



Constructive projects included in CLYMA

EXECUTIVE SUMMARY

Some strategic actions along the corridor have been planned in accordance with the development of the CLYMA Project.

In particular, construction plans have been developed for the Barcelona, Tarragona and Zaragoza terminals to improve the rail accesses, enlarge the terminals or adapt them to UIC gauge.

The full document is accessible to the Stakeholders Interest Group of the project through the CLYMA website www.clyma.eu



DEVELOPMENT OF THE
CONNECTION
LYON-MADRID
ON THE MEDITERRANEAN
CORRIDOR



Co-financed by the European Union
Trans-European Transport Network (TEN-T)

Construction project for the internal rail connection of the Port of Barcelona's accesses

This action consists of drafting the project "New rail access. Shunting rail yard".

This project should allow the connection of the port infrastructure with the new rail access which is currently being developed by the Ministry of Public Works and Transport (Ministerio de Fomento).

The contract includes the proposed topographical survey and the definition of additional geotechnical developments as well as the geometric definition of the solution.



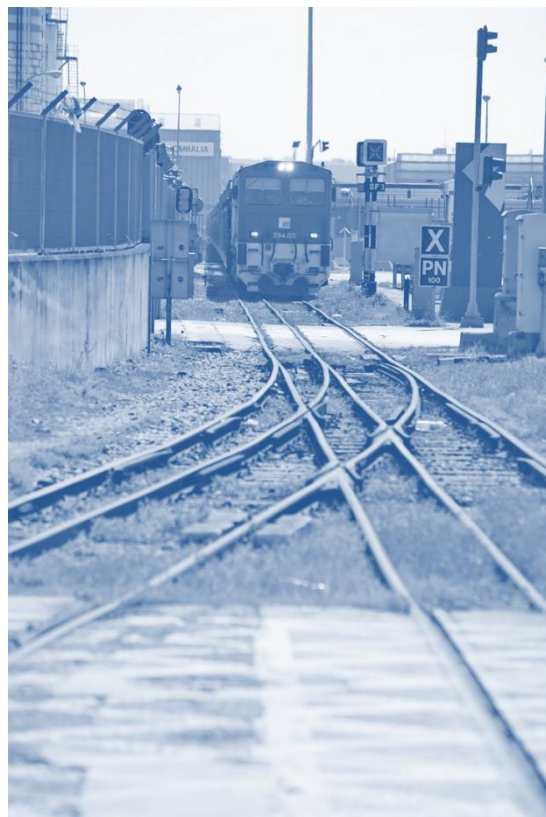


Overview of works

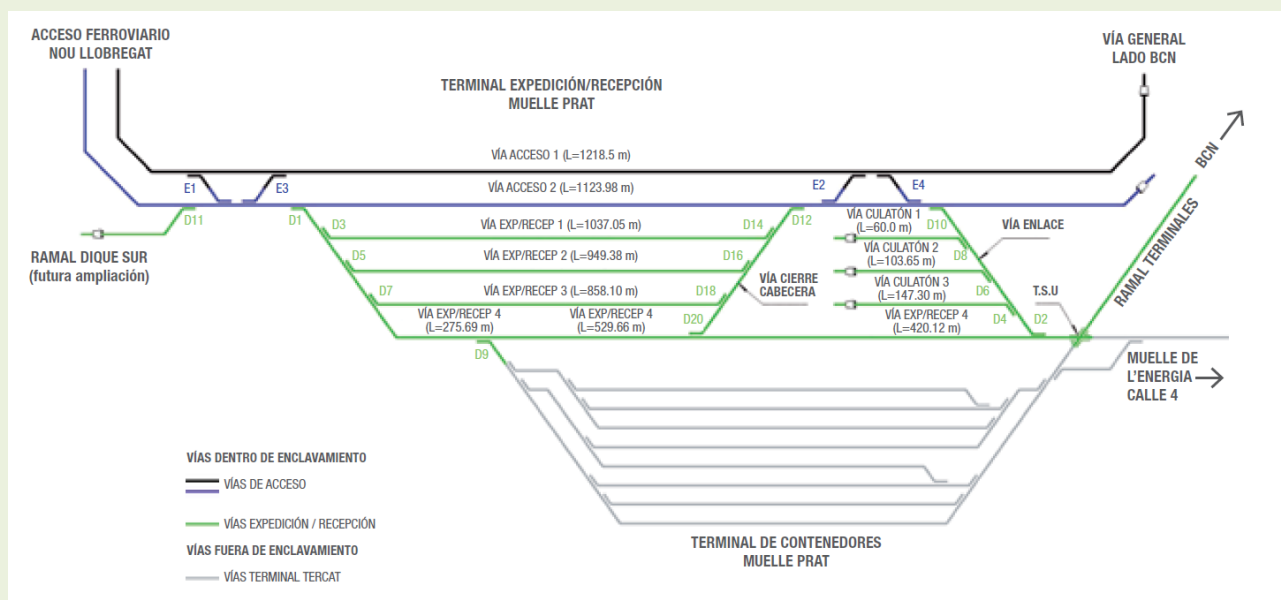
The design of the new rail link comprises a bundle of six tracks, two of which will be general purpose, while the other four are intended for emission-reception.

