CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

June 29, 2017

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM, 87199

RE: Oakland Ridge Subdivision
Grading Plan and Drainage Report
Stamp Date: 6/27/17
Hydrology File: C18D085

Dear Ms. Hoelzer:

Based upon the information provided in your re-submittal received 6/27/2017, the Grading Plan and Drainage Report are approved for Preliminary Plat action by the DRB.

Please note that before a submittal for building permit; please verify that the inlet on Oakland that you show at the northwest corner of the property exists. It appears that this inlet was not installed by the adjacent development.

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

Sincerely,

Reneé C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

Orig: Drainage File

Oakland Ridge Subdivision

Drainage Management Plan

Prepared by
Mark Goodwin & Associates, P.A.

June 2017

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09 2015)

Project Title: Oakland Ridge Subdivision Building Permit #: _____ City Drainage #: _____

DRB#: 1010793 EPC#: _____ Work Order#: _____

Legal Description: Lots 15, 16, 17, 18, Block 28, Tract A, Unit B, North Albuquerque Acres

City Address: Oakland Ave and Olivine Ct.

Engineering Firm: Mark Goodwin & Associates, PA Contact: Diane Hoelzer, PE

Address: PO BOX 90606, Albuquerque, NM 87199

Phone#: 505-828-2200 Fax#: _____ E-mail: diane@goodwinengineers.com

Owner: Brian Urlacher, a Single Man Contact: Bo Johnson, Bokay Construction

Address: 5160 San Francisco NE, Albuquerque, NM 87109

Phone#: 505-450-4616 Fax#: _____ E-mail: bo@bokayconst.com

Architect: _____ Contact: _____

Address: _____

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

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

____ TRAFFIC/ TRANSPORTATION

____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN

X GRADING PLAN

____ DRAINAGE MASTER PLAN

____ DRAINAGE REPORT

____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)

____ TRAFFIC IMPACT STUDY (TIS)

____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY

X 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

____ PRE-DESIGN MEETING

____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ____ Yes X No

DATE SUBMITTED: June 27, 2017 By: Diane Hoelzer, PE

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED ___

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539

June 27, 2017
Renee' C. Brissette, PE
Hydrology Division, Planning Dept.
Development and Building Services
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Oakland Ridge Subdivision
Engineers stamp date 6-27-17 (C18 /D085)

Attention Ms. Brissette:

This letter is in response to your comment letter dated 5-24-17:

1. Acknowledged.

Drainage Report:

1. Text has been added.
2. A temporary retention pond has been sized and is shown in the drainage report.
3. If this storm drain system in Oakland is supposed to accept flows from this project site, as you mentioned in #1,#2 and #3, it should have already been designed by the Engineer who designed the storm drain system and to accept flow from Sub Basin 117.2 which includes my project site.
4. I have regraded the entire site at your request, to move the high point 50 feet to the south, to reroute 0.95 cfs to the north for the 100 year storm event.
5. Done
6. Figure 5 has been updated.
7. Done, calculations are the Appendix.
8. Profiling storm pipe is done at DRC. Manning's equation indicates a 24" storm pipe carrying 5.56 cfs at a 10.2% slope is well below top of pipe, therefore HGL in pipe is not an issue.

Grading Plan:

1. Done.
2. No, that is not true. The grading plan shows a 2-3 foot offset between the retaining wall and existing sidewalk. In any event if the wall builder damages the existing sidewalk, he will have to replace it.
3. This information was already provided in the original report. Please refer to the text in section II and Figure 3.
4. This notation has been removed.
5. The property line added through the pond. A typical plan view detail is shown on the grading plan so the contractor can construct it. A profile view should not be necessary. A note about

gravel mulch has been added.

6. *Yes, that is correct, the entire site does not drain to the first flush pond. The driveways do not allow this situation. The roof and part of the sideyards and back yards only as shown. Refer to exhibit in Appendix.*
7. *Typical detail is shown in the Appendix as mentioned in #6. The front yard ponds and curb side ponds are designed to capture as much runoff as possible.*
8. *Done.*
9. *Done.*
10. *Done.*
11. *Sidewalks are typically constructed at a cross slope of 2% up from the top of curb and new sidewalk is connected to existing sidewalk as required. There is nothing unusual about this design, so I am not sure why all these additional spot elevations on a sidewalk are being required for a "rough grading plan" approval. Sidewalks will NOT be constructed using this plan. They will be constructed at the time of DRC or they are deferred.*
12. *Yes the dirt will be about 12" higher that the top of the existing retaining wall. This is OK. A new fence will be constructed in accordance with current zoning ordinances. This will be designed by others.*

Please call me if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Diane Hoelzer, PE
Senior Engineer

DLH/dlh
f:\\16029 Oakland Ridge/ Hydro_ltr_16029.docx

CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

May 24, 2017

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM, 87199

RE: Oakland Ridge Subdivision
Grading Plan and Drainage Report
Stamp Date: 5/19/17
Hydrology File: C18D085

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 5/19/2017, the Grading Plan and Drainage Report **is not** approved for Preliminary Plat action by the DRB. The following comments need to be addressed for approval of the above referenced project:

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

1. More than 1 acre of disturbance is proposed, therefore an Erosion and Sediment Control Plan is required and is to be submitted to the storm water quality engineer (Curtis Cherne, PE, ccherne@cabq.gov). An approval for this must be given prior to Hydrology's approval for Grading Permit.

Drainage Repot:

1. Under Design Criteria and Previous Reports, please add that the NAA MDP design analysis was modified by the Eagle Rock Drainage Plan. A storm pipe and Manhole on Oakland Ave. was installed with the construction of Oakland Estates. This pipe was designed to capture the drainage of the east portion of Basin 117.2 and discharges into a storm sewer system on Eagle Rock Ave.

2. Please note that the proposed 30-in storm pipe on Oakland Ave. which will tie into the above mentioned existing manhole and storm sewer is currently at best only about 20% constructed. This has a completion date in August and accepted by the City two or three months after the completion date. Depending on the quickness of this project, a temporary retention pond may be needed until the storm sewer system is accepted by the City.

3. Under Developed Drainage Conditions, it states that the existing storm drain in Oakland Avenue with inlets will intercept the North basin's flow. As stated above, the existing storm sewer system on Oakland is currently not accepting drainage from Basin 117.2. Once the system is accepted, it will be open to the drainage.

Orig. Drainage File

Please provide the inlet capacity calculations on the existing inlet constructed by the adjacent development downstream to demonstrate that there will be downstream capacity once the Oakland storm sewer is accepted by the City.

4. Under Developed Drainage Conditions, it states that South basin will discharge 7.05 cfs which will be conveyed through a proposed storm pipe to an inlet on Alameda. However, according to the Drainage Letter Report for Alameda Boulevard San Pedro to Wyoming Project dated January 2012 by Thompson Engineering Consultants, the storm system on Alameda was designed to take 3.82 cfs/acre from Basin 117.3. For this project, The area which is part of Basin 117.3 is the two southern existing lots. The combined area of these two lots is 1.61 acres and therefore the allowable maximum discharge is 6.16 cfs. See attached report and basin exhibit. Please change the North and South drainage basis, so that the South basin will only discharge 6.16 cfs or less.

5. Please update Figure 4 as outlined above. Also please state the acreage of the North basin and the South basin.

PO Box 1293

Albuquerque

New Mexico 87103

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6. Please update Figure 5. This should reflect the new basins, so Lot 6 & 7 information should be moved from the South basin to the North basin. Also Lot 18 & 19 information should be moved from the South basin to the North basin.

7. Please provide inlet capacity and weir calculations for the proposed Type A inlet.

8. Please provide the calculation for the 100 year HGL through the proposed 24" storm pipe from the existing inlet to the proposed Type A inlet.

9. Please provide an exhibit showing the profile of the proposed 24" storm pipe from the existing inlet to the proposed Type A inlet. Please include the HGL.

Grading Plan:

1. Please provide the street slopes.

2. The retaining wall along the East property line appears to have a constructability problem with undermining the existing sidewalk. Please provide a cross section.

3. Please add the site floodplain information.

4. On the Typical Depressed Area Detail, Notes #4 & 5 are missing. Please correct the Detail.

Orig: Drainage File

CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

5. On the Typical Front Yard First Flush Detail, Please show the property line that goes through the middle of the majority of the ponds. Also cross section would greatly improve the readability and show that the first flush volume is only within the 6-inch depth. Also this pond should have gravel mulch within the first flush volume.

6. Please clarify the Typical Lot Grading Scheme. It appears that the back lot drainage will just travel either to the north or south depending on the grading without being directed to the first flush ponds.

7. It appears that the first flush ponds will not collect the majority of the lot runoff as designed. Please show that each first flush basin is designed for its drainage basin. Pond location or another layout may be necessary.

8. Please show better line weight between the existing sidewalks & ramps and the proposed sidewalks & ramps.

9. Please provide the Grate elevation for the Type A inlet.

10. At the Proposed Type A inlet, is the proposed sidewalk supposed to connect to the proposed sidewalk along Alameda Blvd? If so, then please remove the retaining wall at the connection.

11. Please provide proposed grade points at the southwest corner (on the proposed sidewalk), at the Type A inlet (on the proposed sidewalk), at the northeast corner (on the proposed sidewalk), at the end of the wall on Lot 1, and at the end of the curved wall on Lot 13 (on the proposed sidewalk).

12. Along the northern half of the existing retaining wall along the western property line, starting at Lot 6 the proposed grades are higher than the top of the existing retaining wall. There are considerable constructability issues here. Please clarify and provide a cross section of the existing retaining wall.

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

Sincerely,

Renee C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

Orig: Drainage File

Oakland Ridge Subdivision

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Temporary Retention Pond Calcs.
Temporary Retention Pond Design
Lot 6 Cross Section
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POCKET 1 GRADING AND DRAINAGE PLAN
PRELIMINARY PLAT

I. PROJECT DESCRIPTION

The proposed Oakland Ridge Subdivision covers an area of approximately 2.83 acres. It is bounded by Oakland Ave. to the north, Louisiana Blvd. to the east, Alameda Blvd. to the south and a new subdivision currently under construction to the west. The subdivision will consist of 23 single family residential homes.

II. DESIGN CRITERIA AND PREVIOUS REPORTS

The design criteria used in this report was in accordance with Section 22.2 Hydrology of the Development Process Manual, Volume 2, Design Criteria, January 1993 edition. The 100-year 6-hour storm event was analyzed to determine flow to be conveyed within the roadways using P(1 hr)=2.10", P(6-hr)=2.50". The onsite Land Treatment values were determined based on Table A-5 Percent Treatment D for single family residential. First Flush volumes were calculated using 0.34 inches of precipitation over the new impervious areas (60%), which is the latest "design criteria" used by the City of Albuquerque.

There is an approved North Albuquerque Acres Master Drainage Plan (Dixon, 10-28-98). This project site lies within sub basins 117.2 and 117.3 in the NAA MDP report. Half of our site is allowed free discharge to the north in Oakland Avenue and half as allowable flows south to Alameda Blvd. In the NAA MDP report Land treatment values for future developed conditions were assumed to be Treatment A/B/C/D = 0/34/16/50. The 100 year discharge in this report used Treatment values of 0/20/20/60. A comparison was made between the allowable discharge based on the NAA MDP report and the actual discharge based on treatment values used in this project. The allowable discharge is 11.51 cfs as compared to the actual 12.21 cfs. There is a 0.7 cfs difference between these values, which for the 100 year storm event is considered an insignificant increase.

(The NAA MDP design analysis was modified by the Eagle Rock Drainage Plan. A storm pipe and manhole in Oakland Avenue was installed with the construction of the Oakland Estates. This pipe was designed to capture the drainage of the east portion of Basin 117.2 and discharge into a storm sewer system in Eagle Rock Avenue).

The project site is in FEMA flood zone X as shown on FIRM Panel 137 of 825, map number 35001C0137H, August 16, 2012 (Figure 3).

III. EXISTING DRAINAGE CONDITIONS

Under existing drainage conditions, onsite runoff is conveyed as overland surface flow in a westerly direction. There is a current development underway that is blocking the natural flow westward. They have constructed temporary ponds on this project site to prevent this site's runoff from flowing onto their property. Since this property is bounded by developed streets with curb and gutter on the other three sides, no offsite runoff enters this site.

