



ASHE East Penn Project of the Year (< \$30M)

The Transformation of Weavertown Road
SR 2041 Section 03B Design/Build

August 2026 Presentation



Project Team--Leads

Owner – PennDOT District 5



PennDOT Consultant PM



PennDOT Lead Design
Consultant (Prelim Eng)



PennDOT CM/CI



Contractor
Design/Build Team

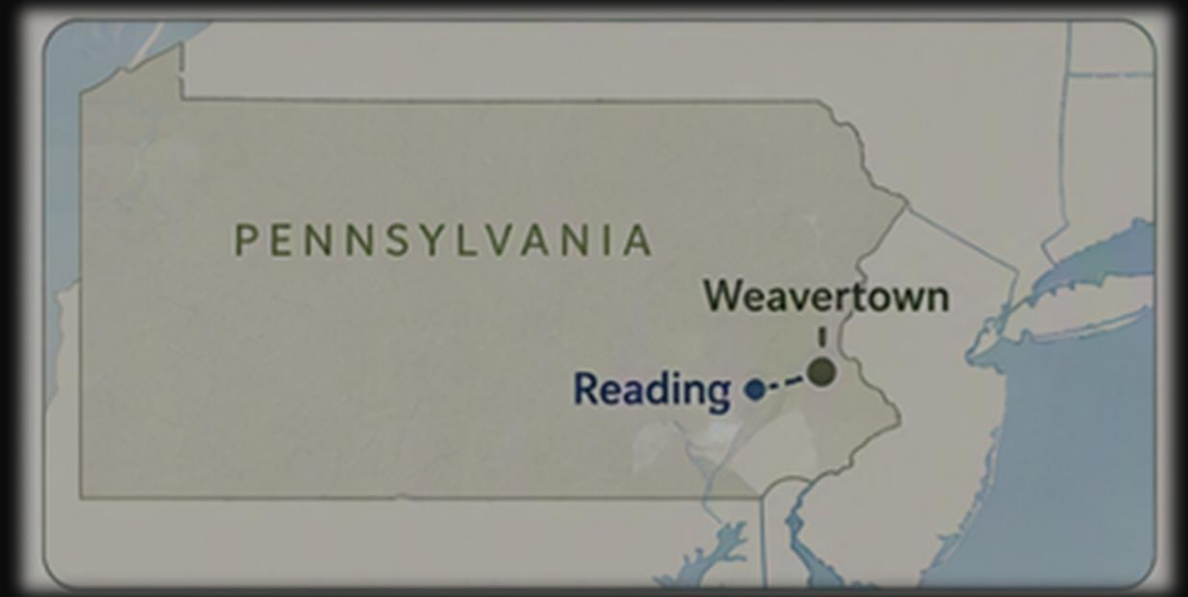
Prime Contractor



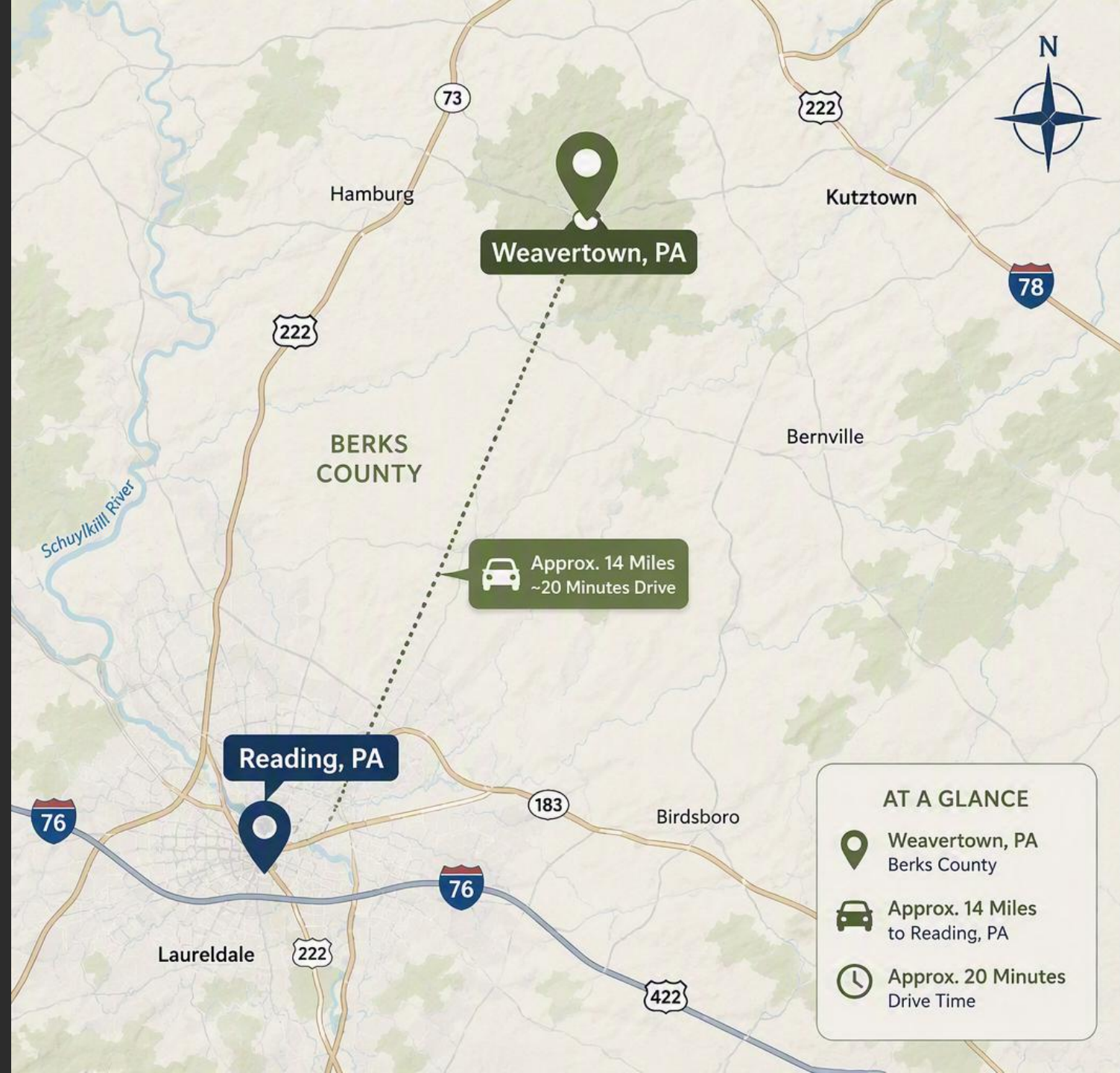
Contactor Lead Design
Consultant (Final Design)



Project Location



Project Location



Project Purpose & Need

To provide structurally adequate crossings over Monocacy Creek and UNT to Monocacy Creek and improve intersection geometry to maintain effective and safe community and regional connectivity.

Structure was in poor condition and functionally obsolete. Superstructure exhibits cracking and heavy spalling and the substructure exhibits full height fractures, shifting wingwalls, footing exposure/undermining and severe scaling. In addition, there was poor intersection sight distance and substandard approach geometry.

