

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

June 1, 2022

Scott Eddings, P.E.
Huitt-Zollars
333 Rio Rancho Blvd., Suite 101
Rio Rancho, NM 87124

**RE: Winrock Park
2100 Louisiana Blvd.
Grading and Drainage Plan Stamp Date: 4/27/22
Hydrology File: J19D058J**

Dear Mr. Eddings:

Based on the resubmittal received on 5/4/22 and supplemental material on 5/25/22 and 5/31/22, the Grading Plan is approved for Building Permit by Hydrology.

PO Box 1293

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

Albuquerque

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.

NM 87103

www.cabq.gov

If you have any questions, please contact me at 924-3986 or earmijo@cabq.gov.

Sincerely,

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Winrock Park **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: PR-2018-001579 **EPC#:** _____ **Work Order#:** _____
Legal Description: Tract A-3 - Winrock Town Center
City Address: 2100 Louisiana Blvd

Applicant: Goodman Realty **Contact:** Fred Gorenz
Address: 200 Sun Ave Ste 100
Phone#: 505-401-4650 **Fax#:** _____ **E-mail:** _____

Other Contact: Huitt-Zollars, Inc **Contact:** Scott Eddings
Address: 333 Rio Rancho Blvd
Phone#: 505-235-72111 **Fax#:** _____ **E-mail:** seddings@huitt-zollars.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE ☒ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes ☒ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
☐ PAD CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE REPORT
☐ DRAINAGE MASTER PLAN
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
☐ ELEVATION CERTIFICATE
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ STREET LIGHT LAYOUT
☐ OTHER (SPECIFY) _____
☐ PRE-DESIGN MEETING?

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
☐ FLOODPLAIN DEVELOPMENT PERMIT
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 4/27/22 **By:** Scott Eddings

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

EXISTING DRAINAGE CONDITIONS

THIS SITE IS UNDER THE EXISTING WINROCK DRAINAGE IMPLEMENTATION PLAN. STORM WATER FROM THIS PORTION OF THE SITE ENTERS THE EXISTING STORM DRAIN SYSTEM WHICH OUTFALLS INTO THE I-40 CHANNEL.

FLOOD ZONE

PER THE FEMA MAP NUMBER 35001 C0352G DATED SEPTEMBER 26, 2008 SHOWS THE SITE IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AREA.

MASTER DRAINAGE PLAN

SITE DRAINAGE IS IN ACCORDANCE WITH THE APPROVED WINROCK TOWN CENTER MASTER DRAINAGE PLAN.

PROPOSED DRAINAGE CONDITIONS

DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE APPROVED DRAINAGE MASTER PLAN FOR WINROCK TOWN CENTER AND WINROCK TOWN CENTER PARK DRAINAGE REPORT DATED 1/17/22.

ROAD E PEAK DISCHARGE IS 7.17 CFS WHICH OUTFALLS TO THE LAKE VIA 3 EA 2-FT SIDEWALK CULVERTS LOCATED AT THE LOW POINT WITHIN THE ON STREET PARKING.

THE LAKE OUTFALLS AT ANALYSIS POINT #2 INTO THE EXISTING STORM DRAIN NETWORK VIA A WATER QUALITY OUTLET STRUCTURE DESIGNED BY THE POND CONSULTANT AND AN 18-INCH STORM DRAIN SLOPED AT 0.5%. THE OUTFALL RATE IS 3 CFS.

STORM WATER QUALITY

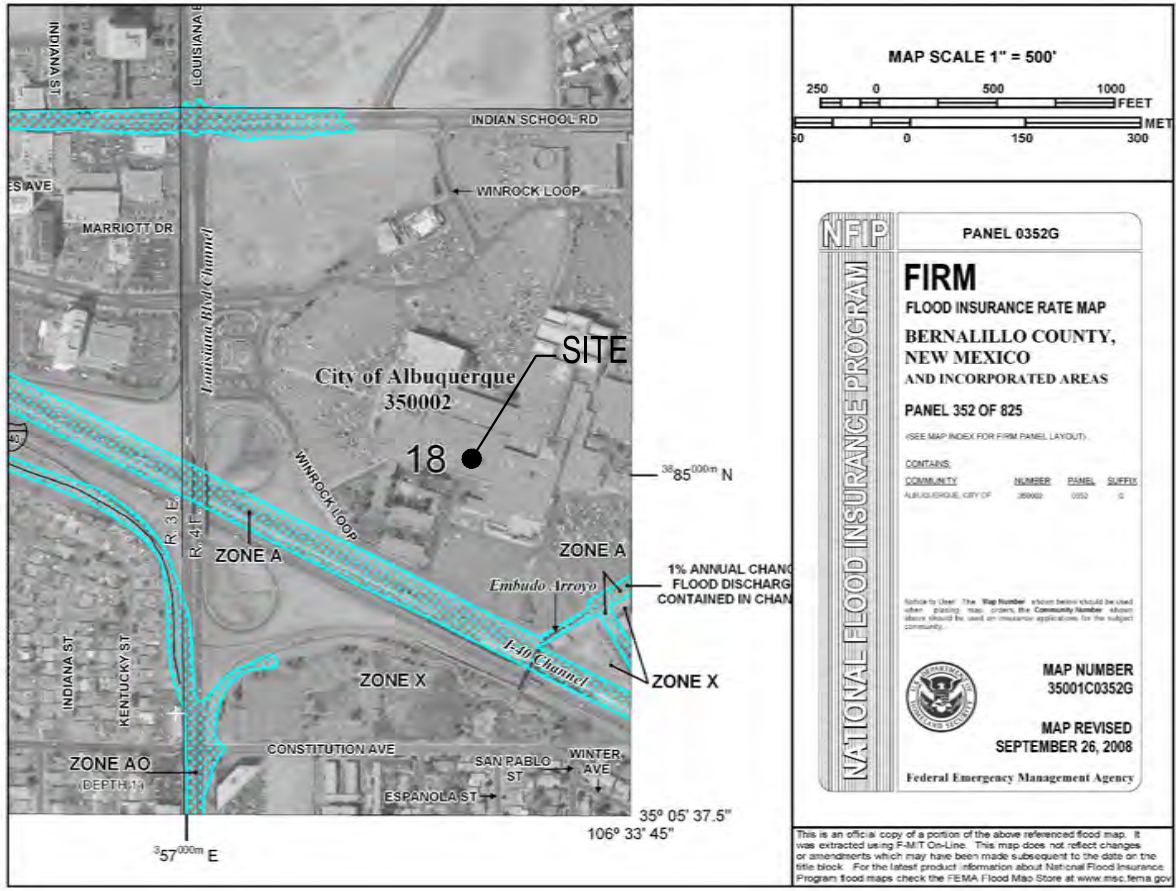
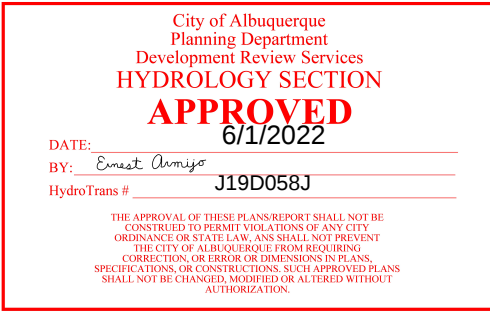
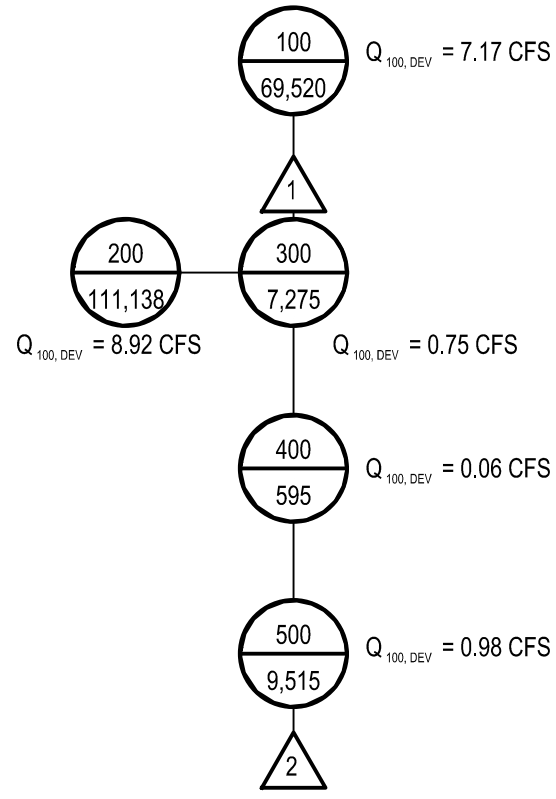
EXISTING SITE IS PARTIALLY PAVED AND THE EXISTING PAVED AREAS DISCHARGE INTO THE EXISTING STORM DRAIN WITHOUT WATER QUALITY.

