

Developing Community-Based Transportation Plans for Small Communities:

Three success stories of planning and implementation

APA-PA 2010 Conference

Presenters:

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Points to remember

- Good Communication is the key to the success of any project
- Commit time to meeting and talking with governing body and stakeholders
- Let those impacted by the project tell you what their concerns are

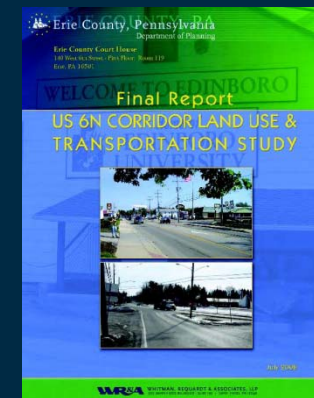
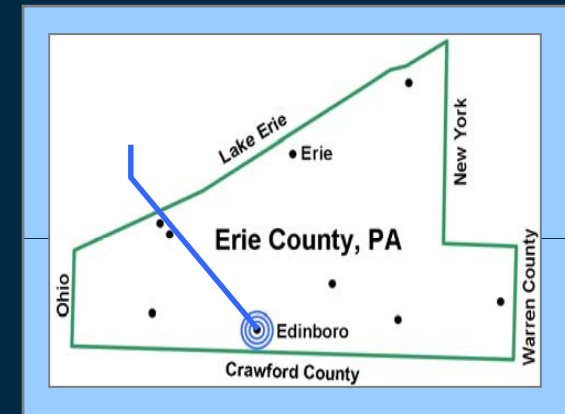
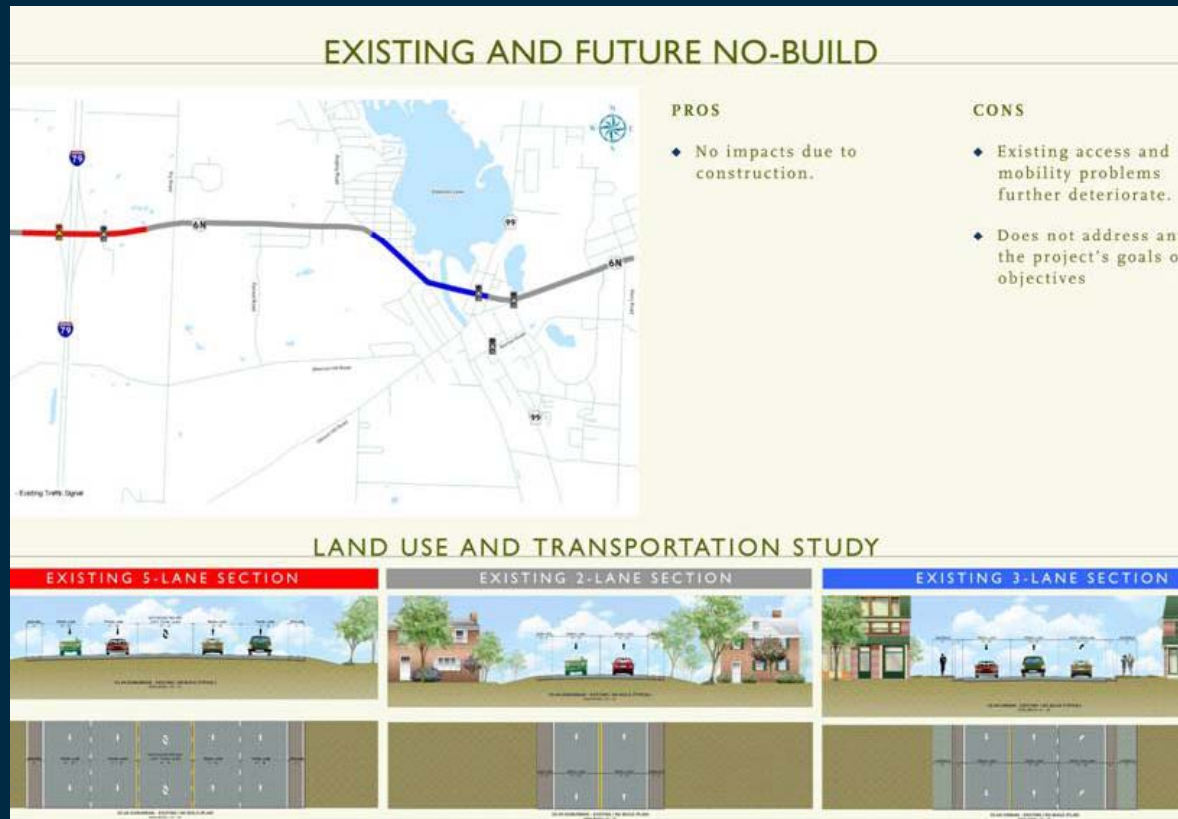


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Case Study 1:

US 6N Land Use & Transportation Study



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Case Study 1: US 6N

- US 6N – Erie County
 - Land Use / Transportation Plan
 - Client – Erie County MPO
 - Stakeholders – Borough of Edinboro, Washington Township, Edinboro University, local businesses, residents, students, PennDOT








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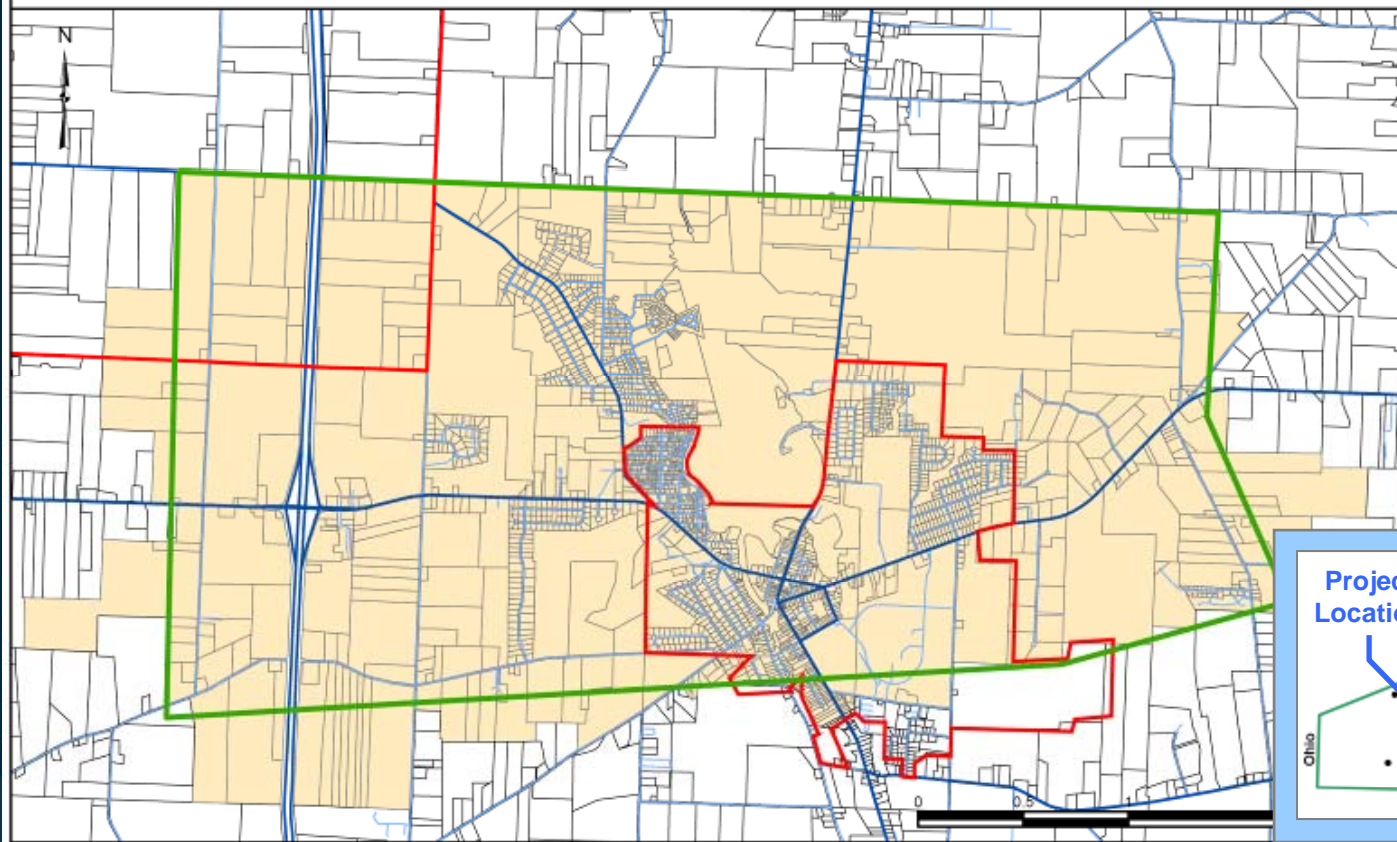
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US 6 N – project background

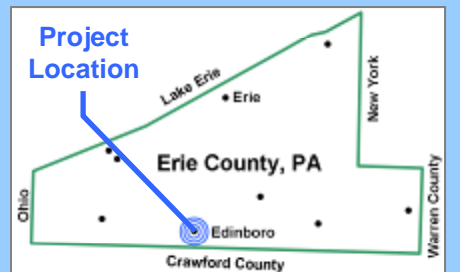
6N Corridor Study: Study Area Parcels

-  State Highways
-  Local Roads
-  Municipal Boundaries
-  Study Area Boundary
-  Study Area Parcels

Study Area Acreages:
Edinboro Borough 1,187 Acres
Franklin Township 714 Acres
Washington Township 6,131 Acres



