

- 1411 Malvern Rd Recon. 1
- 1482 Waller St Dupl<sup>tn</sup> Lifting 2
- 1483 Waller St Reconstruction 3
- 1749 Moorbyrning Rd Sup. 4
- 1718 Malvern Rd Rec<sup>tn</sup> 5
- 2093 Malvern Rd " 6
- 1954 Mt Alexander Rd of Re-location
- 1798 Moonee Gt. Ridge. Laying Tracks 8  
Renewal of
- 1861 Malvern Rd Reconstr. 10
- 2091 Mr. Alex. Rd Reconstr. 9
- 2232 Moorbyrning Rd. Paving 11 & 11<sup>A</sup>.
- Malvern Car Shed see Coldbto Rd Depot
- 1414 Melville Rd Whitby St - Moreland See. W.I.  
Dupl<sup>tn</sup> & Constn.
- ~~2045 Moreland Rd Recon. Lifting, Resurfacing 12.~~
- 2851 Mt Alexander Rd Recon. opp. Essendon Depot. 13.
2874. " " " Opp. Ess Depot. 12' SW drain. See. E.6.
- 2782 " " " N<sup>th</sup> Dupl<sup>tn</sup> & Recon (Hatchers Shamrock) 14 & 14<sup>A</sup>
2845. Moreland Rd - Holmes St. Renewal of Jct? 15.
2821. Melville Rd (Imperial Ave). <sup>N<sup>th</sup></sup> End of reverse curves at Reynolds Rd 16.  
To 20' N<sup>th</sup> of end of D.T.
2822. " " " " 20' N of end of D.T. to 240' N<sup>th</sup> 17.
2945. Moreland Rd Holmes St to Sydney Rd Lifting, Reconstr. etc. 18.
2993. Market St - Flinders St Renewal of Cable-Elec Wiring. See. F.9.
2423. Malvern Depot (New) 3 roads inside shed. See C.15.

**JOB:** Koolven Rd Reconstruction W.O. No. 1111  
 From Burke Rd to Menferu Rd  
 Est. mate £ 15000 (1/16/79) Cost £ 7753 18503  
 Cost per 100' of D.T. £ ~~345~~ 344 Cost per mile of D.T. £ ~~18100~~ 18180  
 Length ~~5465'~~ 5375' of D.T. (excluding lengths done on W.O.s 1247 & 1308.)  
 Work commenced 30/9/26 Work completed 26-4-27  
 Date of trial trip Date of 1st. service Under traffic  
 Traffic conditions Under traffic  
 Cost. Lab. & Cart. £ <sup>on</sup> 723 12354 Material £ 6030 6149 of Total  
 Cost. Lab. & Cart. 66.8% Material 31.2% of total  
 Percentage Overhead 31.2% of Lab. Engineer P.A. Eakin

Particulars

	Existing	New	
Drain		4" B.G.	Org. P. 3689
Aches		3"	
Foundation	5" Ballast	7" Ballast	
Supports	7'6" x 9" x 4 1/2" Keon	8' x 9" x 4 1/2" Keon	
Stringers			
Rails	Galv. B.S. 101	Same	
Fastenings	Dogshead	Dogshead	
Paving	Ball Tar Pen	Ball Bit Pen	
Surfacing	Tar for	Bit	

**Notes:** Approx Chainage Limits - (See P. 3738, 3739, 429.)

- 21' at G'ferrie Rd Xing to + 2846' at Parslow St. D.T.	= 5734	S.T.
3374' W. of Teeranga Rd to 4572' at Edgar St on S <sup>m</sup> . Tr.	= 1198	"
3374' - - - - - " - 4890' " Osborne R. on N <sup>m</sup> . Tr.	= 1516	"
5025' E. of Osborne R. on N <sup>m</sup> . Tr. to 6362' M.P. Curves to Burke Rd	= 1337	"
5396' at Belmont R. on S <sup>m</sup> . Tr. - 6362' - - - - -	= 966	"
	<u>10751</u>	"

JOB. Miller St ~~Lighting~~ Duplication W.O. No. 1482  
 From George Rd to Gilbert Rd.  
 Estimate £ 6729 Cost £ ~~6724~~ 7500  
 Cost per 100' of S.T. £ 314.5 Cost per mile of S.T. £ 16600  
 Length 2385' of S.T. & C. South Track includes curves see sketch.  
 Work commenced 23/4/27 Work completed 28/6/27  
 Date of trial trip. Date of 1st. service 28-6-27.  
 Traffic conditions Duplication  
 Cost. Lab. & Cart. <sup>+OH.</sup> £ 3459 Material £ 4041  
 Cost. Lab. & Cart. <sup>+OH.</sup> 46.1 % Material 53.9 %  
 Percentage Overhead 30% of L.R.C. Engineer W Bell

## Particulars

	Existing	New
Drain		4" G.T.
Grates		3"
Foundation		7" Ballast
Stoppers		8' x 9' = 4 1/2" Keon
Gravels		solts No 801 1/2" New
Doors		Doors
Lighting		Bell 1' 1/2" New
Paint		Bit

Gilbert Rd.

12480'  
12462'

Northcote Council was to pay £ 800 towards cost

Reconst: in Black W.O. 1483 (opposite).

Duplication in Red W.O. 1482

Miller St

12480

10095'

2385' of S.T. &amp; C.



For chainages see P. 4078

10095'

St George's Rd

End of Record  
10180'



JOB. *Walter & Reconstruction* W.O. No. *1483*

From *St. Georges Rd* to *Gilbert Rd* North Track

Estimate £ *4780* Cost £ ~~*7852.18.9*~~ *8754.*

Cost per 100' of S.T. £ *387* Cost per mile of S.T. £ *20400.*

Length *2262'* of *single track* including *24 1/2' S.T. Sp. 100.*

Work commenced *26/2/27* Work completed *26/6/27*

Date of trial trip \_\_\_\_\_ Date of 1st. service *Under Traffic.*

Traffic conditions *usual*

Cost. Lab. & Cart. <sup>TON</sup> £ *6177* Material £ *2577*

Cost. Lab. & Cart. <sup>TON</sup> *70.5 %* Material *29.5 %*

Percentage Overhead *34.7%* of L.R.C. Engineer *H. H. Bell*

Particulars

	Existing	New
Drain		<i>4" A. type</i>
Ashes		<i>3" ashes</i>
Foundation		<i>7" Ballast</i>
Sleepers		<i>8" Hewn 9x4 1/2</i>
Stringers		<i>-</i>
Nails		<i>30 lb (801) earthing</i>
Fastenings		<i>Dogspikes</i>
Paving		<i>Macadam</i>
Surfacing		<i>Bit Surf</i>

Notes: - *Chainage Limits, as shown on sketch opposite. (Sec P. 2078).*

*10180' in St Georges Rd*

*12442' .. Gilbert Rd*

*2262' of S.T. (N.M).*

*Northcote & Preston Councils were to pay £900 towards cost.*

JOB. Branchway Rd duplication W.O. No. 1749  
 From Union Rd to Hotham St 600  
 Estimate £ ~~2815~~ 2820 Cost £ 2734  
 Cost per 100' of 5 1/2 ft £ 256.5 Cost per mile of 5 1/2 ft £ 1356  
 Length 1066' of 5 1/2 ft South Track.  
 Work commenced 26.4.28 Work completed 28.5.28  
 Date of trial trip 23-5-28 Date of 1st. service 23-5-28.  
 Traffic conditions duplication  
 Cost. Lab. & Cart. £ 1508 Material £ ~~1225~~ 1226  
 Cost. Lab. & Cart. 54 % Material 46 %  
 Percentage Overhead while 47% Engineer H. A. Bell

## Particulars

	Existing	New
Chain		Type A
Links		3"
Foundation		7" ballast under sleepers
Timbers		New 8' kecon
Sleepers		
Posts		kecon galls
Fastenings		knags
Bracing		Ball
Surfacing		bitumen

Chainage Limits:- 6470' near Union Rd.  
7536' at Hotham St.  
1066' of ST&C.





108. Halvern Rd Rec W.O. No. 2093  
 From W of Denisham Rd to Glenferrie Rd

Estimate £ 14288 Cost £ 13451  
 W.O. Amount £ 12,600

Cost per 100' of ST £ 172 Cost per mile of ST ~~£ 172~~  
 Length 7830' of ST = 3915' D.T. £ 9080

Work commenced 17/4/24 Work completed 9/7/24

Date of trial trip - Date of 1st service -

Traffic conditions Trains running. Under traffic.

Cost. Lab. & Cart. <sup>OH</sup> £ 8658 Material £ 4793

Cost. Lab. & Cart. <sup>on</sup> 64.4% Material 35.6%

Percentage Overhead 59% on L. Engineer 84%  
 56.5% on L.C.

Particulars

	Existing	New
Drain	?	4" alg
Ashes	?	3"
Foundation	Ballast	7" metal under slors
Sleepers	Hardwood	new 8' heavy
Stringers	-	-
Rails	90lb	Existing (Some 90lb remain elsewhere)
Fastenings	Dogs	See below
Paving	tar mac	Bit pen
Surfacing	-	-

Notes:- Sleepers are Rb, Lb, or box  
 (said to be Rb, dipped in creosote + kero)

Rail. no replacements

Dog plates 83 pro used. Dogs, all new

Nuts & bolts 538 R2 "

Clearance Limits: (Sec P. 474B & P. 5163)

11100' W of Denisham Rd  
 15015' at Glenferrie Rd  
 3915' of D.T.



Ht Alexander Rd

JOB: Re-location of tracks in plantations W.O. No. 1954  
From Dine Station to Keilor Rd

Estimate £ ~~15779~~<sup>16350</sup> Cost £ ~~7222~~ 14,395

Cost per 100' of S.T. £ ~~396~~<sup>207</sup> Cost per mile of S.T. £ ~~20,400~~<sup>10,930</sup>

Length ~~6390~~<sup>6949</sup> of S.T. (~~2445~~ DT)

Work commenced 2.1.29 Work completed 30.3.29 except for top screenings.

Date of trial trip 23-3-29 Date of 1st service 5-3-29

Traffic conditions No traffic except at ea. end

Cont. Lab. & Cart. £ ~~6331~~<sup>2041 6286</sup> Material £ ~~6944~~ 8109

Cont. Lab. & Cart. ~~48~~<sup>437</sup> % Material ~~57.563~~ %

Percentage Overhead 555% of Engineer ~~R. Ball~~  
Labor & Cartage.

Particulars

	Existing	New
Drain		Open ballast
Joins		4" abs
Foundation		3" consol
Sleepers		6" metal consol
Stringers		8' beam (red gum?)
Rails		-
Fastenings		80lb A.S.
Paving		new dogs
Surfacing		bit pen at X streets
		libydale scrps in open ballast, laid 14/11/20

The existing S.T. was laid on the West side of the plantation, 90lb rail stringers, concrete base (laid by Mr Murdoch), and grom. The rails were removed, & the Council made good the road surface. New S.T. laid in centre of plantation.

Notes:-

At the cross streets, 80lb-40 Rail was fitted with flat steel guard, c.s. blocks & bolts. At Dine Station end, turnout is 801 rail, & temp conn to single line is 90lb reconditioned. At Keilor Rd end, new outer curves ~~was~~ laid, using 801 rail & guard rail. The straight thence to the turnout was 90lb recond. also the turnout 90lb. 6x4" in plantation was light & easy, spoil put mostly in plantation.

Sketch plan of job

See sketch on back



W.O. 1954  
Mt Alexander Rd  
Relocation & Dup<sup>n</sup>

Existing track shown in ink  
Track laid under the  
W.O. shown in pencil

For Chainages

See Plans

P4338 & 4419.

Length of Job.

$$\text{WT } 206 - 3790 = 3584$$

$$\text{ET } 419.5 - 3784.5 = 3365$$

$$\text{Total} = \underline{6949 \text{ of ST}}$$

also removal of 3772' of ST  
from W. side of Mt Alex Rd.

Note  
at cross streets,  
flat guard plate is  
used with A.S. rails.

Brands on Rails

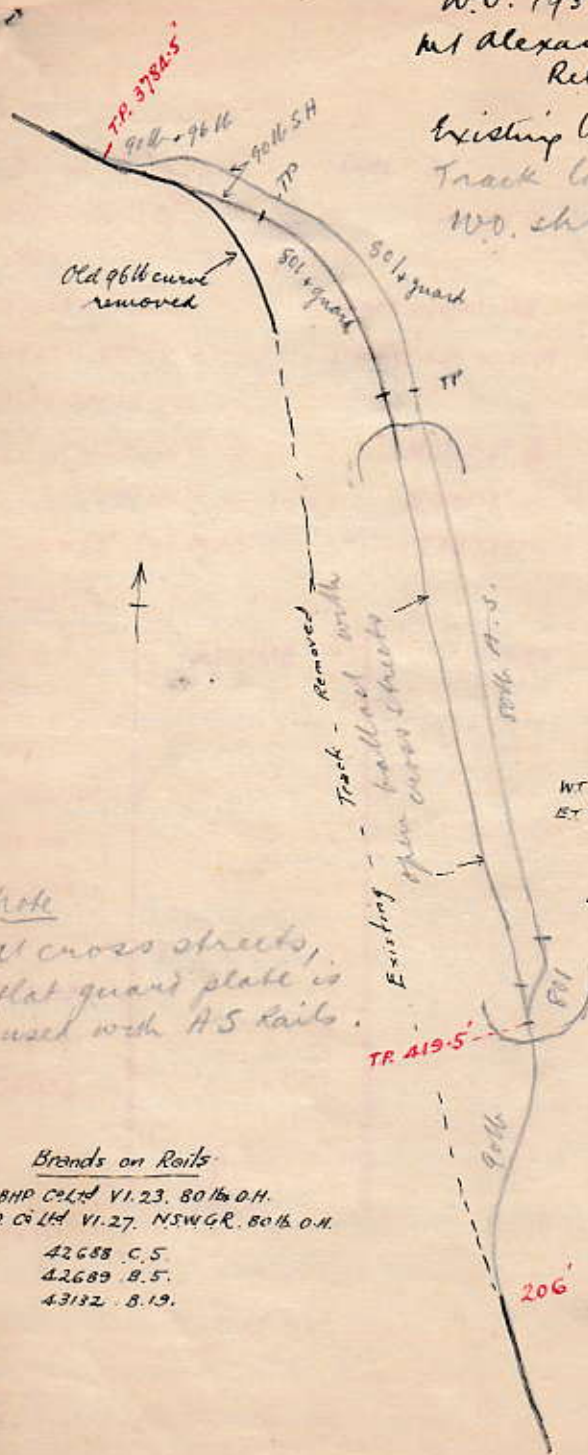
A.S. BHP Co Ltd VI.23. 80 1/2 O.H.

BHP Co Ltd VI.27. NSWGR. 80 1/2 O.H.

42688 C.S.

42689 B.S.

43132 B.19.



JOB. *Moonee Ponds Gk. Bidge Tracks* W.O. No. 1798  
*in Racecourse Rd*

From to  
Estimate £ 1026 Cost £ 1355  
Cost per 100' of D.T. £ 684 Cost per mile of  
Length 198' of D.T.

Work commenced 18-6-28 Work completed 31-10-28

Date of trial trip 4-8-29 Date of 1st. service 4-8-29

Traffic conditions Nil —

Cost. Lab. & Cart. <sup>+on</sup> £ 503 Material £ 852

Cost. Lab. & Cart. <sup>+on</sup> 37.1% Material 62.9%

Percentage Overhead 61.7% of L&C. Engineer N.H. Bell

Particulars

	Existing	Details (See P.4471).
		New
Drain		Nil
Ashes		
Foundation		Structure of Bridge
Sleepers		Nil
Stringers		Nil
Rails		102 lbs
Fasinnings		(MAMTA. 102'06 lbs 08. DL & C. LTA 1927).
Paving		Mattitud under rails.
Surfacing		Wood blocks 4 1/2"
		Bitumen

Notes: Laying of Double track  
across Moonee Ponds Gk. in  
Racecourse Rd.

Chainages - (See P.4713). 1333' to 1531' = 198' of D.T.



JOB: Mt. Alex Rd. Reconst. W.O. No. 2091

From Moonee Ponds Bdg to N of Victoria St

Estimate £ 7368 Cost £ 8477 8540

Cost per 100' of D.T. £ 527 Cost per mite of D.T £ 27,800

Length 1621 of D.T. - 3242' S.T.

Work commenced 8-8-29 Work completed 15-1-30

Date of trial trip - Date of 1st. service

Traffic conditions done under traffic

C.S. Lab. & Cart. £ 5660 Material £ 2817 2880

Cost: Lab. & Cart. 66.3% Material 33.7%

P. centage Overhead Est 59% Engineer H. H. Bell

Actual 57% on L. or 49% on L.A.C.

Particulars

	Existing	New
Drain	4" Ag.	11" Ag. Drain
Ashes	3	3"
Foundation	6" Ballast	7" metal under sleepers
Sleepers	8' Newn.	8'0" Newn Sleepers
Stringers		
Rails	30 lb. existy	102 lb on straight
Fastenings	Dogs.	curves outer rail - 102 lb new inner " = New + SH 96 lb
Paving	Tar Pen Mac.	Macadam
Surfacing	Tar.	Bitumen

Chainage Limits: - 7141 N. end Bgc over creek 8762' N. of Victoria St = 1621' of D.T

Track levels dropped extensively to suit M.C.C. reconstruction of paths & roadway.

Notes: - Portion of the paving was not completed as it could not be properly consolidated at the time owing to the Council reconstructing their side roadway at the same time. This accounts for high cost of watching & lighting





# Rerailing North track

M. 11

JOB Marbyrnong Rd. Reconst. W.O. No. 2232

From Union Rd. to Terminus

Estimate £ ~~2850~~ 3923 Cost £ 3957

Cost per 100' of S.T. £ 99.42 . Cost per mile of S.T. £ 5250

Length of 3980' S.T. (North Track)

Work commenced 29-7-29 Work completed 30-8-29

Date of trial trip Date of 1st service

Traffic conditions under traffic (A few stringers renewed at night time)

Cost Lab. & Cart<sup>ton</sup> £ 2118 Material £ 1841

Cost Lab. & Cart<sup>ton</sup> 53.4% Material 46.6%

Percentage Overhead 57% on L. Engineer H. H. Bell  
51.5% on L.&C.

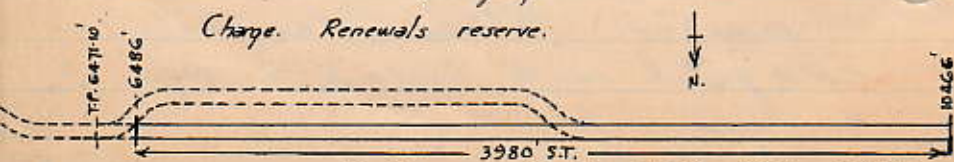
Particulars Details See P. 3394

	Existing	New
Drain	3" Ag. in sand on N. side of trench	existing
Asres	Nil	
Foundation	7 1/2" x 12.4 Conc under stringers	"
Sleepers	At loop ends only	" (7 new sleepers used)
Stringers	mostly existing, a few length renewed	(15' x 9" x 11" jarrah)
Trails	3" x 1/2" jarrah pitch between str & rail grooved probably 90 lb.	3 1/2" Bitumen & pitch mixture run in under rails
Fastenings	90 lb perconditioned Ron D'oreas etc.	
Paving	Anchor Bolts & clips in pair 5" 0" Centres	Same used
Surfacing	macadam	Macadam Bit. Pen.
Joints :-	Probably Tar	Bitumen
	Fishplated. Elec welds here wire	All rammed. Fishplated, Elec. welds, covered wire

This W.O. was extended from Lennax St to near Union Rd.

Notes:- See next page for Notes

Charge. Renewals reserve.



Marbyrnong Road. Rerailing N.T. shown in full lines.

See 40' plans P. 4354 & P. 4823

W.O. 2232

Maribyrnong Rd Re-railing

Paving excavated + forked  
 Old rails oxy cut out. Reconditioned  
 rails (Phoenix ex Malvern Rd +  
 Lorain Sandberg ex Swan St Richmond,  
 Church St - Rly Sta) thrown in on old  
 stringer. Same bolts + clips used.  
 Bolts good but clips long nosed c. 1.  
 a poor fit. Rail flanges were oxy-  
 cut in places to fit clips, also tiebar  
 holes enlarged w/ oxy.

Existing stringer evidently pavers  
 is generally in good cond<sup>n</sup> but  
 pumping in places. Nothing done to stop  
 this. Concrete slab cracked across  
 in places - not repaired in any way.  
 Mixture of 3/40 bitumen + pitch  
 was run in under rails using sand  
 rows. Rails do not fit stringer  
 in places due to cant on the  
 original rails.

The original stringer track was laid (reconstructed)  
 by N.M.E.L. & T.C. about 1919. (Intd A.O.M).



JOB. Mt. Alexander Rd. Reconstruction W.O. No. 2851.

From Opp. Essendon to Depot.

Estimate £ 2418 Cost £ 3189.

Cost per 100' of S.T. £ 276 Cost per mile of S.T. £ 14,600

Length 1154 of S.T. including 2 run-outs from Depot.

Work commenced 26-4-32 Work completed 10-8-32

Date of trial trip Date of 1st service.

Traffic conditions As usual.

Cost. Lab. & Cart. <sup>TON.</sup> £ 1967 Material £ 1222

Cost. Lab. & Cart. <sup>TON.</sup> 61.7% Material 38.3%

Percentage Overhead 77.75% on L. Engineer H.H. Bell.  
15% on Head Ctye.

