SITE DEVELOPMENT PLAN

SUNSHINE COUNTRY 州四部上三 沿山州三 公山沿江 - 产州沿三]

ALBUQUERQUE, NEW MEXICO

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OPEN SPACE ANALYSIS SUNSHINE COUNTRY MOBILE HOME PARK

Total Site Area					
Tract 1 (Phase I)		687,354.83	SF		
Tract 2 (Phase II)		280,791.51			
	Total Site Area		-	8,146.34	SF
Open Space Require	ed				
Phase I	127 lots @ 2400 SF/LOT	304,800	CE.		
Phase II	49 lots @ 2400 SF/LOT	117,600			
	Open Space Required	117,000	- 3	422,400	er.
	open opaco required			422,400	SF
Deductions					
Phase I					
	10' Roadway Dedication	2824	SF		
	Streets	98875			
	Homes (127 @ 14' x 70' avg.)	124460			
	Driveways (127 @ 18' x 34' avg.)	77 724			
	Ponding Area	23669			
	Community Building	1488			
			•	327552	SF
Phase II					
	10' Roadway Dedication	2204	SF		
	Streets	50 232	SF		
	Homes (49 @ 14'X70' avg.)	48020	SF		
	Driveways (49 @ 18' x 34' avg.)	29988	SF		
				130444	SF
EXCESS OPEN SPACE PROVIDED ON-SITE			8	37750.34	SF
PER LOT ANALYSIS					
TOTAL LOT		2000	0.5		
		3600			
MAXIMUM SIZE HOME (16X90)		1440	SF		

DRIVEWAY (18 x 34)

REMAINING OPEN SPACE

NOTES

- 1. ALL LANDSCAPING, INCLUDING THAT LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY, SHALL BE INSTALLED AND MAINTAINED BY THE OWNER OF THE PARK.
- 2. LANDSCAPING SHALL BE WATERED BY AUTOMATIC SPRINKLER SYSTEMS. MAINTENANCE AND OPERATION OF THE SPRINKLER SYSTEMS SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PARK.
- 3. EACH MOBILE HOME SHALL BE SKIRTED WITH MATERIALS COMPATIBLE WITH THE SIDING ON THE HOME AND AS APPROVED BY THE OWNER OF THE PARK.
- 4. EACH LOT SHALL HAVE AN DETACHED STORAGE BUILDING, INSTALLED BY THE OWNER. MINIMUM BUILDING SIZE SHALL BY 6' X 6'.
- 5. EACH LOT SHALL HAVE A LANDSCAPING AREA, CONTAINING XERASCAPE PLANTINGS, INSTALLED AND MAINTAINED BY THE OWNER OF THE PARK.
- ALL INFRASTRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AND AS CURRENTLY AMENDED.
- 7. A 6' TALL CMU FENCE WILL BE INSTALLED AT ALL BOUNDARY LINES OF THE PARK EXCEPT ADJACENT TO BLAKE ROAD S.W. WHERE A 4' TALL CMU FENCE WILL BE INSTALLED.

PHASE I - TRACT 1 SUNSHINE COUNTRY SUBDIVISION PHASE II - TRACT 2 SUNSHINE COUNTRY SUBDIVISION

Application # 00128 · 00000 - 00347

APPROVALS

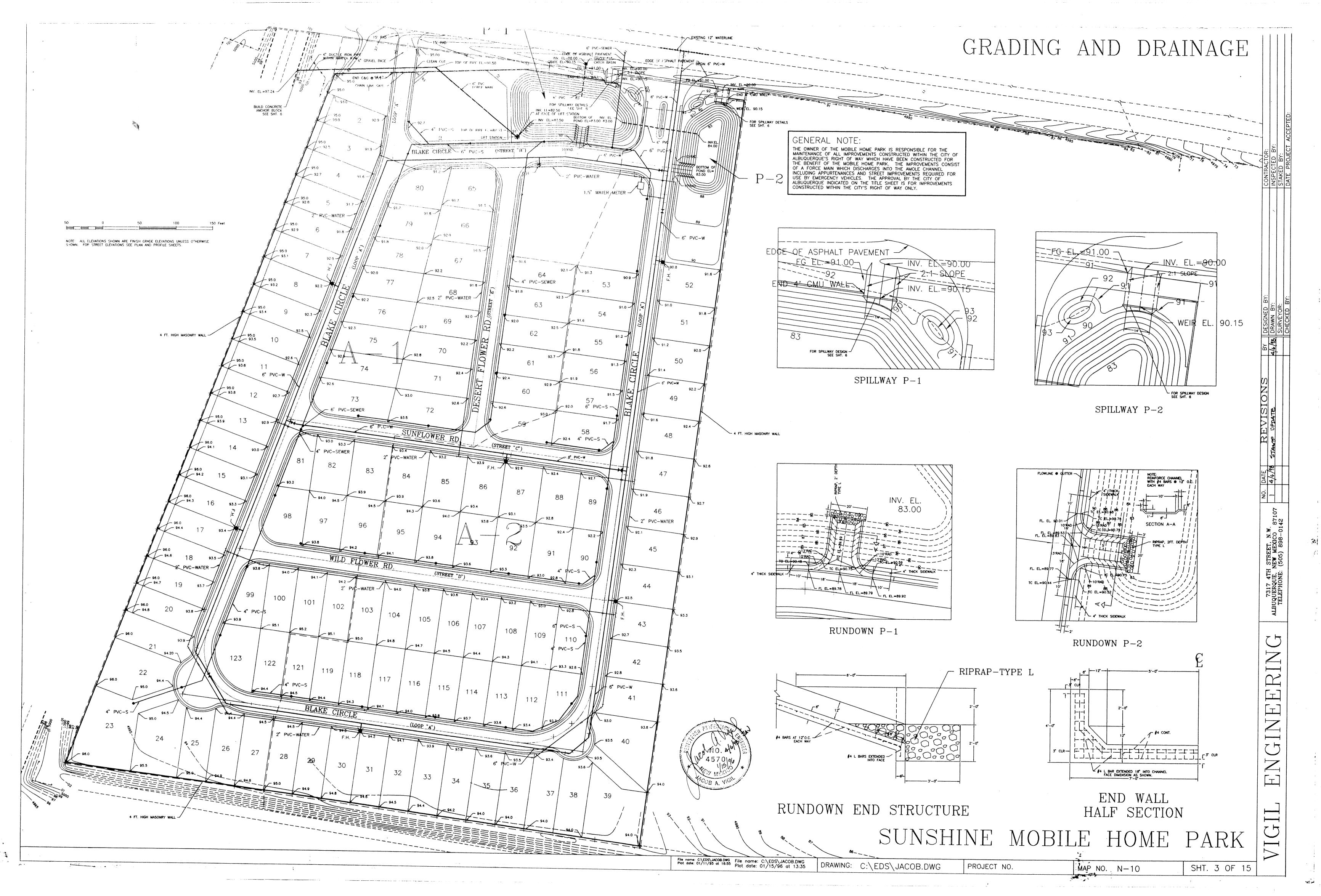
CITY PLANNER, ALBUQUERQUE PLANNING DEPT. DATE

