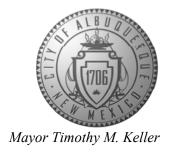
## CITY OF ALBUQUERQUE

Planning Department Brennon Williams, Director



December 2, 2020

Verlyn Miller, P.E. Miller Engineering Consultants, Inc 3500 Comanche NE Bldg. F Albuquerque, NM 87107

RE: Mark Armijo Charter School 6800 Gonzales Road SW Grading and Drainage Plan Engineer's Stamp Date: 11/11/20 Hydrology File: L10D007A

Dear Mr. Miller:

Based upon the information provided in your submittal received 11/17/20, the Grading &

Drainage Plan is approved for Grading Permit. Once the grading and paving of the project is

complete, an engineering certification will be required.

Albuquerque As a reminder, 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

Also, please provide the Drainage Covenant for the proposed retention pond per Article 6-15(C) of the DPM as soon as possible. There is a recording fee (\$25, payable to Bernalillo County). Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996). Due to COVID-19, please

follow the instructions:

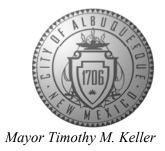
Either email a pdf copy of the executed drainage covenant and the exhibit to clabadie@cabq.gov or either mail or drop off the originals. Please mail the \$25.00 recording fee check made payable to Bernalillo County to:

Planning Dept./DRC Attn: Charlotte LaBadie 600 2nd St. NW, Ste. 400 ABQ, NM, 87102

If you drop off the originals, there is a drop box outside the building labeled DRC. Once approved and recorded, Charlotte will email you a copy.

# CITY OF ALBUQUERQUE

Planning Department Brennon Williams, Director



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

Renée C. Brissette

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



## City of Albuquerque

#### Planning Department

#### Development & Building Services Division

#### DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Mark Armijo Charter School	_ Building Permit #	<u>:</u>	Hydrology File #:			
DRB#:	EPC#:		Work Order#:			
Legal Description: 151 TOWN OF ATRISCO G	)-A & 150-B TOWN OI RANT UNIT 6) CONT	TATRISCO GRANT U 2.4712 AC	JNIT 6 (COMPRISING OF LTS 150 &			
City Address: 6800 Gonzales Road SW, Albuquero						
Applicant: Mark Armijo Academy			Contact: Monica Aguilar			
Address: 6800 Gonzales Road SW, Albuquerque, 1						
Phone#:	ne#:Fax#:					
Other Contact: Miller Engineering Consultants, In	ic.		Contact: Verlyn Miller			
Address: 3500 Comanche NE, Bldg. F, Albuquerqu	ie, NM 87107					
Phone#: 505-888-7500						
TYPE OF DEVELOPMENT: PLAT						
IS THIS A RESUBMITTAL? Yes	X No					
<b>DEPARTMENT</b> TRANSPORTATION		OCV/DP AIN ACE				
DELAKTMENT TRANSFORTATION	X_IIIDKOL	JO I/DRAINAGE				
Check all that Apply:	7	TYPE OF APPROV	AL/ACCEPTANCE SOUGHT:			
TYPE OF SUBMITTAL:	_	BUILDING PERMIT APPROVAL				
ENGINEER/ARCHITECT CERTIFICATION	N -	CERTIFICATE	OF OCCUPANCY			
PAD CERTIFICATION		DDELH (DLADA)	A DI ATT A DDD OVA I			
CONCEPTUAL G & D PLAN	<del></del>	PRELIMINARY PLAT APPROVAL SITE PLAN FOR SUB'D APPROVAL				
X GRADING PLAN	_					
DRAINAGE REPORT		SITE PLAN FOR BLDG. PERMIT APPROVAL				
DRAINAGE MASTER PLAN	_	FINAL PLAT A	APPROVAL			
FLOODPLAIN DEVELOPMENT PERMIT	APPLIC					
ELEVATION CERTIFICATE	_		OF FINANCIAL GUARANTEE			
CLOMR/LOMR	_		PERMIT APPROVAL			
TRAFFIC CIRCULATION LAYOUT (TCL	_	X GRADING PER				
TRAFFIC IMPACT STUDY (TIS)	<del>-</del>	SO-19 APPROV				
STREET LIGHT LAYOUT	_	PAVING PERM				
OTHER (SPECIFY)	_		D CERTIFICATION			
PRE-DESIGN MEETING?	_	WORK ORDER				
	_	CLOMR/LOMR				
	<u>-</u> _		DEVELOPMENT PERMIT IFY)			
DATE SUBMITTED: 11/17/2020			,			
COA STAFF:	ELECTRONIC SUBM	ITTAL RECEIVED:				

