

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Interim Director



Mayor Timothy M. Keller

September 7, 2021

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

**RE: AutoZone - Ventana Square  
Grading and Drainage Plan  
Engineer's Stamp Date: 04/01/21  
Hydrology File: B10D003C3A**

Dear Mr. Bohannon:

PO Box 1293  
Albuquerque  
NM 87103  
www.cabq.gov

Based upon the information provided in your submittal received 05/05/2021, the Grading & Drainage Plan is approved for Building Permit, Grading Permit, and for action by the DRB on Site Plan for Building 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](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto: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:** Autozone **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** TR H-11 Plat of Tracts H-1 Thru H-11 Ventana Square At Ventana Ranch a Replat of Tract H-A Ventana Ranch

**City Address:** \_\_\_\_\_

**Applicant:** Tierra West, LLC **Contact:** \_\_\_\_\_

**Address:** 5571 Midway Park Place NE Albuquerque NM 87109

**Phone#:** 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** \_\_\_\_\_

**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:** 5/5/2021 **By:** Jonthan Niski

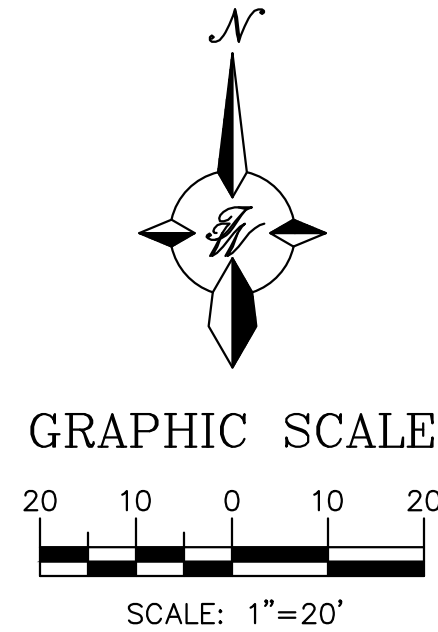
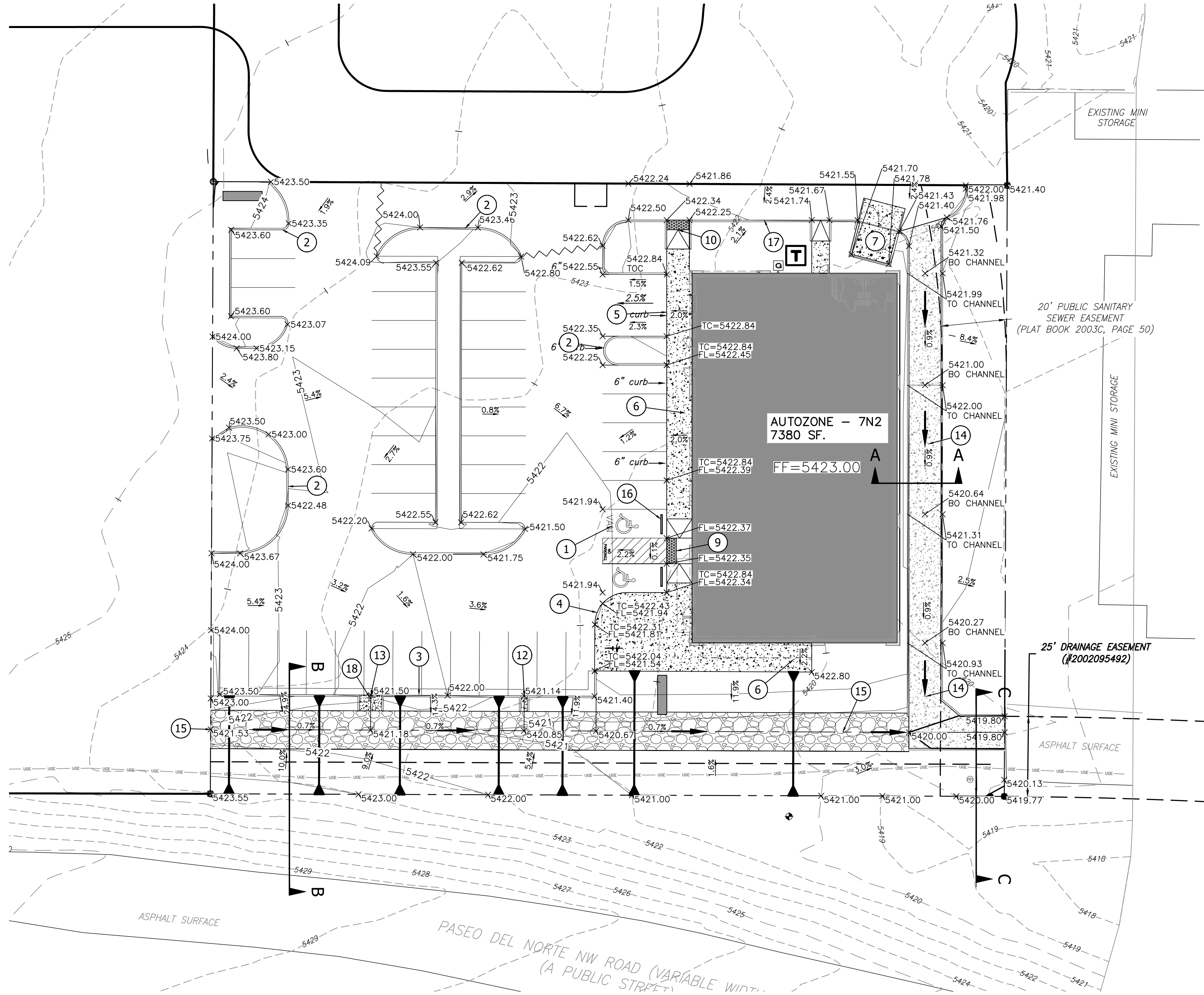
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