3-16-00

REFERENCE CASES: ZONING: Z 97-109 ANNEXATION: AX 97-19 (CITY COUNSEL ORD. 0-3)

LARRY READ & ASSOCIATES
Civil Engineers 12836-B Lomas Blvd., N.E. Albuquerque, New Mexico 87119 (505) 237-8421

DATE DESCRIPTION REVISION 5/3/98 DRB COMMENTS 08.30.99 PHASE I - ONLY SHEET 1 of 9 FILE NAME: TITLE 08.30.99



GIVEN:

LOCATED ON MAP N-10, BERNALILLO COUNTY ZONE ATLAS PRECIPITATION ZONE = 1TRACT 1 (15.8 ACRES) WILL BE COMPLETELY REGRADED IN ACCORDANCE WITH THE ELEVATIONS SHOWN ON THE GRADING PLAN.

THIS DRAINAGE REPORT IS IN COMPLIANCE WITH SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA FOR THE CITY OF ALBUQUERQUE, NEW MEXICO. DATED JANUARY 1993.

UNDEVELOPED CONDITION (EXISTING):

THE EXISTING LAND TREATMENT OF THE SITE IS CONSIDERED AS "A" AND CONSISTS OF NATIVE GRASSES, WEEDS AND SHRUBS. THE TRACT CONSISTS OF TWO DRAINAGE AREAS: A-1 = 8.27ACRES: AND A-2 = 7.58 ACRES. THE PEAK DISCHARGE (CFS/ACRE) VALUE USED FOR THE 100 YEAR STORM FREQUENCY ÌS 1.29.

> Qp = 1.29(8.27+7.58)Qp = 20.45 cfs

THE TIME OF CONCENTRATION FOR THE DRAINAGE AREAS IS LESS THAN 12 MINUTES.

DEVELOPED CONDITION:

THE TRACT OF LAND WILL BE DEVELOPED INTO A MOBILE PARK WITH A DENSITY OF 7.5 UNITS PER ACRE FOR A TOTAL OF 123 UNITS.

> PERCENT "D" TREATMENT: $7[(N*N)+(5*N)] \sim 0.5$ $7[(7.5*7.5)+(5*7.5)] \sim 0.5$

TREATMENT "B": 100% - 67% = 33%

DRAINAGE AREA A-1 = 8.27 ACRES DRAINAGE AREA A-2 = 7.58 ACRES

DRAINAGE AREA A-1:

 $Qp = (2.03 \times 8.27 \times 0.33) + (4.37 \times 8.27 \times 0.67)$ Qp = 29.8 cfs

DRAINAGE AREA A-2:

 $Qp = (2.03 \times 7.58 \times 0.33) + (4.37 \times 7.58 \times 0.67)$ Qp = 27.3 cfs

DEVELOPED VOLUME (100YR-6HR.);

 $E(AREA A-1) = (8.27 \times 0.33 \times 0.67) + (8.27 \times 0.67 \times 0.67)$ 1.97)/8.27

= 1.54 INCHES

E(AREA A-2) = 1.54 INCHES

 $V360(A-1) = 8.27 \times 1.54/12$ = 1.06 ACRE-FT.

 $V360(A-2) = 7.58 \times 1.54/12$

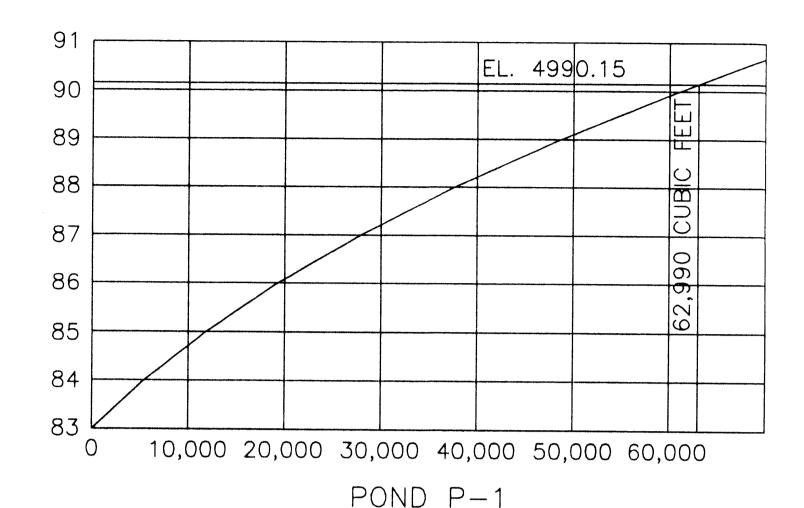
= 0.97 ACRE-FT.DEVELOPED VOLUME (100YR-24 HR.):

