

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

May 19, 2017

Jeffery Wooten, P.E.
Wooten Engineering
1005 21st St SE, Suite A5
Rio Rancho, NM, 87124

RE: **Rain Tunnel Car Spa**
5401 Sevilla Ave
Grading and Drainage Plan
Engineer's Stamp Date 5/17/17 (File: F11D016)

Dear Mr. Wooten:

Based upon the information provided in your submittal received 5/18/17, the Grading and Drainage Plan cannot be approved for Administrative Amendment to the Site Plan for Building Permit until the following comments are addressed:

1. Provide details for the tie-in to the existing double-D inlet, including invert in/out, grate, and any required adjustments.
2. Provide details for pond outfall, including the outlet structure and pipe. Include flow, velocity, and HGL with the pipe profile.
3. The Grading and Drainage Plan for Site Plan for Building Permit needs to be clearly labeled as 'Not For Construction.'

The Grading and Drainage Plan cannot be approved for Grading or Building Permit until the following are addressed:

1. Provide confirmation from the NMDOT's Drainage Section that the stub can still be used for this project under the new proposed conditions. Previous discussion required a water quality inlet for floatables and sediment, located where it could be easily accessed for maintenance.
2. Provide the structural engineer's detail sheets for the retaining wall adjacent to Coors, including wall calculations for saturated conditions due to the detention/retention pond.

Orig: Drainage file

Albuquerque - Making History 1706-2006

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

3. The detention/retention pond will need a private drainage covenant for maintenance responsibility.
4. Provide finished floor elevation for the retailer at the south end of the lot.
5. This work requires an updated Erosion and Sediment Control Plan to be submitted to the storm water quality engineer (Curtis Cherne, PE, ccherne@cabq.gov).

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

Sincerely,

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

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov



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) _____

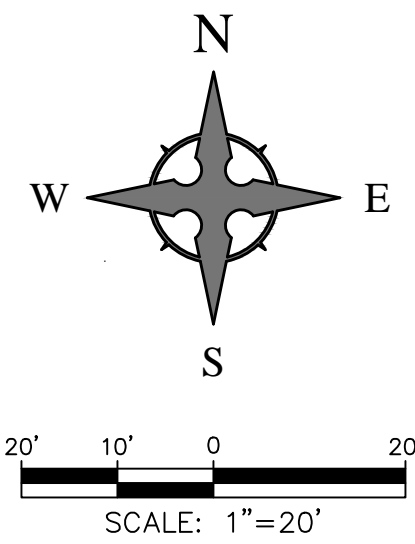
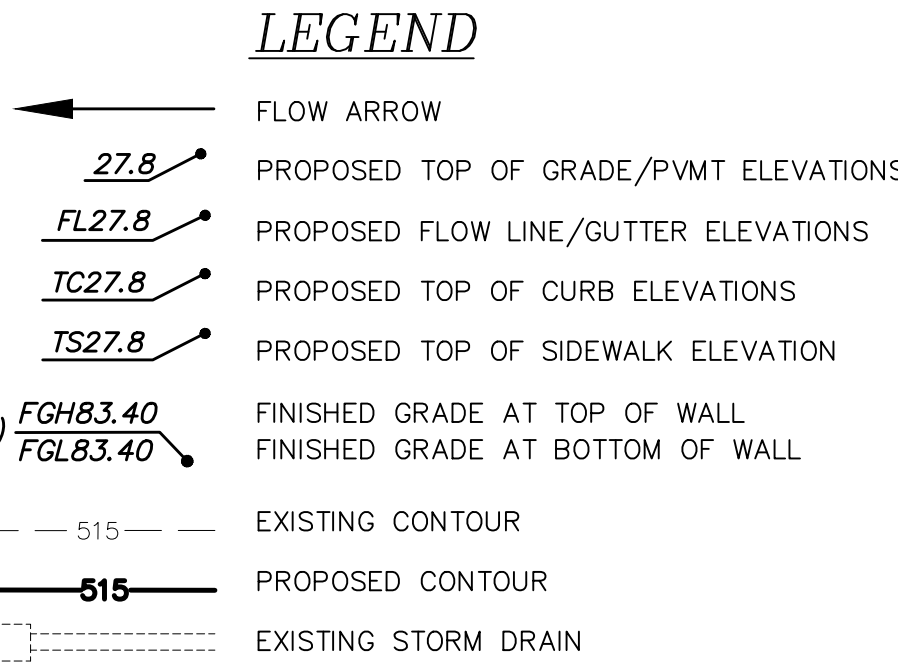
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ 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

