

CITY OF ALBUQUERQUE



June 20, 2016

Richard J. Berry, Mayor

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

**RE: Seattle Fish Co. Expansion
Grading and Drainage Plan
Engineer's Stamp Date 5/9/2016 (File: G16D096)**

Dear Mr. Soule:

Based upon the information provided in your submittal received 5-10-2016, the above-referenced plan is approved for Building Permit and for ESC Grading Permit.

PO Box 1293

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

Albuquerque

Since the disturbed area during construction will be over 1-acre, a Grading Permit will be required (see attached). The Developer should be aware that the ESC Grading Permit must be approved prior to any grading on the site. The approval of the Erosion and Sediment Control Plan is not an approval to begin grading.

New Mexico 87103

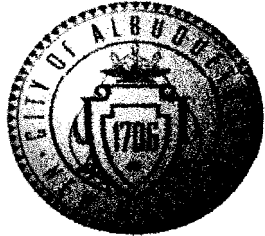
If you have any questions, you can contact me at 924-3986.

www.cabq.gov

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

Orig: Drainage file



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: SEATTLE FISH COMPANY

Building Permit #:

City Drainage #:

DRB#:

EPC#:

Work Order#:

Legal Description: TRACT A PLAT OF PARCEL 5B1 AMAFCA DIVERSION CHANNEL

City Address: 2500 COMANCHE ROAD 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: SFCNM

Contact:

Address: 2500 COMANCHE ROAD NE 87106

Phone#:

Fax#:

E-mail:

Architect: PETER BUTTERFIELD

Contact:

Address:

Phone#:

Fax#:

E-mail:

Other Contact:

Contact:

Address:

Phone#:

Fax#:

E-mail:

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE

☐ TRAFFIC/ TRANSPORTATION

☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

☐ ENGINEER/ ARCHITECT CERTIFICATION

☐ CONCEPTUAL G & D PLAN

☒ GRADING PLAN

☐ DRAINAGE MASTER PLAN

☒ DRAINAGE REPORT

☐ CLOMR/LOMR

☐ TRAFFIC CIRCULATION LAYOUT (TCL)

☐ TRAFFIC IMPACT STUDY (TIS)

☐ EROSION & SEDIMENT CONTROL PLAN (ESC)

☐ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☒ BUILDING PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY

☐ PRELIMINARY PLAT APPROVAL

☐ SITE PLAN FOR SUB'D APPROVAL

☐ SITE PLAN FOR BLDG. PERMIT APPROVAL

☐ FINAL PLAT APPROVAL

☐ SIA/ RELEASE OF FINANCIAL GUARANTEE

☐ FOUNDATION PERMIT APPROVAL

☒ GRADING PERMIT APPROVAL

☐ SO-19 APPROVAL

☐ PAVING PERMIT APPROVAL

☐ GRADING/PAD CERTIFICATION

☐ WORK ORDER APPROVAL

☐ CLOMR/LOMR

☐ PRE-DESIGN MEETING

☐ OTHER (SPECIFY)

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: 5/9/16 By:

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:

DRAINAGE REPORT

For

**SEATTLE FISH COMPANY
2500 COMANCHE ROAD NE
TRACT A , REPLAT OF PARCEL 5B1, AMAFCA
DIVERSION CHANNEL SUBDIVISION
Albuquerque, New Mexico**

