



Network statement – Appendix E.4.1

Description of service facility “Marshalling
facility *Antwerpen-Noord*”

INFRABEL



Versions

Version	Date	Changes
1	15/06/2020	First version
2	20/08/2020	The main changes are: <ul style="list-style-type: none"> - Addition of Chapter 6 “Capacity request and allocation” - Chapters 1 and 2: stressing the self-supply of services in this service facility.
3	11/12/2020	Point 3: correction made regarding the track possessions.
4	18/08/2021	Points 6.1 and 6.2: update of the applicable dates for the 2022 timetable.
5	10/12/2021	Points 6.1 and 6.2: update of the application dates for the timetable 2023.
6	10/03/2022	Points 6.1 and 6.2: update of the text following Decision D-2021-04-S of the Regulatory Body available at https://www.regul.be/wp-content/uploads/2021/12/D-2021-04-S_reasonable-time-limit.pdf
7	29/07/2022	Point 6.1: Update following the adaptation of the principles of the <i>Your Facilities</i> service
8	09/12/2022	Point 3.3: update of the track possessions as of 06/02/2023.
9	04/04/2023	Revision to the Appendix to include the conditions applicable when a railway undertaking wishes to use the marshalling facility as a user-operator
10	30/06/2023	Point 6.1: indicating applicable dates for timetables 2024 and 2025.
11	08/12/2023	Point 2: update of the link to the description of the services of the user-operator Point 6: update of the reference to the reservation form.

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1. General information

1.1 Introduction

Infrabel has prepared this document in accordance with Commission Implementing Regulation (EU) 2017/2177. This document describes the access to and use of the marshalling facility of *Antwerpen-Noord*, namely yards B1, B2, C1 and C2 and the humps B and C, located in the Port of Antwerp. A map containing all the yards involved can be found in point 3.2.

Infrabel is the infrastructure manager of the Belgian railway network and, within the framework of the marshalling facility in *Antwerpen-Noord*, is also considered as the operator of a service facility.

This document is published on <https://infrabel.be/en/networkstatement>.

1.2 Operator of the service facility

Infrabel owns and operates this service facility in the sense that it provides access to the marshalling facility to the railway undertakings, including, where appropriate, the technical facilities so that marshalling can run smoothly (IT system, AUTRI (automatic marshalling) traffic controller, etc.).

However, Infrabel does not offer services in this service facility.

In this facility, the provision of services is understood within the meaning of Implementing Regulation 2017/2177 and implemented:

- either by the railway undertaking for its own account,
- or by a railway undertaking that chooses to offer services to other railway undertakings and thus becomes an operator of the service facility for the provision of services ("user-operator", see Section 2 of this document).

A railway undertaking wishing to use the services offered by a user-operator must address its request to that user-operator. This request is separate from the request for access to the service facility (in this case, to yards B1 and C1) to be submitted to Infrabel in accordance with this document.

Below is an overview of the necessary addresses and key contact details.

Official details of Infrabel

Infrabel N.V. under public law
Marcel Broodthaersplein 2
B-1060 Brussels

Address of the facility described

Signal box 9 *Antwerpen-Noord*
Noorderlaan 630
Haven 500
B-2030 Antwerpen

Contact details of administrative services

Who?	Telephone number	E-mail address	Opening hours
Teamleader Operations	03 204 22 00	itms.areane.manager@infrabel.be	From Monday to Friday from 8 a.m. to 12 p.m. and from 12.30 p.m. to 4.30 p.m.
Operations officer	03 204 22 02	itms.areane.secretariat.manager@infrabel.be	From Monday to Friday from 8 a.m. to 12 p.m. and from 12.30 p.m. to 4.30 p.m.
Operational Quality Officer	03 204 21 97	5212.area-ne-operational-quality-officer@infrabel.be	From Monday to Friday from 8 a.m. to 12 p.m. and from 12.30 p.m. to 4.30 p.m.

