GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

Technical Data Notebook
Volume III of III

PREPARED FOR:

The Flood Control District of Maricopa County

2801 West Durango Street
Phoenix, AZ 85009
(602) 506-1501
FCD Contract 2009-C006
Assignments 1 & 2

PREPARED BY:

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

Registered Professional Engineer (Civil)
CERTIFICATE NO
47097
SETH
AHRENS
Date Signed 3-3-10
ARIZONA U.S.A.
Expires 12-31-2010

March 3, 2010
Project # 10008997 01 & 02

HYDRAULIC WORK MAPS

11" X 17" COPIES

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006 -- ASSIGNMENTS 1 & 2

SUBMITTED ON MARCH 3, 2010

SHEET INDEX

Sheet	Content
1	Cover Sheet
2-12	100-Year Floodplain and Floodway Mapping

WASH INDEX

Wash	Sheet(s)
Coyote Pass Wash	7, 8, and 11
Gavilan Peak Wash	8, 9, 10, 11, and 12
Kelley Road Wash	7 and 10
Lazy G Wash	12
Photo View Wash	3 and 4
River Creek	3 and 5
Rough Rider Wash	9
Sharman Wash	8 and 11
Soda Springs Wash	5, 6, and 8
Table Mountain Wash	2, 3, 5, and 8
Table Mountain Wash Tributary 6	3 and 5
Twin Peaks Wash	8 and 11
White Spar Wash	5, 6, and 8
Photo View Wash Breakouts	**Sheet(s)**
Photo View Wash Breakout #1	3
Photo View Wash Breakout #2	3
Photo View Wash Breakout #3	3 and 5

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:

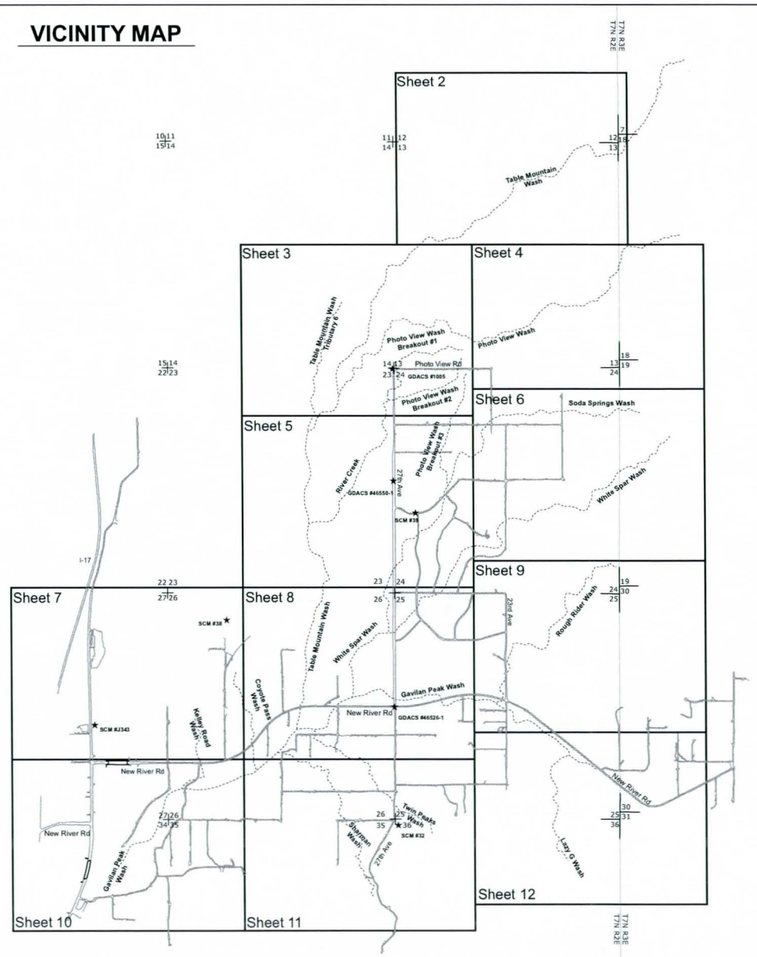
1. Mass points, break lines, and two-foot contours.
Aetial photogrammetry was flown on August 30, 2005 by Stewart Geo Technologies under FCDMC Contract FCD2004-047. Vertical datum was NAVD 88. Contour interval was two feet. Mapping scale was 1:200 (inch:foot). Original coordinate system of data was State Plane, Zone 3176, International Feet, GRS 1980.

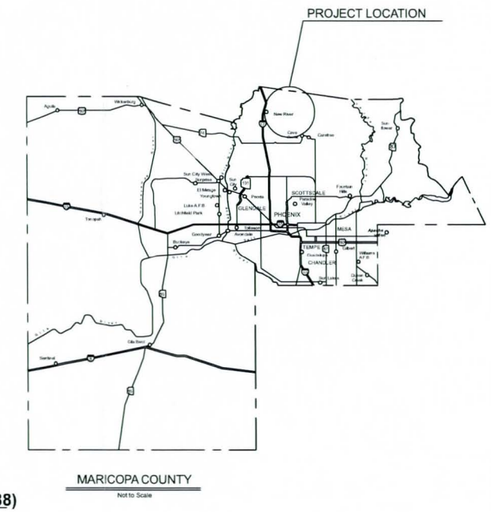
2. Aerial photography. Multiple flights occurred from October 2007 to December 2007.

3. The report *Hydrology Report - Gavilan Peak Watershed Floodplain Delineation Study* completed by RBF Consulting on November 3, 2008. RBF's report was created under FCDMC Contract FCD2008-C001. This report provided the 100-year flow rates used to complete the hydraulic analysis.

4. Field survey shot on May 5, 2008.

VICINITY MAP





Benchmarks (NAD 83-HARN and NAVD 88)

GDACS Survey Monuments

GDACS Point 46526-1, Elevation 2070.253
Northing: 1063039.143, Easting: 639100.468
Located at the intersection of New River Road and 27th Avenue.

GDACS Point 46550-1, Elevation 2136.932
Northing: 1068299.872 Easting: 639106.106
Located at the intersection of 27th Avenue and White Spar Circle.

GDACS Point 1005, Elevation 2174.310
Northing: 1070923.440 Easting: 639099.860
Located at the north side of the intersection of 27th Avenue and Photo View Road.

Survey Control Monuments
SCM Point J343, Elevation 2036.9
Northing: 1062623.66, Easting: 632114.7
Located 0.35 miles south of milepost 233 along Old Black Canyon Highway, 99 feet east of the center of the highway, 85 feet south of a gate leading to the George Howard Home, 3 feet west of the fence, 3 feet south of the witness post, set in the top of a 12-inch square concrete post.

SCM Point 32, Elevation 2133.5
Northing: 1060285.26, Easting: 639172.5
Located 1000 feet south of the south end of pavement of 27th Avenue, 125 feet east of the 27th Avenue alignment, flush with ground.

SCM Point 38, Elevation 2207.0
Northing: 1065065.35 Easting 635197.3
Located 0.70 miles along Coyote Pass Road north of the intersection of Coyote Pass Road and New River Road, on the east side of the road, flush with ground.

SCM Point 39, Elevation 2133.3
Northing: 1067554.17 Easting 639613.9
Located 0.1 miles along White Spar Road north of the intersection of White Spar Road and 27th Avenue, on the north side of the road, flush with ground.

Survey Statement

I, John R. Stock, 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 and their accuracies, as shown in the report, are correct.

John R. Stock
AZ RLS #25087

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

Statement of Professional Registration

The Zone AE floodplain and floodway 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 2-3-10 ARIZONA U.S.A. Expires 12-31-2010

PBS&J
20860 North Tatum Boulevard, Suite 300
Phoenix, Arizona 85050
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Design	SA	March 2010
Design Check	LRK	March 2010
Plans	SA	March 2010
Plan Check	LRK	March 2010

PBS&J Project Number 100008997 01 & 02

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 100080997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-C047 FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC. FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007.

Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
- New River Floodplain Mapping
- Section Line
- Road
- Building
- 2320 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

Benchmark Information: Benchmarks are either GDACS Survey Monuments (GDACS #) or Survey Monuments (SCM #).

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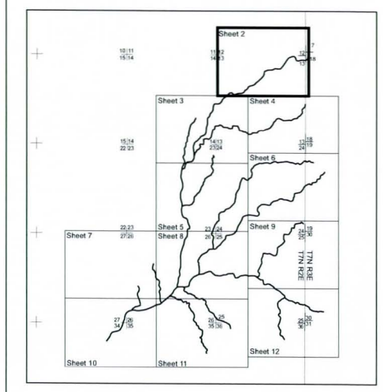
SCM #38	2207.0	1065065.35	635197.27
SCM #39	2133.3	1067554.17	639613.91



200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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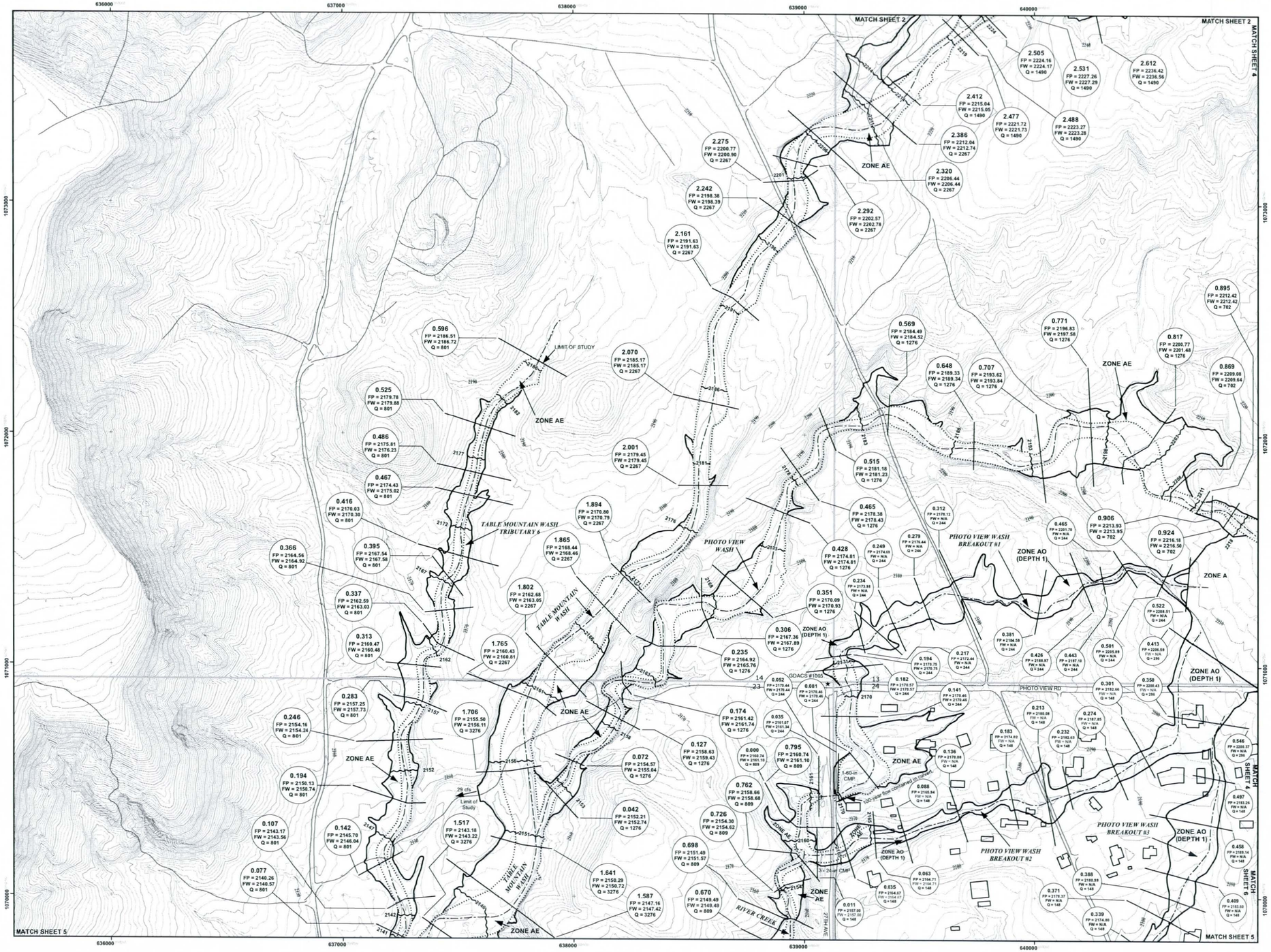

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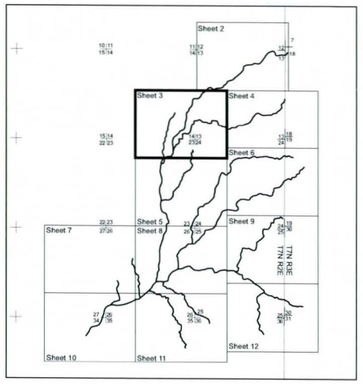

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PBS&J PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FCD 2004-C047
FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC
FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007

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20860 North Tatum Boulevard, Suite 300
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Registered Professional Engineer (Civil) CERTIFICATE NO. 47097 SETH AHRENS Date Signed 12-3-10 ARIZONA U.S.A. Expires 12-31-2010

