CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

November 26, 2018

David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

RE: **109 Juan Tabo**
109 Juan Tabo NE
Drainage Report Stamp Date: 11/16/18
Grading Plan Stamp Date: 10/22/18
Hydrology File: L21D101

Dear Mr. Soule,

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based on the submittal received on 11/16/18, the Grading and Drainage Plan cannot be approved until the following are corrected:

Prior to Building Permit:

1. NOAA Atlas 2 precipitation depths should be used with AHYMO-97 and NOAA Atlas 14 precipitation depths should be used with AHYMO-S4 (see AHYMO AppNote-01). Atlas 14, 1 hour precipitation depths are 10 to 15% less than Atlas 2 depths but the flow rates are nearly the same. Atlas 2 depths are available only in the DPM, and Atlas 14 depths are available from NOAA's web site https://hdsc.nws.noaa.gov/hdsc/pfds/. Include screenshots of the NOAA 14 tables and location marker.

2. The Appendix A spreadsheet should be updated to reflect the above remarks. Also on the spreadsheet: the land treatment percentages for Basin B exceed 100%; this site is in precipitation zone 3, not 2.

3. If requesting Payment-in-Lieu of the stormwater quality volume (SWQV) the plan must clearly state that Management Onsite of the SWQV could be provided, but the owner does not want to and wants Payment-in-Lieu of Management Onsite instead. Remove references such as “cannot pond onsite” and “required fee-in-lieu”. The plan can be modified to accommodate Management Onsite and a Waiver of Management Onsite cannot be approved for this project.

4. A 2” orifice plate is specified on the grading plan, but the calculations were prepared for a 6” opening (Appendix A)

Prior to Certificate of Occupancy (For Information):

5. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 109 JUAN TABO Building Permit #:_____ Hydrology File #: _____

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

Legal Description: TRACT A1B, BLOCK 6 EAST CENTRAL BUSINESS ADDITIONG

City Address: 109 JUAN TABO

Applicant: JIM RYAN Contact: _____

Address: _____

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

Other Contact: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924 ALB NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: david@riograndeengineering.com

TYPE OF DEVELOPMENT: ___ PLAT ___ RESIDENCE ___ DRB SITE X ADMIN SITE

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

___ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

___ ENGINEER/ARCHITECT CERTIFICATION

___ PAD CERTIFICATION

___ CONCEPTUAL G & D PLAN

X 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?

IS THIS A RESUBMITTAL?: ___ Yes X No

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X 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

X 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:_____

DRAINAGE REPORT

For

109 JUAN TABO
TRACT A-1-B, BLOCK 6
EAST CENTRAL BUSINESS ADDITION

Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

November 2018

11/16/18

David Soule P.E. No. 14522

TABLE OF CONTENTS

Appendix

Map Pocket

Site Grading and Drainage Plan

PURPOSE

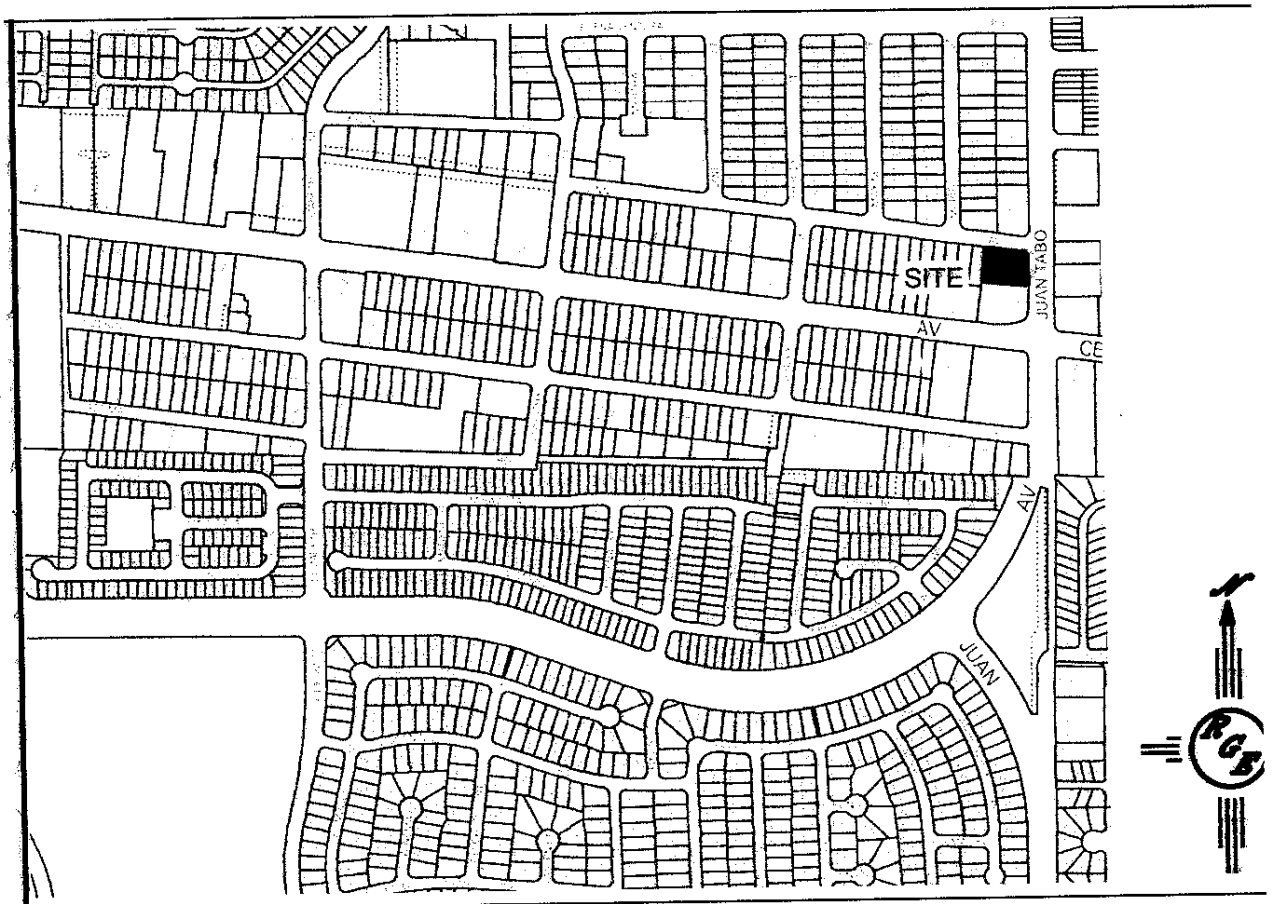
The purpose of this report is to provide the Drainage Management Plan for the redevelopment of an existing car sales lot located on southwest corner of Juan Tabo and Linn. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

