

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

October 19, 2023

Raymond J. Smith, P.E.
Souder, Miller & Associates
5454 Venice Ave NE, Suite D
Albuquerque, NM 87113

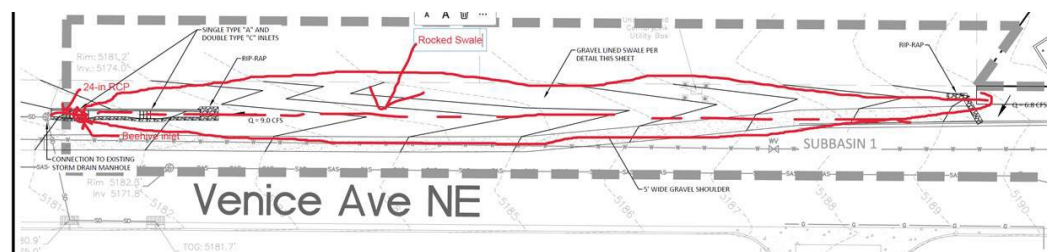
**RE: Venice Volleyball Courts
Conceptual Grading & Drainage Plans
Engineer's Stamp Date: 10/05/23
Hydrology File: B18D022**

Dear Mr. Smith:

Based upon the information provided in your submittal received 10/06/2023, the Conceptual Grading & Drainage Plans are preliminary approved for action by the Development Facilitation Team (DFT) on Site Plan for Building Permit.

PRIOR TO BUILDING PERMIT:

1. Please submit a more detailed Grading & Drainage Plan to Hydrology for review and approval. This digital (.pdf) is emailed to PLNDRS@cabq.gov along with the Drainage Transportation Information Sheet.
2. Please also address the following minor comments:
 - a. This site does have free discharge into Venice. Please revise the site ponds to only handle the required Stormwater Quality volume.
 - b. Please show a rocked swale down Venice and install a beehive inlet and a little bit of 24-in RCP. (Please note that the drawing with the swale and beehive was from the previous development). This work will can be done as a procedure B with an infrastructure list.



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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, 924-3420) 14 days prior to any earth disturbance.

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

Sincerely,

Renée C. Brissette

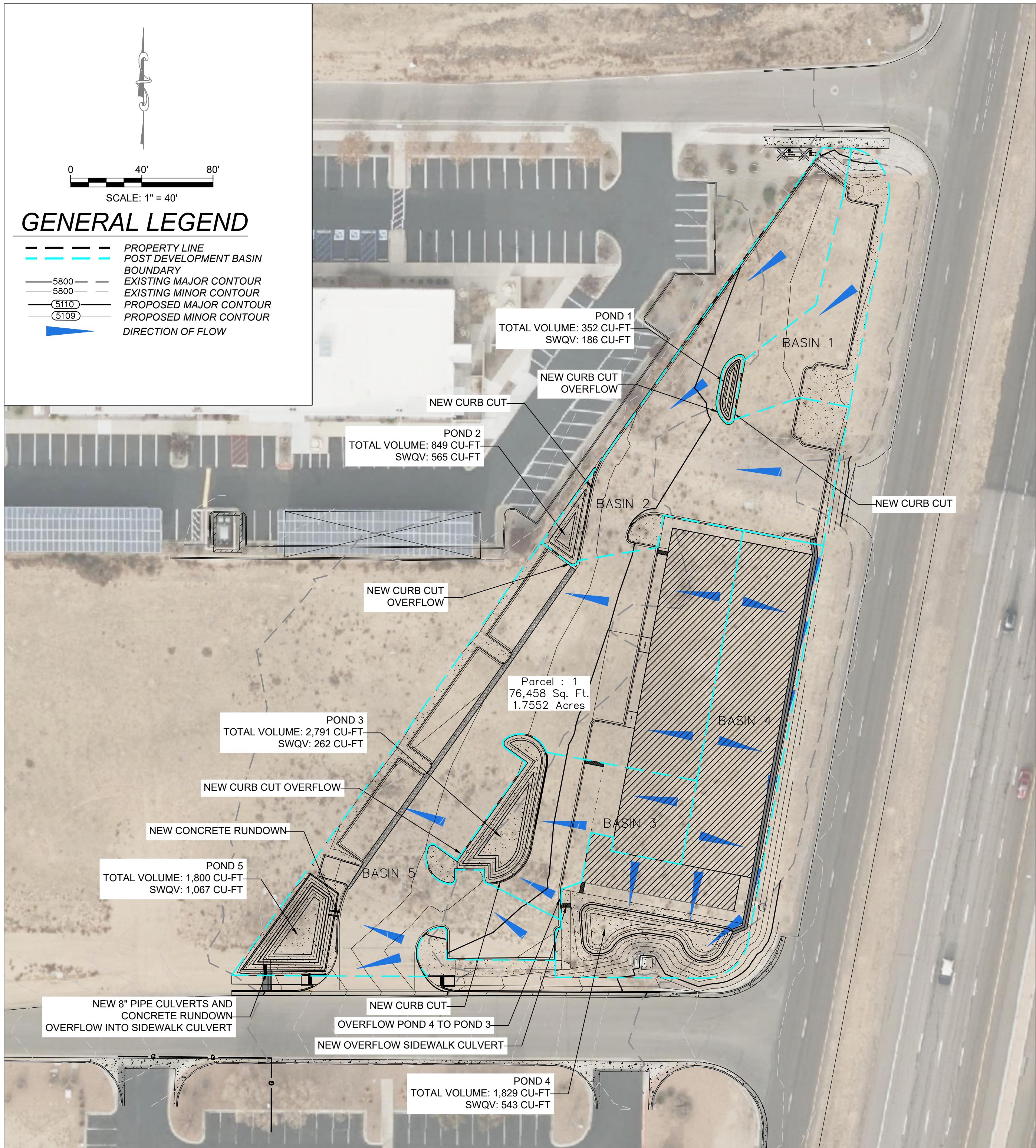
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



