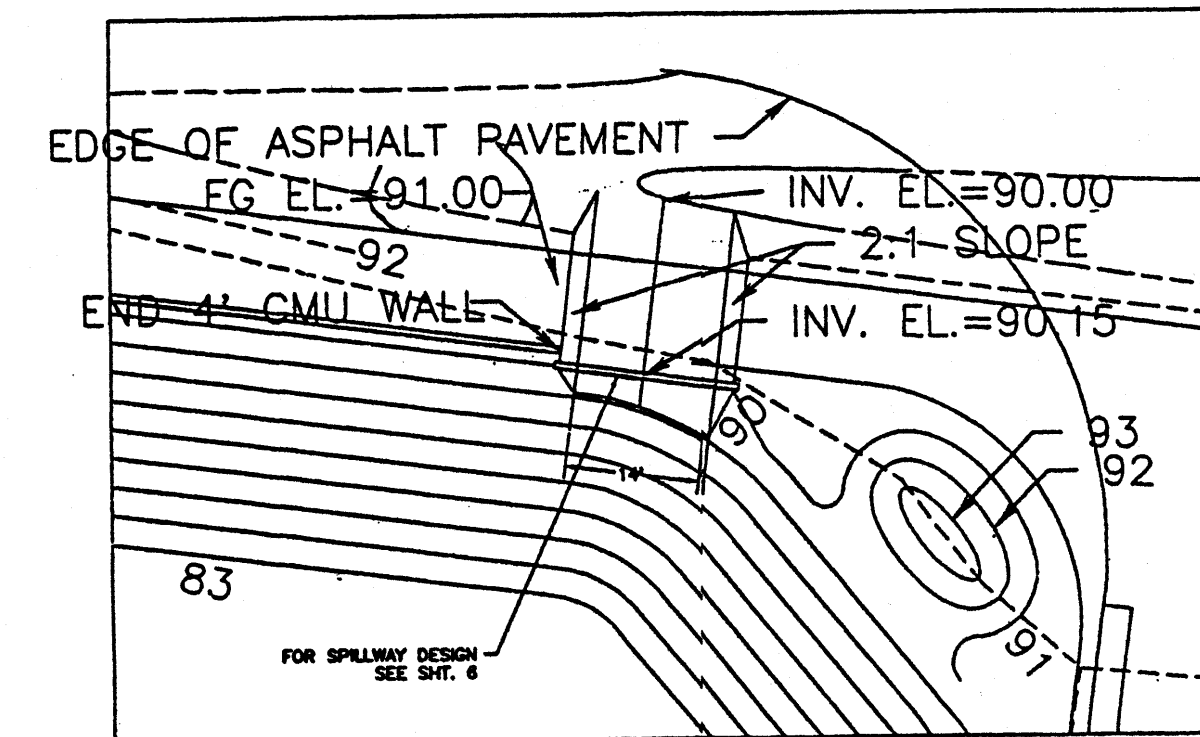
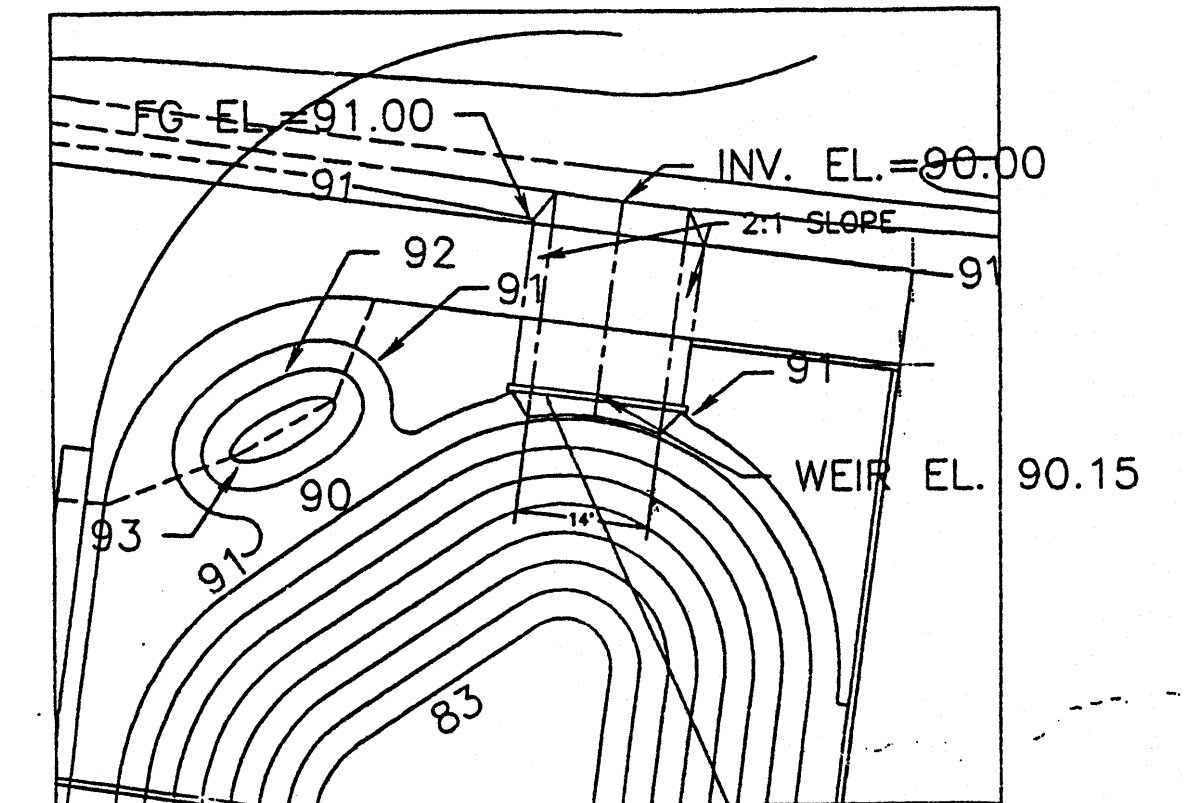


