

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

February 6, 2020

Hugh Floyd, P.E.
Respec
5971 Jefferson St. NE
Albuquerque, NM, 8710

**RE: Finley Signal Development
Conceptual Grading and Drainage Plan
Engineer's Stamp Date: 01/30/20
Hydrology File: C18D087**

Dear Mr. Floyd:

PO Box 1293

Based upon the information provided in your submittal received 02/03/2020, the Conceptual Grading & Drainage Plan is approved for action by the DRB on Site Plan for Building Permit and Final Plat.

Albuquerque

NM 87103

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 (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

www.cabq.gov

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 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ PLAT (____# OF LOTS) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION _____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ DRAINAGE MASTER PLAN
- _____ DRAINAGE REPORT
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ 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: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

NAME: L:\Active Projects\03770 Finley Signal Development\3_DWG\Sheets\3770 Drainage_Plan_09.24.19.dwg PLOT DATE: Jan 31, 2020 7:28am

* 100 YEAR RAINFALL TABLE		
RAINFALL	TYPE=13	RAIN QUARTER=0.0 IN
	RAIN ONE=2.14 IN	RAIN SIX=2.60 IN
	RAIN DAY=3.10 IN	DT=0.05 HR

*S EXISTING CONDITIONS

*S COMPUTE HYD BASIN EX

COMPUTE NM HYD	ID=1	HYDNO=101	DA= 0.002765922722	SQ MI
	PER A=0	PER B=34	PER C=16	PER D=50
	TP=-0.133333333	RAIN=-1		

PRINT HYD ID=1 CODE=20

*S PROPOSED CONDITIONS

*S COMPUTE HYD BASIN 1

COMPUTE NM HYD	ID=2	HYDNO=102	DA= 0.002314046	SQ MI
	PER A=0	PER B=3.6	PER C=3.6	PER D=92.8
	TP=-0.133333333	RAIN=-1		

PRINT HYD ID=2 CODE=20

*S PROPOSED CONDITIONS

*S COMPUTE HYD BASIN 2

COMPUTE NM HYD	ID=3	HYDNO=103	DA= 0.0004518767218	SQ MI
	PER A=0	PER B=9.0	PER C=9.0	PER D=81.9
	TP=-0.133333333	RAIN=-1		

PRINT HYD ID=2 CODE=20

ADD HYD ID=4 HYD=104 ID I=2 II=3

PRINT HYD ID=4 CODE=10

*S SUBBASIN A STORAGE

ROUTE RESERVOIR	ID=9 HYD=STRG.III INFLOW ID=4 CODE=1			
	OUTFLOW(CFS)	STORAGE(AC FT)	ELEV(FT)	
	0.001	0	0.0	
	1.23	0.000193568	0.5	
	2.81	0.000612514	1.0	
	3.77	0.001482217	1.5	
	4.54	0.003028054	2.0	
	5.19	0.005475405	2.5	
	5.77	0.008448638	3.0	
	6.29	0.011425252	3.5	
	6.78	0.014399612	4.0	
	6.94	0.025320689	4.5	

