

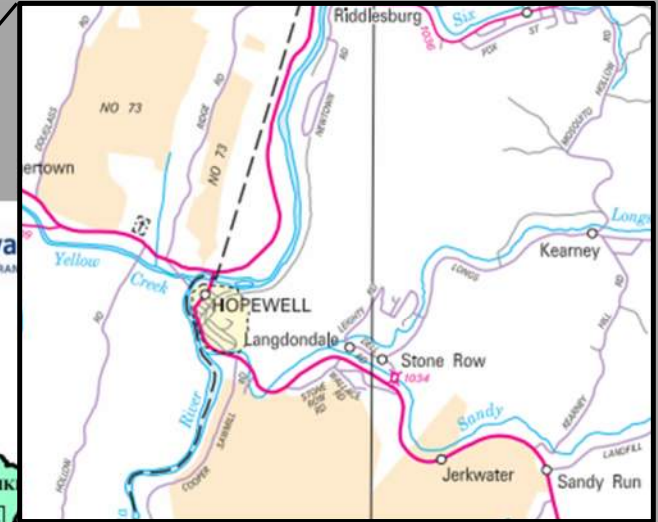
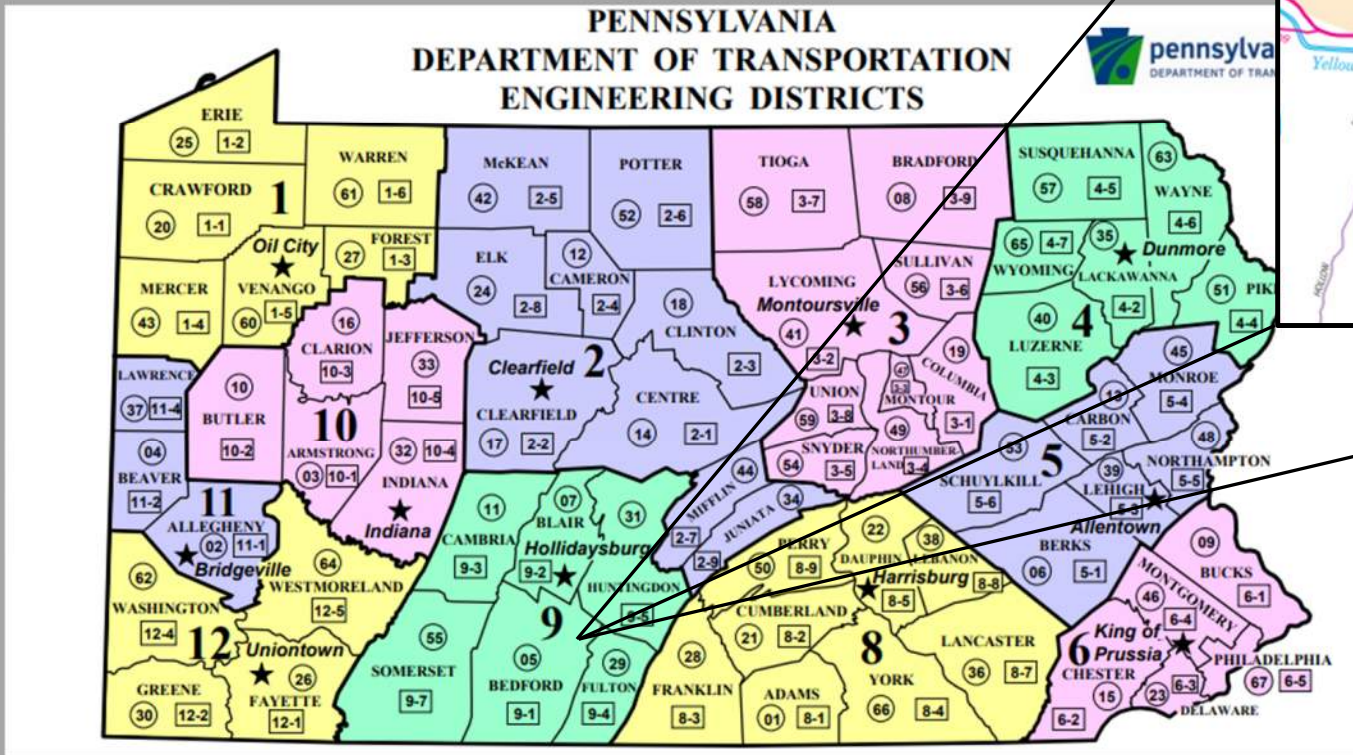


Hopewell Bridge and Intersection Project

SR 0915 Section 03B and SR 0026 Section 022

ASHE Altoona / PennDOT District 9-0 Joint Workshop April 18, 2022

Project Location



Bedford County
Hopewell Borough,
Broad Top Township,
Hopewell Township

Project Highlights

- Challenging geologic conditions
 - Bridge and retaining wall foundations, temporary shoring systems
 - Rock excavation and rock slope scaling
- Temporary traffic control through site to avoid lengthy detour routes
- Constructability challenges
 - Work space constrained by terrain, river, traffic maintained through project
 - Required close design attention to details – constructability reviews and project sequence and CPM scheduling
- Flexibility during design
- Public involvement / information