GRADING AND DRAINAGE

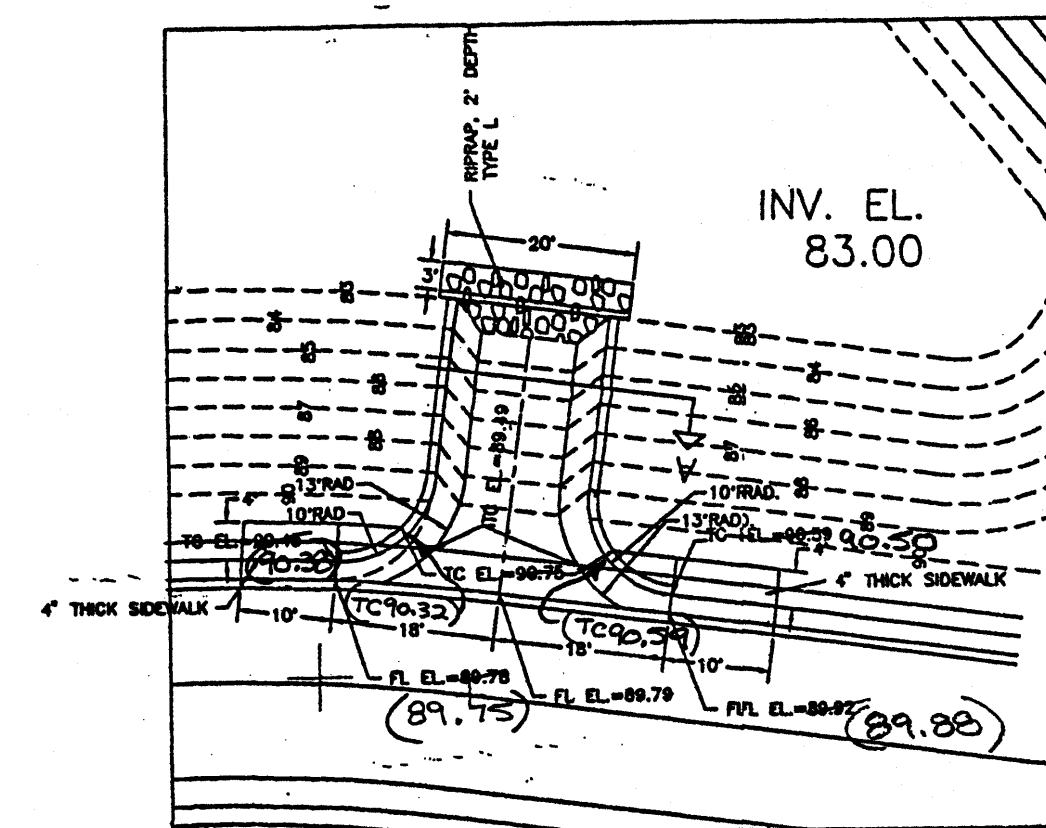
GENERAL NOTE:
THE OWNER OF THE MOBILE HOME PARK IS RESPONSIBLE FOR THE MAINTENANCE OF ALL IMPROVEMENTS CONSTRUCTED WITHIN THE CITY OF ALBUQUERQUE'S RIGHT OF WAY WHICH HAVE BEEN CONSTRUCTED FOR THE BENEFIT OF THE MOBILE HOME PARK. THE IMPROVEMENTS CONSIST OF A FORCE MAIN WHICH DISCHARGES INTO THE ANIOLE CHANNEL INCLUDING APPURTENANCES AND STREET IMPROVEMENTS REQUIRED FOR USE BY EMERGENCY VEHICLES. THE APPROVAL BY THE CITY OF ALBUQUERQUE INDICATED ON THE TITLE SHEET IS FOR IMPROVEMENTS CONSTRUCTED WITHIN THE CITY'S RIGHT OF WAY ONLY.