*

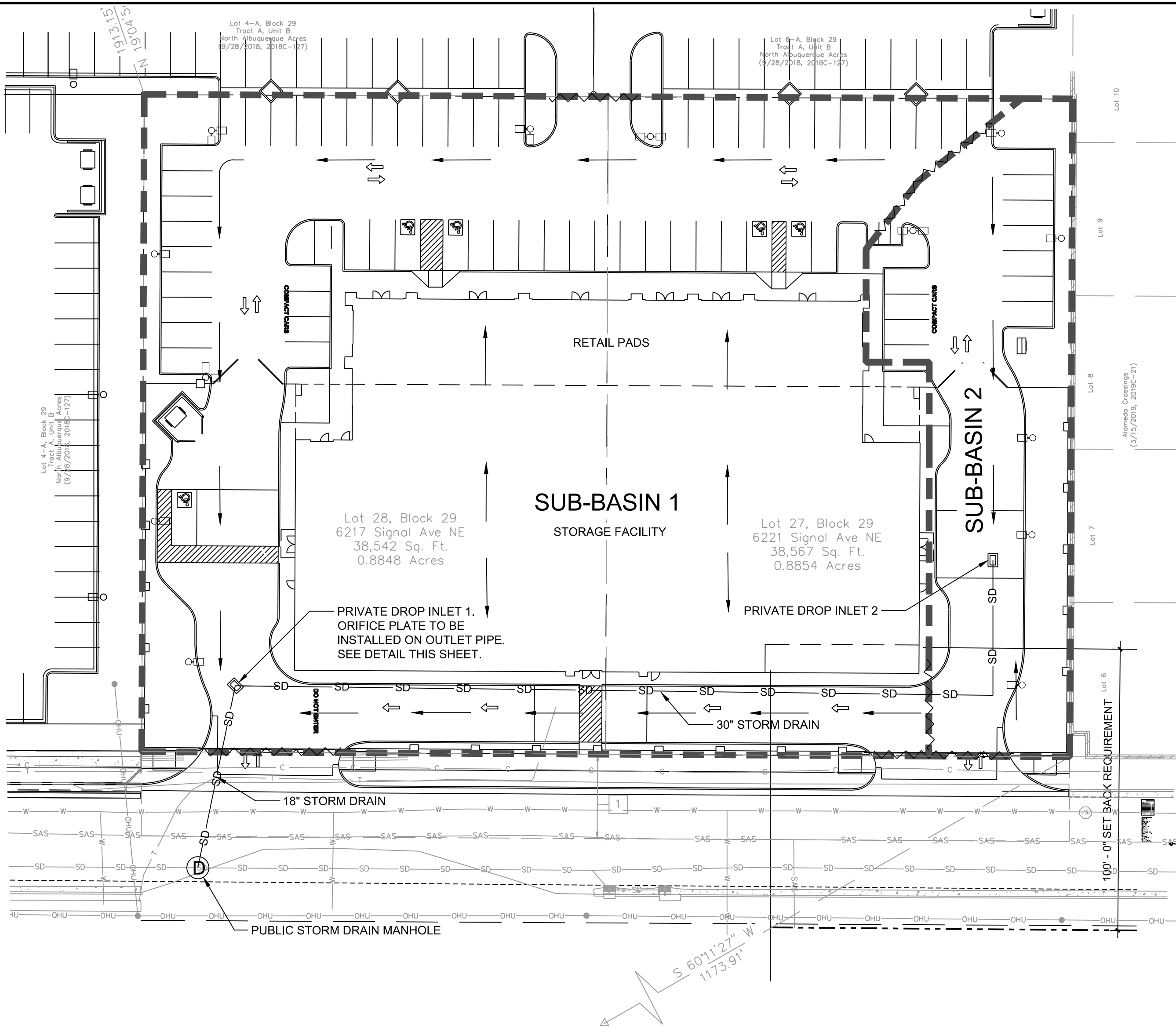
*

PRINT HYD ID=9 CODE=20

FINISH

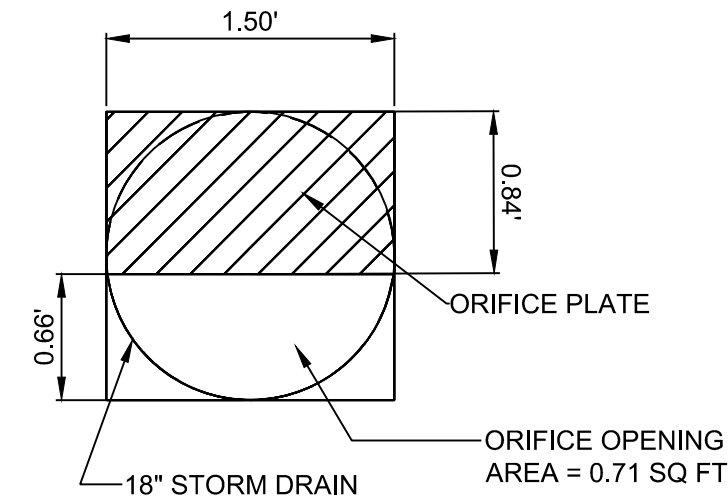
COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1	NOTATION
S	PROJECT NAME: Finley Signal Development										
S	DATE: August 25, 2019										
S	INPUT FILE NAME: FinleySignal										
S	OUTPUT FILE NAME: FinleySignal.out										
S	RAINFALL TYPE=13								RAIN24= 3.100		
S	EXISTING CONDITIONS										
S	COMPUTE HYD BASIN EX										
S	COMPUTE NM HYD	101.00	- 1	0.00277	6.90	0.286	1.94076	1.500	3.896 PER IMP=	50.00	
S	PROPOSED CONDITIONS										
S	COMPUTE HYD BASIN 1										
S	COMPUTE NM HYD	102.00	- 2	0.00231	7.12	0.337	2.72987	1.500	4.806 PER IMP=	92.80	
S	PROPOSED CONDITIONS										
S	COMPUTE HYD BASIN 2										
S	COMPUTE NM HYD	103.00	- 3	0.00045	1.34	0.061	2.53854	1.500	4.648 PER IMP=	81.98	
S	ADD HYD	104.00	2& 3 4	0.00277	8.46	0.398	2.69843	1.500	4.780		
S	SUBBASIN A STORAGE										
S	ROUTE RESERVOIR	STRG.III	4 9	0.00277	6.86	0.413	2.79718	1.550	3.876 AC-FT=	0.020	
S	FINISH										

