



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: Horizon Academy Playground **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Parcel 5A1-A1-2 Volcano Business Park
City Address: 3050 Painted Rock Drive NW

Applicant: Allrite Construction **Contact:** Meshack Alvarado
Address: 3040 Painted Rock Drive NW
Phone#: 344-7669 **Fax#:** _____ **E-mail:** _____

Other Contact: Larry Read & Associates **Contact:** Larry Read
Address: 8100 Wyoming Blvd. NE Suite M4 Box 107 Albuquerque, NM 87113
Phone#: 239-7692 **Fax#:** 237-8421 **E-mail:** lread@readengineering.com

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) _____

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: 11/17/2016 **By:** Larry Read

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



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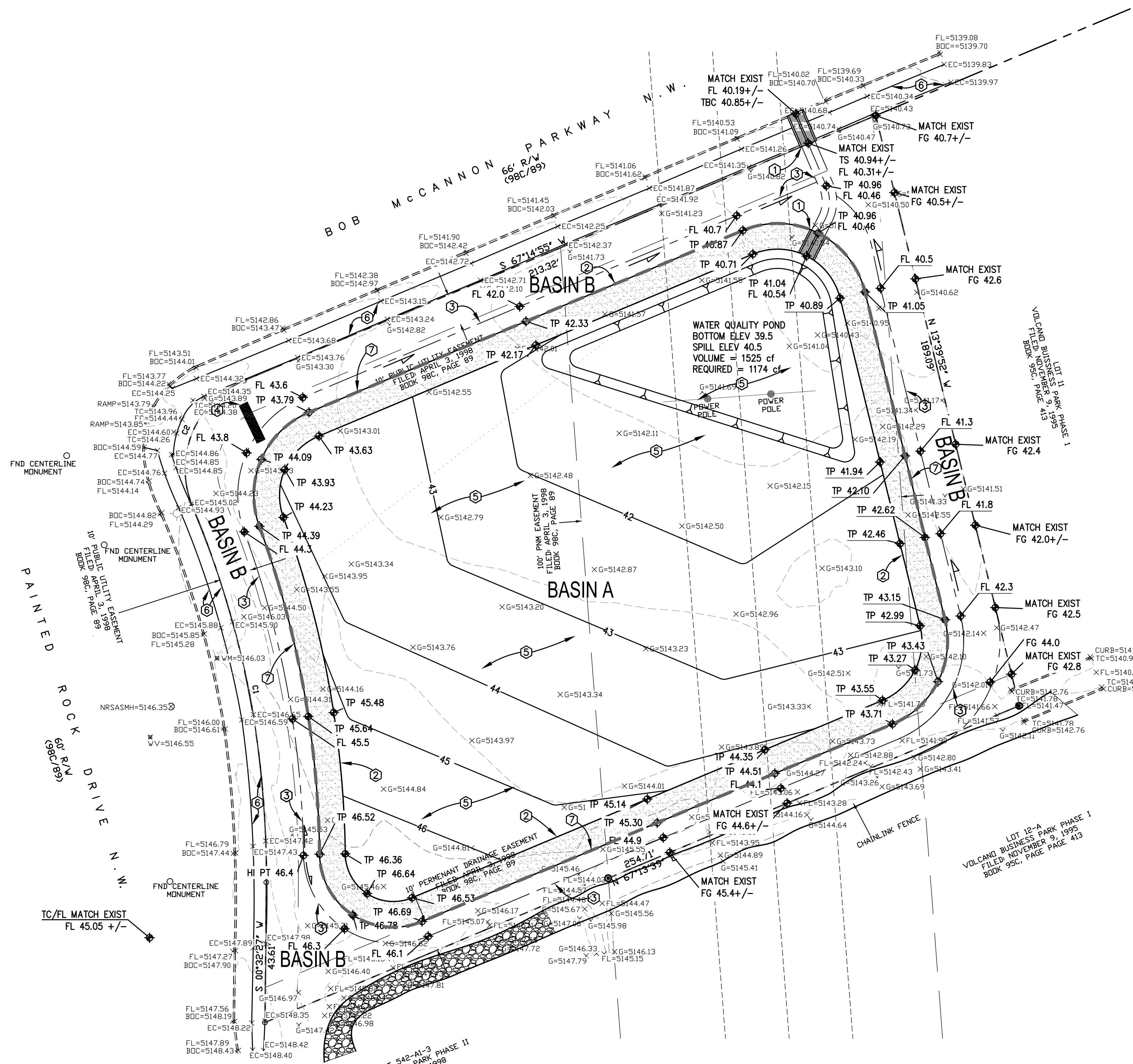
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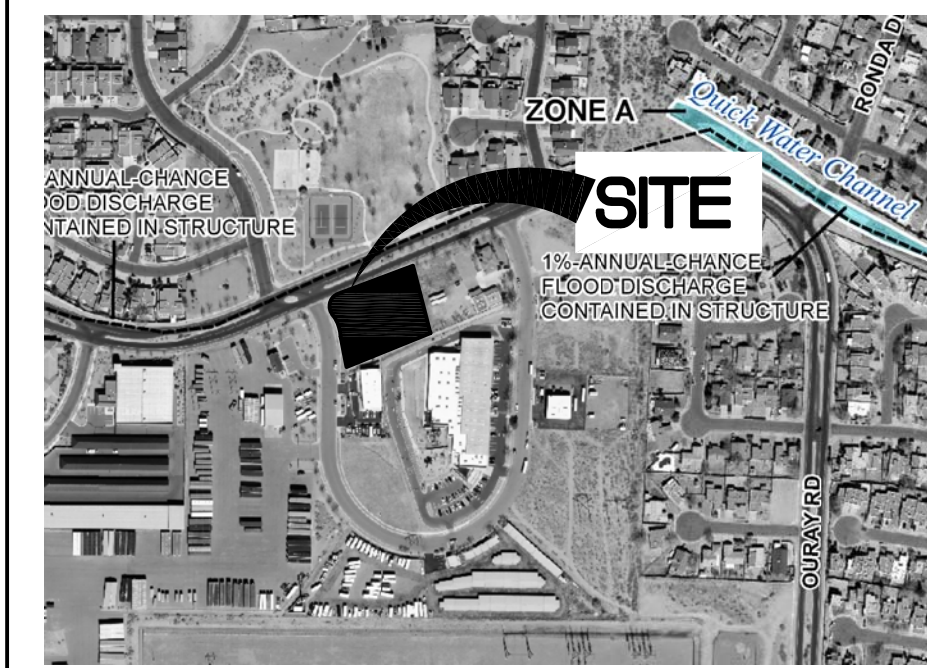
COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



