



THE **UNDERGROUND** UTILITIES EVENT

Underground Construction Technology | Jan. 29-31, 2019 | Fort Worth, TX



# Designing, Constructing Interceptor in Trinity Floodplain

City of Fort Worth | Sycamore Creek Relief Interceptor Design

January 29, 2019



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**Liam  
Conlon**

Project Manager



**Lockwood, Andrews  
& Newnam, Inc.**

A LEO A DALY COMPANY

**Greg  
Vaughn, PE**

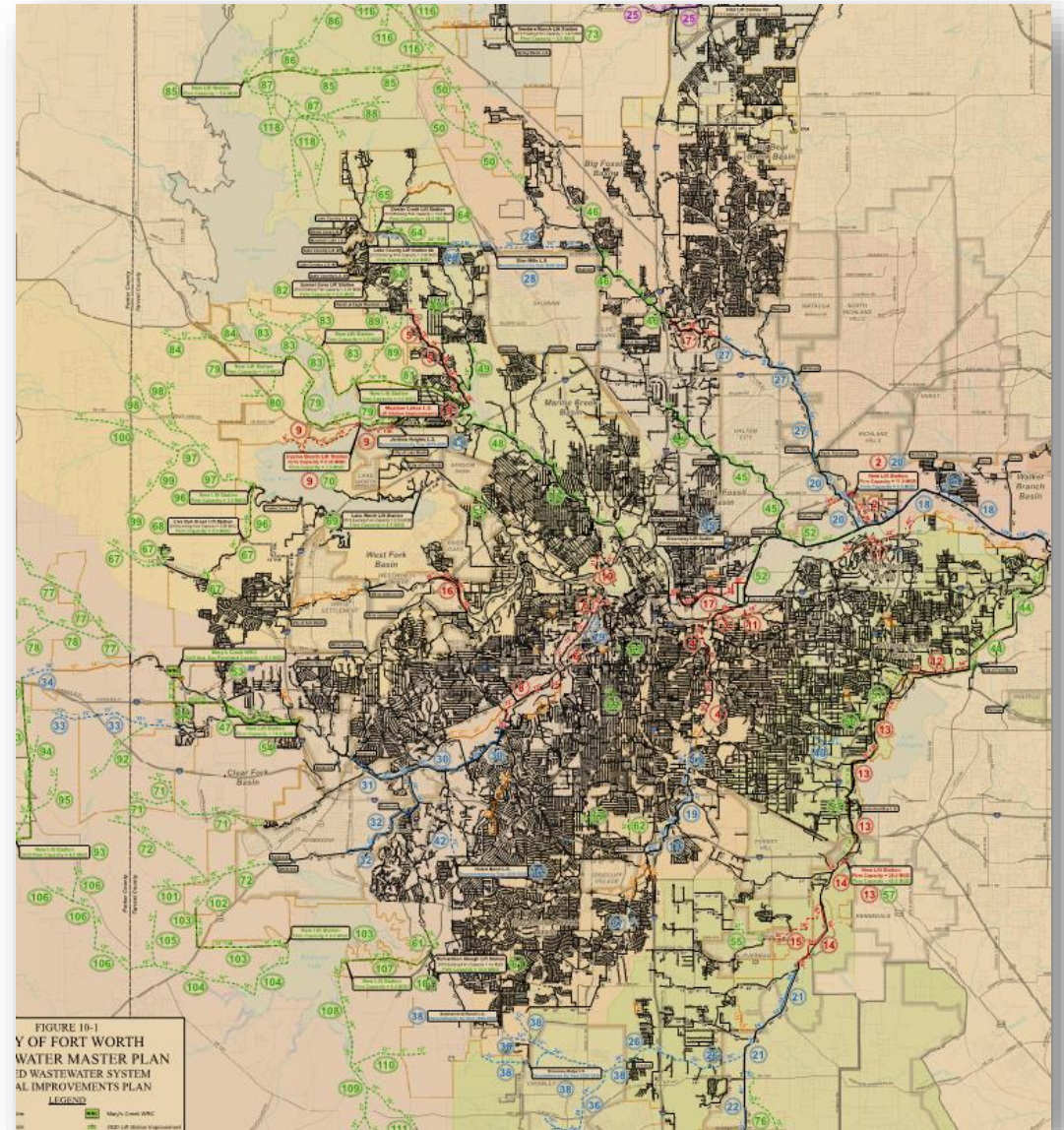
Senior Project Manager



# 01

## City of Fort Worth Water Department Overview

- 15<sup>th</sup> Largest City in the U.S.
- Provide water and sewer services to more than 1.2 million people
- 497 MGD water treatment capacity
- 166 MGD wastewater treatment capacity
- 3,303 miles of wastewater pipe
- 255+ miles of 24-inch or larger

