



ROUTE	DIRECTION	TIME-SLOT	TRAM RUN NO.	TRIP NOS	DAY OF WEEK	TIME OF DEPARTURE		Weather	CAR NO.
						Scheduled	Actual		
DUNDEE ST (S)	DWN	SAT.	GH 47	07	Sat.		1.28 PM <small>(ALL TIMES ARE FROM HIGH ST)</small>	Fine	551
		SUN.	GH 4	11	Sun.		2.56 PM	Fine	965
			GH 4	15	Sun.		2.59 PM	Fine	913
		AM Peak	GH 29	25	Tues		8.36 AM	Fine	324
			GH 29	39	Wed		8.33 AM	Fine	589
			GH 29	53	Thur		8.40 AM	Very Wet	554
			GH 29	63	Fri		8.36 AM	Fine	584
		MID DAY	GH 36	43	Wed		10.36 AM	Fine	347
		PM Peak	GH 39	19	Mon		4.46 PM	Fine	653
			GH 39	29	Tues		4.45 PM	Fine	958
			GH 39	47	Wed		4.50 PM	Wet	947
			GH 39	57	Thur.		4.45 PM	Fine	526
		NIGHT	GH 64	35	Tues		10.59 PM	Fine	917
HIGH ST	DWN	SAT.	(M37) M44	(01), 09	Sat		{ 11.29 AM 2.00 PM	Fine	{ (257) 897
			M41	03	Sat		12.03 PM	Fine	594
			M45	05	Sat		12.49 PM <small>ALL TIMES FROM (ST. KILM R.O.)</small>	Fine	961
		SUN.	M 12	13	Sun		3.47 PM	Fine	844
			M 12	17	Sun		3.48 PM	Fine	924
		AM Peak	M 29	27	Tues		9.14 AM	Fine	530
			M 29	41	Wed		9.17 AM	Fine	869
			M 29	55	Thur.		9.23 AM	Wet	941
			M 32	65	Fri		9.27 AM	Fine	961
		MID DAY	M 56	45	Wed		11.16 AM	Fine	776
		PM Peak(1)	M 31	21	Mon		5.25 PM	Fine	844
			M 31	31	Tues		5.24 PM	Fine	881
			M 31	49	Wed		5.27 PM	Wet	941
			M 31	59	Thur.		5.26 PM	Fine	844
		PM Peak(2)	M 65	23	Mon		6.03 PM	Fine	302
			M 65	33	Tues		6.02 PM	Fine	569
			M 64	51	Wed.		6.03 PM	Mod. Wet	845
M 65	61		Thur.		6.04 PM	Fine	543		
NIGHT	M 55	37	Tues.		11.47 PM	Fine	776		

TRAIN SCHEDULES OF INDEPENDENT TRAVEL PLANTS

<u>INDEPENDENT RD</u>					<u>UP</u>				
TSP	==	S =	= S	S S	TSP	==	S =	= S	S S
42		25,30		30					
41	14		25						
40		24		30					
39	25	31							
38	32,27								
37			38,35						
36				39,40					
35		29,31							
34	25		26,27						
33	37	35		46					
32	19,20	25							
31			25,26						
30 <sup>A</sup>		52		52					
30		45							
29		19	21						
(Junct <sup>n</sup> Pts)		28	22	30					
27	19	21,25							
26			18,17,18						
25									
24									

<u>HIGH ST</u>					<u>UP</u>				
TSP	==	S =	= S	S S	TSP	==	S =	= S	S S
40				45					
39				34					
38			31	35					
37		24		32					
36	28								
35		32							
34				40					
33				30					
32				45,50					
31				32					
30		25							
29 <sup>A</sup>				28					
29				36					
28				45,53					
27		26		24					
26			30	37					
25				39,39					
24									