WATER QUALITY REQUIREMENTS TREATING THE PAVED AREAS.

VOLUME = 111,514 SF * 0.26in/12 = 2,416 CUBIC FEET

THIS PROJECT ROUTES STORM WATER THROUGH THE PROPOSED LAKE.

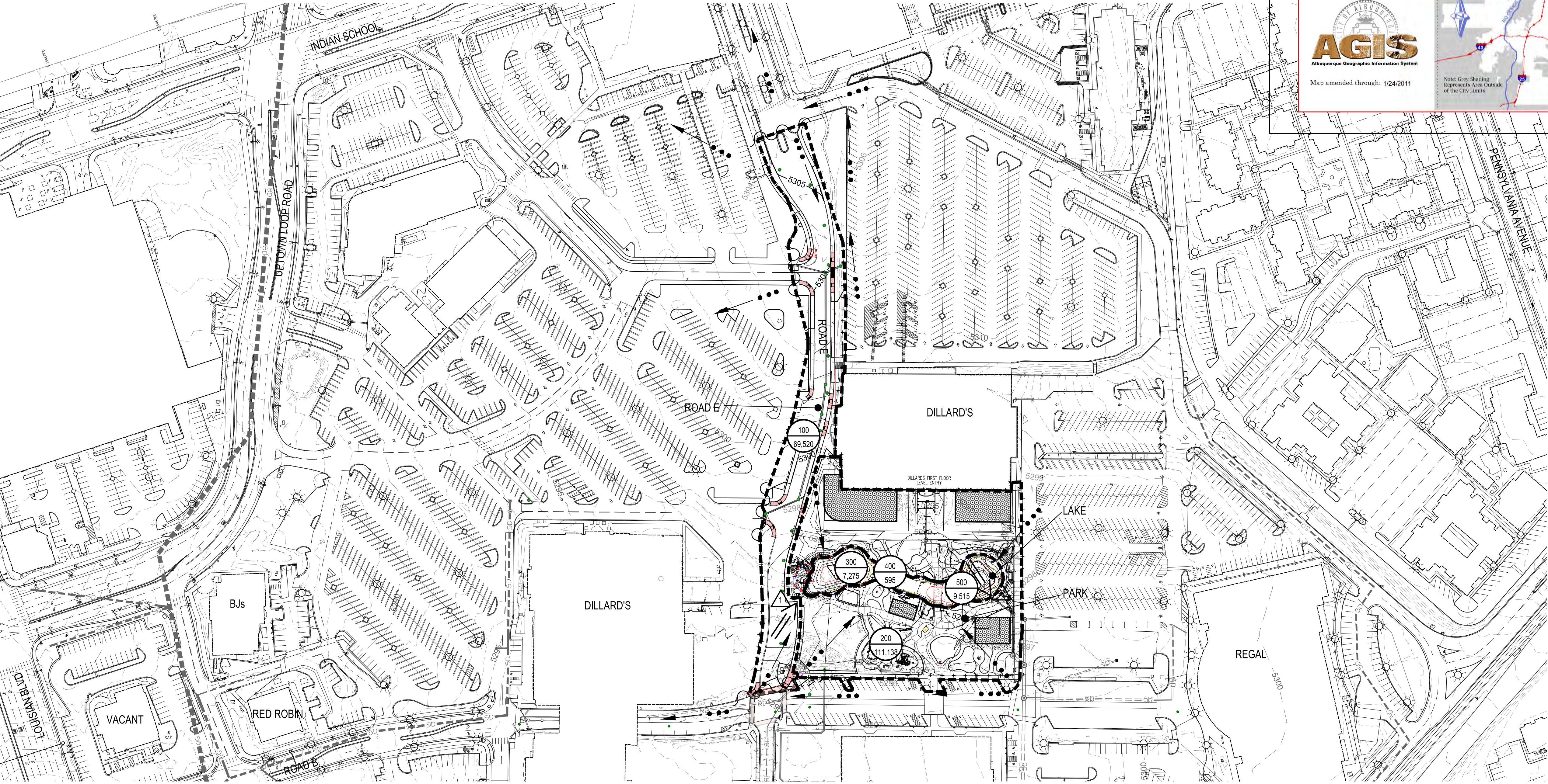
BASIN FLOWCHART



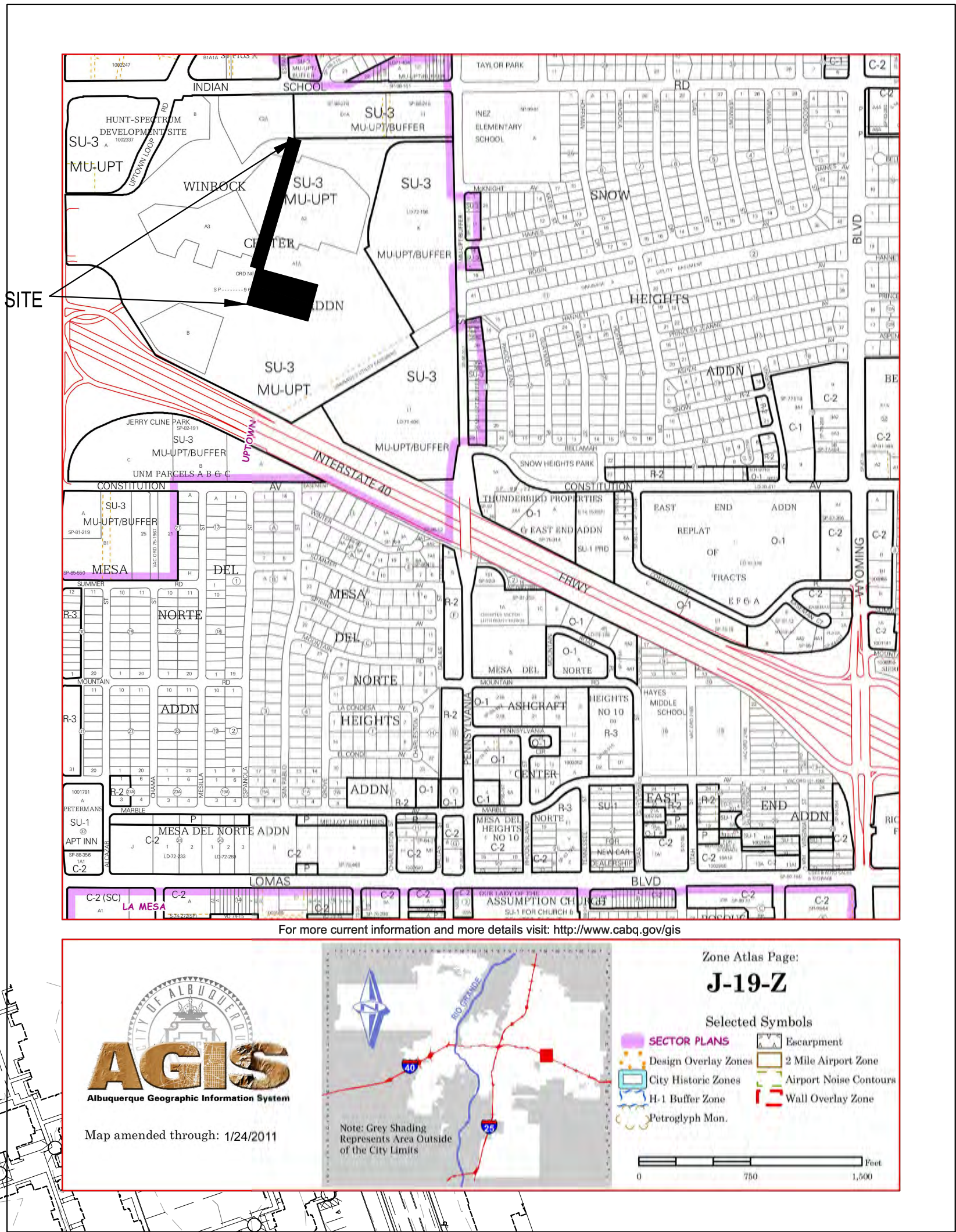
FIRM PANEL 35001C0352G

LEGEND

- BASIN ID (XP-X XXX)
- AREA (SF)
- ANALYSIS POINT
- BASIN BOUNDARY
- DISCHARGE LOCATION
- FLOW DIRECTION
- GRADE BREAK
- LIMITS OF DISTURBANCE



