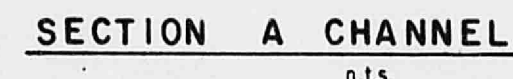


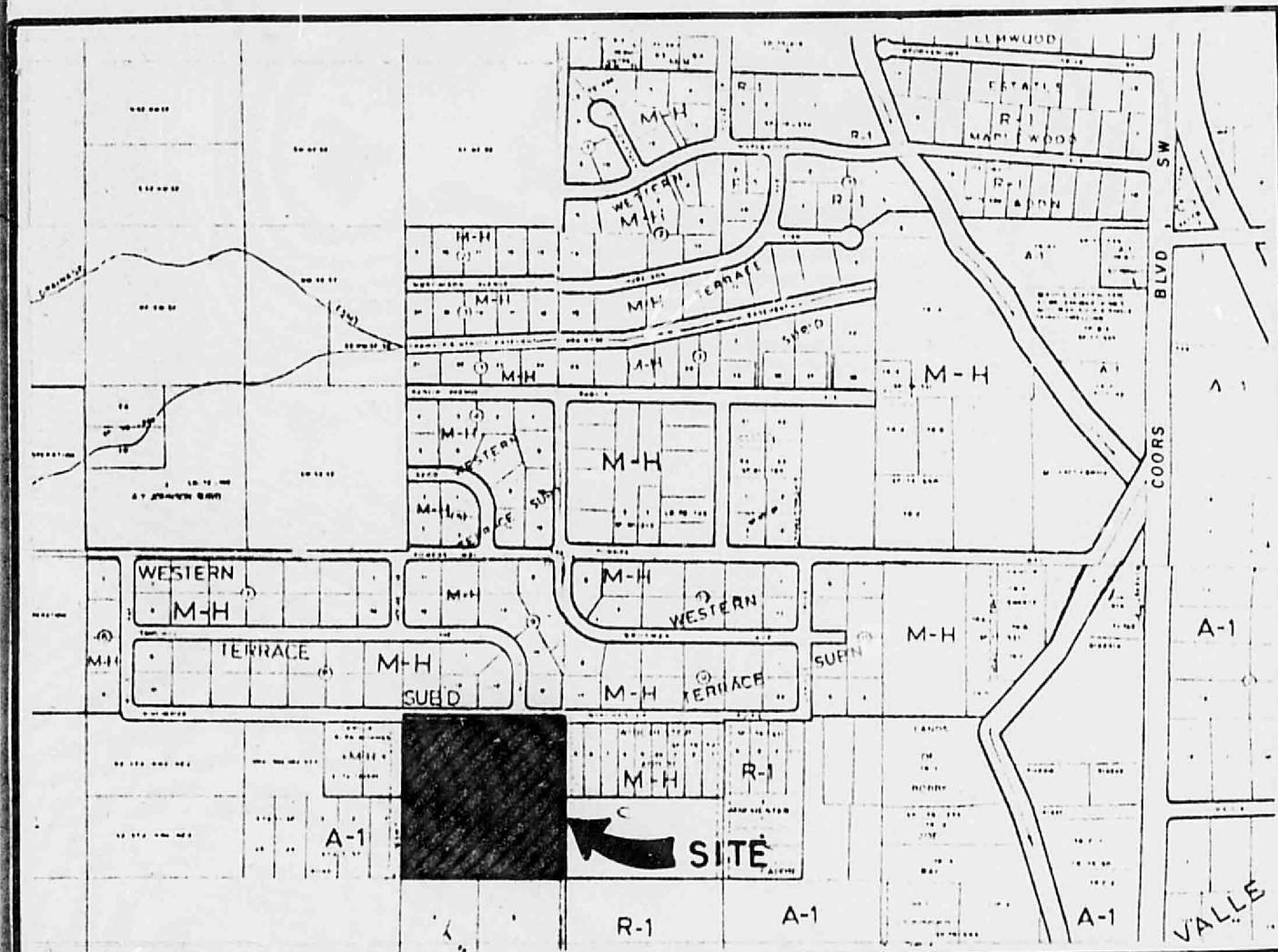
TERRAIN MANAGEMENT PLAN



SECTION B CHANNEL

DATE	SEPT., 1982
SCALE	1" = 100'
DESIGNED BY	C. S. C.
DRAWN BY	W. J. W.
JOB NO.	92-03-020

CITY OF ALBUQUERQUE
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POSSIBLE REPRODUCTION DUE
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ORIGINAL DOCUMENT



