

# Royersford - Spring City Bridge Rehabilitation

Royersford & Spring City, PA  
Main Street / Bridge Street (State Route 1043) over the Schuylkill River

**PennDOT District 6-0**

Steve Laws

Assistant Construction Engineer

**Designer: TranSystems**

Michael J. Cuddy, P.E.

Principal

July 11<sup>th</sup>, 2011

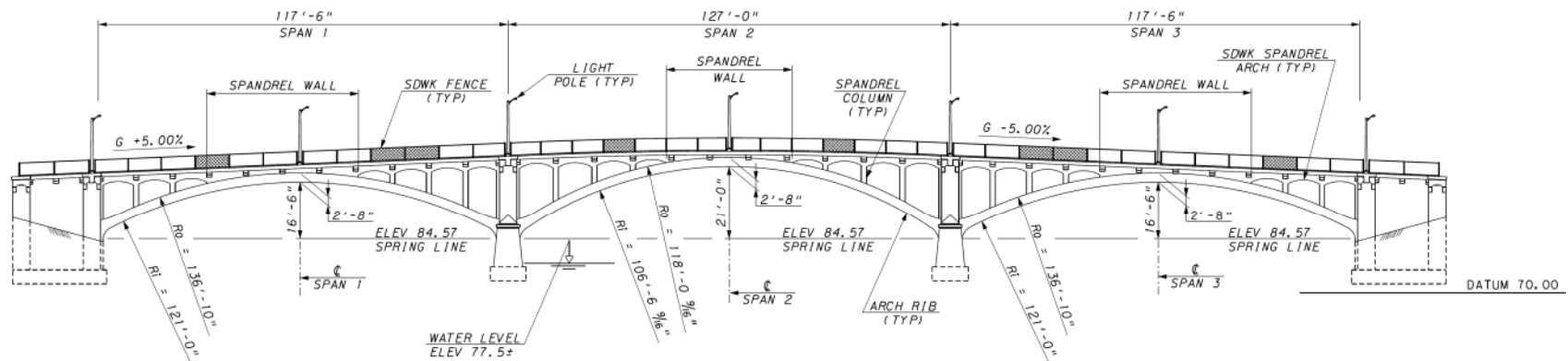
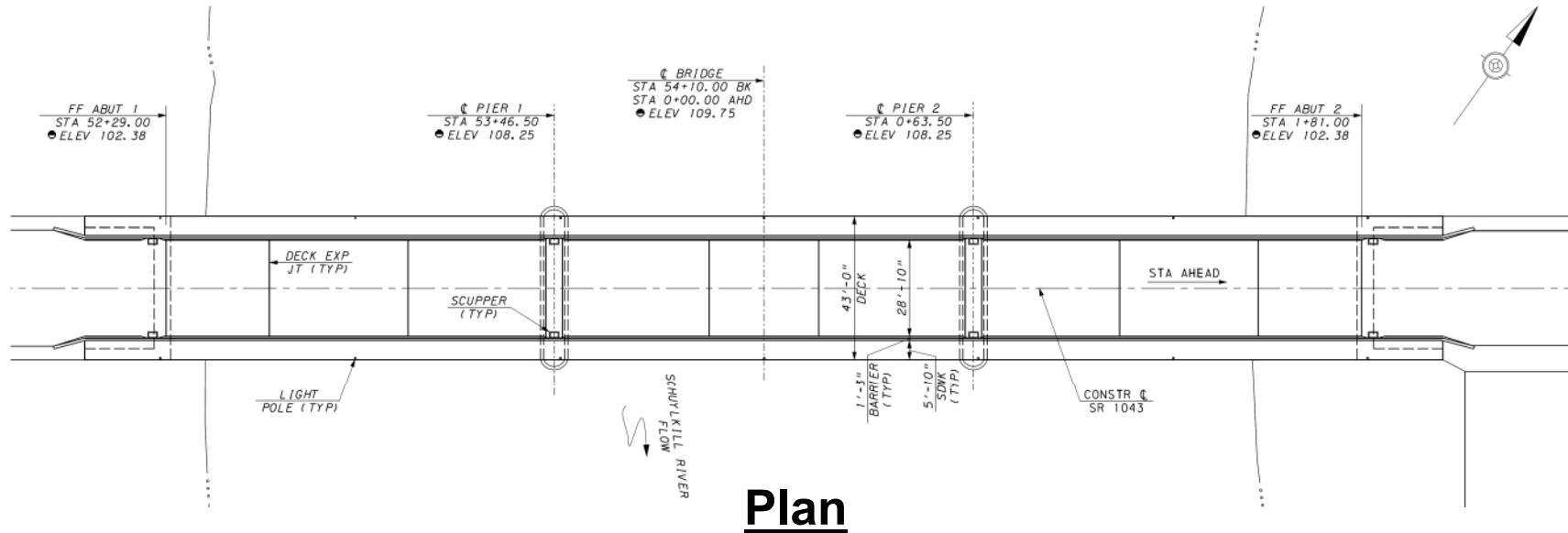


