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SIGNALLING RECORD SOCIETY OF VICTORIA INC

The model railway has long since gone from the Royal Show, as has, indeed, the Victorian Railways stand in which it was situated. But the Royal Show in 2012 still had some railway interest if you ventured on the ferris wheel. From the top you got this wonderful view of Flemington Racecourse station. The double line and loop line from Showgrounds enters the picture from the bottom left before sweeping round in a reverse curve to the two platforms. Flemington Racecourse is still, for now, largely mechanically signalled with some lovely bracket posts. Flemington Racecourse signalbox was opened in October 1885 in conjunction with a major redevelopment of Flemington Racecourse station - it was at this time that the second platform and subway were added. The signalbox is now the second oldest in use in Victoria (the oldest is Ballarat B, which is not normally used). Flemington Racecourse box is, however, used every weekday when the yard is used to stable electric trains between the peaks. When major shutdowns occur on the Sunbury line due to RRL works, a special service is run to the Racecourse connecting to buses. The box is very heavily used during the racing carnival, peaking on the first Tuesday in November. Sadly, the mechanical signalling has probably seen its last Melbourne Cup as work is in hand to replace the signalling on the Racecourse line and the box may go as early as April 2013. (Photo Andrew Waugh)

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Minutes of Meeting held Friday 16 November, 2012, at the Surrey Hills Neighbourhood Centre, 1 Bedford Avenue, Surrey Hills

Present: – Wilfrid Brook, Glenn Cumming, John Dennis, Graeme Dunn, Vance Findlay, Michael Formaini, Ray Gomerski, Chris Gordon, Judy Gordon, Bill Johnston, David Jones, Chris King, Keith Lambert, David Langley, Andrew McLean, Laurie Savage, Brian Sherry, Rod Smith, David Stosser and Bob Whitehead.

Apologies: – Brett Cleak, Graeme Cleak, Steven Dunne, Steve Malpass, Tom Murray, Greg O'Flynn, Andrew Waugh and Andrew Wheatland.

The President, Mr. David Langley, took the chair & opened the meeting at 20:07 hours.

Minutes of the September 2012 Meeting: – Accepted as published. Bill Johnston / Graeme Dunn. Carried.

Business Arising: – Nil.

Correspondence: – Letter to Bill Uren at Metro Trains Melbourne thanking him for granting permission for the signal box tour.

Letter to Keith Lambert thanking him for his assistance with the suburban signal box tour.

Letter from Department of Justice with details of legal changes to incorporated associations.

Letter to Surrey Hills Neighbourhood Centre with dates for meetings in 2013.

Vance Findlay / Bob Whitehead. Carried.

Reports: – Glenn Cumming reported on a successful signal box tour on the Werribee and Sydenham Lines tomorrow. Thanks to Keith Lambert for his assistance on the day.

General Business: – Bill Johnston advised that a visit to the Diamond Valley Railway is being arranged for the February 2013 meeting, possibly on a Saturday or Sunday.

David Langley advised that it is proposed to start the Annual General Meeting in March 2013 at the earlier time of 19:30 hours (7.30pm) in anticipation of a special Syllabus Item to be presented by a visitor from New Zealand.

Keith Lambert provided details about various works in the Metropolitan District. A summary of the discussion follows: –

* Maribyrnong River Junction has been straight railed.
* The new crossover at Albion is now in place.
* The commissioning of the Greensborough computer based interlocking commences tonight.
* The new connections at Newport South are now in service.
* Portion of the ladder track at North Melbourne will be removed.
* The crossover at Footscray will be used to terminate trains from Werribee this weekend because of an occupation between South Kensington – Footscray.
* More connections at Viaduct Junction will be removed.

Glenn Cumming asked what was used to control the new crossover and signals at Albion. Keith Lambert advised that a unit lever control panel has been provided.

David Stosser noted that a dual gauge link for North Dynon has appeared on recent diagrams.

Vance Findlay described the provision of a new tramway square at Riversdale.

Chris King noted that the overhead wires at right angles limit speeds at level crossings.

Rod Smith advised that electric train services to Sunbury commence this weekend.

Rod Smith noted that signalling works on the Flemington Racecourse Line should be completed in April 2013. Control of Kensington and Essendon will be transferred to Metrol at the same time.

Rod Smith discussed the various stages for the completion of Platforms 15 and 16 at Spencer Street Railway Station.

Rod Smith noted that the head shunt for the SRHC Depot at Seymour had been repaired and was back in service.

David Stosser asked what the timing was for overtake moves at Sydenham now that the new crossover had been commissioned. The answer was not known because of the need to refer to the relevant drawings.

Bob Whitehead advised that new working timetables commence next week.

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

Rod presented the 23rd annual screening of slides from the collection of the late Stephen McLean.

This year's presentation featured views of Europe from January 1980.

Coverage included Switzerland, Belgium, Scotland, Wales and England. A variety of trains and infrastructure were seen.

The presentation was thoroughly enjoyed by those present.

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

Meeting closed at 22:23 hours.

The next meeting will be on Friday 15 February, 2013 at the Surrey Hills Neighbourhood Centre, Bedford Avenue, Surrey Hill, commencing at 20:00 hours (8.00pm).

SIGNALLING ALTERATIONS

The following alterations were published in WN 42/12 to WN 50/12 (last issued for 2012) 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.

30.07.2008 **St Arnaud** (TON 3/13, WN 2)

On Wednesday, 30.7., St Arnaud Ascom Siding was booked out of use due to poor track condition. Points L were secured normal.

04.08.2012 **Berrybank Loop** (1887/12)

Between Saturday, 4.8., and Wednesday, 8.8., No 2 Road was booked out of service to allow the Up end points to be relocated. All signals were secured at Stop.

06.08.2012 **Berrybank Loop** (1890/12)

On Monday, 6.8., Berrybank crossing loop was restored to use. The loop was extended 201 metres in the Up direction to be 1842 metres long. Down Arrival Homes BBK51 and BBKU51 were relocated 201 metres in the Up direction to 150.283 km, and the Up end points the same distance to 150.294 km. The Departure Boards, Clearance Boards, and keyswitch have not been relocated so the effective length of the loop remains unchanged.

The Down DICE board and Location board were not relocated and remain at 147.269 km and 147.997 km respectively. This means that there is only 2317 metres between the Location Board and the Arrival Homes which is less than the standard 2500 metres. The calculated braking distance is 2206 metres for a train using the GW40 braking curve (line speed of 115 km/h, plus 1 in 200 average grade, plus 7 seconds reaction time).

06.08.2012 **McIntyre Loop** (1910/12)

On Monday, 6.8., the Up end extension of No 3 Track (Lysaghts Siding) was booked out of use for gauge conversion. The line was baulked at Dwarf MCT12. Special padlocks were provided on the doors of the local pushbuttons for Dwarfs MCTV4 and MCT12 to prevent their use.

22.08.2012 **Gheringhap** (2052/12)

Effective from 22.8. the Engineers Siding was available for use.

01.09.2012 **Wimmera Intermodal Freight Terminal** (2080/12, 2083/12, 2084/12)

From Saturday, 1.9. to Monday, 3.9. (or until completion of work), the Wimmera Intermodal Freight Terminal between Murtoa and Hamilton was commissioned.

During the commissioning the Murtoa Loop - Horsham section will be operated by Train Authorities.

The alterations are as follows. Down Automatic A3111 was converted to LED. Down Automatic A3141 and Up Automatic A3172 were abolished. New Down Home 316/6 and Up Home 316/26 were provided to control entry into the siding. Points 7 (Up end) and 27 (Down end), and associated derails, were provided. Up Departure 316/12 and Down Departure 316/32 were provided to control depature from the siding.

The low speed aspects on Homes 316/6 and 316/26 are approach operated, and will not be displayed unless the route is set into the WIFT siding and the approaching train has passed the Approach Clearing sign. The main line turnouts are suitable for 65 km/h operation, and the Departure Home signals will display Clear Medium Speed with a 65 indicator when the route is set for a departing train. All points and derails are fitted with dual control point machines.

Before departing from Lubeck or Dimboola, the train crew of a train to WIFT siding must confirm with the terminal operator that a clear road exists to accept the train. The train crew must inform the train controller when they have received this confirmation, and the train controller must not let the train depart from Lubeck or Dimboola until this confirmation has been received. The train controller must then set the route into WIFT siding. When the approaching train passes the Automatic approaching WIFT siding, a time will begin operating. When this has expired the points will reverse and the Arrival

Home signal will display a Low Speed Aspect.

07.10.2012 **Daylight Saving - Introduction of on ARTC controlled lines** (2380/12)

Between 0200 hours and 0700 hours on Sunday, 7.10., trains operating between Gheringhap and Maroona will operate on Eastern Standard Time. Between 0700 hours and 0900 hours (after the passage of 7AM5 through Gheringhap at approximately 0645 hours) the Section Authority Section system will be shut down to be altered to Eastern Summer Time.

Prior to shutting down the system, the Section Authority Network Controller must ensure that all movements have come to a stand at a crossing loop and all authorities have been relinquished. In addition the location of all train and track force operations must be recorded on the paper train graph.

Immediately the system is restored, the Network Controller must check the electronic train graph against the paper train graph. The Controller must then confirm with each train crew that the LSDU (or ICE equivalent) does not show any outstanding authorities issued, and then resume normal operations.

Full manual working must only be instituted with the authority of the Train Transit Manager.

12.09.2012 **Litchfield** (TON 256/12, WN 45)

On Wednesday, 12.9., the siding was booked back into service. TON 205/12 was cancelled.

15.10.2012 **Gheringhap** (2467/12)

Effective Tuesday, 15.10., the following alterations took place. Homes 83/30 and 83/32 were redressed with green/red and red/green heads (respectively). Home 83/26 was relocated 140 metres further out to provide a 300 metre overlap between the arrival and departure home signals. Up Repeating GV858 was fitted with new heads and will now display reduce to medium speed when Home 83/26 is displaying medium speed warning.

15.10.2012 **Berrybank** (2503/12)

Effective 15.10., the Up end points to the grain siding were removed and a baulk provided in the siding. The siding now has a standing room of 222 metres.

19.10.2012 **Maribrynong River Junction** (SW 345/12, WN 43)

Between Saturday, 19.10., and Sunday, 20.10., the points and crossings forming the Maribrynong River Junction were removed. Points 661 and Crossover 662 were removed. Home SKN770 was removed. Amend Diagram 74/12 (South Kensington).

(23.10.2012) **Spencer Street** (SW 357/12, WN 42)

The track alterations to the Down Main Goods Line (SW 348/12) have been postponed.

