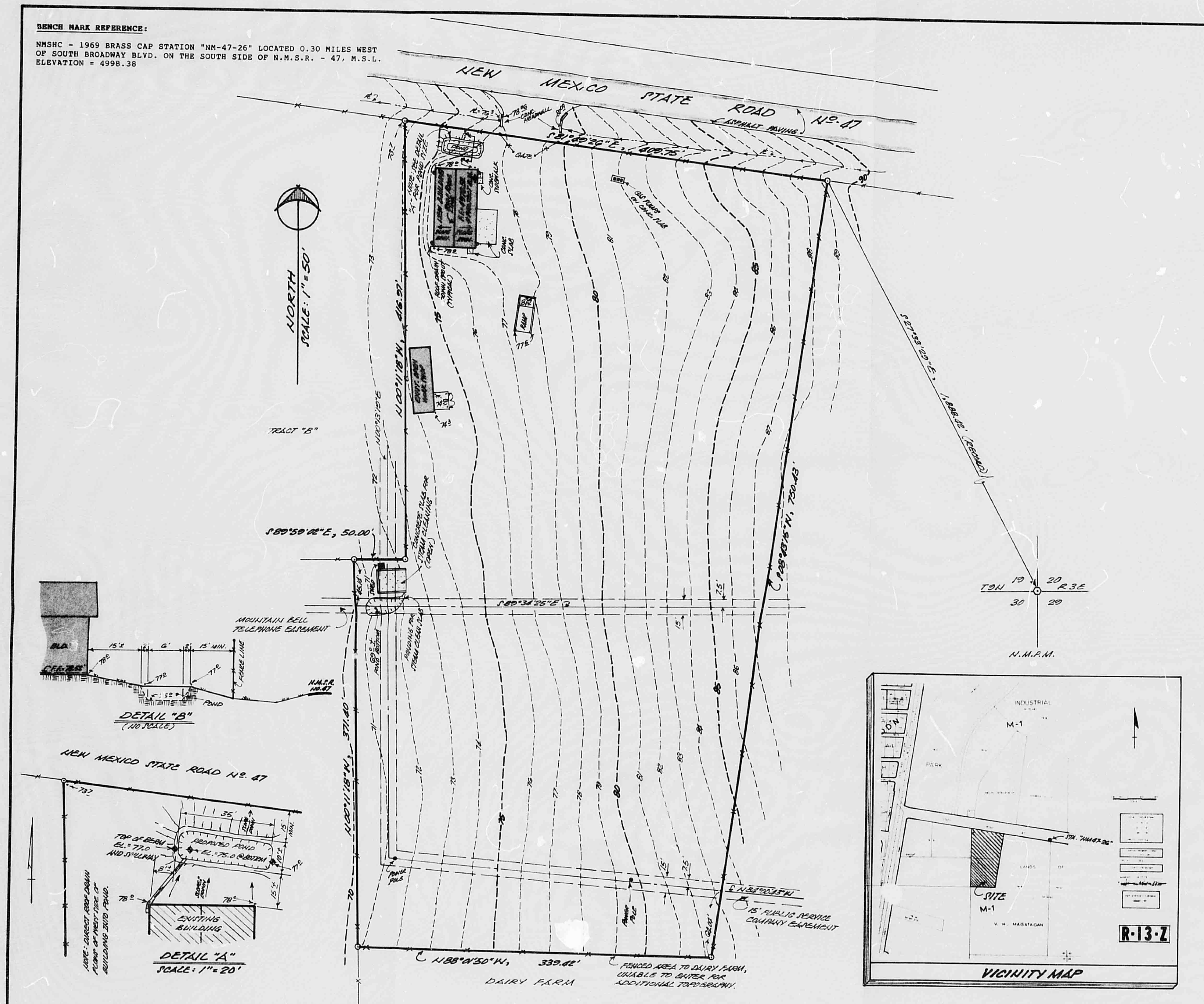
Hydrology File No. R-13/D004

BENCH MARK REFERENCE:

