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C.M.B. ROUTE NO. 21

TAI KOO SHING TO HILLIER STREET (CIRCULAR)



JOB NO. 550

by

Y.M. Leung

Chief Engineer: Y.L. CHOI

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AUTHOR NO. T7; 2
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1. Introduction

This report is one of a series containing the results of surveys of the level of service provided by the franchised public bus companies. It deals with general aspects of the service such as the routing, bus stop location, bus stop usage and journey times, provided by C.M.B. Route No. 21 which is approximately 18.5 kilometres long and serves between Tai Koo Shing and Central (Hillier Street).

2. Method of Survey

2.1 The details of the bus schedules were obtained from the Transport Department. Other details of the route were obtained by direct observation.

2.2 The main survey was carried out on Tuesday, 5th June 1979. To obtain information on the usage of bus stops two observers boarded every second bus departing from the terminus, and recorded the number of passengers boarding and alighting from the sampled bus. These observations were carried out for a 13-hour period from 0700 to 2000 hours. The "on-bus" observer also recorded the time of arrival and departure at the terminus and at the intermediate bus stops. Bus speeds along sections of the route and terminus to terminus journey times were calculated from the data.

2.3 In addition, two observers were stationed at the terminus to guide the "on-bus" teams and to record the types of bus and their capacity as well as the departure times of all buses from the terminus.

3. Contents of Tables

3.1 The routing and details of the official bus schedule and the fare charged are shown in Table 1.

3.2 Table 2 is a record of the hourly bus departures from the terminus.

3.3.1 One in every two buses leaving the terminus was surveyed and the resultant boarding/alighting passenger counts were calculated in the ratio of the number of buses leaving in any hour to the number sampled in the same hour. The results are summarised in Table 3 to show the hourly average and the 13-hour total passenger volumes at each stop. As there is a considerable variation not only in bus stop usage throughout the day but also in the period during which the maximum usage occurs at individual stops along the route, the peak hour and the corresponding passenger volumes for each stop are shown in the same tables.

3.3.2 Supplementary Table S 3 indicates in greater detail, the passenger usage characteristics of each stop during every hour of the survey period in addition to such information as distance between stops, total number of passengers on board at each stop and the total capacity of buses based on actual departures from the terminus.

3.4 Bus occupancy refers to the total number of passengers actually on board all buses leaving a bus stop in the specified period divided by the total registered capacity of all buses leaving at the same period the result being expressed in terms of percentage of full load between each stop in every hour during the 13-hour survey. The hourly and daily average of passenger trip length is also shown in Table 4.

3.5 Journey times which varied throughout the day, were derived from the bus departure and arrival times at the terminus. The average journey time and the maximum and minimum journey times in each hour are summarised in Table 5. The Standard Deviation from the equivalent 13-hour average is given at the foot of each table.

3.6 Mean journey speeds over sections of the route were derived from the bus departure times at selected stops. Details are shown in Table 6 which indicate the variation of bus speeds in different areas due to traffic congestion.

3.7 Mean running speeds over sections of the route were derived from the difference between the sum of the journey times for the sections and the sum of the times spent at bus stop divided by the length of the section. Details of figures are shown in Table 7.

3.8 The average layover time and the maximum and minimum layover time in each hour throughout the day are summarised in Table 8.

3.9 Comparison of the Required and Observed Vehicle Trips and Allocation for the terminus are shown in Table 9.

3.10 A list of the facilities provided at each bus-stop is shown in Appendix.

3.11 Figure 1 is a route plan showing all bus stop locations. Details of the layout of the terminus are shown in Figure 2.

4. Results of Survey

The detailed results of the survey are contained in Tables 1 to 3. The main findings are as follows:-

4 The daily total of actual bus departures was 98% of the scheduled departures from Tai Koo Shing Terminus.

4.2 The 13-hour daily passenger volume was 8110.

4.3 The highest average hourly occupancy exceeded 107% and occurred between Tai Koo Shing Terminus and Stop Nos. 9 during the period 0800-0900 hours and also between Stop Nos. 26 and 34 (from Central to Causeway Bay) during the period 1700-1800 hours in the opposite direction.

4.4 The average passenger trip length of this route was about 6.2 kilometres.

4.5 The longest hourly average journey time and the corresponding journey speed for a round trip were 81.2 minutes and 13.9 km/h respectively for buses departing between 0800 and 0900 hours.

4.6 The longest hourly average layover time at terminus was 18.5 minutes and occurred between 0700 and 0800 hours.

5. Remarks

5.1 Compliance with the scheduled number of departures was good (98%). However, the frequency varied considerably from the scheduled 15 minutes, the minimum observed headway being 4 minutes and the maximum 33 minutes.

5.2 The number of buses allocated to this route by CMB is 8 according to the Company's monthly returns and the theoretical minimum to operate the schedule is 5. The total number of vehicles observed on the route on the day of survey in the morning period was 11. However, 6 of these only completed one-half journey (from Tai Koo Shing to Central only) during the a.m. peak and the route was served by 5 buses for the rest of the day. Because the journeys made by the above 6 buses were incomplete, they do not appear in the tables or contents of the report.

5.3 As overloading occurs on this route between Tai Koo Shing and Causeway Bay in the westbound direction in the morning peak period, it is obvious that there is considerable demand for additional services on this route over and above the 6 supplementary trips put into service on the survey day. Overloading also occurs during the evening peak period from Central to North Point. It would appear that the schedule should be amended during morning and evening peak periods to provide a better service for commuters.

TABLE : ROUTE, TIMETABLE AND FARE

ROUTE

TAIKOO SHING to HILLIER STREET (CIRCULAR): via Taikoo Shing Road, King's Road, Tsing Fung Street flyover, Victoria Park Road, Waterfront Road, Gloucester Road, Fenwick Street, Hennessy Road, Queensway, Des Voeux Road Central, Jubilee Street, Queen's Road West, Bonham Strand, Hillier Street, Des Voeux Road Central, Queensway, Arsenal Street, flyover, Waterfront Road, Victoria Park Road, Wing Hing Street, King's Road, Shau Kei Wan Road and Taikoo Shing Road.

TIMETABLE

<u>From Taikoo Shing</u>	<u>Frequency</u> (minutes)
7.00 a.m. to 7.00 p.m.	15

FARETABLE

50 cents per Single Journey

No half fare for children

Student Monthly Tickets, Half Fare Passes and Bus Coupons are not valid.

JOURNEY DISTANCE

18.5 km (11.5 miles)

(Taikoo Shing to Hillier Street - 9.5 km (5.9 miles))

JOURNEY TIME

75 minutes (including layover)

VEHICLE ALLOCATION/CARRYING CAPACITY

Double Deckers 57 to 107 seaters

Minimum number of passengers that can be carried during a peak hour: 480

Approved for one-man operation.

1st May, 1978

TABLE 2 FREQUENCY AND REGULARITY OF SERVICE

ROUTE NO : CMB 21
 DATE OF SURVEY : 5- 6-1979
 TERMINUS : TAIKOO SHING

HOUR	SCHEDULED FREQUENCY (MINUTES)	SCHEDULED DEPARTURE (VEH. TRIP)	OBSERVED DEPARTURE (VEH. TRIP)	OBSERVED HEADWAYS (MINUTES)			COMPLIANCE WITH SCHEDULE	INDEX
				MAX.	MIN.	AVE.		
7	15.0	4	4(5)	17	4	11.3	0.58	
8	15.0	4	5(1)	25	9	16.0	0.61	
9	15.0	4	2	29	18	23.5	0.33	
10	15.0	4	4	16	13	14.8	0.91	
11	15.0	4	3	33	13	20.0	0.30	
12	15.0	4	4	17	14	15.0	0.92	
13	15.0	4	4	17	14	15.3	0.93	
14	15.0	4	5	17	9	13.0	0.75	
15	15.0	4	4	20	11	14.0	0.75	
16	15.0	4	4	16	13	14.5	0.92	
17	15.0	4	4	17	14	15.3	0.93	
18	15.0	4	4	17	13	15.0	0.89	
19	15.0	1	1	16	16	16.0	0.93	
20	0.0	0	0	0	0	0.0	0.00	
21	0.0	0	0	0	0	0.0	0.00	
22	0.0	0	0	0	0	0.0	0.00	
DAILY		49	48(6)	33	4	15.2		

Note:-

Figures in brackets were no. of supplementary trips from Tai Koo Shing to Central only.

