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SIGNALLING RECORD SOCIETY OF VICTORIA INC



The Inverleigh automatic electric staff instrument at Gheringhap. When this photo was taken on the SRS Annual Tour in September 1990 Train Order working had been in use on the Cressy line for nearly two years, hence the lack of staffs in the instrument. The special galvonmeter has two needles. The left hand needle was polarised and pointed to 'Staff In' and 'Staff Out' depending on the phase of the two instruments. The right hand needle was an ordinary galvonmeter and deflected whenever current was being sent over the line wire. On the wall to the right of, and partially obscured by, the instrument can be seen the bell key. Depressing this key for 5 seconds sent a current down the line to prime the automatic operator at Inverleigh. Releasing the key allowed the automatic operator to send current down the line to release a staff. The automatic operator continued to send current down the line until the indicator to the left of the galvonmeter was held hard over to 'Staff Out'. This opened the line wire and shut down the automatic operator. The larger box on the wall was used to work the line between Geelong C and Warrenheip as a single Staff section on the weekends.

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MINUTES OF MEETING HELD FRIDAY NOVEMBER 15, 2002,

At the Surrey Hills Neighbourhood Centre, 1 Bedford Avenue, Surrey Hills

Present: - J.Black, W.Brook, B.Cleak, G.Cleak, G.Cumming, C.Gordon, W.Johnston, K.Lambert, D.Langley,

S.Malpass, B.McCurry, J.McLean, I.Michaelson, T.Murray, T.Penn, B.Sherry, P.Silva, R.Smith, &

A.Wheatland.

Apologies: - I.Chan, G.O'Flynn, C.Rutledge & R.Whitehead.

Visitors: - J.Gordon.

The President, Mr. David Langley, took the chair & opened the meeting @ 20:17 hours.

Minutes of the September 2002 Meeting: - Accepted as read. R.Smith / G.Cleak. Carried.

Business Arising: - Nil.

Correspondence: - A letter was received from the Surrey Hills Neighbourhood Centre advising of building works in The Cottage.

A letter was received from NZ Rail Heritage inviting the SRSV to an award presentation at the Ashman Signal Museum in Hamilton, New Zealand. The President was able to attend.

A letter was sent to John McPhee in Queensland welcoming him as a member of the SRSV.

 $\label{thm:conclusion} Various items of correspondence were sent \& received following the conclusion of the annual Signal Box Tour. S.Malpass / A.Wheatland. Carried.$

Reports: - Tours. Glenn Cumming reported on the recent Signal Box Tour held on Monday 23 September 2002. All who attended enjoyed a successful day.

The President reported that the SRSV had been approached informally with an offer to act as a distributor for the proposed Quail Rail Atlas for Victoria & Tasmania. No decision has been made at this time but negotiations are continuing.

General Business: - Jack McLean has been looking at tablet working in Queensland & mentioned a reference to tablet working in the 1925 QR GA. Jack has emailed Phil Barker in Queensland & is awaiting a response.

Rod Smith reported that tenders had been called for the removal of the overhead between Pakenham - Warragul, with the material to be delivered to North Melbourne by rail.

Rod also noted that recent Victrack tenders for level crossing equipment included a reference to a level crossing at Lakers Siding on the Bellarine Peninsula Railway.

Jim Black reported that the new North Australia Railway had already suffered its first level crossing

fatality. 12 level crossings on the new N.A.R. are to be fitted with level crossing protection equipment. Rod Smith reported on the Traralgon Signal Box that has been relocated to a nearby park. The lever frame is intact but the locking has not been fitted.

Keith Lambert advised that an electronic version of the Book of Rules & Operating Procedures had been produced & would be released to Connex employees soon.

David Langley noted that a signal at the down end of Eltham had been converted to LED.

Keith Lambert advised that some signals at Brighton Beach had been converted to LED but that Upper Quadrant Signals were still in service.

David Langley advised that a program was in place to replace all the remaining Upper Quadrant Signals on the Main South Line in New South Wales over the next six months.

This led to a discussion regarding the recent derailment at Galong & the working of traffic around the obstruction using single line working & the silo siding at Galong.

Rod Smith reported that an author had been commissioned to write the history of railways in Victoria. Bruce McCurry asked about the working of the Sunshine - Brooklyn - Newport Line using Track Block. This led to a discussion of Track Block on the Brooklyn - Newport West Line versus Automatic Block Signalling on the Brooklyn - Newport East Line.

Rod Smith asked when Lever Locking & Track Control was converted to Automatic & Track Control. The answer given was that it was done prior to the issue of the Book of Rules & Operating Procedures in 1994 & was achieved by renaming LL&TC as ATC with control levers.

Tom Murray noted that a signal box is being recreated in Launceston & the group responsible are looking for some old TR books. What happens to old TR books? The answer given is that the operators keep them for seven years.

Jack McLean followed this up by asking what happens to all the used train control graphs. The answer was not known.

Tom Murray gave a first hand account of the recent level crossing accident & derailment at Benalla. A written account of the day is available from Tom.

Chris Gordon spoke about Great Northern Rail Services ceasing Broad Gauge operations due to difficulty in obtaining insurance.

Graeme Cleak described alterations at Spencer Street that will see crossovers & signals between Platforms 2 & 3 and 6 & 7 relocated as part of the redevelopment project. The work is expected to take place between now & the end of January 2003.

Bill Johnston asked about progress on the new SG crossing loop at Laverton. It is expected to be commissioned by the end of January 2003. A turnout for the proposed TDG Siding has been provided on the SG Line near Kororoit Creek Road level crossing.

It was reported that on Oaks Day, locomotive A77 on the Kensington Grain Pilot used Platform 7 at Spencer Street because of congestion at North Melbourne Junction.

Brett Cleak noted that tenders had been called for the infrastructure works for Ballarat - Ararat & for the Bairnsdale Line. Brett described the proposed arrangements at Ararat.

Jack McLean asked what was currently happening with providing a new passenger station at Grovedale. The answer was not known.

Syllabus Item: - The President introduced member Roderick B. Smith to present the Syllabus Item.

Rod presented the annual screening of slides from the collection of the late Stephen McLean, dating from January 1977.

At the completion of the Syllabus Item, The President thanked Rod for the entertainment & this was followed by acclamation from those present.

Meeting closed @ 22:40 hours.

The next meeting will be on Friday 21 February 2003 at the Surrey Hills Neighbourhood Centre, 1 Bedford Street, Surrey Hills, commencing at 20:00 hours (8.00pm).

SIGNALLING ALTERATIONS

The following alterations were published in WN 42/02 to WN 2/03 and ETRB A circulars. The alterations have been edited to conserve space. Dates in parenthesis are the dates of publication, which may not be the date of the alteration.

25.10.2002 **Riversdale** (SW 536/02, WN 42/02)

From Friday, 25.10., pedestrian gates were provided at Riversdale Road (11.870 km). Amend Diagram 93/97. Amend Diagram 93/97.

29.10.2002 **Springvale** (SW 149/02, WN 42/02)

On Tuesday, 29.10., Siding B (the former Cemetary line) was permanently booked out of service. Points 55 and 57 were secured normal. Amend Diagram 9/98.

31.10.2002 **Somerton** (SW 1096/02, WN 43/02)

On Thursday, 31.10., a hand operated Derail was provided at the Up end of No 4 Road. A 'Derail' sign was provided. When it is necessary to stable vehicles in No 4 Road they must be stabled on the Down side of the Derail and the Derail locked on the rail. Amend Diagrams 24/00 (Glenbervie - Somerton) and 46/90 (Spencer Street - Somerton Loop).

01.11.2002 **Hastings - Bittern** (SW 148/02, WN 42/02)

On Friday, 1.11., the flashing lights at Stony Point Road were replaced by boom barriers controlled by HXP level crossing predictors.

From Saturday, 2.11., the A head of Up Automatic E 440 was relocated 500mm closer to the track and the A and B heads of Up Automatic E 560 were lowered and altered to a reverse stagger.

