
PART C2: TECHNICAL SPECIFICATIONS GENERAL ROAD SIGNAGES

1. SCOPE OF WORKS AND TECHNICAL SCOPE

1. SCOPE OF WORKS

3.1 FEASIBILITY STUDY (DETAILED DESIGN) SCOPE

- The contractor shall conduct the following as part of feasibility studies:
 - Review and validate current signage sizes: board and pole sizes as well as foundations.
 - Review and validate current recommended signage material specification.
 - Review and validate signage location in all the Ports and produce site layouts as per the Port requirements.
 - Compile feasibility engineering report outlining the following but not limited to:
 - Recommended signage sizes considering project requirements- additional language on signages,
 - Port sign locations: site plans,
 - Recommended signage material,
 - Recommended signage foundation details.
 - The contractor shall appoint a qualified linguistics professional(s) who is efficient in writing, reading and translation in the following languages:
 - English,
 - Isizulu,
 - Afrikaans,
 - IsiXhosa,
 - Signages maintenance plan/strategy
 - Compile detailed BOQ with rates to formulate execution cost estimate,
 - Compile detailed execution schedules.

2. EXECUTION SCOPE

- The contractor shall remove all signages within the Ports, and all steel material shall be stored in a demarcated storage area identified by TNPA.
- The contractor shall install port signage as required by port. The following requirements shall be adhered to during the design, printing, and fabrication of signs.

3.2 MATERIAL AND PAINT SPECIFICATIONS

The contractor shall validate the information stipulated below, inline with coastal environment signages fabrication and installation standard best practises. The contractor shall submit a detailed technical to TNPA for review and acceptance prior proceeding to signages fabrication.

➤ **Steel Specification:**

- All steel works shall be made of stainless-steel material unless stated otherwise.
- All workmanship and materials used shall be in comply with SABS standards.
- Welds shall be performed by a qualified welder in accordance with SABS
- All weld for the structure shall be full strength butt welds unless stated otherwise
- All butt welds shall be full penetration.
- The signages shall be coated with transparent 3LPP anticorrosive three-layer polypropylene coating or similar coating conforming to din 30678 standard, the coating shall consist of following:
 - epoxide layer of the minimal thickness of 80 µm,
 - polyethylene copolymer layer of the minimal thickness of 250 µm,
 - polypropylene layer of minimal thickness between 1.8 and 2.5 mm.

or/and

- During manufacturing/ fabrication process and on completion of each pylons, building naming to be covered with a coat of transparent Vinyl coat/ Vicom4 Outdoor – HQ - Transparent-SQ & HQ-colour-SQ for longer protection.

➤ **Steel Technical specification.**

- Hot Rolled sections 300MPa
- Welded beam and column sections 300MPa
- Circular Hallow Sections 250 Mpa
- Square and Rectangular Hallow Sections 450MPa
- Reinforcement stell shall be of s355Jr structural steel and shall have a minimum concrete cover of 50mm.

➤ **All exposed structural steel shall be:**

- Cleaned and surface prepared prior welding and hot dipped galvanising
- Hot dipped galvanised in accordance with SABS standards.
- All welds and holes shall be done offsite prior to hot dip galvanised.

- Fully painted using Rust Bullet Coatings according to paint specifications and recommendations by the paint supplier/specialist.
- **Concrete Specification:**
 - All workmanship materials shall be in accordance with SANS 10100(SABS 0100) concrete structures
 - Unless otherwise specified all concrete shall be a minimum of 50 Mpa compressive strength.
 - All concrete reinforcement shall be in provided and placed in accordance with SABS.
 - Minimum concrete cover to be of exposure to sea or coastal region.
 - Reinforcement steel shall be of s355Jr structural steel and shall have a minimum concrete cover of 50mm.
 - All screws, nuts & bolts, washers to be stainless steel grade and treated for coastal corrosion with suitable treatment.
- **Foundation specifications:**
 - The Contractor to review and propose new or update foundation structure for proposed signages.

3.3 FONT SPECIFICATION.

- **Signage formatting requirements:**
 - Primary font is Apex and secondary font is Tahoma.
 - The font size shall be as required by the sign type.

3.4 TRANSNET COLOUR SPECIFICATION

- Transnet Branding colours are as indicated in Table 1, the Contractor shall comply with Transnet and TNPA branding colours, any deviation from approved colours will result in rejection of the fabricated sign.
- The primary colour for TNPA is Pantone 5415 which is the combination of the following colour shades stipulated in figure 1, the contractor shall confirm the colour combination before fabrication, TNPA shall inspect the colour combination before it can be used for fabrication.

Table 1 Transnet color specification

Transnet Red		Pantone 485 Coated
Transnet Green		Pantone 376 Coated
TNPA Blue		Pantone 5415 Coated
Strap Line		Pantone 405 Coated



Figure 1 TNPA Blue pantone color shades combination.

3. SIGNAGES TYPE SPECIFICATION.

- All signages proposed by each Port that are not in TNPA branding, shall be branded as required by TNPA branding manual.

3.1 PYLON SIGN SPECIFICATION AND CONCEPT.

Sign Faces	Sign Frame	Sign Foundation
• Pylon should be double-sided LED illuminated • 2mm Aluminium Fabrication cut/bend/rolled • Logo and lettering to be laser cut • Inlay Opal Perspex with vinyl • Powder coated • 3M Translucent vinyl • Finishing off with Vicom4	• Galvanised stainless steel • Painted with Rust Bullet • Finishing off with Vicom4	Reinforced concrete foundation with base plates as per contractors' recommendation, after validation of the TNPA foundation specification.
Pylon Sizes	Main entrances Pylons	
	Max 2m width, 5m height, 7m mounted height or as recommended by contractor.	

➤ Pylon concept layout.

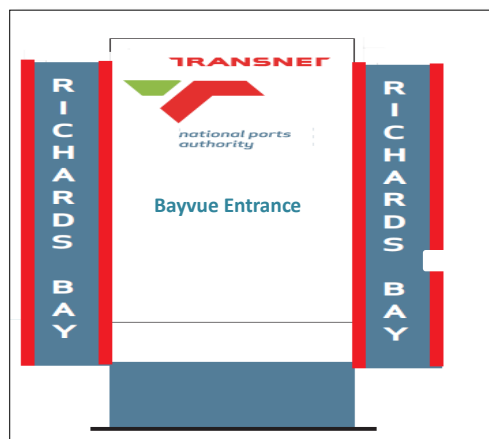


Figure 2 Port entrance naming pylons

3.2 PORT ENTRANCES NAMING SIGNS: ENTRANCE CANOPY MOUNTED SIGNAGE.

Sign Faces	Sign Frame	Installation
- Molded Perspex & LED Illuminated 2mm Aluminum cut and bend onto frame - Powder coated 3M Translucent Vinyl - Finishing off with Vicom4 Powder coated	- Galvanised stainless steel - Painted with Rust Bullet - Finishing off with Vicom4	- Wall Mounted -Stainless Steel Screws - Suspended Signs -galvanized stainless steel ❖ The signage can either be wall mounted or suspended depending on the recommendation of the contractor.
Signage Sizes	Main entrances illum	
	Max 4m width, or as recommended by the contractor	

