CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



July 30, 2024

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

RE: Explore Academy - Addition

6600 Gulton Ct NE

Permanent C.O. - Accepted

Engineer's Certification Date: 07/26/2024

Engineer's Stamp Date: 12/12/2022

Hydrology File: E17D012

PO Box 1293 Dear Mr. Miller:

Based on the Certification received 07/29/2024 and site visit 7/30/2024, this certification is

approved in support of Permanent Release of Occupancy by Hydrology.

Albuquerque

If you have any questions, please contact me at 505-924-3314 or amontoya@cabq.gov.

NM 87103 Sincerely,

www.cabq.gov Anthony Montoya, Jr., P.E.

Senior Engineer, Hydrology

anth Mar

Planning Department, Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

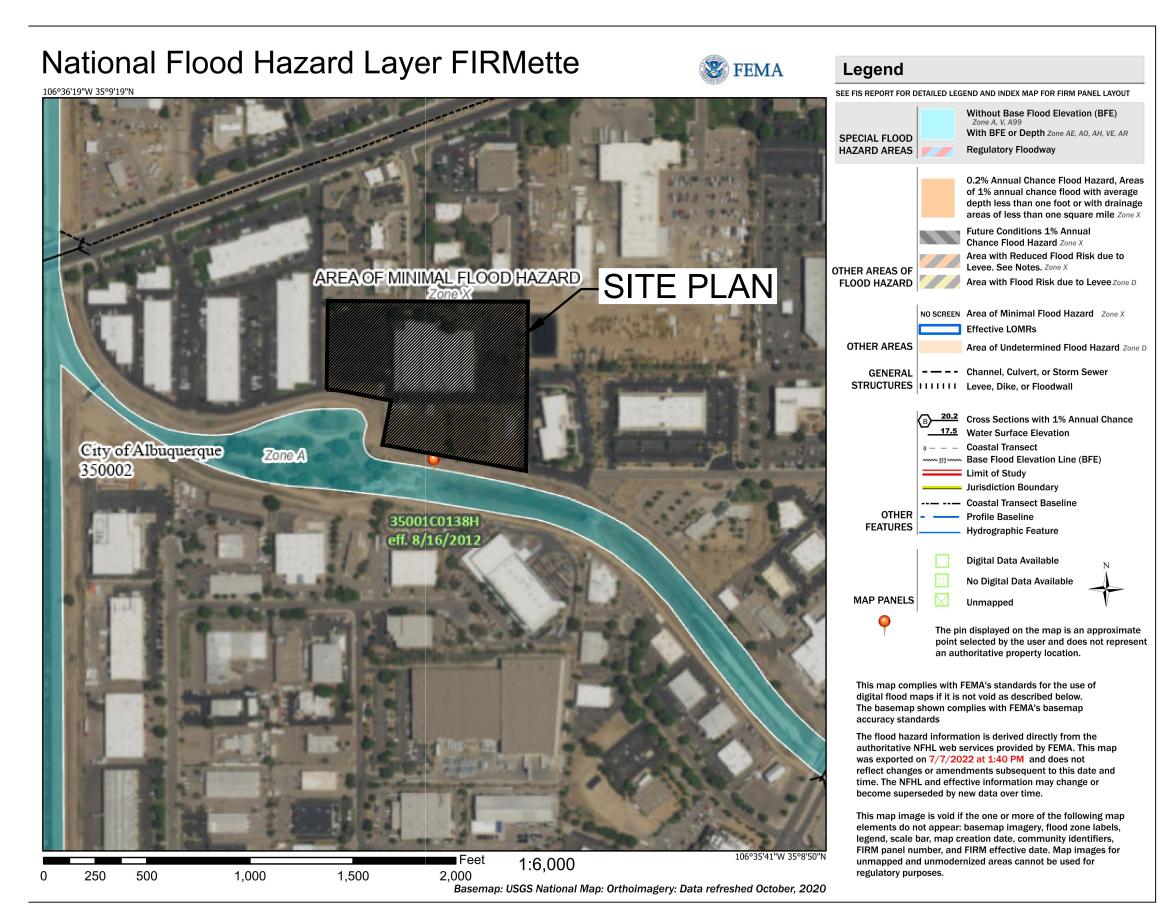
DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title:	Building P	ermit #: Hydrology File #:
		Work Order#:
Legal Description:		
City Address:		
Applicant:		Contact:
Address:		
		E-mail:
Owner:		Contact:
Address:		
		E-mail:
TYPE OF SUBMITTAL: PLA	T (# OF LOTS)	RESIDENCE DRB SITE ADMIN SITE
IS THIS A RESUBMITTAL?:	Yes	No
DEPARTMENT: TRAFFIC/ T	RANSPORTATION _	HYDROLOGY/ DRAINAGE
TYPE OF SUBMITTAL: ENGINEER/ARCHITECT CERT PAD CERTIFICATION CONCEPTUAL G & D PLAN GRADING PLAN DRAINAGE MASTER PLAN DRAINAGE REPORT FLOODPLAIN DEVELOPMENT ELEVATION CERTIFICATE CLOMR/LOMR TRAFFIC CIRCULATION LAY TRAFFIC IMPACT STUDY (TI OTHER (SPECIFY) PRE-DESIGN MEETING?	Γ PERMIT APPLIC OUT (TCL) S)	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 SURMITTED:	Bv·	