Project Location



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US 6 N – project background

Project Approach

1. Define the Study Area
2. Define the Study's Goals and Objectives
3. Establish the Existing Conditions
4. Develop Future Land Use Assumptions
5. Project Future Traffic Volumes
6. Establish Corridor Transportation Needs
7. Develop Alternatives to Meet Transportation Needs
8. Determine the Preferred Alternative(s)
9. Develop Traffic Signal Spacing Plan
10. Develop Driveway Spacing Plan
11. Establish an Implementation and Funding Plan
12. Prepare Enabling Municipal Ordinances



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US 6N Background

- Public Involvement Structure
 - Project Advisory Committee (Erie MPO, Borough of Edinboro, Washington Township, Edinboro University)
 - Stakeholders Committee (PAC plus: Chamber of Commerce, Neighborhood Organizations, Political Leaders, citizens)
 - Public (everyone who had an interest)



US 6 N – Goals and Objectives

- Project Goals and Objectives:
 - Encourage Growth within the Desired Areas
 - Enhance Pedestrian and Bicycle Circulation
 - Improve Traffic Flow
 - Manage Truck Traffic within the Borough of Edinboro
 - Improve Safety Along the Corridor
 - Better Accommodate Special Events or Unexpected Incidents Along Area Roadways
 - Reduce Traffic Congestion



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US 6 N – Goals and Objectives

Problems:

1. Prior similar studies in the area did not provide “concrete” answers
2. This study needed to provide a set of programmable solutions
3. Needed to balance the needs and perspectives of a very diverse group of stakeholders



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US 6 N – What Was Different

- What made this study different?
 - Multi-modal approach
 - Locally driven solutions (and problems)
 - Direct link between transportation and land use
 - NOT the traditional approach of adding capacity (new lanes)
 - Fluid planning process that adapted in response to community needs/priorities



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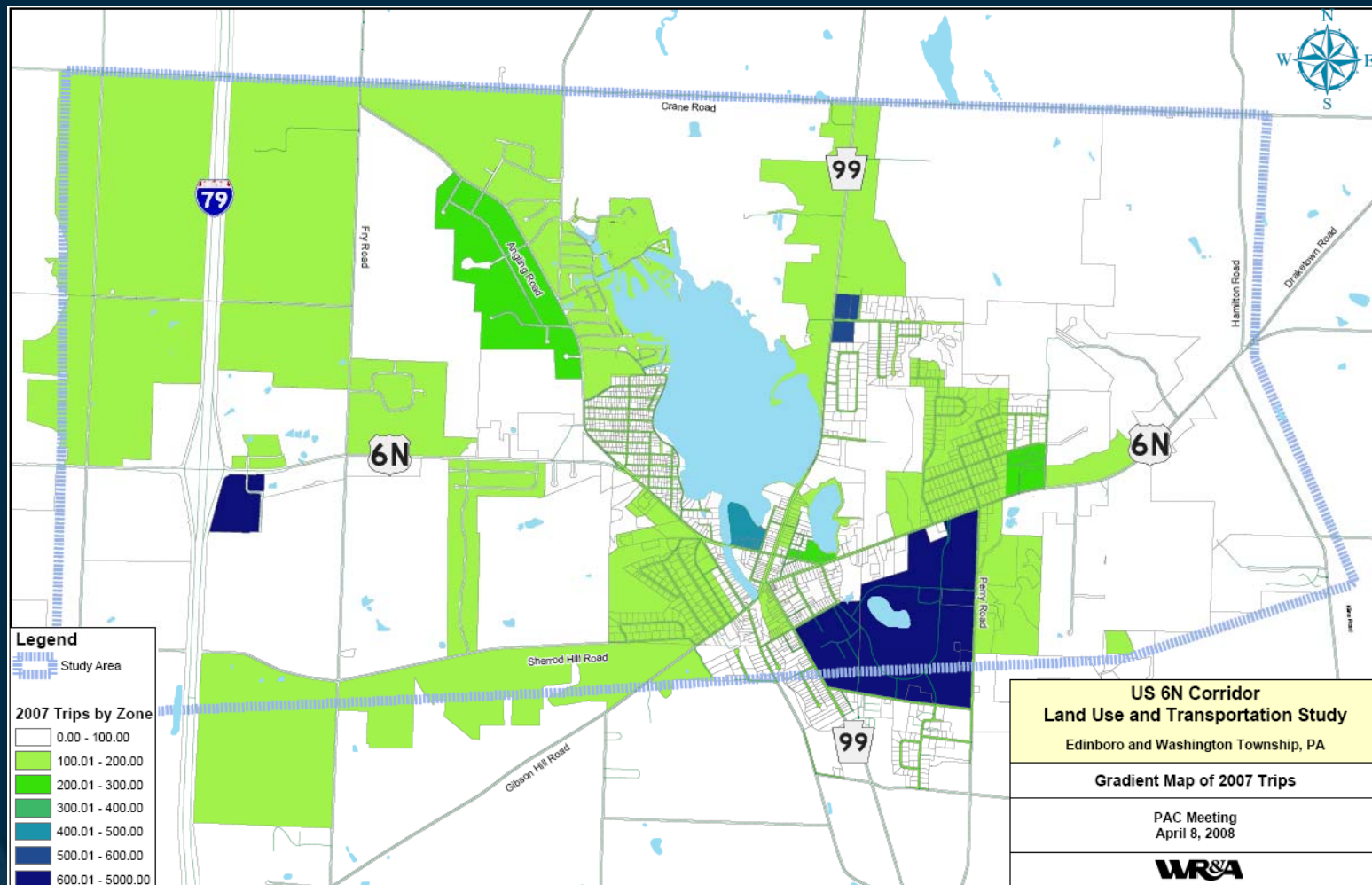
US 6 N – project background

- What the community told us
 - Needed better walking connection to the library
 - Difficult time getting out at un-signalized roadways
 - Speeding
 - Planning for this corridor has been going on for 30 years
 - Want a new interchange



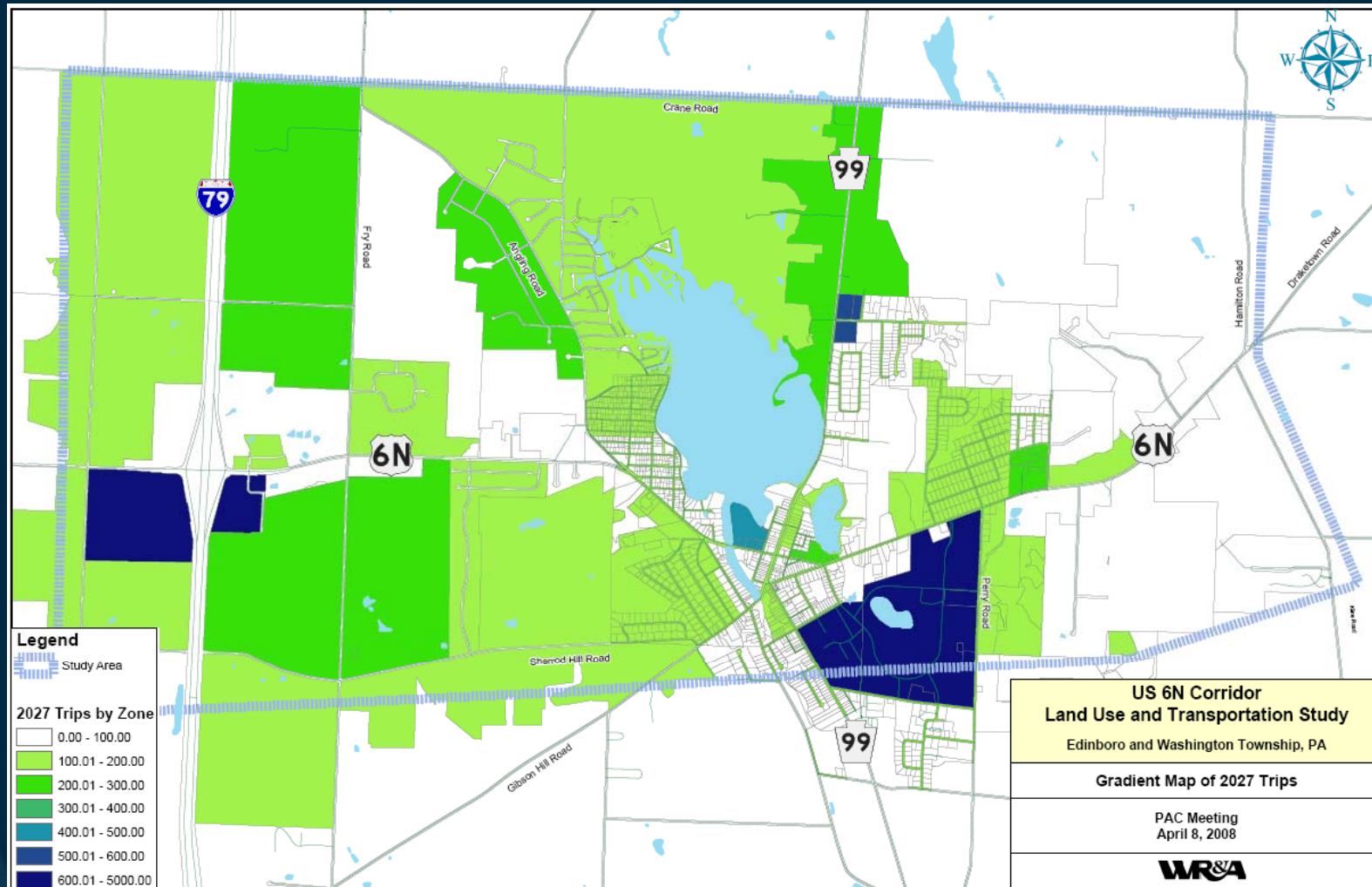
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US 6 N – Travel Demand Context



