

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

July 23, 2020

Ronald Bohannon, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM, 87109

**RE: Albuquerque School of Excellence
13201 Lomas Blvd. NE
Revised Grading & Drainage Plan
Engineer's Stamp Date: 07/20/20
Hydrology File: J22D050**

Dear Mr. Bohannon:

Based upon the information provided in your resubmittal received 07/21/2020, the Grading & Drainage Plan is approved for Building Permit, Grading Permit and SO-19 Permit.

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.

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.

Also as a reminder, please provide a Drainage Covenant for the proposed retention ponds per Chapter 17 of the DPM prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee 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



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: ABQ School Excellence **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Parcel E-1-A Land Div Plat Parcels D-1-A & E-1-A Formerly Parcel D-1 & E-1 Panorama Heights ADDN
City Address: 13201 Lomas Blvd NE Albuquerque NM 87112

Applicant: Tierra West, LLC **Contact:** Jonathan Niski
Address: 5571 Midway Park Place NE Albuquerque NM 87109
Phone#: 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** jniski@tierrawestllc.com

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? ☒ Yes _____ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ OTHER (SPECIFY) _____
- ☐ PRE-DESIGN MEETING?

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 SUBMITTED: 07/20/20 **By:** Jonathan Niski

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



TIERRA WEST, LLC

July 20, 2020

Ms. Renee C Brissette, P.E. CFM
Hydrology Planning Department
PO BOX 1293
Albuquerque, NM 87103

RE: ALBUQUERQUE SCHOOL OF EXCELLENCE
13201 LOMAS BLVD NE
REVISED GRADING & DRAINAGE PLAN
ENGINEER'S STAMP DATE: 07/02/20
HYDROLOGY FILE: J22D050

Dear Ms. Brissette,

Below is our response to comments for the job referenced above:

1. Sheet GR-1 almost all the line work is the same line weight, so I can't tell what existing items are and what proposed items are. Please correct the proposed items with a darker line weight.
The proposed revisions are to the entire parking lot area. The line work was darkened up to help illustrate the new improvements and the area was bubbled.
2. Sheet GR-1 this goes with the first comment. Are all the paving new or is there going to be paving that is to remain? If there is paving to remain, then there needs to be a break line.
The entire parking area will be repaved.
3. Sheet GR-1 it is hard to tell where Pond A and Pond B are located. Please provide a top of pond outline (contour) and a bottom of pond outline (contour)
The Ponds are now shown with darker lines and called out with notes.
4. Sheet GR-1 please provide an emergency spillway for both retention ponds by way of sidewalk culverts. The elevation of the sidewalk culverts should be the 100 year – 10 day WSE.
A sidewalk culvert was added to Pond "A" that daylights to Lomas and a 2' curb opening was provided to Pond "B" that daylights to the drive aisle. Both are sized to handle the 100 year flow.
5. Sheet GR-1 please use the latest SO-19 notes (see attachment)
The latest SO-19 note was added to the plan.
6. Sheet GR-2 all sections please correct the location of the Property Line / ROW. This is shown correctly on Sheet GR-1. Within the ROW should be the sidewalk (at the ROW line) the curb and the roadway.
All of the cross sections were updated and corrected.
7. Sheet GR-2 sections A-A & C-C please show the emergency spillway (sidewalk culvert)
The emergency spillways were added to the cross-sections.
8. Sheet GR-2 sections G-G one of the buildings should be labeled as proposed. Please correct.
The building labeling was changed as requested.

5571 Midway Park Pl. NE
Albuquerque, NM 87109
(505) 858-3100 fax (505) 858-1118
tierrawestllc.com

9. Sheet GR-2 the drainage calculations should include the 100 year 6 hour and the 100 year 10 day calculations. The retention pond volumes need to be based on the 100 year 10 day calculations. It is unclear that this was done.

