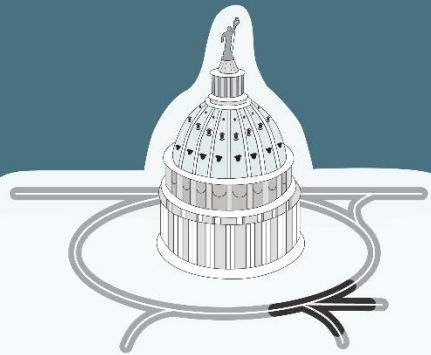




# I-83 EAST SHORE SECTION

## *Central PA's Big Friggin' Deal*



**HARRISBURG**  
I-83 CAPITAL BELTWAY  
SR 0083, SECTION 078  
DAUPHIN COUNTY, PA

**Becky S. Mease, PE, Senior Project Manager**  
**ACEC / PA Fall Conference**  
**November 20, 2019**



# Why is SR 0083 Sec 078 a Big Friggin' Deal??

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- Location, Location, Location
- History of Need for Improvements
- Magnitude of Improvements
- Challenges / Complexities
- Providing for the Future
- Project for ALL Users
- Forging Relationships
- Project Benefits





# Location, Location, Location



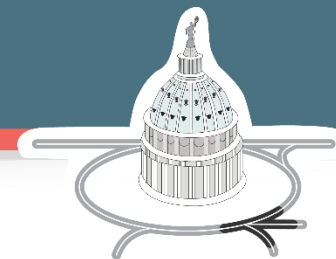
*Capital of  
Pennsylvania*

*1 Day Drive of 40% of the  
US Population which  
represents 60% of  
population buying power*

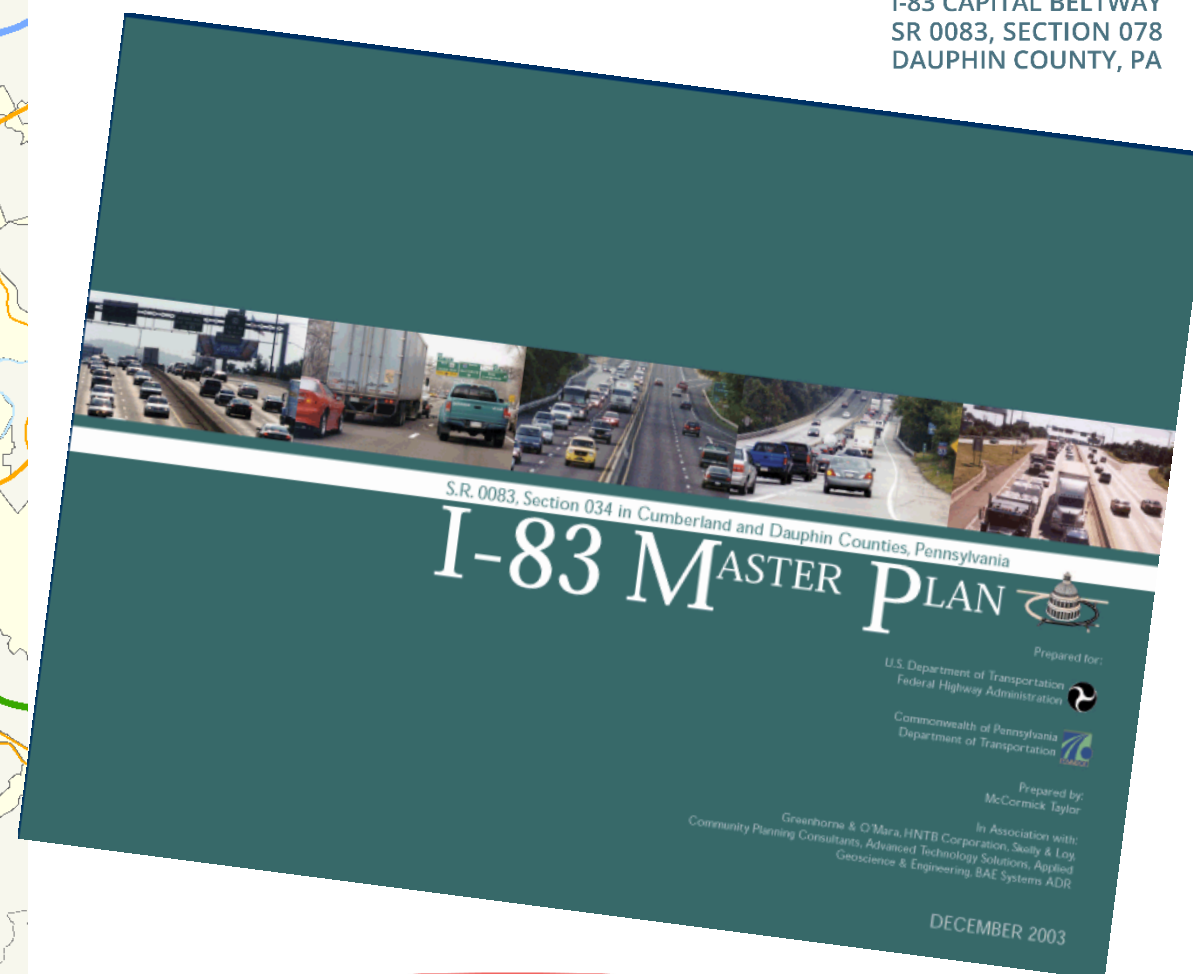
*Provides connections  
to Multiple Routes*

