

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

April 09, 2025

Jackie S. McDowell, P.E.
7820 Beverly Hills Ave. NE
Albuquerque, NM 87122

RE: 4200 Ridgerunner Rd. NW
Grading and Drainage Plan
Engineer's Stamp Date: 8/13/2024
Hydrology File: B13D036
ABQ-PLAN: HYDR-2025-00083

Dear Jackie McDowell:

Based upon the information provided in your submittal received 04/08/2025, the Grading & Drainage Plan is approved for Building Permit and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PO Box 1293

PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

NM 87103

1. Engineer's Certification, per DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide a Drainage Covenant with Exhibit A for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Submit the original copies along with the **\$25.00** recording fee check made payable to Bernalillo County to the Hydrology Section of Development Review Services on the Ground floor of Plaza de Sol.

www.cabq.gov

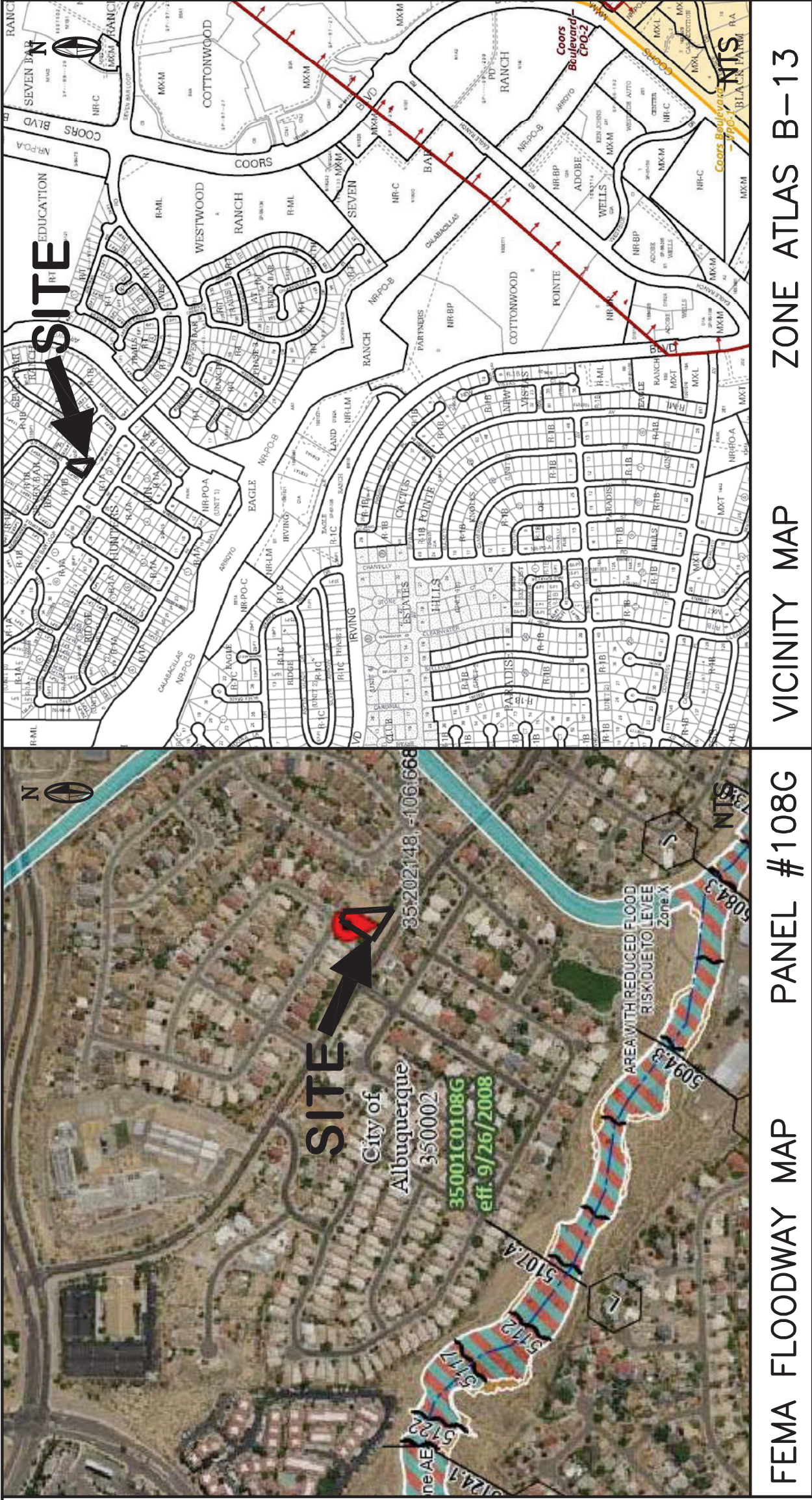
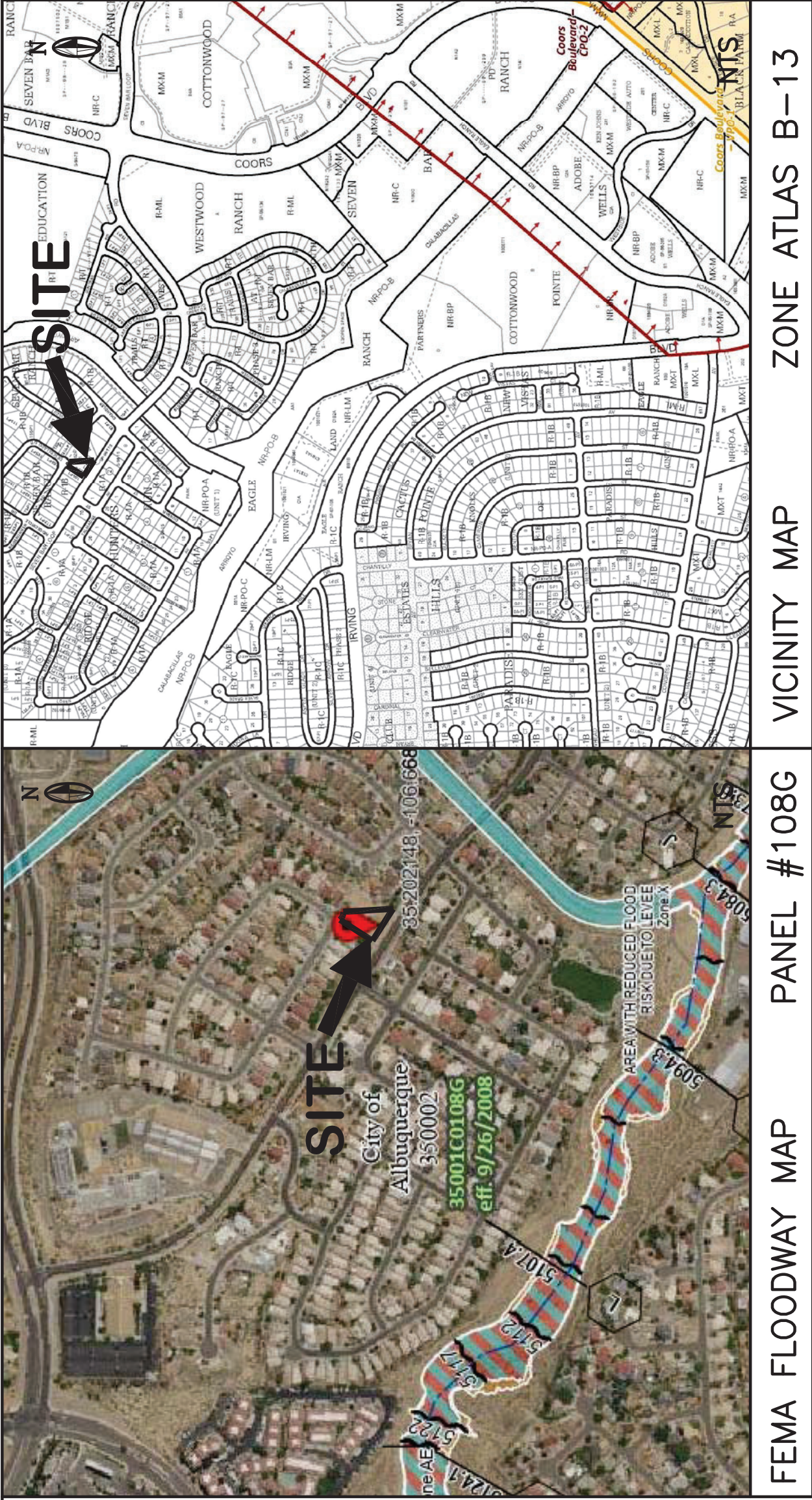
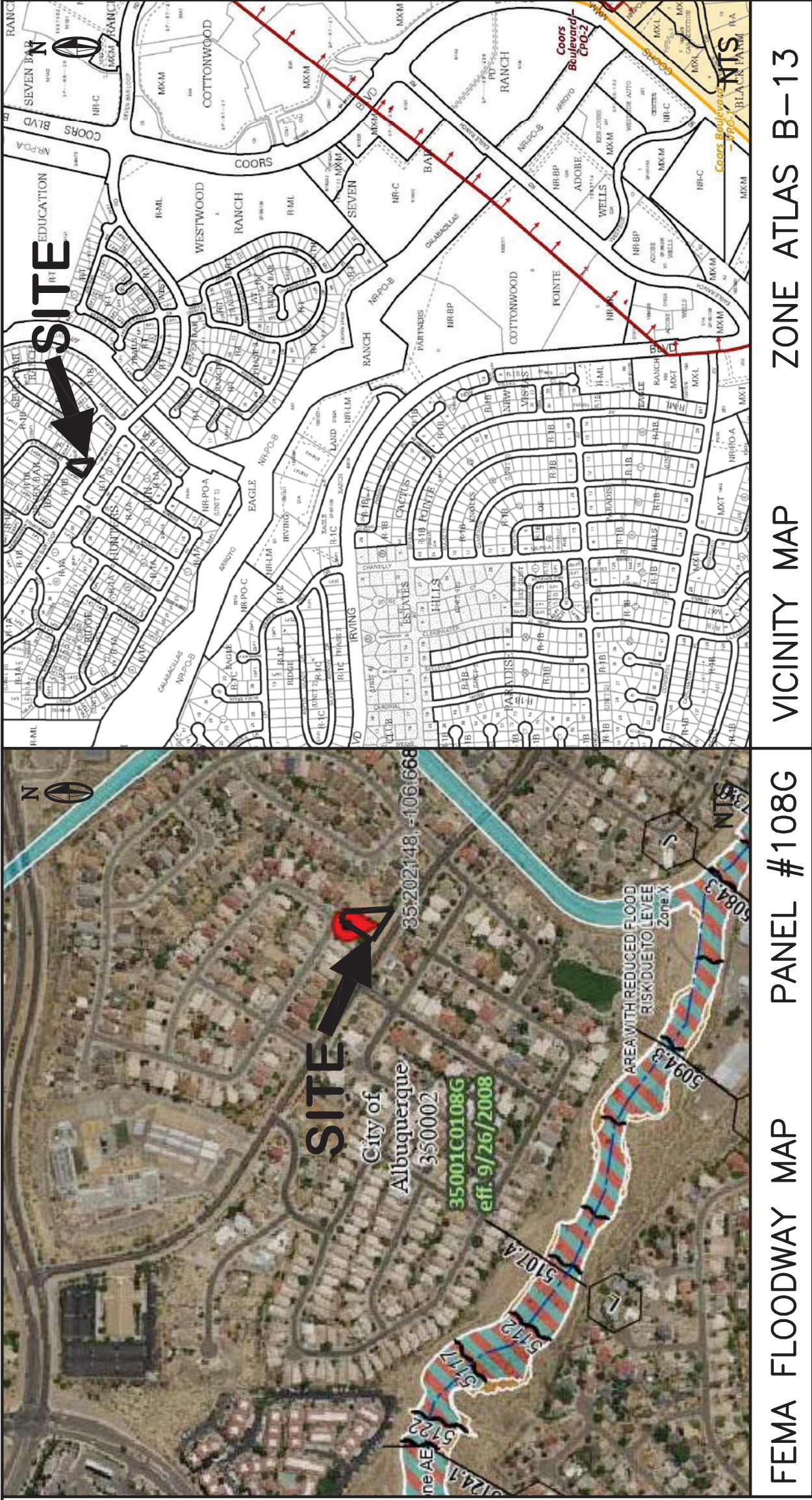
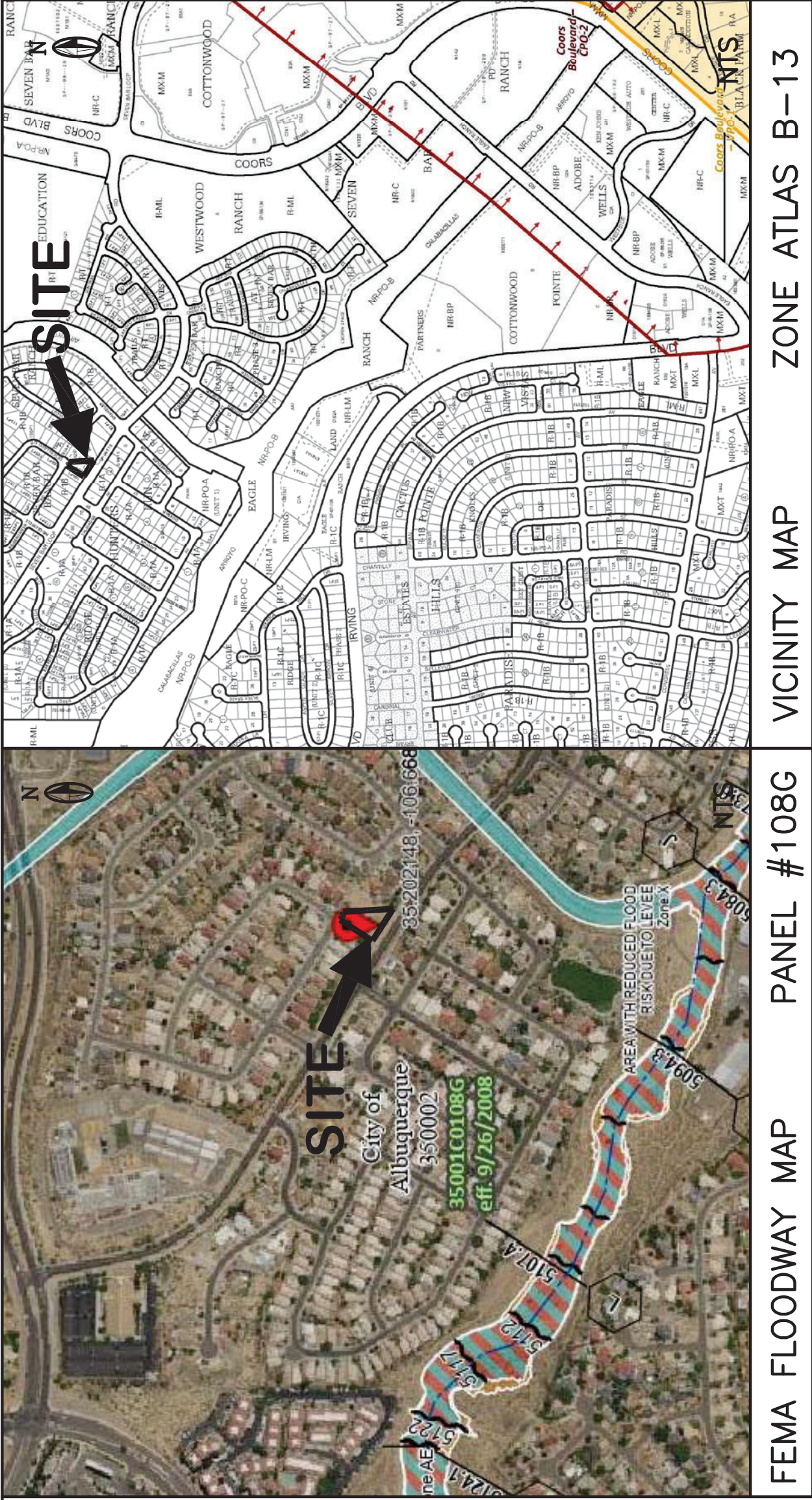
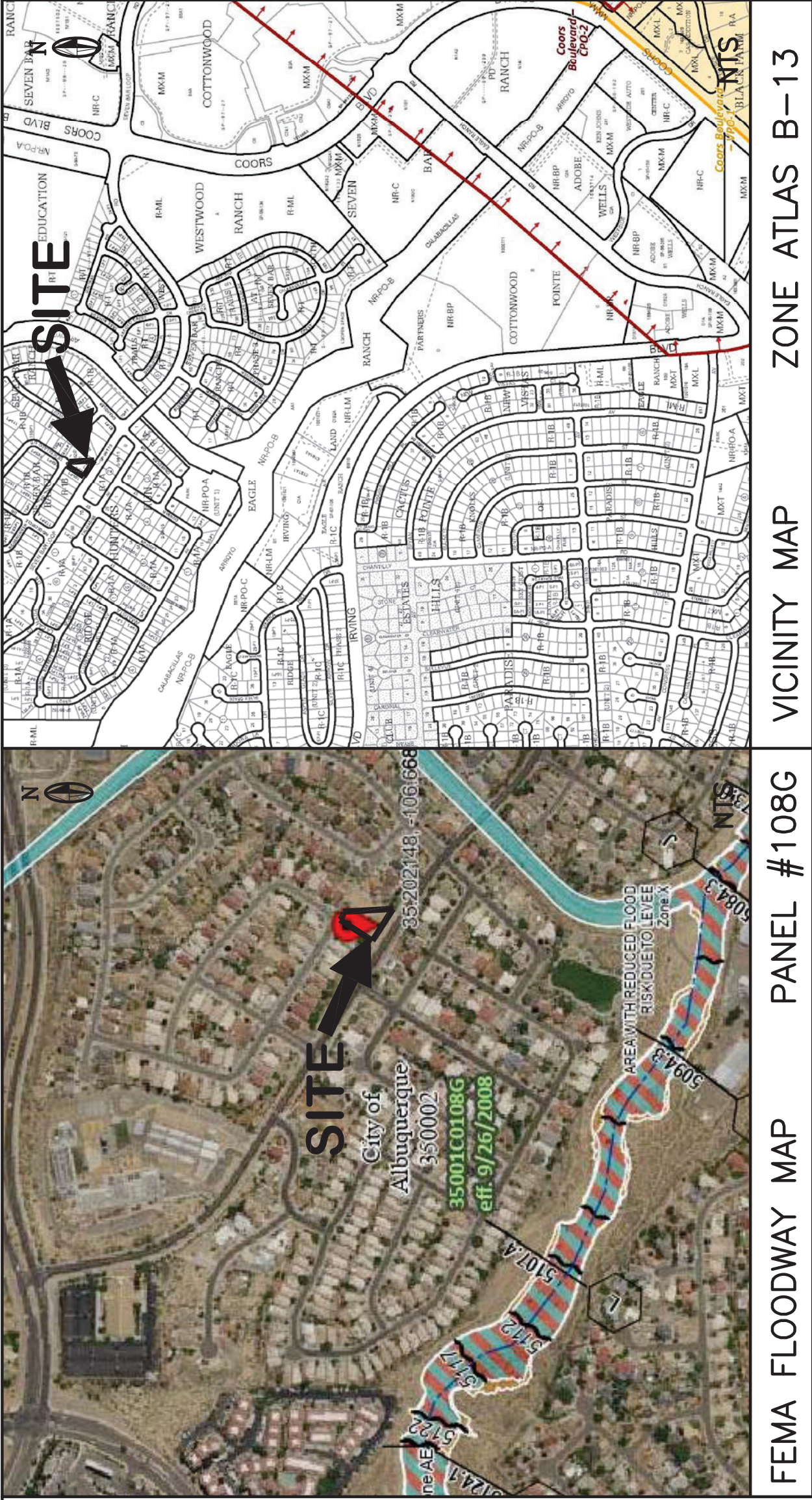
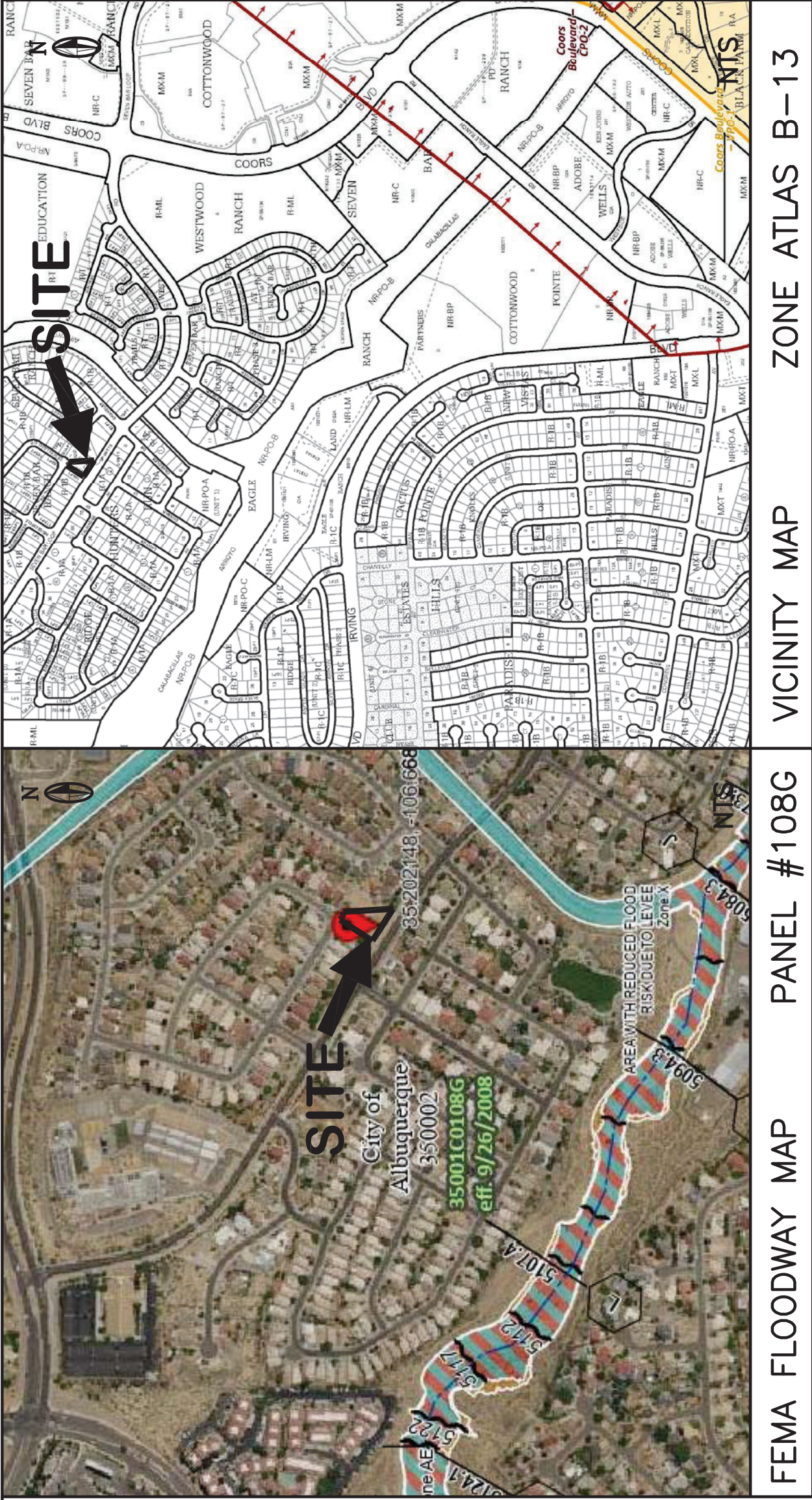
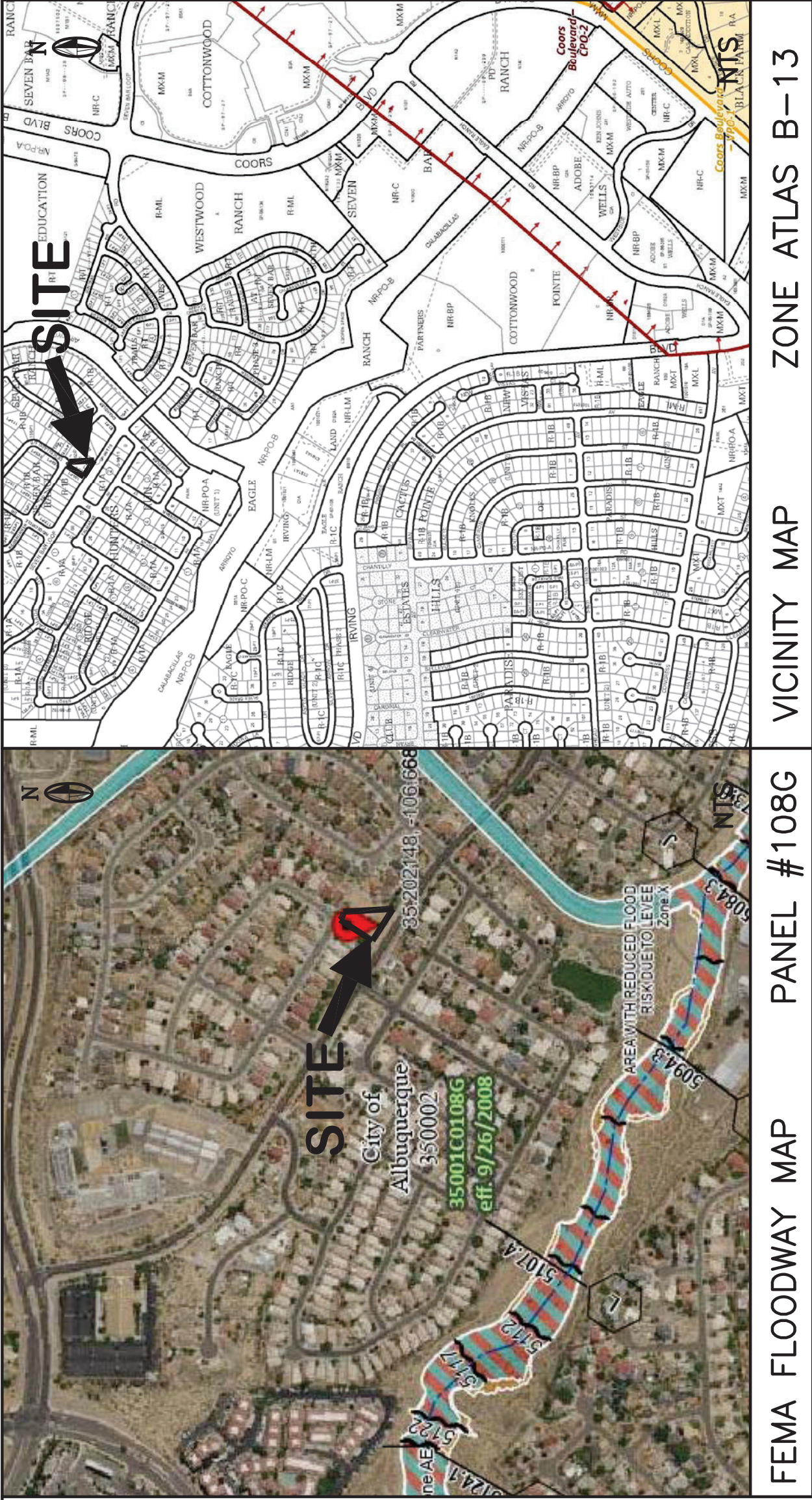
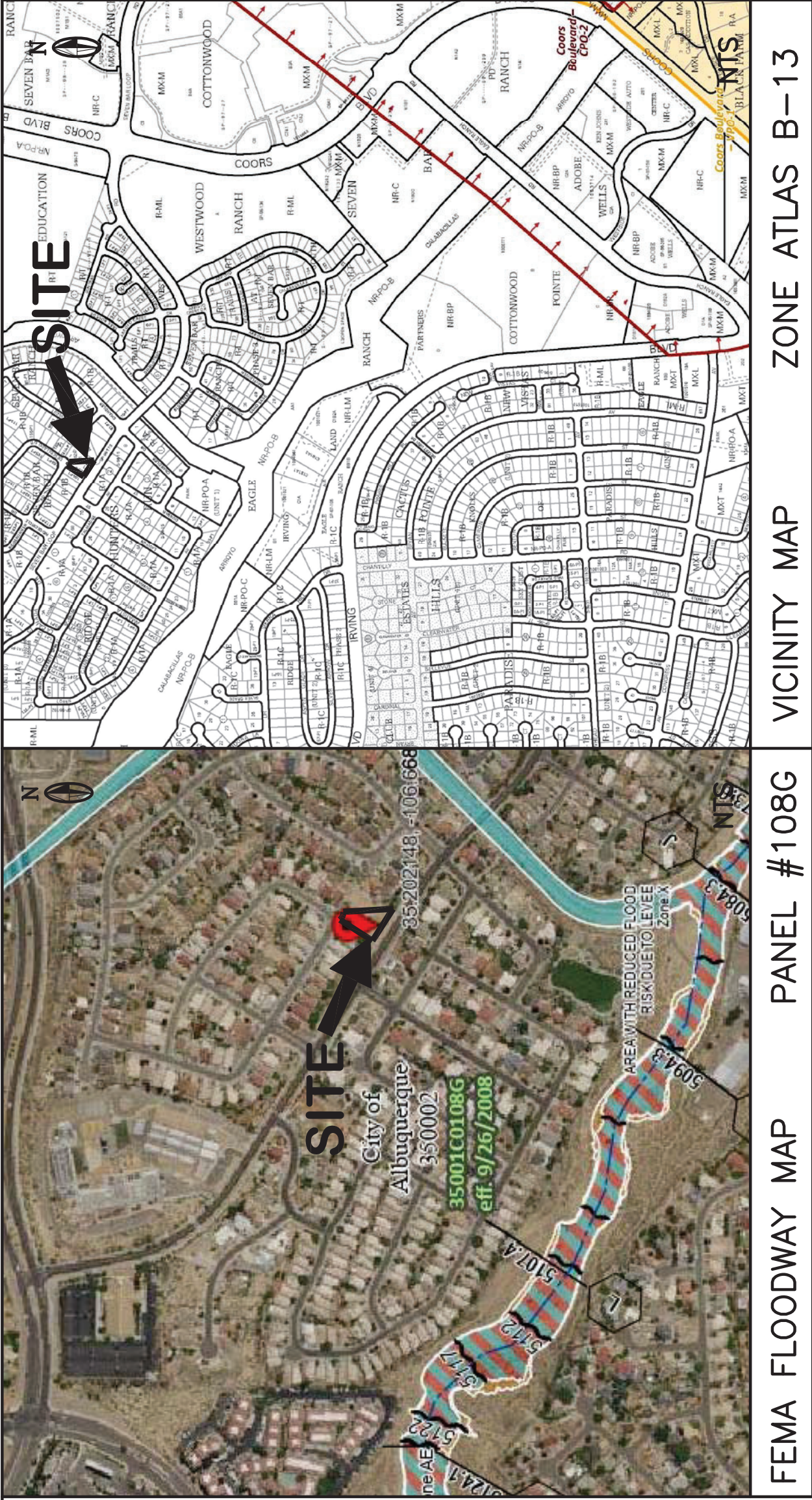
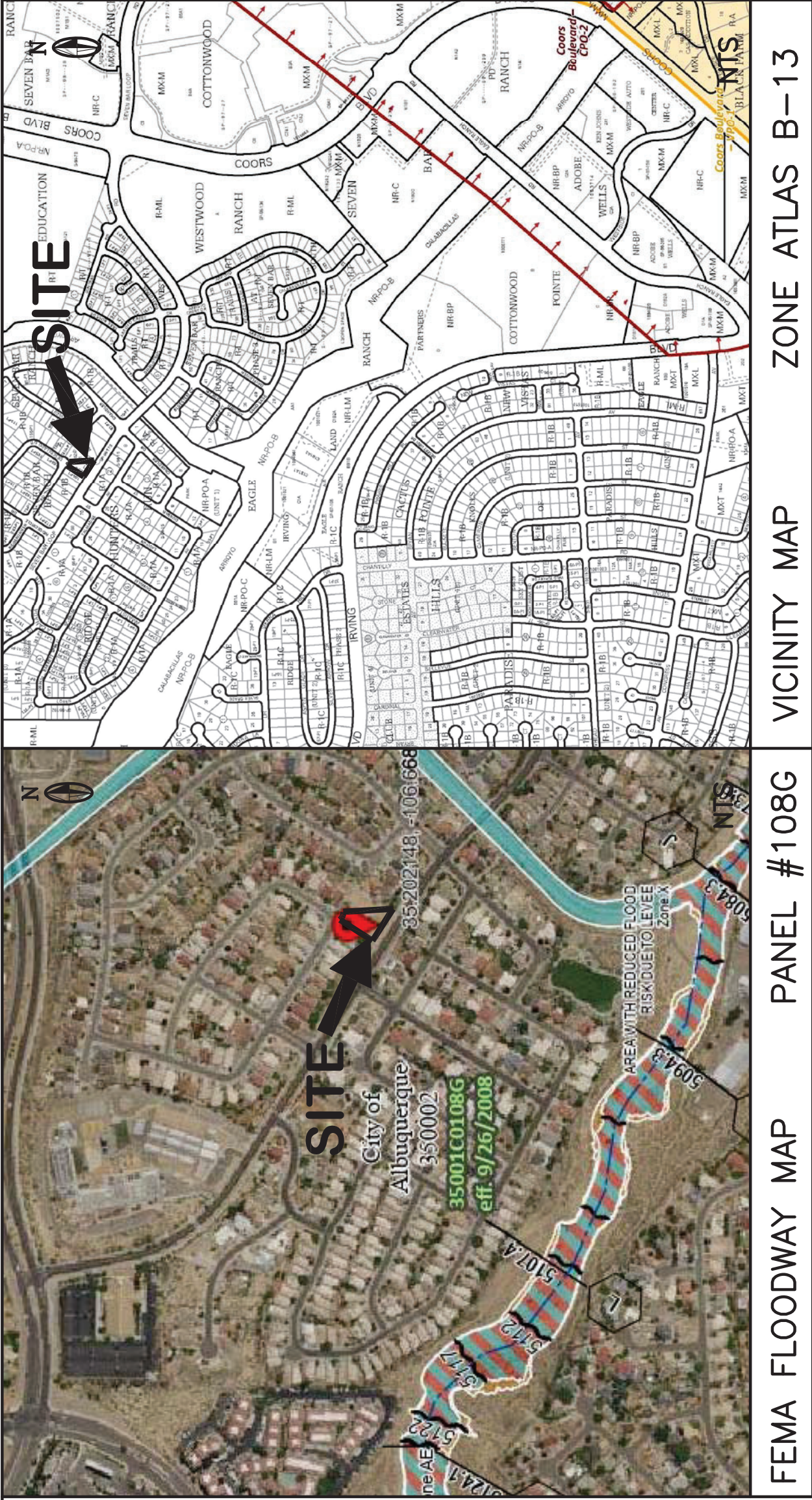
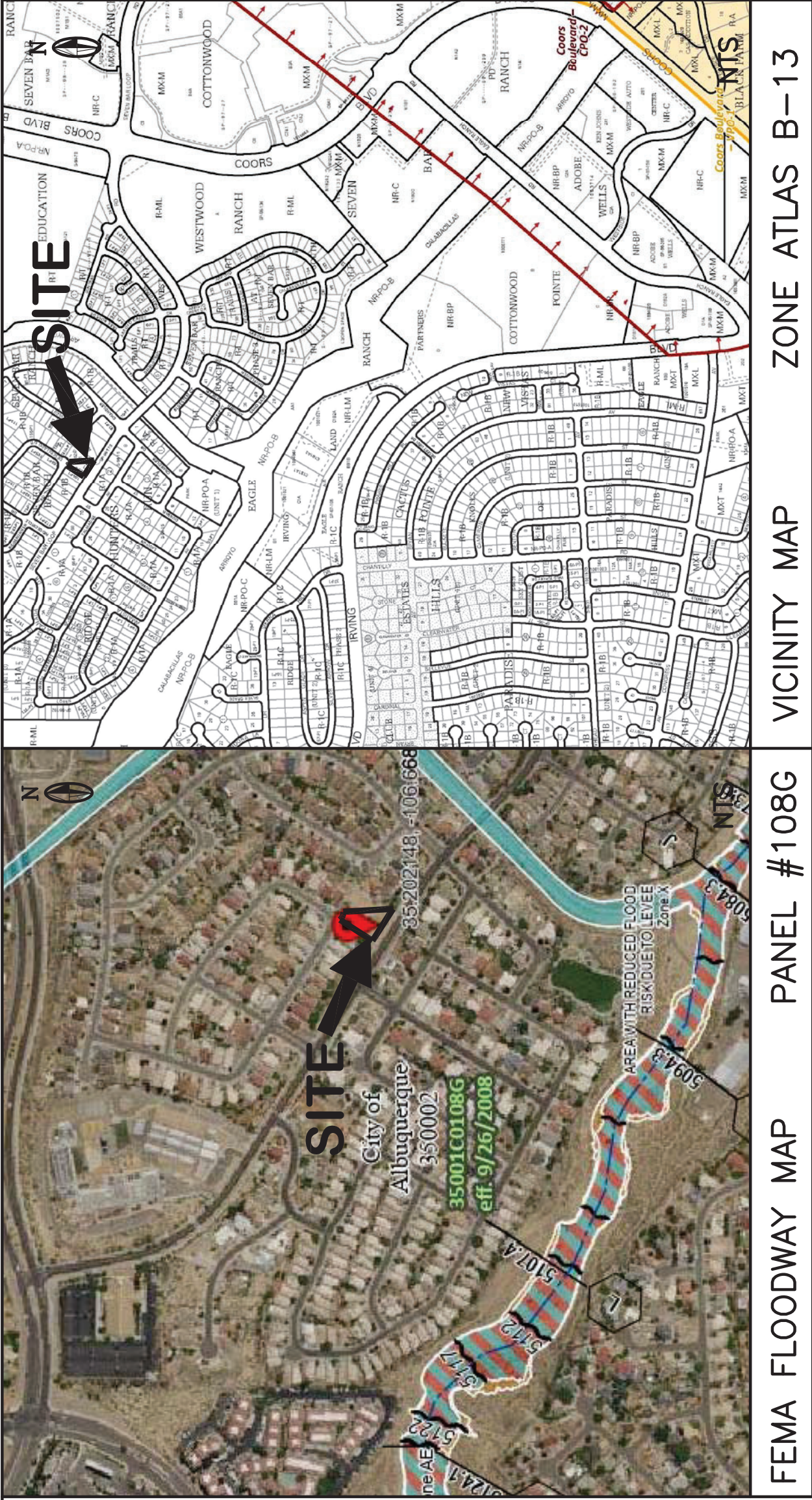
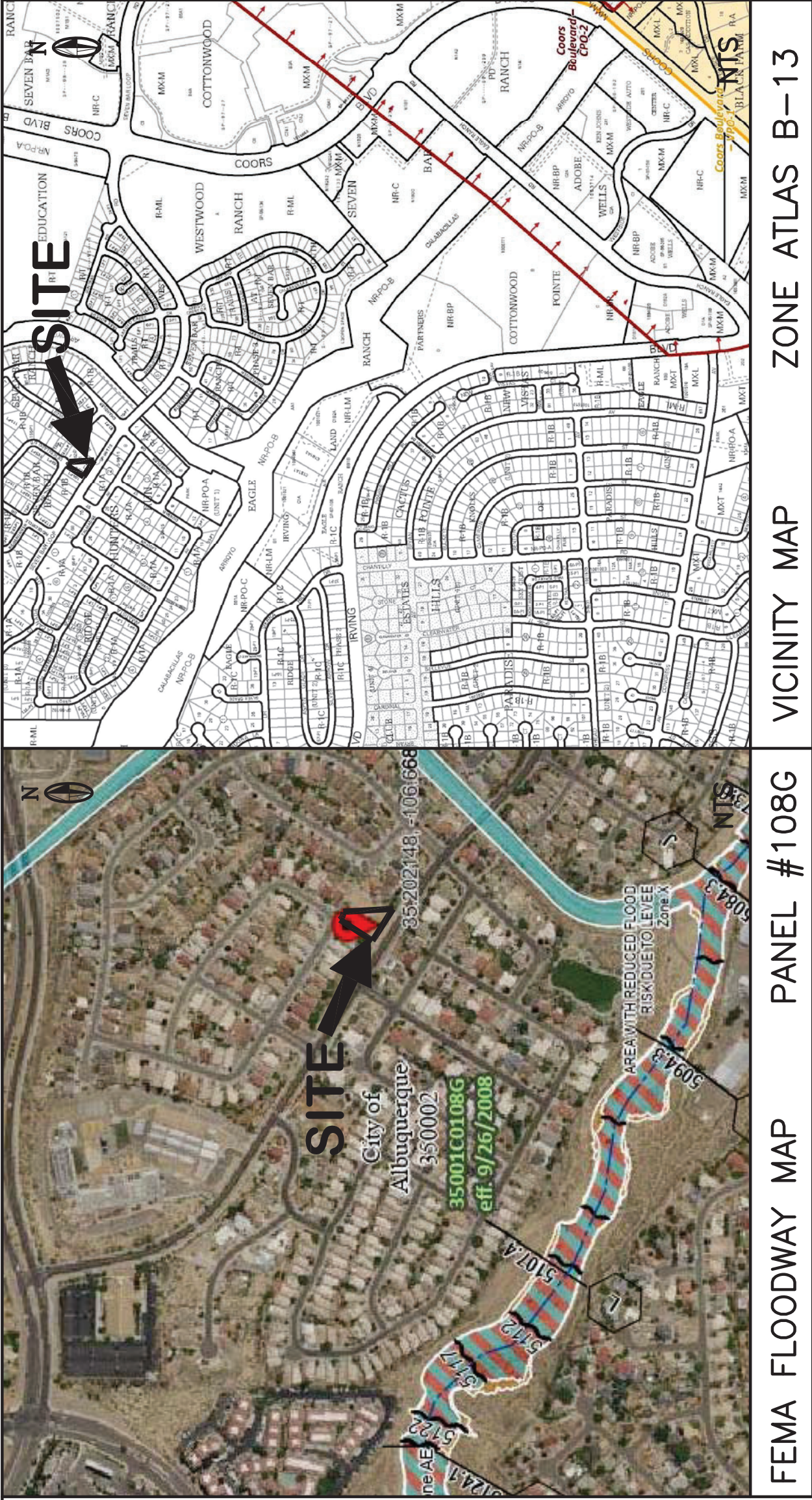
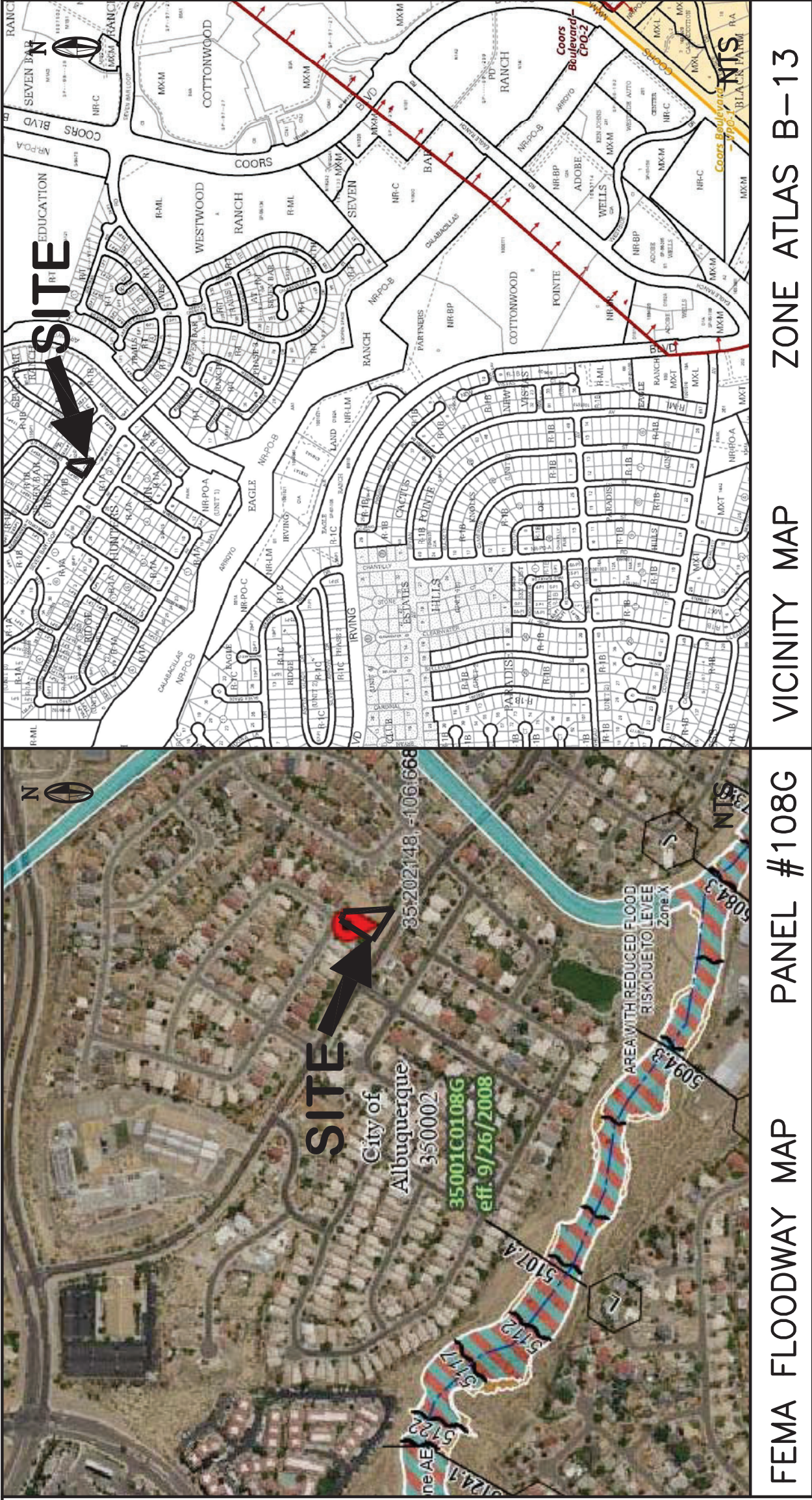
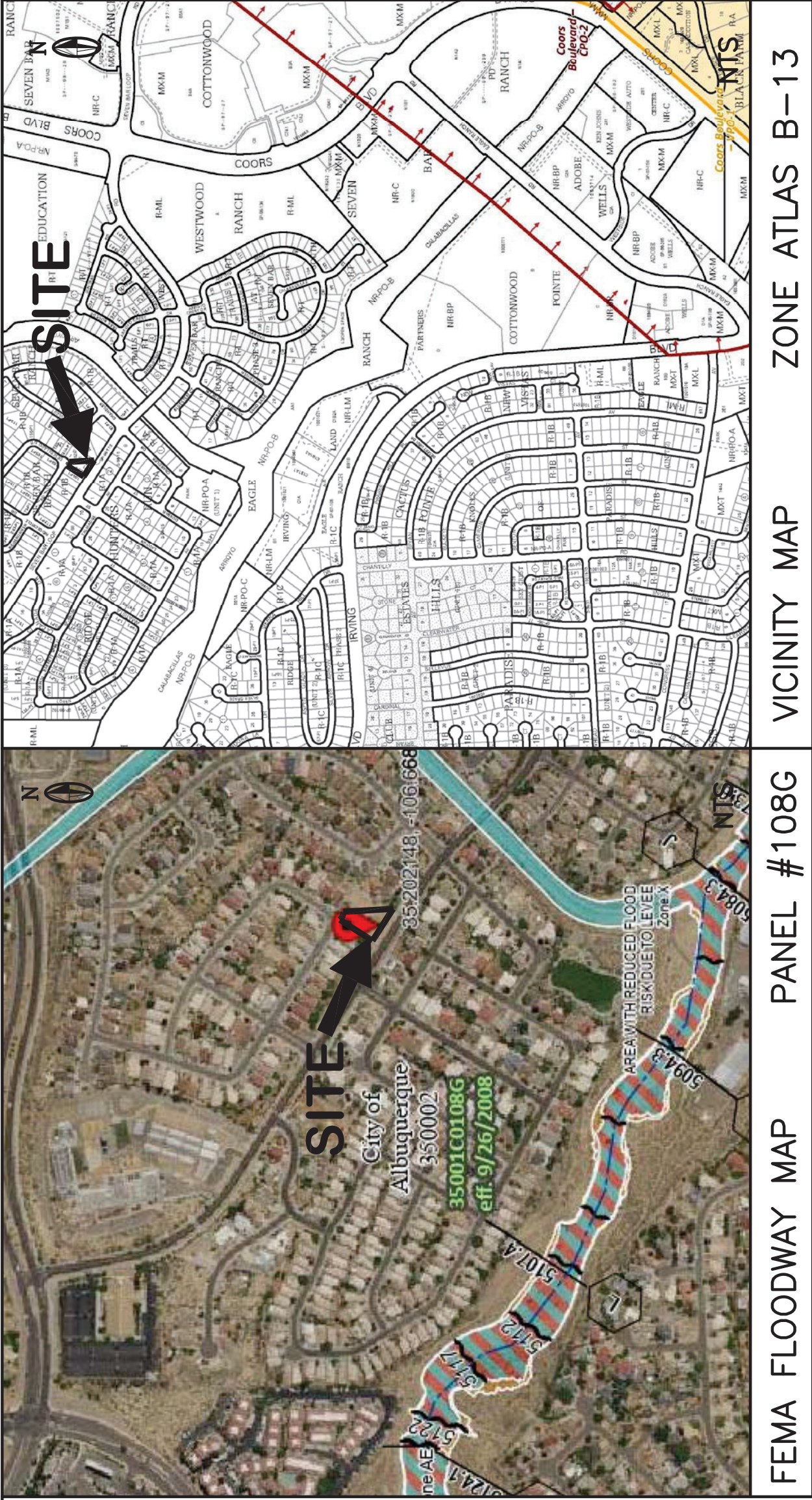
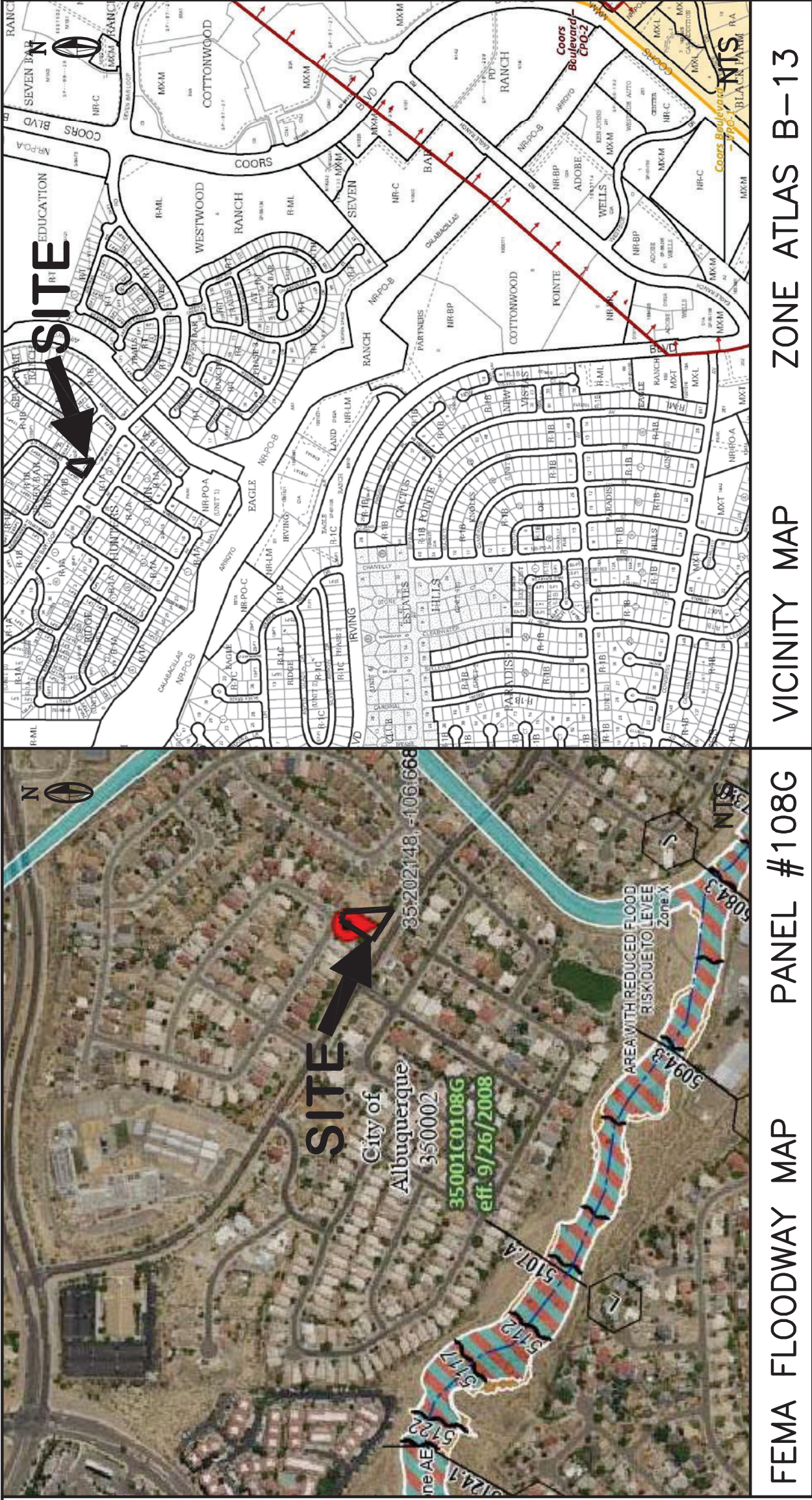
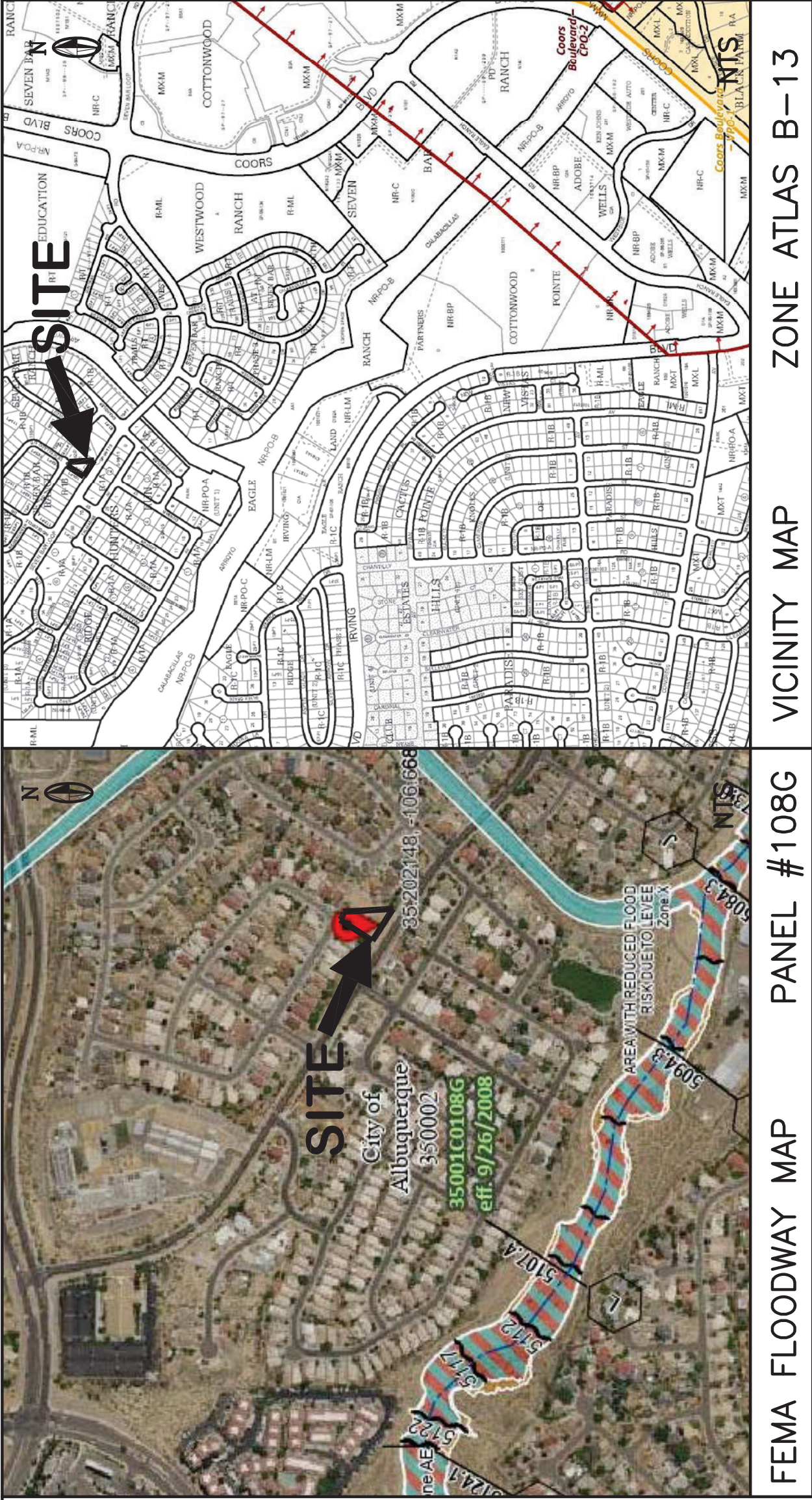
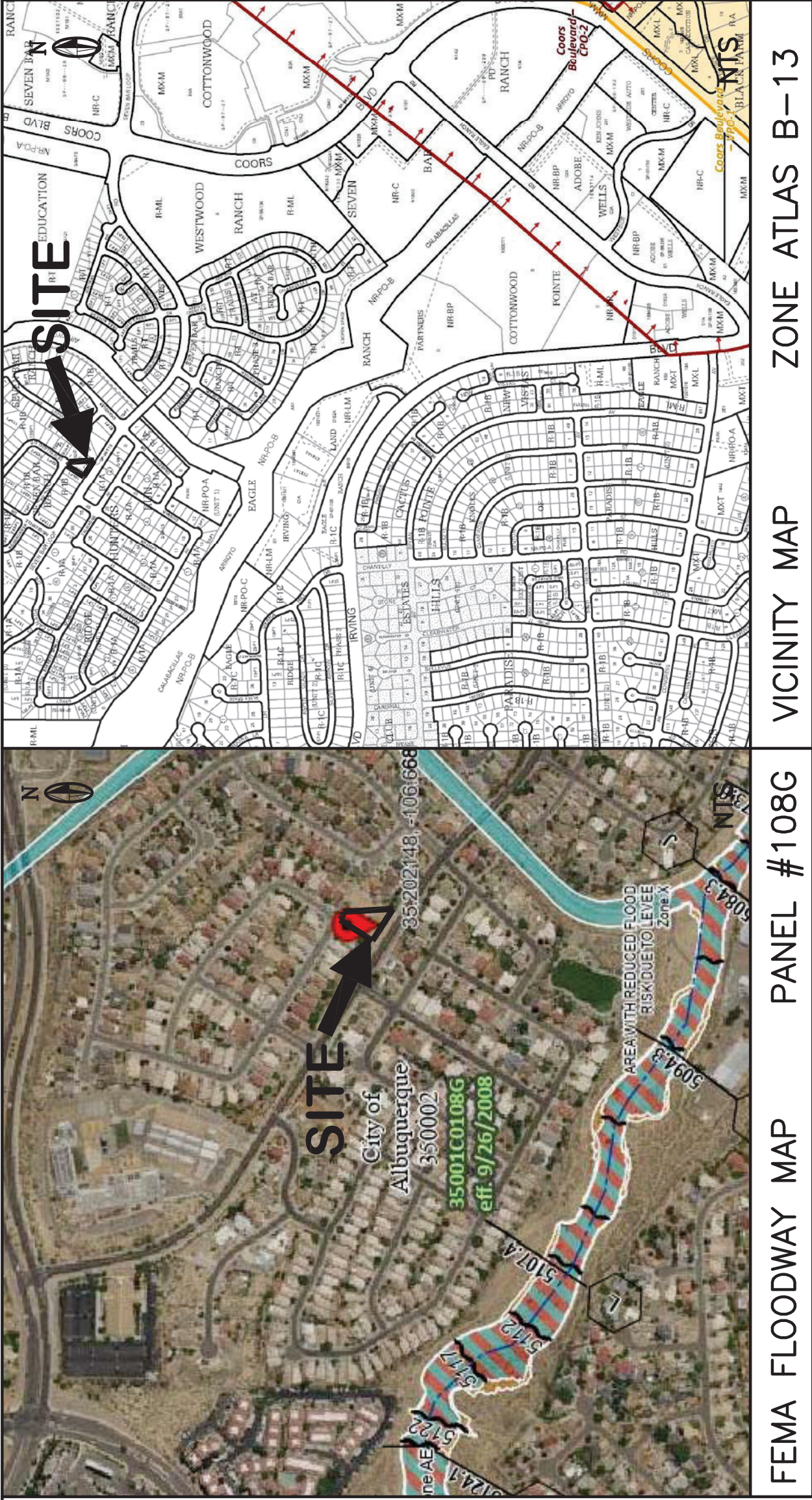
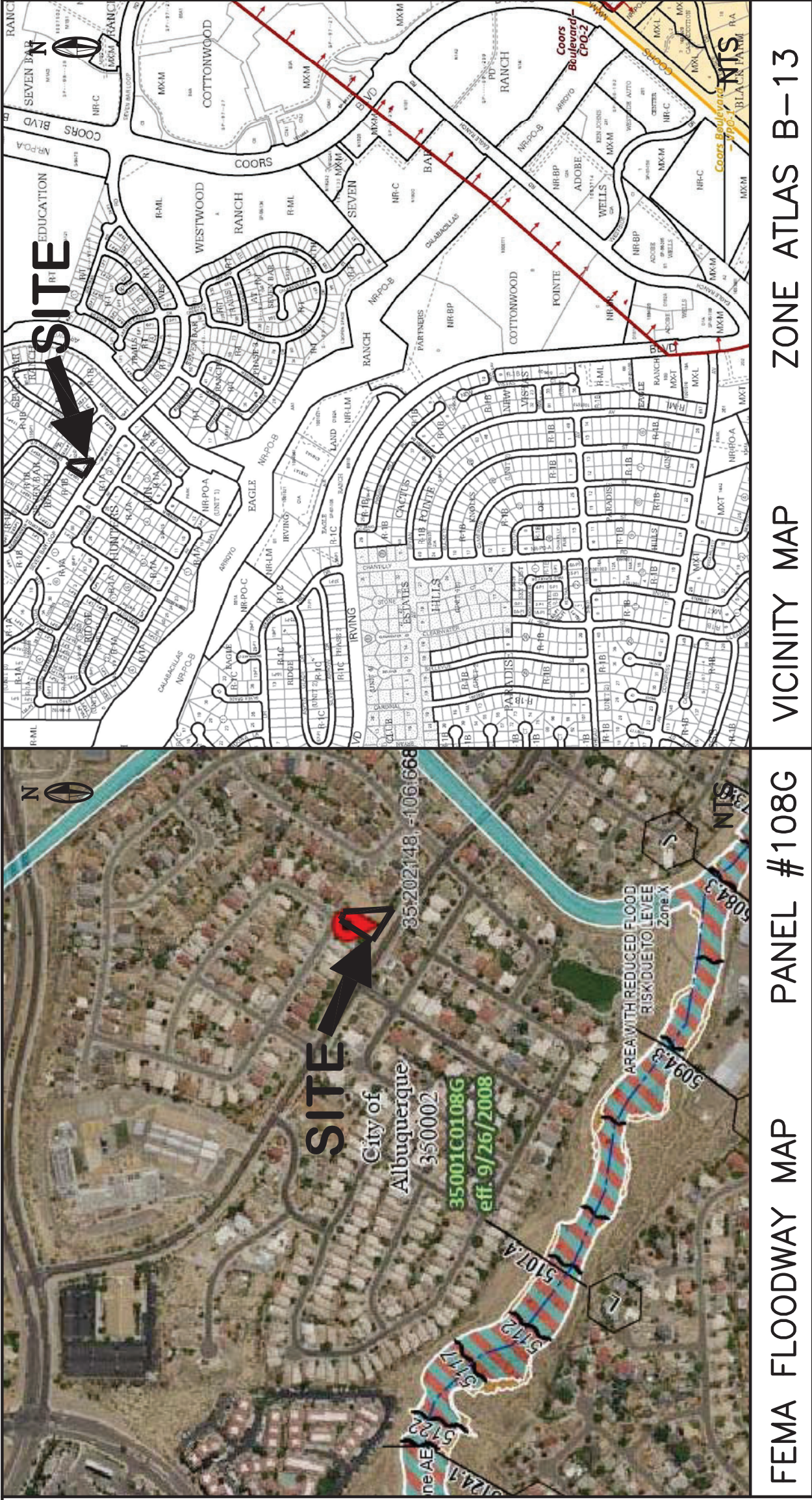
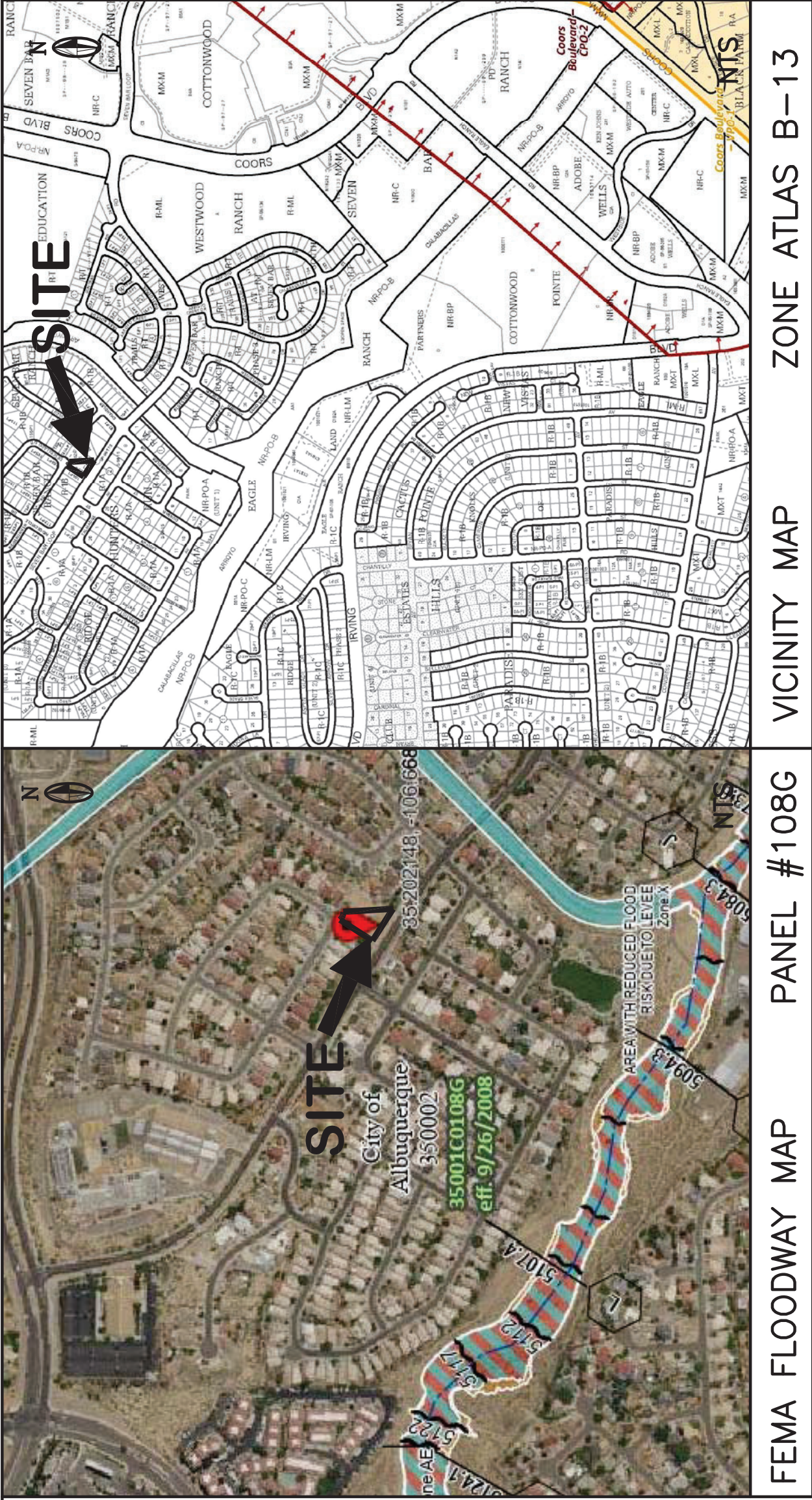
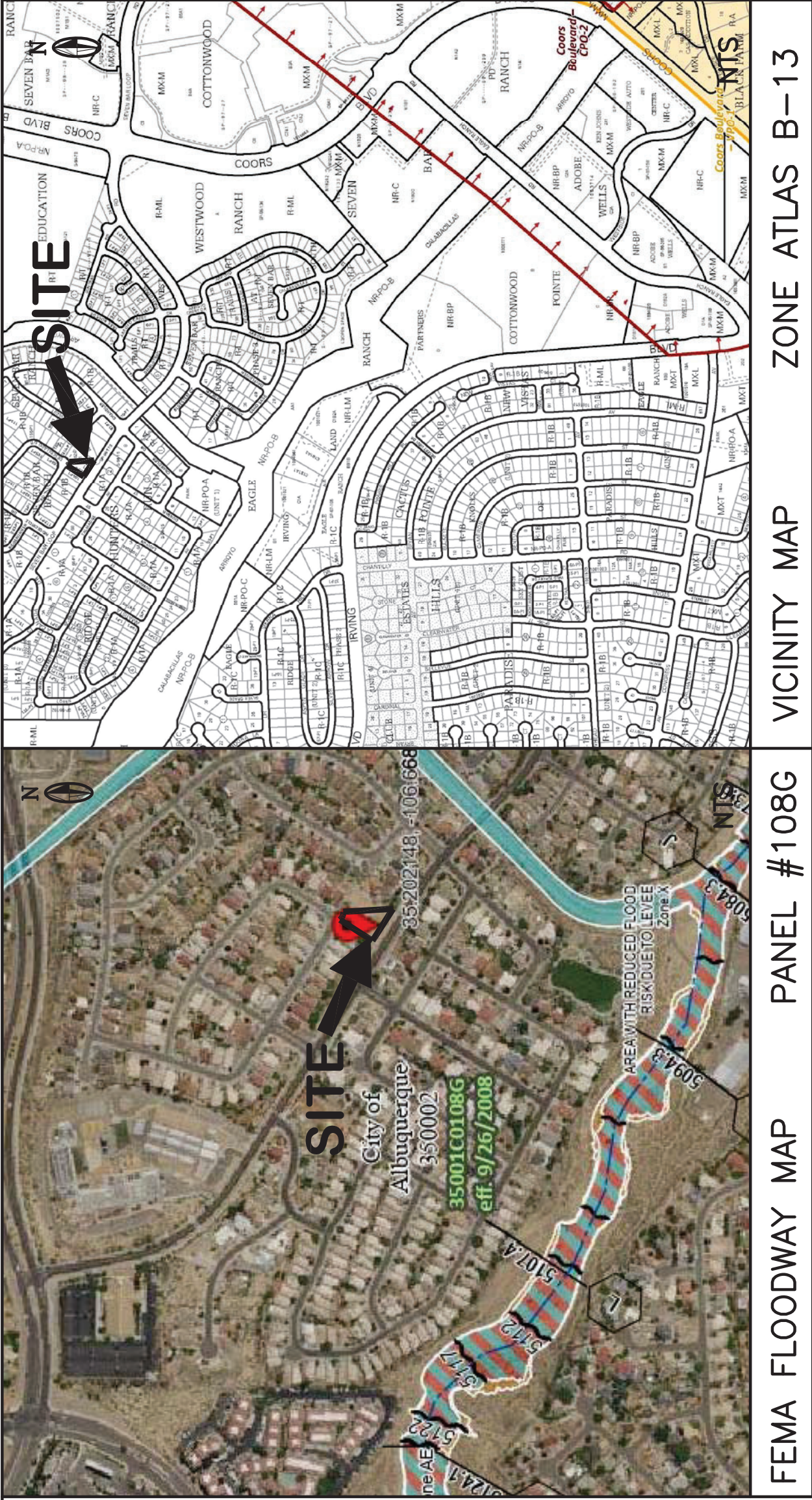
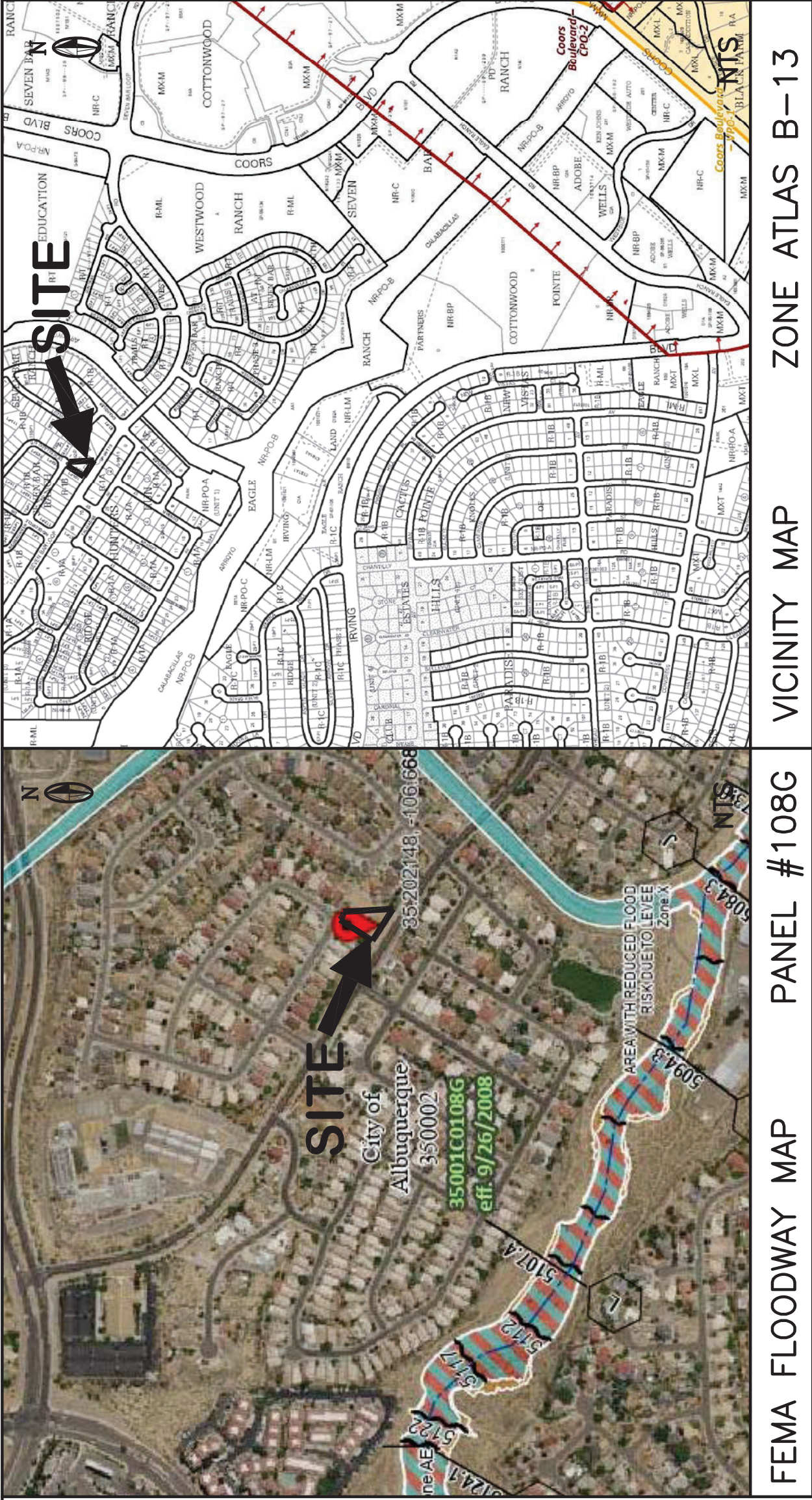
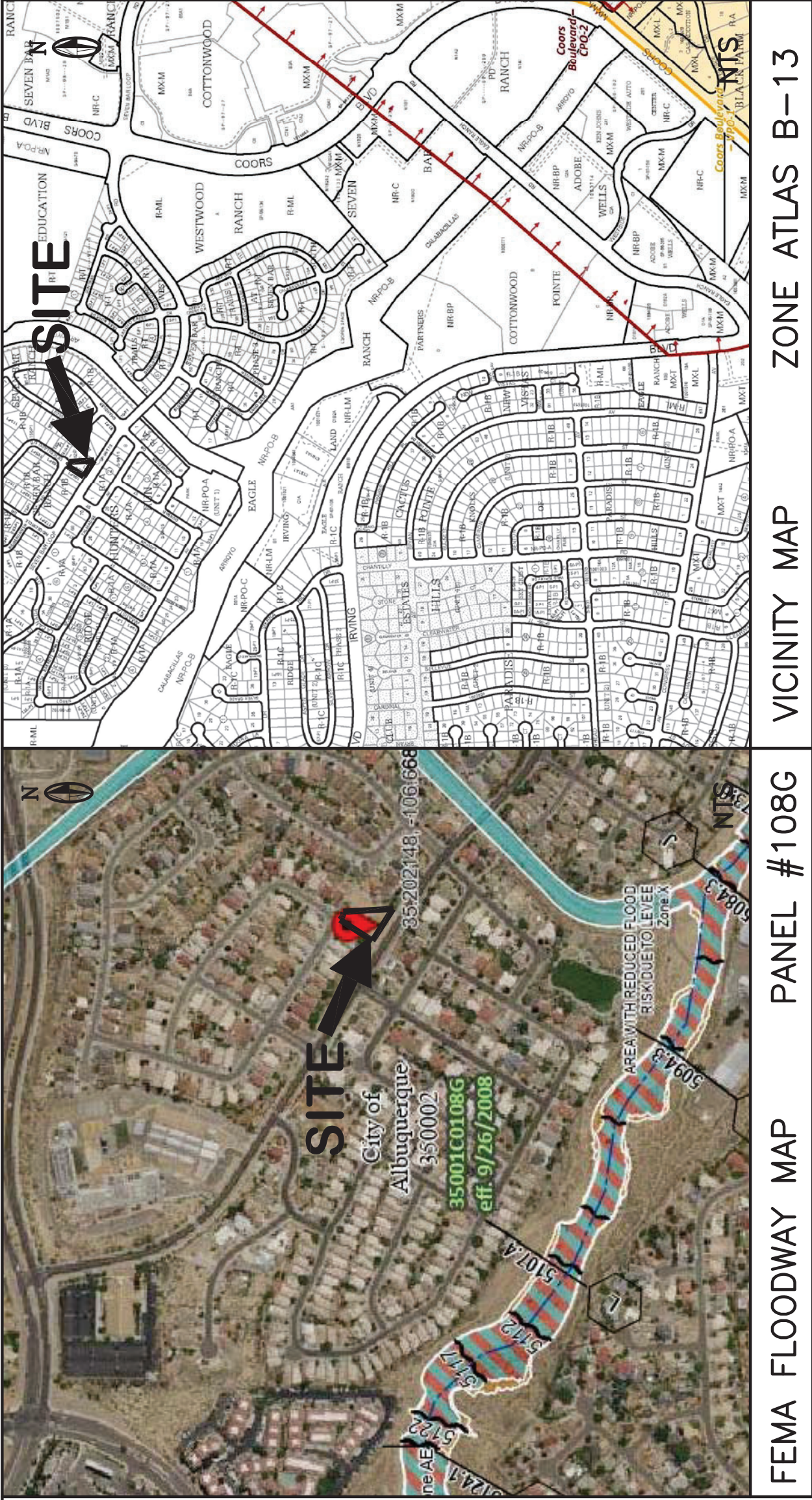
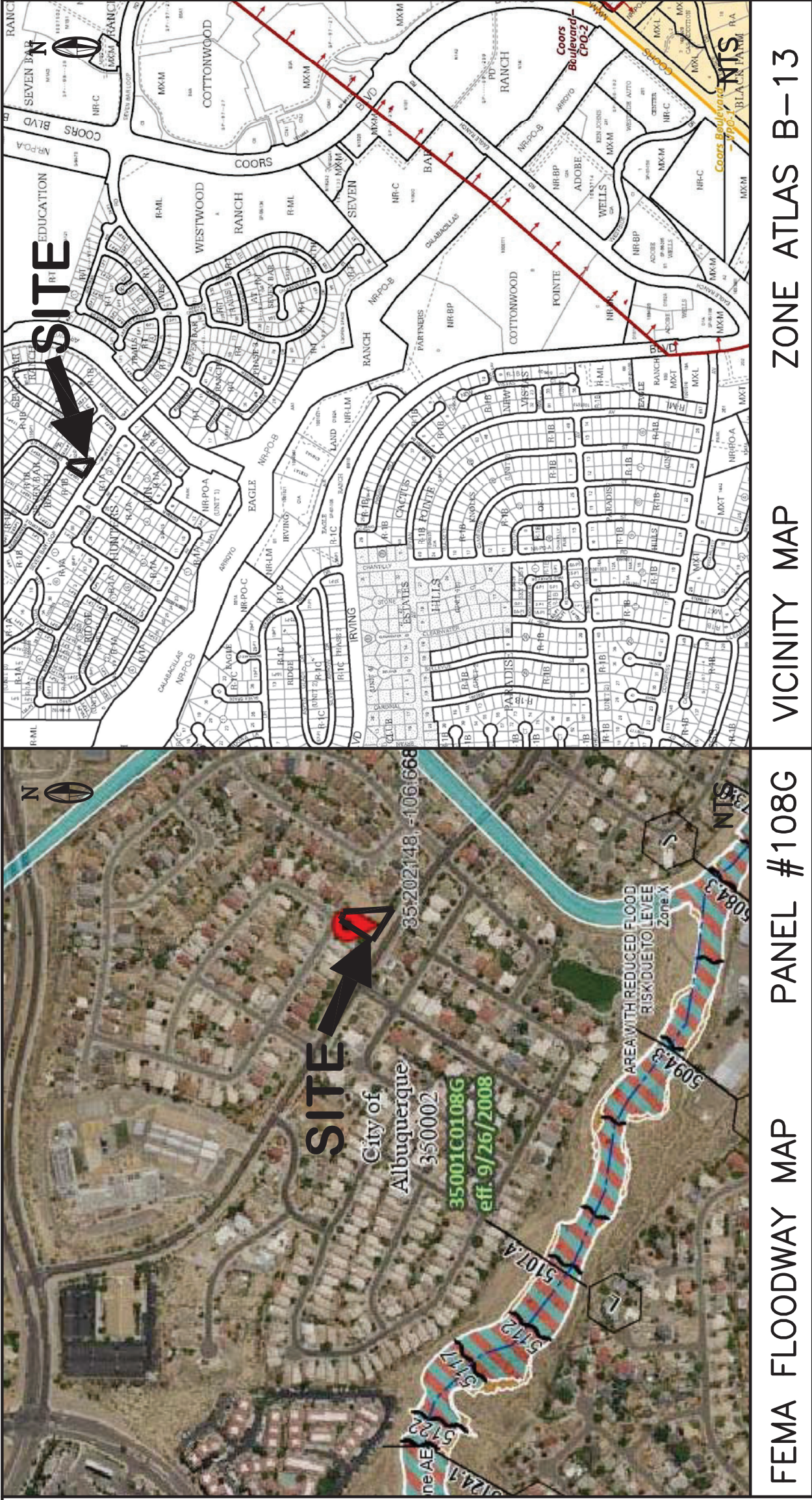
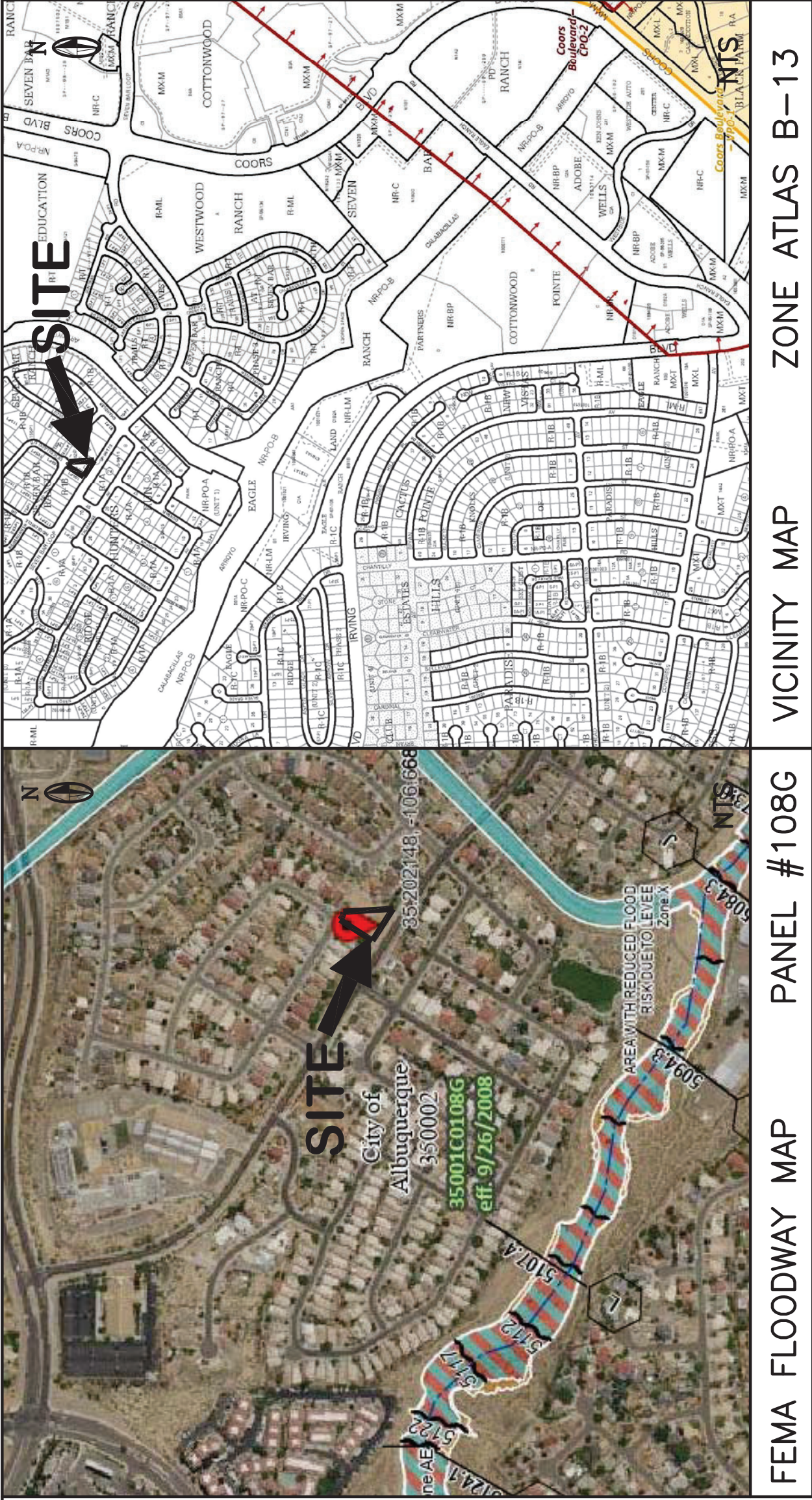
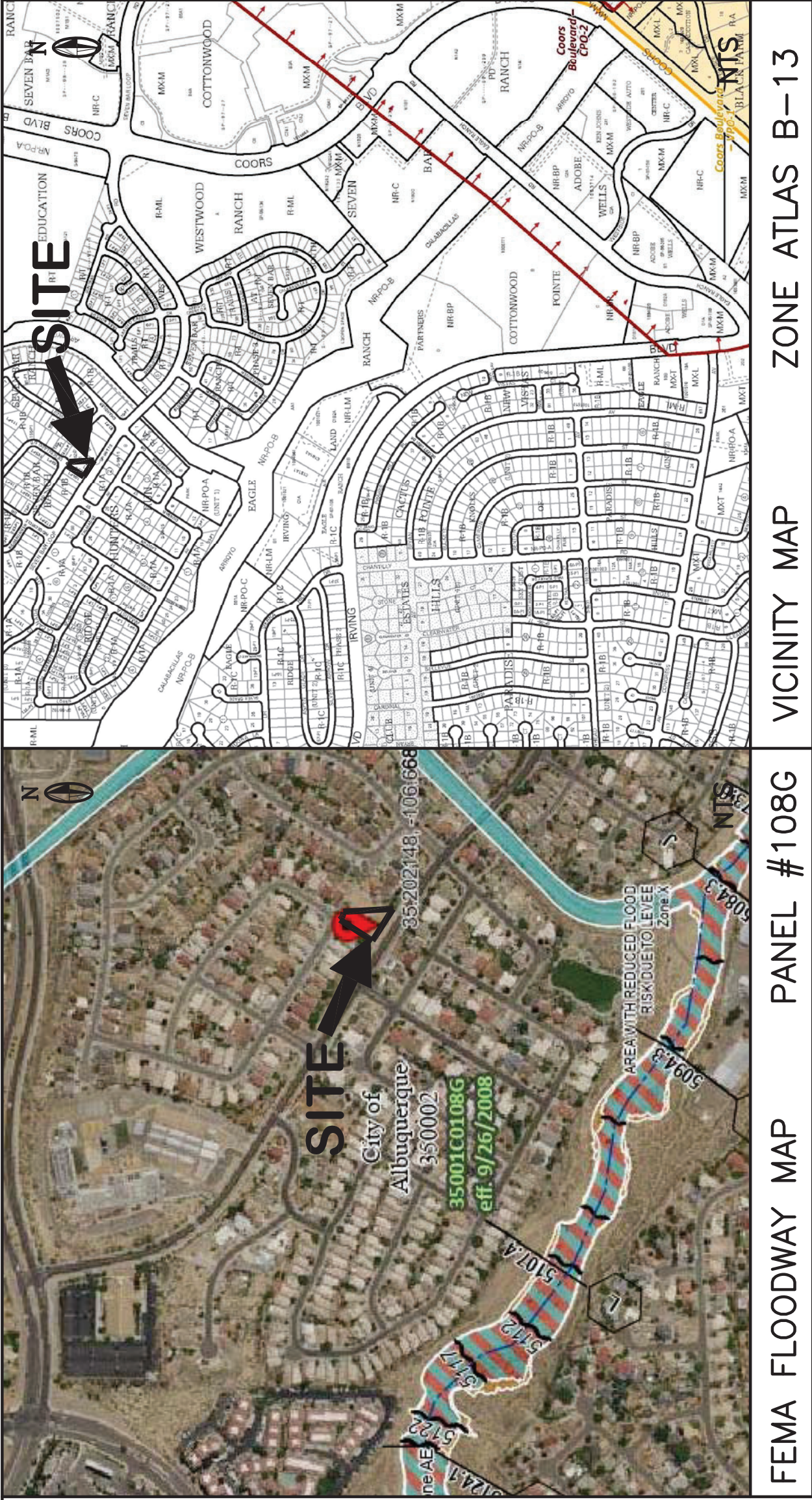