Project Site

Google Earth

Project Site



Project Objectives

Improve geometry at PA 915 and PA 26 intersection

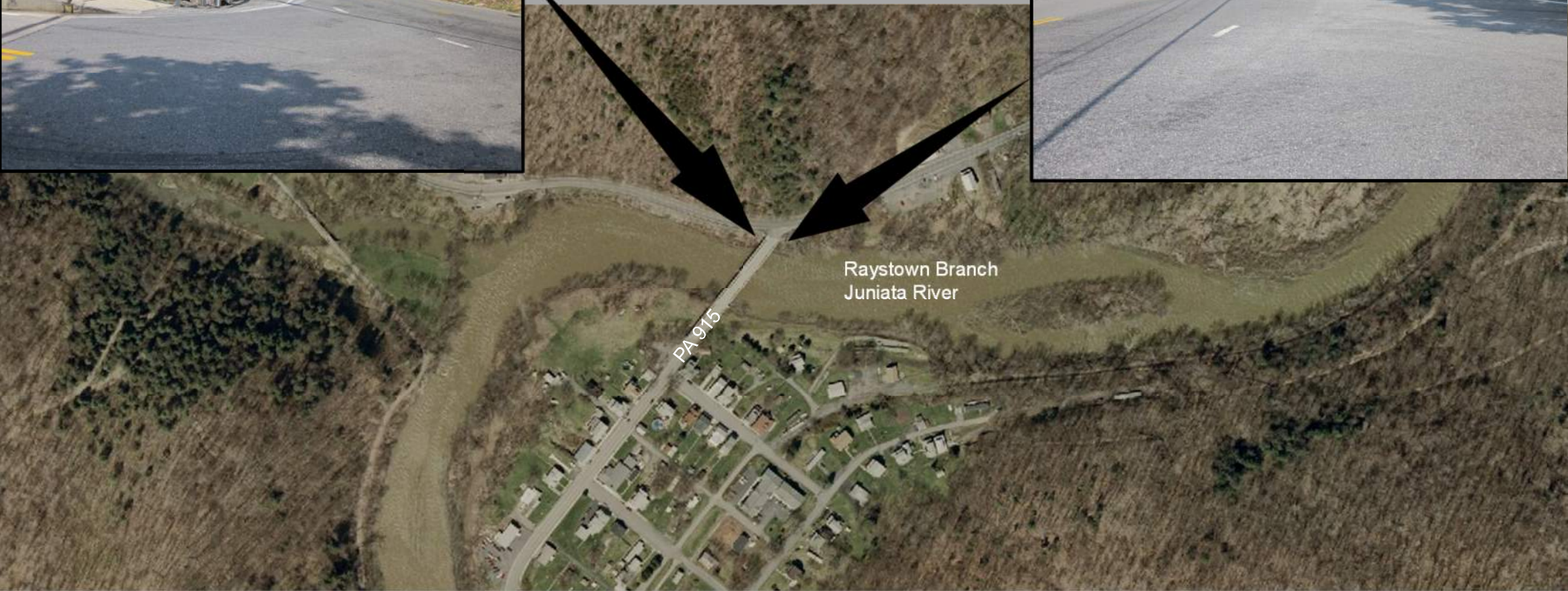


Project Objectives

Turning movements

Sight distance for
Southbound left turns
to PA 915









Project Objectives

Improve sight distances and reduce potential for rock fall along PA 26







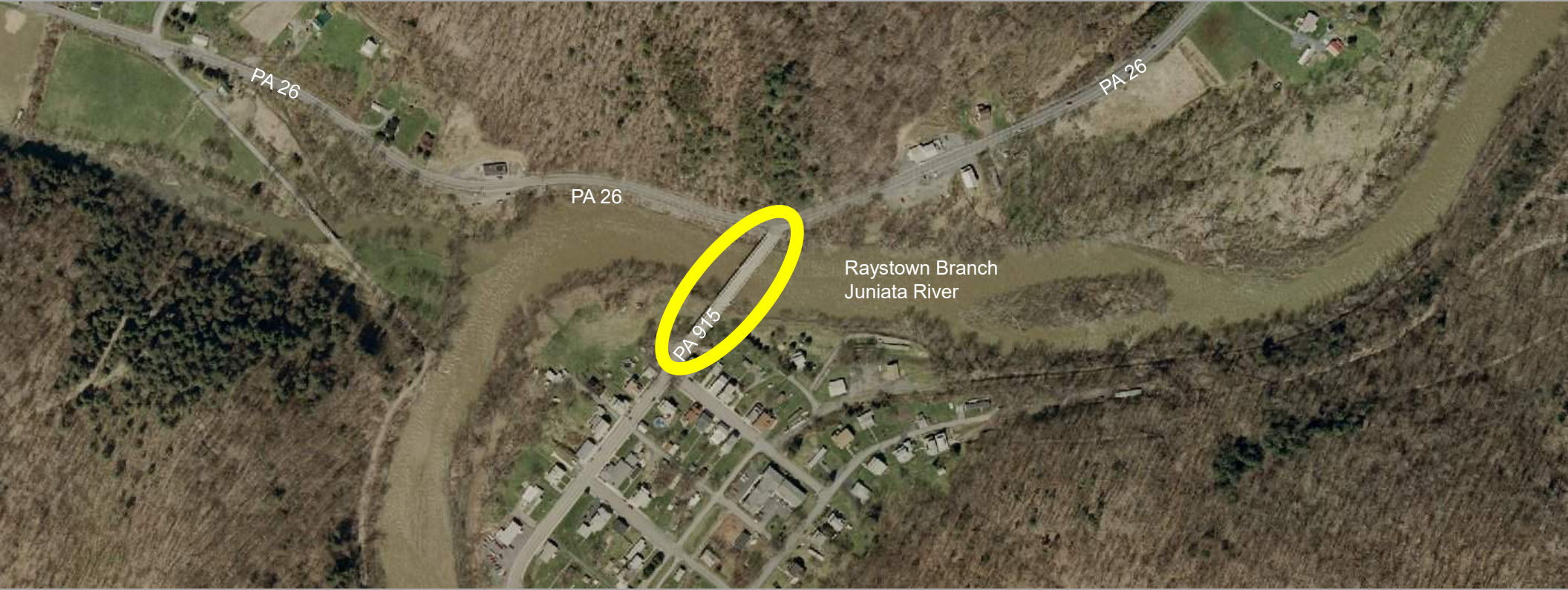
Project Objectives

Address deficiencies in meeting current design criteria



Project Objectives

Replace existing bridge



- Pony truss bridge

- 3 spans (113'-4")
- 62 degree skew
- Constructed 1936
- Deck replacement 1985





Project Objectives

Maintain traffic without detours



Utilities



Utilities



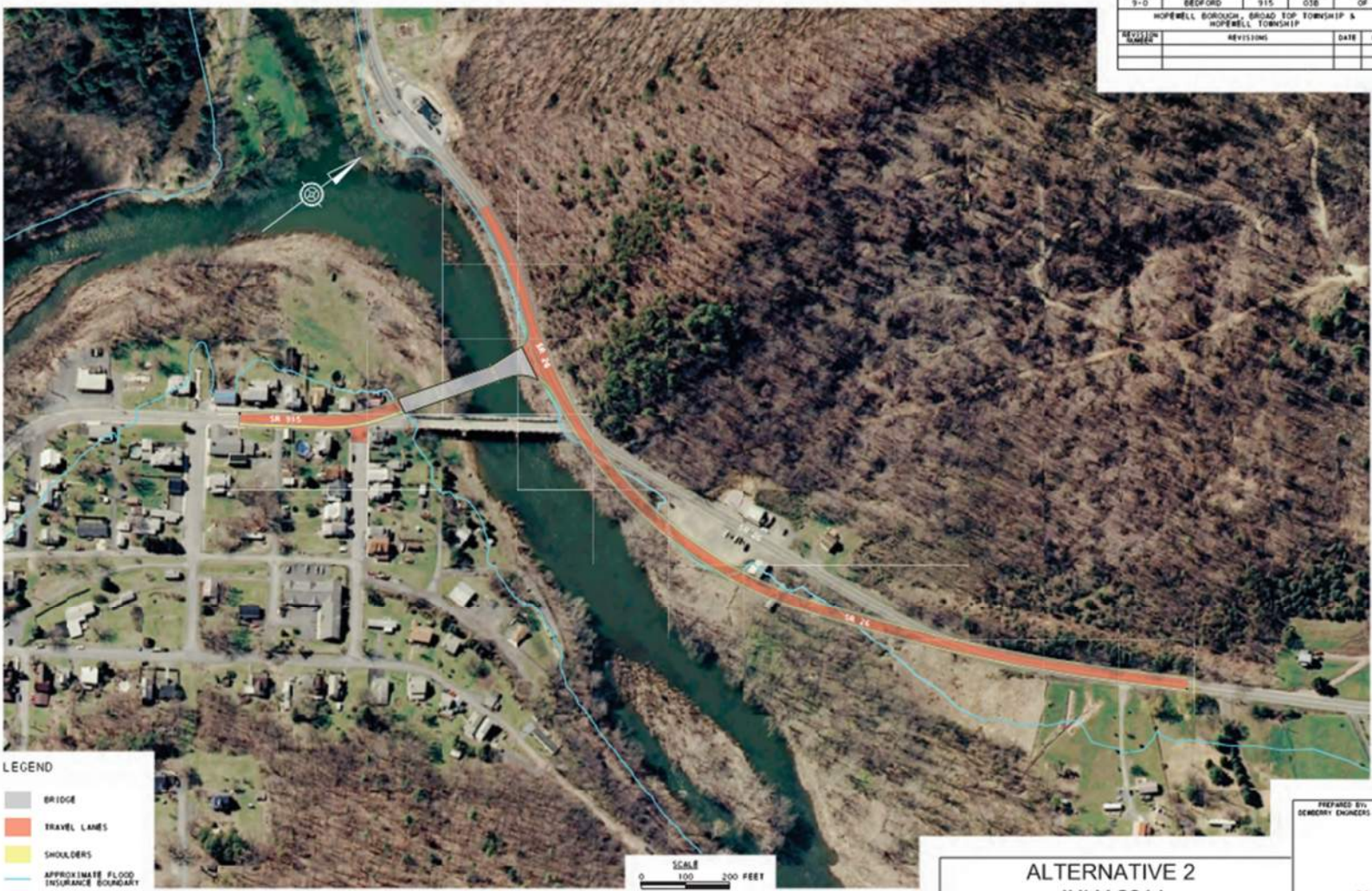
Adjacent Properties





Alternatives Studied

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
9-0	BEDFORD	915	03B	OF
