



**Client:**

Regional Transportation District (RTD)

**Project type:**

Design / Build / Finance / Maintain / Operate

**Consortium Management:**

Denver Transit Partners – John Laing / Fluor Infrastructure / Aberdeen Asset

**Infrastructure Capex:**

\$2.2bn

**Private equity:**

\$50m

**Debt:**

\$400m

**Construction duration:**

6 years

**Concession duration:**

34 years

## Denver Eagle commuter rail

‘Delivered 11 years ahead of schedule, and much below budget’

The Denver Eagle commuter rail project is part of an overall public transport transformation vision for the state of Colorado. Visualised in the mid-1990s, work on implementation began in the early 2000s and the tender for delivering the initial lines was issued in 2009, embracing the Design, Build, Finance, Maintain and Operate P3 model.

The client, RTD, saw P3 as a delivery mechanism – a way to ensure that most construction and operations risk was removed from the local government and the taxpayer and to help complete the project faster, more reliably and on time. Increasingly this complete P3 model is becoming the favoured way to deliver complex infrastructure projects in North America – particularly transport

projects, which form an essential part of city, state and national economic growth.

**Building on expertise**

For RTD, the P3 model had a number of advantages:

- Reduced the amount of money needing to be raised through sales tax appropriation and government loans.
- Transferred most of the risk onto third parties, reducing potential cost damage to taxpayers.
- Gave the project access to national and international rail and P3 expertise alongside the already skilled workforce in Denver.
- Increased likelihood of project success because consortium partners were motivated to



complete on time and on budget.

- Positioned the Denver project as a flagship project of this type, setting the standard for other P3 transportation projects in the USA.

The DTP Consortium was responsible for building three lines of 23 miles, 5.5 miles and 11 miles respectively. The first two of these lines opened in 2016 and the final line in 2019. All lines are currently running at 95+% reliability and are exceeding the targets for ridership and reliability set for 2040 in the original tender.

### Project challenges

The biggest challenge faced by the Denver project team was building in new Positive Train Control (PTC) safety measures. This project was the first to have to meet new legislative requirements on train safety, brought in by Congress to protect passengers after a head-on train collision in California in 2008. The main requirements concerned collision-avoidance and controls to prevent over-speeding, so new technologies were required in order to ensure that the trains and the network met the requirements of the Federal Railroad Administrator. We successfully managed this challenge by involving all parties, including rail and highways regulators, throughout design, test running and live operation.

**Number of lines:** 3

**Total track distance:** 39.5 miles

**Rolling stock:** 33 EMUs (66 cars)

**Additional:** New maintenance centre / 29 highway crossing points

**Train capacity:** 232 passengers, including wheelchair spaces

***“John Laing invests ‘time, talent and treasure’ in the communities in which it has projects. Building positive and transparent relationships with all our stakeholders is key to project success and we believe this is a valuable and effective way to deliver results.”***

John Thompson, Project Director.

### John Laing as Project Director

Throughout the Design and Build stages of this project and now into the Maintain and Operate stages, John Laing has provided an experienced Project Director to lead the team. As active investors who believe in delivering responsible, cost-effective projects that leave a positive legacy, we want to bring not just our equity to the projects we work on, but our expertise, project skills and sector experience. Our Project Director became the outward-looking face of the Denver project, managing multiple and complex stakeholders including local communities, the media, elected officials, consortium partners and the overall client.

This role has been particularly important during complex challenges where the project company needed to take additional steps to satisfy regulatory requirements. The cost and time needed to meet these requirements, which were unknown at the start of the project, required additional negotiations that could have resulted in project delays without a firm eye on project management and achieving agreed objectives.

With a transparent, open and generous approach, we have been able to move into the Maintenance and Operate stage of this project having delivered successful live operations on all three routes – a rare achievement in P3 rail projects.

***“John Laing has been a leader within the concessionaire group; not only being part of the financial team, but also being on the Board of Denver Transit Partners, directing the project on a day-to-day basis.”***

Dave Genova, General Manager & CEO, Regional Transport District, Denver.

