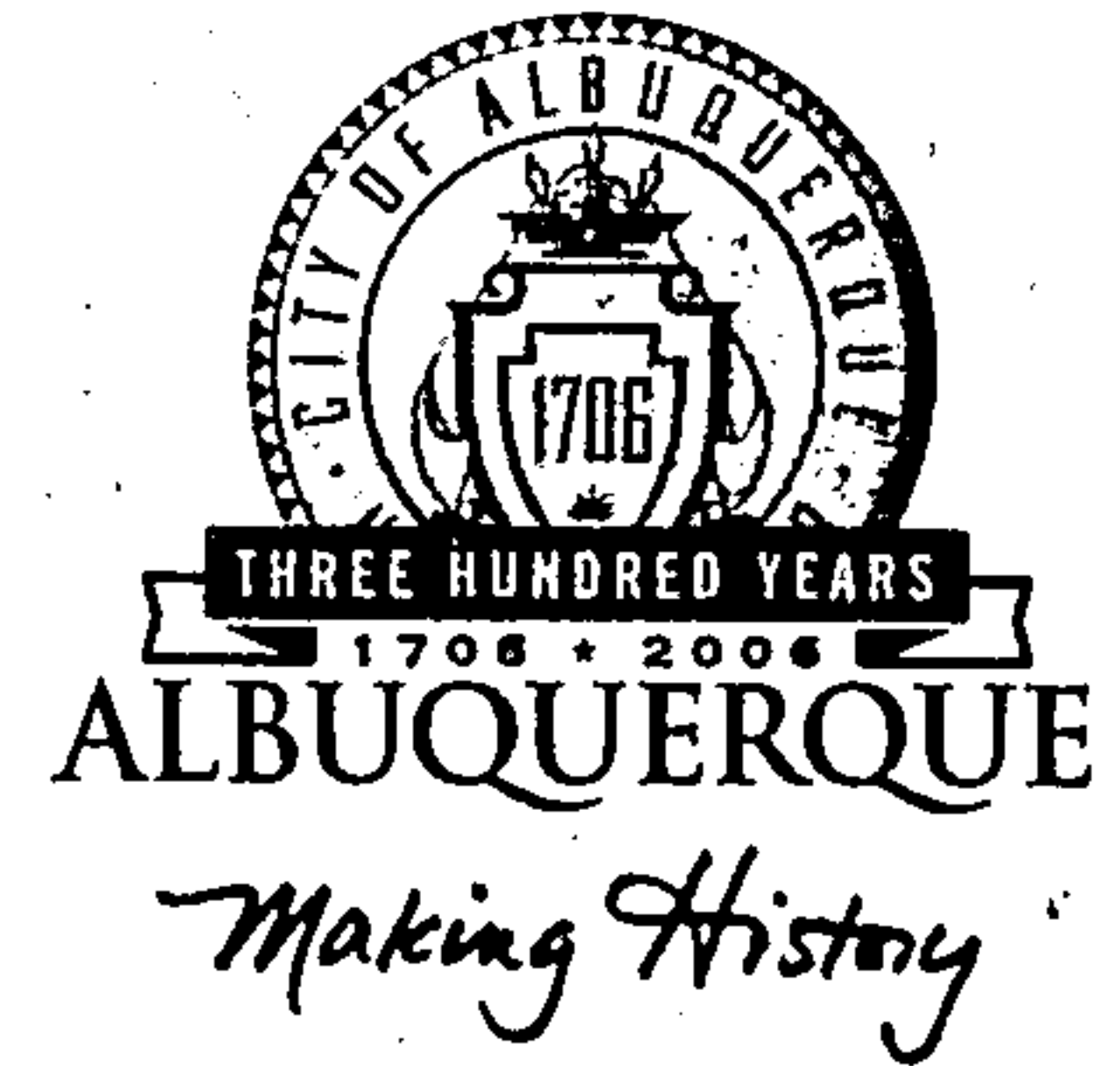


CITY OF ALBUQUERQUE



November 14, 2005

David Soule, P.E.
Rio Grande Engineering
1606 Central Ave. SE, Suite 201
Albuquerque, NM 87106

Re: Torreta Oeste, SIA/Financial Guarantee Release
Engineer's Stamp dated 3-09-04 (L9-D35)
Certification dated 10-01-05

Dear Mr. Soule,

Based upon the information provided in your submittal received 11-10-05, the above referenced certification is approved for release of SIA and Financial Guarantee.

P.O. Box 1293

If you have any questions, you can contact me at 924-3981.

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: Marilyn Maldonado, COA# 740681
file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 01/28/2003rd)

PROJECT TITLE: TORRETA OESTE
DRB #: _____ EPC #: _____

ZONE MAP/DRG. FILE #: L9/D35
WORK ORDER #: _____

LEGAL DESCRIPTION: Tract 442, Lands of Atrisco Grant, Unit 3
CITY ADDRESS: North of San Yngacio between 97th and 94th Streets

ENGINEERING FIRM: Rio Grande Engineering
ADDRESS: 1606 CENTRAL SE SUITE 201
CITY, STATE: ALBUQUERQUE, NM

CONTACT: David Soule, PE
PHONE: (505)321-9099
ZIP CODE: 87106

OWNER: STV Investment
ADDRESS: 1015 Tijeras NW, Suite 210
CITY, STATE: Albuquerque, NM

CONTACT: Tim McNanney
PHONE: 321-9099
ZIP CODE: 87102

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: SURV-TEK
ADDRESS: _____
CITY, STATE: _____

CONTACT: RUSS HUGG
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

CHECK TYPE OF APPROVAL SOUGHT:

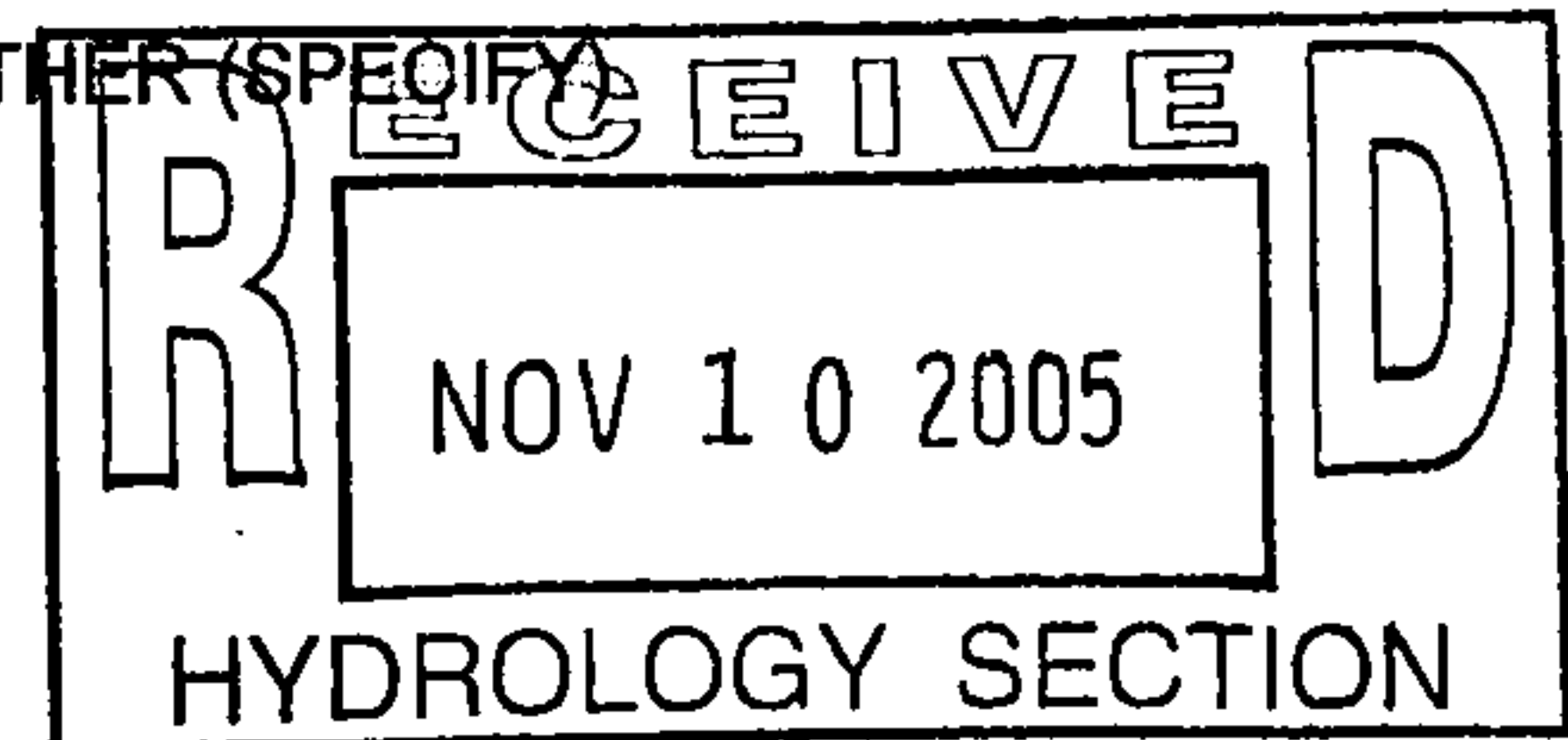
- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER

- ☐ SIA / FINANACIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ 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:

- ☐ YES
☐ NO
☐ COPY PROVIDED

CPN 740681
CPN 740681



DATE SUBMITTED: 11/9/2005 BY: David Soule

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal.

