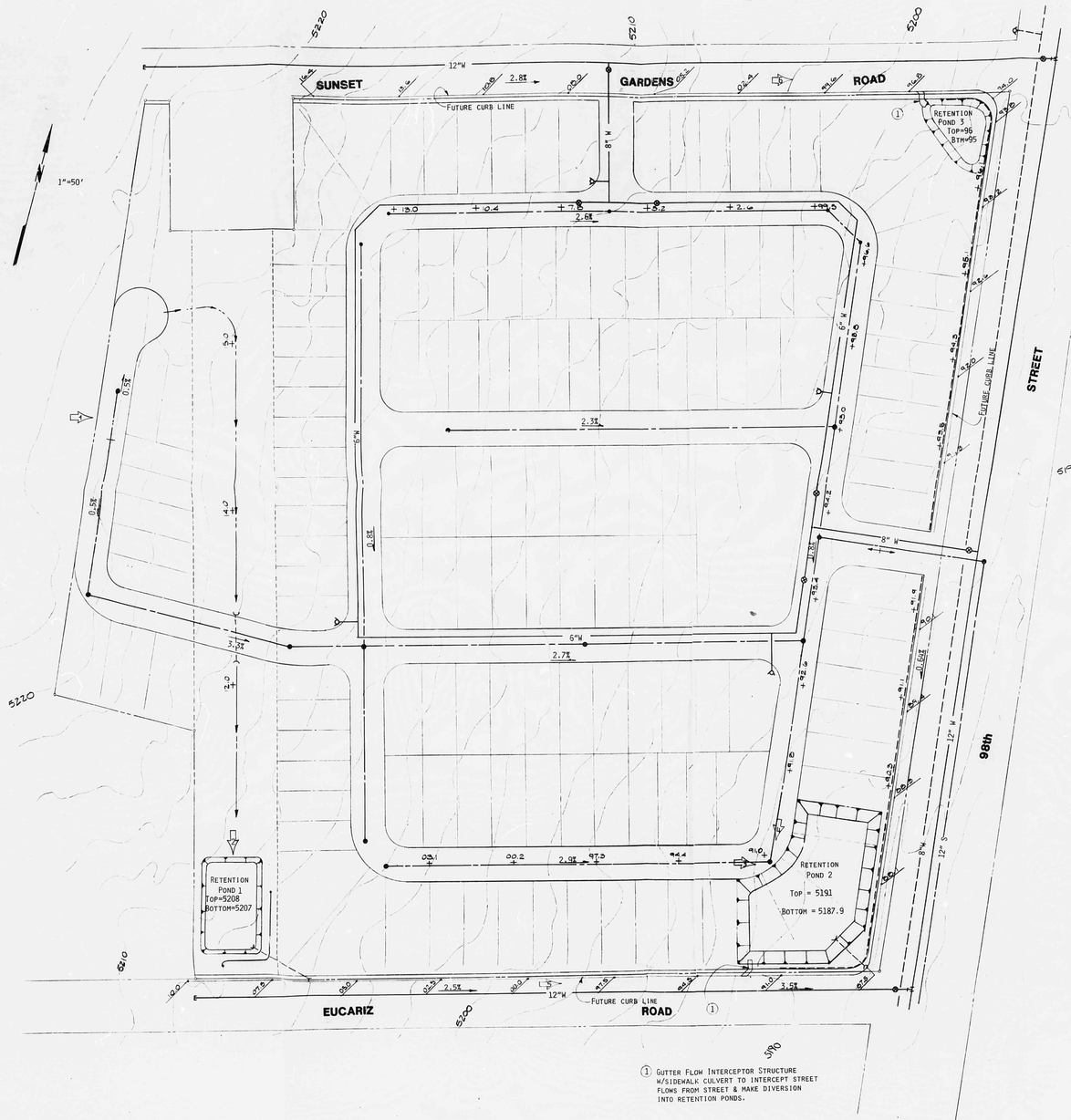
HYDROLOGY L9/D6 1 PLAN

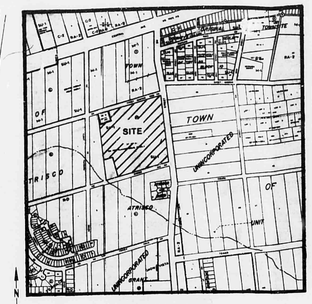
L9/D6

1 Plan

CITY OF ALBUQUERQUE

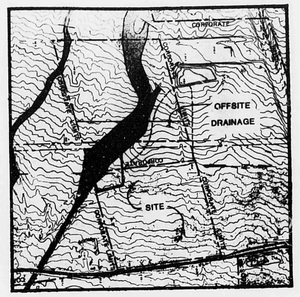


① GUTTER FLOW INTERCEPTOR STRUCTURE W/SIDEWALK CULVERT TO INTERCEPT STREET FLOWS FROM STREET & MAKE DIVERSION INTO RETENTION PONDS.



