CITY OF ALBUQUERQUE

April 25, 2013

John Blessen, P.E.
J. Arthur Blessen Engineering
No Address Provided

Re: American Tire Warehouse Addition, Grading and Drainage Plan
Engineer's Stamp Date 03-27-2013 (C-17/D015)

Dear Mr. Blessen,

Based upon the information provided in your email received 03-27-13, the above referenced plan is approved for Site Plan for Building Permit, however, cannot be approved for Building Permit until the following comments are addressed:

- Please provide routing calculations to show how the proposed pond will drain over time.
- It appears that the proposed discharge rate of 14.4 cfs will exceed the limit set forth by the SAD 201 drainage report of 14.2 cfs; please provide all supporting documentation reflecting this limitation.
- The pipe connection to the back of the existing inlet will need to be constructed under SO-19 guidelines and inspected. The SO-19 standard language should be placed on the grading plan.
- It appears that a portion of the flows on the southwestern edge of the property are being directed towards the adjacent lot. How will these flows be contained?
- Both Basin A and a portion of Basin C should not be calculated as containing "100% Treatment Type A" as existing conditions. Basin B also has been mass graded and should not be considered treatment type A in its existing condition.
- Various references are made throughout the drainage report of an on-site "retention pond"; the wording should be changed to "detention pond" since flows are being discharged off-site through the storm drain connection.
- The 100-year water surface elevation should be shown on the proposed pond along with the pond volume; please provide a legend on the plan for clarification of line types. If the pond will take longer than 6 hours to drain a 24-hour storm event will be required for pond sizing.
- The project will also require an Erosion and Sediment Control Plan to be submitted to Hydrology and approved prior to building permit approval.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Shahab Biazar, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: Email

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

Solar heat

e-mail
jab-engineering@hotmail.com

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: American Tire of the Warehouse Addition City Drainage #: C17D015

DRB#: 1009577 EPC#: Work Order#:

Legal Description:

City Address: Albuquerque NM 8701 SAN MATEO. NE

Engineering Firm: J Arthur Blossom Engineering Contact: John Blossom

Address:

Phone#: 505 2948061 Fax#: E-mail: 293-1477

Owner: JPET LLC Contact: Ken Rudy

Address: 230 E So Temple Salt Lake City Utah 84111

Phone#: 801 478 8000 Fax#: E-mail:

Architect: Russell Naylor Contact: Russ Naylor

Address: 1155 E Wilmington Ave Salt Lake City Utah

Phone#: 801 487 3330 Fax#: 801 487 3391 E-mail: russ@nicholsnaylor.com

Surveyor: Contact:

Address:

Phone#: Fax#: E-mail:

Contractor: Contact:

Address:

Phone#: Fax#: E-mail:

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ____ DRAINAGE PLAN 1st SUBMITTAL
- ____ DRAINAGE PLAN RESUBMITTAL
- ____ CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ____ ENGINEER'S CERT (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERT (TCL)
- ____ ENGINEER'S CERT (DRB SITE PLAN)
- ____ ENGINEER'S CERT (ESC)
- ____ SO-19
- ____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- CC X S. DEV. FOR BLDG. PERMIT APPROVAL
- 4-1-13 ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION
- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

$50.00

RECEIVED
MAR 27 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 2/27/13 By:

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal The particular nature, location, and scope to the proposed development defines the degree of drainage detail One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**. Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

CITY OF ALBUQUERQUE

May 29, 2013
John Blessen, P.E.
J. Arthur Blessen Engineering
2429 Zena Lona
Albuquerque, NM 87112

Re: American Tire Warehouse Addition, Grading and Drainage Plan
Engineer's Stamp Date 05-22-2013 (C-17/D015)

Dear Mr. Blessen,

Based upon the information provided in your submittal received 05-22-13, the above referenced grading and drainage plan meets the requirements for Building Permit. However, please be advised that before a building permit can be issued an Erosion and Sediment Control Plan (ESC), prepared by a registered professional engineer under the laws of the state of New Mexico, must be prepared, submitted and approved by the Hydrology Department.

A separate Excavation/Barricading Permit is required for SO-19 construction within City ROW. A copy of this approval letter must be on hand when applying for the excavation/barricading permit. To obtain a Certificate of Occupancy, the proposed sidewalk culvert and detention pond storm drain penetration must be inspected and accepted. Please contact Jason Rodriguez, Storm Drain Maintenance, at 857-8074 to schedule an inspection.

Please attach a copy of this approved plan to the construction sets when submitting for a building permit. If the approved plan is not attached to the construction set, Hydrology will reject the construction set for building permit.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required. If you have any questions, you can contact me at 924-3695.

Sincerely,

Shahab Biazar, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: Email

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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: AMERICAN TIRE WAREHOUSE ADDITION ZONE MAP: C17/D015
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: TRACT E-1-A-1-A LOOP INDUSTRIAL DISTRICT SUBDIVISION UNIT I
CITY ADDRESS: 5701 SAN MATEO NE

ENGINEERING FIRM: J ARTHUR BLESSEN CONTACT: ARTHUR BLESSEN
ADDRESS: 2429 ZENA LONA PHONE: 293 1477
CITY, STATE: Albuquerque NM ZIP CODE: 87112

OWNER: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
__X__ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
_____ ENGINEER'S CERT (DRB SITE PLAN)
_____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
_____ PRELIMINARY PLAT APPROVAL
_____ S. DEV. PLAN FOR SUB'D APPROVAL
_____ S. DEV. FOR BLDG. PERMIT APPROVAL
_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
__X__ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

RECEIVED
MAY 22 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 5-23-13 BY: Arthur Blessen

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

Sidewalk Culvert

Open top concrete channel

Slope	0.01	ft/ft	1.00%	
Height	6	in	0.50	ft
n	0.013	smooth concrete		

width	Area (sf)	Pwet	Rh	Q
18 in	0.75	2.50	0.30	3.85
24 in	1.00	3.00	0.33	5.51
30 in	1.25	3.50	0.36	7.21
36 in	1.50	4.00	0.38	8.94
48 in	2.00	5.00	0.40	12.44

Max culvert width 24"

TWO 24" CUVLERTS	11.02	CFS
water elevation at 10.2 cfs	5.75	in

tc	=	0.2	hr			
tb	=	(2.107 *E*At/Qp)-(0.25*Ad/At)	=		0.747	hr
tp	=	(0.7*tc)+((1.6-(Ad/At))/12)	=		0.227	hr

Discharge Rate	4.00	cfs	1.14	cfs/ac
Volume	20432	cf		
Discharged -	9390	cf		
Pond Voulme	**11042**	cf		

	elevation	depth ft	area sf	volume cf
top of pond	57.4057	0.4057	6220	2390.3844
	57	1	5564	4936.5
	56	1	4309	3207
	55	0.5	2105	528.25
bottom	54.5		8	
pit	51.5	3	8	24
				11086.13

Orifice

pond depth	=	5.91	ft			
pipe dia	=	8	in	Area =	0.35	sf
H	=	pond depth - 0.5*dia		=	5.57	ft
Qpipe	=	0.6 A (2 * 32.2 * H)^.5		=	4.0	cfs

Pond discharge time		11042	/	4.0	=	2783 sec
						46.4 min

Revised Drainage Report

for

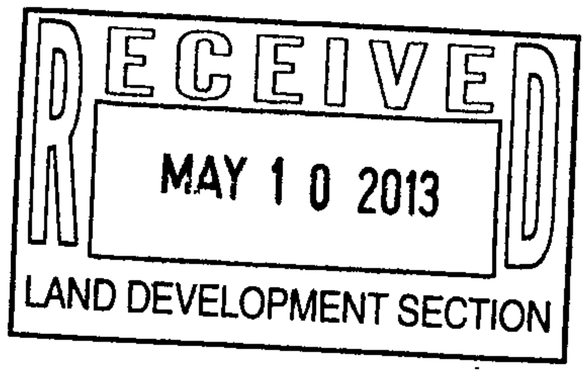
American Tire Addition

5701 San Mateo
Albuquerque, New Mexico

May 10, 2013

by

J Arthur Blessen Engineering



Location:
Tract E-1-A-1-A Loop Industrial District Subdivision Unit 1, Bernalillo County New Mexico
5701 San Mateo.

Zone map C-17-Z
Located West side of San Mateo Blvd. South of Alameda Blvd.

Site Area: 6.20 Acres

Precipitation Zone 2

Flood Zone:
The proposed building locations on the site does not lie within a flood hazard zone (Map 35001C0137H panel 137 of 825). The site slopes from east to west at an approximate slope of 3%. The lands to the south are developed with flows directed away from the site. The land to the west are higher than the site. The existing curb and gutter blocks flow from entering the site to the east and north. Therefore offsite flows are considered negligible.

Existing Conditions:
The existing site is developed. The previous development included the a warehouse, and concrete parking lot on the northern section of the site. The site is bordered along the east by San Mateo Boulevard and along the north by Alameda Boulevard. The previously approved drainage plan (COA File #C17/D015) directs the runoff form the site to the existing sidewalk culvert located at the northwest corner of the site.

The exiting site has been divided into three sub-basins:

Basin A includes the eastern half of the existing warehouse roof, the parking lot located along the east property line, and the landscape area along the north property line. The runoff from basin A flows to the landscape area along the north property line and discharges to Alameda Boulevard through the sidewalk culvert.

Basin B includes the west half of the roof area and the landscaped area along the west property line. The runoff from the roof is directed to a concrete channel routed along the west property line and extends to the sidewalk culvert.

Basin C includes the undeveloped area of the site on the south side. The basin sheet flows to the concrete channel along the west property line.

Developed Conditions:
Basin A will remain unchanged. The flows from basin A will continue to flow to the landscape area along the north property line where they will held within in a new detention pond.

Basin B will be expanded to include proposed warehouse. The existing concrete channel will be extended to intercept the runoff from the roof of the proposed warehouse. The flows from the channel will continue to discharge to the sidewalk culvert. The proposed rate of discharge to the sidewalk culvert is 10.2 cfs.

Basin C includes the proposed parking lot and will be collected at a new catch basin. The flow from the basin will be directed to the proposed pond located in basin A.

The proposed pond will detain the runoff from basins A and C. The pond discharge will be to the existing catch basin in Alameda Boulevard through a 8" pvc pipe. The proposed rate of discharge from the pond will be held to 4.0 csf.

The combined proposed rate of discharge from the side is 14.2 cfs (14.2 / 6.2 = 2.29 csf/acres).

The proposed development will increase the rate and volume of runoff. However the detention pond constructed in the landscaped area of basin A will limit the combined discharge from the site to the limits established by SAD 201 of 2.29 cfs per acres.

Summary:
As shown by the attached calculations the existing runoff for the site will be increased, however, the construction of a drainage pond with a controlled discharge will control the addition runoff from the site.

Q-historic	Q-improved	excess	V-historic	V-improved	excess
9.68 cfs	24.61 cfs	14.93 csf	0.274 ac-ft	0.886 ac-ft	0.612 ac-ft

Allowable discharge rate SAD 201 14.2 cfs
Combined Basin A and C Pond Volume required with 4.0 cfs discharge 11,042 cf

Pond A Volume at elevation 57.5 ft

Vpond = (6220+5564)(0.5)(0.5)+(5564+8)(0.5)+(4309+2105)(1) = 12,146 cf

pond discharge

pipe invert 51.5 ft
Pipe Dia = 8"
A pipe = $(3.14)(8"(0.5)/12)^2 = 0.35$ sf
H = 57.5-51.5 = 6 ft

Q pipe = $0.6\ (0.35)\ [(2)(32.2)(6-.33)]^{0.5} = 4.0$ cfs

Discharge time

12146 cf / 4 cfs = 3,037 s = 51 min

Basin B

Pipe Discharge Rate 12" dia PVC

Q pipe full = $0.25\ (3.14)\ D^2\ (1.49/n)\ Rh^{2/3}\ S^{1/2}$

$0.25\ (3.14)\ (1)^2\ (1.49/0.009)\ ((0.25)(1))^{2/3}\ (0.0069)^{½} = 4.28$ cfs > 4.08 csf

To follow are the calculations analyze the historic and proposed conditions for the 6-HOUR, 100 year event. The analysis is in. accordance with the City of Albuquerque Development Process Manual Volume II.

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASIN A

Precipitation Zone 2
Basin Area = 2.473 acres

Historic Treatment			Improved Conditions Treatment		
Area of A =	107740 sf	100%	Area of A =	sf	0%
Area of B =	0 sf	0%	Area of B =	22816 sf	21%
Area of C =	0 sf	0%	Area of C =	0 sf	0%
Area of D =	0 sf	0%	Area of D =	84924 sf	79%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	1.00	x	0.53 =	0.53	A	0.00	x	0.53 =	0.00
B	0.00	x	0.78 =	0.00	B	0.21	x	0.78 =	0.17
C	0.00	x	1.13 =	0.00	C	0.00	x	1.13 =	0.00
D	0.00	x	2.12 =	0.00	D	0.79	x	2.12 =	1.67
			E =	0.53				E =	1.84

Volume V = E A / 12

Ve =	0.530	x	2.4734 /	12 =	0.109	acre ft	4759	cf
Vi =	1.836	x	2.4734 /	12 =	0.378	acre ft	16486	cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	1.00	x	1.56 =	1.56	A	0.00	x	1.56 =	0.00
B	0.00	x	2.28 =	0.00	B	0.21	x	2.28 =	0.48
C	0.00	x	3.14 =	0.00	C	0.00	x	3.14 =	0.00
D	0.00	x	4.7 =	0.00	D	0.79	x	4.7 =	3.70
			q =	1.56				q =	4.19

Peak Rate Qp = q A

Qp(e) =	1.56	x	2.4734 =	3.86	cfs
Qp(i) =	4.19	x	2.4734 =	10.36	cfs

Excess Volume = 0.269 acre ft
Excess Rate = 6.50 cfs

tc =	0.2	hr	
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =		0.727 hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12)	=	0.208 hr

Discharge Rate	4.00 cfs	1.62 cfs/ac
Volume	17225 cf	
Discharged -	8994 cf	
Pond Voulme	**8231** cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASIN B

Precipitation Zone 2
Basin Area = 2.689 acres

Historic Treatment

Area of A =	117130	sf	100%
Area of B =	0	sf	0%
Area of C =	0	sf	0%
Area of D =	0	sf	0%

Improved Conditions Treatment

Area of A =		sf	0%
Area of B =	44299	sf	38%
Area of C =	0	sf	0%
Area of D =	72831	sf	62%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions

Treatment	% of Area		En
A	1.00 x	0.53 =	0.53
B	0.00 x	0.78 =	0.00
C	0.00 x	1.13 =	0.00
D	0.00 x	2.12 =	0.00
	E =		0.53

Improved Conditions

Treatment	% of Area		En
A	0.00 x	0.53 =	0.00
B	0.38 x	0.78 =	0.29
C	0.00 x	1.13 =	0.00
D	0.62 x	2.12 =	1.32
		E =	1.61