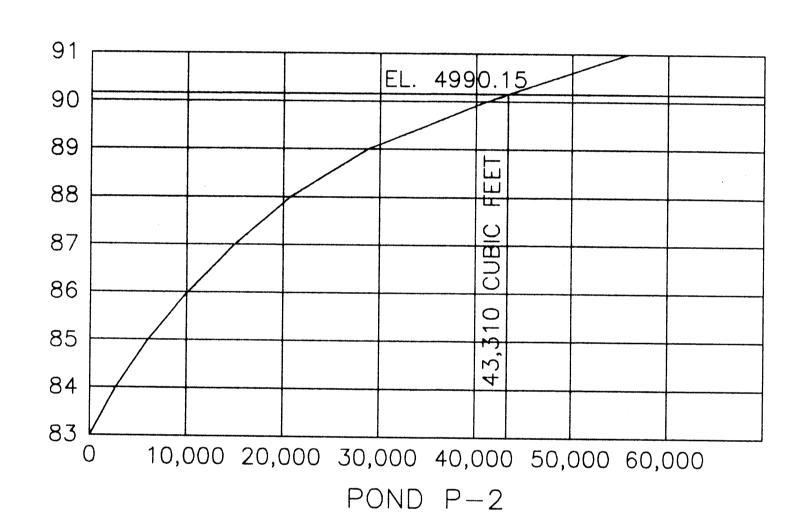
V1440 (A-1) = 1.06 + 5.54(2.66 - 2.20)/12= 1.06 + .21

= 1.27 ACRE-FT. V1440 (A-2) = 0.97 + 5.08(2.66 - 2.20)/12

= 0.97 + 0.19= 1.16 ACRE-FT.

TOTAL VOLUME = 2.43 ACRE-FT. REQUIRED





AVAILABLE STORAGE:

POND P-1 = 62.990 CUBIC FEET POND P-2 = 43,310 CUBIC FEET

TOTAL = 106,300 CUBIC FEET OR 2.44 ACRE-FEET AT WEIR ELEVATION 4990.15

DESIGN OF SPILLWAYS:

THE TOTAL DESIGN FLOW Qp = 57.1 CFS (DEVELOPED CONDITION) FOR THE 100 YR-6HOUR STORM FREQUENCY IS ASSUMED WILL BE EQUALIZED BETWEEN THE TWO 14'-2" SPILLWAYS AND THE STREET SECTION AT THE MAIN ENTRANCE TO THE MOBILE HOME PARK. USING HEC-2 ANALYSIS THE MAXIMUM FLOW AT THE STREET SECTION FOR A BACKWATER ELEVATION OF 4990.95 IS 16 CFS. THE SPILLWAY CAPACITY OF ONE SPILLWAY IS CALCULATED AS FOLLOWS:

> $Q = CLH \sim 1.5$ C = 2.65 FOR BROAD CRESTED WEIR Q = 2.65(14.17)(0.8) - 1.5 H = 0.80 FT. Q = 26.9 CFS

TOTAL SPILLWAY CAPACITY: $2 \times 26.9 \text{CFS} = 53.8 \text{ CFS}$ STREET SECT. = 16.0 CFS TOTAL = 69.6 CFS > 57.2 CFS CHANNEL CAPACITY BELOW THE CONCRETE SPILLWAY IS AS FOLLOWS:

> Q = 26.9 CFS; SLOPE = 0.75%; N= 0.035 V = 2.95 FPS; D = 0.60 FT; F = 0.697BOTTOM WIDTH 14.0 FT; SIDE SLOPE 2:1 HGL = 0.74 FT. TOTAL DEPTH OF CHANNEL = 1.0 FEET MAXIMUM VELOCITY IS 2.95 FPS; THEREFORE,

GRASS SEEDING OF CHANNEL IS SUFFICIENT.

DESIGN OF RUNDOWNS:

BECAUSE OF THE RADII BETWEEN THE RUNDOWN AND THE STREET A HEC-2 ANALYSIS WAS USED INSTEAD OF THE WEIR EQUATION. THE DEPTH OF FLOW AT THE FLOWLINE OF THE STREET CURB IS 0.45 FT.; THE DEPTH OF FLOW 4 FEET DOWNSTREAM IS 0.32 FT.; THE DEPTH OF FLOW 9 FEET DOWNSTREAM FROM THE FLOWLINE OF THE STREET IS 0.43 FT.; THE DEPTH OF FLOW 15 FEET DOWNSTREAM FROM STREET FLOWLINE IS 0.33 FEET.

STREET CAPACITY:

MINIMUM STREET SLOPE=0.35% CROSS SECTIONAL AREA=12.82 SQ. FT. WETTED PERIMETER=26.2 FT.; N=0.02 R=A/P=12.82/26.2=0.489V=1.486*0.489~0.667*0.0035~1.5/.02 V=2.73 FPS; Q=35.0 CFS>30.8 CFS

BORROW DITCH ALONG BLAKE RD .: DRAINAGE AREA = 14,900 SQ. FT. (8,400 SQ. FT. OF LAND TREATMENT A AND 6,500 SQ.

FT. OF PAVEMENT) Qp = QpaAa + QpdAd = 1.29*0.19 + 4.37*0.15

= 0.9 CFSIN LIEU OF PLACING A CULVERT UNDER THE MAIN ENTRANCE STREET, A SINGLE "D" CATCH BASIN WILL BE CONSTRUCTED ON THE LOW POINT OF THE BORROW DITCH. THE FLOWS WILL BE DISCHARGED INTO POND P-1 THROUGH A 6" DIAMETER PVC PIPE.

THE GRATE ELEVATION OF THE SINGLE "D" CATCH BASIN WILL BE AT 4990.15, THE SAME ELEVATION OF THE WEIR AT POND P-1. DURING A 100 YEAR-24 HOUR STORM ANY EXCESS NOT STORED IN POND P-1 WILL CONTINUE DOWNSTREAM ALONG BLAKE ROAD AND CROSS THE ENTRANCE ROAD (STREET) AT THE DIP SECTION.

