

WITTMANN PHASE 2 ZONE AE FLOODPLAIN DELINEATION STUDY

CONTRACT FCD 2004C066

NGVD 1929 VERTICAL DATUM NOTEBOOK

Scope of Work, Task 6.12

July 2006

Revised October 2006

Prepared for:
Federal Emergency Management Agency
Risk Studies Division
Federal Insurance Administration
500 C Street, SW Room 422
Washington, DC 20472

Submitted by:

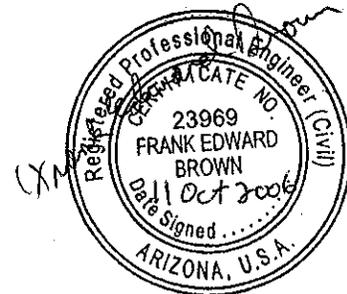
David Evans and Associates, Inc.
2141 E. Highland Avenue, Suite 200
Phoenix, Arizona 85016
(602) 678-5151

In association with:

Primatech, LLC
1295 W. Washington Street, Suite 115
Tempe, Arizona 85281

on behalf of:

Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009
(602) 506-1501



WITTMANN PHASE 2 ZONE AE FLOODPLAIN DELINEATION STUDY

CONTRACT FCD 2004C066

NGVD 1929 VERTICAL DATUM NOTEBOOK

Scope of Work, Task 6.12

July 2006

Revised October 2006

Prepared for:
Federal Emergency Management Agency
Risk Studies Division
Federal Insurance Administration
500 C Street, SW Room 422
Washington, DC 20472

Submitted by:

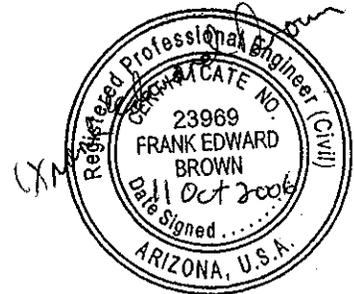
David Evans and Associates, Inc.
2141 E. Highland Avenue, Suite 200
Phoenix, Arizona 85016
(602) 678-5151

In association with:

Primatech, LLC
1295 W. Washington Street, Suite 115
Tempe, Arizona 85281

on behalf of:

Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009
(602) 506-1501



ADDENDUM TO WITTMANN PHASE 2 ZONE AE FLOODPLAIN DELINEATION STUDY CONTRACT FCD 2004C066 REVISED APRIL 2007

This addendum is prepared in April 2007. A field investigation during the FCDMC review process near River Mile 1.0 on Wash T4N-R3W-S09 determined that the bank stations should be revised to be closer to the main low flow channel. Refer to the below excerpt from the Technical Data Notebook (TDN). This bank station revision allowed the floodway to be narrowed slightly between River Mile 1.013 and 1.302. This revision affects workmap Sheets E14 and E15. The floodplains prepared by Hernan Aristizabal, P.E. appearing on Sheets E14 and E15 are not affected by this revision but are resealed with the new date. The revision affects data contained in the TDN. Floodplain delineations prepared by George Lopez-Cepero, P.E. are unaffected by this revision.



Excerpt from Page 5.7

5.7 Problems Encountered During the Study

5.7.1 Special Problems and Solutions

Bank Stations

The bank stations are initially set to define the channel, which is the width of the heavy vegetation as viewed from the aerial photography within reasonable geometric locations, since a low flow channel is not very well defined for each wash. The result of the initial bank station placement was very wide channels with very little flow in the overbanks. While this was not an issue for the natural floodplain mapping this presented a problem for the floodway modeling, the result was a very wide floodway with very little rise in the water surface elevations. The solution is to use a horizontal variation in 'n'-values and then move the bank stations inward to narrow the channel as much as possible without placing the bank stations in unreasonable geometric locations. The resulting channel defined by the new bank station locations is a very shallow channel in a majority of the cross-sections, in some cases as shallow as 0.2 feet deep.

TABLE OF CONTENTS

NGVD 1929 VERTICAL DATUM NOTEBOOK

Scope of Work, Task 6.12

- 1.1 INTRODUCTION
- 1.2 CD CONTAINING WORK MAPS IN DXF FORMAT AND PROFILE PLOTS IN DXF FORMAT
- 1.3 WORK MAPS IN NGVD 1929 VERTICAL DATUM
- 1.4 PROFILE PLOTS IN NGVD 1929 VERTICAL DATUM



INTRODUCTION

1.1 Purpose of Study

This notebook was prepared, in accordance with the Wittmann Phase 2 Zone AE Floodplain Delineation Study – Scope of Work, Task 6.12, for contract FCD 2004C066. This notebook presents electronic files and paper work maps without contours at scale of 1 inch = 500 feet, in NGVD 1929 vertical datum. These files will be used by the FEMA map producer to prepare the NGVD-29 based Flood Insurance Maps. The work maps contain floodplain boundaries, floodway boundaries, and the BFE-contours in NGVD 29. The profiles plots are in FEMA's standard Flood Insurance Study format and contain cross-section lines and cross-section labels displaying the flood plain elevations for the 1% annual chance flood.

CAUTION: THIS IS NOT THE TECHNICAL DATA NOTEBOOK FOR THIS PROJECT. PLEASE REFER TO WITTMANN PHASE 2 ZONE AE, FLOODPLAIN DELINEATION STUDY, TECHNICAL DATA NOTEBOOK VOLUME 1 & 2, FCD No 2004C006, JULY 2006, REVISED OCTOBER 2006 FOR THE 1988 NAVD VERTICAL DATUM PROJECT INFORMATION.

**1.2 CD CONTAINING WORK MAPS IN DXF FORMAT AND
PROFILE PLOTS IN DXF FORMAT.**

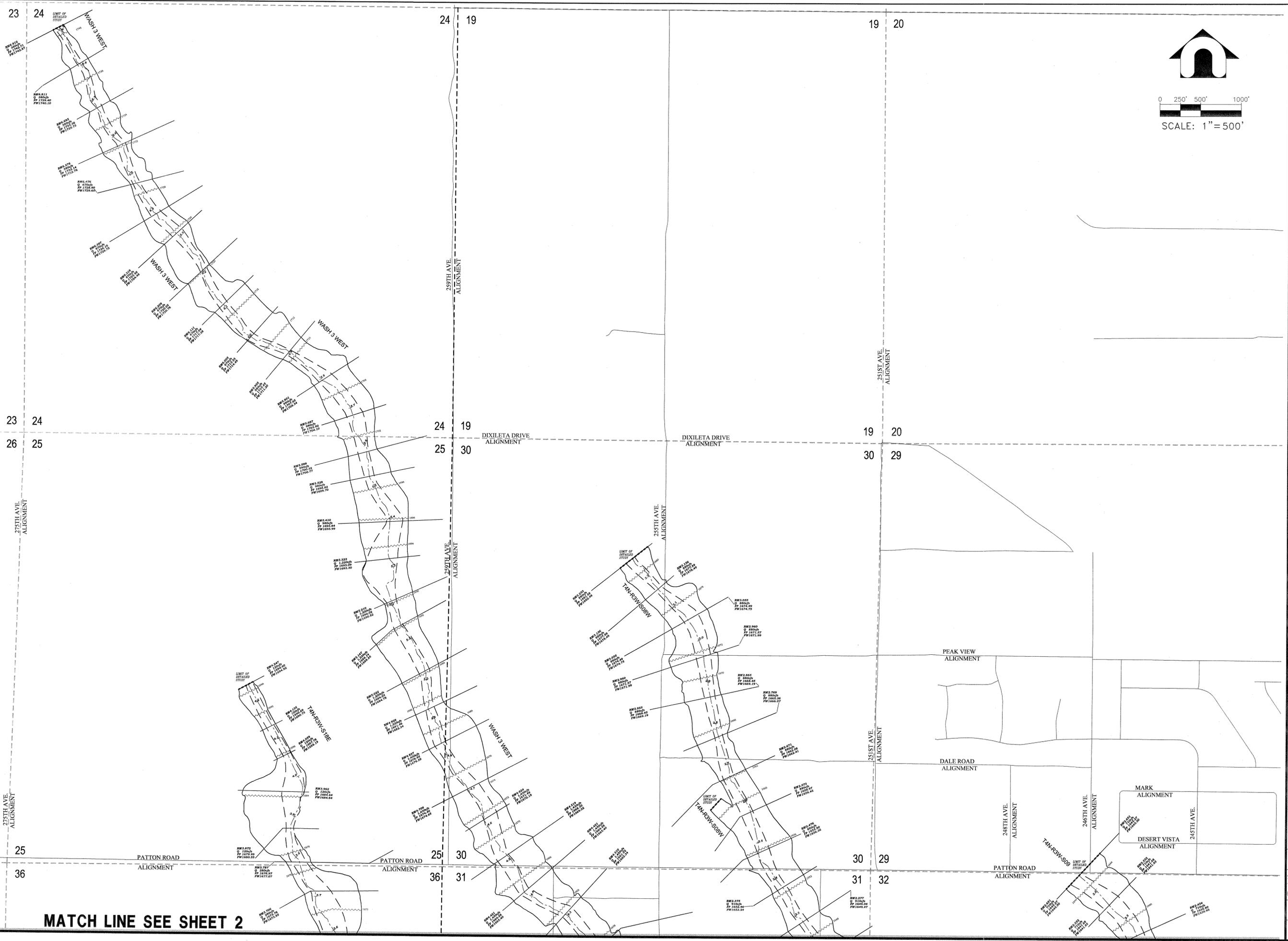
1.3 WORK MAPS IN NGVD 1929 VERTICAL DATUM,

