

LOCATION AND DESCRIPTION:

THE SITE IS LOCATED AT 5760 PINO AVENUE NE IN ALBUQUERQUE, NEW MEXICO. THE SITE CONTAINING APPROXIMATELY 0.8864 ACRES, IS PRESENTLY UNDEVELOPED. EXISTING SLOPES ARE FROM THE EAST TO THE WEST WITH AN AVERAGE SLOPE OF 2.25 PERCENT. THE SITE IS NOT LOCATED WITHIN A FLOOD PLAIN.

EXISTING CONDITIONS:

DUE TO THE EXISTING SLOPES, RUNOFF FROM THE SITE FLOWS TO THE PROPERTY TO THE WEST. RUNOFF MAY ENTER THE SITE FROM THE PROPERTY TO THE EAST.

PROPOSED CONDITIONS:

PROPOSED DEVELOPMENT OF THE SITE INCLUDE A BUILDING WITH RELATED PARKING, A HOLDING/SEDIMENTATION POND, AND LANDSCAPING. DUE TO PROPOSED DEVELOPMENT, FLOWS FROM THE SITE WILL INCREASE FROM 1.7941 CFS TO 2.6407 CFS. THE FLOWS FROM THE ROOF, THE AREA SOUTH OF THE ASPHALT PARKING LOT AND ANY OFF-SITE FLOWS FROM THE EAST WILL BE ROUTED TO A HOLDING/SEDIMENTATION POND VIA AN EARTHEN SWALE. THE DETAINED RUNOFF WILL BE DISCHARGED FROM THE POND AT A RATE OF 0.20 CFS. APPROXIMATELY 7300 SQUARE FEET (0.1677 ACRES) OF ASPHALT PARKING AND CONCRETE SIDEWALK WILL BE CONSTRUCTED WITHIN THE PROPERTY LINE (BETWEEN THE STREET AND THE BUILDING). THIS IS APPROXIMATELY 19% OF THE TOTAL SITE. THIS AREA WILL CREATE A Q(100) OF 0.8061 CFS AND A Q(10) OF 0.5296 CFS. ALTHOUGH TOTAL RUNOFF WILL EXCEED 0.44 CFS, THE AREA ALLOWED TO FREELY DISCHARGE IS RELATIVELY SMALL (1/5 OF THE TOTAL SITE) WHEN COMPARED WITH THE REST OF THE SITE. ALL FLOWS WILL DISCHARGE THROUGH A SIDEWALK CULVERT OR DRIVE PADS.

CALCULATIONS:

Area = 0.8864 acres
1 = 2.2 in./hr. Plate 22.2 D-2
6-hour, 100-year rainfall = 2.3 in. Plate 22.2 D-1
i = (2.2)(2.3) = 5.06 in./hr.

EXISTING ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C" X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0.95		
Roofs	0.90	0.90		
Lawns & Landscaping	0.25	0.40	0.8864	0.3546
Undeveloped				
TOTAL		0.8864	0.3546	0.40

Q(100) = (0.8864)(5.06)(0.40) = 1.7941 cfs
Q(10) = (0.657)(1.7941) = 1.1787 cfs
CN = 74 Plate 22.2 C-2
Direct Runoff = 0.7 in. Plate 22.2 C-4
V(100) = (0.7)(0.8864)(43560)/12 = 2252.34 cu. ft.
V(10) = (0.657)(2252.34) = 1479.79 cu. ft.

PROPOSED ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C" X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0.1965	0.1867	
Roofs	0.90	0.1221	0.1099	
Lawns & Landscaping	0.25	0.0117	0.0029	
Undeveloped	0.40	0.5561	0.2224	
TOTAL		0.8864	0.5219	0.5888

Q(100) = (0.5888)(5.06)(0.8864) = 2.6407 cfs
Q(10) = (0.657)(2.6407) = 1.7351 cfs
CN = 76 Plate 22.2 C-3
Direct Runoff = 0.8 in. Plate 22.2 C-4
V(100) = (0.8)(0.8864)(43560)/12 = 2574.11 cu. ft.
V(10) = (0.657)(2574.11) = 1691.19 cu. ft.

