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SIGNALLING RECORD SOCIETY OF VICTORIA INC



A new two position signal is a rarity in Victoria, much less such an interesting signal as the new Post 3 at Sunbury, seen here from the rear. The post controls movements straight ahead, to the Down platform, or diverging movements across Crossover 1 to the Up platform. As is proper, the 'arm' for the diverging movement (Home 8) is lower than the 'arm' for the straight movement (Home 6). A call-on signal has been provided underneath Home 8 and would be used for set back movements when running a locomotive around a terminating loco hauled train. The call-on arm has a single yellow light. Curiously on this Saturday, the 0910 Down Sunbury Sprinter terminated in the Down platform where it was subsequently shunted to the Up platform for its 1010 departure. Approaching Post 3 can be seen Sprinter 7018 on the 1010 Down service to Bendigo.

Photo: Andrew Waugh

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MINUTES OF MEETING HELD FRIDAY FEBRUARY 19, 1999,

(At the Surrey Hills Neighbourhood Centre, 1 Bedford Avenue, Surrey Hills.)

Minutes of Meeting held Friday February 19, 1999, At the Surrey Hills Neighbourhood Centre, 1 Bedford Avenue, Surrey Hills.

Present: - W.Brook, J.Churchward, G.Cumming, A.Gostling, C.Guy, D.Langley, B.McCurry, J.McLean, T.Murray, L.Savage, B.Sherry, P.Silva & C.Wurr.

Apologies: - G.Candy, K.Lambert, G.O'Flynn & R.Whitehead.

Visitor: - C.Gordon & V.Findlay.

The Vice - President, Mr. David Langley, took the chair and opened the meeting @ 2006 hours & welcomed all members to 1999.

Minutes of the November 1998 Meeting: - Accepted as published. J.McLean / B.Sherry. Carried.

Business Arising: - The list of members present at the November 1998 meeting should have included Wilfrid Brook & Ross Murray.

Correspondence: - A letter was received from the Department of Justice concerning alterations to the Incorporated Associations Act.

A letter was sent to Daryl Glover concerning his request for plans of the signal box building at Frankston.

A letter was sent to the S.R.S.U.K. requesting the invoice for the copies of The Signalling Record sent to Australia & asking for advice on subscriptions for the next year. A reply had not been received by the time of the meeting.

A letter was sent to the Surrey Hills Neighbourhood Centre advising of the dates for S.R.S.V. meetings for 1999.

A letter was sent to all members of the S.R.S.V. advising of the passing of Alan Jungwirth, President of the S.R.S.V.

W.Brook / P.Silva. Carried.

General Business: - The Secretary advised that in the year 2000, the S.R.S. in Australia would celebrate its 25th Anniversary. To celebrate this achievement, the S.R.S.N.S.W. has proposed conducting a celebratory tour. The tour is proposed for March 2000, starting in Moss Vale, N.S.W., & finishing in Seymour, Vic. Further details will be provided as they become available.

The Secretary reported on a recent addition to the S.R.S.V. collection. The South Yarra power frame had recently been dismantled and transferred from Caulfield to the S.R.S.V. rooms in Seymour. The Secretary thanked the seven members who assisted with the work.

The above report then triggered a discussion on the Signal School at Caulfield along with some reminiscences from a couple of members present who were apprentices at the school.

The funeral of Alan Jungwirth was well attended by members of the S.R.S.V. The funeral was followed by a private cremation. Alan's instructions are for his ashes to be scattered at the 40 ½ mile post on the Ballarat Line (the original site of Bank Box). This will take place on a date to be determined. Jack McLean noted the efforts of the Secretary in advising members & friends following the passing of the President.

Jack McLean advised that the microfiche sheets of his signal diagram collection are again available from the State Library of Victoria.

Despite being absent due to work, Keith Lambert was able to provide the following news.

This weekend, no trains will run between Richmond & South Yarra on the Caulfield Local & Through Lines due to bridge works at Cremorne as part of the Citylink road works. Trains will shuttle between South Yarra & Caulfield. The Down Caulfield Local Line will be worked using Train Authorities while the Up Caulfield Local Line will be worked using Pilotman. The Caulfield Line trains will connect with Sandringham Line trains at South Yarra.

Next weekend, no trains will run between Richmond & South Yarra on the Sandringham Lines due to bridge works at Cremorne as part of the Citylink road works. Single line working will be in force between South Yarra & Elsternwick.

At Flinders Street, No.1 Centre Platform is closed for upgrading works.

At Ringwood, all points at the up end will be spiked for straight running this weekend. Next weekend, a new crossover & turnout being fabricated in the up side car park will be installed & the old point work will be removed.

Lal Lal will be abolished on Monday.

Laurie Savage noted that he had seen large bridge girders being fitted with track panels in a construction site at Burnley & it was agreed that these were the replacement girders to be installed at Cremorne.

Jack McLean reported on the bridge works on the Melton Viaduct with buses running between Melton & Bacchus Marsh.

Laurie Savage reported on the status of the block point indicator at Inverleigh, the sighting of the ex W.A.G.R. loco at the S.C.T. yard & the increased number of B triple trucks on the roads.

The impending sale of V/Line Freight was discussed. An announcement is expected before the end of the month.

Tom Murray reported on the commissioning of the re signalling at Sunbury & commented on altered rail movements now that the up platform is signalled for bi - directional running.

Tom Murray spoke about the relaying work between Pura Pura & Maroona with absolute occupation running to 2000 hours on the days of occupation. GM class locos are working plant trains & have been seen locked away in the siding at Westmere. The siding at Berrybank has recently been used for unloading pipes for a gas pipeline.

A report was received concerning an incident last Friday involving the working of the signal quadrant lever at Stony Point & injuries sustained by the locomotive driver on duty at the time.

Syllabus Item: -

The Vice - President introduced visitor Vance Findlay. Vance screened approximately 100 screens of Asian signalling taken over a number of tours to the region. The presentation commenced in Indonesia & proceeded to Malaysia, Thailand, the Philippines & Japan. A wide variety of signalling equipment was seen with much of it reflecting the influence of the former colonial powers eg. Dutch double wire frames in Indonesia & British semaphores in Malaysia. Also included was a selection of slides showing examples of the rollingstock & other sundry items.

At the conclusion of the syllabus item, the Vice - President thanked Vance for the enjoyable presentation and this was followed by acclamation from those present.

Meeting closed @ 2223 hours. The next meeting will be on Friday 19 March, 1999 at the Surrey Hills Neighbourhood Centre, Bedford Avenue, Surrey Hill, following the Annual General Meeting.

MINUTES OF ANNUAL GENERAL MEETING HELD FRIDAY MARCH 20, 1998

- Present:- A.Jungwirth, J.Black, W.Brook, G.Candy, G.Cumming, M.Guiney, C.Guy, W.Johnston, D.Langley, B.McCurry, J.McLean, T.Murray, C.Rutledge, L.Savage & P.Silva.
- Apologies:- J.Churchward, K.Lambert, G.O'Flynn, D.Ward & R.Whitehead.
- Visitor:- J.Blakeborough & S.Cole.
- The President, Mr. Alan Jungwirth, took the chair and opened the meeting @ 2031 hrs.
Minutes of the 1997 Annual General Meeting:- Accepted as published. W.Johnston/J.McLean.
Carried.
- Matters Arising:- Nil.
- President's Report:- Alan Jungwirth reported that the society had enjoyed another good year. A.Jungwirth/J.McLean.
Carried.
- Treasurer's Report:- The Treasurer's Report was held over due to the audit not having been completed.
- Auditor's Report:- The Auditor's Report was held over due to the absence of the Auditor and the audit not having been completed.
- Editorial Report:- No report was forthcoming at this time.
- Tours Report:- Glenn Cumming reported on the successful tour held during the year. G.Cumming/M.Guiney.
Carried.
- Elections:- The following written nominations were received :-
President:- A.Jungwirth, nominated by K.Lambert and seconded by D.Langley.
Treasurer:- P.Silva, nominated by W.Johnston and seconded by G.Cumming.

Secretary:- G.Cumming, nominated by P.Silva and seconded by W.Johnston.

The following verbal nominations were received:-

Vice President:- D.Langley, nominated by P.Silva and seconded by W.Brook.

Committeeman:- J.McLean, nominated by T.Murray and seconded by L.Savage.

Committeeman:- W.Johnston nominated by P.Silva and seconded by J.McLean.

There being no further nominations, all nominees were duly elected to their positions.

General Business:- Tom Murray asked the Treasurer if the accounts showed the society in front or behind financially.

Peter Silva replied that he expected the accounts to show a surplus.

Meeting adjourned @ 2043 hrs.

The Annual General Meeting was adjourned until Friday May 15, 1998.

MINUTES OF ANNUAL GENERAL MEETING HELD FRIDAY MARCH 20, 1998

Minutes of Resumed Annual General Meeting held Friday May 15, 1998

Present:- A.Jungwirth, J.Black, W.Brook, J.Churchward, G.Cumming, A.Gostling, C.Guy, W.Johnston, K.Lambert, D.Langley, B.McCurry, J.McLean, T.Murray, L.Savage, P.Silva, R.Smith, A.Waugh, R.Weiss & R.Whitehead.

Apologies:- M.Guiney.

The President, Mr. Alan Jungwirth, took the chair and opened the meeting @ 2018 hrs.

Treasurer's Report:- Peter Silva presented the Treasurer's Report and the financial statements for the year ended 31.12.1997. Peter provided detailed explanations for the financial result. P.Silva / A.Waugh. Carried.

Auditor's Report:- Jon Churchward presented the Auditor's Report. J.Churchward / J.McLean. Carried.

Editorial Report:- Andrew Waugh presented the Editorial Report. A.Waugh / D.Langley. Carried.

General Business:- Nil.

Meeting closed @ 2044 hrs.

SIGNALLING ALTERATIONS

The following alterations were published in WN 1/99 to WN 4/99. The alterations have been edited to conserve space. Dates in parenthesis are the dates of the Weekly Notice.

