CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

June 7, 2019

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

RE: 9th and Tijeras
Grading & Drainage Plan and Drainage Report
Engineer's Stamp Date: 05/29/19
Hydrology File: J14D114

Dear Mr. Soule:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 05/29/2019, the Grading & Drainage Plan and Drainage Report is approved for Building Permit and Grading 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.

Please provide a Drainage Covenant per Chapter 17 of the DPM for the detention pond prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A $25 fee 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 (Curtis Cherne, PE, ccherne@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.

Sincerely,

Renée C. Brissette

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: 9th and Tijeras Building Permit #:_____ Hydrology File #: _____

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

Legal Description: lots 7 and 8a1-5 block 83 NM Town Company original

City Address: 814-848 tijeras

Applicant: dreadnaught-rapier ltd, llc 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 X (6) RESIDENCE ___ DRB SITE ___ 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:_____

UPDATED
DRAINAGE REPORT

For

TIJERAS TOWN HOMES
9TH AND TIJERAS
Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

MAY 2019

David Soule P.E. No. 14522

TABLE OF CONTENTS

Purpose 3
Introduction 3
Existing Conditions 3
Exhibit A-Vicinity Map 4
Proposed Conditions 5
Summary 5

Appendix

Site Hydrology ..... A

Map Pocket
Site Grading and Drainage Plan

PURPOSE

The purpose of this report is to provide the Drainage Management Plan for the redevelopment of a developed lot located at the southeast corner of Tijeras and 9th street. 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 .37-acre parcel of land located on the east side of 9th street between Tijeras and Kent NW. The legal description of this site is lots 7-12, block 53, New Mexico Town Companies Original Town Site. The site is currently being replatted to consolidate lots As shown on FIRM map35013C0333G, the entire site is located within Flood Zone X. The site must not exceed the existing discharge rate of 0.64 cfs cfs.

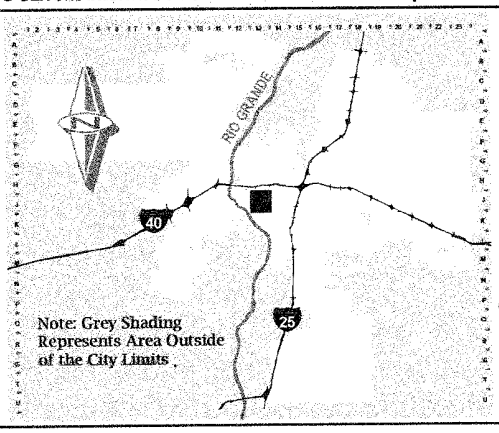
EXISTING CONDITIONS

The site is currently a graded lot that has been used as a parking lot. . This flow is captured by an inlets located at the intersection of 9th and Tijeras and 9th and Kent. The site is not impacted by any upland flows.

For more current information and more details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 2/4/2010



Note: Grey Shading Represents Area Outside of the City Limits.

Zone Atlas Page:

J-13-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

PROPOSED CONDITIONS

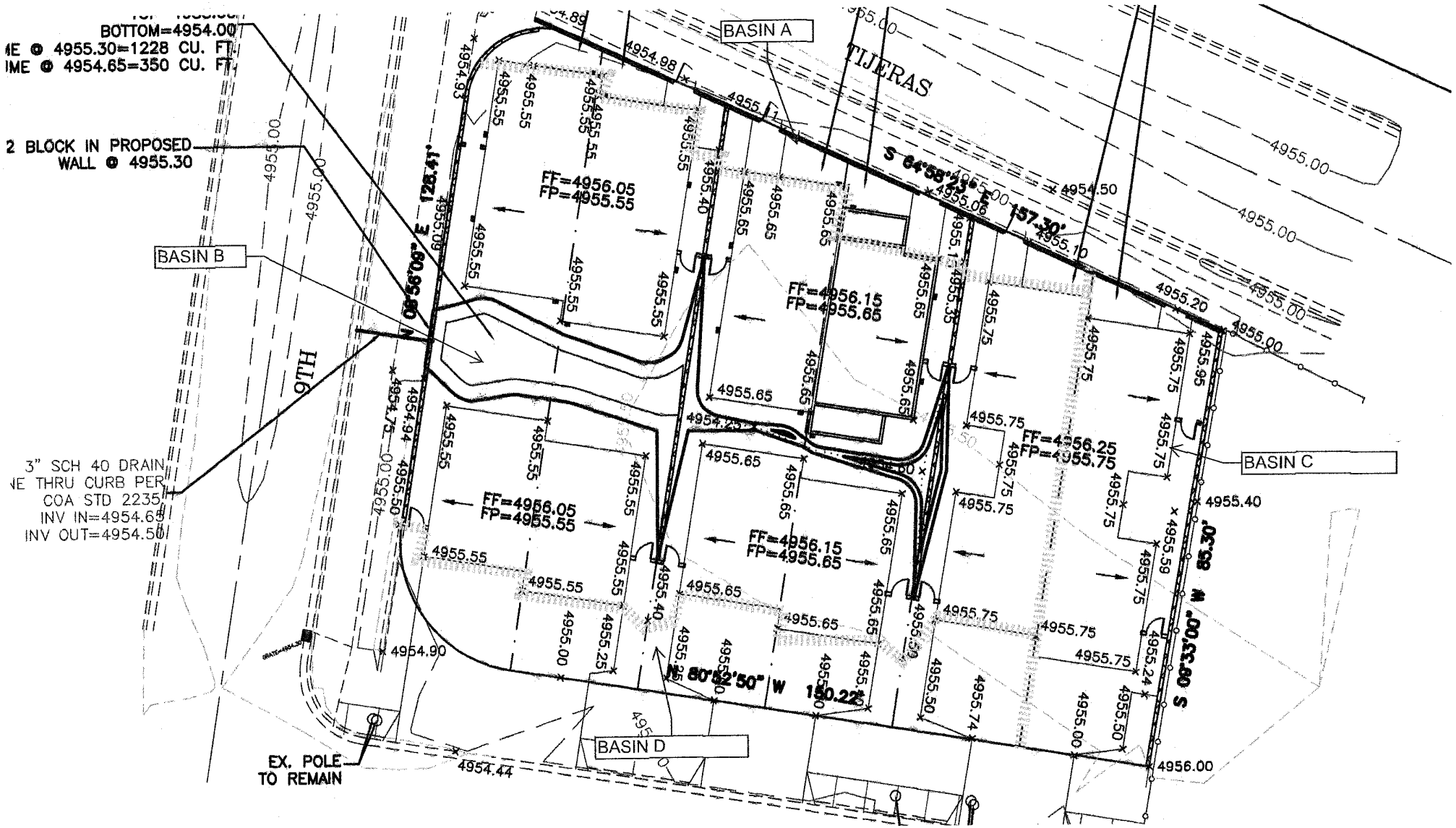
The proposed improvements consist of 12 new buildings on the 6 lots and their associated parking areas. As shown in appendix A, the site will consist of 4 drainage basins. All of the basins drain to the street. Basins A, C and D free discharge to the street after passing thru first flush depressions in the landscape buffer, with basin A retaining its entire flow. Basins B drains thru a detention pond that discharges to the street via 3" pipes under the sidewalks. The pond was modeled utilizing AHYMO. The model shows this basin has a peak discharge of .95 cfs, which is reduced to 0.18 cfs when routed thru the pond. The maximum water surface elevation is 4955.29. The basin will discharge via an overflow in the wall at 4955.40. Basins A and B capture their required first flush volume, while basins C and D do not, therefore a fee in lieu payment of $742.90 will be paid for the 87.4 cf that the developer elects not to capture. Due to the proposed detention and harvest ponds, the flow leaving the site will be 0.59 cfs which is less than existing and less that the 0.64cfs allowed for based upon historic rate. All of the ponds will fill and spill over the sidewalk as an emergency overflow. The site is a redevelopment of an existing site and the surrounding infrastructure is functioning.

SUMMARY AND RECOMMENDATIONS

This project is a redevelopment of a currently developed site. The site is within a fully developed area. The site is not directly contributing to any adjacent flood plains. The site development will allow for a reduced discharge rate from existing and less than the historical and existing. The site will manage a portion of the first flush volume on site, and pay a fee in lieu for the basins not captured. The site discharge characteristics will be improved from the existing conditions. Since the effected area site encompasses and area less than 1 acre, a NPDES permit and ESC plan should not be required prior to any construction activity.