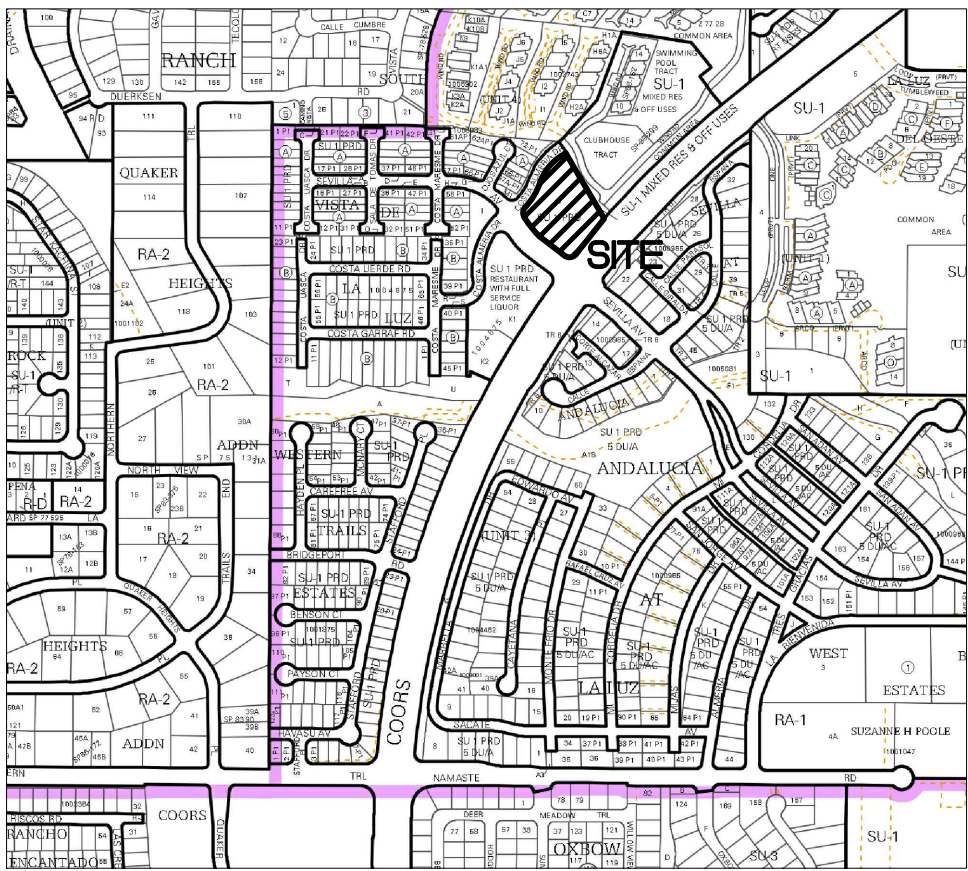
DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



