

Annexure 2.7:
Particular Technical Requirements
Congela to Durban

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1 GENERAL

1.1 Purpose of the Document

- 1.1.1 The purpose of this document is to provide the Particular Technical Requirements (“PTR”) which form part of the minimum Requirements of the Passenger Rail Agency of South Africa (“PRASA”) for the Congela to Durban related Works that form part of the planning, design, supply, construction, installation, testing, commissioning and maintenance of a new fully integrated, functional, complete and future-proofed PRASA Train Control System (“PTCS”) in PRASA’s KwaZulu-Natal (“KZN”) service region (“the Project”) that the Bidder shall meet and deliver at the Bidder’s cost therefore within the Bid Price.

1.2 Executive Overview

- 1.2.1 Notwithstanding any other PRASA Requirements stated throughout the RFP, the Bidder shall uncompromisingly deliver the whole of the Works required to achieve successful delivery of the Project.

1.3 Location and Minimum Extent of the Works

- 1.3.1 The boundaries of the Site are the Durban region rail servitude for the section:
- a) Congela to Durban.
 - b) Durban Centralised Train Control (“CTCC”).
 - c) Rosburgh CTCC.
- 1.3.2 The extent of the Site is approximately 30km and includes at least:
- a) 2 Crossing places.
 - b) 2 Halts.
 - c) 1 Interface to the Transnet Freight Rail (“TFR”) Network.
 - d) 1 Substation.
 - e) 2 Global System for Mobile Communications – Railway (“GSM-R”) Sites.
- 1.3.3 The section Congela to Durban is shown in Figure 1.3.1 below:

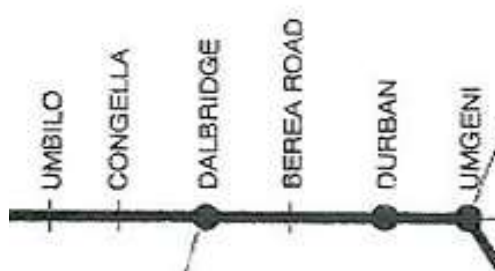


Figure 1.3.1: Congella to Durban

- 1.3.4 The Site(s) includes at least the following crossing places:
- a) Dalbridge.
 - b) Durban.
- 1.3.5 The Site(s) includes at least the following halts:
- a) Congella.
 - b) Berea Road.
- 1.3.6 The Site(s) includes at least the following interfaces to the TFR Network:
- a) Bayhead.
- 1.3.7 The Site(s) includes at least the following substations:
- a) Durban.
- 1.3.8 The Site(s) includes at least the following GSM-R sites:
- a) Berea road_T.
 - b) Durban.
- 1.3.9 Any other Site(s) and Works, activities and resources required to achieve a fully integrated, functional, complete and future-proofed PTCS and meet any other requirements and specifications as requested throughout the RFP or as otherwise instructed in writing by PRASA.

2 MINIMUM REQUIREMENTS

2.1 Congela to Berea

2.1.1 Signals:

- a) Implement 2.5-minute headways according to the requirements and specifications provided throughout the RFP.

2.1.2 Electrical:

- a) ~~Review~~ Provide and/or update the Third Party 6.6kV line Design between Umgeni (Springfield) and Rossburgh.
- b) Provide a new 6.6kV line according to updated Design.

2.2 Dalbridge

2.2.1 General:

- a) Update the Design and implement the layout changes as illustrated in Figure 2.2.1 below:

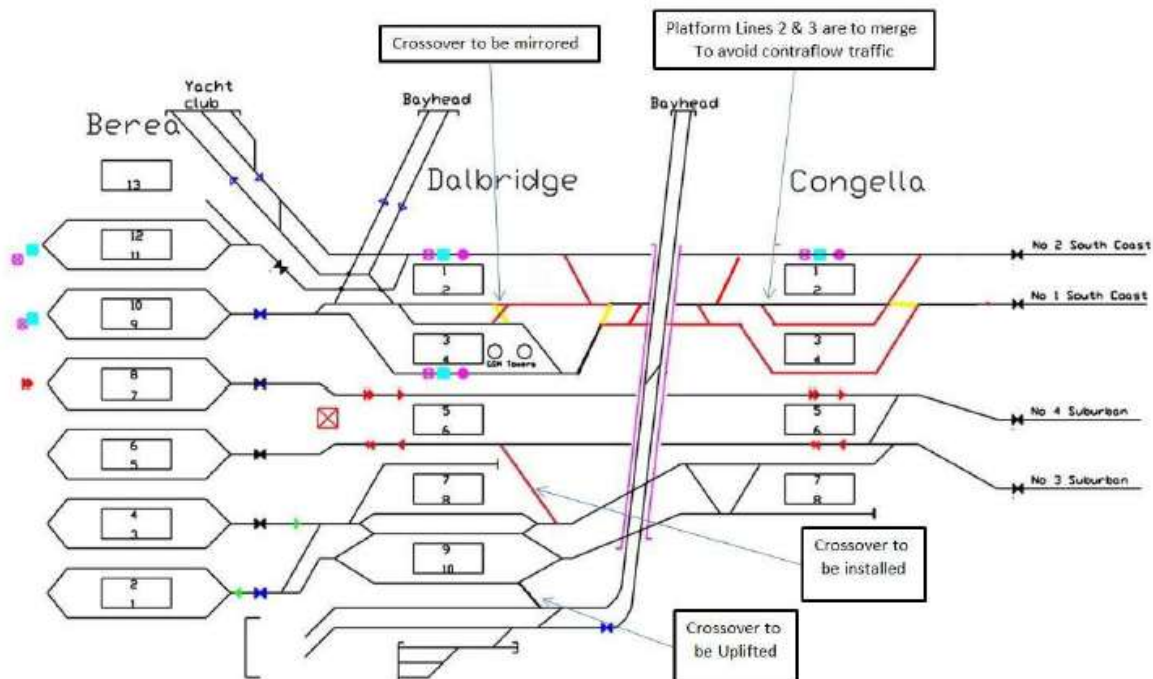


Figure 2.2.1: Dalbridge required layout changes

- b) Interface to the TFR Network at Bayhead.

2.2.2 Signals:

- a) Eliminate all dwarf signals in the area.
- b) Replace all existing signal gantries and install new gantries where required according to the Design.

2.2.3 Civils:

- a) Provide a suitable service road providing access to all Equipment Rooms and sites as defined in the GTR, by either upgrading the existing service road or constructing a new service road.

2.3 Durban

2.3.1 Signals:

- a) Eliminate all dwarf signals in the area.
- b) Replace all existing signal gantries and install new gantries where required according to the Design.

2.3.2 Civils:

- a) Provide a suitable service road providing access to all Equipment Rooms and sites as defined throughout the RFP, by either upgrading the existing service road or constructing a new service road.