The retention pond volumes were changed to allow for the 100 year-10 day volume. Pond "A" will back up into the playground area should that volume be needed. Pond "B" is not big enough to contain the total 10 day volume though it can contain most of it and does contain the 100 year volume. Due to the location of the basin there isn't a large enough area to capture the full 10-day volume. As this is such a small area we believe the intent is met and the small deficient be allowed for this isolated area.

10. Sheet GR-2 please add the broad crest weir equation (equation 6.60 in the DPM) for the 2 ft. curb cuts and the sidewalk culverts. A coefficient of 2.7 is typically used for the equation $Q=CLH^{2/3}$.

The weir calculations were added to the plans.

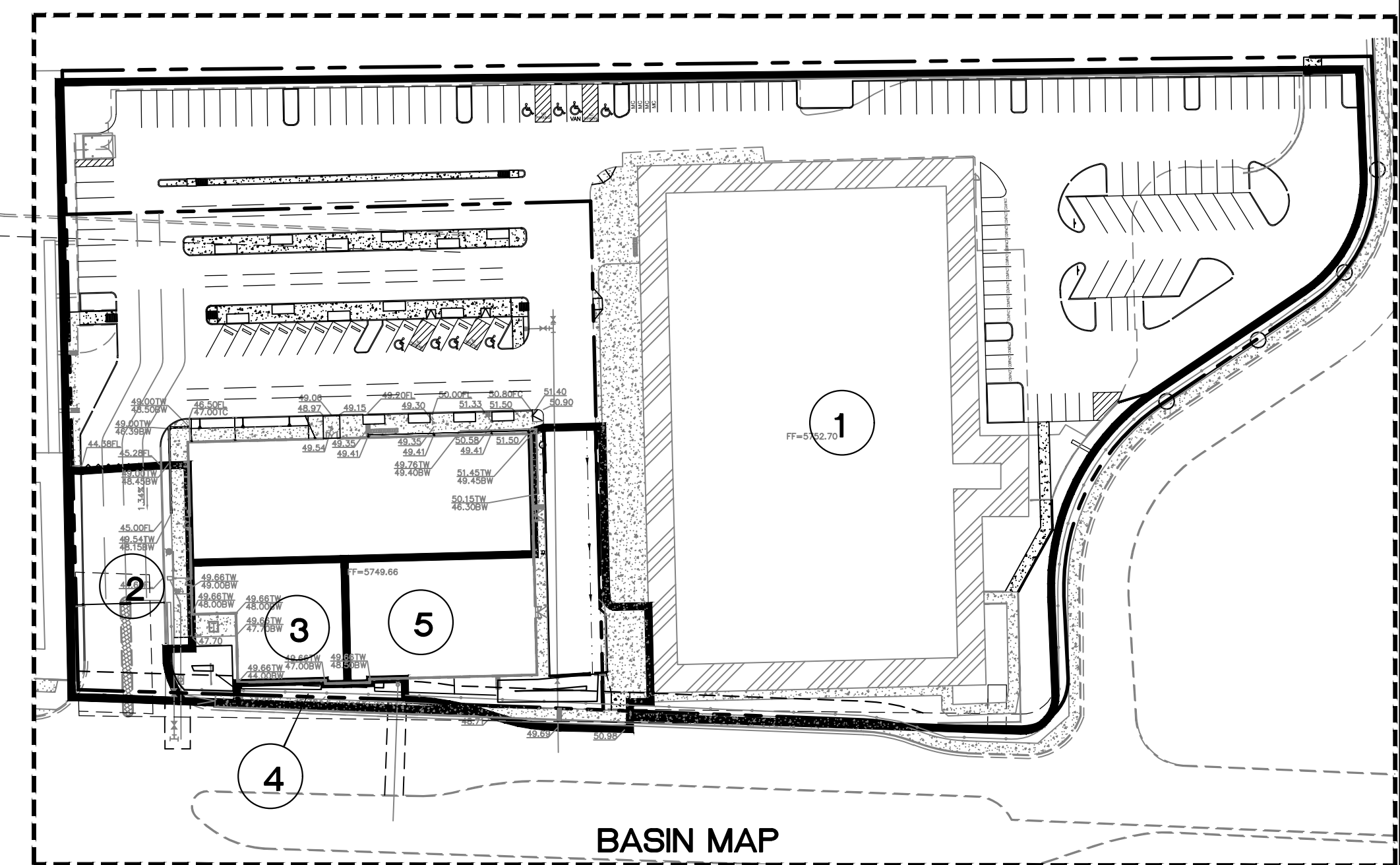
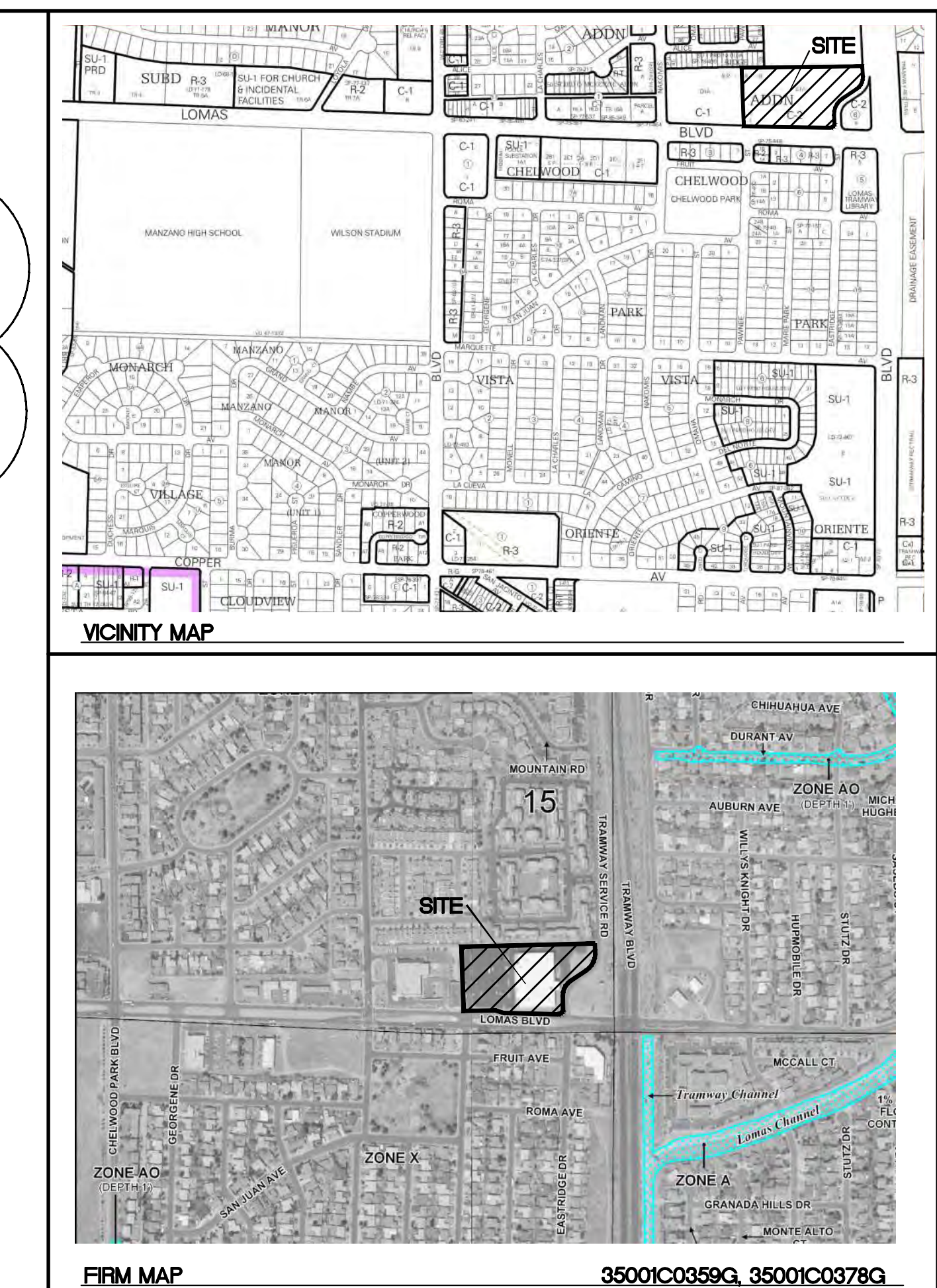
If you have any questions or need additional information regarding this matter, please do not hesitate to contact me.