1 INCH = 500 FEET IN MAP POCKET

AND NOT TO SCALE MAPS IN 11 BY 17 FORMAT

1.4 PROFILE PLOTS IN NGVD 1929 VERTICAL DATUM

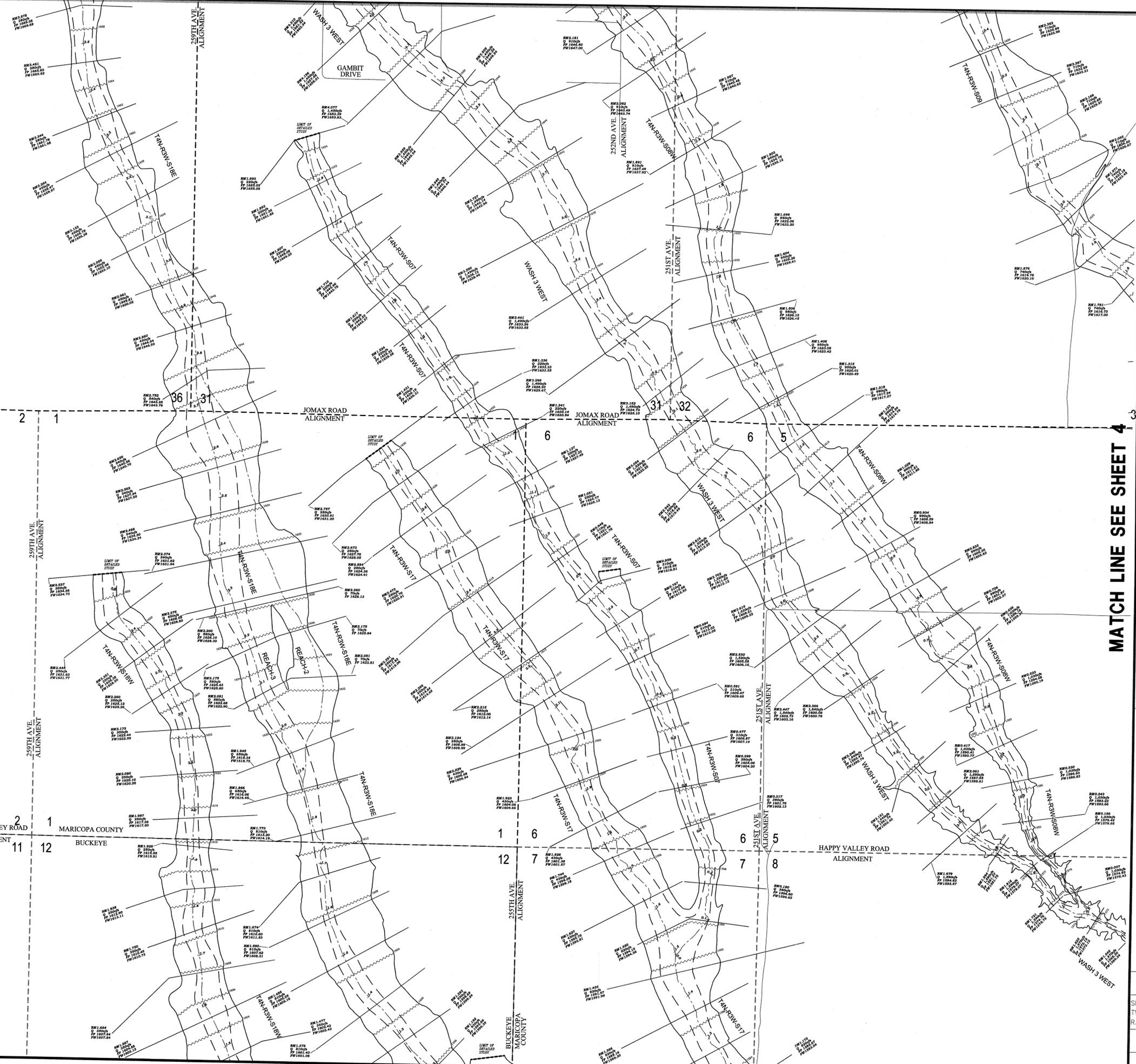
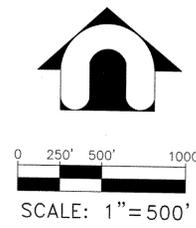
P:\MARI00000044\04000004\DWG\EP\1929 NGVD\WFM01MARI0004.dwg Nbl Oct 04, 2006 1:56:31pm



MATCH LINE SEE SHEET 2

DRAWN BY: NAGU		DAVID EVANS AND ASSOCIATES INC. 2141 East Highland Avenue, Suite 200 Phoenix, Arizona 85016 Phone: 602.678.5151
CHECKED BY: FEB		
DATE: 6/06	REVISION:	
WITTMANN PHASE 2 ZONE AE FLOODPLAIN DELINEATION STUDY FCD2004C066 1929 NGVD WORKMAPS		
SCALE: 1" = 500'		
SECTION: VARIES		
TWNESHIP: 4N, 5N		
RANGE: 3W, 4W		
SHEET 1 OF 4		
JOB NO.: MARI0000-0044		

MATCH LINE SEE SHEET 1



35 36

JOMAX ROAD ALIGNMENT

2 1

JOMAX ROAD ALIGNMENT

JOMAX ROAD ALIGNMENT

259TH AVE ALIGNMENT

259TH AVE ALIGNMENT

HAPPY VALLEY ROAD ALIGNMENT

HAPPY VALLEY ROAD ALIGNMENT

11 12

MARICOPA COUNTY

BUCKEYE

251ST AVE ALIGNMENT

251ST AVE ALIGNMENT

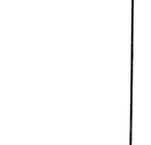
HAPPY VALLEY ROAD ALIGNMENT

MATCH LINE SEE SHEET 4

MATCH LINE SEE SHEET 3

DRAWN BY:	NAGU
CHECKED BY:	FEB
DATE:	6/06
REVISION:	

04.07 Floodway Revised on Wash
TAN-RUN-S09-See Addendum Located
in NGVD 1979 Vertical Datum Notebook



DAVID EVANS
AND ASSOCIATES INC.
2141 East Highland Avenue, Suite 200
Phoenix, Arizona 85016
Phone: 602.678.5151

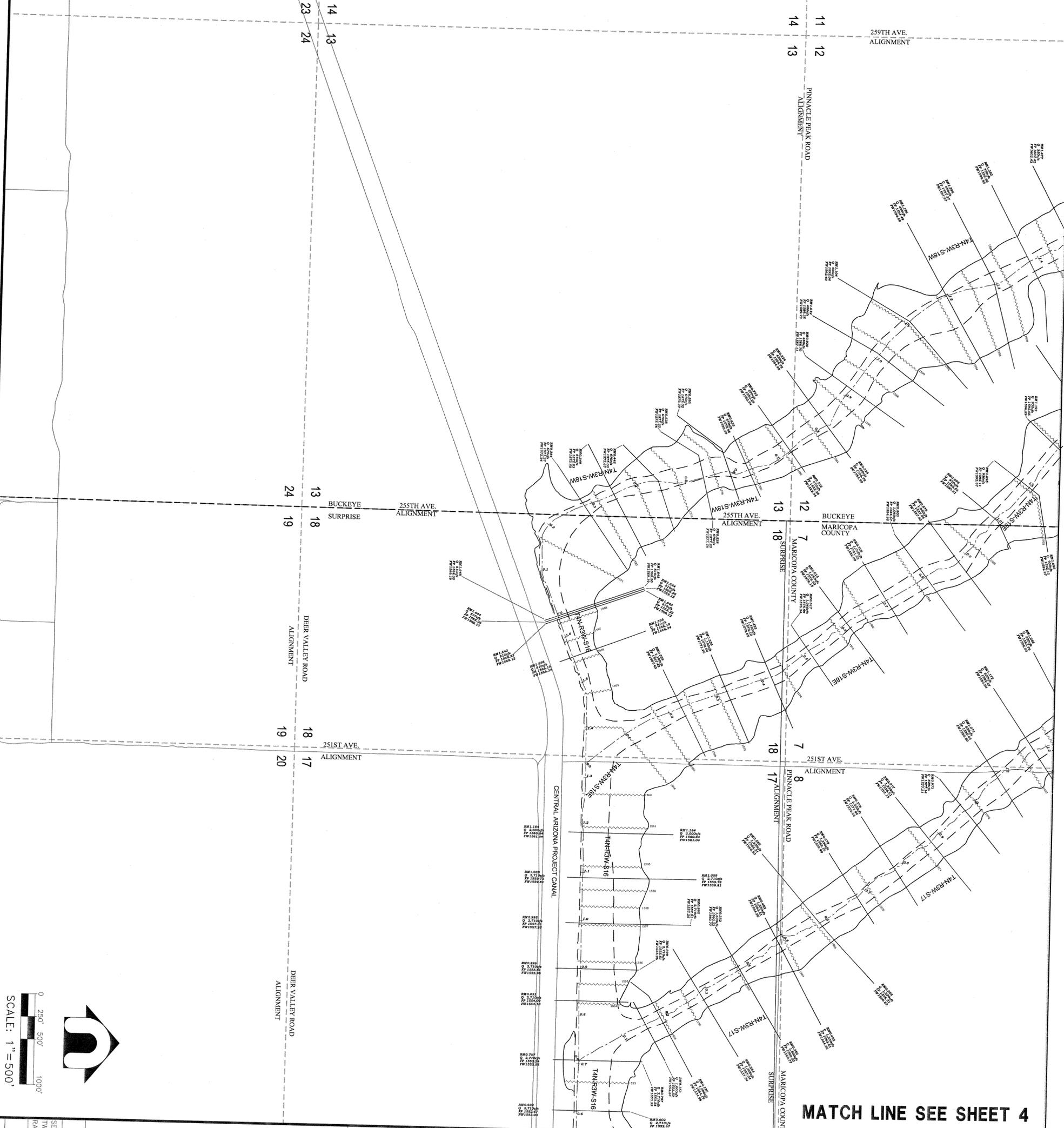
WITTMANN PHASE 2 ZONE AE
FLOODPLAIN DELINEATION STUDY
FCD2004C066
1929 NGVD WORKMAPS

SCALE:	1" = 500'
SECTION:	VARIES
TWNSHP:	4N, 5N
RANGE:	3W, 4W
SHEET	2 OF 4
JOB NO.:	MAR1000-0044

P:\MARI00000044\0400C066\DWG\EP1\1929 NGVD\WEM02\MARI0044.dwg nbi Apr 04, 2007 10:53:03am

MATCH LINE SEE SHEET 2

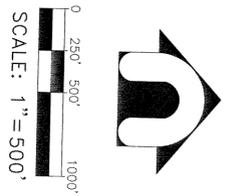
MATCH LINE SEE SHEET 4



**WITTMANN PHASE 2 ZONE AE
FLOODPLAIN DELINEATION STUDY**
FCD2004C066
1929 NGVD WORKMAPS

DE
**DAVID EVANS
AND ASSOCIATES INC.**
 2141 East Highland Avenue, Suite 200
 Phoenix Arizona 85016
 Phone: 602.678.5151