APPENDIX A

SITE HYDROLOGY



DRAINAGE BASIN MAP

Weighted E Method

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)	100-Year, 6-hr. Volume (ac-ft)	100-Year, 6-hr. Flow cfs	24-hour Volume (ac-ft)
ALLOWED*	15914.00	0.365	80%	0.292268136	15%	0.055	5%	0.01827	0%	0.000	0.598	0.018	0.64	0.018
PROPOSED A	1163.00	0.027	0%	0	70%	0.019	22%	0.00587	8%	0.002	0.964	0.002	0.07	0.002
PROPOSED B	10503.00	0.241	0%	0	24%	0.058	11%	0.02652	65%	0.157	1.690	0.034	0.95	0.039
PROPOSED C	2110.00	0.048	0%	0	22%	0.011	14%	0.00678	66%	0.032	1.729	0.007	0.20	0.008
PROPOSED D	2138.00	0.049	0%	0	5%	0.002	16%	0.00785	79%	0.039	1.895	0.008	0.21	0.009
OVERALL SITE	15914.00	0.365		0	25%	0.090	13%	0.047	63%	0.230		0.051	1.43	

Equations:

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

NATIVE

Volume = Weighted D * Total Area

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

Where for 100-year, 6-hour storm

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

Qa= 1.56
Qb= 2.28
Qc= 3.14
Qd= 4.7

CONTRIBUTING BASINS	6 hour	24 hour	DETENTION CAPACITY	RETENTION	Peak discharge	Throttled discharge	FIRST FLUSH	FEE IN LIEU
POND A		97 CF	0 CF	100	0.07	0	2.6 CF	0
POND B		1479 CF	1508 CF	486	0.95	0.18	193.4 CF	0
POND C		350 CF	0 CF	0	0.20	0.2	39.5 CF	39.5
POND D**		338 CF	0 CF	0	0.21	0.21	47.9 CF	47.9
								87.4

FIRST FLUSH CALCULATION

BASIN A+B CAPTURE REQUIRED VOLUME
BASIN C+D REQUIRED 87.4 CUBIC FEET = $742.90 FEE IN LIEU

FLOW GENERATED	1.43 CFS
PEAK FLOW AFTER ROUTING	0.59 CFS
HISTORIC	0.64 CFS

VOLUME CALCULATIONS

PARKING LOT POND

	ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVI	VOLUME AC-FT	Q (CFS)
POND BOTTOM	53.75	0	399	399	0	0.000	
INV OUT	54.60	0.00	680.00	485.55	485.55	0.011	0.00
TOP POND	55.00	0.40	1310.00	348.25	833.8	0.019	0.15
POND OVERFLOW	55.30	0.70	2064.00	674.80	1508.6	0.035	0.20

90.45

Orifice Equation

Q = CA SQRT(2gH)

