



VICINITY MAP J-14

LEGAL DESCRIPTION

LOTS 8, 9, 10, AND 11, BLOCK 3, ANDERSON ADDITION, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

ACS BENCHMARK

ACS MONUMENT "24-J14", LOCATED AT THE NORTHEAST QUADRANT OF THE INTERSECTION OF FOURTH STREET AND CONSTITUTION AVENUE, ELEVATION = 4958.37.

SURVEY NOTES

FIELD SURVEY BY: CARTESIAN SURVEYS P.O. BOX 44414 RIO RANCHO, NM 87174
SURVEY DATE: SEPT., 1999
PHONE: (505) 896-3050
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THE RECORD INFORMATION SHOWN HEREON WAS FROM THE ALTA/ASOM SURVEY BY THOMAS W. PATRICK "LS 12651", ENTITLED "ALTA/A.C.S.M. LAND TITLE SURVEY, LOTS 8, 9, 10, AND 11, BLOCK 3, ANDERSON ADDITION", DATED MARCH 19, 1999.

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE SURVEYOR BY THE APPROPRIATE UTILITY COMPANIES. SURVEYOR DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

FLOODPLAIN

THE PROPERTY SHOWN HEREON LIES WITHIN ZONE X PER THE FLOOD INSURANCE RATE MAP OF THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, COMMUNITY-PANEL NO. 35001C0332 D, EFFECTIVE DATE SEPTEMBER 20, 1996 AS SHOWN ON THIS SHEET.

GRADING PLAN

CONSTRUCTION NOTE:

STRUCTURAL MODIFICATIONS REQUIRED TO ACCOMMODATE THE ADDITIONAL FILL ADJACENT TO THE FOUNDATION OF THE EXISTING RESIDENCE WHICH IS TO REMAIN IS THE RESPONSIBILITY OF THE OWNER.

DRAINAGE REPORT FOR BLAIR DEVELOPMENT

LOCATION & DESCRIPTION

THE PROPOSED SITE IS 0.38 ACRES LOCATED AT THE NORTHEAST CORNER OF 3RD STREET AND CONSTITUTION AVENUE, AS SHOWN ON THIS SHEET. IT IS CURRENTLY DEVELOPED WITH TWO (2) RESIDENCES AND A METAL STORAGE BUILDING. THE REMAINING PORTION OF THE LOT HAS BEEN USED HEAVILY FOR PARKING AND THEREFORE IS HARD COMPACTED EARTH. THE PROPOSED IMPROVEMENTS FOR THIS PROJECT INCLUDE REMOVING ONE OF THE RESIDENCES AND A PORTION OF THE METAL BUILDING. A NEW SHOP BUILDING AND GRAVEL PARKING LOT WILL BE CONSTRUCTED IN THE LOCATION OF THE DIRT PARKING LOT AND THE RESIDENCE TO BE REMOVED.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0332 D, DATED SEPTEMBER 20, 1996 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN. HOWEVER, 3RD STREET IS DESIGNATED AS A ZONE AO (DEPTH 1') FLOODPLAIN AS SHOWN ON THE FIRM PANEL ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 2 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION WAS USED TO ESTABLISH THE 6-HOUR PRECIPITATION, EXCESS PRECIPITATION, AND PEAK DISCHARGE.

EXISTING DRAINAGE

THIS ENTIRE CITY BLOCK DRAINS TO AN ALLEY AND ENTERS CONSTITUTION AVENUE MID BLOCK BETWEEN 2ND STREET AND 3RD STREET (SEE FIRM MAP AND VICINITY MAP ON THIS SHEET). THE SITE TO BE DEVELOPED WAS

ANALYZED AS THE "ONSITE DRAINAGE BASIN" AND THE REST OF THE BLOCK WAS ANALYZED AS THE "OFFSITE DRAINAGE BASIN" IN ORDER TO DETERMINE THE TOTAL RUNOFF FOR THIS AREA.