TABLE 3 / 1 NO. OF PASSENGERS BOARDING AND ALIGHTING AT EACH STOP

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	PASSENGER VOLUME			PASSENGER VOLUME			HOUR	PEAK HOUR		
	13 HOUR PERIOD			AVE. PER HOUR				BOARD	ALIGHT	TOTAL
	BOARD	ALIGHT	TOTAL	BOARD	ALIGHT	TOTAL		BOARD	ALIGHT	TOTAL
0.00	1898	0	1898	146	0	146	8	649	0	649
0.01	361	0	361	28	0	28	10	62	0	62
0.02	244	2	246	19	0	19	12	40	0	40
0.03	0	0	0	0	0	0	0	0	0	0
0.04	135	11	146	10	1	11	18	32	0	32
0.05	234	16	250	18	1	19	10	54	0	54
0.06	67	9	76	5	1	6	10	26	0	26
0.07	121	11	132	9	1	10	17	40	0	40
0.08	124	14	138	10	1	11	18	24	2	26
0.09	292	22	314	22	2	24	18	76	0	76
0.10	33	18	51	3	1	4	7	14	3	17
0.11	185	135	320	14	10	25	12	20	40	60
0.12	99	106	205	8	8	16	10	12	28	40
0.13	163	120	283	13	9	22	10	34	8	42
0.14	76	34	110	6	3	8	7	15	10	25
0.15	51	30	81	4	2	6	11	13	2	15
0.16	102	389	491	8	30	38	7	0	87	87
0.17	8	321	329	1	25	25	18	0	50	50
0.18	8	76	84	1	6	6	18	0	14	14
0.19	6	45	51	0	3	4	16	0	10	10
0.20	22	150	172	2	12	13	9	0	47	47
0.21	14	159	173	1	12	13	7	0	38	38
0.22	0	129	129	0	10	10	7	0	63	63

TABLE 3 / 2 NO. OF PASSENGERS BOARDING AND ALIGHTING AT EACH STOP

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	PASSENGER VOLUME						HOUR	PEAK HOUR		
	13 HOUR PERIOD			AVE. PER HOUR				BOARD	ALIGHT	TOTAL
	BOARD	ALIGHT	TOTAL	BOARD	ALIGHT	TOTAL				
0.23	5	757	762	0	58	59	8	0	128	128
0.24	9	813	822	1	63	63	7	0	146	146
0.25	4	502	506	0	39	39	7	0	61	61
0.26	2529	505	3034	195	39	233	18	506	48	554
0.27	130	0	130	10	0	10	16	22	0	22
0.28	173	0	173	13	0	13	14	42	0	42
0.29	137	3	140	11	0	11	16	62	0	62
0.30	199	28	227	15	2	17	16	50	6	56
0.31	24	16	40	2	1	3	12	4	6	10
0.32	0	19	19	0	1	1	14	0	8	8
0.33	9	41	50	1	3	4	15	0	18	18
0.34	68	224	292	5	17	22	17	8	52	60
0.35	63	90	153	5	7	12	17	18	18	36
0.36	130	209	339	10	16	26	8	40	8	48
0.37	129	293	422	10	23	32	18	22	70	92
0.38	125	215	340	10	17	26	18	46	34	80
0.39	35	17	52	3	1	4	12	14	2	16
0.40	9	176	185	1	14	14	19	0	33	33
0.41	34	146	180	3	11	14	8	4	68	72
0.42	19	227	246	1	17	19	18	2	52	54
0.43	21	413	434	2	32	33	18	4	128	132
0.44	4	495	499	0	38	38	18	4	108	112
0.45	2	471	473	0	36	36	17	0	116	116
0.46	4	207	211	0	16	16	19	0	40	40

TABLE 3 / 3 NO. OF PASSENGERS BOARDING AND ALIGHTING AT EACH STOP

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	PASSENGER VOLUME						HOUR	PEAK HOUR		
	13 HOUR PERIOD			AVE. PER HOUR				BOARD	ALIGHT	TOTAL
	BOARD	ALIGHT	TOTAL	BOARD	ALIGHT	TOTAL		BOARD	ALIGHT	TOTAL
0.47	4	41	45	0	3	3	19	0	26	26
0.48	1	384	385	0	30	30	18	0	98	98
0.49	0	29	29	0	2	2	14	0	13	13
0.50	0	86	86	0	7	7	14	0	29	29
TOTAL	8110			624						

TABLE S3 / 1 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	7 - 8 HOUR					8 - 9 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	476	0	476	476	484	649	0	649	649	606
0.01	0.13	32	0	32	508	484	0	0	0	649	606
0.02	0.23	0	0	0	508	484	0	0	0	649	606
0.03	0.45	0	0	0	508	484	0	0	0	649	606
0.04	0.29	0	0	0	508	484	0	3	3	646	606
0.05	0.18	0	0	0	508	484	0	0	0	646	606
0.06	0.27	0	0	0	508	484	0	0	0	646	606
0.07	0.22	0	9	9	625	605	0	0	0	646	606
0.08	0.42	0	1	1	624	605	0	0	0	646	606
0.09	0.27	8	12	20	620	605	0	3	3	643	606
0.10	0.28	14	3	17	631	605	0	0	0	643	606
0.11	0.30	32	19	51	644	605	0	8	8	635	606
0.12	0.24	2	2	4	644	605	0	5	5	630	606
0.13	0.47	0	15	15	629	605	0	0	0	630	606
0.14	0.20	15	10	25	634	605	0	3	3	627	606
0.15	1.02	0	3	3	631	605	0	5	5	622	606
0.16	1.19	0	87	87	544	605	20	40	60	602	606
0.17	0.17	0	42	42	502	605	0	13	13	589	606
0.18	0.21	1	6	7	497	605	0	10	10	579	606
0.19	0.06	0	0	0	497	605	0	0	0	300	303
0.20	0.33	0	31	31	466	605	0	13	13	287	303
0.21	0.74	0	38	38	428	605	0	5	5	282	303
0.22	0.32	0	63	63	365	605	0	15	15	267	303
0.23	0.39	0	107	107	258	605	0	128	128	139	303

TABLE S3 / 2 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	7 - 8 HOUR					8 - 9 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	146	146	112	605	0	85	85	54	303
0.25	0.33	0	61	61	51	605	0	30	30	24	303
0.26	0.32	187	51	238	187	605	109	23	132	110	303
0.27	0.36	4	0	4	191	605	13	0	13	123	303
0.28	0.42	7	0	7	198	605	0	0	0	123	303
0.29	1.05	1	1	2	74	121	7	0	7	254	787
0.30	0.63	16	0	16	90	121	48	0	48	176	484
0.31	0.53	1	0	1	91	121	8	0	8	184	484
0.32	0.95	0	0	0	91	121	0	0	0	184	484
0.33	0.71	1	1	2	91	121	8	0	8	192	484
0.34	0.32	8	4	12	95	121	32	20	52	204	484
0.35	0.34	8	0	8	103	121	12	12	24	204	484
0.36	0.32	17	5	22	115	121	40	8	48	236	484
0.37	0.45	2	7	9	110	121	32	8	40	260	484
0.38	0.16	2	9	11	103	121	20	20	40	260	484
0.39	0.23	0	1	1	102	121	0	4	4	256	484
0.40	0.22	1	2	3	101	121	0	8	8	248	484
0.41	0.45	3	6	9	98	121	4	68	72	184	484
0.42	0.36	1	19	20	80	121	0	8	8	176	484
0.43	0.27	0	12	12	68	121	4	32	36	148	484
0.44	0.67	0	35	35	33	121	0	92	92	56	484
0.45	0.15	2	9	11	26	121	0	24	24	32	484
0.46	0.08	0	0	0	26	121	0	8	8	24	484
0.47	0.06	0	0	0	26	121	0	0	0	24	484

TABLE S3 / 3 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	7 - 8 HOUR					8 - 9 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	1	23	24	4	121	0	16	16	8	484
0.49	0.28	0	0	0	4	121	0	0	0	8	484
0.50	0.00	0	4	4	0	121	0	8	8	0	484
TOTAL 18.82		842	844	1686			1006	725	1731		

TABLE S3 / 4 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	9 - 10 HOUR					10 - 11 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	94	0	94	94	121	60	0	60	60	484
0.01	0.13	14	0	14	108	121	62	0	62	122	484
0.02	0.23	13	0	13	121	121	28	0	28	150	484
0.03	0.45	0	0	0	121	121	0	0	0	150	484
0.04	0.29	0	0	0	121	121	14	0	14	164	484
0.05	0.18	0	0	0	121	121	54	0	54	218	484
0.06	0.27	1	0	1	122	121	26	0	26	244	484
0.07	0.22	0	0	0	122	121	12	0	12	256	484
0.08	0.42	0	0	0	122	121	16	0	16	272	484
0.09	0.27	0	0	0	122	121	18	0	18	290	484
0.10	0.28	0	2	2	120	121	6	2	8	294	484
0.11	0.30	0	10	10	110	121	42	6	48	330	484
0.12	0.24	3	1	4	112	121	12	28	40	314	484
0.13	0.47	1	3	4	110	121	34	8	42	340	484
0.14	0.20	5	0	5	115	121	0	0	0	340	484
0.15	1.02	0	0	0	115	121	2	2	4	340	484
0.16	1.19	0	5	5	110	121	14	38	52	316	484
0.17	0.17	0	3	3	107	121	0	32	32	284	484
0.18	0.21	1	1	2	107	121	0	6	6	278	484
0.19	0.06	0	5	5	381	424	4	0	4	282	484
0.20	0.33	0	47	47	334	424	0	4	4	278	484
0.21	0.74	0	9	9	325	424	4	10	14	272	484
0.22	0.32	0	15	15	310	424	0	6	6	266	484
0.23	0.39	0	99	99	211	424	0	66	66	200	484