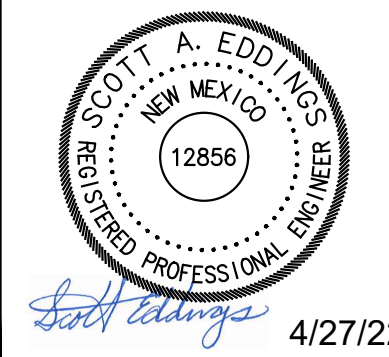
BASIN MAP



ZONE ATLAS PAGE J-19-Z

MODULUS ARCHITECTS

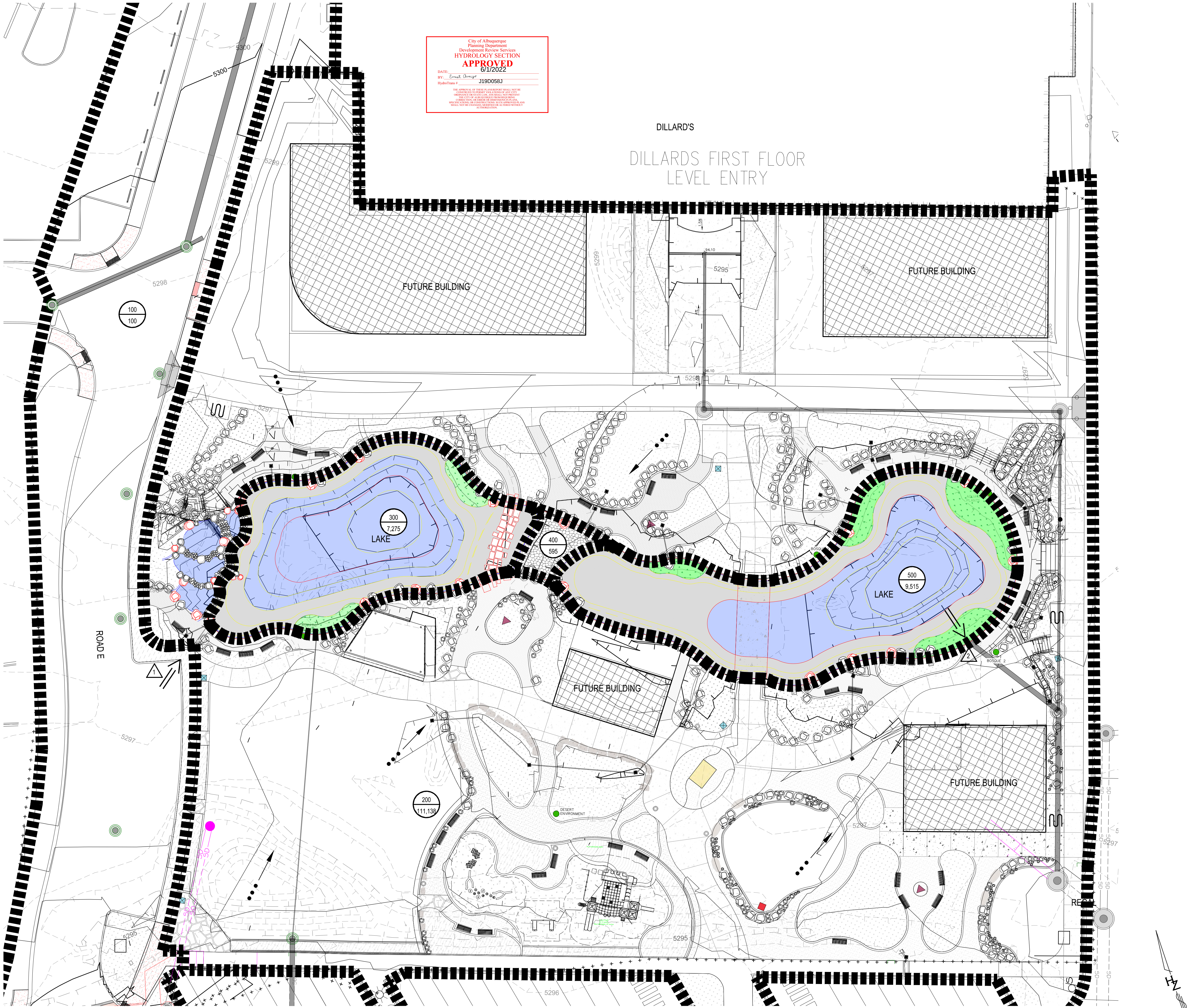
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE WINROCK PARK 2100 LOUISIANA BLVD.	PROJECT MANAGER JOBS NO.	DRAWN BY: C100
SHEET TITLE DRAINAGE PLAN		

DATE 4/12/22	SHEET C100
SCALE AS NOTED	

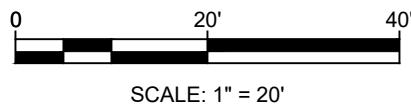
HUETT-ZOLLARS



LEGEND

	BASIN ID		BASIN BOUNDARY
	AREA (SF)		DISCHARGE LOCATION
	ANALYSIS POINT		FLOW DIRECTION
			GRADE BREAK
			LIMITS OF DISTURBANCE

ENLARGED BASIN MAP



HUITT-ZOLIARS

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

4/27/22

PROJECT TITLE WINROCK PARK 2100 LOUISIANA BLVD.	JOB NO. DRAWN BY:	ENLARGED BASIN MAP
PROJECT MANAGER	SHEET TITLE	

DATE 4/12/22	SHEET C100A
SCALE AS NOTED	

REV	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

HYDROLOGY - BASIN 100

DRAINAGE AREA 100 AREA = 1.60 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT B	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT C	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT D	1.60 ac.	1.60 ac.	1.60 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(1.60)/ 1.60 ac.
= 2.58 in.
V100-360 = (2.58 x(1.60)/ 12 = 0.343131 ac-ft = 14947 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(1.60)= 7.17 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(1.60)/ 1.60 ac.
= 2.58 in.
V100-360 = (2.58 x(1.60)/ 12.0 = 0.343131 ac-ft = 14947 cf

V100-1440 = (0.34)+(1.60 x(2.84 - 2.43)/ 12 = 0.397660 ac-ft = 17322 cf

V100-10day = (0.34)+(1.60 x(4.10 - 2.43)/ 12 = 0.565236 ac-ft = 24622 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(1.60)= 7.17 cfs

HYDROLOGY - BASIN 400

DRAINAGE AREA 400 AREA = 0.01 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT B	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT C	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT D	0.01 ac.	0.01 ac.	0.01 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.01)/ 0.01 ac.
= 2.58 in.
V100-360 = (2.58 x(0.01)/ 12 = 0.002937 ac-ft = 128 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.01)= 0.06 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.01)/ 0.01 ac.
= 2.58 in.
V100-360 = (2.58 x(0.01)/ 12.0 = 0.002937 ac-ft = 128 cf