- 06.12.1998 **Essendon**
From Monday, 6.12., Essendon will be switched in:
Monday - Friday0800 hours to 0830 hours & 1200 hours to 1220 hours
Saturday & SundayClosed
(SW 169/98, WN 1/99)
- 06.12.1998 **Oakleigh**
From Monday, 6.12., Oakleigh will be switched in:
Monday - Friday0645 hours to 1515 hours
Saturday & SundayClosed
(SW 168/98, WN 1/99)
- 21.12.1998 **Flinders Street**
From Monday, 21.12, the Down Clifton Hill line was recommissioned. Diagram 51/98 replaced 49/98. Points 083 (the junction between the Up and Down Clifton Hill lines) and Down Automatic 090 were provided. Down Automatic 090 is an underground style signal on a short post.
The Down Burnley Through line was realigned. Down Home 320, Down Automatic 270 and Down Home 352 were relocated to the new alignment. (SW 165/98, 166/98 & 170/98, WN 1/99)
- 21.12.1998 **Corio**
From Monday, 6.12., Corio will be switched in:
Monday - Friday0500 hours to 1300 hours
Saturday & SundayClosed
(SW 1219/98, WN 1/99)
- (22.12.1998) **Upfield - Somerton**
The Train Staff & Ticket System between Post 75, Upfield, and Somerton has been withdrawn and the line is now worked under siding conditions. (SW 1211/98, WN 50/98)
- (22.12.1998) **Dandenong**
Delete Railway Pde (SEC Siding), 30.723km from list of protected level crossings in the Network Operating Plan. (SW 1193/98, WN 50/98)
- (12.01.1999) **Certificate of Testing**
The instructions in SW 159/98 regarding the Certificate of Testing are temporarily suspended

- (SW 171/98, WN 1/99)
- 17.01.1999 **Warrnambool**
On Sunday, 17.1, a turnout at the Down end of No 2 Road was brought into service to provide access to the West Coast Railway maintenance and locomotive area. The points are worked by a W5a lever and are secured by a hand locking bar, pin, and V5PSW padlock. (SW 1002/99, WN 3/99)
- 18.01.1999 **Flinders Street**
On Monday, 18.1, Homes 158 and 160 (Platform 14) were relocated to the Up side (right hand side) of the line. Amend Diagram 51/98. (SW 3/99, WN 3/99)
- 18.01.1999 **Fairfield**
From Monday, 18.1, the connections to the Paper Mill Sidings have been removed. Main line Crossover 31, Plunger 30, Points 35, and Catch 35 were removed. Down Dwarf 33 and Up Dwarf 36 were abolished. Levers 30, 31, 33, 35, and 36 were sleeved normal. Amend Diagram 15/98. (SW 2/99, WN 3/99)
- 19.01.1999 **Mordialloc**
From Tuesday, 19.1., Mordialloc will be switched in:
Monday - Friday0555 hours to 0820 hours & 1720 hours to 2000 hours
Saturday & Sunday Closed
(SW 5/99, WN 3/99)
- (26.01.1999) **South Geelong**
Insert the following as a new Operating Procedure 43, clause d, Book of Rules and Circular O884/89 is cancelled.
To avoid stopping Down Warrnambool passenger trains at South Geelong just to receive a Train Order, permission is granted for the Train Controller to issue a Train Order for the section South Geelong - Winchelsea to the Driver or suitably qualified person at Geelong. A Train Order may only be issued at Geelong if there is no unfulfilled Train Order for the section South Geelong - Winchelsea.
After the Driver has received the Train Order, the Train Controller will so advise the Signaller at South Geelong. The Signaller must make a note in the Train Register of the advice and may clear the signals for the train. (SW 1003/99, WN 3/99)
- (02.01.1999) **East Richmond - East Camberwell**
Diagram 27/98 replaced 95/97. The main alteration is the provision of a co-acting signal for Up Home ERM 391 at East Richmond. (SW 164/99, WN 4/99)
- (02.02.1999) **Showgrounds Platform**
A Signaller need not be in attendance at Showgrounds Junction when trains are only operating to the Showgrounds platform provided 1) no Signaller is on duty at Flemington Racecourse, and 2) the Signaller at Epsom Road is qualified to work Showgrounds Junction.
When commencing duty, the Signaller at Epsom Road must go to Showgrounds Junction and restore levers 12 (Up Home) and 13 (Up Automatic) to normal. The Signaller must then go to the Rostrum and place the Control Lever to the 'L' position. If the Rostrum is staffed, the Signaller must instruct the staff not to alter the position of the Control Lever.
When the train service has finished, the Signaller must go to the Rostrum and place the Control Lever to the 'R' position and the go to Showgrounds Junction and reverse levers 12 and 13. (SW 7/99, WN 4/99)
- 06.02.1999 **Woodend - Kyneton**
On Saturday, 6.2., Boom Barriers were commissioned at Tylden Road (79.658 km) on the Down side of Woodend. (SW 1004/99, WN 4/99)
- 07.02.1999 **Flinders Street**
On Sunday, 7.2., Home 158 (along No 14 Track) was abolished. Amend Diagram 51/98. (SW 8/99, WN 4/99)
- 07.02.1999 **Woodend - Kyneton**
On Sunday, 7.2., Boom Barriers were commissioned at Carlsruhe Station Road (84.860 km) on the Up side of the closed station. (SW 1005/99, WN 4/99)

EARLY DAYS OF THE TELEGRAPH IN VICTORIA

Andrew Waugh

The telegraph is an essential technology for safeworking. The Victorian Railways first used the telegraph in late 1861, though not, initially, for safeworking. From its introduction until 1878 the railway telegraph circuits were installed and maintained by the government Electric Telegraph Department and later by the Post Office. The result is that the annual reports of these departments contain much about the early years of the years of the railway telegraph network. The following article is primarily based on these reports.

When the first telegraph lines were opened in Victoria they were, perforce, constructed along the roadways. By the end of 1861 lines had been opened linking Melbourne and Albury (and Sydney) with branches to Wahgunyah and Yackandandah, Melbourne - Ballarat - Mount Gambier (and Adelaide) with branches to Maryborough, Avoca, Inglewood and Stawell, Melbourne to Echuca, and Melbourne - Geelong - Cape Schanck.

When the VR commenced work, the use of the telegraph to support railway operations was an obvious step. Telegraph offices were opened at Woodend station on 23 October 1861 and at Spencer Street on 28 October 1861 (the railway line had reached Woodend on 8 July 1861). The telegraph line at this stage ran along the road, and the operators at Spencer Street and Woodend were initially paid by the Electric Telegraph Department.

The Electric Telegraph Department came to an agreement with the Railways Department in 1861 to re-route the telegraph lines from the roadway to the railway lines. In return, the Telegraph Department erected and maintained a separate wire along the railway for the sole use of the railways department.

The reasons for re-routing the lines along the railway were stated as follows:

The removal of the lines from the ordinary traffic roads to the routes of the two trunk railways of the colony will afford largely increased means for protecting and maintaining the communications, beside enabling provision to be made for securing the numerous, and indeed absolutely necessary facilities presented by the electric telegraph in working the railways satisfactorily and economically. (Report, YE 31.12.1861)

Apparently, the telegraph line needed increased protection because, among other things, bored teamsters were using the telegraph insulators for target practice. The use of the railway would also, of course, assist in the transport of materials and speed inspection.

The 1861 report proposed "Removal to and re-erection of lines along the route of the railway between Geelong and Ballarat and between Melbourne and Sandhurst (including special provision of a distinct wire for railway service)". During 1862, Parliament voted £34,250 for extension of the telegraph lines (including the relocation to the railway alignment). Tenders were called and let, but work was suspended during the winter of 1862. At the end of 1862 it was

expected that the works would be completed by the end of March 1863.

It is clear that the first line to be re-routed was that to Geelong. Telegraph offices were opened at Geelong Junction (Newport) and Werribee on either 19 or 21 April 1862. West Geelong (North Geelong) and South Geelong (Geelong) were opened on 21 April 1862 and the final office was opened at Little River on 19 November 1862. The report states that an office was opened at Williamstown on 19 April, but if an office was located at that station it had a very short life indeed.

The salaries of the operators at Woodend, Spencer Street, and South Geelong were paid by the Telegraph Department until 30 June 1862, with the Woodend operator continuing to be paid by the Telegraph Department until the end of the year. This is contradicted by another table in the same report that states the Railways Department paid the salaries of operators at the seven open stations from 1 August 1862. In 1865 it was noted that the Railway Department was not charged for the services of the railway circuit operators at Geelong, Ballarat, Castlemaine and Sandhurst. As these would have been large offices that would have conducted a reasonable public business, it is possible that they were staffed by the Telegraph Department leaving the railway employees qualified in telegraphy to cover the smaller stations where most of the work would have been railway business. During 1867 there was a mention of an allowance (£50) to an Inspector of Railway Circuits.

Around this time the Telegraph Department was attempting to charge the other Victorian government departments for telegraph traffic. Government telegraphs were transmitted for free, and the telegraph superintendent published lengthy accounts showing how much revenue the Telegraph Department was forgoing as a result. In 1862, for example, the three highest users were the Police (£8793), the Railways (£1909), and Crown Lands and Surveys (£305). The superintendent may have had a case with regards to the Police, but that with the railways was less clear. From 1 August 1862, the railways paid the salaries of the operators at the stations and often sent the telegrams over their own wire. True, the wire was provided and maintained by the Telegraph Department, but in return the Department gained free use of the railway easement to erect their wires.

During 1863 further relocation work took place. Ballarat railway station was connected on 13 July 1863 (railway line opened on 11 April 1862), Sandhurst on 22 July 1863, and Castlemaine on 23 July 1863 (railway line opened 21 October 1862).

In 1864 work continued to Echuca (railway line opened 19.09.1864). The report for the YE 31.12.1864 had this to say.

The work of removing and re-erecting along the railway the section between Sandhurst and Echuca (including a special wire for railway service) is now progressing rapidly and it is expected that the new line will be available for

business within the ensuring six weeks [i.e. by mid February 1865]

A telegraph office for the accommodation of the railway service, but accessible to the public generally, will be opened on the railway wire at either Goornong or Runnymede.