The particular nature, location and scope of 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 Plans:** 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 subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

RIO GRANDE ENGINEERING

LETTER OF TRANSMITTAL

(505) 321-9099
3500 Comanche NE, Suite E-5 Albuquerque, NM 87107

TO Brad Bingham
Hydrology Section
Public Works Department
Plaza del Sol

DATE:	6/14/2004	JOB NO:	2305
ATTENTION:	Brad		
RE:	Torretto Oeste — <i>File</i> L9/D35 <i>(Tower West)</i>		

WE ARE SENDING YOU

☐

Attached

☐

Under Separate cover via _____ the following items:

☐

Shop drawings

☐

Prints

☐

Plans

☐

Samples

☐

Specifications

☐

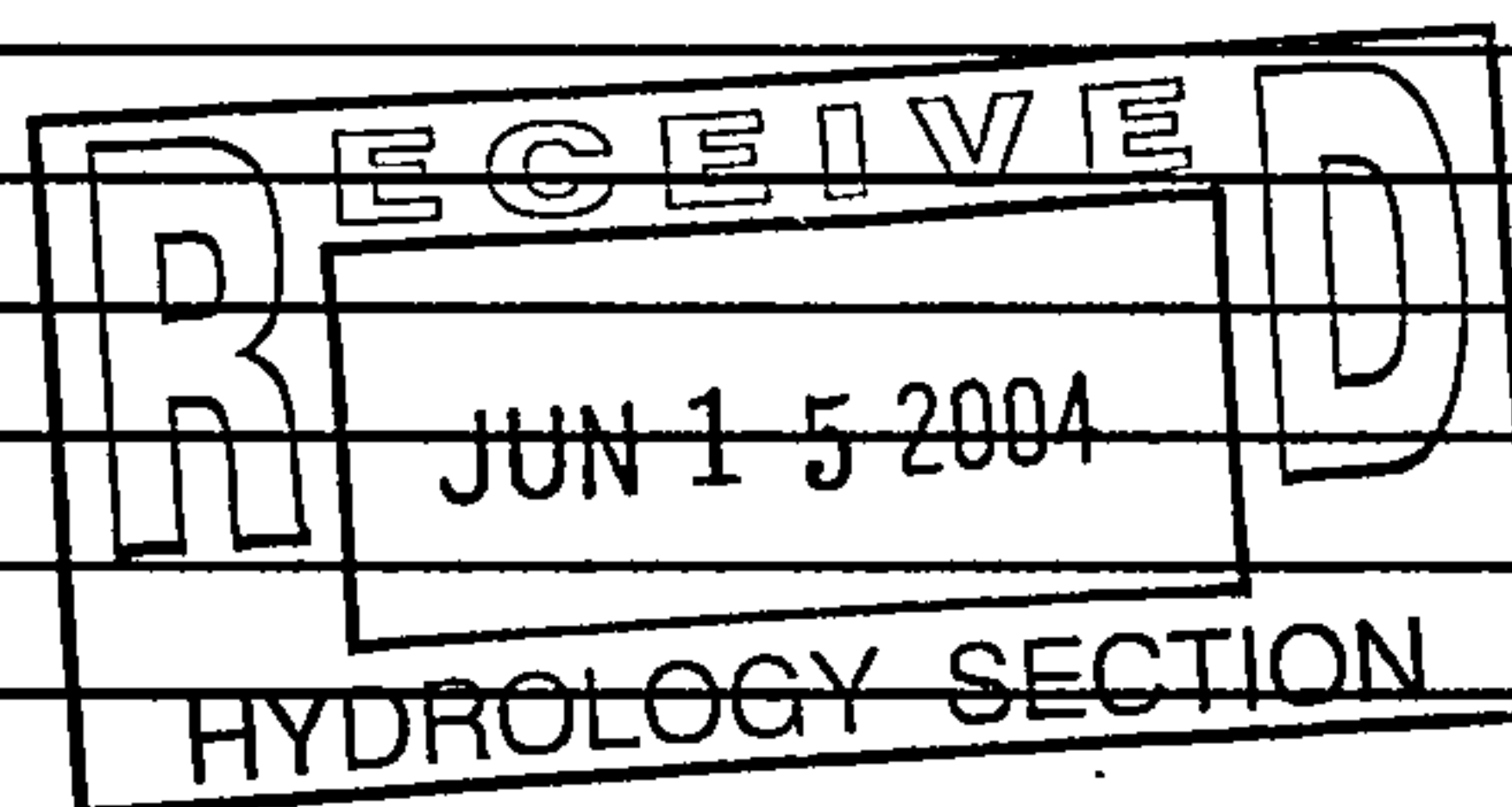
Copy of letter

☐

Change order

☐

COPIES	DATED	NO.	DESCRIPTION
1			Grading permission on adjacent tracts



THESE ARE TRANSMITTED as checked below:

☒

For approval

☐

Approved as submitted

☐

FOR SIGNATURE(S)

☐

For your use

☐

Approved as noted

☐
☒

As requested

☐

Returned for corrections

☐

For review and comments

☐
☐

FOR BIDS DUE _____ 19 _____

☐

PRINTS RETURNED AFTER LOAN TO US

REMARKS

Brad this is for the two lots adjacent to the referenced subdivision.

