

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

December 23, 2022

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

**RE: U-Haul
2217 4TH St. NW
Permanent C.O. - Accepted
Engineer's Certification Date: 12/21/22
Engineer's Stamp Date: 04/20/20
Hydrology File: H14D110**

Dear Mr. Bohannon:

PO Box 1293

Based on the Certification received 12/22/2022 and site visit on 12/23/2022, this letter serves as a "green tag" from Hydrology Section for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

Albuquerque

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

NM 87103

Sincerely,

Renée C. Brissette

www.cabq.gov

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

Project Title: U-Haul 4th St & I-40 Building Permit # _____ Hydrology File # _____

DRB# _____ EPC# _____

Legal Description: TR C OF ALEXANDER CENTER City Address OR Parcel 2217 4th ST NW ALBUQUERQUE
(EXCL S'LY PORT OUT TO R/W)

Applicant/Agent: Tierra West LLC Contact: Jon Niski

Address: 5571 Midway Park Place NE Albuquerque, NM 87109 Phone: (505) 858-3100

Email: JNISKI@TIERRAWESTLLC.COM

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

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

RE-SUBMITTAL: _____ YES ☒ NO

DEPARTMENT: _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that apply:

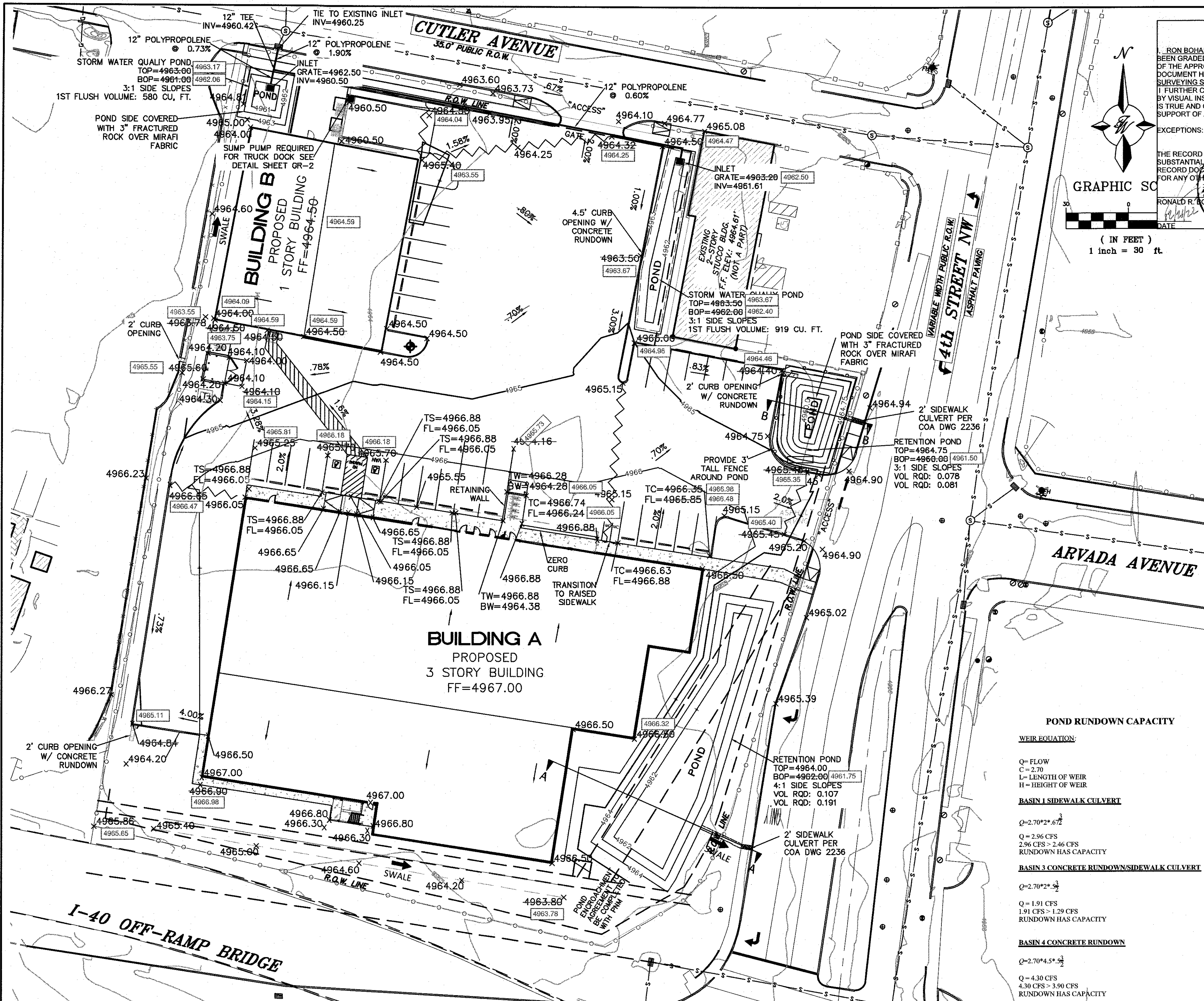
TYPE OF SUBMITTAL:

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

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY PERMANENT
- ☐ CONCEPTUAL TCL DRB APPROVAL
- ☐ 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
- ☐ FLOOD PLAN DEVELOPMENT PERMIT
- ☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 12.21.2022 / JON NISKI



DRAINAGE CERTIFICATION WITH SURVEY WORK DONE BY PROFESSIONAL SURVEYOR

RON BOHANNAN, NMPE # 7868, OF THE FIRM, TERRA WEST, LLC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADDED AND DRAINAGE ASPECTS OF THIS PROJECT, THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

EXCEPTIONS:

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

RONALD R. BOHANNAN, NMPE # 7868 (SEAL)

DATE: 04/20/2020

GRAPHIC SCALE: 1 inch = 30 ft.

SPOT ELEVATION (FLOWLINE)
FLOW ARROW
EXISTING CURB & GUTTER
EXISTING BOUNDARY LINE
EXISTING CONTOUR MAJOR
EXISTING CONTOUR MINOR
EXISTING SPOT ELEVATION
PHASE LINE

EXISTING DRAINAGE CONDITION:
THE SITE IS AN EXISTING UNDEVELOPED 2.5 ACRE LOT. THE SITE DRAINS FROM SOUTH TO NORTH AND THE SURFACE RUNOFF IS DISCHARGED INTO CUTLER AVE. WHERE IT IS CAPTURED BY AN EXISTING DRAIN INLET NEAR THE NORTHWEST CORNER OF THE SITE. THERE IS NO OFFSITE RUNOFF THAT ENTERS THE SITE. THE SITE MAY HAVE BEEN USED AS A GRAVEL PARKING LOT IN THE PAST. AS SUCH THE EXISTING LANDSCAPE WAS CONSIDERED COMPACT GRAVEL WITH TREATMENT "C" GENERATING A RUNOFF OF 7.93 CFS. A PORTION OF THE SITE IS LOCATED IN SHADED ZONE X WITH THE REST IN ZONE X.

PROPOSED DRAINAGE CONDITION:
THE SITE WAS DIVIDED UP INTO SEVEN BASINS AS SHOWN ON THE BASIN MAP ON THIS SHEET. BASIN ONE CONSISTS OF THE BACK HALF OF THE LARGE BUILDING AND THE REAR LANDSCAPED AREA. THIS BASIN WILL DRAIN FROM WEST TO EAST IN A SWALE TO A RETENTION POND LOCATED BETWEEN THE BUILDING AND 4TH STREET. THE POND IS SIZED FOR THE 100YR, 10 DAY STORM AND IS ONLY 2 FEET DEEP. THAT POND IS LOCATED IN AN EXISTING OVERHEAD POWERLINE EASEMENT FOR WHICH AN ENCROACHMENT AGREEMENT WILL BE EXECUTED WITH PNM.

BASIN 2 CONTAINS THE WESTERN PORTION OF THE SITE AND THE BACK HALF OF THE SMALL BUILDING. THE RUNOFF WILL FLOW IN A SWALE BEHIND THE SMALL BUILDING TO A STORM WATER QUALITY POND LOCATED AT THE NORTHWEST CORNER OF THE SITE. THE POND IS SIZED TO HOLD THE FIRST FLUSH VOLUME BEFORE DISCHARGING 1.86 CFS INTO A DRAIN INLET.