FEE PAID:\_\_\_\_\_

### DRAINAGE REPORT

### **SITE LOCATION**

The proposed project is located on approximately 3.3-acres of the campus of Mark Armijo Charter school. The overall site is estimated at 6 acres and can be accessed from Gonzales Road SW.

### **EXISTING CONDITIONS**

The overall existing site is estimated at 6 acres. The eastern 2.7 acres is currently partially developed with existing buildings and parking lot areas. There are two existing retention ponds that collect runoff from the eastern portion of this site. The pervious grading and drainage plan completed by Wooten Engineering in 2017 indicates that the two existing retention ponds can retain the 100-year, 10-day event. We have provided Sheet C-101 and C-102 prepared by Wooten Engineering as a part of this submittal for informational purposes only.

Based on the plan prepared by Wooten Engineering the western portion of the site to be developed under this project is called Basin C. For this submittal the site will be called Basin C to be consistent with the previously approved Wooten Plan.

Per the FMEA Panel on this sheet, the site does not lie within a 100-year FEMA floodplain and is not impacted by offsite flows.

### PROPOSED CONDITIONS

The proposed project would consist of a mass grading plan for the western portion of the site (Basin C). This phase will include mass grading of the site and the construction of a new retention pond (Pond C). The buildings, parking lots, playfield, and other improvements on the site are all improvement to be constructed in the future. Individual grading and drainage plans will be required for each future phase of development.

Basin C under future fully developed conditions will generate 0.594-acre feet during the 100-year, 10-day event. Pond C will be size to retain 100% of this volume. Pond C will be connected to existing Pond B with a 24" pipe. The existing emergency overflow spillway will be used for any overtopping flows from these ponds.

### **CONCLUSIONS**

When developed as indicated on the grading and drainage plan, the increased runoff from the site is estimated at 4.37 cfs, and 0.232 acre-feet during the 100-year, 24-hour event. The first flush pond volume required for the project estimated at 1975 cf. The proposed retention Pond C has a capacity of 0.720 acre-feet and is capable to retaining 100% of the 100-year, 10-day volume from Basin C.

### HYDROLOGY CALCULATIONS

### **HYDROLOGY**

Precipita	ition Zone 1 -	- 100-year (	Storm	P(360) =	2.20	in	P(1440)=	2.66	P(10 day) =	3.67
	Basin	Land Treatment Factors								
Basin	Area	Α	В	С	D	Ew	V(100-6)	V(100-24)	V(100-10 day)	Q(100)
	(Ac)		(Acres	)		(in)	(af)	(af)	(af)	(cfs)
Existing	Existing Conditions									
С	3.40	1.70	0.00	1.50	0.20	0.77	0.219	0.227	0.243	7.37
Total	3.40									7.37
Propose	Proposed Conditions									
С	3.40	0.00	0.50	1.30	1.60	1.40	0.398	0.459	0.594	11.74
Total	3.40									11.74

## FIRST FLUSH CALCULATIONS

VFF =  $(69,696 \text{ SF* } 0.34^{\circ}/12)$ 

VFF = 1,975 CF

VOLUME PROVIDED (AT 5031 TOP OF POND) = 0.720AF = 31,636.20 CF

# POND RATING CURVES

	WATER	R HARVES	T AREA		
Pond Ra	ating Tabl	e			
Side Slope		3:1			
Depth	Area		Volume	Cum Volume	
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)	
5025	2856	0.066	0.000	0.000	
5026	3537	0.081	0.073	0.073	
5027	4290	0.098	0.090	0.163	
5028	5117	0.117	0.108	0.271	
5029	6010	0.138	0.128	0.399	
5030	6987	0.160	0.149	0.548	
5031	8021	0.184	0.172	0.720	top of pond