PONDING REQUIREMENTS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C" X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0.0096	0.0092	
Roofs	0.90	0.1221	0.1099	
Lawns & Landscaping	0.25	0.0000	0.0000	
Undeveloped	0.40	0.5561	0.2224	
TOTAL		0.6878	0.3415	0.4965

Q(100) = (0.4965)(5.06)(0.6878) = 1.7280 cfs
Q(10) = (0.657)(1.7280) = 1.1353 cfs
CN = 74 Plate 22.2 C-2
Direct Runoff = 0.7 in. Plate 22.2 C-4
V(100) = (0.7)(0.6878)(43560)/12 = 1747.70 cu. ft.
V(10) = (0.657)(1747.70) = 1148.24 cu. ft.

POND SIZE:

VOLUME REQUIRED = 1750 CF
VOLUME AT NORTH END (NORTHERN MOST 40 FT)
H = 1.0 FT
A = 20 FT
B = 12 FT
LENGTH = 40 FT
VOLUME = 1/2 (H) (A + B) (LENGTH)
= 1/2 (1) (20 + 12) (40)
= 640 CF

VOLUME AT REMAINDER OF POND
H (average) = 0.5 FT
A = 20 FT
B = 12 FT
LENGTH = 150 FT
VOLUME = 1/2 (H) (A + B) (LENGTH)
= 1/2 (0.5) (20 + 12) (150)
= 1200 CF

TOTAL POND VOLUME = 640 + 1200 = 1840 CF

RATE OF DISCHARGE:

RATE = 0.20 CFS

MANNING FORMULA:

$$d_i = \left[\frac{(1630 Q N)}{S^{1/2}} \right]^{3/8} \quad N = 0.0012 \quad S = 0.0025$$