(23.10.2012) **North Melbourne** (SW 356/12, WN 42)

The track alterations to remove a portion of the Coburg Goods Ladder (SW 344/12) have been postponed.

24.10.2012 **Ararat - Maryborough** (SW 173/12, WN 42)

On Wednesday, 24.10., a train will operate on the Ararat - Maryborough line from Ararat to 264.000 km for the retrieval of stored vehicles. The vehicles are stabled between Burns St (272.800 km) and 264.800 km. The line is baulked at 274.270 km at Ararat. The Train Staff will not be restored to use. After the vehicles have been retrieved, any remaining vehicles are to be located well clear of town limits and level crossings. Handbrakes are to be applied (the number depending on the gradient), and the front and rear vehicles are to be chained to the track. Baulks are to be provided at the Maryborough end of the rake and at 274.200 km.

29.10.2012 **Sunshine - Albion Junction** (SW 360/12, 361/12 & 365/12 , WN 42 & 43)

Between Friday, 26.10., and Monday, 29.10., terminating facilities were provided at Albion.

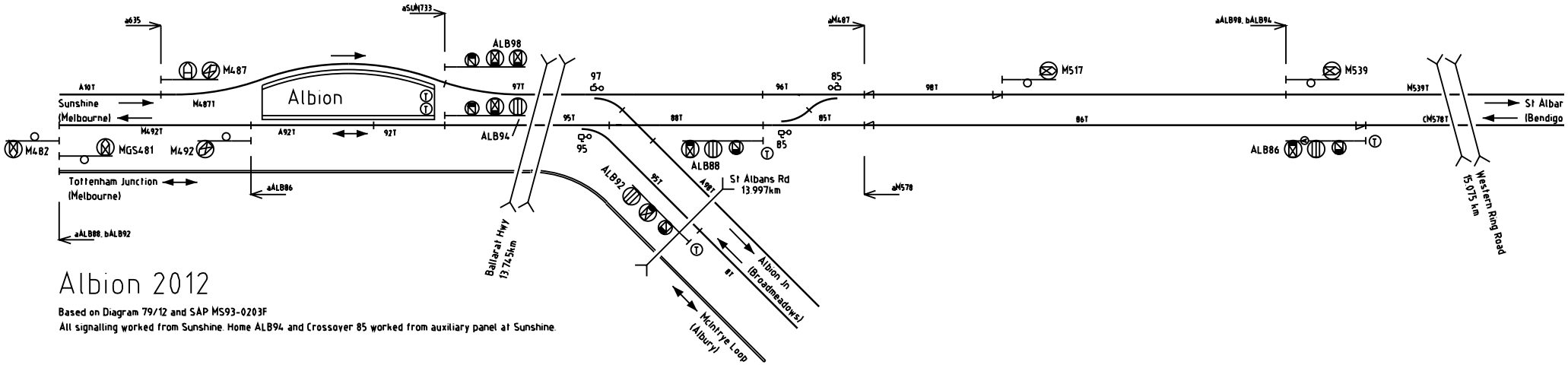
Crossover 85 was commissioned. Down Home 94 was provided at the Down end of Platform 1 at Albion to control departing movements to the Down Bendigo line via Crossover 85 reverse. Up Automatic 86 was replaced by a new Home 86 located 424 metres in the Down direction.

An auxiliary panel was provided at Sunshine signalbox to control Homes 86 & 94 and Crossover 85. This panel will only be switched in for planned terminations in connection with an absolute occupation. When the panel is switched out Crossover 85 will be secured normal, and the illuminated letter 'A' on Home 86 will be operational. When it is necessary to switch in the auxiliary panel, an absolution occupation of the Up and Down lines on the Up side of Albion must be in place with the Down Line baulked at M487 and the Up Line 100 metres on the Up side of M492, Crossover 85 must be freed, Up Automatic M492 secured at the Stop position, and the Anderson St boom barriers disabled for broad gauge moves. When all these conditions are in place, the Rail Safety Officer can switch in the auxiliary panel using a special key.

In addition, the following alterations took place:

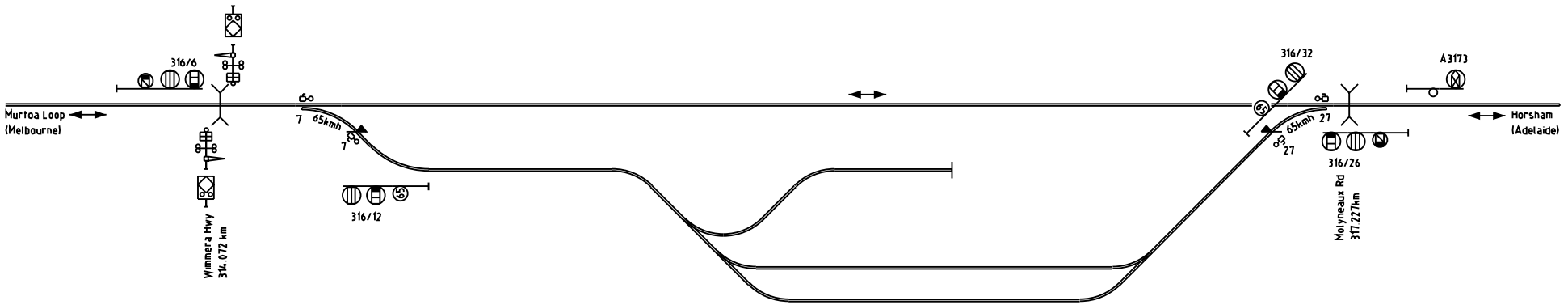
* Anderson Rd level crossing on the Bendigo line was relocated 48 metres in the Down direction. Up Automatic M482 was interlocked with the Anderson Rd boom barriers.
* Points 97 were equipped with a dual control point machine. The circuit controller holding the emergency point control handle for the former point machine on Points 97 was removed.
* Automatics M482, M487, M492, and Homes 86, 88, 92, 94, and 98 were converted to LED.
* Homes 86, 88, 92, 94, and 98 were renumbered with the prefix 'ALB'.

Diagrams 132/12 (Sunshine) and 79/12 (Albion - St Albans) replaced 127/12 and 9/10 respectively.



Albion 2012

Based on Diagram 79/12 and SAP MS93-0203F
All signalling worked from Sunshine. Home ALB94 and Crossover 85 worked from auxiliary panel at Sunshine.



Wimmera Intermodal Freight Terminal 2012

Based on signal description & Horsham shire planning documents

(30.10.2012) **Gheringhap** (SW 179/12, WN 43)

Operating Procedure 83 (Gheringhap Broad Gauge Crossing Loop) was reissued (previous issue was SW1066/04). The changes included:

* Addition of the procedures to cover the DICE operation of the loop (previously contained in Book of Rules, Section 27, Procedure 31).
* Alteration to the procedures dealing with the operation of the Home signals.
* Additional procedure covering the termination of trains at Gheringhap Loop. To ensure the correct operation of the points and signals, a terminating train must arrive into the Loop and run around via the Main Line. Train Orders will be required for the Batesford - Gheringhap and Gheringhap - Lethbridge BP sections.

30.10.2012 **Terang** (SW 176/12, WN 42)

On Tuesday, 30.10., the flashing lights at Thompsons St (219.910km) on the Up side of Terang were upgraded to boom barriers and are now operated by a predictor. Healthy state indicators and RFR predictor indicator boards were provided. Trains travelling at more than 50km/h at the predictor boards may accelerate before entering the crossing. Remote monitoring equipment will remain in use. Amend Diagram 26/11 (Camperdown - Terang).

30.10.2012 **Mitcham** (SW 370/12, WN 44)

On Tuesday, 30.10., Siding A was booked out of service due to the condition of Points 15. Points 15 have been secured normal.

31.10.2012 **Terang** (SW 177/12, WN 42)

On Wednesday, 31.10., the flashing lights at Cosgrove Littles Rd (218.998km) on the Up side of Terang were upgraded to boom barriers and are now operated by a predictor. Healthy state indicators and RFR predictor indicator boards were provided. Trains travelling at more than 50km/h at the predictor boards may accelerate before entering the crossing. Remote monitoring equipment will remain in use. Amend Diagram 26/11 (Camperdown - Terang).

31.10.2012 **Maryborough** (SW 178/12, WN 43)

On Wednesday, 31.10., Points 21 leading from the Moolort line to the Locomotive Depot were secured reverse (for the Loco Depot) and the point machine placed out of service. Hayes Derails and Crowders 21 in the Stabling Siding and Fuel Point Sidings remain in use. Amend Diagram 118/11 (Maryborough).

01.11.2012 **Donald** (TON 254/12, WN 45)

On Thursday, 1.11., the Donald Freezing Works Siding was booked into service. TON 215/12 was cancelled.

03.11.2012 **Camberwell** (SW 372/12, WN 45)

On Saturday, 3.11., the following alterations took place. Co-acting Home CAM327 was converted to a LED signal. Lamp proving was removed from the signal aspect controls. The aspect sequencing for Home CAM319 was rectified. The point locking on Points 243 was altered and the operating restriction in SW317/11 was cancelled.

05.11.2012 **Willison** (SW 382/12, WN 44)

On Monday, 5.11., the Down approach sections for the station pedestrian crossing were altered to allow for both express and stopping trains. The approach time for express trains will be 25.9 seconds, and for stopping trains 62.5 seconds (including station dwell time).

(07.11.2012) **South Kensington** (SW 373/12, WN 44)

Diagram 119/12 (South Kensington) replaced 74/12 account abolition of Maribrynong River Junction.

07.11.2012 **Horsham** (2767/12)

Effective immediately, Nos 4 and 5 Roads were booked out.

08.11.2012 **Lah** (TON 257/12, WN 45)

On Thursday, 8.11., the siding was booked out of service.

