

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

September 23, 1985

Mr. Bo K.E. Johnson  
A & E Engineering  
1330 San Pedro NE, Suite 208  
Albuquerque, NM 87110

REF: REVISED TEMPORARY DRAINAGE PLAN FOR LOVELACE CLINIC PARKING LOT  
(L18-D29) ENGINEER'S STAMP DATED JULY 1, 1985

Dear Mr. Johnson:

Based on the information provided on your September 4, 1985 resubmittal, the above referenced drainage plan is approved for grading permit.

Please advise your client that a compaction report will be required for the proposed berm on the east property line when completed. Also, no runoff will be allowed over the public sidewalk adjacent to Eastern Avenue SE.

If I can be of further assistance, please feel free to contact me at 766-7644.

Sincerely,

Carlos A. Montoya, PE  
City/County Flood Plain Admin.

CAM:BJM:mrk

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER

930604

DRAINAGE INFORMATION SHEET

PROJECT TITLE: LOVELACE CHILDCARE ZONE ATLAS/DRNG. FILE #: L18/D29  
DRB #: \_\_\_\_\_ EPC #: \_\_\_\_\_ WORK ORDER #: \_\_\_\_\_  
LEGAL DESCRIPTION: LOT 1, BLK 26, VIRGINIA PLANS ADDITION  
CITY ADDRESS: \_\_\_\_\_  
ENGINEERING FIRM: JEFF MORTENSEN & ASSOC. CONTACT: JEFF MORTENSEN  
ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250  
OWNER: LOVELACE MEDICAL CTR CONTACT: JAMES TWELBY  
ADDRESS: 5400 GIBSON SE PHONE: 262-7157  
ARCHITECT: GREGORY T. HICKS & ASSOC CONTACT: RUSSELL GOUGHTLY  
ADDRESS: 112 SECOND ST. SW PHONE: 243-7492  
SURVEYOR: JEFF MORTENSEN & ASSOC CONTACT: JEFF MORTENSEN  
ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250  
CONTRACTOR: BRITTON CONSTR. CONTACT: JIM ROUPAS  
ADDRESS: \_\_\_\_\_ PHONE: 275-2626

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT  
☐ DRAINAGE PLAN  
☐ CONCEPTUAL GRADING & DRAINAGE PLAN  
☐ GRADING PLAN  
☐ EROSION CONTROL PLAN  
☒ ENGINEER'S CERTIFICATION  
☐ OTHER

PRE-DESIGN MEETING:

- ☐ YES  
☐ NO  
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

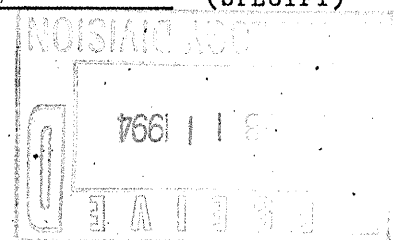
- ☐ SKETCH PLAT APPROVAL  
☐ PRELIMINARY PLAT APPROVAL  
☐ S. DEV. PLAN FOR SUB'D. APPROVAL  
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL  
☐ SECTOR PLAN APPROVAL  
☐ FINAL PLAT APPROVAL  
☐ FOUNDATION PERMIT APPROVAL  
☐ BUILDING PERMIT APPROVAL  
☒ CERTIFICATE OF OCCUPANCY APPROVAL  
☐ GRADING PERMIT APPROVAL  
☐ PAVING PERMIT APPROVAL  
☐ S.A.D. DRAINAGE REPORT  
☐ DRAINAGE REQUIREMENTS  
☐ OTHER \_\_\_\_\_ (SPECIFY)

DATE SUBMITTED:

02-11-94

BY:

JEFFREY G. MORTENSEN

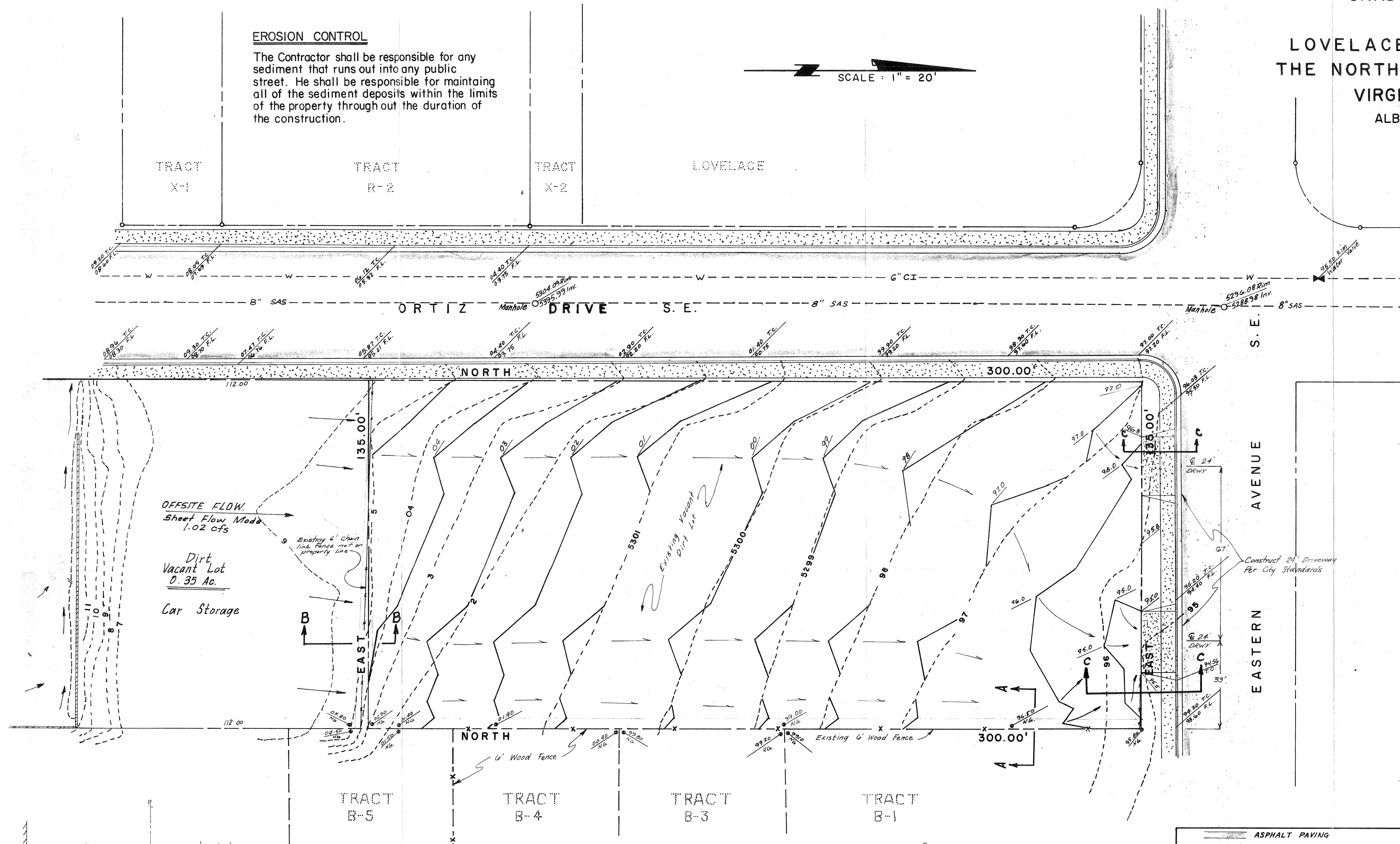


GRADING AND DRAINAGE PLAN  
OF  
LOVELACE CLINIC PARKING LOTS  
THE NORTHWEST HALF OF BLOCK 26  
VIRGINIA PLACE ADDITION  
ALBUQUERQUE, NEW MEXICO  
APRIL 1985

EROSION CONTROL

The Contractor shall be responsible for any sediment that runs out into any public street. He shall be responsible for maintaining all of the sediment deposits within the limits of the property throughout the duration of the construction.

SCALE: 1" = 20'



SITE DRAINAGE CRITERIA

THIS IS A GRADING AND DRAINAGE PLAN FOR THE NORTHWEST QUARTER OF BLOCK 26, VIRGINIA PLACE ADDITION. THIS DRAINAGE REPORT AND PLAN CONSISTS OF A HYDROLOGIC STUDY OF THE PROBABLE 100-YEAR STORM AFFECTING THIS EXISTING SITE. THE PURPOSE OF THIS PLAN IS TO ROUTE THE GENERATED RUNOFF THROUGH THE PARKING LOT TO EASTERN AVENUE.