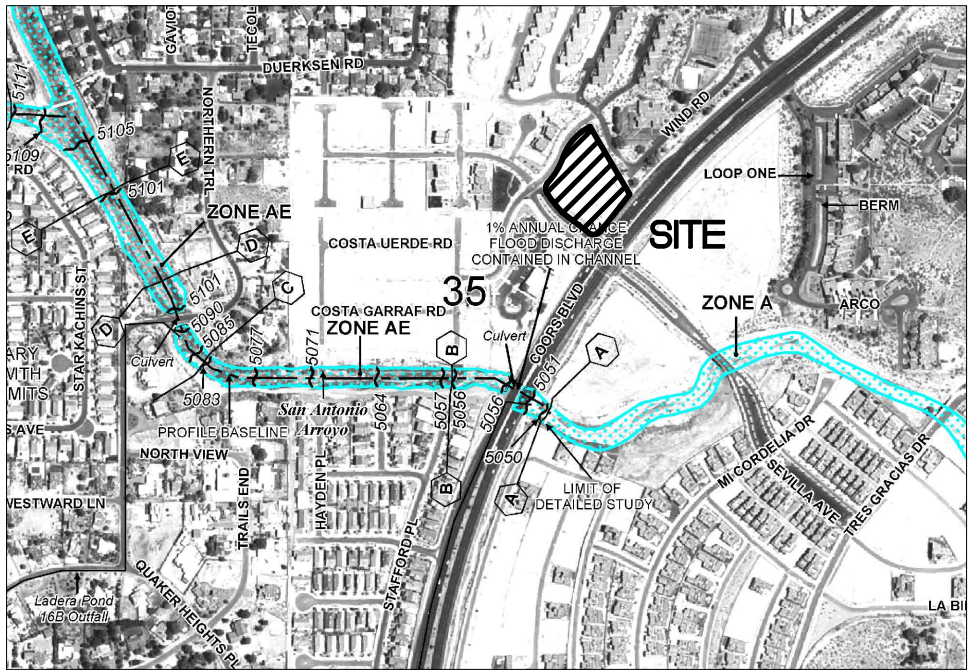
CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.



VICINITY MAP - Zone Map F-11-Z

Legal Description: Tract J, Vista La Luz, 1.8728 Acres

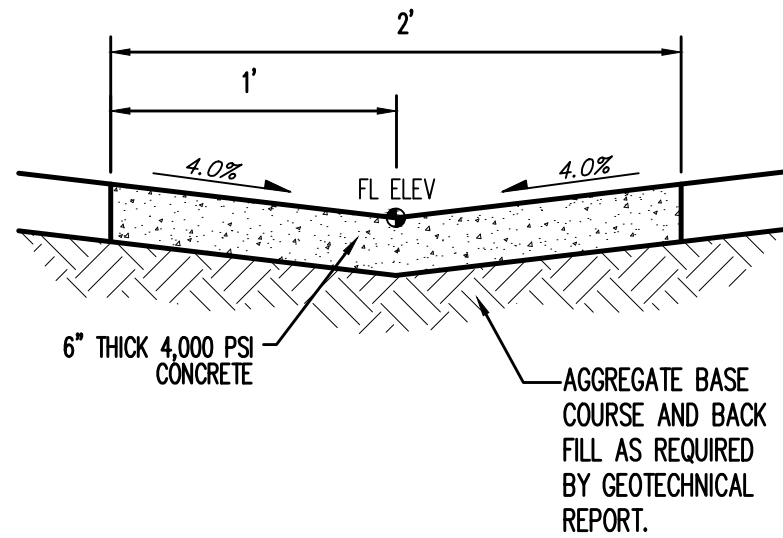


FIRM MAP 35001C0114H

Per FIRM Map 35001C0114H, dated August 16, 2012, the site is not located in the Floodplain and determined to be outside the 0.2% chance Annual Floodplain.'