NMSHC - 1969 BRASS CAP STATION "NM-47-26" LOCATED 0.30 MILES WEST OF SOUTH BROADWAY BLVD. ON THE SOUTH SIDE OF N.M.S.R. - 47, M.S.L. ELEVATION = 4998.38


NEW MEXICO STATE ROAD No. 47
NORTH
SCALE: 1" = 50'
TRACT "B"
S89°59'02"E, 50.00'
MOUNTAIN BELL TELEPHONE EASEMENT
N00°11'18"W, 371.40'
N88°01'50"W, 339.42'
DAIRY FARM
FENCED AREA TO DAIRY FARM, UNABLE TO ENTER FOR ADDITIONAL TOPOGRAPHY.
15' PUBLIC SERVICE COMPANY EASEMENT
POWER POLE
NOTE: SEE DETAIL "A" FOR POND SIZE
DETAIL "B"
(NO SCALE)
FENCE LINE
POND
N.M.S.R. No. 47
NEW MEXICO STATE ROAD No. 47
TOP OF BERM EL.= 77.0 AND SPILLWAY
PROPOSED POND
EL.=75.0 @ BOTTOM
EXISTING BUILDING
NOTE: DIRECT ROOF DRAIN FLOW OF WEST SIDE OF BUILDING INTO POND.
DETAIL "A"
SCALE: 1" = 20'
T9N R3E
N.M.P.M.
SITE
M-1
R-13-Z
VICINITY MAP

LEGEND:

- T.C. = N/A = TOP OF CURB ELEVATION
- FL = N/A = CURB FLOW LINE ELEVATION
- ▨ = EXISTING OR PROPOSED CONCRETE
- ---- 73 ---- = EXISTING CONTOUR
- —— 75 —— = PROPOSED CONTOUR
- —×——×— = EXISTING FENCE
- 73.50 = PROPOSED SPOT ELEVATION
- ▬ = PROPOSED LIMITS OF NEW PAVING

CONSTRUCTION NOTES:

1.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.

2.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.

3.) ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.

4.) ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUN-OFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

1.) ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.

2.) ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.

3.) THE CONTRACTOR SHALL IMMEDIATELY AND THROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.

LEGAL DESCRIPTION:

TRACT "C", LANDS OF SAGEBRUSH SALES, IN SECTION 9, T9N, R3E, N.M.P.M., BERNALILLO COUNTY, NEW MEXICO, (FILED: 09-23-82).

DRAINAGE COMMENTS:

THE FOLLOWING ITEMS CONCERNING THE SUBJECT SITE ARE CONTAINED ON THE GRADING AND DRAINAGE PLAN AS SHOWN HEREON:

1.) SITE GRADING AND DRAINAGE PLAN
2.) VICINITY MAP
3.) LEGAL DESCRIPTION
4.) LIMITS AND CHARACTER OF THE EXISTING AND PROPOSED IMPROVEMENTS
5.) HYDRAULIC DRAINAGE CALCULATIONS

AS SHOWN ON THE VICINITY MAP HEREON THE SUBJECT SITE IS LOCATED ON THE SOUTH SIDE OF STATE ROAD NO. 47 BETWEEN SOUTH SECOND STREET AND SOUTH BROADWAY BLVD., BERNALILLO COUNTY, NEW MEXICO, (ZONE ATLAS MAP "R-13-Z").

THE PROJECT SITE, (1.) DOES NOT LIE WITHIN A FLOOD PLAIN, (2.) DOES NOT LIE ADJACENT TO A NATURAL OR ARTIFICIAL WATER COURSE, (3.) HAS NO DRAINAGE EASEMENTS ON THE PROPERTY.

BASED ON A SITE INVESTIGATION, IT HAS BEEN DETERMINED THAT THE FREE DISCHARGE OF SURFACE FLOWS OF THE EXISTING AND PROPOSED QUANTITIES HAVE NO ADVERSE AFFECT ON DOWNSTREAM PROPERTIES.

DRAINAGE CALCULATIONS:

I. REFERENCES: (F.E.M.A. PANEL MAP 44 OF 50).

  A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), VOL. 2, DESIGN CRITERIA, CHAPTER 22, DRAINAGE, FLOOD CONTROL AND EROSION CONTROL.