Phase one of the new rail access under development by the Ministry provides a simple access by the side of the new Llobregat riverbed, leaving closure of the rail ring for future phases. Until rail planning (basically the ring closure) is complete, the six-way will play a multifunctional role (access and emission-reception) allowed by the flexible basic layout.

The new line is designed for goods and corresponds to a category IV-F of the Technical Specification of interoperability (TSI). That means a GC gauge, 25 t for axle load, 140 km/h for line speed and 750m for train length.



Functional scheme



Construction project for the internal rail connection of the Port of Tarragona

It involves drafting a Construction Project of the railway access to the Port of Tarragona in UIC gauge and its electrification. The Project was performed by the engineering company INECO (Ingeniería y Economía del Transporte SA) from March to July 2013, under the command, revision and direction of the Tarragona Port Authority.

The project consists of defining the implementation of UIC gauge (1 435 mm) and electrification of Access 3 (currently functioning with Iberian gauge) permitted by the connection to the new Intermodal Railway Terminal at the Port of Tarragona. In total it is planned to adapt 4.5 km of existing railway in the port.

This action will permit access of trains from the General Railway to the Loading and Unloading Terminal without using diesel traction. In addition, as mentioned, it will permit the access of trains with UIC gauge when Tarragona is connected to the Trans-European Railway Networks without having to change gauge at the French border.

Situation and intervention of the project





Intermodal terminal constructive project to Port of Tarragona

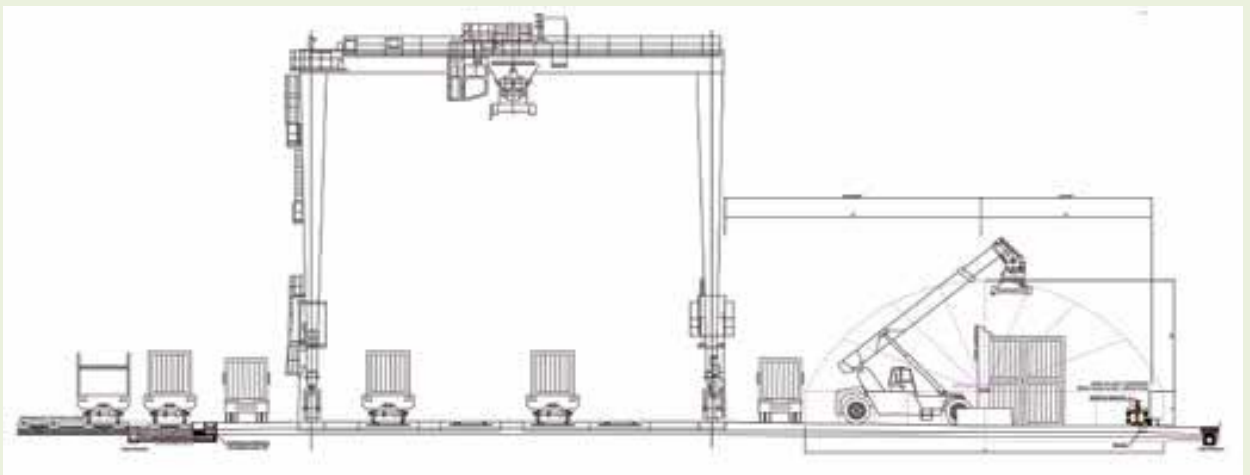
The articulated terminal of the port of Tarragona is a key structure for the Port. It is the main point of exchange of goods between maritime and rail transport. This measure has made it possible to establish safety and security measures which the existing structure required to ensure its operation with containers for unclassified products and dangerous goods.