TABLE S3 / 5 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	9 - 10 HOUR					10 - 11 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	99	99	112	424	0	102	102	98	484
0.25	0.33	0	55	55	57	424	0	56	56	42	484
0.26	0.32	30	38	68	32	303	74	33	107	74	363
0.27	0.36	3	0	3	35	303	9	0	9	83	363
0.28	0.42	0	0	0	35	303	9	0	9	92	363
0.29	1.05	0	0	0	35	303	6	0	6	98	363
0.30	0.63	8	0	8	169	606	0	0	0	98	363
0.31	0.53	0	0	0	169	606	1	0	1	99	363
0.32	0.95	0	0	0	169	606	0	1	1	98	363
0.33	0.71	0	5	5	164	606	0	1	1	97	363
0.34	0.32	0	20	20	144	606	0	15	15	82	363
0.35	0.34	0	3	3	141	606	0	2	2	80	363
0.36	0.32	13	6	19	148	606	0	0	0	12	121
0.37	0.45	0	6	6	142	606	1	0	1	13	121
0.38	0.16	5	18	23	129	606	0	1	1	12	121
0.39	0.23	5	0	5	134	606	0	0	0	12	121
0.40	0.22	0	13	13	121	606	0	0	0	12	121
0.41	0.45	0	13	13	108	606	0	1	1	11	121
0.42	0.36	0	23	23	85	606	0	0	0	11	121
0.43	0.27	0	18	18	67	606	0	3	3	8	121
0.44	0.67	0	28	28	39	606	0	4	4	4	121
0.45	0.15	0	15	15	24	606	0	1	1	3	121
0.46	0.08	0	8	8	16	606	0	0	0	3	121
0.47	0.06	0	0	0	16	606	0	0	0	3	121

TABLE S3 / 6 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 10 : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	9 - 10 HOUR					10 - 11 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	0	13	13	3	606	0	2	2	1	121
0.49	0.28	0	0	0	3	606	0	0	0	1	121
0.50	0.00	0	3	3	0	606	0	1	1	0	121
TOTAL 18.82		196	584	780			508	431	939		

TABLE S3 / 7 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	11 - 12 HOUR					12 - 13 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	67	0	67	67	364	90	0	90	90	484
0.01	0.13	26	0	26	93	364	48	0	48	138	484
0.02	0.23	22	0	22	115	364	40	0	40	178	484
0.03	0.45	0	0	0	115	364	0	0	0	178	484
0.04	0.29	17	2	19	130	364	16	4	20	190	484
0.05	0.18	23	0	23	153	364	36	8	44	218	484
0.06	0.27	2	0	2	155	364	6	0	6	224	484
0.07	0.22	7	0	7	162	364	16	0	16	240	484
0.08	0.42	9	0	9	171	364	18	0	18	258	484
0.09	0.27	11	0	11	182	364	38	2	40	294	484
0.10	0.28	0	2	2	180	364	0	0	0	294	484
0.11	0.30	10	5	15	185	364	20	40	60	274	484
0.12	0.24	14	11	25	188	364	18	20	38	272	484
0.13	0.47	17	7	24	198	364	16	24	40	264	484
0.14	0.20	7	2	9	203	364	6	6	12	264	484
0.15	1.02	13	2	15	214	364	4	4	8	264	484
0.16	1.19	17	15	32	216	364	14	36	50	242	484
0.17	0.17	0	11	11	205	364	0	26	26	216	484
0.18	0.21	2	6	8	201	364	0	4	4	212	484
0.19	0.06	0	0	0	201	364	0	2	2	210	484
0.20	0.33	2	10	12	193	364	0	12	12	198	484
0.21	0.74	0	9	9	184	364	0	16	16	182	484
0.22	0.32	0	6	6	178	364	0	4	4	178	484
0.23	0.39	0	40	40	138	364	0	58	58	120	484

TABLE S3 / 8 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	11 - 12 HOUR					12 - 13 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	41	41	97	364	0	44	44	76	484
0.25	0.33	0	32	32	65	364	0	46	46	30	484
0.26	0.32	84	64	142	85	424	96	39	135	99	424
0.27	0.36	13	0	13	98	424	5	0	5	104	424
0.28	0.42	9	0	9	107	424	23	0	23	127	424
0.29	1.05	11	0	11	118	424	11	0	11	138	424
0.30	0.63	28	2	30	144	424	18	4	22	152	424
0.31	0.53	0	0	0	76	242	4	6	10	218	606
0.32	0.95	0	0	0	76	242	0	6	6	212	606
0.33	0.71	0	0	0	76	242	0	4	4	208	606
0.34	0.32	2	8	10	70	242	7	8	15	207	606
0.35	0.34	2	0	2	72	242	4	7	11	204	606
0.36	0.32	0	8	8	132	484	5	24	29	185	606
0.37	0.45	10	12	22	130	484	5	20	25	170	606
0.38	0.16	4	16	20	118	484	4	17	21	157	606
0.39	0.23	0	2	2	116	484	14	2	16	169	606
0.40	0.22	2	8	10	110	484	4	16	20	157	606
0.41	0.45	4	2	6	112	484	3	4	7	156	606
0.42	0.36	0	6	6	106	484	8	32	40	132	606
0.43	0.27	4	34	38	76	484	3	18	21	57	364
0.44	0.67	0	20	20	56	484	0	10	10	47	364
0.45	0.15	0	6	6	50	484	0	14	14	33	364
0.46	0.08	0	14	14	36	484	0	10	10	23	364
0.47	0.06	0	0	0	36	484	2	3	5	22	364

TABLE S3 / 9 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP BETWEEN REF. STOPS NO. (KM)	DISTANCE	11 - 12 HOUR					12 - 13 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	0	22	22	14	484	0	14	14	8	364
0.49	0.28	0	0	0	14	484	0	8	8	0	364
0.50	0.00	0	14	14	0	484	0	0	0	0	364
TOTAL	18.82	439	439	878			602	622	1224		

TABLE S3 /10 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	13 - 14 HOUR					14 - 15 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	158	0	158	158	484	80	0	80	80	606
0.01	0.13	40	0	40	198	484	36	0	36	116	606
0.02	0.23	16	0	16	214	484	31	0	31	147	606
0.03	0.45	0	0	0	214	484	0	0	0	147	606
0.04	0.29	4	2	6	216	484	20	0	20	167	606
0.05	0.18	6	4	10	218	484	23	0	23	190	606
0.06	0.27	6	2	8	222	484	10	3	13	197	606
0.07	0.22	2	2	4	222	484	8	0	8	205	606
0.08	0.42	10	8	18	224	484	16	3	19	218	606
0.09	0.27	14	0	14	238	484	48	3	51	263	606
0.10	0.28	2	0	2	240	484	0	5	5	258	606
0.11	0.30	20	8	28	252	484	31	16	47	273	606
0.12	0.24	10	10	20	252	484	20	6	26	287	606
0.13	0.47	16	6	22	262	484	21	8	29	300	606
0.14	0.20	4	4	8	262	484	11	0	11	311	606
0.15	1.02	6	6	12	262	484	8	0	8	319	606
0.16	1.19	0	30	30	232	484	5	16	21	308	606
0.17	0.17	0	32	32	200	484	0	38	38	270	606
0.18	0.21	0	8	8	192	484	0	3	3	267	606
0.19	0.06	0	0	0	192	484	0	6	6	261	606
0.20	0.33	4	4	8	192	484	8	3	11	266	606
0.21	0.74	0	12	12	180	484	0	13	13	253	606
0.22	0.32	0	4	4	176	484	0	8	8	245	606
0.23	0.39	0	34	34	142	484	3	88	91	160	606