COPY TO _____

RECEIVED BY _____

SIGNED

David Soule



**Rio Grande
Engineering**

June 9, 2004

Ms. Margaret Garcia
3100 Brian Meadows Place
Albuquerque, NM 87120

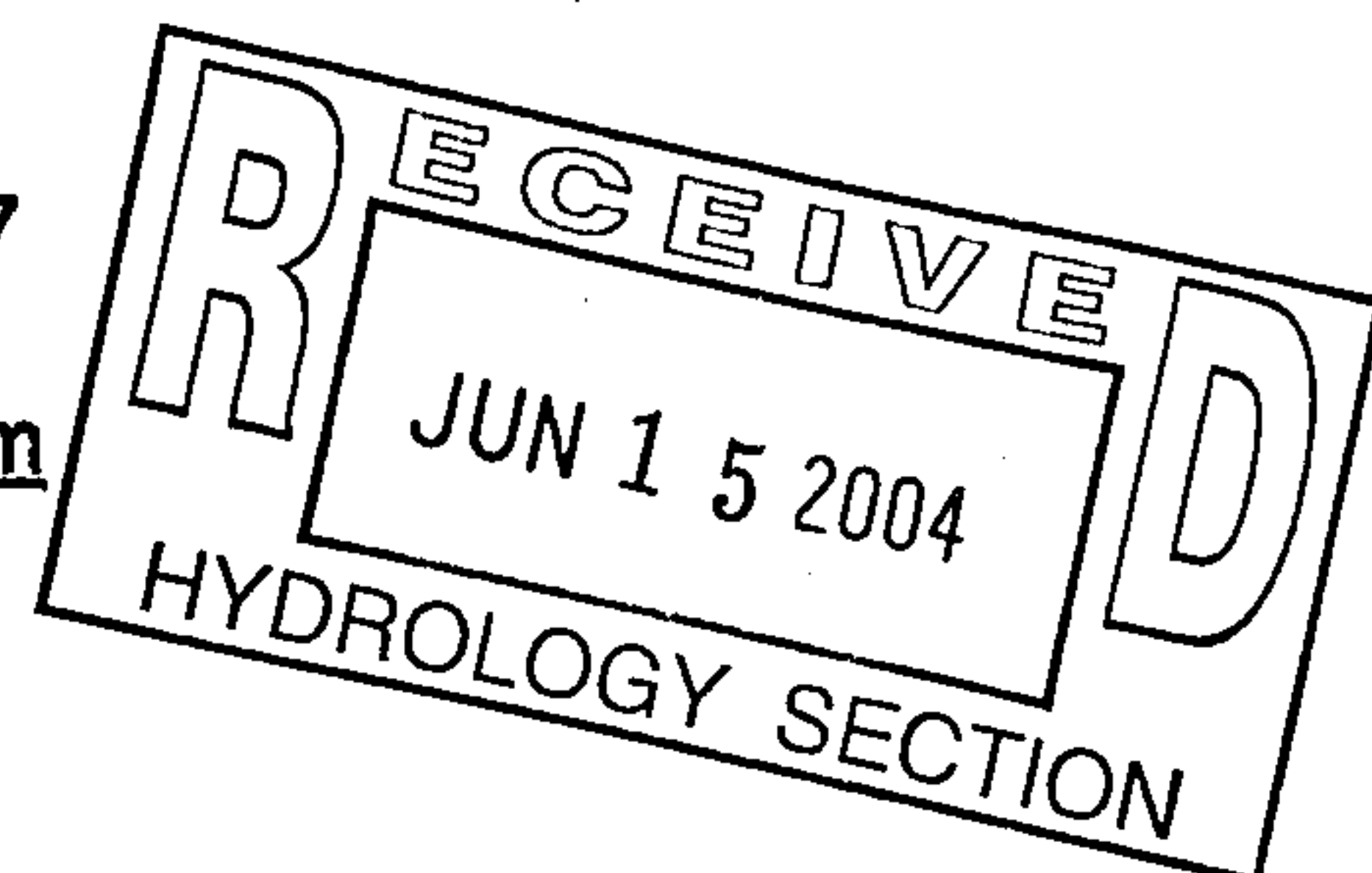
RE: **Permission to Grade
Lots 16 & 17
~~Montano-Vincent Subdivision~~**

Dear Ms Garcia:

My name is David Soule, I am a Civil Engineer. My firm Rio Grande Engineering has been hired to assist in the development of Torretta Oeste Subdivision. This subdivision is currently known as Tract 442, Lands of Atrisco Grant. Your two lots back up to two lots within the subdivision we are working on. The purpose of my letter is to request permission from you to grade a small portion of you property along your eastern boundary. Your lots currently drain from west to east and contain a depressed area at your western boundary. We would like to have permission to improve your property by filling in the low spots so the lot will drain to the south. This benefits my client such that he does not have to build a retaining wall at the property line. This activity benefits you in that your land will be leveled in the rear and the minor ponding and arroyo will be eliminated. The fill material will be clean dirt, and will be placed, and compacted to 95% of optimum density. I have enclosed a copy of what I propose to do. Please let me know if you would be willing to grant us permission to perform the minor grading. Should you have any questions or wish to discuss this matter further, feel free to contact me at any time.

Sincerely,

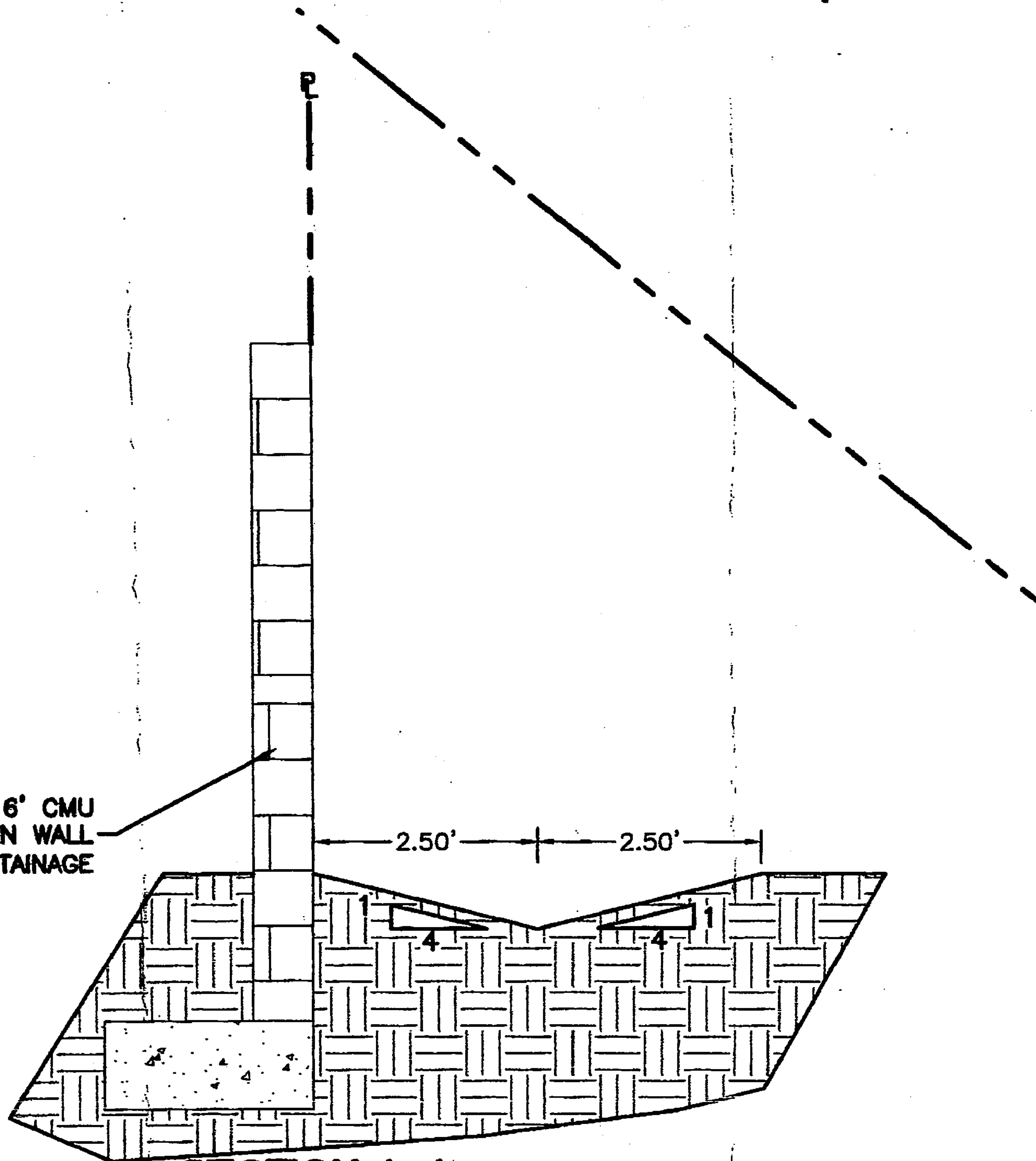
David Soule, PE
3500 Comanche NE, Suite E-5
Albuquerque, New Mexico 87107
505-321-9099
david@riograndeengineering.com



