

Town of West Hartford, CT

Trout Brook Drainage System Improvements and Culvert Replacements

June 14, 2023



**CDM
Smith®**



Agenda

- Project Team Introductions
- Project Background
- Culverts Overview
- Anticipated Permits and Reviews

Project Team

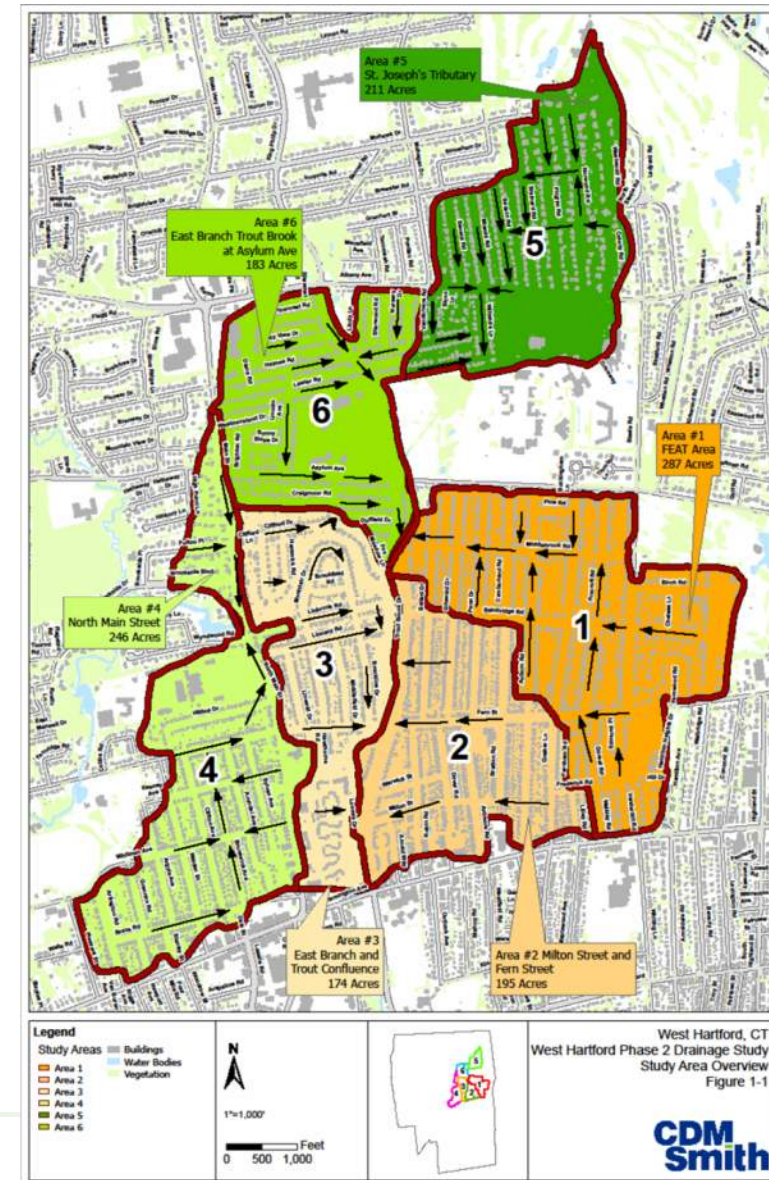
- Director of Community Development – Duane Martin, PE, Town of West Hartford
- CDM Smith Client Liaison – Joseph Laliberte, PE
- CDM Smith Designer – Michael Egan, PE



Project Background and Overview

Project Area History

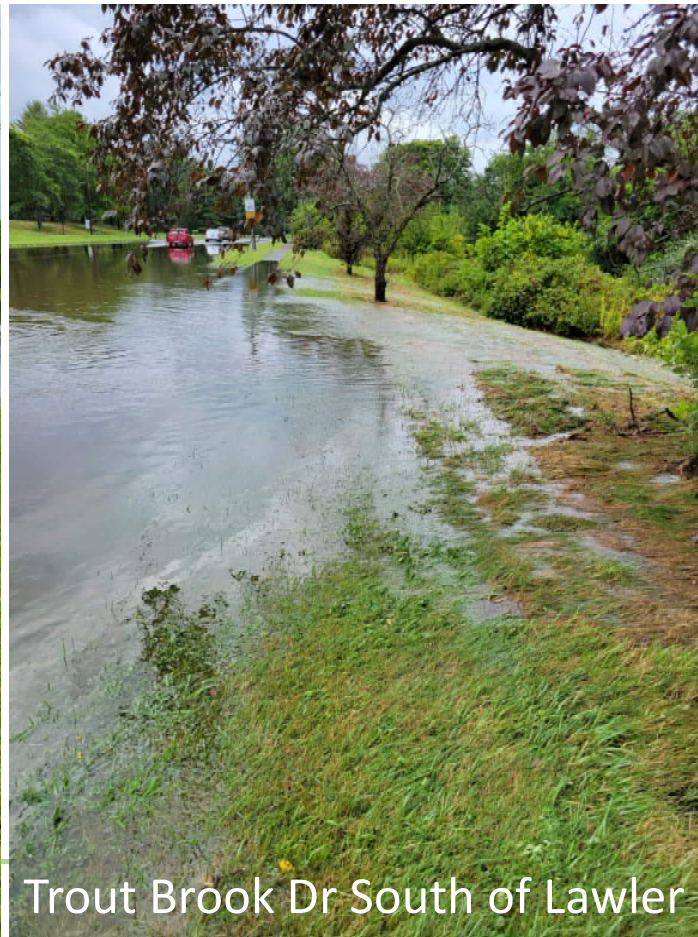
- Significant flooding – two in 2018, one in 2019, four in 2021 – 7 major storms in 4 years
- Town conceptual study area: 6 drainage areas
- CDM Smith Drainage Study – Phase 1
 - Areas 1, 2, 3
 - Final Report, June 2020
- CDM Smith Drainage Study – Phase 2
 - Areas 4, 5, 6
 - Final Report, September 2021
- Milone & MacBroom Study (now SLR)
 - Final Report, November 2018
 - Recommendations for culvert replacements