LOCATION MAP

WESTERN TERRACE ADDITION

(FILED 3-3-1966 VOL. D3-138)

LAND OF
GLEN BOWMAN
(FILED 3-25-74 VOL. B5 FOL. 10)

LAND OF
RON DOUGLAS
(FILED 11-14-73 VOL. B9 FOL. 25)

SURVEYORS CERTIFICATE

I, CLIFF A. SPIROCK, UNDER THE LAWS OF NEW MEXICO, CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT THIS PLAT WAS PREPARED BY ME, OR UNDER MY SUPERVISION, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

CLIFF SPIROCK N.M.L.S. #4972

1/16/82

DATE COMMUNITY SCIENCES CORPORATION

C.J. VISSERS
NO. 2
(FILED 10-2-78 VOL. B15 FOL. 114)

LAND OF
JOSE ROMERO
(FILED 4-12-82 VOL. A8 FOL. 140)

SUBDIVISION DATA

COUNTY PLAT NO. T-9
ZONE ATLAS INDEX NO. 10-000 AC.
GROSS SUBDIVISION ACREAGE 13
NUMBER OF LOTS CREATED 53
M.R.G.C.D. MAP NO. 53
MILES OF 1/2 STREETS CREATED 0.13 MI.

TIE TO SECTION CORNER TAKEN FROM PLAT "LANDS OF GLEN BOWMAN", RECORDED MAR. 25, 1974, 85-10 AS CERTIFIED BY FRANK G. BENEVIDAS, N.M.L.S. 4252.

FINAL PLAT
WESTERN TERRACE NO. II

A SUBDIVISION WITHIN THE SE 1/4, NE 1/4, NE 1/4

SECTION 33 T.9 N., R.2 E. N.M.P.M.

BERNALILLO COUNTY, NEW MEXICO

SEPTEMBER, 1982

DESCRIPTION:

A CERTAIN TRACT OF LAND SITUATE IN BERNALILLO COUNTY, NEW MEXICO AND BEING WITHIN SECTION 33, T.9 N., R.2 E. N.M.P.M. AND BEING DESIGNATED AS SEV. NEV. NEV. OF SAID SECTION 33, T.9 N., R.2 E. N.M.P.M. AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE S.W. CORNER OF SAID TRACT, A POINT ON THE EASTERLY LINE OF A FIFTY (50) FOOT ROAD EASEMENT, SAID CORNER BEING THE S.E. CORNER OF LOT ONE (1), PLAT OF DIVISION OF LAND OF RON DOUGLAS, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE BERNALILLO COUNTY CLERK ON JANUARY 7, 1974; THENCE ALONG SAID ROAD EASEMENT N. 00° 06' W. 660.00 FEET TO THE N.W. CORNER, A POINT ON THE CENTER LINE OF WINCHESTER ROAD SW; THENCE ALONG SAID ROAD CENTER LINE N. 89° 54' E. 660.00 FEET TO THE N.E. CORNER, A POINT ON THE CENTER LINE OF A PUBLIC ROAD; THENCE ALONG SAID ROAD CENTER LINE S. 00° 06' E. 660.00 FEET TO THE S.W. CORNER HAD POINT OF BEGINNING AND CONTAINING 10.00 ACRES MOR OR LESS.

DESCRIPTION TAKEN FROM "SURVEY AND PLAT, LAND OF BUDDY ROMERO, SEV. NEV. NEV. SECTION 33, T.9 N., R.2 E. N.M.P.M., BERNALILLO COUNTY, NEW MEXICO BY JOHN B. TORRES, N.M.L.S. NO. 3321, DATED JULY, 1982. (UNRECORDED). NO ADDITIONAL SURVEYS WERE PERFORMED BY COMMUNITY SCIENCES CORPORATION FOR THE PREPARATION OF THIS PLAT.