Volume V = E A / 12

Ve =	0.530 x	2.6889 /	12 =	0.119	acre ft	5173 cf
Vi =	1.613 x	2.6889 /	12 =	0.361	acre ft	15746 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area		Q
A	1.00 x	1.56 =	1.56
B	0.00 x	2.28 =	0.00
C	0.00 x	3.14 =	0.00
D	0.00 x	4.7 =	0.00
		q =	1.56

Treatment	% of Area		Q
A	0.00 x	1.56 =	0.00
B	0.38 x	2.28 =	0.86
C	0.00 x	3.14 =	0.00
D	0.62 x	4.7 =	2.92
		q =	3.78

Peak Rate Qp = q A

Qp(e) =	1.56 x	2.6889 =	4.19	cfs
Qp(i) =	3.78 x	2.6889 =	10.18	cfs

Excess Volume = 0.243 acre ft
Excess Rate = 5.98 cfs

tc =	0.2	hr	
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =		0.743 hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12)	=	0.222 hr

Discharge Rate	10.18	cfs	3.79 cfs/ac
Volume	16452	cf	
Discharged -	16453	cf	
Pond Voulme	**-2**	cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASIN C

Precipitation Zone 2
Basin Area = 1.042 acres

Historic Treatment			Improved Conditions Treatment		
Area of A =	45378 sf	100%	Area of A =	sf	0%
Area of B =	0 sf	0%	Area of B =	14710 sf	32%
Area of C =	0 sf	0%	Area of C =	0 sf	0%
Area of D =	0 sf	0%	Area of D =	30668 sf	68%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	1.00	x	0.53 =	0.53	A	0.00	x	0.53 =	0.00
B	0.00	x	0.78 =	0.00	B	0.32	x	0.78 =	0.25
C	0.00	x	1.13 =	0.00	C	0.00	x	1.13 =	0.00
D	0.00	x	2.12 =	0.00	D	0.68	x	2.12 =	1.43
			E =	0.53				E =	1.69

Volume V = E A / 12

Ve =	0.530	x	1.0417 /	12 =	0.046 acre ft	2004 cf	
Vi =	1.686	x	1.0417 /	12 =	0.146 acre ft	6374 cf	

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	1.00	x	1.56 =	1.56	A	0.00	x	1.56 =	0.00
B	0.00	x	2.28 =	0.00	B	0.32	x	2.28 =	0.74
C	0.00	x	3.14 =	0.00	C	0.00	x	3.14 =	0.00
D	0.00	x	4.7 =	0.00	D	0.68	x	4.7 =	3.18
			q =	1.56				q =	3.92

Peak Rate Qp = q A

Qp(e) =	1.56	x	1.0417 =	1.63	cfs
Qp(i) =	3.92	x	1.0417 =	4.08	cfs

Excess Volume = 0.100 acre ft
Excess Rate = 2.45 cfs

tc =	0.2	hr	
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =	0.738	hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12) =	0.217	hr

Discharge Rate	4.28 cfs	4.11 cfs/ac
Volume	6660 cf	
Discharged -	6772 cf	
Pond Voulme	**-112** cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASINS A & C

Precipitation Zone 2
Basin Area = 3.515 acres

Historic Treatment			Improved Conditions Treatment		
Area of A =	153118 sf	100%	Area of A =	sf	0%
Area of B =	0 sf	0%	Area of B =	67115 sf	44%
Area of C =	0 sf	0%	Area of C =	0 sf	0%
Area of D =	0 sf	0%	Area of D =	86003 sf	56%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	1.00	x	0.53 =	0.53	A	0.00	x	0.53 =	0.00
B	0.00	x	0.78 =	0.00	B	0.44	x	0.78 =	0.34
C	0.00	x	1.13 =	0.00	C	0.00	x	1.13 =	0.00
D	0.00	x	2.12 =	0.00	D	0.56	x	2.12 =	1.19
			E =	0.53				E =	1.53

Volume V = E A / 12

Ve =	0.530	x	3.5151 /	12 =	0.155	acre ft	6763 cf
Vi =	1.533	x	3.5151 /	12 =	0.449	acre ft	19556 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	1.00	x	1.56 =	1.56	A	0.00	x	1.56 =	0.00
B	0.00	x	2.28 =	0.00	B	0.44	x	2.28 =	1.00
C	0.00	x	3.14 =	0.00	C	0.00	x	3.14 =	0.00
D	0.00	x	4.7 =	0.00	D	0.56	x	4.7 =	2.64
			q =	1.56				q =	3.64

Peak Rate Qp = q A

Qp(e) =	1.56	x	3.5151 =	5.48	cfs
Qp(i) =	3.64	x	3.5151 =	12.79	cfs

Excess Volume = 0.294 acre ft
Excess Rate = 7.31 cfs

tc =	0.2	hr	
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =	0.747	hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12) =	0.227	hr

Discharge Rate	4.00	cfs	1.14 cfs/ac
Volume	20432	cf	
Discharged -	9390	cf	
Pond Voulme	**11042**	cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

Total Site

Precipitation Zone 2
Basin Area = 6.204 acres

Historic Treatment

Area of A =	270247	sf	100%
Area of B =	0	sf	0%
Area of C =	0	sf	0%
Area of D =	1	sf	0%

Improved Conditions Treatment

Area of A =		sf	0%
Area of B =	81825	sf	30%
Area of C =	0	sf	0%
Area of D =	188423	sf	70%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions

Treatment	% of Area			=	En
A	1.00	x	0.53	=	0.53
B	0.00	x	0.78	=	0.00
C	0.00	x	1.13	=	0.00
D	0.00	x	2.12	=	0.00
			E	=	0.53

Improved Conditions

Treatment	% of Area			=	En
A	0.00	x	0.53	=	0.00
B	0.30	x	0.78	=	0.24
C	0.00	x	1.13	=	0.00
D	0.70	x	2.12	=	1.48
				E =	1.71

Volume V = E A / 12

Ve =	0.530	x	6.204	/	12 =	0.274 acre ft	11936 cf
Vi =	1.714	x	6.204	/	12 =	0.886 acre ft	38607 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			=	Q
A	1.00	x	1.56	=	1.56
B	0.00	x	2.28	=	0.00
C	0.00	x	3.14	=	0.00
D	0.00	x	4.7	=	0.00
			q	=	1.56

Treatment	% of Area			=	Q
A	0.00	x	1.56	=	0.00
B	0.30	x	2.28	=	0.69
C	0.00	x	3.14	=	0.00
D	0.70	x	4.7	=	3.28
				q =	3.97

Peak Rate Qp = q A

Qp(e) =	1.56	x	6.204	=	9.68 cfs
Qp(i) =	3.97	x	6.204	=	24.61 cfs

Excess Volume = 0.612 acre ft
Excess Rate = 14.93 cfs

tc = 0.2 hr
tb = (2.107 *E*At/Qp)-(0.25*Ad/At) = 0.736 hr
tp = (0.7*tc)+((1.6-(Ad/At))/12) = 0.215 hr

Discharge Rate	14.20 cfs	2.29 cfs/ac
Volume	40336 cf	
Discharged -	29346 cf	
Pond Voulme	**10990** cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

Total Site - Existing / Proposed Conditions

Precipitation Zone 2
Basin Area = 6.204 acres

Existing Treatment				Improved Conditions Treatment			
Area of A =	0	sf	0%	Area of A =		sf	0%
Area of B =	43427	sf	16%	Area of B =	81825	sf	30%
Area of C =	71704	sf	27%	Area of C =	0	sf	0%
Area of D =	155117	sf	57%	Area of D =	188423	sf	70%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	0.00	x	0.53 =	0.00	A	0.00	x	0.53 =	0.00
B	0.16	x	0.78 =	0.13	B	0.30	x	0.78 =	0.24
C	0.27	x	1.13 =	0.30	C	0.00	x	1.13 =	0.00
D	0.57	x	2.12 =	1.22	D	0.70	x	2.12 =	1.48
			E =	1.64				E =	1.71

Volume V = E A / 12

Ve =	1.642	x	6.204 /	12 =	0.849	acre ft	36979	cf
Vi =	1.714	x	6.204 /	12 =	0.886	acre ft	38607	cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	0.00	x	1.56 =	0.00	A	0.00	x	1.56 =	0.00
B	0.16	x	2.28 =	0.37	B	0.30	x	2.28 =	0.69
C	0.27	x	3.14 =	0.83	C	0.00	x	3.14 =	0.00
D	0.57	x	4.7 =	2.70	D	0.70	x	4.7 =	3.28
			q =	3.90				q =	3.97

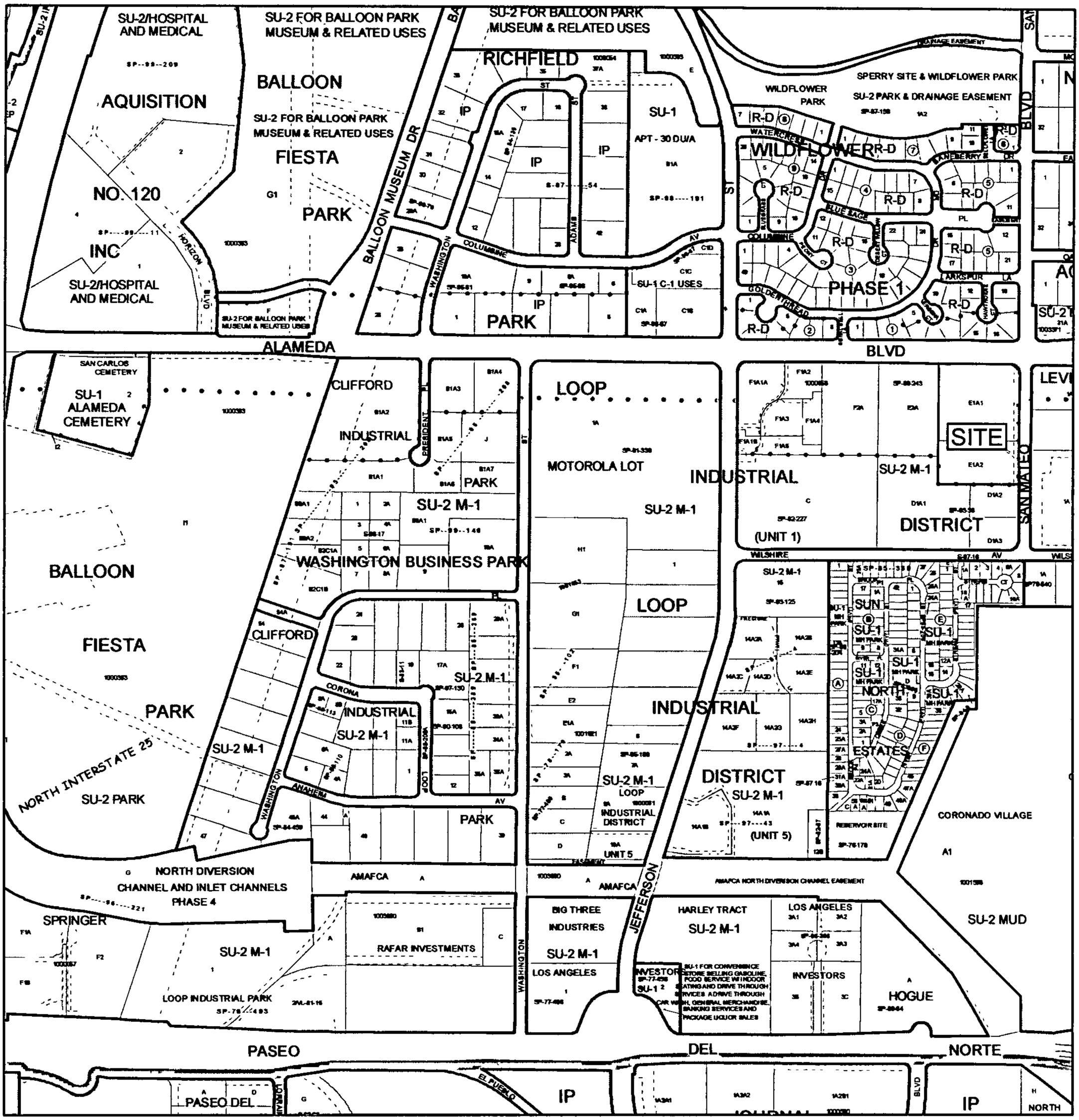
Peak Rate Qp = q A

Qp(e) =	3.90	x	6.204 =	24.18	cfs
Qp(i) =	3.97	x	6.204 =	24.61	cfs

Excess Volume = 0.037 acre ft
Excess Rate = 0.43 cfs

tc = 0.2 hr
tb = (2.107 *E*At/Qp)-(0.25*Ad/At) = 0.736 hr
tp = (0.7*tc)+((1.6-(Ad/At))/12) = 0.215 hr

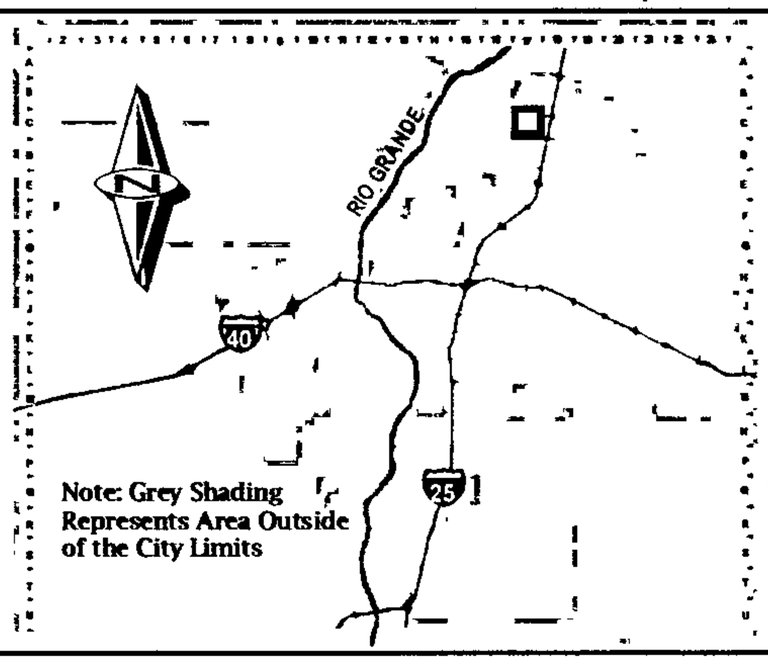
Discharge Rate	14.20	cfs	2.29 cfs/ac
Volume	40336	cf	
Discharged -	29346	cf	
Pond Voulme	**10990**	cf	



