NEW EQUIPMENT & SYSTEM APPROVAL PROFORMA

Ref: 08-08-11-081

Note: the prompts given below are only a guide to the information required for approval. Dependent on the type of equipment or system that requires approval delete any section that is not applicable or include additional information if necessary. Mandatory fields are marked with an asterisk (*).

1 **Equipment or System to be approved** *

Steel Level Crossings over HD Concrete sleepers for low traffic – Revised August 2007

2 **Originator** *

Name: Wayne Potter Company: ARTC

3 **Introduction** *

Steel level crossings have shown to be a cost effective solution for both public and private level crossings with low volume road traffic in the past, e.g. Cocky's crossings with over 100 installations successfully completed in the past - Ref Equipment and System Approval 08-08-09-002. With the introduction of both the Rocla and Austrak HD concrete sleepers, a change in design was necessary for the steel crossing to suit these sleepers. Steel level crossings have been designed for 6m (two design alternatives - A and B), 9m and 12m lengths for each of the sleeper types resulting in a total of 8 configurations. All designs have been checked by GHD in accordance with AS5100.2 (2004) Bridge Design Pt2 Design Loads.

4 **Determination of Need** *

Due to the introduction of heavy duty concrete sleepers, a modified version of steel level crossing is required.

5 **Significant Change or Not** *(as determined by the Manager Standards)* *

This change in equipment or system is assessed as MINOR

6 **Review Panel** *(as determined by the Manager Standards)* *

- Manager Standards (acting) – Duncan McLeod
- Civil and Environmental Standards Engineer - Wayne Potter
- Civil Standards and Technical Services Engineer – Tim Calver

7 **Performance and Suitability**

The steel level crossings designs have been checked by GHD in accordance with AS5100.2 (2004) Bridge Design Pt2 Design Loads. Refer to drawings for detail.

8 **Approval** *

23-11814 Steel level crossings (6m, 9m and 12m units) are approved for use by ARTC network wide.

9 **Conditions of Approval** *

No conditions

10	**Does the Originator accept the additional Conditions of Approval as set by the Review Panel:**	Yes	☐	No	☐	N/A	☐

11 **Sign off** ***ARTC office use only***

Review Panel:

Duncan McLeod Date: 31/8/07

Wayne Potter Date: 29/8/07

Tim Calver Date: 29/8/07

Mark Skanes
Executive Manager, Standards & Systems

The following drawings are available on the SA Drawing Management System:

Steel Level Crossing - 6m (Design 1)

Drawing #	Title
23-11814-S001	Cover Sheet & Drawing List
23-11814-S002	General Notes
23-11814-S003	Plan Layout & Details
23-11814-S004	Bearing Pad Details
23-11814-S005	Steel Crossing Plate Details
23-11814-S010	Bridging Unit Layout & Details
23-11814-S011	Bridging Unit Bearing Pad & Crossing Plate Details

Steel Level Crossing - 6m (Design 2)

Drawing #	Title
23-11814-S101	Cover Sheet & Drawing List
23-11814-S102	General Notes
23-11814-S103	Plan Layout & Details
23-11814-S104	Bearing Pad Details
23-11814-S105	Steel Crossing Plate Details
23-11814-S110	Bridging Unit Layout & Details
23-11814-S111	Bridging Unit Bearing Pad & Crossing Plate Details

Steel Level Crossing - 9m Unit

Drawing #	Title
23-11814-S201	Cover Sheet & Drawing List
23-11814-S202	General Notes
23-11814-S203	Plan Layout & Details
23-11814-S204	Bearing Pad & Packer Plate Details
23-11814-S205	Crossing Plate Details Sheet 1
23-11814-S206	Crossing Plate Details Sheet 2

Steel Level Crossing - 12m Unit

Drawing #	Title
23-11814-S301	Cover Sheet & Drawing List
23-11814-S302	General Notes
23-11814-S303	Plan Layout & Details
23-11814-S304	Crossing Plate Details