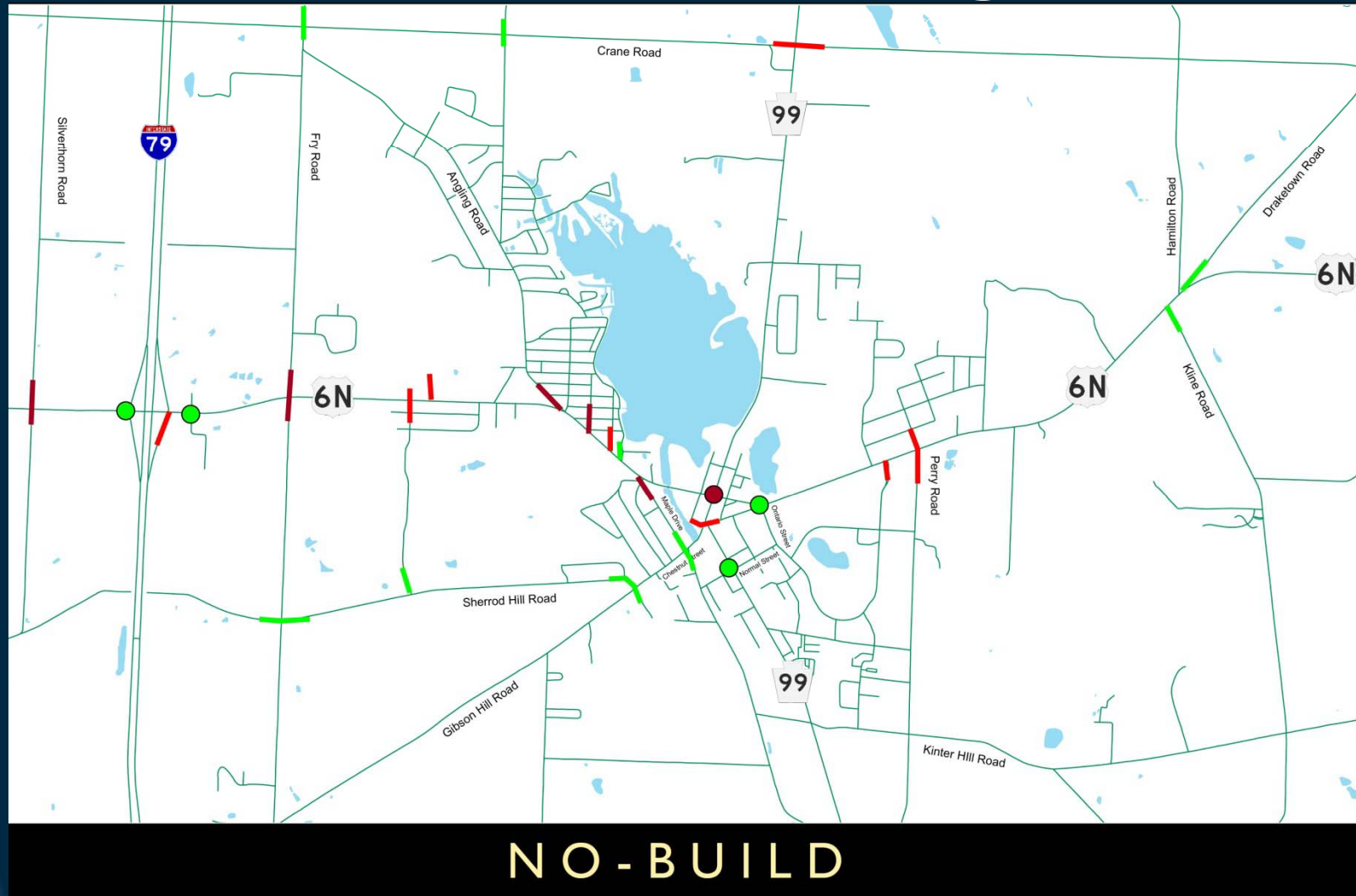
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US 6 N – Travel Demand Context



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US 6 N – The “Do Nothing Alt.”



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US 6 N – Existing Network



PROS

- ◆ No impacts due to construction.

CONS

- ◆ Existing access and mobility problems further deteriorate.
- ◆ Does not address any of the project's goals or objectives

LAND USE AND TRANSPORTATION STUDY



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US 6 N – Five Lane Alt.



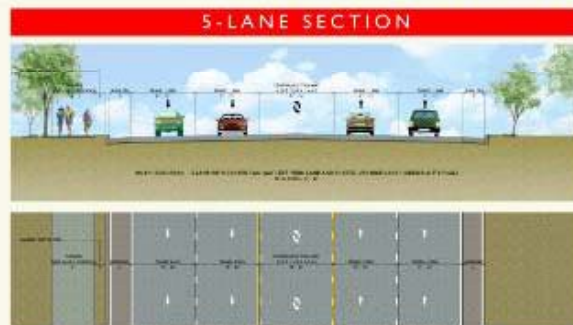
PROS

- ◆ Improves mobility and access along US 6N
- ◆ Expected reduction in crashes
- ◆ Improves bicycle and pedestrian circulation
- ◆ Acceptable operations at most intersections
- ◆ Provides full access at all intersections / driveways

CONS

- ◆ Significant community and environmental impacts.
- ◆ High construction/right-of-way costs
- ◆ Does not meet PENNDOT's "smart transportation" goals

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US 6 N – project background

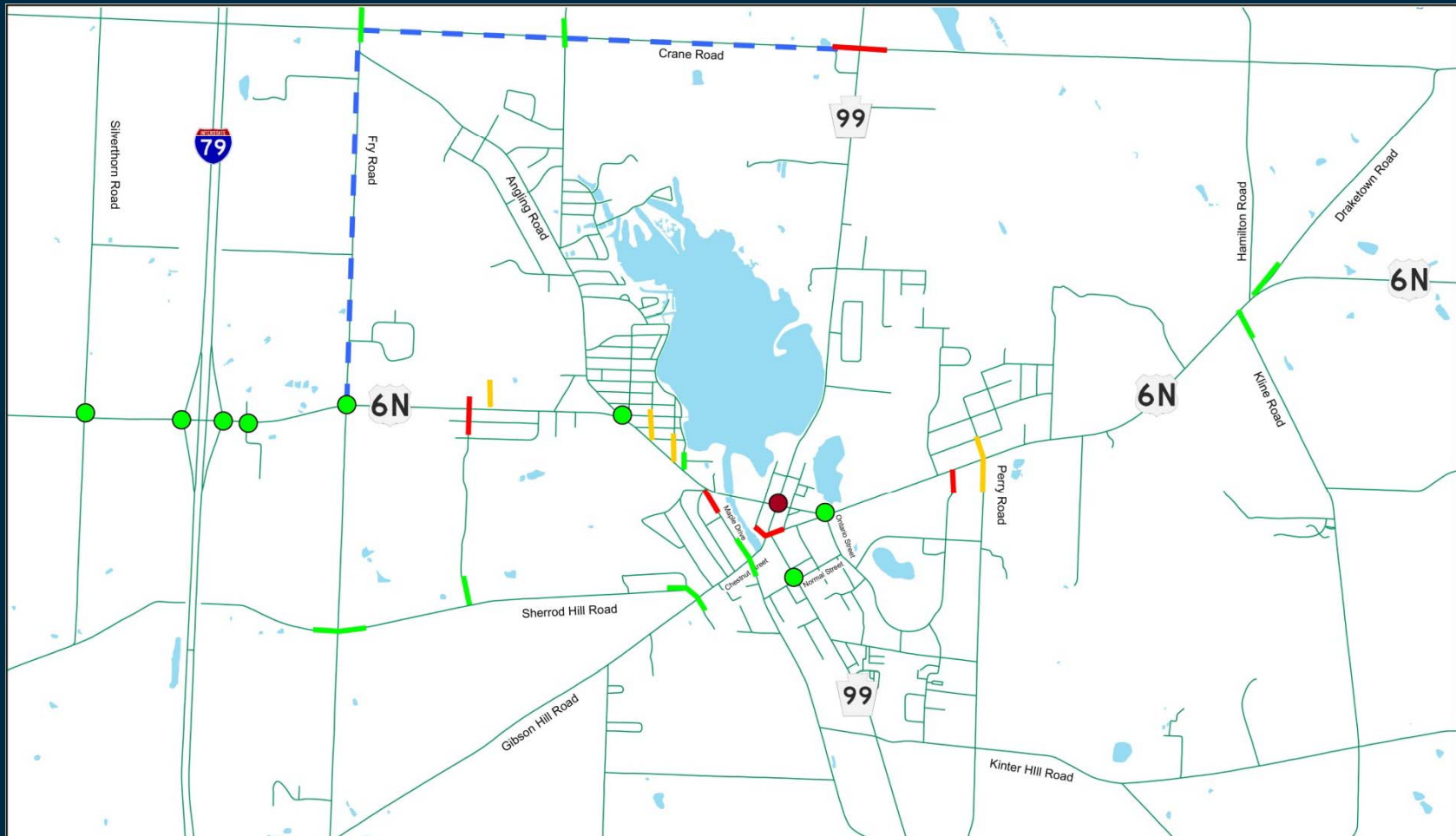
- **3-Lane Alternative does not solve mobility or access goals of reducing traffic congestion**
- **5-Lane Alternative meets most project goals**
 - Increases roadway footprint and impacts
 - Triples the paved area in suburban areas
 - 50% increase in pavement in urban areas
 - High cost
 - Not “Smart Transportation”



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US 6 N – Publicly Supported Alt.



