

ASHE / 8-0 Conference



I-81 Exit 44 Improvements

**Russell Micsky, P.E.
Gannett Fleming, Inc.**

April 8, 2011



Introduction

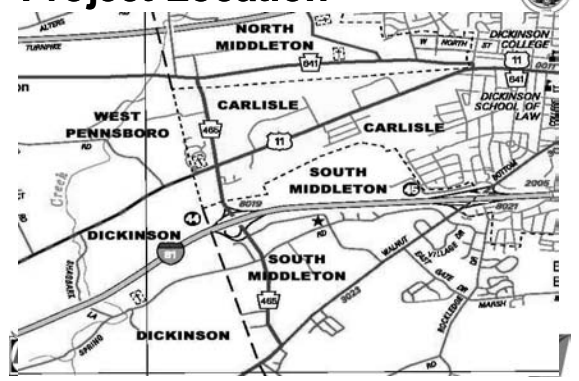


Agenda

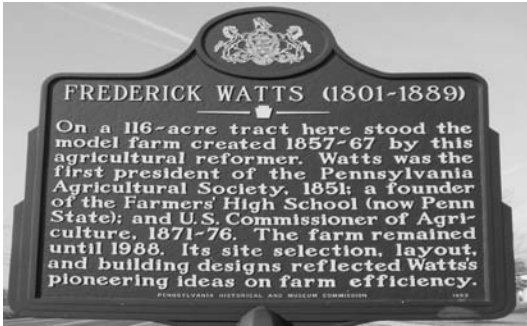
- Planning
- Environmental Clearance (NEPA)
- Design
- Construction
- Land Use



Project Location



Historical Land Use



Historical Land Use

Frederick Watts – Harvesting Wheat



Source: ExplorePAHistory.com

Historical Land Use

Frederick Watts – Model Farm

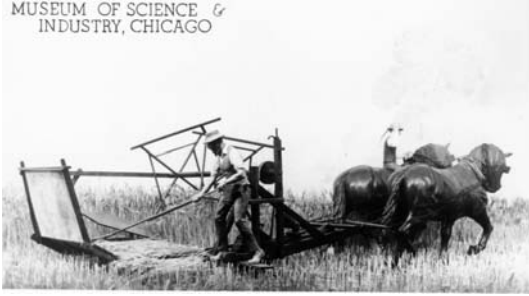


Source: ExplorePAHistory.com

Historical Land Use

Frederick Watts – Reaper & Mower

MUSEUM OF SCIENCE &
INDUSTRY, CHICAGO



Source: chicagopostcardmuseum.org

Historical Land Use

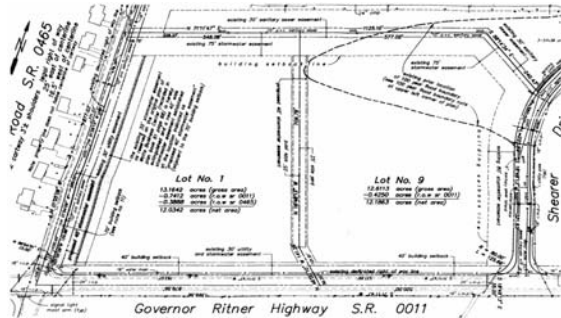
Frederick Watts – Reaper & Mower



Source: ExplorePAHistory.com

Historical Land Use

Watts – Farm to Business Center



Planning



Central Cumberland County Task Force on Regional Development

- Tri-County Regional Planning Commission
- Borough: Carlisle
- Townships: Dickinson
Middlesex
North Middleton
South Middleton
West Pennsboro



Planning



Task Force Concerns @ Exit 44

Q: Where did Cumberland County rank in terms of the fastest-growing areas in U.S. for Warehouse / Distribution space?

A: #2 (Atlanta, GA was #1)

Concern: High Level of Development Pressure



Planning



Task Force Concerns @ Exit 44

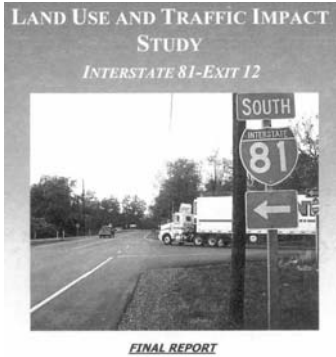
Q: How do we accommodate growth, mitigate environmental impacts, and help to secure funding for needed improvements?