10.11.2002 **Bonbeach - Chelsea** (SW 154/02, WN 43/02)

On Sunday, 10.11., alterations were made to the approach track circuits for Argyle Ave (Chelsea) and Bondi Road (Bonbeach).

(12.11.2002) Maroona - Portland

(SW 1098/02, WN 44/02)

Commencing forwith, 'Cross and Proceed' Train Orders are not permitted to be issued over this corridor due to the irregular operation of traffic.

17.11.2002 Sydenham

(SW 160/02, WN 44/02)

On Sunday, 17.11., new booms and cantilever masts will be commissioned for the opening of the dual carriageway Melton Highway.

23.11.2002 Caulfield

(SW 165/02, WN 45/02)

On Saturday, 23.11., a co-acting signal was provided for Home CFD 727 at the Up end of No 3 Track. The co-acting signal is mounted on the mast of CFD 727. Amend Diagram 7/95.

24.11.2002 Carrum

(SW 170/02, WN 46/02)

On Sunday, 24.11., alterations were made to the circuits to vary the approach time for Beach Street and Eel Race Road (Stage 5 of the Frankston line speed upgrade).

26.11.2002 South Newport

(SW 171/02, WN 46/02)

On Tuesday, 26.11., the LED '65' speed indicator on Home 164 was replaced by the original incandescent indicator.

(26.11.2002) Absolute Block Working (National Express)

(Safety Bulletin 7 National Express, WN 46/02)

Absolute Block Working is defined as preventing more than one train or vehicle being on the same line between two signalling locations at the same time. Absolute block working may be used for several reasons, including the operation of road/rail vehicles or track machines and the loss of signal power resulting in no signal lights or no indications on panels.

When it is necessary to operate trains or vehicles under absolute block working between one signalling location and the next, there must only be one train or vehicle on the same line between those locations (except when vehicles are travelling in convoy). The Signaller must secure at Stop all signals governing entrance to the line where absolute block working is in force. When the train or vehicle arrives complete (*) at the signalling location in advance, the Signaller at that location must advise the Signaller in the rear of the arrival of the train or vehicle. Another train or vehicle may be allowed to enter the section.

The Driver must be advised of the reason for absolute block working.

(*) Note that no guidance is given as to how the Signaller determines that all vehicles in a convoy have arrived.

01.12.2002

(SW 175/02, WN 46/02)

On Sunday, 01.12., alterations were made to the circuits to vary the approach time for Skye Road and Armstrongs Road (Stage 6 of the Frankston line speed upgrade).

02.12.2002 Melbourne - Long Island

Carrum

(SW 163/02, WN 46/02)

Commencing Monday, 2.12., a new End of Train Monitoring Device will be used in conjunction with the standard ETM on the Pacific National Long Island freight train to Long Island. The new device displays a red pulsating light during darkness and inclement weather and a white reflectorised area during daylight.

05.12.2002 **Deniliquin**

(SW 1111/02, WN 48)

On Thursday, 5.12., the Down Home was abolished (this signal was previously taken out of service). The 'Commence' and 'End' Train Order Working boards were relocated to be 500 metres outside the points giving access to the Deniliquin Freighter's Siding and the Location Board was relocated to be 2500 metres outside these boards. Shunting may take place inside the Territory Boards without the Driver being in possession of a Train Order.

06.12.2002 **Bunyip - Longwarry**

(SW 1108/02, WN 47/02)

From Friday, 6.12., the telephone box at Homes 14 (Bunyip) and 16 (Longwarry) were replaced by a standard Pilot Key cabin. The 5P key switch, indicating lights, writing desk and light will be relocated to the new cabin.

08.12.2002 Frankston

(SW 183/02, WN 47/02)

On Sunday, 8.12., Points 60 were converted to a claw lock and pneumatic assistance were provided on Points 56 and 60. A three position switch is provided on the block shelf above lever 56 and another above lever 60. The switches have 'normal', 'centre' and 'reverse' positions. The switch must be placed to the normal or reverse position before operating the lever to the corresponding position. This will operate a solenoid allowing air to a compressed air cylinder. The cylinder (which is connected to the point rodding under the box) will then assist the movement of the rodding. Electric power is removed from the solenoid when the points have completed their movement.

(10.12.2002) Spencer Street

(SW 185/02, WN 48/02)

Commencing forthwith it is not permitted to allow two Sprinters to be in No 6 South Track. This is to prevent a second movement from entering No 6 South Track from No 6A Track as it is possible for the rear of the second movement to come to a stand on the diverging track and not completely in the platform. In addition Drivers do not have a clear view of Home 300 if two Sprinters arrive into No 6 South Track.

13.12.2002 Diamond Creek

(SW 539/02, WN 49/02)

On Friday, 13.12., a Staff Exchange platform was provided on the Down side of the line near the Up end points. Amend Diagram 83/97.

15.12.2002 Narre Warren (SW 186/02, WN 48/02)

On Sunday, 15.12., Down Automatic D 1229 was converted to a Westinghouse Tri-colour LED head.

(17.12.2002) **Morwell** (SW 1099/02, WN 49/02)

To permit the Signaller at Morwell to perform the signalling duties at Warragul for Train 9441 the following arrangements will apply.

Upon the departure of Train 9462 from Moe the Signaller at Morwell will check the panel to confirm that the sections Moe - Herne's Oak - Morwell are clear. The Signaller will then advise the Train Controller and request permission to operate the signals for the passage of Train 9441 and to cease duty at Morwell. When permission is obtained the Signaller must clear Home 6 (Moe), Homes 10 and 18 (Herne's Oak) and Automatic D4553. The signals at Morwell must be kept at Stop whilst the Signaller is absent. The Signaller must advise the Train Controller when this has been carried out and advise a contact number for when the Signaller is absent.

(17.12.2002) Failure of (Automatic) Electric Staff Instruments

(SWP 9/02 & SW 1110/02, WN 49/02)

Rule 7, Section 24, Book of Rules is amended by the addition of the following to the end: 'Normal working [after a failure of Automatic Electric Staff Instruments] must not be reverted to until the instruments at both ends of the section have been tested and certified operation by the Signal Maintenance Technician'.

20.12.2002 Broadmeadows

(SW 195/02, SW 1000/02, WN 1/03)

On Friday, 20.12., the incandescent red light in Down Dwarf BMS 537 was replaced by a purple LED head for trial. The purple LED in Dwarf BMS 515 was replaced by a red LED.

07.01.2003 Maroona - Portland

(SW 1001/02, WN 2/03)

On Tuesday, 7.1., Master Key 2 was permanently transferred to the Regional Manager, Western, who will have personal possession of the key for inspection and emergancy purposes.

(14.01.2003) Spencer Street

(SW 3/03, WN 2/03)

Commencing forthwith, No 1 and 2 Parcels Dock have been restored to service. Signal 110 and Points 13 and 14 have been restored to service.

(14.01.2003) Brighton Beach

(SW 5/03, WN 2/03)

Commencing forthwith, No 1 Track, the Back Platform Track, and Sidings A and B are booked out of service. Points 6, 7, and 9 are secured normal.

VICTORIAN RAILWAYS

TAMPERING WITH RAILWAY POINTS AT BUNYIP

FIFTY POUNDS REWARD

Wheras on Thursday the 20th April last the afternoon train from Melbourne to Sale was improperly shunted on to a siding at the Bunyip Station Gippsland, in consequence of the railway points having been tampered with: Notice is hereby given that a Reward of Fifty Pounds will be be paid by the Government for such information of the person or persons who tampered with the railway points aforesaid.

