

N-9/D49 ER PARTO CURAD
UNITS 10 + 11



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 24, 2003

Scott Steffen, PE
Bohannon Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

**Re: El Rancho Grande Unit 10 & 11 subdivision Drainage Report
Engineer's Stamp dated 6-19-03 (N9/D4)**

Dear Mr. Steffen,

Based upon the information provided in your submittal dated 5-9-03, the above referenced report is approved for Preliminary Plat action by the DRB.

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 Public Works Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Brian Wolfe).

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

Sincerely,

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

C: Chuck Caruso, CoA
Lynn Mazur, AMAFCA
file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

N-9/D4A

PROJECT TITLE: El Rancho Grande Subdivision, Units 10 and 11 ZONE MAP/DRG. FILE # N-8 and N-9
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract E-1, Albuquerque South, Unit 3 and Tract A-1, Rosner Tract
CITY ADDRESS: NW corner of Gibson Boulevard and De Anza Drive

ENGINEERING FIRM: Bohannon Huston, Inc.
ADDRESS: 7500 Jefferson NE - Courtyard I
CITY, STATE: Albuquerque, NM

CONTACT: Scott Steffen
PHONE: (505) 823-1000
ZIP CODE: 87109

OWNER: Curb Inc.
ADDRESS: 6301 Indian School Rd, Suite 208
CITY, STATE: Albuquerque, NM

CONTACT: Bo Johnson
PHONE: 899-9656
ZIP CODE: 87110

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

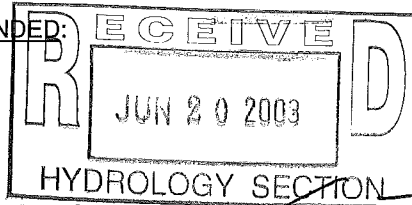
- DRAINAGE REPORT
- DRAINAGE PLAN 1ST SUBMITTAL, **REQUIRES TCL or equal**
- DRAINAGE PLAN RESUBMITTAL
- CONCEPTUAL GRADING & DRAINAGE PLAN
- GRADING PLAN
- EROSION CONTROL PLAN
- ENGINEER'S CERTIFICATION (HYDROLOGY)
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- ENGINEERS CERTIFICATION (TCL)
- ENGINEERS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

CHECK TYPE OF APPROVAL SOUGHT:

- SIA / FINANCIAL 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



DATE SUBMITTED: JUNE 20, 2003 BY: [Signature]

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 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 subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

CLIENT/COURIER TRANSMITTAL

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

To: Brad Bingham
COA – Hydrology Development
Plaza del Sol – 2nd Floor West
924-3986

Requested By: Scott Steffen

Date: June 20, 2003

Time Due: This A.M. This P.M.
 Rush ____ By Tomorrow

Job No.: 030265 001

Job Name: El Rancho Grande Units 10 and 11

DELIVERY VIA

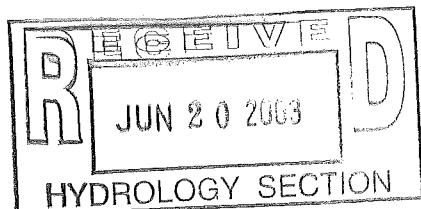
- Courier Federal Express
 Mail UPS
 Other _____

PICK UP

Item: _____

<u>ITEM NO.</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	1	Drainage information sheet
2	1	Cover letter
3	1	Revised drainage report for Units 10 and 11

COMMENTS / INSTRUCTIONS



REC'D BY: _____ DATE: _____ TIME: _____

ENGINEERING ©

SPATIAL DATA ©

ADVANCED TECHNOLOGIES ©

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

June 20, 2003

Brad Bingham, P.E.
Hydrology Development Section
Development and Building Services
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: El Rancho Grande Unit 10 & 11 Subdivision Drainage Report (N9/D4)

Dear Mr. Bingham:

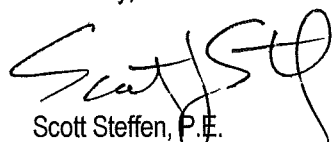
This letter addresses the comments to the above referenced drainage report dated June 9, 2003. In our phone conversation on June 19, 2003 you stated that approval of the Gibson Corridor Drainage Master Plan by the City and AMAFCA is not required for approval of the Unit 10 and 11 drainage report. It is also our understanding that AMAFCA must approve the Unit 10 and 11 report before the City will give approval.

The section on off-site flows has been revised to discuss how flows in Cartagena Avenue from the Atrisco Village subdivision will be managed. Excerpts from the El Rancho Grande Unit 8 drainage report, including the grading plan, are included in the report to explain how flow from De Anza Drive and the north half of Cartagena Avenue adjacent to Unit 8 is conveyed to the Amole Arroyo.

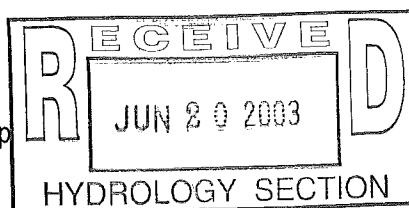
The two offsite ponds are located on property owned by Curb, Inc., the same owner that is developing Units 10 and 11. If written permission is still required please let me know so that we can provide this under separate letter. Drainage easements for the swale, ponds and overflow arroyo will be provided prior to Final Plat approval. In addition, a Drainage Covenant and Agreement will be provided for both ponds prior to Final Plat. The water surface elevation for both ponds have been added to the basin map and grading plan.

If you have any questions or require further information, please call me at 823-1000.

Sincerely,



Scott Steffen, P.E.
Project Manager
Community Development and Planning Group



cc: Bo Johnson, Curb, Inc.
Lynn Mazur, AMAFCA

DRAINAGE STUDY FOR EL RANCHO GRANDE

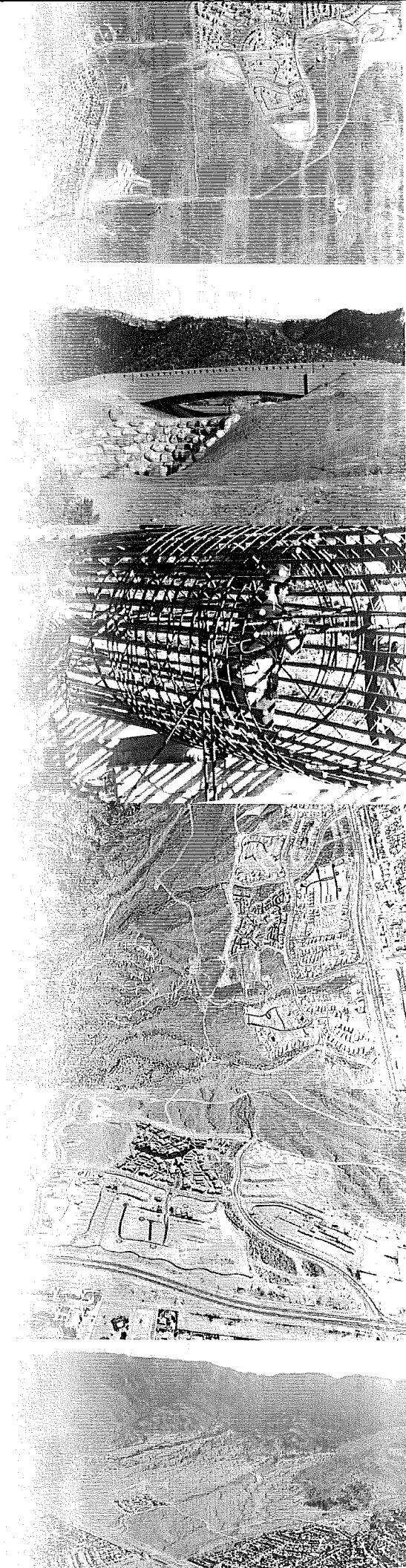
Unit 10 and Unit 11

JUNE 19, 2003

Prepared for:
Curb Inc.
6301 Indian School NE - Suite 208
Albuquerque, NM 87110

Bohannon ▲ Huston inc.

- ▲ ENGINEERING
- ▲ ADVANCED TECHNOLOGIES
- ▲ SPATIAL DATA



**DRAINAGE STUDY
FOR
EL RANCHO GRANDE UNITS 10 AND 11**

JUNE 19, 2003

Prepared for:

**CURB INC.
6301 INDIAN SCHOOL NE - SUITE 208
ALBUQUERQUE, NM 87110**

Prepared by:

**BOHANNAN HUSTON, INC.
COURTYARD I
7500 JEFFERSON STREET NE
ALBUQUERQUE, NM 87109**



PREPARED BY:

Scott J. Steffen 6-19-03
Scott J. Steffen, P.E. Date

Table of Contents

TABLE OF CONTENTS

	page
I. INTRODUCTION	1
II. METHODOLOGY	2
III. EXISTING CONDITIONS	2
A. Topography	2
B. Existing Drainage Patterns	2
IV. PROPOSED DEVELOPED CONDITIONS	3
A. Offsite Flows	3
B. Onsite Flows	4
C. FEMA Floodplain	5
V. CONCLUSION.....	5

APPENDICES

- APPENDIX A - AHYMO INPUT, OUTPUT AND SUMMARY FILES DEVELOPED CONDITIONS
- APPENDIX B - STREET CAPACITY AND STORM DRAIN INLET ANALYSIS
- APPENDIX C - EXCERPTS FROM EL RANCHO GRANDE UNIT 8 DRAINAGE REPORT
- APPENDIX D - INFRASTRUCTURE LIST

EXHIBITS

- EXHIBIT 1 - PRELIMINARY PLAT
- EXHIBIT 2 - GRADING PLAN
- EXHIBIT 3 - DEVELOPED CONDITIONS BASIN MAP
- EXHIBIT 4 - EL RANCHO GRANDE UNIT 8 GRADING PLAN

I. INTRODUCTION

This drainage study establishes a drainage management plan for the proposed development of the properties legally described as Tract E-1, Albuquerque South, Unit Three (El Rancho Grande Unit 10) and Tract A-1, Rosner Tract (El Rancho Grande Unit 11). Unit 10 is approximately 19.8 acres of residential (R-2 allowing R-T and R-LT) land to be subdivided into 123 single family residential lots. Unit 11 is approximately 18.4 acres of residential (R-LT) land to be subdivided into 107 single family residential lots. Both properties are in the Rio Bravo Sector Plan. The subject properties are on Albuquerque's southwest mesa, north of the future Gibson Boulevard, west of De Anza Drive and south of Cartagena Avenue.

El Rancho Grande Units 10 and 11 are in the Amole Arroyo Watershed and encompassed by the Amole-Hubbell Drainage Management Plan. In addition, a draft Drainage Management Plan (DMP) is being developed for the Gibson Boulevard corridor between 118th Street and the Amole Arroyo. The drainage area covered by the DMP is approximately 300 acres of residential, commercial, and special use zoned property that bound the north and south side of the future Gibson Boulevard between 118th Street to the west and the Amole Arroyo to the east. El Rancho Grande Units 10 and 11 are in the Drainage Management Plan (DMP) area. Approval of the Gibson Boulevard DMP by the City of Albuquerque and AMAFCA is not required for approval of this Drainage Study for El Rancho Grande Units 10 and 11.

This study provides hydrologic and hydraulic analysis and provides a drainage management plan as necessary to support the planned 123-unit and 107-unit developments. More specifically, this report is submitted in conjunction with the preliminary plat application. Preliminary plat approval and grading plan approval is requested. Prior to final plat and building permit approvals of this project, the City of Albuquerque (COA) must approve final grading plans and work order construction plans.

II. METHODOLOGY

Existing and proposed site hydrological conditions were analyzed for the 100-year, 6-hour storm in accordance with the revised Section 22.2, Hydrology, of the Development Process Manual (DPM) for the City of Albuquerque, dated January 1993. The Arid-lands Hydrologic Model (AHYMO) was utilized to determine peak flow rates for design of the storm drainage improvements within the projects. The 100-year, 6-hour storm is used as the design event. The results are included in **Appendix A**. Street capacities were analyzed using Manning's equation, consistent with the revised DPM Section 22.2. The storm sewer system is analyzed using current DPM methods for gravity flow conditions. All data and calculations supporting this study are located in **Appendix B**.

The hydrologic analysis is also based on the approved drainage report: *Amole-Hubbell Drainage Management Plan, Volume I, Final Facilities Plan Report* dated July 22, 1999, prepared by Leedshill-Herkenhoff, Inc.

III. EXISTING CONDITIONS

A. *Topography*

El Rancho Grande Units 10 and 11 are currently undeveloped land with grades ranging from approximately 1% to 9%. The area generally slopes from northwest to southeast. Soils in the area have an SCS soil classification of BCC (Bluepoint loamy fine sand). BCC soils consist of deep, somewhat excessively drained soils formed in sandy alluvial soils, with rapid permeability, slow runoff characteristics, and severe hazard for wind erosion. Vegetation is light consisting mostly of native grasses.

B. *Existing Drainage Patterns*

El Rancho Grande Units 10 and 11 are located in the Amole Arroyo Drainage Basin. The site generally drains from northwest to southeast. The only development in the area that has altered the natural drainage pattern of the area is the Atrisco Village

Subdivision north of Unit 11. This subdivision drains north to Cartagena Avenue, preventing flow from crossing the site.

IV. PROPOSED DEVELOPED CONDITIONS

El Rancho Grande Units 10 and 11 are proposed single-family residential developments with 123 lots on 19.8 acres and 107 lots on 18.4 acres, respectively. Proposed street configurations are shown on the *Preliminary Plat* for each development, **Plate 1**. The Amole-Hubbell DMP allows for full discharge of developed flows from the Amole Arroyo Basin to the Amole and Hubbell Lake storage facilities. The drainage concepts for Units 10 and 11 are consistent with those presented in the "Draft Master Drainage Study for the Gibson Boulevard Corridor between 118th Street and the Amole Arroyo". The Unit 10 and 11 drainage area corresponds to Basin DB3 in the Gibson Boulevard DMP.

The percent impervious land treatment for the proposed conditions is determined from Table A-5 of the DPM, Section 22.2. The land treatment values used in the AHYMO analysis are the same as the Gibson Boulevard DMP.