IV. DEVELOPED DRAINAGE CONDITIONS

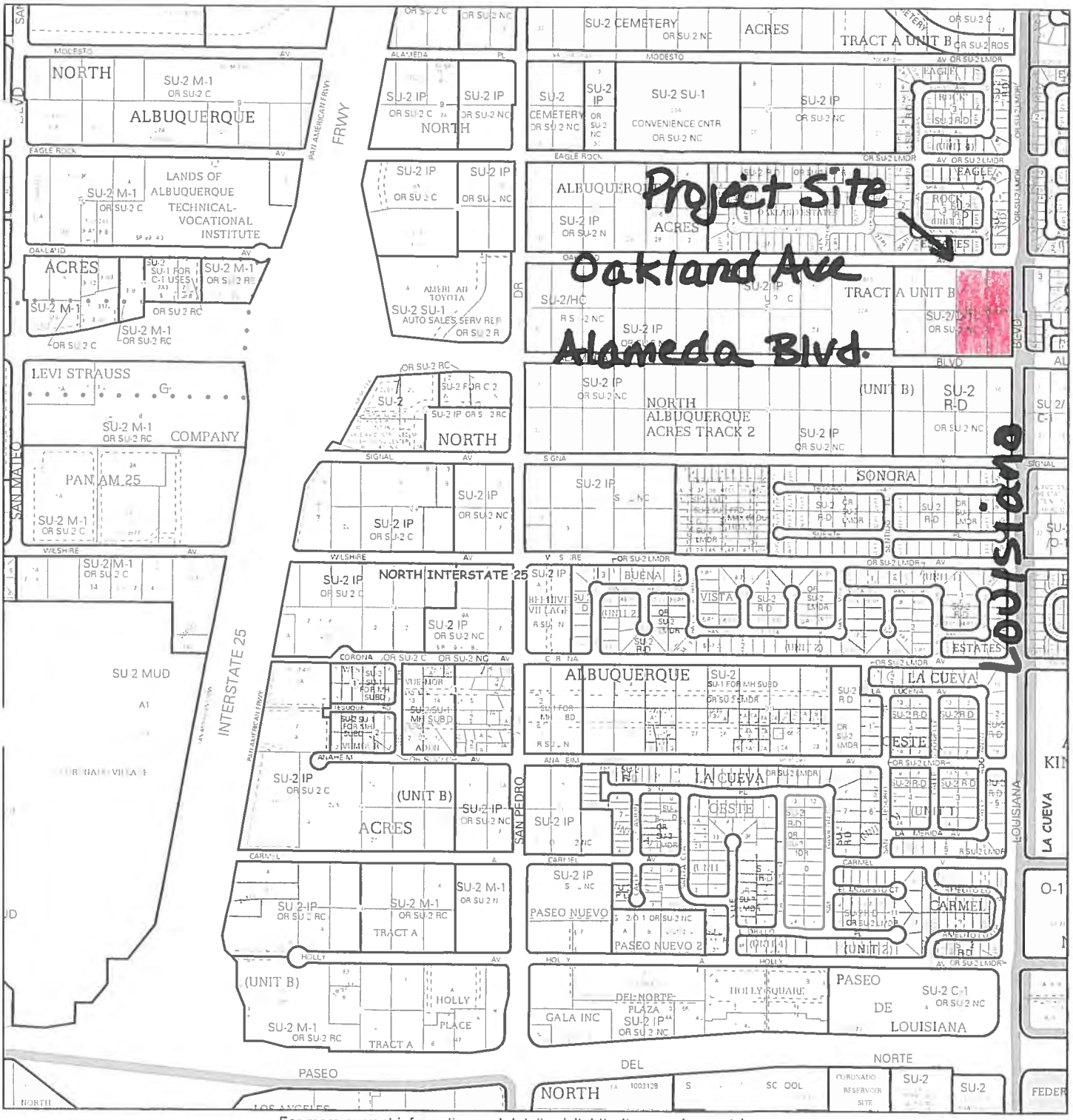
The total peak 100 year 6 hour discharge under developed conditions from this project site is 12.21 cfs. The North Sub basin will discharge 6.63 cfs into Oakland Avenue. There is an existing storm drain in Oakland Avenue with inlets that will intercept these flows as soon as the storm drain is completed which is supposed to be August 2017. The South Sub basin will discharge 5.58 cfs into Alameda Avenue. There is an existing storm drain in Alameda with an existing inlet close enough to our project site, that an onsite inlet Type D can connect to the existing inlet in Alameda Blvd. and convey the 5.58 cfs.

Since the storm drain system in Oakland Avenue is under construction but not completed yet, a temporary retention pond has been designed as shown in Appendix B.

V. FIRST FLUSH PONDS

It is proposed to construct first flush ponds in the front yard areas and along the landscape strip between the curb and sidewalk as illustrated in Figure 4. These ponds should be constructed to be 6" deep (typical) with side slopes no greater than 3:1 (maximum). The grading plan shows the area required for each of the front yard ponds.

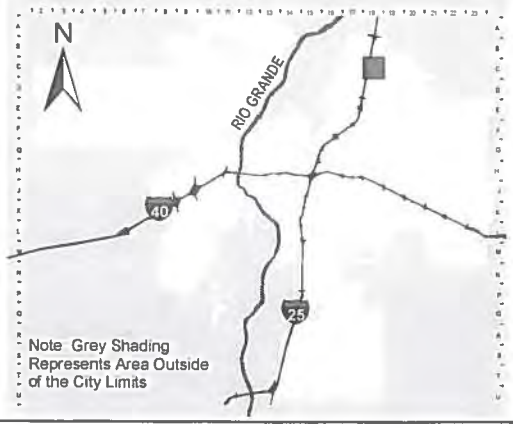
A summary of First Flush pond calculations and exhibit can be found in Figure 5 and 4, respectively. Additional first flush volume calculations can be found in Appendix A as well.



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

Albuquerque Geographic Information System

Map amended through: 4/2/2012



Zone Atlas Page:

C-18-Z

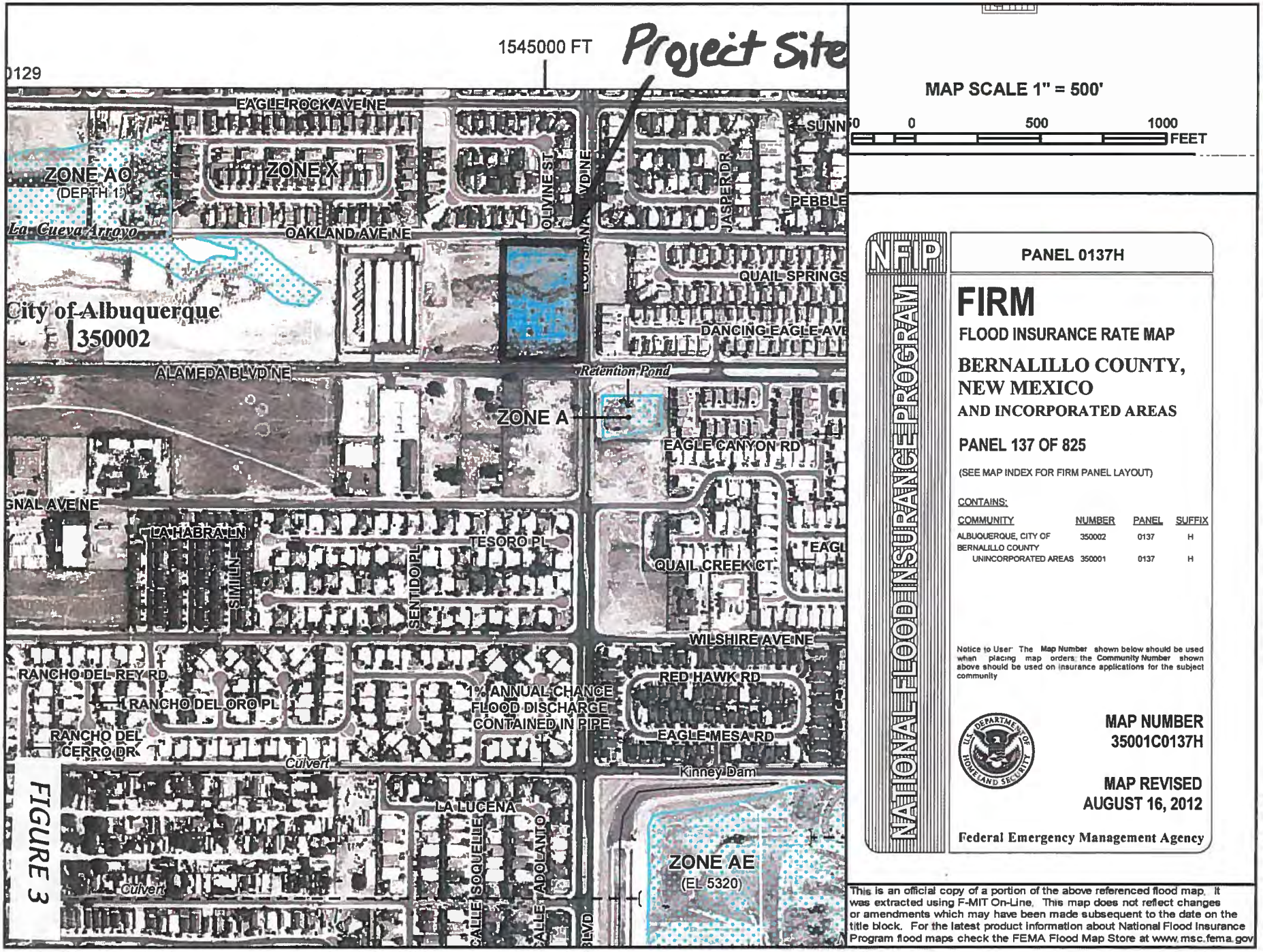
Selected Symbols

- 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

FIGURE 1

Project Site
Alameda Blvd
Louisiana Blvd NE
Oakland Ave NE
Alameda Blvd NE
Limestone Ave NE
Glen Mohr Ln NE
© 2016 Google

FIGURE 2


1545000 FT
Project Site
0129
EAGLE ROCK AVE NE
ZONE AO
(DEPTH 1)
ZONE X
La Cueva Arroyo
OAKLAND AVE NE
OLIVINE ST
LOUISIANA AVE NE
JASPER DR
SUNN
PEBBLE
QUAIL SPRINGS
DANCING EAGLE AVE
City of Albuquerque
350002
ALAMEDA BLVD NE
Retention Pond
ZONE A
EAGLE CANYON RD
GNAL AVE NE
LA HABRA LN
SIMILN
TESORO PL
SENTIDO PL
QUAIL CREEK CT
EAGL
WILSHIRE AVE NE
RANCHO DEL REY RD
RANCHO DEL ORO PL
RANCHO DEL CERRO DR
1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN PIPE
RED HAWK RD
EAGLE MESA RD
Culvert
Kinney Dam
LA LUCENA
CALLE SOQUELLE
CALLE ADOLANTO
BLVD
ZONE AE
(EL 5320)
Culvert
FIGURE 3
MAP SCALE 1" = 500'
500 0 500 1000
FEET
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0137H
FIRM
FLOOD INSURANCE RATE MAP
BERNALILLO COUNTY, NEW MEXICO
AND INCORPORATED AREAS
PANEL 137 OF 825
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
ALBUQUERQUE, CITY OF 350002 0137 H
BERNALILLO COUNTY
UNINCORPORATED AREAS 350001 0137 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community
MAP NUMBER
35001C0137H
MAP REVISED
AUGUST 16, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

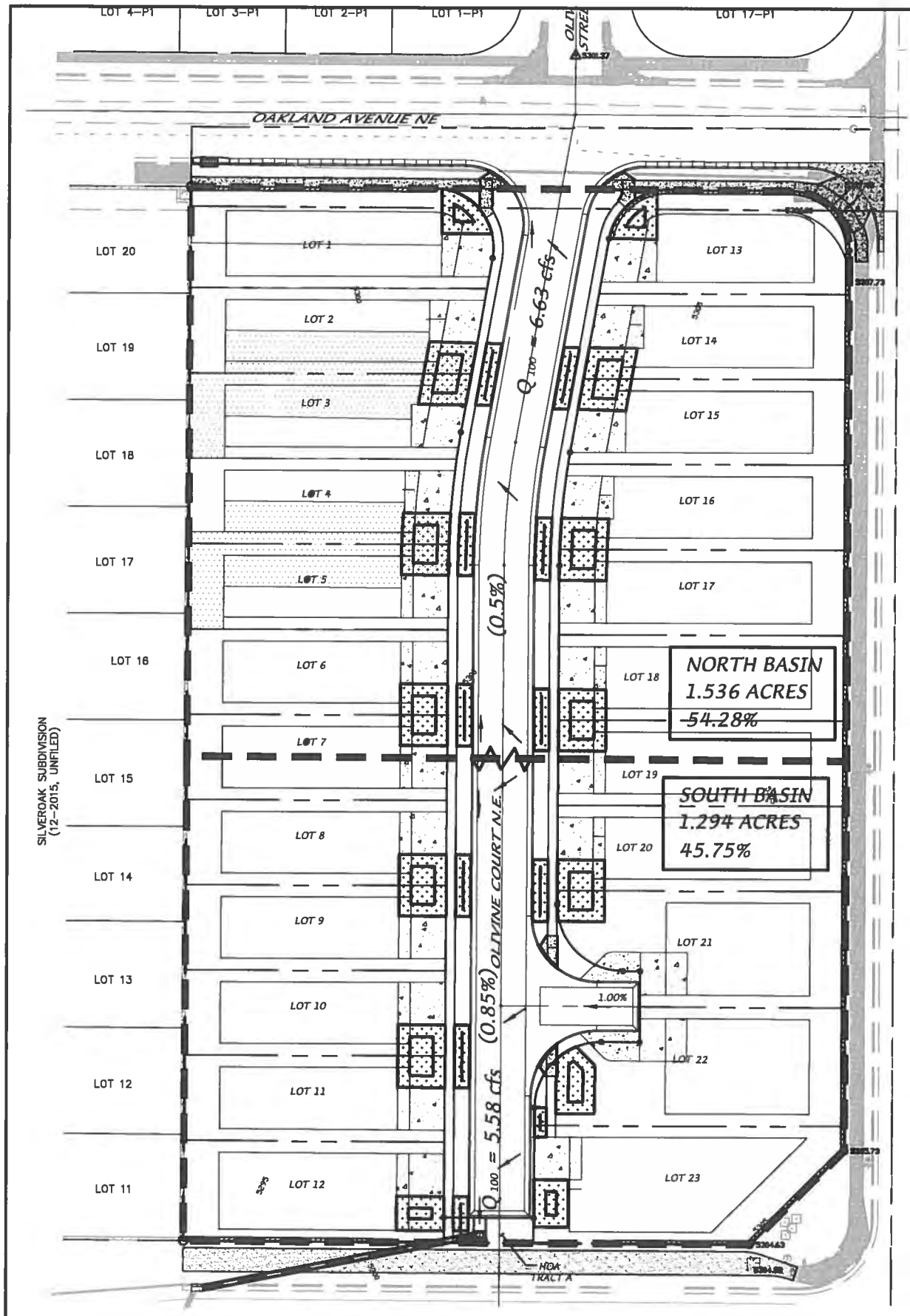


FIGURE 4
OAKLAND RIDGE SUBDIVISION
SUB-BASIN BOUNDARY EXHIBIT

OAKLAND RIDGE FIRST FLUSH POND CALCULATIONS					
NORTH BASIN			SOUTH BASIN		
LOCATION	Front Yard	Curbside	LOCATION	Front Yard	Curbside
	cu.ft.	cu.ft.		cu.ft.	cu.ft.
Lot 1	72.2				
Lot 2 & 3	166.0	30.5			
Lot 4 & 5	163.5	30.3			
Lot 6 & 7	161.4	30.0			
			Lot 8 & 9	161.4	30.0
			Lot 10 & 11	165.1	30.8
			Lot 12	74.9	20.1
Lot 13	74.5				
Lot 14 & 15	166.3	30.5			
Lot 16 & 17	162.6	30.3			
Lot 18 & 19	161.4	30.0			
			Lot 20 & 21	161.4	30.0
			Lot 22	119.1	9.8
			Lot 23	74.9	
	1127.9	**181.5**		**756.8**	**120.6**
Totral provided		**1309.4**			**877.4**
Total required		**1137.5**			**958**

REV--> 6-26-17

Figure 5

Current DRC
Project Number:_____

FIGURE 12

INFRASTRUCTURE LIST

EXHIBIT "A"
TO SUBDIVISION IMPROVEMENTS AGREEMENT
DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST

Date Submitted: 5/19/17
Date Site Plan Approved:_____
Date Preliminary Plat Approved:_____
Date Preliminary Plat Expires:_____
DRB Project No.: 1010793
DRB Application No.:_____

Oakland Ridge Subdivision
PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

Lots 15,16,17, and 18, Block 28, Tract A, Unit B, N.A.A.
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This Listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City.