V100-1440 = (0.00)+(0.01 x(2.84 - 2.43)/ 12 = 0.003403 ac-ft = 148 cf

V100-10day = (0.00)+(0.01 x(4.10 - 2.43)/ 12 = 0.004838 ac-ft = 211 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.01)= 0.06 cfs

HYDROLOGY - BASIN 200

DRAINAGE AREA 200 AREA = 2.55 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT B	2.55 ac.	0.64 ac.	0.64 ac.
TREATMENT C	0.00 ac.	0.96 ac.	0.96 ac.
TREATMENT D	0.00 ac.	0.96 ac.	0.96 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(2.55)+(1.09 x(0.00)+(2.58 x(0.00)/ 2.55 ac.
= 0.86 in.
V100-360 = (0.86 x(2.55)/ 12 = 0.182849 ac-ft = 7965 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(2.55)+(3.17 x(0.00)+(4.49 x(0.00)= 6.35 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.64)+(1.09 x(0.96)+(2.58 x(0.96)/ 2.55 ac.
= 1.59 in.
V100-360 = (1.59 x(2.55)/ 12.0 = 0.338323 ac-ft = 14737 cf

V100-1440 = (0.34)+(0.96 x(2.84 - 2.43)/ 12 = 0.371013 ac-ft = 16161 cf

V100-10day = (0.34)+(0.96 x(4.10 - 2.43)/ 12 = 0.471473 ac-ft = 20537 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.64)+(3.17 x(0.96)+(4.49 x(0.96)= 8.92 cfs

HYDROLOGY - BASIN 500

DRAINAGE AREA 500 AREA = 0.22 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT B	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT C	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT D	0.22 ac.	0.22 ac.	0.22 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.22)/ 0.22 ac.
= 2.58 in.
V100-360 = (2.58 x(0.22)/ 12 = 0.046963 ac-ft = 2046 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.22)= 0.98 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.22)/ 0.22 ac.
= 2.58 in.
V100-360 = (2.58 x(0.22)/ 12.0 = 0.046963 ac-ft = 2046 cf

V100-1440 = (0.05)+(0.22 x(2.84 - 2.43)/ 12 = 0.054427 ac-ft = 2371 cf

V100-10day = (0.05)+(0.22 x(4.10 - 2.43)/ 12 = 0.077362 ac-ft = 3370 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.22)= 0.98 cfs

HYDROLOGY - BASIN 300

DRAINAGE AREA 300 AREA = 0.17 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT B	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT C	0.00 ac.	0.00 ac.	0.00 ac.
TREATMENT D	0.17 ac.	0.17 ac.	0.17 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.17)/ 0.17 ac.
= 2.58 in.
V100-360 = (2.58 x(0.17)/ 12 = 0.035907 ac-ft = 1564 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.17)= 0.75 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.17)/ 0.17 ac.
= 2.58 in.
V100-360 = (2.58 x(0.17)/ 12.0 = 0.035907 ac-ft = 1564 cf

V100-1440 = (0.04)+(0.17 x(2.84 - 2.43)/ 12 = 0.041614 ac-ft = 1813 cf

V100-10day = (0.04)+(0.17 x(4.10 - 2.43)/ 12 = 0.059150 ac-ft = 2577 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.17)= 0.75 cfs

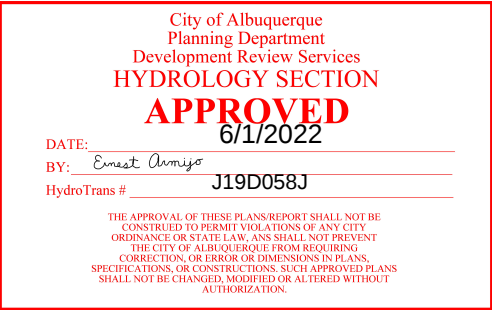
LAKE RAITING CURVE

Lower Lake
Rating Curve
April-22

Elev.	Area	Volume (cu-ft)	Cum Vol	Outlet Q
5292.5	8091	0.00	0.00	0
5293.5	9515	8803.00	8803.00	2
5294.4	10997	10256.00	19059.00	2
5295.5	21424	16210.50	35269.50	2

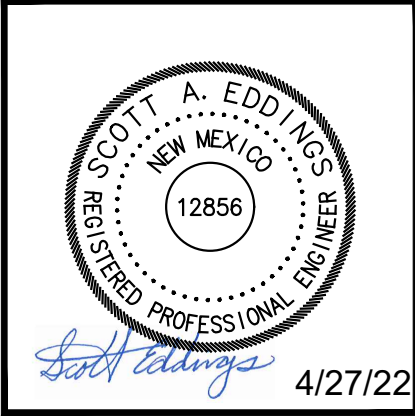
SIDEWALK CULVERT CAPACITY

Worksheet for Rectangular Channel - 1	
Project Description	
Friction Method	Manning Formula
Solve For	Discharge
Input Data	
Roughness Coefficient	0.013
Channel Slope	0.02000 ft/ft
Normal Depth	0.40 ft
Bottom Width	1.00 ft
Results	
Discharge	2.37 ft³/s
Flow Area	0.40 ft²
Wetted Perimeter	1.80 ft
Hydraulic Radius	0.22 ft
Top Width	1.00 ft
Critical Depth	0.56 ft
Critical Slope	0.00813 ft/ft
Velocity	5.93 ft/s
Velocity Head	0.55 ft
Specific Energy	0.95 ft
Froude Number	1.65
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.40 ft
Critical Depth	0.56 ft
Channel Slope	0.02000 ft/ft
Critical Slope	0.00813 ft/ft



REV	DATE	BY	REVISION
1	4/12/22		
2			
3			
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7			
8			
9			
10			

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE
WINROCK PARK
2100 LOUISIANA BLVD.

