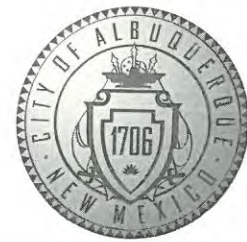


CITY OF ALBUQUERQUE



Timothy M. Keller, Mayor

May 16, 2018

Robert Fierro, P.E.
Fierro & Company
5508 Costa Uerde Rd. NW
Albuquerque, NM, 87120

**RE: Plaza Hacienda at Old Town Phase II
1925 Old Town Rd NW
Request for Permanent C.O. – Accepted
Engineer's Stamp Date: 10/24/17
Engineer's Certification Date: 05/10/18
Hydrology File: J13D037**

PO Box 1293

Dear Mr. Fierro:

Albuquerque

Based on the Certification received 05/10/18 and site visit on 05/16/18, the site is acceptable for a Permanent Certificate of Occupancy by Hydrology for 1925 Old Town Rd NW.

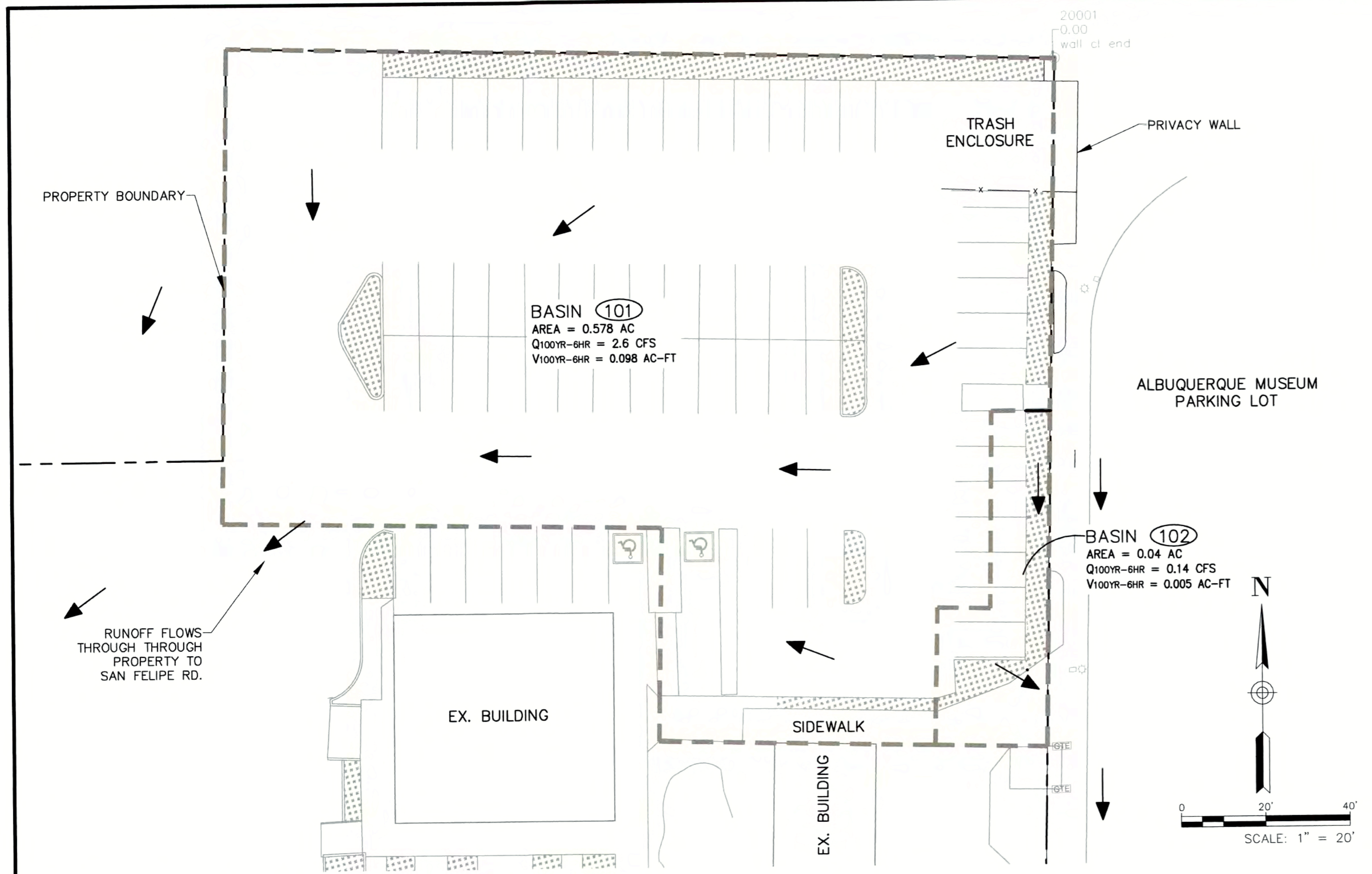
If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