DRAWN BY:	NAGU	DATE:	6/06
CHECKED BY:	FEB	DATE:	
REVISION		BY	

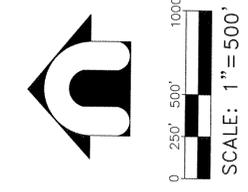
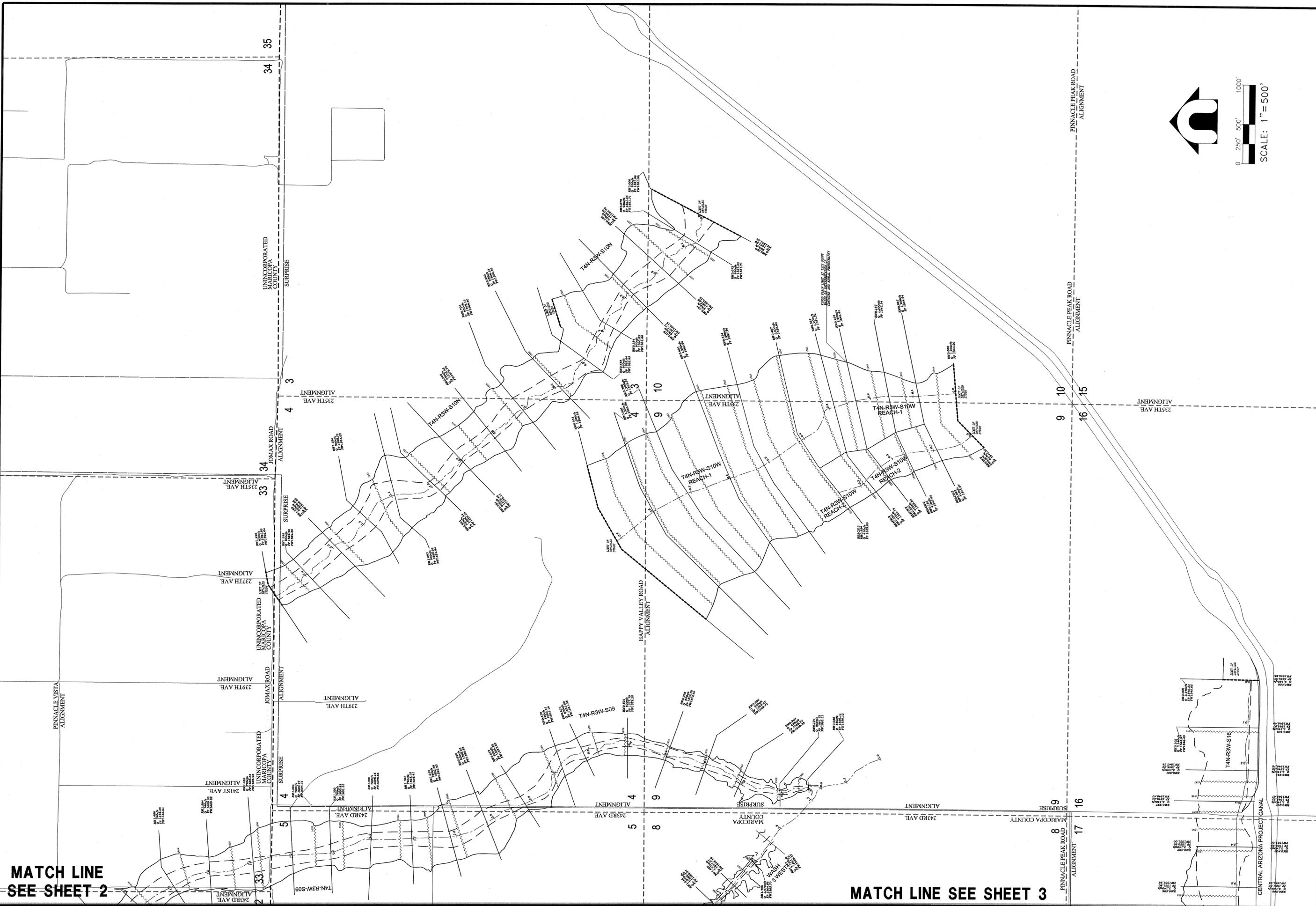


SCALE: 1" = 500'
 SECTION: VARIES
 TOWNSHIP: 4N, 5N
 RANGE: 31W, 41W
 SHEET 3 OF 4
 JOB NO.: MAR000-0044

P:\MARI00000044\0400CAD\DWG\EP\1929 NGVD\WEm\ACAMARI00044.dwg nbl Apr 04, 2007 10:53:24am

**MATCH LINE
SEE SHEET 2**

MATCH LINE SEE SHEET 3



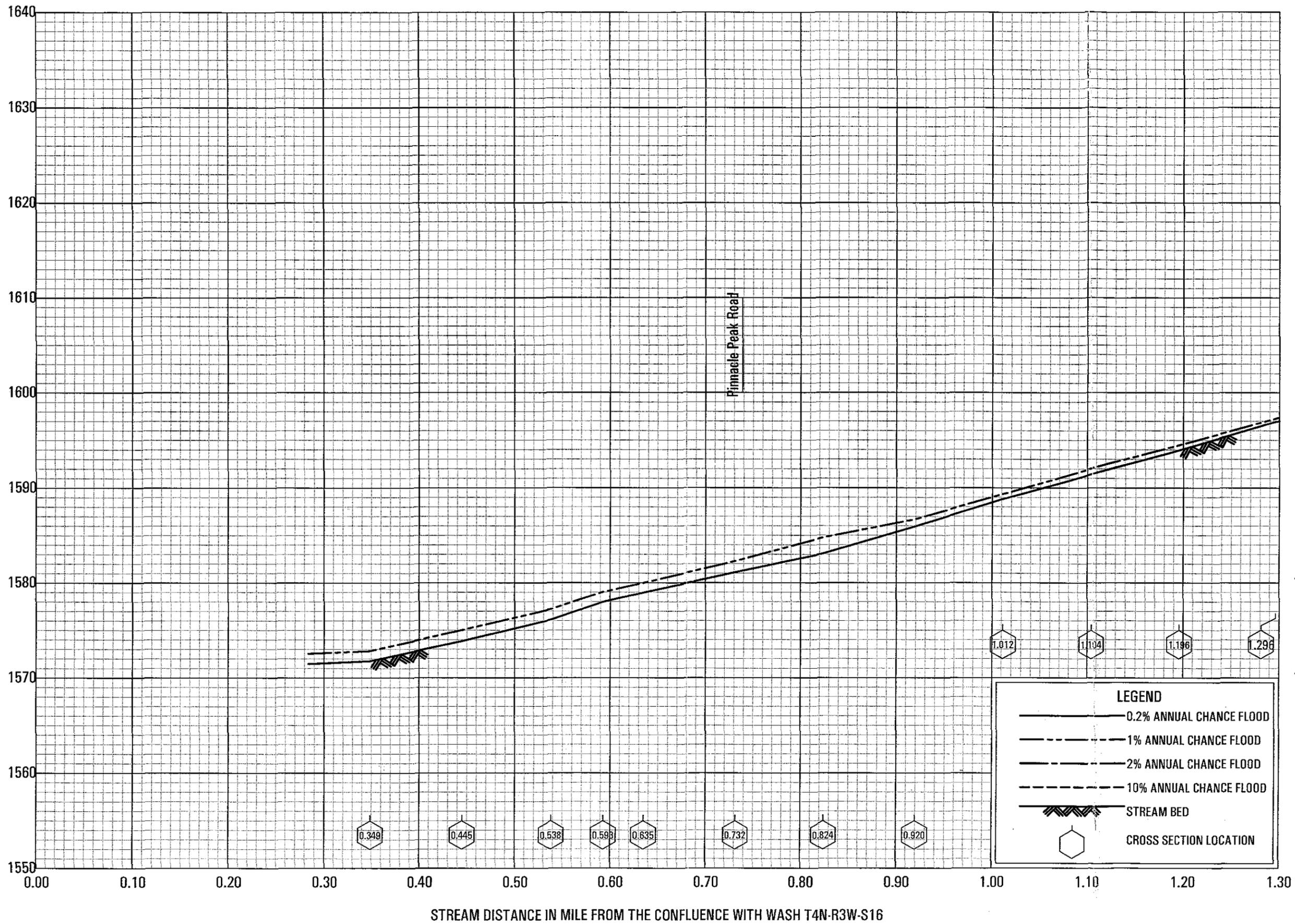
**WITTMANN PHASE 2 ZONE AE
FLOODPLAIN DELINEATION STUDY
FCD2004C066
1929 NGVD WORKMAPS**

SCALE: 1" = 500'
SECTION: VARIES
TOWNSHIP: 4N, 5N
RANGE: 3W, 4W
SHEET 4 OF 4
JOB NO.: MARI0000-0044

DAVID EVANS AND ASSOCIATES INC.
2141 East Highland Avenue, Suite 200
Phoenix, Arizona 85016
Phone: 602.878.5151

DRAWN BY:	NAGU
CHECKED BY:	FEB
DATE:	6/06
DATE:	04/07
REVISION:	Floodway Revised on Wash T4N-R3W-S09-See Addendum Located in NGVD 1929 Vertical Datum Notebook
BY:	

ELEVATION IN FEET (NGVD 29)