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

Albuquerque Geographic Information System

Map amended through: 1/12/2006



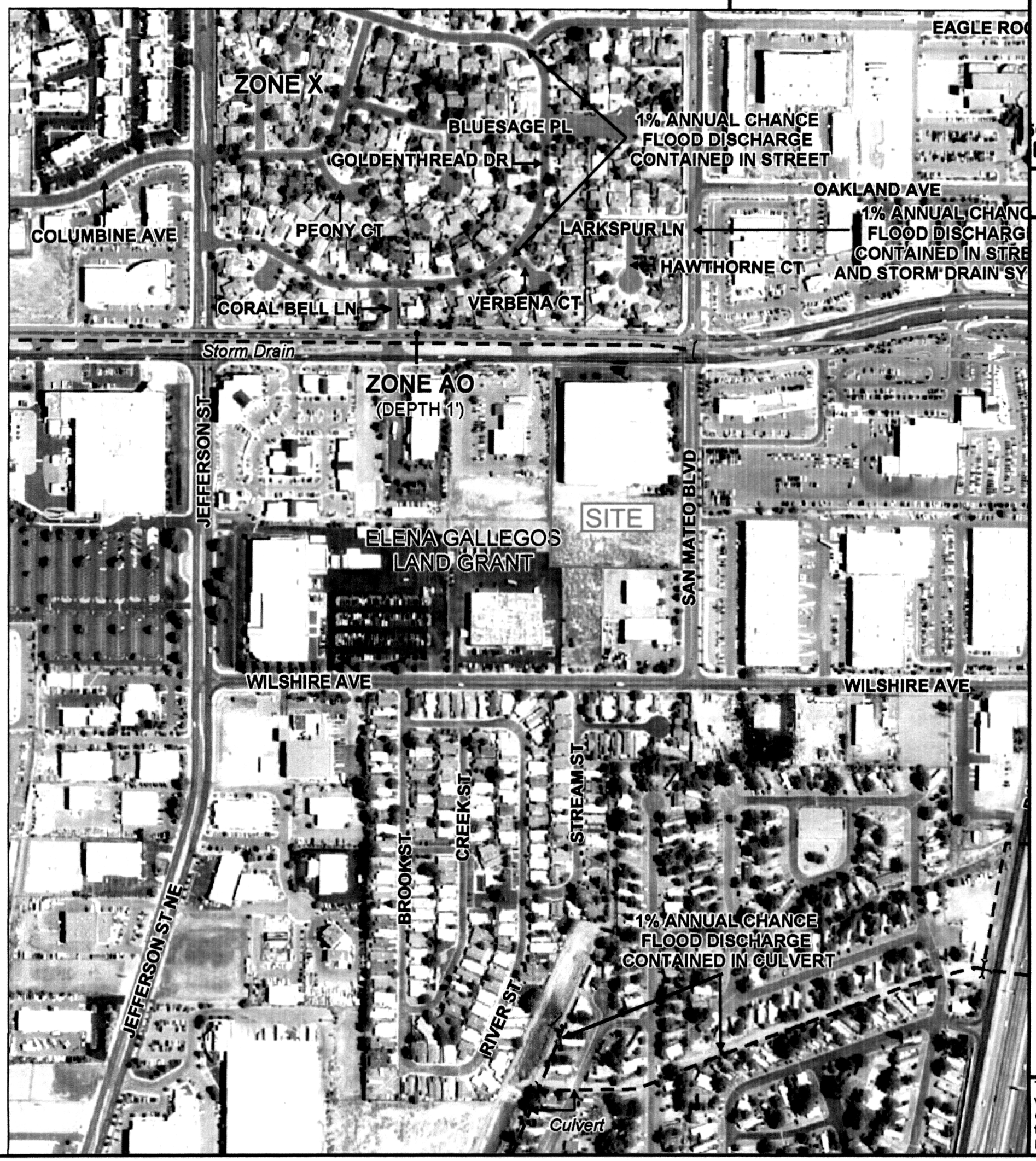
Zone Atlas Page:

C-17-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



MAP SCALE 1" = 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

Use for site plan

Drainage Report

for

American Tire Addition

5701 San Mateo
Albuquerque, New Mexico

March 27, 2013

by

J Arthur Blessen Engineering

Location:
Tract E-1-A-1-A Loop Industrial District Subdivision Unit 1, Bernalillo County New Mexico
5701 San Mateo.

Zone map C-17-Z
Located West side of San Mateo Blvd. South of Alameda Blvd.

Site Area: 6.20 Acres

Precipitation Zone 2

Flood Zone:
The proposed building locations on the site does not lie within a flood hazard zone (Map 35001C0137H panel 137 of 825). The site slopes from east to west at an approximate slope of 3%. The lands to the south are developed with flows directed away from the site. The land to the west are higher than the site. The existing curb and gutter blocks flow from entering the site to the east and north. Therefore offsite flows are considered negligible.

Existing Conditions:
The existing site is developed. The previous development included the a warehouse, and concrete parking lot on the northern section of the site. The site is bordered along the east by San Mateo Boulevard and along the north by Alameda Boulevard. The previously approved drainage plan (COA File #C17/D015) directs the runoff form the site to the existing sidewalk culvert located at the northwest corner of the site.

The exiting site has been divided into three sub-basins:

Basin A includes the eastern half of the existing warehouse roof, the parking lot located along the east property line, and the landscape area along the north property line. The runoff from basin A flows to the landscape area along the north property line and discharges to Alameda Boulevard through the sidewalk culvert.

Basin B includes the west half of the roof area and the landscaped area along the west property line. The runoff from the roof is directed to a concrete channel routed along the west property line and extends to the sidewalk culvert.

Basin C includes the undeveloped area of the site on the south side. The basin sheet flows to the concrete channel along the west property line.

Developed Conditions:
Basin A will remain unchanged. The flows from basin A will continue to flow to the landscape area along the north property line where they will held within in a new retention pond.

Basin B will be expanded to include proposed warehouse. The existing concrete channel will be extended to intercept the runoff from the roof of the proposed warehouse. The flows from the channel will continue to discharge to the sidewalk culvert. The proposed rate of discharge to the sidewalk culvert is 10.2 cfs.

Basin C includes the proposed parking lot and will be collected at a new catch basin. The flow from the basin will be directed to the proposed pond located in basin A.

The proposed pond will retain the runoff from basins A and C. The pond discharge will be to the existing catch basin in Alameda Boulevard through a 8" pvc pipe. The proposed rate of discharge from the pond will be held to 4.0 csf.

The combined proposed rate of discharge from the side is 14.2 cfs (14.2 / 6.2 = 2.29 csf/acres).

The proposed development will increase the rate and volume of runoff. However the retention pond constructed in the landscaped area of basin A will limit the combined discharge from the site to the limits established by SAD 201 of 2.29 cfs per acres.

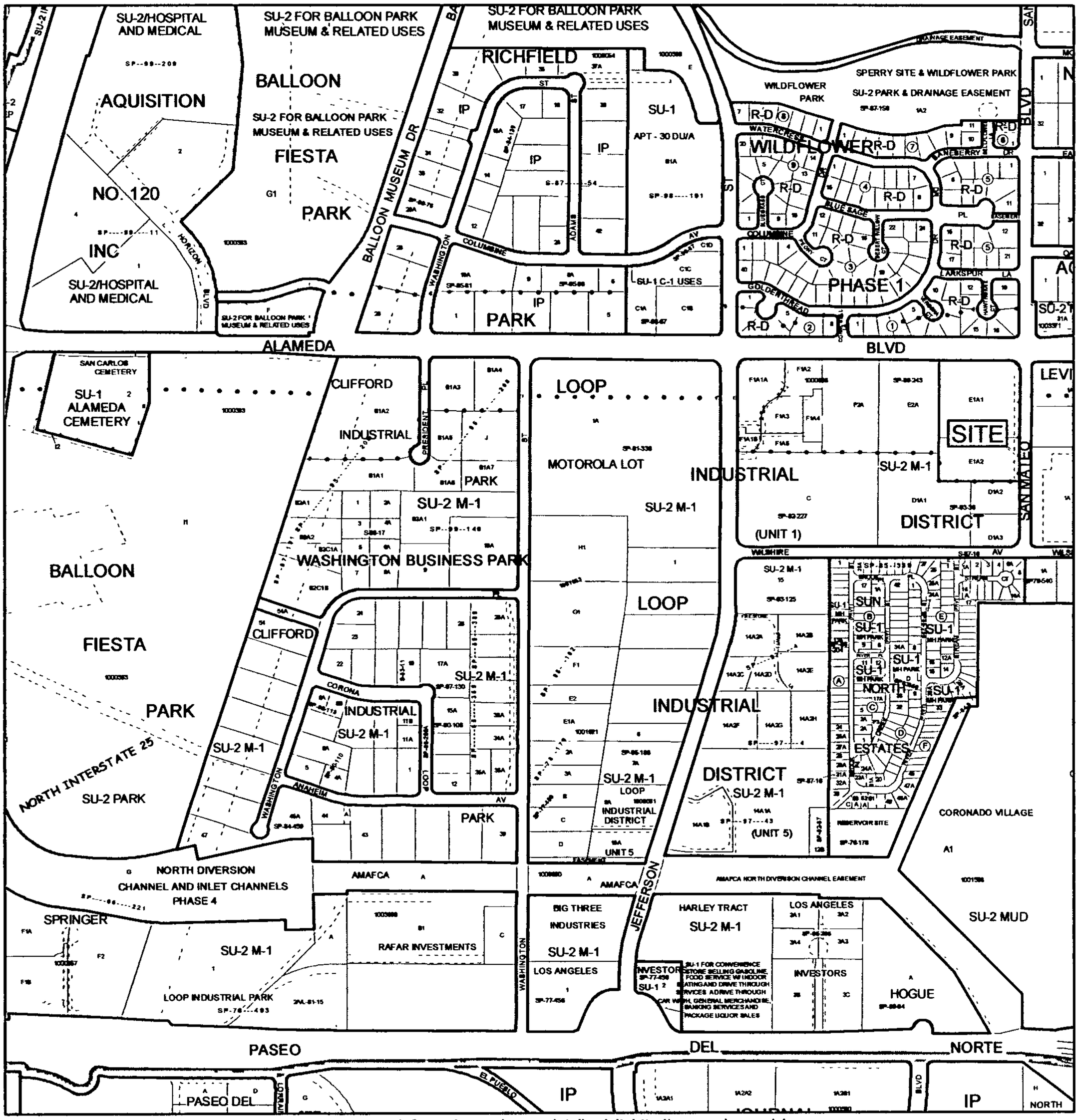
To follow are the calculation analyze the historic, and proposed conditions, for the 6-hour 100 year rainfall event. The analysis is in accordance with the City of Albuquerque Development Process Manual Volume II.

Pond A
Volume at elevation 57.5 ft

Vpond = (6220+5564)(0.5)(0.5)+(5564+8)(0.5)+(4309+2105)(1) = 12,146 cf

pond discharge
pipe invert 51.5 ft
Pipe Dia = 8"
A pipe = (3.14)(8"(0.5)/12)^2 = 0.35 sf
H = 57.5-51.5 = 6 ft

Q pipe = 0.6 (0.35) [(2)(32.2)(6-.33)] $^{0.5}$ = 4.0 cfs



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Albuquerque Geographic Information System

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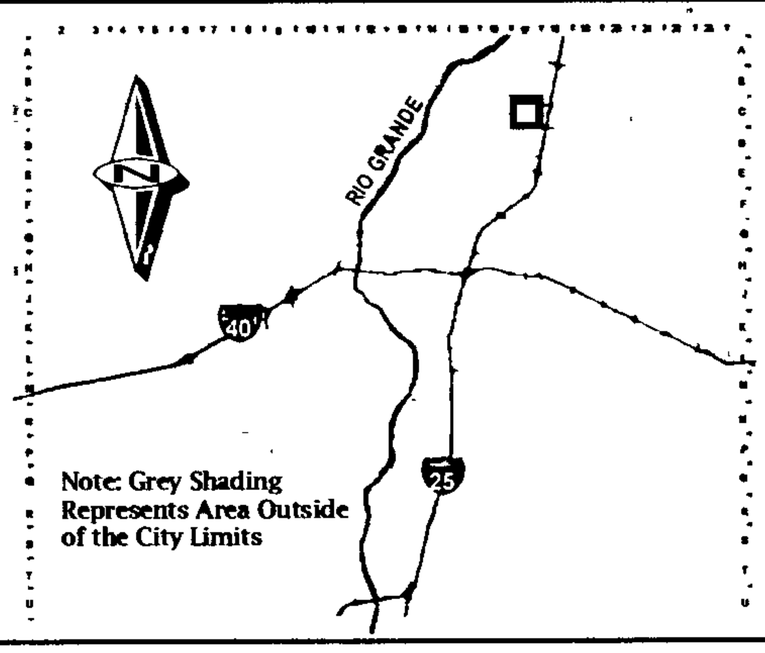

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C-17-Z

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- Design Overlay Zones
- City Historic Zones
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- Airport Noise Contours
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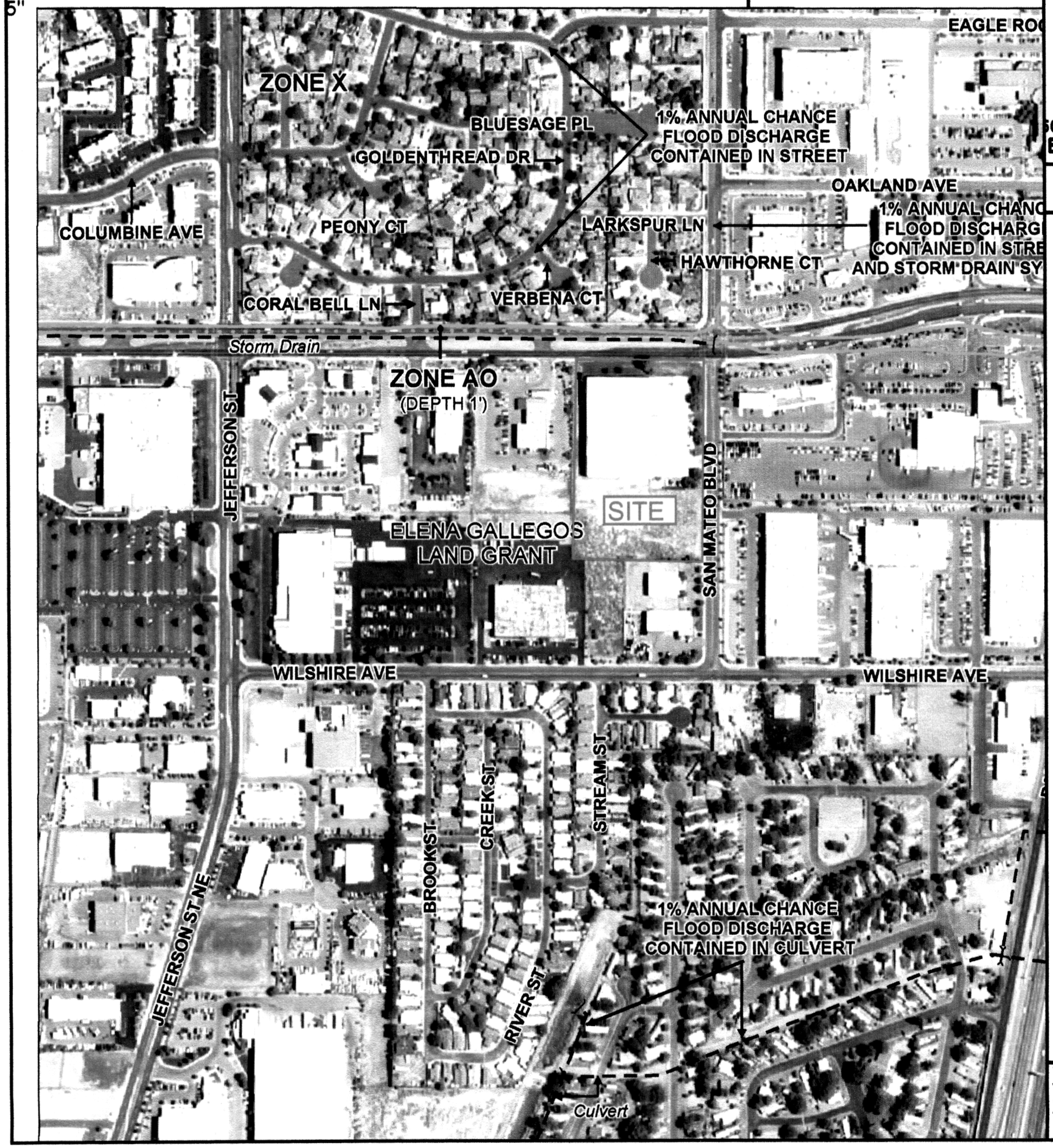
0 — 750 — 1,500 Feet