VICINITY MAP

ZONE ATLAS MAP NO. L-9



FLOOD HAZARD & WATERSHED MAP

1" = 500'

DRAINAGE INFORMATION & CALCULATIONS

A. FLOOD HAZARD. THE SITE IS NOT LOCATED WITHIN ANY FLOOD HAZARD ZONE.

B. OFFSITE FLOWS. THERE IS AN EXISTING OFFSITE DRAINAGE AREA OF 8.2 ACRES WHICH PRODUCES SHEET FLOWS ALONG THE WEST SIDE OF THE PROPERTY. WHEN FUTURE DEVELOPMENT OF ADJACENT PROPERTIES TO THE WEST OCCURS, THESE FLOWS WILL BE INTERCEPTED BEFORE THEY REACH THE SITE.

C. WATERSHED SOILS. SCS SOIL BBC, HYDRO GROUP A.

D RAINFALL RATE.
P = 6 HR. RAINFALL DEPTH = 2.2" (DPM, 22.2 D-1)
I = 2.2 x 2.2" = 4.84"/HR.

E. DOWNSTREAM CAPACITY. FLOWS LEAVING THE SITE TRAVEL SOUTHERLY ALONG 98TH STREET TO AN EXISTING ARROYO SYSTEM APPROXIMATELY 850' SOUTH OF THE PROPERTY. TOWER ROAD INTERCEPTS THE ARROYO APPROXIMATELY 1300 FEET DOWNSTREAM FROM THE 98TH ST. CROSSING. TOWER ROAD DOES NOT HAVE SUFFICIENT FLOW CAPACITY AND IS CONSIDERED A FLOOD HAZARD ZONE.

F. DRAINAGE CONCEPT. ON-SITE DEVELOPED FLOWS WILL BE 100% RETAINED AS REQUIRED BY THE CITY DESIGN HYDROLOGY SECTION DUE TO DOWNSTREAM FLOODING CONDITIONS. THESE FLOODING CONDITIONS WILL BE REMOVED WITH THE IMPLEMENTATION OF THE ANDLE DEL NORTE CHANNEL SYSTEM. RETENTION PONDING IS ALSO PROVIDED FOR RUNOFF FROM IMPROVED STREET FLOW FROM SUNSET GARDENS ROAD & EUCARIZ ROAD.

OFFSITE FLOWS ENTERING THE PROPERTY WILL NOT BE REQUIRED TO BE DETAINED OR RETAINED.

RETENTION PONDS MAY BE REDUCED OR ELIMINATED UPON IMPROVEMENT OF DOWNSTREAM DRAINAGE IMPROVEMENTS.

G. RETENTION POND VOLUME CALCULATIONS.

POND 1:
AVG. AREA=(6000 + 9600)/2 = 7800 S.F.
VOL. = 7800 x 1' = 7800 CU.FT.
VOL. REQ'D = 7682, OK

POND 2.
AVG. AREA=(15,075 + 23,700)/2 = 19,387 S.F.
VOL. = 19,387 x 3.1' = 60,100 CU.FT
VOL. REQ'D = 37,230 + 20,460 + 2400 = 60,090, OK

POND 3:
AVG AREA=$\frac{5060 + 3075}{2}$
= 4067 S.F.
VOL.=4067 x 1 = 4067 CU.FT.
VOL. REQ'D=3990, OK

H. RUNOFF CALCULATION TABLE

SITE DEVELOPMENT	DRAINAGE AREA	PERCENT IMPERVIOUS	C	P (IN)	i (IN/HR)	AREA (AC)	Q100	VOLUME (CUFT)
EXISTING	*	0	0.17	2.2	3.96	8.2	5.8	11,132
DEVELOPED	**	20	0.26	"	4.84	3.7	4.6	7,682
"		50	0.42	"	"	11.1	22	37,230
"		50	"	"	"	6.1	12	20,460
"		100	1.00	"	"	0.3 ①	1.4	2,400
"		100	"	"	"	0.5 ②	2.4	3,990

*OFFSITE
** CONSIDERING ONSITE FLOWS ONLY, OFFSITE FLOWS WILL BE ALLOWED TO PASS THROUGH UNDETAINED.

