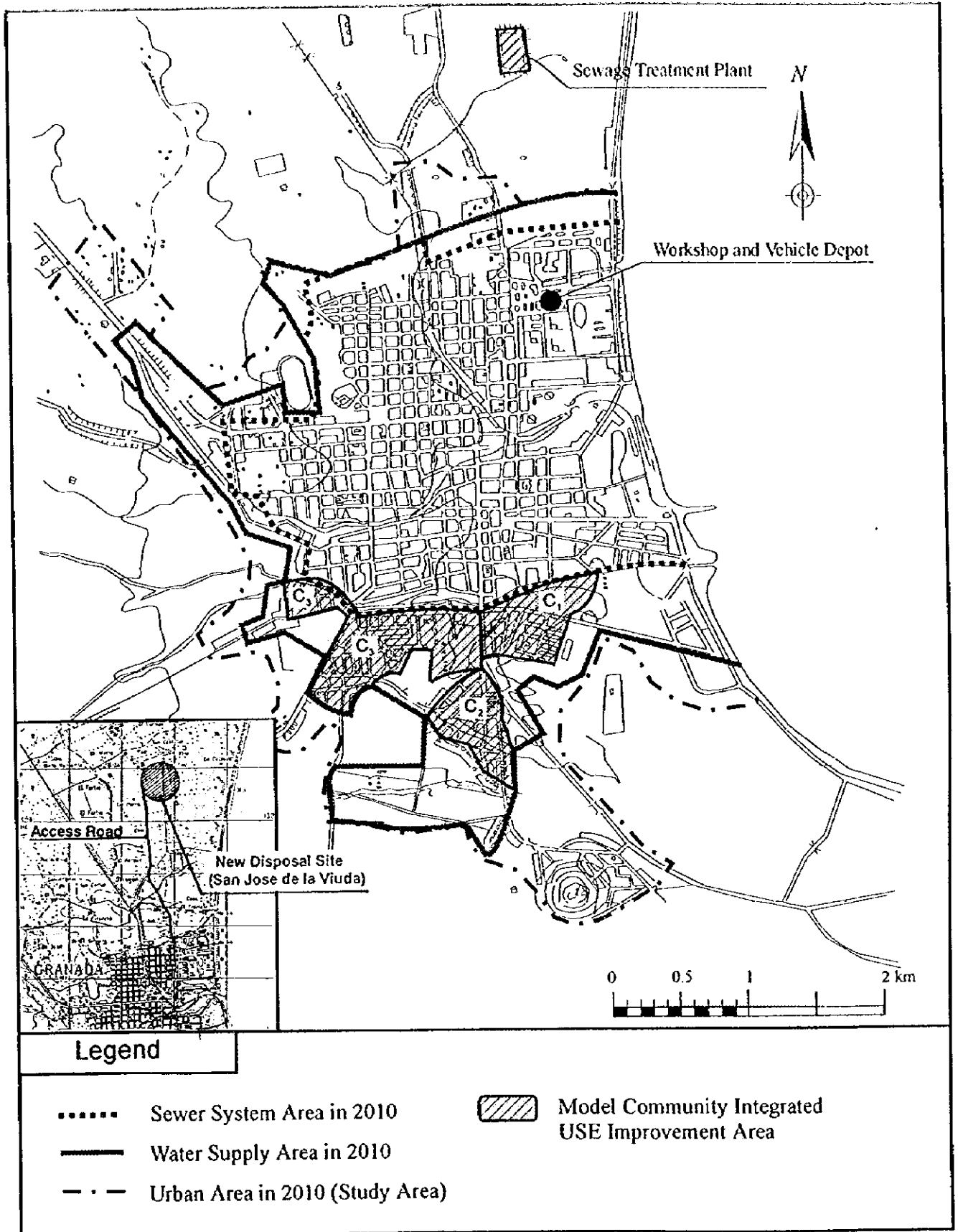
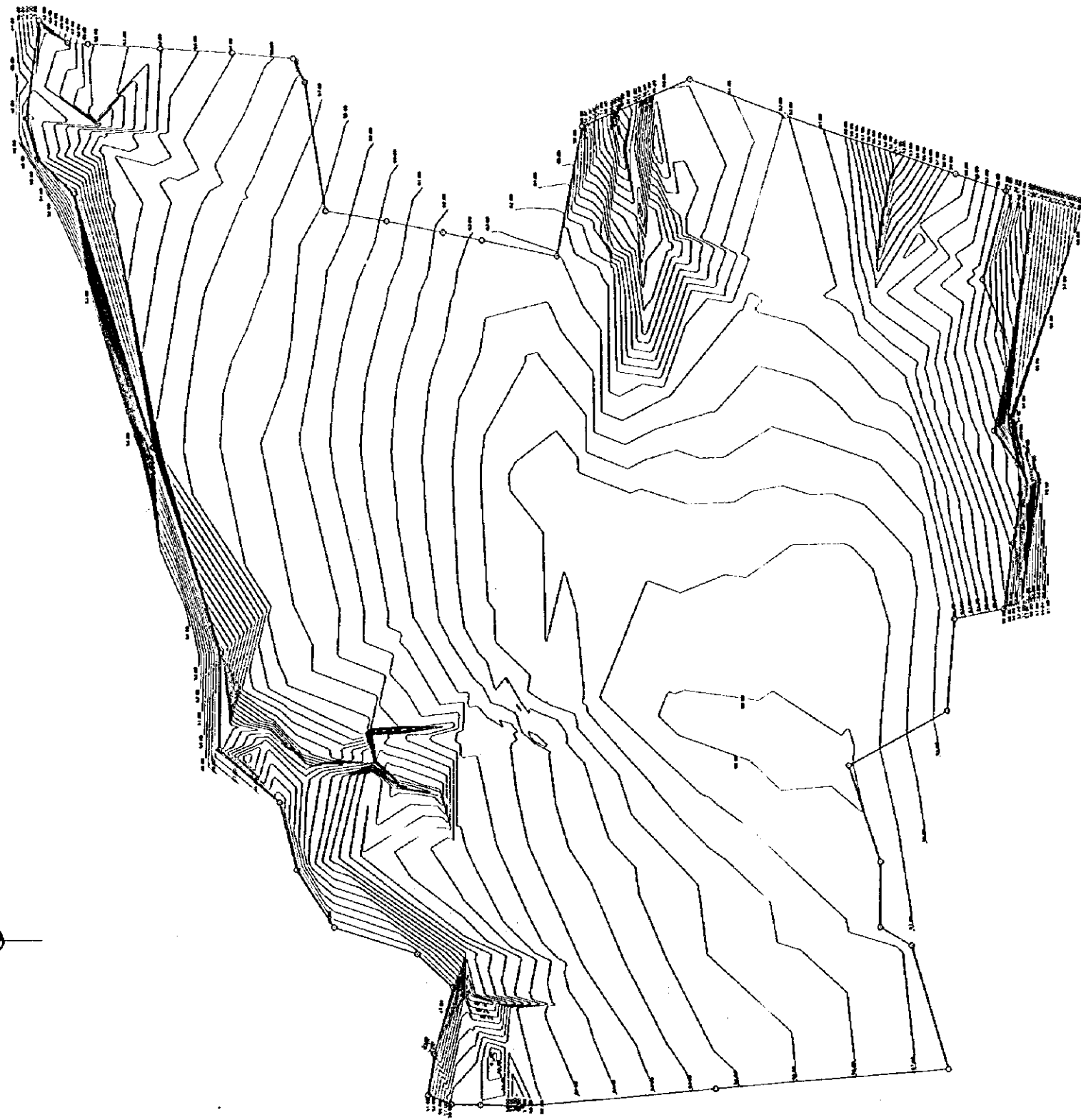
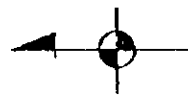


DATA 9

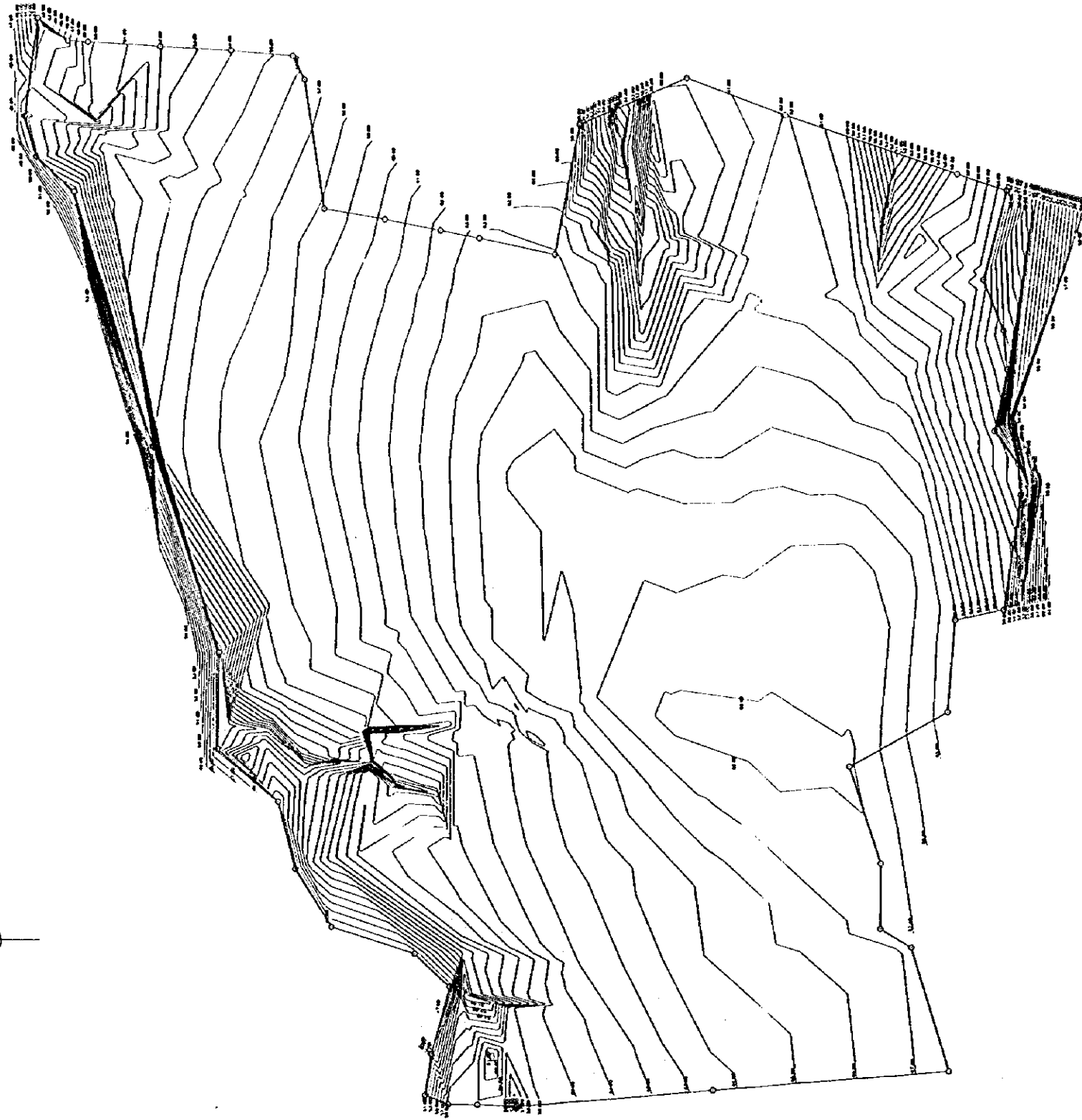
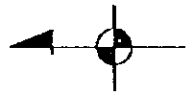
*Data and Drawings of F/S - 2:
Model Community Integrated
USE Improvement Project*





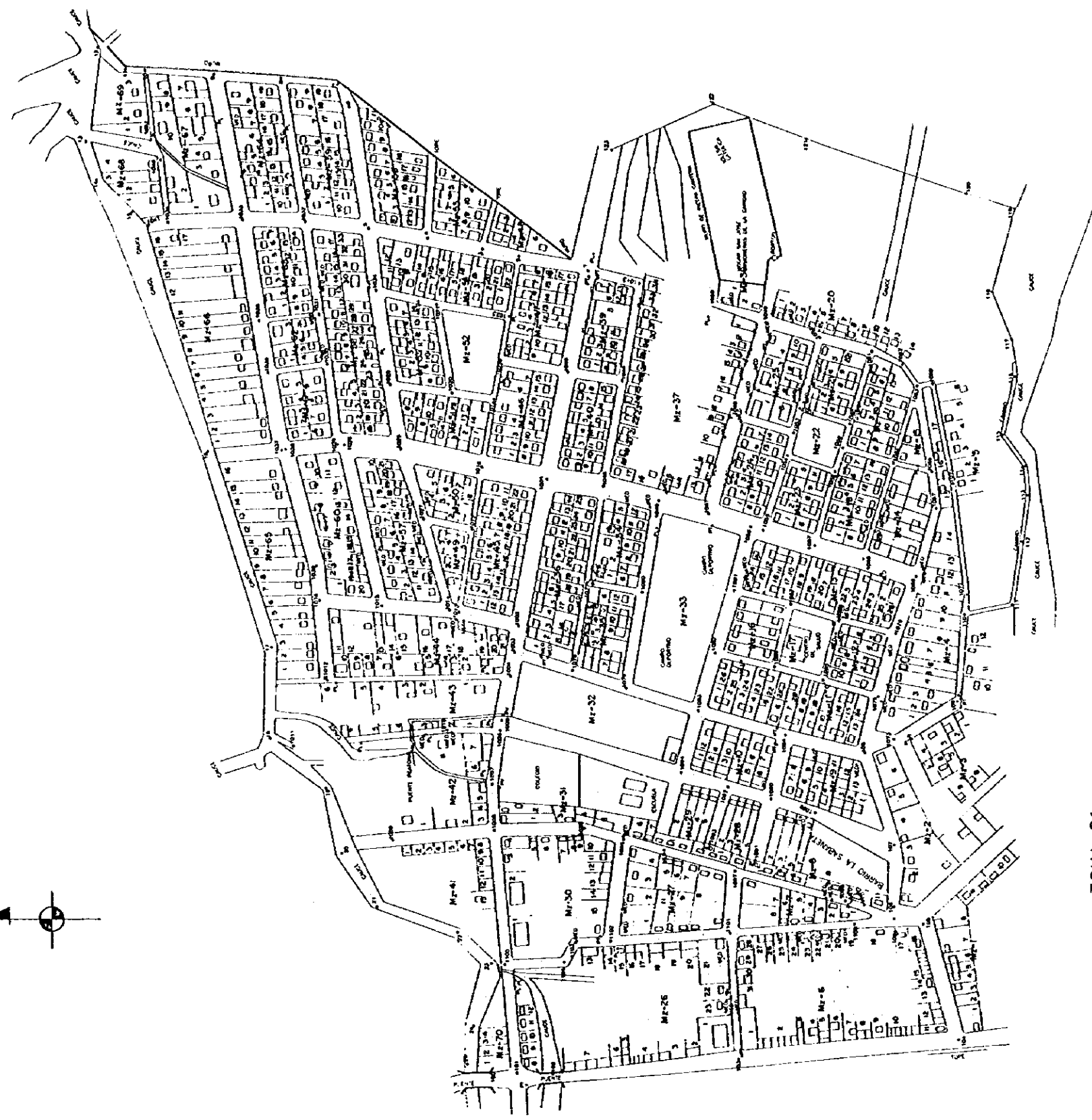
ZONA C1

PROYECTO: ...
LEVANTO: ...
APROBADO: ...
UBICACION: ...
Escala: ...



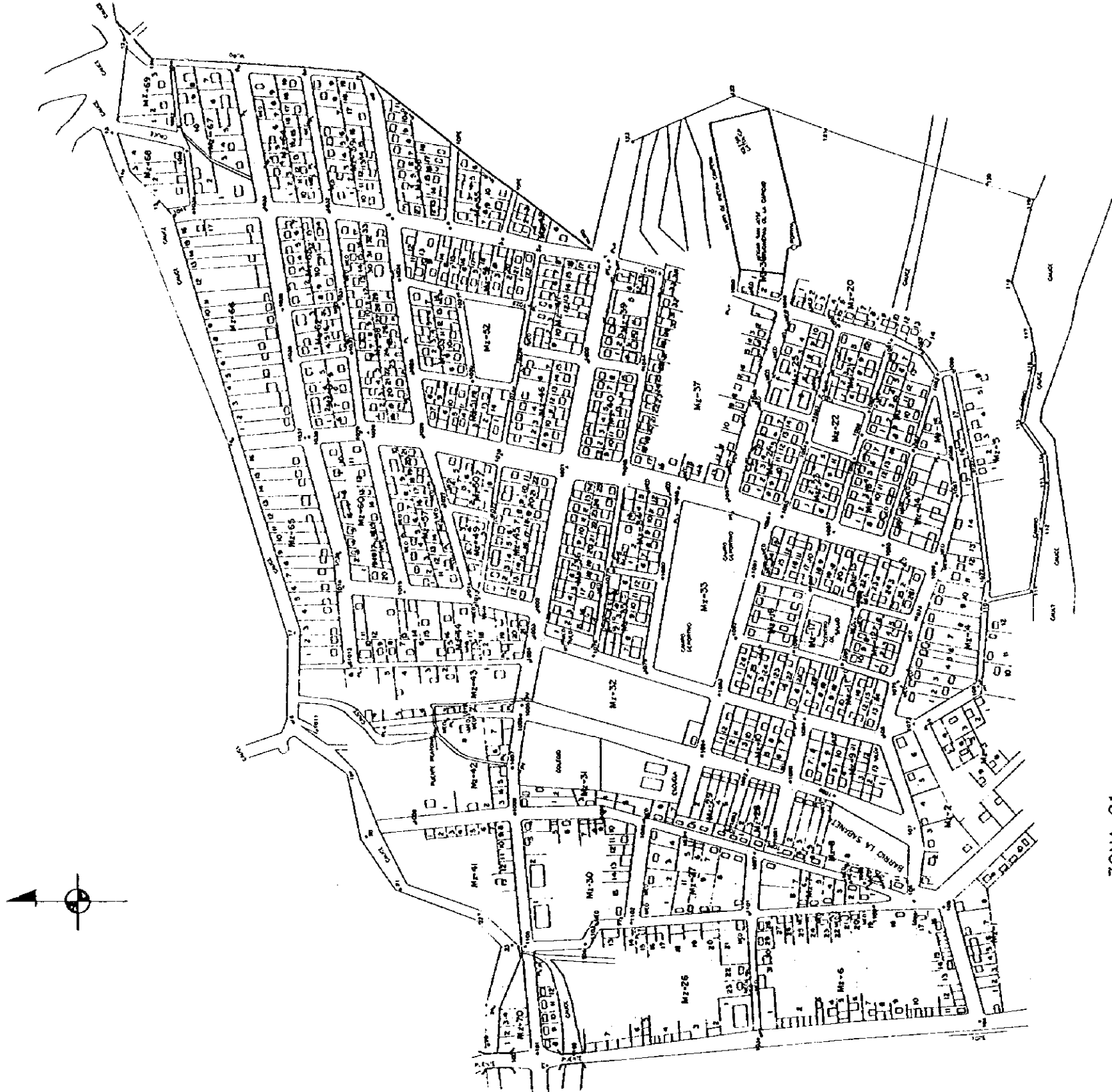
ZONA C1

COREA Y ASOCIADOS S.A. (CORASCO) INGENIEROS CONSULTORES	PROYECTO: TOPOGRAPHIC SURVEY OF THE MODEL AREA FOR THE STUDY ON IMPROVEMENT OF RURAL SANITATION ENVIRONMENT. CARRERA - PACHOCHA - PACHOCHA	LEVANTO: ING. ARRIUNDO ALVARADO	APROBADO: ING. ZACARIAS DOREA T.	UBICACION: Bo. EDOT RUIZ	HOJA No.
	CONTENIDO: PLANO DE CURVAS DE NIVEL C-1	CALCULO: J. MATAMOROS	DIBUJO: JOSE ANTONIO CARDOZA	ESCALA: 1:2,000	No.
		REVISOR: ING. REYNOLDO RODRIGO	UBICACION GENERAL: DPTO. GRANADA	FECHA: JULIO 1987	DC



ZONA C1

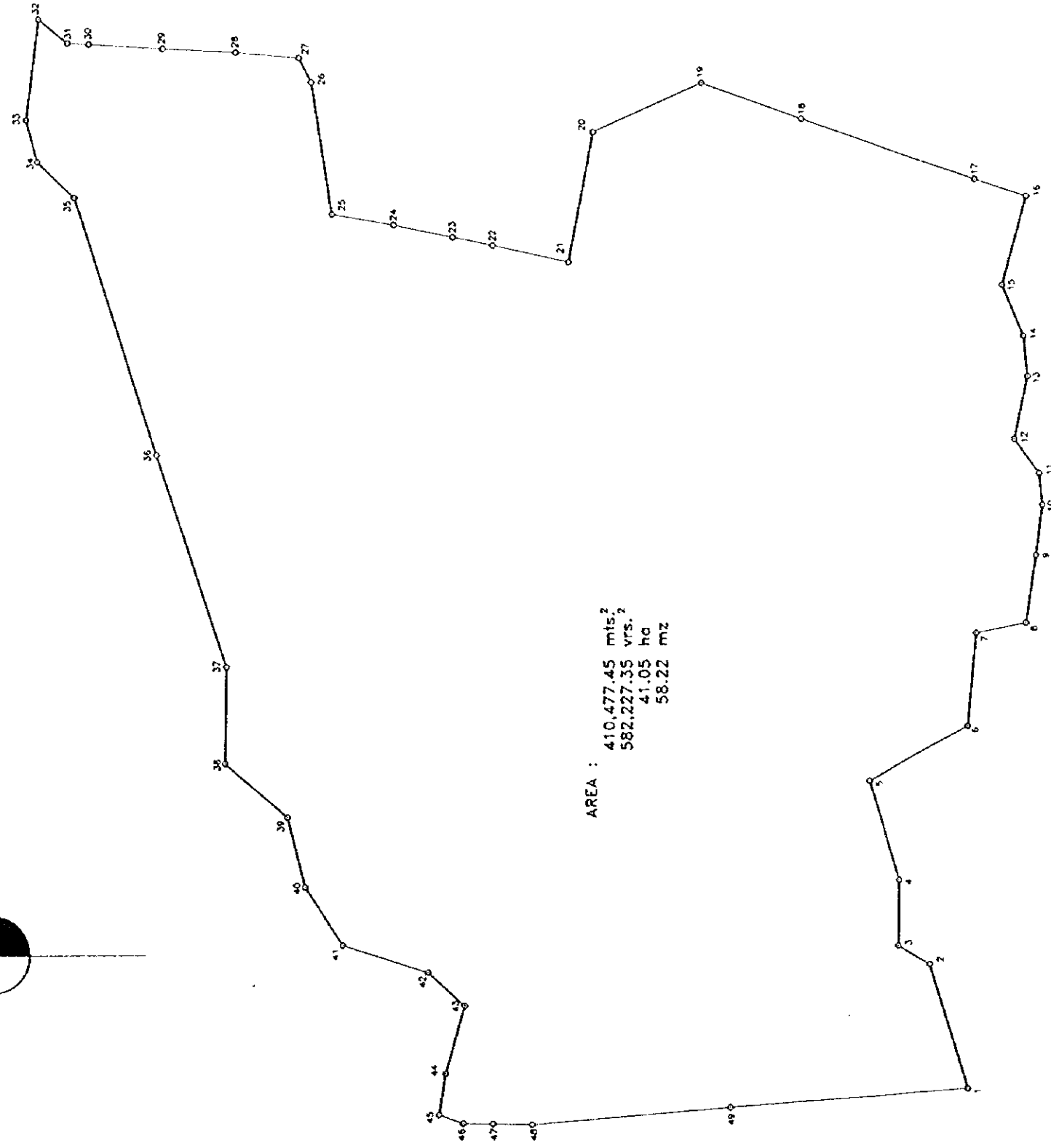
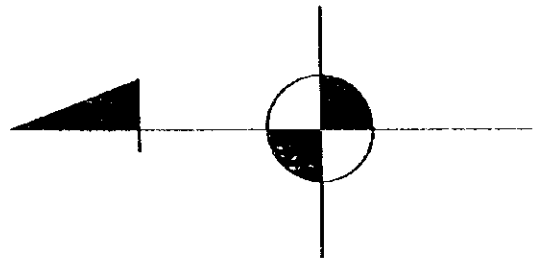
PROYECTO:
LIVIANTE:
APROBADO:
UBICACION:



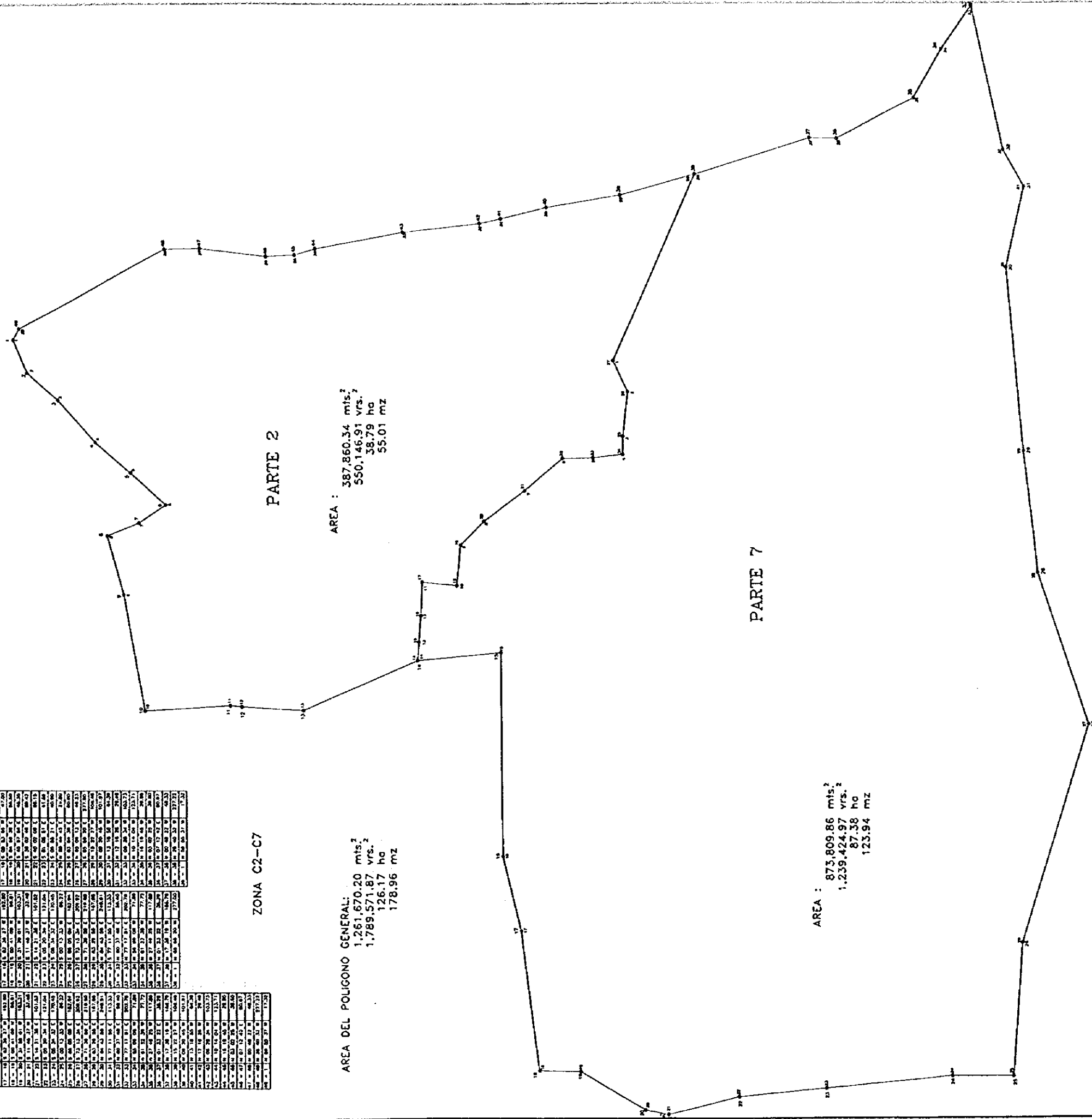
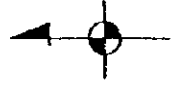
ZONA C1

