Minor Signalling Work Package

AUTHORISATION

|  |  |
| --- | --- |
| Minor Work Job Name: |  |

|  |  |
| --- | --- |
| Region and Location/s of the work: |  |

|  |  |
| --- | --- |
| Work Package Register No.: |  |

|  |  |
| --- | --- |
| Project Safety Agreement Registration Number: |  |

|  |  |
| --- | --- |
| Interface Coordination Plan No: |  |

|  |  |
| --- | --- |
| Approved Design Details: |  |

|  |  |  |
| --- | --- | --- |
| Document Type | Design Name and Job No | Version |
| Circuit Book |  |  |
| Signal Plan |  |  |
| Other: |  |  |

|  |  |
| --- | --- |
| Scope of Works: | Scope of Works as included in W12F01 |

|  |  |
| --- | --- |
| Prepared by: | Approved in Principle by: |
| Name |  | Name: |  |
| Position | Commissioning Engineer | Position | Regional Signal Representative |
| Signature | Date | Signature | Date |
|  |  |  |  |

Section 1: Package Authorisation

Including:

Work Package Authorisation

Project Work Notification

Interface Coordination Plan

Interface Coordination Plan

In addition to the provisions included in the Project Safety Agreement this Plan nominates personnel and interface matters between the parties.

|  |  |  |
| --- | --- | --- |
| Design Job No: | Work Description/Location: | Interface Coordination Plan Version: |
|  |  | No: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| # | Role | Name: | Contact Details: |
| 1. | Regional Signal Representative: |  |  |
| 2. | Regional Maintenance Engineer: |  |  |
| 3. | Train Control Systems Representative: |  |  |
| 4. | Track work Representative: |  |  |
| 5. | Electrical Representative: |  |  |
| 6. | Commissioning Engineer Signalling: |  |  |
| 7. | Other: |  |  |
| 8. | Other: |  |  |

|  |
| --- |
| Program activities requiring Notification, Witness or Hold points: |
| Milestone/Activity Description. | Who | N= Notify | W= Witness | H= Hold |
| 1. | E.g. Configuration Approval | E.g. R.R. |  |  | E.g. H |
| 2. | E.g. Detailed Site Survey Approval | E.g. Metro Div |  |  | E.g. H |
| 3. | E.g. Site Integrity Agreement provisions | E.g. R.R. & M.E. |  |  | E.g. H |
| 4. | E.g. Installation Work package | E.g. R.R. |  |  | E.g. H |
| 5. | E.g. Trench Backfill inspection | E.g. R.R. |  | Eg. W |  |
| 6. | E.g. ULX/Track Restoration | E.g. Track Rep |  | Eg. W |  |
| 7. | E.g. Other |  |  |  |  |
| 8. | E.g. Pre-pour inspections | E.g. R.R. | E.g. N |  |  |
| 9. | E.g. Other |  |  |  |  |
| 10. | E.g. Commissioning Work Package | E.g. R.R. |  |  | E.g. H |
| 11. | E.g. Other |  |  |  |  |
| 12. | E.g. Practical Completion – Minor defects | E.g. R.R. |  |  | E.g. H |

Interface Identification

|  |
| --- |
| Does the project have management and/or functional interfaces to other areas? |
| [ ]  | Signal Design | [ ]  | Control Systems | [ ]  | Communications |
| [ ]  | Engineering | [ ]  | Track | [ ]  | Electrical |
| [ ]  | Operations | [ ]  | Train Crew | [ ]  | Station Staff |
| [ ]  | Other: |  | [ ]  | Other: |  | [ ]  | Other: |  |
| Details of the actions required across each interface are to be included in the Interface Management Plan sections of this Plan. |

Site Integrity Agreement & Site Assessment

The parties are to assess the condition of existing infrastructure, interface locations and signalling equipment in the vicinity of the works.