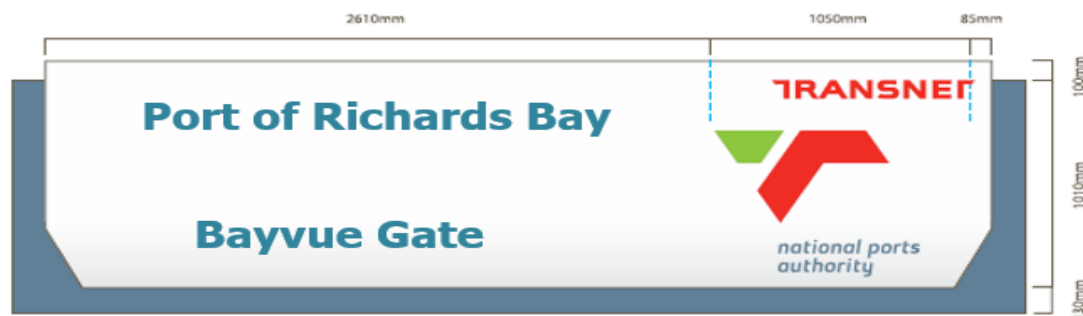


Figure 3 Entrance canopy naming signage

3.3 DIRECTION SIGN SPECIFICATION AND CONCEPT: TYPE 1

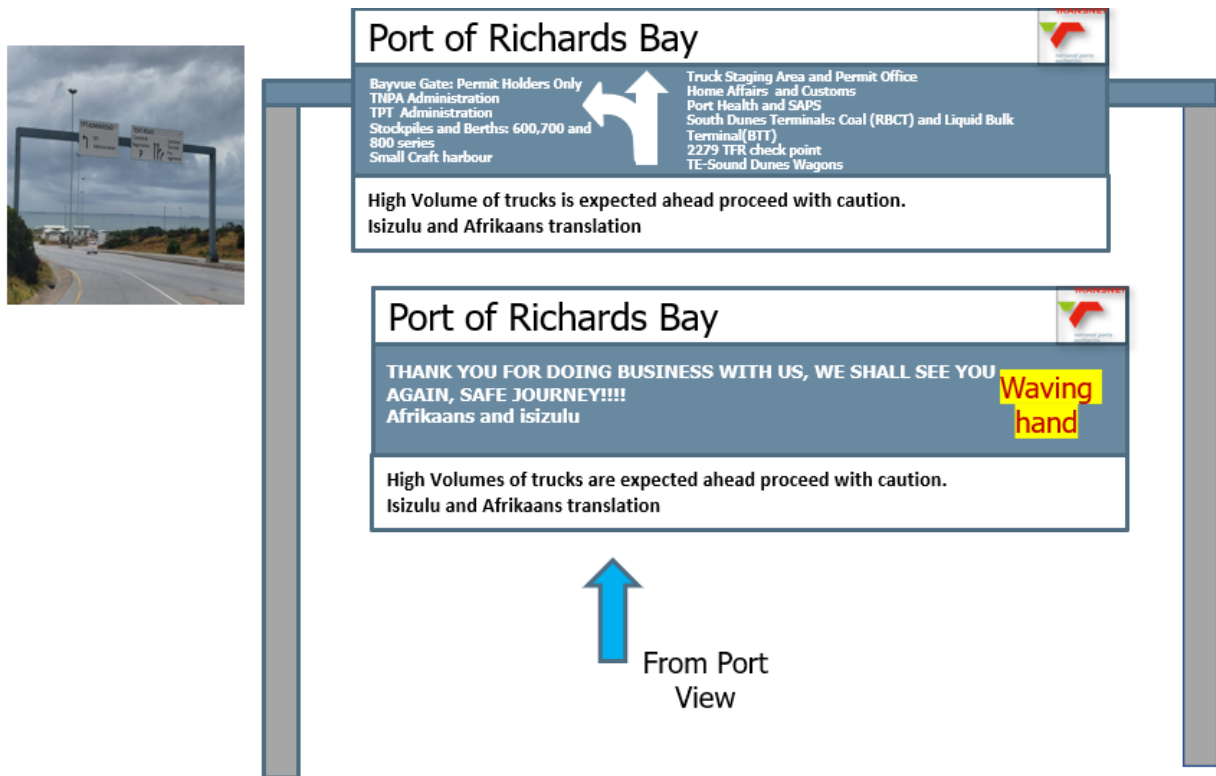


Figure 4 road overhang signages concept (To comply with National roads overhang signages height specification)

Sign Faces	Sign Frame	Installation
- Steel material to be specified by the contractor, shall comply with National roads specification, however it should be coastal friendly - The colours shall comply with Transnet colours as specified on this document and concept layout.	The contractor shall recommend the signage pole/ frame support structures.	Concrete foundation, designs by the contractor,
Signage Sizes	Road overhang signages	
	As per the recommendation of the contractor and road signages specifications, height clearance shall comply with National roads road height clearance.	

3.4 DIRECTION SIGN SPECIFICATION AND CONCEPT: TYPE 2

Sign Faces	Sign Frame	Installation
- Sign structure: Galvanized stainless-steel signage - Sign frame: Aluminum cut and bend, clad onto galvanized frame - Powder coated - Vinyl covered - Transparent 3PPL coating or similar	- Galvanised stainless steel - Painted with Rust Bullet - Transparent 3PPL coating or similar	Suitable concrete foundation as recommended by the contractor.
Signage Sizes and information	Main entrances Pylons	
	- As recommended by the contractor in line with current proposed sizes, signs sizes and writing shall promote clear visibility to road users. - Signage information shall be validated prior the signs are designed by the graphic designer.	
Location	Ports Road services	

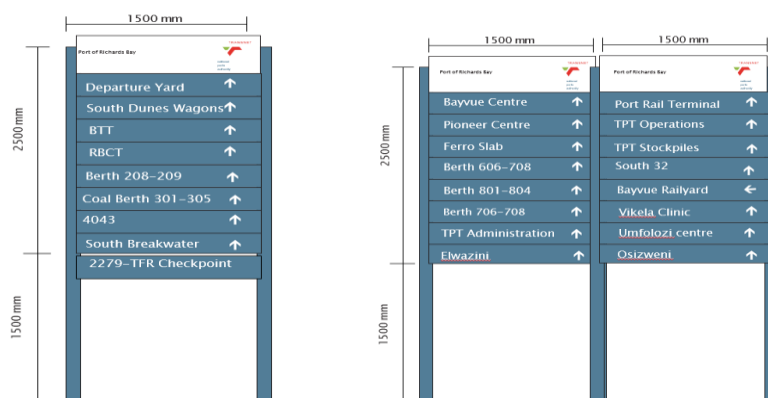


Figure 5 Road direction signage concept

3.5 REGULATORY SIGNS SPECIFICATION AND CONCEPT: SECURITY INFORMATION (GUARD AND INFORMATION SIGN)

Sign Faces	Sign Frame	Installation
• Sign structure: Galvanized stainless-steel signage • Sign frame: Aluminum cut and bend, clad onto galvanized frame • Powder coated • Vinyl covered • Transparent 3PPL coating or similar	• Galvanised stainless steel • Painted with Rust Bullet • Transparent 3PPL coating or similar	• Suitable concrete foundation as recommended by the contractor. •
Signage Sizes and information	Main entrances and Port areas	
	• As recommended by the contractor in line with current proposed sizes, signs sizes and writing shall promote clear visibility to road users. • Signage information shall be validated prior the signs are designed by the graphic designer. • The information on the signage (Figure 7-9) shall be translated into isizulu, Afrikaans, isiXhosa as required by each Port. • KZN Port: Translated to Isizulu, Afrikaans. • Eastern Cape and Western Cape Ports: IsiXhosa and Afrikaans. • 3 signs per location (English, Afrikaans, and Isizulu or IsiXhosa)	
Location	All three Port entrances	