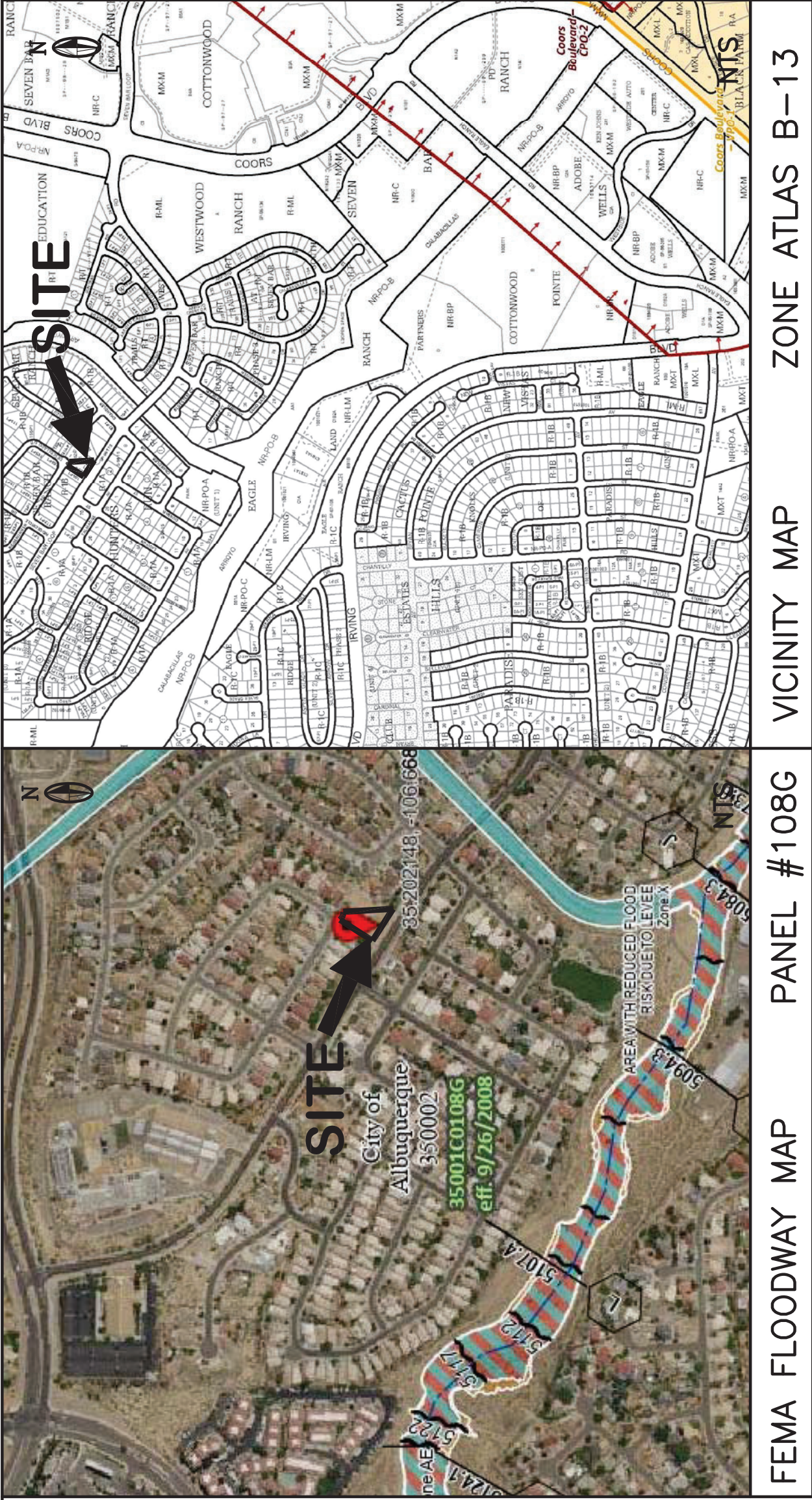
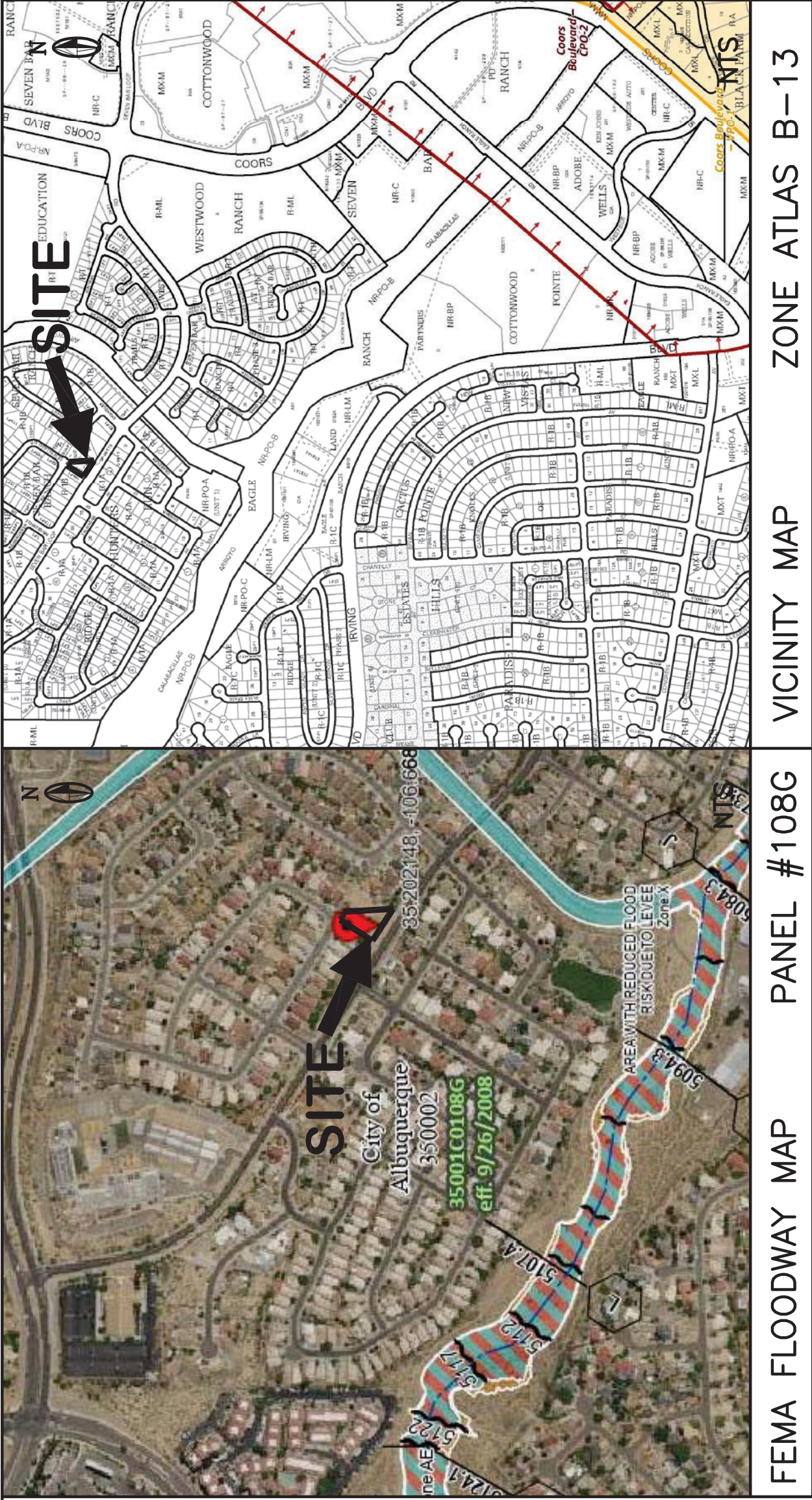
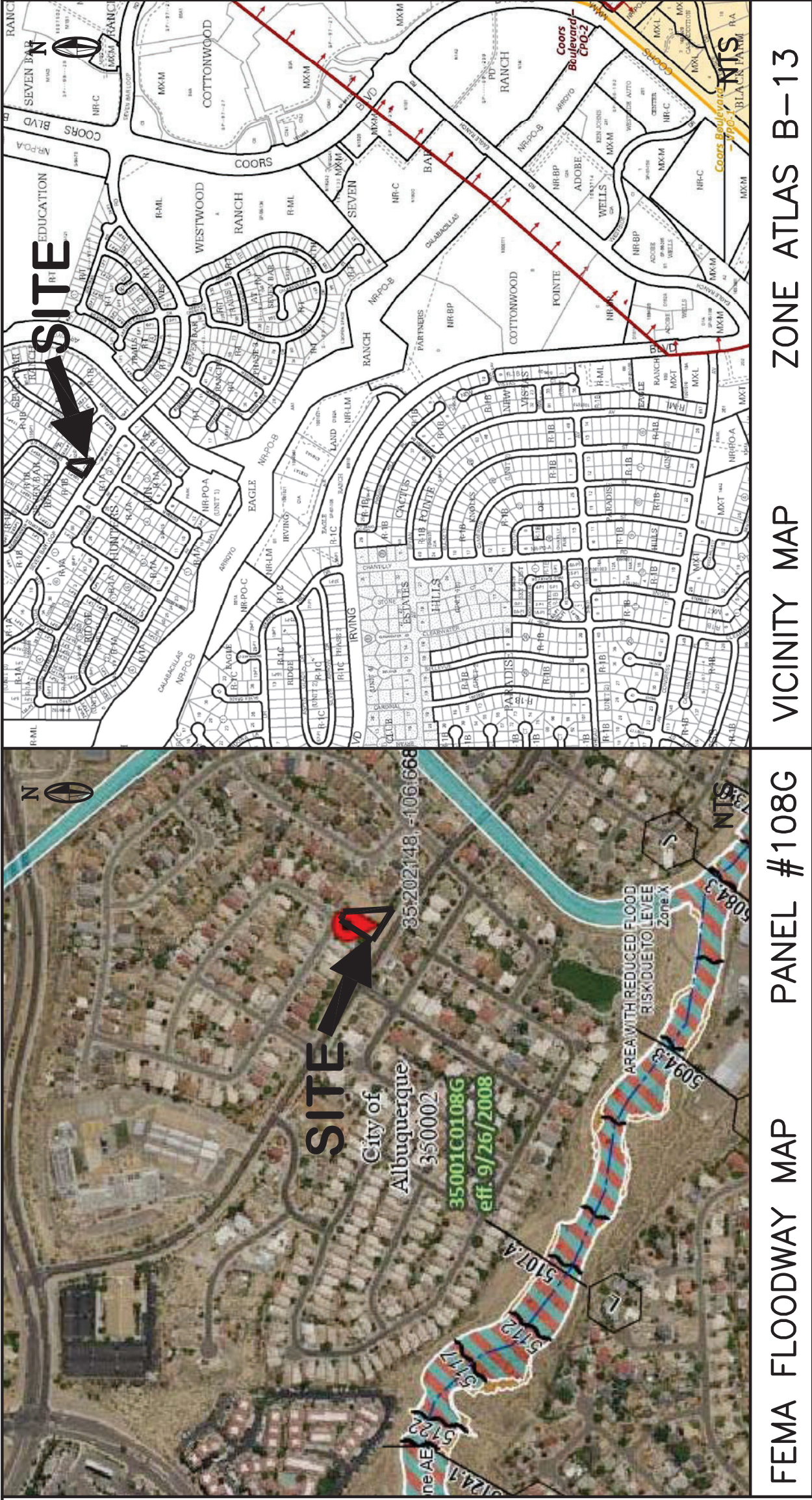
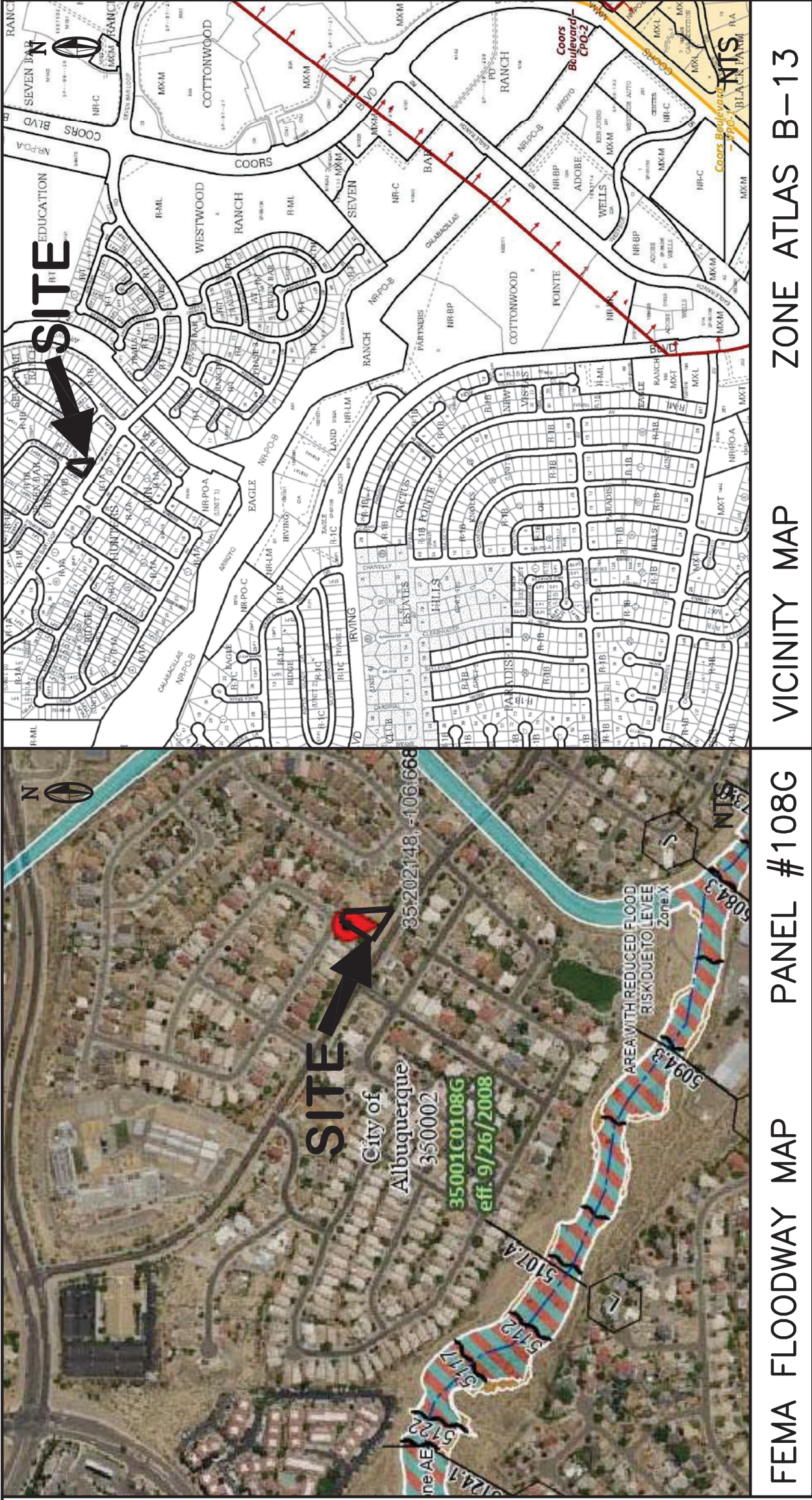
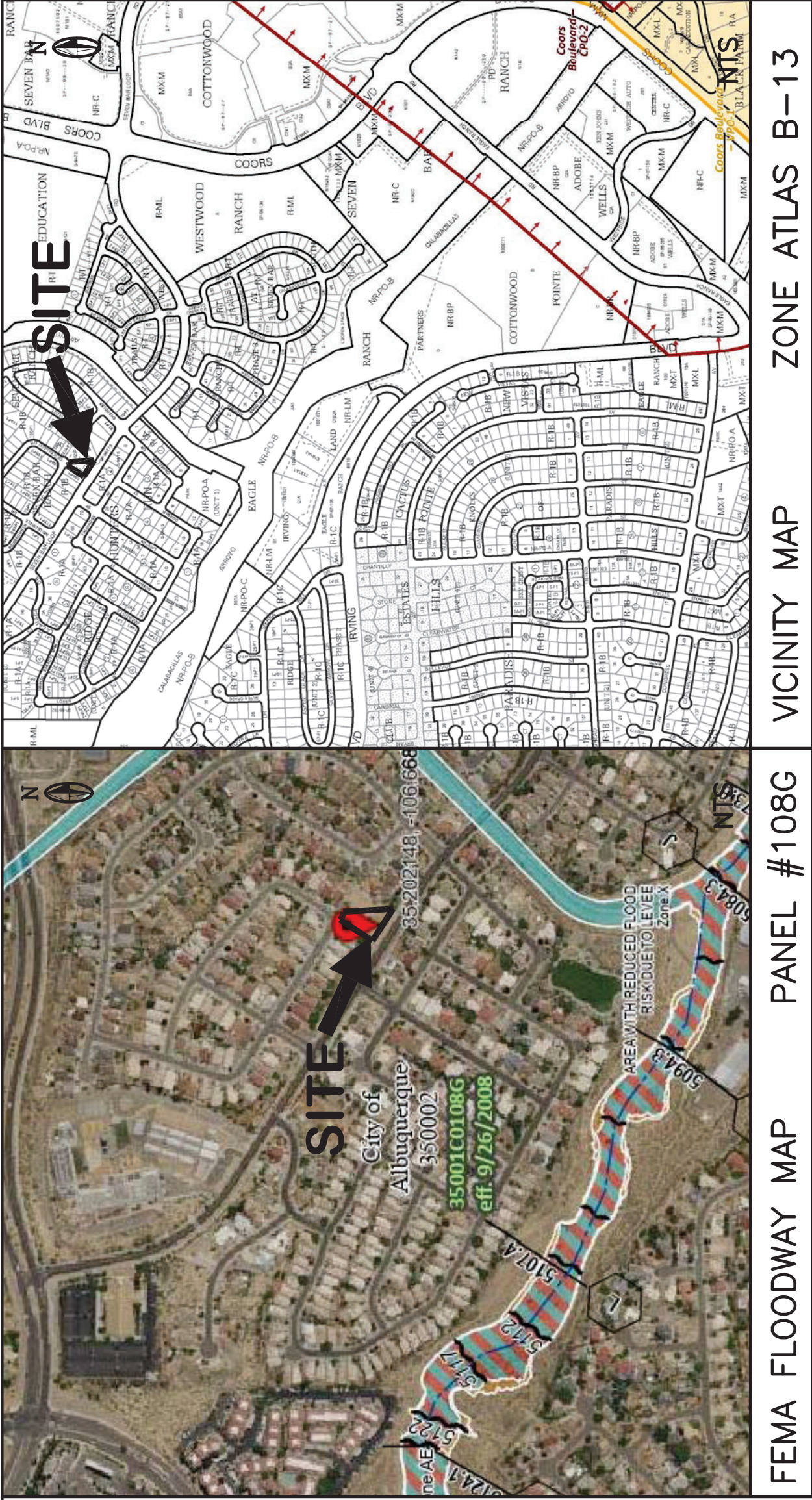
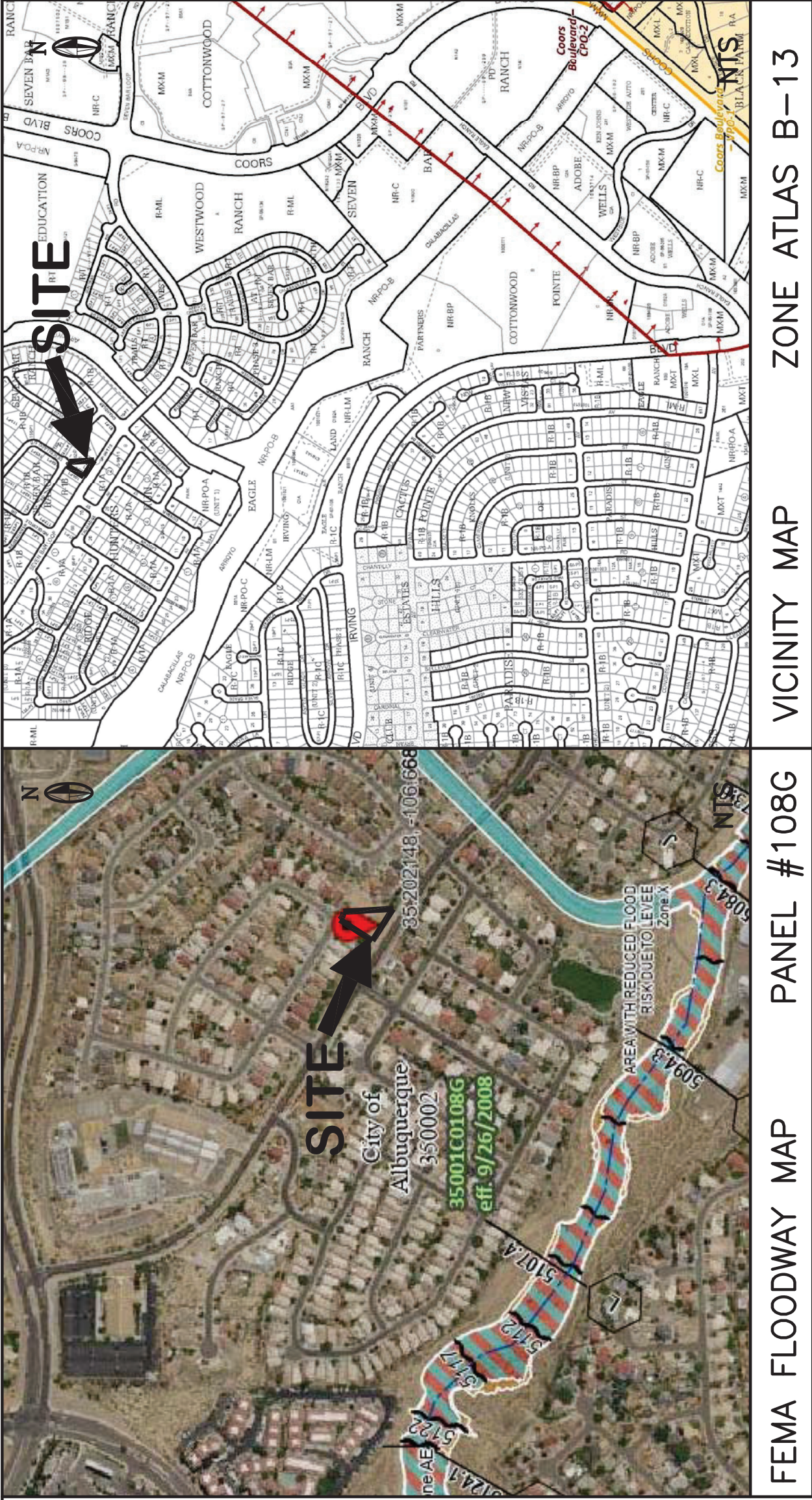
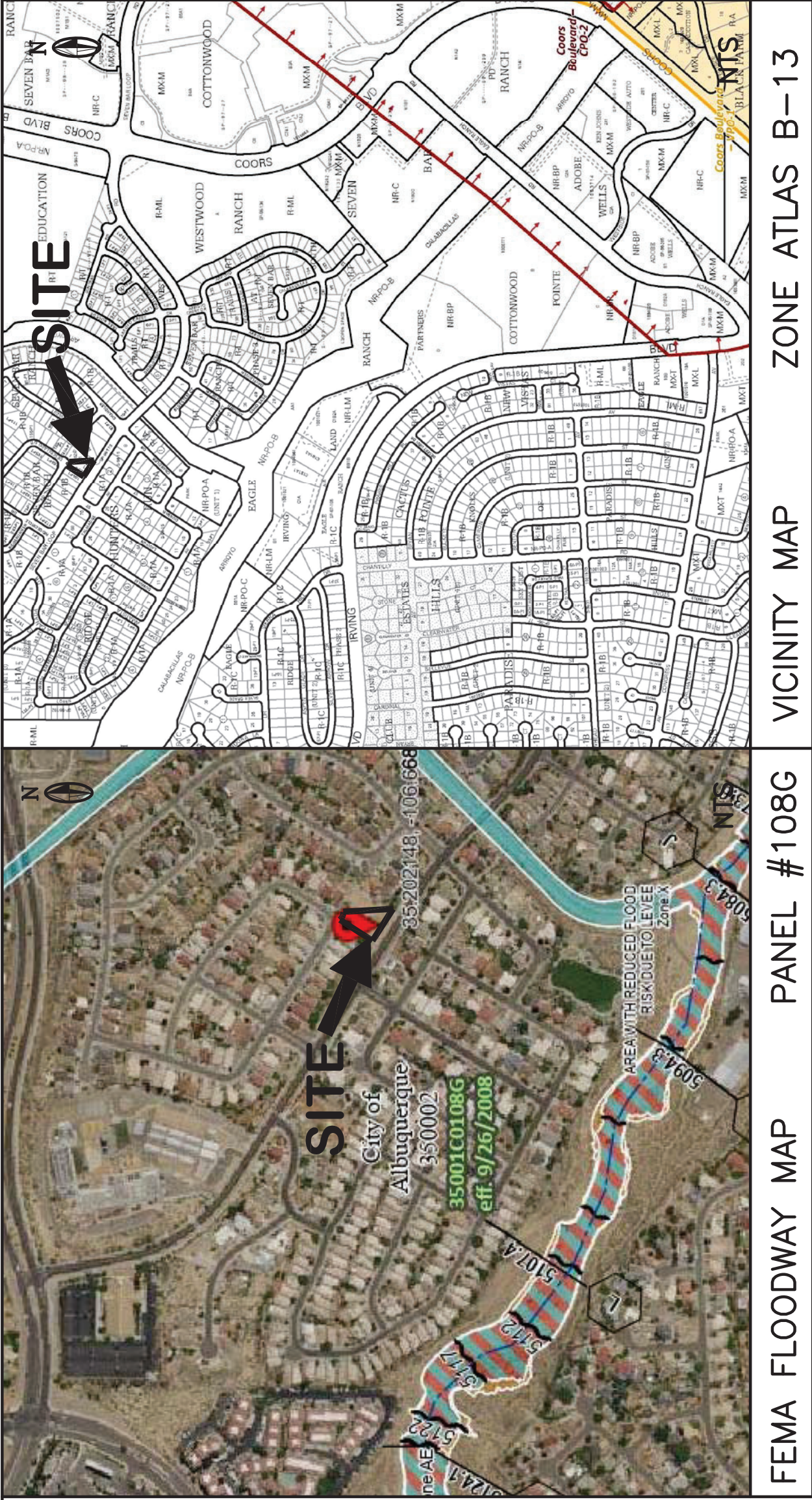
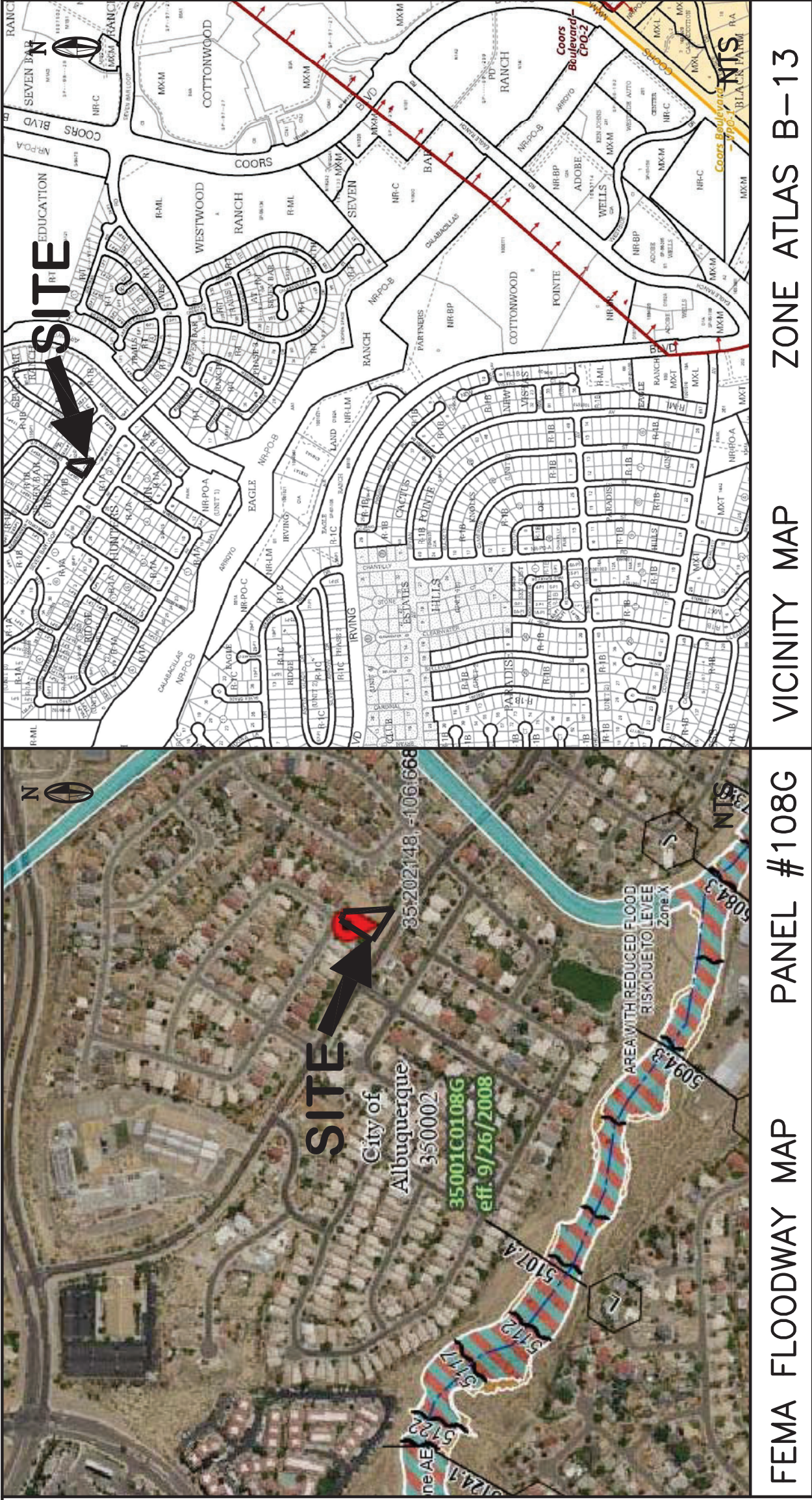
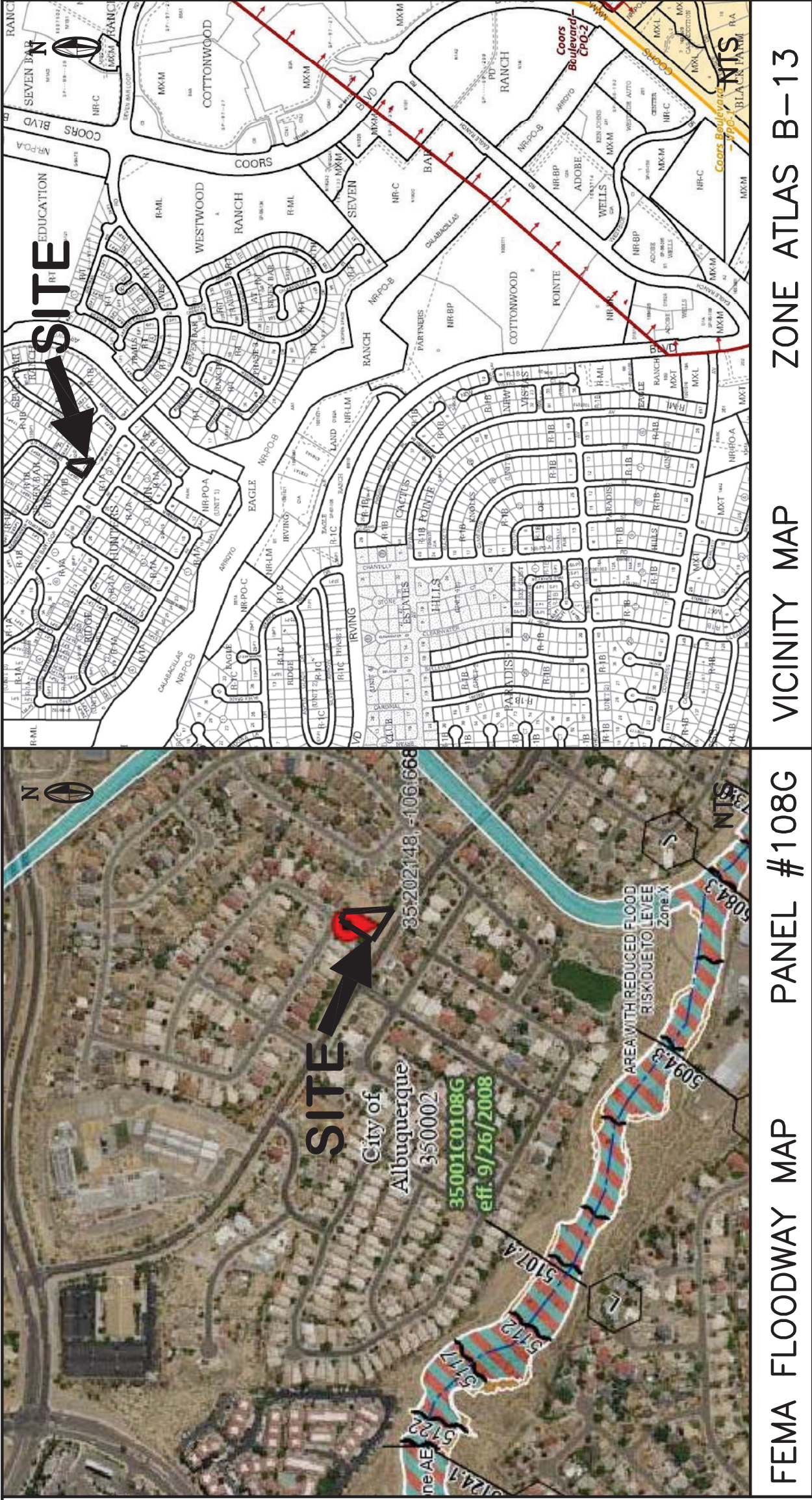
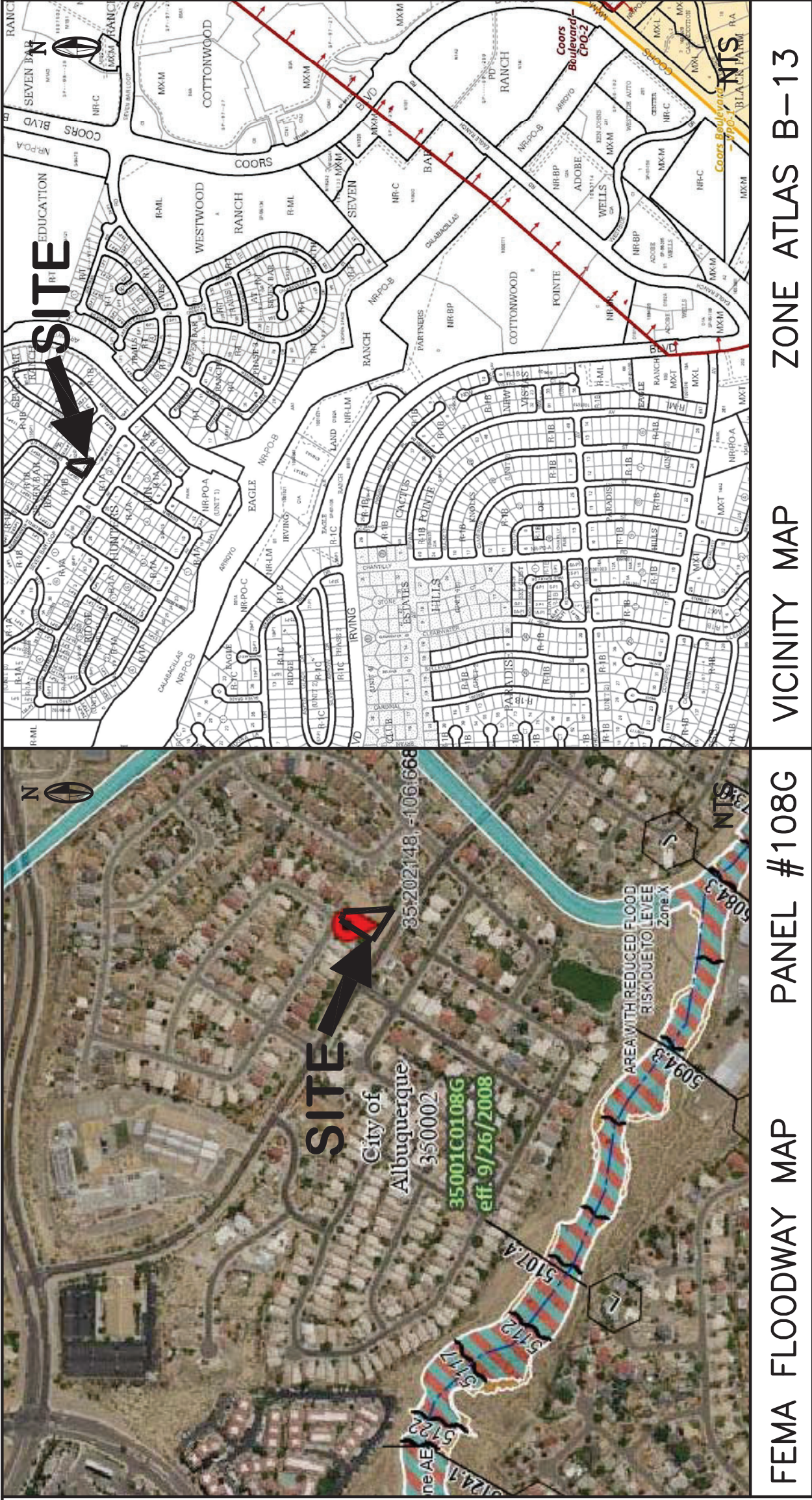
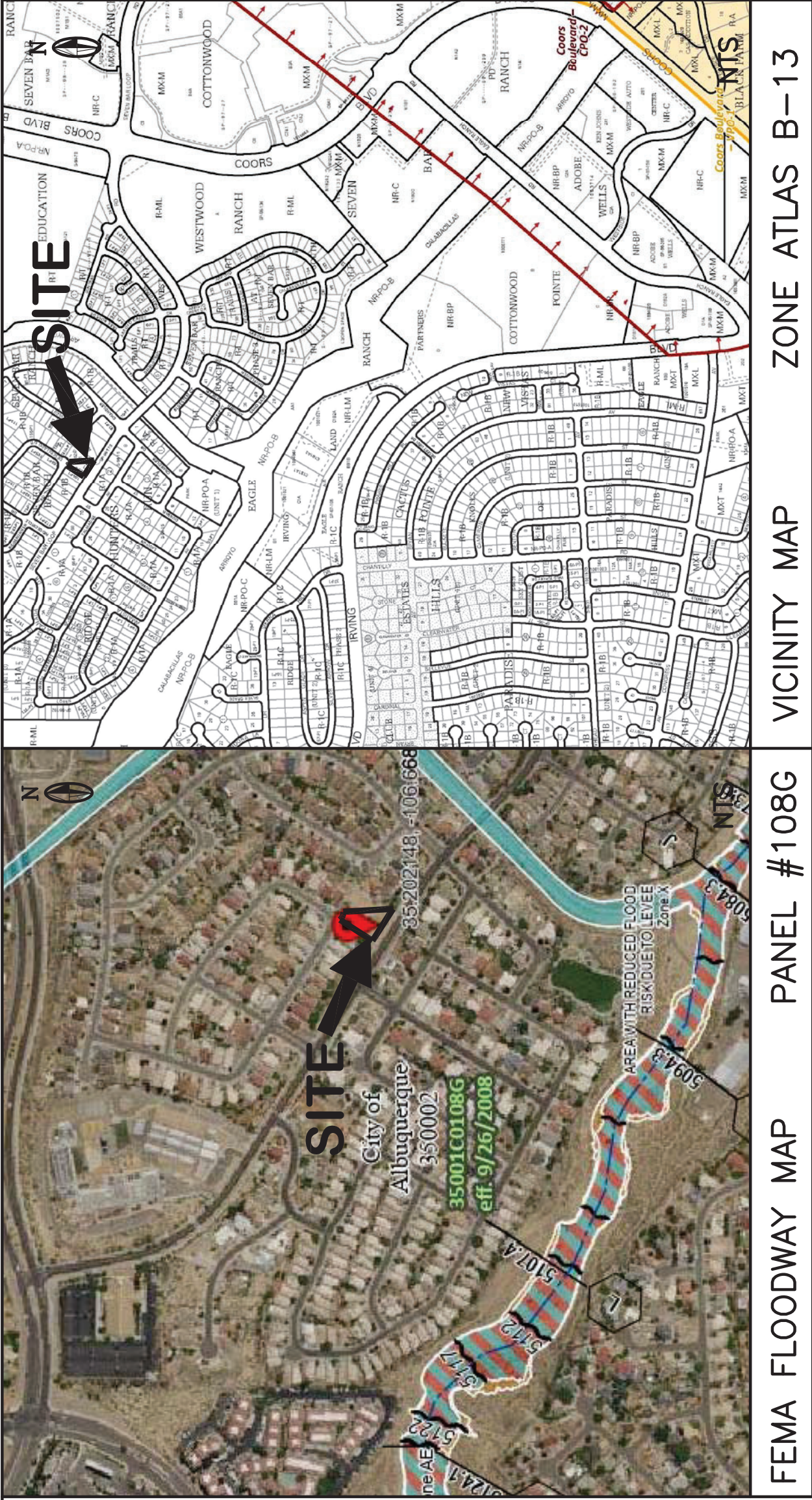
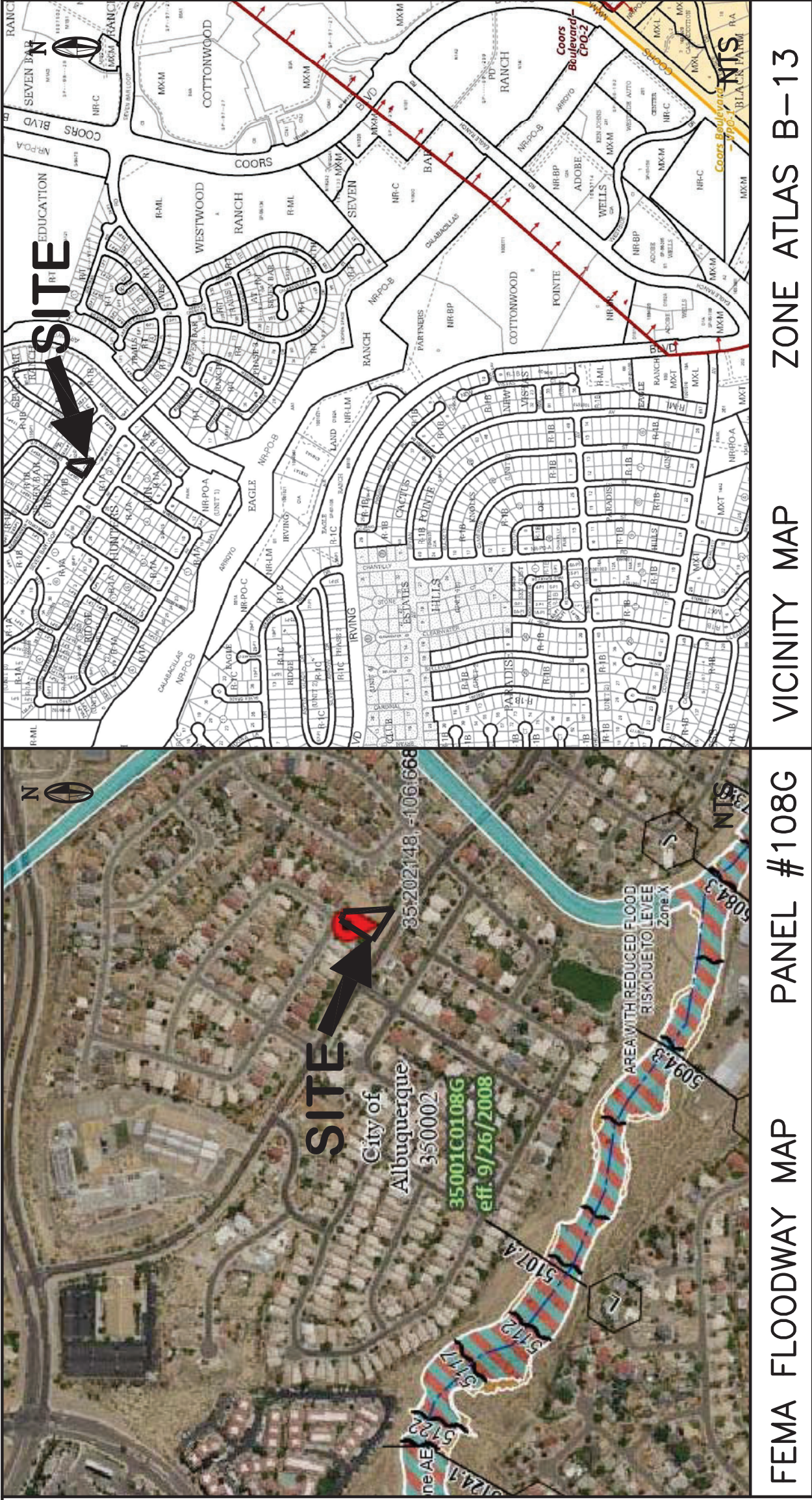
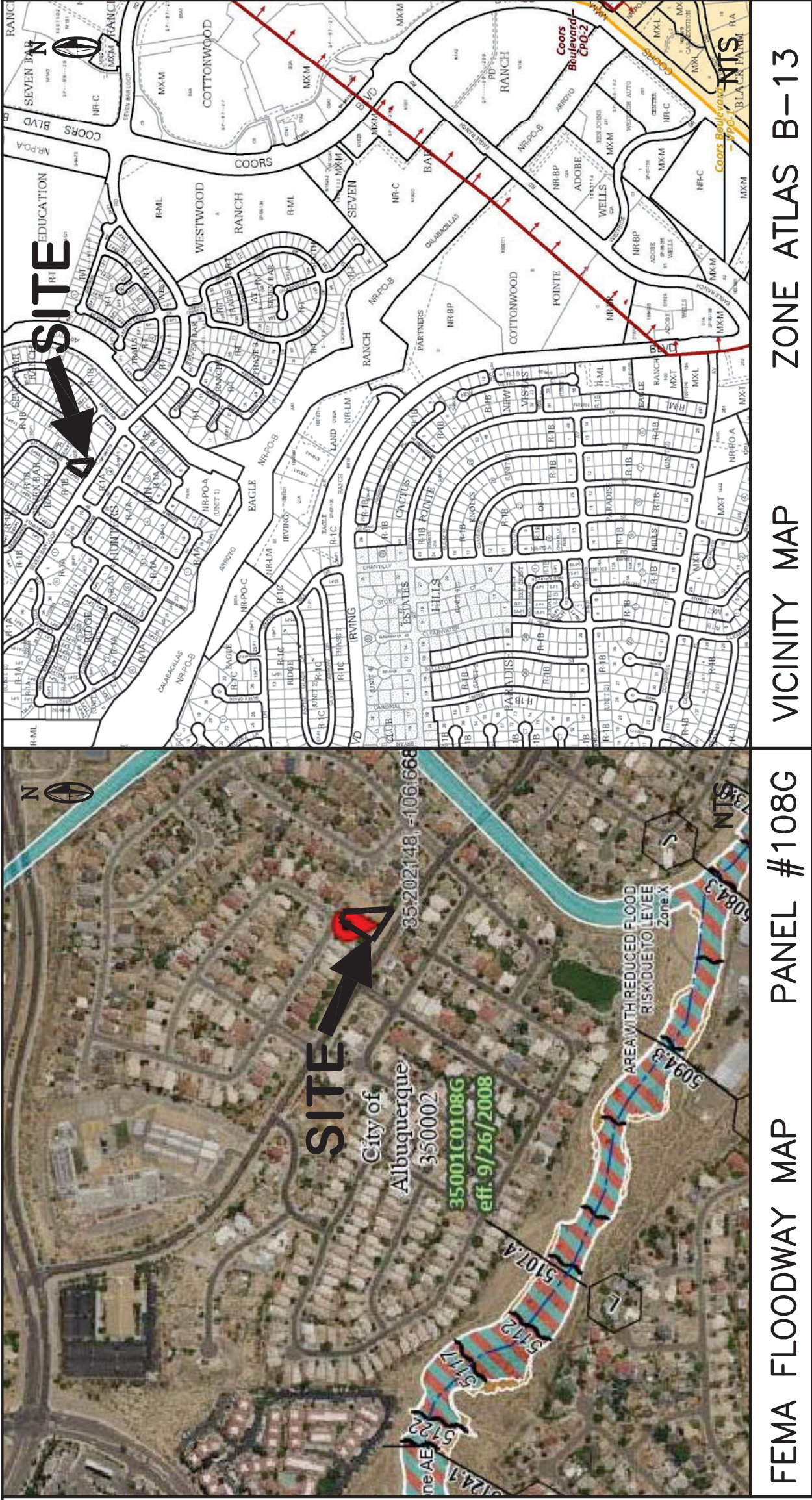
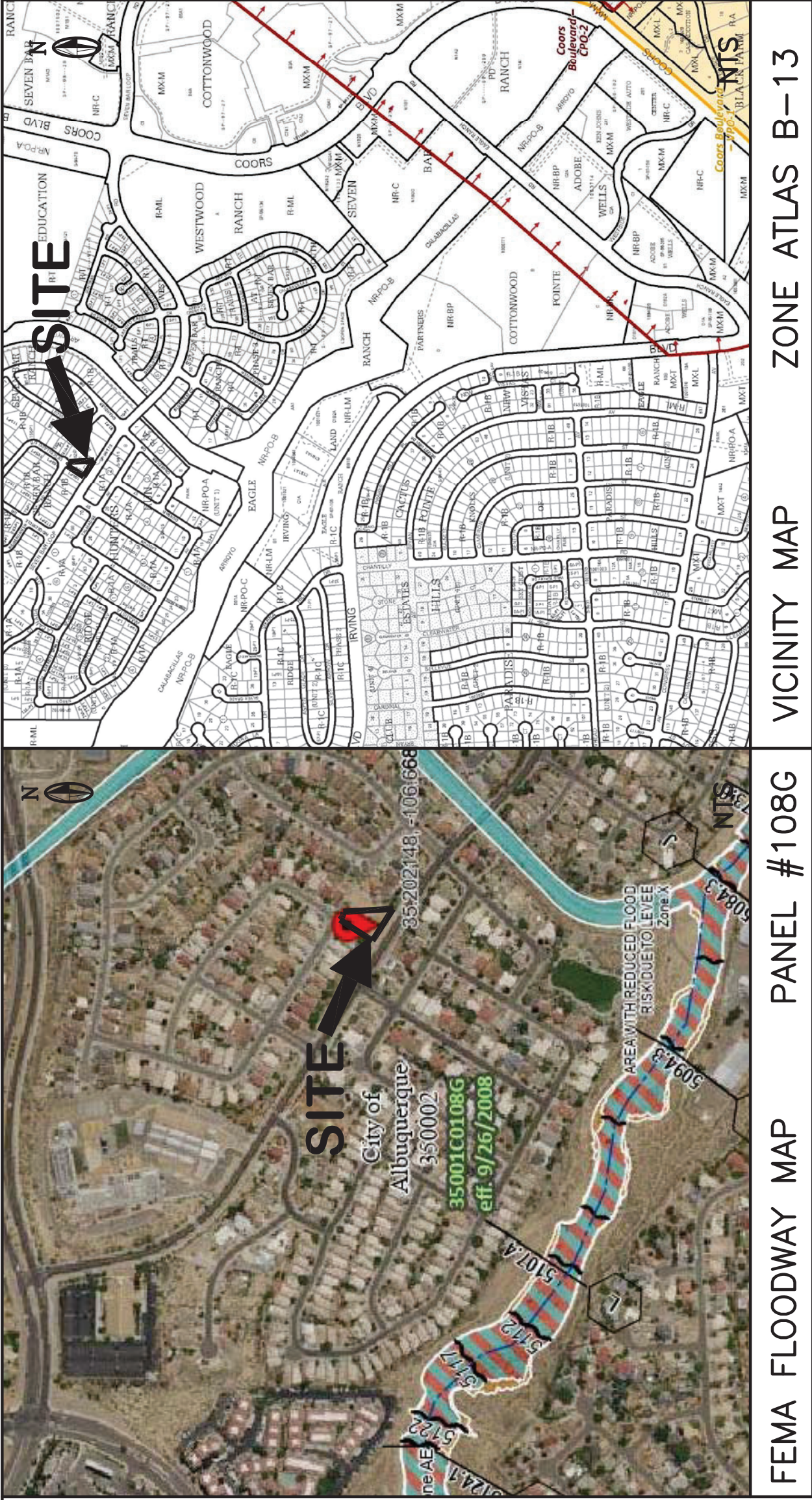
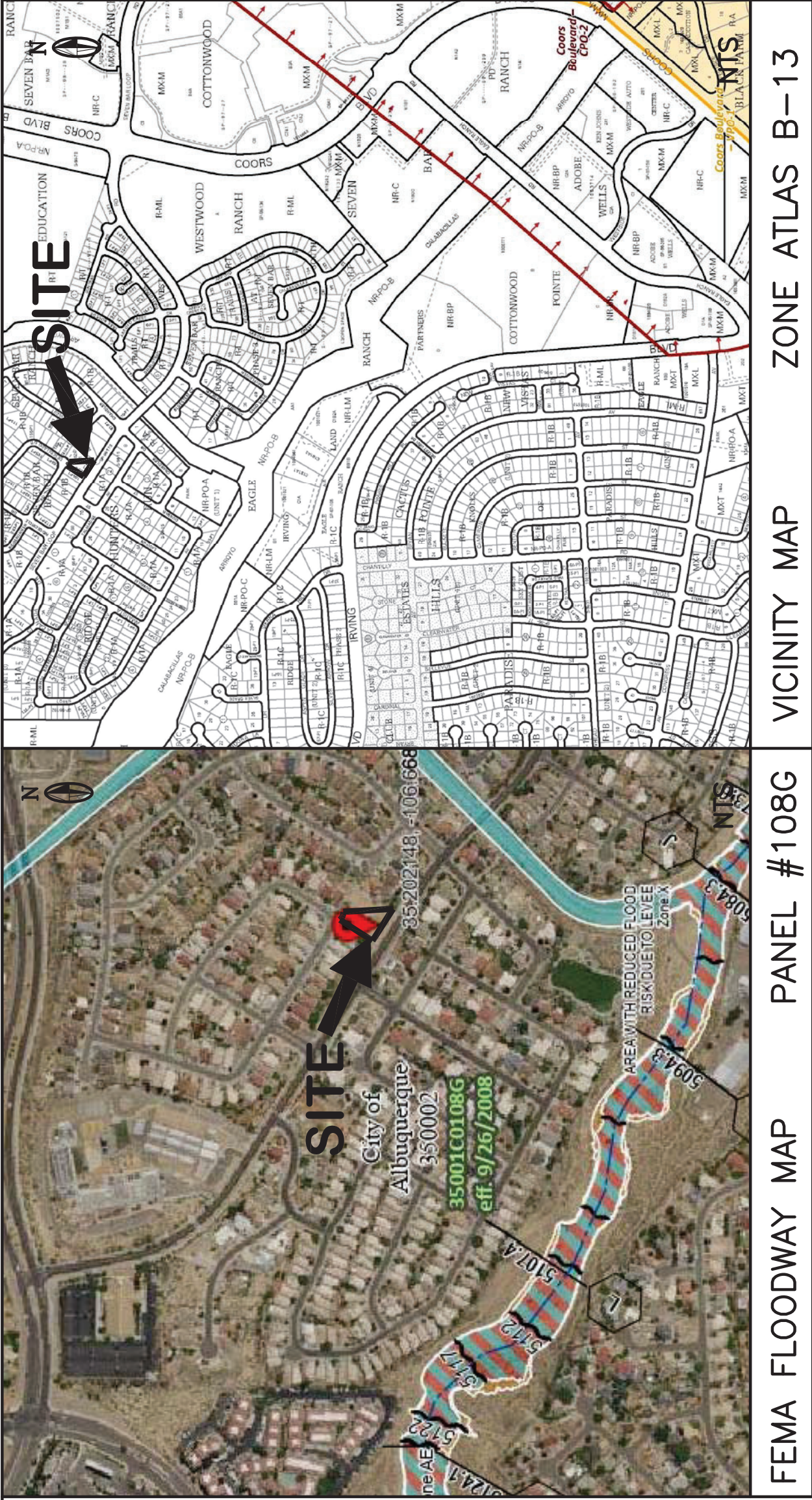
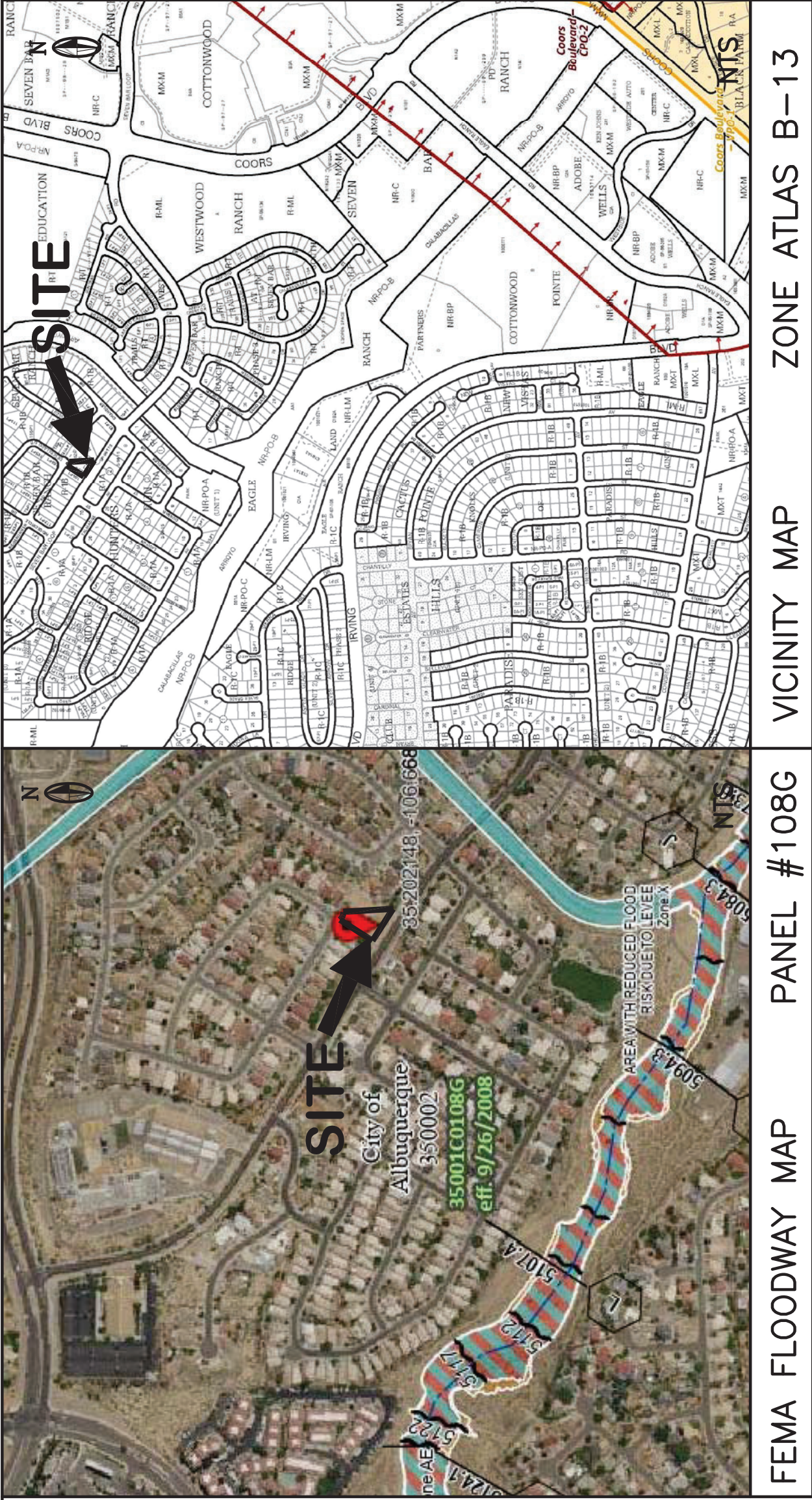
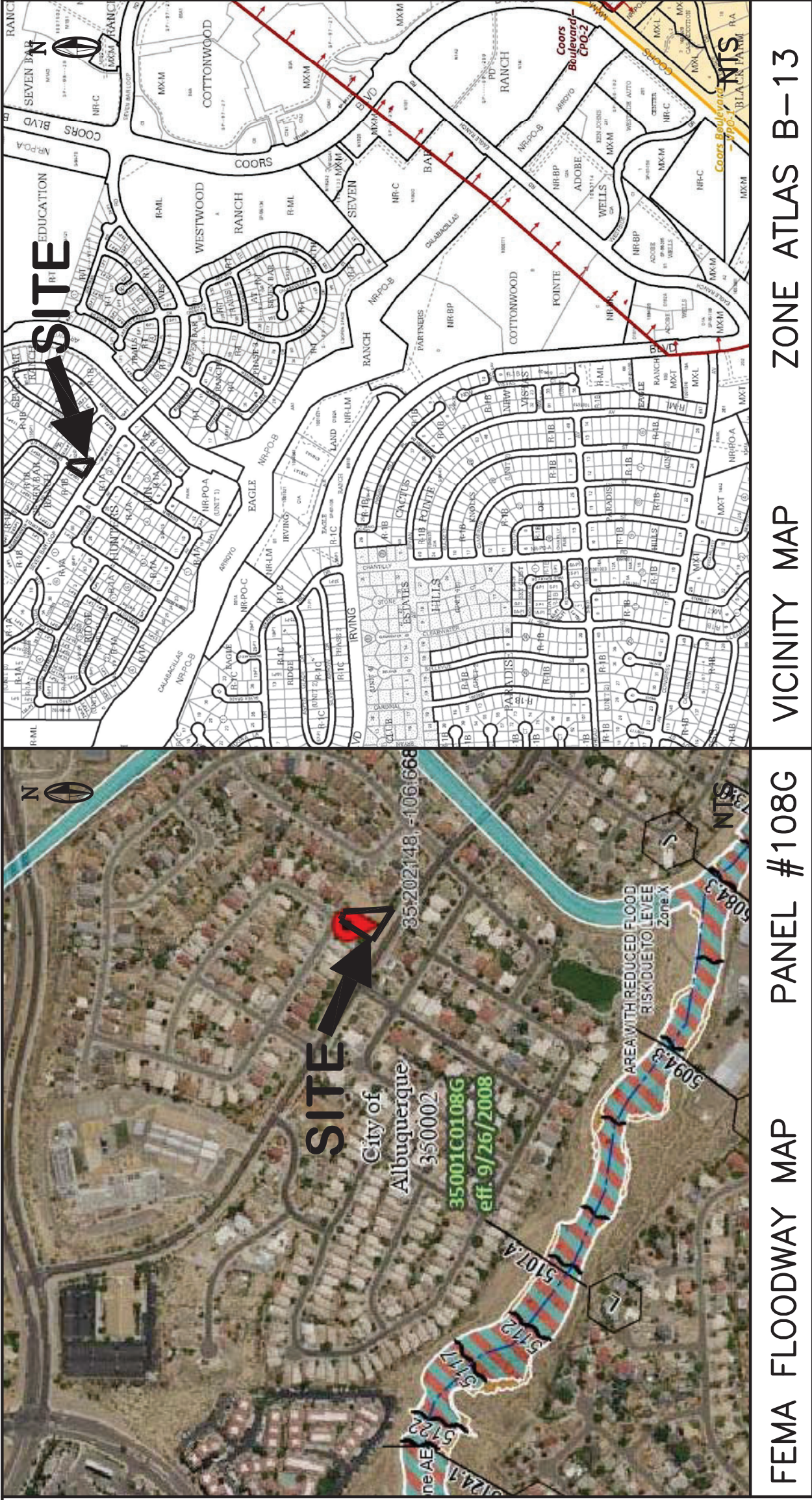
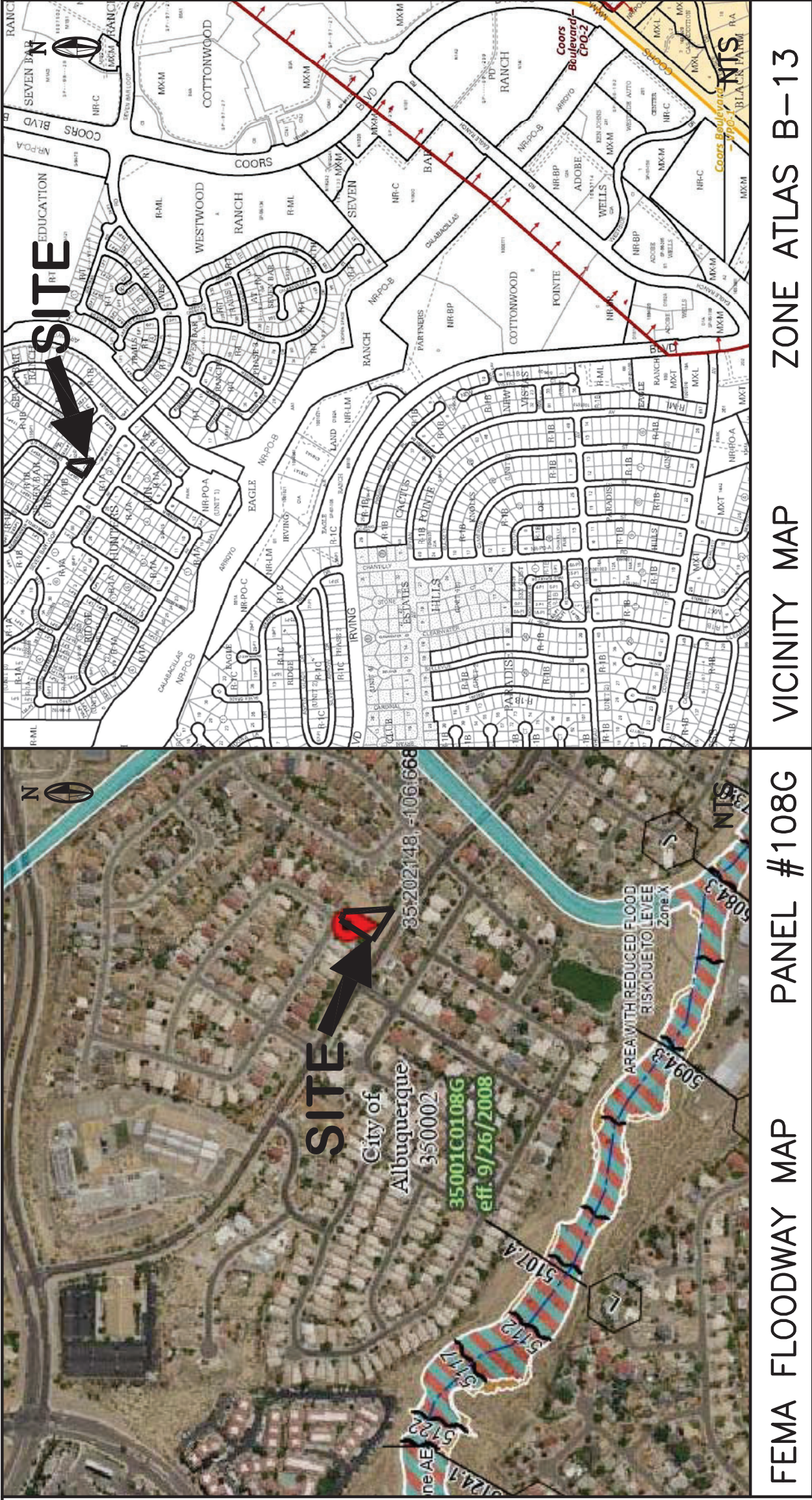
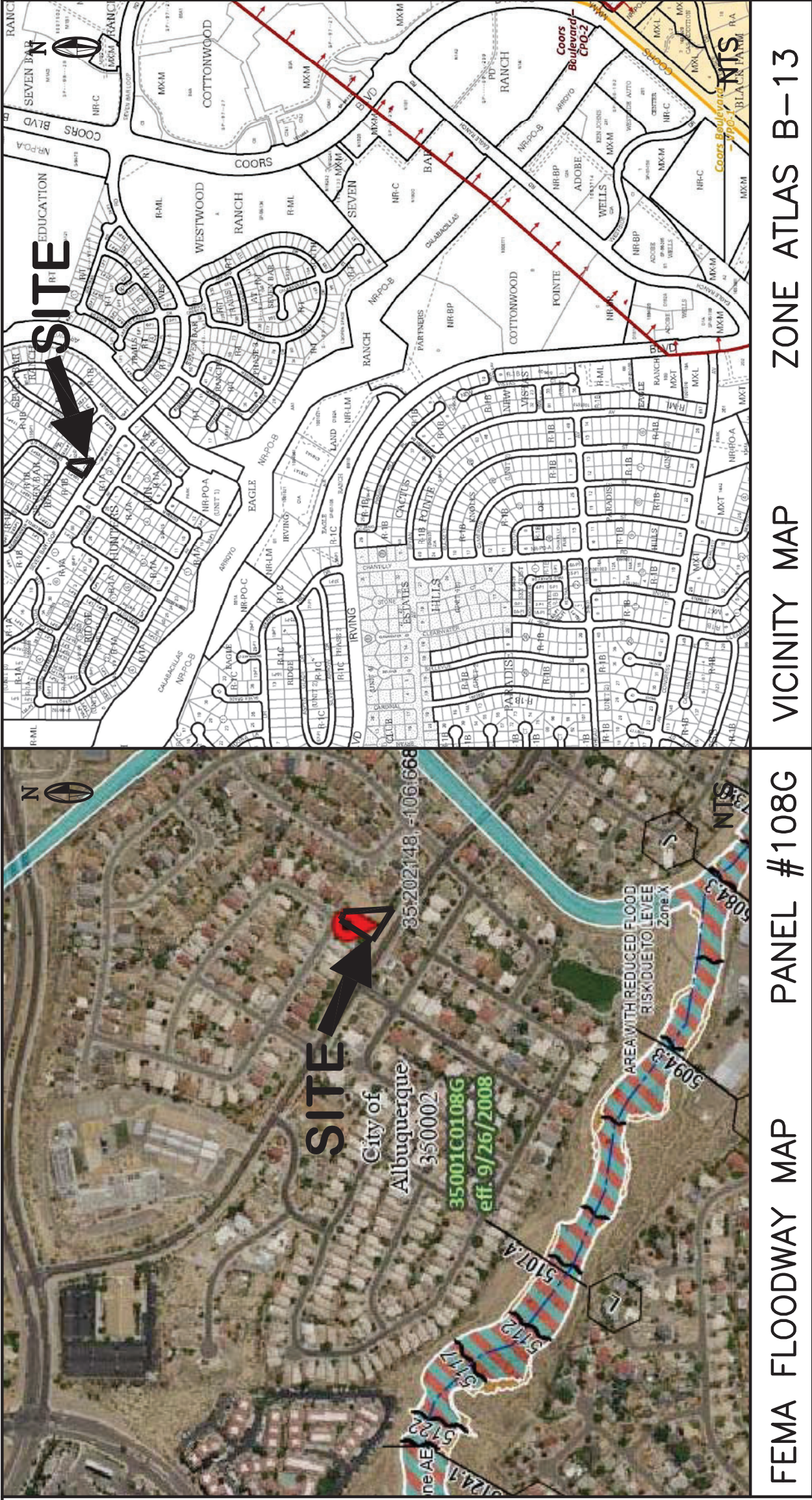
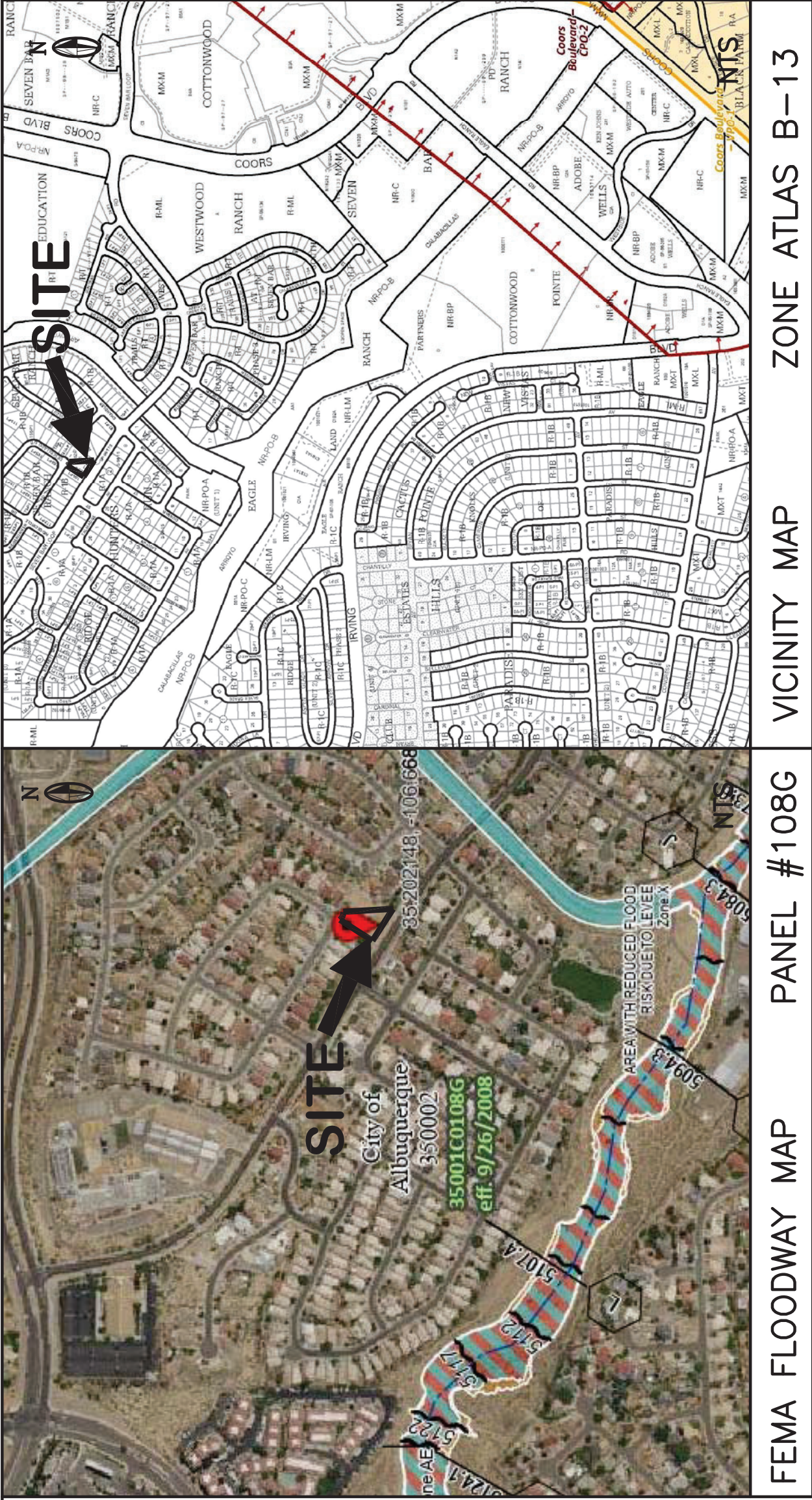
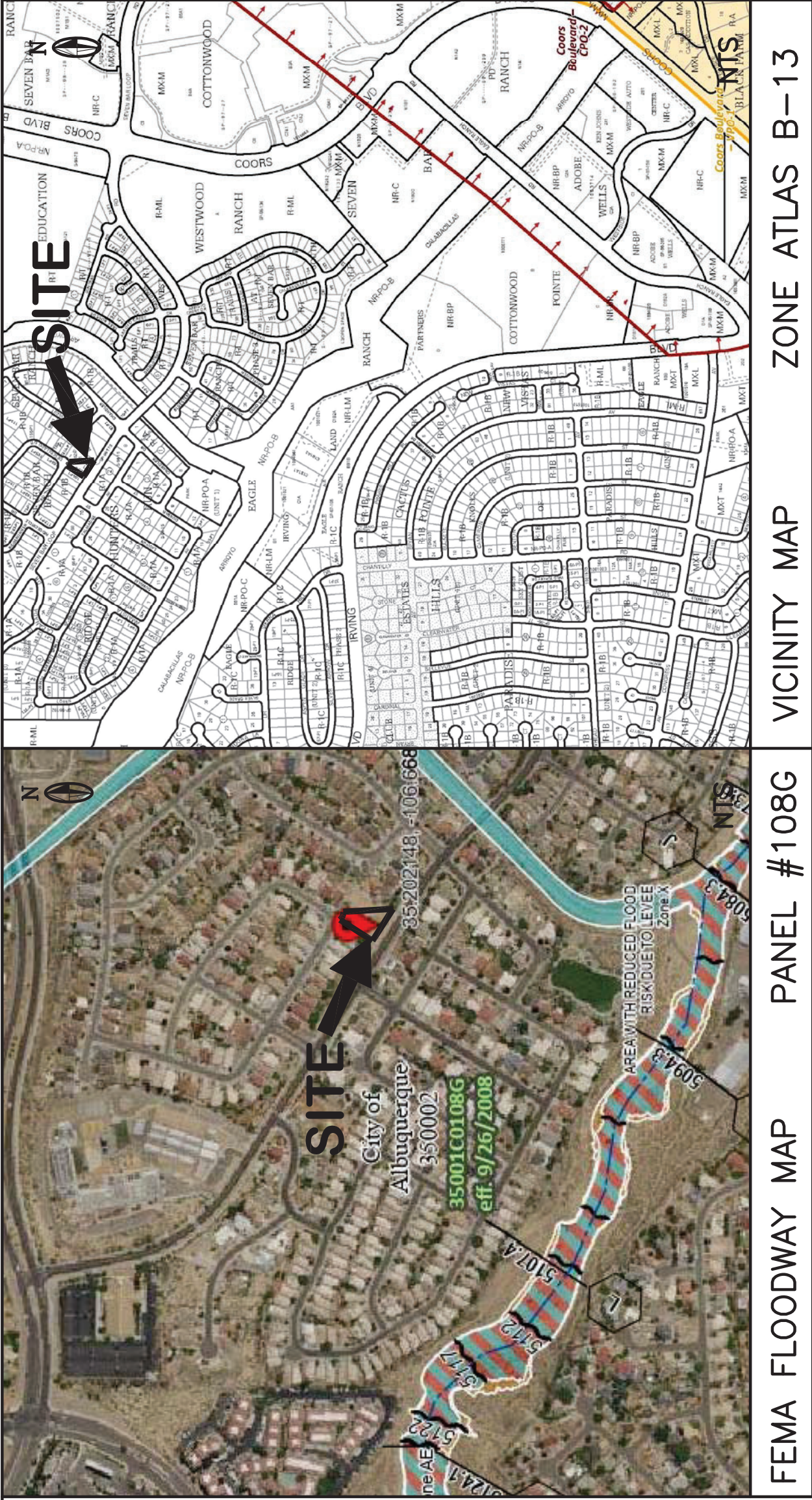
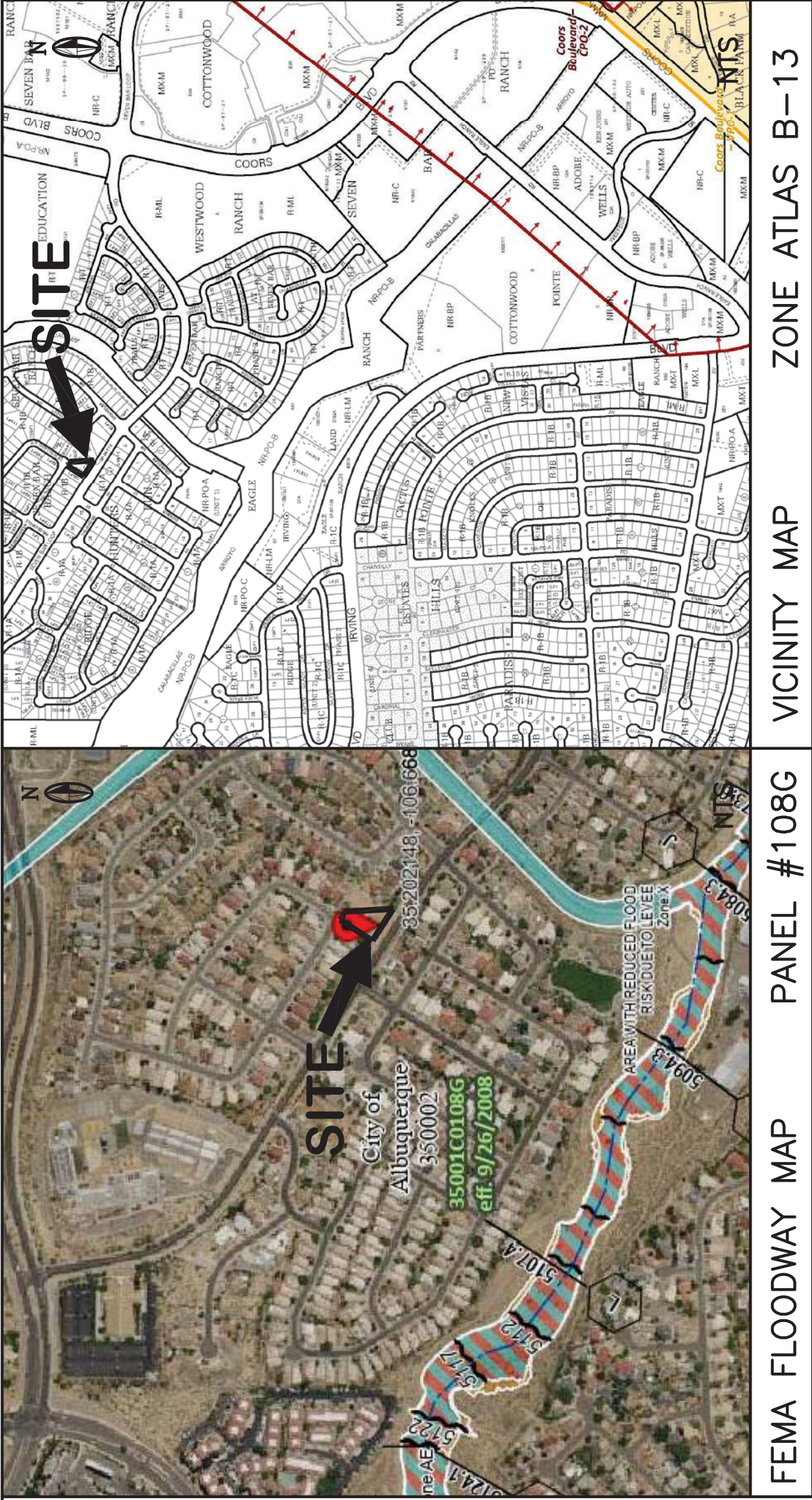
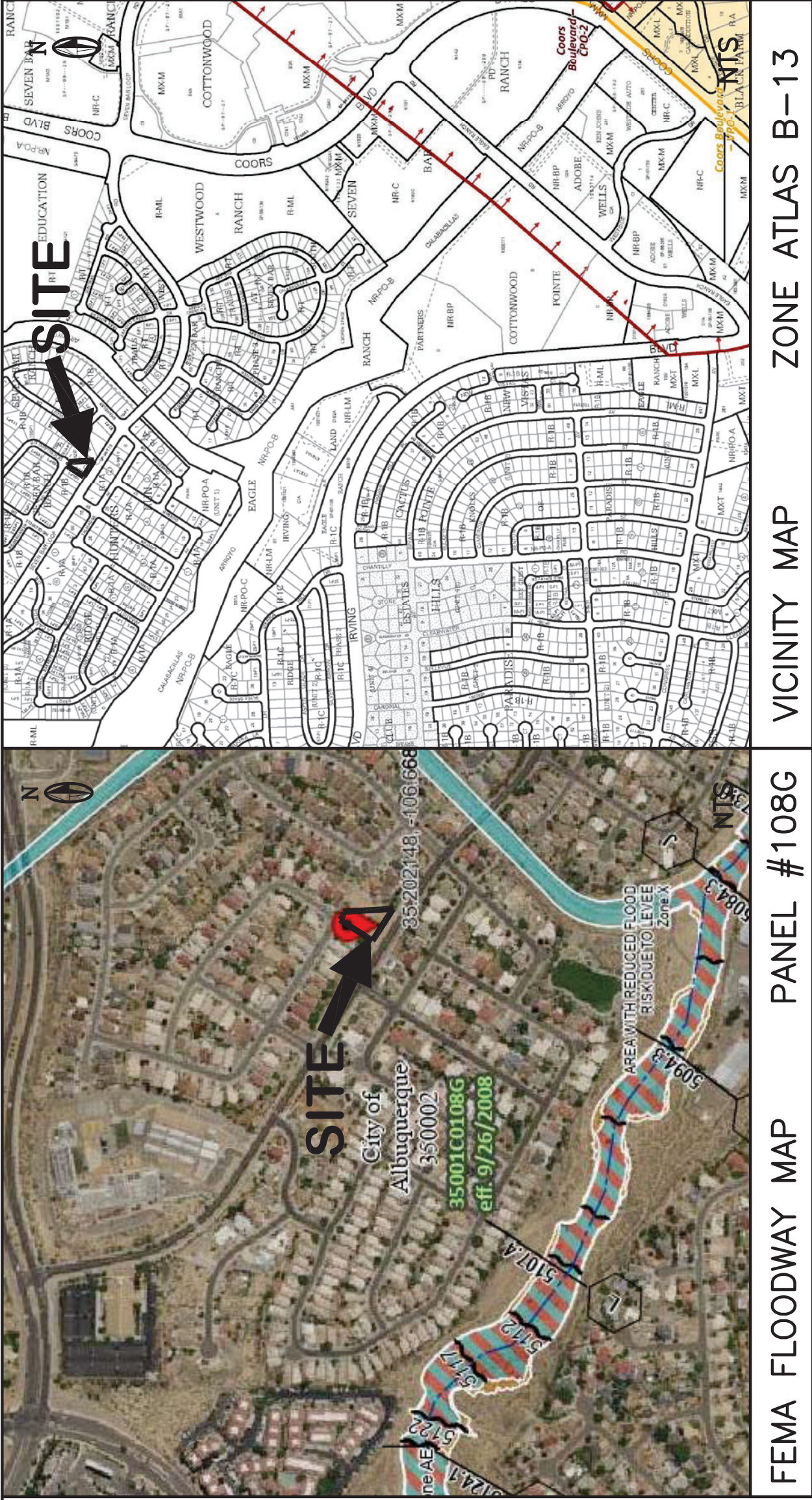
