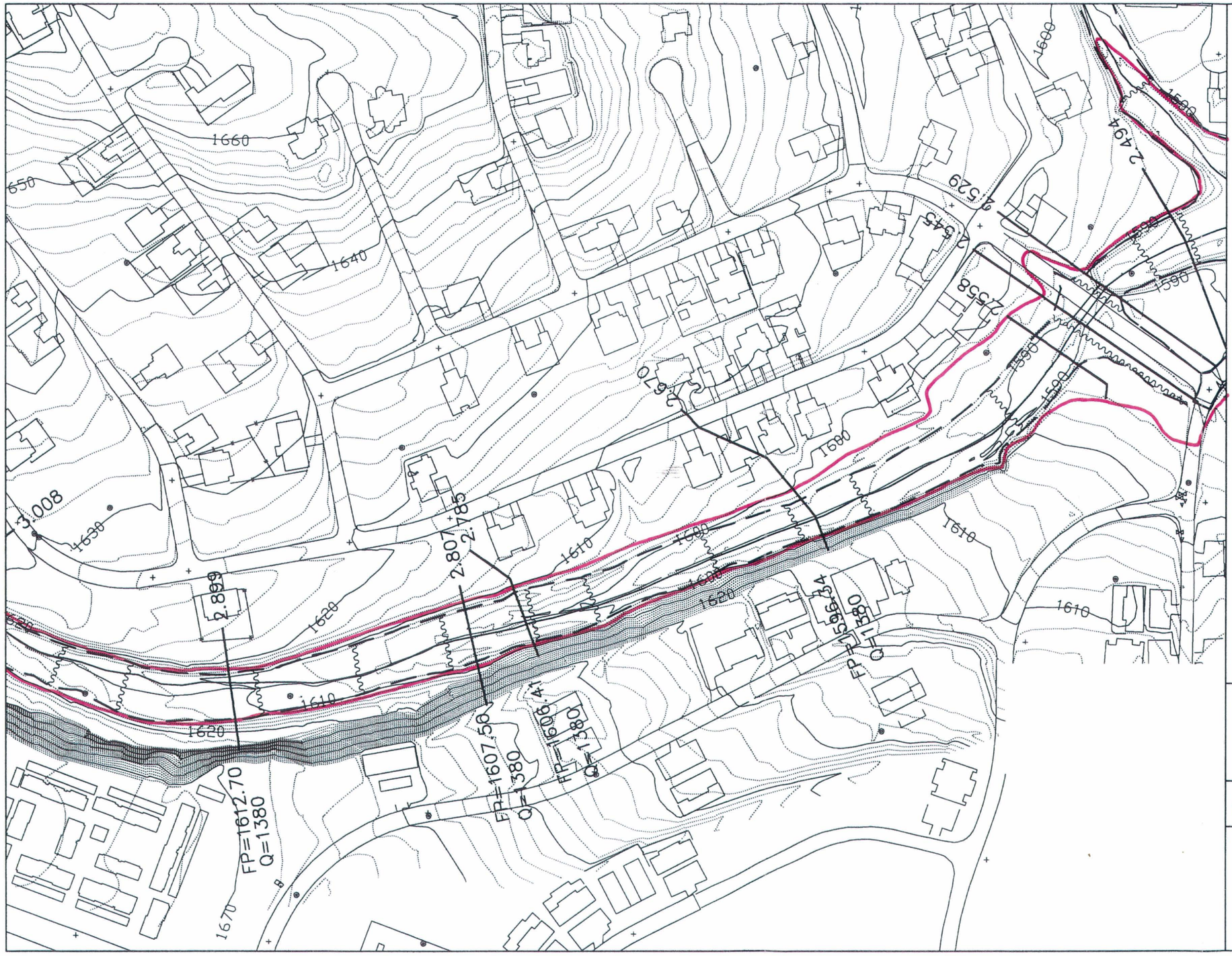
INUNDATION MAP FOR FUTURE CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

ANALYSIS	BY CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 2 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16



LEGEND

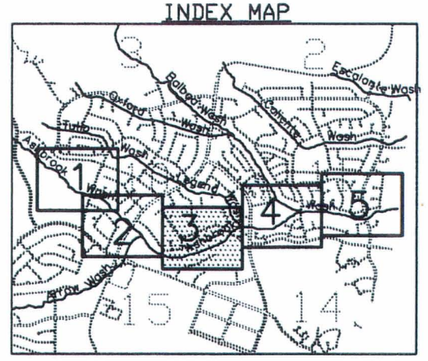
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM, EXISTING)

CROSS SECTION FP=1678.86 Q=970 5.519

INDEX MAP



SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 3
INUNDATION MAP FOR FUTURE CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 3 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FOUNTAIN HILLS ADMP

F.C.D. CONTRACT NO. 94–16

LEGEND

HYDRAULIC BASE LINE & RIVER MILE	2.0
100–YR INUNDATION (NO DAM)	(solid line)
100–YR INUNDATION (WITH DAM, EXISTING)	— — —
CROSS SECTION	FP=1678.86 / Q=970 5.519

INDEX MAP

N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

PLATE 3

INUNDATION MAP FOR FUTURE CONDITION
ALTERNATIVE NO. 2

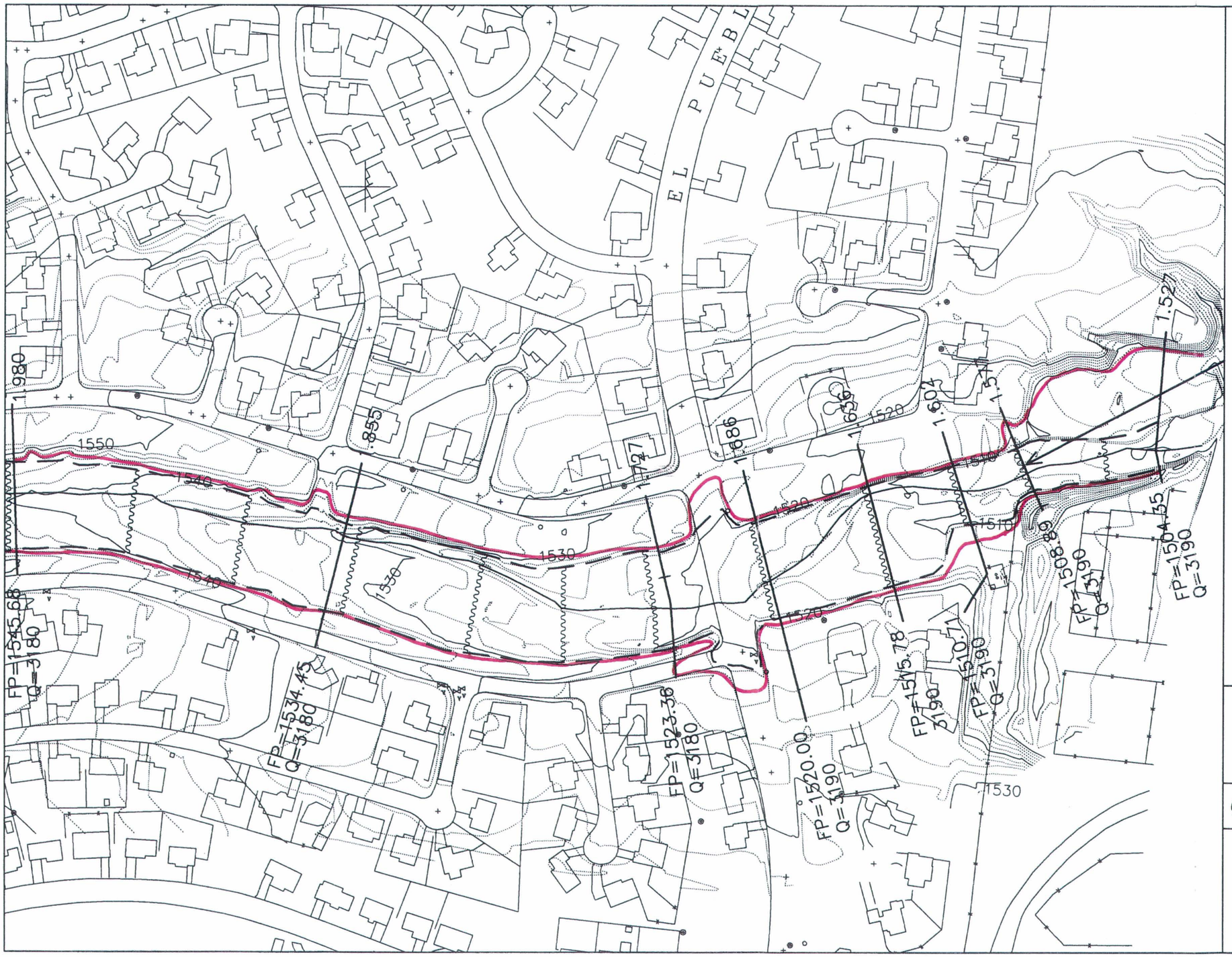
George V. Sabol Consulting Engineers, Inc.