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# Bridge – Plan & Elevation



# Elevation – Open Spandrel Arch



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# Roadway Section



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# Current Condition – Wearing Surface



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## Previous Repair Work – Emergency Deck Repairs (August 2005)



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# Current Condition – Hole in Deck Found During Construction



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## Current Condition – Arch Ribs (Deteriorated Concrete Removed)



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## Current Condition – Spandrel Columns (Deteriorated Concrete Removed)



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## Current Condition – Floorbeams (Deteriorated Concrete Removed)



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# Current Condition – Floorbeams (Supplemental Supports)



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# Concrete Repairs – Underside (Patching Material Placed)



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# Original Rehabilitation Program

## ➤ Deck

- Remove Existing Bituminous Wearing Course & Underlying Brick Pavers
- Repair Original Slab as Required & Provide ¼" Deep Scarification
- Install Latex Modified Concrete Wearing Surface (1 ¼" Thickness)

## ➤ Arch Ribs, Spandrel Columns & Substructure

- Concrete Repairs

## ➤ Floorbeams

- Support Beam Retrofit

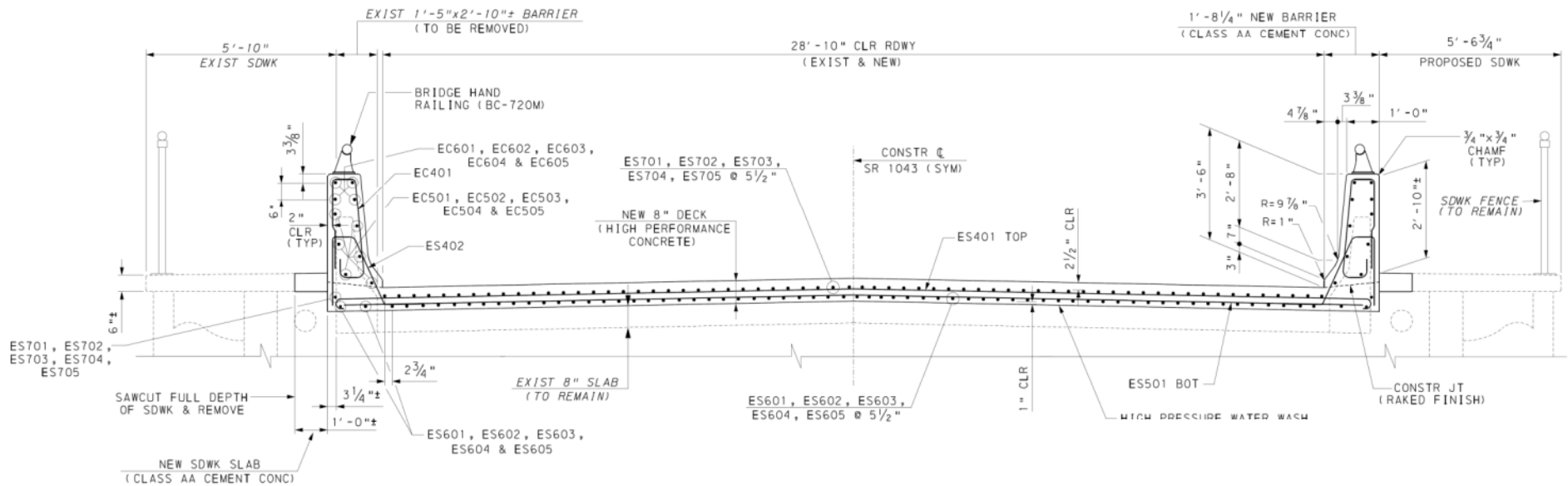
## ➤ Construction Timeline

- Work anticipated to be completed by Fall 2011 utilizing nighttime and weekend bridge closures.