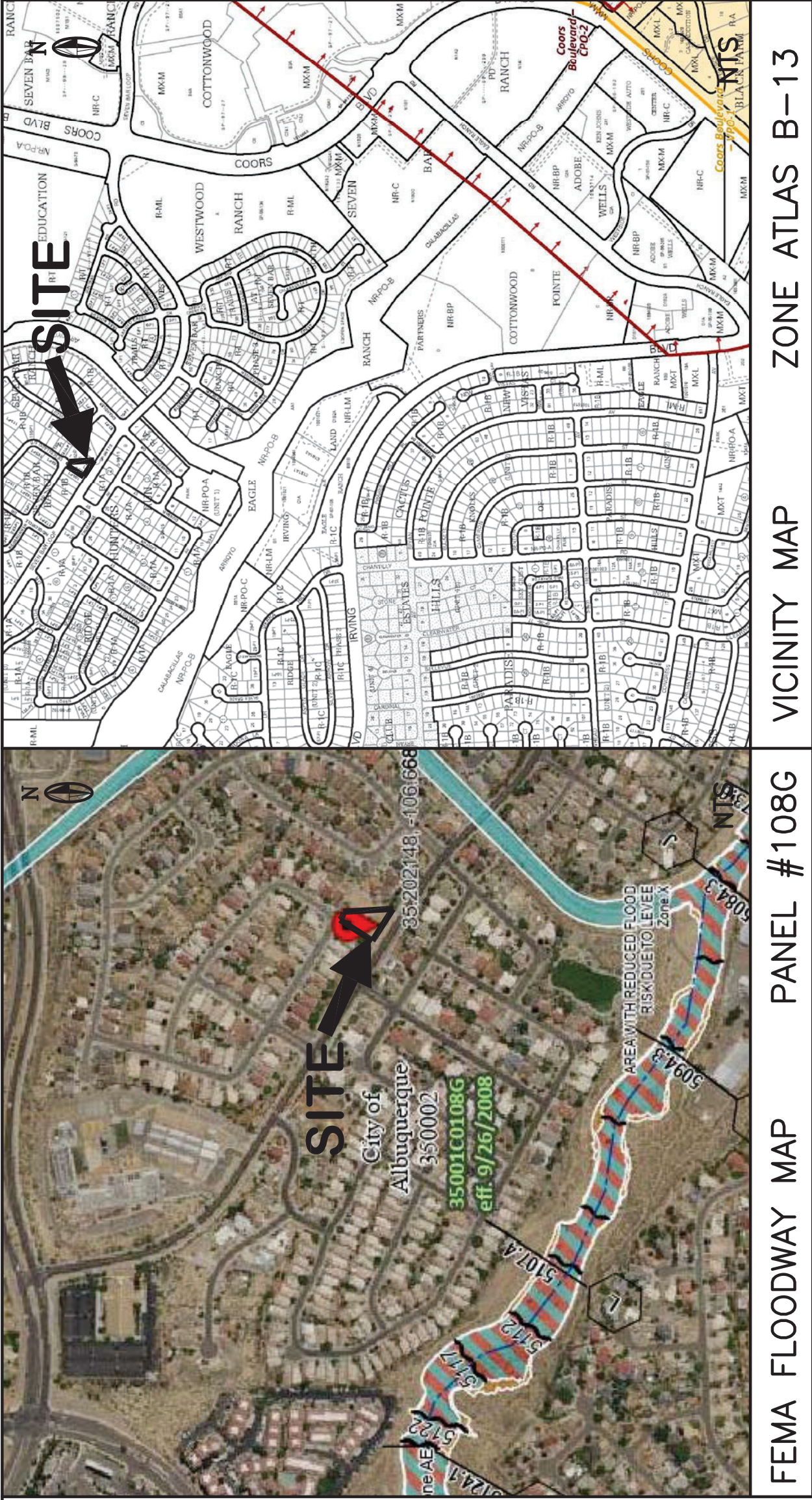
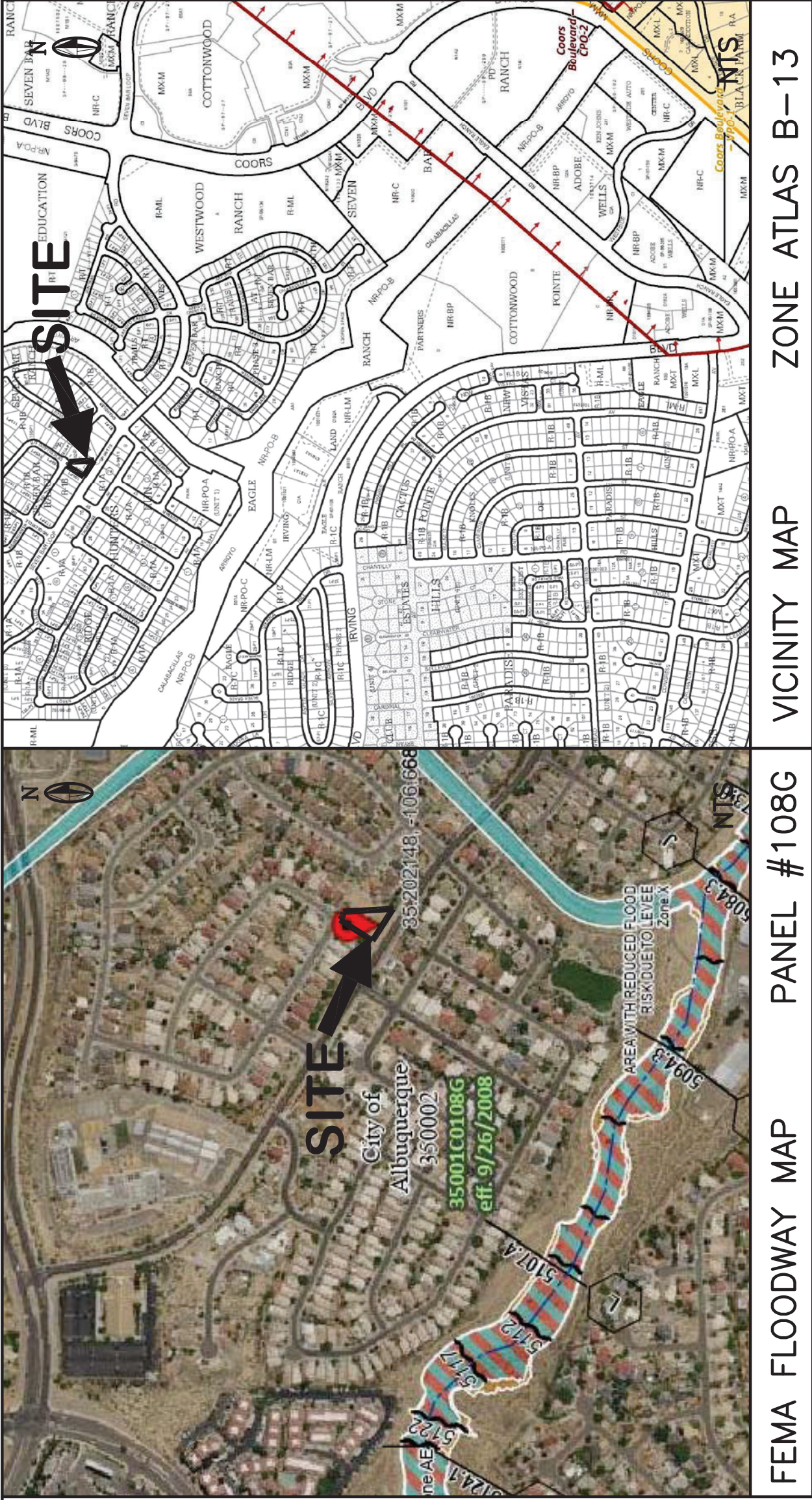
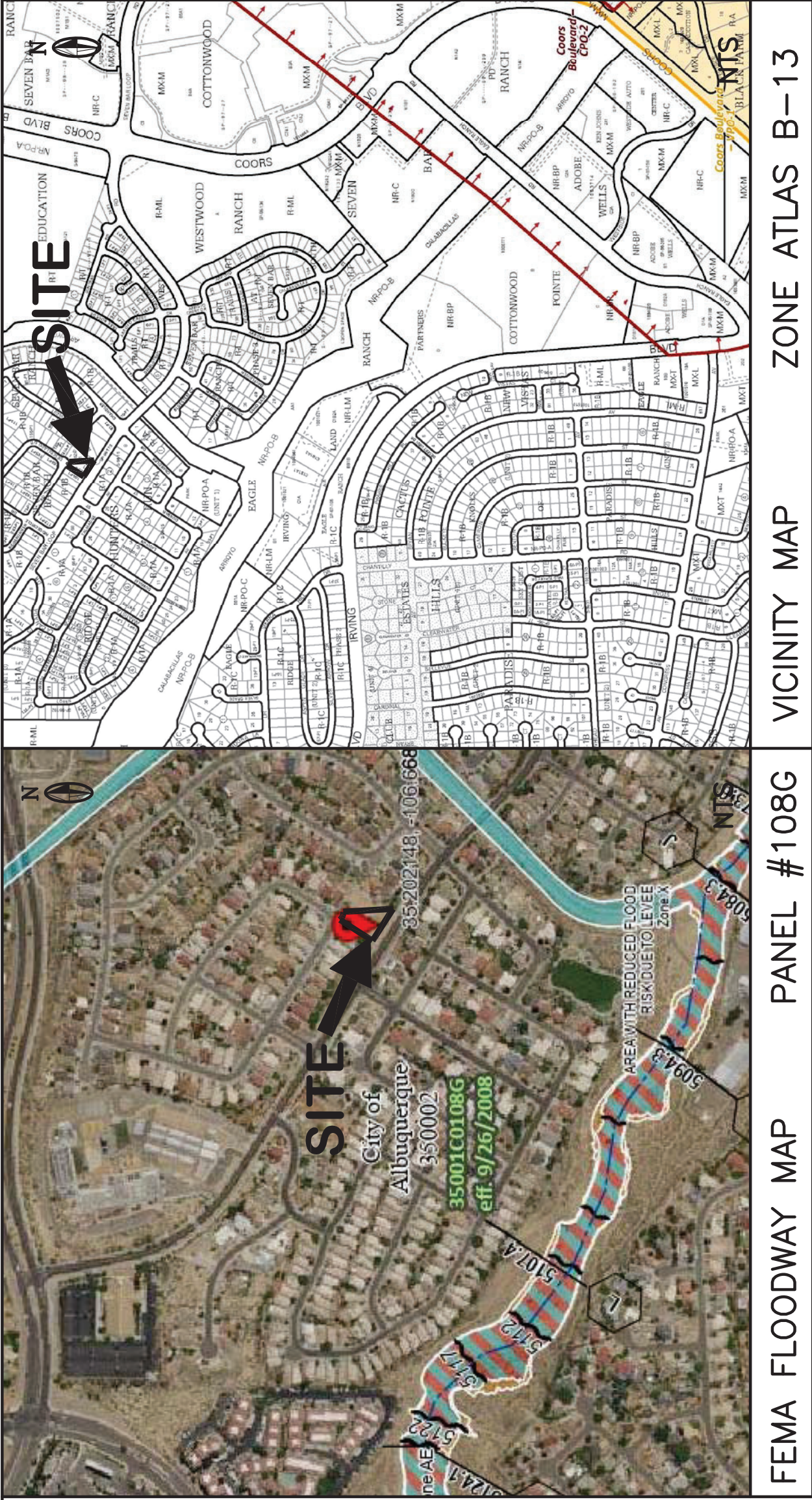
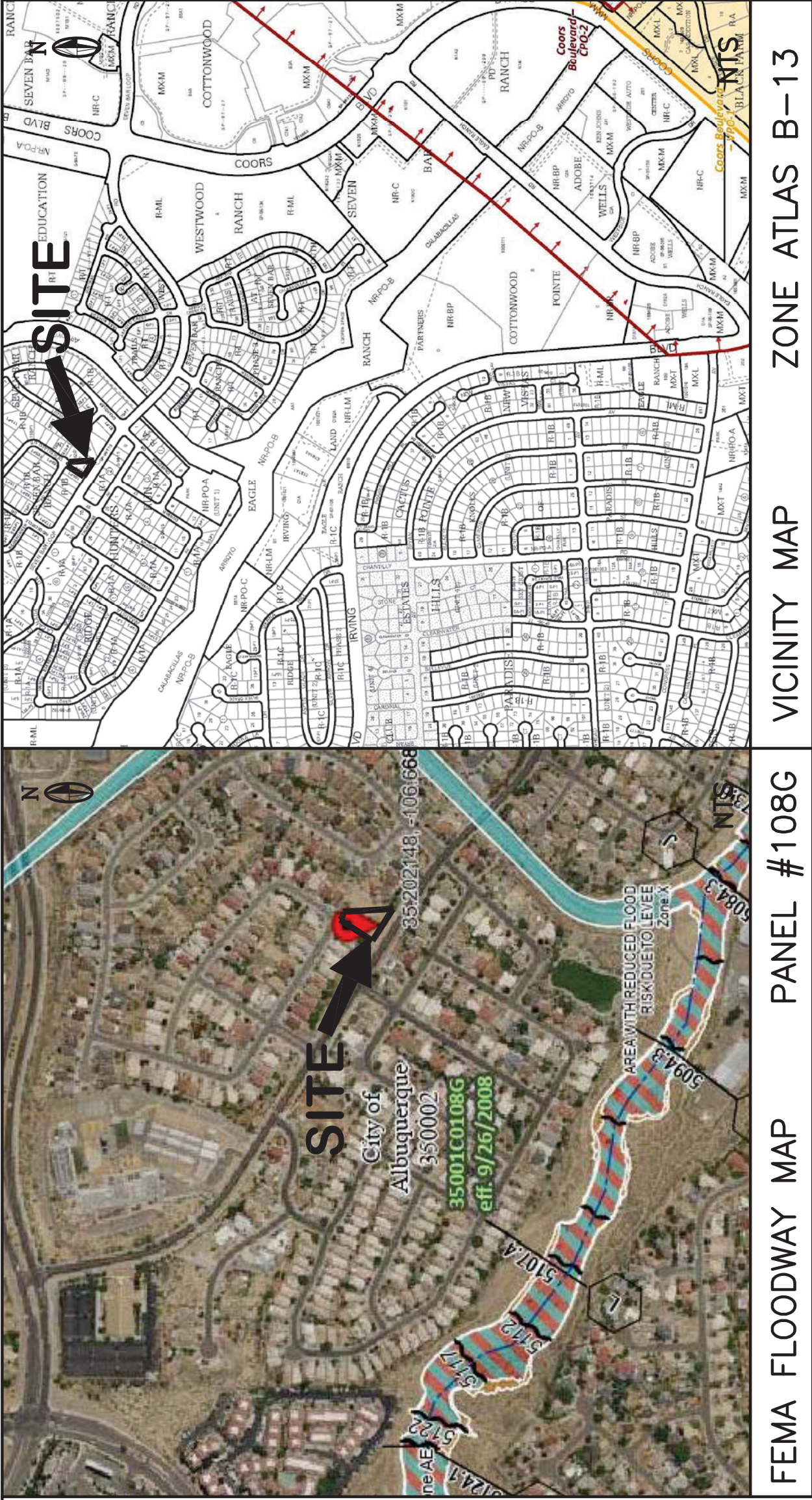
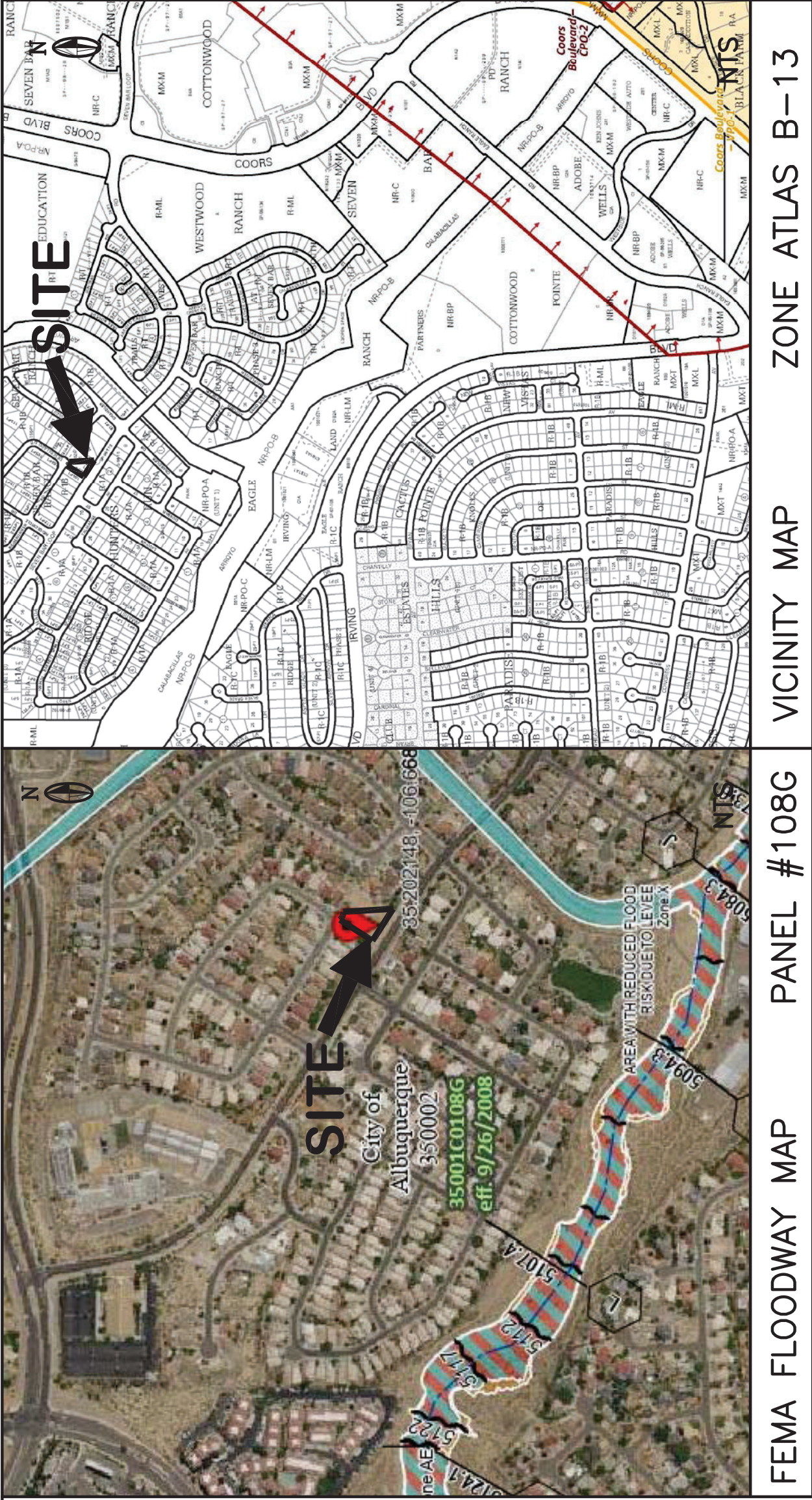
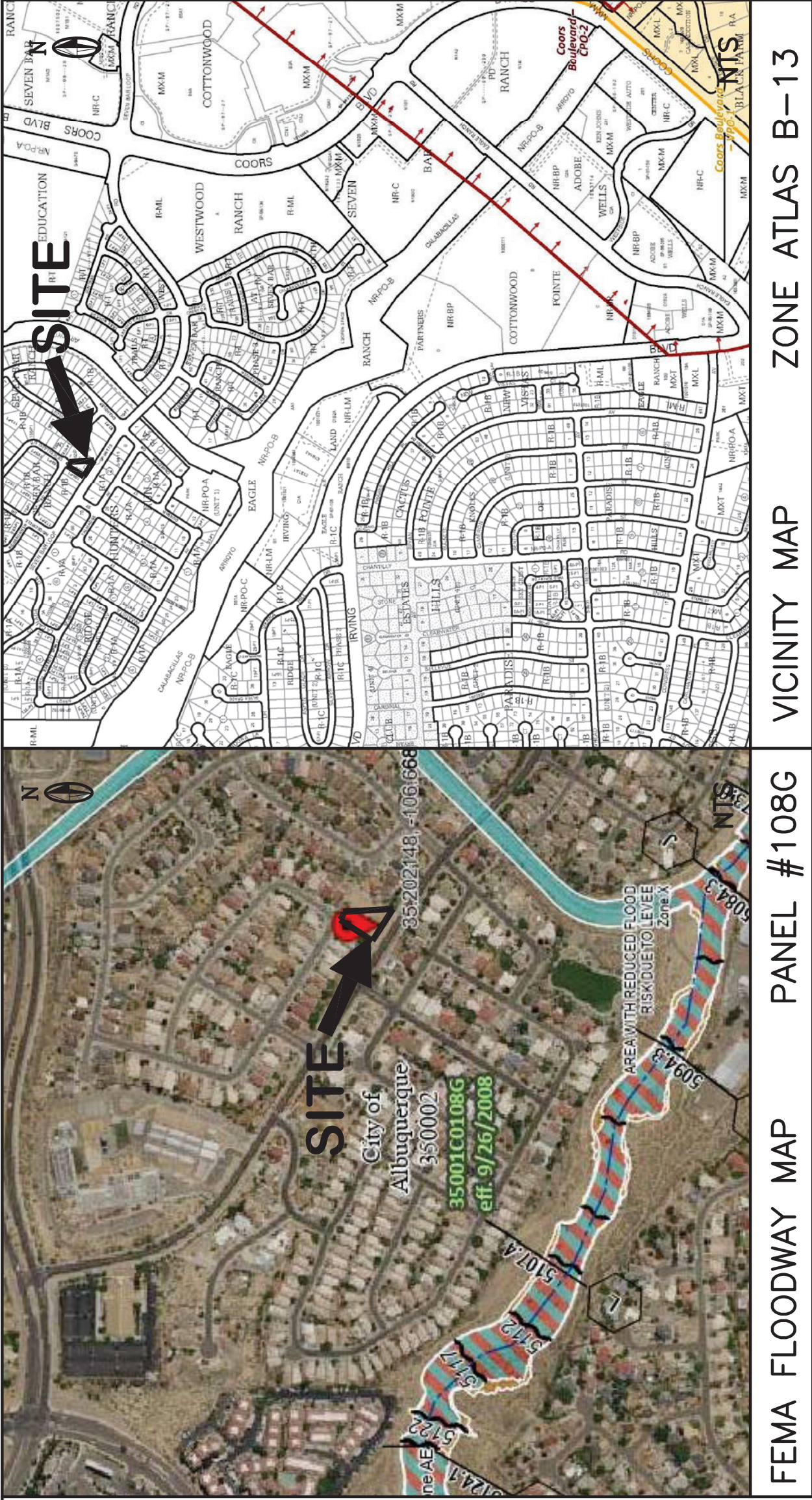
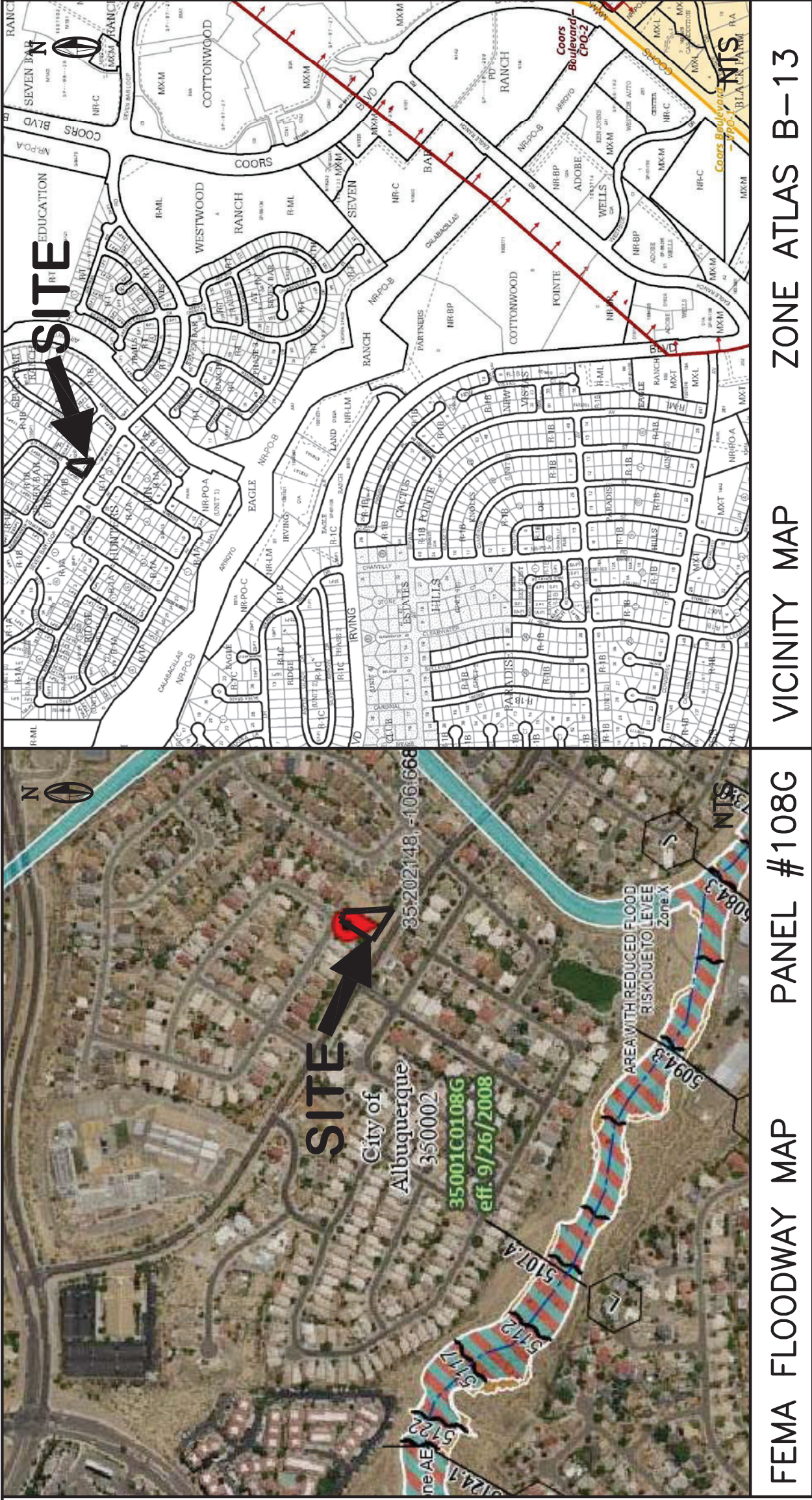
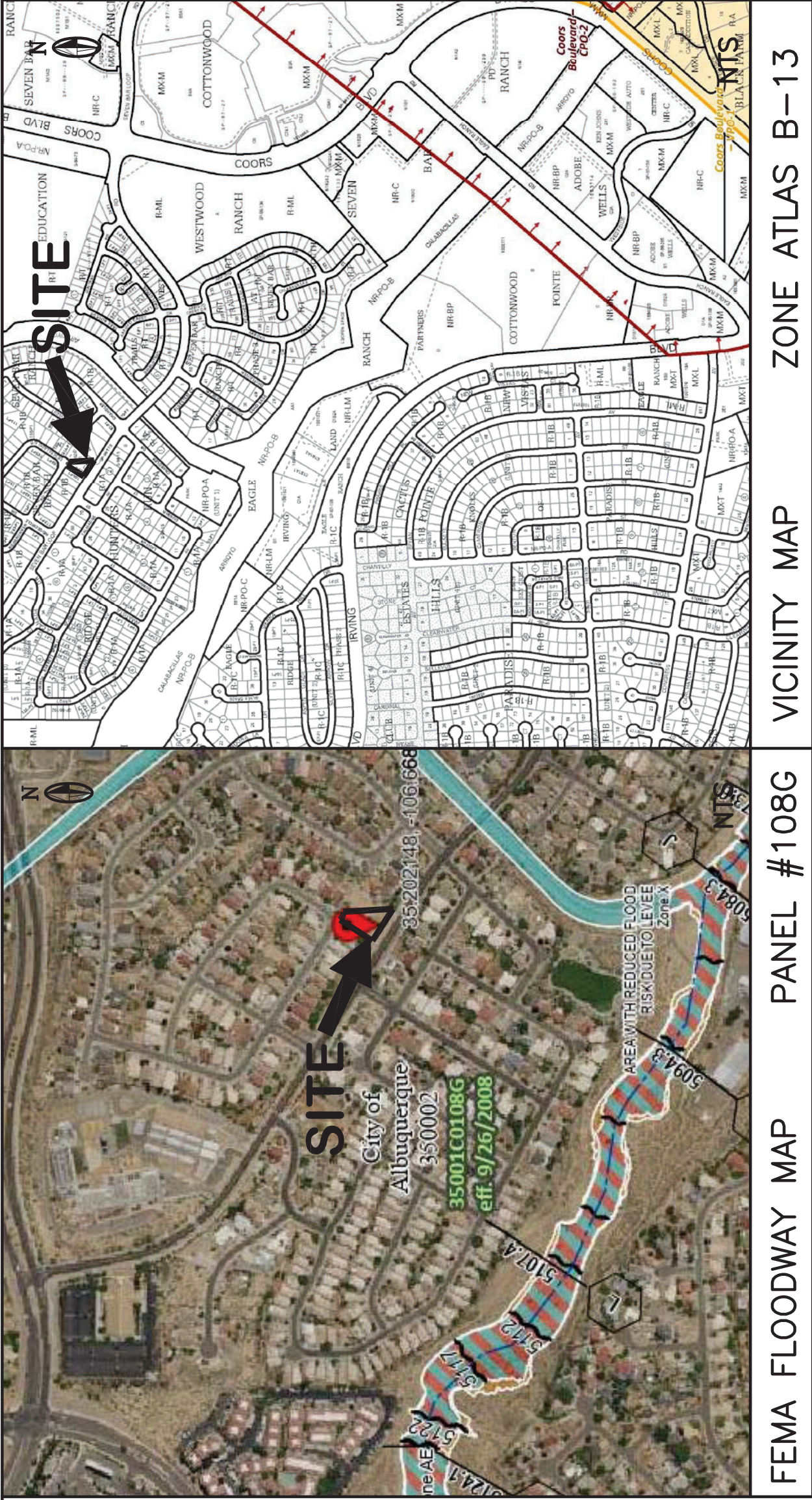
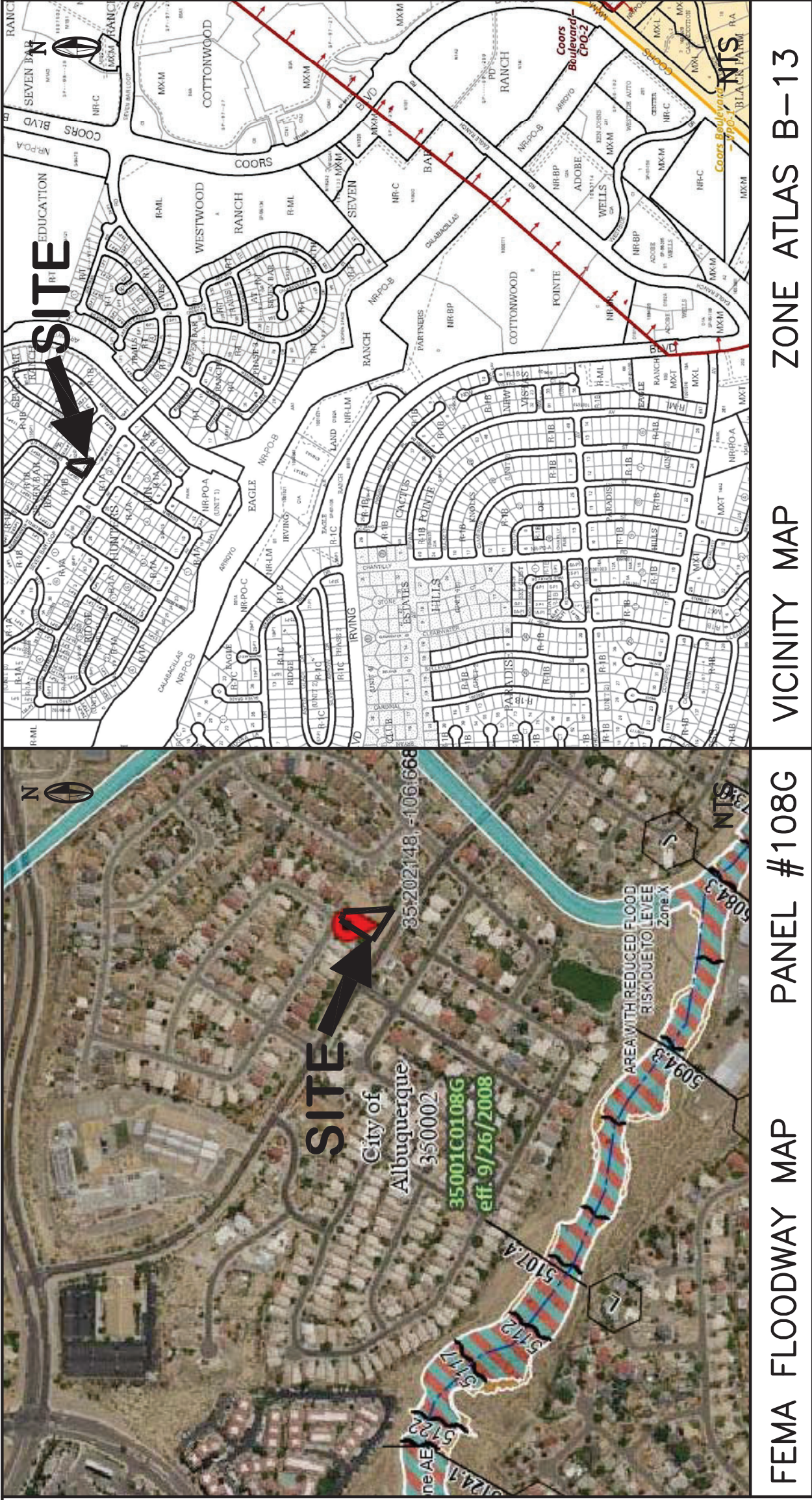
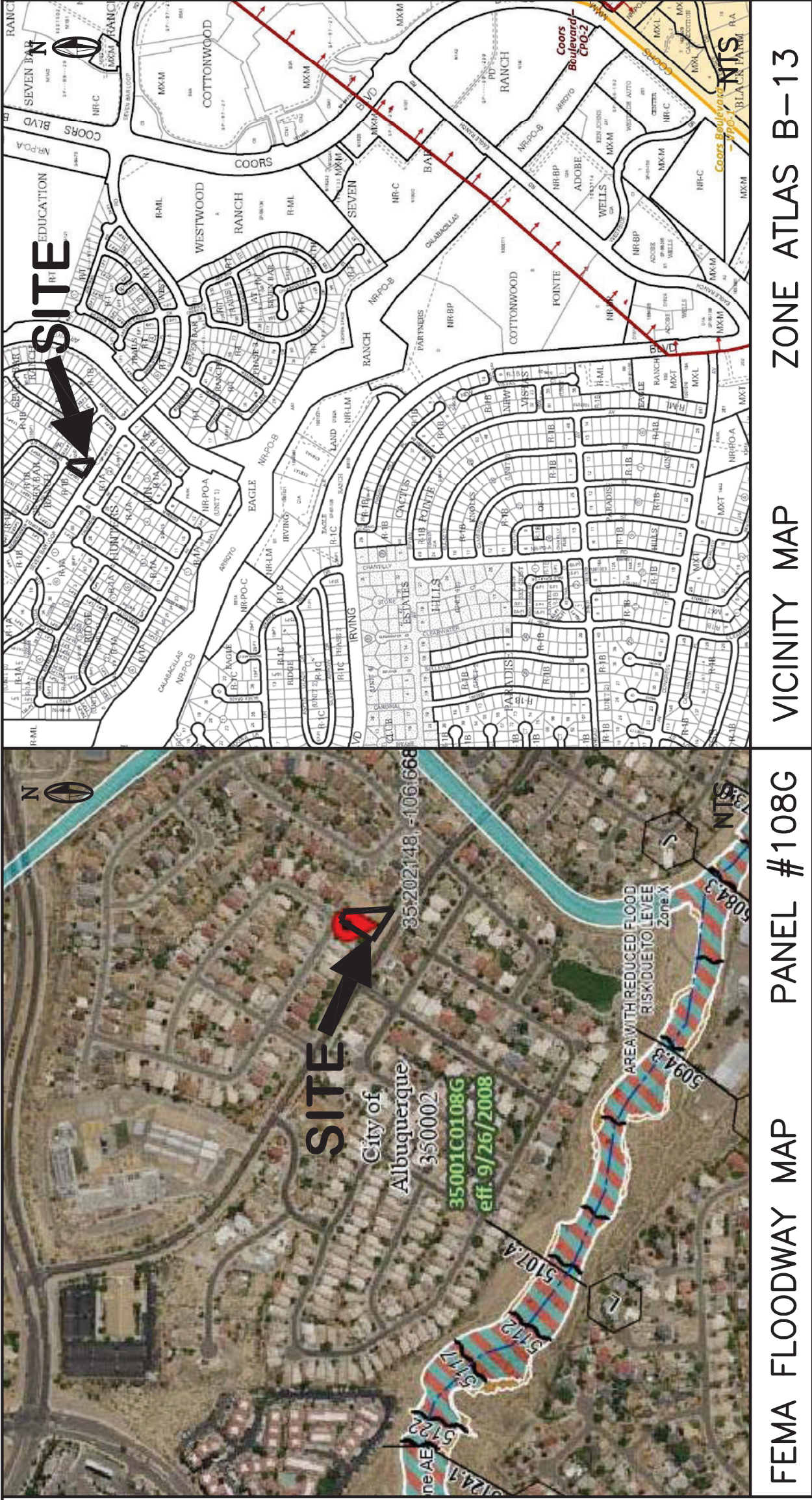
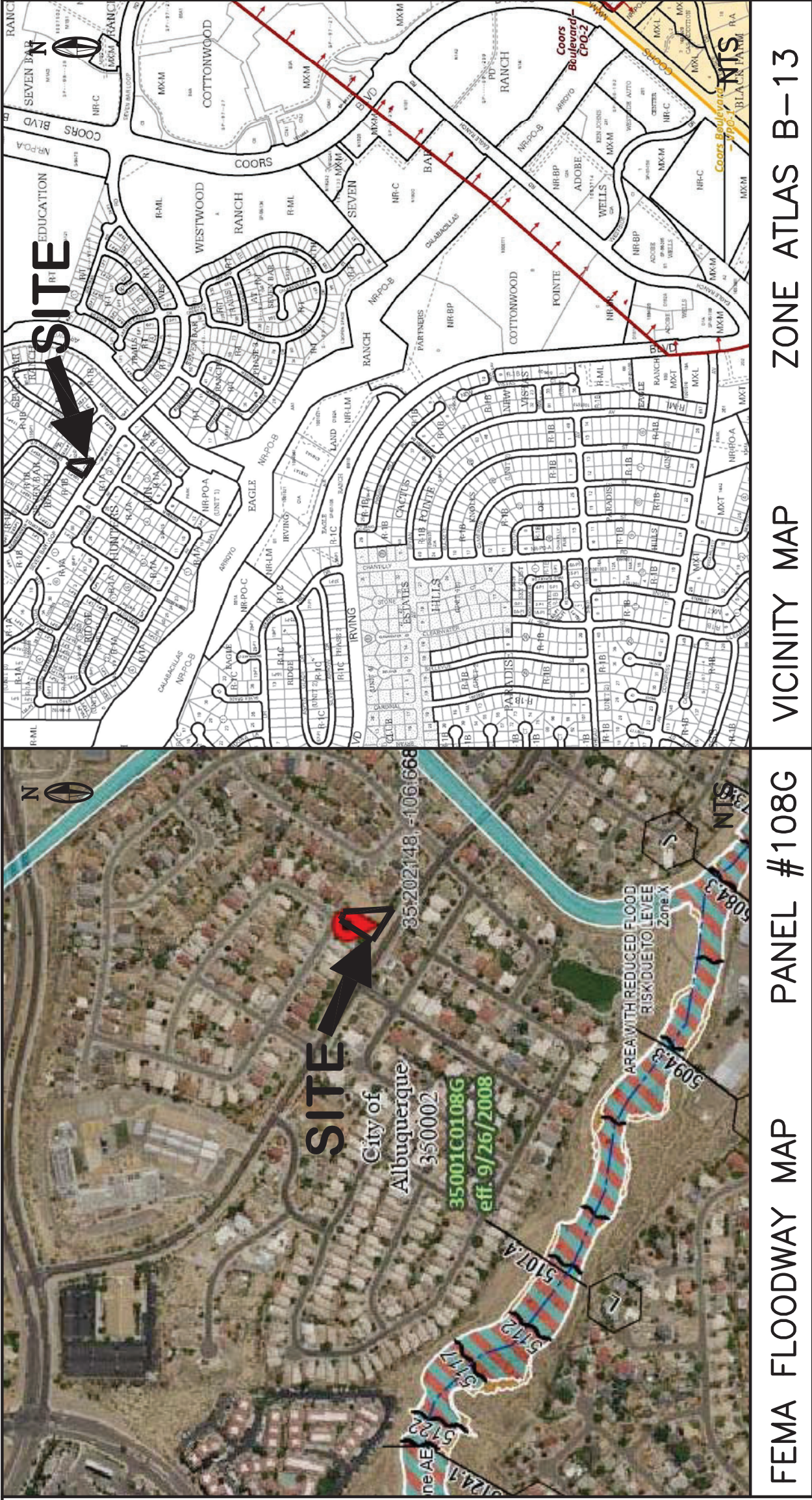
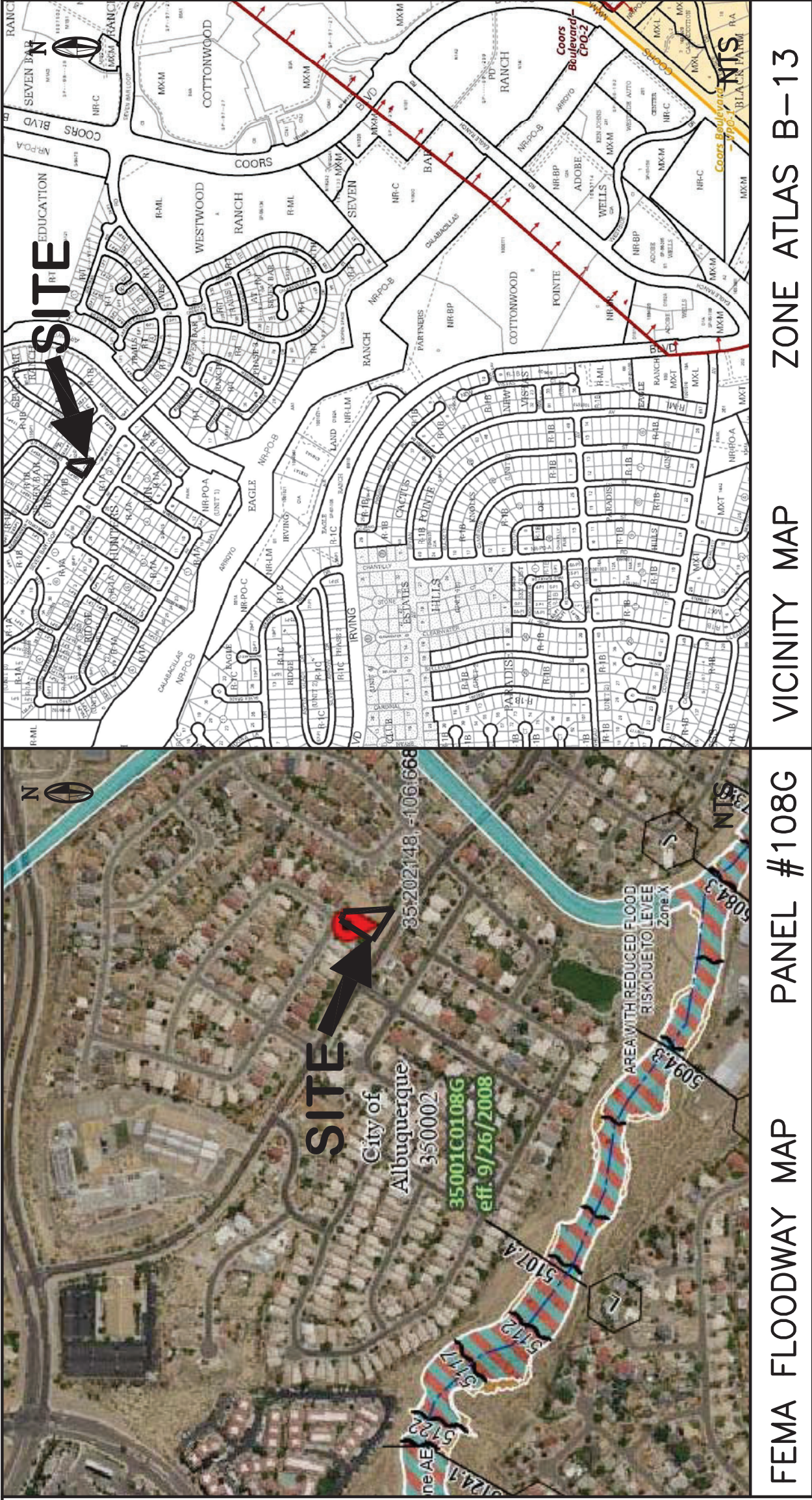
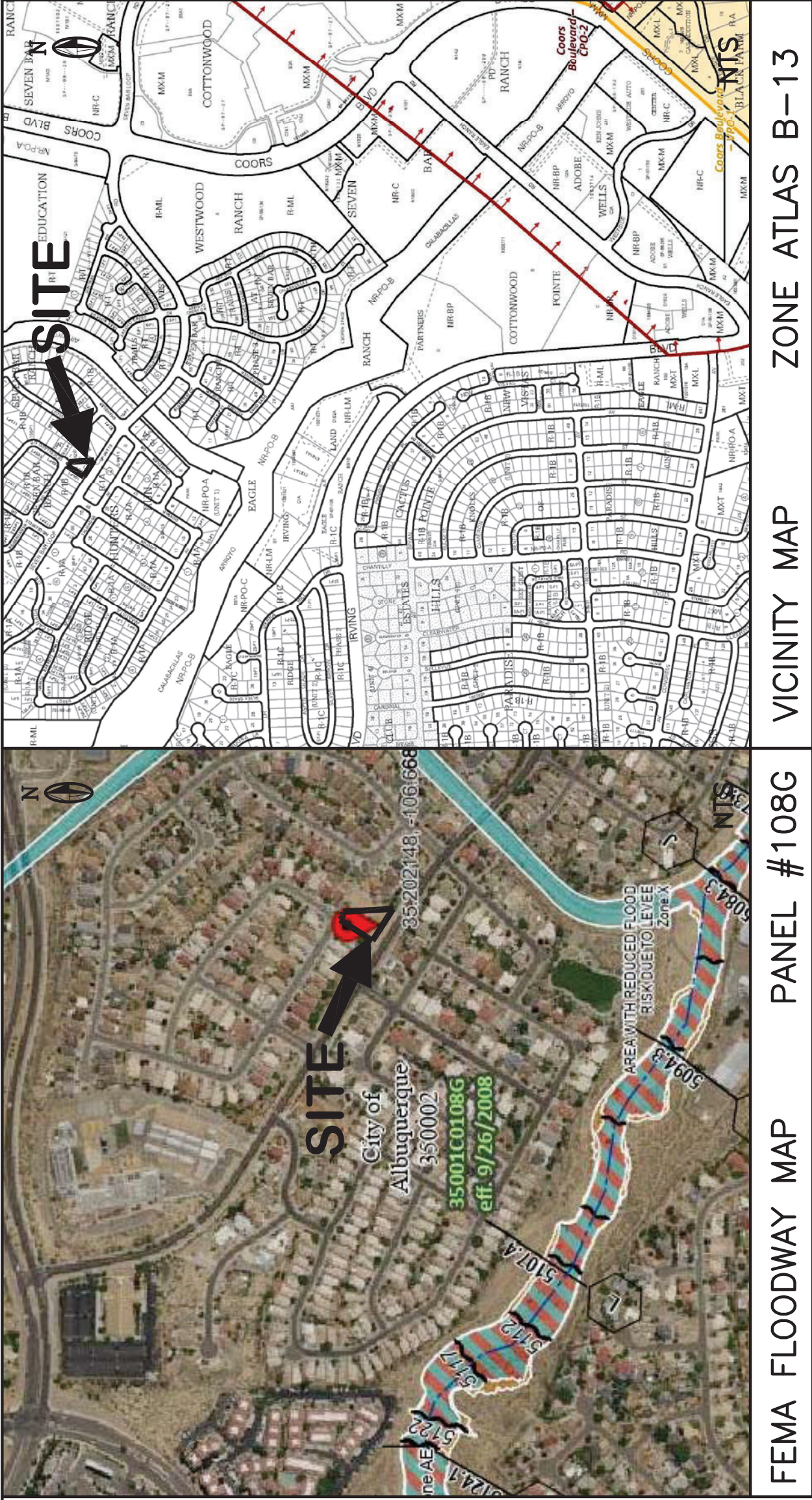
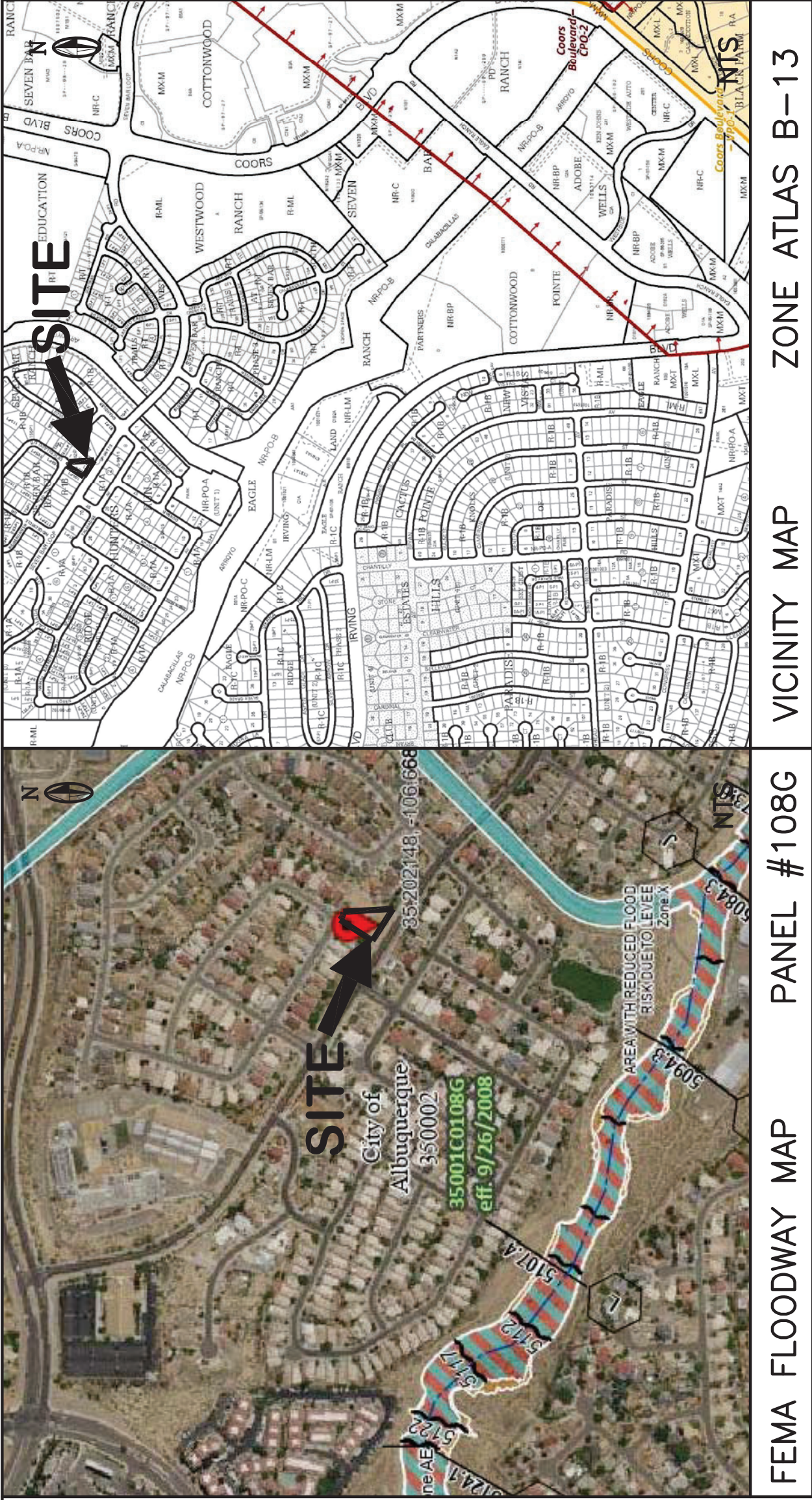
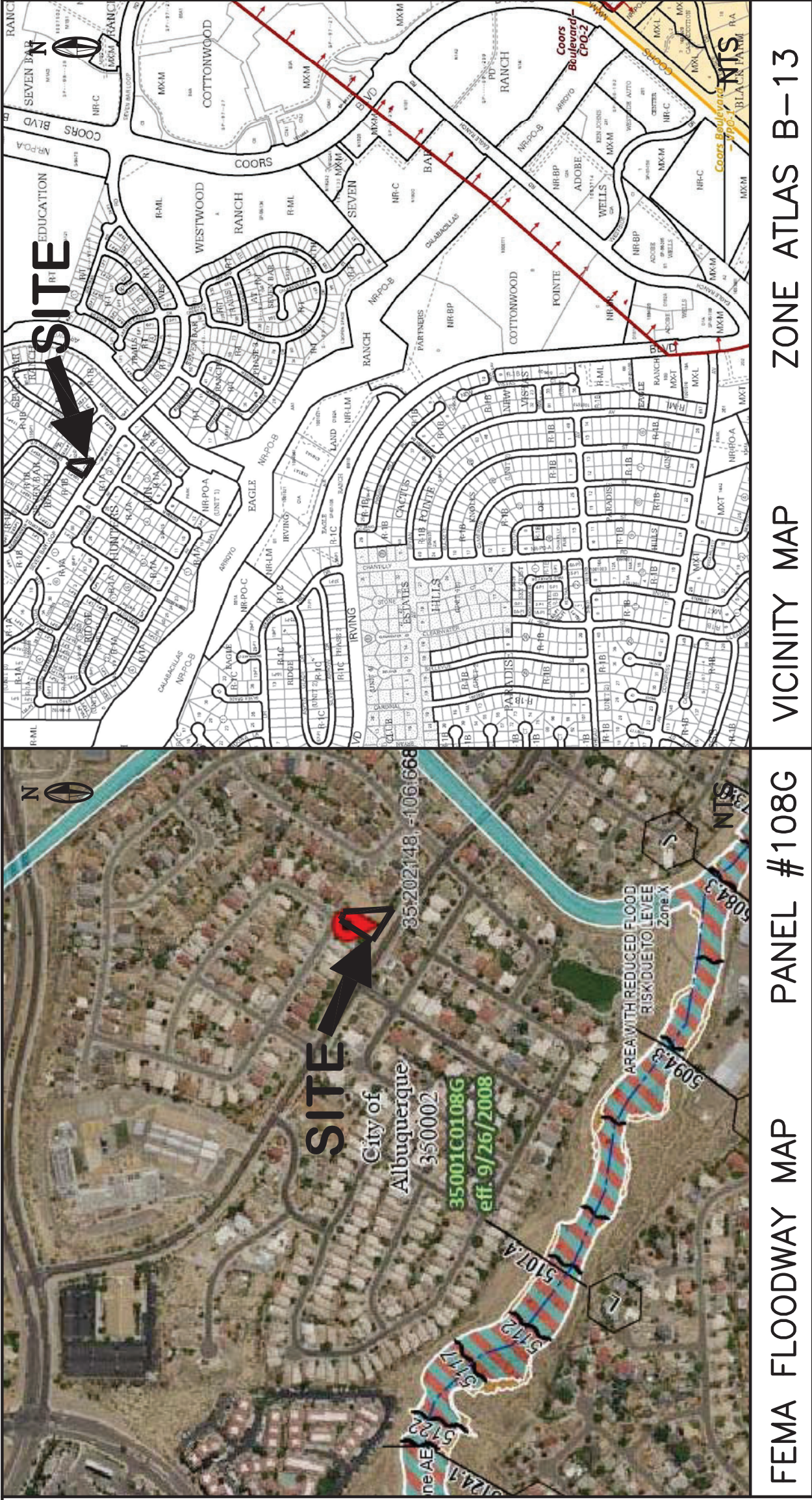
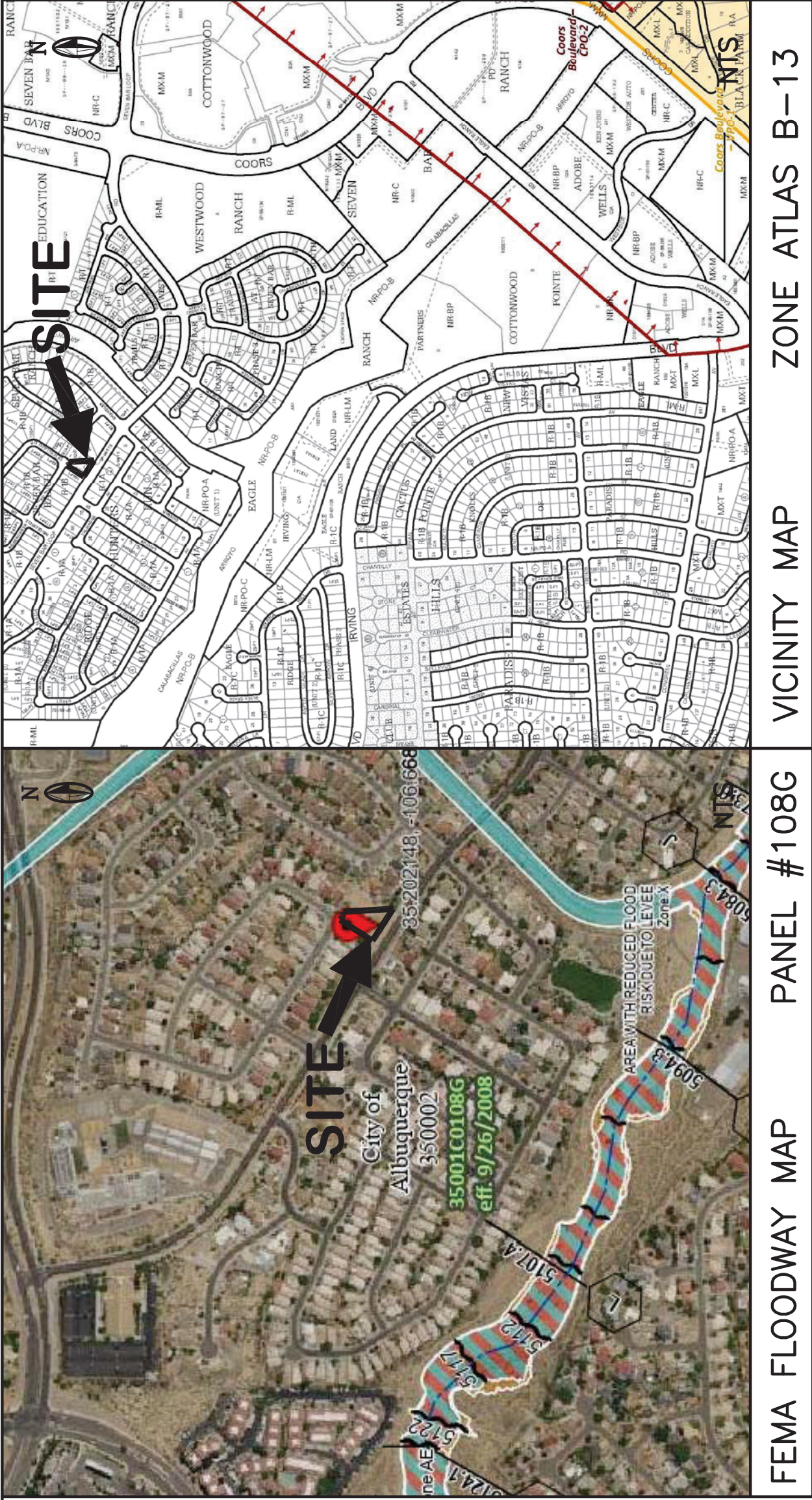
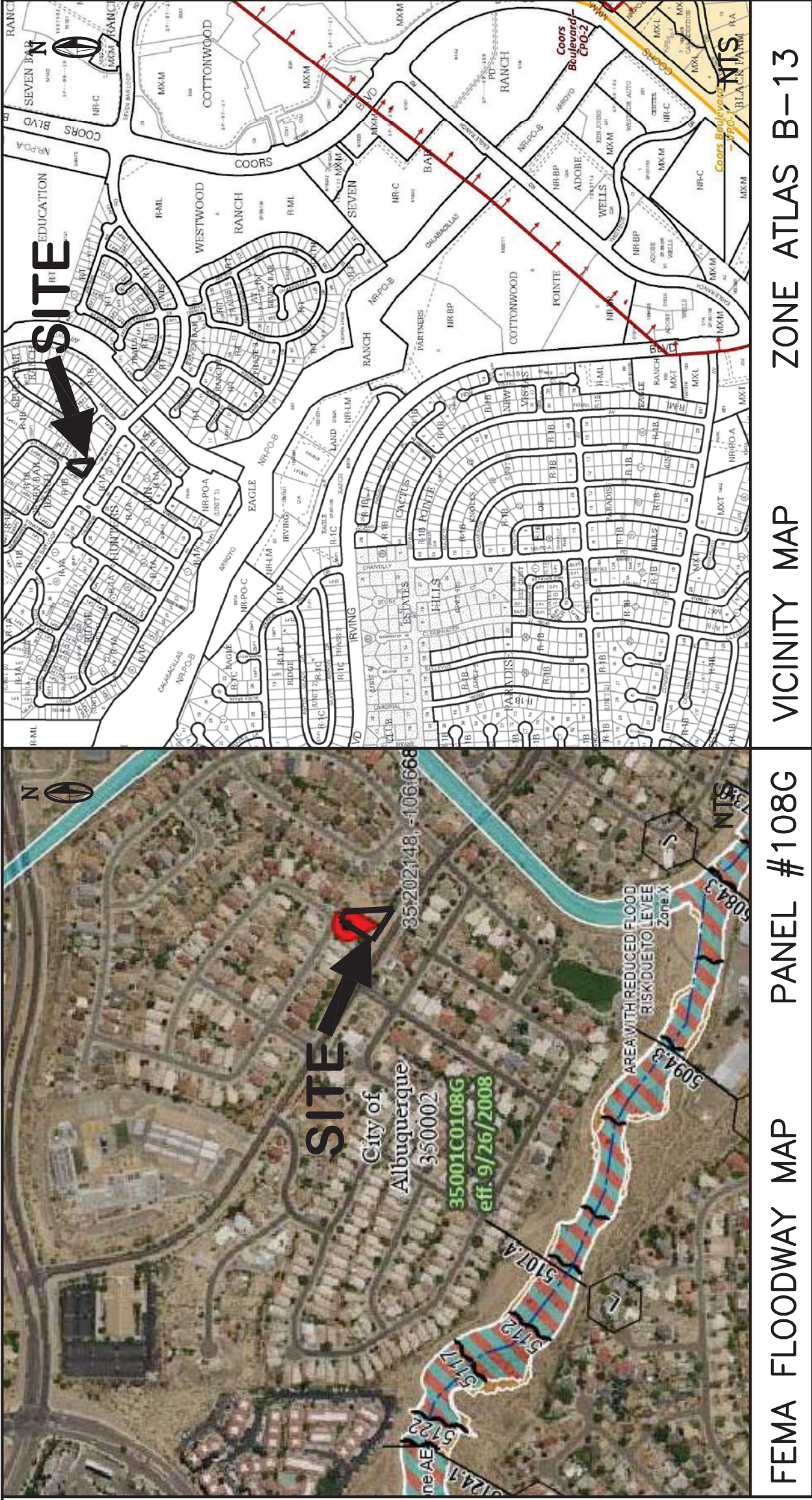
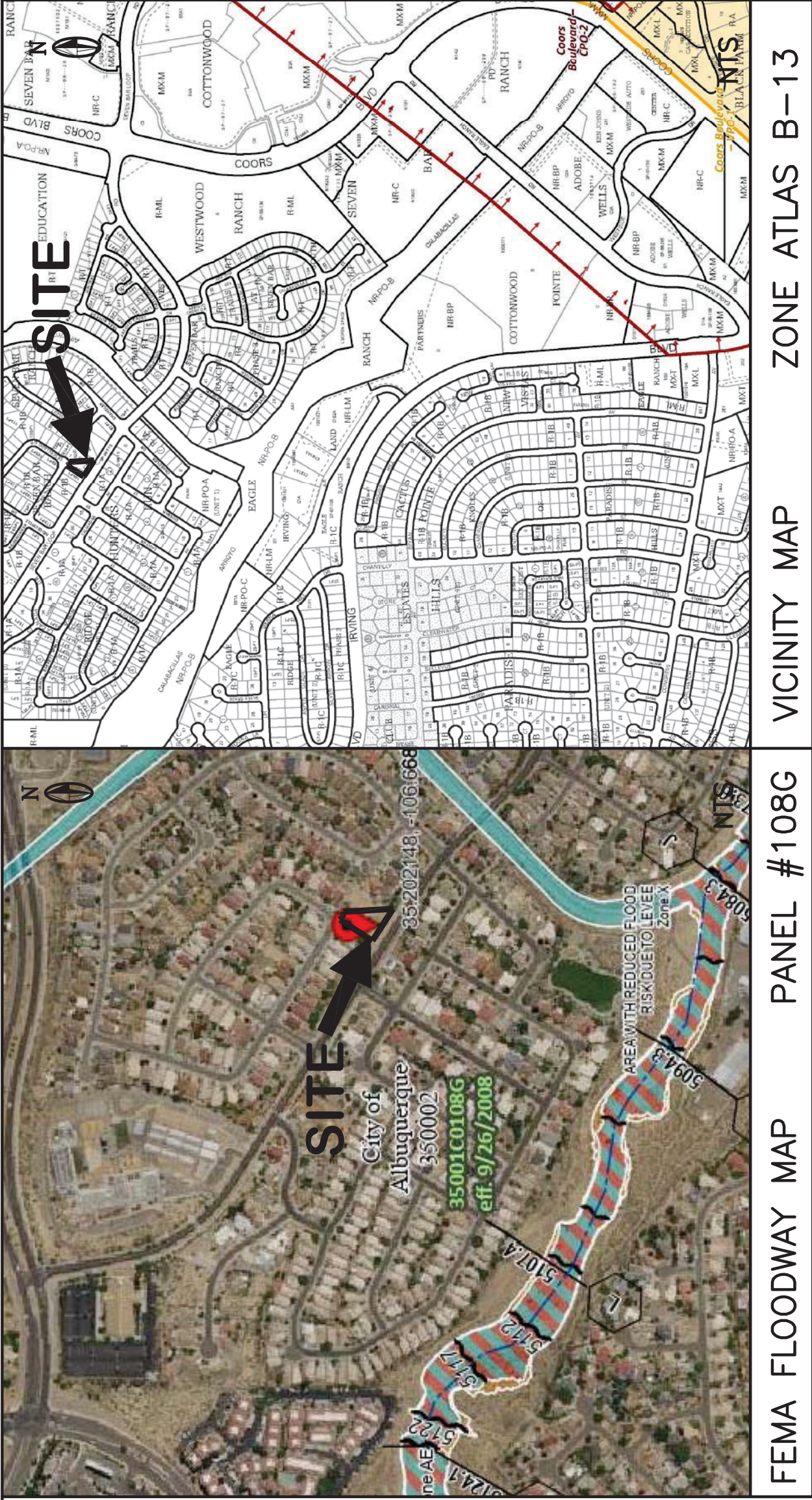
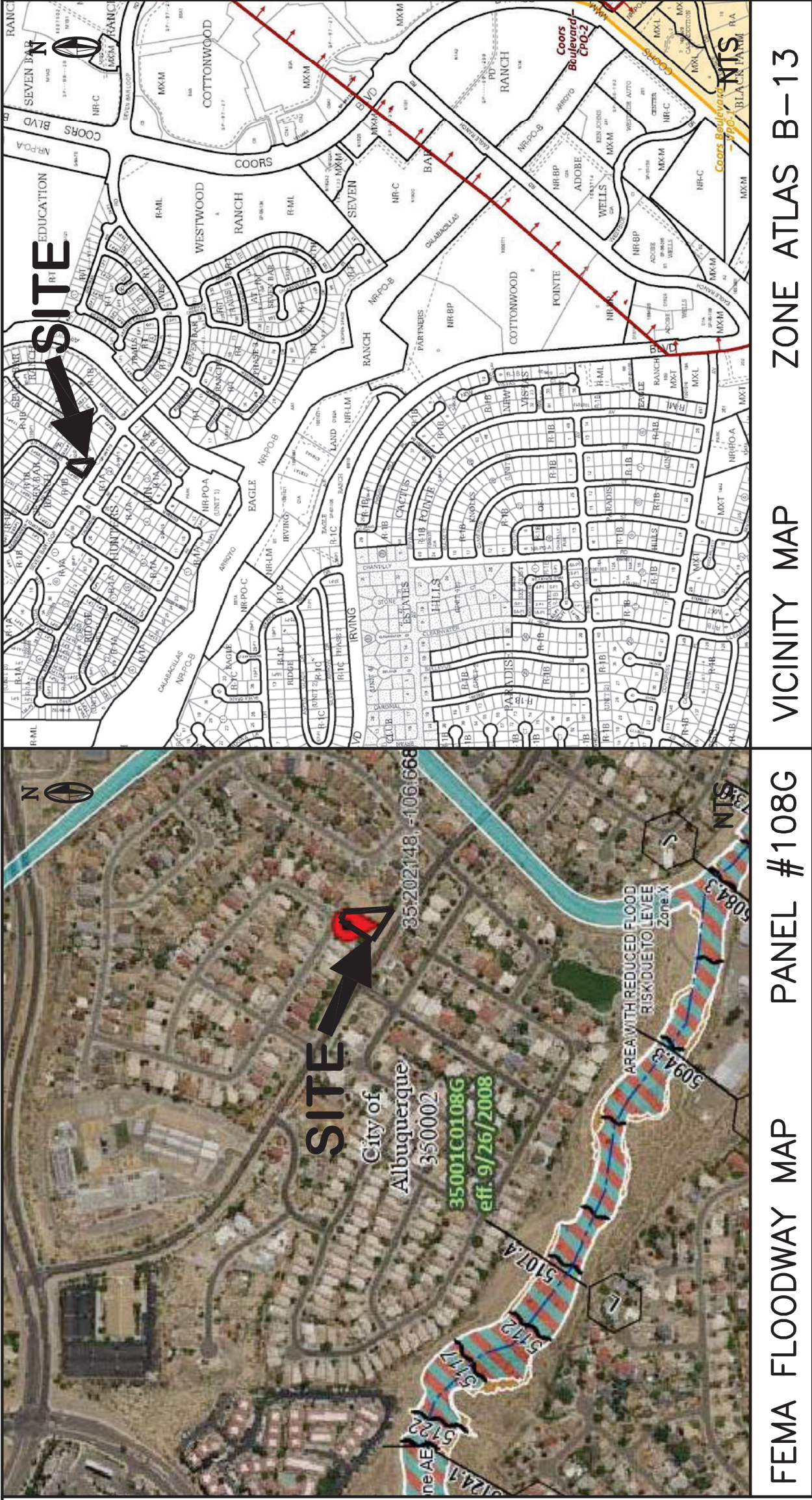
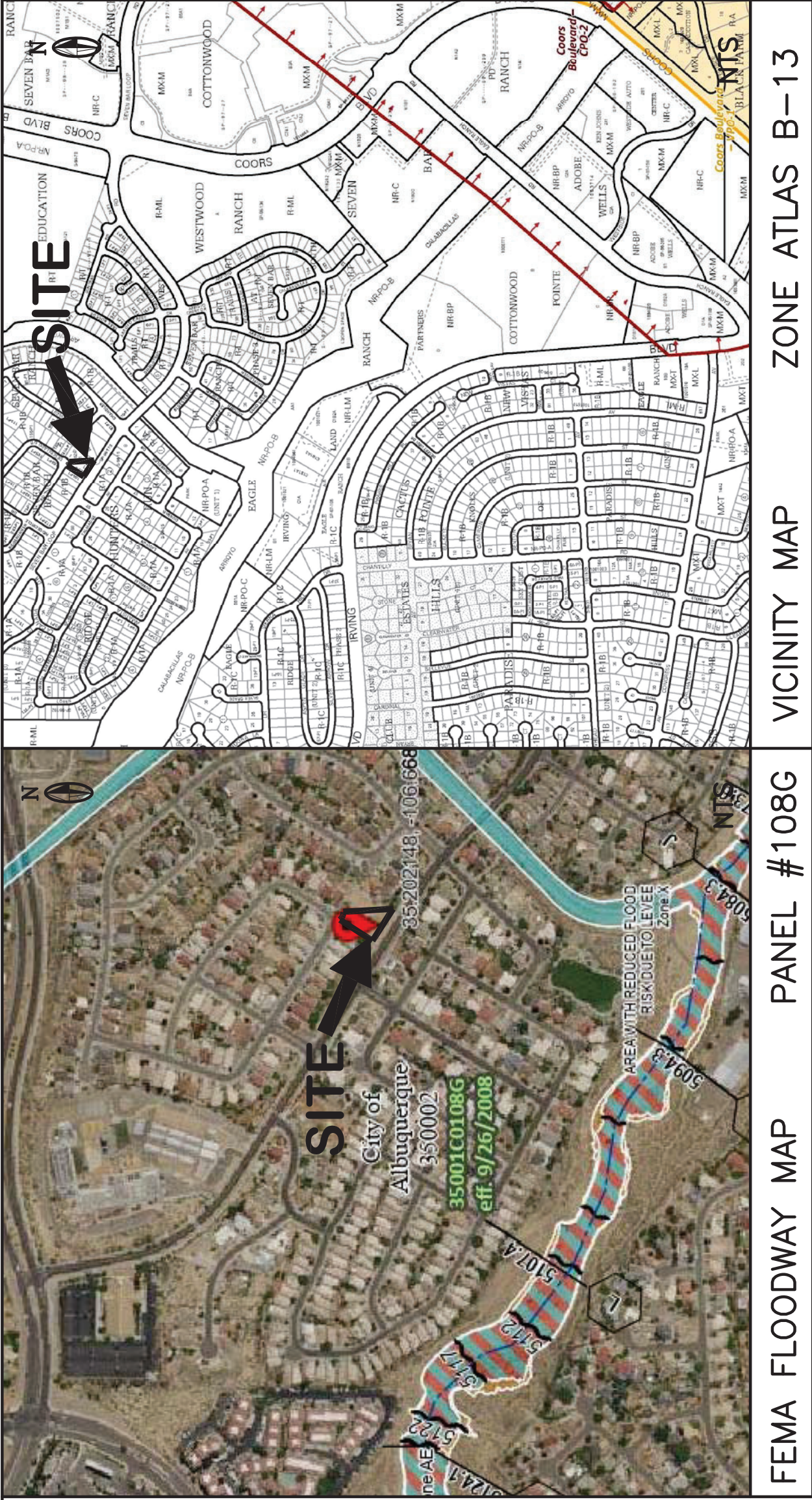
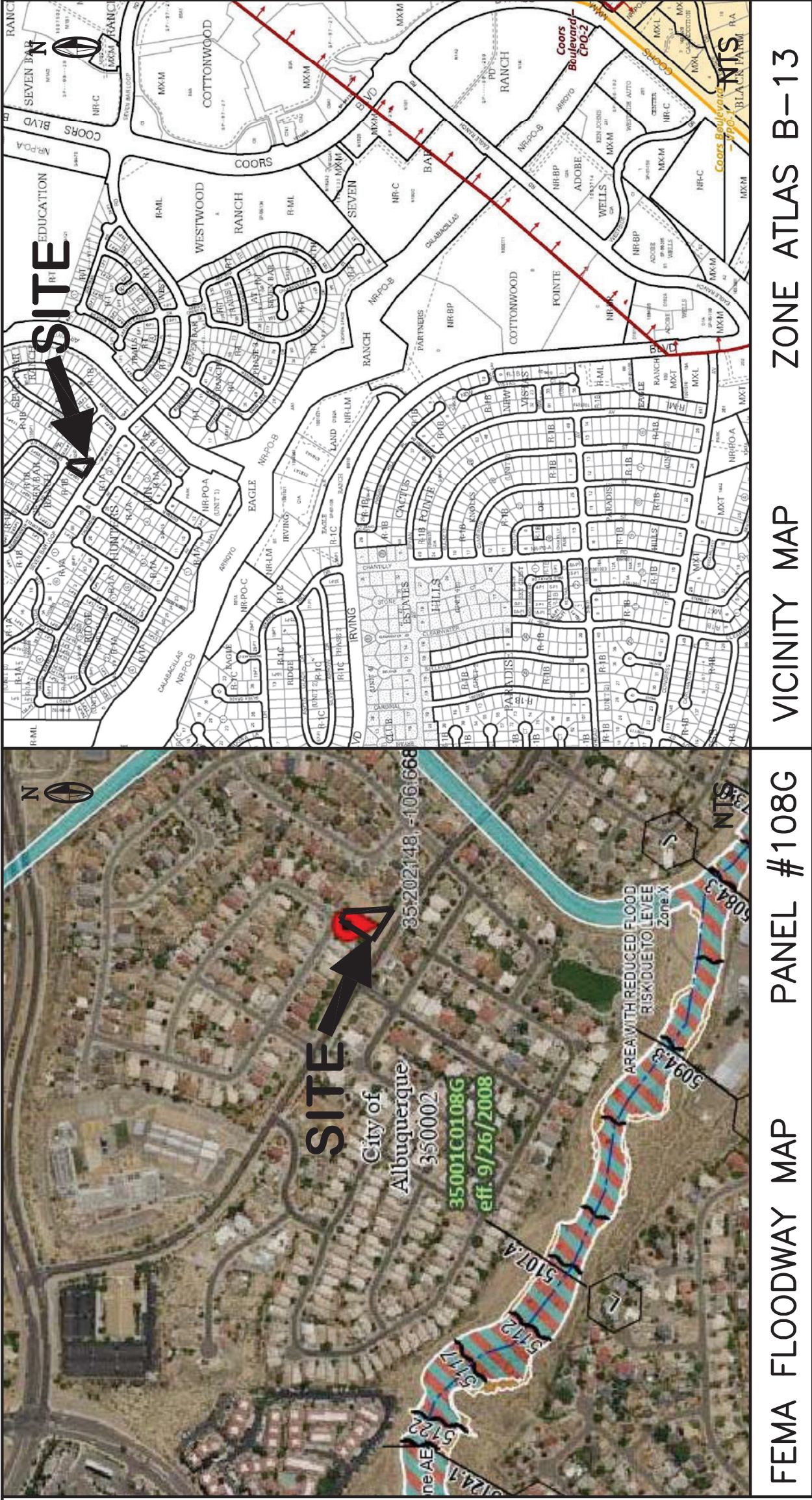
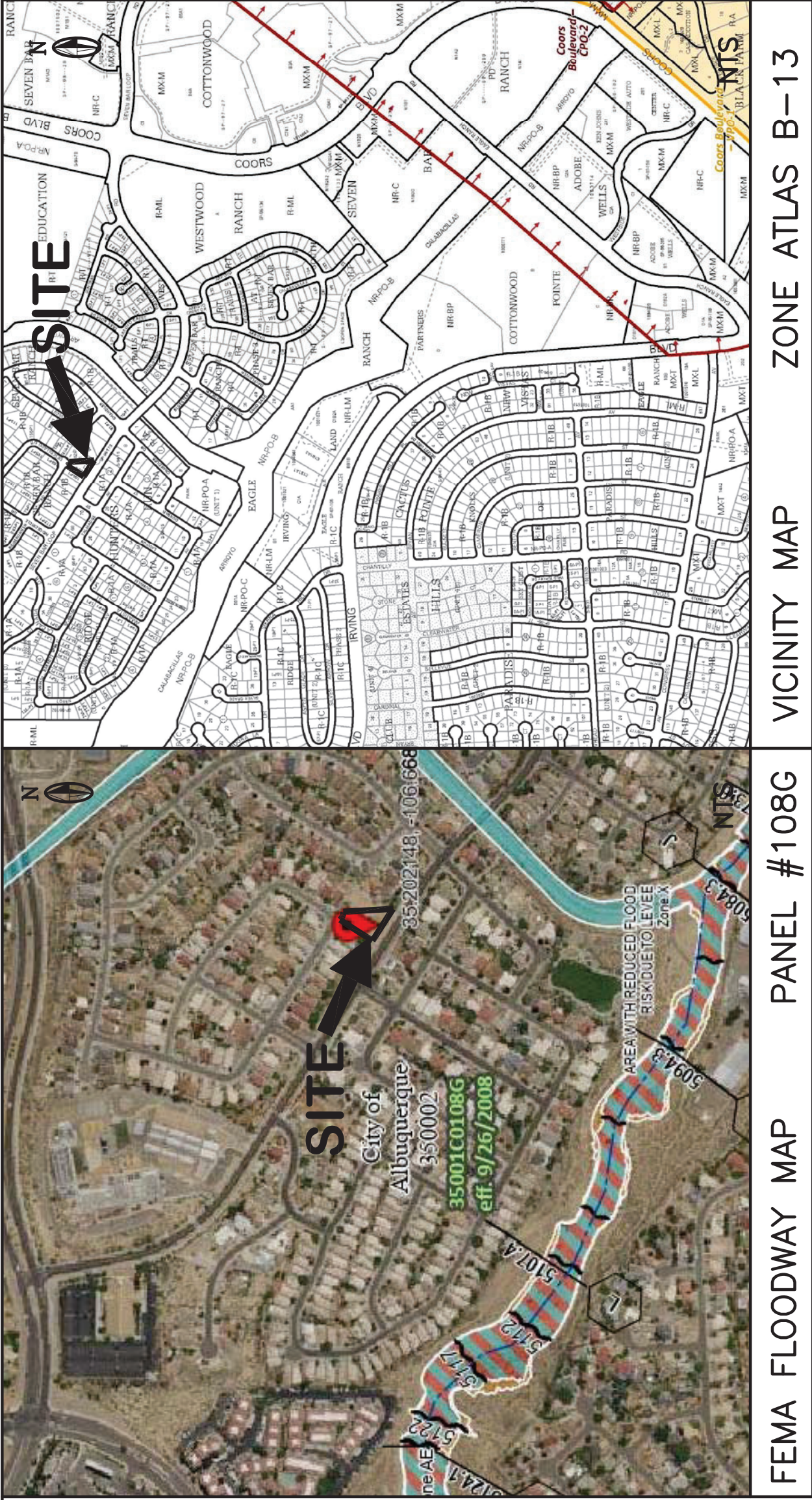
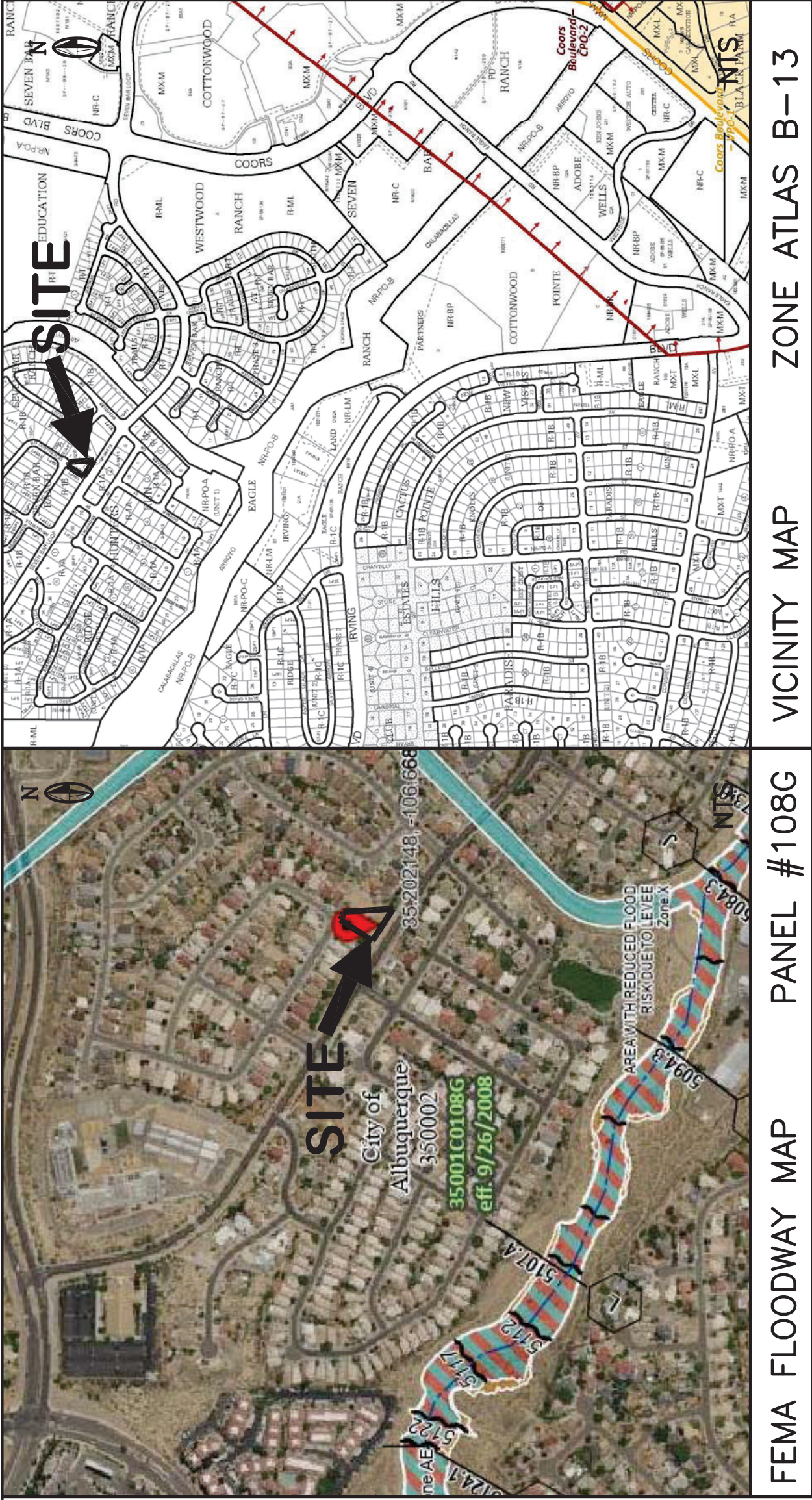
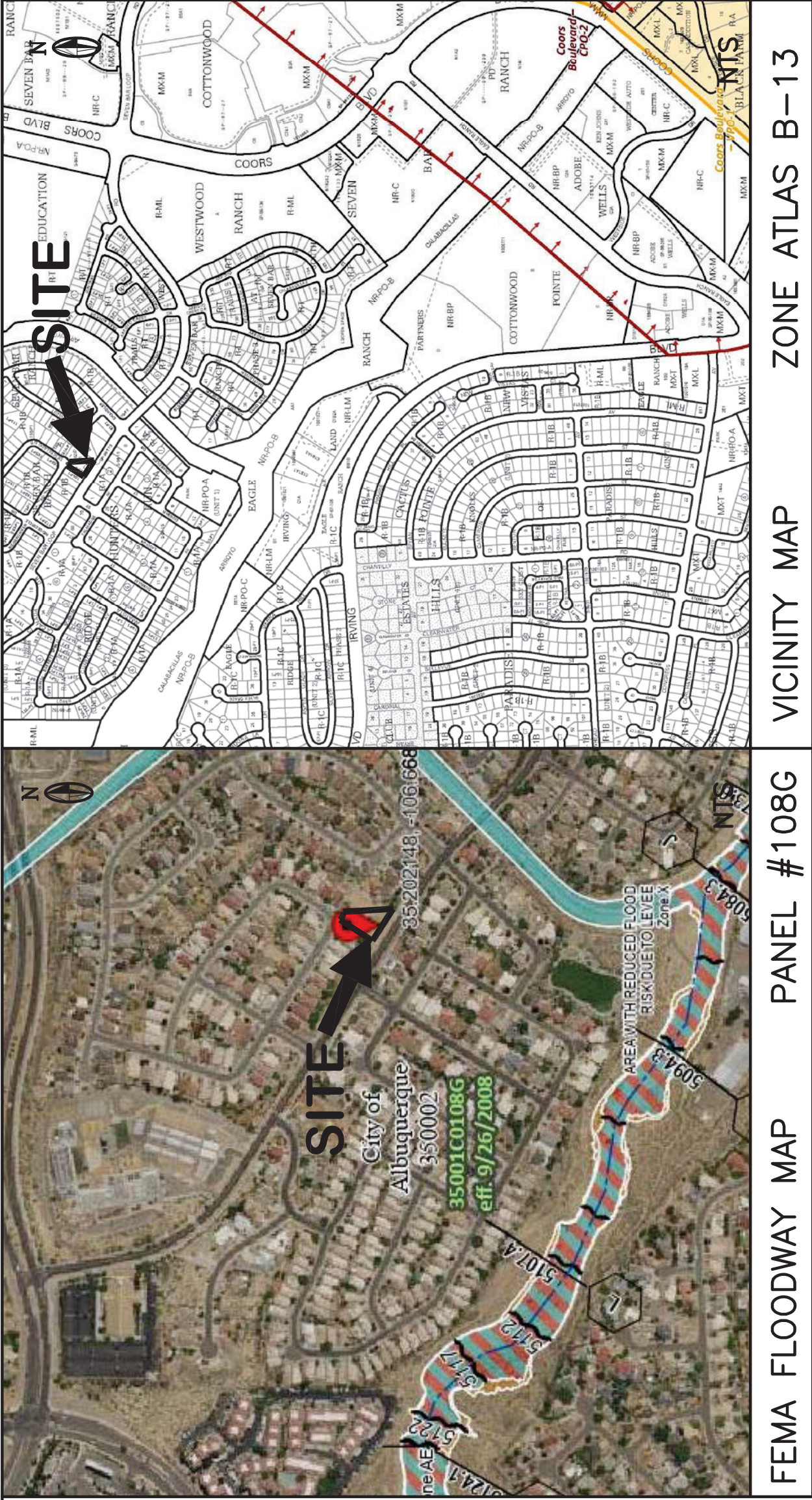