ADEQUATE

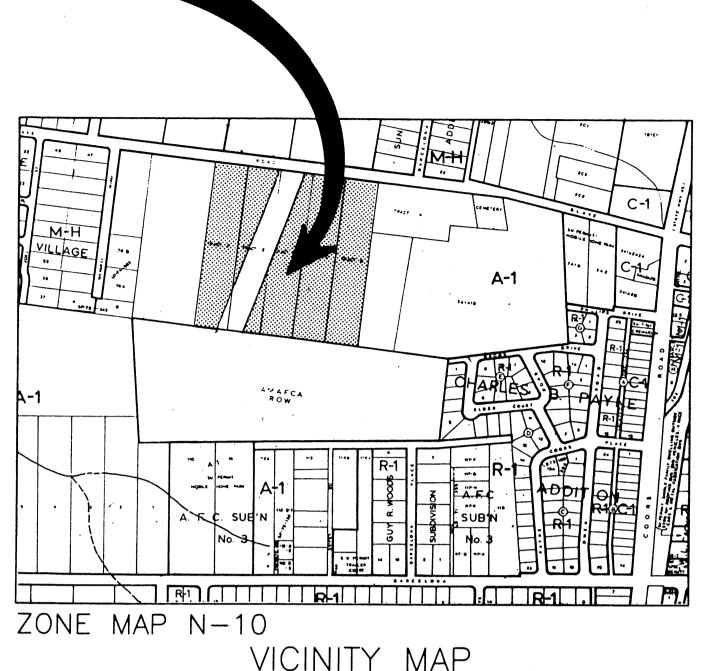
 $Q = CA(2gh) \sim 0.5$

 $Q = 0.6*0.196(2*32.2*1.5) \sim 0.5$

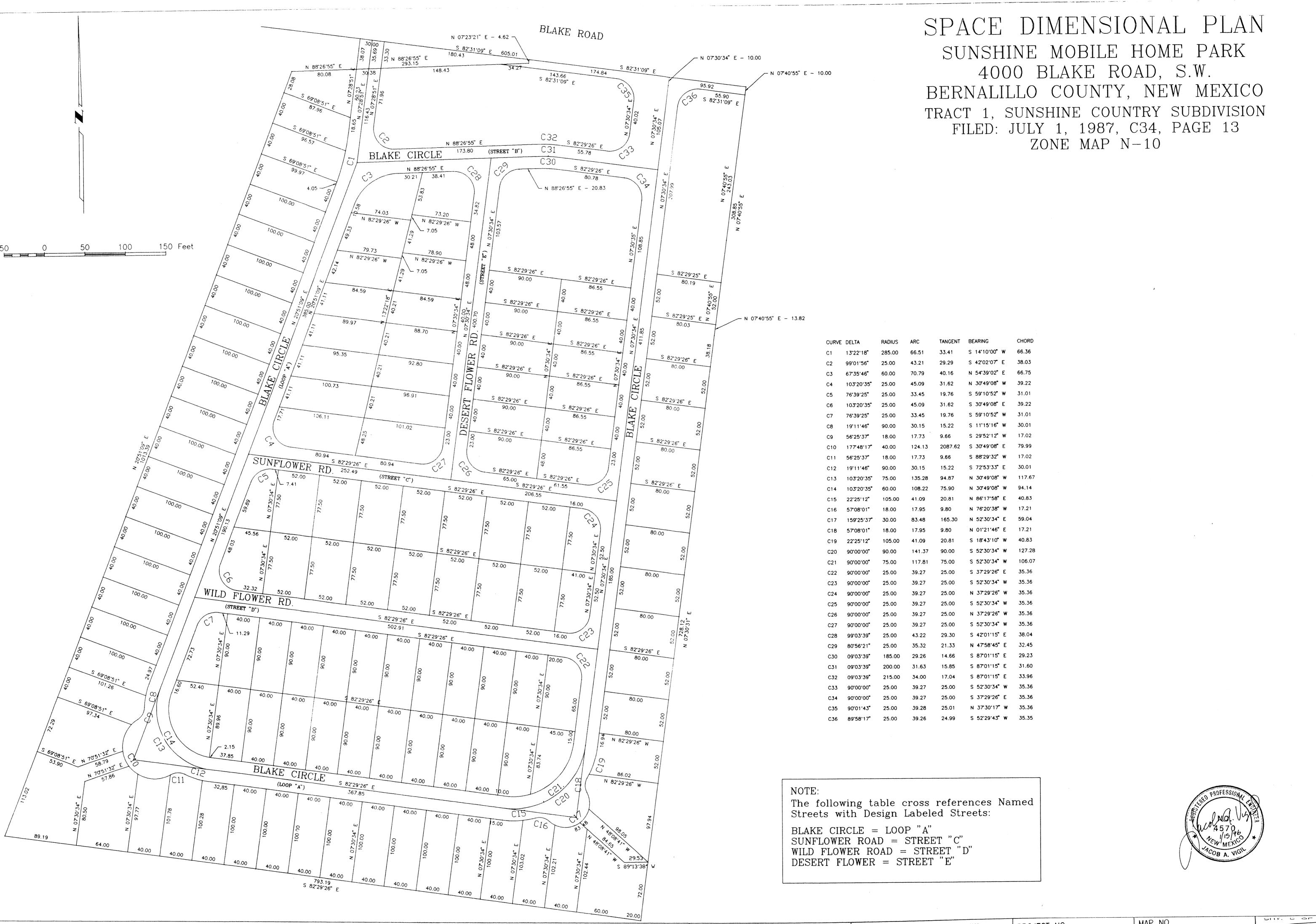
Q = 1.16 CFS > 0.9 CFS O.K. THEREFORE 6" PVC PIPE IS

LIFT STATION:

PONDS P-1 ANS P-2 ARE DESIGN AS DETENTION PONDS WITH A TOTAL STORAGE CAPACITY OF 2.44 ACRE FEET AT WEIR ELEVATIONS 4990.15. THE LIFT STATION CONTAINS TWO NON-CLOG SUBMERSIBLE PUMPS EACH CAPABLE OF PUMPING 450 GALLONS PER MINUTE. DISCHARGE ELEVATION AT AMAFCA CHANNEL IS 97.24. LOW WATER ELEVATION AT LIFT STATION IS 82.00. STATIC HEAD = 97.24 - 82.00 = 15.24 FEET. THE HEAD LOSS DUE TO FRICTION AT 900 GPM FOR A PIPE LENGTH OF 335 FEET = 11.8 FEET. TOTAL DESIGN HEAD = 27 FEET WITH BOTH PUMPS IN OPERATION WITH A COMBINED CAPACITY OF 800 GPM THE PONDS CAN BE EMPTIED IN 16.6 HOURS. THE TWO 14'-2" CONCRETE SPILLWAYS INCLUDING THE STREET SECTION ARE CAPABLE OF HANDLING THE PEAK RUNOFF FROM THE DEVELOPED MOBILE HOME PARK FOR THE 100 YEAR STORM IF THE PONDS ARE FULL.