In the event, this estimate proved optimistic and Runnymede (Elmore) and Echuca railway stations were opened on 1 June 1865.

Construction of railway lines in Victoria ceased for a number of years, and naturally so did the relocation of telegraph lines to the railway reserve.

In late 1868 an agreement was reached with the Hobson's Bay Railway to run wire along their lines. The 1868 report documented this well:

During the months of November and December an alteration was made in the lines extending southwards and eastwards from Melbourne (Gippsland etc) by removing poles, wires and insulators from the roads and streets, and refitting the wires etc on the route of the Melbourne and Hobson's Bay United Railway Company, by placing the same on the existing poles of the telegraph belonging to that company up to the intersections of streets in the suburbs where the lines branch off to their respective destinations.

The arrangement with the railway company (approved by the Honorable the Chief Secretary in May 1868) is to the effect that the cost of providing new posts, so far as the Government wires extend, shall be equally shared by the company and the Government, and that, in consideration of the company conveying the line inspectors, workmen, and materials free of charge, no claim is to be made by the Department on account of labor for erecting any poles along the line of the company's railway.

By this change the Department is saved the cost of maintaining nearly 3 miles of line, besides gaining the advantages of securing the insulators, etc, more perfectly against loss through breakage, and providing greater protection from accidental injury or interruption to the communication.

The Electric Telegraph Department lost its separate identity on 1 March 1869 when it was absorbed into the Post Office.

It was not until 1872 that the next new railway line was opened; this being the single North East line. The 1872 report noted that a railway circuit had been provided between Melbourne and Longwood (91 miles), but had been provided in an unusual fashion:

On the opening of the several sections of the North-Eastern Railway, it became necessary to furnish the means for telegraphic communication between Melbourne and the new stations, and, as a temporary arrangement, loops have been constructed from the North Eastern telegraph line to Donnybrook, Wallanwallan, Kilmore, and Seymour stations on the line of railway.

A special wire has also been run for the use of the Railway Department to Newmarket and Essendon.

Loops will be required at Avenel, Longwood, Euroa, Violet Town, Benalla, Glenrowan, Wangaratta, Chiltern, and Barnawatha.

It has been decided to erect iron poles for the whole of the North Eastern wires, within the railway fences, as soon as they can be procured from England. An instalment of 1200 of these poles (Oppenheimer's patent) is expected to arrive shortly, the order having been sent to the Agent General in September (1872)

In other words, in relocating the north east telegraph line to the railway the Post Office had decided to use iron poles instead of wood. As these were manufactured in England and required a long lead time to deliver, a temporary expedient was adopted to provide telegraphic service at the railway stations. The railway circuit was run on the existing pole route up the Hume with branch lines from the road across to the stations.

The railway line from Essendon to Schoolhouse lane had been opened on 18 April 1872 and telegraph service was provided in the next month to Wallan, Kilmore East, Broadford and Seymour (note the railway didn't actually reach Seymour until 26 August). The railway line was extended to Longwood on 20 November 1872 and the telegraph service was extended to Avenel and Longwood in December.

The following year the line was completed to Wodonga, but it appears that the iron posts didn't arrive (or couldn't be erected) as service to the new stations was also provided by loops from the road:

The railway special wire on the North Eastern line was continued from Longwood to Wodonga and communication obtained by means of loops at Violet Town, Benalla, Wangaratta, Chiltern, Barnawatha, and Wodonga.

Some of these loops, of course, would have been quite short. It appears that material for these new loops was obtained by removing some of the existing loops south of Seymour as Craigieburn, Gravel Pits, and Kilmore East were closed as telegraphic locations in 1873. The telegraph was provided to the new stations either at or shortly after the railway was opened (opening dates are noted at the end of this article). The saga of these iron poles appears to have been drawn out. It appears that the route south of Seymour was relocated to the railway in 1874 using iron poles. Another shipment of the long awaited iron poles for the north eastern line arrived in 1875 and the report for that year was able to state

On the route of the North Eastern Railway, iron poles have been erected from the River Murray at Wodonga to Glenrowan, to which the Sydney and intermediate wires have been transferred.

Iron poles have been ordered from England for the middle section of this railway, from Seymour to Glenrowan, when the wires between these places will be transferred from the high road to the railway, and the comparative advantage of iron and wooden poles can be

tested by actual experience for the whole distance from Essendon to the Murray.

The middle section was in the course of construction at the end of 1876 and was finally completed in early 1877.

Returning to 1874, that year saw further railway lines opened in the midlands: Ballarat - Beaufort (11.08.74), Ballarat - Creswick (07.07.1874), Creswick - Clunes (16.11.1874), Castlemaine - Maryborough (07.07.1874), and Maryborough - Dunolly (06.10.1874). Telegraph services were provided to stations on all these lines on or shortly after opening. However, in each of these cases it appears that the telegraph (and hence the railway service line) remained on the road alignment. Perhaps the Post Office was waiting on the results of the iron post trial before committing to further large scale relocations.

The 1875 report contained a list of the railway circuits as at the end of the year:

Northern: Spencer Street - Newmarket - Sunbury - Lancefield Road - Woodend - Elphinstone - Castlemaine - Newstead - Maryborough - Sandhurst - Runnymede - Rochester - Echuca.

Western: Spencer Street - Williamstown Pier - Werribee - Geelong - Meredith - Elaine - Buninyong - Ballarat West - Beaufort

North Eastern: Spencer Street - Wallan wallan - Broadford - Seymour - Avenel - Longwood - Benalla - Wangaratta - Chiltern - Wodonga.

The 1875 report went on to state that "Special wires for the railway circuit have been constructed connecting Tarrawingee and Everton with Wangaratta," (railway line opened 07.07.75) but neither station nor the wire is shown in the list of circuits. To further confuse matters, the report stated that the telegraph offices opened at Elaine (April 75) and Rochester (May 75) were not on the railway circuit, despite being included in the list of circuits given above!

Also in 1875 opportunity was taken to place the Post and Telegraph office at Carisbrook at the station in charge of the station-master. The next year similar arrangements were made at Great Western, Armstrong's, Havelock, Violet Town, Springhurst, and Moolort.

Work resumed in 1876 in relocating the telegraph wires along the railway. The succeeding three years was to see telegraph wire strung along all the existing country railway lines in Victoria. The 1876 report noted that:

Between Ballarat and Stawell, the poles and wire have been transferred from the high road to the railway line and the old line removed. [Beaufort - Ararat railway opened 07.04.1875, to Scallan's Hill 15.02.1876, and to Stawell 14.04.1876]

New lines have been constructed along the railways from Sandhurst to Inglewood [railway line opened to Bridgewater on 18.11.1876 and to Inglewood on 18.11.1876] and from Maryborough to Avoca [railway line opened 21.10.1876]. The railway stations on the branch line to Beechworth have also been provided with telegraphic communication by separate wires [railway opened from Everton to Beechworth 30.09.1876].

Tenders have been invited for a new line along the railway from Sale to Morwell.

However, locating the telegraph line along the railway did not mean that telegraph instruments were opened at railway stations. For some reason, the Victorian Railways seems to have changed its policy on the use of the telegraph and opening telegraph offices was often delayed a year or so. For example, even though the line was relocated along the line to Stawell in 1876, a railway telegraph office was not provided at Stawell until December 1877 and Ararat was not opened until March 1878.

In 1877 the telegraph line was relocated along the railway between Geelong - Winchelsea, Ararat - Portland, Maryborough - Clunes, Sandhurst - Eaglehawk, Oakleigh - Bunyip, and Moe - Sale. Work was still in progress between Birregurra - Colac, Clunes - Creswick, Maryborough - Avoca, and Bunyip - Moe. All these sections were completed in 1878 as well as Ballarat - Creswick, Maryborough - Dunolly, and Wangaratta - Beechworth. The last was noted as being partly on iron poles. No doubt these were the remnants of the north east order. Given the availability of high quality hardwood, it would appear the economics were against iron poles and no more is heard of them.

On the 1 January 1878 the Victorian Railways established the Telegraph Branch to take over the construction, operation, and maintenance of railway telegraphs. Kynaston L. Murray was the first Telegraph Engineer. At the end of 1877, the railway circuits were as follows:

Northern (196 miles of wire): Spencer Street, Keilor Road, Sunbury, Riddell's Creek, Lancefield Road, Macedon, Woodend, Kyneton, Elphinstone, Castlemaine, Newstead, Maryborough, Carisbrook, Sandhurst, Goornong, Elmore, Rochester, Echuca (Note: 2nd wire between Sandhurst and Inglewood)

Western (145 1/2 miles of wire): Williamstown Pier, Werribee, Geelong, Colac, Yendon, Ballarat West, Beaufort.

Ararat - Portland (159 3/4 miles): Stawell, Hamilton, Condah, Portland, Dunkeld, Glen Thompson

North East (210 1/2 miles of wire): Wallan, Wallan, Newmarket, Broadmeadows, Craigieburn, Kilmore, Wandong, Broadford, Tallarook, Seymour, Avenel, Longwood, Euroa, Violet Town, Benalla, Wangaratta, Chiltern, Wodonga

Gippsland (117 miles of wire): Pakenham, Bunyip, Oakleigh, Moe, Morwell, Sale

The list of stations on each wire is exactly as given in the annual report; clearly the clerks in the Post Office were a bit confused about Victorian geography. However, it appears that the Northern wire had a branch wire to Maryborough. Exactly why there should be a second wire between Sandhurst and Inglewood is not clear!