	BY
ANALYSIS	CCC/DTP
DRAFTING	LKF/MCG
REVIEW	GVS
SHEET 4 OF 5	

TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY
PHOTOGRAPHY 29 AUG. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FOUNTAIN HILLS ADMP

F.C.D. CONTRACT NO. 94-16



LEGEND

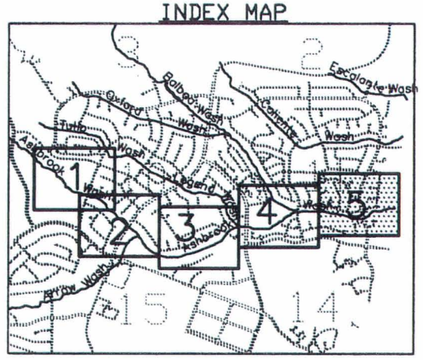
HYDRAULIC BASE LINE & RIVER MILE — 2.0

100-YR INUNDATION (NO DAM)

100-YR INUNDATION (WITH DAM, EXISTING)

CROSS SECTION FP=1678.86 Q=970 — 5.519

INDEX MAP



N

SCALE = 1" = 200'
CONTOUR INTERVAL = 2'

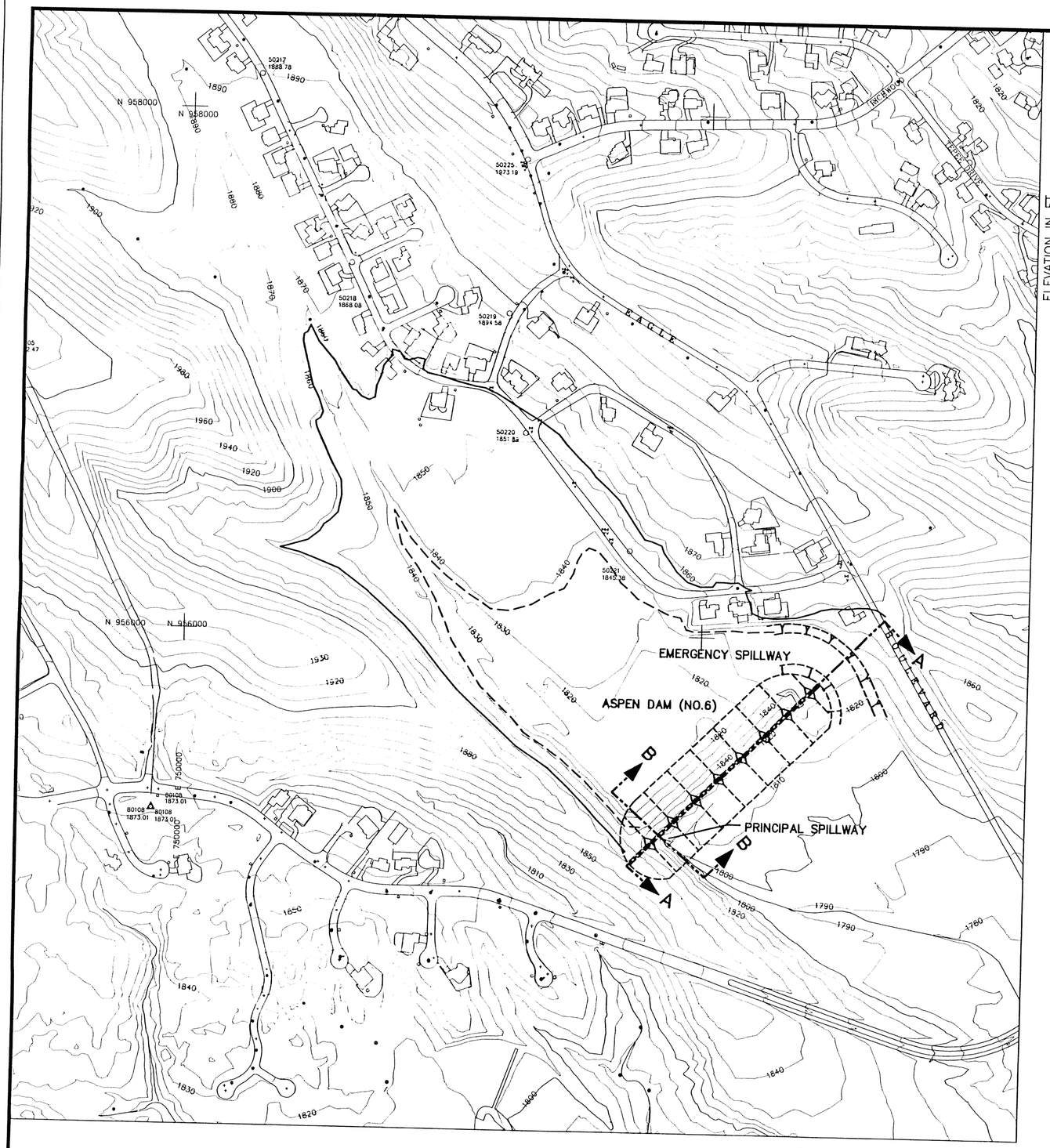
PLATE 3

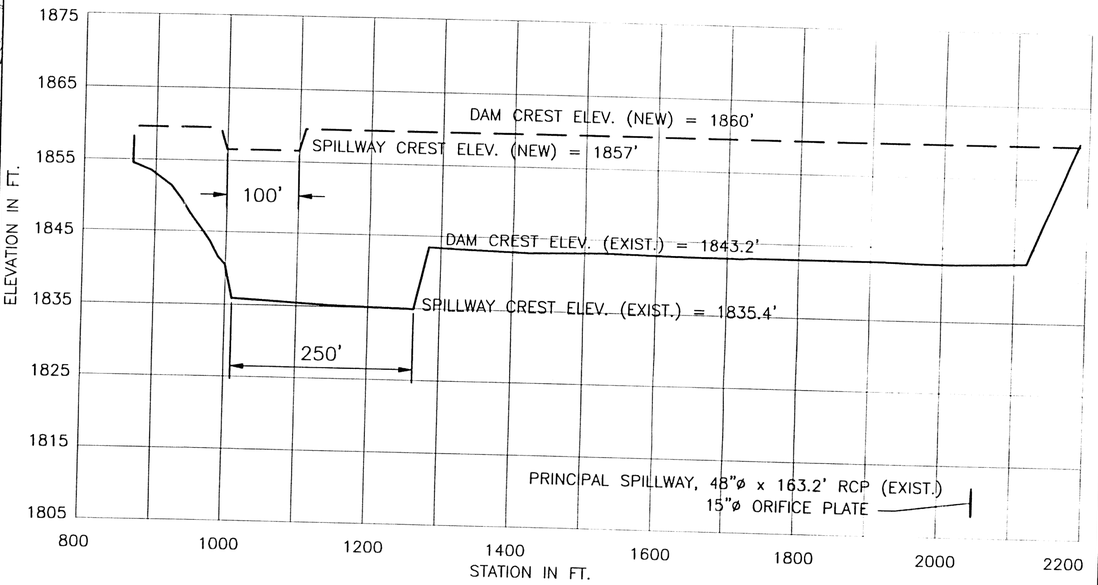
INUNDATION MAP FOR FUTURE CONDITION
ALTERNATIVE NO. 2

George V. Sabol Consulting Engineers, Inc.

		BY
ANALYSIS		CCC/DTP
DRAFTING		LKF/MCG
REVIEW		GVS
SHEET	5 OF 5	

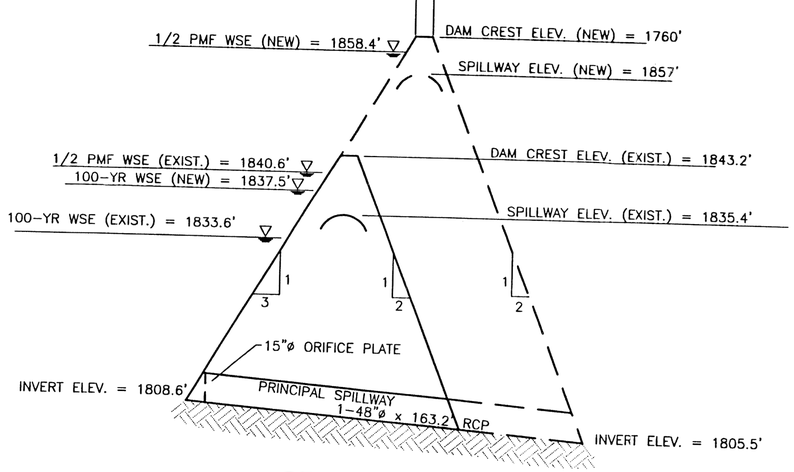
TOPOGRAPHY MAP- KENNY AERIAL MAPPING COMPANY PHOTOGRAPHY 29 AUG. 91





SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 50'