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



Z:\2020\2020074 AutoZone - Universe & Paseo\dwg\EPC\2020074\_CRE.dwg Aug 18, 2021 - 9:45am



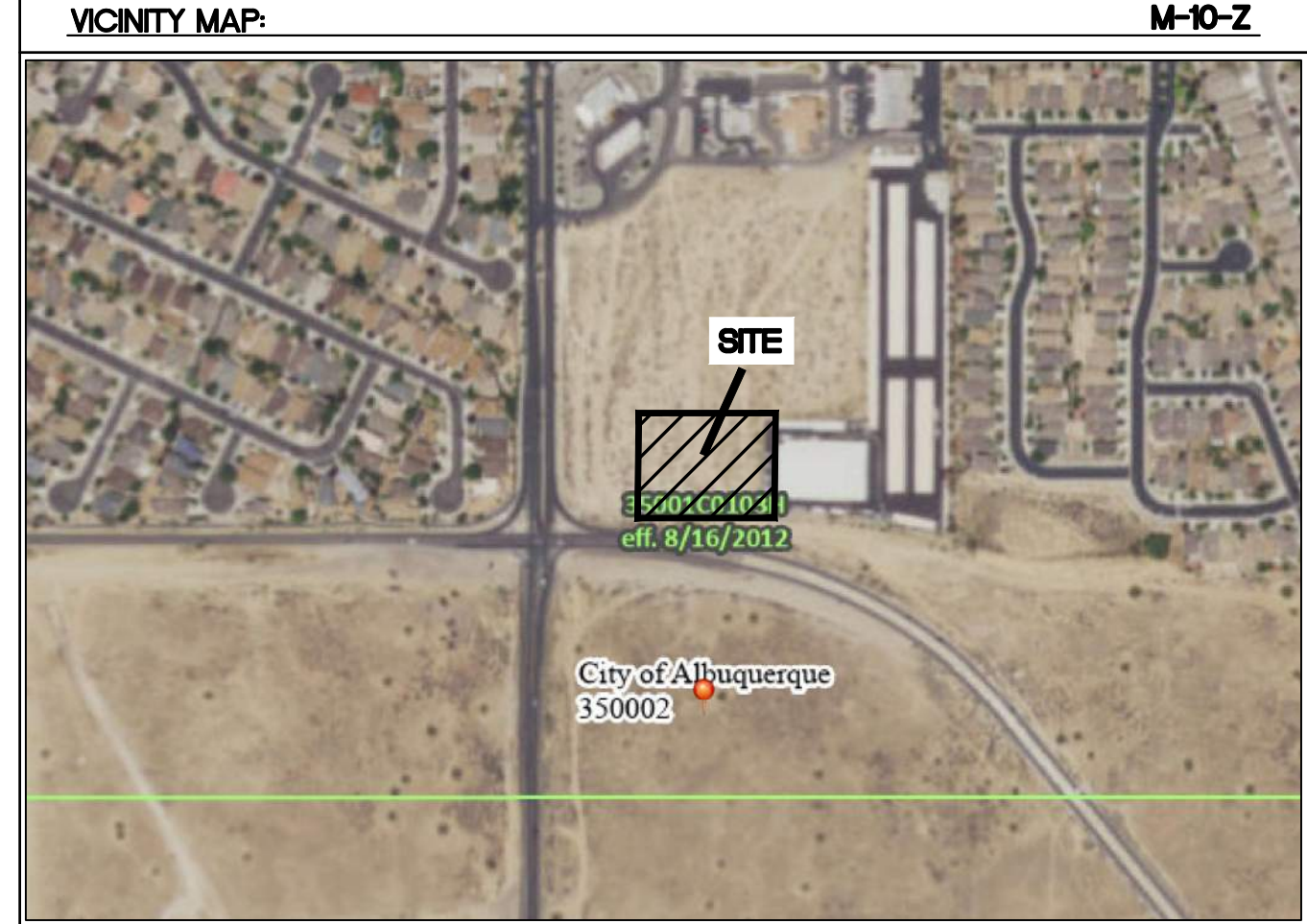