DEVELOPED CONDITION

THE SITE WAS ALSO ANALYZED FOR THE NEW DEVELOPMENT. THE EXISTING HARD PACKED DIRT PARKING AREA WAS ANALYZED AS LAND TREATMENT C. THEREFORE, BY REMOVING ONE OF THE EXISTING RESIDENCES, A PORTION OF THE METAL BUILDING, AND THE ADJOINING SIDEWALKS, A LARGER SHOP BUILDING CAN BE ADDED TO THIS PROPERTY WITHOUT SIGNIFICANTLY INCREASING THE RUNOFF. THIS ANALYSIS INCLUDES CONSTRUCTING A 6' SIDEWALK WITHIN THE STREET RIGHT-OF-WAY ADJACENT TO THIS PROPERTY ON BOTH 3RD STREET AND CONSTITUTION AVENUE. EVEN WITH THESE PUBLIC INFRASTRUCTURE IMPROVEMENTS, THE RUNOFF FROM THIS SITE ONLY INCREASES THE BLOCK RUNOFF BY 0.31 CFS (1.37%) AND 703 CUBIC FEET (1.94%). THESE CALCULATIONS ARE SHOWN ON THE 100-YEAR HYDROLOGIC CALCULATIONS TABLE ON THIS SHEET. THE SITE IS BEING GRADED TO MAINTAIN THE FINISHED FLOOR OF THE NEW BUILDING APPROXIMATELY 1.5' ABOVE THE FLOW LINE OF 3RD STREET THEREBY PROTECTING IT FROM THE 3RD STREET FLOODPLAIN WITH 0.5' FREEBOARD. THE ALLEY HAS BEEN EVALUATED CONSERVATIVELY AS A 16' WIDE RECTANGULAR CHANNEL WITH A MANNING'S 'N' VALUE OF 0.030 AND A SLOPE OF 0.40%. BASED ON MANNING'S EQUATION $Q = (1.49/N) * A * R^{0.67} * (S^{0.5})$ THE FLOW DEPTH IN THE ALLEY FOR 22.77 CFS WILL BE 0.64'. THIS CORRESPONDS TO A WATER SURFACE ELEVATION OF APPROXIMATELY 4958.4 ADJACENT TO THIS BUILDING. THEREFORE, IT IS CONCLUDED THAT THESE IMPROVEMENTS HAVE A NEGLIGIBLE HYDRAULIC IMPACT ON THE SURROUNDING PROPERTIES. THERE IS A SMALL AREA AT THE NORTHEAST CORNER OF THIS PROPERTY WHICH DOES NOT DRAIN TO THE ALLEY. THEREFORE, A SMALL REAR YARD POND HAS BEEN INCLUDED TO COLLECT THE 10-DAY RUNOFF VOLUME FROM THE EXISTING METAL BUILDING. ALTHOUGH THIS POND WILL RECEIVE 273 CUBIC FEET AND 0.12 CFS, THE CALCULATIONS INDICATING A DEVELOPED RUNOFF OF 0.84 ACRE-Feet AND 22.77 CFS ENTERING CONSTITUTION AVENUE DOES NOT TAKE CREDIT FOR THE POND VOLUME. THIS IS IN ACCORDANCE WITH SECTION 22.2 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL.

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	A (%)	B (%)	C (%)	D (%)	E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (10 day) (acre-ft)	V (10 day) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
ONSITE	0.3839	0.00	0.00	78.80	21.40	1.34	0.04	1,870	0.05	2,347	1.33
OFFSITE	4.6786	0.00	0.00	10.00	90.00	2.02	0.79	34,323	1.35	58,779	21.26
TOTAL	5.0625						0.83	36,193	1.40	61,126	22.59
PROPOSED CONDITIONS											
ONSITE	0.3839	0.00	0.00	27.85	72.35	1.85	0.06	2,573	0.10	4,186	1.64
POND	0.0314	0.00	0.00	51.00	49.00	1.62	0.00	184	0.01	273	0.12
OFFSITE	4.6786	0.00	0.00	10.00	90.00	2.02	0.79	34,323	1.35	58,779	21.26
TOTAL	5.0625						0.85	36,896	1.45	62,965	22.90
EXCESS PRECIP.											
		0.53	0.78	1.13	2.12	E (in)					
PEAK DISCHARGE							1.56	2.28	3.14	4.7	Q _{pk} (cfs)
WEIGHTED E (in) = (E_A)(%A) + (E_B)(%B) + (E_C)(%C) + (E_D)(%D)											
V_{6hr} (acre-ft) = (WEIGHTED E)(AREA)/12											
V_{10day} (acre-ft) = V_{6hr} + (A_o)(P_{10day} - P_{6hr})/12											
Q (cfs) = (Q_{pk})(A_o) + (Q_{6hr})(A_s) + (Q₁₀)(A_c) + (Q₁₅)(A_d)											
ZONE = 2											
P_{6hr} (in.) = 2.35											
P_{10day} (in.) = 2.75											
P_{15day} (in.) = 3.95											

GRADING AND DRAINAGE PLAN

BLAIR DEVELOPMENT

ALBUQUERQUE, NEW MEXICO

LARRY READ & ASSOCIATES
Civil Engineers
12836-B Lomas Blvd. NE
Albuquerque, New Mexico 87112
(505) 237-8421



REVISION	DATE	DESCRIPTION
FILE NAME: BLAIR_GD 02/10/00		SHEET C2 of 3