Design	SA	March 2010
Design Check	LRK	March 2010
Plans	SA	March 2010
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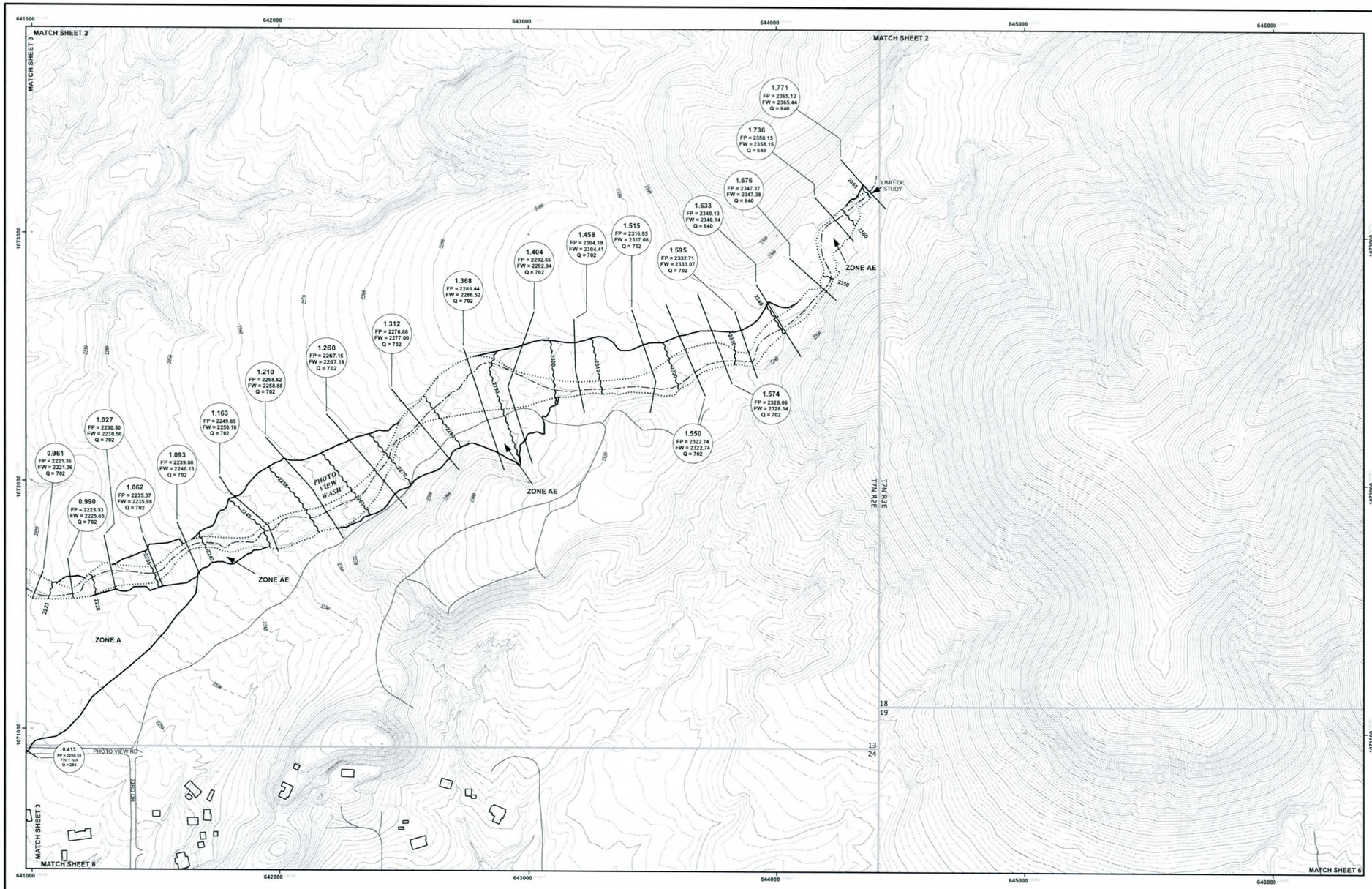

Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
- New River Floodplain Mapping
- Section Line
- Road
- Building
- 2320 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

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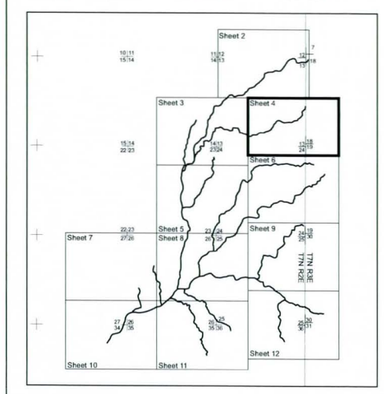
SCM #39	2133.3	1067554.17	639613.91



200 100 0 200 400 Feet

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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Sheet 4 of 12

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AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FCD 2004-C047
FLIGHT DATE WAS AUGUST 30, 2005.

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC.
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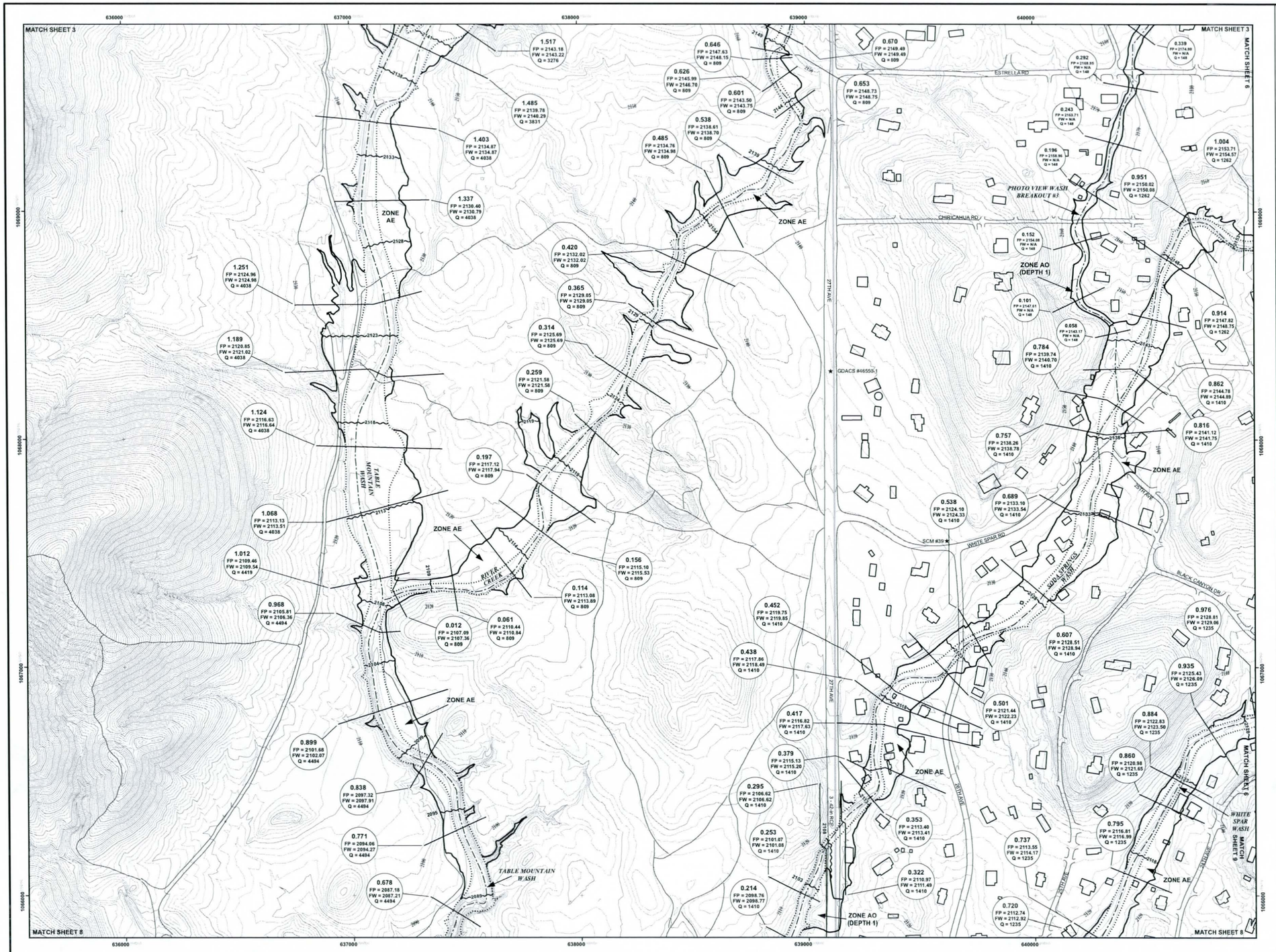

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1" = 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS

PBS&J PROJECT NUMBER 100060097 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-C047 FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC. FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007

Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
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- Building
- 2120 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

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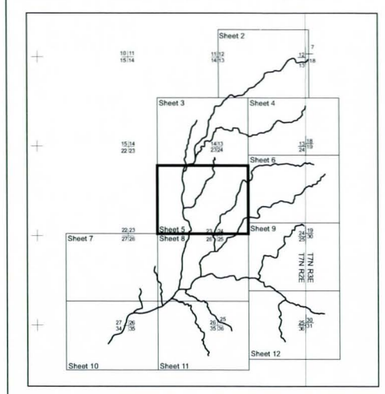

200 100 0 200 400 Feet

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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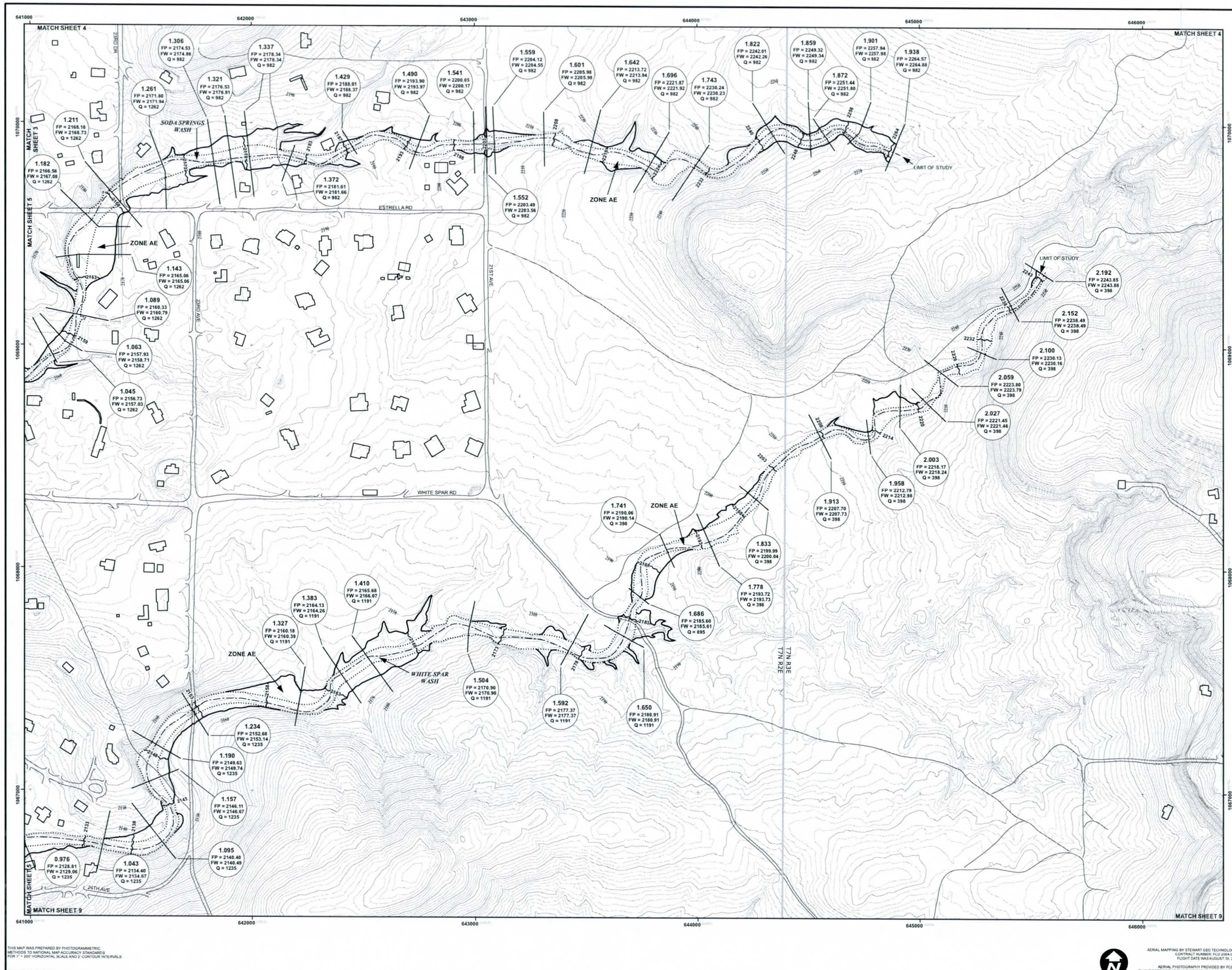

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PBS&J PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FLD 2004-CM7
FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC
FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007

Legend

- Benchmark (Type + Point Name)
- Base Flood Elevations
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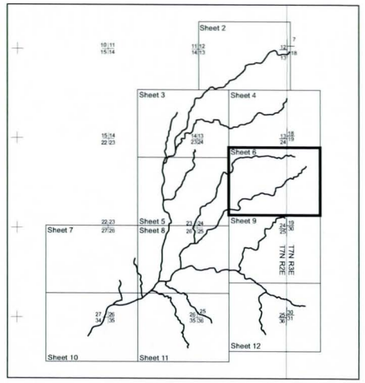

200 100 0 200 400 Feet

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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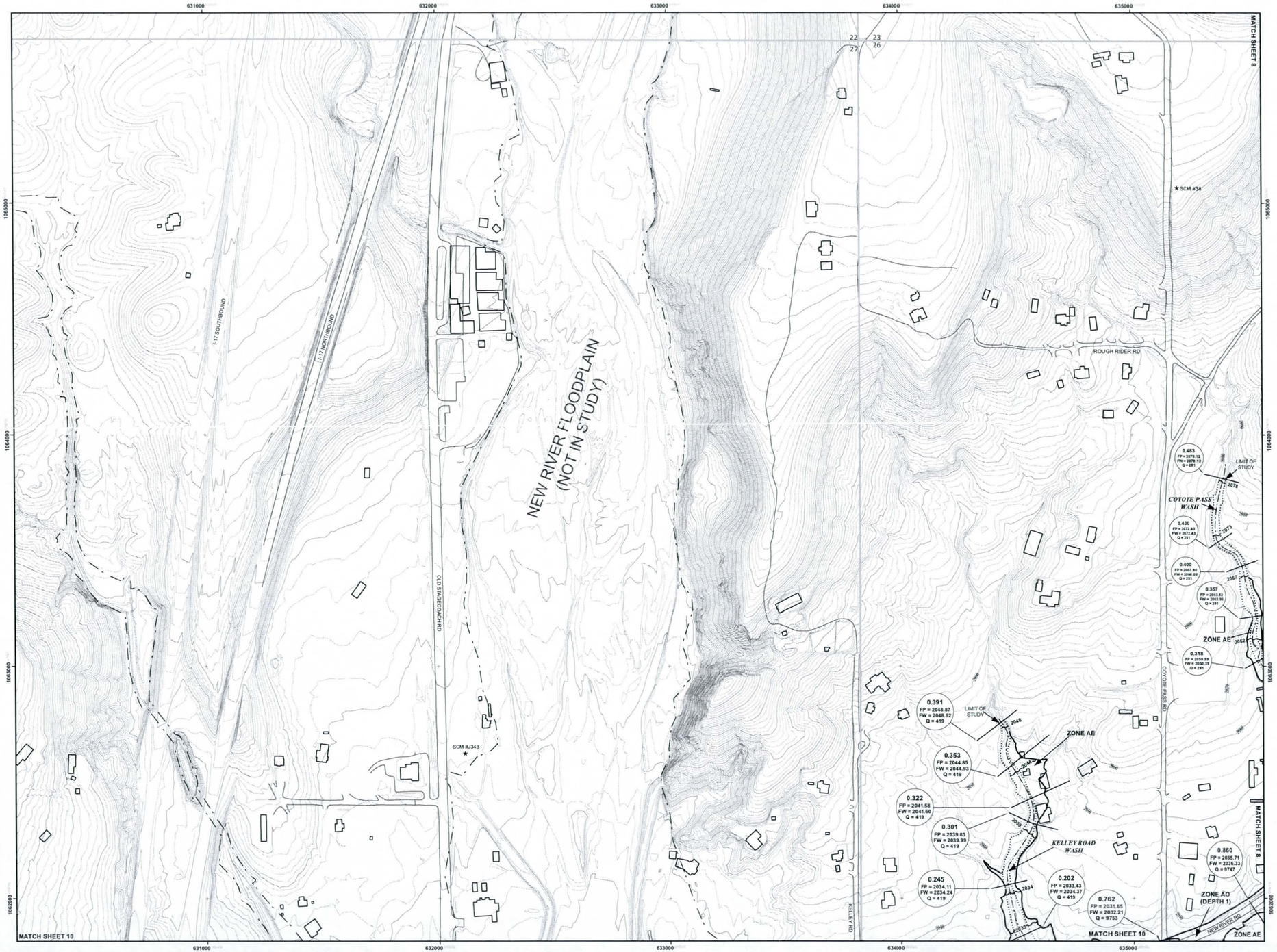