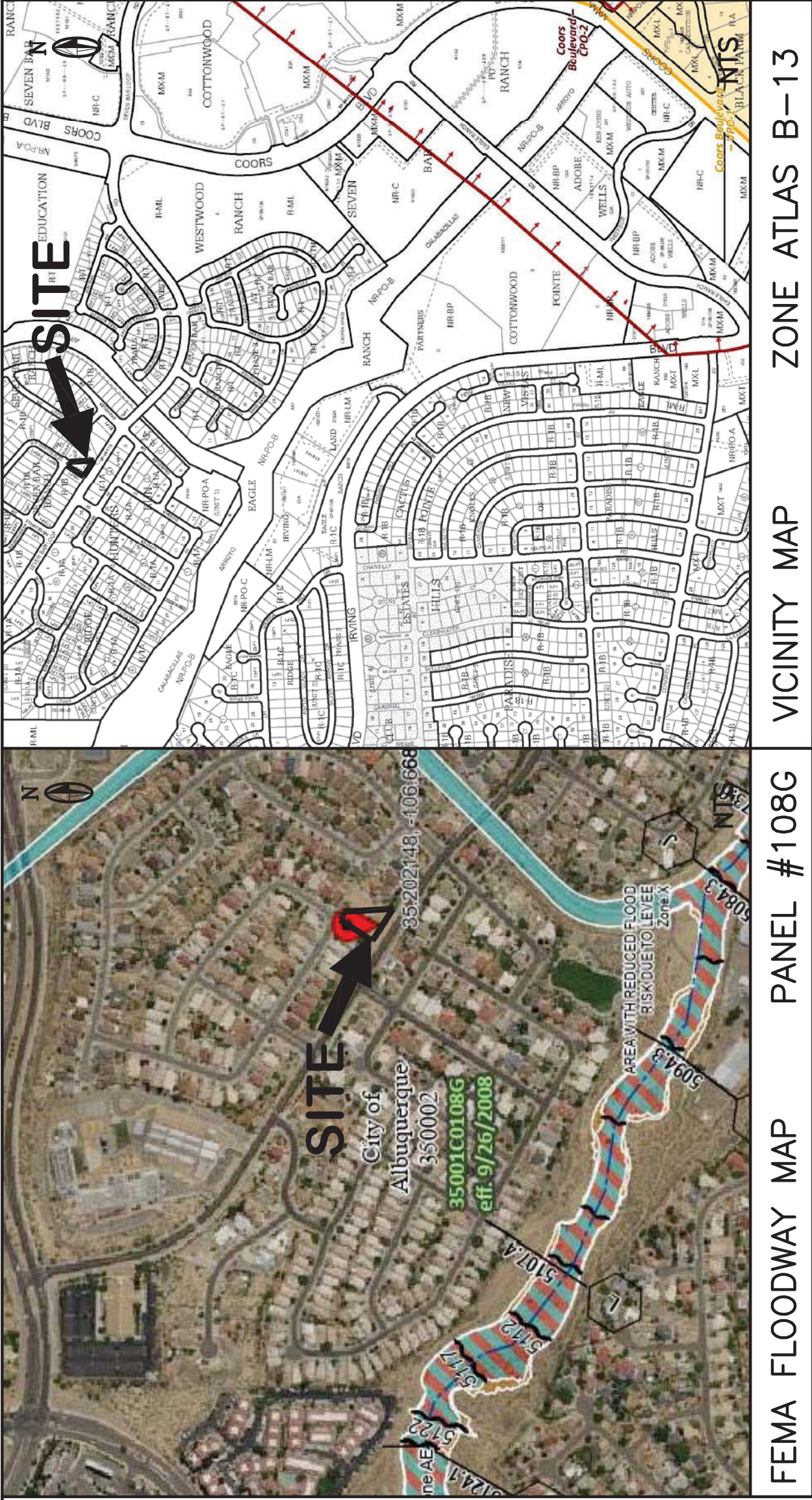
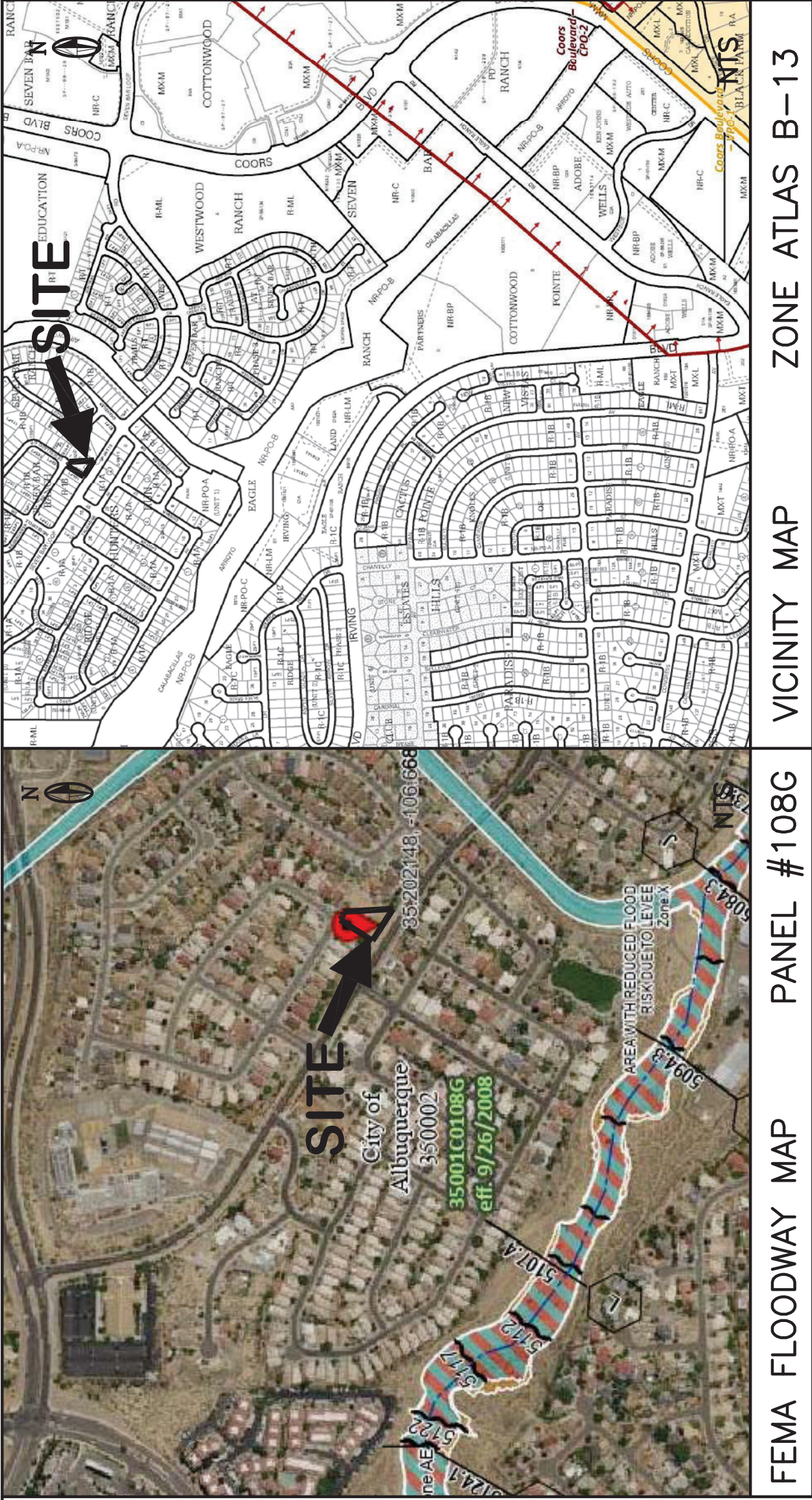
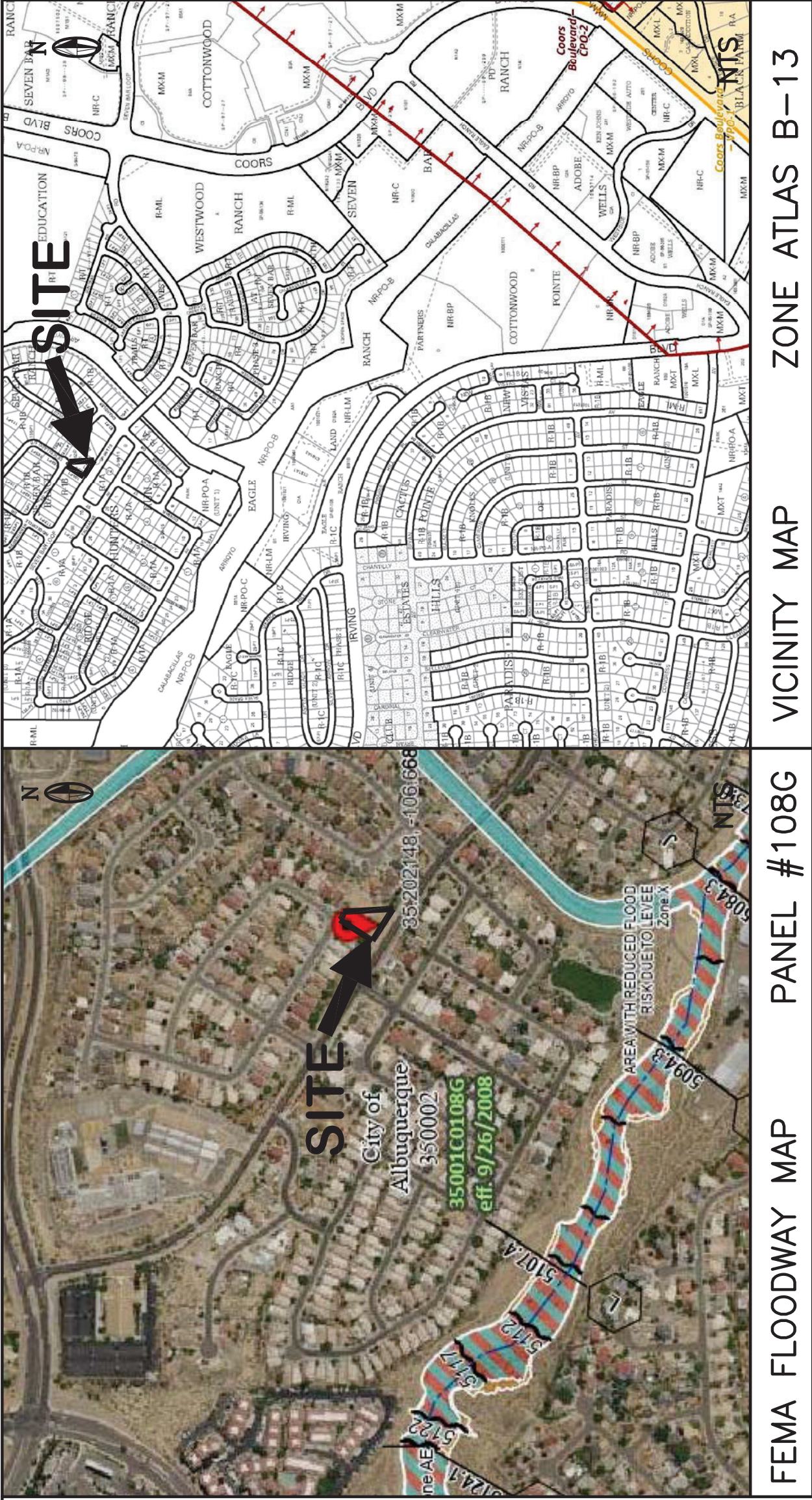
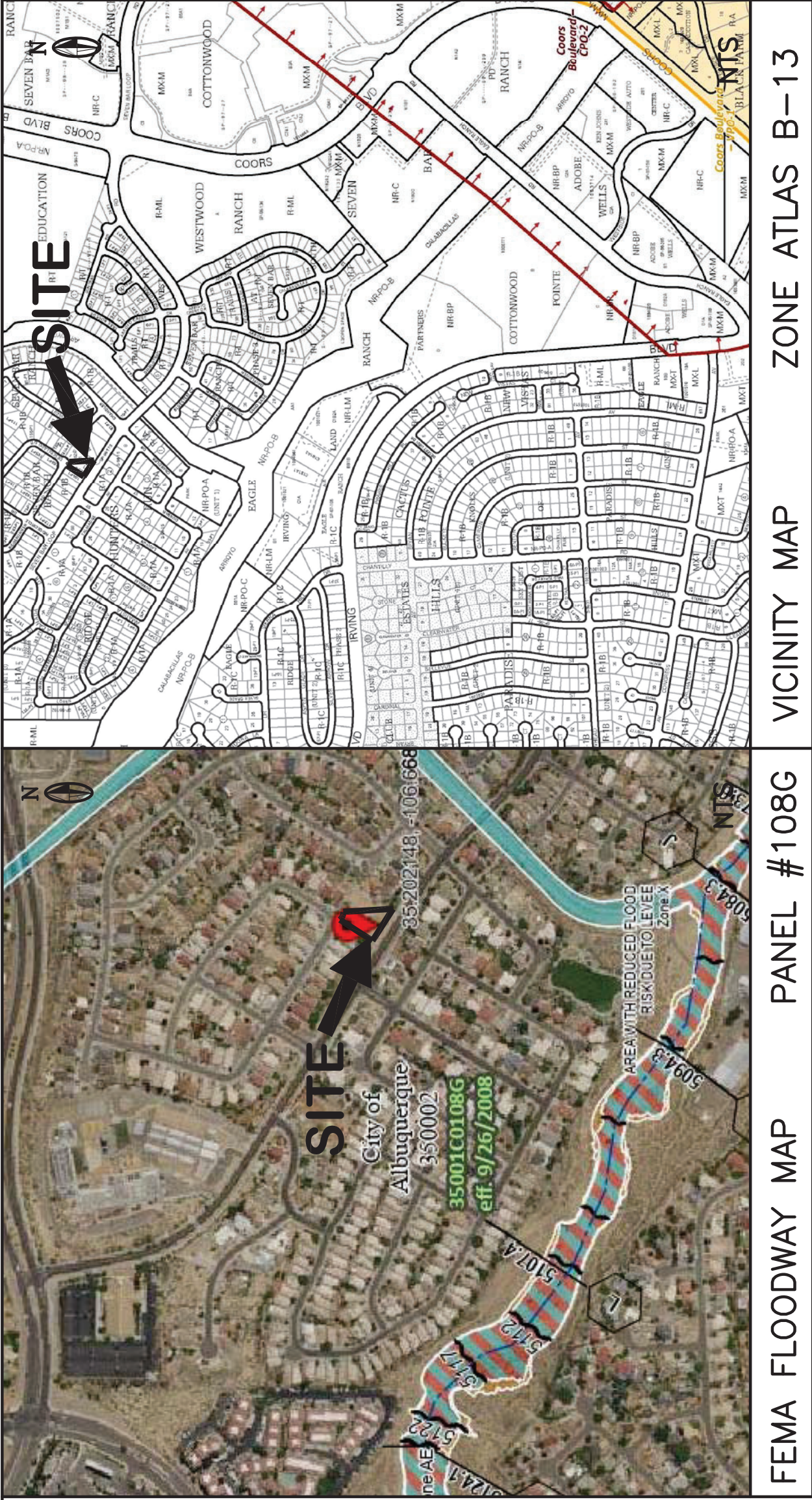
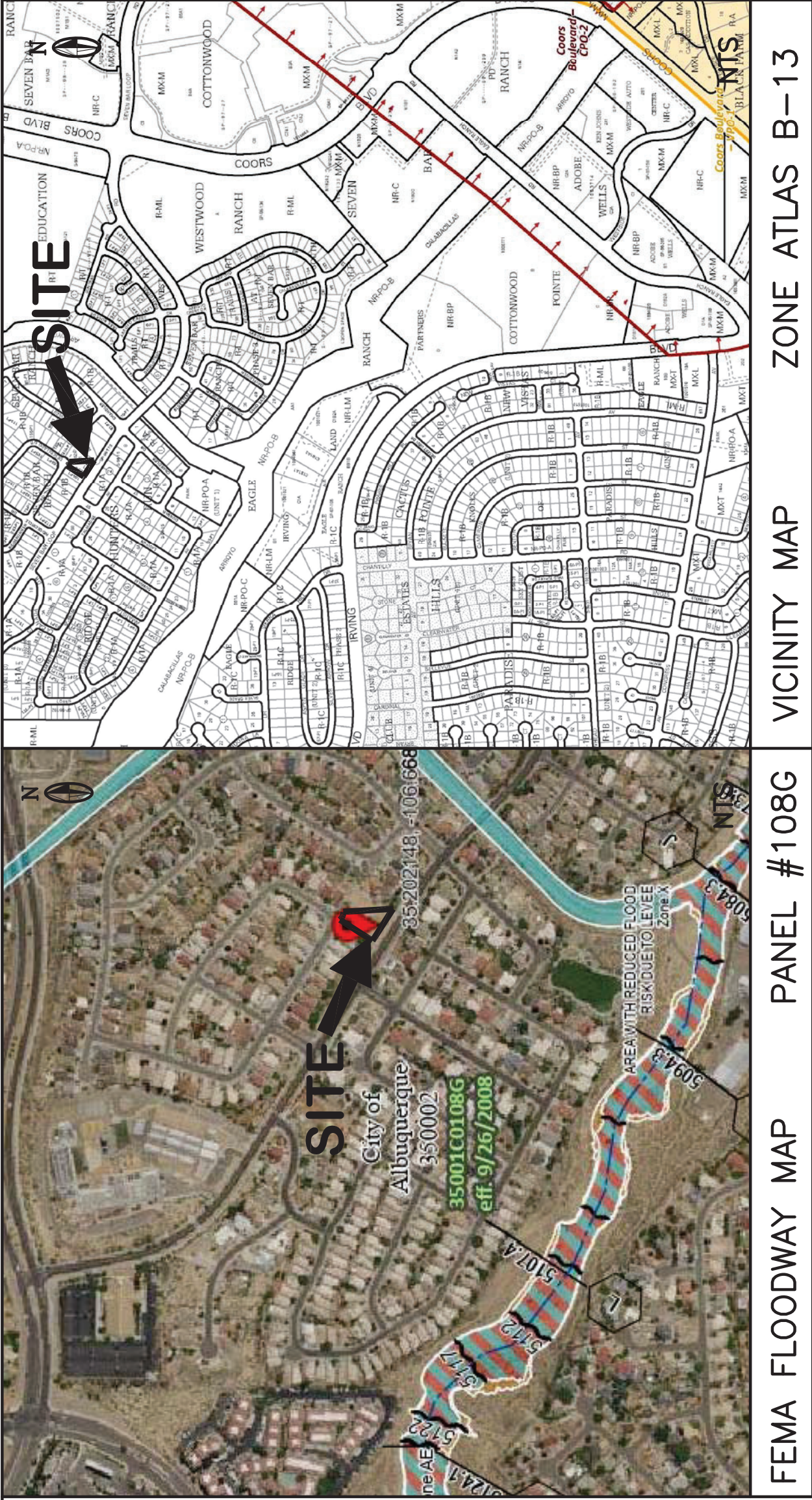
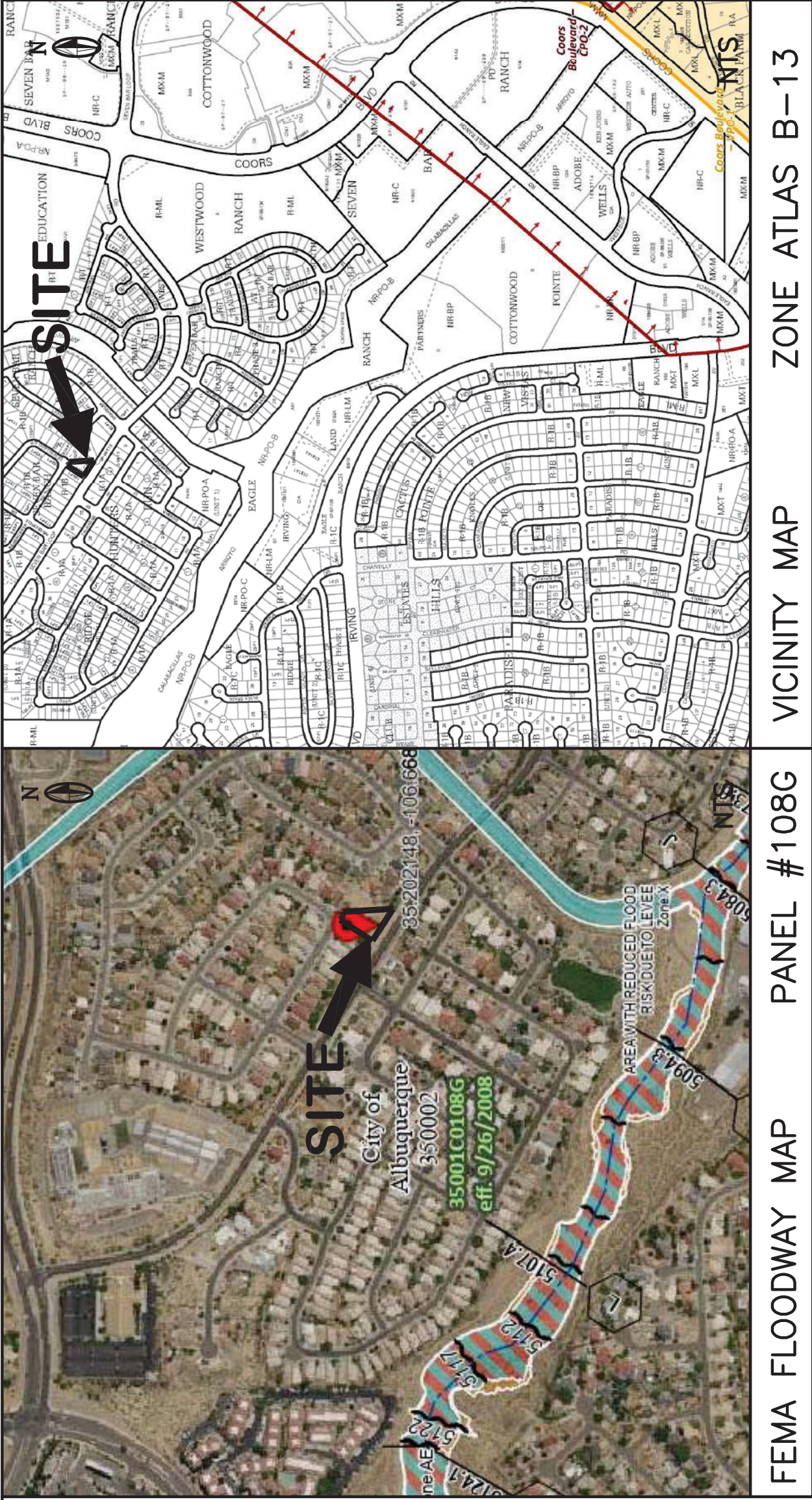
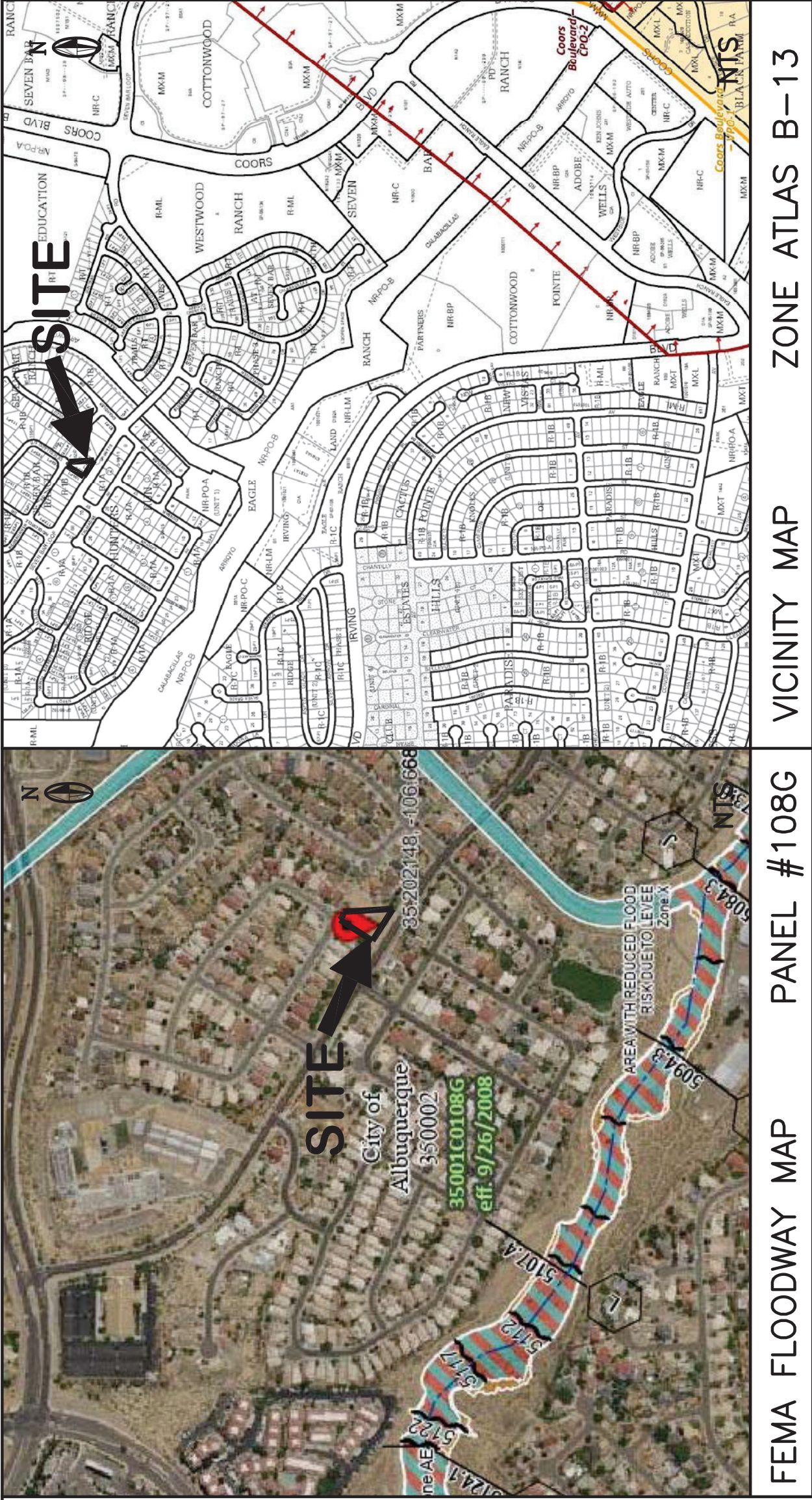
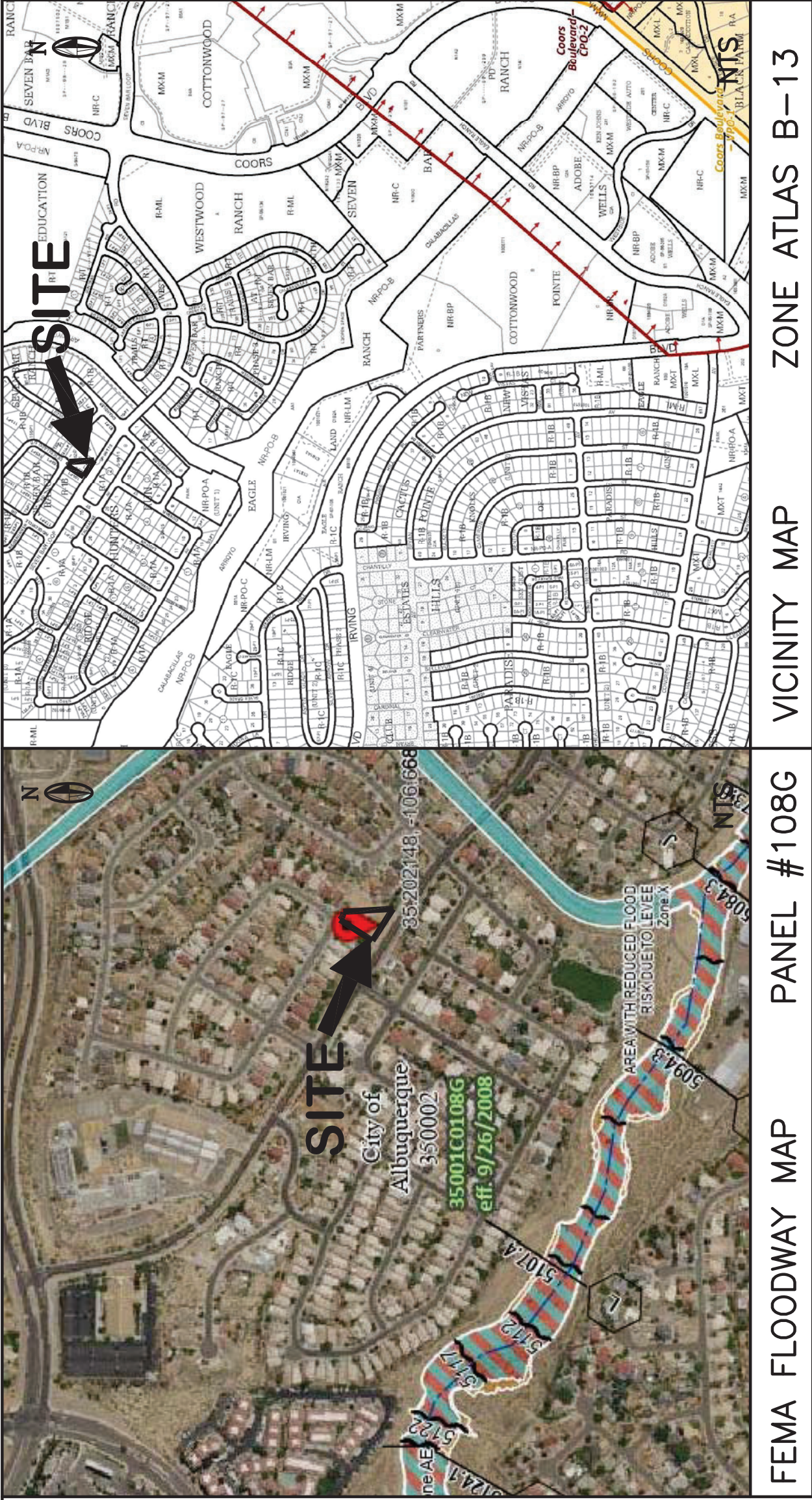
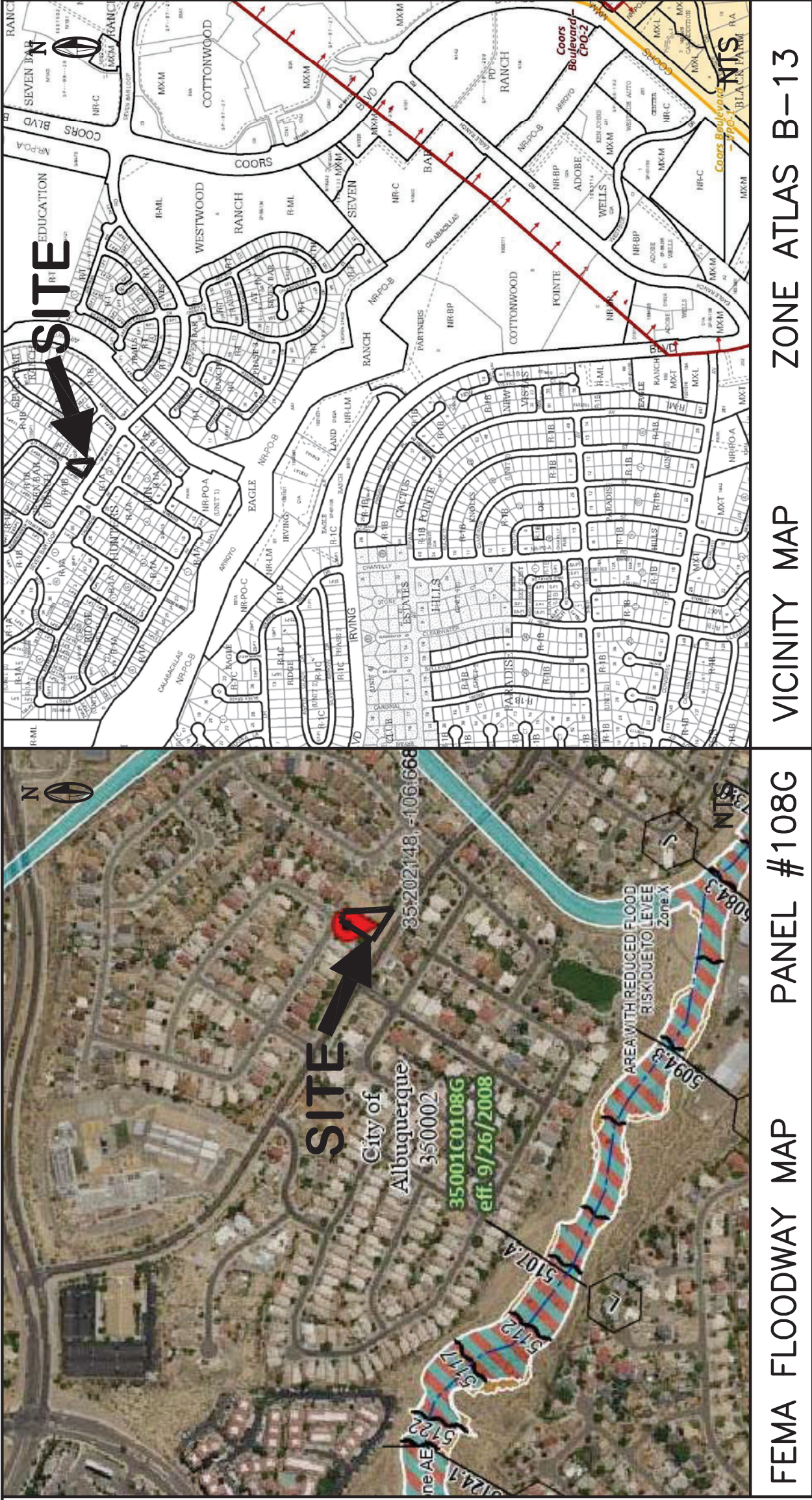
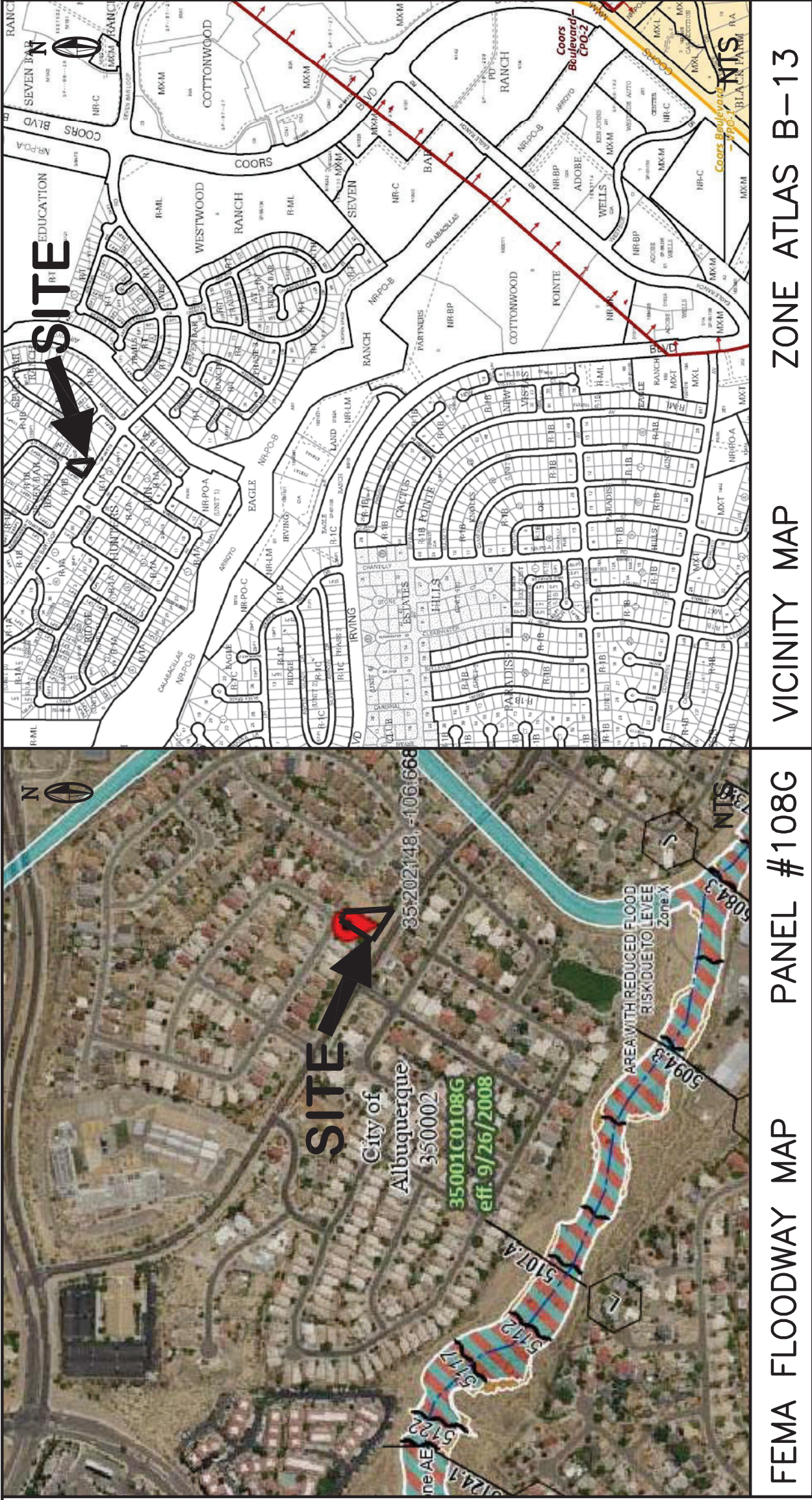
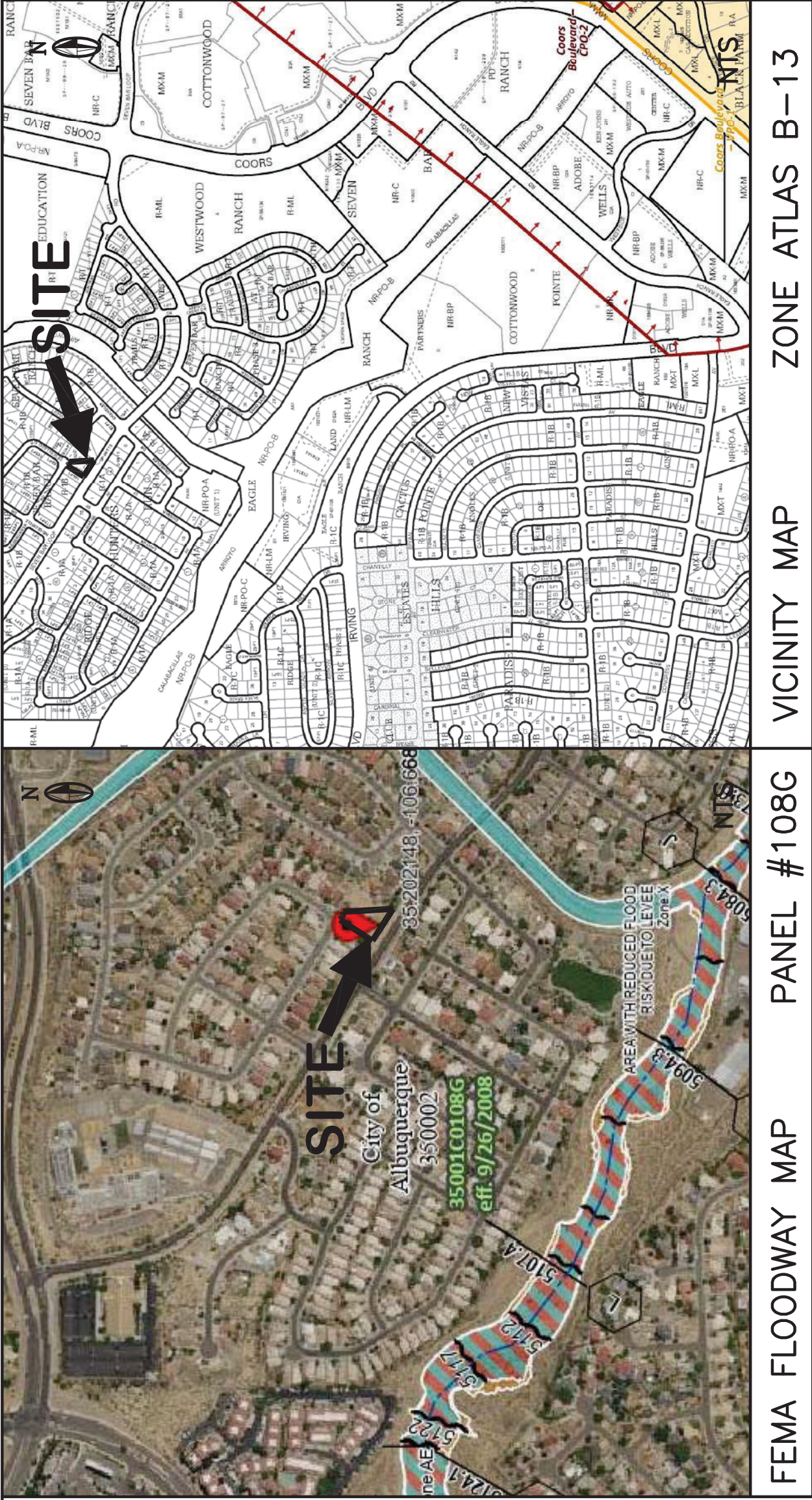
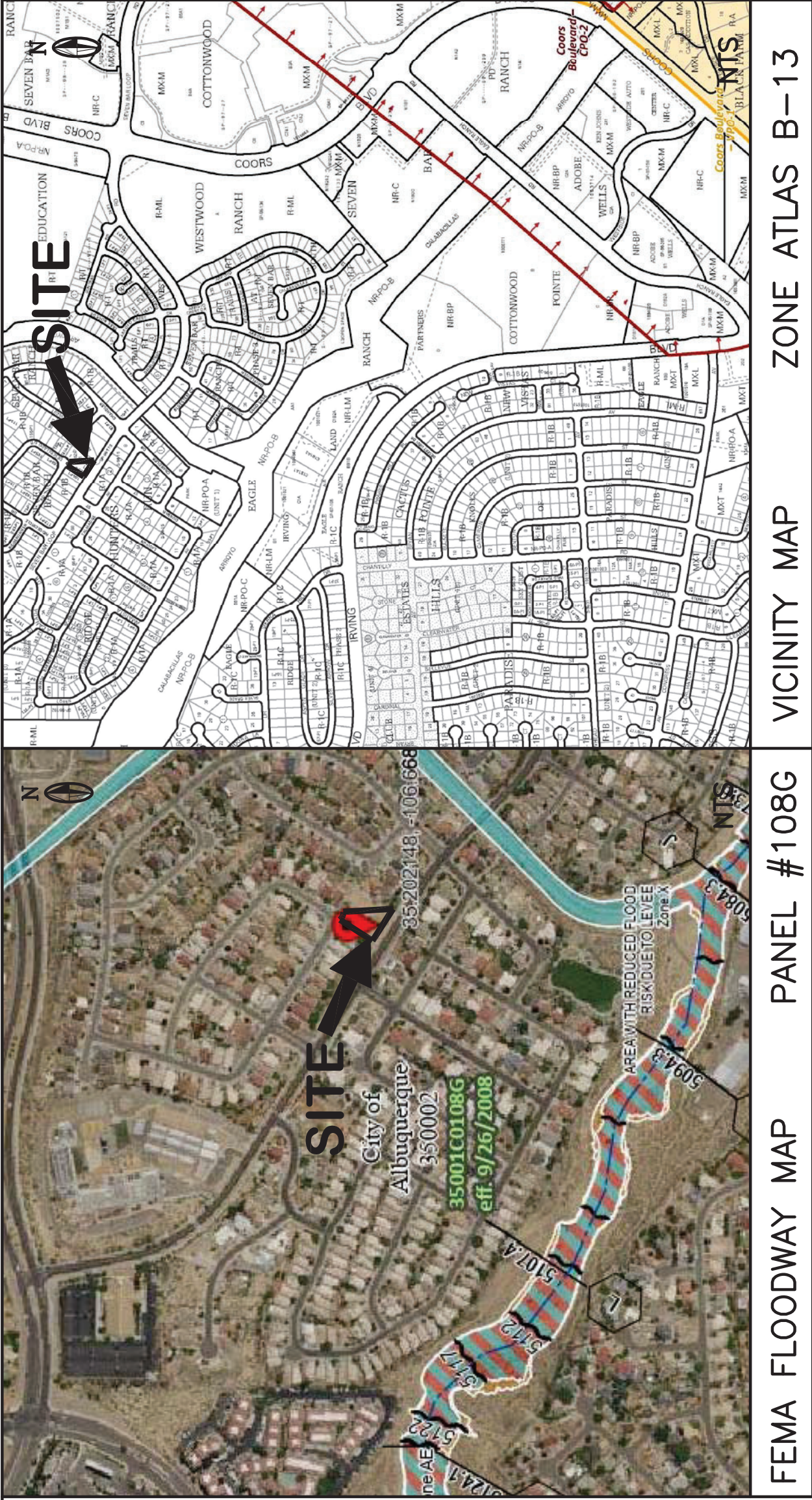
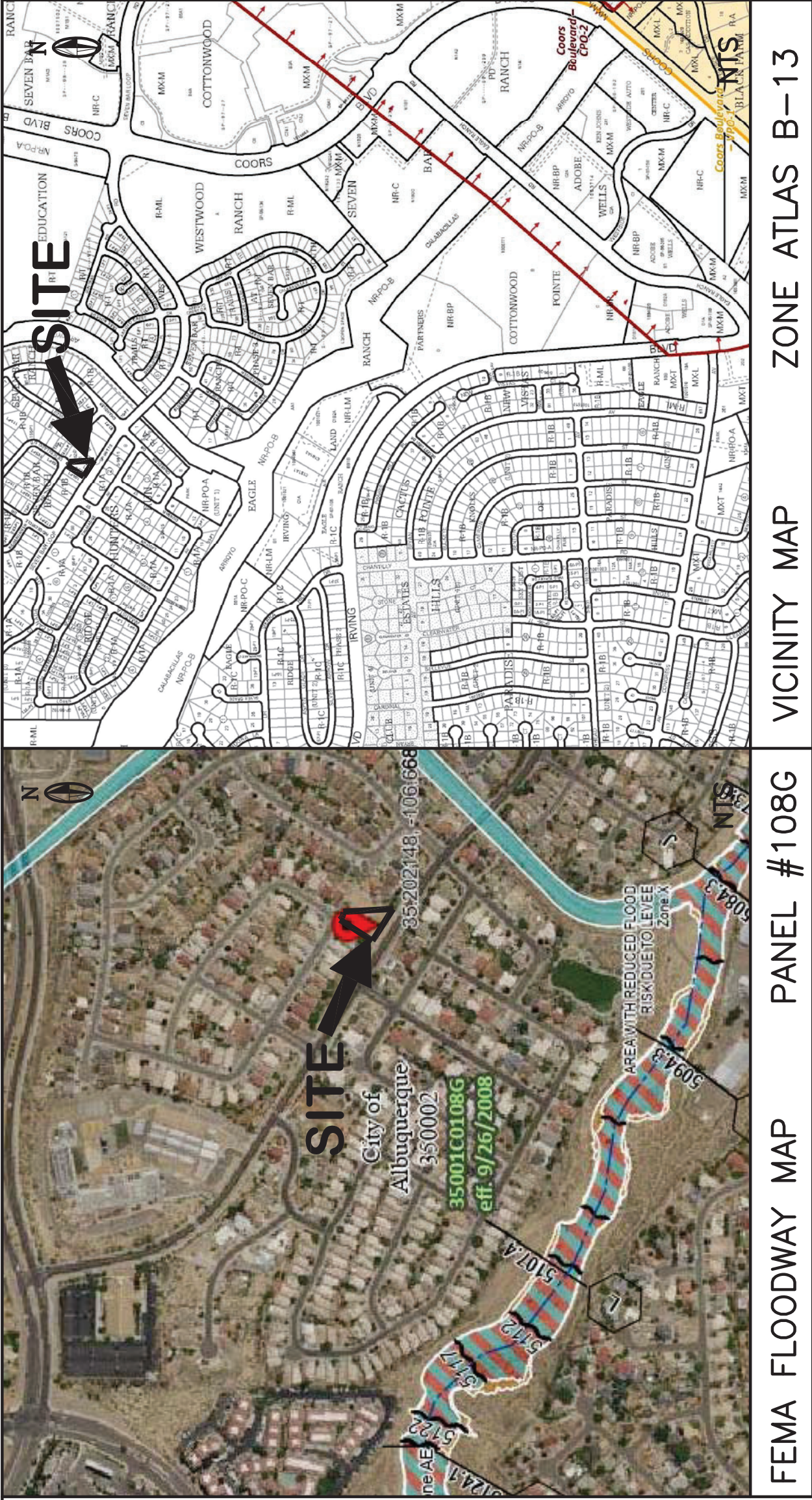
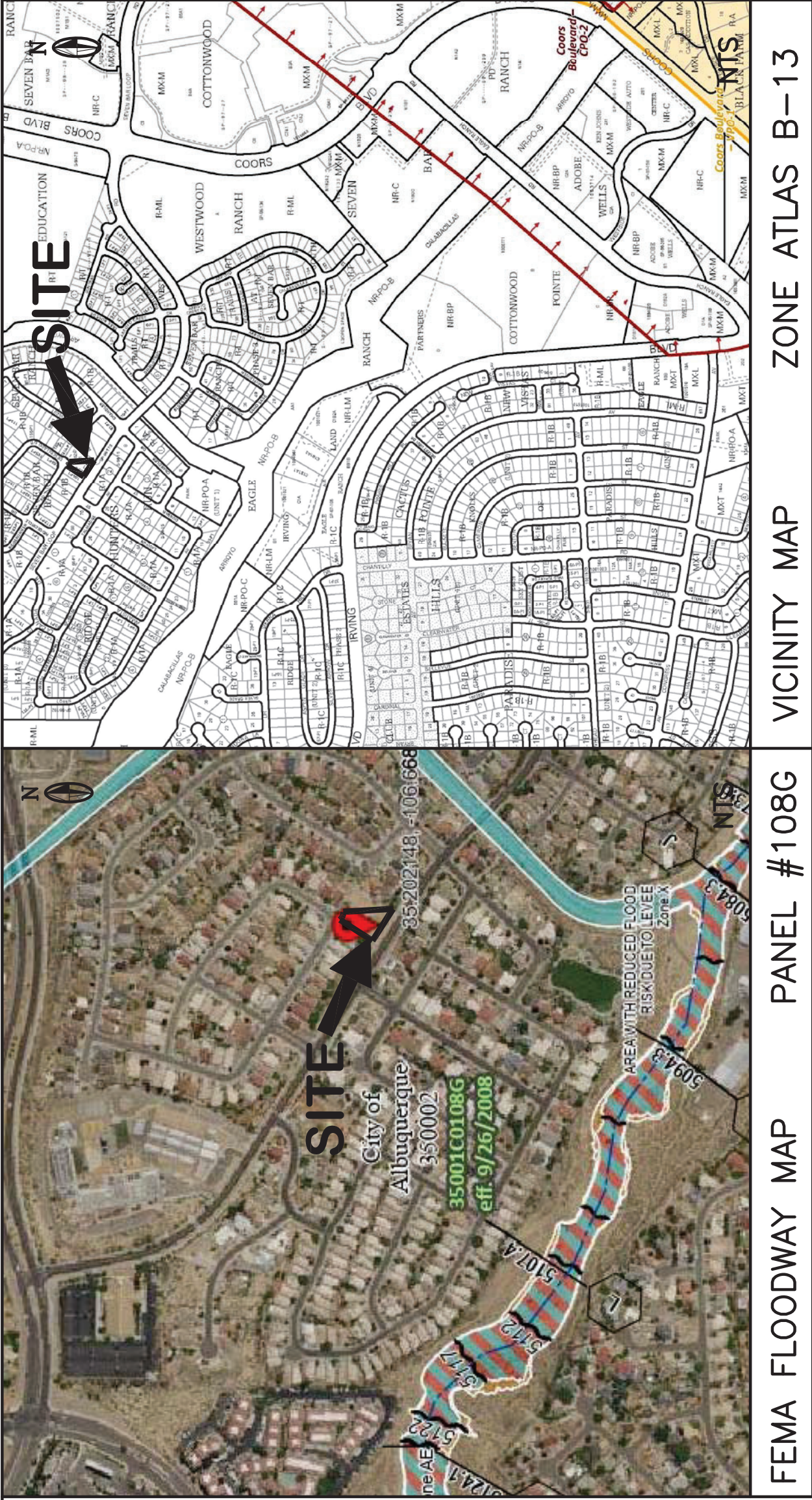
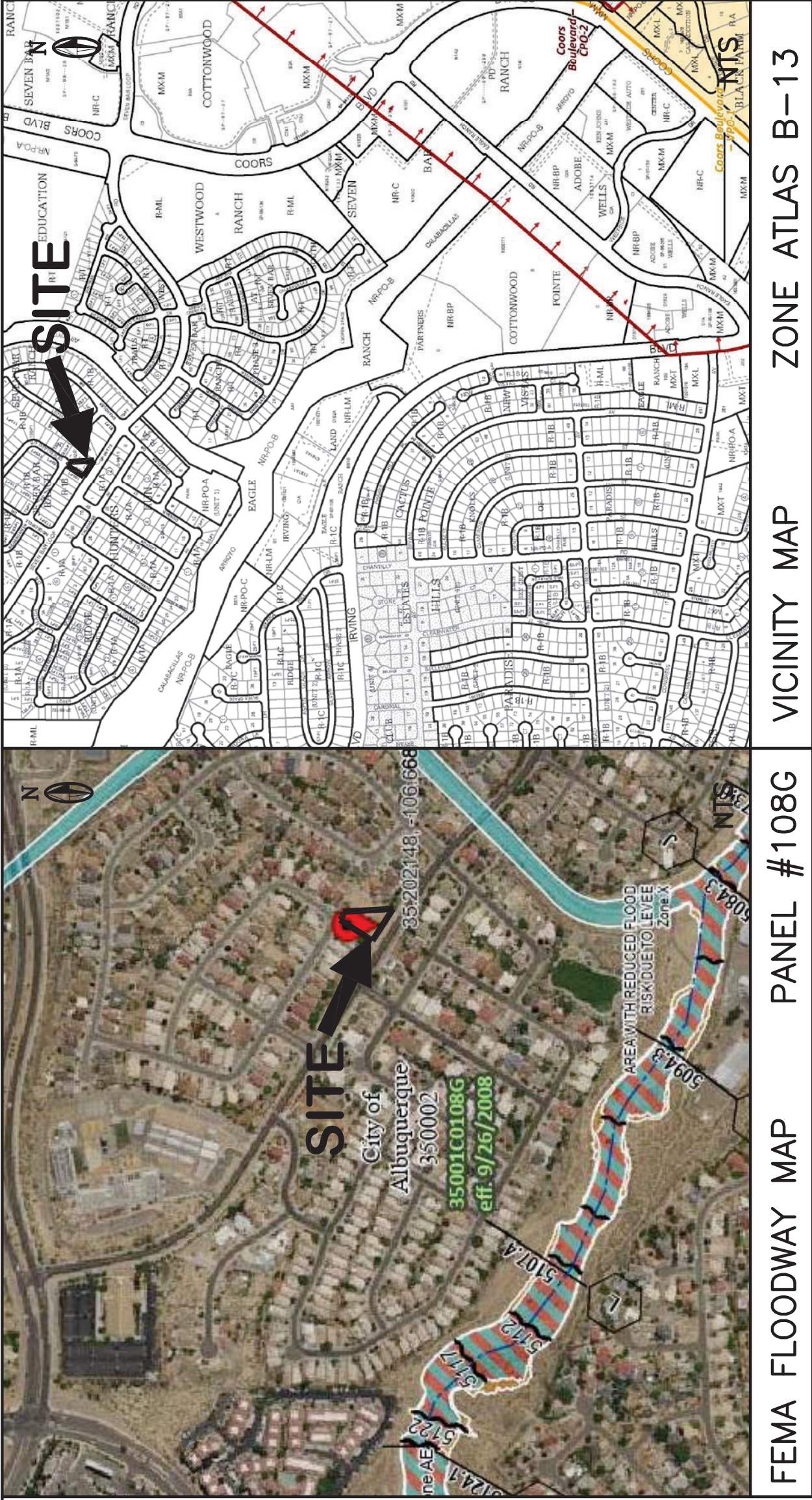
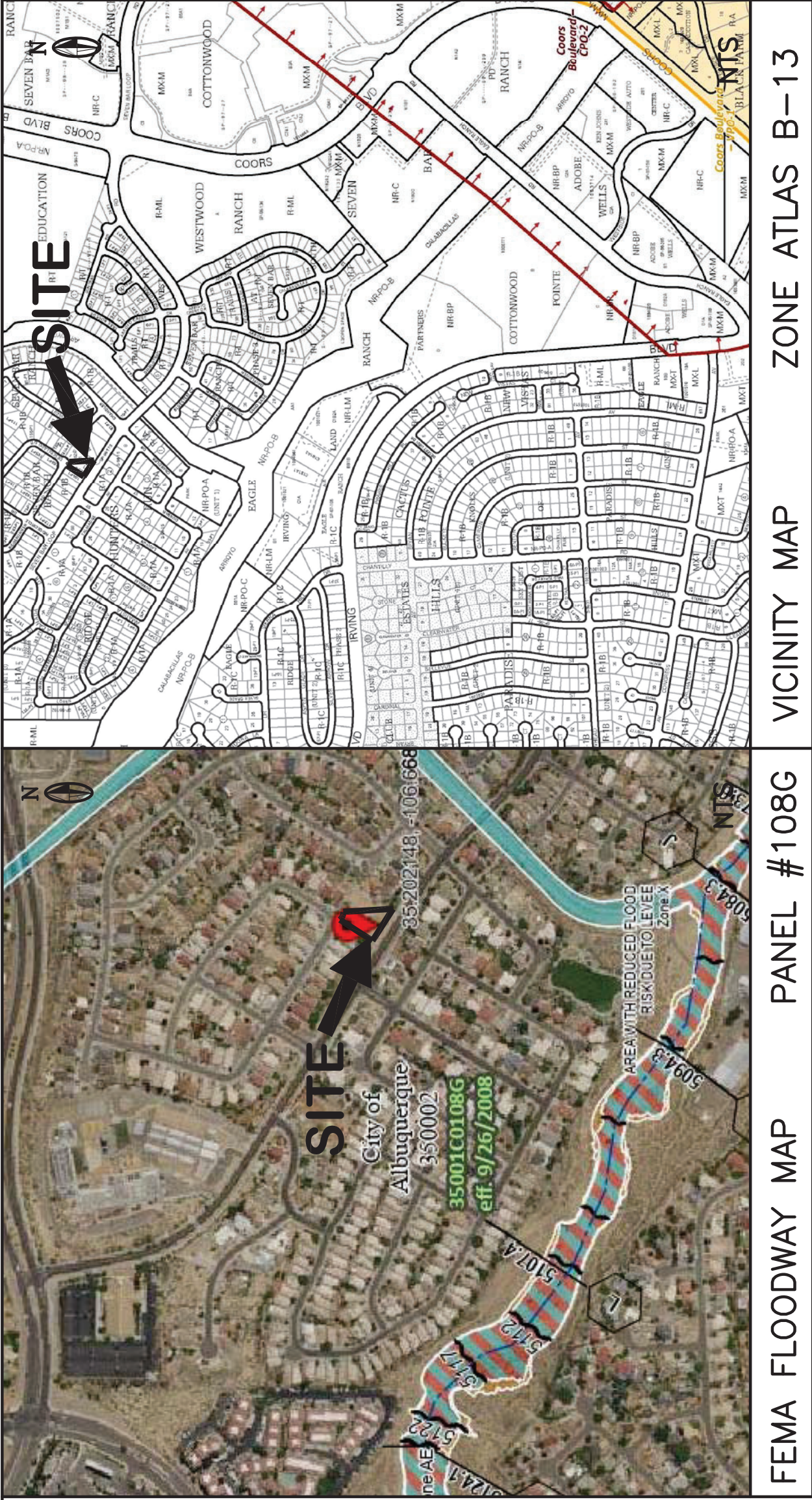
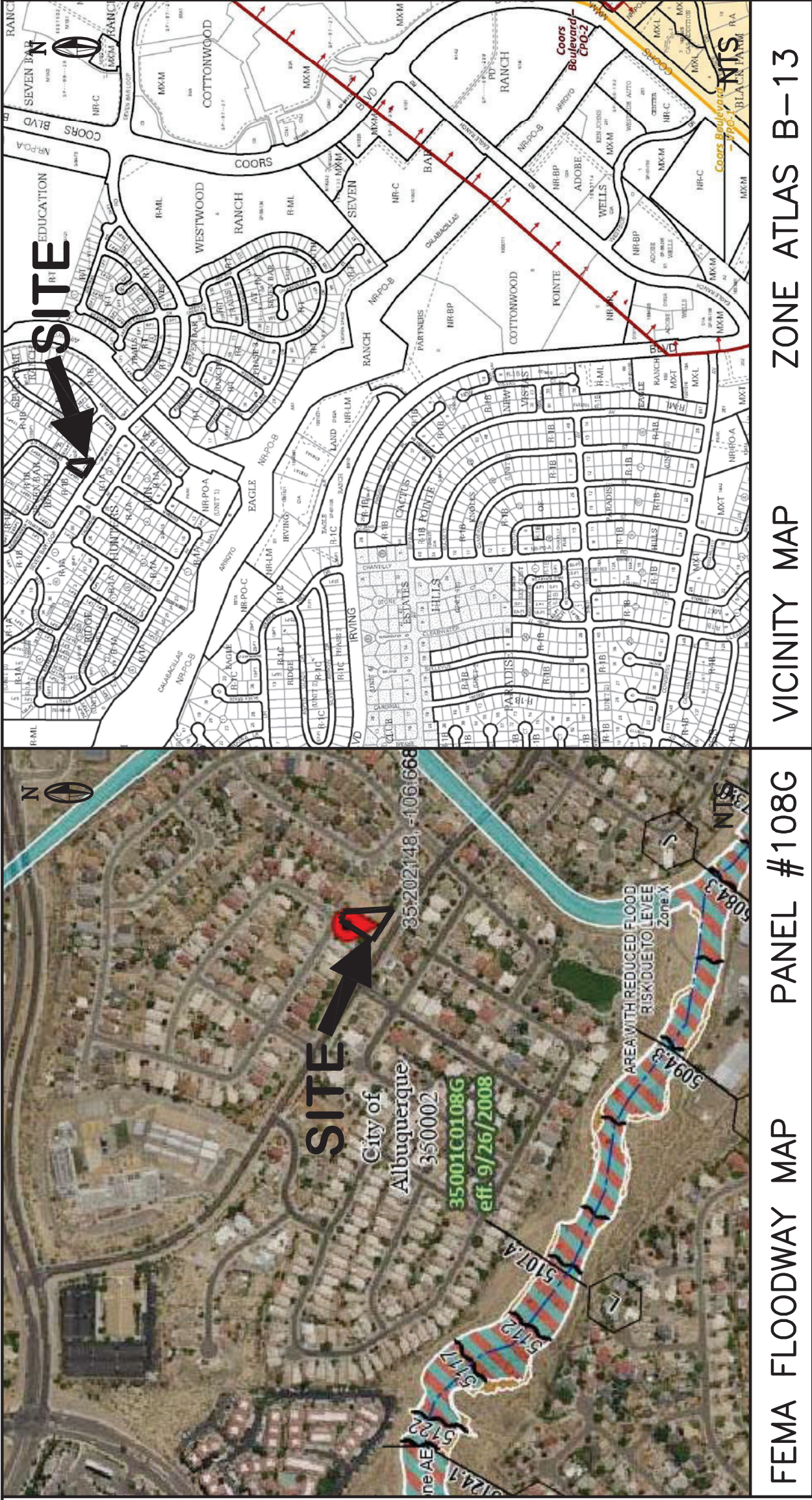
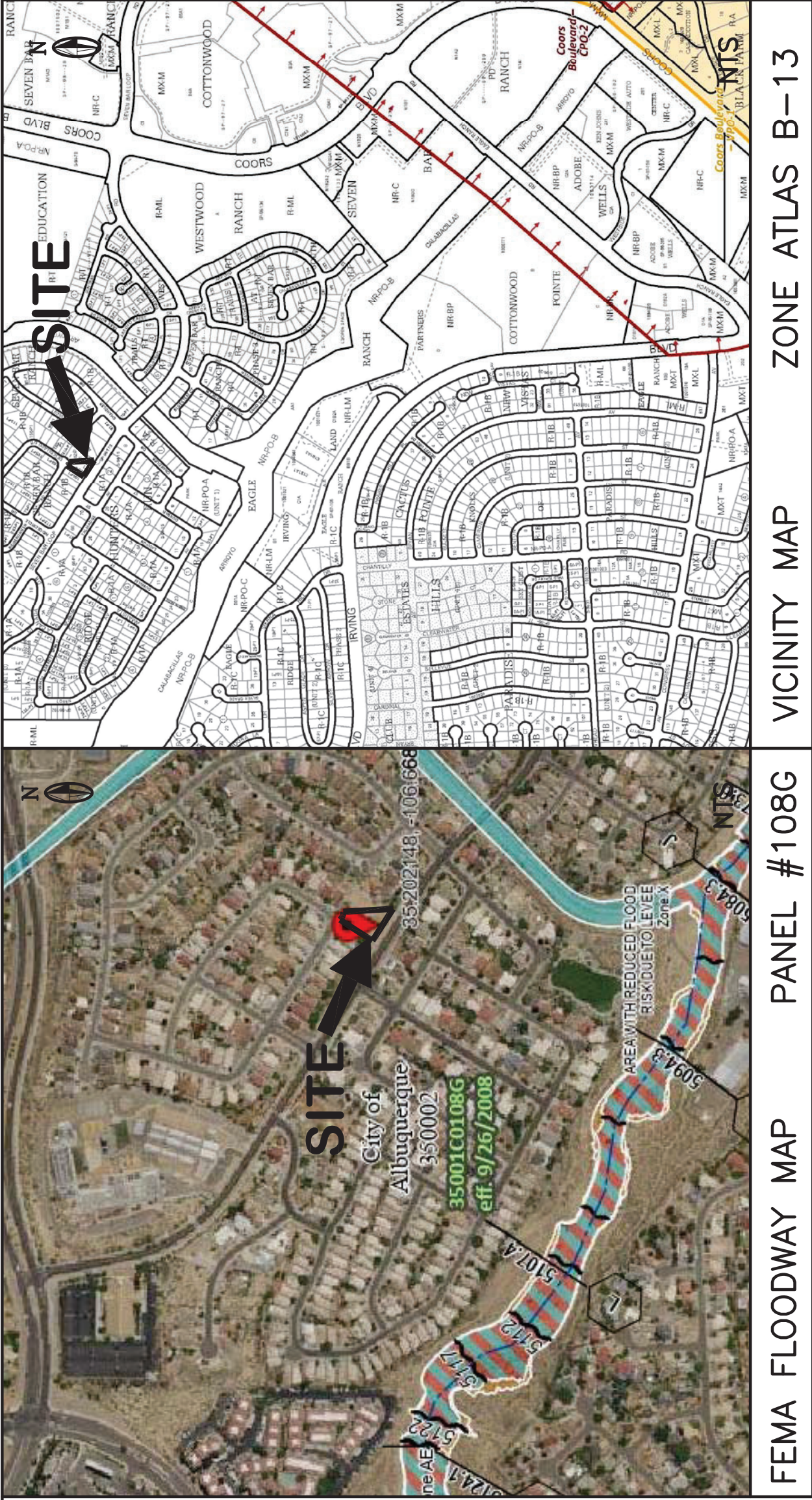
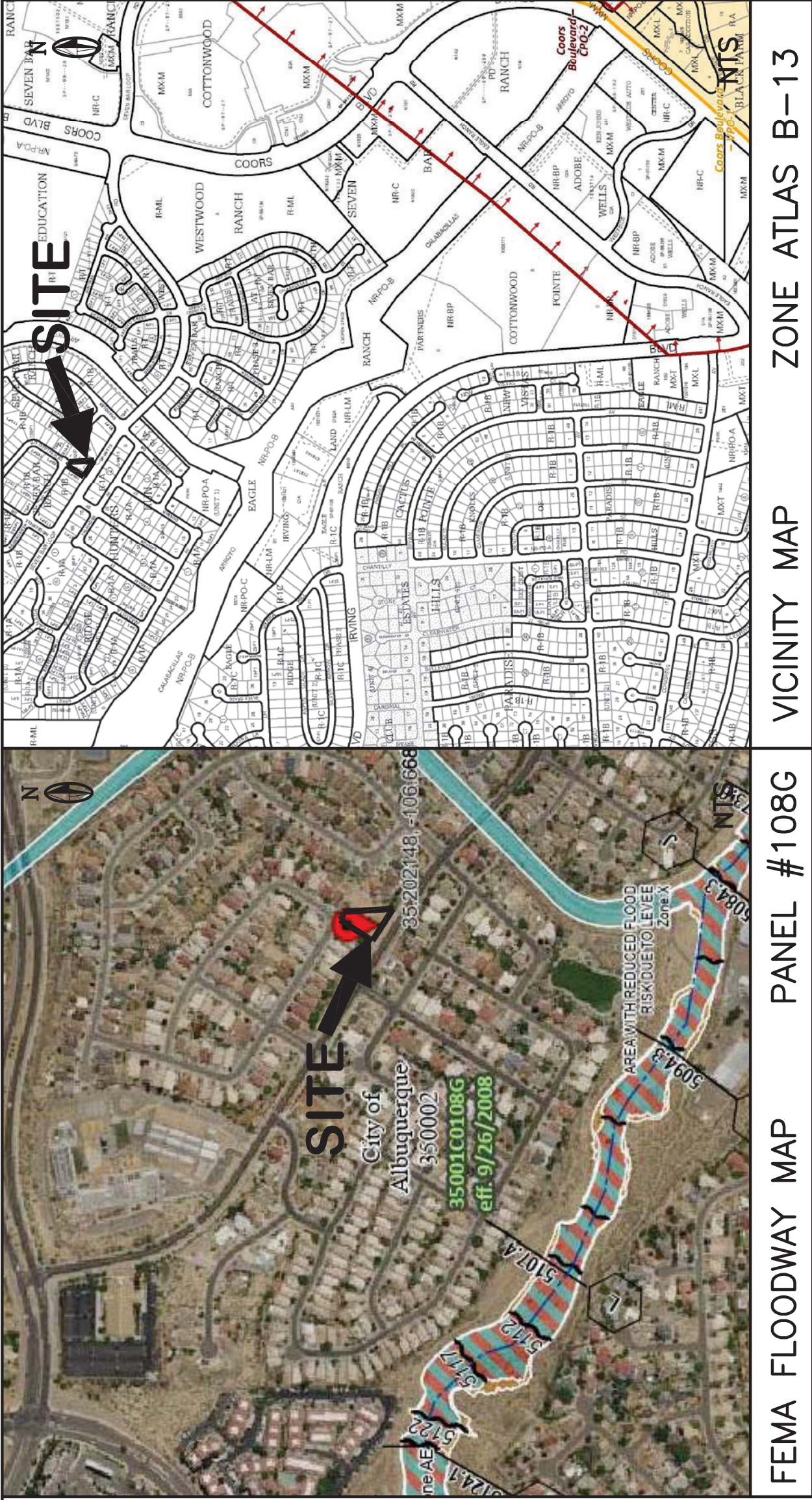
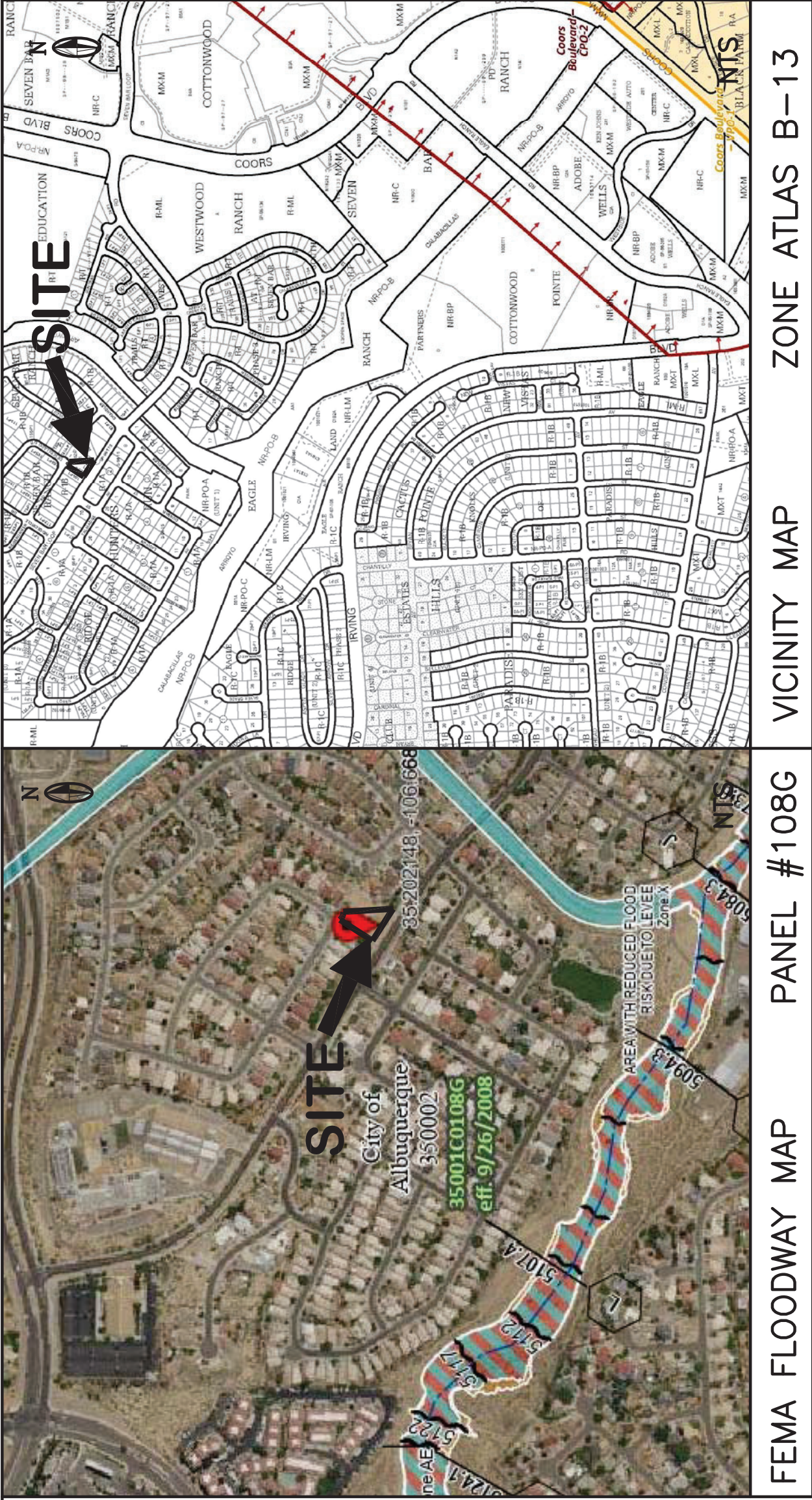
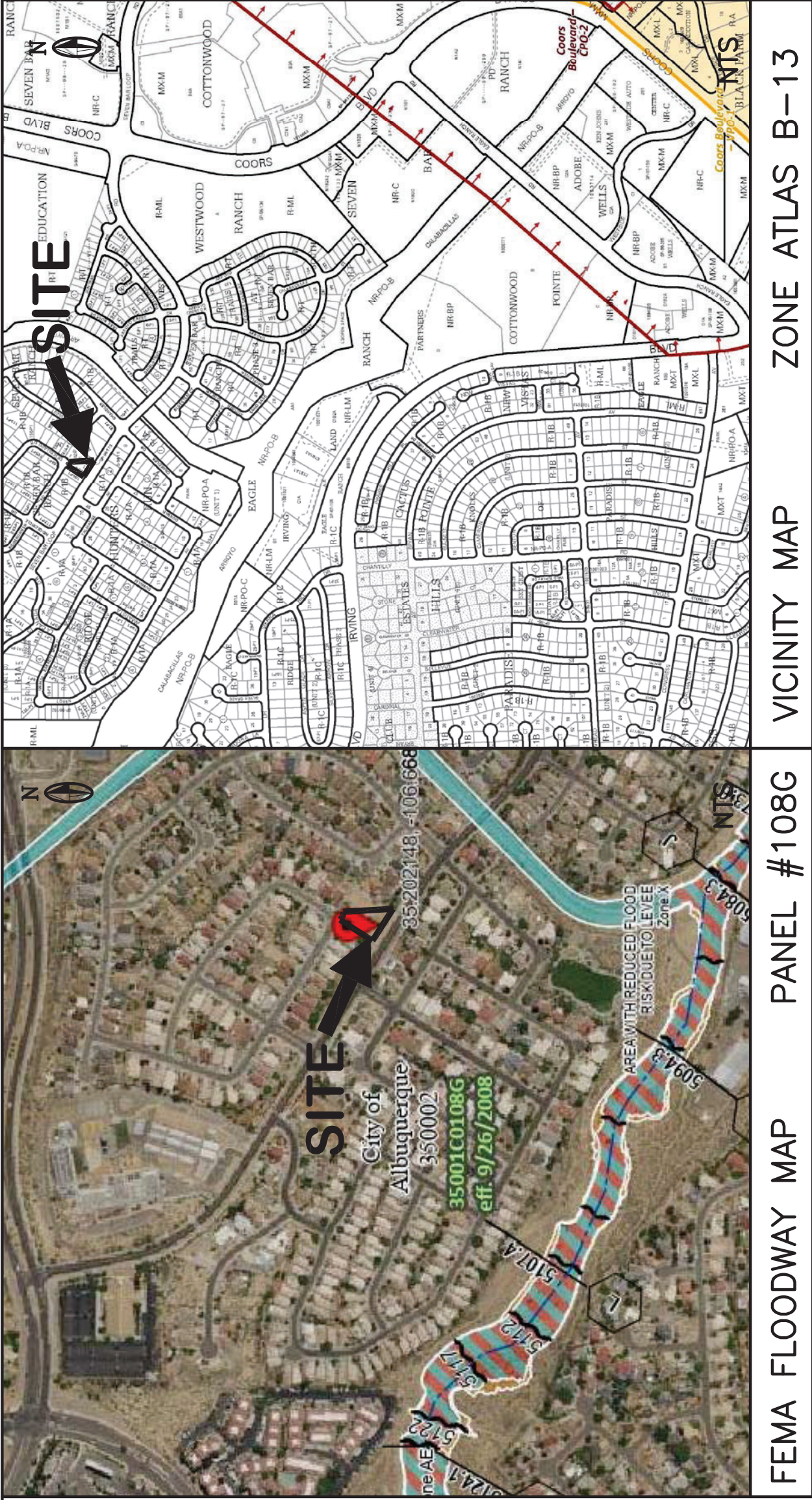
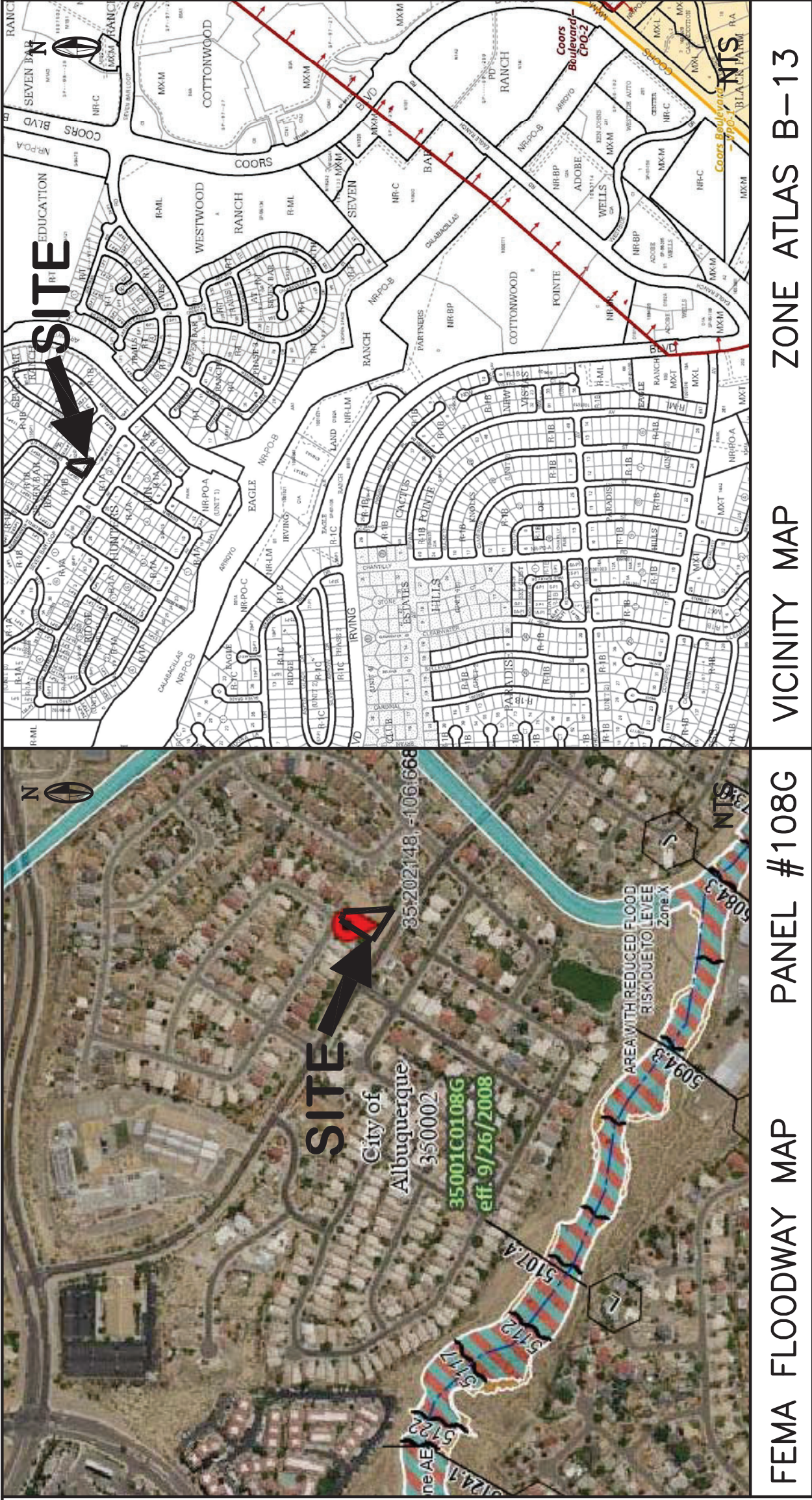
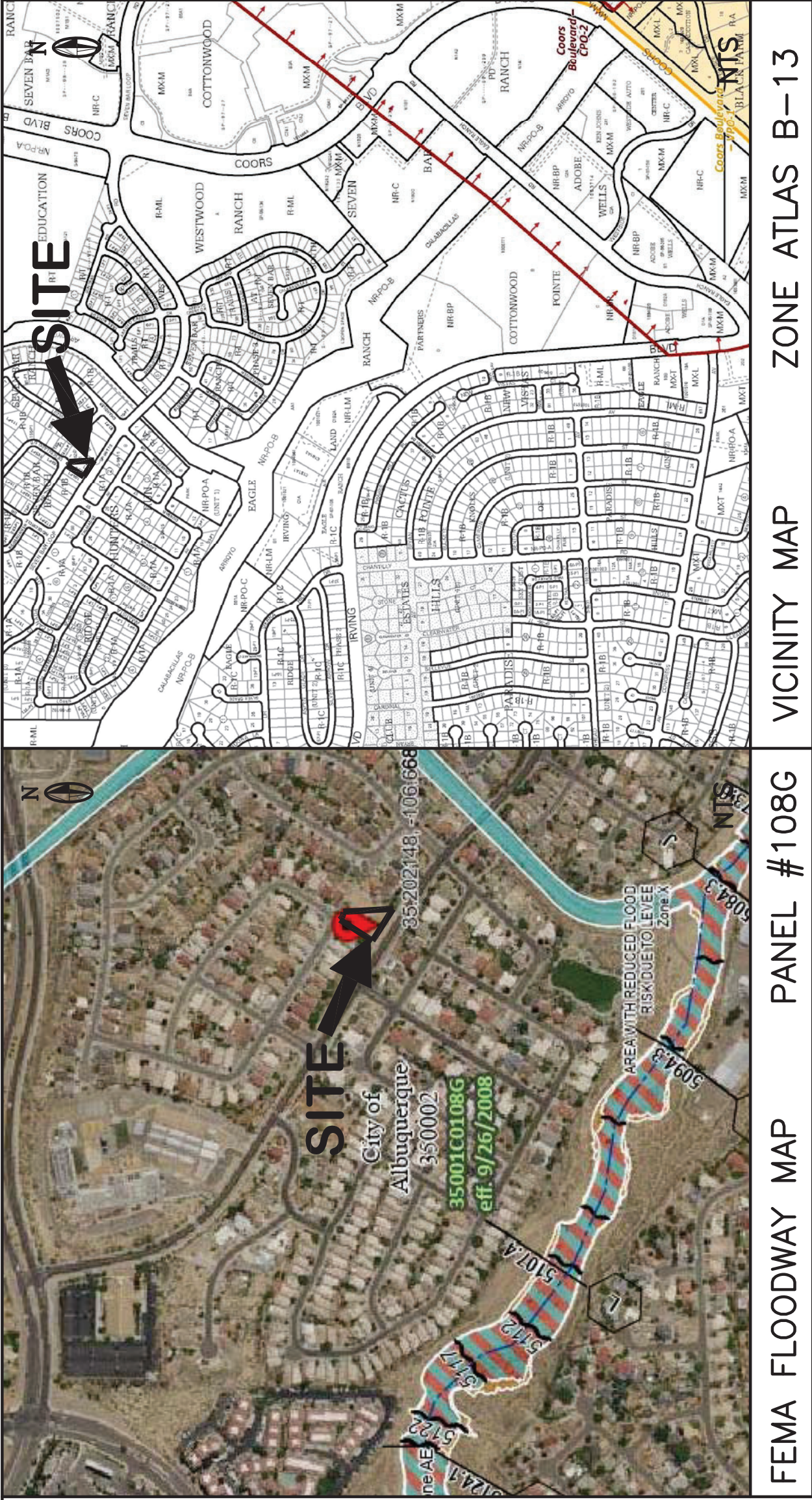
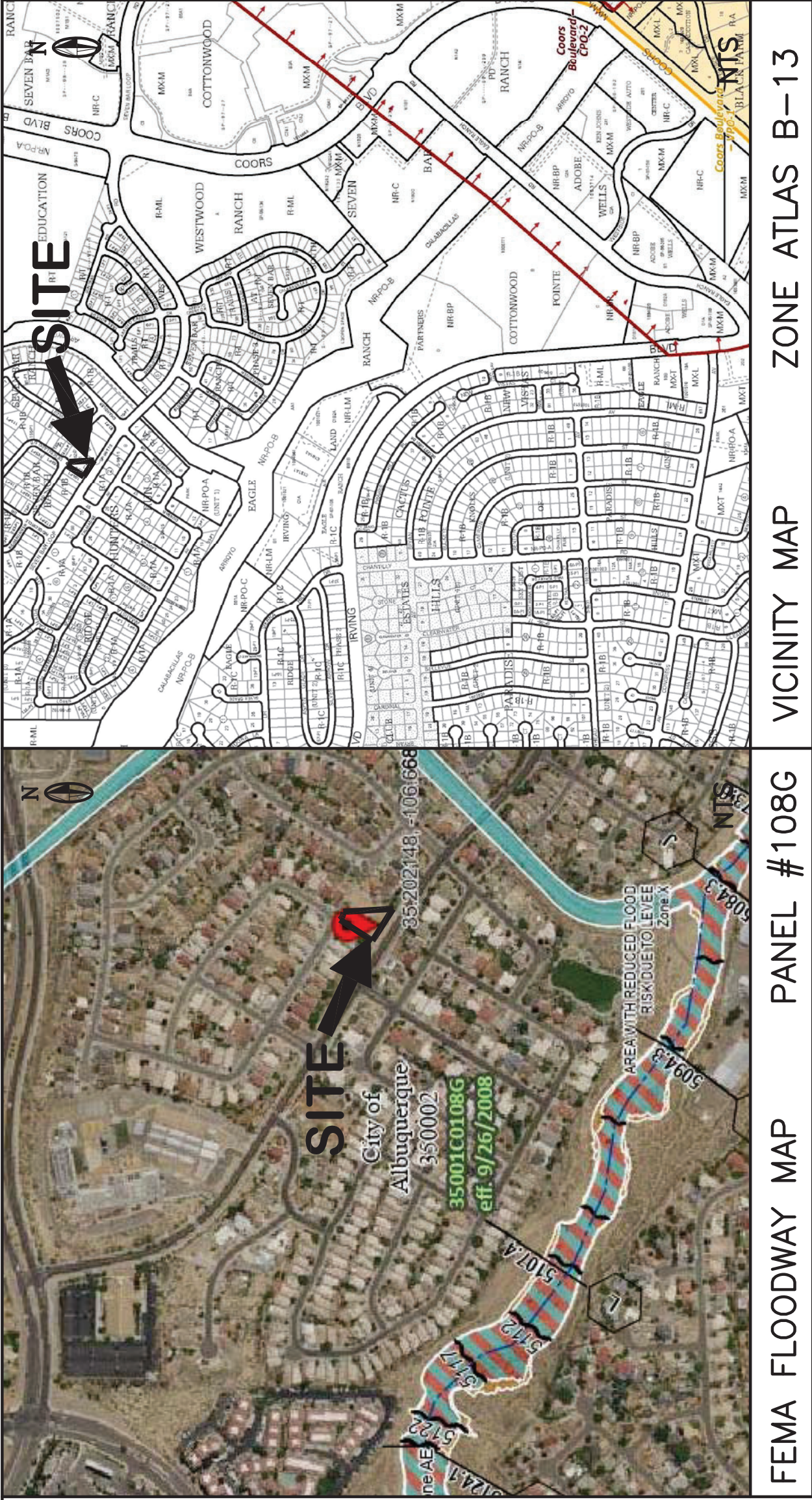