Project Overview

Existing Conditions (2023)

REPLACE BRIDGE

*Ex. 2-Span
Concrete Encased
Steel I-beam*

IMPROVE INTERSECTION

REPLACE / RELOCATE CULVERT

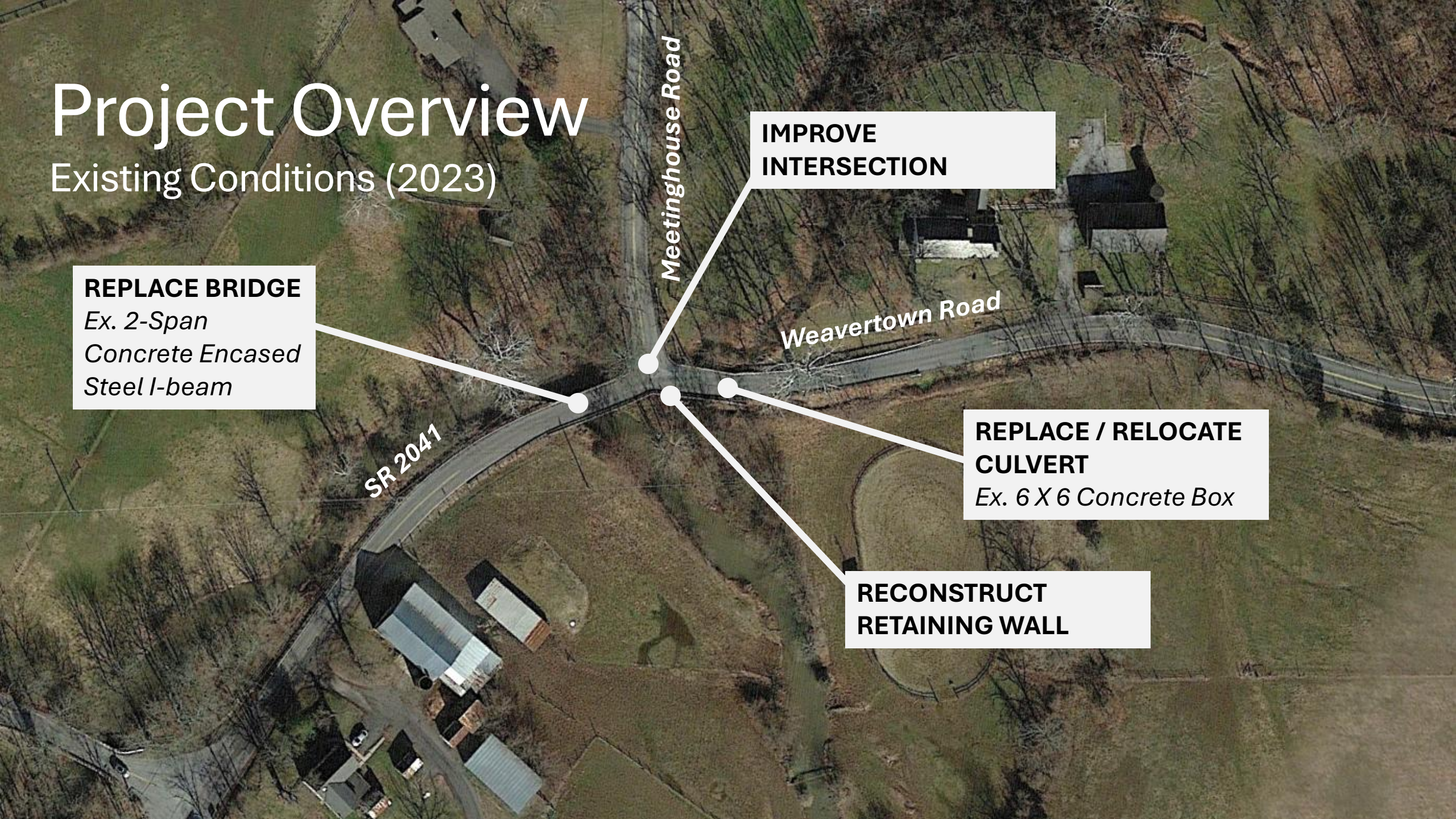
Ex. 6 X 6 Concrete Box

RECONSTRUCT RETAINING WALL

Meetinghouse Road

Weavertown Road

SR 2041



Structures

Existing Conditions (2023)



Waterways

Existing Conditions (2023)

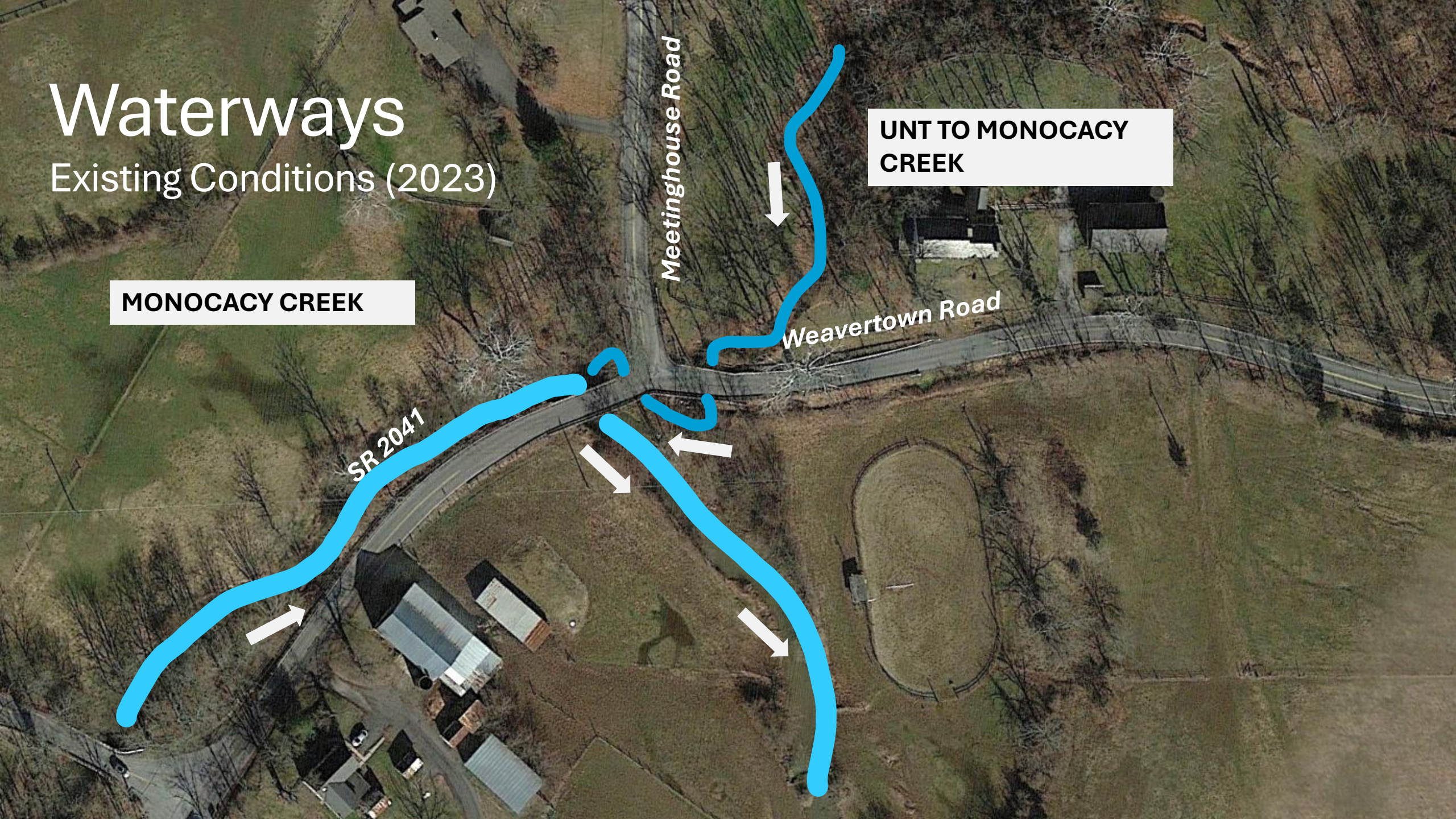
MONOCACY CREEK

**UNT TO MONOCACY
CREEK**

Meetinghouse Road

Weavertown Road

SR 2041



Other Features

Existing Conditions (2023)

- ✓ No Wetlands
- ✓ No Stream Constr Restrictions
- ✓ No Waste Sites
- ✓ PNDI Clear
- ✓ No Archaeology