#### **GENERAL NOTES:**

- 1. EXISTING TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO APRIL 2020. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- 2. PROJECT BENCHMARK IS A CITY OF ALBUQUERQUE SURVEY BRASS DISC STAMPED "ACS BM 11-K10". TO REACH THE BENCHMARK FROM THE INTERSECTION OF CENTRAL AVENUE AND COORS BLVD. S.W., TRAVEL SOUTH ON COORS BLVD. 0.55 MILES TO THE INTERSECTION WITH GONZALES ROAD S.W. EPOXIED TO TOP OF S.S.E. CONCRETE CURB RETURN OF THE INTERSECTION. ELEVATION = 5,046.07 FEET (NAVD 1988 VERTICAL DATUM)
- 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- 4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- 5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 6. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- 7. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 8. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- 9. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
- 10. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.

- 11. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY
- 12. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- 13. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND
- 14. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.

HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.

- 15. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
- 16. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
- 17. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS
- FOR REVIEW PRIOR TO CONSTRUCTION. 18. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2014 EDITION OF THE NEW MEXICO STATE DEPARTMENT

OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY

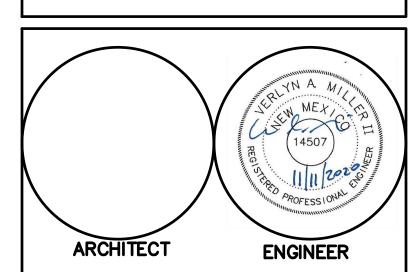
19. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

AND BRIDGE CONSTRUCTION (GREY BOOK).

- 20. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY NRCS FIELD OFFICE REPRESENTATIVE APPROPRIATE FOR PROJECT LOCATION
- ALL DISTURBED AREAS, NOT ADDRESSED BY ARCHITECTURAL LANDSCAPE PLAN WITH SLOPES OF LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ANY SLOPES THAT ARE 3:1 OR STEEPER SLOPES SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED



CONSULTANT



## Mark Armijo Academy -Master Plan

### **Project Status**

6800 Gonzales Rd SW Albuquerque, NM 87121

NOVEMBER 2020

MARK DATE DESCRIPTION

PROJECT NO: CAD DWG FILE:

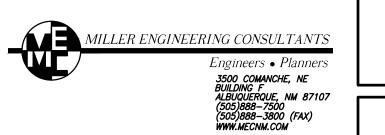
Checker CHECKED BY:

Project Number

Author

SHEET TITLE

**HYDROLOGY** 



Planning Department
Development Review Services HYDROLOGY SECTION

**APPROVED** 

12/02/20

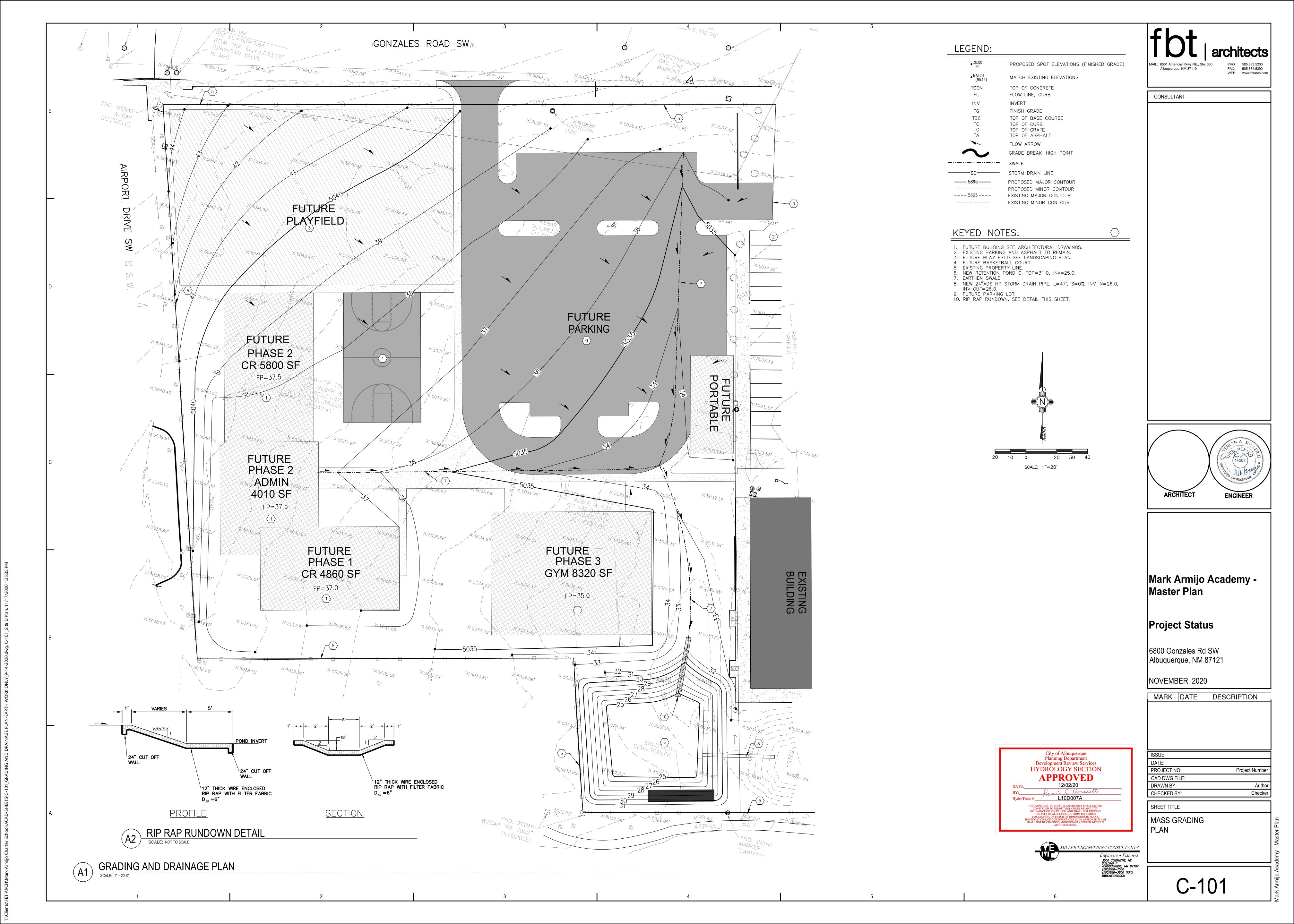
BY: Renée Brisselle
HydroTrans # L10D007A