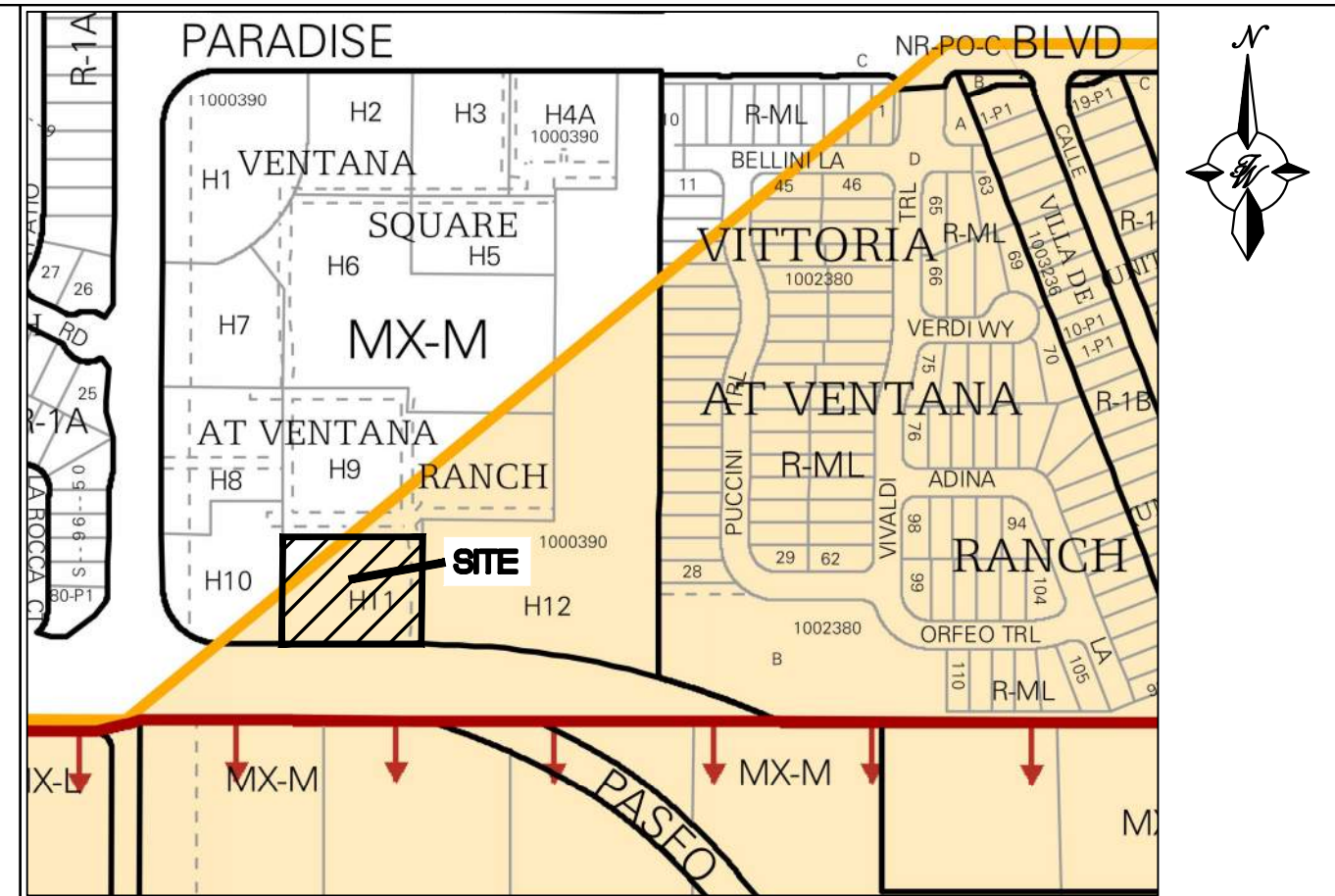
City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
DATE: 09/07/21  
BY: *Ronald R. Bohannan*  
HydroTrans # B10D003C3A

