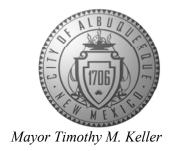
## CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



November 1, 2023

Ronald Bohannan, P.E. Tierra West, LLC 5571 Midway Park Place NE Albuquerque, NM, 87109

RE: Sandia Labs Federal Credit Union – St Joseph's NW

**Conceptual Grading and Drainage Plan** 

Engineer's Stamp Date: 10/23/23 Hydrology File: G11D067B

Dear Mr. Bohannan:

PO Box 1293

Based upon the information provided in your submittal received 10/23/2023, 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:

Albuquerque

1. Please submit a more detailed Grading & Drainage Plan to Hydrology for review and approval. This digital (.pdf) is emailed to <a href="PLNDRS@cabq.gov">PLNDRS@cabq.gov</a> along with the Drainage Transportation Information Sheet.

NM 87103

www.cabq.gov

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, P.E. CFM Senior Engineer, Hydrology

Renée C. Brissette

Planning Department

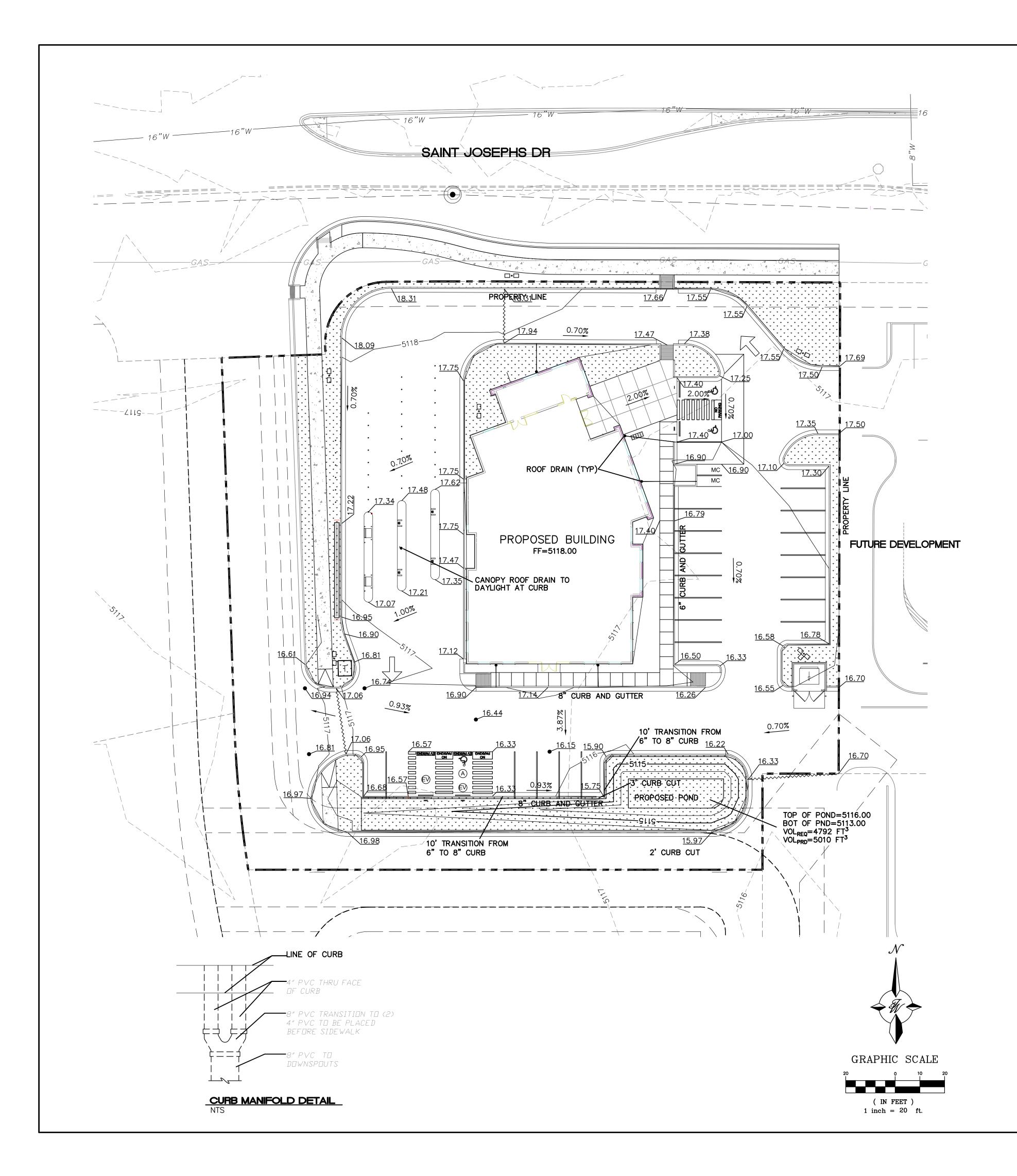


# **City of Albuquerque**

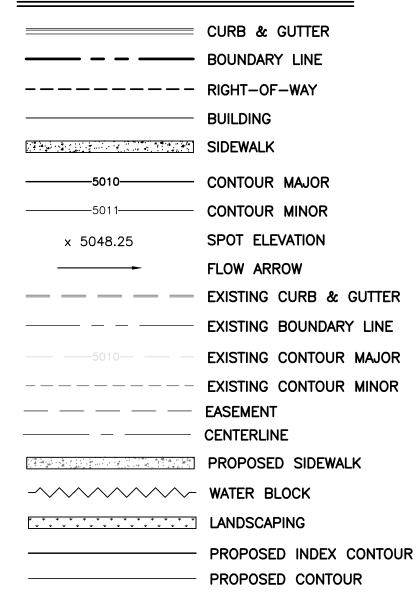
Planning Department
Development & Building Services Division

#### DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title:		Hydrology File #					
Legal Description:							
City Address, UPC, OR Parcel	:						
Applicant/Agent:		Contact:					
		Phone:					
Email:							
Applicant/Owner:		Contact:					
Address:		Phone:					
Email:							
(Please note that a DFT SITE is or	ne that needs Site Plan A	pproval & ADMIN SITE is one that does not need it.)					
TYPE OF DEVELOPMENT:	PLAT (#of lots)	RESIDENCE					
	DFT SITE	ADMIN SITE					