COREA Y ASOCIADOS S.A. (CORASCO) INGENIEROS CONSULTORES	PROYECTO: TOPOGRAPHIC SURVEY OF THE MODEL AREA FOR THE STUDY ON IMPROVEMENT OF RURAL SANITATION ENVIRONMENT. GRAMADA - NICARAGUA.		UBICACION: BR. EDDY RUIZ		HOJA No. No. DE
	CONTENIDO: PLANO DE DETALLES C-1		ESCALA: 1:2,000		
	LEVANTO: ARNALDO ALVARADO CALCULO: J. MATAMOROS REVISO: ING. RETENRO RODRIGO	APROBADO: ING. ZACARIAS CORREA T. DIBUJO: JOSE ANTONIO CARROZA UBICACION GENERAL: DPTO. GRAMADA	FECHA: JULIO 1987		

LINEA	PUNTO	CORTICES
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4	4	71.71.50 E 87.83
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32	32	71.71.50 E 87.83
33	33	71.71.50 E 87.83
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35	35	71.71.50 E 87.83
36	36	71.71.50 E 87.83
37	37	71.71.50 E 87.83
38	38	71.71.50 E 87.83
39	39	71.71.50 E 87.83
40	40	71.71.50 E 87.83
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43	43	71.71.50 E 87.83
44	44	71.71.50 E 87.83
45	45	71.71.50 E 87.83
46	46	71.71.50 E 87.83
47	47	71.71.50 E 87.83
48	48	71.71.50 E 87.83
49	49	71.71.50 E 87.83
50	50	71.71.50 E 87.83



POLIGONO GENERAL			PARTE 7			PARTE 2		
LINIA	ALMADO	DIRT(m)	LINIA	ALMADO	DIRT(m)	LINIA	ALMADO	DIRT(m)
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5-6	1.00	15.00	5-6	1.00	15.00	5-6	1.00	15.00
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7-8	1.00	15.00	7-8	1.00	15.00	7-8	1.00	15.00
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96-97	1.00	15.00	96-97	1.00	15.00	96-97	1.00	15.00
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98-99	1.00	15.00	98-99	1.00	15.00	98-99	1.00	15.00
99-100	1.00	15.00	99-100	1.00	15.00	99-100	1.00	15.00



ZONA C2-C7

AREA DEL POLIGONO GENERAL:
 1,261,670.20 mts.²
 1,789,571.87 yrs.²
 126.17 ha
 178.96 mZ

AREA :
 387,860.34 mts.²
 550,146.91 yrs.²
 38.79 ha
 55.01 mZ

AREA :
 873,809.86 mts.²
 1,239,424.97 yrs.²
 87.38 ha
 123.94 mZ

COREA Y ASOCIADOS S.A. (CORASCO)
 INGENIEROS CONSULTORES

PROYECTO: PROCESAMIENTO DE LA SOLICITUD PARA EL OTORGAMIENTO DE UN PLAN DE ORDENAMIENTO TERRITORIAL PARA LA ZONA C2-C7 DE LA COMUNIDAD MUNICIPAL DE NICARAGUA

CONTEIDO: PLANO TOPOGRAFICO C2-C7

UBICACION: Ing. ZACARIAS COREA T.
 Ing. JOSE ANTONIO CARDOZA
 UBICACION GENERAL: OTTO, CANANUA

UBICACION: Ing. ARMANDO ALVARADO
 Ing. JUAN CARLOS
 Ing. ROBERTO ROMERO

ESCALA: 1:2,500

FECHA: JULIO 1987

FOJA No. No. DE

ZONA C2-C7



COREA Y ASOCIADOS S.A. (CORASCO)
INGENIEROS CONSULTORES

PROYECTO: TOPOGRAPHIC SURVEY OF THE WOOD AREA FOR THE
START OF IMPROVEMENT OF URBAN SUBDIVISION
DEVELOPMENT.
CARRANZA - MICHIGAN
CONTENIDO: PLANO DE DETALLES C.2-C.7

UNIVITO: ARNALDO ALVARADO
CALCAD: JUAN CARLOS
REVISO: ING. RETORERO ROMERO

APROBADO: ING. ZACARIAS CORREA T.
DISEÑO: JOSE ANTONIO CARREDO
URBACION GENERAL: DPTO. GUAYAMA

UBICACION: ZONA C2-C7, SAN CARLOS, P.R.
ESCALA: 1:2,500
FECHA: JULIO 1997

FOJA No. 01
No. 01

ZONA C2-C7



COREA Y ASOCIADOS S.A. (CORASCO)
INGENIEROS CONSULTORES

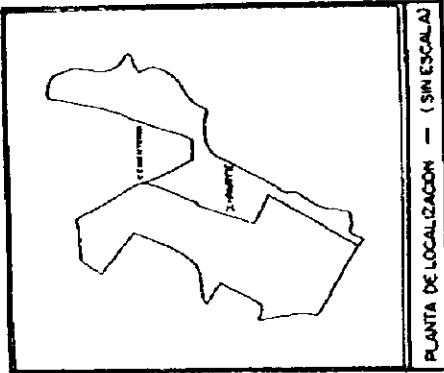
PROYECTO: TOPOGRÁFICO SURVEY OF THE WOOD AREA FOR THE
STUDY ON IMPROVEMENT OF URBAN SANITATION
CONTRIBUTOR: GUANACA - NICARAGUA
CONTENIDO: PLANO DE DETALLES C.2 - C.7

LEVANTO: ANIBALDO ALVARADO
CALCALO: J. MATAPIEDROS
REVISO: ING. RICHARDO MONCAYO

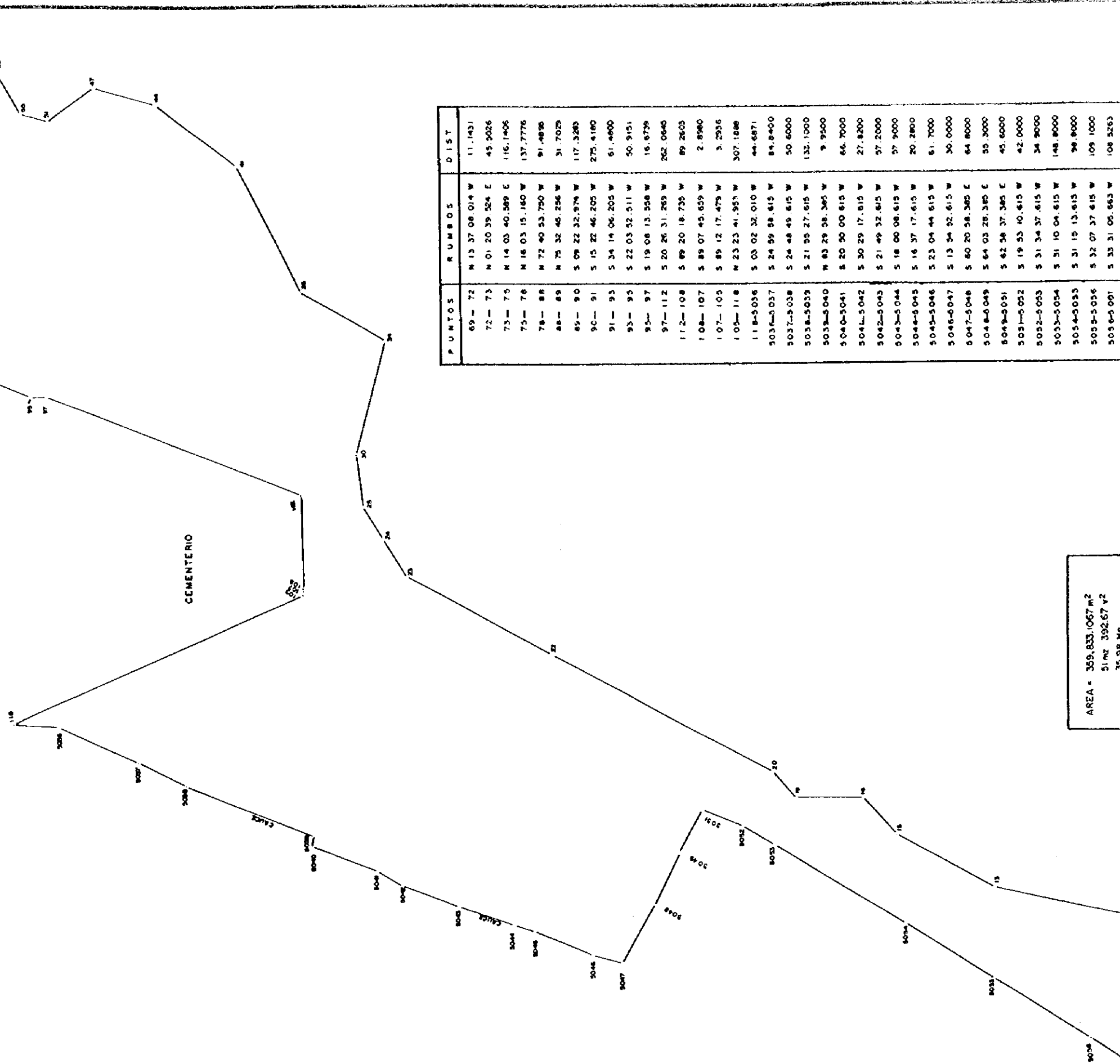
APROBADO: ING. JACARUS CORREA T.
DIBUJO: JOSE ANTONIO CARROZA
UBICACION GENERAL: DPTO. GUANACA

UBICACION: EN EL AREA DEL COMPLEJO
INDUSTRIAL DE GUANACA
ESCALA: 1:2,500
FECHA: AGO. 1987

HOJA No. 1
DE 1

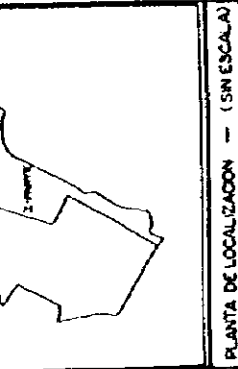


PUNTOS	RUMBOS	DIST.
200 - 1	N 29 39 27.316 E	76.0374
1 - 6	S 83 53 20.900 E	79.2426
6 - 9	N 79 47 00.823 E	32.0409
9 - 13	N 11 38 32.271 E	147.5194
13 - 15	N 28 34 17.375 E	108.0131
15 - 16	N 47 47 10.874 E	48.1682
16 - 19	N 00 18 38.497 W	64.7580
19 - 20	N 48 42 26.286 E	33.8094
20 - 22	N 28 02 43.604 E	241.4185
22 - 23	N 28 15 15.118 E	137.8068
23 - 24	N 57 20 55.121 E	41.7754
24 - 25	N 87 18 43.822 E	36.2447
25 - 30	N 82 45 04.453 E	49.9708
30 - 34	S 75 29 00.917 E	115.8784
34 - 35	N 25 37 19.334 E	93.5916
35 - 41	N 82 59 31.141 E	135.0645
41 - 44	N 37 09 38.422 E	94.0103
44 - 47	N 14 28 37.348 E	61.1761
47 - 51	N 35 55 41.534 W	54.4230
51 - 55	N 14 32 53.257 E	28.0374
55 - 57	N 58 51 58.285 E	52.2165
57 - 60	N 87 44 16.804 E	42.8895
60 - 62	N 13 42 27.508 E	16.1845
62 - 65	N 90 55 51.444 W	99.2081
65 - 69	N 17 26 04.743 W	28.7778



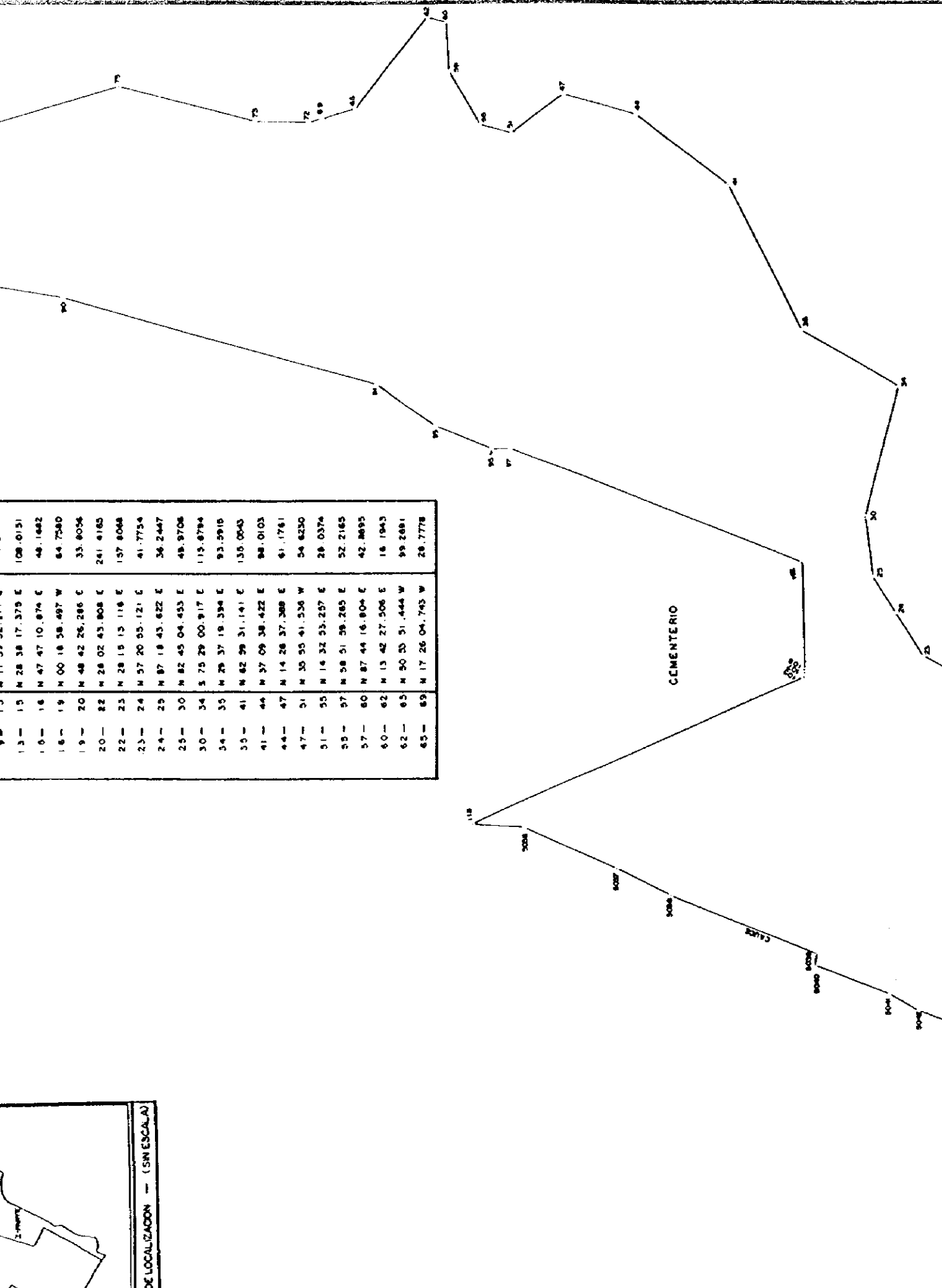
PUNTOS	RUMBOS	DIST.
69 - 72	N 13 37 08.014 W	11.1431
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73 - 75	N 14 03 40.589 E	116.1406
75 - 76	N 16 03 15.180 W	137.7776
76 - 88	N 72 40 53.750 W	91.4898
88 - 89	N 75 32 45.256 W	31.7029
89 - 90	S 09 22 32.974 W	117.3289
90 - 91	S 15 22 46.205 W	275.4180
91 - 93	S 34 14 06.205 W	61.4800
93 - 95	S 22 03 32.511 W	50.9151
95 - 97	S 19 08 13.958 W	16.8729
97 - 112	S 20 26 31.285 W	262.0645
112 - 108	S 89 20 18.735 W	89.2603
108 - 107	S 89 07 43.659 W	2.8940
107 - 105	S 89 12 17.473 W	3.2936
105 - 118	N 23 23 41.955 W	307.1888
118 - 5036	S 03 02 32.010 W	44.6871
5036 - 5037	S 24 59 58.615 W	84.8400
5037 - 5038	S 24 48 49.615 W	50.6000
5038 - 5039	S 21 55 27.615 W	132.1000
5039 - 5040	N 83 29 38.345 W	9.9500
5040 - 5041	S 20 50 00.615 W	66.7000
5041 - 5042	S 30 29 17.615 W	27.8200
5042 - 5043	S 21 49 32.615 W	57.2000
5043 - 5044	S 18 00 08.615 W	97.9000
5044 - 5045	S 16 37 17.615 W	20.2800
5045 - 5046	S 23 04 44.615 W	61.7000
5046 - 5047	S 13 34 32.615 W	30.0000
5047 - 5048	S 60 20 58.345 E	64.8000
5048 - 5049	S 64 03 28.345 E	55.3000
5049 - 5051	S 62 58 37.345 E	45.6000
5051 - 5052	S 19 53 10.615 W	42.0000
5052 - 5053	S 31 34 37.615 W	34.9000
5053 - 5054	S 31 10 04.615 W	148.8000
5054 - 5055	S 31 15 13.615 W	98.8000
5055 - 5056	S 32 07 37.615 W	109.1000
5056 - 5057	S 33 31 05.663 W	108.3263
5057 - 5058	S 47 11 48.385 E	23.5000

AREA = 359,833,067 m²
 51 m² 392.67 v²
 35.98 M²



PLANTA DE LOCALIZACION - (SIN ESCALA)

13	N	28	38	17.375	E	108.0151
14	N	47	10.874	E	48.1842	
15	N	00	18.58	487	W	84.7540
16	N	48	42	26.286	E	33.8034
17	N	28	02	43.808	E	241.4165
18	N	28	15	13	E	137.8048
19	N	57	20	95.121	E	41.7754
20	N	87	18	43.622	E	36.2447
21	N	82	45	04.433	E	48.9708
22	N	75	29	00.917	E	115.8794
23	N	29	37	18.384	E	93.9910
24	N	62	29	31.141	E	135.0645
25	N	37	09	38.422	E	88.0103
26	N	14	26	37.389	E	61.1761
27	N	30	55	41.338	W	54.8230
28	N	14	32	33.257	E	28.0374
29	N	58	51	28.265	E	52.2165
30	N	87	44	16.804	E	42.8895
31	N	42	27	506	E	18.1943
32	N	50	30	31.444	W	99.2881
33	N	17	26	04.743	W	28.7778



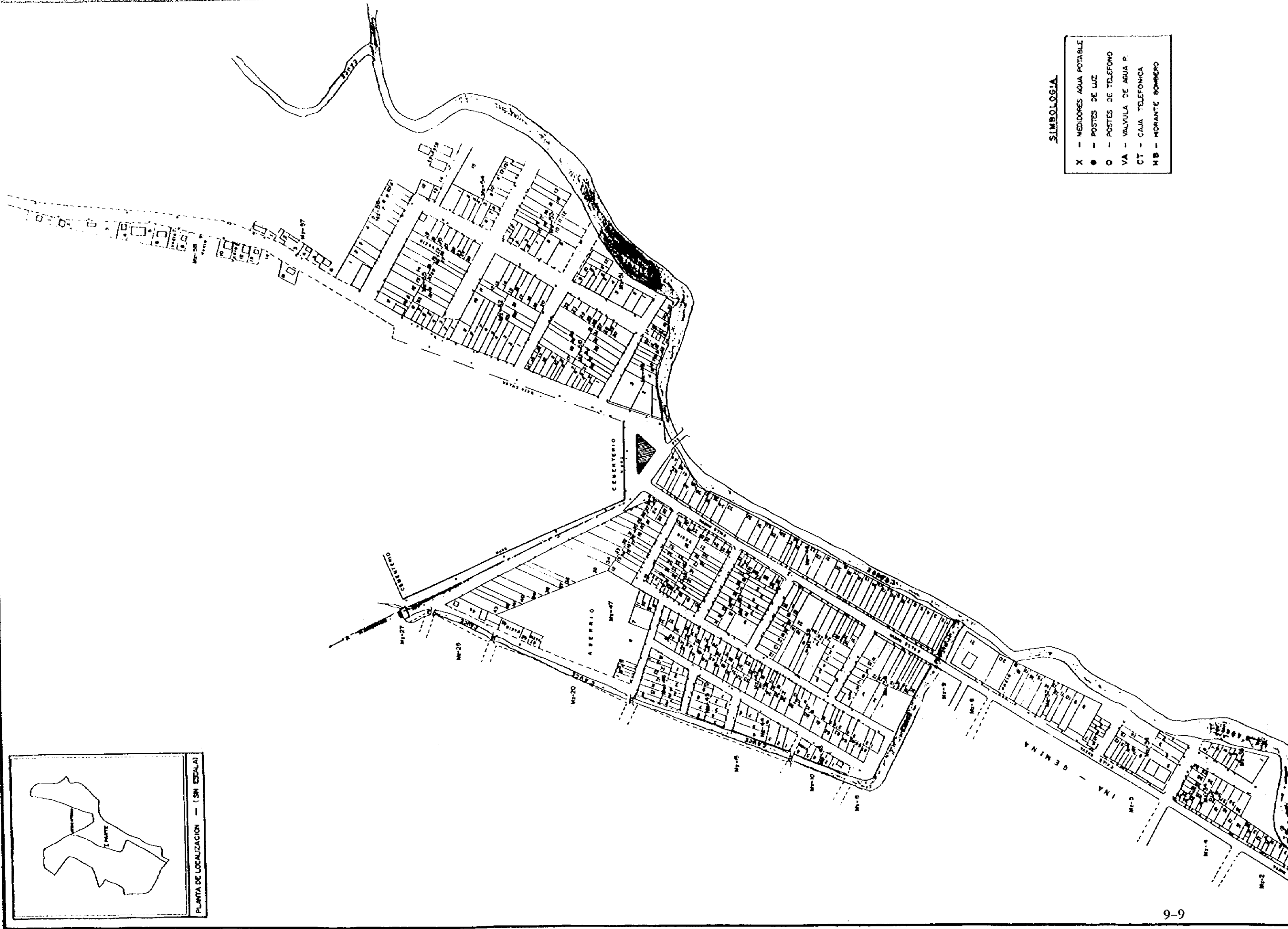
PUNTOS	PUMBOS	DIST
65-72	N 13 37 08.014 W	11.1431
72-73	N 01 20 39.524 E	45.5026
73-75	N 14 05 40.589 E	116.1406
75-78	N 16 03 15.160 W	137.7776
78-88	N 72 40 53.750 W	91.4895
88-89	N 75 32 40.254 W	31.7029
89-90	S 09 22 32.974 W	117.3285
90-91	S 15 22 46.205 W	279.4180
91-93	S 34 14 06.205 W	61.4800
93-95	S 22 03 52.511 W	50.9151
95-97	S 19 08 13.538 W	16.6799
97-112	S 20 26 31.269 W	262.0640
112-108	S 89 20 18.735 W	89.2603
108-107	S 69 07 45.659 W	2.8980
107-105	S 89 12 17.479 W	3.2936
105-118	N 23 23 41.953 W	307.1888
118-5036	S 03 02 32.010 W	44.6871
5036-5037	S 24 59 58.613 W	84.8400
5037-5038	S 24 48 49.619 W	90.6000
5038-5039	S 21 55 27.615 W	133.1000
5039-5040	N 83 29 58.385 W	9.9000
5040-5041	S 20 50 00.615 W	66.7000
5041-5042	S 30 29 17.615 W	27.8200
5042-5043	S 21 49 32.615 W	37.2000
5043-5044	S 18 00 08.615 W	37.9000
5044-5045	S 16 37 17.615 W	20.2400
5045-5046	S 23 04 44.615 W	61.7000
5046-5047	S 13 54 32.615 W	30.0000
5047-5048	S 60 20 58.345 E	64.8000
5048-5049	S 64 03 28.385 E	35.3000
5049-5051	S 62 58 37.385 E	42.6000
5051-5052	S 19 33 10.615 W	42.0000
5052-5053	S 31 34 37.615 W	34.9000
5053-5054	S 31 10 04.615 W	148.8000
5054-5055	S 31 15 13.615 W	98.8000
5055-5056	S 32 07 37.615 W	109.1000
5056-5001	S 33 31 05.663 W	108.9263
5001-150	S 42 11 48.385 E	23.5000
150-200	S 34 35 30.385 E	13.8375

AREA = 359,833,1067 m²
 51 m² 392.67 v²
 35.98 Hg

COREA Y ASOCIADOS S.A. (CORASCO)
 INGENIEROS CONSULTORES

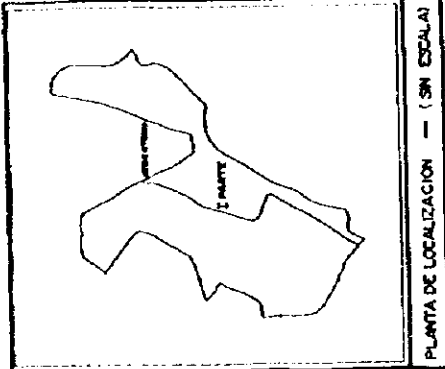
PROYECTO: PROBABLE MURPHY OF THE WOOD AREA FOR THE
 IMPROVEMENT OF URBAN SANITATION
 ENVIRONMENT - NICARAGUA
 CONTENIDO: PLANO TOPOGRAFICO

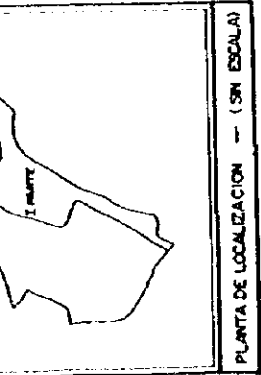
UNICION: UNICION DE CALLE LAS CAMELIAS
 ESCALA: 1:2,000
 FECHA: ABRIL/97
 DE G.