Particulars

equiv.

Details. See P. 6258 & P. 6263.

	Existing	Now
Drain	4" Ag.	Type 'A'
Ashes	3"	4"
Foundation	6" Ballast	7" Ballast.
Sleepers	8' x 4 1/2" Hewn	8' Hewn. { New on SW & run out 50% new on ST.
Stringers		
Walls	90lb. new	90lb. reconstd. 36lb new in SW. on low legs.
Joints	Fishplated.	Fishplated
Fastenings	Dogs.	{ Skaper Plates, Bolts & Clips at S.W. Dogspikes on Straight Track
Paving	Tar Per.	Tar Iraq. Penet: 70-80.
Surfacing	Tar. Serps.	Tar Iraq. Bit. (Telaco).

Notes:—

Chainage Limits:—

N.T. 17246 - 17650 = 404' ST

S.T. 17246 - 17686 = 440' ST

Plus New run out installed = 150'

" Old " - reconstd = 160'

Length of job. = 1154' of S.T.

Joints:— 1/2 Total Fishplates renewed.  
All joint plates renewed.

Welding. Covered wire electrodes long joint plates used.

Mt. Alexander Rd North.

JOB. Reconstruction (relocation) &amp; Duplication W.O. No. 2782.

From Fletcher St curves to Approx. 400' N of Shamrock St

Estimate £ 6816 Cost £ 5414

Cost per 100' of D.T £ 385 Cost per mile of D.T £ 20,330

Length 1405' of D.T.

Work commenced 7-12-31 Work completed 10-11-32

Date of trial trip Date of 1st. service

Traffic conditions Under usual traffic.

Est. Lab. & Cart. <sup>+OH</sup> £ 3074 Material £ 2340Est. Lab. & Cart. <sup>+OH</sup> 56.8% Material 43.2%Percentage Overhead 81.65% on L. Engineer H.H. Bell.  
15% on hired C.Particulars

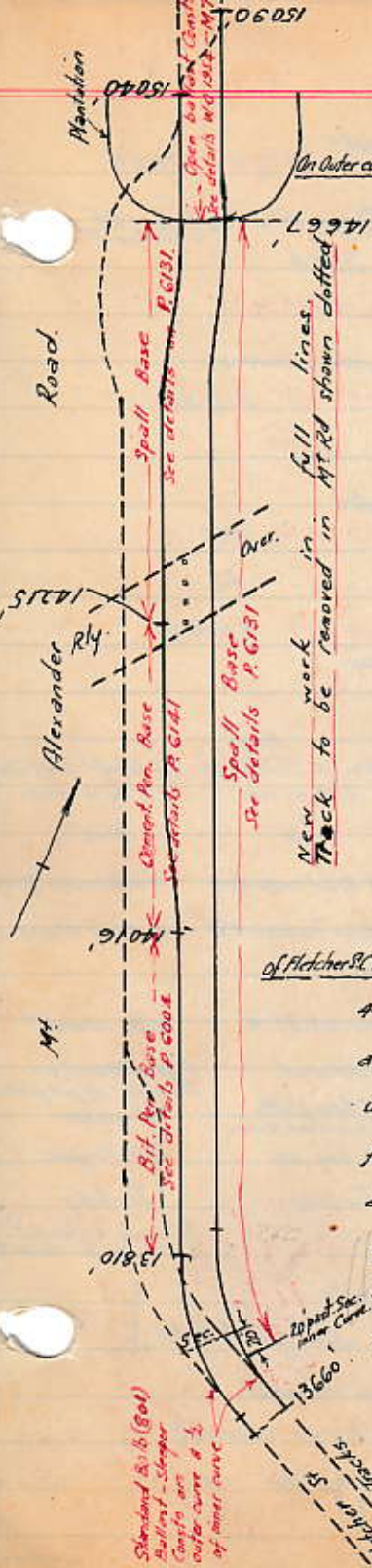
	Existing	New
Drain	Spill drain	
Ashes	1" 3"	
Foundation	6" Ballast.	For balance of new details
Sleepers	8' x 9" x 4 1/2" Hem. white.	See page 14 <sup>A</sup>
Stringers		
Rails	90 lb.	
Joints	Fishplated (No joint plates)	Fishplated. Long joint plates used. (All 90 lb fishplates renewed)
Fastenings	Dog spikes.	
Grading	Bit. Per. Mac.	
Surfacing	Bitumen.	
Welding.	Bare wire	Covered wire

Notes:—Chainage Limits:— See P. 6116.

Reconst:— W.T. 13660' in Fletcher St to 15040' in Mt Rd past Shamrock St } = 1580' ST.  
 " E.T. 13660' " " " " 13860' " " " N of Fletcher St Curves }  
 Duplication:— E.T. 13860' " " " " 15090' " " " past Shamrock St } = 1230' ST.  
 (Continued on Page 14<sup>A</sup>). Length of Job = 2810' ST



Various Types of Track used.



On Outer curve & inner curve Fletcher St to Mt. Alex<sup>r</sup> Rd

Standard <sup>80 lb</sup> ballast-sleeper construction.

On W.T. From 13810' to 14016' See P. 600A.

4" Ag. drain, 1" of 3 1/2" ashes, 5" metal base except 12" strip over sub-drains, penetrated with bitumen, plus 2" of packing metal under sleepers. 8'0" x 9'2" x 4 1/2" hewn sleepers, 90 lb rails fastened with dog spikes, macadam paving penetrated & sealed with tar iraq.

On W.T. From 14016' to 14215' See P. 6141.

4" Ag. drain on conc base, 1" of 4" ashes, 6" to 6 1/2" Cement penetration base of 2" metal & 3:1 cement compo. 2" of bituminous packing under sleepers except for an 18" strip over sub-drains 8'0" x 9'2" x 4 1/2" hewn sleepers, 90 lb rails dogs-piked to sleepers, macadam paving penetrated and sealed with tar iraq.

On W.T. From 14215' to 14667' & on E.T. from 20'S of Sec. of Fletcher St to 14667'. See P. 6131.

4" Ag. drain, 1" of 4" ashes, old 5" cubes blinded with ashes used to form a 5" spall base, plus 3" metal under sleepers, 8'0" x 9'2" x 4 1/2" hewn sleepers, 90 lb rails fastened with dogspikes, macadam paving penetrated and sealed with tar iraq.

On both tracks N of Chainage 14667'

Open ballast. See details on M.T. W.O. 1954.

Rails used

On curves at Fletcher St - 80 lb reconditioned

On reverse curves each side of Rly. 90 lb new.

On straight between Fletcher St & Mant<sup>2</sup> 90 lb reconditioned

On open ballast portion. 80 lb. A.S.

Standard 80 lb (80) Bullhead - Sleeper Confin. are outer curve & 3/4 of inner curve

Bif. Pen Base

Cement Pen. Base

Spall Base

Moreland Rd. Holmes St. Intersect<sup>3</sup>

JOB. Renewal of junction etc.

W.O. No. 2845

FROM approx. 280' S. of S.B.L. Moreland in Holmes St. TO approx. 20' N. of N.B.L. of Moreland Rd. in Nicholson St.  
Also complete renewal of Jctn.

Estimate £ 32.99

Cost £ 3584.

Cost per 100' of

£

Cost per mile of

Length 988' of S.T. including jctn &amp; curves.

Work commenced 11-7-32 Work completed 3-9-32

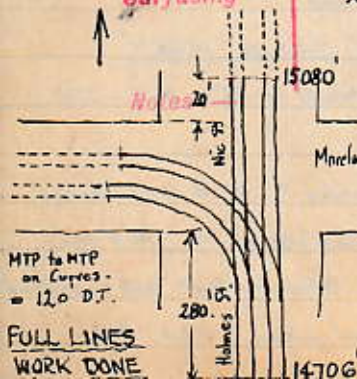
Date of trial trip

Date of 1st. service

Traffic conditions Under usual traffic.

Cost: Lab. & Cart. <sup>+OH.</sup> £ 2083. Material £ 1501Cost: Lab. & Cart. <sup>+OH.</sup> 58 % Material 42 %Percentage Overhead 74% on Labour. Engineer H.H. Bell.  
15% on Hired Carriage.Particulars

	Existing.	New.	
		(For S.W. See P. 6258)	(For Straight See P. 6263)
Drain	4" Ag. drain	4" Ag. in conc.	4" Ag. in conc.
Ashes	3"	4" 4"	4" 4"
Foundation	6" Ballast	7" Metal under Strps.	7" metal under Strps.
Sleepers	Probably 7'6"	Sawn Timbers R.G.	8' Hewn sleepers.
Stringers			
Rails	90 # 96 lb.	New 96 lb & S.W.	90 lb. record <sup>ed</sup> .
Joints	Fishplated. Bare wire wlds.	Fishplated.	Fishplated Covered wire elec. welds, 27 joint plates.
Fastenings	Dogspikes	Step. Plates & bolts R.S. clips & Spcl Washers	Dogspikes
Paving	Tar. mac.	Tar Iraq pen.	Tar. Iraq pen.
Surfacing	Tar.	Tar Iraq	Tar Iraq (Concrete & clips not used as on drawg)



Chariage Limits:-

See sketch also 40' P. 6285.

All drain renewed.

2/3<sup>rd</sup> sleepers renewed.1/3<sup>rd</sup> Fishplates "MTP to MTP  
on Curves  
= 120 D.T.FULL LINES  
WORK DONE



308. Melville Rd. (Imperial Ave). Lifting. W.O. No. 2821.

From N<sup>th</sup> end of reverse curves at Reymonds Road to 20' N<sup>th</sup> of end of D.T. N<sup>th</sup> of Reymonds Rd.  
Approx. Estimate £360. Cost £282.

Cost per 100' of S.T. £62.5 Cost per mile of S.T. £3300  
Length. 450 of S.T.

Work commenced 7-4-32 Work completed 18-4-32

Date of trial trip Date of 1st service

Traffic conditions Under Usual Traffic.

Cost. Lab. & Cart. <sup>+OH</sup> £226 Material £56

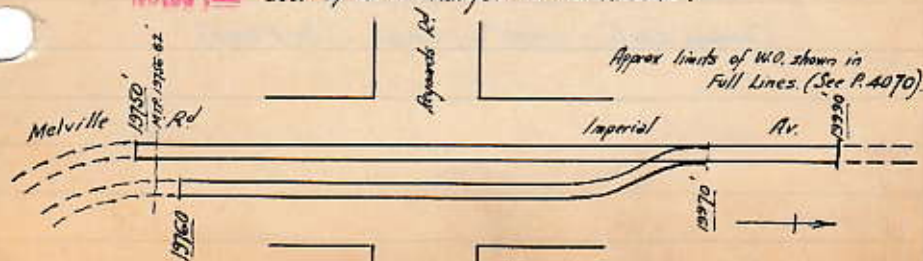
Cost. Lab. & Cart. <sup>+OH</sup> 80 % Material 20 %

Percentage Overhead 82% on Labour Engineer H.H. Bell.  
15% - hired Ctye.

### Particulars

	Existing	New
Drain	4" G.T. (Type A)	No alteration
Joints	3"	"
Foundation	7" Ballast	"
Sleepers	8' x 9" x 6 1/2" Hawn red gum	"
Stringers		
Rails	30 lb Recan. on ST	"
Joints	{ Fishplated - Bare wire weld. Short Sleepers	No alterations. Fishplated, Covered wire with long sleepers.
Fastenings	Dogs spikes	No alteration
Paaving	Bit. Pav.	"
Surfacing	Bitumen.	"

Notes :- Cost of work charged to maintenance.



**JOB.** Melville Rd (Imperial A<sup>c</sup>). Lifting. **W.O. No.** 2822.

**From** approx 20' N of Turnout (Reynolds Rd) **To** 240' N<sup>th</sup> of this point.

**Estimate** £ 100 approx. **Cost** £ 91.

**Cost per 100' of S.T.** £ 38 **Cost per mile of S.T** £ 2,000

**Length** 240' of S.T (West Track).

**Work commenced** 6-4-32 **Work completed** 8-4-32

**Date of trial trip** **Date of 1st service**

**Traffic conditions** Under usual traffic.

**Cost: Lab. & Cart.** <sup>10%</sup> £ 75 **Material** £ 16

**Cost: Lab. & Cart.** <sup>10%</sup> 82.4 % **Material** 17.6 %

**Percentage Overhead** { 82% on Labour **Engineer** H.H. Bell  
15% on Aired C<sup>ty</sup>.

Particulars

	Existing	New
<b>Drain</b>	4" G.T. (Type A)	No alteration
<b>Shoes</b>	3"	"
<b>Foundation</b>	7" Ballast	"
<b>Turners</b>	8x9x4 1/2" Hewn red gum	"
<b>Stringers</b>		
<b>Rails</b>	90 lb. reconst <sup>d</sup>	"
<b>Points</b>	Displated Bare wire web Short Soleplates	No alteration; Displated, covered wire web, long soleplates.
<b>Fastenings</b>	Dog spikes	No alteration
<b>Paving</b>	Brit. Per.	"
<b>Surfacing</b>	Bitumen	"

**Notes** :- Cost of W.O. was charged to maintenance.

**Change Limits** :- 1930' - 20230'. (See P. 4070).



## Moreland Road.

JOB Resurfacing, Lifting, Resleeping, Reconstruction W.O. No. 2945.

From Holmes St to Sydney Rd

Estimate £ 5800 (approx). Cost £ 6120.

Average Cost per 100' of D.T. £ 210.5 Cost per mile of D.T. £ 11100

Length 2910' of D.T. treated.

Work commenced 29-8-32 Work completed 24-12-32

Date of trial trip Date of 1st. service

Traffic conditions Under usual traffic.

Cost. Lab. & Cart. <sup>TOH</sup> £ 4269 Material £ 1851Cost. Lab. & Cart. <sup>+OH</sup> 69.8% Material 30.2 %Percentage Overhead 72% on Labour Engineer H.H. Bell.  
15% on Head Q/c.Particulars

	Existing	New
Drain	4" Ag.	4" Ag. renewed where reconstr'd
Ashes	4"	3" " "
Foundation	6" metal	7" metal. " "
Sleepers	7'6" x 9" x 4 1/2" Hawn.	8' Hawn. 65% renewed.
Stringers		
Jails	90lb.	90lb. existing.
Joints	Fishplated, bare wire weld no subplates.	Fishplated, covered wire weld 15% renewed
Fastenings	Dogs-pikes	Dogs-pikes
Paving	Tar. mac premixed.	B.t. Pen. Mec.
Surfacing	Tar.	Bitumen.

Notes :- Chainage Limits :- (See P. 6285).

N.T. 15086' near Holmes St - 18000' near Sydney Rd	} = 2910' of D.T.
S.T. 15099' - - - - 18006' . . . . .	

Final Charges (See Analysis).

To Reconstr? renewals reserve £ 4453

To Maintenance £ 1667

£ 6120.

Particulars of Work done See P. 6452.

1077' of S.T. (Sawn-rod &amp; repaired).

629' " " (opened to bottom of sleepers &amp; repacked)

3205' " " (New sleepers, Ballast, chain &amp; washers).

910' " " (New sleepers, Ballast, chain &amp; washers).

2920' " " (New sleepers, Ballast, chain &amp; washers).

Resurfacing

Lifting &amp; Packing

Resleeping

Reconstruction.

Clearway resurfaced.

Norwood Rd Burwood R-<sup>route</sup> now called Toorak Rd

1477 Nicholson St (Footscray) Railway Crossing. N3.

1544 Norwood Rd reconstruction 1

1600 Camberwell Rd Dupl<sup>ts</sup> - see C.8.

1768 Nicholson St Duplication 2

1600 Norwood Rd & Camberwell Rd Dupl<sup>ts</sup> See C.8.



JOB. Horwood Rd reconstruction W.O. No. 1544

From Charles St to Burwood terminus

Estimate £ 2000 (2050) Cost £ ~~2105~~ 2200

Cost per 100' of S.T. £ 172.5 Cost per mile of S.T. £ ~~9120~~

Length 1276' of S.T. (North Track)

Work commenced 27/6/27 Work completed 29/7/27

Date of trial trip none Date of 1st. service under traffic

Traffic conditions <sup>at</sup> under traffic

Cost. Lab. & Cart. £ ~~1488~~ 1504 Material £ ~~711~~ 696

Cost. Lab. & Cart. ~~68.4~~ % Material 31.6 %

Percentage Overhead 36% of Lab. Engineer D.H. Eakin's  
= 42.6% of L. only

Particulars

	Existing	New
Drain		4" Hs
Ashes		3"
Foundation	6" Ballast	7" Ballast
Sleepers	7'6" x 9" x 4 1/2"	8' x 9" x 4 1/2" known (where) where necessary
Stringers		
Rails	90lb B.S. 101	Same
Fastenings	Dogspikes	Dogspikes where necessary
Paving	Ball Tar low	Ball Bit low
Surfacing	Tar low	Bit

Notes :- Chainage Limits :-

39483 Charles St

40759 Terminus.

1276' of S.T.

Includes removal of old loop at Charles St (rails only). The points at each end had been removed by Board in 1920.

Coburg

JOB. Nicholson St Duplication W.O. No. 1768  
 From Edna St to within 100' of terminus  
 Estimate £ 2023 (2040) Cost £ ~~2211~~ 2220  
 Cost per 100' of STC £ ~~347~~ Cost per mile of STC £ 18200  
 Length 640' of S.T. Co (East Track).  
 Work commenced 12.6.28 Work completed 4.7.28  
 Date of trial trip 11-7-28 Date of 1st service 3-7-28  
 Traffic conditions Duplication  
 Cost. Lab. & Cart. £ 1014 Material £ 1179  
 Cost. Lab. & Cart. ~~1014~~ 47% Material 53%  
 Percentage Overhead on Lab  $\frac{1589}{39.7}$  Engineer H. Bell

## Particulars

	Existing	New
Drain		Type A.
Asins		3"
Foundation		7" ballast under sleepers
Sleepers		new 8' Keon
Stringers		
Rails		Galv. Recond.
Fastenings		Doorspikes
Parings		Ballast
Surfacing		Bit. Pav.

Notes:- Chainage Limits:- (See P. 4813) Local Chainage  
 100' from Terminus (N.E.P. of Loop)  
 740' near Edna St (S.T.P. of Loop)  
 640' of S.T.C.



JOB. Nicholson St railway crossing Footscray **W.O. No. 1477**  
 Relaying track over deck of new over bridge  
 From \_\_\_\_\_ to \_\_\_\_\_

Estimate £ 1350 Cost £ 850-10-1 1906

Cost per 100' of £ Cost per mile of £

Length 72' of double track  
 112' of double track relaid & woodblocked.  
 Work commenced 6.2.28 Work completed 30.6.28

Date of trial trip Date of 1st service

Traffic conditions single line working.

Cost. Lab. & Cart. <sup>+ O.H.</sup> £ 882 Material £ 1024

Cost. Lab. & Cart. <sup>+ O.H.</sup> 46.3% Material 53.7%

Percentage Overhead 38.7% of L&C-Engineer H.H. Bell.  
 = 43% of L. only.

Particulars

	Existing	New
Drain		Deck:- Over Bendigo Line of 110 lb New rails, head & tailed under tram track. Stringer resting on rails.
Ashes		Deck :- Over Goods Line of reinforced concrete 7½" thick. Stringers resting on 27 lb. rail ties spaced 6'-0" centres embedded in concrete deck.
Stringers		See plan P. 3902.
Rails		13'-6" x 9½" Jarrah 2½"
Fastenings		80 lb. (801 section). per yard.
Paving		Bolts & clips.
Surfacing		4½" Wood-blocks. Bitumen.

Notes:-

Brand on rails:- B.N.P. C<sup>2</sup> 124 VI-27. N.S.W.G.R. 80 lb. Q.H.  
 This work was carried out when the Bendigo railway  
 line was lowered & a new goods line built to pass under  
 Footscray station & to connect Tottenham siding with Spencer St.





JOB. Plenty Rd Duplication W.O. No. 1541  
From Dundas St to Garnett St (West Track)

Estimate £ 6955 Cost £ 7829

Cost per 100' of S.T. lb £ 264 Cost per mile of S.T. lb £ 13900

Length 2804' of S.T. Duplication + 176' S.T. Reconstruction  
(On Dundas St Curve)

Work commenced 27/5/27 Work completed 7/11/27

Date of trial trip \_\_\_\_\_ Date of 1st. service 17-11-27

Traffic conditions Duplication

Cost. Lab. & Cart. £ 4000 Material £

Cost. Lab. & Cart. % \_\_\_\_\_ Material % \_\_\_\_\_

Percentage Overhead \_\_\_\_\_ Engineer W. Bell

Particulars

	Existing	New
Drain		4" G.I.
Ashes		3"
Foundation		7" Ballast
Sleepers		8'9" x 4 1/2" New
Stringers		
Rails		90lb B.S. 101 New. with 20lb B.S. 101 brackets Dogpicks with Coach screws.
Fastenings		Ball Bit Paw
Paving		Bit
Surfacing		

(For corrected lengths & costs see page 2<sup>A</sup> over).

Notes: - This W.O. 1541, was not estimated in conjunction with W.O. 1648, & the final cost of the whole.

