

The Challenges of Maglev

As transit experts and innovators, we have always supported advanced technologies such as monorail and maglev, and our principals have very seriously considered magnetic levitation technology for this project since it first began to be proposed over 30 years ago. There are many compelling reasons why we did not select maglev technology, including:

- With only one commercially operating system (the Shanghai Airport line in China), it is not a fully proven system
- That means its costs for construction and operation in the United States are unknown and its operational reliability under the very rigorous and demanding requirements and climate of this corridor (very steep, prolonged grades, extreme temperature swings, high winds, dust, etc) is completely unknown
- The Maglev is built on an elevated structure even when running “at-grade”. No matter the height of the structure, it requires extraordinarily tight tolerances and structural stiffness, which translate into very short structural spans, very stiff structural decking and columns, and hence, incredibly high costs.
- With the need for private funding and financing, we must have highly proven and reliable technology that provides cost certainty, not just for construction, but for ongoing operations and maintenance over a very long term – neither of which could be achieved with maglev
- There are no existing US safety standards for Maglev technology. Therefore, the certification process for use in the US could take many years – but the need in this corridor is now
- We have seen reliable reports documenting that the sole source technology provider (Transrapid of Germany, previously sponsored by the German government) no longer is in business and all proposed German projects have been cancelled in favor of high speed rail, leading to a very uncertain supply chain
- The proprietary Maglev technology would not be easily extendable and would be incapable of integrating with other standard gauge high speed rail systems.
- Operations and Maintenance costs are unknown, and with no supplier, we are not aware of any reputable, financially strong company in the world that would be willing to take fixed price risk
- The capital costs are far too high to make maglev financially viable. Estimates from public agency studies range from \$60M/mile to \$199M/mile, which over a 200-mile system, would make the project cost from \$12 to \$40 billion – making it financially infeasible
- Due to the largely recreational nature of the majority of trips taken along I-15 in this corridor, the travel time savings would not yield significantly higher ridership to offset such inordinately high construction costs – likely saving no more than 20 to 30 minutes between Victorville and Las Vegas
- Thus, from a public policy perspective, we do not feel that decision makers would be willing to provide the requisite tens of billions of limited tax revenue dollars to save 20 or 30 minutes for people making largely recreational trips.

Nonetheless, if maglev proponents could determine how to finance and secure timely approvals for a maglev line from Anaheim (or some other appropriate terminal location in the Los Angeles Basin) to the Victorville hub, we would encourage them to do so and we would cooperate fully in the effort to design for and provide an inter-modal transfer to DesertXpress.

For additional information on the maglev alternative in comparison to DesertXpress, please refer to an independent professional study commissioned by the Southern California Logistics Rail Authority, “Maglev or High Speed Rail in the Las Vegas to Southern California Corridor”, BSL Management Consultants, Hamburg, Germany, November, 2008 on the web at: www.victorvillecity.com/documents/bslreport.pdf.