

## Transnet National Ports Authority

### Nelson Mandela Bay Ports

# SCOPE OF SERVICES FOR PROVISION OF PROFESSIONAL SERVICES TO UNDERTAKE PRECINCT PLAN FOR PORT OF NGQURA FOR THE PERIOD OF SEVEN (7) MONTHS

## 1. INTRODUCTION

- 1.1. Transnet National Ports Authority (TNPA), Port of Ngqura (PoN) invites qualified service providers to submit proposals to develop precinct plans for the Western, Central and Eastern precincts in the PoN. The project is aligned with the strategic objectives of the Port Development Framework Plans as outlined in Section 11 of the Ports Act of 2005.
- 1.2. Port Development Framework Plans (PDFPs) are periodically updated for all the ports under the mandate of TNPA. These are undertaken at national level and are based on demand of different cargos and generally take an unconstrained view.
- 1.3. TNPA has resolved that every two (2) years, each port, through a distinctly separate process, prepares its own development framework plans, which takes a more realistic and local view of planning for the port and overhaul the these plans every five (5) years.

## 2. PROJECT OBJECTIVES

- 2.1. The purpose of the project is to provide a greater level of detail planning for the Port. This includes the provision of detailed precinct plans that address Port infrastructure, land use in the Port, road, rail and pipeline access and other services.
- 2.2. Precinct Plans are to explore detailed traffic demand validation, apply urban design principles, road alignments re-rationalization of layout and suggest road alignments where needed. New business initiatives and proposed port expansion must be investigated.
- 2.3. Precinct Plans are essential in offering better capacity management and strategic planning for the port in the short, medium, and long term. In addition, the following is anticipated with the development of precinct plans:

- a) Better use of Terminal Capacity.
- b) Re- Rationalization of redundant spaces in the port
- c) Detailed planning to improve efficiency and attract investment in precincts that requires rationalization.
- d) Optimised and harmonised detailed land use plans.
- e) Provide Implementation Plan and Costs for infrastructure assets improvements.
- f) Provide detail design layouts to improve traffic movements, connectivity and accessibility
- g) Development of land use guidelines.
- h) Implementation of Land use design standards that inform safe, efficient use and accessible space.

2.4. The Precinct Plans will provide greater details that are outlined in the Port Development Framework Plan (PDFP). Precinct Plans are also to explore detailed traffic management, urban design alignment, road alignments re-rationalization of layouts and suggest road alignments where needed.

2.5. This will be achieved by dividing the port area into various priority precincts and identifying the specific characteristics, strengths and weaknesses of each precinct and providing recommendations aimed at strengthening/improving each of priority precinct, while mitigating the weaknesses.

### 3. STUDY AREA

3.1. The PoN is the newest South African commercial port and is situated 20 kilometres northeast of Port Elizabeth. Precinct plans are sought to address the rationalization of the Port by providing an effective Precinct Plan that will attract investment and increase throughputs in the area.

3.2. This will also ensure that the precinct contributes to the economic functioning of the port by identifying the key development areas for dedicated future land use. The port consists of 3 precincts that are depicted on the map attached below figure 1.



**Figure 1: Port of Ngqura Current Port layout**

### **Western Precinct**

3.3. The Western precinct is situated in the central region of the Port property, on the western edge of the Port between the western breakwater, Neptune Road and Klub Road. Infrastructure is in place with entrance and exit roads and good rail connectivity.

3.4. The Western Precinct incorporates the container terminal which is operated by Transnet Port Terminals (TPT). There are currently four (4) operational berths in this precinct. The terminal also has access through the main entrance plaza of the Port.

The following table includes the details of the four (4) berths in the Western precinct:

Berth	Type	Length	Depth	Max Draft
D100	Container	340	16m	15.5
D101	Container	320	16m	15.5
D102	Container	320	16m	15.5
D103	Container	320	16m	15.5

3.5. This precinct is critical for the PoN as it accommodates the container terminal. The precinct also has a sand bypass system. The precinct currently has vacant land that can be developed. The precinct also accommodates a rail line for containers.

