

Installation Work Package - Track

COR-FM-063

Applicability

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SMS

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Glossary

Specific terms and acronyms used throughout this document are listed and described in the table below.

TERM	ACRONYM	DEFINITION
Project	"Project"	For the purpose of this Works Package, the following are considered to be representatives of the Project: <ul style="list-style-type: none"> - Designer / Service Delivery Contractor - Construction Contractor - Environmental Representative.
ARTC Representative	"ARTC Representative"	For the purpose of this Works Package, the ARTC Representative is the Project Manager or Senior Project Manager.
Issued for Construction	IFC	IFC Drawings

1. Introduction

The Installation Work Package template shall be used by the Project to record the minimum requirements needed for the Construction Verification Hold Point and Acceptance phase.

The use of this Installation Work Package template applies to all ARTC Projects, including Projects being delivered as part of the Inland Rail Program.

The Installation Work Package template is designed to be scalable and tailorable to meet the delivery strategy and completion and handover requirements for individual Projects.

Where documentation has been issued as an Aconex Transmittal, this can be referenced via the tables within this Work Package and include the Aconex Transmittal Number and a description of the purpose and content of the transmittal.

For all details pertaining to this document and the requirements, refer to the Completion and Handover Specification (COR-SP-001).

1.1 Authorisation of Installation Work Package

The section below outlines the acknowledgement from the ARTC Representative that the Work Package is accepted.

The Project shall provide all information referenced and ensure it meets the requirements of the Completion and Handover Specification (COR -SP-001).

Table 1 - Authorisation of Installation Work Package

Project:	
Stage:	
Work Package No:	
This Installation Work Package is accepted by:	
Position:	
Signature:	
Date:	

2. Register of General Working Documents

The Project shall provide all supporting documentation per the requirements below.

2.1. Register of IFC Drawings

The Project shall list all IFC drawings for track Works issued as part the Installation Work Package scope.

The Project shall list all IFC drawings issued as part the Installation Work Package scope.

Additional IFC drawings issued separately to the Project must be listed in the table below.

Table 2 - IFC Drawings

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 02-2601-010-012	0	Track Alignment – Narrabri North to Moree General Arrangement 616.650 km to 621.150 km
Example: IR2600-GCOR-007378	-	Formal transmittal of N2NS IFC Drawings issued to Contractor on 31/10/2020.

2.2. Register of Construction Redline Mark-up Drawings

The Project shall provide a list of all changes made to the design during construction as Redline Mark-ups to the IFC Drawings.

Table 3 – Constructed Redline Mark-up Drawings

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 02-2601-010-012	0.1	Track Alignment – Narrabri North to Moree General Arrangement 616.650 km to 621.150 km
Example: IR2600-GCOR-007378	-	Formal transmittal of N2NS Redline Mark ups on IFC Drawings issued by Contractor on 31/10/2021

2.3. Register of Assets

The Project shall document any changed, altered, decommissioned and new assets to the issued IFC Asset List.

Any changed, altered or new assets are to be marked up on the issued IFC Asset List in accordance with ARTC's requirements and submitted to the ARTC Representative via an Aconex Transmittal.

Table 4 - Asset List

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 3-0001-260-PEN-00-RG-0009	0.1	Updated IFC Asset List containing assets changed during construction, and from the IFC Asset List issued on the 03/03/2020

2.4. Register of Temporary Works Design

The Project shall list all Temporary Works Designs associated with the Works.

Table 5 - Temporary Works Design

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 5-0018-260-CTP-00-DR-0001	0	Narrabri to North Star SP1 – Temporary Works Design for Barbers Road Level Crossing
Example: IR2600-GCOR-007378	-	Formal transmittal of Temporary Works Designs for N2NS by Contractor on 10/04/2020.

2.5. Register of Defects

The Project shall provide an approved Defect List as part of the Construction Verification phase.

The Project shall ensure the Defect List meets the requirements specified in Section 2.5 of the Completion and Handover Specification (COR-SP-001).

The Master Defect List is to include defects identified by ARTC asset owners and operators at the inspection walkthrough.

Table 6 - Defects Register

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-QDS	0	Master Defect Register

2.6. Register of Materials List

The Project shall provide a list of all materials remaining post construction activities for acceptance by the ARTC Representative.

An Excel Spreadsheet listing all remaining track materials post construction activities shall be issued by the Project in an Aconex Transmittal.

Table 7 - Material List

DOCUMENT NUMBER	REV	DESCRIPTION
Example: IR2600-GCOR-007378	-	Formal transmittal containing a list of all remaining track materials, including sleepers left over from N2NS construction dated 20/10/2020.

2.7. Register of Waivers and Type Approvals

The Project is to provide a list of all ARTC approved waivers and type approvals obtained during construction.

Table 8 – Waivers and type approvals

DOCUMENT NUMBER	REV	DESCRIPTION
Example: Waiver Number TC/0104	0	Approved Engineering Waiver for Reduction of minimum formation width, Narrabri to North Star (N2NS)

3. Track Documents

Detailed below is a list of all applicable track documentation to be included in the Installation Work Package.