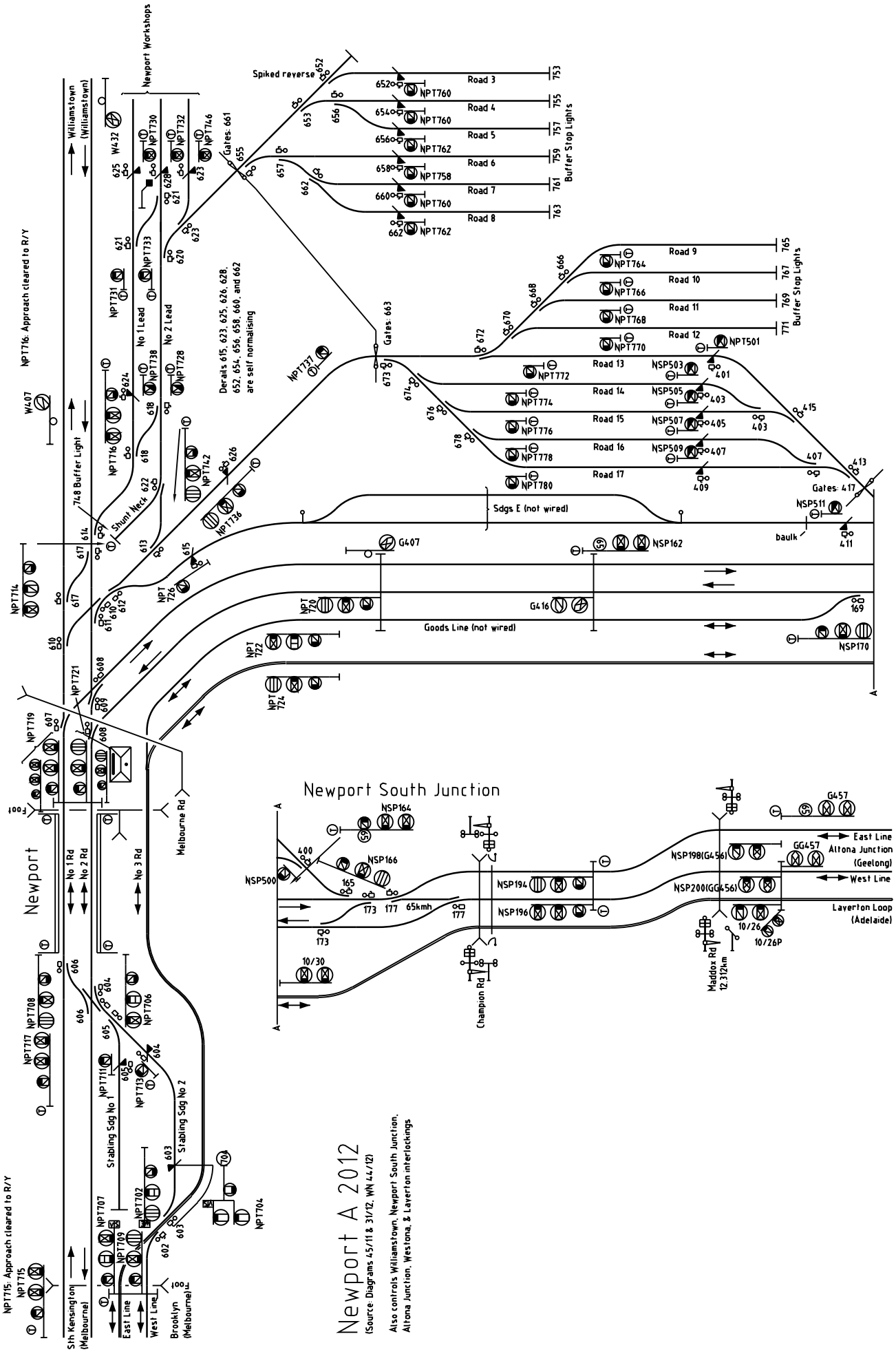
12.11.2012 **Newport - Newport South** (SW 374/12, WN 44)

From Friday, 9.11., the Down end connections between the Newport Stabling Sidings Nos 13-17 and Siding E will be commissioned. Siding E, however, will remain booked out after this commissioning.

Down Controlled Automatic G415 was converted to a LED Home signal and renumbered NSP162. A low speed light is not provided on this signal. Signals 164, 170, 194, and 196 were prefixed with 'NSP'. Down Home NSP166, Down Dwarfs NSP501, NSP503, NSP505, NSP507, NSP509, and NSP511, and Up Dwarf NSP500 were provided. Points 165, 400, 403, 407, 413, & 415, and Derail and Crowders 401, 403, 405, 407, 409, & 411 were provided. All Dwarfs are LEDs and show a purple light at danger. All points and derails/crowders are worked by dual control point machines. Derails 401, 403, 405, 407, 409, & 411 and Points 403 & 407 are provided with auto-normalising and will restore to normal 10 seconds after the train clears the controlling track circuit.

Train stabling gates 417 will not be commissioned and will be secured open.

Diagram 31/12 (Newport - Altona Junction) replaced 13/12.


Newport A 2012
(Source: Diagrams 45/118 31/12, WN 44/12)
Also controls Williamstown, Newport South Junction, Altona Junction, Westona, & Laverton interlockings
Newport South Junction
Newport
Road 3
Road 4
Road 5
Road 6
Road 7
Road 8
Road 9
Road 10
Road 11
Road 12
Road 13
Road 14
Road 15
Road 16
Road 17
Buffer Stop Lights
Gates: 661
Gates: 663
Gates: 417
Spiked reverse
Derails 615, 623, 625, 626, 628, 652, 654, 656, 658, 660, and 662 are self normalising
Shunt Neck
No 1 Lead
No 2 Lead
Sdgs E (not wired)
Goods Line (not wired)
Stabling Sdg No 1
Stabling Sdg No 2
Melbourne Rd
No 1 Rd
No 2 Rd
No 3 Rd
Champion Rd
Maddox Rd
East Line
West Line
Altona Junction (Geelong)
Laverton Loop (Adelaide)
Williamstown (Williamstown)
Sth Kensington (Melbourne)
Brooklyn (Melbourne)
Newport Workshops
NPT716: Approach cleared to R/Y
NPT715: Approach cleared to R/Y
748 Buffer Light
65kmh
baulk

12.11.2012 **Inverleigh** (2703/12)

On Monday, 12.11., the siding was booked out until the CTC is commissioned. Repeating signals GV979 and GV1040 were abolished and the points secured normal. Inverleigh will show a fail state in the Phoenix system.

12.11.2012 **Litchfield** (TON 256/12, WN 45)

On Monday, 12.11., the siding was booked into service. TON 205/12 is cancelled.

(13.11.2012) **Damaged or Defective Infrastructure** (SWP 20/12, WN 45)

Commencing forthwith, new instructions were issued for dealing with damaged or defective infracture in the Metro area that affects the safe operation of the network.

(13.11.2012) **Reporting of Trains** (SW 182/12, WN 45)

To allow the Train Controller to maintain an accurate Train Graph, the train crews are to report the passage of their train in Train Order territory as follows. Where a positive end of train sighting or end of train monitoring is provided, Section 18 Rule 26 (amended by SW 17/04) will continue to apply and drivers are to report when departing an unattended crossing loop or block point complete. Where positive end of train sighting or end of train monitoring is not provided, drivers are to report when passing through unattended crossing loops, block points, and intermediate train order locations.

16.11.2012 **Broadford** (SW 181/12 & 184/12, WN 45 & 46)

On Friday, 16.11., automatic pedestrian gates were provided at the Broadford station access pedestrian crossing (75.251 km). The pedestrian gates will operated completely automatically and are not affected by the signals at Broadford. They are operated by a level crossing predictor and RFR predictor indicator boards were provided. Trains travelling at more than 50km/h at the indicator boards may accelerate before the pedestrian crossing. Remote monitoring was provided. Diagram 22/12 (Broadford - Tallarook) replaced 68/08.

The pedestrian gates will operate automatically for all movements in both directions on both lines. Consequently, the notice board shown at the Down end of the Up platform on Diagram 22/12 was not provided. Amend the diagram.

17.11.2012 **Spencer St** (SW 392/12, WN 47)

On Sunday, 17.11., a Unistar in-bearer point machine was fitted to Points 445, and a Ecostar in-bearer point machine was fitted to Points 422. This is for evaluation and type approval purposes.

18.11.2012 **Boundaries between MTM and V/Line** (SW 428/12, WN 50)

On Monday, 18.11., the boundaries between MTM and V/Line were altered.

18.11.2012 **North Melbourne Junction** (SW 390/12, WN 46)

Between Friday, 16.11., and Monday, 18.11., Points 428U and 462D were converted from double compound to single compound. Points 463 were removed.

Diagram 93/12 (North Melbourne & Macaulay) replaced 87/12.

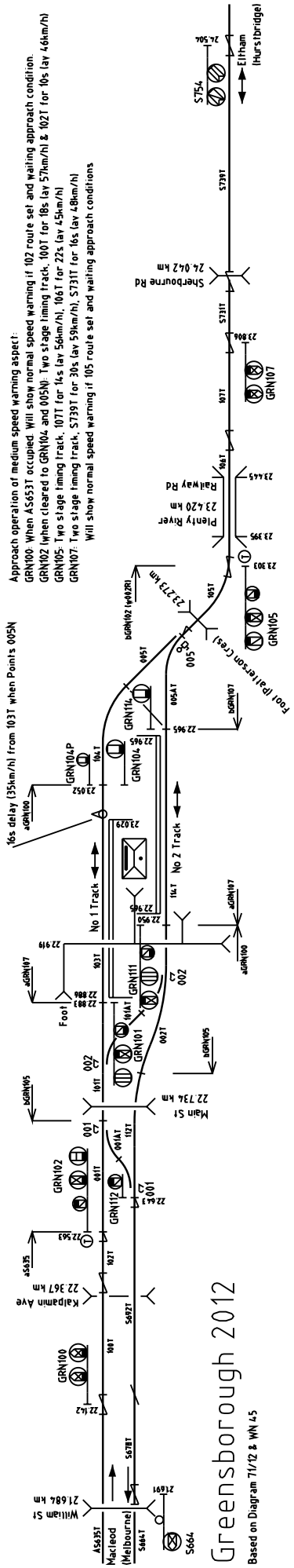
18.11.2012 **Bacchus Marsh** (SW 183/12, WN 46)

On Sunday, 18.11., Siding A was extended 55 metres in the Up direction to give an effecting standing room of 170 metres. Diagram 102/12 (Bacchus Marsh - Bank Box Loop) replaced 70/10.

19.11.2012 **Greensborough** (SW 384/12, WN 45)

Between Friday, 16.11., and Monday, 19.11., the mechanical interlocking was replaced by a Westrace MK1/WestCAD CBI controlled by a workstation in the station office.

Automatic 2 was relocated 2 metres in the Down direction and renumbered GRN100. Home 3 was relocated 53 metres in the Up direction and renumbered GRN102. Dwarf 5 was renumbered GRN112. Post 6 was relocated 21 metres in the Down direction and renumbered GRN114. Post 9 was relocated 9 metres in the Down direction and renumbered GRN104. A co-acting post GRN104P was provided on the left hand side of the line. Post 10 was abolished and replaced by a three position Home GRN105 located 89 metres further out. Home 12 was renumbered GRN101. Home 13 was



relocated 9 metres in the Up direction and renumbered GRN111. The two Posts 14 were abolished and replaced by a three position Home GRN107 located 243 metres in the Down direction. Post 15 (fixed distant) was abolished. Up Repeating S754 was provided 707 metres in the rear of GRN107.