Job is summarised under W.O. 1648 - P. 2

Included in this W.O. was the relaying with new 80lb rail & guard, the existing curve at intersection of Dundas St & Plenty Rd

JOB. Plenty Rd Duplication W.O. No. 1648  
 From ~~Wood~~ to Woods Street (West Track)  
 Estimate £ 2200 <sup>See Note</sup> £12,083 } Cost £ 13,509 <sup>Final Cost Amended</sup> £ 12,528.  
 Cost per 100' of S.T. lb £ ~~252~~ Cost per mile of S.T. lb £ 14,900.  
 Length ~~1000~~ <sup>2050</sup> of S.T. lb. £13,500  
 Work commenced 20/10/27 Work completed 24/12/27  
 Date of trial trip Date of 1st. service 24-12-27  
 Traffic conditions Duplication  
 Cost. Lab. & Cart. £ 6571 Material £ 6027  
 Cost. Lab. & Cart. ~~48.5~~ <sup>52</sup> % Material ~~51.5~~ <sup>48</sup> %  
 Percentage Overhead 37% of Engineer W. Bell  
 L. & Ckge.

## Particulars

	Existing	New
Drain		4" S.T.
Joints		3"
Foundation		7" Ballast
Curbs		8"x9" 4 1/2" Keon
Manholes		90lb Bl. Top Recov <sup>m</sup>
Flags		Dooshikes -
Stanchions		Bell' Kid ker
Paving		Bit
Gravel		

(For corrected length & costs see page 2<sup>A</sup> opposite)

See Note at foot of W.O. 1541. - P. 1.

Total Estimate was as follows

Mat. £ 5338 - 11 - 7

Lab & Ckge 6230 -

Additional for Xover. 455

£ 12,083 - 11 - 7

Total  
 W.O. Amt £ 12,155.  
 to 1541  
 + 1648



JOB. Plenty Rd Duplication. W.O. No. 1541  
From W.O. 1541 Dundas St to Garnett St  
W.O. 1648 Gower St to Woods St

Total Estimate £ 12,083 Total Cost £ 12,752  
W.O. Amount. 12,155  
Cost per 100' of S.T.&C. £ 253.5 Cost per mile of S.T.&C. £ 13,400

Total Length 5030' of S.T.&C. (West Track) This length includes 176' of reconstruction.  
Work commenced Work completed  
Date of trial trip Date of 1st. service  
Traffic conditions

Total Cost. Lab. & Cart. <sup>+OH</sup> £ 6662 Material £ 6090  
Total Cost. Lab. & Cart. <sup>+OH</sup> 52.2% Material 47.8%  
A: Percentage Overhead 39.2% of L+M Engineer H.H. Bell.  
or 42.5% of Lonly.

Particulars

	Existing	New
Drain		
Ashes		
Foundation		
Sleepers		
Stringers		
Rails		
Joints		
Fastenings		
Paving		
Surfacing		

These 2 jobs lumped for Estimate & Cost.

See separate W.O. for particulars.  
Pages 1 & 2.

Chainage Limits: See P. 4480, 4482, 2986, 4484.

W.O. 1541: 11952' in Dundas St - 14756' at Garnett St - 2804' Duplicated.  
12142' " " " 12318' in Plenty Rd = 176' Recon on Curves  
of Dundas St

W.O. 1648: 17440' at Gower St 19490' at Woods St = 2050' Duplicated  
Total Length = 5030' of S.T.

JOB. Preston Car Depot Extension W.O. No. 1775

From Two tracks to new shed.

E. mate £ 4860 Cost £ 2208

Cost per 100' of S.T. £ 496 Cost per mile of £

Length of 176' DT } - 445' S.T.  
93' ST. }

Work commenced 7-7-28 Work completed 16-3-29

Date of final trip 23-3-29 Date of 1st service

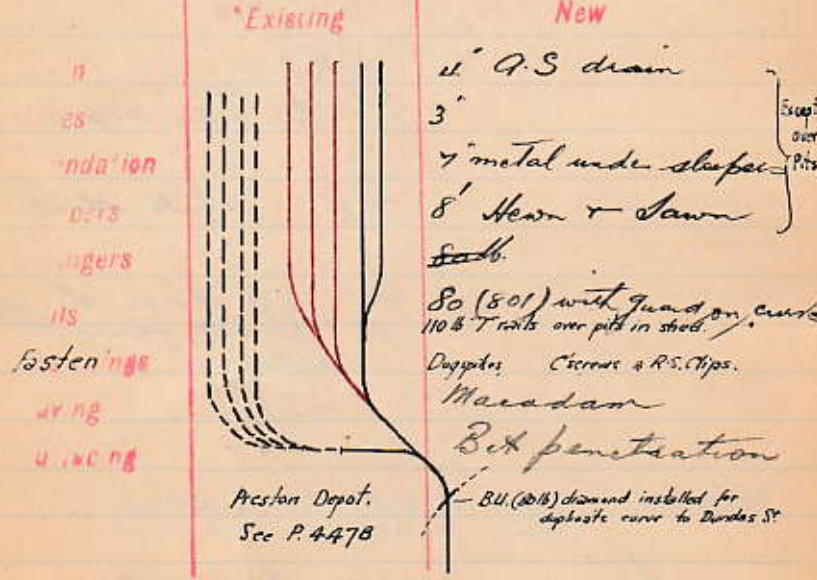
Track conditions Nil.

Lab. & Cart. <sup>+OH.</sup> £ 1097 Material £ 1111

Lab. & Cart. <sup>+OH.</sup> 49.7% Material 50.3%

Overhead 57.2% of Lab. Engineer H. H. Bell

Particulars 2 tracks only put in



Notes:- Two tracks instead of five as estimated for

(Three tracks shown in red on sketch done under W.O. 2437 See P. 6)  
Full <sup>black</sup> lines on sketch show work done on this W.O. 1775 (for 3 more tracks see W.O. 2437 on p. 6)

Brands on 8016 rails { "B.H.P. Co Ltd x 26 NSWGR. 8016 O.H.  
B.H.P. Co Ltd VI 27. NSWGR 8016 O.H.



JOB. Preston Workshops W.O. No. 1791

From Temporary Storage ~~to~~ Track

Estimate £ 720 Cost £ ~~592~~ 604

Cost per 100' of S.T. £ 125.6 Cost per mile of S.T. £ 6640

Length ~~359~~ of S.T. 369' plus 112' of curves

Work commenced 25.6.28 Work completed 27.8.28

Date of trial trip — Date of 1st. service "

Traffic conditions Nil

Cost. Lab. & Cart. £ 161 Material £ ~~443~~ 443

Cost. Lab. & Cart. <sup>+ O.H.</sup> 26.6% Material 73.4%

Percentage Overhead 42.1% of L&C. Engineer H.H. Bell.

Particulars

	Existing	Now
Drain		Nil
Ashes		5" ashes under sleepers
Foundation		—
Sleepers		7'6" white stock
Stringers		
Rails		Now 80 lb F&S on straight
"  "  "  "		80 (801) with guard plate on curve
"  "  "  "		Dogspikes.
"  "  "  "		—
"  "  "  "		—

Rail Brands: - Straight - A.S. BHP Co Ltd VI. 28 80 lb. O.H.  
Curve - BHP Co Ltd VI. 27 NSWGR. 80 lb. O.H.

Notes: Laying straight track for the temporary storage of cars.

JOB. *Power St Reconstr.* W.O. No. 1825  
 From *Burwood Rd* to *Waller Rd*

Estimate £ *6720/11/3* Cost £ ~~5544~~ *6063*.  
 W.O. Amount. £ *6790* <sup>309</sup>  
 Cost per 100' of D.T. £ ~~282~~ Cost per mile of DT £ *16300*

Length *1963* of DT

Work commenced *20/7/28* Work completed *9/9/28*

Date of trial trip - Date of 1st. service -

Traffic conditions *Under traffic*

Cost. Lab. & Cart. <sup>+OH 4036</sup> £ ~~3545~~ Material £ *2018-2027*

Cost. Lab. & Cart. <sup>+OH 66.6%</sup> % Material *33.4%*

Percentage Overhead ~~50~~ *45.7* Engineer *J.H. Saknis*  
*60% of L&C to*

Particulars

	Existing	New
Drain	<i>none</i>	<i>4" x 9"</i>
Ashes	<i>"</i>	<i>3" x 4"</i>
Foundation	<i>ballast</i>	<i>7" ballast under sleepers</i>
Sleepers	<i>good, R &amp; B</i>	<i>existing sleepers retained</i>
Stringers	<i>-</i>	<i>-</i>
Nails	<i>g o l l e</i>	<i>existing nails retained</i>
Fastenings	<i>lags</i>	<i>new dogs (re-gauged)</i>
Paving	<i>tarmac</i>	<i>bit. pen.</i>
Surfacing	<i>-</i>	<i>" "</i>

Chainage Limits - (See P. 4933.)

E.T. 60' at Waller Rd 2022' at Burwood Rd = 1974

W.T. 82' .. - - 2034' - - - - 1952

3926 of ST

= 1963 of D.T



JOB. Preston Car Depot. W.O. No. 2437

From 3 Tracks ~~on~~ to East side (of old Depot)

Estimate £ 1800 Cost £ 2286

Cost per 100' of S.T. £ 264 Cost per mile of £

Length 867' of S.T. equiv.

Work commenced 10-9-30 Work completed 4-11-30

Date of trial trip Date of 1st service

Traffic conditions. usual Depot traffic at entrance

Cost. Lab. & Cart<sup>10H</sup> £ 981 Material £ 1305

Cost. Lab. & Cart<sup>10H</sup> 42.9% Material 57.1%

Percentage Overhead  $58.7\%$  of <sup>of</sup> on L.&C. Engineer H. H. Bell

Particulars

	Existing	New
Drain	14" Ag.	
Ashes		
Foundation	Ballast	
Sleepers	8' Hewn sleepers	
Stringers		
Rails	80 lb & 96 lb. on curves	
Fastenings		
Paving	Bitumal penetration	
Surfacing		

Notes:- For sketch showing work done on this W.O. see P. 3. W.O. 1775.  
also see drawing P. 4478.

## PRESTON WORKSHOPS

JOB. TEST TRACK W.O. No. 1700

From to

Estimate £ 2184 Cost £ 2476<sup>68</sup>

Cost per 100' of S.T. £ 174.4 Cost per mile of S.T. £ 9220

Length 1416' of S.T.

Work commenced 6.2.28 Work completed 7.6.28 (3)

Date of trial trip Date of 1st. service

Traffic conditions None

Cost. Lab. & Cart. <sup>OH</sup> £ 779<sup>938</sup> Material £ ~~779~~ <sup>1530</sup> 1697Cost. Lab. & Cart. <sup>OH</sup> 38 % Material 62 %

Percentage Overhead 43.4% of L.A.C. Engineer H. Bell

Particulars

	Existing	New
Drain		4" ag
Ashes		abt 6" under sleepers
Foundation		ashes, no ballast
Sleepers	Ballast	Sawn 7'6"
Stringers		—
Rails		80 lb Aust Standard (B.H.P. Ltd. VI.27. N.S.W.G.R.)
Fastenings		logs
Paving		none
Surfacing		"

Notes:



JOB: *Pilkington St. Duplication* W.O. No. 1304  
 From *Holden St.* to *Xoren. in Barkly St.*

Estimate £ Cost £  
 Cost per 100' of £ Cost per mile of £

Length *766'* of S.T.

Work commenced Work completed *18-10-26*

Date of trial trip Date of 1st. service

Traffic conditions

Cost. Lab. & Cart. £ Material £  
 Cost. Lab. & Cart. % Material %  
 Percentage Overhead Engineer

Particulars

	Existing	New
Drain		Type A.
Ashes		
Foundation		6" Ballast
Sleepers		8' sleepers - newn.
Stringers		
Curbs		60 lb. (801)
Fastenings		
Paving		Bit. Macadam
Surfacing		

Notes: See PG in earlier book for more particulars

This W.O. not in its correct book.

JOB. Renewal of south end of Xover  
at Princes Bridge.

W.O. No. 2560

From \_\_\_\_\_ to \_\_\_\_\_

Estimate £ 290

Cost £ 641

Cost per 100' of \_\_\_\_\_ £

Cost per mile of £

Length of \_\_\_\_\_

Work commenced \_\_\_\_\_

Work completed \_\_\_\_\_

Date of trial trip \_\_\_\_\_

Date of service \_\_\_\_\_

Traffic conditions work done at night.

Cost of Lab. & Cart. £ 334

£ 307

Cost of Lab. & Cart. \_\_\_\_\_

Percentage Overhead \_\_\_\_\_

Particulars

	Existing	New
Drain		4" dia. Boiler tube
Ashes		
Foundation		concrete
Sleepers		
Stringers		
Rails		80 lbs.
Fastenings		
Having		Woodblocks
Splicing		

Notes:- On opening up of ~~the~~ concrete, it was found to be badly fractured, and no outlet drain for switches provided. Foundation was renewed and an outlet drain installed, see drg. P.5990. It was not provided for in estimate.



## Preston Workshops.

JOB. Extension of Car Storage Track W.O. No. 2221.

From End of exist<sup>g</sup> storage track to N.E. Corner of Yard.

Estimate £ 150. Cost £ 73.

Cost per 100' of S.T. £ 15.2 Cost per mile of S.T. £ 803

Length 480' of S.T.

Work commenced 16-7-29 Work completed 17-7-29

Date of trial trip Date of service

Traffic conditions Nil.

Cost Lab. &amp; Trav. £ 30 Mat. £ 43

Cost Lab. &amp; Cartage 41.1 % Mat. 58.9 %

Percentage Overhead 54% on L&amp;C. Laid out H.H. Bell.

Particulars

	Existing	New
Drain		Nil.
Ashes		Nil
Foundation		Track laid on yard surface
S sleepers		7'6" S.H. (white.
Stringers		
Rails		S.H. 67 lb.
Fastenings		Dogs.
Paving		Nil
Surfacing		-

Notes: This length laid from end of existing storage track to N.E. corner of yard (on the diagonal)

## Preston Workshops

**JOB.** Laying tracks in paint shop ext'n. **W.O. No.** 24009  
(11142)

From \_\_\_\_\_ to \_\_\_\_\_

Estimate £ 1,112-0-0 Cost £ 555-5-10

Cost per 100' of S.T. £ 76.3 Cost per mile of £

Length 728 of S.T

Work commenced 28-11-'46 Work completed 20-1-'47

Date of trial trip \_\_\_\_\_ Date of 1st. service \_\_\_\_\_

Traffic conditions Nil

Cost. Lab. & Cart. <sup>+OH</sup> £ 163-1-2 Material £ 109-18-3

Cost. Lab. & Cart. <sup>+OH</sup> 29.4% Material 19.8 %

Percentage Overhead 73% on LfC Engineer H.H. Bell

Particulars

	Existing	New
Drain		Nil
Ashes		Nil
Foundation		Concrete Slab
Stoppers		Nil
Stringers		Nil
Rails		80 lb (80)
Joints		Flat Fishplates, 6 bolts, head bands
Fastenings		Anchor sets, P71 clips.
Facing		Nil.
Surfacing		Nil.

Notes: —



12. Preston Workshops

JOB. Laying tracks & paving in Truck Machine shop extension. W.O. No. 24009 (11116)

From to

Estimate £4,408-16-0 Cost £3,568-14-8

Cost per 100' of S.T. £580.3 Cost per mile of £

Length 615' of S.T.

Work commenced 6-9-'46 Work completed 14-1-'47

Date of trial trip Date of 1st. service

Traffic conditions Nil

C. S. Lab. & Cart. £340-19-7 Material £2,574-7-10

Cost. Lab. & Cart. 23.4 % Material 72.2 %

Percentage Overhead 73% L&C Engineer H.H. Bell.

Particulars

	Existing	New
Drain		Nil
Ashes		-
Foundation		Conc. Floor & rendering laid by Contract.
Sleepers		8'x9'x4 1/2" heavy I.B. under Xing.
Stringers		None under rails.
Rails		New 80 lb(80) & guardplate, 80 lb(80)/Xing.
Joints		Plated.
Fastenings		8'x1" Anchor sets, P71 Clips, 6 1/2'x1" Anchor Sets
Paving		4'x4 1/2" & 5" Reconditioned woodblocks.
Surfacing		Emulsion & coarse sand.

Notes :-

## Preston Workshops

JOB. Remove & relay tracks N<sup>th</sup> of Machine Shop. W.O. No. 24009  
 From to (11115)

Estimate £ 894-4-0 Cost £ 999-16-9

Cost per 100' of S.T. £ 469-4-0 Cost per mile of £  
 Length 213' of S.T.

Work commenced 14-2-'46 Work completed 14-3-'47

Date of trial trip Date of 1st. service

Traffic conditions Nil

Cost. Lab. & Cart. £ 872-8-8 Material £ 127-8-1

Cost. Lab. & Cart. 82.7 % Material 12.7 %

Percentage Overhead 73% L&C Engineer H.H. Bell.

Particulars

	Existing	New
Drain		"B" Type
Ashes		3" thickness
Foundation		6" New metal.
Sleepers		S. H. Sleepers.
Stringers		
Walls		80 lb & guard reused from exist track Balance S.H. 80 lbs.
Joints		Plated & bonded.
Fastenings		Dogspikes
Paving		Tar. Pen. sealed with cut back.
Surfacing		Nil.

Notes:—





JOB. Riverdale Rd Lifting  
 From Glenferrie Rd to Burke Rd  
 Estimate £ 9300 (£9728) Cost £ ~~10762~~ 11,280  
 Cost per 100' of D.T. £ ~~124.173~~ Cost per mile of D.T. £ ~~12400~~ 9130  
 Length 6525' of D.T.  
 Work commenced 1/10/26 Work completed 30/3/27  
 Date of trial trip None Date of 1st service Under traffic  
 Traffic conditions Under traffic  
 Est. Lab. & Cart. £ ~~7842~~ <sup>8284</sup> Material £ 29202996  
 Cost. Lab. & Cart. <sup>10%</sup> 73.5% Material <sup>10%</sup> 25.5% of total  
 Percentage Overhead ~~33.8%~~ of Lab. Engineer D.H. Eakin

Particulars

	Existing	New	Dg. 73707
Drain		Existing	
Joints		Existing	
Foundation	6" Ballast	7" Ballast	
Chimneys	7'6" x 9" x 4 1/2" beam	Small 7'6" white renewals	
Chimneys			
Flags	galv. S.I. No 1	Same	
Fastenings	Dogspeaks	Same	
Filing	Ball Tar Pen	Ball Bit	
Surfacing	Tar bar	Bit	

Notes: Chainage Limits: - 20250' at Glenferrie Rd  
 26775' " Burke Rd  
 6525' of D.T.

See Plans P. 3926 - 7 - 8

JOB. **Riversdale Rd Lifting** W.O. No. **1478**  
 From **Essex St** to **Boundary Rd**  
 Estimate £ **1600** Cost £ **1601**  
 Cost per 100' of S.T. £ **73.5** Cost per mile of S.T. £ **3850**  
 Length **2193'** of S.T. (**North Track**)  
 Work commenced **8/4/27** Work completed **30/4/27**  
 Date of trial trip **None** Date of 1st. service **Under traffic**  
 Traffic conditions **Under traffic**  
 Genl. Lab. & Cart. £ **111.6** Material £ ~~47~~ **485**  
 Cost. Lab. & Cart. <sup>20%</sup> **69.7%** Material **303** %  
 Percentage Overhead **28%** of L.&C. Engineer **D. H. Eakin**

Particulars	Existing	New
Drain		
Gravel		
Foundation	6" Ballast	7" Ballast
Subgrade	7'6" x 9" x 4 1/2" known	8' x 9" x 4 1/2" (Whole) (where) where necessary
Subgrade		
Subgrade	90lb B.S. 109	Same
Subgrade	Doagshikes	New doagshikes where necessary
Subgrade	Ball Tar Box	Ball Bit Box
Subgrade	Tar Box	Bit

Chainage Limits:- **9950'** at Essex St  
**12143'** - Boundary Rd  
**2193'** of S.T. (N.M)



JOB. Riversdale Rd Duplication W.O. No. 1602  
From Walle Valley Rd to Middlesex Road

Estimate £ 5052 (5072) Cost £ ~~5730~~ 5190

Cost per 100' of S.T. & G. £ 285 <sup>302 approx.</sup> Cost per mile of S.T. £ 15,070 <sup>16,000 approx.</sup>

Length 1650' of S.T. ~~Approx 1600' from measurement~~  
<sup>+66' Ballast of track linking up.</sup>

Work commenced 21/11/27 Work completed 24/12/27

Date of trial trip 23-12-27 Date of 1st. service 23-12-27

Traffic conditions Duplication (South Track & Centre)

Cost, Lab. & Cart. <sup>+OH.</sup> £ 2101. Material £ 3035.3089

Cost, Lab. & Cart. <sup>+OH.</sup> 40.5 % Material 59.5 %

Percentage Overhead 40% of L & C.G.C. Engineer W.A. Ekins

Particulars

	Existing	New
Drain		✓ 4" G.T.
Ashes		✓ 3"
Foundation		7" l. concrete
Sleepers		10 1/2" x 2 1/2" x 18' Jarrah
Stringers		80lb No 801 S.G.P.
Rails		1" huckon bolts.
Fastenings		Ball bit bar
Paving		Bit
Surfacing		

Notes:-

Chainage Limits:-  
7700 at Compton St.  
9350 .. Middlesex  
1650 S.T. Concrete Foundation  
9350  
9416  
66 S.T. Ballast. linking up.