A: Partnership

Concern: Interrelationship Between Land Use & Transportation



Planning



Planning



Study Objectives

- Create Desirable Land Use Pattern
- Evaluate Current / Future Zoning
- Recommend Design Improvements (to Serve Anticipated Development)



Planning & NEPA



Study Purpose

- Balance (Land Use & Transportation)
- Accommodate Growth
- Mitigate Impacts
- Secure Funding



Planning (1999)

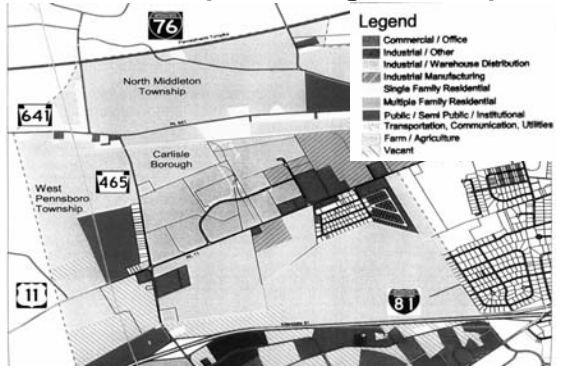


Project Setting / Distinct Features

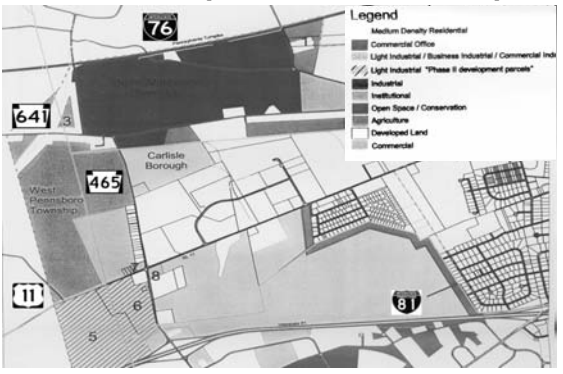
- Study Area (Approx. 2750 Acres)
- Undeveloped Land (62% of Study Area)
- Agricultural Land (48% of Study Area)
- Industrial - Warehouse / Distribution (Primary Developed Land Use)



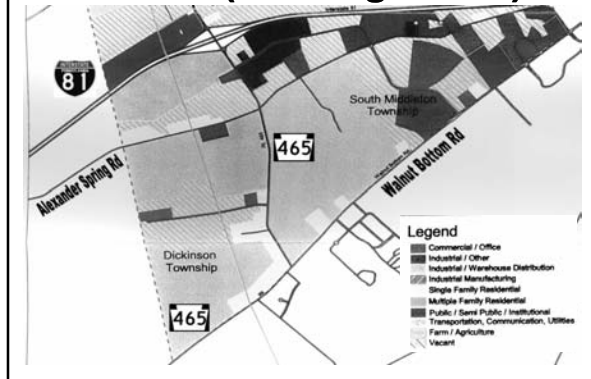
Land Use (Existing - 1999)



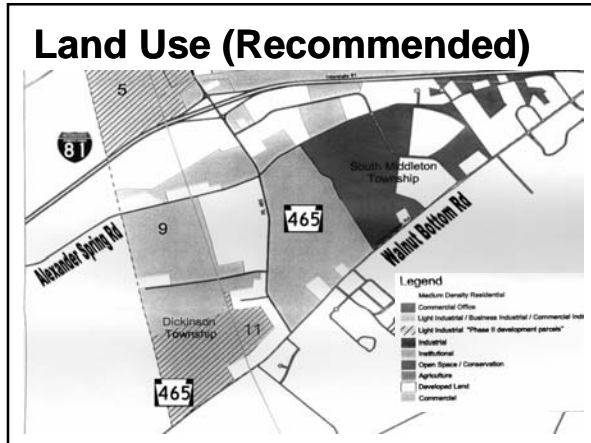
Land Use (Recommended)



Land Use (Existing - 1999)



Land Use (Recommended)



Planning

State Funding Arrangements

- PA Infrastructure Bank (PIB)
 - *Leverage Funds
 - *Accelerate Priority Projects
 - *Spur Economic Development
 - *Assist Local Governments



Planning



“Turnback” of PA 465 (Allen Rd)

- PennDOT - South Middleton Township
 - *Transferred Ownership (Petersburg Rd)
 - *Accepted Previously Offered R/W
 - *Set \$\$\$ Aside from Developers for Exit 44 Improvements



Design



Project Team

- Cumberland County (Task Force)
- FHWA
- PennDOT
- Gannett Fleming, Inc.