**SECTION 4(f) RESOURCES:
WITHIN LIMEKILN VALLEY
RURAL HISTORIC DISTRICT**

*Surrounding Properties Contributed
to the Historic District*

**SUBSTANDARD
APPROACH GEOMETRY**

**LIVESTOCK
(Horses) &
FARMING**



Delivery Overview

PLANNING → PRELIMINARY ENG → D/B PS&E → FINAL DESIGN → CONSTRUCTION

Project
Owner



pennsylvania
DEPARTMENT OF TRANSPORTATION
Engineering District 5

PennDOT Design Team

Publication 448
INNOVATIVE BIDDING TOOLKIT
2013 Edition, Change 2
Bureau of Project Delivery, Highway Delivery Division
Project Schedules, Specifications and Constructability Section

[View Change Packets](#)



PUB 448 (05-16)

Project Let
ECMS 10753

FINAL DESIGN → CONSTRUCTION

Contractor



Contractor Design Team

Prelim Eng Activities (By PennDOT Team)

- ✓ Environmental Clearance.
- ✓ Design Exceptions (Horizontal Curve, Superelevation, and Sight Distance)
- ✓ Conceptual Designs provided for Right-of-Way, Construction, Stream Mitigation, E&S , Structure, Retaining Wall, and Culvert.
- ✓ Final Plans provided for Traffic Control and Signing Pavement Markings.
- ✓ Pre-application meetings with permit agencies.
- ✓ Final H&H Report

Final Design Activities (Contractor D/B Team)

- ☐ Final Right-of-Way Plan
- ☐ Right-of-Way Acquisitions
- ☐ Utility Coordination / Clearance
- ☐ PADEP Waterway Permits
- ☐ Final E&S Plan
- ☐ Final Stream Mitigation Plan
- ☐ Final Construction Plan
- ☐ Final Structure Plan
- ☐ Final Retaining Wall Plan
- ☐ Final Culvert Plan
- ☐ As-Builts