*Heaviest traveled road  
between Pittsburgh and  
Philadelphia*

# History of Need for Improvements

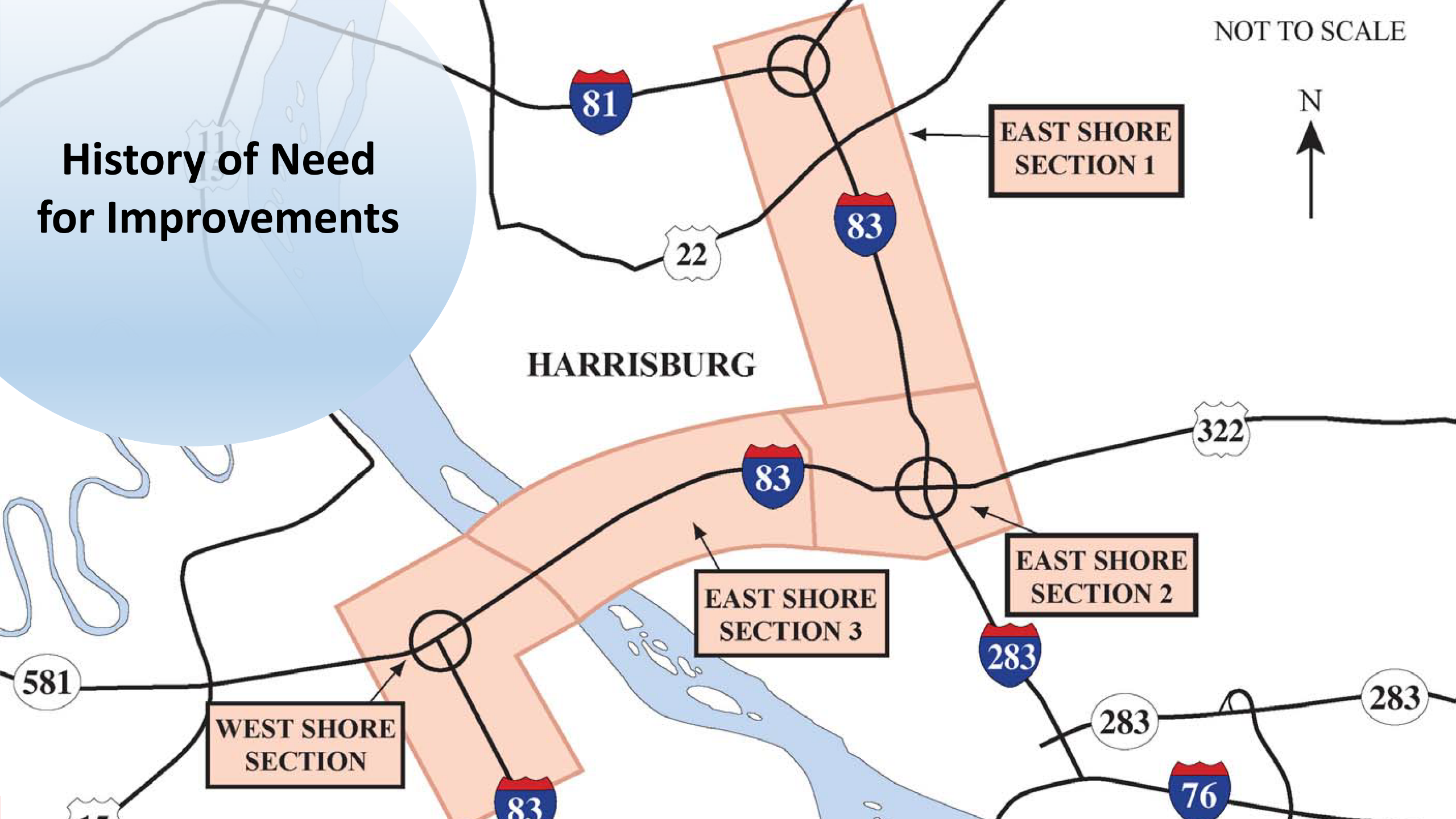


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DAUPHIN COUNTY, PA

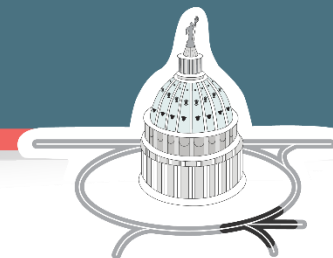
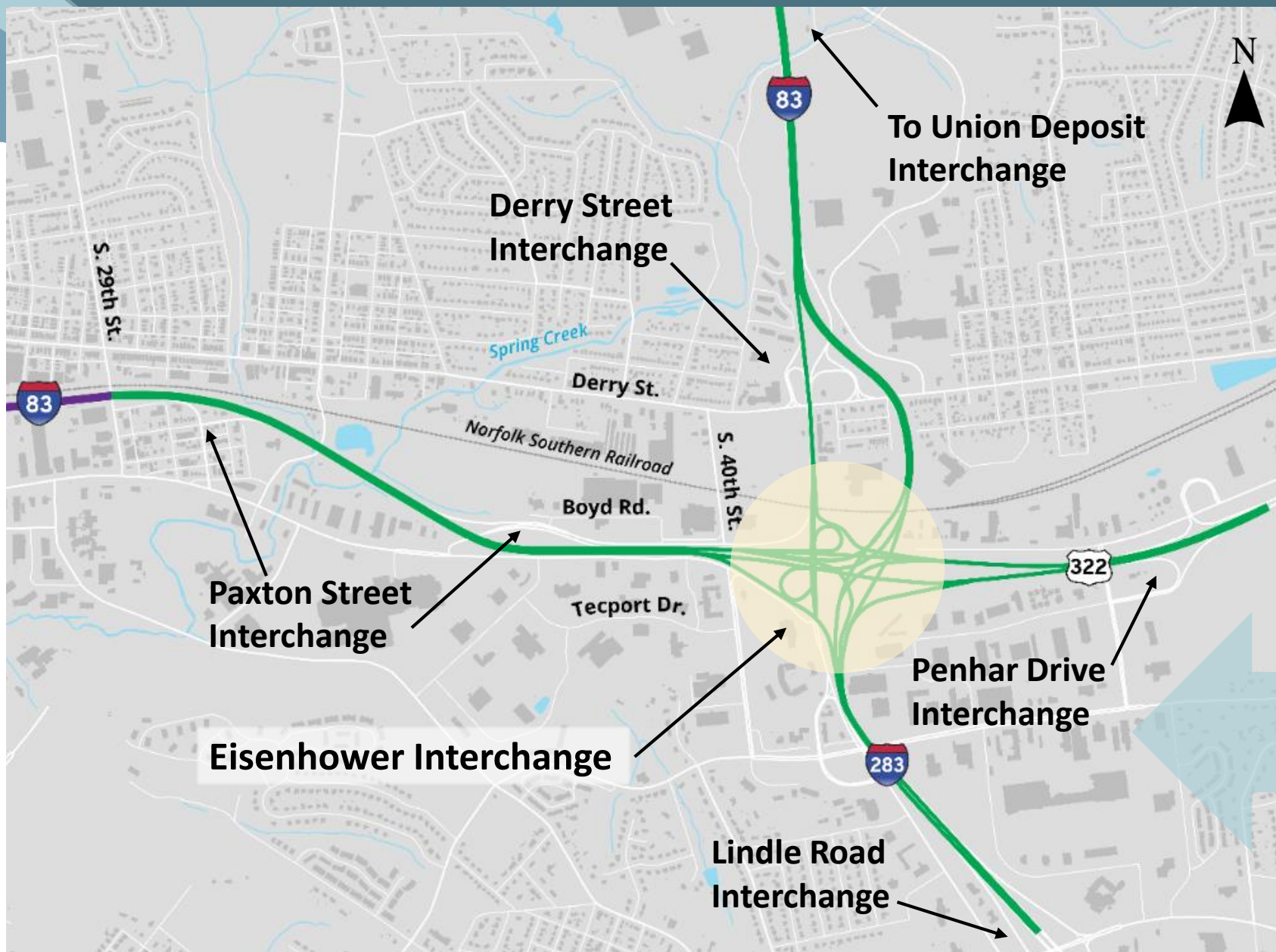