| Question | No | Yes | Detail |
| --- | --- | --- | --- |
| Are pre-existing spare cables/ cores to be utilised by this project? | [ ]  | [ ]  | If yes, detail any conditions |
| Enter detail here as applicable |
| Is any pre-existing equipment to be utilised/reused by this project? | [ ]  | [ ]  | If yes, detail any conditions |
| Enter detail here as applicable |
| Will there be redundant material as a result of this project? | [ ]  | [ ]  | If yes, detail any disposal requirement |
| Enter detail here as applicable |
| Is there any other signal jobs current at the location or for which the submission of “Certified Office Copies” (COC) is outstanding? | [ ]  | [ ]  | If yes, Detail |
| Enter detail here as applicable |
| Is there any new or altered signal design for the area not yet updated to Maintenance Copies? | [ ]  | [ ]  | If yes, Detail |
| Enter detail here as applicable |
| When more than one signalling alteration is being performed in a location, the Regional signal representative is to ensure that the accountability for all the work in that location is clearly allocated to one Commissioning engineer. | [ ]  | [ ]  | Details and Name |
| Enter detail here as applicable |
| Has the assessment identified any requirements for track, civil or electrical infrastructure particularly associated with access, reliability and/or maintainability of the signalling infrastructure? | [ ]  | [ ]  | If yes, Detail the requirement |
| Enter detail here as applicable |
| Will the staging of the work require temporary detection to be fitted to out of use points requiring cyclic maintenance? | [ ]  | [ ]  | If yes, Asset engineer to arrange configuration changes, Maintenance engineer to arrange scheduled maintenance. |
| Enter detail here as applicable |

| Question | No | Yes | Detail |
| --- | --- | --- | --- |
| Where the new and altered signalling work is associated with scope included in a Project Safety Agreement agreed between the Region and another project manager e.g. Track, civil, electrical or other 3rd party, the agreement shall include development/implementation of a signalling specific Interface Coordination Plan. | [ ]  | [ ]  | Include the responsible 3rd Party project manager in the sign off of this interface coordination plan. |
| Enter detail here as applicable |
| Is there any transfer of responsibilities from the region associated with authority to excavate, supervision and provision and maintenance of signalling, communications and services search information? | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| Has the “Electrical risk Assessment” identified any hazards and agreed on precautions to be adopted and responsibilities? | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| Where signals are being converted to LED type – has the inspection revealed any read through issues and precautions to be adopted. | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| Details of insulation records are to be advised by the Region, particularly known defects. | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| Is there any "other works agreed to be concurrently implemented in the location/s? | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| Due to the large scale of change-overs for this job the Regional representative agrees that a minimal portion of the wire disconnection’s may be completed following the “booking into use”. | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| The Regional signal representative authorises work to commence in the following location/s. | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |
| Other: | [ ]  | [ ]  | If yes, Provide details |
| Enter detail here as applicable |

|  |
| --- |
| Is there any other site integrity issue to be considered as part of this project? If so, detail: |
| List items such as special conditions due to the condition of the existing infrastructure, etc. |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Signalling Access Arrangements

|  |
| --- |
| Access to relay room/location permitted between: |
| [ ]  | 00 : 00 | – | 00 : 00 | on weekdays, any time on weekends |
| [ ]  | Other: | Click here |

|  |  |  |  |
| --- | --- | --- | --- |
| Question | No | Yes | Detail |
| Special access required (e.g. Electronic token): | [ ]  | [ ]  | Enter detail here as applicable |
| Material to be stored on-site: | [ ]  | [ ]  | Enter detail here as applicable |
| Notes: Enter any special conditions relating to the access required for this project |
|  |

Operational Issues

|  |  |  |
| --- | --- | --- |
| Question | No | Yes |
| Are there any operational issues to be managed by the project? | [ ]  | [ ]  |
| List - including responsibility assignment: |
|  |

Regional Signalling Representative

For each signalling works project the Asset engineer, signals (or as otherwise nominated) shall perform the following activities in the capacity of Regional signal representative:

* Provides a single point gateway between the project and the region, progresses, monitors and reports on internal metropolitan division aspects of the required processes
* Distribution and control of project design documentation
* Provide interface coordination within the Metropolitan division for project matters
* Review and approve in principle - minor work, installation and commissioning work packages
* Collaborate and manage the provision of track possessions, including rail traffic coordination and provision of test locomotives and SAFE Notices
* Attend regular project review meetings
* Attend the pre-and post-commissioning meetings
* Other duties as nominated as follows:

|  |
| --- |
| The Commissioning Engineer shall update Project Explorer on a monthly basis.Nominate any other reporting requirements for this project. If so, detail: |
|  |

Training Requirements

|  |  |  |
| --- | --- | --- |
| Question | No | Yes |
| Are there any training requirements to be managed by the project? | [ ]  | [ ]  |
| List - including responsibilities: |
|  |

Configuration Control

The Asset engineer, signals shall:

* Raise the CCR if required for this project.
* Inform the Commissioning engineer if any further configuration documentation is required.
* Inform the Commissioning engineer when the configuration changes have been approved.
* Ensure that applicable Ellipse application is updated to reflect any changes resulting from this project.
* Close out CCR processes.

