FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

WITTMANN PHASE III
FLOODPLAIN DELINEATION STUDY
FCD CONTRACT 2009-C006 -- ASSIGNMENT 3
SUBMITTED ON JANUARY 6, 2011

SHEET INDEX

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WASH INDEX

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Notes

1. Horizontal projection is Arizona State Plane Central Zone, High Accuracy Reference Network North American Datum of 1983 (HARN-NAD 83).

2. All elevations based on the North American Vertical Datum of 1988 (NAVD 88).

Data Sources

FCDMC provided the following data sources for use in this study:

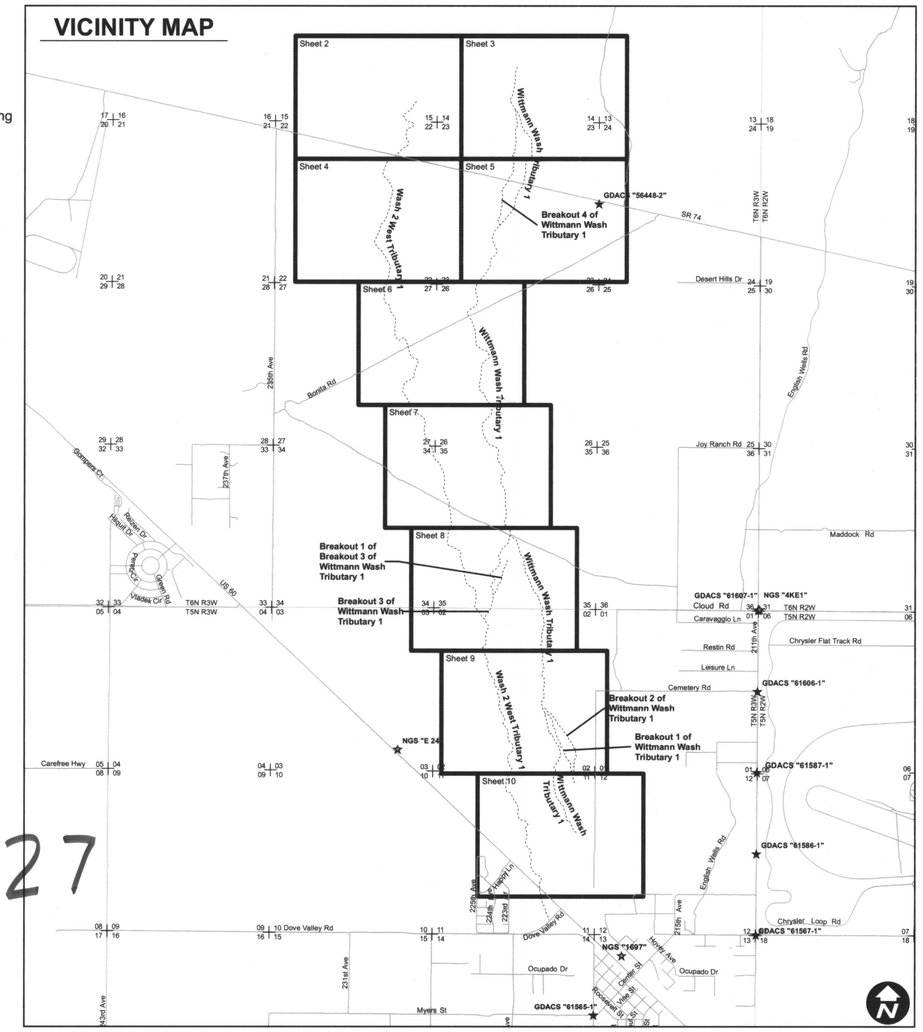
1. Mass points, breaklines, and two-foot and four-foot contours. Two-foot contours were available south of the Cloud Road alignment and four-foot contours were available north of the Cloud Road alignment. Aerial photogrammetry was flown in April 2002 by Stewart Geo Technologies under FCDMC Contract FCD2001-021. Vertical datum was NAVD 88. Contour interval was two feet or four feet. Mapping scale was 1:100 (inch:foot). Original coordinate system of data was State Plane, Zone 3176, International Feet, GRS 1980.

2. Aerial photography. Flights occurred in September 2008 and October 2009.

3. The report *Wittmann Area Drainage Master Study Update, ADMSU Hydrology, Volumes HY-I, HY-II, HY-III,* and *HY-Addendum* completed by Entellus in October 2004. This report was created under FCDMC Contract FCD2002-C029. This report provided the 100-year flow rates used to complete the hydraulic analysis.

Drawer 327

VICINITY MAP



Benchmarks (NAD 83-HARN and NAVD 88)

GDACS Survey Monuments

GDACS monument 56448-2, Elevation 2,021.724 feet
Northing: 1,036,451.884 feet Easting: 512,704.358 feet
3-inch Arizona Highway Department (ADOT) aluminum cap set in concrete raised 0.3 foot and stamped "102.32 OUT STA. 315+48.32 1966".

GDACS monument 61565-1, Elevation 1,679.592 feet
Northing: 1,010,051.531 feet Easting: 512,547.196 feet
2 3/4-inch MCDOT brass cap in handhole 0.7 feet down and stamped "T5N R3W 1/4 S14 S13 1997 LS 28742".

GDACS monument 61567-1, Elevation 1,699.063 feet
Northing: 1,012,668.636 feet Easting 517,839.025
2 3/4-inch MCDOT brass cap in handhole 0.6 feet down and stamped "T5N R3W R2W 12 7 18 13".

GDACS monument 61586-1, Elevation 1,722.597 feet
Northing: 1,015,308.917 feet Easting 517,857.182 feet
2 3/4-inch MCDOT brass cap in handhole 0.6 feet down and stamped "T5N R3W R2W 1/4 12 7 1995".

GDACS monument 61587-1, Elevation 1,756.310 feet
Northing: 1,017,950.077 feet Easting: 517,872.184 feet
2 3/4-inch MCDOT brass cap in handhole 0.6 feet down and stamped "T5N 1 6 7 12 R3W R2W 1995".

GDACS monument 61606-1, Elevation 1,787.539 feet
Northing: 1,020,592.546 feet Easting: 517,888.537 feet
2 3/4-inch MCDOT brass cap in handhole 0.6 feet down and stamped "T5N R3W R2W 1 6 1/4 1995".

GDACS monument 61607-1, Elevation 1,818.543 feet
Northing: 1,023,234.867 feet Easting: 517,904.722 feet
2 3/4-inch MCDOT brass cap in handhole 0.7 feet down and stamped "T6N 36 31 R3W 1 6 R2W T5N 1995".