FREE CONSENT AND DEDICATION

SURVEYED AND SUBDIVIDED AND NOW COMPRISING LOTS 1 THRU 13 WESTERN TERRACE II AS HEREBY CREATED IS WITH THE FREE CONSENT OF AND IN ACCORDANCE WITH THE WISHES AND DESIRES OF THE UNDERSIGNED OWNERS AND PROPRIETORS THEREOF AND THAT THE OWNER OF THE PROPERTY DOES HEREBY GRANT THE EASEMENTS AS SHOWN HEREON AND NOTED ON THIS PLAT INCLUDING EASEMENTS FOR THE OVERHEAD, UNDERGROUND, AND BURIED SERVICE WIRES AND INCLUDING THE RIGHT OF INGRESS AND EGRESS AND THE RIGHT TO TRIM OR REMOVE INTERFERING TREES.

LION ENTERPRISE, LTD.

BY JOSE LEON ROMERO, PRESIDENT

M. MARY ROMERO, VICE PRESIDENT

STATE OF NEW MEXICO) SS
COUNTY OF BERNALILLO)

ON THIS DAY OF 1982, BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED JOSE LEON ROMERO AND M. MARY ROMERO, PRESIDENT AND VICE-PRESIDENT RESPECTIVELY, OF LION ENTERPRISE, LTD., OWNER OF THE PROPERTY HEREIN DESCRIBED, WHO ACKNOWLEDGED SAID INSTRUMENT TO BE THEIR OWN FREE ACT AND DEED.

MY COMMISSION EXPIRES:

NOTARY PUBLIC

APPROVED

CITY/COUNTY PLANNING DEPARTMENT	DATE	MOUNTAIN BELL	DATE
MIDDLE RIO GRANDE CONSERVANCY DISTRICT	DATE	GAS COMPANY OF NEW MEXICO	DATE
A.M.A.F.C.A.	DATE	CHAIRMAN, BERNALILLO COUNTY COMMISSION	DATE
PUBLIC SERVICE COMPANY OF NEW MEXICO	DATE	CHAIRMAN, COUNTY PLANNING COMMISSION	DATE

UNPLATTED

WINCHESTER
ADDN NO. 2
(FILED 5-25-82 VOL. C19 FOL. 154)

DATE: SEPT. 1982
SCALE: 1"=100'
DESIGNED: C.S.C.
DRAWN: W.J.W.
JOB NO. 92-03-025

community sciences corporation
LAND PLANNING
100, Box 1128
Corrales, New Mexico 87101

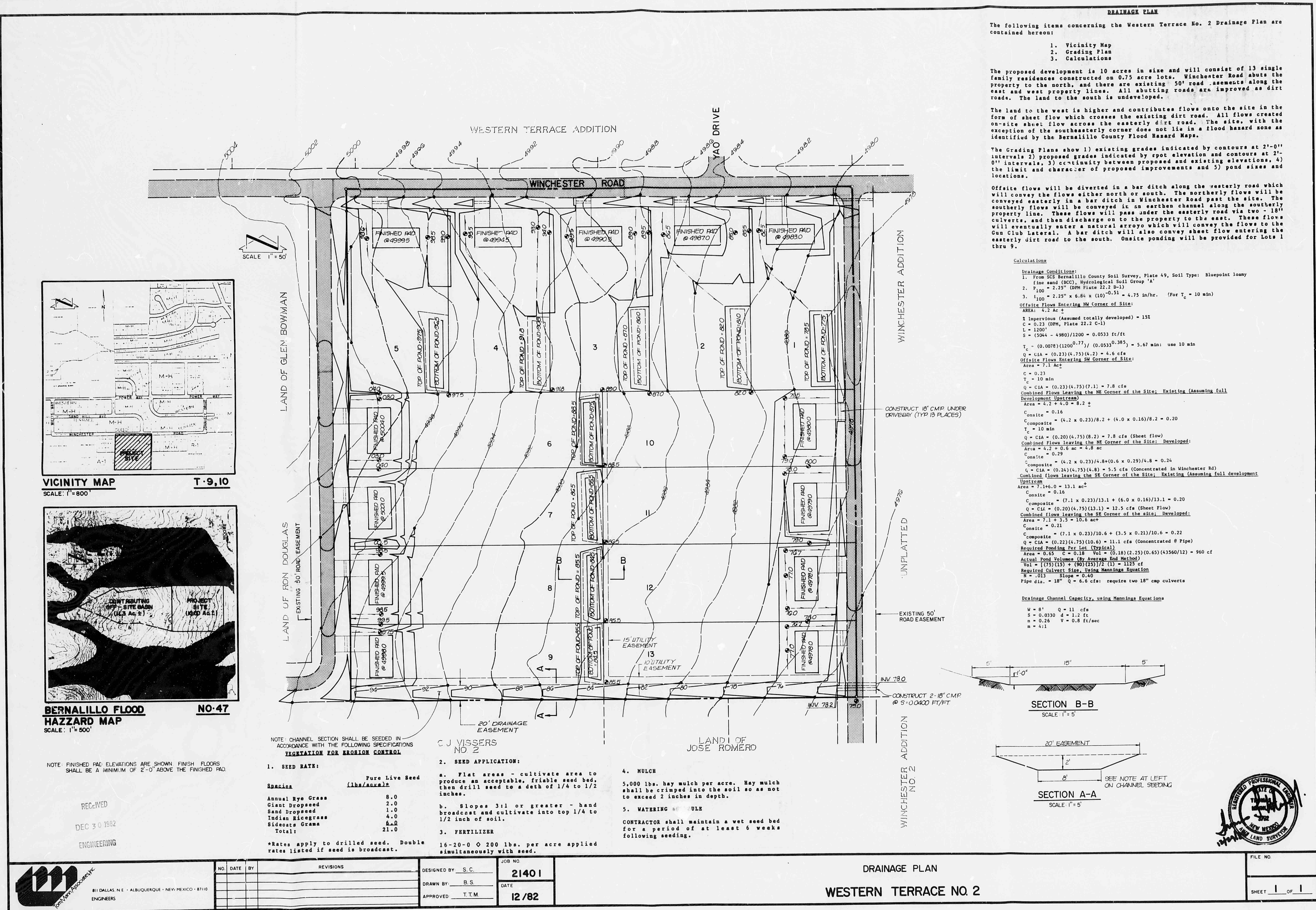
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CITY OF ALBUQUERQUE