HOPWELL BOROUGH, BROAD TOP TOWNSHIP & HOPWELL TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



ALTERNATIVE 2
JULY 2014

PREPARED BY:
DEWBERRY ENGINEERS INC.

11

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
9-0	BEDFORD	915	05B	OF
HOPWELL BOROUGH, BRADY TOWNSHIP & HOPWELL TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



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PREPARED BY:
 DEWBERRY ENGINEERS INC.

ALTERNATIVE 5
 MAY 2013

14

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
9-D	BERGORD	915	05B	OF
HOPEWELL BOROUGH - BRAD TOP TOWNSHIP & HOPEWELL TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



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ALTERNATIVE 6
MAY 2013

15

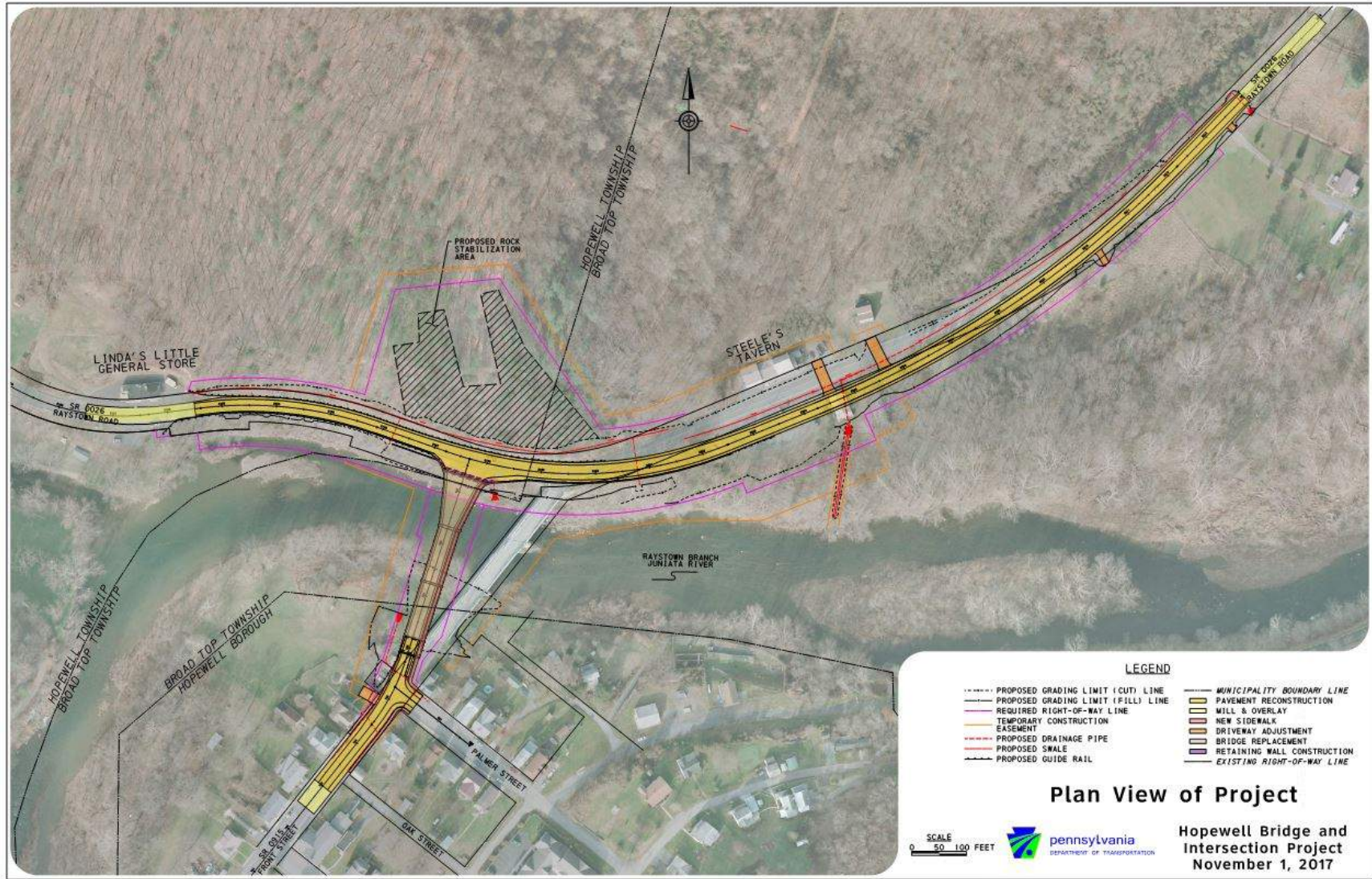
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
9-0	BEDFORD	915	010	OF
HOPWELL BOROUGH, BROAD TOP TOWNSHIP & HOPWELL TOWNSHIP				
SECTION NUMBER	REVISIONS	DATE	BY	