THE FOLLOWING ITEMS ARE REQUIRED BY THE CITY OF ALBUQUERQUE DRAINAGE SECTION CONCERNING THIS DRAINAGE PLAN:

- EXISTING CONTOURS AT ONE FOOT INTERVALS.
- PROPOSED GRADES INDICATED BY CONTOURS AND SPOT ELEVATIONS.
- SPOTS AS INDICATED BY THE LEGEND SHOWN.
- GRADING AND DRAINAGE PLAN.

THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE AS IS SHOWN ON THE FLOOD HAZARD MAP 330002 0030 C.

DRAINAGE NOTES AND CALCULATIONS

- LEGAL DESCRIPTION:** A CERTAIN TRACT OF LAND BEING THE NORTHWEST QUARTER OF BLOCK 26, VIRGINIA PLACE ADDITION, IN ADDITION TO THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, CONTAINING 0.43 ACRES MORE OR LESS.
- ZONING:** C-1 & C-2, ZONE ATLAS 1-18-2
- SOIL TYPE:** AS PER THE U.S.D.A. SOIL CONSERVATION REPORT ON SOILS OF BERNALILLO COUNTY THIS AREA IS DEFINED AS A SANDY LOAM OF THE HYDROLOGIC GROUP B. HENCE, THE C VALUE AS PER THE D.P.M. FOR THE USE IN THE RATIONAL EQUATION = 0.34
- OFFSITE:** THIS SITE HAS ONE AREA CONTRIBUTING OFFSITE FLOWS. THIS AREA IS AN CAR STORAGE LOT, THAT IS DIRT AND CONTAINS 0.35 ACRES. IT IS ADJACENT TO THE SOUTH PROPERTY LINE. IT'S RUNOFF FLOWS THRU THE EXISTING 6" CHAIN LINK FENCE IN THE SOUTH PROPERTY LINE. SINCE IT DOES NOT CONCENTRATE AT ANY ONE POINT ALONG THE SOUTH PROPERTY LINE OF THIS SITE, THE RUNOFF FACTOR FOR THIS AREA IS C = 0.40. THE OFFSITE FLOW IS CALCULATED BY USING THE RATIONAL FORMULA:  

$$Q = CIA$$

$$Q = 4.86 \text{ in/hr} \quad A = 0.35$$

$$\text{THUS: } Q_{100} = (0.60)(4.86)(0.35) = 1.02 \text{ cfs}$$
- UNDEVELOPED CONDITIONS:** THE SITE IS A VACANT UNDEVELOPED LOT. THE TERRAIN SLOPES SOUTH TO NORTH AND IT'S GENERATED FLOW ARE IN SHEET FLOW MODE. THE PURPOSE OF THIS DRAINAGE REPORT AND PLAN IS TO PROVIDE POSITIVE DRAINAGE FROM THE SITE BOTH EASTERN AVENUE. THE TOTAL AREA OF THIS TRACT IS 0.43 ACRES OR 40,500 SQUARE FEET WHICH IS CONTRIBUTING RUNOFF. THE UNDEVELOPED RUNOFF: UNDER AN UNDEVELOPED CONDITION IS SHOWN HEREIN: USING  $P = 2.5"$  (DPM VALUE)  

$$I = 7(6.84) t^{0.484} = 4.86 \text{ in/hr}, t_c = 10 \text{ min}$$

$$\text{Undeveloped } CIA = 0.34(4.86)(0.93) = 1.54 \text{ cfs}$$
- DEVELOPED DRAINAGE PLAN:** ACCORDING TO THE PRE-DESIGN MEETING ON 4/22/85 WITH THE CITY'S ENGINEER (HYDROLOGY SECTION), THE SITE'S DRAINAGE PLAN MUST ADDRESS THE OFFSITE FLOWS AND INSURE EROSION CONTROL OF THE TEMPORARY GRAVEL PARKING LOT. THE SITE WILL BE GRADED AND WILL BE SURVEYED WITH 4" OF COMPACTED GRAVEL AND SHALL BE USED AS A TEMPORARY PARKING LOT. THE SITE WILL BE CONSTRUCTED WITH ONE FOOT (1.0 FT) HIGH BERM ALONG THE SITE'S WEST, NORTH AND EAST PROPERTY LINE TO PREVENT SEDIMENT FROM OVER FLOWING INTO THE STREET AREA. THE GENERATED RUNOFF WILL DRAIN TO THE NORTH WHERE IT WILL DRAIN THRU THE NEW DRIVEWAYS, AND WILL ALLOW FOR SEDIMENT FREE RUNOFF TO DRAIN OVER THE NEW DRIVEWAY.

