

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

September 26, 2019

Jeffrey T. Wooten, P.E.
Wooten Engineering
1005 21st Street SE, Suite 13
Rio Rancho, NM 87124

**RE: Academy Dental Center
6421 Holly Ave NE
Grading and Drainage Plan
Engineer's Stamp Date: 09/23/19
Hydrology File: C18D038A**

Dear Mr. Wooten:

PO Box 1293

Based upon the information provided in your submittal received 08/20/2019, the Revised Grading and Drainage Plan is approved for Building Permit.

Albuquerque

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.

NM 87103

www.cabq.gov

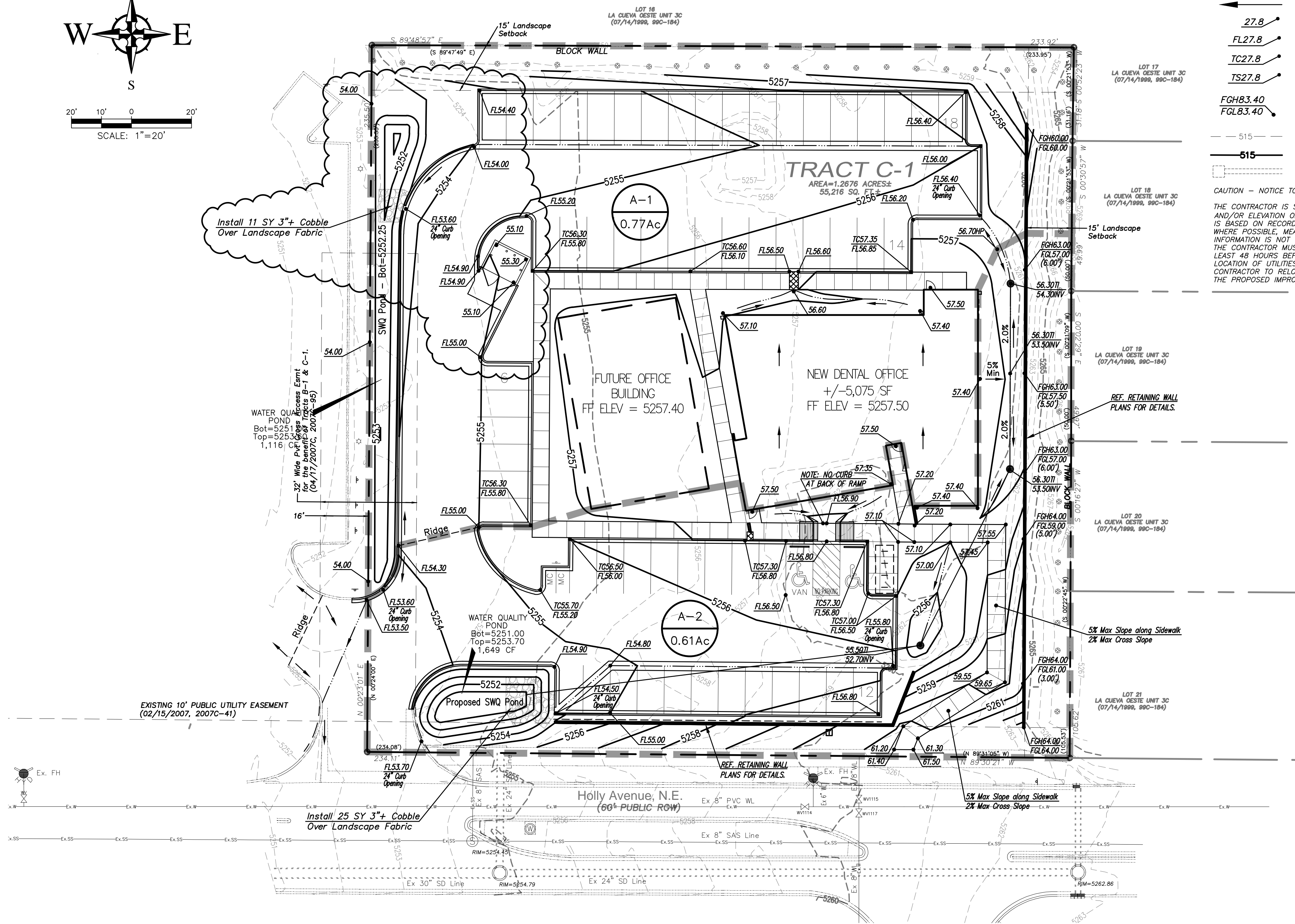
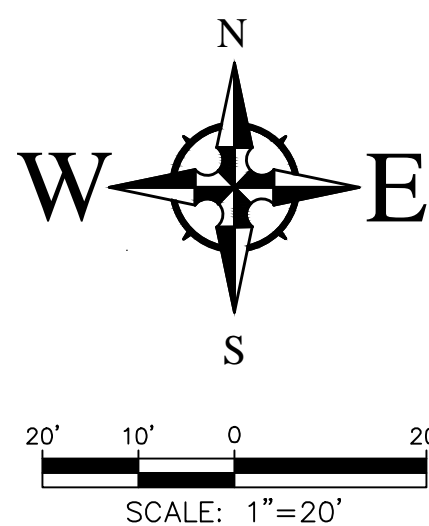
If the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