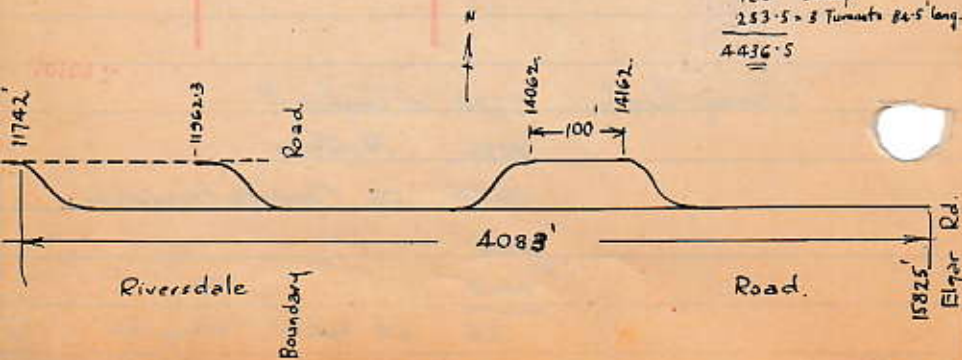
JOB. Riversdale Rd extension (South Track). W.O. No. 1685  
 From Boundary Rd to Elger Rd  
 Estimate £ 9940 Cost £ 9404  
 Cost per 100' of ST £ 212 Cost per mile of ST £ 11200  
 Length 4437' of ST incl 4 1/2" loop ends, + 100' of loop ST  
 Work commenced 12/12/27 Work completed 5/6/28  
 Date of trial trip 1/7/28 Date of 1st. service 1/7/28  
 Traffic conditions new work except at B'dary Rd loop  
 Cost. Lab. & Cart. 204 £ 4064 Material £ 5340  
 Cost. Lab. & Cart. 43.2% Material 56.8%  
 Percentage Overhead 43.2% of L.C. Engineer D. H. Watkins

Particulars

	Existing	New
Drain		2.5" 4" (Type B).
Askes		3"-5" Askes
Foundation		7" Ballast
Gravels		8" Hewer (Red gum)
Stengire		
Traps		galle reconditioned
Fastenings		new dogs + bolts
Fastng		Bit piece
Co-facing		

Total Length:-

4083. ST.  
 100. on loop  
 253.5 = 3 Turnouts 84.5' long.  
4436.5





(Excluding portion on new bridge over Mannee Bands Creek. See No 1798)

## Racecourse Road.

JOB. Construction. W.O. No. 2045

From Flemington Rd to Victoria St

Estimate £ 18,500. Cost £ 20,414 (including asphalt paving done by Contract)

Cost per 100' of D.T. £ 833. Cost per mile of D.T. £ 44,000

Length 2452' of D.T. including S.W. at Flemington Rd.

Work commenced 29-1-29 Work completed 16-9-29

Date of trial trip Date of 1st service 4-8-29

Traffic conditions New Const? (Job held up by const. of new Rly Bridge).

Cost. Lab. & Cart. <sup>+OH</sup> £ 7326 B's Material £ 12042 } £ 2356 Contract Paving = £ 2356

Cost. Lab. & Cart. <sup>+OH</sup> 40.5% Material 59.5%

Percentage Overhead 54.2% of L.C. Engineer H.H. Bell.

These percentages based on Board's Costs excluding contract paving.

### Particulars

Chainage Limits:— (See 40' Plan P. 4713).

00' at M.T.P. of curves at Flemington Rd — 2650' at Victoria St

Less track on new bridge over creek. 198' D.T.

Total length done on W.O. 2045 = 2452' of D.T.

Asphalt Paving. Done by Contract.

Contractors: The Neudratel Asphalt Co. Ltd. Contract No. 681.

Amount of Payment, £ 2356. Limits detailed in Types of Const?

Types of Construction used. (Type II drain, 3" ashes, R. Conc base and 102 lb rails used throughout)

Junction at Flemington Rd:— Woodblocks were removed & as little conc. as

possible removed. New 102 lb Special Work was laid on existing timbers,

(these were provided for jctn. at time of Flemington Rd Conversion).

S.W. fastened with coachscrews & R.S. Clips. HMB. Bit. nail filler was used where poss<sup>ble</sup>

Conc. built up & rendered to required level, paved with  $4\frac{1}{2}$ " W. Blocks <sup>darrah</sup> surfaced with bitumen.

From 50' to 150. (including portion of curves beyond east S.W.)

For Details See P. 4531. Type A drain, A' 3" of ashes, 8" R. concrete under

7'6" sann jarrah sleepers, 102 lb rails with 80 lb guard on inner rails extending about

(over)

Brands on Rails

80 lb on Curves. = B.H.P. C/14 VI. 27. NSWGR 80 lb. O.H. 102. — Straight. — AMR 4 102.06 14. 08. Buaco (M 1927) (55)



10' beyond T.P. of curves. Chairs used on guard rails.

Rails fastened with coachscrews & R.S. Clips. Special Tie bars used on curves ordinary tie bars on straight. <sup>Jarrah</sup> Bit rail filler used where possible, replacing cement compo filler on drawing:- Paving  $4\frac{1}{2}$ " W.Blocks, surfaced with bitumen used on this section but stop short at  $95'6"$  (of chainage) on a diagonal line across tracks parallel with Flemington Rd plantations, joining up with sheet asphalt paving at this point.

Alteration to type on this Section. On N.T. from 114' to 154'

stringers used instead of sleepers. Obstruction caused by S.E.C. Cables <sup>45.5 in diam</sup>  
From 150' to 714' (For details See P. 4922). Type 'A' drain, 3" of ashes, <sup>2 1/2" deep</sup>  $8\frac{1}{2}$ " R. Conc. under 102 lb rails. Steel Ties used, 7'0" long from 67 lb. S.R. rail. Ties fastened to rails by short T headed bolts & R.S. Clips. The whole anchored in conc. by 2 pairs of anchor bolts joined by M.S. Straps spot welded to ties. Tie bars used. Asphalt paving (by contract) consisting of  $1\frac{1}{2}$ " Black Base &  $1\frac{1}{2}$ " sheet asphalt.  $1\frac{1}{2} \times \frac{1}{8}$ " Ormonoid expansion jointing tried along each side of rails in this section but was discontinued.

From 714' to 1038' (For details See P. 4923). Similar details as for previous section (150'-714') except paving:-  $4\frac{1}{2}$ " W.Blocks <sup>Jarrah</sup> surfaced with bit:- <sup>Jarrah</sup> Bit rail filler used.

From 1038' to 1333' (For details See P. 4920). Type 'A' drain, 4x3" of ashes, 7" R. Conc. under plain timber ties  $2\frac{1}{2} \times 9\frac{1}{2} \times 6'8"$  long. M.S. Straps  $\frac{1}{4}$ " on underside of a  $\frac{1}{2}$ " M.S. Tie Plates on top side of timber ties, the whole bolted & clipped to rails. 102 lb. Ties anchored in conc. with bolts. <sup>Jarrah</sup>  $4\frac{1}{2}$ " W. Block paving, surfaced with bitumen.

Trial lengths in this section:- From 1144' to 1189' On N.T. One rail length with timber ties specially bevelled on top edges, but not anchored with bolts in conc. All other particulars same as above.

From 1189'-1234' On N.T. One rail length with plain square edge timber ties also not anchored in conc. All other particulars same as above.

From 1333' to 1531' On new bridge. Done under W.O. 1798. See M. 8.

From 1531' to 1915' (For details See P. 5135). Type 'A' drain, 3" ashes, 7" R. Conc. under  $10\frac{1}{2} \times 2\frac{1}{2}$ " jarrah stringers, anchor bolts & R.S. Clips as fastenings, Tie bars used, 2 course asphalt paving as previously mentioned, but with sealing course along each side of rails:-

From 1915' to 2194' (Details See P. 4921). As for previous section except that stringers are replaced by timber ties as previously mentioned, also no sealing course asphalt along rails.

From 2294' to 2650' (Details See P. 4922). Same as for section from 150'-714'. The asphalt paving ends on NT at 2643' & S.T. at 2629' joining up with W. Block paved paving.

**JOB.** Racecourse Rd. Reconst. W.O. No. 2121  
 From Prantins Rd to Victoria St.  
 Estimate £ 4558 Cost £ 6329  
 Cost per 100' of D.T. £ 1140 Cost per mile of £  
 Length 555' of I.T. = 1110' S.T.  
 Work commenced 15-4-29 Work completed 17-9-29  
 Date of trial trip Date of 1st. service <sup>up</sup> 4-8-29 <sub>down</sub> 18-8-29  
 Traffic conditions Temporary. Track used.  
 Cost. Lab. & Cart. <sup>+on.</sup> £ 3356 Material £ 2973  
 Cost. Lab. & Cart. <sup>10%</sup> 53 % Material 47 %  
 Percentage Overhead Est. 59% Engineer H.H. Bell  
 Actual <sup>59/57%</sup> of L.C. = 55 2/3% of L.C.  
 Particulars

Bands on Rails  
 AMR 4 112.06 OB. BVAC/IM 553 1927  
 A. B5. No. 1.C. 26 lb BVAC/Im 1927 553.

Details: (See P. 2582). Amended

Ch. 2650 - 2900 -  
 Drain - Type A.  
 Foundation - 3 ashs, 7" R.C.  
 Timbers - 10 1/2 x 3 1/2 J. Stringer  
 Rails - 102 lb  
 Paving - 4 1/2" W/Blocks  
 Surfacing - Bitumen

Ch. 2900 - 3112 (See P. 5242) Amended  
 Type A  
 3" ashs, 7" R. Concrete  
 7" 6" Sawn sleepers  
 102 lb High Side  
 96 - Low. Side  
 4 1/2" W/Blocks Jarrah.  
 Bitumen

Ch. 3112 - 3205.  
 Drain Existing  
 Foundation "  
 Timber. "  
 Rails 9. Relined  
 Paving + Surfacing 4 1/2" W/Blocks Bitumen

Removal of old tracks: Junction Vest St. + Mt. Alca Rd.

The curves + straight track back on Racecourse Rd have already been taken out; this was changed to the W.O. through a misunderstanding

This job was held up for weeks when half completed, while Rlys were completing new Aly Bridge Day & Night watching maintained during this time.



Installation of Single Track Curve on N.W. Corner

JOB. Riversdale / Burke Rd. Curve W.O. No. 2346

1 mile ~~also~~ Xover in to Burke Rd N of Riversdale Rd

L. main £ 1750 Cost £ 1566

Cost per 100' of £ Cost per mile of £

Work & commenced 21-11-29 Work completed 6-12-29

Date of Trial Trip 9/12/29 Date of 1st service Depot Cars 8-12-29

Track to be used under traffic

Cost of Laid & Ga 10H £ 692 Material £ 874

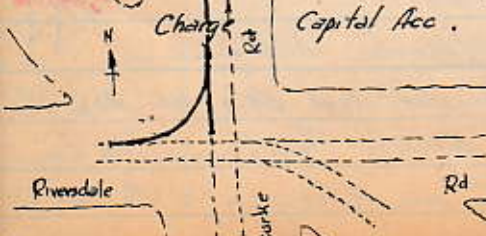
Cost of 1st Coat 40H. 442 % Material 558 %

Percent of Dip road 57% on L. Engineer J. H. Eakins  
46% on L.C.

Particulars Curve on North West Corner

	<u>Xover</u>	<u>NEW</u> Curve
Drain	existing	4" a.g.
ASPS	"	3" consolidated
Foundations	existing replaced	7" metal under new 8' sleepers (Sawn under dip. work)
Sleepers	additional S.H.	new 8' sleepers
Stringers		
Rails & S.P.	Reconditioned.	96 lbs. <u>Sandwich</u> - new intercon. Xing } at S. West
Fastenings	Dogs-pikes	3/8" bolts, clips, washers, tieplates. T. plates fastened with 3" Carrows.
Flagging	Bit Penetration	Bit penetration macadam 87% 50% Bitumen
Subgrading		Bitumen.

Joints: Generally Fishplated & Bonded  
 Brandon Rails: 90lb (MMTB 851 SEC 60 90lb L.S.W. 3/2 555)  
 96lb. - ( BS No. 1-C. 96lb. BVOC. Lth 1025 555)



Work done shown in full heavy lines  
See layout P. 542A.

For drainage at junction  
See P. 542A.A.



JOB. *Riversdale Rd & Power St. Junct.* W.O. No. 2537  
*Installation of Crossover*  
~~at~~ *at East of Power St. 10*

Estimate £ 700

Cost £ 766-12-1

Cost per 100' of £

Cost per mile of £

Length 125' of single track

Work commenced 3-3-31

Work completed 14-3-31

Date of trial trip

Date of 1st service

Traffic conditions usual.

Cost. Lab. & Cart. £ 204-8-1

Material £ 562-4-0

Cost. Lab. & Cart. %

Material %

Percentage Overhead

Engineer *J. H. Eakins.*

Particulars

	Existing	New
Drain		
Ashes		
Foundation		Not disturbed.
Sleepers		New timbers
Stringers		
Rails		90lb. New interc. switches. Crossings 1 in 5.
Fastenings		M.S. clips welded to special tie plates. Tie plates coachscrewed to timbers.
Paving		Bituminous penetration with Colas and Sand.
Surfacing		

9.

## Riversdale Rd at Rly Xing

JOB. Installation of new Xing & relaying approaches. W.O. No. 1512  
From to

Estimate £ 2607. Cost £ 1806.

Cost per 100' of D.T. £ 931. Cost per mile of £

Length 194' of D.T. (including Xing, 17' D.T.)

Work commenced 5-4-27 Work completed 11-4-27

Date of trial trip Date of 1st. service

Traffic conditions Xing installed at night, approaches under traffic.

Cost. Lab. & Cart. <sup>+QH.</sup> £ 275 Material £ 1531Cost. Lab. & Cart. <sup>+OH.</sup> 15.2 % Material 84.8 %Percentage Overhead 34.6% of L.A.C. Engineer H.H. Gray for D.H. Eakins;  
on A.L.Particulars

	Existing	New
Drain	4" Ag.	} No alterations
Steps	3"	
Foundation	7' Ballast	
Timbers	8' Hewn.	
Timbers	Timbers on Xing	
Rails.		90 lb new.
Fastenings	Dogs	Dogs.
Paving	Tar Macadam.	Bit. Pen. Mac.
Surfacing	Tar.	Bitumen.

Estimated Cost proportioned thus:— Crossing £2107 }  
Approaches 500 } £2607Xing installed by Rly Dept, the packing of foundation & paving  
of surface being done by the Board.

Approaches = 354' of S.T. = 177' of D.T. + 17' D.T. on Xing

108. Riversdale Rd. Installing S.W. curve W.O. No. 2529  
at Burke Rd. corner & crossover in  
From Burke Rd. S<sup>th</sup> of Riversdale Rd.

Approx. Estimate £ 2460. Cost £ 2698

Cost per 100' of S.T. £ 392 Cost per mile of £

Length 687' of S.T.

Work commenced 1-6-31 Work completed 4-7-31

Date of trial trip - Date of 1st service -

Traffic conditions As usual.

Est., Lab. & Cart<sup>10H</sup> £ 1232 Material £ 1466

Est., Lab. & Cart<sup>10H</sup> 45.6% Material 54.4%

Percentage Overhead. 61.5% on L&C. Engineer D.H. Eakins

### Particulars

	Existing in Burke Rd.	New
Drain	4" Ag.	4" Ag.
Shoes	-	3"-4" ashes.
Foundation	4" Spalls, 5" metal	6" spalls, 3"-4" metal
Sleepers	7'6" Sawn	Mostly existy sleepers, Timbers under S.W.
Stringers	-	
Rails	30 lb	30 lb, Manganese Castgs.
Joints	Fishplates, dec. welded bare wire, no joint plates	
Fastenings	Dogspikes	Dogspikes, Bolts on S.W.
Paving	Macadam	Bit. Pen. Macadam.
Surfacing	2" Tar. Sgrgs	Colas & Sand.

Notes:— Chainage Limits not known.

W.O. issued for £1623, extension on W.O. £760.



**JOB BURKE R. Reconstruction** W.O. No. 2673

From **Riversdale R.** to **Mont Athert R.**

Estimate £19,153 Cost £18262

Cost per 100' of S.T. £161-10- Cost per mile of S.T. 85'27-

Length 11303' of S.T. - Both tracks -

Work commenced 6-7-31 Work completed 30-6-32  
surfaced Feby. 1933

Date of trial trip Date of 1st. service

Traffic conditions Under usual traffic.

Ex. P.Os. Lab. & Cart. £12637-11-10<sup>+0H.</sup> Material £5414-10-11 → Ex. P.Os

Lab. & Cart. 69.2% Material 29.6%  
72%

Percentage Overhead 81.5% on Lab. Engineer D.H. Eakins.

Particulars

	Existing	New
main		A" A.G.
ties		3"-4"
foundation		6" spalls
sleepers		App. 50% NEW 8'
ringers		
rails	99 lbs.	same
bolts		
fastenings		
hauling		
surfacing		Bit. Pen. Macadam.

Notes :- Chainages :- W.T. 16545-22600 = 6055'

E.T. 16447-21715 = 5248'

P.O. 1319. Laying Storage line - H'horn Depot = £80.8.4.

" 1355 Patching R. to Chalet at Wattle Park £14.7.9.

" 1326 Work by Distrib. Dept. Burke Rd. £115.0.9  
209-16-3

W0.2673. Seam welded Joints

Seam only patched on E. Track in say 30% of Joints  
other 70% plates removed and used if any good.

W. Track all plates removed, used if usable ; if not  
new plates. Sole plates all Joints

1497	Sydney Rd duplication	1	+
1520	St Georges Rd reconstruction	2	
1531	Spencer St new construction	3 & 3 <sup>A</sup> .	
1566	Sydney Rd reconstruction	4	+
1631	St Georges Rd lifting	5	
2006	Sydney Rd duplication	6	+
1841	Sydney Rd Reconst <sup>n</sup>	7	+
1532	Spencer St Conversion. See Flinders St		
1730	Swan St Reconstruction (East)	9	
1818	Swan St. Reconst - Rly to Church St	11	
1956	St Georges Rd. Carte Duplication.	18	✓
1782	Swanston St Xover. North of Victoria St	8	
1800	Swanston St Xovers	10	
2203	Spencer St Bridge	12	
2276	Swan St & Batman Ave Installing additional drainage	- See B.21.	
2396	Sydney Rd. Lifting	13	+
2307	Swanston St - Bourke St Cable-Elec Xing Renewals.	See. B.9.	
2410	St. Georges Rd. Reconst <sup>n</sup>	14	✓
2323	Swanston St - Collins St Installing Elec. Xing	See C.13.	
2197	Swanston / Lonsdale St Intersection	15.	
2419	St. Georges Rd. Reconst.	16	✓
2468	St. Georges Rd. Reconst.	17.	✓
1777	Swanston / Victoria St Jctn: (Installation 7)	19	
2469	Swan St & Batman Ave Refastening Rails	See B.24.	
2486	St. Georges Rd. Conr. see Brunswick St B.13.		
2039	Somerville Rd. Duplication see G.15.		
1487	St. Melb. Sturt St Xover near City Rd	520.	
2560	Swanston St Renewals to Xover S <sup>th</sup> of Flinders St	24	
2531	Swanston St Junction near City Baths	521.	
2810	Swanston - Flinders St Xing Renewal of Fnd <sup>n</sup> & Paving	21 <sup>A</sup>	
2637	Sydney Rd Reconstruction. W.T.	S.22	+
2629.	Swan St Rich. under Rly Bge. Recon.	S.23.	
2490.	St. Georges Rd Jctn at Barkly St	See. B.16.	
2555	" " " Installing 2 Rly Xings.	" B.19.	
2654.	Swanston St N <sup>th</sup> & Elgin St Reconstruction.	20 <sup>A&amp;B</sup> .	
2831.	Swan St Reconst <sup>n</sup> . Punt Rd - Richmond Rly B <sup>ge</sup>	25 <sup>(over)</sup> .	



- W.O. 2921. Spencer St - Flinders St Curves. Renewing outer rails. 26  
" 2989. Swanston St - Bourke St Renewal of Xing etc See B.25  
• 2965 Swanston St - Franklin St - Lansdale St {Renailing  
Regauging . 27.

**JOB.** Sydney Rd duplication  
**From** Gaffney St to ~~1060'~~ north Charles St  
**Estimate** £ 2000 **Cost** £ ~~2104~~ 2118 **W.O. No.** 1497  
**Cost per 100' of S.T.** £ ~~283~~ 266 **Cost per mile of S.T.** £ 14050  
**Length** ~~664'~~ 795' **of S.T.** = 626' <sup>of straight</sup> two ~~to~~ turnouts = 795'.  
**Work commenced** 5/3/27 **Work completed** 29/4/27  
**Date of trial trip** **Date of 1st. service** 29-4-27  
**Traffic conditions** Duplication (East Track).  
**Cost. Lab. & Cart.** £ 1046 **Material** £ ~~1058~~ 1072  
**Cost. Lab. & Cart.** <sup>104</sup> 49 % **Material** 51 %  
**Percentage Overhead** <sup>33.8</sup> ~~35~~ % of Lab **Engineer** H.H. Bell

Particulars

	Existing	New
Drain		— Nil.
Ashes		3"
Foundation		7" Ballast
Sleepers		8'x9" 4 1/2' Hewn
Stringers		
Rails		90lb BS 101 Reconn <sup>w</sup> .
Fastenings		Dog spikes
Paving		Ball Bolts
Surfacing		Bit.