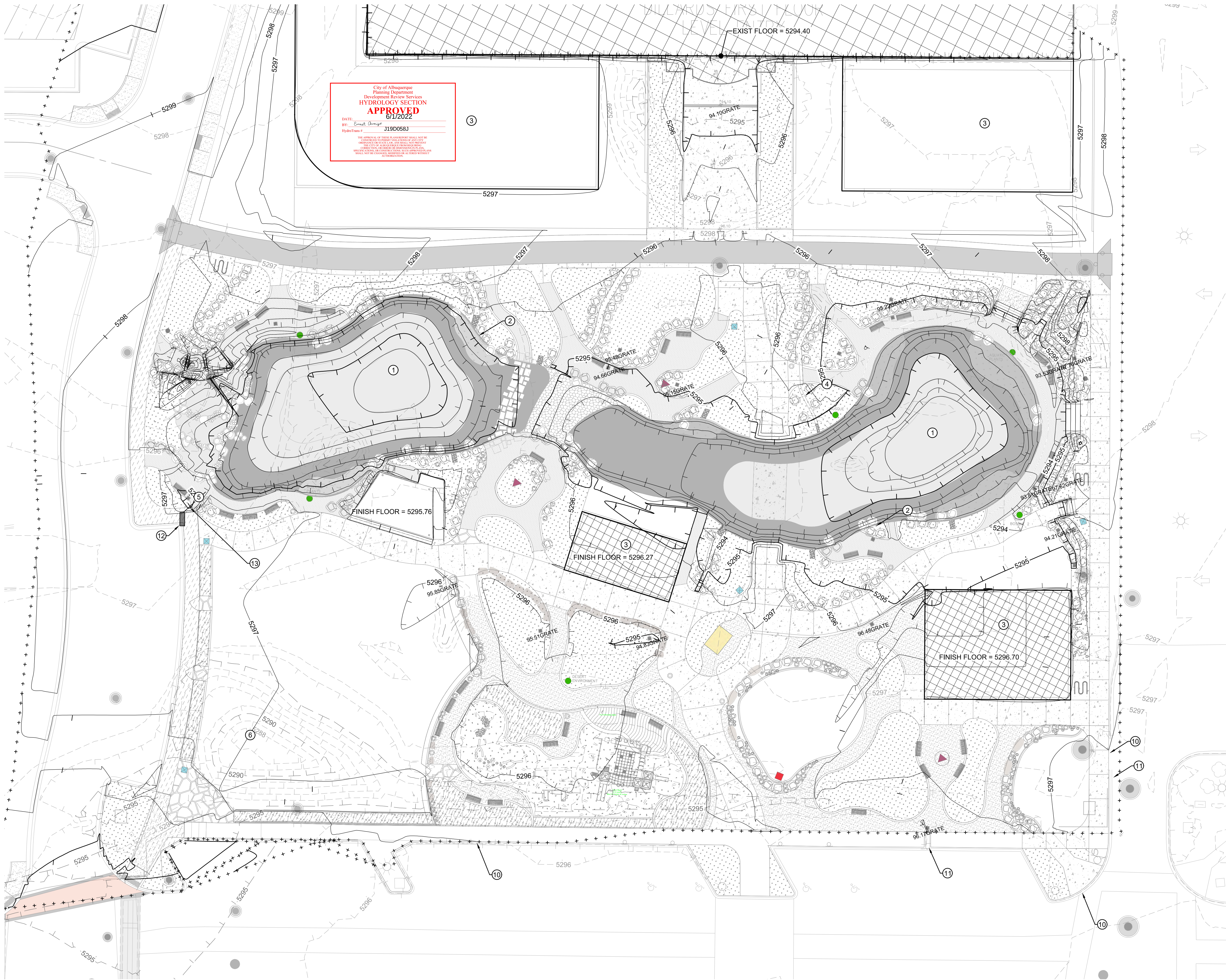
DRAWN BY:
JOE INO

SHEET TITLE
HYDROLOGY & HYDRAULICS

DATE:
4/12/22

SCALE:
AS NOTED

SHEET:
C100B



CONSTRUCTION NOTES

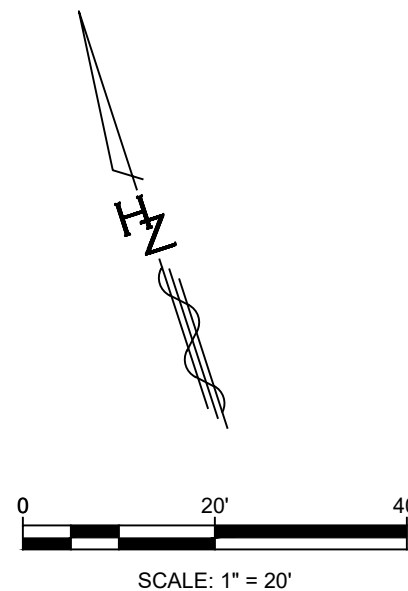
1. ROUGH CUT LAKE - SEE LAKE PLANS FOR DETAILS
2. EDGE CONDITION- SEE LAKE PLANS
3. BUILDING PAD - OVEREX 4 FEET BELOW FOOTING
4. TRENCH DRAIN AT ENTRY WAY
5. SWALE - DISCHARGE INTO LAKE
6. REMOVE TEMPORARY STORM WATER QUALITY FACILITY
7. LAKE PROVIDES STORM WATER QUALITY FOR WINROCK TOWN CENTER
8. REMOVE EXISTING CURB
9. NOT USED
10. EXISTING CURB OPENING TO REMAIN
11. EXISTING CURB AND GUTTER TO REMAIN
12. INSTALL 3 EA 24-INCH WIDE SIDEWALK CULVERT PER CITY STANDARD DRAWING. EXTEND TO LAKE.
13. INSTALL GRADED DITCH AND OUTFALL TO LAKE.

LEGEND

- EXISTING (INDEX) CONTOUR
- EXISTING (INTERMEDIATE) CONTOUR
- PROPOSED (INDEX) CONTOUR
- PROPOSED (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- XX.XXTP TOP OF PAVEMENT
- XX.XXTC TOP OF CURB ELEVATION
- XX.XXFL FLOW LINE ELEVATION
- XX.XXTOC TOP OF CONCRETE
- FLOW DIRECTION
- GRADING LIMITS
- 6" - 8" ROCK
- GRAVEL MULCH
- SLOPE STABILIZATION
- CEL BASE COURSE ROAD

GENERAL NOTES

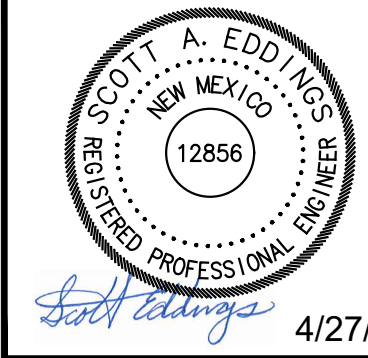
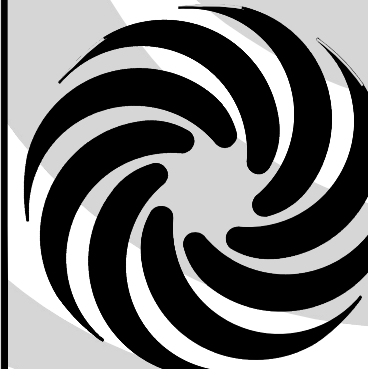
1. ALL DISTURBED COMMERCIAL LOTS AND NON-RESIDENTIAL LOTS AREAS NOT PROPOSED TO BE IMPROVED SHALL BE STRAW CRIMPED W/ NATIVE SEEDING PER COA SPECIFICATION 1011 & 1012.
2. SEE PLAT FOR LOT DIMENSIONS.
3. EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT.
4. CONTRACTOR SHALL PREPARE AND PROCESS DUST CONTROL AND EROSION SEDIMENT CONTROL PLAN THROUGH CITY OF ALBUQUERQUE.
5. THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROJECT.