Note that no site works will commence until the Commissioning Engineer has been formally notified that the configuration changes (if applicable) have been formally approved by the CCB.

The Commissioning engineer shall:

* Assist the Asset engineer, signals with the configuration change process as required.
* Ensure that any site work does not commence until the configuration changes have been approved by the CCB.
* Provide the Asset engineer, signals with a listing of new, altered and removed assets.

|  |  |  |  |
| --- | --- | --- | --- |
| This list shall be provided not less than  |

|  |
| --- |
|  |

 | weeks prior to commissioning |

Type Approvals, Trials or Waivers

|  |  |  |
| --- | --- | --- |
| Question | No | Yes |
| Is there signalling type approval issues related to this project? | [ ]  | [ ]  |
| Does the work include any registered engineering trials or waivers? | [ ]  | [ ]  |

Commissioning the Works – Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Question | No | Yes | If yes, detail |
| Is there a requirement for post-commissioning standby cover to be provided by this project? | [ ]  | [ ]  | Enter detail here as applicable |
| Are there any issues relating to the commissioning of this project? If so, detail: |
| Enter detail here as applicable |

Pre -Existing Safety Issues:

|  |  |  |
| --- | --- | --- |
| Question | No | Yes |
| Is there any employee safety issues, risks and mitigation strategies used by maintenance personnel to be communicated and incorporated in the planning and site safety management system to be utilised by the construction group? | [ ]  | [ ]  |
| List - including who is responsible: |
|  |

Signalling Maintenance Responsibility

|  |  |  |  |
| --- | --- | --- | --- |
| Question | No | Yes | Detail |
| Maintenance shall ensure personnel are trained on the use of the equipment being installed, and are competent to work on the new/altered equipment. | [ ]  | [ ]  | Enter detail here as applicable |
| Determining and organising any new or revised holding of spare equipment is the responsibility of maintenance | [ ]  | [ ]  | Enter detail here as applicable |
| Arrange maintenance personnel involvement in the works, ensure familiarity with the scope, and location/s affected by the work and any identification/marking in use to distinguish them | [ ]  | [ ]  | Enter detail here as applicable |
| Post-Commissioning - arrange attendance for follow up activities, e.g. points adjustments due to track settlement and stand-by. | [ ]  | [ ]  | Enter detail here as applicable |
| Is there any other maintenance responsibilities for the Project? | [ ]  | [ ]  | Enter detail here as applicable |
| Collaborate for the review of work packages | [ ]  | [ ]  | Enter detail here as applicable |
| Collaborate and attend the detailed site assessment inspection and the development of the Site Integrity Agreement | [ ]  | [ ]  | Enter detail here as applicable |

Maintenance Documentation

The documentation requirements relating to the construction, commissioning and handover are covered in this section of the document.

From the commencement of electrical construction, a circuit book shall be left on site at a location specified below. This circuit book shall be left on site until commissioning.

|  |  |  |
| --- | --- | --- |
| The circuit book shall be left at: |

|  |
| --- |
|  |

 |

|  |
| --- |
| Is there any other maintenance documentation issues relating to this project (such as stage-work)? If so, detail:  |
| Enter detail here as applicable |

Documentation & Handover Schedule

|  |
| --- |
| Documentation shall be provided to the Regional representative as specified below: |
| * Interim Maintenance Circuit Books
 |
| On Commissioning: | No. Copies: |  | Location: |  |
| Next Business Day: | No. Copies: |  | Location: |  |
| On Commissioning: | New Track History cards, copies of FPL/ Detection and Trainstop TC forms  |
| Other: |
| Handover Package | 14 Days or Other: |  |
| Signed COC Circuit book/Signal plan/T.I.P. | 28 days or Other: |  |
| Construction documents | Required? |
| No | Yes |
| As Built | Detailed Site Survey Drawings | [ ]  | [ ]  |
| As Built | Signal Sighting Forms | [ ]  | [ ]  |
| As Built | Installation Drawings | [ ]  | [ ]  |
| As Built | Structures and Buildings | [ ]  | [ ]  |
| As Built | Mechanical Drawings | [ ]  | [ ]  |
| As Built | Airline schematic & Detailed Installation Drawings | [ ]  | [ ]  |
| As Built | Level Crossing layout Plans | [ ]  | [ ]  |
| As Built | Clearance diagrams | [ ]  | [ ]  |
| Other |  | [ ]  | [ ]  |
| Other |  | [ ]  | [ ]  |