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PBS&J PROJECT NUMBER 100086997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-C067 FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007

Legend

- Benchmark (Type + Point Name)
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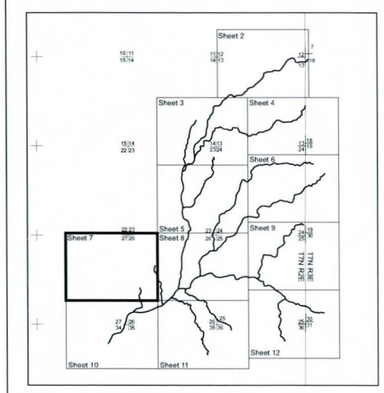

200 100 0 200 400 Feet

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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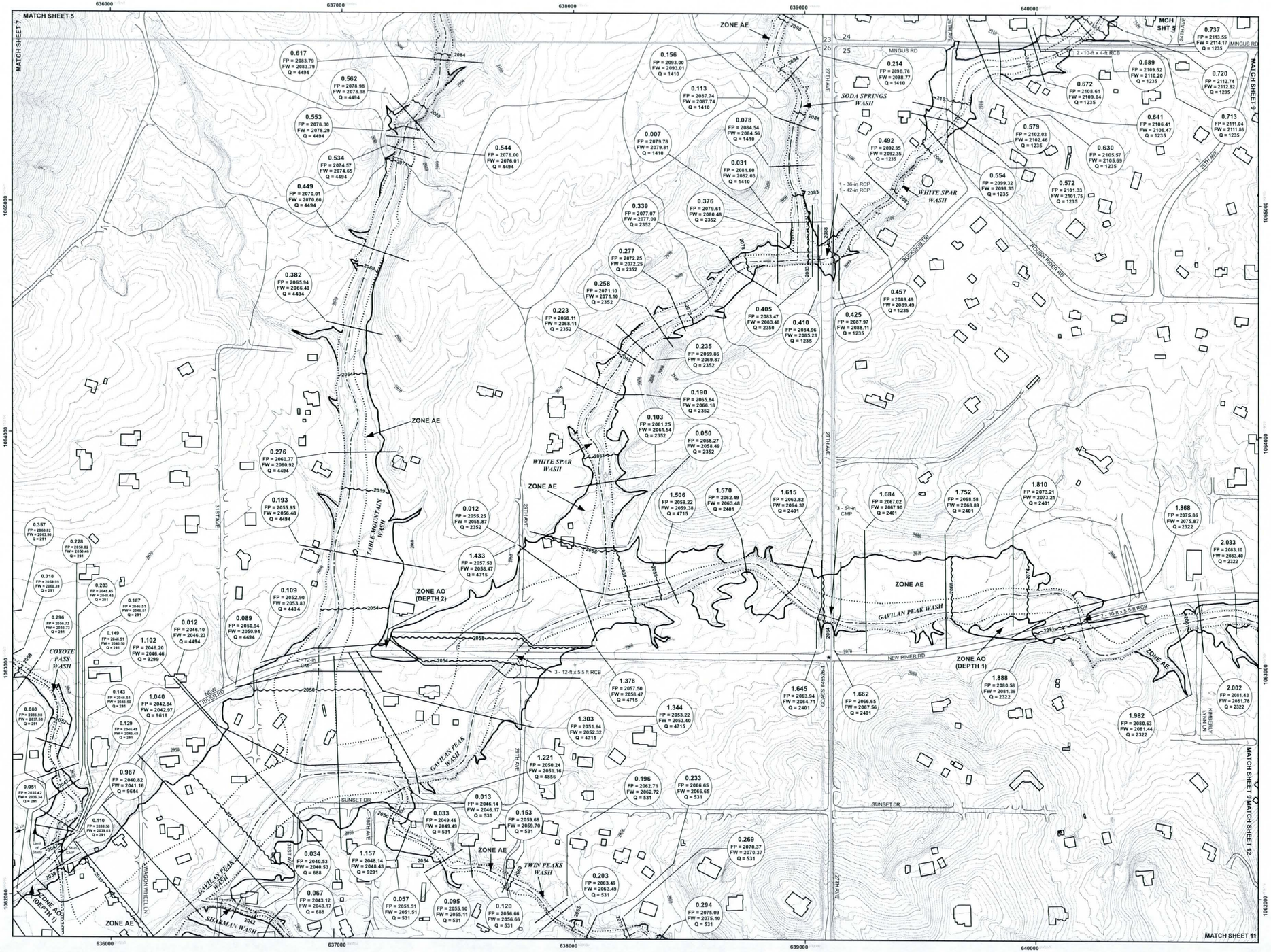

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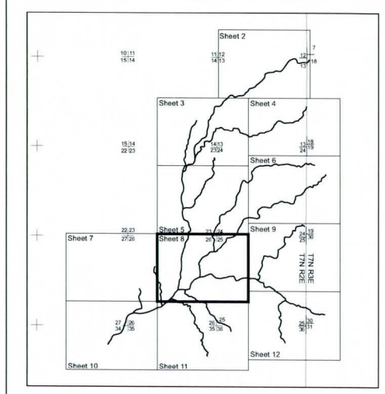
GDACS #46526-1	2070.253	1063039.143	639100.468
GDACS #46550-1	2136.932	1068299.872	639106.106
GDACS #1005	2174.310	1070923.440	639099.860
SCM #J343	2036.9	1062623.66	632114.74
SCM #32	2133.5	1060285.26	639172.46
SCM #38	2207.0	1065065.35	635197.27
SCM #39	2133.3	1067554.17	639613.91



200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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47097 SETH AMREIN Registered Professional Land Surveyor ARIZONA U.S.A. Expires 12-31-2010

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

Design	SA	March 2010
Design Check	LRK	March 2010
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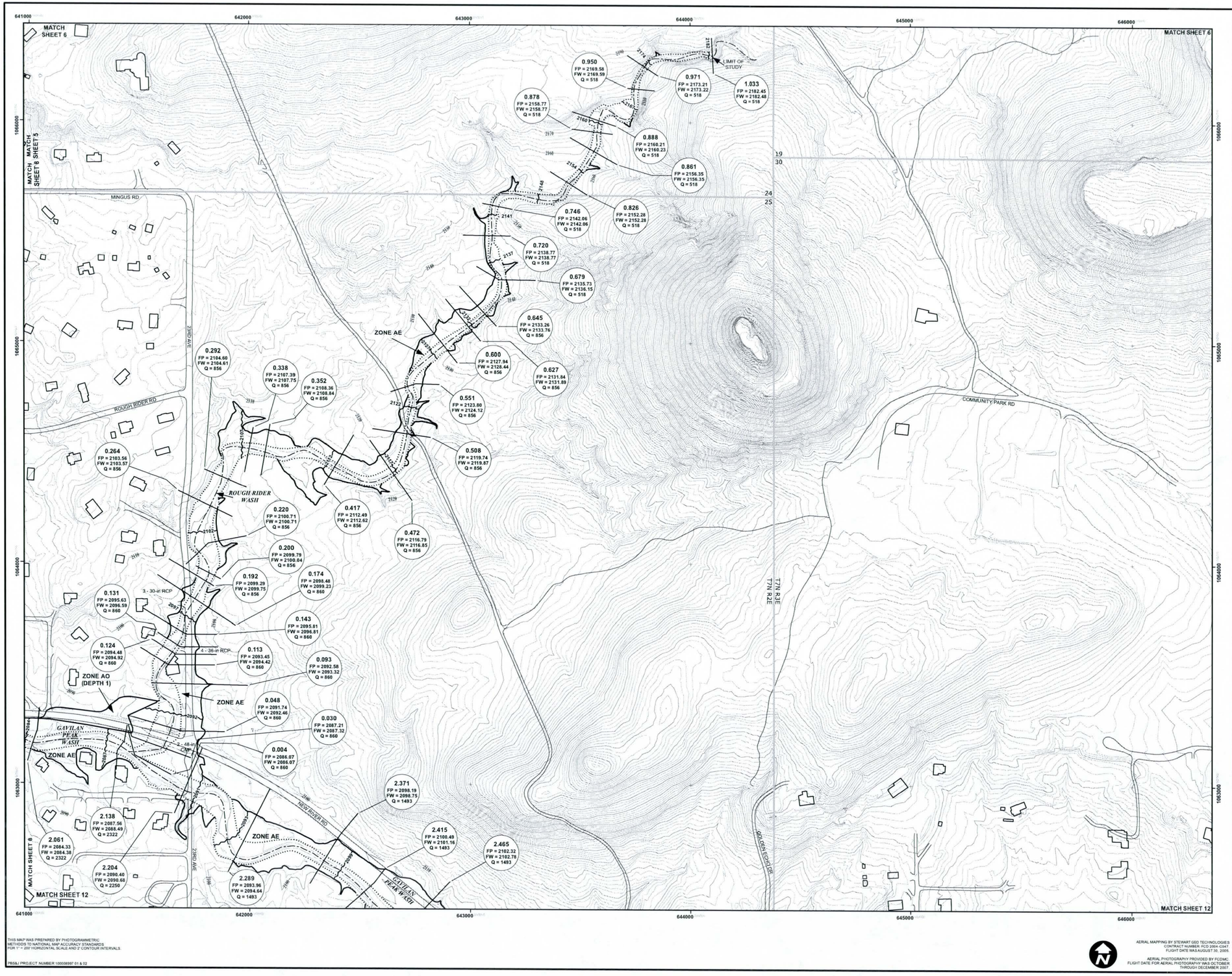
Plan Check	LRK	March 2010



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

PBSJ PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-C047. FLIGHT DATE WAS AUGUST 30, 2005.

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC. FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007.

Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
- New River Floodplain Mapping
- Section Line
- Road
- Building
- 2320 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

Benchmark Information: Benchmarks are either GDACS Survey Monuments (GDACS #) or Survey Monuments (SCM #).

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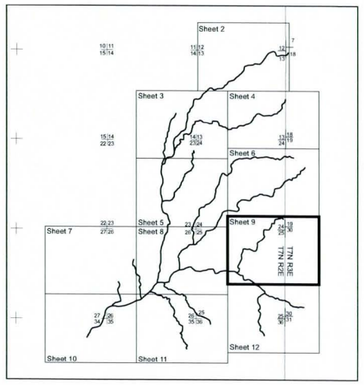
SCM #32	2133.5	1060285.26	639172.46
SCM #38	2207.0	1065065.35	635197.27
SCM #39	2133.3	1067554.17	639613.91



200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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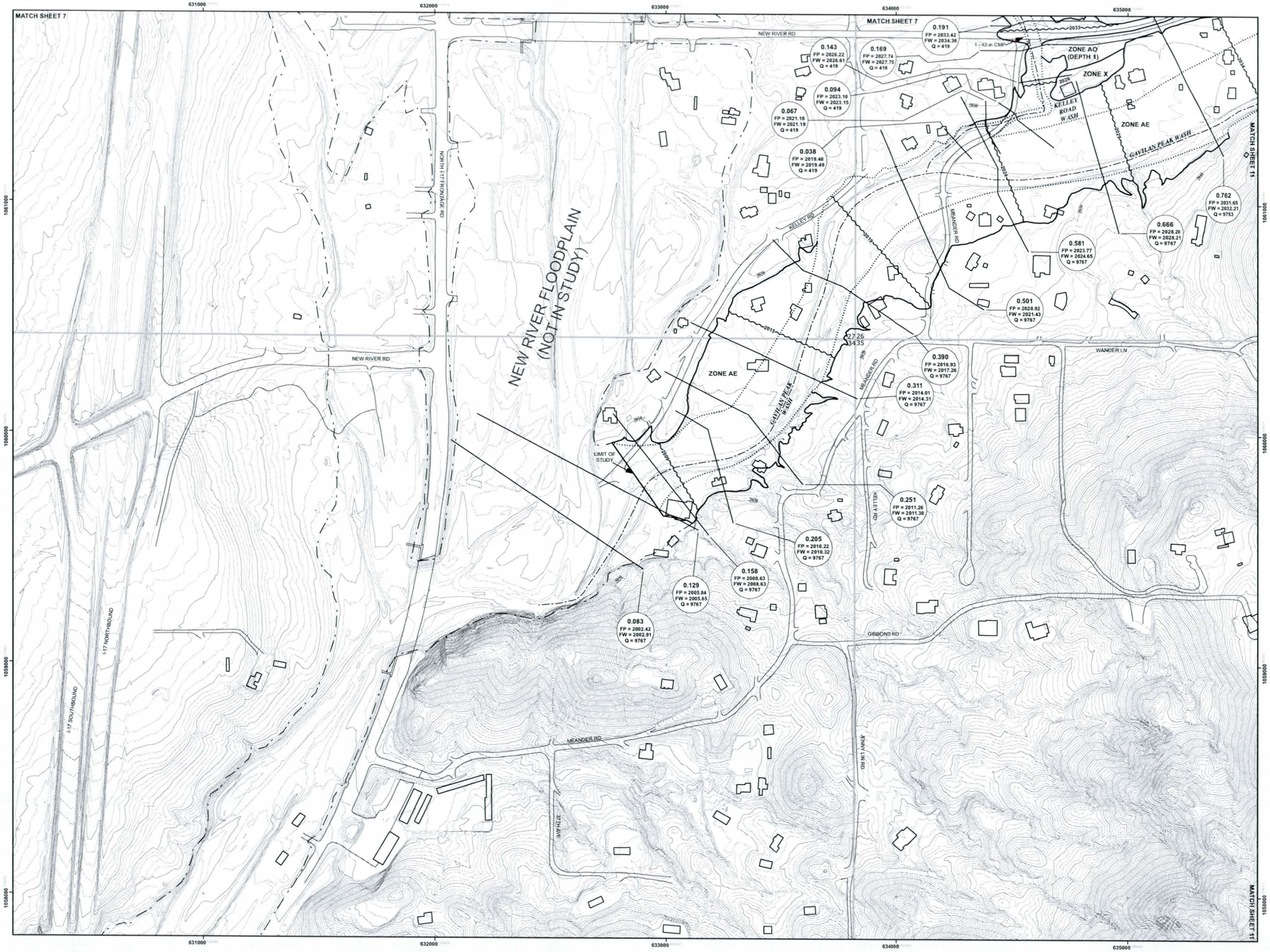

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PBSJ PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER FCD 2004-C047 FLIGHT DATE WAS AUGUST 30, 2005.