Existing Flooding - August 2021



Trout Brook Dr South of Lawler

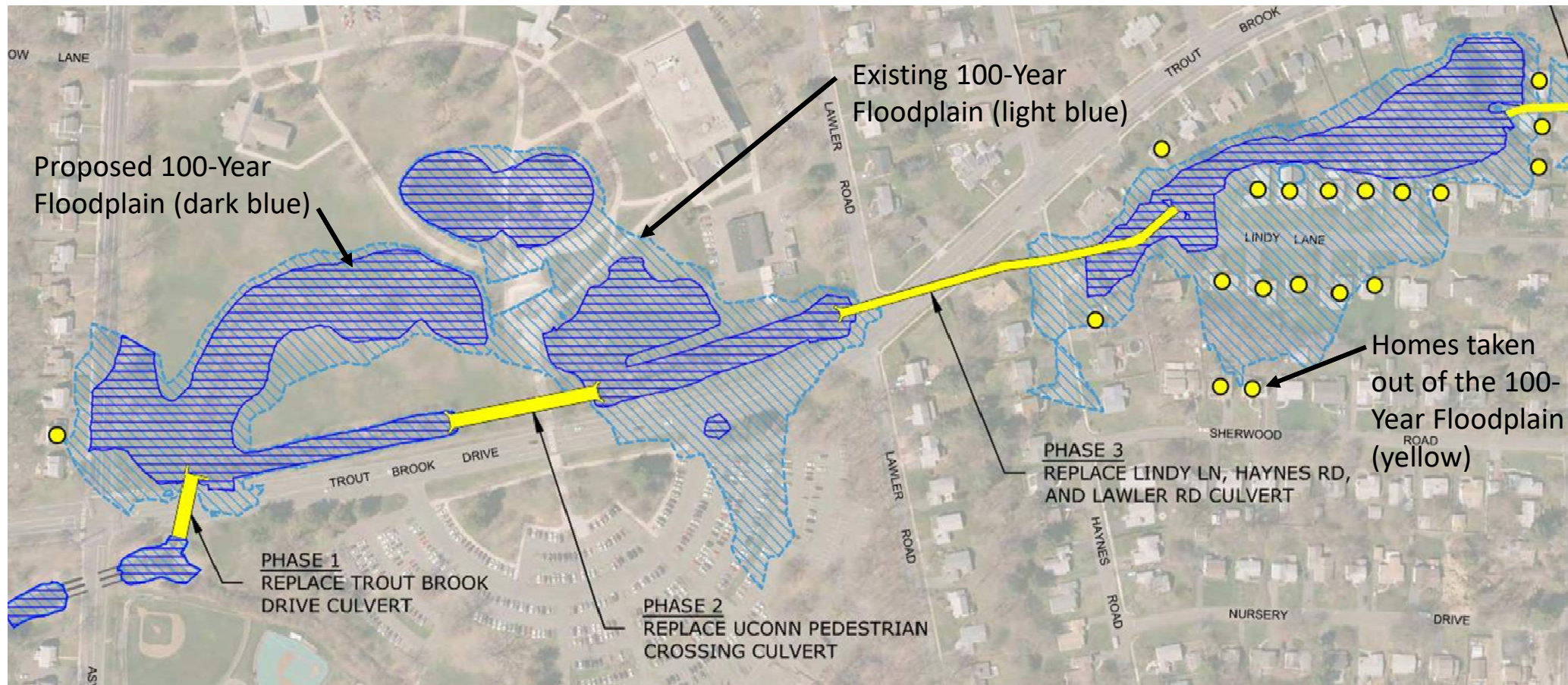


Trout Brook Dr South of Lawler



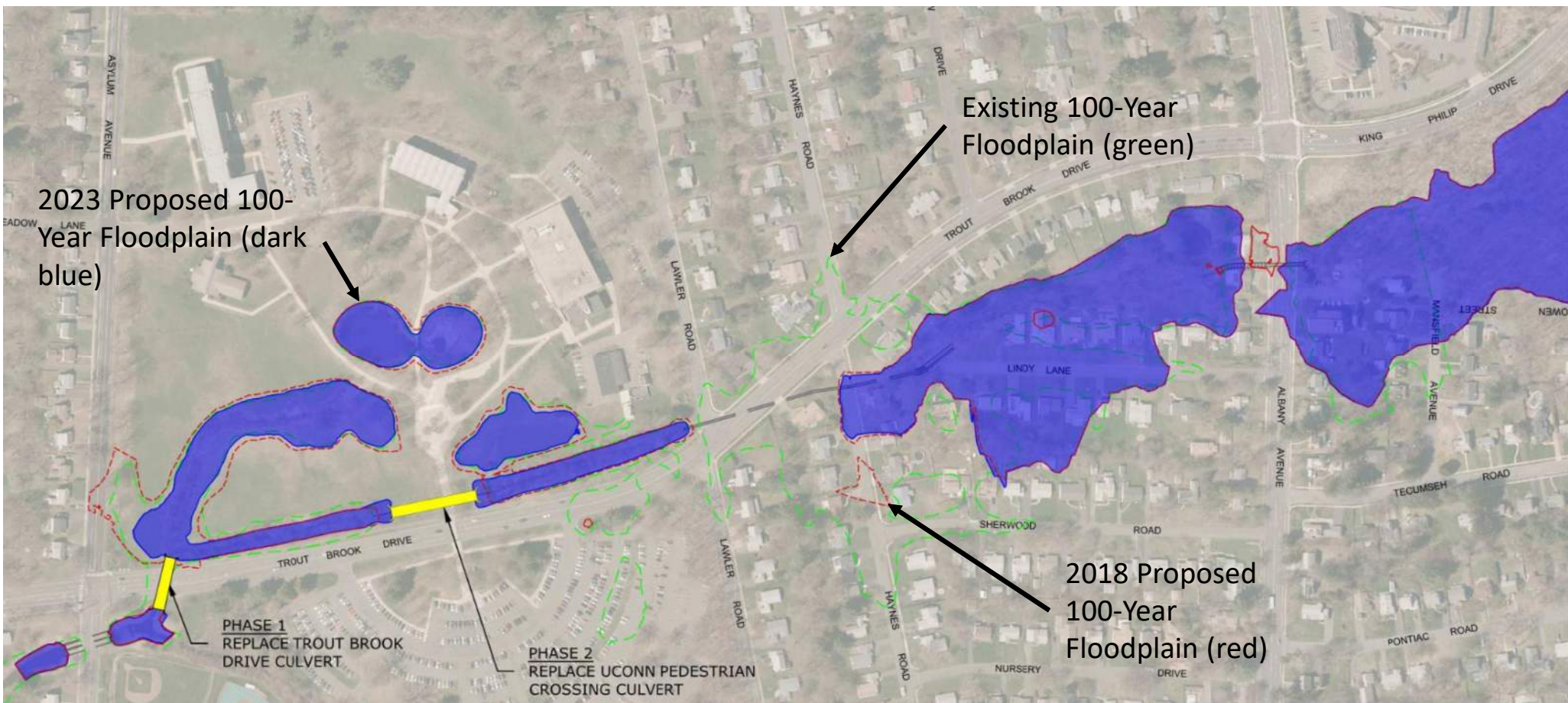
Trout Brook Dr at Lawler

Benefits from 4 culvert replacements



Source: SLR

Benefits from 2 culvert replacements



Source: SLR

Oakwood Park Development

- Former UCONN Campus development
- Coordination with Oakwood Park Development
- Culverts are a separate project



[Oakwood Park | A West Hartford Neighborhood Campus Village \(oakwoodparkwh.com\)](http://oakwoodparkwh.com)