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

May 2016

David Soule P.E. No. 14522

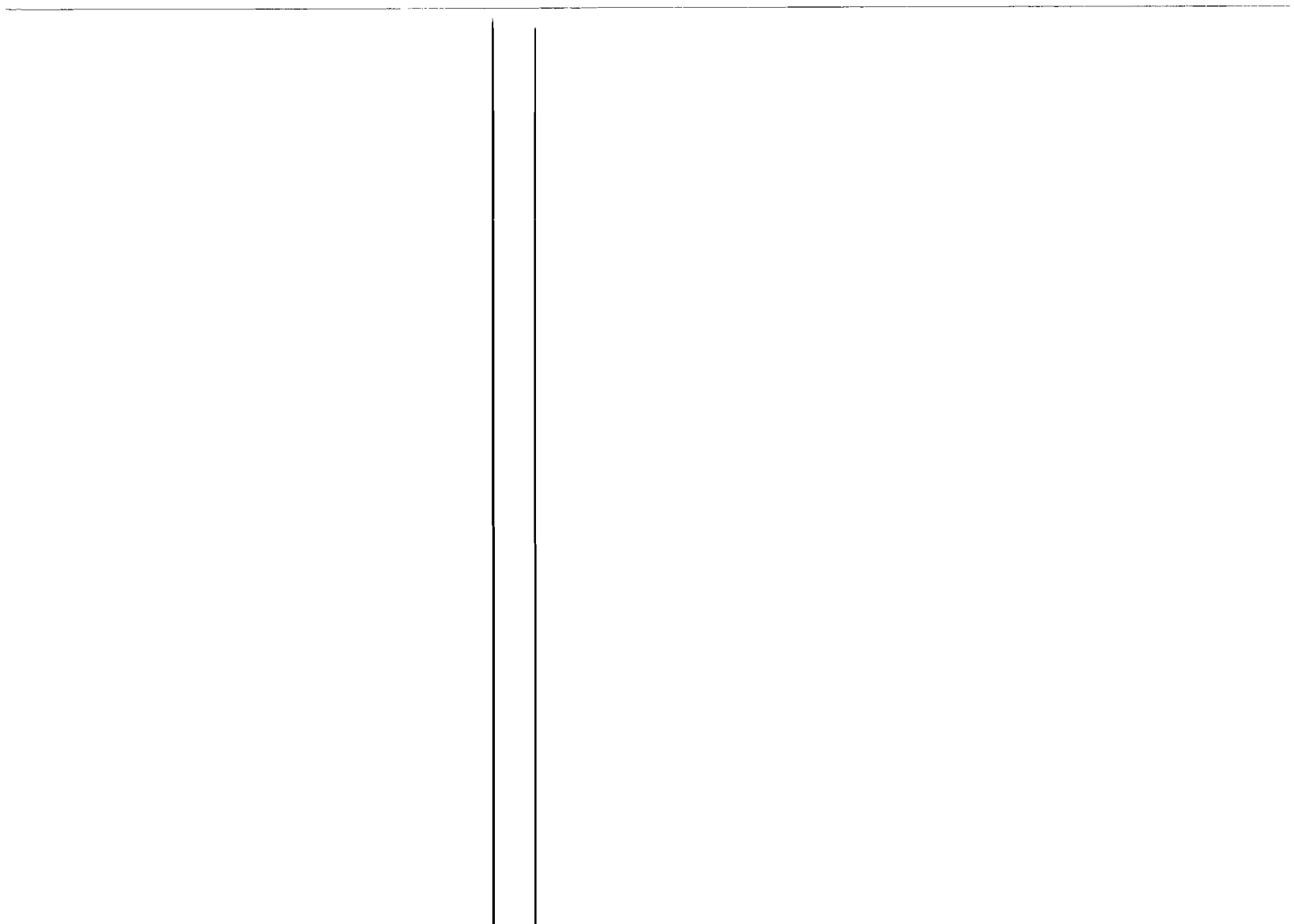


TABLE OF CONTENTS

Purpose 3

Introduction..... 3

Existing Conditions..... 3

Exhibit A-Vicinity Map 4

Proposed Conditions 5

Summary 6

Appendix

SITE HYDROLOGY A

HYDRAULIC CALCULATIONS..... B

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PURPOSE

The purpose of this report is to provide the Drainage Management Plan for the redevelopment of an existing site. 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 subdivision does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