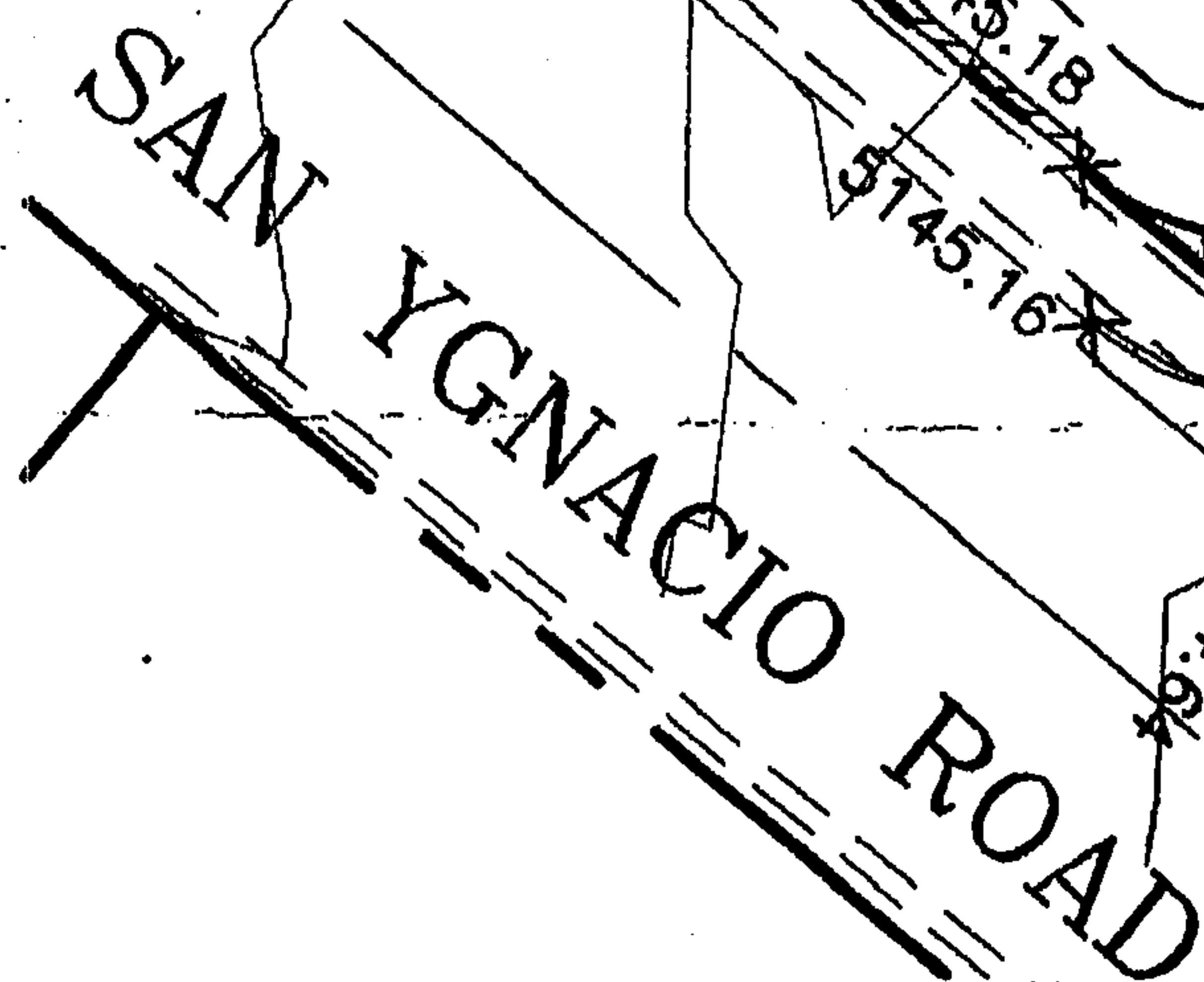
*I Margaret Garcia grant
permission to grade at
Developer expense*

Margaret Garcia 6/14/04

6' CMU
SCREEN WALL
18" MAX. RETAINAGE



SECTION A-A
NTS



RECEIVED
JUN 15 2004
HYDROLOGY SECTION



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 29, 2004

David Soule, PE
Rio Grande Engineering
3500 Comanche Rd NE, Ste E-5
Albuquerque, NM 87107

Re: Torreta Oeste Subdivision Drainage Report
Engineer's Stamp dated 3-9-04 (L9/D35)

Dear Mr. Soule,

Based upon the information provided in your submittal dated 3-10-04, the above referenced report is approved for Preliminary Plat action by the DRB. Once that board has approved the plan, please submit a mylar copy for my signature in order to obtain a Rough Grading Permit. Prior to Work Order or Final Plat written permission of the upstream owners would be required in order to grade on their property. Otherwise, lots 44 and 45 must be a tract with a temporary easement on it until those properties develop.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Municipal Development Department, Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Bryan Wolfe).

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

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

C: Chuck Caruso, DMD
file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 01/28/2003rd)

L-9/D35

PROJECT TITLE: Tower West
DRB #: 1003186 EPC #: _____

ZONE MAP/DRG. FILE #: I-9
WORK ORDER #: _____

LEGAL DESCRIPTION: Tract 442, Lands of Atrisco Grant, Unit 3
CITY ADDRESS: North of San Yngacio between 97th and 94th Streets

ENGINEERING FIRM: Rio Grande Engineering
ADDRESS: 3500 Comanche Blvd. NE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: David Soule, PE
PHONE: (505)321-9099
ZIP CODE: 87107

OWNER: STV Investment
ADDRESS: 1015 Tijeras NW, Suite 210
CITY, STATE: Albuquerque, NM

CONTACT: Tim McNanney
PHONE: 321-9099
ZIP CODE: 87102

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Advanced Engineering
ADDRESS: _____
CITY, STATE: _____

CONTACT: Shawn Biazar
PHONE: 899-5570
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

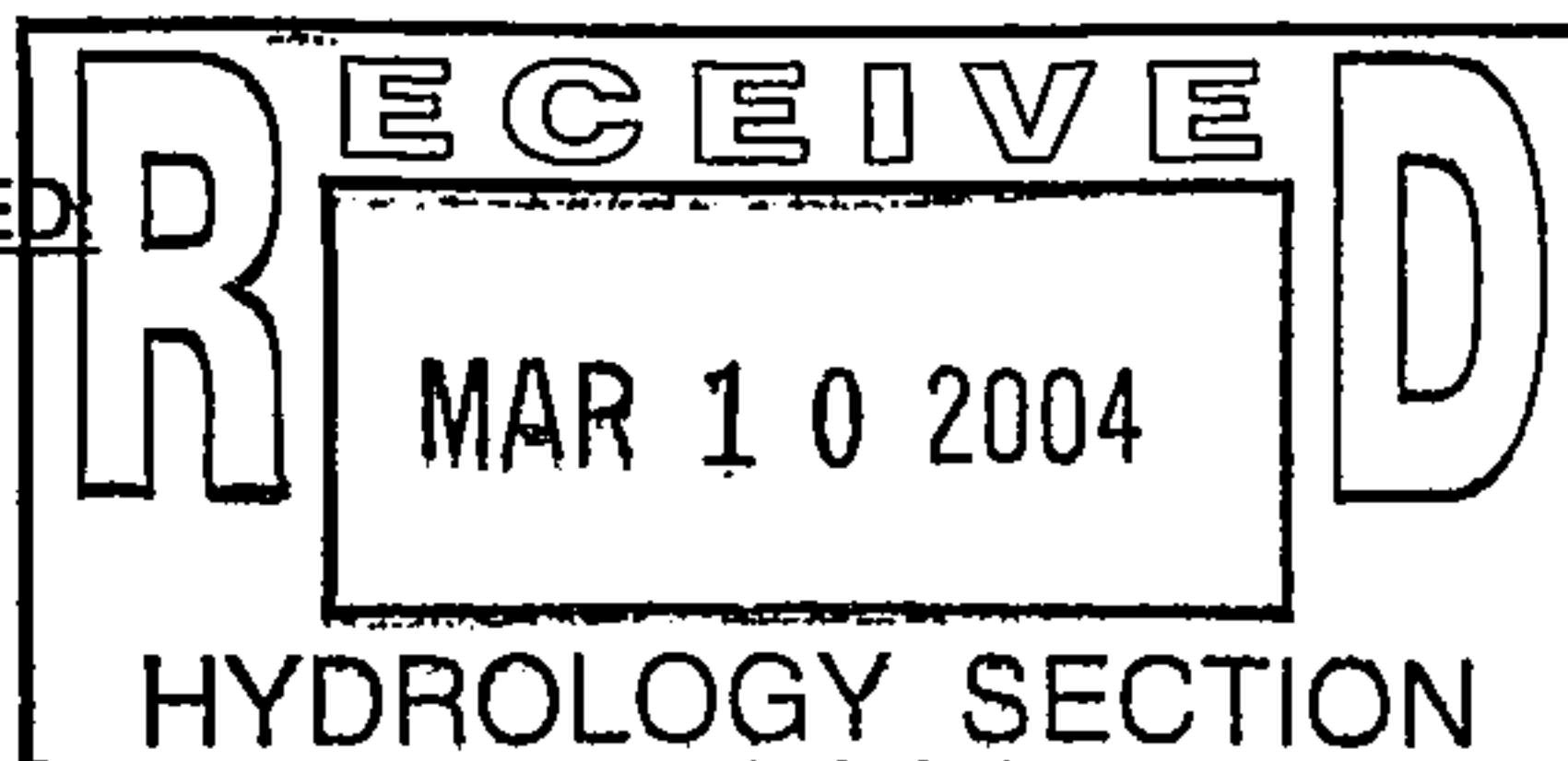
- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | DRAINAGE REPORT |
| <input type="checkbox"/> | DRAINAGE PLAN 1st SUBMITTAL, <i>REQUIRES TCL or equal</i> |
| <input type="checkbox"/> | DRAINAGE PLAN RESUBMITTAL |
| <input type="checkbox"/> | CONCEPTUAL GRADING & DRAINAGE PLAN |
| <input checked="" type="checkbox"/> | GRADING PLAN |
| <input type="checkbox"/> | EROSION CONTROL PLAN |
| <input type="checkbox"/> | ENGINEER'S CERTIFICATION (HYDROLOGY) |
| <input type="checkbox"/> | CLOMR/LOMR |
| <input type="checkbox"/> | TRAFFIC CIRCULATION LAYOUT (TCL) |
| <input type="checkbox"/> | ENGINEERS CERTIFICATION (TCL) |
| <input type="checkbox"/> | ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN) |
| <input type="checkbox"/> | OTHER |