Crossover 4 was renumbered 001. Crossover 8 was renumbered 002. Points 24 were renumbered 005 and fitted with an M23A dual control point machine.

Diagram 71/12 (Watsonia - Eltham) replaced 83/10.

Clifton Hill Group Operating Procedure 4 (Greensborough, Modification to Book of Rules Section 2 Rule 17 (Use of Home and Distant)) is cancelled.

(20.11.2012) **Failure of Signal lights** (SW 395/12, WN 46)

SW 291/09 dealing with the failure of signal lights is cancelled as the requirements are now covered by L2-SWS-PRO-009 (Dealing with an incident or condition affecting the safety of the network).

(20.11.2012) **Werribee** (SW 391/12, WN 46)

Commencing forthwith, Down Home 22 must be placed to proceed when a Down electric train is to be signalled into Platform 3. Once the train has come to a stand at the 6 car mark on the platform, Home 22 can be restored to stop. This is for SPAD mitigation purposes.

21.11.2012 **Bendigo** (TON 268/12, WN 47)

On Wednesday, 21.11., the Maintenance and Engine Repair Sidings were booked back into service. TON 69/12 is cancelled.

23.11.2012 **Gheringhap - Hesse BP - Wingeel Loop** (2704/12)

On Friday, 23.11., work commenced to commission the CTC between Gheringhap and Wingeel Loop. The Section Authority System will continue to be used during the commissioning period.

At Gheringhap, the 'Start CTC' and 'End Section Authority Boards' will be relocated to Wingeel Loop prior to the completion of the commissiong.

Hesse Block Point will remain in operation until the commissioning of the CTC. At that time the signage will be removed and Hesse BP will be closed.

The DICE equipment at Wingeel Loop will be decommissioned at 0700 hours on 23.11. All DICE signage will be removed at this time. No 2 Road will be booked out of service and Points 7 (Up end) and 27 (Down end) will be secured normal. Home WGI41 was replaced by WGI/6. Home WGI/6 was fixed at Stop. Permission to pass the signals at Wingeel Loop will be by verbal authority by the ARTC Network Controller.

25.11.2012 **Highett** (SW 401/12, WN 48)

On Sunday, 25.11., traffic light co-ordination was commissioned at Highett Rd. The flashing lights were replaced by LED lights.

26.11.2012 **Tottenham Junction - Newport - Laverton Loop** (2935/12, 2936/12, 2955/12, 3177/12)

On Monday, 26.11., operation of the dual gauge line Tottenham Junction - Newport will be transferred from the ARTC SAW Vic Plains Controller to the ARTC Melbourne Metro Controller. Circular 1525/08 (Tottenham Junction) was reissued.

Tottenham Junction. The ARTC Melbourne Metro Controller operates all standard gauge, dual gauge signals, and also WFS42 and WFS44 for broad gauge moves from the Up Independent Goods Line (sic) and Tottenham Yard. The VLP Signaller Centrol provides a release for broad gauge moves from the dual gauge line to the Down Independent Goods Line and Tottenham Yard. The VLP Signaller Centrol controls the broad gauge points and signals. The boundary between the ARTC Melbourne Metro Controller and the NE board at Junee is at Somerton Loop.

Newport. The V/Line Centrol Train Controller operates NPT702 and NPT704 for moves towards the broad gauge West Line. The MTM Signaller Newport provides a release to the ARTC Controller for NPT707 and NPT709 for moves towards the broad gauge Altona Sidings, and for NPT723 for moves towards the broad gauge Goods Line.

CRT Siding. The ARTC Melbourne Metro Controller operates the points and signals at the CRT Siding (but the Plains Controller provides authority to pass signals at Danger). Prior to a movement to the siding departing from Tottenham, Somerton, or Manor, the train crew must confirm with the siding operator that the train can be accepted. The Train Controller must then be advised.

Laverton Loop. The ARTC Plains CTC Controller operates the points and signals at Laverton Loop, including SCT and Westgate Sidings. Laverton Loop is operated under the Automatic Block Signalling. CTC working commences at Homes 20/30, 20/32, & 20/34. The Plains CTC Controller and the Melbourne Metro Controller must liase to determine the movements between Laverton Loop and Tottenham Junction. A release is provided in the SCT Operations Coordination control room for Points 29. These points cannot be reversed until the release has been given.

01.12.2012 **North Melbourne Junction** (SW 404/12, WN 48)

Between Saturday, 1.12., and Monday, 3.12., the portion of the Coburg Goods Line that crossed the Broadmeadows Suburban, Through Suburban, and Main Suburban Lines was removed. Crossovers 677 & 686 and Points 684 & 685 were removed. Home NME777 was removed.

Diagram 100/12 (North Melbourne & Macaulay) replaced 93/12.

26.11.2012 **Gheringhap - Barwon Park Loop - Wingeel Loop** (SW 186/12, WN 46, 2704/12, 2705/12, 2934/12)

On Monday, 26.11. at 1630 hours, CTC was brought into use Gheringhap - Wingeel Loop with the sections Gheringhap Loop - Barwon Park Loop (105.325 km) - Wingeel Loop. The Section Authority Sections Gheringhap Loop - Hesse Block Point - Wingeel Loop was cancelled. Section blocking commands for the two SAW sections will be placed in the workstation. Control of the CTC will be by the ARTC Section Authority Network Controller.

Gheringhap Loop. Up Departure Home signals 83/30 and 83/32 will detect the points at Inverleigh. Up Repeating signal GV858 was altered to an Automatic signal which can display Stop, Clear Normal Speed, Normal Speed Warning, and Reduce to Medium Speed.

Hesse Block Point was abolished. The block point signs and location boards were removed.

Inverleigh. Inverleigh siding was restored to use. The points are secured by electric release locks. V5PSW keyswitches are provided to ask for and take the release. When a release has been given Homes 83/30 & 83/32 at Gheringhap, Homes BWP/10 & BWP/12, and Automatic GV1001 will be held at Stop. Point Stand Indicators are provided and show a green arrow when the points are set for the main line, and two red dumbells when the points are reversed. Trains may lock away at Inverleigh clear of the main line. SN823/02 was cancelled.

Barwon Park Loop was provided at 105.325 km. Down Automatic GV1001, Up Automatic GV1092, and Homes BWP/6, BWP/10, BWP/12, BWP/26, BWP/30, and BWP/32 were provided. Emergency Automatic Mode was provided for use during failure of the telemetry system.

Wingeel Loop. Down Automatic GV1155, Up Repeating GV1232, and Homes WGI/6, WGI/10, WGI/12, WGI26, WGI/30, and WGI/32 were provided. End CTC/Start Section Authority Working signs are provided at Homes WGI/30 and WGI/32. End Section Authority Working/Start CTC signs are provided at Home WGI/26. Wingeel Loop will be a Section Authority Terminal Station. Movements leaving Barwon Park Loop must change to 1200 mode and request a Section Authority to proceed beyond Wingeel Loop. Homes WGI/30 or WGI/32 must not be cleared unless a Section Authority has been issued and acknowledged by the driver. A prompt will appear on the workstation to confirm that an authority has been issued.

Diagrams 80/12 (Gheringhap - Barwon Park Loop) and 82/12 (Wingeel Loop - Tooli Block Point) replaced 176/11 (Gheringhap) and 72/12 (Wingeel Loop - Tooli Block Point).

(27.11.2012) **Master Key** (SW 195/12, WN 47)

Master Key 90 for the North Geelong - Yelta, & Dunolly - Manangatang & Yelta Corridors was withdrawn.

(27.11.2012) **Ballarat** (SW 194/12, WN 47)

Diagram 98/12 (Ballarat) replaced 20/12 as in service.

(27.11.2012) **Wallan, Kilmore East, Broadford, Seymour** (TON 271/12, WN 42)

The signalbox hours have changed. The hours were not given in the Weekly Operational Notice.

27.11.2012 **Gheringhap - Barwon Park Loop - Wingeel Loop** (2930/12)

On Tuesday, 27.11., the level crossing protection equipment at Barwon Park Rd (104.107 km), Flemings Rd (106.451 km), and Wingeel Rd (Mt Hesse Rd) (117.890 km) was restored to use.

27.11.2012 **Pira** (TON 273/12 & 274/12, WN 48)

On Tuesday, 27.11., the siding was booked back into service, but access is available only from the Down end. The siding was booked out of service again the following day due to sleeper condition and lack of use.

28.11.2012 **Camperdown** (SW 187/12, WN 47)

On Wednesday, 28.11., boom barriers were provided at the passive crossing at Old Timboon Rd (199.853 km) on the Down side of Camperdown. The booms are operated by a predictor. Remote monitoring equipment and RFR predictor indicator boards were provided. Trains travelling at more than 50km/h at the predictor boards may accelerate before entering the crossing.

29.11.2012 **Barwon Park Loop** (2998/12, 3103/12)

Effective Thursday, 28.11., trains are not to terminate, run around, or reverse direction at Barwon Park Loop. This is due to issues with short track circuits at the level crossing equipment at Barwon Park Rd and Flemings Rd. These level crossing will continue to operate until the rear of the train has cleared the opposing signal, an extra 7 to 24 seconds.