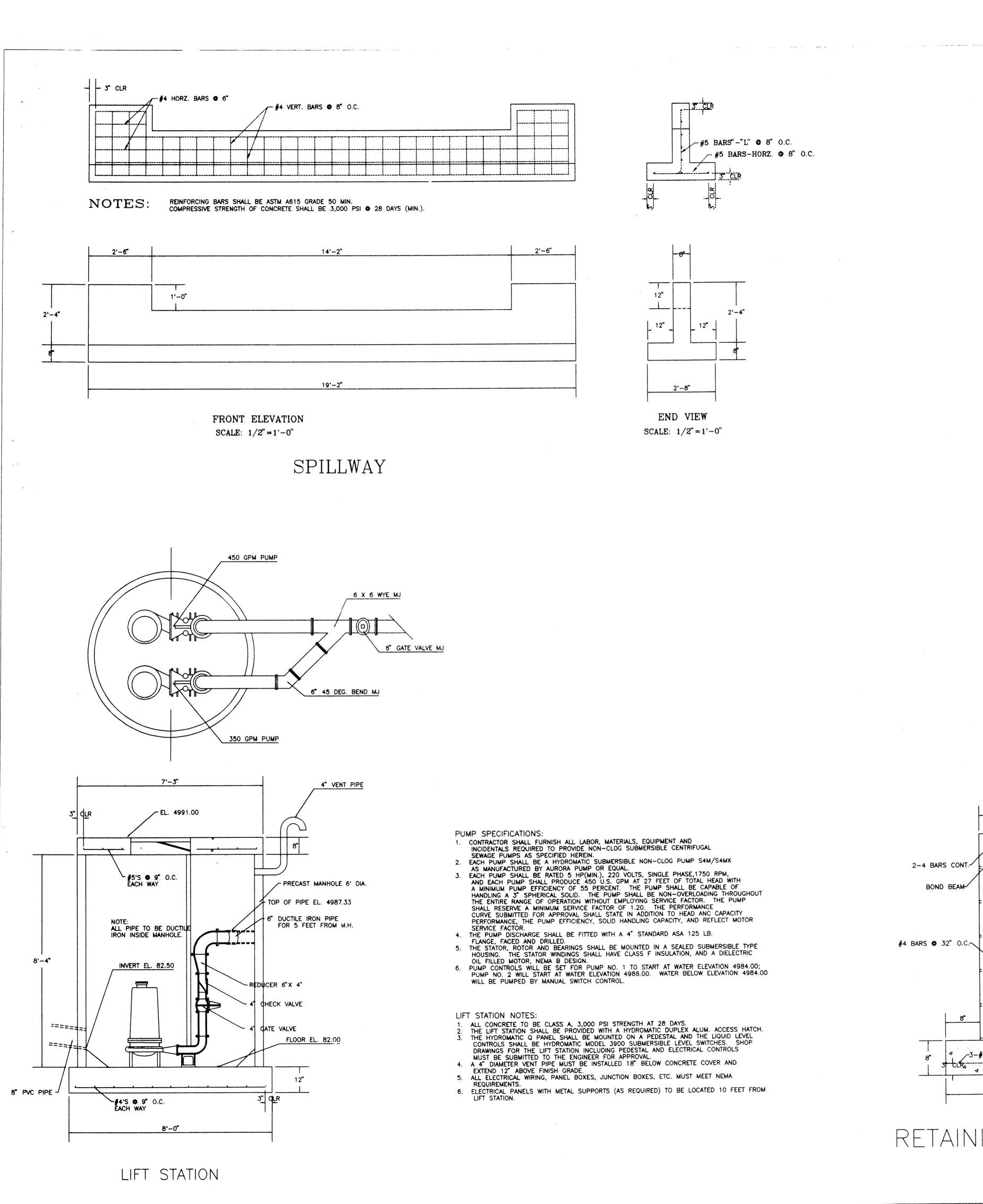


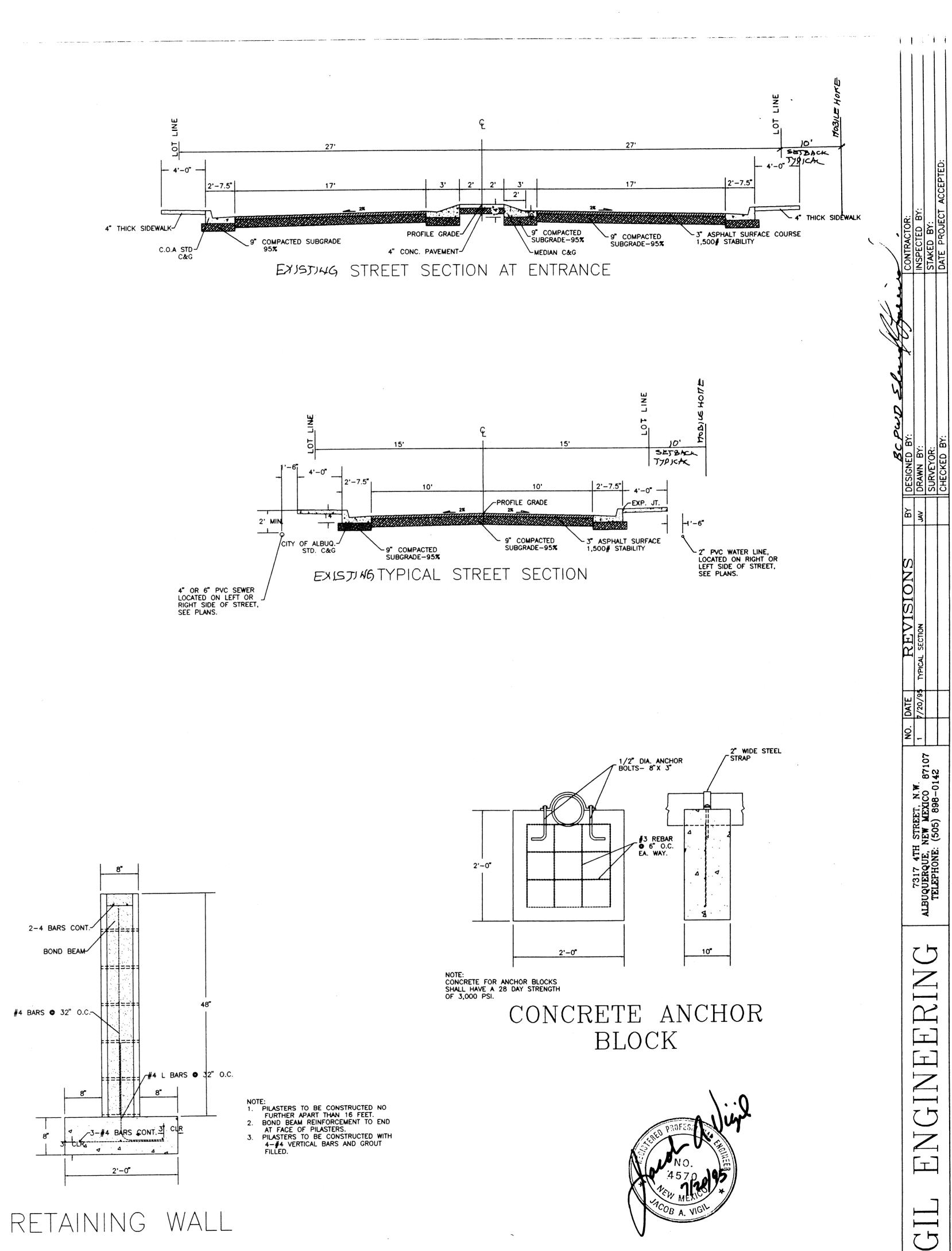
PROJECT NO.



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MAP NO