CHECK TYPE OF APPROVAL SOUGHT:

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | SIA / FINANACIAL GUARANTEE RELEASE |
| <input checked="" type="checkbox"/> | PRELIMINARY PLAT APPROVAL |
| <input type="checkbox"/> | S. DEV. PLAN FOR SUB'D. APPROVAL |
| <input type="checkbox"/> | S. DEV. PLAN FOR BLDG. PERMIT APPROVAL |
| <input type="checkbox"/> | SECTOR PLAN APPROVAL |
| <input type="checkbox"/> | FINAL PLAT APPROVAL |
| <input type="checkbox"/> | FOUNDATION PERMIT APPROVAL |
| <input type="checkbox"/> | BUILDING PERMIT APPROVAL |
| <input type="checkbox"/> | CERTIFICATE OF OCCUPANCY (PERM.) |
| <input type="checkbox"/> | CERTIFICATE OF OCCUPANCY (TEMP.) |
| <input checked="" type="checkbox"/> | GRADING PERMIT APPROVAL |
| <input type="checkbox"/> | PAVING PERMIT APPROVAL |
| <input type="checkbox"/> | WORK ORDER APPROVAL |
| <input type="checkbox"/> | OTHER (SPECIFY) |

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
☐ NO
☐ COPY PROVIDED



DATE SUBMITTED: 3/9/2004 BY: David Soule

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal.

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

L-9/D35

DRAINAGE REPORT

for

Tower West Subdivision

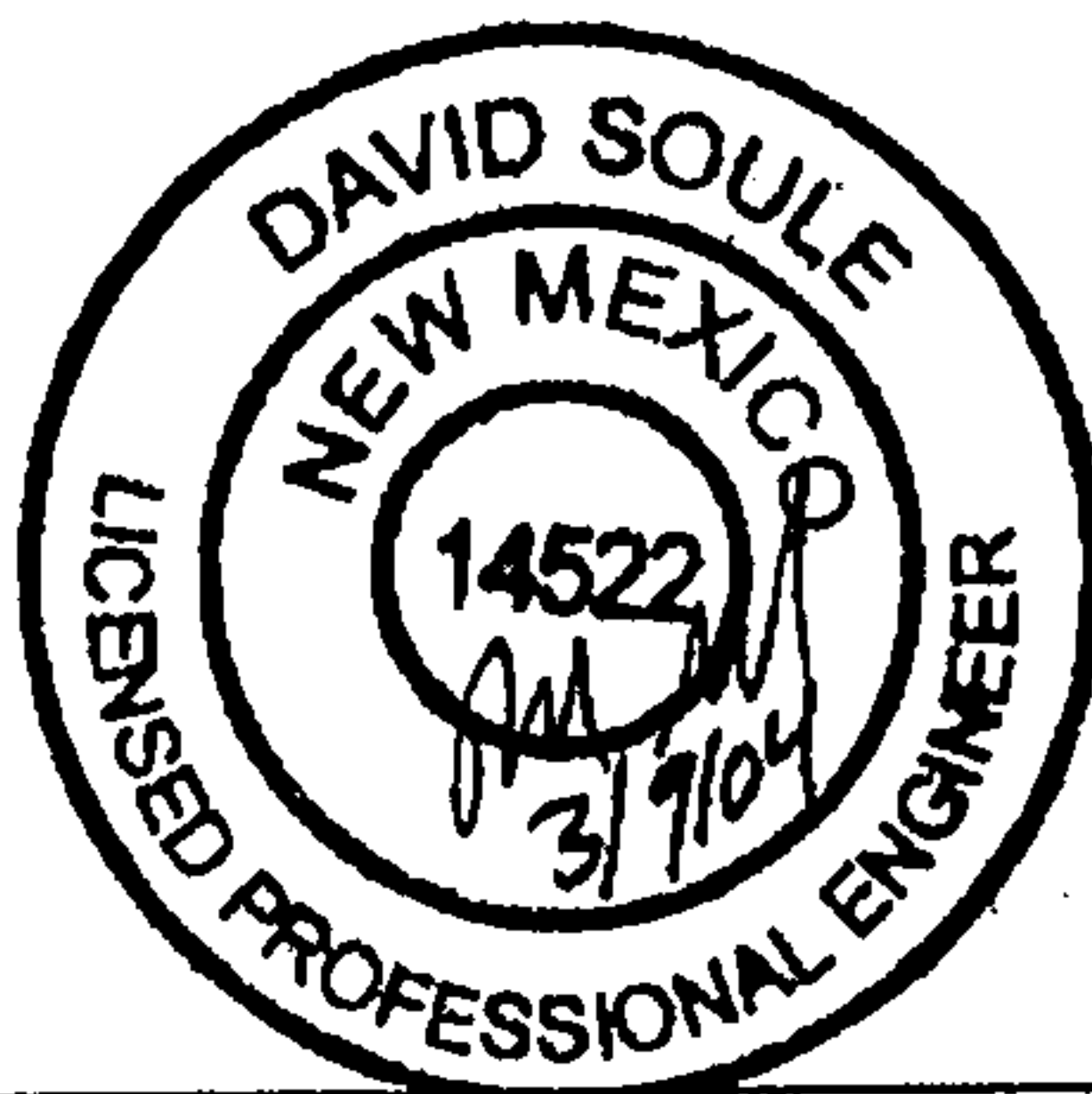
**Tract 442
Lands of Atrisco Grant, Unit 3
Albuquerque, New Mexico**

Prepared by

Rio Grande Engineering
3500 Comanche Blvd NE, Suite E5
Albuquerque, New Mexico 87107

Prepared for
STV Investments, LLC
1015 Tijeras NW, Suite 210
Albuquerque, New Mexico 87102

