



AUSTRALIAN RAIL TRACK CORPORATION LTD

SAFE Notice 2010

Number: 2-1353

TRIDA

Provision of Active Level Crossing Protection at Willandra Road 749.390 km and Relocation of Train Order Working Signs at Trida

Commencing at 0730 hours Monday 12th July 2010 and continuing until 1700 hours on Tuesday 13th July 2010, or until commissioned, the existing passive level crossing protection at Willandra Road crossing, Trida will be upgraded with the installation and commissioning of active level crossing protection consisting of LED flashing lights, boom gates and warning bells. In conjunction with this work, Shunting Limit Signs will be installed and existing Yard Limit and Location signs will be relocated.

General Arrangements:

The level crossing warning equipment will be automatically controlled by grade crossing predictor equipment and will set to predictor mode for the Down Main line. This will allow the level crossing equipment to provide a constant warning time for rail traffic travelling on the Down Main line. The level crossing warning equipment will be set to motion-detect an up approaching train and has been programmed to allow for acceleration on the up approach track circuit.

The new infrastructure will consist of the following:

- Boom gate mechanisms, Type F flashing light assemblies and warning bells
- Level crossing hut (on Ivanhoe side of crossing on down side of line)
- 'X' Up Main Line Indicator with MLI Push Button box. This MLI replaces the existing AM Point Indicator
- 'Y' Up Main Line Indicator with MLI Push Button box. This MLI replaces the existing AL Point Indicator
- Shunter's Push Button box mounted on the trackside wall of the level crossing equipment hut
- Approach warning signs
- Manual Operation Switch, Test Switch box and Emergency Switch box (located on the trackside wall of the level crossing hut)
- TOW signs will be installed / relocated as per the table below.

Level crossing approach warning signs will be located at:

- Down direction 747.927 kms.
- Up direction 750.288 kms.

A layout diagram is included in this safe notice.

Main Line Indicators and Pushbuttons:

A new Main Line Indicator, 'X' MLI will be installed at 749.523km facing to up main line trains. 'Clear' and 'Cancel' push buttons for 'X' MLI are located in a box mounted on 'X' MLI and locked by an SL lock. This MLI will replace the existing AM Point Indicator located at the same position.

A new Main Line Indicator, 'Y' MLI will be installed at 749.523km facing to up loop line trains. 'Clear' and 'Cancel' push buttons for 'Y' MLI are located in a box mounted on 'Y' MLI and locked by an SL lock. This MLI will be located on the right hand side of the loop line and will replace the existing AL Point Indicator located immediately adjacent on the left side of the loop line.

The existing 'X' MLI located at 749.311km will be renamed 'A' MLI.

The existing 'Y' MLI located at 751.579km will be renamed 'B' MLI.

'B' MLI will have a new yellow proceed aspect installed which will be displayed when 'X' MLI ahead is displaying a red stop aspect. These indications are in accordance with ARTC Network Rules & Procedures ANSG 604.

A Shunter's Push Button box will be installed on the level crossing equipment hut and will contain 'Start' and 'Cancel' push buttons for the level crossing equipment. This box will be locked by an SL lock.

Train Order Working Signs:

The existing down 'LOCATION BOARD', down 'YARD LIMIT', and up 'SHUNT LIMIT' train order signs will be relocated. The old and new kms are shown in the following table.

Train Order Sign	Old Km	Relocated to (new Km)
Down Location Sign	746.656	744.311
Down 'Yard Limit'	749.011	746.811
Up 'Shunt Limit'	N/A	747.311
Down 'Shunt Limit'	N/A	753.579
Up 'Yard Limit'	751.897	754.079
Up Location Sign	754.250	756.579

Operational Arrangements:

For trains travelling in the Down direction the grade crossing predictor will determine the speed of the train and activate the level crossing warning equipment for the appropriate warning time. The maximum down approach warning time starts adjacent to the Down driver's level crossing warning board. 'A' MLI will show a pulsating white proceed aspect in the down direction across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For trains travelling in the Up direction the grade crossing predictor will determine the speed of the train and activate the level crossing warning equipment for the appropriate warning time. The maximum up approach warning time starts adjacent to the Up driver's level crossing warning board. 'X' MLI will show a pulsating white proceed aspect in the up direction across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For down trains entering the loop through 'A' motor points, the level crossing will activate on approach. The 'A' MLI will be displaying a proceed aspect and the driver must bring the train to a stop at the MLI and operate the 'CANCEL' button in the 'A' MLI pushbutton box. The MLI will then show a stop aspect and the level crossing will cease to operate after a 2 minute time delay. Once the 'Points Free Light' illuminates, the driver can operate 'A' motor points by operating the 'LOOP' push button adjacent to 'A' MLI. 'A' points will operate to the reverse position, once the level crossing booms are down 'A' MLI will display a pulsating white band of lights. Once the train proceeds into the loop and clears the level crossing the level crossing will cease to operate and 'A' motor points will auto-normalise.