MAP SCALE 1" = 500'

50 0 500 1000 FEET

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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
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MAP NUMBER
35001C0137H

MAP REVISED
AUGUST 16, 2012

Federal Emergency Management Agency

Drainage Calculation

City of Albuquerque DPM 1997 edition

Total Site

Precipitation Zone 2

Basin Area = 6.204 acres

Q exist ≈ 21.63 cfs 50% B & 50% D

~3.5 cfs/ac

Q_p = 26.14 cfs 20% C 50% D

~ 4.21 cfs/ac

Existing Treatment			
Area of A =	270247	sf	100%
Area of B =	0	sf	0%
Area of C =	0	sf	0%
Area of D =	1	sf	0%

Improved Conditions Treatment			
Area of A =		sf	0%
Area of B =	81825	sf	30% ? ~15-20%
Area of C =	0	sf	0%
Area of D =	188423	sf	70% ? ~80-95%

Excess Precipitation, E (inches) 6 hr - 100-yr storm table A-8

Existing Conditions Treatment		% of Area			En	Improved Conditions Treatment		% of Area			En
A		1.00 x	0.53	=	~~0.53~~	A		0.00 x	0.53	=	0.00
B	0.5	0.00 x	0.78	=	~~0.00~~ 0.39	B		0.30 x	0.78	=	0.24
C		0.00 x	1.13	=	0.00	C		0.00 x	1.13	=	0.00
D	0.5	0.00 x	2.12	=	~~0.00~~ 1.06	D		0.70 x	2.12	=	1.48
			E	=	0.53 1.45				E	=	1.71

Volume V = E A / 12

Ve =	0.530 x	6.204 /	12	=	0.274	acre ft	11936 cf
Vi =	1.714 x	6.204 /	12	=	0.886	acre ft	38607 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Existing Treatment		% of Area			Q	Improved Treatment		% of Area			Q
A		1.00 x	1.56	=	~~1.56~~	A		0.00 x	1.56	=	0.00
B	0.5	0.00 x	2.28	=	0.00 1.14	B	0.2	0.30 x	2.28	=	~~0.69~~ 0.456
C		0.00 x	3.14	=	0.00	C		0.00 x	3.14	=	0.00
D	0.5	0.00 x	4.7	=	0.00 2.35	D	0.3	0.70 x	4.7	=	~~3.28~~ 3.76
			q	=	1.56 3.49				q	=	3.97 4.22

Peak Rate Qp = q A 3.49

Qp(e) =	~~1.56~~ x	6.204	=	9.68	cfs 21.65 cfs
Qp(i) =	4.22 ~~3.97~~ x	6.204	=	24.61	cfs 26.18 cfs

Excess Volume = 0.612 acre ft

Excess Rate = ~~14.93~~ cfs 11.93 cfs

tc = 0.2 hr

tb = (2.107 *E*At/Qp)-(0.25*Ad/At) = 0.736 hr

tp = (0.7*tc)+((1.6-(Ad/At))/12) = 0.215 hr

Discharge Rate	14.21 cfs	2.29 cfs/ac
Volume Discharged -	40336 cf 29361 cf	41,691 cf 18k-20k cf
Pond Voulme	**10975** cf	19073 cf

Route calcs

? cfs / 6.2 ac = 2.29 cfs/ac

? cfs = (2.29 cfs)(6.2 ac) / 1 ac

? cfs = 14.2 cfs allowable

26.18 - 14.2 = 11.98 cfs excess rate

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASIN A

Precipitation Zone 2

Basin Area = 2.473 acres

Historic Treatment			Improved Conditions Treatment		
Area of A =	107740 sf	100%	Area of A =	sf	0%
Area of B =	0 sf	0%	Area of B =	22816 sf	21%
Area of C =	0 sf	0%	Area of C =	0 sf	0%
Area of D =	0 sf	0%	Area of D =	84924 sf	79%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	1.00	x	0.53 =	0.53	A	0.00	x	0.53 =	0.00
B	0.00	x	0.78 =	0.00	B	0.21	x	0.78 =	0.17
C	0.00	x	1.13 =	0.00	C	0.00	x	1.13 =	0.00
D	0.00	x	2.12 =	0.00	D	0.79	x	2.12 =	1.67
			E =	0.53				E =	1.84

Volume V = E A / 12

Ve =	0.530	x	2.4734 /	12 =	0.109	acre ft	4759 cf
Vi =	1.836	x	2.4734 /	12 =	0.378	acre ft	16486 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	1.00	x	1.56 =	1.56	A	0.00	x	1.56 =	0.00
B	0.00	x	2.28 =	0.00	B	0.21	x	2.28 =	0.48
C	0.00	x	3.14 =	0.00	C	0.00	x	3.14 =	0.00
D	0.00	x	4.7 =	0.00	D	0.79	x	4.7 =	3.70
			q =	1.56				q =	4.19

Peak Rate Qp = q A

Qp(e) =	1.56	x	2.4734 =	3.86	cfs
Qp(i) =	4.19	x	2.4734 =	10.36	cfs

Excess Volume = 0.269 acre ft

Excess Rate = 6.50 cfs

tc =	0.2	hr	
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =	0.727	hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12) =	0.208	hr
Discharge Rate	5.66	cfs	2.29 cfs/ac
Volume	17225	cf	
Discharged -	11861	cf	
Pond Voulme	**5364**	cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASIN B

Precipitation Zone 2

Basin Area = 2.689 acres

Historic Treatment			Improved Conditions Treatment		
Area of A =	117130 sf	100%	Area of A =	sf	0%
Area of B =	0 sf	0%	Area of B =	44299 sf	38%
Area of C =	0 sf	0%	Area of C =	0 sf	0%
Area of D =	0 sf	0%	Area of D =	72831 sf	62%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	1.00	x	0.53 =	0.53	A	0.00	x	0.53 =	0.00
B	0.00	x	0.78 =	0.00	B	0.38	x	0.78 =	0.29
C	0.00	x	1.13 =	0.00	C	0.00	x	1.13 =	0.00
D	0.00	x	2.12 =	0.00	D	0.62	x	2.12 =	1.32
			E =	0.53				E =	1.61

Volume V = E A / 12

Ve =	0.530	x	2.6889 /	12 =	0.119	acre ft	5173 cf
Vi =	1.613	x	2.6889 /	12 =	0.361	acre ft	15746 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	1.00	x	1.56 =	1.56	A	0.00	x	1.56 =	0.00
B	0.00	x	2.28 =	0.00	B	0.38	x	2.28 =	0.86
C	0.00	x	3.14 =	0.00	C	0.00	x	3.14 =	0.00
D	0.00	x	4.7 =	0.00	D	0.62	x	4.7 =	2.92
			q =	1.56				q =	3.78

Peak Rate Qp = q A

Qp(e) =	1.56	x	2.6889 =	4.19	cfs
Qp(i) =	3.78	x	2.6889 =	10.18	cfs

Excess Volume =	0.243	acre ft	
Excess Rate =	5.98	cfs	
tc =	0.2	hr	
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =	0.743	hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12) =	0.222	hr

Discharge Rate	10.18	cfs	3.79 cfs/ac
Volume	16452	cf	
Discharged -	16453	cf	
Pond Voulme	**-2**	cf	

Drainage Calculation

City of Albuquerque DPM 1997 edition

BASIN C

Precipitation Zone 2
Basin Area = 1.042 acres

Historic Treatment			Improved Conditions Treatment		
Area of A =	45378 sf	100%	Area of A =	sf	0%
Area of B =	0 sf	0%	Area of B =	14710 sf	32%
Area of C =	0 sf	0%	Area of C =	0 sf	0%
Area of D =	0 sf	0%	Area of D =	30668 sf	68%

Excess Precipitation, E (inches) 6 hr - 100 yr storm table A-8

Existing Conditions Treatment	% of Area			En	Improved Conditions Treatment	% of Area			En
A	1.00	x	0.53 =	0.53	A	0.00	x	0.53 =	0.00
B	0.00	x	0.78 =	0.00	B	0.32	x	0.78 =	0.25
C	0.00	x	1.13 =	0.00	C	0.00	x	1.13 =	0.00
D	0.00	x	2.12 =	0.00	D	0.68	x	2.12 =	1.43
			E =	0.53				E =	1.69

Volume V = E A / 12

Ve =	0.530	x	1.0417 /	12 =	0.046	acre ft	2004 cf
Vi =	1.686	x	1.0417 /	12 =	0.146	acre ft	6374 cf

Discharge Rate, Q (cfs / acre) 100 yr storm table A-9

Treatment	% of Area			Q	Treatment	% of Area			Q
A	1.00	x	1.56 =	1.56	A	0.00	x	1.56 =	0.00
B	0.00	x	2.28 =	0.00	B	0.32	x	2.28 =	0.74
C	0.00	x	3.14 =	0.00	C	0.00	x	3.14 =	0.00
D	0.00	x	4.7 =	0.00	D	0.68	x	4.7 =	3.18
			q =	1.56				q =	3.92

Peak Rate Qp = q A

Qp(e) =	1.56	x	1.0417 =	1.63	cfs
Qp(i) =	3.92	x	1.0417 =	4.08	cfs

Excess Volume = 0.100 acre ft
Excess Rate = 2.45 cfs

tc =	0.2 hr		
tb =	(2.107 *E*At/Qp)-(0.25*Ad/At) =		0.738 hr
tp =	(0.7*tc)+((1.6-(Ad/At))/12)	=	0.217 hr

Discharge Rate	4.08 cfs	3.92 cfs/ac
Volume	6660 cf	
Discharged -	6660 cf	
Pond Voulme	**-1** cf	

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 02/2012)

PROJECT TITLE: American Tire Warehouse Addition ZONE MAP: C17/D015
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract E-1-A-1-A Loop Industrial District Subdivision Unit 1
CITY ADDRESS: 5701 San Mateo NE

ENGINEERING FIRM: J Arthur Blessen Engineering CONTACT: Arthur Blessen
ADDRESS: 2429 Zena Lona PHONE: 293-1477
CITY, STATE: Albuquerque, NM ZIP CODE: 87112
EMAIL: jab-engineering@hotmail.com

OWNER: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____
EMAIL: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
__X__ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
_____ ENGINEER'S CERT (DRB SITE PLAN)
_____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
_____ PRELIMINARY PLAT APPROVAL
_____ S. DEV. PLAN FOR SUB'D APPROVAL
_____ S. DEV. FOR BLDG. PERMIT APPROVAL
_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
_____ BUILDING PERMIT APPROVAL
__X__ CERTIFICATE OF OCCUPANCY (PERM)
__X__ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ GRADING CERTIFICATION
_____ OTHER (SPECIFY) SO-19

RECEIVED
DEC 06 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 12/6/13 BY: Artnur Blessen