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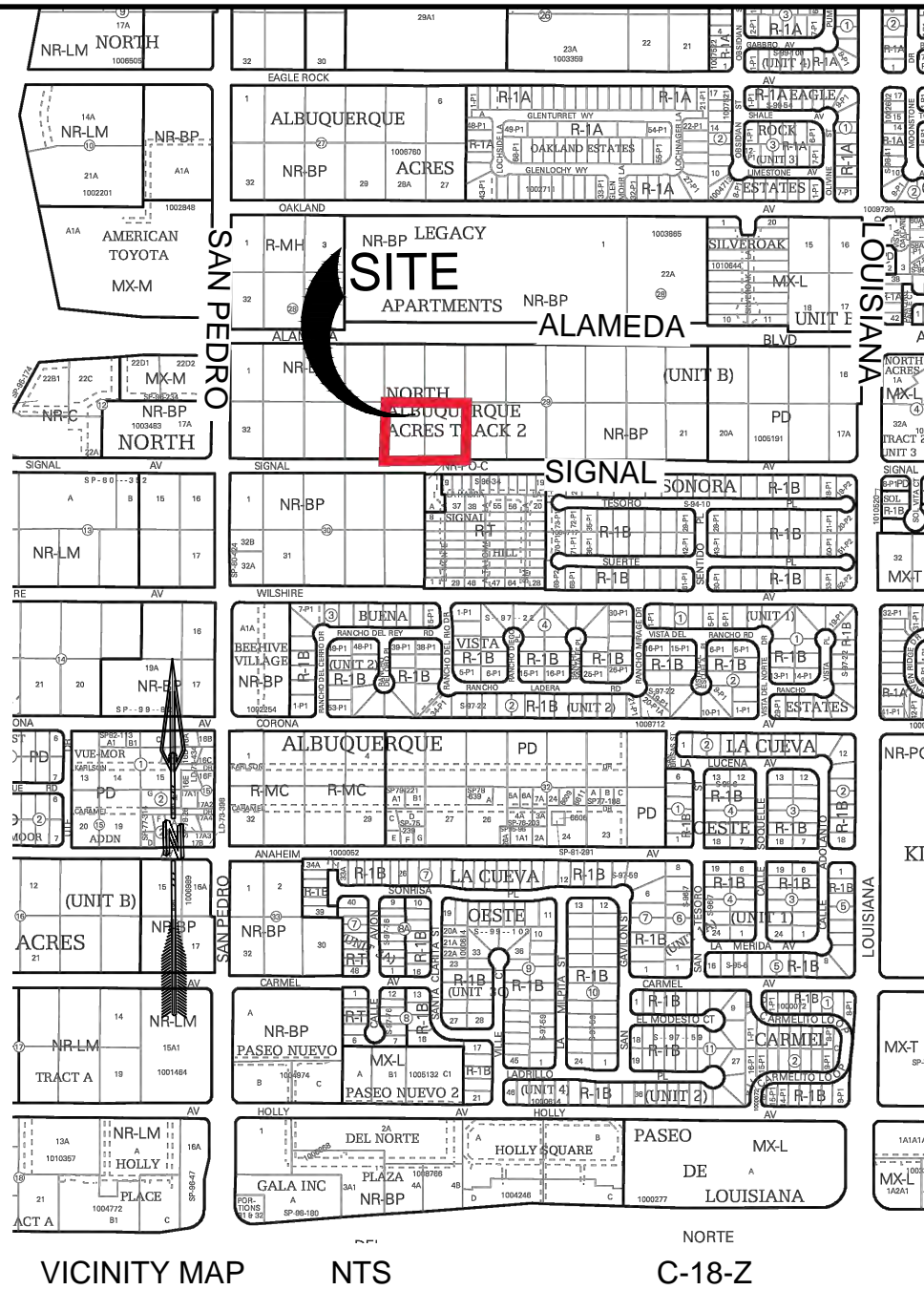
GENERAL NOTES