J.M. Grant Chief Secretary

Chief Secretary's Office Melbourne, 30th May 1882

[From the Victorian Government Gazette, 2 June 1882, p1204]

GHERINGHAP - CRESSY - MAROONA

The discovery of the locking sketches for Cressy in the PROV has inspired this safeworking history of the Gheringhap - Maroona line. The cross country Gheringhap - Cressy - Maroona line was, and is, an interesting line. The line runs across the plains separating the Otway ranges from the Great Dividing Range. Even when constructed the line was primarily intended to carry through goods traffic from the Wimmera and Hamilton districts to the seaboard while avoiding the heavily grades on the main line via Ballarat; a function it still performs in 2003. Indeed, the line is now part of the main line to Adelaide since it was converted to Standard Gauge in 1998 and the Ballarat - Ararat line mothballed.

Staff Working

Upon opening in August 1913 the line was worked by mixture of Large Electric Staff and Train Staff and Ticket with the sections Gheringhap - Inverleigh - Wingeel - Cressy - Berrybank - Lismore - Derrinallum - Pura Pura - Westmere - Tatyoon - Maroona. The Staff and Ticket sections were purely temporary and had been replaced by Large Electric Staff by the end of 1913.

It is an interesting commentary on the regular use of the line by heavy through goods that no additional Staff stations were opened nor were any closed for over 75 years (although Wingeel and Berrybank were provided with switching instruments in 1936).

Time Interval Working

In 1927 time interval working was introduced on the line between Inverleigh and Maroona; a very unusual situation in Victoria where the block was usually absolute. However this made sense on this line where almost all trains were goods trains, the countryside was open, and line largely flat and straight. It certainly would have eased the working of some of the sections with long running times. The remaining section (Gheringhap - Inverleigh) continued to be worked under absolute block regulations, although a Composite Staff was provided at the same time to allow Murghebuloc to open as a block post. The instructions in the 1938 General Appendix for time interval working ran:

Working Electric Staff Sections between Inverleigh and Maroona by Means of a Composite Electric Staff - 1. Composite Electric Staffs are provided in the Instruments for the Sections between Inverleigh and Maroona, and the following instructions will apply in respect to the working of Up and Down trains between Inverleigh and Maroona.

- 2. (a) Subject to clause (b) hereof, a train may be permitted to follow another train into the Section after an interval of not less than fifteen (15) minutes has elapsed, and the Driver of the following train has (in addition to being given the required portion or potions of the Composite Staff), been furnished on the prescribed form with a "Notice of Train Ahead."
- (b) In the case of a train which has to do shunting work at an Intermediate Station or Siding, a following train must not be permitted to leave in accordance with sub-clause (a), but arrangements may be made for the Guard of the preceding train train (see clause 15, pages 648-649) or the Station-master, if one on duty, to send the "Acre" message from the Intermediate Station or Siding when the preceding train is quite ready to depart. Unless, however, arrangements are also made to establish such Intermediate

Station or Siding as a Block Post for the following train, the "Notice of Train Ahead" must be issued to the Driver, as prescribed in sub-clause (a).

- (c) Whenever it is intended to despatch a train under the conditions specified in sub-clause (a) and (b) hereof, the Guard and Driver of each train, which will be followed by another from a Staff Station must be fully instructed by the Signalman, so that they will be aware of the altered conditions in respect of Signalling the trains. The attention of Guards is directed to the Instruction on pages 436-437 respecting the Protection of Trains.
- (d) Signalmen must arrange that a train which is followed by another train after an interval of time has elapsed will not be stopped at the Home Signal unless it be unavoidable.
- 3. When a fast train of any description is following a slower train under the conditions as laid down in clause 2, the interval of 15 minutes must be increased and te faster train munst not be permitted to follow into the section until a sufficient interval has elapsed after the departure of the slower train to allow of it arriving at the Staff Station in advance at least 5 minutes ahead of the following train.

Automatic Electric Staff Working

In 1964 Wingeel was equipped with automatic staff instruments and the ASM withdrawn. The plunger locks and home signals were removed but trailable points were not fitted and the points had to be held by the Fireman for all arriving trains.

In 1966 the VR tried again and equipped Berrybank (the other switching staff station on the line) with automatic staff instruments and trailable points. These were far more successful and all the staff stations on the line were equipped in this fashion over the next two years (the last being Cressy). The trailable points were described in 'Switchstands' by Chris Wurr, Somersault Vol 24 No 6. The instructions for working the line in the 1979 General Appendix ran:

Gheringhap - Maroona Special Instructions for Automatic Electric Staff Working

- 1. The Electric Staff Rules contained in pages 212-216 of the Book of Rule and Regulations and the supplementary instructions in the General Appendix must be adhered to, insofar as they apply, with the modifications and additional instructions set out begin
- 2. Bell signals will not be used in the operation of the automatic electric staff insturments.
- 3. Except where otherwise prescribed, the Engineman will be responsible for the operation of the automatic electric staff instuments.
- 4. The object of this system of automatic electric staff working is to permit of an electric staff being withdrawn without the co-operation of any person at the other end of the section, provided there is not already an electric staff out of such section.
- 5 (a). The staff instruments are similar to the ordinary Miniature electric staff instument, with the exception that the indications "Staff In" and "Staff Out" are shown by the galvanometer needle when the Instrument bell is ringing. When the needle is deflected to the "Staff In" position it indicates that

the instrument is in order for a staff to be withdrawn.

(b) Method of operation of Instruments.

To withdraw a Staff depress the bell key for about 5 seconds. Release the bell key - This will cause the bell to ring continuously. Withdraw a staff and stop the ringing of the bell by turning the left-hand indicator and pressing it hard down for 5 seconds.

To insert a Staff - Pass the staff throught the instrument into the right-hand columns and place the left-hand indicator to "Staff In" position.

- 6. Fouling of Single Line Outside Home Signal at an Attended Station. When the next staff station is an unattended staff station, shunting outside the home signal at the attended station must not be permitted unless the Enginemen is in possession of the staff for the section or a competent man with hand signals and detonators has been sent out to protect such shunting.
- 7. Obtaining an Electric Staff earlier than usual. When it is known that the next train is to proceed from an attended station to an unattended station and all staffs are in the instrument, a staff should be released and left in the holder of the instrument until required for use.
- (a) On arrival at the unattended station and subject to another train not being at the station, the train must

8. Method of working at an UnattendedStation.

- be stopped with the locomotive opposite the station office. The Guard must intimate that the train is complete be exhibiting to the Engineman the All Right hand signal by day, and a white light moved in the form of a semi-circle during darkness. On receipt of the hand signal from the Guard, the Engineman must take the staff to the station office and communicate with the Train Controller. If the train is not required to cross another train, the Train Controller will instruct the Enginemen to withdraw a staff for the forward section and insert the rear section staff in the proper Instrument. The train may then depart.
- (b) In the event of a crossing having been arranged, the staff is not to be placed in the instrument but is to be handed to the Engineman of the opposing train. The Engineman of the first train to arrive after receiving the prescribed hand signal from the Gurad to indicate that the train is complete, must communicate with the Train Controller, who will instruct him regarding the crossing arrangements.

The opposing train must be stopped with the locomotive opposite the locomotive of the other train and the staffs must then be exchanged. It will not be necessary for the Engineman of the last train to arrive, in these circumstances, to communicate with the Train Controller, who will have given the engineman of the first train the necessary instructions. The Engineman of the first train to arrive must not hand the staff to the Engineman of the opposing train until he is assured by the latter Engineman that he has received the hand signal from the Guard to indicate that the train is complete. After the staffs have been exchanged, each Engineman must satisfy himself that the opposing train is in clear before passing the fouling point of the crossing loop

- 9. The Signalman at an attended staff station must not withdraw a staff for a train to proceed to an Unattended Staff without the permission of the Train Controller.
- 10 (a). When a train that has not crossed another train is required to shunt at an unattended staff station or to stop there longer than the usual time for

any reason, the rear section staff is not to be placed in the Instrument, unless otherwise directed by the Train Controller, until the train is ready to depart.

The Engineman or Guard, as may be most convenient, must inform the Train Controller when the train is ready to proceed and he may then be instructed to insert the staff in the Instrument.

