

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

January 28, 2021

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

**RE: Raytheon Parking Lot
10800 Gibson SE
Grading and Drainage Plan
Engineer's Stamp Date: 01/05/21
Hydrology File: M21D007A1**

Dear Mr. Bohannon:

PO Box 1293

Based upon the information provided in your submittal received 01/07/2021, the Grading & Drainage Plan is approved for Grading Permit.

Albuquerque

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.

NM 87103

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

www.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: _____ **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Tract TR E-1 Parcel Bulk Land Plat Unit
City Address: 10800 Gibson SE, Alb, NM

Applicant: Tierra West, LLC **Contact:** Jon Niski
Address: 5571 Midway Park PI NE
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: 01/06/2021 **By:** Jon Niski

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



TIERRA WEST, LLC

January 6, 2021

Ernest Armijo
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

**RE: RAYTHEON PARKING LOT
10800 GIBSON AVENUE
GRADING PLAN SUPPLEMENT TO M21D007A1**

Dear Mr. Armijo:

The intent of this submittal is to make minor modifications to the approved drainage plan under M21D007A1. Our office was contracted by Raytheon to address a flooding issue they have in their back parking area. The site has an approved Grading and Drainage Plan completed by ABQ Engineering 07/25/05. That plan created a paved parking area where a proposed future phase of the building was to be constructed. With that plan a water quality pond was constructed on the north end of the parking lot. This area was originally to drain to an existing drop inlet located on the east side of the property and then to ponds located along Gibson Avenue prior to discharging into the City storm sewer at a controlled rate.

The water quality pond that was created does not have an overflow and the storm water ponds on the new paved area and does not infiltrate the soil or evaporate in a timely manner thus causing maintenance and health issues.

The attached revised Grading Plan proposes to install a 10-inch PVC overflow pipe that would go from the water quality pond to the existing drop inlet were this storm water was originally supposed to drain per the approved drainage report. Our plan does not change the hydrology of the site and all runoff remains as calculated in the approved report and including retaining the water quality volume. All we are doing is providing an overflow for the water quality pond and reshaping the pond so that it may drain the water above the water quality required volume and subsequently dry out per the Drainage Ordinance.