C =	86
Diameter (in)	3
Area (ft^2)=	0.049087385
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

```
*S      AHYMO -  DETENTION-TIJERAS TOWNHOMES
*S               POND ROUTING

START                 TIME=0.0  PUNCH CODE=0


RAINFALL              TYPE=2
                      QUARTER=0.0    ONE= 2.01 IN
                      SIX=2.35 IN   DAY= 2.75 IN   DT = 0.05 HR



COMPUTE NM HYD        ID=1  HYD NO=101  DA= .0003765 SQ MI


                      PER A=0  PER B=24 PER C=11  PER D=65
                      TP=-.165  MASSRAIN=-1



PRINT HYD             ID=1  CODE=3

* 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              0.008          54.65

                         0.15              0.019          55.00
                         0.20              0.035          55.30



FINISH
```

```
      AHYMO PROGRAM (AHYMO-S4)                    - Version: S4.01a - Rel: 01a
           RUN DATE (MON/DAY/YR) = 05/29/2019
           START TIME (HR:MIN:SEC) = 10:28:39     USER NO.=
RioGrandeSingleA41963517
           INPUT FILE = ments and Settings\Owner\Desktop\2019
JOBS\1973-9THANDTIJERAS\pondrout052919.txt


    *S     AHYMO -  DETENTION-TIJERAS TOWNHOMES
    *S              POND ROUTING

    START               TIME=0.0  PUNCH CODE=0


    RAINFALL            TYPE=2
                        QUARTER=0.0    ONE= 2.01 IN
                        SIX=2.35 IN    DAY= 2.75 IN    DT = 0.05 HR



                   24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE
AREAS (NM & AZ) - D1
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                     0.0000  0.0023  0.0046  0.0071  0.0099  0.0127  0.0159
                     0.0203  0.0272  0.0347  0.0424  0.0509  0.0595  0.0684
                     0.0776  0.0870  0.0974  0.1084  0.1204  0.1437  0.1728
                     0.2117  0.2559  0.3104  0.3831  0.4649  0.6062  0.8258
                     1.2021  1.4666  1.6752  1.7800  1.8719  1.9379  1.9905
                     2.0362  2.0697  2.1005  2.1259  2.1418  2.1530  2.1629
                     2.1722  2.1803  2.1879  2.1953  2.2025  2.2084  2.2118
                     2.2152  2.2186  2.2217  2.2247  2.2278  2.2307  2.2336
                     2.2363  2.2391  2.2417  2.2443  2.2469  2.2494  2.2518
                     2.2542  2.2565  2.2588  2.2611  2.2633  2.2654  2.2676
                     2.2697  2.2717  2.2738  2.2758  2.2778  2.2798  2.2817
                     2.2837  2.2856  2.2874  2.2893  2.2911  2.2930  2.2948
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2.5889	2.5899	2.5910	2.5921	2.5932	2.5943	2.5954
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2.6558	2.6569	2.6579	2.6589	2.6600	2.6610	2.6620
2.6630	2.6641	2.6651	2.6661	2.6672	2.6682	2.6692
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2.6985	2.6995	2.7005	2.7015	2.7025	2.7034	2.7044
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          UNIT PEAK =  0.79502     CFS   UNIT VOLUME =   0.9852        B =   526.28
 P60 = 2.0100
          AREA =      0.000245 SQ MI     IA =   0.10000 INCHES     INF =   0.04000
INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.050000


          K =  0.151115HR     TP =  0.162000HR     K/TP RATIO =  0.932807      SHAPE
CONSTANT, N =  3.791850
          UNIT PEAK =  0.27742     CFS   UNIT VOLUME =   0.9506        B =   341.05
 P60 = 2.0100
          AREA =      0.000132 SQ MI     IA =   0.45286 INCHES     INF =   1.11800
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       FLOW             TIME       FLOW            TIME       FLOW
TIME       FLOW            TIME       FLOW
          HRS        CFS              HRS        CFS             HRS        CFS
HRS       CFS             HRS        CFS
          0.000        0.0            4.950        0.0           9.900        0.0
14.850       0.0          19.800       0.0
          0.150        0.0            5.100        0.0          10.050        0.0
```

15.000	0.0	19.950	0.0				
	0.300	0.0	5.250	0.0	10.200	0.0	
15.150	0.0	20.100	0.0				
	0.450	0.0	5.400	0.0	10.350	0.0	
15.300	0.0	20.250	0.0				
	0.600	0.0	5.550	0.0	10.500	0.0	
15.450	0.0	20.400	0.0				
	0.750	0.0	5.700	0.0	10.650	0.0	
15.600	0.0	20.550	0.0				
	0.900	0.0	5.850	0.0	10.800	0.0	
15.750	0.0	20.700	0.0				
	1.050	0.0	6.000	0.0	10.950	0.0	
15.900	0.0	20.850	0.0				
	1.200	0.1	6.150	0.0	11.100	0.0	
16.050	0.0	21.000	0.0				
	1.350	0.3	6.300	0.0	11.250	0.0	
16.200	0.0	21.150	0.0				
	1.500	0.9	6.450	0.0	11.400	0.0	
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	1.650	0.7	6.600	0.0	11.550	0.0	
16.500	0.0	21.450	0.0				
	1.800	0.3	6.750	0.0	11.700	0.0	
16.650	0.0	21.600	0.0				
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16.800	0.0	21.750	0.0				
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16.950	0.0	21.900	0.0				
	2.250	0.1	7.200	0.0	12.150	0.0	
17.100	0.0	22.050	0.0				
	2.400	0.0	7.350	0.0	12.300	0.0	
17.250	0.0	22.200	0.0				
	2.550	0.0	7.500	0.0	12.450	0.0	
17.400	0.0	22.350	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 = 1.98869 INCHES = 0.0399 ACRE-FEET
PEAK DISCHARGE RATE = 0.95 CFS AT 1.550 HOURS BASIN AREA =