<u>DANDENONG RD</u>					<u>DLN</u>				
TSP	==	S =	= S	S S	TSP	==	S =	= S	S S
24		32		35					
25	28	43							
26			29,31	31					
27		17,19							
(Junct <sup>n</sup> Pts)	40		46						
29			45,47	55,61					
30		32,34		40					
30 <sup>A</sup>			21,22	29					
31				45,46					
32		32		31,34					
33			40	41,42					
34				36,38					
35		42							
36			19						
37		40		43					
38	18			27					
39	25		30						
40	14			28					
41			21,22	30					
42									

<u>HIGH ST</u>					<u>DLN</u>				
TSP	==	S =	= S	S S	TSP	==	S =	= S	S S
24				51					
25				38					
26				35					
27				67					
28		48							
29			24						
29 <sup>A</sup>				21,35					
30				39,47					
31				49,50					
32				31,32					
33				38,40					
34		40							
35			29						
36			27	42					
37				45,48					
38				31,31					
39				48,56					
40									

All times are in seconds  
 \* denotes express.  
 S " stopped.



EXPLANATION OF SYMBOLS USED ON RUNNING SHEETS.

The following symbols and code numbers were used to explain delays due to "OTHER" causes, in the "WHY" column.

<u>"WHY" Code Number</u>	<u>Symbol</u> •	<u>Explanation</u>
99	*	Non-stop.
98	Clock	Driver punching Bundy Time Recorder Clock.
97	Pts	Changing Points (or faulty pts)
96	Cr/Ch	Crew Change over.
95	Insp. Acc.	Clear roadside accident.
94	Pram	Pram loaded/unloaded.
93	False Stop.	Unnecessary stop made
92	Rt. turns(2).	Right hand turning vehicles cause tram to wait 2 light cycles.
91	Rt. turns(1).	..... 1 .....
90	(at TSP 2711)	Await special tramway control lights at St. Kilda Junc <sup>n</sup> (Up)
89	Tram X'ing	Await tram shunting at Glenferrie Rd.
55	Conn w/ No. 5	Await connection with Route 5 tram, at Orrong Rd.
88	School X'ing	Delay at school crossing included.

NUMBERING SYSTEM FOR TSP'S:

Four digits are used to completely distinguish between tram stopping places.