**Notes:-** Chamage Limits:- (See P. 4/99.)

25220.50' N of Gaffney St.  
26015.30' at Charles St.  
 794.80 of S.T. (E.T.)

JOB: Georges Rd reconstruction W.O. No. 1520  
 From N<sup>th</sup> of Arthurton Rd to 1070' South Hawthorn Rd.  
 Estimate £ 1500 Cost £ 2154  
 Cost per 100' of S.T. £ 201 Cost per mile of S.T. £ 10600  
 Length 1070' of S.T. (East track)  
 Work commenced 3/5/27 Work completed 10/6/27  
 Date of trial trip None Date of 1st service Under traffic  
 Traffic conditions Under traffic  
 Cost. Lab. & Cart. <sup>off</sup> £ 1596 Material £ 558  
 Cost. Lab. & Cart. <sup>off</sup> 74.2% Material 25.8%  
 Percentage Overhead ~~off~~ <sup>off</sup> 7% of L&C Engineer J. Bell  
 Particulars ~~off~~

	Existing	New
Drain	3" G.I.	4" G.T.
Ashes	3" in bed patches	3"
Foundation	6" Ballast	7" Ballast
Setters	7'6" x 9' x 4 1/2" Keon	8' x 9' x 4 1/2" Bed over bed
Springers		
Rails	26 lb to 80 lb I.C.P.	Same
Fastenings	Dogs spikes	Dogs spikes
Ties	Ball Tar low	Ball bit
Surfacing	Tar low	Bit

5" to 7" Telford bedding under metal at very bad patches in the original work

Chainages :- 3300' at Hawthorn Rd  
 4370' N of Arthurton Rd  
 1070' of S.T. (E.T)



JOB. Spencen St. New Construction. W.O. No. 1531  
 From Lonsdale St to Bourke St  
 Estimate £ 6994 Cost £ 7064  
 Cost per 100' of D.T. £ 993 Cost per mile of DT £ 52,400  
 Length 711.5' of D.T.  
 Work commenced Work completed 18-7-27.  
 Date of trial trip 23-7-27 Date of 1st. service 14-7-27  
 Traffic conditions New Construction.  
 Cost. Lab. & Cart. <sup>79%</sup> £ 250 Material £ 6814  
 Cost. Lab. & Cart. % Material  
 Percentage Overhead Engineer A.T.O'Meara.

Particulars

	Existing	P. 4180. Details. P. 4117. From 1651.3 to 1835.7 Tow also 2277 - 2362.8	P. 4117. From 1835.7 to 2277.
Drain		Type "A"	Type "A"
Ashes		A' 3"	A' 3"
Foundation		8" R. Conc. 2" W. holes 20" Con. Stage 76 x 9 x 4 1/2 Sawn.	8" R. Conc.
Sleepers			9 1/2 x 2 1/2 Sawn jarrab
Stringers			
Rails		80lb (Box) G.P. on St GR. on Xover	80lb (Box) & G.P.
Joints			
Fastenings		3/4" Screws & RSClips.	1" Anchor Bolts.
Paving		5" Woodblocks.	4 1/2" W. Blocks.
Surfacing		Bitumen.	Bitumen.

This W.O. is Section 1 of Contract No 505 by Foundations Co

Chainage Limits :- 1651.3' at Terminus (S&L Lonsdale St).

2362.8' at end of Cable Tracks at Bourke St.

Length = 711.5' of D.T.

Material Cost above includes Contract Payment of £ 3220

Labour " " " Board's labour & inspection only.

Over 3A

Crossover South of Lansdale St  
For details (P. 4180) See over on page 3.

Alterations. Type 'A' sub-sail chairs in E.T. at 178A' replaced by  
4" R.C. pipe under H.T. Cables.

JOB. Sydney Rd Reconstruction W. No. 1566

From Moreland Rd to Bell St

Estimate £ 43,330 Cost £ 52,477

Cost per 100' of D.T. £ 1010 Cost per mile of D.T. £ 53,400

Length 5187 of D.T.

Work commenced 5-7-27 Work completed 17-2-28

Date of trial trip Date of 1st. service

Traffic conditions Reconst<sup>n</sup> with Temporary Track

Cost: Lab. & Cart. <sup>+a.m.</sup> £ 26,706 Material £ 25,771

Cost: Lab. & Cart. <sup>+a.m.</sup> 50.9% Material 49.1%

Percentage Overhead 38.6% of L.C. Engineer H.H. Bell.

Particulars

	Existing	New
Drain		Type 'A'
Ashes		3"
Foundation	7½" Ballast or 6" Conc.	7" R. Concrete
Sleepers	7'6" x 4½" Hewn.	
Stringers		10½" x 2½" x 15' jarrals.
Nails	90lb. B.S. N. 1	102lb. Melb-Adelaide
Joints		
Fastenings	Dogs.	1" Anchor Bolts
Paving	Tar Mac.	4" New 4½" W.B. 6" ¼" Reconst. W.B.
Surfacing	Tar. Scrags.	Bitumen.

The old horse tramway conc. slab existed N<sup>th</sup> of Woolacott St, but had previously been broken out S<sup>th</sup> of Woolacott St

Paving before this job, was gilsonite N<sup>th</sup> of Woolacott St & tar paving to the S<sup>th</sup>

Chainage Limits of reconstr. — 17150' at Moreland Rd  
22337 - Bell St  
5187' of D.T.



**JOB.** St Georges Rd Lifting **W.O. No.** 16031  
**From** Arthurton St **to** 200' north  
**Estimate** £ 150 **Cost** £ 166  
**Cost per 100' of S.T.** £ 83 **Cost per mile of S.T.** £ 4382  
**Length** 200' **of S.T.** (West track)  
**Work commenced** 2/19/27 **Work completed** 3/19/27  
**Date of trial trip** None **Date of 1st. service** Under traffic  
**Traffic conditions** Under traffic  
**Cost. Lab. & Cart.** £ 129 **Material** £ 37  
**Cost. Lab. & Cart.** 77.7 % **Material** 22.3 %  
**Percentage Overhead** 38.7% of L.A.C. Engineer **W.A. Bell**

Particulars

	Existing	New
Drain	3" Pl.	Same
Ashes	5" in bed patches	"
Foundation	6" Ballast	7" Ballast.
Sleepers	7'6" x 9" x 4 1/2" known	Same
Stringers		
Rails	20lb 11' 80' sls.	"
Fastenings	Dogpicks	"
Paving	Ball Tar lev.	Ball bit lev
Surfacing	Tar. Scr.	Bit

**Notes :-** **Clearance Limits :- (approx) { See Poston Blue print Folder P. 3033 }**

3900 S of Arthurton Rd

4100 S.B.L. - - -

200' of S.T. (West Track).

East Track.

JOB. Sydney Rd Duplex, W.O. No. 2006  
From Charles St to Merri Crk Bridge

Estimate £ 2032 Cost £ 2239  
W.O. Amount £ 2200  
Cost per 100' of ST £ 290 Cost per mile of ST £ 15,380

Length 772' of ST including turnout (East Trk)

Work commenced 2/1/29 Work completed 29.1.29

Date of trial trip 24-1-29 Date of 1st. service 25-1-29.

Traffic conditions Not under traffic (Duplex?).

Cost. Lab. & Cart. <sup>204</sup> £ 1481 Material £ 758

Cost. Lab. & Cart. <sup>104</sup> 66.2% Material 33.8 %

Percentage Overhead 59% on L. Engineer H.Hell  
55% on L.O.C.

Particulars

	Existing	New
Drain		4" dg
Ashes		av 3 1/2" thick
Foundation		Ballast 7" under sleepers
Sleepers		8' Newer, box, dg, lg, m, tan, ah
Stringers		—
Rails		gobb reconditioned from S.M. H. B.
Fastenings		Dozs
Patrol		Bit per Mac.
Surfacing		" "

Notes:

Chainage Limits :- 25929' at Charles St  
(See P. 4193). 26701' " Merri Crk Bge.  
772' of ST. (East Track).



7

**JOB.** Sydney Rd Reconst<sup>n</sup> W.O. No. 1841  
 From Charles St to Bakers Rd  
 Estimate £ 2539 Cost £ ~~2434~~ 3780.  
 Cost per 100' of ~~£ 256~~ ST Cost per mile of S.T. £ 13,500  
 Length 1475' of ST (West track only)  
 Work commenced 7/11/28 Work completed 27/12/28  
 Date of trial trip none Date of 1st. service  
 Traffic conditions Under traffic  
 Cost. Lab. & Cart. <sup>+OH</sup> £ 2823 Material £ 957 ~~700~~ 2237  
 Cost. Lab. & Cart. <sup>+OH</sup> 74.7% Material 25.3%  
 Percentage Overhead 65.4% Engineer J. A. Bell  
 of L.R.C.

Particulars

	Existing	New
Drain	alg	4" alg
Ashes	no	3 1/2" <del>not</del> rammed
Foundation	Ballast	7" ballast under sleepers
Sleepers	?	New 8' heavy Box, Rly, or 18"
Stringers	—	—
Rails	90lb	same
Fastenings	Hogs	new dogs
Paving	Tar mac	Bit pen
Surfacing	—	—

Notes:- 17 pcs of fish plates were used, hence 26% of the joints must have been bad, new plates electric welded evidently with bare wire.

Chainage Limits:- (P. 4199) 26014' at Charles St.  
 27489' - Bakers Rd Terminus.  
 1475' of S.T. (West Track).



JOB. Swanston St. Xover

W.O. No.

1782

From North of Victoria St. to

Estimate £ 118 Cost £ 1006

Cost per 100' of £ Cost per mile of £

Length of

Work commenced 27-7-28 Work completed 17-8-28.

Date of trial trip — Date of 1st service 9-8-28. (when steelwork was in position)

Traffic conditions under traffic

Cost. Lab. & Cart. <sup>+OH</sup> £ 430 Material £ ~~576~~ 576Cost. Lab. & Cart. <sup>+OH</sup> 42.7% Material 57.3%

Percentage Overhead 45.2% of L.C. Engineer H.H. Bell.

Particulars

	Existing Xover	New Xover.
Drain	No alteration	
Asies	"	} 7 1/2" cone under sleepers 6" under stringer bolts 9" - " w/ rails
Foundation	"	
Scrapers	"	
Stringers	"	7'6" R.G. sleepers + Jarrah Stringer Plank (14 used at switches) (2 1/2" x 12" Stringers also used under crossings)
Rails	"	90 & 96 lbs. { Sinker plates used varying from 12" x 2 1/2" to 12" x 5 1/2" Total # used = 82 }
Fastenings	"	Bolts & Cscrews with clips
Paving	Bit. Pen. Mac.	Macadam
Surfacing	Bit	Bit penetration

Note: Installation of new Xover & removal of existing one. Alteration in position from opp Brewery to near Ballarat St.

## Swan St East. Reconst.

W.O. No. 1730

JOB.

From Park Grove to River Yarra (Wallen Rd Bge)

Estimate £ 14,382 Cost £ 15,222

Cost per 100' of D.T. £ 559 Cost per mile of D.T. £ 29,600

Length 2721' of D.T.

Work commenced 20-3-28 Work completed 19-7-28.

Date of trial trip Date of 1st. service

Traffic conditions Temporary Track Used.

Cost. Lab. &amp; Cart. £ 7817 Material £ 7,405

Cost. Lab. &amp; Cart. 51.4% Material 48.6%

Percentage Overhead 47% on L&C Engineer D.H. Eakins.  
(Average).

Particulars (See P. 4691 for Existing &amp; new details)

	Existing	From Park Gro - 25 to 1029 NT & 1067 ST	Now	From 1029 NT & 1067 ST to Yarra Bge at 2696'
Drain	From Railway Bge to 1029 NT 4" Ag drain thence central & Ag drain to Yarra	to 1029 NT to 1067 ST	Type "A"	Exists & Ag. replaced in Centre
Ashes	2 to 3" approx.		3"	2" exists
Foundation	Ballast. Rly Bge to 1029 NT then 6" Conc Slab to Yarra.	1029 NT 1067 ST	6" R. Conc.	Exists 6" Conc Slab.
Sleepers	7'6" Heun.		7'6" Sawn new	7'6" Sawn
<del>Blindings</del>			1 1/2" packing conc.	1 1/2" packing conc.
Packing under sleepers.	3" metal packing.			1 1/2" packing conc.
Rails	90 lb. B.S.		102 lb new (Cont 539) 102 lb old as per spec 102 1/2 lbs	102 lb. welded webs.
<del>Joints</del>	Tie bars		Tie bars	Tie bars.
Fastenings	Dogs/pikes.		Dogs on St Screws on Curves.	Dogs & Screws
Paving	Mac.		Macadam Bit. Pen.	Mac.
Surfacing	Tarred Serps.		Bit.	Bit.

From 2520 to 2696' at River end the packing concrete replaced by bituminous packing.

Above cost includes cost of Temporary Track.

Portions of old exists slab broken out & replaced by 5" ashes & 7" R. Conc. ST. 1910-2333, 2451-2478.  
1068-2479, 2540-2557.

On Curves the rails were double coachscrewed &amp; clipped on one side.

Chainage Limits: - 25' at Park Grove to 2696' at Wallen Rd Bge (See P. 4327).

Dogspikes used on W.O. = 1600  
Coachscrews " " = 10600.



JOB. Swanston St Xovers W.O. No. 1800

From Opp. Meib. Hospital to Opp. Public Library

Estimate £ 1020 Cost £ 1729

Cost per 100' of £ Cost per mile of

Length of

Work commenced 5-7-28 Work completed 27-7-28

Date of trial trip — Date of 1st service 18-7-28

Traffic conditions Work done at night.

Cost. Lab. & Cart. <sup>+O.H.</sup> £ 796 Material £ 933Cost. Lab. & Cart. <sup>+O.H.</sup> 46% Material 54%

Percentage Overhead 45% of L&amp;C. Engineer: H.H. Bell.

Particulars

	Existing	New
Drain	—	} 7½" conc. under sleepers 6" " " stringer butts
Ashes		
Foundation		
Sleepers		76 R.G. sleepers
Stringers		10½" x 2½" x 2'6" sand butts
Rails		102 ½" with 80 lb (501) guard
Fastenings		Anchor bolts, C screws & Clips.
Fixing		1½" S. Wood blocks
Surfacing		Bitumen

Notes: Removal of two existing Xovers  
opp. Melbourne Hospital  
Installation of one new  
Xover opposite Public Library



JOB. Swan St Reconstruction W.O. No. 1818

From Richmond Ry Edge. to Church St

Estimate £ 13824 Cost £ 16711 <sup>16721</sup>

W.O. Amount £ 14,000

Cost per 100' of D.T. £ 1160 Cost per mile of £

Length ~~1458~~ of D.T. = <sup>2910</sup> ~~1441~~ S.T. <sub>2882</sub>

Work commenced 12-7-28 Work completed 8-11-28

Date of trial trip 20-10-28 Date of 1st service

Traffic conditions Single line working in short sections

Cost: Lab. & Cart. <sup>+ ON</sup> £ 8235 Material - £ 8477 ~~8234~~

Cost: Lab. & Cart. <sup>+ ON</sup> 50.7% Material 49.3%

Percentage Overhead 65% of L. Engineer H. H. Bell  
56.1% of L.C.

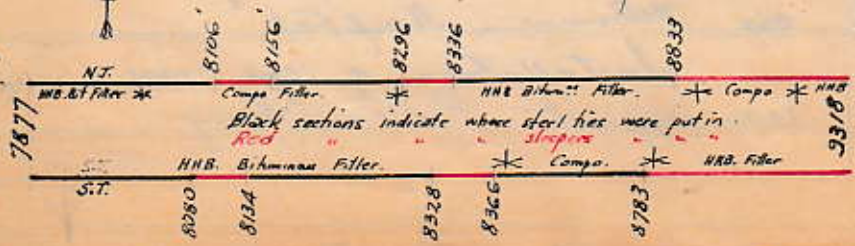
Particulars Slopes construction (See P. 4934) Steel Tie construction (See P. 4926)

Existing before Reconst

mil.	Drain	Type "A" cone	Type "A"
	Ashes	3"	3"
6" Conc.	Foundation	8" R. Concrete	8 1/2" R. Concrete under rails
6" Sawn	Sleepers	8'0" R.C. Sleepers	Nil-Steel Ties 7' long out of 67 1/2 rails.
-	Stringers		
90 lb.	Rails	102 lb	102 lb (M&M.B. 10206.08. D.L.C. 1021327)
Dogs.	Fastenings	7/8" Bolts, Squashers at head, Clip & Sp. Washer at end, 10 1/2" R.C. sleepers plates used.	Rails to Ties Bolted & Clipped, those anchored in conc. with anchor bolts in pairs strapped together with 1/2" M.S. spot welded to steel ties.
5" W.B.	Paving	Class A + heavy wood blocks	Class A + heavy 5" W. Blocks
Tar.	Surfacing	Bitumen 6 1/2" x 1/2" Ormonoid under rails between sleepers.	Bitumen

NO. 1818

Temporary zones used.



Church St  
Jctn.

Laying

JOB. Spencer St Bidge: Track W.O. No. 2203

From Full length of Bridge.

Estimate £ 550 Cost £ ~~1218~~ 1326

Cost per 100' of S.T. £ 158.4 Cost per mile of

Length D.T.  $\frac{1}{2}$  equiv of 837' S.T.

Work commenced 18.7.29 Work completed 1-8-29

Date of trial trip — Date of Ist. service

Traffic conditions Work done during const. of Bridge

Cost: Lab. & Cart. <sup>100</sup> £ 322 Material £ 1004

Cost: Lab. & Cart. 24.2 % Material 75.8 %

Percentage Overhead 52% of L.C. Engineer J. H. Eakins

Particulars

	Existing	New
Drain		Nil
Ashes		
Foundation		Concrete poured by Vic. Const. <u>Brace</u>
Stringers		$\frac{1}{2}$ " matthoid under rails
Rails		100 lb (Sound Bolckow Vaughan and - A.M.R. 4. 102-06 16 08. D.V.C. No 1227 555.
Fastenings		} not included in works order
Paving		
Surfacing		

Notes: Girders only of bridge only  
in position. Rails midway between girders



JOB. Sydney Rd. Lifting Reconstruction W.O. No. 2396  
From Wilson St. to O'Hea's Rd.

Estimate £ 878 Cost £ 886

Cost per 100' of S.T £ 136.4 Cost per mile of S.T £ 7200

Length 650' of Single Track (West Track)

Work commenced 21-1-30 Work completed 31-1-30

Date of trial trip — Date of 1st service —

Traffic conditions under traffic

Cost. Lab. & Cart<sup>on</sup> £ 615 Material £ 271

Cost. Lab. & Cart<sup>on</sup> 69.4% Material 30.6%

Percentage Overhead  $\frac{57.7}{52.1} \%$  Engineer H. H. Bell  
52.1% on L&C

### Particulars

Existing	Existing	New ✓
Ag on W side of trench.	1" ag. flow ch. 23360 to 23510	otherwise counting 400 131 pipes used
Nil.	3"	8 syds. used
6" Conc. Foundation	7" metal	otherwise counting conc. slab. 217 syds. used
1/2" metal packing	white sleepers	white conc. slab rebarbed spire metal packed. 42 used.
1/2" R.G. Heavy Sleepers		
—	Stringers	
10 lb St	Rails	counting on straight 90 lb. second on curve 5.26 tons 30 lb white used
16 - Curve.	Fastenings	Dogspikes 1222 used.
dogspikes	Paving	Macadam
Macadam	Surfacing	Bit Penetration
probably Tar. Surfs.	Joints :-	Fishplates (13 pr used), elec welds, covered wire, no joint plates baked out
ignite		

Original Conc Slab still in does not follow electric track (is on a sharper radius)  
See Original Cubing Trust folder.

Charge: Renewals reserve

Notes: W.O. extended by £320

Lifting to existing level

This job included reconstruction of existing single curve which had excessive superelevations. New curve design P. 4059.

Limits of job: — 22976 near centre Wilson St } = 640' ST  
(40' Plan P. 4198) 23616, — O'Hea's Rd } = + 10'  
plus 10 on turnout at Wilson St }  
Total = 650' ST



JOB. St. Georges Rd. Reconst. (Up track) W.O. No. 2410  
 From 90's of Normandy Ave to Arthurton Rd.

Approx. Estimate £ 5200 Cost £ 4593.

Cost per 100' of S.T. £ 136 Cost per mile of S.T. 7200.

Length 3376' of Single track (net inc. 290' S.T. run-outs)

Work commenced 13-3-30 Work completed 17-5-30  
 margin 12-7-30.

Date of trial trip - Date of 1st service -

Traffic conditions under traffic

Cost. Lab. & Cart<sup>ton</sup> £ 3485 Material £ 1108

Cost. Lab. & Cart<sup>ton</sup> 75.9 % Material 24.1 %

Percentage Overhead 57% to 19/30 Engineer H. H. Bell  
 hence 52.9%

Particulars Works out at: 51.5% on L & C.

Existing		New (See P. 5673)	
Arthurton to Beavers	Beavers to Wootton	Existing	New
3" Ag.	Type A	Drain	3" Ag. A Type drain exists in track
3"	3"	Ashes	3"
6" M.	6" M.	Foundation	7" metal (2 1/2")
7 1/2" H.	8" Hem	Sleepers	8" Newon sleepers (green) 361 green 27 white.
80b	80b	Stringers	80 lb 801 second hand per works.
Days	Days	Fastenings	480 new, 223 white used. 5850 used.
Car. Mac.	Bit. Mac.	Dogs	1 Bit. penetration (1/2" scarp.)
Tar.	Bit.	Surfacing	Bitumen.
Fishplates welded bare wire. No joints plates.	Joints:-	Fishplates	Angle 3 prs Lip 3 1/2 prs Flat 34 prs used
		Steel welded	Covered wire long joint plates 61 used.