Please provide Drainage Covenant per Chapter 17 of the DPM prior to Permanent Release of Occupancy for the stormwater quality ponds. Please submit these to the 4th floor of Plaza de Sol. A \$25 fee for each will be required.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



LEGEND

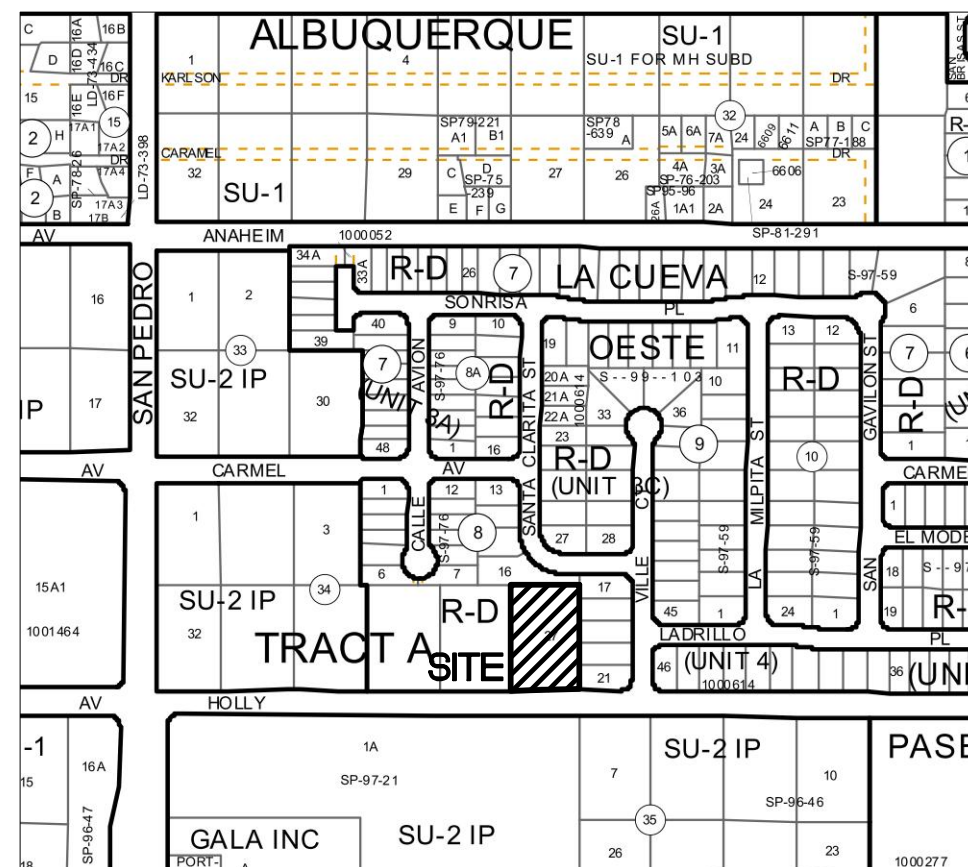
- FLOW ARROW
PROPOSED TOP OF GRADE/PVMT ELEVATIONS
PROPOSED FLOW LINE/GUTTER ELEVATIONS
PROPOSED TOP OF CURB ELEVATIONS
PROPOSED TOP OF SIDEWALK ELEVATION

- FINISHED GRADE AT TOP OF WALL
FINISHED GRADE AT BOTTOM OF WALL

- EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING STORM DRAIN

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS 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 C-18-Z

LEGAL DESCRIPTION:

Tract C-1, Paseo Nuevo 2, Albuquerque,
Bernalillo County. 1.268 Acres.

GRADING NOTES

- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
- THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
- 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 PROVIDED 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).
- EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
- IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
- THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND NETTING THE SOIL TO PROTECT IT FROM WIND EROSION.
- A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING 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.
- PAVING AND ROADWAY GRADES SHALL BE +/- 0.05' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.
- VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE THE SWPPP DOCUMENT (IF NECESSARY) AND SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.

DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a final grading plan and drainage management plan for the subject Building Permit for a new Dental office located at 6421 Holly Ave NE. The overall development contains approximately 1.37 acres and is located approximately 800 feet east of the NEC of San Pedro and Holly in Albuquerque, NM.

EXISTING HYDROLOGIC CONDITIONS

The site is currently undeveloped and drains from east to west onto the existing TLC Laser Eye Care Center site. Per the prior approved Grading Plan by Wooten Engineering for the TLC Laser Eye Care facility (File Number C018D038 dated 5/28/2008), the subject site was to surface drain directly onto Holly Ave.