BASIN 3 CONTAINS THE EASTERN PARKING LOT AND A SMALL PORTION OF THE LARGE BUILDING. THE RUNOFF WILL SURFACE FLOW TO A RETENTION POND SIZED FOR THE 100YR, 10 DAY STORM AND IS 4 FEET DEEP. THIS POND WILL BE SURROUNDED BY A FENCE TO KEEP PEDESTRIANS OUT.

BASIN 4 CONTAINS MOST OF THE PARKING LOT AND THE FRONT PORTION OF BOTH BUILDINGS. THE RUNOFF WILL SURFACE FLOW TO A STORM WATER QUALITY POND LOCATED IN THE NORTHEAST CORNER OF THE SITE. THE POND IS SIZED TO HOLD THE FIRST FLUSH VOLUME PRIOR TO DISCHARGING 3.90 CFS INTO A DRAIN INLET. THE STORM WATER FROM BASINS 2, 3 AND 4 WILL DISCHARGE 5.76 CFS VIA STORM SEWER TO THE EXISTING DRAIN INLET IN CUTLER AVE.

BASIN 5 CONSISTS OF A LOADING DOCK THAT WILL DRAIN TO A SUMP PUMP. THE SUMP PUMP WILL DISCHARGE THE STORM WATER INTO THE STORM WATER QUALITY POND BEHIND THE LOADING DOCK.

BASINS 6 AND 7 CONSIST OF THE ENTRANCE WATER BLOCKS AND WILL DISCHARGE A TOTAL OF .25 CFS TO CUTLER AVE AND 4TH STREET. THE TOTAL STORM WATER DISCHARGED FROM THE PROPOSED PROJECT IS 7.42 CFS WHICH IS BELOW THE EXISTING DISCHARGE OF 7.93.