GRADING NOTES

4. AS EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
5. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
6. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS AUTHORIZED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
7. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
8. IT IS THE INTENT OF THESE TERMS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
9. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OF PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACCOMPLISHED BY CONSTRUCTING TEMPORARY BERM OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION
10. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FIL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL EXCESS MATERIAL CONTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
11. PAVING AND ROADWAY GRADES SHALL BE $\pm 0.05'$ FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE $\pm 0.05'$ FROM BUILDING PLAN ELEVATION.
12. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.
13. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.
14. THE CONTRACTOR SHALL PROVIDE THE SWPPP DOCUMENT (IF NECESSAR) SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS PERTAINING TO THE CONSTRUCTION OF THESE IMPROVEMENTS INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE



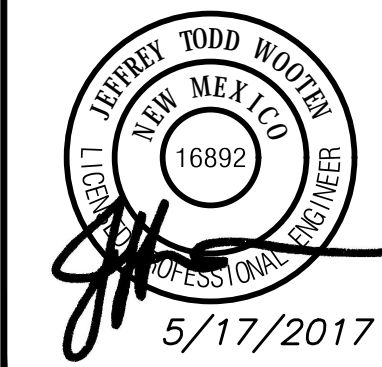
Valley Gutter Detail

NTS

W E Wooten Engineering
1005 21st St SE, Suite 13
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Phone: (505) 980-3560



MODULUS ARCHITECTS
100 SUN AVENUE N.E., Ste 305
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE	5401 SEVILLA AVE NW		
	NWC COOPS AND SEVILLA		
	ALBUQUERQUE, NEW MEXICO 87120		
PROJECT MANAGER	JEFF WOOTEN	JOB NO.	2017018
DRAWN BY:	JEFF WOOTEN		
SHEET TITLE	Grading Plan		

DATE: 5/17/2017	sheet- C1.1
SCALE: AS NOTED	of 2

DRAINAGE MANAGEMENT PLAN

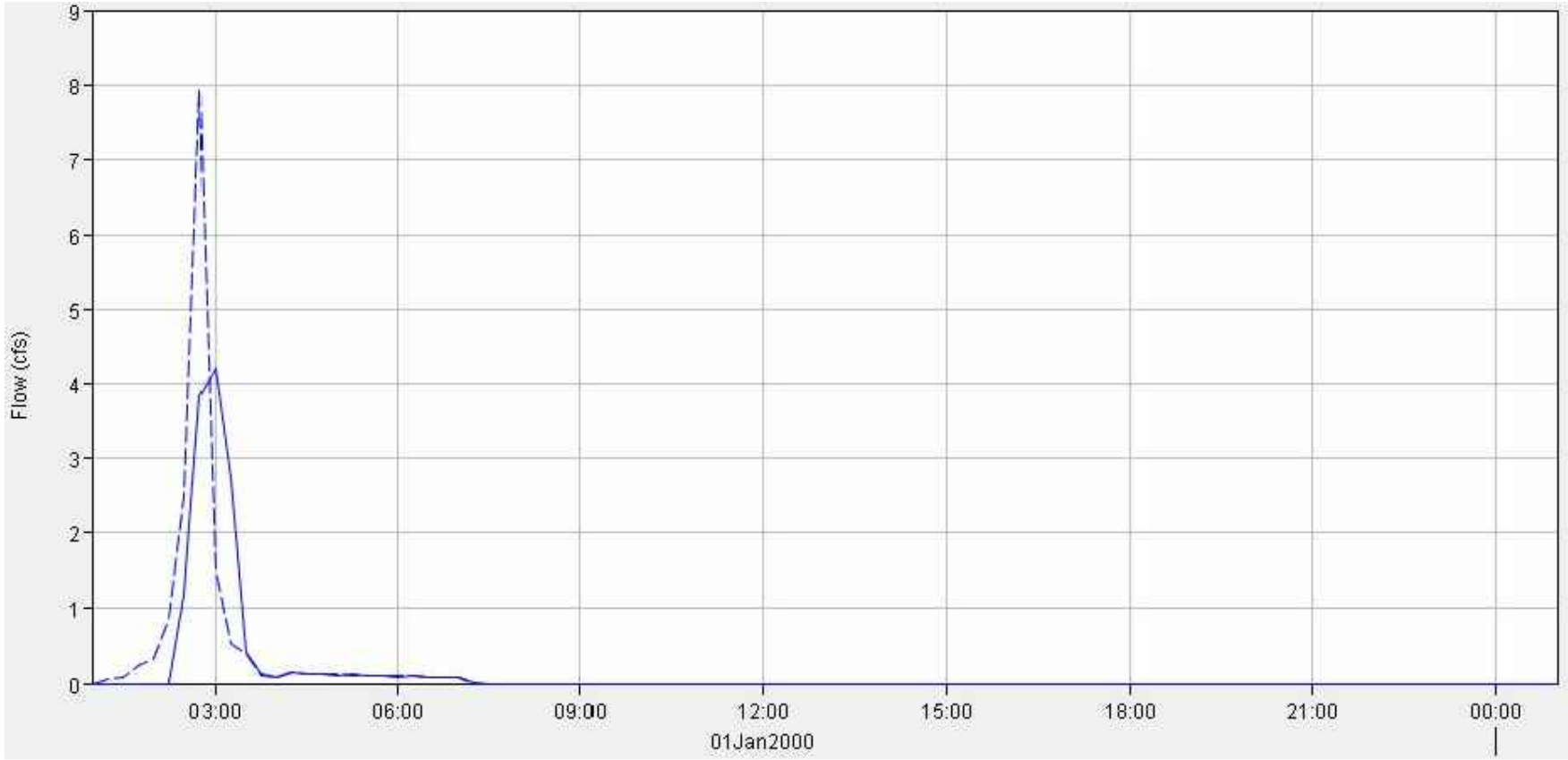
INTRODUCTION
The purpose of this submittal is to provide a grading plan and drainage management plan for the development of Tract J, Vista La Luz addition. The site is located at 5401 Sevilla Ave NW (NWC of Sevilla Ave and Coors Blvd) in Albuquerque, NM. The site contains approximately 1.8728 acres. The proposed development consists of a new Rain Tunnel Car Spa car wash facility and a future retail building with the associated parking lot and landscaping. The City Drainage File Number is F11/D016.