  B. SOIL SURVEY OF BERNALILLO COUNTY AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO, UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, (SCS SHEET No. 49).

II. GENERAL INFORMATION:

  A. SOIL TYPE: SOIL TYPE IS "BCC", BLUEPOINT LOAMY FINE SAND (1 TO 9 PERCENT SLOPES), RUNOFF IS SLOW; HYDRAULIC SOIL GROUP "A".

  B. IMPERVIOUSNESS:

  SITE AREA = 6.58 ACRES, (286,625.0 SQ. FT.).
  PRESENT UNDEVELOPED "C" FACTOR = 0.40

  C. TYPE OF SURFACE (DEVELOPED):

HARD SURFACED (ASPHALT/GRAVEL)	= 0.01 AC.	= 01 %	X (C=0.95)	= 0.01
BUILDING ROOF AREA	= 0.07 AC.	= 01 %	X (C=0.90)	= 0.01
LANDSCAPED AREA	= -0- AC.	= 0 %	X (C=0.25)	= 0.00
UNDEVELOPED AREA	= 6.50 AC.	= 98 %	X (C=0.40)	= 0.39

AVERAGE "WEIGHTED" "C"= 0.41

  D. RAINFALL, 100-YR., 6-HR., R_6: (SEE REF. A., PLATE 22.2 D-1)
  R_6 = 2.3 INCHES.

  E. TIME OF CONCENTRATION, T_c = TEN (10) MINUTES FOR A SITE THIS SIZE.

  F. RAINFALL INTENSITY, "I", (SEE REF. A., PLATE 22.2 D-2)
  $I = R_6 \times 6.84 \times T_c^{-0.51} = 2.3 \times 6.84 \times (10)^{-0.51} = 4.86$ IN./HR.

III. PEAK DISCHARGE: (Q = CIA)

UNDEVELOPED: $Q_{100} = 0.40 \times 4.86 \times 6.58 = 12.8$ cfs

$Q_{10} = 0.657 \times 12.8 = 8.41$ cfs

DEVELOPED: $Q_{100} = 0.41 \times 4.86 \times 6.58 = 13.11$ cfs

$Q_{10} = 0.657 \times 13.11 = 8.61$ cfs

IV. PEAK VOLUME:

  A. EXISTING CONDITIONS:
  $V_{100} = 0.40 \times (2.3/12) \times 286,625.0 = 21,974.6$ CU. FT.

  $V_{10} = 0.657 \times 21,974.6 = 14,437.3$ CU. FT.

  B. DEVELOPED CONDITIONS:
  $V_{100} = 0.41 \times (2.3/12) \times 286,625.0 = 22,523.9$ CU. FT.

  $V_{10} = 0.657 \times 22,523.9 = 14,798.2$ CU. FT.

* NOTE: POND VOLUME REQUIRED = 550.0 CU. FT.
POND VOLUME DESIGNED = 700.0 CU. FT.
(35' X 10' X 2.0' DEPTH)

GENERAL NOTES:

1.) TOPOGRAPHY SURVEY PERFORMED BY THE "TRANSIT - STADIA" METHOD.

2.) NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT PROPERTY OTHER THAN SHOWN ON THE MAP HEREON.

3.) ELEVATIONS SHOWN HEREON ARE REFERENCED TO "MEAN SEA LEVEL" DATUM.

4.) NO PROPERTY CORNERS HAVE BEEN SET PER THIS SURVEY.

GRADING AND DRAINAGE PLAN
OF
TRACT "C" - LANDS OF SAGEBRUSH SALES
SECT. 19, T9N, R3E, N.M.P.M. - BERNALILLO COUNTY, NEW MEXICO
MARCH, 1988

RECEIVED
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HYDROLOGY SECTION

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03-07-88

R# 22 DATE 6-25-93 OP E.D.P.

