

Project Spotlights: Seattle Tunnel





LOCATION

Seattle WA

OWNER

Washington State Department of Transportation (WSDOT)

GENERAL CONTRACTOR

Kiewit Corporation

COMPLETION DATE

2021

CATEGORY

Flowable Fills

ABOUT THE PROJECT

The first phase of this tunnel project in Downtown Seattle began in 2019 with the demolition of a viaduct. Rubble from this demolished structure was then used to fill the tunnel's first 7 feet in height. New utility lines for electrical infrastructure were also added. Once this portion was completed, the final phase of construction commenced in 2020. This process includes topping off and sealing the rest of the tunnel with lightweight cellular concrete (LCC).

THE SOLUTION

Phase II of this tunnel fill is now in progress. Starting from the north end of the tunnel at Denny Way, Cell-Crete is pouring LCC through various holes cut along the street and pumping the material to fill the remaining gap, which is a height of about 9 feet. LCC is being mixed on site and will include approximately 40,000 cubic yards (CY) in total. Because of LCC's lightweight property, it helps protect the utilities underneath it from excess weight. Other benefits include the ability to easily cut or dig through the material for future utility work and the elimination of the 15 truck loads that traditional fill would have required.