NM 87103

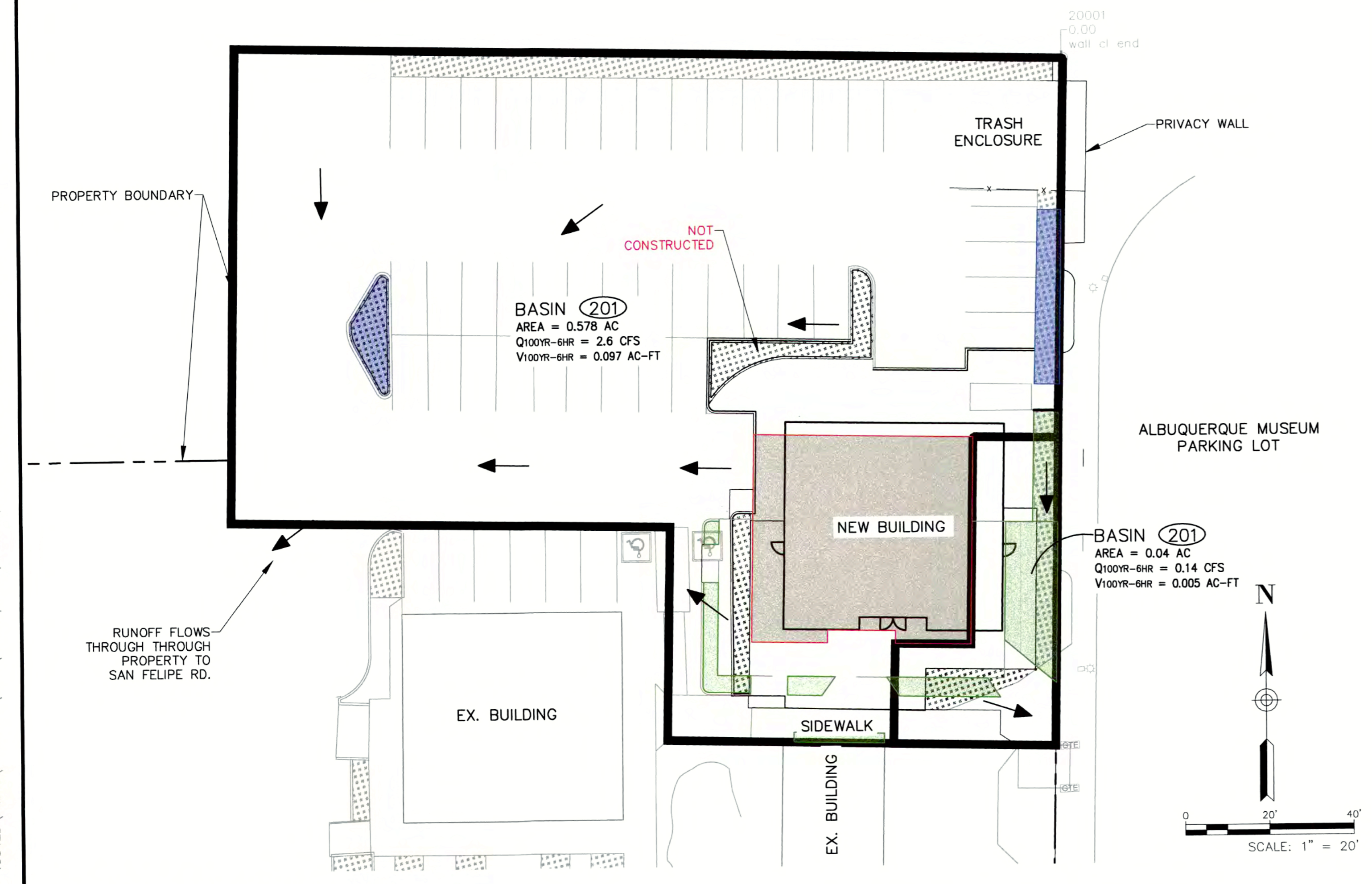
Sincerely,

www.cabq.gov

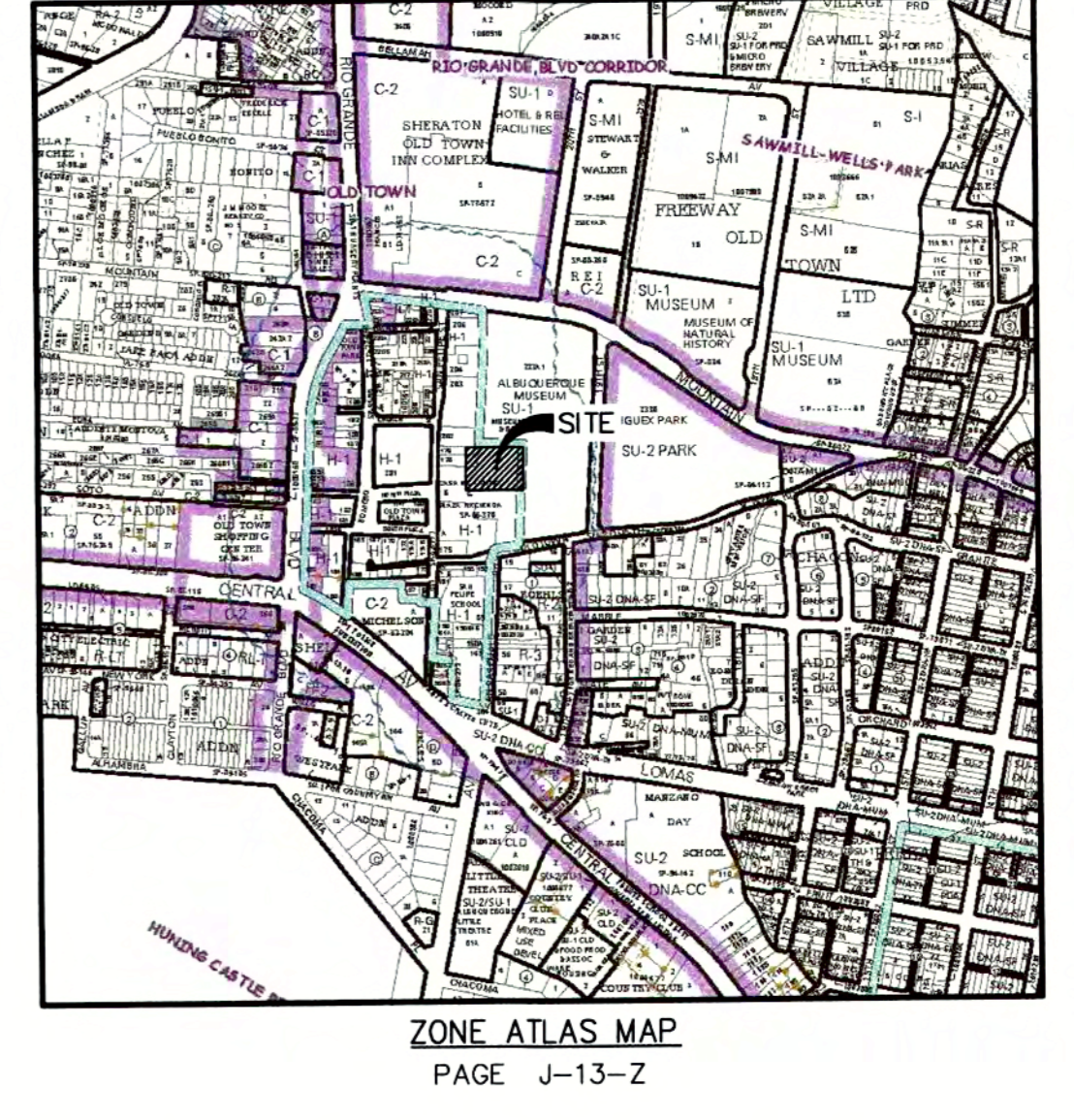
