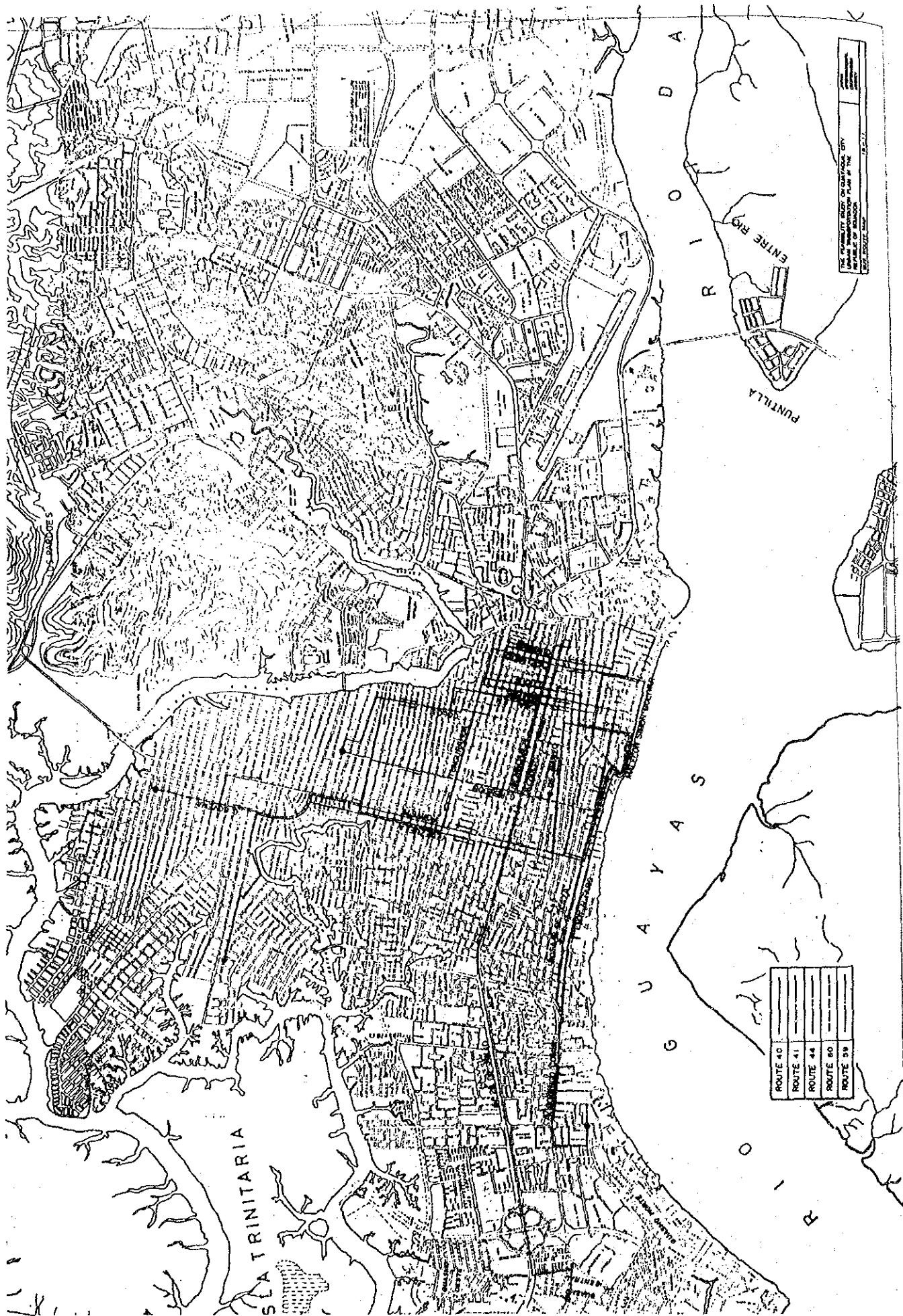


THE TRANSPORTATION PLAN FOR SAN JUAN CITY
 BUREAU OF TRANSPORTATION PLANNING
 1970
 BUS ROUTE MAP

ROUTE 36	
ROUTE 33	
ROUTE 31	
ROUTE 32	



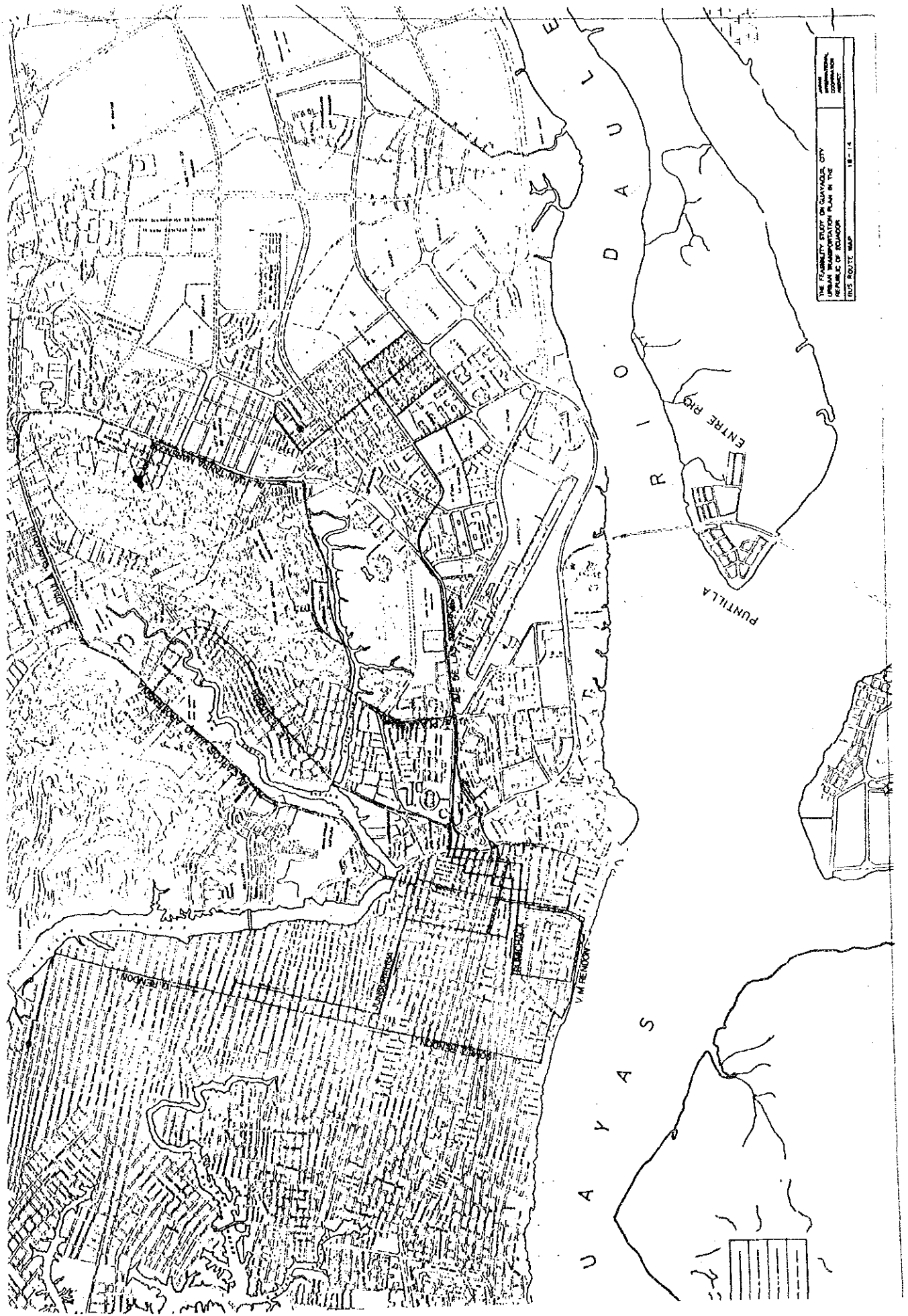
THE UNIVERSITY CITY OF GUAYAQUIL CITY
 REPUBLIC OF ECUADOR
 SCALE: 1:50,000
 DATE: 1971

ROUTE 40
ROUTE 41
ROUTE 44
ROUTE 60
ROUTE 39

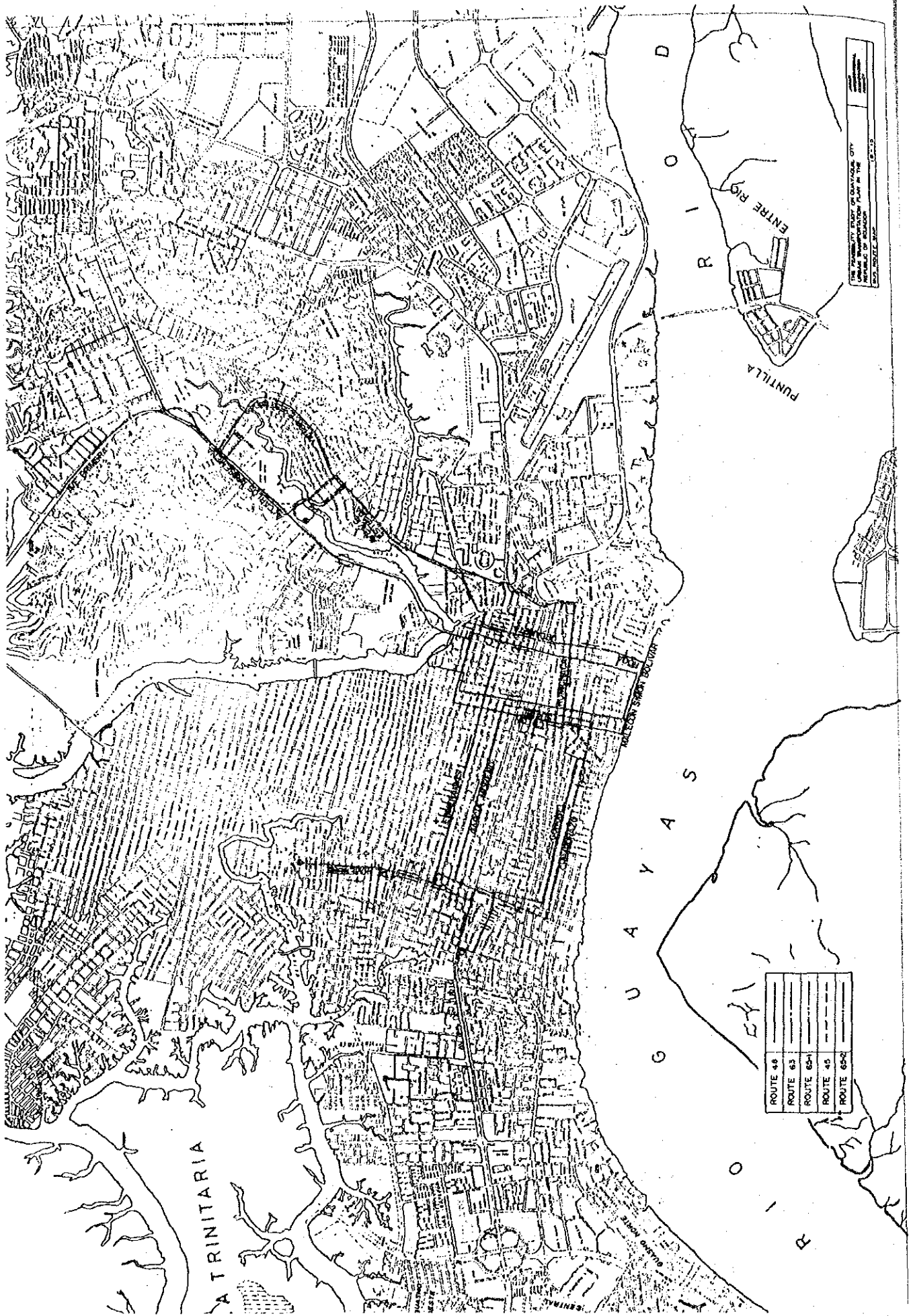


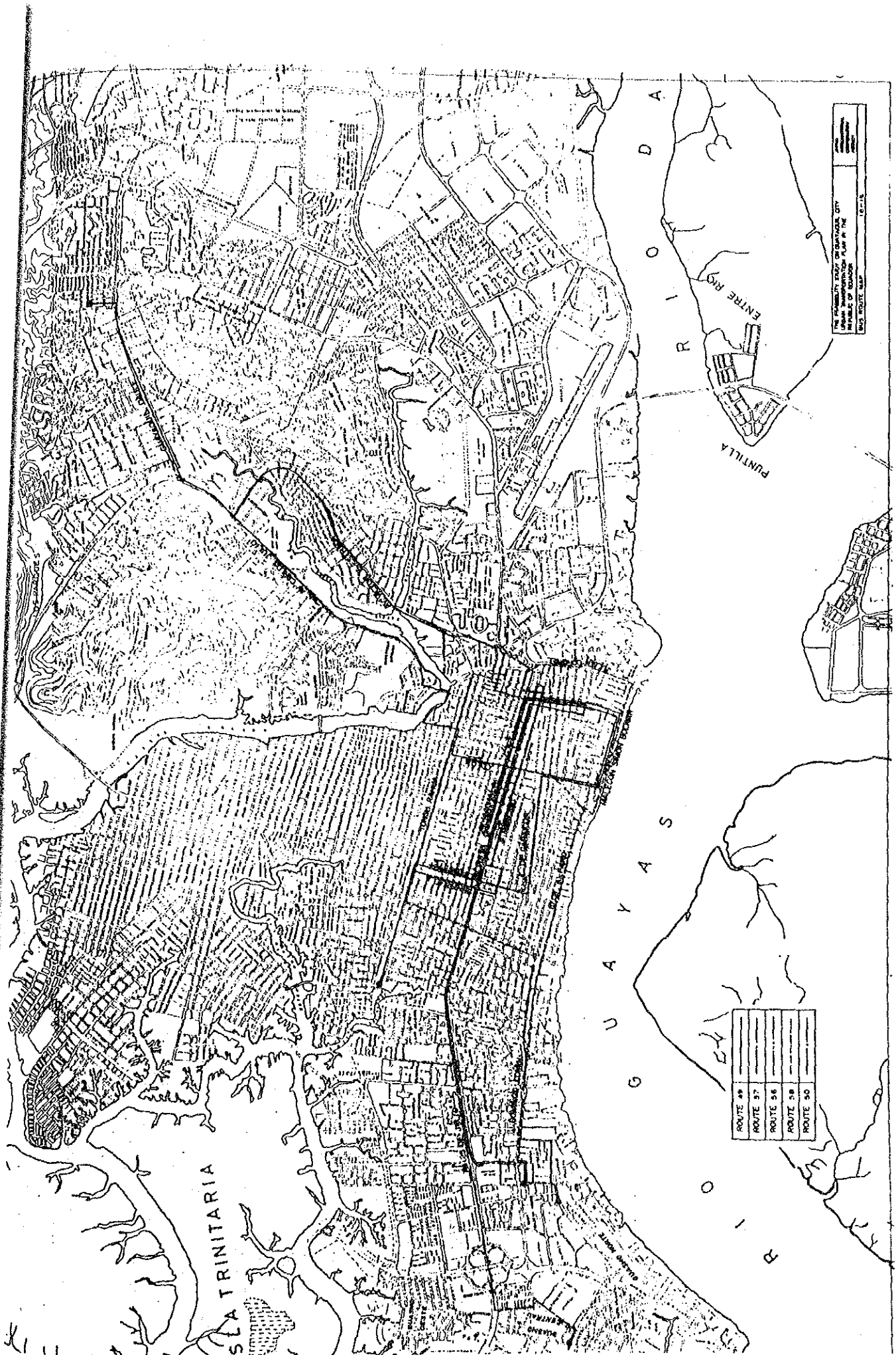
ROUTE 43	
ROUTE 41	
ROUTE 44	
ROUTE 32	
ROUTE 46	