Sincerely,



Ronald R. Bohannon, P.E

JN: 2019068
RRB/jn/ye



- | | |
|--------------|---------------------------|
| | CURB & GUTTER |
| | BOUNDARY LINE |
| | EASEMENT |
| | BUILDING |
| | SIDEWALK |
| | RETAINING WALL |
| x 5048.25 | SPOT ELEVATION (FLOWLINE) |
| <u>XX.XX</u> | SPOT ELEVATION (+5700) |
| | FLOW ARROW |
| | EXISTING CURB & GUTTER |
| | EXISTING BOUNDARY LINE |
| | EXISTING CONTOUR MAJOR |
| | EXISTING CONTOUR MINOR |

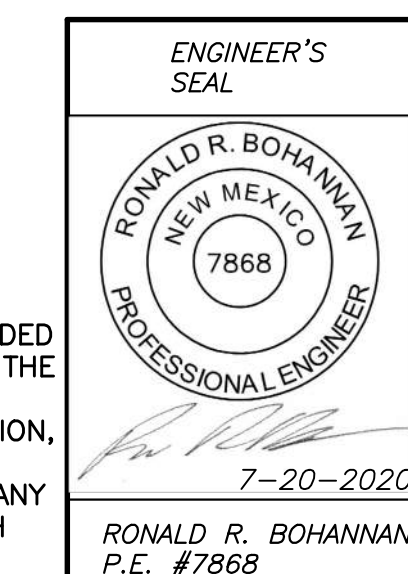
- (1) 2' CURB CUT
- (2) 2' SIDEWALK CULVERT PER COA DWG 2236
- (3) COBBLE SWALE INTO POND
- (4) 2' SWALE
- (5) CAPTURE ROOF DRAINS IN 6" PIPE AND DAYLIGHT INTO POND
- (6) 2' OPENING IN WALL FOR DRAINAGE
- (7) 6' SIDEWALK
- (8) EXISTING RUNDOWN
- (9) EXISTING RETAINING WALL TO BE REMOVED
- (10) EXISTING CURB TO BE REMOVED
- (11) EXISTING RETAINING WALL TO REMAIN
- (12) NEW SHEET PILE RETAINING WALL
- (13) MATCH NEW SHEET PILE WALL TO EXISTING RET WALL
- (14) CONCRETE TRANSITION FROM SLOPE PAVING TO SHEET PILE WALL
- (15) CONNECT NEW RETAINING WALL TO EXISTING RETAINING WALL
- (16) 3' CURB CUT
- (17) PEDESTRIAN GUARDRAIL

1. ADD 5100 TO ALL ELEVATIONS
2. ALL ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.
8. PRIOR TO WORK WITHIN THE PASEO DEL NORTE RIGHT-OF-WAY, A NMDOT PERMIT WILL BE REQUIRED

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.