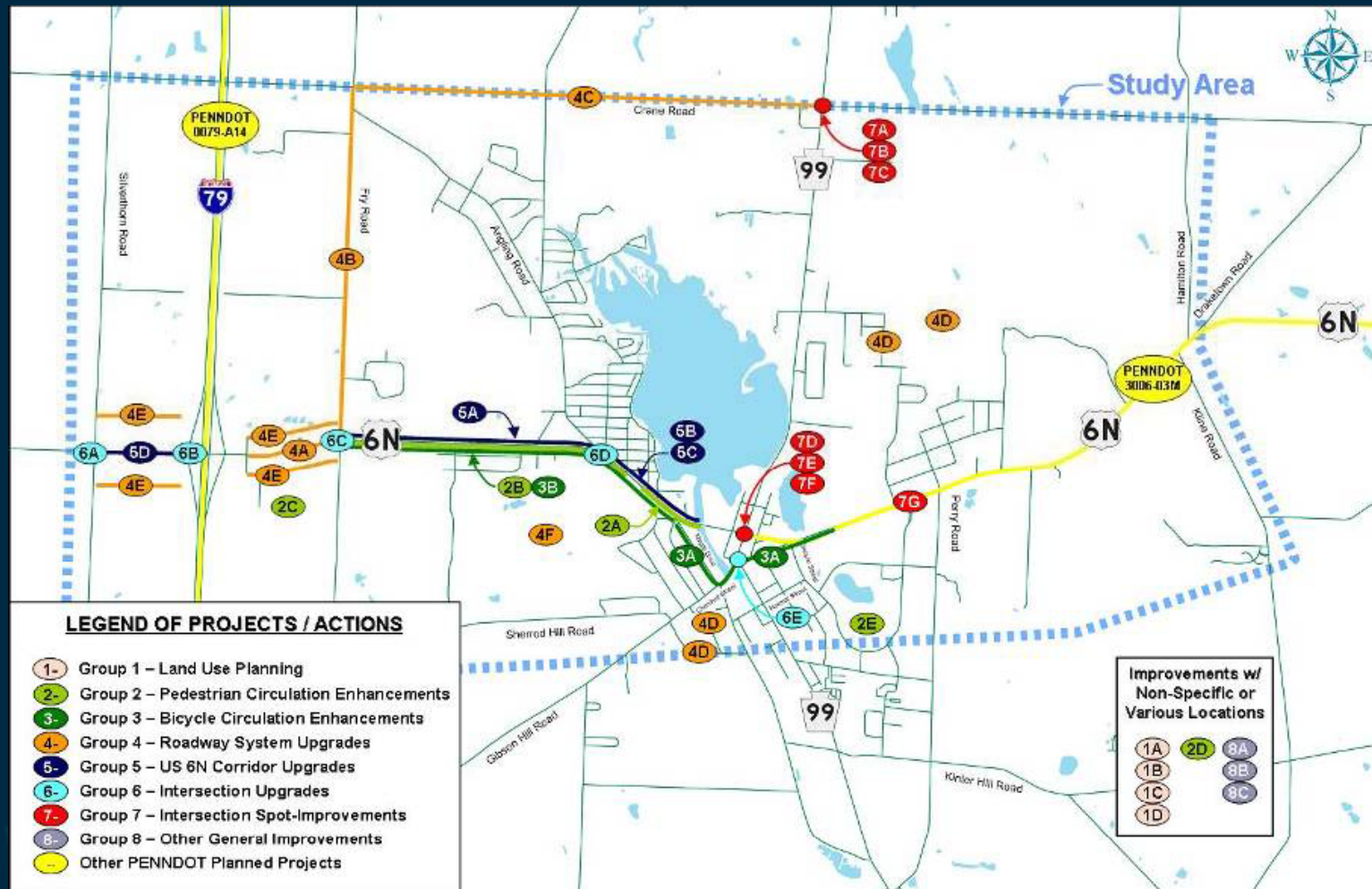
3-LANE WITH SYSTEM UPGRADE



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US 6 N – Project Programming



US 6 N – Approach

Project Approach

- Understand community goals 1st
 - Public identified areas of concern
 - Analysis was used to confirm and understand community concerns
 - Public responded to improvement scenarios
- Understand land use and transportation connection
 - Anticipate transportation needs to support desired development
 - Determined how local ordinances could be modified to reduce the need for wider roadways
 - Eliminated alternatives that would increase sprawl



US 6 N – Preferred Alternative

- Preferred Alternative includes:
 - Controlled Access
 - Grid concept with System Upgrades
 - Improvements to network versus widening one road
 - Cost savings
 - Lower environmental impacts



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US 6 N – Preferred Alternative

- Preferred Alternative includes:
 - Driver Education for University of Edinboro Students
 - Better Communication between PennDOT and University
 - Adding connections/linking
 - Transit
 - Pedestrian
 - Bicycle
 - Land Use Recommendations



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US 6 N – Insight

- ◆ Testimonials

- District 1-0

“The biggest lesson learned was that getting the public involved from the beginning made a difference – the community realized we were there to listen to them and make recommendations based upon what we heard”...



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US 6 N – Insight

Lessons Learned

- Listen to the stakeholders and public first
 - Don't just tell them the problems you are going to solve
- Present real scenarios and choices to the public and let them respond
 - Let the public understand tradeoffs



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US 6 N – Implementation

◆ Local Implementation

- Washington Township Official Map – amended
- Edinboro Borough dedicated local funding to build sidewalk connections
- Borough land use regulation amendments under consideration with anticipated enactment 2010
- Multi-municipal Safe Routes to School application

◆ State Implementation

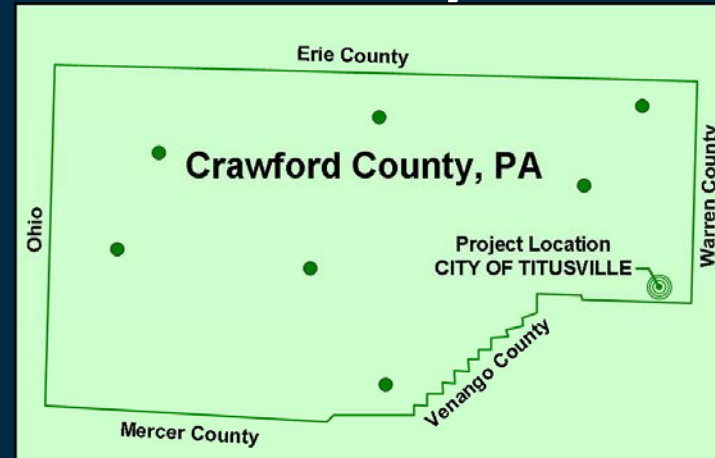
- Preliminary Engineering phase on key intersections
- Programmed improvements to enhance safety of motorists
 - * Grade adjustment
 - * Widening with paved shoulders



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Case Study 2: Titusville Truck Study



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Titusville Truck Study / Overview

- Project Overview

- Client

- Northwest Commission

- Location

- City of Titusville, Crawford County, PennDOT District 1-0

- Focus

- Truck circulation plan and development potential

- Stakeholders

- City (redevelopment authority, planning commission), trucking companies, business owners, residents



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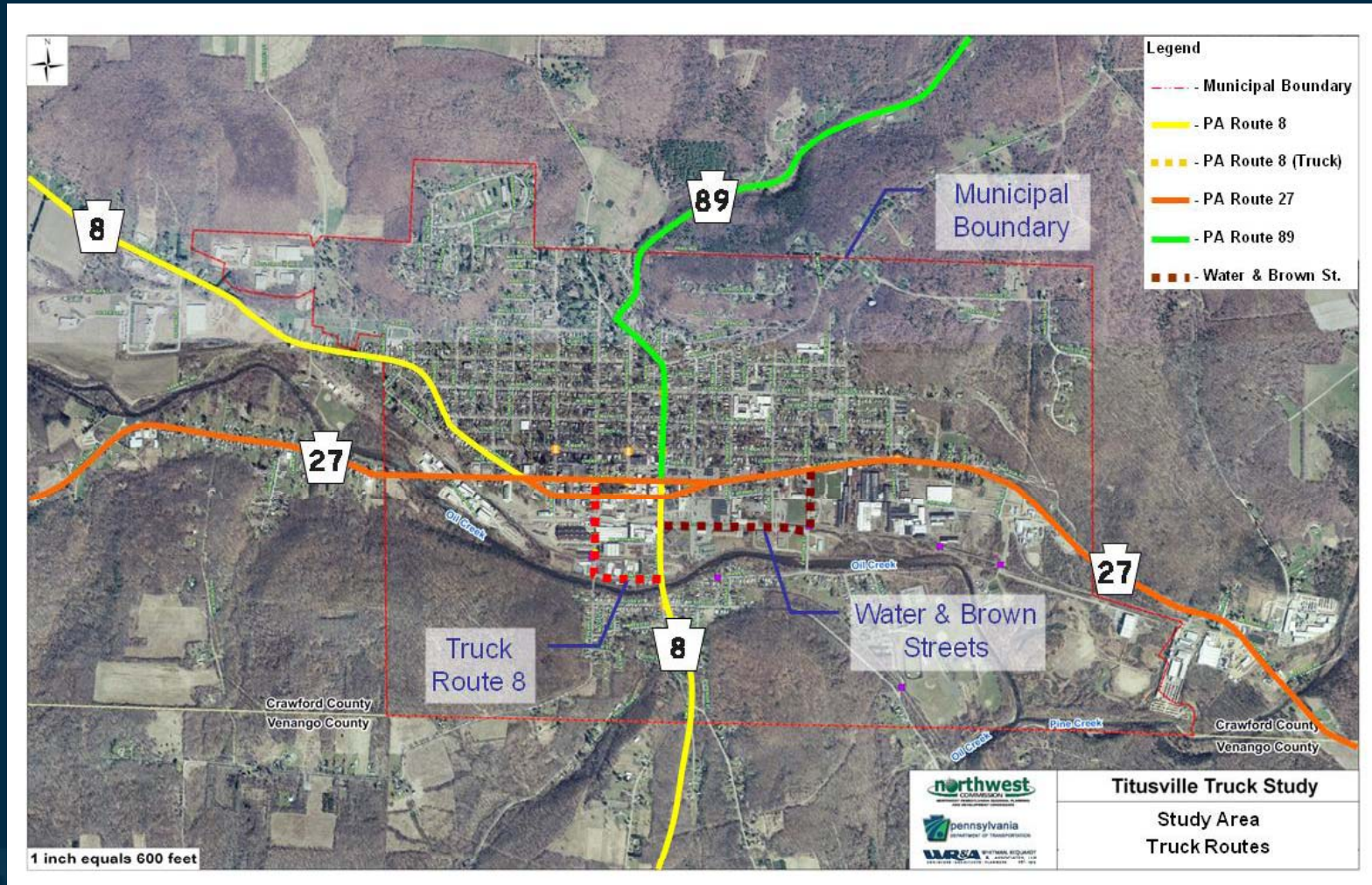
Titusville Truck Study / Background

