

High Speed Station Square: An alternative proposal for a fully integrated transport hub at Manchester Piccadilly

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Award winning architects Weston Williamson + Partners, together with engineering consultants Expedition have developed a proposal for a new and fully integrated high-speed station development at Manchester Piccadilly Station. The proposal is an alternative to the existing plans for Manchester Piccadilly station devised separately by HS2 and Northern Powerhouse Rail (NPR). Our proposal offers significant advantages in terms of connectivity and value for money in infrastructure investment.

The new High Speed Station Square combines HS2 and NPR's existing stations into a single integrated through station located below ground rather than a terminus station above ground. The through station design does not require trains to reverse at Manchester Piccadilly as part of a journey between Leeds and Liverpool. It allows for the through-running of a high speed train service between Liverpool and West Yorkshire via both Manchester Airport and Manchester Piccadilly.

Weston Williamson + Partners and Expedition Engineering believe that their High Speed Station Square proposal for Manchester Piccadilly delivers better outcomes for HS2, NPR, Manchester and Northern

England.

History

Manchester Piccadilly station will become an important station hub as part of the HS2 and NPR infrastructure projects. The current plan by HS2 is for a new high-speed terminus station on the east side of the existing Network Rail station, approached via a new high-speed tunnel into the city centre from Manchester Airport. Although the new HS2 line would approach the proposed terminus below ground, the terminus itself would be above ground level.

If the new HS2 and NPR platforms at Manchester Piccadilly station are built as terminus platforms as

planned, future generation of Mancunians will continue to suffer the cross-city rail connectivity problems that the city inherited as a legacy of un-coordinated railway planning in the 19th century. It also has the disadvantage of significantly slowing down journeys across Manchester, and substantially reducing the capacity on the new station platforms.

Their High Speed Station Square proposal continues the planned HS2 tunnels south of Manchester Piccadilly. Creating an “S-shaped” high-speed rail tunnel below central Manchester that allows train services to pass between Manchester Airport and West Yorkshire via Manchester Piccadilly without having to reverse.

A brand-new public space

Their High-Speed Station Square proposal will create an integrated and efficient transportation hub, and an entirely new urban quarter above and adjacent to the station. At the heart of this is a new pedestrianised square, acting as a spacious forecourt to both the new high-speed station and the existing Network Rail station, and providing a focus for regeneration around Store Street, Chapeltown Street and the Ashton canal.

With the new platforms and concourses built at low-level, the ground level is designed for public realm. Above the station new opportunities for commercial development are created, delivering a new business district within the city centre. These multiple large buildings located above the HS2 and NPR tracks, references the recent Hudson Yards development in New York City where high-rise skyscrapers have been built above the railway tracks entering Penn Station.

By keeping the trains and the station below ground rather than on a viaduct, urban severance to the east of the station is avoided. And the Square itself is directly linked to the surrounding streets creating a new focus for regeneration to the north of the station and enhancing wider connectivity.

A fully integrated and modern transportation hub

The High-Speed Station Square provides a fully integrated high-speed railway station alongside the existing Network Rail Piccadilly station that offers improved connectivity and capacity for high speed train services at Manchester Piccadilly.

The station features extensive passenger concourses below ground to serve the high-speed platforms and allows easy cross-platform interchange between HS2 and NPR train services. In addition, the new Station Square allows for easy interchange between train services and onward journeys via trams, buses, taxis, cycles and car-share.

A new zero-carbon urban-quarter for central Manchester

The new district around Station Square will become a zero-carbon emissions district, with private cars excluded, and tree-lined pedestrian spaces introduced to promote healthy living for all those who visit this modern and vibrant new district. Extensive green landscaping will be introduced to create a walkable environment that encourages active mobility.

Value for Investment in new Rail Infrastructure

By combining infrastructure for HS2 and NPR into the same integrated project, it's claimed their High Speed Station Square proposal offers better value-for-money than developing infrastructure for HS2 and NPR as separate projects.

The opportunity for extensive new commercial developments adjacent to and above the new high-speed railway station offers the potential for the new low-level station to be part funded by the real-estate value of such developments.

Looking wider, the proposal would allow direct high speed train services from Birmingham, Liverpool and Glasgow to Leeds via Manchester Piccadilly greatly improving connection across the north. Direct HS2 services between London and Leeds would also become possible via Manchester. This would have the option of deferring the Phase 2b branch between Birmingham and Leeds and so save several billion pounds.

Alistair Lenczner, Director at Expedition Engineering says: "The High-Speed Station Square proposal at Manchester Piccadilly fully responds to the questions raised in the Oakervee Report as well as showing a clear design solution in line with its recommendations. At a time when plans for both HS2 and NPR are being reconsidered in the north of England, the HS Station Square proposal should be seriously considered as an alternative to existing plans.

"HS Station Square would provide Manchester with a modern fully integrated transportation hub commensurate with the city's standing in the top tier of regional European cities"

Rob Naybour, Founding Partner at Weston Williamson + Partners says: "Our experience of similar projects around the world is testament to the regenerative potential of infrastructure projects of the scale of that proposed in Manchester.

"Maximising the potential for this new hub to rebalance and re-energize the economy, post COVID-19, requires a coherent design vision that combines efficient transit operations & interchange with effective urban place-making. Getting this right and creating an attractive destination and a beacon for jobs will attract investment from a wide-range of sources."

Photo credit: Weston Williamson + Partners