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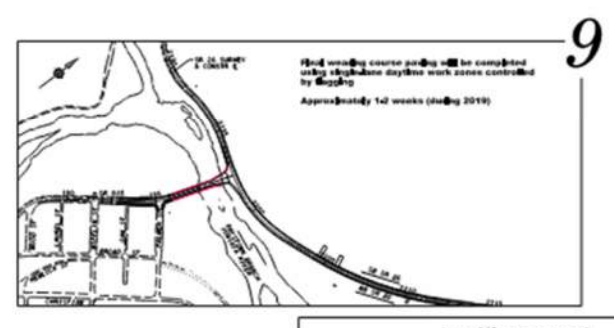
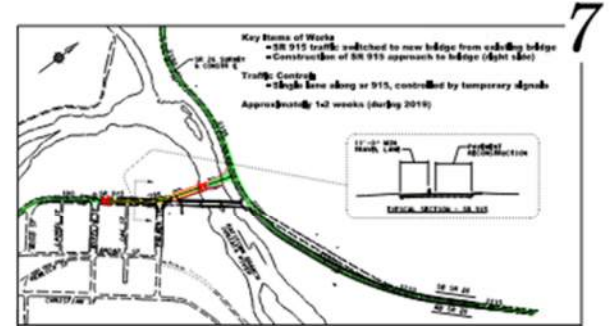
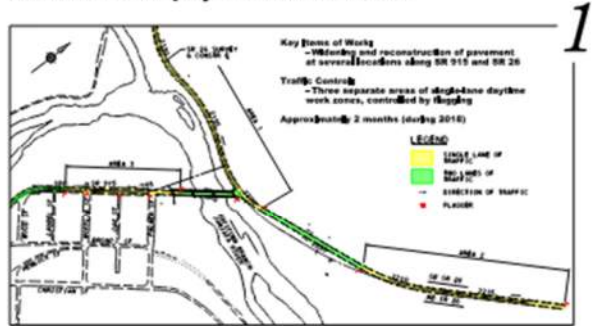
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Temporary Traffic Control

A series of multiple traffic control patterns will be used to construct the project without a detour

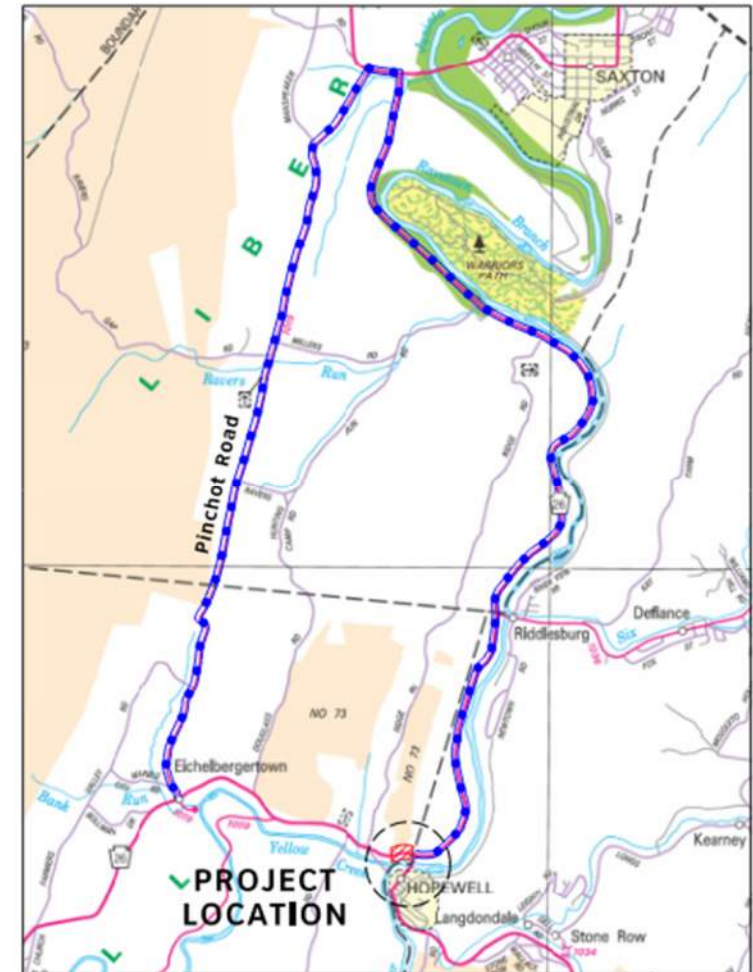


Optional detour was added to the Traffic Control Plan to address the critical rock excavation phase

Detour Notes

- Maximum 40 Day duration (June 11 - August 19, 2018)
- Used for rock slope stabilization & excavation only
- SR 26/ SR 915 Intersection will remain open
- Anticipated Summer 2018
- No impact to school bus routes
- Financial incentives for early removal of detour by Contractor
- Contractor assessed Liquidated Damages if detour duration is exceeded