THE QUALITY PRINT OF SAN JUAN CITY
 MAP OF PUERTO RICO
 1957



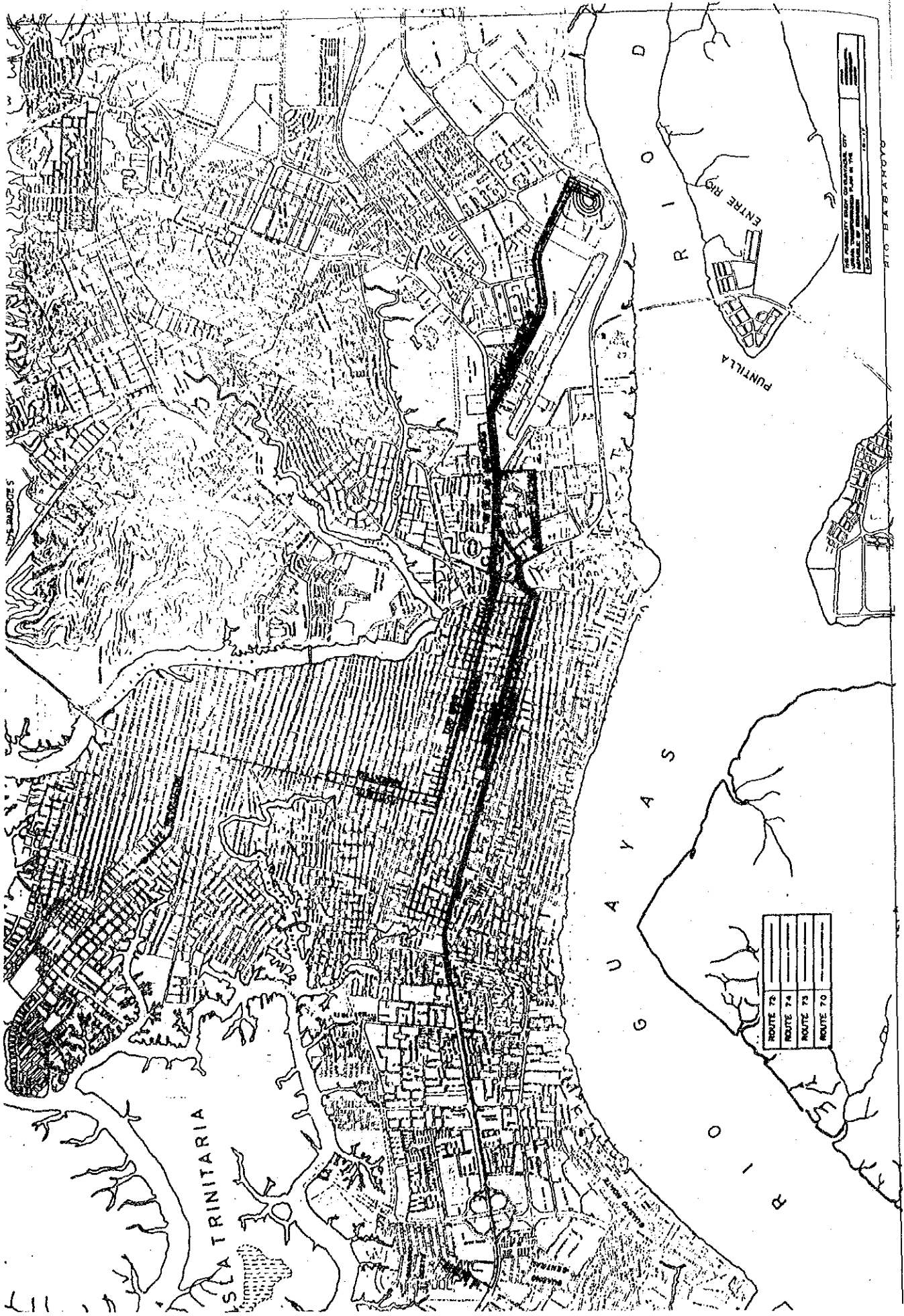
THE FEASIBILITY STUDY OF GUAYAQUIL CITY
 URBAN REORGANIZATION PLAN IN THE
 AREA OF PUNTIÑA
 R.C.S. ROUTE MAP
 18 - 14

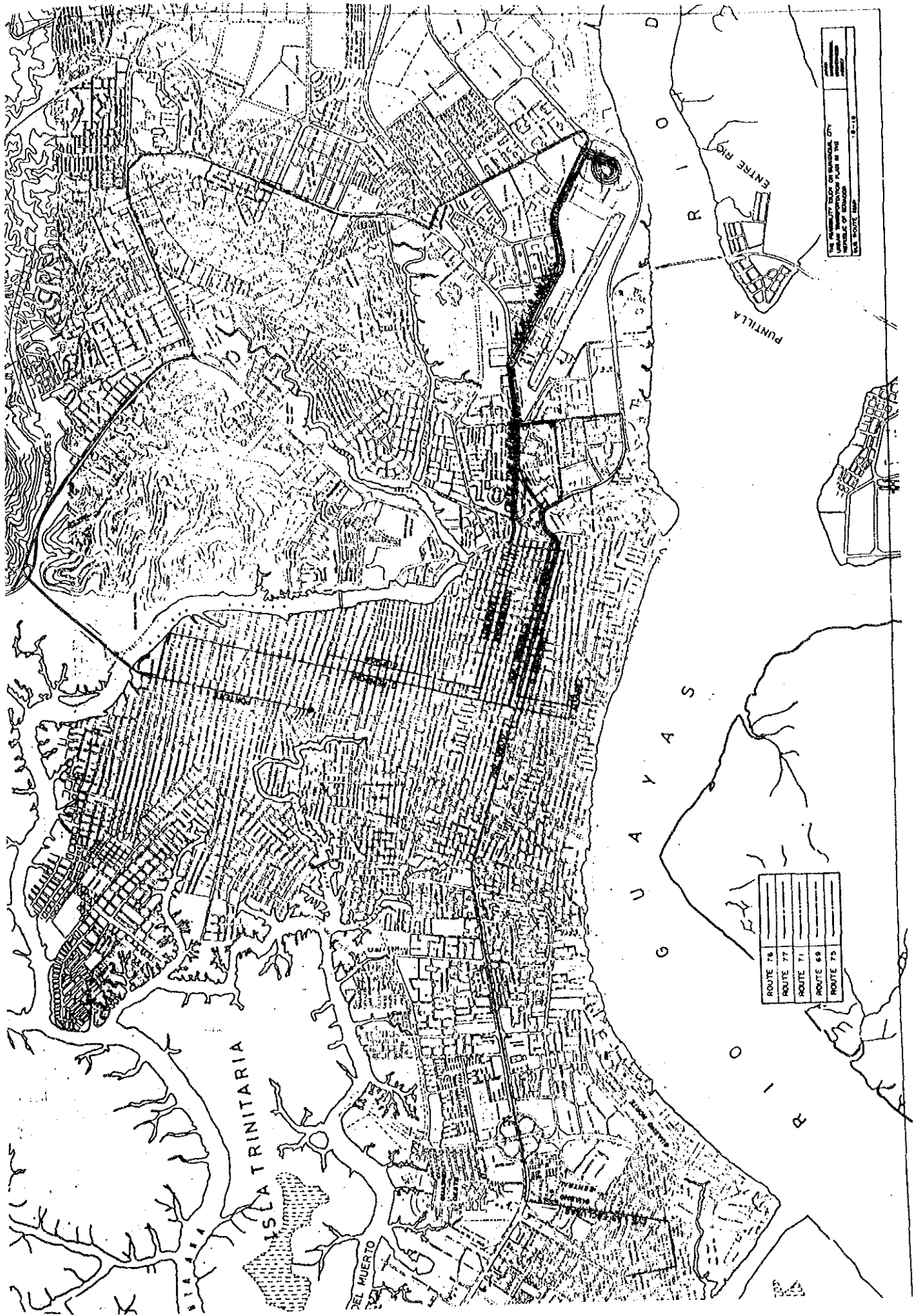




THE NEARBY CITY OF GUAYAQUIL, CITY
 IN THE PROVINCE OF GUAYAS, PLAN IN THE
 1:50,000 SCALE MAP

ROUTE 48	_____
ROUTE 57	_____
ROUTE 56	_____
ROUTE 58	_____
ROUTE 50	_____





THE PRESENTED MAP IS A REPRODUCTION OF THE ORIGINAL MAP OF THE TERRITORY OF GUAYAQUIL IN THE PROVINCE OF GUAYAQUIL, ECUADOR. U.S. ROUTE MAP. 1:50,000.

ROUTE 74
ROUTE 77
ROUTE 71
ROUTE 68
ROUTE 75

Appendix 1-5 PASSENGER VOLUME AT MAIN SECTIONS

SECTION: 1 (JULIAN COLONEL)

TYPE: BUSETA

DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	20	90	540	8
8:00 - 9:00	24	105	756	11
9:00 - 10:00	22	97	640	9
10:00 - 11:00	21	99	624	9
11:00 - 12:00	22	89	587	8
12:00 - 13:00	19	91	519	7
13:00 - 14:00	22	82	541	8
14:00 - 15:00	18	86	464	7
15:00 - 16:00	20	100	600	9
16:00 - 17:00	16	96	461	7
17:00 - 18:00	22	102	673	10
18:00 - 19:00	20	105	630	9
TOTAL			7035	100

SECTION: 1 (JULIAN COLONEL)

TYPE: COLECTIVO

DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	26		1149	8
8:00 - 9:00	28		1275	9
9:00 - 10:00	27		1188	8
10:00 - 11:00	26		1131	8
11:00 - 12:00	29		1110	8
12:00 - 13:00	27		1132	8
13:00 - 14:00	21		971	7
14:00 - 15:00	23		981	7
15:00 - 16:00	29		1423	10
16:00 - 17:00	23		1255	9
17:00 - 18:00	24		1246	9
18:00 - 19:00	26		1435	10
TOTAL			14296	100

Appendix 1-5 PASSENGER VOLUME AT MAIN SECTIONS

SECTION: 1 (JULIAN COLONEL)

TYPE OF BUS BUSETA
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	20	90	540	8
8:00 - 9:00	24	105	756	11
9:00 - 10:00	22	97	640	9
10:00 - 11:00	21	99	624	9
11:00 - 12:00	22	89	587	8
12:00 - 13:00	19	91	519	7
13:00 - 14:00	22	82	541	8
14:00 - 15:00	18	86	464	7
15:00 - 16:00	20	100	600	9
16:00 - 17:00	16	96	461	7
17:00 - 18:00	22	102	673	10
18:00 - 19:00	20	105	630	9
TOTAL			7035	100

SECTION: 1 (JULIAN COLONEL)

TYPE: COLECTIVO
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	26		1149	8
8:00 - 9:00	28		1275	9
9:00 - 10:00	27		1188	8
10:00 - 11:00	26		1131	8
11:00 - 12:00	29		1110	8
12:00 - 13:00	27		1132	8
13:00 - 14:00	21		971	7
14:00 - 15:00	23		981	7
15:00 - 16:00	29		1423	10
16:00 - 17:00	23		1255	9
17:00 - 18:00	24		1246	9
18:00 - 19:00	26		1435	10
TOTAL			14.296	100

PASSENGER VOLUME AT MAIN SECTION

SECTION: 2 (MANUEL GALECIO)

TYPE: BUSETA
DATE: 18 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	41	103	1267	11
8:00 - 9:00	32	108	1037	9
9:00 - 10:00	31	106	986	9
10:00 - 11:00	28	102	857	7
11:00 - 12:00	23	101	697	6
12:00 - 13:00	30	97	873	8
13:00 - 14:00	30	103	927	8
14:00 - 15:00	29	111	966	8
15:00 - 16:00	29	111	966	8
16:00 - 17:00	27	99	802	7
17:00 - 18:00	31	108	1004	9
18:00 - 19:00	32	118	1133	10
TOTAL			11515	100

SECTION: 2 (MANUEL GALECIO)

TYPE: COLECTIVO
DATE: 18 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	72		3541	11
8:00 - 9:00	63		2798	9
9:00 - 10:00	60		2778	9
10:00 - 11:00	59		2526	8
11:00 - 12:00	49		2150	7
12:00 - 13:00	51		2344	7
13:00 - 14:00	57		2578	8
14:00 - 15:00	50		2223	7
15:00 - 16:00	46		2156	7
16:00 - 17:00	64		3215	10
17:00 - 18:00	51		2783	9
18:00 - 19:00	54		2836	9
TOTAL			31928	100

PASSENGER VOLUME AT MAIN SECTION

SECTION: 2 (MANUEL GALECIO)

TYPE: BUS
DATE: 18 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	12	96	438	8
8:00 - 9:00	16	84	511	9
9:00 - 10:00	17	84	543	9
10:00 - 11:00	15	92	524	10
11:00 - 12:00	14	83	442	8
12:00 - 13:00	14	83	442	8
13:00 - 14:00	16	85	517	9
14:00 - 15:00	14	86	458	8
15:00 - 16:00	13	92	454	9
16:00 - 17:00	11	100	418	7
17:00 - 18:00	11	112	462	8
18:00 - 19:00	13	123	608	10
TOTAL			5823	100

SECTION: 3 (QUISQUIS AND QUITO)

TYPE: BUSETA
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	101	82	2485	9
8:00 - 9:00	97	106	3085	11
9:00 - 10:00	78	116	2714	9
10:00 - 11:00	84	107	2696	9
11:00 - 12:00	78	95	2223	8
12:00 - 13:00	86	95	2451	8
13:00 - 14:00	72	77	1663	6
14:00 - 15:00	70	102	2142	7
15:00 - 16:00	67	99	1990	7
16:00 - 17:00	81	102	2479	9
17:00 - 18:00	83	106	2639	9
18:00 - 19:00	71	115	2450	8
TOTAL			29017	100

PASSENGER VOLUME AT MAIN SECTION

SECTION: 3 (QUISQUIS AND QUITO)

TYPE: COLECTIVO
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	45		1633	20
8:00 - 9:00	20		844	10
9:00 - 10:00	16		675	8
10:00 - 11:00	15		502	6
11:00 - 12:00	12		439	5
12:00 - 13:00	17		633	6
13:00 - 14:00	14		436	5
14:00 - 15:00	18		676	8
15:00 - 16:00	22		781	9
16:00 - 17:00	16		532	6
17:00 - 18:00	15		601	7
18:00 - 19:00	15		595	7
TOTAL			8343	100