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC. FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007

Legend

- Benchmark (Type + Point Name)
- Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
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- Contour -- 10-ft Interval
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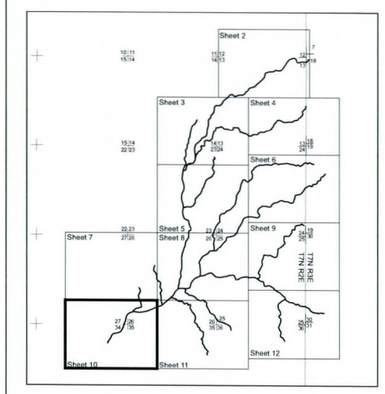

200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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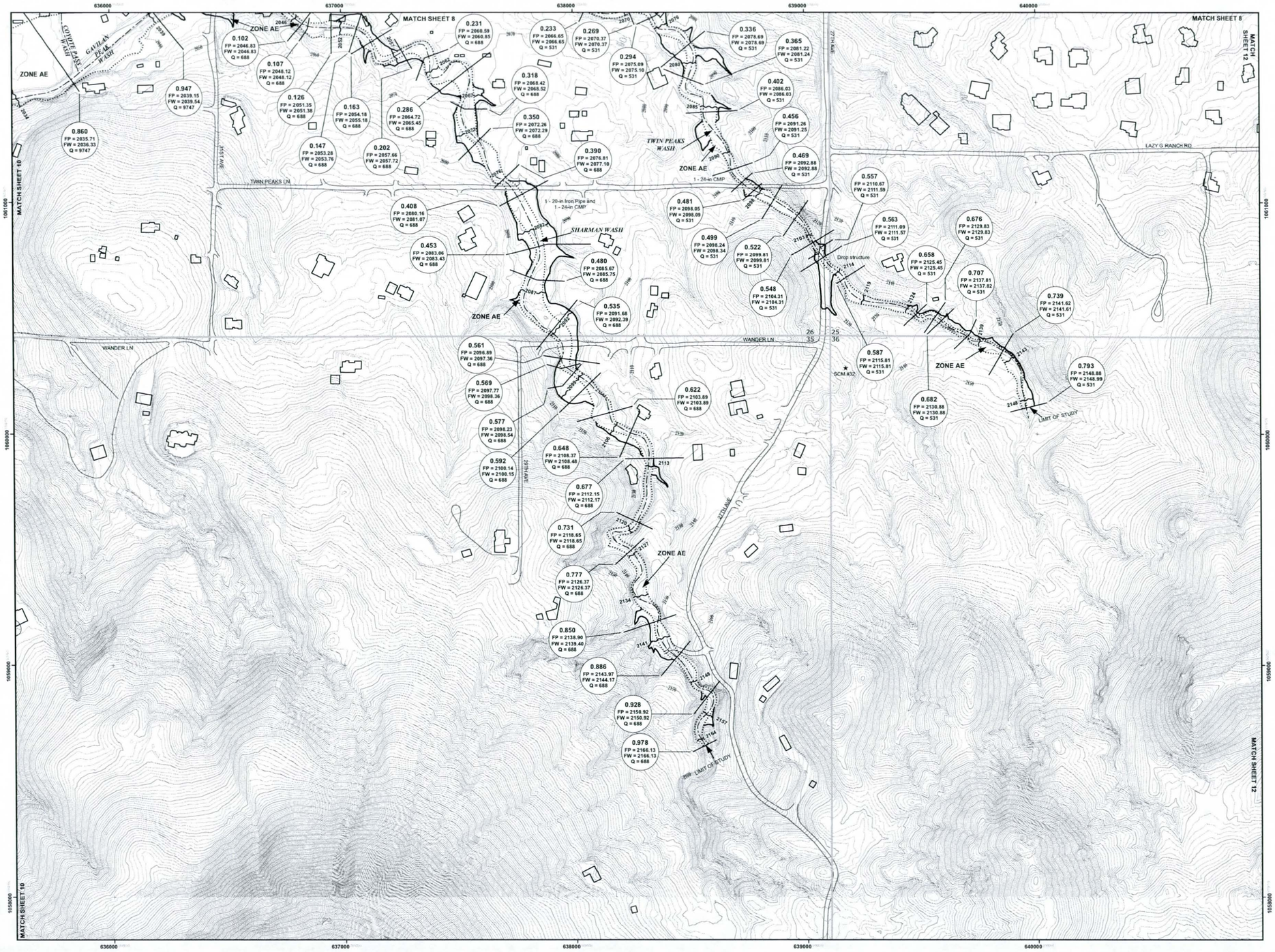

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PBS&J PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FCD 2004-C047
FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC.
FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007.

Legend

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- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
- New River Floodplain Mapping
- Section Line
- Road
- Building
- 2139 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

Benchmark Information: Benchmarks are either GDACS Survey Monuments (GDACS #) or Survey Monuments (SCM #).

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SCM #38	2207.0	1065065.35	635197.27
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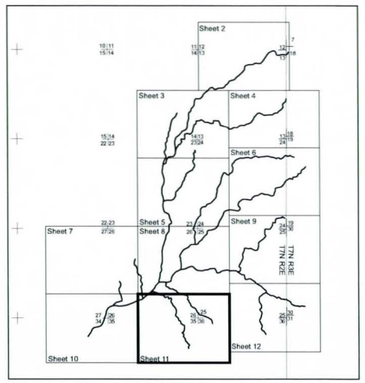

200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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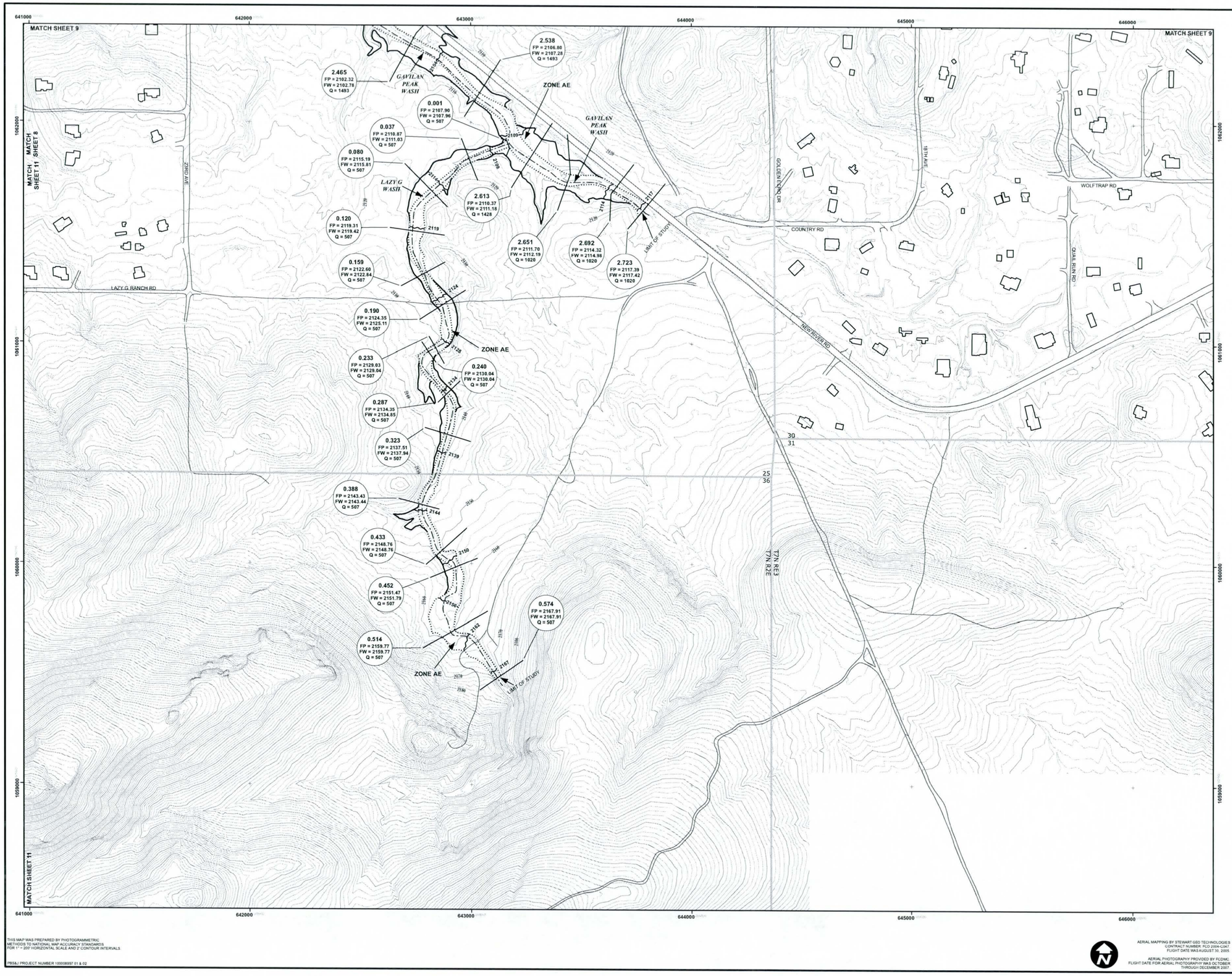

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PBSJ PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FCD 2004-C067
FLIGHT DATE WAS AUGUST 30, 2005

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC
FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007

Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
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- Building
- 2320 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

Benchmark Information: Benchmarks are either GDACS Survey Monuments (GDACS #) or Survey Monuments (SCM #).

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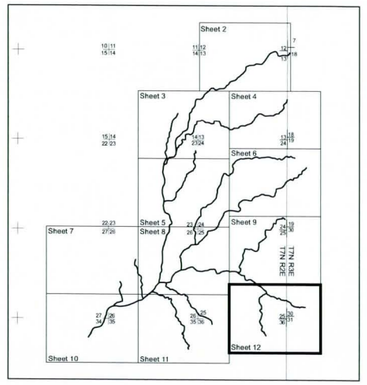
GDACS #46550-1	2136.932	1068299.872	639106.106
GDACS #1005	2174.310	1070923.440	639099.860
SCM #J343	2036.9	1062623.66	632114.74
SCM #32	2133.5	1060285.26	639172.46
SCM #38	2207.0	1065065.35	635197.27
SCM #39	2133.3	1067554.17	639813.91



200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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Registered Professional Engineer (Civil) 47097 SETH AHRENS ARIZONA U.S.A. Expires 12-31-2010

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Phoenix, Arizona 85050
(480) 419-7275

Design	SA	March 2010
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Plans	SA	March 2010
Plan Check	LRK	March 2010

HYDRAULIC WORK MAPS

24" X 36" COPIES

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK
FLOODPLAIN DELINEATION STUDY
FCD CONTRACT 2009-C006 -- ASSIGNMENTS 1 & 2
SUBMITTED ON MARCH 3, 2010

SHEET INDEX

Sheet	Content
1	Cover Sheet
2-12	100-Year Floodplain and Floodway Mapping

WASH INDEX

Wash	Sheet(s)
Coyote Pass Wash	7, 8, and 11
Gavilan Peak Wash	8, 9, 10, 11, and 12
Kelley Road Wash	7 and 10
Lazy G Wash	12
Photo View Wash	3 and 4
River Creek	3 and 5
Rough Rider Wash	9
Sharman Wash	8 and 11
Soda Springs Wash	5, 6, and 8
Table Mountain Wash	2, 3, 5, and 8
Table Mountain Wash Tributary 6	3 and 5
Twin Peaks Wash	8 and 11
White Spar Wash	5, 6, and 8
Photo View Wash Breakouts	**Sheet(s)**
Photo View Wash Breakout #1	3
Photo View Wash Breakout #2	3
Photo View Wash Breakout #3	3 and 5

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:

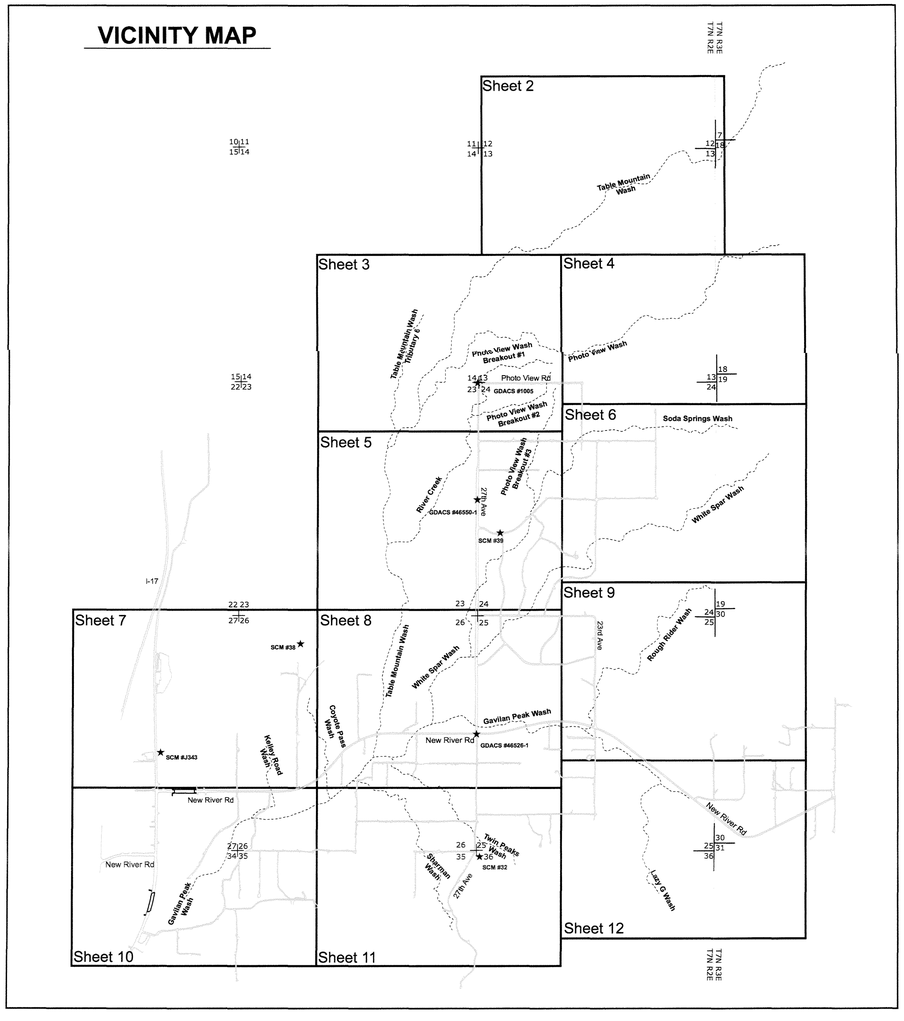
1. Mass points, break lines, and two-foot contours.
Aetial photogrammetry was flown on August 30, 2005 by Stewart Geo Technologies under FCDMC Contract FCD2004-047.
Vertical datum was NAVD 88. Contour interval was two feet.
Mapping scale was 1:200 (inch:foot). Original coordinate system of data was State Plane, Zone 3176, International Feet, GRS 1980.