SIA Sequence #	COA DRC Project #	Size	Type of Improvement	Location	From	To	Private Inspector	City Inspector	City Cnst Engineer
			ON-SITE PAVING						
		25'FF	Res Pvmt	Olivine Court	Oakland Ave	Lot 12 & 23	/	/	/
			Curb & Gutter						
		4'	Sidewalk (Both Sides) (1)	Olivine Court	Oakland Ave	Lot 12 & 23	/	/	/
		20' FF	Res Pvmt	Olivine Stub	Olivine Court	Lot 21 & 22	/	/	/
			Curb & Gutter	"	"	"			
		4'	Sidewalk (south side)	Oakland Ave	West P.L.	Louisiana	/	/	/
		10'	Asphalt Trail (north side)	Alameda Blvd.	West P.L.	Louisiana	/	/	/
			WATER						
		8"	Waterline	Olivine Court	Ex. WL Oakland Ave	Ex WL Alameda	/	/	/
			SANITARY SEWER						
		8"	SAS	Olivine Court	Ex SAS Oakland Ave	Lot 12/23	/	/	/
		PRO-RATA	$1,293.30	WATER			/	/	/
		PRO-RATA	$1,526.85	SANITARY SEWER			/	/	/
			DRAINAGE						
		24"	RCP	Olivine Court	South End of ROW	Ex. Inlet Alameda	/	/	/

The items listed below are on the CCIP and approved for Impact Fee credits. Signatures from the Impact Fee Administrator and the City User Department is required prior to DRB approval of

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification: Private Inspector P.E.	Construction Certification: City Cnst Engineer
							/ /	/ /
							/ /	/ /

Approval of Creditable Items:

Impact Fee Admistrator Signature Date

Approval of Creditable Items:

City User Dept. Signature Date

1. Sidewalks to be Deferred per approved exhibit
2. Street Lights Per DPM
3. Water Infrastructure includes Valves, Fittings, Valve Boxes, Fire Hydrants, and Appurtenances.
4. Sanitary Sewer includes manholes and service connection to property line
5. Grading & Drainage certification per DPM for releast of SIA & Financial Guaranty's. Financial Guaranty's are not required for grading.

AGENT / OWNER

Diane Hoelzer, P.E.
NAME (print)

MARK GOODWIN & ASSOCIATES
FIRM

Diane Hoelzer 6-27-17
SIGNATURE - date

MAXIMUM TIME ALLOWED TO CONSTRUCT THE IMPROVEMENTS WITHOUT A DRB EXTENSION: N/A

DEVELOPMENT REVIEW BOARD MEMBER APPROVALS

DRB CHAIR - date

PARKS & GENERAL SERVICES - date

TRANSPORTATION DEVELOPMENT - date

AMAFCA - date

UTILITY DEVELOPMENT - date

_____ - date

CITY ENGINEER - date

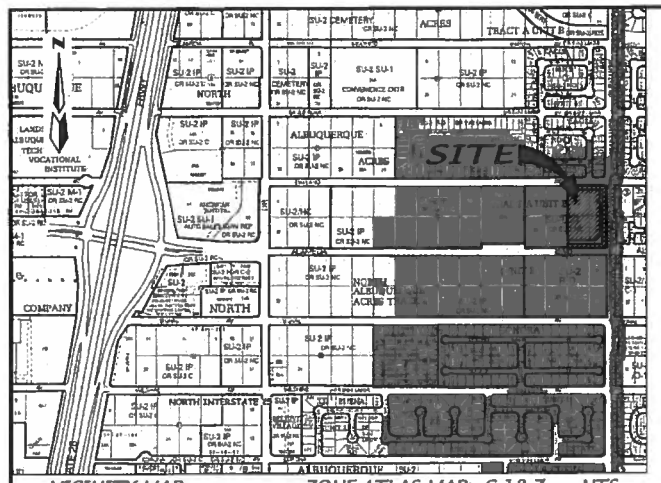
_____ - date

DESIGN REVIEW COMMITTEE REVISIONS

REVISION	DATE	DRC CHAIR	USER DEPARTMENT	AGENT /OWNER

PRELIMINARY PLAT
FOR
OAKLAND RIDGE SUBDIVISION

WITHIN THE
ELENA GALLEGOS GRANT
PROJECTED SECTION 13
TOWNSHIP 11 NORTH, RANGE 3 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2017



VICINITY MAP ZONE ATLAS MAP: C-18-Z NTS

AGRS MONUMENT
"10-C18"
N=1524123.885
E=1542565.263
G-G=0.999665042
Δα=-00°11'19.43"
ELEVATION=5222.09
CENTRAL ZONE
(NAD83/NAVD88)

N65°55'49"W
2495.27'

EAGLE ROCK ESTATES, UNIT II
(05-29-1998, 98C-175)

EAGLE ROCK ESTATES, UNIT III
(05-13-1999, 99C-118)

OLIVINE STREET N.E.
(46' R/W)

LOT 4-P1 | LOT 3-P1 | LOT 2-P1 | LOT 1-P1 | LOT 17-P1 | 98' | LOT 9-P1

(EAST) S89°57'30"E OAKLAND AVENUE NE (330.00') 330.29'

56.61' | 64.82' | 3.50' (3.00') | 64.59' | 61.11'

(S89°47'00"E) S89°47'00"E | (300.00') 298.94' | 533.51' (528.00')

952.0 S.Q. FEET VACATED | 248.95' (250.00') | 799.0 S.Q. FEET VACATED | 49.99' (49.99') | 468.99' (469.06')

(528.00') 532.43' | 367.06' (367.06')

LOT 20 | LOT 19 | LOT 18 | LOT 15 | LOT 16 | 100'

LOT 17 | LOT 16 | LOT 15 | LOT 14 | LOT 13 | LOT 18 | LOT 17 | 20' | 93' | LOT 38 | LOT 39 | LOT 40 | LOT 41 | LOT 42

SILVEROAK SUBDIVISION (12-2015, UNFILED)

436.93' (436.80')

PREVIOUS LOTLINE ELIMINATED WITH THIS PLAT (TYP)

LOUISIANA BOULEVARD NE

VISTA DEL AGUILA, UNIT 3 (03-25-2004, 2004C-101)

S00°12'07"W (S00°12'07"W) | 239.47' (239.81') | S45°12'53"W (S45°12'53"W) 56.48' (56.48') | S00°12'07"W (S00°12'07"W)

N89°46'20"W (N89°46'20"W) 32.00' (32.00') | 32' | 239.47' (239.81') | 32'

(NORTH) N00°15'45"E | N89°46'20"W (N89°46'20"W) 30.00' (30.00') | 30' | 299.44' (299.58') | 30'

124' | 124'

N89°46'20"W (WEST) | 330.85' (330.00') S00°12'07"W (SOUTH)

62'

ALAMEDA BOULEVARD NE

S65°16'57"W 2575.72'

AGRS MONUMENT
"9-C18"
N=1521497.624
E=1542501.428
G-G=0.999664563
Δα=-00°11'19.69"
ELEVATION=5232.47
CENTRAL ZONE
(NAD83/NAVD88)

N
40' 20' 0 40' 80'
SCALE: 1" = 40'

PROPERTY CORNERS

- ● FOUND 5/8" REBAR WITH ALUMINUM CAP OR PK WITH TAG "LS 11599" (TYP.)
- □ FOUND CROSS SCRIBED IN CONCRETE
- △ FOUND C.O.A. CENTERLINE MONUMENT "LS 7719" (TYP.)
- ○ SET 1/2" REBAR WITH CAP "LS 7719" (TYP.)

SITE BENCHMARK

A.G.R.S. MONUMENT
"10-C18"
ELEVATION=5222.09
(NAVD 1988)

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	47.12'	30.00'	89°59'07"	S 44°47'26" W	42.42'
	(47.12')	(30.00')	(89°59'07")	(S44°47'27"E)	(42.42')

PURPOSE OF PLAT

1. SUBDIVIDE LOT 15, LOT 16, LOT 17 & LOT 18, BLOCK 28, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES. INTO 17 RESIDENTIAL LOTS.
2. DEDICATE PUBLIC RIGHT-OF-WAY AS SHOWN.
3. GRANT NEW EASEMENTS AS SHOWN.
4. VACATE EXISTING ROADWAY & UTILITY EASEMENT.

NOTES

1. BEARINGS ARE GRID BASED ON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE).
2. ALL DISTANCES ARE GROUND DISTANCES.
3. BEARINGS AND DISTANCES IN PARENTHESIS ARE RECORD.
4. BASIS OF BOUNDARY ARE THE FOLLOWING PLATS OF RECORD ENTITLED:

   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (07-28-2005, 2005C-263)
   "OAKLAND ESTATES SUBDIVISION", (11-05-2004, 2004C-352)
   "VISTA DEL AGUILA, UNIT 3", (03-25-2004, 2004C-101)
   "EAGLE ROCK ESTATES, UNIT III", (05-13-1999, 99C-118)
   "EAGLE ROCK ESTATES, UNIT II", (06-29-1998, 98C-175)
   "QUAIL SPRINGS SUBDIVISION", (04-03-1997, 97C-101)
   "SONORA SUBDIVISION", (10-04-1994, 94C-334)
   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (04-24-1936, D-130)
   "SILVEROAK SUBDIVISION", (Dated December, 2015, unfiled)

   ALL BEING RECORDS OF BERNALILLO COUNTY, NEW MEXICO.
5. FIELD SURVEY PERFORMED IN JULY, 2016.
6. CITY OF ALBUQUERQUE, NEW MEXICO ZONE: SU-2.
7. 100 YEAR FLOOD ZONE DESIGNATION: ZONE X, AS SHOWN ON PANEL 137 OF 825, FLOOD INSURANCE RATE MAP, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, DATED AUGUST 16, 2012. THIS PROPERTY DOES NOT LIE IN THE 100 YEAR FLOOD ZONE.
8. TITLE REPORT: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY. FILE NO. 1700417 (EFFECTIVE DATE: JANUARY 19, 2017).
9. ALL STREET CENTERLINE MONUMENTATION SHALL BE INSTALLED AT ALL CENTERLINE PC'S, PT'S, ANGLE POINTS, AND STREET INTERSECTIONS AND SHOWN THUS , ▲ WILL BE MARKED BY A FOUR INCH (4") ALUMINUM CAP STAMPED:

   "CITY OF ALBUQUERQUE CENTERLINE MONUMENTATION"
   "DO NOT DISTURB"
   N.M.P.S.#7719
10. MANHOLES WILL BE OFFSET AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY, STREET INTERSECTIONS, AND ALL OTHER ANGLE POINTS TO ALLOW USE OF CENTERLINE MONUMENTATION.

EASEMENTS/RIGHT-OF-WAY

① EXISTING ROADWAY AND UTILITY EASEMENT (04-24-1936, D-130).
② EXISTING C.O.A. ADDITIONAL PUBLIC RIGHT-OF-WAY (10-29-2013, 2013118575)
③ EXISTING 10' PUE (12-2015, UNFILED)

LEGAL DESCRIPTION

A TRACT OF LAND SITUATE WITHIN THE ELENA GALLEGOS GRANT, PROJECTED SECTION 13, TOWNSHIP 11 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING LOT 15, 16, 17 & 18, BLOCK 28, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT, FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON APRIL 24, 1936, IN PLAT BOOK D, PAGE 130, AND CONTAINING 4.0446 GROSS ACRES MORE OR LESS.

EXCEPTING THEREFROM, AN AREA OF UNDEDICATED RIGHT-OF-WAY BEING PORTIONS OF OAKLAND AVENUE NE, LOUISIANA BOULEVARD NE AND ALAMEDA BOULEVARD NE, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT, FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON APRIL 24, 1936, IN PLAT BOOK D, PAGE 130, AND CONTAINING 0.8236 ACRES MORE OR LESS.

FURTHER EXCEPTING THEREFROM, A TRACT OF LAND FOR PUBLIC RIGHT-OF-WAY, DEDICATED TO THE CITY OF ALBUQUERQUE, AS THE SAME IS SHOWN AND DESIGNATED IN WARRANTY DEED, FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON OCTOBER 29, 2013, IN DOCUMENT NO. 2013118575, AND CONTAINING 0.4433 ACRES MORE OR LESS.

COMPRISING 2.7777 NET ACRES, MORE OR LESS.