This measure consisted of a study performed by Newton Engineering entitled "INSTALLATIONS AND MINOR ADAPTATIONS ARTICULATED RAILWAY TERMINAL ANDALUCIA WHARF". Also, a working party was set up in the APT involving operations, infrastructure, safety, and sales and development departments.

These are the most significant legal and operational requirements of the structure for its future operation

- The applicable laws, required documents and studies, functions and obligations to be fulfilled by those involved have been identified
- Identification of the types of goods that can be handled
- Provision of a network of fire hydrants, served via 2 parallel water pipes, with hydrants every 100m
- Provision of a network of lightning conductors
- Provision of hydroscreens to separate the railway tracks to reduce the spread of risks
- Provision of a network of waste collection
- Installation of a security fence and directional, risk and access signage
- Installation of basic auxiliary services such as electricity, fire fighting equipment, and services and workspace for the workers
- If goods remain in the system for more than 72 hours during an operation of the business concession, fixed fire systems must be installed

Section type of the terminal



Construction project for tmZ enlargement

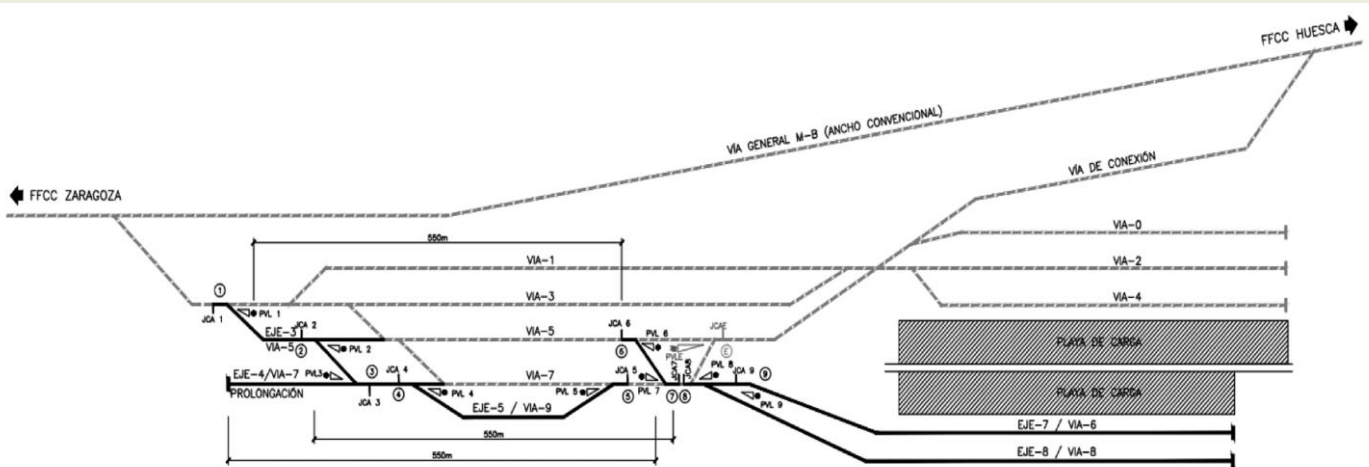
Terminal Marítima de Zaragoza (tmZ) is the biggest terminal in Aragon the region and one of the most important in the Spanish northwest in terms of intermodal traffic. During the last years the significant traffic grown has translated into the lack of storage space and railway facilities, causing saturation and operational problems in specific periods. That required a terminal enlargement. This action consists of the drafting of the project for this terminal enlargement.

An extension of the technical and operational areas is proposed to be able to operate 550-m long trains in the new operational area. The design is conditioned by existing infrastructures and limited space conditions in the area.