GRADING PLAN
SCALE 1" = 20'

KEYED NOTES:

1. CONSTRUCT NEW DOUBLE 24" WIDE SIDEWALK CULVERTS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2236, LATEST REVISION.
2. BUILD 8" WIDE COMPACTED CRUSHER FINE RUNNING PATH.
3. MAXIMUM SLOPE 2% ANY DIRECTION.
4. GRADE EARTHEN SWALE TO DRAIN.
5. NEW SIGN SEE ARCHITECTURAL DETAILS.
6. PROPOSED GRASS PLAY FIELDS.
7. EXISTING CONCRETE SIDEWALK TO REMAIN.
7. DRAINAGE BASIN BOUNDARY - TYPICAL.



FLOODPLAIN

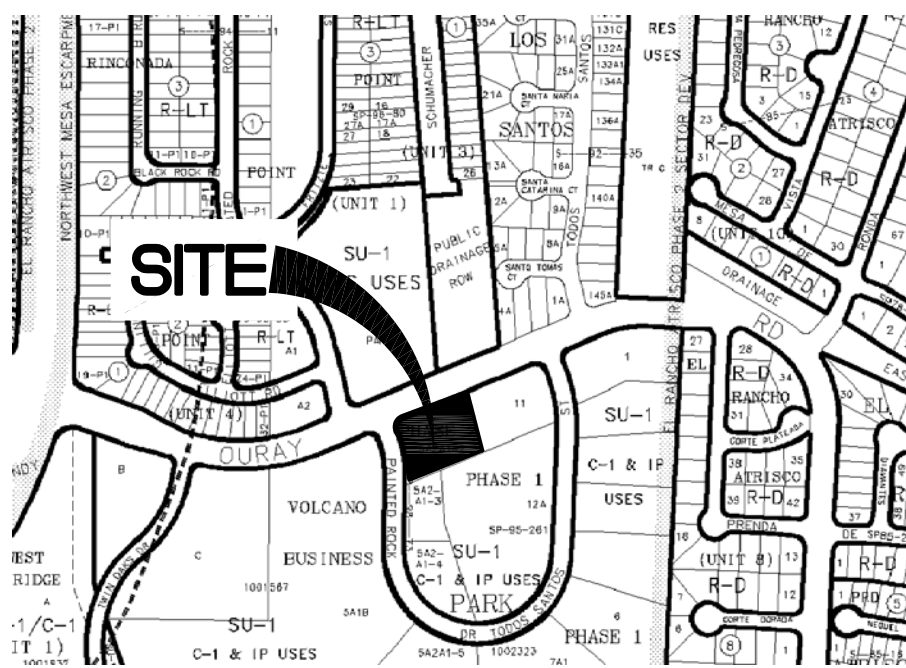
THE PROPERTY SHOWN HEREON DOES NOT LIE WITHIN ANY DESIGNATED FLOODPLAIN PER THE FLOOD INSURANCE RATE MAP OF THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, COMMUNITY-PANEL NO. 35001C0326 J; EFFECTIVE DATE NOVEMBER 4, 2016