SUBDIVISION DATA

GROSS ACREAGE	2.7777 AC
ZONE ATLAS NO.	C-18-Z
NO. OF EXISTING LOTS	4 LOTS
NO. OF EXISTING TRACTS	0 TRACTS
NO. OF TRACTS CREATED	1 TRACTS
NO. OF LOTS CREATED	23 LOTS
AREA OF PUBLIC RIGHT-OF-WAY DEDICATED	1.2267 AC
AREA OF RESIDENTIAL	2.8179 AC
ZONING	SU-2
DATE OF SURVEY	JULY, 2016

APPROVED

OWNER LOTS 15, 16, 17 & 18, BLOCK 28, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES

BRIAN URLACHER - A SINGLE MAN — DATE 5-7-17

CITY SURVEYOR, CITY OF ALBUQUERQUE, N.M. — DATE 5/9/17

OWNER

BRIAN URLACHER
5160 SAN FRANCISCO NE
ALBUQUERQUE, N.M. 87109

AGENT

BOKAY CONSTRUCTION INC.
ATTN: BO K. JOHNSON
5160 SAN FRANCISCO NE
ALBUQUERQUE, N.M. 87109
(505) 899-9656

ENGINEERS

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

SURVEYOR

ALDRICH LAND SURVEYING.
P.O. BOX 30701
ALBUQUERQUE, N.M. 87190
(505) 884-1990

DRB PROJECT No. _____

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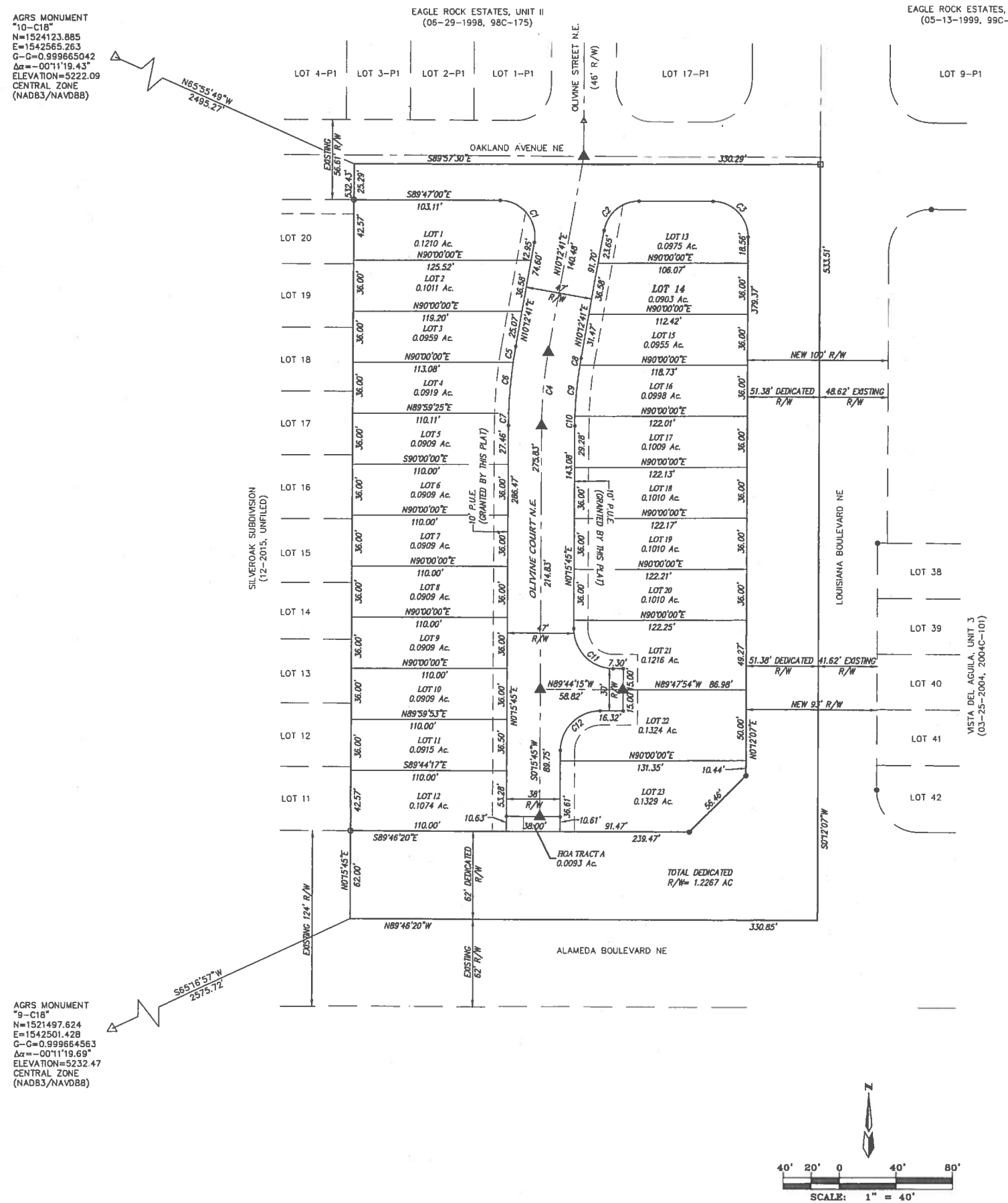
PRELIMINARY PLAT
FOR
OAKLAND RIDGE SUBDIVISION

WITHIN THE
ELENA GALLEGOS GRANT
PROJECTED SECTION 13
TOWNSHIP 11 NORTH, RANGE 3 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2017



PROPERTY CORNERS

- ● FOUND 5/8" REBAR WITH ALUMINUM CAP OR PK WITH TAG "LS 11599" (TYP.)
- □ FOUND CROSS SCRIBED IN CONCRETE
- △ FOUND C.O.A. CENTERLINE MONUMENT "LS 7719" (TYP.)
- o SET 1/2" REBAR WITH CAP "LS 7719" (TYP.)

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	43.31	25.00	99.27	S39° 25' 19"E	38.10
C2	34.90	25.00	80.00	N50° 12' 34"E	32.14
C3	39.26	25.00	89.99	S44° 47' 26"E	35.35
C4	52.09	300.00	9.95	S5° 14' 13"W	52.03
C5	56.17	323.50	9.95	N5° 14' 13"E	56.10
C6	56.17	323.50	9.95	N5° 14' 13"E	56.10
C7	56.17	323.50	9.95	N5° 14' 13"E	56.10
C8	48.01	276.50	9.95	N5° 14' 13"E	47.95
C9	48.01	276.50	9.95	N5° 14' 13"E	47.95
C10	48.01	276.50	9.95	N5° 14' 13"E	47.95
C11	43.98	28.00	90.00	S44° 44' 15"E	39.60
C12	43.98	28.00	90.00	S45° 15' 45"W	39.60

DRB PROJECT No. _____

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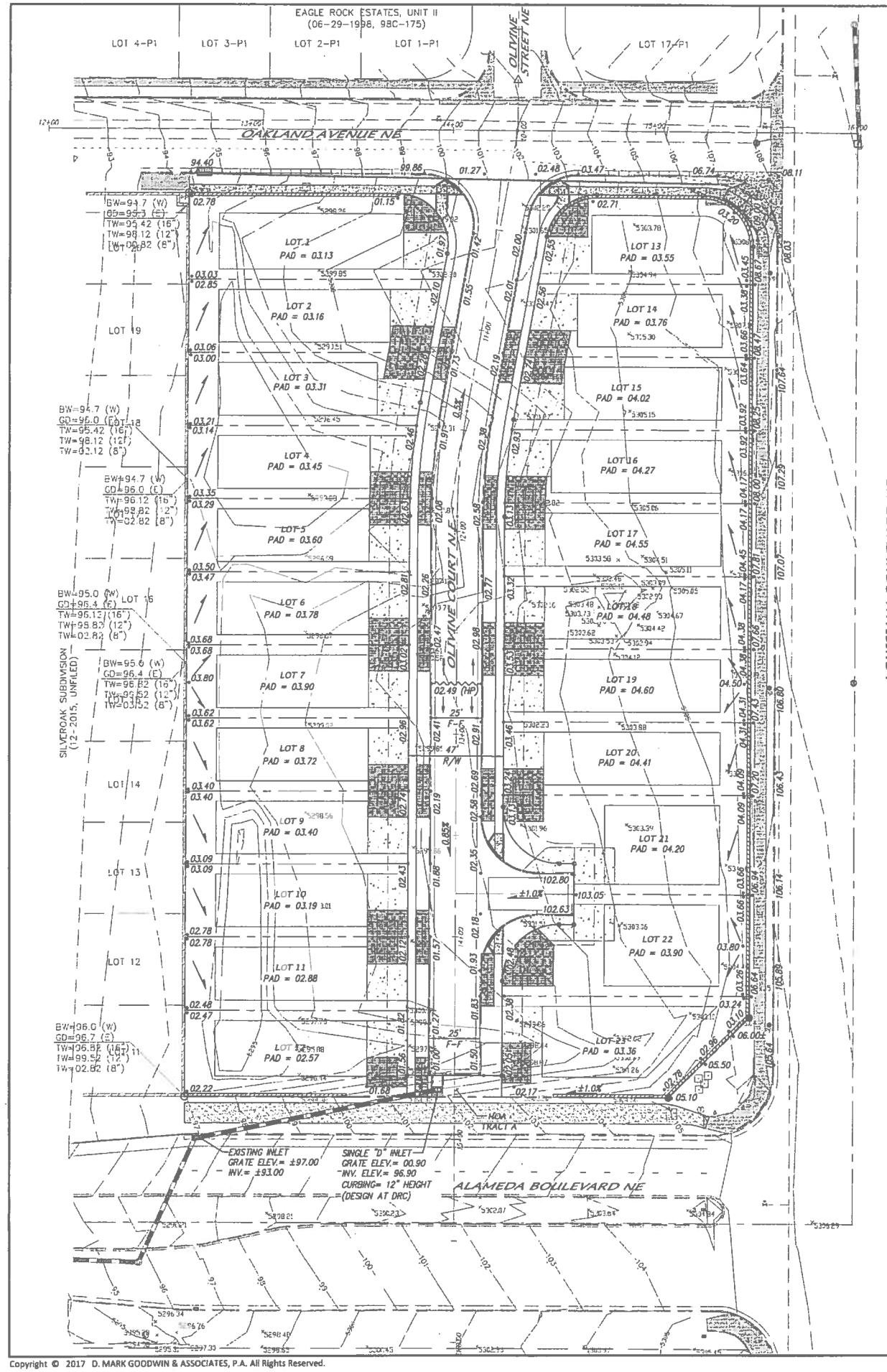
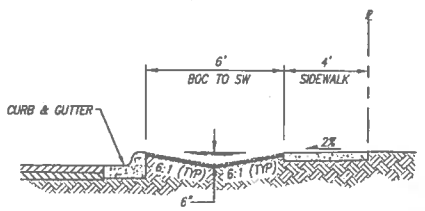


EAGLE ROCK ESTATES, UNIT III
(05-13-1999, 99C-118)
LOT 9-P1

CAUTION:
NOTE THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. ALL EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE APPROXIMATE LOCATION ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATIONS TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS.



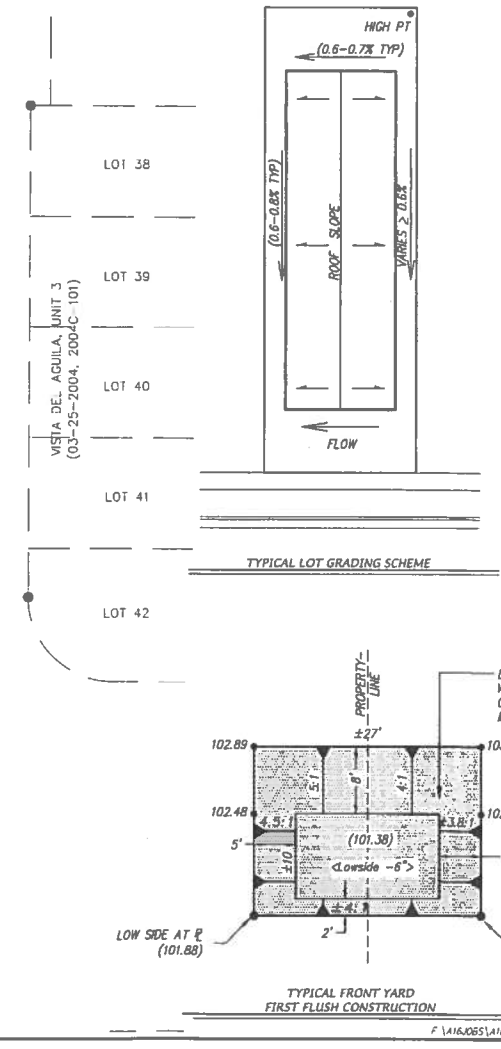
SECTION A-A
TYPICAL DEPRESSED AREA
ON-SITE BETWEEN SIDEWALK & BACK OF CURB
1"=5'

LANDSCAPE BUFFER NOTES:

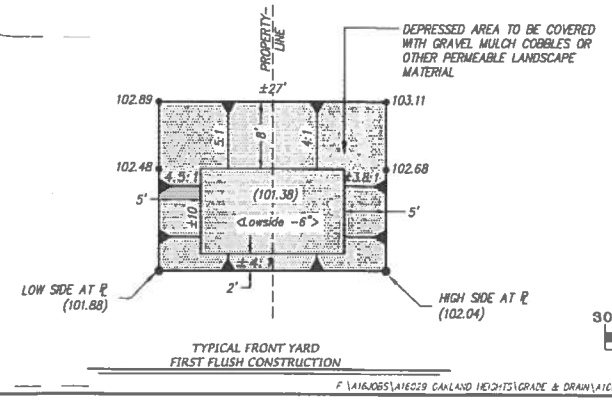
1. Surface between back of curb and sidewalk to be covered with gravel mulch (minimum 3/4"), cobbles or rip-rap or other permeable landscape material. Do not fill entire swale.
2. Landscape fabric is recommended, but not required, between the dirt and the stone. If landscape fabric is to be used it is to be permeable.
3. The 6" depth is measured from top of curb to top of landscape rock material or gravel mulch.