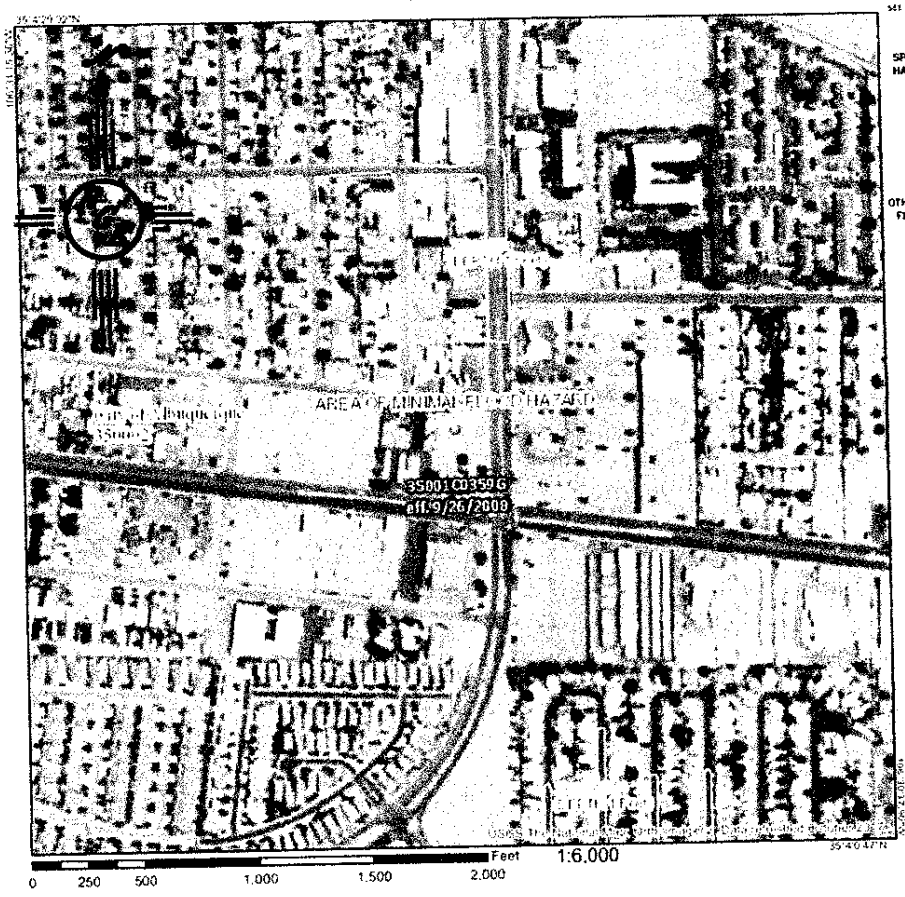
The subject of this report, as shown on the Exhibit A, is a 0.54-acre parcel of land located at 109 Juan Tabo in north east Albuquerque. The legal description of this site is tract A1B East central business addition. As shown on FIRM map35001C0359G, the entire property is located within Flood Zone X. This site is surrounded by fully developed parcels. This site is an existing partially developed site within fully developed areas. Based on the site location and the adjacent drainage infrastructure this development must maintain existing drainage patterns and match existing conditions as closely as possible.

EXISTING CONDITIONS

The site is currently developed. Due to existing curb and gutter, the site is not impacted by any offsite flows, and is surrounded by developed properties. As shown in Appendix A, the existing site discharges at a peak rate of 2.00 cfs in a 100-year, 6-hour event. The discharge leaves the site thru the existing driveway on Linn.



VICINITY MAP: L-21-Z



FIRM MAP:

PROPOSED CONDITIONS

The proposed improvements consist of a building addition and associated parking lot expansion. The site will be graded to accommodate the new building while maintaining the existing drainage patterns. As shown in appendix A, the site will be graded to contain two basins. Basin A includes the west portion of the lot and northwest paved area. This basin will discharge .43 cfs to Linn via the driveway. Basin B contains the remainder of the lot. This basin discharges 2.21 cfs that is captured by a single D inlet. The inlet restricts the flow by utilizing a 6" outlet pipe, this basin routed outlet flow of 1.30 cfs that drains to basin A and out the driveway. The modeling of the ponds with AHYMO is found in Appendix B. The emergency overflow for the parking lot pond is the driveway. The site is able to capture only a portion of the first flush, therefore a fee in lieu of $4,477 is required for the 559 cubic feet released un-treated. The entire developed site will discharge at a peak rate of 1.72 cfs which is less than the existing condition discharge rate of 2.00 cfs. The historical drainage patterns are preserved