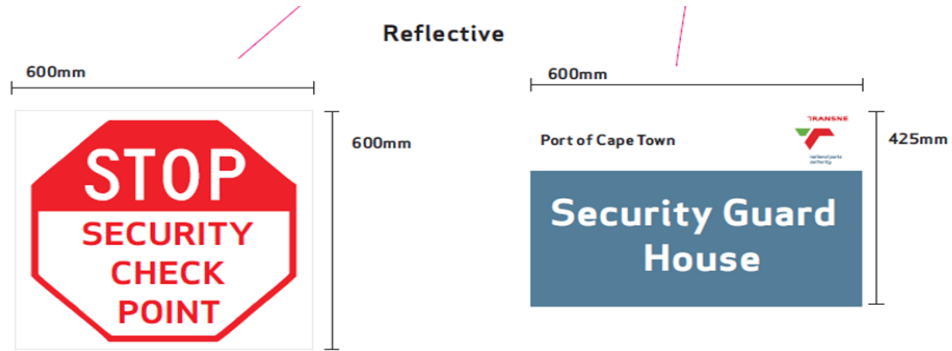


Figure 6 Guard house sign concept

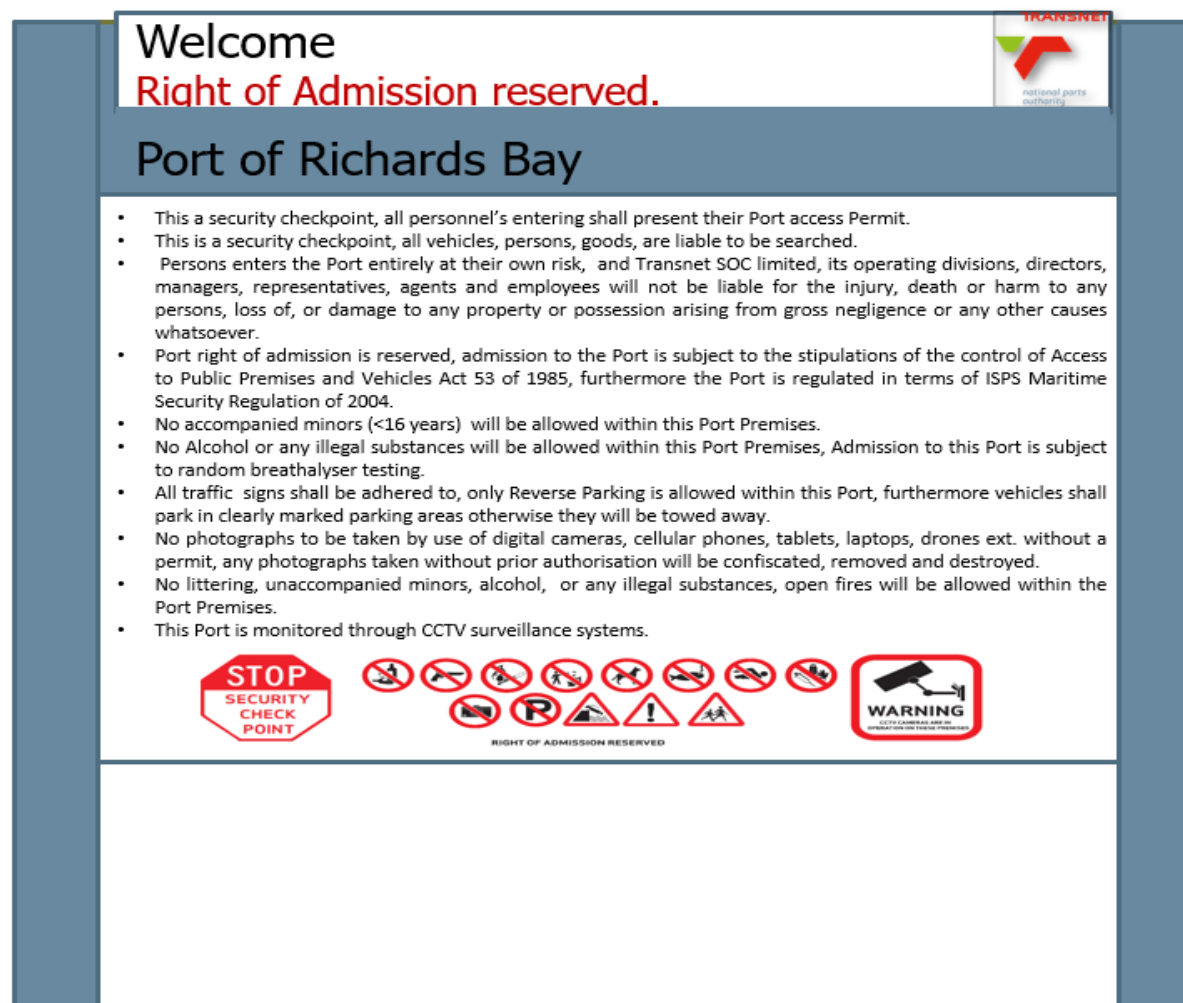
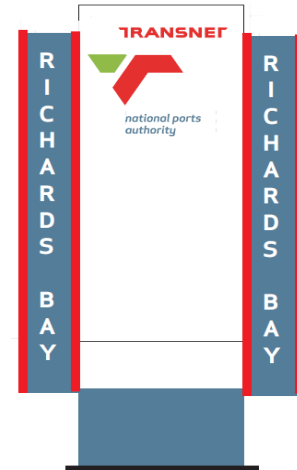
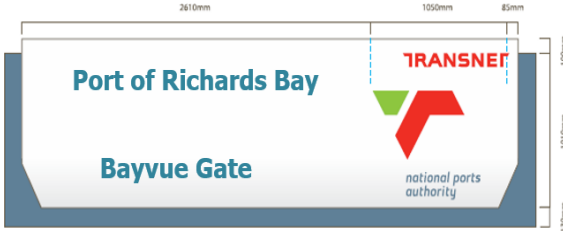


Figure 7 Port entrance information sign concept (translated in IsiXhosa, IsiZulu and Afrikaans)

Port Signages overview.

Item	Description	Units	Qty	Concept
4	SECTION NO. 4: NAMING SIGNS (Sizes in accordance Contractors recommendations after design validation)			
	PORT ENTRANCE NAMING SIGNS PYLONS - ILLUMINATED LED SIGNAGE			
	4.3 Supply, deliver and install a LED Illuminated Double Sided Pylon Sign. Height: 5000mm Width: 2000mm Mounted Height: 7000 mm	No.	3	

