

Atlanta Plane Train Tunnel

BarChip Fibre Reinforced Shotcrete

Client: City of Atlanta

Contractor (PDB JV): Clark Construction / Guy F. Atkinson Construction / Technique Concrete Construction

Design: Delve Underground (lead designer); STV (designer/architect); McMillen Jacobs Associates (lead tunnel designer)

Opened in early 2025, the Atlanta Plane Train Tunnel West Extension at Hartsfield-Jackson Atlanta International Airport extends the automated people mover system by approximately 700 feet (213 m) to improve train turnback operations and increase capacity. Constructed using the Sequential Excavation Method (SEM), the works included twin tunnel sections transitioning through a large bifurcation chamber into a single running tunnel.

Excavated approximately 60 feet (18 m) below ground, the typical running tunnel sections are about 24 feet (7.3 m) in diameter, with enlarged sections at the bifurcation. Primary support comprised fibre reinforced shotcrete and lattice girders, followed by waterproofing and a cast-in-place concrete final lining.

The project has been recognised with multiple regional and industry awards, including ENR Southeast Best Projects and design-build awards acknowledging construction quality, safety performance and innovative engineering

The excavation ground support comprised lattice girders, dowels and fibre reinforced shotcrete forming the initial lining. BarChip macro synthetic fibres were specified within the shotcrete mix to provide dependable residual capacity, durability and crack control in demanding conditions. The fibre reinforced mix was subject to detailed preconstruction trials and ongoing quality verification to confirm strength development and in-situ performance. The result was a robust primary support system enabling safe and efficient tunnelling beneath one of the world's busiest airports.



Image Source: Clarke Construction



BarChip Inc.

info@barchip.com

Australia: +61 1300 131 158

N. America: +1 704 843 8401

EMEA: +353 (0) 1 469 3197

Asia: +65 6835 7716

S. America: +56 2 2703 1563

Brazil: +55 19 3722 2199



BarChip Inc.
The Synthetic Fibre Experts

Distributors are located in other regions. For contact details visit www.barchip.com.

Disclaimer: This information has been provided as a guide to performance only, for specific and supervised conditions. The user is advised to undertake their own evaluation and use the services of professionals to determine the product suitability for any particular project or application prior to commercial use. ISO 9001:2015. APT_2026. © BarChip Inc. 2026

www.barchip.com