Design

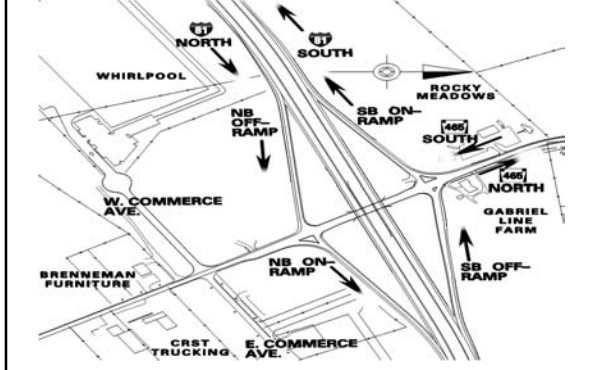


Project Objectives

- Provide for Traffic Flow
- Support Existing / Anticipated Development
- Accommodate Traffic Volumes
- Improve Safety



Exit 44 (Existing)



NEPA



Environmental Considerations

- Cultural Resources (Gabriel Line Farm)



NEPA

Gabriel Line Farm



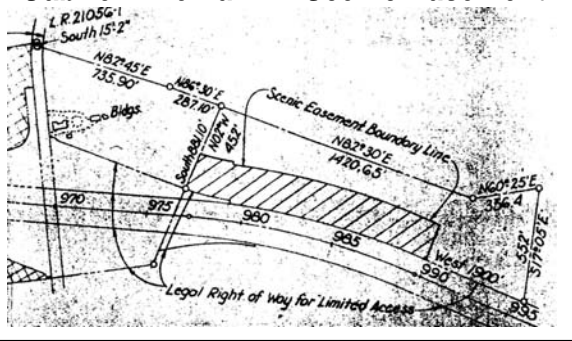
NEPA

Gabriel Line Farm



NEPA

Gabriel Line Farm – Scenic Easement

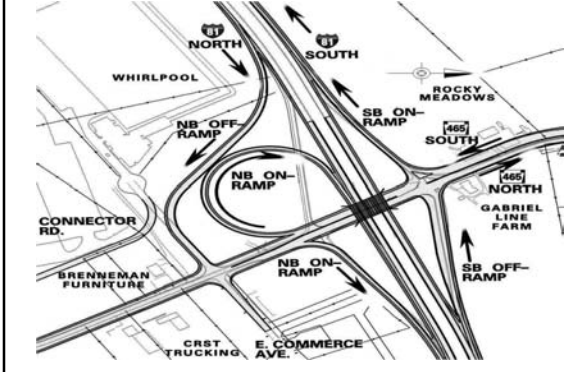


Post-NEPA

Gabriel Line Farm (April 2010)



Exit 44 (Proposed)



Design

Average Daily Traffic Volumes

<u>Route</u>	<u>Traffic Volumes</u>		<u>Truck %</u>
	<u>2008</u>	<u>2030</u>	
I-81	52,000	87,300	35
PA 465	14,000	28,600	25



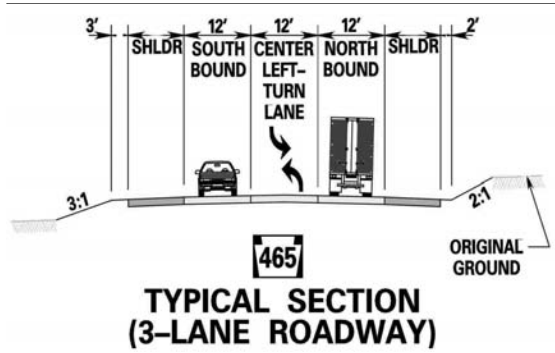
Design

Primary Considerations

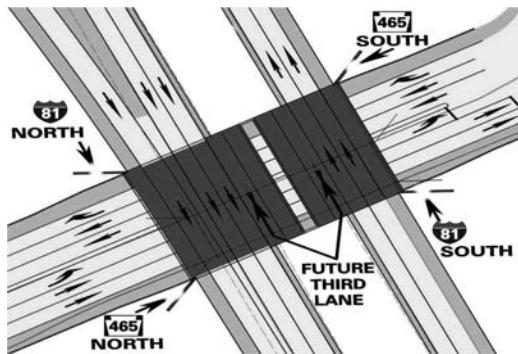
- Construction Staging / MPT
- Right-of-Way Acquisition
- Utility Relocation
- Drainage / Stormwater Management



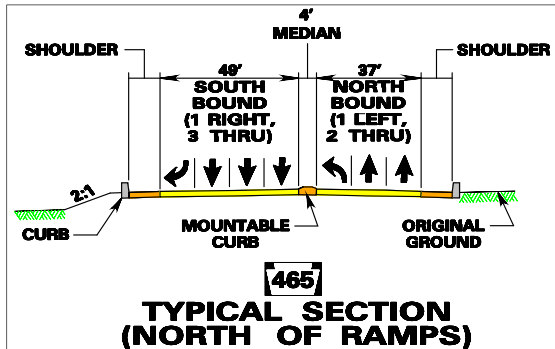
Design (Proposed)