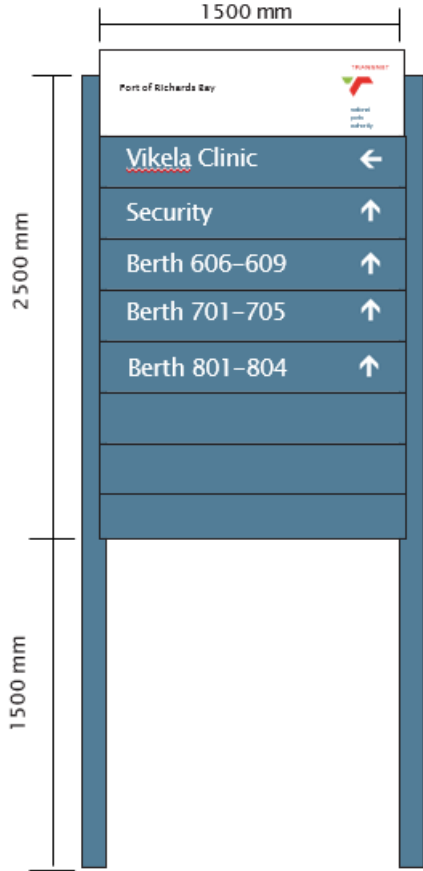


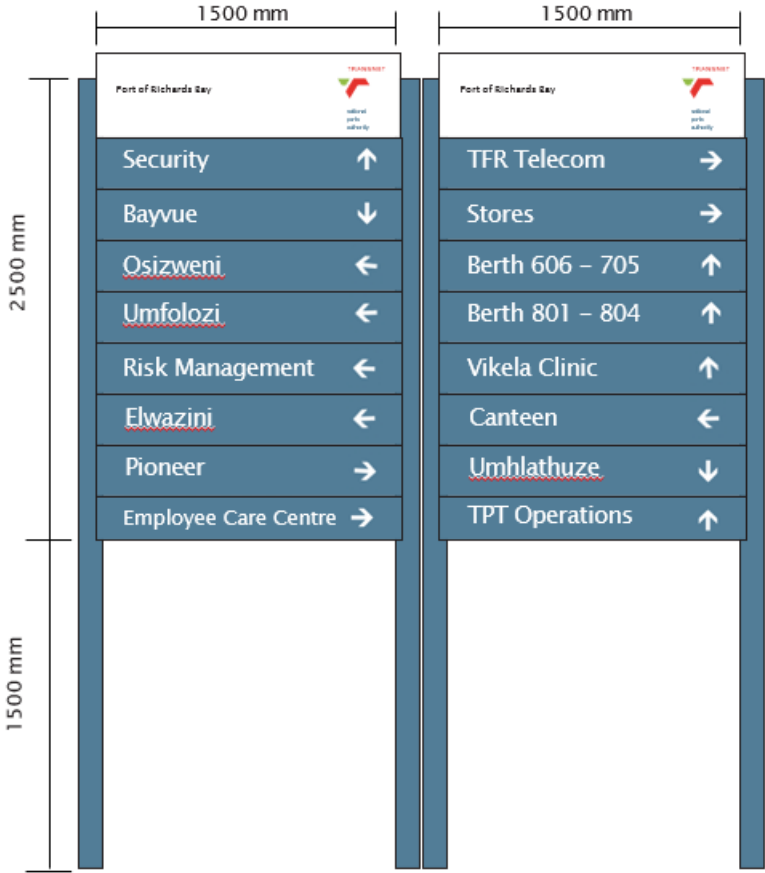
4.5	INSTALLATION OF ENTRANCE CANOPY MOUNTED LED ILLUMINATED PORT ENTRANCE SIGNS Supply, deliver and install a Single-Sided LED Illuminating Sign. Height: 1240mm Width: 4000mm	No.	6	
5	SECTION NO. 5: DIRECTION SIGNS INSTALLATION OF FREE-STANDING SIGNS			
	Installation of free standing signs complete with poles, and 30 Mpa concrete bases.			

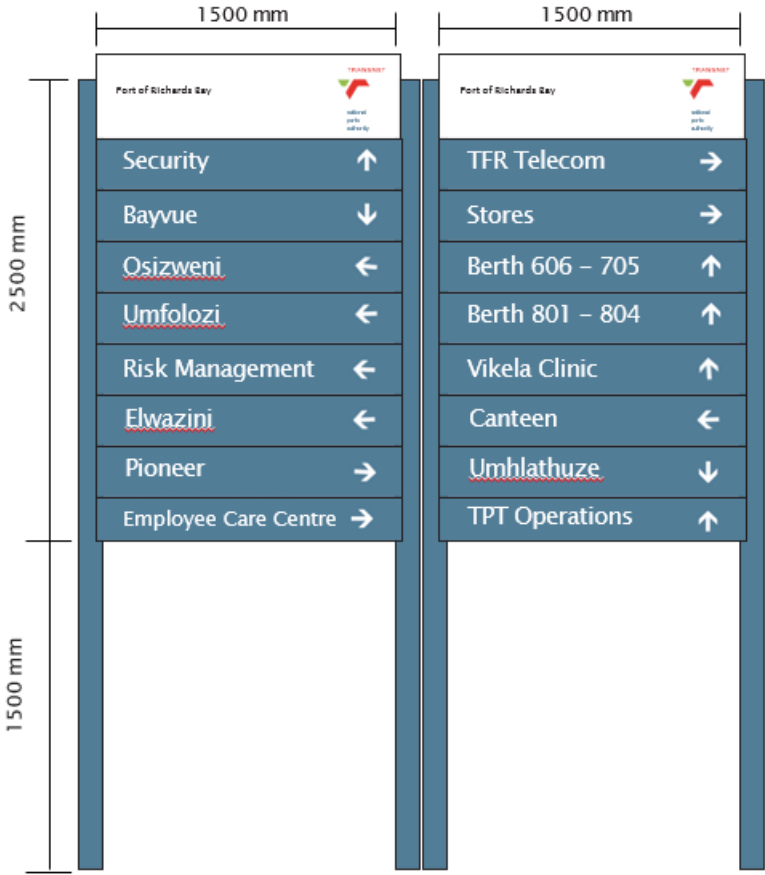


5.1	Supply, deliver and install a Single-Sided sign. Height: 2500 mm Width: 1500mm Mounted Height: 5000mm Sign Post: 200mm X 100mm	No.	6	<table><tr><td colspan="2">1500 mm</td></tr><tr><td rowspan="7">2500 mm</td><td>Port of Richards Bay</td></tr><tr><td>TRANSNET</td></tr><tr><td>Vikela Clinic ←</td></tr><tr><td>Security ↑</td></tr><tr><td>Berth 606-609 ↑</td></tr><tr><td>Berth 701-705 ↑</td></tr><tr><td>Berth 801-804 ↑</td></tr><tr><td colspan="2">1500 mm</td></tr></table>	1500 mm		2500 mm	Port of Richards Bay	TRANSNET	Vikela Clinic ←	Security ↑	Berth 606-609 ↑	Berth 701-705 ↑	Berth 801-804 ↑	1500 mm	
1500 mm																
2500 mm	Port of Richards Bay															
	TRANSNET															
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	Security ↑															
	Berth 606-609 ↑															
	Berth 701-705 ↑															
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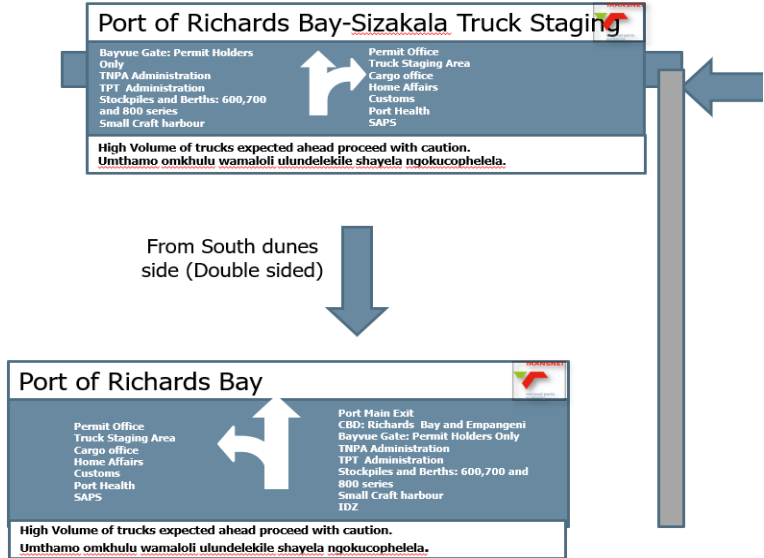
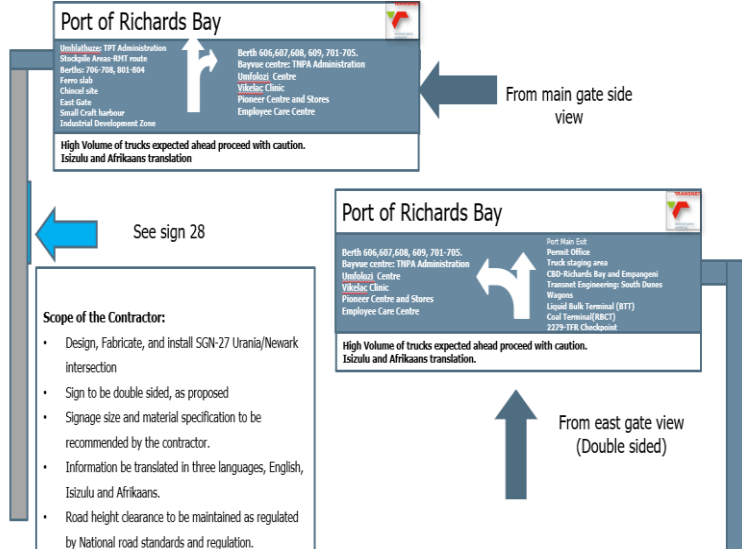


