



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: Mesa del Sol Innovation Park Ponding Hydrology File # _____
Legal Description: TR D-1 [AT PF TRACTS D-1 TJRI D-7 MESA DEL SOL INNOVATION PARK II (A SUBDIVISION OF TRACT 3 MESA DEL SOL INNOVATION PARK II)]
City Address, UPC, OR Parcel: 101605227017740201

Applicant/Agent: Tierra West LLC Contact: Luis Noriega
Address: 5571 Midway Park PI NE Phone: 505-858-3100
Email: lnoriega@tierrawestllc.com

Applicant/Owner: _____ Contact: _____
Address: _____ Phone: _____
Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & 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: ☐ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

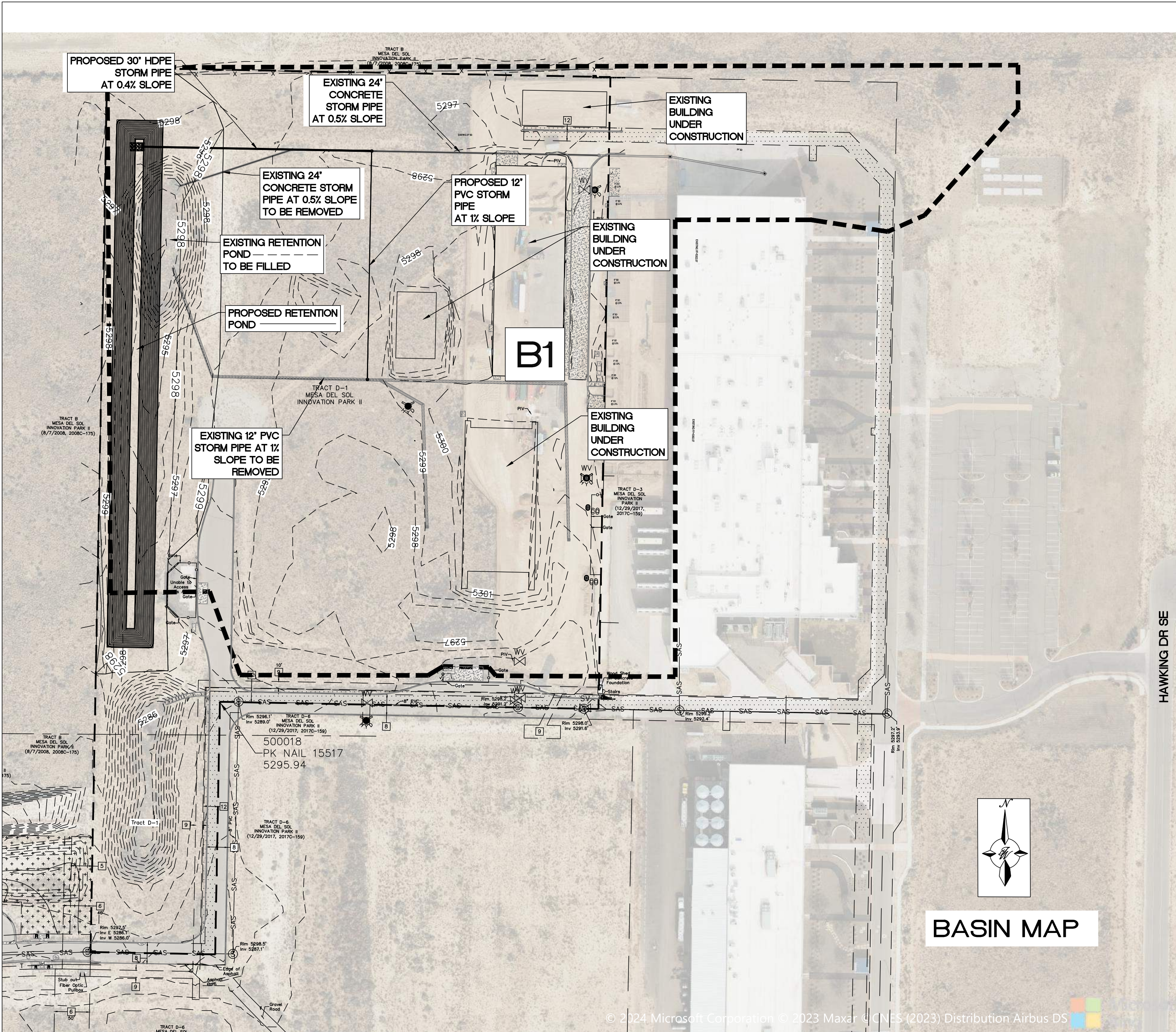
- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G&D PLAN
- ☒ GRADING & DRAINAGE PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
- ☐ TRAFFIC CIRCULATION LAYOUT FOR DFT APPROVAL
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ CONCEPTUAL TCL DFT APPROVAL
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SITE PLAN FOR BLDG PERMIT DFT APPROVAL
- ☐ SIA/RELEASE OF FINANCIAL GUARANTEE
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ GRADING PERMIT APPROVAL
- ☐ SO-19 APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ GRADING PAD CERTIFICATION
- ☐ WORK ORDER APPROVAL
- ☐ CLOMR/LOMR
- ☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 02/09/2023