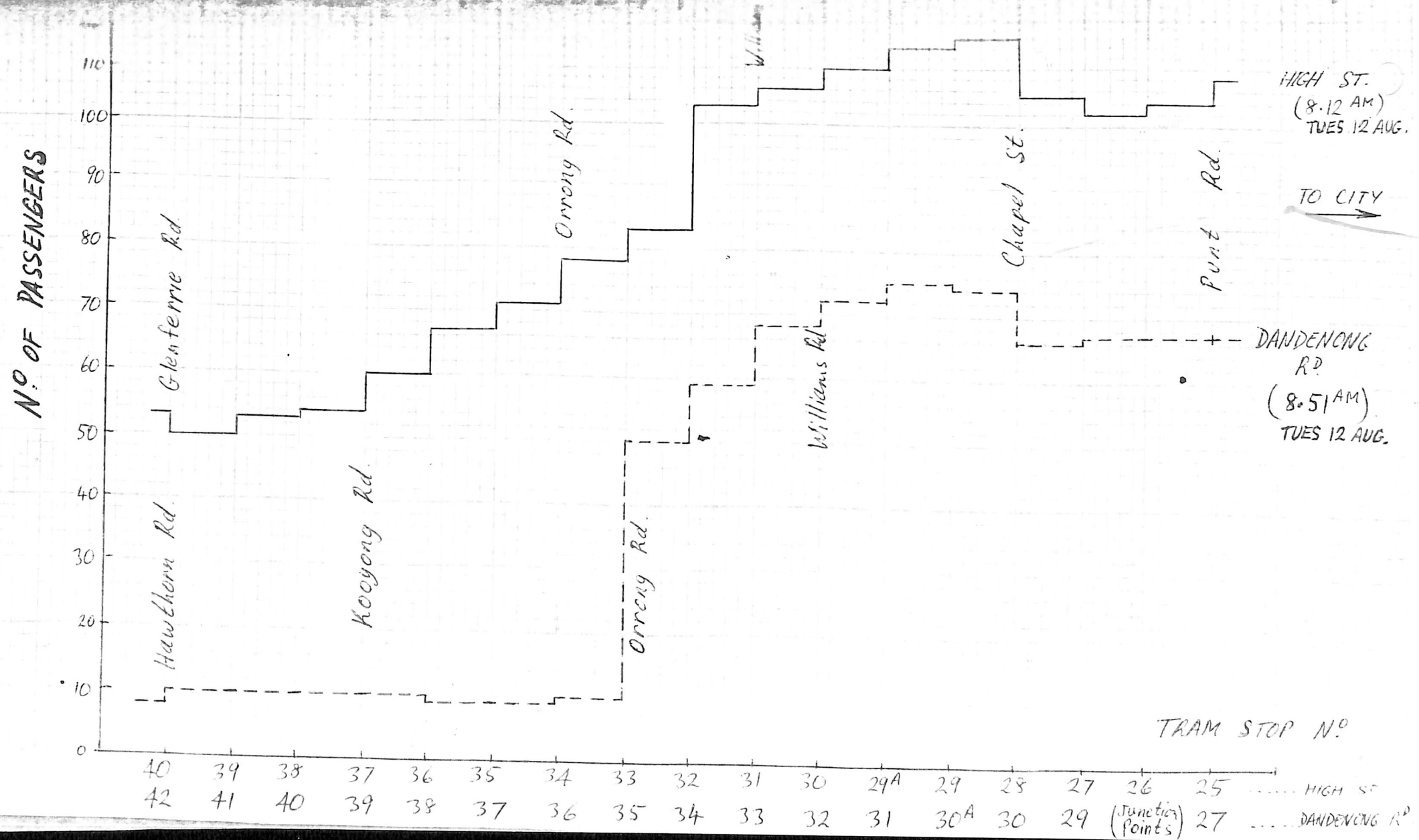
- i. The first two digits give the M&MTB tram stop number, (or nearest stop number, as in the case of 2711).
- ii. The third digit is reserved for stops requiring a suffix.  
 For ordinary stops .... 0 (e.g. 35 is 350.)  
 .. "A"-type .. .... 5 (e.g. 29<sup>A</sup> is 2952)  
 .. junction points .... 1 (e.g. 2711)
- iii. The fourth digit distinguishes between the two routes, as both routes display the same M&MTB tram stop numbers.  
 For Dandenong Road .... 1 (e.g. 3501)  
 .. High Street .... 2 (e.g. 3502)



TIME SLOT	PLANNED TRIP TIME	A-DAY	B-DAY	TRIP SCHEDULE TIME	TRIP SCHEDULE DELAY	TOTAL TRIP DELAY	TRIP TRAFFIC DELAY	LIGHTS DELAY	OTHER DELAYS	TOTAL DELAY (100%)	TRIP TIME	"SERVED" TIME	TOTAL TRIP TIME	TRIP TRAFFIC DELAY	TRIP TRAFFIC DELAY - SECONDS	MAN HRS (TOTAL)	% DELAY (TRIP TIME)	LOSS OF TRIP TIME	% LOSS OF TRIP TIME BY DELAYS
SAT.	9.0	108.	463.	506.	43.	1.	44. (22%)	67. (34%)	89. (44%)	200.	6.	469.	670.	(669) ✓	4,744	1.32	29.8%	0.39	55.4%
SUN.	5.5	66.	421.	481.	60.	4.	64. (37%)	62. (36%)	47. (27%)	173.	38.	459.	632.	(632) ✓	7,173	2.11	27.4%	0.58	44.0%
AM Peak	10.8	130.	485.	501.	16.	19.	35. (25%)	64. (50%)	29. (23%)	128.	55.	540.	668.	(668) ✓	22,275	6.34	19.2%	1.22	31.2%
MID-DAY.	10.0	120.	475.	522.	47.	36.	81. (65%)	9. (8%)	34. (27%)	124.	37.	512.	639.	(636) ✓	16,417	4.62	19.4%	0.90	31.6%
PM Peak	7.8	94.	449.	515.	66.	28.	94. (42%)	81. (37%)	47. (21%)	222.	16.	465.	687.	(687) ✓	6,015	1.67	32.3%	0.54	59.8%
NIGHT	6.0	72.	427.	478.	51.	0.	51. (28%)	109. (59%)	25. (13%)	185.	14.	441.	627.	(626) ✓	2,344	0.65	29.5%	0.19	50.2%