Handover Documentation Package

The Handover Documentation Package shall include copies of the following:

* IBA Forms
* Commissioning Certificate
* Copies of new Track History Cards and TC Forms

|  |
| --- |
| Is there any other documentation required as part of the handover package? (E.g. Copy of work package, manufacturer certificates, equipment manuals, etc.) |
|  |

Checklist from the Inspection and Testing Specifications

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Spec/Clause | Summary of Requirement | Applicable | Spec/Clause | Summary of Requirement | Applicable |
| No | Yes | No | Yes |
| 47111/Cl 5.1 | Project Safety Agreement to be agreed | [ ]  | [ ]  | 47112/Cl 4.2.1 | Detailed Site surveys to be GIS / CAD | [ ]  | [ ]  |
| 47111/Cl 6.1 | Accuracy of existing designs at interfaces, consult Commissioning Engineer re - status. | [ ]  | [ ]  | 47112/Cl 4.2.1 | Detailed Site surveys to be Interim to GIS / CAD | [ ]  | [ ]  |
| 47111/Cl 6.5 | Consult and agree with the Project Engineer re–safe access to equipment | [ ]  | [ ]  | 47112/Cl 5.2 | Weekly Notice advertising to be arranged by Regional Signal Representative in collaboration with Commissioning Engineer | [ ]  | [ ]  |
| 47111/Cl 6.12 | Regional Signals Representative to collaborate for the provision of track possessions, SAFE Notices, Weekly Notice, Test Locomotives, Arrange for follow up maintenance activities post Commissioning | [ ]  | [ ]  | 47112/Cl 6.1 & 6.2 | Maintenance of equipment registers is the responsibility of the Regional Asset Manager / Engineer with information provided by the Commissioning Engineer | [ ]  | [ ]  |
| 47111/Cl 6.12 | Regional Signals Representative to approve in principle the Installation and Commissioning (or Minor Works) Packages | [ ]  | [ ]  | 47112/Cl 6.2 | Asset registers, Regional Signal Representative to provide details of the format. | [ ]  | [ ]  |
| 47111/Cl 6.12 | Collaborate the implementation of the works with the regional personnel | [ ]  | [ ]  | 47112/Cl 8.1 | Regional Signal Representative to agree that work may be documented in a Minor Work Package | [ ]  | [ ]  |
| 47112/Cl 2.1 | A job status review including status of other modifications/jobs issued for the area to be conducted | [ ]  | [ ]  | 47116Cl 1.6 | The Regional Signal Representative shall ensure that an Interface Coordination Plan and a Project Safety Agreement are agreed with all Regional stakeholders prior to authorising site work to commence | [ ]  | [ ]  |
| 47112/Cl 2.7 | Signal design shall be issued via the Regional Signal Representative | [ ]  | [ ]  | 47116Cl 1.6 | The Regional Signal Representative and the Commissioning Engineer are responsible for updating Interface Coordination Plan during the project lifecycle | [ ]  | [ ]  |
| 47112/Cl 2.7 | Commissioning Engineer shall return all design via the Regional Signal Representative | [ ]  | [ ]  | 0711.Cl |  | [ ]  | [ ]  |
| 47112/Cl 2.7 | The Regional Signal Representative shall distribute interim maintenance copies to the required maintenance locations | [ ]  | [ ]  | 0711.Cl |  | [ ]  | [ ]  |

Requirements may be further detailed in the following NOTES section.