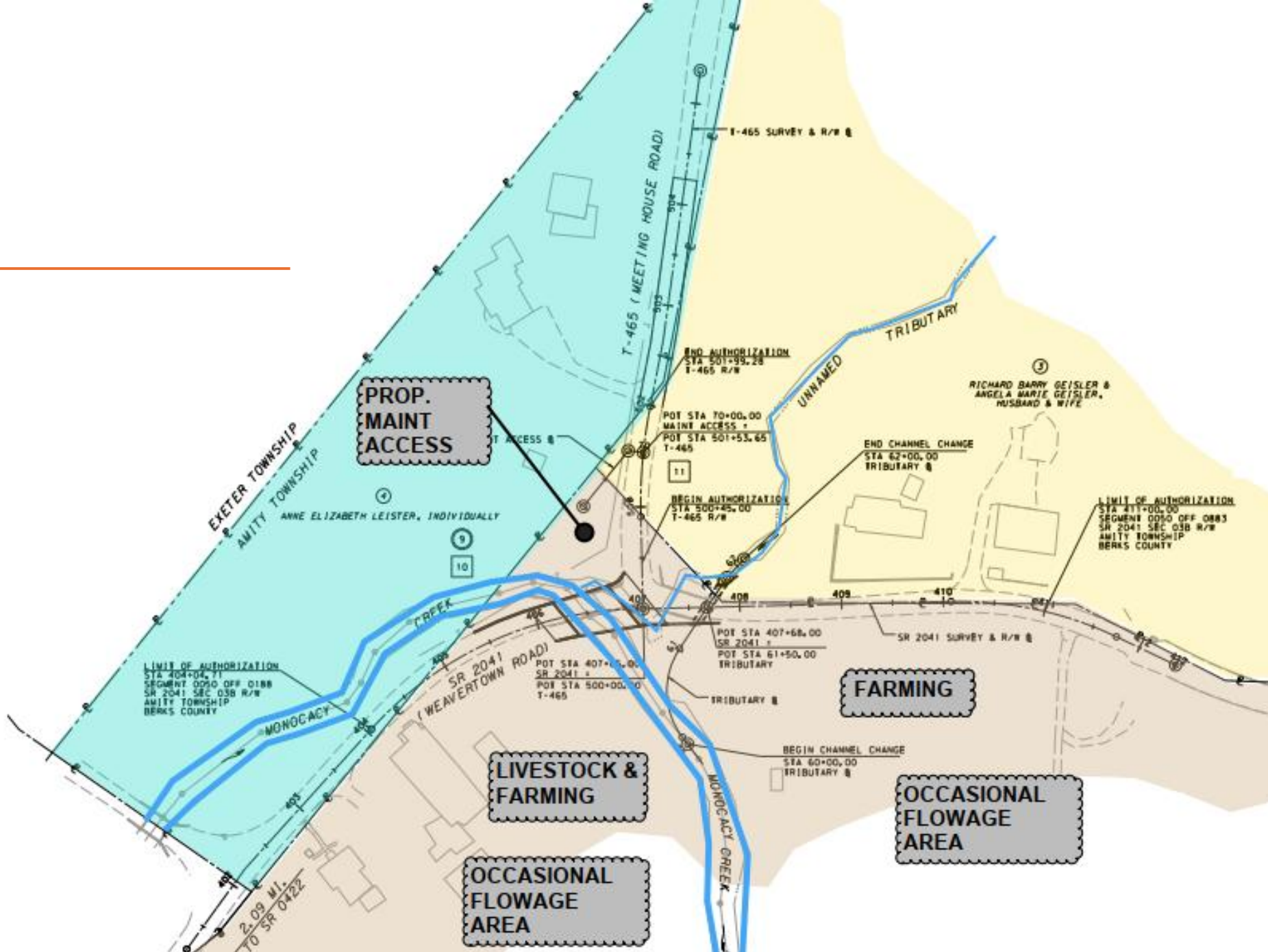
Right-of-Way

GPI



Keystone Acquisition Services Corporation
Sub to GPI

ROW Impacts



Water Resource & Permitting

GPI



Sub to GPI

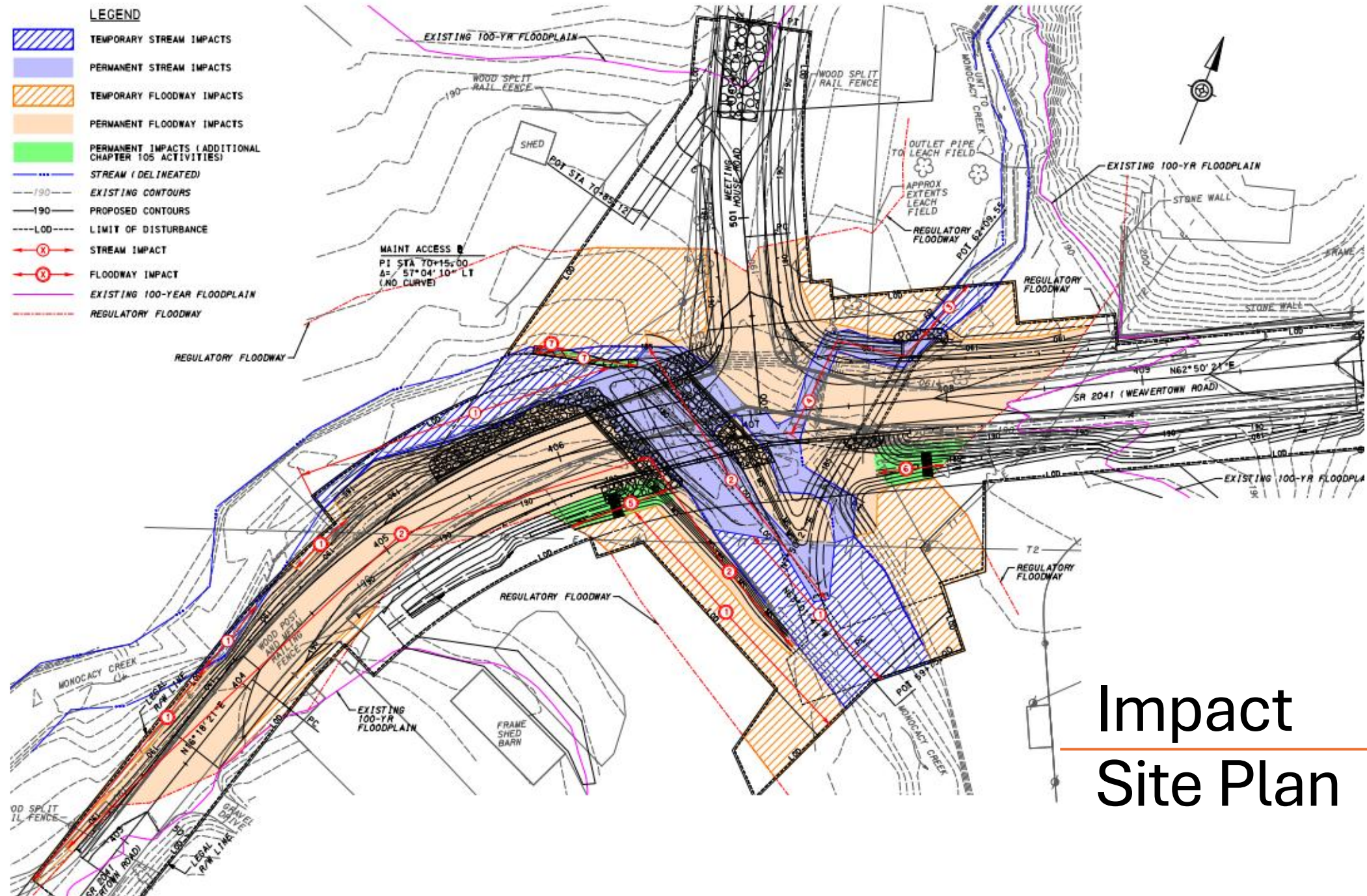


Sub to Kinsley



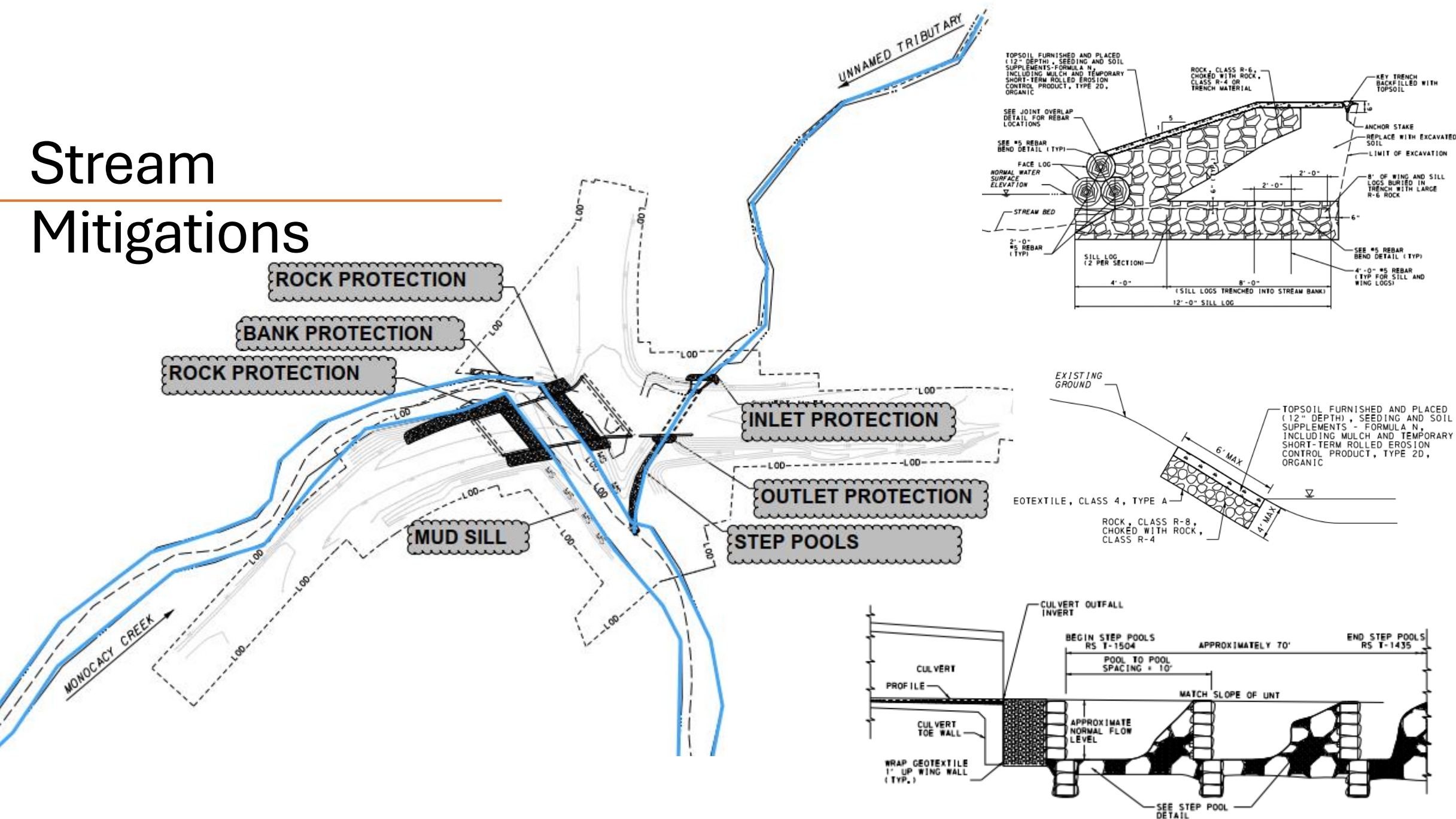
Source: SR 2041, Section 03B – Hydrologic and Hydraulic Report dated July 2022 and prepared by Bergmann (now Collier's Engineering and Design)