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LEGEND		
	CURB & GUTTER	x 5048.25
	PROPERTY LINE	
	EASEMENT	
	BUILDING	
	SIDEWALK/CONCRETE	
	STORM DRAIN	
	CONTOUR MAJOR	5010
	CONTOUR MINOR	5011
	SPOT ELEVATION	
	FLOW ARROW	
	EXISTING CONCRETE STORM DRAIN PIPE	
	EXISTING PVC STORM DRAIN PIPE	
	EXISTING CONTOUR MAJOR	5010
	EXISTING CONTOUR MINOR	5011
	BASIN BOUNDARY LINE	

HYDROLOGY NOTES

THE PROJECT SITE IS LOCATED ON THE EAST SIDE OF ALBUQUERQUE WITHIN THE MESA DEL SOL INNOVATION PARK. THE PROJECT BASIN AS OF 02/06/2024 HAS RECENTLY BEEN DEVELOPED AT ROUGHLY 50% WITH SEVERAL BUILDINGS AND INCLUDES PAVING, UTILITIES AND STORM DRAIN. STORM WATER WITHIN THE BASIN BOUNDARY CURRENTLY FLOWS TO A RETENTION POND LOCATED ON THE WEST SIDE OF THE BASIN BOUNDARY. THE INTEND OF THIS DRAINAGE REPORT IS TO IDENTIFY THE MINIMUM RETENTION POND SIZE REQUIRED TO CONTAIN THE 100 YR- 10 DAY STORM FOR FULLY DEVELOPED CONDITIONS.

THE SITE IS NOT LOCATED IN A 100YR FLOOD ZONE PER FEMA FIRM MAP

DPM Weighted E Method

Precipitation Zone 2

Area Vicinity

Site Name and Address: Mesa Del Sol Kairos Pond
TWLLC Date 2/6/2024

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed
Volume = Weighted E * Total Area
Flow = Qa*Aa + Qb*Ab + Qc*Ac + Qd*Ad

HYDROLOGY CALCULATION TABLES

EXISTING CONDITIONS															
Basin Descriptions									100-Year, 10-Day						
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs	Volume (cf)
				%	(acres)	%	(acres)	%	(acres)	%	(acres)				
B1	783,028	17.98	0.02809	0%	0.000	0%	0.000	60%	10.786	40%	7.190	1.550	3.119	64.10	135855.046
Total	783,028.00	17.976	0.02809		0.000		0.000		0.000		7.190		3.119	64.10	135855.05

FULLY DEVELOPED CONDITIONS															
Basin Descriptions									100-Year, 10-Day						
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs	Volume (cf)
				%	(acres)	%	(acres)	%	(acres)	%	(acres)				
B1	783,028	17.98	0.02809	0%	0.000	0%	0.000	15%	2.696	85%	15.279	2.135	4.892	74.54	213081.005
Total	783,028.00	17.976	0.02809		0.000		0.000		0.000		15.279		4.892	74.54	213081.01