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

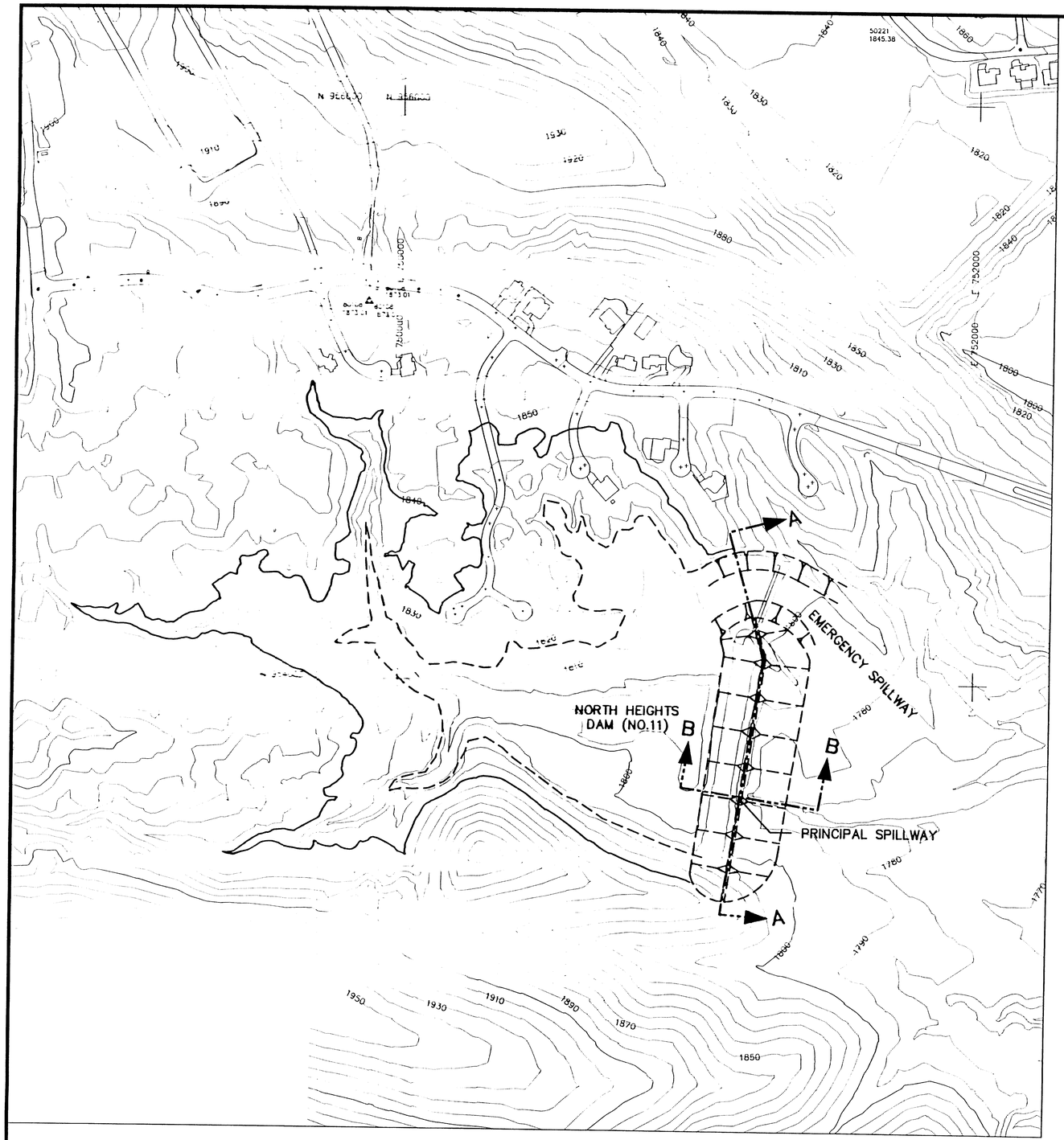
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

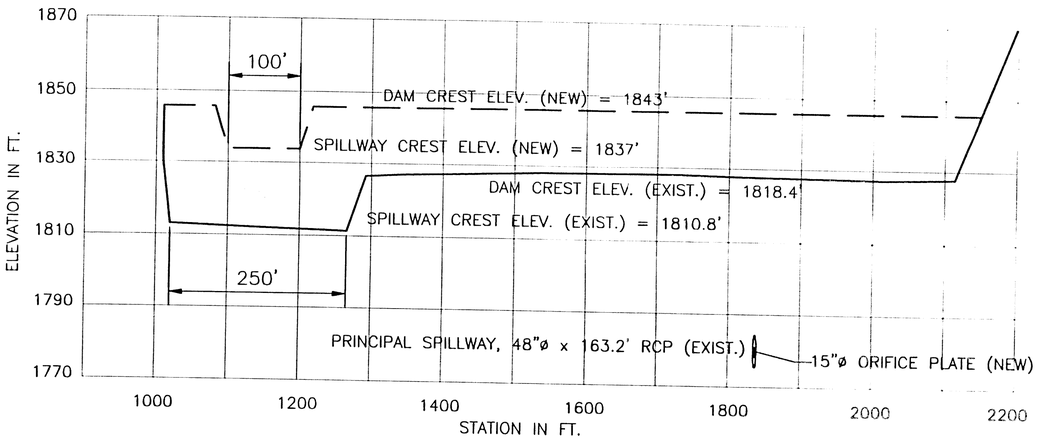
PLATE 4
MODIFICATION OF ASPEN DAM (NO.6)
ALTERNATIVE NO.3

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

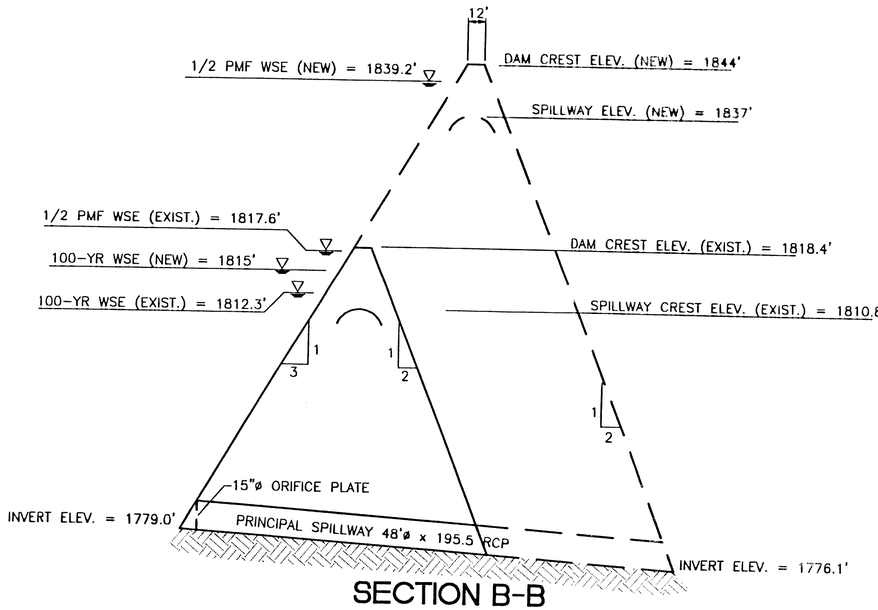
Dwg. Name: C:\P\63\ALT2-1D6.DWG
Date: 10-25-96





SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" =50'

200 0' 200 400
SCALE: 1"= 200'
CONTOUR INTERVAL = 10'FEET

LEGEND

1/2 PMF INUNDATION (NEW)

100-YR INUNDATION (NEW)

ENLARGED DAM

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

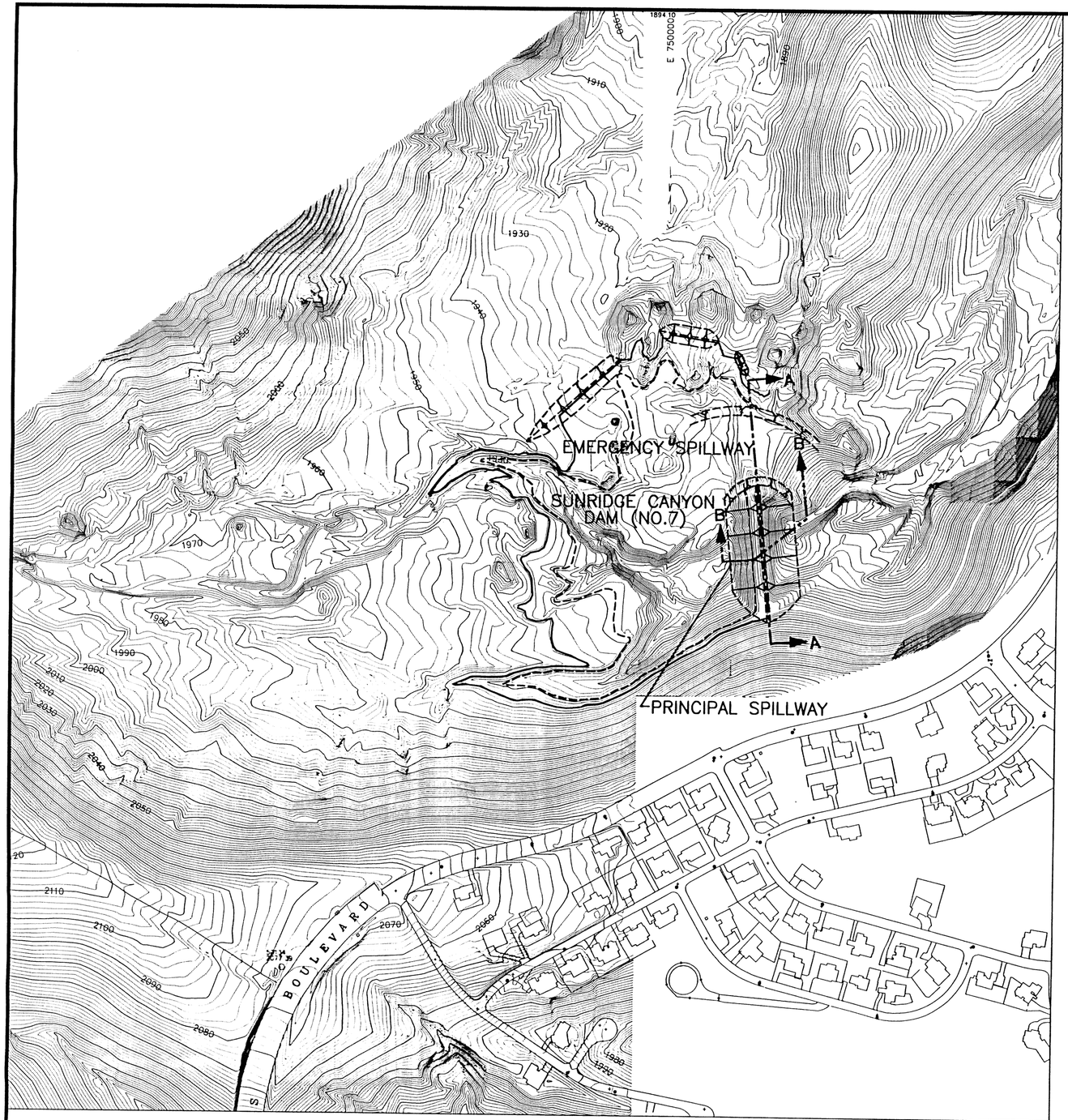
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

