



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	Pima County Arizona (Unincorporated Areas)	NO PROJECT	HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS NEW TOPOGRAPHIC DATA
	COMMUNITY NO.: 040073		
IDENTIFIER	Finger Rock Wash Updating Existing Conditions LOMR	APPROXIMATE LATITUDE & LONGITUDE: 32.290, -110.909 SOURCE: Other DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM* NO.: 04019C1695L DATE: June 16, 2011 TYPE: FIRM* NO.: 04019C1694L DATE: June 16, 2011 TYPE: FIRM* NO.: 04019C1693L DATE: June 16, 2011 TYPE: FIRM* NO.: 04019C1685L DATE: June 16, 2011		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: June 16, 2011 PROFILE(S): 289P-297P SUMMARY OF DISCHARGES TABLE: 6	

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map; \*\* FBFM - Flood Boundary and Floodway Map; \*\*\* FHBM - Flood Hazard Boundary Map

### FLOODING SOURCE(S) & REVISED REACH(ES)

See Page 2 for Additional Flooding Sources

Finger Rock Wash - from approximately 550 feet upstream of Alvernon Way to approximately 140 feet upstream of Playa de Coronado  
 Finger Rock Wash Split - from confluence with Finger Rock Wash to approximately 1,010 feet upstream of Columbus Boulevard

### SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Finger Rock Wash	Zone A	Zone AE	YES	YES
	No BFEs	BFEs	YES	NONE
Finger Rock Wash Split	Zone A	Zone AE	NONE	YES
	No BFEs	BFEs	YES	NONE

\* BFEs - Base Flood Elevations

## DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204 Hanover, MD 21076. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

*Beth A Norton*

Beth A. Norton, Program Specialist  
 Engineering Management Branch  
 Federal Insurance and Mitigation Administration 122451 PT202.BKR.11090275P.H15 102-I-A-C



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

**OTHER FLOODING SOURCES AFFECTED BY THIS REVISION**

**FLOODING SOURCE(S) & REVISED REACH(ES)**

Pontatoc Canyon Wash - from the confluence with Finger Rock Wash to approximately 460 feet upstream of Playa de Coronado

**SUMMARY OF REVISIONS**

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Pontatoc Canyon Wash	Zone A No BFEs	Zone AE BFEs	NONE YES	YES NONE

\* BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204 Hanover, MD 21076. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

*Beth A Norton*

Beth A. Norton, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration 122451 PT202.BKR.11090275P.H15 102-I-A-C



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION

#### APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

#### COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic analysis. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204 Hanover, MD 21076. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

*Beth A. Norton*

Beth A. Norton, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration 122451 PT202.BKR.11090275P.H15 102-I-A-C



Federal Emergency Management Agency  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Sally M. Ziolkowski  
Director, Mitigation Division  
Federal Emergency Management Agency, Region IX  
1111 Broadway Street, Suite 1200  
Oakland, CA 94607-4052  
(510) 627-7175

**STATUS OF THE COMMUNITY NFIP MAPS**

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204 Hanover, MD 21076. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

*Beth A. Norton*

Beth A. Norton, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration 122451 PT202.BKR.11090275P.H15 102-I-A-C



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

**PUBLIC NOTIFICATION OF REVISION**

**PUBLIC NOTIFICATION**

FLOODING SOURCE	LOCATION OF REFERENCED ELEVATION	BFE (FEET NAVD 88)		MAP PANEL NUMBER(S)
		EFFECTIVE	REVISED	
Finger Rock Wash	Approximately 550 feet upstream of Alvernon Way	0	2,432	04019C1693L
	Approximately 140 feet upstream of Playa de Coronado	0	3,079	04019C1685L
Finger Rock Wash Split	Approximately 190 feet upstream of the confluence with Finger Rock Wash	0	2,803	04019C1685L
	Approximately 1,010 feet upstream of Columbus Boulevard	0	2,974	04019C1685L
Pontatoc Canyon Wash	Approximately 40 feet upstream of the confluence with Finger Rock Wash	0	3,012	04019C1685L
	Approximately 460 feet upstream of Playa de Coronado	0	3,083	04019C1685L

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised BFEs presented in this LOMR may be changed.

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below. Please refer to FEMA's website at [https://www.floodmaps.fema.gov/fhm/Scripts/bfe\\_main.asp](https://www.floodmaps.fema.gov/fhm/Scripts/bfe_main.asp) for a more detailed description of proposed BFE changes, which will be posted within a week of the date of this letter.