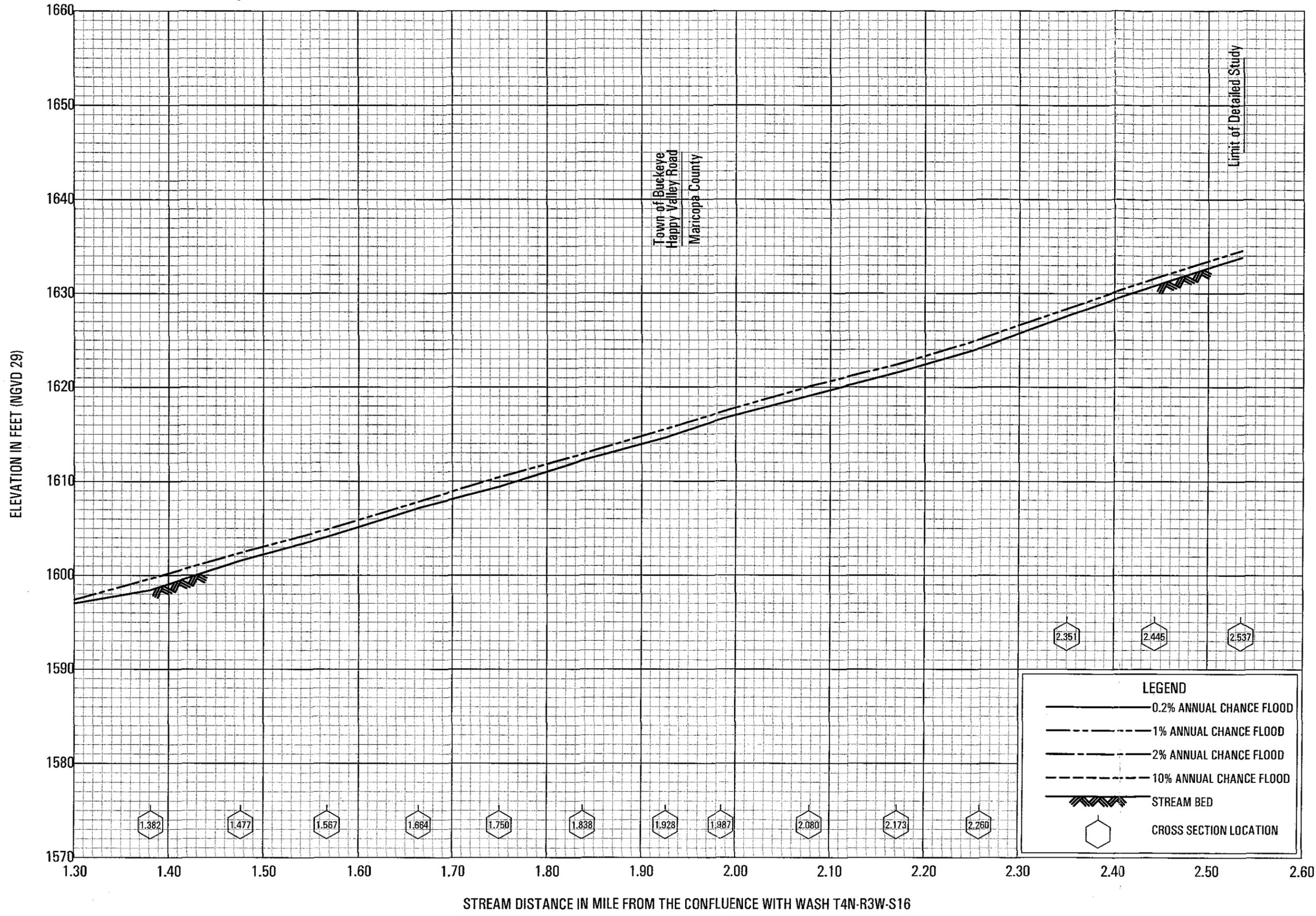


FLOOD PROFILES

T4N-R3W-S18W

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

01P

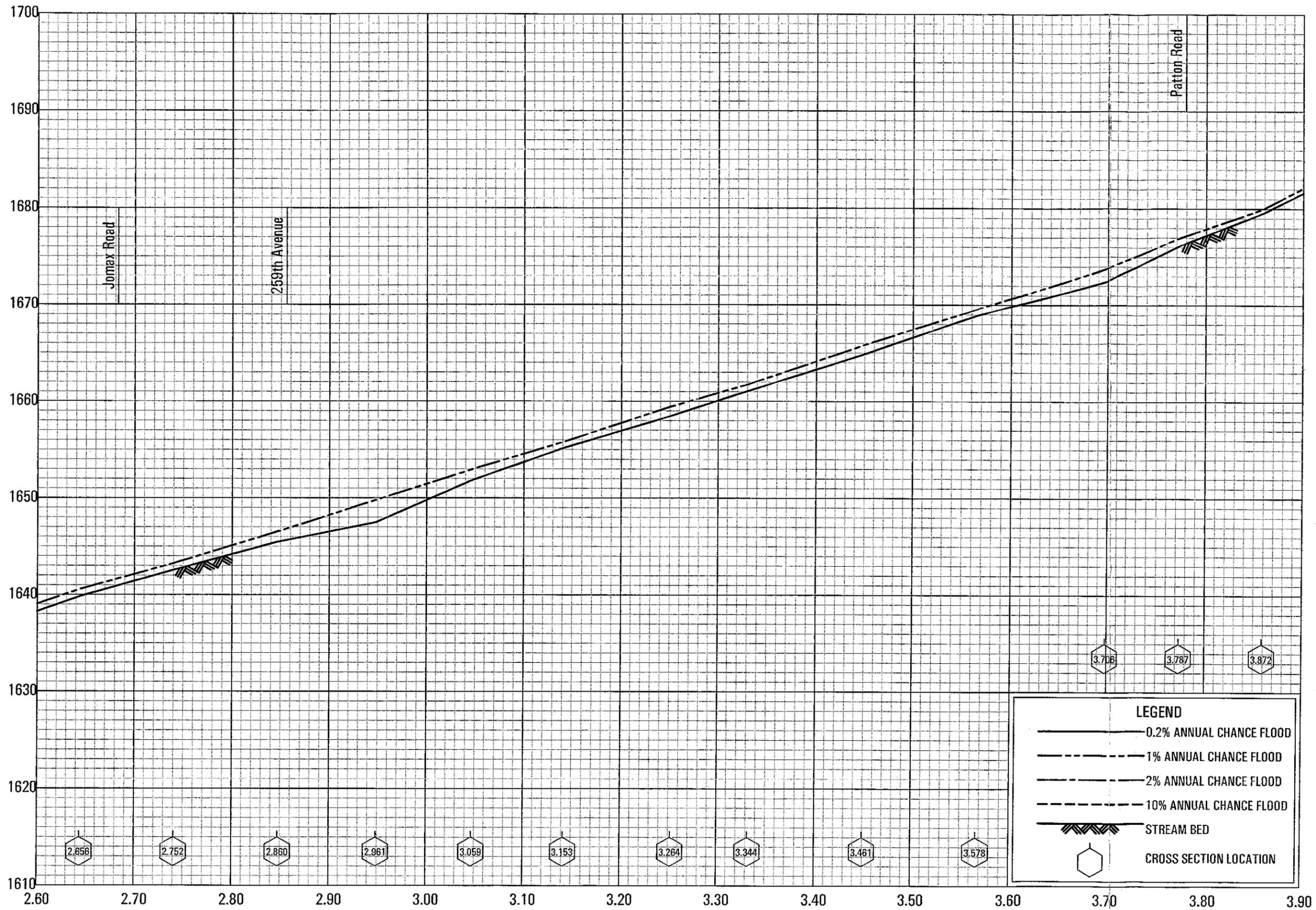


FLOOD PROFILES

T4N-R3W-S18W

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
 AND INCORPORATED AREAS

ELEVATION IN FEET (NGVD 29)



STREAM DISTANCE IN MILE FROM THE CONFLUENCE WITH WASH T4N-R3W-S16

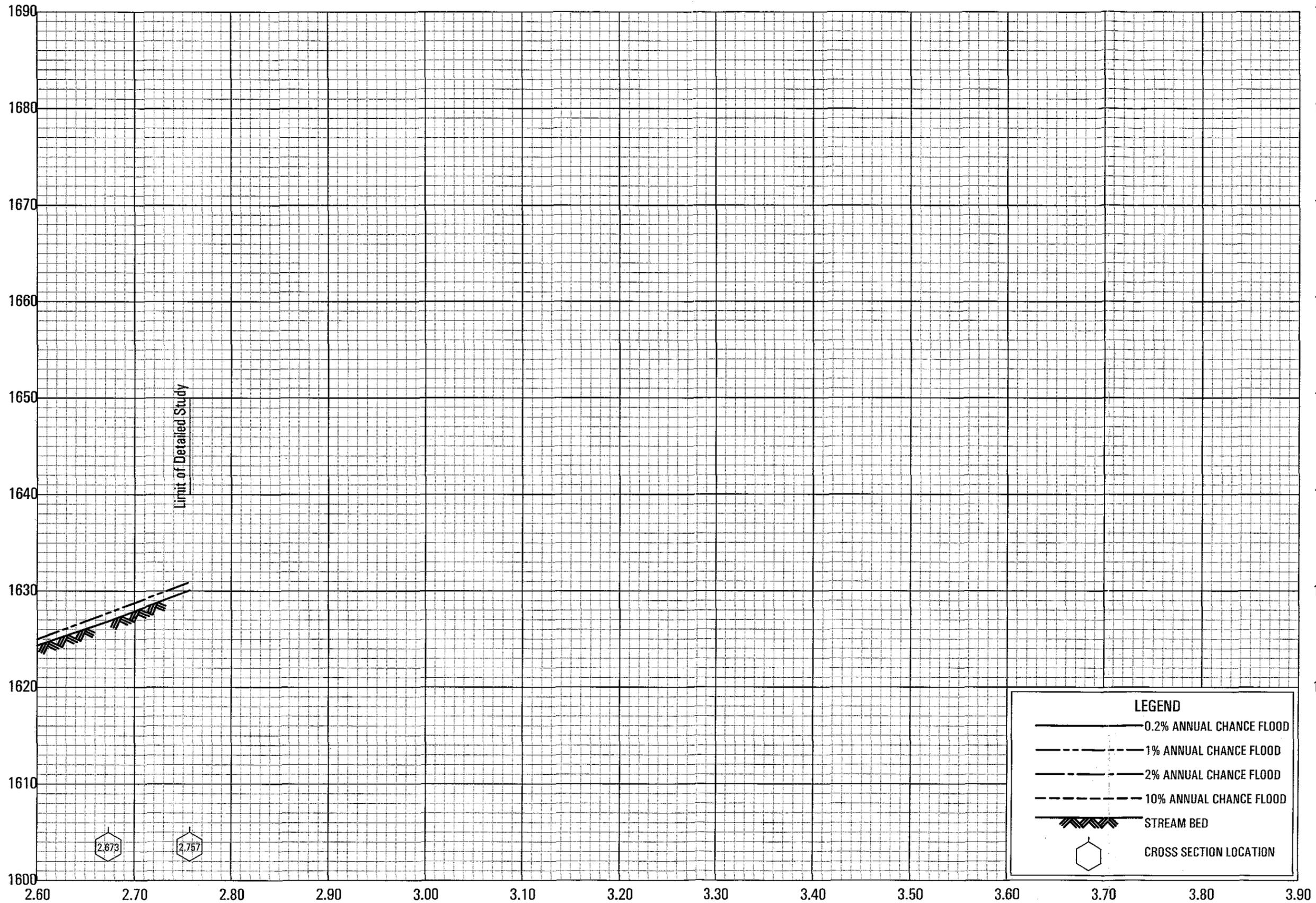
FLOOD PROFILES

T4N-R3W-S18E

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

Q3P

ELEVATION IN FEET (NGVD 29)