# History of Need for Improvements





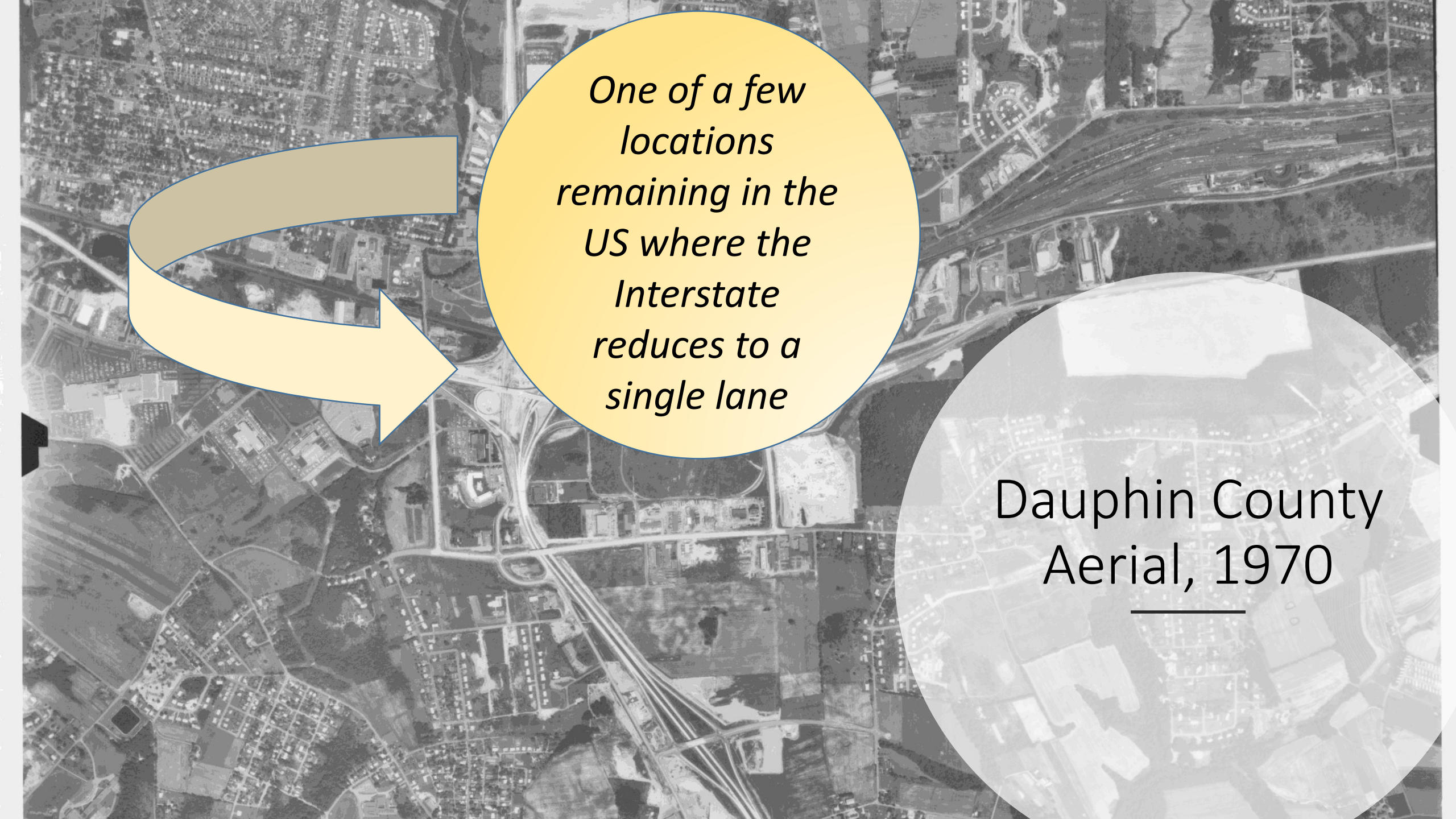


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SR 0083, SECTION 078  
DAUPHIN COUNTY, PA

*I-83 East Shore Section 2 also  
known as...*

*SR 0083 Sec 078,  
Eisenhower Interchange  
Reconstruction Project*





*One of a few  
locations  
remaining in the  
US where the  
Interstate  
reduces to a  
single lane*

Dauphin County  
Aerial, 1970





Need #1: Deterioration of the Existing Roadway

Need #2: Congested Conditions from High Traffic Volumes

Need #3: Operational Safety Concerns from Substandard Design Characteristics

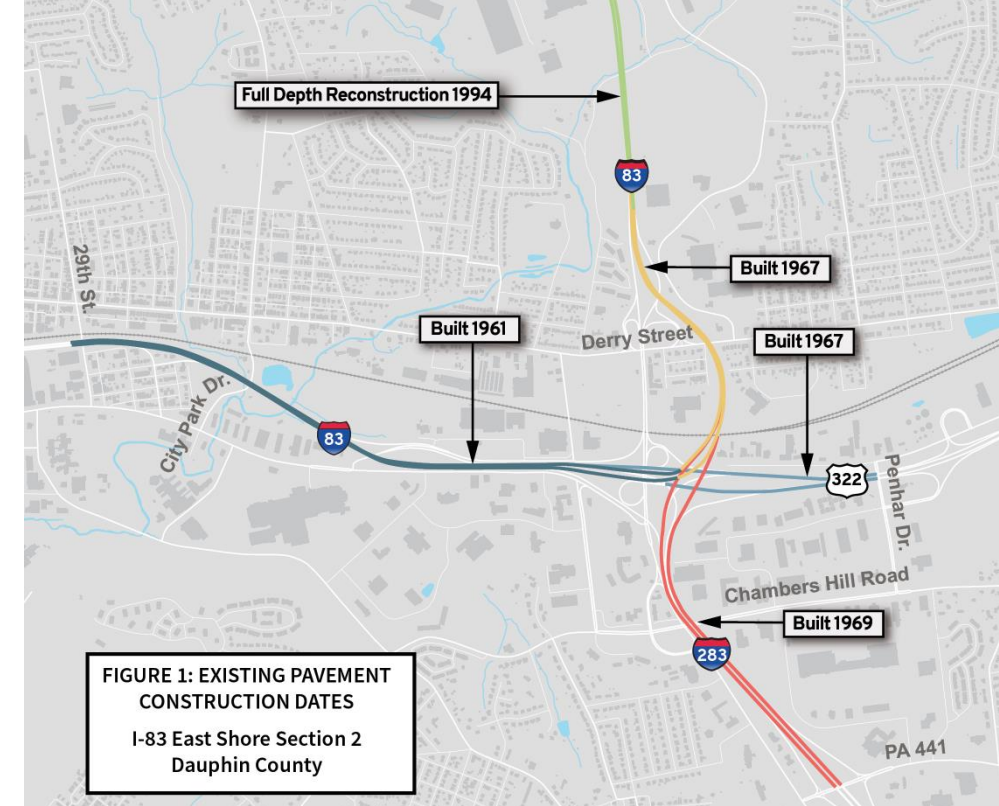
Need #4: Existing Local Roadway Network Impedes North/South Mobility