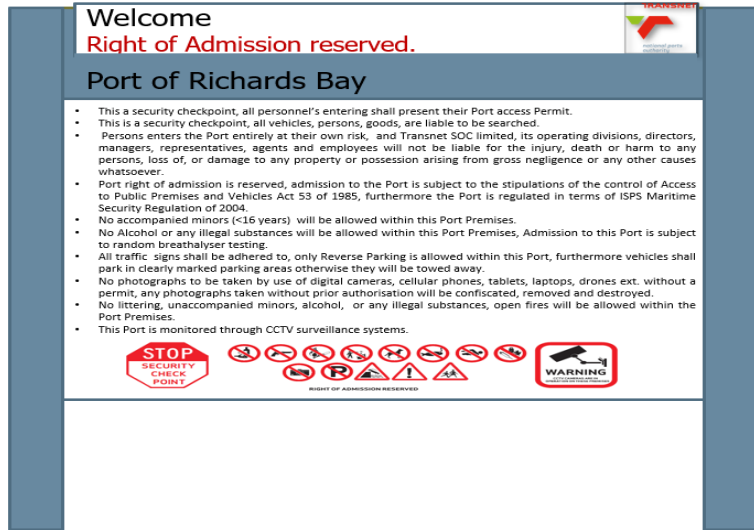
5.2	Supply, deliver and install a Double-Sided sign. Height: 2500 mm Width: 1500mm Mounted Height: 5000mm Sign Post: 200mm X 100mm	No.	4	 The diagram shows a double-sided sign post. The sign itself is 1500 mm wide and 2500 mm high. It is mounted on a post that is 1500 mm high. The sign has a white top section with the text "Port of Richards Bay" and the TRANSNET logo. Below this are five blue sections with white text and arrows: "Vikela Clinic" with a left arrow, "Security" with an up arrow, "Berth 606-609" with an up arrow, "Berth 701-705" with an up arrow, and "Berth 801-804" with an up arrow. There are three empty blue sections at the bottom of the sign.
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5.3	Supply, deliver and install a Single-Sided sign. Height: 2500mm Width: 3000mm Mounted Height: 5000mm Sign Post: 200mm X 100mm	No.	2	
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5.4	Supply, deliver and install a Double-Sided sign. Height: 2500mm Width: 3000mm Mounted Height: 5000mm Sign Post: 200mm X 100mm	No.	5	
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5.5	Installation of free standing road overhang signs complete with poles, and 50 Mpa concrete bases. Supply, deliver and install a Double-Sided sign, equiped with lights Height: 2000 mm Width: contractor to design Mounted Height: as per road regulations and standards [Sign posts spanning across total road width, installed on pedestrian pavement on each side of road]	No.	3	 Port of Richards Bay Bayview Gate: Permit Holders Only TNPA Administration TPI Administration Stockpiles and Berths: 600,700 and 800 series Small Craft harbour Truck Staging Area and Permit Office Home Affairs and Customs Port Health and SAPS South Dunes Terminals: Coal (RBCT) and Liquid Bulk Terminal(BTT) 2279 TPR check point TE-Sound Dunes Wagons High Volume of trucks is expected ahead proceed with caution. Isizulu and Afrikaans translation Port of Richards Bay THANK YOU FOR DOING BUSINESS WITH US, WE SHALL SEE YOU AGAIN, SAFE JOURNEY!!!! Afrikaans and isizulu High Volumes of trucks are expected ahead proceed with caution. Isizulu and Afrikaans translation From Port View