**LOCAL NEWSPAPER**

Name: *Daily Territorial*

Dates: September 20, 2011 and September 27, 2011

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 7390 Coca Cola Drive, Suite 204 Hanover, MD 21076. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

*Beth A. Norton*

Beth A. Norton, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration 122451 PT202.BKR.11090275P.H15 102-I-A-C

TABLE 6. SUMMARY OF DISCHARGES- continued

<u>FLOODING SOURCE AND LOCATION</u>	<u>DRAINAGE AREA (sq. miles)</u>	<u>PEAK DISCHARGES(cfs)</u>			
		<u>10-PERCENT</u>	<u>2-PERCENT</u>	<u>1-PERCENT</u>	<u>0.2PERCENT</u>
<b>FINGER ROCK WASH</b>					
At Alvernon Way	6.4	*	*	5,756	*
At Skyline Drive	5.3	*	*	6,060	*
At Coronado National Forest Boundary	1.5	*	*	2,324	*
<b>FINGER ROCK WASH SPLIT</b>					
At Coronado Drive	3.4	*	*	1,922	*
<b>PONTATOC CANYON WASH</b>					
At Coronado National Forest Boundary	1.1	*	*	2,503	*

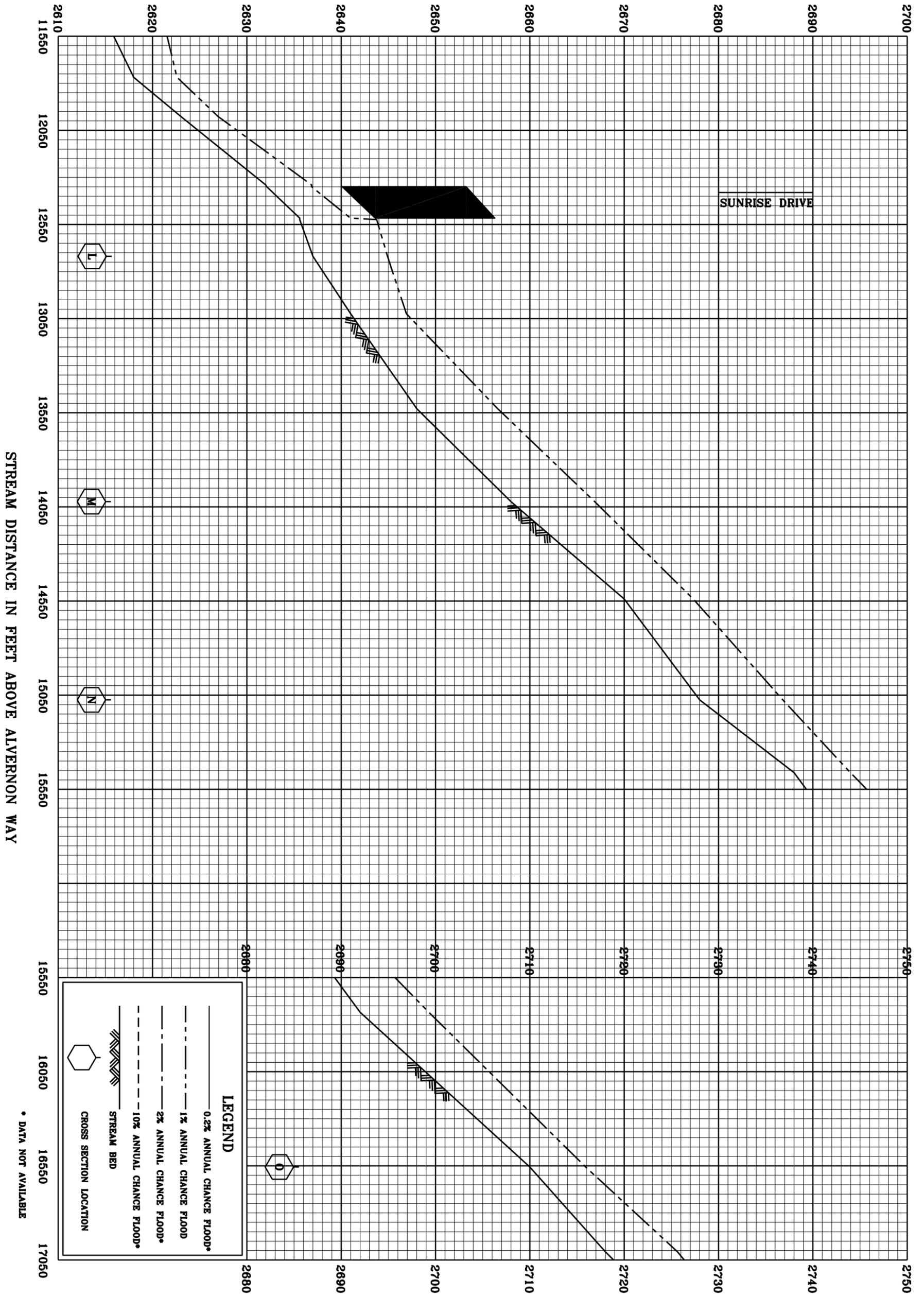
**REVISED TO  
REFLECT LOMR  
EFFECTIVE: January 25, 2012**