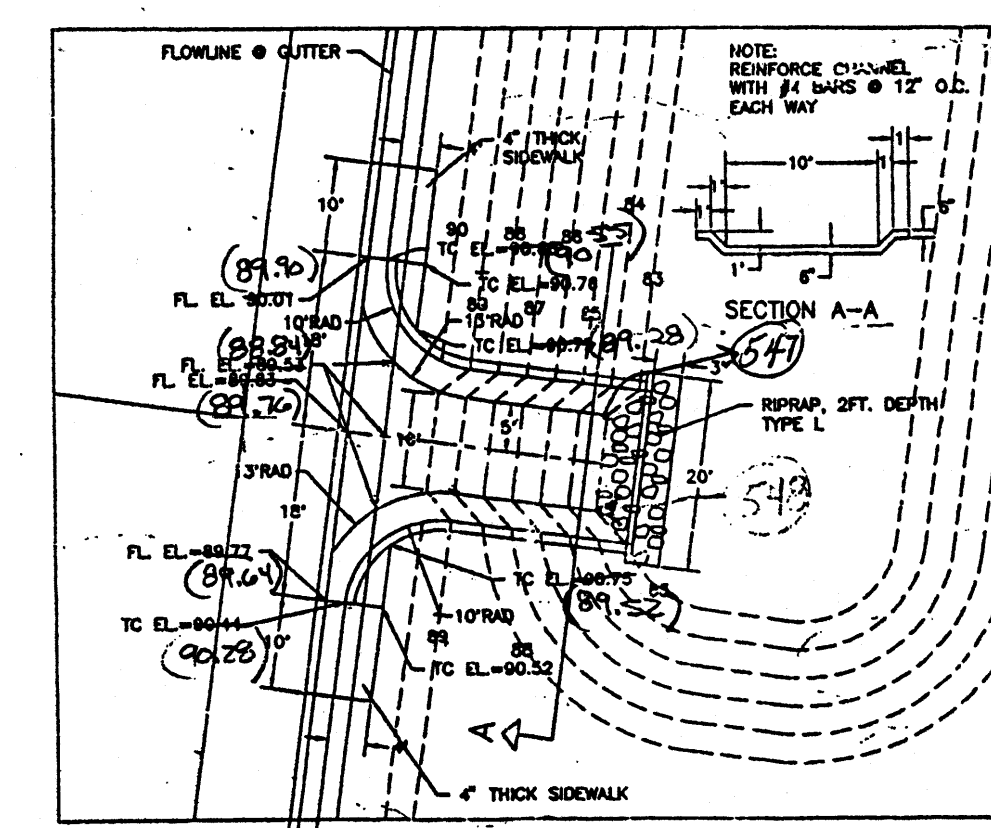
SPILLWAY P-1



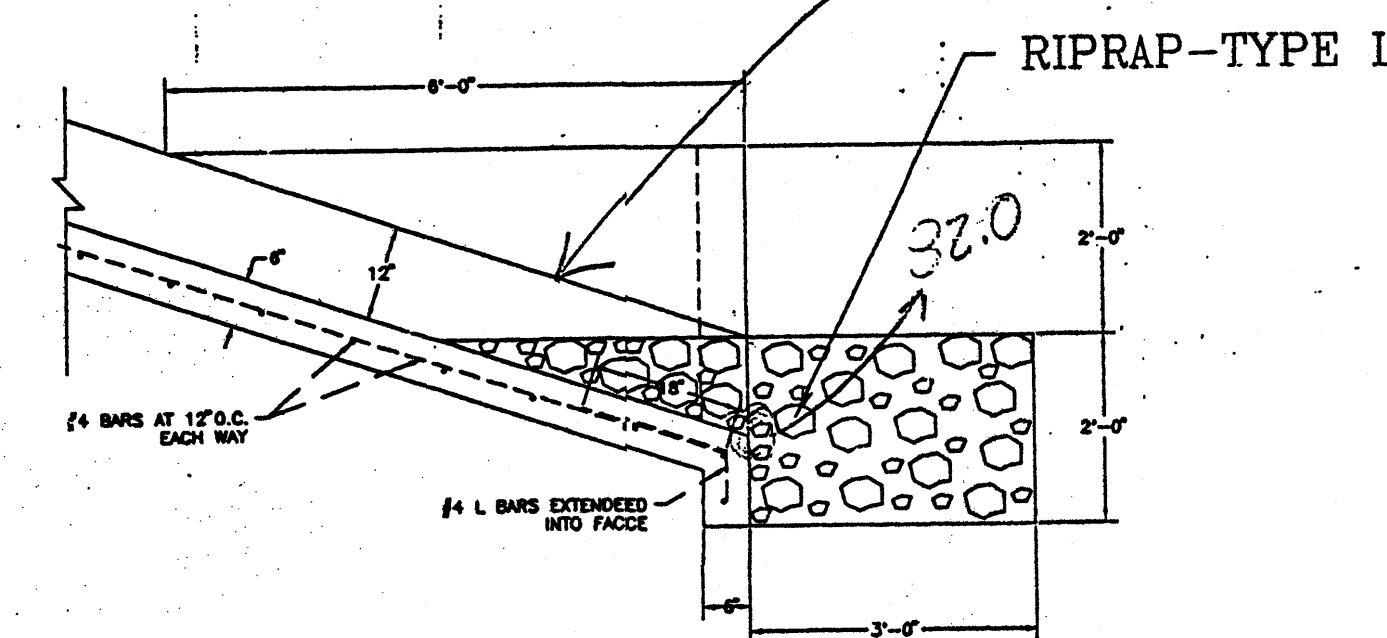
SPILLWAY P-2



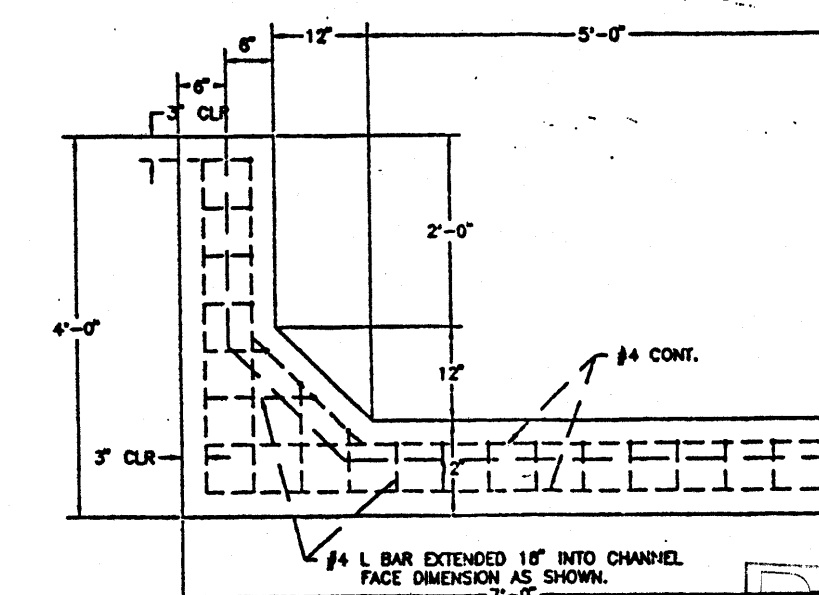
RUNDOWN P-1



RUNDOWN P-2



RUNDOWN END STRUCTURE

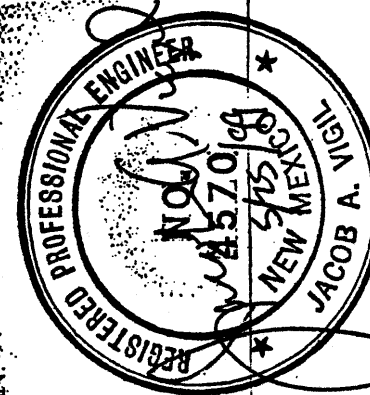


END WALL
HALF SECTION

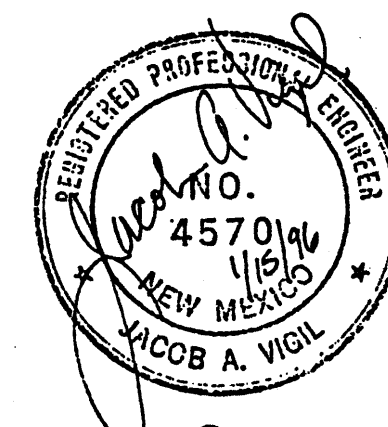
SUNSHINE MOBILE HOME PARK

() - INDICATES AS-BUILT
INFORMATION OBTAINED
05/05/1999

I, JACOB A. VIGIL, A REGISTERED PROFESSIONAL ENGINEER LICENSED UNDER THE LAWS OF THE STATE OF NEW MEXICO DO HEREBY CERTIFY THAT THE FACILITY WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN. THE "AS BUILT" ELEVATIONS SHOWN ON THE PLAN ARE THE FINISH ELEVATIONS AS CONSTRUCTED. THE DETENTION PONDS WERE CONSTRUCTED AS DESIGNED AND ALL DRAINAGE STRUCTURES HAVE BEEN CONSTRUCTED PER PLAN.



