CABLE ADDRESS.

ELECMINE, MELBOURNE,

CODES USED.

B.C. SINEDITION, LIEBERS,

WESTERN UNION, BEDFORD MENEILL,

ENGINEERING.

# M. Carty, Underwood & C.º

Consulting Electrical & Mechanical Engineers,

31 Queen Street,

with the Hawthorn Transage Trust for the supply of the necessary

MELBOURNE, 31st. August, 1917.

The Chairman,

The Hawthorn Tramways Trust,

Melbourne.

intersection

Dear Sir, and I have calculated on this

In accordance with your instructions, I now desire to submit for your consideration a report on the proposed electric tramway in the City of Richmond, from the intersection of Prince Patrick Street and Church Street, along Church Street to the intersection of Church Street and Victoria Street. The total length of the proposed track would be approximately 1.486 miles, this figure being obtained from the Melbourne and Metropolitan Board of Works Plans.

In view of the fact that the proposed route traverses a very densely populated district, and would be connected to the Hawthorn electric tramway at the intersection of Church and Swan Streets, I believe that the traffic would be heavy, and would recommend that a double track be installed throughout.

## PERMANENT WAY, SPECIAL WORK AND OVERHEAD CONSTRUCTION.

The Permanent Way and Overhead Construction would be similar to that adopted by the Hawthorn Tramways Trust. A considerable amount of work would have to be undertaken in regard to alterations to water mains and sewers, and for this work we have obtaine
an estimate of the cost of these alterations from the Melbourne and
Metropolitan Board of Works.

#### . UNDERWOOD & CO.

In continuation to The Chairman.

Date 31st. August, 1917.

Page No. 2.

Hawthorn Tramways Trust.

The Special Work required would consist of the following:-

- 1 4 way crossing and curves at the corner of Swan and Church Streets.
- 1 double track cable tramway crossing at the intersection of Bridge Road and Church Street,
- 2 turnouts.
- 1 crossover.

### SUPPLY OF POWER AND ROLLING STOCK.

I assume that satisfactory arrangements could be made with the Hawthorn Tramways Trust for the supply of the necessary electric power and rolling stock, and I have calculated on this being the case for the purposes of this estimate.

### COST OF CONSTRUCTION.

### PERMANENT WAY. -

1.486	miles	double	track	standard	con	struc	tion		
	@ fl:	2240-0-0	) per	mile		• •		18188	13
								•	

Altering Water Mains (Estimate of Melbourne and Metropolitan Board of Works) .. .. 1800 .

22473 .

### SPECIAL WORK. -

- 1 4 way crossing and curves at corner of Swan and Church Streets .. 3500 .
- 1 double track cable tramway crossing .. .. .. ,833 6 8
- 2 Turnouts .. .. .. 314 . .
- l Crossover .. .. .. 334 . . 4781 .

### OVERHEAD CONSTRUCTION . -

1.486 Miles Overhead Construction for double track, including special overhead construction 2770

Estimated cost of alterations to P.M.G's Dept's Wires and Melb. Elec. Supply Co's wires 250 . . 3020 . .

Carried forward. 30274 .

n continuation to The Chairman,

Page No. 3.

The Hawthorn Tramways Trust.

Brought forward. 30274 .

### INTEREST, ENGINEERING & CONTINGENCIES. -

Interest during construction 694 . .

Engineering Fees and Unforeseen contingencies .. . 2000

2694

TOTAL.

£32968

### PROBABLE REVENUE.

I understand that the population within a quarter of a mile of the proposed line is approximately 18,000, and after taking into consideration the special local conditions which exist, I have no doubt that the revenue for the first year's operation would be somewhere in the neighbourhoos of 15/6, and for the purpose of estimating the revenue of the first year of the proposed line, I have taken as a basis 15/6 per head of population served, which shows a return of £13,500.

The annual car mileage, after allowance for slack periods at different portions of the day, and a liberal allowance for special car mileage during the rush periods, such as Friday nights, would be approximately 232,000 miles per year.

The financial result would therefore, work out as follows:-

ES	TIMATED REVENUE	• •	£13950	•	•
	timated Expenditure,£232,000 car miles at an operating cost of 11d. per car mile	• •	10633		
In	terest on 232968 @ 51/2	• •	1813	•	٠
Re	newals Reserve Fund - 2 % on £25740-0-0	••	643	19.1	
	Total Expenditure.		<b>£130</b> 89		•

In conclusion, I desire to express the opinion that the proposed tramway would supply a very great public utility,

, UNDERWOOD & CO.