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
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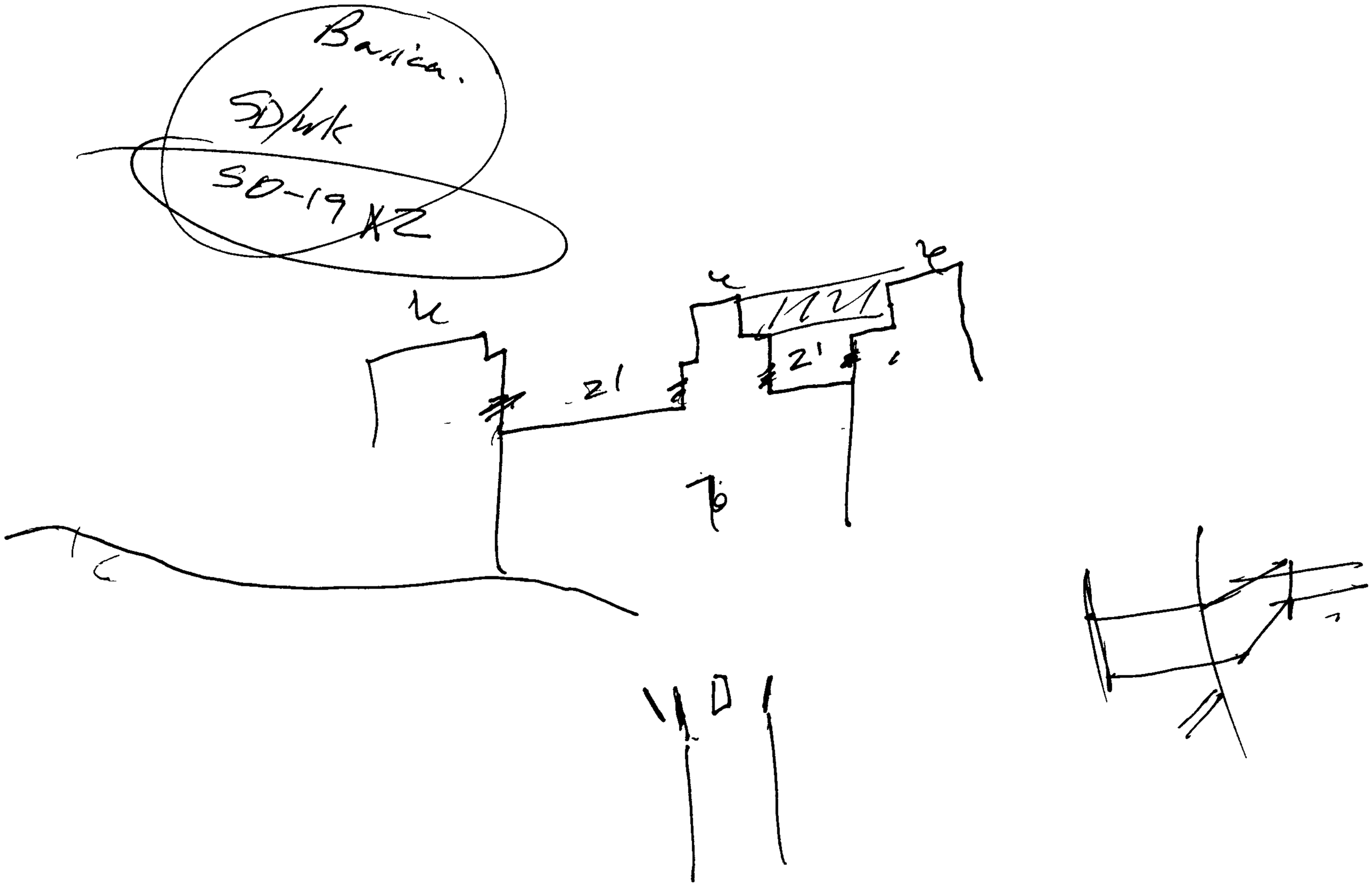
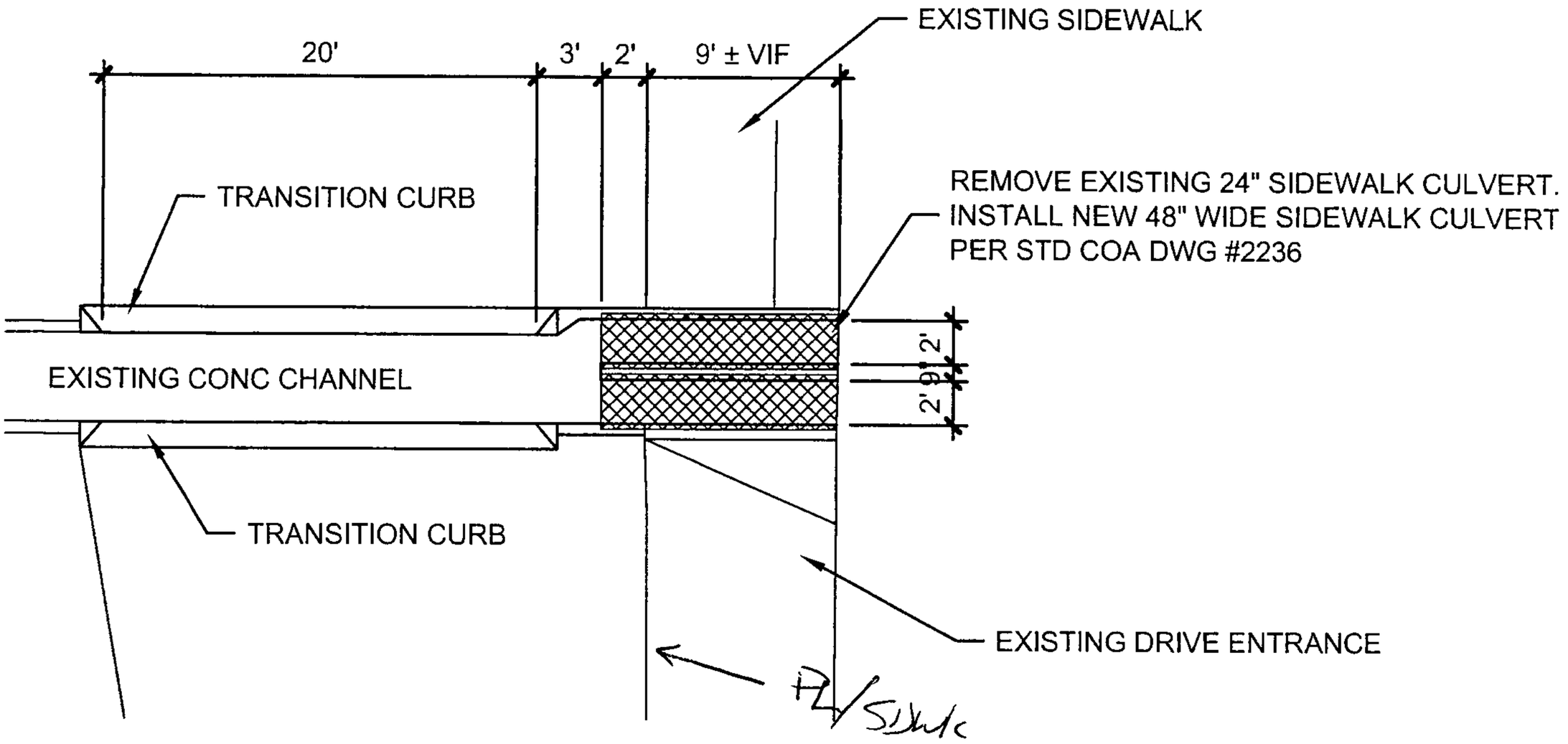
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more

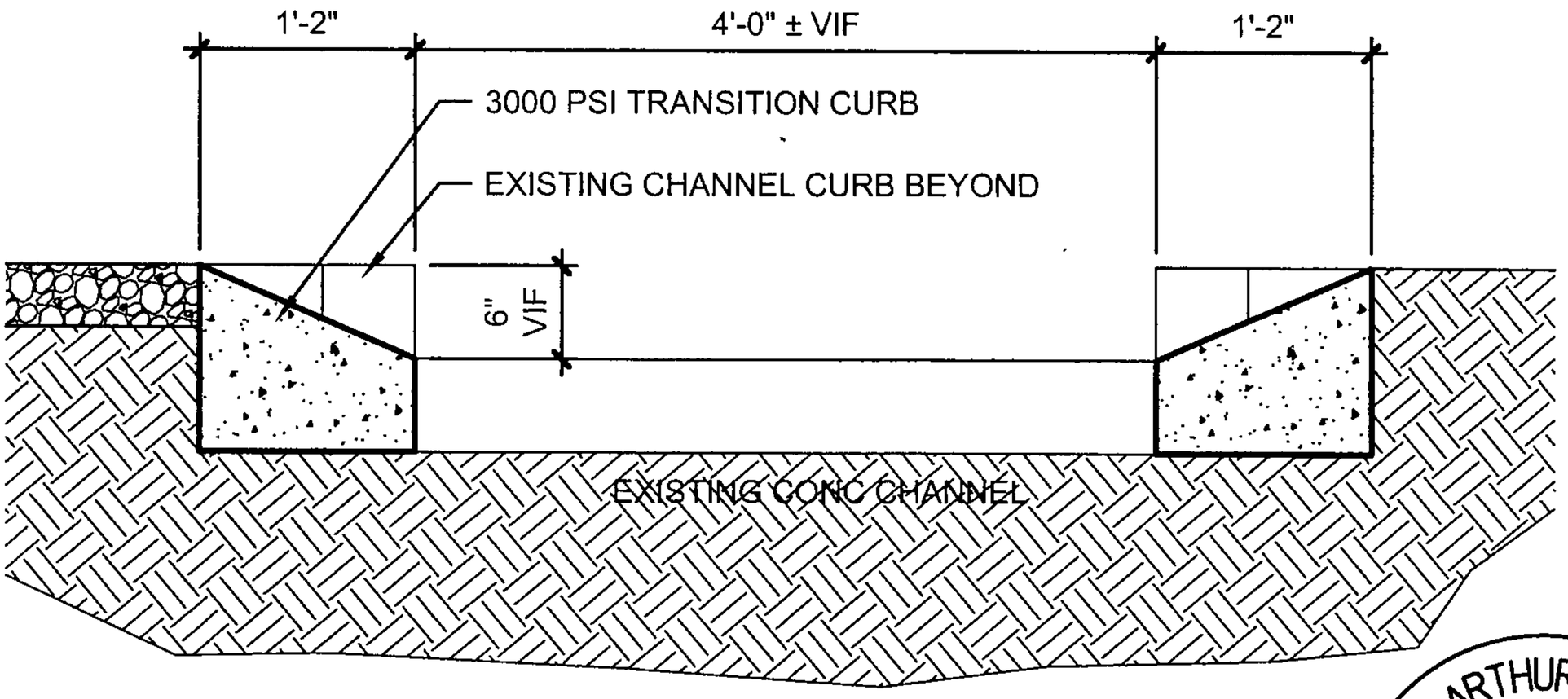
Y-10DAY Temp 12/16/13 O ORG Strtup DATE 5/22/13


Basica.
SD/wk
SD-19 XZ
21
21'



B SIDEWALK CULVERT PLAN

1"=10'-0"



A CHANNEL SECTION

3/4"=1'-0"

AMERICAN TIRE
WAREHOUSE ADDITION

5701 SAN MATEO NE
ALBUQUERQUE, NEW MEXICO

PROJECT NUMBER	13007
DRAWN BY	jab
CHECKED BY	
ISSUE DATE	12/10/13

SHEET NAME
SIDEWALK CULVERT

j arthur blessen engineering
architect engineer

11930 Menaul Suite 109
Albuquerque, NM 87112
(505) 293-1477

Sims, Timothy E.

From: Rodriguez, Jason T.
Sent: Monday, December 09, 2013 8:15 AM
To: Sims, Timothy E.; 'Daniel Pruitt'; 'James Trujillo'; 'jab-engineering@hotmail.com'; 'Gus Harbaugh (Gus@Franklinsearthmoving.com)'
Cc: 'John Blessen'; Biazar, Shahab; Cherne, Curtis; Wolfe, Bryan K.
Subject: RE: American Tire
Attachments: American Tire expansion project

This is the pass on the inlet but is there still a side walk culvert at the west end to be improved?

From: Sims, Timothy E.
Sent: Friday, December 06, 2013 1:42 PM
To: 'Daniel Pruitt'; 'James Trujillo'; 'jab-engineering@hotmail.com'; 'Gus Harbaugh (Gus@Franklinsearthmoving.com)'; Rodriguez, Jason T.
Cc: 'John Blessen'; Biazar, Shahab; Cherne, Curtis; Wolfe, Bryan K.
Subject: RE: American Tire

Gentlemen,

Hydrology typically will not issue any type of C.O., temporary or permanent, when various SO-19's are associated with a site. PLEASE contact Jason Rodriguez, 235-8016.

Jason,

Have you been notified of this project? Please advise.

Timothy Sims
Plan Checker--Hydrology
Planning Department
Development & Building Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3982
f 505-924-3864

From: Daniel Pruitt [mailto:DanielP@jaynescorp.com]
Sent: Friday, December 06, 2013 9:32 AM
To: James Trujillo; jab-engineering@hotmail.com; Sims, Timothy E.; Gus Harbaugh (Gus@Franklinsearthmoving.com)
Subject: RE: American Tire

Tim,
please see the attached email and photos that were sent to Jason R. for the inspection. All the work was performed on the back side of the curb.

Daniel Pruitt
Project Manager | Jaynes Corporation
o:505.343.0990 c:505.270.9246 f:505.344.6111
510 Candelaria NE | Albuquerque NM 87107

Build. Lead. Grow.™ jaynescorp.com

From: James Trujillo
Sent: Friday, December 6, 2013 9:12 AM
To: Daniel Pruitt
Subject: FW: American Tire

Do you know what the SO-19 would be?

James Trujillo
Senior Project Superintendent | Jaynes Corporation
o:505.345.8591 c:505.980.0683 f:505.345.8598
2906 Broadway NE | Albuquerque NM 87107

Build. Lead. Grow.™ jaynescorp.com

From: John Blessen [mailto:jab-engineering@hotmail.com]
Sent: Friday, December 06, 2013 8:29 AM
To: James Trujillo
Subject: FW: American Tire

J Arthur Blessen
J Arthur Blessen Engineering
2429 Zena Loan
Albuquerque, NM 87112

Subject: RE: American Tire
Date: Fri, 6 Dec 2013 07:18:49 -0700
From: tsims@cabq.gov
To: jab-engineering@hotmail.com

Arthur,

Was the SO-19 inspected by Jason Rodriguez, 235-8016?

Timothy Sims
Plan Checker--Hydrology
Planning Department
Development & Building Services Division

600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3982
f 505-924-3864

From: John Blessen [mailto:jab-engineering@hotmail.com]
Sent: Thursday, December 05, 2013 10:41 PM
To: Sims, Timothy E.
Subject: American Tire

Tim,

Attached is the American Tire Warehouse Addition C-17/D015 hydrology certification.
Hard copy to be submitted separately.

J Arthur Blessen
J Arthur Blessen Engineering
2429 Zena Loan
Albuquerque, NM 87112

Nichols

Naylor

architects

TRAFFIC CERTIFICATION

I, Russell Naylor, NMRA, of the firm Nichols, Naylor Architects, Inc. hereby certify that this project is in substantial compliance with and in accordance with the design intent of the approved plan dated March 14, 2013 which was sealed and signed by me on April 3, 2013. The record information edited onto the original design document has been obtained by Daniel Pruitt of the firm Jaynes Corporation. I further certify that I have personally visited the project site on December 4, 2013 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for a Certificate of Occupancy.

Adjustments in drainage improvements along west property line made subsequent to my visit.

The record information presented here on is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Russell L Naylor

Signature of Engineer or Architect

Engineer's or Architect's Stamp

12/17/13

Date

STATE OF NEW MEXICO
RUSSELL L NAYLOR
NO. 5210
REGISTERED ARCHITECT

RECEIVED
DEC 18 2013
LAND DEVELOPMENT SECTION

1155 E Wilmington Ave Suite 250 Salt Lake City, Utah 84106 (801) 487-3370 Fax (801) 487-3391

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: American Tire Addition ZONE MAP: C 17 D015
DRB#: 100-9577 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: EAIA Loop Industrial District
CITY ADDRESS: 8701 NE San Mateo Blvd.

ENGINEERING FIRM: J. Arthur Blessen CONTACT: Art Blessen
ADDRESS: 2429 Zena Loan PHONE: _____
CITY, STATE: Albuquerque, NM ZIP CODE: 87112

OWNER: JPET Albuquerque CONTACT: Ken Rudy VP Const.
ADDRESS: 230 East South Temple PHONE: 801-478-8000
CITY. STATE: Salt Lake City, UT ZIP CODE: 84111

ARCHITECT: Nichols, Naylor Architects, Inc. CONTACT: Russell Naylor
ADDRESS: 1155 E. Wilmington Ave. Suite 250 PHONE: 801-487-3330
CITY, STATE: Salt Lake City, UT ZIP CODE: 84106

SURVEYOR: Doug Smith Survey CONTACT: Doug Smith
ADDRESS: 2121 San Mateo NE PHONE: 505-255-5577
CITY. STATE: Albuquerque, NM ZIP CODE: 87110

CONTRACTOR: Jaynes Construction CONTACT: Daniel Provitt
ADDRESS: 510 Candelaria PHONE: 505-343-0990 270-9246
CITY, STATE: Albuquerque, NM ZIP CODE: 87107 DanielP@JAYNESCORP.COM

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
__X__ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
_____ ENGINEER'S CERT (DRB SITE PLAN)
__X__ OTHER (SPECIFY) Arch. Cert.