EXISTING HYDROLOGIC CONDITIONS
The site was previously mass graded to allow for future development and generally slopes from west to east to an existing 12" storm drain pipe that connects to an existing storm drain inlet. The inlet then drains via a 24" storm drain pipe to an existing inlet in Coors which then flows across the Coors/Sevilla intersection. Per the calculations table this sheet, the total existing flow discharging from the site 5.38cfs (6,730 CF) during the 100–Yr, 6–Hr storm event.

PROPOSED HYDROLOGIC CONDITIONS
The site will continue to drain from west to east through a series of water quality ponds located in the landscaped islands and then into a proposed detention pond that will discharge via a new 12" storm drain pipe that connects to the existing inlet at a lower depth than the prior 12" pipe. According to the Basin Calculations table this sheet, there is approximately 7.37cfs (11,461 CF) generated from the developed site during the 100–Yr, 6–Hr Storm that will drain to the new detention pond. A new 12" storm drain pipe has been analyzed as the outlet for the pond with an invert elevation of 5067.00. The bottom of the pond is at an elevation of 5066.00 and the top of the pond is 5070.00. Per the calculations on this sheet, the maximum water surface elevation of the pond is 5068.70 allowing for 1.3' of freeboard. These calculations do not take into account the routing of flows through the water quality ponds; therefore, the actual volume of stormwater being routed through the detention pond will be 1,810 CF less than than the flows shown providing additional freeboard in the main pond. Refer to the First Flush Calculations below.

FIRST FLUSH CALCULATIONS
Per the Impervious Area Calculations Table this sheet, we are required to provide a Water Quality Pond with a volume of 1,626 CF. The volume of the Water Quality Ponds as designed is 1,810 CF, which is more than required.

CONCLUSION
This drainage management plan provides for grading and drainage elements which are capable of safely passing the 100 year storm, contains the First Flush from Basin A, and meet city requirements. The proposed improvements for the site should not have any negative impacts to facilities downstream. With this submittal, we are requesting approval of an Administrative Amendment to the Site Plan for Building Permit and the Building Permit.



