USER REQUIREMENTS SPECIFICATION

For : FEL 3

Project Name : New Administration Building at B-Berth

USER REQUIREMENT SPECIFICATION

PREFACE

Purpose of this Document

The purpose of this User Requirement Specification is to provide the Consulting Team with information relevant to the user requirement for the New Administration Building at B-Berth for the Port of Durban and highlights the general and specific user requirements. This includes strategic and commercial imperatives.

TABLE OF CONTENTS

Annexures:

A. Corporate office standards

1 Purpose

The purpose of this document is to provide the accommodation and specific user requirements for the New Administration Building. These requirements will serve as the design basis to guide the designers, engineers and consultants in the design of the New Administration Building.

2 Introduction

Transnet National Port Authority (TNPA) at the Port of Durban has vacated the T-Jetty premises for terminal operations and have relocated the Port of Durban administrative employees that report to the Port Manager to other buildings. The relocation of administrative staff from the T-Jetty shall faciliate the Port of Durban expansion and the proposed KZN Logistics Hub (KZN-LH) Master Plan initiatives to increase the container handling capacity at the Point precinct from 0.2 million TEUs to 1.7 million TEUs, and the expansion of the Automotive (RORO) Terminal from 520,000 to 880,000 units per annum.

The New Administration Building will provide the following benefits:

a) Colocation of the TNPA Port of Durban staff.
b) Enhance the Point Development and Durban.
c) Support the Transnet terminal expansion plans.
d) Improve TNPA's corporate image.
e) Improve staff morale.
f) Improve access to a wider range of facilities for staff.
g) Improve the health, safety and well-being of staff.
h) Creation of a place that staff can work, interact and collaborate.
i) A productive, people-centred work environment.

3 Description

TNPA have completed a Prefeasibility Study (FEL 2) for the development of the New Administration Building to accommodate the requirements stated in this User Requirements Specification (URS); and are commencing with the Feasibility Study and Detailed Design (FEL 3) stage of the project. The TNPA staff that were occupying Ocean Terminal Building (OTB) and Durmarine Building are temporarily relocated to Queens Warehouse and 45 Bay Terrace buildings

due to the immediate vacation of T-Jetty for port terminal operations. The proposed building project will address the current and future needs of TNPA, while the staff are temporarily accommodated at Queen's Warehouse and 45 Bay Terrace buildings.

TNPA has identified the B-Berth site to be developed for the administration building for the Port of Durban. Staff that will be housed at the new administration building are the Port of Durban employees that report to the Port Manager and Harbour Master.

The B-Berth site is located along Mahatma Gandhi Road and is adjacent to the New Passenger Terminal. It provides an opportunity to create a modern, innovative and attractive building to complement the Point developments.

TNPA would like to avoid the creation of the typical administration building of the past. The building form should be visually pleasing, permeable, incorporate appropriate symbolism, regional culture and fit for purpose. A unique, multi-functional, open and transparent architectural response is encouraged that celebrates the region, community, collaboration and the creation on a new TNPA corporate identity.

The design response should take advantage of port views and address the objectives and needs of the clients. The design should have a hierarchy of spaces from public to private, and encourage interaction and collaboration in an attractive shared facility area.

4 Summary of Accommodation Requirements

The table below shows offices required as per end user requirements:

4.1 Staffing Requirements

Department		Number of staff			Enclosed office	Open-plan	Additional information
		Current	Vacancies	Projected to 2027			
1	Suite of offices for Executives	2	2	4	3	1	- 3 x enclosed offices for the Port Manager and Executive Managers. - Boardroom for 10 people. - Reception area and waiting area for 4 people.
2	Port Engineering / Infrastructure						
	Drawing office	10	7	17	1	16	- 1 x enclosed office for Drawing Office Manager. - Drawing printing room for plotters. - Drawing filing room ($20m^2$). - Library ($15m^2$).
	Port Engineer and support	21	0	21	1	20	- 1 x enclosed office for Port Engineer. - Boardroom for 15 people. - Reception area and waiting area for 4 people.
	Electrical	14	12	26	0	26	- Filing room ($15m^2$)
	Planning	5	0	5	0	5	
3	Property	12	5	17	2	15	- 2 x enclosed offices for Property Manager and Financial Manager. - Filing room ($20m^2$)
4	Legal & Compliance	3	2	5	1	4	- 1 x enclosed office for Legal Manager.