3.1. Register of Weld Return Forms

The Project shall provide all Weld Return Forms for the Works.

The Project shall use the ARTC Weld Return Form ETW0106F-01 to record all specified weld information and data.

In addition to being included in the Lot Conformance Reports, the Weld Return Forms are to be provided separately in an Aconex Transmittal.

Table 9 - Weld Return Forms

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-A1-WELRTN-001	0	Weld Return Form – A1 – 472.330 km to 473.550 km

3.2 Register of Weld Maps

The Project shall provide Weld Maps (summarised diagram showing weld results) for the Works and detail all welded connections and joints.

In addition to being included in the Lot Conformance Reports, Weld Maps are to be provided separately in an Aconex Transmittal.

Table 10 - Weld Map

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-WELD-0001	0	Summarised diagram showing the weld results for all sections of track from 616.510 km to 630.500 km

3.3 Register of Non-destructive Testing

The Project shall provide information relating to all non-destructive test results associated with installation of the Works and pre-qualification of welders.

Table 11 - Non-destructive Testing

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 79760	16/08/2021	Welder Qualification Test Record

3.4 Register of Stressing Record Forms

The Project shall provide all Stressing Record Forms.

The Project shall use the ARTC Stressing Record Form ETW01005F-01 to record all stressing records and data.

In addition to being included in the Lot Conformance Reports, the Stressing Record Forms are to be provided separately in an Aconex Transmittal.

Table 12 - Stressing Record Forms

DOCUMENT NUMBER	REV	DESCRIPTION
Example: RAIL-TRA-A1-0002	0	Stressing Record Form - 189781

3.5 Register of Track Clearances

The Project shall provide a register of all track clearances, either temporary or permanent.

The Project shall use the ARTC Track Examination of Clearances Form ETE0701F-01.

Table 13 - Track Clearances

DOCUMENT NUMBER	REV	DESCRIPTION
Example: ETE0701F-01	1	Provides the horizontal and vertical geometry to structure and superelevation data.

4. Suppliers Information – Track

All supplier information shall be provided by the Project, including, but not limited to, supplied items detailed below for the track discipline:

- Rail
- Sleepers
- Turnouts
- Catchpoints
- Level crossing equipment
- Fasteners
- Wayside devices.

4.1 Register of Equipment and Operating Manuals

Where applicable, the Project shall list and provide all relevant operating manuals for installed equipment.

Table 14 - Equipment and Operating Manuals

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-QDS-0001	0	OEM Manuals Register - Track

4.2 Register of Maintenance Manuals

Where applicable, the Project shall list and provide all relevant maintenance manuals for installed equipment.

Table 15 - Maintenance Manuals

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-QDS-0001	0	OEM Maintenance Manuals Register – Turnouts

4.3 Register of Manufacturers Drawing

Where applicable, the Project shall list and provide all relevant manufacturers drawing for installed equipment.

Table 16 - Manufacturers Drawing

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-QDS-0002	0	OEM Drawing Register – Turnouts

4.4 Register of Manufacturers ITP's

Where applicable, the Project shall list and provide all relevant manufacturers ITP's for installed equipment.

Table 17 - Manufacturers ITP's

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 7632-WELD-CT-PVP-002	0	Welding Test Record

4.5 Register of Offsite Inspection and Testing Certificate (FAT, Pre-site Testing)

Where applicable, the Project shall list and provide all relevant manufacturers inspection and testing certificates for installed equipment.

Table 18 - Offsite Inspection and Testing Certificates (FAT, Pre-site Testing)

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 5-00018-26-PVP-00-CT-0002	0	Certificate of Approval for Precast Concrete Mix Design – Sleepers

4.6 Register of Training Documentation

Where applicable, the Project shall list and provide all relevant training documentation and requirements (maintenance and operation) for installed equipment.

Table 19 - Training Documentation

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-QDS-0005	0	OEM Training Manual Register – Turnouts

5. Inspection Walkthroughs

At the end of the Construction Verification phase the Project shall coordinate and conduct inspection walkthroughs in order to meet the requirements specified in Section 2.4 of the Completion and Handover Specification (COR-SP-001).

All listed documentation shall apply to inspection walkthroughs for track infrastructure only.

5.1 Register of Walkthrough

The Project shall provide all executed inspection walkthrough records and any associated documentation and artefacts provided to participants.

Table 20 – Walkthrough records

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-QDS-0010	0	Inspection Walkthrough Attendee Register – Track

6. Register of Quality Assurance Documentation

All quality assurance documentation assigned with the Installation Work Package is to be detailed below. All associated deliverables shall align to the Quality Systems Requirements as per the relevant ARTC Standard and Project Deed.

All listed documentation shall apply to the track discipline and respective construction activities.

6.1 Register of Lot Conformance Reports

The Project shall list and provide all accepted Lot Conformance Reports.