CHECK TYPE OF APPROVAL SOUGHT:
_____ SIA/FINANCIAL GUARANTEE RELEASE
_____ PRELIMINARY PLAT APPROVAL
_____ S. DEV. PLAN FOR SUB'D APPROVAL
_____ S. DEV. FOR BLDG. PERMIT APPROVAL
_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
_____ BUILDING PERMIT APPROVAL
__X__ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
__X__ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 16 Dec 2013 BY: _____

RECEIVED
DEC 18 2013
LAND DEVELOPMENT SECTION

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CITY OF ALBUQUERQUE

January 2, 2014

Russell Naylor, R.A.
Nichols, Naylor Architects, Inc.
115 E. Wilmington Ave, Ste 250
Salt Lake City, UT 84106

Re: American Tire Addition, 8701 San Mateo Blvd
Permanent Certificate of Occupancy – Transportation Development
Architect's Stamp dated 04-03-13 (C17-D015)
Certification dated 12-17-13

Dear Mr. Naylor,

Based upon the information provided in your submittal received 12-31-13, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Shahab Biazar, P.E.
Principal Engineer, Planning Dept.
Development and Building Services

C: CO Clerk
File

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: American Tire Addition ZONE MAP: C 17 D045
DRB#: 100-9577 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: EAIA Loop Industrial District
CITY ADDRESS: 8701 NE San Mateo Blvd.

ENGINEERING FIRM: J. Arthur Blessen CONTACT: Art Blessen
ADDRESS: 2429 Zena Loan PHONE: _____
CITY, STATE: Albuquerque, NM ZIP CODE: 87112

OWNER: JPET Albuquerque CONTACT: Ken Rudy VP Const.
ADDRESS: 230 East South Temple PHONE: 801-478-8000
CITY, STATE: Salt Lake City, UT ZIP CODE: 84111

ARCHITECT: Nichols, Naylor Architects, Inc. CONTACT: Russell Naylor
ADDRESS: 1155 E. Wilmington Ave. Suite 250 PHONE: 801-487-3330
CITY, STATE: Salt Lake City, UT ZIP CODE: 84106

SURVEYOR: Doug Smith Survey CONTACT: Doug Smith
ADDRESS: 2121 San Mateo NE PHONE: 505-255-5577
CITY, STATE: Albuquerque, NM ZIP CODE: 87110

CONTRACTOR: Jaynes Construction CONTACT: Daniel Provitt
ADDRESS: 510 Candelaria PHONE: 505-343-0990
CITY, STATE: Albuquerque, NM ZIP CODE: 87107

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
__X__ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
_____ ENGINEER'S CERT (DRB SITE PLAN)
__X__ OTHER (SPECIFY) Arch. Cert.

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_____ S. DEV. FOR BLDG. PERMIT APPROVAL
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_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
_____ BUILDING PERMIT APPROVAL
__X__ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
__X__ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 16 Dec 2013

RECEIVED
DEC 19 2013
LAND DEVELOPMENT SECTION
BY: [signature]

Rec 12/31/13

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following.

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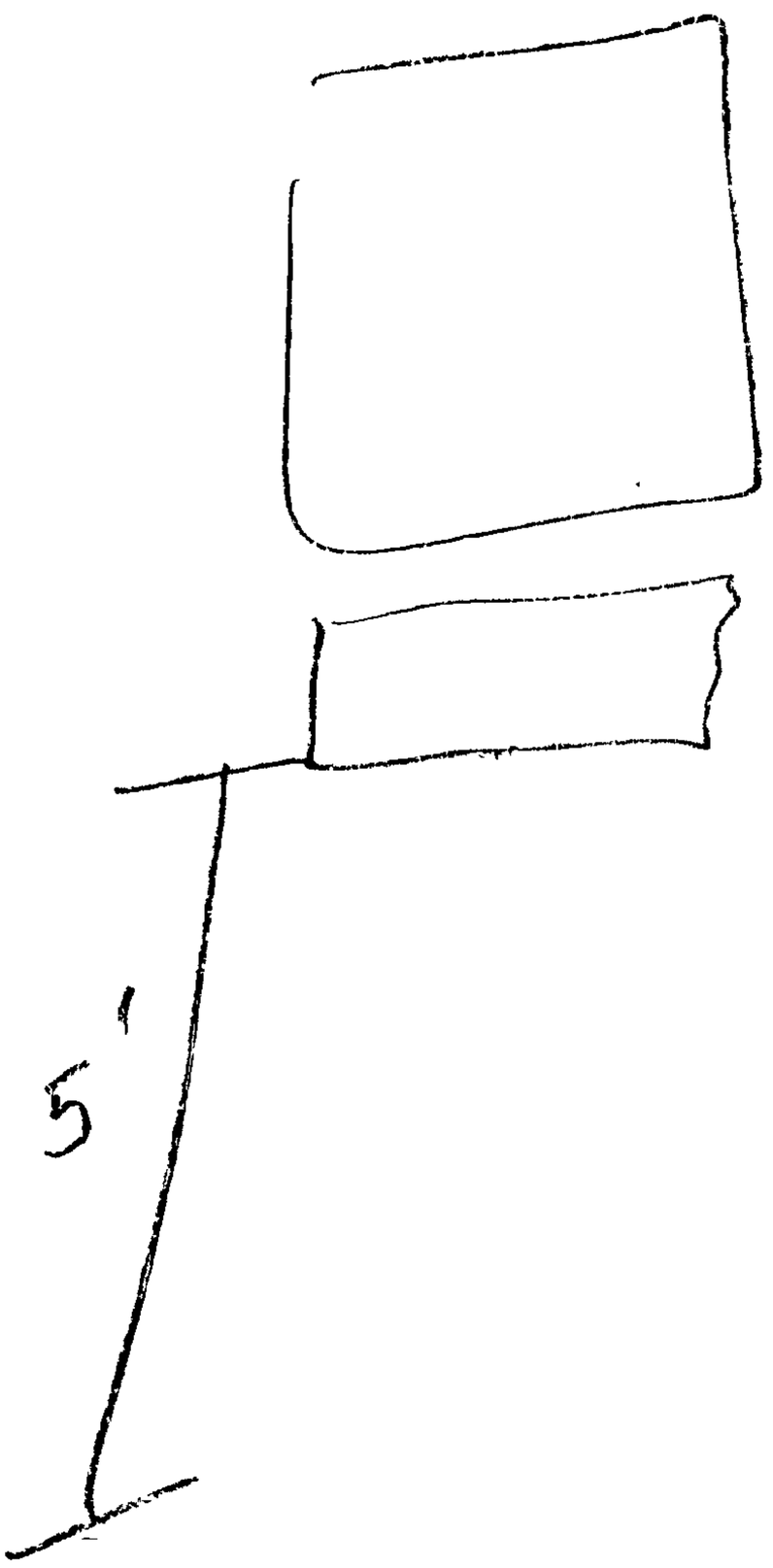
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more

Y-Perm 12/31/13 & SB
VERBAL NO ON PERM CO. 12-20-13
Temp still active
420 DAY Temp — pending TRANSP. Letter 12-18-13


5'

Sims, Timothy E.

From: Wolfe, Bryan K.
Sent: Friday, December 20, 2013 1:19 PM
To: Sims, Timothy E.
Subject: FW: Plea for exception to Paseo Del Norte reconstruction moratorium - 8701 San Mateo

FYI

-----Original Message-----
From: Dodge-Kwan, Paula N.
Sent: Friday, December 20, 2013 11:25 AM
To: 'DanielP@jaynescorp.com'
Cc: Wolfe, Bryan K.; Dickson, Jesse S.
Subject: FW: Plea for exception to Paseo Del Norte reconstruction moratorium - 8701 San Mateo

Daniel,
We have discussed this and decided, that we can allow you to work at night on a weekend, but this weekend is not the best choice. If the work can wait until the New Year that would be best and safest.

Paula Dodge-Kwan PE
Construction Services
Department of Municipal Development
Office 924-3400
Fax 924-3408

>
> From: Daniel Pruitt [mailto:DanielP@jaynescorp.com]
> Sent: Wednesday, December 18, 2013 9:22 AM
> To: DMD CCS Permits
> Cc: Sims, Timothy E.; Wolfe, Bryan K.; Krishna Reddy;
> kenr@pricerealty.cc; russ@nicholsnaylor.com; James Trujillo
> Subject: Plea for exception to Paseo Del Norte reconstruction
> moratorium - 8701 San Mateo
>
>
>
> Please see the attached documents and below letter.
>
>
>
> Plea for exception to Paseo Del Norte reconstruction moratorium
>
>
>
> Project: American Tire Warehouse Expansion
>
> 8701 San Mateo Blvd NE
>

> Albuquerque NM 87111
>
> Permit #: 201390681
>
>
>
> Dear Paula,
>
>
>
> Jaynes Corporation has currently finished the American Tire Project with the exception to a drainage culvert located west of San Mateo on Alameda. The approved permit set calls for us to demo the existing 2 foot sidewalk culvert and replace with a 4 foot sidewalk culvert. This work will require us to close one lane of east bound Alameda traffic for approximately 8 to 10 hours of construction time. After this time we will be able to reopen the east bound lane while maintaining a sidewalk closure for one additional day to allow for concrete drying time. After the concrete has set for foot traffic we will install the metal cover plates and remove sidewalk barricading. Approximate total construction time 30 hours.
>
>
>
> During the process of pulling the SO-19 permit to perform this work, I was informed that Alameda falls under the Paseo Del Norte reconstruction moratorium scheduled for completion on October 1st 2015. The above mentioned culvert work is mandatory for us to pull our certificate of occupancy for the American Tire Project and if we were to pull a temporary certificate of occupancy we would not be able to maintain the temporary certificate of occupancy for the duration of the Paseo Del Norte reconstruction period (approximately 2 years). This would prevent our client's tenant from occupying the new building and violate their current leasing agreement.
>
>
>
> Jaynes Corporation most humbly requests your approval and authorization to proceed with the work lined out above. Jaynes will be more than happy to perform the work during reduced traffic hours per your direction including nights/early morning hours and weekends. We are geared up and ready to start work.
>
>
>
> In addition, I would like to ask for special consideration on behalf of our client Price Realty. They are currently contracted with their lender to close their construction loan prior to December 31st. The closing of this loan is contingent on having permanent certificate of occupancy by the end of this year. If our client cannot produce the permanent certificate of occupancy at closing it will result in interest rate hikes, changing of lenders and violation of their existing leasing agreement with their tenant (loss of income or tenant). Do to these constraints we respectfully requests your approval and authorization to perform the above work before the end of December.
>
>
>
> Sincerely,
>
>
>
>
>
>
>
>

>
>
>
> <http://www.jaynescorp.com>
>
> Daniel Pruitt
> Project Manager
> Jaynes Corporation
> o:505.343.0990 c:505.270.9246 f:505.344.6111
> 510 Candelaria NE | Albuquerque NM 87107
>
>
>
>
>
>
>
> Learn more about our new vision: new.jaynescorp.com
> <http://new.jaynescorp.com>
>
> <City of Albuquerque Engineers Letter .pdf> <Excavation Barricade
> Permit Application Form .pdf> <Barricading Lane Closure Drawing.pdf>
> <City of Albuquerque Construction Moratoriums .pdf> <Plea for
> exception to Paseo Del Norte reconstruction moratorium.pdf>
> <slice_016957b4> <slice_026543ea> <slice_04898191>

Nichols

Naylor

architects

TRAFFIC CERTIFICATION

I, Russell Naylor, NMRA, of the firm Nichols, Naylor Architects, Inc. hereby certify that this project is in substantial compliance with and in accordance with the design intent of the approved plan dated March 14, 2013 which was sealed and signed by me on April 3, 2013. The record information edited onto the original design document has been obtained by Daniel Pruitt of the firm Jaynes Corporation. I further certify that I have personally visited the project site on December 4, 2013 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for a Certificate of Occupancy.

Adjustments in drainage improvements along west property line made subsequent to my visit.

The record information presented here on is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Russell Naylor
Signature of Engineer or Architect

Engineer's or Architect's Stamp

12/17/13
Date

STATE OF NEW MEXICO
RUSSELL L. NAYLOR
NO. 5210
REGISTERED ARCHITECT

RECEIVED
DEC 19 2013
LAND DEVELOPMENT SECTION

1155 E. Wilmington Ave Suite 250 Salt Lake City, Utah 84106 (801) 487-3330 Fax (801) 487- 3391


PARKING

CITY OF ALBUQUERQUE

January 2, 2014

Arthur Blessen, P.E.
J Arthur Blessen Engineering
2429 Zena Lona
Albuquerque, NM 87112

Re: American Tire Warehouse Addition,
5701 San Mateo Blvd NE,
Request for Permanent C.O. –Accepted
Engineer's Stamp dated: 05-22-13, (C17D015)
Certification dated: 12-31-13

Dear Mr. Blessen,

Based upon the information provided in the Certification received 12-31-13, the above referenced Certification is acceptable for a release of a Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Shahab Biazar, P.E.
Principal Engineer—Hydrology Section
Development and Building Services

C: CO Clerk—Katrina Sigala
File
Jab-engineering@hotmail.com

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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 02/2012)

PROJECT TITLE: American Tire Warehouse Addition ZONE MAP: C17/D015
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract E-1-A-1-A Loop Industrial District Subdivision Unit 1
CITY ADDRESS: 5701 San Mateo NE

ENGINEERING FIRM: J Arthur Blessen Engineering CONTACT: Arthur Blessen
ADDRESS: 2429 Zena Lona PHONE: 293-1477
CITY, STATE: Albuquerque, NM ZIP CODE: 87112
EMAIL: jab-engineering@hotmail.com

OWNER: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____
EMAIL: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: Jaynes Corp/David Reid CONTACT: (505) 270 9246
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
_____ DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
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_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER'S CERT (TCL)
_____ ENGINEER'S CERT (DRB SITE PLAN)
_____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:
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_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
_____ FOUNDATION PERMIT APPROVAL
_____ BUILDING PERMIT APPROVAL
__X__ CERTIFICATE OF OCCUPANCY (PERM)
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_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
_____ GRADING CERTIFICATION
_____ OTHER (SPECIFY) SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

DATE SUBMITTED: 12/31/13 BY: J Artnur Blessen

RECEIVED
DEC 31 2013
LAND DEVELOPMENT SECTION

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

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3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

Y - PERM - 12/31/13
SB.