Interface Management Plan – Signalling and Train Control Systems

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity | Details of Agreement  | Required? | Activity | Details of Agreement | Required? |
| No | Yes | No | Yes |
| Regional Rep Design Coordination | Regional Rep to coordinate/Other: | [ ]  | [ ]  | Train Control Systems |  | [ ]  | [ ]  |
| Progress report to Regional Rep  | Requirement: | [ ]  | [ ]  | Train Control Systems | To attend Management Meetings as required | [ ]  | [ ]  |
| Regional Rep Management Meetings | To occur every ( ) Weeks | [ ]  | [ ]  | Train Control Systems | Inspection and Testing Certification Documentation requirements: | [ ]  | [ ]  |
| Regional Rep Services Searches | To be provided by region | [ ]  | [ ]  | Train Control Systems | Commissioning coordination and resource sharing requirements | [ ]  | [ ]  |
| Regional Rep Detailed Site Surveys | Update existing as supplied by regional Rep OR/ | [ ]  | [ ]  | Train Control Systems | Stand by requirements | [ ]  | [ ]  |
| Regional Rep Detailed Site Surveys | New to be produced to GIS Standards OR/ | [ ]  | [ ]  | Train Control Systems | Other | [ ]  | [ ]  |
| Regional Rep Detailed Site Surveys | New to be produced using AutoCad | [ ]  | [ ]  |  |  | [ ]  | [ ]  |

Requirements may be further detailed in the following NOTES section.

Interface Management Plan – Others

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity | Details to be agreed  | Required? | Activity | Details to be Agreed | Required? |
| No | Yes | No | Yes |
| Electrical, Power and Lighting | New supply points | [ ]  | [ ]  | Track,Track work | Other | [ ]  | [ ]  |
| Electrical, Power and Lighting | Upgrading of new supply points | [ ]  | [ ]  | Civil,Civil work | Embankment widening and drainage work | [ ]  | [ ]  |
| Electrical, Power and Lighting | Other | [ ]  | [ ]  | Civil,Civil work | Roadways and access points | [ ]  | [ ]  |
| Electrical,Traction supply | Air gap locations | [ ]  | [ ]  | Civil,Civil work | Level Crossing arrangements | [ ]  | [ ]  |
| Electrical,Traction supply | Overhead wiring clearances | [ ]  | [ ]  | Civil,Civil work | Other | [ ]  | [ ]  |
| Electrical,Traction supply | Arrangements at substations and section huts | [ ]  | [ ]  | External Parties - RTA | Approaches and Road markings at level crossing | [ ]  | [ ]  |
| Electrical,Traction supply | New Overhead wiring Structures | [ ]  | [ ]  | External Service Owners | Approvals, locations, protection and supervision for services on Sydney Trains Land | [ ]  | [ ]  |
| Electrical,Traction supply | Other | [ ]  | [ ]  | External Service Owners | Other | [ ]  | [ ]  |
| Track,Track work | New track Infrastructure,  | [ ]  | [ ]  | Others |  | [ ]  | [ ]  |
| Track,Track work | Track drainage & reconditioning requirements – track circuit reliability | [ ]  | [ ]  | Others |  | [ ]  | [ ]  |
| Track,Track work | Points - new and reconditioning requirements | [ ]  | [ ]  | Others |  | [ ]  | [ ]  |

Requirements may be further detailed in the following NOTES section

Notes

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Notes

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Interface Coordination Plan Agreement

The works are authorised to proceed recognising the provisions set out in this Interface Coordination Plan:

Submitted By:

|  |
| --- |
| Commissioning Engineer  |
| Name: |  |
| Signature: |  | Date: |  |

**Agreed By:**

|  |
| --- |
| Regional Signalling Representative |
| Name: |  |
| Signature: |  | Date: |  |

|  |
| --- |
| Maintenance Engineer Signalling |
| Name: |  |
| Signature: |  | Date: |  |

|  |
| --- |
| Other: Train Control Systems  |
| Name: |  |
| Signature: |  | Date: |  |

|  |
| --- |
| Other: Electrical Representative  |
| Name: |  |
| Signature: |  | Date: |  |

|  |
| --- |
| Other: Track Representative |
| Name: |  |
| Signature: |  | Date: |  |

|  |
| --- |
| Other  |
| Name: |  |
| Signature: |  | Date: |  |

Section 2: Inspection & Test Plan

Inspection and Testing Plan – Minor Signalling Works

|  |  |  |
| --- | --- | --- |
|  | Version: |  |
|  | Package No: |  |
| Listing of Signalling and Communications Assets – New Or Altered | Listing of Signalling and Communications Assets – Removed |
| Asset Type | Description | Asset Type | Description | Asset Type | Description | Asset Type | Description |
|  |  |  |  |  |  |  |  |
| Signalling Safeworking Requirement | Other Requirements |
| Activity | Where and When | Who is responsible | Requirement | Details |
|  |  |  | Possession: |  |
| Other Parties |  |
| Personnel:  |  |
| Special Considerations: |  |
| Waivers: |  |