POND HYDROGRAPHS

Existing Drainage Calculations										
This table is based on the COA DPM Section 22.2, Zone:1										
BASIN	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100) ₃₆₀ (CF)
			A	B	C	D				V(100) ₁₄₄₀ (CF)
SITE	81581	1.87	0.0%	0.0%	100.0%	0.0%	2.87	5.38	0.99	6730
TOTAL	81581	1.87						5.38		6730

Proposed Drainage Calculations										
Ultimate Development Conditions Basin Data Table										
This table is based on the COA DPM Section 22.2, Zone:1										
BASIN	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100) ₃₆₀ (CF)
			A	B	C	D				V(100) ₁₄₄₀ (CF)
SITE	81581	1.87	0.0%	0.0%	29.0%	71.0%	3.94	7.37	1.69	11461
TOTAL	81581	1.87						7.37		11461

Detention Pond Volume Calculations				
Elevation (ft)	Area (sq.ft)	Volume (cu-ft)	Volume Sum (cu-ft)	
5066.0	370	0.0	0.0	
5067.0	1,396	883.0	883.0	
5068.0	2,496	1946.0	2829.0	
5069.0	3,634	3065.0	5894.0	
5070.0	4,814	4224.0	10118.0	
			(0.232 acre-ft)	

IMPERVIOUS AREA CALCULATIONS

PROPOSED SITE CONDITIONS
TOTAL SITE AREA: 81,581 SF
PERVIOUS AREA: 24,194 SF (29%)
IMPERVIOUS AREA: 57,387 SF (71%)

FIRST FLUSH CALCULATION
TOTAL IMPERVIOUS AREA = 57,387 SF
FIRST FLUSH = 57,387 * 0.34" / 12 = 1,626 CF
TOTAL VOLUME PROVIDED (5 PONDS) = 1,810 CF

100 YEAR (6 HOUR) POND ROUTING SUMMARY

HEC-HMS used for Pond Analysis
No Infiltration assumed in Calculations

INITIAL CONDITIONS
Starting WS Elev = 5066.00 ft
Starting Volume = 0.00 ac-ft
Starting Outflow = 0.00 cfs

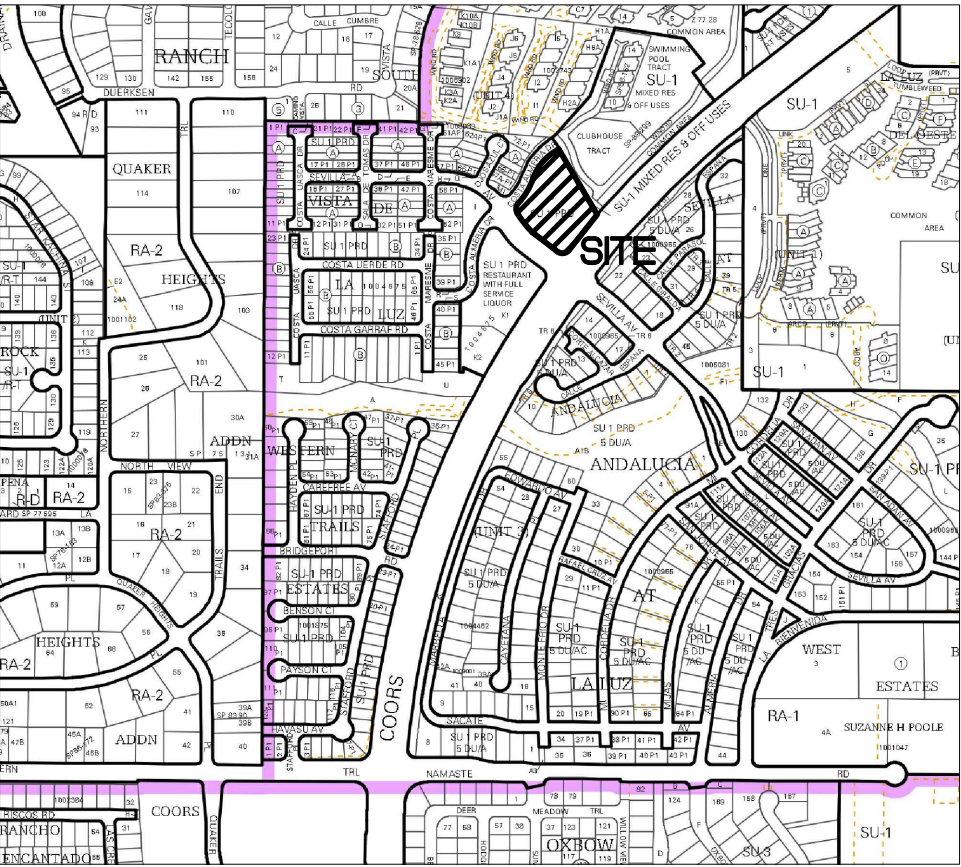
MAXIMUM STORAGE		
Tp, min	Elev, ft	Vol, ac-ft
120.00	5068.7	0.10