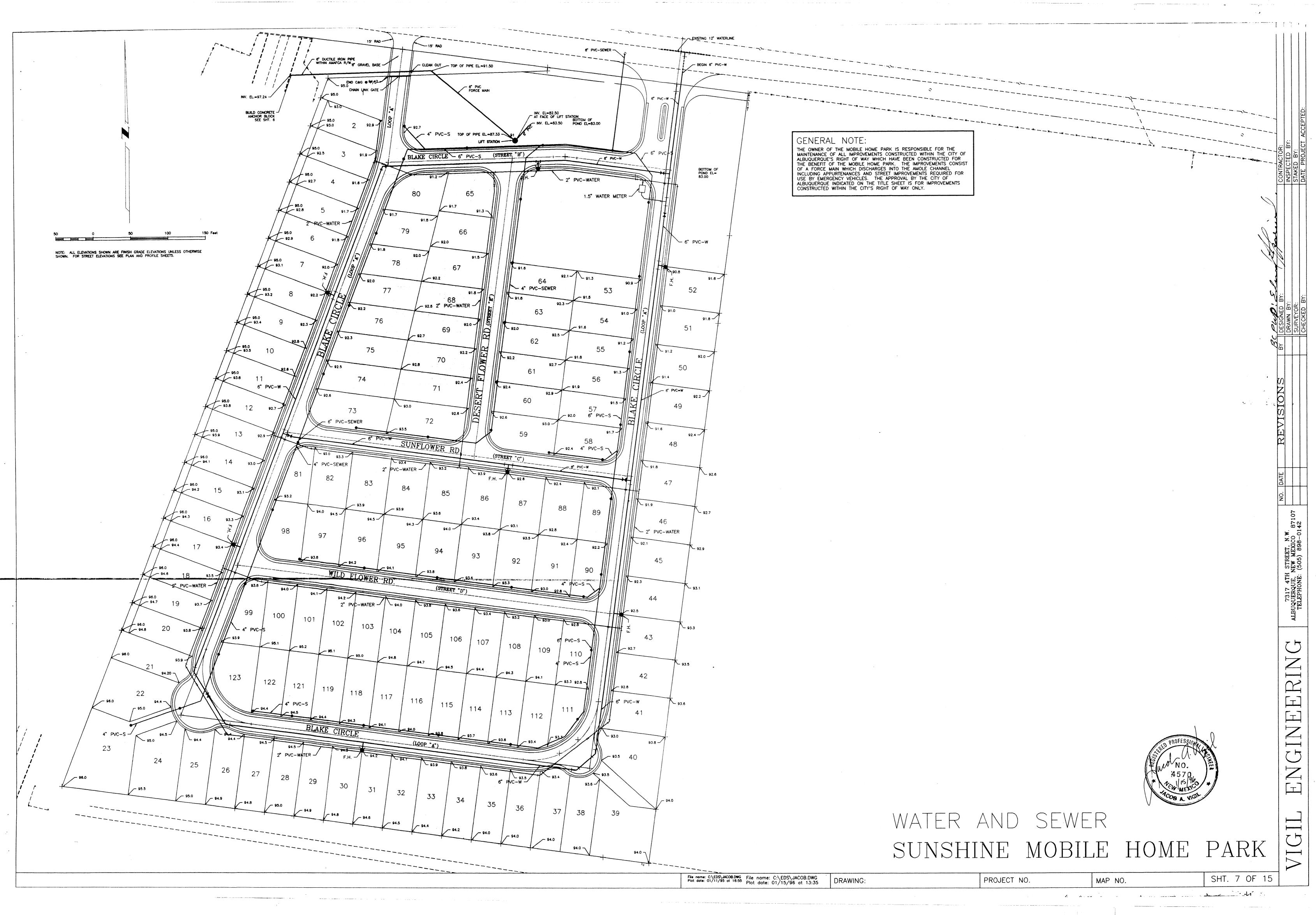
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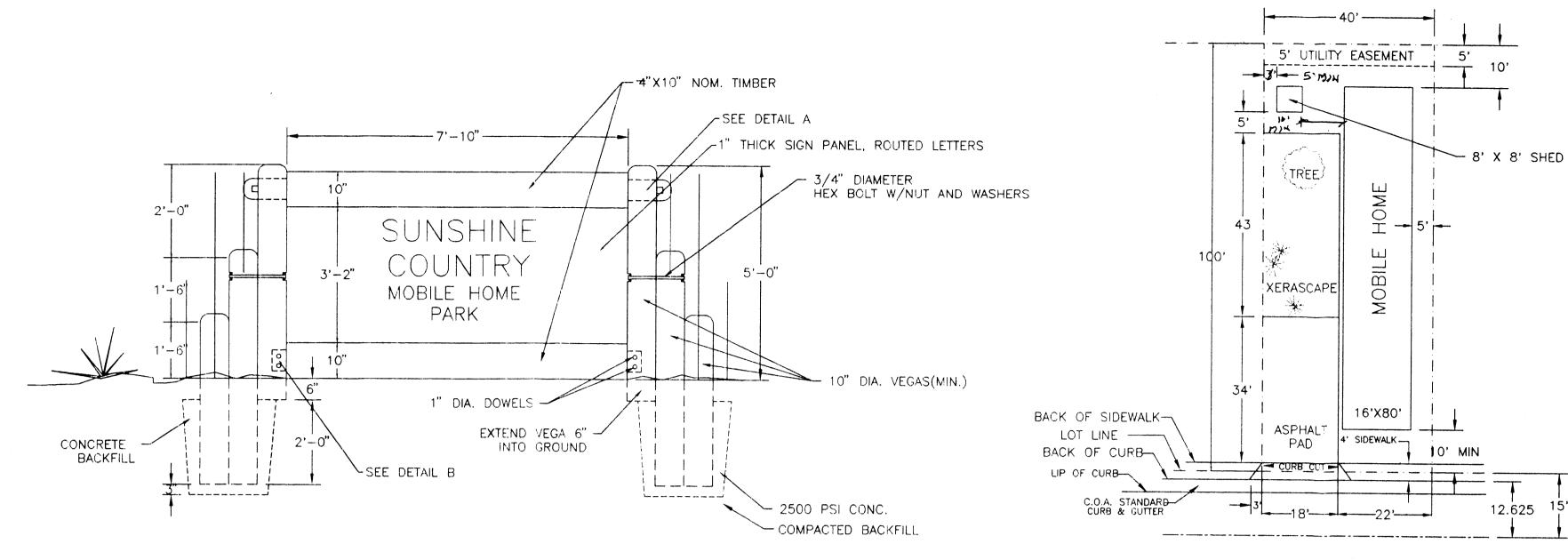
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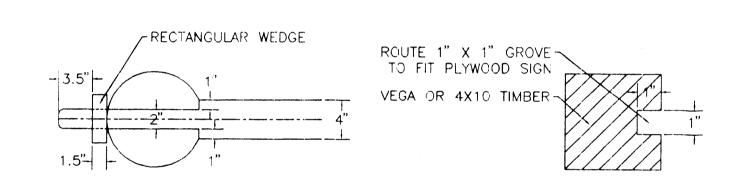
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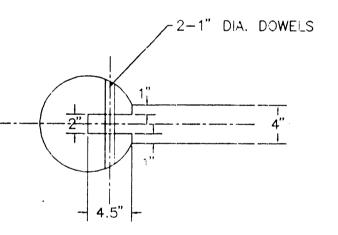