HYDROLOGY

T9/D1

5 PLANS
2 of 2



DRAINAGE PLAN

The following items concerning the Western Terrace No. 2 Drainage Plan are contained herein:

1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed development is 10 acres in size and will consist of 13 single family residences constructed on 0.75 acre lots. Winchester Road abuts the property to the north, and there are existing 50' road easements along the east and west property lines. All abutting roads are improved as dirt roads. The land to the south is undeveloped.

The land to the west is higher and contributes flows onto the site in the form of sheet flow which crosses the existing dirt road. All flows created on-site sheet flow across the easterly dirt road. The site, with the exception of the southeasterly corner does not lie in a flood hazard zone as identified by the Bernalillo County Flood Hazard Maps.

The Grading Plans show 1) existing grades indicated by contours at 2'-0" intervals 2) proposed grades indicated by spot elevation and contours at 2'-0" intervals, 3) continuity between proposed and existing elevations, 4) the limit and character of proposed improvements and 5) pond sizes and locations.

Offsite flows will be diverted in a bar ditch along the westerly road which will convey the flows either north or south. The northerly flows will be conveyed easterly in a bar ditch in Winchester Road past the site. The southerly flows will be conveyed in an earthen channel along the southerly property line. These flows will pass under the easterly road via two - 18" culverts, and then discharge on to the property to the east. These flows will eventually enter a natural arroyo which will convey the flows to the Gun Club Lateral. A bar ditch will also convey sheet flow entering the existing dirt road to the south. Onsite ponding will be provided for Lots 1 thru 9.

Calculations

Drainage Conditions:
1. From 303 Bernalillo County Soil Survey, Plate 49, Soil Type: Bluepoint loamy fine sand (BCL), Hydrological Soil Group 'A'
2. $f_{100} = 2.25"$ (BCL Plate 22.2 D-1)
3. $f_{100} = 2.25" \times 6.48 \times (10)^{-0.58} = 4.75$ in/hr. (For $T_c = 10$ min)

Offsite Flow Entering NW Corner of Site:

Area = 4.2 ac ±
 T_c = 10 min
 $Q = C \cdot A \cdot I = (0.23)(4.2)(2.25) = 2.15$ cfs
 $Q = C \cdot A \cdot I = (0.23)(4.75)(2.25) = 2.44$ cfs
 $Q = C \cdot A \cdot I = (0.23)(4.75)(2.25) = 2.44$ cfs
 $Q = C \cdot A \cdot I = (0.23)(4.75)(2.25) = 2.44$ cfs

Offsite Flow Entering SE Corner of Site:

Area = 7.1 ac ±
 T_c = 10 min
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs

Combined Flows Leaving the NE Corner of the Site: Existing (Assuming full development Upstream)

Area = 4.2 + 4.0 = 8.2 ±
 T_c = 10 min
 $Q = C \cdot A \cdot I = (0.23)(8.2)(2.25) = 4.24$ cfs
 $Q = C \cdot A \cdot I = (0.23)(8.2)(2.25) = 4.24$ cfs
 $Q = C \cdot A \cdot I = (0.23)(8.2)(2.25) = 4.24$ cfs
 $Q = C \cdot A \cdot I = (0.23)(8.2)(2.25) = 4.24$ cfs

Combined Flows Leaving the SE Corner of the Site: Developed:

Area = 4.2 + 0.6 ac = 4.8 ac
 T_c = 10 min
 $Q = C \cdot A \cdot I = (0.23)(4.8)(2.25) = 2.44$ cfs
 $Q = C \cdot A \cdot I = (0.23)(4.8)(2.25) = 2.44$ cfs
 $Q = C \cdot A \cdot I = (0.23)(4.8)(2.25) = 2.44$ cfs
 $Q = C \cdot A \cdot I = (0.23)(4.8)(2.25) = 2.44$ cfs

Combined Flows Leaving the SE Corner of the Site: Existing (Assuming full development Upstream)

Area = 7.1 ac ±
 T_c = 10 min
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.1)(2.25) = 3.64$ cfs

Combined Flows Leaving the SE Corner of the Site: Developed:

Area = 7.1 + 0.6 ac = 7.7 ac
 T_c = 10 min
 $Q = C \cdot A \cdot I = (0.23)(7.7)(2.25) = 4.04$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.7)(2.25) = 4.04$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.7)(2.25) = 4.04$ cfs
 $Q = C \cdot A \cdot I = (0.23)(7.7)(2.25) = 4.04$ cfs

Actual Pond Volume (By Average Rod Method)

$V = (15)(15) + (90)(25)/2 = 1125$ cu ft
 $V = (15)(15) + (90)(25)/2 = 1125$ cu ft
 $V = (15)(15) + (90)(25)/2 = 1125$ cu ft
 $V = (15)(15) + (90)(25)/2 = 1125$ cu ft

Required Culvert Size, Using Manning Equation

$V = 0.33$ Slope = 0.40
 $P = 18"$ $Q = 6.6$ cfs: require two 18" c/cp culverts

Drainage Channel Capacity, using Manning Equation

$W = 8'$ $Q = 11$ cfs
 $S = 0.0310$ $d = 1.2$ ft
 $n = 0.26$ $V = 0.8$ ft/sec
 $n = 4:1$

SECTION B-B

SCALE: 1" = 5'

