

CITY OF ALBUQUERQUE

Hydrology Section Planning Department
David S. Campbell, Director



Timothy M. Keller, Mayor

March 1, 2019

Niriti Finkelshtin
RESPEC
5971 Jefferson St. NE
Albuquerque, NM, 8710

RE: Office Building at 9880 Coors Blvd NW
Grading and Drainage Plan
Stamp Date: 02/08/19
Hydrology File: K14D017

Dear Ms. Finkelshtin:

Based upon the information provided in your resubmittal received 02/12/2019, the Grading and Drainage Plan cannot be approved for Building Permit until the following comments are addressed.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

1. Please correct the Basin Numbers so that they don't change half way through the calculations. Additionally the basin labels on the map should match the calculations. Also check the references to the Basin numbers in the Proposed Conditions narrative.
2. Please provide the flow rate, velocity and capacity calculations for the onsite private storm drains.
3. Please include the detail of the outlet for the north BMP Pond on sheet C-503.
4. Weir and orifice equations should be used to check the capacity of the two pond outlet structures.
5. Please add a note next to each pond stating the SWQV required, the SWQV provided, the SWQV elevation (should be same as outlet top elevation), the 100 Year elevation, and the flow rate in the plan view of each BMP Pond so the information will be readily available when making the exhibit for the drainage covenant.
6. Please provide a Drainage Covenant for onsite inlets, storm drains, and BMPs prior to Certificate of Occupancy. Please submit this on the 4th floor of Plaza de Sol with a \$25 check payable to Bernalillo County.

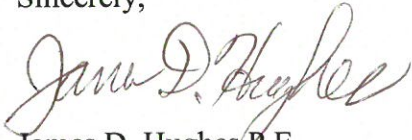
Hydrology Section Planning Department
David S. Campbell, Director

Timothy M. Keller, Mayor

7. Engineer's Certification per the DPM checklist will be required prior to release of CO by Hydrology.

If you have any questions, you can contact me at 924-3986 or e-mail at jhughes@cabq.gov .

Sincerely,



James D. Hughes 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: COORS TRACT A-1A Building Permit #: _____ Hydrology File #: B40017A

DRB#: _____ EPC#: 15 ZHE 80265 Work Order#: _____

Legal Description: Lot A, Tract A, Black Development

City Address: 9880 Coors Blvd NW Albuquerque NM, 87114

Applicant: RESPEC Contact: Nirit Finkelshtin

Address: 5971 Jefferson street, suite 101 NE Albuquerque NM, 87109

Phone#: 505-544-1562 Fax#: _____ E-mail: nirit.finkelshtin@respec.com

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF DEVELOPMENT: 1 PLAT (# of lots) _____ RESIDENCE _____ DRB SITE x ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes x No

DEPARTMENT _____ TRANSPORTATION x HYDROLOGY/DRAINAGE

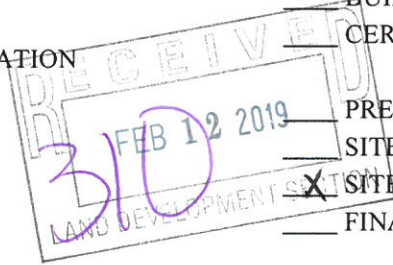
Check all that Apply:

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: 2-12-2019 By: Bethany March

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

City of Albuquerque Planning Department
One Stop Shop – Development and Building Services

02/12/2019 Issued By: BLDAVM 364528

Permit Number: 2018 060 846

Category Code 970

Application Number: 18REV-60846, Review: Drain Plan-Lomr-Traffic Impact

Address:

Location Description: 9880 COORS BLVD NW

Project Number: null

Applicant

RESPEC
NIRIT FINKEINSHTIN
5971 JEFFERSON ST NE, SUITE 101
ALBUQUERQUE NM 87109
5055441562

Agent / Contact

RESPEC
NIRIT FINKEINSHTIN
5971 JEFFERSON ST NE, SUITE 101
ALBUQUERQUE NM 87109
5055441562

Application Fees

REV Actions	\$310.00
--------------------	----------

TOTAL:	\$310.00
---------------	-----------------

City of Albuquerque Treasury
Date: 2/12/2019 Office: ANHEX
Stub ID: 10054 Trans #: 57
Batch: 2018060846
Permit: 2018060846
Receipt Num: 0050235
Payment Total: \$310.00
0909 REV Actions
Check Tendered: \$310.00