RE-SUBMITTAL: YES	NO						
DEPARTMENT: TRANS	SPORTATION	HYDROLOGY/DRAINAGE					
Cheek all that apply under Dath	the Type of Submittel	and the Type of Approval Sought:					
TYPE OF SUBMITTAL:	the Type of Submittal	TYPE OF APPROVAL SOUGHT:					
ENGINEER/ARCHITECT CF	RTIFICATION	BUILDING PERMIT APPROVAL					
PAD CERTIFICATION		CERTIFICATE OF OCCUPANCY					
CONCEPTUAL G&D PLAN		CONCEPTUAL TCL DFT APPROVAL					
GRADING & DRAINAGE PI	LAN	PRELIMINARY PLAT APPROVAL					
DRAINAGE REPORT		FINAL PLAT APPROVAL					
DRAINAGE MASTER PLAN		SITE PLAN FOR BLDG PERMIT DFT					
CLOMR/LOMR		APPROVAL					
TRAFFIC CIRCULATION LA	AYOUT (TCL)	SIA/RELEASE OF FINANCIAL GUARANT					
ADMINISTRATIVE		FOUNDATION PERMIT APPROVAL					
TRAFFIC CIRCULATION LA APPROVAL	AYOUT FOR DFT	GRADING PERMIT APPROVAL					
TRAFFIC IMPACT STUDY (	TIS)	SO-19 APPROVAL PAVING PERMIT APPROVAL					
STREET LIGHT LAYOUT							
OTHER (SPECIFY)		GRADING PAD CERTIFICATION					
· - /		WORK ORDER APPROVAL					
		CLOMR/LOMR					
		OTHER (SPECIFY)					
DATE SUBMITTED:							



### LEGEND



#### NOTICE TO CONTRACTORS

- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT—OF—WAY.
- 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
- 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

### EROSION CONTROL NOTES:

- 1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- 2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- 3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT—OF—WAY.
- 4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
- 6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR ₹" GRAVEL