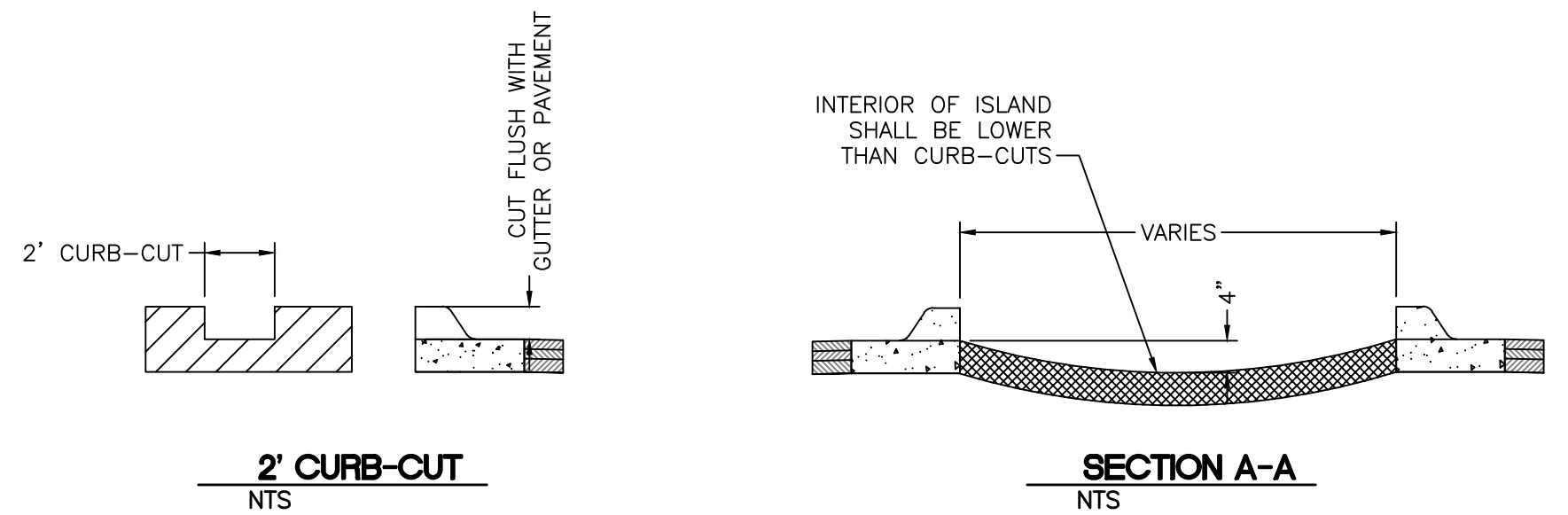
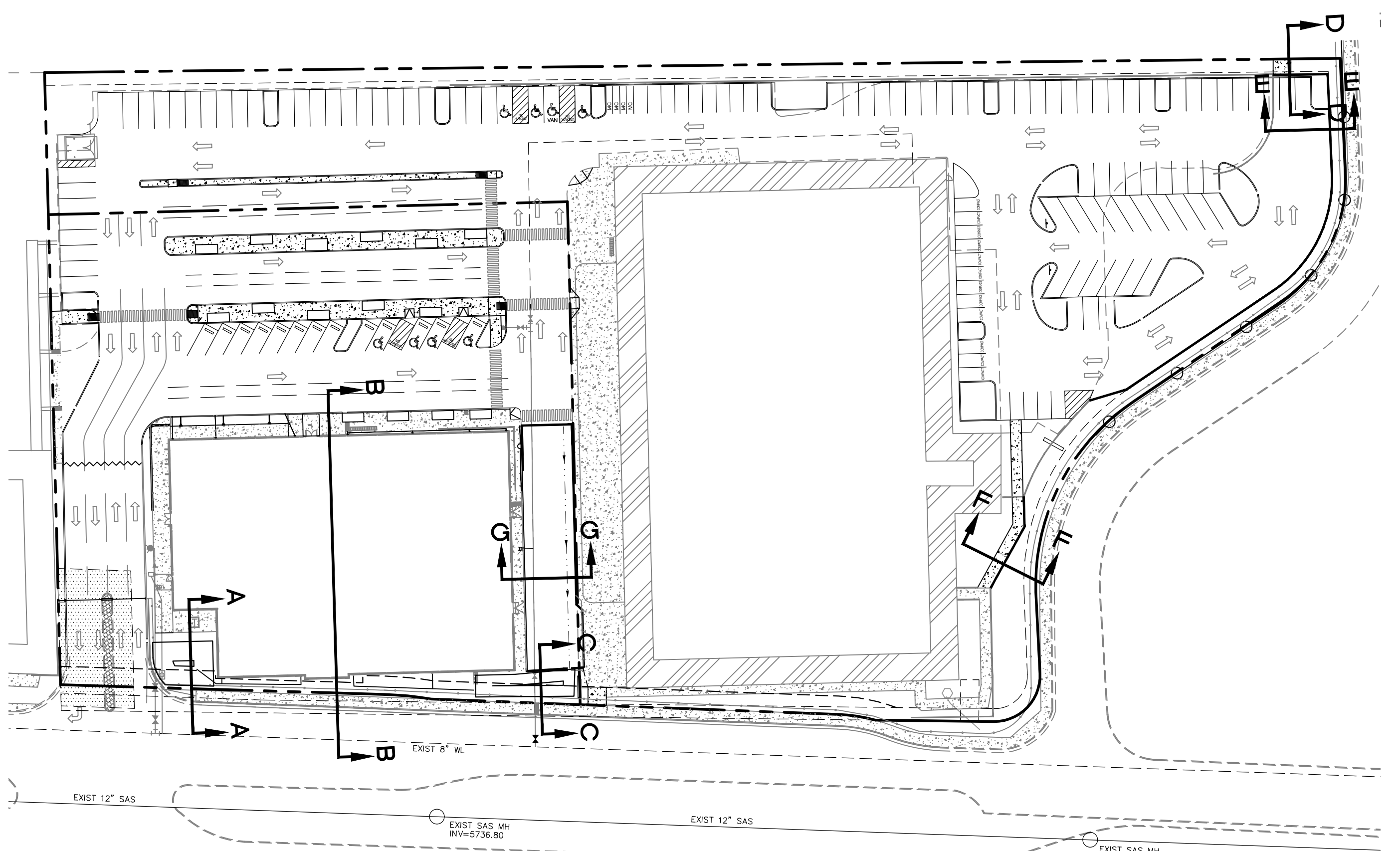