The establishment of the Telegraph Branch seems to have been related to a increase use being made of the telegraph by the railways. As noted earlier, although the Post Office relocated many wires to the railway in the middle 1870s, the Victorian Railways did not open many new offices, but the number of new telegraph offices at stations increased enormously after 1877. The

following table shows the number of new telegraph offices on the railway circuit opened each year from 1876 to 1885:

Year	Number of telegraph stations opened
1876	3
1877	10
1878	18
1879	13
1880	14
1881	19
1882	21
1883	25
1884	20
1885	23

VR TELEGRAPH OFFICES 1861 - 1884

Melbourne

Spencer Street opened 28.10.61, *Princes Bridge* opened 07.81

Spencer Street - Geelong - Dimboola

Newport (Geelong Junction) opened 19.04.62 (may have been 21.04), closed 01.04.75, *Werritbee* opened 19.04.62 (may have been 21.04), *Lara* opened 02.78, *Little River* opened 19.11.62 (may have been 21.04), closed 03.73, re-opened 09.76, *North Geelong* (West Geelong) opened 21.04.62, *Geelong* (South Geelong) opened 21.04.62, *Lethbridge* opened 09.83, closed by 1880, *Meredith* opened 17.04.67, closed 31.01.73, *Elaine* opened 04.75 (on railway circuit?), closed by 1880 *Lal Lal* opened 10.80, *Yendon* (Buninyong) opened Mar 73, *Warrenheip* opened 09.79, *Ballarat* opened 13.07.63, *Burrumbeet* opened 08.74, closed 4.12.74, reopened 22.08.82, *Windermere* opened 03.84, *Beaufort* opened 08.74, *Buangor* opened 08.79, *Ararat* opened 03.78, *Glenorchy* opened 01.79, *Stawell* opened 12.77, *Lubeck* opened 08.79, *Murtoa* opened 12.78, *Horsham* opened 08.79, *Jung Jung* opened 09.79, *Dimboola* opened 07.82

Newport - Williamstown

Williamstown North opened 09.82, *Williamstown* opened 19.04.62 (doubtful as it is not subsequently mentioned), opened 12.81, *Williamstown Pier* opened 01.70

Geelong - Queenscliff

Drysdale opened 12.79, *Queenscliff* opened 07.81

Geelong - Camperdown

Mount Moriac opened 08.83, *Winchelsea* opened 08.78, *Birregurra* opened 07.83, *Colac* opened 08.78, *Pirron Yallock* opened 08.84, *Camperdown* opened 07.83

Braybrook Junction - Ballarat

Melton opened 06.84, *Gordons* opened 01.12.82

Ballarat - Maryborough

Creswick opened 08.74, closed 01.02.1875, reopened 06.80, *Clunes* opened 08.78

Ararat - Portland

Wickliffe Road opened 08.84, *Dunkeld* opened 04.77, *Condah* opened 08.78, *Hamilton* opened 08.78, *Portland* opened 08.78

Branxholme - Casterton

Henty opened 03.84

Spencer Street - Echuca

Sydenham (Keilor Road) opened Nov 77, closed 15.11.78, reopened 27.03.79, *Sunbury* opened Feb 67 (listed belatedly in 1871), *Clarkefield* (Lancefield Road) opened 07.73, *Riddell's Creek* opened on 07.76, *Gisborne*

(New Gisborne) opened 06.07.68, closed ('transferred to new postal telegraph station') 07.73, reopened 08.84, *Macedon* opened 06.74, *Woodend* opened 23.10.61, *Carlsruhe* opened 03.80, *Kyneton* opened 12.04.64, closed 31.01.67, reopened 07.76, *Elphinstone* opened 04.73, *Castlemaine* opened 23.07.63, *Ravenswood* closed Mar 70 (note no mention of opening!), *Bendigo* (Sandhurst) opened 22.07.63, *Bagshot* opened 07.83, *Elmore* (Runnymede) opened 01.06.65, reopened 05.75, relocated from railway station in 1876, *Echuca* opened 01.06.1865

Lancefield Junction - Lancefield

Romsey opened 07.81, *Lancefield* opened 07.81

Carlsruhe - Daylesford

Fernhill opened 02.83, *Trentham* opened 07.80, *Daylesford* opened 02.81

Castlemaine - Maldon

Maldon opened 06.84

Castlemaine - Maryborough - Donald

Guildford opened 11.78, *Newstead* opened 07.74, *Carisbrook* opened 01.61, *Maryborough* opened 07.74, *Dunolly* opened 08.78, *Bealiba* opened 09.78, *Emu* opened 08.83, *St Arnaud* opened 03.79, *Cope Cope* opened 14.02.82, *Donald* opened 04.06.82

Maryborough - Avoca

Avoca opened 08.78

Bendigo - Wycheproof

Eaglehawk opened 21.06.82, *Leichardt* opened 02.84, *Inglewood* opened 08.78, *Wedderburn Road* opened 01.84, *Korong Vale* opened 25.05.82, *Wychitella* opened 07.83, *Barrakee* opened 01.84, *Charlton* opened 07.83, *Glenloth* opened 11.84, *Wycheproof* opened 09.83

Korong Vale - Boort

Mysia opened 01.84, *Boort* opened 07.83

Eaglehawk - Kerang

Mitiamo opened 08.83, *Kaywood* opened 01.83, *Sebastian* opened 06.84, *Pyramid Hill* opened 02.84

Spencer Street - Wodonga

Newmarket opened 10.74, *Essendon* opened 08.78, *Broadmeadows* opened 09.77, closed 11.77, reopened 03.80, *Craigieburn* opened 08.72, closed 18.08.73, reopened 11.77, *Beveridge* opened 03.83, *Donnybrook* opened 08.83, *Wallan* (Wallan-wallan) opened 05.77, *Wandong* opened 09.77, closed by 1880, reopened 02.83, *Kilmore East* opened 05.72, closed 12.11.73, reopened 09.77, *Gravel Pits* opened 12.72, closed 18.11.73, *Broadford* opened 05.72, *Tallarook* opened 11.77, *Seymour* opened 05.72, *Mangalore* opened 02.80, *Avenel* opened 12.72, *Longwood* opened 12.72, closed 31.05.76, reopened 12.80, *Euroa* opened 08.76, *Violet Town* opened 03.73, closed 30.11.74, reopened 01.77, *Benalla* opened 08.73, *Glenrowan* opened 08.83, *Wangaratta* opened 11.73, *Springhurst* opened 11.78, *Chiltern* opened 12.73, *Wodonga* opened 11.73

Tallarook - Yea

Yea opened 11.83

Mangalore - Numurkah

Nagambie opened 02.80, *Arcadia* opened 02.80, closed 01.03.80, *Murchison* opened 02.80, *Toolamba* opened 02.80, *Shepparton* opened 02.80, *Congupna Road* opened 01.84, *Tallygaroopna* opened 09.81, *Wunghnu* opened 12.81, *Numurkah* opened 09.81

Toolamba - Tatura

Tatura opened 02.80

Benalla - St James

Goorambat opened 05.84, *Devenish* opened 06.84, *St James* opened 09.83

Beechworth Junction - Beechworth

Everton opened 12.83, *Beechworth* opened 08.78

Everton - Myrtleford

Myrtleford opened 12.83

Springhurst - Wahgunyah

Rutherglen opened 01.79, *Wahgunyah* opened 03.79

Flinders Street - Lilydale

Hawthorn opened 12.81, *Camberwell* opened 09.83, *Box Hill* opened 23.12.82, *Ringwood* opened 23.12.82, *Lilydale* opened 23.12.82

Flinders Street - Sale

South Yarra opened 12.81, *Caulfield* opened 12.81, *Oakleigh* opened 08.78, *Dandenong* opened 03.79, *Berwick* opened 03.78, *Pakenham* opened 11.77, closed 27.02.78, reopened 15.09.80, *Bunyip* opened 11.77, *Longwarry* opened 09.84, *Drouin* opened 12.81, *Warragul*

opened 03.78, *Darnum* opened 12.83, *Yarragon* (Waterloo) opened 08.08.82, *Moe* opened 07.78, *Morwell* opened 08.79, opened 11.82, *Traralgon* opened 08.78, *Flynn's Creek* opened 11.84, *Rosedale* opened 09.82, *Sale* opened 08.78

Traralgon - Heyfield

Toongabbie opened 11.83, *Cowwarr* opened 06.84, *Heyfield* opened 11.83

Flinders Street - Brighton Beach

Prahan opened 08.82, *Windsor* opened 11.81, *Balaclava* opened 15.10.82, *Elsternwick* opened 12.81, *North Brighton* opened 11.81, *Middle Brighton* opened 10.81, closed 08.83, *Brighton Beach* opened 10.81

Caulfield - Frankston

Mordialloc opened 01.82, *Frankston* opened 01.12.82

Flinders Street - St Kilda

South Melbourne (Emerald Hill) opened 11.81, *Albert Park* (Riffle Butts) opened 11.82

SOUTH YARRA

Andrew Waugh

The PTC has donated the last interlocking frame at South Yarra to the society. This was a 32 lever McKenzie and Holland Style A power frame which worked the junction from 1942 to 1960. After abolition of the junction at South Yarra in 1960, the frame was installed at the signal school at Caulfield where it was used to train fitters. With the signal school now defunct, and the Caulfield site sold to Alstom, the frame was redundant and was donated to the society. About ten society members spent an enjoyable, if arduous, Wednesday dismantling the frame.

Early years

The line between Prince's Bridge and Windsor was built by the Melbourne and Suburban Railway Company, a private railway company. The company was formed in June 1857 to construct lines from Princes Bridge to Windsor (where they would junction with the St Kilda to Brighton Beach line of the St Kilda and Brighton Railway) and from Richmond to Hawthorn. The expensive bridge across the Yarra at Cremorne (just north of South Yarra) slowed completion of the line to Windsor and it was not until 22 December 1860 that the line was opened. South Yarra was opened on the same day as 'Gardiner's Creek Road'. It was renamed South Yarra on 1 January 1867.

It is not clear when the line was duplicated, perhaps it was double track from the start. There is a very well known VR photograph of No 20 (later C 278) at the head of a mixed suburban train at South Yarra. Leo Harrigan in 'VR to 62' dates the photo as 1874. This is possible as it is post 1871 (when No 20 was introduced to traffic), but before 1879 (when the Oakleigh line was opened). Accepting the date as the middle to late 1870s, the photo shows double track with a trailing crossover underneath the Toorak Road bridge. The Up station building shown in the photograph, incidentally, still exists today behind the Up Sandringham platform.