TABLE S3 /11 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	13 - 14 HOUR					14 - 15 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	52	52	90	484	3	73	76	90	606
0.25	0.33	0	42	42	48	484	0	33	33	57	606
0.26	0.32	160	62	222	160	726	155	51	206	161	606
0.27	0.36	18	0	18	156	484	10	0	10	129	545
0.28	0.42	24	0	24	180	484	42	0	42	171	545
0.29	1.05	20	0	20	200	484	0	0	0	171	545
0.30	0.63	30	6	36	224	484	0	4	4	167	545
0.31	0.53	8	2	10	230	484	0	0	0	167	545
0.32	0.95	0	2	2	228	484	0	8	8	159	545
0.33	0.71	0	4	4	224	484	0	6	6	153	545
0.34	0.32	2	12	14	214	484	3	5	8	151	545
0.35	0.34	0	6	6	208	484	0	3	3	148	545
0.36	0.32	2	12	14	198	484	0	10	10	138	545
0.37	0.45	18	14	32	202	484	8	24	32	122	545
0.38	0.16	6	12	18	196	484	5	7	12	120	545
0.39	0.23	2	0	2	198	484	4	0	4	124	545
0.40	0.22	0	20	20	178	484	0	0	0	124	545
0.41	0.45	0	4	4	174	484	0	3	3	121	545
0.42	0.36	2	12	14	114	242	0	13	13	158	787
0.43	0.27	0	24	24	150	484	0	24	24	134	787
0.44	0.67	0	48	48	102	484	0	39	39	95	787
0.45	0.15	0	32	32	70	484	0	25	25	70	787
0.46	0.08	0	16	16	54	484	0	21	21	49	787
0.47	0.06	0	4	4	50	484	2	2	4	49	787

TABLE S3 /12 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	13 - 14 HOUR					14 - 15 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	0	44	44	6	484	0	7	7	42	787
0.49	0.28	0	0	0	6	484	0	13	13	29	787
0.50	0.00	0	6	6	0	484	0	29	29	0	787
TOTAL	18.82	610	612	1222			611	619	1230		

TABLE S3 /13 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	15 - 16 HOUR					16 - 17 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	38	0	38	38	484	22	0	22	22	484
0.01	0.13	34	0	34	72	484	12	0	12	34	484
0.02	0.23	20	2	22	90	484	12	0	12	46	484
0.03	0.45	0	0	0	90	484	0	0	0	46	484
0.04	0.29	14	0	14	104	484	8	0	8	54	484
0.05	0.18	20	4	24	120	484	16	0	16	70	484
0.06	0.27	4	0	4	124	484	2	0	2	72	484
0.07	0.22	6	0	6	130	484	2	0	2	74	484
0.08	0.42	8	0	8	138	484	4	0	4	78	484
0.09	0.27	52	2	54	188	484	12	0	12	90	484
0.10	0.28	2	2	4	188	484	0	0	0	90	484
0.11	0.30	14	2	16	200	484	12	2	14	100	484
0.12	0.24	10	12	22	198	484	4	0	4	104	484
0.13	0.47	16	8	24	206	484	30	4	34	130	484
0.14	0.20	10	0	10	216	484	0	0	0	130	484
0.15	1.02	2	2	4	216	484	2	0	2	132	484
0.16	1.19	6	14	20	208	484	6	14	20	124	484
0.17	0.17	4	28	32	184	484	0	16	16	108	484
0.18	0.21	2	2	4	184	484	0	8	8	100	484
0.19	0.06	0	8	8	176	484	0	10	10	90	484
0.20	0.33	0	4	4	172	484	6	6	12	90	484
0.21	0.74	6	8	14	170	484	0	6	6	84	484
0.22	0.32	0	2	2	168	484	0	4	4	80	484
0.23	0.39	2	50	52	120	484	0	18	18	62	484

TABLE S3 /14 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	15 - 16 HOUR					16 - 17 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	50	50	70	484	0	14	14	48	484
0.25	0.33	0	20	20	16	242	0	56	56	26	726
0.26	0.32	88	16	104	88	242	204	16	220	204	484
0.27	0.36	17	0	17	169	545	22	0	22	226	484
0.28	0.42	23	0	23	197	545	26	0	26	252	484
0.29	1.05	17	2	19	207	545	62	0	62	314	484
0.30	0.63	0	5	5	202	545	50	6	56	358	484
0.31	0.53	0	0	0	202	545	2	4	6	356	484
0.32	0.95	0	0	0	202	545	0	2	2	354	484
0.33	0.71	0	18	18	184	545	0	2	2	352	484
0.34	0.32	0	9	9	175	545	0	30	30	322	484
0.35	0.34	7	6	13	176	545	2	12	14	312	484
0.36	0.32	5	13	18	168	545	6	34	40	284	484
0.37	0.45	4	13	17	159	545	16	28	44	272	484
0.38	0.16	3	17	20	145	545	4	18	22	258	484
0.39	0.23	8	2	10	151	545	0	0	0	258	484
0.40	0.22	0	12	12	139	545	0	14	14	244	484
0.41	0.45	0	5	5	134	545	0	10	10	234	484
0.42	0.36	0	12	12	122	545	2	14	16	222	484
0.43	0.27	2	26	28	98	545	0	18	18	62	242
0.44	0.67	0	3	3	41	303	0	24	24	92	484
0.45	0.15	0	15	15	26	303	0	30	30	62	484
0.46	0.08	0	8	8	18	303	4	14	18	52	484
0.47	0.06	0	0	0	18	303	0	0	0	52	484

TABLE S3 /15 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	15 - 16 HOUR					16 - 17 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	0	15	15	3	303	0	40	40	12	484
0.49	0.28	0	0	0	3	303	0	4	4	8	484
0.50	0.00	0	3	3	0	303	0	8	8	0	484
TOTAL	18.82	444	420	864			550	486	1036		

TABLE S3 /16

EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	17 - 18 HOUR					18 - 19 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	36	0	36	36	484	112	0	112	112	484
0.01	0.13	18	0	18	54	484	30	0	30	142	484
0.02	0.23	14	0	14	68	484	26	0	26	168	484
0.03	0.45	0	0	0	68	484	0	0	0	168	484
0.04	0.29	10	0	10	78	484	32	0	32	200	484
0.05	0.18	28	0	28	106	484	18	0	18	218	484
0.06	0.27	8	0	8	114	484	0	4	4	214	484
0.07	0.22	40	0	40	154	484	28	0	28	242	484
0.08	0.42	14	0	14	168	484	24	2	26	264	484
0.09	0.27	14	0	14	182	484	76	0	76	340	484
0.10	0.28	6	0	6	188	484	2	2	4	340	484
0.11	0.30	0	6	6	182	484	4	12	16	332	484
0.12	0.24	2	4	6	180	484	4	6	10	330	484
0.13	0.47	4	2	6	182	484	8	34	42	304	484
0.14	0.20	14	4	18	192	484	4	4	8	304	484
0.15	1.02	8	2	10	198	484	6	2	8	308	484
0.16	1.19	4	28	32	174	484	14	44	58	278	484
0.17	0.17	4	26	30	152	484	0	50	50	228	484
0.18	0.21	2	8	10	146	484	0	14	14	214	484
0.19	0.06	2	8	10	140	484	0	6	6	208	484
0.20	0.33	2	0	2	142	484	0	12	12	196	484
0.21	0.74	4	10	14	136	484	0	22	22	174	484
0.22	0.32	0	2	2	134	484	0	0	0	174	484
0.23	0.39	0	16	16	118	484	0	50	50	124	484

TABLE S3 /17

EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	17 - 18 HOUR					18 - 19 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	42	42	76	484	6	54	60	76	484
0.25	0.33	2	30	32	48	484	2	36	38	42	484
0.26	0.32	518	34	552	518	484	506	48	554	506	484
0.27	0.36	0	0	0	518	484	0	0	0	506	484
0.28	0.42	0	0	0	518	484	0	0	0	506	484
0.29	1.05	0	0	0	518	484	0	0	0	506	484
0.30	0.63	0	0	0	518	484	0	0	0	506	484
0.31	0.53	0	0	0	518	484	0	0	0	506	484
0.32	0.95	0	0	0	518	484	0	0	0	506	484
0.33	0.71	0	0	0	518	484	0	0	0	506	484
0.34	0.32	8	52	60	474	484	4	30	34	480	484
0.35	0.34	18	18	36	474	484	8	18	26	470	484
0.36	0.32	8	38	46	444	484	22	24	46	468	484
0.37	0.45	8	52	60	400	484	22	70	92	420	484
0.38	0.16	20	18	38	402	484	46	34	80	432	484
0.39	0.23	0	2	2	400	484	0	0	0	432	484
0.40	0.22	0	30	30	370	484	2	20	22	414	484
0.41	0.45	2	10	12	362	484	18	12	30	420	484
0.42	0.36	2	14	16	144	242	2	52	54	576	726
0.43	0.27	4	46	50	244	484	4	128	132	452	726
0.44	0.67	0	50	50	194	484	4	108	112	348	726
0.45	0.15	0	116	116	78	484	0	88	88	140	484
0.46	0.08	0	34	34	44	484	0	34	34	106	484
0.47	0.06	0	0	0	44	484	0	6	6	100	484