BACKGROUND + EXISTING CONDITIONS

Tract A-1 of Lands of Black Development One is in Albuquerque, NM, just east of the intersection at Coors Boulevard and Coors By Pass Boulevard. This site contains 0.5571 acres of undeveloped land and is not within any floodplain. The site is triangular with the longest side facing southeast and bordering the boundary between the City of Albuquerque and Bernalillo County. Also, along the southeast property line is an existing private road. Southwest of the Tract A-1 a public one-way road was recently constructed separating it from Tract B-1. With the construction of the new roadway a storm drain was built in the southwest corner of the site, with a stub out for Tract A-1 future use.

Tract A-1 has historically acted as a pond accepting some offsite flows from Tract B-1. However, since the construction of the new roadway no offsite flows enter Tract A-1 except for some minor runoff from sloped area to the west and the existing private road. Under large storm events water would spill from Tract A-1 and flow onto the roadway to the east.

A pre-design meeting was held with Curtis Cherne on 1/16/2015, where it was agreed that Tracts A and B (now Tracts A-1 and B-1) would be allowed free discharge providing that the downstream 24" SD has capacity. The Grading and Drainage Plan with Project #741571 proves the downstream system has capacity.

METHODOLOGY

Hydrology calculations for the site are performed in accordance with the Albuquerque Development Process Manual (DPM) Section 22.2 using the Rational Method to calculate peak flow rates to ensure all flow paths are sufficient to carry flows effectively throughout the site. The site is in Zone 1 of the ABQ DPM. The required water quality pond volumes are calculated using a first flush runoff value of 0.34". All hydrologic and hydraulic calculations can be found on this sheet.

The downstream capacity analysis includes the developed peak flow rate coming from Tract A-1 and can be found in a previous Grading and Drainage submittal to the City of Albuquerque (project titled Coors-Coors Bypass Improvements, project #741571).

PROPOSED CONDITIONS

It is proposed to build an office building at the southeast corner of the site, with roof sloped and drained to the west side. The site is proposed to drain generally from east to west and was divided into 5 drainage basins (see hydrology calculations table). Three of which are Offsite Basins that historically drained to Tract A-1. The required water quality ponding for this site is 227 cubic feet. Offsite Basins 1 and Basin 4 will drain to the North Pond and Offsite basin 3 will discharge through a 1.5' wide sidewalk culvert at the lowest point of the parking lot, to the North Pond which will retain the First Flush volume coming from those Basins, see North Pond calculations. Once the North Pond water surface elevation reaches over 5043.50 ft, the North Pond will discharge into an 12" storm drain to the South Pond. Offsite Basin 2 and 5 will drain to the South Pond which will have an extension of 18" pipe from the existing 18" stub. The South Pond will drain once water surface elevation is above 5042.5 ft, see South Pond calculations. Refer to project #741571 for downstream capacity.

HYDROLOGY

Hydrology Calculations

The following calculations are based on Albuquerque's Development Process Manual, Section 22.2
Runoff Rate:

Runoff Rate per Subbasin

Treatment Type Area:	Subbasin	Area ₁ (ac)	Area ₂ (ac)	Area ₃ (ac)	Area ₄ (ac)	Total (ac)
Existing Subbasin		0.00	0.33	0.33	0.11	0.77
Subbasin 1 (BLDG)		0.00	0.00	0.00	0.07	0.07
Subbasin 2 (Prking Lot)		0.00	0.00	0.00	0.12	0.12
Subbasin 3 (N pond)		0.00	0.15	0.15	0.00	0.30
Subbasin 4 (S pond)		0.00	0.09	0.09	0.00	0.17
Subbasin 5 (Road)		0.00	0.00	0.00	0.11	0.11