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:

FEE PAID:_____







DPM HYDROLOGY CALCULATIONS

Precipita	ation Zone 2	- 100-year	Storm	P(360) =	2.35	in	P(1440) =	2.75	in	
	Basin	Land Treatment Factors								
Basin	Area	Α	В	С	D	Ew	V(100-6)	V(100-24)	V(100-10D)	Q(100)
	(Ac)		(Acres)		(in)	(af)	(af)	(af)	(cfs)
Existing	Conditions									
Α	6.950	0.000	0.000	1.350	5.600	1.93	1.116	1.303	1.863	30.559
В	3.050	0.000	0.000	2.270	0.780	1.38	0.352	0.378	0.456	10.794
Total	10.000									41.353
Propose	ed Conditions	6								
Α	6.950	0.000	0.000	1.350	5.600	1.93	1.116	1.303	1.863	30.559
В	3.050	0.000	0.250	1.750	1.050	1.44	0.367	0.402	0.507	11.000
Total	10.000									41.559

DRAINAGE REPORT

SITE LOCATION

The existing site is an approximate 10-acre site located 6000 Gulton Court NE in Albuquerque. The site can be accessed by traveling west on Osuna Boulevard from I-25 to Gulton Court NE (see vicinity map

EXISTING CONDITIONS

The existing site is estimated at 10 acres and is mostly developed with a building and asphalt paved parking lot. The site has bene divided into two drainage basins, A and B. Basin A discharges to an existing channel system located along the western boundary of the site. Basin B is located on the south side of the site and will drain to the new ponding area located along the western boundary of Basin B. The site currently slopes from the east to west at a mild to moderate slope. The site does not lie within a 100-year FEMA floodplain (see FEMA panel on this sheet). The Bear Arroyo borders the southern boundary of the site.

PROPOSED CONDITIONS

The proposed project will consist of gymnasium addition to the school on the east side of the existing building. The gym addition will be placed over an existing asphalt paved parking lot. Some development of the southern portion of the site will also take place within Basin B including two new concrete basketball courts and a turf play field. A new SD line and retention pond is proposed to collect runoff from Basin B. The retention pond will also hold the water quality volume calculated for this site.

Small water harvest features will be placed within the five small islands in the parking lot of Basin A to capture some runoff for storm water quality. However, the cumulative volume of these five water harvest features are not enough for the total required storm water quality volume so the owner will be requesting a payment in lieu of for the difference in volume that cannot be accommodated within Basin A. The drainage calculations for proposed conditions are indicated on this sheet.

CONCLUSIONS

When fully developed as indicated on the grading and drainage plan, the increased runoff from Basin A is zero. The increase in runoff from Basin B is estimated at 0.21 cfs and 0.051 acre-feet during the 100-year, 24-hour event. Storm water runoff from the site will discharge to a new 0.261 acrefoot retention pond located along the western boundary of Basin B. The storm water quality volume for Basin B is estimated at 533 cubic feet. The new retention pond is large enough to retain the storm water quality volume from Basin B.

