CITY OF ALBUQUERQUE

June 10, 2015

David Soule, PE
Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

RE: **Warehouse, 4455 Anaheim**
Grading and Drainage Plan
Engineer's Stamp Date 5-13-2015 (File: C17-D123)

Dear Mr. Soule:

Based upon the information provided in your submittal received 5-14-15, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1) Provide new and existing curb linetypes and building boundary within legend. Label any gravel areas as "gravel" and paved areas as "paved", and count gravel lot areas as land treatment type "C". Label any new curb and curb height on the plan view as applicable.

2) Show roof drain locations.

3) Show existing spot elevations for curb on Corona Loop and on Anaheim Avenue. Label proposed contours, and additionally provide boundary lines around each of the pond areas that define the top and bottom elevations of the pond. For the three retention ponds, indicate that they are for the "first flush" if this is the case. If new spot elevations provided are at flowline of curb, provide general note stating this.

4) Correct minor discrepancy in the drainage report which shows a discharge of 2.93 cfs under "Proposed Conditions" discussion and 2.36 cfs under "Summary and Recommendations".

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

5) For existing conditions analysis, it is recommended to analyze the parking lot as "C" land treatment as a compacted lot. This results in less of a difference shown for proposed discharge of the site versus existing discharge.

If you have any questions, you can contact me at 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf Addressee via Email

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: 4455 ANAHEIM Building Permit #: _____ City Drainage #: _____

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

Legal Description: lot 1, CLIFFOR INDUSTRIAL PARK

City Address: 4455 ANAHEIM AVE NE

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: JOHN MECHENBIER Contact: _____

Address: 8500 WASHINGTON NE SUITE A05

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

Architect: _____ Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- X 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
- ____ S. DEV. FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- X GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION

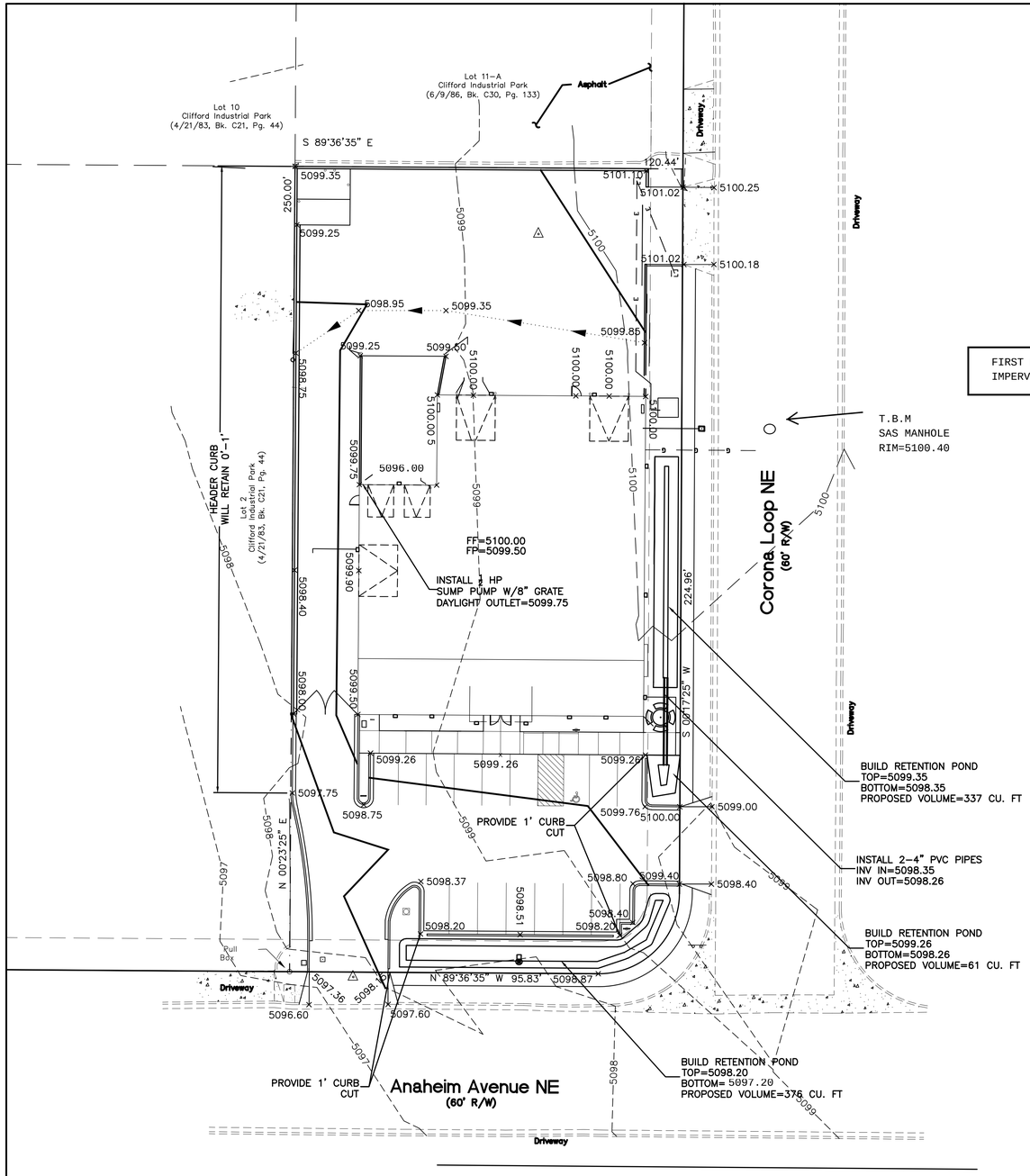
- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