- NOT FOR CONSTRUCTION INFORMATION ONLY.
- THIS SITE IS WITHIN THE NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN. THE ALLOWABLE DISCHARGE FOR THIS SITE IS 6.76 CFS.
- ORIFICE EQUATION: $Q=C_dA(2G'H)^{0.5}$



LEGEND

- PROPERTY BOUNDARY
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- FLOW LINE
- BASIN BOUNDARY LINE
- HIGH POINT
- PROPOSED PRIVATE STORM DRAIN DROP INLET
- PROPOSED STORM DRAIN MANHOLE



BACKGROUND

LOT 27 AND 28, TRACT A, BLOCK 29, NORTH ALBUQUERQUE ACRES CONTAINS APPROXIMATELY 1.77 TOTAL ACRES IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THE PROPERTY IS LOCATED ON SIGNAL AVE BETWEEN SAN PEDRO DRIVE AND LOUISIANA BOULEVARD. THE SITE IS CURRENTLY DEVELOPED AS TWO RESIDENTIAL PROPERTIES. THERE IS NO DESIGNATED 100-YEAR FLOODPLAIN ON THE SITE. THIS AREA IS INCLUDED IN THE NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN (NAAMPD).

METHODOLOGY

HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE TECHNICAL STANDARDS. AHYMO WAS USED, BASED ON THE 100-YR, 24-HR STORM EVENT, TO CALCULATE PEAK FLOW RATES IN ORDER TO ENSURE ALL FLOW PATHS ARE SUFFICIENT TO CARRY FLOWS. THIS SITE IS A REDEVELOPMENT, SO THE REQUIRED WATER QUALITY VOLUME WAS CALCULATED BY MULTIPLYING THE IMPERVIOUS AREA BY THE FIRST FLUSH RUNOFF VALUE OF 0.26". ALL HYDROLOGIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

EXISTING CONDITIONS

CURRENTLY TWO RESIDENTIAL BUILDINGS ARE LOCATED ON THE PROPERTY. IN GENERAL, THE AREA SLOPES FROM NORTHEAST TO SOUTHWEST AT VARYING SLOPES BETWEEN 2% - 4%. THE STORM WATER RUNOFF GENERATED BY THE SITE CURRENTLY FREELY DISCHARGES INTO THE SIGNAL AVENUE RIGHT-OF-WAY AND FLOWS WEST ALONG THE NORTHERN EDGE OF PAVEMENT. PER THE NAAMPD, THIS SITE HAS AN ALLOWABLE DISCHARGE RATE OF 3.82 CFS/AC. THEREFORE, THE ALLOWABLE DISCHARGE IS 6.76 CFS.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT WILL CONSIST OF ASPHALT AND CONCRETE PAVING FOR PARKING AND DRIVING SURFACES WITH A LARGE SELF STORAGE FACILITY AND RETAIL BUILDING. THERE WILL BE TWO NEW ACCESS DRIVEWAYS TO SIGNAL AVE AND ALSO A NEW DRIVEWAY ACCESS TO THE MIXED USE DEVELOPMENT TO THE NORTH. THE PROPERTY HAS BEEN SPLIT INTO TWO SUB-BASINS.