SECTION: 3 (QUISQUIS AND QUITO)

TYPE: BUS
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	9	98	335	6
8:00 - 9:00	9	110	376	10
9:00 - 10:00	9	116	397	10
10:00 - 11:00	8	100	304	8
11:00 - 12:00	7	92	245	6
12:00 - 13:00	8	108	328	8
13:00 - 14:00	7	87	231	6
14:00 - 15:00	10	99	376	10
15:00 - 16:00	7	101	269	7
16:00 - 17:00	8	92	280	7
17:00 - 18:00	10	106	403	10
18:00 - 19:00	8	117	356	9
TOTAL			3900	100

PASSENGER VOLUME AT MAIN SECTION

SECTION: 4 (COLON AND QUITO)

TYPE: BUSETA
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	23	114	787	9
8:00 - 9:00	20	106	636	7
9:00 - 10:00	26	103	803	9
10:00 - 11:00	27	102	826	9
11:00 - 12:00	27	94	721	8
12:00 - 13:00	23	88	607	7
13:00 - 14:00	29	89	774	9
14:00 - 15:00	27	92	745	8
15:00 - 16:00	24	99	713	8
16:00 - 17:00	21	105	662	6
17:00 - 18:00	21	105	725	8
18:00 - 19:00	24	107	770	9
TOTAL			8769	100

SECTION: 4 (COLON AND QUITO)

TYPE: COLECTIVO
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF <u>PASSENGERS</u> CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	119		5669	10
8:00 - 9:00	124		5767	10
9:00 - 10:00	106		4978	9
10:00 - 11:00	104		4274	8
11:00 - 12:00	108		4075	7
12:00 - 13:00	98		3926	7
13:00 - 14:00	106		3894	7
14:00 - 15:00	103		4057	7
15:00 - 16:00	109		4596	8
16:00 - 17:00	96		4193	8
17:00 - 18:00	111		4501	8
18:00 - 19:00	118		5228	10
TOTAL			55188	100

PASSENGER VOLUME AT MAIN SECTION

SECTION: 4 (COLON AND QUITO)

TYPE: BUS
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	15	124	707	12
8:00 - 9:00	16	138	839	14
9:00 - 10:00	14	125	665	11
10:00 - 11:00	14	104	553	9
11:00 - 12:00	11	76	318	5
12:00 - 13:00	15	75	428	7
13:00 - 14:00	13	88	435	7
14:00 - 15:00	15	96	547	9
15:00 - 16:00	13	109	538	7
16:00 - 17:00	13	94	464	8
17:00 - 18:00	10	81	308	5
18:00 - 19:00	6	92	210	3
TOTAL			6010	100

SECTION: 5 (MALECON AND COLON)

TYPE: BUSETA
DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	119	94	3356	11
8:00 - 9:00	119	101	3606	11
9:00 - 10:00	92	86	2374	7
10:00 - 11:00	90	95	2565	8
11:00 - 12:00	86	91	2345	7
12:00 - 13:00	78	90	2106	7
13:00 - 14:00	91	79	2157	7
14:00 - 15:00	89	102	2723	9
15:00 - 16:00	90	91	2457	8
16:00 - 17:00	93	96	2678	8
17:00 - 18:00	82	98	2411	8
18:00 - 19:00	93	110	3069	10
TOTAL			31847	100

PASSENGER VOLUME AT MAIN SECTION

SECTION: 5 (MALECON AND COLON)

TYPE: COLECTIVO

DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	167		6620	11
8:00 - 9:00	158		6596	11
9:00 - 10:00	139		5001	8
10:00 - 11:00	135		4968	8
11:00 - 12:00	144		4477	7
12:00 - 13:00	125		4240	7
13:00 - 14:00	137		4349	7
14:00 - 15:00	126		4637	8
15:00 - 16:00	138		4754	8
16:00 - 17:00	142		4548	8
17:00 - 18:00	134		4843	8
18:00 - 19:00	124		5000	8
TOTAL			60033	100

SECTION: 5 (MALECON AND COLON)

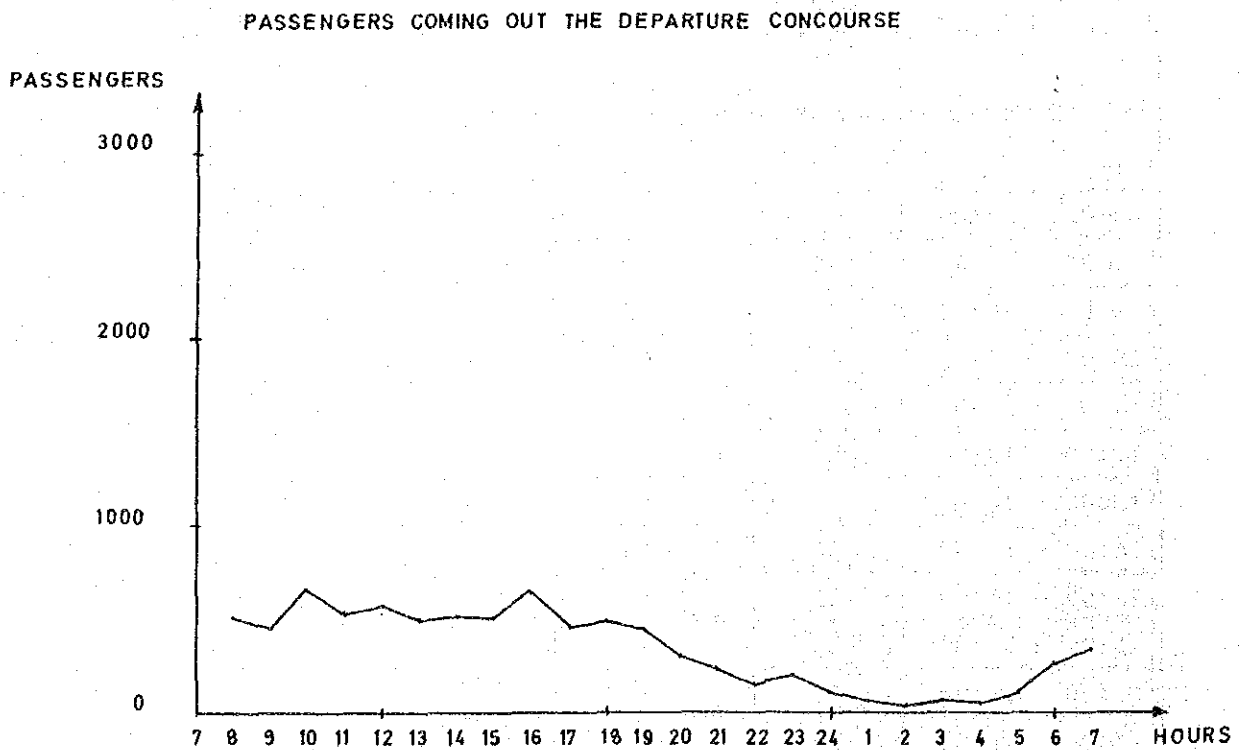
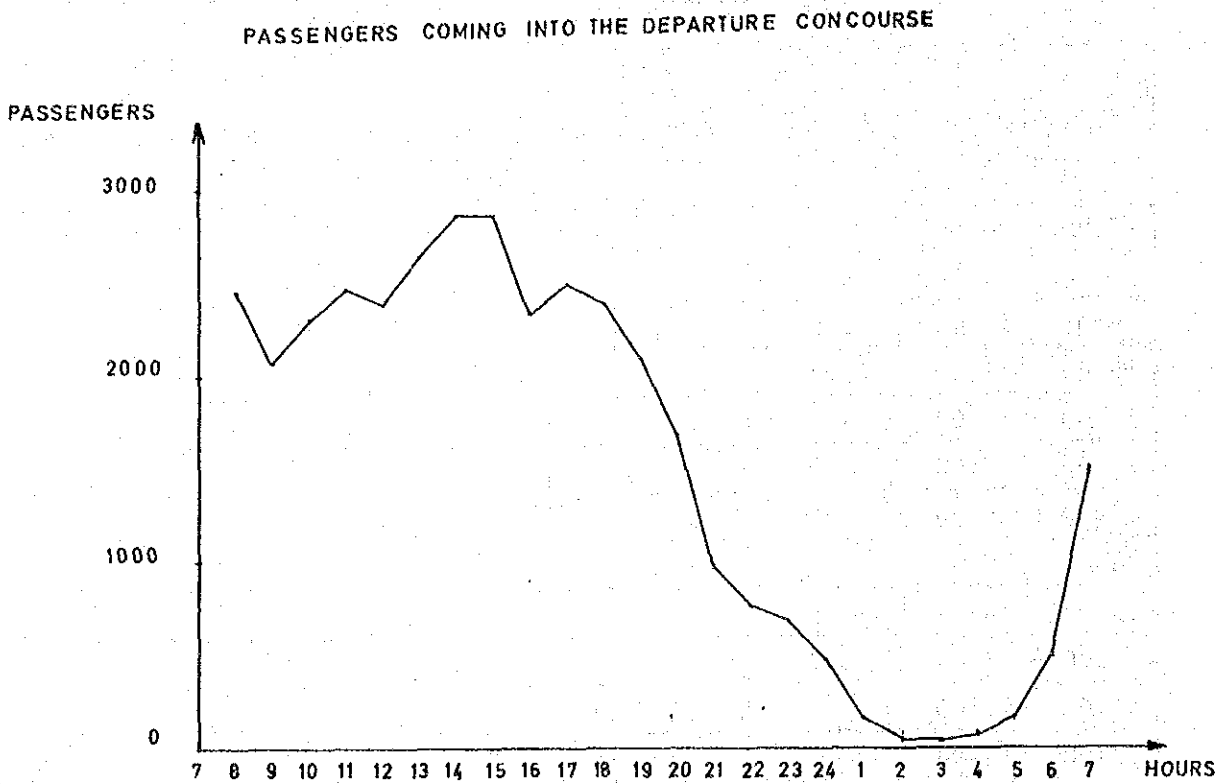
TYPE: BUS

DATE: 17 OCT. 1985

TIME	(a) NO. OF BUS	(b) NO. OF PASSENGERS CAPACITY (%)	(c)	
			TOTAL NO. OF PASSENGERS (a) x (b) x (capacity)/100	%
7:00 - 8:00	26	76	751	7
8:00 - 9:00	45	88	1505	14
9:00 - 10:00	32	93	1131	11
10:00 - 11:00	43	65	1062	10
11:00 - 12:00	33	53	665	6
12:00 - 13:00	29	59	650	6
13:00 - 14:00	25	60	570	5
14:00 - 15:00	34	60	775	7
15:00 - 16:00	32	68	827	8
16:00 - 17:00	36	75	1026	10
17:00 - 18:00	29	71	782	7
18:00 - 19:00	28	82	872	8
TOTAL			10616	100

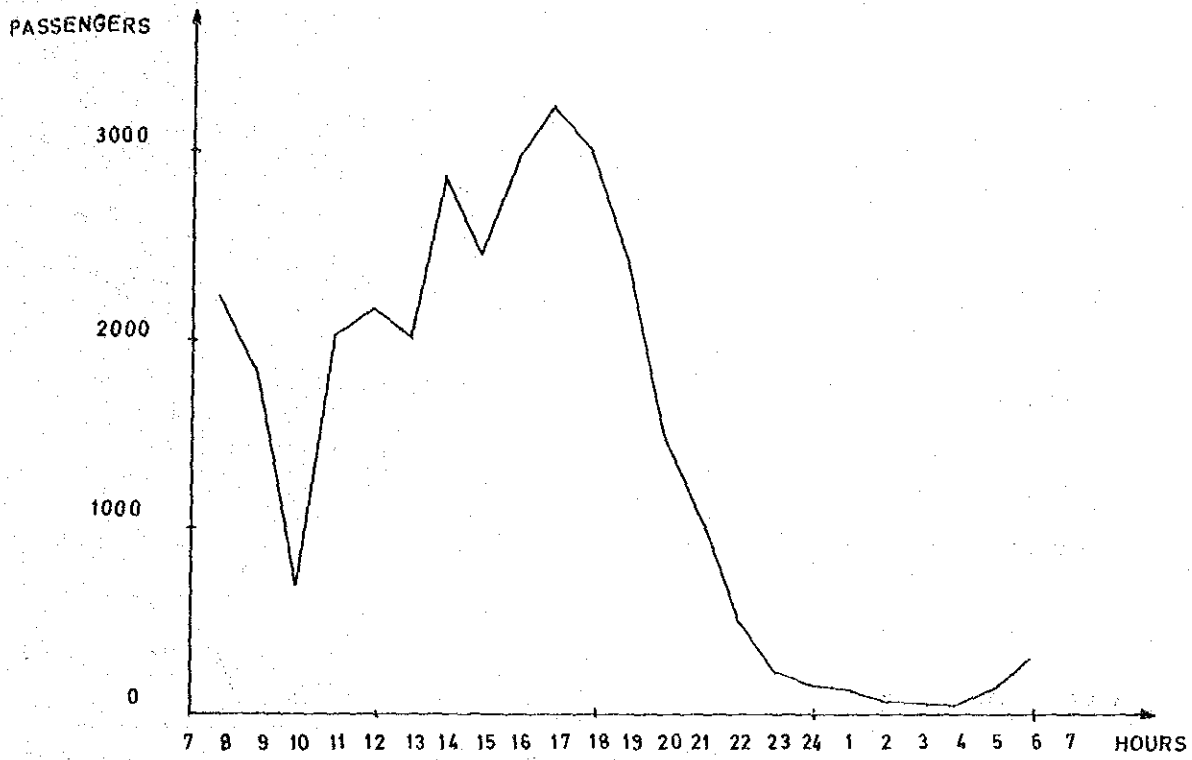
Appendix 1-6 PASSENGERS IN THE "TERMINAL TERRESTRE"