- Project Objectives
 - Develop a set of practical, implementable, and cost-effective solutions to better accommodate truck traffic to, from, and through Titusville

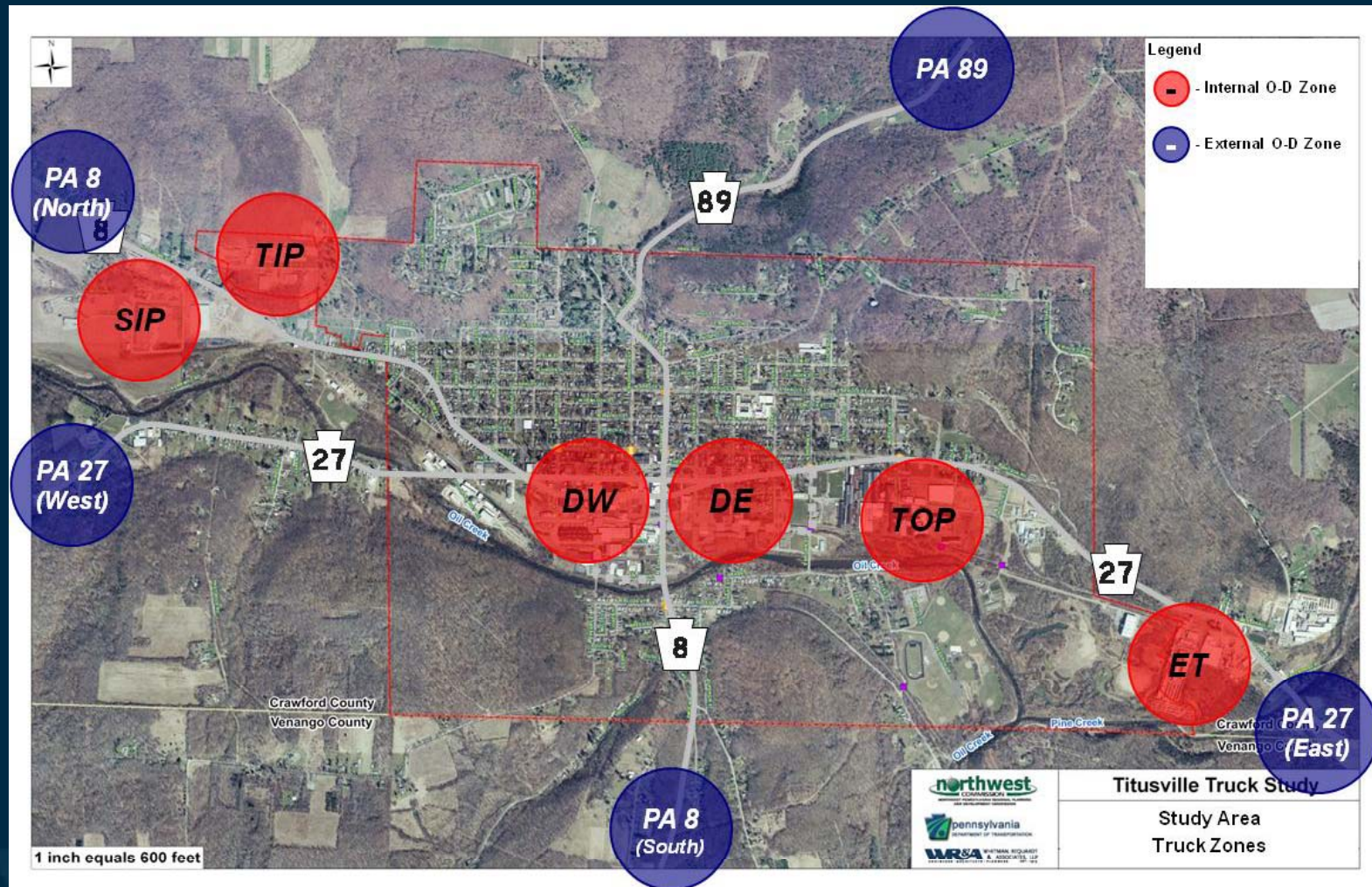


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Titusville Truck Study / Background



Titusville Truck Study / Background



Titusville Truck Study / Highlights

- Document Review
 - Meadville-Titusville East-West Corridor Study (1996)
 - LDDAP / ARC Intermodal Study (2001)
 - Intermodal Feasibility Study (2003)
 - Freight Analysis Data (2004-2006)
 - Route 8/27 Corridor CCIP Study (2004)
 - Titusville Traffic Signal Improvement Project (2009)
 - Long Range Transportation Plan (2007-2032)

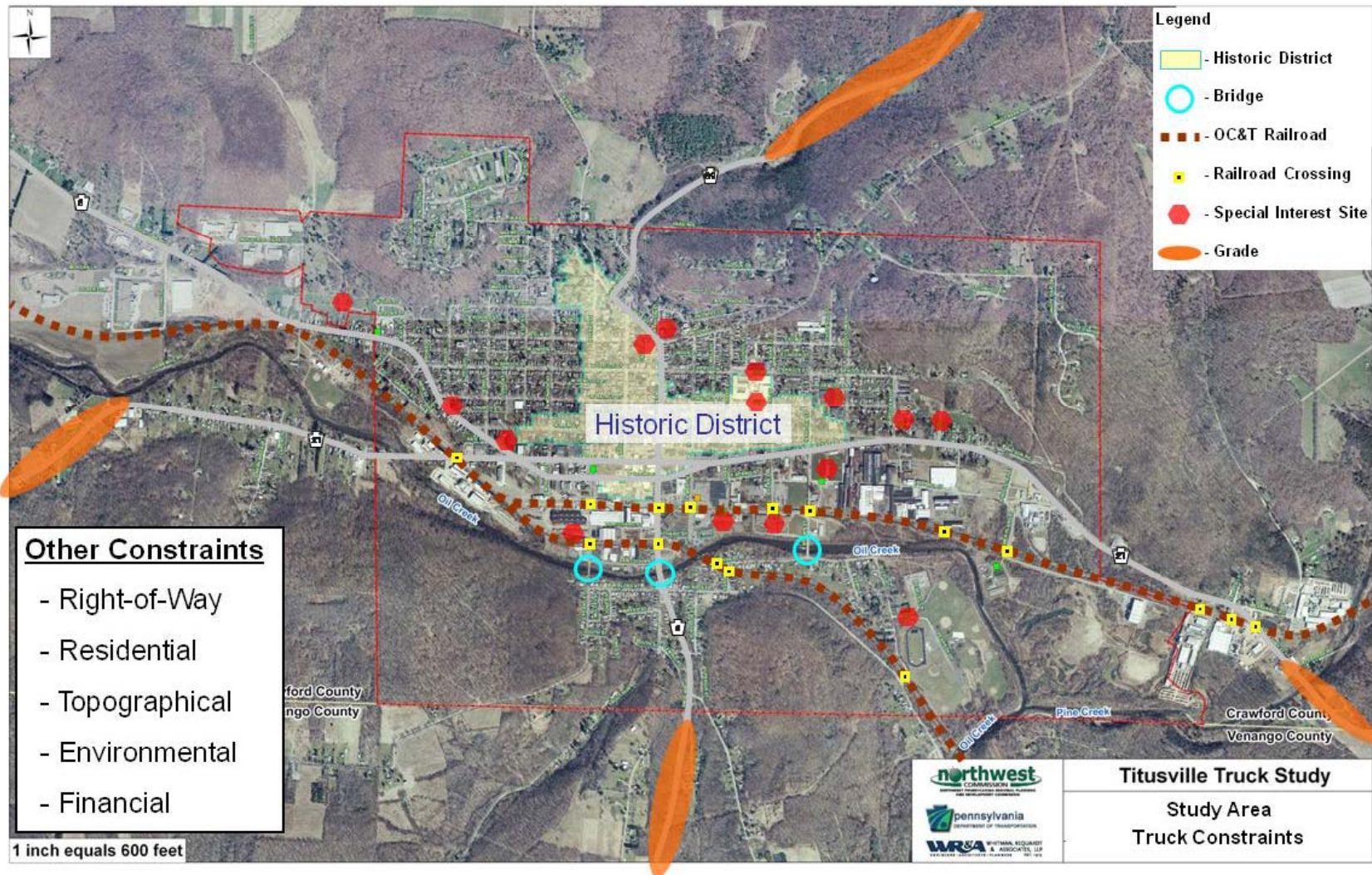


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- Field Review (GPS/GIS-based)