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

DATE SUBMITTED: 5/14/15 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



FIRST FLUSH REQUIREMENT
IMPERVIOUS AREA (22391 SF)X.34/12=635 CF

EROSION CONTROL NOTES:

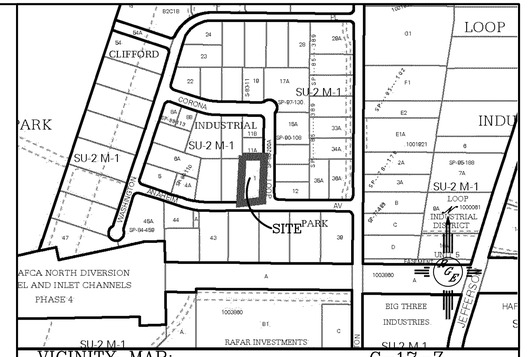
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

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

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.



VICINITY MAP: C-17-Z

FIRM MAP: FM35001C0136G

LEGAL DESCRIPTION:

TRACT 1, CLIFFORD INDUTRIAL PARK

NOTES:

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

LEGEND

- EXISTING STORM DRAIN
- EXISTING EDGE OF ASPHALT
- PROPOSED EDGE OF PAVING
- 5411 EXISTING CONTOUR
- 5410 EXISTING INDEX CONTOUR
- 5411 PROPOSED CONTOUR
- 5410 PROPOSED INDEX CONTOUR
- × 5048.25 PROPOSED SPOT ELEVATION
- × 5048.25 EXISTING SPOT ELEVATION
- RIGHT-OF-WAY
- LOT LINES
- 6' CMU BLOCK WALL-18" MAX. RETAINAGE
- FLOW LINE

N

GRAPHIC SCALE

20 10 0 10 20

SCALE: 1"=20'