The total storm water quality volume for Basin A is estimated at 1115 cubic feet. The total cumulative volume for the five water harvest features in Basin A is estimated at 450 cubic feet. The owner is requesting payment in lieu of for the storm water quality volume of 665 cubic feet that cannot be accommodated on the site.

BASIN B:

WATER HARVEST AREA

BASIN A:

WATER HARVEST AREA = 450 CF

AREAS IN BASIN A IS ESTIMATED AT 450 CF.

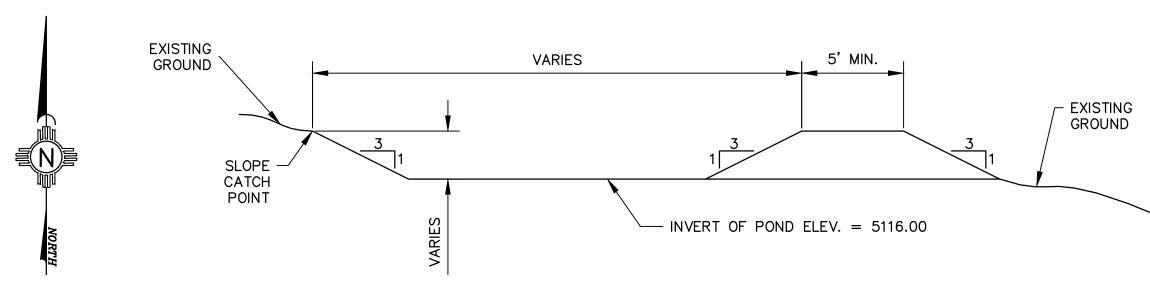
THE CUMULATIVE PONDING VOLUME FOR THE 5 WATER HARVEST

WATER HARVEST AREA					
Pond Rating Table					
Side Slope					
Elev.	Area		Volume	Cum Volume	
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)	
16	620	0.014	0	0	
17	1053	0.024	0.019	0.019	
18	1581	0.036	0.030	0.049	
19	2188	0.050	0.043	0.093	
20	2886	0.066	0.058	0.151	
21	1607	0.037	0.052	0.203	

STORM WATER QUALITY CALCULATIONS

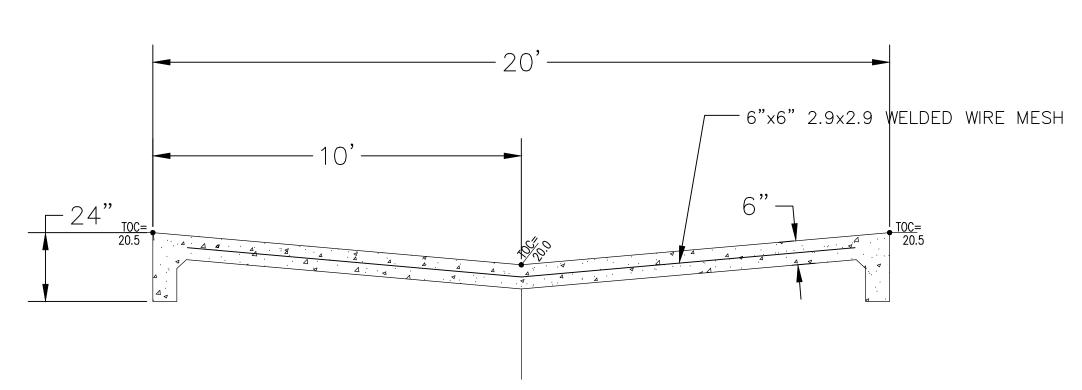
SWQV (BASIN A): WATER QUALITY VOLUME= (0.26"/12 * 51,500 SF) = 1115 CF PAYMENT IN LIEU (BASIN A)= 1115cf - 450cf. * \$8/cf = \$5,320.00

 $\frac{\text{SWQV (BASIN B):}}{\text{WATER QUALITY VOLUME= }} (0.26"/12 * 24,000 SF) = 533 CF$