Notes: East Track

Approx. limits of job:- 4162' 10' N of Arthurton Rd  
 7538 190' S. Normandy Ave  
 3376' of S.T. (East Track).

See 40 plans. P. 5722, P. 2893, P. 2894, P. 2615.

JOB. Swanston/Lonsdale St. Intersection W.O. No. 2197

From installation of ~~to~~ new cable/electric lines

Estimate £ 2000 Cost £ 3283

Cost per 100' of Length of £ Cost per mile of £

Work commenced 10-6-29 Work completed 20-8-29

Date of trial trip Date of 1st service

Traffic conditions work carried out at night

Cost. Lab. & Cart. <sup>7.21.</sup> £ 1591 Material £ 1692 includes all steelworkCost. Lab. & Cart. <sup>10.11</sup> 48.5% Material 51.5%Percentage Overhead 59% of L. & C. H. H. Bell  
or 51% of L. & C.Particulars

	<del>Existing</del>	<del>New</del>
Drain		Nil - Existing outlet from cable trough altered to suit new girders
<del>Keels</del>		Flat girders 3' 7 7/8" deep anchored to 17" of conc. reinforced by pieces of old cable tail. These
Foundation		concrete slabs bridge old cable sheath pit.
<del>Spacers</del>		
Stringers		
Rails		surface steel work made from F. S. 100 lb rail
Fastenings		
Paving		Stone setts on 2" of sand or precast conc. slabs & buckle plates
Surfacing		Setts grouted with Bitumen

Notes: Steelwork - Top &amp; Girders made by Contract.

Contractor. M. S. W. Newman

Contract No 658.

Price £ 1300. included in Material Cost above.



JOB. St. Georges Rd. Reconst. W.O. No. 2229

From West Track from  
Woolton Av. to Arthurton rd

Estimate £ 4754 Cost £ 5014

Cost per 100' of S.T. £ 163 Cost per mile of S.T. £ 8935.

Length 2963' of single track (West Track).

Work commenced 1-5-30 Work completed 21-6-30.

Date of trial trip Date of 1st service.

Traffic conditions Under Traffic

Cost. Lab. & Cart<sup>ton</sup> £ 3432 Material £ 1582Cost. Lab. & Cart<sup>ton</sup> 68.5 % Material 31.5%

Percentage Overhead 46% on L&amp;C Engineer H. H. Bell

Particulars

<u>Existing</u>	<u>Existing</u>	<u>New</u>	<u>New</u>
3" Ag.	Drain	4" Ag	2925 used.
—	Ashes	3"	
6" Metal	Foundation	7" metal	1359 qts used.
7'6" Hewn.	Sleepers	7'6" existing sleepers & green from Pat	
	Stringers	254 new, 442 green used.	Melbauma
80 lb.	Rails	80 lb. 801	Reconditioned on works.
Dogs.	Fastenings	Dog spikes	6084 used.
Tar Mac.	Paving	Bit Penetration	
Tar.	Surfacing	Bitumen.	
Fishplates elec. wtd bare wire No joint plates.	Joints.	Fishplates, Angle sps, lip 75 prs, flat 66 prs used. elec. wtds, covered wire, long joint plates 146 used.	

Notes:- Chainage Limits:- 40' plans. P. 5723, P. 2893, P. 2894.

4100' at SBL. Arthurton Rd

7063' 50' N. Woolton Av

2963' of S.T. (W.T).



JOB. St. Georges Rd. Reconst. W.O. No. 2268

From track between Charles St. &amp; Atherton Rd.

Down  
Estimate £ 4438 Cost £ 5493.

Cost per 100' of £ Cost per mile of £

Length 3152' of Single Track.

Work commenced 6-6-36 Work completed 26-7-36

Date of trial trip Date of 1st service

Traffic conditions Traffic conditions

Cost. Lab. &amp; Cart. £ 3235 Material £ 2258

Cost. Lab. &amp; Cart. % Material %

Percentage Overhead 32.8% Lugs for H. H. Bell.

Particulars

Drain	Concrete 1225 <del>3300</del> 3300
Ashes	4" Ag from 956-1225 to 3300-4100
Foundation	Ballast bet. 956-1225 to 3300-4100
Sleepers	New 8' heavy sleepers.
Stringers	
Rails	existing 80lb (801) reconditioned on works
Fastenings	
Paving	
Surfacing	Bit Penetration 80-100

Notes: Reconstruction & Lifting  
West End

S-18

JOB. St Georges Rd. Curve Duplication. W.D. No. 1956  
 Outer Curve From St Georges Rd. into Dundas St. & track to  
 existing turnout  
 Estimate £ 1994 Cost £ 1631  
 No. of Mt. £ 2000  
 Cost per 100' of S.T. £ 397 Cost per mile of £  
 Length 1/11 of Single Track (Outer Curve & 3 Diamond Xings etc)  
 Work commenced 11-3-29 Work completed 13-4-29  
 Date of trial trip 11-4-29 Date of 1st service 11-4-29  
 Traffic conditions Nil  
 Cost Lab. & Cart. <sup>+OH.</sup> £ 844 Material £ 787  
 Cost Lab. & Cart. <sup>+OH.</sup> 57.7% Material 48.3%  
 Percentage Overhead 55.5% of Engineer H. H. Bell  
 L.C.

## Particulars

	Existing	New
Drain		4" Ag
Ashes		3"
Foundation		7" metal
Sleepers		8" Kern & Sawm
Stringers		
Rails	2 1/2" BU diamond W.D. 1775	80 lb 80' with guard on curve
Fastenings	2 1/2" BU diamonds W.D. 1956	
Paving		macadam
Surfacing		Bit Penetration

Decking over M&MBW Maint. Sec. P.5077

Full lines show work done on this W.D.

10172

10532.5

## Notes:-

Outer curve St George Rd. to Dundas St. & track to existing turnout opposite Workshop's entrance.

See also D.3.

(See Plans P. 4095 &amp; 4482).

Based on rails:- B.H.P. L.H. VI. 27. NSWGR. 80 lb. O.H.



JOB. Swanston/Victoria St. Junct. W.O. No. 1777/S. 19  
 From installation of Elect. operated points

Estimate £ 130 Cost £ 346

Cost per 100' of £ Cost per mile of

Length - 13' points (interconnected). About 15' of S.T. opened up.

Work commenced 14/6/28 Work completed 20/6/28

Date of trial trip , , Date of 1st. service

Traffic conditions usual

Cost. Lab. & Cart. <sup>+ on</sup> £ 89 Material £ 259

Cost. Lab. & Cart. <sup>+ on</sup> 25.7% Material 74.3%

Percentage Overhead 45.9% of L.R.C. Engineer H. N. Bell

Particulars

	<u>Facing</u>	<u>Work</u>
Drain	Existing	
Ashes	3"	
Foundation	4" cone.	
Sleepers	7'6" Sawn Jarrah	
Stringers		
Rails	90 lb interconnected Switches	
Fastenings	Probably Coachscrews.	
Paving	4 1/2" Wood blocks	
Surfacing	Bitumen	

Notes: - Points operated from  
 cabin (W.O. 1778)  
 (Facing points only).



JOB. Start St Xaver near City Rd. and W.O. No. 1487

From 115'00 to 199'00  
Remaining Xaver in City Rd

Estimate £ 607 Cost £ 1010

Cost per 100' of £ C's: per mile of £

Length of

Work commenced 14.5.28 Work completed 11.6.28

Date of valuation Date of valuation

Traffic conditions usual traffic.

Cost Lab. & Cart £ 598 Material £ 412

Cost Lab. & Cart 59.2 % Material 40.8 %

Percentage Overhead 43% of L & C. L & C. L & C. L & C. J. H. Fokins.  
= 45% of L. only.

Particulars

	Existing	New
Drain	type A	existing
Ashes	3"	not touched
Foundation	7" concrete rian	{ existing base slab returned & cut out to take stringer butts, etc.
Sleepers	forced slab under stringer	
Stringers	10 1/2" x 2 1/2"	Stringer (10 1/2" x 2 1/2") butts
Rails	90 lb. B.S.S. N°1	90 lb. switches & ret. 96 lb. leads
Tie bolts & clips	1" anchor bolts & clips.	Anchor bolts & clips
Wooding	4 1/2" Wood blocks.	Wood blocks.
Bitumen		Bitumen

Notes:- Cement rendering in waists of rail.

Bituminous concrete around stringer & base of rails.

Tie bars 5'0" centres. 7" R.C. Raft then construction

plane, with 4 1/2" concrete under wood blocks. See dng. 11° -





Details of Paving.

Chainages		Length of Single Track	Type of Paving	Remarks.
East Track	West Track			
2532 } 4116 }	2505 } 2532 }	27'	Bit. Pen. Mac.	A short length on the W.T. South of Contract paving done by the Board.
2532 } 4116 }	2532 } 4116 }	4171'	Sheet Asphalt 1" on Bit. Pen. Mac Base done by the Board.	Contract No 798. Contractors NB. Carr. Pty Ltd Total area done = 4616.5 Sq. yds. includes extra. Contract Payment = £1029-1-11. The final analysis of W.O. shows extra paving 312 Sq. yds. = £69-11-0 to be paid
5892 } 6390 }	5892 } 6397 }			
4165 } 5892 }	4165 } 5892 }	3454'	Damman Asphalt 1" on Bit. Pen. Mac. Base.	Cont. No 798. Contractors Damman Asphalt (Vic.) Ltd Total area done = 3736.2 Sq. yds. includes extra. Contract Payment = £801-18-0.
4116 } 4165 }	4116 } 4165 }	98'	Wood Blocks.	Laid by the Board across Grafton St charged to P.O. 1335. Final Charge W.O. 2654. Cost £164-9-6.

Total Cost of Asphalt Paving by Contract.  
Payment to NB. Carr. Pty Ltd £1029-1-11

" " Damman Asphalt (Vic.) Ltd £801-18-0  
£1830-19-11

The total cost shown on Final analysis for W.O. = £1922-10-10, the difference representing 5% Board's Inspection.

The extra of £69-11-0 against NB. Carr. is not included above. It has not been paid to date. £532



JOB. Junction in Swanston St near City Baths W.O. No. 2631

From Renewal of Crossings & Lead rails.

-Estimate £ 610 :- Cost £ 926 980

Cost per 100' of £      Cost per mile of £  
Length of

Work commenced 17.4.31 Work completed 24.4.31

Date of 1st trip Date of 1st service

Traffic conditions Night shifts worked.

Est. Lab. & <sup>o.m.</sup> £ 282 } Material £ 698

Est. Lab. & Cart. % } Material %

Percentage Overhead Engineer H.N.Bell.

Particulars

	Existing	New
Drain		
Lines		
Foundation		
Sleepers		
Stringers		
Rails		
Fastenings		
Paving		
Surfacing		

Notes :-

This junction was originally laid in <sup>31-5-26</sup> ~~1927~~ W.O. 1303 (see S. 7<sup>x</sup>) to W.O. 1442 (see V4) using crossings built up at Hanna St Yard out of 96lb rails. The crossings have gradually depreciated owing to the effect of electric welding & the battering of car wheels, necessitating renewal of one Xing about 12 months ago. The new layout consists of manganese steel Xings, <sup>96lb Section</sup> supplied by Hadfields (Quist.) under Contract N<sup>o</sup> 778. The work done under this W.O. consisted of removing the blocks & some of the upper concrete, renewal of crossings & leads, (retaining the existing points), new coachscrews & tie-plates on existing sleepers (adged down), relaying top concrete where removed, rendering & blocking. All done night shift.

JOB. Swanston St. - Flinders St. Xing. W.O. No. 2810.  
From Renewals to Found<sup>ts</sup> & Paving. to

Estimate £ 840 (Est 833) Cost £ 1215 (28-5-72)  
Cost per 100' of £ Cost per mile of £

Length The Crossing renewed, plus 80' of S.T. outside Xing.  
Work commenced 31-1-32 Work completed 4-3-72.  
Date of trial trip - Date of 1st. service -

Traffic conditions Work done at night.  
Lab. & Cart. £ 876 Material £ 339  
Lab. & Cart. 72.1 % Material 27.9 %  
Percentage Overhead 82% on L  
15% on hired C. Engineer H.H. Bell.  
equiv. 66.9% on L&C.

Particulars See W.O. 1547. Details See P. 6122

	Existing	Now
Drain	Nil	4" Hg.
Grates	3"	
Foundation	8" Conc. under timber	Concrete
Timbers	7'6" Sawn also	2/16" x 12" x 6", 4/12" x 12" x 6" & 9" x 12" x 7'6"
Stringers	Special Timbers.	Red Gum Timbers.
Rails	Cast Rectangular Xing. made by C.S.P.	Existing Castings
Fastenings		Bolts & Clips.
Paving	Wood Blocks	Blue stone Cubes.
Surfacing	Bitumen.	Bituminous Toppings.

Notes :-







JOB. Swan St. Richmond. Reconstn. W.O. No. 2629  
From Under Railway Bridge. to

Estimate £ 1281-19-6 Cost £ 1539-9-6

Cost per 100' of S.T. £ ~~297-4-0~~<sup>301</sup> Cost per mile of S.T. £ ~~15692~~<sup>15900</sup>

Length ~~518'~~<sup>511'</sup> of S.T.

Work commenced 20-3-31 Work completed 21-4-31

Date of trial trip Date of 1st service

Traffic conditions Concrete placed at night.  
Balance of work done under usual traffic.

Cost. Lab. & Cart. £ 676-4-4 Material £ 863-5-2

Cost. Lab. & Cart. 44% Material 56%

Percentage Overhead 63. Engineer H.H. Bell.

### Particulars

	Existing	Now
Drain	Extg if any.	Existing if any except for 49'-4"lg put in N.T.
Ashes	" " "	" " " " " " " "
Foundation	R. Concrete	Existing Conc. built up except 49' full depth put in. N.T.
Sleepers	7'6" Sawn.	" 7'6" Sawn.
Stringers	-	-
Rails	20 lb.	" 20 lb.
Fastenings	Dogspikes.	Coachscrews. & sleeper plates.
Paving	Pitches	Wood blocks.
Surfacing	Bitumen.	Calas.

Notes :- Special sleeper plates used as in Batman Avenue  
on existing sleepers.

Limits of Job :- N.T. 7638 - 7886

S.T. 7617 - 7880.

*H.H. Bell*  
11-9-31

JOB. Swanston St<sup>s</sup> Renewals to Crossover. W.O. No. 2560.

Locn On Princes Bridge ~~to~~ S<sup>th</sup> of Flinders St

Estimate £ 290. Cost £ ~~622~~ 616 (later credits)

Cost per 100' of £ Cost per mile of

Length of

Work commenced 23-11-30 Work completed 20-12-30.

Date of trial trip Date of 1st service

Traffic conditions Work done at night time

Lab. & Cart.<sup>+OH</sup> £ 335. Material £ 281

Lab. & Cart.<sup>+OH</sup> 54.4% Material 45.6%

Percentage Overhead 56% on L&C. Engineer H.H. Bell.

Particulars

	Existing	New
Drain	Nil on bridge	
Asph	" " "	
Foundation	Channel Iron & Concr.	
Sleepers		No alterations.
Stringers	9 1/2" x 2 1/2" jarrah on channel sleepers.	
Switches	80 lb 801 & G.P.	Switches at S <sup>th</sup> end renewed interconnected pair installed.
Joints	Fishplated	
Fastenings	2 bolts & clips.	
Paaving	4 1/2" jarrah W Blocks.	
Surfacing	Bit <sup>m</sup> & Topp.	

Note:— On opening up <sup>concrete</sup> it was found to be badly fractured  
also no outlet drain for switches was provided.

Foundation was renewed & an outlet drain installed  
see drawing P. 5390.

This was not provided for in estimate.

**JOB. Swan St Reconstruction** W.O. No. 2831.  
**From** Punt Road **to** Richmond Railway Bridge  
**Estimate** £ 2836 **Cost** £ 3733  
**Cost per 100' of D.T.** - £ 410 **Cost per mile of D.T.** £ 21,650  
**Length** 310' of D.T.

**Work commenced** 20-4-32 **Work completed** 17-9-32

**Date of trial trip** **Date of 1st. service**

**Traffic conditions:** Done under usual traffic

**Cost. Lab. & Cart.** <sup>OR</sup> £ 2497 **Material** £ 1236

**Cost. Lab. & Cart.** <sup>or</sup> 66.9% **Material** 33.1%

**Percentage Overhead** 75.75% on Labour **Engineer** H.H. Bell.  
 15% on Hired Cartage.

Particulars

	Existing	See P.6185 for details for New main portion of W.O.	See P.6280 for details on 5 <sup>th</sup> Track from 7450' to 7550'.
<b>Drain</b>	4" Ag.	No alteration	No alteration
<b>Ashes</b>	A. of 3"	"	"
<b>Foundation</b>	6½" conc under sleepers.	"	"
<b>Sleepers</b>	7'6" x 9" x 4½" Sawn	"	{ Exist? Spks & conc trimmed off to give 1" for cement mortar under rubber
<b>Stringers</b>	—	Generally Neuchatel Mastix See P.6366	Rubber Cushion 5½" x ¾" See P.6366
<b>Rail Packing</b>	90 lb.	90 lb. record <sup>ed</sup>	90 lb record <sup>ed</sup>
<b>Nails</b>	—	(All Plates removed)	—
<b>Joints</b>	Ferrignite	Fishplated with 27" joint plates	Fishplated & 27" joint plates.
<b>Fastenings</b>	Dogspikes.	Anchor Bolts & Clips in pairs at 5.0" Centres.	—
<b>Paving</b>	Conc. to rail top	See drawing P.6366	See drawing P.6366.
<b>Surfacing</b>	Coat of asphaltum	—	—
<b>Welding</b>	ferrignite.	Covered wire	Covered wire.

**Notes** — { New tie bars inserted by cutting groove in conc. across 4' (not estimated for).  
 Existing conc. removed for width of 18" approx along each rail.  
 Filled with 2 layers of premixed bit. mac.  
 Holes bored in existing conc. to take anchor bolts.

**Chamirage Limits:** - See P.4384. - also P.6366.

6708' of W. side of Punt Rd  
 7618' near Richmond Rly Bgc

310' of D.T.



JOB. Spencer St - Flinder St Curves W.O. No. 2921.

From Renewal of outer rails total length 300'  
 Replacing 132' of guard rail.

Estimate £ 590.

Cost £ 714.

Cost per 100' of £ Cost per mile of

Length 300' of Outer rails renewed.  
 132' of guard rail replaced.

Work commenced 24.7.32 Work completed 17.9.32

Date of trial trip Date of 1st. service

Traffic conditions Under Traffic.

Cost. Lab. & Cart. <sup>TON.</sup> £ 427 Material £ 287

Cost. Lab. & Cart. <sup>TON.</sup> 59.8% Material 40.2%

Percentage Overhead 75.8 on Labour. Engineer H. H. Bell.

Particulars

	Existing	New
Drain	Conversn. Type.	No alteration
Ashes	3"	"
Foundation	8" R. Conc.	"
Sleepers	7'6" Sawn.	"
Stringers		
Rails	80 lb. (801) s. G.R.	80 lb. s.u. s. GR. {outer rails renewed} s. GR. replaced
Joints		
Fastenings	C'screws & clips	No alteration
Paving	5" W. Blocks.	"
Surfacing	Bitumen.	"

Notes:—



Index T.

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1544. Toorak Rd (Burwood Route) was Norwood Rd. Reconst<sup>n</sup> See N. 1.  
1600. " " " " & Camberwell Rd Duplicat<sup>n</sup> See C. 8.



*Index. U.*

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W.O. 2344. Union Rd. Resurfacing Epsom Rd.-M'Byrnang Rd. 1.

JOB. Union Rd. Resurfacing W.O. No. 2327

From Epsom Rd. to Marburying Rd.

Estimate £ 900 Cost £ 978.

Cost per 100' of D.T. £ 48.65 Cost per mile of D.T. £ 2570

Length equiv. of 16 2011' D.T. = 4022' S.T.

Work commenced 30-10-29 Work completed 14-11-29

Date of trial trip — Date of 1st. service —

Traffic conditions under traffic

Cost. Lab. & Cart<sup>on</sup> £ 561 Material £ 117

Cost. Lab. & Cart<sup>on</sup> 57.4% Material 42.6%

Percentage Overhead 49% on L & C. Engineer H.H. Bell / N.R.

Particulars

	<del>Existing</del> ✓	<del>Not</del>
Drain	4" Ag.	
Ashes	3"	
Foundation	6" Ballast	
Seeders	8' Hours	
Stringers		
Rails	90 lb.	
Joints:	Fishplates, bare wire etc welds.	
Fastenings	Dogs	
Paving	For. Scarped to a depth of 2½" below rails	
<del>Surfacing</del> For.	Surface reshaped.	
Surfacing	Bit. penetration	

Notes:- Work done represents  $\frac{2}{3}$  of total length between limits stated above. The ends of the work extended right to those limits.

Cost per sq yd = about 5/-

1442	Victoria St New construction	1
2193	Victoria Parade Conversion (Sect 3)	2, 2 <sup>A</sup> , 2 <sup>B</sup>
2194	Victoria St. Conversion (Sect. 4)	3, 3 <sup>A</sup>
1518	Victoria St Siding	4
2292	Victoria St - Church St curre	5
2566.	Victoria St Rich. Removal of Xover etc.	6.