STREAM DISTANCE IN MILE FROM THE CONFLUENCE WITH WASH T4N-R3W-S16

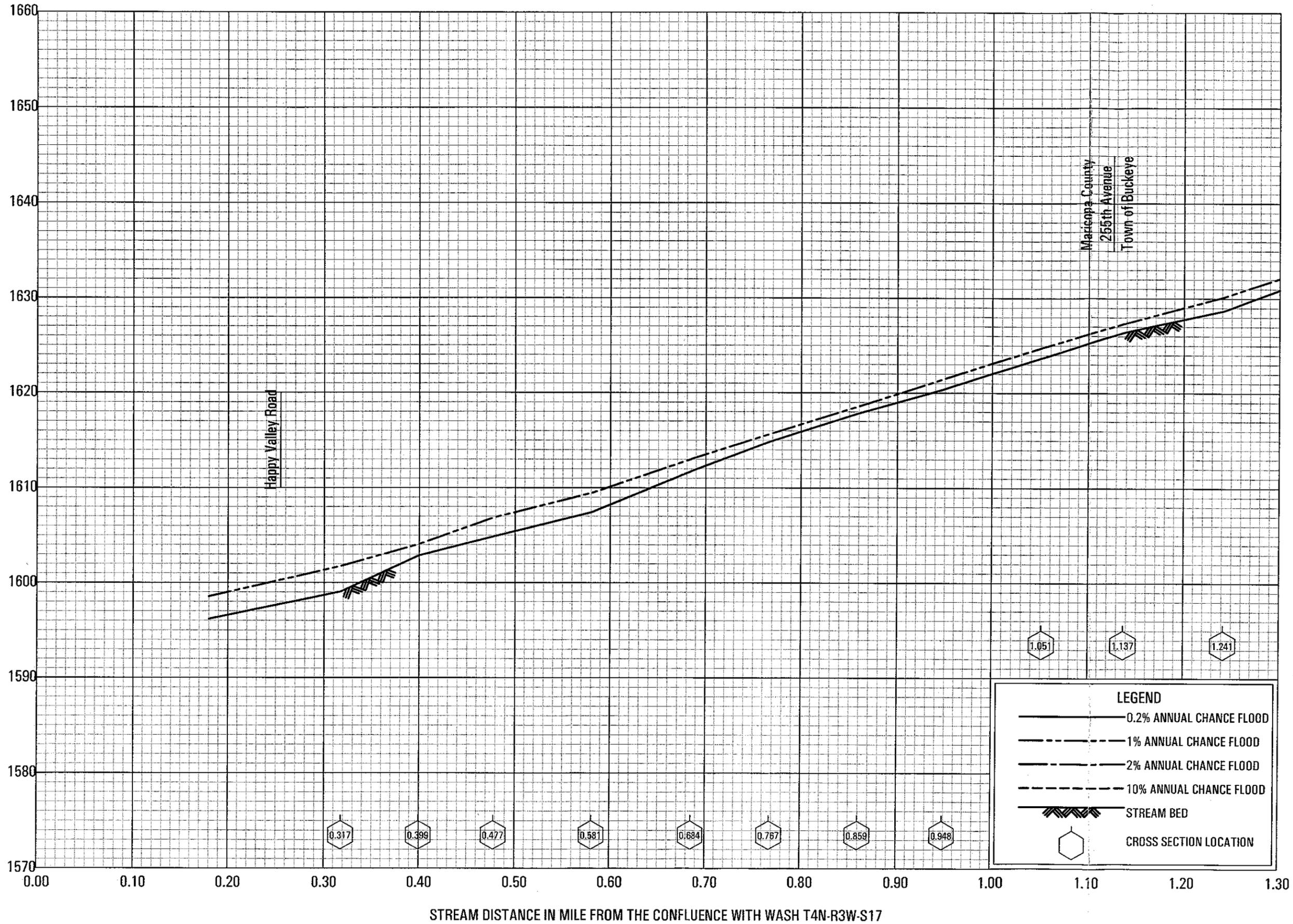
FLOOD PROFILES

T4N-R3W-S17

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

03P

ELEVATION IN FEET (NGVD 29)

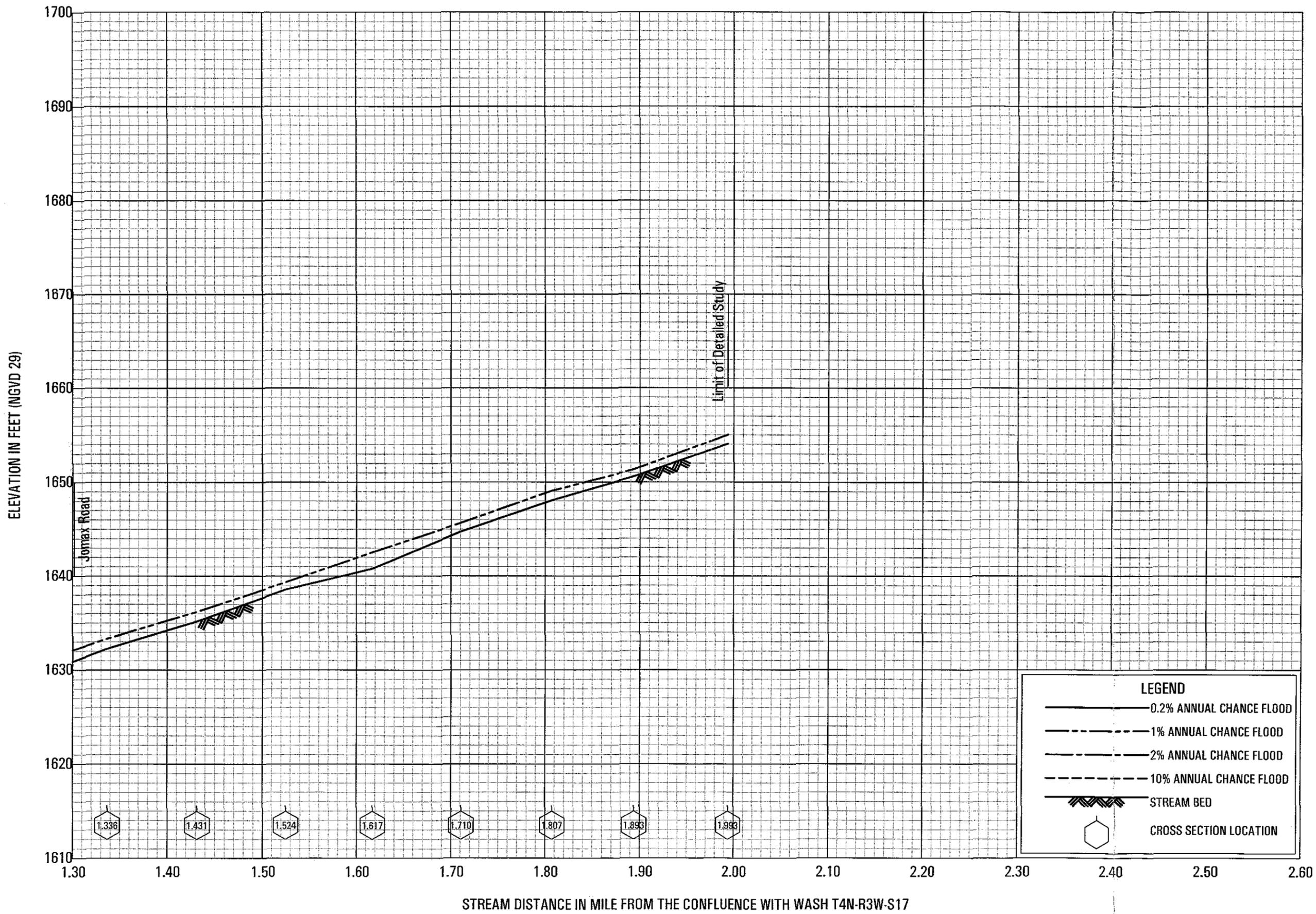


FLOOD PROFILES

T4N-R3W-S07

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

01P

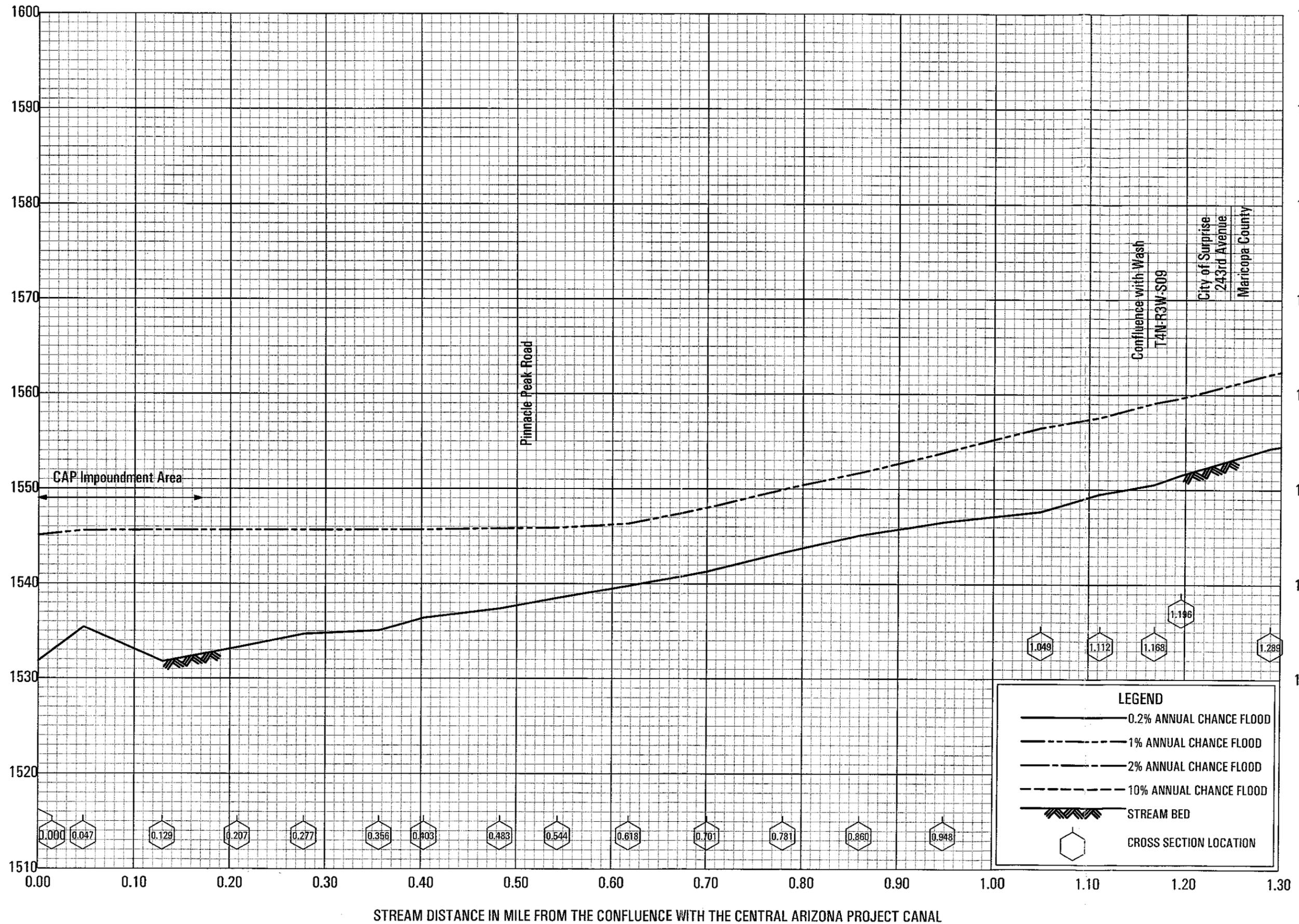


FLOOD PROFILES

T4N-R3W-S07

FEDERAL EMERGENCY MANAGEMENT AGENCY
 MARICOPA COUNTY, AZ
 AND INCORPORATED AREAS

ELEVATION IN FEET (NGVD 29)