The Melbourne and Suburban Railway was sold to The Melbourne Railway Co in March 1862, which then amalgamated with the Melbourne and Hobson's Bay Co to form the Melbourne and Hobson's Bay United

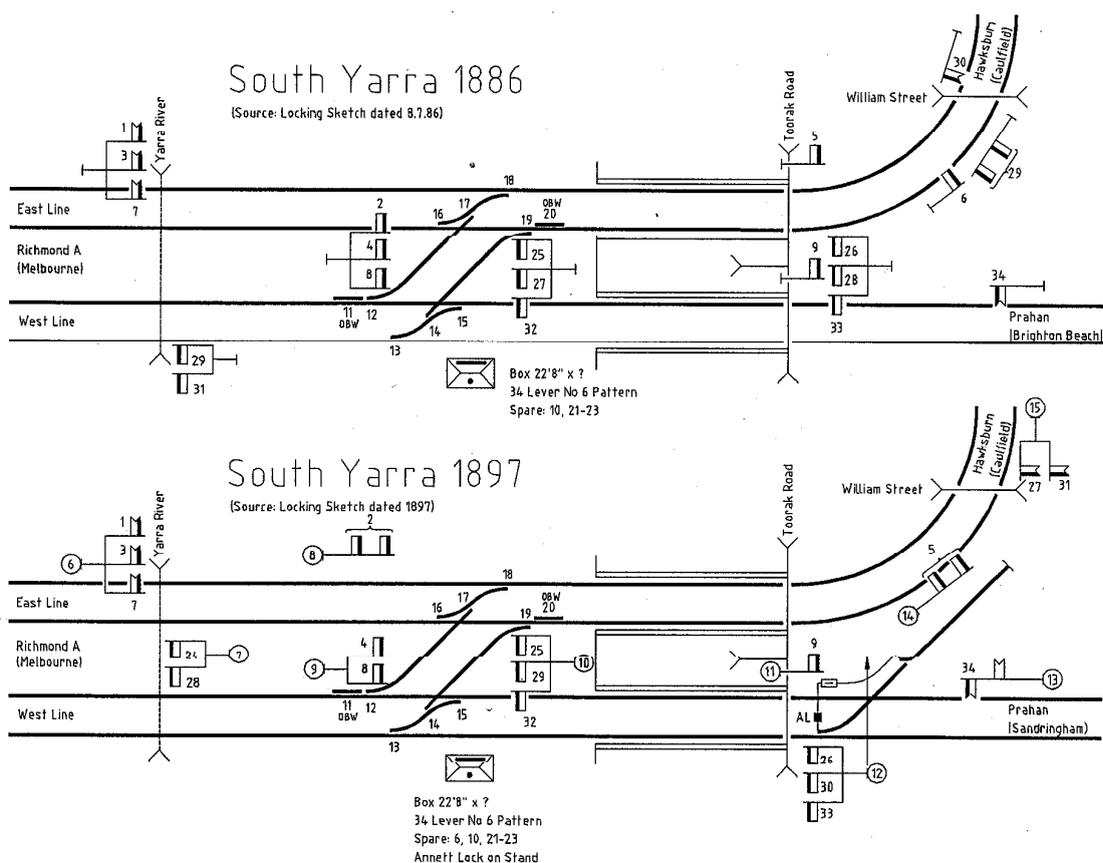
Railway Co in June 1865. The lines were eventually sold to the government effective from 1 July 1878 though separate management continued until 1881.

The immediate cause of the purchase of the private company by the government was the requirement to bring the Gippsland line into the city. Construction of the Gippsland line was commenced in the middle 1870s, and by late 1877 had been completed between Oakleigh and Sale. The late 1870s saw a lengthy political debate on how to extend the line from Oakleigh to a city terminus. Various options were canvassed, ranging from the absurd (the Outer Circle) to the venial (extensions to Hawthorn or Elsternwick which would maximise tolls to the private company). Eventually, the government bit the bullet and purchased the private company. This allowed construction of the obvious connection from Oakleigh to South Yarra which was opened on 2 April 1879 (the suburban service to Caulfield was provided on 7 May 1879 and extended to Oakleigh on 14 May 1879). The December 1879 WTT had this to say about the junction arrangements:

All trains from Gippsland will require to stop at Hawksburn, and come in from that station cautiously, so that they may be able to stop outside of the home semaphore, at South Yarra Junction, to pick up a pilotman. No train is to run either out or in from South Yarra and Melbourne, except in charge of a pilotman supplied by the late Melbourne and Hobson's Bay Company.

[Gippsland line trains] are not to stop at South Yarra to pick up or set down passengers. Passengers to or from stations on the Gippsland Line beyond Oakleigh will be picked up and set down at Hawksburn.

These instructions were still in force in December 1880. The instruction about the pilotman had been removed by February 1882, probably when the management of the ex Hobson's Bay line was



integrated into the rest of the Victorian Railways in 1881.

Double Track Days; the first interlocking

South Yarra was interlocked in March 1880 (the register is not more precise) with a 16 lever frame (2 spare). The junction, and presumably the signalbox, was immediately south of the Toorak Road bridge. The line between South Yarra and Oakleigh was initially single. Duplication was provided to Caulfield on 12 December 1881 in preparation for the opening of the line to Mordialloc eight days later. It is recorded that a new signal arm was provided at South Yarra Junction on 10 August 1883.

Winter's Block was introduced between Flinders Street and Balaclava on 15 October 1883. South Yarra was, of course, opened as a block post. The sections were probably Richmond - South Yarra - Prahān.

The original signalbox was replaced by a new box at 'South Yarra New Junction' on 3 February 1884. This probably marks the provision of separate platforms for the Caulfield line and removal of the junction to the city end of the platforms. The new box contained a 20 lever frame (4 spare).

Quadruplication northwards

On 20 June 1886 the interlocking register notes "temporary junction opened over new bridge", by which I understand that the new Yarra bridge (to the east of the original bridge) had been opened and the line slewed over it while work was undertaken on the old bridge. A new signalbox, the third in sixteen years, was provided on 3 October 1886 with a temporary frame.

On 19 December 1886 the four tracks were brought into use between Richmond and South Yarra. A 34 lever Rocker frame (3 spare) was provided in the new box. Fortunately, we can be more certain about this box as a locking sketch has survived, although it shows 4 spare levers! Two levers became spare on 25 August 1891 account "signal alterations". This probably marks the removal of Down Home 5 and Up Outer Home 29. On 15 August 1892 an Annett lock was provided on the frame account "Inspector McNamara's Siding". This siding trailed into the Up Brighton line and was laid along the original Caulfield line. It was probably used to load spoil from the cutting sides. The siding was known as the 'permanent way siding' by 1900 and was removed on 1 December 1903.

Although not shown on the locking sketch, weighted catch points were provided in the Down Gippsland line but were abolished in late October 1898. By 1 July 1898, splitting distant and home signals had been provided approaching South Yarra from Caulfield. The splitting distant from Caulfield were relocated to a new post 220 yards further out on 27 July 1899. The 1898 Appendix also notes that South Yarra also had 'Ground bells' (the precursor to approach bells) to signal the passage of Up trains past either the Brighton or Caulfield line distant. electric repeaters were provided for both Caulfield line distant arms and two electric platform indicators, worked from the signalbox. No doubt these last indicated the platform the next Melbourne bound train would arrive at. The General Appendix, incidentally, refers to the distant for the 'Goods Crossover Road' which may indicate the intended function of the crossover between the Caulfield and Brighton lines.

Posts 6, 8, 12, and 15 were altered on 26 January 1908. Details are not to hand, but it appears that this involved removing the co-acting arm on Post 8, and the Home (30) and Distant (31) for diverging moves from Caulfield to Brighton line. The Interlocking Register has the last two alterations occurring on 26 April 1908

Lock and Block working was installed between Richmond A - South Yarra - Prahan in late September 1910. The section between South Yarra and Hawksburn was similarly treated in early October 1910. In 1912 all these sections were track locked which involved providing DC track circuits and fitting reversers to the signals. The first section treated was the Up and Down lines to Prahan in early February. Home 9 was held at Stop until Down trains had passed the Prahan starting signal. The Up Starting signal at Prahan was similarly held at Stop until trains had passed Post 10 at South Yarra. In early March the lines to Hawksburn were similarly treated, although the track locking was complicated by the temporary block post between South Yarra and Hawksburn. Finally, in early June, the four tracks to Richmond were track locked. At this point, the lines at South Yarra were fully track circuited and all signals were equipped with reversers.

Fog signalling (co-acting) arms were provided for the Homes 26 and 33 and Distant 34 in June 1912. All co-acting arms were placed on short posts situated on the left hand side of the line to which they applied. The new posts were numbered 12A, 12B, and 13A.

Preparations for quadruplication to Caulfield

The first report of the quadruplication between South Yarra and Caulfield was the provision of a works siding on the eastern side of the station on 27 May 1914. The siding trailed from the Down Caulfield line nearly opposite the signalbox. The crossover points, and the two disc signals on two new posts 9A and 9B were worked from the signalbox. In early August 1915 the Down Caulfield line was diverted to run through the new Down platform. The crossovers between the Down Brighton line and the Down Caulfield line (12/17 and 16/18) were abolished and the Signalmen at Jolimont Junction were cautioned not to send Caulfield line trains along the Brighton line. The Down Distant (4) and Home (3) for this move were abolished. Posts 8 and 14 were relocated adjacent to the new line; Post 14 was also moved 60 yards nearer the Toorak Road bridge and the co-acting arm was removed.

In late August 1915 the Up line was similarly deviated through the new Up platform and the crossovers between the Up Caulfield line and the Up Brighton line (13/15 and 14/19) were abolished. Up Home 29 was also abolished. A works siding was brought into use trailing into the Up Caulfield line (possibly the original connection to the Works siding). Two ground discs (8A and 10A) controlled movements to and from the new works siding. Lock and Block working between South Yarra - Temporary Box B - Hawksburn was abolished in early September 1915 and ordinary Winter's Block substituted.