\* Data Not Available

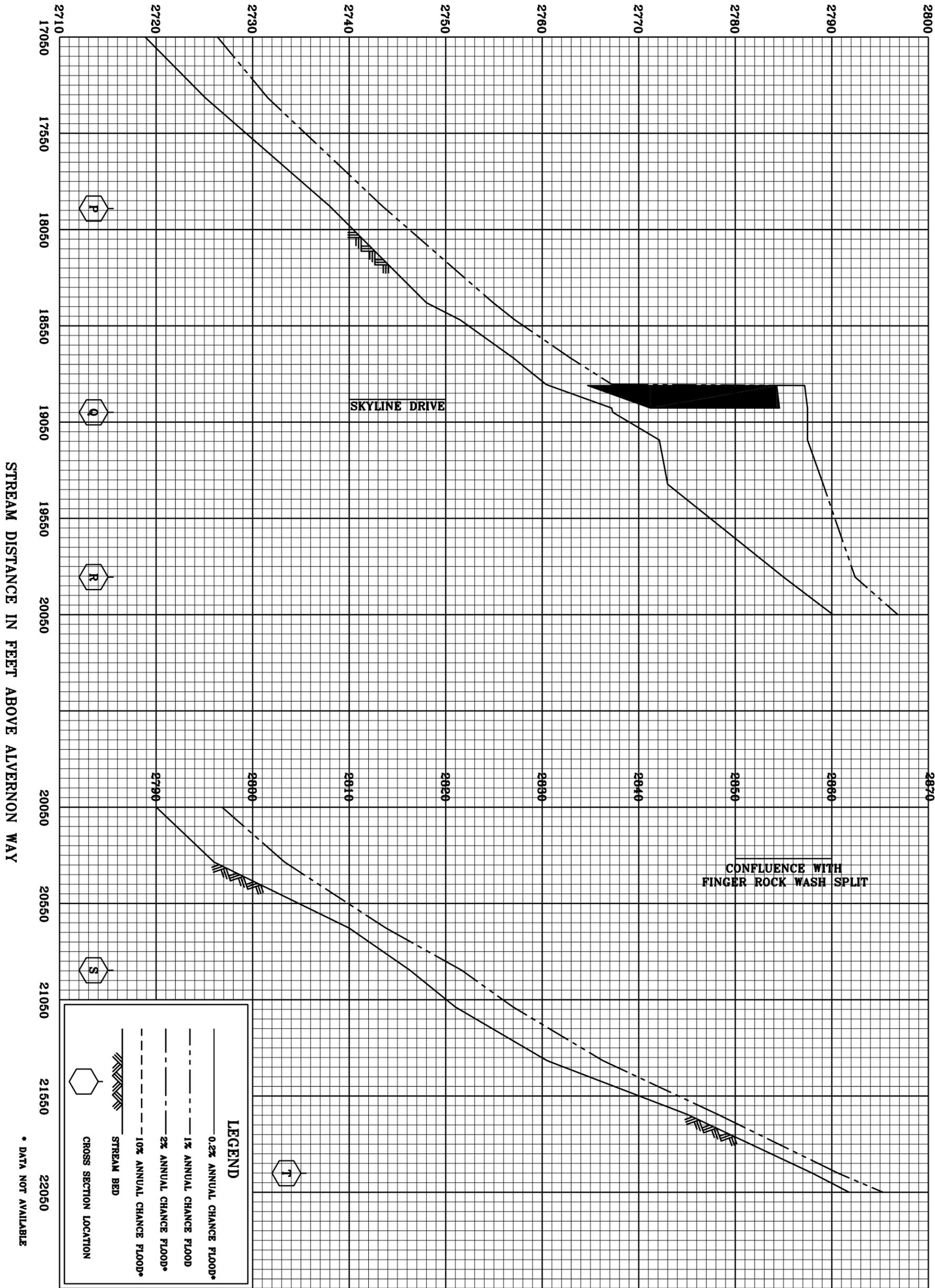




ELEVATION IN FEET (NAVD)



ELEVATION IN FEET (NAVD)













**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only to landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Arizona State Plane central zone (FIPSZONE 0202). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NNGS12  
National Geodetic Survey  
SSM-C-3, #9202  
1315 East-West Highway  
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information Exchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the **FEMA Map Service Center** website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information Exchange.