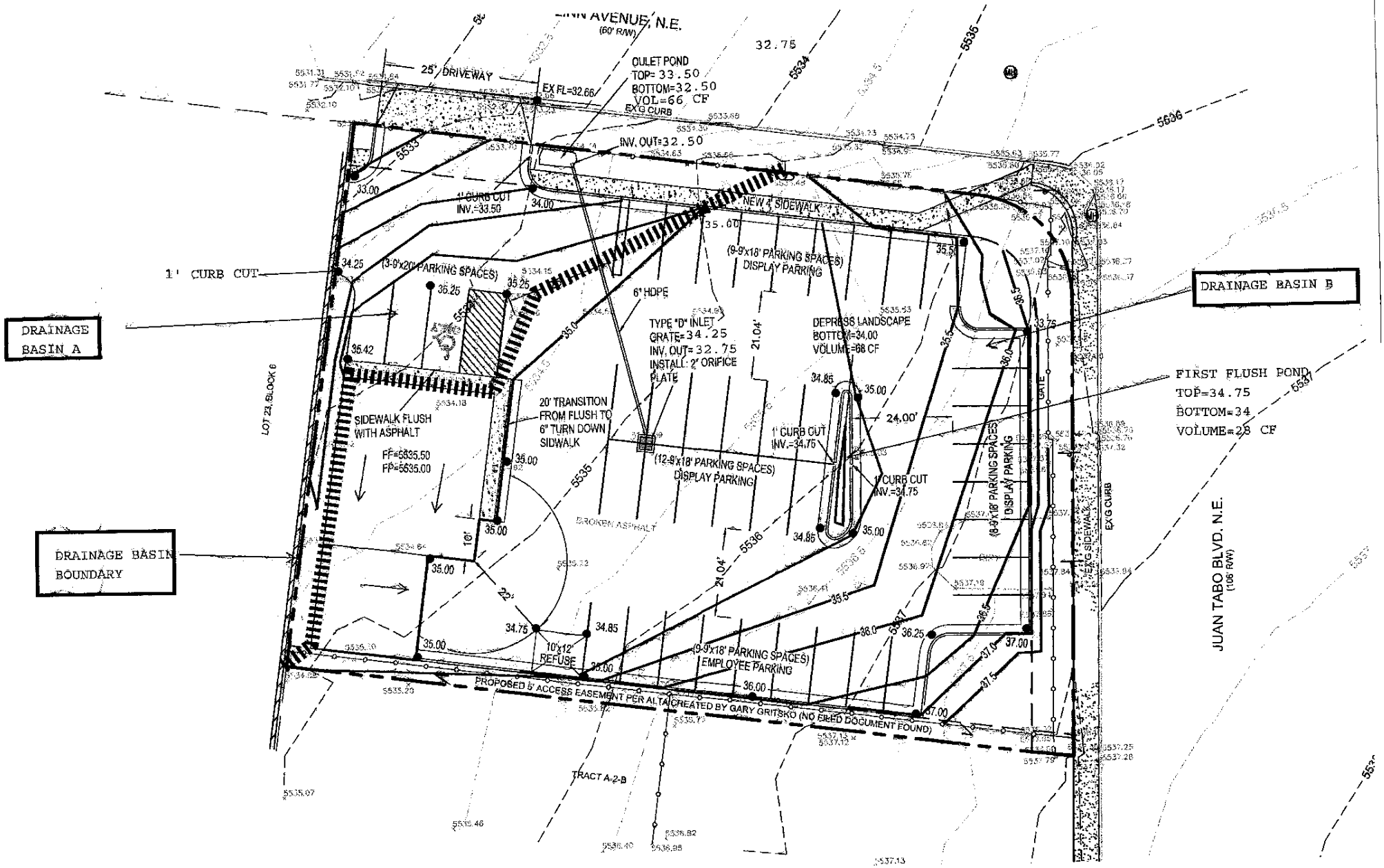
SUMMARY AND RECOMMENDATIONS

This project is an infill project within a completely developed area of North Albuquerque. The project is a redevelopment of an existing site. The site currently discharges 2.00 cfs to Linn via a driveway. The proposed drainage plan will maintain the existing drainage patterns and outfalls. The post development discharge will be 1.72 cfs, which is a reduction of 0.28 cfs from historical rates. The site retains less than the required first flush ponds, therefore a fee in lieu of $4,477 is required. The development has emergency overflow. Since this site work area encompasses less than .75 acre, a NPDES permit and Erosion and Sediment Control Plan may not be required prior to any construction activity.

APPENDIX A

SITE HYDROLOGY/

AHYMO MODEL


DRAINAGE BASIN A
DRAINAGE BASIN BOUNDARY
DRAINAGE BASIN B
1' CURB CUT
FIRST FLUSH POND
TOP=34.75
BOTTOM=34
VOLUME=28 CF
OULET POND
TOP= 33.50
BOTTOM=32.50
VOL=66 CF
EX FL=32.66
INV. OUT=32.50
INV.=33.50
NEW 4' SIDEWALK
(3-9'x20' PARKING SPACES)
(9-9'x18' PARKING SPACES)
DISPLAY PARKING
6" HDPE
TYPE "D" INLET
GRATE=34.25
INV. OUT= 32.75
INSTALL: 2" ORIFICE PLATE
DEPRESS LANDSCAPE
BOTTOM=34.00
VOLUME=68 CF
SIDEWALK FLUSH WITH ASPHALT
FF=5535.50
FP=5535.00
20' TRANSITION FROM FLUSH TO 6" TURN DOWN SIDWALK
(12-9'x18' PARKING SPACES)
DISPLAY PARKING
1' CURB CUT
INV.=34.75
BROKEN ASPHALT
10'x12' REFUSE
(9-9'x18' PARKING SPACES)
EMPLOYEE PARKING
PROPOSED 5' ACCESS EASEMENT PER ALTA CREATED BY GARY GRITSKO (NO RECORDED DOCUMENT FOUND)
TRACT A-2-B
LOT 23, BLOCK 6
EXG CURB
EXG SIDEWALK
GATE
JUAN TABO BLVD. N.E.
(106' R/W)
25' DRIVEWAY
(60' R/W)

Weighted E Method

JUAN TABO

Existing Developed Basins- not accounting for detetion basin

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	100-Year, 6-hr. Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	10-day Volume (ac-ft)
HISTORICAL	23692	0.544	0%	0	0.0%	0.000	65.0%	0.35353	35%	0.190	1.477	0.067	2.00	0.092
BASIN A	4232	0.097	0%	0	0.0%	0.000	18.0%	0.01749	82%	0.080	1.942	0.016	0.43	0.026
BASIN B	19458	0.447	0%	0	20.0%	0.089	14.0%	0.06254	86%	0.384	2.137	0.080	2.21	0.131

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

Where for 100-year, 6-hour storm (zone 3)

Ea= 0.53
Eb= 0.78
Ec= 1.13
Ed= 2.12

Qa= 1.57
Qb= 2.28
Qc= 3.14
Qd= 4.7

	EXISTING	PROPOSED	AFTER ROUTING
Drains to Linn	2.05	2.61	1.72

First flush requirement (Redevelopment=impx.26/12-- New development=impx.34/12)

	BASIN A	BASIN B	
first flush=	180	474	CF
volume retained=	0	94	CF
fee in lieu	1437	3040	$4,477 amount due

VOLUME CALCULATIONS

PARKING LOT POND

	ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVI	VOLUME AC-FT	Q (CFS)
INVERT OUT	32.75	0	4	0	0	0.000	
GRATE	34.25	1.50	4.00	9	20	0.000	1.16
	35.00	2.25	7522.00	940.75	960.75	0.022	1.42

Orifice Equation

Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	6
Area (ft^2)=	0.19634954
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

```
      AHYMO PROGRAM (AHYMO-S4)                        - Version: S4.01a - Rel: 01a
           RUN DATE (MON/DAY/YR) = 11/16/2018
           START TIME (HR:MIN:SEC) = 14:47:00     USER NO.=
RioGrandeSingleA41963517
           INPUT FILE = uments and Settings\Owner\Desktop\2018
JOBS\18202-109JUANTABO\pondrout111618.txt


    *S      AHYMO -  DETENTION-juantabo
    *S             POND ROUTING

    START              TIME=0.0  PUNCH CODE=0


    RAINFALL           TYPE=2
                       QUARTER=0.0    ONE= 2.14 IN
                       SIX=2.60 IN    DAY= 3.10 IN    DT = 0.05 HR



                  24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE
AREAS (NM & AZ) - D1
                  DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
                    0.0000  0.0031  0.0062  0.0096  0.0133  0.0171  0.0214
                    0.0274  0.0368  0.0470  0.0575  0.0690  0.0807  0.0927
                    0.1052  0.1178  0.1320  0.1467  0.1627  0.1887  0.2196
                    0.2611  0.3081  0.3661  0.4435  0.5307  0.6811  0.9149
                    1.3155  1.5971  1.8192  1.9308  2.0287  2.0989  2.1549
                    2.2036  2.2393  2.2720  2.2991  2.3181  2.3331  2.3464
                    2.3590  2.3700  2.3804  2.3905  2.4002  2.4083  2.4129
                    2.4175  2.4219  2.4261  2.4303  2.4343  2.4383  2.4422
                    2.4459  2.4495  2.4531  2.4566  2.4601  2.4634  2.4667
                    2.4699  2.4731  2.4762  2.4792  2.4822  2.4851  2.4880
                    2.4909  2.4937  2.4965  2.4992  2.5019  2.5046  2.5072
                    2.5098  2.5124  2.5149  2.5175  2.5200  2.5224  2.5249
                    2.5273  2.5296  2.5320  2.5343  2.5366  2.5389  2.5412
                    2.5434  2.5456  2.5478  2.5500  2.5521  2.5542  2.5564
                    2.5584  2.5605  2.5626  2.5646  2.5666  2.5686  2.5706
                    2.5725  2.5745  2.5764  2.5783  2.5802  2.5821  2.5839
                    2.5858  2.5876  2.5894  2.5912  2.5930  2.5948  2.5965
                    2.5983  2.6000  2.6017  2.6035  2.6052  2.6069  2.6086
                    2.6104  2.6121  2.6138  2.6155  2.6172  2.6190  2.6207
                    2.6224  2.6241  2.6258  2.6275  2.6292  2.6309  2.6326
                    2.6343  2.6360  2.6377  2.6394  2.6411  2.6428  2.6445
                    2.6461  2.6478  2.6495  2.6512  2.6529  2.6545  2.6562
                    2.6579  2.6595  2.6612  2.6629  2.6645  2.6662  2.6679
                    2.6695  2.6712  2.6728  2.6745  2.6761  2.6778  2.6794
                    2.6811  2.6827  2.6844  2.6860  2.6876  2.6893  2.6909
                    2.6925  2.6942  2.6958  2.6974  2.6990  2.7007  2.7023
                    2.7039  2.7055  2.7071  2.7087  2.7104  2.7120  2.7136
                    2.7152  2.7168  2.7184  2.7200  2.7216  2.7232  2.7248
                    2.7264  2.7279  2.7295  2.7311  2.7327  2.7343  2.7359
                    2.7374  2.7390  2.7406  2.7422  2.7437  2.7453  2.7469
                    2.7484  2.7500  2.7516  2.7531  2.7547  2.7562  2.7578
                    2.7593  2.7609  2.7624  2.7640  2.7655  2.7671  2.7686
                    2.7701  2.7717  2.7732  2.7747  2.7763  2.7778  2.7793
                    2.7808  2.7824  2.7839  2.7854  2.7869  2.7884  2.7899
                    2.7915  2.7930  2.7945  2.7960  2.7975  2.7990  2.8005
                    2.8020  2.8035  2.8050  2.8065  2.8079  2.8094  2.8109
                    2.8124  2.8139  2.8154  2.8168  2.8183  2.8198  2.8213
                    2.8227  2.8242  2.8257  2.8271  2.8286  2.8301  2.8315
                    2.8330  2.8344  2.8359  2.8373  2.8388  2.8402  2.8417
                    2.8431  2.8446  2.8460  2.8474  2.8489  2.8503  2.8517
                    2.8532  2.8546  2.8560  2.8574  2.8589  2.8603  2.8617
```