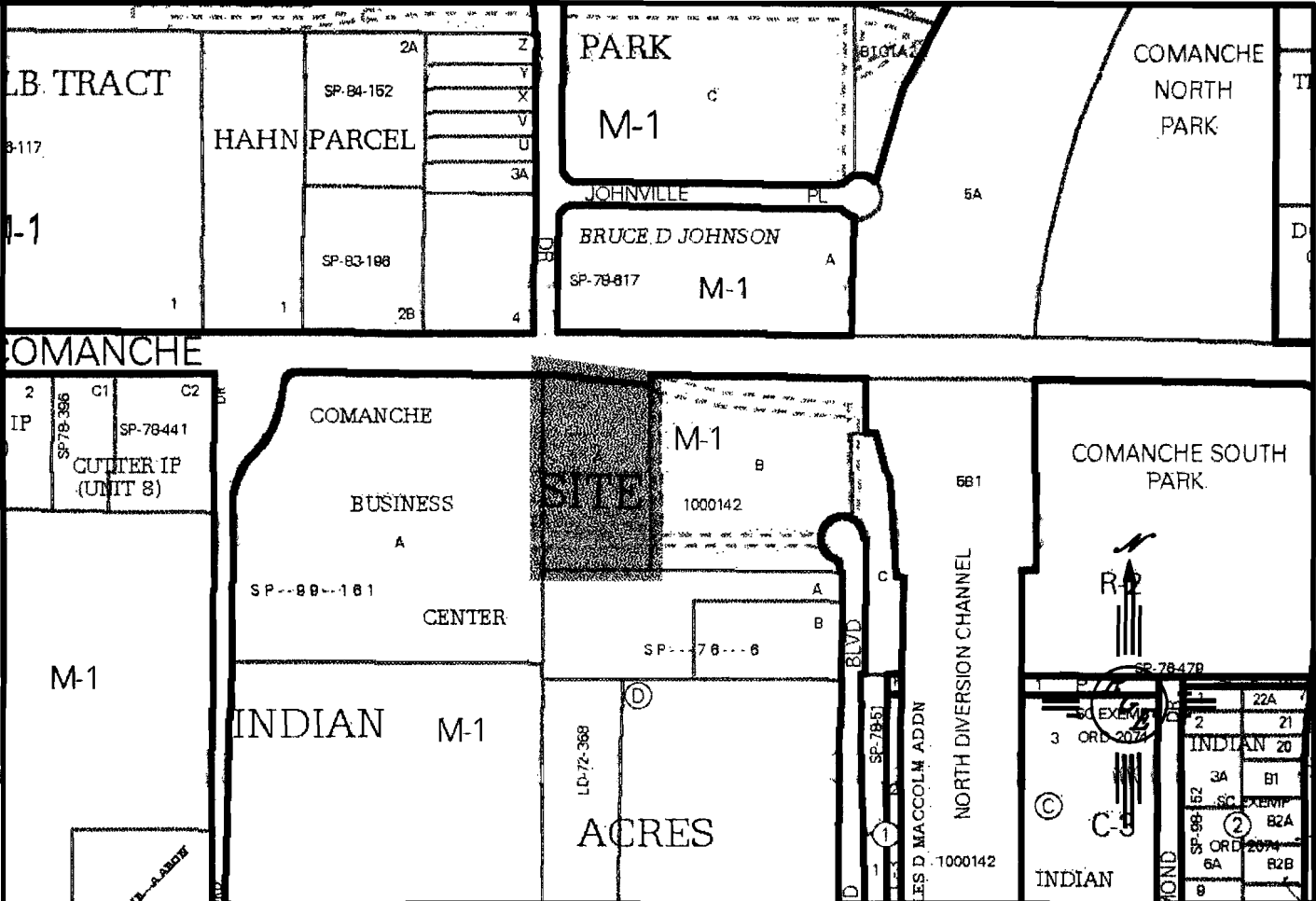
INTRODUCTION

The subject of this report, as shown on the Exhibit A, is a 2.0 acre parcel. The site is located on the south side of Comanche Road between Stanford and Richmond Drives NE. The legal description of this site is tract A, plat of parcel 5-B-1, AMAFCA DIVERSION CHANNEL. As shown on FIRM map35013C0351, the entire portion of the lot is located within Flood Zone X. The site development will be the addition of freezer space to an existing building.

EXISTING CONDITIONS

The site is currently developed as a wholesale processing and distribution center. The site currently discharges 12.23 cfs directly out the driveway to Comanche. The site currently accepts 3.45 cfs from the upland sites. This flow enters the site at the south property line via surface flow. The flow currently enters the site and is conveyed thru the site combining with the onsite flow discharging to Comanche via the driveway.

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VICINITY MAP: G-16-Z



FIRM MAP: FM35001C0351H

PROPOSED CONDITIONS

The proposed improvements consist of single story addition to the existing cold storage areas. The addition will occur in an impervious area and will maintain existing drainage patterns. The site development will include a 2824 cubic foot retention pond to capture the 1891 cubic feet of required 'first-flush' retention volume. The site will continue to accept the upland flows and pass them thru the site with the same drainage patterns. The onsite grading will consist of 3 onsite basins. Basin A consists of the new building area and rear yard area. This basin will be captured by the water quality pond and discharge thru a cobble swale, discharging 3.97 cfs to the existing driveway. A header curb will be constructed at the west property line to provide the swale capacity and eliminate potential for cross lot drainage. Basin B contains a portion of the building and the southeast portion of the rear yard. This basin will not change and will continue to discharge 3.67 cfs along a swale and channel at the eastern property line. Basin C contains the northern front of the building and parking lot. This basin will not be altered and will discharge 4.59 cfs thru the driveway. The combined onsite and offsite flows will increase by .03 cfs. Due to the oversized water harvest pond, the additional infiltration will reduce the peak flow to less than historic in terms of rate, volume and increased water quality

SUMMARY AND RECOMMENDATIONS

This project is a redevelopment of an existing site. The site has been designed maintain the existing drainage patterns and to continue to accept the entire upland flow and convey it to the existing outfall. A water quality pond has been introduced to conform to the First Flush ordinance. The site improvements have been shown to convey the 100-year peak rate. The site exceeds 1 acre therefore an erosion and sediment control plan will need to be approved prior to construction and implemented during construction. A NPDES permit and Erosion and Sediment Control plan will be required prior to any construction activity.

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APPENDIX A

Site Hydrology

Weighted E Method
SEATTLE FISH

Existing Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hr.			10-day
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)
UPLAND B	26726	0.614	0%	0	5.0%	0.031	35.0%	0.21474	60%	0.368	1.707	0.087	2.47	0.136
UPLAND A	10600	0.243	0%	0	5.0%	0.012	35.0%	0.08517	60%	0.146	1.707	0.035	0.98	0.054
BASIN A	30310	0.696	0%	0	4.0%	0.028	38.0%	0.26441	64%	0.445	1.817	0.105	2.99	0.165
BASIN B	13659	0.314	0%	0	12.0%	0.038	38.0%	0.11916	50%	0.157	1.583	0.041	1.20	0.062
BASIN C	43597	1.001	0%	0	0.0%	0.000	7.0%	0.07006	93%	0.931	2.051	0.171	4.59	0.295
EXISTING ONSITE	87566.00	2.010	0%	0	4.0%	0.080	16.0%	0.32164	80%	1.608	1.908	0.320	8.75	0.534
COMPARISON(onsite historical to proposed)							0.01	-0.13	0.08		-0.03			