A. Offsite Flows

No offsite flows reach the site from the south or east as Units 10 and 11 are higher than Gibson Boulevard to the south and De Anza Drive to east. Runoff from the Atrisco Village Subdivision north of Unit 11 is collected in Cartagena Avenue and flows to the Amole Arroyo along the existing roadway. Cartagena Avenue will be realigned with the construction of El Rancho Grande Units 8 and 10. Runoff from Atrisco Village (68 cfs) exceeds the street capacity in Cartagena Avenue at the west boundary of Unit 10. This flow will be collected in a storm drain at the west boundary of Unit 10 and conveyed north through the City of Albuquerque park site, located north of Cartagena Avenue and east of Atrisco Village, to the Amole Arroyo.

Basin 530 in the approved drainage plan for El Rancho Grande Unit 8 collects flows from the north half of Cartagena Avenue and diverts them north at the intersection of

Cartagena Avenue and De Anza Drive. Basin 540, De Anza Drive, drains northeast to the Snow Vista channel. Excerpts from the Unit 8 drainage report are included in **Appendix C**. See the Unit 8 grading plan for drainage patterns in Cartagena Avenue and De Anza Drive adjacent to Unit 8, **Plate 4**.

The only other offsite flows that affect the site are to the west of Unit 11. There are approximately 5.5 acres of undeveloped land that drain 7.2 cfs across the proposed development. When this area is developed (Basin DB2, Draft Gibson Boulevard DMP), the runoff will be collected in a storm drain in the proposed southern extension of Messina Drive and conveyed south to the southern storm drain reach as proposed in the Draft Gibson Boulevard DMP.

A drainage swale will be graded west of Messina Drive that will convey the flow to a temporary retention pond at the northwest corner of Gibson Boulevard and Messina Drive. See **Plate 2, Grading Plan**, for the location of the swale and pond. The pond is sized to hold the 100-year 24-hour storm (0.20 acre-feet) and will remain in place until the area west of Messina Drive is developed and public storm drain improvements are constructed to intercept the developed runoff from the area.

B. Onsite Flows

Developed runoff from Units 10 and 11 will be conveyed by the internal street system to Range Road, where it will be collected by a public storm drain system. This drainage plan proposes discharging 151 cfs at the intersection of Gibson Boulevard and De Anza Drive. This point corresponds to analysis point # 10 in the Draft Gibson Boulevard DMP. Storm drain inlets at the intersection of Gibson Boulevard and De Anza Drive will collect a portion of the flows in these two streets. The remainder of the flow will be conveyed to the east in Gibson Boulevard where it will be collected by a future public storm drain system west of 98th Avenue. See **Plate 3, Developed Conditions Basin Map**, for basin and storm drain locations.

The storm drain outfall alignment for Units 10 and 11 to the Amole Arroyo has not been identified at this time. The outfall alignment will be determined in the final Gibson Boulevard DMP and constructed with future phases of the El Rancho Grande development. Therefore, interim facilities will be constructed to accept developed flows from Units 10 and 11. A retention pond sized to retain the 100-year, 24-hour storm volume (6.2 acre-feet) will be constructed on Tract E-3, Albuquerque South, Unit Three at the southeast corner of Gibson Boulevard and De Anza Drive. The pond will remain in place until all downstream storm drain improvements identified in the Gibson Boulevard DMP are in place and/or Tract E-3 is developed. The retention pond is adjacent to an existing earthen swale that drains to the Amole Arroyo. An emergency overflow will be incorporated in the pond berm adjacent to the swale to provide an outfall in the event that the pond capacity is exceeded. See **Plate 2, Grading Plan**, for the location of the swale and pond.

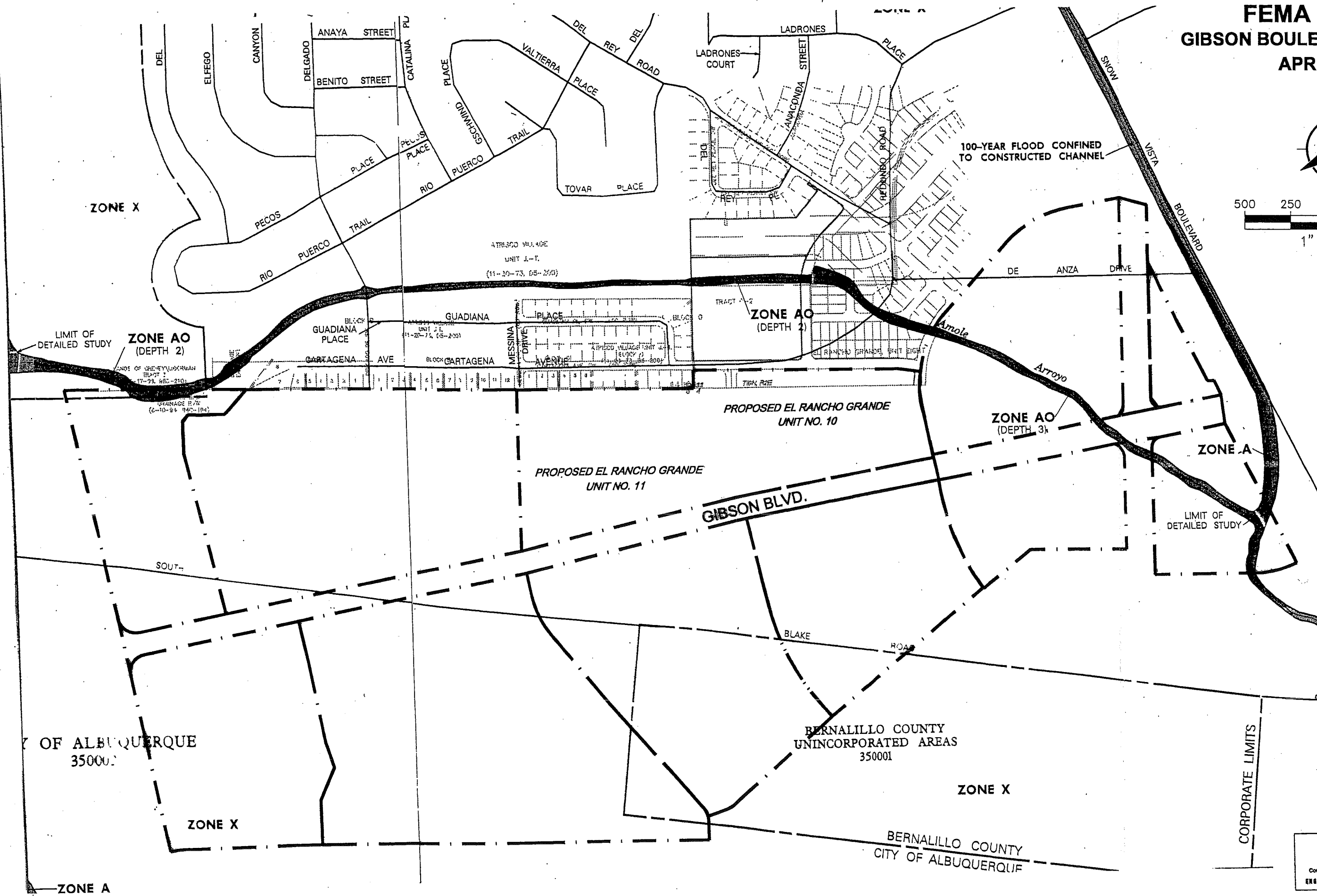
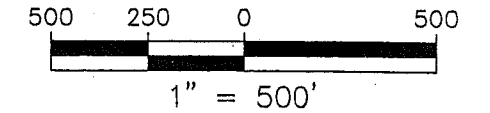
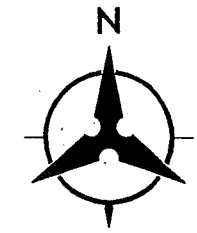
C. FEMA Floodplain

As designated on Panel 336 of 825 (Map number 35001C0336D) of the National Flood Insurance Program, Flood Insurance Rate Maps published by FEMA for Bernalillo County, New Mexico, effective date September 20, 1996, there is no existing flood hazard zone (zone AO) within the proposed development. See the FEMA Floodplain exhibit provided at the end of the report text.

V. CONCLUSION

This report provides a detailed study of the developed runoff and street capacities for the proposed El Rancho Grande Unit 10 and 11 Subdivisions. Included is the preliminary plat, proposed conditions basin map, grading plan, infrastructure list, and all necessary hydrologic and hydraulic analyses. This drainage plan maintains the overall drainage pattern of the area and allows for the safe management of storm runoff in permanent as well as interim conditions.

**FEMA EXHIBIT
GIBSON BOULEVARD CORRIDOR
APRIL 2003**



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM
FLOOD INSURANCE RATE MAP**


BERNALILLO COUNTY,
NEW MEXICO AND
INCORPORATED AREAS

PANEL 336 OF 825
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:	NUMBER	PANEL	SUFFIX
ALBUQUERQUE CITY OF	350002	0336	0
BERNALILLO COUNTY, UNINCORPORATED AREAS	350001	0336	0

MAP NUMBER
350010336 0

EFFECTIVE DATE:
SEPTEMBER 20, 1996



Federal Emergency Management Agency

Bohannon & Huston

Courtyard I 7600 Jefferson SE NE Albuquerque, NM 87109-4335

ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

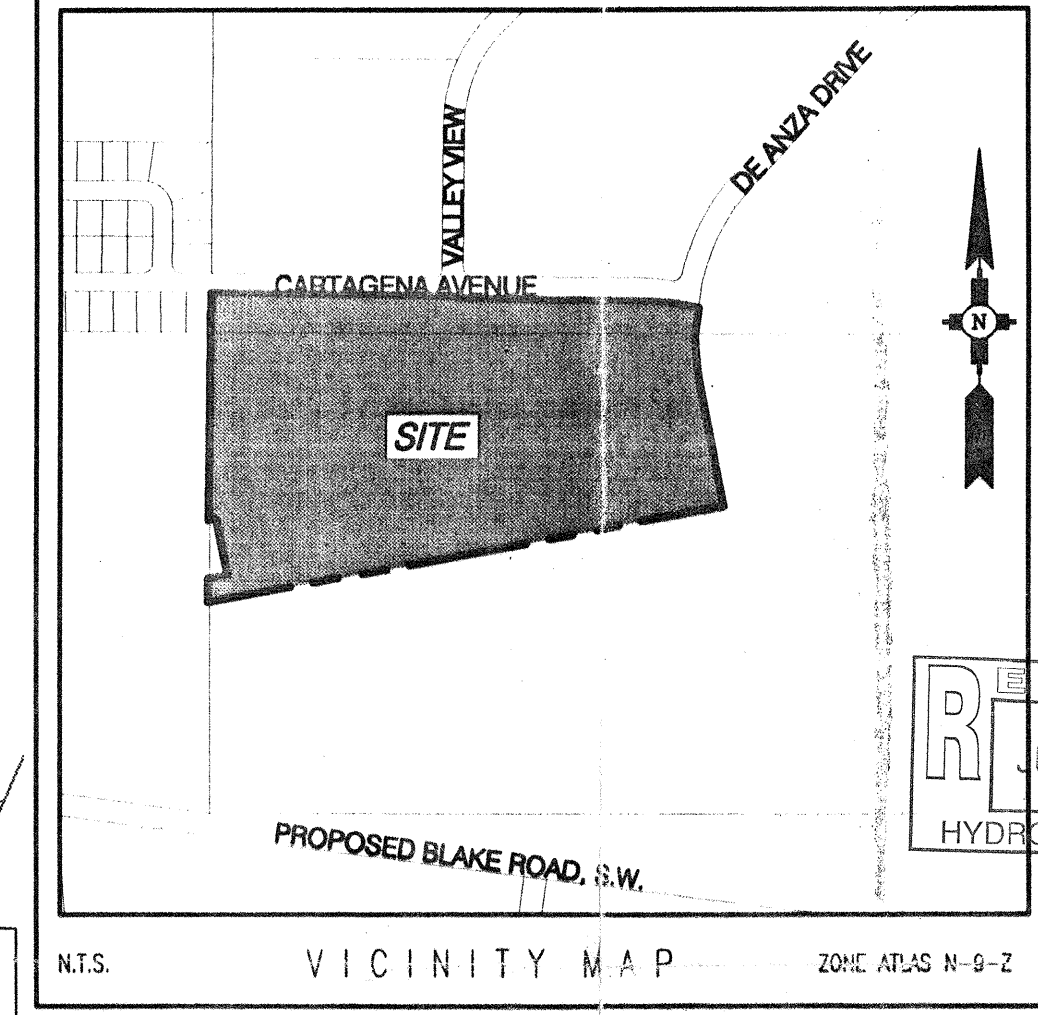
EXHIBITS

- EXHIBIT 1 - PRELIMINARY PLAT
- EXHIBIT 2 - GRADING PLAN
- EXHIBIT 3 - DEVELOPED CONDITIONS BASIN MAP
- EXHIBIT 4 - EL RANCHO GRANDE UNIT 8 GRADING PLAN

EXHIBIT 1

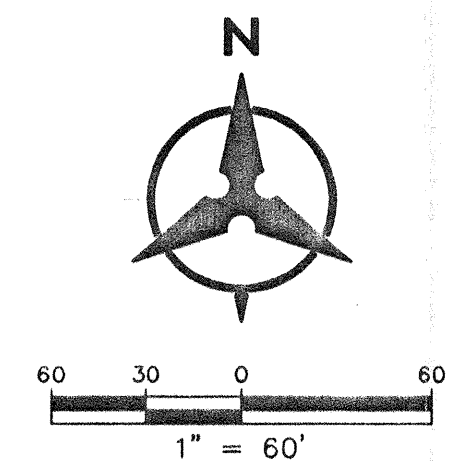
PRELIMINARY PLAT

PRELIMINARY PLAT FOR
EL RANCHO GRANDE
 UNIT 10 SUBDIVISION
 TRACT E-1
 ALBUQUERQUE SOUTH, UNIT THREE
 WITHIN THE TOWN OF ATRISCO GRANT
 PROJECTED SECTION 4, TOWNSHIP 9 NORTH,
 RANGE 2 EAST, NMPM
 AND
 PROJECTED SECTION 33, TOWNSHIP 10 NORTH,
 RANGE 2 EAST, NMPM
 CITY OF ALBUQUERQUE,
 BERNALILLO COUNTY, NEW MEXICO
 MAY 2003