$$d_i = \left[\frac{1630 (0.2) (0.0012)}{0.0025^{1/2}} \right]^{3/8}$$

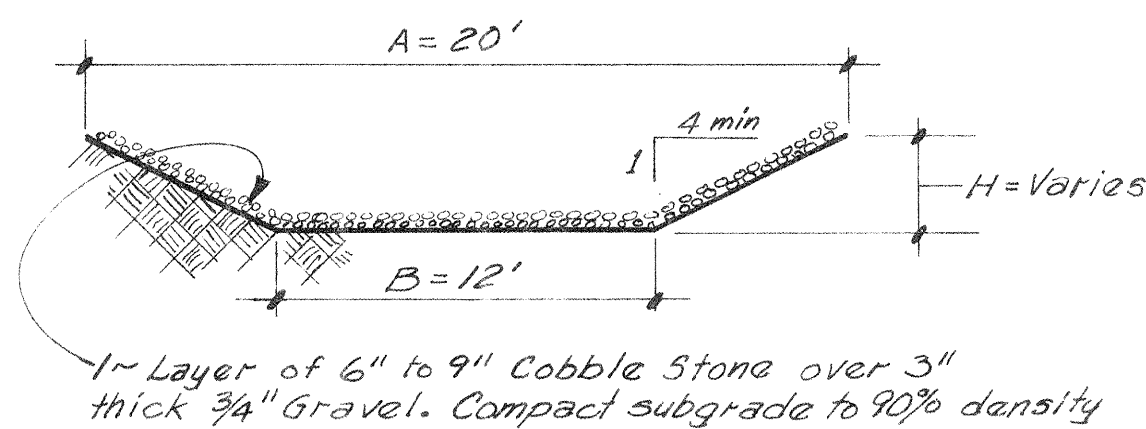
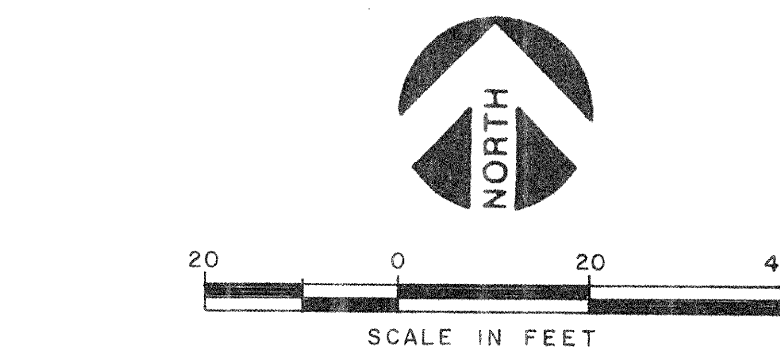
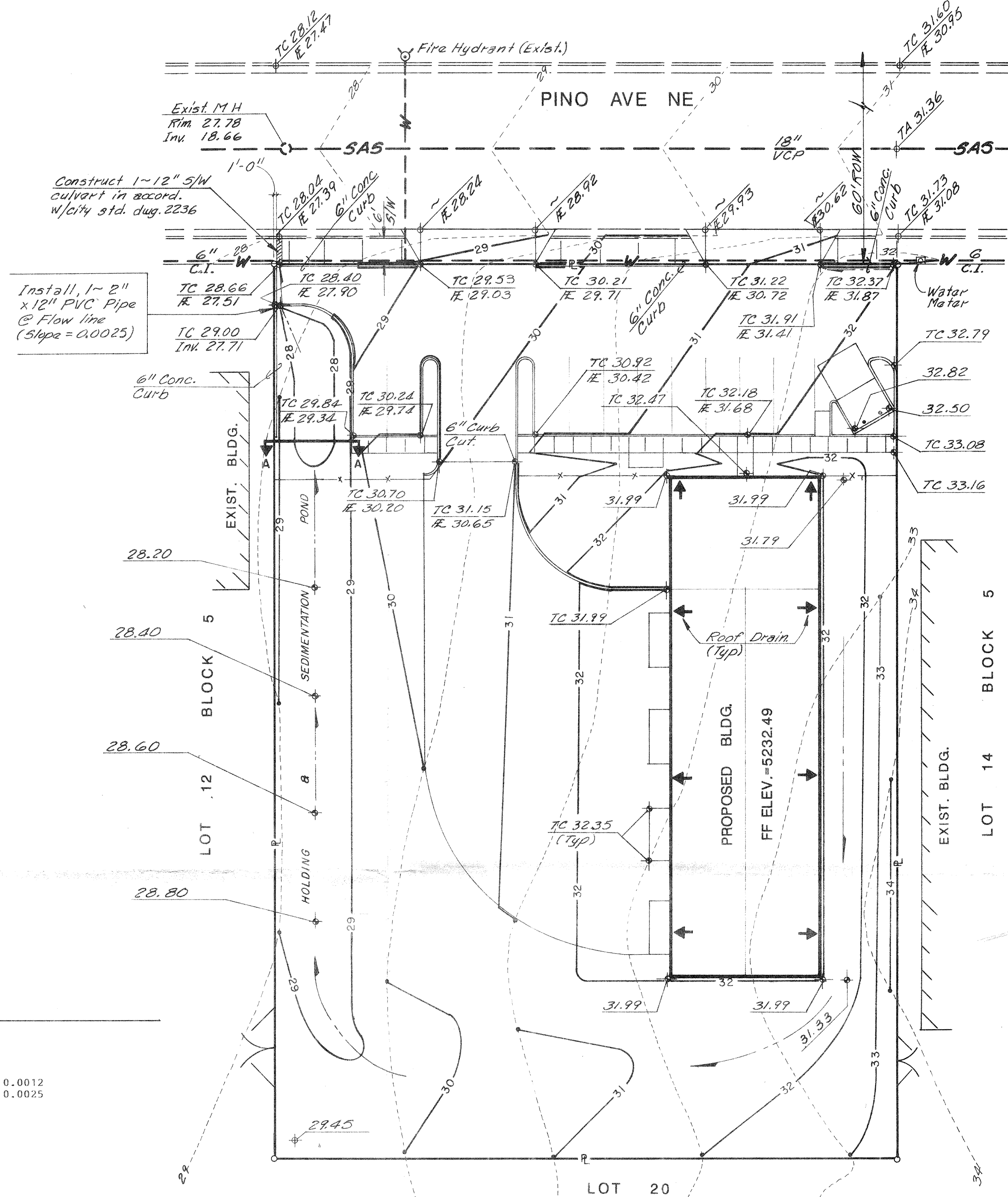
$$d_i = 2.1629 \text{ inches}$$