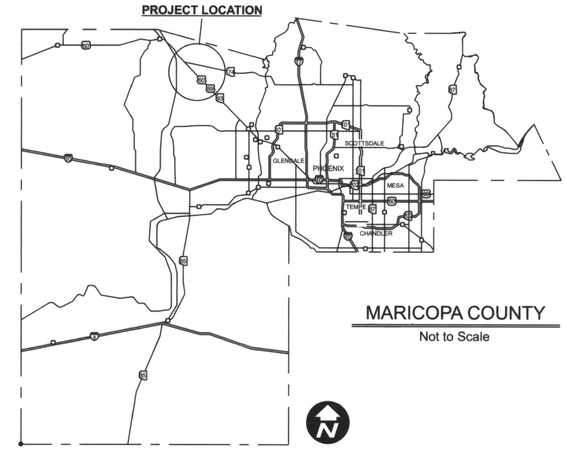
NGS Survey Monuments

NGS monument with Designation 4KE1, Elevation 1,819.40 feet
Northing: 1,023,250.10 feet, Easting: 517,954.25 feet
As described by MCDOT in 2000 by JJR, to reach the station, drive westerly on State Route 74 from Interstate 17 approximately 22 miles to 211th Avenue, then turn left (south) onto 211th Avenue and drive 2.2 miles to the station on the left and 50 feet east of the road. The station is marked by an aluminum cap compressed on a 6.0 foot stainless steel rod driven to refusal, encased in a 1-inch greased PVC sleeve enclosed in a 5-inch PVC pipe with a County logo access cover stamped 4KE1, surrounded with a concrete collar flush with the ground, witnessed by a white carsonite marker.
Station ties: 75 ft north of mile post 2, 6 feet west of a barbed wire fence on the east side of 211th Avenue.

NGS monument with Designation 1697, Elevation 1,697.62
Northing: 1,011,975 feet Easting: 513,484 feet, both +/- 590 feet
As described by National Geodetic Survey from 1939, this station is 7.4 miles southeast from Hot Springs Junction. Proceed 7.4 miles southeast along the Atchison, Topeka, and Santa Fe railway (now BNSF) from Hot Springs Junction to the siding at Wittmann. The station is 450 feet northwest of the station booth, 200 feet northwest of culvert E-158, and 75 feet northeast of the centerline of the track. A United States Geological Survey standard cap, stamped 1697 PHNX, has been riveted to the top of a 3.5-inch iron pipe.

NGS Monument with Designation E24, Elevation 1,783.26
Northing: 1,018,700 feet Easting: 506,168 feet, both +/- 590 feet
As described by National Geodetic Survey from 1939, this station is 5.4 miles southeast from Hot Springs Junction. Proceed 5.4 miles southeast along the Atchison, Topeka, and Santa Fe railway (now BNSF) from Hot Springs Junction, 600 feet northwest of milepost 156, to Culvert G-156. Marker is in the top of the southwest concrete headwall. A standard disk, stamped E 24 1933, may be found here.

PROJECT LOCATION



MARICOPA COUNTY
Not to Scale

Survey Statement

I, Mark A. Luond, an Arizona Registered Land Surveyor, certify that the field surveys, documented herein, along with all field and office process procedures used during the course of this survey, were performed under my direct supervision, and that these surveys are retraceable and repeatable. Further, I certify that the survey report was prepared under my direct supervision and that the coordinate values, as shown in the report, are correct.

Mark A. Luond, RLS
AZ RLS # 39873

REGISTERED LAND SURVEYOR 39783 MARK A. LUOND Date Signed 9-28-10 ARIZONA U.S.A. Expires 09/30/12

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

WITTMANN PHASE III FLOODPLAIN DELINEATION STUDY
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Statement of Professional Registration

The Zone AE floodplain delineation and the approximate 100-year floodplain delineation were prepared under my direct supervision using hydrology produced by others.

Registered Professional Engineer (Civil) 47097 SETH AHRENS Date Signed 9-23-10 ARIZONA U.S.A. Expires 12-31-2010

PBSJ
20860 North Tatum Boulevard, Suite 300
Phoenix, Arizona 85050
(480) 419-7275

Design	SA	September 2010
Design Check	HD	September 2010
Plans	SA	September 2010
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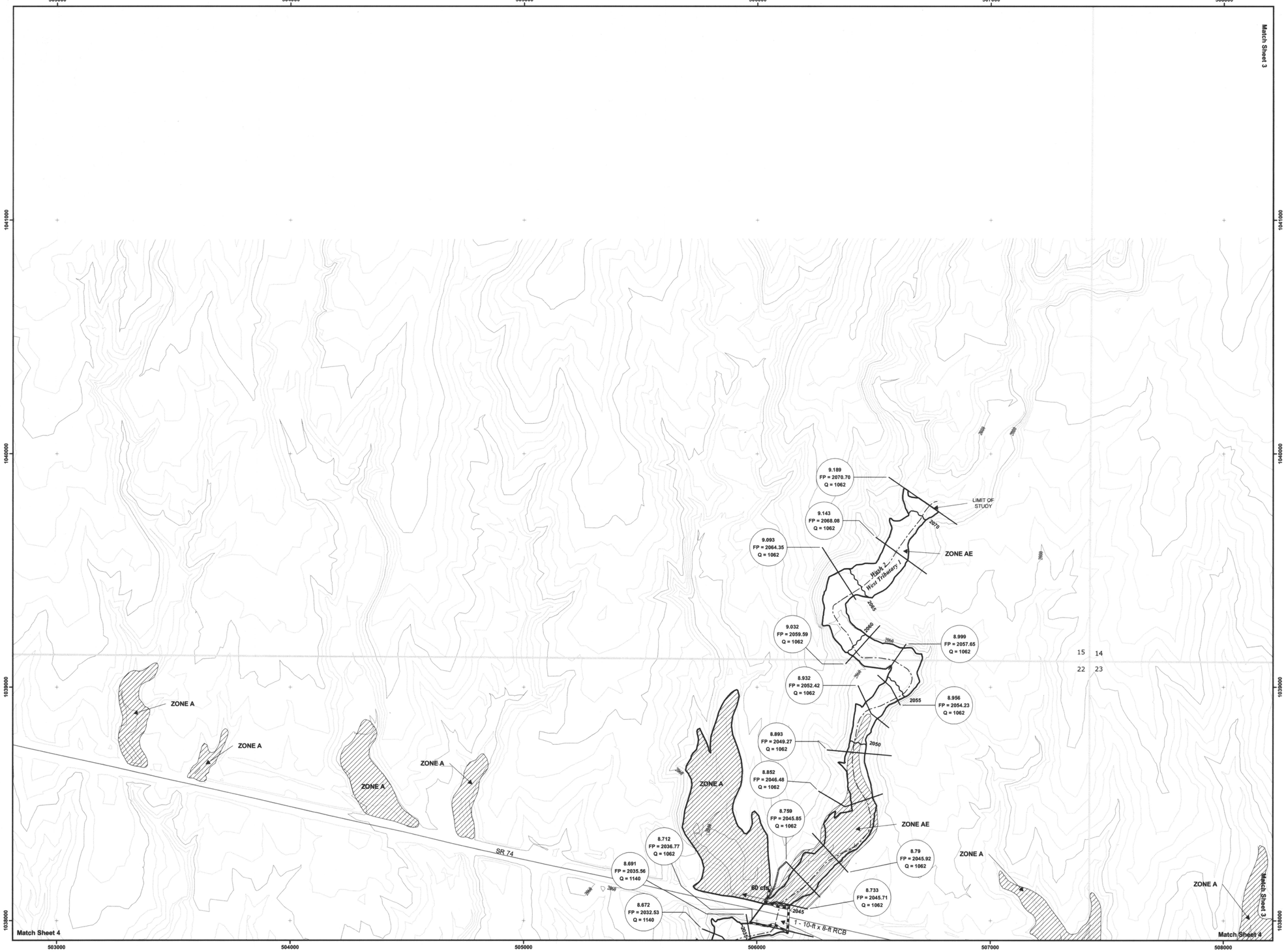
Sheet 1 of 10