Section 3: Detailed Inspection & Test Plan and Quality Assurance Strategy

Minor Works Installation – Inspection – Testing/Commissioning Detailed Plan & Signalling Safeworking Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Version No: |  |  | Page 1 of 1 |
| Date: |  |  |
| Asset Type and Name/s | Activity Type  | Activity Details | W.I No | Activity Details | W.I No |
|  | Design Control Activities | Correlation checking |  | Certification of Drawings |  |
| Inspection Activities | General Inspection |  | Warding/Indexing/Coding |  |
| Testing Activities | Documentation Check |  | Circuit Testing |  |
| Function Testing |  | System Testing |  |
| Other  | Acceptance Testing |  | Operational Function Check |  |
|  | Design Control Activities | Correlation checking |  | Certification of Drawings |  |
| Inspection Activities | General Inspection |  | Warding/Indexing/Coding |  |
| Testing Activities | Documentation Check |  | Circuit Testing |  |
| Function Testing |  | System Testing |  |
| Other | Acceptance Testing |  | Operational Function Check |  |
|  | Design Control Activities | Correlation checking |  | Certification of Drawings |  |
| Inspection Activities | General Inspection |  | Warding/Indexing/Coding |  |
| Testing Activities | Documentation Check |  | Circuit Testing |  |
| Function Testing |  | System Testing |  |
| Other | Acceptance Testing |  | Operational Function Check |  |
|  | Design Control Activities | Correlation checking |  | Certification of Drawings |  |
| Inspection Activities | General Inspection |  | Warding/Indexing/Coding |  |
| Testing Activities | Documentation Check |  | Circuit Testing |  |
| Function Testing |  | System Testing |  |
| Other | Acceptance Testing |  | Operational Function Check |  |
|  | Design Control Activities | Correlation checking |  | Certification of Drawings |  |
| Inspection Activities | General Inspection |  | Warding/Indexing/Coding |  |
| Testing Activities | Documentation Check |  | Circuit Testing |  |
| Function Testing |  | System Testing |  |
| Other | Acceptance Testing |  | Operational Function Check |  |
| SIGNALLING SAFEWORKING | Equipment Book in/Out |  | Other  |  |

Minor Works Installation – Inspection – Testing Quality Assurance-Strategy

|  |  |  |  |
| --- | --- | --- | --- |
| Version No: |  |  | Page 1 of 1 |
| Date: |  | Notification, Witness and Hold Points |
| Number/s /Location | Activity Type  | Activity Details | N/W/H | Activity Details | N/W/H |
| Eg. Foundations:Signal. No:Ground Frame:Telephone:Other: | Design Control Activities | Verify construct drawings |  | Pre-Site Testing |  |
| Process Inspections  | Excavation |  | Supplier inspection |  |
| Pre-pour |  | Delivery Inspection |  |
| Back fill |  | Methodology |  |
| Client Requirements |  |  | 3rd Party requirements |  |
| Eg. Cable Routes:Buried. From toG.S.T. From toG.L.T. From toPits Turning Chambers: | Design Control Activities | Verify construct drawings |  | Pre-Site Testing |  |
| Process Inspections  | Excavation |  | Supplier inspection |  |
| Pre-pour |  | Delivery Inspection |  |
| Back fill |  | Methodology |  |
| Client Requirements |  |  | 3rd Party requirements |  |
| Eg Trackside Installation:Cabling/jointing.Track circuit.Level Crossing.Other: | Design Control Activities | Verify construct drawings |  | Pre-Site Testing |  |
| Process Inspections  | Excavation |  | Supplier inspection |  |
| Pre-pour |  | Delivery Inspection |  |
| Back fill |  | Methodology |  |
| Client Requirements |  |  | 3rd Party Requirements |  |
| Eg. Locations:Base.Cabinet.Earth mat.Other: | Design Control Activities | Verify construct drawings |  | Pre-Site Testing |  |
| Process Inspections  | Excavation |  | Supplier inspection |  |
| Pre-pour |  | Delivery Inspection |  |
| Back fill |  | Methodology |  |
| Client Requirements |  |  | 3rd Party requirements |  |
| Eg. Signalling Equipment:Signals:Points:Trainstop.Relays.Track Circuit Equipment.Equipment Racks.Power Supply/Surge.Control Systems equipment. | Design Control Activities | Verify to design drawings |  | Pre-Site Testing |  |
| Process Inspections  | Relay Testing |  | Supplier inspection |  |
| Trainstop Cycling |  | Delivery Inspection |  |
| Storage/Transport |  | Methodology |  |
| Others: |  |  |  |  |
|  |  |  |  |