CITY OF ALBUQUERQUE

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Karen Acres
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: MAY 8 1995
Norberta Sanchez

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ONCE ON LIGHT AND
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PLANS/PLATS ON FILE

FILE DESC: R-13/D004

PLANS/PLATS 1

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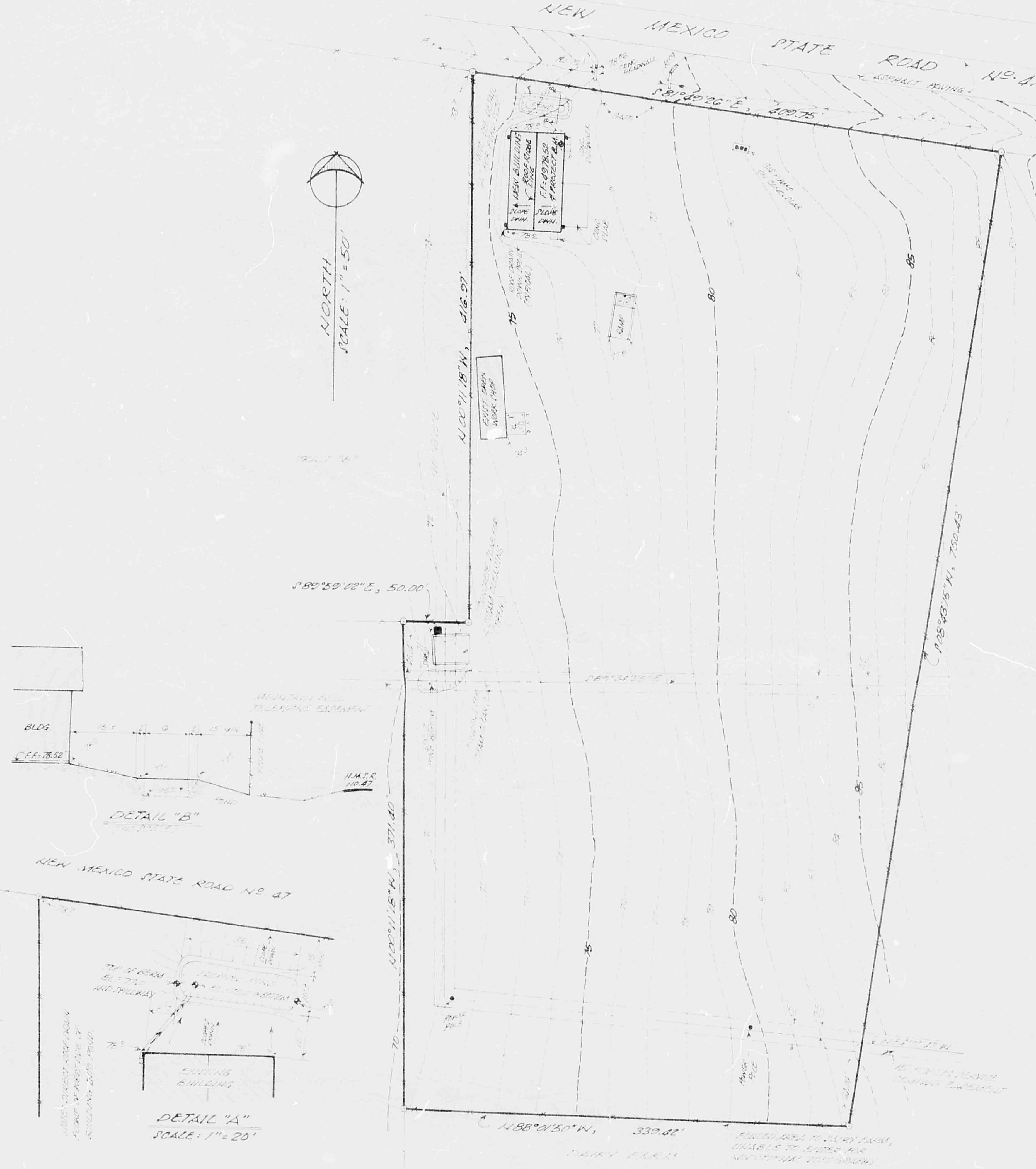
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FENCED AREA TO DAIRY FARM, UNABLE TO ENTER FOR ADDITIONAL TOPOGRAPHY