## Project Needs



# History of Need for Improvements

Need #1:  
Deterioration of the Existing Roadway





*~90% of AM & PM Peak  
2050 No-Build, LOS F*

*I-83 No-Build ADT  
between 112,000  
– 138,000 VPD*



## History of Need for Improvements



**Need #2: Congested Conditions from High  
Traffic Volumes**



# History of Need for Improvements

Need #3: Operational Safety Concerns from Substandard Design Characteristics

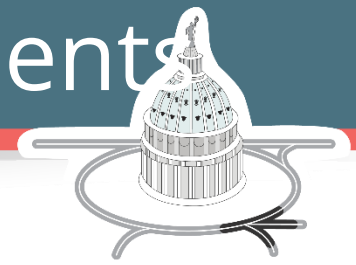
- Interstate lanes below minimum number (Single Lane within Interchange)
- Short merge and weave lanes
- Narrow median / shoulders
- Interstate ramps within residential neighborhoods

*Crash Rates > State Average for Majority of Mainline Segments & Interchange Ramps*





# History of Need for Improvements

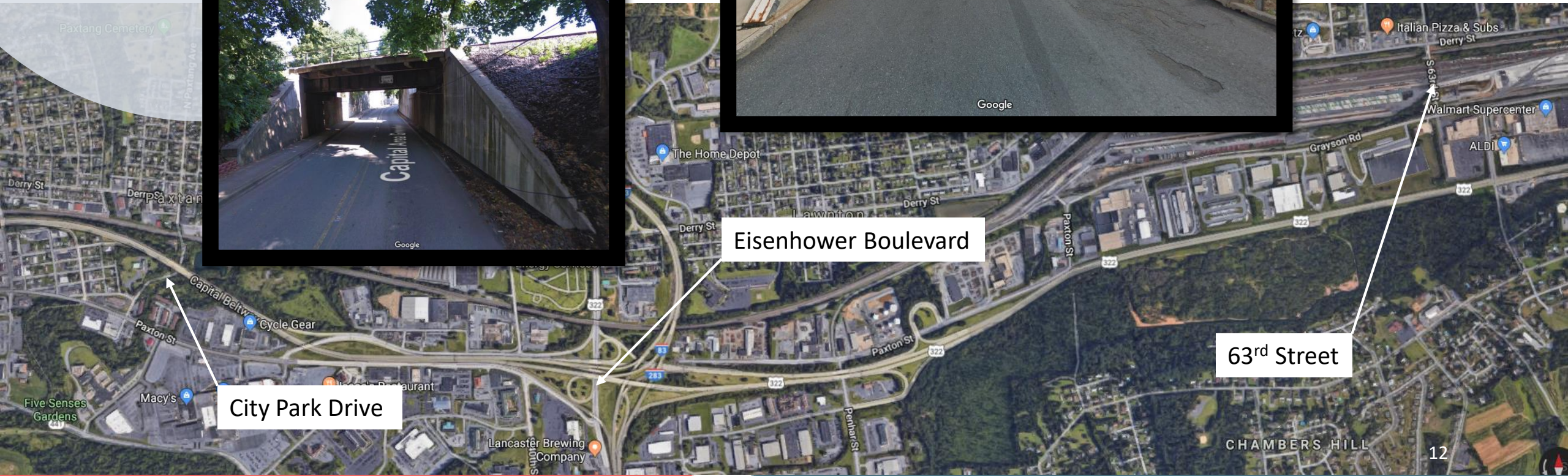


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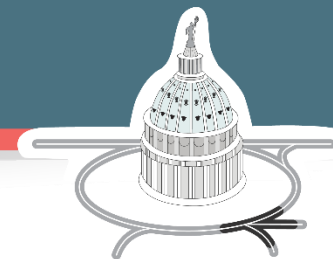


## Need #4:

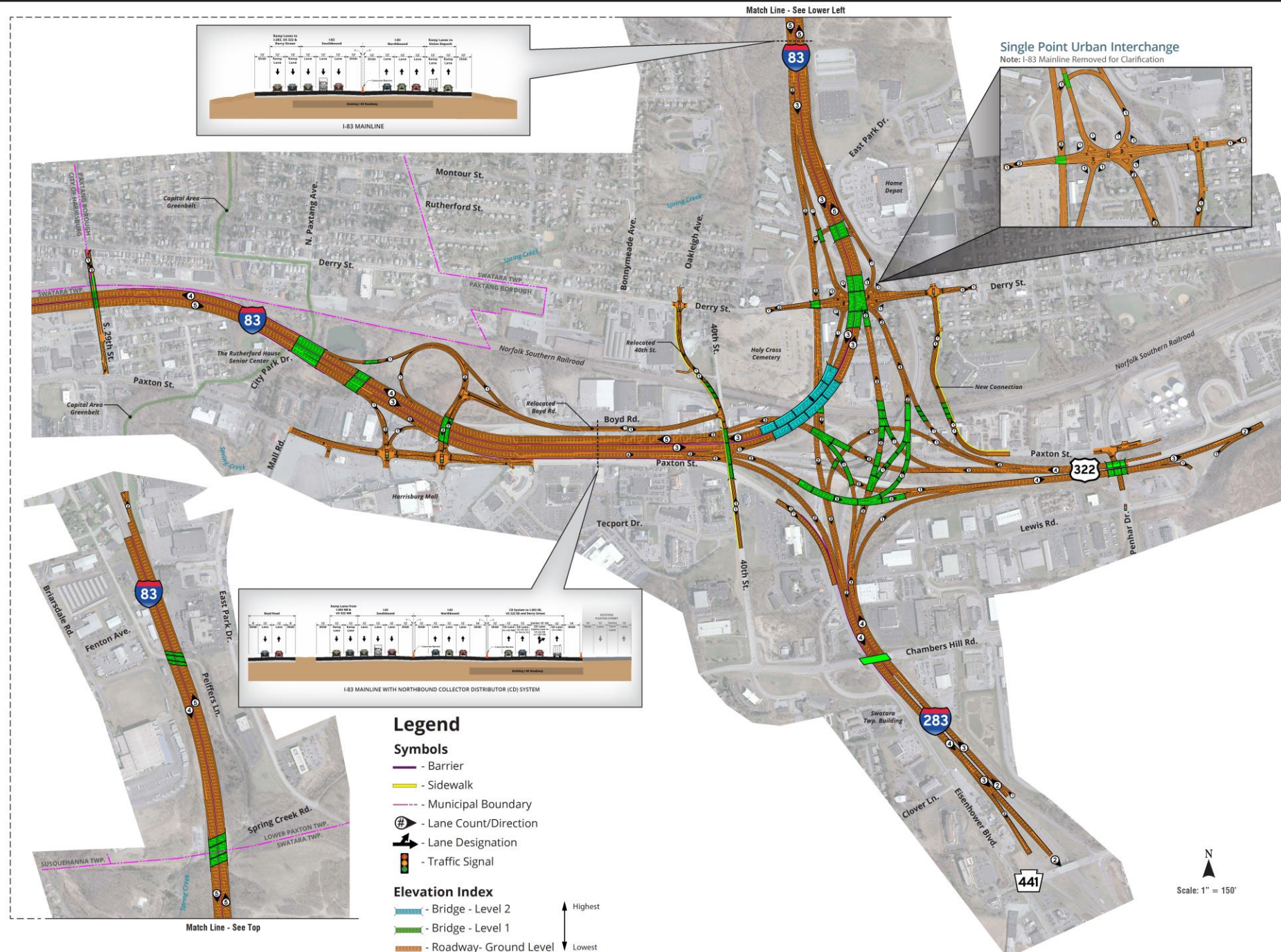
Existing Local  
Roadway Network  
Impedes  
North/South  
Mobility