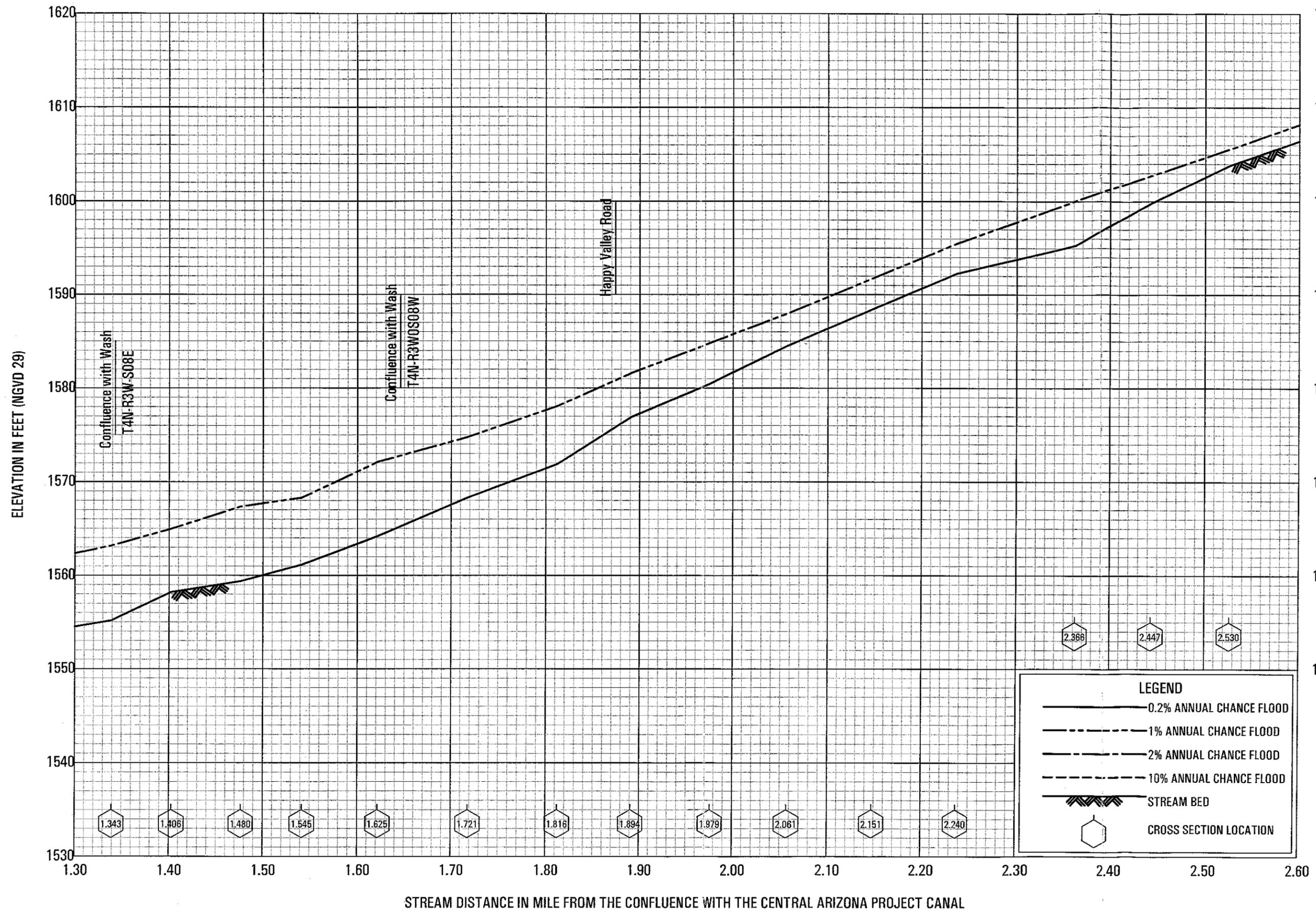


FLOOD PROFILES

WASH 3-WEST

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

01P

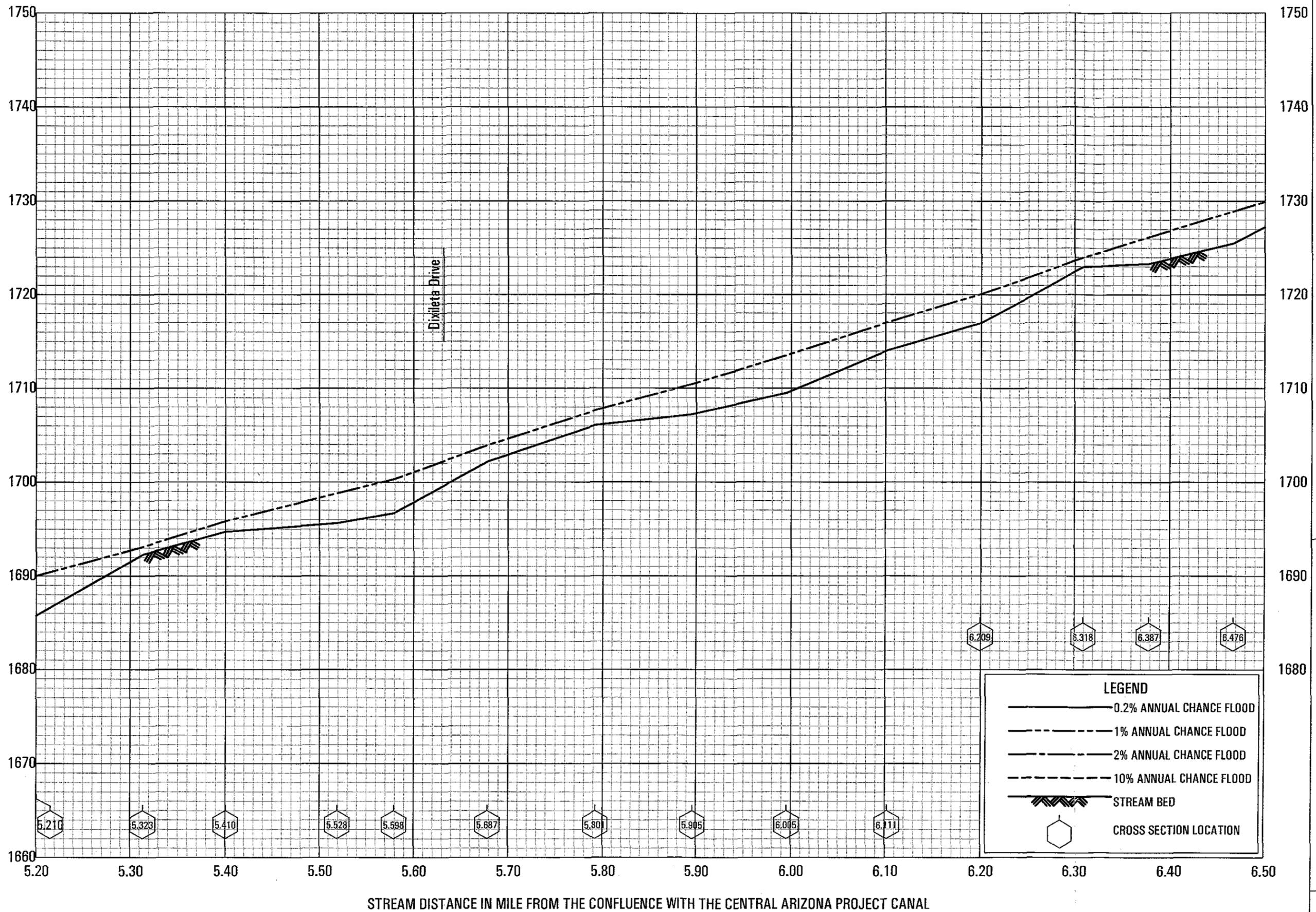


FLOOD PROFILES

WASH 3-WEST

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
 AND INCORPORATED AREAS

ELEVATION IN FEET (NGVD 29)



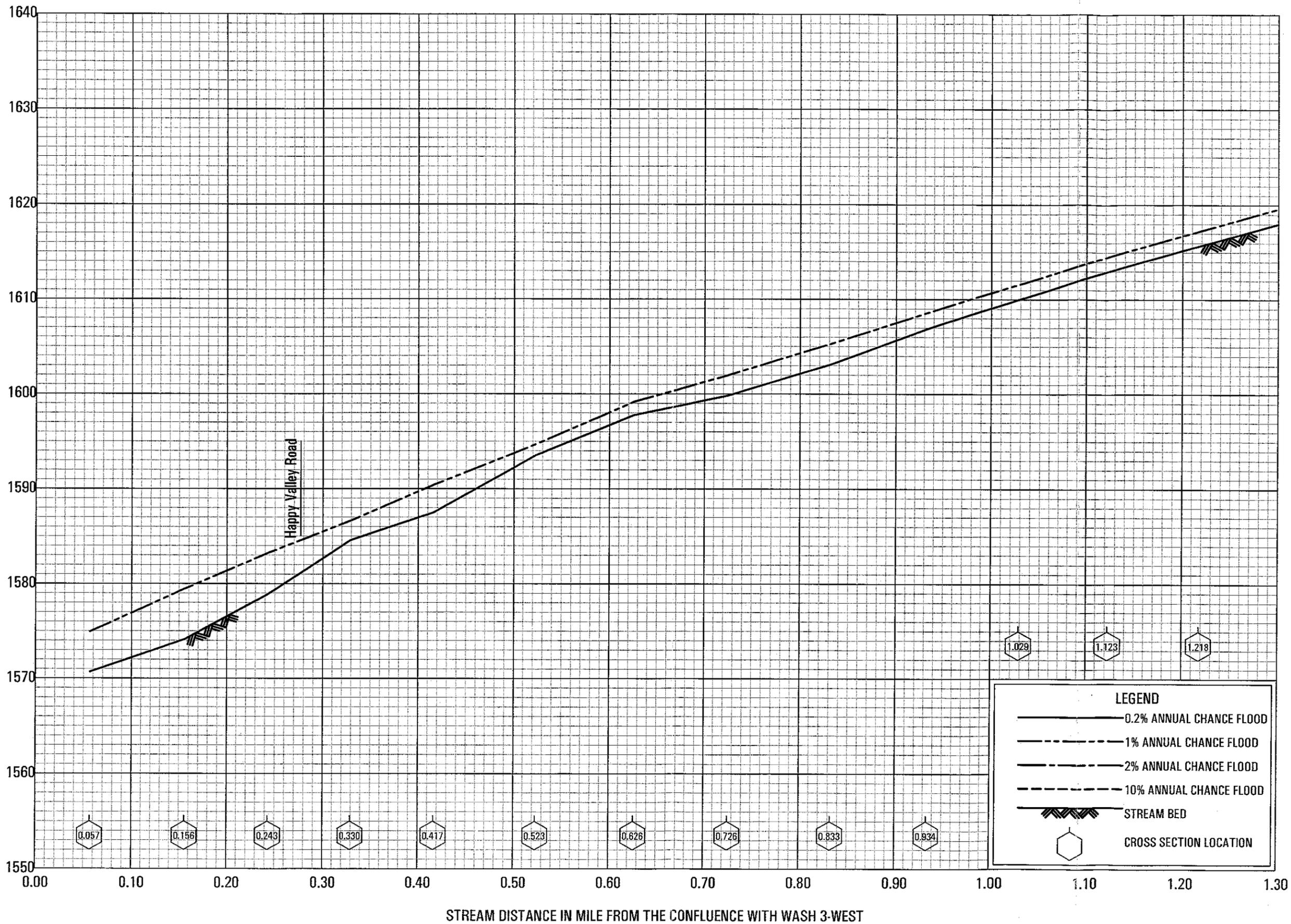
FLOOD PROFILES

WASH 3-WEST

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

05P

ELEVATION IN FEET (NGVD 29)