POND RUNDOWN CAPACITY

WEIR EQUATION:
Q = FLOW
C = 2.70
L = LENGTH OF WEIR
H = HEIGHT OF WEIR

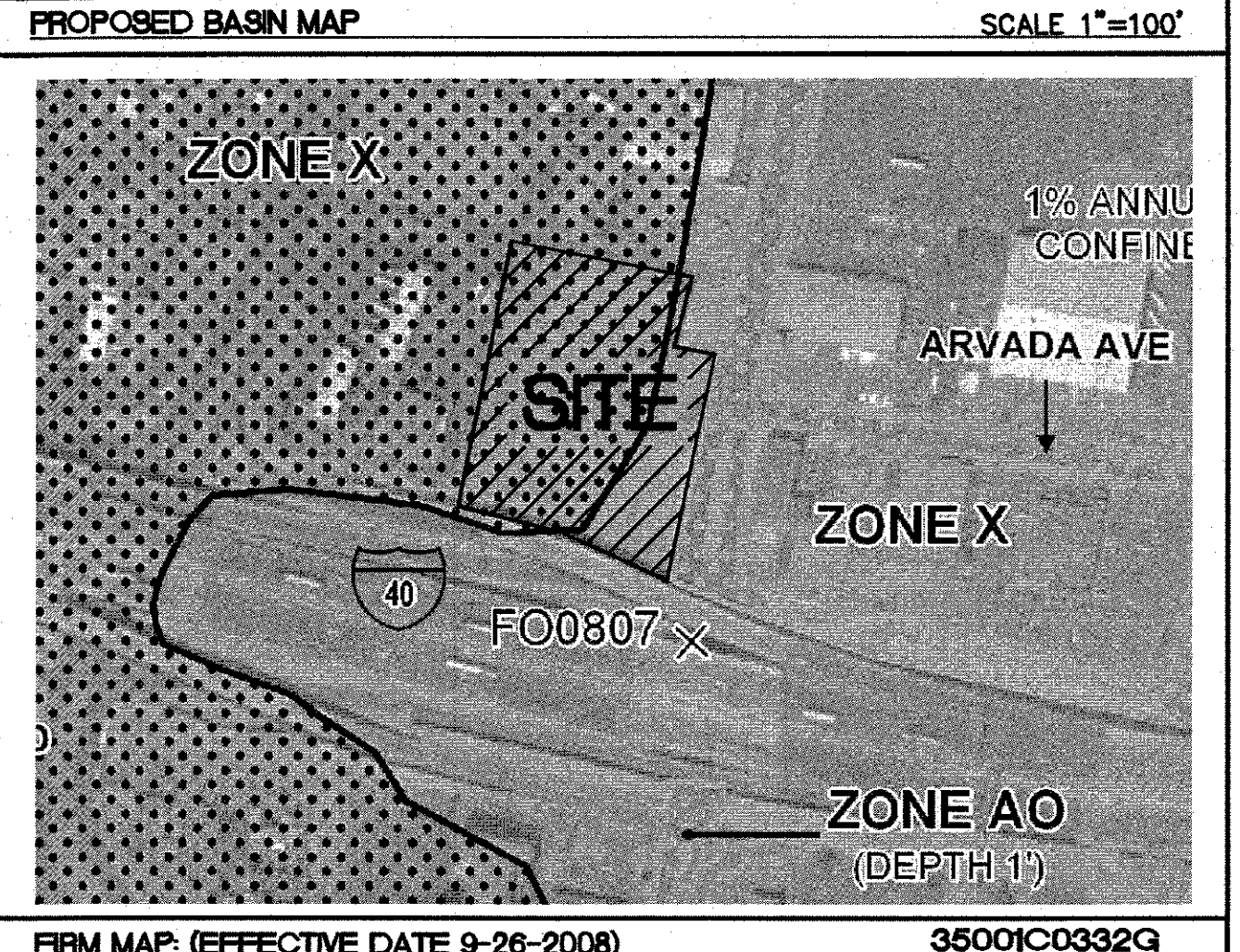
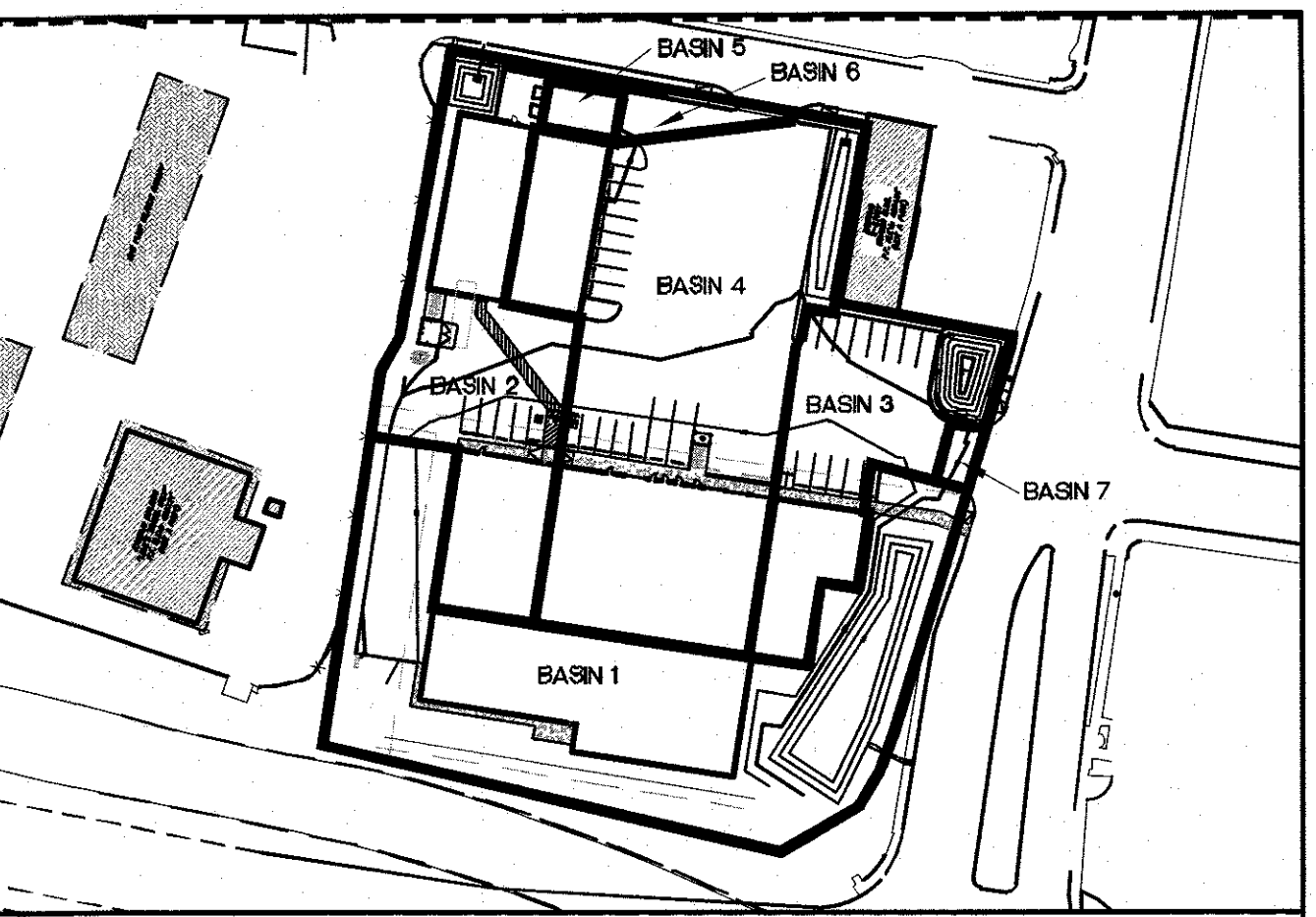
BASIN 1 SIDEWALK CULVERT
Q = 2.70 * 2 * 6.72
Q = 3.63 CFS
2.96 CFS > 2.46 CFS
RUNDOWN HAS CAPACITY