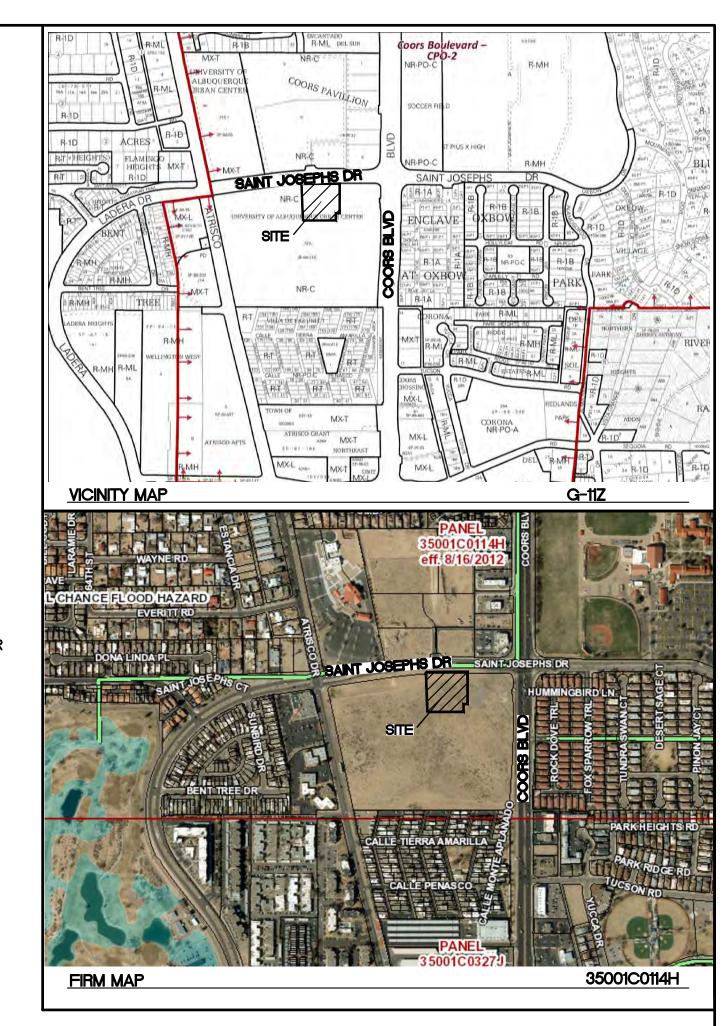
### NOTES:

- 1. ADD 5100 TO ALL SPOT ELEVATIONS.
- ALL ELEVATIONS SHOWN ARE FLOW LINE UNLESS OTHERWISE STATED.
   ALL CURB AND GUTTER IS 6" HIGH UNLESS OTHERWISE NOTED



### CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.



### EXISTING DRAINAGE:

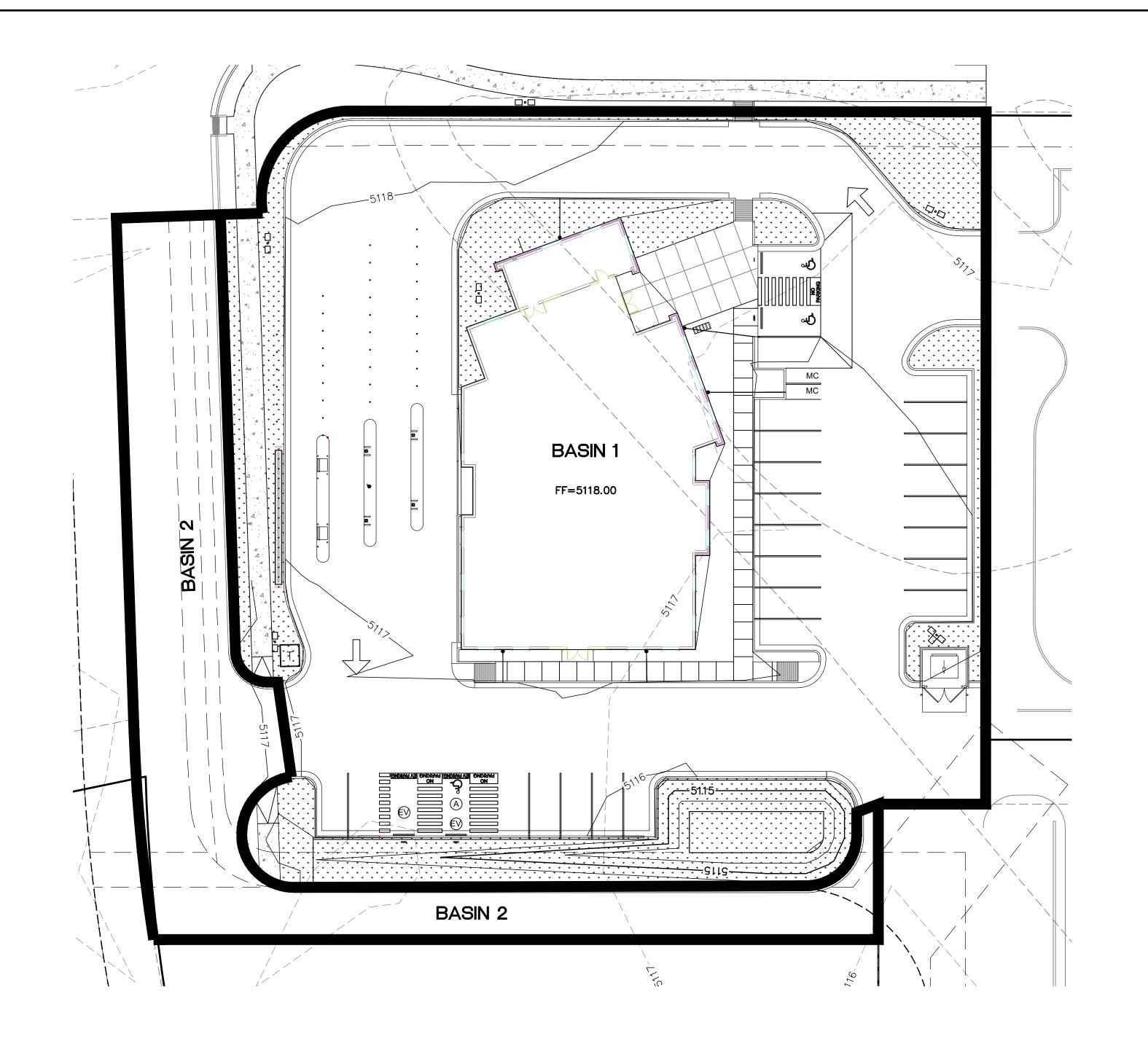
THIS SITE IS CURRENTLY VACANT AND IS PART OF THE OXBOW TOWN CENTER DEVELOPMENT LOCATED ON THE SOUTHWEST CORNER OF COORS BOULEVARD AND ST. JOSEPHS DRIVE. THIS PORTION OF THE PROPERTY CURRENTLY SHEET FLOWS TO COORS BOULEVARD WHERE IT IS CAPTURED IN A STORM SEWER. THE SITE IS LOCATED ON FIRM MAP 35001C0114H AS SHOWN ABOVE. THE MAP SHOWS THAT THE SITE DOES NOT LIE WITHIN ANY 100 YEAR FLOOD PLAIN.

### PROPOSED DRAINAGE:

PER THE SOUTHER OXBOW CENTER MASTER DRAINAGE PLAN COMPLETED BY RESPEC, INC.AND APPROVED BY THE CITY APRIL 28, 2022 (G11-D067) THIS PARCEL IS TO SURFACE DRAIN TO THE SOUTHEAST TO A INTERNAL ACCESS ROAD AT A RATE OF 1.84 CFS PER ACRE.