ACTUAL TOP OF POND ELEVATION = 5070.0
FREEBOARD PROVIDED = 1.3

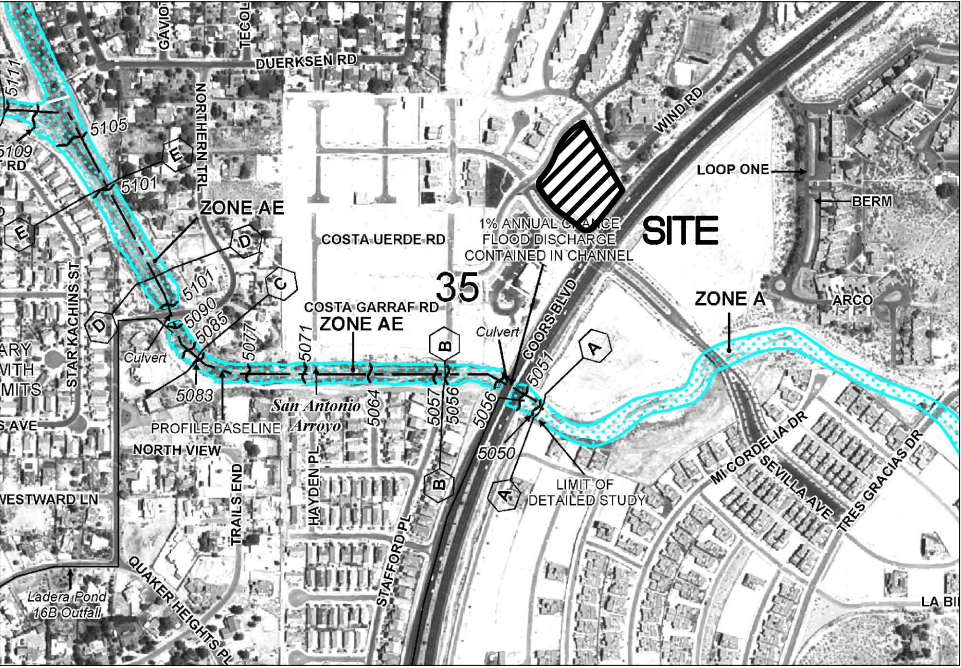
FORWARD FLOW PEAKS		
Tp, min	Qp, cfs	
Pond Inflow.....	105.00	7.90
Pond Outflow....	120.00	4.20