Project Detour



Detour Length: 12.0 Miles

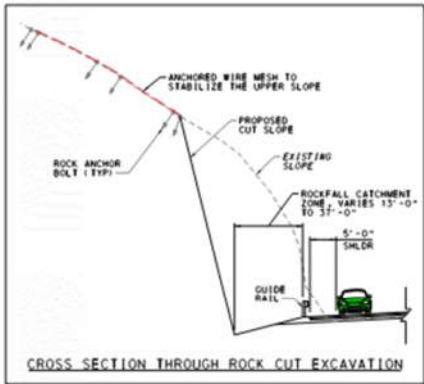
Single lane traffic zone along PA 26



Temporary signalization at intersection



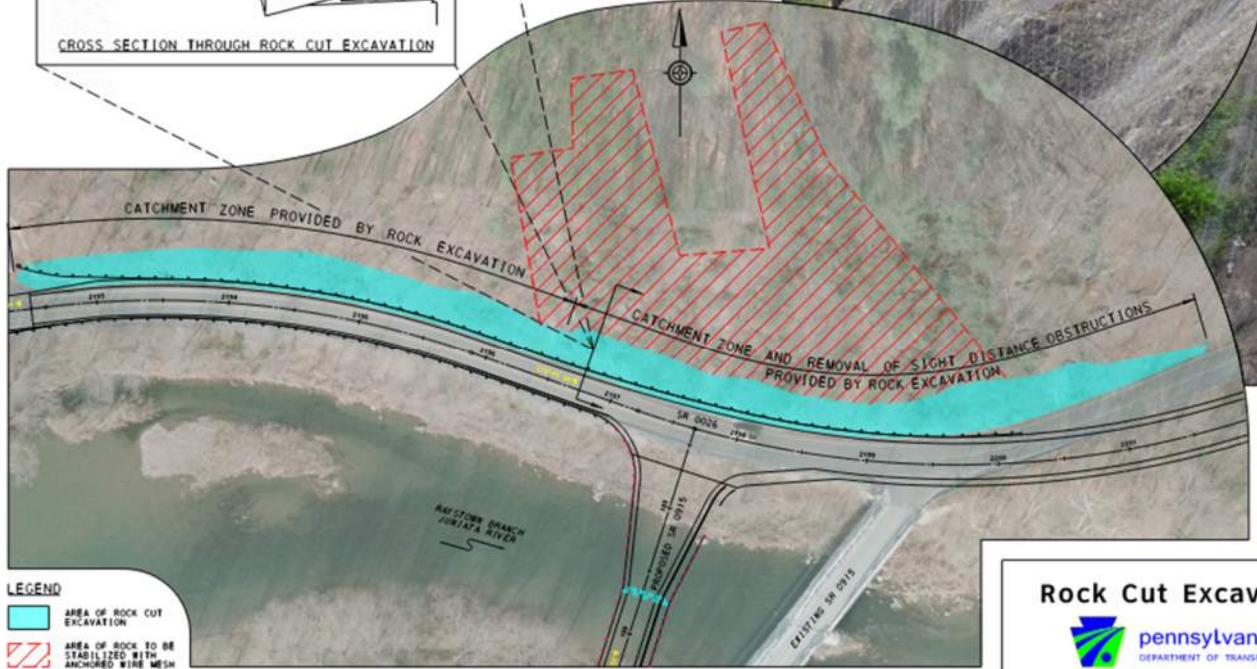
Rock Slope Excavation and Rock Scaling



PHOTOS COURTESY OF:
GANNETT FLEMING



TYPICAL INSTALLATION OF ANCHORED WIRE MESH

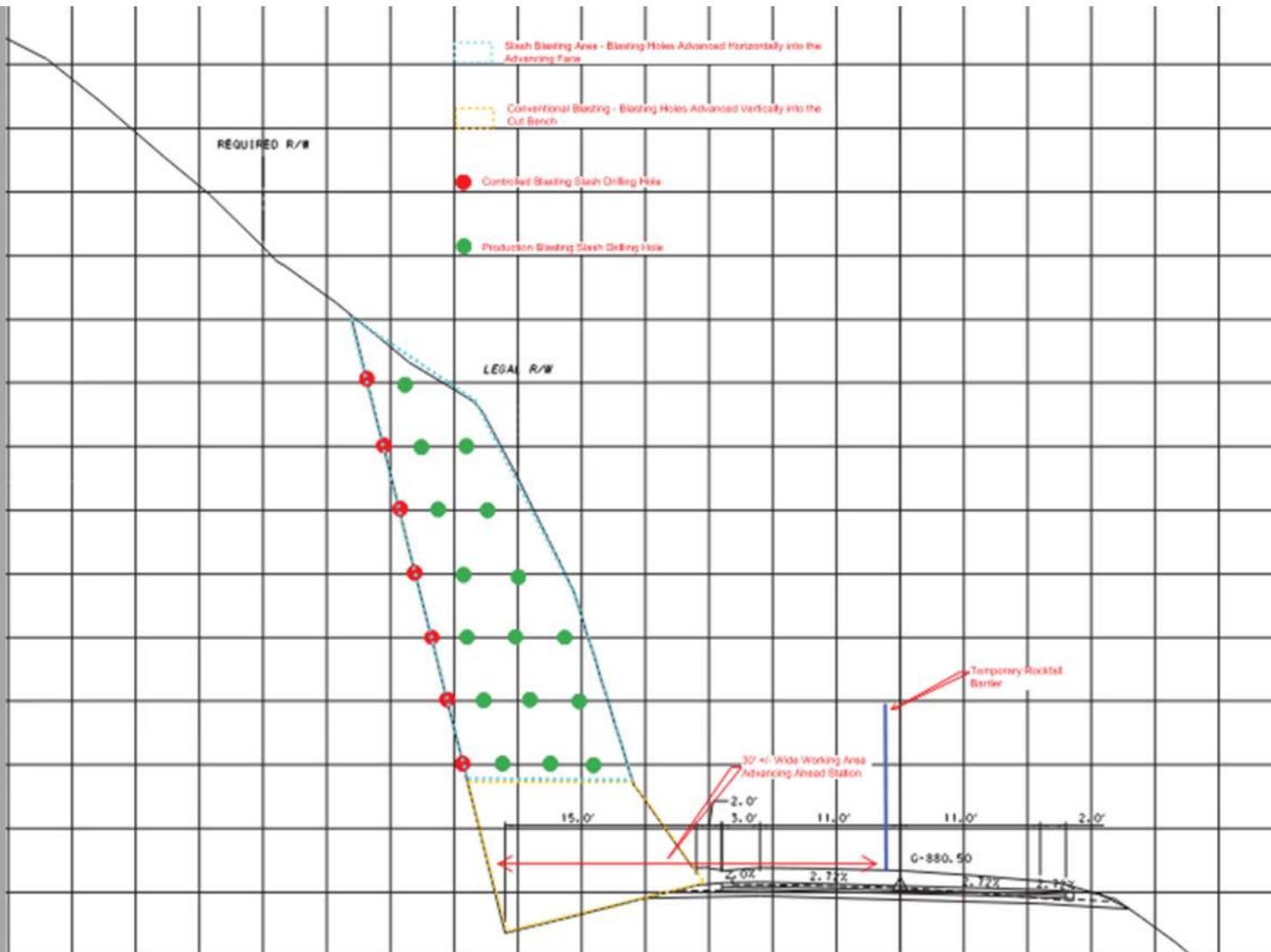


- LEGEND**
- AREA OF ROCK CUT EXCAVATION
 - AREA OF ROCK TO BE STABILIZED WITH ANCHORED WIRE MESH

Rock Cut Excavation and Stabilization



Hopewell Bridge and Intersection Project
November 1, 2017



Project Construction - July 2019