LEGEND

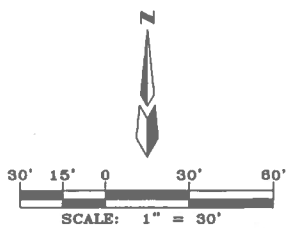
	EXISTING CONCRETE
	EXISTING BLOCK WALL
	EXISTING METAL FENCE
	EXISTING METAL FENCING W/BLOCK PILASTERS
WV	*EXISTING WATER VALVE*
	EXISTING FIRE HYDRANT
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM DRAIN MANHOLE/MANHOLE
	EXISTING STORM DRAIN INLET INLET
	EXISTING UTILITY PEDESTAL
	EXISTING UNDERGROUND GAS LINE
SAS	*EXISTING UNDERGROUND SANITARY SEWER*
SD	*EXISTING UNDERGROUND STORM DRAIN LINE*
W	*EXISTING UNDERGROUND WATER LINE*
5075.50	*EXISTING SPOT ELEVATION*
BC 5075.50	*EXISTING BACK OF CURB ELEVATION*
FL 5075.50	*EXISTING FLOW LINE ELEVATION*
TOP 5075.50	*EXISTING TOP ELEVATION*
TOE 5075.50	*EXISTING TOE ELEVATION*
TC 5075.50	*EXISTING TOP OF CONCRETE ELEVATION*
	NEW STANDARD CURB & GUTTER
	NEW MOUNTABLE CURB & GUTTER
	NEW RIGHT-OF-WAY
	NEW CENTERLINE
	NEW LOT LINES
	NEW EASEMENTS
69.53TW 68.25BW	*NEW TOP OF WALL ELEVATION* *NEW BOTTOM OF WALL ELEVATION*
+81.77	*NEW SPOT ELEVATIONS*
	NEW FLOW DIRECTION
24" RCP	*NEW STORM DRAIN*
	NEW SIDEWALK
	EXISTING SIDEWALK

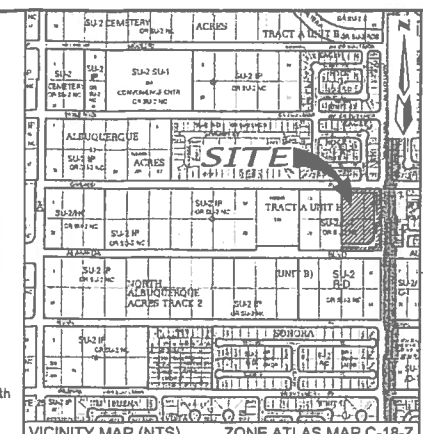


TYPICAL LOT GRADING SCHEME



TYPICAL FRONT YARD
FIRST FLUSH CONSTRUCTION





APPENDIX A

First Flush Calculations
AHYMO printouts
Typical Lot Drainage/FF Pond Interface
Temporary Retention Pond Calcs.
Temporary Retention Pond Design
Lot 6 Cross Section
Tract A Grate Calcs.
Storm Drain Cross Section and Calcs- Alameda

OAKLAND RIDGE SUBDIVISION

First Flush Calculations:

Project Site Area = 123,275 SF

Impervious Area:

Number of Lots = 23

N Value = 23/2.83 = 8.12

THEREFORE : Treatment D = 60%

(123,275 SF) x (0.6) x (0.34") / (12) = 2095 cu.ft.

Total required treatment volume = 2096 cubic feet

North Sub Basin = 54.28% x 2095 cu.ft. = 1,137.5 cu.ft.

South Sub Basin = 45.75 % x 2095 cu.ft. = 958 cu.ft.

FIRST FLUSH TREATMENT POND DESIGN DIMENSIONS

Front yards: Dimensions as shown on the plans,

6" maximum depth with varying side slopes, with a 3:1 maximum on any one slope

Curbside: Six feet wide, 6" maximum depth, with 6:1 side slopes (typical).