LEGEND

- SUBDIVISION BOUNDARY LINE
- EXISTING SUBDIVISION BOUNDARY
- NEW LOT LINE
- ADJOINING PROPERTY LINE
- CENTERLINE MONUMENT TO BE INSTALLED
- CITY OF ALBUQUERQUE SURVEY CONTROL MONUMENT



ACS BRASS TABLET STAMPED "TRANS"
 Geographic Position (NAD 1927)
 N.M. State Plane Coordinates (Central Zone)
 X = 354,899.45 Y = 1,471,822.67
 Ground-to-Grid Factor = 0.99967921
 $\Delta\alpha = -00^{\circ}16'42''$
 SLD 1929 ELEVATION = 5118.43

RECEIVED
 JUN 20 2003
 HYDROLOGY SECTION



KEYED NOTES

10' PUBLIC UTILITY EASEMENT

Tangent Data

ID	BEARING	DISTANCE
T1	N89°29'39"W	54.87
T2	S00°11'54"W	2.61
T3	N89°29'39"W	45.00
T4	N10°59'18"W	45.00
T5	N10°59'18"W	45.00
T6	N10°59'18"W	45.00
T7	N10°59'18"W	47.21
T8	N10°59'18"W	25.37
T9	N10°59'18"W	49.97
T10	S78°40'05"W	66.85
T11	N10°59'18"W	29.72
T12	N89°29'39"W	62.61
T13	N10°59'18"W	24.77
T14	N89°29'39"W	75.42
T15	N10°59'18"W	44.08
T16	S78°40'05"W	68.44
T17	N10°59'18"W	69.49
T18	N89°29'39"W	20.24
T19	N10°59'18"W	68.27
T20	S78°40'05"W	24.85
T21	N89°29'39"W	45.92
T22	S78°40'05"W	45.00
T23	N89°29'39"W	10.20
T24	N89°29'39"W	40.82
T25	S78°40'05"W	40.00
T26	N89°29'39"W	10.00
T27	N10°59'18"W	46.00
T28	N89°29'39"W	61.26
T29	S78°40'05"W	45.75
T30	S78°40'05"W	44.77
T31	S78°40'05"W	46.74
T32	N11°19'55"W	55.00
T33	N89°29'39"W	25.00
T34	N89°29'39"W	75.00
T35	N89°29'39"W	45.01
T36	N10°59'18"W	24.85

Curve Data

ID	DELTA	TANGENT	ARC	RADIUS	CHORD	CHORD BRG
C1	02°20'09"	6.08	12.15	298.00	12.15	S09°49'13"E
C2	85°00'40"	22.91	37.09	25.00	33.78	S46°59'19"E
C3	04°10'10"	10.85	21.69	298.00	21.68	S06°34'04"E
C4	90°20'37"	25.15	39.42	25.00	35.46	N56°09'37"W
C5	04°23'11"	9.65	19.29	252.00	19.29	N08°47'43"W
C6	97°06'28"	28.31	42.37	25.00	37.48	N41°57'07"E
C7	82°06'26"	21.77	35.83	25.00	32.84	S48°26'26"E
C8	03°36'05"	9.37	18.73	298.00	18.73	S09°11'15"E
C9	89°39'23"	24.85	39.12	25.00	35.25	S33°50'23"W
C10	99°12'54"	29.38	43.29	25.00	38.08	S40°53'54"W
C11	02°16'43"	5.01	10.02	252.00	10.02	S09°50'56"E
C12	89°39'23"	29.82	46.94	30.00	42.30	N33°50'23"E
C13	90°00'00"	25.00	39.27	25.00	35.36	N33°40'05"E
C14	90°00'00"	25.00	39.27	25.00	35.36	N56°19'55"W
C15	90°00'00"	25.00	39.27	25.00	35.36	S44°29'39"E
C16	90°00'00"	25.00	39.27	25.00	35.36	N45°30'21"E
C17	03°44'47"	11.28	22.56	345.00	22.55	S87°37'15"E

LEGAL DESCRIPTION
 TRACT E-1 OF ALBUQUERQUE SOUTH, UNIT THREE

GENERAL NOTES

- EXISTING ZONING: R-2 ALLOWING R-T AND R-LT (RIO BRAVO SECTOR PLAN)
 PROPOSED DEVELOPMENT: R-2 ALLOWING R-T AND R-LT
- PROPOSED NET ACREAGE: 19.84 ACRES
 NUMBER OF LOTS: 123 D.U.
 PROPOSED DENSITY: 6.20 D.U./ACRE
- MIN. LOT DIMENSIONS: 45' X 92' MIN.
 MINIMUM LOT AREA: 4140 SQ. FT.
- ALL STREETS, UTILITIES, AND STORM DRAIN IMPROVEMENTS AREA TO BE PUBLIC, AND TO BE DEDICATED TO THE CITY OF ALBUQUERQUE FOR MAINTENANCE.
- LOT SETBACKS SHALL CONFORM TO R-2 ZONING REQUIREMENTS
- NO INDIVIDUAL LOTS SHALL BE ALLOWED DIRECT ACCESS TO DE ANZA DRIVE, AND GIBSON BLVD.
- ALL LOTS SHOWN WITH THE P1 DESIGNATION SHALL CONFORM TO INTERMITTENT PARKING DESIGN CRITERIA, ITEM #1.

ZONE ATLAS NO. N-9-Z
ZONING R-2 ALLOWING R-T AND R-LT
MILES OF FULL WIDTH STREETS CREATED 1.35 MILES
NO. OF EXISTING PARCELS 1
NO. OF LOTS CREATED 123
DENSITY 6.20

SURVEY NOTES

- ALL BOUNDARY CORNERS SHOWN (●) ARE FOUND REBAR W/CAP.
- ALL STREET CENTERLINE MONUMENTATION SHALL BE INSTALLED AT ALL CENTERLINE P.C'S, P.TS, ANGLE POINTS, AND STREET INTERSECTIONS AND SHOWN WITH (▲) AND WILL BE MARKED BY (†) ALUMINUM CAP STAMPED "CITY OF ALBUQUERQUE CENTERLINE MONUMENTATION MARKED, DO NOT DISTURB PLS 11993".
- THE SUBDIVISION BOUNDARY WILL BE TIED TO THE NEW MEXICO STATE PLANE COORDINATE SYSTEM AS SHOWN.
- BASIS OF BEARINGS WILL BE NEW MEXICO STATE PLANE BEARINGS.
- DISTANCES SHALL BE GROUND DISTANCES.
- MANHOLES WILL BE OFFSET AT ALL POINTS OF CURVATURE, TANGENCY STREET INTERSECTIONS, AND ALL OTHER ANGLE POINTS TO ALLOW USE OF CENTERLINE MONUMENTATION.

APPROVED FOR MONUMENTATION AND STREET NAMES

CITY SURVEYOR _____ DATE _____

BO VICE PRESIDENT, CURB INC. _____ DATE _____

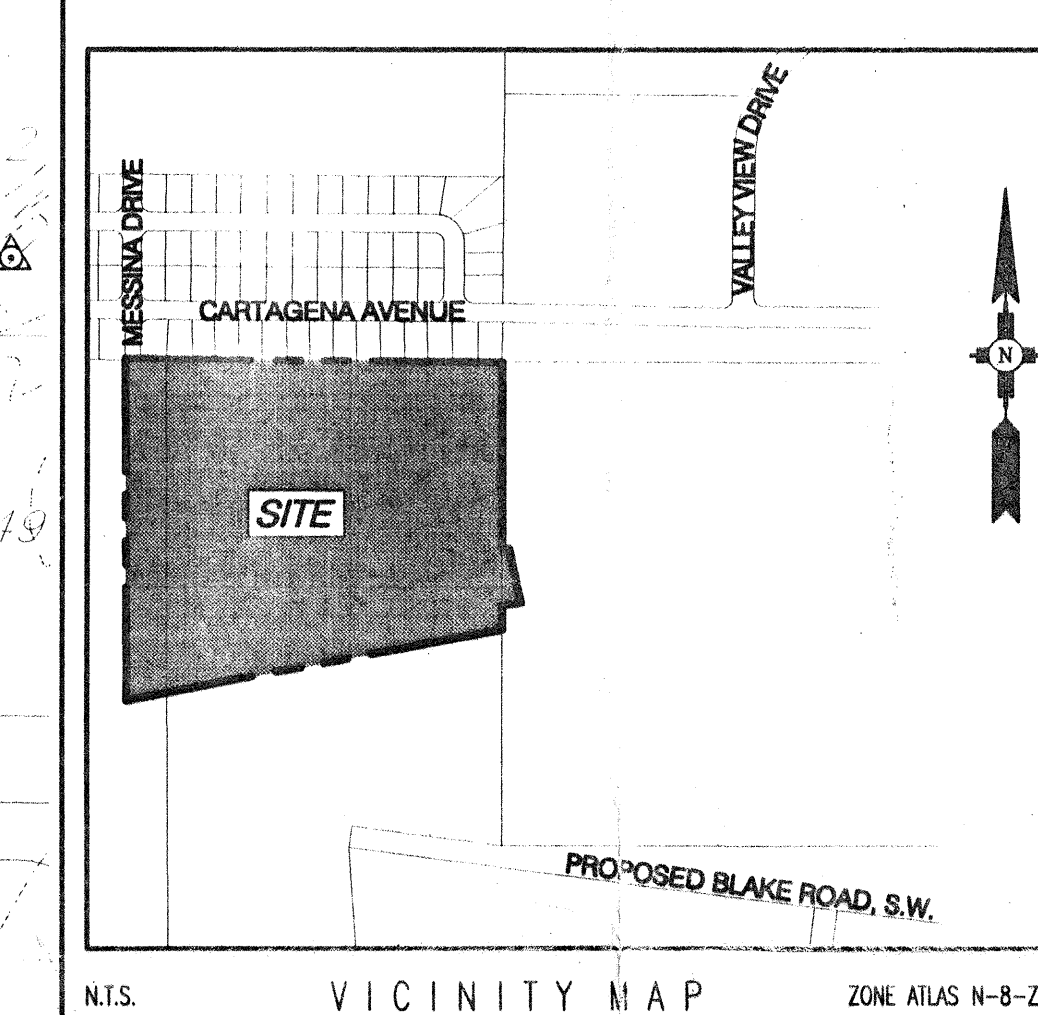
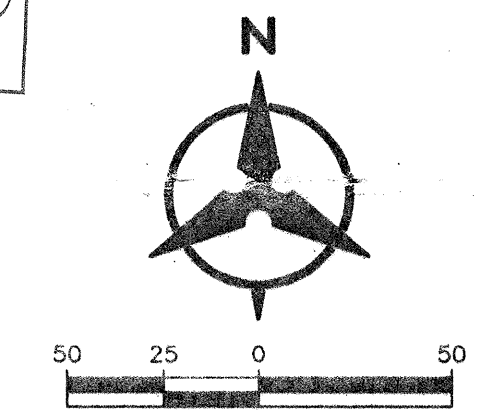
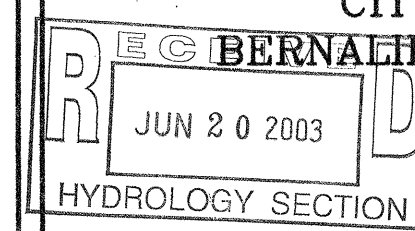
Bohannon & Huston
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

Courtyard 1 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ACS BRASS TABLET STAMPED "1-N8"
 Geographic Position (NAD 1927)
 N.M. State Plane Coordinates (Central Zone)
 X = 348,455.82 Y = 1,470,679.06
 Ground-to-Grid Factor = 0.99967260
 $\Delta\alpha = -00^{\circ}17'16''$

PRELIMINARY PLAT FOR EL RANCHO GRANDE UNIT 11 SUBDIVISION

TRACT A-1
 ROSNER TRACT
 WITHIN THE TOWN OF ATRISCO GRANT
 PROJECTED SECTION 5, TOWNSHIP 9 NORTH,
 RANGE 2 EAST, NMPM
 AND TRACT A
 EL RANCHO GRANDE UNIT 10
 CITY OF ALBUQUERQUE,
 BERNALILLO COUNTY, NEW MEXICO
 MAY 2003



ACS BRASS TABLE STAMPED "TRANS"
 Geographic Position (NAD 1927)
 N.M. State Plane Coordinates (Central Zone)
 X = 354,899.45 Y = 1,471,822.67
 Ground-to-Grid Factor = 0.99967921
 $\Delta\alpha = -00^{\circ}16'42''$
 SLD 1929 ELEVATION = 5118.43

ACS BRASS TABLE STAMPED "1-N8"
 Geographic Position (NAD 1927)
 N.M. State Plane Coordinates (Central Zone)
 X = 348,455.82 Y = 1,470,679.06
 Ground-to-Grid Factor = 0.99967260
 $\Delta\alpha = -00^{\circ}17'16''$

LEGEND

- SUBDIVISION BOUNDARY LINE
- EXISTING SUBDIVISION BOUNDARY
- NEW LOT LINE
- ADJOINING PROPERTY LINE
- CENTERLINE MONUMENT TO BE INSTALLED
- CITY OF ALBUQUERQUE SURVEY CONTROL MONUMENT
- TRACT A EL RANCHO GRANDE UNIT 10