H&H Notes



Impact Site Plan

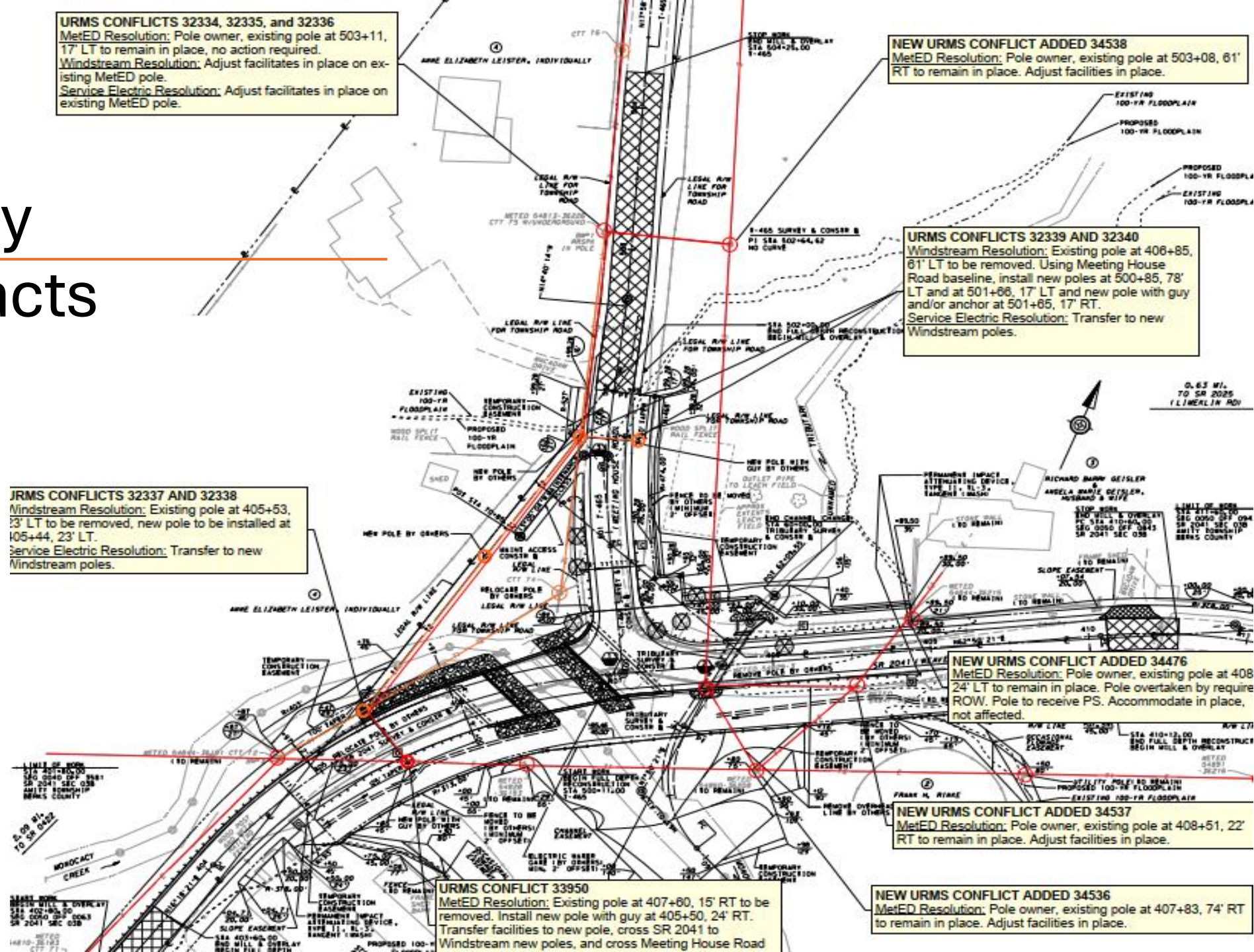
Stream Mitigations



Utilities

GPI

Utility Impacts



Roadway

GPI



Now

Maintenance
Access

SR 2041

Meetinghouse Road

Stream
Realigned

Weavertown Road

Before

Weavertown Road