Peak Discharge values (cfs/ac) based on Zone 1 from Table A-9

Q_A = 1.54 Q_B = 2.16 Q_C = 2.87 Q_D = 4.12

Peak Discharge calculation for a 100-yr, 24-hr storm event from equation A-10

Discharge (cfs)	
Existing Subbasin	2.1
Subbasin 1 (BLDG)	0.28
Subbasin 2 (Prking Lot)	0.48
Subbasin 3 (N pond)	0.76
Subbasin 4 (S pond)	0.44
Subbasin 5 (Road)	0.45
Total Proposed	2.41

WATER QUALITY

WQ ponding based on 0.34" of water quality depth

Subbasin	Volume (cf) = AreaD * 0.34"
Existing Subbasin	135.9
Offsite basin 1	0.0
Offsite basin 2	0.0
Offsite basin 3	0.0
Subbasin 4	83.6
Subbasin 5	143.4
Total Proposed	227.0

DETENTION PONDS

Required Pond Volume	Vol (cf)
North Pond Volume	
Offsite basin 1,3,4	219.5
South Pond Volume	
Offsite basin 2,5	143.4

Provided Pond Volume

North Pond	Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.) um.	(Cu. Ft.)
5043.0	652	0	0	
5043.2	850	150	150	
5043.3	972	91	241	
5043.4	1107	104	345	
5043.6	1434	254	599	
5043.8	1795	323	922	
5044.0	2162	396	1318	

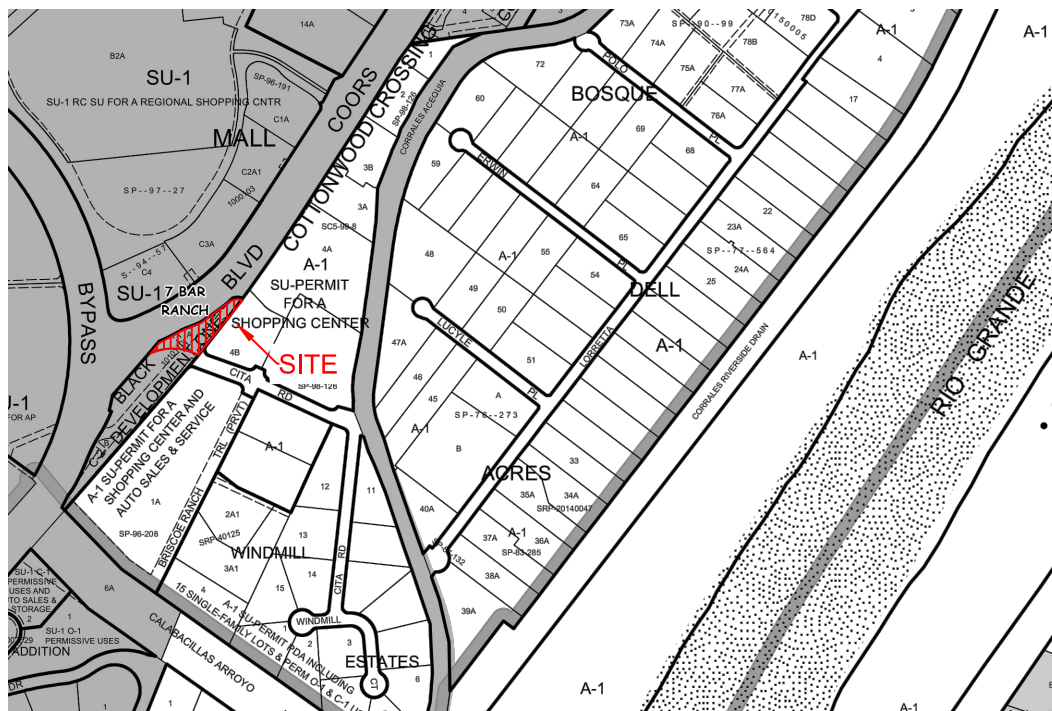
Provided Pond Volume

South Pond	Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.) um.	(Cu. Ft.)
5042	174	0	0	
5042.5	411	146.25	146.25	