- (b) If a train, after crossing another train is required to shunt at an unattended station or to stop there longer than usual for any reason, the Engineman or Guard, as may be most convenient, must communicate with the Train Controller when the train is ready to proceed.
- (c) The Train Controller may arrange for a following train to enter the Section from the staff station in the rear, before the preceding train in the same direction has departed from the unattended staff station in advance.

The Engineman of the following train must be informed and instructed to be prepared to find the arrival track occupied at the unattended station. The Guard of the train at the unattended station must also be advised by the Train Controller of the arrange-

11. Shunting beyond the Outer Facing Points at an Unattended Station. Shunting must not take place outside the outer facing points at any unattended station unless the Enginemen is in possession of the electric staff for the section or a competent man with hand signals and detonators has been sent out to protect such shunting.

[Rules 12 to 14 covered various types of failure, and Rules 15 to 17 covered balancing of staffs, cleaning instruments etc.]

One disadvantage of this automatic working was that every train had to come to a stand at every crossing loop to change the staffs. The standard allowance for this at each loop was 5 minutes, giving a total of 45 minutes standing time at the 9 crossing loops and this does not take into account the time lost in slowing down to stop at each loop and subsequently returning to line speed.

Automatic Staff instruments remained in use until November 1988 when Train Orders were introduced over the line. At that time four of the crossing loops were taken out of service leaving just Inverleigh, Cressy, Lismore, Pura Pura and Tatyoon in use.

Standard Gauge

When the main Western line was converted to Standard Gauge in 1995 it was decided to run the line via Geelong and Cressy to Ararat instead of via Ballarat.

Upon reopening of the line in May 1995 after standardisation the line was worked by Train Staff and Ticket with one intermediate crossing loop at Berrybank. A second Train Staff and Ticket crossing loop was opened at Vite Vite (on the Down side of the former station) in June 1995 and the final two loops, Wingeel and Tatyoon, were opened in October 1995.

All four crossing loops were worked manually. The main line points were fitted with dual control point machines worked by hand. Up and Down Home signals were provided, but fixed at Danger and trains were hand signalled past the signals.

Between 12 and 21 December 1995, operation of the signals and points by local V5PSW key switches was commissioned at each of the Standard Gauge loops from Manor to Tatyoon. The Signaller at each location was responsible for operating the points and signals by means of the key switch

at the end of the crossing loop from which the train was to be admitted.

The Signaller in the rear immediately advised the Signaller in advance of the departure of a train. The Signaller then proceeded to the end of the Loop from which the train was approaching, inserted a V5PSW key in the keyswitch, and turned it to 'Main' (for a train required to be signalled through No 1 Track), or 'Loop' (for a train required to be signalled into No 2 track). The key was held in the 'Main' or 'Loop' position for 10 seconds while the points operated to the required position and the appropriate Signal cleared. The key could then be returned to the centre position and withdrawn. The points automatically restored to the normal position 30 seconds after the arriving train cleared the fouling point. Signallers were not to operate the key switch unless advised that the train has departed from the Crossing Loop in the rear.

The same procedure was followed when it was necessary for the points to be placed reverse for a train to depart from the Loop. The train in the Loop was not be moved until the Driver was in possession of the proper authority for the forward section and the Signaller had displayed a green hand signal to indicate that the points are correctly set. Signallers ensured the points were correctly set by observing the point indicator provided at the points before displaying a green hand signal to the Driver.

Voice announcement equipment was also commissioned at the fouling point of each end of every loop. This equipment announced that the train was in clear of the fouling point over the local radio.

Section Authority Working replaced Train Staff and Ticket Working between Gheringhap and Maroona on 5 June 1996. At the same time four block points were opened to divide the long single line sections. The four block points were Hesse (on the Down side of Inverleigh), Werneth (on the Down side of Cressy), Tooli (on the Down side of Derrinallum) and Fiery Creek (on the Down side of Westmere).

On 23 June 1996 the Signallers were withdrawn from the crossing loops and the signalling at these locations has subsequently been operated by 'Automatic Approach Call'.

The main line points at each loop are equipped with a TD84M Dual Control Point Machine and a point banner. From the trailing direction the point banner shows two white reflective discs when the points are set for the main line and a yellow arrow (pointing in the direction of the diverge) when the points are set for the loop. All points self normalise. A speed restriction of 65 km/h is in force over facing or trailing points.

Each Loop is equipped with a bracket two position arrival Home signals. A separate signal is provided for arrival into the main line and into the loop. A white reflective diamond is provided on the bracket mast to indicate its position if the power fails. Location Boards are provided 2000 metres in the rear of the Home signal and a 'F' (Fouling) board at the fouling point of the main and loop lines.

A 3000 metre approach track circuit is provided on the approach side of each Arrival Home signal. A fouling track circuit is provided between the Arrival Home signal and the F board. Both No 1 and No 2 tracks are completely track circuited.

A fouling point clear message is broadcast twice over Channel 1 of the local radio when the train has cleared the fouling point. *This is not a train complete message*. ETAS is used to check that the train is complete.

V5PSW key switches are provided at each Home signal and at the fouling points at each end of the loop. The key switches have three positions (Main - I - Loop) and a yellow 'route called' light. The light is normally extinguished. If a

key is placed in the switch and a route selected the light will illuminate if the route has been accepted. After 10 seconds the route will have been set and the light will extinguish. If the light flashes after a route has been selected, a time out is in progress and the route cannot be accepted. The key switches may be operated without a train being present, however, the Arrival Home signals will not clear unless a train is on the approach track.

Trains arriving into No 1 Track

When a train enters the 3000 m approach track circuit an automatic call will be placed for the train to enter No 1 track. The Arrival Home will clear provided the Up and Down end points are normal (for No 1 track), the opposing Home signals are at stop, and no train is on the opposing approach track (or enters the approach track within 10 seconds of the initial call). The far end points will be locked normal for 180 seconds when the train passes the Arrival Home. The point locking on the points behind the arriving train will be released 15 seconds after the train clears the fouling point.

If the points at either end of the loop are reverse when the train enters the approach track, the Arrival Home will remain at Stop. The Driver must call the points Normal using the key switch at the Arrival Home signal, though the points are approach locked by the approach track for 300 seconds.

Should two trains occupy opposing approach tracks within 10 seconds of each other, the Arrival Homes will remain at Stop for 300 seconds. After this time, one Arrival Home will clear for a train to enter No 1 track.

Trains arriving into No 2 Track

The Section Authority will instruct trains to arrive into No 2 track (indicated by the words 'Take Loop' in the third line of the Current Authority). The Driver must bring the train to a stand at the Arrival Home signal.

If there is no train on the opposing approach track, or in No 1 Track, the Arrival Home will be at clear for a move into No 1 track. The Driver must hold the key switch over to the 'Loop' position for two seconds. This will restore the Arrival Home to Stop. The key switch should then be operated to the 'Loop' position for a second time. The 'route called' light should show a steady yellow indicating that the points are operating to the reverse position. When the points are fully reverse the signal will clear to enter the Loop. If the 'route called' shows a flashing yellow, the approach locking time has not run down. The key should be returned to the centre position and another attempt made.

When the train has arrived clear of the approach and fouling point track circuits, the fouling point clear message will be broadcast. The locking on the points at the rear of the train will be released and the points will be restored to the normal position.

Trains departing from No 1 Track

If the train has been stationary in No 1 Track, or has taken longer than 180 seconds to arrive at the far end points, the Driver must check that the point banner shows that the points are normal. The train may then depart.

Trains departing from No 2 Track

The Driver must operate the key switch at the fouling point to the 'Loop' position. When the points have operated to the reverse position the train may depart.

Note. The points will not reverse if the Home Arrival signal in the rear has cleared for No 1 Track. The points will remain locked until either the Home Arrival signal has been restored to Stop and the approaching train has occupied the approach track for 300 seconds, or the train has entered No 1 track and occupied it for 180 seconds.