ENGINEER'S SEAL

DAVID SOULE
NEW MEXICO
14522
REGISTERED PROFESSIONAL ENGINEER
5/13/15

DAVID SOULE
P.E. #14522

4455 ANAHIEM NE

GRADING AND
DRAINAGE PLAN

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

DRAWN BY WCWJ

DATE 5-13-15

21515-LAYOUT-5-03-15

SHEET # —

JOB # 21515

DRAINAGE REPORT

For

WAREHOUSE

4455 ANAHIEM
Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

May 2015

David Soule P.E. No. 14522

TABLE OF CONTENTS

Appendix

Map Pocket
Site Grading and Drainage Plan

PURPOSE

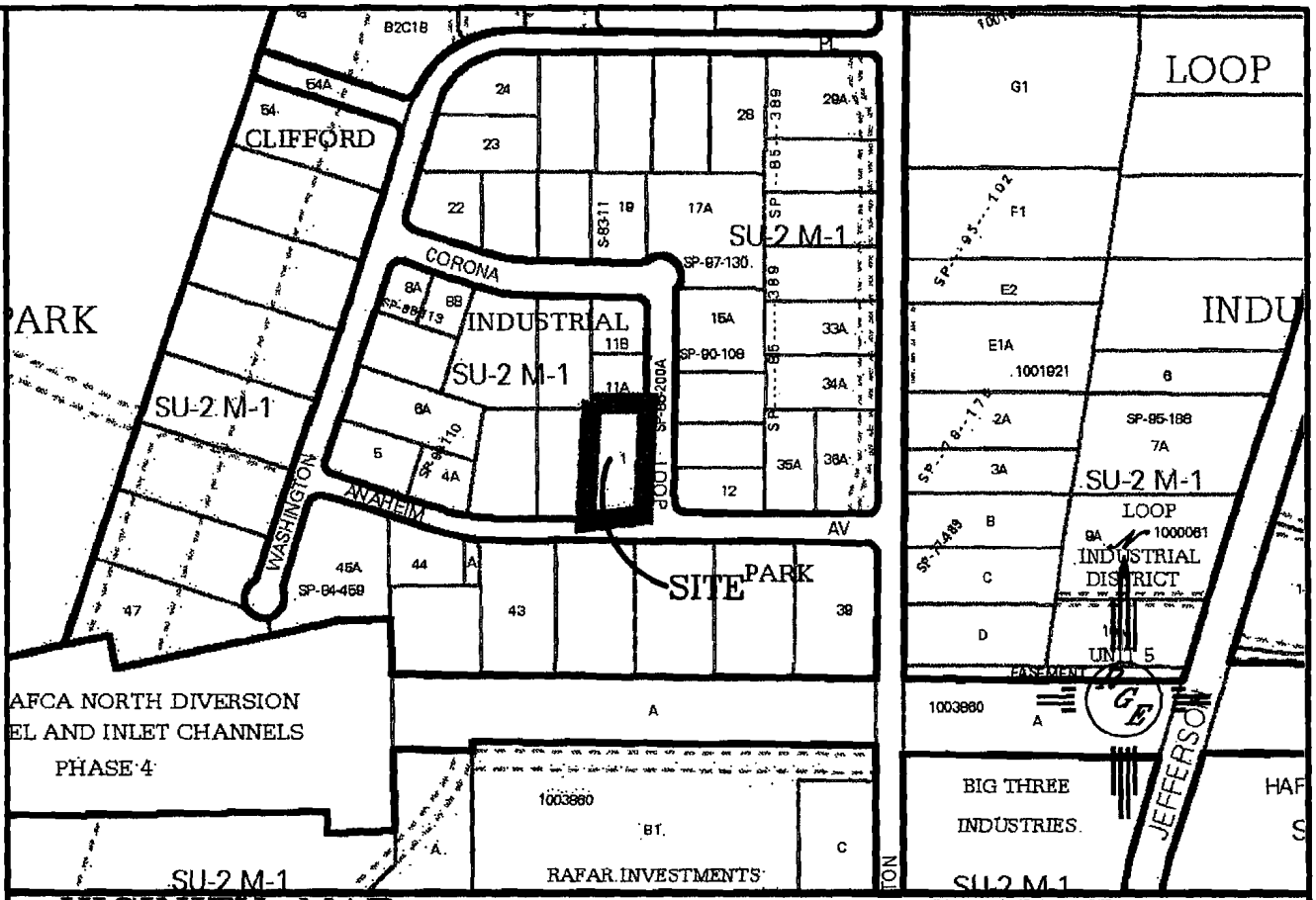
The purpose of this report is to provide the Drainage Management Plan for the development of a platted lot located at 455 Anaheim Northeast. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