Jacob A. Vigil 5/5/99
JACOB A. VIGIL, NMPE NO. 4570



File name: C:\EIDS\JACOB.DWG File number: C:\EIDS\JACOB.DWG
Plot date: 01/17/99 at 13:55 Plot date: 01/17/99 at 13:55

DRAWING: C:\EIDS\JACOB.DWG

PROJECT NO.

MAP NO. N-10

SHT. 3 OF 15

VIGIL ENGINEERING

NO. DATE REVISIONS
DESIGNED BY: JACOB A. VIGIL
DRAWN BY: JACOB A. VIGIL
STAMPED BY: JACOB A. VIGIL
CHECKED BY: JACOB A. VIGIL
2017 CITY STREET, N.E.
ALBUQUERQUE, NEW MEXICO 87107
TELEPHONE: (505) 898-0142

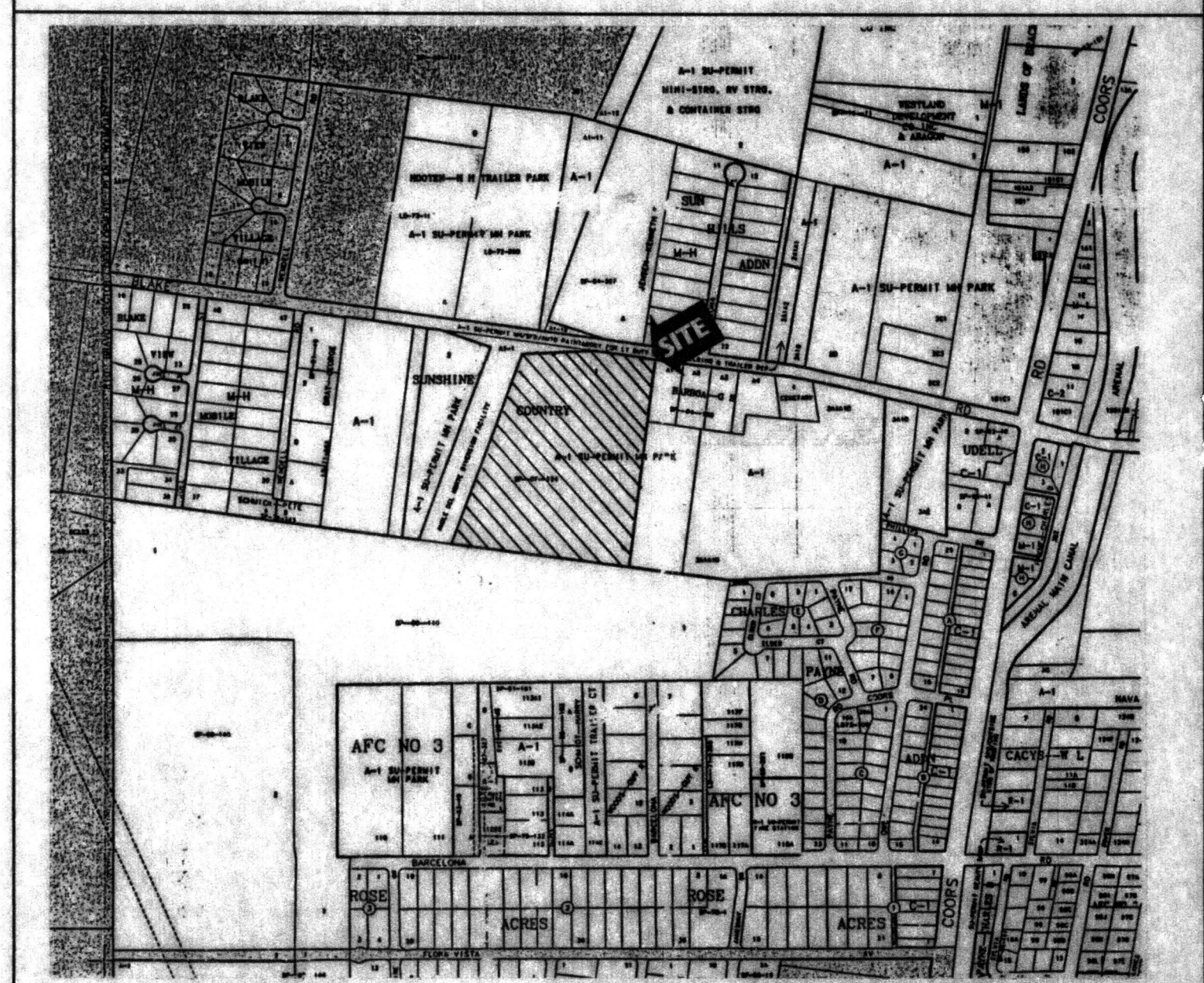
CONTRACTOR:
INSPECTED BY:
STAMPED BY:
DATE PROJECT ACCEPTED:

GRADING PLAN COMMUNITY FACILITIES SUNSHINE COUNTRY MOBILE HOME COURT PHASE I 4000 BLAKE ROAD S.W. ALBUQUERQUE NEW MEXICO TRACT 1, SUNSHINE COUNTRY SUBDIVISION ALBUQUERQUE, NEW MEXICO

Notes:
 1) Benchmark: City of Albuquerque brass cap NM 45-7A, located in the northwest quadrant of the intersection of Blake Road & Coors Road SW. elevation 4953.49
 2) Temporary Benchmark: Set on top of the cap stamped LS 4100 at the northeast property corner. Elevation 5000.95.