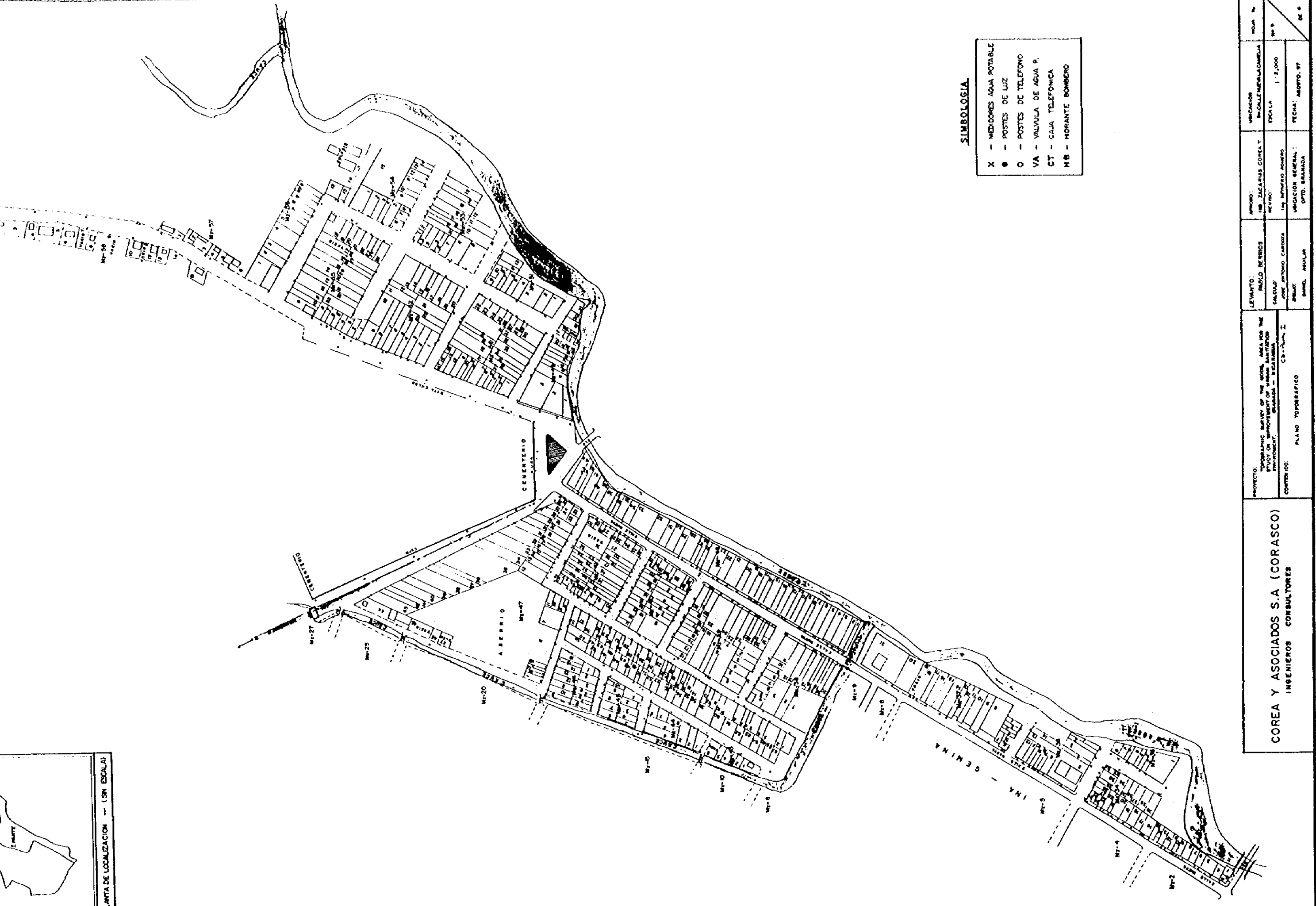
SIMBOLOGIA

X	-	MEDIDORES AGUA POTABLE
●	-	POSTES DE LUZ
○	-	POSTES DE TELEFONO
VA	-	VALVULA DE AGUA P.
CT	-	CAJA TELEFONICA
MB	-	MORANTE BOMBRO





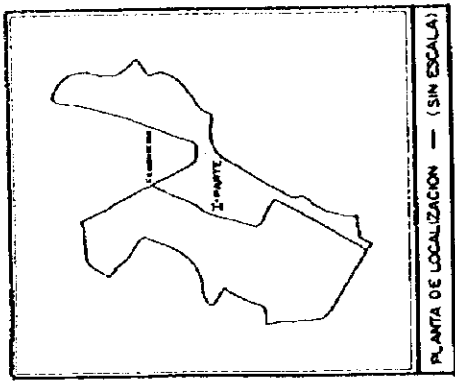
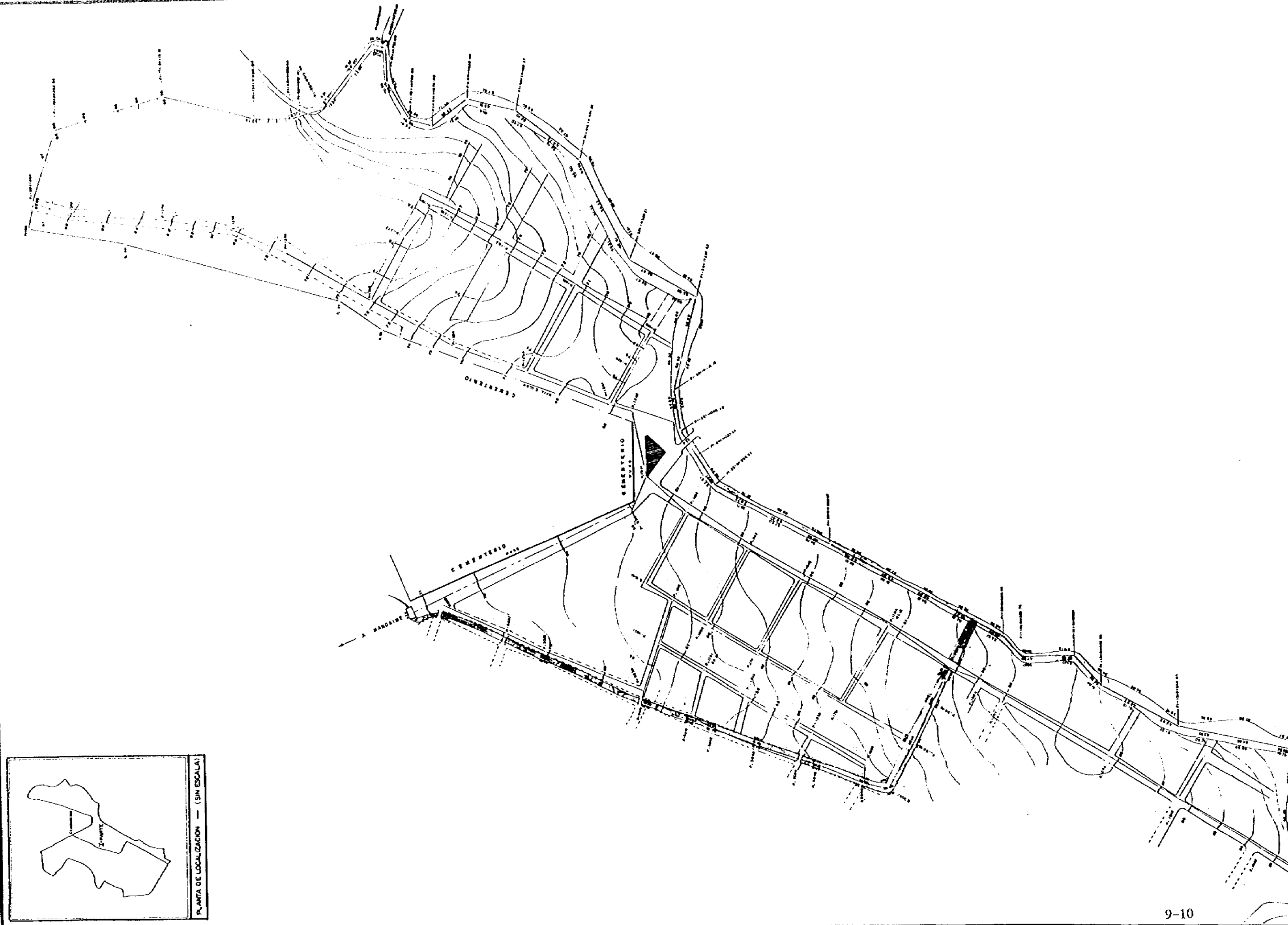
PLANTA DE LOCALIZACION - (SN ESCALA)



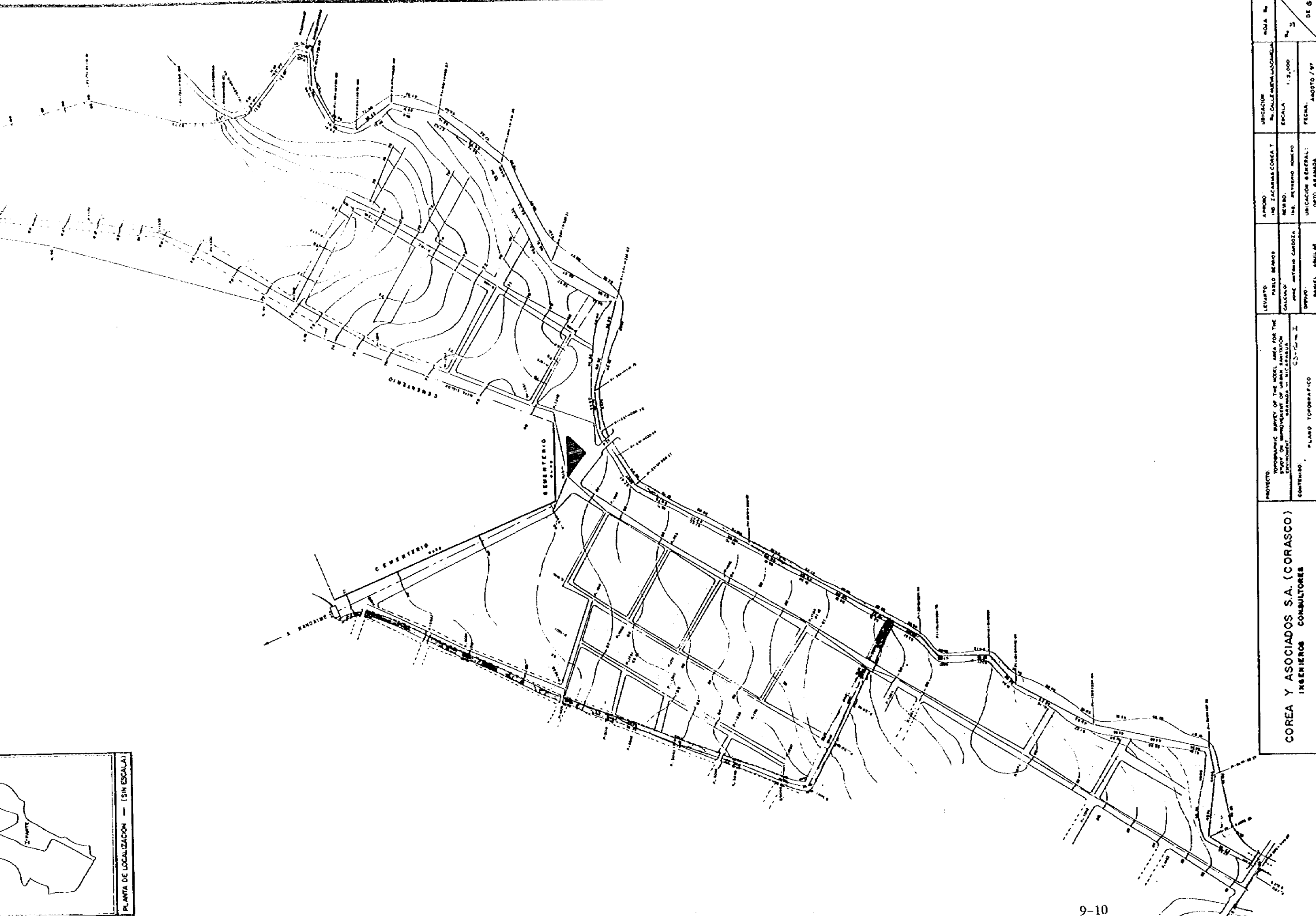
- SIMBOLOGIA**
- X - MEDIDORES AGUA POTABLE
 - - POSTES DE LUZ
 - - POSTES DE TELEFONO
 - VA - VALVULA DE AGUA P.
 - CT - CAJA TELEFONICA
 - MB - MORANTE BOMBERO

PROYECTO: TOPOGRAPHIC SURVEY OF THE WORK AREA FOR THE STUDY OF IMPROVEMENT OF URBAN SANITATION ENVIRONMENT. BARAHONA - DOMINICAN REPUBLIC. CONTENIDO: PLANO TOPOGRAFICO	LEVANTADO: ENRIQUE BERRIOS	PROYECTO: ING. ZACARIAS COREA T.	VELOCIDAD: 1:2,000	FOHO: No. 9
	CALCULO: JOSE ANTONIO CARRERA	INGENIERO ASESOR: OPTO. RAMADA	FECHA: ABRIL DE 1977	DE 4

COREA Y ASOCIADOS S.A (CORASCO)
 INGENIEROS CONSULTORES



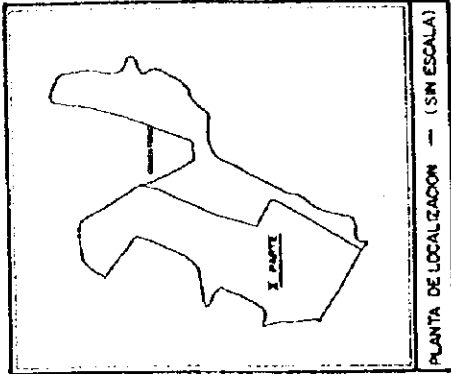
PLANTA DE LOCALIZACIÓN — (SIN ESCALA)



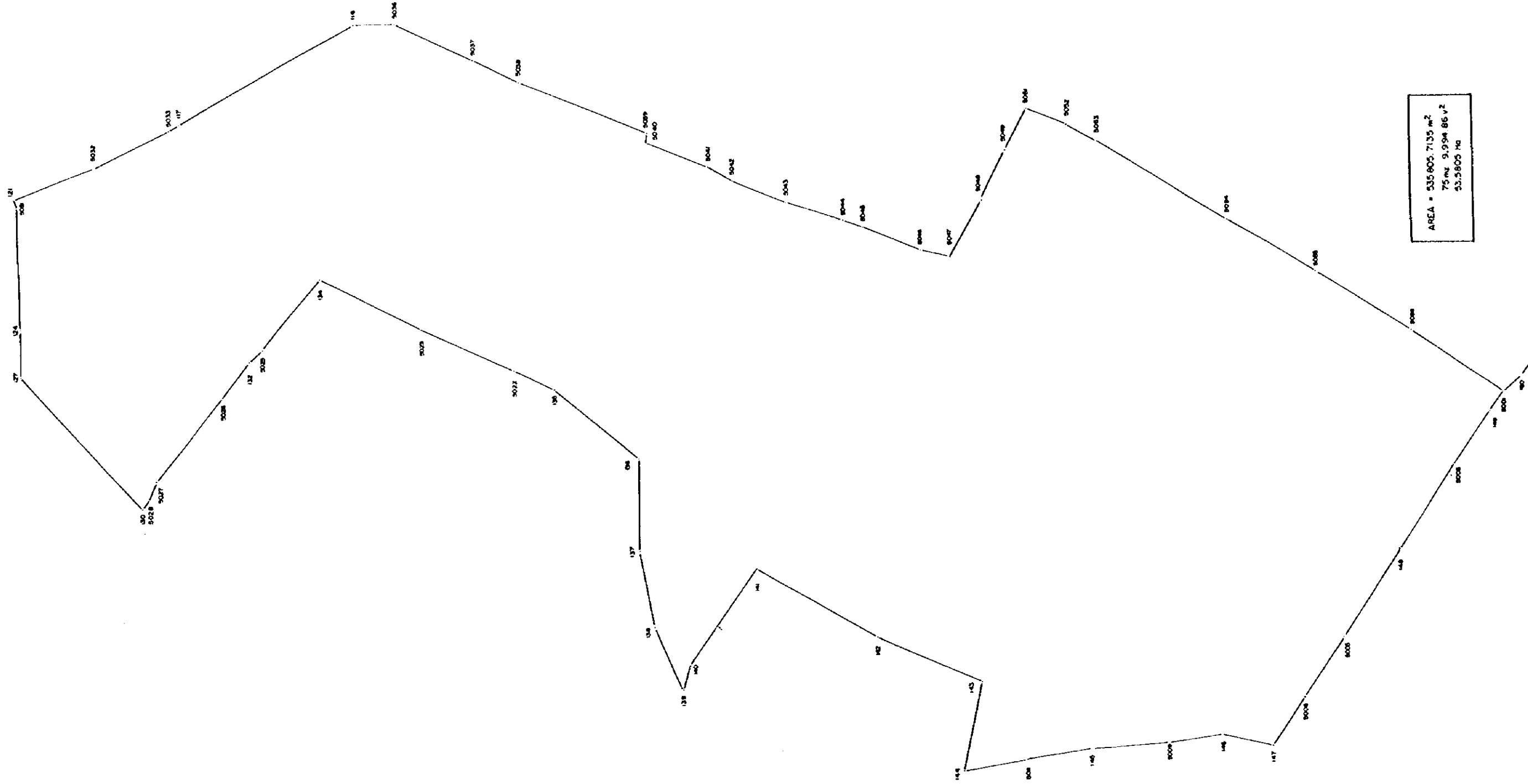
PLANTA DE LOCALIZACIÓN — (SIN ESCALA)

PROYECTO: TOPOGRÁFICO SURVEY OF THE MODEL AREA FOR THE STUDY ON IMPROVEMENT OF URBAN SANITATION ENVIRONMENT - SANAMBA - SICABALU C.S. - 72.11.11.11	LEVANTADO: PABLO BERRIO CALCULO: JORGE ANTONIO CARDONA	APROBADO: ING. ZACARAS COREA T. REVISO: ING. ALFREDO RAMIRO	UBICACION: EN CALLE MUELLOJOCHELA ESCALA: 1:2,000	HOJA No. No. 3 DE 6
	CONTENIDO: PLANO TOPOGRAFICO	DIBUJADO: DANIEL ABUILAR	UBICACION GENERAL: OPTO. SANAMBA	FECHA: AGOSTO / 97

COREA Y ASOCIADOS S.A. (CORASCO)
 INGENIEROS CONSULTORES

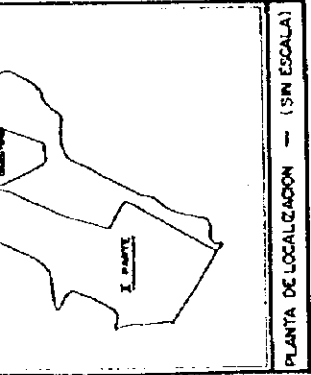


PLANTA DE LOCALIZACION - (SIN ESCALA)



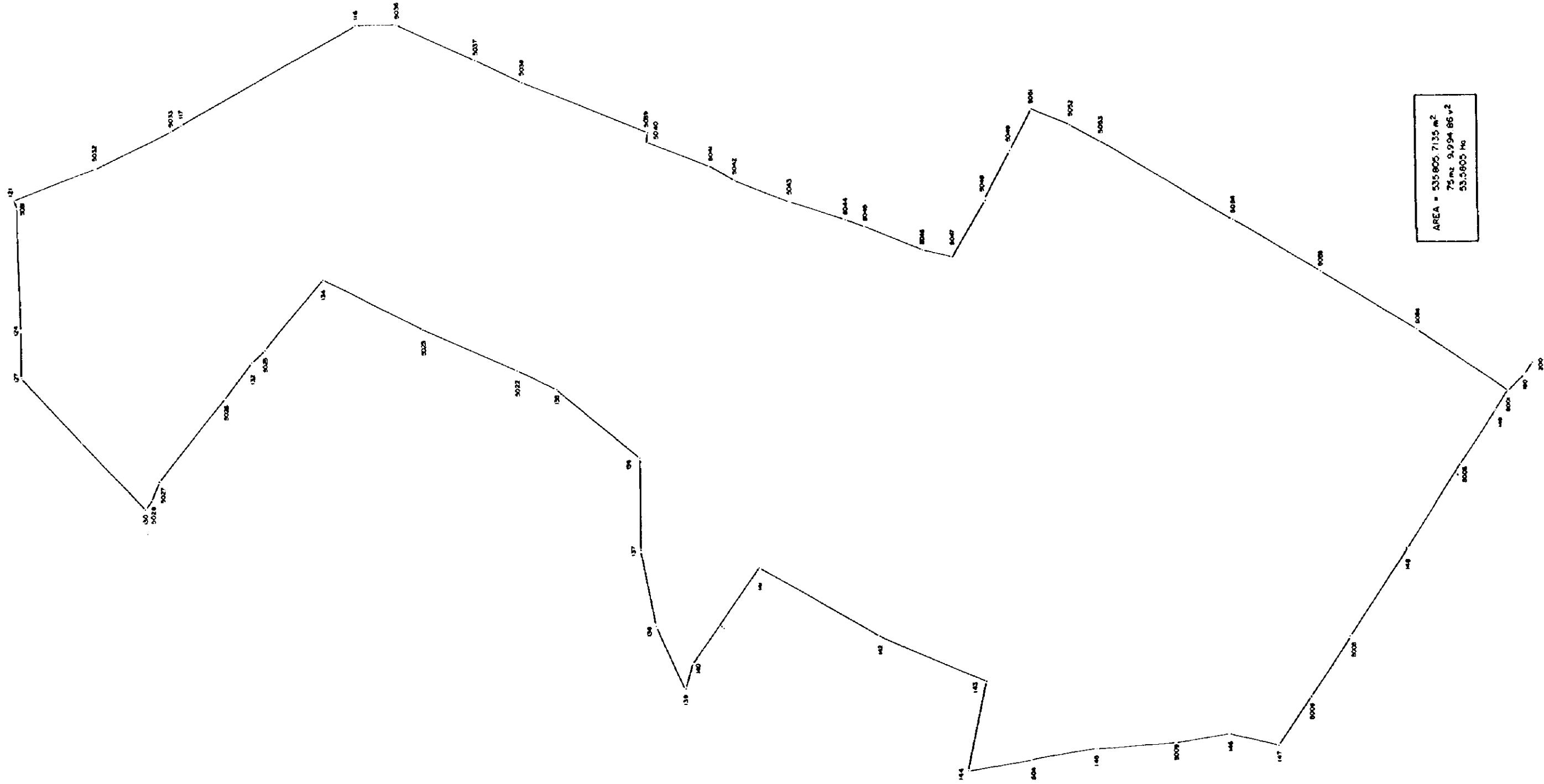
AREA = 535.805.7135 m²
 75 m² 9.994 86 v²
 53.5805 Ha

PUNTOS	RUMBOS	DIST.
500	N 55 17 48.385 W	24.3500
500E	N 57 30 48.385 W	61.1000
500S	N 57 30 24.385 W	99.0300
500A	N 57 27 06.385 W	101.7400
500B	N 57 02 12.385 W	71.8900
500C	N 55 44 52.385 W	56.8000
500D	N 13 35 07.615 E	47.9000
500E	N 08 53 55.385 W	53.2000
500F	N 05 30 59.385 W	78.9000
500G	N 10 10 50.385 W	63.9000
501	N 09 32 36.385 W	64.9000
502	S 78 58 32.385 E	90.2000
503	N 23 03 02.615 E	110.6300
504	N 25 49 12.615 E	136.1000
505	N 54 39 03.385 W	118.8000
506	N 47 17 31.385 W	18.2300
507	N 66 00 58.615 E	55.6000
508	N 78 23 10.615 E	76.9800
509	S 89 34 34.385 E	90.1000
510	N 40 22 20.615 E	106.2600
511	N 23 11 28.615 E	42.5000
512	N 24 34 50.615 E	100.8000
513	N 26 44 15.615 E	110.9000
514	N 50 41 59.385 W	89.3000
515	N 49 49 21.385 W	61.5000
516	N 51 39 54.385 W	108.1000
517	N 64 10 03.385 W	20.0300
518	N 94 55 28.823 W	10.7534
519	N 37 18 55.757 E	149.8790
520	N 89 55 42.060 E	88.8219
521	N 88 47 03.209 E	123.3609
522	N 74 83 82.472 E	7.2511
523	S 20 57 52.402 E	84.1038
524	S 25 52 32.385 E	83.0000
525	S 28 30 10.139 E	11.5598
526	S 30 11 44.812 E	196.8798
527	N 16 23 44.303 E	3.1000
528	S 03 02 32.010 W	44.6875
529	S 24 59 58.615 W	84.8400
530	S 24 48 49.615 W	50.6000
531	S 21 38 27.615 W	133.1000
532	N 83 29 58.385 W	9.9500
533	S 20 50 00.615 W	68.7000
534	S 30 25 17.615 W	27.8200
535	S 21 49 32.615 W	57.2000
536	S 16 00 08.615 W	57.9000
537	S 16 37 17.615 W	20.2800
538	S 25 04 44.615 W	61.7000
539	S 13 54 52.615 W	30.0000
540	S 60 20 58.385 E	64.8000
541	S 62 58 37.385 E	55.3000
542	S 19 53 10.615 W	43.6000
543	S 31 34 37.615 W	34.9000
544	S 31 10 04.615 W	148.8000
545	S 31 15 13.615 W	98.8000
546	S 32 07 37.615 W	109.1000
547	S 33 31 05.683 W	108.3283



PLANTA DE LOCALIZACION - (SIN ESCALA)

PUNTOS	RUMBOS	DIST
5028	N 55 17 48.385 W	24.3500
5008	N 57 30 48.385 W	81.1000
5003	N 57 30 24.385 W	99.0300
5004	N 57 27 06.385 W	101.7400
5005	N 57 02 12.385 W	71.6900
5006	N 55 44 32.385 W	55.6000
5007	N 15 35 07.615 E	47.9000
5008	N 08 55 55.385 W	53.2000
5009	N 03 30 55.385 W	78.9000
5010	N 10 10 50.385 W	63.9000
5011	N 09 32 36.385 W	64.9000
5012	S 78 58 32.385 E	90.2000
5013	N 23 03 02.615 E	110.6300
5014	N 29 49 12.615 E	134.1000
5015	N 54 59 03.385 W	118.6000
5016	N 47 17 31.385 W	18.2300
5017	N 66 00 58.415 E	35.6000
5018	N 78 23 10.615 E	74.9800
5019	S 89 54 34.385 E	90.1000
5020	N 40 22 20.615 E	108.2600
5021	N 23 11 28.615 E	42.9000
5022	N 24 34 50.615 E	100.6000
5023	N 28 44 15.615 E	110.9000
5024	N 50 41 59.385 W	89.3000
5025	N 49 49 21.385 W	81.5000
5026	N 51 39 54.385 W	108.1000
5027	N 64 10 03.385 W	20.0300
5028	N 54 55 28.623 W	10.7334
130	N 37 18 55.757 E	48.8790
127	N 89 55 42.080 E	85.8219
124	N 88 47 03.209 E	123.3809
5029	N 74 53 52.672 E	7.2511
121	S 20 57 52.402 E	84.1038
5030	S 25 52 32.386 E	65.0000
5031	S 28 30 10.139 E	11.5599
117	S 30 11 44.912 E	198.8790
118	N 16 25 44.303 E	3.1000
118	S 03 02 32.010 W	44.6871
5032	S 24 59 58.615 W	84.8400
5033	S 24 48 49.615 W	50.6000
5034	S 21 56 27.615 W	133.1000
5035	N 83 29 58.385 W	9.9500
5036	S 20 50 00.615 W	68.7000
5037	S 30 29 17.615 W	27.8200
5038	S 21 49 32.615 W	97.2000
5039	S 18 00 06.615 W	57.3000
5040	S 16 37 17.615 W	20.2800
5041	S 25 04 44.615 W	61.7000
5042	S 13 54 32.615 W	30.0000
5043	S 80 20 58.385 E	64.8000
5044	S 84 03 28.385 E	55.3000
5045	S 62 58 37.385 E	45.8000
5046	S 19 53 10.615 W	42.0000
5047	S 31 34 37.615 W	34.9000
5048	S 31 10 04.615 W	148.8000
5049	S 31 15 13.615 W	98.8000
5050	S 32 07 37.615 W	109.1000
5051	S 33 31 05.683 W	108.5283