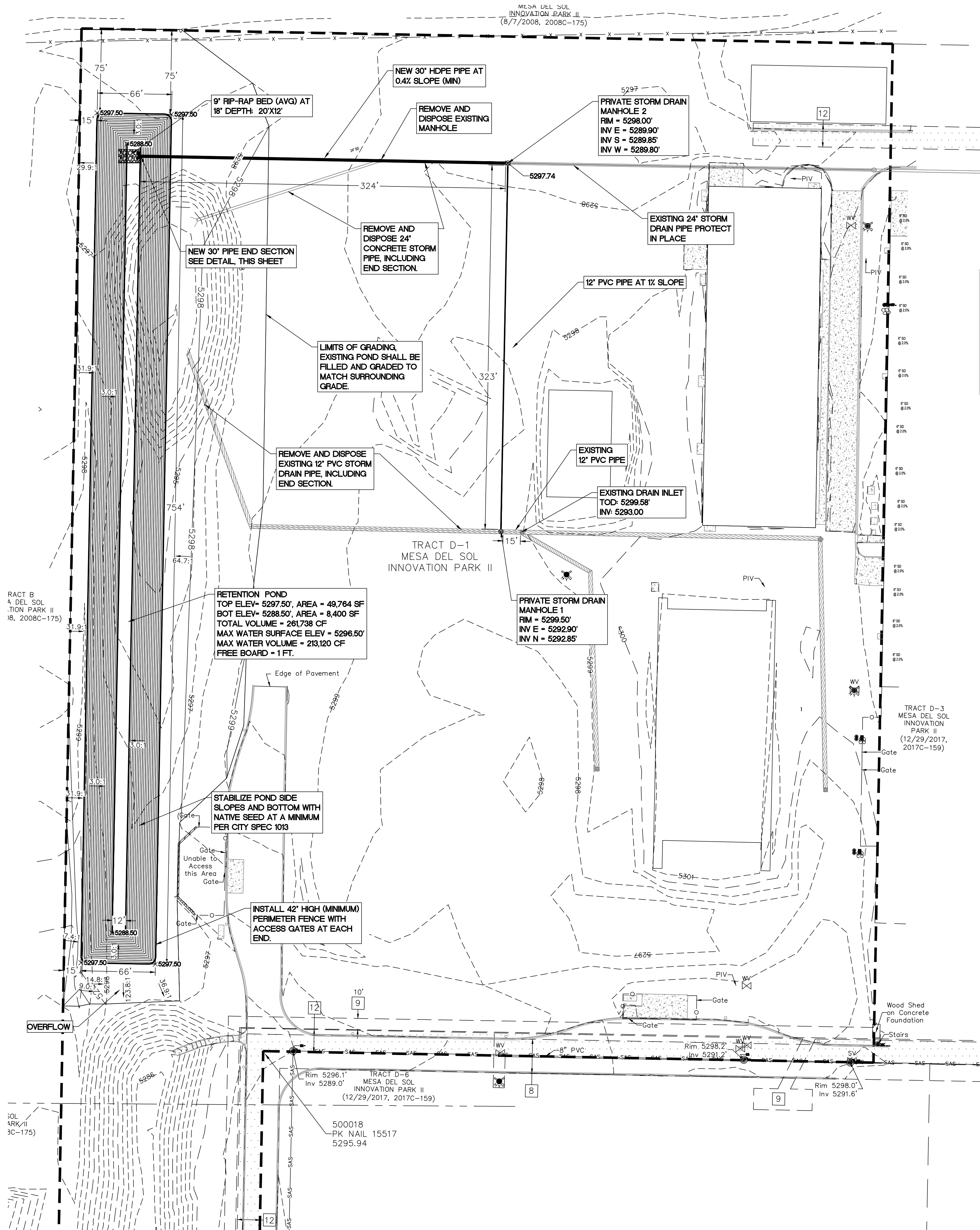
Retention Pond Volume Calculation	
Top Elevation	5,297.50 Ft.
Top Area	49,764 Sq. Ft.
Bottom Elevation	5,288.50 Ft.
Bottom Area	8,400 Sq. Ft.
Total Volume	261,738.00 Cubic Ft.
Max Water Elevation	5,296.50 Ft.
Max Water Elevation Area	44,880.00 Sq. Ft.
Max Water Volume	213,120.00 Cubic Ft.
Required Volume	213,081.01 Cubic Ft.
Design Free Board	1.00 Ft.
Note: Existing Pond Volume = 100,431 Cubic Ft.	

Pipe Sizing Calculation	
24" Conc Pipe Max Flow	16.00 CFS
12" PVC Pipe Max Flow	5.15 CFS
Combined Max Flow	21.15 CFS
30" HDPE Pipe Max Flow	28.10 CFS
Flow Required	21.15 CFS
Note: Previous Drainage Reports Q16DA5000A and Q16DA5000B indicate that the existing storm drain pipe system is flowing at max capacity.	
Note: See pipe capacity charts for additional pipe information.	



	KAİROS FULLY DEVELOEPD POND ALBUQUERQUE, NM	DRAWN BY BF
	GRADING AND DRAINAGE BASIN MAP	DATE 02/06/2024
	 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com	2023103_BASINS
		SHEET # GR-0 JOB # 2023103

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LEGEND

	CURB & GUTTER	x 5048.25	SPOT ELEVATION
	BOUNDARY LINE		FLOW ARROW
	EASEMENT		EXISTING CONCRETE STORM DRAIN PIPE
	BUILDING		EXISTING PVC STORM DRAIN PIPE
	SIDEWALK/CONCRETE		EXISTING CONTOUR MAJOR
	STORM DRAIN	5010	EXISTING CONTOUR MINOR
	CONTOUR MAJOR	5011	
	CONTOUR MINOR		