Project Construction - July 2019



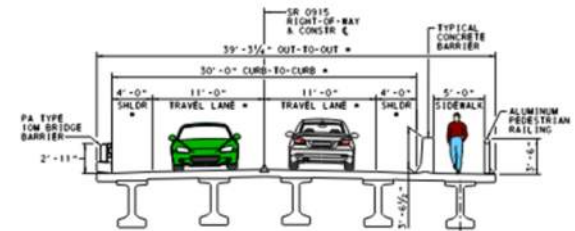
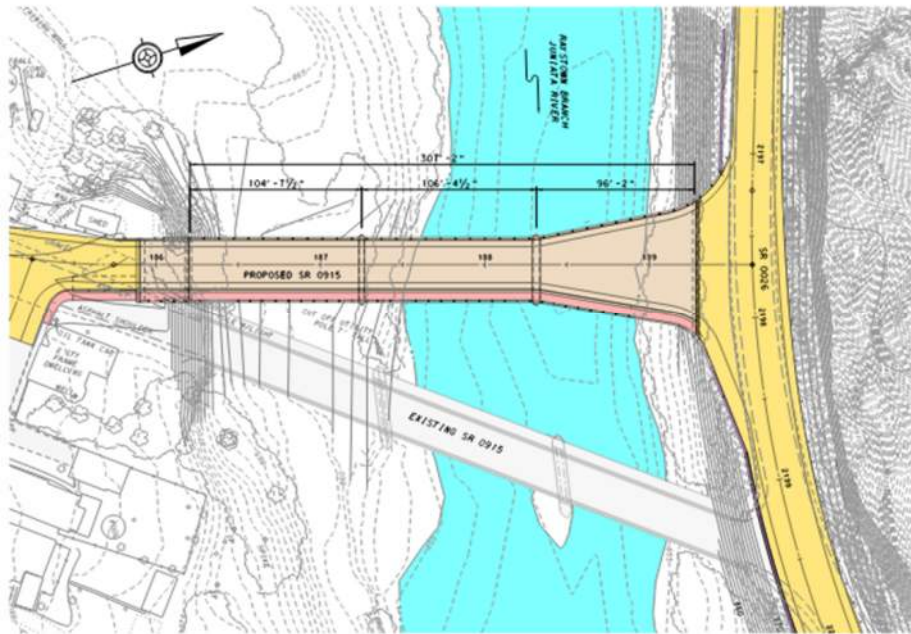
Project Construction - July 2019



Project Construction - July 2019



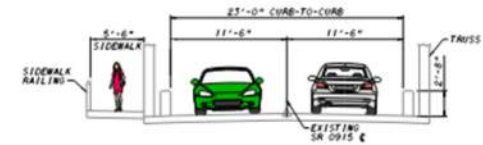
Bridge Replacement



PROPOSED SR 0915 BRIDGE

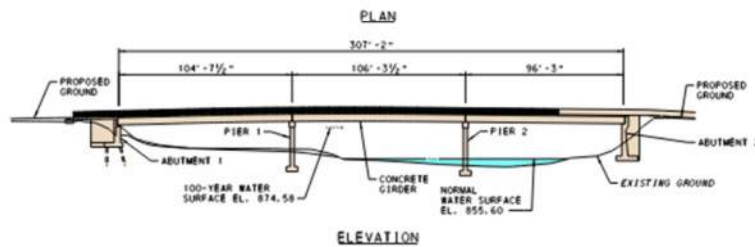
NOT TO SCALE

NOTE: SPAN 1 & 2 AS SHOWN
SPAN 3 VARIES FOR APPROACH
TO SR 0026 INTERSECTION



EXISTING SR 0915 BRIDGE

NOT TO SCALE



LEGEND

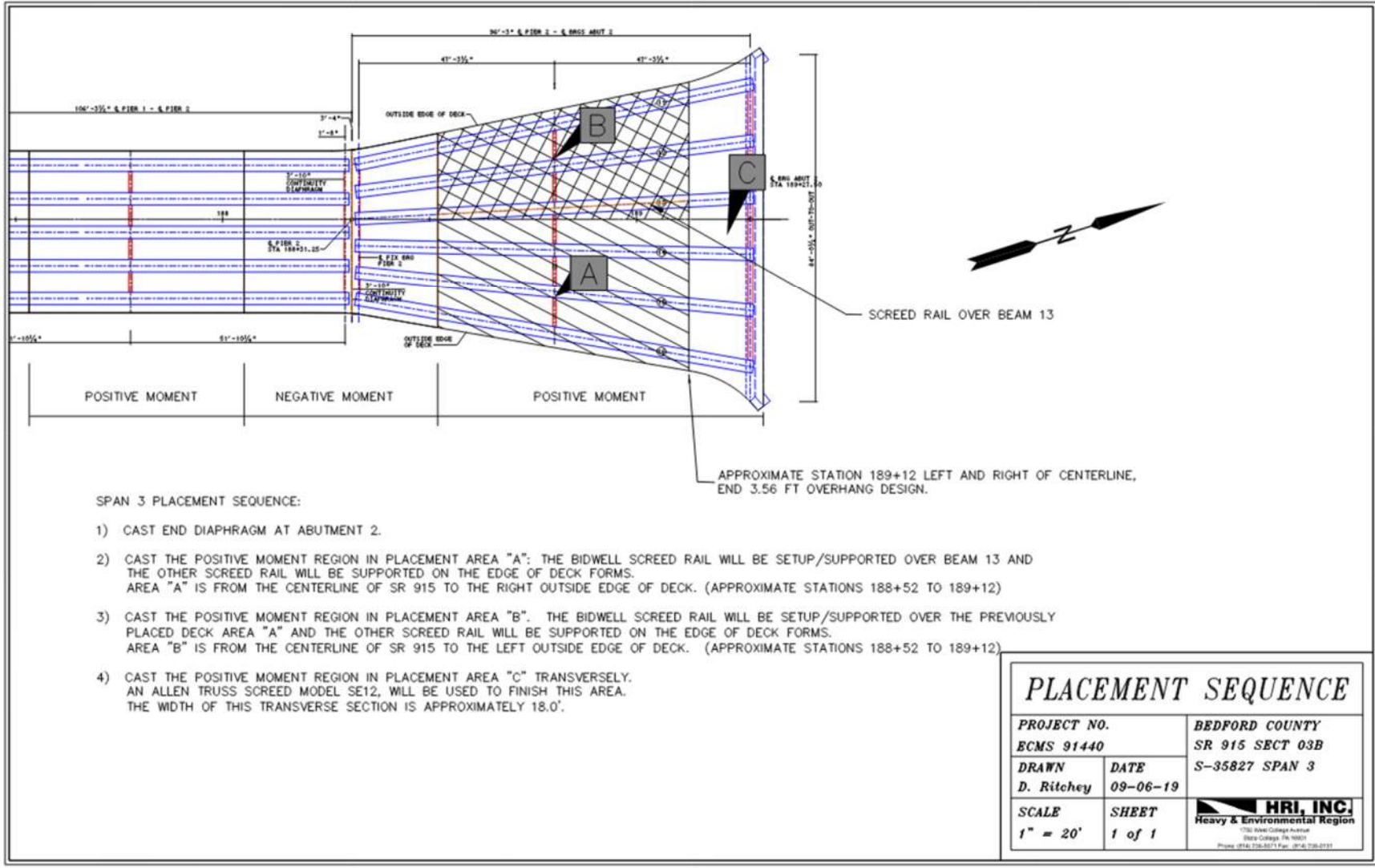
- PROPOSED ROADWAY PAVEMENT & SHOULDER
- PROPOSED SIDEWALK
- PROPOSED BRIDGE
- PROPOSED RETAINING WALLS
- WATER
- EXISTING BRIDGE & PAVEMENT