PBS&J Project Number 100013714



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CONTRACT NUMBER: FCD 2001-C021.
FLIGHT DATE WAS APRIL 2002.

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC.
FLIGHT DATES FOR AERIAL PHOTOGRAPHY WERE SEPTEMBER 2008 AND OCTOBER 2009.

Legend

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- 100-Year Floodplain Zone Break
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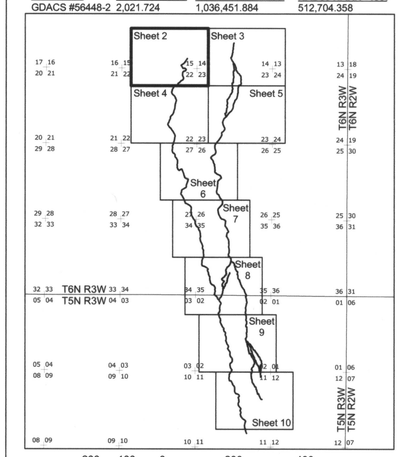

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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Registered Professional Engineer (Civil) CERTIFICATE NO. 47097 SETH AHRENS Date Signed 4-22-10 ARIZONA U.S.A. Expires 12-31-2010

PBS&J
20860 North Tatum Boulevard, Suite 300
Phoenix, Arizona 85050
(480) 419-7275

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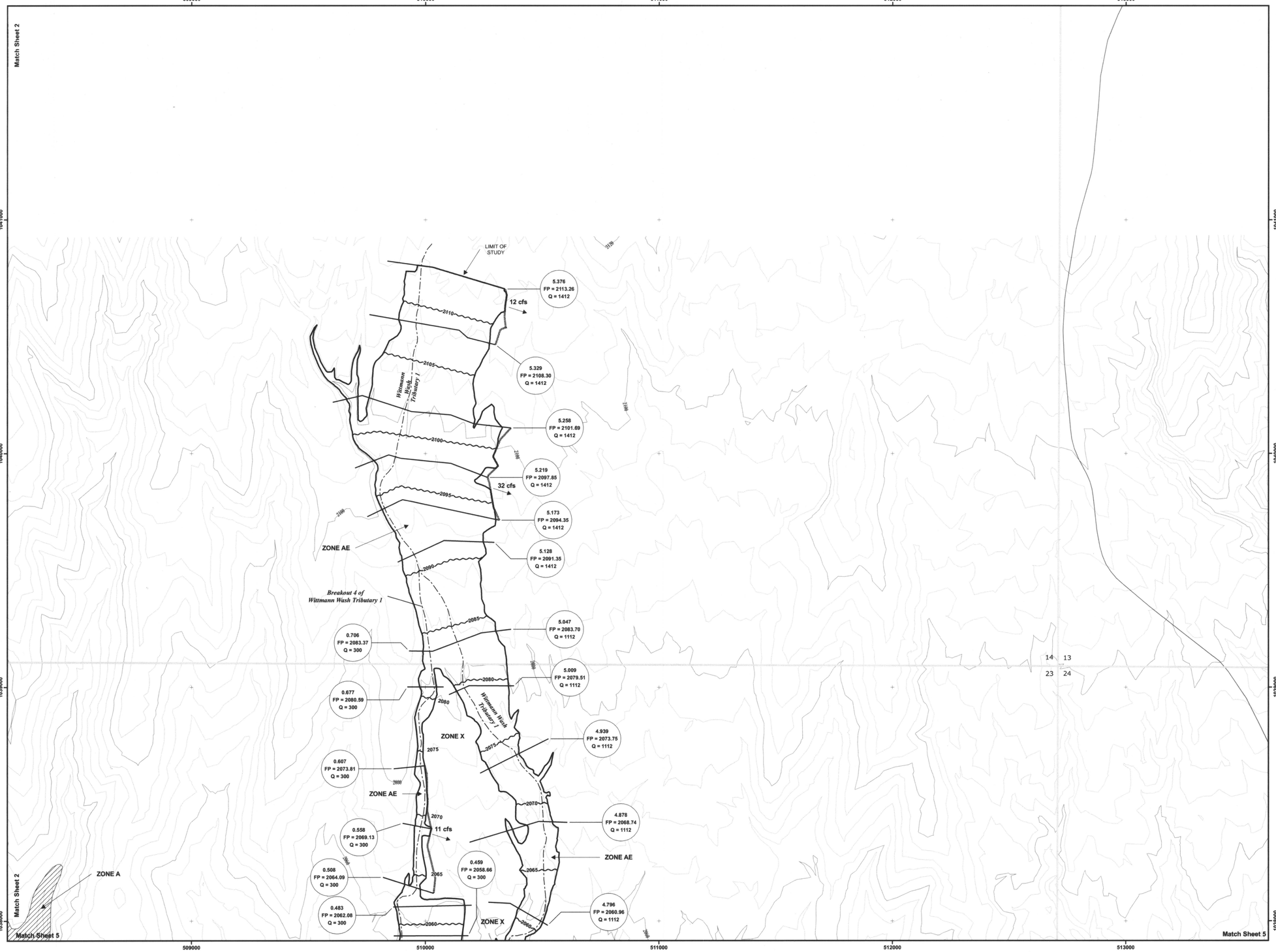