TYPICAL POND SECTION

NOT TO SCALE



CONCRETE SPILLWAY SECTION

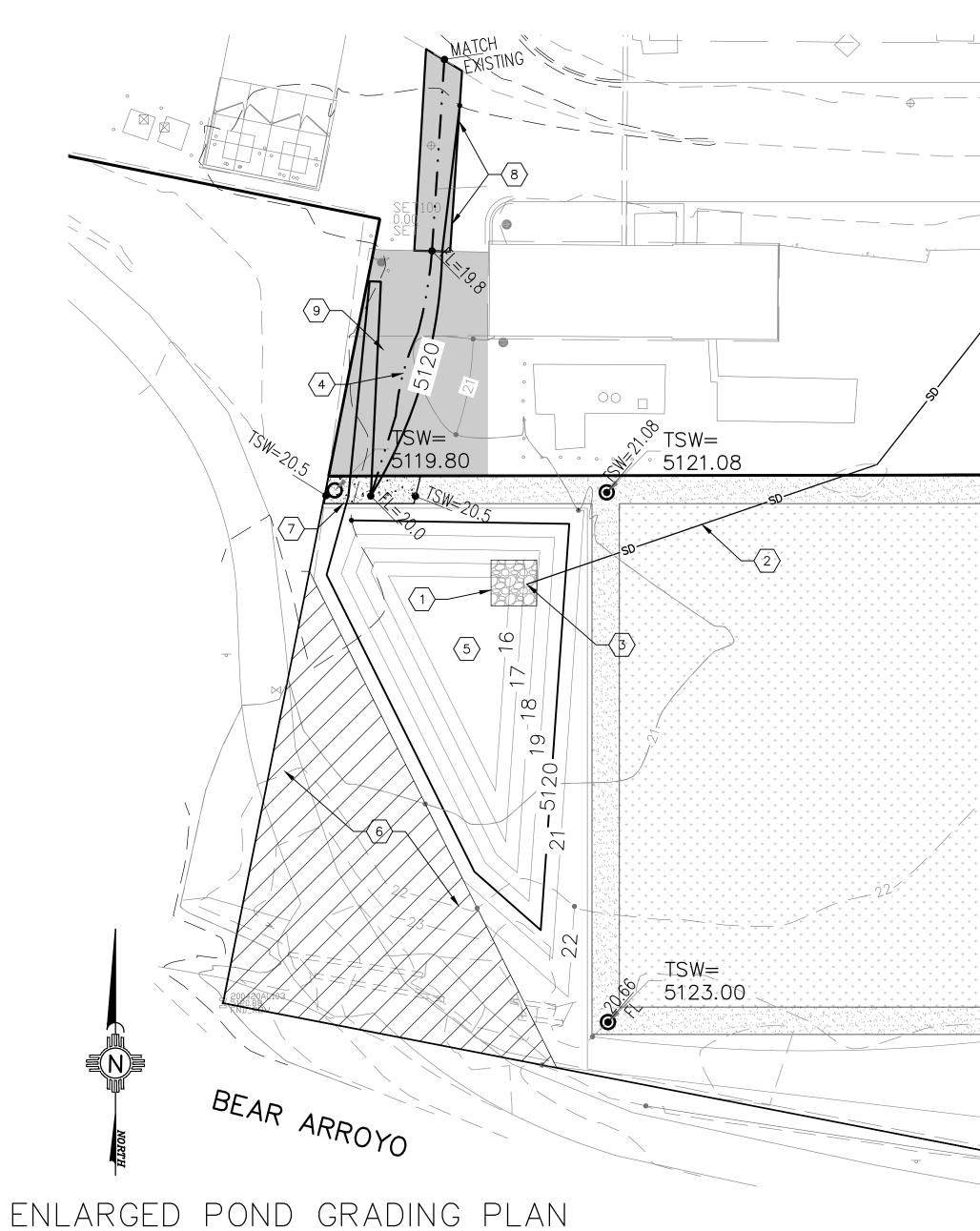
GENERAL NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- 2. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 4. 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.
- 5. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 6. 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."
- 7. 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
- THE CITY. 12. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND
- 13. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.

DRAINAGE PLAN.