HYDRAULICS

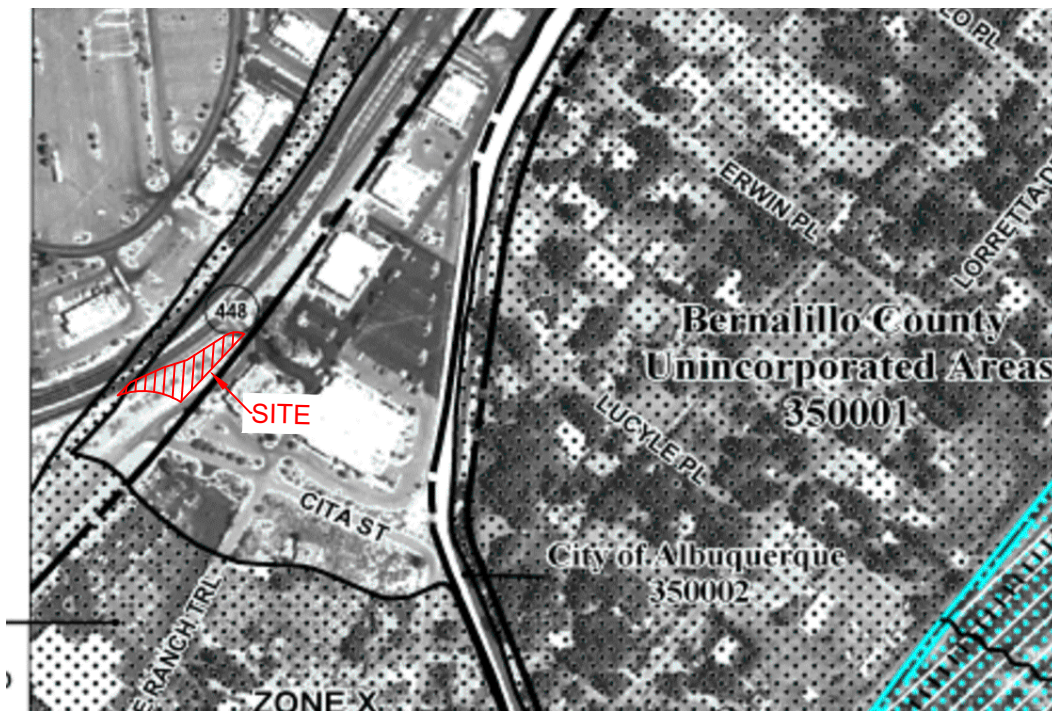
Weir Calculation for 1.5' Sidewalk Culvert

Head Water Depth (h):	0.5	ft
Discharge Coeff. (C _w):	3.367	
Length (L):	1.5	ft
Flow (Q) = C _w · L · h ^ (1.5)		
Flow (Q) =	1.8	cfs