TABLE S3 /18 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	17 - 18 HOUR					18 - 19 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	0	36	36	8	484	0	98	98	2	484
0.49	0.28	0	0	0	8	484	0	2	2	0	484
0.50	0.00	0	8	8	0	484	0	0	0	0	484
TOTAL 18.82		824	746	1570			1034	1126	2160		

TABLE S3 /19

EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	19 - 20 HOUR					20 - 21 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.00	0.10	16	0	16	16	121	0	0	0	0	0
0.01	0.13	9	0	9	25	121	0	0	0	0	0
0.02	0.23	22	0	22	47	121	0	0	0	0	0
0.03	0.45	0	0	0	47	121	0	0	0	0	0
0.04	0.29	0	0	0	47	121	0	0	0	0	0
0.05	0.18	10	0	10	57	121	0	0	0	0	0
0.06	0.27	2	0	2	59	121	0	0	0	0	0
0.07	0.22	0	0	0	59	121	0	0	0	0	0
0.08	0.42	5	0	5	64	121	0	0	0	0	0
0.09	0.27	1	0	1	65	121	0	0	0	0	0
0.10	0.28	1	0	1	66	121	0	0	0	0	0
0.11	0.30	0	1	1	65	121	0	0	0	0	0
0.12	0.24	0	1	1	64	121	0	0	0	0	0
0.13	0.47	0	1	1	63	121	0	0	0	0	0
0.14	0.20	0	1	1	62	121	0	0	0	0	0
0.15	1.02	0	2	2	60	121	0	0	0	0	0
0.16	1.19	2	22	24	40	121	0	0	0	0	0
0.17	0.17	0	4	4	36	121	0	0	0	0	0
0.18	0.21	0	0	0	36	121	0	0	0	0	0
0.19	0.06	0	0	0	36	121	0	0	0	0	0
0.20	0.33	0	4	4	32	121	0	0	0	0	0
0.21	0.74	0	1	1	31	121	0	0	0	0	0
0.22	0.32	0	0	0	31	121	0	0	0	0	0
0.23	0.39	0	3	3	28	121	0	0	0	0	0

TABLE S3 /20 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET (CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	19 - 20 HOUR					20 - 21 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.24	0.48	0	11	11	17	121	0	0	0	0	0
0.25	0.33	0	5	5	12	121	0	0	0	0	0
0.26	0.32	318	30	348	318	363	0	0	0	0	0
0.27	0.36	16	6	16	334	363	0	0	0	0	0
0.28	0.42	10	0	10	344	363	0	0	0	0	0
0.29	1.05	2	0	2	346	363	0	0	0	0	0
0.30	0.63	1	1	2	346	363	0	0	0	0	0
0.31	0.53	0	4	4	342	363	0	0	0	0	0
0.32	0.95	0	0	0	342	363	0	0	0	0	0
0.33	0.71	0	0	0	342	363	0	0	0	0	0
0.34	0.32	2	11	13	333	363	0	0	0	0	0
0.35	0.34	2	3	5	332	363	0	0	0	0	0
0.36	0.32	12	27	39	317	363	0	0	0	0	0
0.37	0.45	3	39	42	281	363	0	0	0	0	0
0.38	0.16	6	28	34	259	363	0	0	0	0	0
0.39	0.23	2	4	6	257	363	0	0	0	0	0
0.40	0.22	0	33	33	224	363	0	0	0	0	0
0.41	0.45	0	8	8	216	363	0	0	0	0	0
0.42	0.36	2	22	24	196	363	0	0	0	0	0
0.43	0.27	0	30	30	166	363	0	0	0	0	0
0.44	0.67	0	34	34	132	363	0	0	0	0	0
0.45	0.15	0	96	96	124	484	0	14	14	18	121
0.46	0.08	0	40	40	84	484	0	5	5	13	121
0.47	0.06	0	26	26	58	484	0	7	7	6	121

TABLE S3 /21 EXPANDED HOURLY PASSENGER VOLUMES

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF. NO.	DISTANCE BETWEEN STOPS (KM)	19 - 20 HOUR					20 - 21 HOUR				
		ON	OFF	STOP USAGE	ON BRD.	CAPC.	ON	OFF	STOP USAGE	ON BRD.	CAPC.
0.48	0.20	0	54	54	4	484	0	3	3	3	121
0.49	0.28	0	2	2	2	484	0	0	0	3	121
0.50	0.00	0	2	2	0	484	0	3	3	0	121
TOTAL	18.82	444	550	994			0	32	32		

TABLE 4 / 1 PASSENGER OCCUPANCY INDEX

DIRECTION FROM: TAIKOO SHING
TO : HILLIER STREET(CIRCULAR)

STOP REF.NO.	HOUR BEGINNING																DA A
	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	
0.00-0.01	98	107	78	12	18	19	33	13	8	5	7	23	13	0	0	0	33
0.01-0.02	105	107	89	25	26	29	41	19	15	7	11	29	21	0	0	0	40
0.02-0.03	105	107	100	31	32	37	44	24	19	10	14	35	39	0	0	0	44
0.03-0.04	105	107	100	31	32	37	44	24	19	10	14	35	39	0	0	0	44
0.04-0.05	105	107	100	34	36	39	45	28	21	11	16	41	39	0	0	0	46
0.05-0.06	105	107	100	45	42	45	45	31	25	14	22	45	47	0	0	0	50
0.06-0.07	105	107	101	50	43	46	46	33	26	15	24	44	49	0	0	0	51
0.07-0.08	103	107	101	53	45	50	46	34	27	15	32	50	49	0	0	0	54
0.08-0.09	103	107	101	56	47	53	46	36	29	16	35	55	53	0	0	0	56
0.09-0.10	102	106	101	60	50	61	49	43	39	19	38	70	54	0	0	0	61
0.10-0.11	104	106	99	61	49	61	50	43	39	19	39	70	55	0	0	0	61
0.11-0.12	106	105	91	68	51	57	52	45	41	21	38	69	54	0	0	0	62
0.12-0.13	106	104	93	65	52	56	52	47	41	21	37	68	53	0	0	0	62
0.13-0.14	104	104	91	70	54	55	54	50	43	27	38	63	52	0	0	0	62
0.14-0.15	105	103	95	70	56	55	54	51	45	27	40	63	51	0	0	0	63
0.15-0.16	104	103	95	70	59	55	54	53	45	27	41	64	50	0	0	0	63
0.16-0.17	90	99	91	65	59	50	48	51	43	26	36	57	33	0	0	0	58
0.17-0.18	83	97	88	59	56	45	41	45	38	22	31	47	30	0	0	0	53
0.18-0.19	82	96	88	57	55	44	40	44	38	21	30	44	30	0	0	0	52
0.19-0.20	82	99	90	58	55	43	40	43	36	19	29	43	30	0	0	0	51
0.20-0.21	77	95	79	57	53	41	40	44	36	19	29	40	26	0	0	0	49
0.21-0.22	71	93	77	56	51	38	37	42	35	17	28	36	26	0	0	0	46
0.22-0.23	60	88	73	55	49	37	36	40	35	17	28	36	26	0	0	0	44
0.23-0.24	43	46	50	41	38	25	29	26	25	13	24	26	23	0	0	0	31

TABLE 4 / 2 PASSENGER OCCUPANCY INDEX

DIRECTION	FROM: TO :	HOUR BEGINNING															DAILY AVG.	
		07	08	09	10	11	12	13	14	15	16	17	18	19	20	21		22
	TAIKOO SHING HILLIER STREET(CIRCULAR)	19	18	26	20	27	16	19	15	14	10	16	16	14	0	0	0	17
		8	8	13	9	18	6	10	9	7	4	10	9	10	0	0	0	9
		31	36	11	20	20	23	22	27	36	42	107	105	88	0	0	0	44
		32	41	12	23	23	25	32	24	31	47	107	105	92	0	0	0	46
		33	41	12	25	25	30	37	31	35	52	107	105	95	0	0	0	49
		61	32	12	27	28	33	41	31	38	65	107	105	95	0	0	0	51
		74	36	28	27	34	36	46	31	37	74	107	105	95	0	0	0	54
		75	38	28	27	31	36	48	31	37	74	107	105	94	0	0	0	54
		75	38	28	27	31	35	47	29	37	73	107	105	94	0	0	0	54
		75	40	27	27	31	34	46	28	34	73	107	105	94	0	0	0	53
		79	42	24	23	29	34	44	28	32	67	98	99	92	0	0	0	51
		85	42	23	22	30	34	43	27	32	64	98	97	91	0	0	0	50
		95	49	24	10	27	31	41	25	31	59	92	97	87	0	0	0	49
		91	54	23	11	27	28	42	22	29	56	83	87	77	0	0	0	46
		85	54	21	10	24	26	40	22	27	53	83	89	71	0	0	0	45
		84	53	22	10	24	28	41	23	28	53	83	89	71	0	0	0	45
		83	51	20	10	23	26	37	23	26	50	76	86	62	0	0	0	42
		81	38	18	9	23	26	36	22	25	48	75	87	60	0	0	0	40
		66	36	14	9	22	22	47	20	22	46	60	79	54	0	0	0	37
		56	31	11	7	16	16	31	17	18	26	50	62	46	0	0	0	30
		27	12	6	3	12	13	21	12	14	19	40	48	36	0	0	0	21
		21	7	4	2	10	9	14	9	9	13	16	29	26	15	0	0	13
		21	5	3	2	7	6	11	6	6	11	9	22	17	11	0	0	9
		21	5	3	2	7	6	10	6	6	11	9	21	12	5	0	0	9