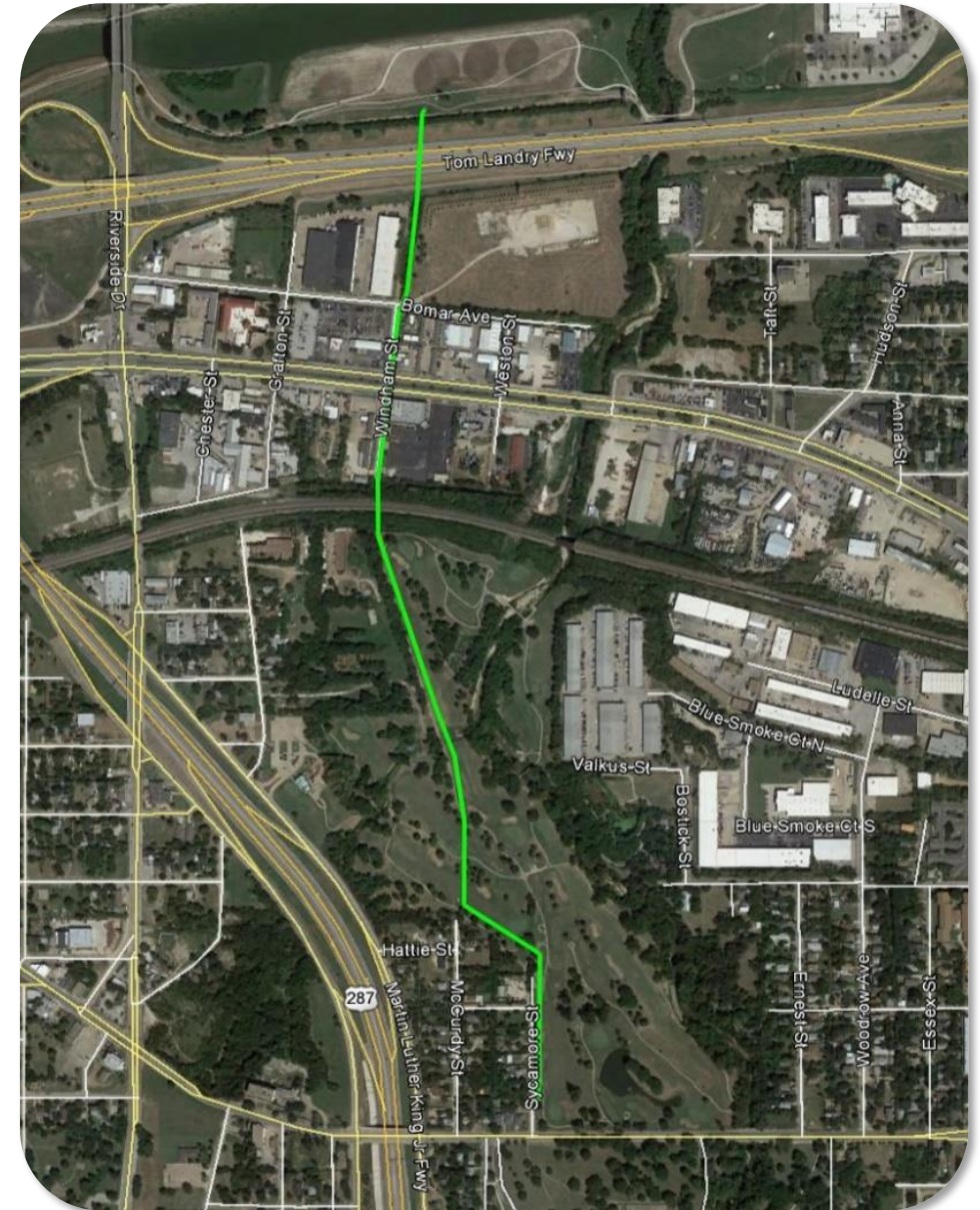




## 02

# City of Fort Worth Sycamore Creek Project Background

- ➔ Existing 48-, 54- & 60-Inch Interceptor (1961)
- ➔ Planned Rehabilitation
- ➔ Parallel Relief Capacity Required
- ➔ Multiple Phases Required
- ➔ 2030 Combined Flow = 79 MGD