HUITT-ZOLLARS

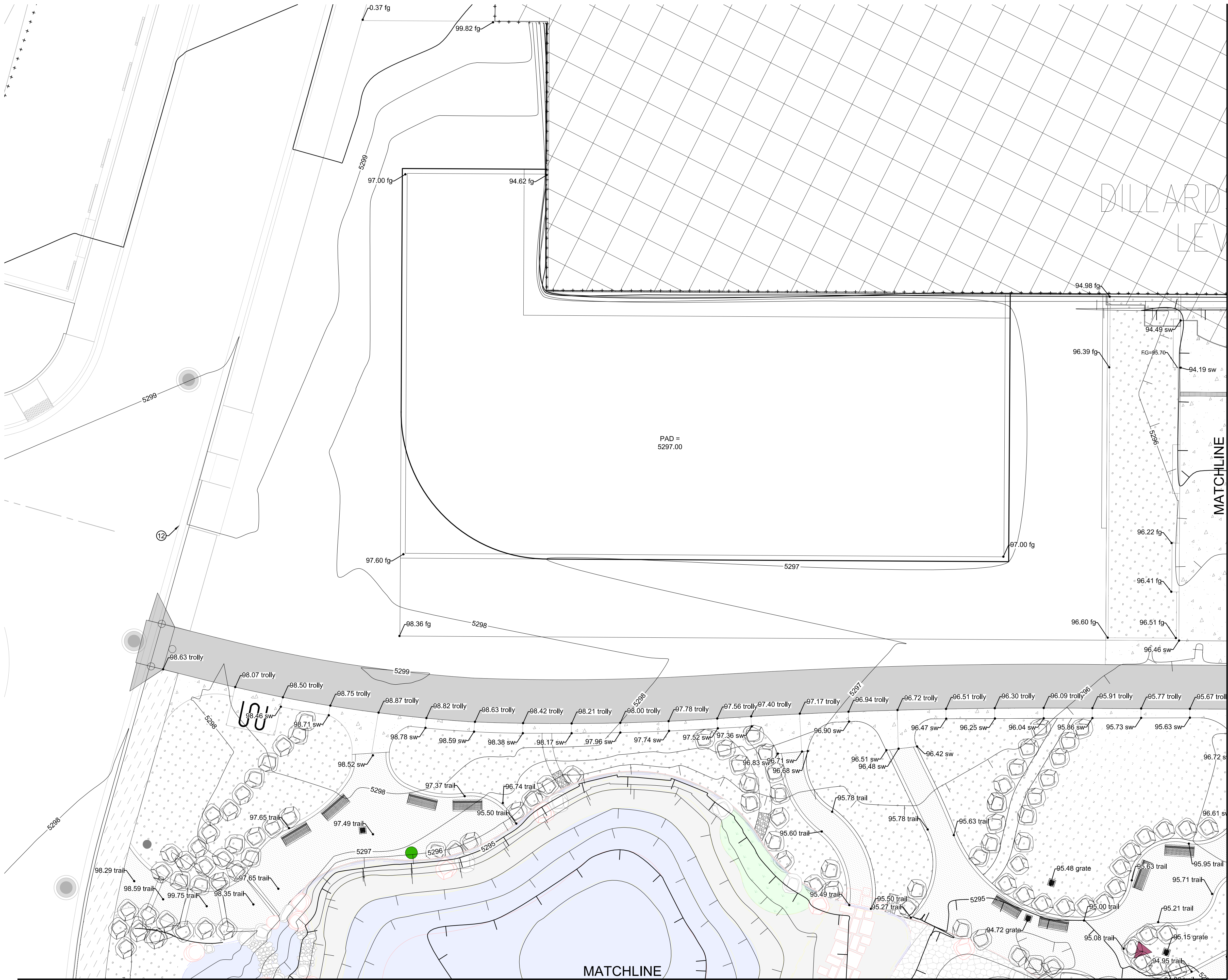
MODULUS ARCHITECTS

100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE WINROCK PARK 2100 LOUISIANA BLVD.	PROJECT NUMBER JOB NO.	DRAWN BY: BY:
SHEET TITLE PARK GRADING PLAN	C101	

DATE 4/12/22	SCALE AS NOTED
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ENLARGEMENT - NORTHWEST QUADRANT
SCALE: 1" = 10'



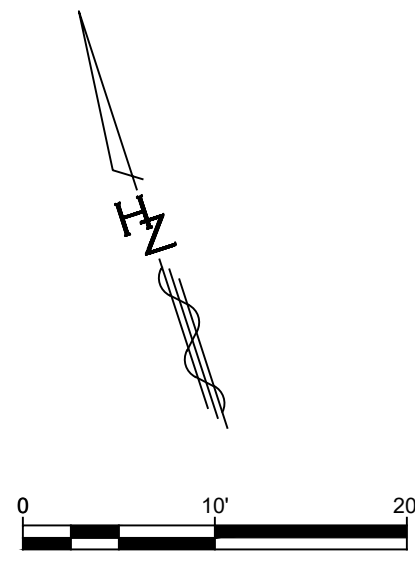
GRADING SHEET INDEX

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 6/1/2022
BY: *Small Orange*
Hydrology: J19D058J

THE APPROVAL OF THESE PLANS DOES NOT IMPLY ANY ENDORSEMENT OR GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED. THE CITY OF ALBUQUERQUE IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE USER OF THESE PLANS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR OBTAINING ALL NECESSARY INFORMATION FROM THE CITY OF ALBUQUERQUE. THE CITY OF ALBUQUERQUE SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF THE USE OF THESE PLANS.

LEGEND

- EXISTING (INDEX) CONTOUR
- EXISTING (INTERMEDIATE) CONTOUR
- PROPOSED (INDEX) CONTOUR
- PROPOSED (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- TOP OF PAVEMENT
- TOP OF CURB ELEVATION
- TOP OF CONCRETE
- FLOW DIRECTION
- GRADING LIMITS
- 6" - 8" ROCK
- GRAVEL MULCH
- SLOPE STABILIZATION
- GRAVEL BASE COURSE ROAD



HUITT-ZOLIARS

REV	DATE	BY	REVISION

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

SCOTT A. EDDINGS
REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
12856
4/12/22

PROJECT TITLE: WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT MANAGER: *Small Orange*
JOB NO.: *Small Orange*
DRAWN BY: *Small Orange*
SHEET TITLE: PARK GRADING ENLARGEMENT

DATE: 4/12/22
SCALE: AS NOTED
SHEET: C102

[illegible][illegible]

4/12/2

PROJECT TITLE	WINROCK PARK 2100 LOUISIANA BLVD.	
PROJECT MANAGER	JOB NO.	DRAWN BY:
SHEET TITLE		
PARK GRADING ENLARGEMENT		

DATE: 4/12/22	sheet: C103
SCALE: AS NOTED	of:

LEGEND

	EXISTING (INDEX) CONTOUR
	EXISTING (INTERMEDIATE) CONTOUR
	PROPOSED (INDEX) CONTOUR
	PROPOSED (INTERMEDIATE) CONTOUR
	WATER BLOCK
	NEW CURB & GUTTER
	FUTURE CURB & GUTTER
	TOP OF PAVEMENT
	TOP OF CURB ELEVATION
	FLOW LINE ELEVATION
	TOP OF CONCRETE
	FLOW DIRECTION
	GRADING LIMITS
	6" - 8" ROCK
	GRAVEL MULCH
	SLOPE STABILIZATION
	GRAVEL BASE COURSE ROAD

HUITT-ZOLLARS

ENLARGEMENT - NORTHEAST QUADRANT

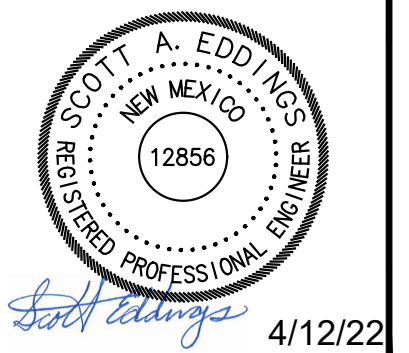
The map shows a study area with four sampling locations marked by white boxes with black outlines. C102 and C103 are located on a road at the top of the map. C104 is located in a shaded area, possibly a wetland or forest, and is highlighted with a thick black border. C105 is located in a wetland area, indicated by contour lines and a grid pattern. The map also shows a road on the right side and a road on the left side.

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED

DATE: _____
BY: _____
HydroTrans # _____

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE
CONSIDERED TO PERMIT VIOLATIONS OF ANY CITY
ORDINANCE OR STATE LAW, AND SHALL NOT BE
INTERPRETED BY THE CITY OF ALBUQUERQUE, NEW MEXICO,
OR ANY OF ITS AGENCIES, AS ENDORSEMENT, GUARANTEE,
WARRANTY, OR CONSTRUCTION OF ANY APPROVED PLANS
SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT IT
AUTHORIZATION.

