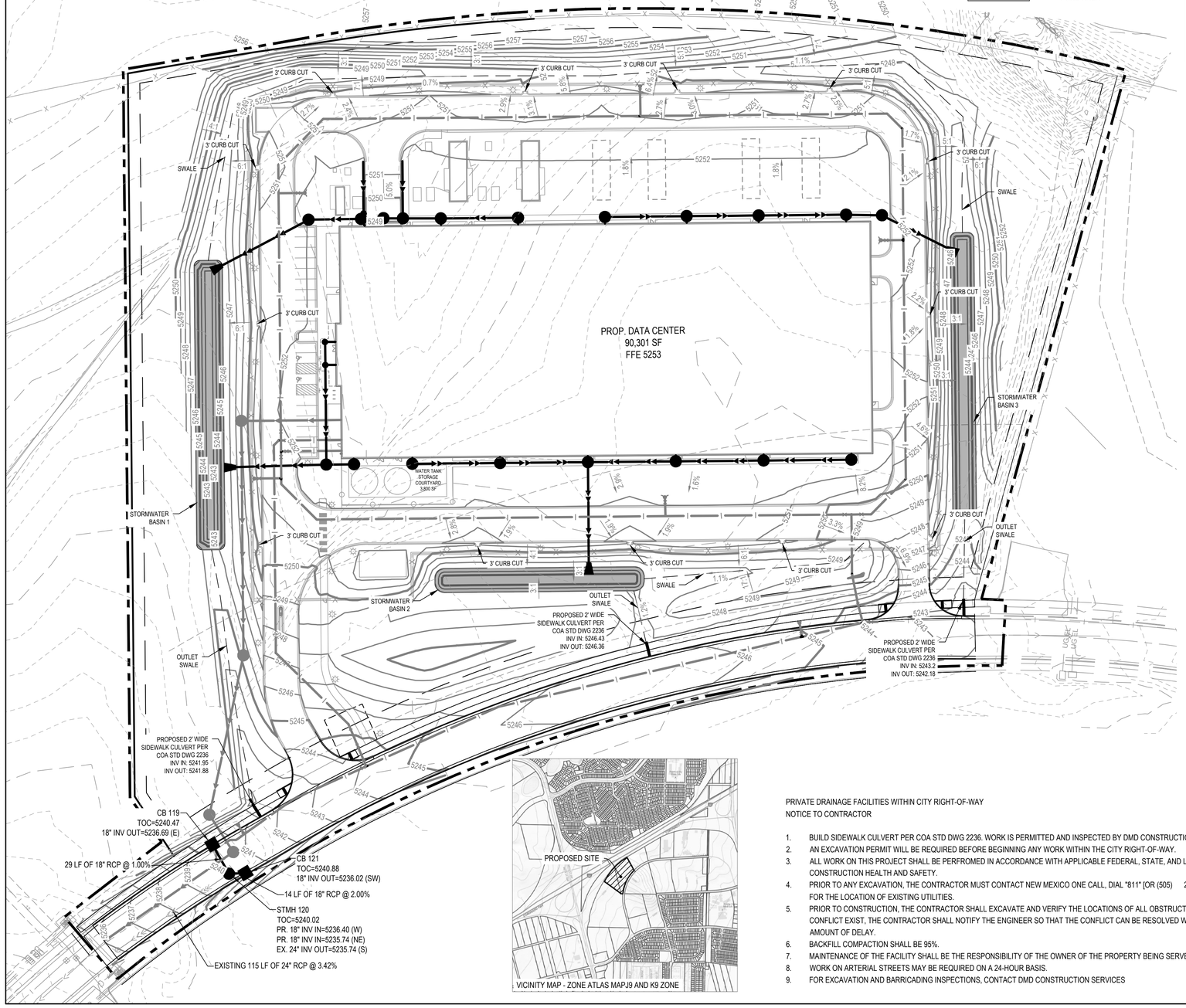
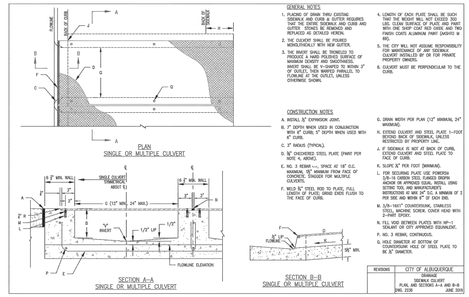
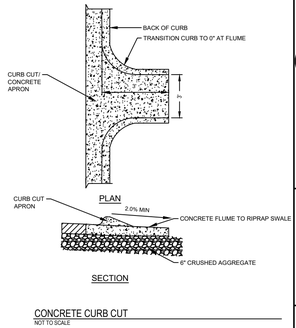
GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 5 ft.

LEGEND

- PROPERTY BOUNDARY
- 901 EXISTING MINOR CONTOUR
- 900 EXISTING MAJOR CONTOUR
- EXISTING STORM SEWER
- 901 PROPOSED MINOR CONTOUR
- 900 PROPOSED MAJOR CONTOUR
- STORM SEWER
- STORM MANHOLE
- STORM CATCH BASIN
- FLARED END SECTION
- POND AREA







CONCRETE CURB CUT
NOT TO SCALE

DRAINAGE PLAN

LEGAL DESCRIPTION: THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF BERNALILLO, STATE OF NEW MEXICO, AND IS DESCRIBED AS FOLLOWS: TRACT NUMBERED TWO-A (2-A) OF AVALON SUBDIVISION, UNIT 5, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON JULY 22, 2021. IN PLAT BOOK 2021C, PAGE 82.

SITE AREA: 9.98 AC

FLOOD HAZARD STATEMENT: F.E.M.A FLOODWAY BOUNDARY AND FLOODWAY MAPS DATE NOVEMBER 14, 2016 (PANEL NO. 35001C0326J) INDICATES NO FLOOD HAZARD ZONES WITHIN THE SITE BOUNDARY.

EXISTING DRAINAGE CONDITION:
THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH CHAPTER 6, ARTICLE 6-2, SECTION 6-2(A), ENTITLED "PROCEDURE FOR 40-ACRE AND SMALLER BASINS." THE DESIGN STORM USED FOR BOTH THE UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 1 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 1.54 INCHES. UNDER EXISTING CONDITIONS, THE PROPERTY IS UNDEVELOPED.

THE PROPERTY IS LOCATED ON THE NORTH SIDE OF DAYTONA ROAD. THE TRACT IS CURRENTLY VACANT. THE SITE IS PART OF THE EXISTING DRAINAGE MASTER PLAN, WESTPOINT 40, BY VINCENT STEINER, DATED 7/25/2019. THE SITE CURRENTLY DRAINS TO TWO LOCATIONS, A PORTION OF THE SITE FLOWS NORTH, SUBBASIN TR2-1 IN THE MASTER DRAINAGE PLAN, TO A TEMPORARY DESILTATION POND WHICH EVENTUALLY ENTERS THE EXISTING STORM DRAIN IN DAYTONA ROAD. THE REMAINDER OF THE SITE FLOWS SOUTH, SUBBASIN TR2-2 IN THE MASTER DRAINAGE PLAN, TO A TEMPORARY SWALE AND ULTIMATELY DISCHARGES TO THE EXISTING LOS VOLCANOES ROAD STORM DRAIN. THE DEVELOPED CONDITION OF THE MASTER DRAINAGE PLAN ALLOWABLE DISCHARGE RATES ARE 22 CFS FROM TRACT 2 (NORTH) AND 6.2 CFS FROM TRACT 2 (SOUTH).

DEVELOPED DRAINAGE CONDITION:
THE PROPERTY WILL BE DEVELOPED INTO A DATA CENTER. THIS TRACT IS PART OF THE WESTPOINT 40 MASTER DRAINAGE PLAN. RUNOFF FROM THIS TRACT DRAINS INTO DAYTONA ROAD. THE RUNOFF THAT REACHES DAYTONA ROAD IS COLLECTED IN A STORM DRAIN SYSTEM AND EVENTUALLY DISCHARGES TO THE EAST AND SOUTH EXISTING PONDS. ACCORDING TO THE WESTPOINT 40 MASTER DRAINAGE PLAN, THE TRACT IS ALLOWED A PEAK DISCHARGE RATE OF 28.2 CFS. THE PEAK DISCHARGE FROM THE SITE UNDER DEVELOPED CONDITIONS DURING A 100-YEAR, 6-HOUR STORM IS 13.0 CFS, WHICH IS LESS THAN THE 28.2 CFS ALLOWED. RUNOFF FROM THE SITE WILL ENTER DAYTONA ROAD THROUGH 2 SIDEWALK CULVERTS. THERE ARE THREE WATER QUALITY PONDS THAT ARE LOCATED ON SITE WITH A TOTAL WATER QUALITY VOLUME OF 16,032 CUBIC-FEET. THERE ARE 13 3-FOOT CURB CUTS ALONG THE CURB AND GUTTER FOR THE ENTIRE RING ROAD OF THE SITE WHICH ALLOW RUNOFF TO DRAIN INTO A SWALE WHICH WILL DIRECT THE WATER TO THE POND. ALL OF THE WATER QUALITY PONDS WILL DISCHARGE TO DAYTONA THROUGH A SIDEWALK CULVERT. THE STORMWATER FROM BASINS 1 AND 2 WILL DISCHARGE TO THE SOUTH INTO A PROPOSED CATCH BASIN, WHICH WILL THEN CONNECT TO THE STORMWATER STUB THAT WAS PROVIDED FROM PREVIOUS PROJECTS. STORMWATER FROM BASIN 3 WILL DISCHARGE INTO DAYTONA ROAD AND FLOW WITHIN THE GUTTER UNTIL IT REACHES THE INLET PROVIDED FROM THE NEIGHBORING PROJECT.