LEGAL DESCRIPTION

TRACT 5A2-A1-2
VOLCANO BUSINESS PARK
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

ACS BENCHMARK

ACS MONUMENT "9-G10", BEING AN ACS MONUMENT, WITH AN ELEVATION PUBLISHED BY THE CITY SURVEYOR



VICINITY MAP G-10-Z

SURVEY NOTES

FIELD SURVEY BY: ANTHONY L. HARRIS
333 LOMAS BLVD. NE
ALBUQUERQUE NM 87102

SURVEY DATE: AUGUST 2016
PHONE: (505) 998-0303
FAX: (505) 998-0306

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE SURVEYOR BY THE APPROPRIATE UTILITY COMPANIES. SURVEYOR DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

DRAINAGE DISCUSSION

LOCATION & DESCRIPTION
THIS SITE, LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF BOB McCANNON PARKWAY NW AND PAINTED ROCK DRIVE NW. THE SITE IS SLIGHTLY OVER 1 ACRE AND IS CURRENTLY NOT DEVELOPED. THE PARCELS TO THE WEST AND SOUTH ARE DEVELOPED. THE PROPOSED DEVELOPMENT ON THIS PARCEL IS A PLAYGROUND TO ACCOMPANY THE EXISTING HORIZON ACADEMY SCHOOL TO THE SOUTHEAST. NO BUILDINGS ARE PROPOSED.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORMS FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

EXISTING DRAINAGE

THE EXISTING SITE DRAINS VIA SHALLOW OVERLAND FLOW TOWARD THE NORTHEAST OVER THE CURB ON BOB McCANNON PARKWAY. IT FLOWS IN THE STREET SECTION EAST TO THE EXISTING 42" STORM DRAIN. THE DEVELOPED SITE TO THE SOUTH DRAINS EAST VIA AND EXISTING RIPRAP CHANNEL THAT RUNS ALONG THE NORTH BOUNDARY (SOUTH BOUNDARY OF THIS PARCEL) OF THAT PARCEL TO TODOS SANTOS DRIVE NW WHERE IT JOINS THE FLOW FROM THIS SITE. THE RUNOFF FROM THE HORIZON SCHOOL SITE TO THE SOUTHEAST DRAINS TO TODOS SANTOS DRIVE AS WELL.

LARRY READ & ASSOCIATES STUDIED THIS AREA IN 2003 AND REVISED THE EXISTING DRAINAGE MASTER PLAN (G10029) TO SHOW THE EXISTING STORM DRAIN SYSTEM THAT SERVES THIS AREA HAD SUFFICIENT CAPACITY TO ALLOW FREE DISCHARGE FROM THIS SITE.

THE EXISTING DEVELOPED SITE TYPICALLY DRAINS FROM EAST TOWARD THE RIVER TO THE WEST AT A SLOPE OF ABOUT 4%. JUST EAST OF THE EXISTING OFFICE BUILDING A RIPRAP SWALE INTERCEPTS THE FLOWS AND ROUTES THEM NORTH TO A SMALL ONSITE RETENTION POND. PORTIONS OF THE PAVED PARKING AREAS TO THE NORTH AND SOUTH OF THE OFFICE BUILDING SHEET FLOW WEST INTO THE ROADSIDE CHANNEL ALONG READING AVENUE.

