

SOUTHBRIDGE COMMUNITY CIRCULATION STUDY

COMMUNITY MEETING #2

April 15, 2008



WILMAPCO



Meeting Agenda

- **Review of topics discussed last meeting**
 - Pedestrian Improvements
 - Bicycle Infrastructure Improvements
 - Transit Improvements
 - Transportation Improvements
- **Next Steps**



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Review of Last Meeting

- **Kick-off of Circulation Study for Southbridge Community**
- **Reviewed current traffic operations**
 - New Castle Avenue
 - South Heald Street
- **Discussed truck traffic volumes**
- **Discussed potential improvements for other modes of transportation**
 - Walking
 - Biking
 - Transit
- **Received feedback from community**



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Pedestrians

As we discussed at our previous meeting:

- **Improvements identified by WILMAPCO through Special Area Management Plan (SAMP)**
 - Crosswalks
 - Pedestrian signals
 - ADA compliant curb ramps
- **Gaps in sidewalk infrastructure**
- **Pedestrian access to Riverfront (extension of Riverwalk)**



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Pedestrian Improvements

- **Additional improvements relating to pedestrians (community comments):**
- **Sidewalk repairs**
 - A Street between New Castle Ave and Claymont St – Brick pavers in poor condition
 - B Street and Claymont Street – Roots from trees destroying sidewalks
- **Provide crosswalk on D Street at New Castle Avenue**
 - Need to develop signing and striping plan



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Pedestrian Improvements

- **Pedestrian scale street lighting**
 - New Castle Avenue
 - South Heald Street
 - C Street
 - Buttonwood Street
- **Examine feasibility of extending Riverwalk to Southbridge community**



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Bicycle Transportation

As we discussed at our previous meeting:

- **Current bike routes through community**
 - State Bike Route 2
 - New Castle Avenue -> A Street -> Walnut Street
 - Recreation Route
 - A Street -> South Heald Street
- **Lack of dedicated bike lanes through community**
- **Lack of bicycle route signage**



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Bicycle Transportation

- **Incorporation of bike lanes on New Castle Avenue and South Heald Street was examined**
- **New Castle Avenue**
 - Roadway could be restriped to provided a dedicated bike lane
 - Restriping of roadway with more narrow lanes could reduce travel speeds through community
 - Providing bike lane next to parking lane is a safety concern



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Bicycle Transportation

➤ **South Heald Street**

- Dedicated bike lane is not feasible
- Parking on both sides of street limits travel way to 24 feet
- Minimum lane width that could be provided is 10 feet yielding a 4 foot wide bike lane -> Not wide enough
- Experienced cyclists can ride in existing travel lanes



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Bicycle Transportation

➤ **Next Steps:**

- Review bike lane signing/stripping with DeIDOT
- Determine locations for bike route signage
- Develop striping plan for New Castle Avenue
- Implement signing and striping



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Transit Improvements

As we discussed at our previous meeting:

- **Bus shelter locations identified by community**
 - A Street @ Buttonwood Street
 - South Heald Street @ Peach Street
- **Evaluation of alternative shelter designs**
 - Review boarding data to determine where shelters may be warranted
- **Next steps**
 - Determine how to fund new bus shelters



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Transportation Improvements

As we discussed at our previous meeting

- **Improvements identified in SAMP Neighborhood Plan**
 - Bypass from New Castle Avenue / D Street intersection to Christina Avenue
 - Community does not favor this option
 - Community would rather see an existing route dedicated for truck traffic
 - Two-way traffic on Heald Street and New Castle Avenue
 - Lack of support from community
 - RK&K to model to determine level of benefit or lack of benefit



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Transportation Improvements

➤ **Community provided additional recommendations during last meeting**

- Lack of pavement markings on C Street between Heald Street and New Castle Avenue
- Evaluate signal operations to prevent motorists from having to speed to get through each signal
- Look at rerouting truck traffic onto other roadways
 - Dedicated truck route
 - Truck restrictions within community
- Evaluate traffic calming alternatives