The new signalling

On the 3 October 1915 the quadruplication between South Yarra and Caulfield was brought into use. The new junction at South Yarra was equipped with three position upper quadrant semaphores, the first in Victoria. Automatic three position signalling replaced

the block working between Richmond, Hawksburn and Prahan.

The new signalling at South Yarra was worked from a new signalbox (the fourth) containing a 32 lever GRS DC electro-mechanical frame. The mechanical part of the frame was 10 levers long and worked the points. The plungers on the facing points were worked by motion plates where necessary. A photograph of the exterior, operating floor, and relay room can be found in 'Electrification of the Metropolitan Railway System of Melbourne'. The box itself was the first Type F, and was of brick and concrete 'fire resisting' construction.

This initial three position signalling installation had a number of unusual features which were not repeated. At South Yarra, all lever controlled signals were Home signals, and none of the Home signals were equipped with Low Speed lights. Homes 2, 6, 12, 22, and 31 were subsequently converted to Automatics B124, F124, D124, B103 and F103 (respectively), apparently on 2 February 1919. Minor alterations had been made in the placement of signals in October 1916. Home 6 was relocated 100 yards further out and Up Automatic B106 was removed from the signal bridge to a ground mast 58 feet nearer the platform and 17 feet from the line. Down Automatic B135 was replaced by a Style VR light signal at the end of the Brighton platform apparently in 1917.

The new junctions were located closer to the Yarra River than those they replaced. Towards Richmond, the four lines were known as the 'East' and 'West' lines. Onward to Caulfield they were known as the Caulfield Through and Caulfield Local lines. The Signalman were instructed to run all country and suburban trains on the Local lines. As many Race trains as possible were to be worked on the Through lines, as were all Goods trains except the two goods which worked at Malvern.

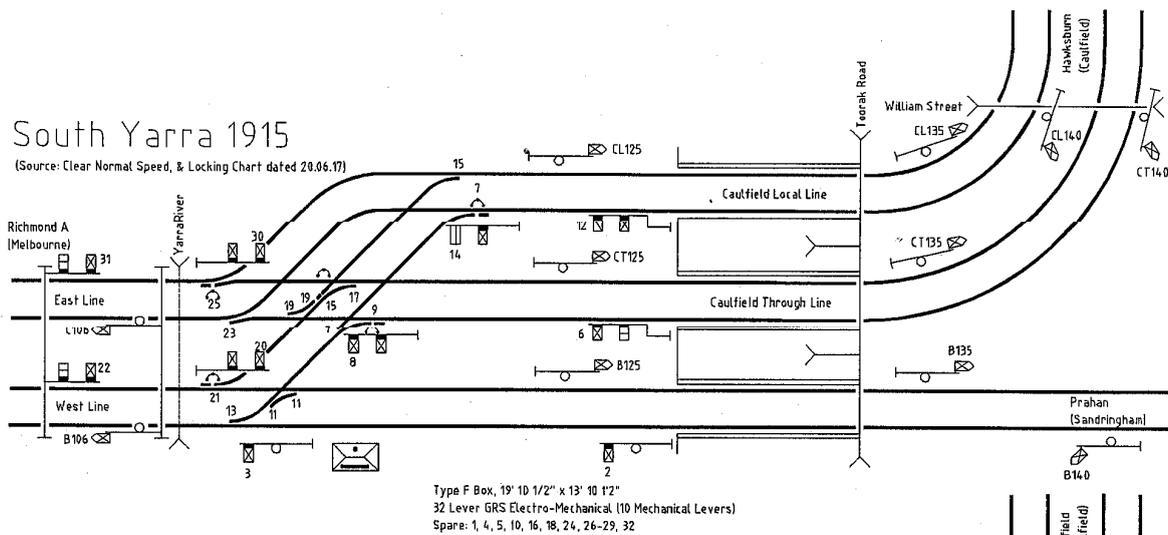
The quadruplication was only in use for a few weeks. WN 42/15, issued 18 October, noted that the Through lines had been taken out of use and the Local lines slewed onto the alignment of the Through lines between Chapel Street and Surrey Road. The points leading to the Down Through line at South Yarra were disconnected from the frame. The truncated Up Through line remained in use as a Works Siding and a scotch block was provided on the line clear of the junction. The four tracks were again available for use from beginning of 1916. It is not clear if this temporary reversion to two tracks was caused by an earth slip, or if the four tracks were only temporarily brought into use in early October for race traffic at Caulfield.

In anticipation of electrification, the frame was converted from DC to AC operation on 9 February 1919. On the night of Sunday 18 May 1919 a trial service of electric trains was run between Essendon and Sandringham. The electric service commenced on 29 May. Electrification initially affected only the West line and the Brighton Line. The East line and Caulfield Local was not energised until late February 1922 (electric service commenced 5 March to Oakleigh) with the Through lines being energised in April 1922.

On 8 November 1931 switchout facilities were provided. When closed the Caulfield Through lines were out of use. The Caulfield Local lines were connected to the East Line to Richmond and the Brighton lines to the West Line. Before switching out the Signalman was instructed to check that there was no Down Caulfield line train on the West Line between

South Yarra 1915

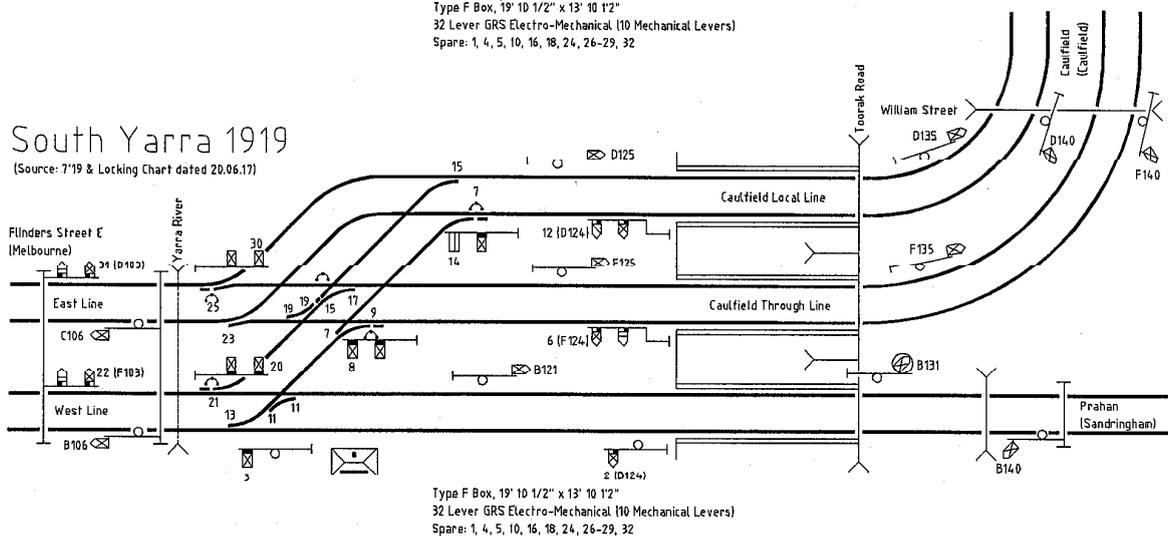
(Source: Clear Normal Speed, & Locking Chart dated 20.06.17)



Type F Box, 19' 10 1/2" x 13' 10 1/2"
32 Lever GRS Electro-Mechanical (10 Mechanical Levers)
Spare: 1, 4, 5, 10, 16, 18, 24, 26-29, 32

South Yarra 1919

(Source: 7'19 & Locking Chart dated 20.06.17)



Type F Box, 19' 10 1/2" x 13' 10 1/2"
32 Lever GRS Electro-Mechanical (10 Mechanical Levers)
Spare: 1, 4, 5, 10, 16, 18, 24, 26-29, 32

Flinders Street E and South Yarra, and no Up Caulfield line train on the Through line between Caulfield and South Yarra. The initial block hours were Monday - Saturday 0550 to 2345 and Sunday 1240 to 2225. Illuminated letter A's were provided on Homes 3, 14, 20, and 30. An illuminated 'Signal Box Closed' indicator worked from the closing lever was provided above the door of the box.

In late March 1939 a Clayton Fog Signalling machine was provided at Post B103.

The final signalbox

Towards the end of the war work commenced on the replacement of the Cremorne bridges over the Yarra River at South Yarra. This work must have been fairly urgent as work commenced in 1944, well before the war ended. This work required the West lines to be slewed over the site of the 1915 signalbox and a new signalbox was erected between the Brighton and Caulfield Local lines.

The first work with the renewal occurred on 26 June 1944 when the connections between the Sandringham lines and the Caulfield lines were abolished, leaving only the junction between the Caulfield Through and Local lines (Points 23 and 25). Home signals 3 and 20 on the Sandringham lines were converted to Automatic Signals B114 and B113 respectively. Automatic signals

B103 and F124, and Home 8 had their 'b' arm replaced by marker lights. Automatic B121 was relocated 82 yards in the Up direction on 10 September 1944.

On 15 April 1945 the new power box was brought into operation. It was also a brick type F, but it was far plainer in style than the box it replaced. The new box was located between the Caulfield Local and Through lines and contained a 32 lever McKenzie and Holland Style A frame. New connections were provided between the West Lines and the Caulfield Through Lines, but the connection to the Caulfield Local Lines was not restored. North of the Yarra, B103 and F103 were replaced with, or renumbered, B107 and F107. The Clayton Fog Signalling Machine was still provided at B107. Home 30 and Automatic B113 (ex Home 20) were replaced by new Home signals on a signal bridge. Homes 8 and 14 and Automatic B114 (ex Home 3) were abolished, and Automatics B124, F124, and D124 were converted to Homes 31, 29, and 25 respectively. All Home signals were equipped with Low Speed lights, and illuminated letter A's were provided for the Local and Sandringham lines. Automatic F140 was converted to a controlled Automatic signal and equipped with a 'B' arm. One unusual feature was the provision of two emergency trailing crossovers, one in the Through Line and one in the Sandringham lines. These crossovers

were worked from small point levers and were electrically released from the signalbox.