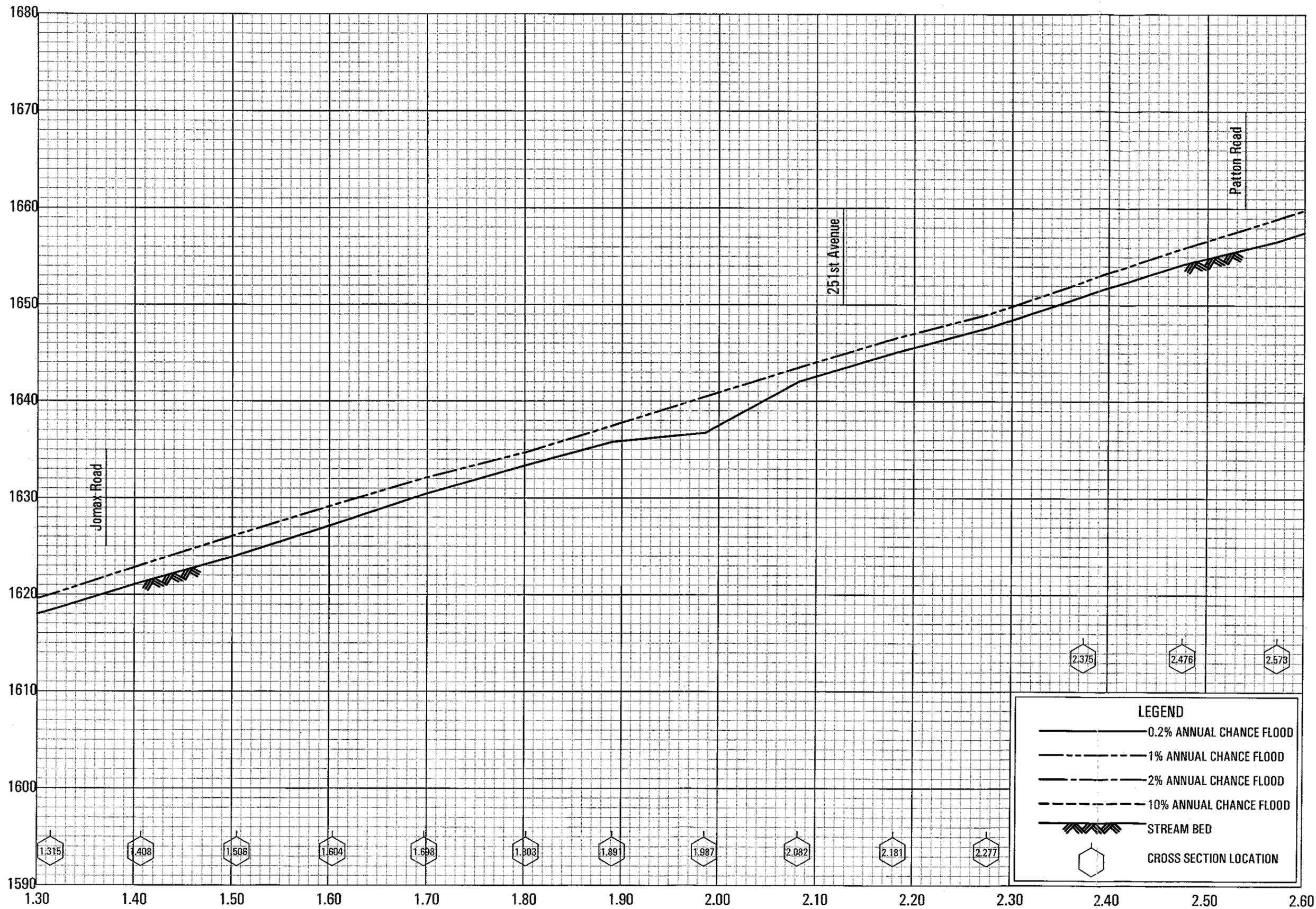


FLOOD PROFILES

T4N-R3W-S08W

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

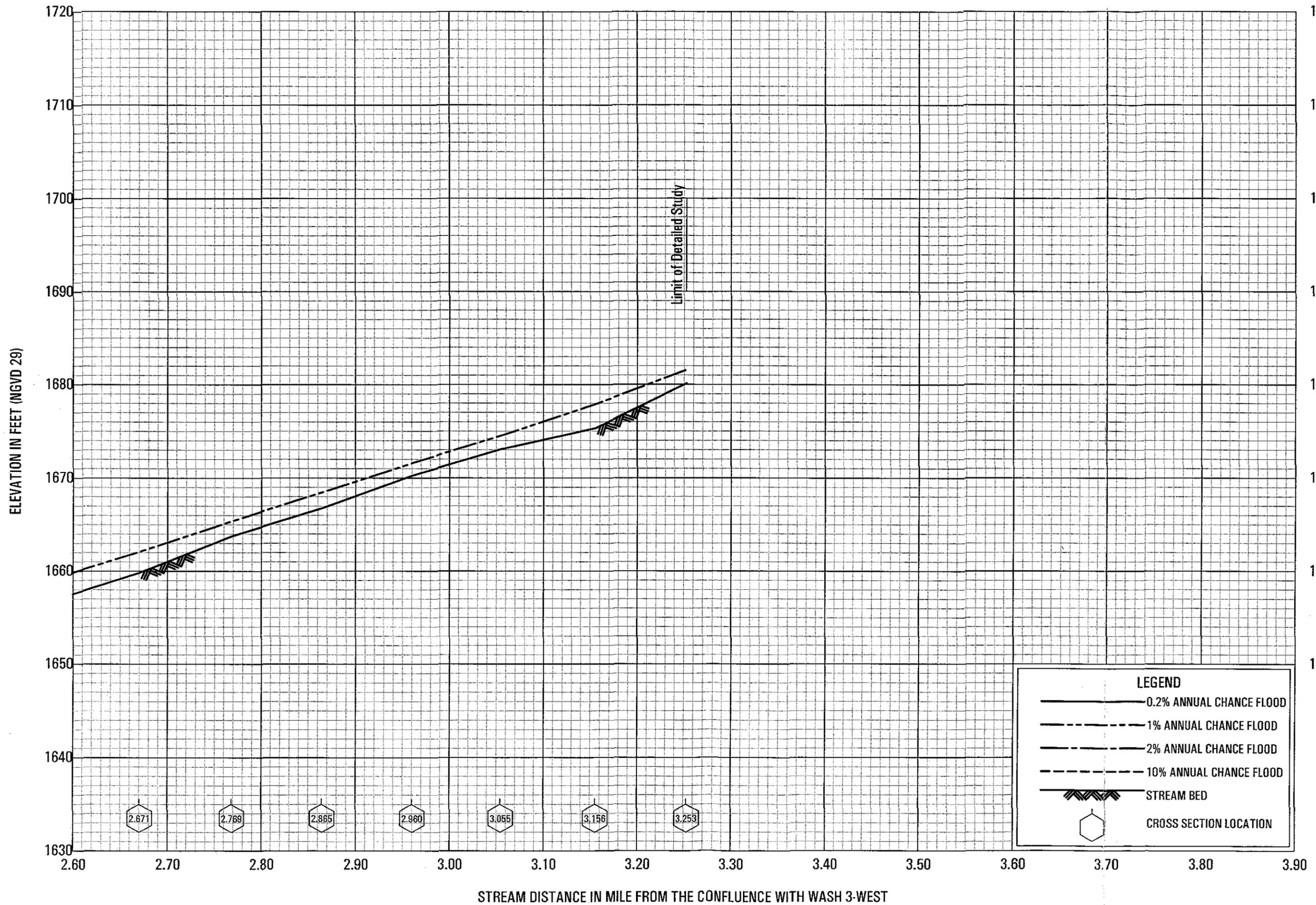
ELEVATION IN FEET (NGVD 29)