## 03

# City of Fort Worth Sycamore Creek Stakeholders

- Trinity River Vision Authority (COE)
- Texas Department of Transportation
- Energy Transfer Partners

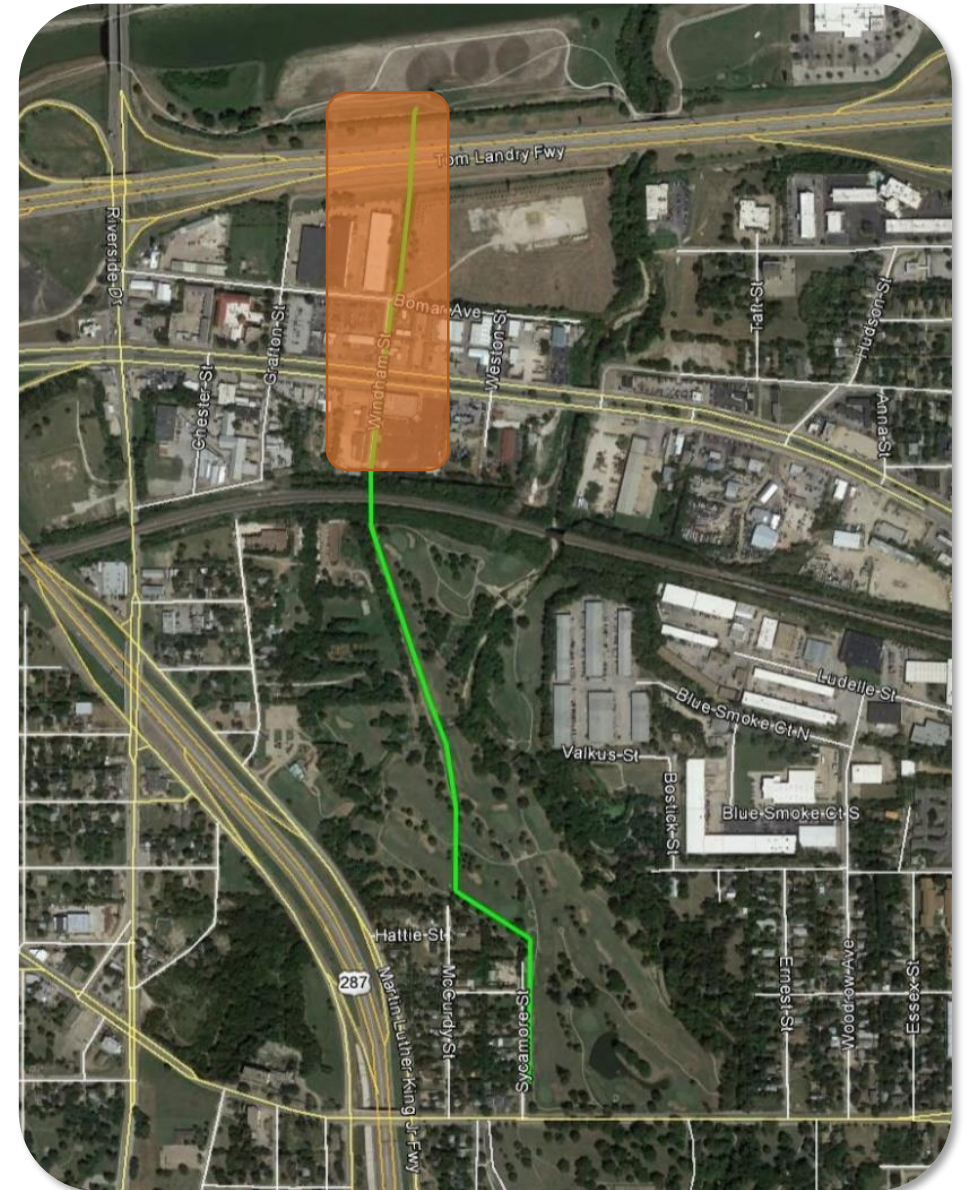




# 04

## Sycamore Creek Interceptor Project Challenges

- Tunnel Construction
- Parallel Active Line
- Conflicting Stakeholder Interests
- Access & Pedestrian Control
- Restoration Requirements
- High Groundwater
- Sandy Soils
- Record Drawing Reliability