Table 21 - Lot Conformance Reports

LOT NUMBER	DESCRIPTION	STATUS	DATE WORKS CLOSED
Example: Lot A1	Narrabri to North Star 490.610 km – 501.500 km – Track Construction Work	Closed	24/12/2020
Example: Lot A1	Formal transmittal of all Lot Reports for Track Construction Work for N2NS 490.610 km – 501.500 km	Closed	24/12/2020

6.2 Register of Lot Plan/Lot Map

The Project shall list and provide all accepted Lot Plans / Lot Maps.

Where Lot Plans / Maps have been issued as part of the Lot Reports, this can be noted in the table below.

Table 22 - Lot Plan/Lot Map

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-DNG-A1-0058	0	Narrabri to North Star 490.610 km – 501.500 km – Track Construction Work Lot Map

6.3 Register of Inspection and Test Plans

The Project shall list and provide all accepted Inspection and Test Plan templates.

Table 23 - Inspection and Test Plans

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 260-RG-ITP-0001	0	Inspection and Test Plan Register – Track
Example: IR2600-GCOR-007378	-	Formal transmittal of Inspection and Test Plans for Track Construction Works for N2NS 490.610 km – 501.500 km.

6.4 Register of Calibration Records / Certificates

The Project shall list and provide all calibration records / certificates. This is to include all records and certificates from any works provider, either directly employed or sub-contracted and includes such records as mobile flash butt welding equipment, tampers and other track plant and equipment.

Table 24 - Calibration Records/Certificates

SERIAL NO.	CALIBRATION DATE	EQUIPMENT DESCRIPTION	OWNER

7. Register of Non-Conformances

The Project shall list and provide details of all non-conformances.

Any Non-Conformance Reports that are not closed shall be identified and provided with justification at time of submission.

Table 25 - Non-Conformances (NCR)

NCR NO.	STATUS	DESCRIPTION
Example: 3-0001-260-PVP-00-RG-0002	For Information	N2NS Non-Conformance Register – Track Construction Work
Example: IR2600-GCOR-007378	For Information	Formal transmittal of all Non-Conformance Reports for Track Construction Work for N2NS 490.610 km – 501.500 km

8. Register of Request for Information

The Project shall provide a list of all Requests for Information (RFIs).

Any RFIs that are not closed are to be identified and provided with justification at time of submission.

Table 26 - Request for Information (RFI)

RFI NO.	STATUS	DESCRIPTION
Example: 3-0001-260-PMA-00-RG-0003	For Information	N2NS RFI Register – Track
Example: IR2600-GCOR-007378	For Information	Formal transmittal of all RFIs issued during Track Construction Works for N2NS 490.610 km – 501.500 km, including responses and any outstanding RFIs.

9. Register of Construction Risk Assessments

The Project shall provide a list of all construction risk assessments relating to track works and identify any outstanding risks proposed to be transferred to ARTC or another Project.

Any outstanding risks shall be accepted by the ARTC Representative.

The list is to include all risk assessments conducted during construction including all temporary works.

Table 27 - Construction Risk Assessments

DOCUMENT NUMBER	REV	DESCRIPTION
Example: 3-0001-240-POS-00-RG-001	0	Construction Risk Assessment Register – Track Construction Works
Example: IR2600-GCOR-007378	0	Formal transmittal of all Construction Risk Assessments conducted during Track Construction Works for N2NS 490.610 km – 501.500 km.

10. Register of Certificates

The Project shall list and provide all certificates associated with testing and test results as per the requirements below.

10.1 Register of Pre-Installation Test Certificates

The Project shall list and provide all pre-installation test certificates for all track equipment prefabricated including sleepers, rail and the track fastening system.

Table 28 - Pre-Installation Test Certificates

PRE-INSTALL TEST CERTIFICATE NO.	DATE OF ISSUE	DESCRIPTION
Example: 79760	16/08/2020	Welder Qualification Test Record
Example: IR2600-GCOR-007378	24/12/2020	Formal transmittal of all pre-installation test certificates issued during Track Construction Works.

10.2 Register of NATA Certified Test Certificates

The Project shall list and provide any NATA certified test certificates for track equipment supplied and installed as required by appropriate Project Documents and the Deed.

Table 29 - NATA Certified Test Certificates

TEST CERTIFICATE NO.	DATE OF ISSUE	DESCRIPTION
Example: 4S20300868	02/06/2020	Material Test Report – Ballast Goonumbla Quarry
Example: IR2600-GCOR-007378	24/12/2020	Formal transmittal of NATA certified test certificates issued for track materials and works.

10.3 Register of Materials Certificates

The Project shall list and provide all quality certificates for materials such as ballast.

Table 30 - Material Certificates

MATERIAL CERTIFICATE	DATE OF ISSUE	DESCRIPTION
Example: IR2600-GCOR-007378	24/12/2020	Formal transmittal of material quality certificates issued for track materials and works.