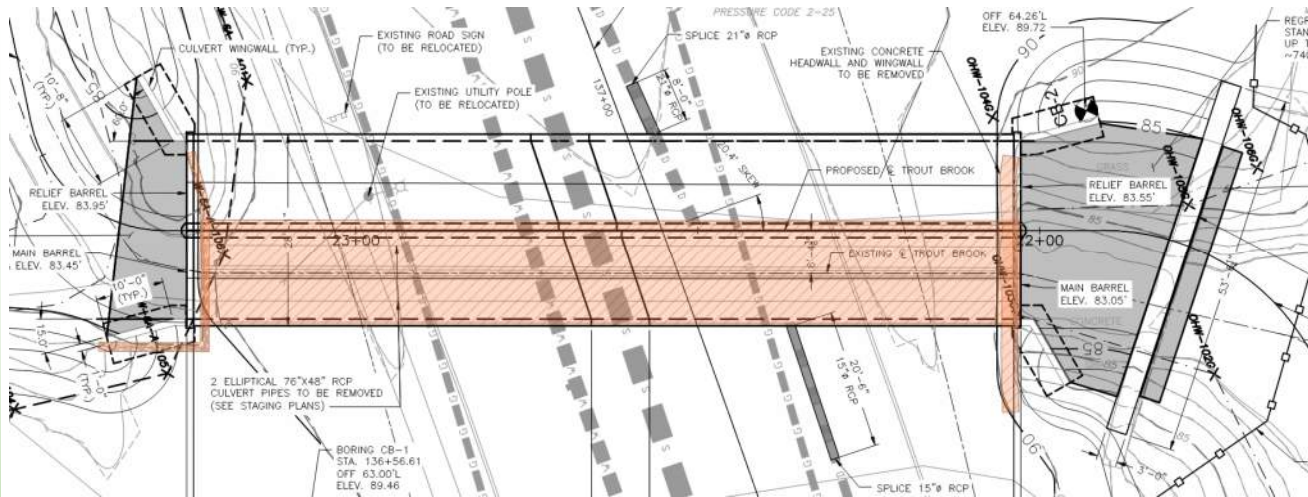


Culverts

Trout Brook - Culverts

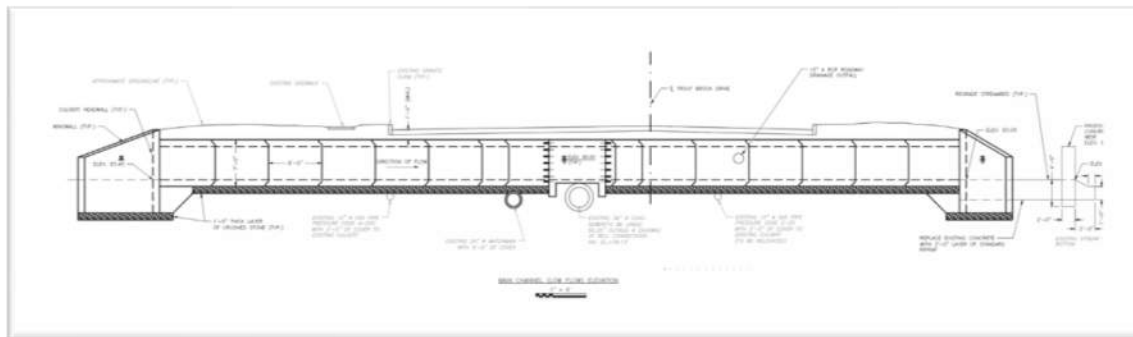
- September 2018 – Milone & McBroom (now SLR)
- Evaluated four culverts along Trout Brook
- Proceeding with 3 culvert replacements:
 - Trout Brook Drive
 - UConn Pedestrian
 - Lawler/Haynes/Lindy - *future*
- Current Phase proposes Trout Brook Drive and UConn Pedestrian

Trout Brook Culvert

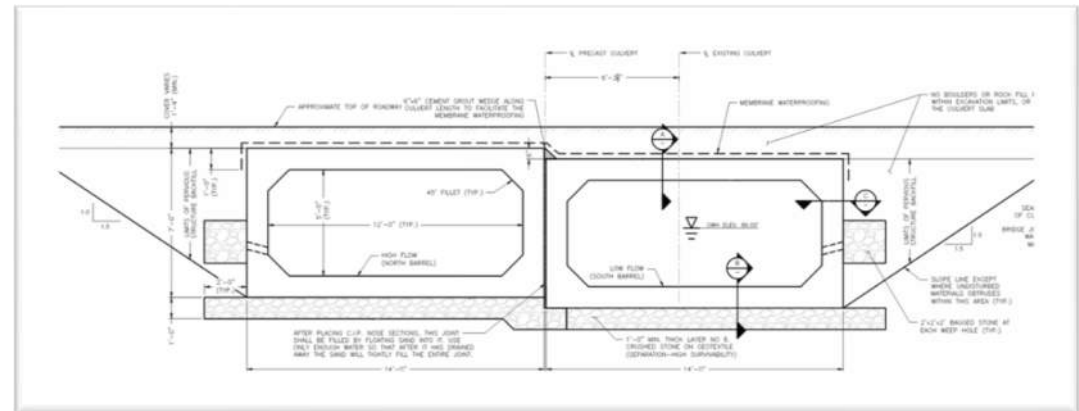
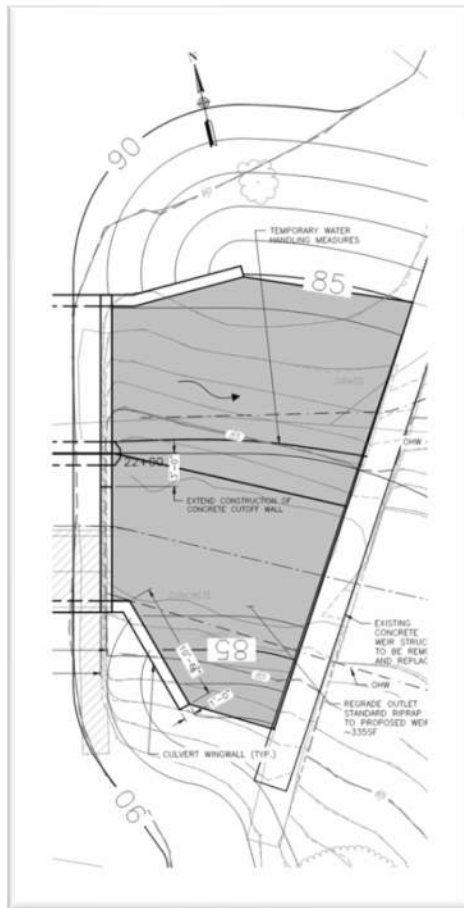