TABLE 4 / 3 PASSENGER OCCUPANCY INDEX

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

STOP REF.NO.	HOUR BEGINNING																DAIL AVE
	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	
0.48-0.49	3	2	0	1	3	2	1	5	1	2	2	0	1	2	0	0	2
0.49-1.50	3	2	0	1	3	0	1	4	1	2	2	0	0	2	0	0	2
AVE. PASS. TRIP LENGTH (KM)	6.5	6.3	4.0	5.8	5.6	5.3	5.9	5.7	6.5	5.9	6.3	5.6	5.5	0.0	0.0		6.2

NOTE: PASSENGER OCCUPANCY IS DEFINED AS THE TOTAL NUMBER OF PASSENGERS ACTUALLY ON BOARD ALL VEHICLES LEAVING A STOP IN THE SPECIFIED PERIOD DIVIDED BY THE TOTAL REGISTERED CAPACITY OF ALL VEHICLES LEAVING IN THE SAME PERIOD, THE RESULT BEING EXPRESSED AS A PERCENTAGE.

TABLE 5 JOURNEY TIME & SPEEDS - TERMINUS TO TERMINUS

TERMINUS: TAIKOO SHING						HILLIER STREET (CIRCULAR)				
: HOUR	JOURNEY TIMES (MINUTES)			AVE. JOURNEY SPEEDS		JOURNEY TIMES (MINUTES)			AVE. JOURNEY SPEEDS	
	MAX.	MIN.	AVE.	KM/H	MINS/ KM	MAX.	MIN.	AVE.	KM/H	MINS/ KM
7	68	58	63.3	17.9	3.4	0	0	0.0	0.0	0.0
8	89	73	81.2	13.9	4.3	0	0	0.0	0.0	0.0
9	69	69	69.0	16.4	3.7	0	0	0.0	0.0	0.0
10	74	59	67.0	16.9	3.6	0	0	0.0	0.0	0.0
11	62	59	61.0	18.5	3.2	0	0	0.0	0.0	0.0
12	76	65	69.8	16.2	3.7	0	0	0.0	0.0	0.0
13	72	58	65.3	17.3	3.5	0	0	0.0	0.0	0.0
14	62	58	60.2	18.8	3.2	0	0	0.0	0.0	0.0
15	66	61	64.3	17.6	3.4	0	0	0.0	0.0	0.0
16	72	64	67.5	16.7	3.6	0	0	0.0	0.0	0.0
17	75	68	70.5	16.0	3.7	0	0	0.0	0.0	0.0
18	66	62	64.0	17.6	3.4	0	0	0.0	0.0	0.0
19	63	63	63.0	17.9	3.3	0	0	0.0	0.0	0.0
20	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
21	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
22	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
DAILY			67.0	16.9	3.6			0.0	0.0	0.0
			S.D.= 6.9	MINS.				S.D.= 0.0	MINS.	
			C.V.= 10.3	%				C.V.= 0.0	%	
			ROUTE LENGTH = 18.82	KM				ROUTE LENGTH = 0.00	KM	

NOTE: S.D. IS THE STANDARD DEVIATION OF TOTAL JOURNEY TIMES ABOUT THE AVE.
 C.V. IS THE COEFFICIENT OF VARIATION OF STANDARD DEVIATION FROM THE AVE.

HOUR REFERS TO THE PERIOD DURING WHICH VEHICLES LEFT THE TERMINUS

TABLE 6 / 1 JOURNEY SPEEDS OVER SECTION OF ROUTE

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

SECTION NUMBER	0.01	0.02	0.03	0.04	0.05	0.06
STOP REF.NO.	0.00-0.07	0.07-0.15	0.15-0.21	0.21-0.26	0.26-0.30	0.30-0.34
SECTION LENGTH (KM)	1.65	2.40	2.98	2.26	2.15	2.82
MAXIMUM						
HOUR	16	16	11	19	13	11
MINS/	3.0	2.9	1.7	3.0	3.3	1.3
SPEED KM						
KM/H	20.0	20.9	35.9	20.1	18.1	46.4
MINIMUM						
HOUR	8	8	17	11	8	17
MINS/	7.4	4.5	2.7	5.4	10.6	2.3
SPEED KM						
KM/H	8.1	13.5	22.5	11.2	5.6	25.8
DAILY AVE.						
MINS/	4.1	3.7	2.2	4.1	5.7	1.7
SPEED KM						
KM/H	14.5	16.2	27.8	14.7	10.5	34.7
STANDARD DEVIATION (MINS/KM)	1.3	0.7	0.4	0.9	2.4	0.4
COEFF. OF VARIATION (%)	30.5	19.6	19.1	21.1	42.3	23.5

TABLE 6 / 2 JOURNEY SPEEDS OVER SECTION OF ROUTE

DIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

SECTION NUMBER		0.07	0.08
STOP REF.NO.		0.34-0.42	0.42-0.50
SECTION LENGTH (KM)		2.49	2.07
MAXIMUM	HOUR	9	14
SPEED	MINS / KM	2.8	2.5
	KM/H	21.7	24.4
MINIMUM	HOUR	13	9
SPEED	MINS / KM	6.3	4.6
	KM/H	9.5	13.0
DAILY AVE.	MINS / KM	4.0	3.7
	KM/H	14.9	16.4
STANDARD DEVIATION (MINS/KM)		1.2	0.7
COEFF. OF VARIATION (%)		29.4	19.6

TABLE 7 / 1 RUNNING SPEEDS OVER SECTION OF ROUTE

DIIRECTION FROM: TAIKOO SHING
 TO : HILLIER STREET(CIRCULAR)

SECTION NUMBER	0.01	0.02	0.03	0.04	0.05	0.06
STOP REF.NO.	0.00-0.07	0.07-0.15	0.15-0.21	0.21-0.26	0.26-0.30	0.30-0.34
SECTION LENGTH (KM)	1.65	2.40	2.98	2.26	2.15	2.82
MAXIMUM SPEED						
HOUR	16	13	11	19	7	11
MINS / KM	2.5	2.4	1.5	2.7	2.0	1.2
KM/H	23.6	25.4	40.4	22.3	29.4	48.2
MINIMUM SPEED						
HOUR	8	8	17	11	10	17
MINS / KM	7.2	4.3	2.4	4.7	7.8	2.3
KM/H	8.3	14.0	24.7	12.7	7.7	25.8
DAILY AVE.						
MINS / KM	3.6	3.3	1.9	3.6	3.8	1.7
KM/H	16.6	18.3	30.9	16.6	16.0	36.2
STANDARD DEVIATION (MINS/KM)	1.5	0.9	0.4	0.8	1.8	0.4
COEFF. OF VARIATION (%)	40.6	28.6	21.0	21.7	48.0	24.2

NOTE: RUNNING SPEED IS CALCULATED AS THE DIFFERENCE BETWEEN THE SUM OF THE JOURNEY TIMES FOR THE SECTION AND THE SUM OF THE TIMES SPENT AT STOPS DIVIDED BY THE LENGTH OF THE SECTION

TABLE 7 / 2 RUNNING SPEEDS OVER SECTION OF ROUTE

DIRECTION FROM: TAIKOO SHING
TO : HILLIER STREET(CIRCULAR)

SECTION NUMBER	0.07	0.08
STOP REF.NO.	0.34-0.42	0.42-0.50
SECTION LENGTH (KM)	2.49	2.07
MAXIMUM		
HOUR	9	14
MINS / KM	2.5	2.1
SPEED KM/H	24.4	28.8
MINIMUM		
HOUR	13	9
MINS / KM	6.1	4.4
SPEED KM/H	9.8	13.8
DAILY AVE.		
MINS / KM	3.6	3.1
SPEED KM/H	16.5	19.1
STANDARD DEVIATION (MINS/KM)	1.1	0.9
COEFF. OF VARIATION (X)	31.0	27.9