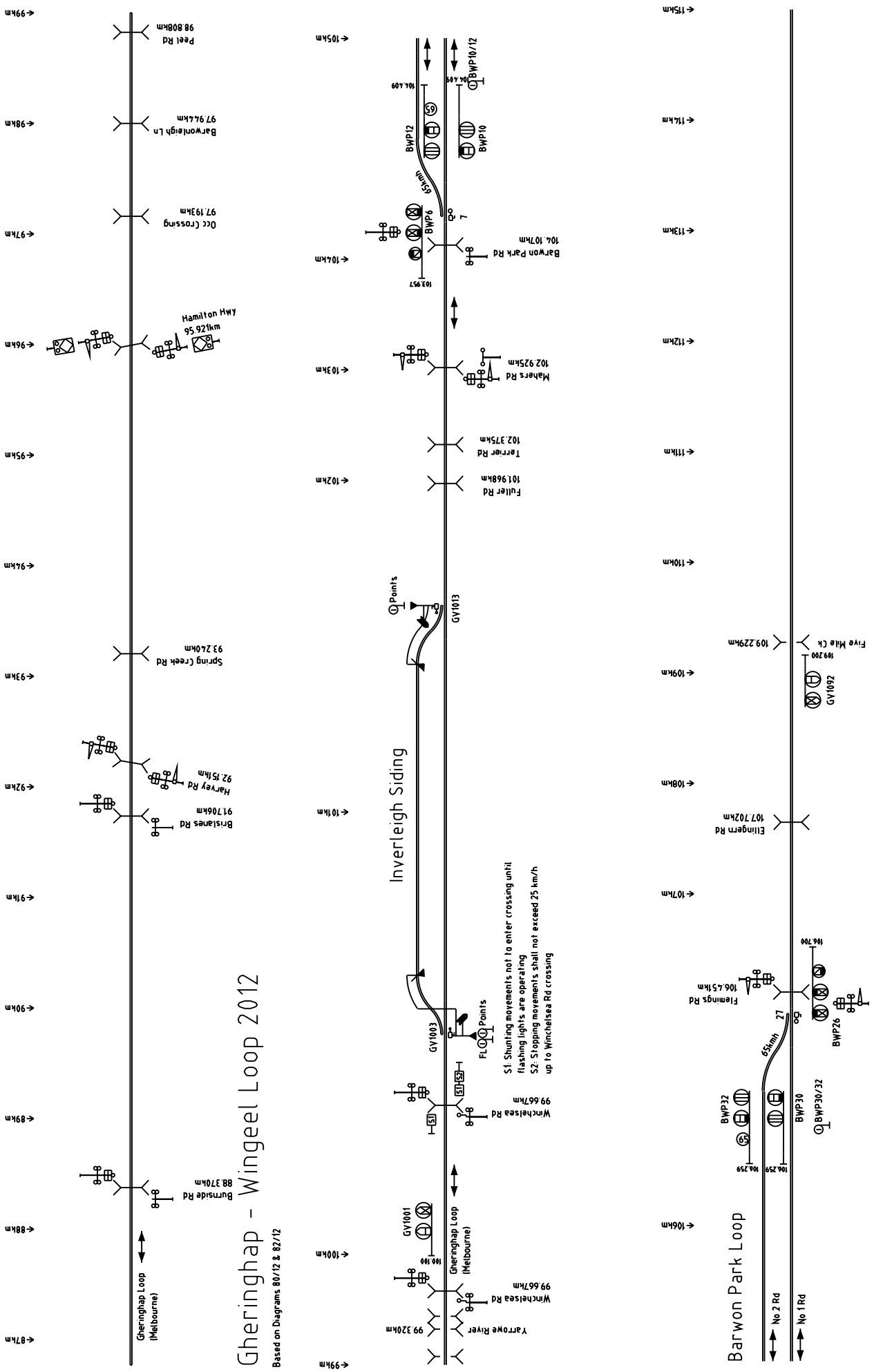
29.11.2012 **Camperdown** (SW 193/12, WN 47)

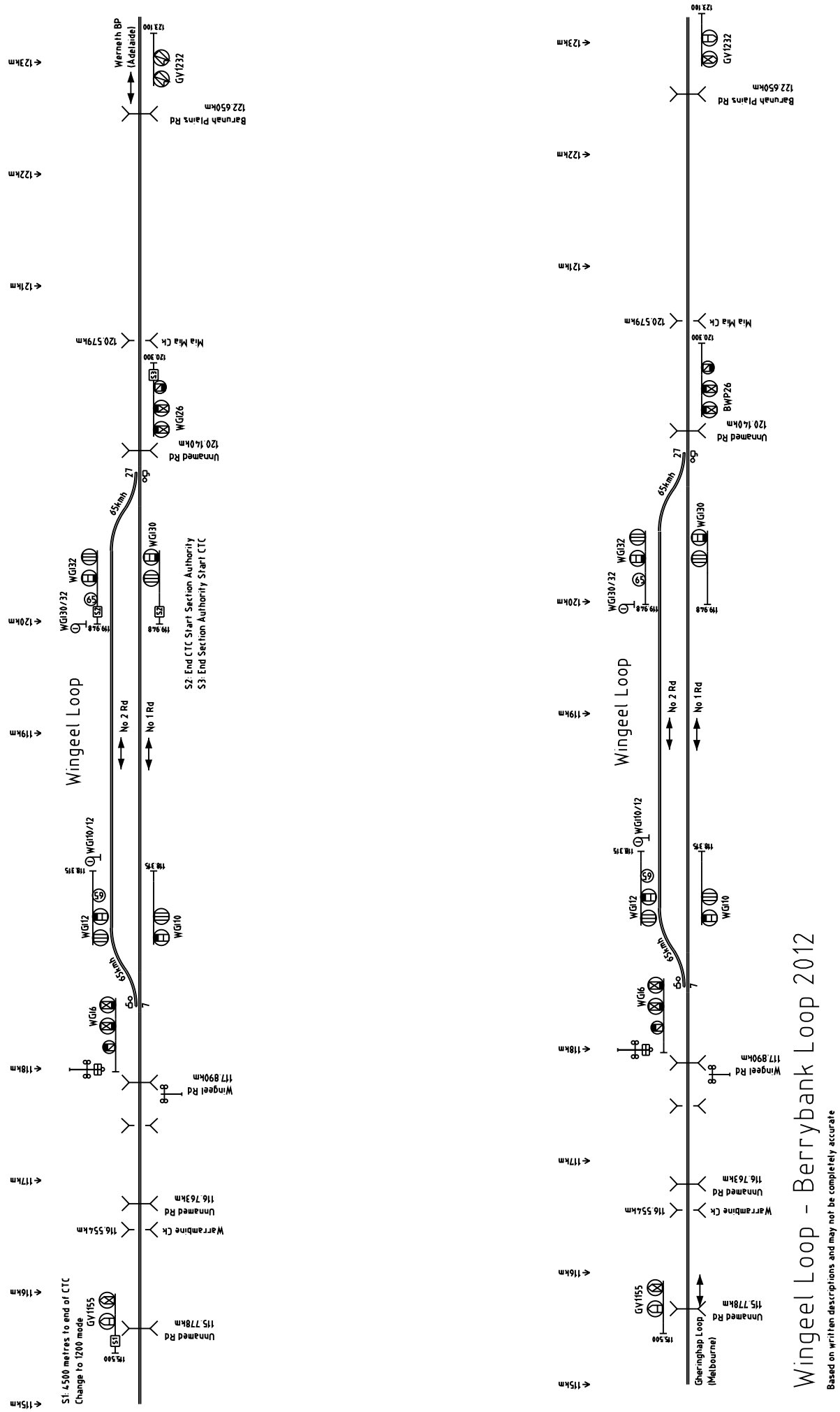
On Thursday, 29.11., boom barriers were provided at the flashing lights at Meiklejohn St (199.323 km) on the Down side of Camperdown. The booms will be operated by a predictor. Healthy state indicators and RFR predictor indicator boards will be provided. Trains travelling at more than 50km/h at the predictor boards may accelerate before entering the crossing. Healthy state indicators were provided. Remote monitoring equipment will continue in use.

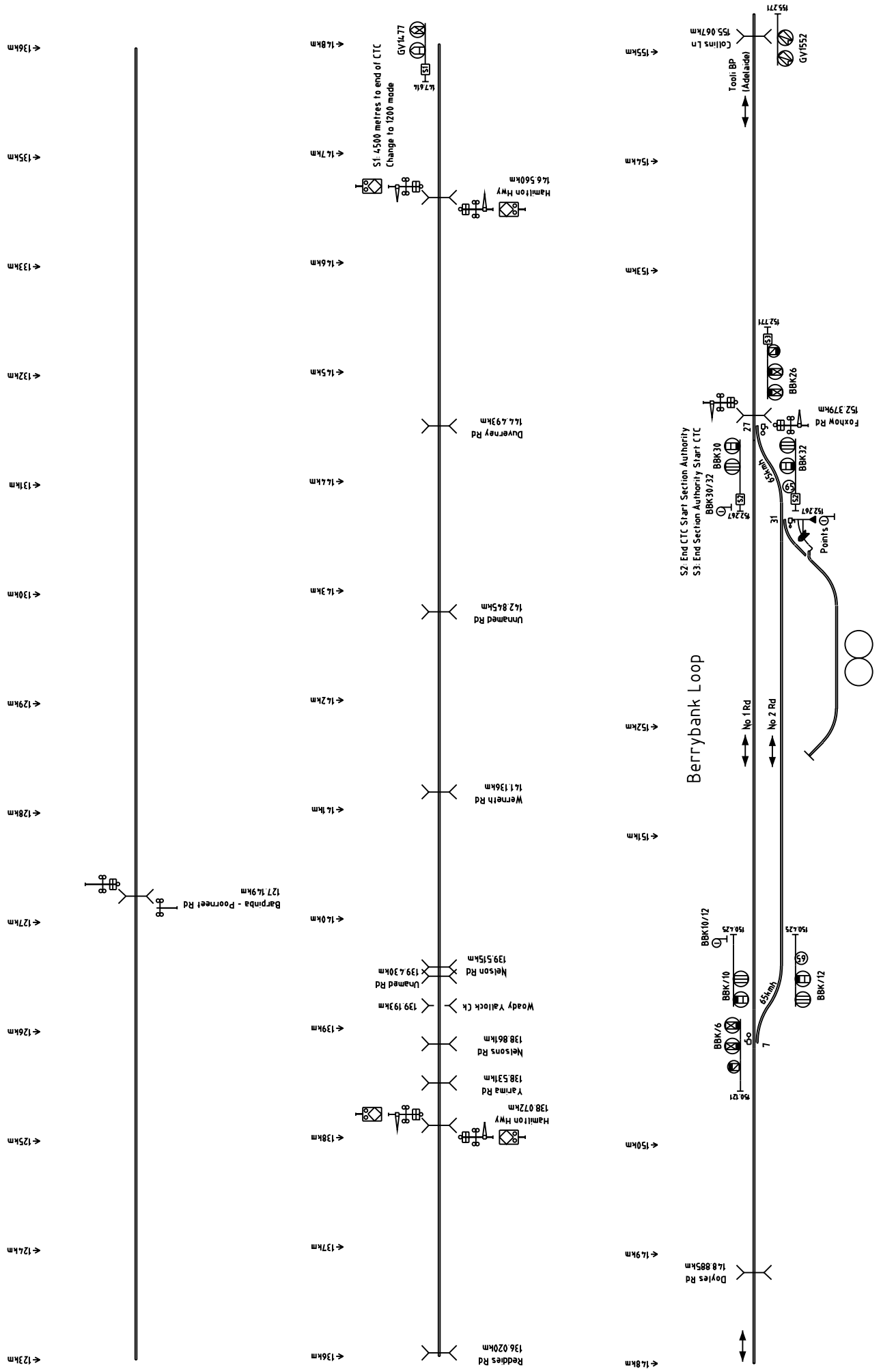
Diagram 94/12 (Camperdown - Terang) replaced 48/12.