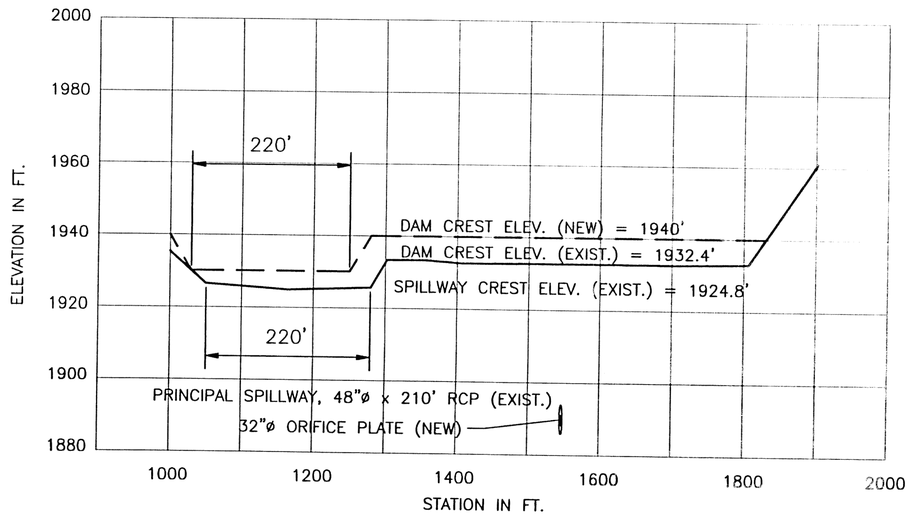
PLATE 5
MODIFICATION OF NORTH HEIGHTS DAM (NO.11)
ALTERNATIVE NO.3

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

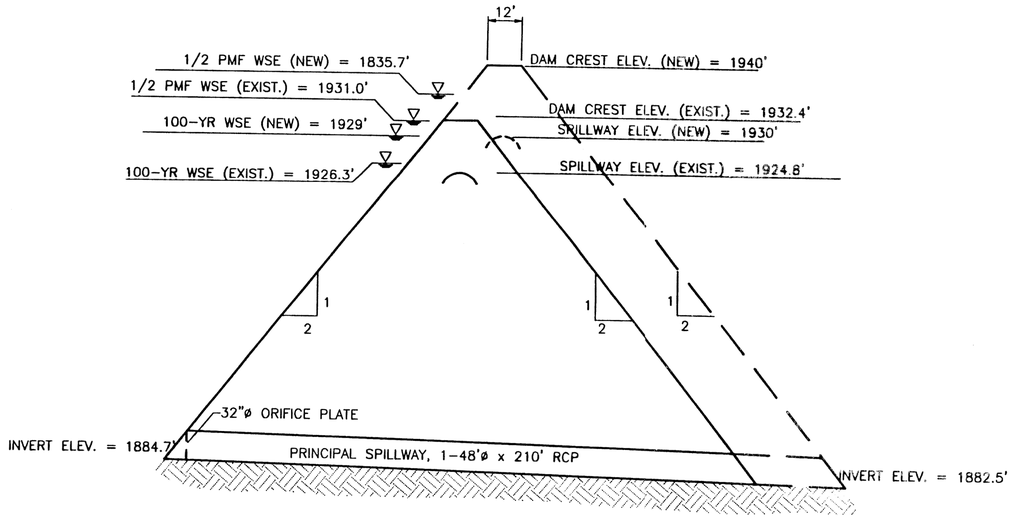
Dwg. Name: C:\P\65\ALT2-D11.DWG
Date: 10-25-96





SECTION A-A

SCALE: VERTICAL 1" = 20'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'

200 0' 200 400
SCALE: 1"= 200'
CONTOUR INTERVAL = 2' FEET

LEGEND

1/2 PMF INUNDATION (NEW)

100-YR INUNDATION (NEW)

ENLARGED DAM

DIKE (NEW)

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

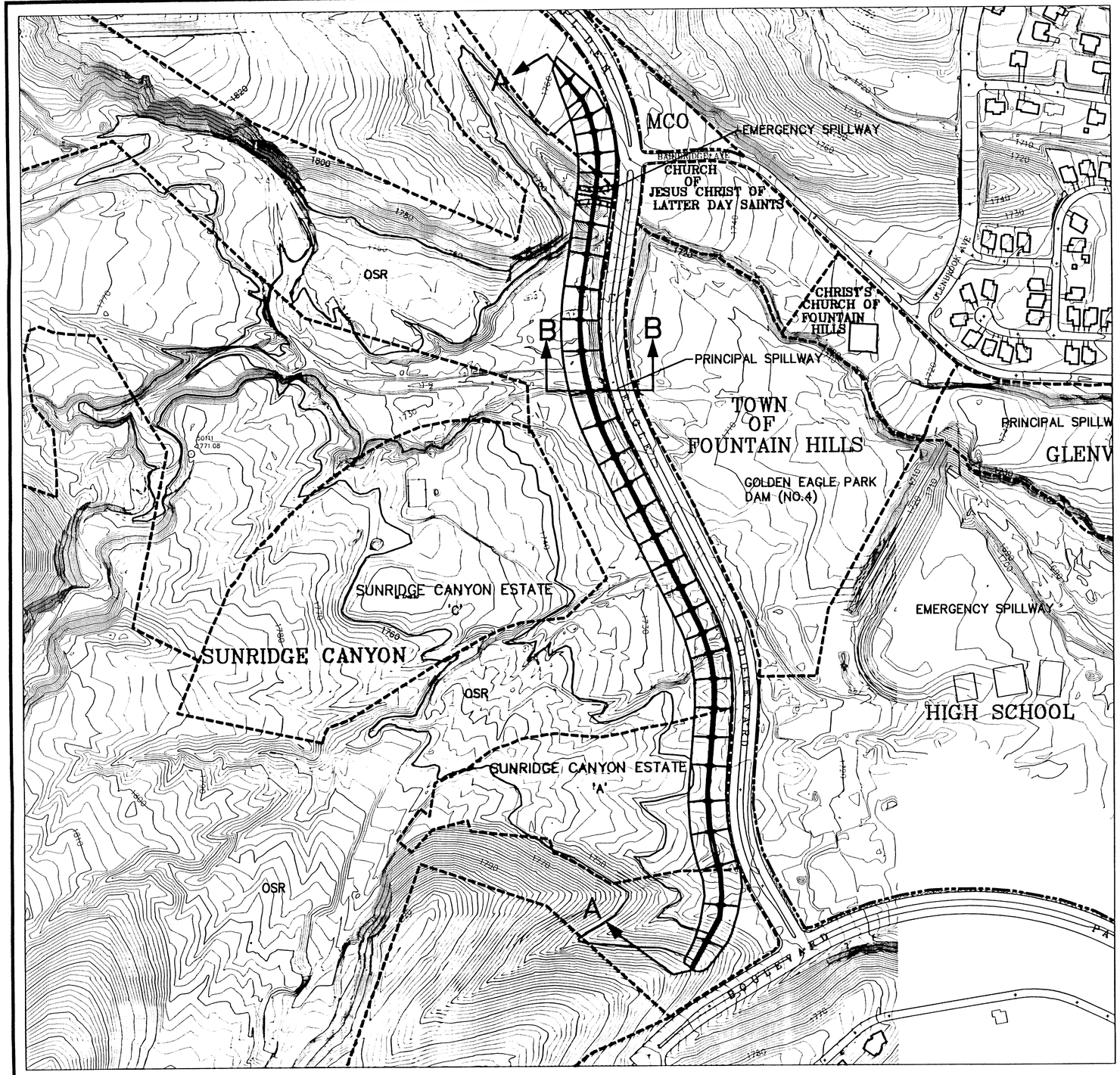
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