Murghebuloc

(57 miles 10 chains)

08.08.1913 Open for passenger and parcels traffic only. No-one-in-charge. Supervised by Gheringhap. (WN 30)

30.04.1914 The Up and Down end points to the new loop siding secured by staff locks rodded to derails (WN 18, SLR I)

(24.05.1927) May open as Intermediate Composite Block Post in Gheringhap - Inverleigh staff section (WN 21)

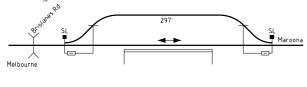
10.04.1942 The loop siding was extended by 400 feet at the Up end (WN 22)

22.04.1942 Two new dead end sidings provided on Up side of line at Up end of yard for US Army. Siding closest to main



Murghebuloc 1942

Based on plan titled 'US Army W+W 2500/42 Plan 2172/42'



line is 125 feet long and the other is 500 feet long. Points to sidings are secured by a staff lock and are rodded to catch points in the sidings. (WN 22, SS, SLR has 20.4)

(01.09.1942) Five hundred foot dead end siding extended to become 1000' feet long (WN 35)

13.02.1946 Alterations to Staff locks account renewal of points (CI)

01.09.1948 The Defence Department's two dead end sidings have been abolished and the main line connection removed (WN 36)

01.10.1953 Closed to all traffic (WN 39)

(20.10.1953) Closed as a Intermediate Composite Block Post account withdrawl of the Composite electric staffs from the Gheringhap - Inverleigh section. (WN 42)

09.06.1955 Staff locked points and connections removed. Telephone relocated for track gang (CI, SLR III)

HAMILTON HWY

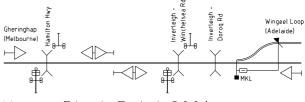
(59 miles 48 chains, 96.922 km)

05.06.1969 Flashing lights provided (WN 23)

HESSE BLOCK POINT (98 km) 05.06.1996 Established in Gheringhap - Wingeel section account introduction of Section Authority Working (WN 23*)

11.03.1997 Electronic Location Marker provided on the location board at the Down end. These consist of two flashing amber lights which are activated by the approaching train's headlights (WN 10*)

11.07.1998 New type block point signs provided. Electronic Location Marker removed. (WN 27*)



Hesse Block Point 2001

Inverleigh

(62 miles 43 chains, 101 km)

(13.01.1913) Construction Branch commenced to haul goods between Gheringhap and Inverleigh (WN 2)

08.08.1913 Open for passenger and goods traffic with the line. Up and Down Home signals provided, but main line points are secured by Hand Locking Bars and Padlock. Open as a Train Staff and Ticket station with sections Gheringhap - Inverleigh (No 1 Pattern) and Inverleigh - Wingeel (No 2 Pattern). SM provided; supervises Doroq. Locomotive water supply provided. Goods shed and ramped platform provided. (WN 30)

(29.09.1913) Up Home relocated 100 yards further out (WN 39)

01.10.1913 Up and Down Home signals provided (SANP)

02.10.1913 Up and Down end points secured by Plunger Locks (WN 40, SLR I)

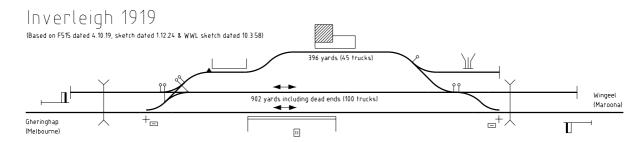
18.11.1913 Large Electric Staff replaced Train Staff and Ticket Inverleigh - Wingeel. (WN 46, SR)

20.11.1913 Large Electric Staff replaced Train Staff and Ticket Gheringhap - Inverleigh (WN 47, SR)

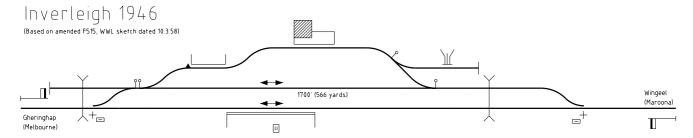
(23.08.1915) Staff Exchange Box provided. Box in use for 0520 Down Geelong Goods. (WN 34)

(31.01.1916) An employee will be on duty for all trains and Staff Exchange Box taken out of use. (WN 5)

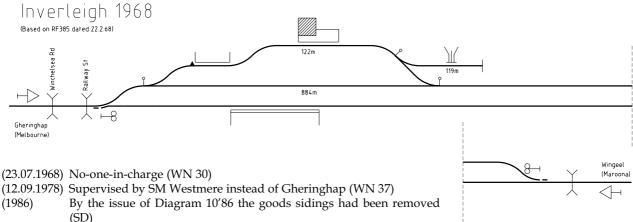
(24.05.1927) Composite Staffs provided in both Gheringhap and Wingeel sections. The composite staff in the Gheringhap section allows Murghebuloc to open as a block post. The composite staff in the Wingeel section allows time interval working. (WN 21)



- 11.02.1931 Stationmaster (Class 9) withdrawn, replaced by a signal porter. Inverleigh now supervised from Gheringhap (as is Wingeel, Doroq, and Poorneet) (WN 6)
- 15.10.1931 Staff Exchange Box may be used for the last Up train each day, or for the last Up train, and Nos 1, 3, or 5 Down, and No 2 Up. Signalman must place both Homes at proceed. (A1767)
- 05.12.1932 Composite Staff Exchange Box provided. Two composite staffs are provided in each section. When the Composite Exchange Box is in use the absolute block section will be Gheringhap Cressy. Time interval working will not be in use, nor may Guards send Apix or Acre messages from Inverleigh. (WN 11)
- 03.12.1936 Large Electric Staff instruments replaced by miniature instruments on both sections. New composite staffs provided. (WN 50)
- 25.09.1945 Composite Staff Exchange box removed (WN 39)
- 27.11.1945 Up Home relocated 71 yards further out (WN 2)
- 29.11.1945 Down Home relocated 45 yards further out (WN 2)
- 20.12.1945 The crossing loop was extended. The Up end plunger locked points were replaced by a new connection 60 yards further out. The Down end plunger locked points were replaced by a new connection 123 yards further out. The dead end extension at the Down end of No 2 Road was abolished. (WN 2)



- 14.01.1952 Mixed service withdrawn (McClean)
- 28.05.1964 Automatic Electric Staff instruments provided Inverleigh Wingeel. Composite staffs removed from Wingeel instrument (CI)
- 22.06.1968 Crossing loop extended at Down end to provide a loop 2900 feet long. Main line points equipped with trailable point equipment instead of plunger locks and location boards replaced Home signals. Automatic Electric Staff instruments and associated rules provided on Gheringhap section. ASM withdrawn and station now unstaffed. (WN 10, SLR III)

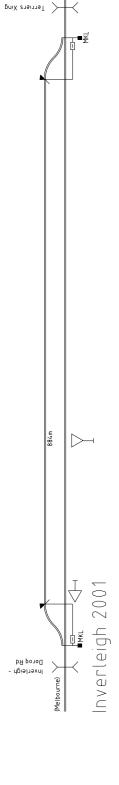


c1988 Electric Staff: Gheringhap - Inverleigh (Automatic A Pattern Miniature Electric Staff with battery instruments), Inverleigh - Wingeel (Automatic

B Pattern Miniature Electric Staff with battery instruments) (Staff List)

13.11.1988 Train Order Working replaced Automatic Electric Staff Working. Sections Gheringhap - Inverleigh -Wingeel, but note Wingeel loop spiked out of use. Effective sections Gherinhap - Inverleigh - Cressy. Electric Train Detection provided (WN 46)

01.01.1995 Closed for gauge conversion. Line in use as a works siding. (WN 1*)



23.05.1995 Line reopened as standard gauge. Inverleigh opened as an intermediate siding in the Gheringhap - Berrybank staff section. Points at each end of loop rodded to derails and crowders and secured by staff locks. (WN 21*)

14.09.1995 The staff locked siding was provided (WN 38*)

02.04.1996 Flashing lights provided at Winchelsea Rd (99.667 km) (WN 16*)

Dorog

(66 miles 22 chains)