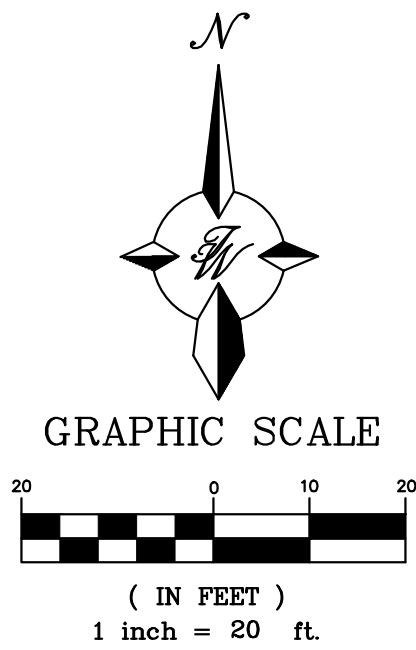
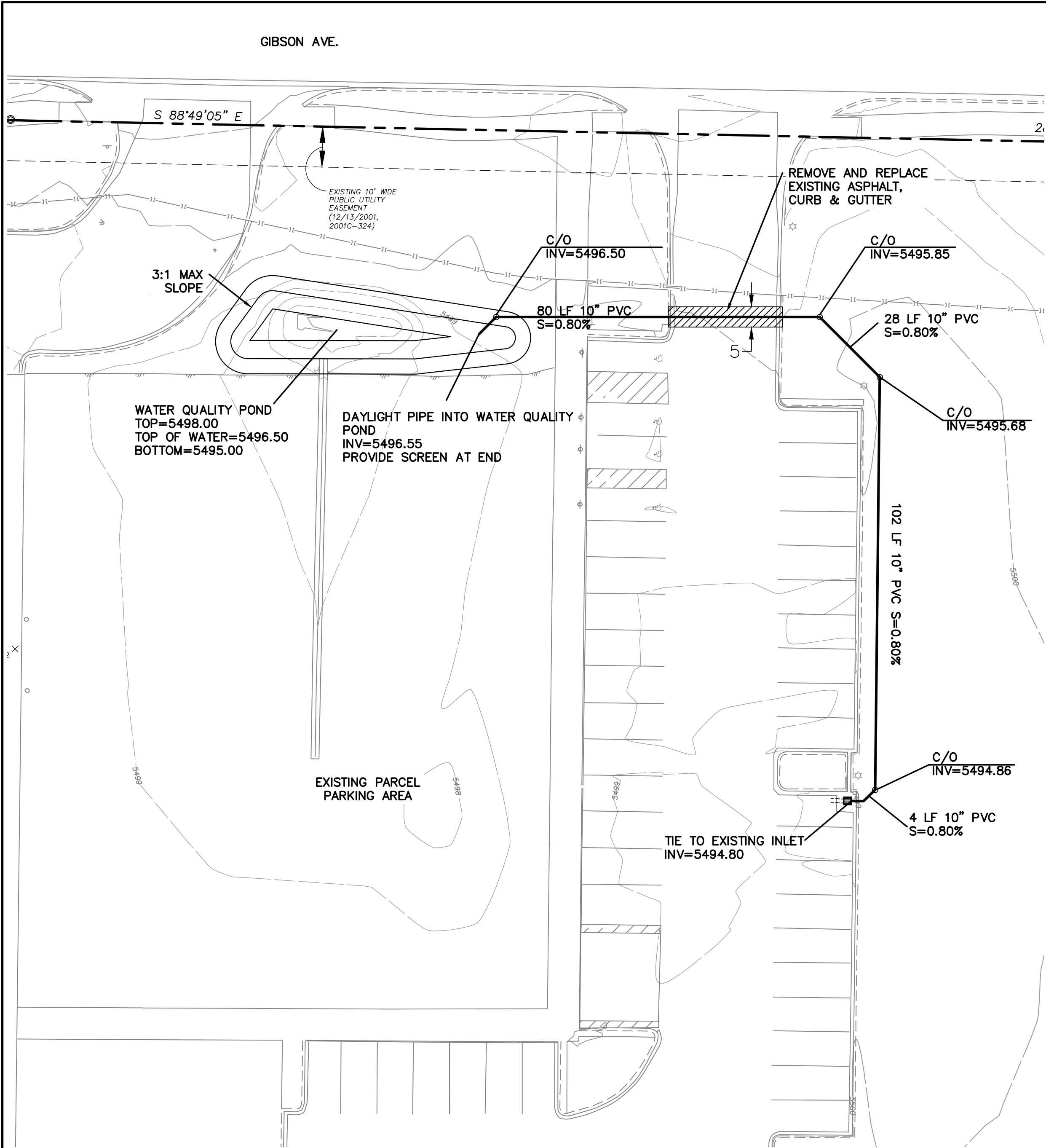
Please review and let us know if this is an acceptable solution. If you have any questions or need additional information regarding the matter, please do not hesitate to contact me.