BASIN 3 CONCRETE RUNDOWN/SIDEWALK CULVERT
Q = 2.70 * 2 * 5.2
Q = 2.81 CFS
1.91 CFS > 1.29 CFS
RUNDOWN HAS CAPACITY

BASIN 4 CONCRETE RUNDOWN
Q = 2.70 * 4 * 5.2
Q = 5.62 CFS
4.30 CFS > 3.90 CFS
RUNDOWN HAS CAPACITY

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 HEREON, 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, 785-1234, 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 INTERSTATE 40 RIGHT-OF-WAY, A NMDOT PERMIT WILL BE REQUIRED.



Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-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.

STORMWATER QUALITY

WATER QUALITY MEASURES WILL CONSIST OF RETENTION PONDS SIZED TO RETAIN THE STORMWATER QUALITY VOLUME FROM THE DEVELOPED AREAS. FLOWS WILL BE CONVEYED TO THE PONDS PRIMARILY BY SURFACE DRAINAGE AS WELL AS A PRIVATE STORM DRAIN SYSTEM BETWEEN BUILDINGS "A" AND "B". DRAINAGE VOLUMES IN EXCESS OF THE STORMWATER QUALITY WILL BE DISCHARGED THROUGH A PROPOSED STORM DRAIN SYSTEM AND INTO THE EXISTING PUBLIC STORM DRAIN WITHIN 4TH STREET.

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.

STORMWATER QUALITY CALCULATIONS:
BASIN 1: 9847 x .32"/12" = 213 CU.FT.
BASIN 2: 15246 x .32"/12" = 329 CU.FT.
BASIN 3: 10890 x .32"/12" = 237 CU.FT.
BASIN 4: 34848 x .32"/12" = 751 CU.FT.
BASIN 5: 1307 x .32"/12" = 94 CU.FT.
BASIN 6: 1742 x .32"/12" = 38 CU.FT.
BASIN 7: 436 x .32"/12" = 15 CU.FT.
TOTAL STORMWATER QUALITY VOLUME = 1677 CU.FT.