**LEGEND**

**SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A**  
No Base Flood Elevations determined.

**ZONE AE**  
Base Flood Elevations determined.

**ZONE AH**  
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

**ZONE AO**  
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

**ZONE AR**  
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

**ZONE A99**  
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

**ZONE V**  
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

**ZONE VE**  
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X**  
Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

**ZONE X**  
Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE D**  
Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary  
0.2% annual chance floodplain boundary  
Floodway boundary  
Zone D boundary  
Zone D and OPA boundary  
Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.  
Base Flood Elevation line and value; elevation in feet\*  
Base Flood Elevation value where uniform within zone; elevation in feet\*  
\* Referenced to the North American Vertical Datum of 1988 (NAVD 88)  
Cross section line  
Transsect line  
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)  
1000-meter Universal Transverse Mercator grid ticks, zone 12  
5000-foot grid ticks: Arizona State Plane coordinate system, central zone (FIPSZONE 0202), Transverse Mercator  
Bench mark (see explanation in Notes to Users section of this FIRM panel)  
River Mile  
MAP REPOSITORIES  
Refer to Map Repositories list on Map Index  
EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP  
February 6, 1999  
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 1685L**

**FIRM FLOOD INSURANCE RATE MAP PIMA COUNTY, ARIZONA AND INCORPORATED AREAS**

**PANEL 1685 OF 4750**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
PIMA COUNTY	040073	1685	L

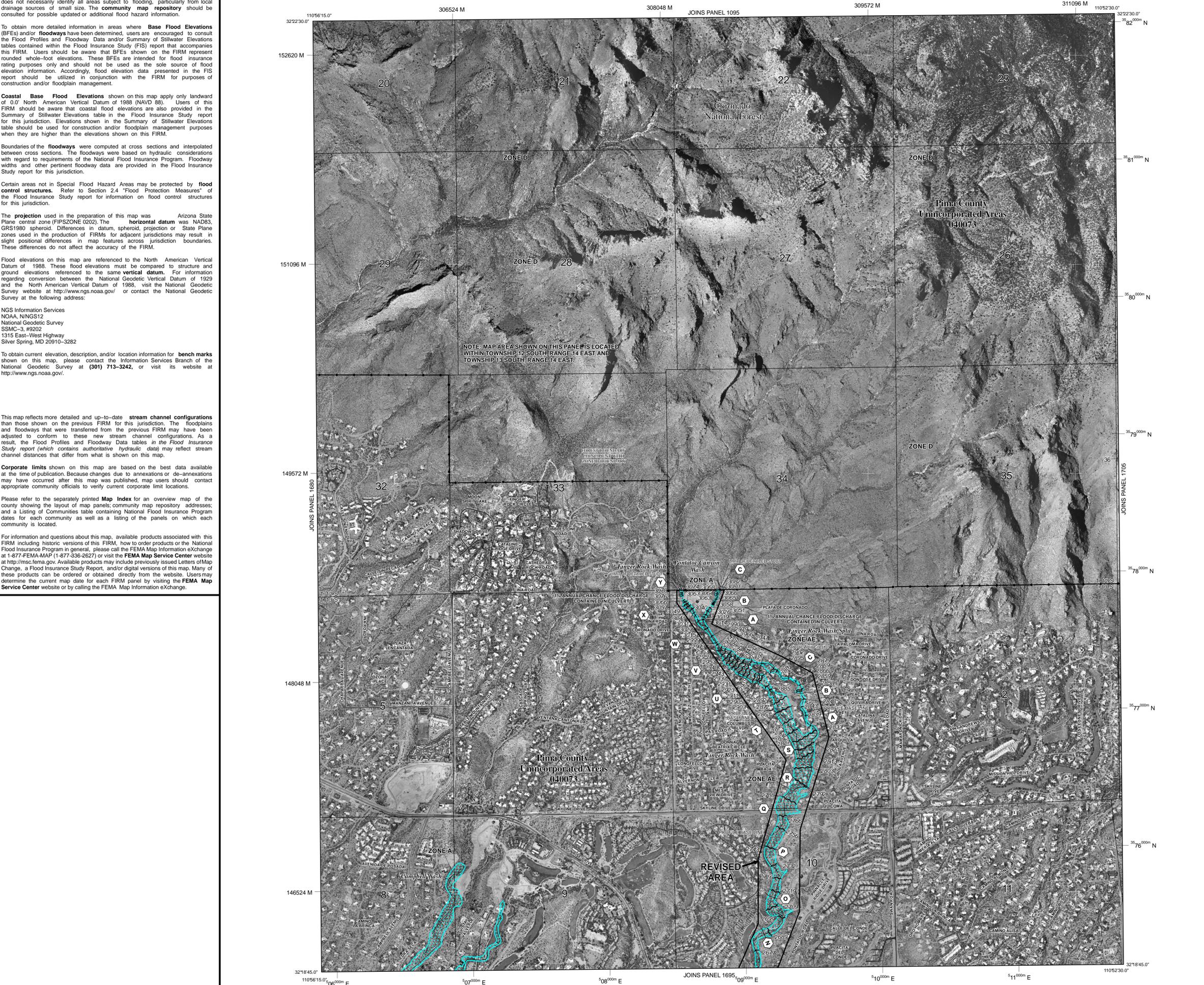
**REVISED TO REFLECT LOMR EFFECTIVE: January 25, 2012**