(24.04.1913) Opened for goods traffic (in truck loads, minimum 2 tons) by Construction Branch. (WN 16)

08.08.1913 Open for passenger and goods traffic with line. No one in charge, supervised by SM Inverleigh. Provided with a shelter shed with locker, but no goods platform is provided. Points are secured by Hand Locking Bars and Padlocks (WN 30)

02.10.1913 Main line points secured by staff locks rodded to derails (WN 40, SLR I)

 $Do\Gammaoq~1924~_{\rm Based~on~sketch~dated~1.12.24~\&~WWL~sketch~dated~10.3.58}$



30.11.1945 Alterations to Staff locks account renewal of points (CI)

14.05.1956 Closed to all traffic (WN 20)

12.03.1957 Siding abolished. Points, rodded connections and staff locks were removed. Station service phone retained on post. (WN 12, CI, SLR III)

Wingeel

(73 miles 36 chains, 118 km)

(02.06.1913) 'Wingeel Siding' opened for goods traffic by Construction Branch (WN 22) 08.08.1913 Open for passenger and goods traffic with line. Open as a Train Staff and Ticket station with sections Inverleigh - Wingeel (No 2 Pattern) and Wingeel - Cressy (No 1 Pattern). Up and Down Home signals provided, but points are secured by Hand Locking Bars and Padlocks. Provided with a Goods Shed and platform. Has Stationmaster, supervises Poorneet. (WN 30)

01.10.1913 Up and Down Home signals provided (SANP)

02.10.1913 Up and Down end points secured by plunger locks (WN 40, SLR II)

18.11.1913 Large Electric Staff replaced Train Staff and Ticket Inverleigh - Wingeel - Cressy (WN 46, SR)

(28.06.1915) Staff Exchange Box provided. Used by 0520 Down Geelong Goods. (WN 26)

26.02.1927 Staff Exchange Box in use for No 12 Up and No 1 Down (when running) or No 3 Down (when No 1 not running) (A585/27)

(24.05.1927) Composite Staffs provided in both Inverleigh and Cressy sections to allow Time Interval Working (WN 21*)

31.03.1928 Stationmaster withdrawn (WN 14)

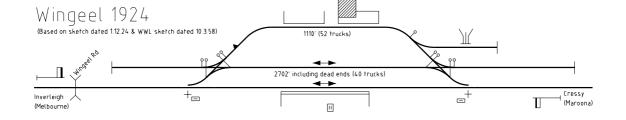
15.10.1931 Staff Exchange Box in use, when required, for last Up each day and for Nos 1, 3 or 5 Down and No 2 Up the next morning (WN 48)

05.12.1932 Composite Staff Exchange Box provided, as well as two Composite Staffs in each section. When Composite Exchange Box is in use the block section will be Gheringhap - Cressy, Guards will not send APIX or ACRE from Wingeel, nor will time interval working be in use (A1943)

03.12.1936 Miniature electric staff instruments replaced large electric staff instruments. Switch out facilities provided (non interlocked, without train). Long section Inverleigh - Cressy. Staff Exchange Box and Composite Staff Exchange Box removed. (WN 36*)

(06.06.1938) Switched in daily 0800 to 1600 (WTT)

13.01.1944 Loop extended. Up end points relocated 145 yards further out and the dead

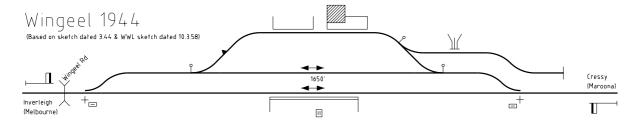


end extension at the Up end was abolished. The Down Home was relocated 145 yards further out. Down end points were relocated 152 yards further out. The remainder of the dead end extension at the Down end of No 2 Road was slued to connect to the dead end extension of No 3 Road. The Up Home was relocated 152 yards further out (WN 3, CI)

14.01.1952 Mixed service withdrawn (McClean)

(11.06.1957) Platform shortened from 251 feet to 150 feet (WN 24)

(13.101958) Switched in: M-F 0930 to clearance of No 18 (WTT)



(25.09.1961) Switched in only when arranged by Train Controller (WTT)

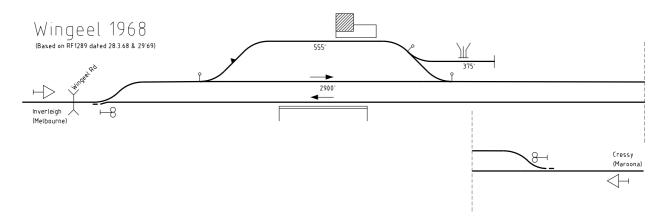
28.05.1964 Plunger locks and Home signals removed. Location boards provided. Points worked by WSa levers and secured by Hand Locking Bar and Padlocks. Staff withdrawn and will now be no-one-in-charge. Automatic Electric Staff provided Inverleigh - Wingeel - Cressy. (WN 22, CI, SLR III)

(04.01.1966) Passenger platform (75 foot) and railway telephone removed (WN 1)

28.03.1968 Main line points equipped with trailable points. (WN 9, SLR III)

(31.05.1977) Points to No 3 Road have been secured normal in preparation for the removal of that road (WN 22)

(12.09.1978) Supervised by SM Westmere instead of Gheringhap (WN 37)



c1988 Electric Staff: Inverleigh - Wingeel (Automatic B Pattern Miniature Electric Staff with battery instruments), Wingeel - Cressy (Automatic A Pattern Miniature Electric Staff with battery instruments) (Staff List)

13.11.1988 Train Order Working replaced Automatic Electric Staff Working. Loop spiked out of service. (WN 46)

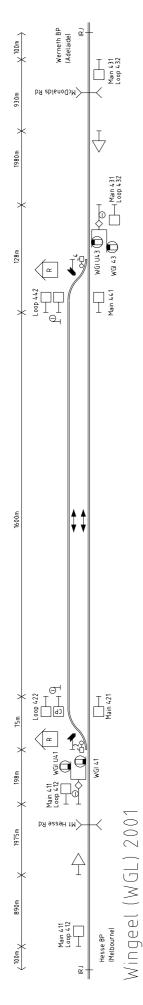
23.05.1995 Line reopened as standard gauge. Points at each end of loop are spiked and padlocked. (WN 21*)

01.10.1995 Opened as Train Staff and Ticket station; section Gheringhap - Wingeel - Berrybank. Points worked by dual control point machines which will be manually operated. Arrival home signals are provided but are fixed at stop and all trains will be hand signalled past them. Location Boards are provided 2000 metres outside the home signals. Trains may shunt on the main line inside the location boards without the staff. (WN 40*)

(21.12.1995) Between 12.12 and 21.12 VP5PSW operation of the points and signals was commissioned. A keyswitch was provided at each end of the loop. The Signaller will operate the switch to 'Main' or 'Loop' position for 10 seconds. The points will run and the arrival home will clear. The points will automatically restore to normal after passage of the train. The same procedure will be followed to reverse the points for a departure from the loop. Voice announcement equipment was commissioned. This will announce that the train is in clear over the local radio. (WN 1*)

05.06.1996 Section Authority Working replaced Train Staff and Ticket Gheringhap - Hesse Block Point - Wingeel - Werneth Block Point - Berrybank. Loop continued to be operated by a signaller. ETAS provided. (WN 23*)

23.06.1996 Signaller withdrawn. The loop is now operated by automatic approach call. An approaching train will be automatically signalled into the main track. A train for the loop must come to a stand at the home signal. The route to the main track must be cancelled and the route to the loop called. The points are not trailable; if they are not set correctly for departure the points must be called to the correct position. (WN 26* & 45*)

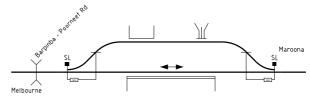


POORNEET (79 miles 13 chains)

08.08.1913 Opened for passenger and goods traffic with line. No one in charge, supervised by SM Wingeel. Points secured by Hand Locking Bars and Padlocks. Goods shed and ramped platform provided. (WN 30)