30.11.2012 **Ouyen** (TON 286/12, WN 49)

On Friday, 30.11., No 4 Road was booked back into service. TON 530/10 is cancelled.


Gheringhap - Wingeel Loop 2012
Based on Diagrams 80/12 & 82/12
Gheringhap Loop (Melbourne)
Burnside Rd 88.370km
Bristianes Rd 91.706km
Harvey Rd 92.151km
Spring Creek Rd 93.240km
Hamilton Hwy 95.921km
Occ Crossing 97.193km
Barwonleigh Ln 97.944km
Peel Rd 98.808km
Inverleigh Siding
Gheringhap Loop (Melbourne)
GY1001
Winchelsea Rd 99.667km
Yarrowe River 99.320km
GY1003
Points
FL
S1: Shunting movements not to enter crossing until flashing lights are operating
S2: Stopping movements shall not exceed 25 km/h up to Winchelsea Rd crossing
GY1013
Points
Winchelsea Rd 99.667km
Fuller Rd 101.968km
Terrier Rd 102.375km
Mahers Rd 102.925km
Barwon Park Rd 104.107km
BWP6
BWP12
BWP10/12
BWP10
65km/h
Barwon Park Loop
No 2 Rd
No 1 Rd
BWP32
BWP30
BWP30/32
BWP26
65km/h
Flemings Rd 106.451km
Ellinger Rd 107.702km
GY1092
Five Mile Ck 109.229km


Wingeel Loop - Berrybank Loop 2012
Based on written descriptions and may not be completely accurate
Wingeel Loop
No 2 Rd
No 1 Rd
S1: 4500 metres to end of CTC
Change to 1200 mode
S2: End CTC Start Section Authority
S3: End Section Authority Start CTC
Gheringhap Loop (Melbourne)
Werneth BP (Adelaide)
Barunah Plains Rd 122.650km
Unnamed Rd 120.140km
Mia Mia Ck 120.579km
Warrambine Ck 116.552km
Unnamed Rd 116.763km
Wingeel Rd 117.890km
Unnamed Rd 115.778km
65km/h
GV1232
BWP26
WGI26
WGI30
WGI32
WGI30/32
WGI10/12
WGI12
WGI10
WGI6
GV1155


Berrybank Loop
No 1 Rd
No 2 Rd
Doyles Rd
148.885km
Toolii BP (Adelaide)
Collins Ln
155.067km
GV1552
155271
Foxhow Rd
152.379km
BBK26
BBK32
BBK30
BBK30/32
S2: End CTC Start Section Authority
S3: End Section Authority Start CTC
Points
BBK10/12
BBK/10
BBK/12
BBK/6
Hamilton Hwy
146.560km
GV1477
S1: 4500 metres to end of CTC
Change to 1200 mode
Duverney Rd
144.493km
Unnamed Rd
142.845km
Wernelth Rd
141.136km
Nelson Rd
139.515km
Unamed Rd
139.430km
Woady Yallock Ck
139.193km
Nelsons Rd
138.861km
Yarma Rd
138.531km
Hamilton Hwy
138.072km
Reddies Rd
136.020km
Barpinba - Poorneel Rd
127.149km

02.12.2012 **Newport South** (SW 379/12, 387/12, & 403/12, WN 44, 45, & 48)

On Sunday, 02.12., TPWS was provided at Down Homes NSP162 & NSP164, Up Homes NSP194 & NSP196, and Up Controlled Automatics G456 & GG456. Plates lettered 'TPWS' will be fitted to each signal.

02.12.2012 **Newport South - Laverton, BP Siding** (SW 406/12, WN 48)

On Sunday, 2.12., the points and switchlock for the former BP Siding were removed. Amend Diagram 25/12 (Altona Junction - Laverton).

04.12.2012 **Melbourne Yard** (TON 279/12, WN 49)

On Tuesday, 4.12., the VicTrack Creek Siding was booked out of service due to change of lease. Points MYD139 will be secured reverse, and baulks provided on the access track Down side of Dwarf MYD132 and outside the VicTrack lease area.

05.12.2012 **Katunga** (TON 281/12, WN 49)

On Wednesday, 5.12., the siding was booked out of use due to sleeper condition.

07.12.2012 **Wingeel Loop - Werneth BP - Berrybank Loop** (2919/12)

On Friday, 7.12., work commenced to commission the CTC between Wingeel Loop and Berrybank Loop. The Section Authority System will continue to be used during the commissioning period.

At Wingeel Loop, the 'Start CTC' and 'End Section Authority Boards' will be relocated to Berrybank Loop prior to the completion of the commissiong.

Werneth Block Point will remain in operation until the commissioning of the CTC. At that time the signage will be removed and Werneth BP will be closed.

The DICE equipment at Berrybank Loop will be decommissioned at 0700 hours on 7.12. All DICE signage will be removed at this time. Arrival Homes BBK51 and BBK53 were removed. New Arrival Homes BBK/6 and BBK/26 were provided but fixed at Stop. No 2 Road will only be available for use when Berrybank Loop is staffed (generally between 0700 hours and 1700 hours). Points 7 (Up end) and 27 (Down end) will be secured for the passage of each train. Permission to pass the Home Arrival signals at Berrybank Loop will be by verbal authority by the ARTC Network Controller.

07.12.2012 **Ballarat** (SW 197/12, WN 48)

On Friday, 7.12., TPWS was provided at Homes 24 & 28. 'Start TPWS' boards were provided at both Homes. The existing 'Start TPWS' board at Home 44 was retained.

07.12.2012 **Bendigo** (TON 288/12, WN 49)

On Friday, 7.12., the Engine Repair & Maintenance Shed Sidings, and the Carriage Shed No 4 Road were booked out of service due to the condition of the sidings.

10.12.2012 **Wingeel Loop - Berrybank Loop** (2920/12)

On Monday, 10.12. at 1600 hours, CTC was brought into use between Wingeel Loop - Berrybank Loop with the sections Wingeel Loop - Berrybank Loop. The Section Authority Sections Wingeel Loop - Werneth BP - Berrybank Loop was cancelled. Section blocking commands for the two SAW sections will be placed in the workstation. Control of the CTC will be by the ARTC Section Authority Network Controller.

Wingeel Loop. Up Repeating signal GV1232 was altered to an Automatic signal which can display Stop, Clear Normal Speed, Normal Speed Warning, and Reduce to Medium Speed.

Werneth Block Point was abolished. The block point signs and location boards were removed.

Berrybank Loop. The loop was extended from 1650 metres to 1834 metres at the Up end. Down Automatic GV1477, Up Repeating GV1552, and Homes BBK/6, BBK/10, BBK/12, BBK/26, BBK/30, and BBK/32 were provided. End CTC/Start Section Authority Working signs were provided at Homes BBK/30 and BBK/32. End Section Authority Working/Start CTC signs are provided at Home BBK/26. Berrybank Loop will be a Section Authority Terminal Station. Movements leaving Wingeel Loop must change to 1200 mode and request a Section Authority to proceed beyond Berrybank Loop. Homes BBK/30 or BBK/32 must not be cleared unless a Section Authority has been issued and acknowledged by the driver. A prompt will appear on the workstation to confirm that an authority has been issued.

All new signals are approach lit. A blacked out signal is to be treated as a stop signal.

11.12.2012 **Wingeel Loop - Berrybank Loop** (2929/12)

On Tuesday, 11.12., the level crossing protection equipment at Hamilton Hwy (146.560 km) and Foxhow Rd (152.379 km) was restored to use.

16.12.2012 **Albion** (SW 416/12, WN 50)

On Sunday, 16.12., Crossover 85 and Down Home 94 was commissioned.

14.12.2012 **Standing Train Notices** (3140/12)

The following Standing Train Notices are cancelled forthwith:

* 624/04 of 6.5.04 (Melbourne Ports Operations)
* 1274/05 of 19.7.05 (Appleton Dock Siding Operating Protocol)
* 483/09 of 23.3.09 (Operation of APD Siding)
* 950/04 of 2.7.04 (Ararat CTC Operating Protocol)
* 1530/07 of 30.7.07 (Amendment to Section 34 of TA20)
* 1029/10 of 13.5.10 (Berrybank level crossing)
* 1890/12 of 2.8.12 (Berrybank Loop extension)

* 2612/09 of 22.12.09 (Dimboola Operating Procedures)
* 372/03, 373/03, & 374/04 of 21.3.03 (Introduction of CTC, Manor Loop - Gheringhap)
* 180/06 of 26.1.06 (Geelong B/G pedestrian crossings)
* 2963/11 of 14.1.11 (Pestrian Crossing - Manor Loop - Gheringhap)
* 77/03 of 21.1.03 (Introduction of CTC, Newport - Manor Loop)
* 4743/11 of 9.9.11 (Signalling North Geelong - Gheringhap, 2 of 2)

17.12.2012 **Bendigo** (SW 206/12, WN 50)

On Monday, 17.12., three new Train Stabling Sidings were provided leading off the Independent Track between the Carriage Shed and Locomotive Depot. The points in the Independent Track face down trains. The standing room in the new sidings are: Sidings 7 & 8 are 166 metres, and Siding 9 is 215 metres. These sidings are not yet available for use.

No 5 Dock Siding has been renamed No 1 Siding. The Fuel Siding has been renamed No 2 Siding. The sidings in the Carriage Shed have been renumbered Nos 3 - 6 Sidings.

Existing Stop Boards 1 - 8 have been replaced by six new Stop Boards. No 1 Stop Board controls movements from Nos 1 - 6 Sidings. No 2 Stop Board controls movements from the Vehicle Maintenance Shed. No 3 Stop Board controls movements from Nos 7 - 9 Sidings. Nos 4 & 5 Stop Boards control movements from the North and South Roads Locomotive Depot (respectively). No 6 Stop Board controls movements from the Shunting Neck.

Diagram 104/12 (Bendigo) replaced 72/11.

Operating Procedure 117 (Bendigo Local Movements) was reissued and SW 2142/04 was cancelled.

(18.12.2012) **Berwick** (SW 415/12, WN 50)

When a train is standing at Home 28 and the driver needs to communicate with the signaller, the driver is to use the train radio or mobile phone as the post phone is situated between the Up and Down main lines.

18.12.2012 **Colac** (SW 202/12, WN 49)

On Tuesday, 18.12., boom barriers were provided at the existing flashing lights at Church St (152.102 km) on the Up side of Colac. The booms will continue to be operated by a predictor. Healthy state indicators and RFR predictor indicator boards were provided. Trains travelling at more than 50km/h at the predictor boards may accelerate before entering the crossing. Remote monitoring equipment will continue in use.