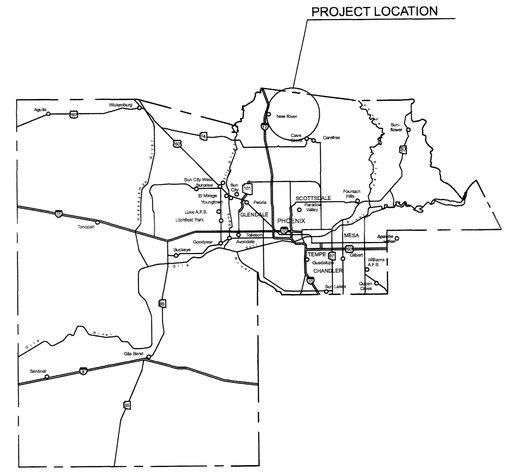
2. Aerial photography. Multiple flights occurred from October 2007 to December 2007.

3. The report *Hydrology Report - Gavilan Peak Watershed Floodplain Delineation Study* completed by RBF Consulting on November 3, 2008. RBF's report was created under FCDMC Contract FCD2008-C001. This report provided the 100-year flow rates used to complete the hydraulic analysis.

4. Field survey shot on May 5, 2008.

VICINITY MAP





Benchmarks (NAD 83-HARN and NAVD 88)

GDACS Survey Monuments

GDACS Point 46526-1, Elevation 2070.253
Northing: 1063039.143, Easting: 639100.468
Located at the intersection of New River Road and 27th Avenue.

GDACS Point 46550-1, Elevation 2136.932
Northing: 1068299.872 Easting: 639106.106
Located at the intersection of 27th Avenue and White Spar Circle.

GDACS Point 1005, Elevation 2174.310
Northing: 1070923.440 Easting: 639099.860
Located at the north side of the intersection of 27th Avenue and Photo View Road.

Survey Control Monuments
SCM Point J343, Elevation 2036.9
Northing: 1062623.66, Easting: 632114.7
Located 0.35 miles south of milepost 233 along Old Black Canyon Highway, 99 feet east of the center of the highway, 85 feet south of a gate leading to the George Howard Home, 3 feet west of the fence, 3 feet south of the witness post, set in the top of a 12-inch square concrete post.

SCM Point 32, Elevation 2133.5
Northing: 1060285.26, Easting: 639172.5
Located 1000 feet south of the south end of pavement of 27th Avenue, 125 feet east of the 27th Avenue alignment, flush with ground.

SCM Point 38, Elevation 2207.0
Northing: 1065065.35 Easting 635197.3
Located 0.70 miles along Coyote Pass Road north of the intersection of Coyote Pass Road and New River Road, on the east side of the road, flush with ground.

SCM Point 39, Elevation 2133.3
Northing: 1067554.17 Easting 639613.9
Located 0.1 miles along White Spar Road north of the intersection of White Spar Road and 27th Avenue, on the north side of the road, flush with ground.

Survey Statement

I, John R. Stock, 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 and their accuracies, as shown in the report, are correct.

John R. Stock
AZ RLS #25087

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY
FCD CONTRACT 2009-C006

Statement of Professional Registration

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

Registered Professional Engineer (Civil) CERTIFICATE NO. 47097 SETH AHRENS Date Signed 2-2-10 ARIZONA U.S.A. Expires 12-31-2010

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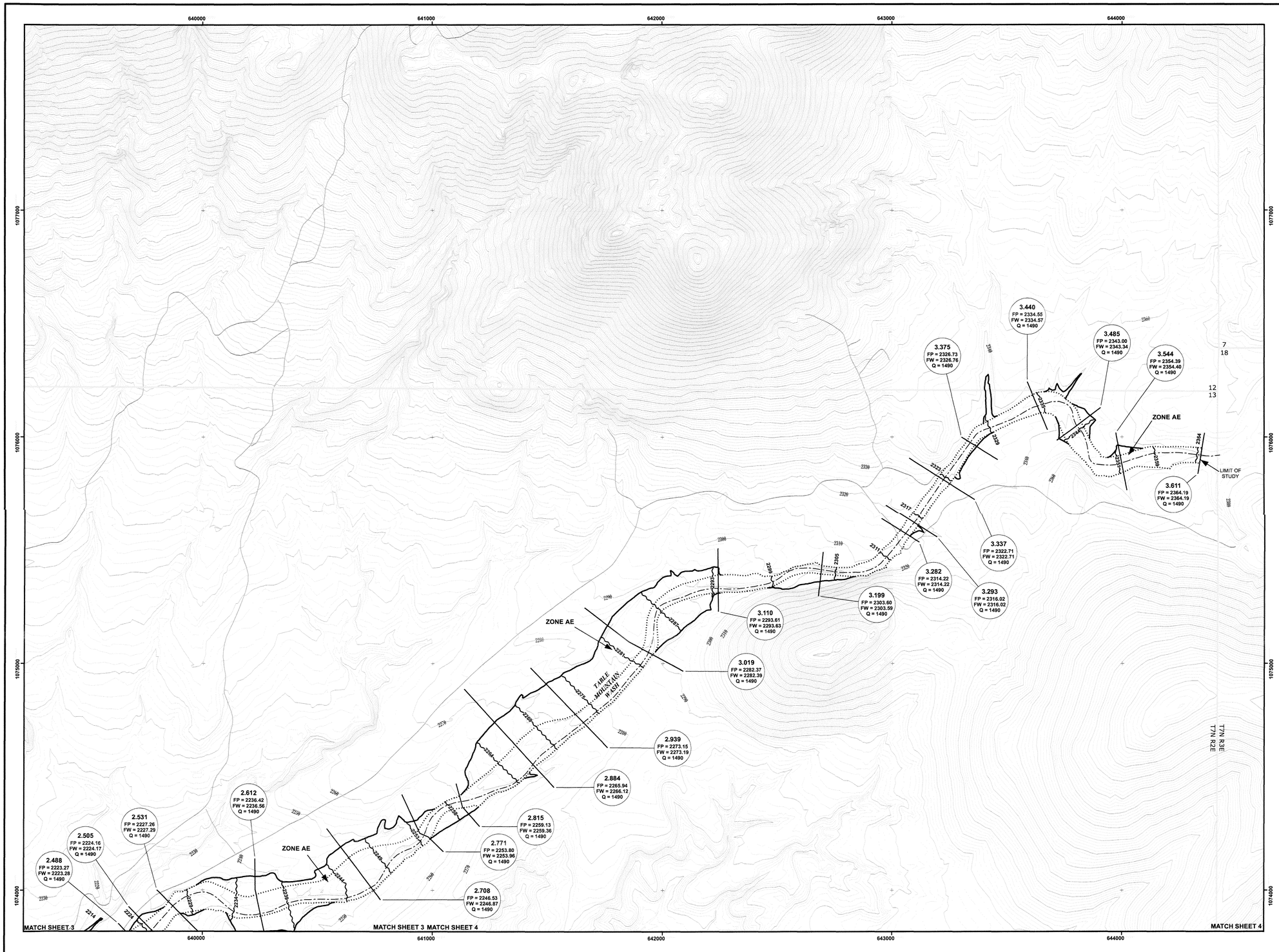
PBS&J Project Number 100008997 01 & 02



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PBS&J PROJECT NUMBER 100008997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-0347. FLIGHT DATE WAS AUGUST 30, 2005.

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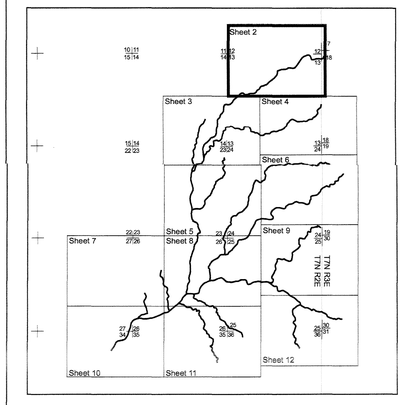

200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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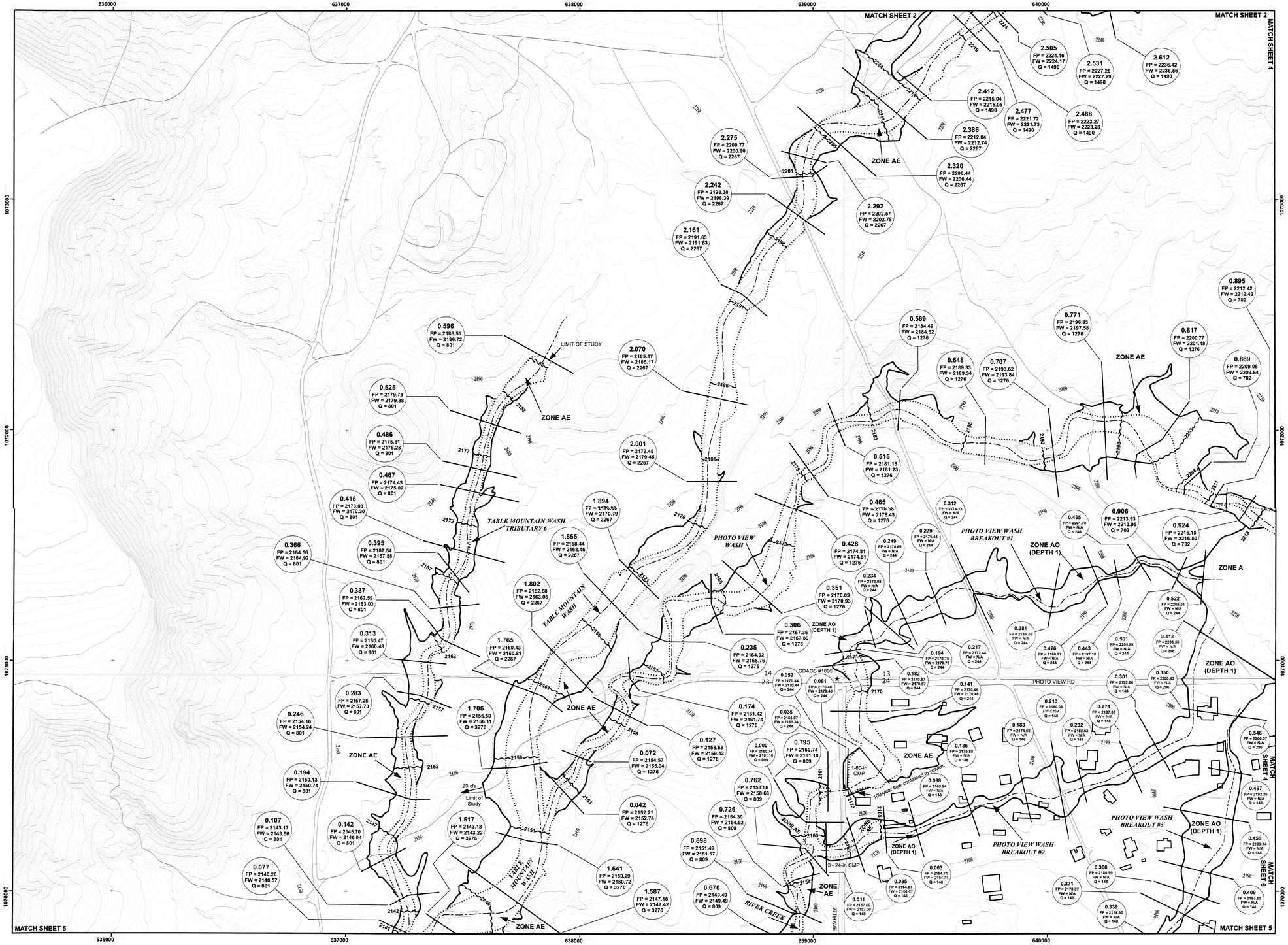

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PBS&J PROJECT NUMBER 100008997 01.& 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-0247 FLIGHT DATE WAS AUGUST 30, 2006.

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC. FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007.