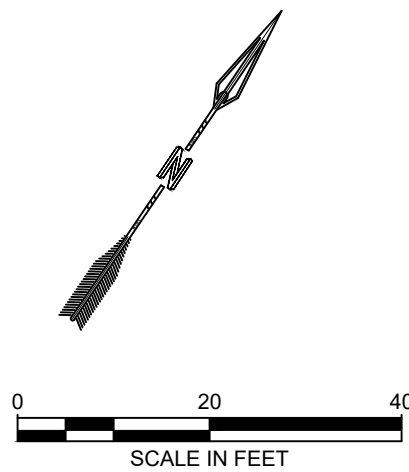
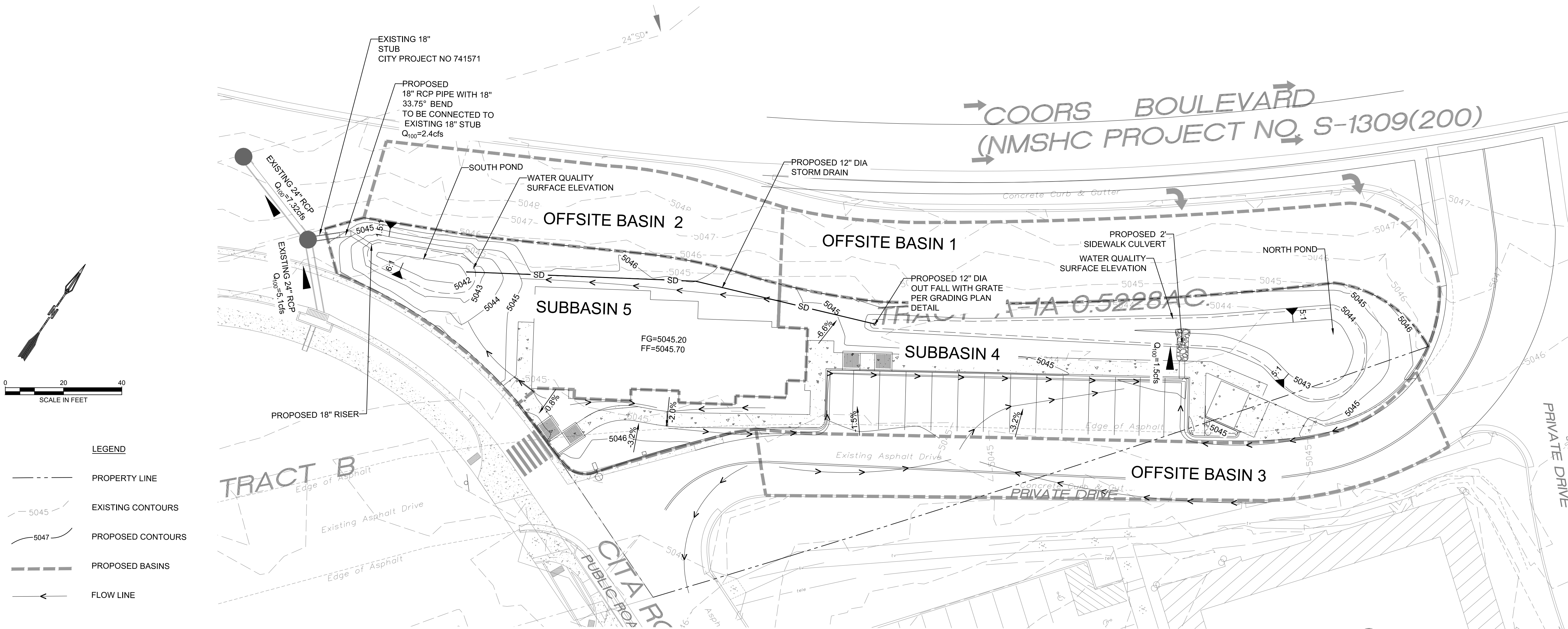


VICINITY MAP

ATLAS MAP B-14-Z



FEMA MAP 35001C0109H AUGUST 16, 2012



LEGEND

- PROPERTY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED BASINS
- FLOW LINE

NAME: L:\Active Projects\03421 Nakamura - Coors Tract A13.DWG\CAD\03421-DSGN-DRAINAGE.dwg PLOT DATE: Feb 08, 2019 3:37pm

© Copyright 2019 RESPEC - All Rights Reserved

DESIGNED
DRAWN
CHECKED
DATE
2.08.2019





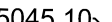

RESPEC
6971 JEFFERSON STREET SUITE 101
ALBUQUERQUE, NM 87113
ALBUQUERQUE WATER & NATURAL RESOURCES
WWW.RESPEC.COM 505.253.9718

STAMP
SHELDON E. GREER
NEW MEXICO
17154
LICENSED PROFESSIONAL ENGINEER

PROJECT NAME:
COORS - TRACT A-1A

SHEET TITLE:
DRAINAGE PLAN

SHEET NUMBER:
C-102

	PROPERTY LINE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED FL SPOT ELEVATION
	CONNECT TO EXISTING GRADE
	PROPOSED SWALE
WSE	WATER SURFACE ELEVATION
SW	SIDE WALK
FL	FLOW LINE
DIA	DIAMETER
MH	MANHOLE
MAX	MAXIMUM
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
EX	EXISTING