FINAL DELAY ANALYSIS.

DISTRIBUTION OF PASSENGERS:



OTHER 7

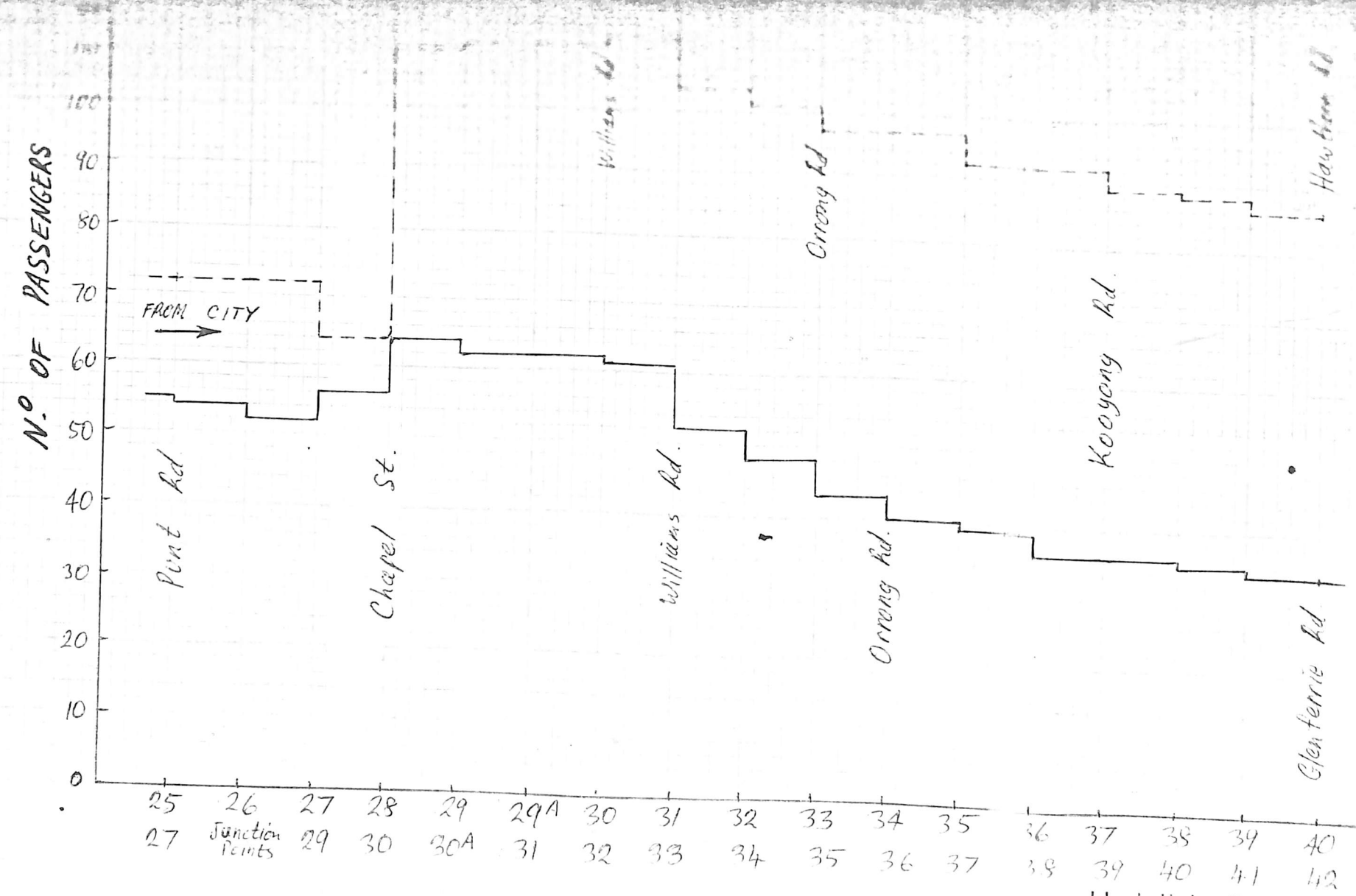


OTHER 7

2 1/2

= 200 f

select  
12



WED 13 NOV

WED 13 NOV

WED 13 NOV



# UNIVERSITY OF MELBOURNE

## CIVIL ENGINEERING DEPARTMENT

69.

App. 'T'

### CALCULATION OF AVERAGE LOADING TIME:

HIGH STREET			DANDENONG ROAD		
TRIP NO.	N <sup>o</sup> OF PASSENGERS LOADED/UNLOADED	LOAD Time	TRIP NO.	N <sup>o</sup> OF PASS'rs LOAD/UNLOAD	LOAD Time
01	37	70 seconds	07	28	31 seconds
02	53	59	08	8	9
03	122	126	11	15	19
04	54	72	12	18	62
05	50	104	15	20	58
06	20	40	16	21	27
09	8	18	19	60	79
10	35	52	20	13	13
13	20	36	25	30	38
14	42	60	26	120	118
17	15	35	29	69	90
18	49	48	30	12	15
21	35	42	35	11	14
22	37	44	36	9	14
23	48	68	39	48	48
24	133	195	40	51	63
27	6	7	43	14	36
28	35	43	44	22	38
31	47	58	47	130	155
32	36	50	48	24	29