(1) USERS OF THE DEPARTURE CONCOURSE

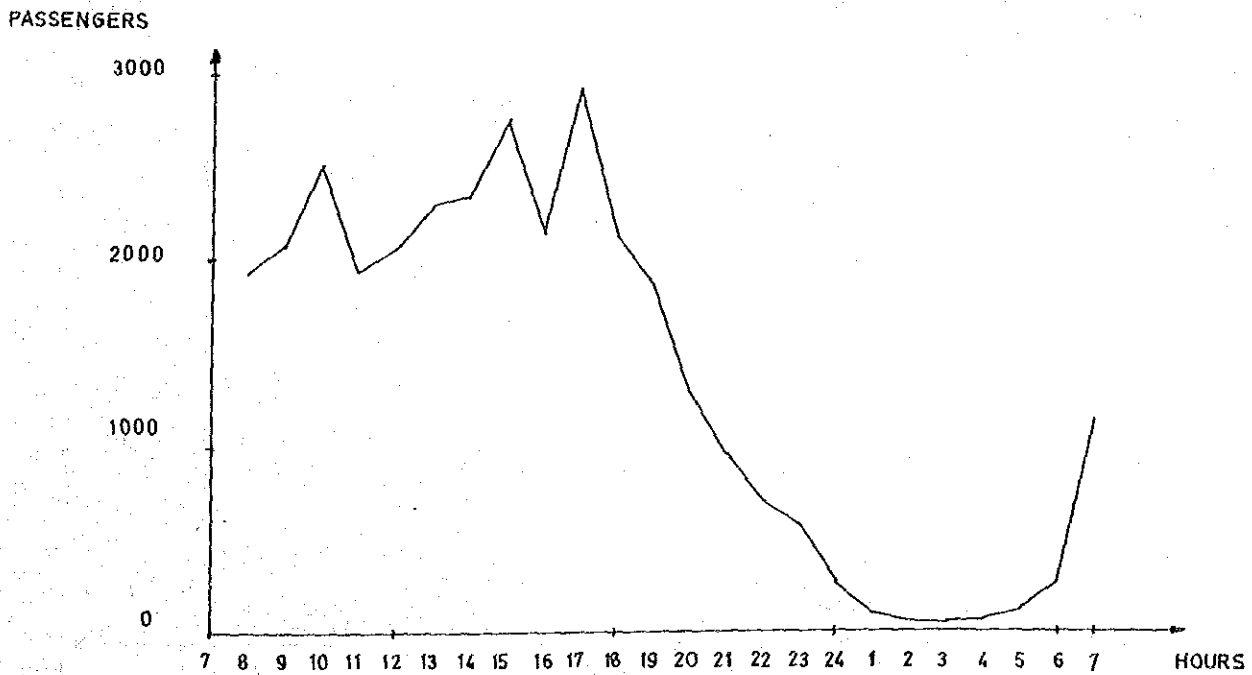


(2) URBAN BUS PASSENGER

PASSENGERS TO GUAYAQUIL FROM TERMINAL TERRESTRE



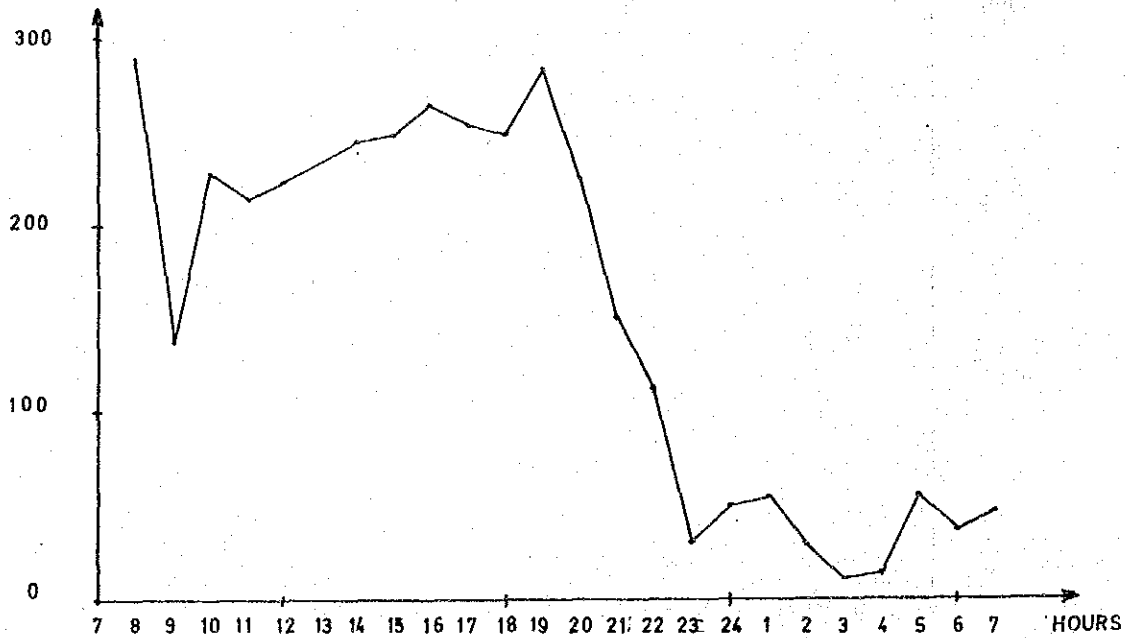
PASSENGERS TO THE TERMINAL TERRESTRE FROM GUAYAQUIL



(3) TAXI PASSENGERS

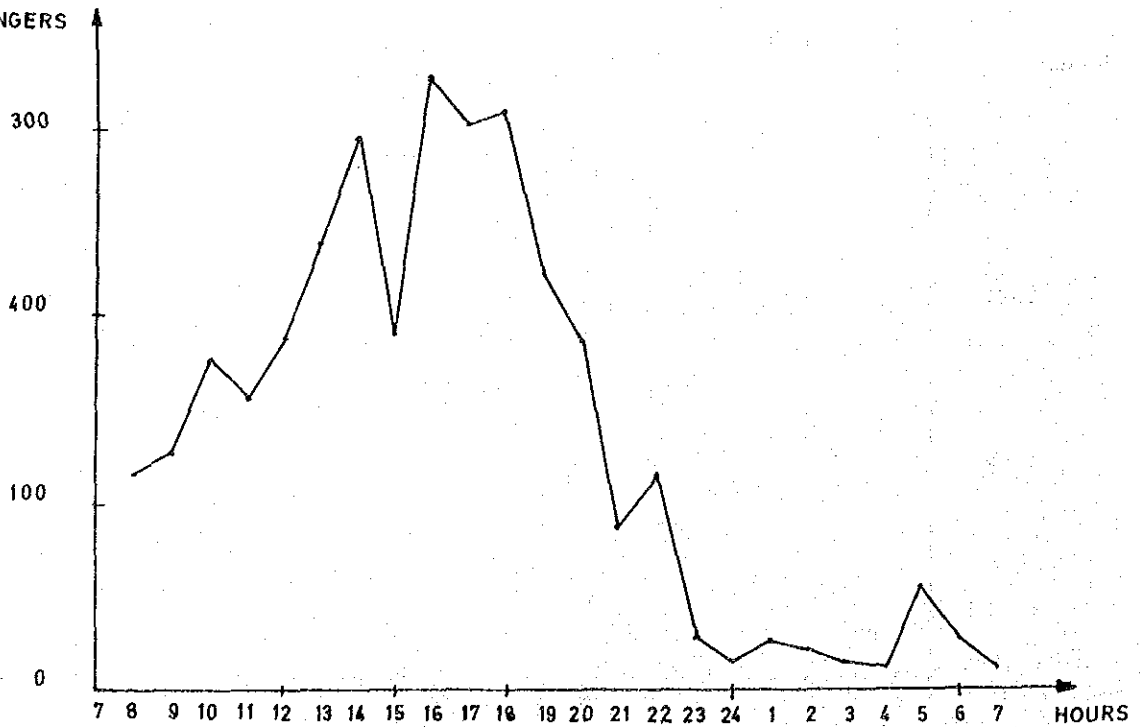
PASSENGERS TO GUAYAQUIL CITY FROM THE TERMINAL TERRESTRE

PASSENGERS



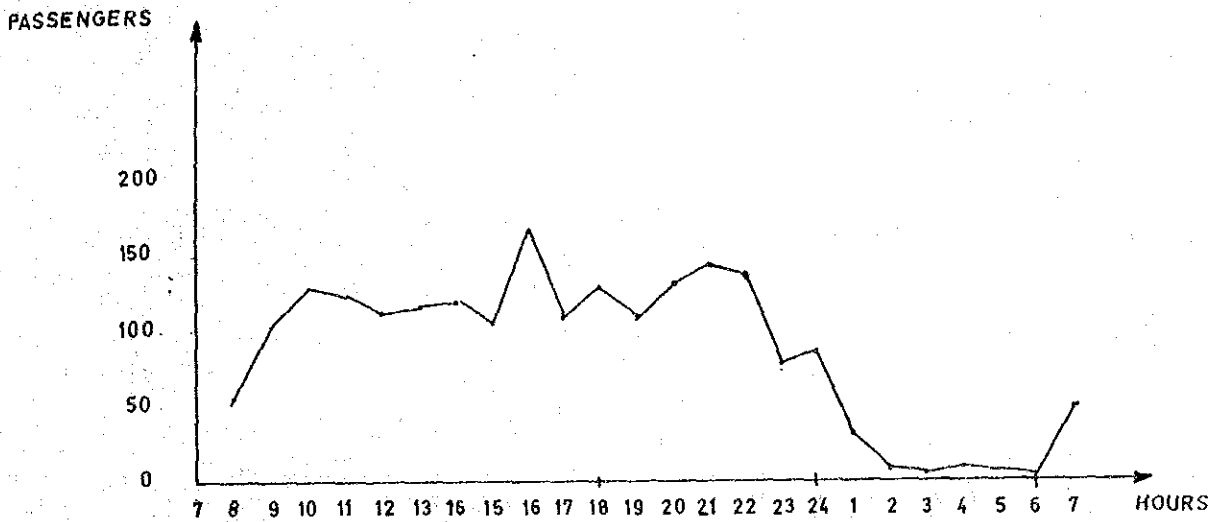
PASSENGERS TO THE TERMINAL TERRESTRE FROM GUAYAQUIL CITY

PASSENGERS

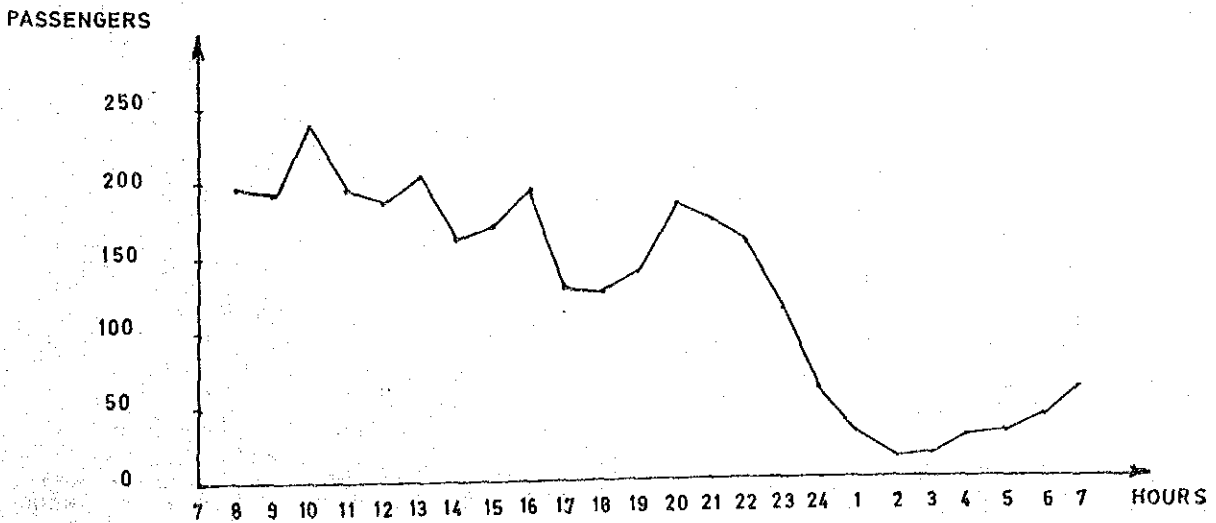


(4) PRIVATE CAR USERS

PASSENGERS TO GUAYAQUIL CITY FROM THE TERMINAL TERRESTRE



PASSENGERS TO THE TERMINAL TERRESTRE FROM GUAYAQUIL CITY



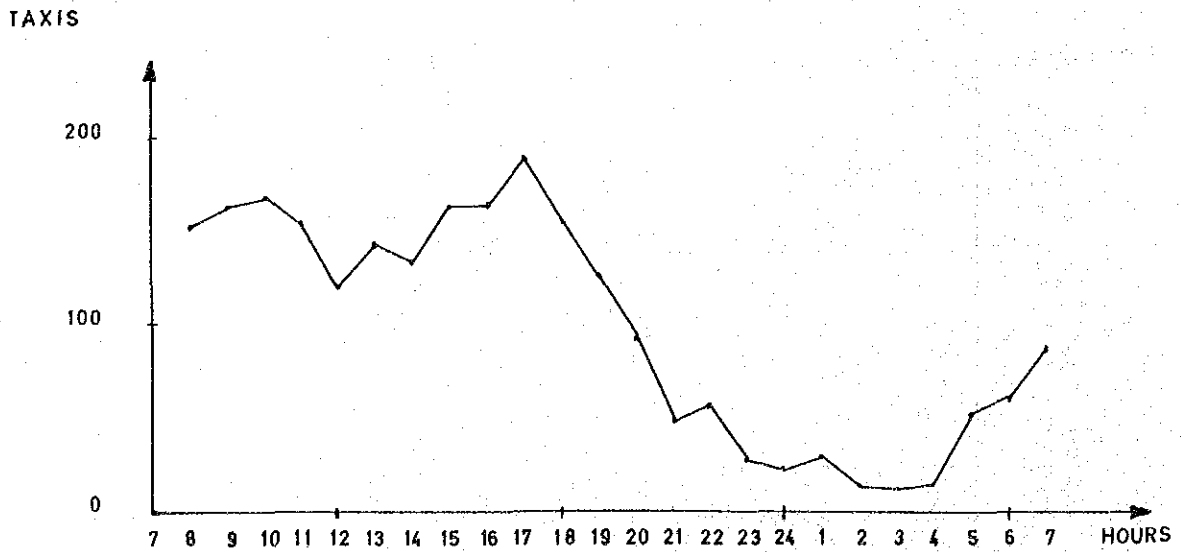
(5) NO. OF CARS COMING TO THE TERMINAL TERRESTRE