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 2)

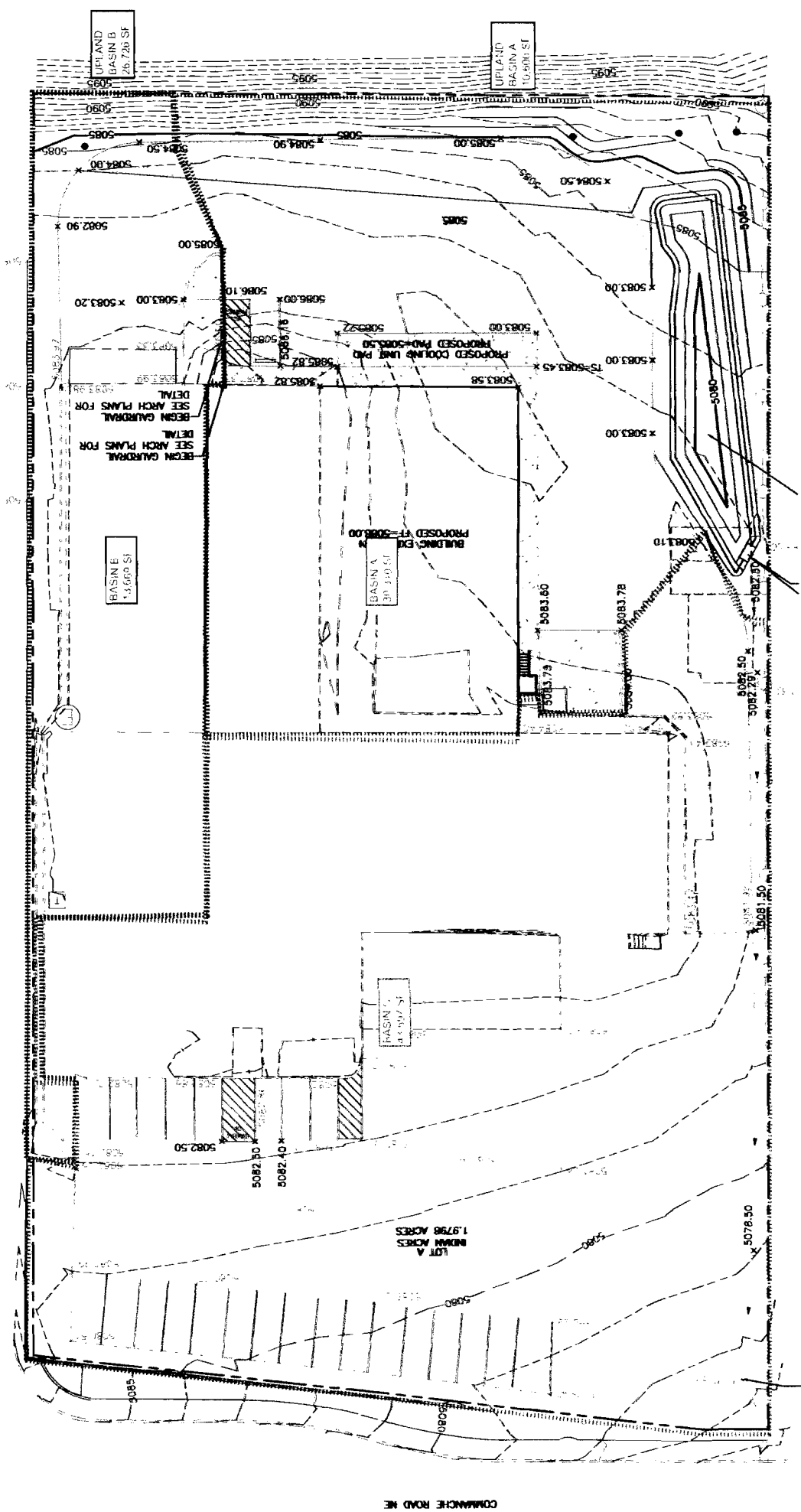
Ea= 0.53	Qa= 1.56
Eb= 0.78	Qb= 2.28
Ec= 1.13	Qc= 3.14
Ed= 2.12	Qd= 4.7

discharge in swale (basin A + upland A)	3.97 cfs
discharge to existing concrete channel (basin B+upland B)	3.67 cf
total discharge out driveway(proposed)	12.23 cf
total discharge out driveway (ex)	12.21 cf