SECTION A-A

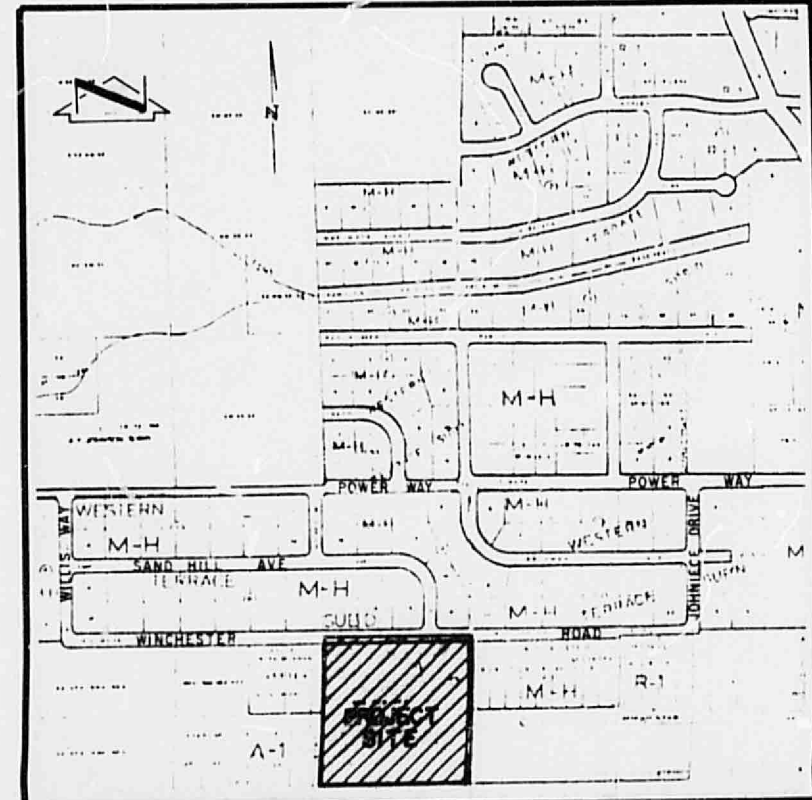
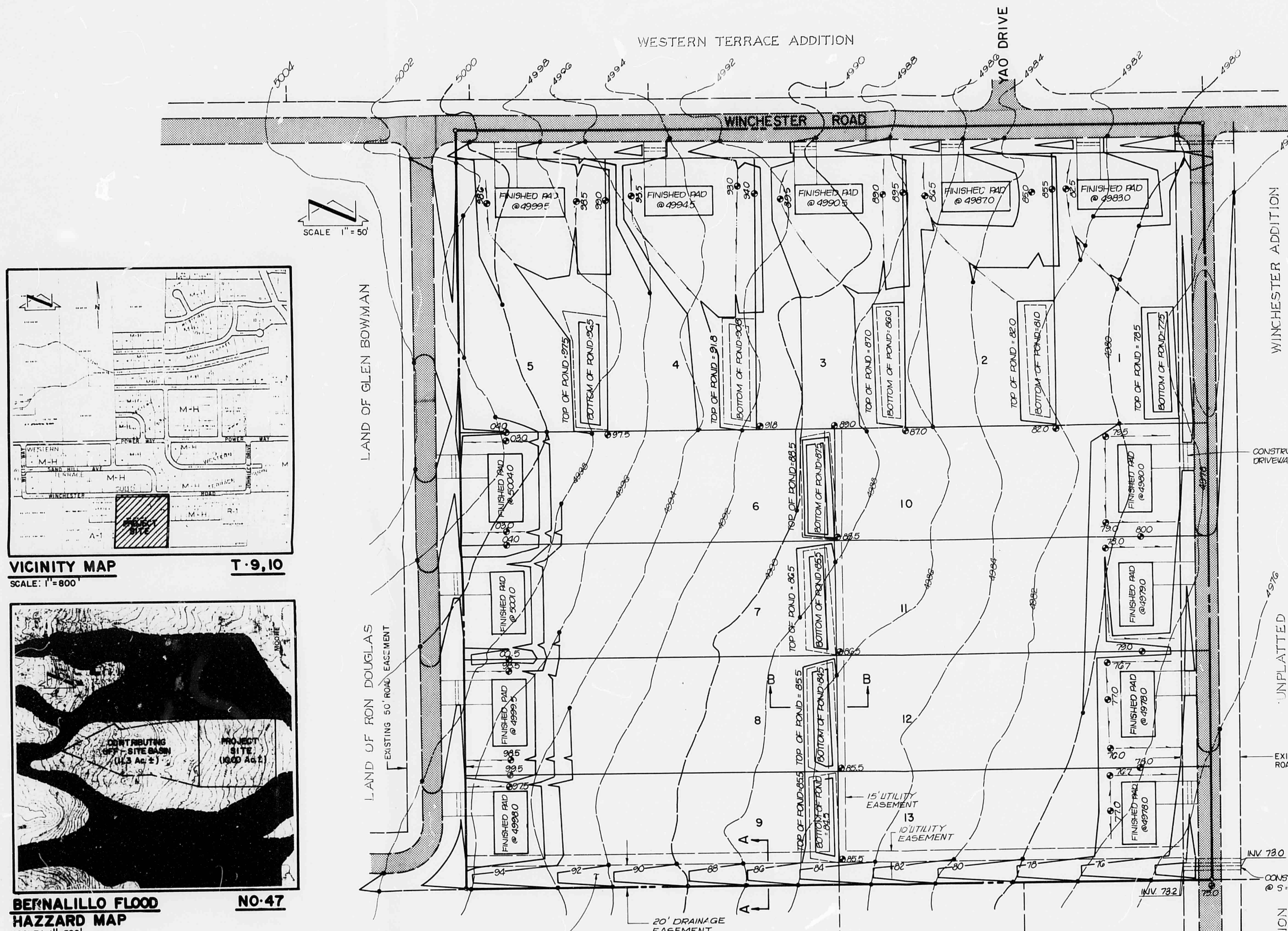
SCALE: 1" = 5'