Section 4: Work Instructions

Minor Works - Work Instruction

|  |  |  |
| --- | --- | --- |
|  | No. | {Insert} |
| Sheet  | {x of y} |
| Project: |  | Stage: |  |
| Work PackageNo.: |  |
| Shift Time: |  | to |  | Date: |  |
| Team Leader: |  | Team No: |  |
| Authorising Officer: |  | Date: |  |
| Prepared By: |  | Date: |  |
| Activity: |  |
| Standards/Procedures/Drawings |
|  |
| Activity/Task No. | Report to HQ Every: |  | Time Completed |
| Report by Radio CH: |  | Phone No: |  |
| Act | Task | Work Description |
|  |  |  |  |

|  |
| --- |
| Comments for Post Review Meeting |
|  |
| Reporting Instructions: |
| Team Leaders are to report to the Headquarters at intervals shown on the front of this work instruction to advise progress and any problem that will delay completion of allocated activities and problems not directly related to your activities. |

|  |
| --- |
| Communications Directory |
| Headquarters: |  | Emergency Numbers |
| Signal Boxes: |  | Police: |  |
| Locations: |  | Ambulance: |  |
| Signal Post Telephones: |  | Hospital: |  |
|  | Operations Control: |  |
|  | Elec Trouble: |  |

|  |
| --- |
| Work Not Completed |
| Act | Task | Details | Transferred |
| Log Line Item | WI No. |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |
| --- | --- |
| Work Status Statement | Received/Checked/Action Statement |
| The Work described above has been performed and recorded in accordance with the specified standard |  |
| Name |  | Name: |  |
| Position |  | Position |  |
| Signature | Date | Signature | Date |
|  |  |  |  |

Section 5: Minor Works Log

Minor Signalling Work - Installation, Inspection, Testing and Commissioning Log

|  |  |  |
| --- | --- | --- |
|  | Log Page No. |  |
| Job Name: |  |
| Entered by:  | [ ]  | Commissioning Engineer | [ ]  | Site Manager | [ ]  | Work Group Leader | [ ]  | Team Leader |
| Name: |  | Signature: |  | Date: |  |
| LineItemNo. | Date/Time | Team | Reported By | Report | Action;Transferred to WI No/See Line Item No. |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Checked and Signed off that items have been satisfactorily completed by: |
| Name: | {Insert Name} | Position: | {Insert Position Title} |
| Signature: |  | Date: | {dd/mm/yy} |

Section 6: QA Records

Section 7: Commissioning Certificate

Minor Works Commissioning Certificate Part 1

|  |  |  |
| --- | --- | --- |
|  | No. | {Insert} |
| Sheet  | 1 of 2 |
| Project: |  | Stage: |  |
| M.W.P. No.: |  |
| Location: |  | Contractor: |  |
| Weekly Notice No: |  | Circular No: |  |
| Work Description: |
|  |
| Item | Work Activity | Status | Signature |
| 1.0 | Work Instructions – All Checked and Actioned |  |  |
| 2.0 | Commissioning Log – All Entries Checked and Actioned |  |  |
| 3.0 | Control Systems – Certificate Of Work |  |  |
| 4.0 | Control Table Function Test/Design Integrity Certification |
| 4.1 | Mechanical/Relay/Route Interlocking Tests |  |  |
| 4.2 | Design Integrity Tests |  |  |
| 4.3 | C.B.I. Tests |  |  |
| 4.4 | Auto-Section Tests |  |  |
| 4.5 | Block Instrument And Staff Instrument Tests |  |  |
| 4.6 | Level Crossing Tests |  |  |
| 4.7 | Aspect Sequence Tests |  |  |
| 4.8 | Points Correspondence Tests  |  |  |