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



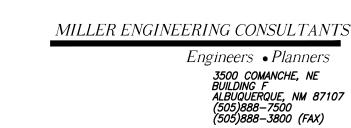
KEYED NOTES:

- 1. 12" LOOSE RIP-RAP. SEE DETAIL SHEET C1/C-505. 2. 24" HDPE STORM DRAIN LINE INSTALLED PER DETAIL
- D3/C-505.5. HDPE END SECTION INSTALLED PER DETAIL D5/C-503.
- 4. POND OVERFLOW SWALE. GRADE TO DRAIN NORTH. 5. NEW WATER HARVEST POND. SEE DETAIL THIS SHEET.
- 6. EXISTING AMAFCA EASEMENT. 7. NEW 20'x6' WIDE CONCRETE OVERFLOW SPILLWAY FROM POND.
- SEE DETAIL ON THIS SHEET.
- 8. SAW CUT TO A CLEAN STRAIGHT LINE 8' WIDTH OF EXISTING
- HMA, REMOVE AND REPLACE HMA TO INCORPORATE NEW
- 9. NEW ASPHALT PAVEMENT PER DETAIL E2/C-502.

DRAINAGE CERTIFICATION

, VERLYN A MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED December 12, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY LARRY W. MEDRANO, NMPS 11993 OF PRECISION SURVEYS INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON JULY 26, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A FINAL CERTIFICATE OF OCCUPANCY THE CITY OF ALBUQUERQUE.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS DRAWINGS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VARIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PLIFE VERLYN A. MILLER



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CONSULTANT

STAMP



100% PERMIT SET

PROJECT NAME

EXPLORE ACADEMY **GYMNASIUM ADDITION**

6600 GULTON COURT, NE. ALBUQUERQUE, NEW MEXICO 87111

REVISIONS

Copyright: Design Group JULY 07, 2022 Project number

SHEET TITLE

CAD file name

HYDROLOGY PLAN

SHEET NUMBER



PROPOSED SPOT ELEVATIONS (FINISHED GRADE) MATCH EXISTING ELEVATIONS TOP OF CONCRETE FLOW LINE, CURB INVERT FINISH GRADE TOP OF BASE COURSE TOP OF CURB TOP OF GRATE TOP OF ASPHAL TOP OF WALL FLOW ARROW

GRADE BREAK-HIGH POINT

STORM DRAIN LINE PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR EXISTING MAJOR CONTOUR EXISTING MINOR CONTOUR

BASIN BOUNDARY



BASIN DESIGNATION

KEYED NOTES:

EXISTING BUILDING TO REMAIN. 2. EXISTING 4' CONCRETE VALLEY GUTTER TO REMAIN.

PROPOSED GYM AND CLASSROOM ADDITION. NEW 12" WIDE SIDEWALK CULVERT. SEE DETAIL SHEET C1/C-505. NEW CURB AND GUTTER. SEE ARCHITECTURAL DETAILS.

EXISTING ASPHALT RUNDOWN TO REMAIN. EXISTING 48" CMP TO BEAR ARROYO CHANNEL.

EXISTING PLAYGROUND TO REMAIN

EXISTING TRASH DUMPSTER AND DRIVE PAD TO REMAIN. 10. EXISTING CONCRETE SIDEWALK TO REMAIN. 11. NEW 6' WIDE GRAVEL PATHWAY.

12. NEW GRASS PLAYGROUND AREA. 13. NEW WATER HARVEST POND. SEE DETAIL SHEET C2/C-505.

14. SANITARY SEWER MANHOLE PER DETAIL A1/C-505. 15. 12" LOOSE RIP-RAP. SEE DETAIL SHEET C1/C-505.

16. NEW VOLLEY BALL COURT. 17. NEW CHESS BOARD AREA.

> 18. 4' DIAMETER STORM DRAIN MANHOLE PER DETAIL A1/C-505. INV=17.43.

19. TYPE "D" (MEDIA TYPE) STORM DRAINAGE CATCH BASIN PER DETAIL

20. EXISTING OVERHEAD CANOPY TO REMAIN.

21. NEW CONCRETE BASKETBALL COURT. 22. 18" HDPE STORM DRAIN LINE INSTALLED PER DETAIL D3/C-505. 23. 24" HDPE STORM DRAIN LINE INSTALLED PER DETAIL D3/C-505.