JOB. Victoria St New Constr W.O. No. 1442.

From Swanston St. Nth to E.B.L. Leicester St

Estimate £ 6416 Cost £ 6590

Cost per 100' of £ Cost per mile of £

Length 301' of D.T. & 614' of S.T. (Curves & turnout included).

Work commenced Work completed 1-2-27

Date of trial trip Date of 1st. service 1-2-27.

Traffic conditions Nil New Constr

Cost. Lab. & Cart. <sup>10%</sup> £ 2877 Material £ 3713.

Cost. Lab. & Cart. <sup>10%</sup> 43.7% Material 56.3%

Percentage Overhead 34.4% of L.R.C. Engineer H.H. Bell

Particulars

	Existing	New
Drain		4" A Type A
Ashes		Av 3"
Foundation		7" R Conc.
Sleepers		7'6" x 9" x 4 1/2" Sawn on Curves.
Stringers		9 1/2" x 2 1/2" x 13' 4" on Straight.
Rails		80 lb 801 & G.P. (new)
<del>Joists</del>		Clips, Washers, 1" A Bolts.
Fastenings		4 1/2" Jarnah W. Blocks.
Routing		Bitumen.
Surfacing		

Notes:— Chainages:—

85' - 260' Single Track in Swanston St (Siding)

260' - 561' Double - on curves & in the St to turnout.

561' - 1000' Single " in Victoria St.





Chainages of Types of Construction. Cont. 707. Sect. 3.V. 2<sup>A</sup>

From	12330'	to	12745'	<u>Open Ballast Constn.</u>	See P. 4278
"	12862'	"	13509'	" ~ "	" "
"	13623'	"	13933'	" ~ "	" "
"	14014'	"	14270'	" ~ "	" "
"	14384'	"	14825'	" ~ "	" "
"	14907'	"	15033'	" ~ "	" "
"	15148'	"	15796'	" ~ "	" "
"	15910'	"	16461'	" ~ "	" "
"	12745'	"	12862'	<u>Paved Track</u>	P. 5244
"	13509'	"	13623'	" ~ "	" "
"	13933'	"	14014'	" ~ "	" "
"	14270'	"	14384'	" ~ "	" "
"	14825'	"	14907'	" ~ "	" "
"	15033'	"	15148'	" ~ "	" "
"	15796'	"	15910'	" ~ "	" "

The work done in this Section, included regrading of roads, channels, Kerbing, footpaths, the construction of new pits & channels, laying of  $\frac{1}{2}$  round open drains & stone pitching, erection of fencing, construction of platforms & approaches, attention to cable tracks specified elsewhere. etc.

Special Work:- Temporary Turnout laid in open ballast near Brunswick St  
Later converted to a permanent L.H. Crossover.

Structure over mains at Eades St

For details See P. 4459.

Additions & alterations to S.W. Pit at Simpson St See 40' plan P. 451.



Alterations to Cable Tracks in Victoria Parade.

Rails removed.

Blocks removed.

Pulleys & bearings removed from Conduits

Conduits & pits cleaned out & left as underground drains

Rendering cleaned, chipped, & levelled with dry mix of 3:1  
cement & sand where necessary.

Wood blocks relaid being replaced where necessary & surfaced  
with tar. & toppings or fine screenings

Slots filled with No 2 Concrete & covered with 1½" layer  
of sheet asphalt to finish flush with tops of slot beams.

See. P. 5302

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JOB. Victoria St Conversion W.O. No. 2194

From Hoddle St to Victoria Bridge

Estimate £ 53,772 Cost £ 52,522

Cost per 100' of D.T. £ 780 Cost per mile of D.T. £ 41,200

Length 6739' of D.T. + Single Curve into Church St. Conc. &amp; W.B. Const?

Work commenced 15-7-29 Work completed 14-9-29

Date of trial trip 14-9-29 Date of 1st service 14-9-29

Traffic conditions Nil. Conversion.

Cost Lab. & Cart. <sup>TON.</sup> £ 1869

Material £ 50,653

Cost Lab. &amp; Cart. %

Material %

Percentage Overhead

Engineer A.T. O'Meara / J.J. Fricker.

Particulars	Details of P. 5242	Details of P. 5243	Details of P. 5183
Drain	Convers.? Type	Convers.? Type	Convers.? Type.
Ashes	A" of 3"	A" of 3"	A" of 3"
Foundation	8" R. Conc. under slprs.	As for P. 5183	8" R. Conc. under Tim. Ties.
Timber Ties.			7x9x3 Tim. Ties. edges banded.
Slippers	7'6" x 9" x 4 1/2" Sawn.		
Stringers		As for P. 5183	{ 6x2 1/2" jarrah between ties clipped under feet of rails
Rails	{ 102 lb. with 26 1/2" inner rail. curves 102 lb. S.W. on Xovers	102 lb. Tie bars used.	102 lb. Tie Bars used.
Joints			
Fastenings	{ 8 1/2" x 3/4" Slipper bolts 1/2" MS. Straps 1/2" MS. " plates, 1 1/2" C.I. Clips.	As for P. 5183 except Tie bolts 8 1/2" x 3/4" & 1 C.I. Clips 3 1/2"	{ 7 1/2" Tie bolts 1/2" MS. Straps. 1/2" MS. Tie plates, 1 1/2" C.I. Clips.
Paving	1 1/2" Woodblocks.	{ 1 1/2" Black Base 1 1/2" Sheet Asphalt.	1 1/2" Woodblocks.
Surfacing	50% Bit, 50% Tar.		50% Bit, 50% Tar.

This W.O. is Section 4. of Contract No 707. by Victorian Const. Pty Ltd

Cherriage Limits: See 40 Plans. P. 451, 199, 198, 197.

From 16461' at 6' inside plantation in Vic. Pk. at Hoddle St

To 23200' - End of Contract W. of Victoria Bridge.

6739' of D.T

Material Cost above includes Contract Payments of £ 39,559.

Labour - - - Boards labour &amp; Inspection only.



Chainage Limits of Types of Const<sup>n</sup> & Crossovers? Section 4.

From 16461' at 6' inside Vic Pts plantations at Huddle St. } See P. 5242  
 To 16670' .. 31' E of E.B.L. Huddle St. North. } except (a) & (b).

(a). Where tracks are clear of old cable tracks 16461 to 16608  
 centre is W.Blocks on 7' Conc on 3' Askes.

(b). From 16461' to inspection pits on E. side of Huddle St  
 Subsoil drain is Type 'A'.

From 16670' to 19186' at 50' W. of W.B.L. Church St. See P. 5243.

" 19186' .. 19480' .. E.T.P. of Xover E. of Church St. " P. 5242.

(Special provision for future junctn & Xover).

also Single Curve const<sup>n</sup> into Church St Conc. & W.Blocks

" 19480' .. 21863' at 10' W. of W.T.P. inner curve at Burnley St See P. 5243.

" 21863' .. 22086' .. 12' beyond outer .. T.P. E. of " " P. 5242.

" 22086' .. 22832' .. 10.7' from W.T.P. curves at Cable Car shed. " P. 5243.

" 22832' .. 23060' .. E.T.P. of Crossover " P. 5242.

with P. 5286 for Xover in addition.

" 23060' .. 23200' .. end of contract. W. of Vic. Bge. See P. 5183.

Special Work:- Junction, Vic St & Church St See P. 4462 & P. 5242.

The outer curve turning E from Church St to Victoria St  
 was const<sup>d</sup> under Contract as an extra. Conc & W.Block Const<sup>n</sup>  
 This work done under W.O. 2292 See page V. 5.

Crossovers:- One in Vic St. E. of Church St. } See P. 5286  
 ~ ~ ~ near Cable Car Shed. } & P. 5242.

Provision for Future Special Work:- Future junctn at Church St See P. 4218.

Sheave Pit:- Terminal Sheave Pit near Victoria Bridge.

Filled & Decked See P. 4741.



**JOB.** Removal of Victoria Sp. Siding. Xaver W.O. No. 1518.  
From to a point 50' North

Estimate £ 400 Cost £ 1102 - 15-11

Cost per 100' of £ Cost per mile of £

Length of

Work commenced 29-4-27 Work completed 6-6-27

Date of trial trip Date of 1st service

Traffic conditions Under Traffic.

Cost. Lab. & Cart. <sup>+OH</sup> £ 500 Material £ 603

Cost. Lab. & Cart. <sup>+OH</sup> 45.3% Material 54.7%

Percentage Overhead 37% of L&C. Engineer H.H. Bell.

Particulars

Drain	Existing Type 'A'
Ashes	" 3"
Foundation	7" Conc on 3' ashes under Sp.Wk (otherwise existing)
Sleepers	7'6" Sawn firrals.
Stringers	
Nails	Existg 96 lb & Sp. Wk
Joints	
Fastenings	C'screws, A.Botts. Clps.
Paving	4½ Woodblocks.
Surfacing	Bitumen.

Notes:—

JOB. Victoria S<sup>2</sup> curve into Church ST W.O. No. 2292

From Church ST to Victoria S<sup>2</sup>  
outer curve only

Estimate £ 528 Cost £ 414

Cost per 100' of S.T. £ 537.7 Cost per mile of £

Length 77' <sup>1/2</sup> of S.T.

Work commenced Work completed 14.9.29

Date of installation Date of 1st service

Traffic conditions Vehicular traffic a bit inconvenient

Cost. Lab. & Cart £ 3 Material £ 411

Cost. Lab. & Cart. % Material %

Percentage Overhead £ 1 only charged. Engineer J.J.F.

Particulars

	Existing	Now
Drain		Type A
Ashes		3"
Foundation		6" R.C. concrete slab
Sleepers		ocean sleepers
Stringers		
Rails		96 lb. B.S.S. N° 1.C.
Trackings		
Flag		4 1/2" wood blocks.
Coating		50% Bit & 60% Tar.

Notes: The allocation of charges are wrong.

L.C. + OH is only £3 & OH £1. Taken from cost cards.

This work was done in connection with Victoria S<sup>2</sup> Conversion & is shown as extra work on Contract 707, Section 4, W.O. 2194 on page V.3<sup>d</sup>.

Labour probably charged into conversion W.O.

Removal of Crossover & realigning  
JOB tracks in Victoria Street

W.O. No. 2566.

From E. end of conc. const. Vic St. Conv. to W. Abutment of Victoria Bridge.

Estimate £ 420 (Jump) Cost £ 797-12-6

Cost per 100' of — £ — Cost per mile of £ —

Length 480' of S.T.

Work commenced 21-3-31 Work completed 17-4-31.

Date of trial trip — Date of 1st. service —

Traffic conditions Work done under usual traffic.

Cost. Lab. & Cart. £ 615-9-11 Material £ 182-2-7  
+ O.H.

Cost. Lab. & Cart. 77% Material 23%

Percentage Overhead 54 Engineer D.H. Eakins.

Particulars

	Existing	New
Drain	40' Type A beyond conc.	4" Ag. drain.
Ashes	40' only 3" - "	3" Av.
Foundation	Ballast	Ballast.
Sleepers	7'6"	8' Newrs (new)
Stringers	—	
Rails	30 lb.	30 lb. (27% renewed with blue-white).
Fastenings	Dogspikes.	Dogspikes.
Paving	Bit. Perr.	Bit. Perr.
Surfacing	Bit.	Colos.

Notes: On opening up track it was found that drain only extended 40' from end of concrete. Necessary to reconstruct with drain, ashes & bottom ballast for remainder of track.

Additional cost £ 300. Memo M. Eakins to M. Goss 20-3-31.

Limits of Job: 23192 - 23432 = 480' S.T.

24 3-9-31



Number	Location	Work	Value
1414	West Brunswick	Duplication <sup>&amp; Extension</sup>	1
1415	West Coburg	New Coast	2
1466	Wallen Rd	Reconstruction	3 <small>including John Brown St</small>
1475	West Brunswick	Lifting	4
1498	Whitehorse Rd	Reconstruction	5
1533	Wellington Rd <sup>&amp; Rinders St</sup>	Conversion	6 & 6A
1542	Whitehorse Rd	Reconstruction	7
1560	Whitehorse Rd	Duplication	8
1645	Wallen Rd	Reconstruction	9
1689	Wattlebee Rd	New Coast	10
1697	Wattlebee Rd & Glenferrie Rd	King	11
1698	Wattlebee & Glendon Rd	King	12
1720	Whitehorse Rd	Reconst.	12
1960	Wattlebee Rd	Margins	13
1959	Wellington Parade	Siding	14
2332	Moreley Rd	Reconst.	15
2368	Wattlebee Rd	Reconst.	17
2428	Wattlebee Rd (Terminus)		18
2739	Wattle Park Roadway		20
1517	Whitehorse Rd & Cotham Rd	Reconst.	Sec. C. 5.
2832	William St	Renewal of Switches at Terminus.	21.

JOB: ~~West~~ <sup>and New Constr<sup>n</sup></sup> ~~Bunsworks~~ Duplication <sup>ET</sup> W.O. No. 1414  
 From Whitby St ~~Victoria St~~ to Albon St hence to ~~Harland St~~  
 Estimate £ 13880 Cost £ 14424

Cost per 100' of £ Cost per mile of <sup>mixed types</sup> ST £13,660  
 Length ~~2008'~~ <sup>2042</sup> of D.T. and ~~1894'~~ <sup>1600</sup> of S.T. Duplication

Work commenced 2/9/26 Work completed 7/8/27  
 Date of trial trip Date of 1st. service <sup>dup. 7-8-27</sup> <sup>New Constr. 15-5-27.</sup>

Traffic conditions Duplication + New construction

Cost. Lab. & Cart. £ 7037 Material £ 7387

Cost. Lab. & Cart. 48.8% Material 57.2%

Percentage Overhead <sup>30.7%</sup> ~~38%~~ <sup>of L to 30-6-27</sup> Engineer 16' Bell  
 43% - L - 24-3-28

Particulars

	Existing	New
Drain		2008' Ball. D.T.
Aches		4" G.T.
Foundation		3"
Sleepers		6" Ballast
Stringers		8' x 9' x 4 1/2" New
Rails		7'6" x 9' x 4 1/2" New
Fastenings		90lb BS 801 Recar.
Paving		Dog spikes
Surfacing		Ball Bedken
		Rel

Notes:-  
 Chainage Limits:-  
 Whitby St Albon St  
 Dupl. E.T. 13544 - 15144 = 1600' of S.T. RC  
 Constr. D.T. 15144 - 17186 = 2042' of D.T.

JOB. West Coburg. New Const. W.O. No. 1415  
 From NBL. Moreland Rd to S. of Bell St

Estimate £ 17798 Cost £ 18,639

Cost per 100' of S.T. £ 224.5 Cost per mile of S.T. £ 11850

Length ~~2193~~ <sup>3052</sup> of D.T. ~~2700~~ <sup>2193</sup> of S.T. ~~Loop~~  
 (including turnout & Loop) (excluding Loop)

Work commenced 20.4.27 Work completed 10/6/27

Date of trial trip 8/6/27 Date of 1st. service 26.6.27.

Traffic conditions New Construction

Cost. Lab. & Cart. <sup>10H</sup> £ 1085 Material £ 17554

Cost. Lab. & Cart. <sup>7.0H</sup> 5.8 % Material 94.2 %

Percentage Overhead 19.6% of L.S.C. Engineer H. T. O'Keefe H. Smith

Particulars

	Existing	New
Drain		4" G.T.
Ashes		3"
Foundation		7" Ballast
Stoppers		8' x 9' 4 1/2" Heavy Road Cur.
Stingers		
Flags		
Fastenings		200 B.S. 101 kee. on sk 96 B.S. 101 C. kee on cur.
Paving		Dogsfikes
Surfacing		Bull Bit Ben
		Bit

3052  
1096  
4148

Notes: - Contract No 497 T. Starr

Material Cost above includes a contract payment of £11089

Labour Cost - Boards labour & inspection only.

Chainages: -

17186	at Moreland Rd	-	19963	at turnout end D.T.	2783	'0T
19969	- turnout	-	21351	- Loop.	1382	'S.T. (WT)
21351	-	21620	- Loop		269	'0T
21620	-	22431	terminus of Bell St.		811	'S.T.



JOB. Wollen Rd Reconstruction W.O. No. 1466  
 From Reverse Curve at Wollen Rd - Riverside Rd C/S  
 Estimate £ 3324 Cost £ ~~4470~~ 3525  
 Cost per 100' of D.T. £ 750 Cost per mile of £  
 Length 940' of ST (470' DT)  
 Work commenced 2-5-27 Work completed 17/5/27 except joint  
 Date of trial trip \_\_\_\_\_ Date of 1st service 5/4/28 spec work

Traffic conditions Under usual traffic.  
 Cost. Lab. & Cart. <sup>+ O.H.</sup> £ 1837 Material £ 1688  
 Cost. Lab. & Cart. <sup>+ tax</sup> 52 % Material 48 %  
 Percentage Overhead 35% of L&C. Engineer D.H. Lakin.  
 - 38% of L only.

Particulars

	<u>Existing</u>	<u>New</u>
<u>Drain</u>	<u>4" Ag.</u>	<u>Existing AG left in</u>
<u>Ashes</u>	<u>6"</u>	<u>Existing 6"</u>
<u>Foundation</u>	<u>6" Metal</u>	<u>" metal 6"</u>
<u>Sleepers</u>	<u>7'6" x 9" x 4 1/2"</u>	<u>Sawn 7'6" x 9" x 4 1/2" new</u>
<u>Stringers</u>		
<u>Rails</u>		<u>80lb 501 of guard rail on</u>
<u>Fastenings</u>		<u>logs</u>
<u>Paving</u>		<u>bit per</u>
<u>Surfacing</u>		

Notes :- Chainage Limits:-

N.T. <u>17361</u> in <u>Wollen Rd</u>	}	<u>487</u>
" <u>17848</u> - <u>Riversdale Rd</u>		
ST. <u>17361</u> - <u>Wollen Rd</u>	}	<u>453</u>
" <u>17814</u> - <u>Riversdale Rd</u>		
		<u>940 of S.T.</u>
		<u>= 470' DT</u>

JOB. W. Brunswick R. Park lifting W.O. No. 1475

From (See below.) to

Estimate £ 150 Cost £ 200

Cost per 100' of D.T. £ 140 Cost per mile of D.T. £ 7450

Length 198' of D.T.

Work commenced Work completed 2/4/27

Date of trial trip none Date of 1st service Under traffic

T-traffic conditions Under traffic

Con<sup>+.00.</sup> Lab. & Cart £ 185 Material £ 95

Cost Lab. & Cart 66 % Material 34 %

Percentage Overhead 26% of L.P.C. Engineer W. Bell

Particulars

	Existing	New
Drain		
Arch		
Foundation		
Stoppers		
Stringers		
Rails		
Fastenings		
Laying		
surfacing		

Re-aligning, ballasting & surfacing D.T. King at Park St  
— also —

Re-surfacing of platform at Royal Park Stn  
with bituminous penetration.

JOB. Whitehorse Rd reconstruction W.O. No. 1498  
 From Terry St to Hardwicke St  
 Estimate £ 1500 Cost £ 1379  
 Cost per 100' of S.T. £ 145 Cost per mile of S.T. £ 7650  
 Length 950' of S.T. (N.T.)  
 Work commenced 21/3/27 Work completed 14/4/27  
 Date of trial trip None Date of 1st. service Under traffic  
 Traffic conditions Under traffic (North Track).  
 Cost. Lab. & Cart. <sup>toft</sup> £ 1030 Material £ 349  
 Cost. Lab. & Cart. <sup>toft</sup> 75 % Material 25 %  
 Percentage Overhead  $33\frac{2}{3}\%$  of L<sup>toft</sup> of L<sup>toft</sup> Engineer J. H. Eakins

Particulars

	Existing	New
Drain		4" G.I.
Ashes		3"
Foundation	5" Ballast	7" Ballast
Sleepers	7'6" x 9" x 4 1/2" Keon	Same
Stringers		
Rails	70lb B.S. No 1	Same
Fastenings	Dogspikes	"
Tamping	Bell Tar Pen	Bell Bit Pen
Surfacing	Tar Scr	Bit

Notes:- Chainage Limits:- approx. (See P. 3375).

2400' at Terry St.

3350' .. Hardwicke St

950' of S.T. (N.T. Track).



Flinders St and.

JOB. Wellington Rd low sec. 650s W.O. No. 1533

From E.B.L. Russell St to E.B.L. Hoddle St

Estimate £ 48000 Cost £ ~~47798~~ 47805Cost per 100' of D.T. £ 794 Cost per mile of D.T. £ 42000<sup>62</sup>

Length 6001' of D.T.

Work commenced Work completed 3/10/1927

Date of trial trip 4/9/27 Date of 1st. service 4-12-27

Traffic conditions Overman

Cost. Lab. & Cart. <sup>+OH.</sup> £ 1456 Material £ 46349

Cost. Lab. &amp; Cart. % Material %

Percentage Overhead Engineer W.T. Moore M.S.

ParticularsDetails

Drain

Existing  
baffle  
tramway

Ashes

Foundation

Sleepers

Stringers

Ties

Bearings

Flag

Surfacing

See P. 4173 for straight. & P. 4179 for curves & S.W.  
(Sleepers on straight) (Sleepers on curves & S.W.)

6" low. + 4" G.T.

3"

8" l. concrete

7'6" x 9" x 4 1/2" Jarrals

4 1/2" x 2 1/2" x 13'4" Jarrals with 7" steel bearers.