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EXISTING BUILDING
DETAIL "A"
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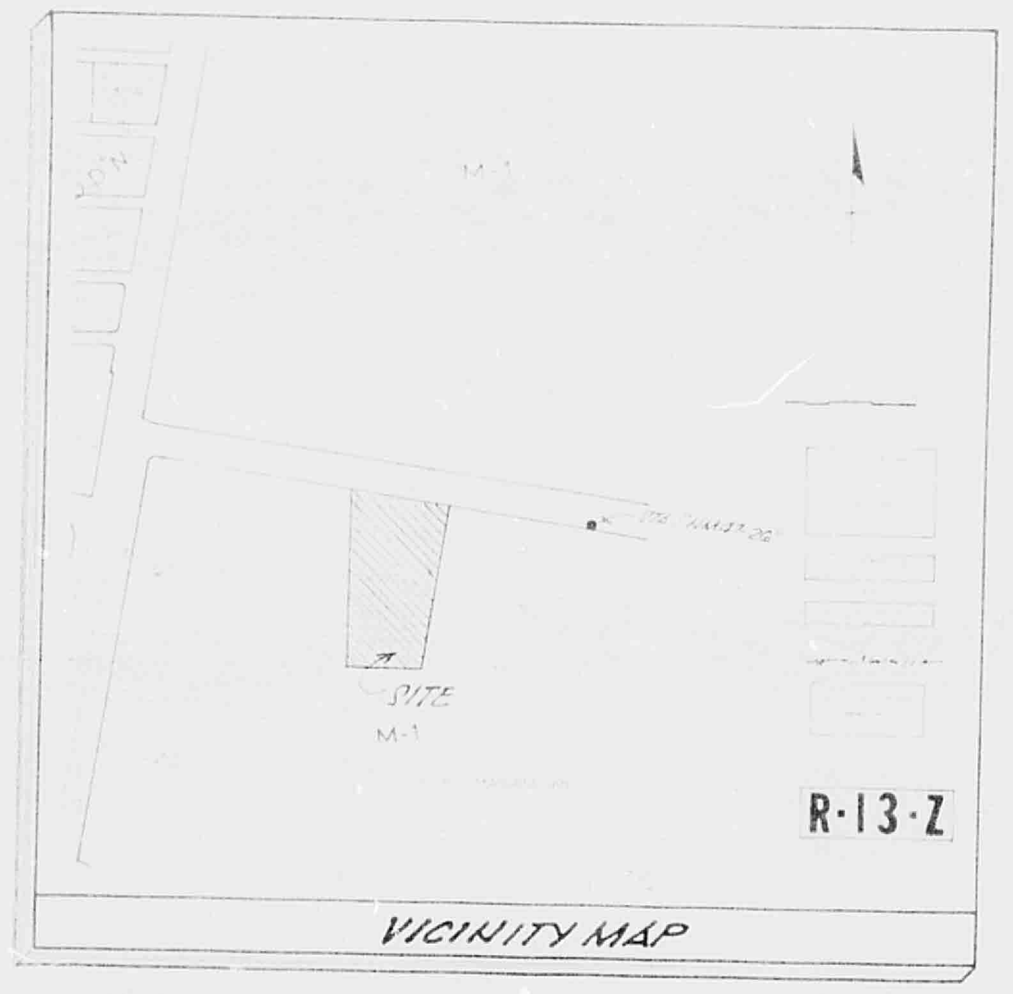

VICINITY MAP

LEGEND:

T.C. = = TOP OF CURB ELEVATION
FL = = CURB FLOW LINE ELEVATION
▭ = EXISTING OR PROPOSED CONCRETE
- - - 75 - - - = EXISTING CONTOUR
—— 75 —— = PROPOSED CONTOUR
—x——x— = EXISTING FENCE
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Karen Reeves
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires MAY 8 1996
Norberta Sanchez

D 24 C 20 B 16 A 12
CITY OF ALBUQUERQUE C D