USE 2 INCH PVC PIPE (S = 0.0025)

FREE DISCHARGE AREA:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C" X A	COMPOSITE "C"=CXA/A
Streets, Walks	0.95	0.1677	0.1593	
TOTAL		0.1677	0.1593	0.95

Q(100) = (0.95) (5.06) (0.1677) = 0.8061 cfs
Q(10) = (0.657) (0.8061) = 0.5296 cfs



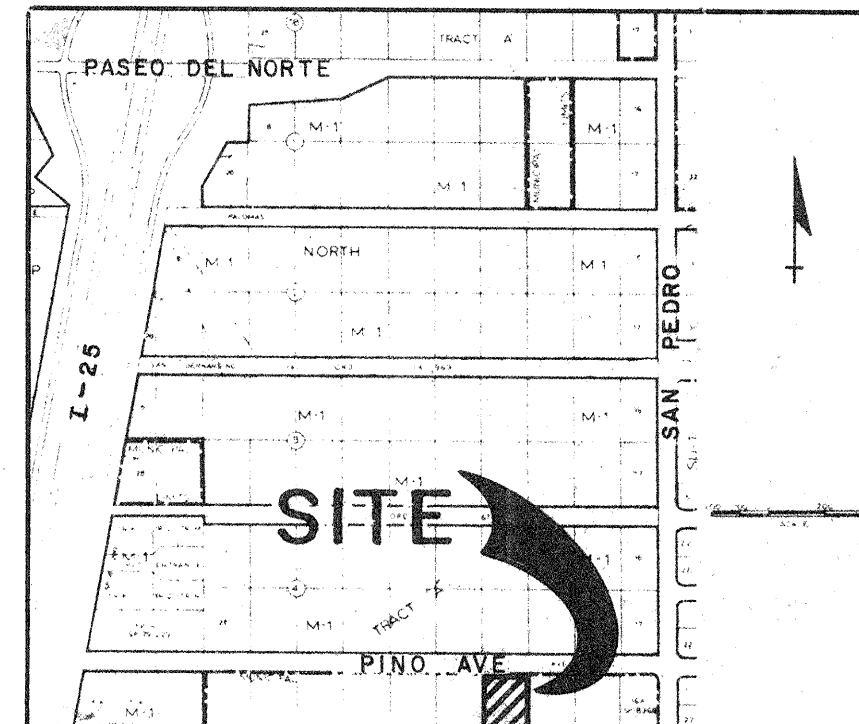
SECTION A-A

NTS

LEGEND:

PROPERTY LINE	— R —
CONTOUR (EXISTING)	--- 30 ---
CONTOUR (NEW)	— 30 —
SPOT ELEVATION (EXISTING)	⊕
SPOT ELEVATION (NEW)	⊕

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY	
TITLE 5760 PINO AVE NE NORTH ALBUQUERQUE ACRES SIDEWALK CULVERT	
PERMIT NO.	MAP NO. D-18-Z
DESIGN APPROVAL: Hydrology Section Date	
INSPECTION APPROVAL: Construction Section Date	
ACCEPTANCE: Construction Section/Permits Date	



VICINITY MAP D-18

FLOOD HAZARD BDY. MAP / PANEL # 10

LEGAL DESCRIPTION:

LOT "13", BLOCK "5" / TRACT "A" - UNIT "A" / NORTH ALBUQUERQUE ACRES.

BENCH MARK DATA:

THE STATION IS A SQUARE, \square , CHISELED ON TOP OF CONCRETE CURB MARKED ACS 6-D18, LOCATED ON THE NORTH SIDE OF PINO AVE. N.E., 65 FT. EAST OF THE JUNCTION WITH I-25 AND EAST FRONTAGE ROAD.
ELEVATION IN FT. = 5197.686.