NOTE: RUNNING SPEED IS CALCULATED AS THE DIFFERENCE BETWEEN THE SUM OF THE JOURNEY TIMES FOR THE SECTION AND THE SUM OF THE TIMES SPENT AT STOPS DIVIDED BY THE LENGTH OF THE SECTION

TABLE 8 LAYOVER TIMES AT TERMINI

HOUR	TERMINUS 000 TAIKOO SHING LAYOVER TIME (MINS.)			TERMINUS 100 HILLIER STREET (CIRCULAR) LAYOVER TIME (MINS.)		
	MAX.	MIN.	AVE.	MAX.	MIN.	AVE.
	7	28	9	12.5	0	0
8	12	3	6.0	0	0	0.0
9	5	3	4.0	0	0	0.0
10	16	1	9.8	0	0	0.0
11	10	2	6.5	0	0	0.0
12	18	10	13.3	0	0	0.0
13	18	3	10.0	0	0	0.0
14	9	1	3.4	0	0	0.0
15	8	1	4.0	0	0	0.0
16	12	7	8.2	0	0	0.0
17	13	7	9.8	0	0	0.0
18	5	1	3.8	0	0	0.0
19	8	2	8.0	0	0	0.0
20	0	0	0.0	0	0	0.0
21	0	0	0.0	0	0	0.0
22	0	0	0.0	0	0	0.0
DAILY AVE.			8.1			0.0

TABLE 9 VEHICLE TRIPS AND ALLOCATION

ROUTE NUMBER : CMB 21
 DATE OF SURVEY : 5-6-1979

D TERMINUS 000 : TAIKOO SHING
 TERMINUS 100 : HILLIER STREET(CIRCULAR)

S N S R	TIME		FRE- QUENCY (MIN)	REQ	VEHICLE TRIPS			VEH. ALLOCATION			
	TERMINUS 000	TERMINUS 100			000 REQ	100 OBS	%	000	100		
	700-1900	0- 0	15	49	48	97	0	0	0	5	5
S L (OBSERVATION PERIOD										
	700-2000	0- 0									

F
I
(

NOTE : FIGURES IN COLUMN UNDER REQ ARE NUMBER OF TRIPS REQUIRED
 FIGURES IN COLUMN UNDER OBS ARE NUMBER OF TRIPS OBSERVED
 FIGURES IN COLUMN UNDER % ARE PERCENTAGE OF VEHICLE TRIPS
 OBSERVED OVER VEHICLE TRIPS REQUIRED

APPENDIX

NATURE OF STOPS & FACILITIES PROVIDED

DIRECTION: FROM Tai Koo Shing

TO Hillier Street (Circular)

Stop Reference No	Other Routes Using The Same Stop As Indicated On The Stop Sign	Permanent Stop	Bus Bay	Permanent Shelter	Queue Rail
T.K S.T			X	X(C)	X
001	Not Specified				
002		X			X
003	2, 8, 20, 80, 81, 82, 85	X			
004	2, 8, 81, 82, 85	X			
005	2, 8, 20, 80, 81, 82, 85	X		X(C)	
006	2, 20, 20A, 80	X			
007	2, 20, 20A, 80, 02, 12	X		X(B)	X
008	2, 20, 20A, 80	X		X(C)	X
009	20, 20A	X		X(C)	
010	2, 20, 20A	X		X(C)	
011	0A, 20, 20A	X		X(C)	X
012	10A, 20, 20A	X		X(C)	
013	2, 10A, 20, 20A			X(C)	X
014	0A, 20, 20A	X		X(B)	X
015	0A, 20, 20A, 81			X(B)	
016	10A, 20, 20A, 80		X		
017	10A, 20, 20A, 80, 104, 105	X	X		
018	24, 103	X		X(C)	
019	24	X		X(C)	
020	103	X		X(C)	
021	5B, 11, 25	X			
022	5, 5A, 5B, 6, 6A, 10, 11, 15, 23A, 25, 61, 101, 111, 113, 260, 262, 881,	X	X		
023	5A, 5B, 10, 113, 200	X			X
024	5A, 5B, 10, 113			X(C)	
025	10	X		X(C)	

Note: (B) denotes bus shelter

(C) denotes canopy

APPENDIX

NATURE OF SCOPE & FACILITIES PROVIDED (CONT'D)

DISSEMINATION ROOM Tai Koo Shing

20 Fuller Street (Carriageway)

Stop Reference No.	Other Routes Being The Same Stop As Indicated On The Stop Sign	Permanent Stop	Bus Bay	Permanent Shelter	Queue Rell
026				X(c)	X
027	5, 10	X		X(c)	
028	10			X(c)	X
029	11, 25		X		X
030	10A, 20, 20A				
031	50, 10A, 20, 20A, 80	X	X		
032	10A, 20, 20A, 80, 10A, 105	X	X		
033	10A, 20, 20A, 80		X		
034	10A, 20, 20A	X		X(g)	
035	2, 20, 20A, 102, 106, 112, 116, 882	X	X	X(c)	
036	20, 20A, 102, 112, 882	X		X(g)	
037	2, 20, 20A, 102, 105, 112, 116, 882	X		X(c)	
038	102, 106, 116, 882			X(c)	
039	2, 20, 20A	X			
040	2, 8, 20, 20A, 81, 95, 102, 106, 116, 282	X			
041	2, 20, 20A, 102, 105	X		X(g)	
042	2, 20, 20A, 102, 105, 882	X		X(g)	X
043	20, 20A, 80, 116	X	X	X(c)	
044	2, 20, 85, 102	X			
045	2, 8, 20, 80, 81, 82, 85, 102, 106, 282	X			
046					
047		X			
048					
049					