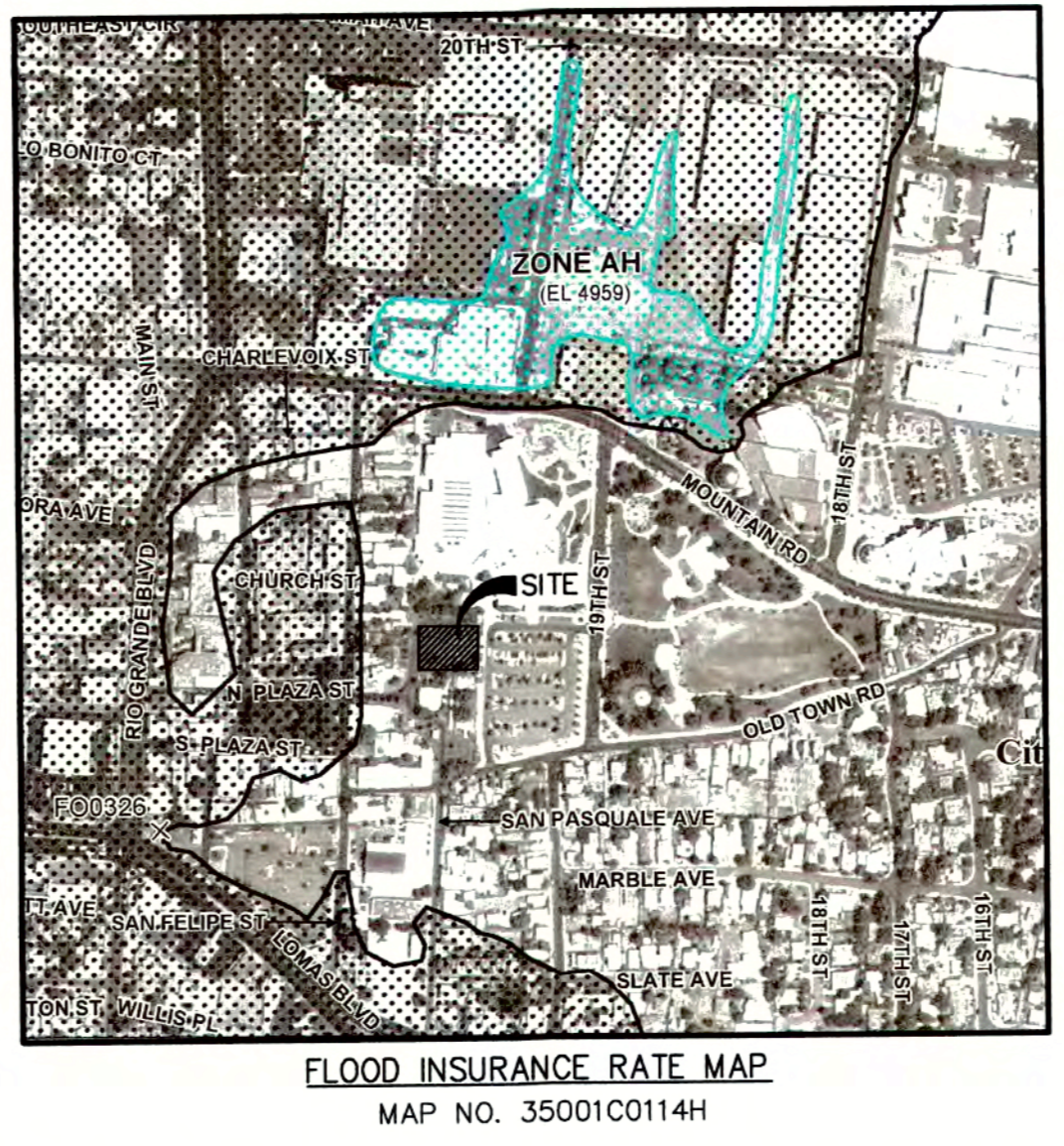
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