SUB-BASIN 1 ENCOMPASSES A MAJORITY OF THE PROPERTY HAVING AN AREA OF 1.48 ACRES AND GENERATING 7.12 CFS OF STORM WATER RUNOFF. THIS SUB-BASIN CONSISTS PRIMARILY OF THE RUNOFF GENERATED BY THE PARKING LOT AND ROOF RUNOFF. FLOWS GENERATED BY SUB-BASIN 1 WILL FLOW, IN GENERAL, FROM THE NORTHEAST TO SOUTHWEST ALONG THE DRIVE AISLE. RUNOFF DRAINS TO DROP INLET 1 THAT IS LOCATED AT THE SOUTHWEST CORNER OF THE PROPERTY. AN ORIFICE PLATE WILL BE INSTALLED ON THE OUTLET PIPE OF INLET 1. THE ORIFICE PLATE COMBINED WITH THE STORAGE IN THE INLET, STORM DRAIN, AND PARKING LOT WILL REDUCE THE FLOW RATE DISCHARGING FROM THE SITE TO BE COMPLIANT WITH THE NAAMPD. ONCE RUNOFF EXITS THE DROP INLET, WATER FLOWS TO THE SOUTH INTO THE EXISTING STORM DRAIN LOCATED ON SIGNAL AVENUE. THE FLOW RATE LEAVING THE PROPERTY IS 6.76 CFS THROUGH THIS STORM DRAIN OUTFALL.

SUB-BASIN 2 IS LOCATED ON THE EAST SIDE OF THE PROPERTY. IT HAS AN AREA OF 0.29 ACRES AND GENERATES 1.34 CFS OF STORM WATER RUNOFF. THIS SUB-BASIN CONSISTS OF A SMALL PORTION OF THE PARKING LOT ON THE EAST SIDE OF THE BUILDING. THE PARKING LOT WITHIN SUB-BASIN 2 WILL FLOW INTO DROP INLET 2. THE WATER WILL THEN FLOW IN A STORM DRAIN TO INLET 1 AT THE SOUTH WEST CORNER OF THE SITE.

THERE IS NO WATER QUALITY STORAGE PROPOSED FOR THIS SITE. THE OWNER HAS ELECTED TO PAY THE PAYMENT IN LIEU FOR THE TOTAL STORM WATER QUALITY VOLUME. THE SITE HAS AN IMPERVIOUS AREA OF 70,154 SQ FT. THEREFORE, THE REQUIRED WATER QUALITY VOLUME IS 1,520 CF. THE PAYMENT AMOUNT IS: 1,520 CF X \$8/CF = \$12,160

DESIGNED DM DRAWN DM CHECKED JS DATE 1.31.2020	REVISION
RESPEC 5871 JEFFERSON STREET SUITE 101 ALBUQUERQUE, NM 87109 WWW.RESPEC.COM 505.253.9718	
STAMP HATCH W. FLOOD NEW MEXICO 156337 1/31/2020 REGISTERED PROFESSIONAL ENGINEER	
NOT FOR CONSTRUCTION	
THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED	
PROJECT NAME: SIGNAL SELF STORAGE AND RETAIL DEVELOPMENT	
SHEET TITLE: CONCEPTUAL DRAINAGE PLAN	
SUBMITTED FOR: DRB SITE PLAN	
SHEET NUMBER: C-100	



SUBMITTED FOR:		SHEET NUMBER:	
DRB SITE PLAN		C-200	
SHEET TITLE:		PROJECT NAME:	
CONCEPTUAL GRADING PLAN		SIGNAL SELF STORAGE AND RETAIL DEVELOPMENT	
<div><p>Know what's below. Call before you dig.</p></div>			
<div><div><div>DESIGNED <u>DM</u></div><div>DRAWN <u>DM</u></div><div>CHECKED <u>JS</u></div><div>DATE 1.31.2020</div></div><div><div>RESPEC 8971 JEFFERSON STREET SUITE 101 ALBUQUERQUE, NEW MEXICO 87109 WATER & NATURAL RESOURCES WWW.RESPEC.COM 505.533.9718</div></div></div>			
<div>STAMP<div><p>NOT FOR CONSTRUCTION</p><p>THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED</p></div></div>			