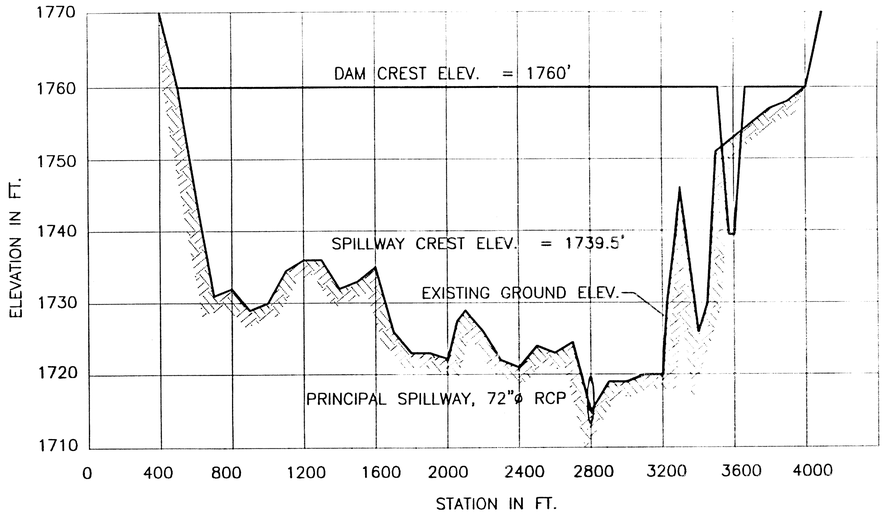
PLATE 6
MODIFICATION OF SUNRIDGE CANYON DAM (NO.7)
ALTERNATIVE NO.3

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

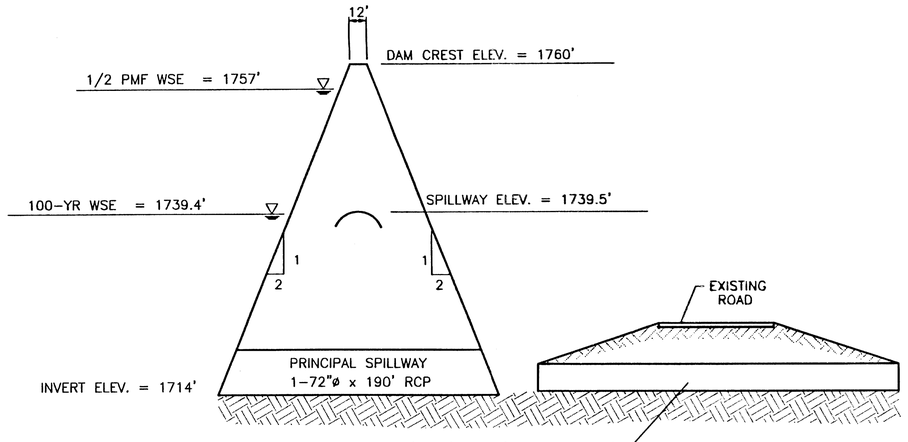
Dwg. Name: C:\P\63\ALT2-D7.DWG
Date: 10-25-96





SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 400'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 50'

LEGEND

N

200 0' 200 400
SCALE: 1"= 200'
CONTOUR INTERVAL = 2' FEET

100-YR INUNDATION

1/2 PMF INUNDATION

OWNERSHIP BOUNDARY

EMERGENCY SPILLWAY

PROPOSED DAM

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

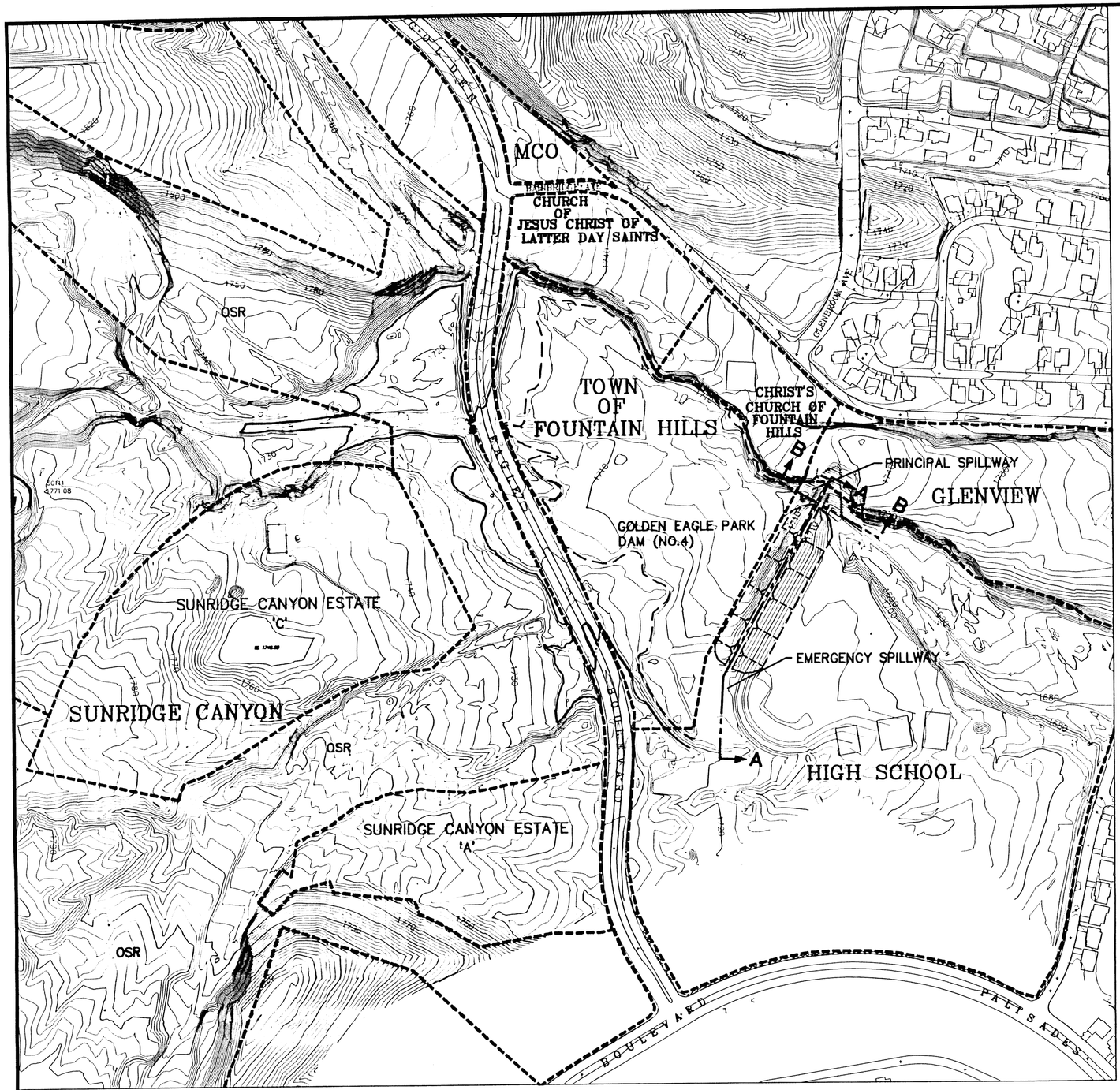
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

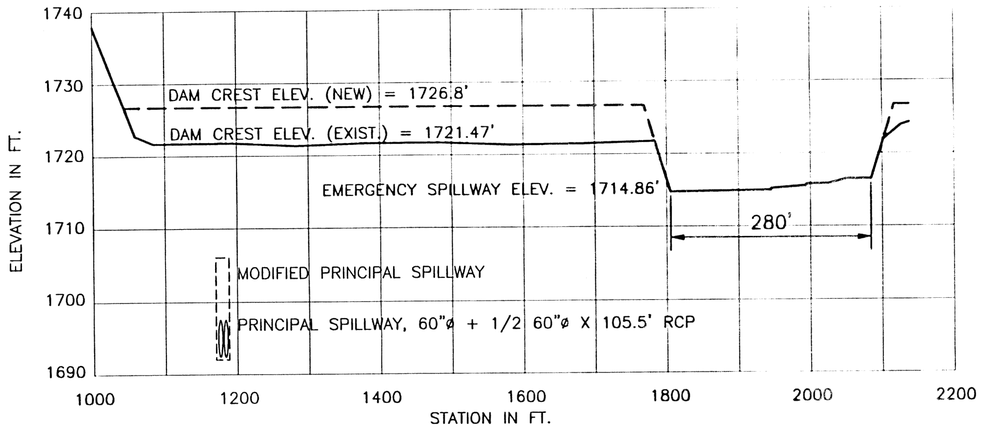
PLATE 7
PROPOSED DAM
ALTERNATIVE NO.4

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

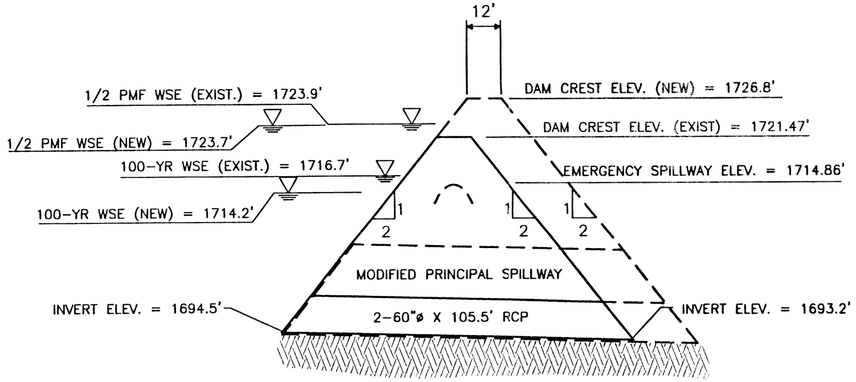
Dwg. Name: C:\P\63\AL13-ppd.DWG
Date: 10-25-96





SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'

200 0' 200 400
SCALE: 1"= 200'
CONTOUR INTERVAL = 2' FEET

LEGEND

1/2 PMF INUNDATION
100-YR INUNDATION
OWNERSHIP BOUNDARY
ENLARGED DAM

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

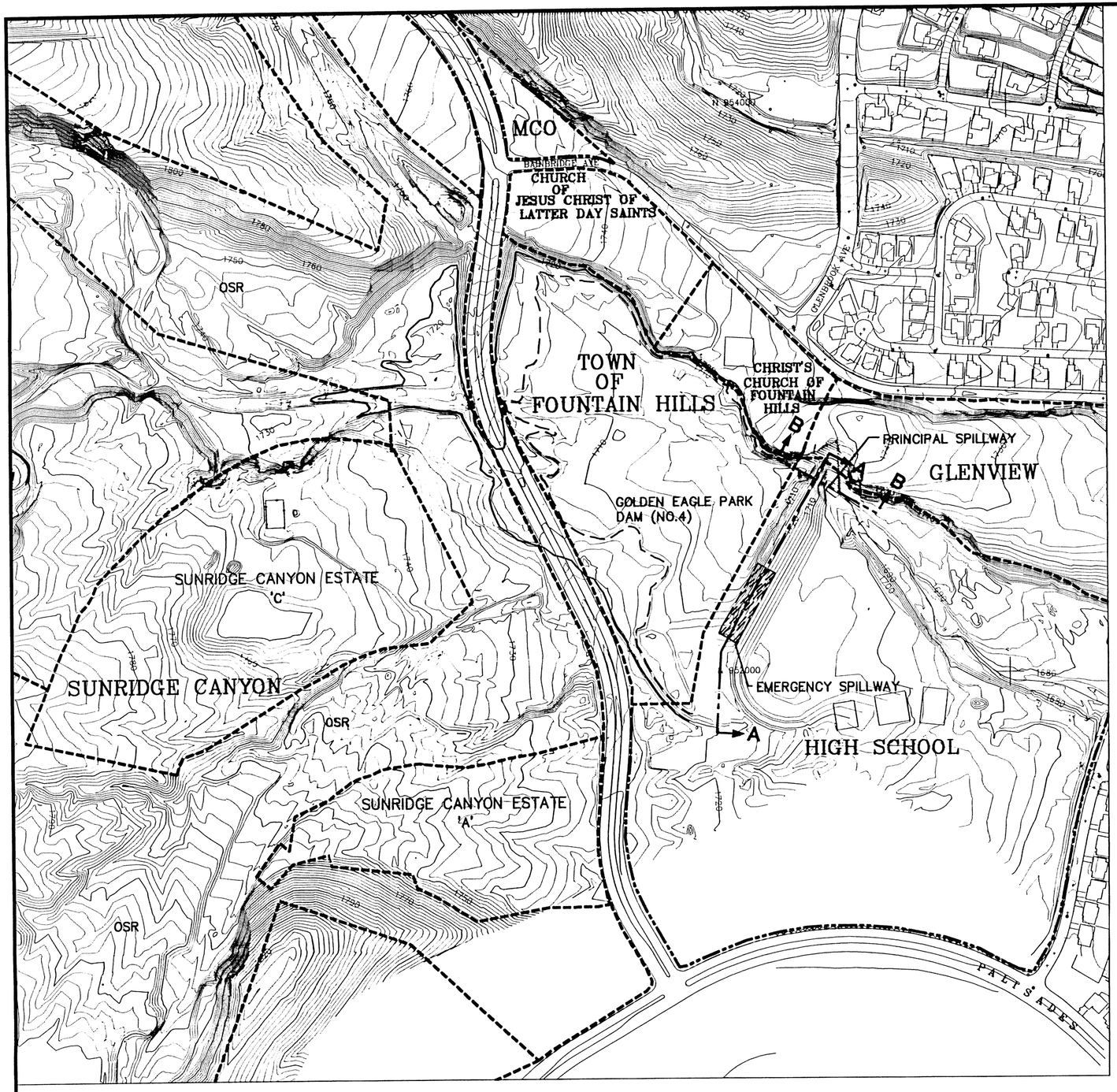
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

PLATE 8
MODIFICATION OF GOLDEN EAGLE PARK DAM
(OPTION P-1/E-1)
ALTERNATIVE NO. 5.1

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

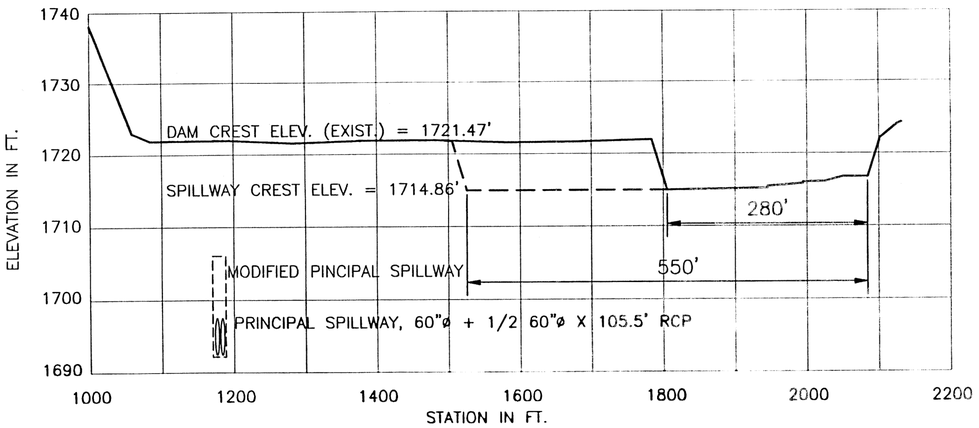
Dwg. Name: C:\P\63\OPTION1.DWG
Date: 10-25-96



200 0' 200 400
SCALE: 1"= 200'
CONTOUR INTERVAL = 2' FEET

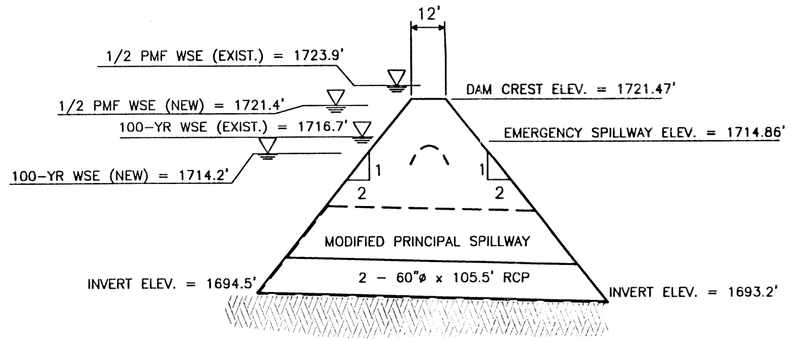
LEGEND

- 1/2 PMF INUNDATION (NEW)
- 100-YR INUNDATION(NEW)
- OWNERSHIP BOUNDARY
- EMERGENCY SPILLWAY EXTENSION



SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'

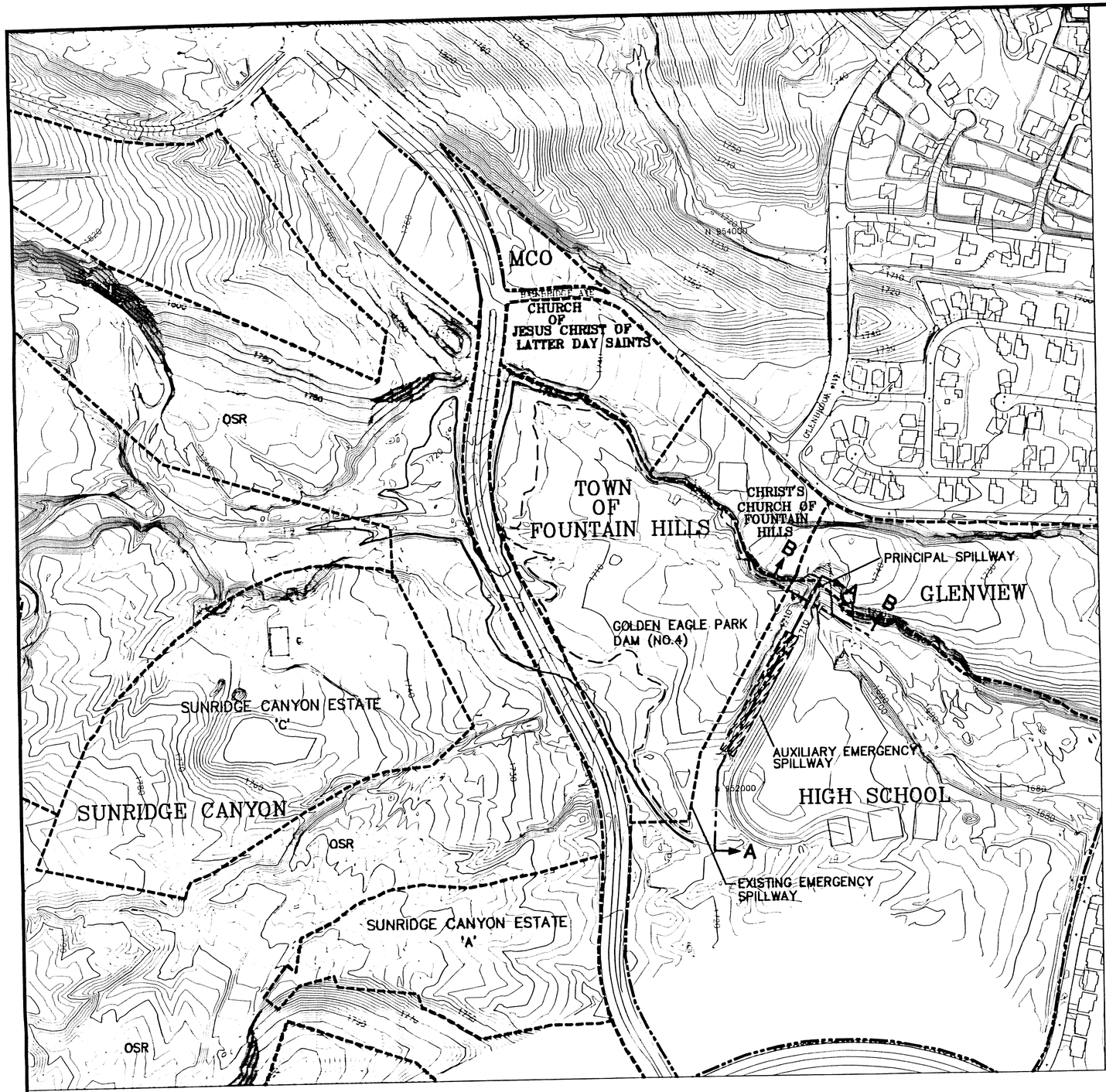
FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