KEYED NOTES

(A) 10' PUBLIC UTILITY EASEMENT

ID	DELTA	TANGENT	ARC	RADIUS	CHORD	CHORD BRC
C1	09.04.55	19.86	39.63	250.00	39.59	S04.44.25 E
C2	91.56.46	31.04	48.14	30.00	43.14	S55.15.15 E
C3	90.00.00	25.00	39.27	25.00	35.36	N56.13.38 W
C4	90.00.00	30.00	47.12	30.00	42.43	N33.46.22 W
C5	90.00.00	25.00	39.27	25.00	35.36	S33.46.22 W
C6	90.00.00	30.00	47.12	30.00	42.43	S56.13.38 E
C7	05.46.57	12.73	25.43	252.00	25.42	S02.51.34 E
C8	95.28.19	22.01	33.33	20.00	29.60	S53.29.29 E
C9	90.00.00	25.00	39.27	25.00	35.36	N45.01.54 E
C10	90.00.00	25.00	39.27	25.00	35.36	S44.58.06 E
C11	02.04.38	5.40	10.80	298.00	10.80	N01.00.24 W
C12	05.47.03	15.05	30.08	298.00	30.07	S04.56.15 W
C13	86.36.08	23.56	37.79	25.00	34.29	S35.28.18 W
C14	17.25.18	15.02	29.80	98.00	29.68	S22.14.38 E
C15	13.33.54	11.66	23.20	98.00	23.15	S06.45.02 E
C16	00.27.41	1.20	2.40	298.00	2.40	N00.11.56 W
C17	04.23.30	9.66	19.31	252.00	19.31	S02.09.50 E
C18	96.52.03	28.19	42.27	25.00	37.41	S52.47.37 E
C19	85.10.46	22.98	37.17	25.00	33.84	N38.10.59 E
C20	05.58.37	15.56	31.09	298.00	31.07	N03.25.06 W
C21	38.42.47	34.43	68.22	98.00	34.96	S00.18.41 E
C22	20.18.02	17.55	34.72	98.00	34.54	S79.49.05 E
C23	90.01.54	25.01	39.28	25.00	35.37	S44.59.03 E
C24	00.01.54	0.01	0.01	25.00	0.01	N89.59.03 W
C25	00.40.13	1.74	3.49	298.00	3.49	N00.18.12 W
C26	90.00.00	52.00	81.68	52.00	73.54	N44.58.06 W
C27	03.15.32	7.28	14.56	256.00	14.56	S01.35.52 E
C28	98.00.01	28.76	42.76	25.00	37.74	S52.13.38 E
C29	05.46.17	15.01	30.00	298.00	29.99	N03.31.21 W
C30	01.27.17	3.73	7.46	294.00	7.46	N00.41.44 W
C31	04.01.12	10.32	20.63	294.00	20.62	S03.25.59 E
C32	84.72.57	22.80	36.75	25.00	33.53	S36.39.53 W
C33	04.23.30	9.66	19.32	252.00	19.31	S02.09.50 E

Tangent Data

ID	BEARING	DISTANCE
T1	S78.46.22 W	33.19
T2	N11.33.38 W	38.00
T3	S78.46.22 W	7.08
T4	N09.16.53 W	0.00
T5	S78.46.22 W	28.92
T6	S78.46.22 W	45.00
T7	S78.46.22 W	25.00
T8	S78.46.22 W	20.00
T9	N11.33.38 W	50.00
T10	S78.46.22 W	25.01
T11	S78.46.22 W	20.01
T12	S78.46.22 W	42.47
T13	S78.40.05 W	2.53
T14	S78.35.16 W	27.42
T15	S78.46.22 W	18.38
T16	S78.40.05 W	45.89
T17	S00.01.54 W	27.40
T18	S78.05.00 W	4.99
T19	S00.01.54 W	54.42
T20	S00.01.54 W	45.00
T21	S00.01.55 W	10.00
T22	N89.26.02 W	38.00
T23	S00.01.54 W	35.84
T24	S00.01.54 W	44.84
T25	N89.25.32 W	50.00
T26	N89.58.06 W	25.00
T27	N89.58.06 W	45.00
T28	N89.25.32 W	45.00
T29	N89.58.06 W	45.00
T30	S00.01.54 W	9.95
T31	N89.38.44 W	38.00
T32	N00.11.58 W	45.96
T33	S00.01.54 W	34.82
T34	N00.11.58 W	45.00
T35	N00.11.58 W	48.17
T36	S00.01.54 W	33.47
T37	N89.58.06 W	50.00
T38	N89.58.06 W	45.01
T39	S00.01.54 W	35.00
T40	S00.01.54 W	45.01
T41	S00.01.54 W	17.53
T42	S00.01.54 W	22.70
T43	S00.01.54 W	42.44
T44	S00.01.54 W	26.81
T45	S78.46.22 W	57.48
T46	N89.58.06 W	11.00
T47	N89.58.06 W	10.99
T48	N89.58.06 W	49.51
T49	S00.01.54 W	37.55
T50	N89.58.06 W	38.00
T51	S00.01.54 W	10.00
T52	S00.01.54 W	27.55
T53	N89.58.06 W	4.99
T54	N89.58.06 W	39.16
T55	S78.46.22 W	45.01
T56	N89.58.06 W	5.84
T57	S78.46.22 W	45.88
T58	N89.58.06 W	5.85
T59	S78.46.22 W	25.80

LEGAL DESCRIPTION

TRACT A-1 OF THE ROSNER TRACT

GENERAL NOTES

- EXISTING ZONING: R-LT
 PROPOSED DEVELOPMENT: R-LT
- PROPOSED NET ACREAGE: 18.42 ACRES
 NUMBER OF LOTS: 107 D.U.
 PROPOSED DENSITY: 5.81 D.U./ACRE
- MIN. LOT DIMENSIONS: 45' X 105' MIN.
 MINIMUM LOT AREA: 4725 SQ. FT.
- ALL STREETS, UTILITIES, AND STORM DRAIN IMPROVEMENTS AREA TO BE PUBLIC, AND TO BE DEDICATED TO THE CITY OF ALBUQUERQUE FOR MAINTENANCE.
- LOT SETBACKS SHALL CONFORM TO R-LT ZONING REQUIREMENTS
- NO INDIVIDUAL LOTS SHALL BE ALLOWED DIRECT ACCESS TO PROPOSED MESSINA DRIVE, AND/OR THE FUTURE EXTENSION OF GIBSON BLVD.

SITE DATA

ZONE ATLAS NO.	N-8-Z
ZONING	R-LT
MILES OF FULL WIDTH STREETS CREATED	1.09 MILES
NO. OF EXISTING PARCELS	2
NO. OF LOTS CREATED	107
DENSITY	5.81

SURVEY NOTES:

- ALL BOUNDARY CORNERS SHOWN (●) ARE FOUND REBAR W/CAP.
- ALL STREET CENTERLINE MONUMENTATION SHALL BE INSTALLED AT ALL CENTERLINE POINTS, ANGLE POINTS, AND STREET INTERSECTIONS AND SHOWN THIS (▲) AND WILL BE MARKED BY (▲) ALUMINUM CAP STAMPED "CITY OF ALBUQUERQUE CENTERLINE MONUMENTATION MARKED, DO NOT DISTURB PLS 11993".
- THE SUBDIVISION BOUNDARY WILL BE TIED TO THE NEW MEXICO STATE PLANE COORDINATE SYSTEM AS SHOWN.
- BASIS OF BEARINGS WILL BE NEW MEXICO STATE PLANE BEARINGS.
- DISTANCES SHALL BE GROUND DISTANCES.
- MANHOLES WILL BE OFFSET AT ALL POINTS OF CURVATURE, TANGENCY STREET INTERSECTIONS, AND ALL OTHER ANGLE POINTS TO ALLOW USE OF CENTERLINE MONUMENTATION.

APPROVED FOR MONUMENTATION AND STREET NAMES

[Signature] 5/7/03
 CITY SURVEYOR / DATE
[Signature] 5/7/03
 BO JOHNSON / DATE
 VICE PRESIDENT, CURB INC.

Bohannon & Huston
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

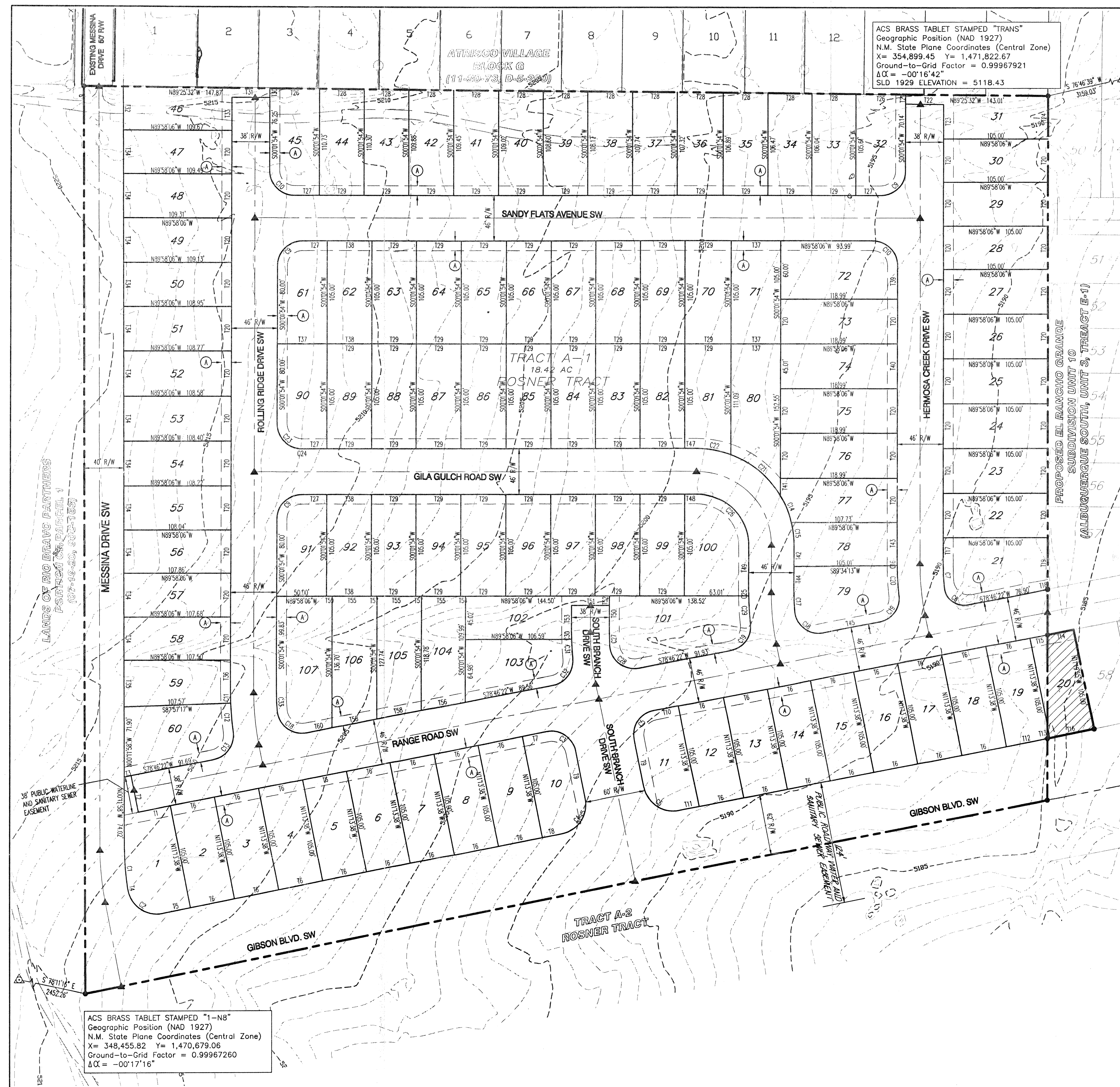
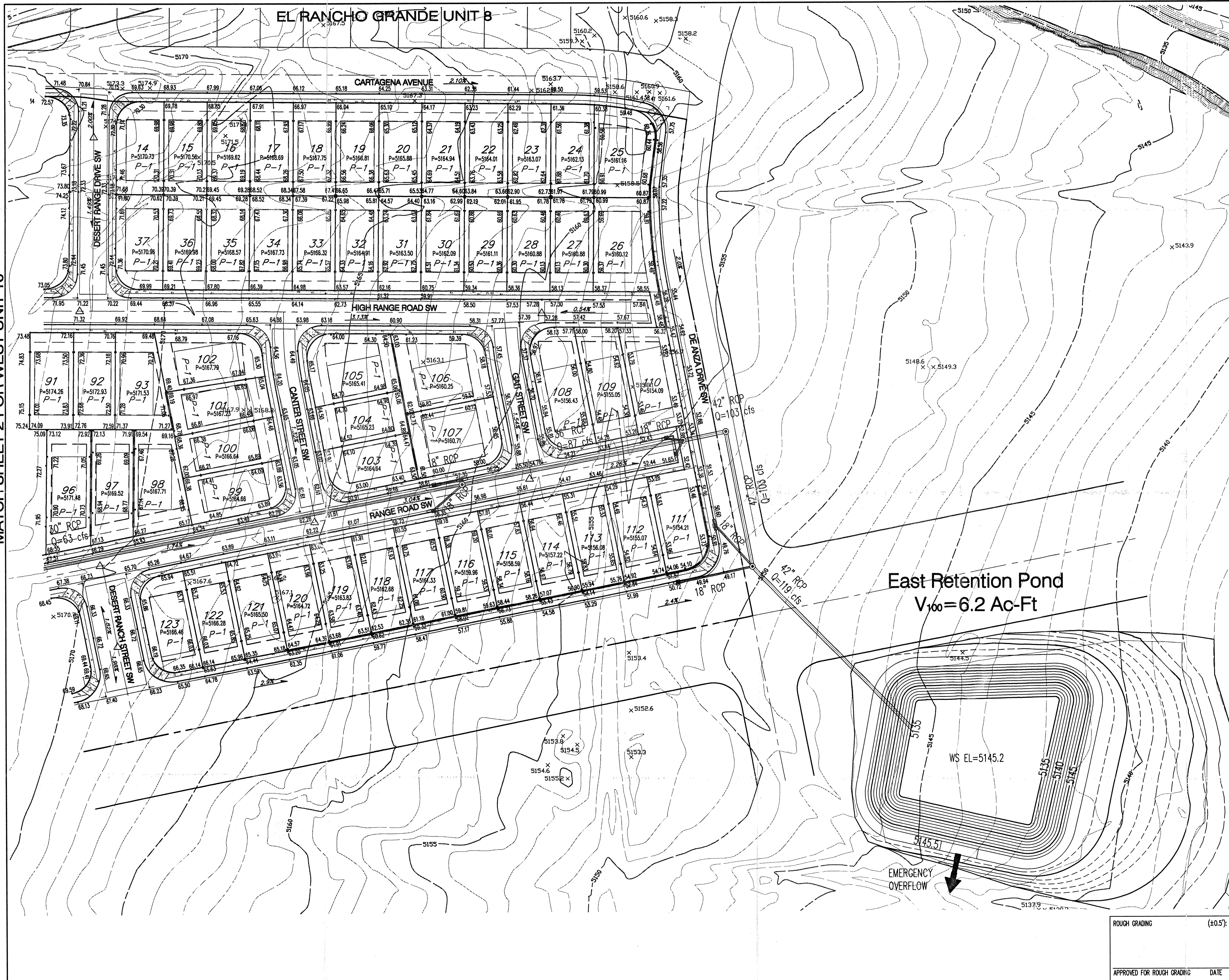


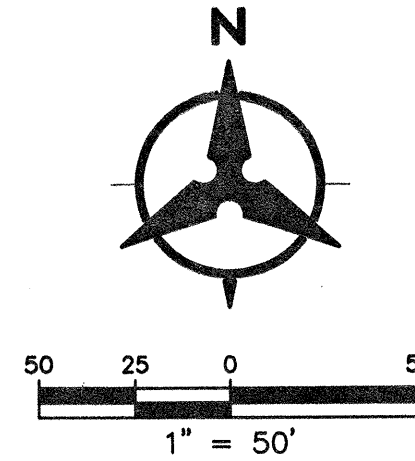
EXHIBIT 2

GRADING PLAN

MATCH SHEET 2 FOR WEST UNIT 10



- GENERAL NOTES**
1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
 2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATION AS NOTED IN THE SOILS REPORT.
 3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES & REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
 4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL, SHEET 3B, AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
 5. ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
 6. BOULDERS GREATER THAN 3 FEET IN DIAMETER EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.
 7. ALL WALLS SHOWN ARE TO BE PLACED ALONG PROPERTY LINE. WALLS ARE SHOWN OFFSET FOR VISUAL PURPOSE ONLY.