**ONSITE FLOWS:** BY USING THE RATIONAL FORMULA THE ONSITE FLOWS ARE CALCULATED:  

$$Q_{100} = CIA$$

$$C = 0.60 \text{ for gravel surface}$$

$$I = 4.86 \text{ in/hr}$$

$$A = 0.93 \text{ Ac.}$$

$$Q_{100} = (0.60)(4.86)(0.93) = 2.72 \text{ cfs}$$

THE TOTAL FLOW THAT CONCENTRATES AT THE NORTHWEST CORNER IS EQUAL TO THE OFFSITE FLOW PLUS THE ONSITE FLOW GENERATED. THEREFORE THE TOTAL RUNOFF IS CALCULATED TO BE AS:  

$$1.02 \text{ cfs} + 2.72 \text{ cfs} = 3.74 \text{ cfs}$$

THIS FLOW WILL FLOW THRU THE 2 FEET SILENT FENCE AREA AND WILL ALSO HAVE AN EMERGENCY SPILLWAY THRU OR OVER THE 24 FEET WIDE DRIVEWAY DVD.

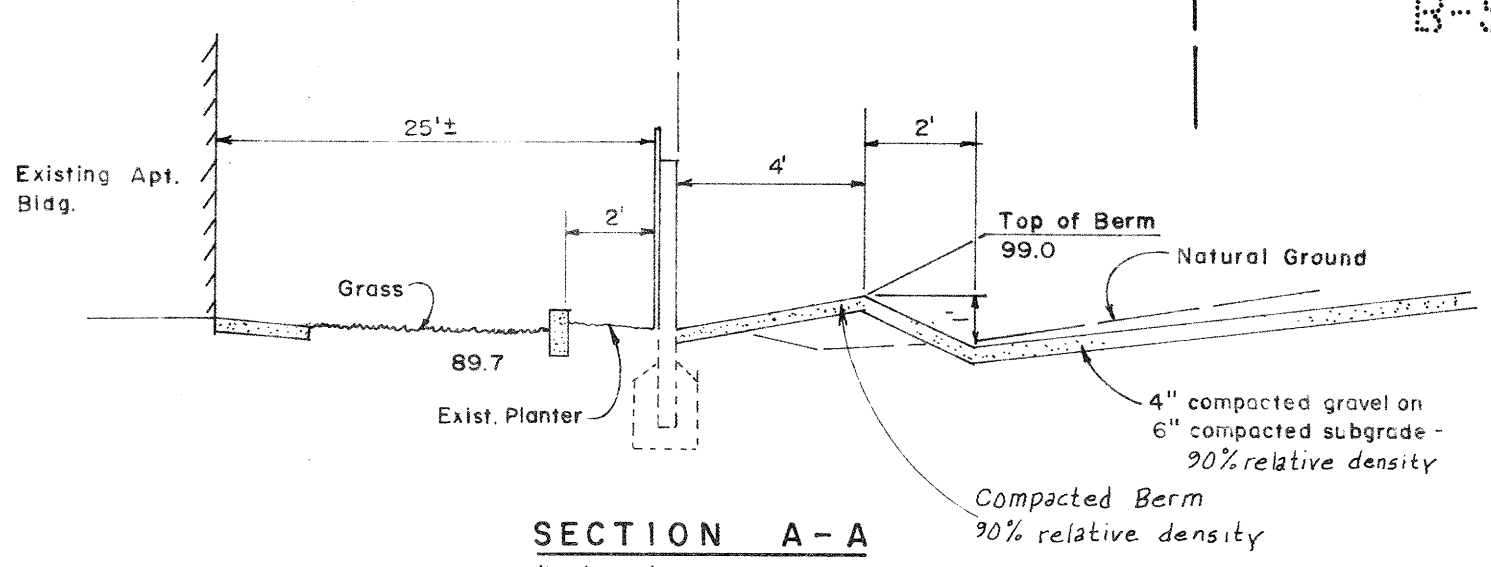
OVERFLOW CALCULATIONS FOR EMERGENCY SPILLWAY:

