



AUSTRALIAN RAIL TRACK CORPORATION LTD

Discipline  
Engineering Specification

Category  
Track & Civil

# General Appendix to ARTC Track & Civil Code of Practice

## Specification Clauses

# Clearances

# ETG-07-01

Applicability

ARTC Network wide	
New South Wales	
Western Jurisdiction	✓
Victoria	✓

Primary Source

(ARTC A1 Specifications Clearances- Design & Rating and Inspection & Assessment /TCS-23)

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List of Amendments

Issue	Date	Clause	Description
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## 7.8. Clearances

### 7.8.1 Datum Markers

As a guide, at locations where permanent clearances are designed to have a contingency gap of less than 150mm between the maximum kinematic envelope and a structure or adjacent maximum envelope or where site specific risk assessments have determined that they are required; datum markers shall be installed at rail level by ARTC. Where it is not possible to fix the datum marker at rail level, it shall be fixed in a convenient position on the structure and the offset recorded on the marker.

The datum marker shall provide a means of ready and accurate verification of track position relative to the structure or adjacent track.

Refer to ARTC Specification for Trackside Monuments for details of datum markers.

Datum markers shall be fixed to structures in such a manner that they do not interfere with or affect the integrity of the structure.

### 7.8.2 Rating

Applicable Rolling Stock Outlines shall be used to determine the applicable kinematic rolling stock outline on a route by route basis.

This rating shall use the design principles defined in this section of the Code and in appendix B of Part 3 of the Code.

### 7.8.3 Assessment of Clearance Deficiencies by Alliance Contractor

#### (a) Track Locations with Monuments and Structures fitted with Datum Plates

Check measurements of the clearances between the monuments and the rail(s) both laterally and vertically shall be carried out at intervals not exceeding 6 months at nominated high risk locations.

Action shall be taken to restore the track to its correct position, including cross levels, within the response period, when the limiting tolerances reach the following:

Tolerance from Monument		Action Required	Response Period
Horizontal	Vertical		
> +/- 25mm	> -20+25mm	Restore track to design position	Prior to next train
+/- 25mm	-20+25mm		Within 7 days
+/- 15mm	-20+15mm		Within 28 days
<+/- 15mm	<-20+15mm	Monitor	-

Appropriate records are to be maintained by the Area Maintenance Contractor of the measurements taken at these monuments.

Where the above response times cannot be adhered to, the ARTC Asset Manager shall be formally advised and agreed actions taken, such as placing a TSR or restricting loading.

Where directed by ARTC, prominent signs shall be erected and maintained at both ends of structures with restricted clearances displaying the following: “Track alignment (top and line) under this structure is not to be altered without approval of the ARTC Asset Manager”

**(b) Adjacent Tracks**

DEFECT SIZE	RESPONSE TIME	ACTION
Track centres $\geq$ 4500 mm	None	No action
4500 mm to 4000 mm #	90 days	Restore clearance to $\geq$ 4500 or the designed clearance for that location. Add to register if not listed.
< 4000mm or <the design distance (or the specified distance as specified on the clearance datum marker) #	Prior to next train	Restrict to single line working or pilot any movements – Restore clearance $\geq$ 4000 mm or the designed clearance for that location. Add to register if not listed.

# There are areas on the ARTC Network that can not satisfy the above requirements due to structural constraints. One example is the Main South Line between Mile End and Belair where tracks were constructed at  $\leq$  4500 mm centres and can be restricted to less than 4000 mm centres at some locations.

Where the clearance deficiency is found to be due to other than track related causes, ARTC should be notified.

**(c) Evidence of Recent or Current Movement**

Evidence of recent or current movement (track or structure) shall be investigated by General Inspection by the Area Maintenance Contractor.

**(d) Visible Marking or Damage to Structures**

Visible marking or damage to structures shall be investigated by General Inspection by the Area Maintenance Contractor.

The General Inspection shall ascertain whether the cause of the mark or damage is related to track or structure conditions at the affected site. Appropriate actions as necessary to restore clearances shall be taken by the Area Maintenance Contractor.

Where investigation determines that the mark or damage may be due to rolling stock or loading condition, ARTC shall be notified in writing.

Where further specialist inspection is required the Area Contractor shall advise ARTC of the requirements and actions taken. ARTC will provide the necessary specialist advice and determine the need for any further necessary actions.

**(e) Clearance Point Markers**

Where clearance point markers are not clearly visible action shall be taken within 7 working days to restore visibility.

Where clearances of adjacent tracks may be affected then actions shall be taken in accordance with clause (b) above.

#### **7.8.4 Structure Clearances for New Construction**

All new structures over or adjacent to ARTC tracks (owned or leased) shall comply with ARTC drawing TA3.01.106 Structure Clearance Diagram for New Construction of Bridges, Walls, signal and Electrification Structures.