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2.8730	2.8744	2.8758	2.8772	2.8786	2.8800	2.8813
2.8827	2.8841	2.8855	2.8869	2.8883	2.8897	2.8910
2.8924	2.8938	2.8952	2.8965	2.8979	2.8993	2.9006
2.9020	2.9033	2.9047	2.9061	2.9074	2.9088	2.9101
2.9115	2.9128	2.9141	2.9155	2.9168	2.9182	2.9195
2.9208	2.9222	2.9235	2.9248	2.9262	2.9275	2.9288
2.9301	2.9314	2.9328	2.9341	2.9354	2.9367	2.9380
2.9393	2.9406	2.9419	2.9432	2.9445	2.9458	2.9471
2.9484	2.9497	2.9510	2.9523	2.9536	2.9549	2.9561
2.9574	2.9587	2.9600	2.9612	2.9625	2.9638	2.9651
2.9663	2.9676	2.9689	2.9701	2.9714	2.9726	2.9739
2.9751	2.9764	2.9776	2.9789	2.9801	2.9814	2.9826
2.9839	2.9851	2.9863	2.9876	2.9888	2.9900	2.9912
2.9925	2.9937	2.9949	2.9961	2.9974	2.9986	2.9998
3.0010	3.0022	3.0034	3.0046	3.0058	3.0070	3.0082
3.0094	3.0106	3.0118	3.0130	3.0142	3.0154	3.0166
3.0178	3.0189	3.0201	3.0213	3.0225	3.0237	3.0248
3.0260	3.0272	3.0283	3.0295	3.0307	3.0318	3.0330
3.0341	3.0353	3.0364	3.0376	3.0387	3.0399	3.0410
3.0422	3.0433	3.0445	3.0456	3.0467	3.0479	3.0490
3.0501	3.0513	3.0524	3.0535	3.0546	3.0558	3.0569
3.0580	3.0591	3.0602	3.0613	3.0624	3.0635	3.0646
3.0658	3.0669	3.0680	3.0690	3.0701	3.0712	3.0723
3.0734	3.0745	3.0756	3.0767	3.0777	3.0788	3.0799
3.0810	3.0821	3.0831	3.0842	3.0853	3.0863	3.0874
3.0885	3.0895	3.0906	3.0916	3.0927	3.0937	3.0948
3.0958	3.0969	3.0979	3.0990	3.1000		

* BASIN B
COMPUTE NM HYD ID=1 HYD NO=101 DA= .0006984 SQ MI
PER A=0 PER B=0 PER C=14 PER D=86
TP=-.135 MASSRAIN=-1

K = 0.073575HR TP = 0.135000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.3414 CFS UNIT VOLUME = 0.9947 B = 526.28 P60 = 2.1400
AREA = 0.000601 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.110301HR TP = 0.135000HR K/TP RATIO = 0.817047 SHAPE CONSTANT, N = 4.373953
UNIT PEAK = 0.27477 CFS UNIT VOLUME = 0.9545 B = 379.38 P60 = 2.1400
AREA = 0.000098 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=1 CODE=3

PARTIAL HYDROGRAPH 101.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
0.150	0.0	5.100	0.0	10.050	0.0
14.850	0.0	19.800	0.0		

15.000	0.0	19.950	0.0	5.250	0.0	10.200	0.0
	0.300	0.0					
15.150	0.0	20.100	0.0	5.400	0.0	10.350	0.0
	0.450	0.0					
15.300	0.0	20.250	0.0	5.550	0.0	10.500	0.0
	0.600	0.0					
15.450	0.0	20.400	0.0	5.700	0.0	10.650	0.0
	0.750	0.0					
15.600	0.0	20.550	0.0	5.850	0.0	10.800	0.0
	0.900	0.1					
15.750	0.0	20.700	0.0	6.000	0.0	10.950	0.0
	1.050	0.2					
15.900	0.0	20.850	0.0	6.150	0.0	11.100	0.0
	1.200	0.3					
16.050	0.0	21.000	0.0	6.300	0.0	11.250	0.0
	1.350	0.8					
16.200	0.0	21.150	0.0	6.450	0.0	11.400	0.0
	1.500	2.2					
16.350	0.0	21.300	0.0	6.600	0.0	11.550	0.0
	1.650	1.3					
16.500	0.0	21.450	0.0	6.750	0.0	11.700	0.0
	1.800	0.7					
16.650	0.0	21.600	0.0	6.900	0.0	11.850	0.0
	1.950	0.4					
16.800	0.0	21.750	0.0	7.050	0.0	12.000	0.0
	2.100	0.2					
16.950	0.0	21.900	0.0	7.200	0.0	12.150	0.0
	2.250	0.1					
17.100	0.0	22.050	0.0	7.350	0.0	12.300	0.0
	2.400	0.1					
17.250	0.0	22.200	0.0	7.500	0.0	12.450	0.0
	2.550	0.0					
17.400	0.0	22.350	0.0	7.650	0.0	12.600	0.0
	2.700	0.0					
17.550	0.0	22.500	0.0	7.800	0.0	12.750	0.0
	2.850	0.0					
17.700	0.0	22.650	0.0	7.950	0.0	12.900	0.0
	3.000	0.0					
17.850	0.0	22.800	0.0	8.100	0.0	13.050	0.0
	3.150	0.0					
18.000	0.0	22.950	0.0	8.250	0.0	13.200	0.0
	3.300	0.0					
18.150	0.0	23.100	0.0	8.400	0.0	13.350	0.0
	3.450	0.0					
18.300	0.0	23.250	0.0	8.550	0.0	13.500	0.0
	3.600	0.0					
18.450	0.0	23.400	0.0	8.700	0.0	13.650	0.0
	3.750	0.0					
18.600	0.0	23.550	0.0	8.850	0.0	13.800	0.0
	3.900	0.0					
18.750	0.0	23.700	0.0	9.000	0.0	13.950	0.0
	4.050	0.0					
18.900	0.0	23.850	0.0	9.150	0.0	14.100	0.0
	4.200	0.0					
19.050	0.0	24.000	0.0	9.300	0.0	14.250	0.0
	4.350	0.0					
19.200	0.0	24.150	0.0	9.450	0.0	14.400	0.0
	4.500	0.0					
19.350	0.0	24.300	0.0	9.600	0.0	14.550	0.0
	4.650	0.0					
19.500	0.0			9.750	0.0	14.700	0.0
	4.800	0.0					
19.650	0.0						