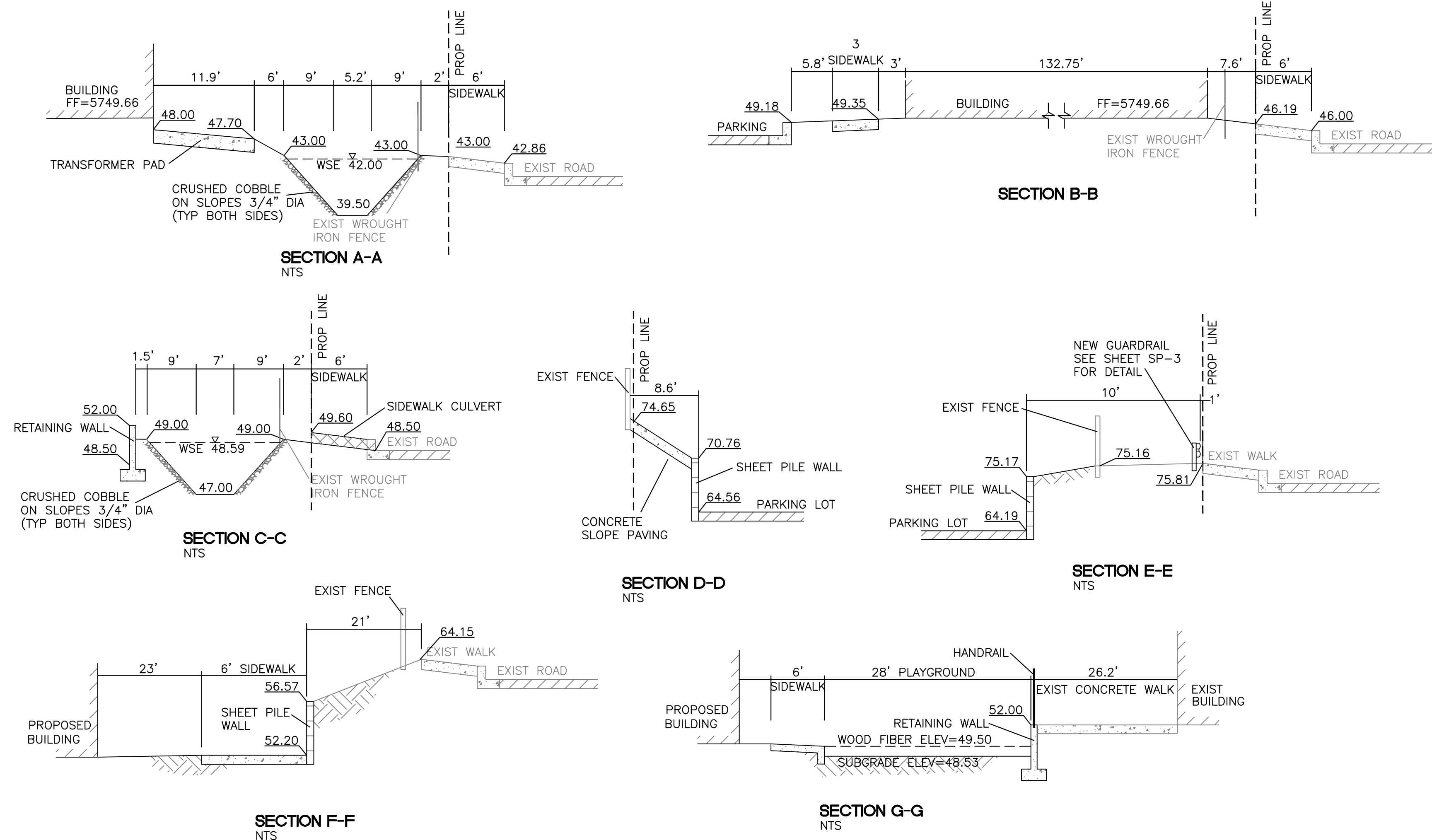
ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.