24. 24"x45° HDPE STORM DRAIN BEND. 25. CONNECT NEW 6" HDPE STORM DRAIN LINE TO BUILDING ROOF

26. HDPE END SECTION INSTALLED PER DETAIL D5/C-503. 27. NEW RETAINING WALL. SEE STRUCTURAL DETAILS.

28. SAWCUT TO A CLEAN STRAIGHT EDGE, REMOVE AND REPLACE EXISTING ASPHALT IN THIS AREA. MATCH EXISTING ELEVATIONS.

29. NEW ACCESS ROUTE TO PLAYGROUND AREA. SEE ARCHITECTURAL PLANS FOR DETAILS.

30. DOWNSPOUT LOCATIONS. SEE ARCHITECTURAL SHEET A-106. 31. ROOF DRAIN LOCATION. SEE ARCHITECTURAL SHEET A-106.

32. POND OVERFLOW SWALE LOCATION. GRADE TO DRAIN NORTH. 33. NEW ASPHALT PAVEMENT PER DETAIL E2/C-502.

34. NEW 3' WIDE CONCRETE VALLEY GUTTER. S=0.35%. SEE DETAIL

SHEET E1/C-505. 35. NEW 4' DIAMETER STORM DRAIN MANHOLE PER DETAIL A1/C-501R. INV

(E)=18.30, INV (W)=18.25, INV (S)=18.30. 36. 12" HDPE STORM DRAIN LINE INSTALLED PER DETAIL D3/C-505. 37. 6'x10' EMERGENCY EXIT CONCRETE LANDING AT DOOR WITH A 5'

WIDE CONCRETE RAMP @ 1:12 MAX. SLOPE TO WEST. MATCH EXISTING ELEVATIONS. 38. MOVE EXISTING BICYCLE RACK TO NEW LOCATION TO MAKE ROOM

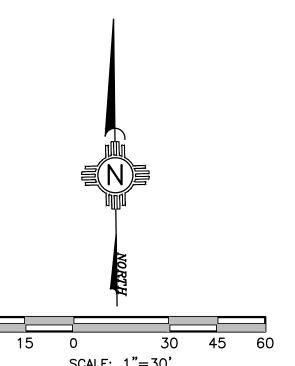
FOR NEW RAMP. SEE ARCHITECTURAL FOR DETAILS. 39. NEW SWQ POND (5 TYPICAL) WITH 6" INCHES OF DEPTH.

40. PLACE 6" CURB CUTS AT 5' ON CENTER ON UP STREAM SIDE SO RUNOFF CAN ENTER WATER HARVEST AREAS. 41. SAW CUT TO A CLEAN STRAIGHT LINE 8' WIDTH OF EXISTING HMA AND

REMOVE TO INCORPORATE SWALE.

42. EXISTING AMAFCA EASEMENT. 43. NEW 20'x6' WIDE CONCRETE OVERFLOW SPILLWAY FROM POND. SEE DETAIL ON SHEET C-200.

CONTRACTOR SHALL REFERENCE DRAWINGS CG-001, C-001, AA-SP, C-101, C-102, C-201, C-301, C-501, C-502, C-503 AND C-504 FROM 100% PERMIT SET STAMPED BY DAVID AUBE DATED 12-17-2021.



SCALE: 1"=30' CONTOUR INTERVAL = 1'

MILLER ENGINEERING CONSULTANTS

Engineers • Planners Engineers • Planners 3500 COMANCHE, NE BUILDING F ALBUQUERQUE, NM 87107 (505)888-7500 (505)888-3800 (FAX)

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GYMNASIUM ADDITION

ALBUQUERQUE, NEW MEXICO 87111

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JULY 07, 2022 Project number CAD file name