Existing Inlet

Existing Outlet



Trout Brook Culvert



Downstream of Trout Brook Drive Culvert and Weir Upstream of Asylum Avenue



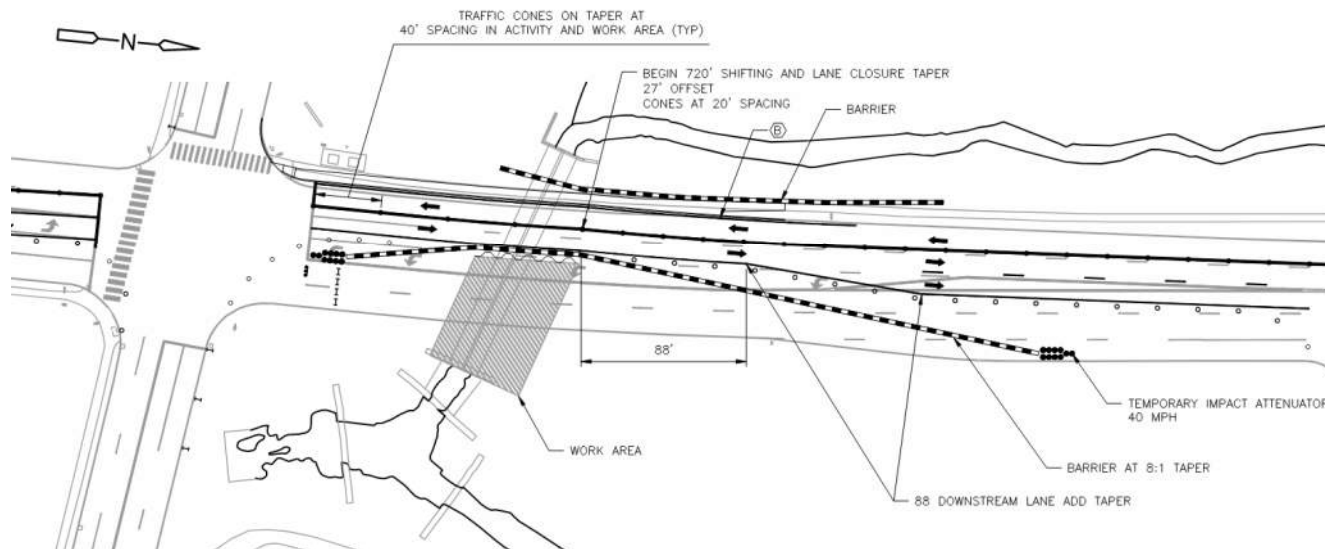
Modifications
required to
downstream Wier

Trout Brook Culvert – Construction Issues

- Trout Brook Culvert Handling Water :
 - Alignment of Trout Brook shifted slightly to the north with the new culvert
 - Flow is diverted to the southern elliptical RCP pipe
 - Staged construction of the northern most Box Culvert Cell
 - Upon staged completion of the Northern Box Culvert Cell, shift flow to this cell
 - Complete the Staged Construction of the Southern Box Culvert Cell
 - Open both cells to flow of Trout Brook

Trout Brook Culvert – Construction Issues

■ Trout Brook Culvert Traffic Staging Plan:

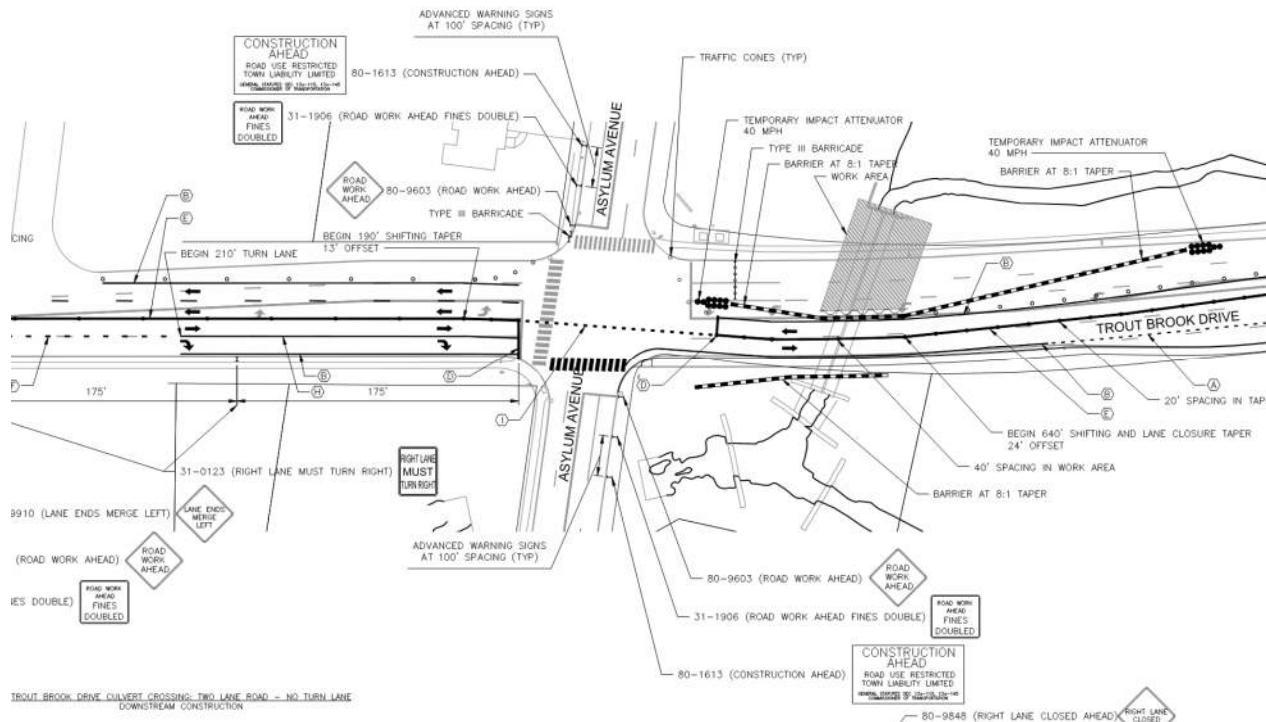


Traffic Staging Plan – Stage 1 of 2

- Pedestrian access shifted to the east side of Trout Brook Drive.
- Baseball field off Asylum Avenue will not be impacted
- Temporary signalization of the Asylum Avenue and Trout Brook Drive Signal will be included in the project.

Trout Brook Culvert – Construction Issues

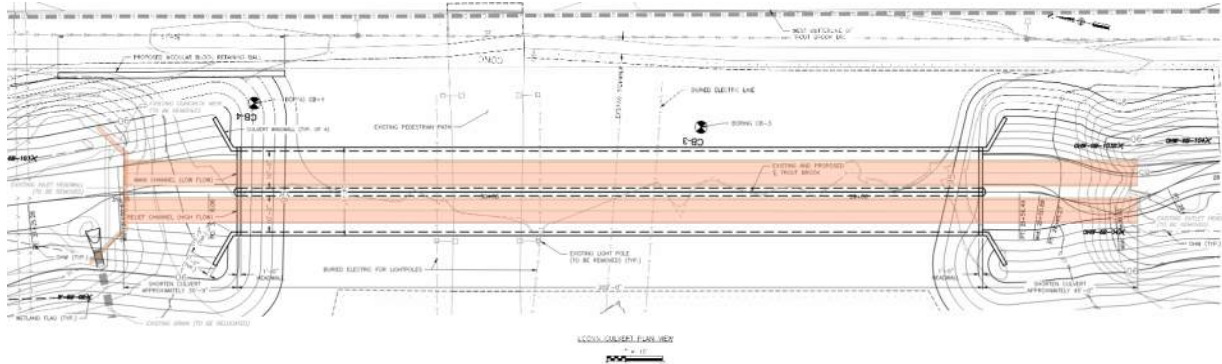
■ Trout Brook Culvert Traffic Staging Plan:



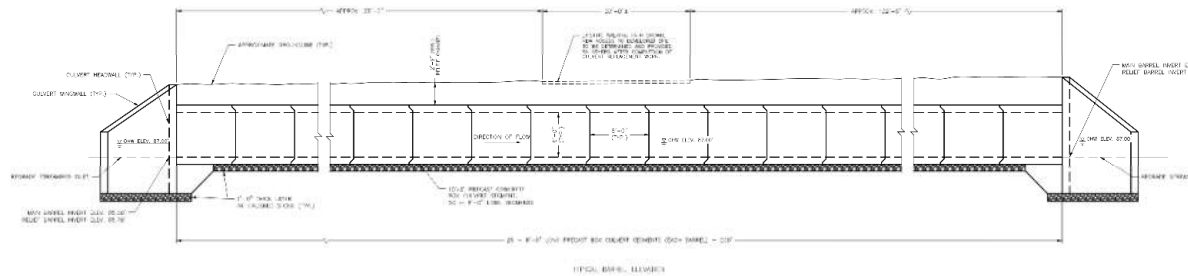
Traffic Staging Plan – Stage 2 of 2

- Pedestrian access shifted to the east side of Trout Brook Drive
- Baseball field off Asylum Avenue will not be impacted
- Temporary signalization of the Asylum Avenue and Trout Brook Drive Signal will be included in the project
- No night work planned

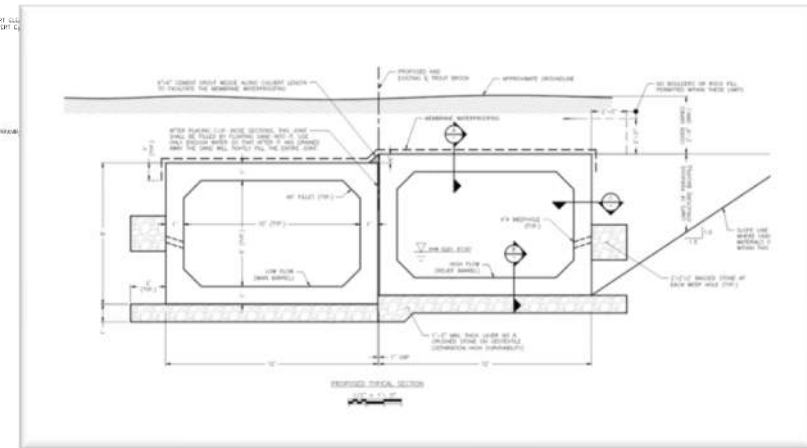
UConn Culvert



View of Pedestrian Path from Inlet



Minimal traffic impact on this culvert replacement.
Pedestrian sidewalk to be maintained, no night work planned.





Trout Brook Trail

Trout Brook Trail

Phase 6 – Duffield Drive to Fern Street

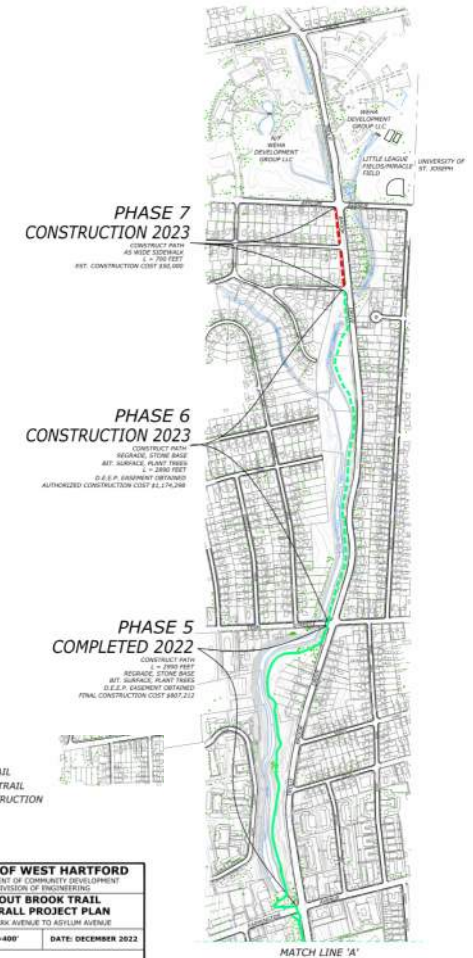
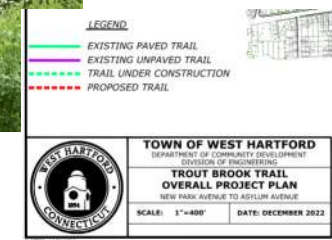
This phase is actively under construction and expected to be completed in August of 2023.

Phase 7 – Asylum Avenue to Duffield Drive

Construction of this phase will follow upon completion of Phase 6.

Phase 8 – Along Oakwood Park Development

The developer will complete this phase on the west side of Trout Brook, and the design of the trail and culverts will be coordinated.