- LEGEND**
- (91.62) FUTURE SPOT ELEVATION
 - 91.62 PROPOSED SPOT ELEVATION
 - × 92.46 EXISTING SPOT ELEVATION (GRID & TC)
 - ==== EXISTING CURB & GUTTER
 - ==== PROPOSED MOUNTABLE CURB & GUTTER
 - ==== PROPOSED STANDARD CURB & GUTTER
 - 5470— EXISTING CONTOUR W/ INDEX ELEVATION
 - FLOW ARROW
 - PROPOSED RETAINING WALL
 - PROPOSED GARDEN WALL
 - PROPOSED SLOPE
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED STORM DRAIN INLET
 - ↑ WALL DRAIN

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	MARK	DESCRIPTION	NO.	DATE	NO.	DATE
ACS BRASS TABLET STAMPED "TRANS"			Geographic Position (NAD 1927)				
			N.M. State Plane Coordinates (Central Zone)				
			X= 354,899.45 Y= 1,471,822.87				
			Ground-to-Grid Factor = 0.99967921				
			A.C. = -00'16"42"				
			S.L.D. 1929 Elevation = 5118.45				

Bohannon & Huston
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

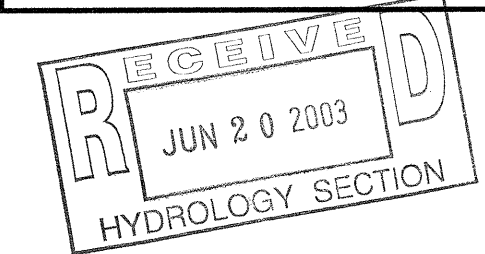
**CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT**

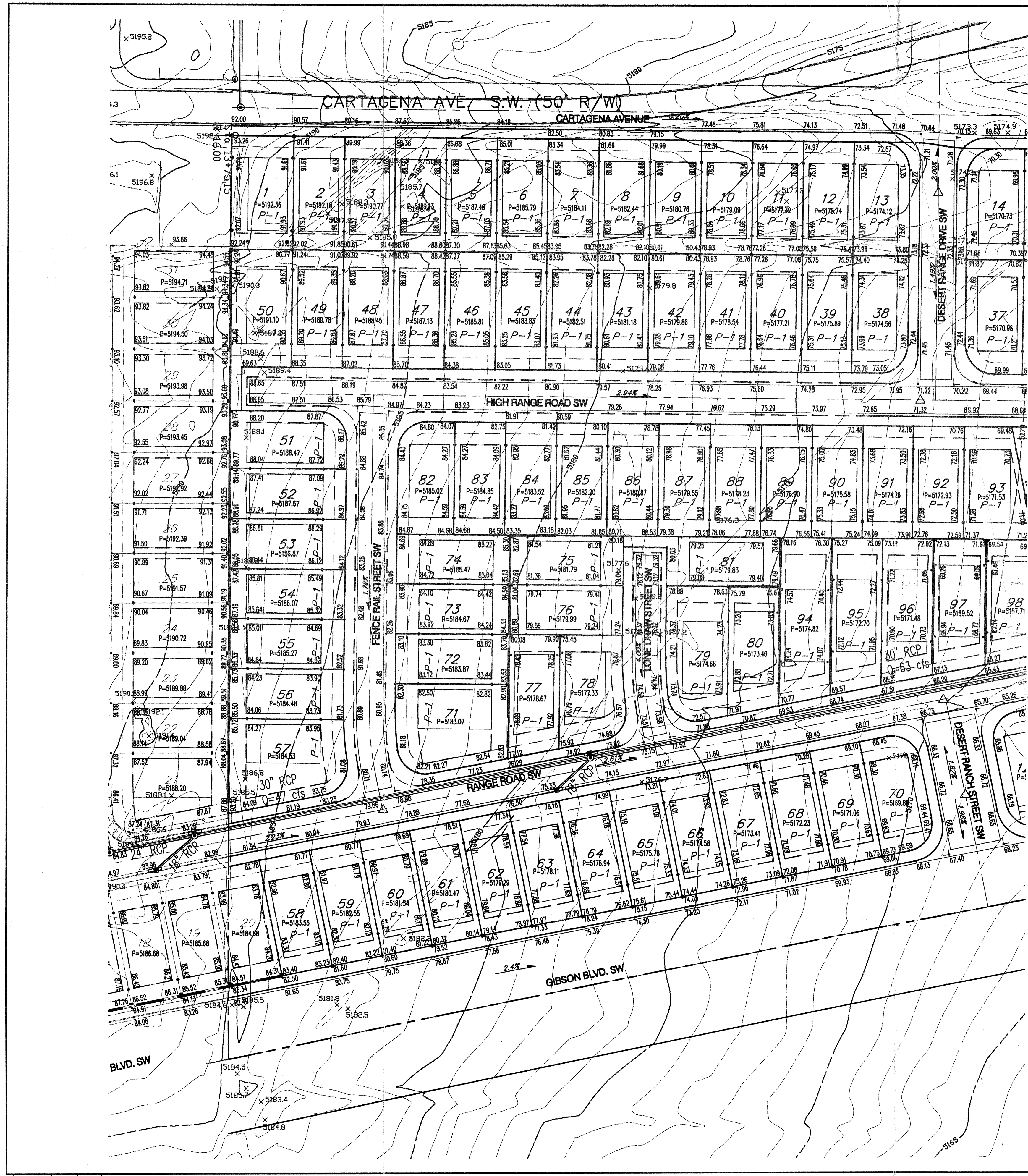
**EL RANCHO GRANDE UNIT 10 SUBDIVISION
 GRADING AND EROSION CONTROL PLAN**

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. **COA #** Zone Map No. **N-9-Z** Sheet **1** Of **4**

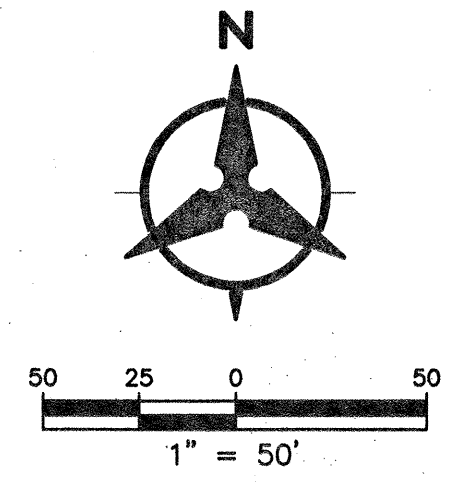
P:\302265\cdp\Unit_10\General\302265_GPO1.dwg
 June 20, 2003 - 8:07am





MATCH SHEET 1 FOR EAST UNIT 10

- GENERAL NOTES**
- CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATION AS NOTED IN THE SOILS REPORT.
 - THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES & REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
 - THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL, SHEET 3B, AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
 - ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
 - BOULDERS GREATER THAN 3 FEET IN DIAMETER EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.
 - ALL WALLS SHOWN ARE TO BE PLACED ALONG PROPERTY LINE. WALLS ARE SHOWN OFFSET FOR VISUAL PURPOSE ONLY.



- LEGEND**
- (91.62) FUTURE SPOT ELEVATION
 - 91.62 PROPOSED SPOT ELEVATION
 - × 92.46 EXISTING SPOT ELEVATION (GRND & TC)
 - ==== EXISTING CURB & GUTTER
 - ==== PROPOSED MOUNTABLE CURB & GUTTER
 - ==== PROPOSED STANDARD CURB & GUTTER
 - 5470— EXISTING CONTOUR W/ INDEX ELEVATION
 - FLOW ARROW
 - PROPOSED RETAINING WALL
 - PROPOSED GARDEN WALL
 - PROPOSED SLOPE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED STORM DRAIN INLET
 - ↑ WALL DRAIN

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	ACS BRASS TABLET STAMPED "TRANS"	DATE	NO.	BY	REVISIONS	REMARKS
		Geographic Position (NAD 1927)					
		N.M. State Plane Coordinates (Central Zone)					
		X= 354,899.45 Y= 1,471,822.67					
		Ground-to-Grid Factor = 0.99967921					
		A.C.C. = -00'16"42"					
		SLD 1929 Elevation = 5118.43					

Bohannon & Huston
 Courtyard | 7500 Jefferson St. NE | Albuquerque, NM 87108-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

EL RANCHO GRANDE UNIT 10 SUBDIVISION
GRADING AND EROSION CONTROL PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

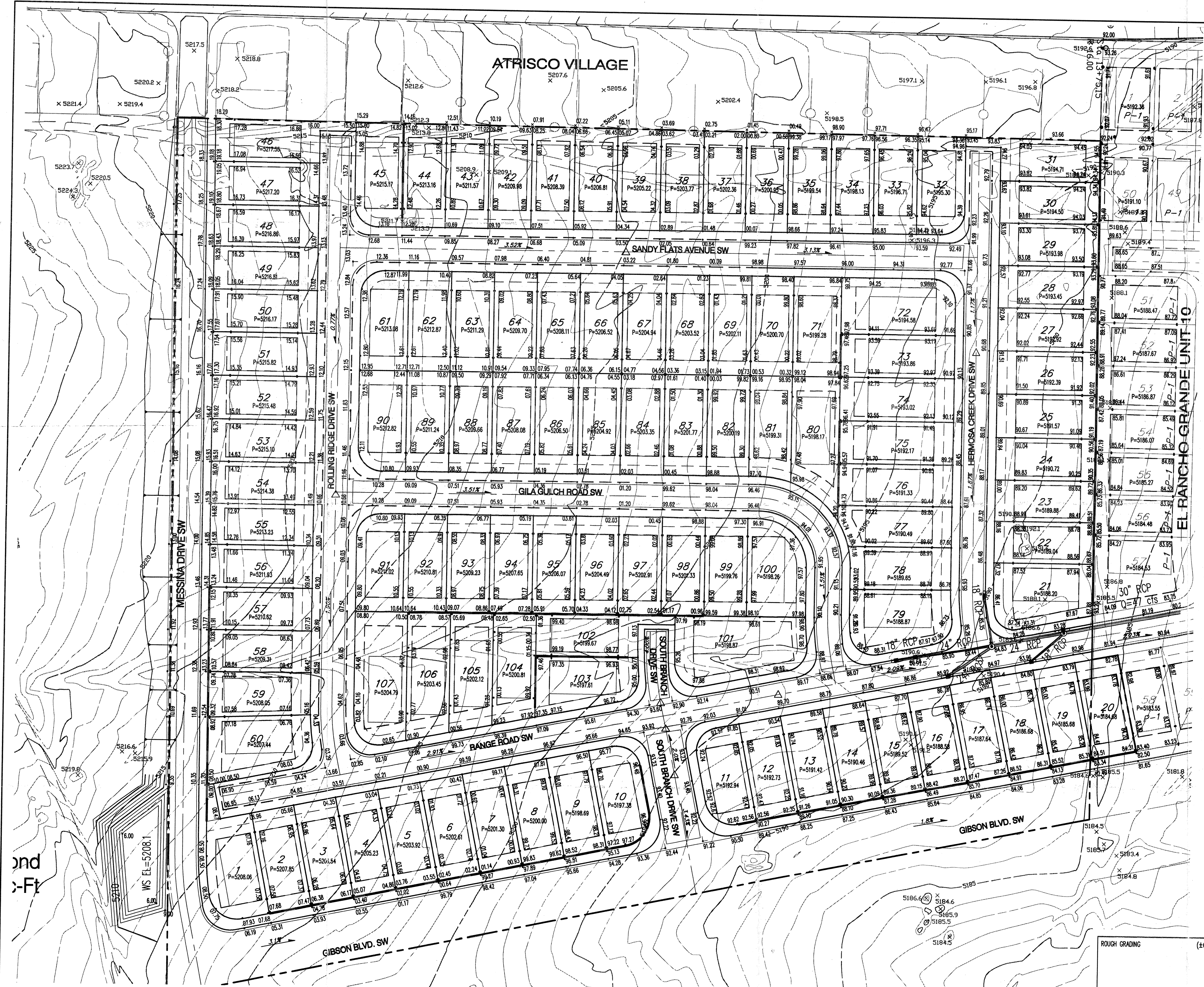
City Project No. **COA #** Zone Map No. **N-9-Z** Sheet **2** Of **4**

ROUGH GRADING (±0.5')
 APPROVED FOR ROUGH GRADING: DATE

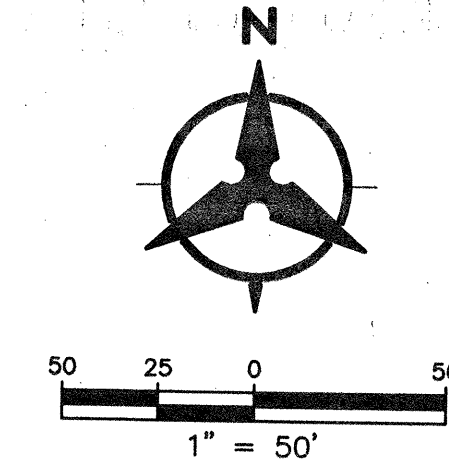
Designed By: J.S.S. DATE: 05/03
 Drawn By: DH/LM DATE: 05/03
 Checked By: J.S. DATE: 05/03

RECEIVED
 JUN 20 2003
 HYDROLOGY SECTION

P:\030265\cwp\unit_10\General\030265_GPO2.dwg
 June 20, 2003 - 8:21am



- ### GENERAL NOTES
- CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATION AS NOTED IN THE SOILS REPORT.
 - THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES & REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
 - THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL SHEET 3B, AND METTING THE SOIL TO KEEP IT FROM BLOWING.
 - ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
 - BOULDERS GREATER THAN 3 FEET IN DIAMETER EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.
 - ALL WALLS SHOWN ARE TO BE PLACED ALONG PROPERTY LINE. WALLS ARE SHOWN OFFSET FOR VISUAL PURPOSE ONLY.