DLH 6-24-17

```
    AHYMO PROGRAM (AHYMO-S4)                    - Version: S4.01a - Rel: 01a
         RUN DATE (MON/DAY/YR) = 05/17/2017
         START TIME (HR:MIN:SEC) = 09:30:51     USER NO.= M-GoodwinNMSiteA90075759
         INPUT FILE = C:\Program Files (x86)\AHYMO-S4\oakland.dat

START                TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-6
LOCATION             NEW MEXICO
     State of New Mexico soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
          A             0.65                  1.67
          B             0.50                  1.25
          C             0.35                  0.83
          D             0.10                  0.04

*s**********************************************************
*S******************  FILE: OAKLAND.DAT  REV: 5-16-17  DLH
*s******************  ZONE ATLAS
*S**********************************************************
*S**********************************************************
*S                    100 YEAR 6 HOUR STORM EVENT
*S**********************************************************
*S**********************************************************
RAINFALL             TYPE=1 RAIN QUARTER=0.0
                     RAIN ONE=2.1 IN RAIN SIX=2.50 IN
                     RAIN DAY=2.85 IN DT=0.05 HRS

              6-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ) - D1
              DT =   0.050000 HOURS       END TIME =     6.000000 HOURS
*S**********************************************************
*S            DEVELOPED CONDTIONS
*S            SUB BASIN 100
*S            AREA= 2.8317 ACRES
*S**********************************************************
COMPUTE NM HYD       ID=1  HYD NO=100. AREA= 0.004425 SQ MI
                     PER A=0  PER B=20  PER C=20  PER 60
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   10.482    CFS   UNIT VOLUME =   0.9981       B =   526.28      P60 = 2.1000
     AREA =     0.002655 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000


     K =  0.120817HR    TP =  0.133300HR    K/TP RATIO =  0.906356     SHAPE CONSTANT, N =  3.908407
     UNIT PEAK =   4.6344    CFS   UNIT VOLUME =   0.9984       B =   349.02      P60 = 2.1000
     AREA =     0.001770 SQ MI    IA =   0.42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.050000

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   100.00

    RUNOFF VOLUME =     1.81394 INCHES      =       0.4281 ACRE-FEET
    PEAK DISCHARGE RATE =      12.21 CFS  AT   1.500 HOURS   BASIN AREA =  0.0044 SQ. MI.
*s**********************************************************
    FINISH   END TIME (HR:MIN:SEC) = 09:30:51
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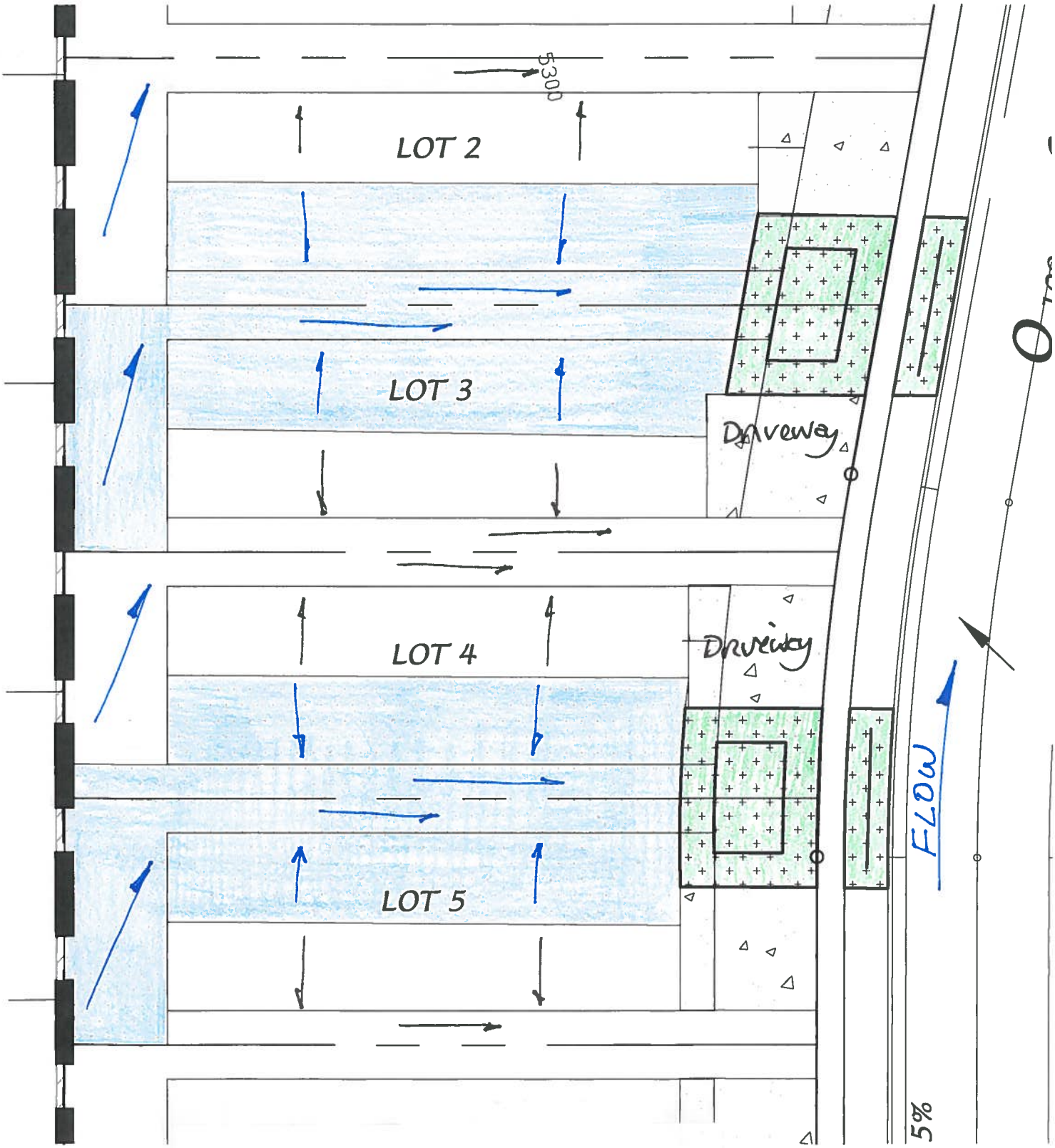
North Basin (42.22%)
Q = 5.16cfs
South Basin (57.78%)
Q = 7.05cfs



Oakland Ridge Subdivision

Typical Lot Drainage / First Flush Pond Interface

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE,NM 87199
(505) 828-2200 FAX 797-9539

PROJECT Oakland Ridge Subd.
SUBJECT Hydrology - Temp. Pond
BY DLT DATE 6-26-17
CHECKED _____ DATE _____
SHEET ____ OF ____

Q(100-6) = 12.21 cfs

North Basin (54.28%) = 6.63 cfs
South Basin (45.72%) = 5.58 cfs

Temporary Pond = (2x) 100yr-6hr volume)

Runoff Volume = 0.428 AF (.5428) = .2323 AF

Volume to Retain = 2(10,119 CF) = 20,238 CF

4475 SF TOP
1284 SF BOTTOM } 5' DEEP = 13593 CF

4475.6 TOP
207.4 SF BOTTOM } 8' DEEP = 15057.2 CF

$Q = CLH^{3/2} = 6.63 cfs = 3(17.6)(.5)^{3/2} = 18.66 cfs.$

SPILLWAY @ 6" deep Q = 18.66 cfs > 6.63 cfs

∴ OK

OAKLAND AVENUE NE

12+00

13+00

14+00

10+00

11+00

15+00

TEMPORARY SPILLWAY ELEV.=5397.

TEMPORARY 8' WIDE ASPHALT RUNDOWN WITH 6" CURB HEIGHT

SD INLET#3

94.40

96.

97.

98.

99.

100.

99.86

101.27

102.48

103.47

102.71

5301.37

CLMON.7719

BW=94.7 (W)
GD=95.3 (E)
TW=95.42 (16')
TW=98.12 (12")
TW=00.82 (8")

LOT 20

LOT 19

5401. CONTOUR

5397. CONTOUR

5389. BOTTOM

3:1 SIDES SLOPES

3:1 SIDE SLOPES

102.03

101.49

101.95

102.49

102.19

101.64

102.09

102.64

103.25

102.41

101.86

102.32

102.86

103.53

103.42

102.63

102.08

102.54

103.08

LOT 3
PAD = 103.63

LOT 13
PAD = 103

LOT 14
PAD = 103.7

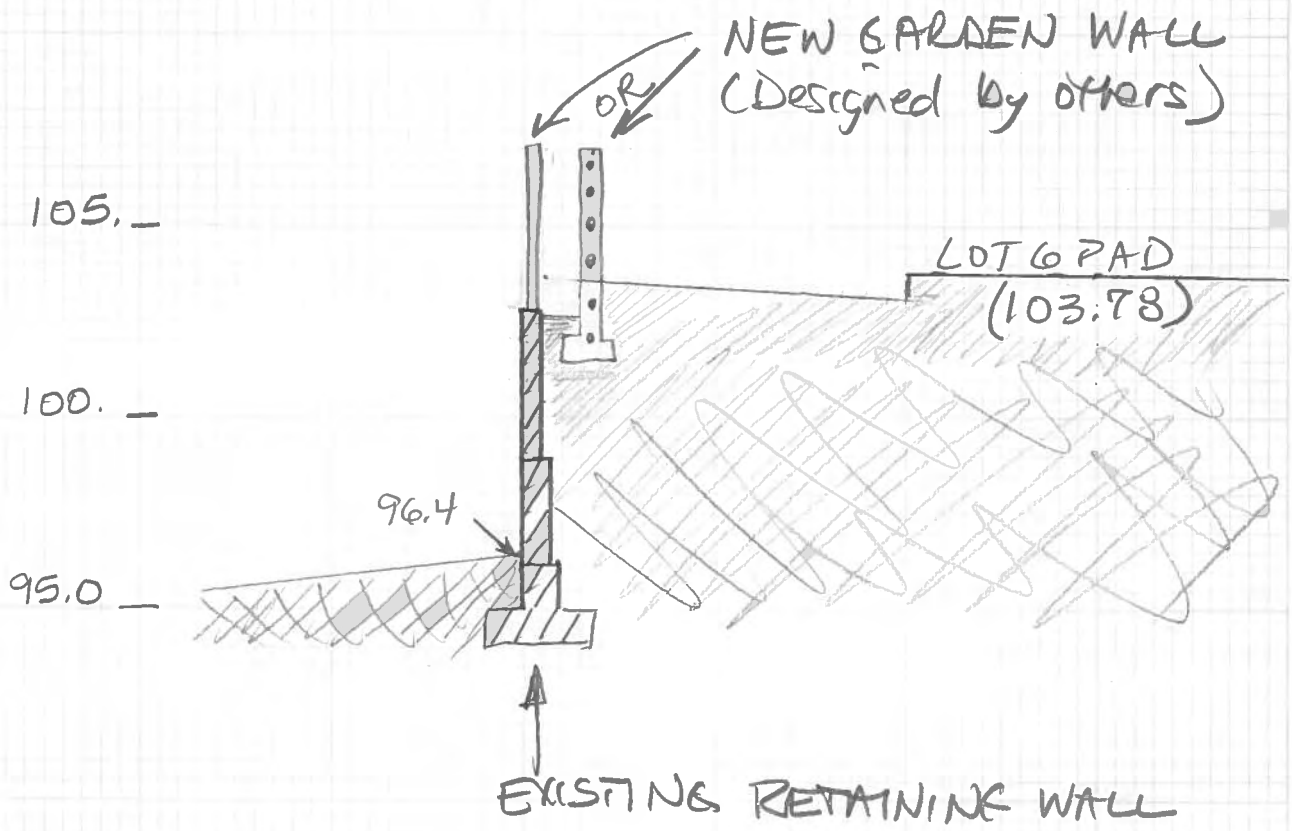
LOT 15
PAD = 104.02

TEMPORARY RETENTION POND

TOP POND=5397.0
BOTTOM POND=5389.0
3:1 SIDE SLOPES
TOTAL DEPTH= 8 FEET
3:1 SIDE SLOPES

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE,NM 87199
(505) 828-2200 FAX 797-9539

PROJECT Oakland Ridge
SUBJECT Lot 6 - Cross Section
BY Duff DATE 6-2617
CHECKED _____ DATE _____
SHEET ____ OF ____



D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE,NM 87199
(505) 828-2200 FAX 797-9539

PROJECT Oakland Ridge
SUBJECT Hydrology
BY DLT DATE 6-24-17
CHECKED ____ DATE ____
SHEET ____ OF ____

Tract A-Grate

Grate Elev = 100.90'

single grate total open area 4.56 sq.ft.

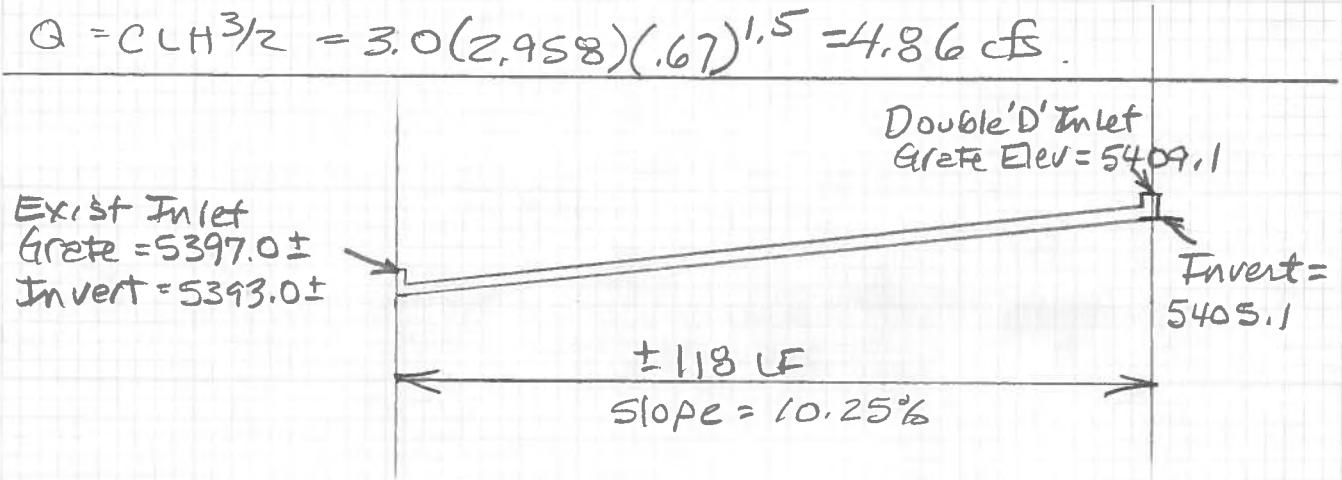
assume 6" head.

$Q = CA\sqrt{2gh} = .63(4.56)\sqrt{2(32.2)(.5)} = 16.3$ cfs.

16.30 cfs > 5.58 cfs.

assume 50% clogging ⇒ 8.15 cfs > 5.58 cfs.

$Q = CLH^{3/2} = 3.0(2.458)(.67)^{1.5} = 4.86$ cfs.



Using Mannings Equation: 2' diameter pipe flowing Full can carry 72 cfs.

Using Mannings Eqns 2' diameter pipe flowing 19% of full depth can carry Q = 5.71 cfs.

So the HGL will be well below top of pipe

APPENDIX B

Previous Report Excerpts

FINAL
NORTH ALBUQUERQUE ACRES
MASTER DRAINAGE PLAN

Prepared For:

City of Albuquerque

Prepared By:

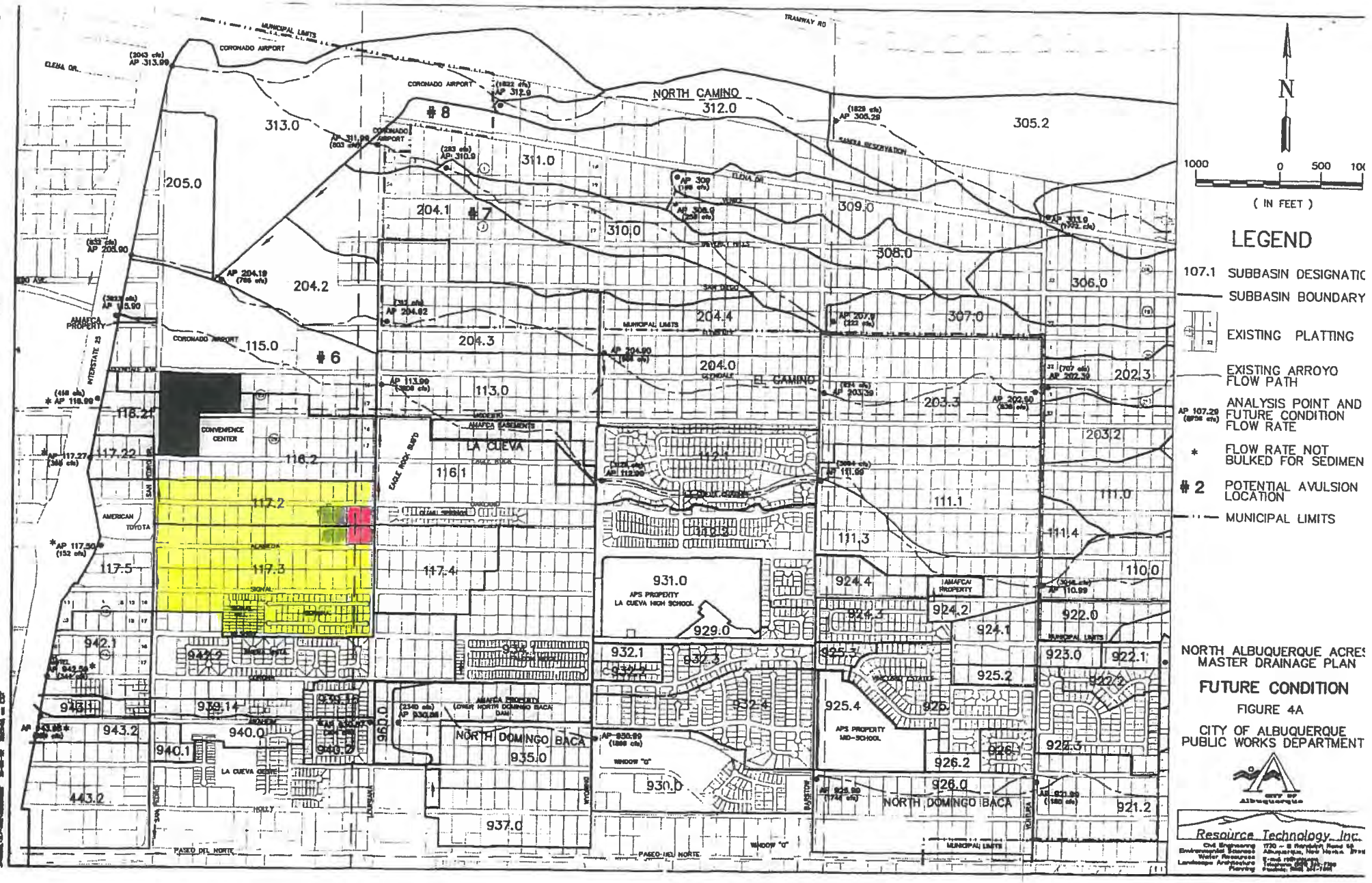
Resource Technology, Inc.

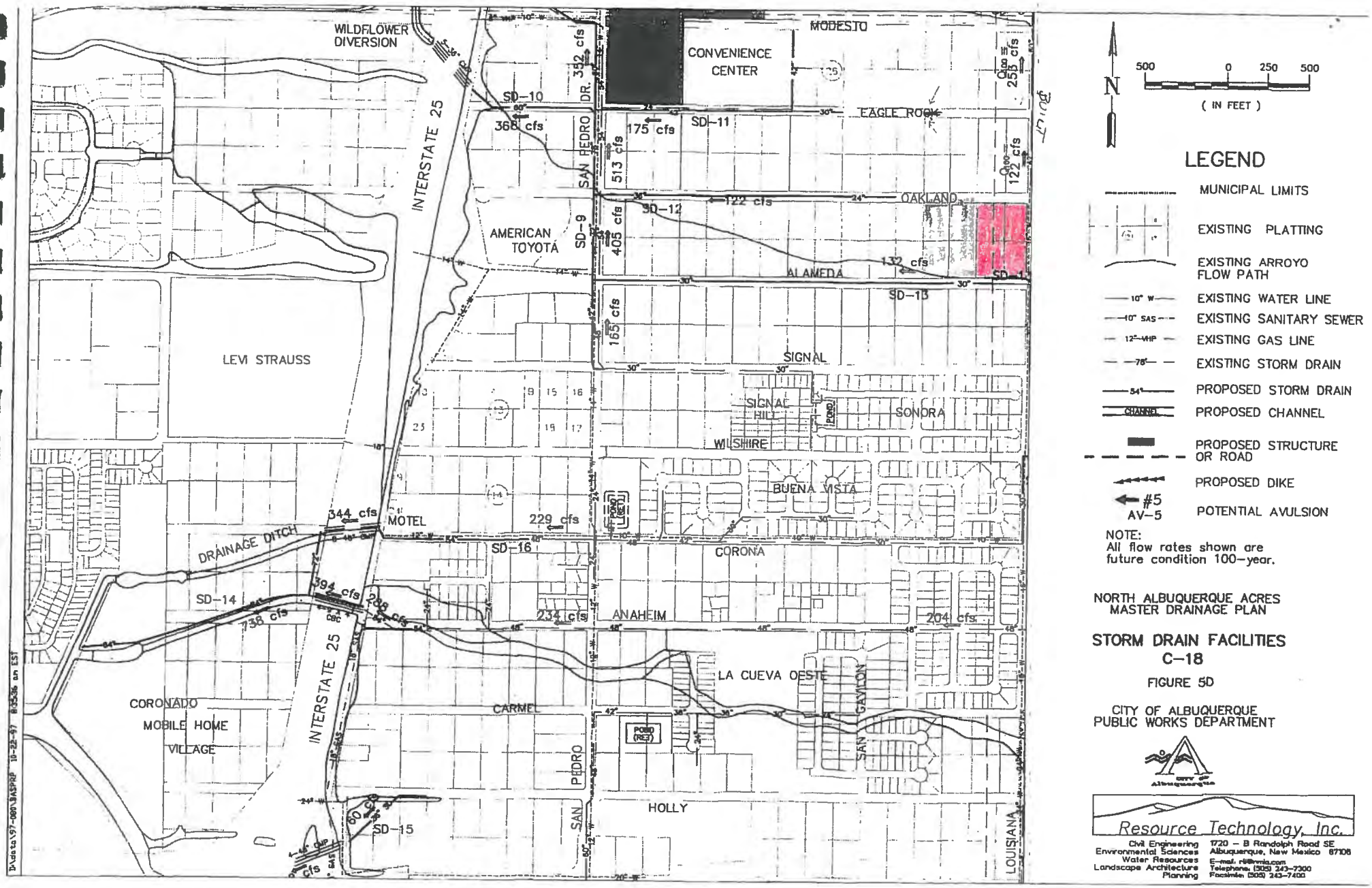
ENGINEERS AND ENVIRONMENTAL SCIENTISTS
1720-B Randolph Road SE, Albuquerque, NM 87106
Telephone (505) 243-7300
Fax (505) 243-7400
rti@nmia.com

DONALD S. [illegible]
NEW MEXICO
11043
REGISTERED PROFESSIONAL

10/28/98

October 1998


N
1000 0 500 100
(IN FEET)
LEGEND
107.1 SUBBASIN DESIGNATIO
SUBBASIN BOUNDARY
EXISTING PLATTING
EXISTING ARROYO FLOW PATH
AP 107.29 (@736 cfs) ANALYSIS POINT AND FUTURE CONDITION FLOW RATE
* FLOW RATE NOT BULKED FOR SEDIMEN
# 2 POTENTIAL AVULSION LOCATION
MUNICIPAL LIMITS
NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN
FUTURE CONDITION
FIGURE 4A
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT
Resource Technology, Inc.
NORTH CAMINO
EL CAMINO
LA CUEVA
NORTH DOMINGO BACA
PASEO DEL NORTE
CORONADO AIRPORT
MUNICIPAL LIMITS
6
7
8



NORTH ALBUQUERQUE ACRES
MASTER DRAINAGE PLAN

STORM DRAIN FACILITIES C-18

FIGURE 5D

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

Resource Technology, Inc.
Civil Engineering
Environmental Sciences
Water Resources
Landscape Architecture
Planning
1720 - B Randolph Road SE
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E-mail: rti@rtinc.com
Telephone (505) 243-7300
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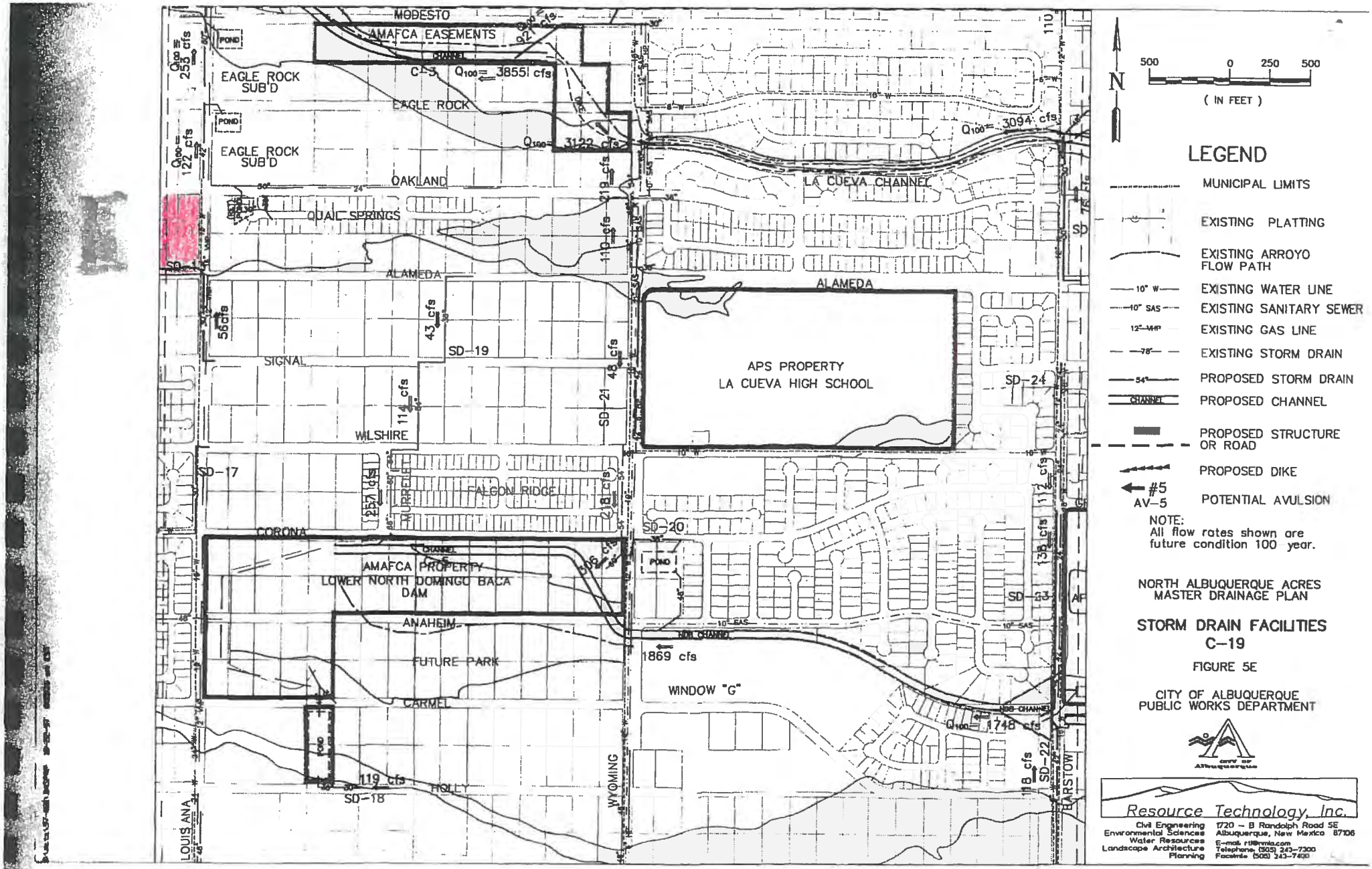
MODESTO
AMAFCA EASEMENTS
C-3
Q100= 3855 cfs
EAGLE ROCK SUB'D
EAGLE ROCK
POND
Q100= 3122 cfs