0.0004 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	0.008	54.65
0.20	0.035	55.30

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	54.65	0.008	0.00
0.15	0.00	54.65	0.008	0.00
0.30	0.00	54.65	0.008	0.00
0.45	0.00	54.65	0.008	0.00
0.60	0.00	54.65	0.008	0.00
0.75	0.00	54.65	0.008	0.00
0.90	0.00	54.65	0.008	0.00
1.05	0.04	54.66	0.008	0.00
1.20	0.10	54.68	0.009	0.01
1.35	0.26	54.72	0.011	0.02
1.50	0.88	54.87	0.017	0.07
1.65	0.71	55.10	0.027	0.14
1.80	0.34	55.20	0.031	0.17
1.95	0.19	55.23	0.032	0.18
2.10	0.11	55.22	0.032	0.18
2.25	0.06	55.19	0.031	0.17
2.40	0.03	55.16	0.029	0.16
2.55	0.01	55.12	0.028	0.14
2.70	0.01	55.08	0.026	0.13
2.85	0.00	55.04	0.024	0.12
3.00	0.00	55.01	0.023	0.11
3.15	0.00	54.98	0.022	0.10
3.30	0.00	54.95	0.021	0.09
3.45	0.00	54.93	0.019	0.08
3.60	0.00	54.90	0.018	0.08
3.75	0.00	54.88	0.018	0.07
3.90	0.00	54.86	0.017	0.06
4.05	0.00	54.84	0.016	0.06
4.20	0.00	54.83	0.015	0.05
4.35	0.00	54.81	0.015	0.05
4.50	0.00	54.80	0.014	0.05
4.65	0.00	54.79	0.014	0.04
4.80	0.00	54.77	0.013	0.04
4.95	0.00	54.76	0.013	0.03
5.10	0.00	54.75	0.012	0.03
5.25	0.00	54.75	0.012	0.03
5.40	0.00	54.74	0.012	0.03
5.55	0.00	54.73	0.011	0.03

5.70	0.00	54.73	0.011	0.02
5.85	0.00	54.72	0.011	0.02
6.00	0.00	54.71	0.011	0.02
6.15	0.00	54.71	0.010	0.02
6.30	0.00	54.71	0.010	0.02
6.45	0.00	54.70	0.010	0.02
6.60	0.00	54.70	0.010	0.02
6.75	0.00	54.70	0.010	0.01
6.90	0.00	54.69	0.010	0.01
7.05	0.00	54.69	0.010	0.01
7.20	0.00	54.69	0.010	0.01
7.35	0.00	54.69	0.009	0.01
7.50	0.00	54.68	0.009	0.01
7.65	0.00	54.68	0.009	0.01
7.80	0.00	54.68	0.009	0.01
7.95	0.00	54.68	0.009	0.01
8.10	0.00	54.68	0.009	0.01
8.25	0.00	54.68	0.009	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
8.40	0.00	54.67	0.009	0.01
8.55	0.00	54.67	0.009	0.01
8.70	0.00	54.67	0.009	0.01
8.85	0.00	54.67	0.009	0.01
9.00	0.00	54.67	0.009	0.01
9.15	0.00	54.67	0.009	0.01
9.30	0.00	54.67	0.009	0.01
9.45	0.00	54.67	0.009	0.01
9.60	0.00	54.67	0.009	0.01
9.75	0.00	54.67	0.009	0.01
9.90	0.00	54.67	0.009	0.01
10.05	0.00	54.67	0.009	0.01
10.20	0.00	54.67	0.009	0.01
10.35	0.00	54.67	0.009	0.00