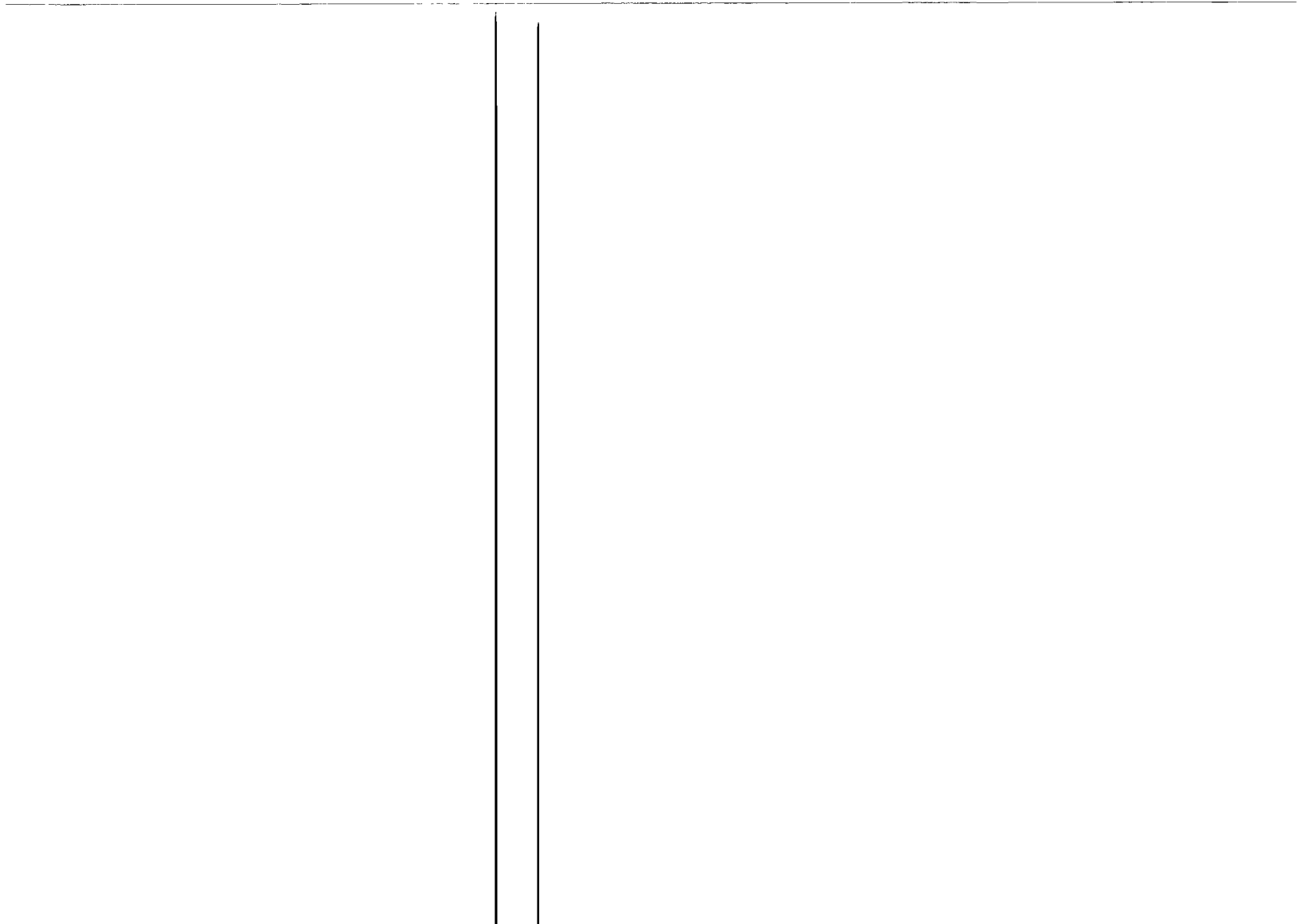