Permits

Anticipated Reviews and Permits

- West Hartford Inland Wetlands and Watercourse Agency Inland Wetlands and Watercourses application
- Army Corps Of Engineers Pre-Construction Notification under General Permit 19 for Stream, River, and Brook crossings
- State and Tribal Historical Preservation Office Coordination, as applicable
- Natural Diversity Database Review



Schedule

Projected Schedule

Trout Brook and UCONN Culverts

- Design and Permitting 2023 and early 2024
- Construction 2024 and 2025

Lindy / Lawler Culvert

- Design and Permitting 2024 and 2025
- Construction – *Town exploring funding*



Questions

Information and Contacts

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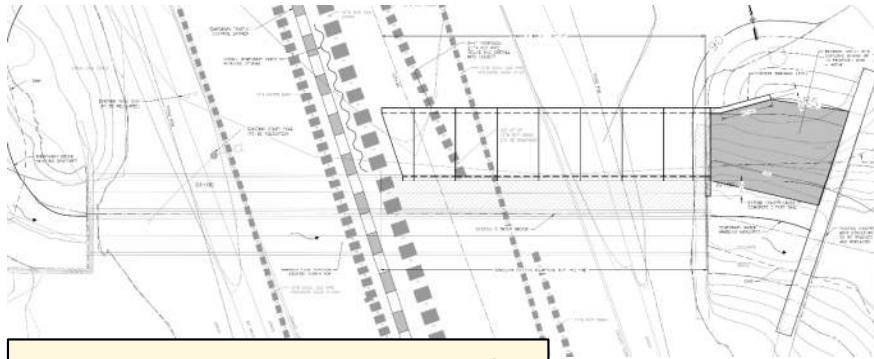
www.westhartfordct.gov/town-departments/engineering/storm-water-management



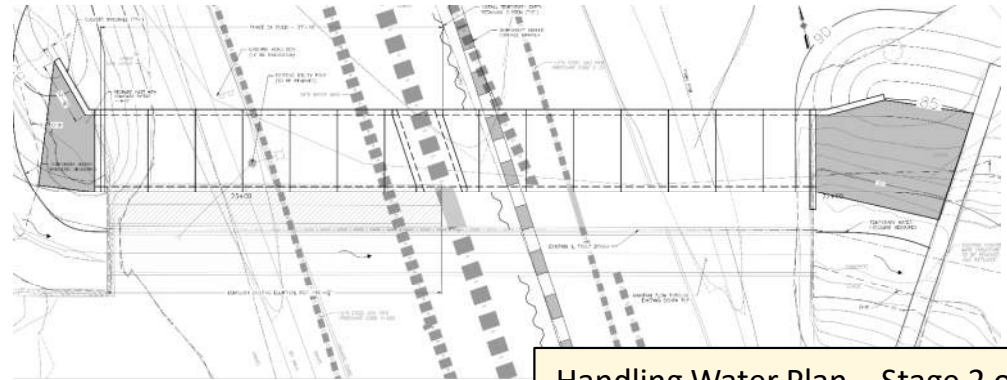
Additional Slides

Trout Brook Culvert – Construction Issues

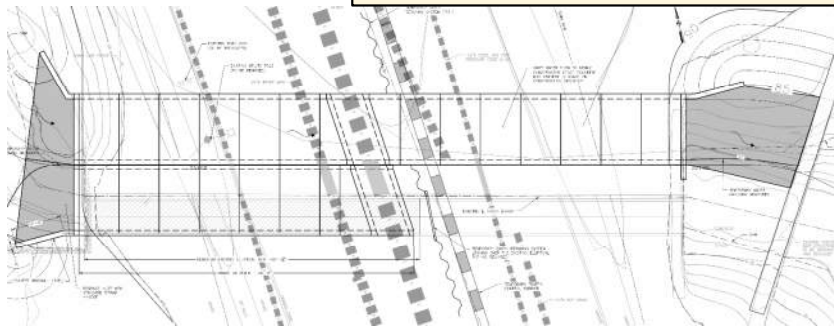
- Trout Brook Culvert Handling Water :



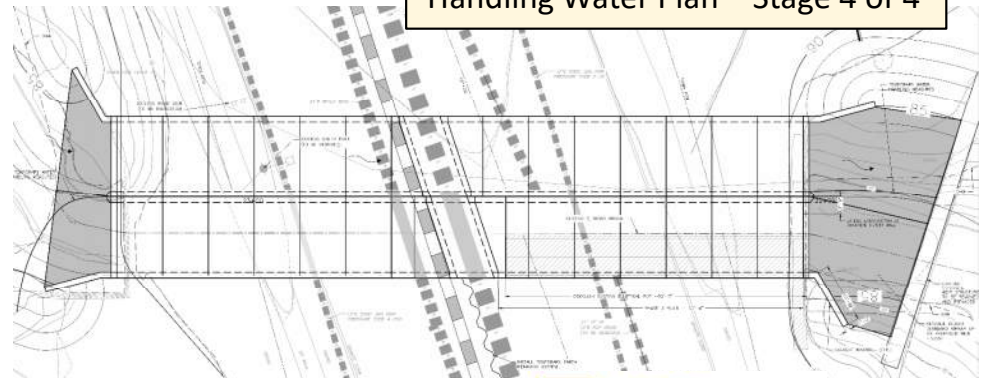
Handling Water Plan – Stage 1 of 4



Handling Water Plan – Stage 2 of 4



Handling Water Plan – Stage 3 of 4



Handling Water Plan – Stage 4 of 4