MONUMENT SIGN SCALE: 1" = 5'



DETAIL A



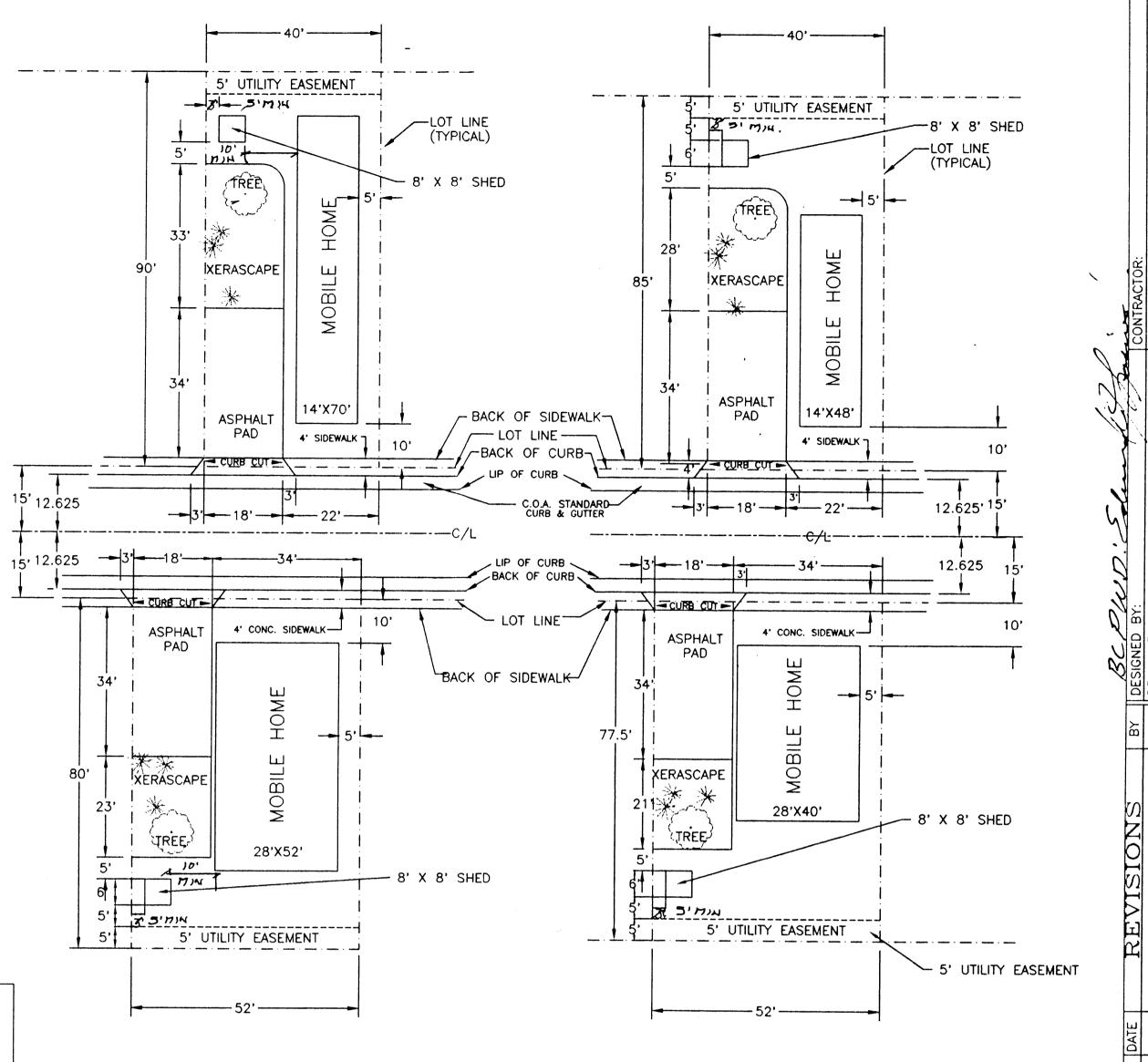
DETAIL B

NOTES:

- 1. TIMBER MATERIAL SHALL CONFORM TO THE DIMENSIONS SHOWN.
- 2. WOOD SHALL BE CCA TREATED TIMBERS
- 3. FRAMING, SURFACING, DAPPING, BORING, AND OTHER CUTTING OF TIMBER SHALL BE COMPLETED PRIOR TO TREATMENT.
- 4. ALL BOLTS AND FASTENINGS SHALL BE GALVANIZED

TRAFFIC CONTROL PLAN

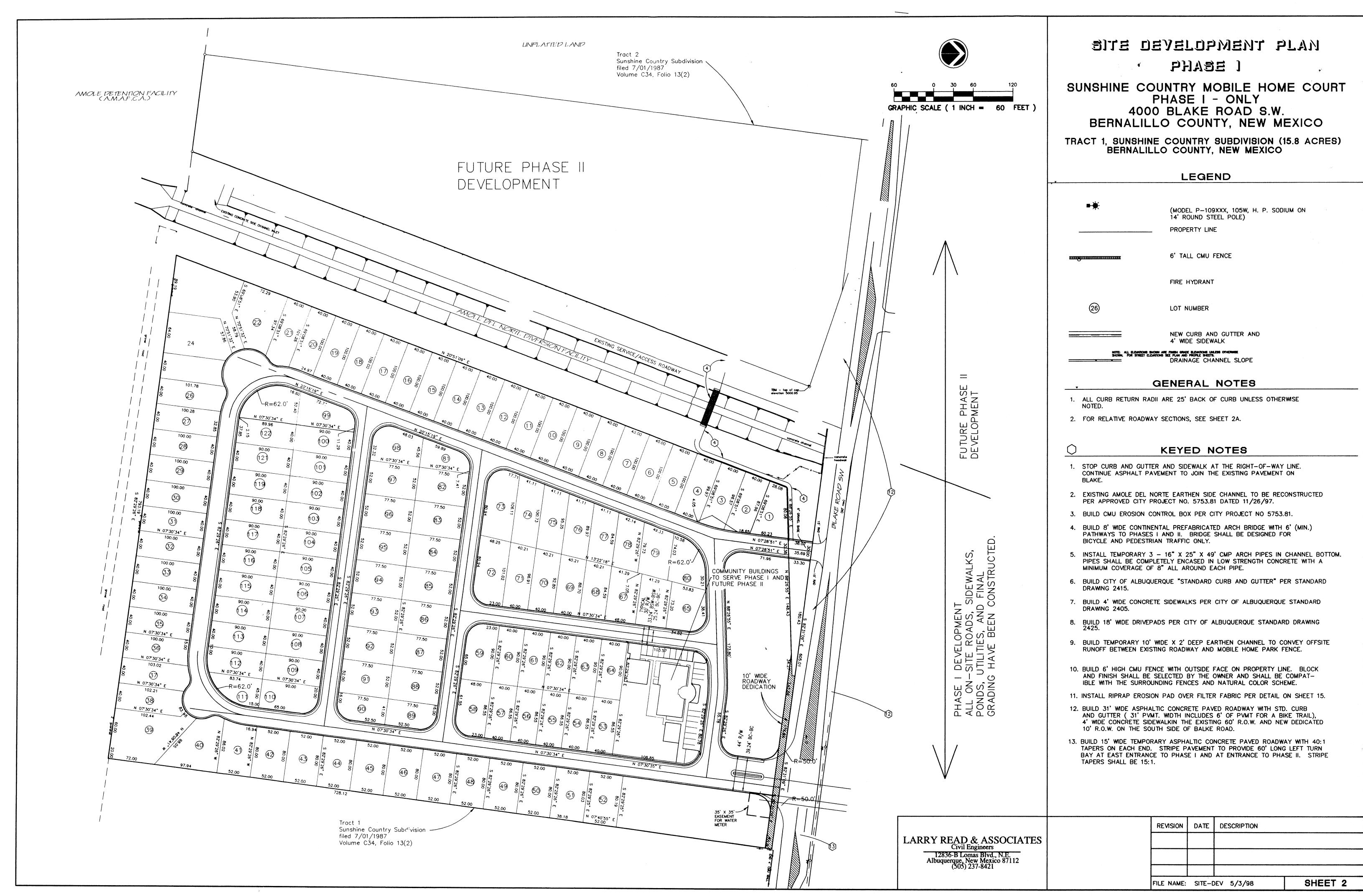
SHEET 16 OF 16 PROVIDES AN ADDITIONAL 10 FEET OF PARKING CONSISTING OF BASE COURSE MATERIAL CAPABLE OF SUPPORTING A CAR. PARKING CONSISTS OF 24 FEET OF ASPHALT AND 10 FEET OF BASE COURSE FOR A TOTAL DISTANCE OF 34 FEET.



SPACE LAYOUT SCALE: 1" = 20'



MAP NO.



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