SCALE
0 25 50 FEET

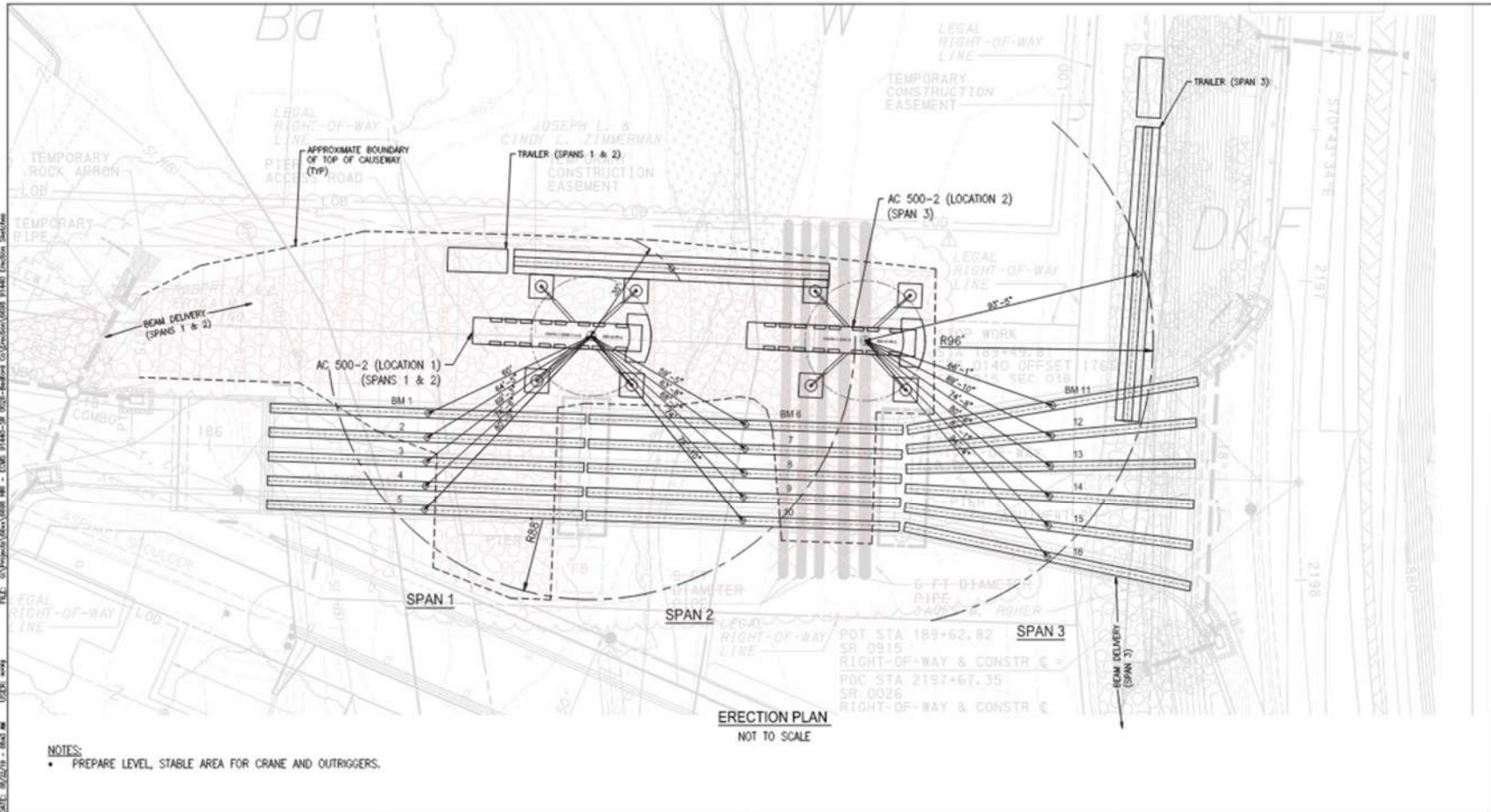
Proposed Bridge



**Hopewell Bridge and
Intersection Project**
November 1, 2017







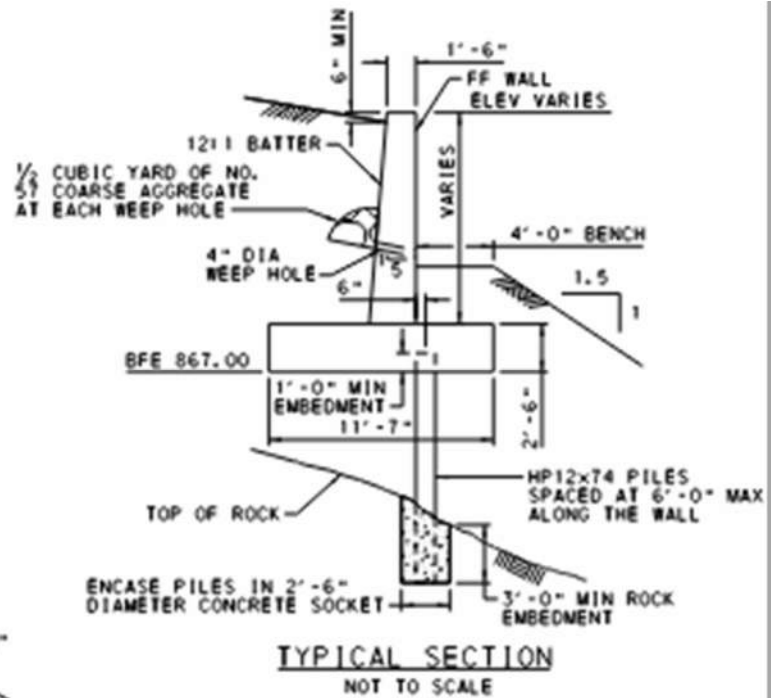
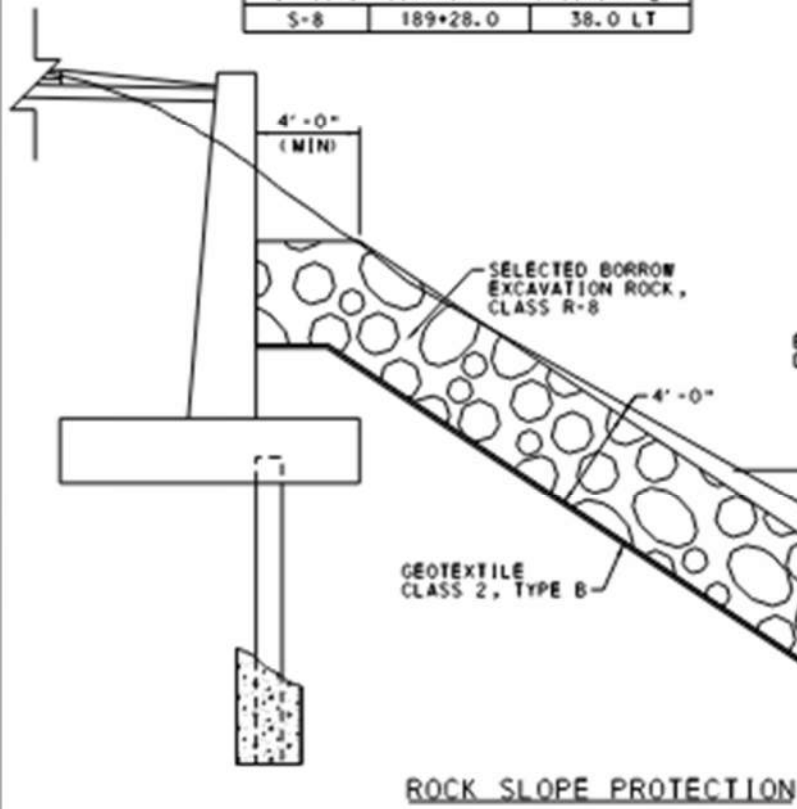
NOTES:

- PREPARE LEVEL, STABLE AREA FOR CRANE AND OUTRIGGERS.

Project Construction - July 2019



AS-DRILLED BORING LOCATIONS		
BORING	STATION	OFFSET
SR 0026 RIGHT-OF-WAY & CONSTR C		
W-1	2196+25.0	10.5 RT
W-2	2196+67.0	37.0 RT
W-3	2197+05.0	10.3 RT
SR 0915 RIGHT-OF-WAY & CONSTR C		
S-8	189+28.0	38.0 LT







SR 26 Retaining Wall

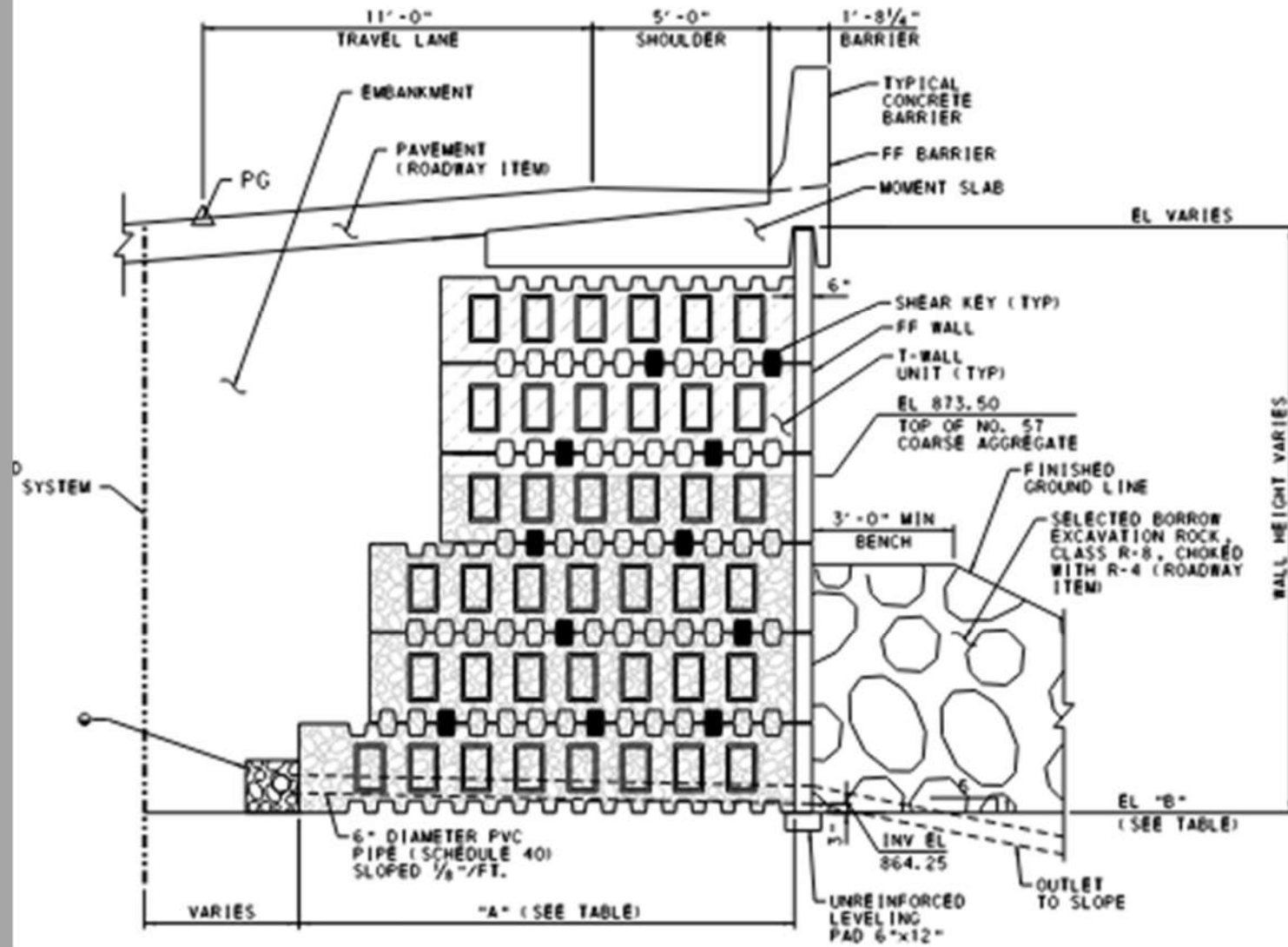


T-Wall

Precast Modular Block Retaining Wall

Max. Wall Ht. ~19'

Stem Lengths varied from 8' to 20'



Completed Project



Jun 4, 2020 2:11:27 PM
111 Palmer Street
Hopewell
Bedford County
Pennsylvania

Completed Project



Completed Project



Completed Project



Completed Project



Completed Project







Design Consultant Team

- Dewberry
- Gannett Fleming, Inc.
 - Rock cut geotechnical engineering
- Monaloh Basin Engineers
 - Field surveys
 - Right-of-Way plan
- Stell Environmental Enterprises, Inc.
 - Environmental studies, NEPA clearance



Questions ?