NOTES

- 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 BERNALILLO COUNTY STANDARDS. IF COUNTY STANDARDS DO NOT EXIST, CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS SHALL GOVERN.
- 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 SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM DELAY.
- WARNING - THE ENGINEER HAS UNDERTAKEN NO VERIFICATION OF THE EXISTENCE, LOCATION, SIZE, DEPTH, OR TYPE OF UNDERGROUND UTILITY WITHIN THE CONSTRUCTION AREA AND MAKES NO REPRESENTATION PERTAINING TO THESE UTILITIES. THE UTILITIES THAT HAVE BEEN SHOWN ARE BASED ON AVAILABLE INFORMATION FROM THE OWNER, UTILITY COMPANIES, GOVERNING AGENCY, OR OTHERS. THIS INFORMATION MAY BE INCOMPLETE, INACCURATE, OR OBSOLETE. THE CONTRACTOR SHALL CONTACT THE UTILITY LOCATION SERVICE AT 280-1990 AT LEAST TWO (2) FULL WORKING DAYS PRIOR TO START OF CONSTRUCTION TO HAVE THE UTILITIES SPOTTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE EXISTING UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY UTILITIES DAMAGED DURING CONSTRUCTION TO THE SATISFACTION OF THE GOVERNING AUTHORITIES HAVING JURISDICTION OVER THE UTILITY THAT HAS BEEN DAMAGED.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL EXISTING MONUMENTATION CONTROLS. IN THE EVENT OF INADVERTENT DESTRUCTION OR ALTERATION THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE CITY CHIEF SURVEYOR.



VICINITY MAP ZONE ATLAS N-10-Z

ENGINEER'S CERTIFICATION

THE SITE HAS BEEN COMPLETED IN SUBSTANTIAL COMPLIANCE WITH THE ORIGINAL GRADING AND DRAINAGE PLAN EXCEPT AS IDENTIFIED BY AS-CONSTRUCTED ON THE ABOVE GRADING PLAN AS FOLLOWS:

- THE FINISHED FLOOR ELEVATIONS WERE RAISED TO ELIMINATE THE WALL ALONG THE SOUTH SIDE OF THE LAUNDRY AND TO ELIMINATE THE NEED FOR THE SIDEWALK CULVERT AT THE NORTHEAST CORNER OF THE SITE.
- THE OWNER ADDED A CURB AROUND THE PLAY GROUND EQUIPMENT SO THE BASE COULD BE SAND INSTEAD OF GRASS.
- A SWIMMING POOL WAS ADDED TO THE SOUTHEAST CORNER OF THE SITE.

AS-CONSTRUCTED
SPOT ELEVATION
TA 91.27
TS 91.25

LARRY D. READ P.E.