Q100= 3094 cfs
LA CUEVA CHANNEL
OAKLAND
QUAIL SPRINGS
ALAMEDA
SIGNAL
SD-19
APS PROPERTY
LA CUEVA HIGH SCHOOL
SD-24
WILSHIRE
SD-17
FALCON RIDGE
MURRIETA
CORONA
SD-20
AMAFCA PROPERTY
LOWER NORTH DOMINGO BACA DAM
ANAHEIM
FUTURE PARK
CARMEL
1869 cfs
WINDOW "G"
Q100= 1748 cfs
119 cfs
SD-18
HOLLY
LOUISIANA
WYOMING
EARSTOW
SD-22
SD-23
N
500 0 250 500
(IN FEET)
LEGEND
MUNICIPAL LIMITS
EXISTING PLATTING
EXISTING ARROYO FLOW PATH
10" W EXISTING WATER LINE
10" SAS EXISTING SANITARY SEWER
12" GAS EXISTING GAS LINE
78" EXISTING STORM DRAIN
54" PROPOSED STORM DRAIN
CHANNEL PROPOSED CHANNEL
PROPOSED STRUCTURE OR ROAD
PROPOSED DIKE
#5 AV-5 POTENTIAL AVULSION
NOTE:
All flow rates shown are future condition 100 year.
NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN
STORM DRAIN FACILITIES C-19
FIGURE 5E
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT
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TABLE A-2 (cont.)

LA CUEVA ARROYO SUB-BASIN CHARACTERISTICS

Basin ID	Hydrologic Condition	Basin Area (mi^2)	Land Treatment (%)				TP (hrs)
			A	B	C	D	
113*	Existing	.1136	80	0	15	5	.133
	Future	.1000	0	25	15	60	.133
115*	Existing	.1337	80	0	15	5	.133
	Future	.1202	0	26	12	62	.133
116*	Existing	.1309	80	0	5	15	.133
116.1	Future	.1000	0	25	15	50	.133
116.2	Future	.0719	0	25	15	60 ~~50~~	.133
116.21	Future	.0344	0	40	20	40	.133
117.2*	Existing	.1391	73	0	7	20	.22
	Future	.0500	0	34	16	50	.133
117.21*	Existing	.0234	0	34	16	50	.133
117.22*	Future	.0156	0	20	10	70	.133
117.3*	Existing	.0863	65	5	15	15	.133
	Future	.1172	0	34	16	50	.133
117.31*	Existing	.0250	0	34	16	50	.133
117.32*	Existing	.0090	0	34	16	50	.133
117.4*	Existing	.0750	85	0	5	10	.133
	Future	.0512	0	25	15	60	.133
117.5*	Existing	.0550	0	10	20	70	.133
	Future	.0550	0	10	20	70	.133
118	Existing	.0649	0	20	10	70	.133
	Future	.0649	0	20	10	70	.133
118.1	Existing	.0306	75	5	10	10	.133
	Future	.0306	0	20	30	50	.133
119	Existing	.0549	0	20	10	70	.133
	Future	.0549	0	20	10	70	.133
120	Existing	.0268	50	0	0	50	.133
	Future	.0268	0	20	10	70	.133
121	Existing	.0489	80	0	15	5	.133
	Future	.0489	0	20	10	70	.133

*Modified for COA NAA MDP 9/97

DRAINAGE LETTER REPORT
FOR
ALAMEDA BOULEVARD SAN PEDRO TO WYOMING PROJECT
CITY PROJECT NO. 7663.91

Prepared by:
Thompson Engineering Consultants, Inc.
P.O. Box 65760
Albuquerque, NM 87193

January 2012

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2. STORM INLET CAPACITIES 2
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TABLE 4 MANHOLE HEAD LOSSES 4

I. INTRODUCTION AND SITE LOCATION

Part of the Alameda Boulevard Widening Project from I-25 to Wyoming includes the installation of a storm drain that will tie into a proposed 72" storm drain in San Pedro Drive on the west and tie into an existing 36" storm drain in Alameda Boulevard just east of Louisiana Boulevard. The storm drain system will also extend south in Louisiana Boulevard to Signal Avenue and then east to an existing 36" storm drain in Signal Avenue. The construction of the proposed storm drain is sized to accept the runoff from the ultimate Alameda street section and the adjacent properties and will eliminate the need for three existing retention ponds in the project area.

The Alameda storm drain discharges to the recently constructed or soon to be constructed storm drain included as part of the San Pedro Storm Drain Project. There is also an existing parallel storm drain system in San Pedro ranging from 48" to 54" diameter. The eventual outfall for both San Pedro Storm Drains are either 5-36" RCP culverts under I-25 north of Eagle Rock or the 8-36" RCP culverts under I-25 north of Alameda Place. The peak runoff for the developed condition is determined by following the basins and hydrology in the North Albuquerque Acres Master Drainage Plan (NAAMDP), by Resource Technology Inc. dated October 1998 and revising the basins based on subsequent drainage reports in the drainage area.

II. METHODOLOGY

A hydrologic analysis was not performed for this report. The hydrology given in the NAADMP was used to determine the peak flows that drain to the San Pedro Storm Drain. The hydrologic analyses in the NAAMDP was based on Section 22 of the City of Albuquerque Development Process Manual (DPM), entitled "Drainage, Flood Control, and Erosion Control," January, 1993.

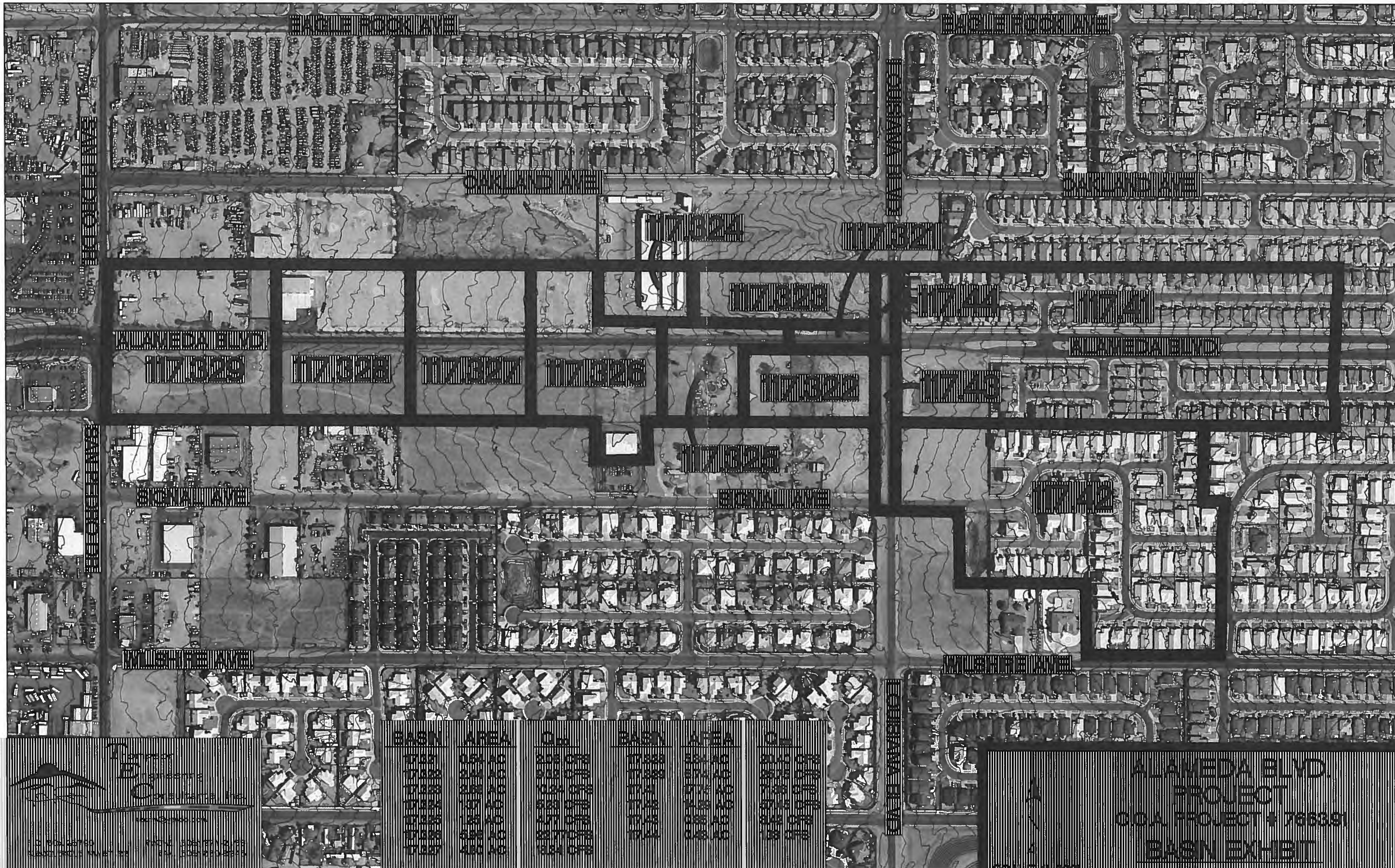
The hydraulic analyses of the proposed storm drain system was also based on Section 22 of the DPM for determining pressure flow conditions and head losses at manholes. Microsoft Excel spreadsheet software was used to calculate the hydraulic grade line in storm drains under pressure and for determining head losses at manholes. Graphs given in Section 22 of the DPM were used to determine storm inlet capacities.

Pipe sizes, invert and rim elevations, and system geometry were taken from the record drawings provided by the COA as well as survey data taken for the project by the design team.

III. DRAINAGE ANALYSIS

A. HYDROLOGY

The scope of work identified reviewing the drainage basins in the NAADMP and revising those basins based on subsequent drainage reports that affect the basins that drain to Alameda within the project area. The NAADMP and San Pedro Storm Drain Project DAR identified basins 117.32 and 117.4 draining to Alameda Boulevard. For the developed condition, these basins have Land Treatment Type D percentages ranging from 50% to 60%.



BASIN	AREA	Q_{100}	BASIN	AREA	Q_{100}
117321	0.54 AC	2.05 CFS	117328	5.51 AC	20.40 CFS
117322	2.44 AC	9.32 CFS	117329	6.74 AC	25.75 CFS
117323	2.68 AC	10.24 CFS	1741	1.75 AC	7.63 CFS
117324	1.07 AC	6.23 CFS	1742	15.25 AC	57.4 CFS
117325	1.26 AC	4.71 CFS	1743	0.85 AC	3.42 CFS
117326	5.95 AC	22.7 CFS	1744	0.48 AC	1.83 CFS
117327	4.80 AC	18.34 CFS			

ALAMEDA BLVD. PROJECT

COA PROJECT # 766391

BASIN EXHIBIT

SCALE 1"=400'

Basins 117.32 and 117.4 were further divided based on previous drainage reports in the project area or on the proposed storm inlet locations along Alameda Boulevard. Basin 117.32 was divided into 9 sub-basins and Basin 117.4 was divided into 4 sub-basins (refer to Exhibit I). For each of the revised basins it was assumed that the Land Treatment D percentage would be the same for the similar basins in the NAADMP. Therefore, the revised basin area was multiplied by the unit peak flow (CFS/ACRE) to determine the peak flow from that basin. To be conservative, the peak flows from each basin were added instead of routed. Exhibit I shows the revised drainage basins and peak flows for each basin and at critical analysis points. Table 1 shows the peak flows for the revised drainage basins.

Table 1 Revised Drainage Basin Peak Flows

Basins	Area (acres)	Type D Land Treatment (%)	CFS/Acre	100yr Peak Flow (CFS)
117.321	0.54	50	3.82	2.06
117.322	2.44	50	3.82	9.32
117.323	2.68	50	3.82	10.24
