

CITY OF ALBUQUERQUE



July 26, 2017

Steven Morrow, P.E.
Molzen-Corbin & Associates
2701 Miles Road SE
Albuquerque, NM 87106

RE: **Aviation Center of Excellence
Grading and Drainage Plan
Engineer's Stamp Date: 7/25/17
Hydrology File: M16D024N**

Dear Mr. Morrow:

Based upon the information provided in your submittal received 7/25/17, the Grading and Drainage Plan is approved for Grading and Paving Permit.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: _____
City Address: _____

Engineering Firm: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Architect: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

☐ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

☐ ENGINEER/ ARCHITECT CERTIFICATION

☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR

☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)

☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY

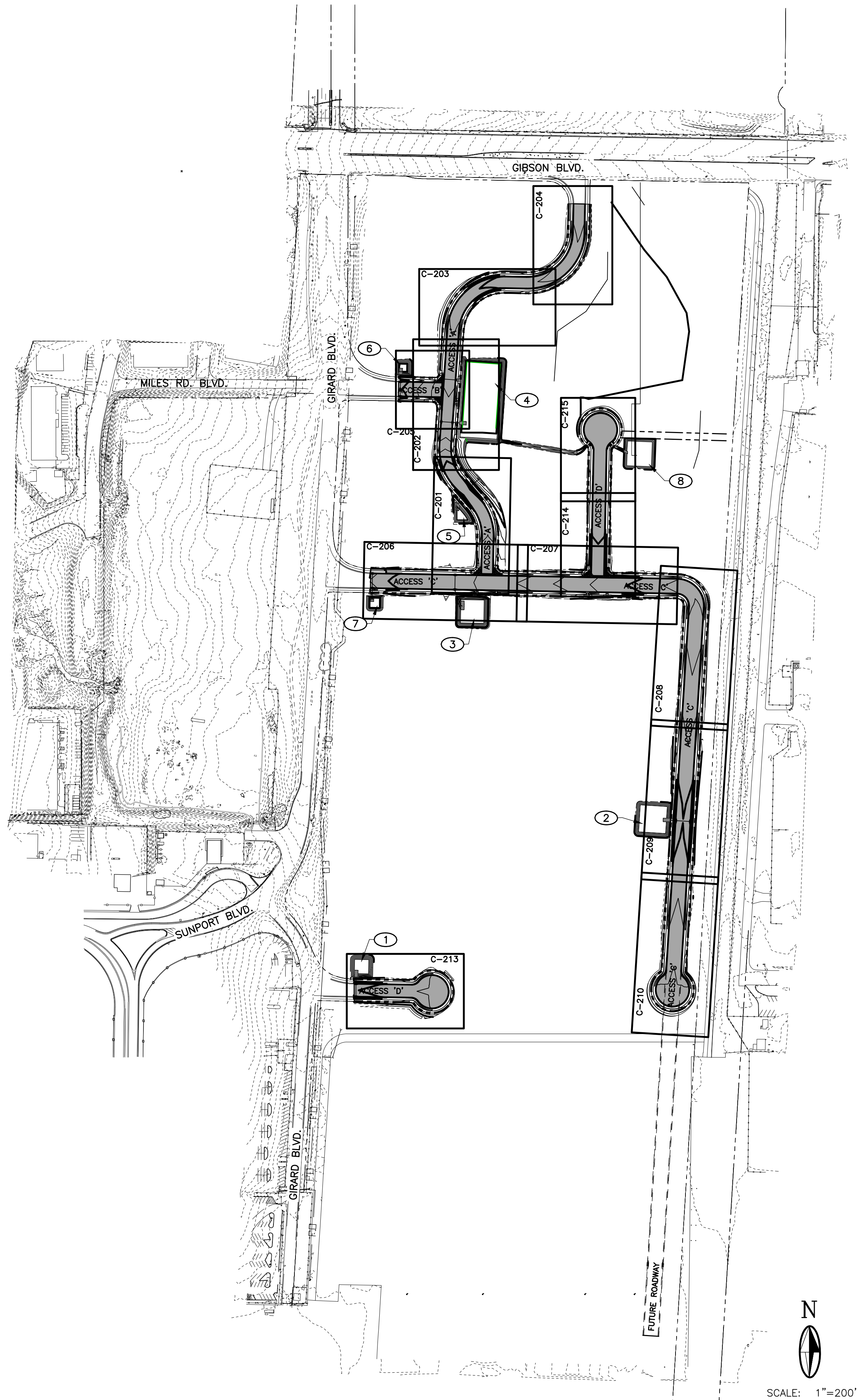
☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR

☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



KEYED NOTE	POND #	BTM. DIM FT	TOP. DIM FT	POND BTM FT	POND WSE. FT	POND VOL. CU. FT.
1	R1	42'X42'	59.5'X58.8'	5310.05	5313.00	8,624.9
2	R2	80'X80'	98'X97.3'	5316.00	5319.00	23,870.9
3	R3	68.8'X68.8'	90.5'X92.2'	5312.00	5315.00	19,427.8
4	R6	97.5'X188.7'	235'X115.5'	5309.10	5312.20	73,093.7
5	R7	30.5'X39.6'	56.2'X77.3'	5311.45	5314.83	5,183.6
6	R8	23.5'X23.5'	50'X45.2'	5305.00	5309.60	6,054.8
7	R9	27'X27'	49'X44.7'	5309.30	5313.00	5,314.3
8	DA8	70'X70'	84.5'X85.3'	5316.50	5319.10	15,681.6

POND ATTRIBUTE TABLE

MOLZENCORBIN

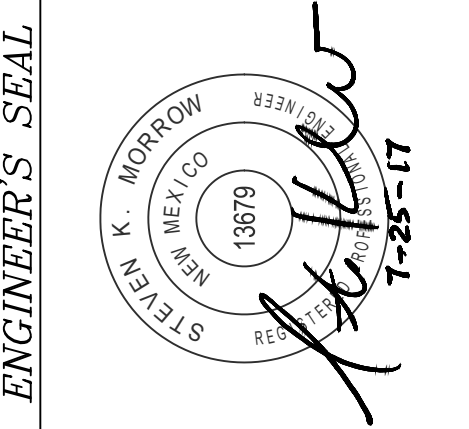
2701 Miles Road SE Albuquerque, New Mexico 87106