RUNOFF VOLUME = 2.63900 INCHES = 0.0983 ACRE-FEET
PEAK DISCHARGE RATE = 2.21 CFS AT 1.500 HOURS BASIN AREA =

0.0007 SQ. MI.

* ROUTE THE TOTAL FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR ID=2 HYD NO=102 INFLOW=1 CODE=3

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEV(FT)	
0.00	0.000	32.75	
1.16	0.000	34.25	
1.42	0.022		35.00

* * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	32.75	0.000	0.00
0.15	0.00	32.75	0.000	0.00
0.30	0.00	32.75	0.000	0.00
0.45	0.00	32.75	0.000	0.00
0.60	0.00	32.75	0.000	0.00
0.75	0.01	32.76	0.000	0.01
0.90	0.07	32.84	0.000	0.07
1.05	0.15	32.95	0.000	0.15
1.20	0.32	33.16	0.000	0.32
1.35	0.77	33.74	0.000	0.77
1.50	2.21	34.42	0.005	1.22
1.65	1.34	34.67	0.012	1.31
1.80	0.67	34.53	0.008	1.26
1.95	0.38	34.02	0.000	0.98
2.10	0.21	32.75	0.000	0.00
2.25	0.12	33.10	0.000	0.27
2.40	0.08	32.75	0.000	0.00
2.55	0.04	32.86	0.000	0.08
2.70	0.02	32.75	0.000	0.00
2.85	0.02	32.80	0.000	0.04
3.00	0.01	32.75	0.000	0.00
3.15	0.01	32.78	0.000	0.02
3.30	0.01	32.75	0.000	0.00
3.45	0.01	32.78	0.000	0.02
3.60	0.01	32.75	0.000	0.00
3.75	0.01	32.77	0.000	0.02
3.90	0.01	32.75	0.000	0.00
4.05	0.01	32.77	0.000	0.02
4.20	0.01	32.75	0.000	0.00
4.35	0.01	32.77	0.000	0.02
4.50	0.01	32.75	0.000	0.00
4.65	0.01	32.77	0.000	0.02
4.80	0.01	32.75	0.000	0.00
4.95	0.01	32.78	0.000	0.02
5.10	0.01	32.75	0.000	0.00
5.25	0.01	32.78	0.000	0.02
5.40	0.01	32.75	0.000	0.00
5.55	0.01	32.78	0.000	0.02
5.70	0.01	32.75	0.000	0.00
5.85	0.01	32.78	0.000	0.02
6.00	0.01	32.76	0.000	0.00
6.15	0.01	32.78	0.000	0.02
6.30	0.01	32.76	0.000	0.00
6.45	0.01	32.78	0.000	0.02
6.60	0.01	32.76	0.000	0.00

AHYMO.OUT

6.75	0.01	32.78	0.000	0.02
6.90	0.01	32.76	0.000	0.00
7.05	0.01	32.78	0.000	0.02
7.20	0.01	32.75	0.000	0.00
7.35	0.01	32.78	0.000	0.02
7.50	0.01	32.75	0.000	0.00
7.65	0.01	32.78	0.000	0.02
7.80	0.01	32.75	0.000	0.00
7.95	0.01	32.78	0.000	0.02
8.10	0.01	32.75	0.000	0.00
8.25	0.01	32.78	0.000	0.02

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
8.40	0.01	32.75	0.000	0.00
8.55	0.01	32.78	0.000	0.02
8.70	0.01	32.75	0.000	0.00
8.85	0.01	32.78	0.000	0.02
9.00	0.01	32.75	0.000	0.00
9.15	0.01	32.78	0.000	0.02
9.30	0.01	32.75	0.000	0.00
9.45	0.01	32.78	0.000	0.02
9.60	0.01	32.75	0.000	0.00
9.75	0.01	32.78	0.000	0.02
9.90	0.01	32.75	0.000	0.00
10.05	0.01	32.78	0.000	0.02
10.20	0.01	32.75	0.000	0.00
10.35	0.01	32.78	0.000	0.02
10.50	0.01	32.75	0.000	0.00
10.65	0.01	32.78	0.000	0.02
10.80	0.01	32.75	0.000	0.00
10.95	0.01	32.78	0.000	0.02
11.10	0.01	32.75	0.000	0.00
11.25	0.01	32.78	0.000	0.02
11.40	0.01	32.75	0.000	0.00
11.55	0.01	32.78	0.000	0.02
11.70	0.01	32.75	0.000	0.00
11.85	0.01	32.78	0.000	0.02
12.00	0.01	32.75	0.000	0.00
12.15	0.01	32.78	0.000	0.02
12.30	0.01	32.75	0.000	0.00
12.45	0.01	32.78	0.000	0.02
12.60	0.01	32.75	0.000	0.00
12.75	0.01	32.78	0.000	0.02
12.90	0.01	32.75	0.000	0.00
13.05	0.01	32.78	0.000	0.02
13.20	0.01	32.75	0.000	0.00
13.35	0.01	32.78	0.000	0.02
13.50	0.01	32.75	0.000	0.00
13.65	0.01	32.78	0.000	0.02
13.80	0.01	32.75	0.000	0.00
13.95	0.01	32.78	0.000	0.02
14.10	0.01	32.75	0.000	0.00
14.25	0.01	32.78	0.000	0.02
14.40	0.01	32.75	0.000	0.00
14.55	0.01	32.78	0.000	0.02
14.70	0.01	32.75	0.000	0.00
14.85	0.01	32.78	0.000	0.02
15.00	0.01	32.75	0.000	0.00
15.15	0.01	32.78	0.000	0.02
15.30	0.01	32.75	0.000	0.00
15.45	0.01	32.78	0.000	0.02
15.60	0.01	32.75	0.000	0.00
15.75	0.01	32.78	0.000	0.02
15.90	0.01	32.75	0.000	0.00