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Safety Improvements

➤ **C Street Pavement Markings**

- RK&K found that signal heads were not in correct position
- WILMAPCO through RK&K made request to City to adjust signal heads
 - City adjusted signal heads on March 22, 2008
- WILMAPCO through RK&K sent request to City for double yellow pavement markings
 - City added location to schedule of pavement marking jobs
 - Pavement markings should be provided in near future



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Two-Way vs. One-Way

- **Convert New Castle Avenue and South Heald Street from one-way to two-way**
- **RK&K developed traffic model to analyze affects of two-way travel vs. one-way travel**
- **New Castle Avenue – Two-way traffic from D Street to south of Lobdell Street**
- **South Heald Street – Two-way traffic through entire community (Lobdell Street to D Street)**



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Two-Way vs. One-Way

- **Advantages of two-way operation**
 - Overall capacity is increased on both roadways
 - Two-way traffic could cause motorists to drive slower
 - Two two-way roadways provides additional alternative routes during emergency road closures (crashes, construction, etc)



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Two-Way vs. One-Way

➤ **Disadvantages of two-way operation**

- Pedestrian crossings at intersections are more difficult – cars coming from both directions
- Signal coordination more difficult for two-way roadways
- Could invite additional traffic to community
- Tie-in point at Lobdell Street could cause some operational problems
- Parking on New Castle Avenue is on one side of street only



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Traffic Signal Progression

➤ **Signal progression on New Castle Avenue and South Heald Street**

- Community said that vehicles speed to try and make it through each signal
- Data shows that average travel speed through community is approximately 40 MPH
- Retiming of signals based on 25 MPH speed limit could reduce speeds through community while allowing more vehicles to get through each signal



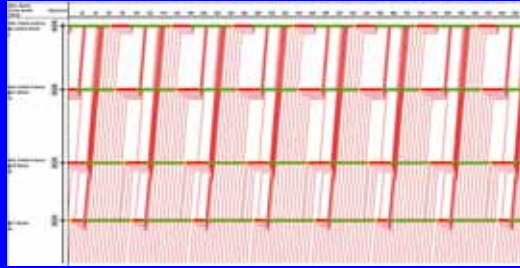
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Traffic Signal Progression

- RK&K used traffic model to evaluate signal coordination
- Minor changes in offset times between signals could allow more vehicles to get through each signal at a slower speed



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Traffic Calming

- **What is Traffic Calming?**
 - Changes in street alignment
 - Physical measures to reduce traffic speeds
 - Physical measures to reduce cut through traffic
- **Types of Traffic Calming treatments**
 - Roundabouts (speed reduction, crash reduction)
 - Chicanes (speed reduction)
 - Neckdowns or Chokers (speed reduction)



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Traffic Calming

Examples of Traffic Calming treatments



Neckdown (Bulbout)
Maryland Ave @ Cedar St



Chicane
Harmony Road



Roundabout
Southern New Castle County



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Traffic Calming

➤ Traffic Calming for Southbridge

- Provide bulbouts at each signalized intersection on New Castle Avenue and South Heald Street
 - Reduce curb-to-curb width of roadway
 - Lower speeds due to perceived narrowing of roadway
 - Provides for shorter pedestrian crossings



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Streetscape Enhancements

As we discussed at our previous meeting:

➤ **Community would like streetscape enhancements**

- New Castle Avenue
- South Heald Street



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Streetscape Enhancements

➤ **Type of streetscape enhancements**

- Pedestrian scale street lighting
- Street trees
- Brick paver sidewalks
- Bulbouts at intersections (Traffic Calming)
- Decorative traffic signal hardware



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Streetscape Enhancements

How to fund Streetscape Enhancements

➤ Transportation Enhancement Program

- Federally funded program to develop a more balanced multi-modal transportation system
 - Project must have relationship to surface transportation
 - Project must be dedicated to public use
 - Project must fit into one of several eligible categories
 - Pedestrian and bicycle facilities
 - Landscaping and beautification