Note: (S) denotes bus shelter

(C) denotes canopy

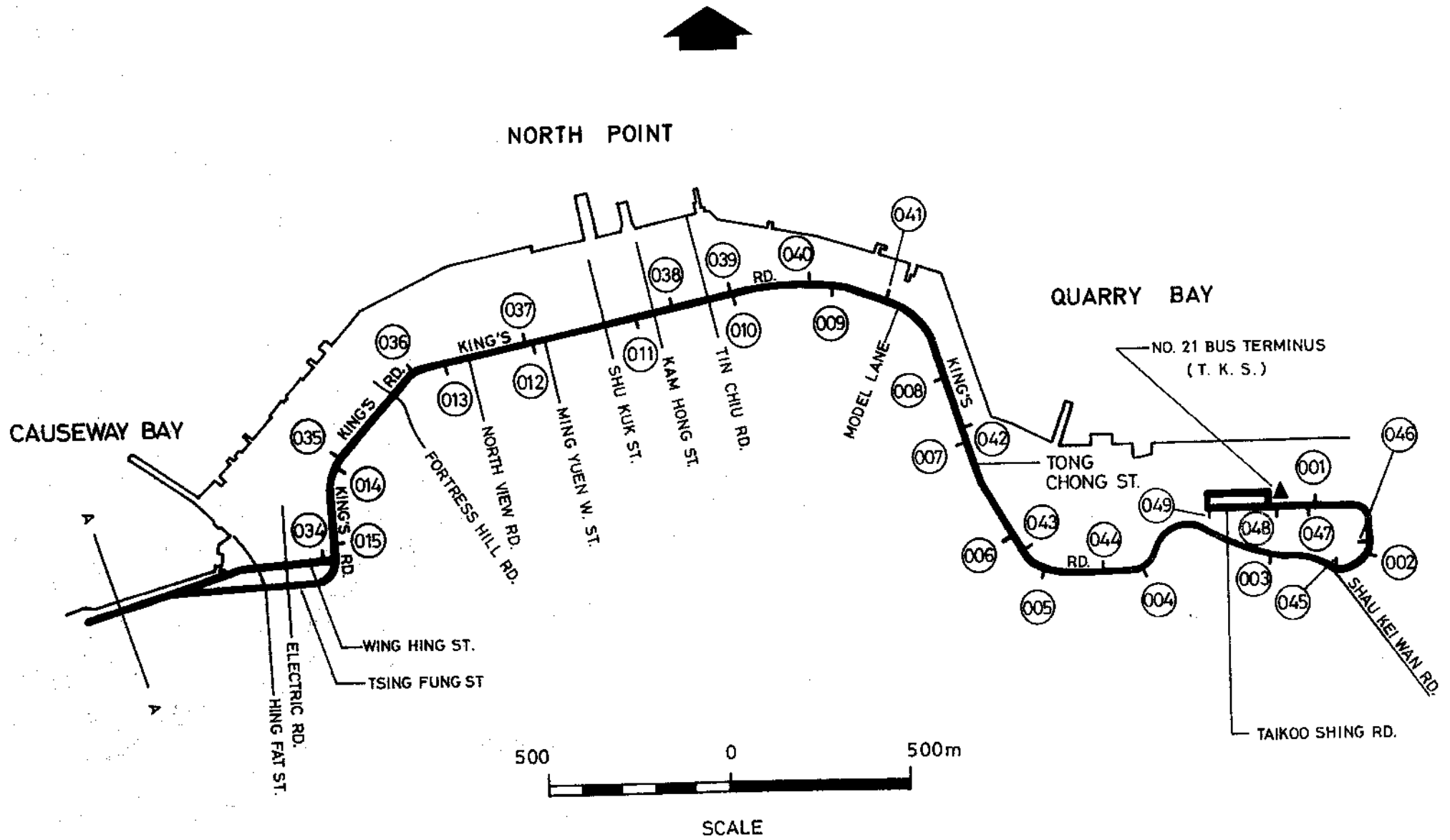


FIG. 1 GENERAL PLAN INDICATING CMB ROUTE NO. 21

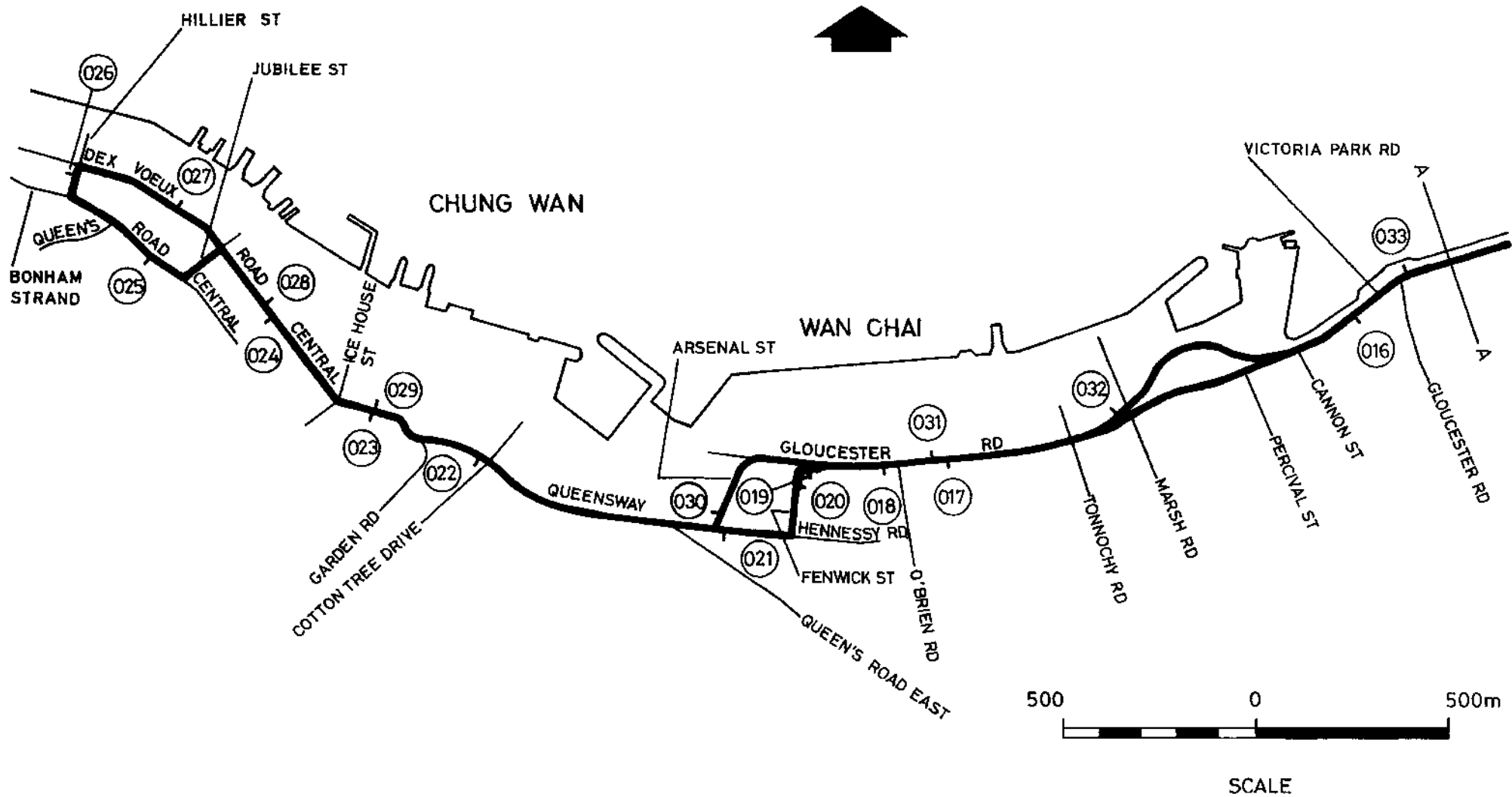


FIG. 1 GENERAL PLAN INDICATING CMB ROUTE NO. 21 (CON'T)

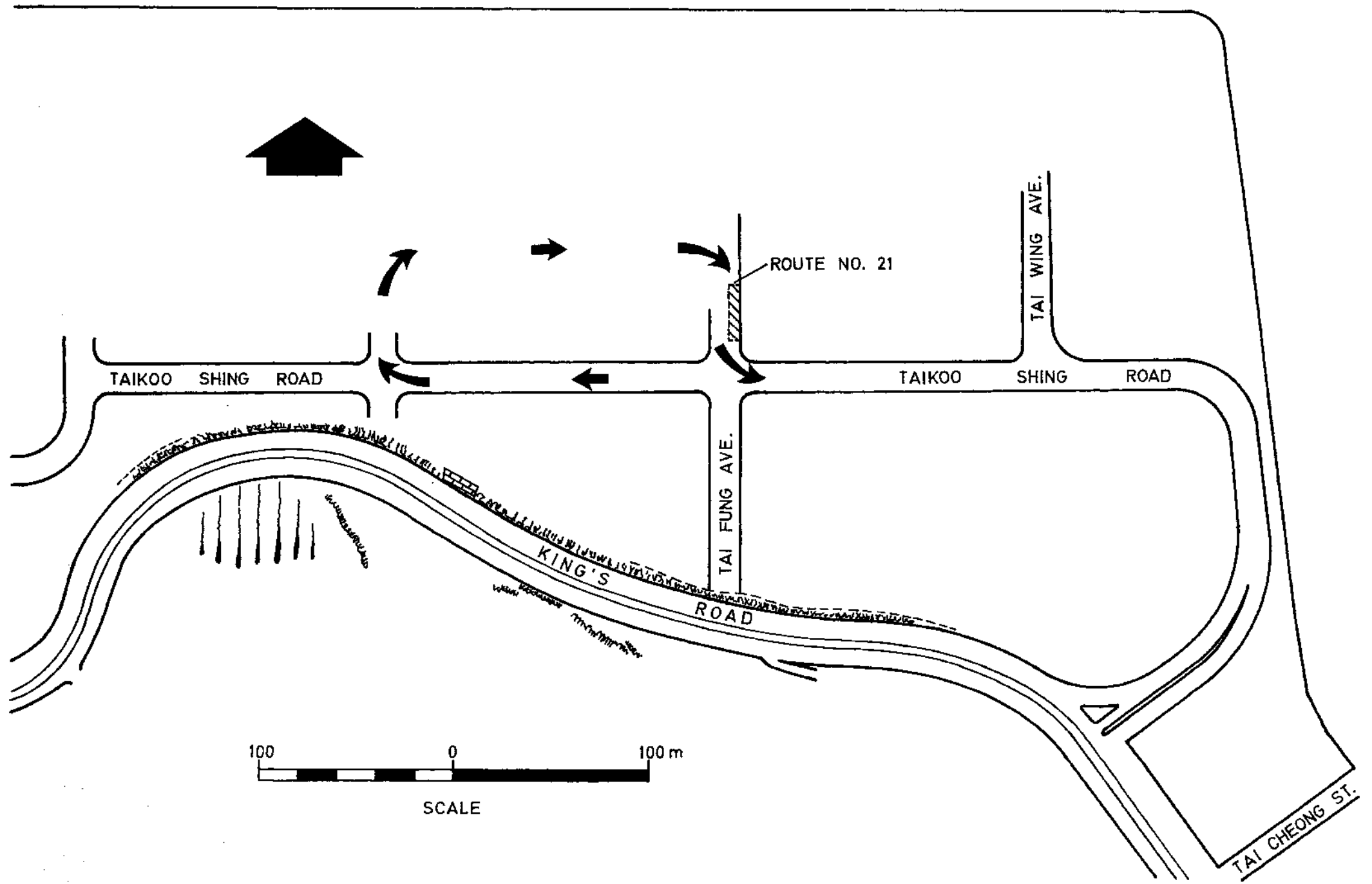


FIG. 2 LAYOUT OF TAI KOO SHING BUS TERMINUS