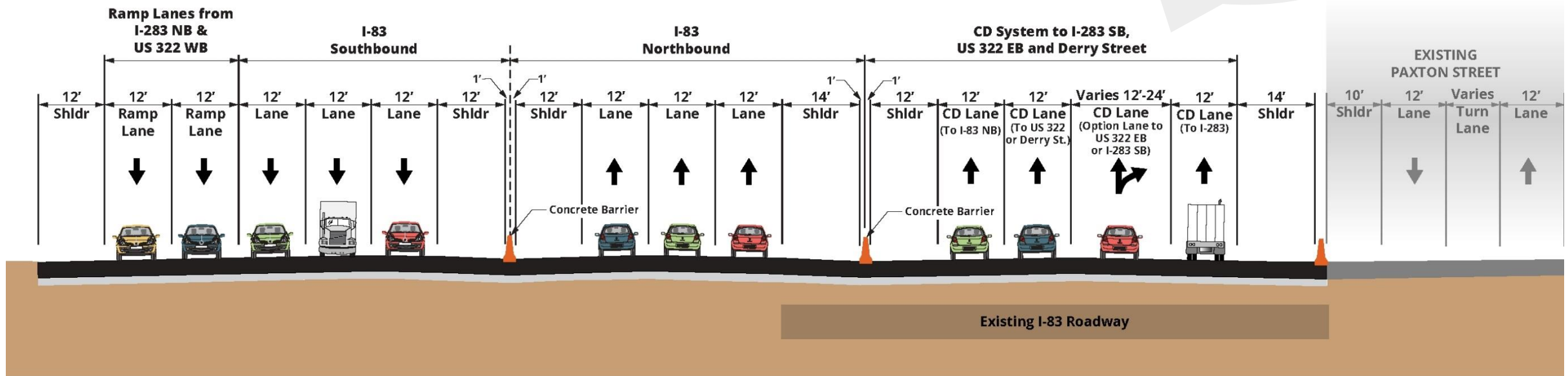


# **HARRISBURG** I-83 CAPITAL BELTWAY SR 0083, SECTION 078 DAUPHIN COUNTY, PA



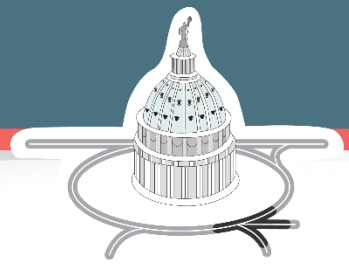
# I-83 Mainline Typical at CD System

*236' in Width*

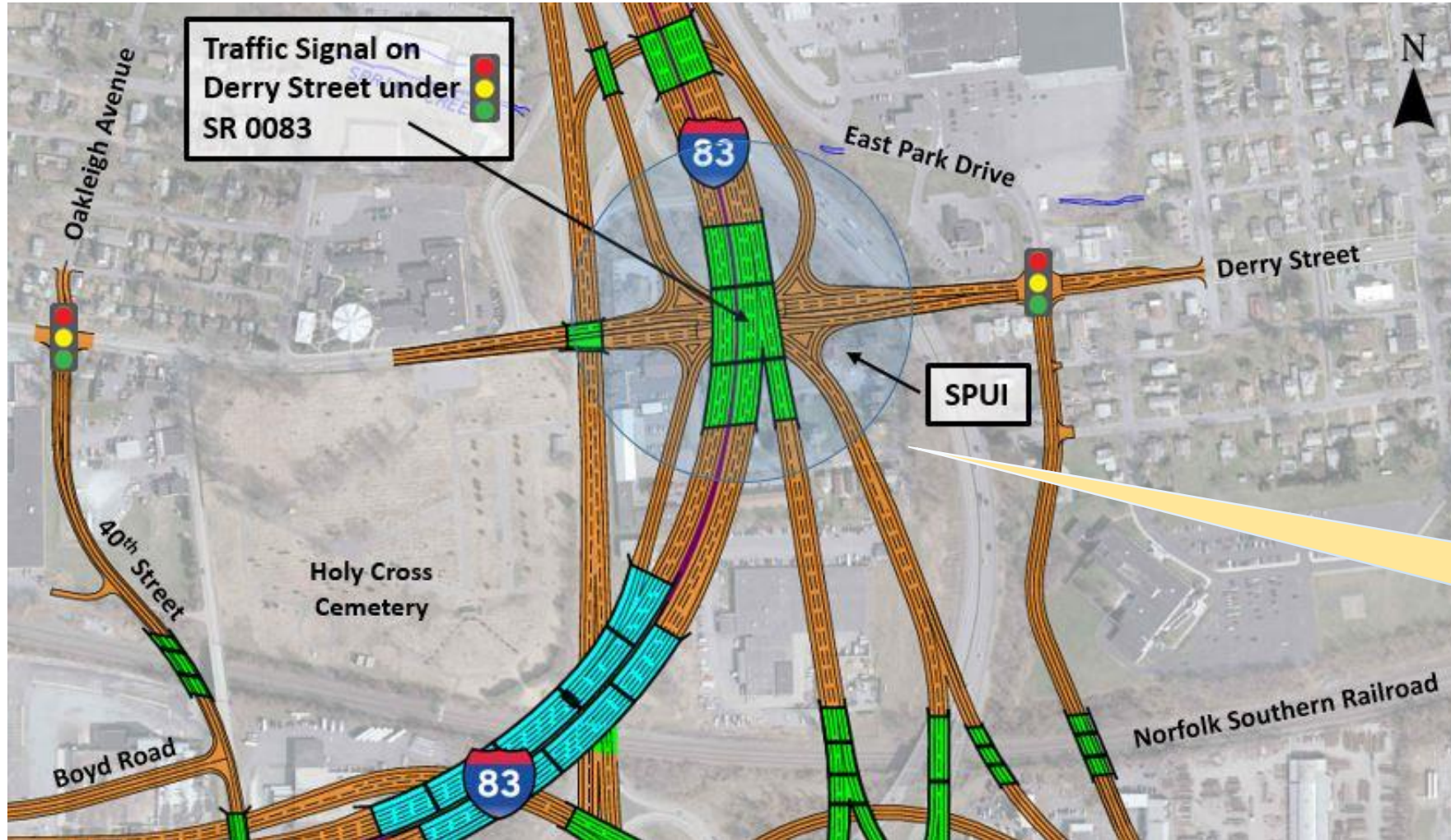




# Single Point Urban Interchange (SPUI)



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SR 0083, SECTION 078  
DAUPHIN COUNTY, PA