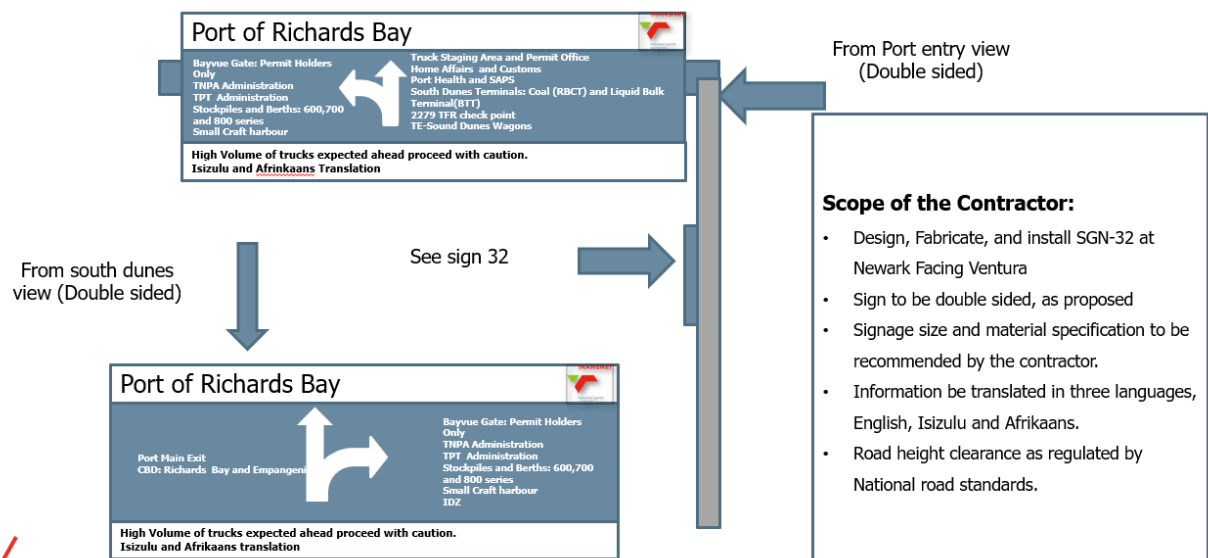
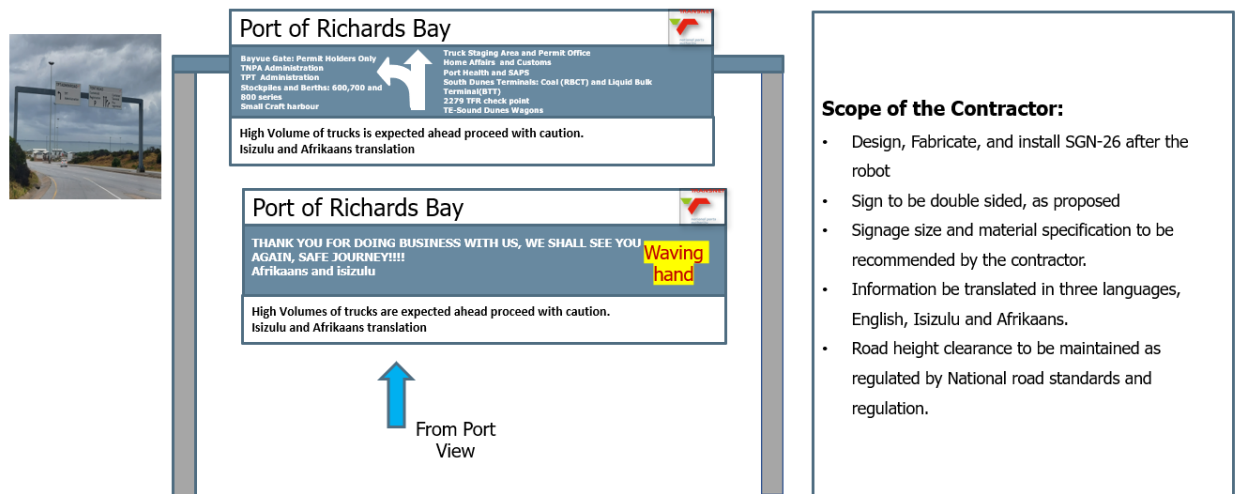
	Supply, deliver and install a Double-Sided sign, equipped with lights Height: 2000 mm Width: contractor to design. Mounted Height: as per road regulations and standards [cantilever signage supported on one ground mounted pole or any support structure as the contractor deems adequate]	No.	2	 From South dunes side (Double sided)
5.6	Supply, deliver and install a Triple-Sided sign, equipped with lights Height: 2000 mm Width: contractor to design. Mounted Height: 8000mm or as per road regulations and standards [cantilever signage supported on one ground mounted pole or any support structure as the contractor deems adequate]	No.	3	 See sign 28 From main gate side view From east gate view (Double sided) Scope of the Contractor: - Design, Fabricate, and install SGN-27 Urania/Newark intersection - Sign to be double sided, as proposed - Signage size and material specification to be recommended by the contractor. - Information to be translated in three languages, English, Isizulu and Afrikaans. - Road height clearance to be maintained as regulated by National road standards and regulation.

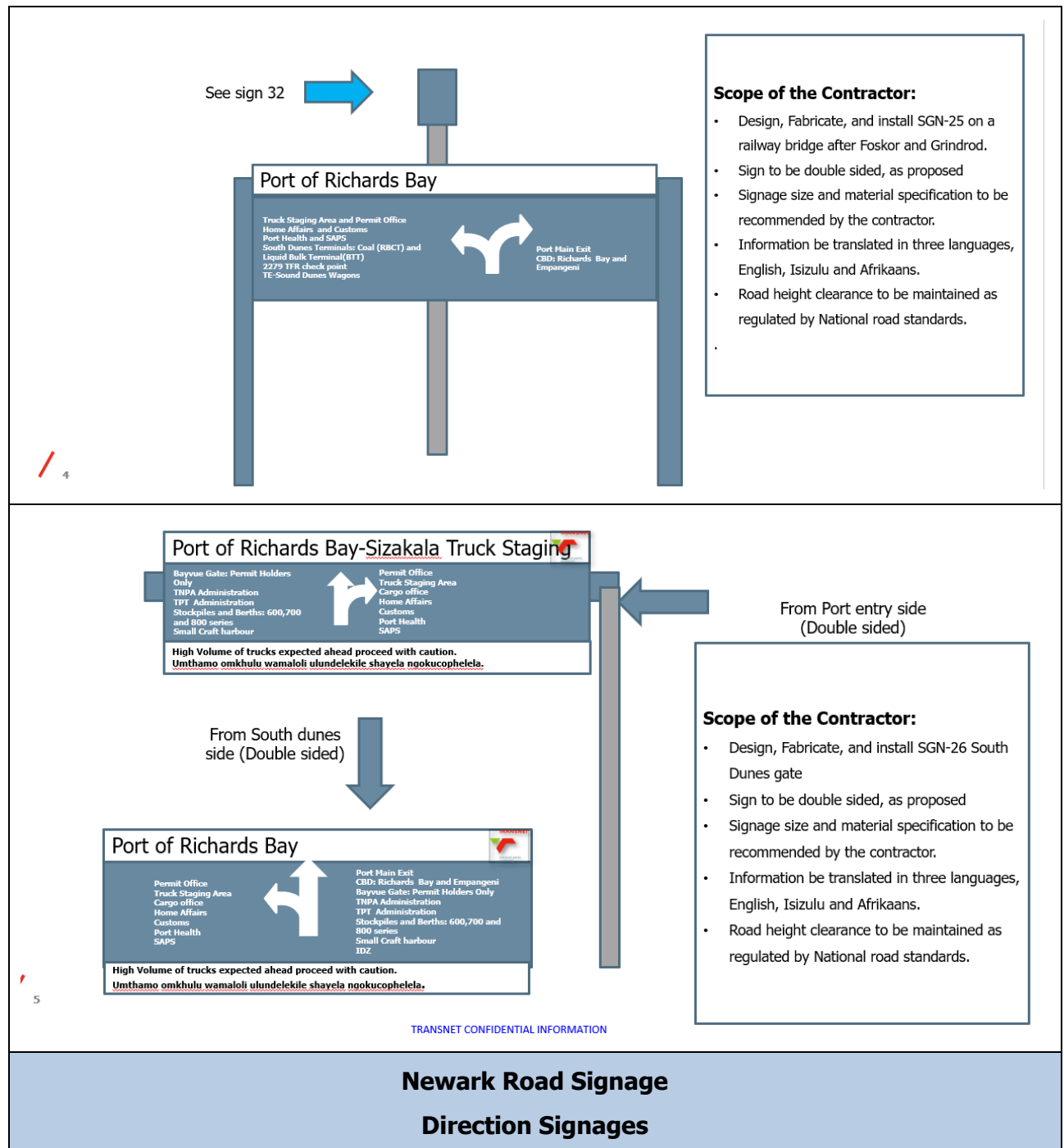
6	SECTION NO. 6: WARNING AND INFORMATION SIGNS			
	INSTALLATION OF FREE-STANDING SIGNS(Translated into Isizulu, English and Afrinkaans) preferable 1 sigange for each Language.			
6.1	Installation of free standing signs complete with poles, and 50 Mpa concrete bases. Supply, deliver and install a Single-Sided sign by entrances .(3 of each/sign board per language)Height:3000mmWidth: 2000mmMounted Height: 5500mmSign Post: 200mm X 100mm	No.	9	
7				SECTION NO. 7: INFORMATION SIGNS INSTALLATION OF FREE-STANDING SIGNS