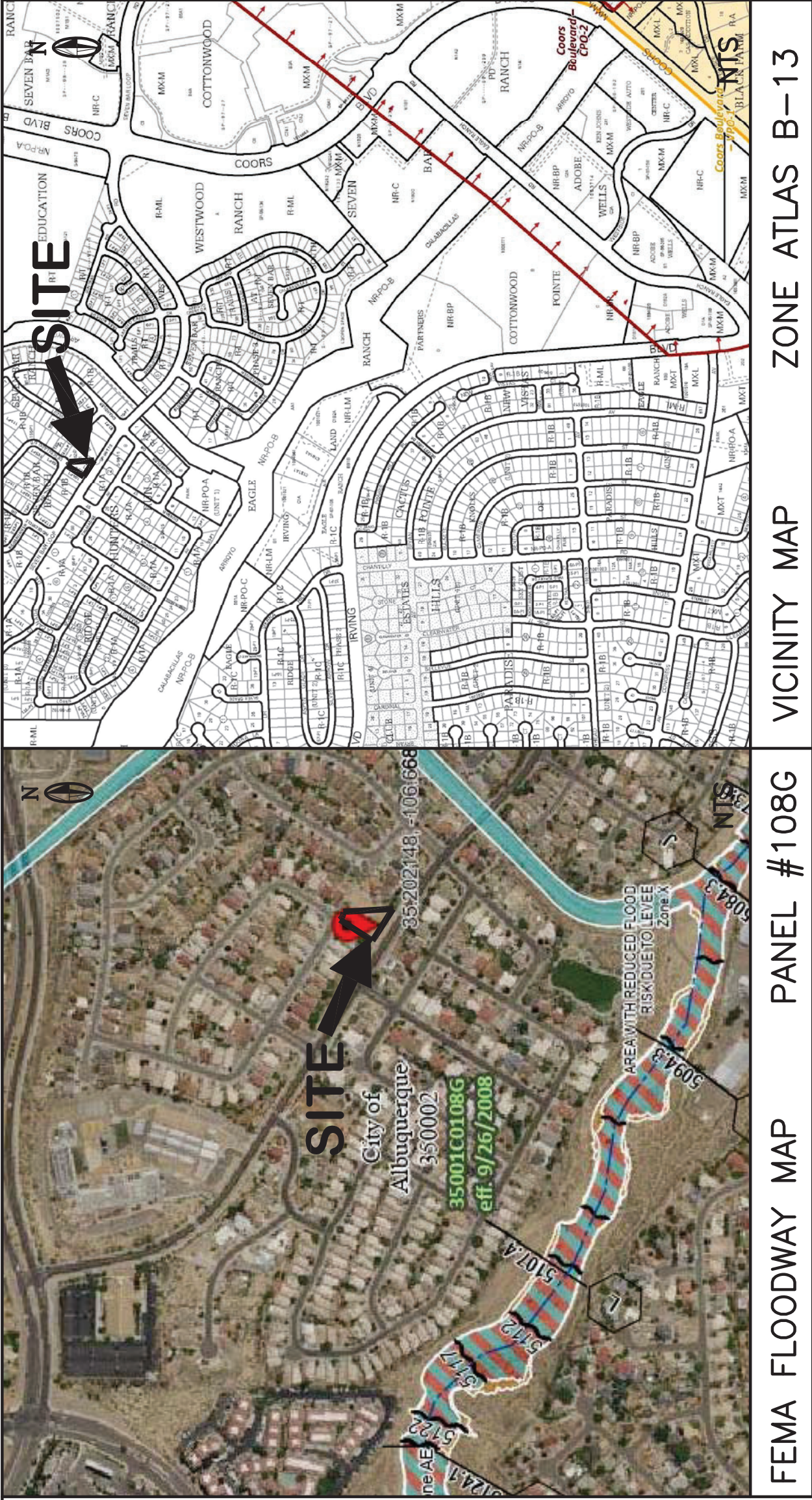
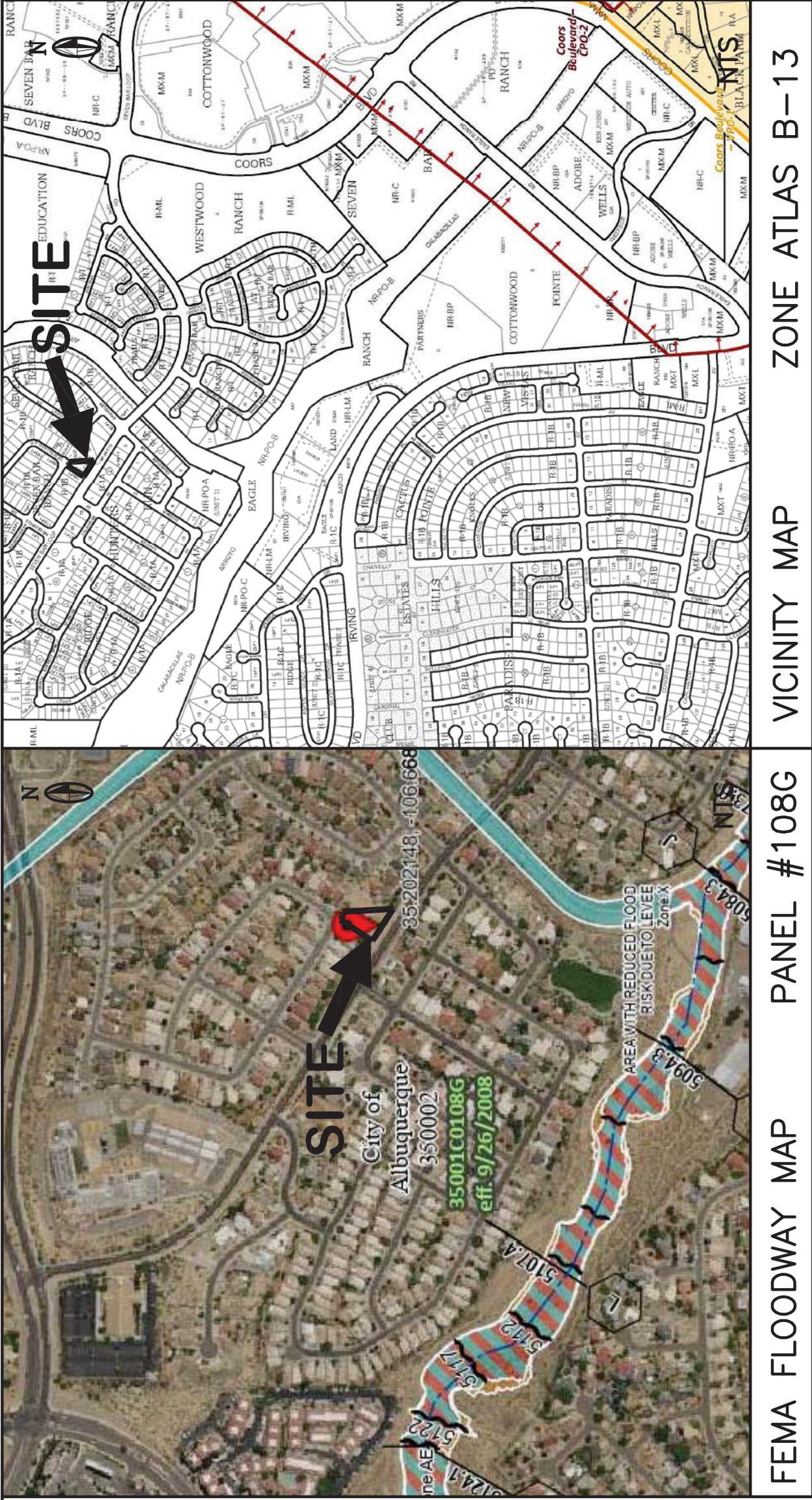
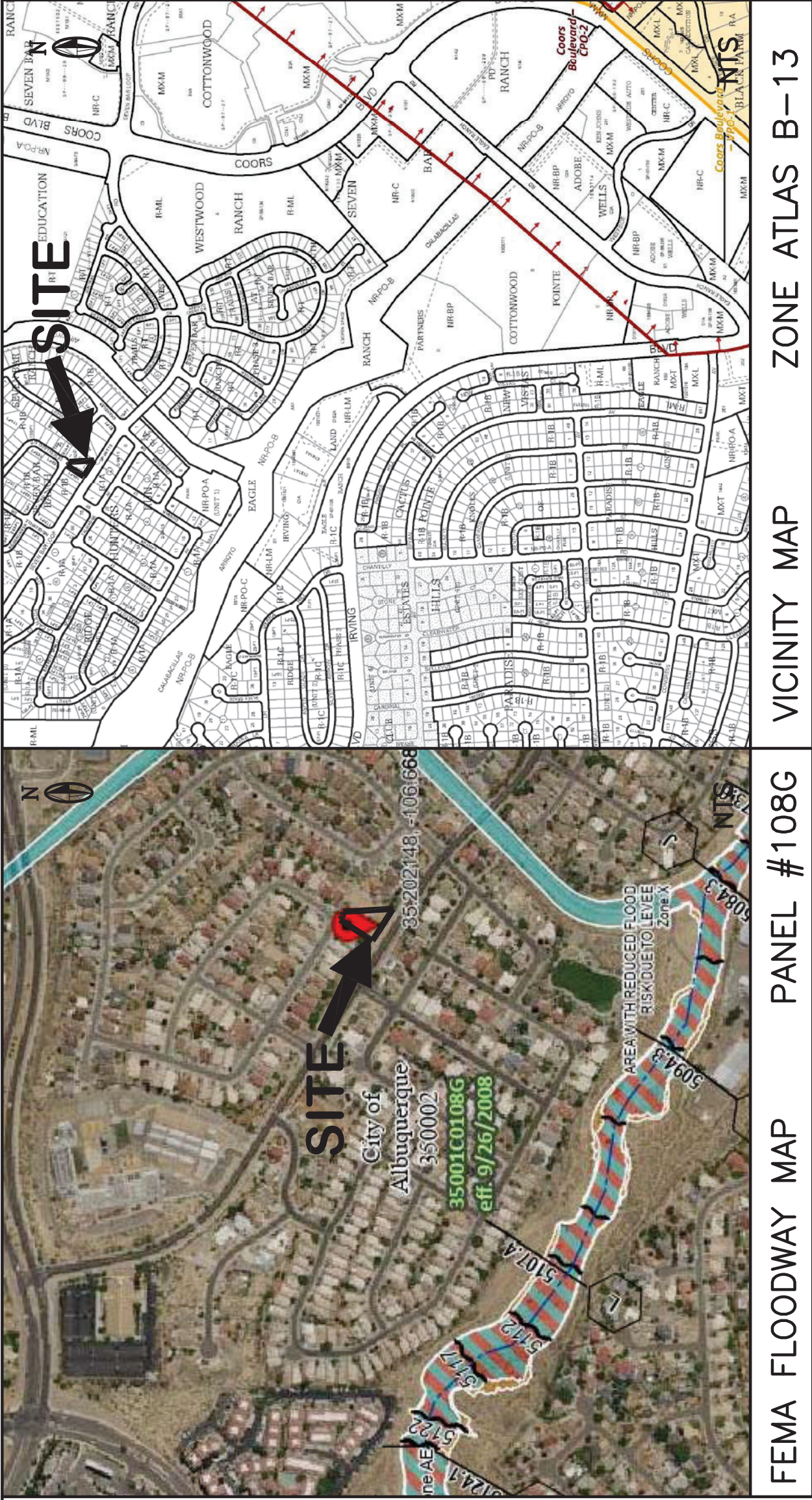
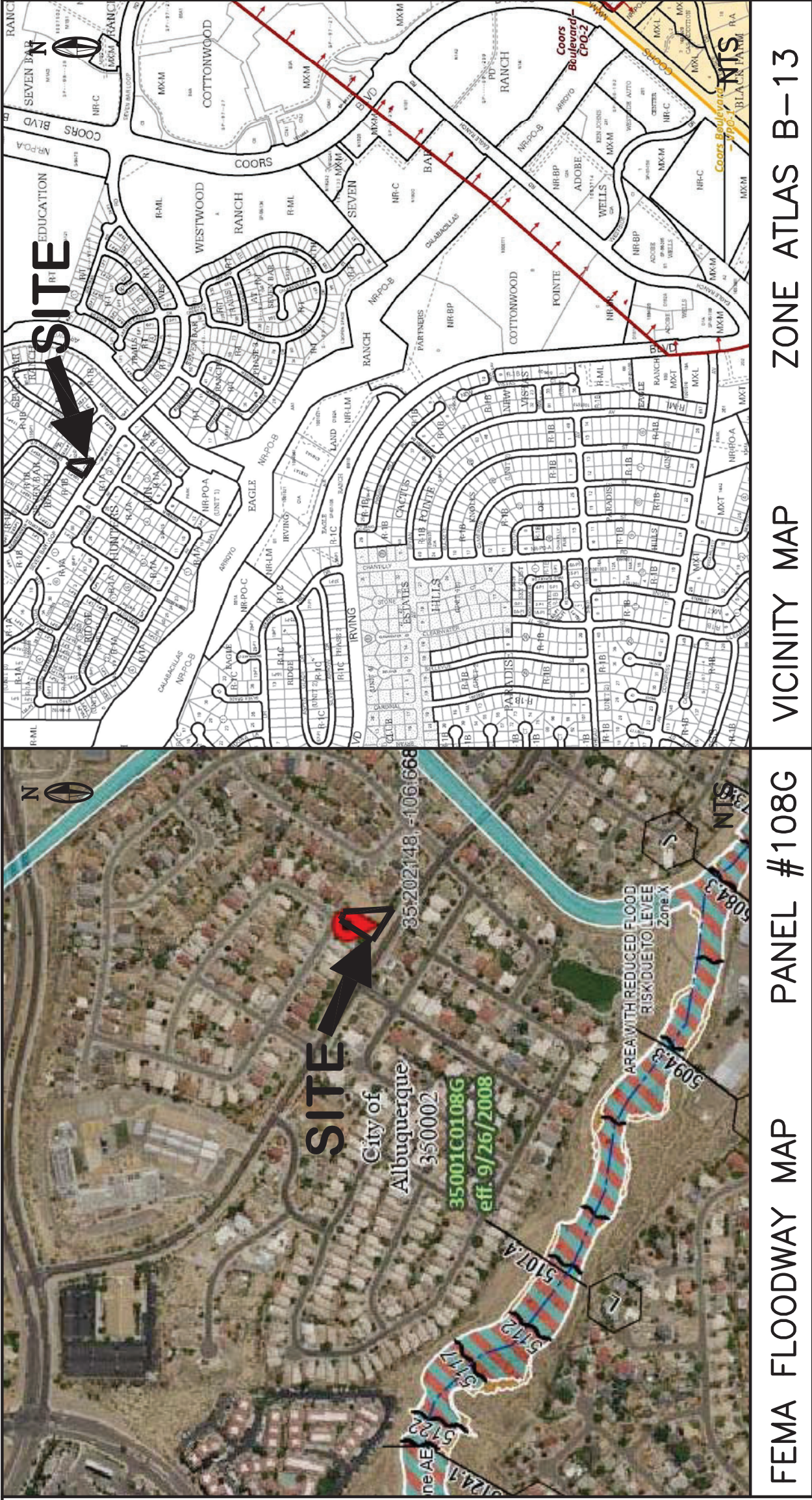
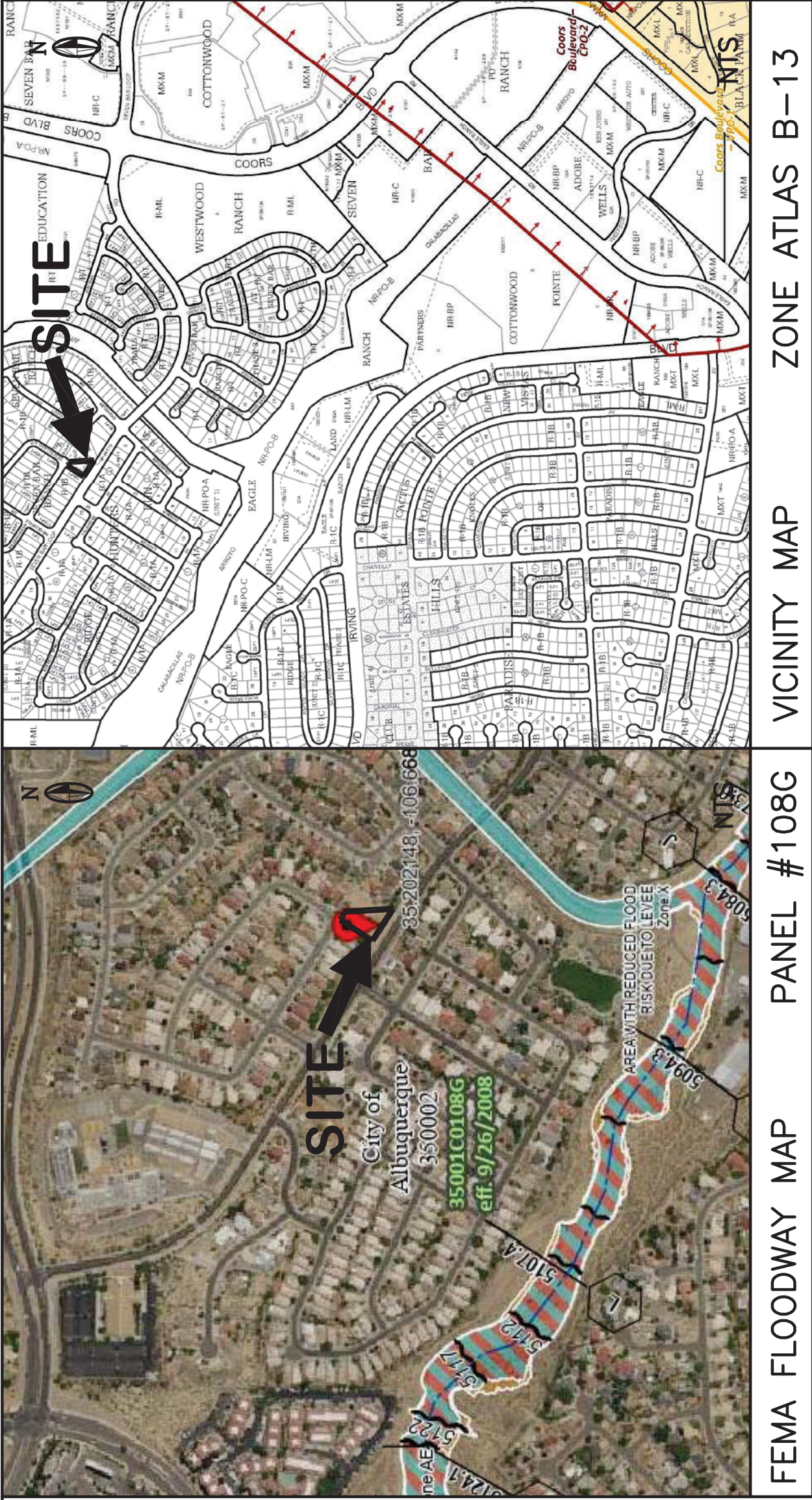
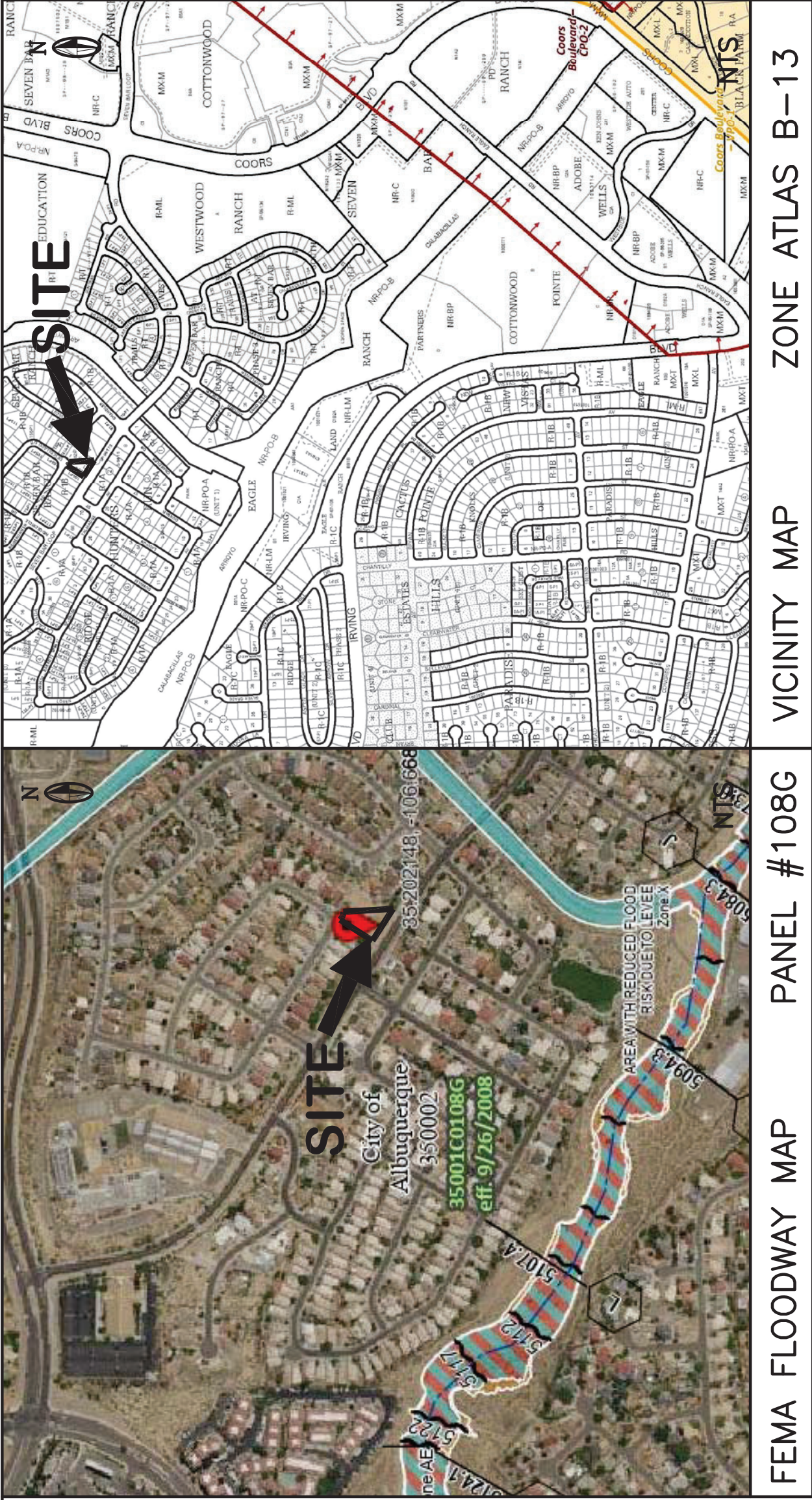
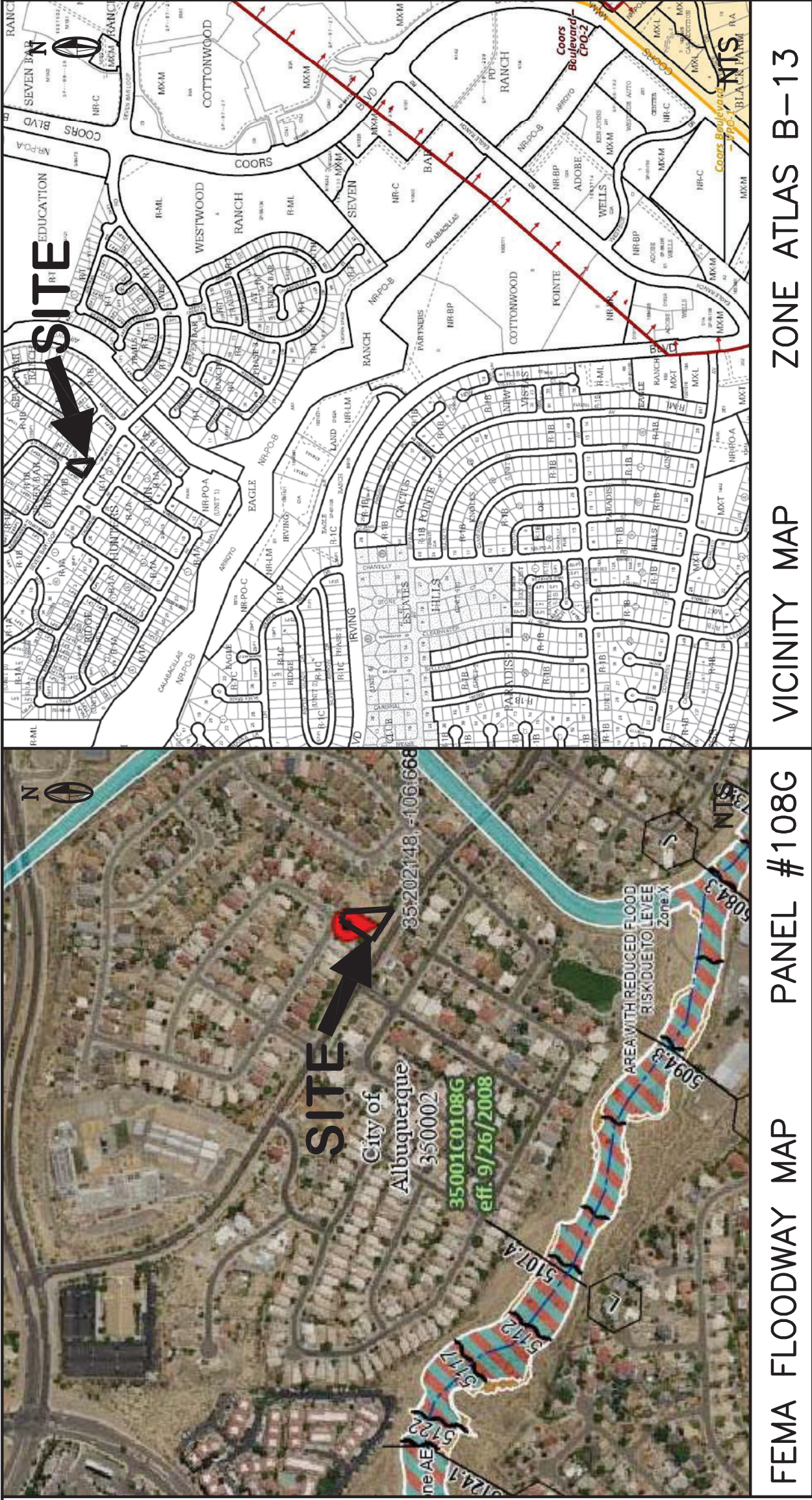
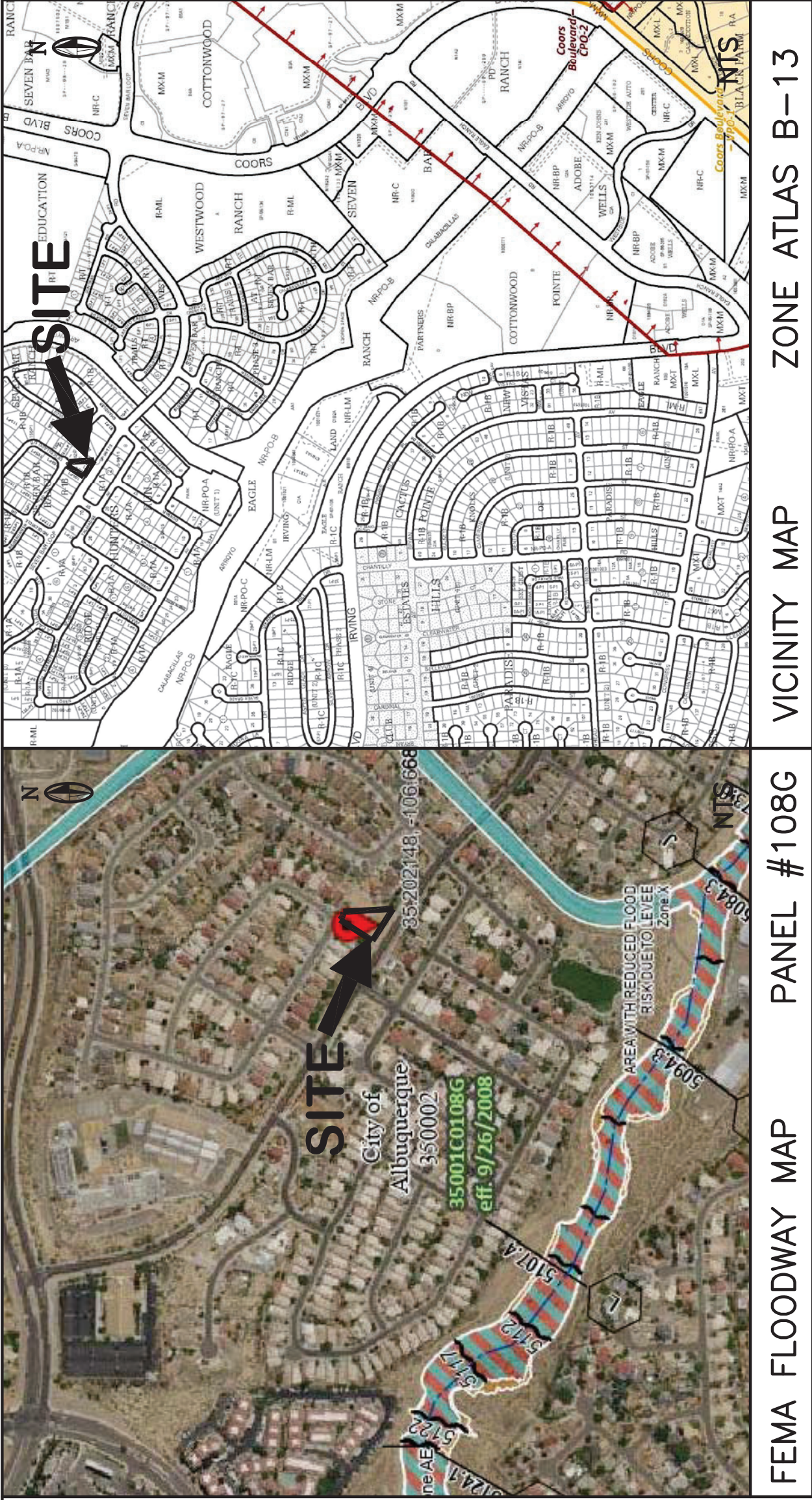
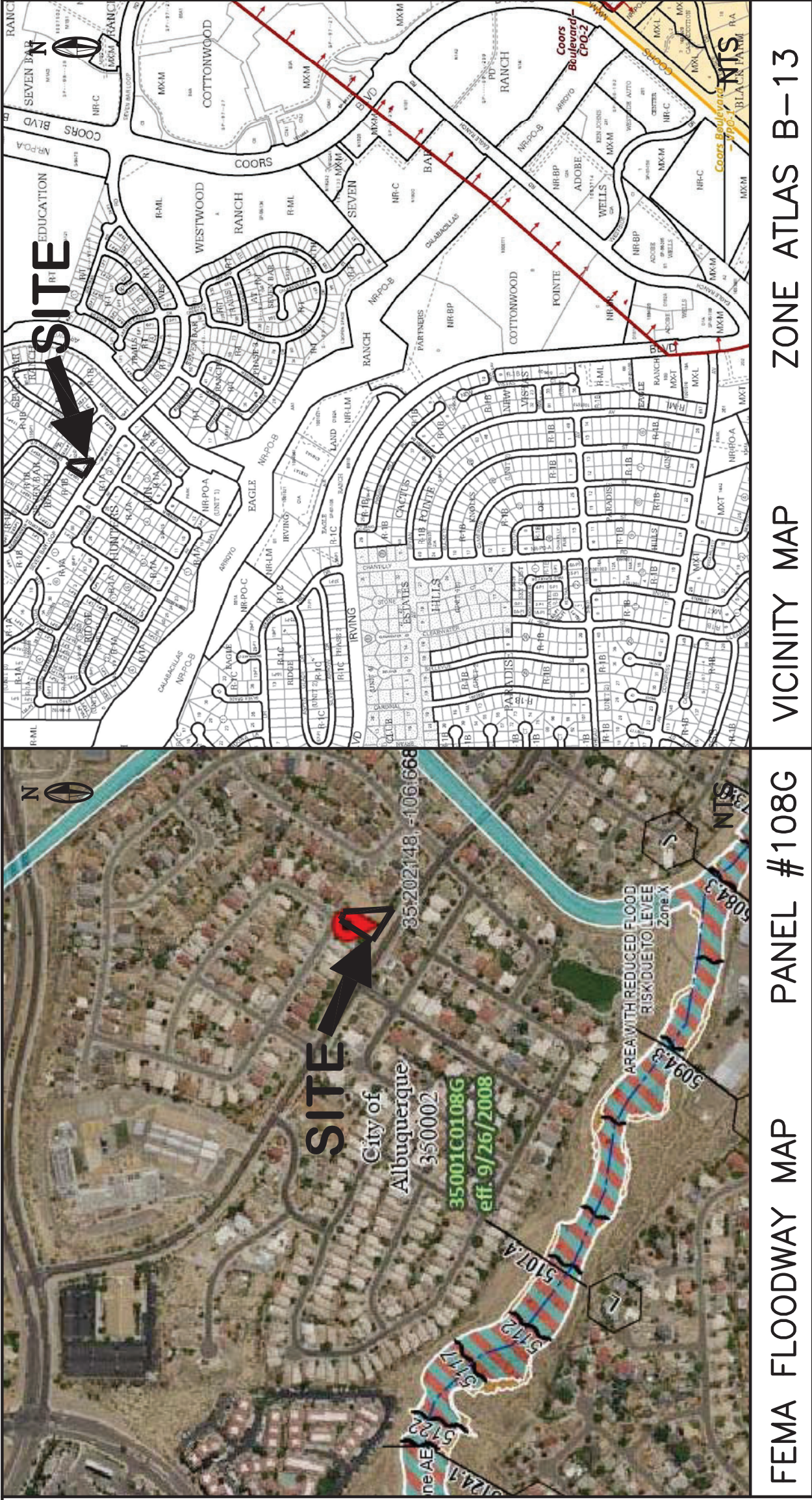
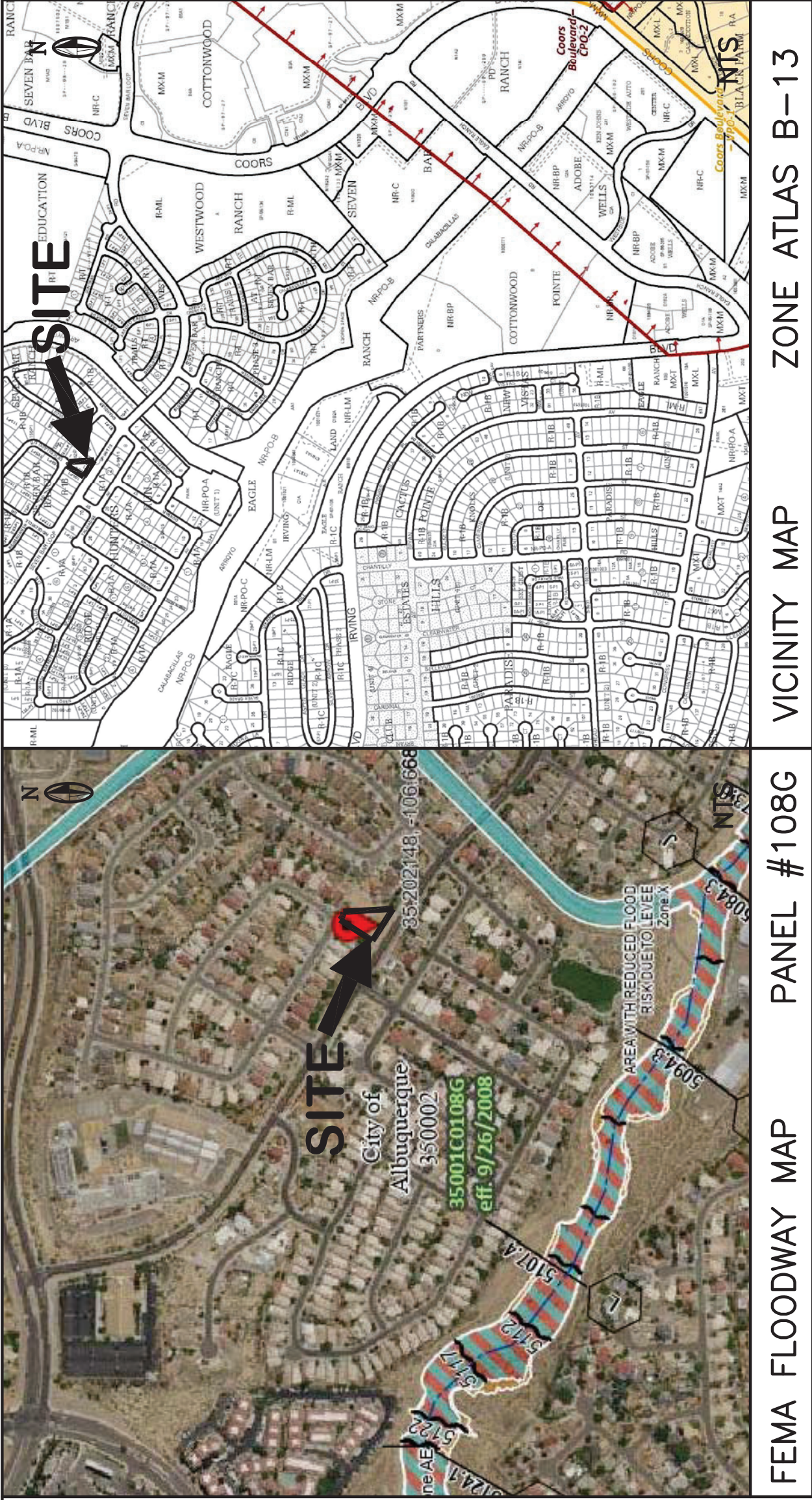
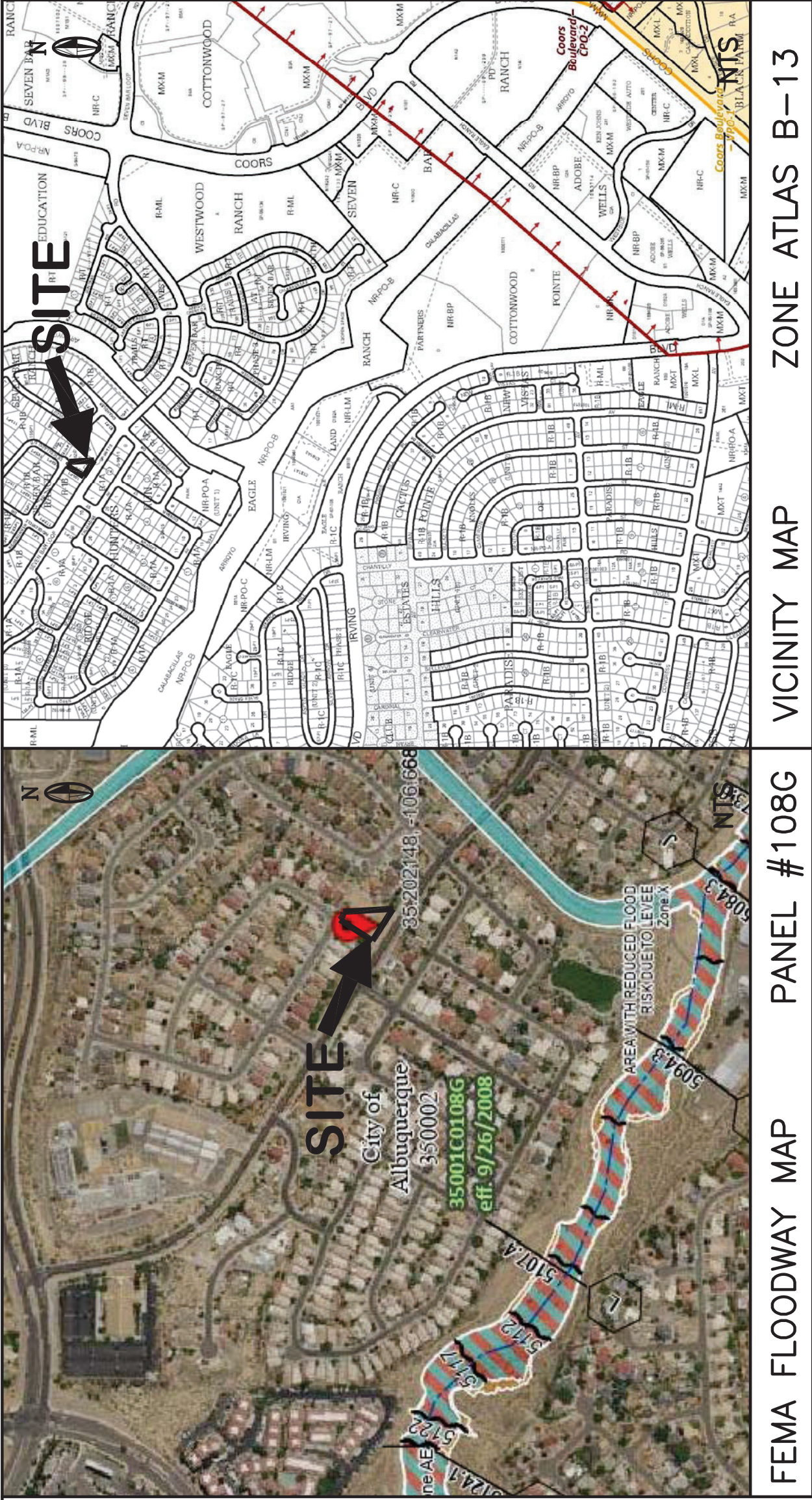
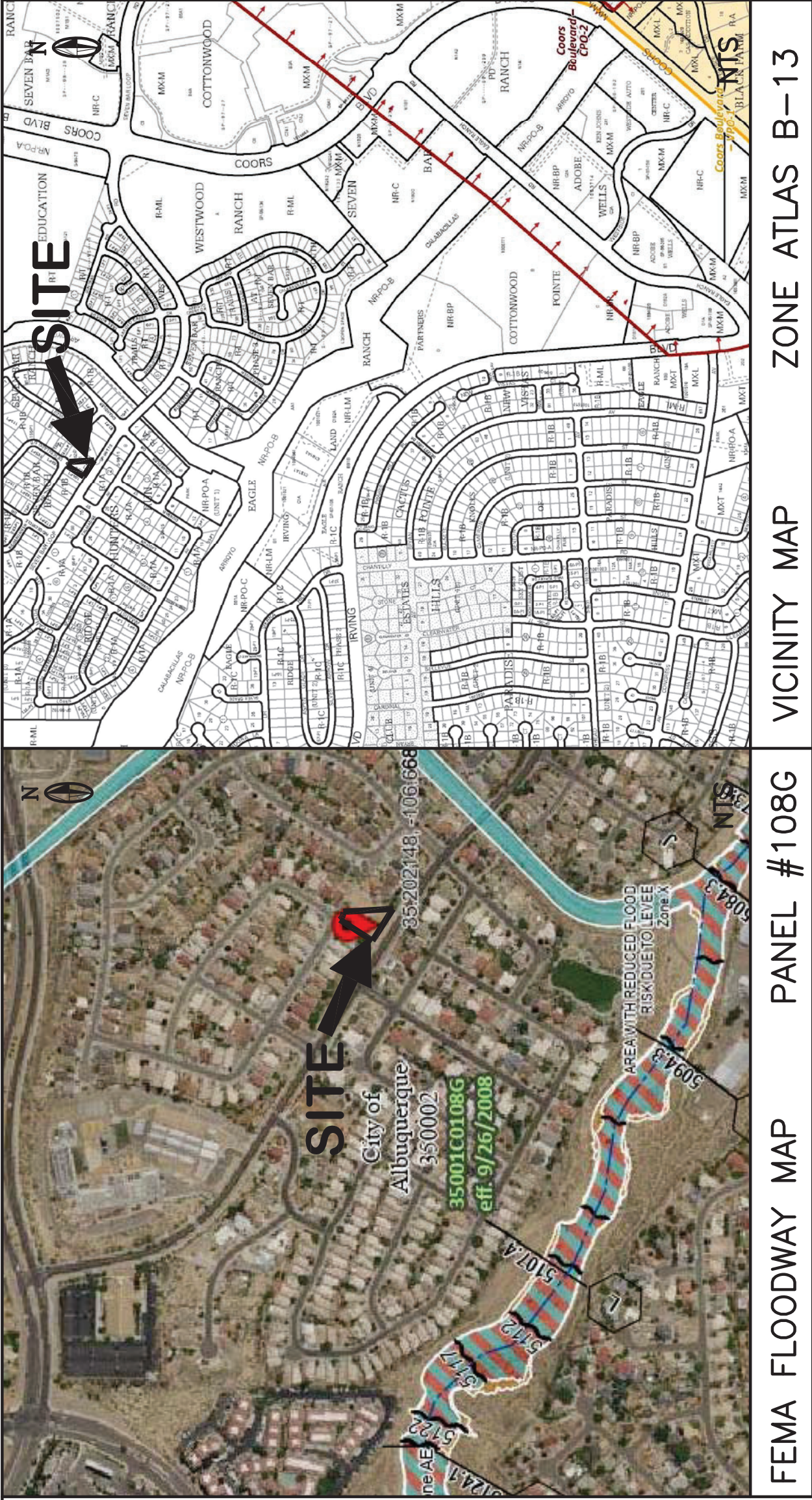
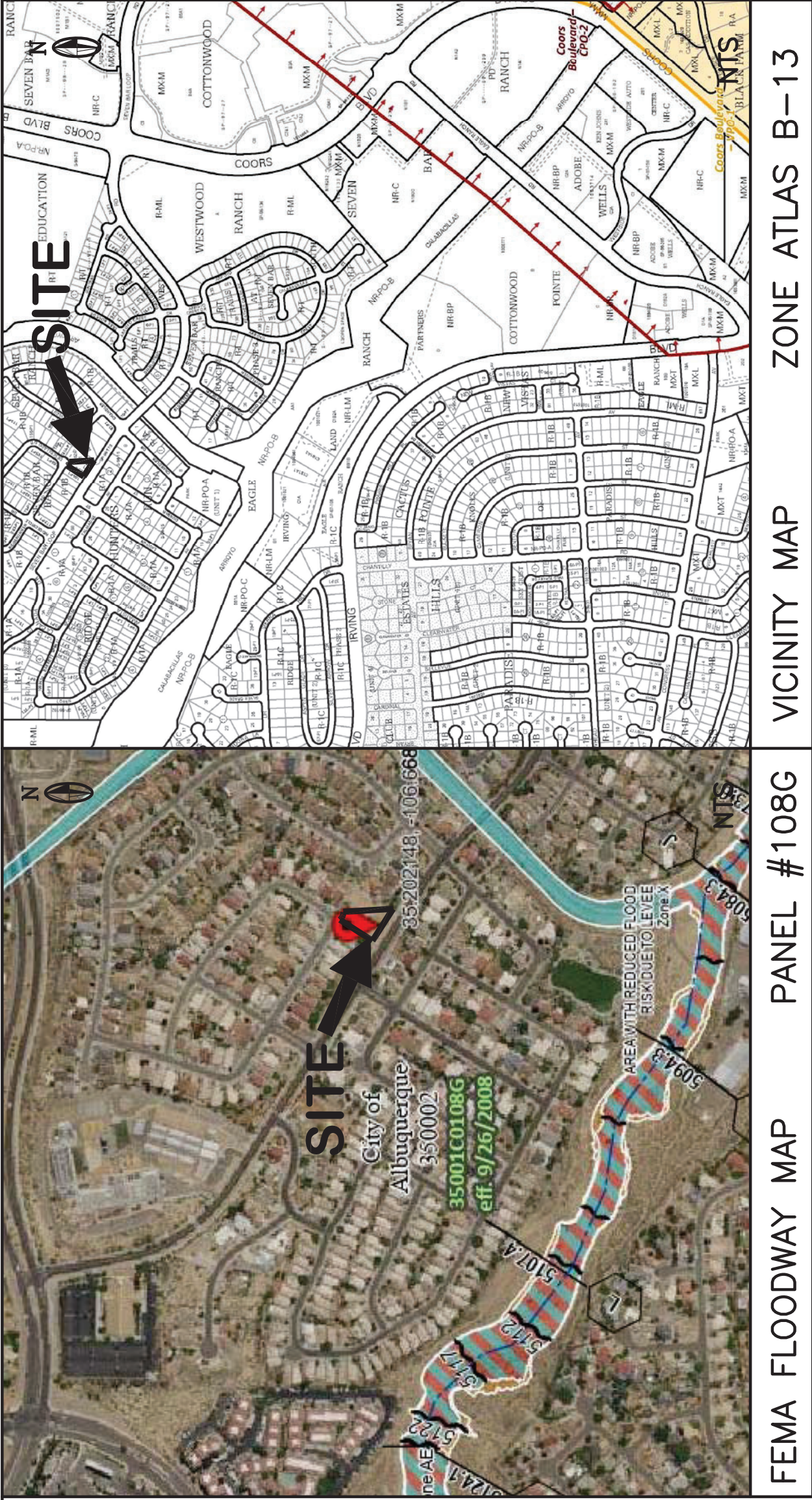
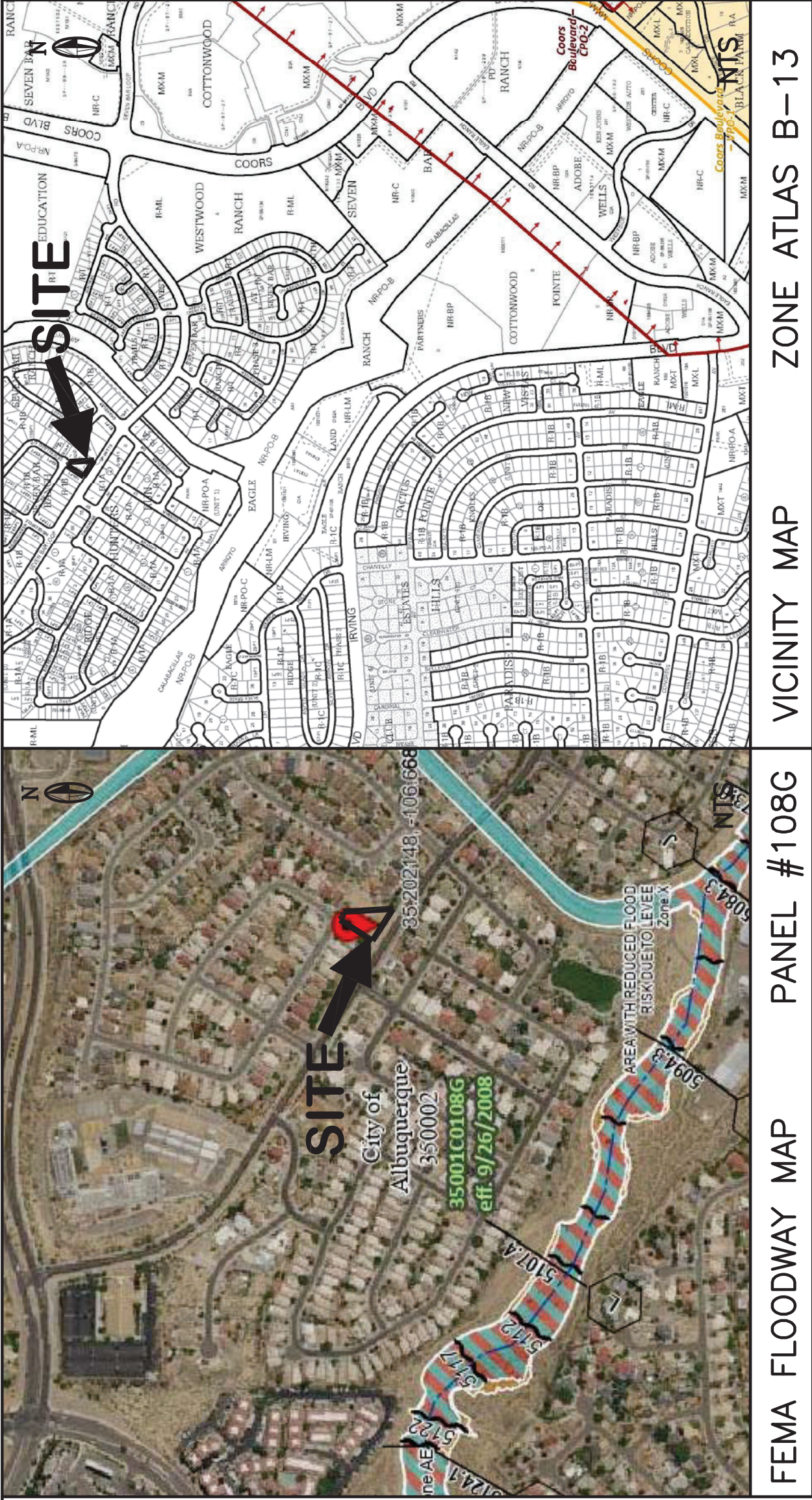
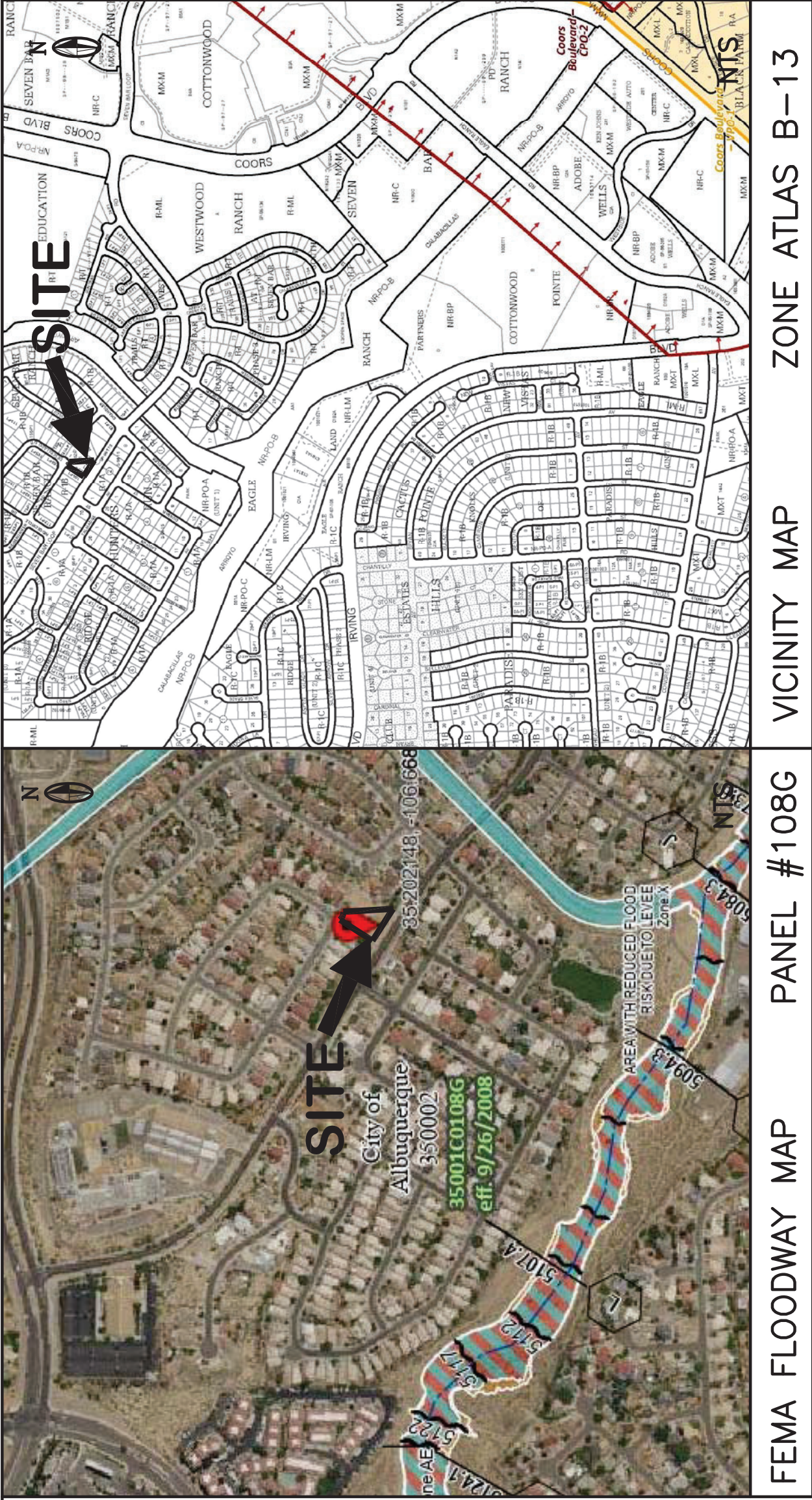
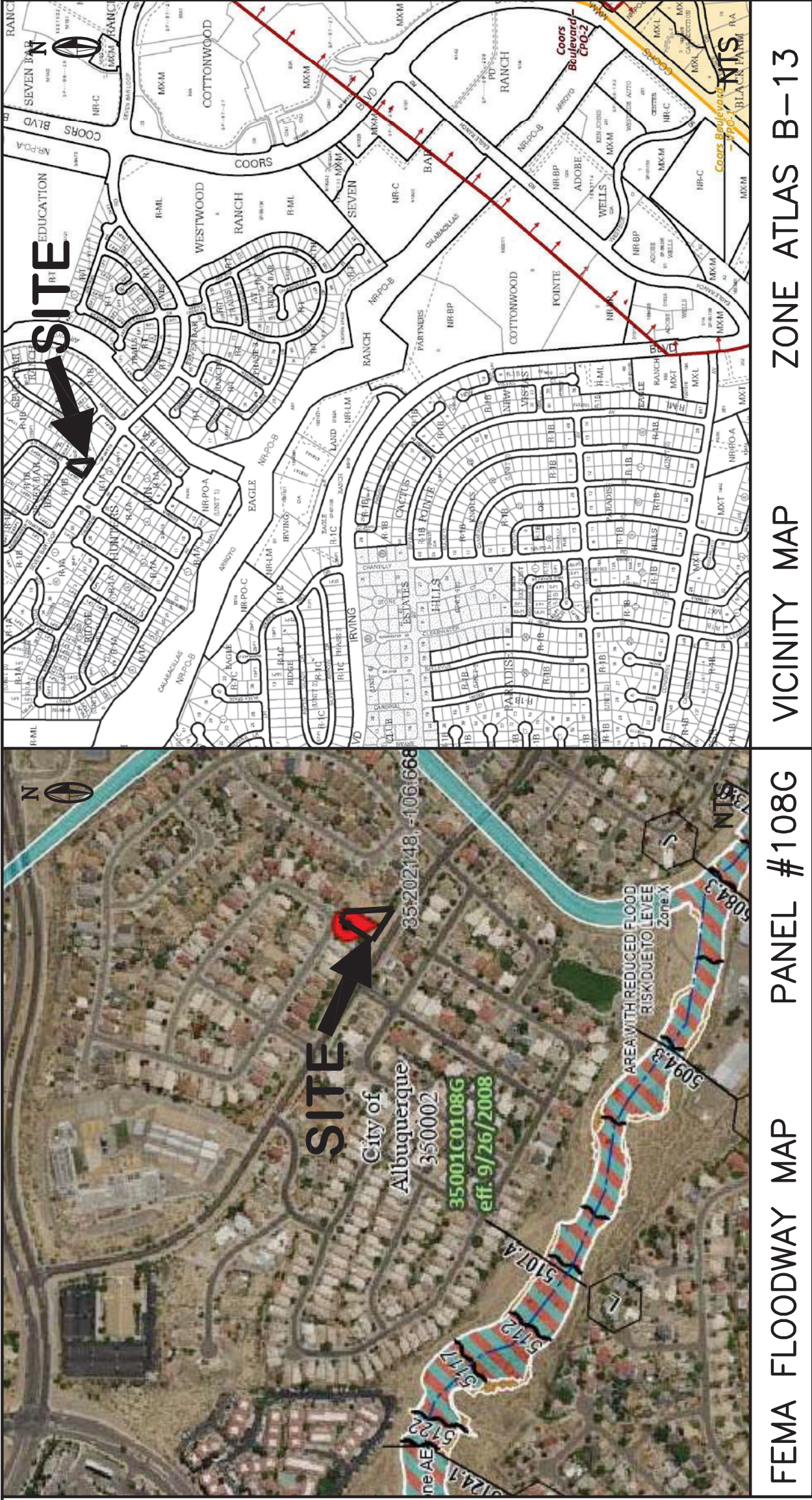
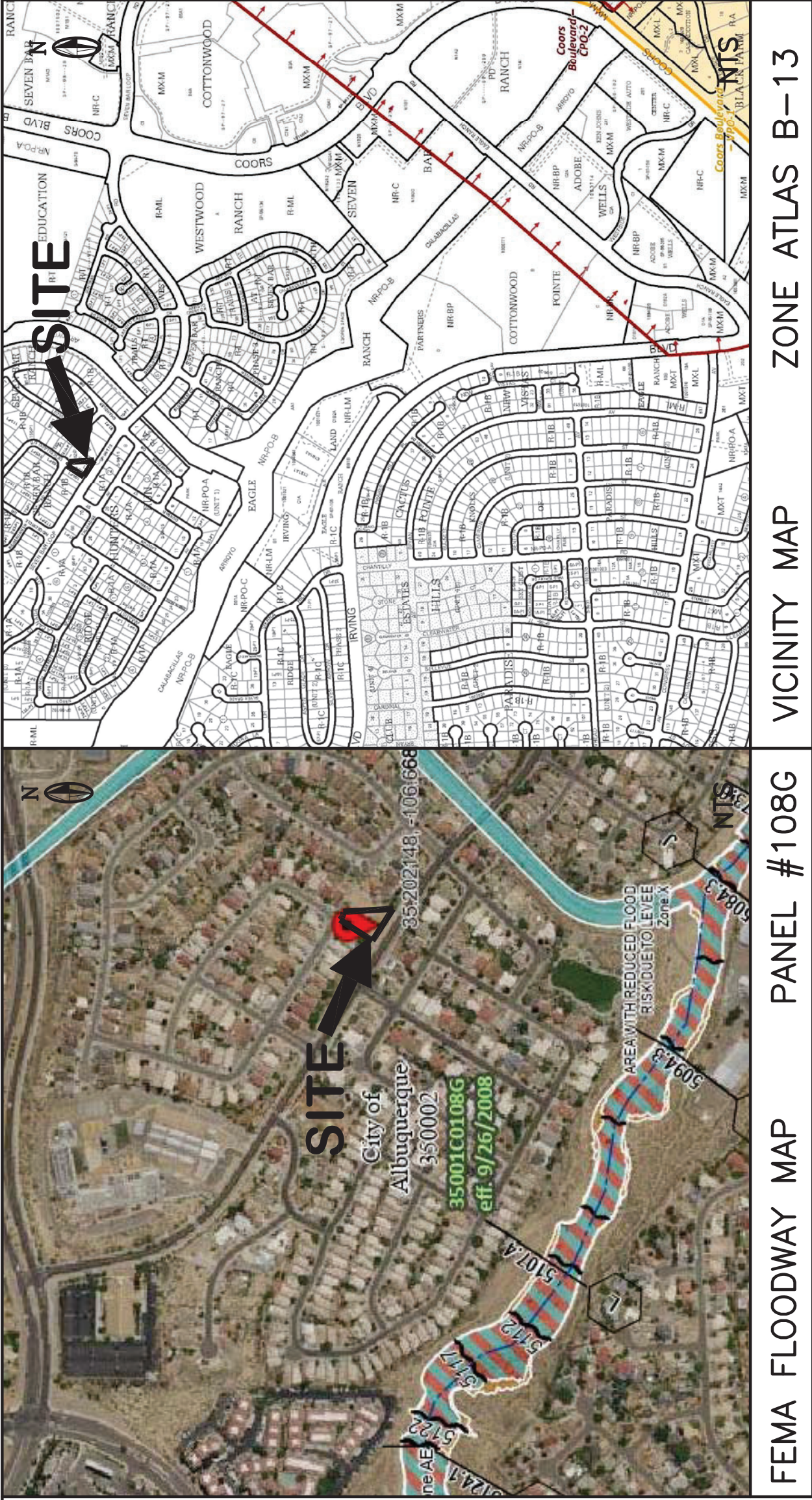
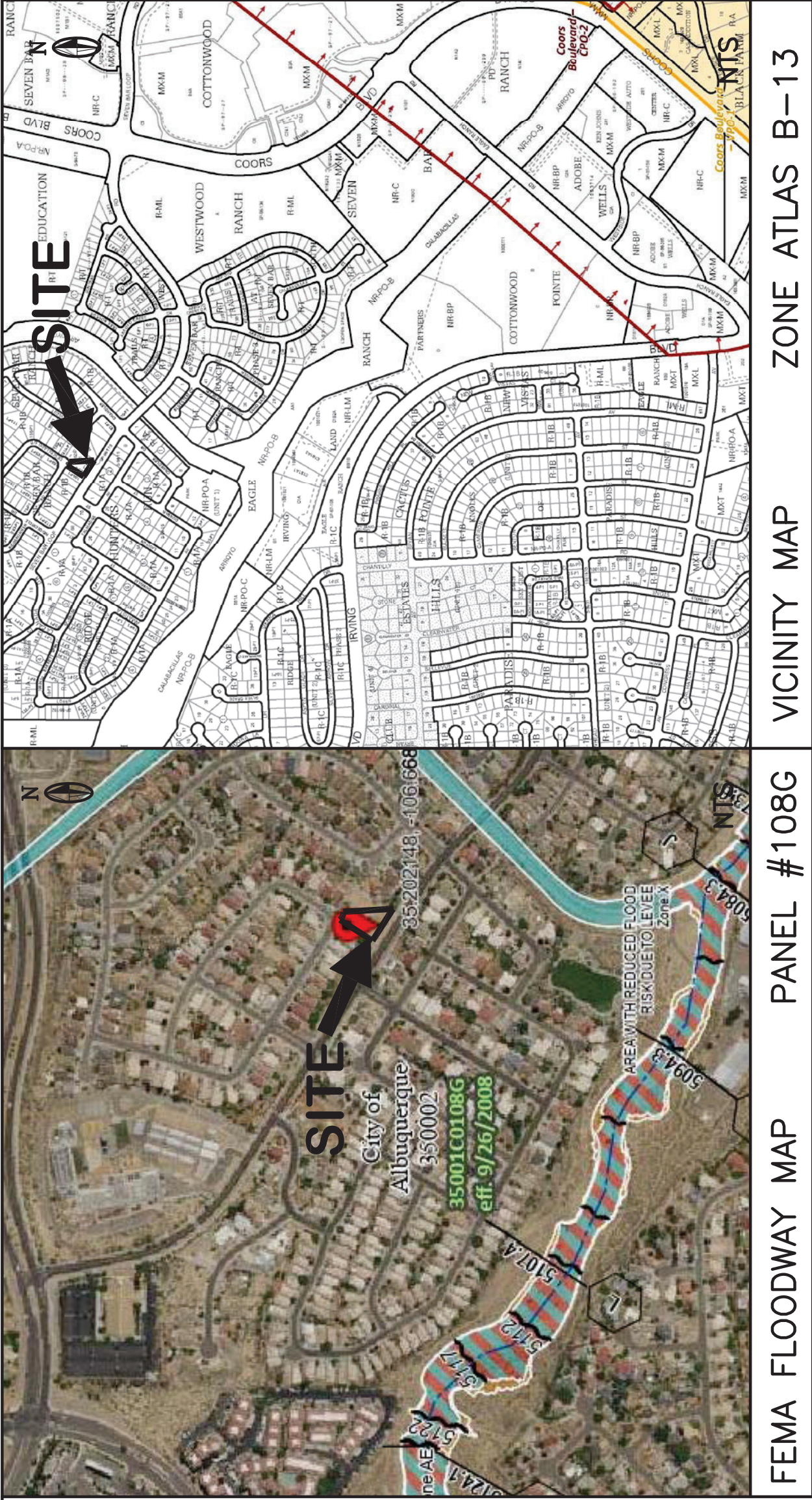
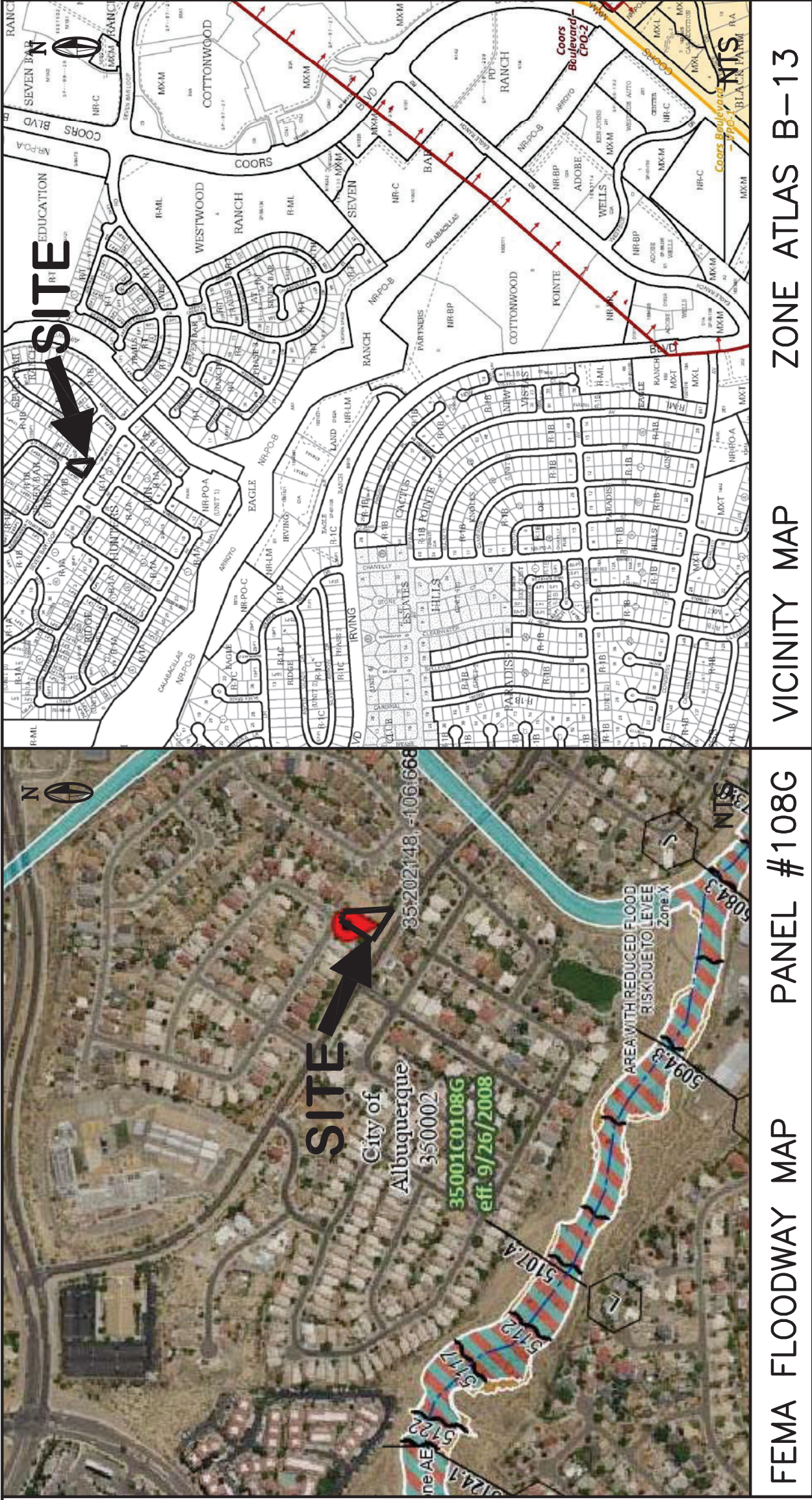
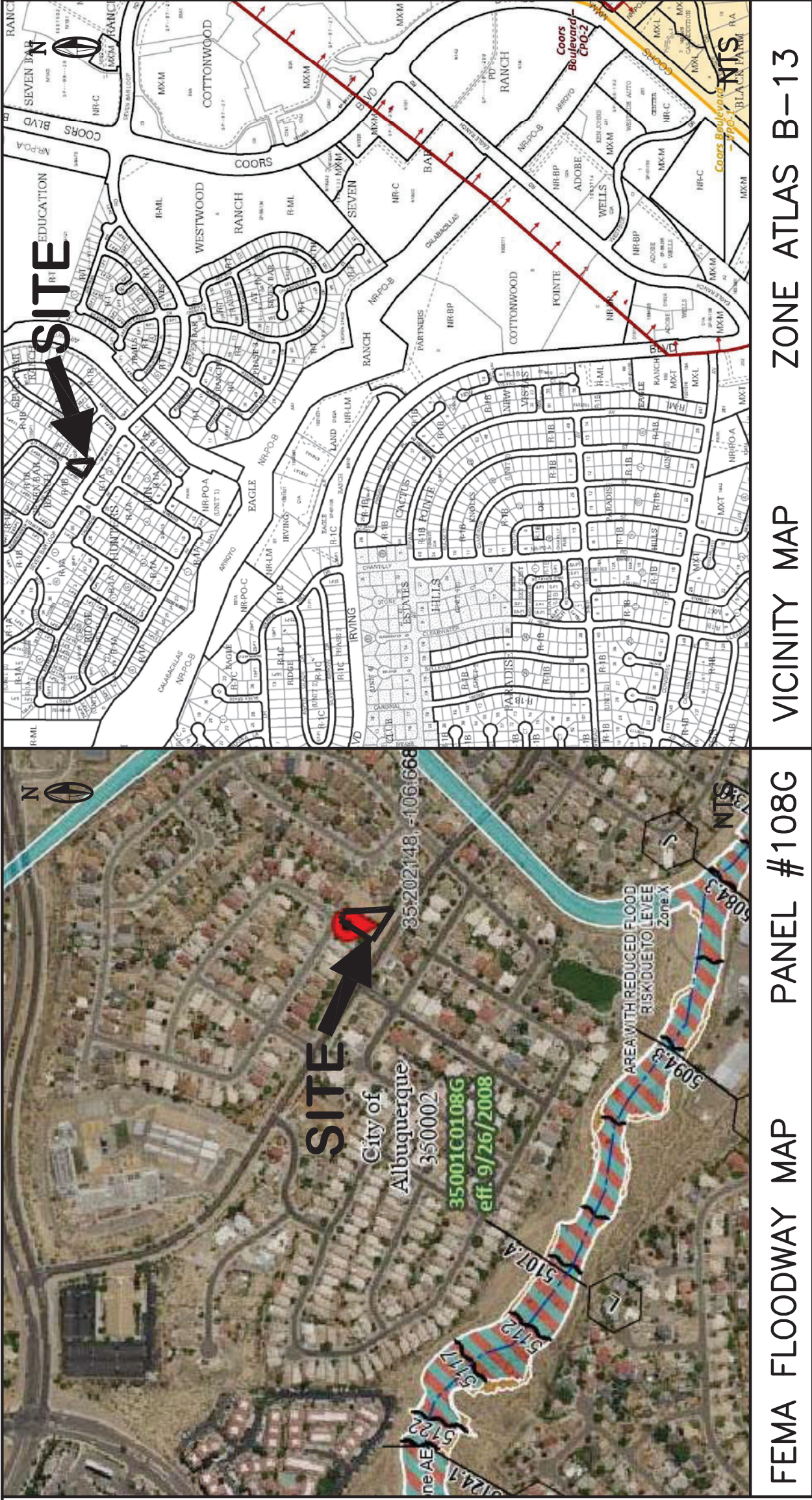
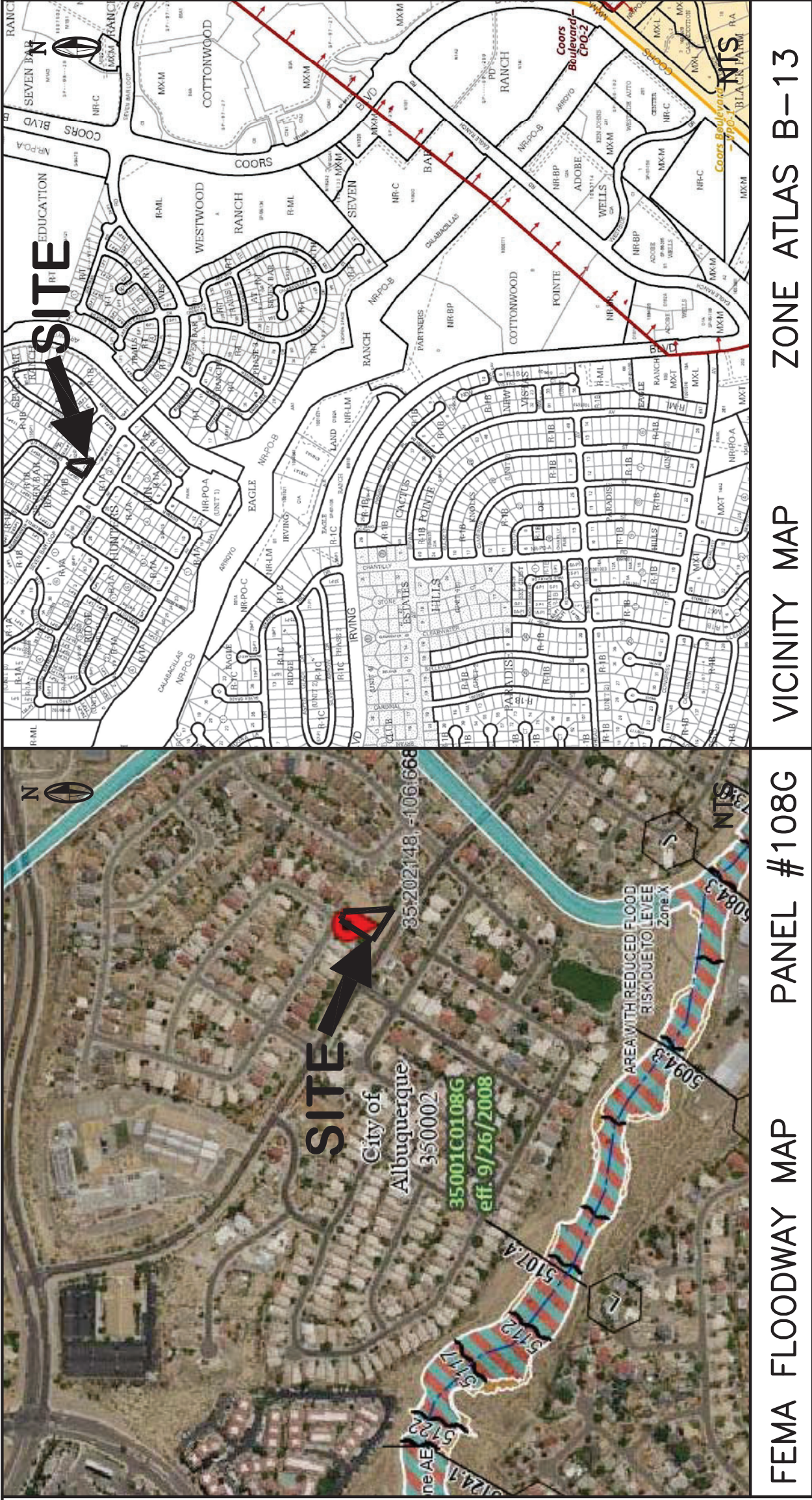
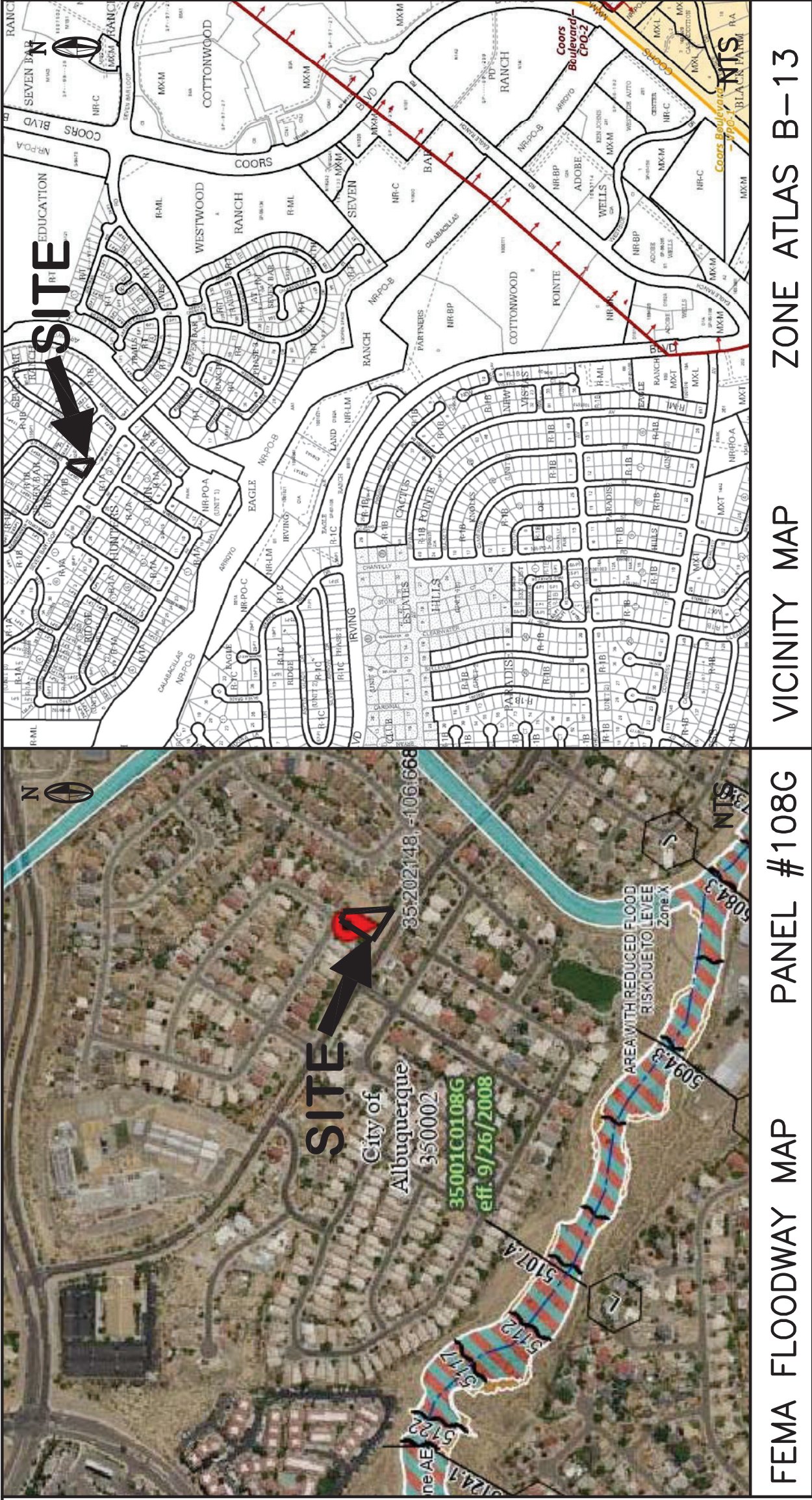
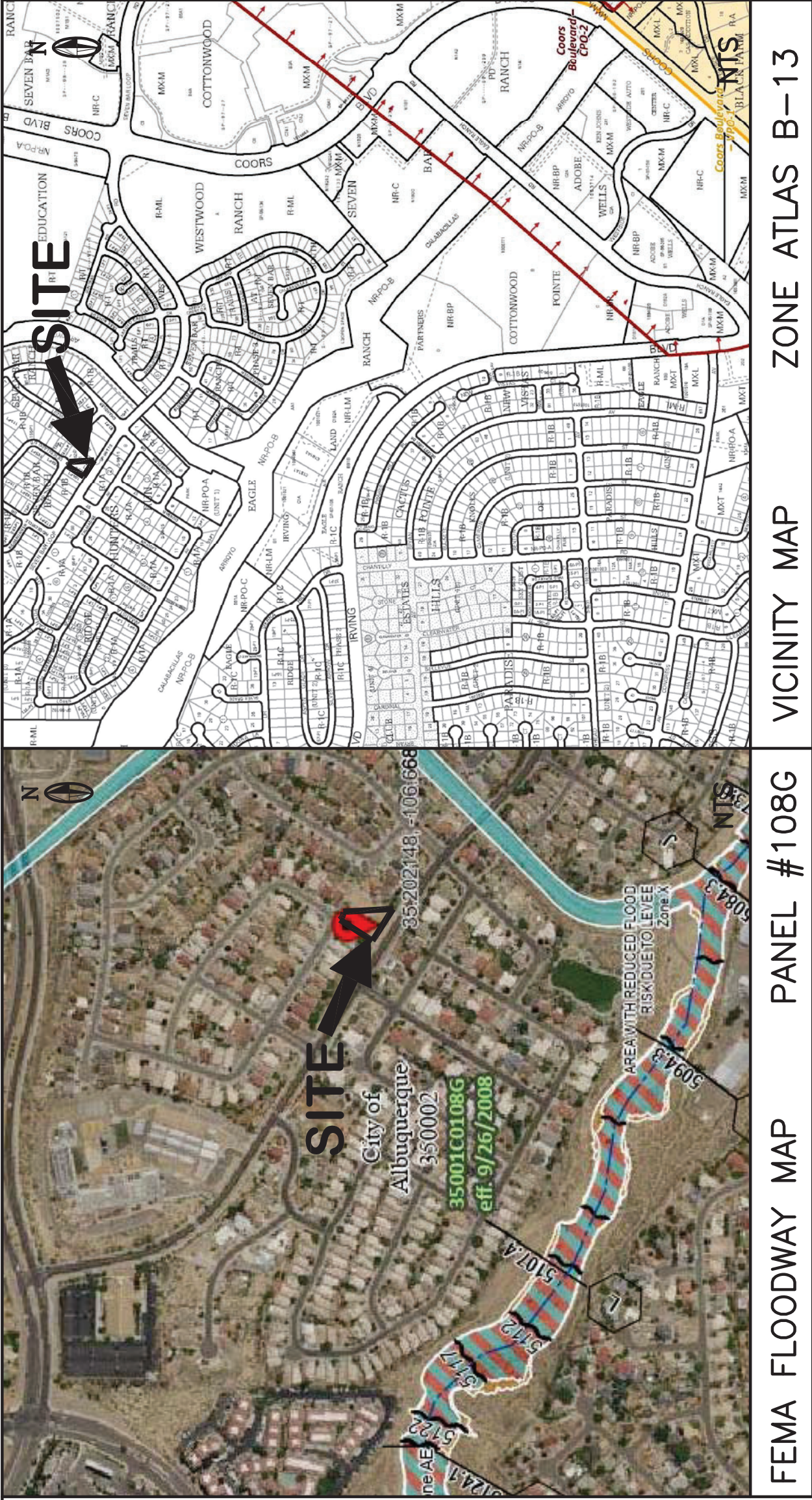