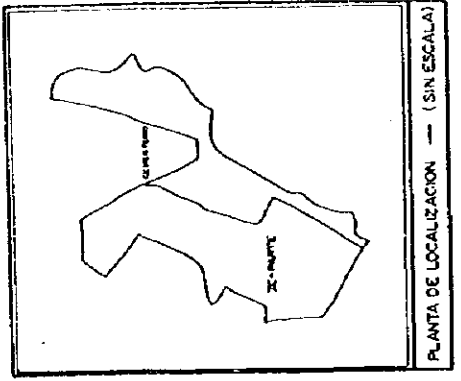
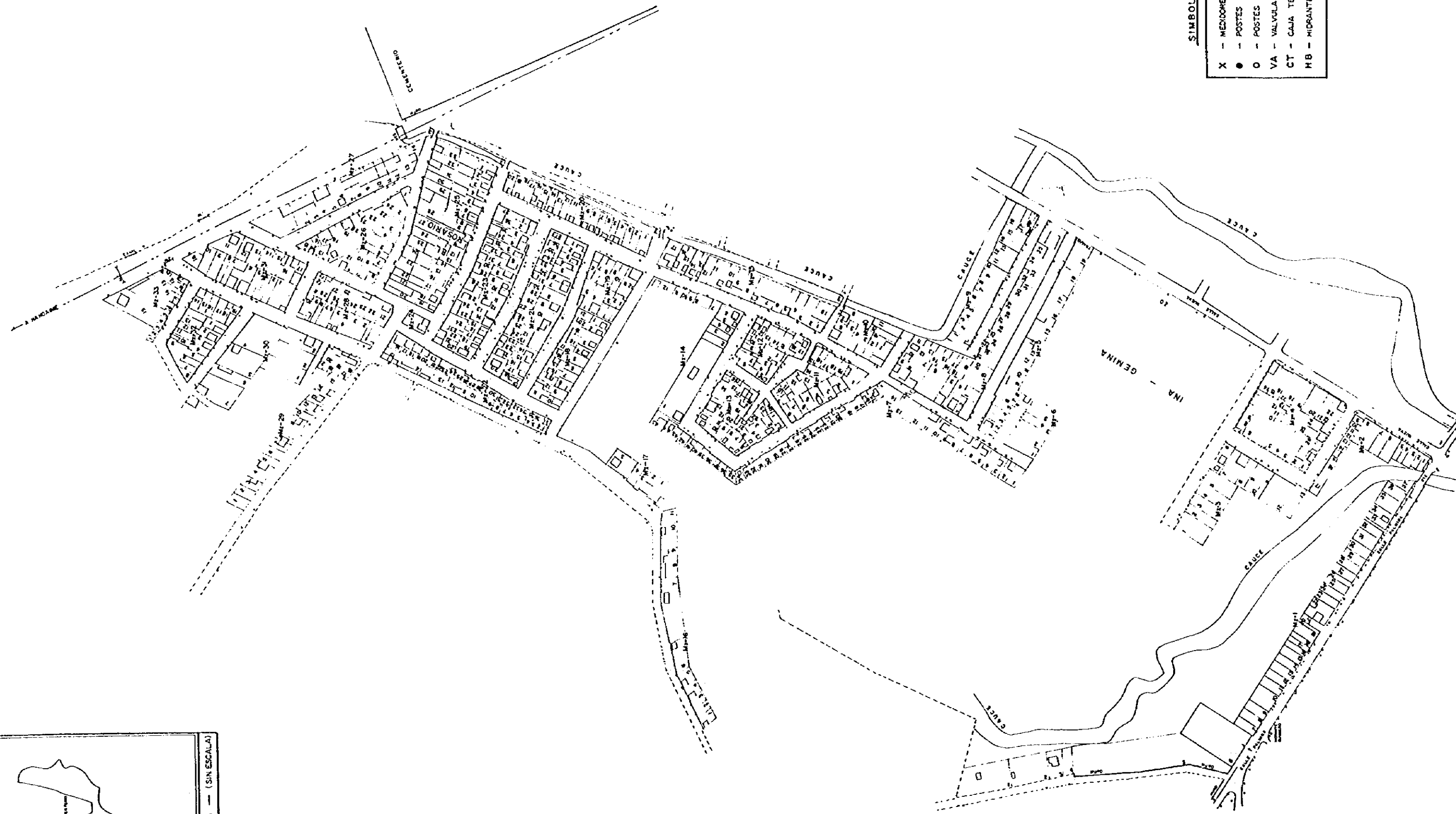
AREA = 535805.7135 m²
75 ml, 9,994 86 v²
53,2805 Hg

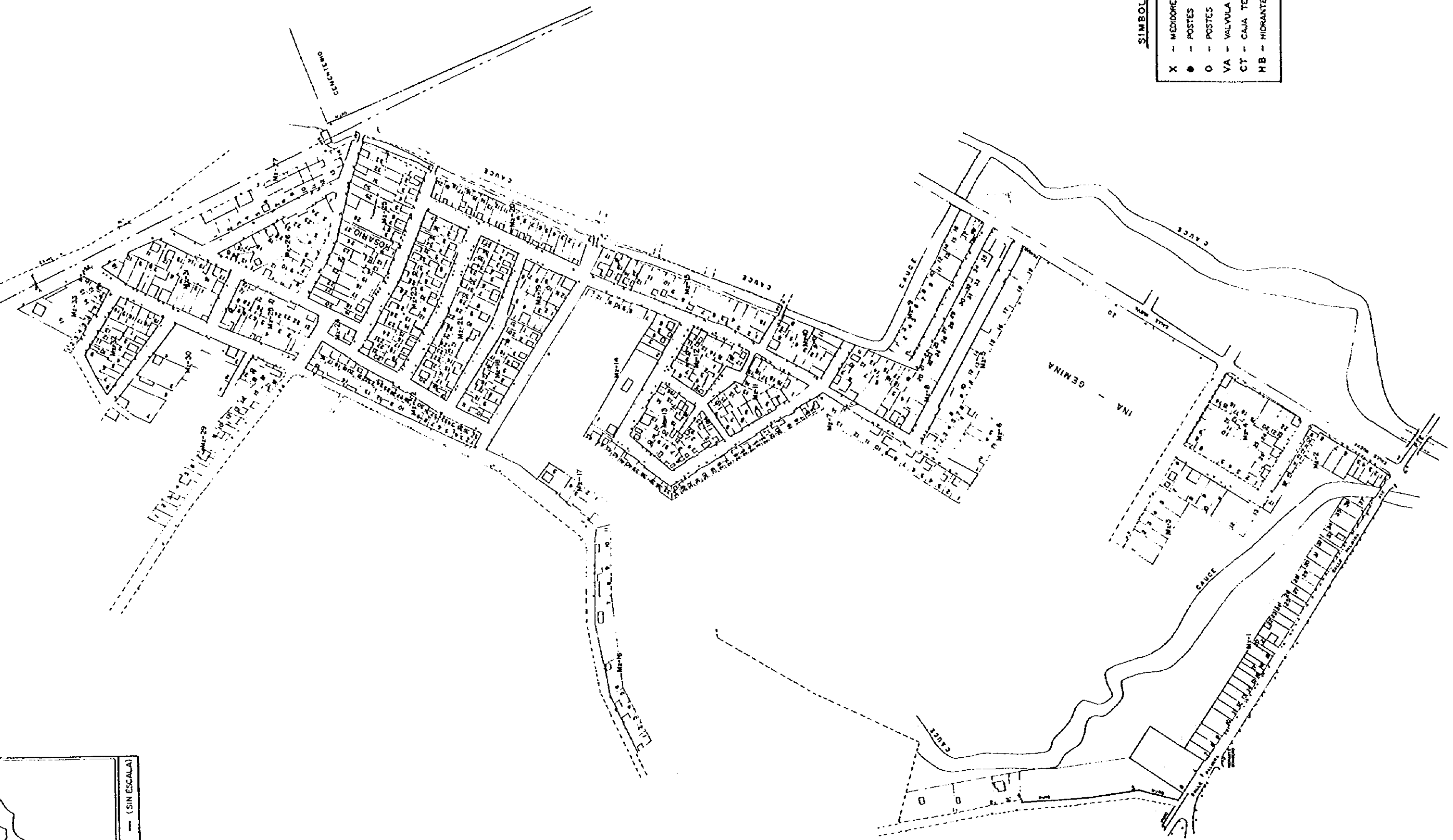
PROYECTO TOPOGRAFIC SURVEY OF THE MODEL AREA FOR THE STUDY ON IMPROVEMENT OF URBAN INFRASTRUCTURE (C.I. - Part II) CONTENIDO:	LEVANTO OSCAR AYESTAS CALISTO JOSE ANTONIO CARDOZA DIEGO CAROL ANJALINE	APROBADO ING. ZACARIAS CORREA T. REVISADO ING. DELIBERTO MONTE DISEÑADO CAROL ANJALINE	UBICACION EN EL DISTRITO DE ENCINO ESCALA 1 : 2,000	NOVA No. DE DE 6
	PLANO TOPOGRAFICO			FECHA

COREA Y ASOCIADOS S.A (CORASCO)
INGENIEROS CONSULTORES

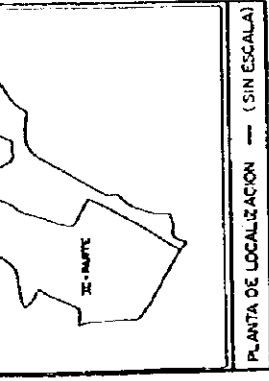
SIMBOLOGIA

- X - MEDIDORES AGUA POTABLE
- - POSTES DE LUZ
- - POSTES DE TELEFONO
- VA - VALVULA DE AGUA P.
- CT - CAJA TELEFONICA
- MB - HIDRANTE BOMBERO





- SIMBOLOGIA**
- X - MEDIDORES AGUA POTABLE
 - - POSTES DE LUZ
 - - POSTES DE TELEFONO
 - VA - VALVULA DE AGUA P.
 - CT - CAJA TELEFONICA
 - HB - HIDRANTE BOMBERO



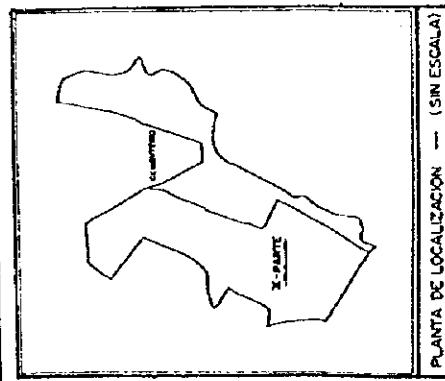
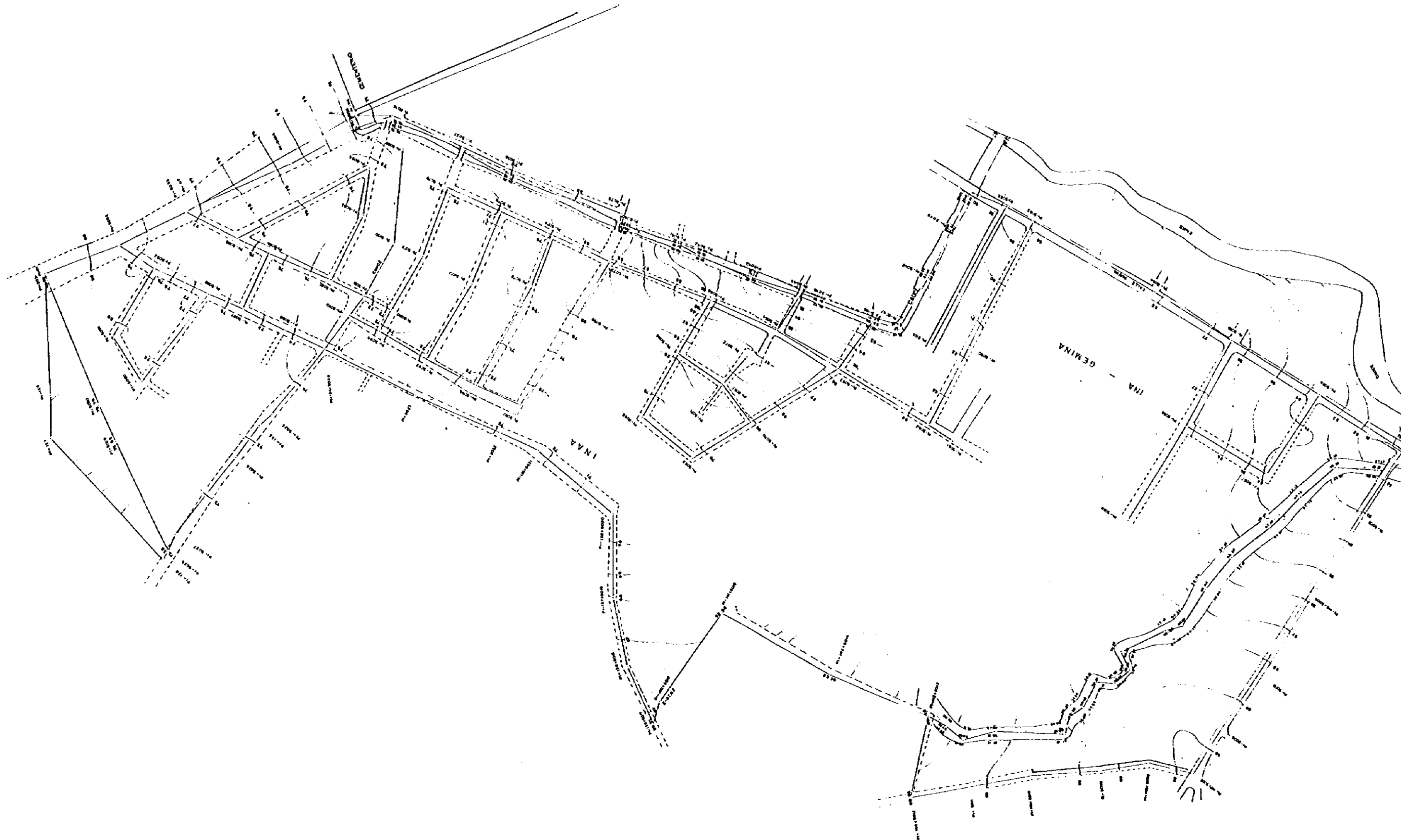
COREA Y ASOCIADOS S.A (CORASCO)
INGENIEROS CONSULTORES

PROYECTO: TOPOGRAFIC SURVEY OF THE MODEL AREA FOR THE STUDY ON IMPROVEMENT OF URBAN ENVIRONMENT GRANADA - BIVARRADA
 CONTENIDO: PLANO TOPOGRAFICO

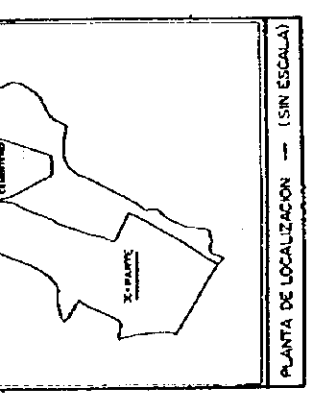
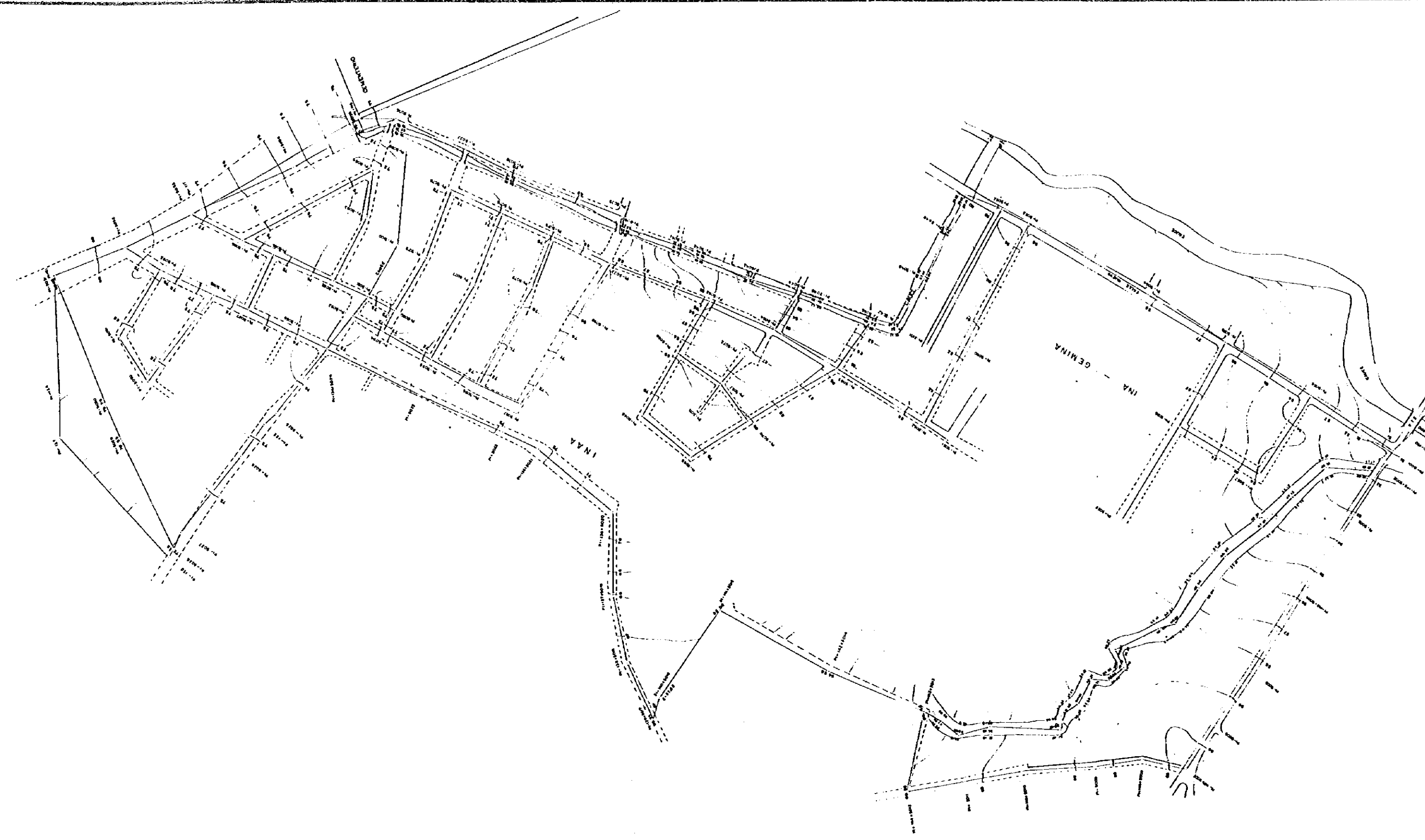
LEWATO: OSCAR AYESTAS
 CALCULO: JOSE ANTONIO CARDOZA
 DIBUJO: DANIEL AGUILAR

AMOBRO: ING. ZACARIAS COREA Y
 REVISO: ING. ROMERO ROMERO
 UBICACION GENERAL: DPTO. GRANADA

UBICACION: ING. ZACARIAS COREA Y
 ESCALA: 1:2,000
 FECHA: DE 4 DE 4



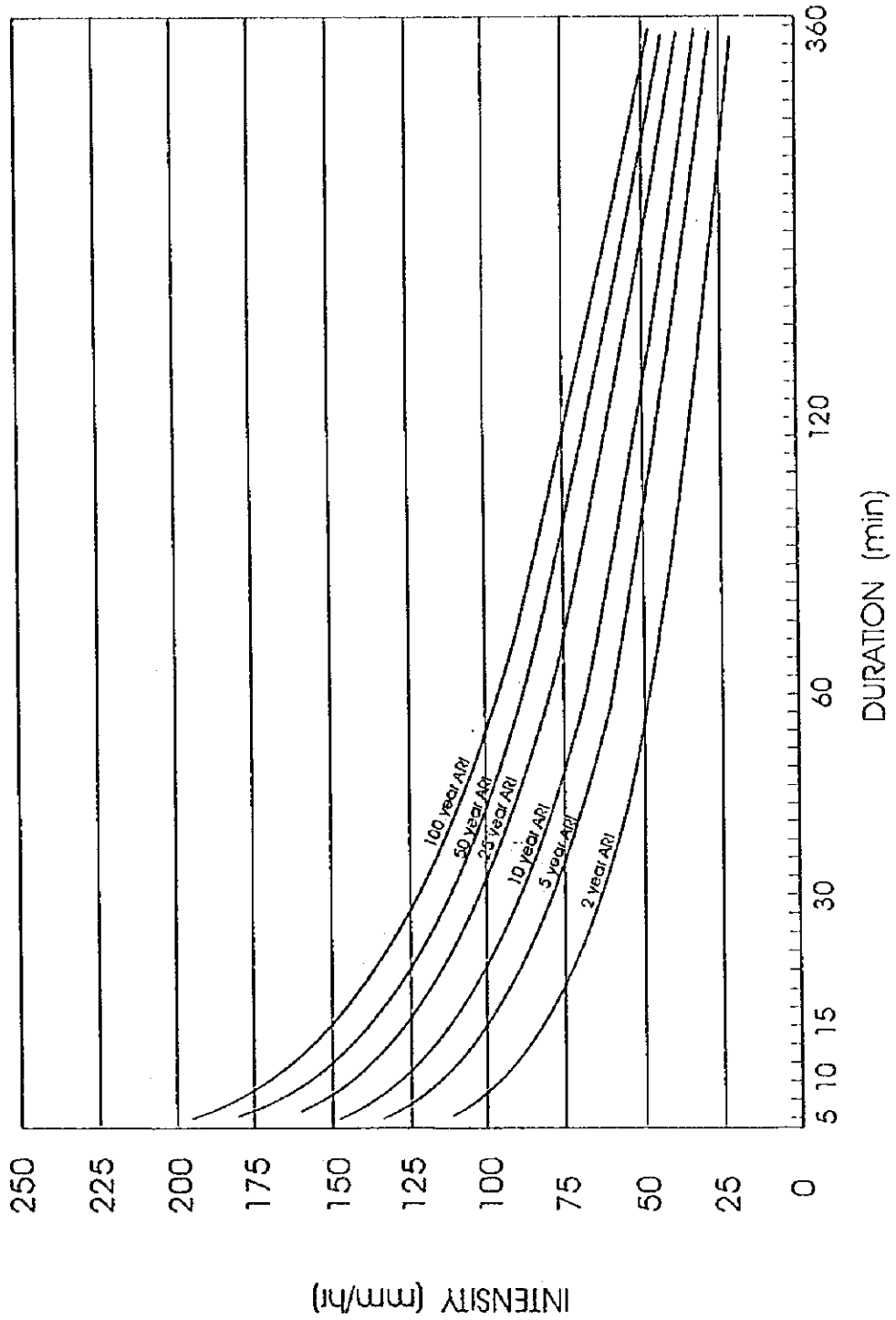
PLANTA DE LOCALIZACIÓN — (SIN ESCALA)

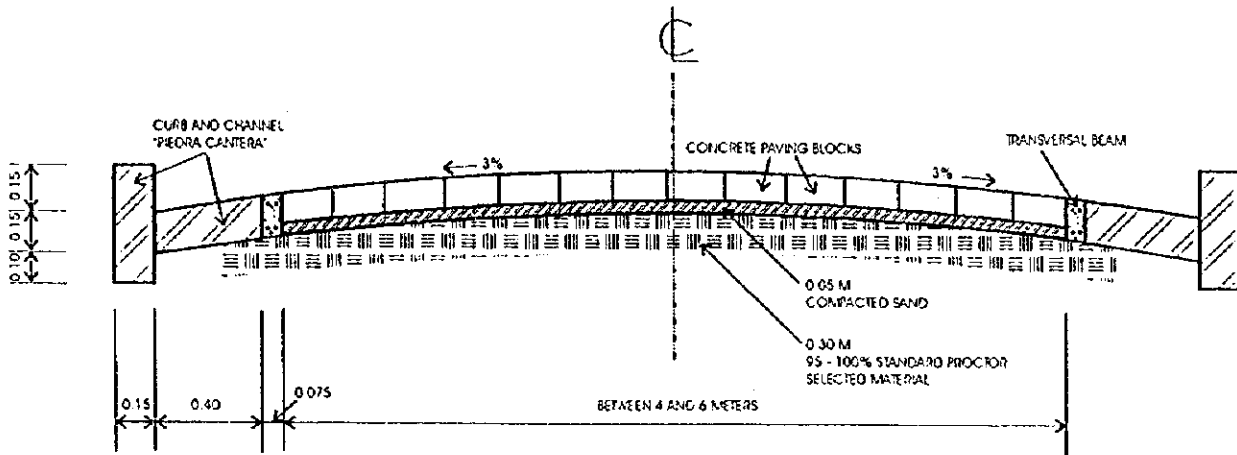


PROYECTO: TOPOGRÁFICO SURVEY OF THE MODEL AREA FOR THE DEVELOPMENT OF A RESIDENTIAL ENVIRONMENT IN THE AREA OF GEMINA IN THE PROVINCE OF GUAYAS, ECUADOR. CONTENIDO: PLANO TOPOGRÁFICO	LEVANTADO: OSCAR AYERZA CÁLCULO: JOSE ANTONIO CAROZZA DIBUJO: DANIEL AMUILAR	REVISADO: ING. ZACARIAS COREA F. ING. REVISADO: ROBERTO DÍAZ, GRANADA	UBICACIÓN: EN EL BARRIO EL ESCUDO ESCALA: 1:2,000	HOJA N.º 4 DE 5
	FECHA: AGOSTO 77			

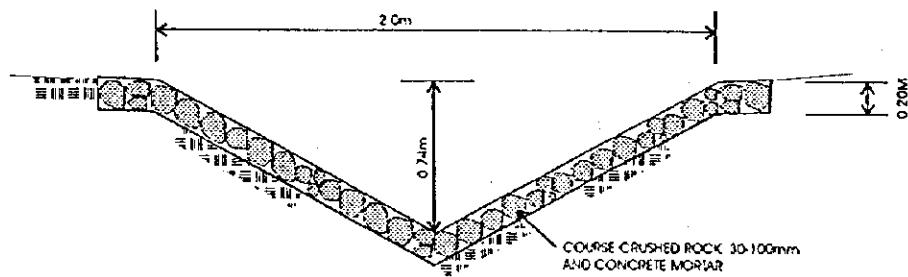
COREA Y ASOCIADOS S.A (CORASCO)
 INGENIEROS CONSULTORES