3.6. The specific goals for the precinct include but are not limited to the following:

- a) The mainland-based activities involve the development of infrastructure and service facilities for Special Economic Zone tenants and Port Users
- b) The landside development is envisaged to encompass a custom secure logistic park, an E-commerce Park, areas designated for Port related activities, allied industries, mixed-use corridor, and electronic and technical clusters.
- c) Investigate options for complimentary land uses for containerized cargo within the precinct and other land uses that can be accommodated in the precinct.
- d) Balance growth by encouraging a mix of compatible land uses in areas with appropriate bulk services and infrastructure support.
- e) Traffic capacity analysis of all roads leading into the precinct and propose future road expansions.
- f) Re-rationalization of redundant spaces in the precinct.
- g) Give guidelines on the optimum use of the open spaces for future development taking into consideration the environmentally sensitive areas in the Port.

- h) Evaluate the infrastructural requirements (road, rail & bulk services) for implementing such recommendations and provide budgetary projections based on scenario recommendations.

### Central Precinct

3.7. The Central Precinct is located east of the container terminal and consists of three (3) berths. The berths are currently being utilized for handling break-bulk/general cargo. These berths have not yet been equipped for planned handling of dry bulk and liquid bulk.

3.8. The PDFP proposes the relocation of the dry bulk and liquid bulk terminals of the Port of Port Elizabeth (PoPE) to the PoN, and the relocated commodities will be handled in these berths.

3.9. This precinct is situated within the central parts of the port and will therefore not affect any neighbouring urban areas in terms of noise, odour, or visual pollution. However, it will increase manganese and clinker dust pollution in the Port.

Berth	Type	Length	Depth	Max Draft
B100	Break Bulk/MPT	300	18m	15.5
C100	Break Bulk/MPT	300	16m	15.5
C101	Break Bulk/MPT	300	16m	15.5

3.10. The specific goals for the central precinct include but are not limited to the following:

- a) Conduct land use analysis in line with the Strategic Environmental Assessment (SEA) conducted for the Port.
- b) Give guidelines on optimum use of storage land area footprint for import and export activities.
- c) Investigate effective use/activities and permanent fixtures needed for the precinct such as bulk services that can be provided for any potential tenants or land users.

- d) Take note of the future manganese conveyor system and identify other conveyor system expansion that might be required in the future
- e) Evaluate the infrastructural requirements (road, rail & bulk services) for implementing such recommendations and provide budgetary projections based on scenario recommendations.

### **Eastern Precinct**

3.11. The Eastern Precinct is in the Eastern side of the port including the Eastern breakwater. It incorporates the following:

- a) Admin Craft Basin (ACB) building houses the Marine, Fire departments and the Jetty to dock the marine craft.
- b) Berth A100 – dedicated Liquid bulk berth to be constructed in the future.
- c) Tank farm services which are in construction phase
- d) Liquefied Natural Gas (LNG) berth to be constructed in the future next to the breakwater.
- e) The Tank farm Terminal for Liquid Bulk

3.12. The specific goals for the precinct include but are not limited to the following:

- a) The service provider is to conduct research to determine what other commodities is best suited to be handled in this precinct.
- b) Ensure compliance to TNPA Liquid bulk strategy.
- c) Balance growth by encouraging a mix of compatible land uses in areas with appropriate bulk services and infrastructure support.
- d) Ensure future marine fleet growth is accommodated in the precinct by extending of the tug jetty.
- e) Research into how the port can benefit from alternative energy sources such as offshore energy farms and construction of a new LNG berth constructed next to the breakwater.
- f) Evaluate the infrastructural requirements (road, rail & bulk services) for implementing such recommendations and provide budgetary projections based on scenario recommendations.

#### 4. SCOPE OF WORKS & OUTCOMES

- 4.1. Qualified and experienced service providers are requested to submit proposals for the assessment and development of precinct plans for TNPA PoN. The scope of work includes but are not limited to the following:
- a) New business initiatives are to be explored and associated port infrastructure recommendations to be provided.
  - b) Take note of the SEZ developments is to be considered as well as the environmental sensitive areas in the Port/SEZ
  - c) Develop and compile an all-inclusive precinct plan for each precinct
  - d) Evaluate and integrate previously compiled planning documents and studies/investigations undertaken in the PoN.
  - e) Collect and evaluate all relevant information for the study including demand forecasts, port berthing capacity and requirements and planning for each precinct.
  - f) Conduct a capacity analysis for storage and gate capacity.
  - g) Identify land uses, current leases, opportunities & constraints associated with each precinct and provide mitigation measures.
  - h) Analyse and demonstrate the overall distribution of land uses and how much land is used by each category including vacant and undevelopable land and natural features, and further create an inventory and map of the existing uses and the different classifications.
  - i) Evaluate the infrastructural requirements (marine, terminal, road, rail, pipeline & bulk services) for implementing such recommendations and provide budgetary projections.
  - j) The service provider must assess current rail and road infrastructure and traffic circulation in each precinct and prepare conceptual options for the rationalization of road and rail circulation for each precinct.