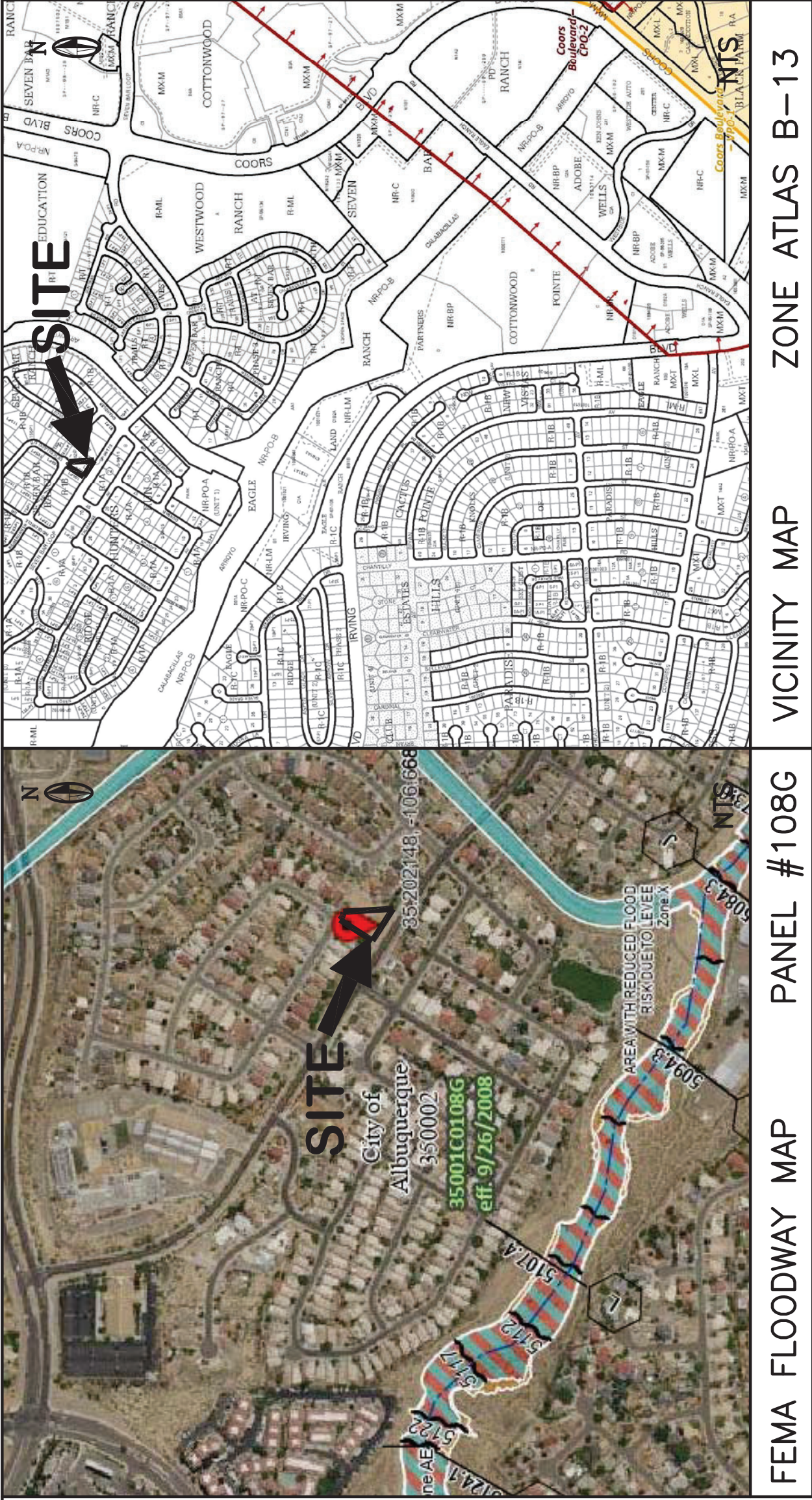
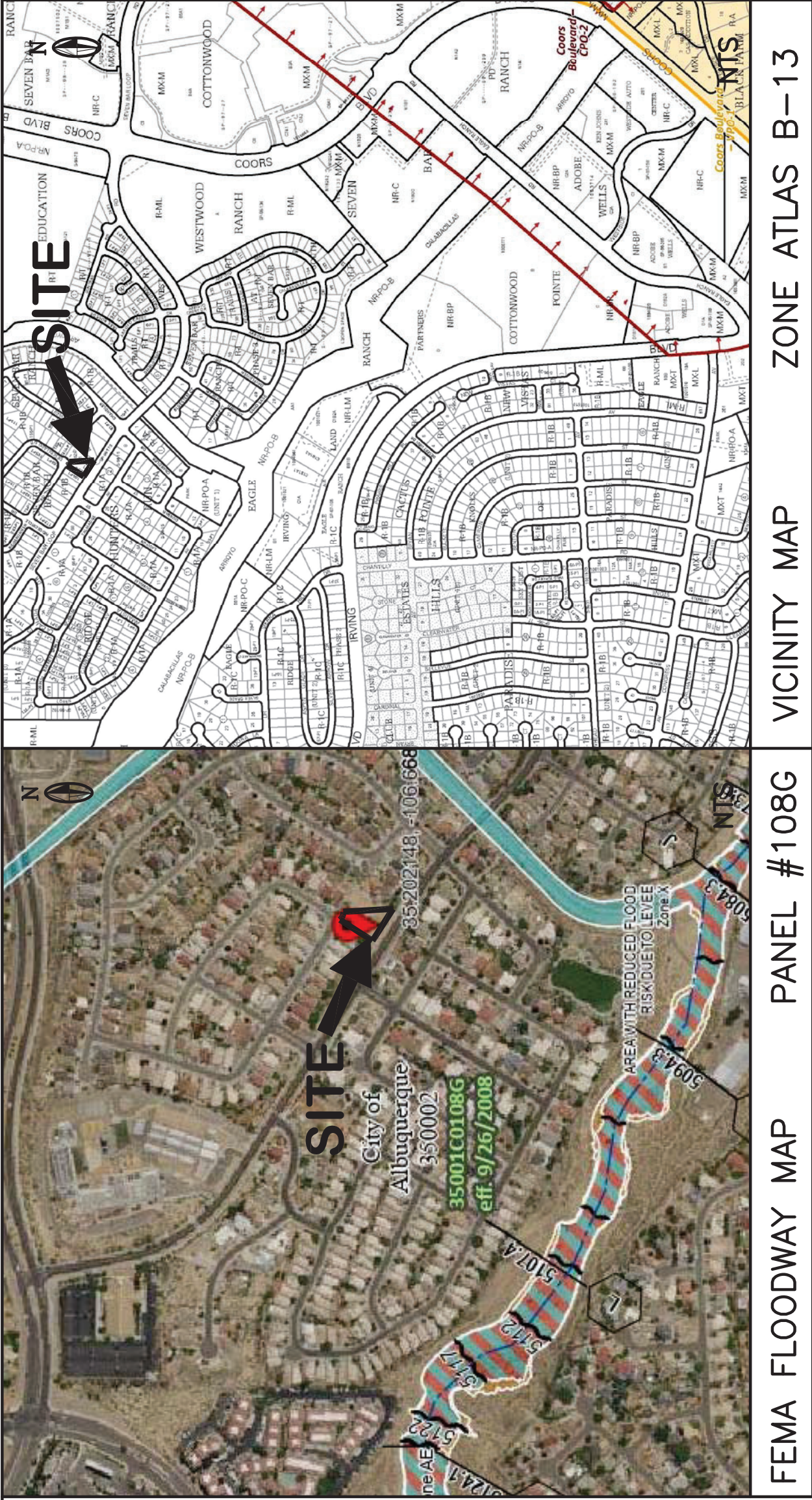
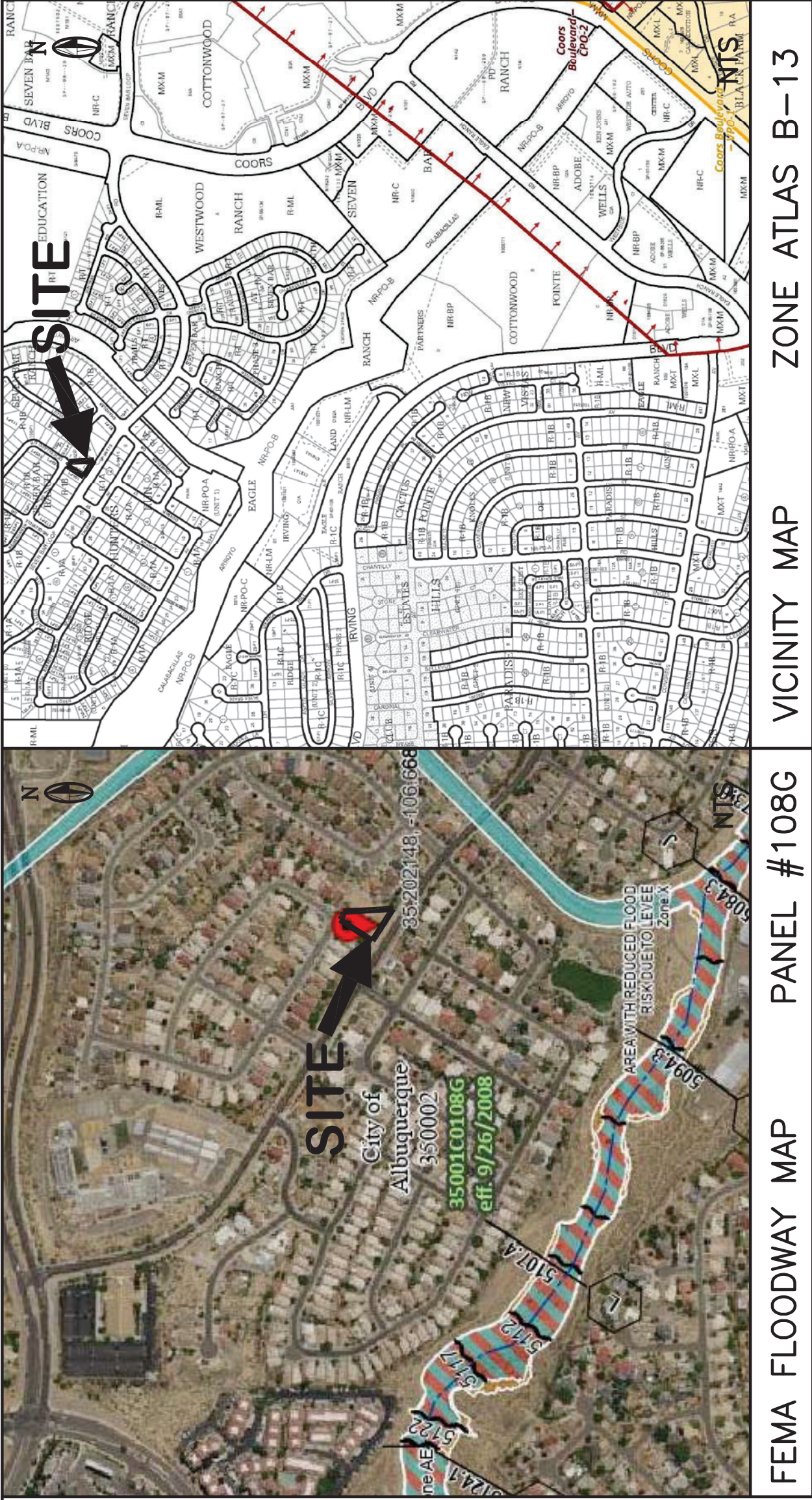
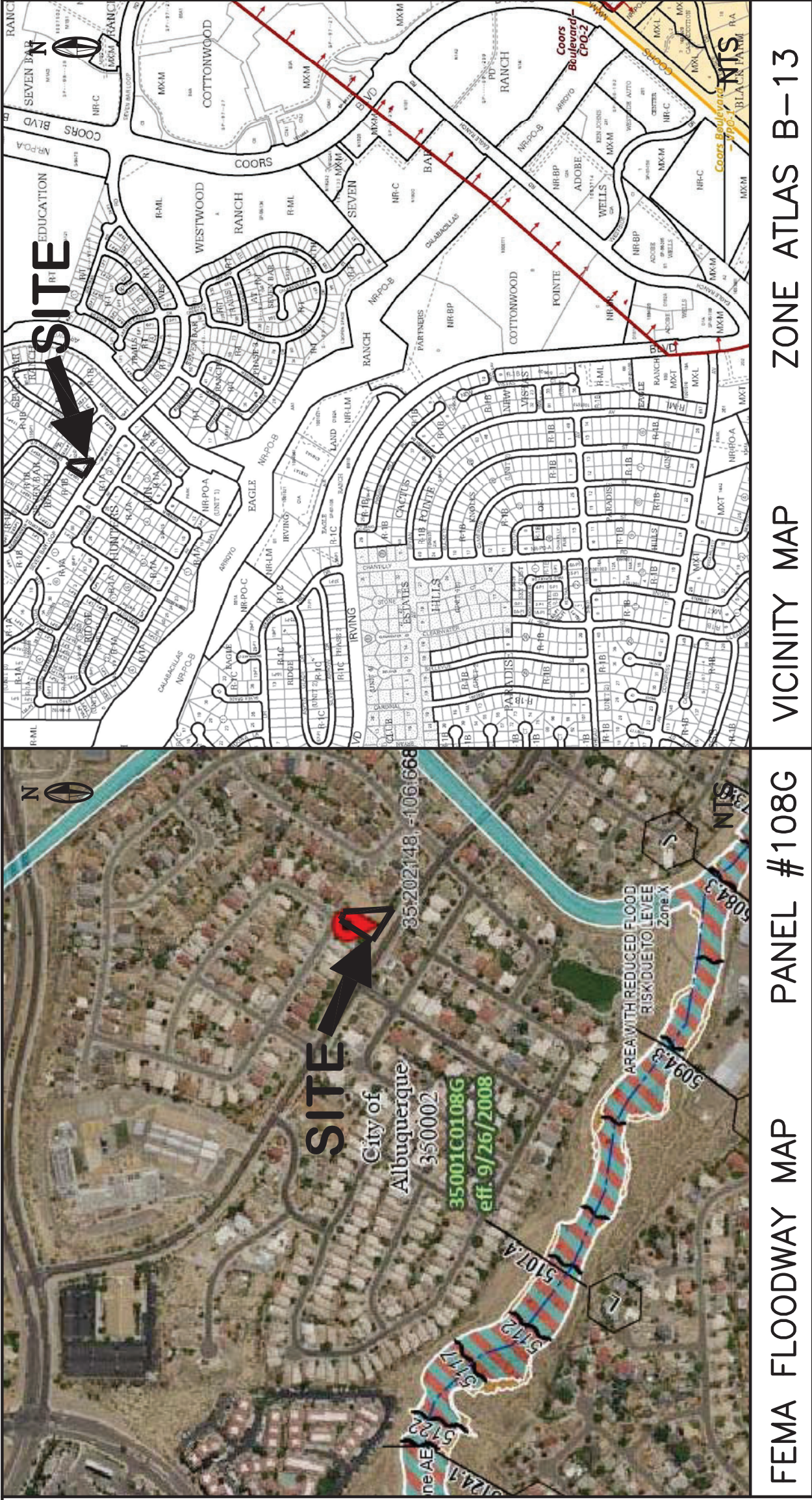
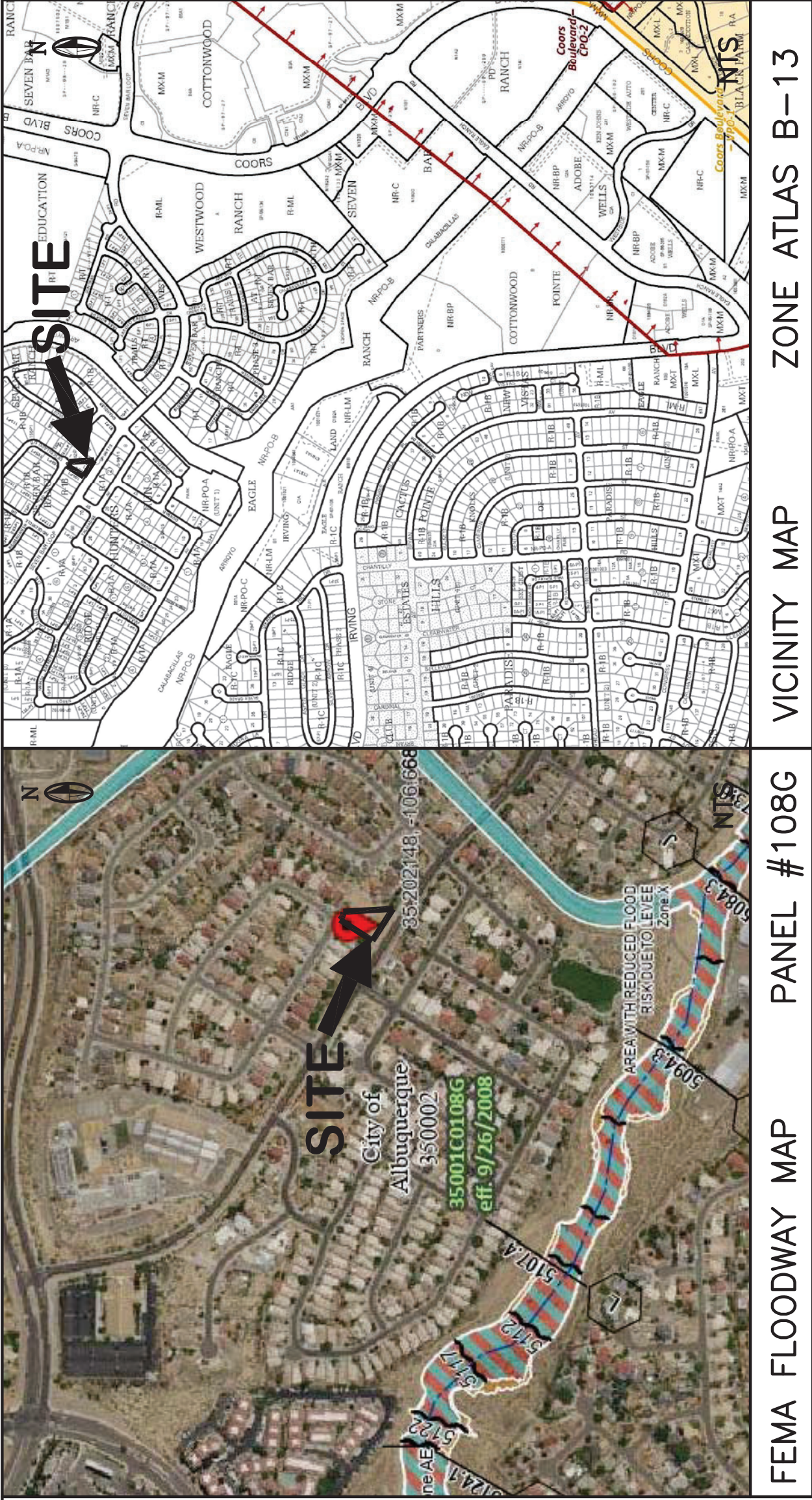
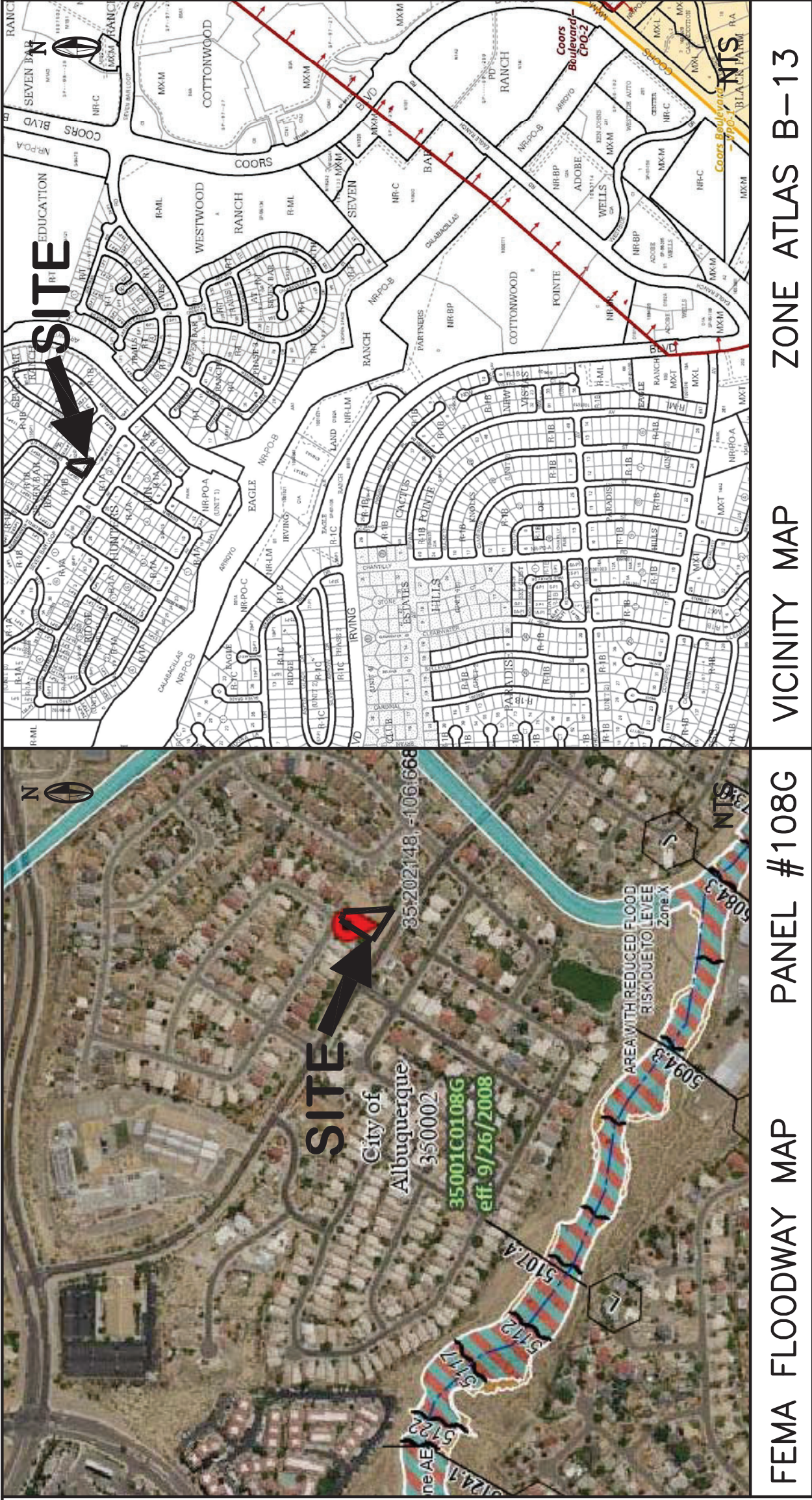
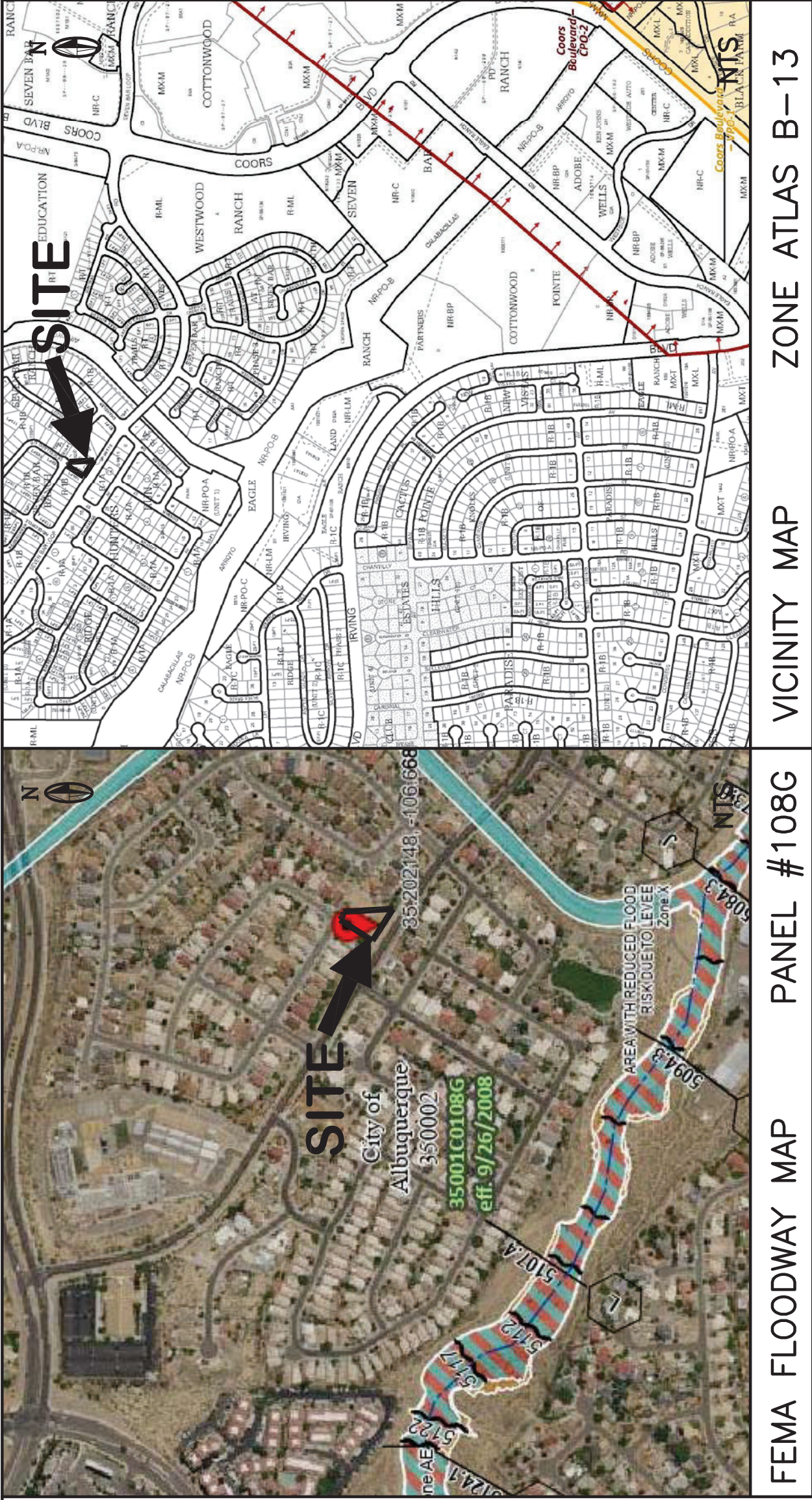
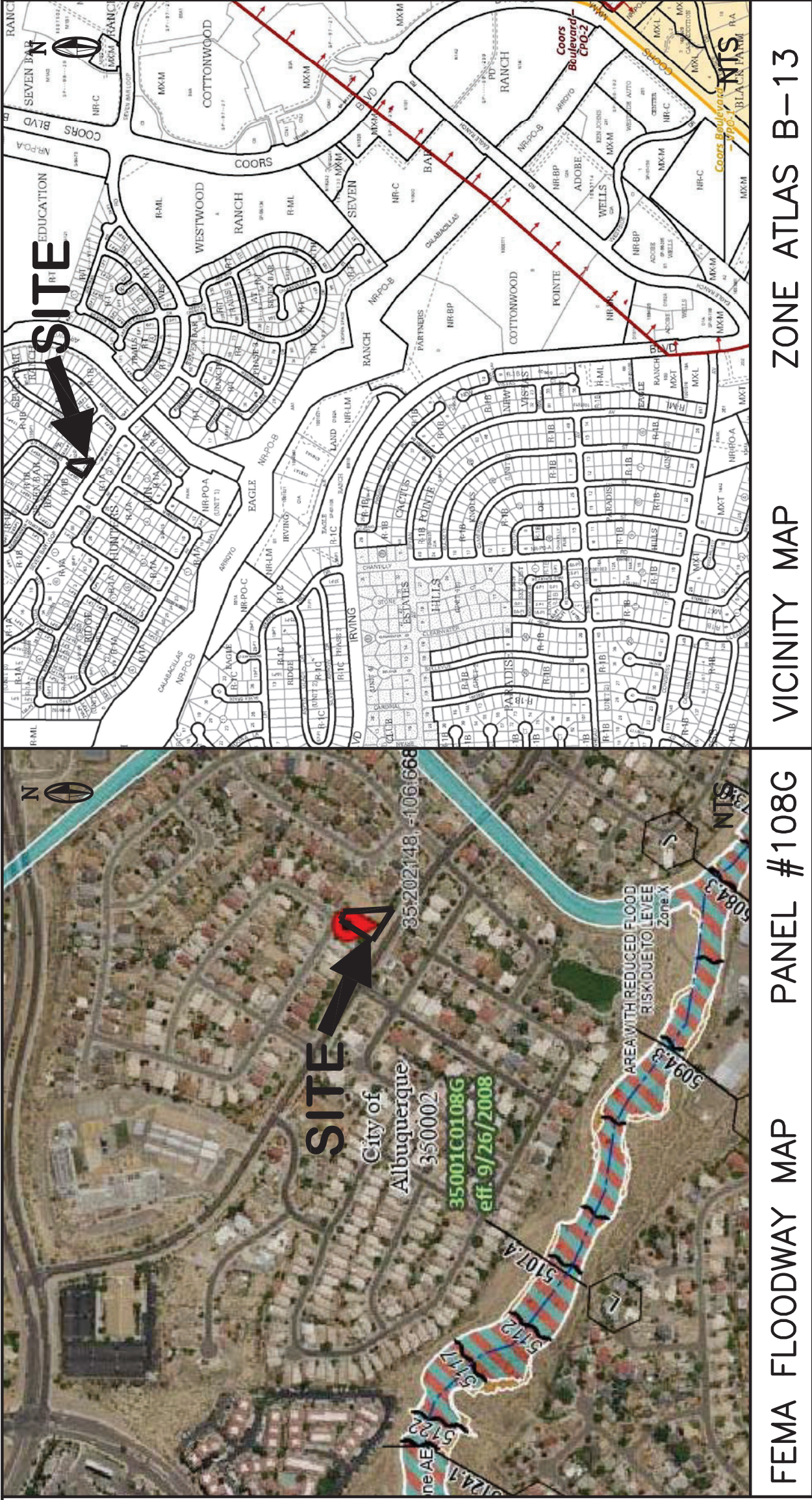
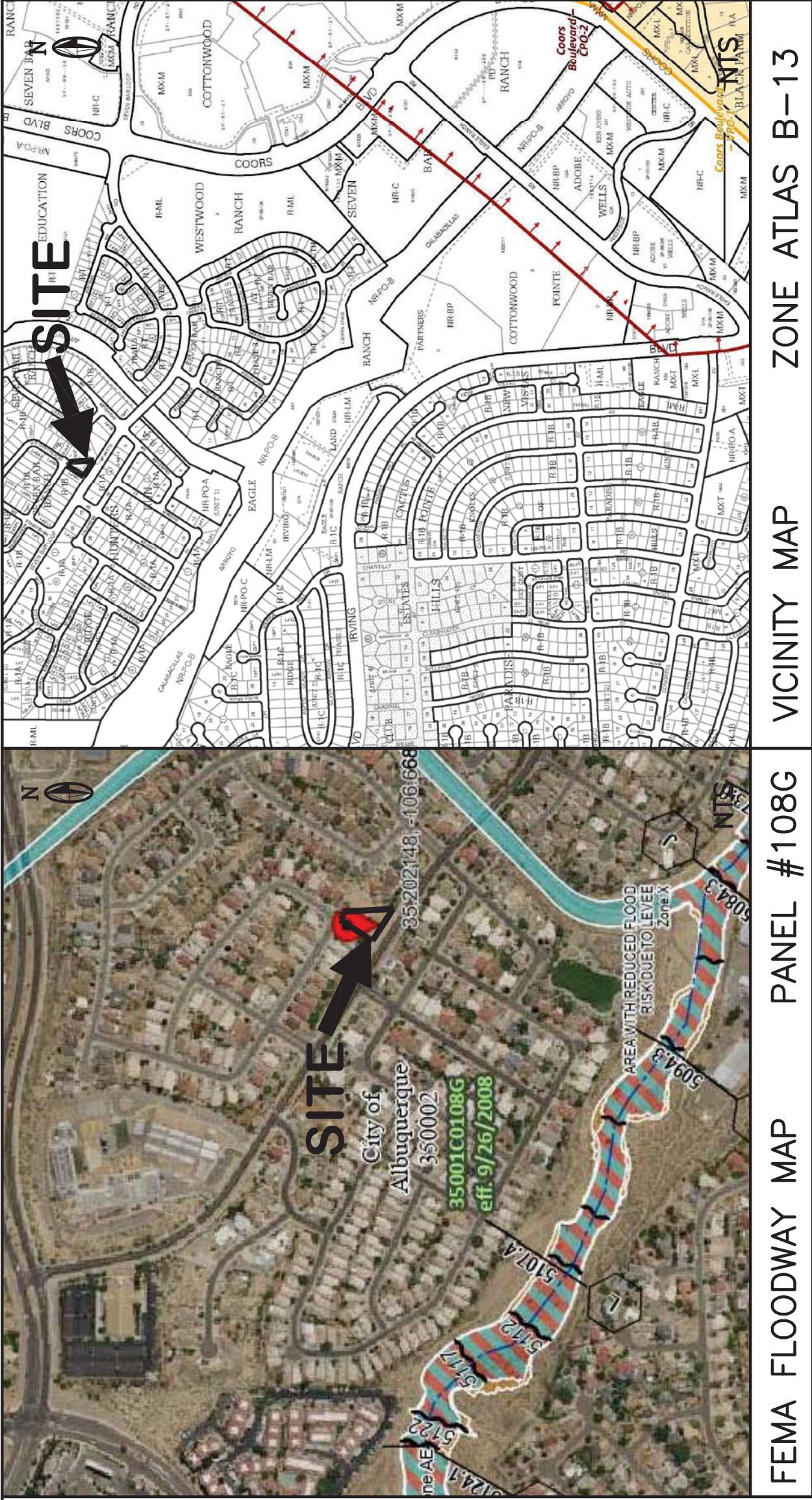
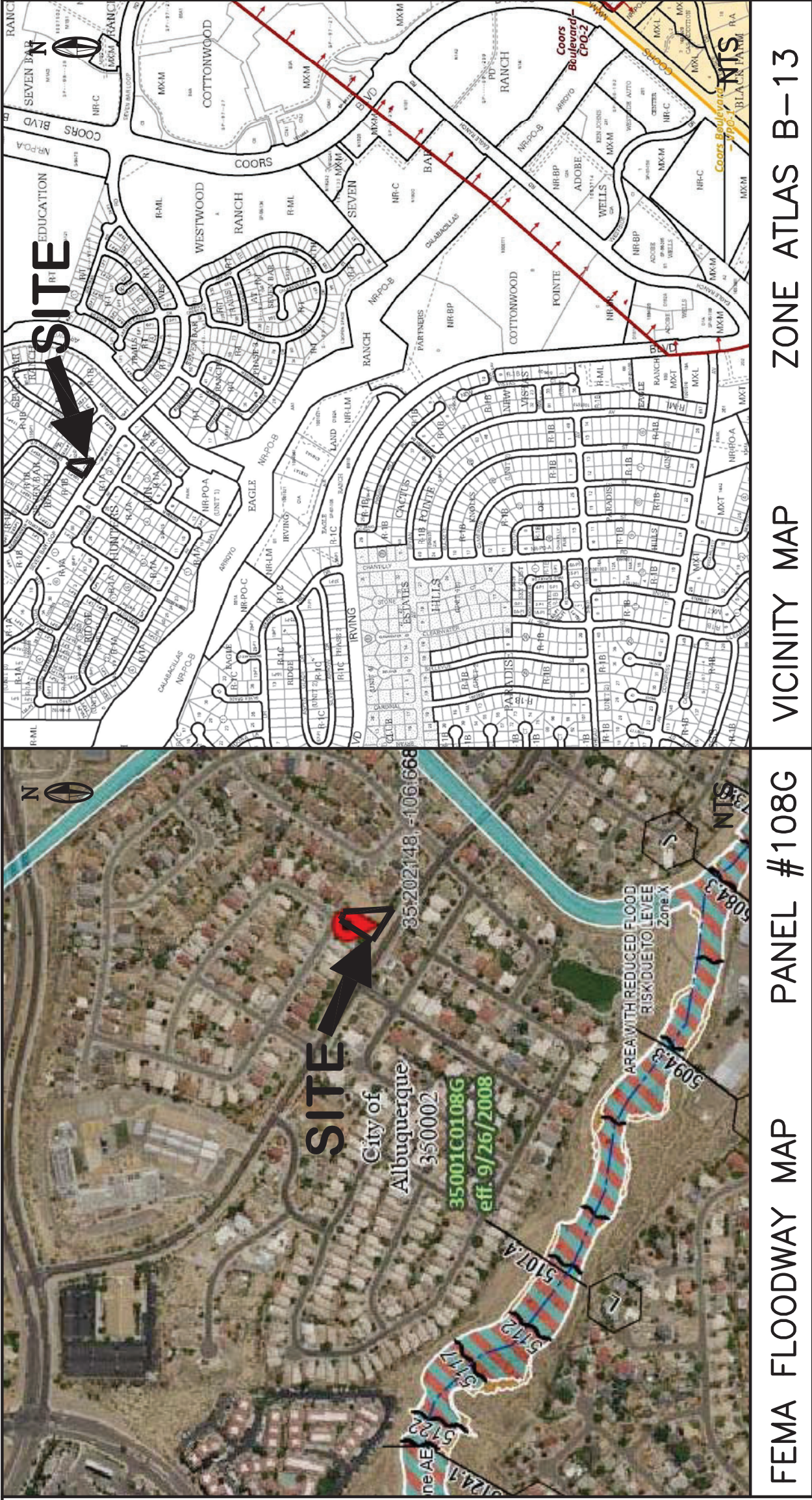
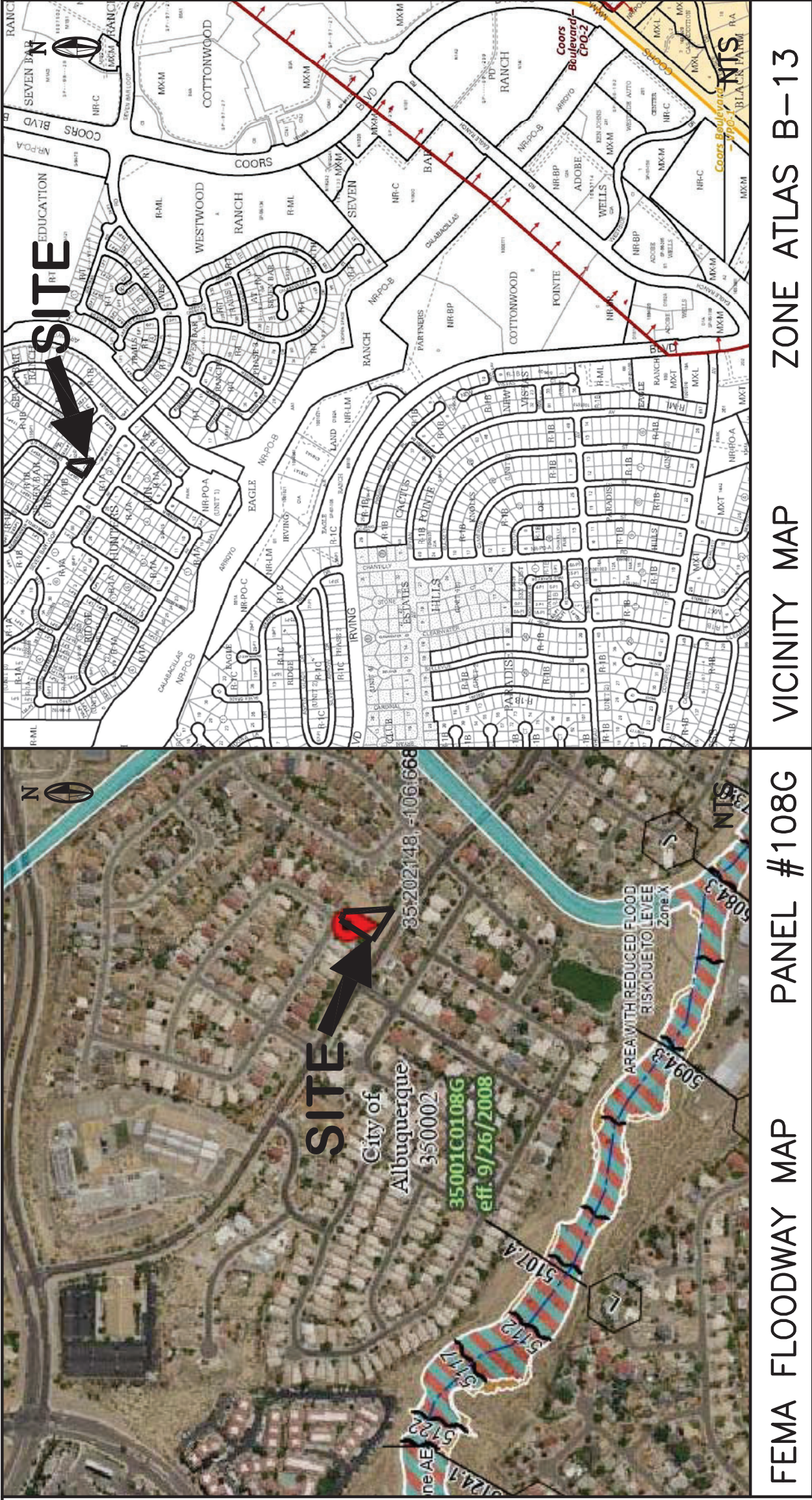
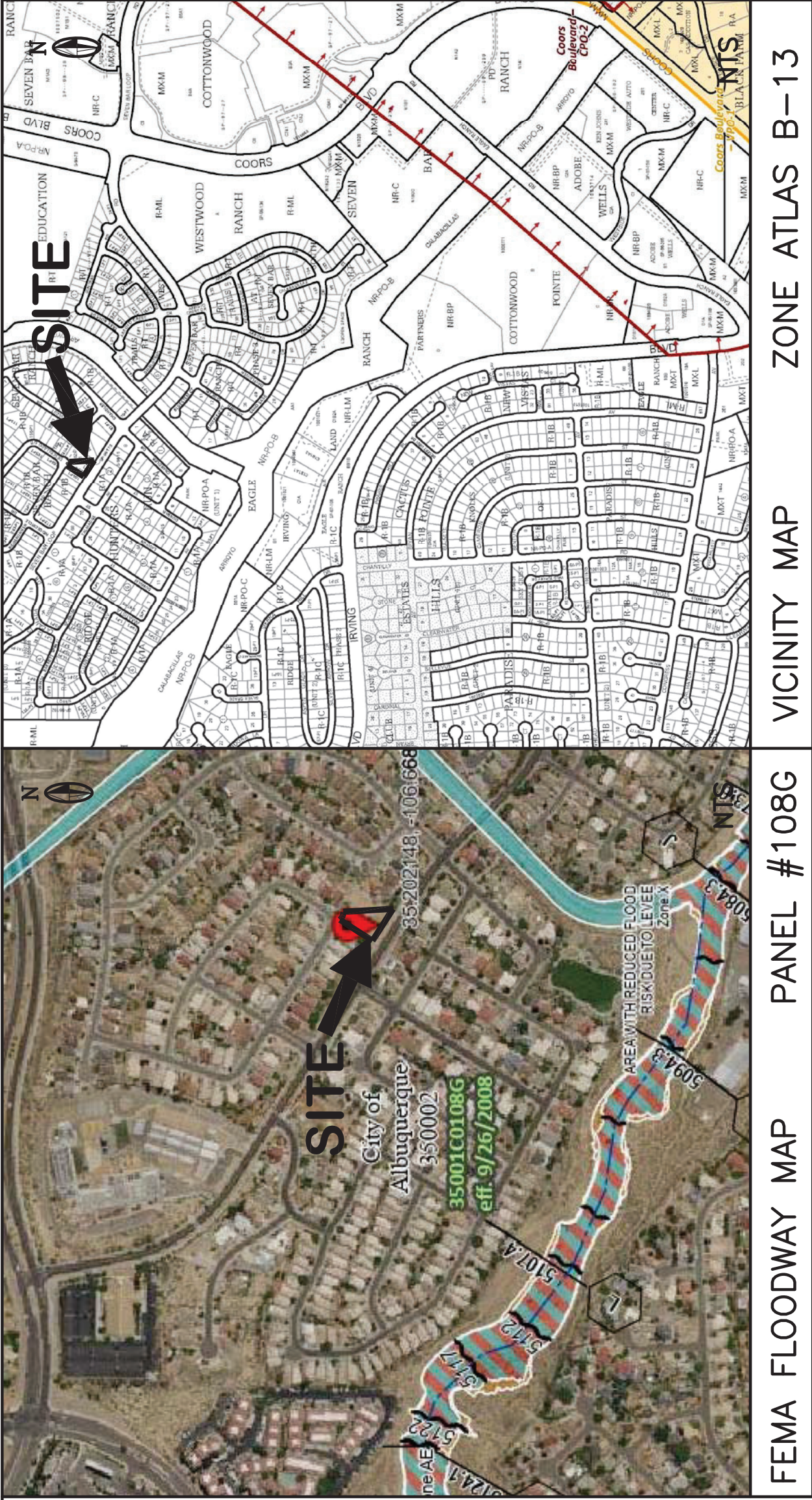
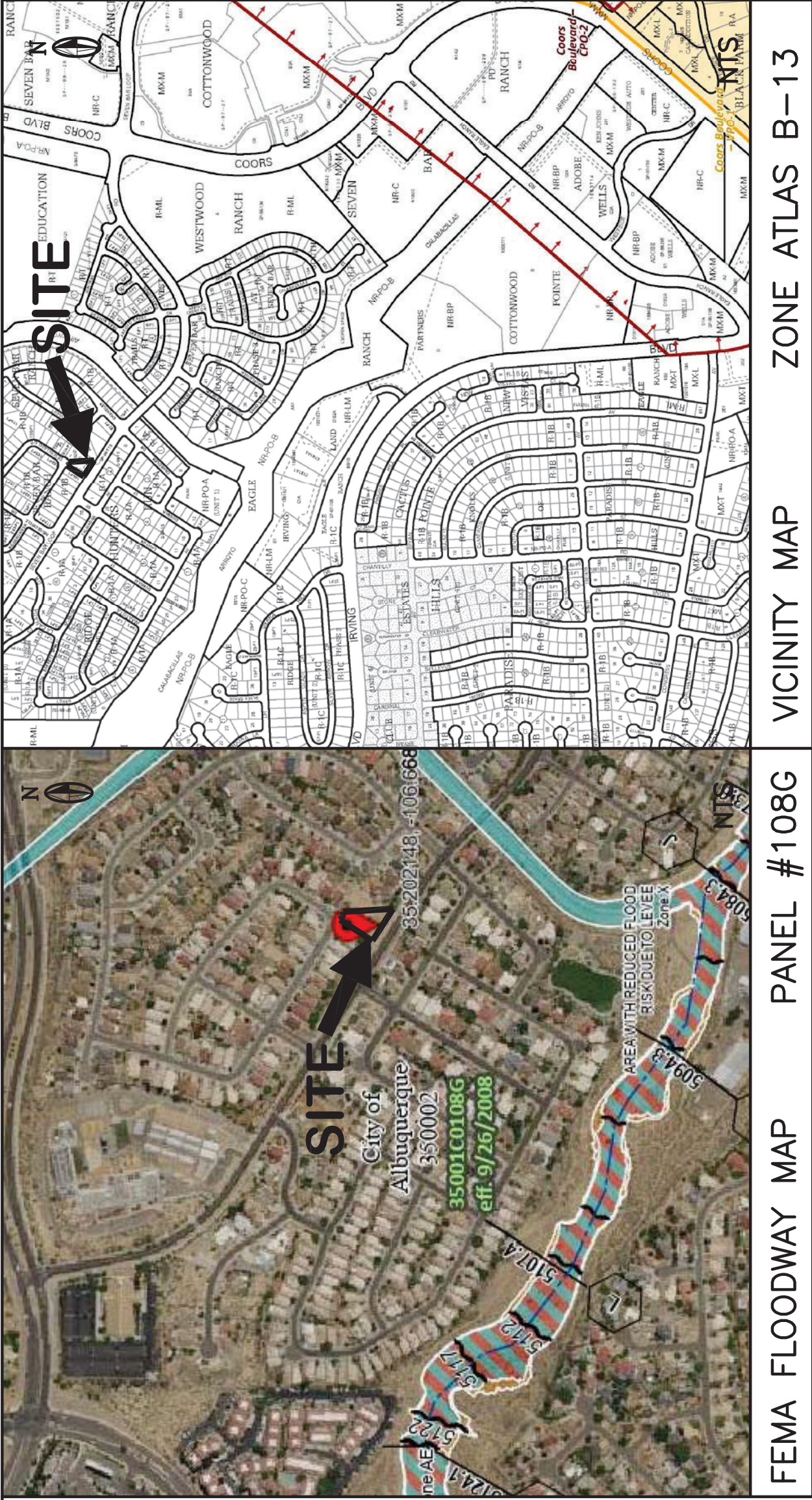
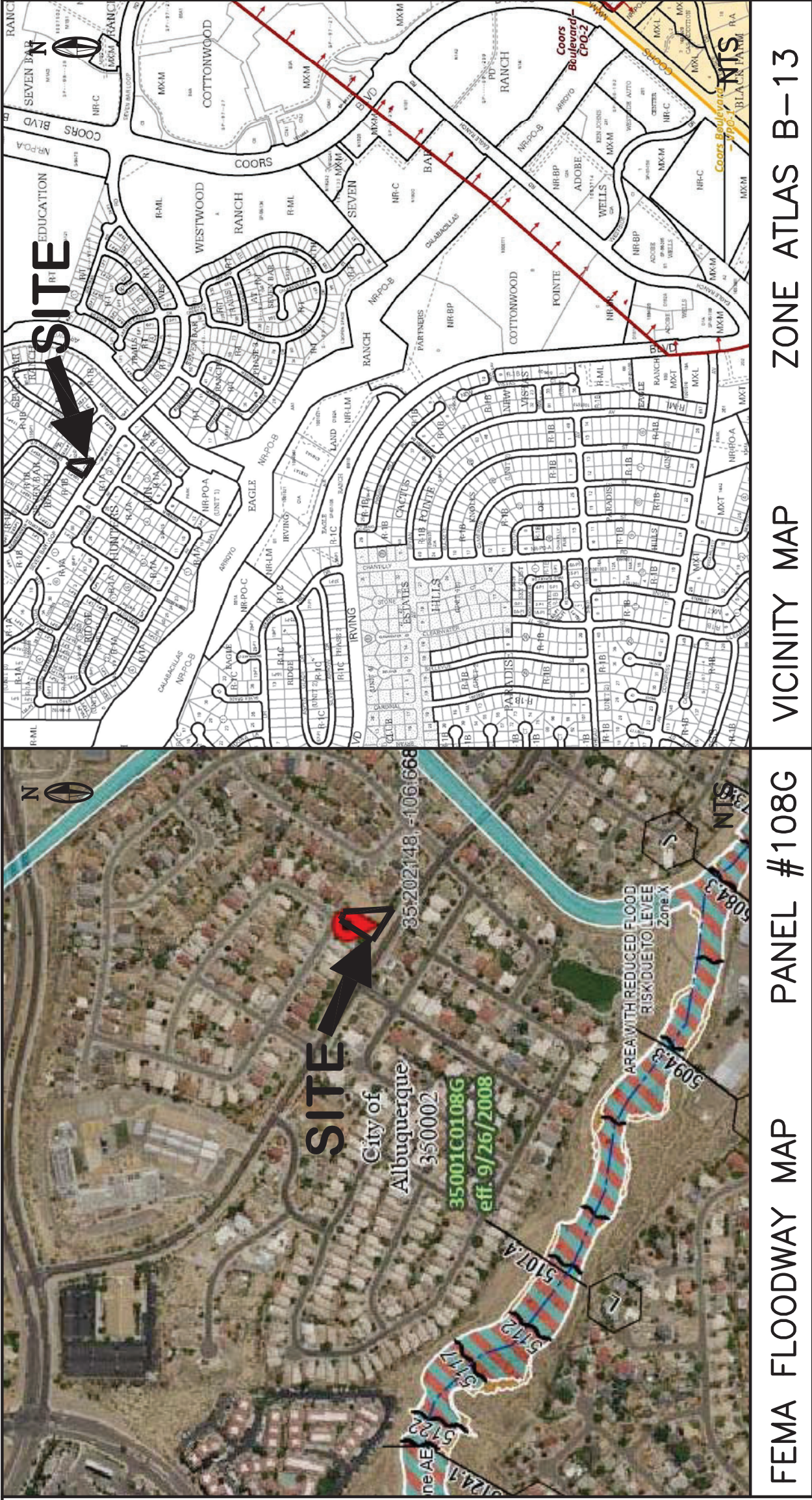
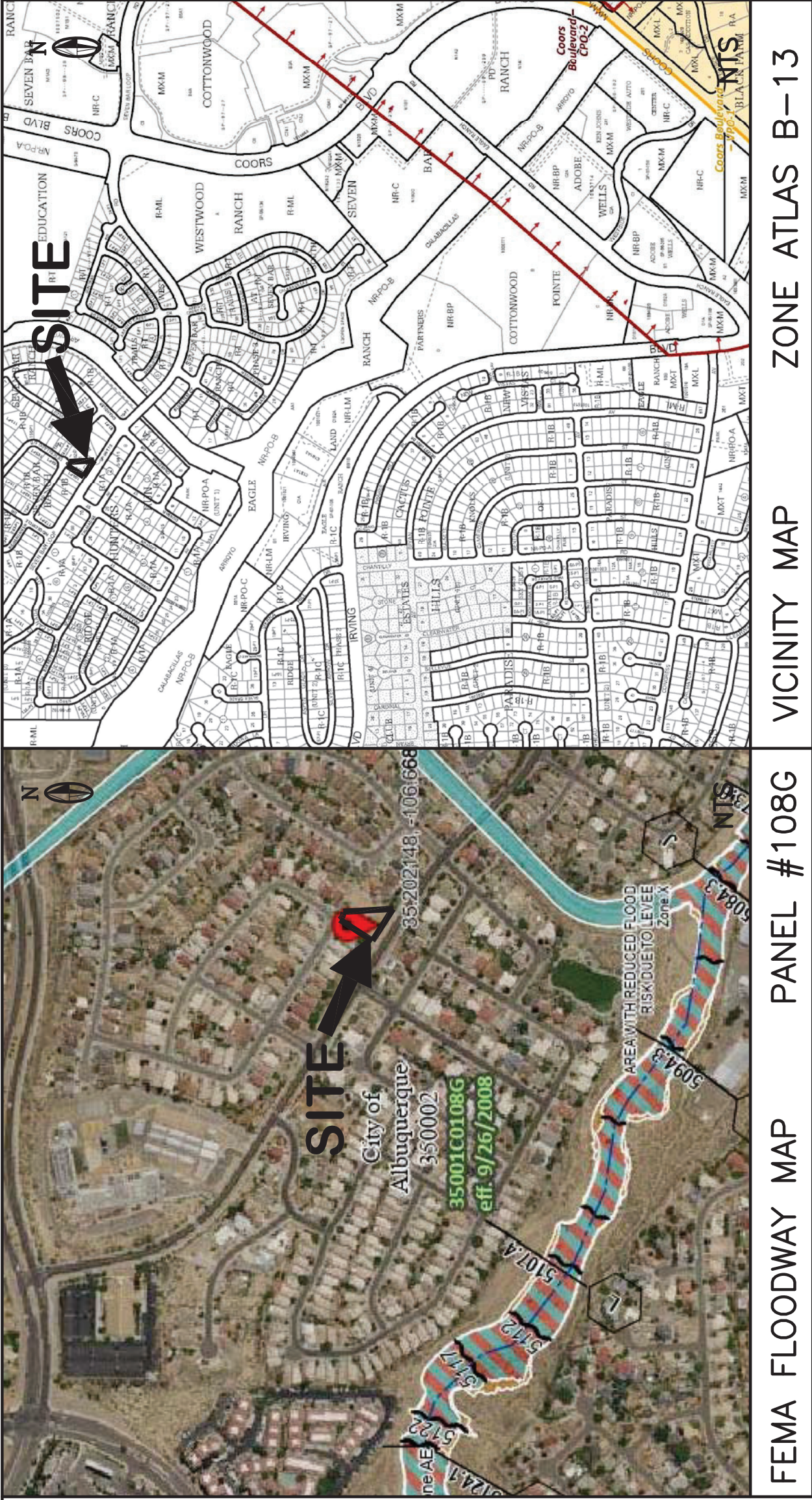
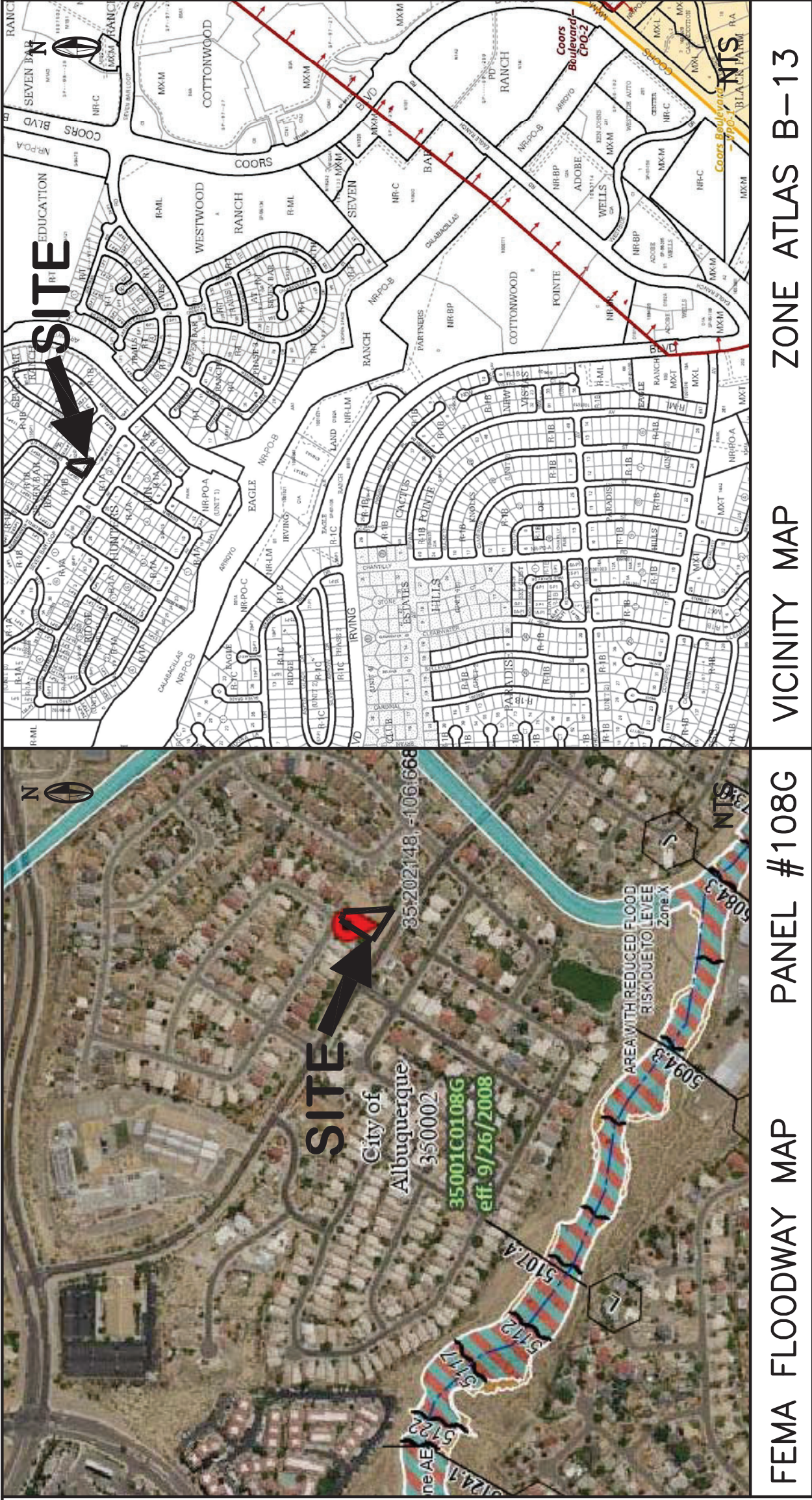
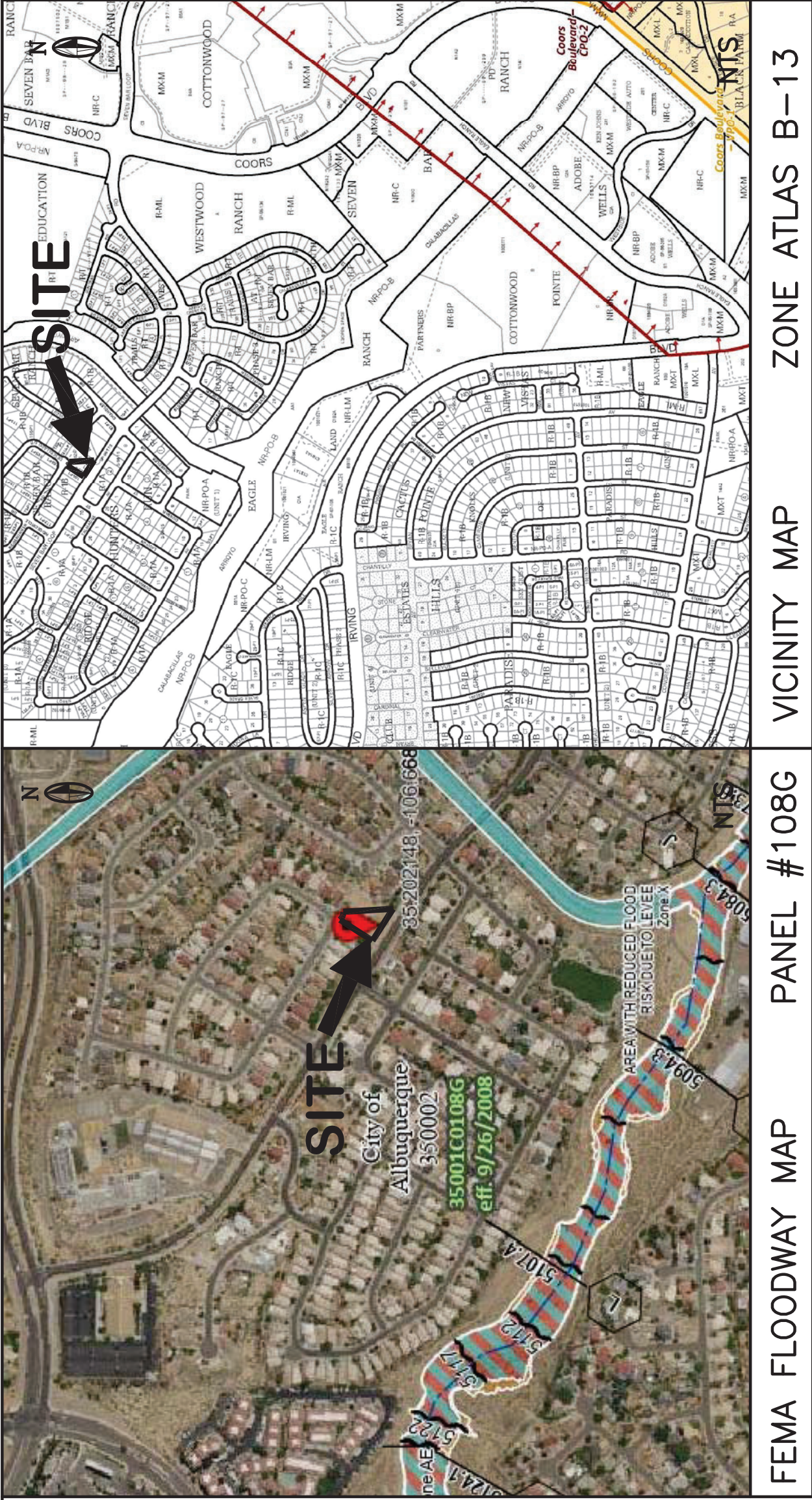
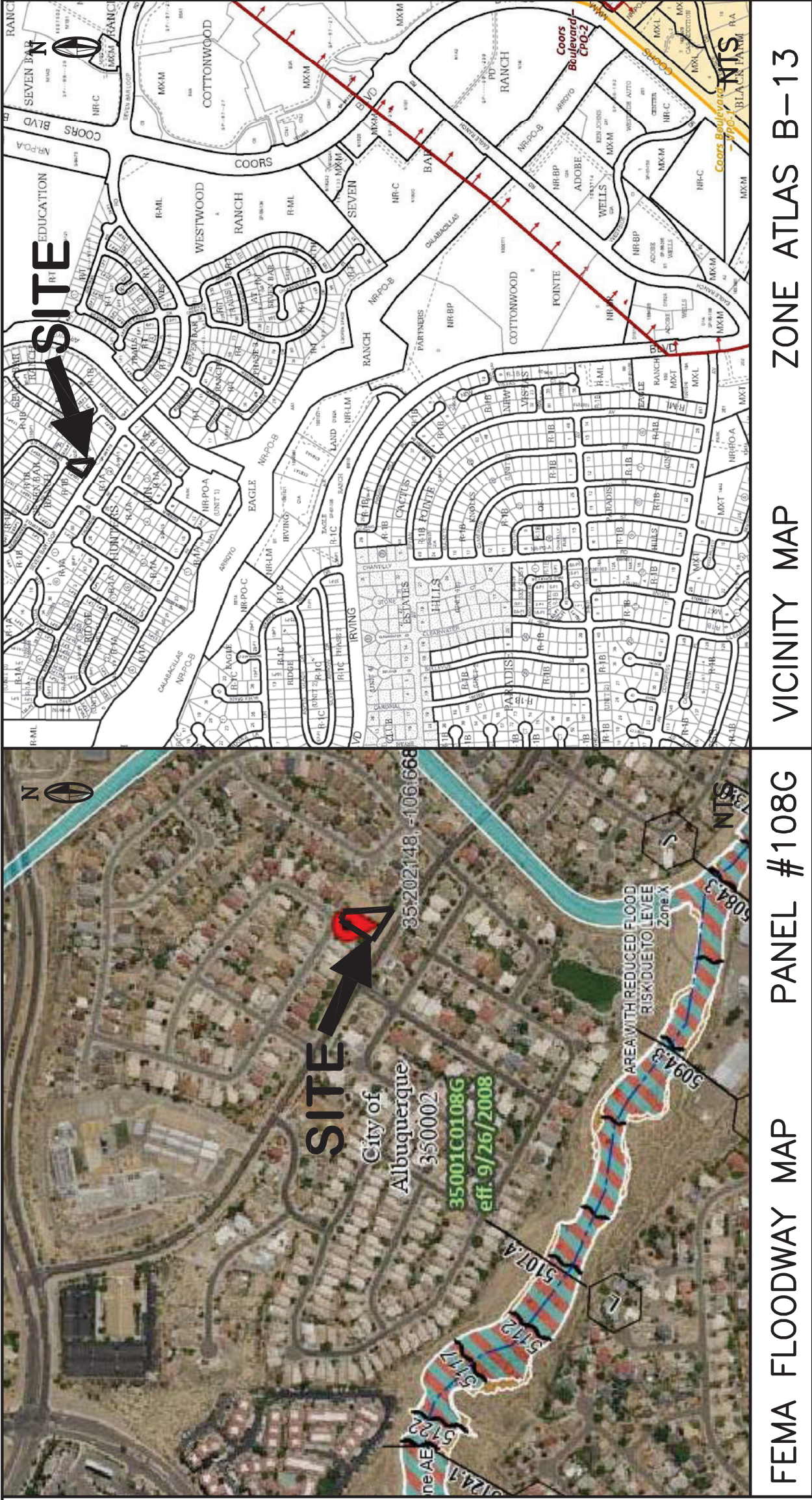
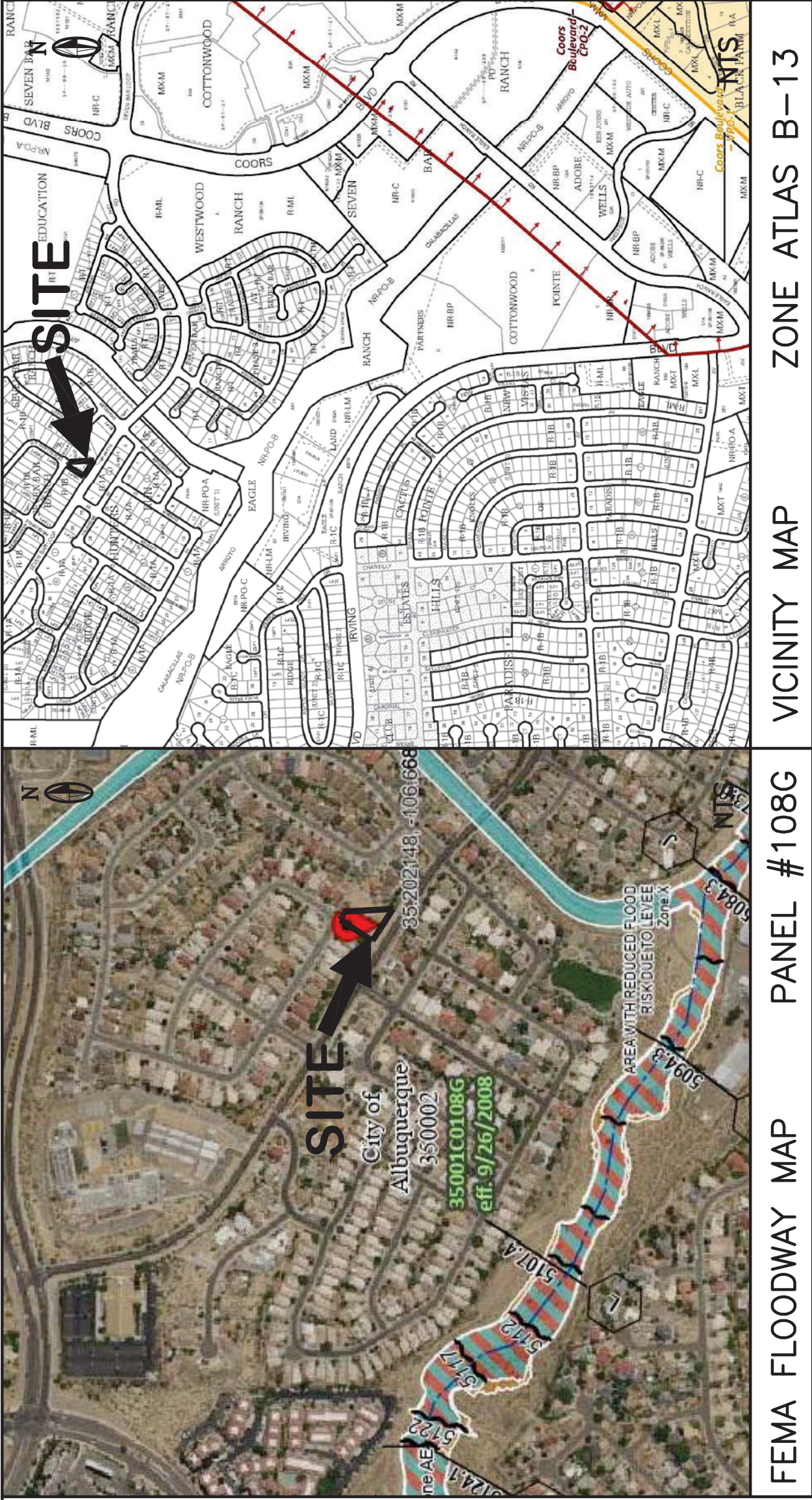
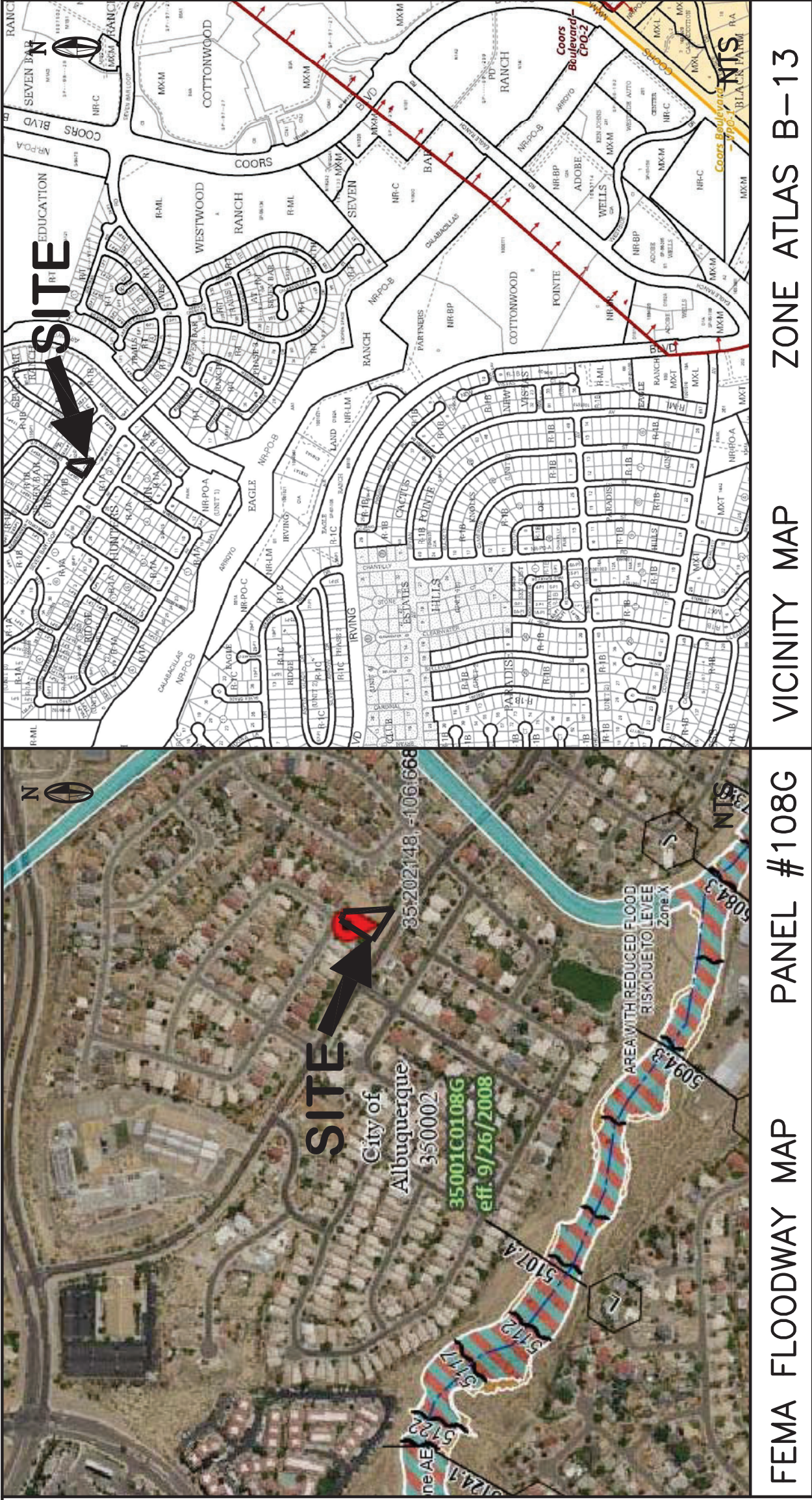
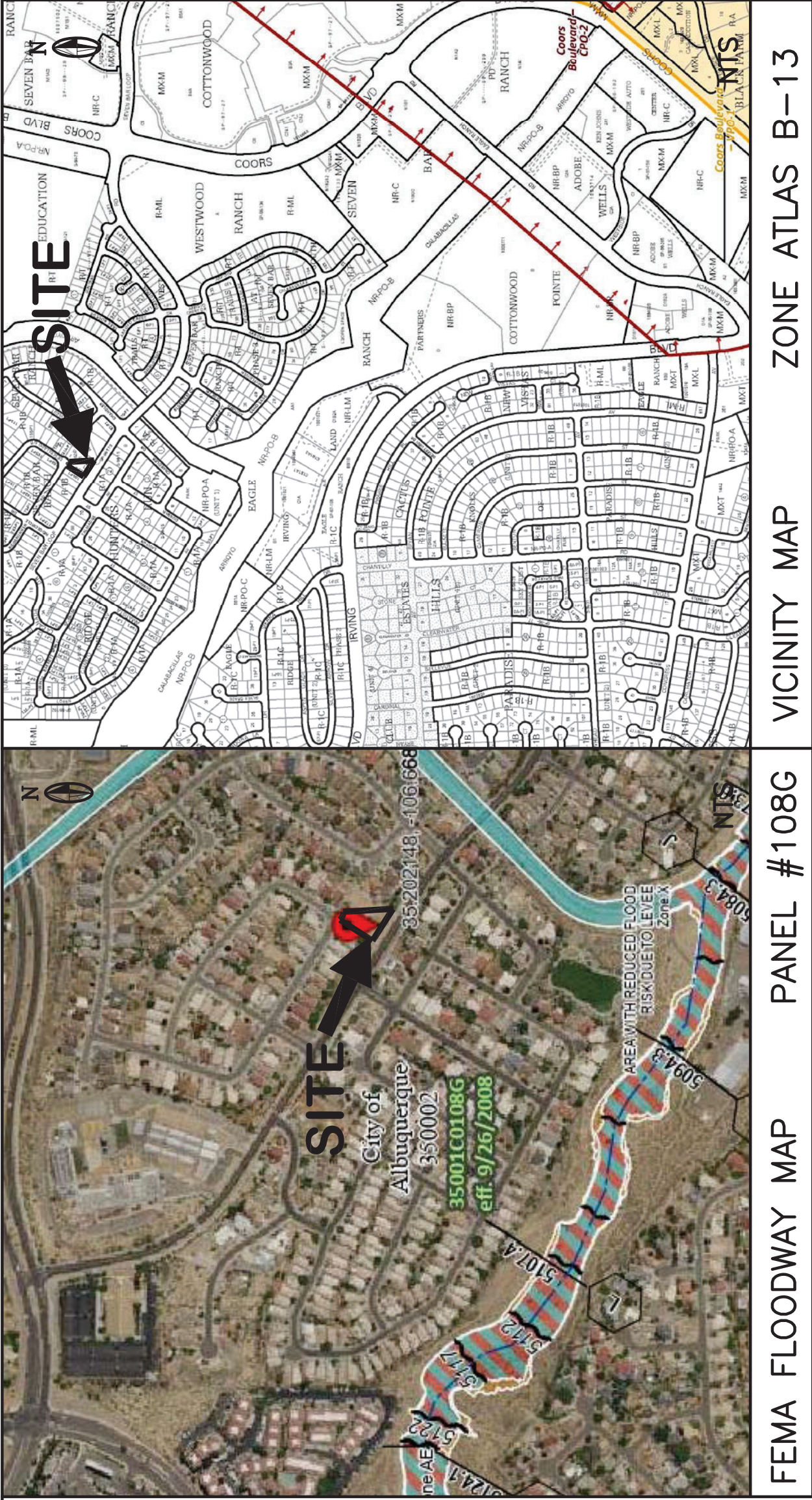
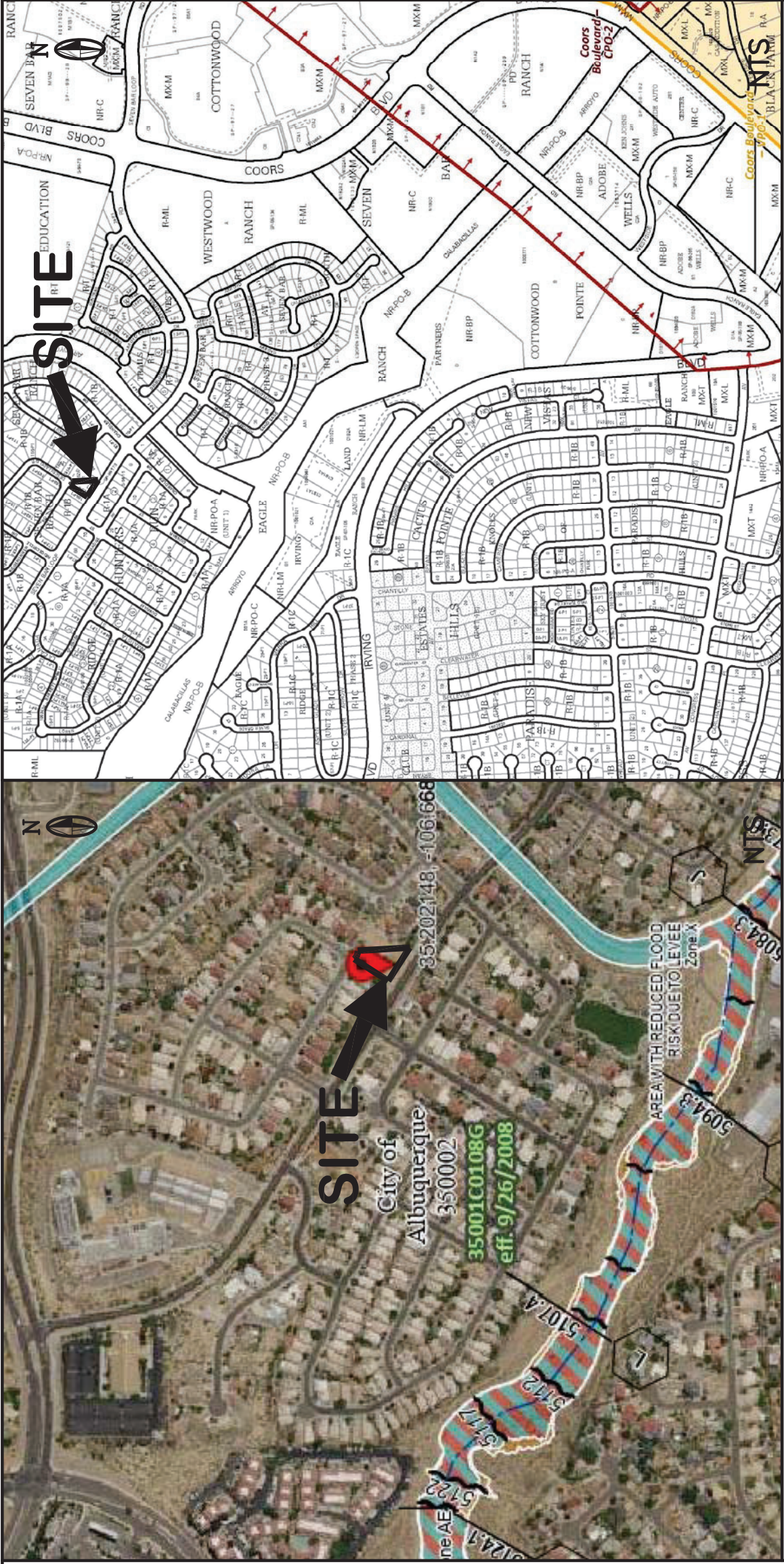
As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3362 or richardmartinez@cabq.gov.