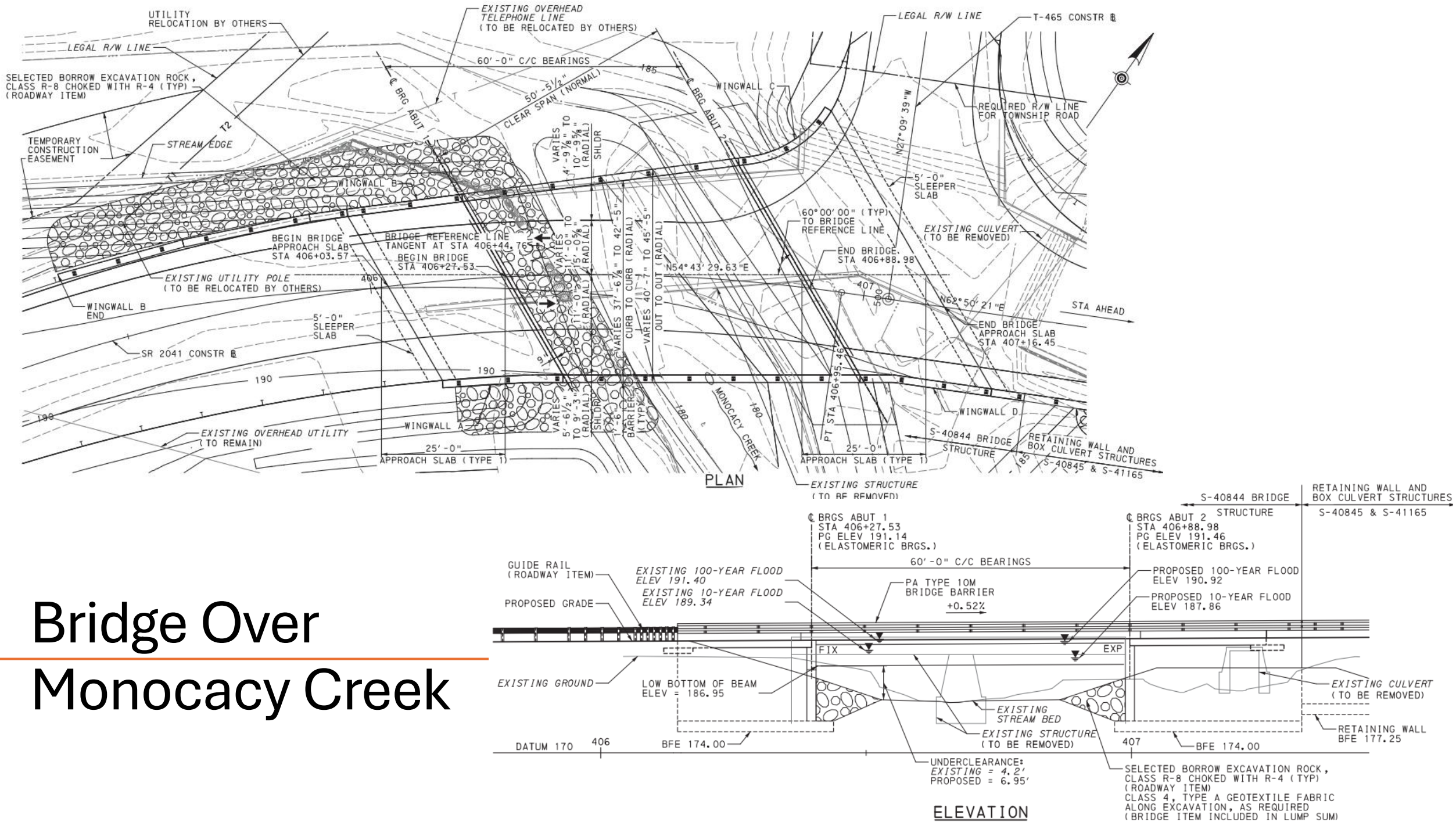
Meetinghouse Road

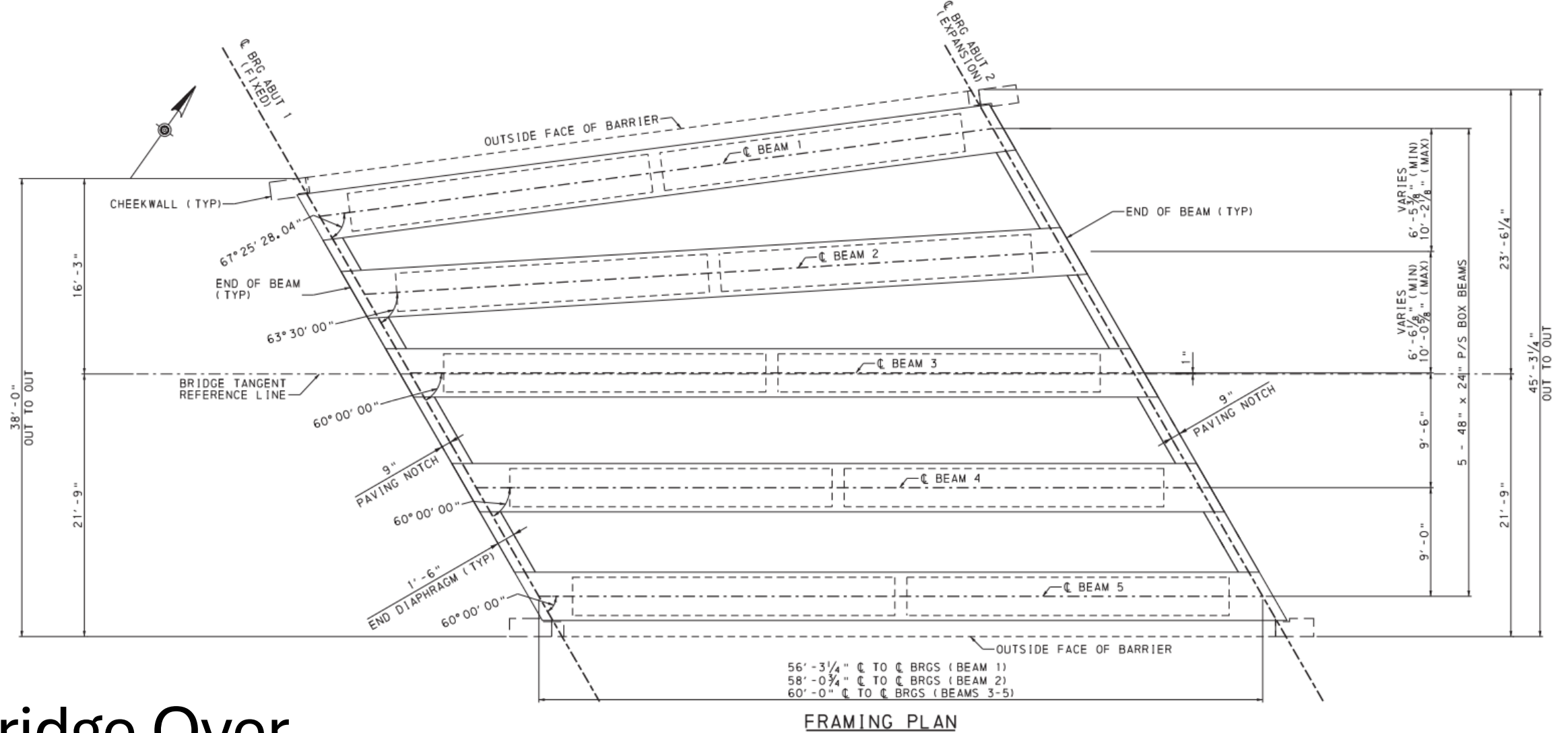
Bridge Over Monocacy Creek

GPI



Bridge Over Monocacy Creek





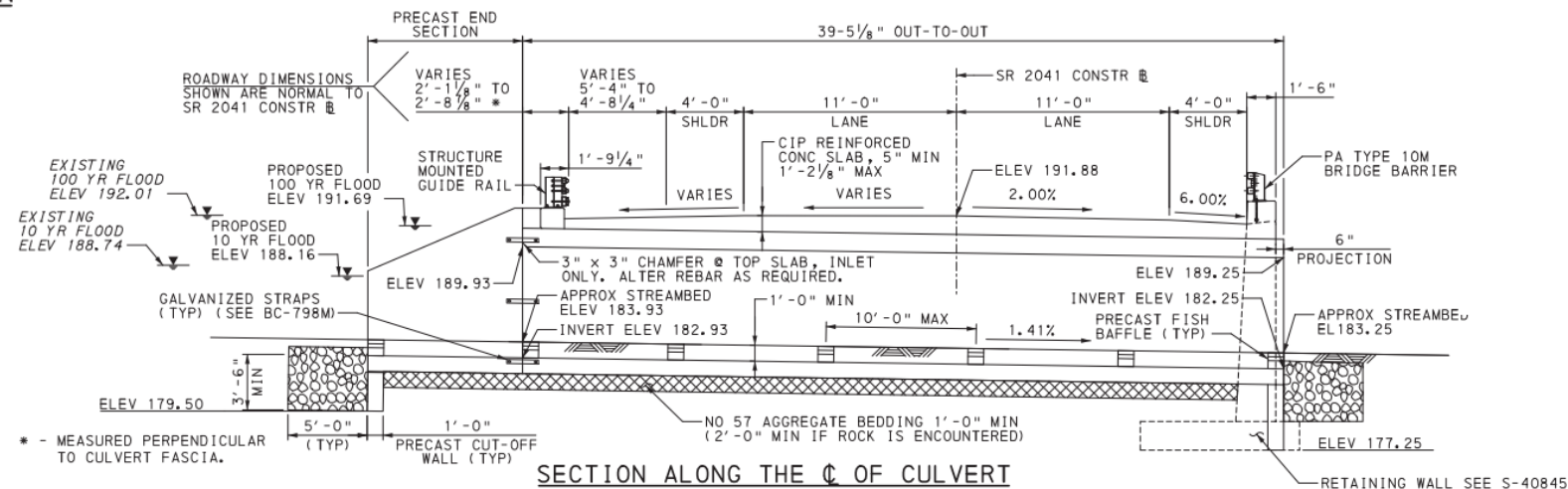
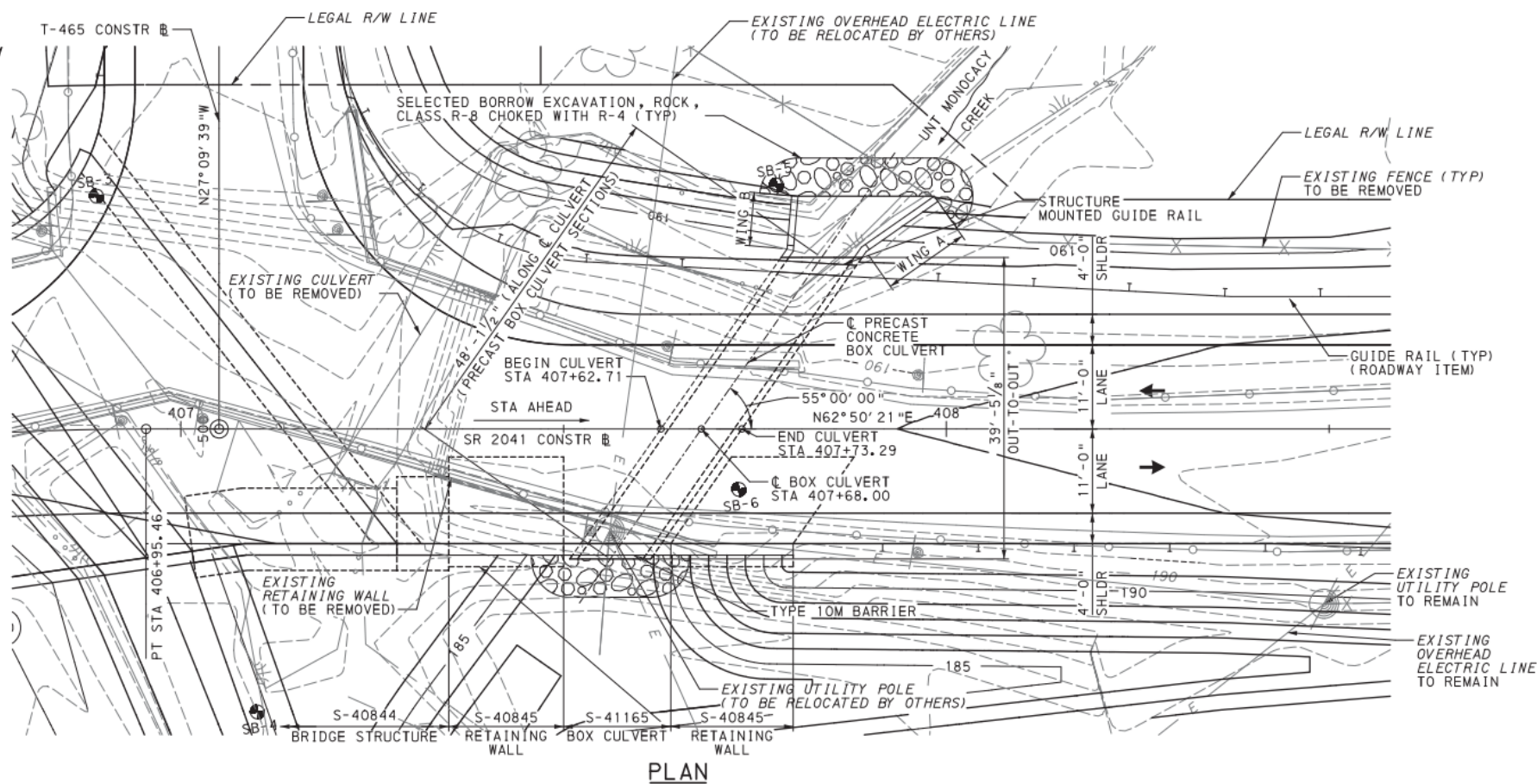
Bridge Over Monocacy Creek