March 2004



David Soule P.E. No. 14522

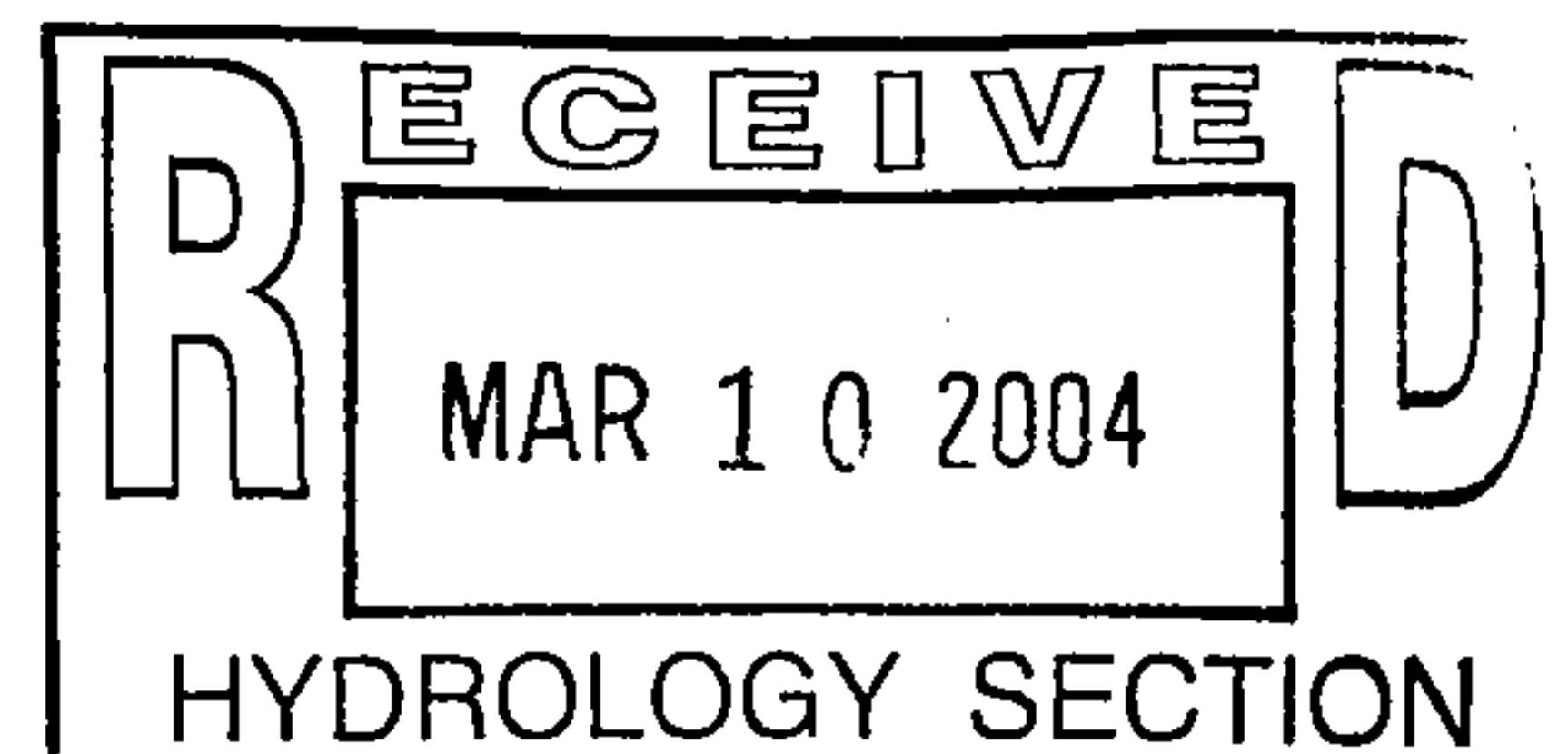


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Proposed Conditions	4
Vicinity Map	5
Summary	6

Appendix

Site Hydrology	A
Hydraulic Calculations	B
Drainage basin Map	C

Map Pockets

Site Grading and Drainage Plan	A
--------------------------------------	---

PURPOSE

The purpose of this report is to provide the Drainage Management Plan for the development of the Tower West Subdivision. This plan will be utilized for the development of the subject property, currently known as Tract 442, Lands of Atrisco Grant, Unit 3. The proposed development will consist of 45 Single Family Residential Lots. This plan was prepared in accordance with the City of Albuquerque's Development Process Manual Drainage Regulations. This report will demonstrate that the proposed improvements will not adversely effect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A vicinity map, is a 5.23-acre parcel of land located on San Ygnacio between 94th Street and 98th. The legal description of the property is Tract 442, Lands of Atrisco Grant, Unit 3. The site is currently undeveloped Land. The subject property is located within the Tower/Sage Master Drainage Plan Boundaries. The site is within the boundaries of SAD 222. The development of this property is in conformance with the Tower/Sage Master Drainage Plan. The upstream and downstream storm drainage facilities are in place and the Special Assessment levied on the property for these improvements was paid. Therefore this property is allowed to free discharge up to 20.76cfs.

EXISTING CONDITIONS

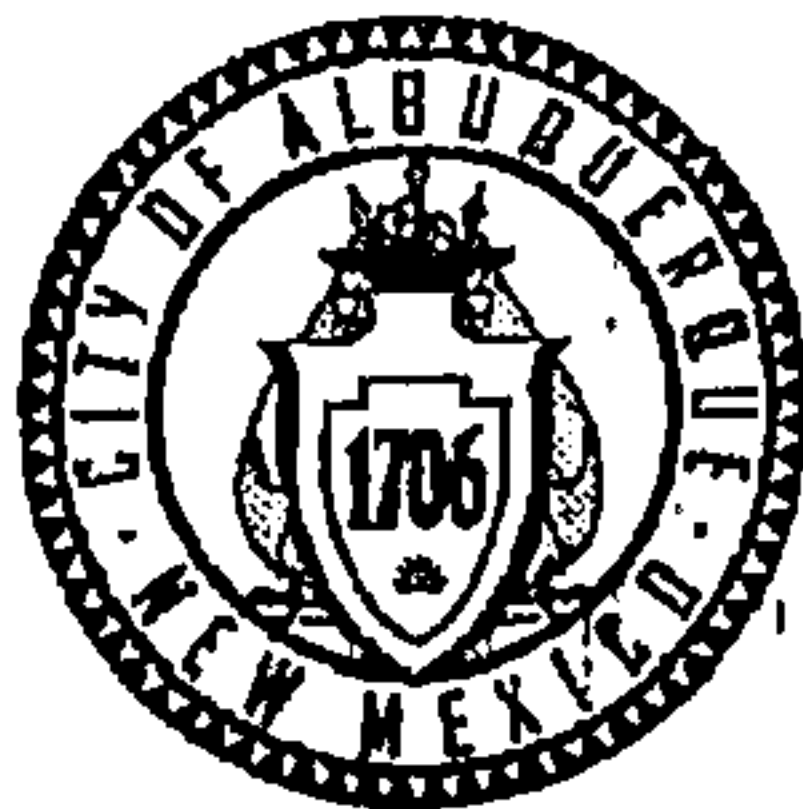
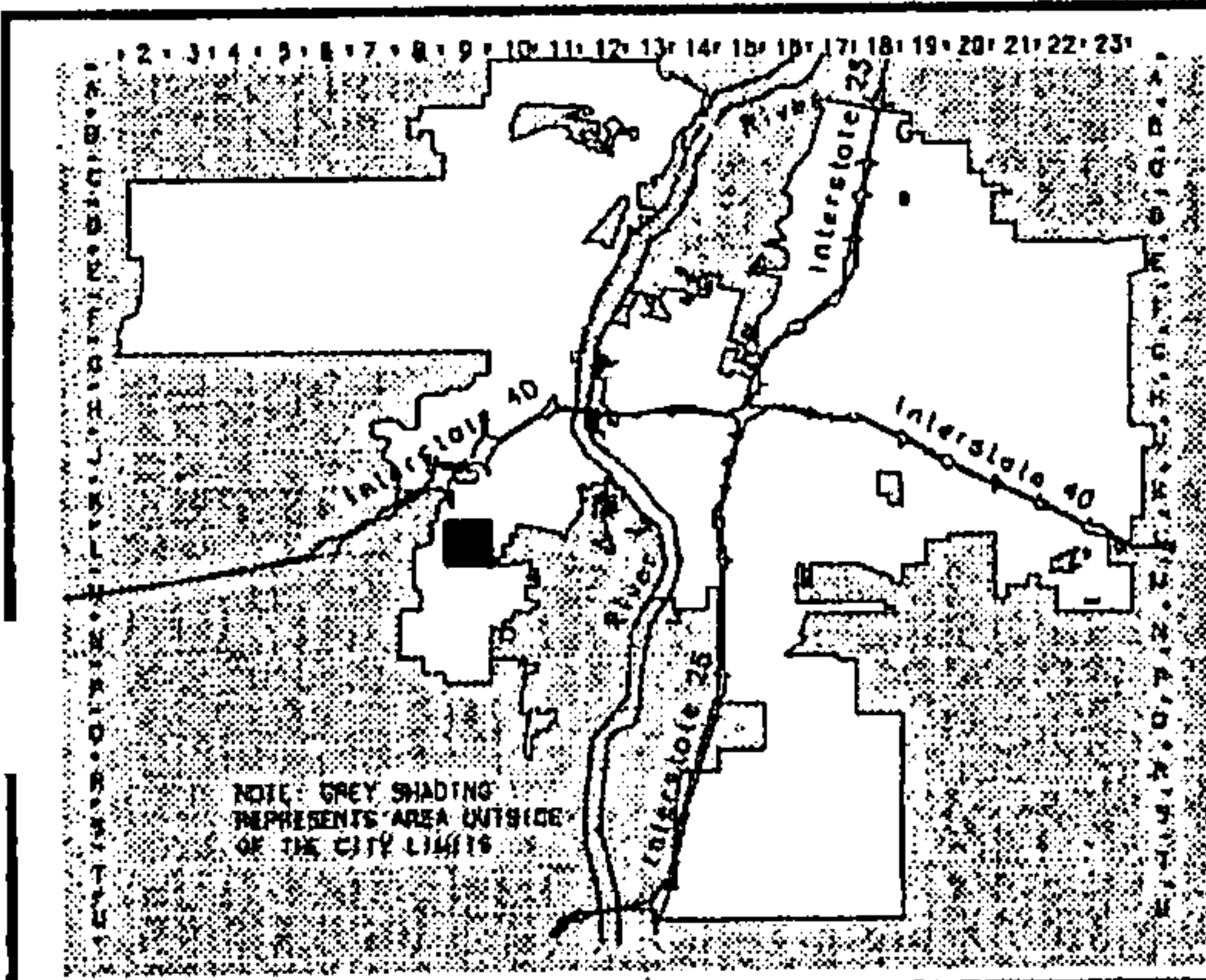
This site generally slopes from the northwest to the south east with average grades between 1-4%. As shown on FIRM map 35001C0336E, the site lies within flood zone X. The site is currently impacted by minor offsite flows, which pass through the site. Once the adjacent land is developed no offsite flows will enter the site. These flows consist of the runoff from the adjacent undeveloped 6.88 acres. These flows enter the site as sheet flow along the entire