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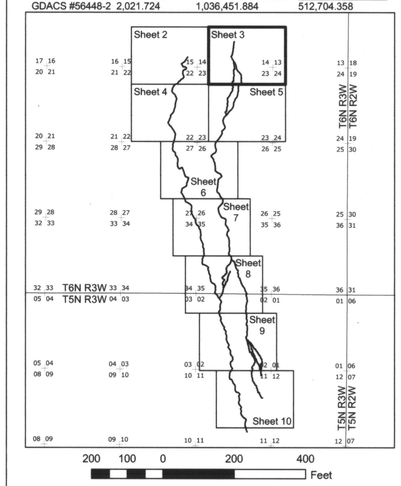

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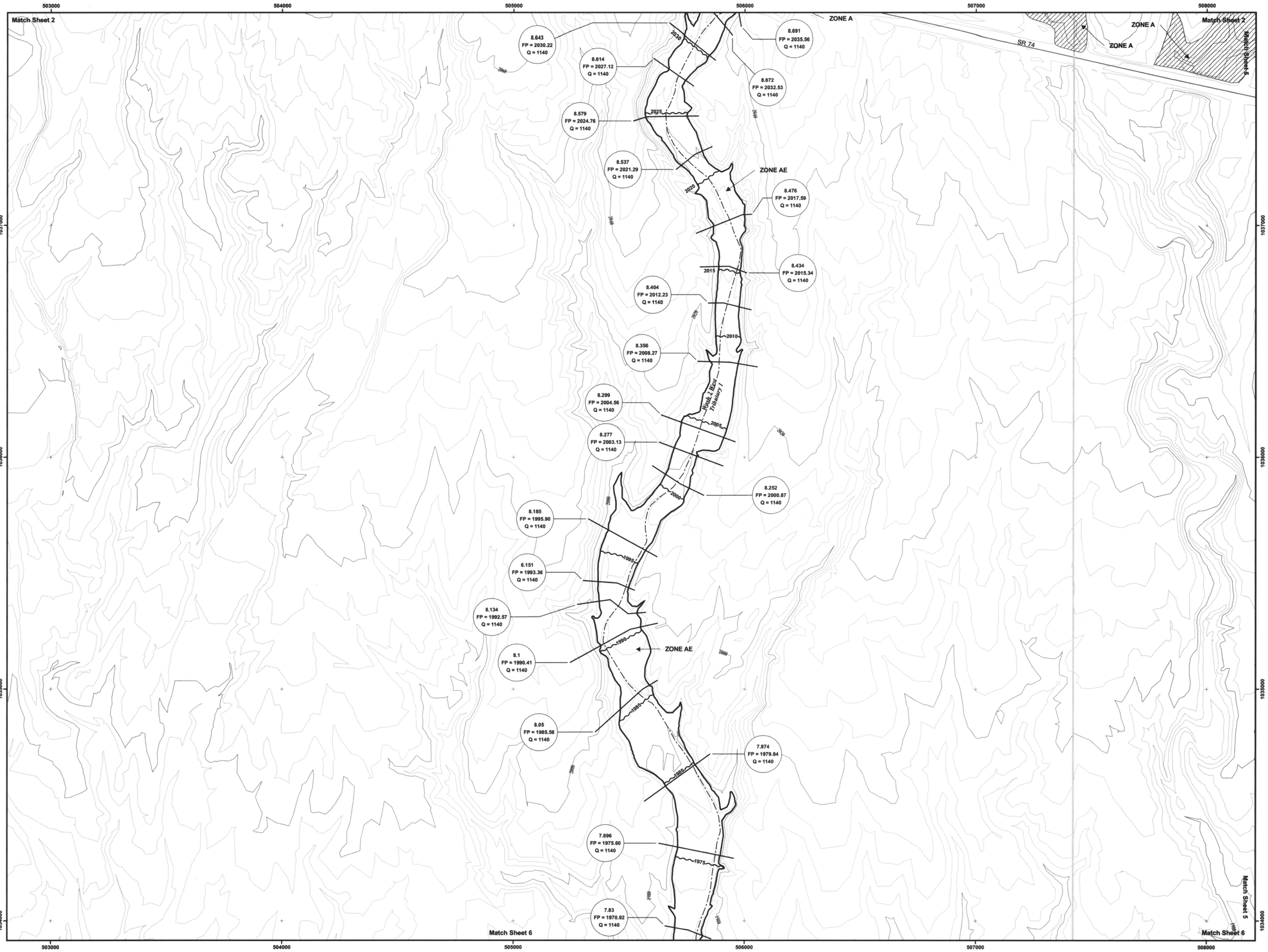

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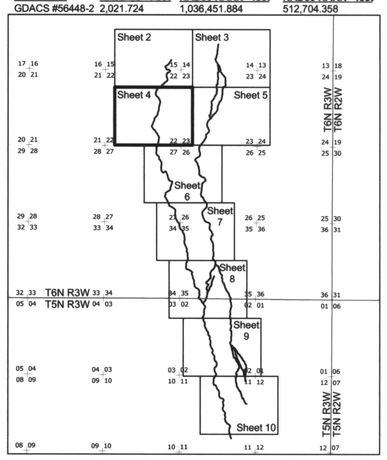