CAUTION

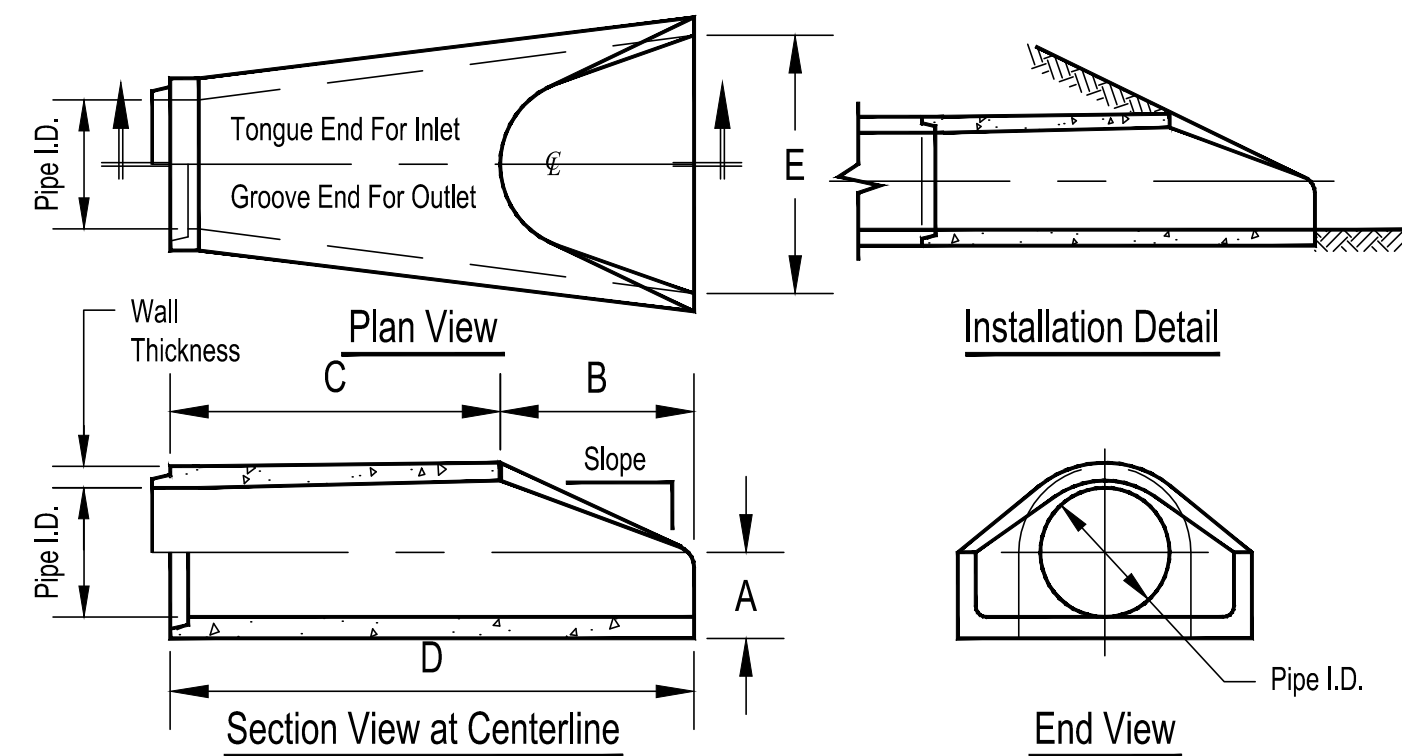
ALL EXISTING UTILITIES/TOPOGRAPHY SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES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

EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING ROADWAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



Flared End Section 12" - 72" Diameter Pipe



Pipe Inner Diameter (inches)	Wall Thickness (inches)	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	Slope
12	2	4	24	48 7/8	72 7/8	30	3:1
15	2 1/4	6	27	46	73	30	3:1
18	2 1/2	9	27	46	73	36	3:1
24	3	9 1/2	43 1/2	30	73 1/2	48	3:1
30	3 1/2	12	54	19 3/4	73 3/4	60	3:1
36	4	15	63	34 3/4	97 3/4	72	3:1
42	4 1/2	21	63	35	98	78	3:1
48	5	24	72	26	98	84	3:1
54	5 1/2	27	65	35	100	90	2.4:1
60	6	30	60	39	99	96	2:1
66	6 1/2	32	78	21	99	102	2:1
72	7	34	78	21	99	108	2:1

Dimensions may vary depending upon equipment availability.

Notes:

- Produced to meet ASTM specifications.
- Contact a Concrete Pipe Division representative for details not listed on this sheet.

FLARED END SECTION DETAIL NTS

Rinker

	ENGINEER'S SEAL	KAİROS FULLY DEVELOPED POND ALBUQUERQUE, NM	DRAWN BY BF
		GRADING & DRAINAGE PLAN	DATE 02/06/2024
			2023103_GRB
			SHEET # GR-1
		JOB # 2023103	