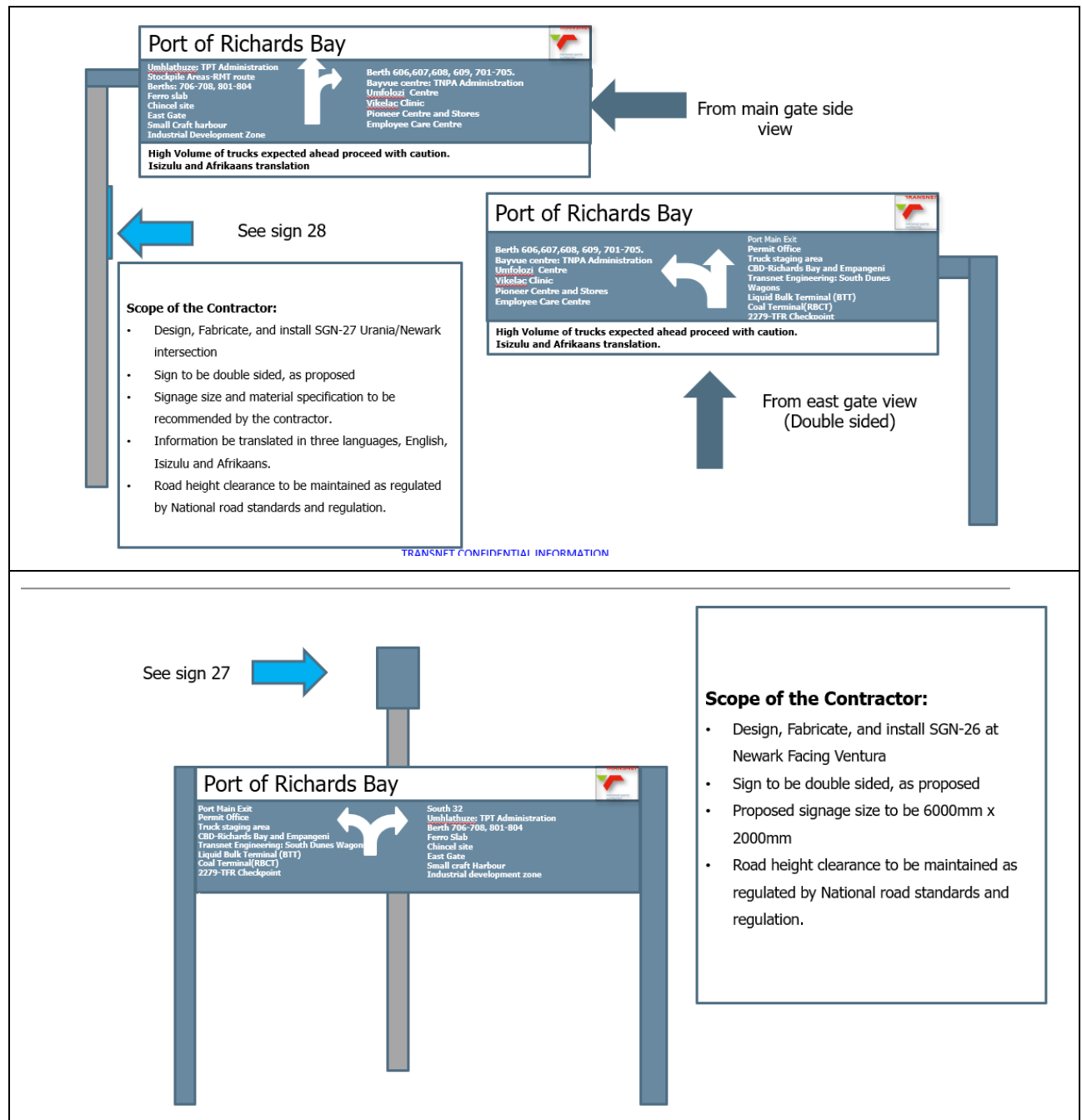
7.1	Supply, deliver and install a Single-Sided wall mounted sign: Security Guard house Height: 500mm Width: 600mm	No.	10	 

Location and Technical Information

Urania Road Signage Direction Signages



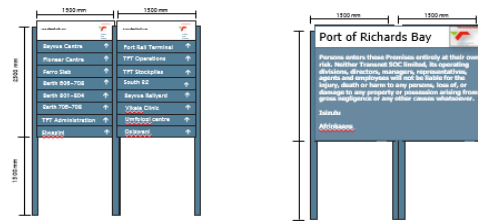




Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (see scope of work for locations).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

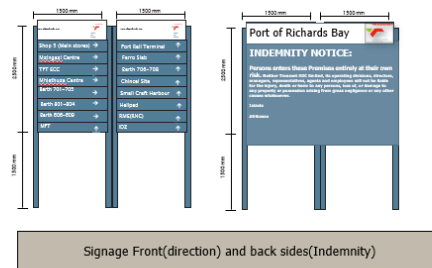
Direction Sign(DS 2-After Bayvue gate incoming)



Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (see scope of work for locations).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction sign : Octopus – facing Bayveu gate-Left lane

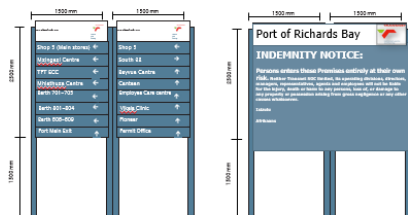


Signage Front(direction) and back sides(Indemnity)

Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (see scope of work for locations).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction sign : Octopus – facing east gate-Right lane



Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (see scope of work for locations).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction Sign 6 to Octopus (facing Octopus)



Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (see scope of work for locations).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction sign 15-After octopus



Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (**see scope of work for locations**).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction sign 15-1-RMT ROUTE