5	Operations centre	25	2	27	2	25	- 2 x enclosed offices - 25 workstations (4 rotation shifts). - Boardroom for 18 people. - Refer to Section C for details.
6	Procurement	13	2	15	1	14	- 1 x enclosed office for Procurement Manager. - Reception area and waiting area for 4 people. - 3 x boardrooms for 12 people. - Contract print area with sorting tables. - Filing room (20m^2)
7	Safety, Health and Environment (SHE)						
	Safety / Risk	12	4	16	2	14	- 2 x enclosed offices for SHE Manager and Safety/Risk Manager.
	Environmental	8	2	10	1	9	- 1 x enclosed office for Environment Manager.
8	Finance						
	Management Accounting	56	2	58	2	54	- 2 x enclosed offices for Managers. - Store room
	Expenditure				1		- 1 x enclosed offices for Managers. - Store room
	Revenue				1		- 1 x enclosed offices for Managers. - Store room
9	Human Resources	24	0	24	4	20	- 4 enclosed offices for Managers. - Filing rooms (20m^2) - Printing area

10	Corporate affairs & corporate services NDB	7	7	14	1	13	- 1 x enclosed office for Manager. - 2 x storerooms (10m^2). - 1 x strong-room (walk-in safe) (10m^2)
11	Continuous improvement	3	0	3	0	3	
12	Marketing CRM	4	1	5	0	5	
13	Business strategy	2	1	3	1	2	- 1 x enclosed office for Manager.
14	ICT	9	1	10	1	9	- 1 x eclosed office for Manager. - Helpdesk and waiting area. - Storage room to store computer parts & toners (20m2) - ICT to be in a lockable, secure area.
15	Marine (Harbour master) VTS	26	2	28	2	26	- 2 x enclosed offices for Harbour Masters. - Boardroom for 6-8 people. - Reception area and waiting area. - Refer to Section B for detailed requirements.
16	Union requirements – UNTU, Satawu	2	0	2	2	0	- 2 x enclosed offices - Boardroom for 8 people.
17	Security and SAPS	29	1	30	2	28	- 2 x enclosed offices - BCP security boardroom - Server / camera room (20m^2). - Strong-room
TOTAL		287	53	340	31	309	

The table in Section 4 above indicates approximate **340** (including future growth projected to 2027) Port of Durban staff that must be accommodated in the building.

4.2 Harbour Master User Requirements

The Harbour Master Office is to be located with unobstructed, 180 degree views of the Port. It is proposed that this department be located on the top floor of the building for radar equipment.

Harbour Masters Department		**Number of staff**			**Enclosed office**	**Open-plan**	**Additional information**
		Current	Vacancies	Projected to 2027			
1	Harbour Master	2	0	2	1	1	- 1 x enclosed office - Reception area and office for secretary.
2	VTS Deputy Harbour Master Office	1	0	1	1	0	- 1 x enclosed office
3	Nautical Deputy Harbour Master Office	1	0	1	1	0	- 1 x enclosed office
4	Marine Safety Manager Office	1	0	1	1	0	- 1 x enclosed office
5	VTS Administrative Office	1	0	1	1	0	- 1 x enclosed office + seating for 2 visitors.
6	Pilots Co-ordinator Office	1	0	1	1	0	- 1 x enclosed office + seating for 2 visitors.
7	Marine Safety Inspector Office	1	1	2	0	2	- open plan office to accommodate 4 people (2 seated + 2 visitors).
8	Vessel Traffic Services (VTS) Control Room	6	0	6	0	6	- open plan office to monitor and accommodate 6 people ±50 m^2
9	VTS Crew Room	6	0	6	0	6	- Lounge area / relaxing and eating area to accommodate 6 people.
10	Pilots Crew Room	6	0	6	0	6	- Lounge area / relaxing and eating area to accommodate 6 people