URBAN BUS COMING TO THE TERMINAL TERRESTRE



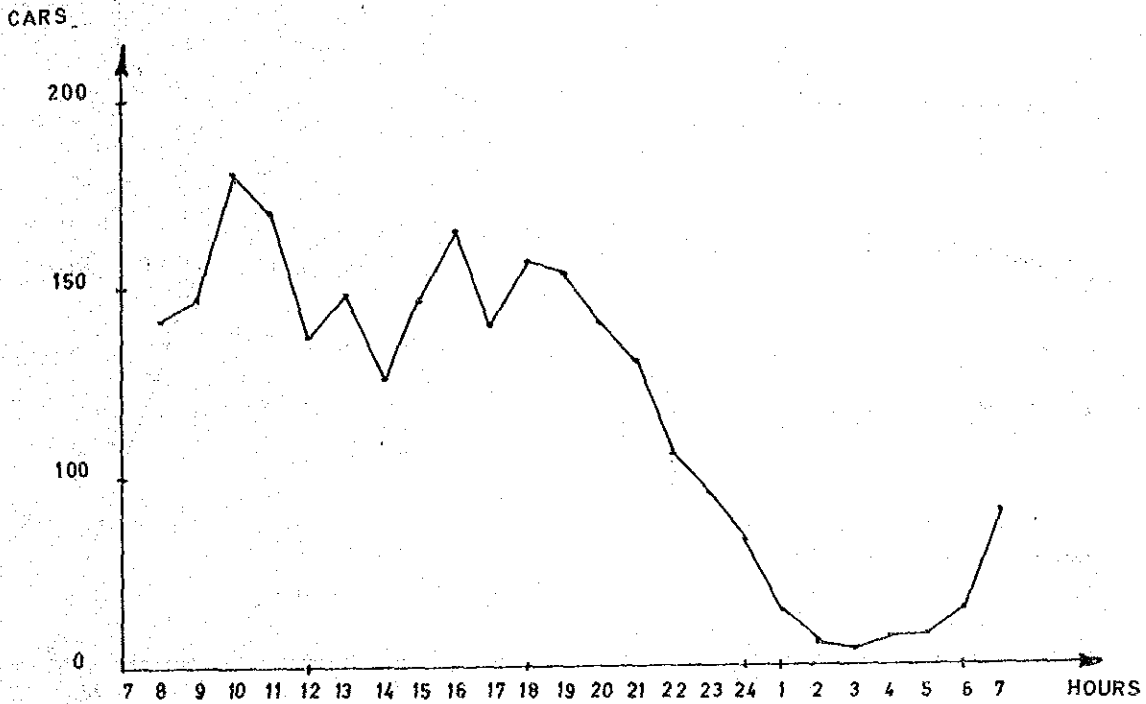
(6)

TAXIS COMING TO THE TERMINAL TERRESTRE



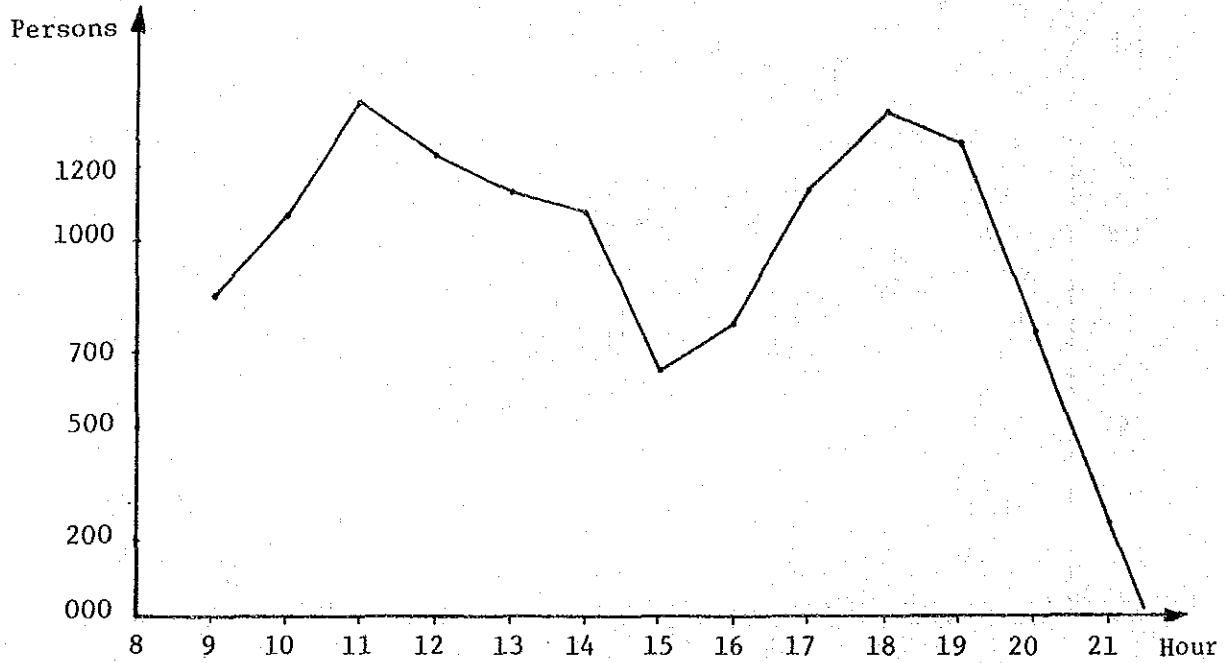
(7)

PRIVATE CARS TO THE TERMINAL TERRESTRE

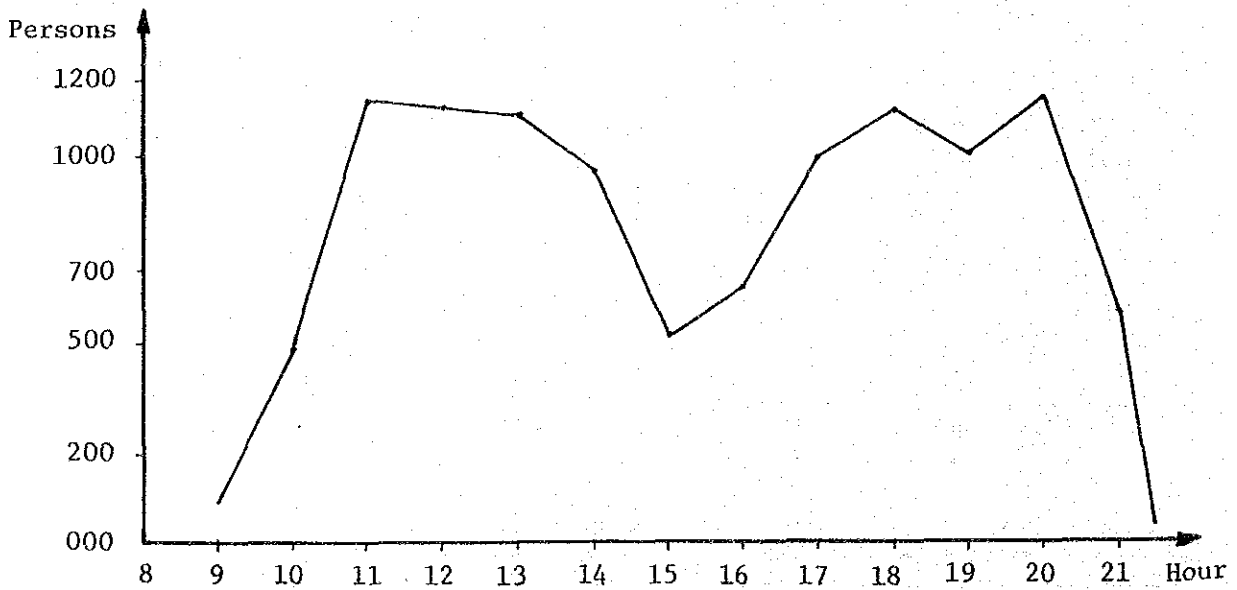


Appendix 1-7 MAJOR FACILITIES ATTRACTING PASSENGERS

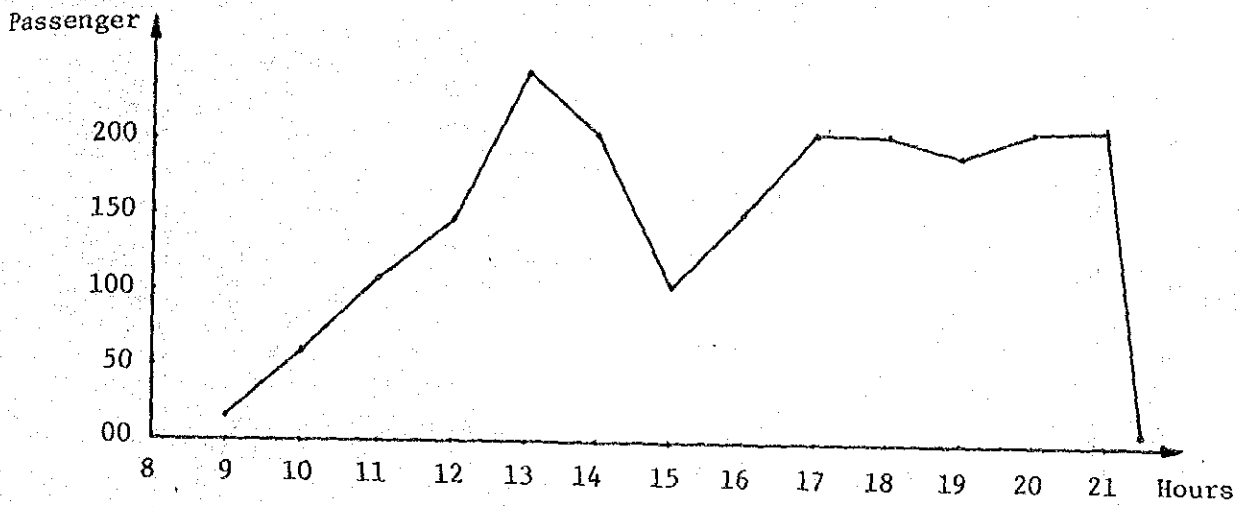
No. of Persons Entering "Policentro"



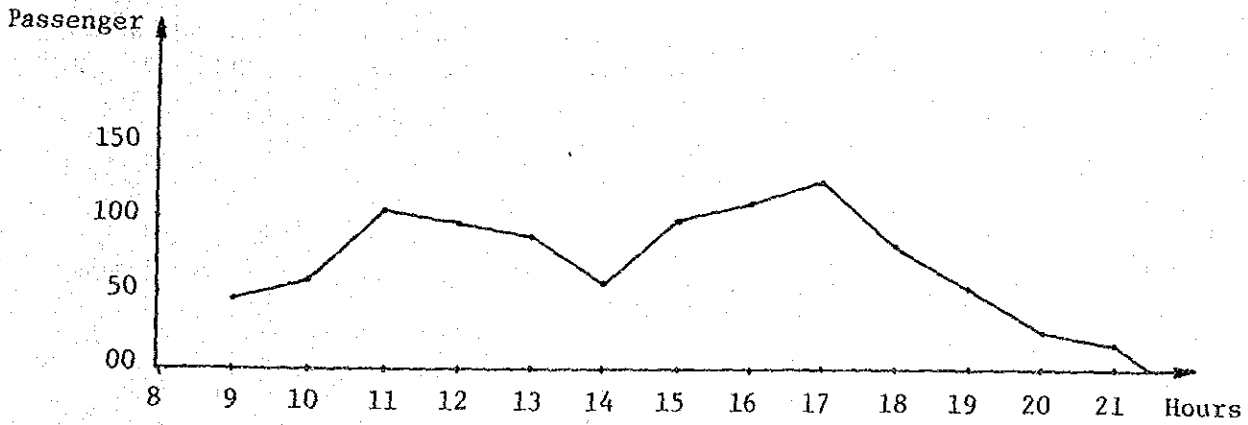
No. of Persons Coming Out "Policentro"



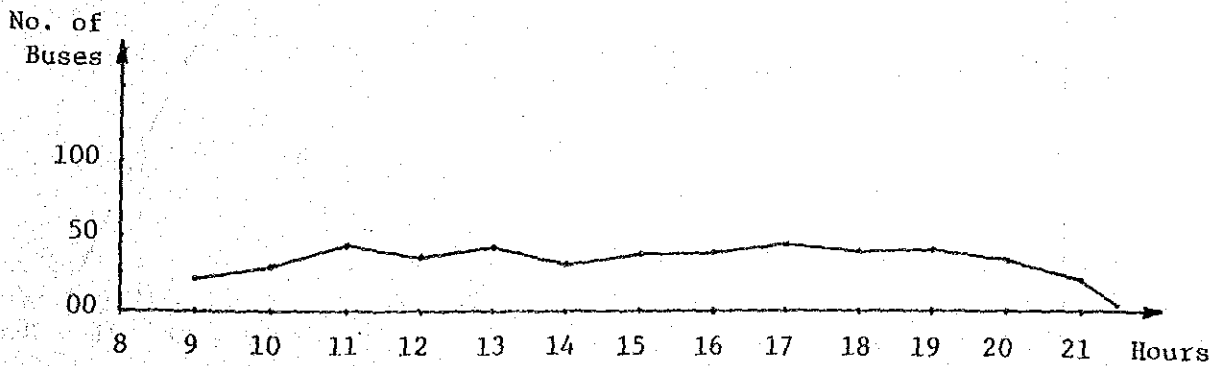
No. of Passengers Getting on Bus at "Policentro"



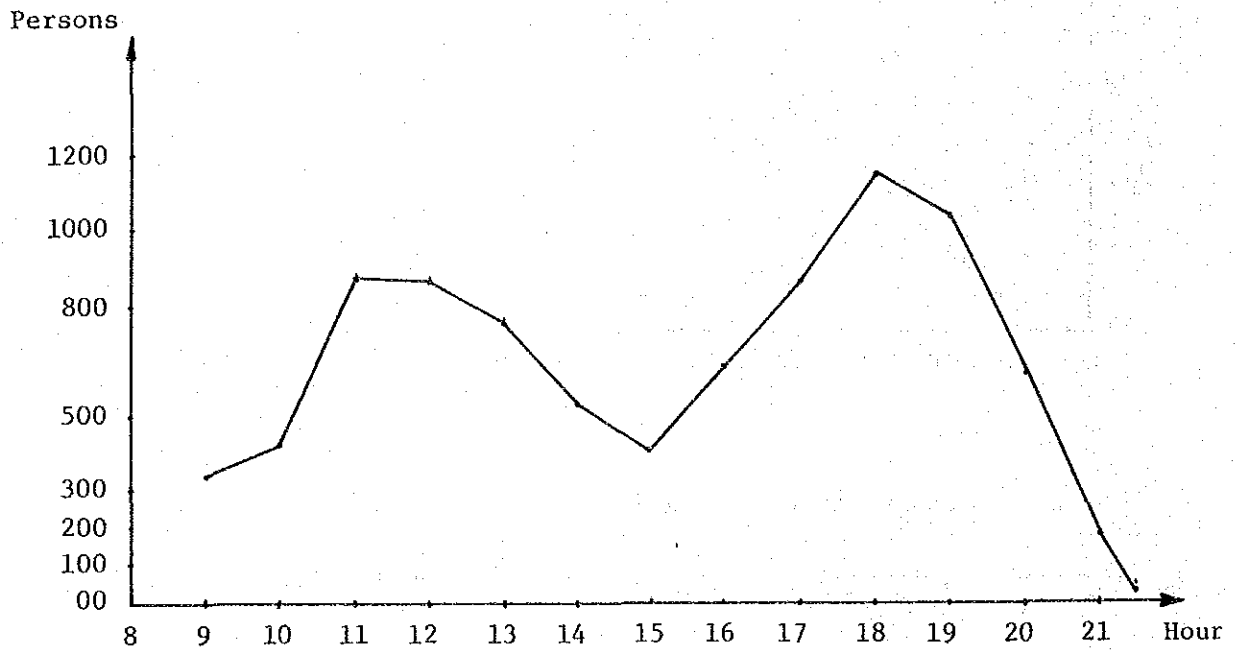
No. of Passengers Alighting Bus at "Policentro" Bus Stop



