City of Albuquerque

September 27, 1999

Steven K. Morrow, P.E.
Brasher & Lorenz, Inc.
2201 San Pedro NE, Building 1, Suite 210
Albuquerque, New Mexico 87110

RE: ***Grading and Drainage Plan for Tract K at Ventana Ranch (B10/D3B) Submitted for Grading Permit Approval, Engineer's Stamp Dated 9/2/99.***

Dear Mr. Morrow:

Based on the information provided, the above referenced plan is approved for release of the Grading Permit.

Please be aware that the Engineer's Certification is required for this site. When the engineer's certification is submitted, please provide the letter from the adjacent property owner to the west allowing the proposed grading on his site.

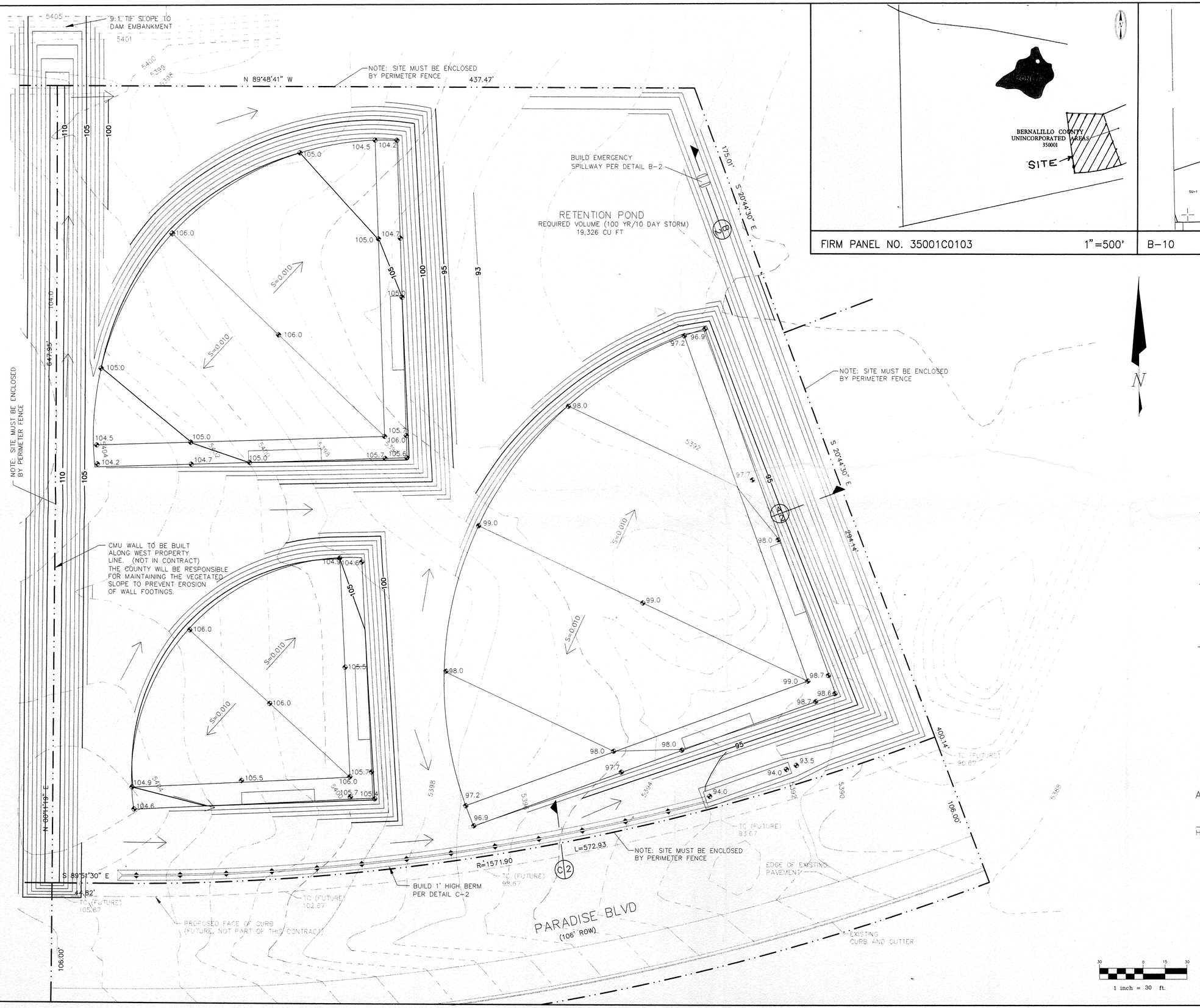
If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

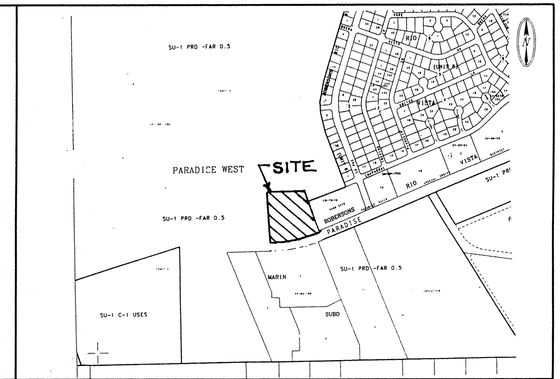
Susan Calongne

Susan M. Calongne, P.E.
City/County Floodplain Administrator

C: Joanne Caffrey, Bernalillo County Parks and Rec.
File



FIRM PANEL NO. 35001C0103 1"=500'