11	Sleeping quarters	6					- Separate open plan sleeping area for male and female with 3 single beds, small lockable cupboard and side table.
12	Boardroom						- Boardroom for 10 people.
13	Kitchen and Pause Area						- Counters, sink, microwave, and seating area with tables for ± 16 people
14	Ablution Facilities and locker rooms						- 1 x female ablution facility to include 2 toilets, 2 showers, 2 sinks and 5 lockers. - 1 x male ablution facility to include 2 toilets, 2 showers, 2 sinks and 5 lockers.
	TOTAL			27	6	21	

4.3 Operational Centre Requirements

4.3.1. Office accommodation requirement and furniture:

a) 25 x Operator workstations. The operators work rotational shifts
b) Boardroom table for 18 people – to work as a war room and be in relation to workstations.
c) Appropriate lighting within the centre to enable Video Conferencing and a Video Wall comprising 10 x 46" screens
d) 6 x cabinets for the storage of documents
e) Access flooring to be provided

4.3.2 General information for operational centre:

a) <u>Contact Management System</u>
   - The Durban Operations Centre will also house the Contact Management System ("call centre"). Information captured in this system will find delivery at port level.
   - Servers to receive, process, interface and store data from various terminal operators.

- Firewalls that will protect the integrity of TNPA's systems, software and hardware.
- Telecommunications - 1 x telephone per work station (same number for all).
- Telecommunications - LAN connection points.
- Combination printer/photocopier/fax machine.

b) Contact Centre Solution
- Network-to-desktop computer telephony integration system.
- Multi-channel contact management system.

c) Electrical Works:
- Plug points (16 Amp) for all electrical equipment.
- Isolated air-conditioning as the team is working 24/7.
- Power surge protection.
- Back-up generator to ensure maximum uptime of Operations Centre.
- Appropriate lighting in offices.
- Dimmable lighting in the Operations Centre.
- Air-conditioning

d) LAN Connectivity:
- LAN points for all computers and servers.
- An AV signal cable
- Telephone points – Analogue / SIP (a single number telephone system)
- Wi-Fi connectivity
- Printer and fax connectivity
- ISDN connectivity and bridges
- A minimum of 2MB bandwidth with "Real time quality of service" network

e) Video Wall:
- The video wall must comprise 8 LED 46" frameless screens, as per ICT
- Specifications for the video wall are provided below and must include a five-year maintenance agreement
- The supply, installation and maintenance contract will be dealt with in terms of Transnet's detailed Procurement Procedure

f) Touch Panel Control:
- The video wall screen/s configuration will be controlled via a Touch Panel Control unit

- Specifications for the Touch Panel Control are provided below
- The supply and installation will be dealt with in terms of Transnet's Detailed Procurement Procedure

g) Video Conferencing:

- The Video Conferencing (VC) facility must be integrated with the VC project currently in progress within TNPA
- Specifications for the VC are provided below and must include a five year maintenance agreement
- The supply, installation and maintenance contract will be dealt with in terms of Transnet's detailed Procurement Procedure

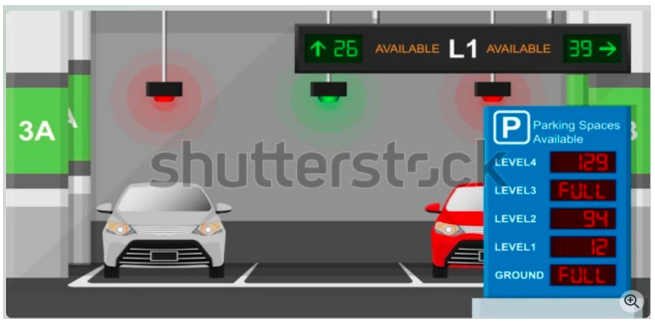
h) Touch Screen / LCD Monitor / Smart Board:

- The Touch Screen/LCD Monitor/Smart Board must be integrated with the VC facility and Video Wall
- Specifications for the Touch Screen/LCD Monitor are provided below and must include a five-year maintenance agreement
- The supply, installation and maintenance contract will be dealt with in terms of Transnet's detailed Procurement Procedure

i) Computer Hardware, Software, Photocopier/Printer/Fax and Firewalls:

- The computer hardware and software will include 6 x operator workstations (or more), servers and firewalls
- Specifications for computer hardware, software and firewalls will be compatible with equipment and software currently procured by Transnet/TNPA
- Hardware and software must enable interfacing with current and future 3rd party operators in the port system – see diagram below
- The supply, installation and maintenance of hardware and software must be done in terms of Transnet's Detailed Procurement Procedure and agreements.

4.4 Parking, Fencing and Site Security Entrance



a) Parking ratio of 1:1 – this will ensure adequate parking for staff.
b) Parking for 20 visitors.
c) Company Vehicles: 10 parking bays (6 small cars and 4 mini bus bays).
d) Special needs bays (3,5m wide as per SANS) closer to the entrances: 15 parking bays.
e) Parking for senior executives and dignitaries: 6 bays.
f) Undercover parking lot shall have a smart parking lot management system that will indicate the total number of parking slots on each level, number of occupied slots and available slots at any given time.
g) Parking and loading bay for service providers and deliveries.
h) Security Kiosk: Secure entry point into the site to have security kiosk/s for 3 security personnel with ablutions and kitchenette.
i) Security and SAPS to be located at the front of the building.
j) Site to be fully fenced and secure.

4.5 Support Facilities and Common Areas

The Port of Durban requirements are as follows but not limited per the table below.

No.	Requirement/Description	Quantity	Comment
1	Main reception area and security check point.		- Reception desk - Waiting Area at the building entrance. - Automation of entrance doors. - Staff access control booths and scanners. - CCTV cameras - 2 x loading bays for deliveries
2	Ablution facilities – including toilets for disabled		- Male and female ablutions per floor as per SANS 10400.
3	Kitchenette		- Kitchens to accommodate fridges, microwave oven, sink, electric water heaters and counters. - Storage area - Centralised kitchenette on each floor.
4	Pause/ chill areas (A room must be provided in each floor)		- Adjacent to the kitchen with some soft seating, tables, chairs, TV, microwave, coffee machine and water cooler. - Centralised pause area on each floor.
5	Boardrooms and meeting rooms		- Refer to TNPA Corporate document. - All boardrooms to be fitted with video and telephone conferencing facilities with latest technology.
	• 40 seater	1	Dependent on floor design and setup
	• 24 seater	3	Dependent on floor design and setup
	• 16 seater	2	Dependent on floor design and setup
	• 12 seater	2	Dependent on floor design and setup
	• 8 seater	2	Dependent on floor design and setup
	• 6 seater	4	Dependent on floor design and setup
6	Wellness Center including: • Fully equipped Gymnasium for up to 50 people. • Fitness centre for aerobics, pilates, yoga and Zumba. • Recovery / sick rooms with bed.	1	- Including male and female showers and lockers.