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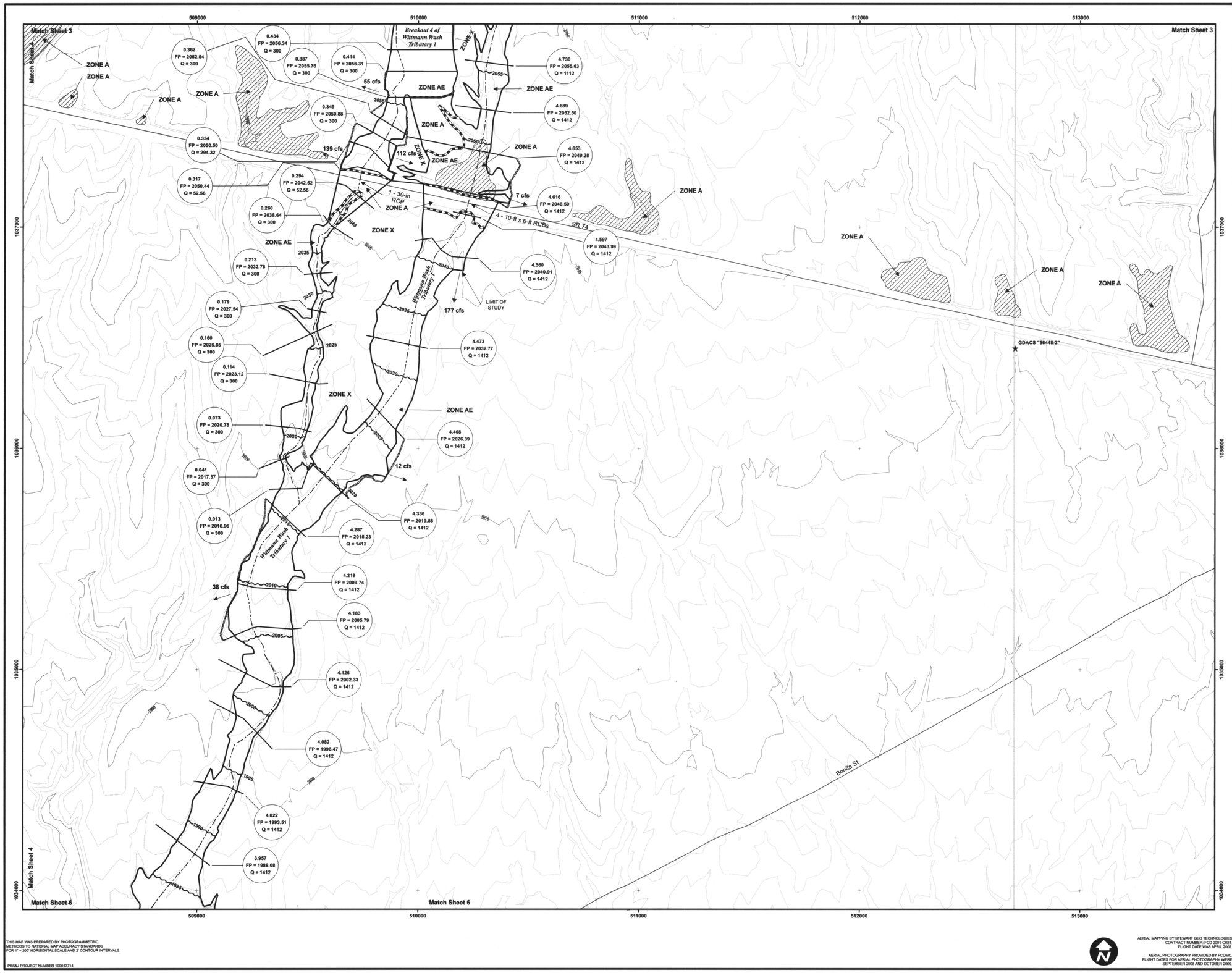

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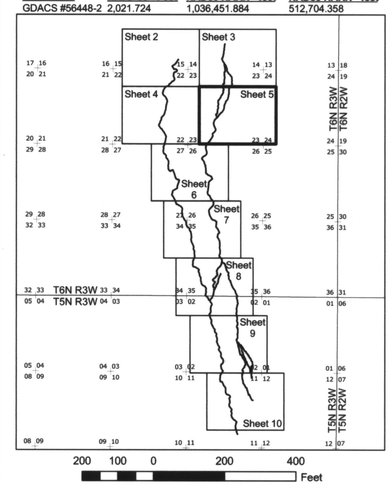

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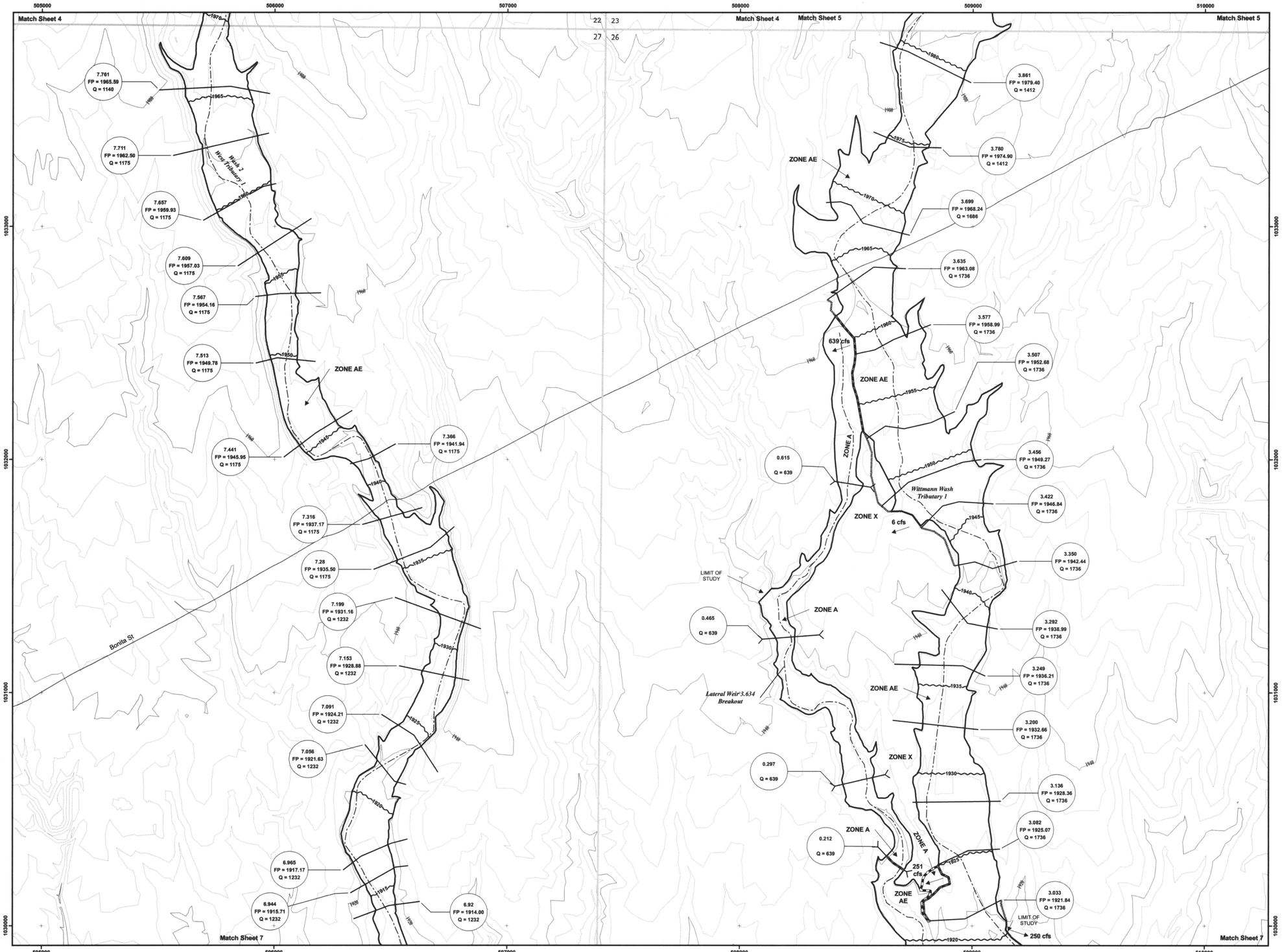