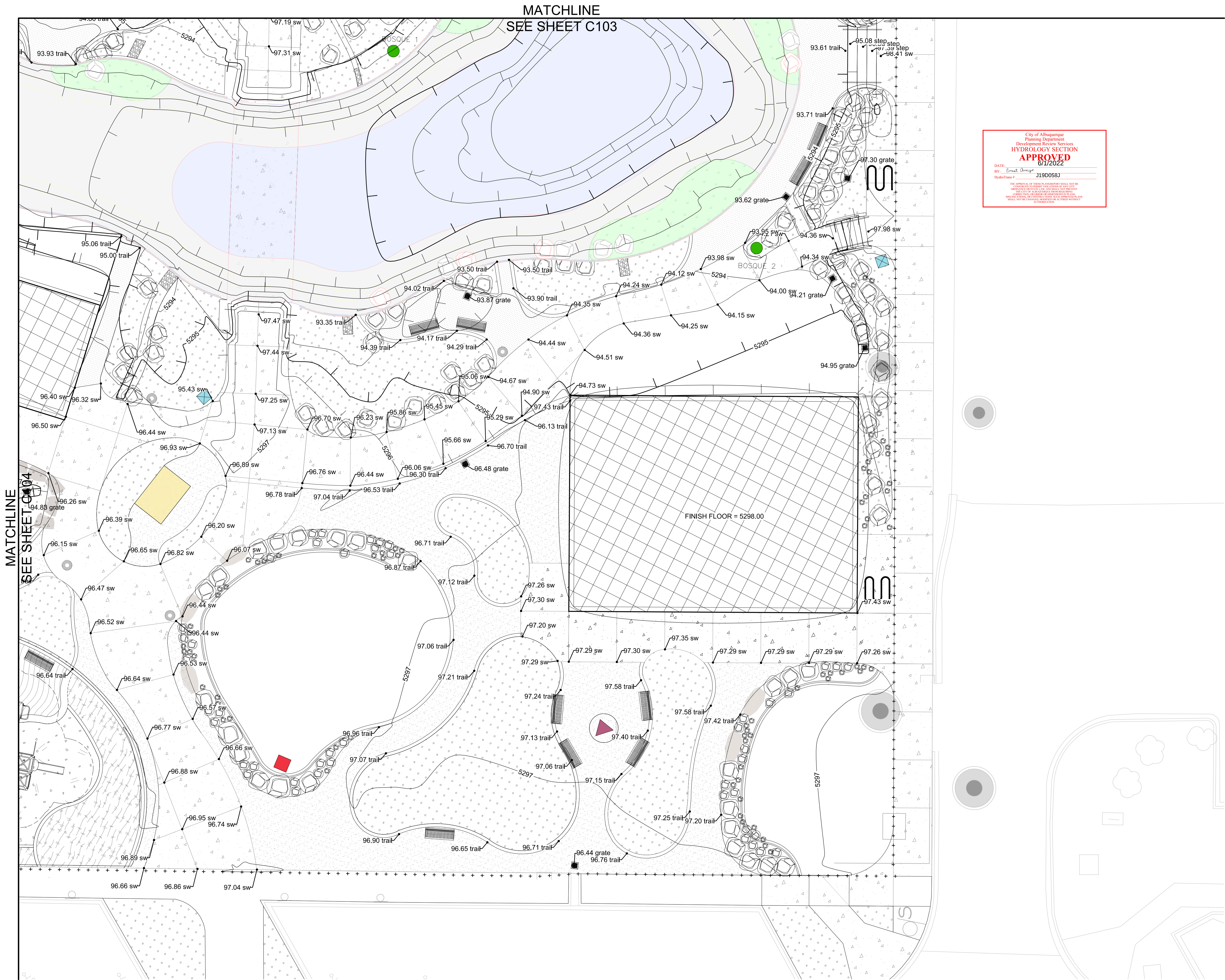
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	EXISTING (INTERMEDIATE) CONTOUR
	PROPOSED (INDEX) CONTOUR
	PROPOSED (INTERMEDIATE) CONTOUR
	WATER BLOCK
	NEW CURB & GUTTER
	FUTURE CURB & GUTTER
	TOP OF PAVEMENT
	TOP OF CURB ELEVATION
	FLOW LINE ELEVATION
	TOP OF CONCRETE
	FLOW DIRECTION
	GRADING LIMITS
	6" - 8" ROCK
	GRAVEL MULCH
	SLOPE STABILIZATION
	GRAVEL BASE COURSE ROAD



10/24/2014	JOB NO.	DRAWING BY:
SHEET TITLE		
PARK GRADING ENLARGEMENT		

sheet-
C104
of

[illegible]



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 6/1/2022
BY: *Ernest Chavez*
Project No.: 3190058J

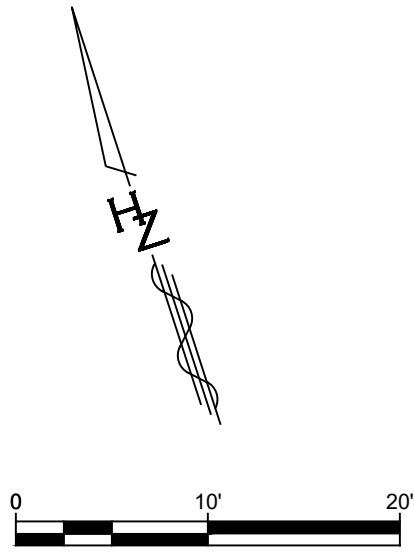
THE APPROVAL OF THESE PLANS BY THE CITY OF ALBUQUERQUE DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE DOES NOT ASSUME ANY LIABILITY FOR ANY DAMAGE, INCLUDING CONSEQUENTIAL DAMAGES, ARISING FROM THE USE OF THESE PLANS. THE USER OF THESE PLANS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE PROTECTION OF THE PUBLIC. THE CITY OF ALBUQUERQUE DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREON.



GRADING SHEET INDEX

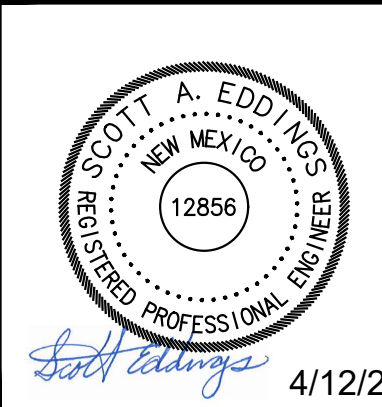
LEGEND

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- 5251 EXISTING (INTERMEDIATE) CONTOUR
- 5040 PROPOSED (INDEX) CONTOUR
- 5041 PROPOSED (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- XX.XXTP TOP OF PAVEMENT
- XX.XXTC TOP OF CURB ELEVATION
- XX.XXFL FLOW LINE ELEVATION
- XX.XXTOC TOP OF CONCRETE
- FLOW DIRECTION
- GRADING LIMITS
- 6" - 8" ROCK
- GRAVEL MULCH
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- GRAVEL BASE COURSE ROAD



HUITT-ZOLIARS

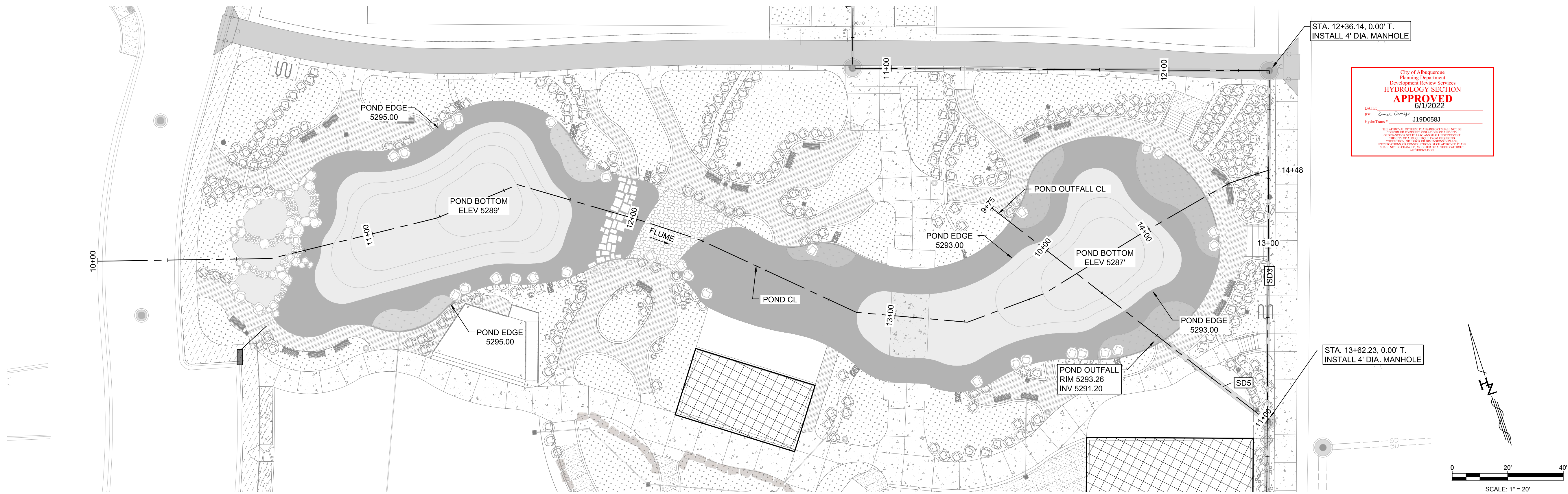
MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