Contact details for operational services (Signal box 9 *Antwerpen-Noord*)

Who?	Telephone number	Opening hours
Emergency phone	03 204 41 00	
AUTRI traffic controller for the B-yards	03 204 45 71	From Monday 6 a.m. to Saturday 2 p.m.
AUTRI traffic controller for the C-yards	03 204 45 67	From Sunday 2 p.m. to Saturday 2 p.m.
Safety Supervisor (for full working area of signal box <i>Antwerpen-Noord</i>)	03 204 45 68	24h/24 - 7d/7

All other contact details of both the administrative and operational services can be found in the local protocol for the use of the infrastructure for the *Antwerpen-Noord* action zone (marshalling), available on the Infrabel *Business Corner* via <https://partners.infrabel.be/en/pages/default.aspx>. In order to use the *Business Corner*, the railway undertakings must apply to their *Account Manager*.

1.3 Validity and update process

This description of the marshalling facility does not have a fixed period of validity, and is valid from the time of publication. This document will be updated if there are substantive changes and the railway undertakings that have requested access to the facility from Infrabel will be informed by e-mail.

Certain information in this description can also be found in the local protocols for the use of the infrastructure of *Antwerpen-Noord*. There are two local protocols for the area described:

- rules specific to the infrastructure manager for the *Antwerpen-Noord* action zone (general) hereinafter referred to as the “local protocol general”)
- rules specific to the infrastructure manager for the *Antwerpen-Noord* action zone (marshalling), hereinafter referred to as “local protocol marshalling”.

Part 1 of both documents can be found on the Infrabel *Business Corner*.

If, despite Infrabel’s efforts to provide correct information, there are differences between this description of the service facility and the local protocols, the latter will be decisive.

2. Services

As mentioned in section 1.2, Infrabel does not offer services in this service facility.

In this facility, the provision of services is understood within the meaning of Implementing Regulation 2017/2177 and implemented:

- either by the railway undertaking for its own account,
- or by a railway undertaking that chooses to offer services to other railway undertakings and thus becomes an operator of the service facility for the provision of services ("user-operator"). It must therefore fulfil its obligations as an operator of a service facility in accordance with Implementing Regulation 2017/2177, and in particular publish a description of the service (facility) with information including the conditions for access to the service and the pricing of the service. The link to the service description must be provided by the user-operator to Infrabel, which will include it in Appendix E.2 to the network statement.

Since 1 April 2023, Lineas has been a user-operator in this service facility. Its description of services is available at <https://lineas.net/en/our-solutions/neutral-hill-services/>.

3. Description of the service facility

The full description of the operation of marshalling in automatic mode can be found in point 1.3 of the local protocol for *Antwerpen-Noord*.

3.1 List and name of all installations

The following yard tracks are part of the *Antwerpen-Noord* marshalling facility and can be used by the railway undertakings.

Installation	Associated tracks
Reception yard B1	Tracks 401 to 411
Arrival yard B2	Tracks 501 to 540
Reception yard C1	Tracks 101 to 119 and dead-end tracks 178, 186 and 684
Arrival yard C2	Tracks 209 to 264 dead-end tracks 293, 294, 295 and 296
Hump yards B	-
Hump yards C	-

A comprehensive overview of all available tracks per yard can be found in point 1.3.3 of the local protocol general. For each track, the operational length, the catenary, the gradient, whether it is a dead-end track and the smallest intermediate track width are shown.

Appendix F.1 to the network statement also contains an overview of the technical equipment per track.