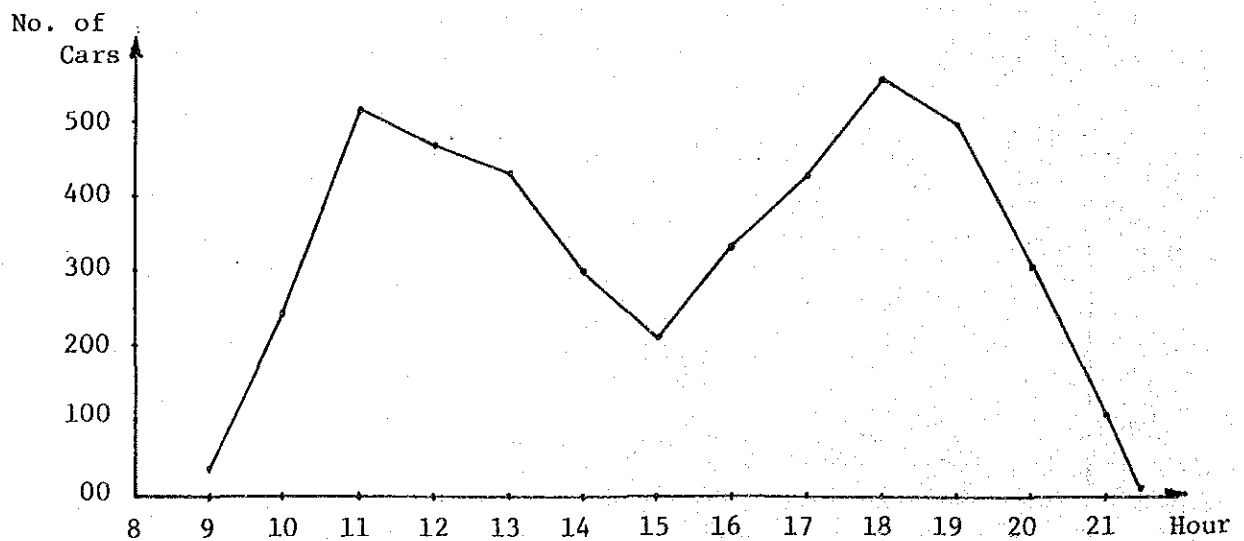
No. of Bus at "Policentro" Bus Stop



No. of Persons Using Car to "Policentro"



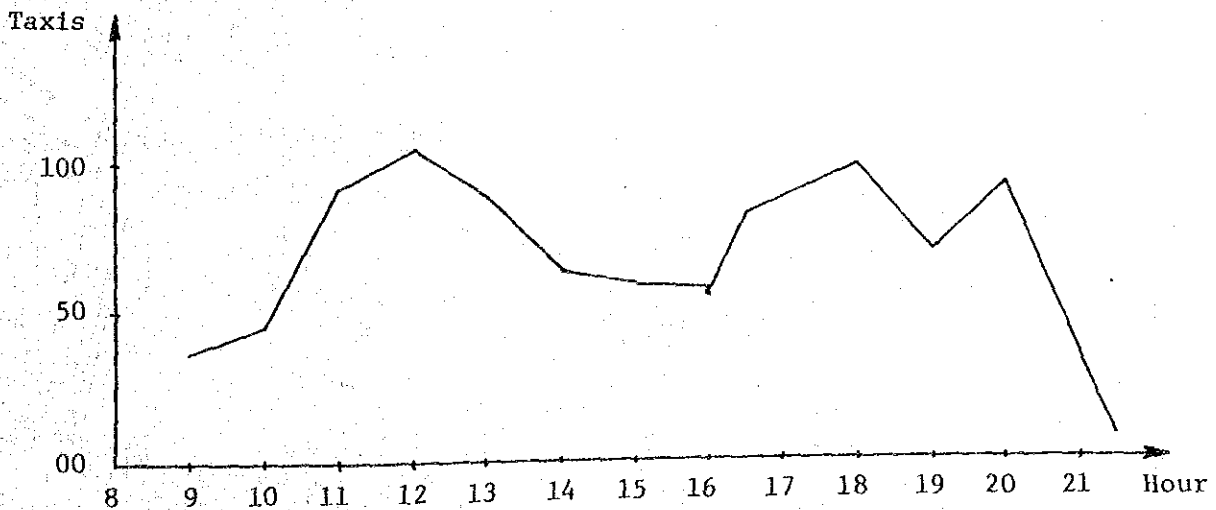
No. of Cars Entering "Policentro"



No. of Passengers by Taxi to Come in "Policentro"

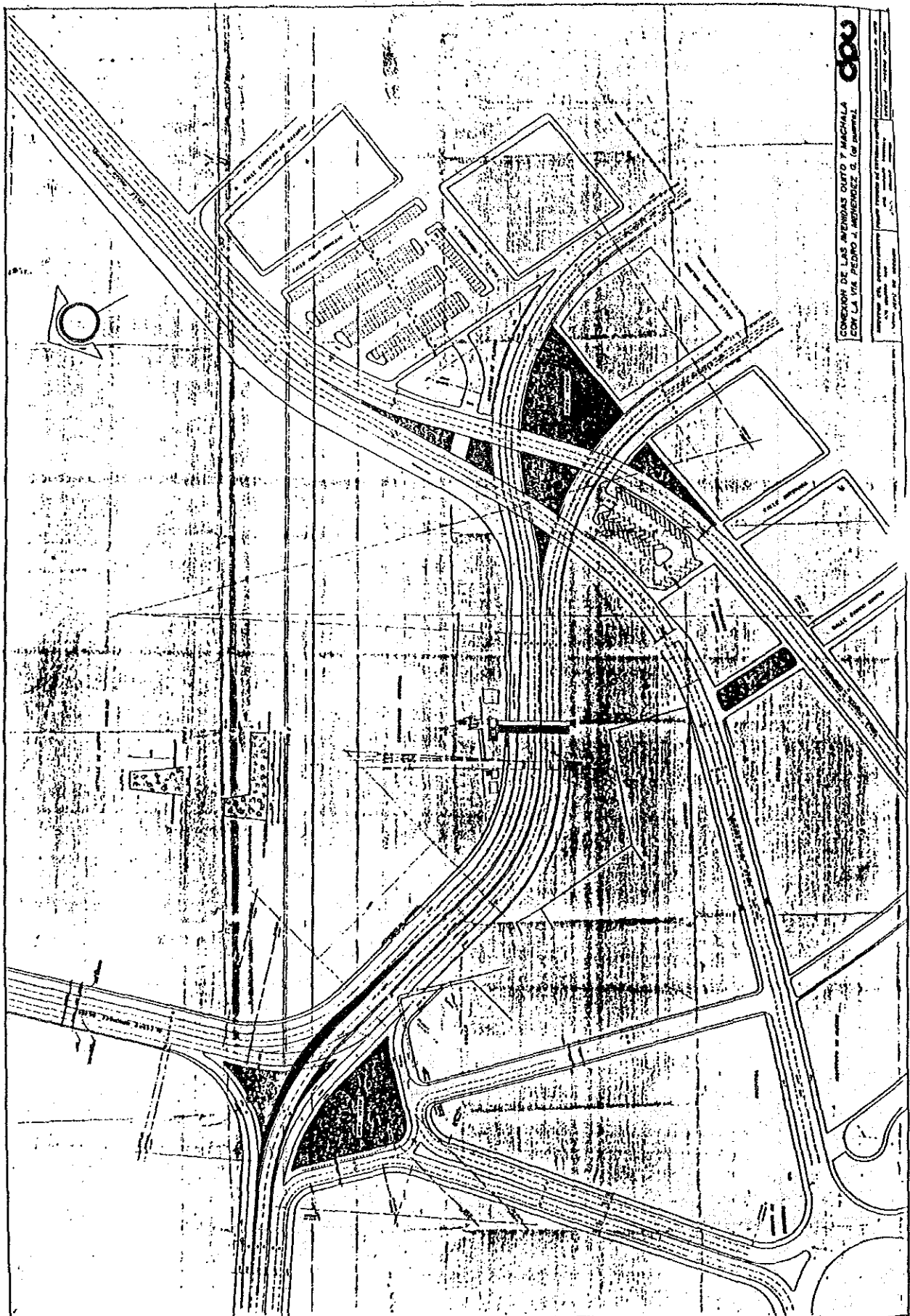


No. of Taxis Entering "Policentro"

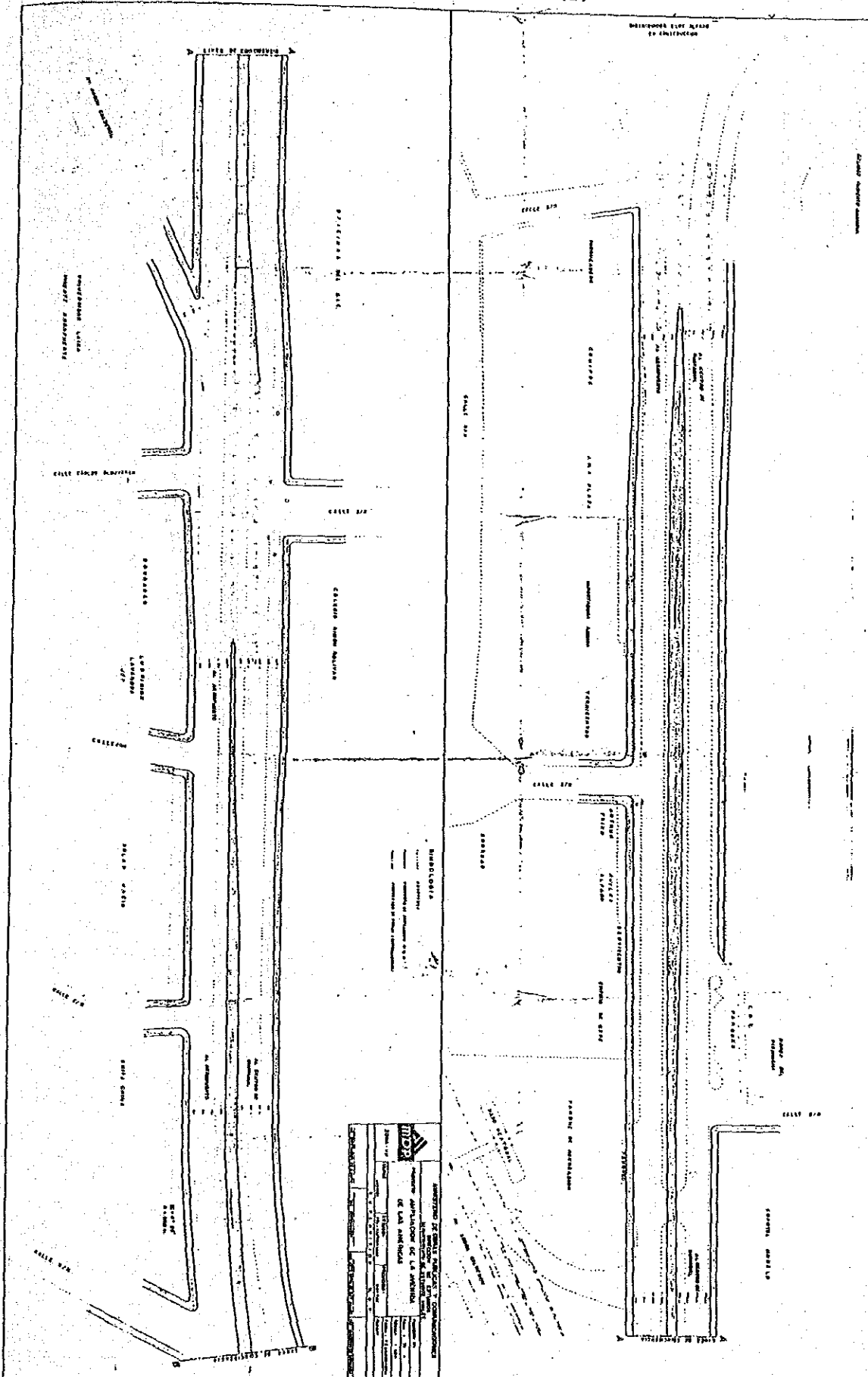


Appendix 1-8 MAJOR FINDINGS OF ROAD IMPROVEMENT PLAN

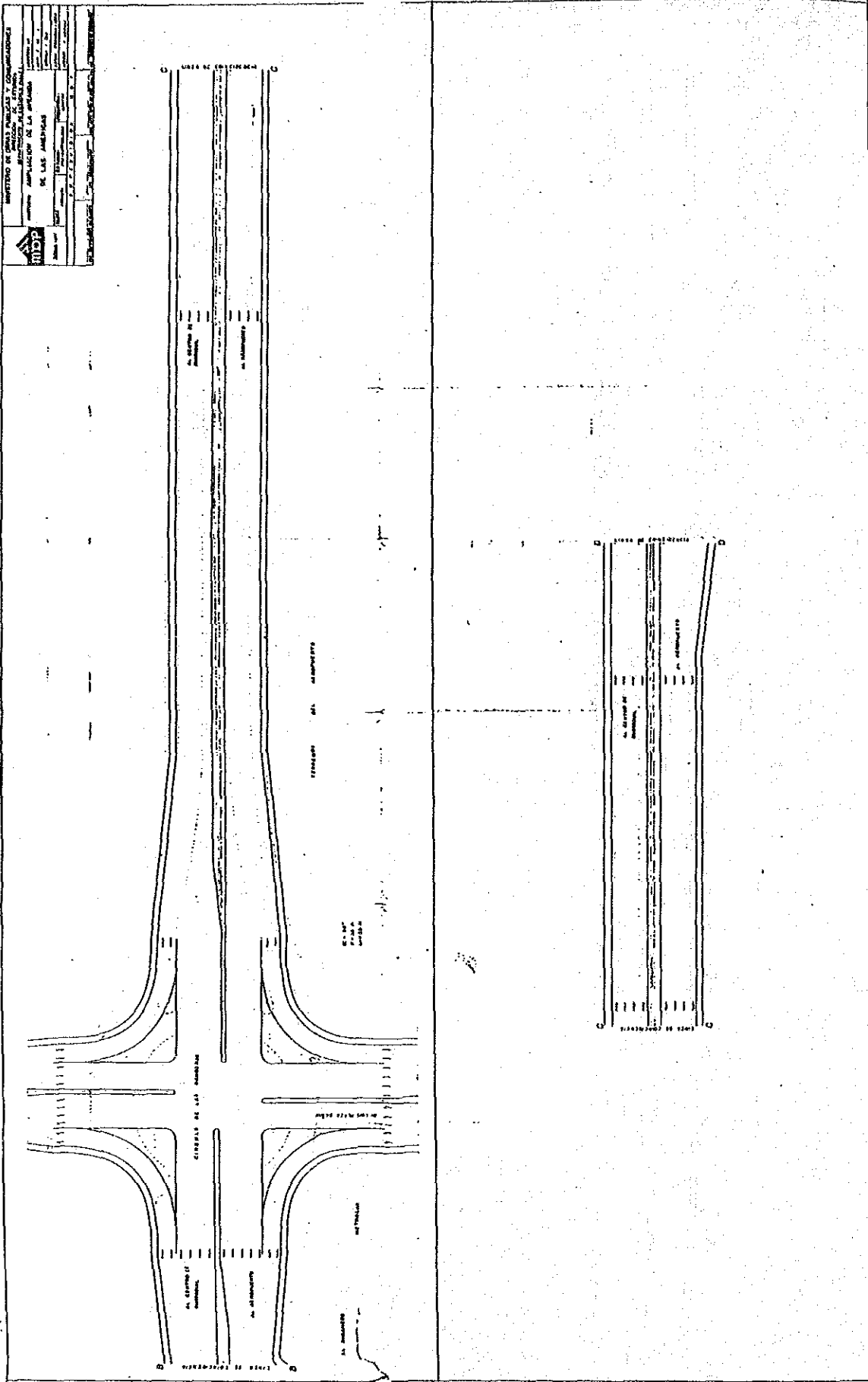
(1) GENERAL PLAN FOR AV. MACHARA, QUITO AND CALLE JULIAN