02.10.1913 Up and Down end points secured by staff locks rodded to derails. (WN 40, SLR I)

POOFNEET 1924 (Based on sketch dated 1.12.24 & WWL sketch dated 10.3.58)



09.12.1943 Alterations to Staff locks account renewal of points (CI)

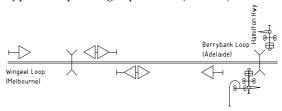
01.08.1957 Closed to all traffic (WN 30)

06.08.1958 Staff locks and rodded connections removed (CI, SLR III)

WERNETH BLOCK POINT (136 km)

05.06.1996 Established in Wingeel - Berrybank section account introduction of Section Authority Working (WN 23*)

07.07.1998 New type block point signs provided (WN 27*)



Werneth Block Point 2001

CRESSY

(85 miles 39 chains, 138 km)

(19.09.1910) Opened for goods traffic by Construction Branch. Trains run from Beeac (WN 38) 01.12.1910 Line from Beeac opened. Line worked by Train Staff and Ticket, section Beeac - Cressy (No 2 Pattern). (WN 48, SR)

(13.02.1911) Down Home provided. Main line points fitted with a plunger lock (WN 7)

25.09.1911 Line opened between Cressy and Newtown. Travelling Stationmaster stationed at Cressy and supervises Berringa, Illabrook, and Werneth. Line worked by Train Staff and Ticket, section Cressy - Rokewood (No 1 Pattern). Home signal provided for Newtown line. No Home signal provided for line from Maroona (under construction) and Hand Signalman appointed. (WN 40, SR)

(09.10.1911) Home signal provided from Maroona line. Hand signalman withdrawn (WN 41)

(09.09.1912) Down Home from Beeac relocated 50 yards further out (WN 37)

(24.02.1913) Down Home provided for Gheringhap line (under construction) (WN 8)

18.08.1913 Gheringhap - Maroona line opened for traffic. Cressy now supervises Strathvean (Duverney). Line worked by Train Staff and Ticket Wingeel - Cressy (No 3 Pattern) and Large Electric Staff Cressy - Berrybank. Any additional facing points secured by Hand Locking Bars and Padlocks. Water supply provided at Cressy, but no turntable. (WN 30)

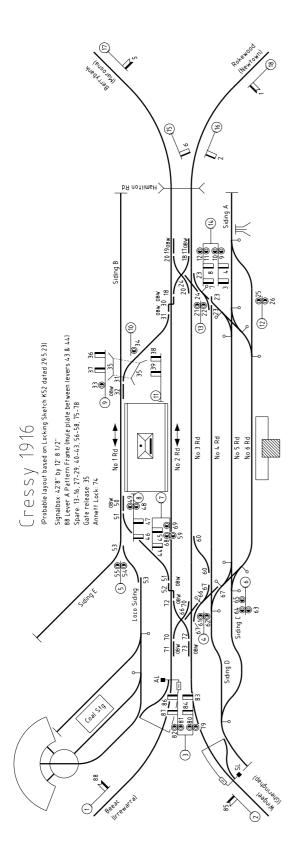
18.11.1913 Large Electric Staff Wingeel - Cressy replaced Train Staff and Ticket over the same sections (WN 46, SR)

(11.01.1915) Plunger locks provided on the two sets of facing points at the Newtown end of the yard (WN 2)

(17.01.1916) The facing points leading from the Gheringhap line to the passenger platform have been plunger locked. The points leading from the Gheringhap line to the Storage Sidings have been rodded to catch points and secured by a Staff Lock. The Down Home from Beeac has been relocated 70 yards further in (WN 3)

13.09.1916 Interlocked with 88 lever A pattern frame (48 signal levers, 2 control levers, 12 point levers, 8 lockbar levers, 18 spaces). (WN 38, IR)

24.05.1923 Catch in Loco Sidings moved 22 yards further out. Post 5 relocated to the left



hand side of Siding E and right hand disc (probably Disc 54) relocated to a new Ground Disc Post 5C in the rear of the catch and probably renumbered 57. (WN 23)

29.05.1923 A Truck Repair Road (Siding F) was provided between Siding E and the Loco Sidings. A new Post 5B (Disc 56) provided to control moves from Siding F. Catch 54 provided in Siding E. (WN 23, IR)

(24.05.1927) Composite Electric Staffs provided in both Wingeel and Berrybank sections account time interval working. (WN 21*)

25.07.1934 The interlocked gates giving access to the Cart Dock over No 1 Road at the Down end have been abolished. Control 35 abolished and associated Annett lock removed. (WN 31, IR, SLR III)

29.09.1936 Staff locked crossover between Gheringhap line and Siding D and Annett locked crossover between Beeac line and Loco Sidings removed. Annett lever 74 removed. (WN 40*)

(24.11.1936) Seventy foot turntable removed to Seymour. (WN 47*)

03.12.1936 Large electric staff instruments to Wingeel and Berrybank replaced by Miniature instruments. Both Wingeel and Berrybank provided with switchout facilities, when switched out the section will be Inverleigh - Cressy - Lismore. (WN 50*)

11.02.1937 Junction at Up end rearranged to provide longer crossing loop. Gheringhap line slewed to connect with Beeac line further out. Former Gheringhap line became an extension of No 3 Road (No 3A Road) with Crossover 75 provided. This crossover and associated lockbar worked by double wire. Lower arms removed from Posts 7 and 8. Post 3 relocated with several signals removed. New Posts 3, 4, 5, and 6 provided. Posts renumbered. (WN 8, IR has 17.02)

(16.07.1946) Crossover 60 ahead of Post 14 was abolished. The Discs 61 and 59 on Posts 9 and 14 removed. (WN 29)

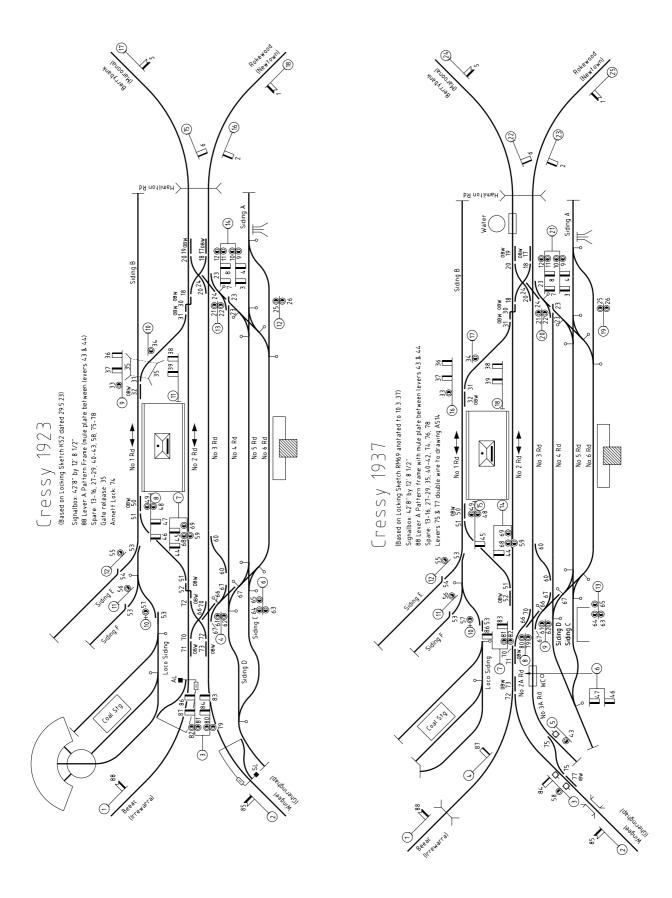
01.10.1946 Junction at Down end rearranged to eliminate double compound and scissor crossover. Maroona line slewed to connect with Newtown line on Down side of level crossing. Former Maroona line became Siding G and Crossover 20 removed. The lead from No 3 Road to Nos 4, 5, and 6 Roads was moved further out and catch points were provided in the Down end of No 3 Road. The top arms on Posts 16 and 18 were removed and a disc provided on each post. Posts 19 and 20 were relocated further out and the right hand disc on each was removed. The Homes 4 and 8 on Post 21 were removed. Post 21 was renumbered 22. New Posts 21 and 23 were provided. Disc 69 on Post 14 was relocated to the lefthand side of the doll. (WN 41, IR & CI has 4.10)