$Q_{100} = 3.74 \text{ cfs} \quad H = 0.5 \text{ ft.}$   

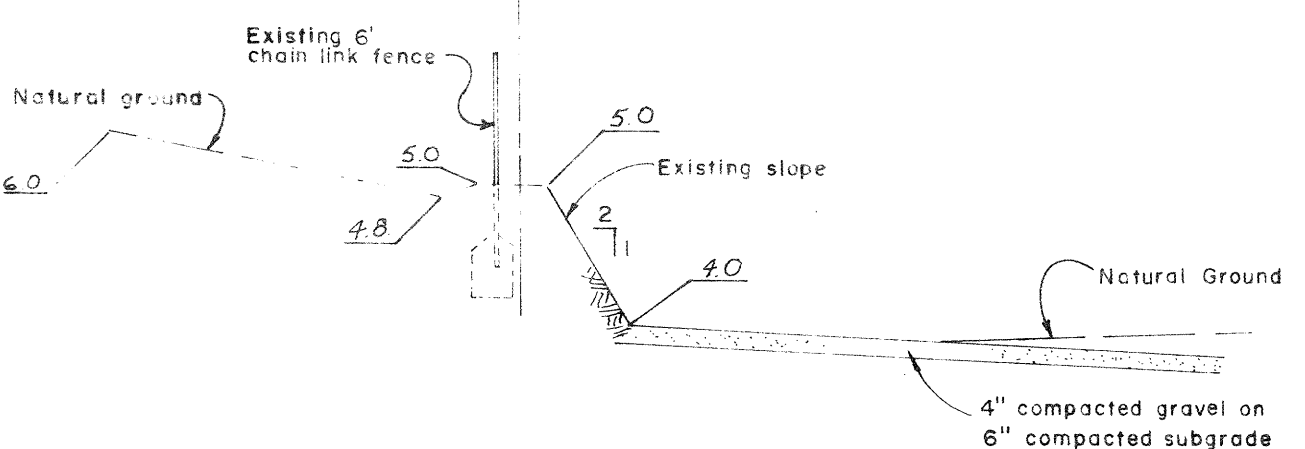
$$Q = C H^{3/2} = (0.34)(0.5) = 3.74$$

$$L = 3.77 \text{ ft.}$$

THE DRIVEWAY PAD IS 24 FEET WIDE, THEREFORE EMERGENCY SPILLWAY WILL BE PROVIDED BY THIS PLAN.



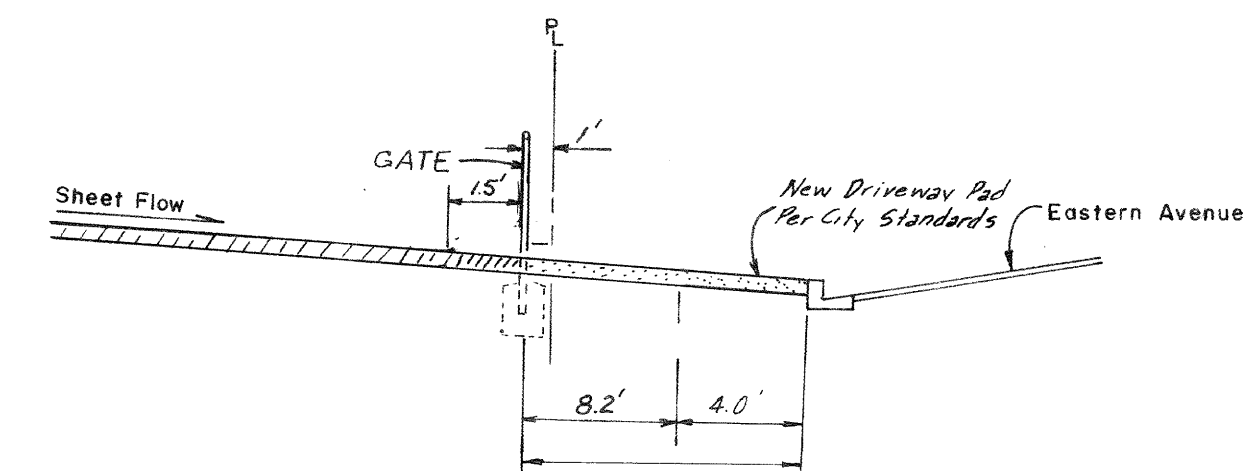
SECTION A-A  
Not to scale



SECTION B-B  
Not to scale

NOTE: THIS PLAN IS ONLY FOR A TEMPORARY PARKING LOT FOR LOVELACE CLINIC. IF ANY PERMANENT STRUCTURES ARE TO BE BUILT ON THIS LAND, A NEW DRAINAGE SUBMITTAL WILL BE REQUIRED.

