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# Past meets future along one of Denver's busiest roads

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5–7 minutes

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Pipe replacement project on Colfax Avenue uncovers part of Denver's transit history.

Denver Water crews are uncovering part of Denver's past as they prepare one of the city's busiest roads for the future.

Workers are replacing 5 miles of water mains under East Colfax Avenue as part of Denver Water's pipe replacement project.

The work is being done ahead of the new [East Colfax Avenue Bus Rapid Transit](#) system that's scheduled to open in 2027.

Denver Water is not part of the transit project, but wanted to proactively replace the underground cast iron pipes, which date back to the late 1800s, before the new bus lines are built.

*Denver Water workers prepare a new section of PVC pipe for installation at Colfax Avenue and Downing Street in September 2023. Photo credit: Denver Water.*

Denver Water began work on the [Colfax pipeline replacement project](#) in June 2023, starting at the intersection of Colfax and Broadway next to the Colorado Capitol. Crews have been working their way east while a second Denver Water crew started work on the east side, at Yosemite Street and Colfax, the border between Denver and Aurora, in September.

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**Get more information and sign up to receive free email updates at [denverwater.org/Colfax](https://denverwater.org/Colfax).**

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The work involves digging up the street and creating 5-foot to 6-foot trenches, so workers can install new valves and pipes.

During excavation of the street, Denver Water workers uncovered trolley tracks that were part of the city's old tramway system that operated in the 1900s. The tramway was abandoned in the 1950s and the tracks were paved over as cars and buses took over the busy Colfax corridor.

*A trolley runs along Colfax Avenue in Denver during the 1920s. Note the water conservation message even back then! Photo credit: History Colorado.*

To install the new pipes, workers had to cut through the old steel tracks using a diamond-studded saw blade and an excavator.

*A Denver Water worker uses a saw to cut through an old trolley track on East Colfax Avenue. Photo credit: Denver Water.*

## **Project benefits**

Colfax actually has two water pipelines buried under the pavement, one pipe runs under the south side and one under the north side of the street, according to Katie Ross, Denver Water's engineering project manager.

"The reason dates back to the late 1800s, when there were competing water companies in the city and Colfax was the dividing line between customers on the north and those on the south who got their water from different providers," Ross said.

Denver Water crews are replacing the two old water pipelines with a single new pipeline, which will make water delivery in the area more efficient to operate and maintain.

In addition to the new pipeline, the Colfax project's benefits for businesses, residents and firefighters includes:

- \* Installing more than 450 new valves on the pipeline. Some of the valves are more than 100 years old and at risk of no longer functioning properly.
- \* Replacing 60 lead service lines that are owned by Colfax businesses as part of [Denver Water's Lead Reduction Program](#).
- \* Installing 26 additional fire hydrants along the south side of Colfax to improve water access for firefighters during emergencies.

"The pipeline under Colfax has held up well for more than 100 years, but these improvements are necessary to ensure reliable water service for the next century," Ross said. "We're very proactive with our pipe replacement program and are always looking to deliver the best service to our customers."

*Workers install a new section of the pipeline with a new valve. Photo credit: Denver Water.*

## **Many challenges**

The project has many challenges, including working around underground utilities also buried under the street, including sewer lines, gas lines, electrical and fiber optic cables as well as old, abandoned pipes.

The path of the new pipe also must avoid future bus stops and supporting infrastructure, which will be located in the middle of the street instead of on the sides of the street as they are now.

This means crews have to install the pipeline with several bends in its route, rather than laying the pipe in a straight line down Colfax.

*Denver Water workers started working on the Colfax Avenue project in June 2023. The work will continue through 2024. Photo credit: Denver Water.*

## Construction impact and timeline

Denver Water coordinates with local businesses to minimize the impact of construction. The utility also works with Denver's Department of Transportation and Infrastructure, known as DOTI, and the Colorado Department of Transportation, known as CDOT, to develop a traffic management plan during construction.

*A rendering of the new Bus Rapid Transit system. Image credit: Denver Department of Transportation and Infrastructure.*

Denver Water expects to complete its pipe replacement work by the end of 2024.

Construction work on the bus rapid transit system is currently expected to begin in fall 2024 and buses are expected to be up and running in 2027.

You can check [denverwater.org/construction](https://denverwater.org/construction) for updates on the pipe replacement project on Colfax as well as other Denver Water projects.