POND 5 New Stormwater Pond 100 YR Routing Summary		
Description	Unit	Value
Hydraflow Hydrograph	-	"Reservoir"
Return Period/Duration	Yr/Hr	100/24
Total Drainage Area	Ac	1.19
Inflow Time to Peak	Hrs	11.98
Inflow Peak Flow Rate	CFS	4.95
Inflow Total Runoff Volume	CF	11,192
Outflow time to peak	Hrs	12.02
Outflow peak flow rate	CFS	4.57
Outflow total runoff volume	CF	9392
Maximum storage volume	CF	3630
Dead Storage Volume	CF	1800
Total Reservoir Storage Time	Hrs	24
Reservoir Invert Elevation	Ft	5190.7
Top of Pond Elevation	Ft	5192.25
Maximum Water Surface Elevation	Ft	5191.9
Maximum Water Depth	Ft	3.4

HYDROLOGIC RESULTS SUMMARY								
BASIN	AREA	100-YR, 24-HR DISCHARGE	ROUTED DISCHARGE	100-YR, 24-HR	SWQV	PROVIDED RETENTION	POND OVERFLOW	
	ACRES	CFS	CFS	CU-FT	CU-FT	CU-FT	CU-FT	
HISTORIC BASIN 1	1.72	3.22	N/A	6,867	N/A	N/A	N/A	
DEVELOPED BASIN 1	0.12	0.47	0.47	1,008	186	352	656	
DEVELOPED BASIN 2	0.37	1.57	1.48	3,701	565	849	2,852	
DEVELOPED BASIN 3	0.17	0.68	0*	1,517	262	2,791	-1,274	
DEVELOPED BASIN 4	0.36	1.38	0*	3,046	543	1,829	1,217	
DEVELOPED BASIN 5	0.70	2.88	1.27	6,662	1,067	1,800	4,862	
TOTALS		6.98	3.22	15,934	2,622	7,621	8,313	

* RETAINED ONSITE TO OFFSET NORTHERN BASINS DRAINING INTO VENICE AVE

CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM)
PROCEDURE FOR 40 ACRE AND SMALLER BASINS

DRAINAGE BACKGROUND & NARRATIVE: THIS SITE IS ALLOWED FREE DISCHARGE TO VENICE AVE FOR ITS SOUTHERN PORTION AND PASADENA AVE FOR ITS NORTHERN PORTION PER THE SAN MATEO BUSINESS PARK DRAINAGE REPORT (SMBPDR) BY C.L. WEISS ENGINEERING INC. 1999 (B-18-D008). THE EXISTING DRAINAGE PATTERN FOR THE UNDEVELOPED SITE DRAINS EAST TO WEST OFFSITE. THE PROPOSED SITE WILL DRAIN PRIMARILY NORTHEAST TO SOUTHWEST AND FREELY DISCHARGE INTO VENICE AVE VIA A NEW RUNDOWN AND SIDEWALK CULVERT OVERFLOW FROM THE NEW STORMWATER QUALITY POND IN THE SOUTHWEST CORNER. ONSITE STORMWATER QUALITY PONDING WILL BE UTILIZED THOROUGHOUT THE SITE TO RETAIN RUNOFF TO OFFSET THE NORTHERN PORTION OF THE SITE DRAINING TO THE SOUTH. THIS IS DETAILED FURTHER IN THE SUMMARY TABLE LOCATED AT THE BOTTOM RIGHT OF THIS SHEET. THE PRIMARY METHOD FOR HYDROLOGY CALCULATIONS IN THE DPM IS BASED ON THE ARID-LANDS HYDROLOGIC MODEL (AHYMO) CALCULATIONS. A SIMPLIFIED PROCEDURE FOR PROJECTS WITH BASINS SMALLER THAN 40 ACRES HAS BEEN DEVELOPED BASED ON INITIAL ABSTRACTION/UNIFORM INFILTRATION PRECIPITATION LOSSES AND RATIONAL METHOD PROCEDURES.