*First SPUI in  
PennDOT District 8-0*

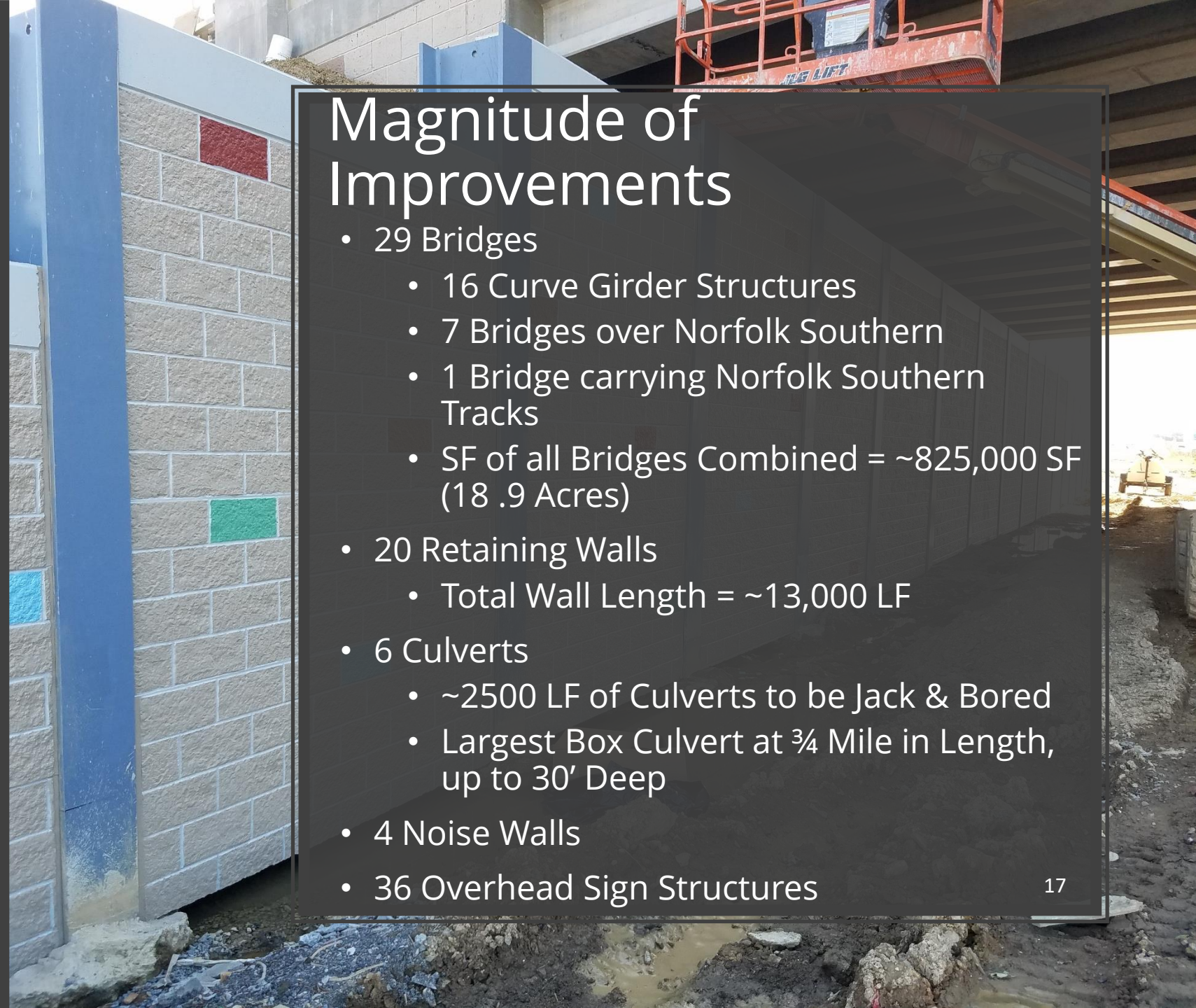




- Total Reconfiguration of 3 Interchanges
  - Eisenhower (System to System)
  - Paxton Street
  - Derry Street
- Partial Modification to 3 Interchanges
  - Union Deposit
  - Penhar Drive
  - Lindle Road
- 28 Ramps between the 6 interchanges

Magnitude of  
Improvements



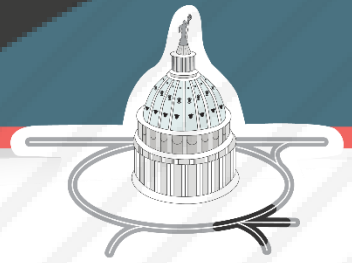


# Magnitude of Improvements

- 29 Bridges
  - 16 Curve Girder Structures
  - 7 Bridges over Norfolk Southern
  - 1 Bridge carrying Norfolk Southern Tracks
  - SF of all Bridges Combined = ~825,000 SF (18 .9 Acres)
- 20 Retaining Walls
  - Total Wall Length = ~13,000 LF
- 6 Culverts
  - ~2500 LF of Culverts to be Jack & Bored
  - Largest Box Culvert at  $\frac{3}{4}$  Mile in Length, up to 30' Deep
- 4 Noise Walls
- 36 Overhead Sign Structures



# Magnitude of Improvements



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I-83 CAPITAL BELTWAY  
SR 0083, SECTION 078  
DAUPHIN COUNTY, PA

## Number of Lane Miles

Ramps & CD  
System = 16 Miles

Local Roadways  
= 14.6 Miles

Mainline (I-83 /  
I-283 / US 322) =  
33.4 Miles

Total of  
64  
Lane Miles



# Magnitude of Improvements

## Bicycle and Pedestrian Accommodations

- New Sidewalk = ~11,950'
- Reconstructed Sidewalk = ~2,180'
- Shared Use Path = ~4,920'
- Bike Lanes = ~2,115'
- ADA Ramps = 58