For Up trains leaving the loop through 'A' motor points, the level crossing will activate once the train crew pushes the 'LOOP' button in the push button box adjacent to 'Y' MLI. 'A' points will operate to the reverse position, once the level crossing booms are down 'Y' MLI will display a pulsating white clear aspect. Once the train proceeds out of the loop and clears the level crossing the level crossing will cease to operate and 'A' motor points will auto-normalise.

If 'A' or 'X' or 'Y' MLI's are displaying a stop indication to an approaching train, the level crossing will not operate and the driver must bring the train to a stop at the MLI. The driver can then operate the button labelled 'CLEAR' in the MLI push button box. The level crossing will then operate and when the booms have fully descended the appropriate MLI will clear.

Testing of Level Crossing Warning equipment:

The Level Crossing will be remotely monitored from Mitchell's Security Services at Bathurst, Phone 02 6331 6814, and tested by the Cerberus Level Crossing Monitoring System.

Failure of the Cerberus monitoring equipment:

In the event of a failure of the Cerberus monitoring equipment a daily testing must be implemented in accordance with ARTC Network Rules & Procedures ANGE 218.

A 'Test' switch box is located on the outside of the Level Crossing Equipment Hut and is opened by the test key obtained from the Transfield Services Provisioning Centre at Ivanhoe.

Emergency operation of the Level Crossing warning equipment:

Emergency switches are provided to isolate the warning equipment in the event of a failure. The 'Emergency Switch Box' is located on the Level Crossing Equipment Hut and is opened by the keys obtained from the Transfield Services Provisioning Centre at Ivanhoe. The warning equipment must be operated in accordance with the ARTC Network Rules and Procedures.

Manual operation of Level Crossing warning equipment:

A manual operation switch is provided in a box secured by an SL Lock, located on the outside of the Level Crossing Equipment Hut. The manual operation switch is provided for use by qualified workers in accordance with ARTC Network Rules & Procedures.

Safeworking arrangements:

All work must be carried out in accordance with the appropriate ARTC Network Rules and Procedures.

The Main Line Indicators 'X' and 'Y', Trailing Point Indicators 'AM' 'AL' 'BM' 'BL' and Points 'A' and 'B' will be booked out of order with Hand signallers in place to for the period of the commissioning.

An Infrastructure Booking Authority (NRF 003) must be compiled as per the instructions in ARTC Network Rules & Procedures ANWT 312 and ANPR 704 to commission and book the new level crossing warning equipment into use.

In the event that installation and testing work is completed ahead of the anticipated completion time, the early commissioning and use of the equipment being installed is authorised. Should the installation and testing work extend beyond the anticipated completion time, the arrangements and instructions contained in this Safe Notice will apply until the work is completed, or until otherwise advised.

Amendments to LAU's

This Safe Notice will serve as an amendment to the following units contained in Local Appendix - West Volume 3:

Local Appendix West: Volume 3 – LAU 303 [f] Page 21:

Delete: All reference to "Public 749.390".

Insert:

Name of crossing	Km from Sydney	Code	Test recorded by	Emergency keys located at
Willandra Road	749.390	ABFLR	Cerberus monitoring system at Mitchell Security Services, Bathurst	Transfield Services Provisioning Centre Ivanhoe

Dave Hanney Project Manager, UTS Rail P/L 02 6332 5444 or 0427 990221

Newcastle, 6th July 2010

**Operations Manager North/South
Australian Rail Track Corporation**

Return to Controlling Manager:

Date.....Signed.....

(Cut along this line and forward the detached receipt to your Controlling Manager)

To Controlling Manager.....

Received Safe Notice No.....2010 Date.....Signed.....

Name: (print).....Location.....

(Controlling Manager to retain this acknowledgment of receipt of this safe notice for record purposes for 90 days)