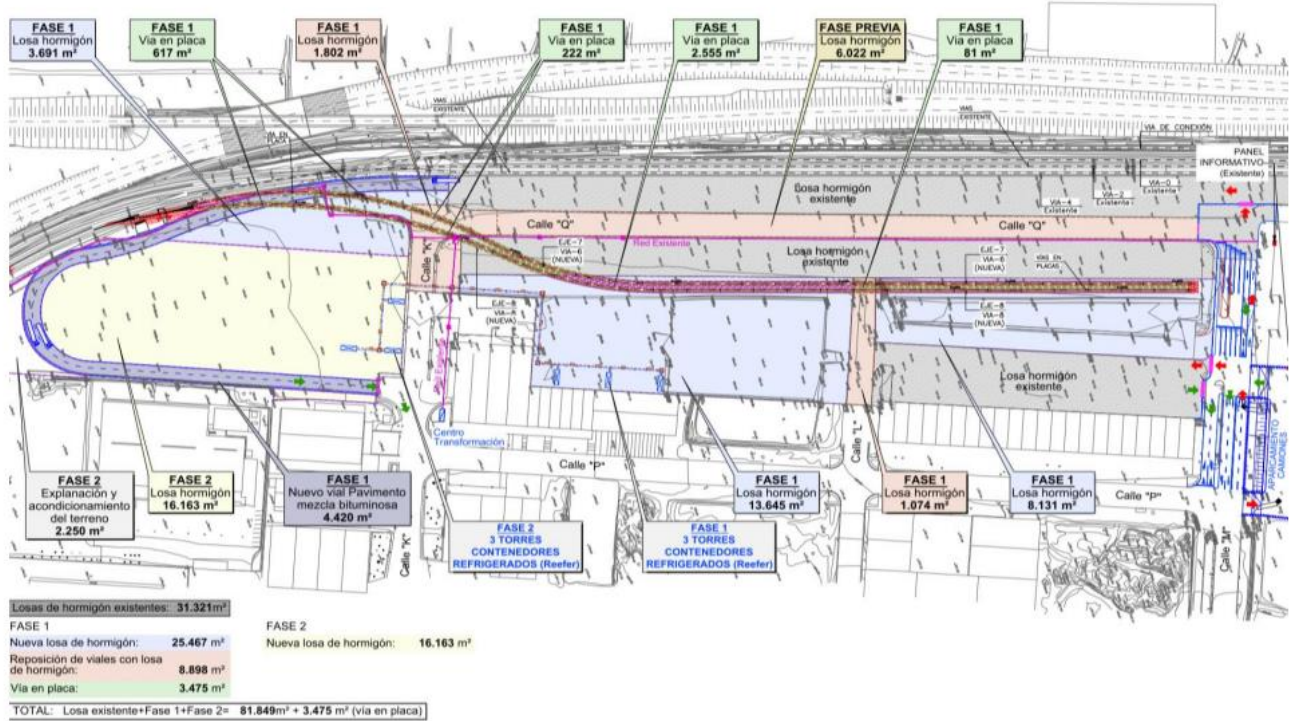
The solution consists of the following sub-activities:

- Extending the existing TRACK 5 southwards. The existing beacon will be the boundary.
- Extending TRACK 7 southwards without affecting the CLH oil pipeline.
- Creating a new non-electrified TRACK 9 for machines used in the maintenance of the track.
- Creating two new tracks, TRACK 6 and TRACK 8 to increase operational capacity.
- Extending the manoeuvring area in the operational with a surface of 25 500 m².
- Adapting existing electrification in accordance with this proposed solution.
- Auxiliary works (extending existing drainage, enclosure wall, etc.)

Diagram of tmZ railway facilities



Operational area



CLYMA project consists of the implementation of the corridor approach to a section of the **Mediterranean corridor**, concretely to the Western part of the corridor and specifically to the Lyon-Madrid Axis.

The project comprises of studies and actions on the organization and optimal implementation of the **TEN-T network**, taking into account long term perspectives, environmental aspects and associated needs, as well as studies that promote environmental sustainability, resource efficiency and low-carbon transport within an integrated transport concept. This should stimulate the deployment of the **Green Corridor concept**. The project also intends to develop a **managerial structure** for the intermodal corridor.



PROJECT OFFICE



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✉ clyma@clyma.eu

☎ +34 932 986 070

www.clyma.eu