

WATER AND WASTEWATER IMPLICATION FOR REDEVELOPMENT ALONG SOUTH CONGRESS AVENUE (OLTORF STREET TO WEST MOCKINGBIRD LANE)

Austin Water Utility (AWU) Staff reviewed the City Engine model run results for the segment of South Congress between Oltorf Street and West Mockingbird Lane. Based on the model results, AWU staff generated estimates for the water and wastewater infrastructure improvements needed to accommodate the projected development. The analysis identified several types of water and wastewater (W&WW) infrastructure improvements:

- Improvements to sewage interceptor lines
- Wastewater collector line improvements associated with service extension requests required of new development
- Water distribution line improvements associated with service extension requests required of new development.

It is very important to note that more detailed and accurate evaluations will be needed to determine the specific types of infrastructure improvements and associated costs required by a given project.

Each development would be required to go through the AWU Service Extension Request process to determine required improvements. In accordance with the City of Austin's Land Development Code, Developers are largely responsible for the costs associated with extending service to their tracts. If the City of Austin determines that improvements should be sized to provide system upgrades beyond those needed for a specific project, the project may qualify for cost participation; however, this is subject to City Council review and approval.

In addition to these development process-driven improvements, the City of Austin also has a Capital Improvements Program (CIP) process. The CIP process is the one by which overall system improvements projects are typically designed and constructed to meet larger-scale City wastewater and water system needs.

Preliminary Assessment of Wastewater System Improvements

Interceptors

The area included in the model run drains into three different sewersheds (Blunn Creek, East Bouldin Creek, and Williamson Creek) served by different interceptor lines. Wastewater flows from projected development would likely be in excess of the capacity of these interceptor lines and would necessitate improvements to provide adequate capacity.

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A large portion of the Blunn Creek Interceptor and a smaller portion of the East Bouldin Creek interceptor would need to be upsized. The Williamson Creek Interceptor Improvements would be part of a larger project and is currently listed in the City of Austin's 10-year Capital Improvement Plan.

Collectors

Many of the local pipes (6" and 8") serving the area covered by the model run would likely need to be upsized to provide adequate capacity. Developers may be required to replace some of these collectors during the standard Service Extension Review (SER) process. Depending on the types of upsizing required by a given development, the City of Austin may cost-participate or reimburse the costs; however, this will be determined on case by case basis and is beyond the scope of this current analysis.

Preliminary Assessment of Water System Improvements

Transmission Mains

Based on the model run projections and the resulting probable commercial fire flow demands it appears that the current system has adequate transmission main capacity. Based on the projections, major transmission main improvements will probably not be required.

Distribution System

A significant portion of the redevelopment should be able to connect to the existing 12" water main in South Congress Avenue. AWU's hydraulic model indicates that this main will likely be able to handle the projected increase in residential demand as well as most commercial-level fire flow requirements. There are areas, especially on the side streets, where there are older, smaller undersized mains (6" and smaller). Future new and redevelopment may require replacement of some of these mains.

Costs for Infrastructure Improvements

The conceptual planning-level total for the W&WW infrastructure improvements is a rough estimate of approximately \$16 million—\$14M for wastewater improvements and \$2M for water improvements. These estimates do not include the costs for Williamson Creek interceptor line improvements.

As mentioned earlier, the costs of these improvements, especially the sewage collector and water distribution improvements, will be paid for, all or in part, by the developer of a given project. The exception to this would be a situation where the City of Austin, with City Council approval, agrees to cost-participate in the improvements.

South Congress Avenue City Engine Model Run-Area Sewer Infrastructure Improvements	
Improvements	Costs (Approximate estimates)
Blunn Creek Interceptor Line	\$7.5M
Blunn Creek Collection Pipe Service Extension Requests	\$1M
East Bouldin Creek Interceptor Line	\$2.5M
East Bouldin Creek Collection Pipe Service Extension Requests	\$1M
Williamson Creek Interceptor Improvements	N/A
Williamson Creek Collection Pipe SER Improvements	\$2M
Total (not including costs for large-scale Williamson Creek Interceptor Line improvements)	\$14M

South Congress Avenue City Engine Model Run-Area Water Infrastructure Improvements	
Improvements	Costs (Approximate estimates)
Local Water Distribution SER Improvements – 8" & 12"	\$2M