Diagram 136/12 (Birregurra - Colac) replaced 4/12.

24.12.2012 **Bendigo** (SW 214/12, WN 1)

From Monday, 24.12., the new Train Stabling Sidings will be available for use.

27.12.2012 **Viaduct Junction** (SW 427/12, WN 50)

Between Thursday, 27.12, and Monday, 31.12., the crossing work at Viaduct Junction was altered. Crossover 467 and Points 469, 622, & 625 were removed. Points 607 was replaced by a new turnout, but not commissioned. The illuminated letter 'A' was removed from Home 723.

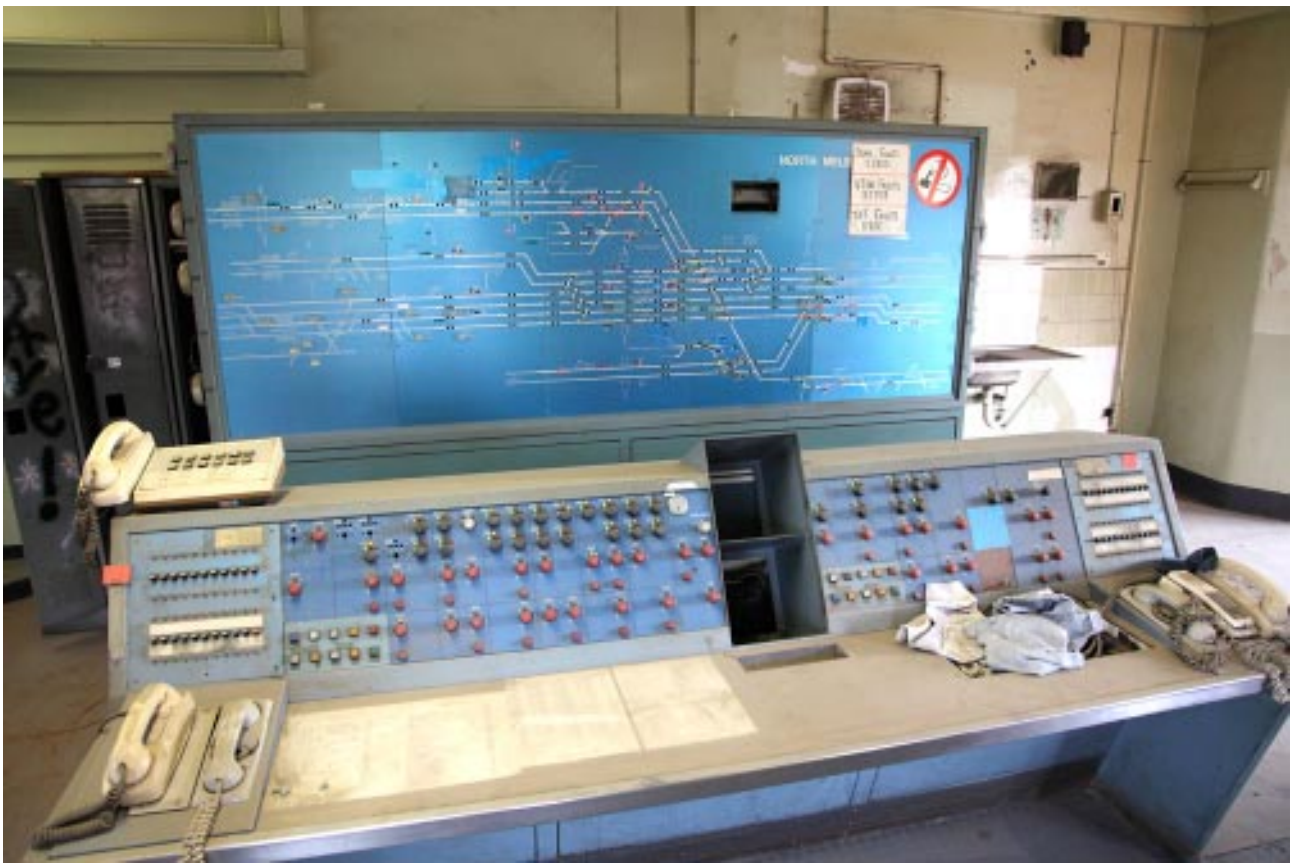
Diagram 137/12 (Southern Cross MTM Passenger Lines) replaced 123/12.

28.12.2013 **Southern Cross** (SW 210/12, WN 1)

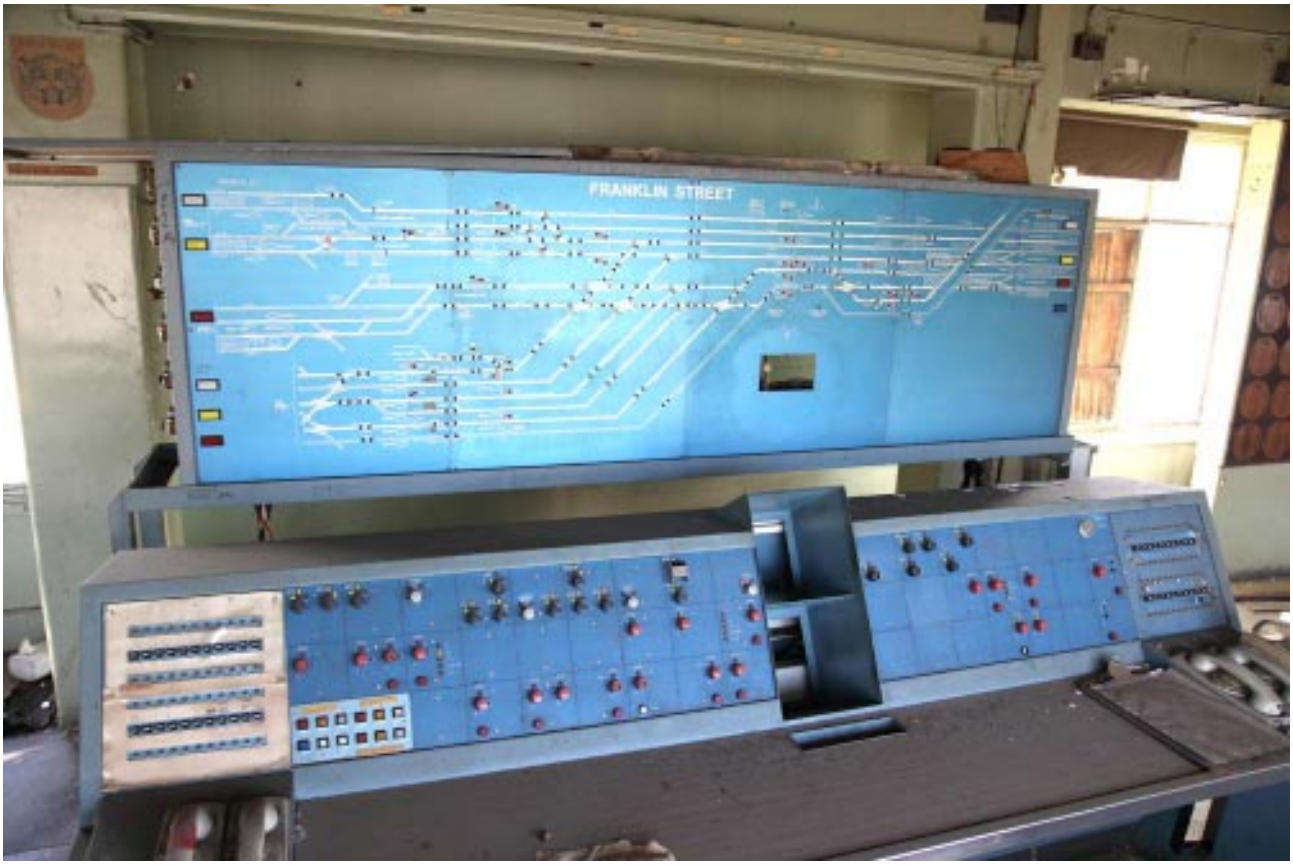
On Friday, 28.12., Dwarf 502 was fitted with a LED unit. The stop signal will now be by a purple light.

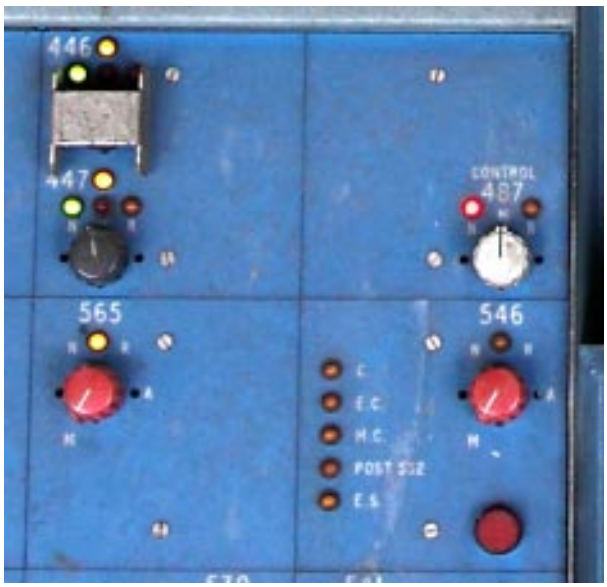
30.12.2013 **McIntyre Loop** (2149/12, 3160/12)

Between Wednesday, 27.12., and Sunday, 30.12., a set of points was provided in the broad gauge main line at around 15 km together with a mixed gauge diamond. A new cantilever signal mast was erected adjacent to the standard gauge line at around 15 km. A signal was provided on the signalbridge carrying MCT/4 and MCT/U4 but not brought into use. None of these points or signals will be available for use. No 3 Track was booked out on 27.12 and a baulk provided near MCT/V4. Points 5 and Dwarf MCT/V4 were abolished. Access to No 3 Track will only be available at the Down end.