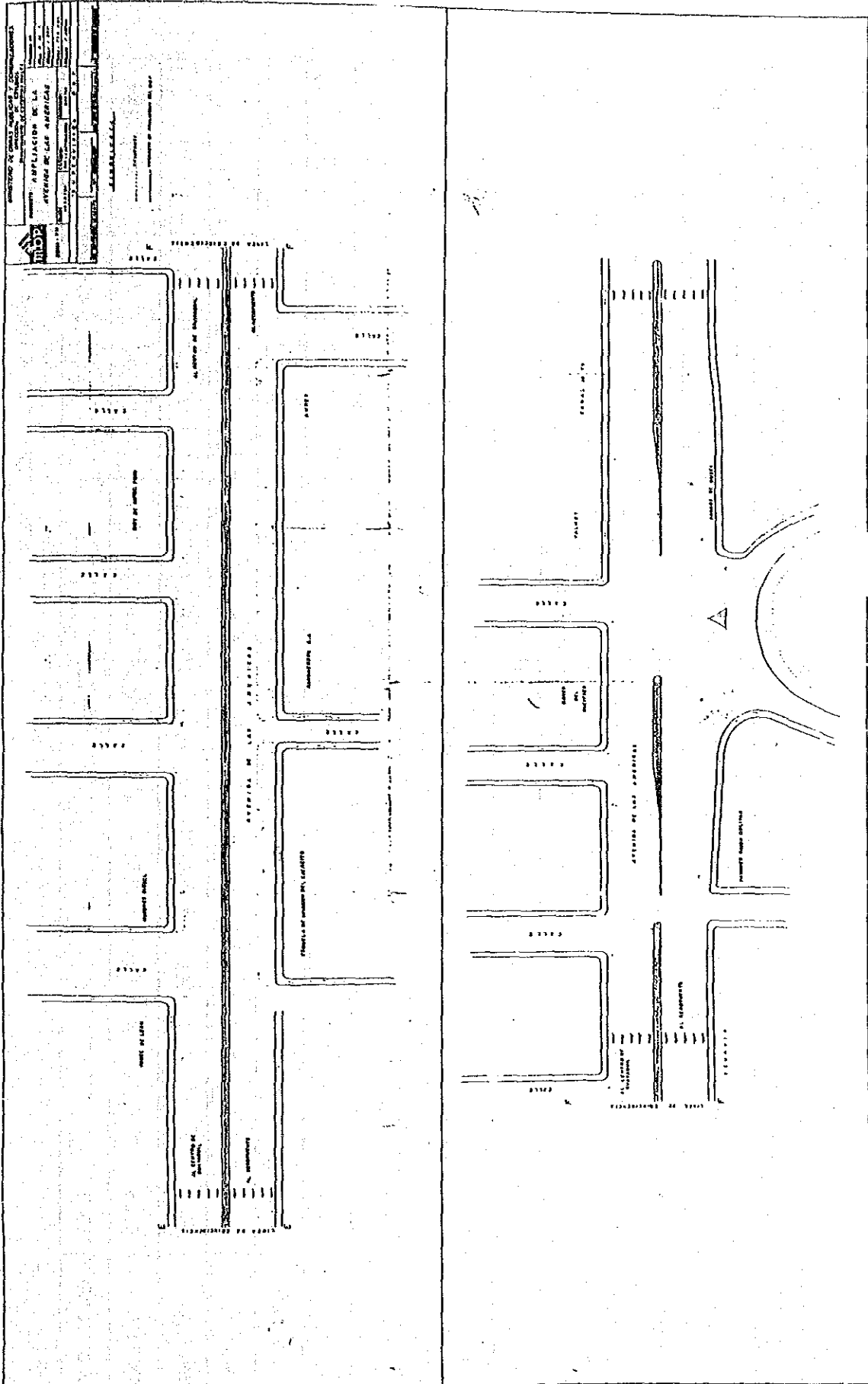
(6) IMPROVEMENT PLAN FOR AV. LAS AMERICAS (1)



(6) IMPROVEMENT PLAN FOR AV. LAS AMERICAS (2)



(6) IMPROVEMENT PLAN FOR AV. LAS AMERICAS (3)



Appendix 1-9 EXAMPLE OF METEOROLOGY DATA IN GUAYAQUIL FOR RECENT 5 YEARS

(1981)

MONTH	TEMPERATURE (°)			HUMIDITY (%)			AIR PRESSURE (Mb)			WIND (Knots)		RAINFALL (MM)	
	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	TOTAL	Great- est in 24 DAYS
JANUARY	26.7	35.2	20.5	68	97	38	1011.1	1015.9	1006.1			117.6	40.6
FEBRUARY	26.2	34.0	21.2	80	97	54	1009.4	1014.1	1002.8			399.4	95.7
MARCH	27.6	34.6	22.8	76	98	43	1010.6	1015.3	1002.6			230.4	67.3
APRIL	27.2	35.8	22.8	74	97	44	1009.8	1015.2	1004.0			95.8	36.5
MAY	25.4	33.6	20.3	72	90	47	1011.4	1015.2	1006.4			0.2	0.2
JUNE	24.4	32.5	19.9	74	89	50	1011.8	1014.9	1007.8			0	
JULY	24.3	33.4	19.8	74	95	42	1011.7	1014.9	1007.4			0.2	0.2
AUGUST	23.7	32.6	18.2	73	92	45	1012.1	1016.1	1006.5			0	
SEPTEMBER	24.7	34.0	19.7	71	88	42	1011.5	1014.5	1006.9			0	
OCTOBER	24.8	34.6	19.2	70	81	38	1011.7	1015.6	1006.2			0	
NOVEMBER	25.2	34.0	20.7	69	86	42	1011.0	1014.8	1005.0			0	
DECEMBER	26.6	35.6	19.8	67	95	34	1010.0	1013.8	1005.4			44.2	23.6
MEAN TOTAL	25.6			72.3			1010.3					887.8	

SOURCE: DIRECTION GENERAL DE AVIACION CIVIL

(1982)

MONTH	TEMPERATURE (°)			HUMIDITY (%)			AIR PRESSURE (Mb)			WIND (Knots)		RAINFALL (MM)	
	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	TOTAL	Great- est in 24 DAYS
JANUARY	27.0	35.9	21.8	71	98	41	1011.0	1015.4	1005.3	6.2	17.0	126.8	55.5
FEBRUARY	27.3	34.0	22.2	73	97	46	1010.5	1014.8	1005.7	5.3	13.0	89.8	17.7
MARCH	27.9	35.4	22.4	66	95	43	1009.9	1015.0	1004.6	6.3	16.0	6.7	3.8
APRIL	27.3	35.5	22.0	69	95	42	1010.8	1015.3	1005.3	6.8	16.0	16.0	6.7
MAY	26.5	34.0	20.8	70	90	47	1011.0	1015.2	1005.7	7.9	17.0	14.1	7.3
JUNE	25.3	35.0	21.0	72	91	41	1011.1	1014.2	1007.0	7.3	18.0	0	
JULY	24.9	32.6	20.6	72	88	45	1010.8	1014.9	1005.8	8.5	20.0	0	
AUGUST	24.2	34.7	19.3	70	92	39	1010.9	1014.1	1005.6	7.8	16.0	0	
SEPTEMBER	25.4	34.4	19.4	68	93	42	1011.3	1015.4	1004.8	7.3	16.0	0.6	0.4
OCTOBER	26.2	34.8	21.6	71	95	45	1010.5	1014.3	1005.8	6.1	16.0	6.3	4.8
NOVEMBER	27.2	34.6	22.5	74	96	46	1008.8	1014.6	1003.8	5.3	18.0	152.3	30.4
DECEMBER	27.2	34.5	23.2	80	98	48	1008.7	1012.9	1003.8	4.4	12.0	255.5	55.8
MEAN TOTAL	26.4			71			1010.4			6.6		668.1	

SOURCE: DIRECTION GENERAL DE AVIACION CIVIL

(1983)

MONTH	TEMPERATURE (°)			HUMIDITY (%)			AIR PRESSURE (Mb)			WIND (Knots)			RAINFALL (MM)		
	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	TOTAL	Great- est in 24	DAYS	
JANUARY	27.1	34.5	22.0	86	98	55	1008.1	1013.5	1002.0	5.2	12.0	601.7	55.3	28	
FEBRUARY	27.6	34.8	23.3	84	98	54	1008.4	1013.9	1003.0	4.9	14.0	539.4	126.0	26	
MARCH	27.8	34.7	23.2	84	98	57	1008.7	1012.9	1003.5	5.1	16.0	830.5	149.3	29	
APRIL	27.6	34.3	23.4	85	97	59	1008.8	1013.5	1003.6	5.2	12.0	606.4	156.2	29	
MAY	27.6	34.6	23.0	83	97	52	1008.3	1013.9	1002.9	4.9	16.0	621.7	164.4	27	
JUNE	27.5	34.2	23.3	82	98	54	1009.4	1013.5	1004.9	4.9	16.0	629.9	111.6	23	
JULY	27.1	33.8	22.7	81	97	53	1009.4	1012.9	1005.1	6.2	16.0	292.5	51.3	22	
AUGUST	26.1	33.5	20.6	75	96	50	1011.4	1015.4	1006.3	7.0	18.0	18.2	12.2	5	
SEPTEMBER	25.5	32.2	20.6	77	96	49	1011.4	1015.0	1006.8	6.2	16.0	18.9	6.2	9	
OCTOBER	25.0	32.7	20.7	76	95	50	1011.3	1014.9	1006.6	7.5	16.0	4.0	2.3	8	
NOVEMBER	25.6	33.8	20.2	74	94	44	1011.5	1015.8	1005.3	7.4	20.0	1.1	0.5	4	
DECEMBER	25.8	34.8	20.7	74	96	43	1011.7	1016.3	1007.0	7.1	15.0	66.4	28.4	13	
MEAN TOTAL	26.7			80			1009.7			5.5		4230.7			

SOURCE: DIRECTION GENERAL DE AVIACION CIVIL

(1984)

MONTH	TEMPERATURE (°)			HUMIDITY (%)			AIR PRESSURE (Mb)			WIND (Knots)		RAINFALL (MM)		
	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	TOTAL	Great- est in 24 DAYS	DAYS
JANUARY	26.9	34.5	21.0	69	92	41	1010.7	1016.3	1005.8	5.5	14.0	14.7	6.1	7
FEBRUARY	26.1	33.7	21.6	80	97	46	1009.1	1013.8	1004.2	3.9	15.0	480.5	80.5	29
MARCH	26.3	34.2	22.0	78	95	45	1009.5	1014.1	1005.4	4.1	16.0	213.8	40.7	21
APRIL	26.9	34.3	22.2	76	97	45	1010.4	1014.7	1005.7	4.3	13.0	156.3	42.9	20
MAY	25.9	33.1	20.8	73	95	46	1010.6	1014.6	1006.5	5.8	16.0	34.0	16.3	9
JUNE	24.6	32.5	20.4	77	95	47	1011.0	1014.9	1006.8	6.6	16.0	3.3	1.5	8
JULY	23.4	32.8	18.5	75	91	47	1011.6	1015.3	1007.1	7.0	12.0	0.1	0.1	2
AUGUST	23.7	32.7	18.9	74	94	46	1011.6	1015.4	1006.8	7.5	17.0	0		
SEPTEMBER	23.9	33.1	18.8	73	92	44	1011.7	1015.5	1006.3	8.1	18.0	0.7	0.3	7
OCTOBER	24.3	33.8	19.8	72	90	42	1011.4	1016.2	1006.5	8.0	18.0	0.7	0.5	6
NOVEMBER	24.8	34.6	19.9	70	90	37	1011.8	1015.5	1007.0	7.2	18.0	0		
DECEMBER	26.5	35.5	20.7	69	95	36	1008.8	1012.8	1003.3	6.0	15.0	42.1	9.7	14
MEAN TOTAL	25.3			74			1010.7			6.2		946.2		

SOURCE: DIRECTION GENERAL DE AVIACION CIVIL

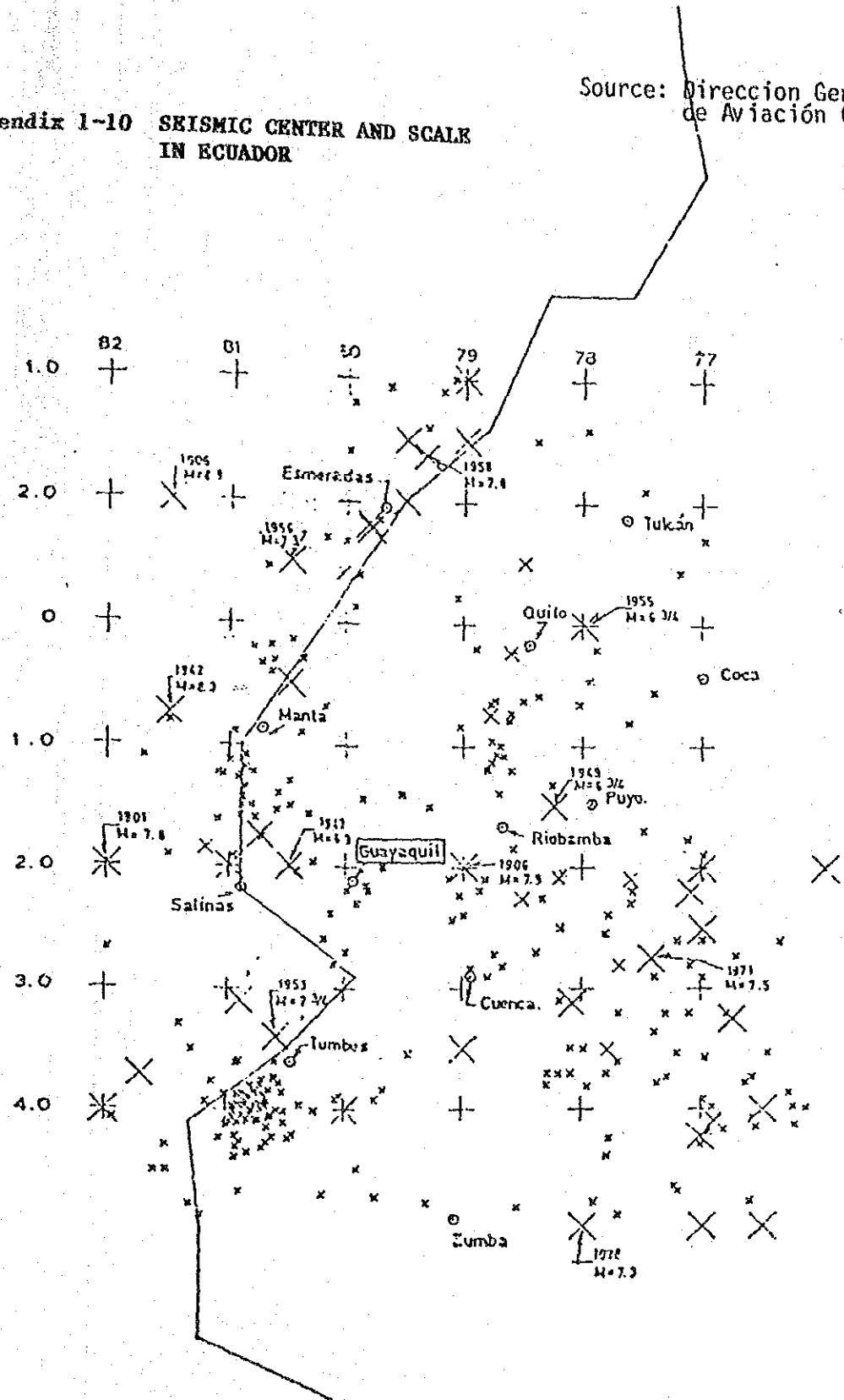
(1985)