I, JOHN ARTHUR BLESSEN, NMPE 13481, OF THE FIRM J ARTHUR BLESSEN ENGINEERING, HEREBY CERTIFY THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 5/22/13 THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENTS HAS BEEN OBTAINED BY NMPS JASON SMITH I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE SITE ON 12/01/13 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS CORRECT TO THE BEST OF MY KNOLEDGE AND BELIEF THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT THOSE RELYING ON THIS RECORD DOCUMENT ASE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OR ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE

J Arthur Blessen, PE
NM PE# 13481

12/31/13
date

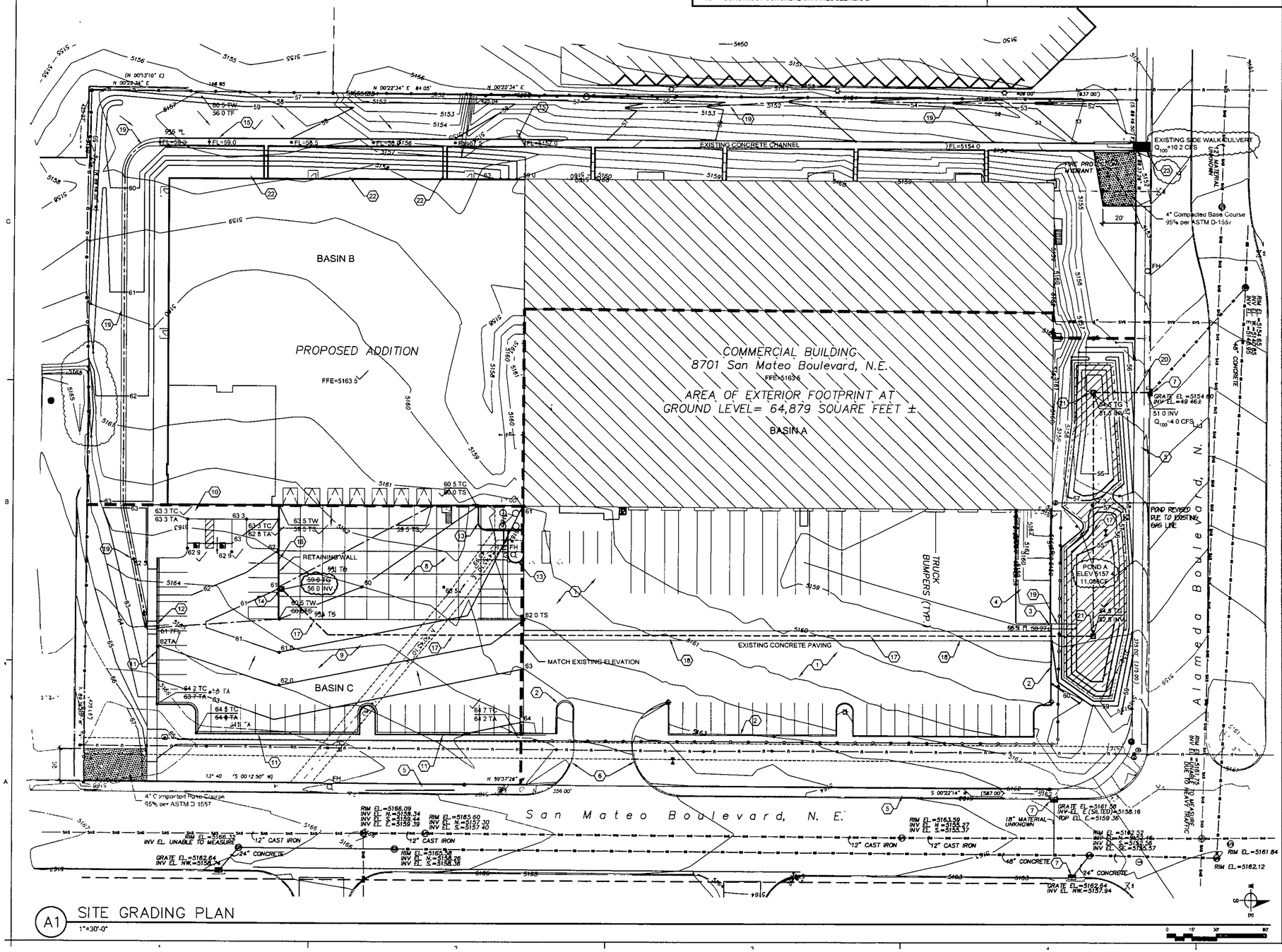
JOHN ARTHUR BLESSEN NEW MEXICO 13481 REGISTERED PROFESSIONAL ENGINEER

LEGEND

93.1	EXISTING SPOT ELEVATION	FL	FLOW LINE
51.00	NEW SPOT ELEVATION	GND	GROUND
51	EXISTING CONTOUR	INV	INVERT
51	NEW CONTOUR	TA	TOP OF ASPHALT
	SWALE	TC	TOP OF CURB
	VERIFIED ELEVATION	TG	TOP OF GRATE
51.0	AS BUILT ELEVATION	TS	TOP OF CONCRETE SLAB
	BASIN BOUNDARY	TW	TOP OF WALL
	PROPERTY LINE	TBM	TEMPORARY BENCH MARK
			GRAVEL
			ASPHALT PAVING
			CONCRETE
			POND WATER SURFACE

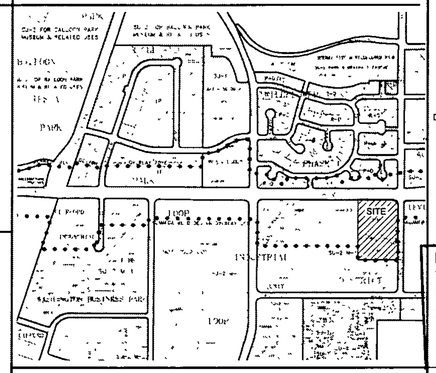
KEYNOTES

1 EXISTING CONCRETE PAVING TO REMAIN
2 EXISTING CONCRETE CURB TO REMAIN
3 EXISTING CURB CUT TO REMAIN
4 EXISTING RAMP TO REMAIN
5 EXISTING CONCRETE WALK TO REMAIN
6 EXISTING DRIVE ENTRANCE TO REMAIN
7 EXISTING DROP INLET TO REMAIN
8 CONSTRUCT CONCTETE PAVING 6" THICK 3500 PSI, WITH #4 AT 18" O/C BOTH DIRECTIONS OVER 8" BASE COURSE, PER GEOTECHNICAL REPORT
9 CONSTRUCT 3" ASPHALT PAVING OVER 8" BASE COURSE, PER GEOTECHNICAL REPORT
10 CONSTRUCT 4" THICK CONCRETE WALK WITH WWF 6x6.10x10 (SHEETS ONLY)
11 CONSTRUCT 3000 PSI CONCRETE CURB AND GUTTER, SEE B4/C-2
12 CONSTRUCT 1'-0" WIDE SIDE WALK CULVERT SEE C3/C-2
13 CONSTRUCT 3000 PSI CONCRETE VERTICAL CURB, SEE B5/C-2
14 CONSTRUCT CONCRETE CATCH BASIN, SEE A3/C-2
15 CONSTRUCT CONCRETE CHANNEL SEE A5/C-2
16 CONSTRUCT CONCRETE RETAINING WALL, SEE C5/C-2
17 CONSTRUCT 12" DIA PVC STORM DRAIN PIPE
18 SAW CUT AND REMOVE EXISTING CONCRETE PAVING AS REQUIRED FOR INSTALLATION OF NEW STORM DRAIN, COMPACT BACKFILL TO 90% PER ASTM D-1557, PATCH CONCRETE PAVING TO MATCH EXISTING
19 3'-0" WIDE COBBLE SWALE
20 CONSTRUCT 8" DIA PVC DISCHARGE PIPE TO EXISTING DROP INLET PER COA DRAWING #2237
21 CONSTRUCT CONCRETE CATCH BASIN, SEE B3/C-2
22 CONSTRUCT CONCRETE CHANNEL SEE A4/C-2, ALIGN WITH ROOF DRAINS
23 REMOVE EXISTING 24" SIDE WALK CULVERT, INSTALL NEW 48" WIDE SIDE WALK CULVERT PER STD COA DWG #2236, TACK WELD THE BOLTS TO STEEL PLATE AND EXTEND THE PLATE 2 FEET BACK FROM THE BACK OF SIDEWALK



A1 SITE GRADING PLAN
1"=30'-0"

VINICITY MAP C-17



LEGAL DESCRIPTION
TRACT E-1-A-1-A LOOP INDUSTRIAL DISTRICT SUBDIVISION, UNIT 1

ADDRESS 5701 SAN MATEO NE ALBUQUERQUE, NM

BENCH MARK
ELEVATION DATUM IS BASED ON NAVD 1988 FROM AGRS MONUMENT "9_C18", PUBLISHED ELEVATION (FEET) = 5232 470 (DATE OF RETRIVAL JULY 2007 FOR NON AGRS MONUMENTS)

FLOOD HAZARD
AS SHOWN ON PANEL 137 OF 825 OF THE FEMA FLOOD INSURANCE RATE MAPS, THIS SITE IS NOT WITHIN A DESIGNATED FLOOD HAZARD AREA

CONSTRUCTION NOTES

A TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL FOR LOCATION OF EXISTING UTILITIES

B ALL WORK WITHIN THE CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES

C ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, LAWS, AND RULES CONCERNING SAFETY AND HEALTH

D PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERITY THE EXISTING SITE CONDITIONS AND INFORM THE ARCHITECT/ ENGINEER OF ANY DISCREPANCY BETWEEN THE INFORMATION SHOWN ON THE PLANS AND THOSE OF THE EXISTING SITE

E THE CONTRACTOR SHALL PROVIDE THE ARCHITECT / ENGINEER WITH AN AS BUILT SURVEY FOR ENGINEER'S CERTIFICATION AT PROJECT COMPLETION

F THE CONTRACTOR SHALL MAINTAIN A RECORD DRAWING SET OF PLANS AND PROMPTLY LOCATE EXISTING AND NEW ELEVATIONS (FINISH FLOORS, TOPS OF CURBS AND ASPHALT FLOW LINE, PIPE INVERTS, ETC), ON THE RECORD SET THE RECORD SET SHALL BE MAINTAINED ON THE PROJECT SITE AND SHALL BE AVAILABLE TO THE OWNER AND ARCHITECT AT ANY TIME DURING CONSTRUCTION UPON COMPLETION OF THE PROJECT, THE RECORD SET SHALL BE TURNED OVER TO THE OWNER

G THE OWNER / CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO BEGINNING OF CONSTRUCTION

H CONTRACTOR SHALL COMPLY WITH STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SPECIFIC TO THIS PROJECT

FACILITY ACCESSIBILITY
ALL SURFACES ALONG THE ACCESSIBLE ROUTE SHALL COMPLY WITH ANSI A117-1998

WALKING SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1 20 WITH A CROSS SLOPE NOT STEEPER THAN 1 48

CURB RAMP AND RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1 12 WITH A CROSS SLOPE NOT STEEPER THAN 1 48 COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP OR ACCESSIBLE ROUTE SHALL NOT BE STEEPER THAN 1 20 TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE AT THE SAME LEVEL WHERE PEDESTRIANS MUST WALK ACROSS A CURB RAMP, THE RAMP SHALL HAVE FLARED SIDES WITH SLOPES NOT STEEPER THAN 1 10 WHERE THE TOP OF THE RAMP PARALLEL TO THE RUN OF THE RAMP IS LESS THAN 48 INCHES WIDE, THE FLARED SIDES SHALL HAVE A SLOPE NOT STEEPER THAN 1 12

HANDICAP PARKING SPACES AND ACCESS AISLES SHALL HAVE SURFACE SLOPES NOT STEEPER THAN 1 48 ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE

TRAFFIC CONTROL
THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TRAFFIC CONTROL PLANS AND DEVICES ALL SIGNS, BARRICADES, CHANNELIZATION DEVICES, SIGN FRAMES AND ERECTION OF SUCH DEVICES SHALL CONFORM THE THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" LATEST EDITION PRIOR TO CONSTRUCTION PRIOR TO CONSTRUCTION, THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED AND APPROVED BY THE GOVERNING AUTHORITY

NOTICE TO CONTRACTOR

1 AN EXCAVATION / CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. AN APPROVED COPY OF THOSE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2 ALL WORK DETAILED ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY.
3 TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" OR, 505-260-1990, FOR LOCATION OF EXISTING UTILITIES.
4 PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTION. 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 THOSE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE
A.C.E. / DESIGN		
INSPECTOR		
A.C.E. FIELD		

12-11

REVISIONS

SHEET TITLE

RECEIVED
DEC 3 2013
LAND DEVELOPMENT SECTION

PROJECT/OWNER

AMERICAN TIRE WAREHOUSE ADDITION
5701 N E. SAN MATEO BLVD
ALBUQUERQUE, NEW MEXICO 87113
PRICE REALTY

ARCHITECT

JOHN ARTHUR BLESSEN NEW MEXICO 13481 REGISTERED PROFESSIONAL ENGINEER

NICHOLS • NAYLOR ARCHITECTS
1155 EAST WILMINGTON AVENUE SUITE 250
SALT LAKE CITY, UTAH 84106 (801) 487-3330

DATE
MAY 22, 2013

SHEET NUMBER
C-1

j arthur blessen engineering
architect engineer
2429 Zena Lona
Albuquerque, NM 87112
tel 293-1477

May 9, 2013

Shahab Biazar, PE
City of Albuquerque Development and Building Section
PO Box 1293
Albuquerque, New Mexico 87103

re: American Tire Warehouse Addition
file: C-17/D015

Dear Mr Biazar,

I have received your comments of April 25, 2013, to follow are the responses to those comments:

1. *Please provide routing calculations to show how the propose pond will drain over time.* The discharge rate of the 12" dia PVC pipe from basin C (4.28 csf) exceeds the peak runoff rate of the basin (4.08 csf), therefore the runoff from A and C enter the pond at the same time. The drain time of the pond is less than 1 hour (12146 cf / 4 cfs = 3,037 s = 51 min)

2. *It appears that the proposed discharge rate of 14.4 csf will exceed the limits set forth by the SAD 201 drainage report of 14.2 cfs; please provide all supporting documentation reflecting this limitation.* The discharge rate for basin B noted on the grading plan is incorrect. The calculated rate of discharge for basin B is 10.2 csf and the rate of discharge from the pond is 4.0 csf. The discharge for the site is 14.2 cfs as limited by SAD 201. The discharge rate has been corrected on the grading plan.

3. *The pipe connection to the back of the existing inlet will need to be constructed under SO-19 guidelines and inspected. The SO-19 standard language should be placed on the grading plan.* The SO-19 signature block and notes have been added to the grading plan.

4. *It appears that a portion of the flows on the southwestern edge of the property are being directed towards the adjacent lot. How will these flows be contained?* The grading along the southwestern edge have been modified to route the runoff to the existing sidewalk culvert.

5. *Both Basin A and a portion of Basin C should not be calculated as containing "100% Treatment A" as existing conditions. Basin B also has mas grading and should not be considered treatment A in its existing condition.* The submitted calculation reflect the historic conditions prior to any development which are based on 100% treatment A.

6. *Various references are made throughout the drainage report of an on-site "retention pond"; the wording should be changed to "detention pond" since flows are being discharged off-site through the storm drain connection.* The wording in the report has been corrected.

7. *The 100 year water surface elevation should be shown on the proposed pond along with the pond volume; please provide a legend on the plan for clarification of the line types. If the pond will take longer than 6 hours to drain, a 24 hour storm event will be required for pond sizing.* The legend, pond volume and water surface elevation have been added to the grading plan. The discharge time of the pond is less than 1 hour (12,146 cf / 4 cfs = 3,037 secs = 51 mins).