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Titusville Truck Study / Highlights

- Truck Survey
 - 71 local trucking stakeholders
 - 46% survey response rate
 - Prevailing concerns:
 - Roadway geometry (11x)
 - General truck routing and industrial park access (7x)
 - Truck route signing (4x)
 - Miscellaneous operations (signals, parking, maintenance)
 - Miscellaneous other (level of enforcement, GPS guidance)



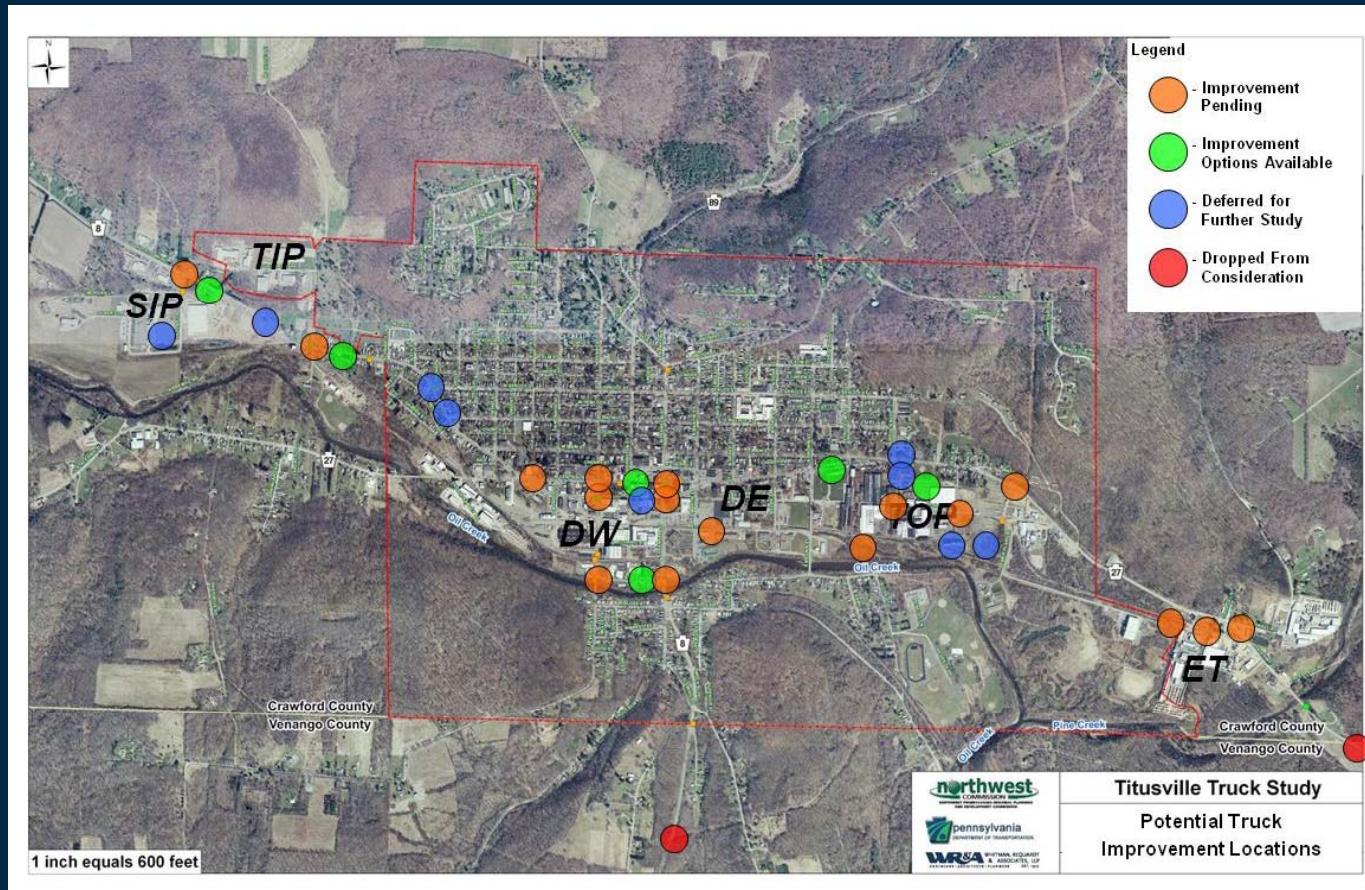
Titusville Truck Study / Highlights

- Truck Forecasting
 - Employee-based truck projections
 - Conversations with TCDA
 - FHWA's Quick Response Freight Manual
 - Estimated 33-80% truck increase in 10-15 years



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Titusville Truck Study / Outcomes



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Titusville Truck Study / Outcomes

- General Signing
- General Operations
 - GPS-based driving directions
 - Traffic signal studies
 - Parking studies
- General Planning
 - Truck climbing lanes
 - Utility expansion studies
 - Rail / intermodal expansion studies
 - Bridge replacement project
- Area-Specific



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Titusville Truck Study / Outcomes



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Titusville Truck Study / Outcomes

- Locally-preferred improvements
 - Identified as immediate, short to mid-term, long-term, or “ongoing” priorities
 - Individual project costs ranging from \$5000 or less for minor improvements to as much as \$1.0M to \$4.5M for major system upgrades.



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Titusville Truck Study – Insight

Lessons Learned

- Document Review
 - Capitalize on the previous work of others
- Field Review
 - Use GPS/GIS as an effective “simple” tool
- Truck Survey
 - Talk to the heavy truck drivers first-hand
- Truck Forecasting
 - Talk to the agencies tracking future development



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Case Study 3: Rochester Roundabout



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Case Study 3: Rochester Roundabout

- Rochester Roundabout
 - Engineering and Design
 - Client – Beaver County Transit Authority
 - Stakeholders – Borough, business owners, residents, PennDOT
 - Unique aspect
 - 1st roundabout to be built on a state road in District



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Rochester Roundabout Background

TRID PLANNING STUDY

Recommended Infrastructure Improvements

1. Improvements and Expansion of the BCTA Rochester Transportation Center Facilities (\$1.2 million Fully Funded)
2. Roundabout (5 legged intersection in the downtown area) (\$1.8 million Fully Funded)



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Rochester Roundabout Background