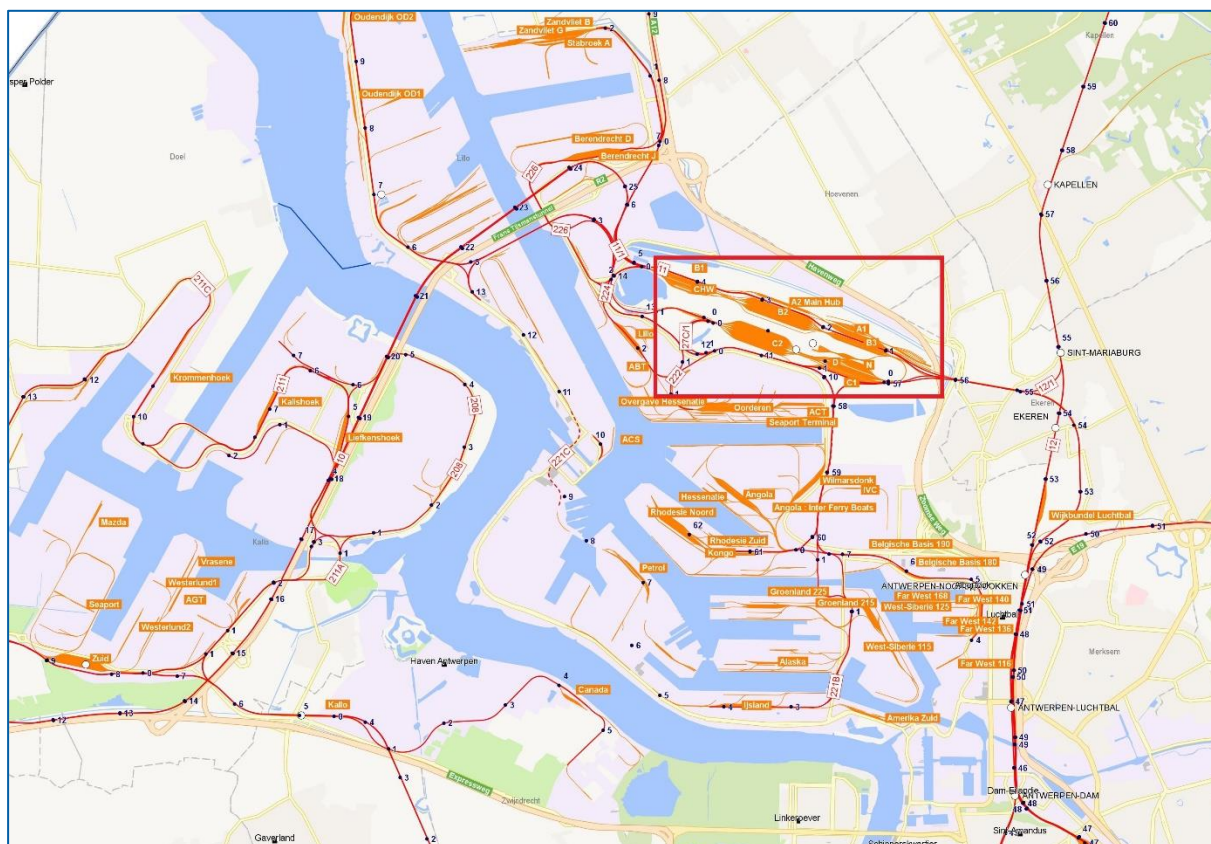
Private tracks and/or railway connections are outside the scope of this document.

3.2 Location

The humps and associated yards are located in the Port of Antwerp. Signal box 9 can be reached by road via Noorderlaan (Noorderlaan 630, Haven 500, 2030 Antwerpen). Yards B1, B2, C1 and C2 are located behind and around signal box 9.

The coordinates of signal box 9 are: N 51°17'27.0" - E 4°22'41.2".

Below is a map of the installations in the Port of Antwerp. The red rectangle indicates the location of signal box 9 and the surrounding yards. The second map gives a detailed overview of the area described.





3.3 Opening hours

An overview of the different opening hours of the facilities in *Antwerpen-Noord* is available in list 15 of the RIEI (see appendix D.7 of the network statement – in Dutch and French only).

When planning the maintenance work on the technical components of the marshalling system itself, Infrabel will use the following preferred track possessions:

- Marshalling facility B-yards: on Tuesday from 8 a.m. to 12 p.m.
- Marshalling facility C-yards: on Monday from 8 a.m. to 12 p.m.

During maintenance work, the marshalling facilities are not accessible.

There are also track possessions scheduled on Sundays from 6:00 am to 5:00 pm, during which works can take place with a possible impact on the reception and arrival of all yards.

Maintenance work on the yard tracks is carried out in accordance with the provisions of the network statement.

3.4 Technical characteristics

This point explains some technical aspects, all technical characteristics are discussed in the local protocol shunting.

Technical facilities of the tracks

In addition to point 1.3.3 of the local protocol general, appendix F.1 of the network statement also gives an overview of technical equipment by track, such as the length of the tracks, electrification, presence of lighting and rail brakes.