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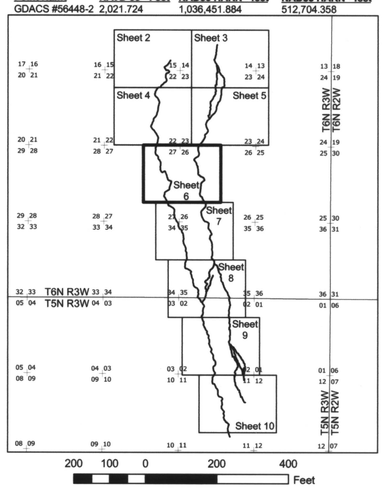

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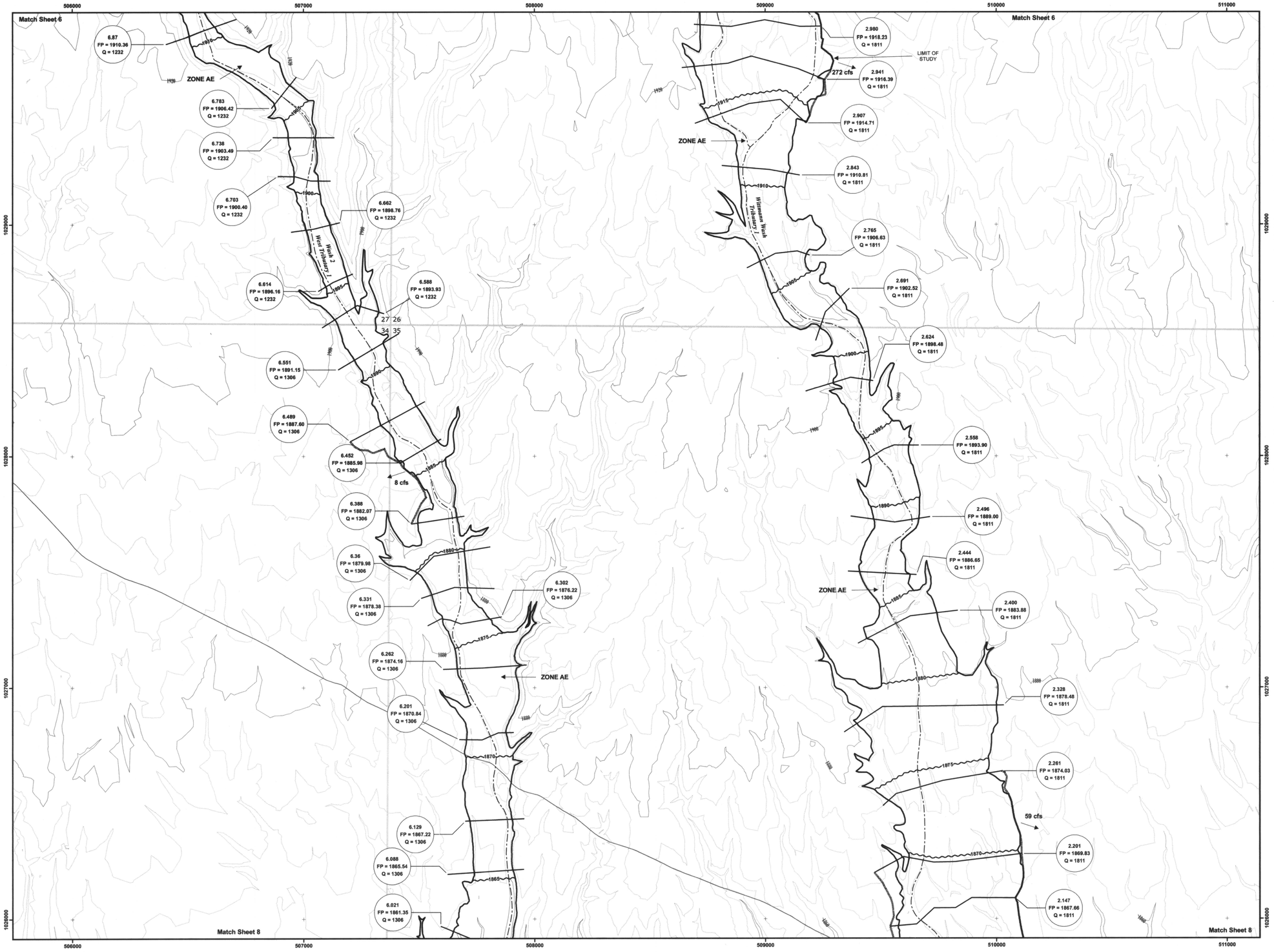

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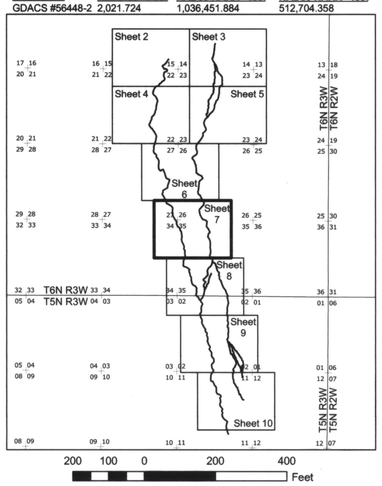

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CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.06 FEET.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

WITTMANN PHASE III FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006
ASSIGNMENT 3

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PBSJ
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(480) 419-7275