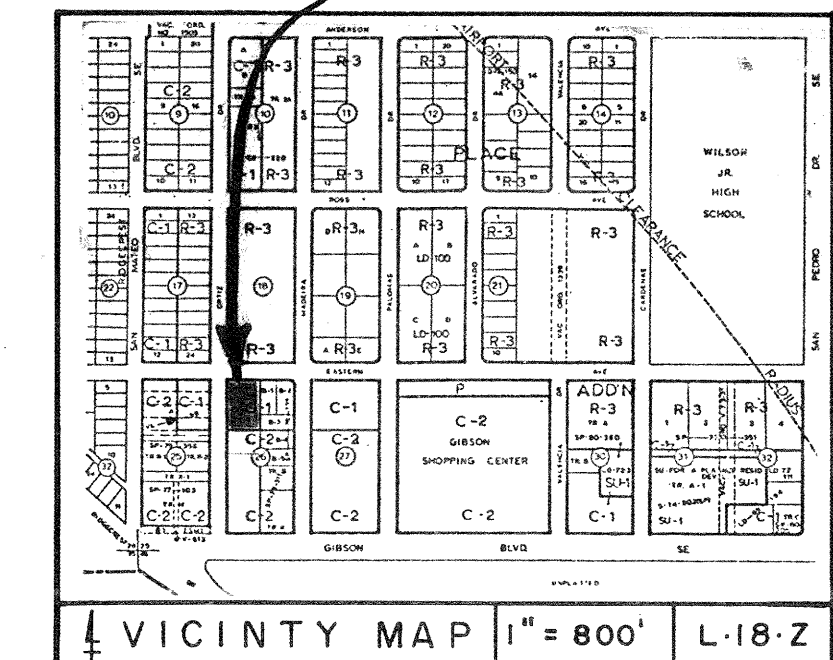
BENCH MARK: MCS-STV, 17-1  
The station is a 5.7" aluminum tablet set in concrete projecting 0.5" above the asphalt pavement located in the intersection of Gibson Blvd. and San Mateo Blvd. Elevation 5317.319 feet.



SECTION C-C  
Not to scale

|  |                                    |
|--|------------------------------------|
|  | ASPHALT PAVING                     |
|  | PROPERTY LINE                      |
|  | EXISTING CURB & GUTTER w/ SIDEWALK |
|  | EXISTING SPOT ELEVATION            |
|  | EXISTING CONTOUR                   |
|  | SURFACE FLOW ELEVATION             |
|  | PROPOSED FINISH CONTOUR            |
|  | BUILDING STRUCTURE                 |
|  | TOP OF CURB                        |

LEGEND



VICINITY MAP 1"=800' L-18-Z

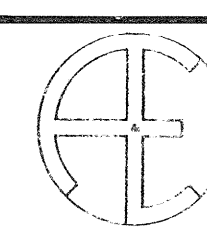
I, JOHN F. ESQUIBEL, UNDER THE LAWS OF NEW MEXICO, AM A REGISTERED LAND SURVEYOR NUMBER 5949 AND CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, SHOWS ALL EASEMENTS OF RECORD, MEETS MINIMUM REQUIREMENTS FOR DOCUMENTATION AND SURVEYS OF THE ALBUQUERQUE SUBDIVISION ORDINANCE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*John F. Esquibel*  
JOHN F. ESQUIBEL, N.M.L.S., NO. 5949



L18/D29

L-18-D29



A & E ENGINEERING, INC.  
CIVIL ENGINEERING - SURVEYING - PLANNING  
1330 SAN PEDRO NE SUITE 208-266-8791  
ALBUQUERQUE, NEW MEXICO 87110

RECEIVED  
SEP 04 1985  
HYDROLOGY SECTION