AUTRI traffic controller

In order for the railway undertaking to perform its shunting services on its own account or as a user-operator, Infrabel provides it with an AUTRI traffic controller, which performs the following tasks:

- Build itineraries for approach and marshalling movements to and onto the hump, as well as for other journeys that must pass through the marshalling zone
- Carry out the procedures for the issue of exceedance orders

- Control the switch engine during the approach and marshalling movements
- Monitor the wagons that are marshalled
- Inform the shunter when a set to be marshalled is approaching the hump, and maintain constant close contact with this operator
- Inform the EBP post of which switch engine should be directed to which track to be marshalled
- Be particularly alert each time a set of wagons is pushed over the hump and deposited in the classification bowl. This is to bring the runaway wagon(s) to a standstill with the appropriate functions in the event of any coupling break
- Cooperate closely with the marshalling operator and follow up on his recommendations (setting the marshalling order etc.) to ensure that the work is carried out as smoothly as possible
- Take the safety measures to carry out maintenance work at the marshalling facility and of the shunting switches (decommissioning of the zone concerned etc.)
- Secure the shunting switches in different positions for the protection of locomotives present on the bowl tracks
- Secure the shunting switches in different positions for the protection of persons performing activities on the bowl tracks.

Radio communication

Communication between the AUTRI traffic controller, the shunter and the driver of the switch engine (see descriptions below) is by radio, for both automatic marshalling (normal operation) and manual marshalling (abnormal operation).

Marshalling in manual mode is done entirely through radio communication. In this case, only one switch engine may be approached and marshalled at the same time. It is worth bearing in mind that, when marshalling in a manual way (i.e. without remote control and with radio communication only), the likelihood of human error is real.

Malfunctions

During the marshalling, the automatic system takes into account malfunctions, error messages and other conditions to move switches into the safety position and to divert any blocks¹. Depending on each case, the system will automatically perform a marshalling break or marshalling stop.

In principle, marshalling must always take place in automatic mode. marshalling in manual mode is only permitted if circumstances so require, for example due to malfunction or in adverse weather conditions. Further information can be found in points 1.3.5 and 1.3.6 of the local protocol marshalling.

Deceleration

Rail brakes have been installed in 3 zones for braking the blocks:

- the hump brakes
- the valley brakes
- the bowl track brakes.

The first two braking zones are responsible for braking the blocks so that, on the one hand, sufficient gaps remain between the blocks while passing through the sorting fan and, on the other hand, the blocks reach the following braking zone at a certain run-in speed.

¹ A block is a set of subsequent cars with the same destination in a train.

The third brake zone ensures efficient braking with a view to allowing the various blocks on the destination track to collide at a low run-up speed.

The requirements for the switch engine are described in point 5.2 of this document.

Siemens marshalling system

The operation of *Siemens* marshalling system is described in the appendices to the local protocol marshalling:

- Appendix 1: ‘Operating manual Trackguard Cargo MSR32 Marshalling Station *Antwerpen-Noord* (B2)’
- Appendix 2: ‘Operating manual Trackguard Cargo MSR32 Marshalling Station *Antwerpen-Noord* (C2)’

These manuals describe the *Trackguard Cargo* automation system in *Antwerpen-Noord* and include the information required for the operation of the marshalling system for the railway undertakings as well as information that enables the marshalling operator to correct malfunctions.

3.5 Planned changes in technical characteristics

This document will be adapted for each planned change in technical characteristics.

3.6 Operation of the facility

Infrabel guarantees the operational availability of the:

- B-facility (hump B and yard B2) at 95% per month during opening hours, with the exception of planned track possessions
- C-facility (hump C and yard C2) at 98% per month during opening hours, with the exception of planned track possessions.

In the event of technical outages in the facility:

- within 1 hour after the call from the railway undertaking, a technical team from Infrabel will arrive on site
- with the exception of force majeure or disruptions requiring the intervention of a third party (subcontractor), the disruption will be remedied by Infrabel's technical team within 2 hours from arrival on site

Incidents:

- Infrabel will investigate all incidents occurring in the facility having impact on operational safety (e.g. derailling, collision)
- Infrabel will make relevant data and information available to the railway undertaking in a transparent manner
- Infrabel will designate a single point of contact to supply the relevant data and information required to the railway undertaking
- Infrabel will organise 3-monthly 'Incident Improvement' consultations where incidents and the measures to be taken will be discussed with the railway undertaking.