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

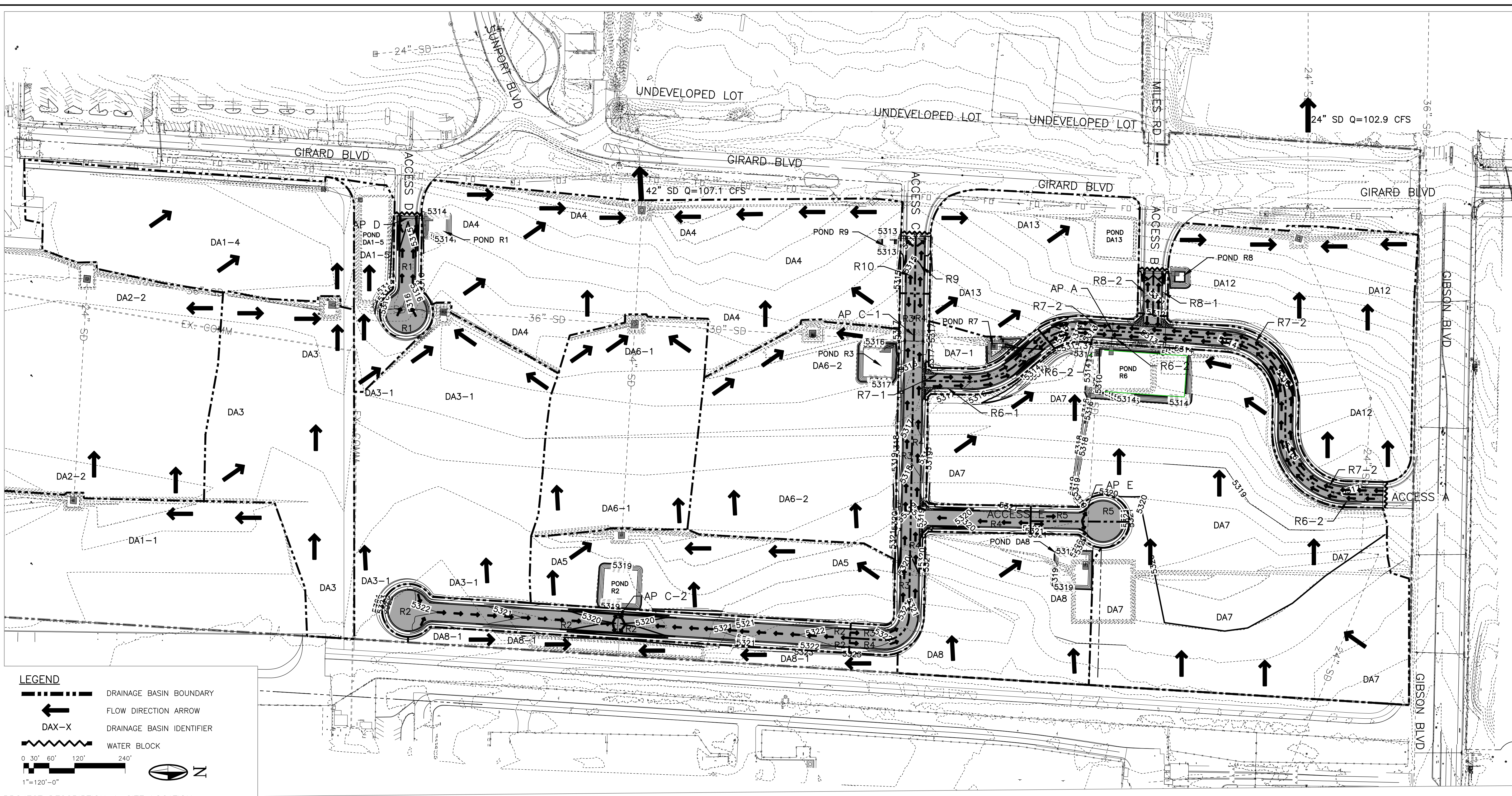
TITLE: SUNPORT ACE SITE ROADWAYS AND UTILITIES IMPROVEMENTS

OVERALL STREET AND POND PLAN

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 751581		Zone Map No. M-16	Sheet 5 Of 81	G-005



ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION			
				NO.	FIELD NOTES		19-L16 - 3 1/4 INCH ALUMINUM DISC N=479188.5779, E=532270.698, EL.=5297.51	CONTRACTOR WORK STAKED BY DATE	
					BY				DATE
		</							



PROJECT DESCRIPTION & SITE LOCATION:

THE ALBUQUERQUE INTERNATIONAL SUNPORT IS PLANNING TO DEVELOP 115 ACRES ON THE SITE OF DECOMMISSIONED RUNWAY 17-35 FOR COMMERCIAL, RETAIL, OFFICE, INDUSTRIAL, MANUFACTURING, WAREHOUSING, AND OFFICE USE. THE DEVELOPMENT OF THE AVIATION CENTER OF EXCELLENCE (ACE) WILL OCCUR IN 4 PHASES: 1. MASS DEMOLITION AND GRADING OF THE AREA WITHIN THE AIRFIELD. 2. PERIMETER ROAD IMPROVEMENTS ON GIBSON BLVD AND GIRARD BLVD. 3. THE UTILITY WORK FOR THE ENTIRE SITE. 4. THE DEVELOPMENT OF THE INTERIOR ROADS. THE INDIVIDUAL PLANNED LOTS WILL BE DEVELOPED AS THEY ARE LEASED.

THIS DRAINAGE REPORT IS FOR PHASE 4: THE INTERIOR ROAD IMPROVEMENTS THAT ARE TO BE COMPLETED FOR LEASED LOT ACCESS WITHIN THE ACE SITE. PROPOSED DRAINAGE IMPROVEMENTS ARE CONSISTENT WITH THE AVIATION CENTER OF EXCELLENCE MASTER DRAINAGE PLAN APPROVED 1-15-16 (FILE: M16D024N).