AS-BUILT INFORMATION		BENCH MARKS	
CONTRACTOR	DATE	CONTRACTOR	DATE
BY	DATE	BY	DATE
INSPECTED BY	DATE	INSPECTED BY	DATE
FIELD	DATE	FIELD	DATE
MARKED BY	DATE	MARKED BY	DATE
CHECKED BY	DATE	CHECKED BY	DATE
RECORDED BY	DATE	RECORDED BY	DATE
NO.	DATE	NO.	DATE

SURVEY INFORMATION	
DATE	DATE
BY	BY
NO.	NO.

ENGINEER'S SEAL	
NO.	DATE
REVISIONS	DATE
DESIGN	DATE

- ### LEGEND
- (91.62) FUTURE SPOT ELEVATION
 - (91.62) PROPOSED SPOT ELEVATION
 - × 92.46 EXISTING SPOT ELEVATION (GRND & TC)
 - - - - - EXISTING CURB & GUTTER
 - ===== PROPOSED MOUNTABLE CURB & GUTTER
 - ===== PROPOSED STANDARD CURB & GUTTER
 - - - - - EXISTING CONTOUR W/ INDEX ELEVATION
 - FLOW ARROW
 - ===== PROPOSED RETAINING WALL
 - ===== PROPOSED GARDEN WALL
 - ===== PROPOSED SLOPE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN MANHOLE
 - PROPOSED STORM DRAIN INLET
 - ↑ WALL DRAIN

Bonannan & Huston
 Courtyard 1 7500 Jefferson St. NE Albuquerque, NM 87106-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
EL RANCHO GRANDE UNIT 11 SUBDIVISION
GRADING AND EROSION CONTROL PLAN

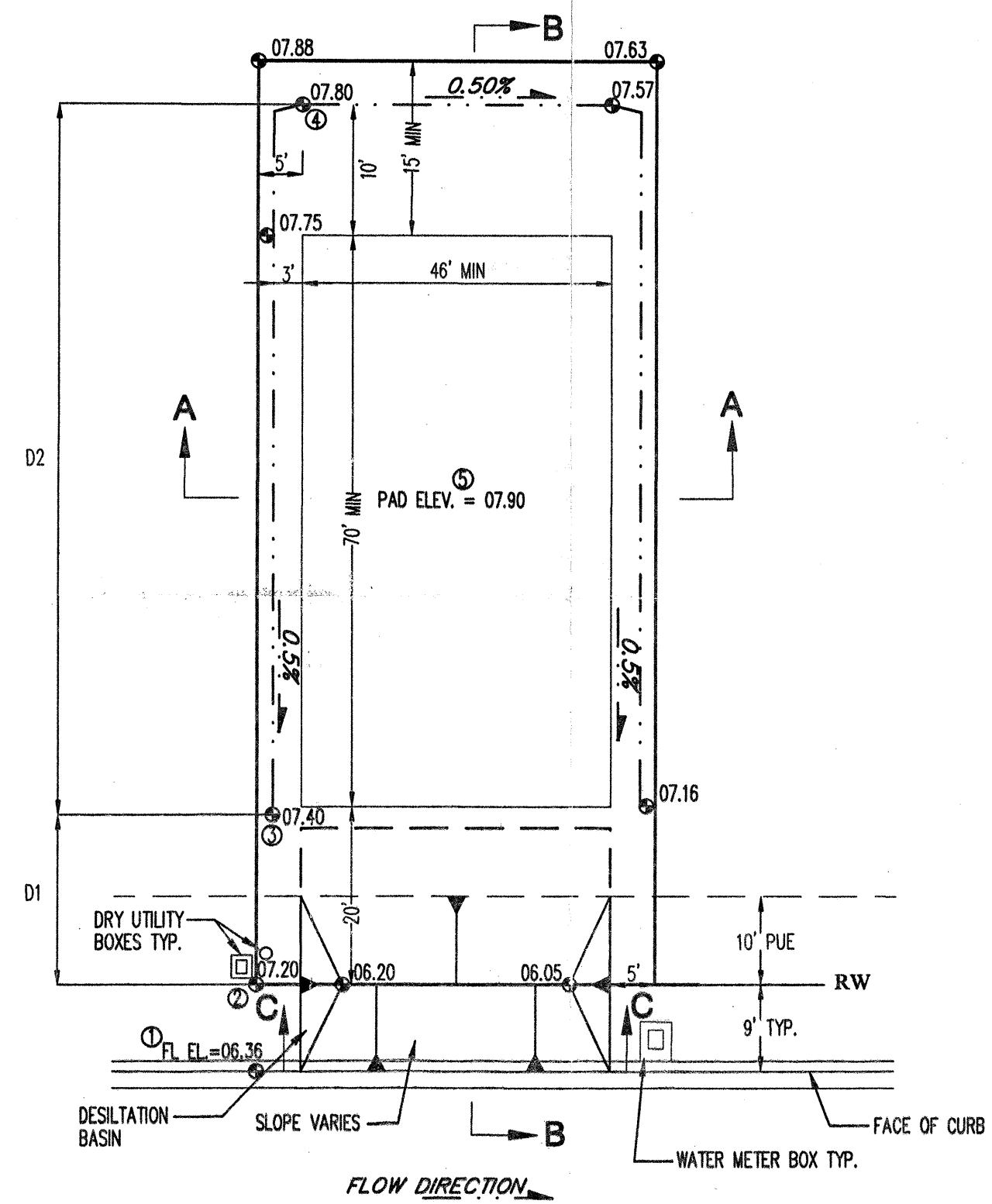
Design Review Committee City Engineer Approval
 City Project No. _____ Zone Map No. N-8-Z Sheet 3 Of 4

APPROVED FOR ROUGH GRADING DATE _____

City Project No. _____ COA # _____

JUN 20 2003
 HYDROLOGY SECTION

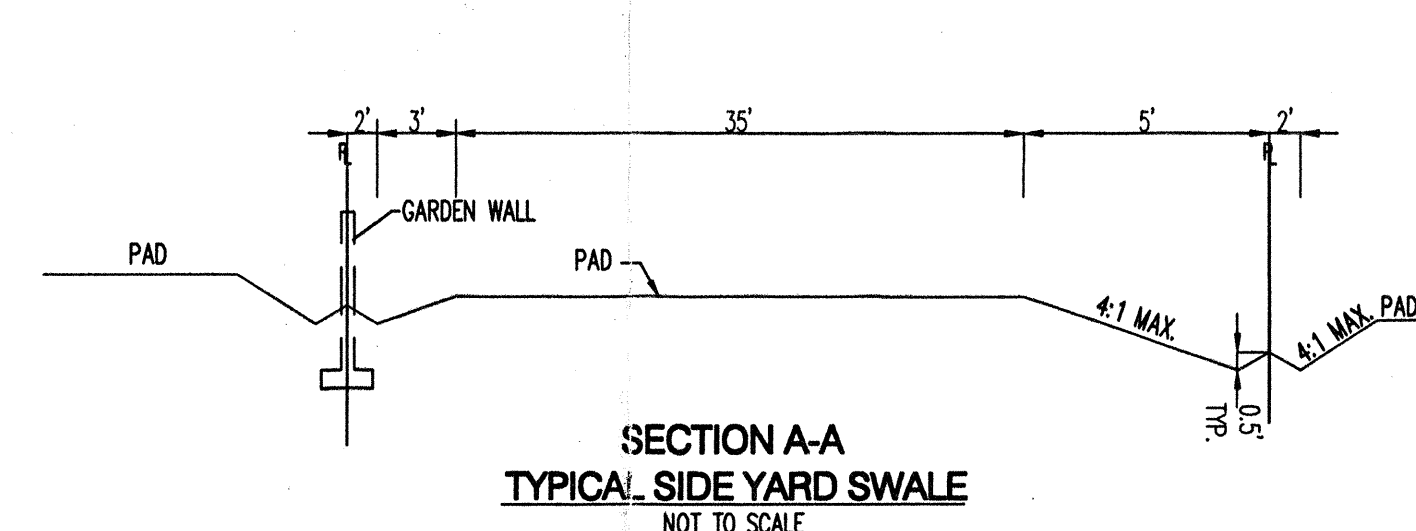
P:\030265\cop\unit_11\General\GPD3.dwg
 June 20, 2003 - 8:25am
 Layout



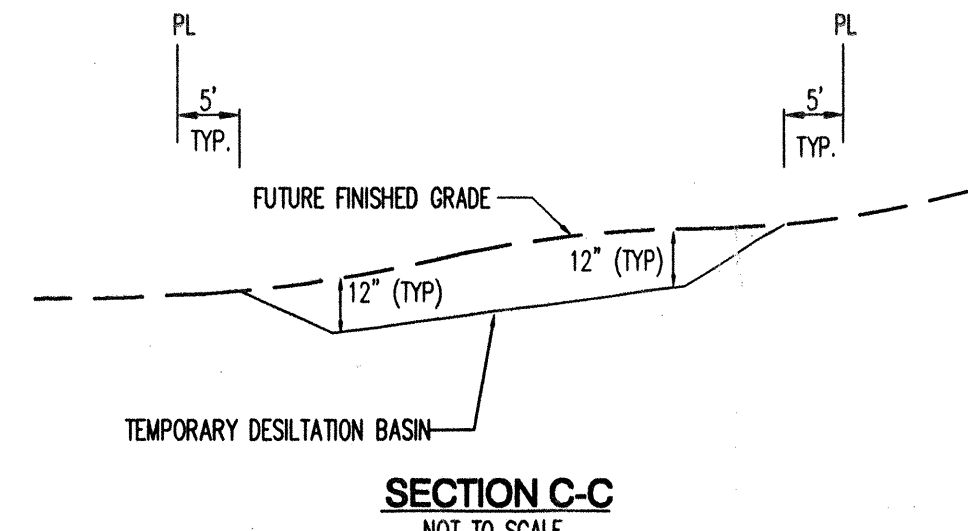
EL RANCHO GRANDE UNITS 10 & 11
TYPICAL LOT GRADE DETAIL
WITH DESILTATION BASIN FOR SEDIMENTATION CONTROL
 NOT TO SCALE

TO SET SPOT ① - ADD 0.84' TO SPOT ①
 TO SET SPOT ② - MULTIPLY D1 BY 1.08 AND ADD TO SPOT ②
 TO SET SPOT ③ - MULTIPLY D2 BY 0.58 AND ADD TO SPOT ③
 TO SET SPOT ④ - ADD 0.1' TO SPOT ④

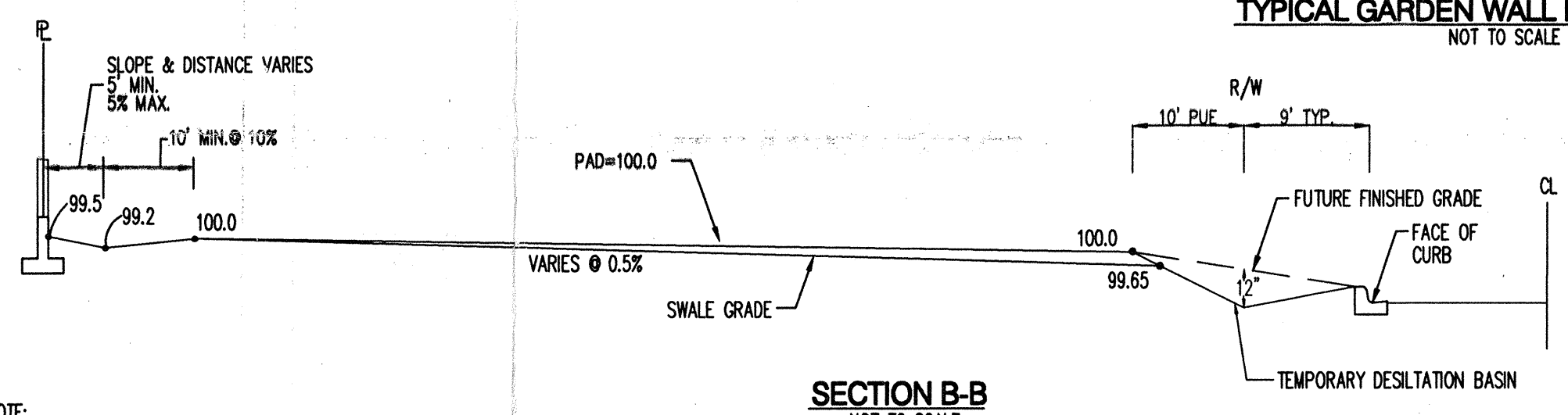
BOTTOM OF BASIN IS 1' BELOW PROPERTY LINE ELEVATION.
 SEE GRADING PLANS FOR EXACT ELEVATIONS.
 CONTRACTOR SHALL CONSTRUCT TEMPORARY DESILTATION BASIN AT EACH LOT.