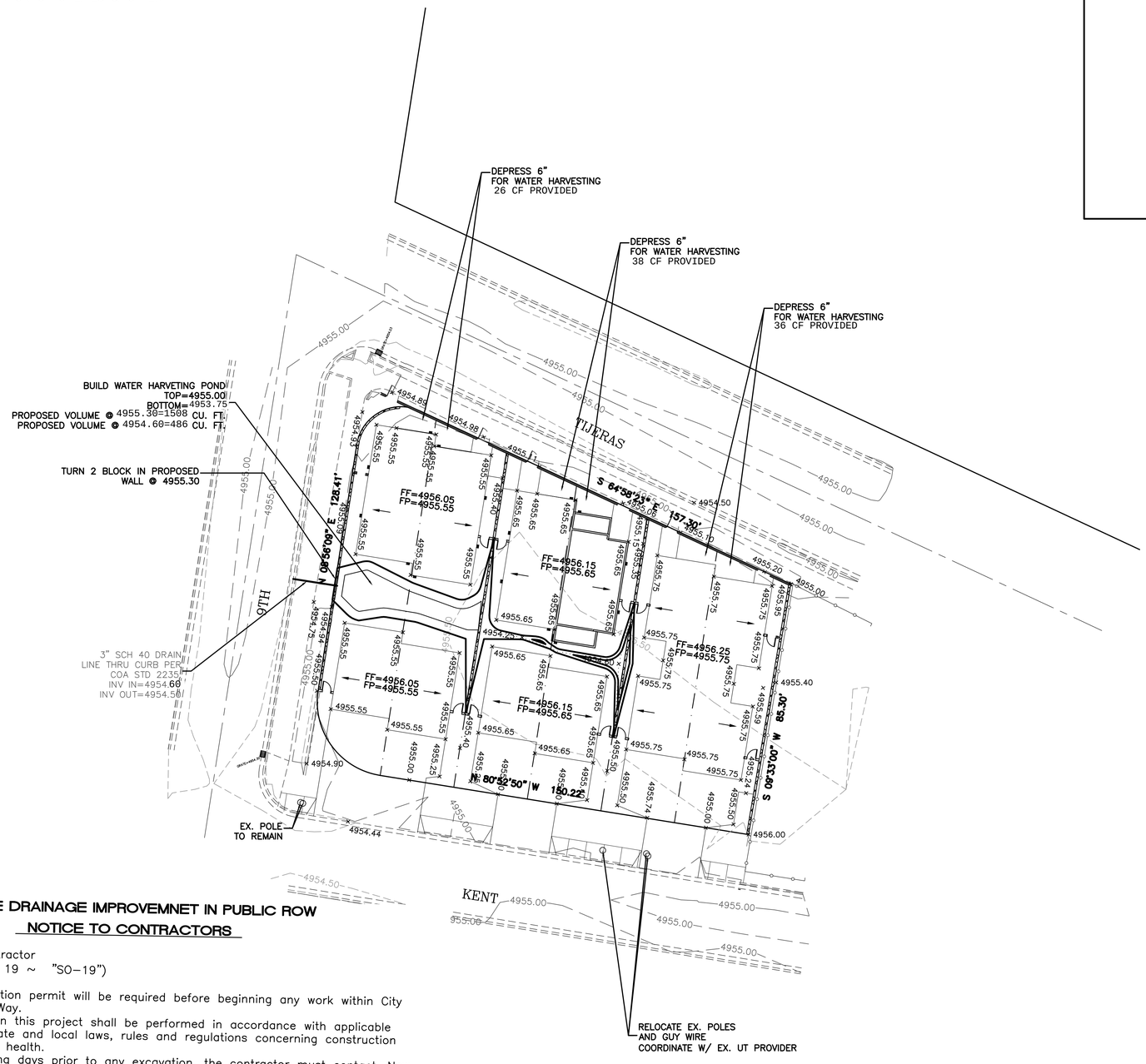
PEAK DISCHARGE = 0.178 CFS - PEAK OCCURS AT HOUR 1.95
MAXIMUM WATER SURFACE ELEVATION = 55.228
MAXIMUM STORAGE = 0.0320 AC-FT INCREMENTAL TIME= 0.050000HRS

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:28:39

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



PRIVATE DRAINAGE IMPROVEMNET IN PUBLIC ROW
NOTICE TO CONTRACTORS

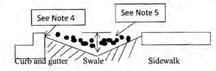
Notice to Contractor
(Special Order 19 ~ "SO-19")

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 shall be performed on a 24-hour basis.
8. Prior to pouring concrete, contractor shall notify the storm drain inspector, 857-8074, to inspect reinforcement.