7	TNPA Clinic	1	- Reception area with waiting area for 5 people. - Records room (10m^2) - 2 x consulting rooms - 1 x nurse office with desk and visitors chair - 1 x doctors office with desk and visitors chair - 1 x kitchenette and pause area for clinic staff - Separate ablutions for male, female and paraplegics. - Dispensary and medical store (with fridge and cabinets). - Waste and wash Area - Procedure room - Clinic to be linked to the main building.
8	Printing, binding fax hub (Allow for the drawing office plotters)		- Dependent on floor design and setup, can be shared between departments
9	Parking Bays		1:1 ratio
10	Store and filing rooms for each department	1 per department	3m x 4m
11	Cleaning services		- Separate change rooms for 10 x male and 10 x female cleaning staff with lockers and showers. - Lockable store area for cleaning materials and pause area with kitchen and seating area.
12	Server room (20m^2)	1	- Switch room
13	Strong Room	1	- To cater for all departments.
14	Cafeteria / canteen to accommodate at least 50 people seated at one time.	1	- Operation of the cafetaria: An outside service provider will be appointed to run the canteen: - Provide all necessary fittings including freezer rooms, dry storage, fridges, general storage, sinks, pot sinks, gas cookers, gas storage, etc. - 1 x Managers office - Staff room and ablutions - Food preparation, serving area, vending area and dining area for 50 people. - Cafeteria to be linked to the main building.
15	Maintenance (facilities) office for 2 personnel and supplies room	1	- 1 x office with adjoining supplies room (30m^2)
16	UPS	2	- Including 1 backup
17	Generator	1	- Size dependent on power requirements

18	Plant rooms – electrical, air conditioning	1	- As per the engineered designs
19	Refuse Area	1	- Designed for recycling and recycling bins
20	Circulation, ramps and elevators to cater for special needs (mobility, sight, hearing impaired)		- Staircases and elevators as required - Service lift
21	Exhibition and learning centre: • training room • small business centre and customer centre • library • small business centre		- Training room for 40 people seated in a classroom setup. - Small business centre and customer centre: +/-30m^2 lounge area to meet and greet customers in a relaxing space. Provide people with information about the Port, historic information, licenses, bursaries, and so forth. - Library (30m^2)
22	Auditorium	1	- Auditorium to cater for 400 people in the space allocated for the Clothing Store.
23	Netball Court	1	- Space allocated for the Delivery and Service Yard to be re-allocated to the Netball Court.

Note: Reference to be made to the company corporate branding documentation (Annexure A)

4.6 Information Technology

a) ICT to provide requirements
b) For networks, UPS's across the building.
c) Compliance with latest technology.
d) For boardrooms: digital screens, mics, audio processing, speakers and Vc/teams intergration equipment with wireless presentation devices.

4.7 Landscaping

a) Provision of a landscaping design that complements the building design.
b) The design to be aligned to the Durban Point Development Corporation precinct theme.
c) Develop the Landscape Plan for the outdoor area. The landscaping shall be appropriate for the Durban climate, be indigenous, low maintenance.
d) Allow for outdoor furniture and features. Water features to be included (similar to the "Ship" concept).
e) The design must be resource efficient and include energy saving technologies.
f) Provision of hot desks along the walk-way area ("Wave" concept).

4.8 Services

a) Investigate and determine the closest point for water supply, sewer connections.
b) Stormwater control options.
c) Investigate and determine the closest point for electricity supply. The first option is to investigation and determine the closest point of supply on TNPA Electrical Network.

4.9 Heating, Ventilation and Air-Conditioning (HVAC)

a) Perform a detailed heat load study by considering the number of occupancy in the building, heat generating equipment, interior design and areas to be cooled.
b) Develop and evaluate various alternatives or options to find the best or preferred HVAC system as per SANS and the latest legislation.
c) In developing the options, energy saving HVAC systems should be considered, such as the use of ice tanks to chill water rather than the deployment of chillers for main cooling. The system shall be programmed such that it makes ice overnight during the off-peak

period. The HVAC plant shall be fully automated and integrated onto the existing TNPA SCADA system.

d) In areas where the room is completely sealed such as boardrooms, chilled water console units should be considered or if not possible split units should be considered.
e) Ventilation - the building shall be designed to allow adequate fresh air introduction into the building.

4.10 Interior Lighting Design

a) Using the detailed internal layout drawings, perform the interior and emergency lighting designs taking into consideration the function of each space and the Occupational Health and Safety (OHS) Act 85 of 1993 requirements regarding the minimum average lux level.
b) Perform interior lighting simulations to examine the lighting distribution and uniformity.
c) Produce the detailed layout drawings and specifications. The lighting shall be controlled and monitored on the BEMS.