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE  
CONSIDERED TO BE A GUARANTEE OF THE CITY OF  
ALBUQUERQUE. THE CITY OF ALBUQUERQUE SHALL NOT BE  
RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSONS OR  
PROPERTY, OR FOR ANY LOSS OF PROFITS, ARISING OUT OF  
THE USE OF THESE PLANS/REPORT. THE CITY OF ALBUQUERQUE  
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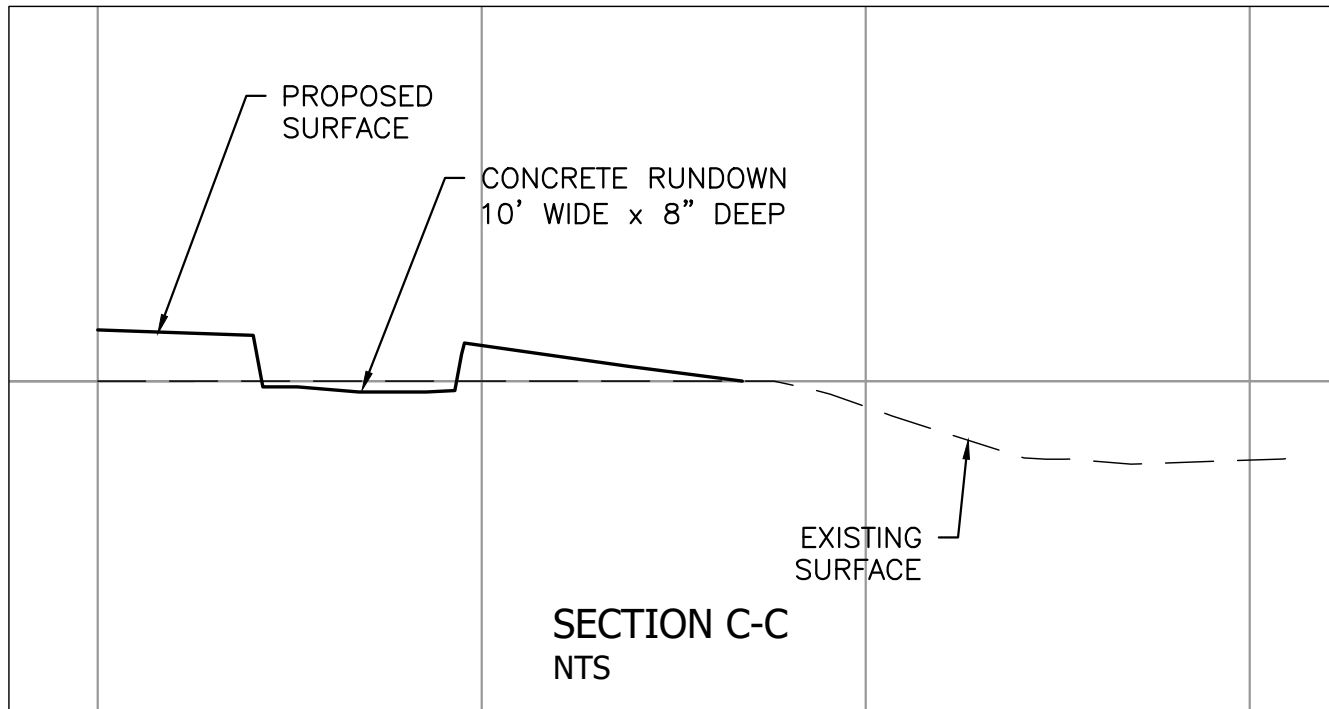
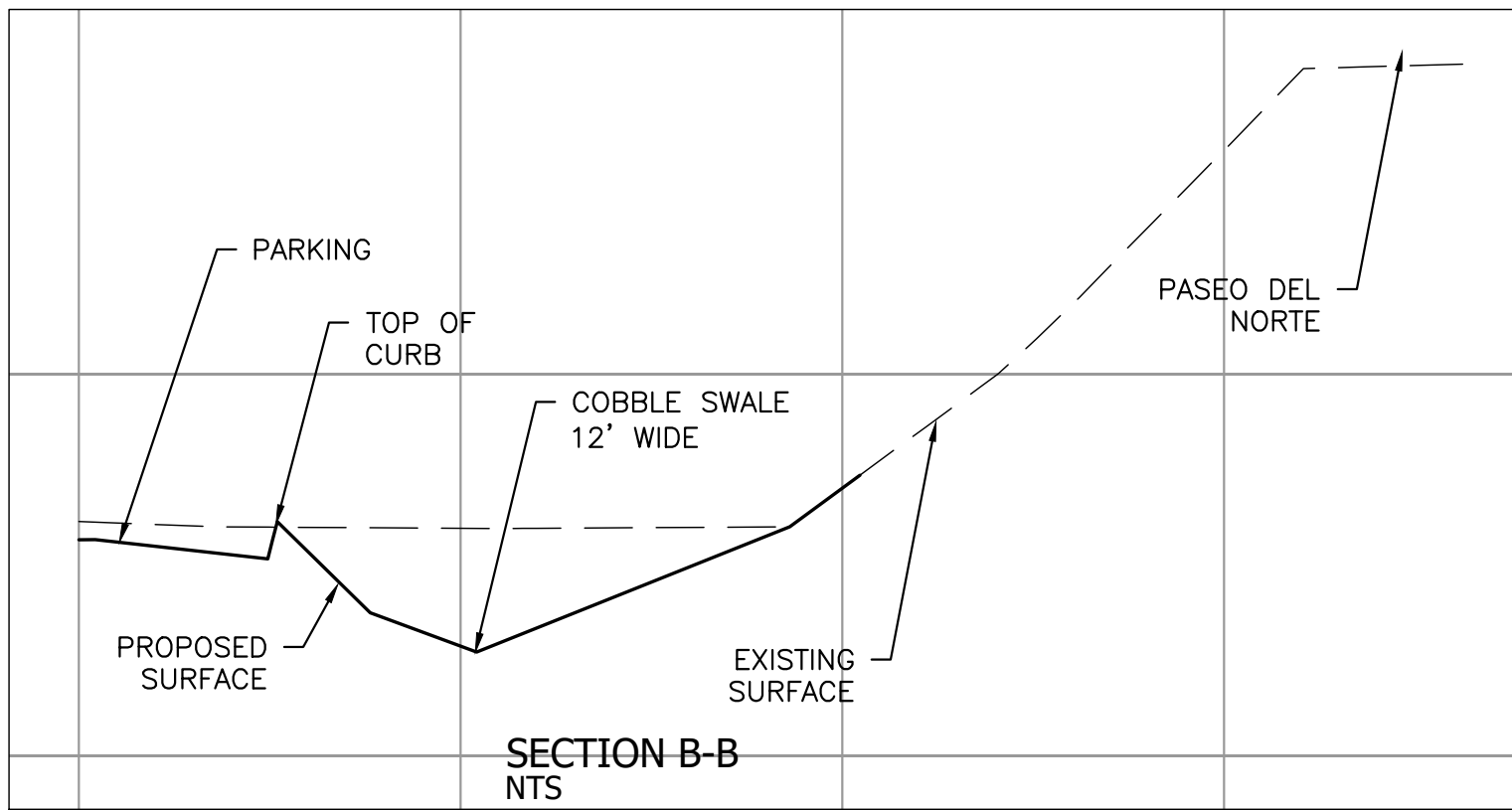
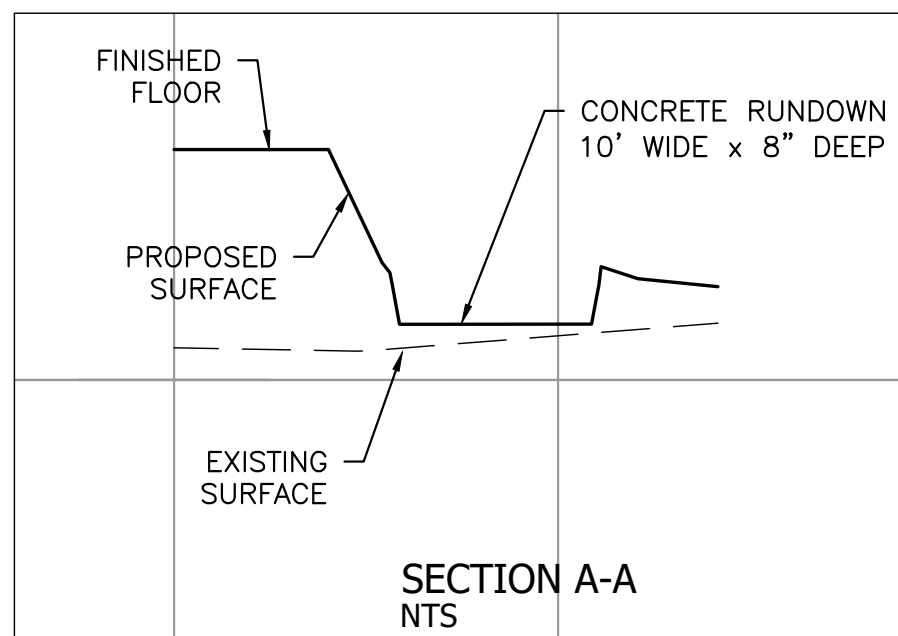
- KEYED NOTES**
- 1 ACCESSIBLE PARKING PER ADA STANDARDS WITH SIGN (SEE DETAIL SHT. C7)
  - 2 6" HEADER CURB (SEE DETAIL SHT. C6)
  - 3 8" CURB & GUTTER (SEE DETAIL SHT. C6)