THIS PROJECT FALLS WITHIN BASIN P8 OF THAT PLAN WITH A PORTION FALLING WITHIN BASIN P10. THE PORTION THAT FALLS WITHIN P10 IS PART OF THE INTERNAL ROADWAY AND WAS NOT FACTORED INTO THE DISCHARGE FROM THE CREDIT UNION AS IT IS ALREADY BEING ACCOUNTED FOR. THE FLOWS FROM THE CREDIT UNION WILL BE ROUTED TO A POND ALONG SOUTHERN BOUNDARY ADJACENT TO THE INTERNAL ACCESS ROAD. THE POND IS SIZED TO CAPTURE THE 100YR, 6—HR DEVELOPED FLOWS. ANY FLOWS ABOVE THAT WILL PASS THROUGH THE POND THROUGH A WEIR SIZED TO RELEASE 1.91 CFS WHICH IS LESS THAN THE 1.96 CFS ALLOWED PER THE APPROVED MASTER DRAINAGE PLAN. THIS POND WILL ALSO RETAIN THE WATER QUALITY VOLUME PER THE DPM.

ENGINEER'S SEAL	SANDIA LABS FEDERAL CREDIT UNION 5700 ST JOSEPH'S DR NW	<i>DRAWN BY</i> pm
DDR. BOHA	ALBUQUERQUE, NM	DATE
(7868) Z	CONCEPTUAL GRADING	10-23-23
	PLAN	<i>DRAWING</i> 2023076—GR
PROTEIN TO THE		SHEET #
50NAL EN 10-23-23	TIERRA WEST, LLC  5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109	GR-1
RONALD R. BOHANNAN P.E. #7868	(505) 858-3100 www.tierrawestllc.com	<i>JOB #</i> 2023076



Weighted E Method																
												100-Year			10-Year	
Basin	Area	Area	Trea	tment A	Trea	tment B	Treatr	ment C	Treat	ment D	Weighted E	Volume	Flow	Weighted E	Volume	Flow
	(sf)	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	(in)	(ac-ft)	cfs	(in)	(ac-ft)	cfs
Pre	46,452	1.07	0%	0	100%	1.07	0%	0.00	0%	0.00	0.730	0.065	2.30	0.260	0.023	0.86
1	46,452	1.07	0%	0	18%	0.19	0%	0.00	82%	0.87	1.968	0.175	4.02	1.219	0.108	2.40
2	9,579	0.22	0%	0	0%	0.00	0%	0.00		0.22	2.240	0.041	0.91	1.430	0.026	0.57
	·															
												0.110	Required F	Ponding		
Equatio	ns:															
						Excess Pro	T - T	E (inches)		Peak Discharge (cfs/acre)						
Weighte	d E = Ea*Aa + Eb* <i>l</i>	hb + Ec*Ac	+ Ed*Ad	/ (Total Area	a)	Zone 1	100-Year	10 - Year		Zone 1	Zone 1   100-Year   10 - Year					
						Ea	0.55	0.11		$Q_a$	1.54	0.3				
Volume = Weighted D * Total Area				Eb	0.73	0.26		$Q_b$	2.16	0.81						
						Ec	0.95	0.43		Q <sub>c</sub>	2.87	1.46				
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad			E <sub>d</sub>	2.24	1.43		$Q_d$	4.12	2.57							

### Weir Equation:

 $Q = CLH^{3/2}$ 

Q= Flow C = 2.95 L= Length of weir H = Height of Weir

## Pond Inlet

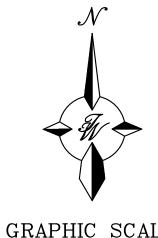
 $Q = 2.70*3*0.67^{3/2}$ 

Q = 4.44 cfs > Q = 4.02 cfs

### **Pond Outlet**

 $Q = 2.70 * 2 * 0.50^{3/2}$ 

Q = 1.91 cfs < Q = 1.96 cfs



GRAPHIC SCALE

( IN FEET )
1 inch = 20 ft.

ENGINEER'S SEAL	SANDIA LABS FEDERAL CREDIT UNION 5700 ST JOSEPH'S DR NW	<i>DRAWN BY</i> pm
DR. BOH	ALBUQUERQUE, NM	DATE
ON MEXICO Z	BASIN MAP	10-23-23
( ( 7868 ) )		<i>DRAWING</i> 2023076-GR
PROPERTY OF THE PROPERTY OF TH		SHEET #
10-23-23	TIERRA WEST, LLC  5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109	GR-2
RONALD R. BOHANNAN P.E. #7868	(505) 858-3100 www.tierrawestllc.com	<i>JOB #</i> 2023076