INTENSITY - DURATION - FREQUENCY CURVES
FOR THE GRANADA STATION
PERIOD: 1969 - 1987

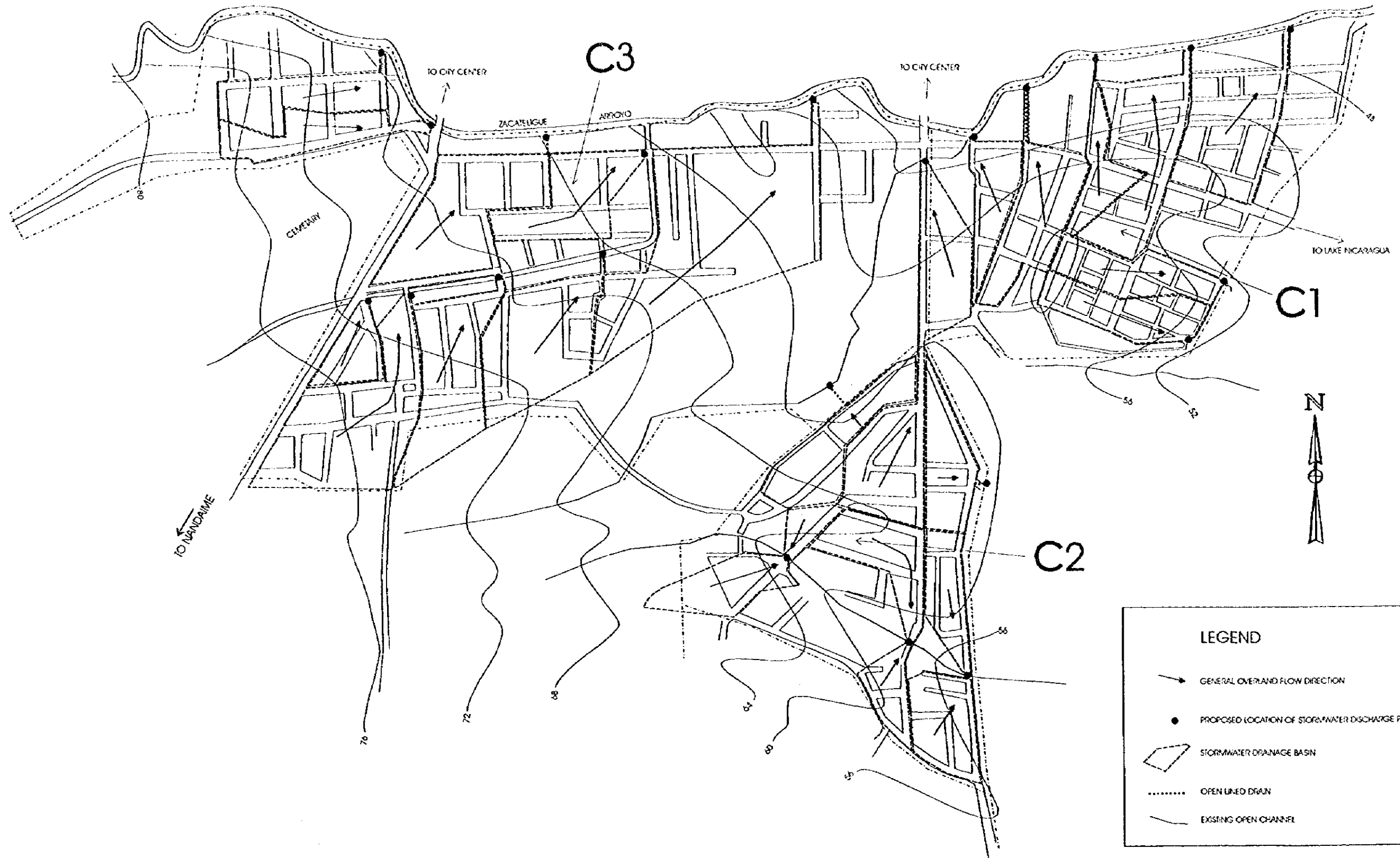




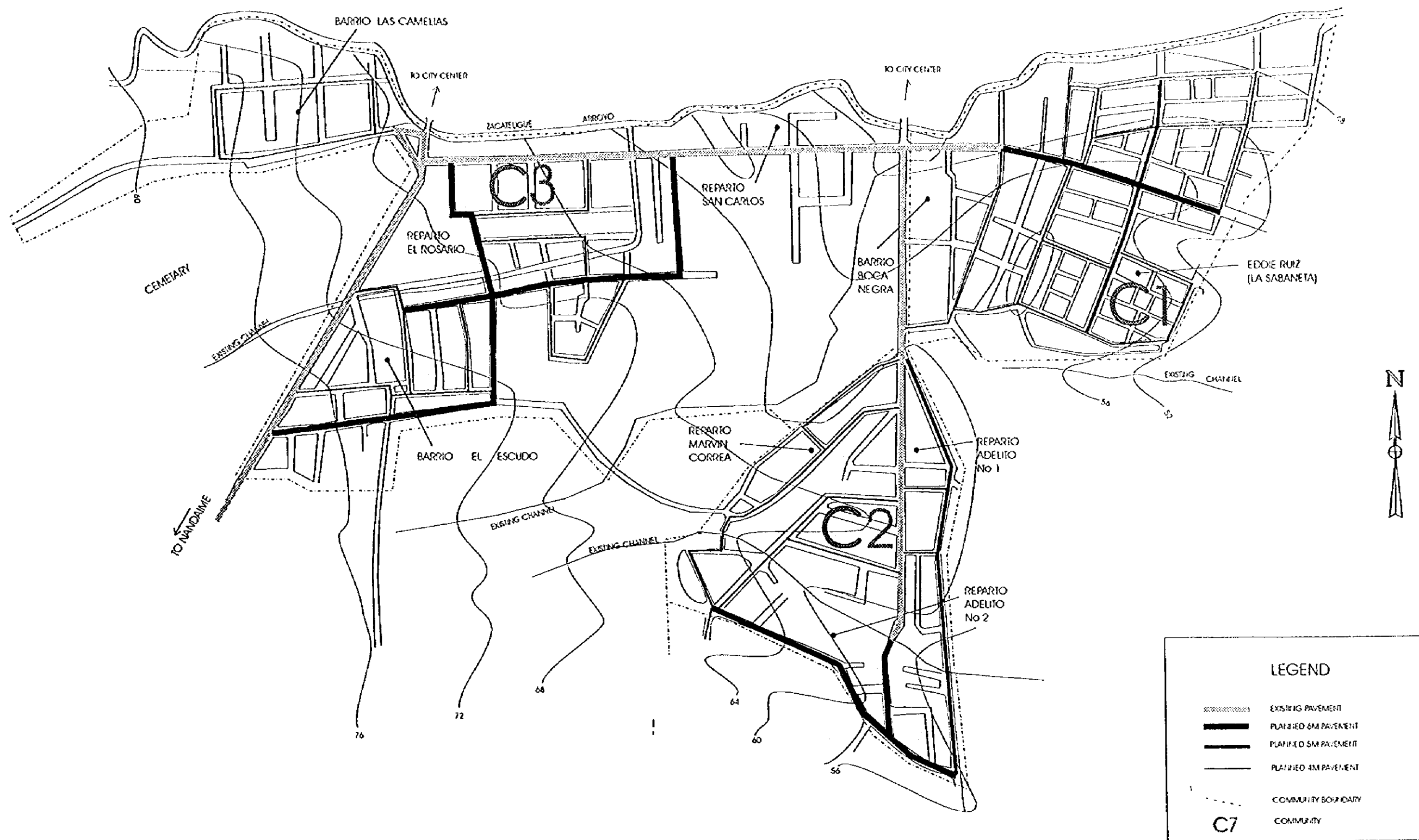
TYPICAL ROAD SECTION
NOT TO SCALE



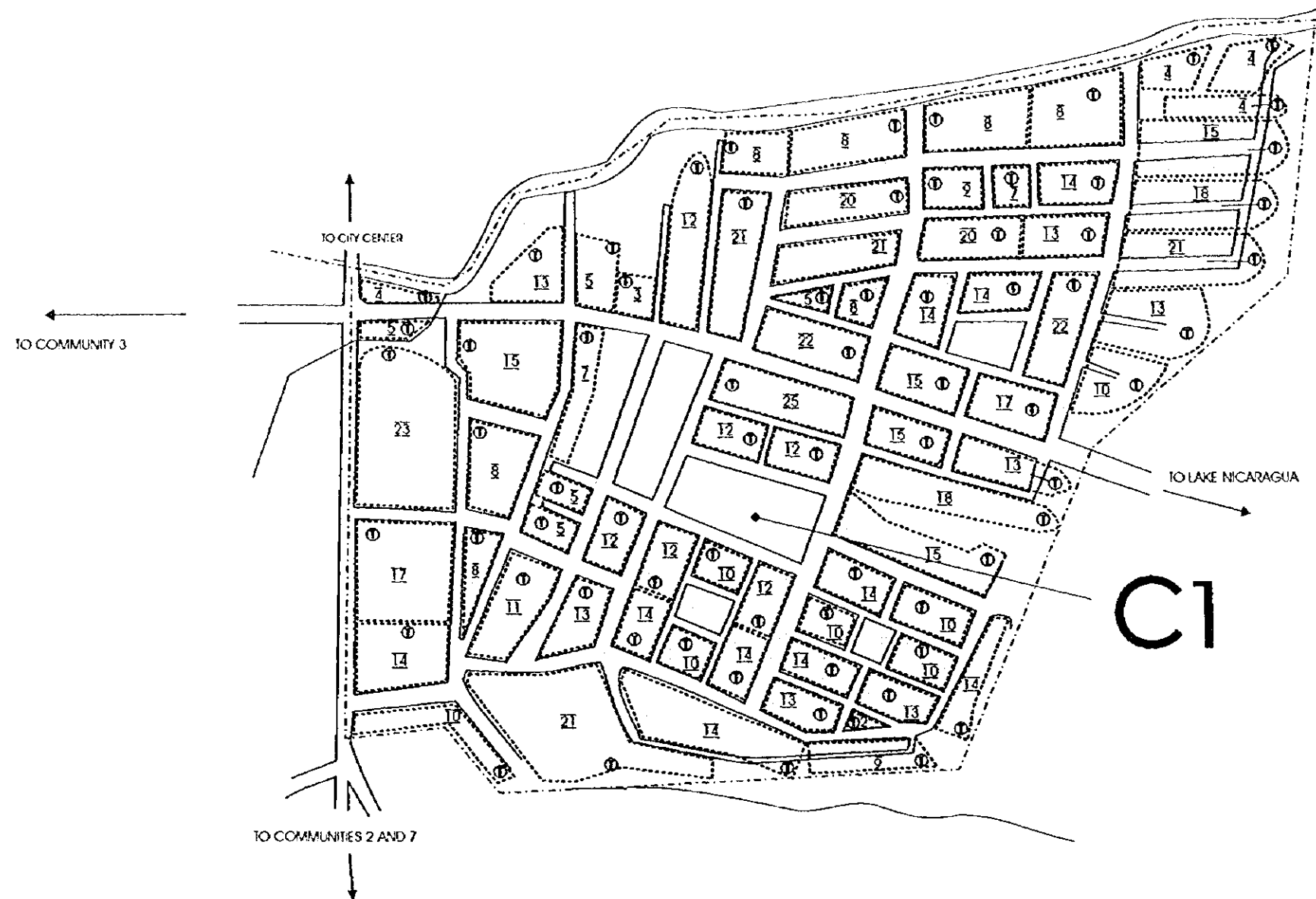
TYPICAL DRAIN SECTION
NOT TO SCALE



STORMWATER DRAINAGE BASIN PLAN FOR MODEL COMMUNITY INTEGRATED U.S.E. IMPROVEMENT AREA

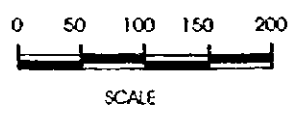


PROPOSED STREET PAVING OF THE MODEL COMMUNITY INTEGRATED U.S.E. IMPROVEMENT AREA

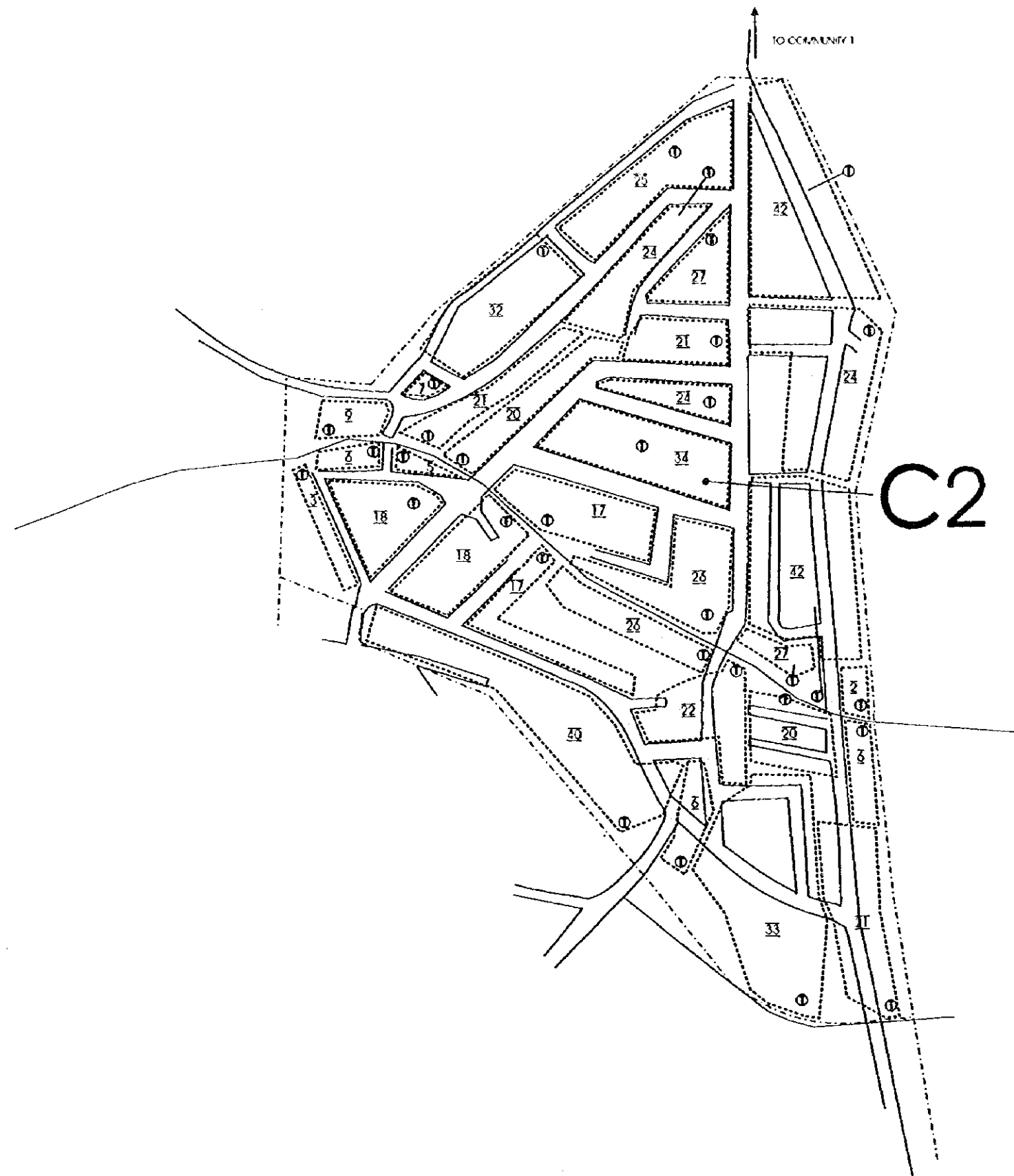


LEGEND

- ⊕ APPROXIMATE LOCATION OF PROPOSED TREATMENT PLANT
- BOUNDARY OF PROPOSED SYSTEM
- Ⓜ NUMBER OF HOUSEHOLDS PER TREATMENT SYSTEM
- - - COMMUNITY BOUNDARY
- EXISTING DRAIN

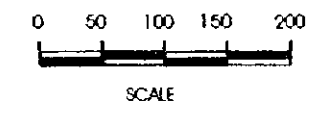


DOMESTIC WASTEWATER TREATMENT SYSTEMS IN COMMUNITY 1 OF THE MODEL COMMUNITY INTEGRATED U.S.E. IMPROVEMENT AREA

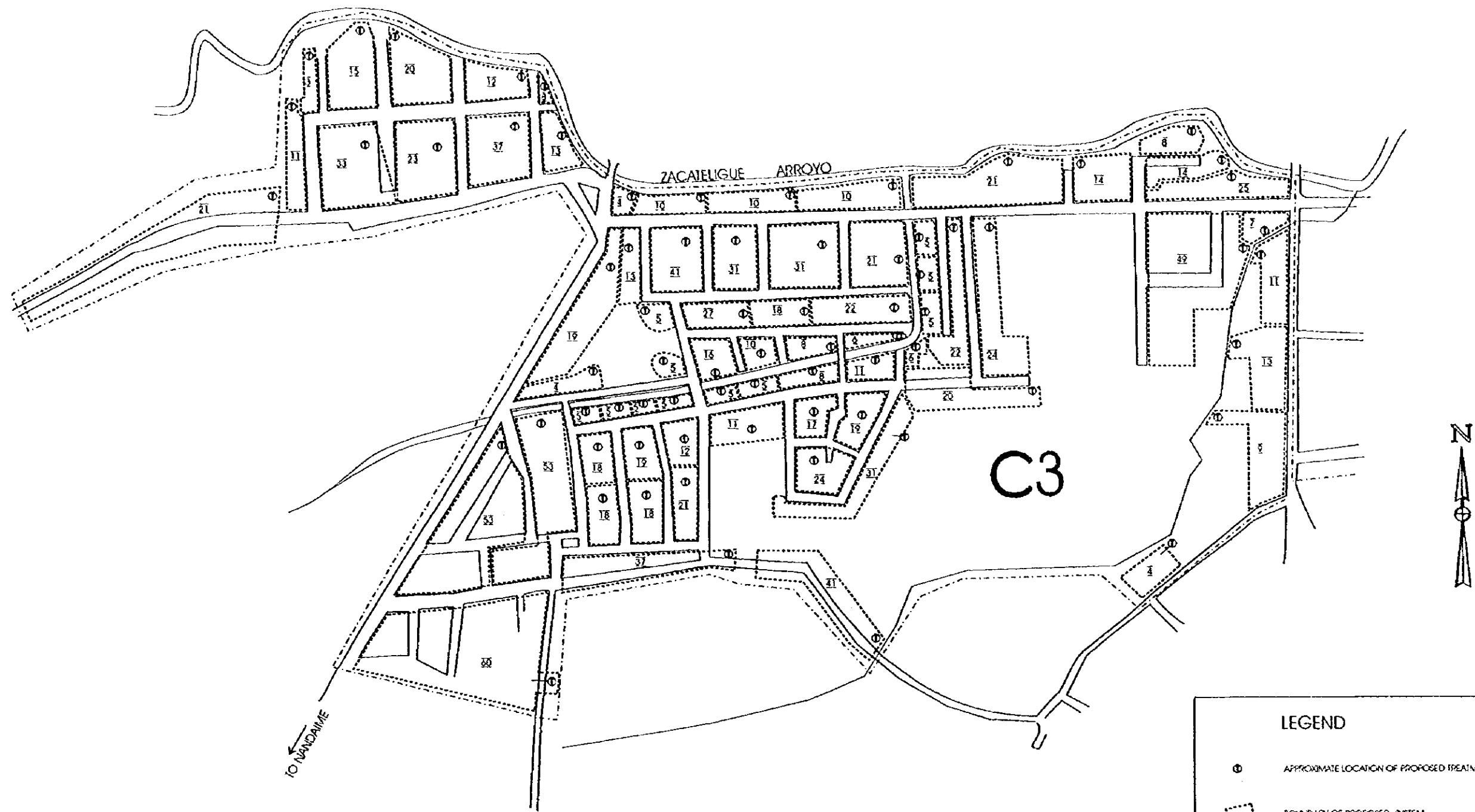


LEGEND

- APPROXIMATE LOCATION OF PROPOSED TREATMENT PLANT
- BOUNDARY OF PROPOSED SYSTEM
- NUMBER OF HOUSEHOLDS PER TREATMENT SYSTEM
- COMMUNITY BOUNDARY
- EXISTING DRAIN

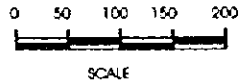


DOMESTIC WASTEWATER TREATMENT SYSTEMS IN COMMUNITY 2 OF THE MODEL COMMUNITY INTEGRATED U.S.E. IMPROVEMENT AREA

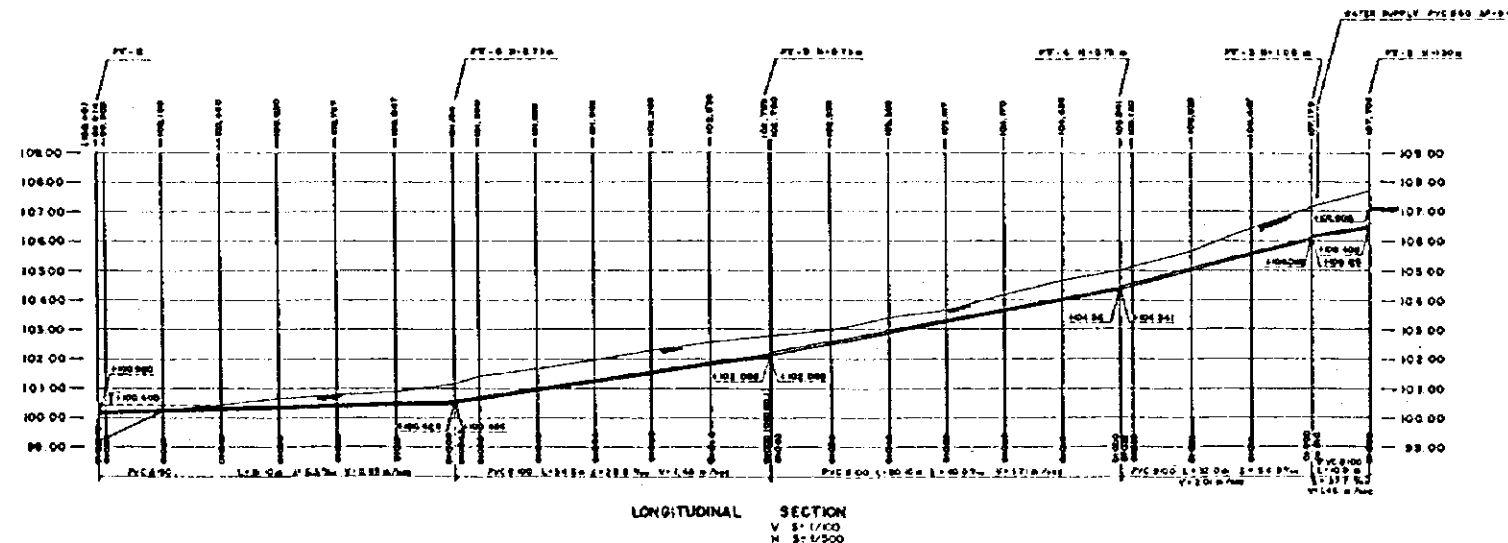
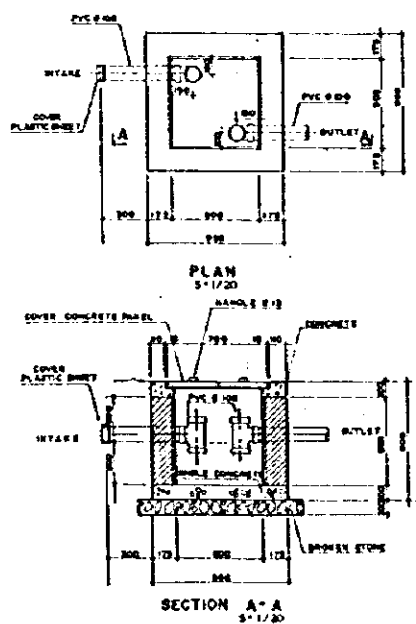
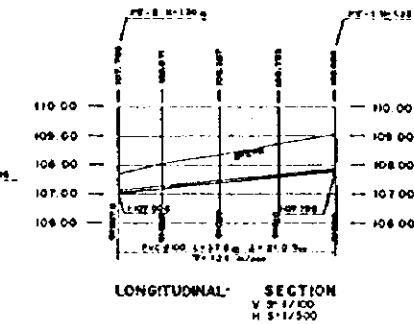
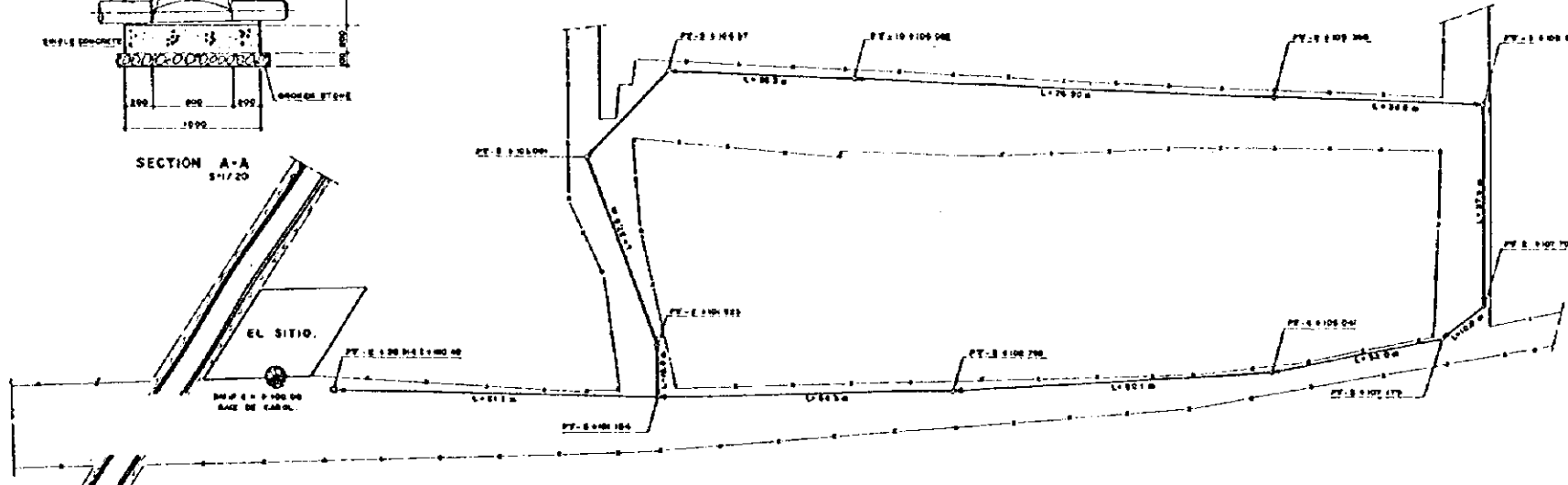
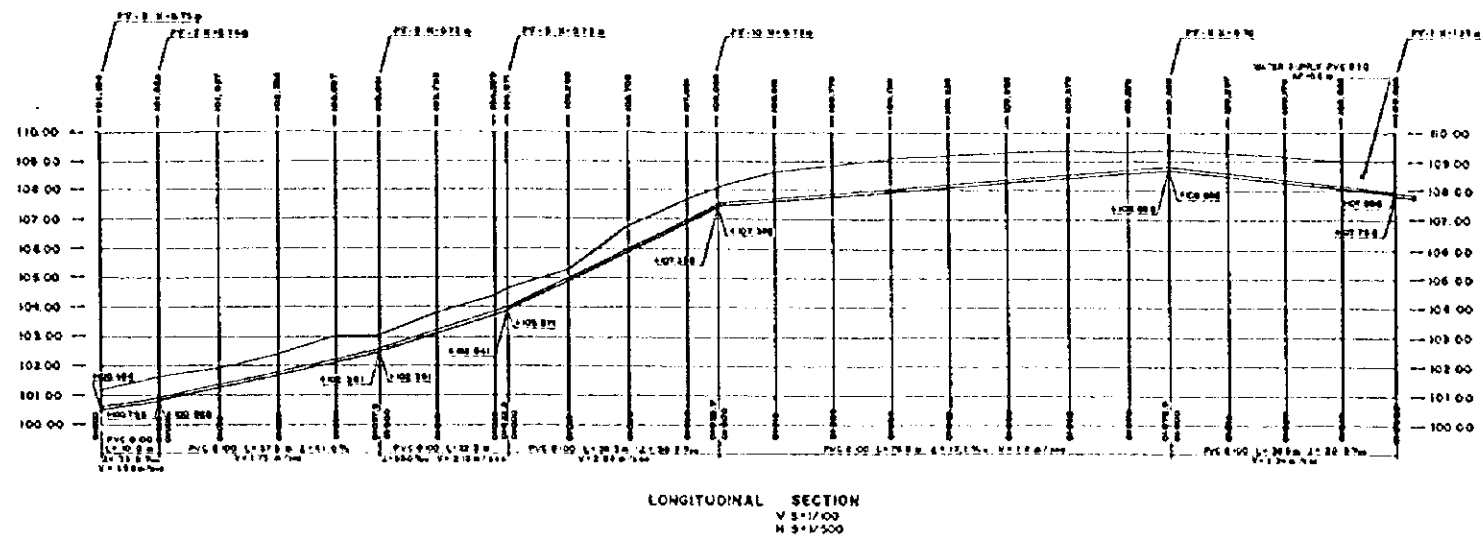
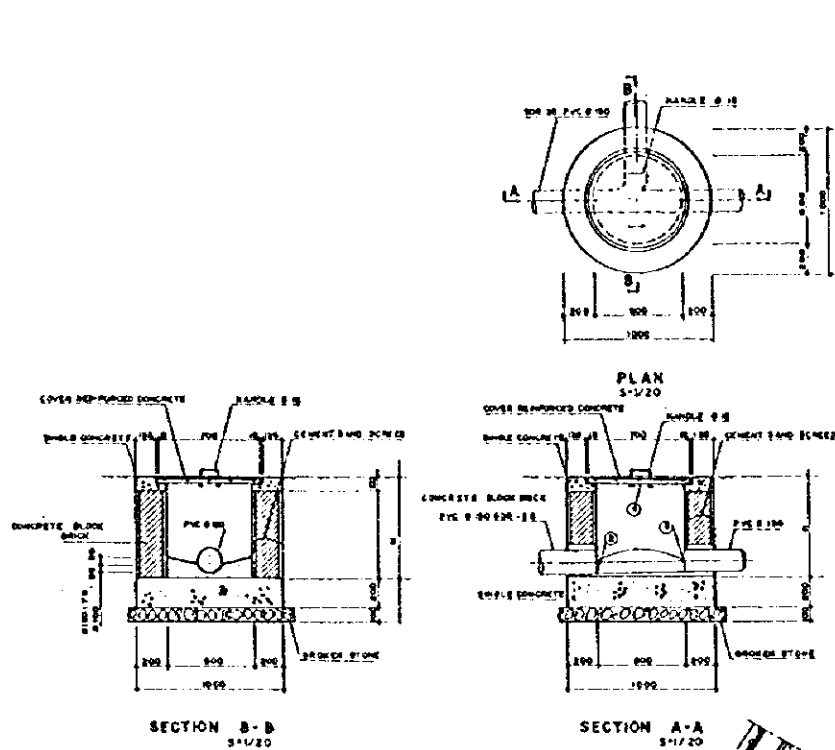