PRECIPITATION ZONES: SECTION 6-2(A)(1)

BERNALILLO COUNTY WITHIN CITY LIMITS HAS BEEN DIVIDED INTO 4 PRECIPITATION ZONES THAT CAN BE REVIEWED IN SECTION 6-2(A)(1). THE DPM IS BASED ON NATIONAL OCEANIC AND ATMOSPHERIC AGENCY (NOAA) ATLAS 14 PRECIPITATION DATA. FOR THE PROJECT SITE, ZONE 3 HAS BEEN SELECTED FOR LOCATIONS "BETWEEN SAN MATEO AND EUBANK, NORTH OF I-40 AND BETWEEN SAN MATEO AND THE EAST BOUNDARY OF RANGE 4 EAST." AN EXCERPT OF PRECIPITATION DATA FROM TABLE 6.2.8 FOR ZONE 3 FOR THE 100-YEAR STORM EVENT IS INCLUDED BELOW:

PRECIPITATION FOR ZONE 3: 100-YEAR STORM EVENT												
	5	10	12	15	30	60	2	3	6	24	4	10
	MIN	MIN	MIN	MIN	MIN	MIN	HR	HR	HR	HR	DAY	DAY
DEPTH (IN)	0.584	0.889		1.100	1.480	1.840	2.150	2.220	2.430	2.840	3.290	4.100
INTENSITY (IN/HR)	7.01	5.33	4.96	4.40	2.96	1.84	1.08	0.74	0.41	0.12	0.03	0.02

FROM DPM TABLE 6.2.8

LAND TREATMENTS: SECTION 6-2(A)(2)

LAND AREAS ARE DESCRIBED BY ONE OF FOUR BASIC LAND TREATMENTS OR BY A COMBINATION OF THE FOUR LAND TREATMENTS. LAND TREATMENTS CAN BE REVIEWED IN TABLE 6.2.9.

LAND TREATMENTS IN PROJECT SITE					
BASIN ID	AREA (ACRES)	LAND TREATMENT A (ACRES)	LAND TREATMENT B (ACRES)	LAND TREATMENT C (ACRES)	LAND TREATMENT D (ACRES)
EXISTING SITE	1.72	1.72			
PROPOSED SITE	1.72			0.33	1.39

ABSTRACTIONS: SECTION 6-2(A)(3)

INITIAL ABSTRACTION IS THE PRECIPITATION DEPTH THAT MUST BE EXCEEDED BEFORE DIRECT RUNOFF BEGINS. INITIAL ABSTRACTION MAY BE INTERCEPTED BY VEGETATION, RETAINED IN SURFACE DEPRESSIONS, OR ABSORBED ON THE WATERSHED SURFACE.

ABSTRACTION IN PROJECT SITE BY LAND TREATMENT					
BASIN ID	ABSTRACTION FOR TREATMENT A	ABSTRACTION FOR TREATMENT B	ABSTRACTION FOR TREATMENT C	ABSTRACTION FOR TREATMENT D	WEIGHTED INITIAL ABSTRACTION (IN)
SITE	0.65	0.50	0.35	0.10	0.15

FROM TABLE 6.2.11 IN DPM

EXCESS PRECIPITATION AND VOLUMETRIC RUNOFF: SECTION 6-2(A)(4)

EXCESS PRECIPITATION, E, IS THE DEPTH OF PRECIPITATION REMAINING AFTER ABSTRACTIONS ARE REMOVED. EXCESS PRECIPITATION DOES NOT DEPEND ON WATERSHED AREA. EXCESS PRECIPITATION IS DETERMINED BY SUBTRACTING THE INITIAL ABSTRACTION AND INFILTRATION FROM THE DESIGN STORM HYDROGRAPH.

EXCESS PRECIPITATION IN PROJECT SITE BY LAND TREATMENT					
BASIN ID	EXCESS PRECIPITATION TREATMENT A	EXCESS PRECIPITATION TREATMENT B	EXCESS PRECIPITATION TREATMENT C	EXCESS PRECIPITATION TREATMENT D	WEIGHTED EXCESS PRECIPITATION (IN)
SITE	0.67	0.86	1.09	2.58	2.30

FROM TABLE 6.2.13 IN DPM

DEVELOPED VOLUMETRIC RUNOFF PER EQUATION 6.2

SITE EXISTING = 6,867 CU-FT
SITE PROPOSED = 15,934 CU-FT

PEAK DISCHARGE RATE FOR SMALL WATERSHEDS: SECTION 6-2(A)(5)