  - 4 6" TURNDOWN CURB (SEE DETAIL SHT. C6)
  - 5 ZERO CURB (SEE DETAIL SHT. C6)
  - 6 CONCRETE SIDEWALK AT BUILDING (SEE DETAIL SHT. C6)
  - 7 DUMPSTER (SEE DETAIL SHT. C7)
  - 8 BICYCLE RACKS (SEE DETAIL SHT. C7)
  - 9 CURB HC RAMP (SEE DETAIL SHT C6)
  - 10 UNIDIRECTIONAL HC RAMP (SEE DETAIL SHT C7)
  - 11 TRANSFORMER
  - 12 CONCRETE RUNDOWN 2' WIDE X 8" DEEP (SEE DETAIL SHT C7)
  - 13 CONCRETE RUNDOWN 7' WIDE X 8" DEEP (SEE DETAIL SHT C7)
  - 14 CONCRETE CHANNEL 10' WIDE X 8" DEEP (SEE DETAIL SHT C7)
  - 15 COBBLE SWALE 12' WIDE X (PER PLAN) DEEP
  - 16 WHEEL STOP (SEE DETAIL SHT C7)
  - 17 8" HEADER CURB (SEE DETAIL SHT. C6)
  - 18 REMOVABLE BOLLARD (SEE DETAIL SHT. C7)