PLATE 9
MODIFICATION OF GOLDEN EAGLE PARK DAM
(OPTION P-1/E-2)
ALTERNATIVE NO. 5.2

George V. Sabol Consulting Engineers, Inc. SHEET 1 OF 1

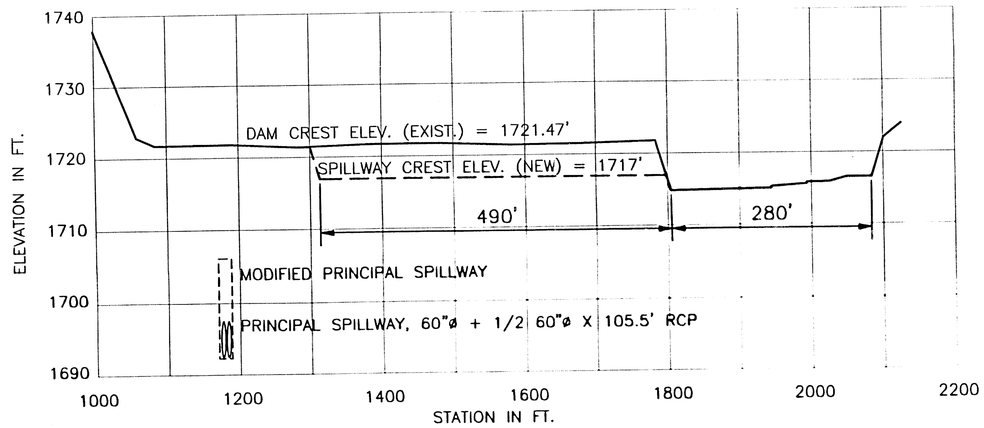
Dwg. Name: C:\P\63\OPTIONE2.DWG
Date: 10-25-96



SCALE: 1" = 200
CONTOUR INTERVAL = 2' FEET

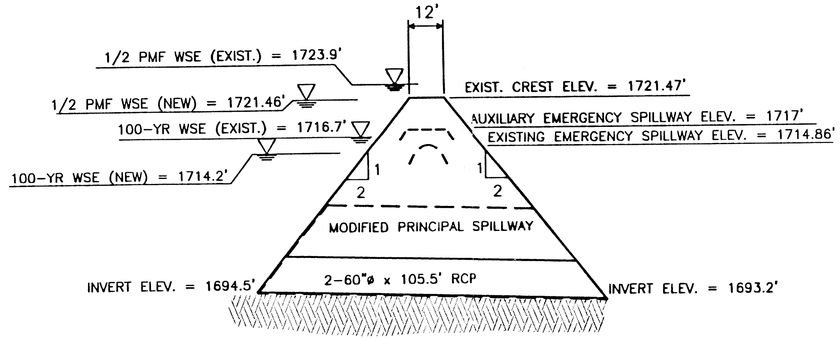
LEGEND

- 1/2 PMF INUNDATION (NEW)
- 100-YR INUNDATION (NEW)
- OWNERSHIP BOUNDARY
- EMERGENCY SPILLWAY (NEW)



SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

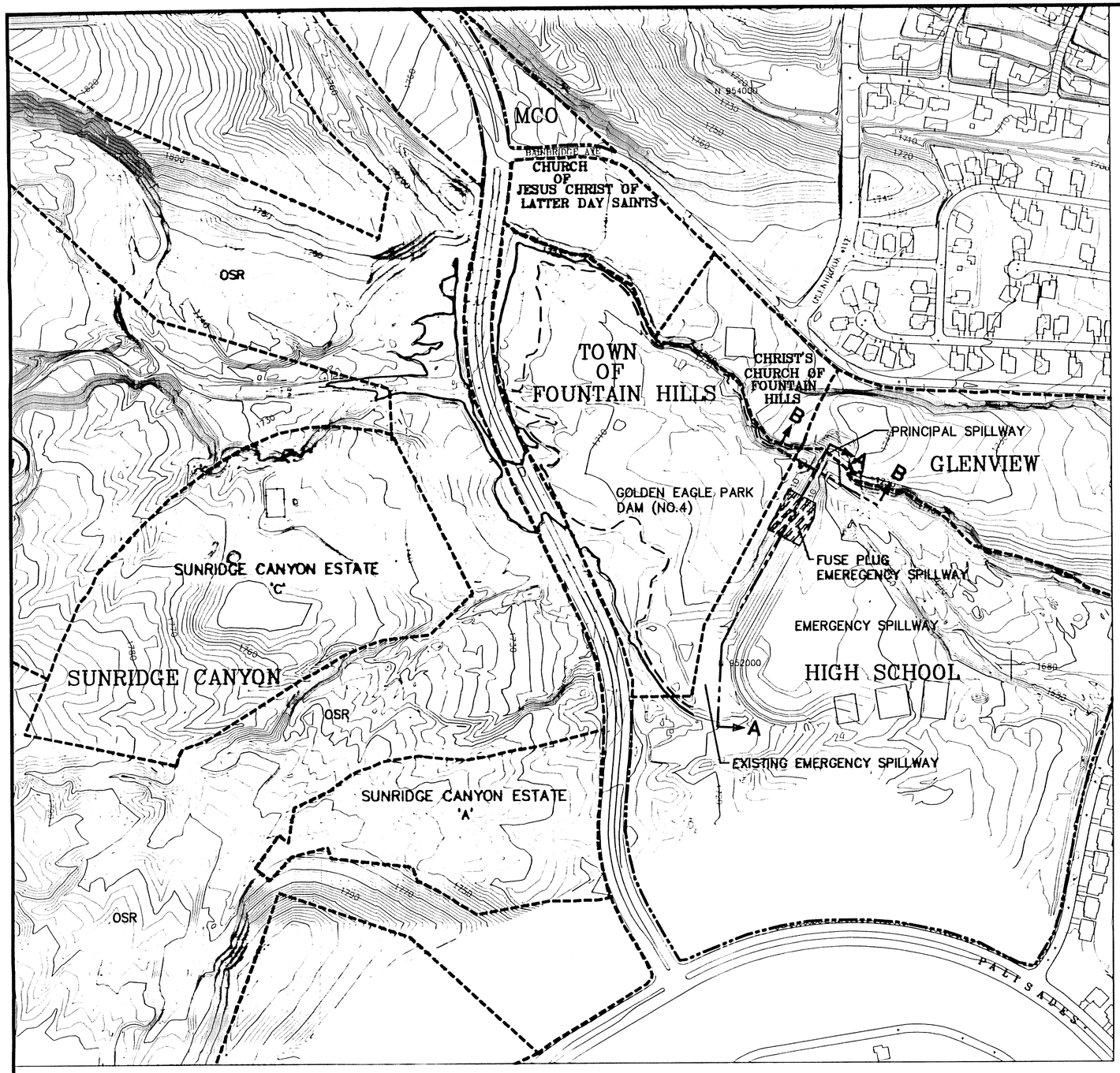
FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

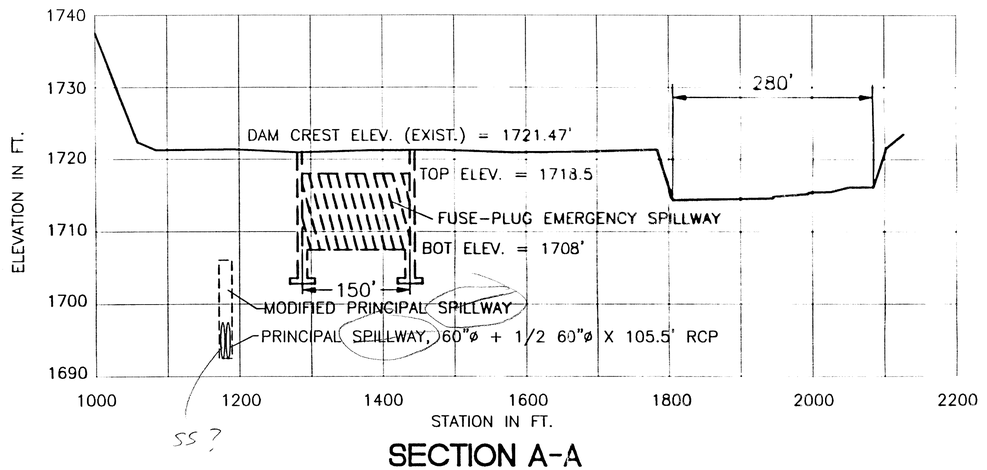
PLATE 10
MODIFICATION OF GOLDEN EAGLE PARK DAM
(OPTION P-1/E-3)
ALTERNATIVE NO. 5.3

