

**RAIL NETWORK
TRAIN AUTHORISATION SYSTEMS
PROJECT SPECIFICATION**

**VRYHEID DEPOT
REFURBISHMENT OF VARIOUS RELAY ROOMS FOR
VRYHEID SIGNALLING STATIONS**

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1. SCOPE

The scope of work required by Vryheid depot is Remove and Replacement of 10 Safety Steel Doors and 5 roof waterproofing at Vryheid Various Relay Rooms.

1.1 SUMMARY OF THE WORK TO BE DONE

- The door thickness shall not be less than 85mm and will include a fire pan, locking case and outer door plate.
- The outer door plate shall be manufactured of mild steel plate of not less than 6mm thickness.
- The door frame shall be manufactured of an angle iron and shall be installed in such a way that rodents, water and snakes cannot enter the building.
- The inside part of the each door frame shall be re-enforced with 4 plates fixed by roll bolts
- Each key operated door shall be fitted with one 7 lever high security safe lock (locking mechanism) and the safety doors shall have a common locking mechanism (all doors should be opened with a common key). The key hole shall be covered with a movable disc.
- The existing door frames shall be measured and verified before the new safety doors are manufactured.
- Each door and frame shall be painted as per HE9/2/8 Corrosion Protection Specification, using Noxide Paint.
- Take out existing zinc sheets on the roof, install new charcoal cromadec sheets and roof waterproofing.
- Installation of safety doors to be done in Sheepmoor, Ngwempisi, Panbult, Iswepe and Wildrand.
- Replacement of roof to be done in Ngwempisi, Panbult, Iswepe, Wildrand and Comondale.
- The workmanship shall be of high standard.

The delivery and installation shall be done at the following relay rooms:

- Sheepmoor (40km away from Ermelo)
- Ngwempisi (10km away from Sheepmoor)
- Panbult (10km away from Ngwempisi)
- Iswepe (10km away from Panbult)
- Wildrand (10km away from Iswepe)
- Comondale (50km away from Wildrand)

Relay rooms are approximately 10km apart.

2. MATERIAL, TRANSPORT AND LABOUR TO BE SUPPLIED BY THE CONTRACTOR

- 2.1. The contractor shall be responsible for the supply of all equipment and material required unless specified within this document.
- 2.2. All material and systems shall comply with relevant Transnet Freight Rail specification.
- 2.3. The Contractor shall be responsible for the safekeeping, proper staging and handling of all material supplied.
- 2.4. Removed and redundant signalling material shall be carefully stripped out, documented and disposed of as detailed in this section
- 2.5. All removed equipment shall be classified as either re-usable or scrap under guidance from the project manager. The material shall be separately delivered to Durban depot or as required by the Project Manager.

3. REPLACEMENT SCHEDULE

- 3.1. The doors shall be transported to sites as indicated on the attached locations.
- 3.2. The contractor shall submit a proposed schedule of work.

4. PLANT AND EQUIPMENT

- 4.1. The Contractor shall supply all vehicles, machinery, small plant and any mechanised equipment for the proper execution of the work.
- 4.2. The maintenance, leasing, hiring and insurance of this equipment will solely rest with the Contractor.
- 4.3. The Contractor shall be responsible for his\her own arrangements with regards to the transport and safe staging of this equipment.

5. OCCUPATIONS

- 5.1. Work shall be executed under an approved occupation between trains (OBT).The technical officer will be responsible for arranging occupations 60 days before the commencement of the works.
- 5.2. The contractor shall also enquire from the technical officer, the day before the date of such occupation to ascertain whether or not any changes or cancellation has been necessitated by the operations of Transnet. Written confirmation of the granting of permits/occupations must be presented before work can proceed during permit/occupation times.
- 5.3. Transnet reserves the right to cancel or change an authorised occupation or work permit at any time, even during the period of such occupation or work permit. A record of permit/occupation times shall be kept by the contractor and entered into the workbook (section 17).
- 5.4. The contractor shall give Transnet Freight Rail (technical officer) 7 day's written notice if an occupation is to be cancelled.