B-10 LOCATION MAP 1"=750'

LEGEND

- 5400 EXISTING CONTOUR ELEVATION
- 02.5 × EXISTING SPOT ELEVATION
- 01 PROPOSED CONTOUR ELEVATION
- PROPERTY LINE
- 01.5 PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- DRAINAGE SWALE
- WATER SURFACE OF RETENTION POND (100-YR/10-DAY STORM)

PROPERTY ADDRESS

Paradise Boulevard NW

LEGAL DESCRIPTION

Tract K, Ventana Ranch

PROJECT BENCHMARK

COA BM NO. 5-B10: A square chisled on top of curb at the NNE curb return at the intersection of La Paz Drive and Chaparral Circle.
Elev. 5380.19

SURVEY

Topographic map digitized from Bohannan-Huston, Inc
Dated August, 1995

I, Steven K. Morrow, hereby certify that I personally inspected the site shown on this plan on February 20, 1998, and as of that date it appeared that no filling, grading, or excavation had occurred thereon since completion of the topographic survey used to prepare this plan.

APPROVED FOR GRADING BY:

Hydrology, City of Albuquerque Date

RECEIVED
SEP 02 1999
HYDROLOGY SECTION

TRACT K AT VENTANA RANCH

GRADING & DRAINAGE PLAN

STEVEN K. MORROW NEW MEXICO 13695 REGISTERED PROFESSIONAL ENGINEER 9-2-99

BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE Building 1 Suite 210
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

DRAWN BY: SM
CHECKED BY: D.A.L.
FILE: 8013-GD.DWG
DATE: AUGUST, 1999
SHEET 1 OF 2

GRADING AND DRAINAGE PLAN

SCOPE:
Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The project is to be developed as three little league baseball fields with associated grading and drainage improvements. There will be a gravel parking lot, a concession stand and a storage shed

PROJECT LOCATION:
The 6.25 acre site is on the north side of Paradise Boulevard NW adjacent to the intersection with Big Sage Drive NW. It is bounded on the east by county-owned soccer fields, on the north by a proposed Detention Pond for the Ventana Ranch Subdivision and on the south by Paradise Boulevard. The tract to the west is undeveloped.

EXISTING CONDITIONS
Presently the site is undeveloped. The site is well-vegetated with native shrubs and grasses. The site consists mostly of lava rock covered with a thin layer of sandy soil. Offsite flows are minimal. Onsite flows drain directly to Paradise Boulevard or to the adjacent soccer fields to the east of the tract. Those soccer fields drain to Paradise Boulevard. Paradise Boulevard currently drains to a dip section about a quarter mile east of the site. Runoff leaves the Paradise Boulevard right-of-way at the dip section and drains overland to the south, eventually reaching the Piedras Marcadas Arroyo.

Site topography drains from west to east at slopes that vary from 2 to 8 percent. There is a small hill in the southeast corner of the property.

PROPOSED CONDITIONS
The ball fields will be constructed entirely on fill because the underlying lava rock makes excavation too costly. The fields and embankment slopes will be planted entirely with sod. Runoff will flow across the ball fields at one percent slopes and will drain freely down the 3:1 embankment slopes. Most on-site and off-site flows will drain to a retention pond in the southeast corner of the property. The minimal offsite flows and runoff from the berm embankment along the east property line will be intercepted by a one-foot swale that will run along the east property line. That swale will serve as a small retention pond to prevent runoff from entering the tract to the east. A one-foot high berm along the south property line will prevent runoff from entering the Paradise Boulevard right-of-way. No perimeter fencing will be required around the retention pond because the entire site will be fenced.

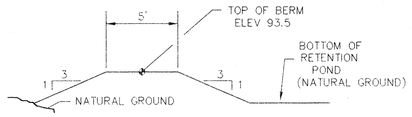
FUTURE CONDITIONS
Paradise Boulevard exists as a two lane road with curb and gutter along the south side of the road. In the future, Paradise Boulevard is proposed to be four lanes with curb and gutter on both sides of the road. A storm drain will drain east beneath Paradise Boulevard. The west end of the storm drain will be about 225 feet east of the east property line. A manhole and drop inlet were constructed on the south side of Paradise Boulevard at the west end of the storm drain as part of the public works improvements required for approval of the Chamisa Ridge subdivision. (The Chamisa Ridge Subdivision is directly across Paradise Boulevard from the site).

When Paradise Boulevard and the Paradise Boulevard storm drain are completed the berm along the south property line will be removed and all runoff from the site will drain to Paradise Boulevard. The retention pond and the small retention swale along the east property line will be re-graded to drain to Paradise Boulevard.