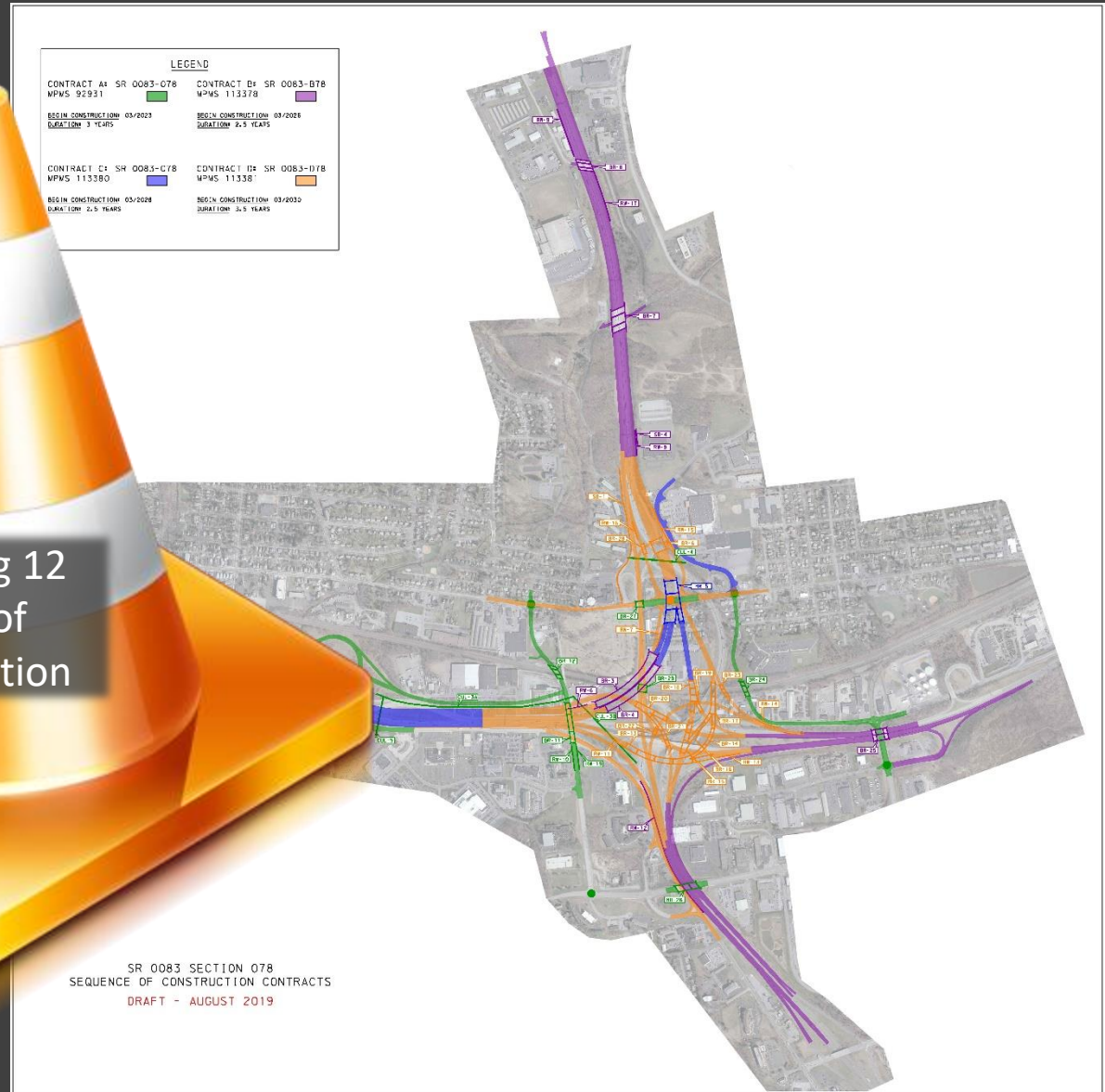




# Magnitude of Improvements

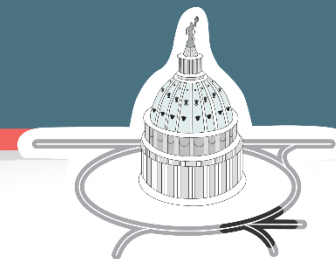
*Four Construction Contracts*

Spanning 12  
years of  
Construction





# Magnitude of Improvements



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I-83 CAPITAL BELTWAY  
SR 0083, SECTION 078  
DAUPHIN COUNTY, PA

## Preliminary Cost Estimate

Biggest Project to  
date for  
PennDOT District  
8-0

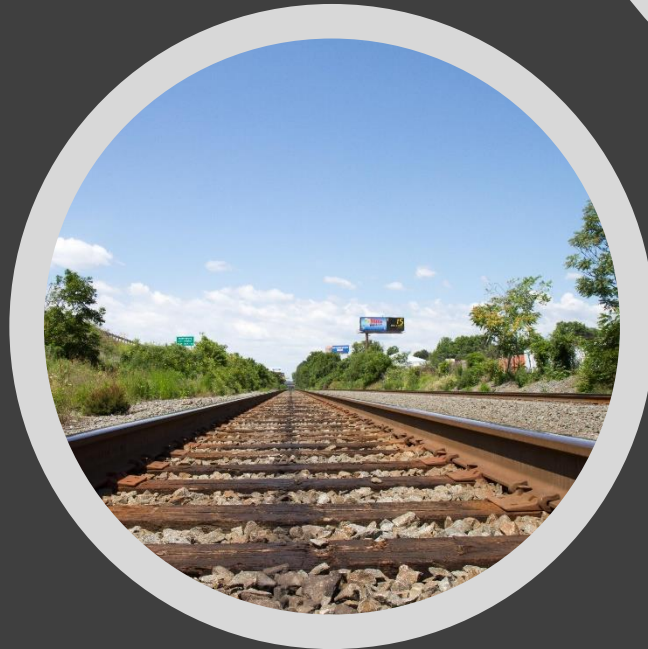


\*Dollars in Millions



# Challenges / Complexities

- Maintenance and Protection of Traffic
- Constructability
- Geotech – Karst Conditions
- Utilities
- Hazardous Waste
- Railroad