117.324	1.37	50	3.82	5.23
117.325	1.25	50	3.82	4.77
117.326	5.96	50	3.82	22.77
117.327	4.80	50	3.82	18.34
117.328	5.34	50	3.82	20.40
117.329	6.74	50	3.82	25.75
117.41	17.75	60	4.02	71.36
117.42	14.29	60	4.02	57.45
117.43	0.85	60	4.02	3.42
117.44	0.43	60	4.02	1.33

B. STORM DRAIN HYDRAULICS

1. INTRODUCTION

The proposed storm drain system was modeled using record drawings and topographic and planimetric survey data obtained in the field. The design survey was produced in the NAVD 88 vertical datum. Two systems were modeled to determine the hydraulic grade line (HGL) of the proposed systems. The proposed storm drain system data were input to the models and flows were input at various points in the system represented by locations future flow interception points.

2. STORM INLET CAPACITIES

Storm inlet capacities were determined for the proposed storm drain to be constructed in Alameda and Louisiana. Graphs given in Section 22 of the DPM were used to determine storm inlet capacities. First, the depth of flow in the ultimate street section was determined using Plate 22.3 D-4. The proposed street slope and one-half of the street flows are inputs to the graph to obtain the depth of flow. Then the depth of flow and street slope are input to Plate 22.3 D-6 for

double grate inlets to determine the inlet capacity. It is assumed that each double grate will be 50% clogged and therefore the inlet capacity is reduced by half. Table 2 gives the inlet capacities for the proposed storm drain system.

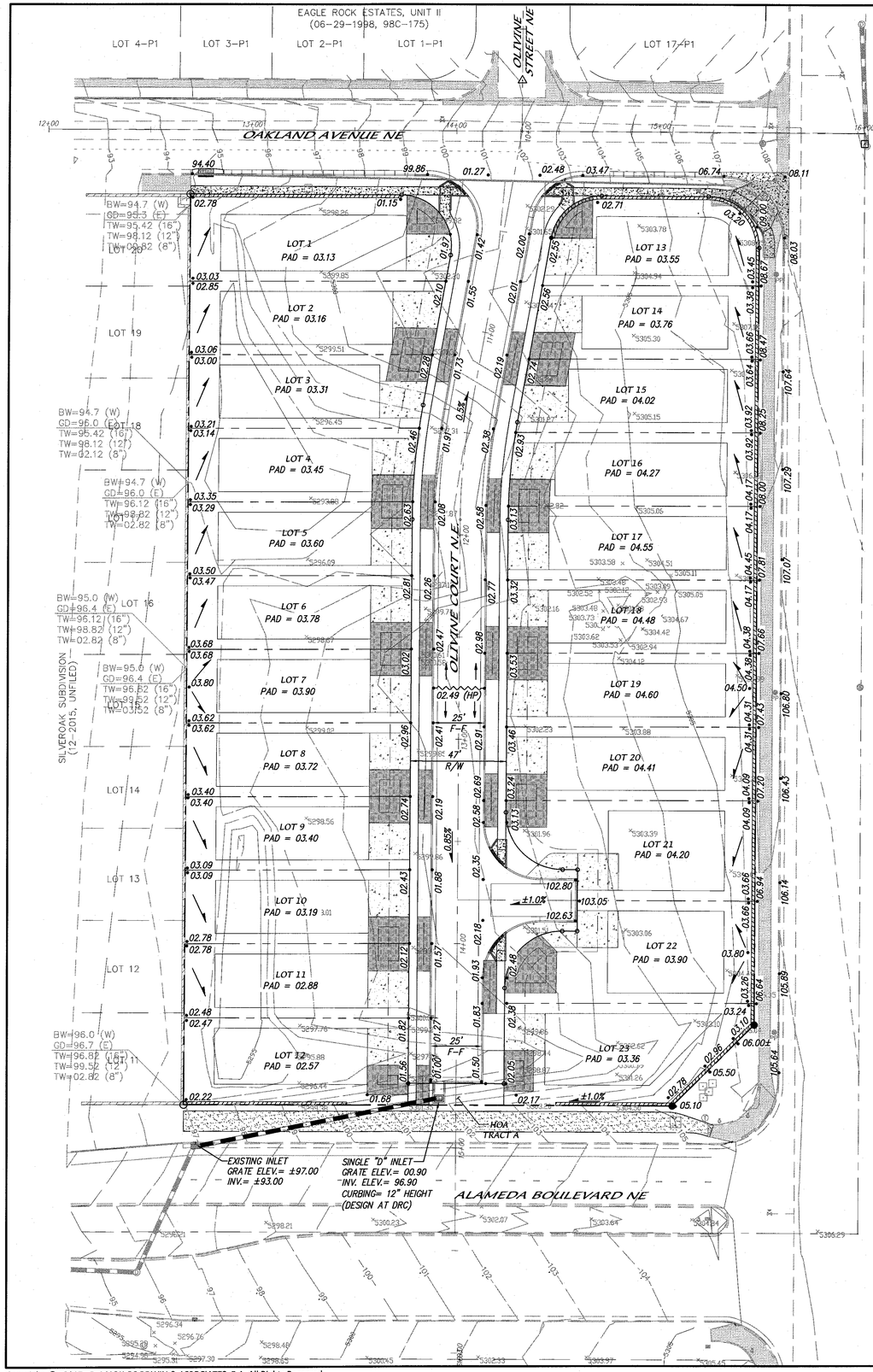
Table 2 Storm Inlet Capacities

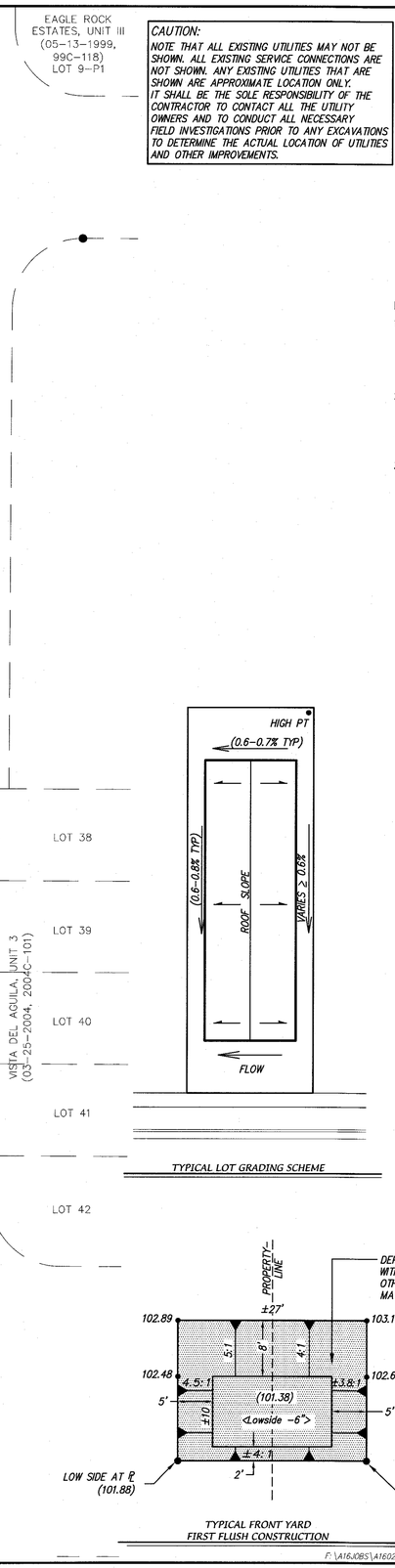
Inlet Station	Contributing Basins	½ Street Flow (CFS)	Street Slope (%)	Flow Depth (FT)	Inlet Capacity (CFS)	Number of Inlets	Bypass Flow (CFS)
29+00	117.325 & 117.321	3.42	2.83	0.29	1.85	2	0.00
24+50	117.326	11.39	3.11	0.41	3.40	3	1.19
20+00	117.327	10.36	2.40	0.40	3.30	3	0.46
15+50	117.328	10.66	2.61	0.40	3.35	3	0.61
11+00	117.329	13.49	3.00	0.44	4.80	3	0.00

3. STORM DRAIN HYDRAULICS

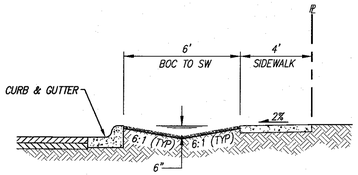
The hydraulic grade line analysis for the proposed storm drain was completed using an Excel spreadsheet that was developed using the methodology given in Section 22.3 of the DPM. The analysis showed that the downstream portion of the proposed Alameda Storm Drain System just east of San Pedro Drive is under pressure flow. The pressure flow unseals between the manholes at station 11+00 and station 15+50 and continues in gravity flow conditions.

The remainder of the storm drain system flows in gravity flow conditions. Therefore, between manholes the hydraulic grade line equals the normal depth of the storm drain. Table 3 gives the normal depths for each pipe segment under gravity flow conditions.





CAUTION:
NOTE THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. ALL EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE APPROXIMATE LOCATION ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATIONS TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS.



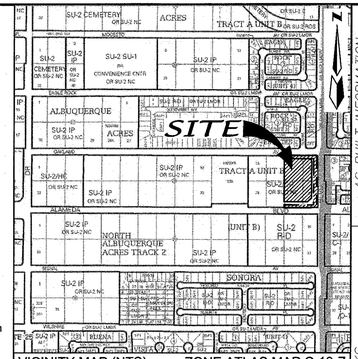
SECTION A - A
TYPICAL DEPRESSED AREA
ON-SITE BETWEEN SIDEWALK & BACK OF CURB
1"=5'

LANDSCAPE BUFFER NOTES:

1. Surface between back of curb and sidewalk to be covered with gravel mulch (minimum 3/4"), cobbles or rip-rap or other permeable landscape material. Do not fill entire swale.
2. 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.
3. The 6" depth is measured from top of curb to top of landscape rock material or gravel mulch.

LEGEND

	EXISTING CONCRETE
	EXISTING BLOCK WALL
—o—	EXISTING METAL FENCE
	EXISTING METAL FENCING W/BLOCK PILASTERS
WV	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
S	EXISTING SANITARY SEWER MANHOLE
D	EXISTING STORM DRAIN MANHOLEMANHOLE
	EXISTING STORM DRAIN INLET INLET
	EXISTING UTILITY PEDESTAL
—G—	EXISTING UNDERGROUND GAS LINE
—SAS—	EXISTING UNDERGROUND SANITARY SEWER
—SD—	EXISTING UNDERGROUND STORM DRAIN LINE
—W—	EXISTING UNDERGROUND WATER LINE
5075.50	EXISTING SPOT ELEVATION
BC 5075.50	EXISTING BACK OF CURB ELEVATION
FL 5075.50	EXISTING FLOW LINE ELEVATION
TOP 5075.50	EXISTING TOP ELEVATION
TOE 5075.50	EXISTING TOE ELEVATION
TC 5075.50	EXISTING TOP OF CONCRETE ELEVATION
	NEW STANDARD CURB & GUTTER
	NEW MOUNTABLE CURB & GUTTER
	NEW RIGHT-OF-WAY
	NEW CENTERLINE
	NEW LOT LINES
	NEW EASEMENTS
69.53TW 68.25BW	NEW TOP OF WALL ELEVATION NEW BOTTOM OF WALL ELEVATION
•81.77	NEW SPOT ELEVATIONS
	NEW FLOW DIRECTION
24" RCP	NEW STORM DRAIN
	NEW SIDEWALK
	EXISTING SIDEWALK



VICINITY MAP (NTS) ZONE ATLAS MAP C-18-Z

LEGAL DESCRIPTION

A TRACT OF LAND SITUATE WITHIN THE ELENA GALLEGOS GRANT, PROJECTED SECTION 13, TOWNSHIP 11 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING LOT 15, 16, 17 & 18, BLOCK 28, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT, FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON APRIL 24, 1936, IN PLAT BOOK D, PAGE 130, AND CONTAINING 4.0446 GROSS ACRES MORE OR LESS.

EXCEPTING THEREFROM, AN AREA OF UNDEDICATED RIGHT-OF-WAY BEING PORTIONS OF OAKLAND AVENUE NE, LOUISIANA BOULEVARD NE AND ALAMEDA BOULEVARD NE, AS THE SAME IS SHOWN AND DESIGNATED ON SAID PLAT, FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON APRIL 24, 1936, IN PLAT BOOK D, PAGE 130, AND CONTAINING 0.8236 ACRES MORE OR LESS.

FURTHER EXCEPTING THEREFROM, A TRACT OF LAND FOR PUBLIC RIGHT-OF-WAY, DEDICATED TO THE CITY OF ALBUQUERQUE, AS THE SAME IS SHOWN AND DESIGNATED IN WARRANTY DEED, FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON OCTOBER 29, 2013, IN DOCUMENT NO. 2013118575, AND CONTAINING 0.4433 ACRES MORE OR LESS.

COMPRISING 2.7777 NET ACRES, MORE OR LESS.

GENERAL NOTES

1. *CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.*
2. *CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.*
3. *THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.*
4. *THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND WETTING THE SOIL TO KEEP IT FROM BLOWING.*
5. *THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.*

BENCH MARKS
A.G.R.S. MONUMENT "10-C18" HAVING AN ELEVATION OF 5222.09 (NAVD 1988)

SURVEY INFORMATION
FIELD NOTES BY DATE
NO.

AS BUILT INFORMATION
CONTRACTOR DATE
WORK BY
INSPECTOR'S ACCEPTANCE BY
VERIFICATION BY
DRAWINGS CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
DIANE HOELZER
NEW MEXICO
11987
LICENSED PROFESSIONAL ENGINEER

NO.	REMARKS	BY	DATE
	DESIGN		
	DESIGNED BY	DMG	01/17
	DRAWN BY	DER	01/17
	CHECKED BY	DMG	01/17

MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT

TITLE:
OAKLAND RIDGE SUBDIVISION GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO.

ZONE MAP NO. C-18-Z

SHEET 1 OF 1

SCALE: 1" = 30'

F:\A16JOBS\A16029 OAKLAND HEIGHTS\GRADE & DRAIN\A16029_G&D PLAN_R.dwg, Last saved by: Dwayne, 6/27/17

F:\A16JOBS\A16029 OAKLAND HEIGHTS\GRADE & DRAIN\A16029_G&D PLAN_R.dwg, 6/27/2017 1:43:50 PM, dwayne