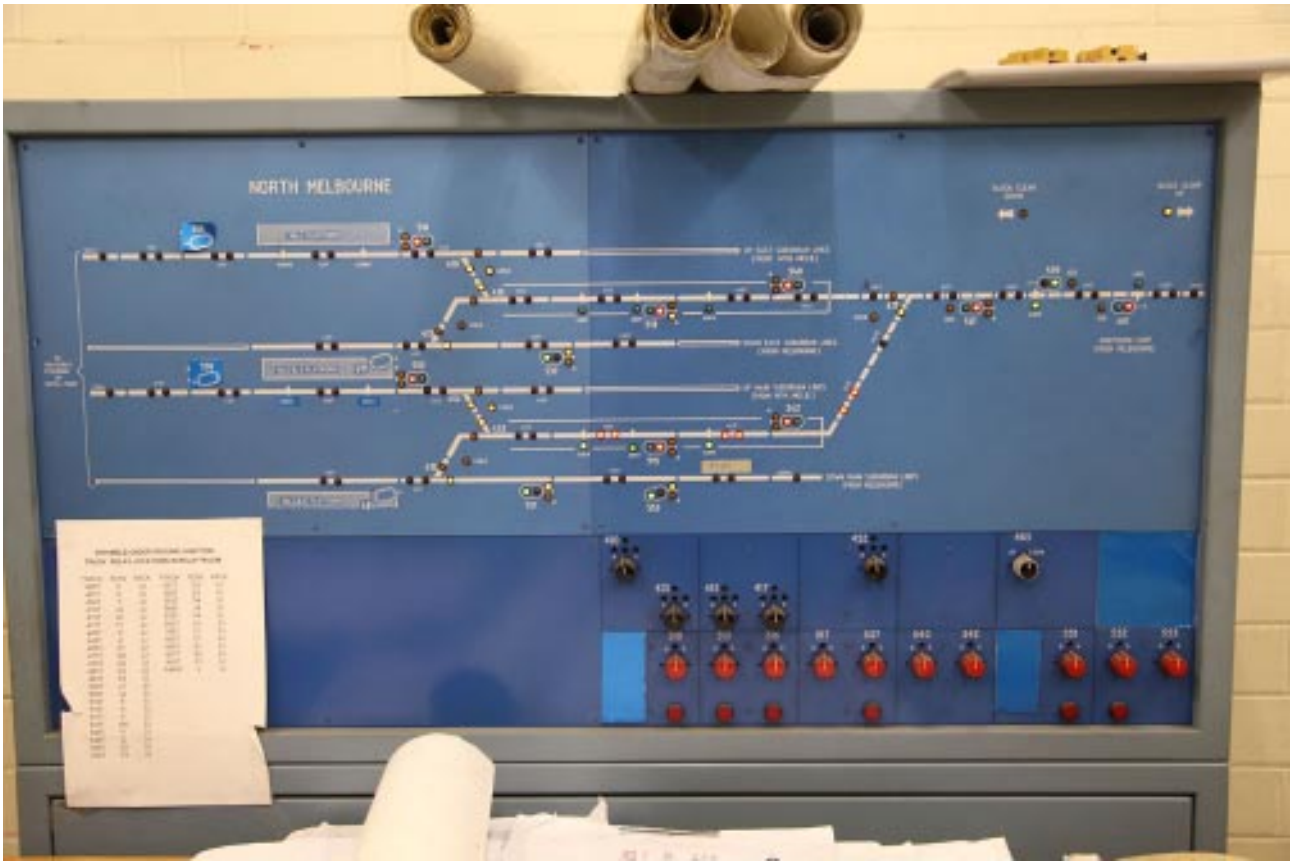
Melbourne has at least two zombie panels. These live a strange half life existance, technically available to be switched in to cover failures of the telemetry from Metrol, they are, in fact, semi derelict. However, the indications still work although I'd be a bit dubious about the lever contacts if you tried to operate the panels. North Melbourne (above) was commissioned in August 1983 and replaced a GRS power frame. Franklin St (below) also replaced a power frame and was brought fully into use in March 1984. Both had a relatively short life as normal panels, as Metrol took over control of the area. The two holes in the panel would have been the CRT screens for the Metrol A and B system screens. The smaller hole in the diagram would have been for a digital clock. Of note is that the Franklin St panel doesn't include the Main - Through Suburban crossovers added in 2001. Those crossovers are controlled by the Westrace interlocking and not the Geographic Relay interlocking. (Photos Chris Gordon)

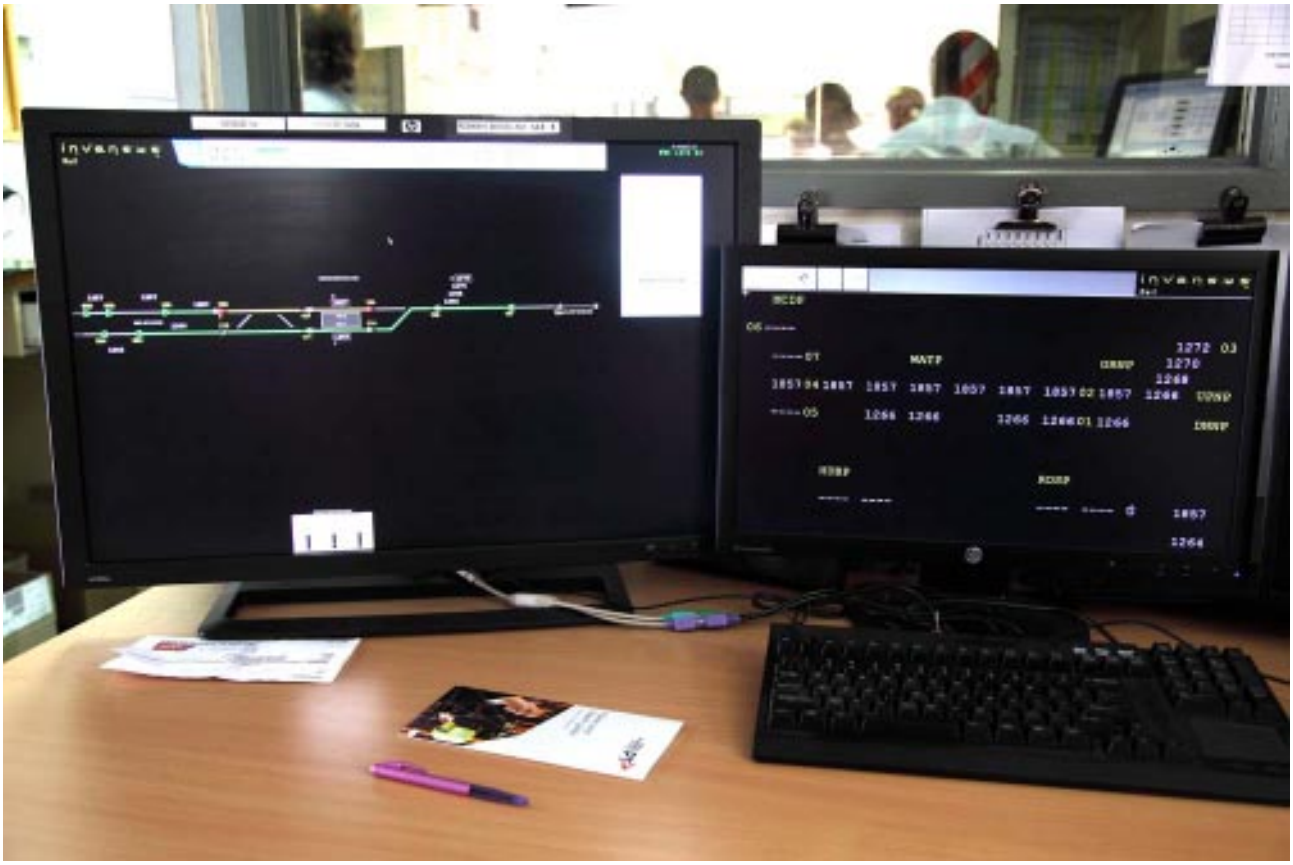




A close up of the levers at Franklin St as they need special mention. The panels at Franklin St and North Melbourne were always intended to emergency panels for Metrol and have special provision for transfer of control between Metrol and the panels. Points Levers, such as 447, have three positions. N, M and R (letters on the levers, not the bands). Straight forwardly, N and R are wired into the interlocking to pick up the NLPR or RLPR and call the points normal or revere. The centre M position breaks the control panel connection to that geographical module allowing the JZA (ie telemetry from Metrol) to call the NLPR (Normal Lock rePeat Relay) or RLPR (Reverse Lock rePeat Relay). Signal levers, such as 565 and 546 have 4 positions: M, N, R, A. M is again for Metrol and allows the JZA to control the signal module. N and R for the usual signal controls, and the A position is Automatic. That will pick up the AOR (Automatic Operation Relay) in the signal module and fleet the signal. Metrol and JZA have the same outputs (N, R, A) and can fleet signals. Then you have the usual low speed push button for Home signals (as seen underneath lever 546). To reduce the incidence of misrouting trains, key signals have route indicating lights, as shown here for Home 546. The appropriate light illuminates when the route is set up. Despite the provision of the M position on the levers, both panels also have keyswitches to select Metrol or local control. It appears that these keyswitches were provided around 1992 and replaced the M positions on the levers in switching over control. Note, however, all the levers shown are still in the M position. There is a also a switch on the wall behind the panel for switching post phones between the box and Metrol. There is also a signal dimming switch which is white, isn't that normally yellow? Anyway it has Bright, M and Dim. Both Panels have keyswitches for Metrol and Local as well.

One night I ended up assisting maintenance with a cable theft/vandalism repair. While I was waiting for them to join the cable had a chance to take a photo of the maintenance diagram in North Melbourne Underground Junction relay room (below). Like the maintenance panels at the relay rooms for Upper Parliament South end (Clifton Hill) and Jolimont, the maintenance panel at North Melbourne Underground Junction includes levers to control signals and points. There are no lights at the levers because all the indications you would get at the levers are on the diagram. Points have a LK (Lock Indication) next to them and show N or R. Signals have a RRK (Route proving Relay Indication) next to them and show fleeting/AOR. Also being a maintenance diagram the status of equipment in the field is all shown, hence all the speed providing train stops are indicated on the MURL ramps. Also some ECKs (Lamp Current Indication - i.e. lamp proving) for the signals in the underground. And a traffic direction lever on the panel for the loop with block lights on the panel. (Photos Chris Gordon)





The temporary WestCad at Greensborough - soon to be removed when the section between Greensborough and Eltham is resignalled. Unfortunately they placed their tall 19" rack between the screen and the electric staff instrument, so getting a photo of both together wasn't possible. Nothing much to note other then train numbers are integrated into the system, the VT100 terminal is part of the WestCad and also inputs train numbers for Macleod as they don't have a VT100 terminal. All the automatics in the section towards Watsonia are indicated on the WestCad, and when it all goes to Epping there will be another screen to the left that is a PicView system and will show indications from Watsonia to Flinders Street and inclusive of the City Loop. Epping already has that to Rushall for the South Morang project. So when the Hurstbridge project is completed both Metrol and Epping signal boxes will be able to see the entire Clifton Hill group, where every train is, what every signal and crossing are doing etc. A progress step in Melbourne! More on PicView another day (it is a system picking up CBI indications and bringing them into Metrol, plus all the existing JZA indications into one system to show all they can of Melbourne). (Photos Chris Gordon)