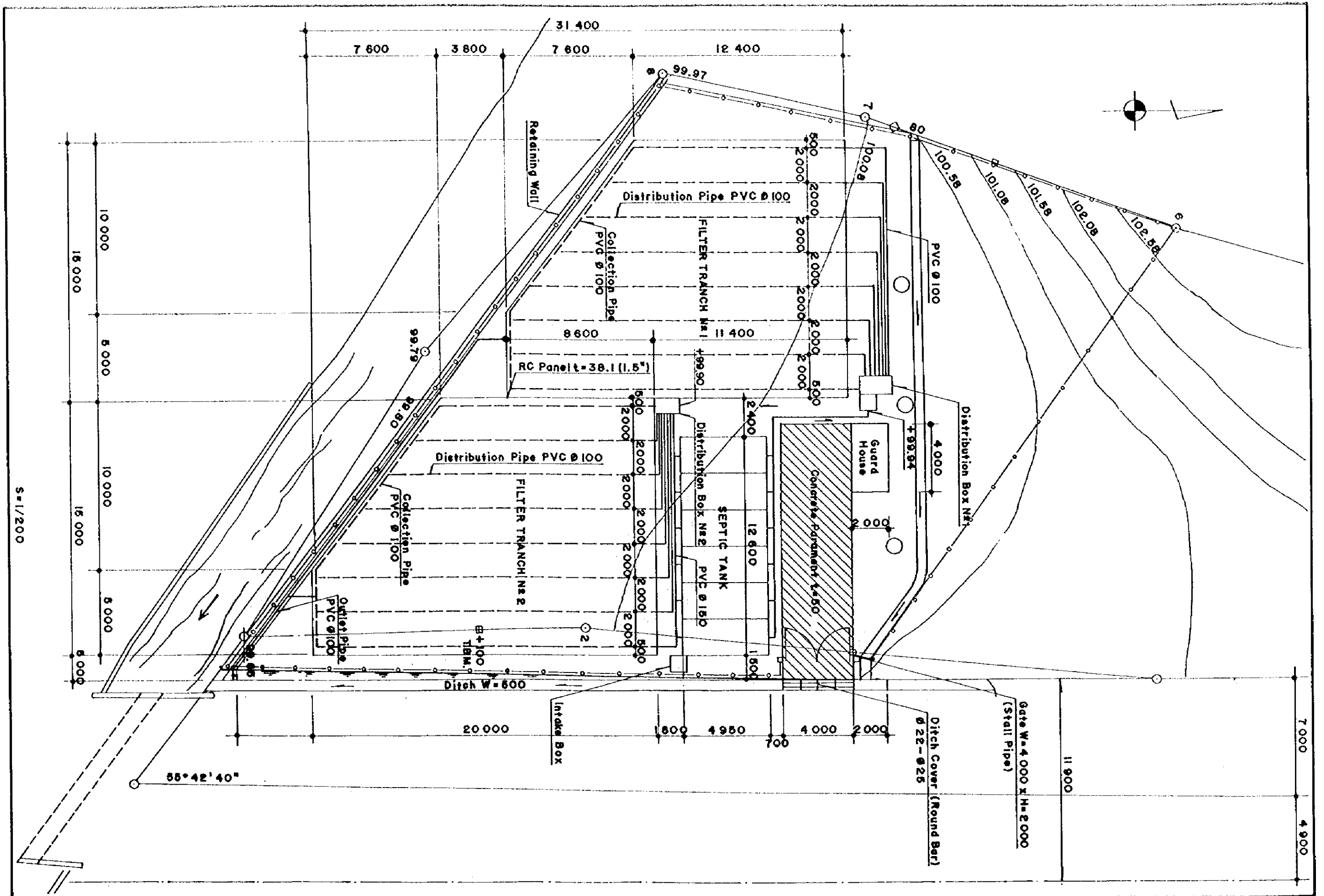
LEGEND

- ⊙ APPROXIMATE LOCATION OF PROPOSED TREATMENT PLANT
- BOUNDARY OF PROPOSED SYSTEM
- Ⓜ NUMBER OF HOUSEHOLDS PER TREATMENT SYSTEM
- - - COMMUNITY BOUNDARY
- EXISTING DRAIN

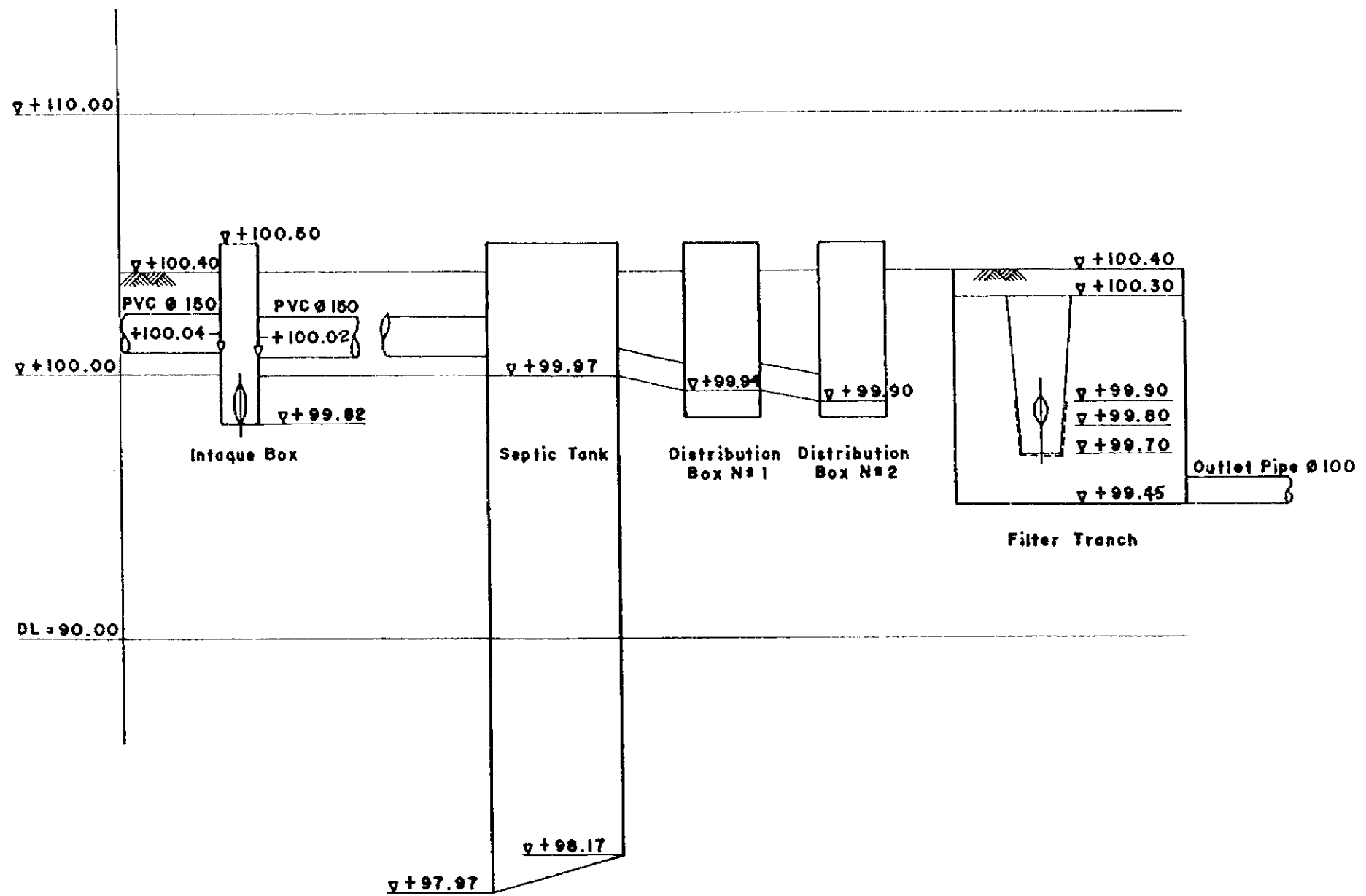


DOMESTIC WASTEWATER TREATMENT SYSTEMS IN COMMUNITY 3 OF
MODEL COMMUNITY INTEGRATED U.S.E. IMPROVEMENT AREA

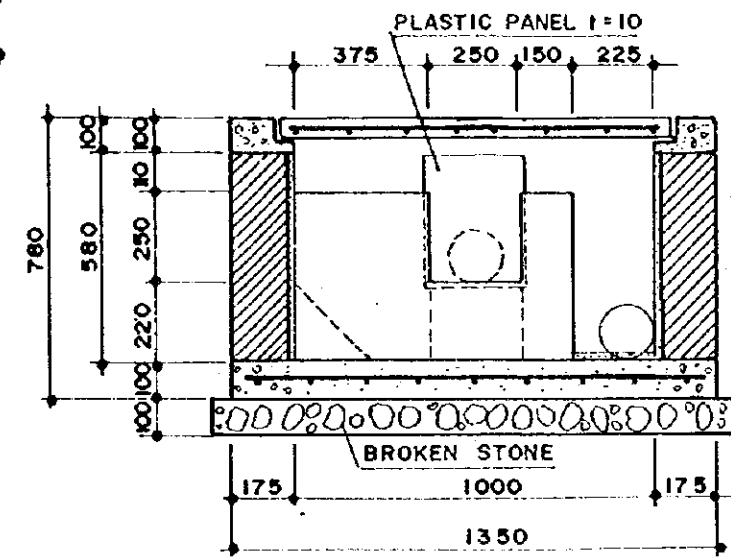
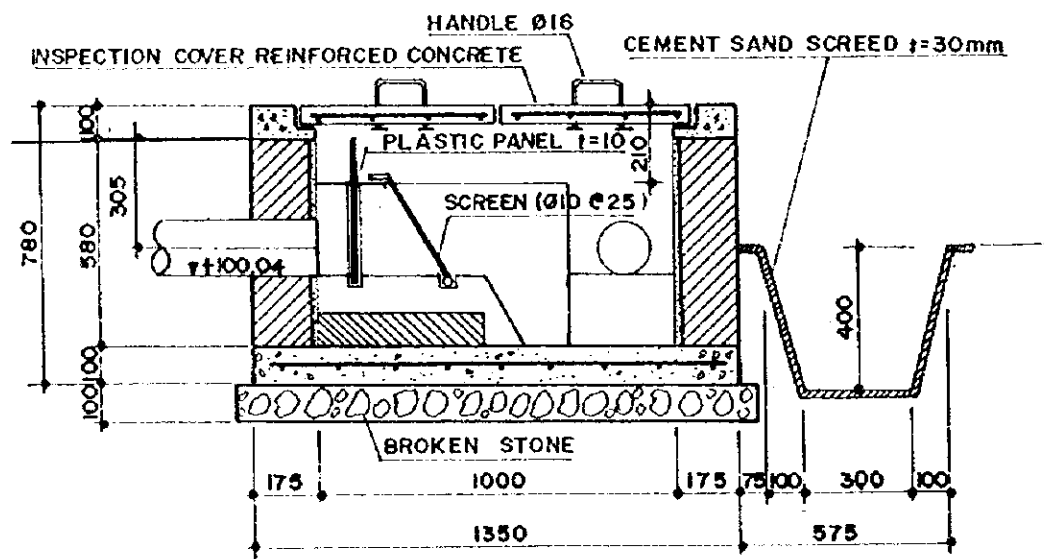
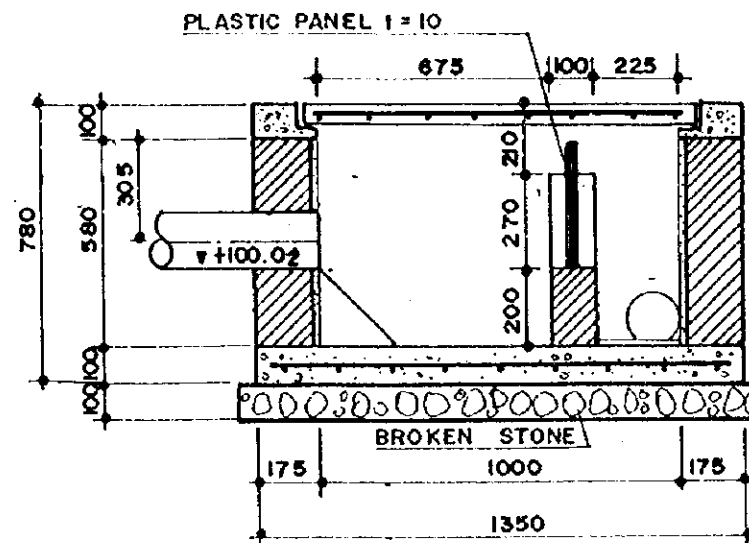
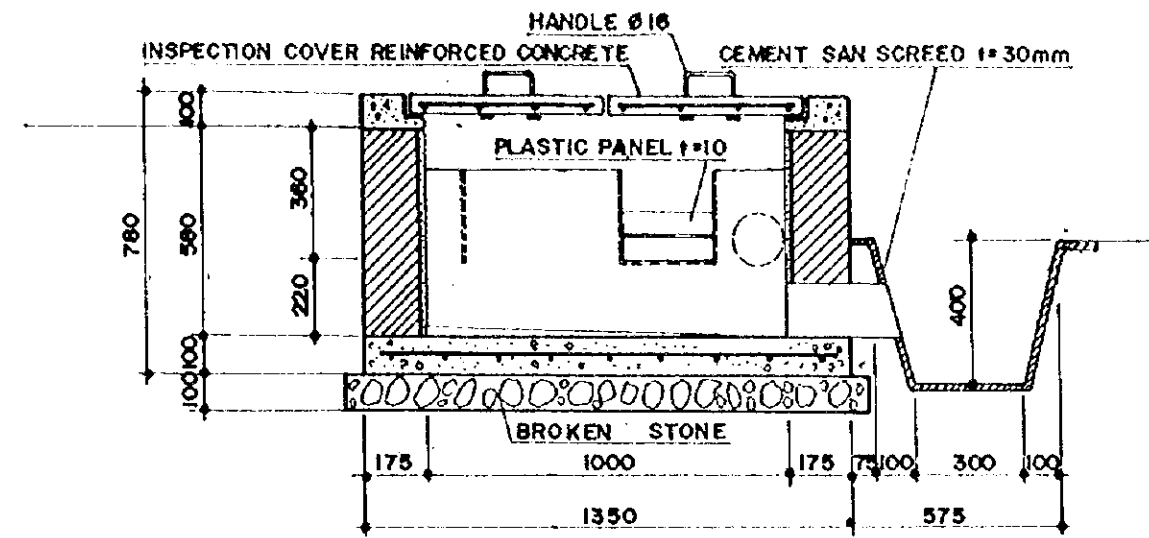
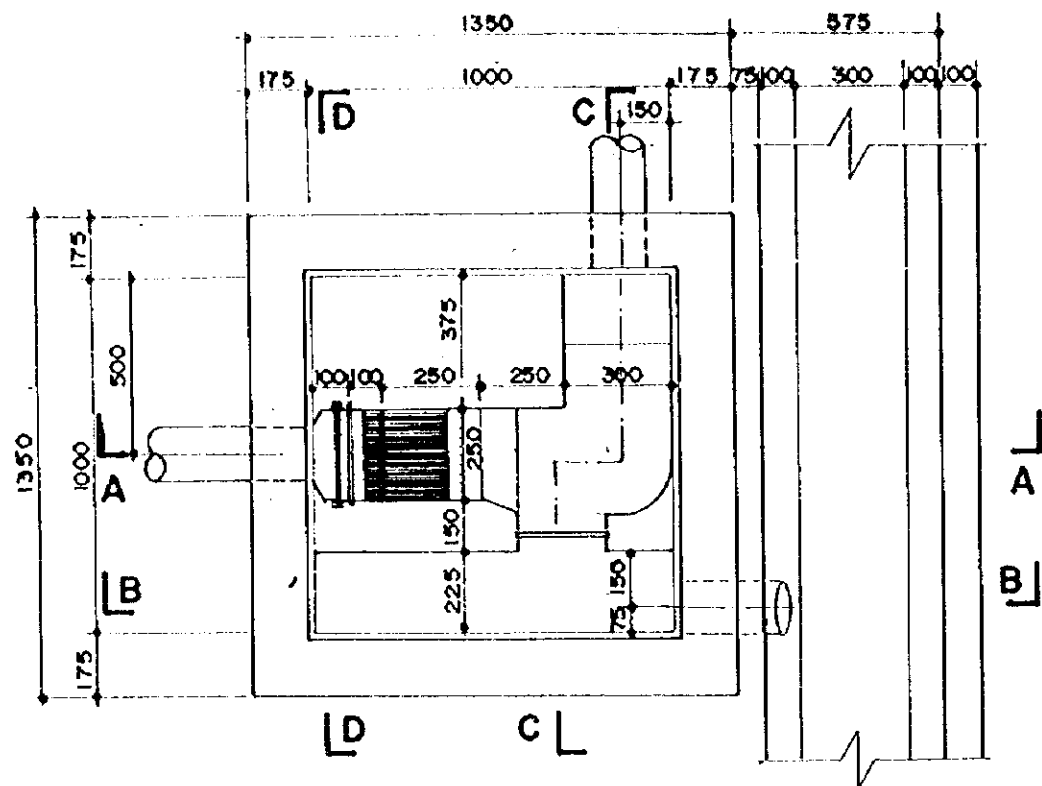




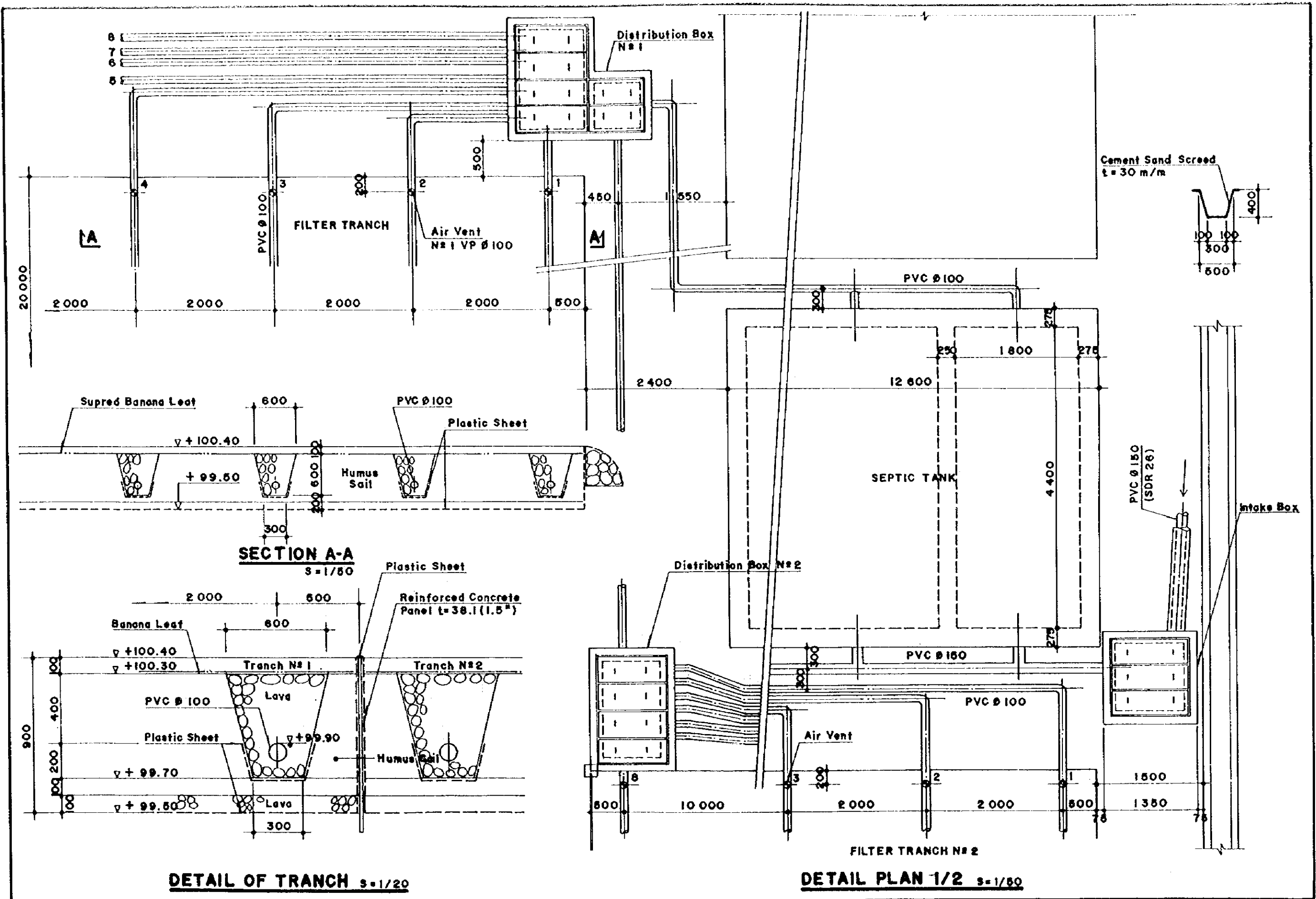
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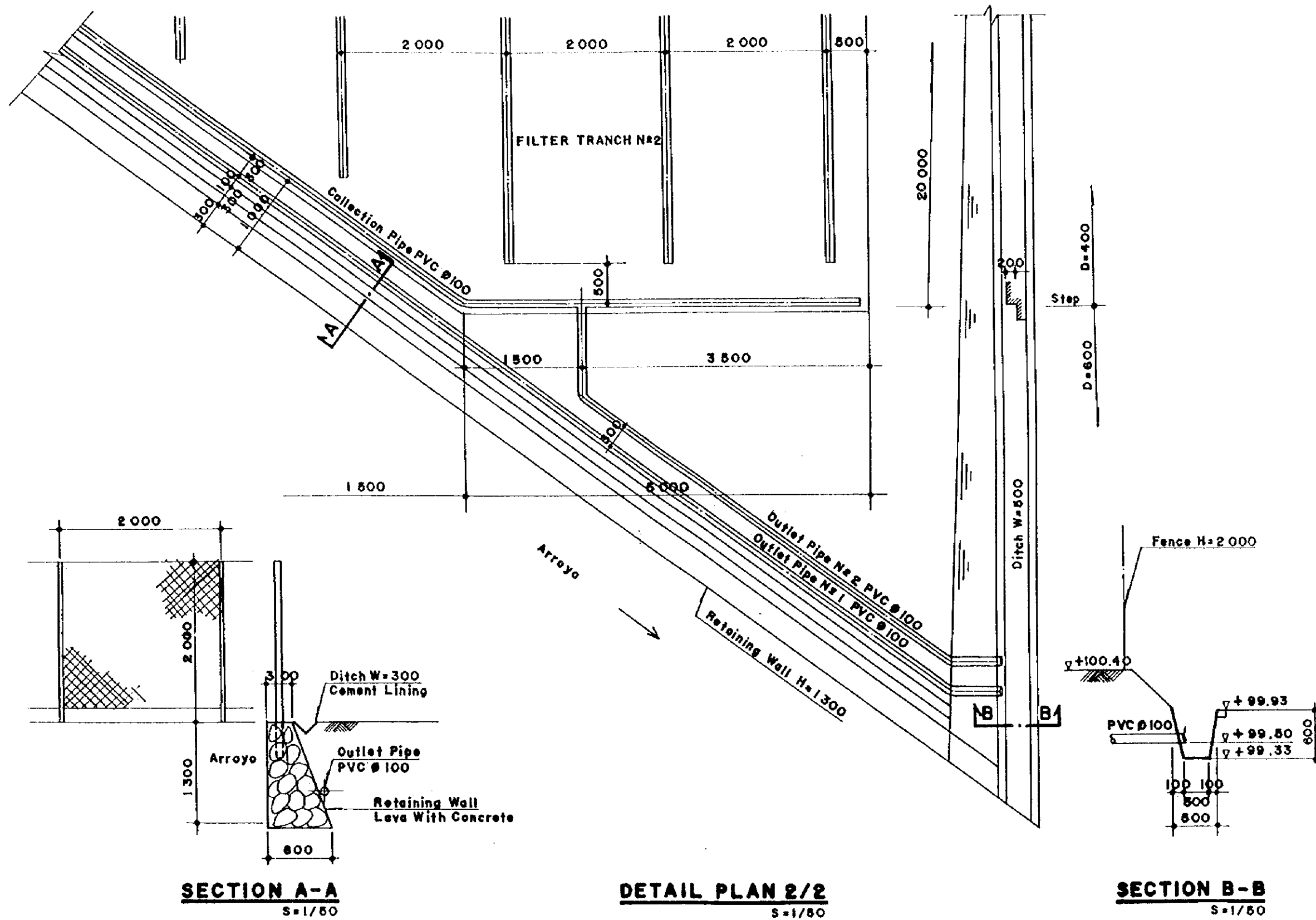