DEVELOPED CONDITION

THE PROPOSED GRADING FOR THIS SITE MAINTAINS THE NORTHEASTERN DIRECTION SHALLOW SHEET FLOW DIRECTION THAT NOW EXISTS. HOWEVER A DOUBLE 24" WIDE SIDEWALK CULVERT IS PLANNED I THE NORTHEAST CORNER OF THE SITE TO ALLOW THE RUNOFF TO DRAIN UNDER THE SIDEWALK. IN COMPLIANCE WITH CURRENT CITY REQUIREMENTS, ALL RUNOFF FROM BASIN A (INSIDE THE TRACK) IS DIRECTED THROUGH A SHALLOW POND INTENDED TO HELP KEEP SEDIMENT AND CONTAMINANTS IN THE RUNOFF STREAM FROM EXITING THE SITE.

THE PROPOSED DEVELOPMENT IS A CRUSHER FINE RUNNING TRACK AROUND THE PERIMETER OF THE PARCEL WITH GRASS PLAY AREAS INSIDE THE TRACK.

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT			WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(10 day) (acre-ft)	V(10 day) (cu-ft)	Q (cfs)
		A (%)	B (%)	C (%)						
EXISTING CONDITIONS										
BASIN A	0.73	100.00	0.00	0.00	0.00	0.44	0.03	1,166	0.03	1,166
BASIN B	0.30	100.00	0.00	0.00	0.00	0.44	0.01	471	0.01	471
PROPOSED CONDITIONS										
BASIN A	0.73	0.00	83.40	16.60	0.00	0.72	0.04	1,916	0.04	1,916
BASIN B	0.30	0.00	50.00	50.00	0.00	0.83	0.02	889	0.02	889
EXCESS PRECIP.		0.44	0.67	0.99	1.97	Ei (in)				
PEAK DISCHARGE		1.29	2.03	2.87	4.37	QPi (cfs)				

ZONE = 1
%A) + (EB)(%B) + (EC)(%C) + (ED)(%D)
= (WEIGHTED E)(AREA)/12
/6-HR + (AD)(P10DAY - P6-HR)/12
QP(B)(AB) + (QP(C)(AC) + (QP(D)(AD)

P6-HR (in.) : 2.20
P24-HR (in.) : 2.66
P10DAY (in.) : 3.67

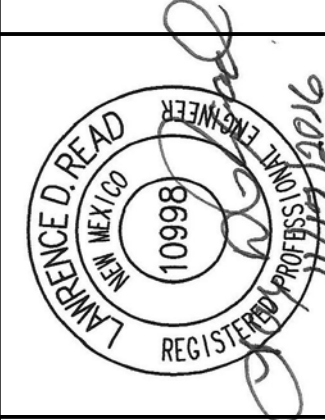
WATER QUALITY PONDING

POND ID	BASIN ID	CONTRIBUTING AREA (SQ-FT)	REQUIRED PONDING (IN)	PONDING VOLUME (0.44/12*AREA) (CU-FT)	PONDING VOLUME PROVIDED (CU-FT)
1	A	32016	0.44	1174	1525
TOTAL		32016		1174	1525

LARRY READ & ASSOCIATES
Civil Engineers
8100 Wyoming Blvd. NE
Suite M4 Box 107
Albuquerque, New Mexico 87113
(505) 237-8421 Fax (505) 237-8422

NO.	DATE	REVISIONS	DESCRIPTION	BY
1				
2				
3				
4				

PLAYGROUND GRADING



HORIZON ACADEMY
for ALLRITE CONSTRUCTION

3040 PAINTED ROCK ROAD NW
ALBUQUERQUE, NEW MEXICO

DRAWING NAME:	HORIZON:	SHEET
		1 of 1

CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director



Mayor Richard J. Berry

December 9, 2016

Larry Read, P.E.
Larry Read & Associates
8100 Wyoming Blvd. NE Suite M4 Box 107
Albuquerque, New Mexico 87113

RE: **Horizon Academy Playground
Grading and Drainage Plan
Engineers Stamp Date 11/15/16 (G10D029I)**

Dear Mr. Read,

Based upon the information provided in your submittal received 11/22/16, this plan is approved for Grading Permit and Paving Permit. Please attach the SO-19 notes on the plan which the contractor will be using.

Contact Jason Rodriguez at 235-8016 to schedule an inspection for the side walk culvert. A separate Excavation/Barricading Permit is required for SO-19 construction within City ROW. A copy of this approval letter must be on hand when applying for the permit.

Once this project has been completed submit an as-built PDF copy and a paper set for our records.

If you have any questions, please contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Hydrology
Planning Department

RR/AC
C: File