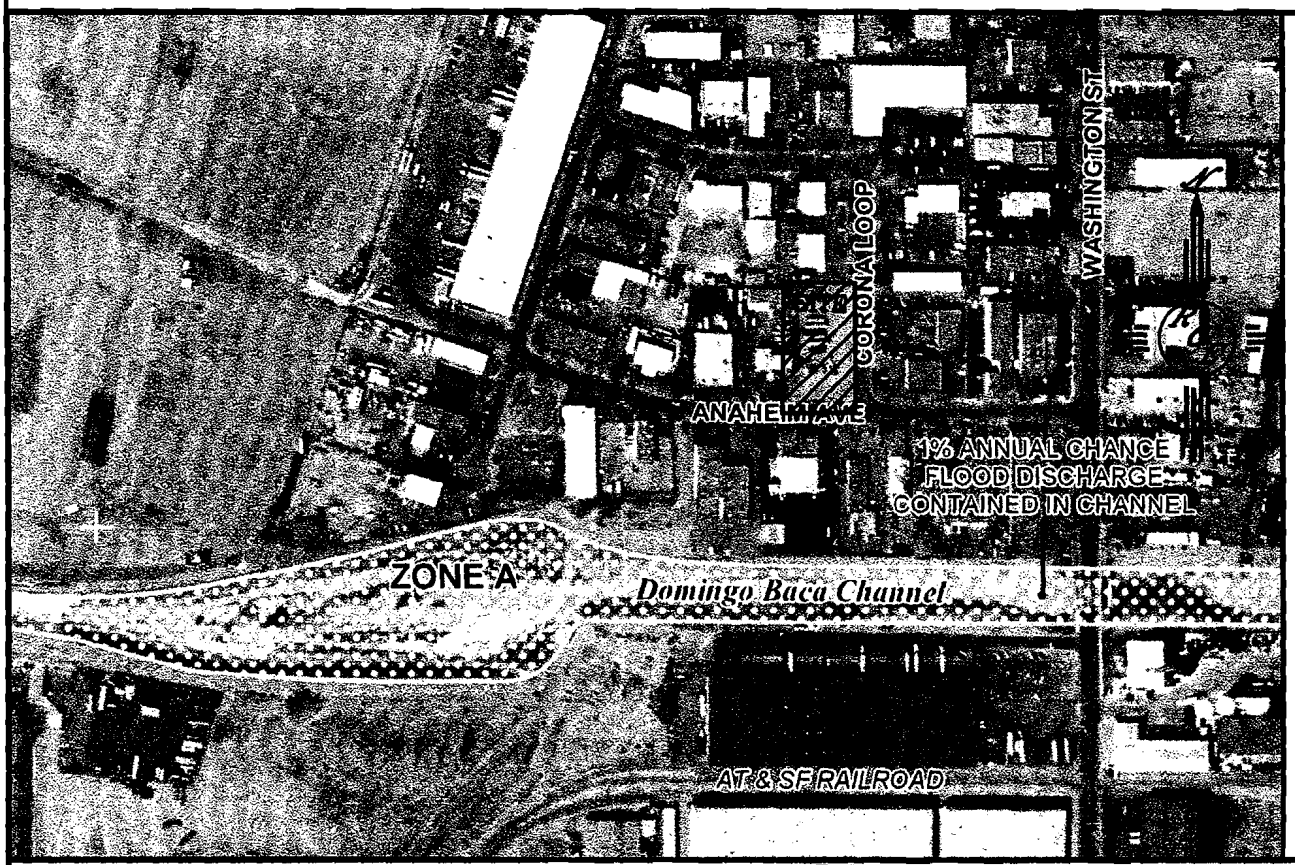
The subject of this report, as shown on the Exhibit A, is a .65 acre parcel of land located on the North West corner of Anaheim and Corona Loop Northeast. The legal description of this site is tract1 Clifford Industrial Park. As shown on FIRM map35013C0136G, the entire site is located within Flood Zone X. The site is located within the drainage master plan for Clifford industrial park. The city files do not have this report, so free discharge assumptions are made based upon the development of the entire subdivision as well as the design assumption of the other lots in subdivision.

EXISTING CONDITIONS

The site is currently a vacant parcel. It appears minor grading may have occurred in the past .The site is a compacted lot with very little vegetation. The site currently discharge 1.52 cfs from east to west discharging as sheet flow to the adjacent lot . The flow drains discharges to Anaheim and is accepted by a concrete and asphalt rundown that ultimately discharges to the North Diversion channel west of the site.



VICINITY MAP: C-17-Z



FIRM MAP: FM35001C0136G

LEGAL DESCRIPTION:

TRACT 1, CLIFFORD INDUTRIAL PARK

PROPOSED CONDITIONS

The proposed improvements consist of a new building with paved and gravel parking areas. The proposed site development will contain one basin that will discharge out the driveway at Anaheim. The site will discharge at a peak rate of 2.93 cfs. The site will capture the first flush via shallow harvest ponds along the east and west property lines. The building roof drainage drains east to the harvest ponds.

SUMMARY AND RECOMMENDATIONS

This project is a development of a parcel located within a master plan industrial park. The development of this site is in conformance to the master drainage study. The site will discharge 2.36 cfs. Due to the harvest ponds on the north the attenuated flow will be less than calculated. The site development does not have upland flow. The site development meets the water quality requirements. Since the affected area site encompasses and area less than 1 acre, a NPDES permit and erosion and sediment control plan should not be required prior to any construction activity. An Erosion Control Plan will also be required.

APPENDIX A

SITE HYDROLOGY

Weighted E Method

4455 ANAHEIM

Existing Developed Basins

											100-Year, 6-hr.		
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
EXISTING	28986	0.665	0%	0	100.0%	0.665	0.0%	0	0%	0.000	0.780	0.043	1.52
PROPOSED	28986	0.665	0%	0	8.0%	0.053	7.0%	0.04658	85%	0.566	1.944	0.108	2.93
INCREAS	0	0.000	0%	0		-0.612		0.047	45%	0.566		0.065	1.409

Equations:

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

Volume = Weighted D * Total Area

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

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

Ea= 0.53	Qa= 1.57
Eb= 0.78	Qb= 2.28
Ec= 1.13	Qc= 3.14
Ed= 2.12	Qd= 4.7