6. QUALITY INSPECTION

- 6.1. During the progress of the contract all work being undertaken by the Contractor shall be subject to periodic inspection by the Technical Officer. All such workmanship shall be supplied and performed, respectively, to the entire satisfaction of the Technical Officer or his duly authorized representative.
- 6.2. Should at any stage in the progress of the work, or on completion, an inspection visit reveal any defects in the construction or the quality of work, which are due to the Contractor, such defective workmanship shall immediately be remedied by the Contractor at his own expense and to the satisfaction of the Technical Officer or his duly authorized representative.

7. SITE MEETINGS

- 7.1. Site meetings, when required, will be held for attendance by the technical officer or his duly authorized representative and the contractor representative. Such meetings will be for the purpose of discussing progress, delays, materials, conditions, problems and co-ordination of site activities. The minutes of the meetings shall be documented accordingly.

8. SUPERVISION

- 8.1. The contractor shall provide a competent person for the duration of the contract to supervise the execution of the work; the identified person shall at all times be able to provide reliable feedback on the progress and occurrences of the project.

9. RECORDS AND INSTRUCTION BOOKS

- 9.1. The contractor shall supply and have available at all times, at the worksite an a4 carbon copy books with detachable numbered sheets in duplicate, to be used as:
- 9.2. Site instruction book for receiving and recording instructions issued by the technical officer. All instructions recorded shall be signed by the technical officer and immediately acknowledged by the counter signature of the contractor or his agent.

- 9.3. Daily diary/record book with a page per day for recording all events affecting the progress of the works; breakdowns, delays, work done during the day etc. Entries shall be made by the contractor daily. Those days on which no events take place must be ruled out and "nil" entered.

10. SAFETY REQUIREMENTS

- 10.1. The contractor shall provide a safety file to the project manager for approval incorporating the following elements:
- 10.2. Scope of work
- 10.3. Roles and responsibilities of contractor personnel.
- 10.4. Hazard management plan.
- 10.5. Contract induction and safety training.
- 10.6. Safe work practices and procedures.
- 10.7. Emergency procedures.
- 10.8. Incident recording and investigation.
- 10.9. Health and safety performance monitoring.
- 10.10. Dangerous goods/hazardous substances.
- 10.11. Management of subcontractors (where applicable)
- 10.12. Upon approval of the safety file the contractor will be issued with a site access certificate authorised by the depot engineer. All personnel who will be working on site shall attend the safety induction prior to the commencement of installation. The replacement team shall have the safety file with them at all times when on site.
- 10.13. The work will be performed under normal operating conditions (i.e between trains). The contractor will be responsible to safeguard the work area i.e. Protect its workforce when working close to electrical high voltage; protection from passing trains and keeping the line free from any obstructions.
- 10.14. The TFR technical officer/TFR Site Supervisor will communicate with the TCO at the relevant CTC before commencing with the work and after the completion of work on each day when working in the relay room.
- 10.15. Personal Protective Equipment (PPE) must be worn at all time.
- 10.16. No making of fires will be permitted on site. Any claims arising from the making of such fires will be for the cost of the contractor.
- 10.17. The workplace must be cleaned of scrap material (i.e. Papers, cable offcuts, tins etc.) After every workday.

11. PRE-TESTING AND COMMISSIONING

- 11.1. Upon completion of installation, the contractor will be responsible for pre-testing of the system within the prescribed time.
- 11.2. The testing and commissioning will be conducted by the project manager or his/hers duly authorised personnel.
- 11.3. The contractor shall be responsible for providing all tools and equipment required to conduct the process of testing and commissioning.
- 11.4. The contractor shall be liable for any damages to Transnet Freight Rail's property caused by the contractor, in the event that equipment is damaged, it must be repaired, reported and tested by the contractor at their own cost.

12. COMPLETION OF WORK

- 12.1. Work shall be completed within 3 months from date of order.

END OF SPECIFICATION

