



Construction Best Management Practices for Site Design

2018 NCTCOG Public Works Roundup

MAY 23, 2018

Construction Best Management Practices for Site Design

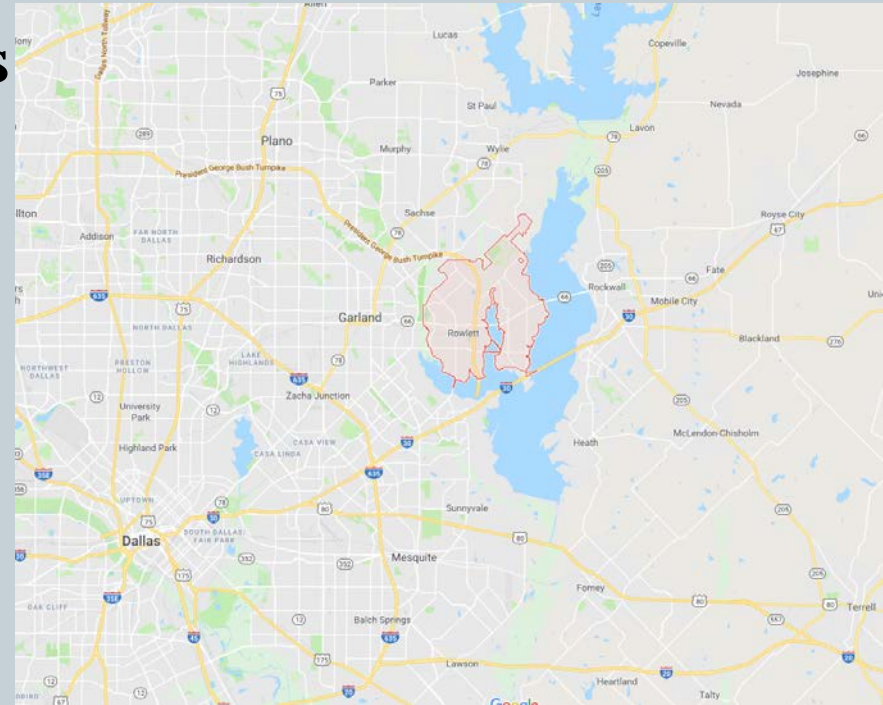


- **Topics for Discussion**
 - Rowlett Background
 - The Basics from the Past
 - New Trends and Associated Disruptions
 - BMP's for Site Design
 - Consequences to New Trends and Paradigm Shift

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- **Rowlett Background**
 - Located 20 miles NE Dallas
 - Population
 - 62,000 currently
 - 92,000 buildout
 - **Public Works Department**
 - Streets
 - Drainage
 - Water distribution
 - Wastewater collection
 - Facilities
 - Fleet
 - CIP Engineering
 - Asset Management



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• Rowlett Background

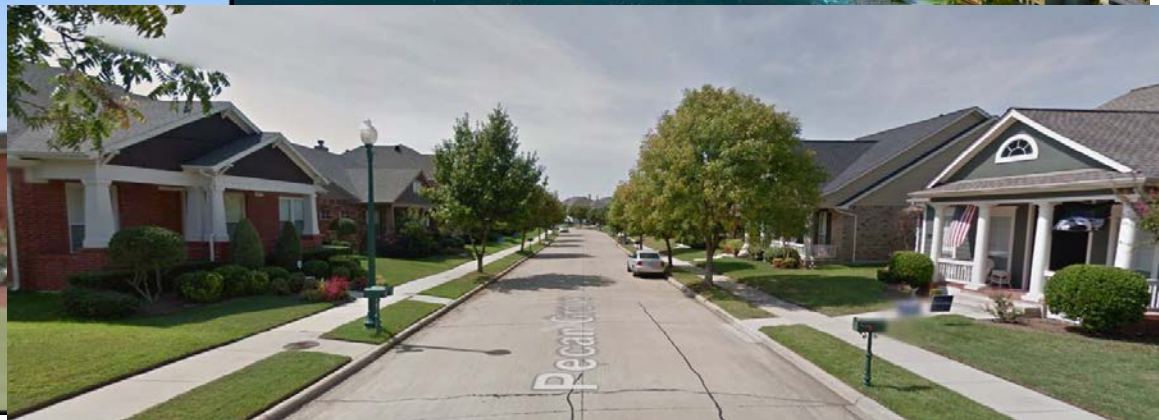
• Adopted Form Based Code as part of 2020 Comprehensive Plan (March 2016)

- Maintain and enhance the value of existing neighborhoods.
- Increase the City's economy through diversification of jobs and business opportunities.
- Make Rowlett a community that is attractive to people at all stages of their lives.
- Invest in places to achieve lasting value and distinctive character.
- Maximize the benefits of major public infrastructure investments (existing and planned).
- Use Lake Ray Hubbard and Rowlett's natural assets to create a distinctive identity and quality of life desired by the community.
- Diversify mobility options within the City.
- Create centers with a mix of activities at key locations in Rowlett.
- Balance growth through efficient development patterns.
- Support quality educational resources to meet the needs of Rowlett residents throughout their lives.