# Project for All Users

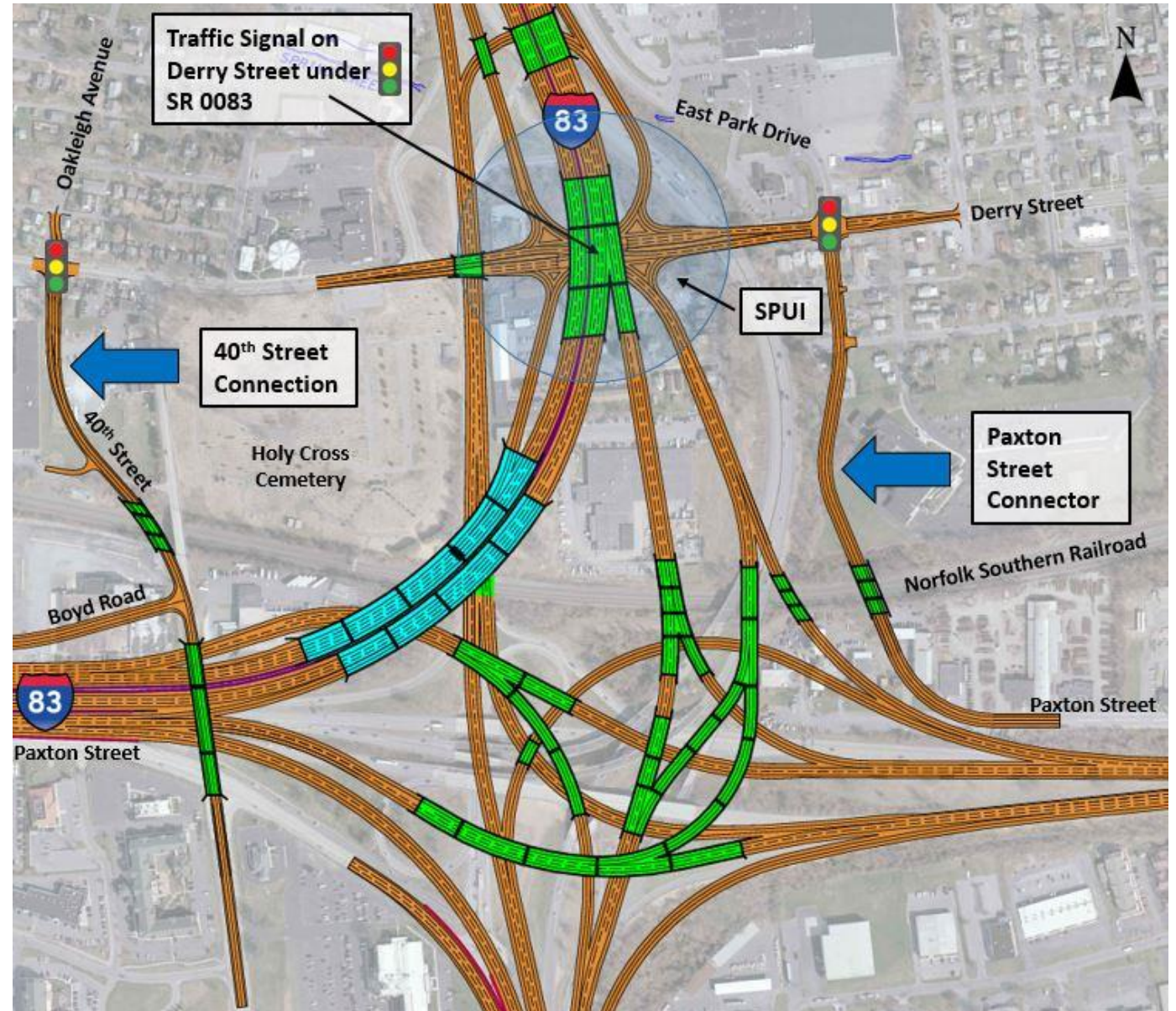


- Bicyclists
- Pedestrians
- Motor Vehicles
- Transit
- Emergency Medical Services
- Freight
- Wildlife





# Project for All Users





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I-83 CAPITAL BELTWAY  
SR 0083, SECTION 078  
DAUPHIN COUNTY, PA

# Forging Relationships



**pennsylvania**

DEPARTMENT OF TRANSPORTATION



U.S. Department of Transportation

**Federal Highway Administration**



**SWATARA**  
TOWNSHIP  
PENNSYLVANIA



TRI-COUNTY | **TCRPC**  
REGIONAL  
PLANNING COMMISSION







**Gannett Fleming**

*Excellence Delivered **As Promised***



**SUSQUEHANNA CIVIL INC.**

ENGINEERING & ENVIRONMENTAL CONSULTING



**HARRISBURG**

I-83 CAPITAL BELTWAY  
SR 0083, SECTION 078  
DAUPHIN COUNTY, PA



**NEWELL  
TERESKA &  
MACKAY**

ENGINEERING



LAND SOLUTIONS, LLC  
A CERTIFIED DISADVANTAGED BUSINESS ENTERPRISE



**SAI** Consulting  
Engineers



Underground Services Inc.



CONSULTING ENGINEERS



Global Strategies

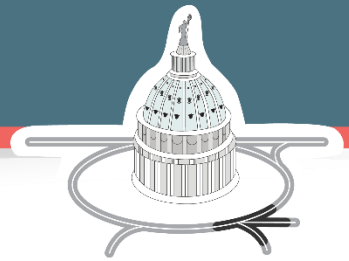


**NAVARRO & WRIGHT**  
CONSULTING ENGINEERS, INC.



Architecture &  
Engineering  
Group

Forging  
Relationships



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I-83 CAPITAL BELTWAY  
SR 0083, SECTION 078  
DAUPHIN COUNTY, PA



## HARRISBURG I-83 CAPITAL BELTWAY

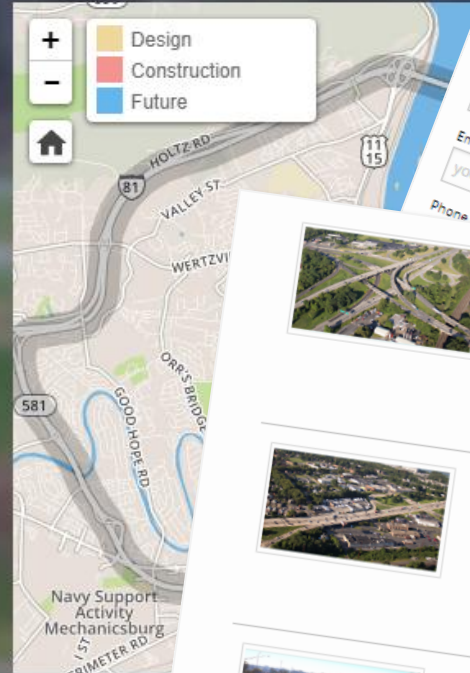
The I-83 beltway includes many projects in the Harrisburg region. To learn more about a specific project, select it from the choices below.

**I-83 East Shore Section 1**

**I-83 East Shore Section 2**

**I-83 East Shore Section 3**

**I-83 West Shore Section**



Home

Pro

## Contact Us

### Comments? Questions?

Please use the form below to sign up for our email list or if you have any comments or questions.

First Name\*

Last Name\*

Email\*

you@company.com

Phone

### I-83 East Shore Section 2

#### EISENHOWER INTERCHANGE

Section 2 extends from just south of the Union Deposit Interchange, through the Eisenhower Interchange to 29th Street. Environmental and traffic studies collected data throughout 2017 and this information will be used to design a roadway system that will minimize impacts to the surrounding environment.

[View More](#)

### I-83 East Shore Section 3

Section 3 extends from west of the Eisenhower Interchange near 29th Street to the Susquehanna River. Environmental and traffic studies collected data throughout 2017 and this information will be used to design a roadway system that will minimize impacts to the surrounding environment.

[View More](#)

### I-83 Master Plan

The I-83 Master Plan Study focused on transportation planning for the section of I-83 from the New Cumberland Exit to the junction of I-81, a distance of 11 miles. The study identified specific projects, such as the improvements to certain interchanges, that can be programmed and scheduled into PENNDOT's highway planning process. The overall goal of the I-83 Master Plan is to preserve the quality of life and to promote economic viability in the Harrisburg area by providing an effective transportation plan for the I-83 corridor.

[View More](#)

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Projects

Completed Projects

Select Language

Contact Us

CONTACT US

Questions may be directed to:  
John M. Bachman Senior Project Manager  
2140 Herr Street  
Harrisburg, PA 17103

## Welcome to the I-83

The Harrisburg Capital Beltway encircles the city of Harrisburg and surrounding municipalities. The Beltway is a limited-access facility. The Capital Beltway is an important hub in the transportation network of the northeastern United States. The Capital Beltway section of the Beltway, which extends from a junction with I-81 northeast of Harrisburg to the intersection with I-83, is a limited-access facility.

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## Project Benefits

- Estimated savings of 8,000 hours of delay per day
- Modern Transportation Facility
- Connecting Communities
- Improved Maintenance and Incident Management Options
- Potential for Economic Development – e.g. Harrisburg Mall
- Over 6,000 jobs generated
- Future expansion opportunities for Norfolk Southern



# Why is SR 0083 Sec 078 a Big Friggin' Deal??

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