1" x 6" to 801 G.P.

boards on sleepers. 1" x 8" with sleepers

5" x 8" on sleepers. 4 1/2" x 8" with sleepers

Behmen

From Russell St to Spring St 8480.2' to 9854' the feeder conduits to be provided for along the centre of tramway See E. 3996 &amp; 4008.

Section 3. baffle 650s. Weers The Foundation Co

Chainage Limits:— 8480.2' on E.B.L. Russell St

14481.2' .. E.B.L. Hoddle St

Length = 6001.2' of D.T.

Material Cost above includes Contract payment of £ 23,342

Labour - - - - - Board's labour &amp; inspection only.

over  
G.A.

Special Work.

Crossover. One W. of the curves at Simpson St

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Provision for Future Special Work.

Future Junction. At curves in Wellington Pde near Simpson St  
As per drawing P. 4184.

Future Crossover. At Chainage 14200. to W of Punt Rd  
As per drawing P. 4118.

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One large sheave pit rope tunnels, subways etc. at C. of  
Flinders St & Wellington Pde. opp. Spring St, uncovered,  
filled & decked by Contractor, As per drawings P 3335 & 3430.

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JOB. Whitehouse Rd reconstruction W.O. No. 1542  
 From Hamro St to Terrace (North Track)  
 Estimate £ 10833. Cost £ ~~9921~~ 9985  
 Cost per 100' of S.T. <sup>Conc. 240 approx</sup> £ 67 <sup>Ball 67 approx</sup> Cost per mile of S.T. £ <sup>base 12640</sup> <sup>Ball 3520</sup> <sup>approx.</sup>  
 Length 4008' of S.T. base raft. 505' Ballast lifting ready?  
 Work commenced 18/7/27 Work completed 10/11/27  
 Date of trial trip Date of 1st service

Traffic conditions Duplication reconstruction using crossovers.  
 Cost. Lab. & Cart. £ 4893 Material £ 510-5092  
 Cost. Lab. & Cart. 49% Material 51%  
 Percentage Overhead 35% of L. only. Engineer W. Ekins  
 42% of L. only.

Particulars	base section	
	Existing	New
Drain		4" S.T. (Type 'A').
Ashes		3"
Foundation	5" Ballast	7" R. concrete
Sleepers	7'6" x 9" x 4 1/2" known	
Stringers		10 1/2" x 2 1/2" x 15" Jarrah
Rails	90lb BS 101	100lb Well. Rd section
Fastenings	Dogsheads	1" hook bolts.
Paving	Ball Tar low	Ball bit low
Surfacing	Tar ker	Bit

Chainage Limits: \_\_\_\_\_

Notes: Ballast length N.T. Hamro St - Urie St 315' - 695' - 7290  
 S.T. Wharfedale - Lelyde St 250' - 8650 - 8900  
 Concrete portion: N.T. 7290 - 11298 = 4008' of S.T.

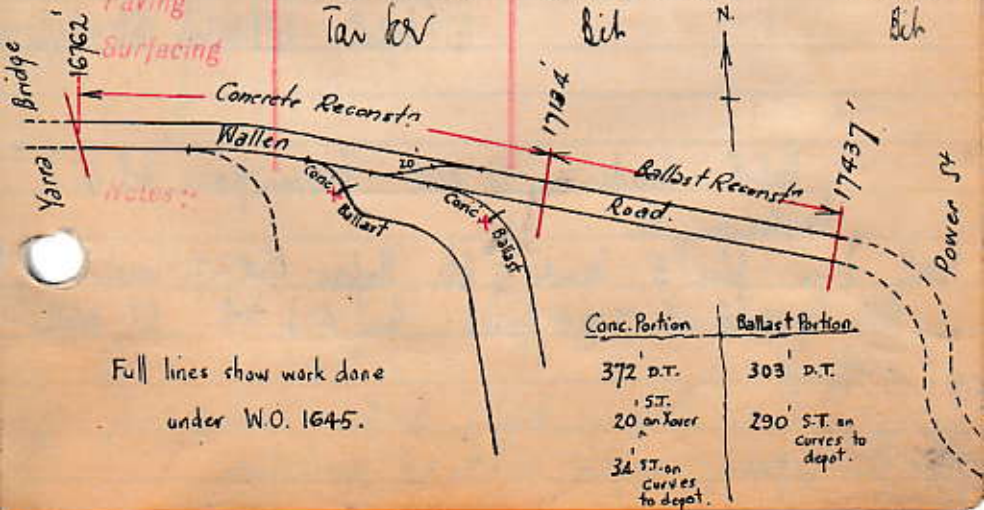




**JOB.** Waller Rd Reconstruction **W.O. No.** 1645  
**From** Power St **to** River Yarra  
**Estimate** £ 4800 **Cost** £ 4980  
**Cost per 100' of** D.T. £ **Cost per mile of** D.T. £  
**Length** 448' **of** D.T. in ball, 299' D.T. in concrete  
**Work commenced** 2/11/27 **Work completed** 19/12/27  
**Date of trial trip** — **Date of 1st. service** —  
**Traffic conditions** Under traffic using temp track.  
**Cost. Lab. & Cart.** £ 2822 **Material** £ 2158  
**Cost. Lab. & Cart.** 56.7% **Material** 43.3%  
**Percentage Overhead** 41.7% of L.&C. **Engineer** D.A. Farnes

Particulars

	Existing	Conc Portion New	Ball Portion Existing
Drain	4" G.I.	4" G.I.	Existing
Ashes		3"	
Foundation	6" Ballast	7" concrete in sleepers	"
Sleepers	7 1/2" x 9" x 4 1/2" Newon	7 1/2" x 9" x 4 1/2" Newon Ballast	"
Stringers		12x12 oak b. sleepers under 500 R	
Rails	20lb B.S. No 1	20lb on sleepers + over 500' R straight	"
Fastenings	Coopspikes	1" K. bolts + washers	"
Paving	Ball Bit Pav	Ball Bit Pav	Ball Bit Pav
Surfacing	Tar ker	Bit	Bit



Full lines show work done under W.O. 1645.







Installing junction at

JOB. W. tree of ferris Rds W.O. No. 1697

From — to —

Estimate £ 1392 Cost £ 950

Cost per 100' of — £ — Cost per mile of £

Length — of —

Work commenced 9.1.28 Work completed 11-2-28. (7) ~~4-7-28~~

Date of trial trip — Date of 1st service 24-6-28

Traffic conditions Traffic along G ferris Rd + round both corners.

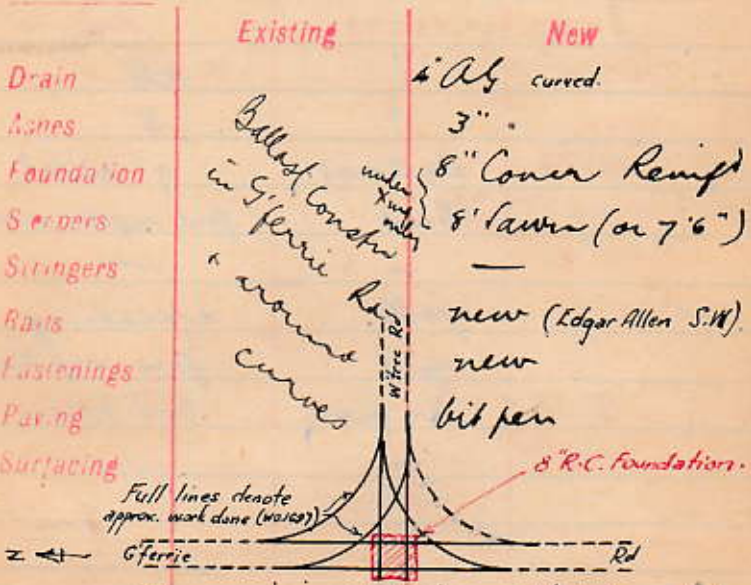
Est. Lab. & Cart. £ 401 Material £ 549

Est. Lab. & Cart. 42.2 % Material 57.8

Percentage Overhead 42.7 of L.C. Engineer S.H.E.

Particulars

	Existing	New
Drain		4" Ab curved.
Asnes		3"
Foundation		8" Cover Remp
Senders		8' tower (or 7'6")
Stringers		—
Rails		new (Edgar Allen S.W.)
Fastenings		new
Paving		bit per
Surfacing		8" R.C. foundations.



Notes: The original Xing which has been in stock for many years is being installed. The curves to SE cor. of inters were to be removed, + estimated for, but this was not done. The Xing is laid on concrete, the rest of the junction on ballast.

JOB. Whitehorse Rd Rec<sup>n</sup>  
 north track only W.O. No. 1720  
 From Between Power St and Mangam St

Estimate £ 950 Cost £ 984  
 Cost per 100' of ST £ 164 Cost per mile of ST £ 8660  
 Length 600' of ST (North Track).

Work commenced 7.3.28 Work completed 23.3.28

Date of trial trip — Date of 1st service

Traffic conditions Under traffic

Est. Lab. & Cart. <sup>OH</sup> £ 741 Material £ 243

Est. Lab. & Cart. <sup>OH</sup> ~~75.3~~ % Material 24.7%

Percentage Overhead 45% of L. Engineer ~~OH~~

Particulars

	Existing	New
Drain	?	as
Ashes	?	3"
Foundation	Ballast	7" metal
Sleepers	Good	few replacements
Stringers	—	—
Rails	90lb	existing
Drawings	Good	few replaced
Flaying	tar mac	bit pen
Gr-facing	—	—

Notes: Chainage Limits:-

5760  
 6360  
 600' of S.T. (N.T.)



Wattletree Rd margins  
 JOB. Kooyong Rd to Gferrie Rd W.O. No. 1960

From to  
 Estimate £ 671 Cost £ 624 including price of asphalt.  
 Cost per 100' of ST margin £ 12.8 £ 124 excluding asphalt.  
 Cost per mile of ST £

Length 4864' of S.T. margin

Work commenced 14.11.28 Work completed 3.1.29

Date of trial trip — Date of 1st. service —

Traffic conditions Trams running

Cost. Lab. & Cart. <sup>OH</sup> £ 73 Boards Material £ 51 excludes asphalt.

Cost. Lab. & Cart. <sup>OH</sup> 58.9 % Material 41.1 %

Percentage Overhead 43% of L&C Engineer S.H.E.

These percentages do not include cost of Asphalt.

Particulars

	Existing	New
Drain		24'
Ashes		
Foundation	Bit Pen over concrete	Asphalt margin laid by Neuchatel
Sleepers		Asphalt Co for
Stringers		Malvern C.C.
Rails	base, laid in 1928 when tracks constructed.	rail filler laid with 3:1 cement mortar by man 75.
Fastenings		
Paving		
Surfacing		

Notes:-

Cost excluding Neuchatel Asphalt = £124

" of " " = £500

Total Cost £ 624

Chainage Limits:- See P.4033 & 4034. { 2447' on E of Kooyong Rd  
 4879' end of Woodblock near Gferrie Rd  
 2432' x 2 = 4864' of Single Margin



**JOB. Wellington Parade Siding W.O. No. 1759**

From Simpson St to Hoddle St

Estimate £ 5500 Cost £ 5572

Cost per 100' of D.T. £ 766 Cost per mile of D.T. £ 49500

Length  $\left. \begin{matrix} 700' \\ 55' \end{matrix} \right\} \begin{matrix} \text{D.T.} \\ \text{S.T.} \end{matrix}$  equivalent to 727' of D.T.

Work commenced 27-4-28 Work completed 14-6-28

Date of trial trip 14-6-28 Date of 1st service 14-6-28

Traffic conditions Nil

Cost. Lab. & Cart. <sup>+ on</sup> £ 2161 Material £ 3411 inc 14/7 m Bx charge

Cost. Lab. & Cart. <sup>+ on</sup> 39.8% Material 61.2%

Percentage Overhead 40% of L.&C. Engineer H. H. Bell

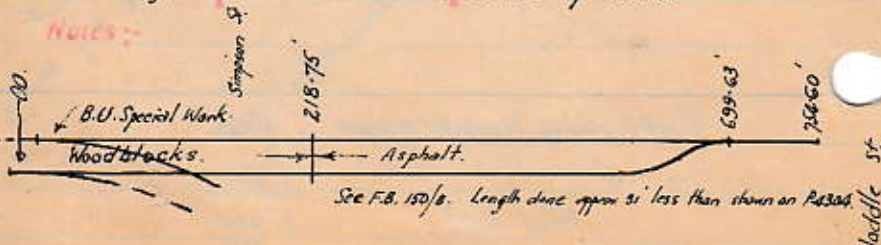
Particulars

Details (See P. 4708.)

	Existing	New
Drain		A Type
Ashes		3"
Foundation		Concrete $6\frac{1}{2}'' \times 8''$ under W. blocks.
Sleepers		Sleepers & Timbers at jctrs (done on concrete).
Stringers		Jarrah $3\frac{1}{2} \times 4\frac{1}{2}$
Rails		80 lb 801 New.
Fastenings		Brand: B.H.P. Co. V. 127 H.S.W.
Paving		Coachscrews in Timbers, $6\frac{1}{2}''$ sq head bolts across stringers.
<del>Overhead</del>		Sheet Asphalt (M.C.C.)
		$2\frac{1}{2}''$ W. blocks
		Bituminous Macadam between conc slab and asphalt.

Roadway lowered and kerb line altered by M.C.C.

Notes:



See F.B. 150/s. Length done approx 3' less than shown on Plan.

Unit Cost averaged over full length (includes S.W. Wood blocks & asphalt).

∴ is not a true cost per 100' of D.T. for either type of construction.

JOB. Waverley Rd. Reconst. W.O. No. 2332

From Finch St. to Darling Rd. (Double Track)

Estimate £ 11448 Cost £ 10934

Cost per 100' of S.T. £ 115 Cost per mile of S.T. £ 6070.

Length = to ~~£~~ 9520' S.T. (Both tracks done).

Work commenced 28-10-29 Work completed 21-12-29

Date of trial trip Date of 1st. service

Traffic conditions under traffic

Cns. Lab. & Cart<sup>10H</sup> £ 7222 Material £ 3712Cost. Lab. & Cart<sup>10H</sup> 66.1% Material 33.9%Percentage Overhead 57% Engineer D. H. Watkins  
55% on L.C.Particulars

Existing	Existing	New	=
4" Ag in parts	Drain	4" Ag. where necessary. (911 pipes used.)	
3" 2 spots	Ashes	3" ashes where necessary	
5" x 7" Metal	Foundation	generally 6" metal under sleepers (1336 qds used)	
7/6" x 8" Heavy	Sleepers	North T. new Heavy - South T. existing sleepers	
	<del>Stringers</del>	retained some extra put in (total used 2523)	
90 lb	Rails	existing 1/4 L.H. 90 lb turnout used.	
	Fastenings	Renewed: New Mang Castings, new sawn sleepers	
Macadam	Turnout		
	Paving	Beh. Penn Macadam	
Tar & Bit.	Surfacing		
Dogs.	Fastenings:	Dog spikes 14506 used.	
Fishes Bare wire Some short sole plates	Joints :	Fishplates (82prs used) elec. welds, covered wire long joint plates 231 used.	

Notes:- Charge: Renewals reserve.

Chainage Limits:- 160' plan See P. 4043 also see F.B. 146.

N.T. 15' just E of Finch St - 4825' at Darling Rd = 4810' S.T.

S.T. 15' - - - - - 4725' TP. turnout - - = 4710'

Total. 9520' S.T.







Reconstruction

JOB. Wattlebee Rd <sup>Terminus</sup> ~~Terminus~~ <sup>and adjoining tracks</sup> ~~Terminus~~ <sup>to</sup> Burke Rd W.O. No. 2448  
From Irymple Rds

Estimate £ 802 Cost £ 919

Cost per 100' of S.T. £ 266. Cost per mile of £  
Length 3.45' of ~~1/2~~ S.T.

Work commenced 2-5-30 Work completed 20-5-30

Date of trial trip Date of 1st service

Traffic conditions under traffic

Cost. Lab. & Cart<sup>ton</sup> £ 499 Material £ 429

Cost. Lab. & Cart<sup>ton</sup> 54.3% Material 45.7%

Percentage Overhead 26% on L.C. Long wear J. H. Eakins

Particulars

Existing	Existing	New	
Drain	4" ag.	1/2 278'	210 used
Ashes	3" H.		
6' Metal Foundation	7" metal		105 cys used
7'6" Heavy Sleepers	8' x 9" x 4 1/2"		89 used
Stringers			
30 lb 296 Rails	90 lb. - New switches	Pails & Xing S.H. bolted const.	
Dogsprings Fastenings	Heavy switches	Dogsprings 351 used.	(S.H. Melb)
Tar Mac Paving	Bit penetration	macadam	
Tar Surfacing	Bitumen.		
Permit Joint	Fishplates (8 pr used)	* elec welds. covered wire. long joint plates 10 used.	

Notes:

Reconstruction of turnout at Wattlebee Rd terminus also short length of single track at the end of the turnout.

Travellers from Truck change F.B. 146. (160' plan P392).



W/19

JOB. Installation of Special Work W.O. No. 1698  
from at Wattletree & Dandenong Pds Intersect point

Estimate £ 1892 Cost £ 1999.

Cost per 100' of £ Cost per mile of -

Approx. Length ~~127~~ 175' of OT ~~£££~~ including all. S.W.

Work commenced 13-4-28 Work completed 3-5-28

Date of trial trip Date of 1st service 26-6-28 in Wire Rd

Traffic conditions usual in Dining Rd.

Cost. Lab. & Cart. <sup>+OH.</sup> £ 73! Material £ 1268

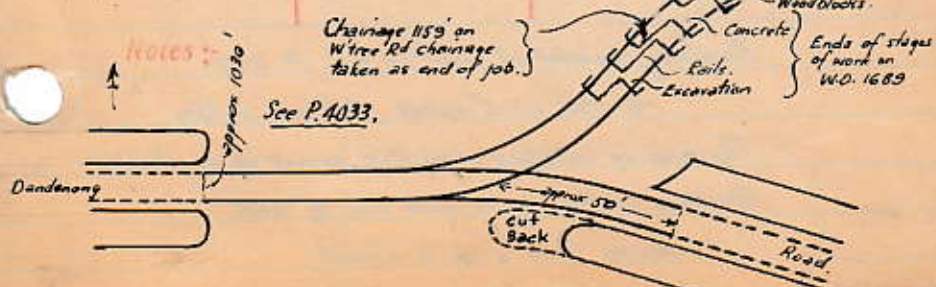
Cost. Lab. & Cart. <sup>+OH.</sup> 36.6 % Material 63.4 %

Percentage Overhead 44.7% of L.S.C. Engineer I.H. Watkins

Particulars

	Existing	New
Drain		4" 1/2
Ashes		3"
Foundation		7" metal under timbers & sleepers
Timbers		New Sawn Jarrah
Stringers		4'6", 8'0", 8'6" & 9"
Special work		bond. 557- (102 lb) Davis Bands & Robertson Coastcross clips, Dogspikes. Bit. Rn. Macadam
Paving		
Surfacing		

Cost of Special Wk £ 790. Cont. 557. Davis, Baird & Robertson. Fly Ltd



Full lines on tracks indicate work done. W.O. 1698.

JOB. Wattle Park Roadway.

W.O. No. 2739.

From Curve opp. Cottage to Chalet.

Estimate £ 309

Cost £ 317-8-11.

Cost per 100' of £

Cost per mile of £

Length of

Work commenced

Work completed 7-11-31

Date of trial trip

Date of 1st service

Traffic conditions Nil.

Cost. Lab. & Cart. <sup>+o.k.</sup> £ 181-0-3

Material £ 136-8-8

Cost. Lab. & Cart. <sup>+o.k.</sup> 57 %

Material. 43 %

Percentage Overhead

Lug. Secs. D.H. Eakins.

Particulars

	Existing	New
Drain		
Ashes		
Foundation		
Sleepers		
Stringers		
Rails		
Fastenings		
Paving		
Surfacing		

Notes:-

Roadway regraded at curve as per P. 6011.

6" Max. on 4" ashes. Bit. pen surface

Top dressing existing road from corner up to Chalet.

Resetting pitcher drains each side of road

around curve &amp; up to Chalet.



William St.

JOB. Renewals of Switches.

W.O. No. 2832.

From Interconn. Switches on turnout, 1 pr 1.C &amp; a Sw &amp; Mate on Xover.

Estimate £ 490 approx. Cost £ 775 14-5-32

Cost per 100' of length of Cost per mile of length of.

Work commenced 27-3-32 Work completed 31-3-32

Date of trial trip Date of 1st service

Traffic conditions Work done at night.

Cost: Lab. & Cart. <sup>+OH</sup> £ 231 Material £ 544Cost: Lab. & Cart. <sup>+OH</sup> 29.8 % Material 70.2 %Percentage Overhead Labour 82%  
Cartage Boards nil. Engineer H.H. Bell.Particulars.

	Existing	New
Drain		} No alteration
Ashes		
Foundation		
Sleepers		
Stringers		
Tails	80 lb. Built up. S.W	90 lb & 102 lb. Special Work.
Joints		
Fastenings	C screws & clips	'no alteration
Paving	5" W. Blocks.	" "
Surfacing	Bitumen.	Cold-patch.

Notes: — Turnout. 1 pr Interconnected 90 lb. Switches L.H.  
 Crossover. } " " " " " "  
 and 1-102 lb. Switch & 1-102 lb mate L.H.