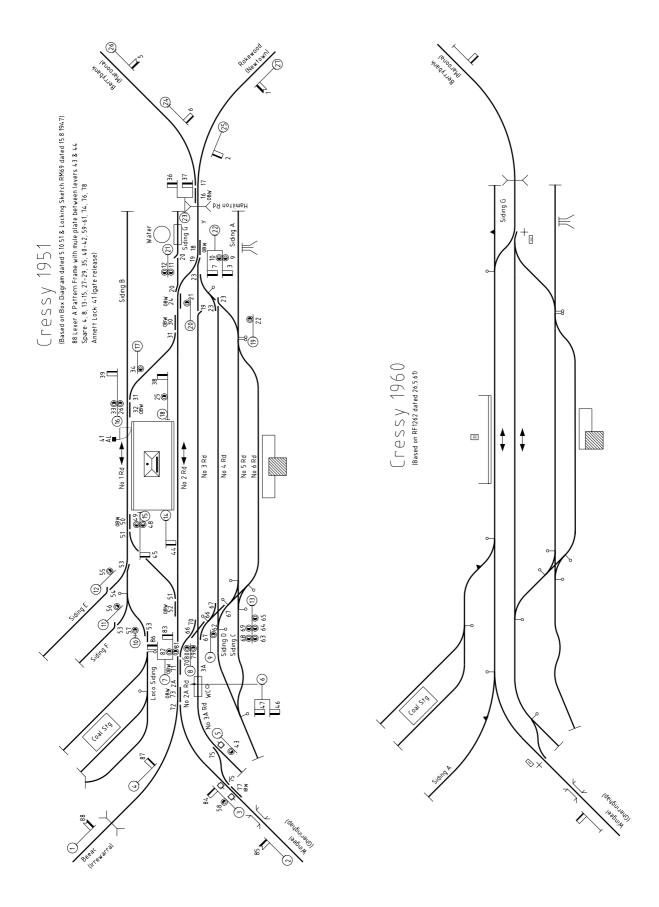
15.08.1947 Bracket Post 14 was replaced by a new straight post 24 yards further out. The two discs formerly on Post 14 were relocated to Post 13 which was relocated 70 yards further out. The existing discs on Post 13 were rearranged (WN 34)

12.10.1950 Post 13 renewed with 20' wood mast (CI)

11.10.1950 Post 2 renewed (CI)

10.10.1951 Vehicular crossing provided across No 1 Road.





Crossing protected by a hand operated gate which is secured closed across the road by an Annett Lock. The Annett Key for the lock is attached to a chain to the gate bolt and is normally secured in a duplex lock. It may be freed by a second Annett Key (A Pattern) which is normally kept in a duplicate lock on lever 41. Removal of this key secures all signals leading to No 1 Road normal. The key must not be removed unless No 1 Road is clear (WN 43, IR, SLR III)

 $14.01.1952 \quad Mixed service Gheringhap - Maroona \ with drawn \ (McClean)$

18.11.1953 Beeac and Newtown lines closed (WN 45)

(07.09.1954) Staff Exchange Box provided. In use for the last Up train provided that this train is hauled by a B Class loco (WN 36)

(21.03.1961) Telegraph instrument removed (WN 12*)

??.??.1961 Passenger platform reduced in length to 100' (WN 23)

06.07.1961 Signalbox abolished. Nos 1 and 4 Roads, and Sidings B, D, E, and F were abolished. Vehicular crossing abolished. Loco Sidings connected directly to main line, but siding closest to main line removed. Newtown line removed, but former Beeac line became Siding A. Two remaining facing points were secured by plunger locks. All signals removed except for an Up and Down Home signal (WN 29, IR, SLR III)

28.04.1964 Automatic Electric Staff provided Wingeel - Cressy (CI)

30.01.1966 Stationmaster withdrawn, replaced by Signal Assistant (WN 3*)

26.09.1966 Automatic Electric Staff instruments provided on Cressy - Berrybank section (CI)

06.11.1968 Crossing loop extended 900 feet at the Up end to provided 2900 feet in clea. The plunger locks were replaced by trailable points. The Home signals were replaced by location boards 800 yards from the main line points. Caretaker provided. (WN 46, SLR III)

14.05.1969 Flashing lights provided at Hamilton Hwy (85 miles 55 chains, 137.900 km) at Down end of yard. Annett lock provided on point lever at Down end trailable points (replacing 5P padlock). Staff/Annett Key Exchange Apparatus provided on platform (WN 20*)

25.04.1977 Caretaker removed. Now No one in charge (WN 20)

30.06.1977 A pattern Annett lock provided on Down end points to No 3 Road. WSa lever replaced CCW lever and Hand Locking Bar. (WN 28, SLR III)

(12.09.1978) Supervised by SM Westmere instead of Lismore (WN 37)

(1986) By the issue of Diagram 10'86, the dead end extension at the Down end of the goods siding had been removed (SD)

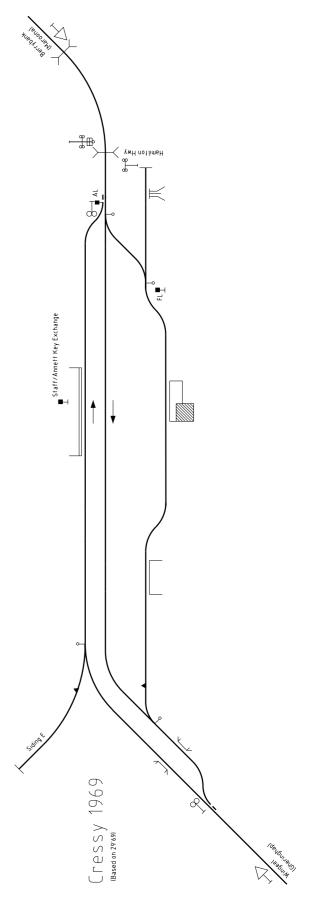
c1988 Electric Staff: Wingeel - Cressy (Automatic A Pattern Miniature Electric Staff with battery instruments), Cressy -Berrybank (Automatic B Pattern Miniature Electric Staff with battery instruments & earth return) (Staff List)

13.11.1988 Train Order Working replaced Automatic Electric Staff Working. Sections Wingeel - Cressy - Berrybank, but note Wingeel and Berrybanks loops spiked out of use. Effective sections Inverleigh - Cressy - Lismore. Electric Train Detection provided (WN 46)

(1990) By the issue of Diagram 12'90 the goods siding and Siding E had been removed (SD)

01.01.1995 Closed for gauge conversion. Line in use as a works siding. Not reopened when standard gauge brought into service. (WN 1)

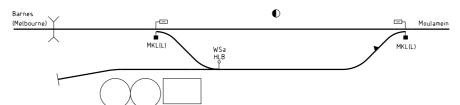
(To be continued)



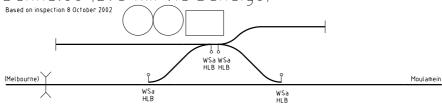
Barnes - Moulameim 2002

Thanks to Chris Wurr for supplying the drawings on which these diagrams are based.

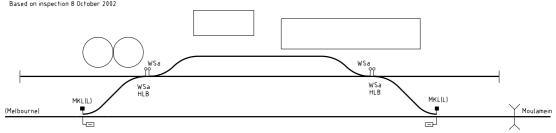
Womboota (279 km via Bendigo) Based on inspection 8 October 2002



Bunnaloo (295 km via Bendigo)



Caldwell (314 km via Bendigo) Based on inspection 8 October 2002





Burraboi (346 km via Bendigo)