16.05	0.01	32.78	0.000	0.02
16.20	0.01	32.75	0.000	0.00
16.35	0.01	32.78	0.000	0.02
16.50	0.01	32.75	0.000	0.00
16.65	0.01	32.78	0.000	0.02

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
16.80	0.01	32.75	0.000	0.00
16.95	0.01	32.78	0.000	0.02
17.10	0.01	32.75	0.000	0.00
17.25	0.01	32.78	0.000	0.02
17.40	0.01	32.75	0.000	0.00
17.55	0.01	32.78	0.000	0.02
17.70	0.01	32.75	0.000	0.00
17.85	0.01	32.77	0.000	0.02
18.00	0.01	32.75	0.000	0.00
18.15	0.01	32.77	0.000	0.02
18.30	0.01	32.75	0.000	0.00
18.45	0.01	32.77	0.000	0.02
18.60	0.01	32.75	0.000	0.00
18.75	0.01	32.77	0.000	0.02
18.90	0.01	32.75	0.000	0.00
19.05	0.01	32.77	0.000	0.02
19.20	0.01	32.75	0.000	0.00
19.35	0.01	32.77	0.000	0.02
19.50	0.01	32.75	0.000	0.00
19.65	0.01	32.77	0.000	0.02
19.80	0.01	32.75	0.000	0.00
19.95	0.01	32.77	0.000	0.02
20.10	0.01	32.75	0.000	0.00
20.25	0.01	32.77	0.000	0.02
20.40	0.01	32.75	0.000	0.00
20.55	0.01	32.77	0.000	0.02
20.70	0.01	32.75	0.000	0.00
20.85	0.01	32.77	0.000	0.02
21.00	0.01	32.75	0.000	0.00
21.15	0.01	32.77	0.000	0.02
21.30	0.01	32.75	0.000	0.00
21.45	0.01	32.77	0.000	0.02
21.60	0.01	32.75	0.000	0.00
21.75	0.01	32.77	0.000	0.02
21.90	0.01	32.75	0.000	0.00
22.05	0.01	32.77	0.000	0.02
22.20	0.01	32.75	0.000	0.00
22.35	0.01	32.77	0.000	0.02
22.50	0.01	32.75	0.000	0.00
22.65	0.01	32.77	0.000	0.02
22.80	0.01	32.75	0.000	0.00
22.95	0.01	32.77	0.000	0.02
23.10	0.01	32.75	0.000	0.00
23.25	0.01	32.77	0.000	0.02
23.40	0.01	32.75	0.000	0.00
23.55	0.01	32.77	0.000	0.02
23.70	0.01	32.75	0.000	0.00
23.85	0.01	32.77	0.000	0.02
24.00	0.01	32.75	0.000	0.00

PEAK DISCHARGE = 1.307 CFS - PEAK OCCURS AT HOUR 1.65
MAXIMUM WATER SURFACE ELEVATION = 34.674
MAXIMUM STORAGE = 0.0124 AC-FT INCREMENTAL TIME= 0.050000HRS

* BASIN A
COMPUTE NM HYD ID=3 HYD NO=103 DA= .00015156 SQ MI
PER A=0 PER B=0 PER C=18 PER D=82
TP=-.184 MASSRAIN=-1

K = 0.100280HR TP = 0.184000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.35546 CFS UNIT VOLUME = 0.9697 B = 526.28 P60 = 2.1400
AREA = 0.000124 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.150337HR TP = 0.184000HR K/TP RATIO = 0.817047 SHAPE CONSTANT, N = 4.373953
UNIT PEAK = 0.56248E-01CFS UNIT VOLUME = 0.8772 B = 379.38 P60 = 2.1400
AREA = 0.000027 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=3 CODE=3

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	14.850	0.0	19.800	0.0	4.950	0.0
0.150	0.0	15.000	0.0	19.950	0.0	5.100	0.0
0.300	0.0	15.150	0.0	20.100	0.0	5.250	0.0
0.450	0.0	15.300	0.0	20.250	0.0	5.400	0.0
0.600	0.0	15.450	0.0	20.400	0.0	5.550	0.0
0.750	0.0	15.600	0.0	20.550	0.0	5.700	0.0
0.900	0.0	15.750	0.0	20.700	0.0	5.850	0.0
1.050	0.0	15.900	0.0	20.850	0.0	6.000	0.0
1.200	0.1	16.050	0.0	21.000	0.0	6.150	0.0
1.350	0.1	16.200	0.0	21.150	0.0	6.300	0.0
1.500	0.4	16.350	0.0	21.300	0.0	6.450	0.0
1.650	0.4	16.500	0.0	21.450	0.0	6.600	0.0
1.800	0.2	16.650	0.0	21.600	0.0	6.750	0.0
1.950	0.1	16.800	0.0	21.750	0.0	6.900	0.0
2.100	0.1	16.950	0.0	21.900	0.0	7.050	0.0
2.250	0.0	17.100	0.0	22.050	0.0	7.200	0.0
2.400	0.0	17.250	0.0	22.200	0.0	7.350	0.0
2.550	0.0	17.400	0.0	22.350	0.0	7.500	0.0
9.900	0.0	10.050	0.0	10.200	0.0	10.350	0.0
10.500	0.0	10.650	0.0	10.800	0.0	10.950	0.0
11.100	0.0	11.250	0.0	11.400	0.0	11.550	0.0
11.700	0.0	11.850	0.0	12.000	0.0	12.150	0.0
12.300	0.0	12.450	0.0				

	2.700	0.0		7.650	0.0	12.600	0.0
17.550	0.0		22.500	0.0			
	2.850	0.0		7.800	0.0	12.750	0.0
17.700	0.0		22.650	0.0			
	3.000	0.0		7.950	0.0	12.900	0.0
17.850	0.0		22.800	0.0			
	3.150	0.0		8.100	0.0	13.050	0.0
18.000	0.0		22.950	0.0			
	3.300	0.0		8.250	0.0	13.200	0.0
18.150	0.0		23.100	0.0			
	3.450	0.0		8.400	0.0	13.350	0.0
18.300	0.0		23.250	0.0			
	3.600	0.0		8.550	0.0	13.500	0.0
18.450	0.0		23.400	0.0			
	3.750	0.0		8.700	0.0	13.650	0.0
18.600	0.0		23.550	0.0			
	3.900	0.0		8.850	0.0	13.800	0.0
18.750	0.0		23.700	0.0			
	4.050	0.0		9.000	0.0	13.950	0.0
18.900	0.0		23.850	0.0			
	4.200	0.0		9.150	0.0	14.100	0.0
19.050	0.0		24.000	0.0			
	4.350	0.0		9.300	0.0	14.250	0.0
19.200	0.0		24.150	0.0			
	4.500	0.0		9.450	0.0	14.400	0.0
19.350	0.0						
	4.650	0.0		9.600	0.0	14.550	0.0
19.500	0.0						
	4.800	0.0		9.750	0.0	14.700	0.0
19.650	0.0						

RUNOFF VOLUME = 2.57877 INCHES = 0.0208 ACRE-FEET
PEAK DISCHARGE RATE = 0.43 CFS AT 1.550 HOURS BASIN AREA = 0.0002 SQ. MI.