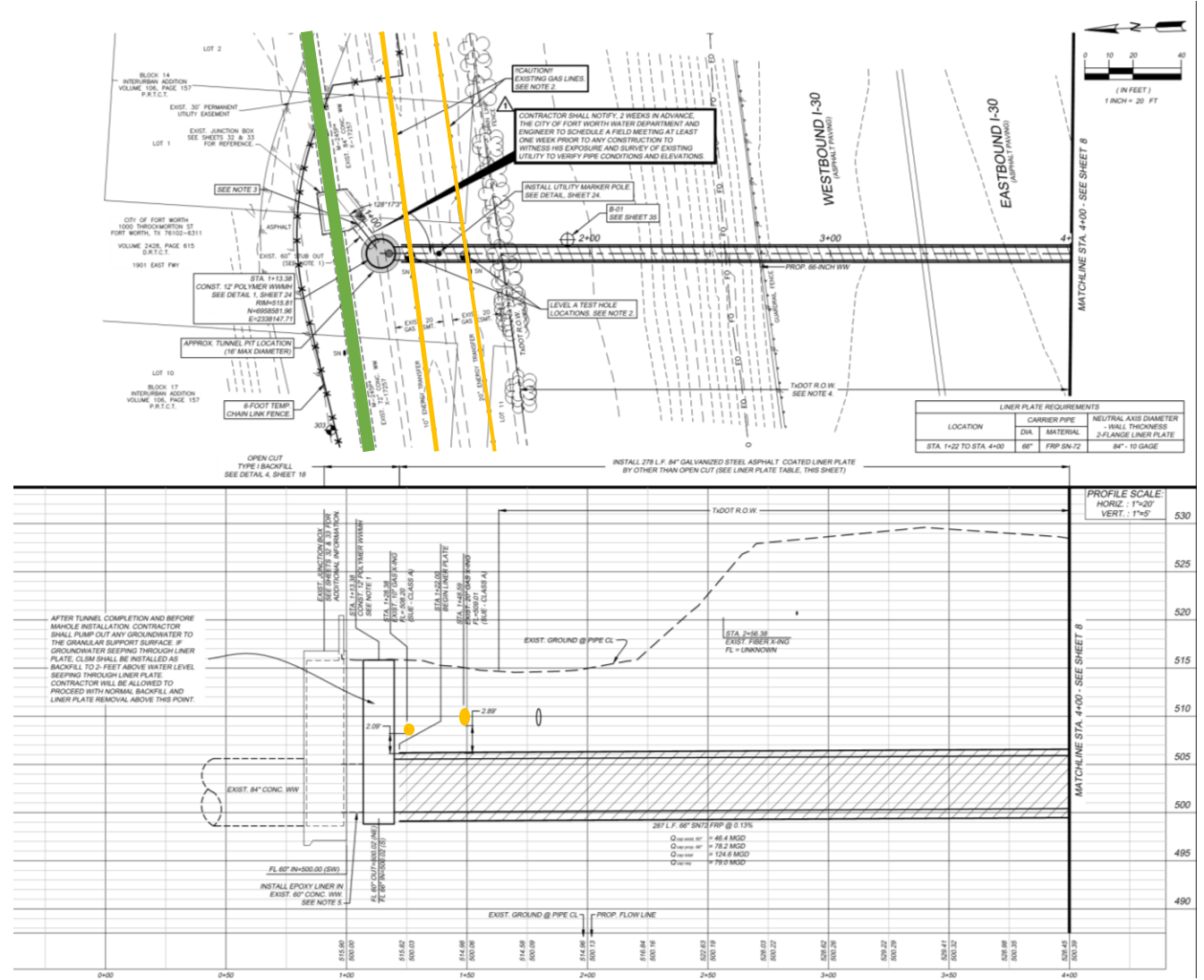




## 04

# Sycamore Creek Interceptor Project Challenges

- ➔ Tunnel Construction
- ➔ Parallel Active Line
- ➔ Conflicting Stakeholder Interests
- ➔ Access & Pedestrian Control
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- ➔ High Groundwater
- ➔ Sandy Soils
- ➔ Record Drawing Reliability





# 04

## Sycamore Creek Interceptor Project Challenges

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- **Conflicting Stakeholder Interests**
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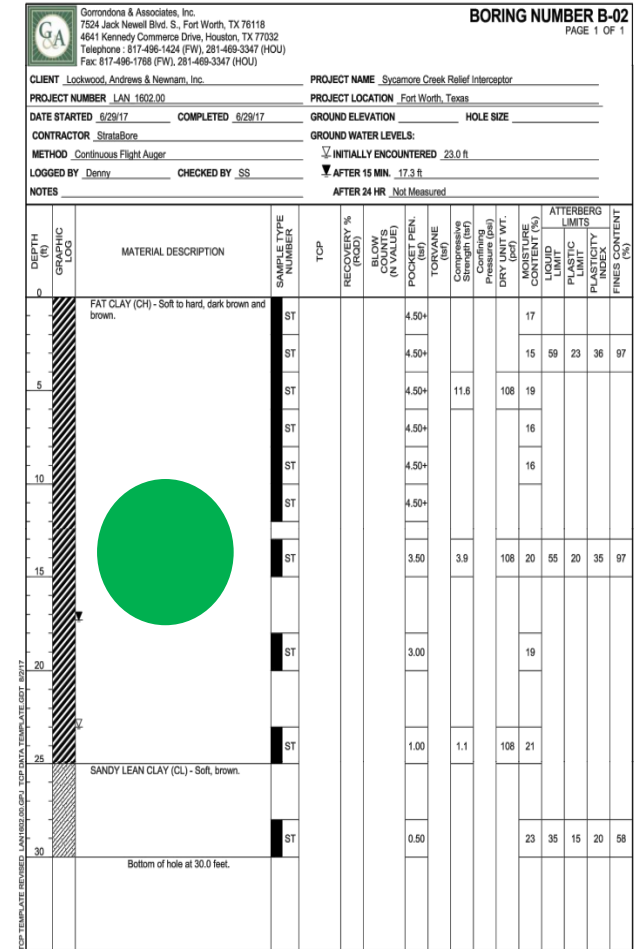
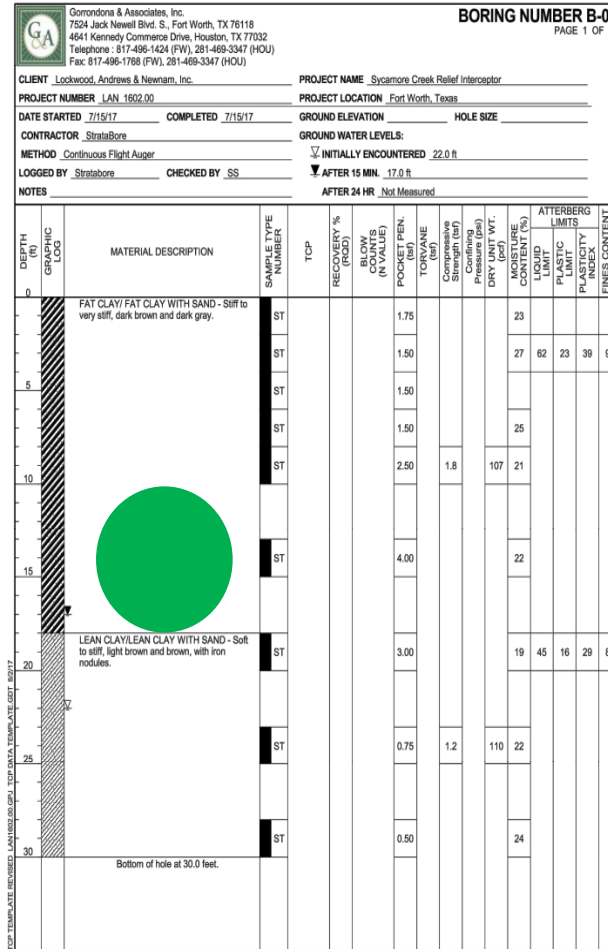




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## 05

# Sycamore Creek Interceptor Project Status

- Phase 1
  - 1,800 LF of 66"-Inch
  - In Construction
- Phase 2
  - 3,650 LF 66-Inch
  - Pending Bid Advertisement
- Phase 3 and beyond...pending







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