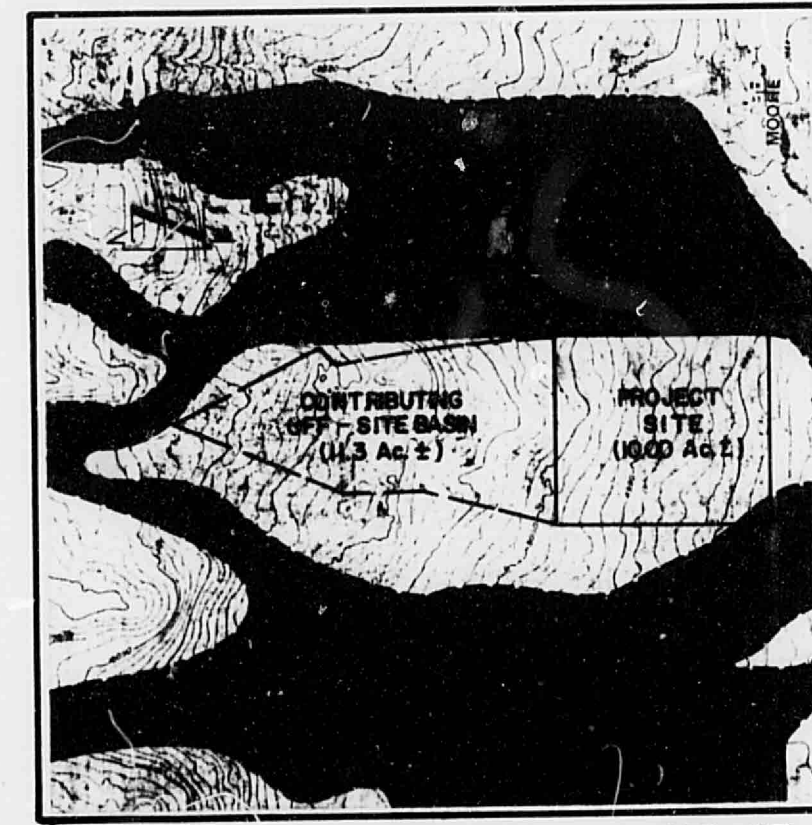
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SHEET 1 OF 1

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ORIGINAL DOCUMENT



VICINITY MAP
SCALE: 1" = 800'



BERNALILLO FLOOD HAZARD MAP
SCALE: 1" = 500'

NOTE: CHANNEL SECTION SHALL BE SEEDING IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS

VEGETATION FOR EROSION CONTROL

1. SEED RATE:

Species	Pure Live Seed (lbs/acre)
Annual Rye Grass	8.0
Giant Dropseed	2.0
Sand Dropseed	1.0
Indian Ricegrass	4.0
Sideoats Grama	6.0
Total:	21.0

* Rates apply to drilled seed. Double rates listed if seed is broadcast.

2. SEED APPLICATION:

- a. Flat areas - cultivate area to produce an acceptable, friable seed bed, then drill seed to a depth of 1/4 to 1/2 inches.
- b. Slopes 3:1 or greater - hand broadcast and cultivate into top 1/4 to 1/2 inch of soil.

3. FERTILIZER

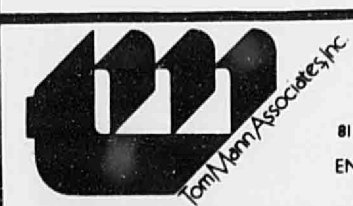
16-20-0 @ 200 lbs. per acre applied simultaneously with seed.

4. MULCH

5,000 lbs. hay mulch per acre. Hay mulch shall be crimped into the soil so as not to exceed 2 inches in depth.

5. WATERING SCHEDULE

CONTRACTOR shall maintain a wet seed bed for a period of at least 6 weeks following seeding.



811 DALLAS N.E. - ALBUQUERQUE - NEW MEXICO - 87110
ENGINEERS

NO.	DATE	BY	REVISIONS

DESIGNED BY S.C.
DRAWN BY B.S.
APPROVED T.T.M.

JOB NO. 21401
DATE 12/82

DRAINAGE PLAN WESTERN TERRACE NO. 2

D 24

C 20

B 16

A 12

CITY OF ALBUQUERQUE

C

D