**Beaver County
Commissioners
BCTA**

**Beaver County
Community
Development**

**Beaver County
Planning
Commission**

**Beaver County
Chamber**

**Federal Transit
Administration**

Rivertowne Partnerships



**PennDOT – Bureau of
Public Transportation**

**Southwestern
Pennsylvania
Commission (MPO)**

**Main Street
/Elm Street
Programs**

Rochester Chamber

**Rochester
Borough Council**

**Rochester Borough
Development
Corporation**

**Rochester Business
Commission**

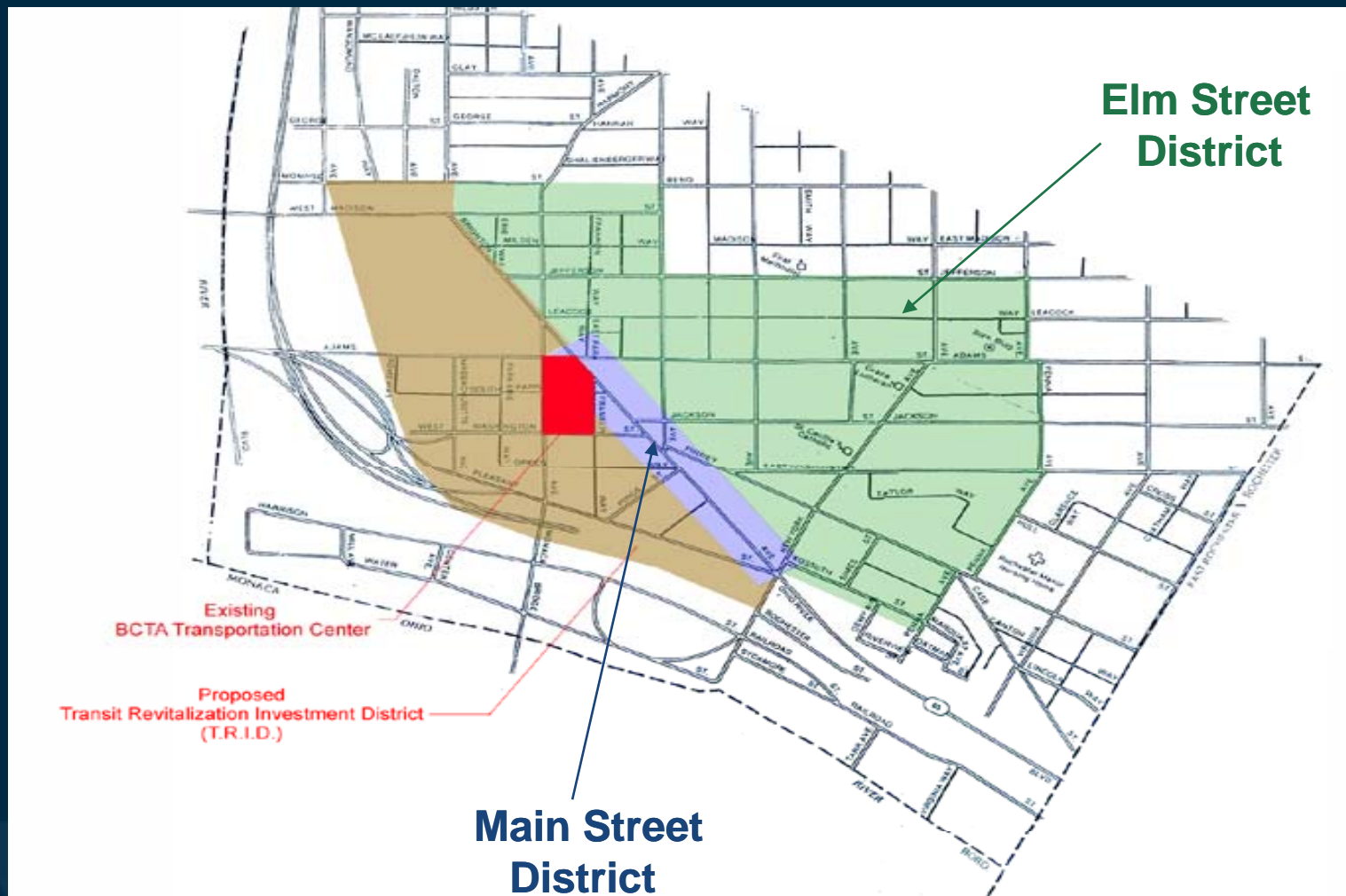
Federal Transit Administration



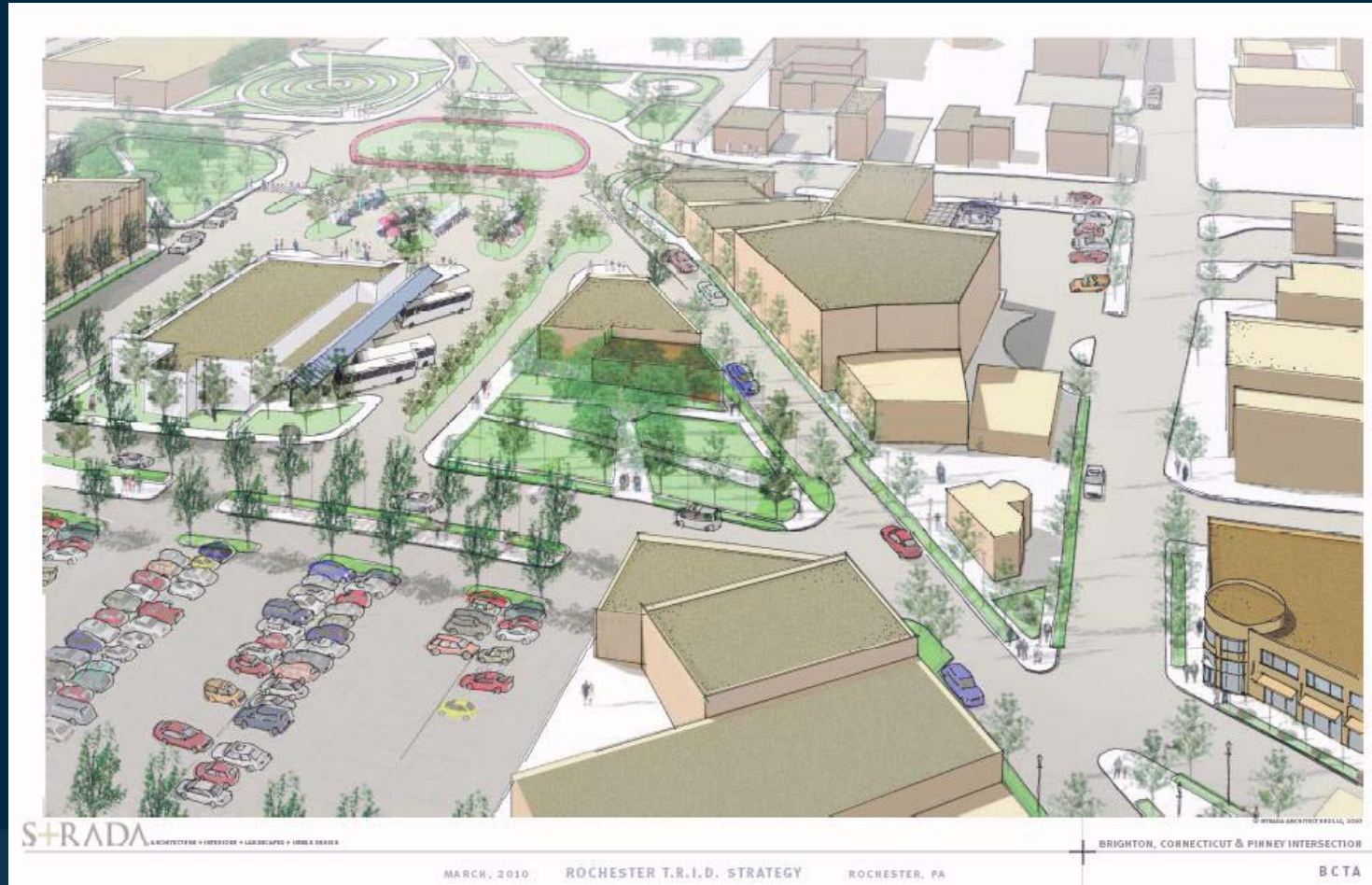
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Rochester Roundabout Background



Rochester Roundabout Background



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Rochester Roundabout Background

What made this project difficult?

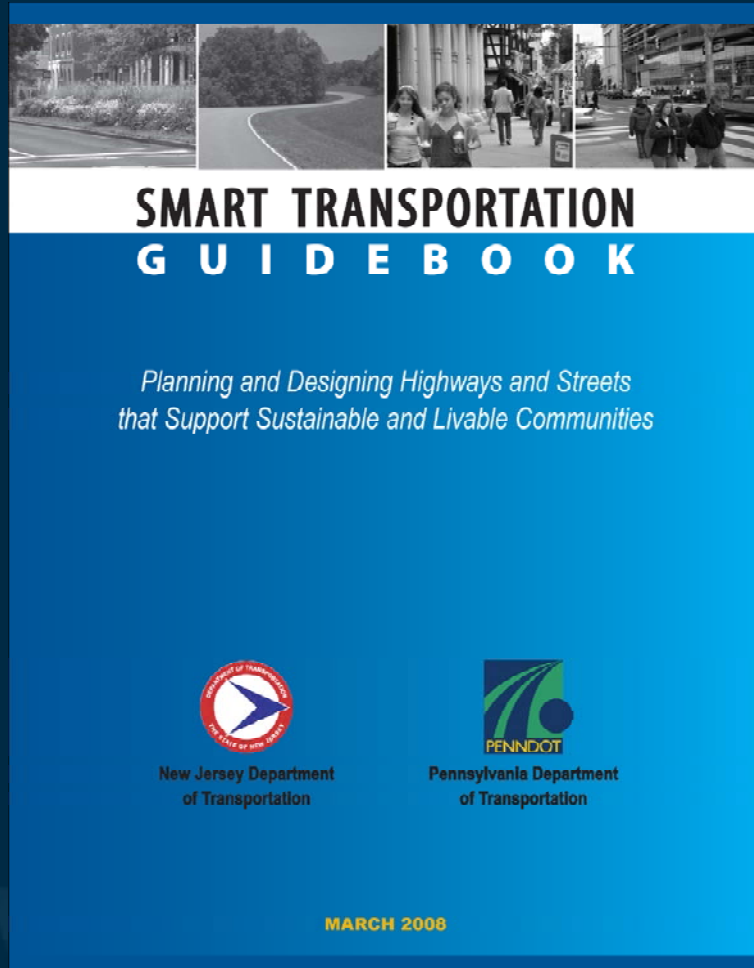
- Coordination with PennDOT District
- Borough Manager and Borough Council turnover
- Closure of Major Employers
- “Nothing gets done in Rochester” public opinion



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Rochester Roundabout Background