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

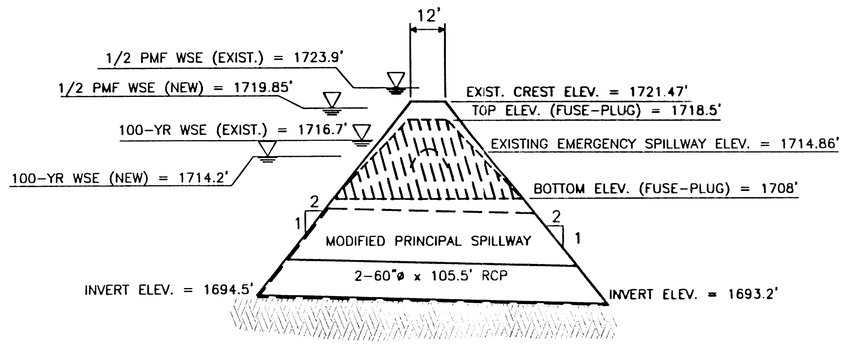
Dwg. Name: C:\P\63\OPTION3.DWG
Date: 10-25-96





SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'

200 0' 200 400
SCALE: 1"= 200'
CONTOUR INTERVAL = 2' FEET

LEGEND

- 1/2 PMF INUNDATION (NEW)
- 100-YR INUNDATION (NEW)
- OWNERSHIP BOUNDARY
- FUSE-PLUG EMERGENCY SPILLWAY (NEW)

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

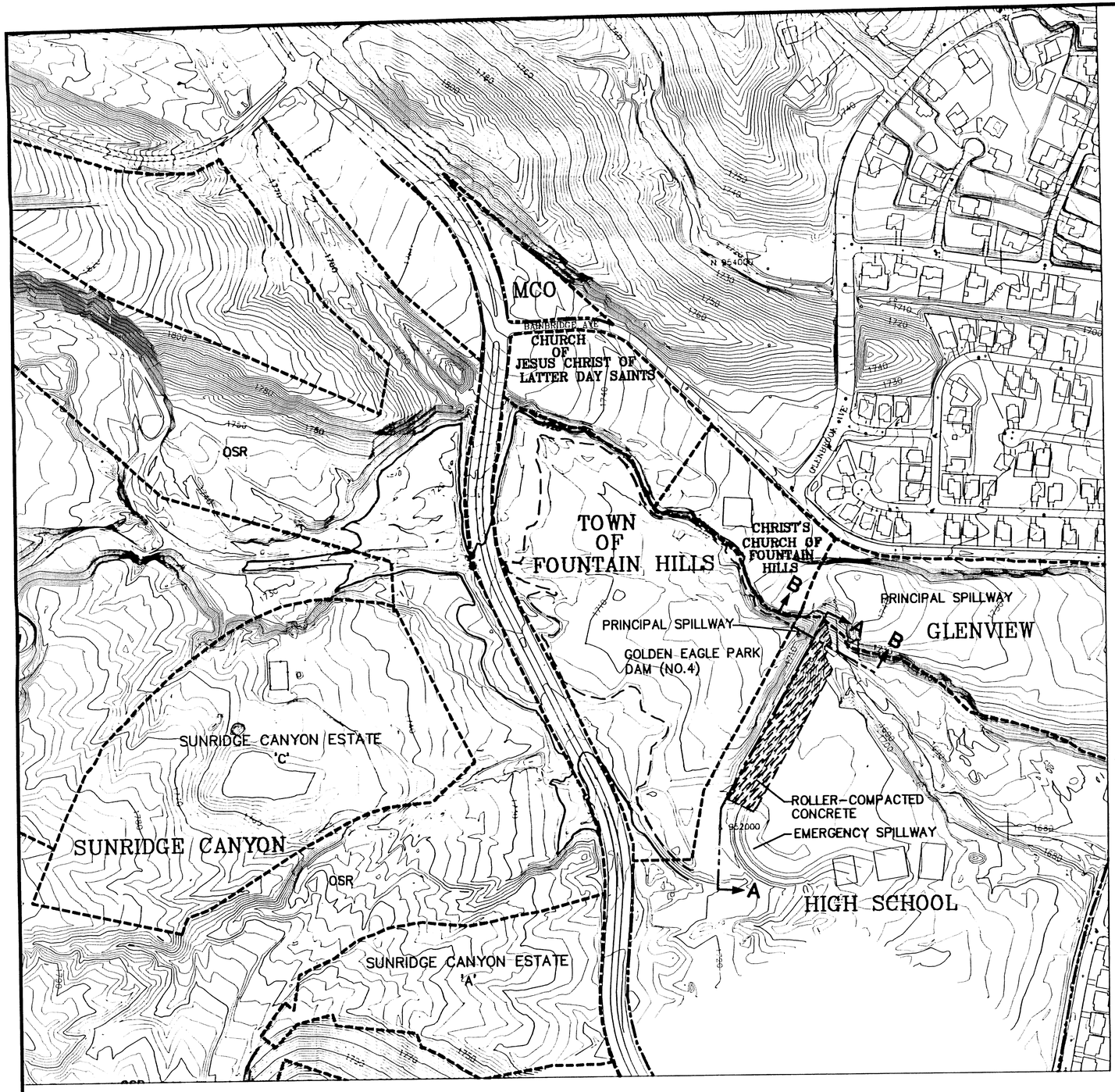
PLATE 11

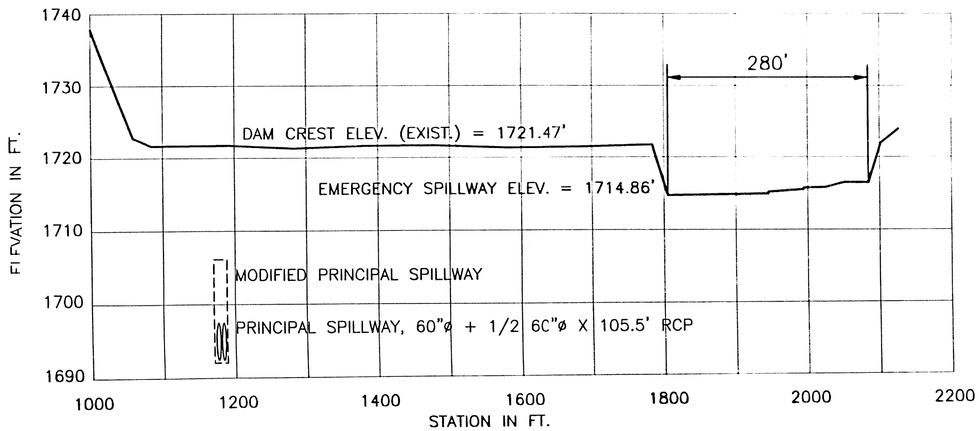
MODIFICATION OF GOLDEN EAGLE PARK DAM
(OPTION P-1/E-4)
ALTERNATIVE NO. 5.4

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

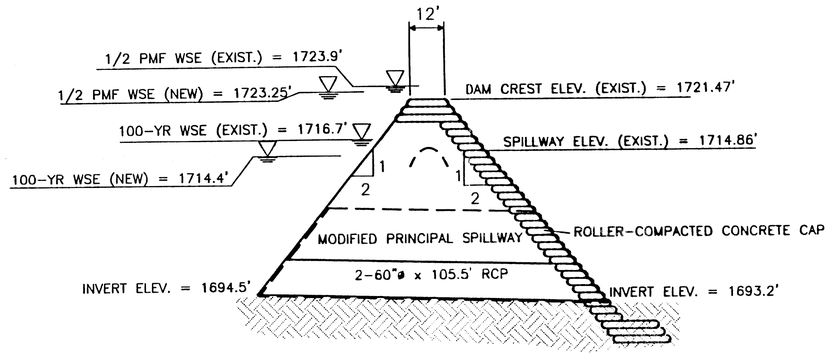
Dwg. Name: C:\P\63\OPTION4.DWG
Date: 10-25-96





SECTION A-A

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'



SECTION B-B

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 25'

LEGEND

1/2 PMF INUNDATION (NEW)
100-YR INUNDATION (NEW)
OWNERSHIP BOUNDARY
ROLLER-COMPACTED CONCRETE

FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY

FOUNTAIN HILLS ADMP
F.C.D. CONTRACT NO. 94-16

PLATE 12
MODIFICATION PRINCIPAL SPILLWAY
(OPTION P-1/E-5)
ALTERNATIVE NO. 5.5

George V. Sabol Consulting Engineers, Inc.

SHEET 1 OF 1

Dwg. Name: C:\P\63\OPTIONE5.DWG
Date: 10-25-96