High Speed Rail November 2015





FCC Rail Key Facts

- Significant experience in High Speed, Metro Rail and Conventional Rail projects.
- ➤ Have laid over 1,800km of track (1,100km High Speed, 150km Metro Rail and 550km Conventional Rail)
- Have completed €9.5bn of rail projects (€6.5bn High Speed, €1.9bn Metro Rail and €1.1bn Conventional Rail)
- Constructed more than **30.5km of viaducts** (28km High Speed, 0.3km Metro Rail and 2.2km Conventional Rail)
- Excavated more than **183km of tunnels** of which **153km using TBMs** (146km High Speed, 28km Metro Rail and 9km Conventional Rail)
- ➤ Maintain 1,347km of high speed track and 2,738km of Iberian Gauge rail to date.



High Speed Rail Experience



Atocha-Chamartin

Completion: Under Construction

Total Length: 7.3km

Description: Connects High Speed Rail lines that come into both Atocha and Chamartin (both Central Madrid Stations).

Completion: 2008 Total Length: 88km

Description: Included 38.5km of tunnels and 2km of viaducts.

Madrid-Valladollid

Madrid-Barcelona

Completion: 2008 Total Length: 185km

▶28 year track record of delivering High Speed Rail.▶ Have delivered over 1,100km of High Speed Rail

track in Spain alone, both building and maintenance.

➤ Spain is 3rd globally for the length of high speed rail

➤ Constructed 31.8% of Spain's High Speed network.

network delivered, behind China and Japan.

Description: Included 16.6km of tunnels and 11.6km of viaducts within this section of the project.









High Speed Rail Experience

Atlantic Axis Line

Completion: Under Construction Total Length: 131.6km
Description: Construction included 27.6km of tunnels and 7.1km of viaducts.



Mediterranean Corridor Line

Completion: 2012 Total Length: 138.7km Description: Construction of Almeria-Murcia line that included the 7.9km Sorbas Tunnels.



New Access Line to Asturias

Completion: 2009
Total Length: 37km
Description: Included the construction of the double tube Pajaras Tunnels.



Madrid-Zaragoza Line Maintenance Contract

Total Length: 347km Description: Infrastructure, track and diversion

maintenance for the line.



Madrid-Extremadura-Portugal Line

Completion: Under Construction

Total Length: 6.2km

Description: Construction of the Alcántara to Garrovillas section

of the line.



Madrid-Adamuz & La Sagra-Toledo Maintenance Contract

Total Length: 337km

Description: Infrastructure, track and diversion maintenance for

the line.





High Speed Stations Experience

Santa Justa Station, Sevilla

Completion: 1992

Description: 12 track station

providing High Speed rail

services.



La Sagrera Station, Barcelona

Completion: 2014

Description: Construction of the accesses of all the track and high speed track that enter and exit

the station.



Atocha Station, Madrid

Completion: 2009

Description: 100,000sqm development. Highest

passenger numbers in Spain.



Girona Station

Completion: 2012

Description: Construction of a 55m wide station designed with 450m long platforms for double train compositions.



Delicias Station, Zaragoza

Completion: 2003

Description: 6th largest station and largest covered space without support columns in

Spain.



Vigo-Urzaiz Station, Pontevedra

Completion: Under Construction Description: Construction of a station on the site of the previous with 6 tracks all having 400m long platforms.





FCC potential contribution to HS2

- Valuable know-how acquired in Spanish High Speed.
- Part of a JV with strong local partners.
- Already working in the UK.
- •Because we have constructed and are maintaining part of the network we can tackle issues beforehand.
- Strong in-house design capabilities.
- •Determined to incorporate key senior staff with high speed expertise into our HS2 team.
- •Successful track record of cooperation with main Designers and Architects in the context of high speed.
- •Innovative solutions developed in collaboration with our client and designers, including several world records in high speed as the Almonte viaduct (longest spam for a railway arch bridge in the world)