4.11 Exterior Lighting Design

a) Perform exterior lighting designs and ensure that the lighting compliance with the requirements of the Act.
b) Perform lighting simulations to examine the lighting distribution and uniformity.
c) Produce the detailed layout drawings and specifications.

4.12 Power Requirements

a) Determine the building expected load demand considering the worst case scenario.
b) Investigate the closest point of supply from TNPA electrical network.
c) Determine the possible and easier cable route.
d) Determine the transformer size according to the maximum expected load and possibility of future expansion.
e) Determine the cable sizes and lengths.
f) Determine the substation configuration. In determining the configuration it is important to note that the building shall have an (n+1) supply arrangement.
g) Perform the Power Flow study and Fault Analysis.

h) From the agreed concept, produce detailed designs and specifications.
i) Power and connectivity at office desks and boardrooms (????)

4.13 Electrical Distribution System

a) Using the detailed internal layout drawings, design the building power distribution system
b) Produce the Electrical, Lighting and Power (EL&P) layout drawings
c) Produce distribution board schematics

4.14 Energy Saving Initiative

a) Install high-efficiency equipment, lighting and appliances.
b) Design and implement a Building Energy Management System (BEMS) to control and monitor the building's mechanical and electrical equipment such as air-conditioning and ventilation, lighting, fire systems, heat loads etc.
c) The artificial lighting inside the building shall be designed to dim automatically whenever there is sufficient natural day light into building. The lighting shall be capable to dim from 0% (completely off), 20%, 40%, 60%, 80% and 100%.
d) Application of renewable energy systems such as building-integrated photovoltaic (PV) system that will generate building electricity should be considered.

4.15 Security Requirements

a) The building shall have access control and fully monitored with CCTV cameras.
b) Time and attendance at the main reception area
c) The site to be fully fenced and secure with appropriate security fencing upto 2,4m high and lockable gates
d) Access to be via a boom control at a security kiosk
e) An alternate exit route must be proposed in case of emergency

4.16 Fire Protection, Prevention and Detection Requirements

a) Fire designs must comply with local and national regulations, latest codes of practice and standards

b) Liase with the local Fire department and provide fire protection, detection and prevention.
c) The building shall be fitted with Manual call points (break glass) and smoke & heat detectors that will alert employees of any fire emergencies or bomb threat:
d) The building shall also be fitted with the following alarm systems:
    - Sound Strobe
    - Strobe (visual)
    - Fire alarm control panel
    - Public Announcement (PA) system
e) Fire Suppression Systems required
    - For a high rise building, automatic fire sprinkler system is required
    - Portable fire equipment (Fire extinguishers and hose reels) as required
    - FM200 gas suppression system for server room
f) Evacuation
    - Safe Evacution plan
    - Photo luminescent type emergency signage to be installed and emergency routes clearly marked
    - Evacuation chairs at all emergency exit stairways are to provided as per SANS
g) Evacuation procedures for disabled personnel should be accounted for:
    - Visually impaired employees should have sounding alarms in or near their office.
    - Hearing impaired employees should have light signals in or near their offices.

4.17 General Finishes

a) All finishes shall be in compliance with the TNPA Corporate Identity Specifications
b) All finishes are to be robust, heavy duty and low maintenance.
c) The entire building to be of very high standard to enhance the image of TNPA.
d) Due to the highly corrosive port environment, appropriate material selection like Aluminium windows, doors, gutters & downpipes,.
e) Highly washable and low VOC paints to be used internally where required.
f) Appropriate size and number of doors at large boardrooms where single boardrooms can be incorporated into one shall be heavy duty.

g) Suitable window blinds and screening are to be provided to prevent glare and reduce heat gain
h) All offices and boardrooms shall be provided with power skirtings for plug points and network points.