ADD HYD ID=4 HYD NO=104 ID I=2 ID II=3

PRINT HYD ID=4 CODE=3

PARTIAL HYDROGRAPH 104.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	14.850	0.0	19.800	0.0
0.150	0.0	15.000	0.0	19.950	0.0
0.300	0.0	15.150	0.0	20.100	0.0
0.450	0.0	15.300	0.0	20.250	0.0
0.600	0.0	15.450	0.0	20.400	0.0
0.750	0.0	15.600	0.0	20.550	0.0
0.900	0.1	15.750	0.0	20.700	0.0
1.050	0.2	15.900	0.0	20.850	0.0
1.200	0.4	16.050	0.0	21.000	0.0
1.350	0.9	4.950	0.0	6.300	0.0
4.950	0.0	5.100	0.0	9.900	0.0
5.100	0.0	5.250	0.0	10.050	0.0
5.250	0.0	5.400	0.0	10.200	0.0
5.400	0.0	5.550	0.0	10.350	0.0
5.550	0.0	5.700	0.0	10.500	0.0
5.700	0.0	5.850	0.0	10.650	0.0
5.850	0.0	6.000	0.0	10.800	0.0
6.000	0.0	6.150	0.0	10.950	0.0
6.150	0.0	6.300	0.0	11.100	0.0
6.300	0.0	9.900	0.0	11.250	0.0

16.200	0.0	21.150	0.0	6.450	0.0	11.400	0.0
	1.500	1.6					
16.350	0.0	21.300	0.0	6.600	0.0	11.550	0.0
	1.650	1.7					
16.500	0.0	21.450	0.0	6.750	0.0	11.700	0.0
	1.800	1.4					
16.650	0.0	21.600	0.0	6.900	0.0	11.850	0.0
	1.950	1.1					
16.800	0.0	21.750	0.0	7.050	0.0	12.000	0.0
	2.100	0.1					
16.950	0.0	21.900	0.0	7.200	0.0	12.150	0.0
	2.250	0.3					
17.100	0.0	22.050	0.0	7.350	0.0	12.300	0.0
	2.400	0.0					
17.250	0.0	22.200	0.0	7.500	0.0	12.450	0.0
	2.550	0.1					
17.400	0.0	22.350	0.0	7.650	0.0	12.600	0.0
	2.700	0.0					
17.550	0.0	22.500	0.0	7.800	0.0	12.750	0.0
	2.850	0.0					
17.700	0.0	22.650	0.0	7.950	0.0	12.900	0.0
	3.000	0.0					
17.850	0.0	22.800	0.0	8.100	0.0	13.050	0.0
	3.150	0.0					
18.000	0.0	22.950	0.0	8.250	0.0	13.200	0.0
	3.300	0.0					
18.150	0.0	23.100	0.0	8.400	0.0	13.350	0.0
	3.450	0.0					
18.300	0.0	23.250	0.0	8.550	0.0	13.500	0.0
	3.600	0.0					
18.450	0.0	23.400	0.0	8.700	0.0	13.650	0.0
	3.750	0.0					
18.600	0.0	23.550	0.0	8.850	0.0	13.800	0.0
	3.900	0.0					
18.750	0.0	23.700	0.0	9.000	0.0	13.950	0.0
	4.050	0.0					
18.900	0.0	23.850	0.0	9.150	0.0	14.100	0.0
	4.200	0.0					
19.050	0.0	24.000	0.0	9.300	0.0	14.250	0.0
	4.350	0.0					
19.200	0.0	24.150	0.0	9.450	0.0	14.400	0.0
	4.500	0.0					
19.350	0.0	24.300	0.0	9.600	0.0	14.550	0.0
	4.650	0.0					
19.500	0.0			9.750	0.0	14.700	0.0
	4.800	0.0					
19.650	0.0						

RUNOFF VOLUME = 2.65501 INCHES = 0.1204 ACRE-FEET
PEAK DISCHARGE RATE = 1.72 CFS AT 1.600 HOURS BASIN AREA = 0.0008 SQ. MI.

*HISTORICAL
COMPUTE NM HYD ID=5 HYD NO=103 DA= .00085 SQ MI
PER A=0 PER B=0 PER C=65 PER D=35
TP=-.181 MASSRAIN=-1

K = 0.098645HR TP = 0.181000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 0.86501 CFS UNIT VOLUME = 0.9872 B = 526.28

P60 = 2.1400
AREA = 0.000298 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.147885HR TP = 0.181000HR K/TP RATIO = 0.817047 SHAPE CONSTANT, N = 4.373953
UNIT PEAK = 1.1580 CFS UNIT VOLUME = 0.9892 B = 379.38
P60 = 2.1400
AREA = 0.000553 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=5 CODE=3

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
14.850	0.0	19.800	0.0	4.950	0.0
15.000	0.0	19.950	0.0	5.100	0.0
15.150	0.0	20.100	0.0	5.250	0.0
15.300	0.0	20.250	0.0	5.400	0.0
15.450	0.0	20.400	0.0	5.550	0.0
15.600	0.0	20.550	0.0	5.700	0.0
15.750	0.0	20.700	0.0	5.850	0.0
15.900	0.0	20.850	0.0	6.000	0.0
16.050	0.0	21.000	0.0	6.150	0.0
16.200	0.0	21.150	0.0	6.300	0.0
16.350	0.0	21.300	0.0	6.450	0.0
16.500	0.0	21.450	0.0	6.600	0.0
16.650	0.0	21.600	0.0	6.750	0.0
16.800	0.0	21.750	0.0	6.900	0.0
16.950	0.0	21.900	0.0	7.050	0.0
17.100	0.0	22.050	0.0	7.200	0.0
17.250	0.0	22.200	0.0	7.350	0.0
17.400	0.0	22.350	0.0	7.500	0.0
17.550	0.0	22.500	0.0	7.650	0.0
17.700	0.0	22.650	0.0	7.800	0.0
17.850	0.0	22.800	0.0	7.950	0.0
0.000	0.0	0.150	0.0	0.300	0.0
0.450	0.0	0.600	0.0	0.750	0.0
0.900	0.0	1.050	0.1	1.200	0.1
1.350	0.5	1.500	1.8	1.650	1.7
1.800	0.9	1.950	0.4	2.100	0.2
2.250	0.2	2.400	0.1	2.550	0.1
2.700	0.0	2.850	0.0	3.000	0.0
8.100	0.0	8.250	0.0	8.400	0.0
8.550	0.0	8.700	0.0	8.850	0.0
9.000	0.0	9.150	0.0	9.300	0.0
9.450	0.0	9.600	0.0	9.750	0.0
10.200	0.0	10.350	0.0	10.500	0.0
10.650	0.0	10.800	0.0	10.950	0.0
11.100	0.0	11.250	0.0	11.400	0.0
11.550	0.0	11.700	0.0	11.850	0.0
12.000	0.0	12.150	0.0	12.300	0.0
12.450	0.0	12.600	0.0	12.750	0.0
12.900	0.0				