Legend

- Benchmark (Type + Point Name)
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GDACS #1005	2174.310	1070923.440	639099.860
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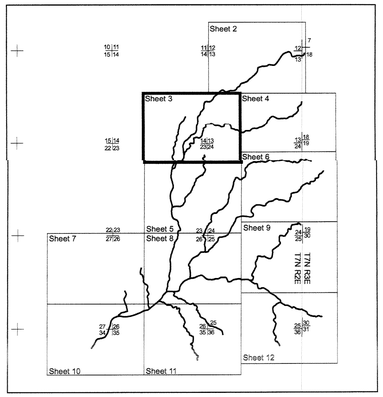

200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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Registered Professional Engineer (Civil) CERTIFICATE NO. 47097 SETH AHRENS Date Signed 12-2-10 ARIZONA, U.S.A. Expires 12-31-2010

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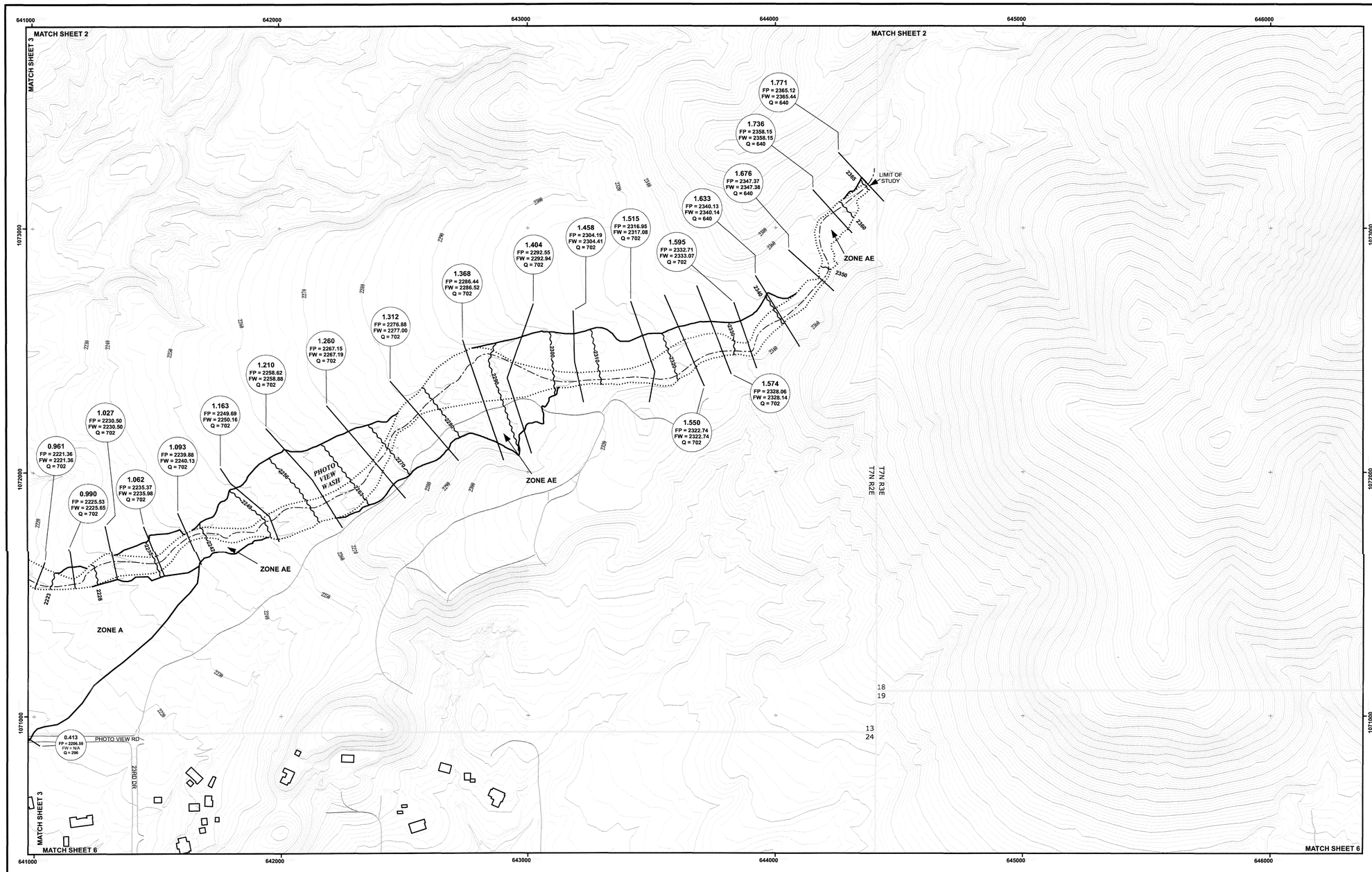
Phoenix, Arizona 85050
(480) 419-7275

Design	SA	March 2010
Design Check	LRK	March 2010
Plans	SA	March 2010
Plan Check	LRK	March 2010



Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
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- Section Line
- Road
- Building
- 2320 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

Benchmark Information: Benchmarks are either GDACS Survey Monuments (GDACS #) or Survey Monuments (SCM #).

Point Name	Elevation NAVD 88 - Feet	Northing NAD83 HARN - feet	Easting NAD83 HARN - feet
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GDACS #46550-1	2136.932	1068299.872	639106.106
GDACS #1005	2174.310	1070923.440	639099.860
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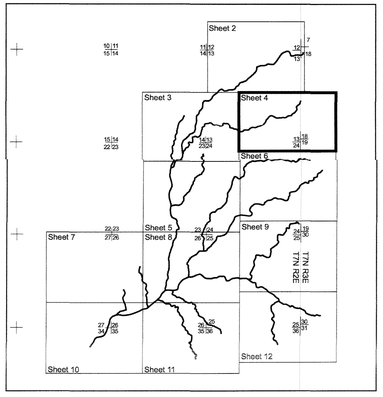
SCM #38	2207.0	1065065.35	635197.27
SCM #39	2133.3	1067554.17	639613.91



200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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Sheet 4 of 12

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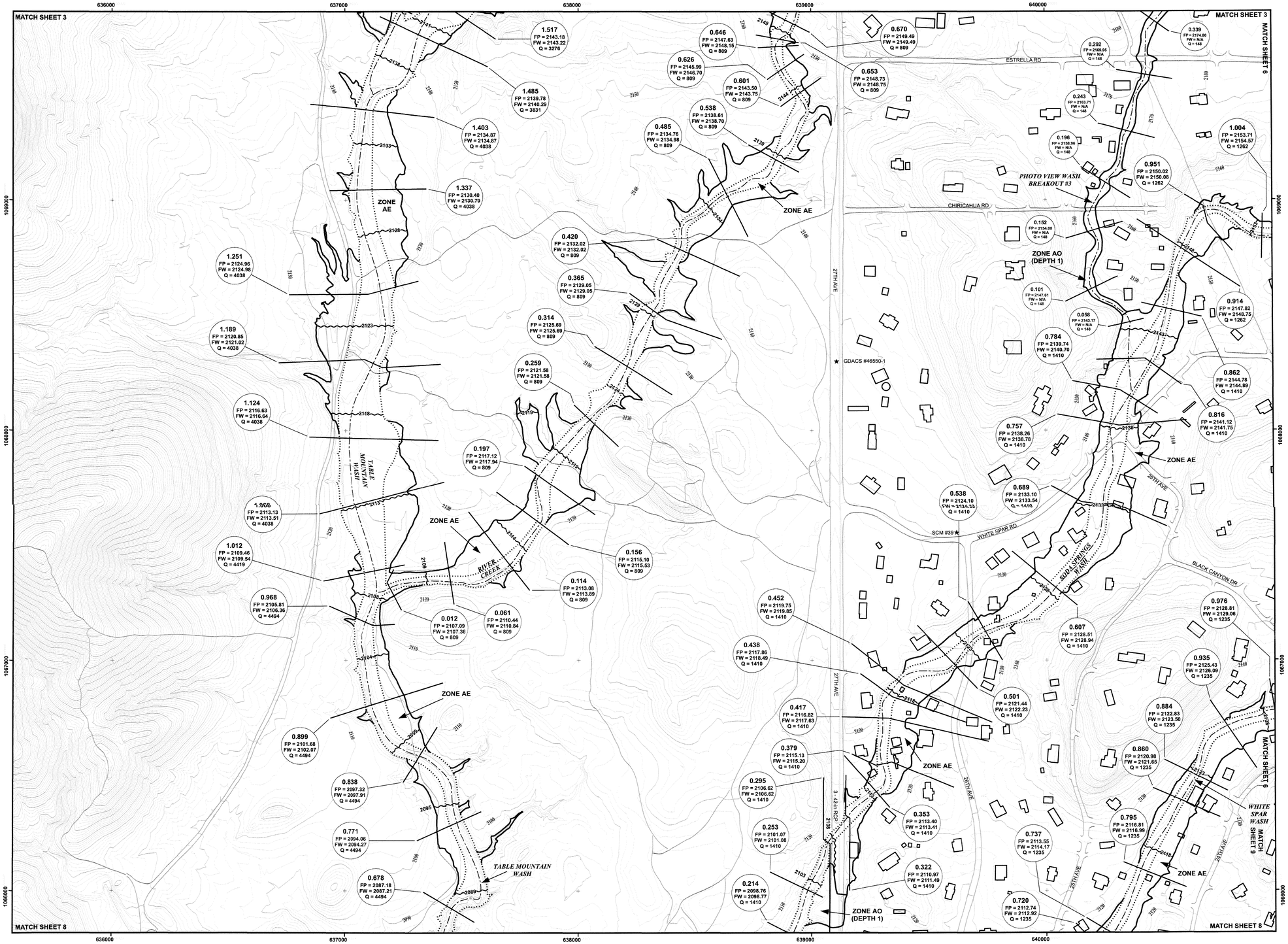
PBSJ PROJECT NUMBER 100008997.01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES CONTRACT NUMBER: FCD 2004-C047. FLIGHT DATE WAS AUGUST 30, 2005.

AERIAL PHOTOGRAPHY PROVIDED BY FCDMC. FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007.



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PBS&J PROJECT NUMBER 100059997 01 & 02

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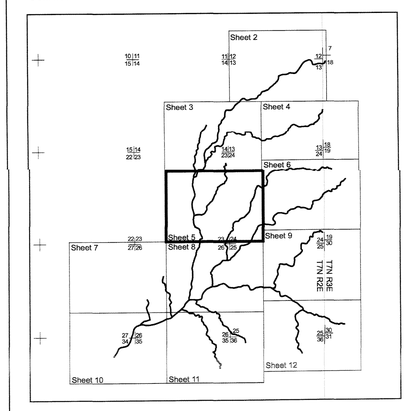

200 100 0 200 400 Feet

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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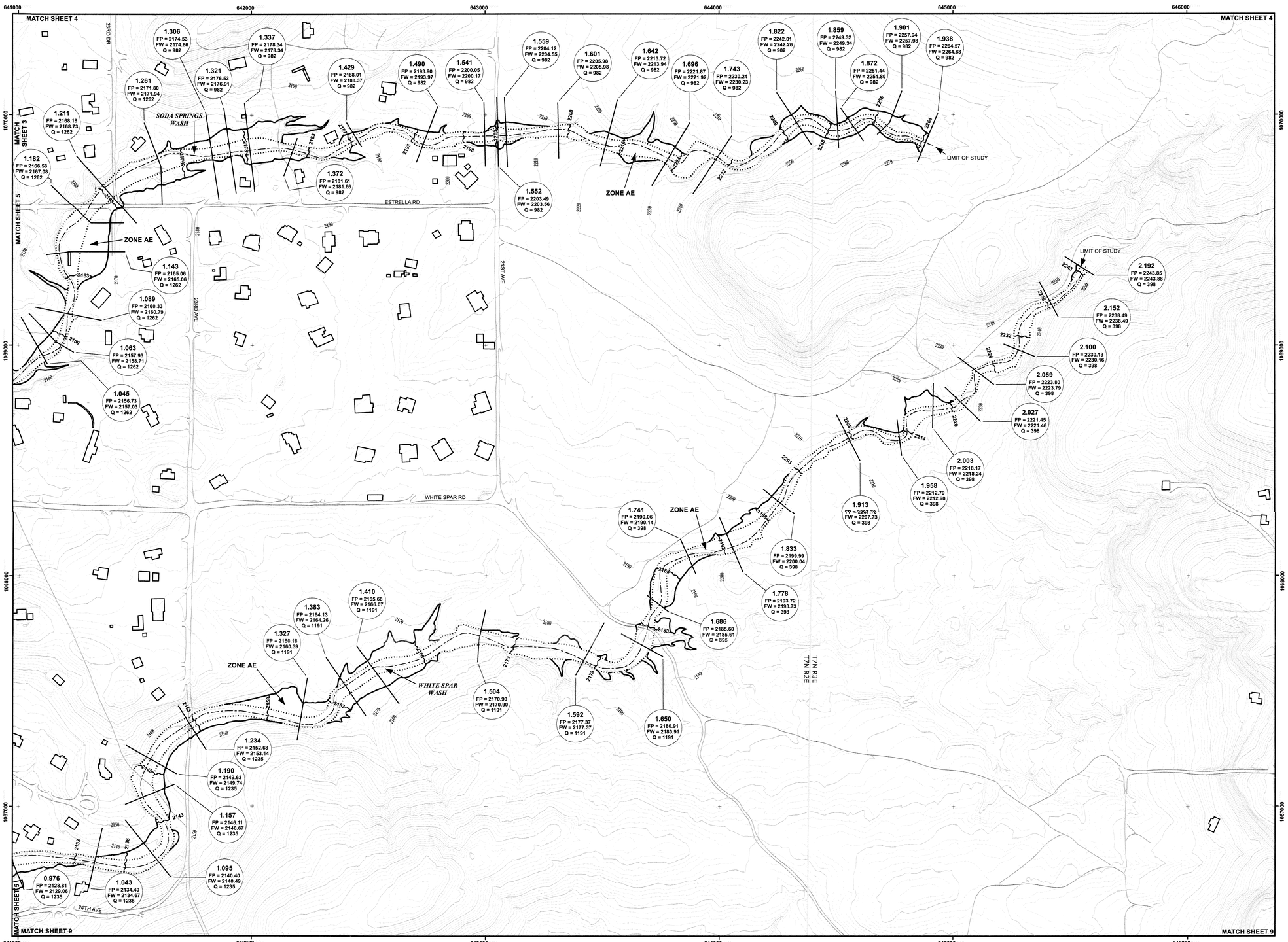

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PBSJ PROJECT NUMBER: 100008997.01 & 02

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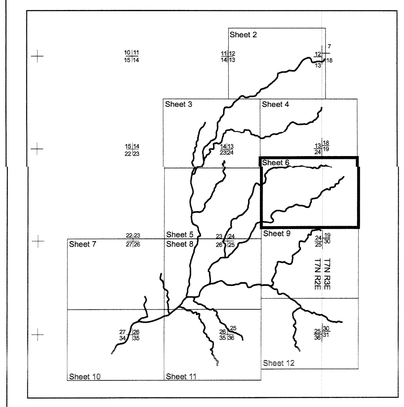