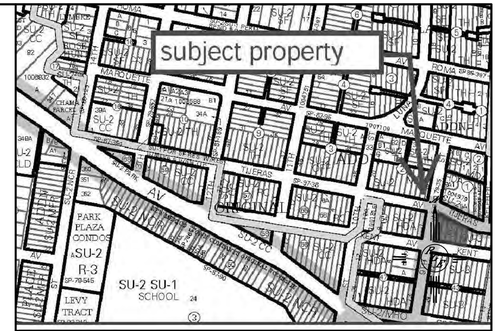
APPROVAL	NAME	DATE
INSPECTOR		

UTILIZE THIS DETAIL ON SAN PEDRO, OAKLAND AND ALAMEDA

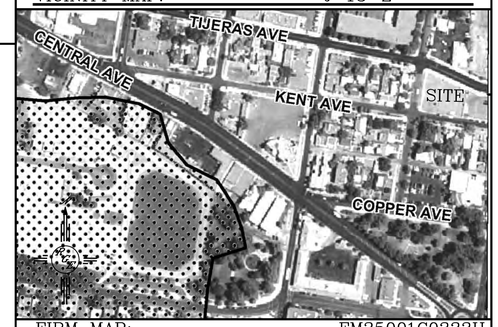
4. Streetscape Category:
a. The landscape area between the sidewalk and back of curb is to be depressed and covered in rock to prevent erosion. See the detail and notes below:



1. Swale to have side slopes of 5:1 (H:V).
2. For wide landscape buffers, greater than 10 feet, the maximum depth is 10 inches.
3. Landscape buffers 2 feet and less in width are excluded.
4. Final grade of dirt to be 1 to 2 inches below top of curb and top of sidewalk grade.
5. Surface between back of curb and sidewalk to be covered with gravel mulch (minimum ¼"), cobbles or rip-rap. Do not fill entire swale.
6. A check dam will be required for swales on steeper longitudinal slopes, 2.5% and greater, and longer sections. The engineer will determine the location.
7. Landscape fabric is recommended, but not required, between the dirt and the stone. If landscape fabric is to be used it is to be permeable.
8. In the case where the sidewalk is existing and the landscape buffer is improved with landscaping and/or some form of erosion protection, this requirement does not apply.



VICINITY MAP: J-13-Z



FIRM MAP: FM35001C0333H

LEGAL DESCRIPTION:

LOTS 7-12, BLOCK 53, NEW MEXICO TOWN COMPANY ORIGINAL TOWN-SITE

NOTES:

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

2. GARAGE UNITS SHALL HAVE 6" CURB AT PERIMETER EXCEPT AT GARAGE DOOR, GARAGE DOOR SHALL HAVE 1/2" LIP AT DOOR.

3. ALL DRIVEPADS SHALL BE BUILT PER COA STD DWG #2425.

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.

LEGEND

- EXISTING CONTOUR (5414)
- EXISTING INDEX CONTOUR (5415)
- PROPOSED CONTOUR (5414)
- PROPOSED INDEX CONTOUR (5415)
- SLOPE TIE
- EXISTING SPOT ELEVATION (× 4048.25)
- PROPOSED SPOT ELEVATION (× 4048.25)
- BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED SIDEWALK
- PROPOSED SETBACK
- PROPOSED LOT LINE

N

GRAPHIC SCALE
20 10 0 10 20
SCALE: 1"=20'

ENGINEER'S SEAL
DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER
5/28/19
DAVID SOULE P.E. #14522

9TH AND TIJERAS TOWNHOMES
GRADING AND DRAINAGE PLAN

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

DRAWN BY WCWJ
DATE 5-15-19
2109039-LAYOUT-5-10-19
SHEET # –
JOB # 2109039