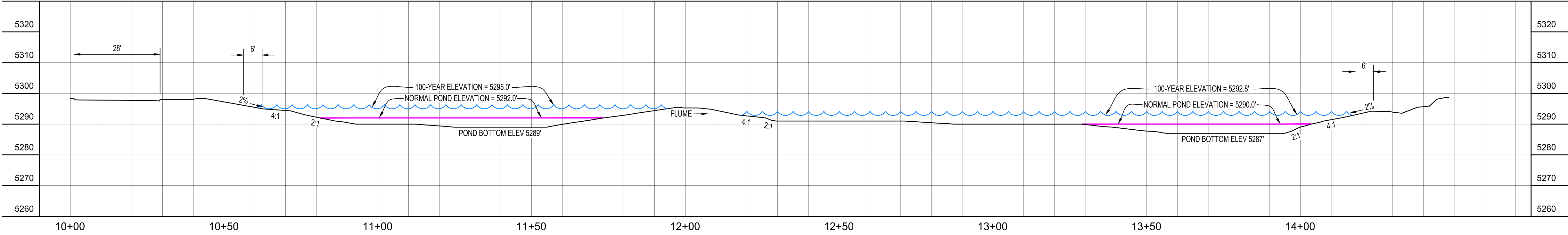
PROJECT TITLE: WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT MANAGER: JOSH HOG
DRAWN BY: [blank]
SHEET TITLE: PARK GRADING ENLARGEMENT

DATE: 4/12/22
SCALE: AS NOTED
SHEET: C105

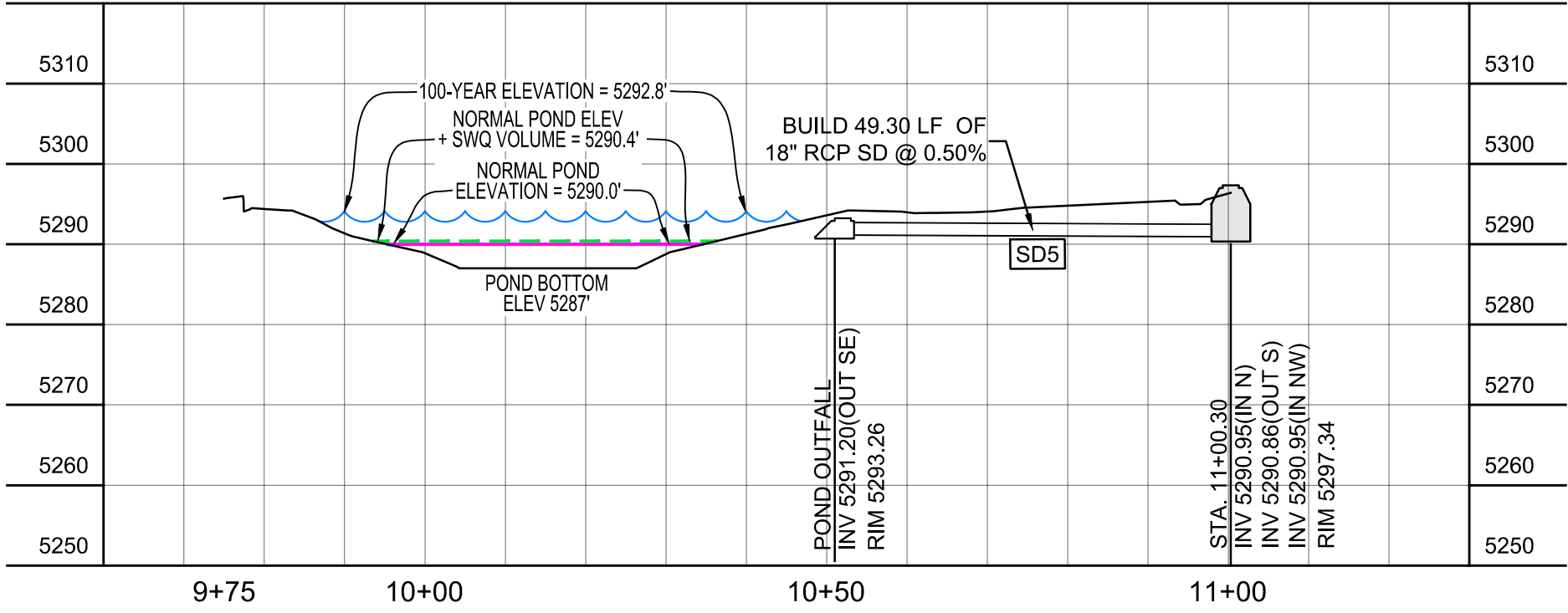
ENLARGEMENT - SOUTHEAST QUADRANT
SCALE: 1" = 10'



POND PLAN VIEW



POND CL SECTION



POND OUTFALL CL SECTION

REV	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

SCOTT A. EDDINGS
REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
12856
4/27/22

PROJECT TITLE: WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT MANAGER: JESSICA H. HUNT
JOB NO.: 2100LOU
DRAWN BY: JESSICA H. HUNT
SHEET TITLE: POND SECTIONS

DATE: 4/12/22
SCALE: AS NOTED
sheet: C101A

Developed Basin Summary for Winrock Park			
Basin	Area (SF)	Q (CFS)	V (AC-FT)
100	69520	7.2	0.398
300	7275	0.8	0.040
Total Flow into Upper Pond =		8.0	0.44
200	111136	8.9	0.370
400	595	0.1	0.003
500	9515	1.0	0.054
Total Flow into Lower Pond =		10.0	0.43

Upper Pond Rating Curve

Depth (ft)	Area		Volume (ac-ft)	Cumulative Volume (ac-ft)	Flume Outlet (cfs)
	(sq ft)	(ac)			
5289	615	0.014	0	0	0.0
5290	1864	0.043	0.028	0.028	0.0
5291	2815	0.065	0.054	0.082	0.0
5292	3857	0.089	0.077	0.159	0.0
5293	5136	0.118	0.103	0.262	0.0
5294	5977	0.137	0.128	0.390	0.0
5295	7195	0.165	0.151	0.541	0.0
5295.5	7319	0.168	0.083	0.624	25.7

Lower Pond Rating Curve

Depth (ft)	Area		Volume (ac-ft)	Cumulative Volume (ac-ft)	18" Outlet Pipe (cfs)
	(sq ft)	(ac)			
5287	805	0.018	0	0	0.0
5288	1661	0.038	0.028	0.028	0.0
5289	3706	0.085	0.062	0.090	0.0
5290	6128	0.141	0.113	0.203	0.0
5291	7168	0.165	0.153	0.355	0.0
5292	8162	0.187	0.176	0.531	1.9
5293	9674	0.222	0.205	0.736	8.7
5294	10786	0.248	0.235	0.971	12.2

The flow volume generated from the contributing basins into Winrock Park is less than the total pond capacity, therefore, the ponds will primarily act as retention ponds for the 100-year storm event. Please refer to the table below for a summary of the pond characteristics.

Winrock Park Ponds	
Upper Pond Capacity @ 5295	0.54 AC-FT
Upper Pond Normal Volume @ 5292	0.16 AC-FT
Upper Pond 100-Year Volume	0.60 AC-FT
Excess Volume to Lower Pond through Flume	0.06 AC-FT
Upper Pond Bottom Elevation	5289.0
Upper Pond Top Elevation	5295.0
Upper Pond 100-Year Max. Elevation	5295.5
Upper Pond Outlet Elevation (Flume)	5295.0
Upper Pond 100-Year Outflow	25.7 CFS
Lower Pond Capacity @ 5294	0.97 AC-FT
Lower Pond Normal Volume @ 5290	0.20 AC-FT
Lower Pond 100-Year Volume	0.69 AC-FT
Lower Pond Bottom Elevation	5287.0
Lower Pond Top Elevation	5294.0
Lower Pond 100-Year Max. Elevation	5292.8
Lower Pond Outlet Elevation (18" Pipe)	5291.2
Lower Pond 100-Year Outflow	7.8 CFS
Stormwater Quality Volume Required	0.06 AC-FT
Normal Volume + SWQ Volume @ 5290.4	0.26 AC-FT

City of Albuquerque Planning Department Development Review Services HYDROLOGY SECTION APPROVED 6/1/2022 DATE: _____ BY: <i>Ernest Armijo</i> HydroTrans # J19D058J THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.
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