1 EXISTING BASIN MAP



2 PROPOSED BASIN MAP



Introduction
 Phase II is being proposed, which includes a 2,500 sq.ft. retail building. The site is located in the Casa De Armijo & Plaza Hacienda Subdivision, which is within the historic Old Town. Phase I was completed earlier this year. The project site for Phase II is not in a Flood Plain. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the allowable and proposed condition, 2) satisfy the first flush requirement, and 3) seek building approval.

Methodology
 Hydrologic procedures presented in the Hydrology Section of the DMP, Section 22.2, revised April 7, 1993 were followed.

Existing Condition
 Phase II is within said Lot B which is approximately 2.2 acres; however, Phase II drainage analysis only covers a portion of said Lot B with approximately 0.60 acres. Phase II site does not receive offsite runoff. Refer to this sheet for the surface flows of the surrounding lots. Runoff from Sub-basin 102 is conveyed through said Lot B and discharges to San Felipe Rd. Runoff from Sub-basin 102 discharges to the Albuquerque's Museum's parking lot, which then drains to Old Town Rd. Hydrologic analysis for the existing condition is included on this Sheet.

Proposed Condition
 Phase II proposes a 2,500 sq.ft. retail building. The proposed drainage pattern will not alter from the existing. Phase two does not adversely impact drainage to the site nor offsite basins. Depressed landscaping of 3.5-inches to 4-inches is proposed to treat the first flush. Refer to Sheet C-1 and this sheet for location of the depressed landscaping. Refer to this sheet for the first flush calculations. Hydrologic analysis for the proposed condition is included on this Sheet.

Conclusion
 The City's requirements have been satisfied under this grading & drainage plan. The contractor shall use this plan (Sheet C-1 and Sheet C-2), and will need a drainage certification in order to obtain a Close-out. This drainage report seeks approval for building permit.