ABQ SCHOOL OF EXCELLENCE
OVERALL GRADING AND DRAINAGE PLAN

TIERRA WEST, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100
www.tierrawestllc.com

DRAWN BY pm
DATE 7-20-2020
DRAWING 2019068-GR
SHEET # GR-1
JOB # 2019068



- PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR
(SPECIAL ORDER 19-30-19)**
1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
 2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" [OR (505) 260-1990] FOR THE LOCATION OF EXISTING UTILITIES.
 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
 6. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
 7. WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.
 8. CONTRACTOR MUST CONTACT AUGIE ARMIJO AT (505) 857-8607 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION.

Pond Rundown Capacity

Weir Equation:

Q = Flow
C = 2.70
L = Length of weir
H = Height of Weir

Basin 3 Sidewalk Culvert

$$Q = 2.70 \times 2 \times 6.72^2$$

Q = 2.96 cfs
2.96 cfs > 0.64 cfs
Rundown has capacity

Basin 5 Sidewalk Culvert

$$Q = 2.70 \times 2 \times 6.72^2$$

Q = 2.96 cfs
2.96 cfs > 1.52 cfs
Culvert has capacity

CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

Weighted E Method

Developed On-Site Basins

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	100-Year, 6-Hr			10-Year, 6-Hr			100-Year, 10-Day		
							Weighted E	Volume (ac-ft)	Flow cfs	Weighted E	Volume (ac-ft)	Flow cfs	Weighted E	Volume (ac-ft)	Flow cfs
1	188,240	4.32	0%	20%	0.86	0%	2.862	1.031	18.88	1.802	0.649	11.62	2.862	1.454	18.88
2	7,375	0.17	0%	15%	0.03	0%	2.982	0.042	0.76	1.889	0.027	0.47	2.982	0.060	0.76
3	5,895	0.14	0%	22%	0.03	0%	2.814	0.032	0.59	1.767	0.020	0.36	2.814	0.045	0.59
4	750	0.02	0%	0%	0.00	100%	1.200	0.002	0.06	0.590	0.001	0.03	1.200	0.002	0.06
5	15,536	0.36	0%	42%	0.15	0%	2.336	0.069	1.40	1.419	0.042	0.82	2.336	0.095	1.40