- NOTICE TO CONTRACTORS**
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, 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 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.
  7. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
  8. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS. CONTRACTOR MUST CONTACT JASON RODRIGUEZ AT 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION.

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.

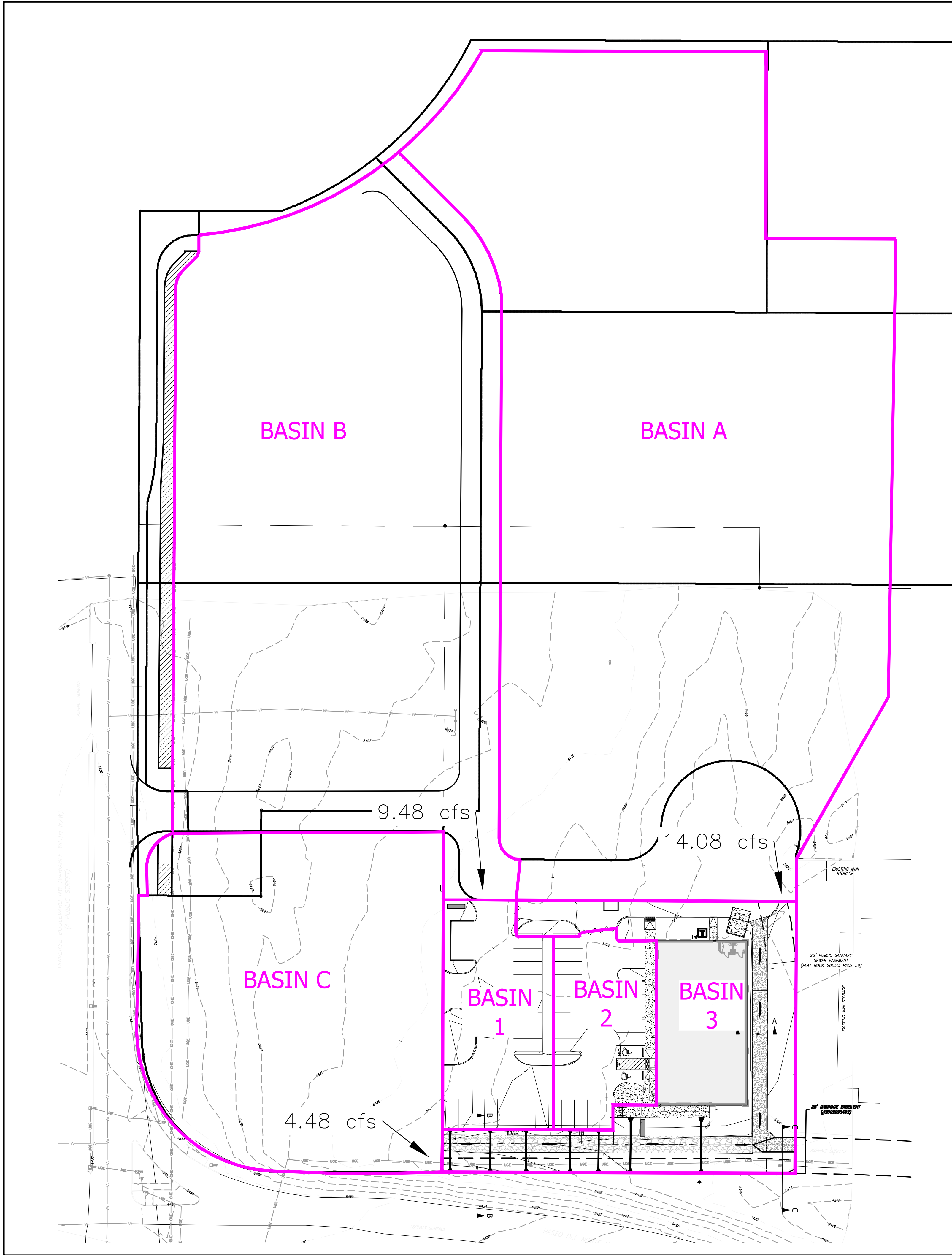


<b>VICINITY MAP:</b>	<b>M-10-Z</b>
<b>FIRM MAP:</b>	<b>35001C0103H</b>
<b>LEGEND</b>	
	CURB & GUTTER
	BOUNDARY LINE
	EASEMENT
	CENTERLINE
	RIGHT-OF-WAY
	BUILDING
	SIDEWALK
	SCREEN WALL
	RETAINING WALL
	CONTOUR MAJOR
	CONTOUR MINOR
	SPOT ELEVATION
	FLOW ARROW
	EXISTING CURB & GUTTER
	EXISTING BOUNDARY LINE
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING SPOT ELEVATION



ENGINEER'S SEAL	AUTOZONE	DRAWN BY BF
 4/1/2021	PASEO DEL NORTE & UNIVERSE BLVD	DATE 04/01/21
	GRADING PLAN	2020074_GRE
	 TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # <b>C4</b>
RONALD R. BOHANNAN P.E. #7868		JOB # 2020074





Weighted E Method

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year		10-Year	
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (in)	Volume (ac-ft)	Weighted E (in)	Volume (ac-ft)