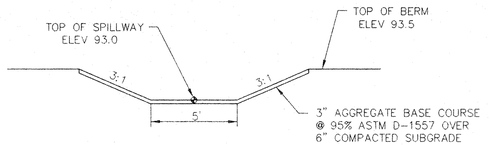
EROSION CONTROL
Temporary erosion control will be required along the project boundaries during construction to prevent the discharge of sediment into Paradise Boulevard and adjoining private property. The contractor should construct a ditch dike system or silt fencing (see details D-2, E-2 and F-2) along the north, south and east tract lines to retain all runoff generated by the project. Care should be taken to provide ponding areas at the site perimeter.

CALCULATIONS
The calculations shown hereon define the 100-year/6 hour design storm falling within the project area under existing and developed conditions. The hydrology is per "Chapter 22, Development Process Manual, dated July 1997.

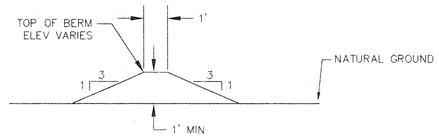
HYDROLOGY (HYMO)									
Precipitation Zone 1							P360 = 2.20 in		
Basin	Basin	Land Treatment (acre)				Ew	V100	Q100	
	area (Ac)	A	B	C	D	(in)	(af)	(cfs)	
Existing Conditions									
Site	6.25	6.25				0.44	0.23	8.06	
Offsite	1.88	1.88				0.44	0.069	2.43	
Developed Conditions									
Site (to pond)	6.14	2.25	1.21	2.65	0.03	0.73	0.374	13.10	
Site (to swale)	0.11			0.11		0.99	0.009	0.32	
Offsite (to pond)	1.80	1.80				0.44	0.066	2.32	
Offsite (to swale)	0.08	0.08				0.44	0.003	0.10	



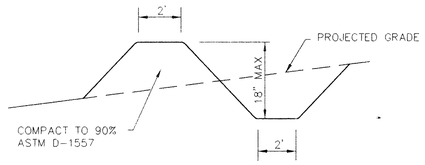
BERM SECTION N.T.S. A/2



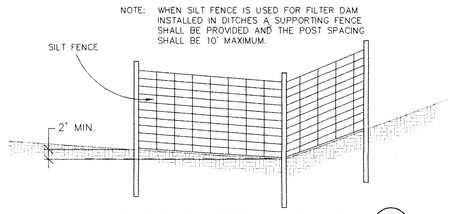
SPILLWAY SECTION N.T.S. B/2



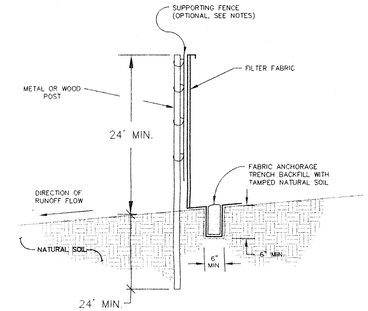
BERM SECTION N.T.S. C/2



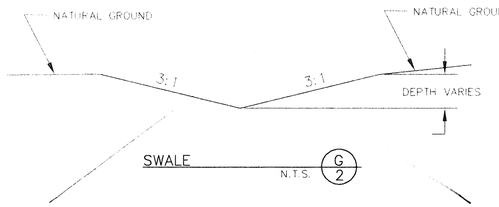
TEMPORARY EROSION CONTROL (DITCH/DIKE OPTION) N.T.S. D/2



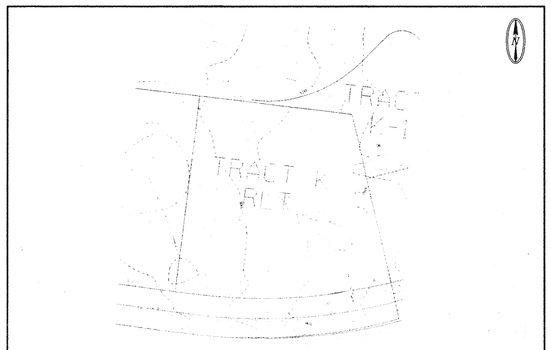
TEMPORARY EROSION CONTROL (SILT FENCE OPTION) N.T.S. E/2



TEMPORARY EROSION CONTROL (SILT FENCE OPTION) N.T.S. F/2



SWALE N.T.S. G/2



OFFSITE BASIN MAP 1"=200'

DRAINAGE PLAN NOTES

1. BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. BLI assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes BLI to prepare the Certification, we must be notified PRIOR to placement of the fill.
6. BLI recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.

LITTLE LEAGUE FIELD

GRADING & DRAINAGE PLAN – DETAILS

9-2-99
STEVEN K. MORROW
NEW MEXICO
13695
REGISTERED PROFESSIONAL ENGINEER
3-25-98

BRASHER & LORENZ, INC.
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2201 San Pedro NE Building 1 Suite 210
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Ph: 505-888-6088 Fax: 505-888-6188

DRAWN BY: STAFF	DATE: MARCH, 1998
CHECKED BY: S.M	SHEET 2 OF 2
FILE: 8013DETL.DWG	