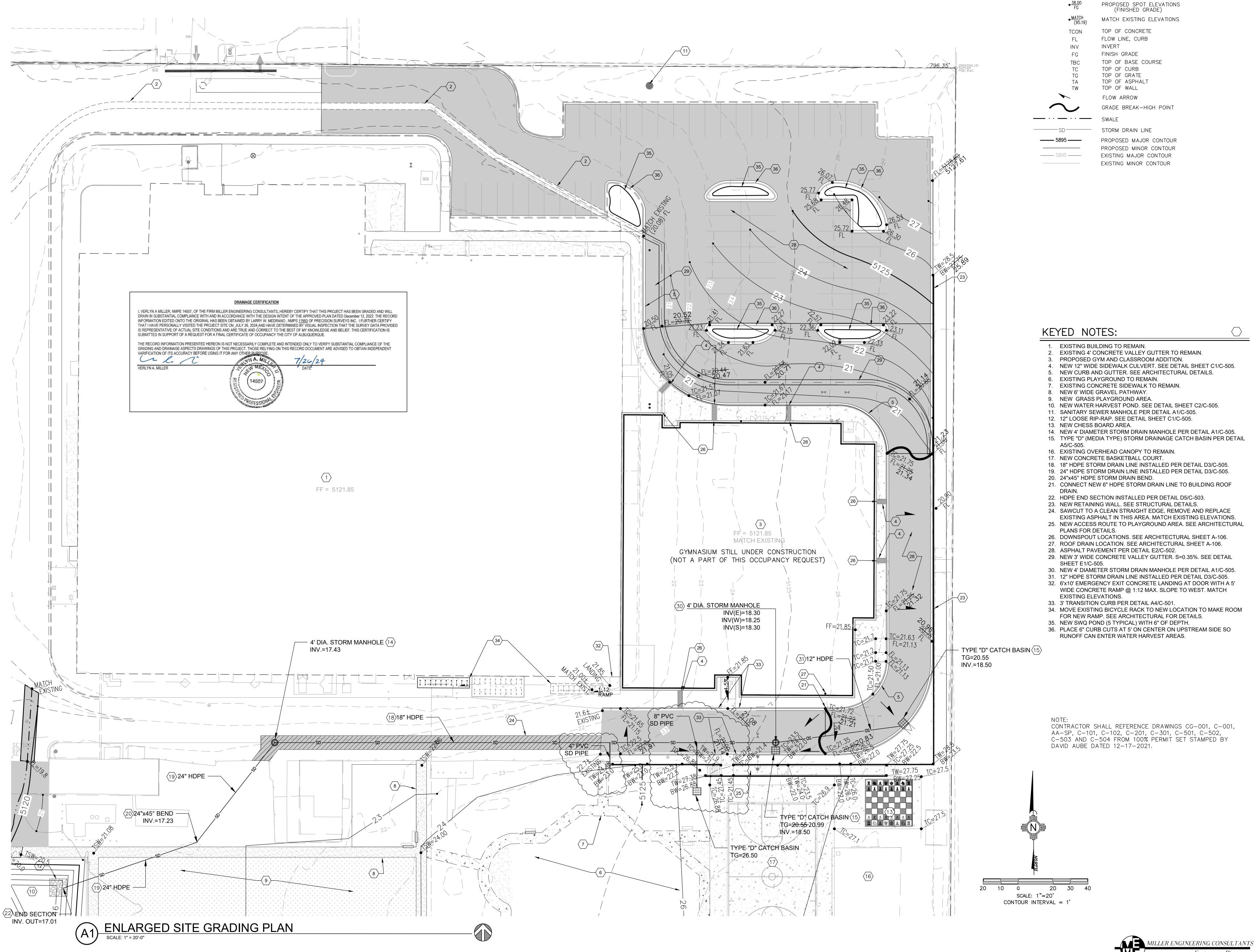
SHEET TITLE

OVERALL SITE GRADING PLAN

SHEET NUMBER

C-201R

OVERALL SITE GRADING PLAN
SCALE: 1" = 30'-0"



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EXPLORE ACADEMY

6600 GULTON COURT, NE.

GYMNASIUM ADDITION

ALBUQUERQUE, NEW MEXICO 87111

PROJECT NAME

No.	Description	Date	
1	ADDENDUM 001	01.04.202	

Drawn by
Checked by
VAM
Date
JULY 07, 2022
Project number
CAD file name

SHEET TITLE

ENLARGED SITE GRADING PLAN

SHEET NUMBER

Engineers • Planners

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