A	150,847	3.46	Values for the off-site Basins taken from Approved Grading and Drainage Plan for Ventana Square completed by Thompson Engineering dated 07/30/21. (Hydrology # B10D003C3)											
B	112,080	2.57												
C	51,665	1.19												
1	11,823	0.27	0%	0	15%	0.04	0%	0.00	85%	0.23	2.014	0.046	1.04	1.255
2	9,262	0.21	0%	0	5%	0.01	0%	0.00	95%	0.20	2.165	0.038	0.86	1.372
3	26,174	0.60	0%	0	13%	0.08	25%	0.15	62%	0.37	1.721	0.086	2.13	1.028
											32.07		0.051	1.24

Equations:

Weighted E = Ea\*Aa + Eb\*Ab + Ec\*Ac + Ed\*Ad / (Total Area)

Volume = Weighted D \* Total Area

Flow = Qa \* Aa + Qb \* Ab + Qc \* Ac + Qd \* Ad

Excess Precipitation, E (inches)

Zone 1	100-Year	10 - Year
E <sub>a</sub>	0.55	0.11
E <sub>b</sub>	0.73	0.26
E <sub>c</sub>	0.95	0.43
E <sub>d</sub>	2.24	1.43

Peak Discharge (cfs/acre)

Zone 1	100-Year	10 - Year
Q <sub>a</sub>	1.54	0.3
Q <sub>b</sub>	2.16	0.81
Q <sub>c</sub>	2.87	1.46
Q <sub>d</sub>	4.12	2.57

Cobble Swale Capacity

	Top Width (ft)	Bottom Width (ft)	Depth (ft)	Area (ft <sup>2</sup> )	WP (ft)	R	Slope (%)	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
Channel	12	0	1.5	9.00	12.37	0.7276	0.7	25.93	15.86	1.76

Manning's Equation:

$Q = 1.49/n * A * R^{2/3} * S^{1/2}$

A = Area

R = D/4

S = Slope

n = 0.035

Channel Capacity

Weir Equation:

Q= Flow

C = 2.95

L= Length of weir

H = Height of Weir

AutoZone Basin 1 Curb Opening

$Q = 2.95 * 7 * 0.67^{3/2}$

$Q = 11.32 \text{ cfs} < Q = 10.52 \text{ cfs}$

AutoZone Basin 2 Curb Opening

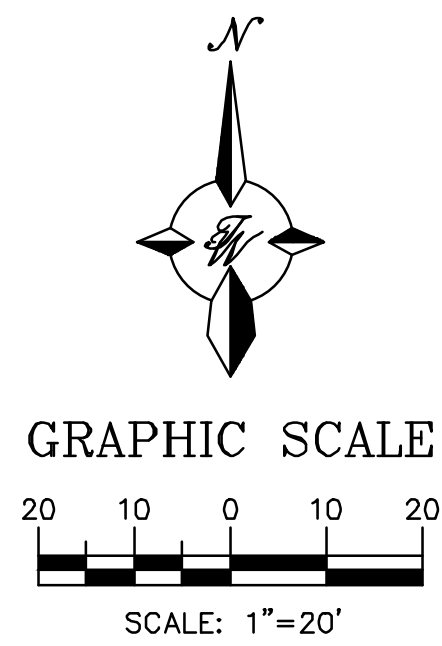
$Q = 2.95 * 2 * 0.67^{3/2}$

$Q = 3.24 \text{ cfs} < Q = 0.86 \text{ cfs}$

AutoZone Basin 3 Concrete Channel

$Q = 2.95 * 10 * 0.67^{3/2}$

$Q = 16.18 \text{ cfs} < Q = 15.15 \text{ cfs}$



EXISTING DRAINAGE:

THIS SITE IS CURRENTLY VACANT AND LOCATED NEAR THE NORTHEAST CORNER OF PASEO DEL NORTE AND UNIVERSE BOULEVARD. THE PARCEL IS TRACT 11 OF THE VENTANA SQUARE AT VENTANA RANCH SUBDIVISION. THE SITE IS BOUNDED BY VACANT LOTS ON THE NORTH AND WEST SIDE AND A SELF-STORAGE DEVELOPMENT ON THE EAST AND PASEO DEL NORTE ON THE SOUTH AND CONTAINS APPROXIMATELY 1.09 ACRES. THE SITE DRAINS FROM NORTH TO SOUTH ENTERING A SWALE ALONG PASEO DEL NORTE AND EVENTUALLY INTO AN EXISTING RETENTION POND.

THIS PARCEL IS INCLUDED IN THE OVERALL DRAINAGE REPORT FOR VENTANA SQUARE TRACTS H-5-A THRU H-11 PREPARED BY THOMPSON ENGINEERING CONSULTANTS, INC. (B10D003C3) APPROVED ON 01/21/21. THIS PARCEL IS INCLUDED WITHIN DRAINAGE BASIN 400 WHICH DISCHARGES 32.55 CFS THRU THE AUTOZONE PARCEL AND TO THE EXISTING RETENTION POND.

THE SITE IS NOT LOCATED WITHIN A FLOOD PLAIN AS SHOWN ON THE FIRM MAP. THERE ARE NO OFFSITE FLOWS THAT ENTER THE SITE.

PROPOSED DRAINAGE:



SINCE ALL OF THE DRAINAGE FROM BASIN 400 DRAINS THROUGH THE AUTOZONE PARCEL THAT LARGE BASIN WAS BROKEN UP INTO 6 BASINS TO SPLIT THE FLOWS AROUND THE AUTOZONE BUILDING. BASIN "A" WILL DISCHARGE 13.43 CFS TO A CONCRETE CHANNEL LOCATED BEHIND THE AUTOZONE BUILDING. BASIN "B" WILL DISCHARGE 9.98 CFS THROUGH THE PARKING LOT OF THE AUTOZONE AND BE COLLECTED IN A PROPOSED COBBLE SWALE ALONG THE SOUTH PROPERTY LINE. BASIN "C" WILL DRAIN DIRECTLY TO THE PROPOSED COBBLE SWALE.

THE AUTOZONE SITE IS DIVIDED INTO 3 BASINS. BASIN 1 WILL ACCEPT THE 9.98 CFS FROM OFF-SITE AND DRAIN THROUGH A CURB OPENING SIZED FOR THE FLOWS TO THE COBBLE SWALE. BASIN 2 WILL DRAIN THROUGH A CURB OPENING TO THE COBBLE SWALE. BASIN 3 CONSISTS OF THE CONCRETE CHANNEL AND COBBLE SWALE.

THE COBBLE SWALE AND CONCRETE CHANNEL WILL CONNECT TO THE CONCRETE CHANNEL THAT WAS PROPOSED IN THE THOMPSON DRAINAGE REPORT TO BE BUILT BY OTHERS. THE TOTAL DISCHARGE TO THAT CHANNEL IS 32.04 CFS WHICH IS SLIGHTLY LESS THAN WHAT THE THOMPSON REPORT HAD CALCULATED.

THE WATER QUALITY VOLUME WILL BE CONTAINED IN THE EXISTING RETENTION POND WHICH IS SIZED FOR THE 100-YR, 10-DAY STORM AS STATED IN THE THOMPSON REPORT.

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.

<div>ENGINEER'S SEAL</div> <div></div> <div>RONALD R. BOHANNAN P.E. #7868</div>	AUTOZONE	DRAWN BY BF
	PASEO DEL NORTE & UNIVERSE BLVD	DATE 04/01/21
	DEVELOPED DRAINAGE PLAN	2020074_GRE
	<div></div> <div>5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.terrawestllc.com</div>	SHEET #  C5
		JOB # 2020074