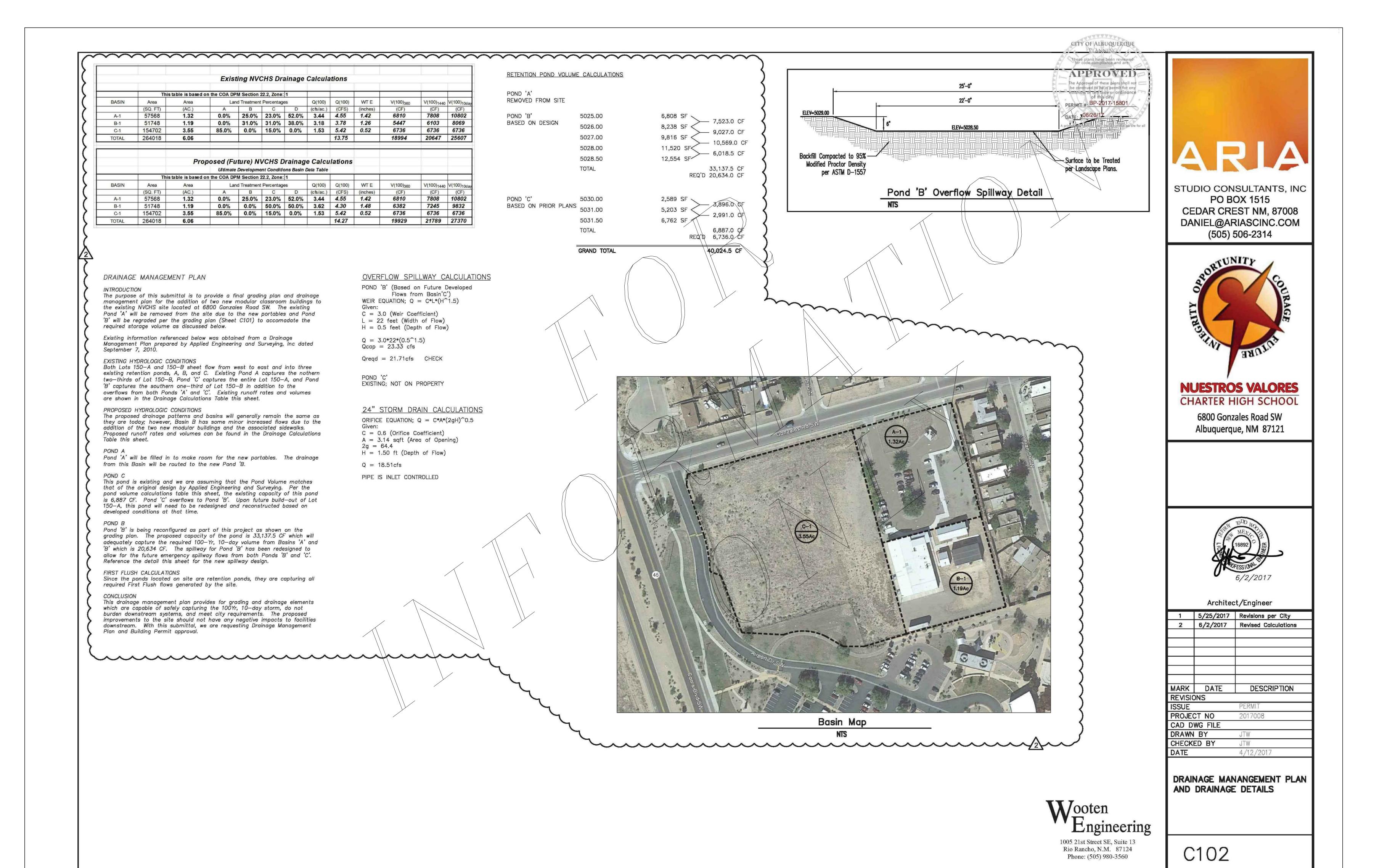
C-100

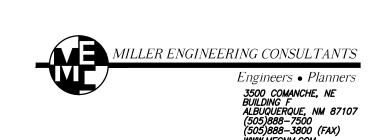
MX-M

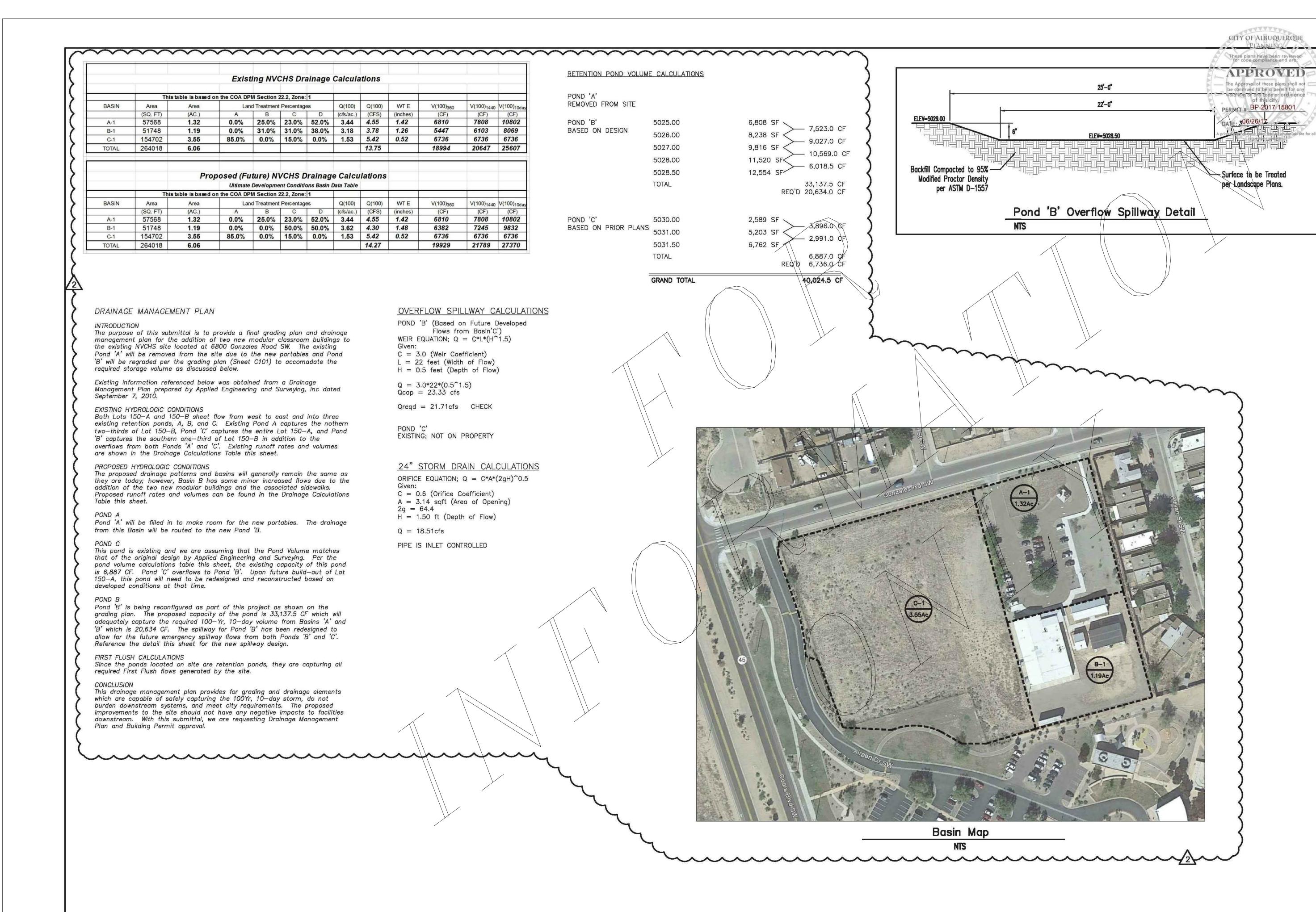
VICINITY MAP

ZONE ATLAS K-10-Z











PO BOX 1515
CEDAR CREST NM, 87008
DANIEL@ARIASCINC.COM
(505) 506-2314



NUESTROS VALORES
CHARTER HIGH SCHOOL

6800 Gonzales Road SW Albuquerque, NM 87121



Architect/Engineer

1	5/25/2017	Revisions per City			
2	6/2/2017	Revised Calculations			
MARK	DATE	DESCRIPTION			
REVISION	ONS	•			
ISSUE		PERMIT			
PROJE	CT NO	2017008			
CAD D	WG FILE				
DRAWN	I BY	JTW			
CHECK	ED BY	JTW			
	THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SE				