FA

Date 31st. August, 1917.

in continuation to The Chairman,

The Hawthorn Tranways Trust.

and in my opinion, the return revenue will meet all charges and at the same time, show a net profit as above.

I beg to remain,

Dear Sir,

Your obedient servent,

CABLE ADDRESS.

ELECMINE, MELBOURNE,

CODES USED.

A.B.C. STHEDITION, LIEBERS,

WESTERN UNION, BEDFORD MENEILL,

ENGINEERING.

M. Carty, Underwood & C.

Consulting Electrical & Mechanical Engineers,

31 QUEEN STREET,

MELBOURNE, 31 st. August, 19%.

The Chairman,
Hawthorn Tramways Trust,
Melbourne.

Church Shul

Dear Sir, 1 crossover.

In accordance with your instructions, I now desire to submit for your consideration a report on the proposed electric tramway in the City of Richmond, from the intersection of Prince Patrick Street and Church Street, along Church Street to the intersection of Church Street and Victoria Street. This report and estimate is based on the assumption that the line would be controlled and operated by your Trust, and without incurring any increased expenditure at the depot for housing of cars or other special accommodation, and which I do not consider would be necessary.

The total length of the proposed track would be approximately 1.486 miles, this figure being obtained from the Melbourne and Metropolitan Board of Works' Plans.

In view of the fact that the proposed route traverses a very densely populated district, and would be connected to the Hawthorn electric tramway at the intersection of Church and Swan Streets, I believe that the traffic would be heavy, and would recommend that a double track be installed throughout.

## PERMANENT WAY, SPECIAL WORK AND OVERHEAD CONSTRUCTION.

The Permanent Way and Overhead Construction would be similar to that adopted by the Hawthorn Tramways Trust. A considerable amount of work would have to be undertaken in regard to alterations to water mains and sewers, and for this work we have obtained an estimate of the cost of these alterations from the Melbourne and

Date 31st. August, 1917.

In continuation to The Chairman,

Hawthorn Tramways Trust.

Page No. 2.

28473 .

Metropolitan Board of Works.

The Special Work required will consist of the following :-

4333 6 6

- 4 way crossing and curves at the corner of Swan and Church Streets.
- 1 double track cable tramway crossing at the intersection of Bridge Road and Church Street.
- 2 turnouts.
  - Held crossover. To stires 250 ...

### Factor Main from Elec. Supply SUPPLY OF POWER AND ROLLING STOCK.

It would be necessary to arrange with the Melbourne Electric Supply Co. for current from their central station in Richmond, to the mains of the Hawthorn Tramways Trust, regarding which, there would be no engineering difficulty.

Four cars of the combination type would be sufficient for the service recommended. The cost of the cars has been included in the estimate, although, the present rolling stock of the Hawthorn Tramways Trust may be found to be sufficient for the purpose. In the latter case, the charge for use of these cars would work out less than the cost for new cars.

## COST OF CONSTRUCTION.

### PERMANENT WAY. -

edial lecal conditions which exist, 1.486 miles double track standard construction
@ £12240-0-0 per mile ...... 18188 13 .

Altering Sewers, manholes etc. and removing bench marks and boxes, (Estimate of M. M. Board of Works)

Altering Water Mains (Estimate of Melbourne and Metropolitan Board of Works). ..

1800

The angual car mileage, after allowance 1 22473

### SPECIAL WORK. - Time of the day, and a liberal allowance for

- 1 4 way crossing and curves at corner of Swan and Church Streets 100
- 1 double track cable tramway crossing .. .. .. 833 6 8

which shows a return of 213,950.

4133 22473

Forward

Date 31st. August, 1917.

continuation to The Chairman, Hawthorn Tramways Trust. Page No.3.

	Forward.			4133	6	a	£ 22473			
	turnouts	000	0.0	0 0	314		0.50			
1 c	crossover				334			200 4	0	
							PHIDMINGS	4781		0

### OVERHEAD CONSTRUCTION. - 238,000 car

1.486 miles Overhead Construction 10683 for double track, including special overhead construction 2770 .