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER 04019C1685L**

**EFFECTIVE DATE JUNE 16, 2011**

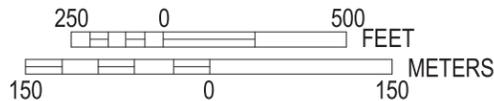
Federal Emergency Management Agency



- Legend
-  1% annual chance (100-Year) Floodplain
  -  1% annual chance (100-Year) Floodway
  -  0.2% annual chance (500-Year) Floodplain



MAP SCALE 1" = 500'



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 13 SOUTH, RANGE 14 EAST AND TOWNSHIP 14 SOUTH, RANGE 14 EAST.

308048 M

JOINS PANEL 1695

110°54'22.5"

32°16'52.5"

**NFTIP**  
**PANEL 1693L**

**FIRM**  
**FLOOD INSURANCE RATE MAP**

**PIMA COUNTY, ARIZONA**  
**AND INCORPORATED AREAS**

**PANEL 1693 OF 4750**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)  
 CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PIMA COUNTY	040073	1693	L
TUCSON, CITY OF	040076	1693	L

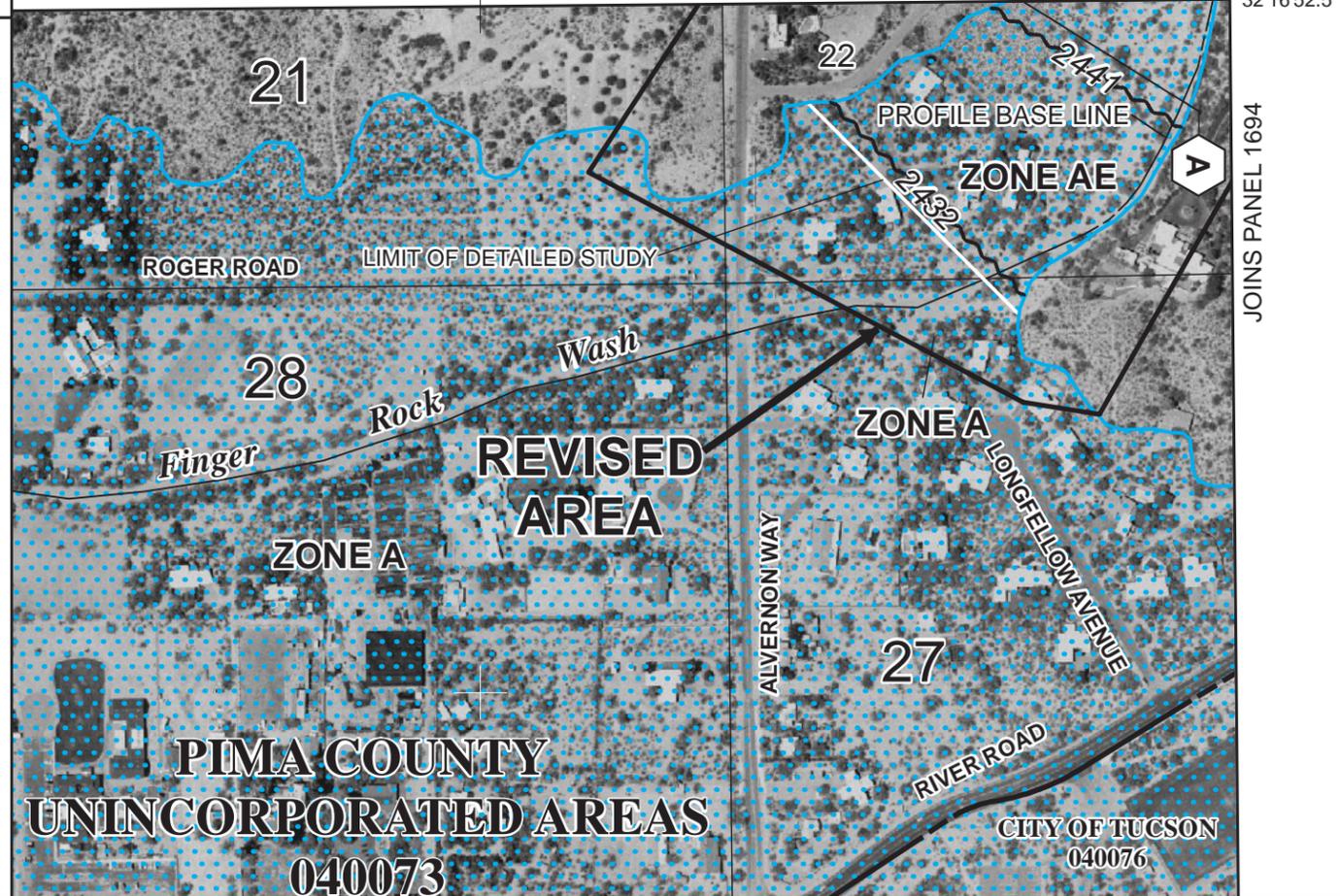
**REVISED TO REFLECT LOMR**  
**EFFECTIVE: January 25, 2012**