western property line. The combined flows discharge 15.45 cfs onto San Ygnacio at the sites southeast corner. Once the flows leave the site they are conveyed within the San Ygnacio Right of way until they are captured by a set of inlets located downstream. The storm drainage system was designed to accommodate the fully developed conditions of the contributing basin that include this site.

PROPOSED CONDITIONS

The proposed improvements consist of the 45 Single family Residential Homes and approximately 1000 linear feet of a 26' wide Public Road. The onsite lot grading shall consist of a building pad and rear and side yard swales with typical grades of 1%. Each lot will drain directly to the adjacent Right of way. The proposed roadway will consist of a 2% crowned roadway with Mountable Curb and Gutter as shown in the City of Albuquerque Standard Specifications. As shown on the basin map located in Appendix B, the site consists of 2 onsite basins, an 1 offsite basin. The developed storm water discharge rates were calculated using the Simplified Procedure for 40 acre and smaller basins as shown in Chapter 23-part A of the DPM. As shown in Appendix A, the total developed flow leaving the site is predicted to be 20.66 cfs. The upstream undeveloped flow of 8.7 cfs will be diverted to San Ygnacio via a temporary swale along the projects west property line. Due the undeveloped nature of the offsite flows and the immediate developability of the upstream basins the temporary swale will be earthen. The streets stormwater conveyance capacity was calculated with the Mannings Equation and an Excel Spreadsheet. As Shown in Appendix B, the 100-year peak discharge rate of 20.66 will stay within the Roadway. The Energy grade line of this flow will be contained within the Right of Way.

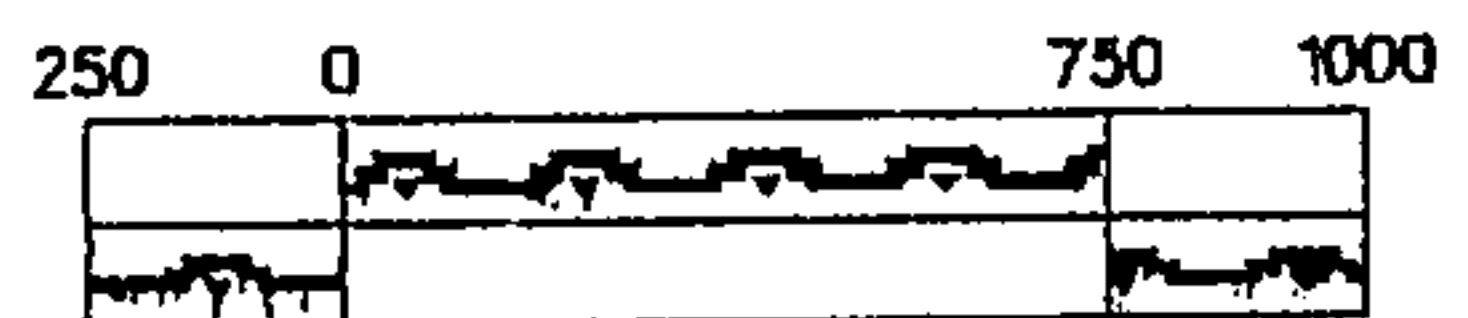
As shown in the Tower/Sage Master Drainage Study, this site is located within Basin B1-D. Therefore this site is allowed to discharge 20.76 onto San Ygnacio. Since the site is predicted to discharge 20.66 cfs, the downstream conveyance system will not be adversely impacted.



AGIS
Geographic Information System
PLANNING DEPARTMENT

© Copyright 2004

GRAPHIC SCALE IN FEET



Zone Atlas Page

L-9-Z

Map Amended through February 03, 2004

EXHIBIT A-VICINITY MAP

SUMMARY AND RECOMMENDATIONS

This site is an undeveloped parcel of land located within the Boundaries of the Tower/Sage Master Drainage Study. As dictated by this study, this site is allowed to discharge 20.76 cfs to the San Ygnacio Right of way. The surrounding roadways and storm drainage facilities were completed with Special Assessment District 222.. The onsite developed storm water discharge will be conveyed via surface flow by each individual lot to the adjacent Roadway. The public street has capacity to convey the total onsite flow. The San Ygnacio roadway and the downstream storm drainage facilities were designed to convey the developed flow leaving this site. The minor offsite flows will be conveyed to San Ygnacio via a temporary earthen swale along the west property line. Due to the immediate development capability of the upstream basin, the swale will not be hardened. Since the proposed site development does not adversely affect the upstream or downstream facilities of the site we recommend approval of the site-grading plan. The onsite improvement will be constructed under the City of Albuquerque's Work Order Process. Since this site encompasses more than 1 acre, a NPDES permit will be required prior to any construction activity.

7

APPENDIX A

SITE HYDROLOGY

Weighted E Method

Existing Basins

											100-Year		
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)			
A	228000.00	5.234	100%	5.234	1598	0%	0.000	0%	0	0.000	0.440	0.192	6.75
OFFSITE	296208.00	6.800	100%	6.8	0%	0.000	0%	0	0%	0.000	0.440	0.249	8.77
Total	524208.00	12.034		12.034	16	0.000		0		0.000		0.441	15.52

Proposed Developed Basins

											100-Year, 6-hr.			10-day
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)
			%	(acres)	%	(acres)	%	(acres)	%	(acres)				
A	228000.00	5.234	0%	0	11%	0.576	11%	0.57576	78%	4.083	1.719	0.750	20.66	1.294
B	296208.00	6.800	100%	6.8	0%	0.000	0%	0	0%	0.000	0.440	0.249	8.77	0.249
Total	524208.00	12.034		6.8		0.576		0.57576		4.083		0.999	29.43	1.54

$$\text{Weighted E} = E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d / (\text{Total Area})$$

$$\text{Volume} = \text{Weighted D} \cdot \text{Total Area}$$

$$\text{Flow} = Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$$

Where for 100-year, 6-hour storm

$$E_a = 0.44$$

$$E_b = 0.67$$

$$E_c = 0.99$$

$$E_d = 1.97$$

$$Q_a = 1.29$$

$$Q_b = 2.03$$

$$Q_c = 2.87$$

$$Q_d = 4.37$$

APPENDIX B

HYDRAULIC CALCULATIONS

Street Capacity Calculations

Unnamed street
26' F-F Street Section with 4" curb
Slope= 0.0125

For water depths less than 0.0625 feet

Y= Water depth
Area = $16 \cdot Y^2$
P= $\text{SQRT}(1025 \cdot Y^2) + Y$
n= 0.017

Depth (ft)	Area (ft ²)	P (ft)	R (A/P)	Q (cfs)	2Q (cfs)	Vel (ft/s)	D*V	Fr	D2 (ft)
0.01	0.0016	0.33	0.00	0.00	0.00	0.28	0.00	0.49	0.00358
0.02	0.0064	0.66	0.01	0.00	0.01	0.44	0.01	0.55	0.00858
0.025	0.01	0.83	0.01	0.01	0.01	0.52	0.01	0.57	0.01135
0.035	0.0196	1.16	0.02	0.01	0.03	0.65	0.02	0.61	0.0173
0.045	0.0324	1.49	0.02	0.02	0.05	0.76	0.03	0.63	0.02368
0.052	0.043264	1.72	0.03	0.04	0.07	0.84	0.04	0.65	0.02836
0.06	0.0576	1.98	0.03	0.05	0.11	0.92	0.06	0.66	0.03389
0.0625	0.0625	2.06	0.03	0.06	0.12	0.95	0.06	0.67	0.03566