HYDROLOGIC CRITERIA:

THE HYDROLOGIC CRITERIA FOR THIS DRAINAGE REPORT IS THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM). HYDROLOGIC CALCULATIONS WERE BASED ON THE 100YR, 24HR STORM. PRECIPITATION DATA WAS USED FROM THE DPM, WITH THE SITE LOCATION BEING CONSIDERED AS ZONE 2. 100 YEAR, 24 HOUR, STORM AS REQUIRED BY ALBUQUERQUE INTERNATIONAL AIRPORT DRAINAGE MASTER PLAN.

EXISTING CONDITIONS:

THE EXISTING SITE HAS BEEN PREVIOUSLY GRADED IN PHASE 1 TO DIRECT RUNOFF TO THE EXISTING INLETS WITHIN THE SITE VIA SOIL SWALES. THE INLETS HAVE SEDIMENTATION BASINS TO CAPTURE SEDIMENT FOR THE FIRST FLUSH. THE INLETS SOUTH OF MILES RD WILL ROUTE IT TO THE 42" SYSTEM. THAT SYSTEM OUTFALLS INTO THE KIRTLAND CHANNEL AND EVENTUALLY THE SOUTH DIVERSION CHANNEL. THE NORTHERN INLETS NEAR GIBSON BLVD, DRAIN TO A 24" SYSTEM THAT EVENTUALLY CONNECTS TO THE GIBSON BLVD STORM SYSTEM NEAR COLUMBIA BLVD. THE FINAL OUTFALL OF THE GIBSON BLVD STORM SYSTEM IS GENEVA'S ARROYO, AND TERMINATES IN THE SOUTH DIVERSION CHANNEL.

DEVELOPED CONDITIONS:

PHASE 4 WILL CONSTRUCT THE INTERIOR ROADS FOR THE ACE DEVELOPMENT. ALL ROAD RUNOFF WILL BE INTERCEPTED ON SITE AND PONDED ONSITE, OR ROUTED THROUGH A SEDIMENTATION BASIN TO THE EXISTING STORM DRAIN NETWORK. THE SEDIMENTATION BASINS ARE SIZED TO CAPTURE THE 90TH PERCENTILE STORM OR "FIRST FLUSH". THE ROADS ARE SHOWN IN THE ABOVE BASIN MAP. THE ROADS WILL HAVE TYPE C INLETS BUILT TO DRAIN THE ROADS. THESE INLETS WILL OUTFALL TO A POND NEAR THE INLET LOCATION SHOWN ON THE BASIN MAP. THIS IS TO ALLOW FOR FUTURE FLEXIBILITY OF THE ENTIRE SYSTEM. WHERE INTERIOR ROADS ARE CONNECTING TO GIRARD OR GIBSON, INLETS WILL BE CONSTRUCTED TO INTERCEPT AND DIVERT RUNOFF SO IT DOES NOT EXIT THE SITE. THE EXISTING BASINS WILL BE CHANGED BY CONSTRUCTION OF THE INTERIOR ROADS. THESE BASINS WILL HAVE NEW PONDED LOCATIONS OR GRADED TO A NEW INLET AS SHOWN ON THE BASIN MAP.

REFER TO THIS SHEET FOR PROPOSED BASIN LOCATIONS. SEE SHEET G-005 FOR POND ATTRIBUTES. SEE GRADING AND DRAINAGE SHEET FOR INLET LOCATIONS. THESE NEW INLETS MUST BE MAINTAINED TO OPERATE AS DESIGNED IN THIS REPORT.