Weighted E Method

Developed On-Site Basins										100-Year, 6-Hr			10-Year, 6-Hr			100-Year, 10-Day			
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E	Volume (ac-ft)	Flow cfs	Weighted E	Volume (ac-ft)	Flow cfs	Weighted E	Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)									
1	36,471	0.84	0%	0	73%	0.61	0%	0	27%	0.23	1.142	0.080	2.46	0.568	0.040	1.29	1.142	0.107	2.46
2	19,484	0.45	0%	0	22%	0.10	0%	0	78%	0.35	1.825	0.068	1.86	1.107	0.041	1.19	1.825	0.111	1.86
3	13,027	0.30	0%	0	16%	0.05	0%	0	84%	0.25	1.906	0.047	1.29	1.170	0.029	0.83	1.906	0.078	1.29
4	37,672	0.86	0%	0	8%	0.07	0%	0	92%	0.80	2.013	0.145	3.90	1.255	0.090	2.56	2.013	0.243	3.90
5	1,106	0.03	0%	0	0%	0.00	0%	0	100%	0.03	2.120	0.004	0.12	1.340	0.003	0.08	2.120	0.008	0.12
6	1,739	0.04	0%	0	0%	0.00	0%	0.00	100%	0.04	2.120	0.007	0.19	1.340	0.004	0.13	2.120	0.012	0.19
7	600	0.01	0%	0	0%	0.00	0%	0.00	100%	0.01	2.120	0.002	0.06	1.340	0.002	0.04	2.120	0.004	0.06
Total Discharge										6.13									

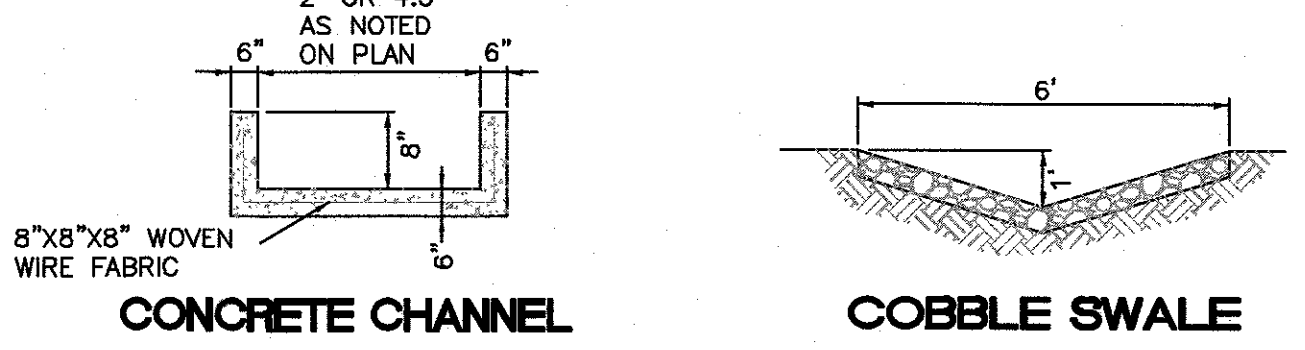
Undeveloped On-Site Basins										100-Year, 6-Hr			
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E	Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
1	110,000	2.53	0%	0	0%	0.00	100%	2.525	0%	0.00	1.130	0.238	7.93

Pipe Capacity

Pipe	D (in)	Slope (%)	Area (ft²)	R	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
1	12	0.6	0.79	0.250	3.27	3.90	4.97
2	10	0.73	0.55	0.208	2.22	1.86	3.41
3	12	1.9	0.79	0.250	5.82	5.76	7.33

Manning's Equation:
 $Q = 1.49 \cdot n \cdot A \cdot R^{2/3} \cdot S^{1/2}$

A = Area
R = D/4
S = Slope
n = 0.011



ENGINEER'S SEAL
RONALD R. BOHANNAN
NEW MEXICO
7868
4/20/2020
RONALD R. BOHANNAN
P.E. #7868

U-HAUL
4TH AND I-40
GRADING AND DRAINAGE
PLAN

TERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505) 858-3100
www.tierrowestllc.com

DRAWN BY
RMG
DATE
04/20/2020
2019070-GR
SHEET #
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JOB #
2019070