Sincerely,

Ronald R. Bohannon, PE

JN: 2020062
RRB/jn/kw

5571 Midway Park Pl. NE
Albuquerque, NM 87109
(505) 858-3100 fax (505) 858-1118 1-800-245-3102
tierrawestllc.com



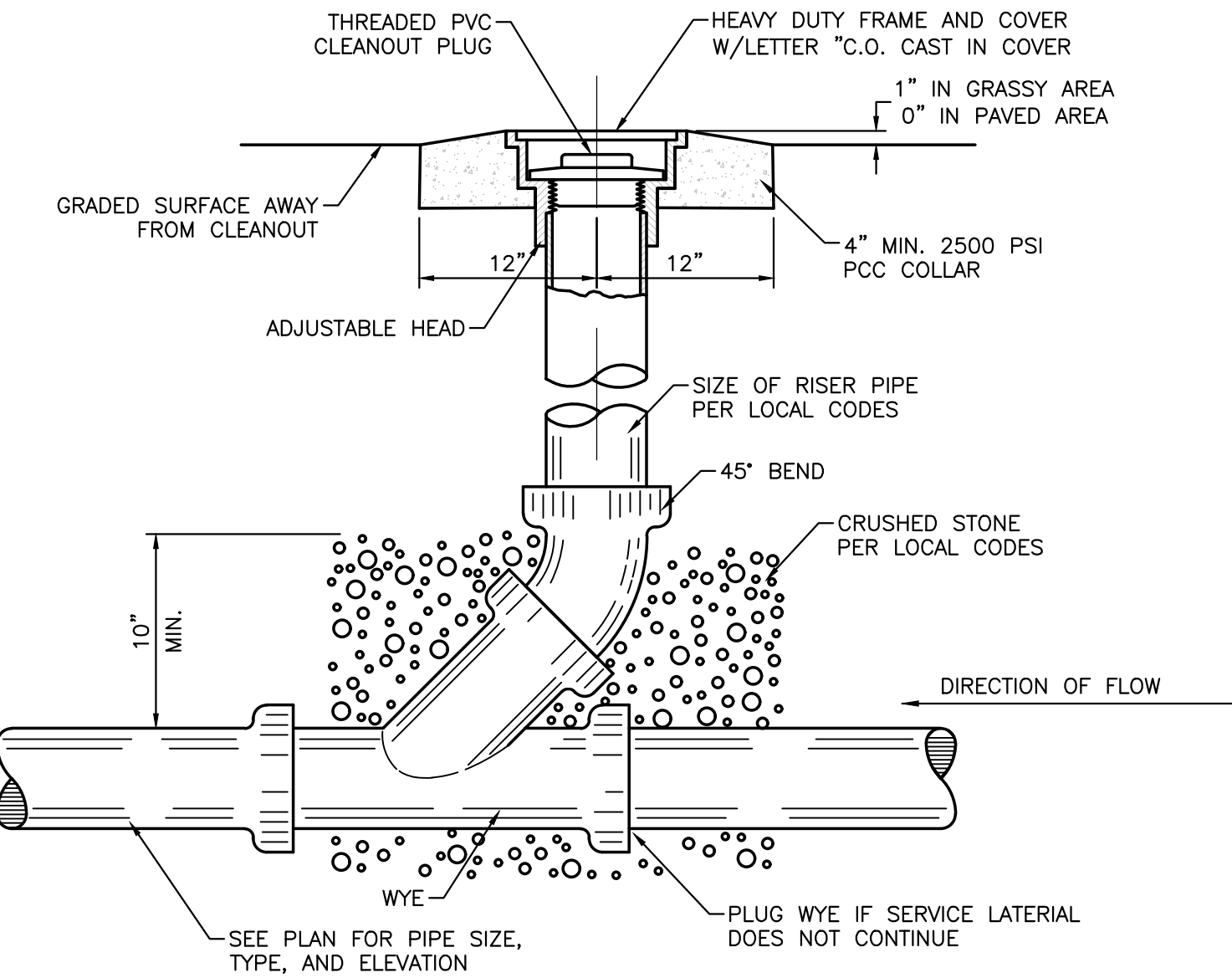
LEGEND	
	BOUNDARY LINE
	EASEMENT
	EXISTING CURB & GUTTER
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	STORM SEWER LINE
	EXISTING INLET

EROSION CONTROL NOTES:

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.
6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 1" GRAVEL

NOTICE TO CONTRACTORS

1. 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.
2. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
3. 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.
4. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
5. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.