200 100 0 200 400 Feet

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NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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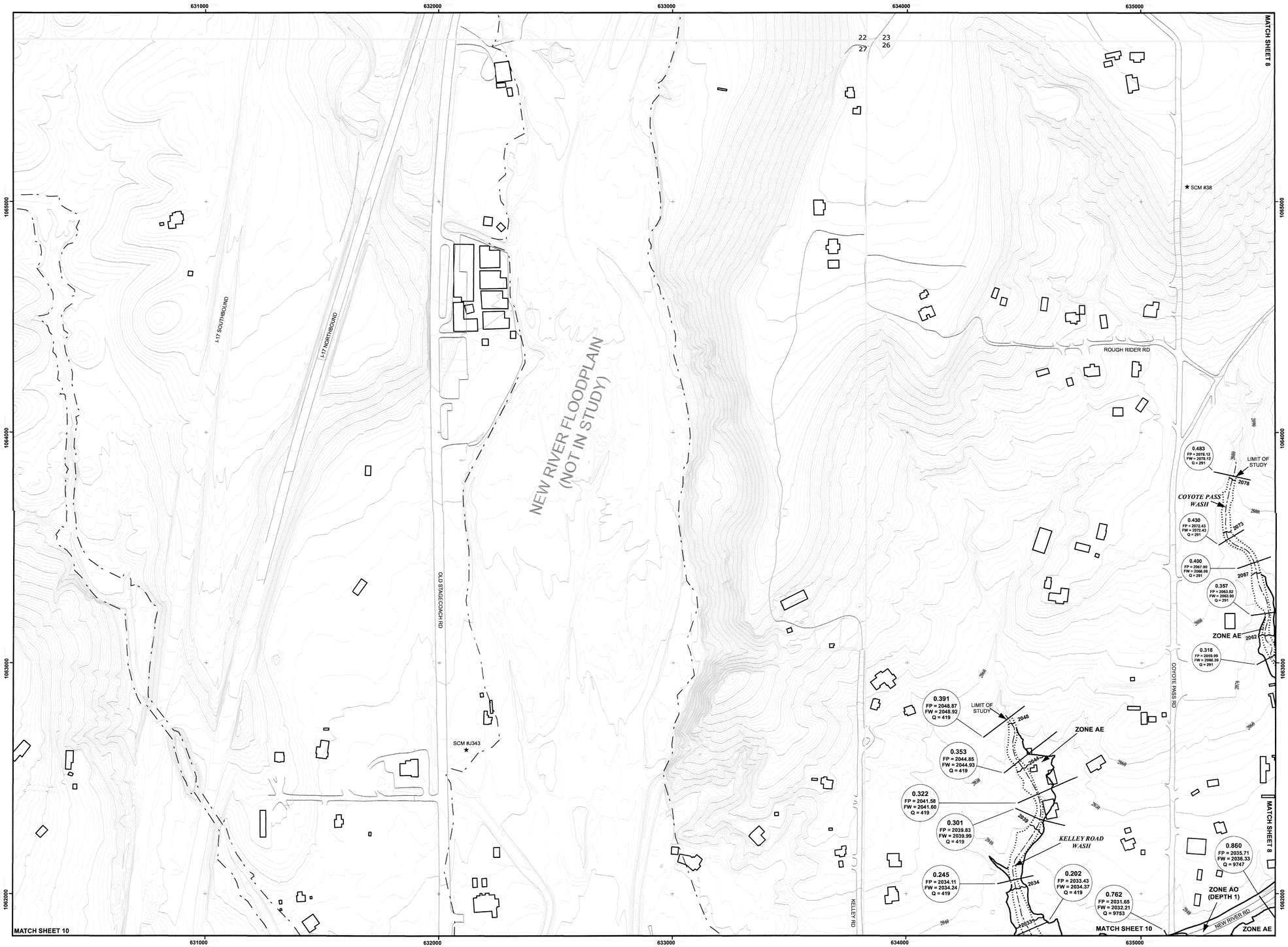

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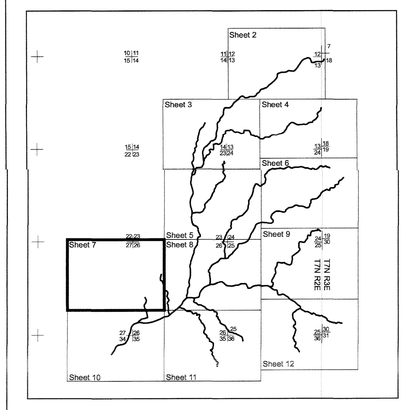

200 100 0 200 400 Feet

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PBS&J PROJECT NUMBER 100008997 01 & 02

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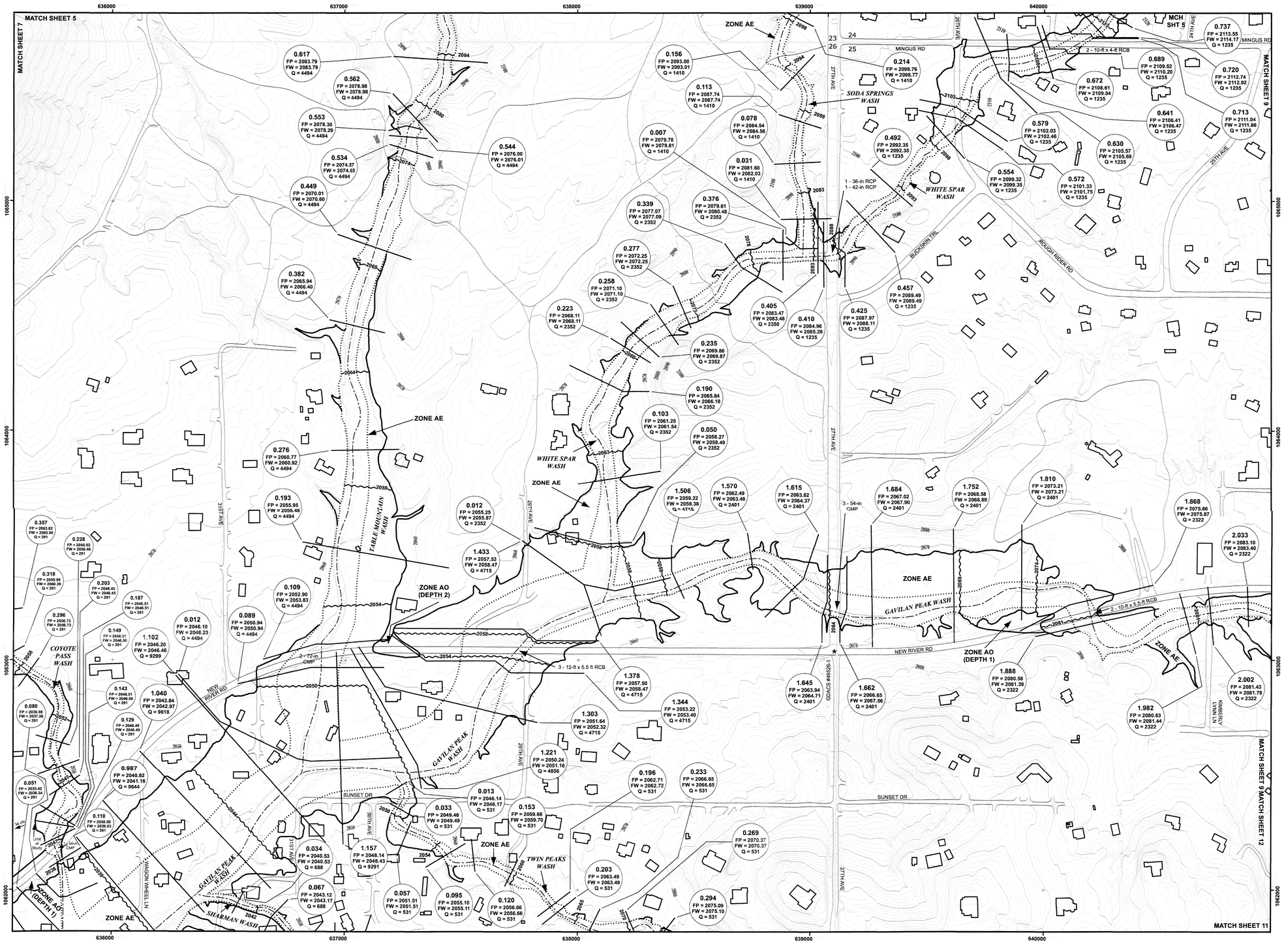

Legend

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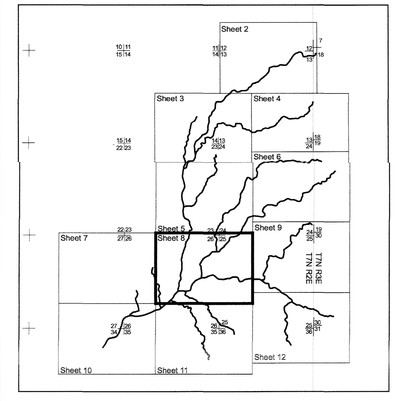

200 100 0 200 400 Feet

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NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

FCD CONTRACT 2009-C006

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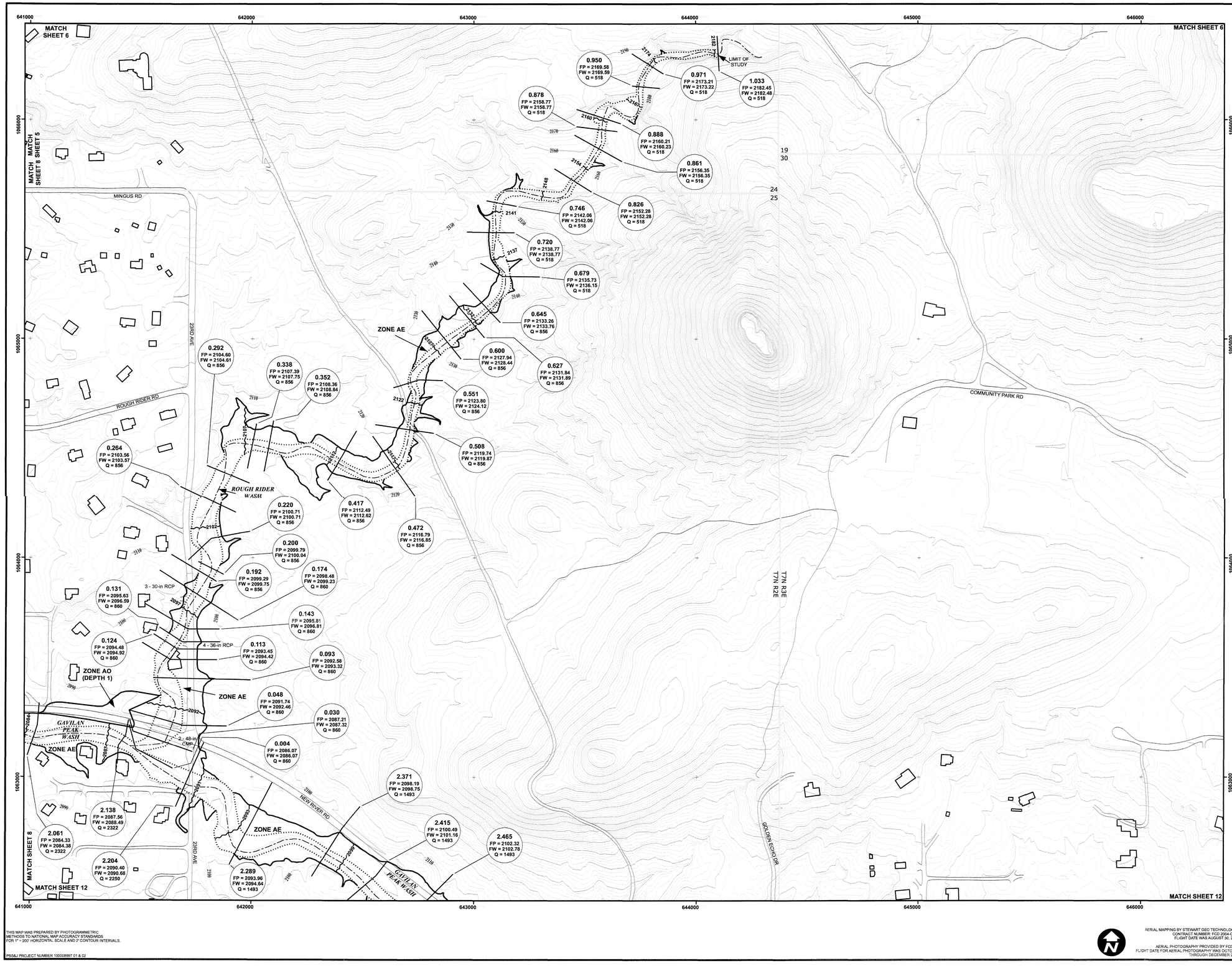

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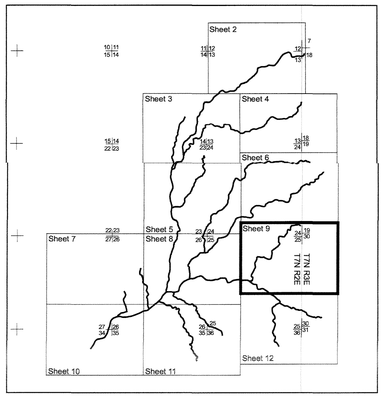