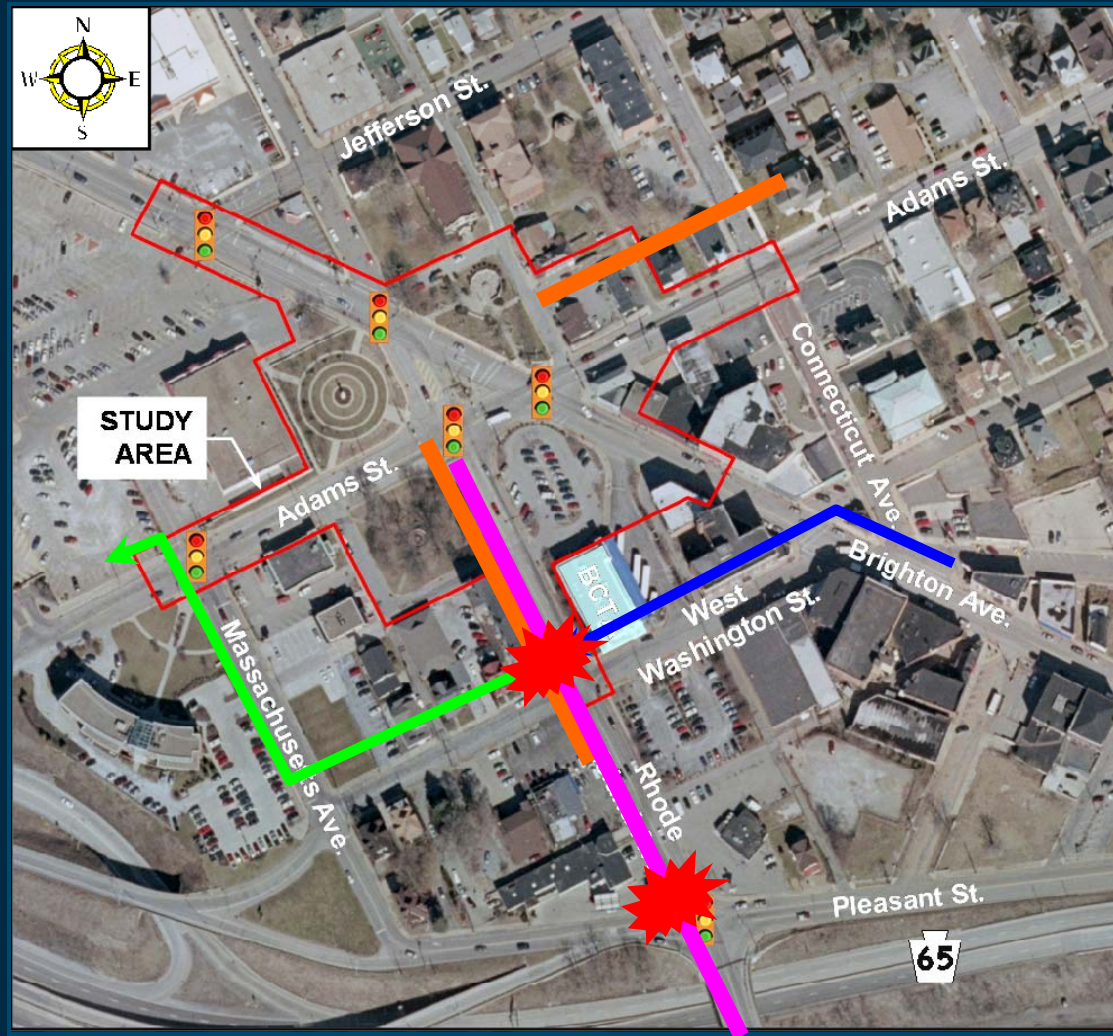
- Links land use planning and transportation decisions
- Develops lasting and sustainable transportation solutions
- Uses resources effectively
- Enhances alternate transportation modes (walking, bicycling, transit ridership)
- Encourages Smart Growth



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Rochester Roundabout Background



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Rochester Roundabout - Objectives

- Project Design Objectives
 - **Improve Safety**
 - Slower speeds
 - Less conflict points
 - **Reduce Congestion and Pollution**
 - Approximately 80 – 90% reduction in overall delay and average queues
 - **Save Money**
 - Reduced electricity bills
 - No signal maintenance
 - **Complement Common Community Values**
 - Aesthetically pleasing and inviting



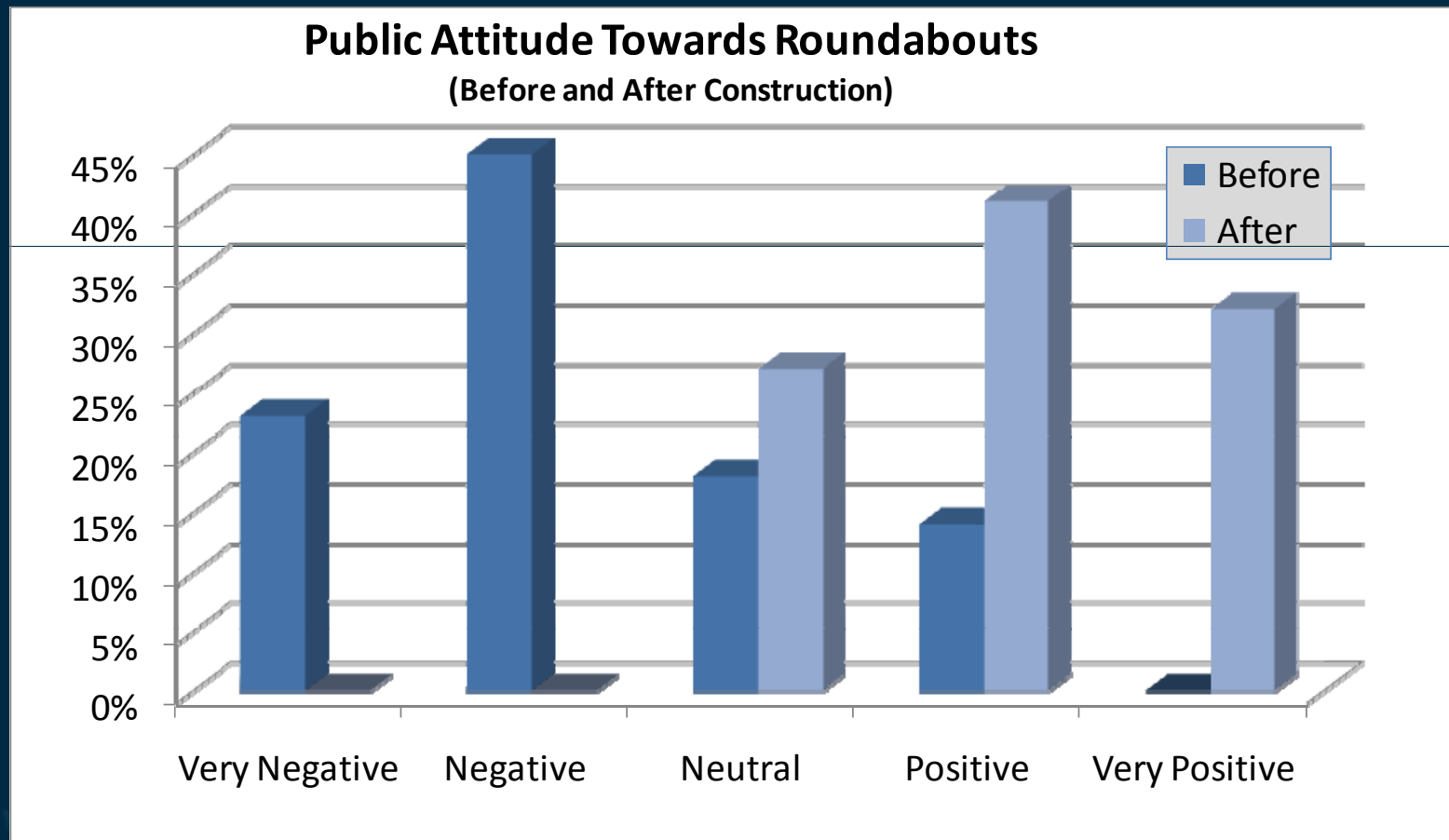
Rochester Roundabout Keys to Success

- Proper Design
- Public Involvement
- Stakeholder Support



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Rochester Roundabout Public Involvement



Rochester Roundabout Public Involvement



Future Year Signal Re-Timing

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Rochester Roundabout Public Involvement



Future Year Roundabout



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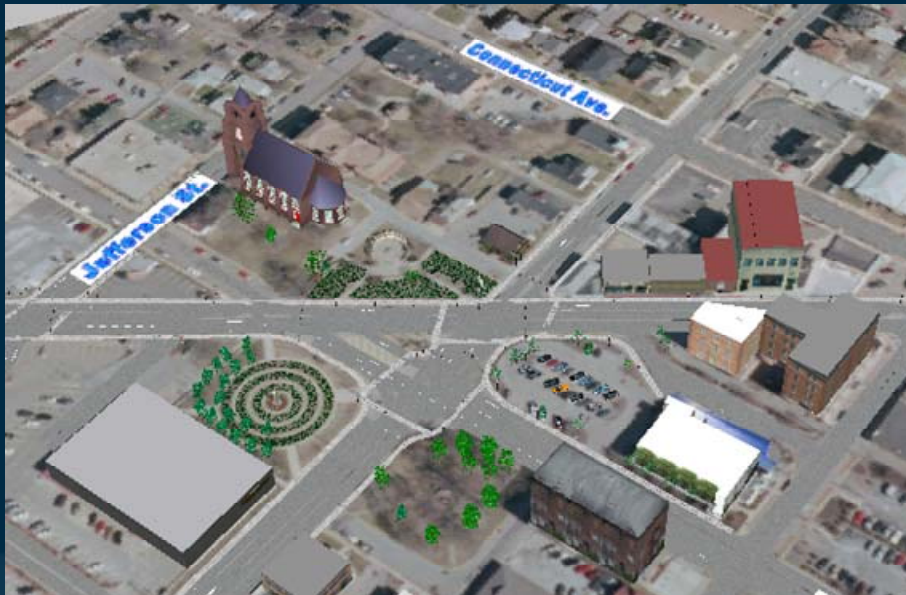


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Rochester Roundabout Impacts

- Greatly Reduces Delay and Queuing
- \$5.8 million in benefits versus \$1.8 million in costs



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Rochester Roundabout – Lessons Learned

- Lessons Learned:
 - Meet with local officials early and often
 - Meet with impacted property AND business owners
 - Speak from experience



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Key Points in Closing...

- Know your stakeholders
 - US 6N public participation
 - Titusville Opportunity Park issues
 - Rochester Council and Mayor Turnover
- Research the background
 - Titusville document review
 - US 6N and winter driving education
- Listen and fill-in the details
 - US 6N access & mobility
 - Rochester VISSIM



Key Points in Closing...

- Know the big picture
 - Titusville truck forecasting
 - US 6N VISUM
- Apply technology when it can help
 - Titusville GIS/GPS data
 - Rochester VISSIM simulation
- Prioritize in small steps
 - Titusville implementation schedule
 - US 6N ordinance modifications



Questions / Discussion



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