Culvert Over UNT to Monocacy Creek

GPI

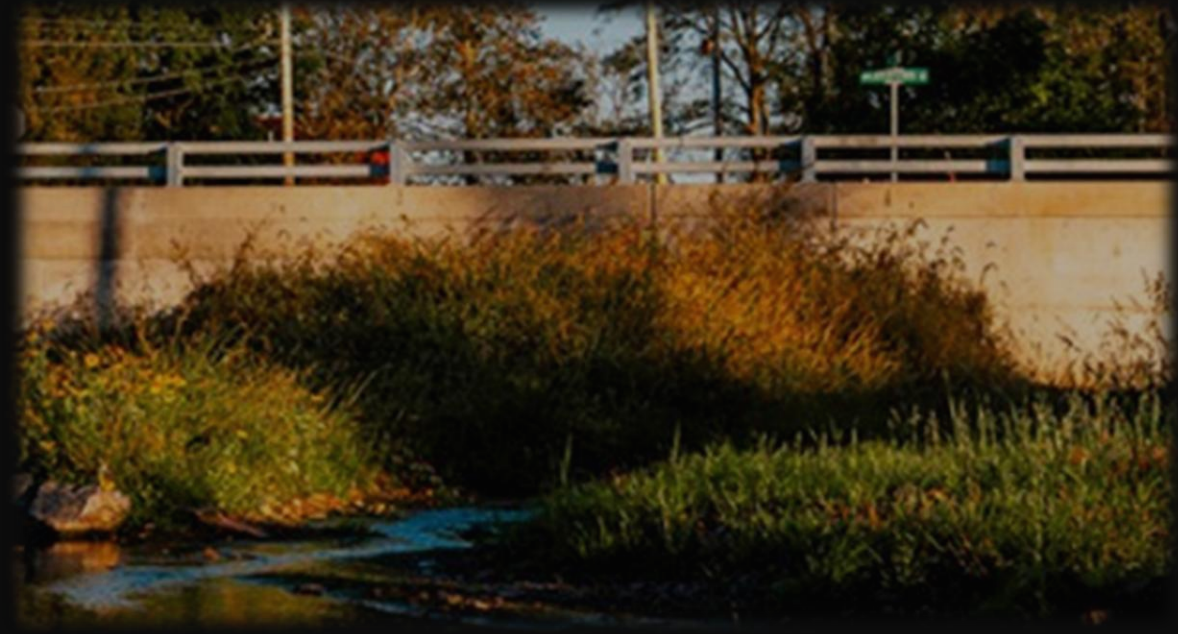


Culvert Over UNT Monocacy Creek

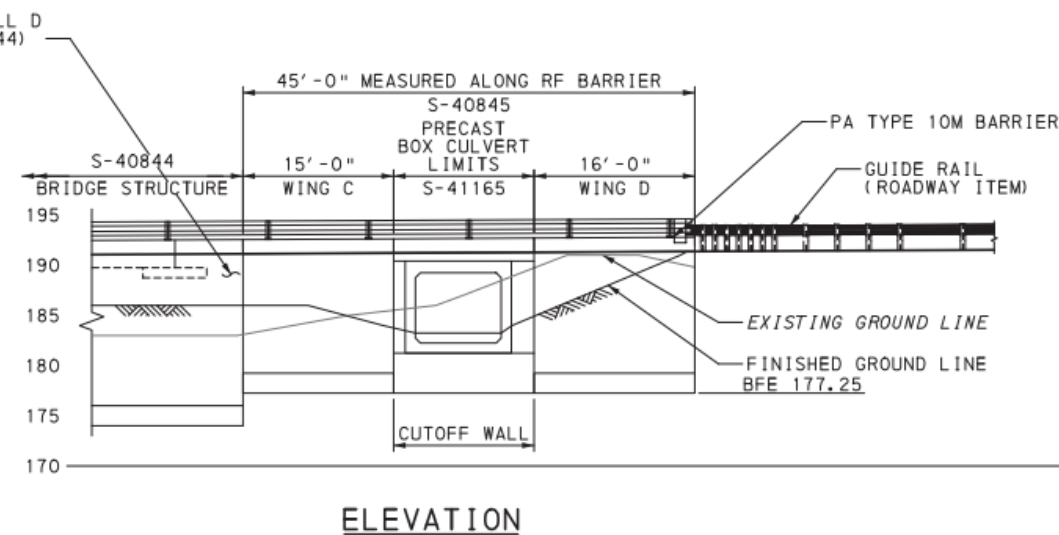
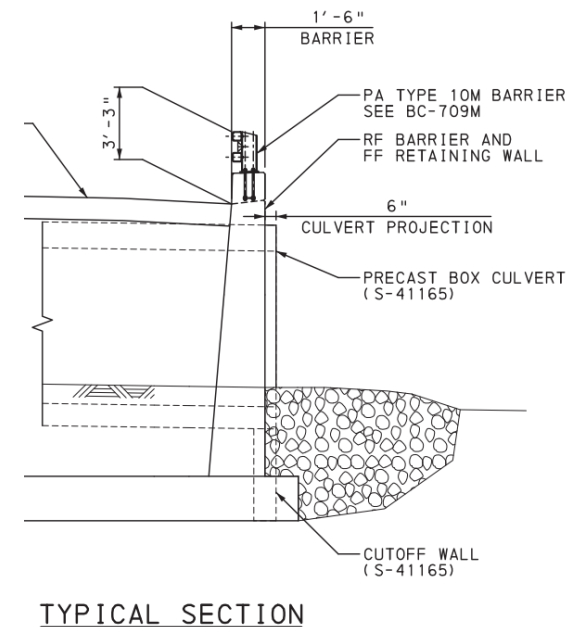
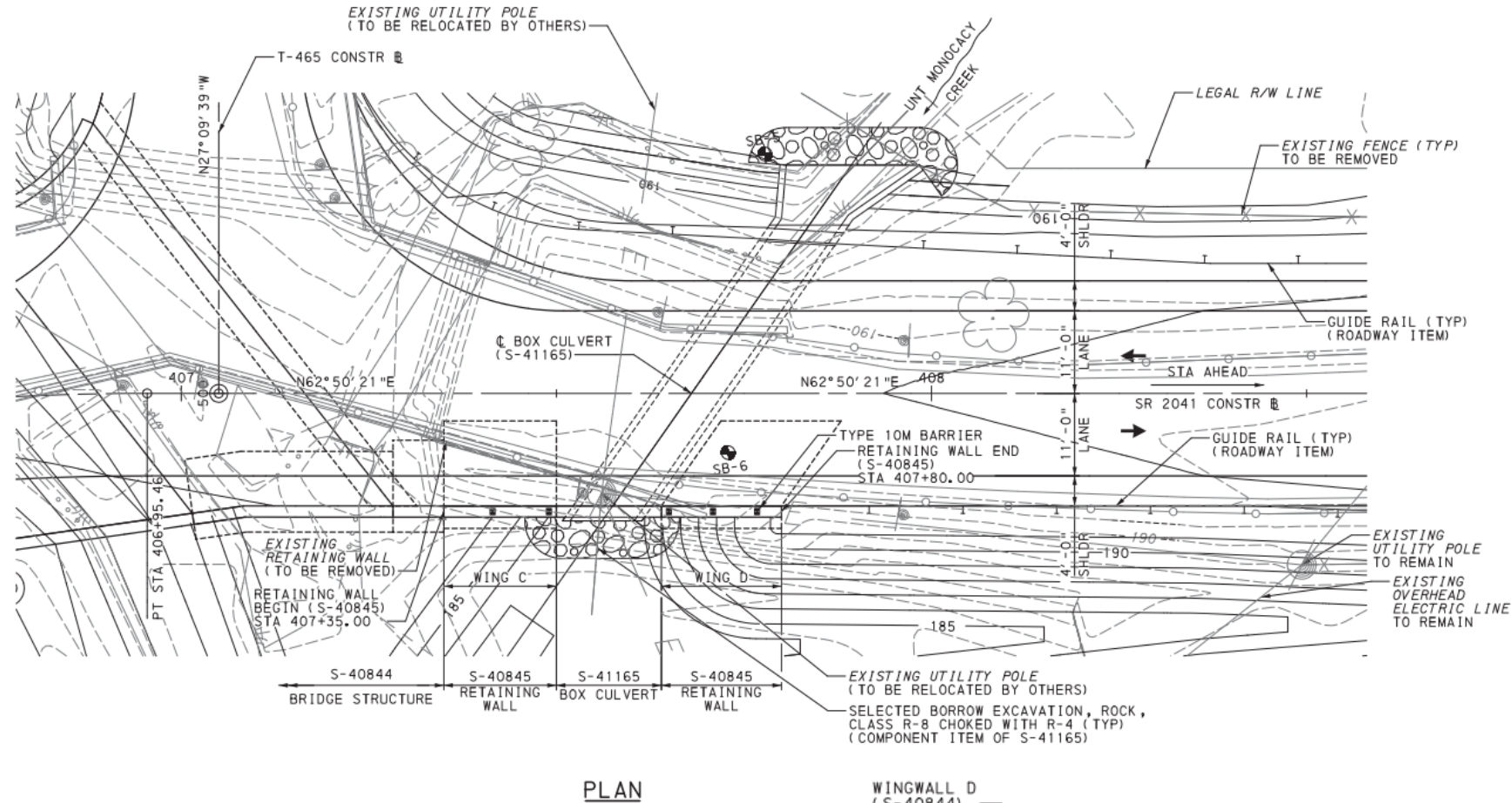