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- Form Based Code Examples



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- **The Basic BMP's from the Past**
 - Water and Sewer behind the curb
 - Storm drain down the middle of street
 - 31' wide residential street
 - 25' curb radius for residential streets
 - All lots have street frontage
 - Adequate stopping sight distance at intersections
 - No landscaping in the ROW
 - Sidewalks located 1-foot from property line
 - Adequate fall zones for multi-storied structures
 - Utilities along side yards discouraged
 - Wide utility easements based on line size and depth

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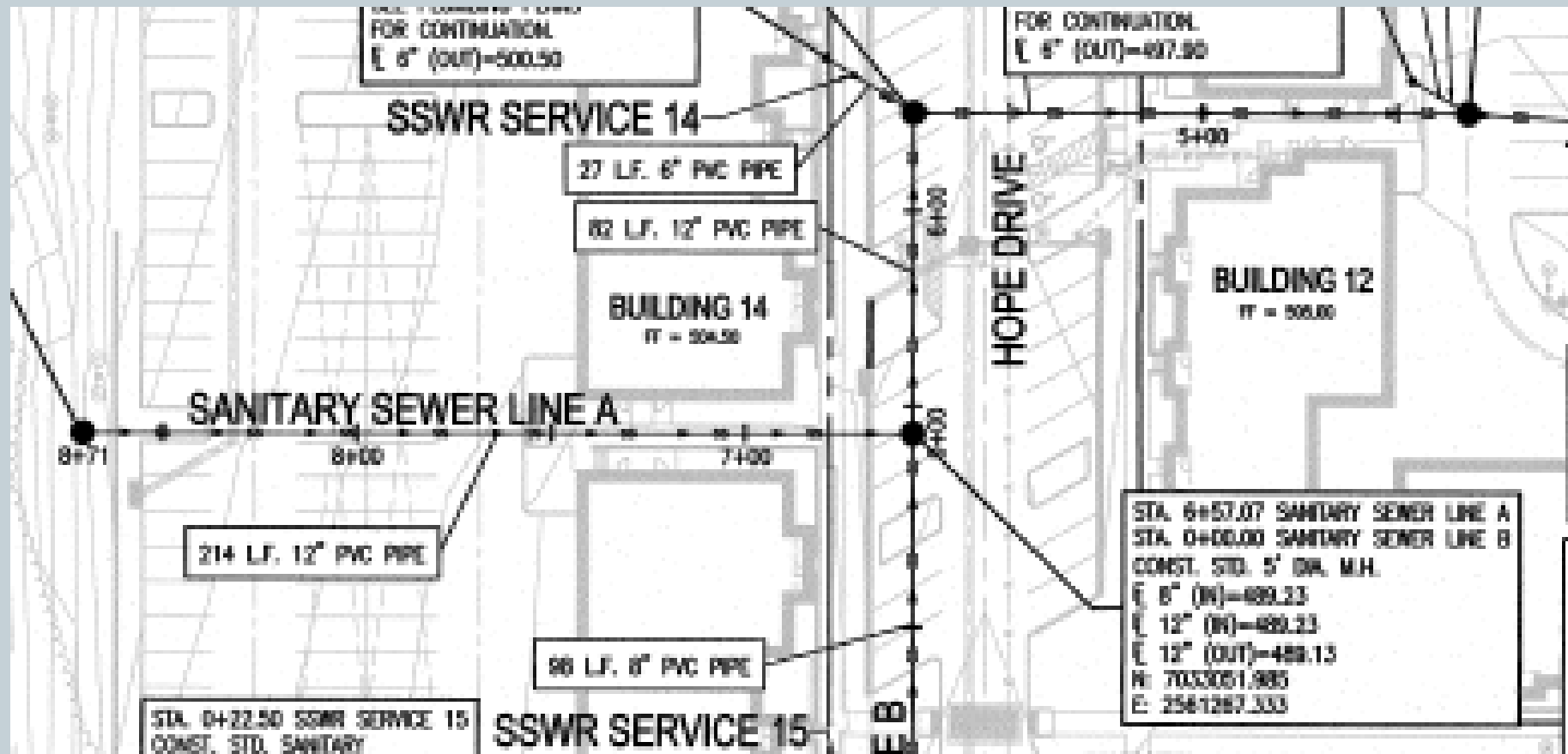


- **New Trends & Associated Disruptions**
 - Water and Sewer under pavement
 - Storm drain down the middle of street
 - 27' wide residential streets
 - 22' curb radius for residential streets
 - All lots don't have street frontage – mews lots with alley access
 - Landscaping allowed/required in the ROW
 - Adequate stopping sight distance isn't obtained due to on-street parking and landscaping in ROW
 - Sidewalks located behind curb
 - Multi-storied structures are 7-10' from ROW line
 - Utilities along side yards cannot be avoided
 - Easement widths are less than desired
 - ADA ramps more difficult to install due to smaller curb return

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- BMP's for Site Design (what not to do)



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- **BMP's for Site Design**
 - Design with maintenance in mind
 - Additional quality control for trench testing
 - Ensure development is serviceable by solid waste collection vehicles & fire apparatus
 - Evaluate and enforce stopping sight distance at intersections
 - Make sure sewer manholes and water valves are not within parking spaces
 - Sufficient offset from structures
 - Evaluate downstream drainage, sewer, and water capacity
 - Require Silva cells and/or root barriers for street trees and landscaping in ROW

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- **Consequence to New Trends & Paradigm Shift**
 - New equipment to access utilities in tight spaces for maintenance
 - Higher repair costs impacting operations budget
 - Utilities could be in alley or easements outside of street ROW in common spaces
 - Construction standards revisions
 - Updates to Master Plans resulting in increased capacity requirements
 - Development costs higher so requests from developers to vary from standards increases
 - Maintenance crews must learn new utility locations
 - Must have an open mind or get passed by – seek to understand and adapt!
 - **COMMUNICATE** – educate policy makers about consequences since you are left to maintain it!

Dalrock Road Right of Way Annexation



QUESTIONS