With the old signalbox abolished, the Up Sandringham line was slewed to run over the new bridge on 2 June 1946. No alterations to signalling was made. The Down Sandringham line was similarly slewed on 28 July 1946. Concurrently, Home 11 was replaced by a new post erected on a signal bridge 6 yards further out. Automatic B107 was replaced by a new post on the same signalbridge, but located 3 yards to the right. This allowed the old West line bridge (almost certainly the original bridge dating from 1860) to be dismantled and the new bridge erected. A photo of this stage of the work can be found on page 70 of 'The Electric Railways of Victoria'. The Up Caulfield line was slewed over its new bridge on 5 October 1946 and Automatic F116 was replaced by a new Automatic F114, located on the same signalbridge but 9 yards to the left of the former post. Finally, on 17 November 1946, the Down Caulfield line was relocated. Home 7 was replaced by a new post erected on the signal bridge 6 yards further out. Automatic F107 was relocated 27 feet to the right. The old East line bridge (dating from quadruplication in 1886) was then dismantled.

Abolition of the Signalbox

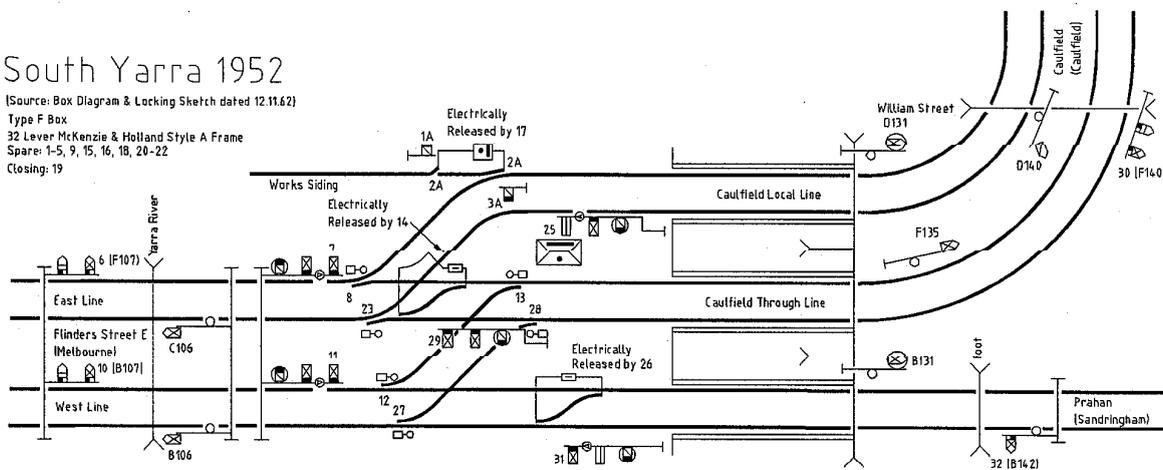
The provision of the fifth and sixth track proved to be a long drawn out affair. A Works Siding was provided at South Yarra on 4 February 1947. Worked from a three

lever ground frame, the siding trailed into the Down Caulfield Line and was electrically released from the signalbox. Two Dwarf signals were provided to control movements to and from the Works Siding. The frame was worked by the Guard of the Works train, and the Signaller was instructed not to give the release unless the Down Caulfield Line was clear to Automatic D131. The Works Siding remained until 28 April 1955 when it was abolished and the points spiked. Probably little work had been undertaken on the third bridge at this stage.

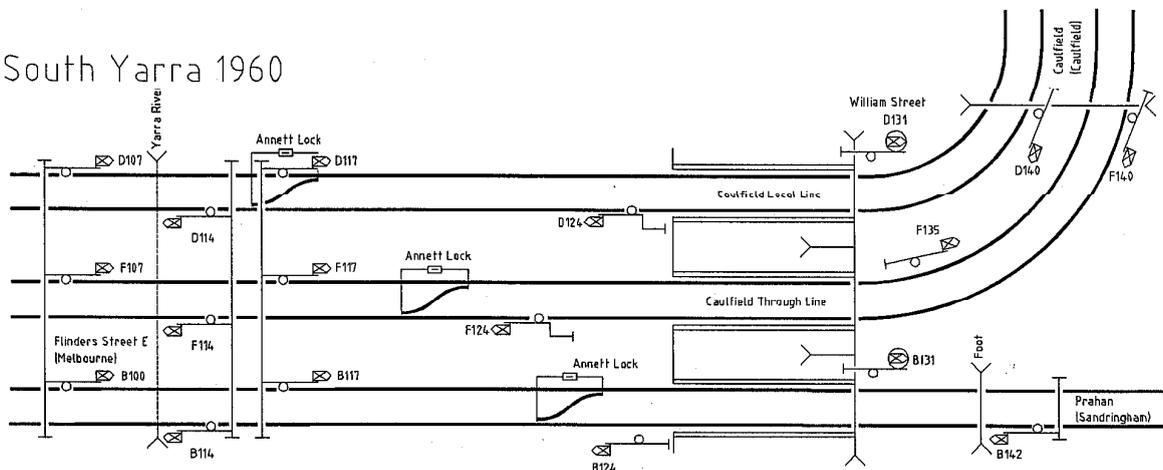
The sextupling of the lines between Flinders Street E and South Yarra was eventually brought into service on 2 May 1960. All junctions at South Yarra were removed and the signalbox was abolished. Homes 7, 11, 25, 29, and 31 were converted to Automatics F117, B117, D124, F124, and B124. The emergency crossovers were retained, and an additional emergency crossover was provided in the Caulfield Local Lines. All three emergency crossovers were secured by Annett Locks (A Pattern for the Sandringham lines, B Pattern for the Through lines, and C Pattern for the Local lines). All three keys were kept in switch locks located in a cabin adjacent to Automatic D124 at the Up end of platforms 4 and 5. Removal of an Annett key from the switch lock would hold the two Automatics in the rear in each direction on the relevant line at Stop. The crossovers were removed in the middle 80s. The crossover in the Local lines went first, being spiked out of use on 26 April 1983. The crossover in the Through lines was

South Yarra 1952

[Source: Box Diagram & Locking Sketch dated 12.11.62]
Type F Box
32 Lever McKenzie & Holland Style A Frame
Spare: 1-5, 9, 15, 16, 18, 20-22
Closing: 19



South Yarra 1960



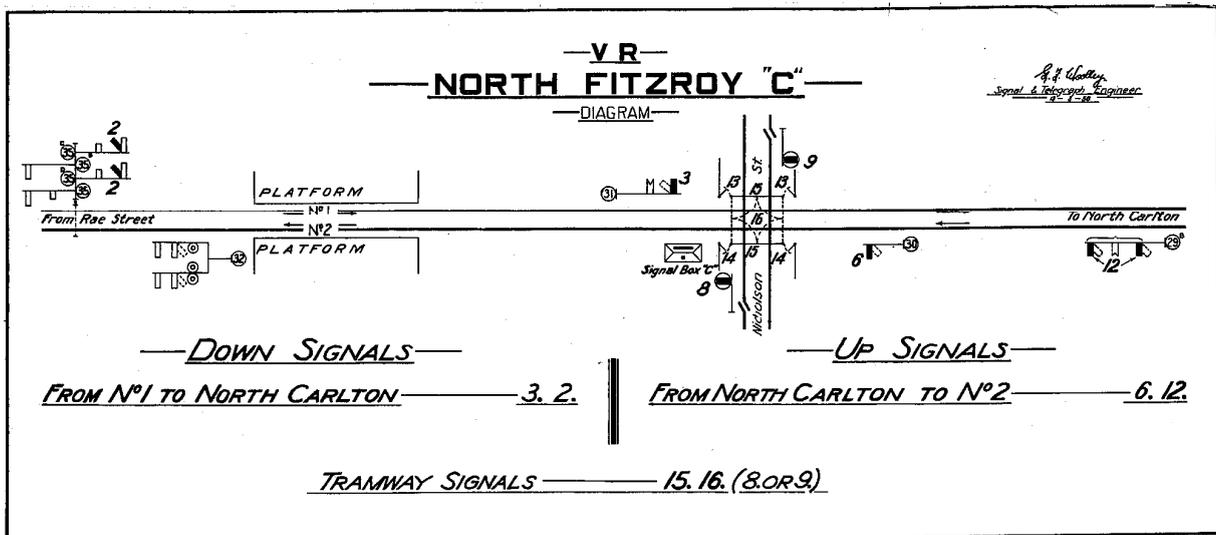
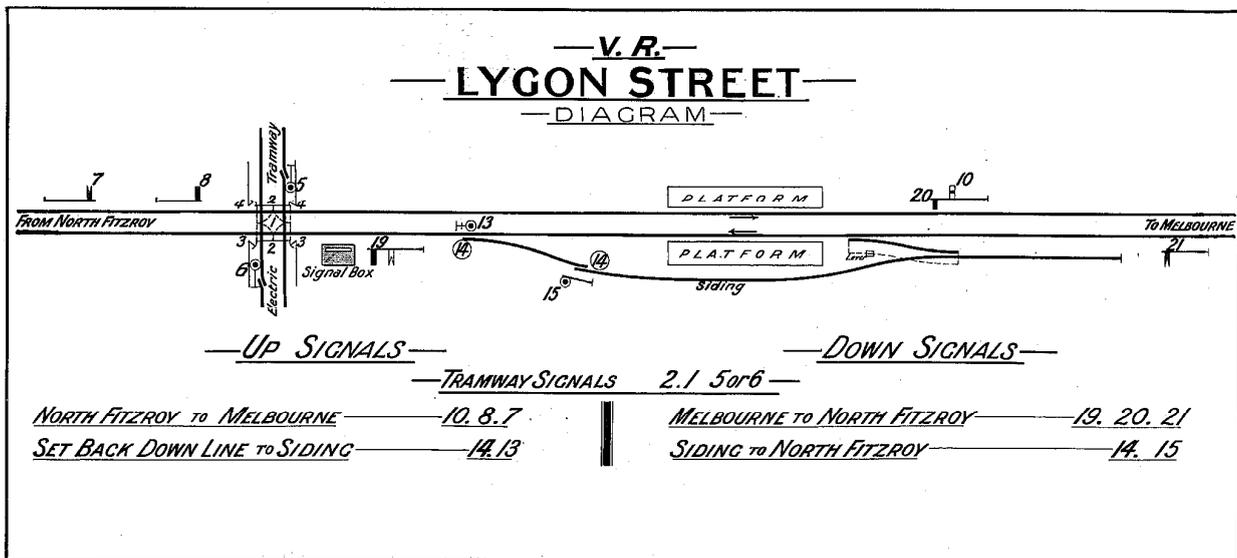
abolished in late October 1984, and the crossover in the Sandringham lines was abolished on 19 August 1986.