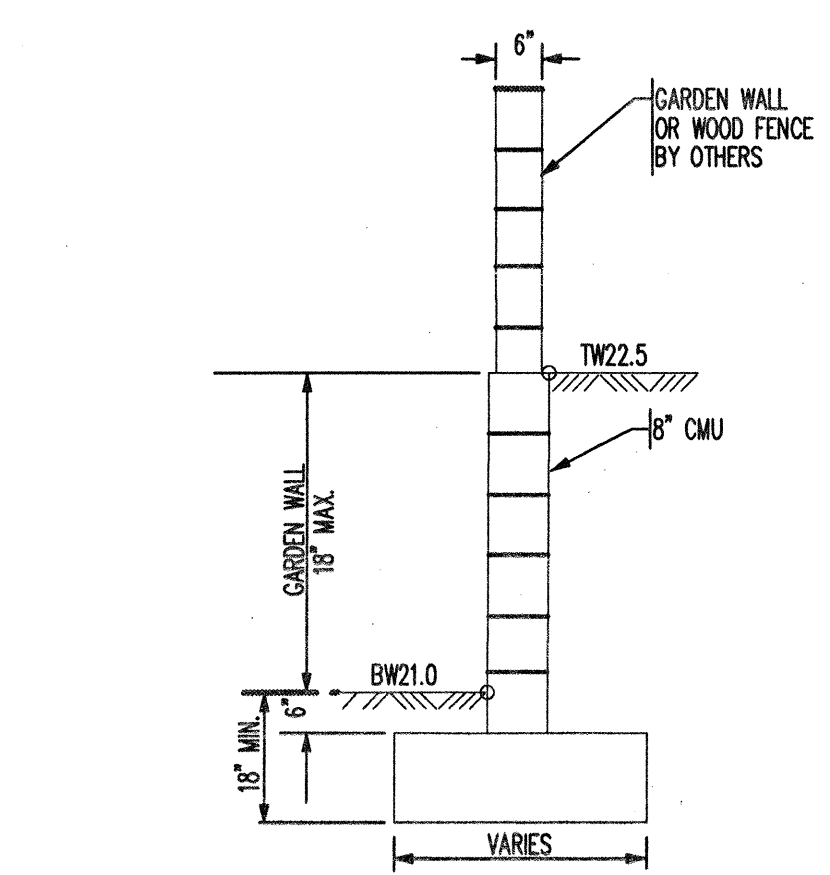
SECTION A-A
TYPICAL SIDE YARD SWALE
 NOT TO SCALE



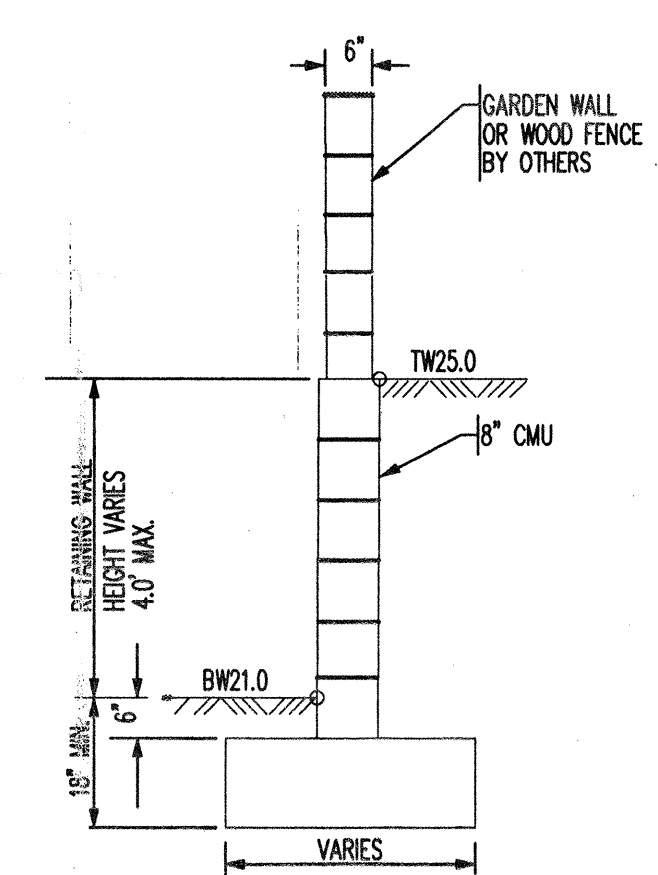
SECTION C-C
 NOT TO SCALE



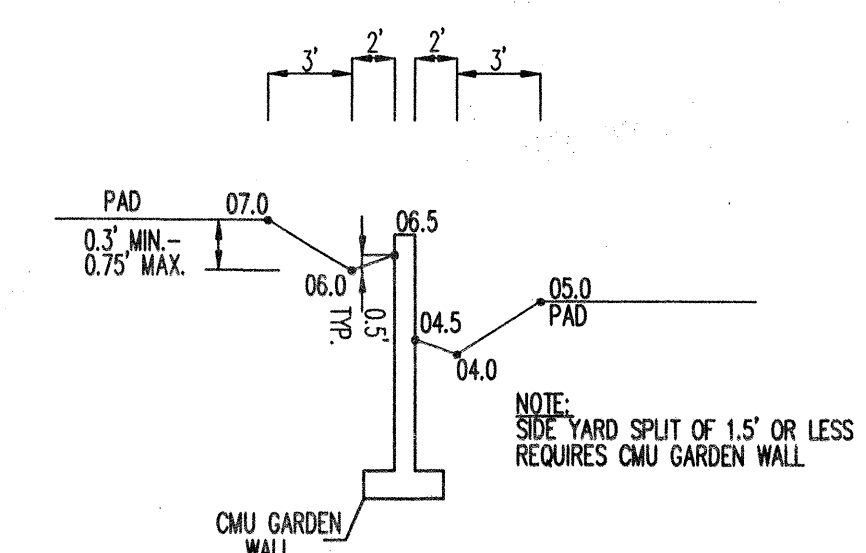
SECTION B-B
 NOT TO SCALE



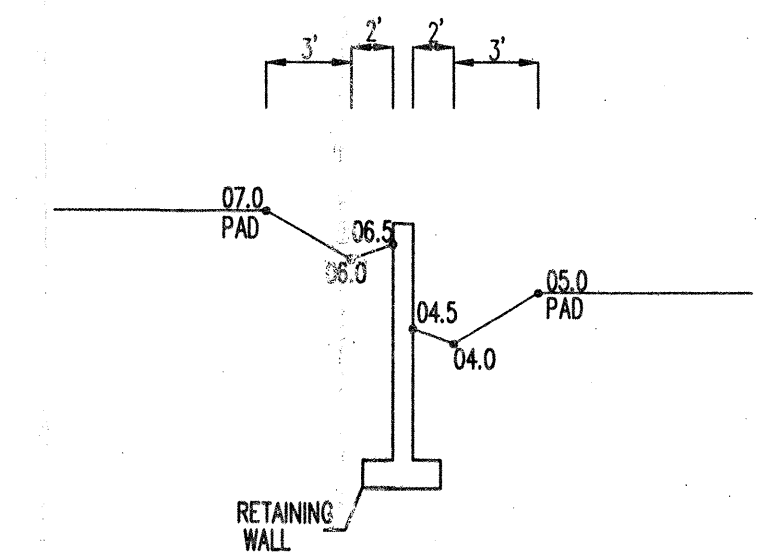
TYPICAL GARDEN WALL NOMENCLATURE
 NOT TO SCALE
 (RETAINING HEIGHT IS TAKEN TO BE DIFFERENCE IN FINISHED GRADES ON LEFT AND RIGHT SIDE OF WALL.)



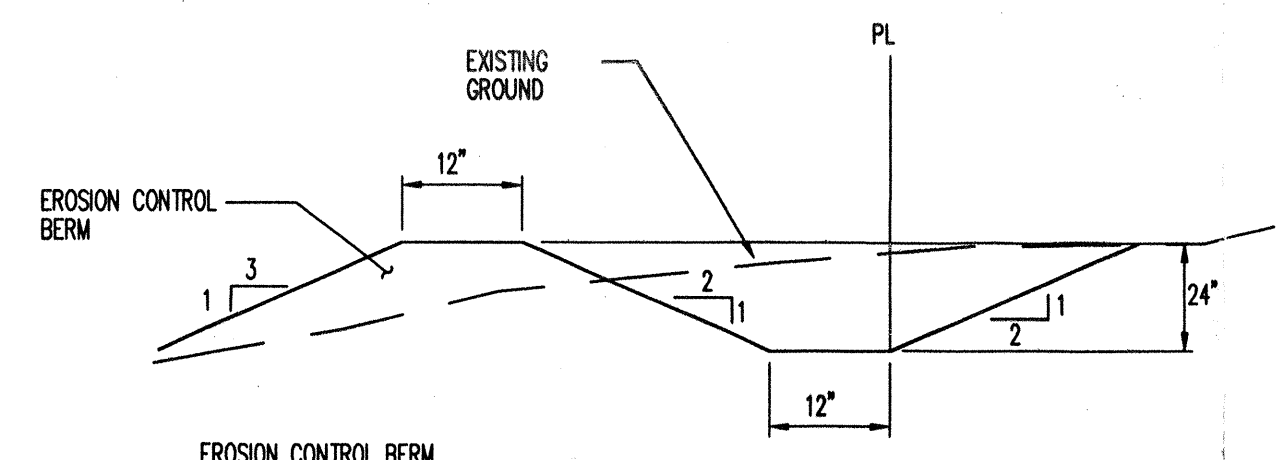
TYPICAL RETAINING WALL NOMENCLATURE
 NOT TO SCALE
 (RETAINING HEIGHT IS TAKEN TO BE DIFFERENCE IN FINISHED GRADES ON LEFT AND RIGHT SIDE OF WALL.)



SIDE YARD GARDEN WALL DETAIL
 NOT TO SCALE



SIDE YARD RETAINING WALL DETAIL
 NOT TO SCALE

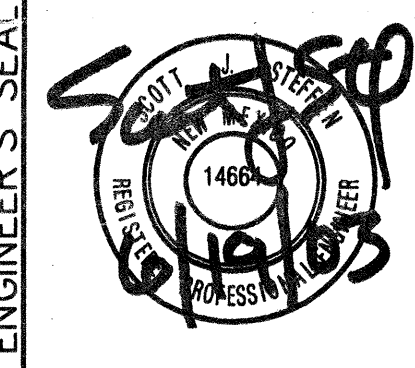


- EROSION CONTROL BERM**
1. TO PREVENT EROSION FROM THE SITE, DURING GRADING & CONSTRUCTION OPERATIONS, A BERM OF THE ABOVE DIMENSIONS SHALL BE MAINTAINED ON THE WEST WEST BOUNDARY OF THE SITE.
 2. WIND EROSION SHALL BE PREVENTED BY MAINTAINING AN ADEQUATELY MOISTENED SITE.
 3. AFTER CONSTRUCTION ALL SURFACES WILL BE PAVED OR LANDSCAPED TO PREVENT EROSION.
 4. CONTRACTOR MUST OBTAIN A TOP SOIL DISTURBANCE PERMIT FROM ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION

EROSION CONTROL PLAN
 NOT TO SCALE

- NOTE:
1. CONTRACTOR IS TO MASS GRADE ROADS TO 2' BEYOND FUTURE CURB. EXCESS FROM DRY UTILITY TRENCH IS TO BE USED TO BACK FILL BEHIND CURB.
 2. FRONT YARDS ARE TO BE GRADED AS SHOWN ON THIS DETAIL FOR FINAL GRADING AND CERTIFICATION THIS DETAIL TO BE COORDINATED WITH.
 3. HOME BUILDER TO BRING FRONT YARD TO ULTIMATE FRONT YARD GRADES AFTER HOME CONSTRUCTION IS COMPLETED. SEE ULTIMATE FRONT YARD GRADING DETAIL ON THIS SHEET.