Estimated cost of alterations to P.M.G's Dept's Wires and Melb. Elec. Supply Co's wires

250

Feeder Main from Elec. Supply
Street 1300

4320

## ROLLING STOCK. - usion, I desire to express the epinion that the

4 Combination type cars @ £1600 at public will 6400

## INTEREST, ENGINEERING & CONTINGENCIES.

Interest during construction

694

Engineering Fees and Unforeseen contingencies

2000

Your chediers servan

2694

240668

### PROBABLE REVENUE. A. McCarts

Bear Sir.

I understand that the population within a quarter of a mile of the proposed line is approximately 18,000, and after taking into consideration the special local conditions which exist, I have no doubt that the revenue for the first year's operation would be somewhere in the neighbourhood of 15/6, and for the purpose of estimating the revenue of the first year of the proposed line. I have taken as a basis 15/6 per head of population served, which shows a return of £13,950.

The annual car mileage, after allowance for slack periods at different portions of the day, and a liberal allowance for special car mileage during the rush periods, such as Friday nights, would be approximately 232,000 miles per year.

The financial result would therefore, work out as

follows :-

DERWOOD & CO.

Date 31 st. August, 1917.

intinuation to The Chairman,

Hawthorn Tramways Trust.

Page No. 4.

ESTIMATED REVENUE	• •	£13950	•	•
Estimated Expenditure, 232,000 car miles at an operating cost of 11d. per car mile	• •	10623		
Interest on £40668 @ $5\frac{1}{8}\%$	0 0	2236		
Renewals Reserve Fund - 21% on £33440-0-0	• •	836		
Total Expenditure	• •	£13705		

In conclusion, I desire to express the opinion that the proposed tramway would supply a very great public utility, and in my opinion, the revenue will meet all charges and at the same time, show a net profit as above.

I beg to remain,

Bear Sir,

Your obedient servant,

(Sgd) F. A. McCarty



Members

Epurch Il

28th Sept 1917

Dear Sir The desire an analysis that construction of the dis-

For your information I enclose copy of Mr McCarty's report upon the proposed Church Street Tramway and also of letter to Town Clerks of Melbourne Hawthorn & Camberwell. The Chairman desires me to say that if there are any points not made quite clear, he will be glad to explain to you if you will kindly enquire of him.

Yours faithfully,

ACTING SECRETARY

AND-

The Town Clerk CITY OF RICHMOND

Dear Sir

### Proposed Church Street Tramway

At the last meeting of the Trust the following resolution was carried viz:-

"The Trust is of opinion that construction of the line is desirable, and that subject to approval of constituent Councils, the Trust should apply for Order-in-Council, and construct and operate the line when the time is considered opportune on behalf of the Richmond Council, subject to the Richmond Council agreeing to bear lass, if any resulting."

I have now pleasure in enclosing for the information of your Council, copy of report from our Engineer & Manager, and also copy of letter to the Rown Clerks of Melbourne, Hawthorn and Camberwell.

I shall have pleasure in advising you of replies received in due course.

Yours faithfully,

ACTING SECRETARY

DAR

Town Clerks Melb. Haw and Camb.

Church 21.

Dear Sir

The Richmond City Council has requested this Trust to conetruct and operate a double track transay along Church Street and at the last meeting of the Trust the following resolution was carried vist-

The Trust is of eminion that construction of the line is desirable, and that subject to approval of constituent Councils, the Trust should apply for Order-in-Council, and construct and operate the line when the time is considered opportune on behalf of the Richmond Council, subject to the Richmond Council agreeing to bear loss, if any, resulting.

I now submit for your information copy of report from our Engineer and Manager, who estimates from the operation of the line a profit of 2245:0:0: per annum, assuming it, as part of the system of this Trust, but without including any contribution for interest and sinking fund on Car Depot, or general overhead expenses. It is expected the proposed line would bring considerable traffic to our present system. particularly to Wattle Park and Burwood, and when Church Street line is extended over the river to Toorak Road it would provide via Swan Street another entrance to Melbourne, which will become increasingly necessary to relieve congestion on the St. Kilds road. If the constituent councils approve of the construction and operation of the line in accordance with above resolution, an enabling Act of Parliament would be required and also an Act to extend the borrowing powers of the Trust. Whilst it is considered advisable that the necessary authority be obtained as early as possible, it is not proposed that the construction should be proceeded with until after the war when a considerable saving on present cost of material can be expected. This also means that the work would be carried out at a time when ample labor is likely to be available.

will you please have the matter submitted to your Council and advise me of its decision at early convenience.

Yours faithfully.