Design	SA	September 2010
Design Check	HD	September 2010
Plans	SA	September 2010
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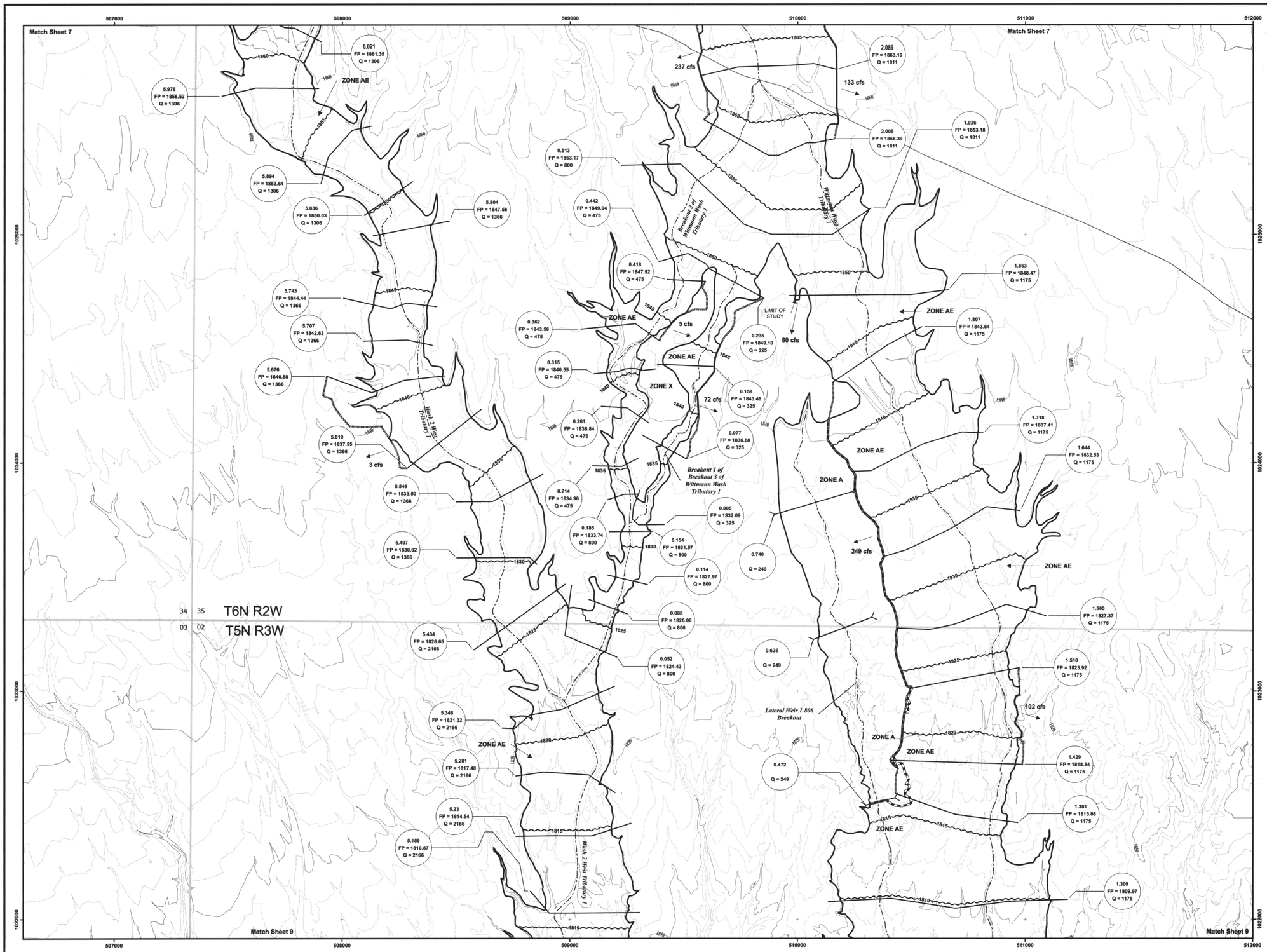


THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

PBS&J PROJECT NUMBER 100013714

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FCD 2001-C021.
FLIGHT DATE WAS APRIL 2002.

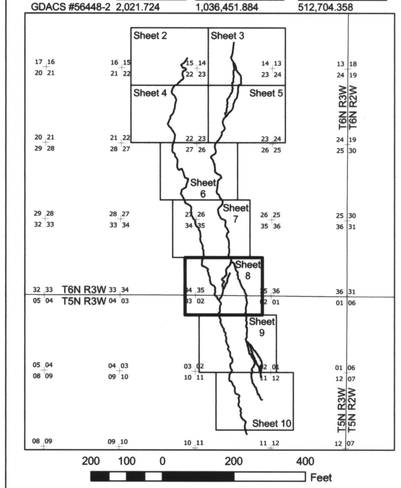
AERIAL PHOTOGRAPHY PROVIDED BY FCDMC.
FLIGHT DATES FOR AERIAL PHOTOGRAPHY WERE SEPTEMBER 2008 AND OCTOBER 2009.

Legend

- ★ Benchmark (Type + Point Name)
- 100-Year Floodplain
- 100-Year Floodplain Zone Break
- Hydraulic Baseline
- RS # / FP Elev / Flow Rate — HEC-RAS Cross Section
- 2320 — Base Flood Elevation Line
- Lateral Weirs
- RS # / Flow Rate — FlowMaster Cross Section
- Effective FEMA Floodplain Mapping
- FCDMC Floodplain Mapping by Others
- Section Line
- Road
- Building
- 2320 — Index Contour
- Intermediate Contour

Benchmark Information: See Cover Sheet for list of benchmarks in vicinity of study area as well as their locations. Benchmarks are either GDACS Survey Monuments (GDACS #) or NGS Survey Monuments (NGS #). Only GDACS #56448-2 falls within the work map sheet boundaries. See Sheet 5.

Point Name	Elevation NAVD 88 - Feet	Northing NAD83 HARN - feet	Easting NAD83 HARN - feet
GDACS #56448-2	2,021.724	1,036,451.884	512,704.358



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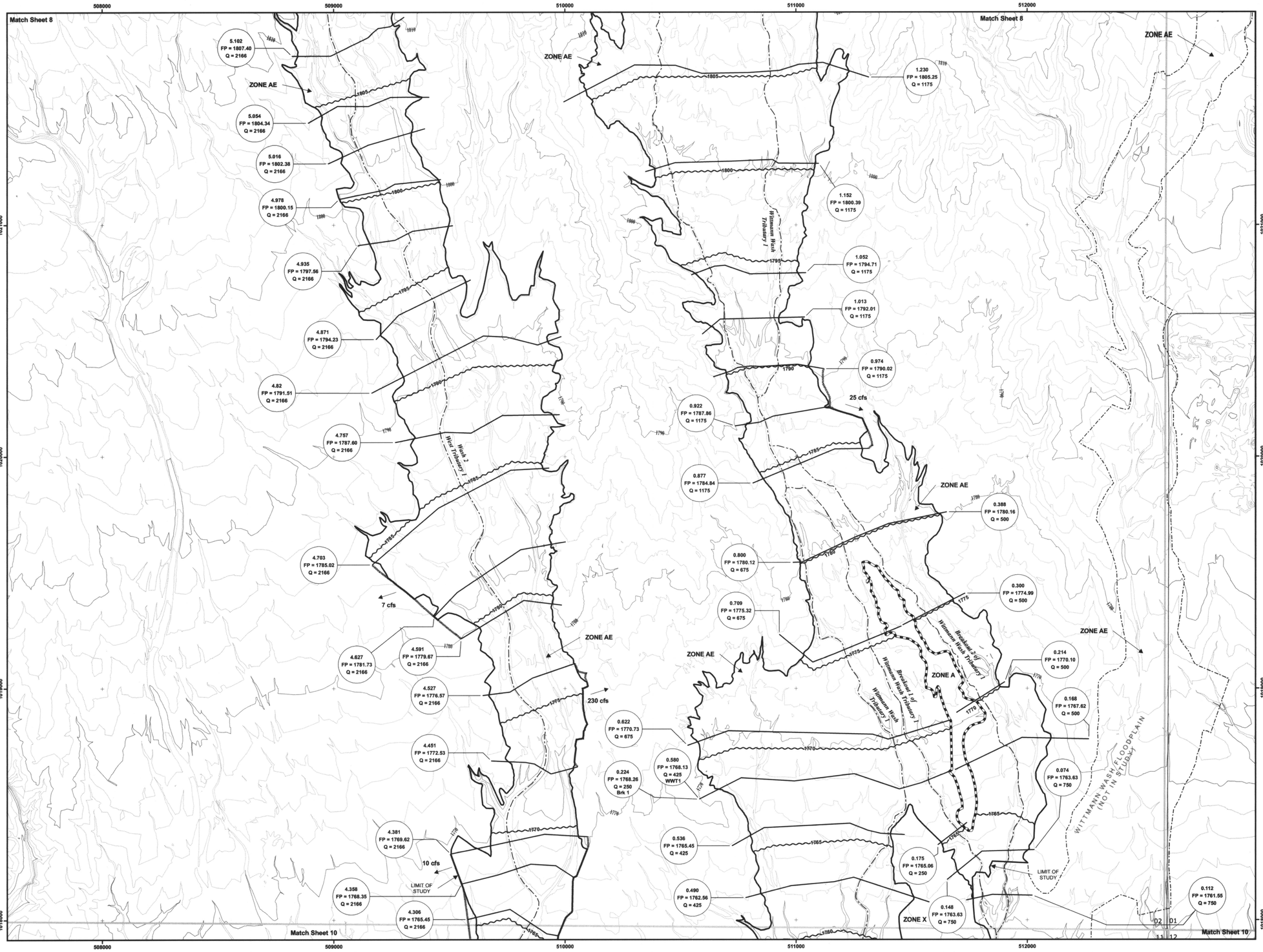