For water depths greater than 0.0625 ft but less than 0.3025 ft

Y1= Y-0.0625
A2= $A1 + 2 \cdot Y1 + 25 \cdot Y1^2$
P2= $P1 + \text{SQRT}(2501 \cdot Y1^2) + Y1$

Depth (ft)	Area (ft ²)	P (ft)	R (A/P)	Q (cfs)	2Q (cfs)	Vel (ft/s)	D*V	Fr	D2 (ft)
0.063	0.063506	2.09	0.03	0.06	0.12	0.95	0.06	0.67	0.03587
0.1	0.172656	3.98	0.04	0.21	0.42	1.21	0.12	0.67	0.05749
0.13	0.311406	5.51	0.06	0.45	0.90	1.44	0.19	0.70	0.07979
	0.495156	7.04	0.07	0.82	1.65	1.67	0.27	0.73	0.10432
	0.810156	9.08	0.09	1.58	3.16	1.95	0.39	0.77	0.13942
0.207	0.873506	9.43	0.09	1.75	3.49	2.00	0.41	0.77	0.14579
0.2612	1.446942	12.20	0.12	3.41	6.83	2.36	0.62	0.81	0.19705
0.3025	1.9825	14.31	0.14	5.19	10.38	2.62	0.79	0.84	0.23807

For water depths greater than 0.3025 ft but less than 0.333 ft

Y2= Y - 0.3025
A3= $A2 + Y2 \cdot 14$
P3= $P2 + Y2$

Depth (ft)	Area (ft ²)	P (ft)	R (A/P)	Q (cfs)	2Q (cfs)	Vel (ft/s)	D*V	Fr	D2 (ft)
0.303	1.9895	14.31	0.14	5.22	10.44	2.62	0.79	0.84	0.23896
0.3039	2.0021	14.31	0.14	5.27	10.55	2.63	0.80	0.84	0.24056
0.3062	2.0343	14.31	0.14	5.42	10.83	2.66	0.82	0.85	0.24466
0.31	2.0875	14.31	0.15	5.65	11.31	2.71	0.84	0.86	0.25145
0.3125	2.1225	14.32	0.15	5.81	11.62	2.74	0.86	0.86	0.25592
0.32	2.2275	14.32	0.16	6.30	12.59	2.83	0.90	0.88	0.26937
0.3317	2.3913	14.34	0.17	7.08	14.16	2.96	0.98	0.91	0.29044
0.333	2.4095	14.34	0.17	7.17	14.34	2.98	0.99	0.91	0.29279

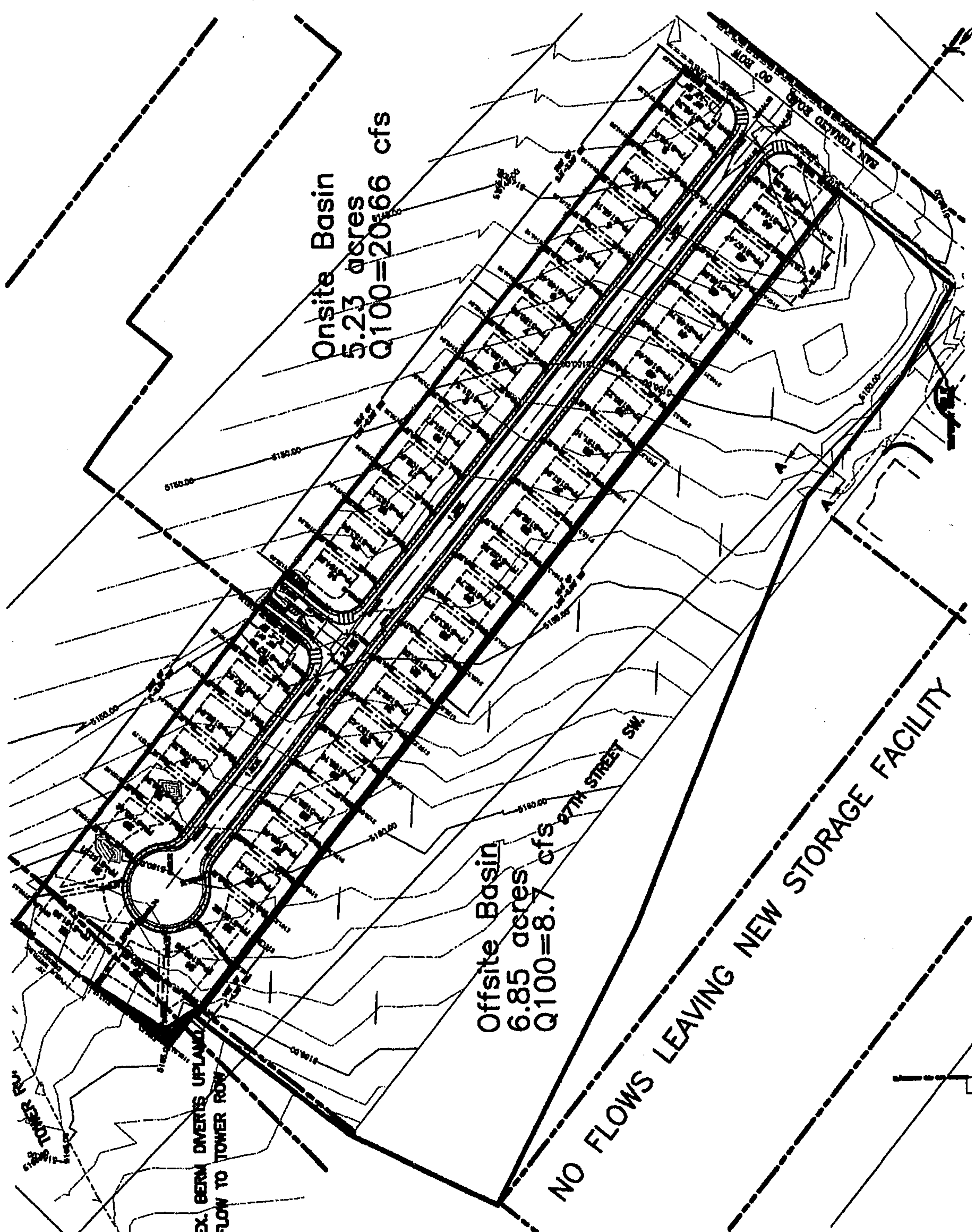
For water depths greater than 0.333 ft but less than 0.513 ft

Y3= Y - 0.333
A4= $A3 + 13 \cdot Y3 + 25 \cdot Y3^2$
P4= $P3 + \text{SQRT}(2501 \cdot Y3^2)$

Depth (ft)	Area (ft ²)	P (ft)	R (A/P)	Q (cfs)	2Q (cfs)	Vel (ft/s)	D*V	Fr	D2 (ft)
0.335	2.4356	14.44	0.17	7.27	14.54	2.98	1.00	0.91	0.29437
0.401	2.78016	15.69	0.18	8.57	17.14	3.08	1.11	0.91	0.31492
0.438	3.075725	16.69	0.18	9.74	19.47	3.17	1.20	0.90	0.33208
0.38946	3.223173	17.16	0.19	10.33	20.66	3.21	1.25	0.91	0.34048
0.4603	4.469532	20.70	0.22	15.72	31.44	3.52	1.62	0.91	0.40752
0.504	5.363525	22.89	0.23	19.92	39.85	3.71	1.87	0.92	0.45189
0.513	5.5595	23.34	0.24	20.88	41.76	3.76	1.93	0.92	0.46127

APPENDIX C

DRAINAGE BASIN MAP



THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE DATA AND INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

SHEET NO.	TOWER WEST	201 / 202
DATE	DRAINAGE BASINS	201 / 202
DESIGNED BY	R. G. GRIFFIN	201 / 202
CHECKED BY	R. G. GRIFFIN	201 / 202
APPROVED BY	R. G. GRIFFIN	201 / 202



NOT TO SCALE

MAP POCKET A
SITE GRADING PLAN