ACTING SECRETARY

My billeted abusher of parallele have been popelled have been popelled in the section of the sec

240

Q Calleron

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE TOWN CLERK.

TELEPHONE: CANTERBURY, 916.

F.J.S.

City of



Camberwell,

Town Hall

Camberwell

10th Oct., 1917.

Sir,

I am instructed to acknowledge the receipt of your letter of the 27th ult., in regard to proposed construction of a Tramway along Church Street Richmond. In reply I am to state that this Council as a constituent member of the Trust approves of the Trust undertaking the building and operating of such line, at an opportune time, on behalf of the City of Richmond subject to the Richmond Council agreeing to bear all losses (if any) resulting.

Yours obediently,

Town Clerk.

The Acting Secretary,

Hawthorn Tramway Trust,

31 Queen Street,

MELBOURNE.







City of Richmond,

Town Hall, oct. 10th 1917.

PROPOSED CHURCH STREET TRAMWAY.

Sir,

I have the honor to acknowledge the receipt of your letter dated 27th September enclosing copy of report of your Engineer and Manager and also copy of the letter forwarded to the Town Clerks of Melbourne, Hawthorn and Camberwell relative to the above. At the last meeting of the Richmond City Council after hearing the Chairman and the Engineer and Manager of the Trust the Council passed a resolution approving of the proposed tramway and to the terms and conditions of the Trust set out in your communication.

Yours obediently,

Town Clerk.

Acting Secretary,
Hawthorn Tramways Trust,
31 Queen-st.,
MELBOURNE.

AM



TEL. Nos 1, 2 & 3 HAWTHORN.



B à r/-

Referring to your letter of the 27th ulto., forwarding copy of report by your Trust's Engineer & Manager, relative to the Richmond City Council's application for a double track tramway to be constructed along Church Street, Richmond, and requesting this Council's approval of proposal, I have to inform you that the matter has been deferred for further consideration.

You will be duly notified when the Council has arrived at a decision in regard thereto.

Yours obediently,

TOWN CLERK.

The Acting Secretary,
Hawthorn Tramways Trust,
31 Queen Street,
MELBOURNE.

REP

ar

in

30th Oct. 1917

Cr H. H. Smith
290 Lonsdale Street
MELBOURNE

Dear Sir

I am enclosing copy of letter from the Acting Town Clerk, Melbourne in regard to the Church Street tramway. At the last meeting of the Trust this matter was referred to yourself and Cr. Shillabeer to bring again before the Committee with the view of reconsideration, the other three municipalities having given their consent to proposal.

Yours faithfully

ACTING MCRETARY

pale

30th Oct 1917

Gr F. E. Shillabeer
Flinders Street
MELBOURNE

Dear Sir

I am enclosing copy of letter from the Acting Town Clerk, Melbourne, in regard to the Church Street tramway. At the last meeting of the Trust this matter was referred to yourself and Cr Smith to bring again before the Committee with the view of reconsideration, the other three municipalities having given their consent to proposal.

Yours faithfully

ACTING SECRETARY

RAL

uly

nte

A LOD Church St Richmond 2 July 1918 Le Directors Electric transCoy. Dear Lis Sam glad to see by totays age there so a liklihood at part of Church It. but Lis why make a terminus at Twace of ? why not continue the line through Claurch at to the siver at attologod which would link up a large amount of closely populated district of accommon a large munter of residents, a line from The Tark along Church et direct to It helde track! would be I am eme The most profit able line in any of the cuburbo as at present anyone wishing to havel to the trilde from Anth, 4 West- Rechmond & East-Clyton Hill, Collegewood & abologad have to travel through Town to get to the beach, a direct live would he a boon Aspiny to see the new live Extended Throughout Church Of

8th July 1918

Mr J. Brown Church Street RICHMOND Dear Sir pour letter of had inst, was placed before by Triat at the execution

on a matropolitan spatem.

1 Junes

The proposal to construct a creme I beg to acknowledge receipt of your letter of 2nd inst and to sta shate that same will be submitted to Members at their next meeting after which you will be further advised. Yours faithfully

ACTING SECRETARY

Mr J. C. Jones Church Street RICHMOND

Dear Sir

on Friday evening last and received. The proposal to construct a tramw way along Church Street has been previously brought under the notice of the Trust by the representatives of the Richmond City Council, when Members expressed the opinion that the line should be constructed as part of a metropolitan system.

Yoursefaithfully

ACTING SECRETARY

QHQ.