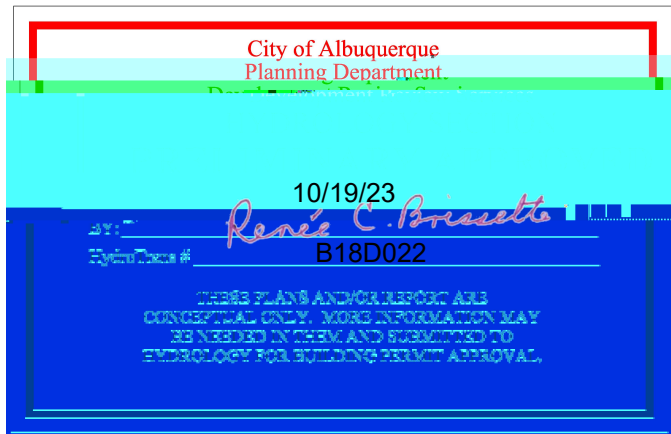
PEAK DISCHARGE RATES ARE GIVEN IN TABLE 6.2.14 FOR SMALL WATERSHEDS, LESS THAN OR EQUAL TO 40 ACRES, WHERE THE TIME OF CONCENTRATION IS ASSUMED TO BE 12 MINUTES.

DEVELOPED PEAK DISCHARGE RATE PER EQUATION 6.6

SITE EXISTING = 3.2 CFS
SITE PROPOSED = 7.0 CFS
SITE RELEASED = 3.2 CFS

STORM WATER QUALITY VOLUME

TO CALCULATE THE REQUIRED SWQV, THE IMPERVIOUS AREA IS MULTIPLIED BY 0.42" FOR NEW DEVELOPMENT OR 0.26" FOR REDEVELOPMENT SITES.
(1.72 AC * 43,560 FT / AC) * (0.42 IN * 1 FT / 12 IN) = 2,622 CU-FT



Rev #	Date	Description	By	Check

SOUDEUR, MILLER & ASSOCIATES

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ALBUQUERQUE, NEW MEXICO

CLIENT: VERDE MANAGEMENT

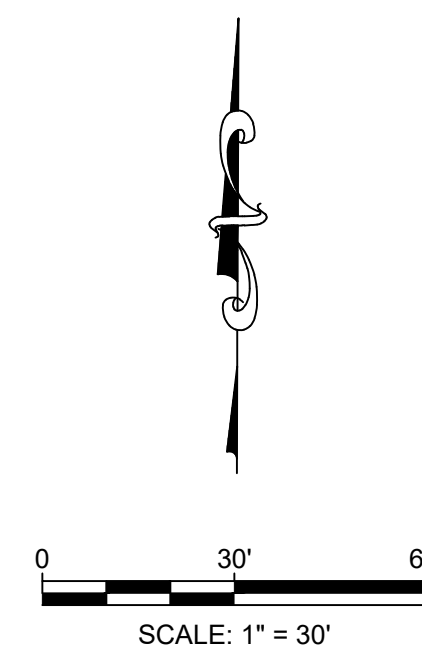
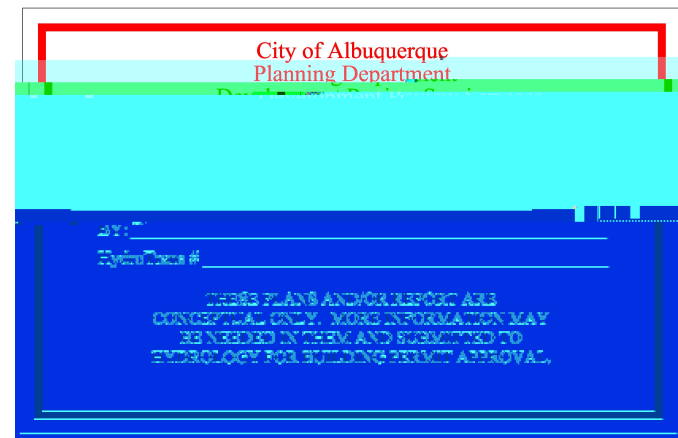
VENICE VOLLEYBALL COURTS
ALBUQUERQUE, NEW MEXICO
CONCEPTUAL DRAINAGE PLAN
(NOT FOR CONSTRUCTION)

10/19/23
B18D022

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

DESIGNED: SMA
DRAWN: CLW
CHECKED: RJS

Date: October 2023
Scale: Horiz: N/A
Vert: N/A
Project No: 9432605
Sheet: C-7



Scale: 1"=5'

VERDE MANAGEMENT

RAYMOND J. ISMAEL
MEMBER
18738
10/5/23
PROFESSIONAL ENGINEER

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AND NOT TO BE USED FOR
CONSTRUCTION UNLESS IT IS
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Designed SMA	Drawn CLW	Checked RJS
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Sheet: C-8