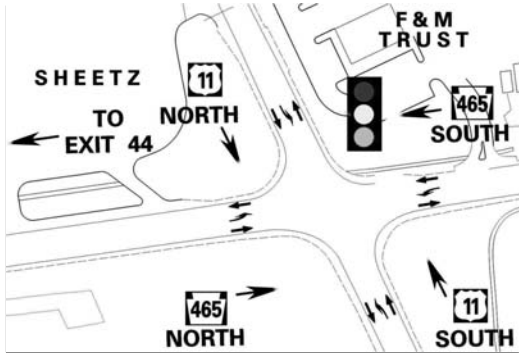
Design (Proposed)



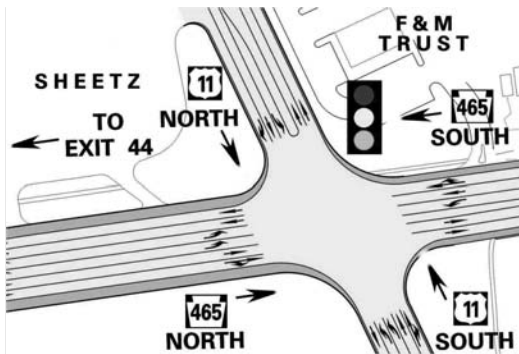
Design (Proposed)



Design (Existing)



Design (Proposed)



Construction

PA 465 – South of Exit 44

- Then & Now Photos
 - *Typical 3-Lane Section (PA 465)
 - *Alexander Spring Road
 - *Typical 5-Lane Section (PA 465)



Then

PA 465 – North of Walnut Bottom Rd



Now

PA 465 – North of Walnut Bottom Rd



Then

PA 465 – North of Ames Dr



Now

PA 465 – North of Ames Dr



Then

Alexander Spring Rd at PA 465



Now

Alexander Spring Rd at PA 465



Then

PA 465 – South of Interchange



Now

PA 465 – South of Interchange



Construction

Exit 44 Interchange

- Then & Now Photos
 - *I-81 NB Exit & Entrance Ramps
 - *I-81 SB Exit Ramp
 - *I-81 Bridge over PA 465



Then

I-81 NB Exit & Entrance Ramps



Now

I-81 NB Exit & Entrance Ramps



Now

I-81 NB Exit & Entrance Ramps



Then

I-81 SB Exit Ramp



Now

I-81 SB Exit Ramp



Then

I-81 Bridge over PA 465



Now

I-81 Bridge over PA 465



Construction



PA 465 – North of Exit 44

- Then & Now Photos
 - *Typical 5 to 6-Lane Section (PA 465)
 - *Ritner Highway (US 11)
 - *Retaining Wall (PA 465)



Then

PA 465 – North of Interchange



Now

PA 465 – North of Interchange



Then

PA 465 at Ritner Highway (US 11)



Now

PA 465 at Ritner Highway (US 11)



Then

Ritner Highway (US 11) at PA 465



Now

Ritner Highway (US 11) at PA 465



Then

PA 465 – Retaining Wall



Now

PA 465 – Retaining Wall



Land Use



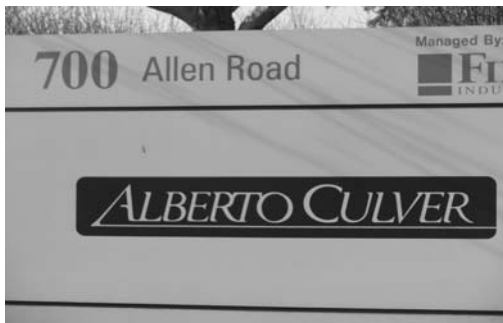
South Middleton & Dickinson Townships

- Business Sign Photos
 - *Ames Dr / True Temper Dr
 - *PA 465 (south of Alexander Spring)
 - *Alexander Spring Rd
 - *E Commerce Ave



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

South Middleton / Dickinson



Land Use

North Middleton Township

- Business Sign Photos

*Logisticcenter at Carlisle



Land Use (Then)

North Middleton Township



Land Use (Now)

North Middleton Township



Land Use

North Middleton Township



Land Use

North Middleton Township



Land Use



Carlisle Borough

- Business Sign Photos

- *Logistics Drive

- *PA 465 (Bear Parcel)

- *Shearer Drive



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Land Use

Carlisle Borough



Summary



I-81 - Exit 44 Improvements

- Provides for Traffic Flow
- Supports Existing and Anticipated Development
- Displays Successful Coordination (Federal, State, County, Municipal)



Summary



Contact Information

Kirk Stoner	Cumberland County
John Bachman	PENNDOT District 8-0
Russell Micsky	Gannett Fleming, Inc.



Questions?