4. Costs

4.1 Information on costs

The fees charged by Infrabel for access to and use of the facility can be found in the network statement and appendix F.2 of the network statement via the website <https://www.infrabel.be/en/networkstatement>.

Access to and use of the humps is not charged.

4.2 Information on discounts

Infrabel offers no discounts.

5. Conditions of access

5.1 Legal requirements

The Infrabel network statement sets out the conditions to be met for access to infrastructure. For example, a railway undertaking must be in possession of a licence as a railway undertaking, including a safety certificate.

The railway undertaking must have concluded a track access agreement with Infrabel before it can carry out its activities.

In addition, any railway undertaking wishing to use the local railway infrastructure, such as *Antwerpen-Noord*, must have concluded a local protocol with Infrabel in advance. By signing the protocol, the railway undertaking undertakes to respect the conditions of use of this service facility. The protocol defines the rights and obligations of both parties.

The local protocols can be found on Infrabel’s *Business Corner*. A more detailed explanation of the local protocols can be found in the network statement.

5.2 Technical conditions

Several technical conditions have to be met before using the humps of the marshalling facility in *Antwerpen-Noord*.

For the marshalling of wagons by the automatic shunting system, the railway undertaking must have at least the following resources:

- a push-pull locomotive
- an electronic wagon management system allowing the railway undertaking to transmit the required wagon data to the MSR computer of Infrabel’s automatic shunting system.

In addition, the railway undertaking must have the following personnel:

- a shunter on block 9
- a hump foreman on the shunting hump
- a driver of the push-pull locomotive.

Switch engine

The requirements for the switch engine are as follows:

- The switch engine must have sufficient power. The railway undertaking may decide, on its own initiative, to deploy 2 locomotives coupled or to hump-shunt with single traction. However, this should not result in a switch to manual marshalling mode
- The switch engine should preferably be equipped with an automatic BSI coupling. If not, the shunter must be aware of this and will have to uncouple the last wagon himself
- The switch engine must be equipped such that the speed can be adjusted automatically (by remote control via computer-controlled radio signals) by the marshalling system
- The switch engine must be equipped with a radio that can be switched on at the frequency 457.370 (UHF channel 2) for the marshalling facility of the C-yards, or 458.530 (UHF channel 14) for the marshalling facility of the B-yards.

At the same time, a maximum of 3 switch engines may be deployed in the same working area (B- or C-yards).

Software system

The railway undertaking needs an electronic wagon management system that allows the required wagon data to be transferred to the MSR computer of Infrabel’s automatic marshalling system. For more information, please contact Infrabel via accountmanagement@infrabel.be.

Marshalling operator

The marshalling operator performs the following tasks:

- Update and adapt the track planning
- Prepare the shunting bulletin for the AUTRI traffic controller and the shunter
- Monitor the filling of the tracks on the GSS screens, transfer the appropriate push proposals to the driver of the pusher locomotive and control the driver of the pusher locomotive
- Communicate the push proposals to the AUTRI traffic controller, who builds the itinerary for the requested track
- Monitor the removal of immobilisation before automatically shunting a set
- Operate the shunting computer in accordance with the professional training and within the limitations in the use of the functions and menus provided for the GSS profile
- ...

Shunter

The railway undertaking must have a shunter responsible for uncoupling the various points using a shunting pole at the hump yard. This is a safety function and may only be performed by a person trained as a shunter.

The shunter performs the following tasks:

- Uncouple the points on the shunting hump
- Immediately report to the AUTRI traffic controller any lack of agreement between the marshalling bulletin and its actual composition
- Follow the orders of the AUTRI traffic controller
- Check whether there are any wagons with jammed or insufficiently fluttered brakes in the set and, where appropriate, release or spray these brakes
- In case of danger, operate the emergency stop on the hump
- ...

The driver of the switch engine

The driver of the switch engine performs the following tasks:

- Follow closely the communications and orders of the AUTRI traffic controller
- Strictly comply with the speeds communicated by the AUTRI traffic controller in case of non-automatic shunting
- Stop the movement immediately if he does not hear the orders of the AUTRI traffic controller at the prescribed rate, if marshalling is not automatic
- ...