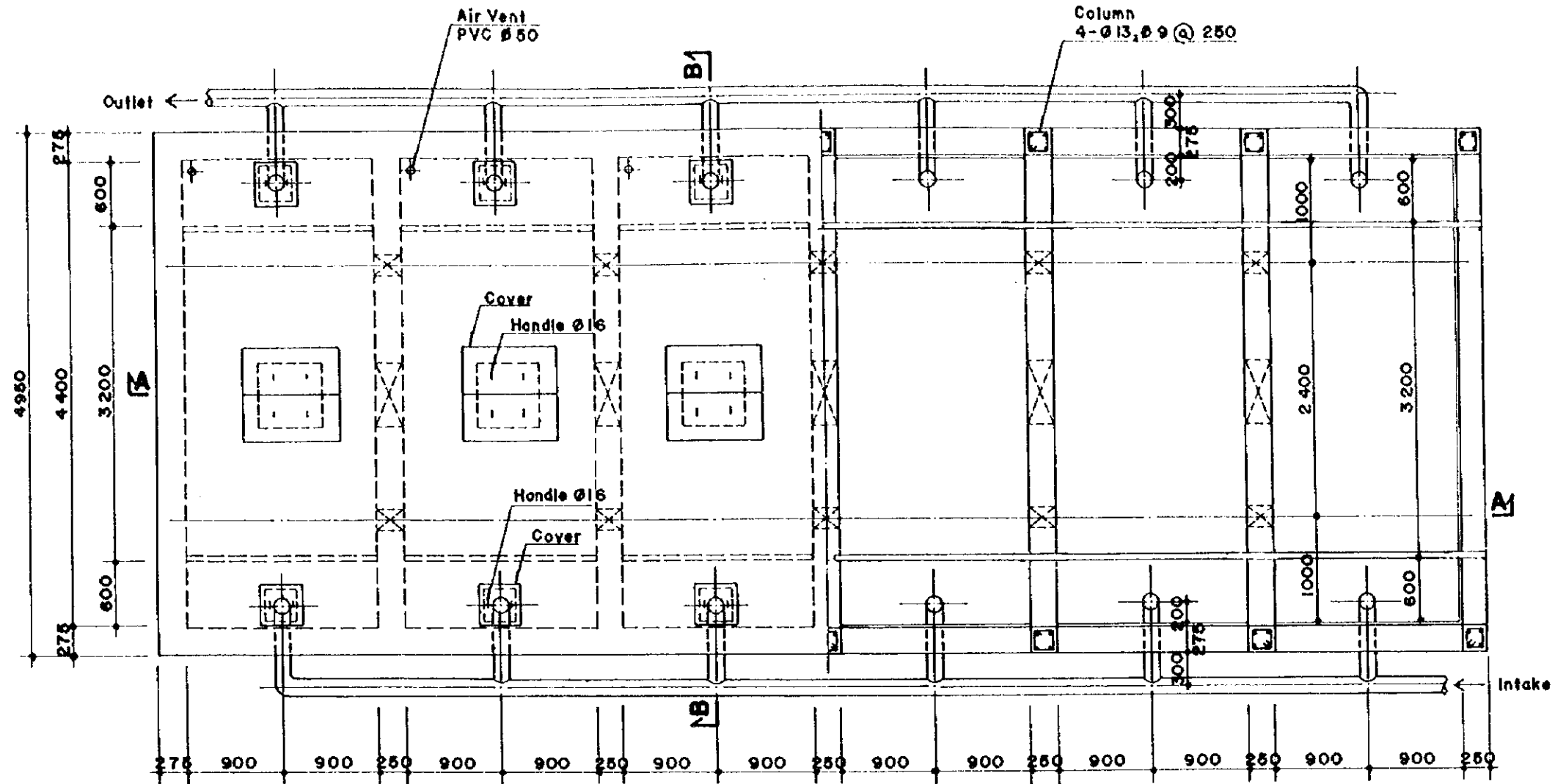
WATER STAGE
 s: $\frac{V}{H} = \frac{1}{20}$
 H = NON



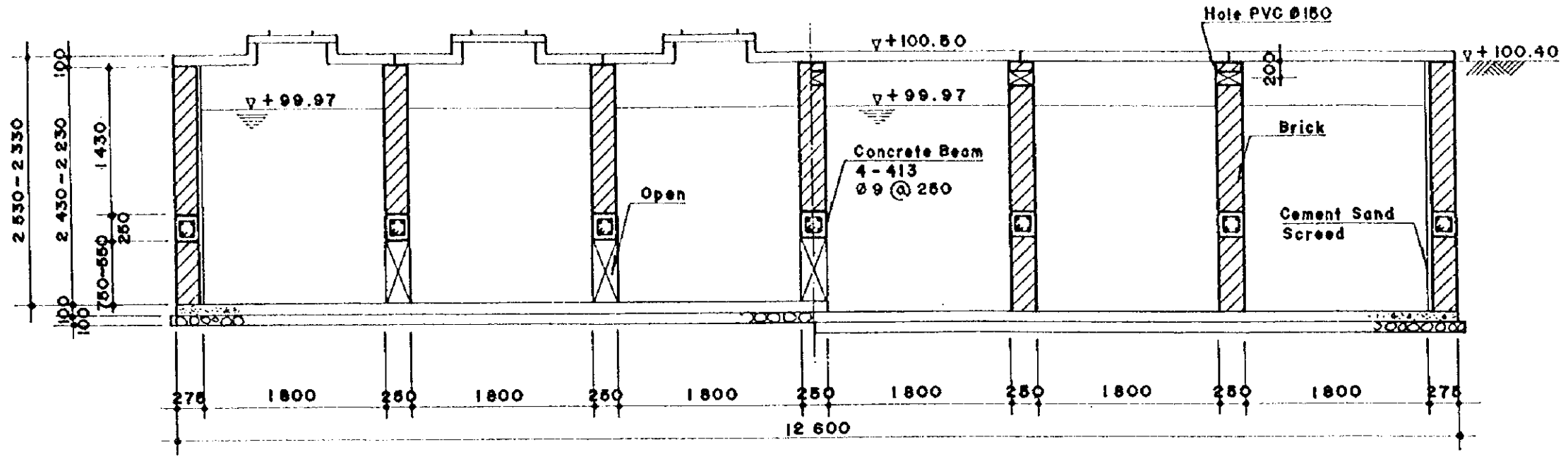
DETAIL OF INTAKE BOX
S = 1/20



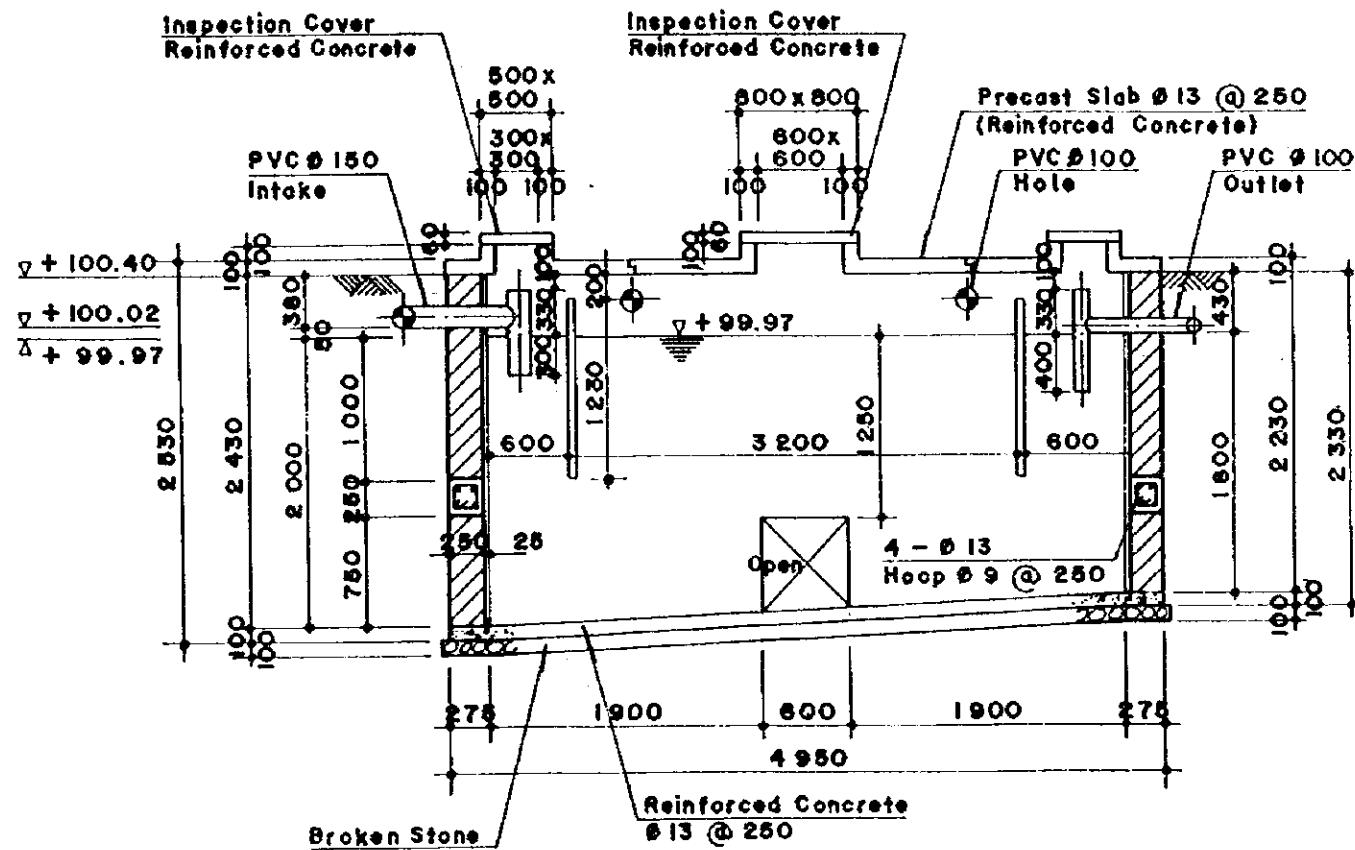




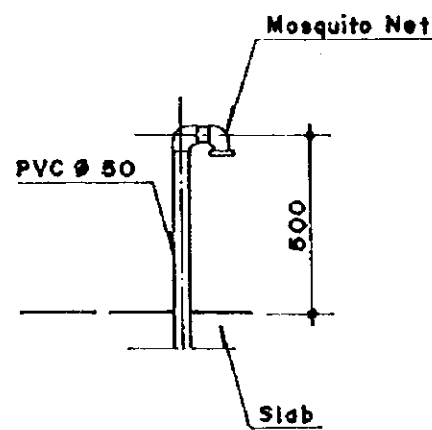
PLAN OF SEPTIC TANK
S-1/80



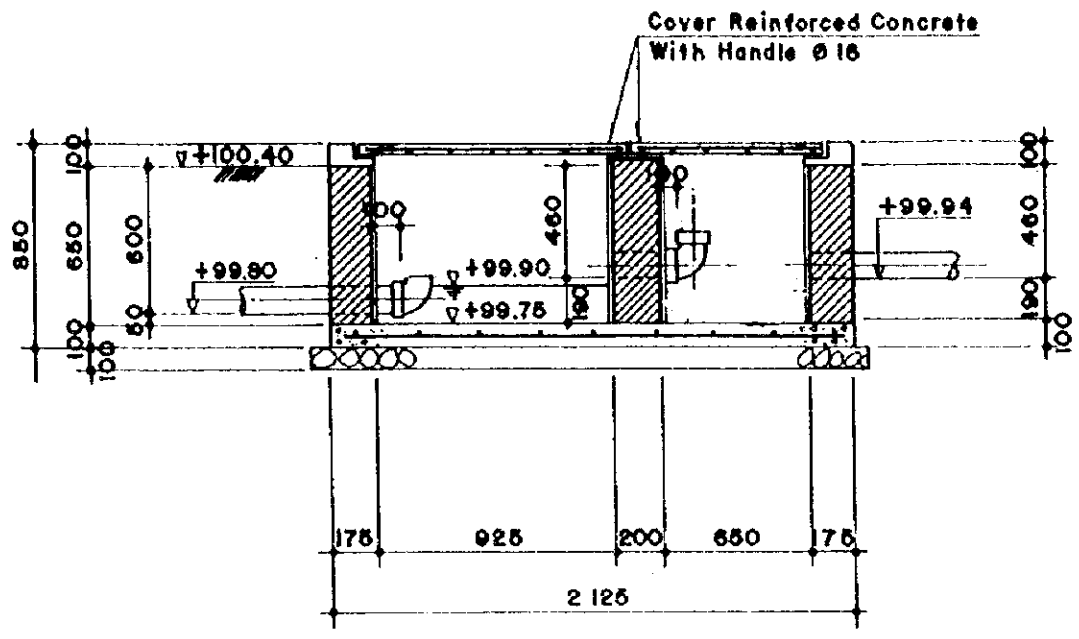
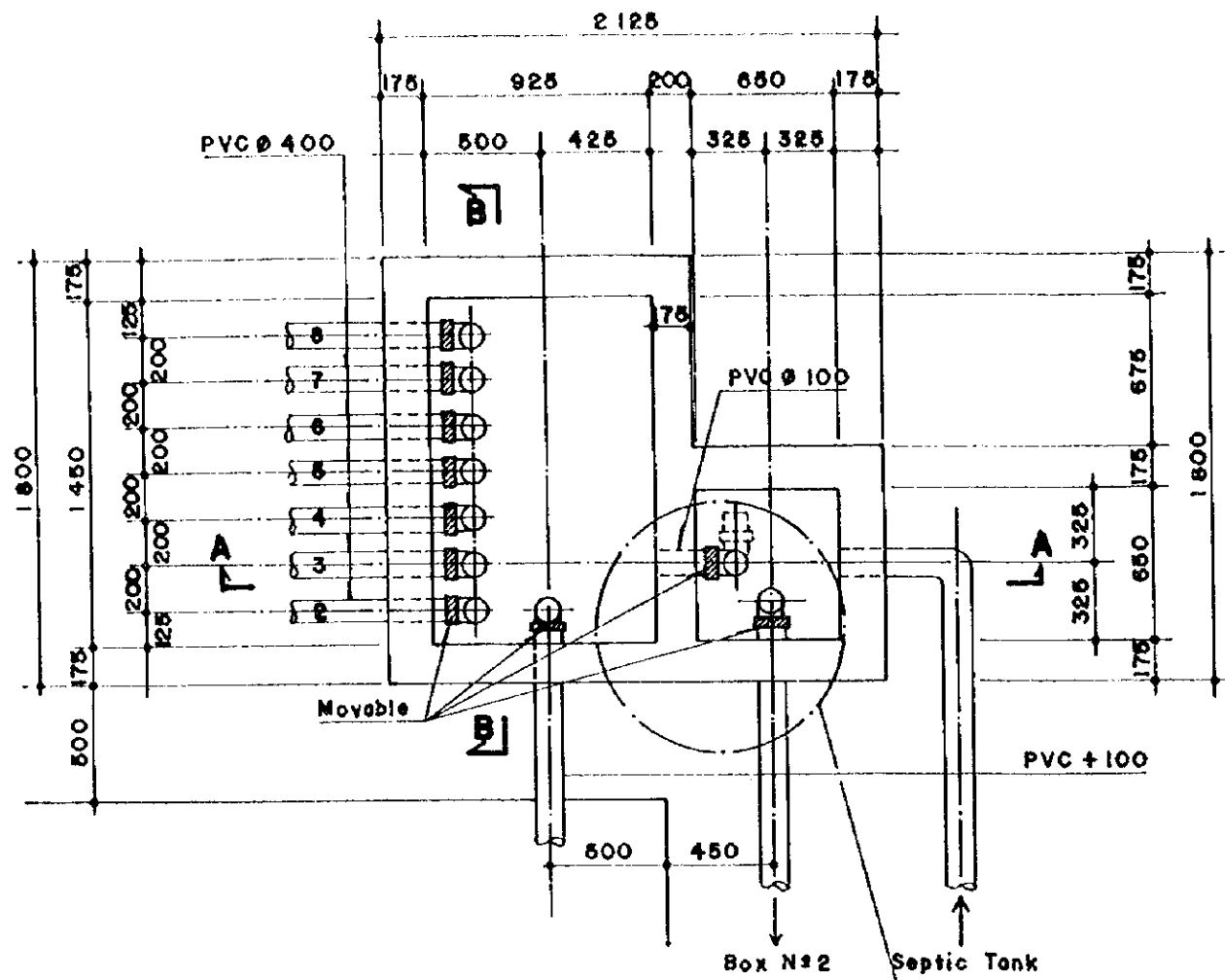
SECTION A-A
S=1/50



SECTION B-B
S=1/50

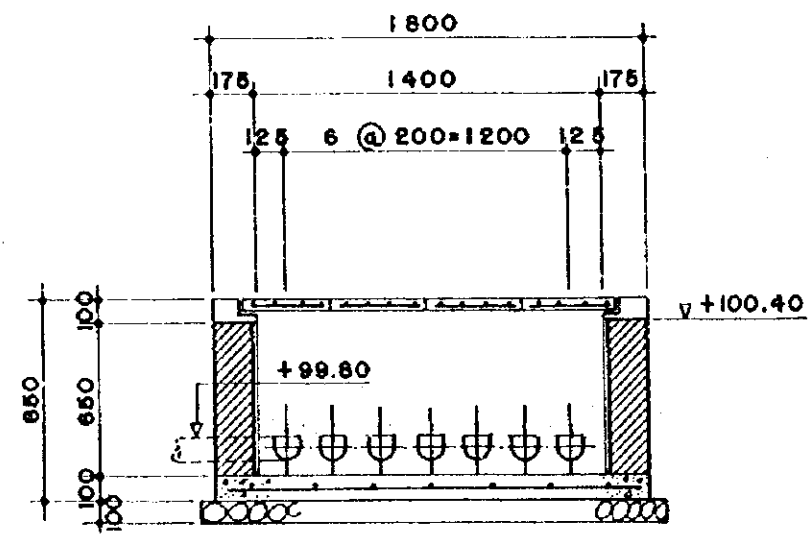


DETAIL OF AIR VENT
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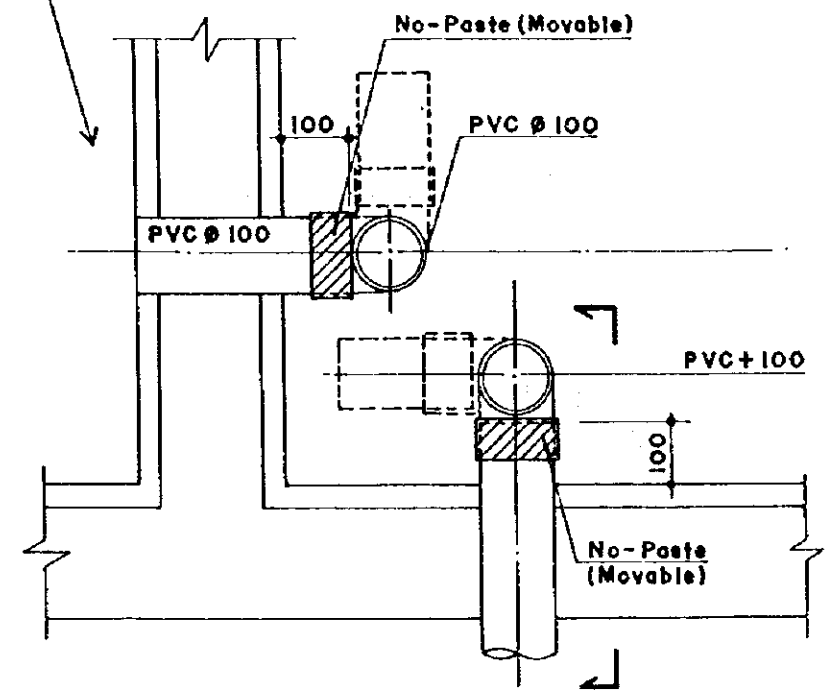


SECTION A-A
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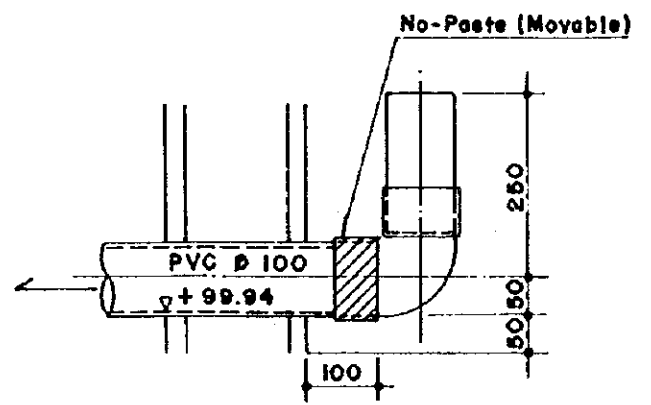
FILTER TRANCH

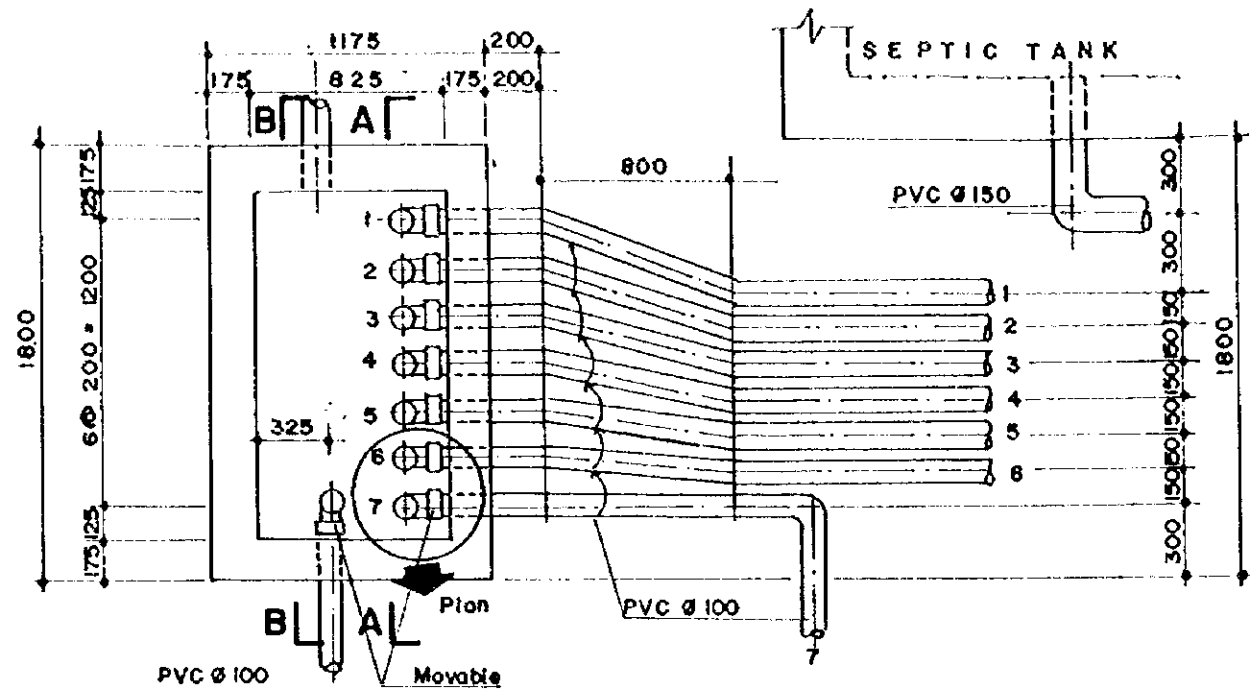


SECTION B-B
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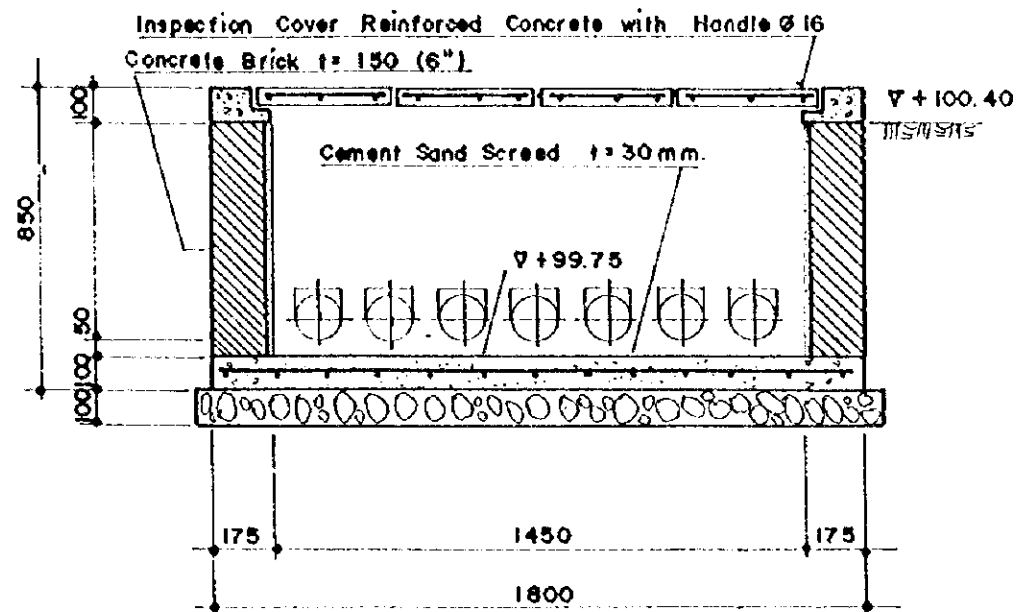