4.18 Design Principles

a) As a minimum, the proposed design/s must align to this User Requirement Specification
b) The proposed design and layouts must be done in strict accordance with applicable design codes, SANS 10400, national and local building regulations and standards
c) Office space standards are to be presented for open offices and enclosed offices as per TNPA minimum standards.
d) Green Building with a Green Star rating of 4 (Industry leader) in alignment to the Green Building Council of South Africa.
e) Cost benefit analysis will be undertaken to justify the green building investment.
f) Shared Facilities
    - Shared facilities should be treated as safe and accessible community spaces. These include spaces like kitchens, pause areas, meeting rooms per floor, boardrooms at main reception, ablutions for male, female and paraplegics, and storage areas.
g) Office areas
    - Office areas are envisaged as quieter areas for closed and semi-open office accommodation
    - TNPA standard office layout and arrangement will be used as a guide.
    - Refer to attached layout for a guideline of typical office sizes.
    - The office areas are a combination of closed and semi-open offices depending on department, grade and job description/requirements.
    - Office layouts should be modular to allow for effective service reticulation, flexibility and re-organistion of staff and departments as and when required.
    - A typical semi-open plan refers to a grouping of workstations accommodating between 2 and 10 people per area.

- Semi-open plan office areas should have appropriate screening and partitioning systems that allow for flexibility in office arrangements where all workstations have appropriate low-level screening for visual privacy
- The entire open plan layout should be arranged to ensure a relative privacy at the workstation.
- Open plan offices to be provided wth either a seaside or landscape view, whereas the enclosed offices shall be located inside the building.

h) Access to the roof of the building is required for maintenance, as well as bird proofing.
i) Elevator to be located the the sea facing side of the building.
j) All facilities located outside the main building must be connected to it (eg. cafeteria, View decks, etc).

4.19 Design Consideration and Opportunities

a) Alignment with the Point Precinct development theme to support tourism
b) A modern corporate building that is unique and appropriate to the Port of Durban
c) 100% acccesible and user-friendly to the physically challenged or visual impaired as per SANS 10400
d) Green Building Principles of energy efficiency, resource efficiency and waste reduction and saving opportunities; Indoor environmental quality, recycling waste including grey water harvesting
e) Low maintenance options
f) Maximising views of the port, city and beaches.
g) The use of appropriate glazing, balconies, atriums, double volume spaces and "port-holes" to create a permeable building and indoor/ outdoor awareness
h) The clear zoning of staff and visitors in the location of meeting rooms, boadrooms and other shared facilities
i) Ensure common areas and staff only (restricted) areas
j) Colocation of departments with department managers
k) Vehicle circulation, public transport and pedestrian access to be considered as well as separate parking for staff and visitors and loading bays for service providers.

5 Operational Readiness Considerations

a) Municipality/ Local authority submissions and approvals are required for the development.
b) Occupancy and certification for use are required
c) Shopfitting, fixtures and furnishing, desktop and other office automations are to be costed and provided as per requirements
d) Ensure all services such as water reticulation, sewer, electrical, mechanical, IT, and Communications are functional and according to building codes and specification, which is part of the standard handover
e) Parking allocation strategy determined and communicated to all staff
f) Ensure ancillary services such as security, cleaning services, maintenance are up and running
g) Marketing and office branding according to TNPA and Transnet requirements (Refer to Annexure)
h) Facilities management processes in place – Maintenance manuals for all equipment and materials installed
i) Briefing and training of staff (orientation) and building support staff ensuring all instructions, service books, warranties and other documents are properly filed and easily accessible
j) Building to conform to Fire Departments standards and approvals
k) Production and presentation of as-built information, manuals, guarantee/warrantee documents for new assets
l) Orientation and preparation for staff movements including determining viable transportation options for staff using public transportation
m) Proper capture of the asset on the asset register.
n) Develop maintenance plan and cleaning regiment, including procuring of service providers.

6 Conclusion

The approval and or acceptance of the feasibility and detailed design of the "Wave" concept will be on condition that the above mentioned user requirement is fully adhered to and the above listed requirements to comply with SANS 10400, relevant legislations, local municipality, firefighting systems, health and safety requirements and green building principles.