Equations for Weighted E Method:

$$\text{Weighted E} = E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d / (\text{Total Area})$$

$$\text{Volume} = \text{Weighted E} \cdot \text{Total Area}$$

$$\text{Flow} = Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$$

$$\text{Volume (10-day)} = V_{360} + A_d \cdot (P_{10\text{days}} - P_{360}) / 12 \text{ in/ft}$$

Excess Precipitation, E (inches)				
Zone 4	100-Year	10 - Year	2 - Year	
E _a	0.76	0.25	0.00	
E _b	0.95	0.41	0.28	
E _c	1.2	0.59	0.87	
E _d	3.34	2.15	1.39	

Peak Discharge (cfs/acre)				
Zone 4	100-Year	10 - Year	2 - Year	
Q _a	2.09	0.7	0	
Q _b	2.73	1.28	0.28	
Q _c	3.41	1.89	0.87	
Q _d	4.78	3.04	1.88	

FIRST FLUSH CALCULATIONS

$$\text{POND "A": } 9148 \text{ Ft}^2 \cdot 0.26'' / 12'' = 198 \text{ Ft}^3$$

$$\text{POND "B": } 4792 \text{ Ft}^2 \cdot 0.26'' / 12'' = 103 \text{ Ft}^3$$

EXISTING DRAINAGE CONTIDION:
THE SITE IS AN EXISTING DEVELOPED LOT CONSISTING OF A SINGLE BUILDING AND PARKING LOT AND A NEWLY CONSTRUCTED BUILDING. THE SITE WAS ORIGINALLY APPROVED AS A GROCERY STORE IN 1995 AND THEN CONVERTED TO THE EXISTING SCHOOL IN 2016. THE SITE DRAINS FROM EAST TO WEST AND THE SURFACE RUNOFF IS CONTAINED IN A DRAINAGE CHANNEL JUST OFF-SITE ALONG THE WESTERN PROPERTY LINE. THE DRAINAGE CHANNEL DIRECTS THE FLOWS TO AN EXISTING RETENTION POND THAT HAS AN EMERGENCY OVERFLOW ONTO LOMAS BLVD. THERE IS AN EXISTING DRAINAGE EASEMENT IN PLACE FOR THE DRAINAGE CHANNEL AND RETENTION POND. THE SITE IS LOCATED IN ZONE X.

PROPOSED DRAINAGE CONDITION:
THE SITE WILL FOLLOW THE EXISTING DRAINAGE PATTERN. A PARKING LOT IS BEING PROPOSED ON THE EAST SIDE OF THE LARGE BUILDING WHICH PREVIOUSLY CONTAINED A SLOPED AREA. THIS INCREASE IN IMPERVIOUS AREA SLIGHTLY INCREASES THE 100 YEAR FLOW BY 0.02 AC-FT. THE EXISTING RETENTION POND WAS RECENTLY CLEANED OF GROWING VEGETATION AND WILL CONTAIN THE FIRST FLUSH FOR THE SITE AS IT IS SIZED TO CONTAIN THE 100YR FLOW. THE POND HAS THE CAPACITY FOR THE SMALL INCREASE OF 0.28 AC-FT. THE REST OF THE SITE WILL CONTINUE TO DRAIN AS PREVIOUSLY APPROVED WITH TWO SMALL AREAS THAT WILL DRAIN TO THE EXISTING RETENTION PONDS. FOR EACH OF THOSE BASINS PONDS WERE CREATED TO CONTAIN THE 100 YR FLOW AND WILL THEREFORE CONTAIN THE FIRST FLUSH. BOTH PONDS WILL OVERFLOW ONTO LOMAS BLVD. IN THE EVENT A RAINFALL EXCEEDS THE 100 YR STORM.

	ABQ SCHOOL OF EXCELLENCE	DRAWN BY pm
	GRADING AND DRAINAGE PLAN	DATE 7-20-2020
		DRAWING 2019068-GR
		SHEET # GR-3
		JOB # 2019068