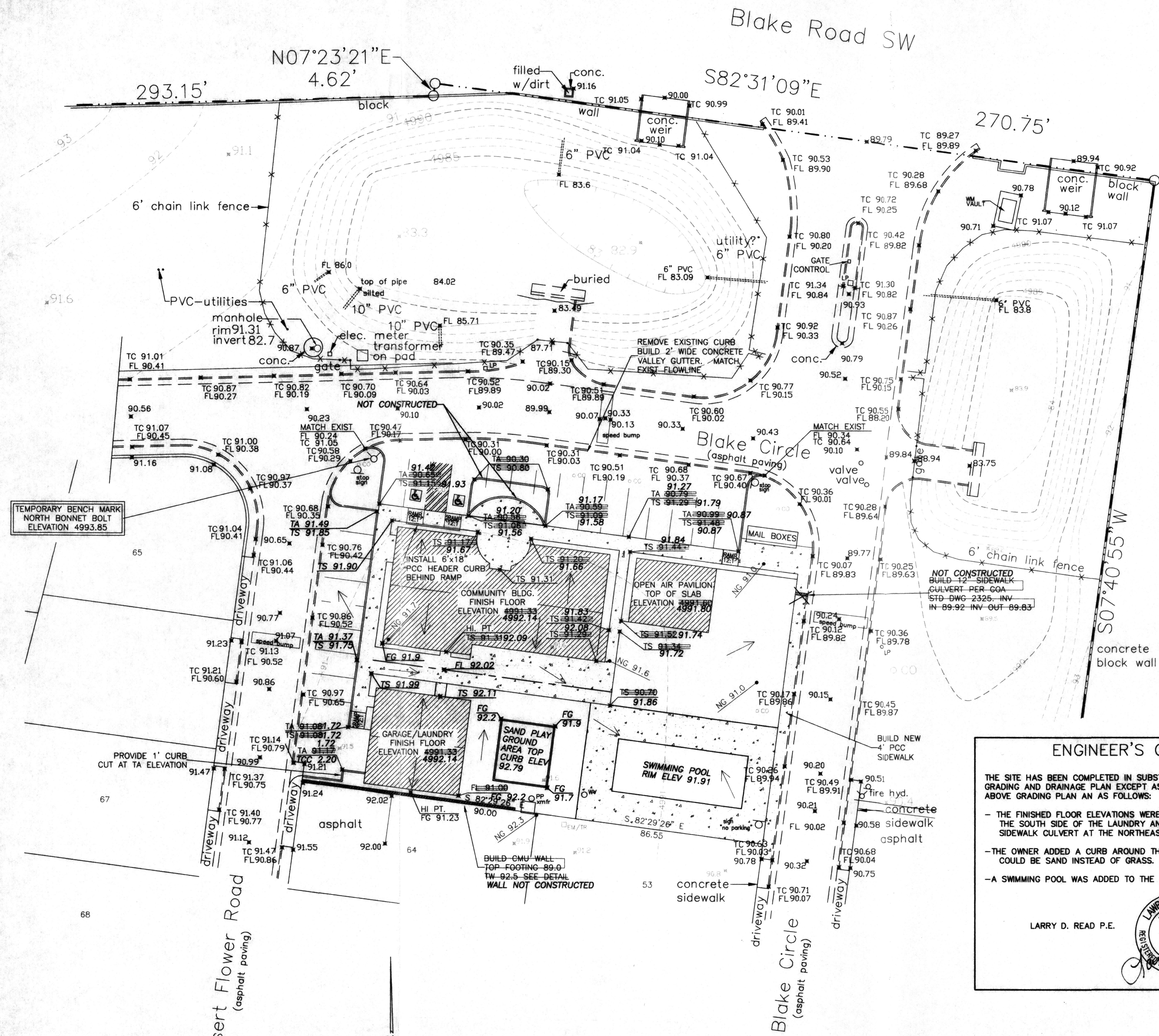
LEGEND
 TBM - TEMPORARY BENCHMARK
 TC - TOP OF CURB
 FL - FLOWLINE
 TG - TOP OF GRATE
 PP - POWER POLE
 LP - LIGHT POLE
 CO - SANITARY SEWER CLEANOUT
 FG - FINISHED GRADE ELEVATION

LARRY READ & ASSOCIATES
 Civil Engineers
 12836-B Lomas Blvd., N.E.
 Albuquerque, New Mexico 87112
 (505) 237-8421



REVISION	DATE	DESCRIPTION

FILE NAME: PAVILION 10/17/99



**COMMUNITY AREA GRADING PLAN
SCALE 1" = 20'**

DRAINAGE DISCUSSION

GENERAL

SUNSHINE COUNTRY MOBILE HOME PARK IS CURRENTLY FULLY DEVELOPED WITH THE EXCEPTION ON THE 0.5477 ACRE SITE THAT WAS RESERVED FOR COMMUNITY BUILDINGS TO SERVE THE RESIDENTS OF THE PARK. THIS SITE IS PROPOSED TO CONTAIN A COMMUNITY BUILDING, AN OPEN AIR PAVILIAN, AND A GARAGE/LAUNDRY. WITH THE EXISTENCE OF BUILDINGS NOTED ABOVE AND ASSOCIATED PARKING AND SIDEWALKS, THE SITE WILL BE TRULY A PICNIC AND PLAY AREA. THE SITE AS DESCRIBED INCLUDES 14,676 SF OF IMPERVIOUS AREA AND 9,191 SF OF TURF AREA.

SUNSHINE COUNTRY MOBILE HOME PARK WAS ORIGINALLY DESIGNED BY VIGIL ENGINEERING AND WAS CONSTRUCTED IN 1995 AND 1996. AS SUCH, VIGIL ENGINEERING PROVIDED A COMPLETE DRAINAGE STUDY OF THE FACILITY INCLUDING THIS SITE. VIGIL ENGINEERING'S DRAINAGE STUDY IS INCLUDED IN APPENDIX A OF THE CURRENT PHASE I/PHASE II REPORT PREPARED BY LARRY READ & ASSOCIATES. THE DRAINAGE FILE NUMBER IS N-10/D-4. IT IS THE INTENT OF THIS GRADING AND DRAINAGE PLAN TO COMPLY WITH THE PARAMETERS ESTABLISHED IN VIGIL ENGINEERING'S OVERALL DRAINAGE PLAN.