AHYMO output, routing program

8. *This project will also require an Erosion and Sediment Control Plan be submitted to Hydrology and approved prior to building permit approval.* The contractor is required to provide the SWPPP for the project.

SWPPP → dust permit
ESC → prior to B.P.

Should you have any questions or require additional information please call.

J Arthur Blessen

J Arthur Blessen, PE

RICHFIELD AVE.

Point O, Area 23

A = 7.07 Acres

Inlet time: L_1 = 300', s = 2.3%, t_{c_1} = 2.7 min

L_2 = 500', s = 1.2%, t_{c_2} = 5.1 min

Street 220' @ 2.3% = 1.0 min

8.8 min, Use 10 min.

Q_{inlet} = 0.75 x 3.06 x 7.07 = 16.2 cfs / 7.07 = 2.29 cfs/AC

s = 1.74%, y_o = 0.48' ✓

Use Type "A" w/Dbl. grate

$T_{c\ syst.}$ = 13.7 min, $\bar{I}$ = 2.60 in/hr.

$Q_{syst.}$ = 0.75 x 2.60 x 7.07 = 13.8 cfs + 2.3 = 16.1 cfs (See Sht #7)

s = 1.74%, y_o = 0.48'

Q_i = 10.0 cfs, Q_r = 6.1 cfs — High, but ok

Lot outlet to back of inlet.

Point P, Area 24

Area: 5.64 Acres

Inlet time = , Use 10 min.

Q_{inlet} = 0.75 x 3.06 x 5.64 = 12.9 cfs + 6.1 = 19.0 cfs.

s = 1.74%, y_o = 0.52' Definitely need lot outlets to back of inlets on Richfield.

Use Type "A" w/Dbl. grate

$T_{c\ syst.}$ = 14.2 min, $\bar{I}$ = 2.55 in/hr

$Q_{syst.}$ = 0.75 x 2.55 x 5.64 = 10.8 cfs + 6.1 = 16.9 cfs

s = 1.74%, y_o = 0.49'

Q_i = 10.4 cfs, Q_r = 6.5 cfs

```
          AHYMO PROGRAM (AHYMO_97) -                              - Version:  1997.02d
               RUN DATE (MON/DAY/YR) = 05/16/2013
               START TIME (HR:MIN:SEC) = 13:40:08     USER NO.=
AHYMO-I-9702c01000R31-AH
               INPUT FILE = C17D15.TXT


     * AMERCIAN TIRE WAREHOUSE ADDITION

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

     *  BASIN A  100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS)     *

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

     START

     RAINFALL                TYPE=1 RAIN QUARTER=0.0 IN

                             RAIN ONE=2.14 IN RAIN SIX=2.60 IN

                             RAIN DELAY=3.10 IN DT=0.03333 HR

                    COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 -
PEAK AT 1.40 HR.
                    DT =     .033330 HOURS        END TIME =     5.999400 HOURS
                       .0000   .0027   .0055   .0084   .0113   .0143   .0173
                       .0204   .0236   .0269   .0302   .0337   .0372   .0408
                       .0445   .0484   .0523   .0564   .0606   .0649   .0694
                       .0741   .0789   .0839   .0892   .0946   .1003   .1063
                       .1126   .1192   .1262   .1322   .1385   .1452   .1597
                       .1922   .2422   .3139   .4119   .5407   .7049   .9093
                     1.1588  1.3904  1.4871  1.5687  1.6414  1.7074  1.7683
                     1.8247  1.8775  1.9270  1.9735  2.0174  2.0589  2.0982
                     2.1354  2.1707  2.2041  2.2359  2.2661  2.2737  2.2807
                     2.2875  2.2939  2.3001  2.3060  2.3117  2.3172  2.3226
                     2.3277  2.3328  2.3376  2.3423  2.3470  2.3514  2.3558
                     2.3601  2.3643  2.3683  2.3723  2.3762  2.3801  2.3838
                     2.3875  2.3911  2.3947  2.3982  2.4016  2.4050  2.4083
                     2.4115  2.4147  2.4179  2.4210  2.4241  2.4271  2.4301
                     2.4330  2.4359  2.4388  2.4416  2.4444  2.4472  2.4499
                     2.4526  2.4553  2.4579  2.4605  2.4631  2.4656  2.4681
                     2.4706  2.4731  2.4755  2.4779  2.4803  2.4827  2.4850
                     2.4873  2.4896  2.4919  2.4942  2.4964  2.4986  2.5008
                     2.5030  2.5052  2.5073  2.5094  2.5115  2.5136  2.5157
                     2.5177  2.5198  2.5218  2.5238  2.5258  2.5277  2.5297
                     2.5317  2.5336  2.5355  2.5374  2.5393  2.5412  2.5430
                     2.5449  2.5467  2.5486  2.5504  2.5522  2.5540  2.5557
                     2.5575  2.5593  2.5610  2.5627  2.5645  2.5662  2.5679
                     2.5696  2.5713  2.5729  2.5746  2.5762  2.5779  2.5795
                     2.5811  2.5828  2.5844  2.5860  2.5876  2.5891  2.5907
                     2.5923  2.5938  2.5954  2.5969  2.5984  2.6000

     COMPUTE NM HYD          ID=1 HYD NO=101.0 AREA=0.003865 SQ MI

                             PER A=0.00 PER B=21.00 PER C=0.00 PER D=79.00

                             TP=0.1333 HR MASS RAINFALL=-1

          K =    .072649HR     TP =    .133300HR     K/TP RATIO =    .545000      SHAPE
```

CONSTANT, N = 7.106420
UNIT PEAK = 12.055 CFS UNIT VOLUME = .9984 B = 526.28
P60 = 2.1400
AREA = .003053 SQ MI IA = .10000 INCHES INF = .04000
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033330

K = .133656HR TP = .133300HR K/TP RATIO = 1.002670 SHAPE
CONSTANT, N = 3.520804
UNIT PEAK = 1.9597 CFS UNIT VOLUME = .9932 B = 321.84
P60 = 2.1400
AREA = .000812 SQ MI IA = .50000 INCHES INF = 1.25000
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033330

****

* BASIN C 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

****

START

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.14 IN RAIN SIX=2.60 IN

RAIN DELAY=3.10 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 -
PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0027	.0055	.0084	.0113	.0143	.0173
.0204	.0236	.0269	.0302	.0337	.0372	.0408
.0445	.0484	.0523	.0564	.0606	.0649	.0694
.0741	.0789	.0839	.0892	.0946	.1003	.1063
.1126	.1192	.1262	.1322	.1385	.1452	.1597
.1922	.2422	.3139	.4119	.5407	.7049	.9093
1.1588	1.3904	1.4871	1.5687	1.6414	1.7074	1.7683
1.8247	1.8775	1.9270	1.9735	2.0174	2.0589	2.0982
2.1354	2.1707	2.2041	2.2359	2.2661	2.2737	2.2807
2.2875	2.2939	2.3001	2.3060	2.3117	2.3172	2.3226
2.3277	2.3328	2.3376	2.3423	2.3470	2.3514	2.3558
2.3601	2.3643	2.3683	2.3723	2.3762	2.3801	2.3838
2.3875	2.3911	2.3947	2.3982	2.4016	2.4050	2.4083
2.4115	2.4147	2.4179	2.4210	2.4241	2.4271	2.4301
2.4330	2.4359	2.4388	2.4416	2.4444	2.4472	2.4499
2.4526	2.4553	2.4579	2.4605	2.4631	2.4656	2.4681
2.4706	2.4731	2.4755	2.4779	2.4803	2.4827	2.4850
2.4873	2.4896	2.4919	2.4942	2.4964	2.4986	2.5008
2.5030	2.5052	2.5073	2.5094	2.5115	2.5136	2.5157
2.5177	2.5198	2.5218	2.5238	2.5258	2.5277	2.5297
2.5317	2.5336	2.5355	2.5374	2.5393	2.5412	2.5430
2.5449	2.5467	2.5486	2.5504	2.5522	2.5540	2.5557
2.5575	2.5593	2.5610	2.5627	2.5645	2.5662	2.5679
2.5696	2.5713	2.5729	2.5746	2.5762	2.5779	2.5795
2.5811	2.5828	2.5844	2.5860	2.5876	2.5891	2.5907
2.5923	2.5938	2.5954	2.5969	2.5984	2.6000	

COMPUTE NM HYD ID=2 HYD NO=102.0 AREA=0.001628 SQ MI

PER A=0.00 PER B=32.00 PER C=0.00 PER D=68.00

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 4.3707 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.1400
AREA = .001107 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .133656HR TP = .133300HR K/TP RATIO = 1.002670 SHAPE CONSTANT, N = 3.520804
UNIT PEAK = 1.2578 CFS UNIT VOLUME = .9895 B = 321.84 P60 = 2.1400
AREA = .000521 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

****

* PONDING CONDITION *

****

*

ADD HYD ID=10 HYD NO=103.00 ID=1 ID=2

*

ROUTE RESERVOIR ID=20 HYD NO=501.1 INFLOW ID=10 CODE=24

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00000	5149.46
1.412	0.00012	5150.50
2.764	0.00035	5152.50
3.645	0.00059	5154.50
3.833	0.04913	5155.00
4.013	0.11262	5155.50
4.185	0.18715	5156.00
4.350	0.27273	5156.50
4.510	0.36935	5157.00
4.664	0.47702	5157.50

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5149.46	.000	.00
.80	.00	5149.46	.000	.00
1.60	10.94	5155.88	.170	4.14
2.40	.70	5155.72	.145	4.09
3.20	.16	5149.52	.000	.08
4.00	.12	5149.54	.000	.11
4.80	.11	5149.54	.000	.11
5.60	.11	5149.54	.000	.11
6.40	.01	5149.47	.000	.01

PEAK DISCHARGE = 4.265 CFS - PEAK OCCURS AT HOUR 1.90
MAXIMUM WATER SURFACE ELEVATION = 5156.242
MAXIMUM STORAGE = .2285 AC-FT INCREMENTAL TIME= .033330HRS

****

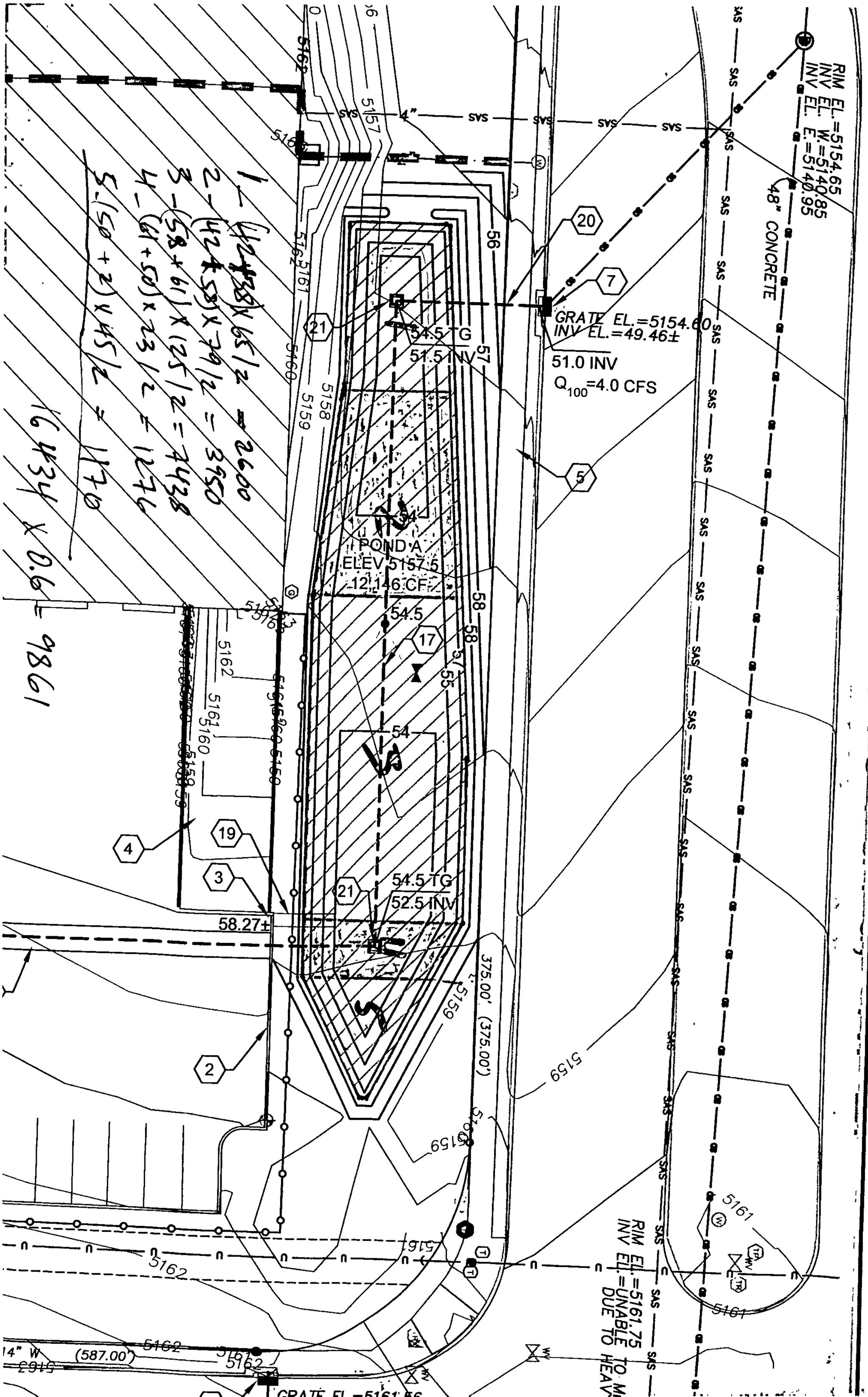
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 13:40:08

AHYMO SUMMARY OUTPUT FILE

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02d RUN DATE (MON/DAY/YR) =05/16/2013
INPUT FILE = C17D15.TXT USER NO.= AHYMO-I-9702c01000R31-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.600
COMPUTE NM HYD	101.00	-	1	.00387	11.17	.423	2.05407	1.500	4.517	PER IMP=	79.00
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.600
COMPUTE NM HYD	102.00	-	2	.00163	4.44	.165	1.89629	1.500	4.260	PER IMP=	68.00
ADD HYD	103.00	1& 2	10	.00549	15.61	.588	2.00721	1.500	4.440		
ROUTE RESERVOIR	501.10	10	20	.00549	4.26	.591	2.01792	1.900	1.213	AC-FT=	.229
FINISH											



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RIM EL.=5154.65
INV EL. W.=5140.85
INV EL. E.=5140.95
48" CONCRETE
GRATE EL.=5154.60
INV EL.=49.46±
51.0 INV
Q_{100}=4.0 CFS
54.5 TG
51.5 INV
54.5 TG
52.5 INV
ROUND A
ELEV 5157.5
12,146 CF
58.27±
(587.00')
(375.00')
RIM EL.=5161.75
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