Basin 101	Basin 102	Basin 201	Basin 202
Area of Treatment A = 0.000 ft ² 0 ac	Area of Treatment A = 0.000 ft ² 0 ac	Area of Treatment A = 0.000 ft ² 0 ac	Area of Treatment A = 0.000 ft ² 0 ac
Area of Treatment B = 1453.00 ft ² 0.033 ac	Area of Treatment B = 460.00 ft ² 0.011 ac	Area of Treatment B = 1750.00 ft ² 0.040 ac	Area of Treatment B = 517.00 ft ² 0.012 ac
Area of Treatment C = 0.00 ft ² 0.000 ac	Area of Treatment C = 0.00 ft ² 0.000 ac	Area of Treatment C = 0.00 ft ² 0.000 ac	Area of Treatment C = 0.00 ft ² 0.000 ac
Area of Treatment D = 23710.00 ft ² 0.544 ac	Area of Treatment D = 1050.00 ft ² 0.024 ac	Area of Treatment D = 23433.00 ft ² 0.538 ac	Area of Treatment D = 989.00 ft ² 0.023 ac
Total Area = 25163.00 ft² 0.578 ac	Total Area = 1510.00 ft² 0.035 ac	Total Area = 25183.00 ft² 0.578 ac	Total Area = 1506.00 ft² 0.035 ac
Volumetric Flow			
Weighted E = 2.043 inches	Weighted E = 1.712 inches	Weighted E = 2.027 inches	Weighted E = 1.660 inches
Volume (6hr) = 0.098 acre-ft	Volume (6hr) = 0.005 acre-ft	Volume (6hr) = 0.098 acre-ft	Volume (6hr) = 0.005 acre-ft
Volume (24hr) = 0.116 acre-ft	Volume (24hr) = 0.006 acre-ft	Volume (24hr) = 0.116 acre-ft	Volume (24hr) = 0.006 acre-ft
Volume (4days) = 0.141 acre-ft	Volume (4days) = 0.007 acre-ft	Volume (4days) = 0.140 acre-ft	Volume (4days) = 0.007 acre-ft
Volume (10days) = 0.171 acre-ft	Volume (10days) = 0.008 acre-ft	Volume (10days) = 0.169 acre-ft	Volume (10days) = 0.008 acre-ft
Peak Rate of Discharge			
Q ₁₀₀ = 2.634 cfs	Q ₁₀₀ = 0.137 cfs	Q ₁₀₀ = 2.620 cfs	Q ₁₀₀ = 0.134 cfs

FIRST FLUSH STORAGE:

DEPRESSED LANDSCAPING
 NEW LAND TREATMENT "D" ROUTED THROUGH DEPRESS LANDSCAPING:
 TOTAL AREA = 4,300 SQ.FT.
 WATER QUALITY STORAGE NEEDED=4,300 SQ.FT.*(0.34)*(1/12")=121.8 CU.FT.
 WATER QUALITY STORAGE DESIGNED = 49 CU.FT. + 80 CU.FT. = 129 CU.FT.
 WQDESIGNED (129 CU.FT.) > WQNEEDED (121.8 CU.FT.)

LEGEND

- CONSTRUCTED BUILDING
- CONSTRUCTED LANDSCAPING (NOT DEPRESSED)
- CONSTRUCTED DEPRESSED LANDSCAPING
- SWALE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURFACE FLOW DIRECTION
- EXISTING BASIN MAP
- PROPOSED BASIN MAP
- DEPRESSED LANDSCAPING 3"-4"

DRAINAGE CERTIFICATION OF SUBSTANTIAL COMPLIANCE

I, ROBERT J. FIERRO, NMPE 20585, OF FIRM FIERRO & COMPANY, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 6/2/16. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME, NMPS 22909. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON MAY 6, 2018 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THE USER, BY RELYING ON THE RECORD DOCUMENTS ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING FOR ANY PURPOSE.

Robert J. Fierro
 Robert J. Fierro N.M.P.E. No. 20585



PLAZA HACIENDA ADDITION AT OLD TOWN
 PHASE II NEW SITE
 ALBUQUERQUE, NEW MEXICO

PROJECT NAME	PROJECT NO.	DATE	REV.	DESCRIPTION	BY
PLAZA HACIENDA ADDITION AT OLD TOWN PHASE II NEW SITE ALBUQUERQUE, NEW MEXICO	10/5/2017				
	RJF				
	RJF				
	RJF				
	OCT 2017				
SHEET TITLE					
DRAINAGE PLAN					
SHEET NO: C-2					

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