# Accelerated Revised Deck Rehabilitation Program

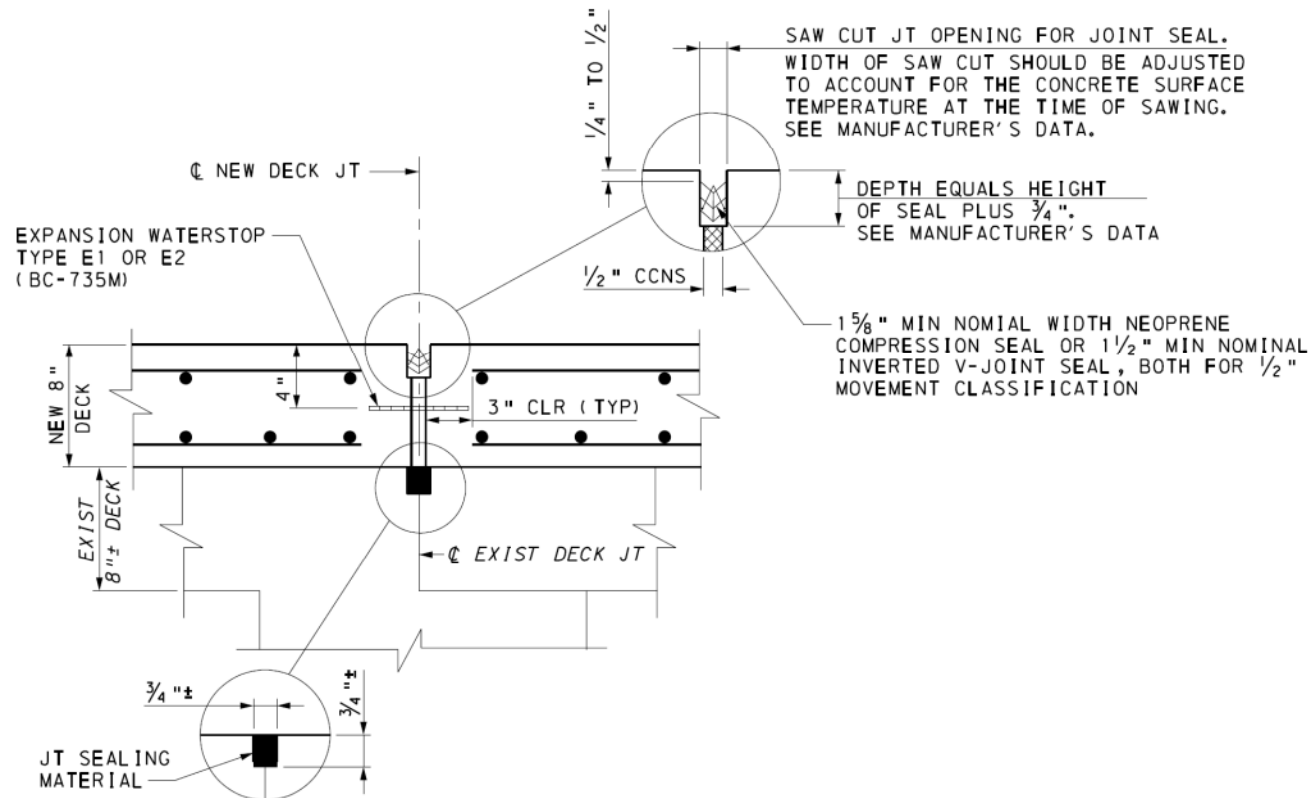
- Remove Existing Bituminous Wearing Course, Underlying Brick Pavers & Existing Parapets
- Repair Original Slabs as Required
- Power Wash Original Slab
- Construct 8" Reinforced Deck Using High Performance Concrete Placed on Top of Original Slab
- Construct New Parapets with Pedestrian Railings on Top
- For the Safety of the Traveling Public and Our Construction Crews, this Work Necessitates Complete Closure and Detour for Approximately Eight Weeks. Construction Crews to Work "24/7, Around The Clock" to Complete the Work as Soon as Possible