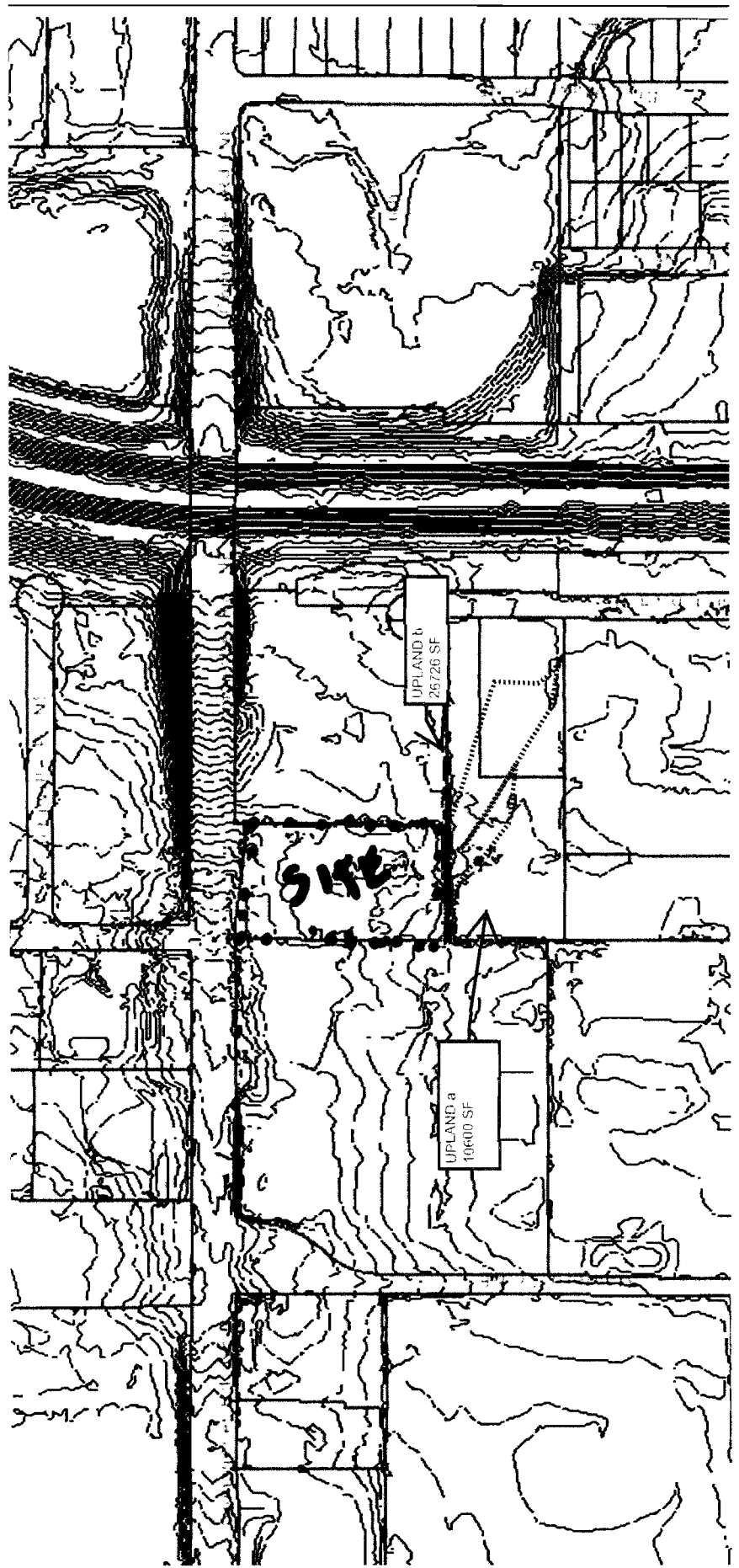
NARRATIVE