	3.150	0.0		8.100	0.0	13.050	0.0
18.000	0.0		22.950	0.0			
	3.300	0.0		8.250	0.0	13.200	0.0
18.150	0.0		23.100	0.0			
	3.450	0.0		8.400	0.0	13.350	0.0
18.300	0.0		23.250	0.0			
	3.600	0.0		8.550	0.0	13.500	0.0
18.450	0.0		23.400	0.0			
	3.750	0.0		8.700	0.0	13.650	0.0
18.600	0.0		23.550	0.0			
	3.900	0.0		8.850	0.0	13.800	0.0
18.750	0.0		23.700	0.0			
	4.050	0.0		9.000	0.0	13.950	0.0
18.900	0.0		23.850	0.0			
	4.200	0.0		9.150	0.0	14.100	0.0
19.050	0.0		24.000	0.0			
	4.350	0.0		9.300	0.0	14.250	0.0
19.200	0.0		24.150	0.0			
	4.500	0.0		9.450	0.0	14.400	0.0
19.350	0.0						
	4.650	0.0		9.600	0.0	14.550	0.0
19.500	0.0						
	4.800	0.0		9.750	0.0	14.700	0.0
19.650	0.0						

RUNOFF VOLUME = 1.87108 INCHES = 0.0848 ACRE-FEET
PEAK DISCHARGE RATE = 2.00 CFS AT 1.550 HOURS BASIN AREA = 0.0009 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 14:47:00

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

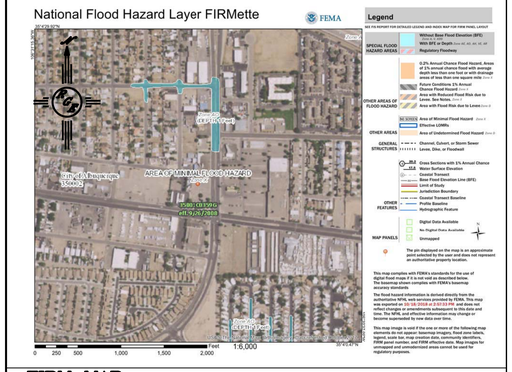
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

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 ACCEPTANCE OF ANY PROJECT.

VICINITY MAP: L-21-Z



FIRM MAP:

LEGAL DESCRIPTION:

TRACT A-1-B, BLOCK 6 EAST CENTRAL BUSINESS ADDITION
BERNALILLO COUNTY ALBUQUERQUE, NEW MEXICO

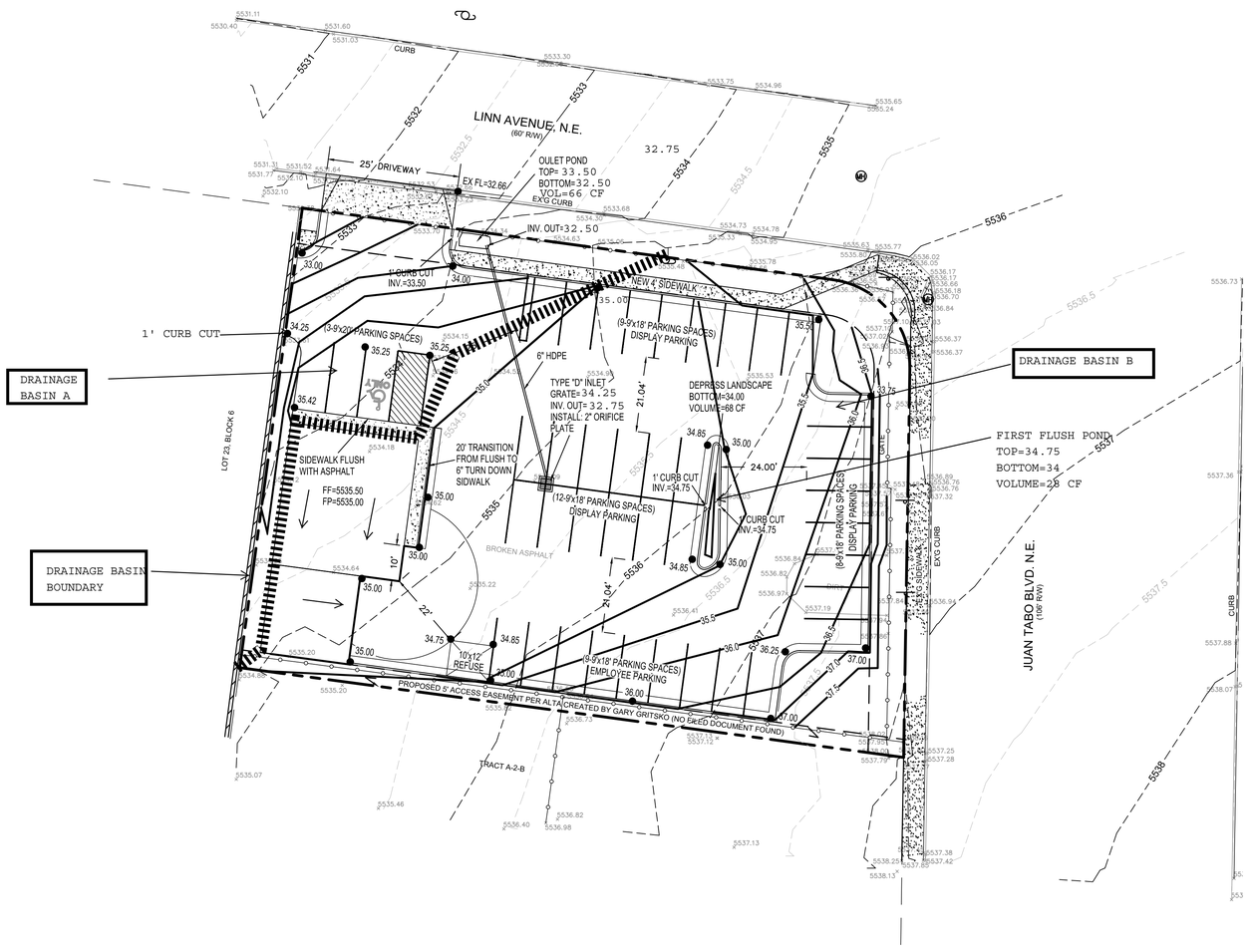
NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

2. ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.

3. ANY PERIMETER WALLS MUST BE PERMITED SEPARATELY. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.

4. SURVEY INFORMATION PROVIDED BY COMMUNITY SCIENCES CORPORATION USING NAVD DATUM 1988.



CAUTION:

EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

LEGEND

- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- BOUNDARY
- PROPOSED EARTHEN SWALE
- ADJACENT BOUNDARY
- EXISTING CURB AND GUTTER
- PROPOSED GRAVEL DRIVEWAY
- PROPOSED CONCRETE DRIVEWAY

ENGINEER'S SEAL

DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER

10/22/18

DAVID SOULE
P.E. #14522

109 JUAN TABO BLVD

GRADING AND DRAINAGE PLAN

Rio Grande Engineering
1606 CENTRAL AVENUE SE
SUITE 201
ALBUQUERQUE, NM 87106
(505) 872-0999

DRAWN BY DEM

DATE 10-22-18

109 JUAN TABO.DWG

SHEET # C1

JOB #