PROPOSED HYDROLOGIC CONDITIONS

The proposed grading plans redirects the existing flows from draining onto the TLC facility and will be redirected to Holly Ave per the prior approved plan. Reference the Drainage Calculations table this sheet. There are two basins located on site, both of which will be routed through new stormwater quality ponds to capture the required water quality volume. Reference the Stormwater Quality Pond Calculations table and the Stormwater Quality Pond Volumes Calculations tables this sheet. Basin A-1 is required to capture 843 CF and the volume provided is 1,247 CF. Basin A-2 is required to capture 563 CF and the volume provided is 1,649 CF.

CONCLUSION

This drainage management plan provides for grading and drainage elements which are capable of safely passing the 100 year storm 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 the Building Permit for this project.

BENCH MARKS

A.C.S. MONUMENT "9-c18"
MONUMENT "HEAVEN"
NEW MEXICO STATE PLANE COORDINATES
(CENTRAL ZONE-N.A.D. 1983)
N=1,521,497.624
E=1,542,501.428
PUB. EL=5232.47 NAVD 1988
GROUND TO GRID FACTOR=0.999664563
DELTA ALPHA ANGLE = -0°11'19.69"

Existing Academy Dental Drainage Calculations												
This table is based on the COA DPM Section 22.2, Zone: 3												
BASIN	Area (SQ. FT)	Area (A.C.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100) ₃₆₀ (CF)	V(100) ₁₄₄₀ (CF)	V(100) _{10day} (CF)
A-1	33389	0.77	0.0%	0.0%	100.0%	0.0%	3.45	2.64	1.29	3589	3589	3589
A-2	26439	0.61	0.0%	0.0%	100.0%	0.0%	3.45	2.09	1.29	2842	2842	2842
TOTAL	59828	1.37						4.74		6432	6432	6432

Proposed Academy Dental Drainage Calculations												
Ultimate Development Conditions Basin Data Table												
This table is based on the COA DPM Section 22.2, Zone: 3												
BASIN	Area (SQ. FT)	Area (A.C.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100) ₃₆₀ (CF)	V(100) ₁₄₄₀ (CF)	V(100) _{10day} (CF)
A-1	33389	0.77	0.0%	0.0%	27.0%	73.0%	4.60	3.52	2.07	5763	6575	9013
A-2	26439	0.61	0.0%	0.0%	39.0%	61.0%	4.41	2.68	1.94	4280	4818	6431
TOTAL	59828	1.37						6.20		10043	11393	15443

STORMWATER QUALITY POND CALCULATIONS

BASIN A-1

TOTAL NEW IMPERVIOUS AREA = 24,089 SF
SWQ VOLUME REQ'D = $24,089 \times 0.42'' / 12 = 843 \text{ CF}$
TOTAL VOLUME PROVIDED = 1,247 CF

BASIN A-2

TOTAL NEW IMPERVIOUS AREA = 16,074 SF
SWQ VOLUME REQ'D = $16,074 \times 0.42'' / 12 = 563 \text{ CF}$
TOTAL VOLUME PROVIDED = 1,649 CF

24" CURB OPENING WEIR CALCULATION

WEIR EQUATION

$$Q = C \cdot L \cdot (H^3)$$

Given:

C = 2.87 (Weir Coefficient)

L = 2 feet (Width of Flow)

H = 0.50 feet (Depth of Flow)

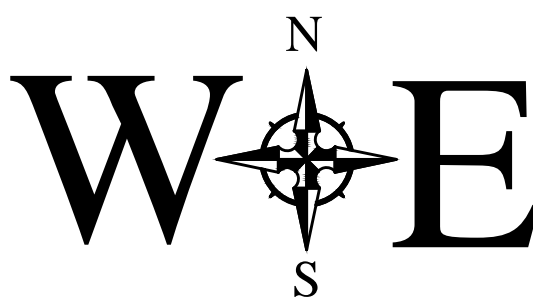
$$Q = 2.87 \times 2 \times (0.50^3)$$

$$Q = 2.87 \times 2 \times 0.63$$

$$Q_{cap} = 3.62 \text{ cfs}$$

Stormwater Quality Pond Volume Calculations

Elevation (ft)	Area (sq.ft)	Volume (cu-ft)	Volume Sum (cu-ft)
BASIN A-1			
5251.0	10	0.0	0.0
5252.0	134	72.0	72.0
5253.0	936	535.0	607.0
5253.6	1,332	640.0	1,247.0
BASIN A-2			
5251.0	226	0.0	0.0
5252.0	426	326.0	326.0
5253.0	666	546.0	872.0
5253.7	888	777.0	1,649.0



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

JOE
ARCHITECT
1433 delaney street, suite 121 denver co | 720.944.3228

Academy Dental Center

6421 Holly Ave. NE
Albuquerque, NM



9/23/2019

REVISIONS

#	Date	Description
---	------	-------------

DATE: AUGUST 22, 2019

PROJECT NO: 2018038

DRAWN BY: OG

ISSUED FOR: SD

Grading Plan

C2.0