# Rehabilitation – Roadway Surface



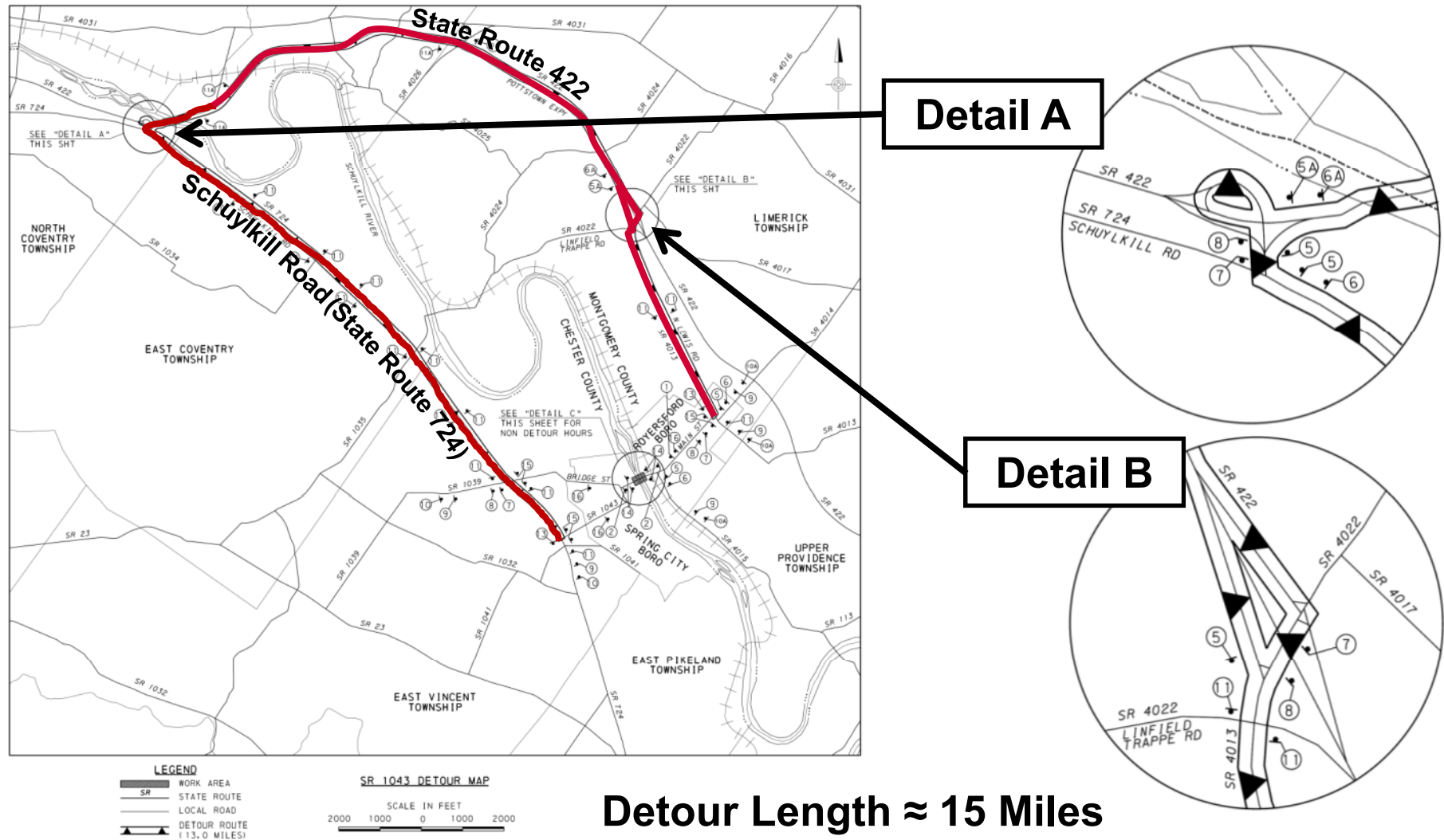
**Typical Section**

# Rehabilitation – Roadway Surface



## Typical Deck Expansion Joint Retrofit

# Detour



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Questions?