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	ACCS BRASS TABLET STAMPED "TRANS"	DATE	FIELD NO.	DATE	REVISIONS	By
BY	DATE	Geographic Position (NAD 1927)	DATE		DATE: 05/03	DESIGN	
INSPECTOR'S FIELD	DATE	N.M. State Plane Coordinates (Central Zone)	DATE		DATE: 05/03		
BY	DATE	X = 354,899.45 Y = 1,471,822.67	DATE		Checked By: LSM		
BY	DATE	Ground-to-Grid Factor = 0.99957921	DATE		DATE: 05/03		
BY	DATE	ΔC = -00'16"42"	DATE		Checked By: SUS		
BY	DATE	SLD 1929 Elevation = 5118.43	DATE				



Bohannon & Huston
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

EL RANCHO GRANDE UNITS 10 & 11
GRADING AND EROSION CONTROL PLAN
GRADING DETAILS

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

ROUGH GRADING (±0.5')
 APPROVED FOR ROUGH GRADING DATE

City Project No. COA # N-8-Z Sheet 4 Of 4

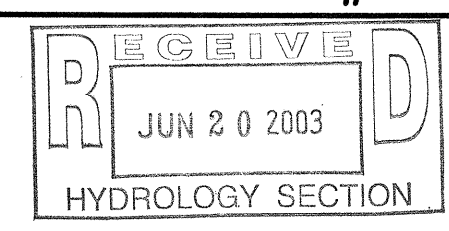
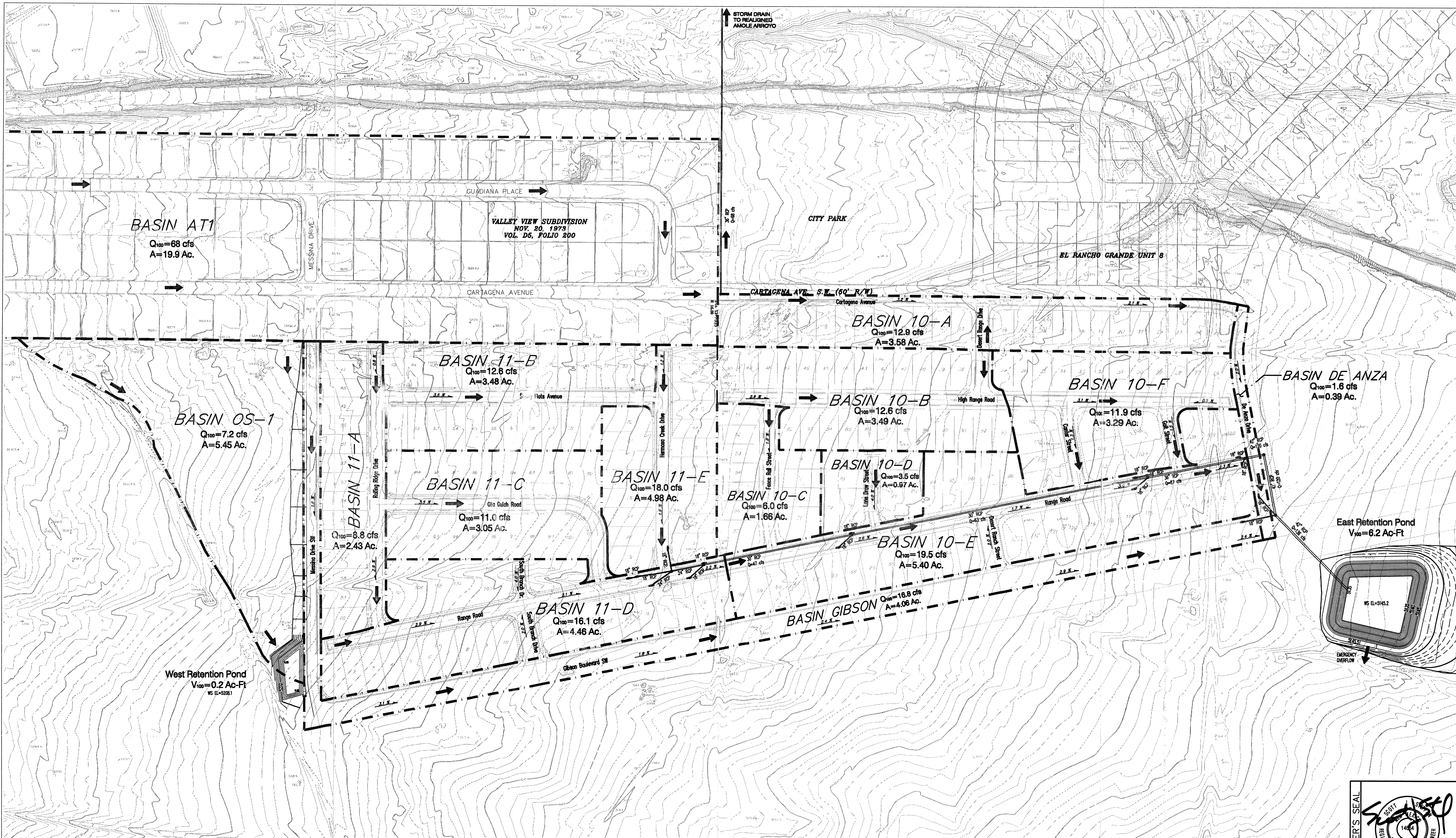
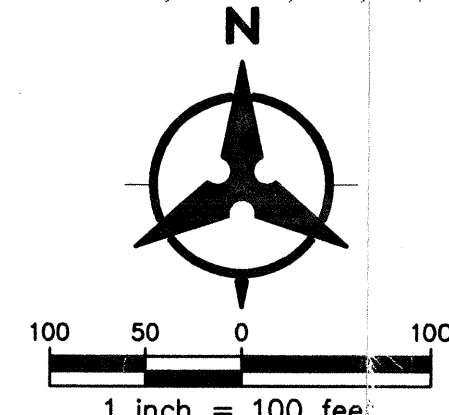


EXHIBIT 3

DEVELOPED CONDITIONS BASIN MAP



BASIN MAP
EL RANCHO GRANDE UNITS 10 & 11
JUNE 2003



RECEIVED
 JUN 20 2003
 HYDROLOGY SECTION

ENGINEER'S SEAL

 SCOTT A. JOHNSON
 LICENSE NO. 14084
 STATE OF NEW MEXICO

Bohannon & Huston
 Engineering • Spatial Data • Advanced Technologies
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

P:\030265\cdp\hydro\unit 10&11\ERG_BASINMAP.dwg
 June 19, 2003 - 04:00 PM
 24x36 BASIN MAP

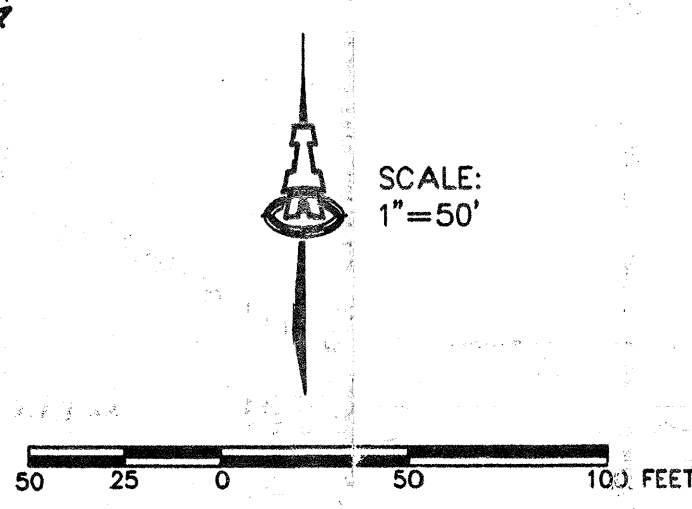
EXHIBIT 4

EL RANCHO GRANDE UNIT 8 GRADING PLAN

LAND
WESTGATE
HEIGHTS
UNIT NO. 1
MAY 25, 1971
VOL. D4, FOLIO 124
BLOCK 62



- LEGEND**
- 5100 — EXISTING CONTOUR
 - ◆ 78.3 PROPOSED SPOT ELEVATION
 - PG=5152.0 PAD GRADE ELEVATION
 - TC=81.95
FL=81.45 TOP OF CURB
FLOWLINE ELEVATION
 - PROPOSED RETAINING WALL
 - TW=52.0
BW=50.0 TOP OF WALL
BOTTOM OF WALL ELEVATION
 - PHASE BOUNDARY
 - FLOW ARROW
 - STORM DRAIN MANHOLE
 - STORM DRAIN INLET
 - Ⓐ BLOCK NO.
- * PAD TO BACKYARD SWALE DIMENSION = 5'
** PAD TO BACKYARD SWALE DIMENSION = 3'



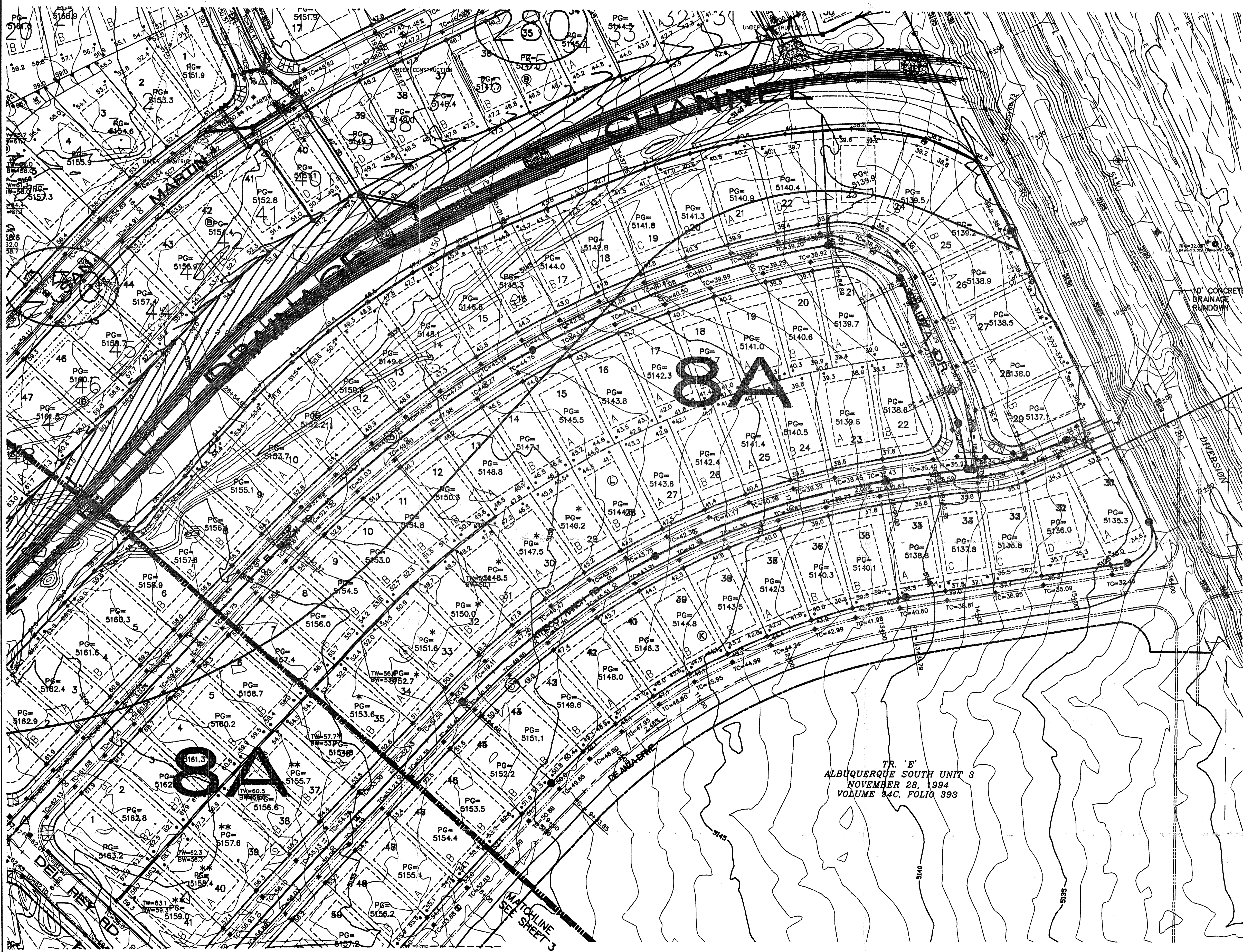
AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	CONTRACTOR	DATE	FIELD NOTES	REVISIONS	DESIGNED BY	DATE
		ACS MONUMENT "7-19" A C.O.A. BRASS CAP SET IN CONCRETE, LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWNER ROAD. ELEV. = 5175.74		ALS	NO.	DATE	DATE
					REVISIONS	DESIGNED BY	DATE
					DESIGN	DRAWN BY	DATE
						CHECKED BY	DATE

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
167GRD.DWGjld 8/31/01

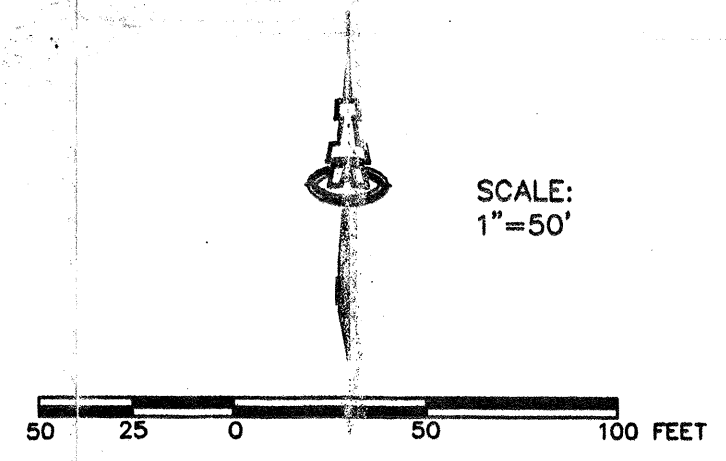
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **EL RANCHO GRANDE - UNIT 8A
GRADING & DRAINAGE PLAN**

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.



- LEGEND**
- 5100 — EXISTING CONTOUR
 - ◆ 78.3 PROPOSED SPOT ELEVATION
 - PG=5152.0 PAD GRADE ELEVATION
 - TC=81.95
FL=81.45 TOP OF CURB ELEVATION
FLOWLINE
 - PROPOSED RETAINING WALL
 - TW=52.0
BW=50.0 TOP OF WALL ELEVATION
BOTTOM OF WALL
 - PHASE BOUNDARY
 - FLOW ARROW
 - STORM DRAIN MANHOLE
 - STORM DRAIN INLET
 - Ⓐ BLOCK NO.
- * PAD TO BACKYARD SWALE DIMENSION = 5'
** PAD TO BACKYARD SWALE DIMENSION = 3'



TR. 'E'
ALBUQUERQUE SOUTH UNIT 3
NOVEMBER 28, 1994
VOLUME 34C, FOLIO 393

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico
167GRD.DWGjld 8/31/01

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **EL RANCHO GRANDE - UNIT 8A
GRADING & DRAINAGE PLAN**

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. _____ Zone Map No. **M-9** Sheet **7** of **28**

BENCH MARKS		AS-BUILT INFORMATION	
CONTRACTOR	DATE	CONTRACTOR	DATE
ACS MONUMENT 77-18' A C.O.A. BRASS CAP SET IN CONCRETE, LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TONNER ROAD. ELEV. = 5175.74			

SURVEY INFORMATION		FIELD NOTES	
ALS	DATE	ALS	DATE
1	11/99		

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY
		DESIGN	

DESIGNED BY FCA DATE 7/31
DRAWN BY RPH DATE 7/31
CHECKED BY FCA DATE 7/31

Bohannon ▲ Huston

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332