When the lines north of South Yarra were sextupled in 1960, the signalling on the new lines used upper quadrant semaphores to conform with the signalling on the other four lines. This was the last installation of upper quadrant semaphores on the Victorian Railways. The upper quaddies through South Yarra lasted until the middle 90s. The upper quadrant semaphores on the Down side of South Yarra were replaced by light signals on 14 November 1993. The upper quadrant semaphores on the six lines north of South Yarra were

replaced on 11 February 1994 (Local lines), early March 1994 (Through lines), and 26 March 1994 (Sandringham lines).

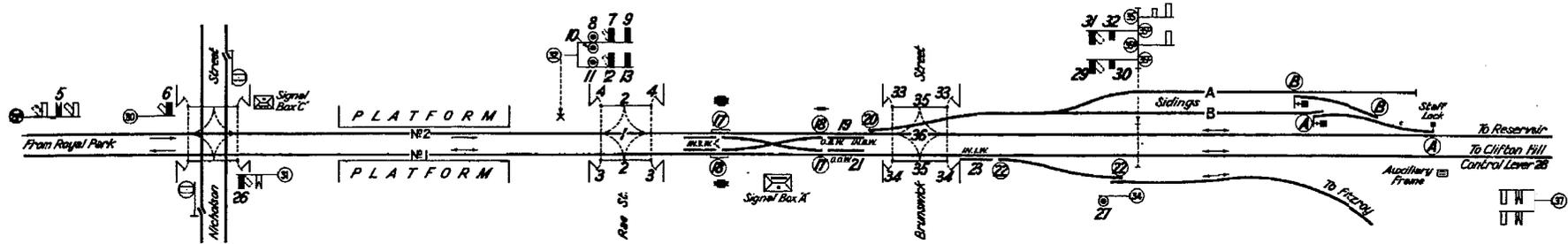
The 1944 signalbox still stands, however, and is in use as an office for the local electrical fitters. The 1944 frame, as noted in the introduction, was relocated to the signal school. Curiously, little change was made to the frame in its new role. The locking on levers 6, 7, and 8 was relocated to levers 16, 17, and 18. The lowest 9 levers were then used to work an imaginary layout of 6 signals and 2 points.

THE INNER CIRCLE



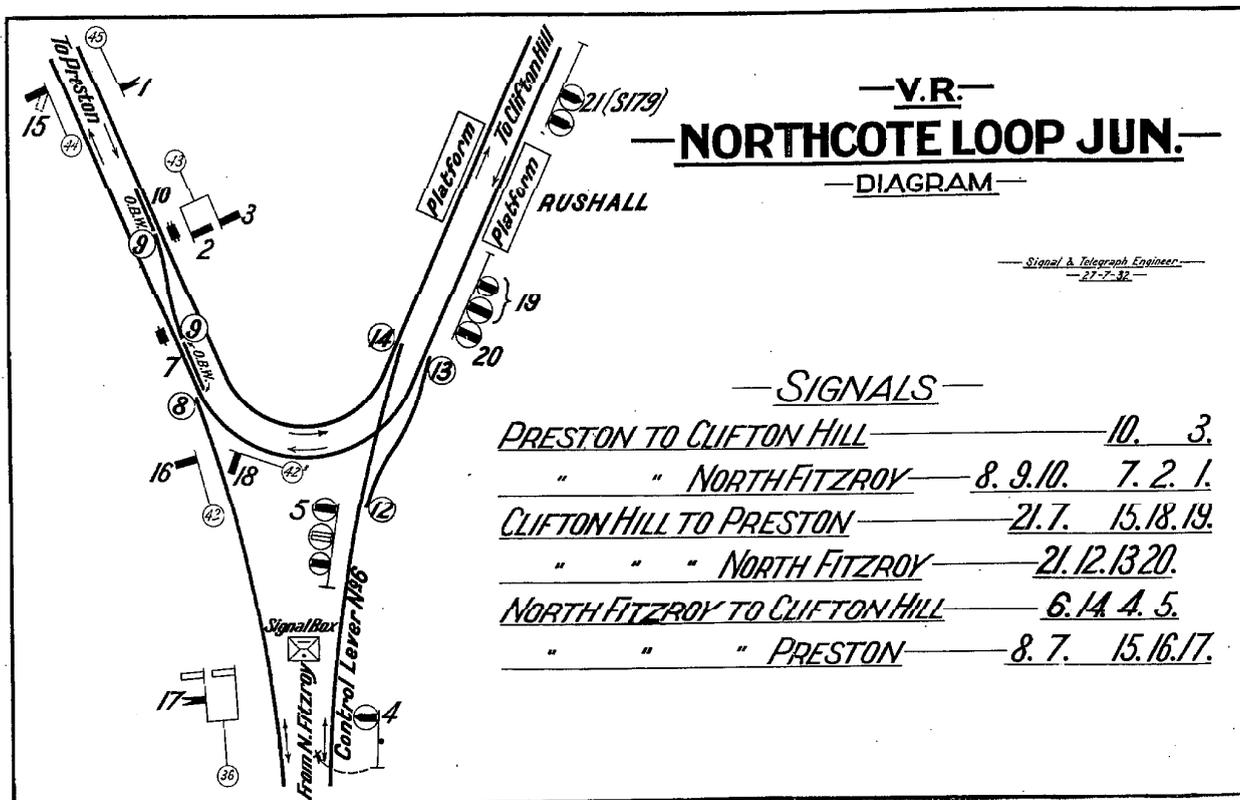
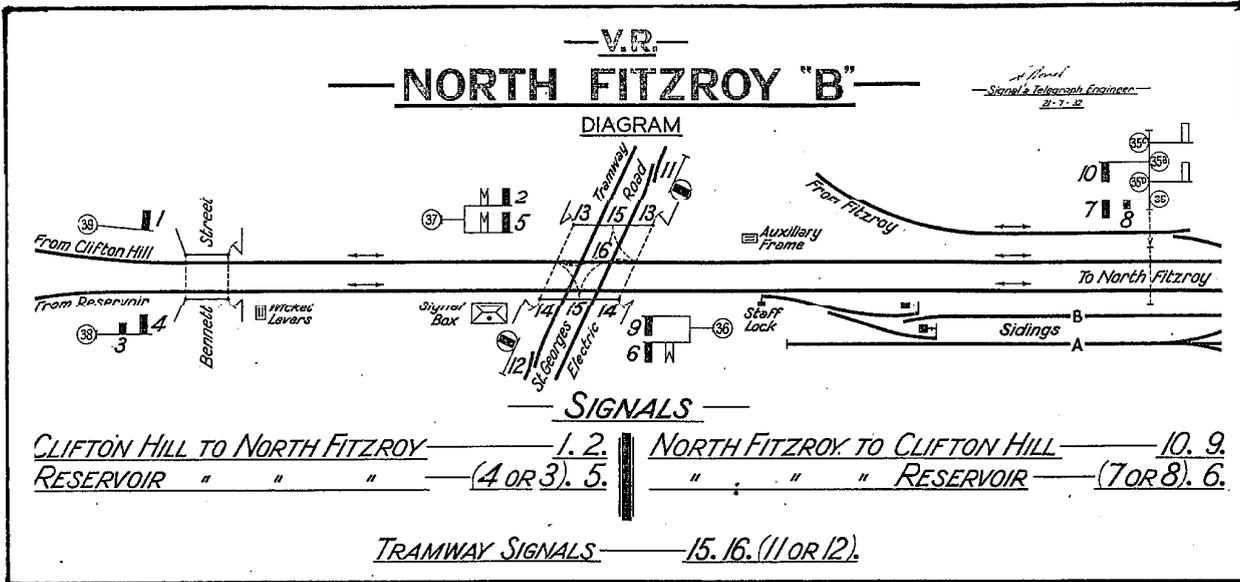
— V.R. —
— NORTH FITZROY "A" —
 DIAGRAM

E.C.H. COOK
 Signal & Telegraph Engineer
 1912



— SIGNALS —

<u>Royal Park to Reservoir</u>	9. 6. 5.	<u>Reservoir to Royal Park</u>	18. 19. 26. 31.
" " " Clifton Hill	17. 7. 6. 5.	<u>Clifton Hill " "</u>	28. 21. 26. 29.
<u>N°1 to Reservoir</u>	18. 13.	<u>Fitzroy to N°1</u>	23. 22. 21. 27.
" " Clifton Hill	12.		
" " Fitzroy	23. 22. (23). 11.	<u>Calling on Reservoir Line to N°1</u>	18. 19. 32.
<u>N°2 " "</u>	23. 22. (23). 17. 10.	" - Clifton Hill - - -	28. 21. 30.
" " Siding A or B	19. 20. (19). 8.		





Above the amateur interlocking fitters dismantling the ex South Yarra McKenzie and Holland Style A frame at the ex Caulfield signal school. Apart from the two very visible members in the foreground, other members were behind the frame and in the pit inside the frame. Dismantling has proceeded to the point where all the levers, the tappets and locking, and the electric locks have been removed. Work is in progress on removing the barrets of the circuit controllers and loosening the bolts that hold the frame together. On the right is a close-up of the mechanical interlocking on the South Yarra frame for levers 11 to 14. The tappets run vertically, with the locking ports (the triangular notches) prominent. The shaped steel dogs lie between the tappets and are screwed to the locking bars. The rectangular shapes screwed to the middle tappet (lever 12) house the sliding pieces for two conditional locks.