Project: Rain Tunnel Car Spa Simulation Run: Run 1					
Reservoir: Reservoir-1					
Start of Run: 01Jan2000, 01:00		Basin Model: Basin 1			
End of Run: 02Jan2000, 01:00		Meteorologic Model: Met 1			
Compute Time: 17May2017, 17:46:56		Control Specifications: Control 1			
Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	01:00	0.0	0.0	5066.0	0.0
01Jan2000	01:15	0.1	0.0	5066.0	0.0
01Jan2000	01:30	0.1	0.0	5066.1	0.0
01Jan2000	01:45	0.2	0.0	5066.3	0.0
01Jan2000	02:00	0.3	0.0	5066.6	0.0
01Jan2000	02:15	0.9	0.0	5067.1	0.0
01Jan2000	02:30	2.5	0.0	5067.6	1.2
01Jan2000	02:45	7.9	0.1	5068.5	3.9
01Jan2000	03:00	1.5	0.1	5068.7	4.2
01Jan2000	03:15	0.5	0.1	5068.0	2.7
01Jan2000	03:30	0.4	0.0	5067.5	0.4
01Jan2000	03:45	0.1	0.0	5067.5	0.1
01Jan2000	04:00	0.1	0.0	5067.5	0.1
01Jan2000	04:15	0.1	0.0	5067.5	0.2
01Jan2000	04:30	0.1	0.0	5067.5	0.1
01Jan2000	04:45	0.1	0.0	5067.5	0.1
01Jan2000	05:00	0.1	0.0	5067.5	0.1
01Jan2000	05:15	0.1	0.0	5067.5	0.1
01Jan2000	05:30	0.1	0.0	5067.5	0.1
01Jan2000	05:45	0.1	0.0	5067.5	0.1
01Jan2000	06:00	0.1	0.0	5067.5	0.1
01Jan2000	06:15	0.1	0.0	5067.5	0.1
01Jan2000	06:30	0.1	0.0	5067.5	0.1
01Jan2000	06:45	0.1	0.0	5067.5	0.1
01Jan2000	07:00	0.1	0.0	5067.5	0.1
01Jan2000	07:15	0.0	0.0	5067.5	0.0
01Jan2000	07:30	0.0	0.0	5067.5	0.0
01Jan2000	07:45	0.0	0.0	5067.5	0.0
01Jan2000	08:00	0.0	0.0	5067.5	0.0
01Jan2000	08:15	0.0	0.0	5067.5	0.0
01Jan2000	08:30	0.0	0.0	5067.5	0.0
01Jan2000	08:45	0.0	0.0	5067.5	0.0
01Jan2000	09:00	0.0	0.0	5067.5	0.0
01Jan2000	09:15	0.0	0.0	5067.5	0.0
01Jan2000	09:30	0.0	0.0	5067.5	0.0
01Jan2000	09:45	0.0	0.0	5067.5	0.0
01Jan2000	10:00	0.0	0.0	5067.5	0.0
01Jan2000	10:15	0.0	0.0	5067.5	0.0
01Jan2000	10:30	0.0	0.0	5067.5	0.0

POND TIME-STEP RESULTS



VICINITY MAP - Zone Map F-11-Z
Legal Description: Tract J, Vista La Luz, 1.8728 Acres



FIRM MAP 35001C0114H
Per FIRM Map 35001C0114H, dated August 16, 2012, the site is not located in the Floodplain and determined to be outside the 0.2% chance Annual Floodplain.

REV	DATE	BY	REVISION
1			
2			
3			
4			
5			

MODULUS ARCHITECTS

100 SUN AVENUE N.E., Ste 305
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

JEFFREY TODD WOOTEN
NEW MEXICO
16892
PROFESSIONAL ENGINEER

5/17/2017

PROJECT TITLE
5401 SEVILLA AVE NW
NWC COORS AND SEVILLA
ALBUQUERQUE, NEW MEXICO 87120

DRAWN BY:
JEFF WOOTEN

JOB NO.
2017018

SHEET TITLE
Drainage Management Plan

DATE
5/17/2017

SCALE
AS NOTED

SHEET
C1.2

OF
2

Wooten Engineering

1005 21st St SE, Suite 13
Rio Rancho, N.M. 87124
Phone: (505) 980-3560