THIS SITE IS A DEVELOPMENT OF AN EXISTING SITE . THE ADDITION WILL OCCUR IN A LOCATION THAT IS CURRENTLY IMPERVIOUS, THE NET INCREASE IN FLOW RATE SHALL BE DUE TO THE ADDITIONAL ABSTRACTION AND INFILTRATION CAUSED BY FIRST FLUSH POND, THE PEAK DISCHARGE WILL BE LESS THAN HISTORIC.

FIRST FLUSH REQUIREMENT
1891.905 CUBIC FEET REQUIRED
2824 CUBIC FEET PROVIDED



COMMANCHE ROAD NE



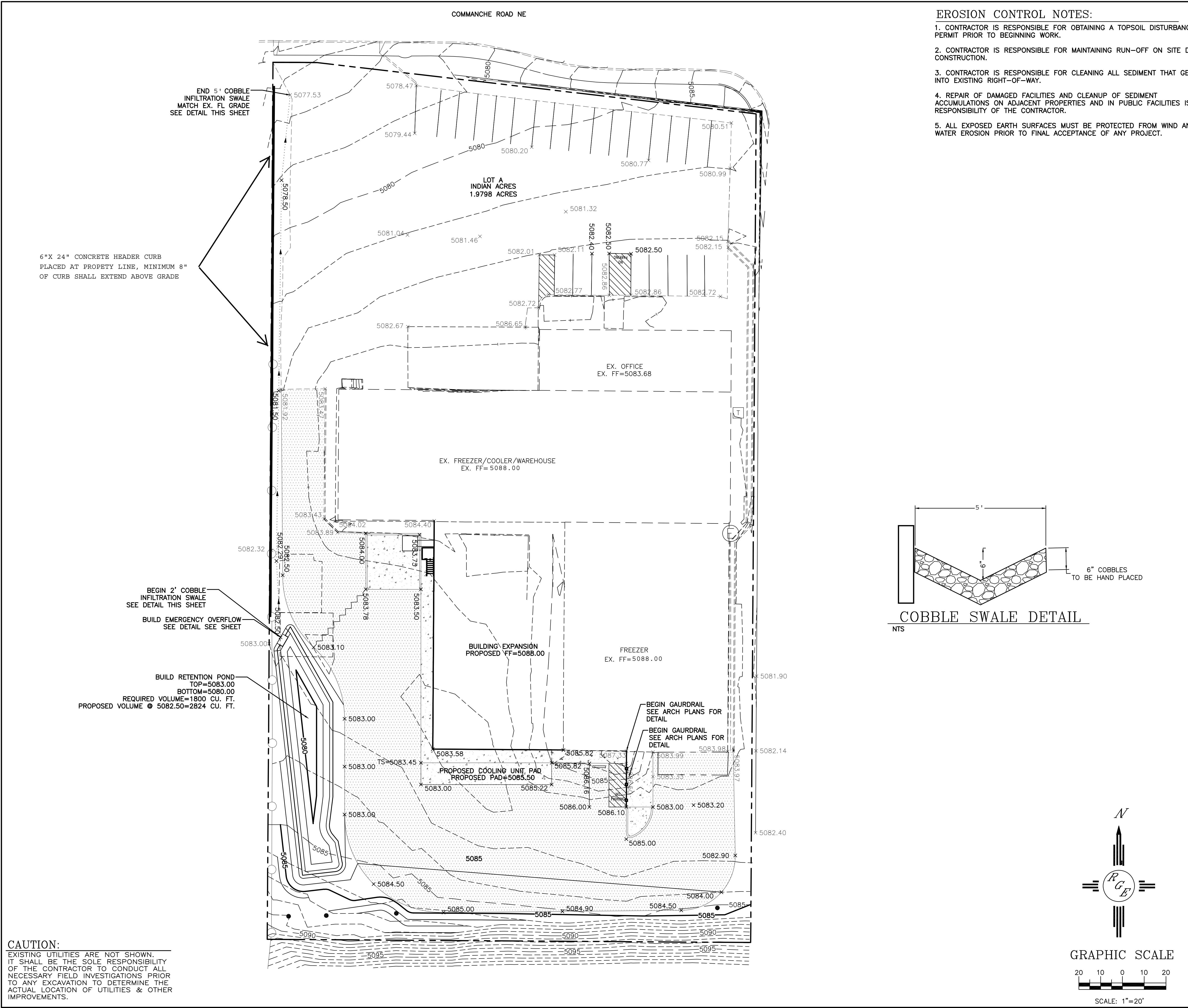
APPENDIX B

Hydraulic Calculations

Channel Capacity

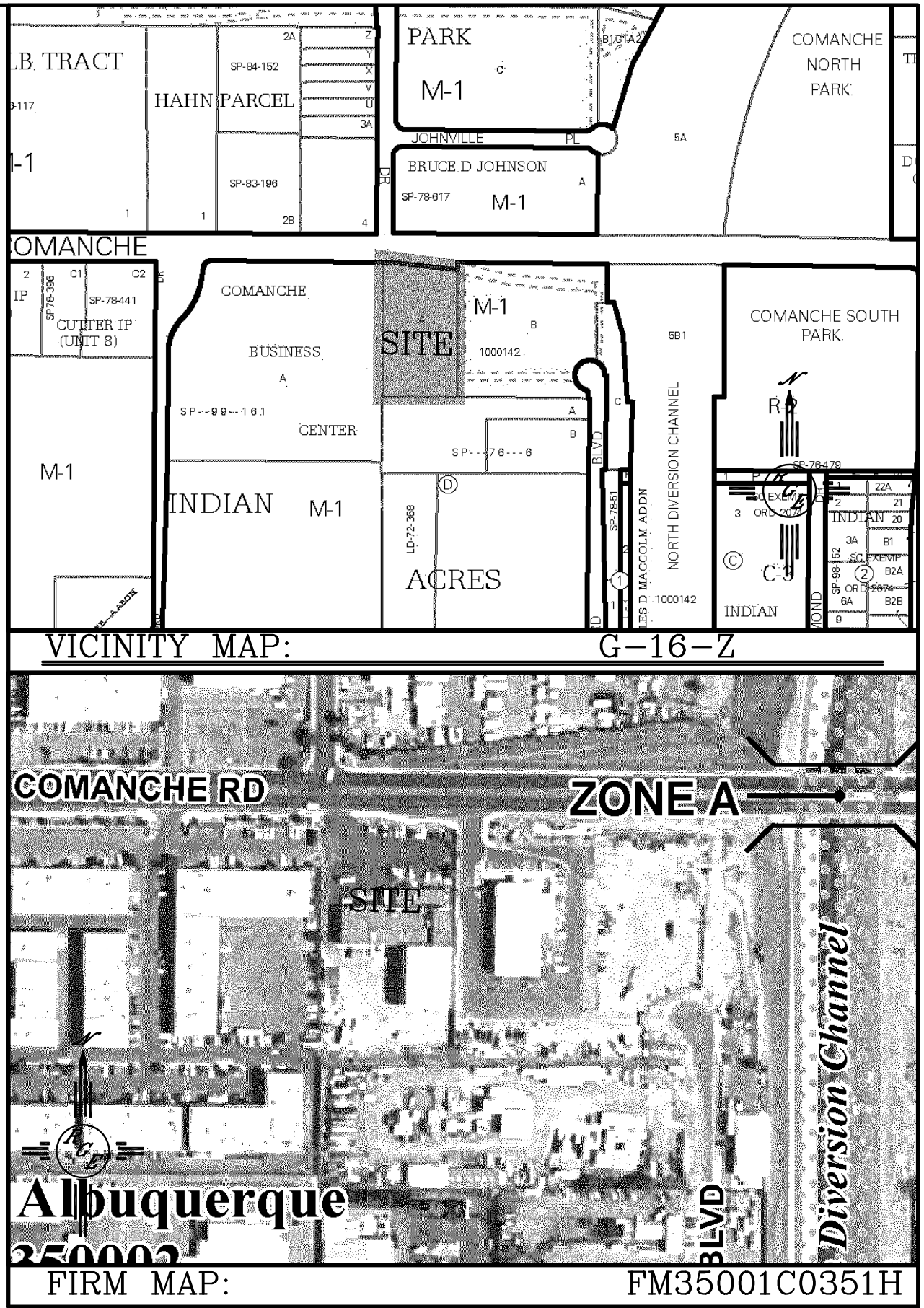
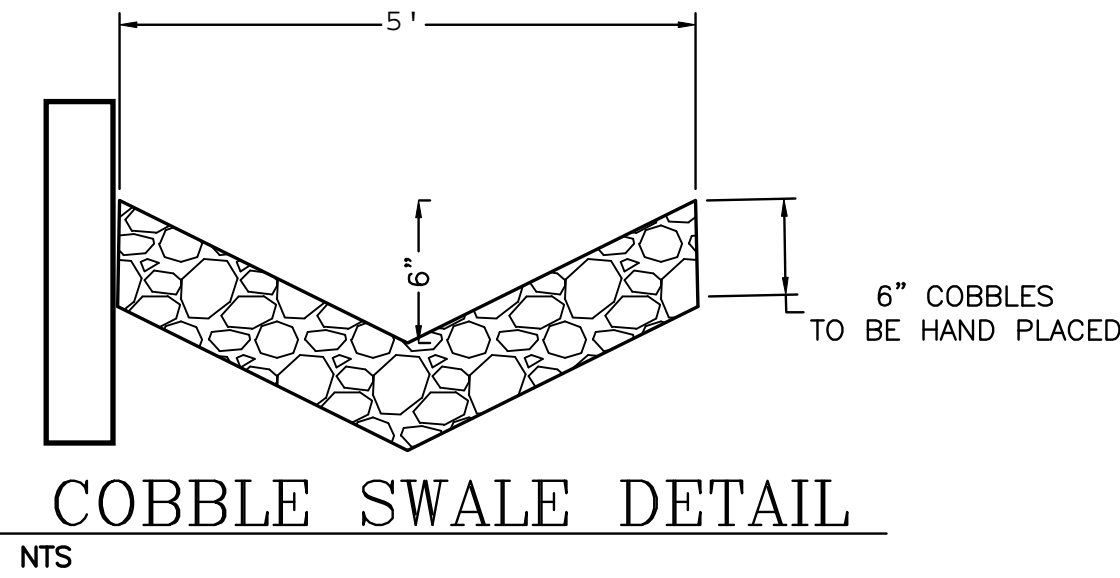
	Top Width	Bottom Width	Depth	Area	WP	R	Slope	Q Provided	Q Required	Velocity
	(ft)	(ft)	(ft)	(ft^2)	(ft)		(%)	(cfs)	(cfs)	(ft/s)
top	5	0.25	0.67	1.76	5.19	0.3391739	1	4.25	3.97	2.26

Manning's Equation:
 $Q = 1.49/n \cdot A \cdot R^{2/3} \cdot S^{1/2}$
A = Area
R = D/4
S = Slope
n = 0.03



EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