(Continued on next page)

Minor Works Commissioning Certificate Part 2

|  |  |  |
| --- | --- | --- |
|  | No. | {Insert} |
| Sheet  | 2 of 2 |
| Item | Document | Status | Signature |
| 5.0 | Documents Checked, Complete And Certified |
| 5.1 | Type Approvals |  |  |
| 5.2 | Issued Design Documents(List in detail, Attach additional sheet if necessary) | Show the status of Inspection, testing and certification associated with each item listed. |  |
| 5.3 | Modifications(List first and last Nos) |  |  |
| 5.4 | Track Circuits:Master Sheets (No.1 & 2) Track History Cards |  |  |
| 5.5 | TC-4 – Trainstops |  |  |
| 5.6 | TC-6 – F.P.L. And Detection |  |  |
| 5.7 | TC-10 – Level Crossings |  |  |
| 5.8 | TC-\* \*(Any additional TC’s as required) |  |  |
| 5.9 | C.B.I. Certificates(List in detail, Attach additional sheet if necessary) |   |  |
| 6.0 | Exceptions (List details of any work not to be not to be commissioned into use. Attach additional sheet if necessary.) |  |
| Commissioning Statement - I certify that the work as detailed on this certificate has been inspected and tested and is functional and fit for purpose in accordance with the specified requirements, and ready to be brought into use. |
| Name |  |
| Position |  |
| Signature | Date | Time |
|  |  |  |

Section 8: Safeworking Forms and Permits

Including:

Safeworking Forms and Permits Form

Weekly Notice Insert

Completed IBAs and Permits

Completion Certificates

Transmittals/Receipts

|  |  |
| --- | --- |
| Project |  |

|  |  |
| --- | --- |
| Minor Works PackageReference No. : |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Form No | Required |  | Permits | Required |
| **Booking Authority** |  |  | High Voltage Feeders Isolation Orders | [ ]  Yes/[ ]  No |
|  NRF 003 | [ ]  Yes/[ ]  No |  | Working High Voltage Instruction  | [ ]  Yes/[ ]  No |
| **Locking Certificate** |  |  | Mains Access Permit | [ ]  Yes/[ ]  No |
|  Mechanical/Relay/RoutePR S 40022 FM01 | [ ]  Yes/[ ]  No |  | Substation Access Permit | [ ]  Yes/[ ]  No |
|  Design IntegrityPR S 40022 FM02 | [ ]  Yes/[ ]  No |  | Low Voltage Access Permit | [ ]  Yes/[ ]  No |
|  |  |  | Authority for Removal of Supply from 1500 Volt Sections | [ ]  Yes/[ ]  No |
|  |  |  | 1500 Volt Overhead Wiring Permit to Work | [ ]  Yes/[ ]  No |
|  |  |  | Advice of Alterations to Electrical System Operating Diagrams | [ ]  Yes/[ ]  No |
|  |  |  | Installation Test Report | [ ]  Yes/[ ]  No |
|  |  |  | Local Supply Authority Notification of Electrical Work | [ ]  Yes/[ ]  No |

|  |
| --- |
| Checked By |
| Name | {Insert Name} |
| Position | {Insert Position Title} |
| Signature |  | Date: | {dd/mm/yy} |

Memorandum of Document Exchange

|  |  |
| --- | --- |
| To: | From: |
|  | Name: |  |
|  | Signature: |  |
|  | Date: |  |
| Project: |  |
| M.W.P. No. |  |
| Document No. | Type | Document Description | Document Date | Quantity |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Remarks: |
|  |
| For information contact:  |
| **Name:** |  | **Phone:** |  |
| Receipt Acknowledgement |
| I acknowledge receipt of the above listed documents

|  |  |
| --- | --- |
| Name: | {Insert Name} |
| Position: | {Insert Position Title} |
| Signature: |  | Date: | {dd/mm/yy} |

Please acknowledge by signing receipt acknowledgment and returning to sender. |

Section 9: Site Photographs

Including:

Site Condition Surveys

Inspections

Progress

Covered up work

As built photographs