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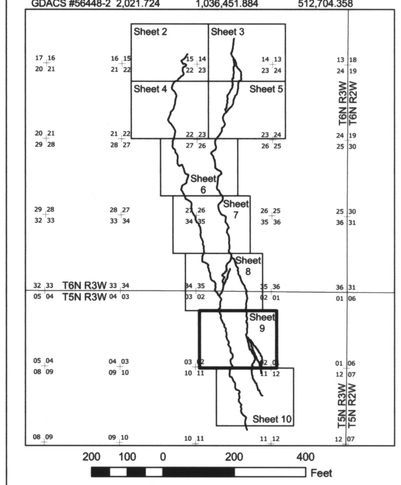

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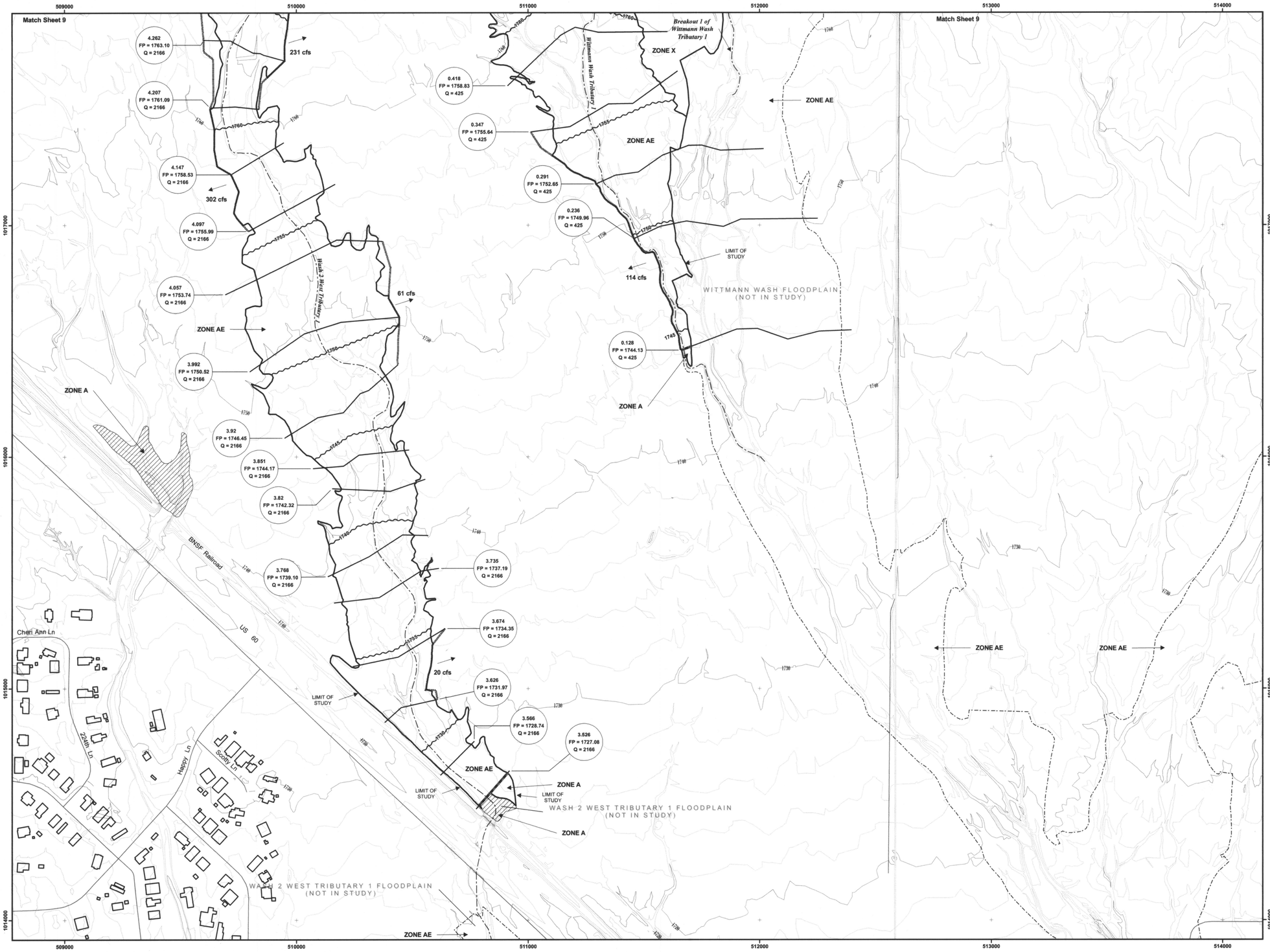

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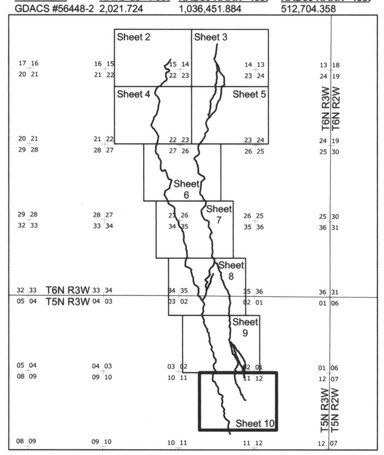

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