WATER QUALITY VOLUME REQUIRED = (0.42IN/12IN/FT) x ((SITE AREA x 0.717)) x 43,560 SF/AC) = 10,909 CF REQUIRED.
WATER QUALITY VOLUME PROVIDED FROM BASIN 1 = 8,200 CF
WATER QUALITY VOLUME PROVIDED FROM BASIN 2 = 3,353 CF
WATER QUALITY VOLUME PROVIDED FROM BASIN 3 = 4,479 CF
TOTAL WATER QUALITY VOLUME PROVIDED = 16,032 CF

SIDEWALK CULVERT CAPACITY, WEIR EQUATION = (2.7) x (2FT) x (5IN/12IN/FT)^1.5 = 1.45 CFS

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (24-hr) (acre-ft)	V (24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
DRAINAGE AREA 1	5.11	100	0	0	0	0.55	0.23	10,019	0.23	10,019	7.87
DRAINAGE AREA 2	4.92	100	0	0	0	0.55	0.23	10,019	0.23	10,019	7.58
FULL DEVELOPMENT CONDITIONS											
DRAINAGE AREA 1	3.12		43.5%		56.5%	1.58	0.42	18,295	0.47	20,473	10.2
DRAINAGE AREA 2	3.25		46.2%		53.8%	1.54	0.42	18,295	0.47	20,473	10.4
DRAINAGE AREA 3	2.08		28.2%		71.8%	1.81	0.31	13,504	0.46	20,038	7.4
EXCESS PRECIP.		0.55	0.73	0.95	2.24	Ei (in)					
PEAK DISCHARGE		1.54	2.16	2.87	4.12	Qpi (cfs)					

ZONE = 1
$P_{6\text{-HR}}$ (in.) = 2.17
$P_{24\text{-HR}}$ (in.) = 2.49

WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B)+(E_C)(\%C)+(E_D)(\%D)$
$V_{6\text{-HR}}$ (acre-ft) = (WEIGHTED E)(AREA)/12
$V_{24\text{-HR}}$ (acre-ft) = $V_{6\text{-HR}} + (A_D)(P_{24\text{-HR}} - P_{6\text{-HR}})/12$
Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B)+ (Q_{PC})(A_C)+ (Q_{PD})(A_D)$

VICINITY MAP - ZONE ATLAS MAP J9 AND K9 ZONE

PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR

1. BUILD SIDEWALK CULVERT PER COA STD DWG 2236. WORK IS PERMITTED AND INSPECTED BY DMD CONSTRUCTION SERVICES DIVISION.
2. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFROMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION HEALTH AND SAFETY.
4. PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" [OR (505) 260-1990] FOR THE LOCATION OF EXISTING UTILITIES.
5. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
6. BACKFILL COMPACTION SHALL BE 95%.
7. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
8. WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.
9. FOR EXCAVATION AND BARRICADING INSPECTIONS, CONTACT DMD CONSTRUCTION SERVICES

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT NM11 (811 OR 1-800-321-2537) AT LEAST 2 FULL BUSINESS DAYS IN ADVANCE (EXCLUDING HOLIDAYS AND WEEKENDS) FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

811 Know what's below. Call before you dig.

Stantec
733 MARQUETTE AVE
SUITE 1000
MINNEAPOLIS, MN 55402
WWW.STANTEC.COM

CLIENT:
OPPIDAN

ALBUQUERQUE 10 MW DATA CENTER

DAYTONA RD NW
ALBUQUERQUE, NEW MEXICO 87121

PROJECT TITLE:

ISSUE NO.:	DESCRIPTION:	DATE:
0	PRE APPLICATION SUBMITTAL	01/08/2024
1	DRB SUBMITTAL	03/08/2024
2	BID SET	03/20/2024
3	DFT RESUBMITTAL	05/10/2024
4	PERMIT SET	06/03/2024

CERTIFICATION:
COLLEEN M. RUIZ
NEW MEXICO
16240
PROFESSIONAL ENGINEER
06/03/2024

PROJECT NO.: 193806697

DWN BY:	CHK'D BY:	APP'D BY:
HKK	JRA	CMR

ISSUE DATE: 06/03/2024
ISSUE NO.: 4
SHEET TITLE: GRADING AND DRAINAGE PLAN
SHEET NO.: C-505