DRAINAGE MANANGEMENT PLAN AND DRAINAGE DETAILS

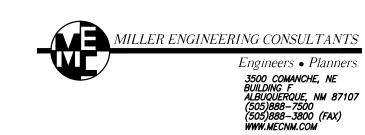
4/12/2017

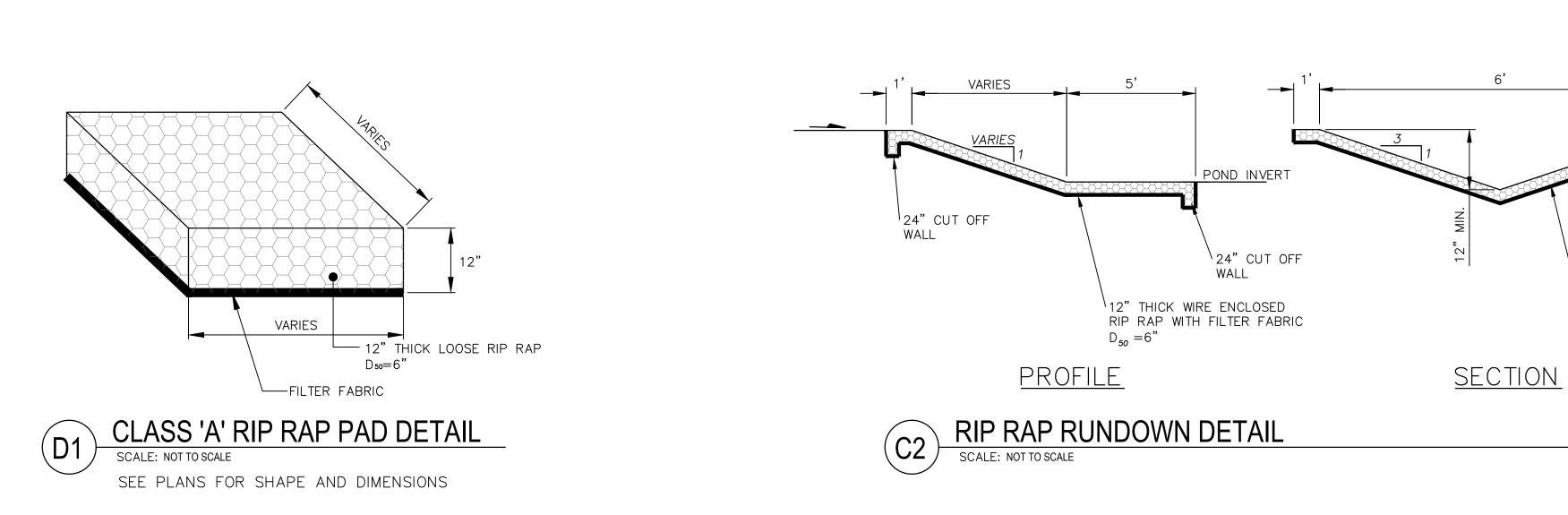
C102

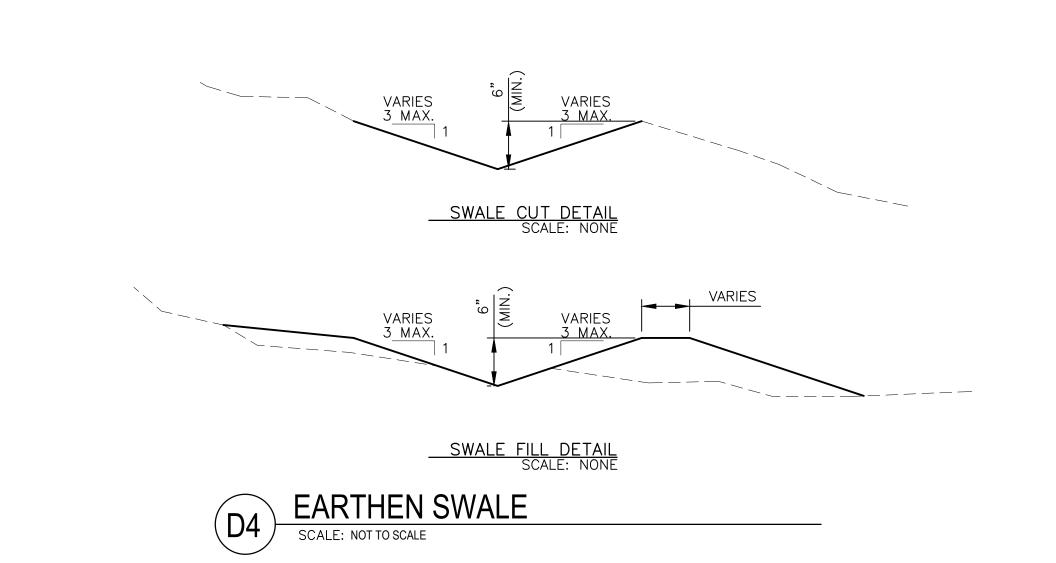
0102

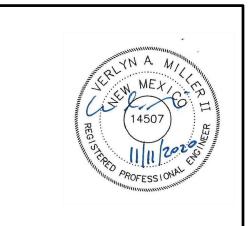
1005 21st Street SE, Suite 13

Rio Rancho, N.M. 87124 Phone: (505) 980-3560





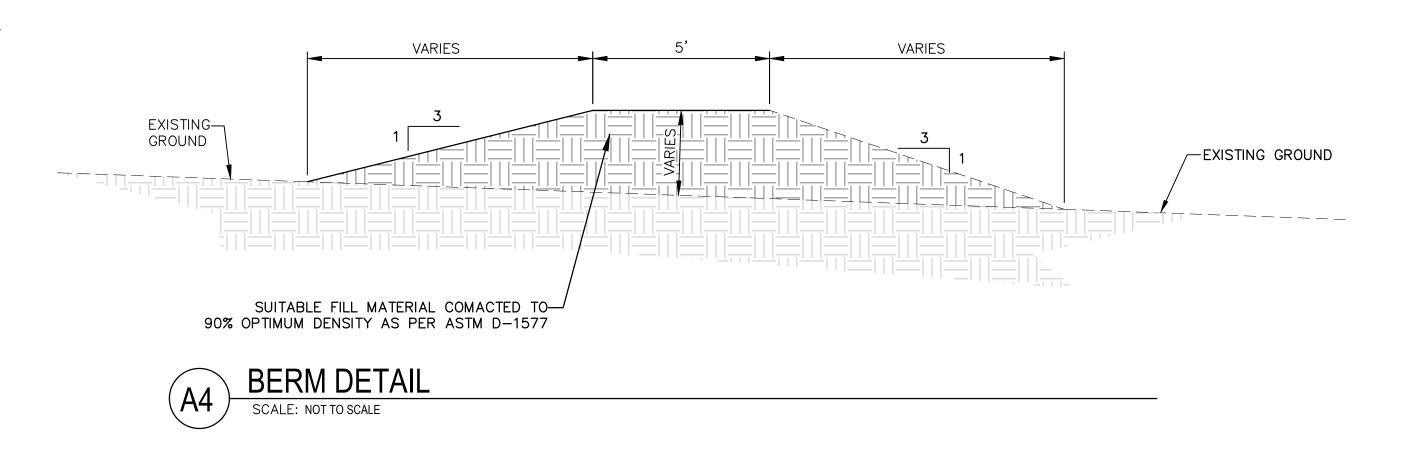


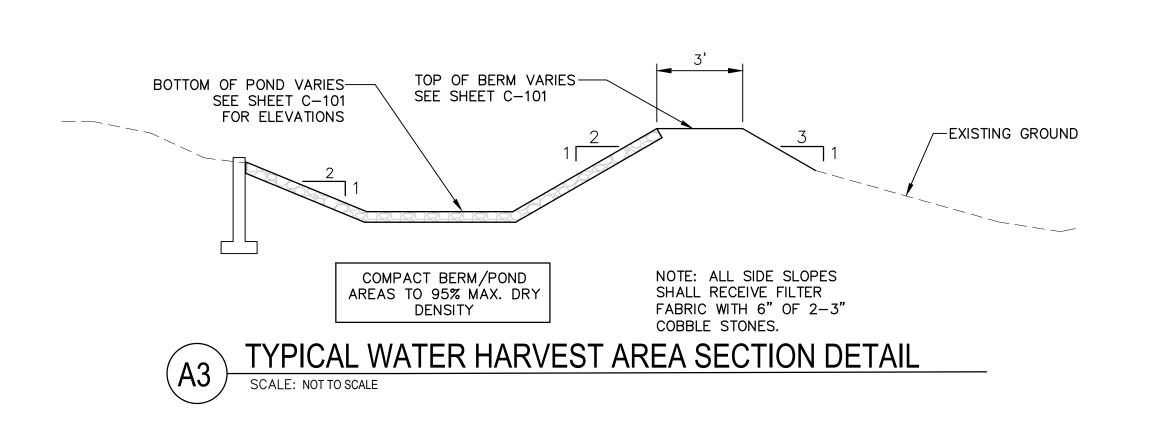


PHO: 505.883.5200 FAX: 505.884.5390 WEB: www.fbtarch.com

AIL: 6501 Americas Pkwy NE., Ste. 300 Albuquerque, NM 87110

CONSULTANT





12" THICK WIRE ENCLOSED
RIP RAP WITH FILTER FABRIC
D<sub>50</sub> = 6"

Mark Armijo Academy -Master Plan

**Project Status** 

6800 Gonzales Rd SW Albuquerque, NM 87121

AUGUST 2020

MARK DATE DESCRIPTION

PROJECT NO:
CAD DWG FILE:
DRAWN BY: Project Number Author CHECKED BY:

Checker

SHEET TITLE

MISCELLANEOUS DETAILS

MILLER ENGINEERING CONSULTANTS

Engineers • Planners

Engineers • Planners

3500 COMANCHE, NE BUILDING F ALBUQUERQUE, NM 87107 (505)888-7500 (505)888-3800 (FAX) WWW.MECNM.COM

C-501