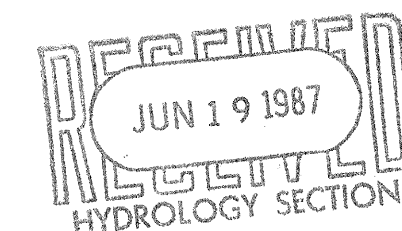
TBM IS A SAS MANHOLE LOCATED NORTH OF THE NW PROPERTY CORNER.
RIM ELEVATION IN FT. = 5227.78

SURVEY DATA:

SURVEY DATA PROVIDED BY STEVEN L. YOUTSEY, NMPLS 7248, ALBUQUERQUE, NEW MEXICO ON MAY 4, 1987.

NOTICE TO CONTRACTOR:

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF ALBUQUERQUE, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986" (COA STDN).
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
- REFERENCE MADE TO STANDARD DRAWINGS REFER TO ALBUQUERQUE STANDARD DRAWINGS.
- CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THE CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A PERMIT TO CONSTRUCT FACILITIES WITHIN CITY RIGHT-OF-WAY.



STEVEN MALLORY PEARL & CAMPBELL, P.A.
ARCHITECTS 115 AMHERST S.E. ALBUQUERQUE, NEW MEXICO 87106

CHECKED VJC

DRAWN J/R/S

DATE 5-87

PINO YARD WAREHOUSE FOR THE GARNER ZEMKE WAREHOUSE

DRAINAGE INFORMATION SHEET

PROJECT TITLE: GARDNER ZEMKE WAREHOUSE ZONE ATLAS/DRNG.FILE #: D-18/020

LEGAL DESCRIPTION: TRACT A, UNIT A, N.A.A. BLOCK 5
LOT 13

CITY ADDRESS: 5760 PINO NE

ENGINEERING FIRM: CHAVEZ-GRIEVES CONTACT: RICARDO SANCHEZ

ADDRESS: 4600-C MONTGOMERY NE PHONE: 881-7376

OWNER: GARDNER-ZEMKE CONTACT: _____

ADDRESS: 4600 LINCOLN NE PHONE: 881-0555

ARCHITECT: SMPL CONTACT: GLEN FELLOWS

ADDRESS: 115 AMHERST S.E. PHONE: 255-8668

SURVEYOR: DTM & ASSOCIATES CONTACT: STEVEN YOUTSEY

ADDRESS: 2400 COMANCHE NE PHONE: 884-0696

CONTRACTOR: _____ CONTACT: _____

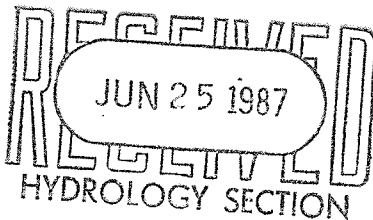
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

☒ YES

☐ NO

☒ COPY OF CONFERENCE RECAP
SHEET PROVIDED



DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☒ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☒ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: Ricardo San

BY: 6/25/87



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

July 6, 1987

Victor Chavez, P.E.
Chavez-Grieves Consulting Engineers
4600-C Montgomery Boulevard, NE
Albuquerque, New Mexico 87109

RE: REVISED DRAINAGE PLAN FOR GARDNER ZEMKE WAREHOUSE
(D-18/D20) ENGINEER'S REVISION DATE JUNE 25, 1987

Dear Mr. Chavez:

Based on the information provided on your resubmittal of June 25, 1987,
the above referenced plan is approved for Building Permit.

Please advise your client that a separate permit is required for
construction within City right-of-way.

If I can be of further assistance, please feel free to call me at
768-2650.

Cordially,

Bernie J. Montoya, C.E.
Engineering Assistant

cc: Becky Sandoval

BJM/bsj

PUBLIC WORKS DEPARTMENT

Walter Nickerson, P.E., City Engineer

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER