Transportation Planning Perspectives Part 2: Transportation and Economic Development Session C7

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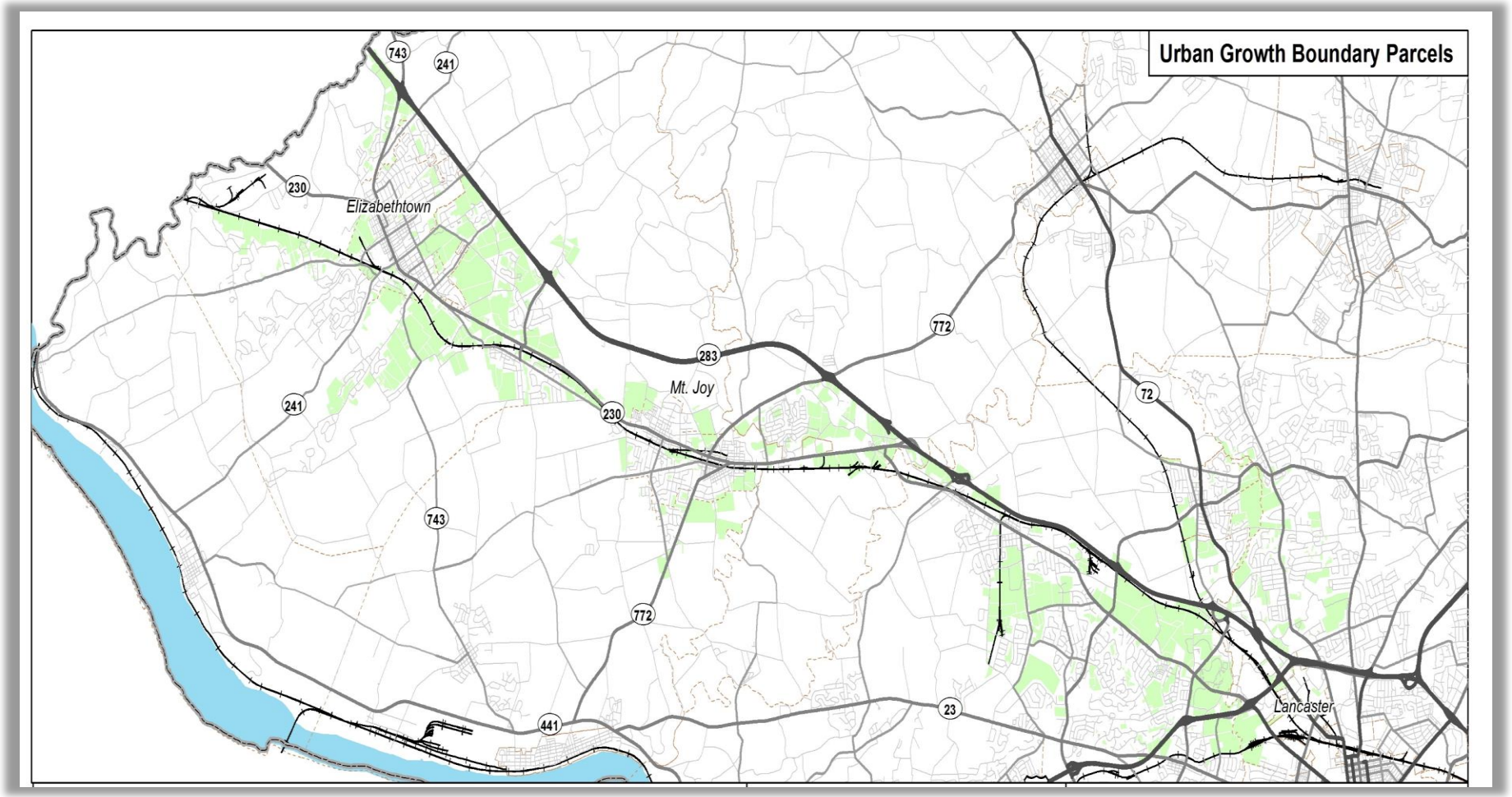
PA Chapter of the American Planning Association 2018 Annual Conference

Erie, Pennsylvania
October 14-16, 2018

SR 283/230 Corridor Study

- Joint project between the Lancaster County Planning Commission and the Lancaster County Economic Development Company
- Problem Statement
  - Lancaster County faces important economic development and land use management challenges within the key transportation corridors of Routes 283 and 230. Need to accomplish the following:
    - Enhance approaches to managing land use to the mutual and reinforcing benefit of all uses and all communities
    - Use sound relationship among jobs, housing, and transportation to direct transportation strategies and investments
    - Use a regionally agreed upon approach that can be replicated along other corridors within the county

Corridor Location



Corridor Study Steering Committee

- South Central Transit Authority
- Elizabethtown Area School District
- Mt. Joy Borough Authority
- Lancaster Farmland Trust
- Spooky Nook Sports
- The Wenger Group
- Union Community Bank
- Lift, Inc.
- East Hempfield Township
- West Hempfield Township
- East Donegal Township
- West Donegal Township
- Mount Joy Borough
- Mount Joy Township
- Rapho Township
- Elizabethtown Borough

Challenges

- The character of the corridor is very diverse
- Need to accommodate significant future growth
- Need to provide results that are meaningful to stakeholders, easily explained, and easily produced

Performance Measures

- Two-fold performance measurement
  - Land Use Scorecard – determine which land use is likely and which parcels are most likely to be developed first
    - Industrial
    - Commercial
    - Residential
    - Agricultural
  - Scenario Performance Measures – determine multimodal impacts of land use scenarios

Land Use Suitability

- What factors do you think make a parcel suitable for each land use?
  - Industrial
  - Commercial
  - Residential

Important Industrial Criteria

- Access to interstate
- UTILITIES
- Workforce
- Neighboring land uses
- Transit routes
- Topo
- Zoning
- Stormwater
- Brownfields
- Size
- Price
- Employee amenties

Industrial Land Use

Metric No.	Measure	Weight	Comparison
I-1	Parcel size	1	Bigger is better
I-2	Parcel shape	1	Square is better
I-3	Parcel fragmentation	1	Less is better
I-4	Nearby residential density	1	Sparse is better
I-5	Adjacent to existing industrial	1	More similar uses is better
I-6	Adjacent to vacant/infill parcel	1	Potential to combine with other parcel for more development
I-7	Nearby roadway Functional Classification	1	Higher class is better
I-8	Travel time to interstate	1	Closer is better
I-9	Direct access to interstate	0.5	Access is better
I-10	Travel time to transit	1	Closer is better
I-11	Access to railroad	0.5	Access is better
I-12	Access to water/sewer service	1	Access is better

Important Commercial Criteria

- Visibility
- Parkung
- Proximtiy to residential
- Transit
- High ADT
- COMPLIANCE WITH local plans and zoning
- Income

Commercial Land Use

Metric No.	Measure	Weight	Comparison
C-1	Parcel shape	0.5	Square is better
C-2	Parcel fragmentation	0.5	Less is better
C-3	Adjacent to existing commercial	1	More similar uses is better
C-4	Adjacent to vacant/infill parcel	1	Potential to combine with other parcel for more development
C-5	Nearby roadway Functional Classification	1	Collector or Minor Arterials is best
C-6	Travel time to police/fire/EMS	1	Closer is better
C-7	Travel time to transit	1	Closer is better
C-8	Commuting travel time to central business districts	1	Closer is better
C-9	Access to water/sewer service	1	Access is better
C-10	Walkability - sidewalk network nearby	1	Higher is better

Important Residential Criteria

- Employment
- Nearby adjacent land uses
- Utilities
- Schools
- Parking
- Other public amenities
- Median home values
- Crime
- Environmental characteristics

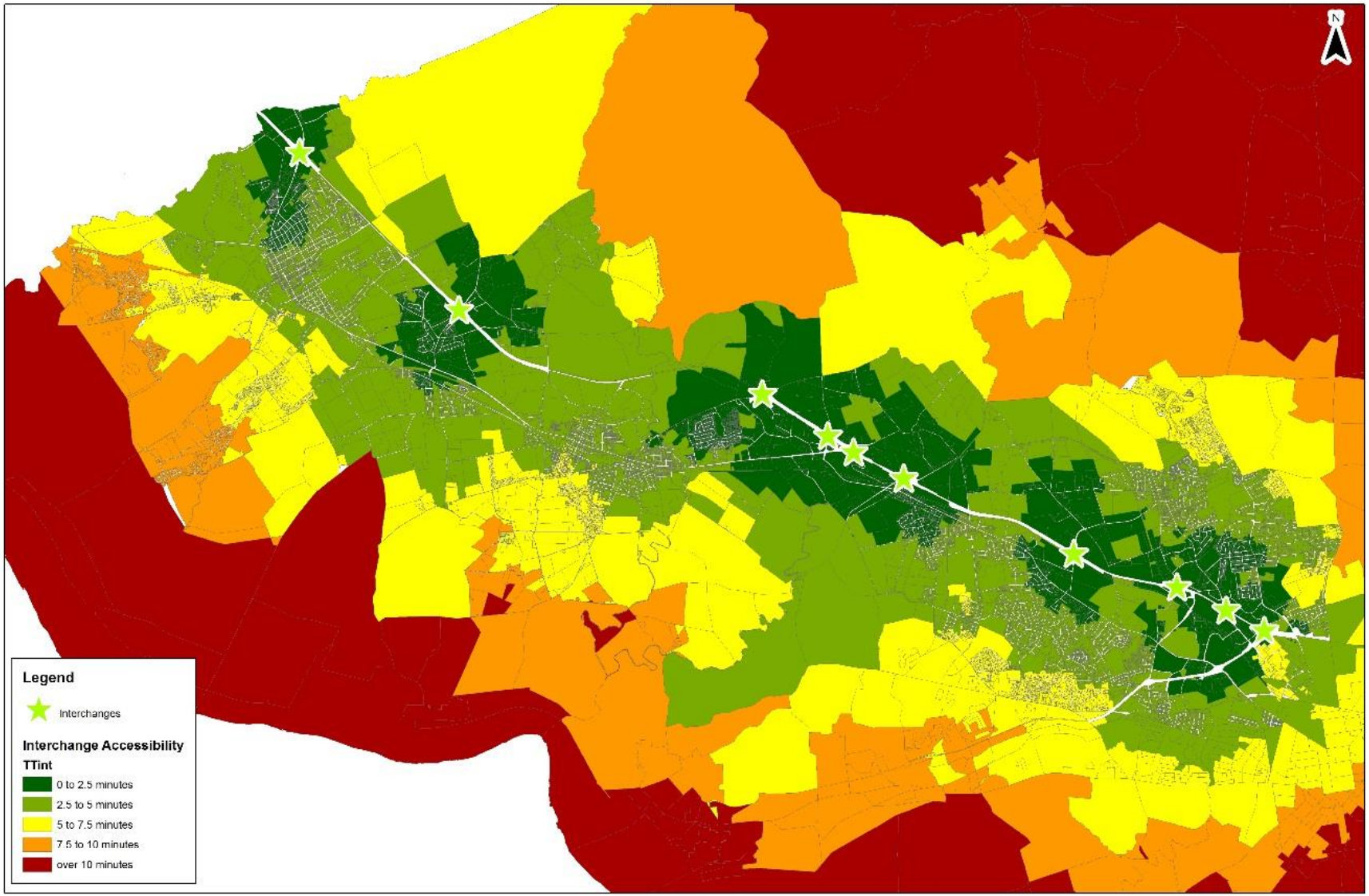
Residential Land Use

Metric No.	Measure	Weight	Comparison
R-1	Parcel shape	0.5	Square is better
R-2	Parcel fragmentation	0.5	Less is better
R-3	Nearby residential density	1	Denser is better
R-4	Distance from industrial land use	0.5	Further is better
R-5	Distance from agricultural land use	0.5	Further is better
R-6	Adjacent to existing residential	1	More similar uses better
R-7	Nearby roadway speed limit	1	Lower is better (lower speed)
R-8	Walkability to: schools, parks, grocery, hospital, commercial/retail	1	Closer is better
R-9	Travel time to transit	1	Closer is better
R-10	Travel time to police/fire/EMS	1	Closer is better
R-11	Commuting travel time to central business districts	1	Closer is better
R-12	Access to water/sewer service	1	Access is better

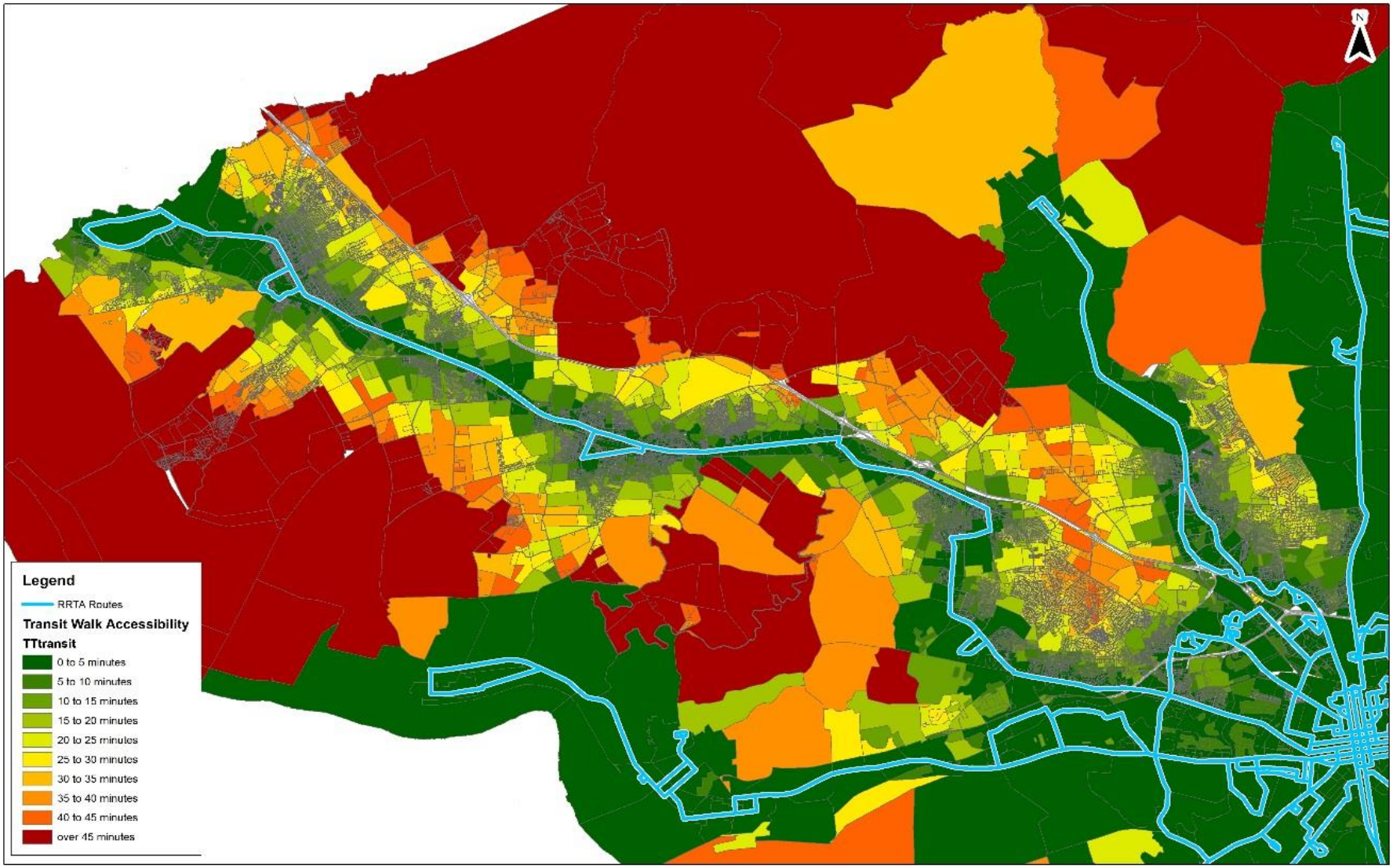
Scoring Criteria

Criteria	Agricultural	Industrial	Commercial	Residential
Access to railroad		1		
Access to water/sewer service		1	1	1
Adjacent to existing agriculture	1			
Adjacent to existing industrial		1		
Adjacent to existing commercial			1	
Adjacent to existing residential				1
Adjacent to vacant/infill parcel	1	1	1	
Commuter travel time to central business districts			1	1
Direct access to interstate (not through downtowns)		1		
Distance from agricultural land use				1
Distance from industrial land use				1
Protected agriculture	1			
Nearby residential density		1	1	1
Nearby roadway Functional Classification	1	1	1	
Nearby roadway speed limit				1
Parcel fragmentation	1	1	1	1
Parcel shape	1	1	1	1
Parcel size	1	1		
Travel time to interstate		1	1	1
Travel time to police/fire/EMS			1	1
Walk access to transit route		1	1	1
Walkability - established sidewalk network nearby			1	
Walk access to schools, parks, grocery, hospital, retail				1

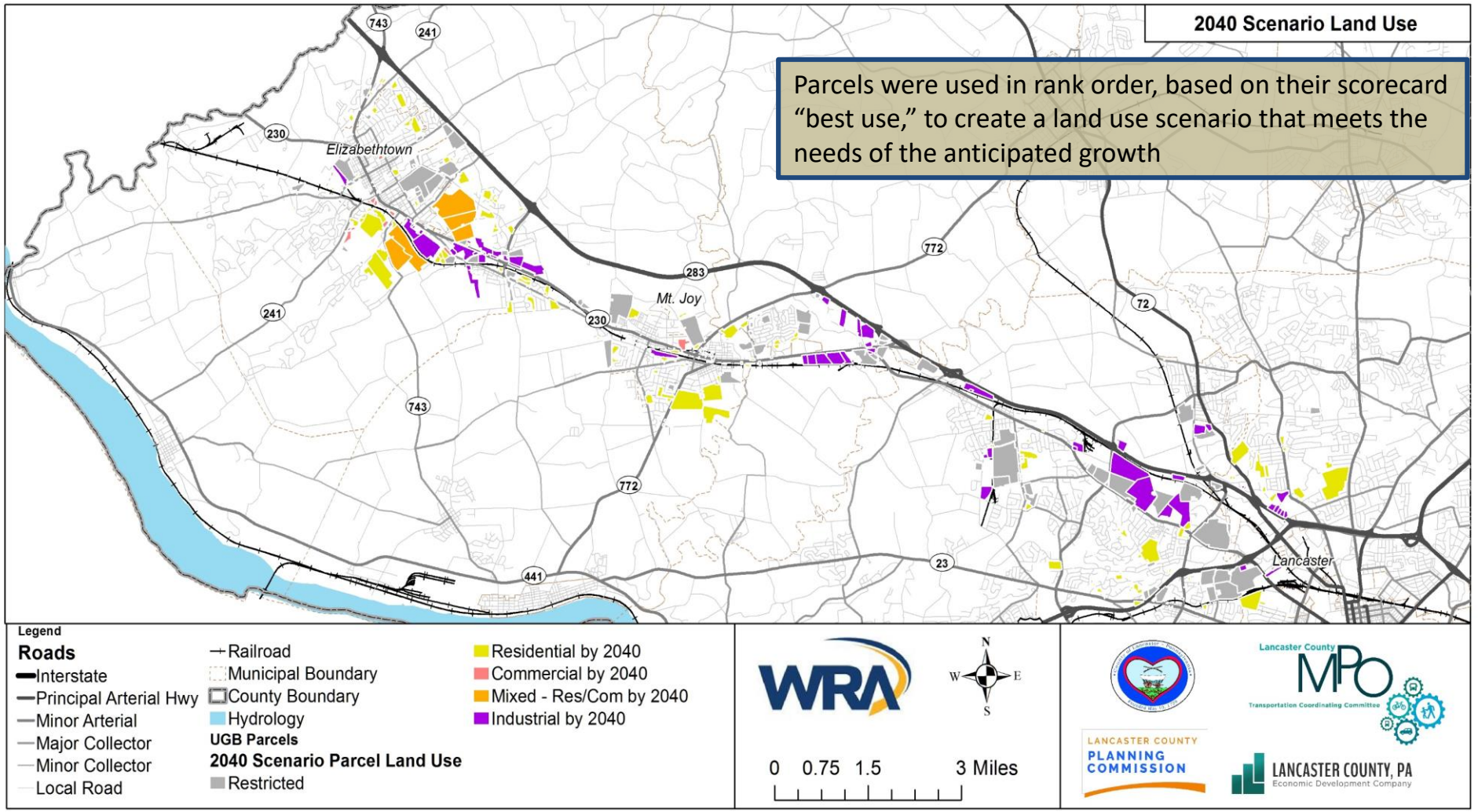
Drive Access to an Interchange



Walk Access to Transit

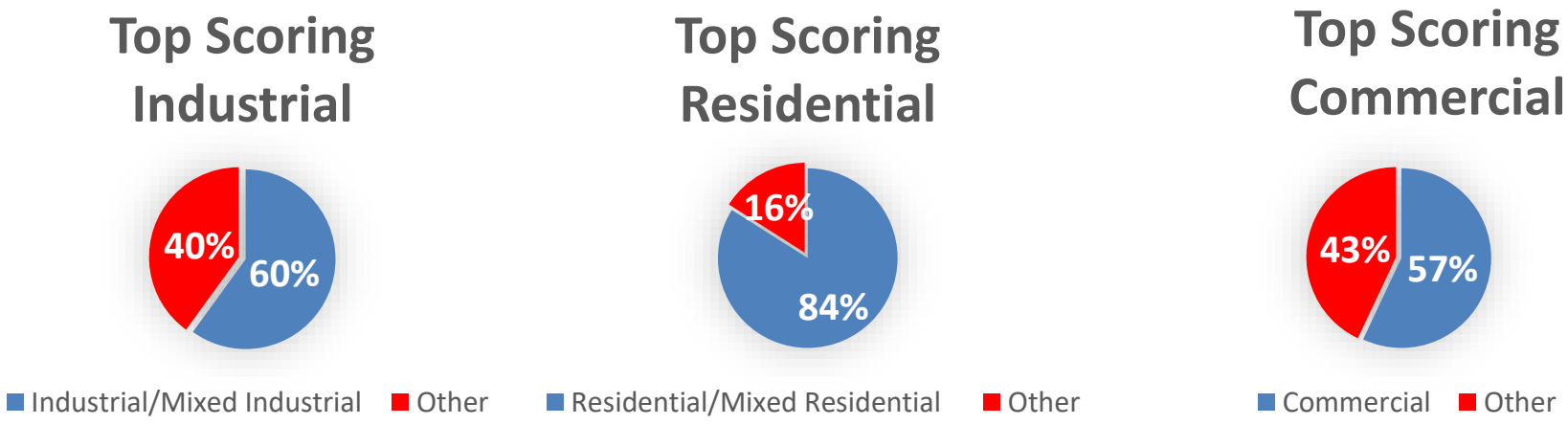


Predicting Land Use



Comparison to Zoning

- Current zoning is promising
  - Most parcels ranked most appropriate for residential use were already zoned residential
  - But alignment erodes when looking at commercial and industrial uses



Methods, Transportation Assessment

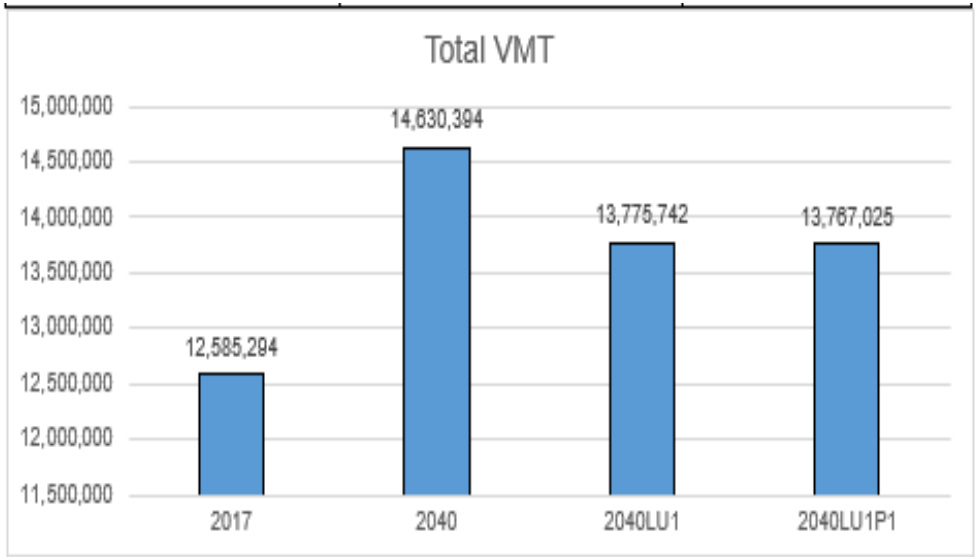
- Transportation was forecasted based on four scenarios:
  1. Current 2017 conditions
  2. Future 2040 conditions with current land use patterns
  3. Future 2040 conditions with selected land use as identified by parcel analysis (previous slides)
  4. Future 2040 conditions with selected land use and transportation improvements

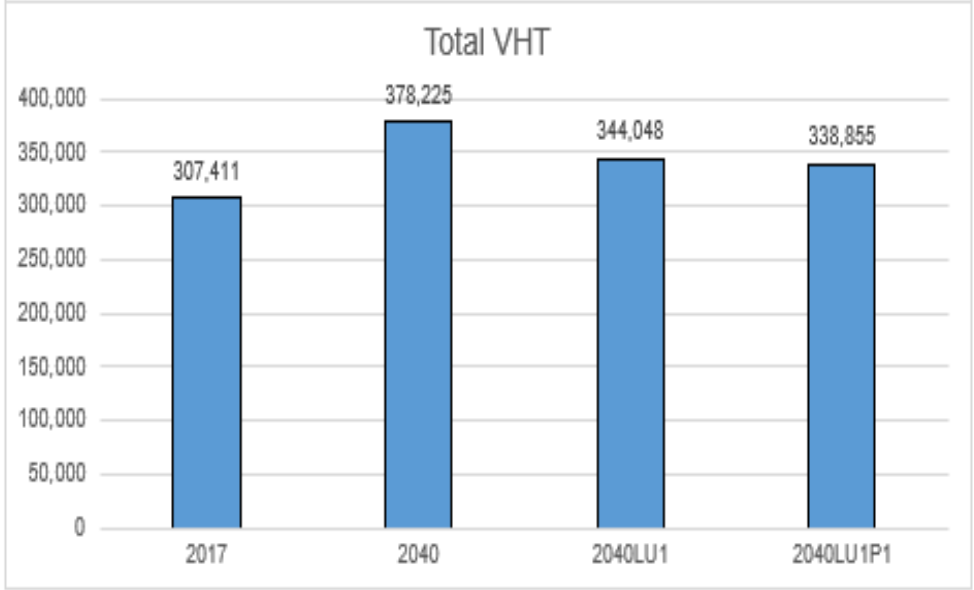
- Two types of transportation improvements:
  1. Projects Identified by Others, including TIP projects and existing plan recommendations
  2. Project identified in this study, identified whether by partners or consultants

*Passenger and freight rail was not considered in any scenario

Transportation Results

The selected land use scenario has a greater role in decreasing congestion and vehicle miles travelled compared to simply applying road improvements to current land use trends under future conditions.

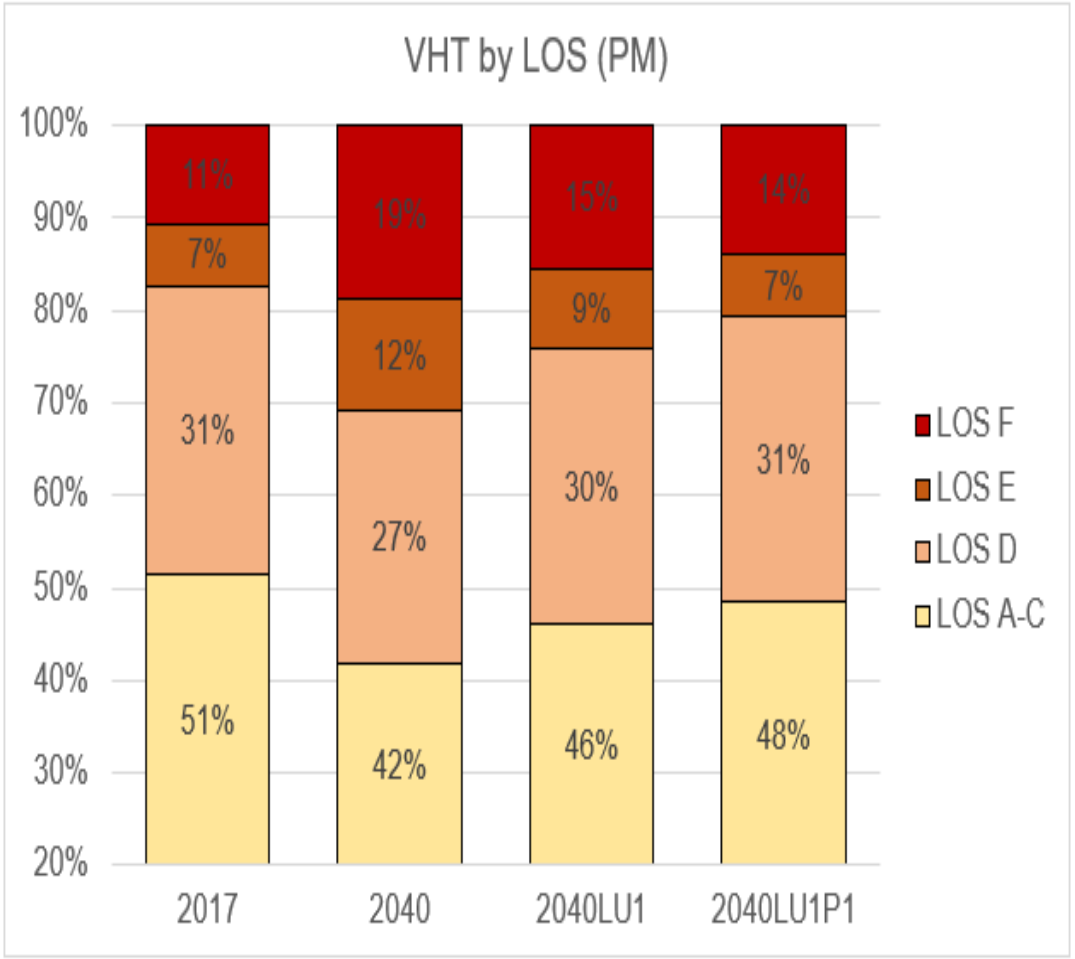




Transportation Results, Level of Service

Similarly, level of service is impacted by land use.

A wide range of transportation improvements are highlighted, and when combined with the selected land use scenario, transportation dollars will have the greatest impact.



Conclusions

- Applying the selected land use scenario has a greater role in decreasing congestion and vehicle miles travelled compared to road improvements based on current land use.
- A key element to effective land use and transportation planning is the need for decision-making to span multiple municipalities over a sustained period.
- Small scale and multi-modal transportation improvement can have a significant impact.
- Specific land use suggestions can help municipalities target growth.
- This methodology, including the scoring system for parcels and projection scenarios, can be used in other parts of the county to assist in planning efforts.

Next Steps

- Incorporate findings into the North West Regional Plan and facilitate further regional and municipal planning adoption
- Analyze individual industrial parcels highlighted in the report to assess their feasibility for development.
- Develop projection for the industrial growth demand in the corridor
- Take steps to execute key transportation improvements by evaluating their position on the TIP and inclusion in the next metropolitan transportation plan
- Evaluate and address water and sewer infrastructure to ensure parcels can accommodate growth
- Coordinate with lead farmland preservation efforts to avoid conflict over high priority industrial sites

Questions?

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