Safety regulations

For the safe operation of the automatic marshalling facilities, it is essential that the required data provided by the railway undertaking to Infrabel is correct. This applies in particular to the technical data of the wagons to be hump-shunted (load, protection class, etc.).

If a lack of correct information or an error in communication concerning the required data to be provided leads to an accident, this is entirely the responsibility of the railway undertaking.

5.3 Self-supply of track-related services

See point 2 Services.

5.4 IT systems

As mentioned in point 5.2, the railway undertaking needs an electronic wagon management system that allows the required wagon data to be transmitted to the MSR computer of Infrabel’s automatic shunting system.

6. Request and allocation of capacity

6.1 Requests for access

Humps B and C + Yards B2 and C2

The railway undertaking may request access from Infrabel to the humps B and C per 1h time slot and per timetable (see description of the *Your Facilities* service – reservable tracks – in the network statement) via the reservation form in appendix B.1.3 of the network statement. When reserving the time slots, account should be taken of the time needed to prepare the use of the hump and to leave the facility again.

When a railway undertaking requests access to a hump, it is assumed that it is automatically requesting access for the same time slot and timetable to all “marshalling by gravity” tracks at the yard downstream of the hump in question, i.e. yard B2 when requesting access to hump B and yard C2 when requesting access to hump C (see details of the tracks at these yards in appendix F.1 of the network statement).

When a railway undertaking requests access to hump B and/or hump C, it must indicate in the above-mentioned form whether it wishes to use the facility on its own account or as a user-operator. In the latter case, the submission of such a request through the form means that it accepts the conditions set forth in appendix E.4.2.

The aforementioned reservation form must be sent by e-mail to your.facilities@infrabel.be. The reservation dates for the 2024 timetable are:

	From	To
Annual requests	1 July 2023	30 September 2023
Late requests	1 October 2023	14 December 2024 (end 2024 timetable)
Ad-hoc requests	17 October 2023	14 December 2024 (end 2024 timetable)

The reservation dates for the 2025 timetable are:

	From	To
Annual requests	1 July 2023	30 September 2023
Late requests	1 October 2023	13 December 2025 (end 2025 timetable)
Ad-hoc requests	15 October 2024	13 December 2025 (end 2025 timetable)

Yards B1 and C1

The tracks of yards B1 and C1 are considered as operational tracks (see description of the ‘Your Facilities’ service - operational tracks - in the network statement) and are therefore not reservable. The maximum occupancy time for this type of track is set out in appendix F.1 of the network statement.

6.2 Answer to requests

Humps B and C + Yards B2 and C2

Infrabel reports by email to the railway undertakings which time slots of the marshalling humps and the yards behind them have been allocated to them. The deadlines for responding to requests for the 2024 and 2025 timetables are:

	Deadline*
Annual requests	30 October 2023
Late requests	No later than 30 calendar days starting from the first working day following the sending of the acknowledgement of receipt indicating that the request is complete.
Ad-hoc requests	At the latest within five working days starting from the first working day following the reception of the request if it is complete, or, if the request is incomplete, after sending the acknowledgement of receipt indicating that the request is complete following receipt of the necessary information.

* Exceptions are possible, see point 7.3.4.6.3 of the network statement.

In the event of competing requests, Infrabel will set up a dialogue with the railway undertakings concerned and formulate alternative proposals based on available capacity, in accordance with the coordination procedure described in detail in point 7.3.4.6.7 of the network statement.

If Infrabel and the railway undertaking cannot agree on a viable alternative, the latter may file a complaint with the regulatory body in accordance with Article 9(5) of the Railway Codex.

Yards B1 and C1

The allocation of these tracks takes place in real time, in accordance with the procedure described in chapter 7 of the network statement.

6.3 Information on available capacity and temporary capacity restrictions

Infrabel reserves the right to take the facility temporarily out of service for maintenance and/or renovation works:

- Infrabel will communicate works in the facility with a limited impact (i.e. a section of 1 sub-facility out of service for less than 24 hours): at least 2 months in advance
- Infrabel will communicate works in the facility with a major impact (i.e. one or both sub-facilities out of service or a section of the facility out of service for at least 24 hours): at least 1 year in advance
- In the event of urgent works, Infrabel will communicate the works in real-time, as soon as the information is available.

The information on available capacity can be obtained from Infrabel (your.facilities@infrabel.be).