200 100 0 200 400 Feet

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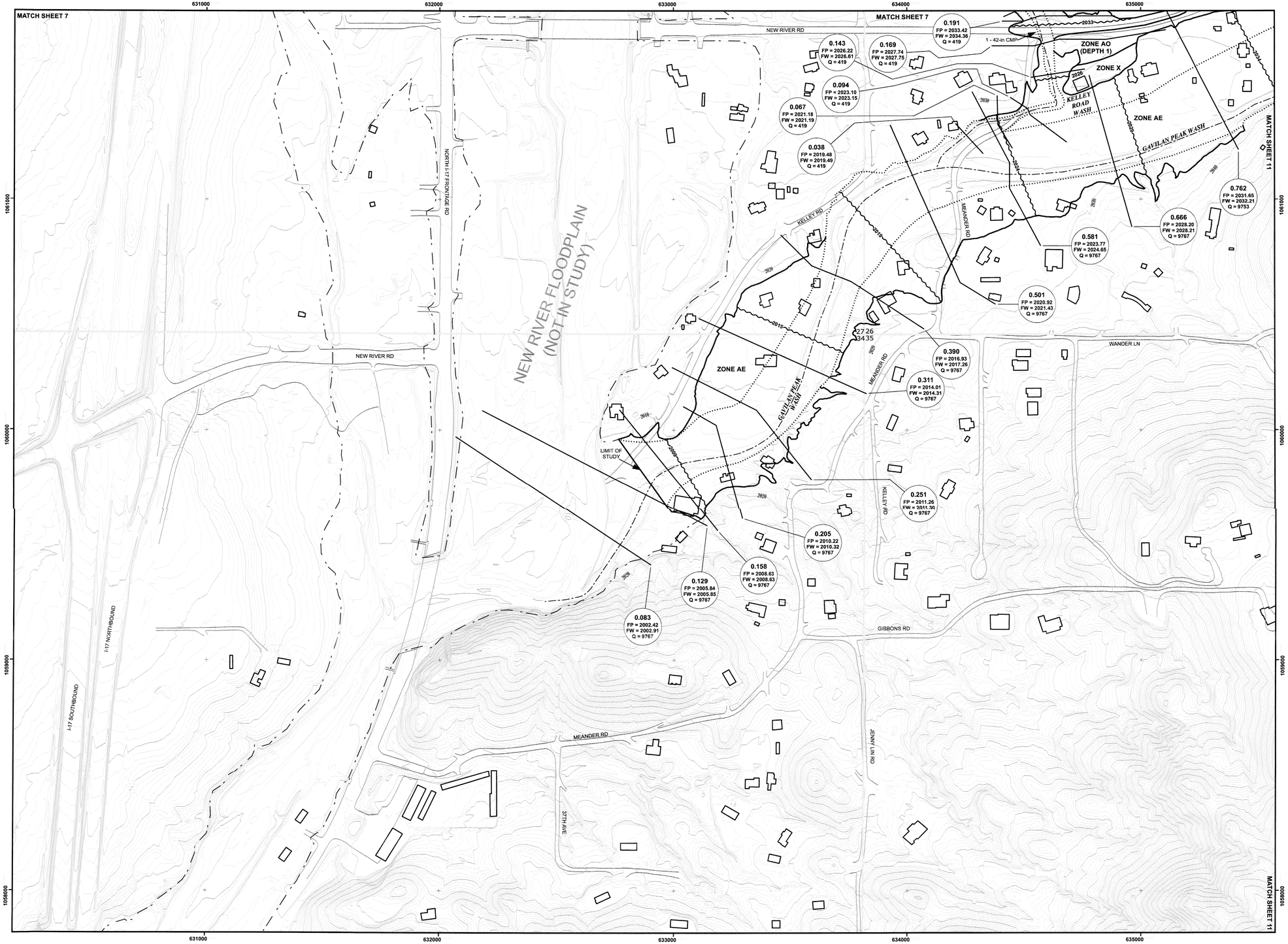

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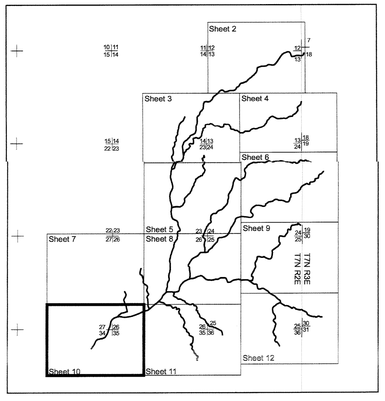

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PBS&J PROJECT NUMBER 100008997 01 & 02

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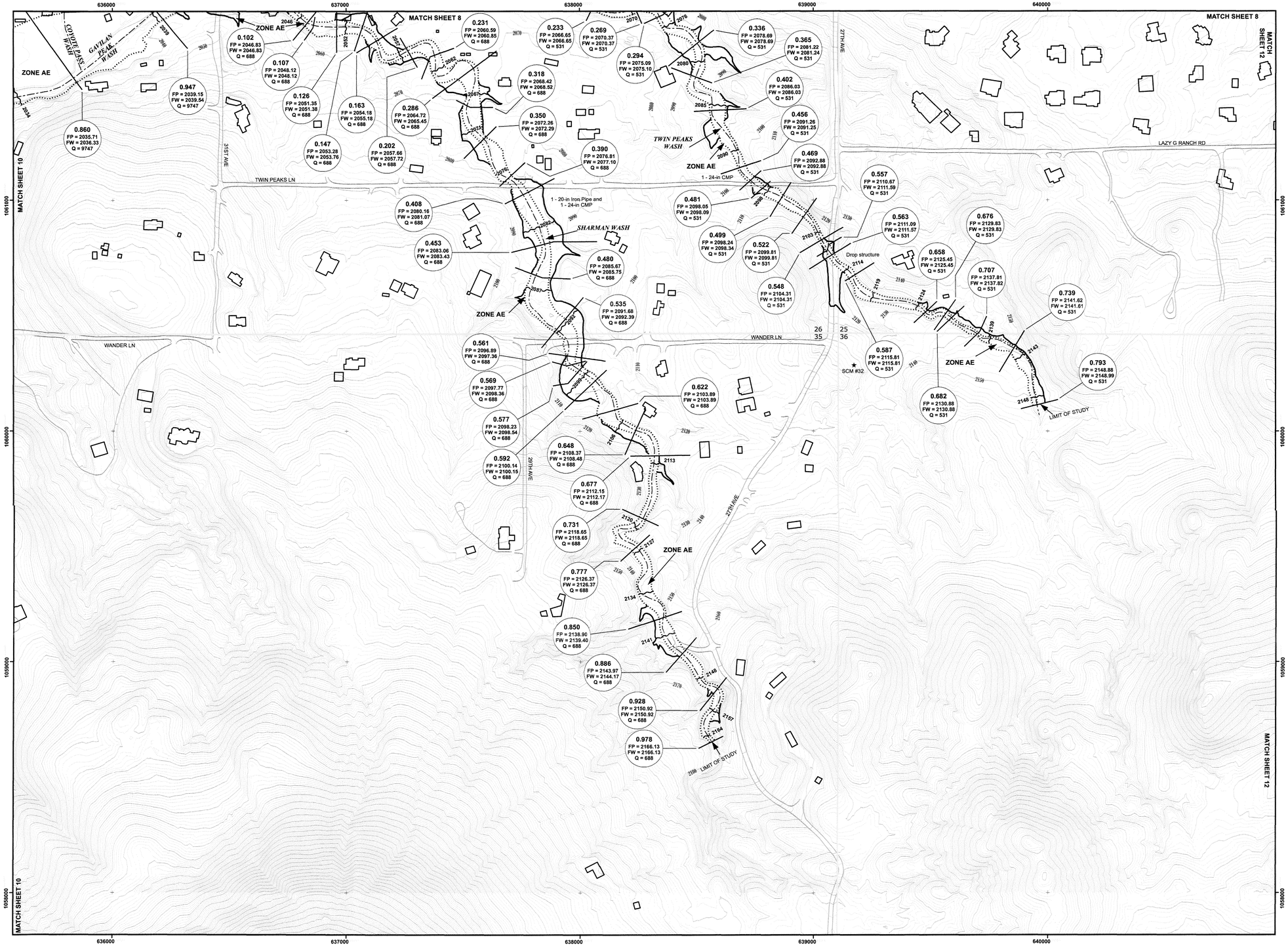

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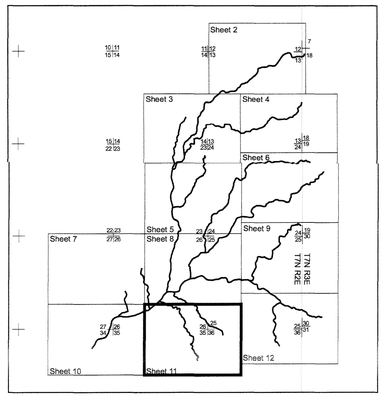

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GAVILAN PEAK FLOODPLAIN DELINEATION STUDY

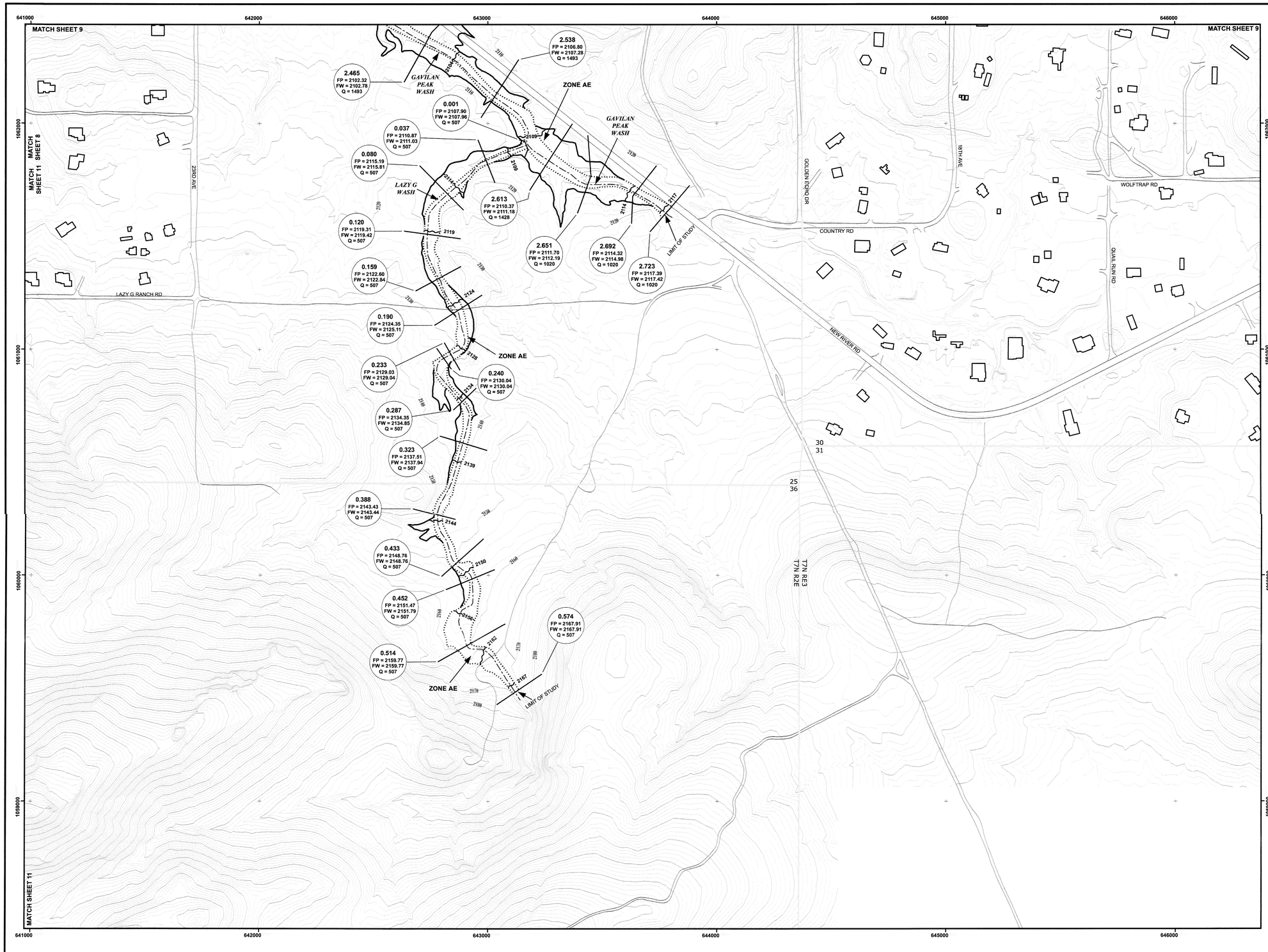
FCD CONTRACT 2009-C006

The Engineer's seal on this map applies to the hydraulic modeling and associated floodplain mapping completed for this FDS. Please refer to the cover sheet for the Land Surveyor's seal for the ground survey data acquired for this FDS. Please refer to Appendix D for the Engineer's seal for the hydrologic modeling completed for this FDS.

Registered Professional Engineer (Civil) CERTIFICATE NO. 47097 SETH AHRENS Date Signed 3-2-10 ARIZONA U.S.A. Expires 12-31-2010

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

Design	SA	March 2010
Design Check	LRK	March 2010
Plans	SA	March 2010
Plan Check	LRK	March 2010



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

PBSJ PROJECT NUMBER 100068997 01 & 02

AERIAL MAPPING BY STEWART GEO TECHNOLOGIES
CONTRACT NUMBER: FCD 2004-C047
FLIGHT DATE WAS AUGUST 30, 2005.

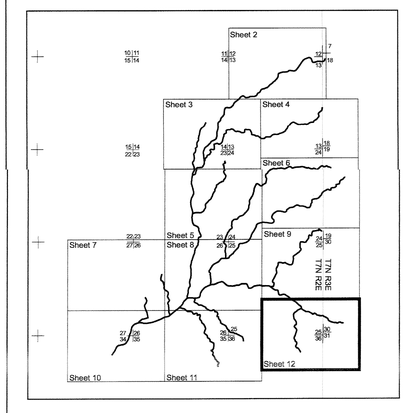
AERIAL PHOTOGRAPHY PROVIDED BY FCDMC.
FLIGHT DATE FOR AERIAL PHOTOGRAPHY WAS OCTOBER THROUGH DECEMBER 2007.

Legend

- ★ Benchmark (Type + Point Name)
- 2317 Base Flood Elevations
- Floodway
- 100-Year Floodplain
- Hydraulic Baselines
- HEC-RAS Cross Sections
- New River Floodplain Mapping
- Section Line
- Road
- Building
- 2320 Contour -- 10-ft Interval
- Contour -- 2-ft Interval

Benchmark Information: Benchmarks are either GDACS Survey Monuments (GDACS #) or Survey Monuments (SCM #).

Point Name	Elevation NAVD 88 - Feet	Northing NAD83 HARN - feet	Easting NAD83 HARN - feet
GDACS #46526-1	2070.253	1063039.143	639100.468
GDACS #46550-1	2136.932	1068299.872	639106.106
GDACS #1005	2174.310	1070923.440	639099.860
SCM #J343	2036.9	1062623.66	632114.74
SCM #32	2133.5	1060285.26	639172.46
SCM #38	2207.0	1065065.35	635197.27
SCM #39	2133.3	1067554.17	639613.91



200 100 0 200 400 Feet

CONTOUR INTERVAL = TWO FEET

CONTOURS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

NAVD 88 VALUES MINUS NGVD 29 VALUES EQUAL 2.03 FEET

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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