- k) The service provider must provide scenarios for the port to include Short-, Medium- and Long-Term phases, these must be discussed and workshopped with TNPA with the aid of Multi Criteria Analysis.
- l) The plan must provide conceptual development, spatial/development guidelines, principles, parameters, and standards that will allow for sound decision making on land use management of the port in the short (10 years), medium (10-30years) and long term (beyond 30 years).
- m) Based on the land use recommendations, associated infrastructure projects are to be identified.
- n) Formulate implementation programme for achieving the recommendations as formulated by this study for each area as determined by the Precinct Plan and Project prioritisation and decision matrix.
- o) Integrate and convey all information spatially on one (1) map along with goals and recommendations and for each precinct.
- p) The precinct plan must inform the Port Development Framework Plan (PDFP).
- q) Integrate and convey all information spatially on one (1) map along with goals and recommendations.
- r) Create 3D models that reflects the current and future physical characteristics of the precincts.
- s) Provide Implementation Plan and Costs for infrastructure assets improvements.
- t) Urban form aesthetic, functionality, compatibility to create harmonious land uses, sense of place to stimulate activities, performance, accessibility, myriad patterns of movements, permeability, good fit, integration of the Port with the City region.
- u) Craft and design development parameters for site selection criteria to minimize non-conformity within precincts and those adjacent by providing spatial and practical solution without impeding the operational efficiency and functionality of the port.
- v) Conduct highest and best use analysis to define suitable land uses for vacant and underutilized land.

- 4.2. The Precinct Plans shall be informed by the following development principles and objectives:
- a) To spatially articulate the vision, principles, and future intent for the Port of Ngqura to guide the coordinated and complementary development.
  - b) To spatially integrate and identify the strategies, actions, and initiatives to guide and deliver the re-imagining of the Port of Ngqura.
  - c) To set clear benchmarks and expectations in relation to design, development and environmental quality that will be critical success factors in the re-imagining, development, and revitalization of the Port of Ngqura.
  - d) To provide certainty to both the public and private sector about the quantum, pace, scale, and quality of change.
  - e) To provide the flexibility required to respond to and accommodate unforeseen opportunities as they emerge over the lifetime of the plan.
  - f) To ensure that the use and development of non-port related activities and buildings does not impede the current and future operation of the precinct.
  - g) Define developmental parameters or measures to mitigate climate change of the precinct including the height restriction in accordance with appropriate scale whilst providing a transition in height between the surrounding built form and the port.
  - h) Develop and implement new innovative, sufficient, and appropriate strategies, projects, and Programmes, to ensure the overall maintenance and effective functioning of the port, and the provision and ongoing maintenance of port infrastructure and services (i.e., in terms of waste management, energy, recycling, street lighting, parking, traffic control, and infrastructure).

- i) Provide a consolidated plan that spatially integrates and link all precincts into one plan and map to ensure a harmonious, efficient, connected, and accessible port.
- j) Add Heritage sites and buildings as a unique feature for port identity and marketing. Conservation and integration of such properties into the future built environment.

## 5. PROJECT SCOPE OF WORKS SUMMARY

5.1. The project will be completed within a period of seven (7) months as outlined in the table below and will cover the following precincts and associated infrastructure assets:

Port Precinct Plans		
Focus Area	Name	Outcome
Western Precinct	<ul style="list-style-type: none"> <li>• Container Terminal</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed report on the precinct including practical implementable recommendations.</li> <li>• Detailed precinct maps including land uses.</li> </ul>
Central Precinct	<ul style="list-style-type: none"> <li>• Break bulk/multi-purpose terminal</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed report on the precinct including practical implementable recommendations.</li> <li>• Detailed precinct maps including land uses</li> </ul>
Eastern Precinct	<ul style="list-style-type: none"> <li>• Liquid Bulk Terminal</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed report on the precinct including practical implementable recommendations.</li> <li>• Detailed precinct maps including land uses</li> </ul>
The successful bidder will be required to submit detailed reports, drawing, maps, models etc. as required in the scope of works.		