EXISTING DRAINAGE

THE EXISTING MOBILE HOME PARK IS DESIGNED TO DRAIN TO TWO INTERCONNECTED DETENTION PONDS ON THE NORTH SIDE OF THE PARK. THE RUNOFF IS THEN PUMPED INTO THE AMOLE DEL NORTE ARROYO AT THE WEST EDGE OF THE PARK VIA A LIFT STATION IN POND 1.

THIS SITE, HAVING BEEN PLANNED AS PART OF THE PARK, IS GRADED TO SHEET FLOW NORTH INTO BLAKE CIRCLE AND INTO POND 1. MOBILE HOME SITES, 53 AND 64 AT THE SOUTH EDGE OF THIS SITE ARE GRADED TO DRAIN INTO DESERT FLOWER RD AND BLAKE CIRCLE, RESPECTIVELY.

PROPOSED DRAINAGE

THE PROPOSED SITE GRADING WILL DRAIN TOWARD THE NORTHWEST INTO BLAKE CIRCLE AS THE MASTER PLAN GRADING AND DRAINAGE ANTICIPATED. THE VIGIL ENGINEERING REPORT PLANNED FOR RUNOFF FROM THIS SITE BASED ON 67% TYPE 'D' LAND TREATMENT AND 33% LAND TREATMENT 'B'. THE PROPOSED SITE IS 62% TYPE 'D' AND 38% TYPE 'B'. THEREFORE, THE GENERATED RUNOFF WILL BE LESS THAN ANTICIPATED IN THE MASTER PLAN STUDY.

FLOOD PLAN STATUS

AS SHOWN ON PANEL 35001C03360, EFFECTIVE SEPTEMBER 20, 1996, THIS SITE IS IN A ZONE X, AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

OFF-SITE DRAINAGE

DUE TO THE MASTER PLANNED NATURE OF THE MOBILE HOME PARK, THE ROADWAYS WERE DESIGNED TO CONVEY THE RUNOFF GENERATED WITHIN THE PARK. THEREFORE, THIS SITE IS NOT IMPACTED BY OFF-SITE RUNOFF.

DRAINAGE CALCULATIONS

THE FOLLOWING CALCULATIONS ARE BASED ON PROCEDURES DETAILED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2, REVISED JANUARY, 1993. THIS SITE IS IN ZONE 1 AS SHOWN ON FIGURE A-1.

VIGIL ENGINEERING - MASTER PLANNED CONDITIONS

TREATMENT TYPE	AREA (acres)	UNIT RUNOFF (cfs/ac)	MAX Q (cfs)	UNIT VOL (in/ac)	TOTAL VOL (cf)
A	0.000	1.29	0.00	0.44	0
B	0.1810	2.03	0.37	0.78	512
C	0.000	2.87	0.00	0.99	0
D	0.3667	4.37	1.60	1.97	2622

TOTAL AREA 0.5477 ac Q(100) = 1.97 cfs V(100) = 3134 cf
Q(10) = 0.667 X 1.97 = 1.31 cfs
V(10) = 0.667 X 2622 = 1748 cf

PROPOSED CONDITIONS

TREATMENT TYPE	AREA (acres)	UNIT RUNOFF (cfs/ac)	MAX Q (cfs)	UNIT VOL (in/ac)	TOTAL VOL (cf)
A	0.000	1.29	0.00	0.44	0
B	0.2100	2.03	0.43	0.78	595
C	0.000	2.87	0.00	0.99	0
D	0.3377	4.37	1.47	1.97	2410

TOTAL AREA 0.5477 ac Q(100) = 1.90 cfs V(100) = 3005 cf
Q(10) = 0.667 X 1.90 = 1.27 cfs
V(10) = 0.667 X 2410 = 1607 cf

SUMMARY STATEMENT

THE PROPOSED DEVELOPMENT OF THIS SITE WILL RESULT IN A REDUCTION OF PEAK RUNOFF FROM A 100-YEAR STORM OF 0.07 CFS AND A PEAK VOLUME OF 129 CF FROM THE RESPECTIVE NUMBERS IN VIGIL ENGINEERING'S DRAINAGE PLAN FOR THE ENTIRE PARK.

GRADING PLAN
COMMUNITY FACILITIES
SUNSHINE COUNTRY MOBILE HOME COURT
PHASE I
4000 BLAKE ROAD S.W.
BERNALILLO COUNTY, NEW MEXICO
TRACT 1, SUNSHINE COUNTRY SUBDIVISION
BERNALILLO COUNTY, NEW MEXICO

LARRY READ & ASSOCIATES
Civil Engineers
P. O. Box 90233
Albuquerque, New Mexico 87199-0233
(505) 856-3165