FLOOD PROFILES

T4N-R3W-S08W

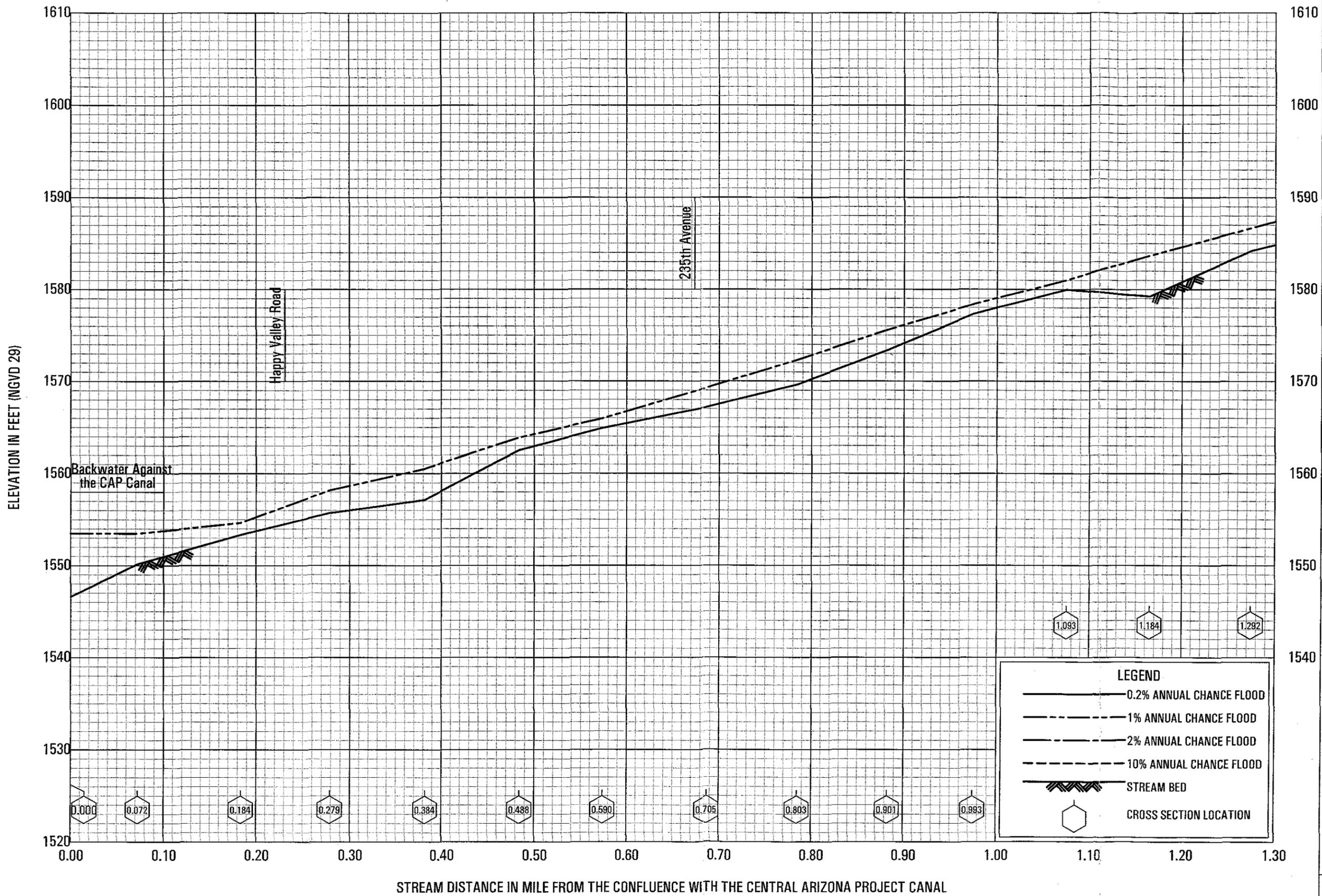
FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS



FLOOD PROFILES

T4N-R3W-S08W

FEDERAL EMERGENCY MANAGEMENT AGENCY
 MARICOPA COUNTY, AZ
 AND INCORPORATED AREAS

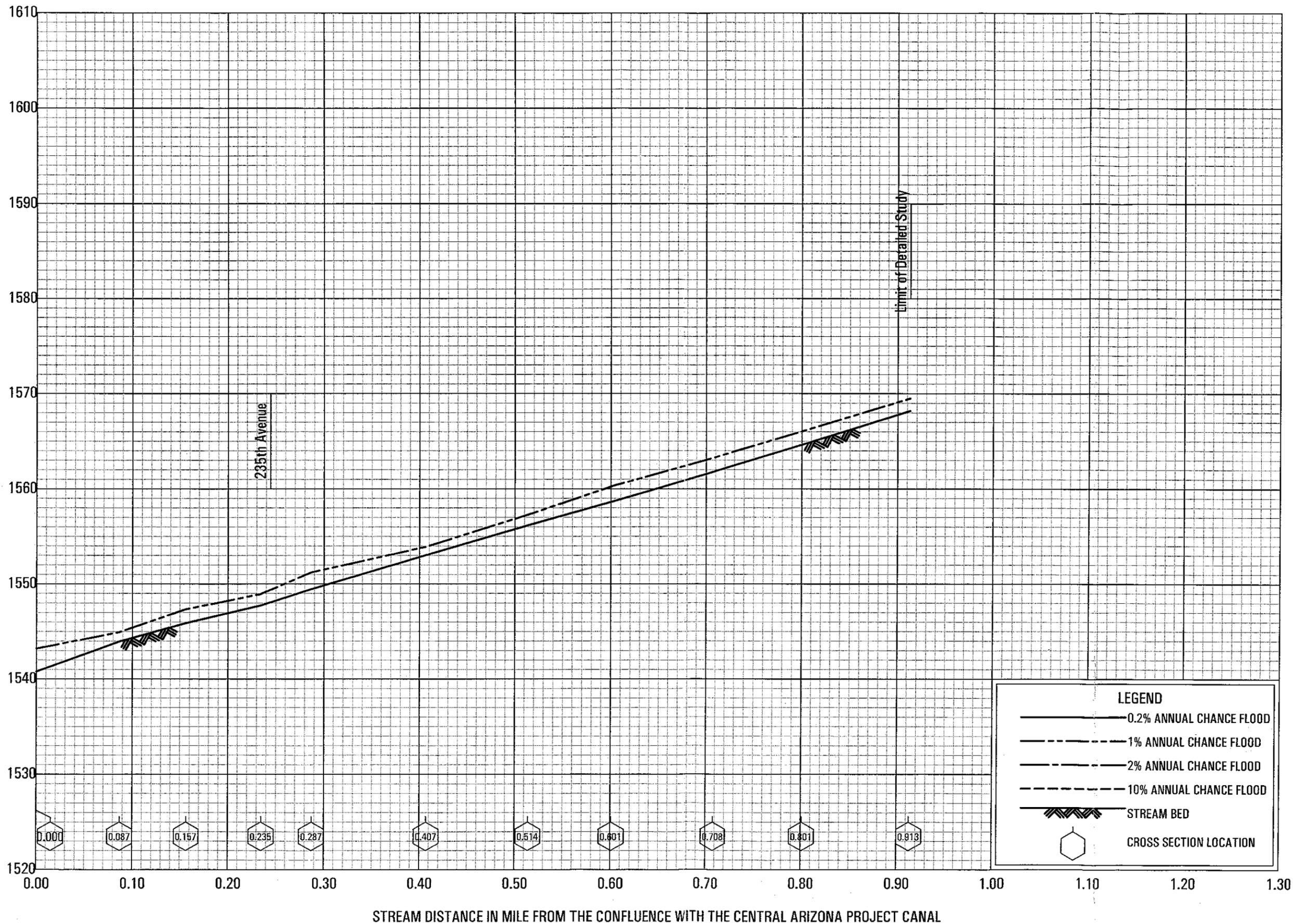


FLOOD PROFILES

T4N-R3W-S10N

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
 AND INCORPORATED AREAS

ELEVATION IN FEET (NGVD 29)



235th Avenue

limit of Detailed Study

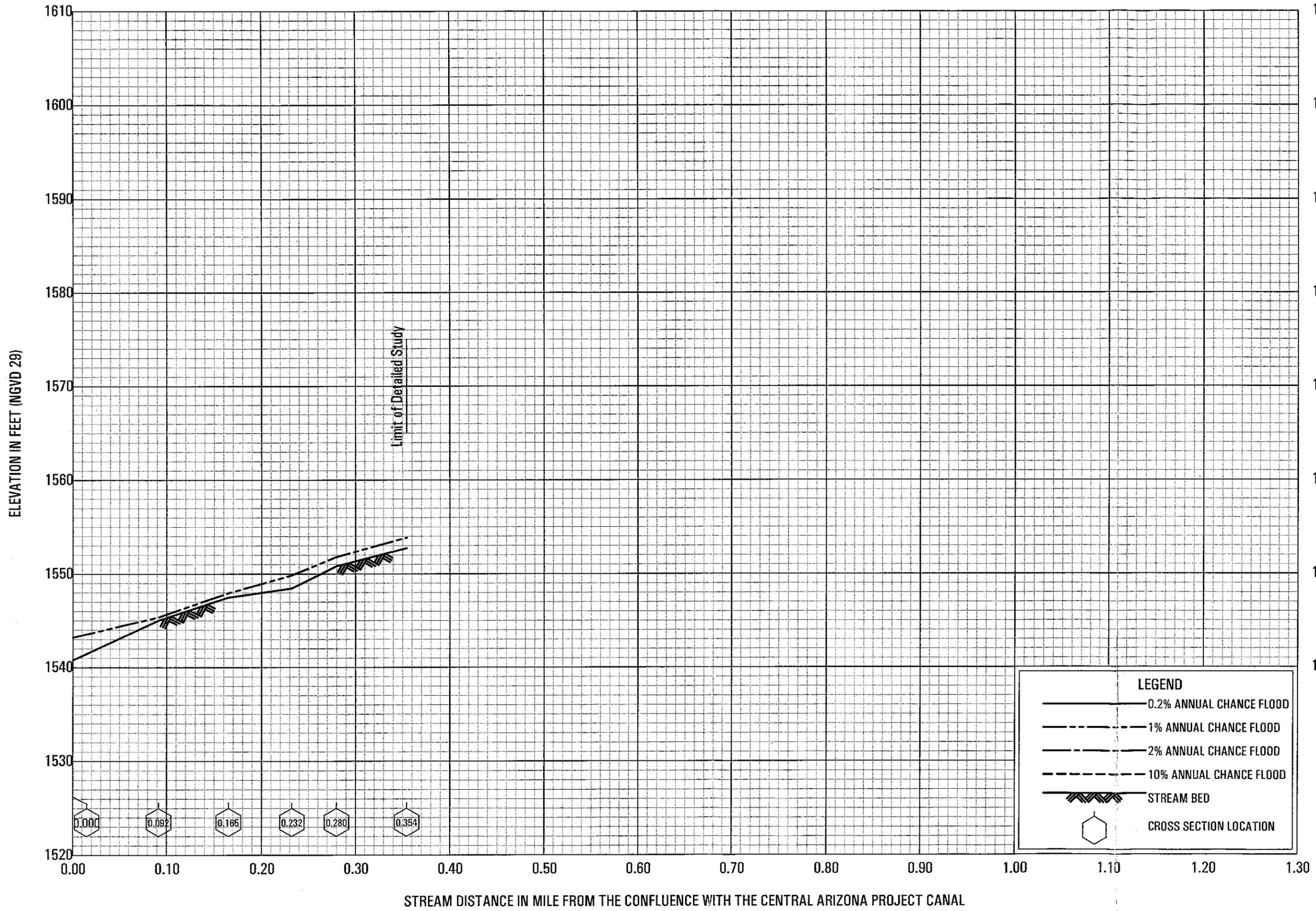
FLOOD PROFILES

T4N-R3W-S10W REACH-1

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

01P



FLOOD PROFILES

T4N-R3W-S10W REACH-2

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

01P