DETAIL OF DISTRIBUTION BEND
S=1/10

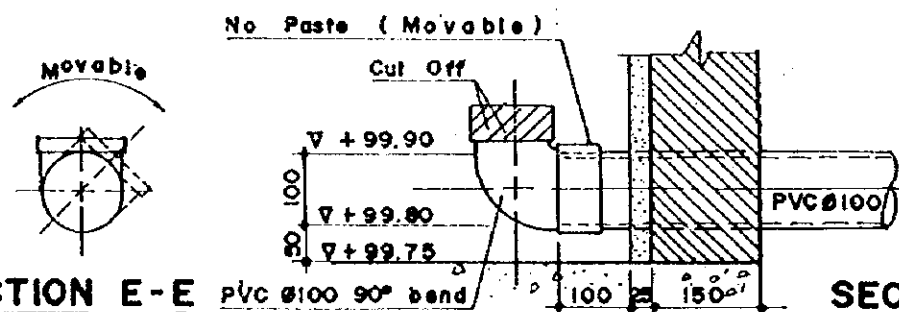
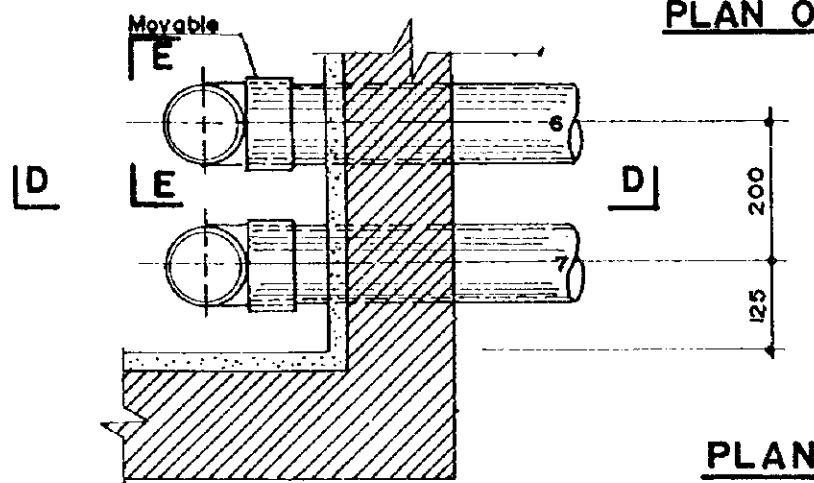




PLAN OF DISTRIBUTION BOX N^o 2
S = 1/30



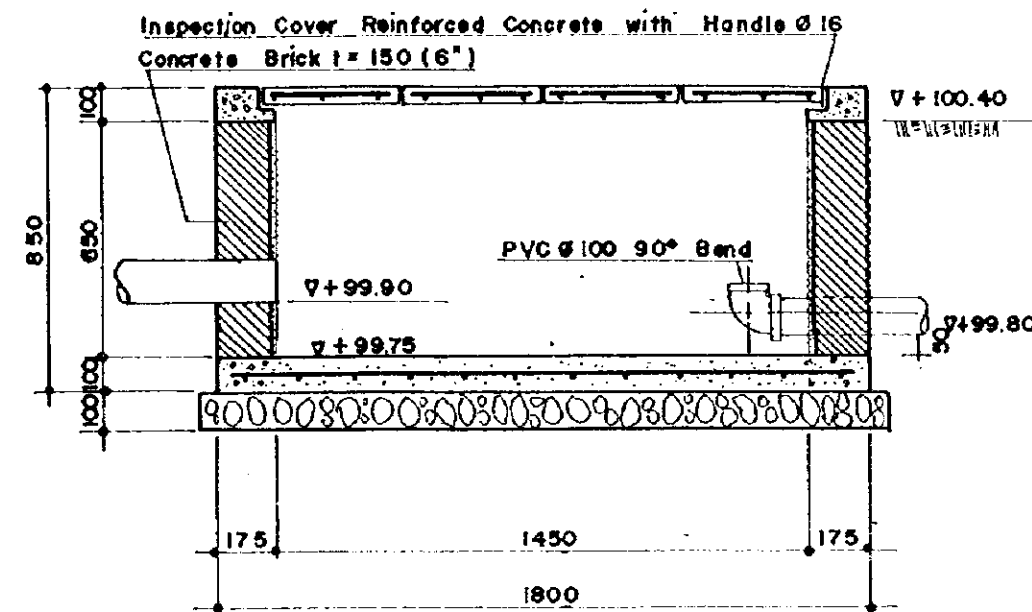
SECTION A-A
S = 1/20



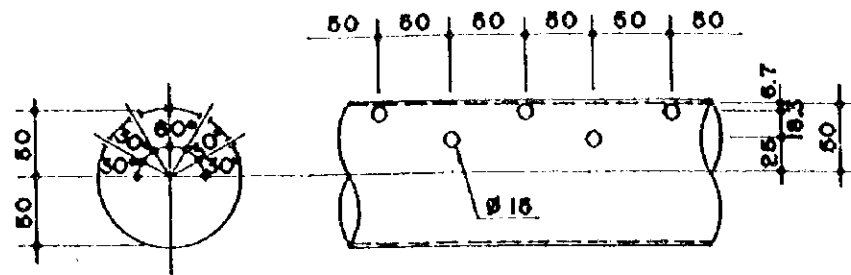
SECTION E-E PVC \varnothing 100 90° bend

SECTION D-D

DETAIL OF DISTRIBUTION BEND
S = 1/10

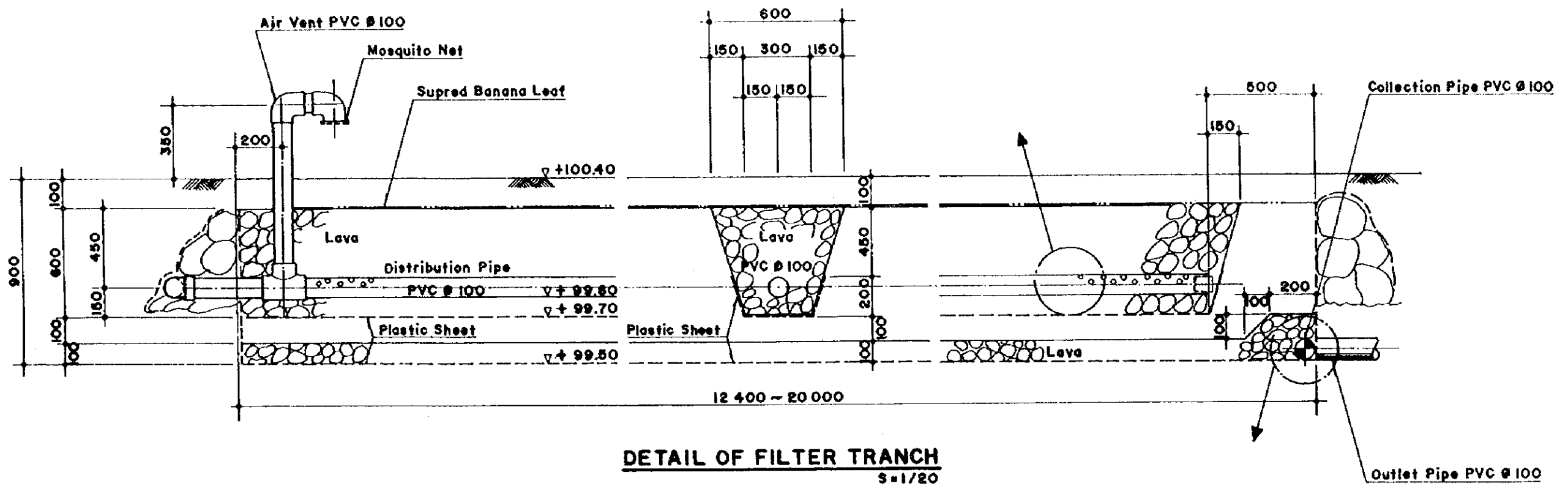


SECTION B-B
S = 1/20



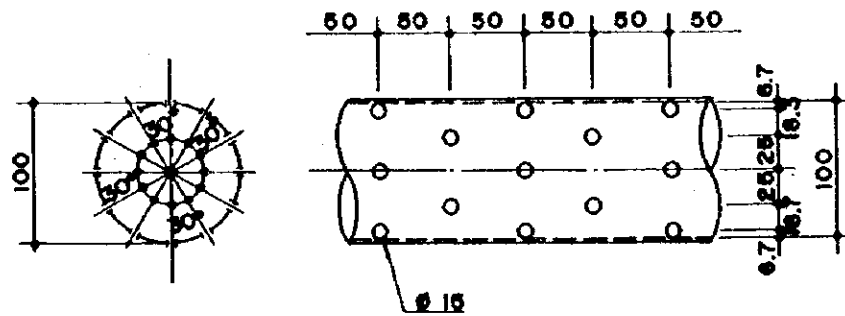
DETAIL OF DISTRIBUTION PIPE

S=1/8



DETAIL OF FILTER TRENCH

S=1/20



DETAIL OF COLLECTION PIPE

S=1/8

Cash Flow (Case A)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	0	0	0	0	0		0
Loan	4,211	4,211	4,211	4,216	4,213	0	21,062
Sub-total	4,211	4,211	4,211	4,216	4,213	0	21,062
a.2 Revenue							
Fee							
Residents		1,947	2,062	2,177	2,293	2,408	10,886
Sub-total	0	1,947	2,062	2,177	2,293	2,408	10,886
Cash-in	4,211	6,158	6,273	6,393	6,506	2,408	31,948
b.1 Investment	4,211	4,211	4,211	4,216	4,213	0	21,062
b.2 Expenditure							
Existing system		904	904	904	904	904	4,519
Proposed system							
O/M cost		82	164	246	328	410	1,230
Interest	53	160	267	374	481	572	1,909
Fee-collection		68	72	76	80	84	381
Sub-total	53	1,214	1,407	1,600	1,793	1,970	8,039
Cash-out	4,264	5,425	5,618	5,816	6,006	1,970	29,101
c. Reserved fund	-53	679	1,333	1,910	2,409	2,847	2,847

Profit and Loss Statement (Case A)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue		1,947	2,062	2,177	2,293	2,408	10,886
b. Cost							
b.1 Expenditure	53	1,214	1,407	1,600	1,793	1,970	8,039
b.2 Depreciation		140	281	421	562	702	2,106
Cost Total	53	1,355	1,688	2,022	2,355	2,672	10,145
c. Profit and Loss	-53	592	374	156	-62	-265	741

Cash Flow (Case B-1)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	3,189	0	0	0	0	0	3,189
Loan	1,022	4,211	4,211	4,216	4,213	0	17,873
Sub-total	4,211	4,211	4,211	4,216	4,213	0	21,062
a.2 Revenue							
Fee							
Residents		1,947	2,062	2,177	2,293	2,408	10,886
Sub-total	0	1,947	2,062	2,177	2,293	2,408	10,886
Cash-in	4,211	6,158	6,273	6,393	6,506	2,408	31,948
b.1 Investment	4,211	4,211	4,211	4,216	4,213	0	21,062
b.2 Expenditure							
Existing system		904	904	904	904	904	4,519
Proposed system							
O/M cost		82	164	246	328	410	1,230
Interest	38	129	235	342	449	540	1,734
Fee-collection		68	72	76	80	84	381
Sub-total	38	1,182	1,375	1,568	1,761	1,938	7,864
Cash-out	4,249	5,393	5,586	5,784	5,974	1,938	28,926
c. Reserved fund	-38	727	1,413	2,022	2,553	3,022	3,022

Profit and Loss Statement (Case B-1)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue		1,947	2,062	2,177	2,293	2,408	10,886
b. Cost							
b.1 Expenditure	38	1,182	1,375	1,568	1,761	1,938	7,864
b.2 Depreciation		34	174	315	455	596	1,575
Cost Total	38	1,217	1,550	1,883	2,217	2,534	9,438
c. Profit and Loss	-38	730	512	294	76	-126	1,448

Cash Flow (Case B-2)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	3,189	3,189	0	0	0	0	6,378
Loan	1,022	1,022	4,211	4,216	4,213	0	14,684
Sub-total	4,211	4,211	4,211	4,216	4,213	0	21,062
a.2 Revenue							
Fee							
Residents		1,947	2,062	2,177	2,293	2,408	10,886
Sub-total	0	1,947	2,062	2,177	2,293	2,408	10,886
Cash-In	4,211	6,158	6,273	6,393	6,516	2,408	31,948
b.1 Investment	4,211	4,211	4,211	4,216	4,213	0	21,062
b.2 Expenditure							
Existing system		904	904	904	904	904	4,519
Proposed system							
O/M cost		82	164	246	328	410	1,230
Interest	38	113	204	311	417	508	1,590
Fee-collection		68	72		80	84	381
Sub-total	38	1,167	1,344	1,537	1,730	1,907	7,720
Cash-out	4,249	5,378	5,555	5,753	5,943	1,907	28,782
c. Reserved fund	-38	742	1,461	2,101	2,655	3,166	3,166

Profit and Loss Statement (Case B-2)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue		1,947	2,062	2,177	2,293	2,408	10,886
b. Cost							
b.1 Expenditure	38	1,167	1,344	1,537	1,730	1,907	7,720
b.2 Depreciation		334	68	209	349	489	1,149
Cost Total	38	1,201	1,412	1,745	2,079	2,396	8,869
c. Profit and Loss	-38	746	650	432	214	12	2,017

Cash Flow (Case B-3)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	3,189	3,189	3,189	0	0		9,567
Loan	1,022	1,022	1,022	4,215	4,212		11,493
Sub-total	4,211	4,211	4,211	4,215	4,212	0	21,060
a.2 Revenue							
Fee							
Residents		1,947	2,062	2,177	2,293	2,408	10,886
Sub-total	0	1,947	2,062	2,177	2,293	2,408	10,886
Cash-in	4,211	6,518	6,273	6,392	6,505	2,408	31,946
b.1 Investment	4,211	4,211	4,211	4,216	4,213	0	21062
b.2 Expenditure							
Existing system		904	904	904	904	904	4519
Proposed system							
O/M cost		82	164	246	328	410	1,230
Interest	38	113	188	279	386	477	1,479
Fee-collection		68	72	76	80	84	381
Sub-total	38	1,167	1,328	1,505	1,698	1,875	7,609
Cash-out	4,249	5,378	5,539	5,721	5,911	1,875	28,671
c. Reserved fund	-38	742	1,477	2,148	2,743	3,276	3,276

Profit and Loss Statement (Case B-3)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue		1,947	2,062	2,177	2,293	2,408	10,886
b. Cost							
b.1 Expenditure	38	1,167	1,328	1,505	1,698	1,875	7,609
b.2 Depreciation		34	68	102	243	383	830
Cost Total	38	1,201	1,396	1,607	1,940	2,258	8,439
c. Profit and Loss	-38	746	666	570	352	150	2,447

Cash Flow (Case B-4)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	3,189	3,189	3,189	3,191	0	0	12,758
Loan	1,022	1,022	1,022	1,025	4,213	0	8,304
Sub-total	4,211	4,211	4,211	4,216	4,213	0	21,062
a.2 Revenue							
Fee							
Residents		1,947	2,062	2,177	2,293	2,408	10,886
Sub-total	0	1,947	2,062	2,177	2,293	2,408	10,886
Cash-in	4,211	6,158	6,273	6,393	6,506	2,408	31,948
b.1 Investment	4,211	4,211	4,211	4,216	4,213	0	21062
b.2 Expenditure							
Existing system		904	904	904	904	904	4519
Proposed system							
O/M cost		82	164	246	328	410	1,230
Interest	38	113	188	263	354	445	1,399
Fee-collection		68	72	76	80	84	381
Sub-total	38	1,167	1,328	1,489	1,666	1,843	7,529
Cash-out	4,249	5,378	5,539	5,705	5,879	1,843	28,591
c. Reserved fund	-38	742	1,477	2,165	2,792	3,357	3,357

Profit and Loss Statement (Case B-4)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue		1,947	2,062	2,177	2,293	2,408	10,886
b. Cost							
b.1 Expenditure	38	1,167	1,328	1,489	1,666	1,843	7,529
b.2 Depreciation		34	68	102	136	277	618
Cost Total	38	1,201	1,396	1,591	1,802	2,120	8,146
c. Profit and Loss	-38	746	666	586	491	288	2,740

Cash Flow (Case B-5)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	3,189	3,189	3,189	3,191	3,191	0	15,949
Loan	1,022	1,022	1,022	1,025	1,022	0	5,113
Sub-total	4,211	4,211	4,211	4,216	4,213	0	21,062
a.2 Revenue							
Fee							
Residents		1,947	2,062	2,177	2,293	2,408	10,886
Sub-total	0	1,947	2,062	2,177	2,293	2,408	10,886
Cash-in	4,211	6,158	6,273	6,393	6,516	2,408	31,948
b.1 Investment	4,211	4,211	4,211	4,216	4,213	0	21062
b.2 Expenditure							
Existing system		904	904	904	904	904	4519
Proposed system							
O/M cost		82	164	246	328	410	1,230
Interest	38	113	188	263	328	413	1,351
Fee-collection		68	72	76	80	84	381
Sub-total	38	1,167	1,328	1,489	1,650	1,811	7,481
Cash-out	4,249	5,378	5,539	5,705	5,863	1,811	28,543
c. Reserved fund	-38	742	1,477	2,165	2,808	3,405	3,405

Profit and Loss Statement (Case B-5)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue		1,947	2,062	2,177	2,293	2,408	10,886
b. Cost					1650		
b.1 Expenditure	38	1,167	1,328	1,489	1,650	1,811	7,481
b.2 Depreciation		34	68	102	136	170	511
Cost Total	38	1,201	1,396	1,591	1,786	1,981	7,992
c. Profit and Loss	-38	746	666	586	506	427	2,894

Cash Flow (Case A-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	0	0	0	0	0	0	0
Loan	1,357	1,357	1,357	1,357	1,357	0	6,783
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		214	244	277	315	358	1,408
Sub-total	0	214	244	277	315	358	1,408
Cash-in	1,357	1,571	1,600	1,633	1,672	358	8,191
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	7	20	34	47	61	68	237
Sub-total	7	27	48	67	88	102	339
Cash-out	1,363	1,384	1,405	1,424	1,445	102	7,122
c. Reserved fund	-7	180	376	585	812	1,068	1,068

Profit and Loss Statement (Case A-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	214	244	277	315	358	1,408
b. Cost							
b.1 Expenditure	7	27	48	67	88	102	339
b.2 Depreciation		45	90	136	181	226	678
Cost Total	7	73	138	203	269	328	1,018
c. Profit & Loss	-7	142	105	74	46	30	390

Cash Flow (Case A-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	0	0	0	0	0	0	0
Loan	1,357	1,357	1,357	1,357	1,357	0	6,783
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		138	156	176	199	224	893
Sub-total	0	138	156	176	199	224	893
Cash-in	1,357	1,495	1,512	1,533	1,555	224	7,676
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	7	20	34	47	61	68	237
Sub-total	7	27	48	67	88	102	339
Cash-out	1,363	1,384	1,405	1,424	1,445	102	7,122
c. Reserved fund	-7	104	212	320	431	553	553

Profit and Loss Statement (Case A-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	138	156	176	199	224	893
b. Cost							
b.1 Expenditure	7	27	48	67	88	102	339
b.2 Depreciation		45	90	136	181	226	678
Cost Total	7	73	138	203	269	328	1,018
c. Profit & Loss	-7	65	17	-27	-70	-104	-125

Cash Flow (Case A-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	0	0	0	0	0	0	0
Loan	1,357	1,357	1,357	1,357	1,357	0	6,783
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		67	75	84	94	105	423
Sub-total	0	67	75	84	94	105	423
Cash-In	1,357	1,423	1,431	1,440	1,450	105	7,206
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	7	20	34	47	61	68	237
Sub-total	7	27	48	67	88	102	339
Cash-out	1,363	1,384	1,405	1,424	1,445	102	7,122
c. Reserved fund	-7	32	59	75	81	84	84

Profit and Loss Statement (Case A-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	67	75	84	94	105	423
b. Cost							
b.1 Expenditure	7	27	48	67	88	102	339
b.2 Depreciation		45	90	136	181	226	678
Cost Total	7	73	138	203	269	328	1,018
c. Profit & Loss	-7	-6	-64	-120	-175	-223	-595

Cash Flow (Case B-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	0	0	0	0	0	1,357
Loan	0	1,357	1,357	1,357	1,357	0	5,426
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		214	244	277	315	358	1,408
Sub-total	0	214	244	277	315	358	1,408
Cash-in	1,357	1,571	1,600	1,633	1,672	358	8,191
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	7	20	34	47	54	163
Sub-total	0	14	34	54	74	88	265
Cash-out	1,357	1,370	1,391	1,411	1,431	88	7,048
c. Reserved fund	0	200	410	633	873	1,143	1,143

Profit and Loss Statement (Case B-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	214	244	277	315	358	1,408
b. Cost							
b.1 Expenditure	0	14	34	54	74	88	265
b.2 Depreciation		0	45	90	136	181	452
Cost Total	0	14	80	144	210	269	717
c. Profit & Loss	0	200	164	133	105	89	691

Cash Flow (Case B-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	0	0	0	0	0	1,357
Loan	0	1,357	1,357	1,357	1,357	0	5,426
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		138	156	176	199	224	893
Sub-total	0	138	156	176	199	224	893
Cash-in	1,357	1,495	1,512	1,533	1,555	224	7,676
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	7	20	34	47	54	163
Sub-total	0	14	34	54	74	88	265
Cash-out	1,357	1,370	1,391	1,411	1,431	88	7,048
c. Reserved fund	0	124	246	368	492	628	628

Profit and Loss Statement (Case B-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	138	156	176	199	224	893
b. Cost							
b.1 Expenditure	0	14	34	54	74	88	265
b.2 Depreciation		0	45	90	136	181	452
Cost Total	0	14	80	144	210	269	717
c. Profit & Loss	0	124	76	32	-12	-45	176

Cash Flow (Case B-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	0	0	0	0	0	1,357
Loan	0	1,357	1,357	1,357	1,357	0	5,426
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		67	75	84	94	105	423
Sub-total	0	67	75	84	94	105	423
Cash-in	1,357	1,423	1,431	1,440	1,450	105	7,206
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	7	20	34	47	54	163
Sub-total	0	14	34	54	74	88	265
Cash-out	1,357	1,370	1,391	1,411	1,431	88	7,048
c. Reserved fund	0	53	93	122	142	158	158

Profit and Loss Statement (Case B-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	67	75	84	94	105	423
b. Cost							
b.1 Expenditure	0	14	34	54	74	88	265
b.2 Depreciation		0	45	90	136	181	452
Cost Total	0	14	80	144	210	269	717
c. Profit & Loss	0	53	-5	-61	-117	-164	-294

Cash Flow (Case C-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	1,357	0	0	0	0	2,713
Loan	0	0	1,357	1,357	1,357	0	4,070
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		214	244	277	315	358	1,408
Sub-total	0	214	244	277	315	358	1,408
Cash-in	1,357	1,571	1,600	1,633	1,672	358	8,191
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	0	7	20	34	41	102
Sub-total	0	7	21	40	61	75	204
Cash-out	1,357	1,364	1,377	1,397	1,418	75	6,987
c. Reserved fund	0	207	430	667	921	1,204	1,204

Profit and Loss Statement (Case C-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	214	244	277	315	358	1,408
b. Cost							
b.1 Expenditure	0	7	21	40	61	75	204
b.2 Depreciation		0	0	45	90	136	271
Cost Total	0	7	21	86	151	210	475
c. Profit & Loss	0	207	223	191	164	148	933

Cash Flow (Case C-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	1,357	0	0	0	0	2,713
Loan	0	0	1,357	1,357	1,357	0	4,070
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		138	156	176	199	224	893
Sub-total	0	138	156	176	199	224	893
Cash-in	1,357	1,495	1,512	1,533	1,555	224	7,676
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	0	7	20	34	41	102
Sub-total	0	7	21	40	61	75	204
Cash-out	1,357	1,364	1,377	1,397	1,418	75	6,987
c. Reserved fund	0	131	266	402	539	689	689

Profit and Loss Statement (Case C-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	138	156	176	199	224	893
b. Cost							
b.1 Expenditure	0	7	21	40	61	75	204
b.2 Depreciation		0	0	45	90	136	271
Cost Total	0	7	21	86	151	210	475
c. Profit & Loss	0	131	135	90	47	14	418

Cash Flow (Case C-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	1,357	0	0	0	0	2,713
Loan	0	0	1,357	1,357	1,357	0	4,070
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		67	75	84	94	105	423
Sub-total	0	67	75	84	94	105	423
Cash-in	1,357	1,423	1,431	1,440	1,450	105	7,206
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	0	7	20	34	41	102
Sub-total	0	7	21	40	61	75	204
Cash-out	1,357	1,364	1,377	1,397	1,418	75	6,987
c. Reserved fund	0	60	113	156	189	219	219

Profit and Loss Statement (Case C-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	67	75	84	94	105	423
b. Cost							
b.1 Expenditure	0	7	21	40	61	75	204
b.2 Depreciation		0	0	45	90	136	271
Cost Total	0	7	21	86	151	210	475
c. Profit & Loss	0	60	54	-2	-58	-105	-52

Cash Flow (Case D-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	1,357	1,357	0	0	0	4,070
Loan	0	0	0	1,357	1,357	0	2,713
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		214	244	277	315	358	1,408
Sub-total	0	214	244	277	315	358	1,408
Cash-in	1,357	1,571	1,600	1,633	1,672	358	8,191
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	0	0	7	20	27	54
Sub-total	0	7	14	27	47	61	156
Cash-out	1,357	1,364	1,371	1,383	1,404	61	6,939
c. Reserved fund	0	207	437	687	955	1,251	1,251

Profit and Loss Statement (Case D-a)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	214	244	277	315	358	1,408
b. Cost							
b.1 Expenditure	0	7	14	27	47	61	156
b.2 Depreciation		0	0	0	45	90	136
Cost Total	0	7	14	27	93	152	292
c. Profit & Loss	0	207	230	250	222	206	1,116

Cash Flow (Case D-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	1,357	1,357	0	0	0	4,070
Loan	0	0	0	1,357	1,357	0	2,713
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		138	156	176	199	224	893
Sub-total	0	138	156	176	199	224	893
Cash-in	1,357	1,495	1,512	1,533	1,555	224	7,676
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	0	0	7	20	27	54
Sub-total	0	7	14	27	47	61	156
Cash-out	1,357	1,364	1,371	1,383	1,404	61	6,939
c. Reserved fund	0	131	273	422	573	736	736

Profit and Loss Statement (Case D-b)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	138	156	176	199	224	893
b. Cost							
b.1 Expenditure	0	7	14	27	47	61	156
b.2 Depreciation		0	0	0	45	90	136
Cost Total	0	7	14	27	93	152	292
c. Profit & Loss	0	131	142	149	106	73	601

Cash Flow (Case D-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a.1 Finance							
Grant	1,357	1,357	1,357	0	0	0	4,070
Loan	0	0	0	1,357	1,357	0	2,713
Sub-total	1,357	1,357	1,357	1,357	1,357	0	6,783
a.2 Revenue							
Budget allocation		67	75	84	94	105	423
Sub-total	0	67	75	84	94	105	423
Cash-in	1,357	1,423	1,431	1,440	1,450	105	7,206
b.1 Investment	1,357	1,357	1,357	1,357	1,357		6,783
b.2 Expenditure							
O/M cost		7	14	20	27	34	102
Interest	0	0	0	7	20	27	54
Sub-total	0	7	14	27	47	61	156
Cash-out	1,357	1,364	1,371	1,383	1,404	61	6,939
c. Reserved fund	0	60	120	177	223	267	267

Profit and Loss Statement (Case D-c)

Unit: C\$ 1,000

	2000	2001	2002	2003	2004	2005	Total 2000-2005
a. Revenue	0	67	75	84	94	105	423
b. Cost							
b.1 Expenditure	0	7	14	27	47	61	156
b.2 Depreciation		0	0	0	45	90	136
Cost Total	0	7	14	27	93	152	292
c. Profit & Loss	0	60	61	57	1	-47	131





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