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Truck Traffic

As discussed at our previous meeting:

➤ Truck Travel through community

- 6% daily trucks on New Castle Avenue
- 7% daily trucks on South Heald Street
- Less than 1% of daily trucks are tractor-trailers
- Majority of trucks are single-unit 2 or 3 axle
- Trucks coming from multiple locations, not just port
- Some construction related truck traffic may decrease when Riverfront construction is complete



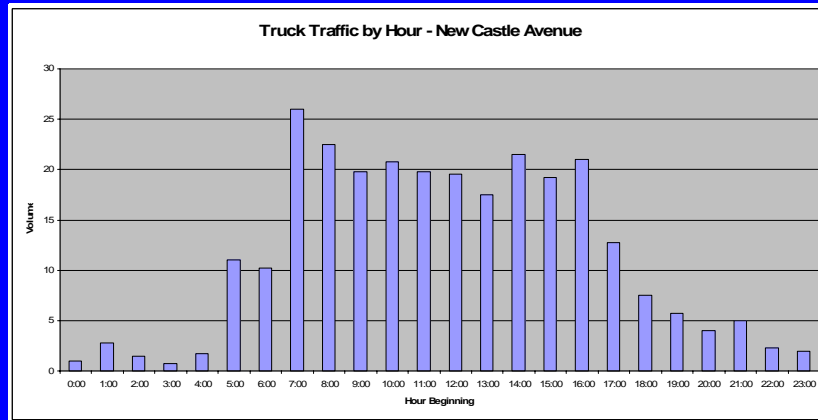
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Truck Traffic

➤ Hourly breakdown of truck traffic



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Truck Traffic

Truck Restrictions

- Restrictions could be implemented on New Castle Avenue and South Heald Street
 - Roadways not part of National Highway System
- Enforcement of truck restrictions is difficult
 - No clear definition of local delivery
 - Enforcement of truck restrictions takes police away from other activities



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Truck Traffic

Designated Truck Route

- No convenient alternative route to redirect truck traffic
- Construction of a bypass as suggested in the Neighborhood Plan could provide benefit
- No funding for bypass construction – would not happen for a number of years



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Truck Traffic

What can be done to deter truck traffic?

- Traffic Calming (bulbouts)
 - Reduced turning radii for trucks
- Narrow lane widths as a result of providing bike lanes



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Recommendations

As a result of our analysis, the following recommendations can be made:

➤ **Two-Way vs. One-Way**

- New Castle Avenue and South Heald Street should remain as one-way pairs
- Disadvantages outweigh benefits of two-way operation
- Retiming of signals should improve the movement of vehicles on these roadways



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Recommendations

➤ **Signal Progression**

- Change offsets for each signal based on traffic modeling and observe affect on vehicles
- Install signs with the legend SIGNALS SET FOR 25 MPH
- Items to evaluate further related to signal timings:
 - Evaluate signal timings – can a lower cycle length be provided to reduce side street delays
 - Use of detection for side street traffic



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Recommendations

➤ **Traffic Calming**

- Provide bulbouts at each signalized intersection
 - New Castle Avenue
 - South Heald Street
- Incorporate traffic calming with streetscape enhancements

➤ **Streetscape Enhancements**

- Pedestrian scale street lighting
- Street trees
- Brick paver sidewalks
- Decorative traffic signal hardware



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Recommendations

➤ **Truck Traffic**

- Utilize traffic calming improvements and bicycle improvements to deter truck traffic
- Continue to monitor truck traffic within community



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Next Steps

The following tasks will be completed:

- Evaluate potential changes to signal timings
- Prepare comprehensive report of study
- Determine methods of funding recommended improvements
- Meet with community to discuss final results and recommendations
- Implement recommendations



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Thank you for your time

**We will be happy to answer any
questions you may have**



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