SEWER CLEAN-OUT

NTS

Pipe Capacity							
Pipe	D (in)	Slope (%)	Area (ft^2)	R	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
1	10	0.8	0.55	0.208	2.32	2.25	4.13
2	10	0.81	0.55	0.208	2.34	2.25	4.13
3	10	0.8	0.55	0.208	2.32	2.25	4.13

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

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

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 (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
DA 1	20,473	0.47	0%	0	0%	0.00	0%	0.00	100%	0.47	3.340	0.131	2.25	2.150	0.084	1.43

Equations:

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

Volume = Weighted D * Total Area

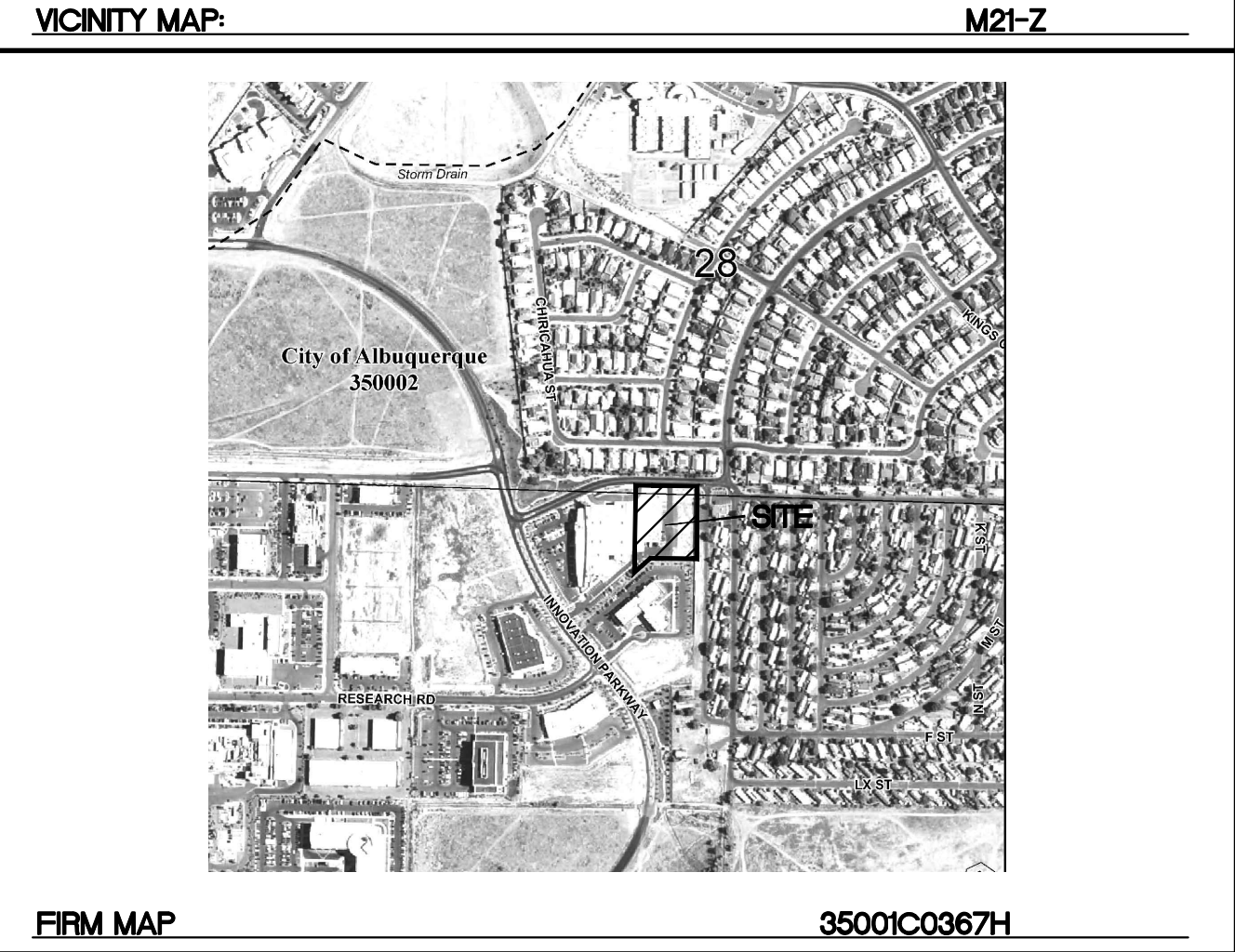
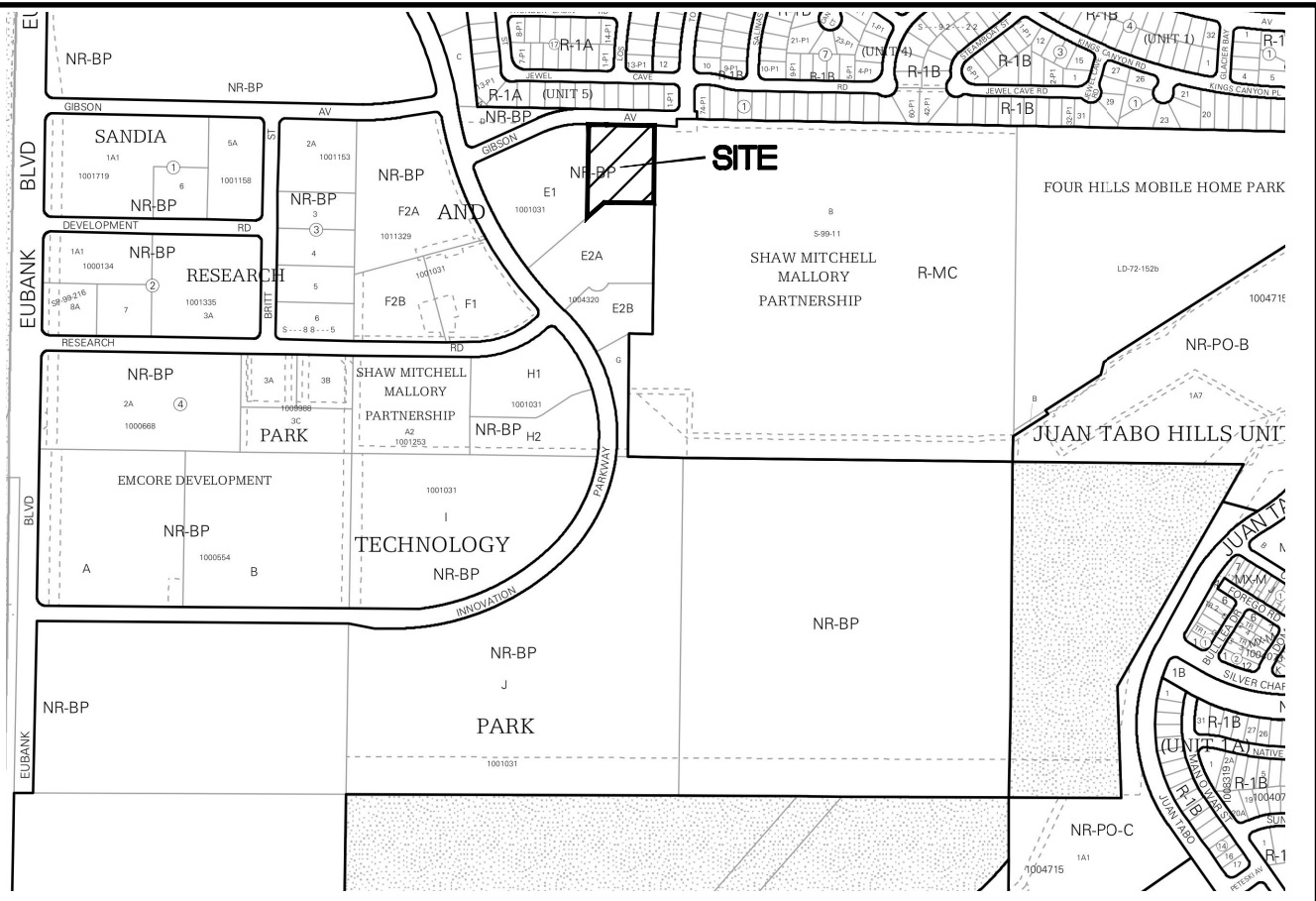
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Excess Precipitation, E (inches)			
Zone 4	100-Year	10 - Year	
Ea	0.76	0.25	
Eb	0.95	0.41	
Ec	1.2	0.59	
Ed	3.34	2.15	

Peak Discharge (cfs/acre)			
Zone 4	100-Year	10 - Year	
Qa	2.09	0.7	
Qb	2.73	1.28	
Qc	3.41	1.89	
Qd	4.78	3.04	

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.