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
 04019C1693L

**EFFECTIVE DATE**  
 JUNE 16, 2011

  
 Federal Emergency Management Agency

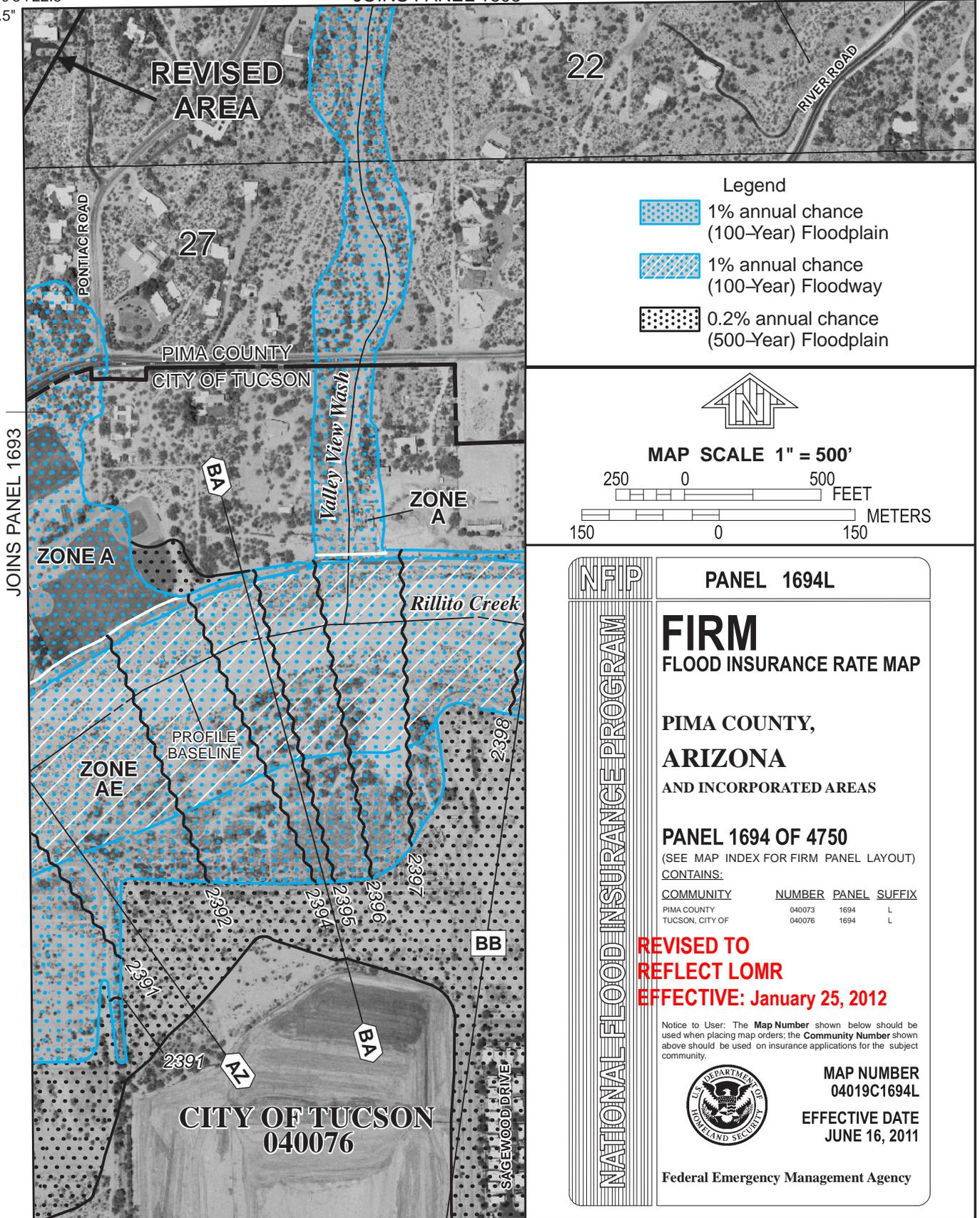


# PIMA COUNTY UNINCORPORATED AREAS 040073

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED  
WITHIN TOWNSHIP 13 SOUTH, RANGE 14 EAST AND  
TOWNSHIP 14 SOUTH, RANGE 14 EAST.

110°54'22.5"  
32°16'52.5"

JOINS PANEL 1695



### Legend

-  1% annual chance (100-Year) Floodplain
-  1% annual chance (100-Year) Floodway
-  0.2% annual chance (500-Year) Floodplain



MAP SCALE 1" = 500'



PANEL 1694L

## FIRM FLOOD INSURANCE RATE MAP

PIMA COUNTY,  
ARIZONA  
AND INCORPORATED AREAS

PANEL 1694 OF 4750

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)  
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PIMA COUNTY	040073	1694	L
TUCSON, CITY OF	040076	1694	L

**REVISED TO  
REFLECT LOMR  
EFFECTIVE: January 25, 2012**

Notice to User: The Map Number below should be  
used when placing map orders; the Community Number  
shown above should be used on insurance applications for the  
subject community.



MAP NUMBER  
04019C1694L

EFFECTIVE DATE  
JUNE 16, 2011

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only to landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was the Arizona State Plane central zone (FIPSZONE 0202). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NNGS12  
National Geodetic Survey  
SSM-C-3, #9202  
1315 East-West Highway  
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

**Base map** information shown on this FIRM was derived from multiple sources. Base map imagery for eastern Pima County was provided in digital format by the Pima Association of Governments. These data were developed at 1-foot Ground Sample Distance (GSD) from color aerial photography flown in 2002. Base map imagery for western Pima County was derived from USGS imagery available for the State of Arizona and produced at a scale of 1:12,000 from photography dated 2006 and 2007.

This map reflects more detailed and up-to-date **stream channel configurations** and floodways than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the **FEMA Map Service Center** website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information eXchange.

**LEGEND**

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

**ZONE A**  
No Base Flood Elevations determined.  
Base Flood Elevations determined.

**ZONE AE**  
Base Flood Elevations determined.

**ZONE AH**  
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

**ZONE AO**  
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

**ZONE AR**  
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

**ZONE A99**  
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

**ZONE V**  
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

**ZONE VE**  
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X**  
Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

**ZONE X**  
Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE D**  
Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary  
0.2% annual chance floodplain boundary  
Floodway boundary  
Zone D boundary  
CBRS and OPA boundary  
Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.  
Base Flood Elevation line and value; elevation in feet\*  
Base Flood Elevation value where uniform within zone; elevation in feet\*  
\* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