Sincerely,

Richard Martinez, P.E.
Senior Engineer, Hydrology
Planning Department

STANDARD GRADING NOTE: THE MAXIMUM GRADED SIDE SLOPE SHALL NOT EXCEED 3 FEET (HORIZONTALLY) TO 1 FOOT (VERTICALLY). AREAS DISTURBED BY GRADING WHICH WILL NOT BE TREATED WITH LANDSCAPING SHALL BE SEED.



GENERAL STRUCTURAL NOTES

(APPLY UNLESS NOTED OTHERWISE ON PLANS/DETAILS)

GENERAL REQUIREMENTS:

1. THIS DETAIL SHEET APPLIES ONLY TO THE CONSTRUCTION OF RETAINING WALLS (IF PRESENT) AND NOTED OTHER SHEET SPECIFICATIONS FOR OTHER STRUCTURAL MEMBERS (IF PRESENT) BY OTHERS.
2. RETAINING WALL DETAILS ON THIS SHEET APPLY TO THIS PROJECT. HOWEVER THEY MAY NOT BE REFERENCED ON A PLAN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION AND OVER ALL HEIGHT.
3. **IT IS HIGHLY RECOMMENDED THAT THE CONTRACTOR VERIFY OVERALL RETAINING HEIGHT BEFORE ANY PART OF THE RETAINING WALL IS CONSTRUCTED, INCLUDING THE FOOTING.**
4. THESE DRAWINGS AND THEIR ASSOCIATED STRUCTURAL CALCULATIONS HAVE BEEN PERFORMED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS ON THIS OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED IS IN ACCORDANCE WITH THE LATEST EDITIONS OF THE INTERNATIONAL BUILDING CODE, A WORKING KNOWLEDGE OF THE INTERNATIONAL BUILDING CODE CONVENTIONAL FRAMING REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THESE DRAWINGS SHOW GOOD PRACTICE FOR ALL MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
5. THESE DRAWINGS REPRESENT THE INTENT OF THE DESIGN. THEY DO NOT INCORPATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
6. CALCULATION AND DESIGN OF MISCELLANEOUS NON-STRUCTURAL ITEMS, SUCH AS STAIRS, RAILINGS, ETC., ARE NOT INCLUDED AND IS TO BE PROVIDED BY OTHERS. UNLESS SPECIFICALLY NOTED ON THE CALCULATIONS OR DRAWINGS.
7. ANY INSPECTIONS, SPECIAL IFC, CHAPTER 17.0 OR OTHERWISE THAT ARE REQUIRED BY

BASIS FOR DESIGN:

1. BUILDING CODE: 2021 EDITION OF THE IBC WITH CITY/COUNTY AMENDMENTS.
- RISK CATEGORY = II

SPECTRAL RESPONSE ACCELERATIONS	$S_{ms} = 0.424, S_{m1} = 0.136$
3. WIND DESIGN PARAMETERS (STRENGTH):	
ULTIMATE WIND SPEED	115 MPH (3 SECOND GUST)
WIND EXPOSURE	C

FOUNDATION NOTES:

1. IN LIEU OF A GEOTECHNICAL REPORT: THE FOUNDATION HAS BEEN DESIGNED ACCORDING TO THE RECOMMENDATIONS OF CHAPTER 18 OF THE IBC.

THE SOIL DESIGN VALUES FOR THE FOUNDATION DESIGN (PER IBC TABLE 1806.2) ARE:

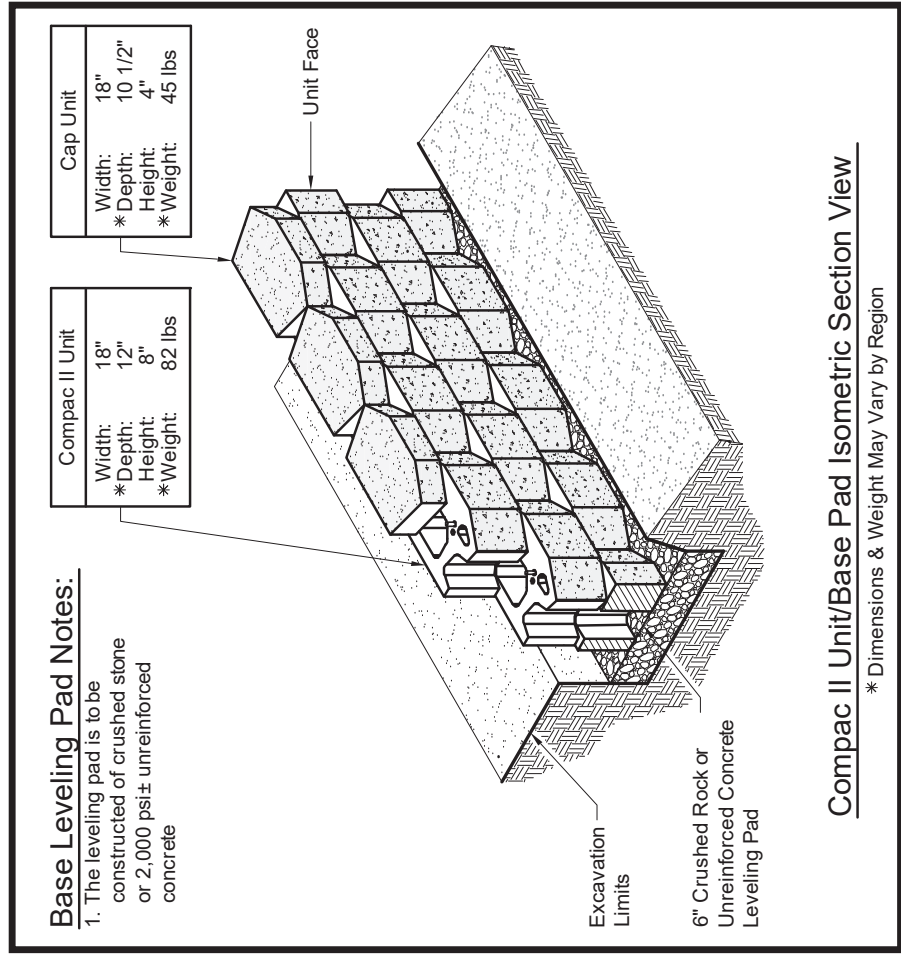
ALLOWABLE BEARING PRESSURE	1500 PSF
ALLOWABLE LATERAL BEARING PRESSURE	150 PSF/FT
ALLOWABLE LATERAL SLIDING COEFFICIENT	0.25
LATERAL BACKFILL PRESSURE (UNRESTRAINED, LEVEL) (UNRESTRAINED, SLOPED)	30 PSF/FT 43 PSF/FT
SITE CLASS	D

3. A ONE-THIRD INCREASE IN BEARING PRESSURES IS ALLOWED WITH SEISMIC OR WIND LOAD COMBINATIONS. LATERAL BEARING AND LATERAL SLIDING RESISTANCE MAY BE COMBINED.

FOUNDATION BEARING DEPTH

16" BELOW FINISHED GRADE

4. ALL GRANULAR LEVELING PADS FOR RETAINING WALLS SHALL BEAR ON UNDISTURBED NATURAL SOIL. BOTTOM OF LEVELING PAD TO BE 16 INCHES MINIMUM BELOW FINISH GRADE. EXCAVATIONS SHALL BE CLEAN AND FREE OF LOOSE DEBRIS OR UN-COMPACTED MATERIAL AT WHEN STARTING LEVELING PADS.



KEYSTONE WALL SYSTEMS:

KEYSTONE RETAINING WALL SYSTEM: (ESR-2113)

SEGMENTAL RETAINING WALL UNITS

1. SRW UNITS SHALL BE MACHINE FORMED, PORTLAND CEMENT BLOCKS SPECIFICALLY DESIGNED FOR RETAINING WALL APPLICATIONS.
2. FINISH OF SRW UNITS SHALL BE SPLIT FACE.
3. SRW UNIT FACES SHALL BE OF STRAIGHT GEOMETRY.
4. SRW UNIT HEIGHT SHALL BE SIX INCHES.
5. SRW UNITS (NOT INCLUDING AGGREGATE FILL IN UNIT VOIDS) SHALL PROVIDE A MINIMUM WEIGHT OF 105 PSF WALL FACE AREA.
6. SRW UNITS SHALL BE SOLID THROUGH THE FULL DEPTH OF THE UNIT.
7. SRW UNITS SHALL HAVE A DEPTH (FRONT FACE TO REAR) TO HEIGHT RATIO OF 2:1 MINIMUM.

8. SRW UNITS SHALL BE INTERLOCKED WITH CONNECTION PINS, DESIGNED WITH PROPER SET BACK TO PROVIDE A 1" VERTICAL TO HORIZONTAL BATTER (A 7 DEGREE CANT FROM VERTICAL).
9. SRW UNITS SHALL BE CAPABLE OF BEING ERECTED WITH THE HORIZONTAL GAP BETWEEN ADJACENT UNITS NOT EXCEEDING 1/8 INCHES.
10. SRW UNITS SHALL BE CAPABLE OF PROVIDING OVERLAP JOINTS ON EACH SUCCESSIVE COURSE OF THE WALLS MEETING AT CORNER UNITS. INTERLOCKED AND CONTINUOUS. SRW UNITS THAT REQUIRE CORNERS TO BE MITERED SHALL NOT BE ALLOWED.

11. SRW UNITS SHALL BE CAPABLE OF PROVIDING A SPLIT FACE, TEXTURED SURFACE FOR ALL VERTICAL SURFACES THAT WILL BE EXPOSED AFTER COMPLETION OF WALL, INCLUDING ANY EXPOSED SIDES AND BACKS OF

12. SRW UNITS SHALL BE SOUND AND FREE OF CRACKS OR OTHER DEFECTS THAT WOULD INTERFERE WITH THE PROPER PLACING OF THE UNIT OR SIGNIFICANTLY IMPAIR THE STRENGTH OR PERFORMANCE OF THE STRUCTURE. CRACKING OR EXCESSIVE CHIPPING MAY BE GROUNDS FOR REJECTION. UNITS SHOWING CRACKS LONGER THAN $1/2"$ SHALL NOT BE USED WITHIN THE WALL. UNITS SHOWING CHIPS VISIBLE AT A DISTANCE OF 30 FEET FROM THE WALL SHALL NOT BE USED WITHIN THE WALL.

13. CONCRETE USED TO MANUFACTURE SRW UNITS SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 3,000 PSI AND A MAXIMUM MOISTURE ABSORPTION RATE, BY WEIGHT, OF 8% AS DETERMINED IN ACCORDANCE WITH ASTM C1372. COMPRESSIVE STRENGTH TEST SPECIMENS SHALL CONFORM TO THE SAW-CUT COUPON PROVISIONS OF ASTM C140.

14. SRW UNITS' MOLDED DIMENSIONS SHALL NOT DIFFER MORE THAN $+ 1/8$ INCH FROM THAT SPECIFIED, IN ACCORDANCE WITH ASTM C1372.

SEGMENTAL RETAINING WALL UNIT CONNECTION PINS

SRW UNITS SHALL BE INTERLOCKED WITH VERSA-TUFF CONNECTION PINS. THE PINS SHALL CONSIST OF GLASS-REINFORCED NYLON MADE FOR THE EXPRESSED USE WITH THE SRW UNITS SUPPLIED

GEOSYNTHETIC REINFORCEMENT

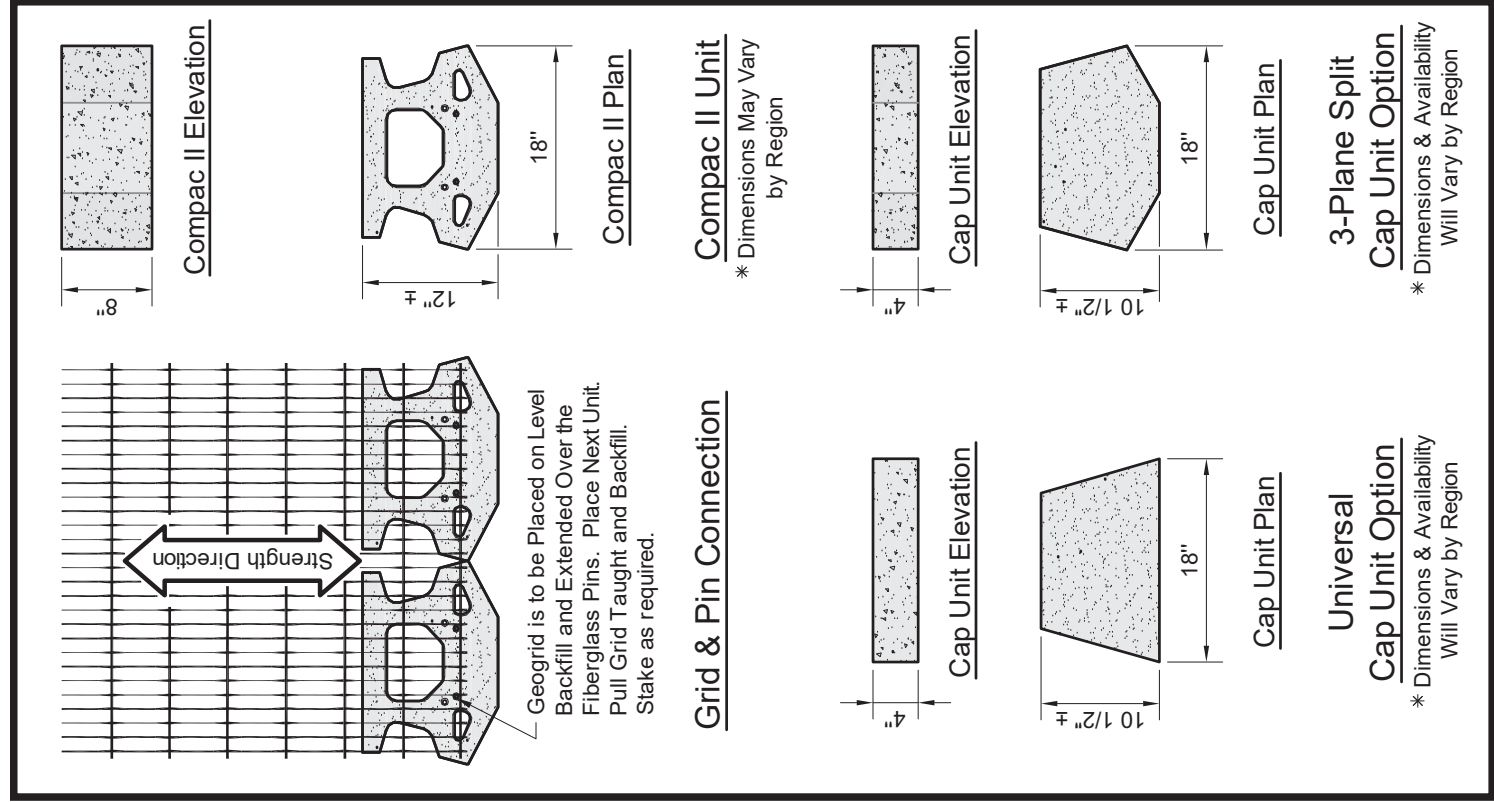
1. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS OR GEOTEXTILES MANUFACTURED AS A SOIL REINFORCEMENT ELEMENT. THE MANUFACTURERS/SUPPLIERS OF THE GEOSYNTHETIC REINFORCEMENT SHALL HAVE DEMONSTRATED CONSTRUCTION OF SIMILAR SIZE AND TYPES OF SEGMENTAL RETAINING WALLS ON PREVIOUS PROJECTS.

THE GEOSYNTHETIC TYPE MUST BE APPROVED ONE WEEK PRIOR TO BID OPENING, GEOSYNTHETIC TYPES ARE CURRENTLY APPROVED FOR THIS PROJECT ARE: VERSA-GRID GEOGRIDS.

2. THE TYPE, STRENGTH, AND PLACEMENT LOCATION OF THE REINFORCING GEOSYNTHETIC SHALL BE DETERMINED BY THE WALL DESIGN ENGINEER, AS SHOWN ON THE FINAL, P.E. SEALED RETAINING WALL PLANS.

LEVELING PAD

MATERIAL FOR LEVELING PAD PAD SHALL CONSIST OF COMPACTED SAND, GRAVEL, OR COMBINATION THEREOF (USCS SOIL TYPES GP, GW, SR, & SW) AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH. LEAN CONCRETE WITH A STRENGTH OF 200-300 PSI AND THREE INCHES THICK MAXIMUM MAY ALSO BE USED AS A LEVELING PAD MATERIAL. LEVELING PAD SHOULD EXTEND LATEROALLY AT LEAST A DISTANCE OF 6 INCHES FROM THE TOE AND HEEL OF THE LOWERMOST SRW UNIT.



REV.	DATE	BY	DESCRIPTION
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This drawing is the property of FROST Structural Engineering, Inc. and is not to be used for the project and site specifically identified hereon and is not to be used on any other project. Contractor shall carefully review all dimensions, details, and conditions and report at once any error, inconsistency or omission discovered before construction. The contractor assumes full liability for deviations from the intent of these plans.

PROJECT: 4200 RIDGERUNNER ROAD NW
KEYSTONE RETAINING WALLS
ALBUQUERQUE, NM
UPS # 1013030518246420411

CLIENT: DEANZ & PROST



DATE: 5/15/25		CURRENT REV: 1	
RW1			
GENERAL STRUCTURAL NOTES, TYPICAL DETAILS			
JOB NO: 2024-220		PROJECT MANAGER: ANDY F	
CAD OPERATOR: ASF			
FROST STRUCTURAL ENGINEERING 1678 Oaklawn Drive, Suite C Prescott, Arizona 86305 phone: 928.776.4757 fax: 928.776.4731 info@frost-structural.com			

