



Memo

Date: March 13, 2017
To: Public Utilities Board Members
From: Galen Gillum, Interim Director of Capital Projects
Re: Update Several Drainage Projects

Historically the Drainage Department has not brought projects to the PUB that are General Obligation bond-funded drainage projects. However, unless directed otherwise, we will in the future bring them to PUB for a recommendation prior to advancing them to council. This update is via the ACM Update, we may make individual presentations as appropriate to the project.

Magnolia Drainage Phase II

The Magnolia Drainage project was conceived in order to improve storm water drainage conditions and prevent flooding on Hinkle Drive and in the adjacent neighborhoods between West Windsor Drive to the north and University Drive to the south.

Phase I of the project consisted of design and construction of a storm water detention basin north of West Windsor Drive between Windsor and North Elm Street. Construction documents created by City of Denton staff for the storm water detention basin were issued in 2010, and construction of the basin was completed in 2012.

Phase II of the project consists of design of storm drain improvements to address flooding in portions of the Headlee Addition, bounded on the north by Windsor Drive, on the east by Mesquite Street, on the south by Headlee Street and on the west by Hinkle Drive. The proposed storm drain will extend from the existing channel at Windsor Drive (between Hinkle and Mesquite) to North Pecan Creek at Hinkle Drive. In addition, the plans will show abandonment of the existing 10" wastewater line on Hinkle Drive and connection of services to the existing 18" wastewater line.

Downtown Storm Sewer Improvements Trunk Line, South Bell and Oak Street Systems

The Downtown Storm Sewer Improvements Trunk Line, South Bell and Oak Street Systems project is a follow-through project based on the recently created Denton Downtown Drainage Master Plan. The Denton Downtown Drainage Master Plan was finalized in June of 2013 and was created by the consulting team of Teague Nall and Perkins, Inc. and Halff Associates. The primary objectives of the plan were to evaluate the existing drainage systems, identify problem areas and develop improvement alternatives. In order to evaluate the drainage patterns in a comprehensive manner, a dynamic analysis was performed using specialized software. The analysis looked at the subsurface drainage system using a one dimensional model and the

overland flow patterns using a two dimensional model in a simultaneous and interactive manner. The dynamic modeling allowed for an enhanced understanding of the existing drainage patterns and facilitated a more detailed evaluation of the proposed mitigation alternatives.

The purpose of the Denton Downtown Drainage Master Plan is to guide the City's storm drain improvements that will take place as development and re-development occur and as capital projects are implemented. Five groups of projects are recommended by the plan. This Downtown Storm Sewer Improvements Trunk Line, South Bell and Oak Street Systems Project represents three of them. This project consists of design of the Trunk Line System along the west side of the UPRR east of Bell Avenue between East Hickory Street and East McKinney Street, the South Bell System between East Sycamore Street up Bell Avenue to East Mulberry Street, and the Oak Street System down East Oak Street between Bell Avenue and the north side of the UPRR.

Magnolia PH II



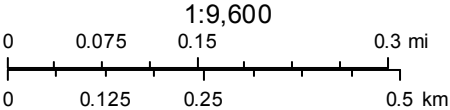
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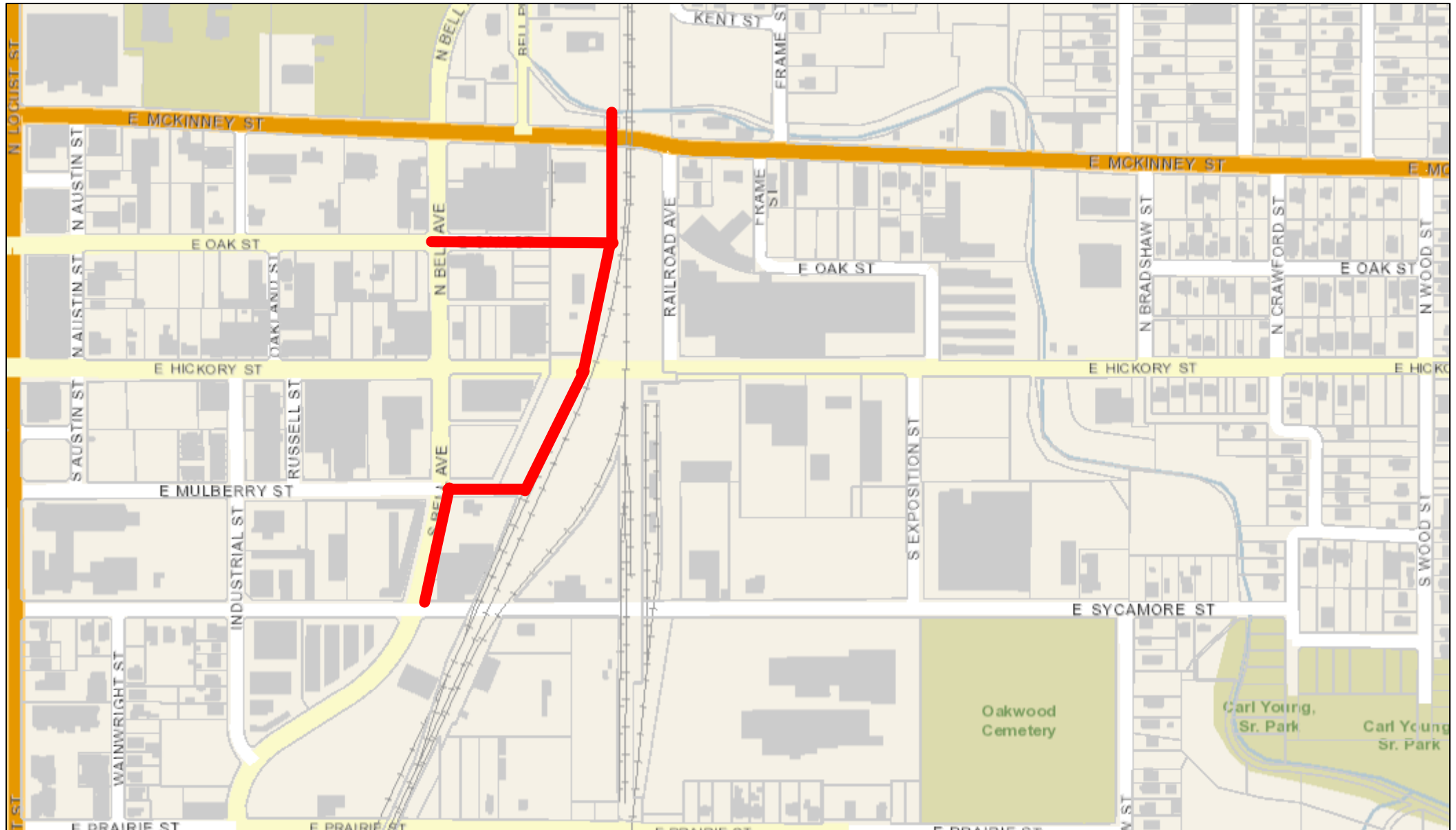
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 County



Downtown Trunk Line



March 9, 2017