DRAINAGE NARRATIVE

THIS SITE IS LOCATED AT 10800 GIBSON AVENUE SE IN ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO AND IS A PORTION OF TRACT E1 OF THE SANDIA SCIENCE & TECHNOLOGY PARK. THE PROPOSED DRAINAGE AND EXISTING SITE HYDROLOGY WILL COMPLY WITH HYDROLOGY REQUIREMENTS AS SHOWN IN DRAINAGE REPORT (M21-d7a1, PREPARED BY ABQ ENGINEERING, 7/25/05) AND DRAINAGE MASTER PLAN (M21D007A PREPARED BY BHI, 9/21/01). THE EXISTING SITE USES SURFACE DRAINAGE DIRECTED TO ON-SITE DROP INLETS AND STORM SEWER TO DIRECT RUNOFF TO EXISTING ON-SITE PONDS #1 AND #2 LOCATED ON THE WEST SIDE OF THE SITE AND CONNECTED TO EXISTING STORM SEWER IN THE CITY STREET. THE DRAINAGE REPORT FROM ABQ ENGINEERING SHOWS THE SITE FULLY DEVELOPED AND GRADED. THOSE PLANS SHOW BOTH PHASES OF THE BUILDING BEING DEVELOPED ALONG WITH A PARKING AREA ON THE EAST SIDE OF THE PROPERTY. THE DRAINAGE REPORT PREPARED BY ABQ ENGINEERING SHOWS 80% AS TYPE "D" IMPERVIOUS AND 20% TYPE "B" LANDSCAPE. THE DRAINAGE REPORT ALSO INDICATED COMPLIANCE WITH THE BHI MASTER PLAN INCLUDING LIMITS TO THE DEVELOPED RUNOFF RELEASED TO THE PUBLIC STORM SEWER.

IN THE 2017 GRADING PLAN COMPLETED BY ABQ ENGINEERING A PAVED PARKING AREA WAS ADDED TO THE EAST SIDE OF THE BUILDING. THIS AREA WAS ORIGINALLY INTENDED FOR A BUILDING EXPANSION THUS THE OVER ALL GRADING AND DRAINAGE FOR THE SITE WAS STILL IN COMPLIANCE WITH THE APPROVED GRADING PLAN. WITH THE CONSTRUCTION OF THE PAVED AREA ABQ ENGINEERING WAS REQUIRED TO COMPLY WITH THE NEW WATER QUALITY RULES FOR THE CITY AND PROVIDED A DETENTION POND FOR THE NEW PARKING AREA WHICH CONTAINED THE VOLUME FOR THE WATER QUALITY REQUIREMENT AS WELL AS THE 100YR STORM AND DID NOT HAVE A OVERFLOW.

THE PROPERTY OWNER WOULD LIKE A WAY FOR THE POND TO DRAIN THE 100YR FLOWS AND DETAIN THE WATER QUALITY VOLUME OF 733 CF. IN ORDER TO ACCOMPLISH THIS REQUEST A NEW 10" PVC STORM SEWER IS PROPOSED TO BE CONSTRUCTED FROM THE WATER QUALITY POND TO THE EXISTING DROP INLET LOCATED IN THE PARKING LOT. THIS AREA WAS ORIGINALLY DESIGNED TO DRAIN TO THAT DROP INLET SO THE EXISTING STORM SEWER HAS CAPACITY AND THE SITE HYDROLOGY REMAINS AS IT WAS APPROVED. THE REVISED WATER QUALITY POND HAS THE CAPACITY TO HOLD 750 CF OF RUNOFF WHICH IS GREATER THAN THE 733 CF REQUIRED.

	ENGINEER'S SEAL	DRAWN BY pm
	RATHEON ALBUQUERQUE, NM	
	SUPPLEMENTAL GRADING AND DRAINAGE PLAN	DATE 1-5-2021
		SHEET # 1 JOB # 2020062