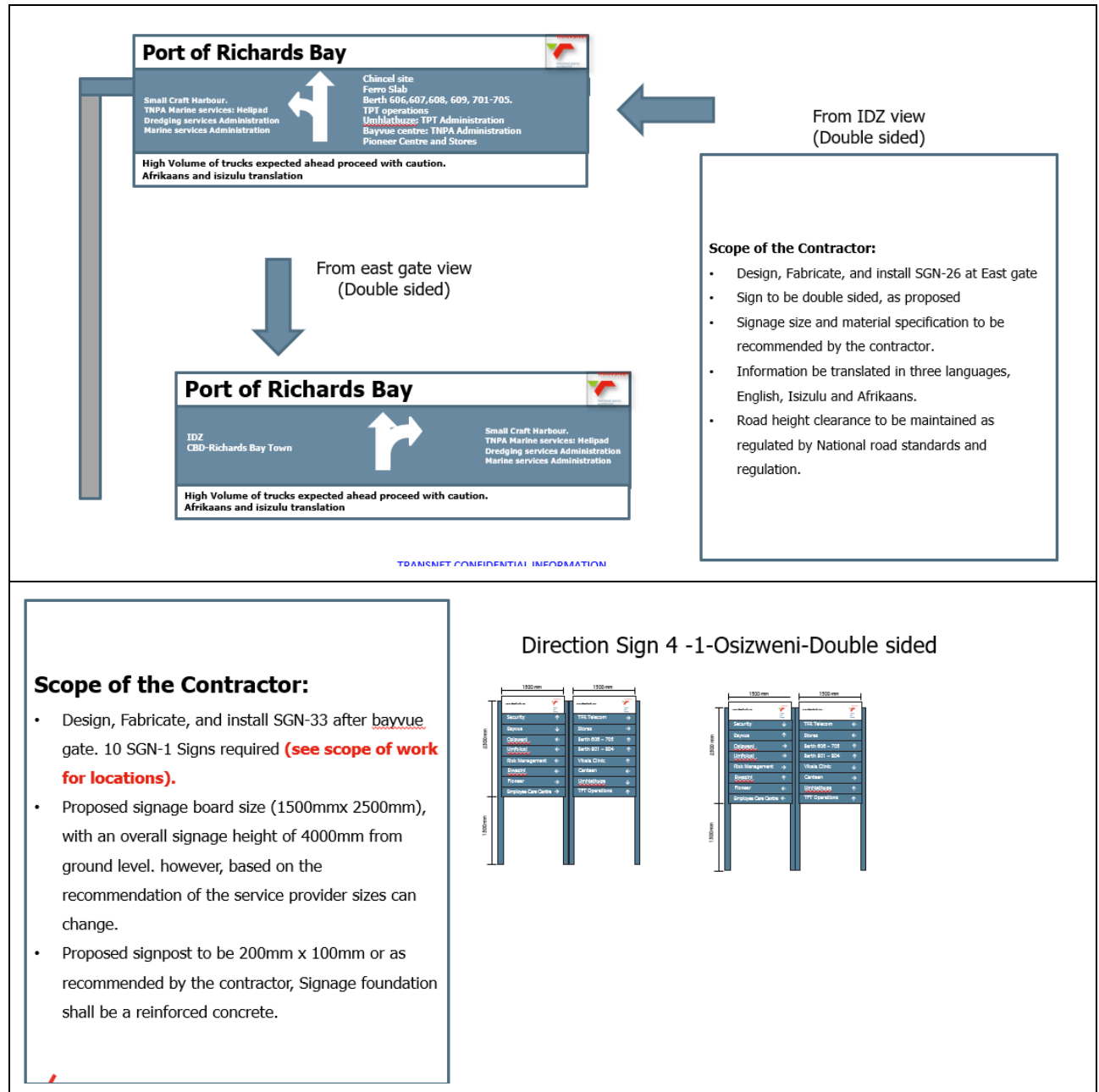


Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (**see scope of work for locations**).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction sign 15-1-708 Road

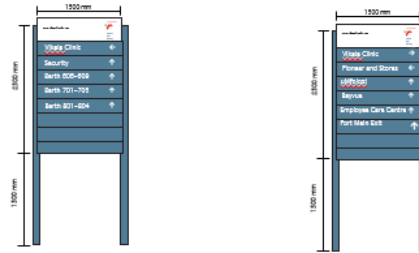




Scope of the Contractor:

- Design, Fabricate, and install SGN-33 after bayvue gate. 10 SGN-1 Signs required (**see scope of work for locations**).
- Proposed signage board size (1500mmx 2500mm), with an overall signage height of 4000mm from ground level. however, based on the recommendation of the service provider sizes can change.
- Proposed signpost to be 200mm x 100mm or as recommended by the contractor, Signage foundation shall be a reinforced concrete.

Direction sign : VIKELA CLINIC



Welcome Right of Admission reserved. Port of Richards Bay

- This a security checkpoint, all personnel's entering shall present their Port access Permit.
- This is a security checkpoint, all vehicles, persons, goods, are liable to be searched.
- Persons enters the Port entirely at their own risk, and Transnet SOC limited, its operating divisions, directors, managers, representatives, agents and employees will not be liable for the injury, death or harm to any persons, loss of, or damage to any property or possession arising from gross negligence or any other causes whatsoever.
- Port right of admission is reserved, admission to the Port is subject to the stipulations of the control of Access to Public Premises and Vehicles Act 53 of 1985, furthermore the Port is regulated in terms of ISPS Maritime Security Regulation of 2004.
- No accompanied minors (<16 years) will be allowed within this Port Premises.
- No Alcohol or any illegal substances will be allowed within this Port Premises, Admission to this Port is subject to random breathalyser testing.
- All traffic signs shall be adhered to, only Reverse Parking is allowed within this Port, furthermore vehicles shall park in clearly marked parking areas otherwise they will be towed away.
- No photographs to be taken by use of digital cameras, cellular phones, tablets, laptops, drones ext. without a permit, any photographs taken without prior authorisation will be confiscated, removed and destroyed.
- No littering, unaccompanied minors, alcohol, or any illegal substances, open fires will be allowed within the Port Premises.
- This Port is monitored through CCTV surveillance systems.



Scope of the Contractor:

- Design, Fabricate, and install SGN-1 in all major Port access Points. 3 SGN-1 Signs required (**see scope of work for locations**).
- Signage to be installed in three languages(English, Afrikaans and Isizulu) in each location.
- Three signage boards to be installed per location for better visibility, however based on the recommendation of the service provider, all languages shall be in one signage board.
- Proposed signage board size (3000mmx 2000mm), with an overall signage height of 3500mm from ground level. however based on the recommendation of the service provider sizes can change.



Scope of the Contractor:

- Design, Fabricate, and LED illuminated install SGN in all major Port access Points. 1 SGN-1 Signs required (**see scope of work for details**).



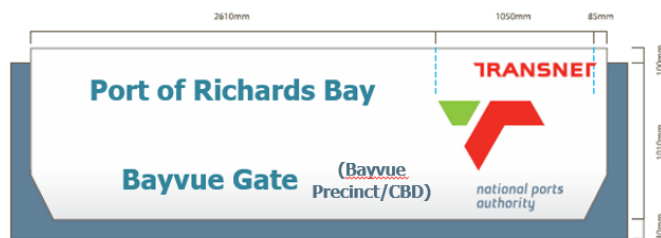
Scope of the Contractor:

- Design, Fabricate, and LED illuminated install SGN in all major Port access Points. 1 SGN-1 Signs required (**see scope of work for details**).



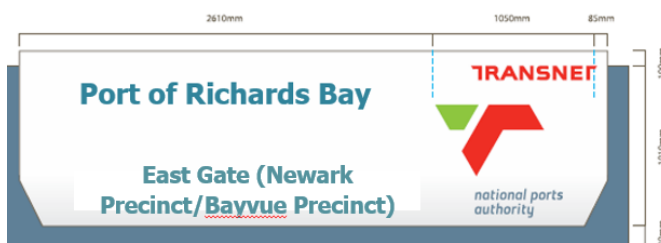
Scope of the Contractor:

- Design, Fabricate, and LED illuminated install SGN in all major Port access Points. 1 SGN-1 Signs required **(see scope of work for details).**



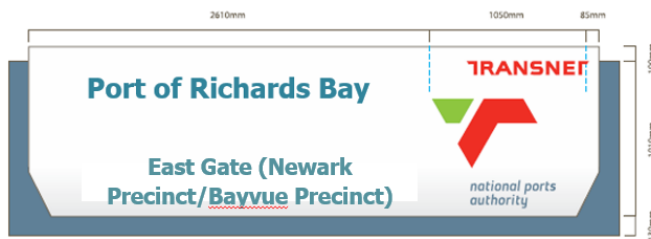
Scope of the Contractor:

- Design, Fabricate, and LED illuminated install SGN in all major Port access Points. 1 SGN-1 Signs required **(see scope of work for details).**
- 2 signages per entrance, Entry(Bayvue Precinct) and exit(CBD) direction



Scope of the Contractor:

- Design, Fabricate, and LED illuminated install SGN in all major Port access Points. 1 SGN-1 Signs required **(see scope of work for details).**
- 2 signages per entrance, Entry(Bayvue Precinct) and exit(Newark Precinct) direction
- Sizes as stipulated or as per the recommendation of the contractor during design review.



Scope of the Contractor:

- Design, Fabricate, and LED illuminated install SGN in all major Port access Points. 1 SGN-1 Signs required (**see scope of work for details**).
- 2 signages per entrance, Entry(Bayvue Precinct) and exit(Newark Precinct) direction
- Sizes as stipulated or as per the recommendation of the contractor during design review.