LEGAL DESCRIPTION:

LOT A, INDIAN ACRES

NOTES:

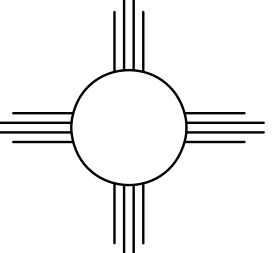
1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
2. ALL CURB AND GUTTER TO 6" HEADER UNLESS OTHERWISE NOTED.

LEGEND

- 5414 --- EXISTING CONTOUR
- 5415 --- EXISTING INDEX CONTOUR
- 5414 --- PROPOSED CONTOUR
- 5415 --- PROPOSED INDEX CONTOUR
- SLOPE TIE
- × 4048.25 EXISTING SPOT ELEVATION
- × 4048.25 PROPOSED SPOT ELEVATION
- BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY
- PROPOSED EDGE OF PAVING
- PROPOSED 6" HEADER CURB
- EXISTING CURB AND GUTTER
- PROPOSED GRAVEL DRIVE

ROUGH GRADING APPROVAL

DATE

ENGINEER'S SEAL  5/9/16 DAVID SOULE P.E. #14522	SEATTLE SEAFOOD COMPANY	GRADING AND DRAINAGE PLAN	 Rio Grande Engineering 1806 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0999	DRAWN BY WCWJ
				DATE 5-02-16
				21609-LAYOUT-4-28-16
				SHEET #
				JOB # 21609