Basin	Area (ac)	Q(24 hr) (cfs)	V(24 hr) (cf)	90th % V(CF)	Inlet Cap. Q (CFS)	Pond Q out (CFS)
R1	0.54	2.30	4,334.7	713.0	12.00	0.00
R2	1.89	8.10	15,278.5	2,512.4	12.00	0.00
R3	0.62	2.59	4,850.9	786.2	12.00	0.00
R4	1.14	4.93	9,325.6	1,540.5	12.00	0.00
R5	0.45	1.94	3,656.8	602.4	12.00	0.00
R6-1	0.24	1.00	1,876.4	306.0	12.00	0.00
R6-2	0.73	3.06	5,741.1	932.4	12.00	0.00
R7-1	0.22	0.94	1,763.4	288.4	12.00	0.00
R7-2	0.73	3.20	6,066.8	1,008.6	12.00	0.00
R8-1	0.09	0.37	693.0	113.5	12.00	0.00
R8-2	0.08	0.35	666.2	109.2	12.00	0.00
R9	0.11	0.47	886.7	145.6	0.00	0.00
R10	0.11	0.47	887.1	145.7	0.00	0.00
DA1-4	4.61	14.43	18,902.5	-	0.00	0.00
DA1-5	0.78	2.46	3,217.9	-	0.00	0.00
DA3	4.75	14.82	19,411.2	-	22.00	14.82
DA3-1	6.45	20.20	26,469.6	-	22.00	20.20
DA4	9.98	31.23	40,917.5	-	22.00	22.00
DA5	3.64	11.38	14,914.4	-	22.00	11.38
DA6-1	4.01	12.55	16,445.1	-	22.00	12.50
DA6-2	5.24	16.40	21,484.1	-	22.00	16.40
DA7	13.49	42.23	55,320.5	-	22.00	1.12
DA7-1	0.36	1.12	1,464.9	-	22.00	16.40
DA8	3.26	10.19	13,353.6	-	22.00	22.00
DA12	3.54	11.07	14,500.6	-	22.00	11.07
DA13	3.89	12.19	15,971.3	-	0.00	0.00

STREET			
Analysis Point	Carrying Cap. CFS	Q CFS	Calc. CFS
A	6.75	2.76	
C-1	15.45	4.93	
C-2	11.32	4.06	
D	9.05	1.15	
E	7.00	0.87	

$V_{FIRST FLUSH} = 0.44 \text{ IN.} \times \text{AREA}_{LAND TREATMENT} \times 12 \text{ (IN/FT)}$

$V_{FIRST FLUSH} = 9,452.6 \text{ CF}$

MOLZENCORBIN

2701 Miles Road SE Albuquerque, New Mexico 87106

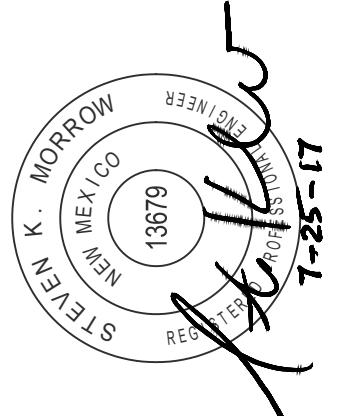
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SUNPORT ACE SITE ROADWAYS AND UTILITIES IMPROVEMENTS

PROPOSED BASIN MAP
AND DRAINAGE REPORT

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	751581	Zone Map No.	M-16	Sheet 6 Of 81 G-006

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		NO.	BY	DATE		CONTRACTOR	DATE
						19-116 - 3 1/4 INCH ALUMINUM DISC	DATE
						N=479188.5779, E=552270.696, EL=5297.51	DATE
						14-117 - 3 1/4 INCH ALUMINUM DISC	DATE
						N=480697.724, E=55406.820	DATE
						RECORDED BY	DATE
						NAD 83 NAVD 88 - CENTRAL ZONE	DATE
							NO.



MOLZEN CORBIN

July 25, 2017

Mr. Dana Peterson, P.E.
DRC Hydrology
600 2nd St. NW
Albuquerque, New Mexico 87102

RE: Aviation Center of Excellence Drainage Report
Hydrology File: M16D024N

ABQ114-19C

Dear Mr. Peterson,

In response to your comments from March 2, 2017 for the grading permit of the interior road project for the Sunport Aviation Center of Excellence (ACE), we have addressed your comments as follows:

1. First flush ponds:
 - a. See Sheet G-005 (enclosed) for each pond dimension, bottom of pond, side slopes, and maximum water surface elevation.
 - b. Pond volume can be found in the table on Sheet G-006.
2. Water blocks along Girard Blvd access roads will not be necessary for this project as the project site is above the Girard road elevation, and stormwater will not run into the project site. Type A inlets will be installed divert runoff before it reaches Girard Blvd. from the Access roads B, C, and D. Access A has a 1-foot water block that prevents stormwater from entering the site from Gibson Blvd.

Please let us know if you have any questions.

Sincerely,

MOLZEN CORBIN



Steven K. Morrow, P.E.
Senior Professional Engineer

SKM:ptm
Enclosure