## 6. INFORMATION/DOCUMENTS PROVIDED BY THE TNPA

6.1. The following documents shall be provided by TNPA to the appointed service provider.

- a) Port of Ngqura PDFP.
- b) Nelson Mandela Bay Metropolitan Municipality Land Use Management Scheme.
- c) Freight Management strategy.
- d) Lease timeframes.
- e) Land Use Plans.
- f) Demand Forecast.
- g) AutoCAD layouts and drawings of study area.
- h) Environmental Studies and Environmental Authorizations.
- i) Marine and Harbor Masters data.
- j) Asset Maintenance Principles and Procedure.

## 7. DELIVERABLES

7.1. A well-structured report aligned to the scope of work with greater detail to the following:

- a) Geographical layouts of precincts detailing South Africa, Provincial, Regional, municipal, and Metro context, road-rail linkages and international trade routes.
- b) Detailed precincts plan
- c) Operational and other restrictions applicable to each precinct and be demonstrated graphically.
- d) Specialist report from the relevant specialist, which includes, but not limited to the following:

- i. Assessment of transport/traffic networks considering traffic flows, road capacity, road lanes, and desired infrastructure.
  - ii. Assessments of all service infrastructure future needs and requirements in accordance with the proposed projects in the PDFPs.
- e) Physical infrastructure implications on Precinct Plans (short, medium, and long term).
  - f) Determine if re-rationalization, spatial re-layout, and road reconfiguration of precinct are needed factoring leases, traffic management and financial implications.
  - g) Urban design (aesthetics and functionality), signage, traffic management implications on precinct, road, rail and conveyors, pipelines and where applicable, include the soft edges.
  - h) Conservation areas and Cultural sites/Heritage sites per precinct (if applicable)
  - i) Demonstrate Record of Heritage buildings, etc. and possible adaptive reuse of such properties within the Port's Strategic development programme.

## **8. SKILLS TRANSFER AND DEVELOPMENT**

8.1. The service provider is expected to include a detailed mentorship programme addressing skills transfer to TNPA. The programme must focus on fundamentals of Port planning, Coastal Engineering, Traffic management but not limited to.

8.2. The service provided is to make provision for two (2) TNPA staff to be trained for on-the-job training which must be included in the cost by the service provider and as part of the inception report must detail how the TNPA personnel will be incorporated during the project for on-the-job training and transfer of skills.

## **9. REPORTING FORMAT**

9.1. Reports from the service provider shall be required to be submitted in the following formats.

- a) Power-point presentations to be on TNPA corporate format.

- b) Editable MS Word A4 and PDF Report with associated maps, graphs and tables.
- c) Five (5) hardcopies of a detailed precinct plan report.
- d) All documents, Intellectual Property, etc. shall become the TNPA property once payments have been effected.
- e) The software to be used by the consultant should be compatible to current TNPA software for ease of manipulation and integration.
- f) AutoCAD drawings in a pdf and dwg format
- g) GIS data in shapefiles format.
- h) Excel data sheets.
- i) And or any other native copy.

## 10. PREVIOUS EXPERIENCE

- 10.1. Respondents must submit evidence that they have completed similar projects to give confidence to ensure that they are experienced and qualified to execute the work. The evidence shall be in the form of completion certificates or reference letters in the client letterhead, signed and with contactable details.
- 10.2. The evidence to be submitted should indicate superior capabilities in conducting multi-faceted work that involves socio-economic considerations, environmental considerations, land use and planning principles, detailed engineering master planning, transportation planning as well as the considerations and stakeholder participation/consultation.
- 10.3. Curriculum Vitae's detailing the experience & qualifications of the project team must accompany all proposals. Certified copies of the qualifications and professional registration (where applicable) shall also be required as part of the submission.

## 11. WORK SCHEDULE

- 11.1. The project will be executed over a period of seven (7) months. The Respondents must submit with their proposals a detailed schedule of the work to be undertaken, including estimated time required for each task as this will form part of the adjudication criteria.
- 11.2. The service provider shall be required to present all the deliverables, conduct workshops, and effect all changes and reviews requested by TNPA as part of the contract.

## 12. DATA PRICING

No.	Activity	QTY	Rate	Total
1.	Site visit, information collection	L/Sum		
2.	Situational Analysis Report	L/Sum		
3.	Scenario Planning	L/Sum		
4.	Implementation Plan (short, medium and long term)	L/Sum		
5.	Training cost	L/Sum		
6.	Report Compilation	L/Sum		
6.1	SHE File	L/Sum		
6.2	Draft Report Submission	L/Sum		
6.3	Final Approved Report Submission	L/Sum		
7.	<b>Subtotal</b>			
8.	<b>VAT @ 15%</b>			
	<b>Total</b>			

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