33	36	51	53	31	43
34	6	9	54	16	24
37	10	13	57	37	44
38	86	91	58	16	28
41	3	13	63	23	28
42	64	104	64	47	66
45	31	60			
46	28	29			
49	34	43			
50	28	26			
51	83	65			
52	133	173			
55	19	51			
56	26	37			
59	63	105			
60	20	29			
61	57	64			
62	89	113			
65	18	42			
TOTAL:	1,716	2,348 sec.	TOTAL:	893	1,189 sec.

1.368 seconds/passenger  
(High St.)

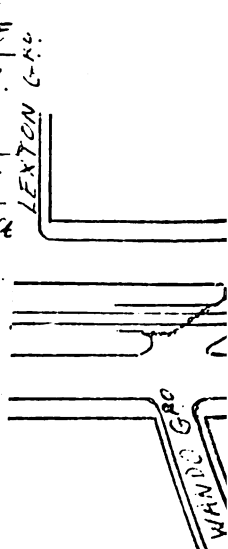
1.331 secs/pass.  
(Dandenong Rd.)

below  
= 200

### CALCULATION OF CHAINAGES (Origin TSP ↔ Destination TSP)

		Glenferrie Rd.	Punt Rd.	DISTANCE
HIGH STREET	DWN	14,240. ft	1,040. ft	13,200 ft.
	UP	14,360. ..	1,150. ..	13,210. ..
		Hawthorn Rd.	Punt Rd.	DISTANCE
HADDENONG ROAD	DWN	13,180. ft	-20. ft	13,200 ft
	UP.	13,210 ..	-30. ..	13,240. ..

Mean Distance of trip = 13,210. ft  
 = 2.50 miles.



Vanselow 16/9

ch = 200 feet