MONTH	TEMPERATURE (°)			HUMIDITY (%)			AIR PRESSURE (Mb)			WIND (Knots)		RAINFALL (MM)	
	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	TOTAL	Great- est in 24 DAYS
JANUARY	25.8	34.3	21.0	73	96	41	1011.7	1016.0	1006.9			88.4	28.5
FEBRUARY	26.7	35.0	21.7	71	97	37	1009.6	1014.2	1005.0			95.8	45.1
MARCH	26.8	35.2	22.2	73	97	41	1009.3	1014.8	1003.2			126.0	28.1
APRIL	26.8	35.2	20.8	69	95	43	1010.1	1014.6	1005.9			28.2	11.0
MAY	25.6	33.8	19.4	68	94	42	1010.6	1015.3	1005.5			7.3	3.7
JUNE	24.7	34.6	20.0	73	90	40	1011.1	1014.9	1005.4			0	
JULY	23.0	32.5	17.6	74	91	48	1012.2	1015.5	1008.1			0	
AUGUST	23.3	31.1	18.8	14	71	45	1012.1	1015.7	1008.3			0	
SEPTEMBER	23.9	33.6	17.6	70	91	43	1011.4	1016.1	1006.7			0	
OCTOBER													
NOVEMBER													
DECEMBER													
MEAN TOTAL													

SOURCE: DIRECTION GENERAL DE AVIACION CIVIL

Appendix 1-10 SEISMIC CENTER AND SCALE
IN ECUADOR

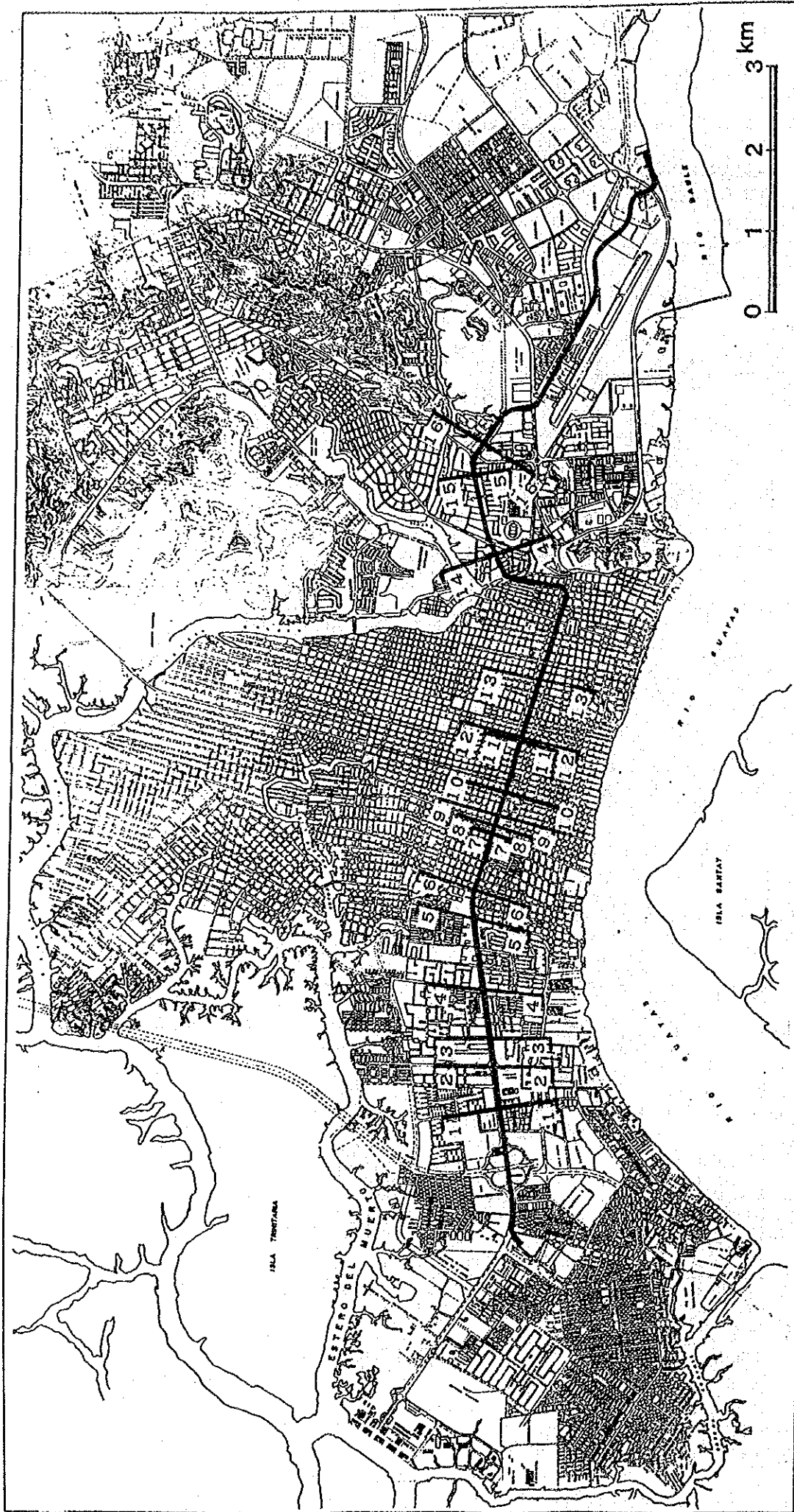
Source: Direccion General
de Aviación Civil



X M \geq 6
 x M $<$ 6

M = Magnitude .

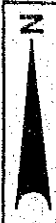
Appendix 1-11 LOCATION OF OBSTACLES ALONG MRT ROUTE (1)



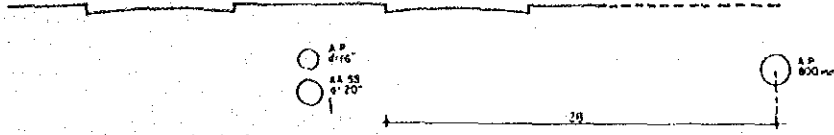
THE FEASIBILITY STUDY ON GUAYAQUIL
CITY URBAN TRANSPORTATION PLAN
IN THE REPUBLIC OF ECUADOR

Appendix 1-11
LOCATION OF OBSTACLES ALONG MRT ROUTE (1)

JAPAN INTERNATIONAL COOPERATION AGENCY

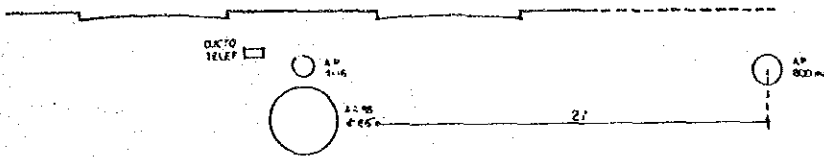


AV. 25 DE JULIO
CALLE LOS ESTEROS



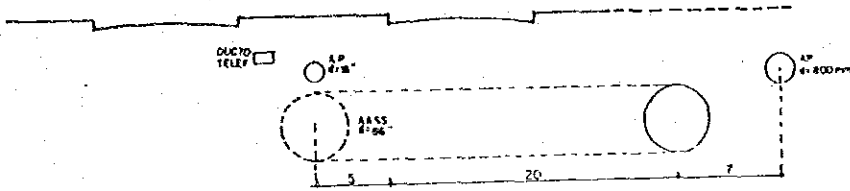
SECCION 1-1

AV. PIO JARAMILLO (Prodera BEV)



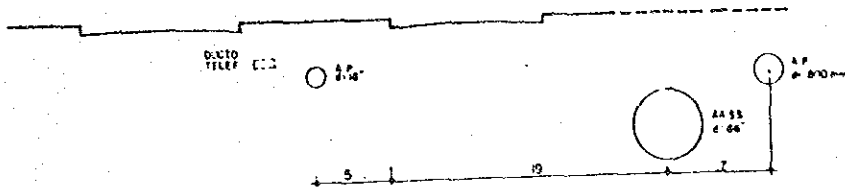
SECCION 2-2

CALLE ONCE (calle Nueva de Octubre)



SECCION 3-3

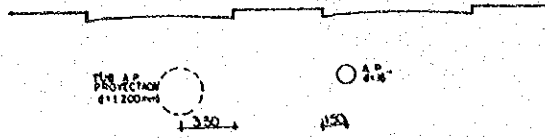
CALLE PEDRO BOLOÑA



SECCION 4-4

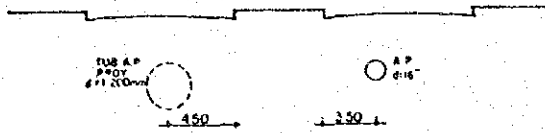
<p>THE FEASIBILITY STUDY ON GUAYAQUIL CITY URBAN TRANSPORTATION PLAN IN THE REPUBLIC OF ECUADOR</p>	
<p>LOCATION OF OBSTACLES ALONG MRT ROUTE (2)</p>	
<p>JAPAN INTERNATIONAL COOPERATION AGENCY</p>	

AV. QUITO
CALLE BOLIVIA



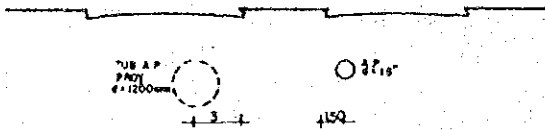
SECCION 9-9

CALLE VENEZUELA



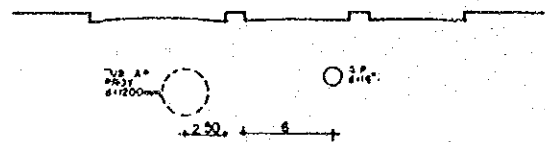
SECCION 10-10

CALLE GOMEZ RENDON (Sur)



SECCION 11-11

CALLE GOMEZ RENDON (Norte)



SECCION 12-12

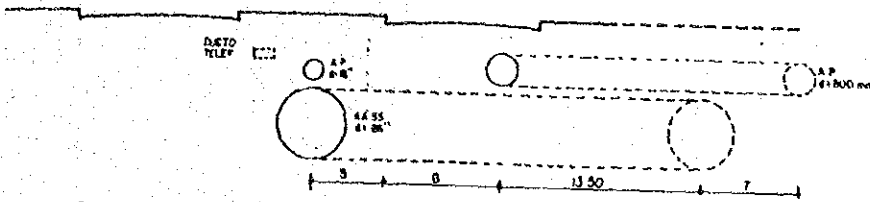
THE FEASIBILITY STUDY ON GUAYAQUIL
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IN THE REPUBLIC OF ECUADOR



LOCATION OF OBSTACLES ALONG MRT ROUTE (3)

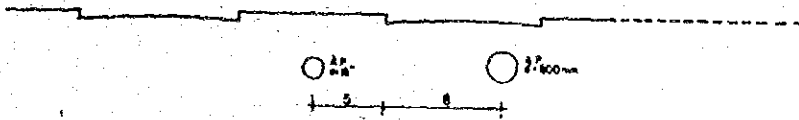
JAPAN INTERNATIONAL COOPERATION AGENCY

CALLE AURORA ESTRADA



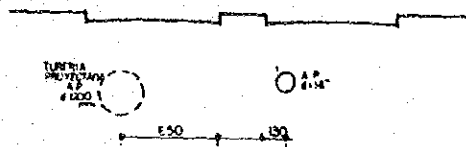
SECCION 5-5

CALLE FRANCISCO SEGURA



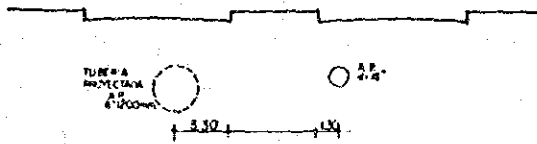
SECCION 6-6

CALLE EL ORO (Sul)



SECCION 7-7

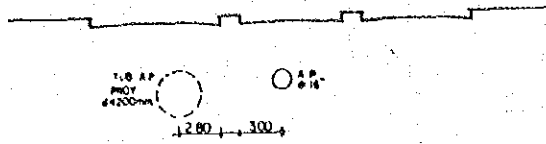
AV. QUITO
CALLE EL ORO (Norte)



SECCION 8-8

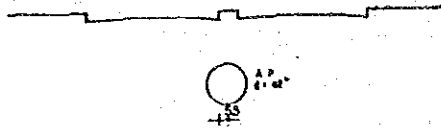
THE FEASIBILITY STUDY ON GUAYAQUIL CITY URBAN TRANSPORTATION PLAN IN THE REPUBLIC OF ECUADOR	N
LOCATION OF OBSTACLES ALONG MRT ROUTE (4)	
JAPAN INTERNATIONAL COOPERATION AGENCY	

CALLE COLON



SECCION 13-13

AV DELTA (Frente Univ. de Guayaquil)



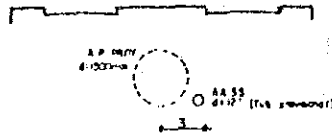
SECCION 14-14

AV. SAN JORGE (Edif. Kennedy)



SECCION 15-15

AV SAN JORGE OVERPASS (Entre ABSC. 10+680m - 11+160m)
AV FRANCISCO DE ORELLANA (proy.)



SECCION 16-16

THE FEASIBILITY STUDY ON GUAYAQUIL CITY URBAN TRANSPORTATION PLAN IN THE REPUBLIC OF ECUADOR	N
LOCATION OF OBSTACLES ALONG MRT ROUTE (5)	
JAPAN INTERNATIONAL COOPERATION AGENCY	