① 20' PERM. PVMT + 0.5 CURB + ½' S/W = 24.5' X 625' ÷ 43,560 = 0.3 AC (NEGLECT 4' TEMP. PVMT WHICH WILL DRAIN AWAY FROM GUTTER AND THAT PORTION OF ROAD TOPOGRAPHICALLY LOWER THAN POND.)

② 20' PERM. PVMT + 0.5 CURB + ½' S/W = 24.5 X 950 ÷ 43,560 = 0.5 AC

I. POND COVENANTS/EASEMENTS:
ALL PONDS WILL REQUIRE EXECUTED DRAINAGE COVENANTS FOR OPERATION & MAINTENANCE. POND ACCEPTING WATER FROM PUBLIC STREETS WILL REQUIRE DRAINAGE EASEMENTS GRANTED TO THE CITY OF ALBUQUERQUE. ADDITIONALLY POND 1 WILL REQUIRE AN EXECUTED DRAINAGE COVENANT WITH PNM SINCE IT IS LOCATED IN A PNM EASEMENT. ALL COVENANTS AND EASEMENTS ARE REQUIRED PRIOR TO BUILDING PERMIT OR WORK ORDER ISSUANCE.

WATER & SEWER STATEMENTS

WATER STATEMENT

THE EXISTING 6" LINE IN 98TH STREET DOES NOT HAVE SUFFICIENT CAPACITY TO PROVIDE FIRE PROTECTION FOR THE DEVELOPMENT CONSEQUENTLY, A NEW 12" EXTENSION MUST BE MADE FROM CENTRAL AVE. SOUTH ON 98TH STREET TO THE PROJECT. A LOOPED PUBLIC FIRE PROTECTION LINE WILL BE BUILT WITHIN THE SITE AS SHOWN. FIRE HYDRANTS WILL BE PLACED AT STREET INTERSECTIONS AND WITHIN 300 FEET OF ALL MOBILE HOME SPACES.

A PRIVATE DOMESTIC WATER DISTRIBUTION SYSTEM (NOT SHOWN) WILL BE CONSTRUCTED WITH A MASTER WATER METER CONNECTING TO THE PUBLIC LINE.

EASEMENTS WILL BE GRANTED TO THE CITY FOR ALL PUBLIC FIRE LINES AND THE MASTER METER.

SANITARY SEWER STATEMENT

THERE ARE NO EXISTING PUBLIC SANITARY SEWER LINES ADJACENT TO THE PROPERTY. A SEWER LINE EXTENSION FROM COORS ROAD WEST AND NORTH VIA ARENAL ROAD, UNSER BOULEVARD, TOWER ROAD AND 98TH ST. IS PLANNED FOR THE DEVELOPMENT OF THIS PROPERTY AND THE PROPOSED SUNRISE TERRACE SUBDIVISION. AN ONSITE EXTENSION OF THIS PROPOSED LINE INTO THE PROPERTY WILL PROVIDE SEWER SERVICE. ALL ONSITE PUBLIC LINES WILL BE 8" DIAMETER. EASEMENTS WILL BE GRANTED TO THE CITY FOR ALL ONSITE PUBLIC SEWER LINES.

LEGEND

- EXISTING WATER LINES
- PROPOSED WATER LINES
- EXISTING FIRE HYDRANTS
- PROPOSED FIRE HYDRANTS
- PROPOSED SANITARY SEWER LINES, 8" DIA. UNLESS OTHERWISE SHOWN
- PROPOSED SEWER MANHOLES
- RUNOFF ANALYSIS POINT
- 0.8% STREET GRADE IN % SLOPE
- CULVERT, DRAIN PIPE
- EXISTING CONTOUR
- SPOT ELEVATION ON TOP OF CURB
- SPOT ELEVATION ON STREET OR LOT
- RETAINING WALL/PROPERTY WALL
- DRAINAGE SWALE

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR JORGE C. IBARGUEN 9/5/85

CONCEPTUAL GRADING & UTILITY PLAN

1" =50'

REVISED: 7/10/85

REVISED: 9/5/85

job title: 98TH STREET MOBILE HOME PARK		
PROJECT COORDINATOR: JORGE DE LA TORRE	job no: 8518	date: 5/31/85
sheet title: CONCEPTUAL GRADING AND UTILITY PLAN	by: JT	

SEP 05 1985 HYDROLOGY SECTION

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sheet 3 of 3

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

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CITY OF ALBUQUERQUE

C D F