Retaining Wall

GPI



Retaining Wall



Construction



SEQUENCE OF WORK

Construction Timeline



August 2024	Clearing for Utility Relocation
December 12, 2024	Detour implemented; demolition of existing box culvert
Winter 2024–25	Install new pre-cast box culvert; CIP retaining walls
Early Spring 2025	Existing structure demo; Construction of new abutments
Early Summer 2025	Set beams, deck, approach slabs, barriers
Late Summer 2025	Full-depth pavement and milling completed
Early Fall 2025	Epoxy overlay, line painting, signs, guiderail, final seeding
September 25, 2025	Traffic reopened - Project complete



Culvert Construction

- 50' - (7) Section Precast Box Culvert
- (1) Precast Concrete End Section
- 67 CY of Structure Backfill
- 163 CY of Class 3 Excavation
- Cast-in- Place Reinforced Concrete Deck Slab
- Structure Mounted Guiderail
- PA Type 10M Bridge Barrier

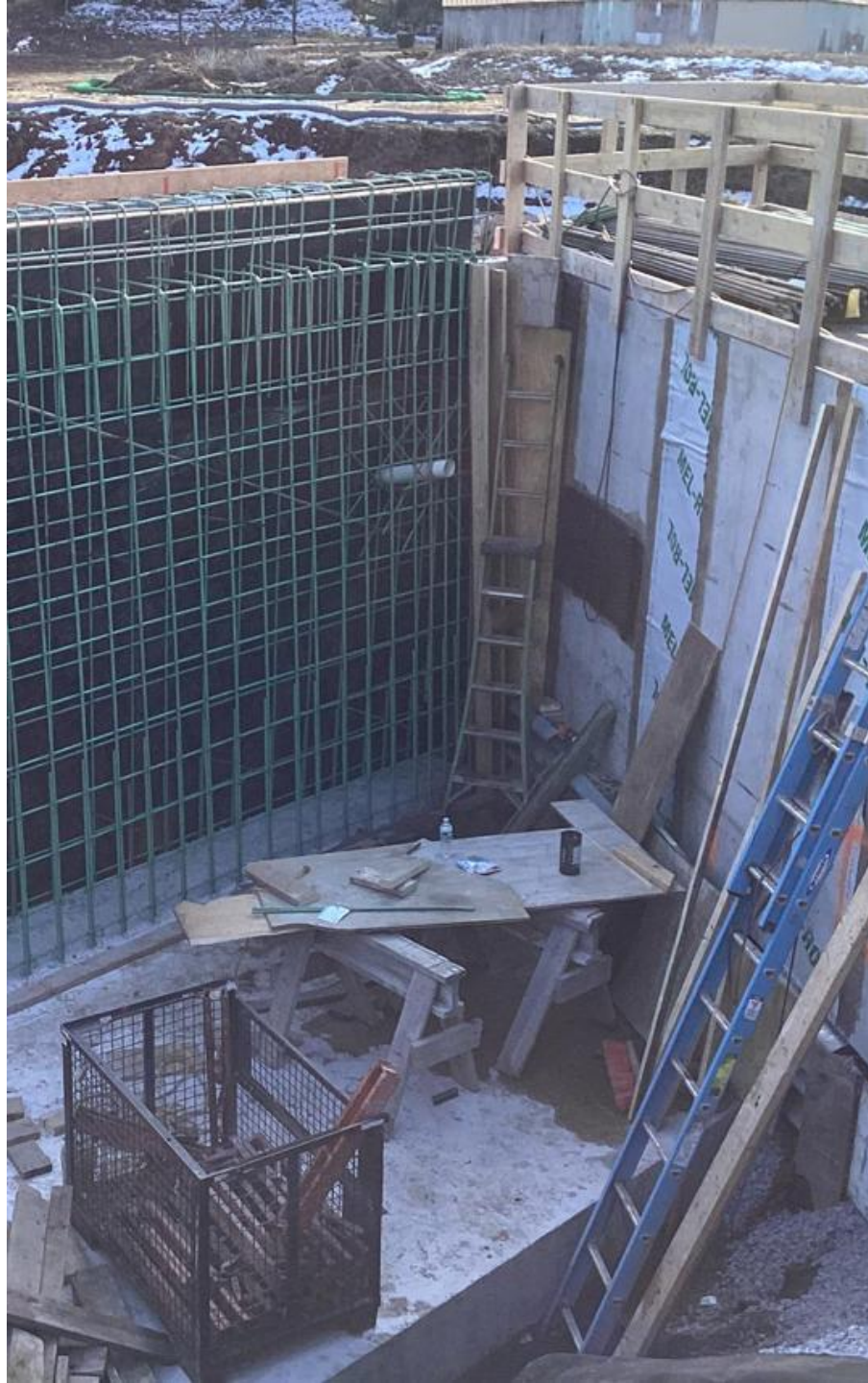


Culvert Construction



Retaining Wall Construction

- (2) Cast-in-Place Retaining Walls
- 562 CY of Class 3 Excavation
- 64CY of Concrete
- 5,600LBS of Rebar



Retaining Wall Construction

An aerial photograph showing a bridge under construction over a river. The bridge deck is a light gray concrete, with yellow dashed lines marking the lanes. A concrete barrier runs along the edge of the bridge. The river is dark brown, and the surrounding landscape is green with some rocky areas. A red vertical bar is visible on the left side of the image.

Structure Construction

- (5) 48" x 30" Prestressed Concrete Beams
- 4,026 CY of Class 3 Excavation
- 3,994CY of Structure Backfill
- 683CY of Concrete
- 5,600LBS of Rebar
- 483SY of Epoxy Overlay
- 280LF PA Type 10M Bridge Barrier



Structure Construction



Structure Construction



Roadway Reconstruction

- Full Depth Reconstruction
- New Guiderail Installation
- New Pavement Markings
- New Signage
- Vegetative Swales
- Utility Access Road



Roadway Reconstruction

The Crew



EM

Eustace Marsham

Foreman

DS

Daniel Sanchez

Crew Leader & Carpenter

GT

George Topper

Carpenter

JF

Jay Foust

Carpenter

MB

Myron Bailey

Carpenter

TW

Tyler Wolff

Heavy Equipment
Operator

CT

Christopher Tobolski

Heavy Equipment
Operator

A scenic view of a concrete bridge crossing a river. The bridge has a single arch and a small culvert on the right side. A winding road with yellow and blue markings leads from the bridge into a wooded area. The background is filled with trees, some with autumn foliage. A small white building is visible on the left side of the road.

THANK YOU
ASHE East Penn!

Questions?