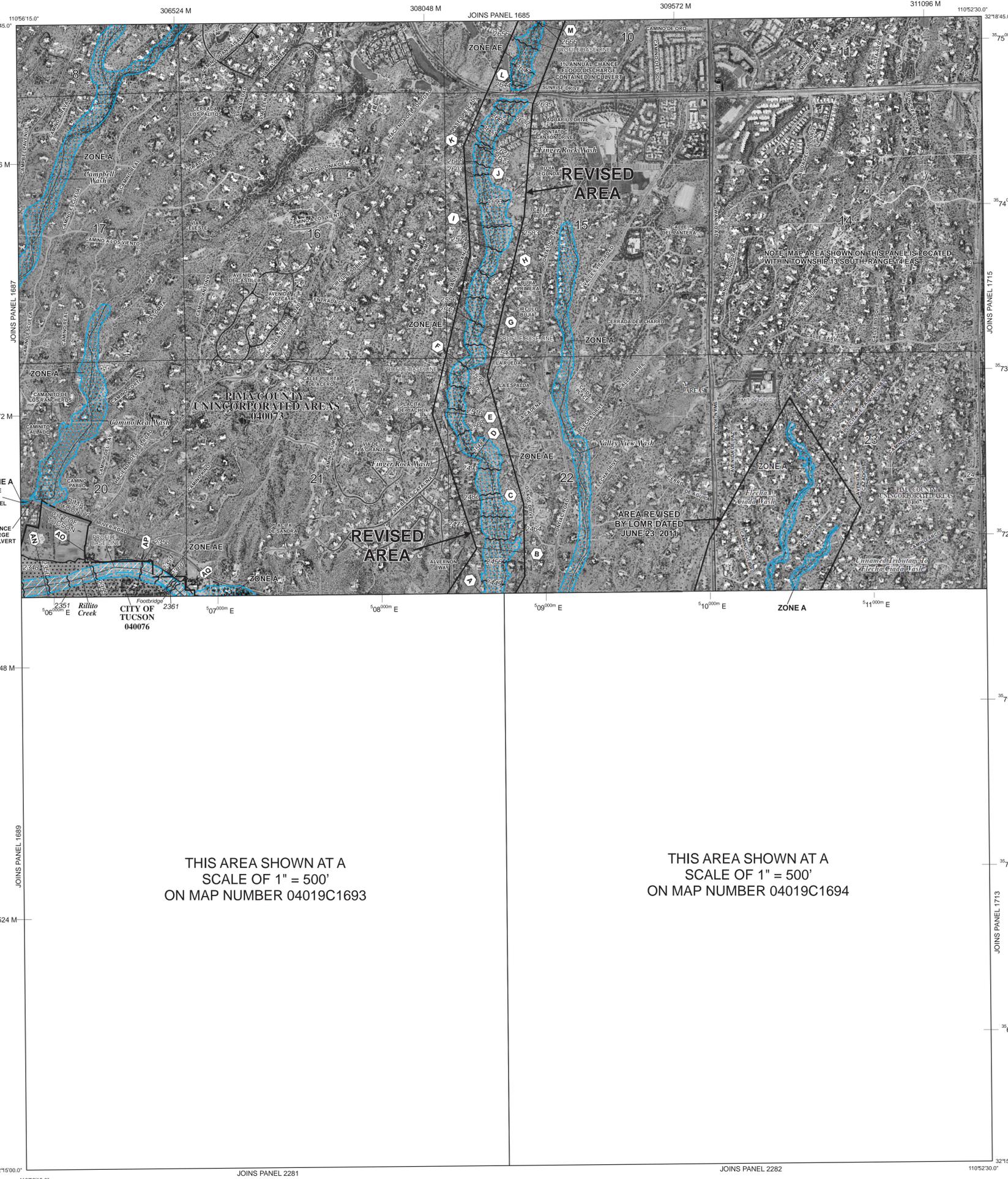
**MAP REPOSITORIES**  
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP  
February 6, 1999  
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.  
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

**MAP SCALE 1" = 1000'**

500 0 1000 2000 FEET  
300 0 300 600 METERS



THIS AREA SHOWN AT A SCALE OF 1" = 500' ON MAP NUMBER 04019C1693

THIS AREA SHOWN AT A SCALE OF 1" = 500' ON MAP NUMBER 04019C1694

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 1695L**

**FIRM FLOOD INSURANCE RATE MAP**

**PIMA COUNTY, ARIZONA AND INCORPORATED AREAS**

**PANEL 1695 OF 4750**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:	COMMUNITY	NUMBER	PANEL	SUFFIX
	PIMA COUNTY	040073	1695	L
	TUCSON, CITY OF	040076	1695	L

**REVISED TO REFLECT LOMR EFFECTIVE: January 25, 2012**

Notes to User: The **Map Number** shown below should be used when placing map orders. The **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER 04019C1695L**

**EFFECTIVE DATE JUNE 16, 2011**

Federal Emergency Management Agency