One-Way-to-Two-Way Street Conversions:
Issues from a Transportation Perspective

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Where We’ve Been

- Conversion to one-way streets in downtown areas during 1960’s and 1970’s
- **Intent:** To relieve traffic congestion
- **Other benefits:** Improved mobility (signal progression, transit, truck traffic, pedestrian crossing safety)
- **Disadvantages:** Wayfinding difficulties, business impacts, loss of “sense of place”
Where We Are Today

- Many communities considering return to two-way streets
- Typically associated with master planning/downtown revitalization efforts
- More emphasis on “other” modes
- Quality of life issues having greater importance
The Dilemma

Traffic Engineers vs. Urban Planners

Has resulted in the need to take an objective look at the issue from all sides

Provide information to decision makers
3 Kentucky Case Studies

- Lexington
- Louisville
- Owensboro
Lexington, KY

- Downtown Lexington Master Plan
- Recommends conversion of all downtown one-way streets
- Advocates
  - Downtown Businesses, Residents
- Opponents
  - Transportation Professionals, Commuters

Source: Ayers/Saint/Gross
Lexington, KY (cont.)

- 4 primary one-way pairs
  - Main St./Vine St.
  - High/Maxwell
  - Limestone/Upper
  - Short/Second

- Study Findings
  - Short/Second likely candidates for conversion
  - Major increases in travel time, delay for other pairs
  - Congestion “hot spots”
Louisville, KY

- First Street and Brook Street Conversion Feasibility Study
- Old Louisville Neighborhood
- Located between downtown Louisville and University of Louisville
- I-65 Corridor → Diversion
- Mixed Use: Residential + Neighborhood Commercial
Louisville, KY (cont.)

- Advocates
  - Residents
  - Business Owners
- Opponents
  - Adjacent Neighbors
  - Commuters
- Emotionally-charged (volatile) issue
- Finding: Conversion feasible from traffic operations perspective
Owensboro, KY

- Adopted Downtown Master Plan
- Recommendation: Convert 2nd Street to Two-Way
- Broader community support
- Question: How best to make it work?

Source: Gateway Planning Group
Owensboro, KY (cont.)

ISSUES

- Removal of US 60 route designation along 2\textsuperscript{nd} Street, 4\textsuperscript{th} Street
- Other street conversions?
- Termination of 2\textsuperscript{nd} Street, 4\textsuperscript{th} Street one-way couplet
- Downtown industries $\rightarrow$ Truck traffic circulation
- Traffic diversion to other streets
Owensboro, KY (cont.)

- Recommendation to convert 2nd Street and 4th Street to two-way
- Terminal points
  - West end: Roundabout with advanced signing
  - East end: Retain one-way pairs
- 4th Street becomes downtown truck route
- Ownership transfer of streets (AASHTO Special Committee on U.S. Route Numbers)
Tools

- Traffic Simulation
  - Detailed performance measures
  - Dynamic traffic assignment
  - Pedestrian Impacts
- Areawide Travel Demand Models
  - Master plan-induced growth
  - Traffic diversion beyond immediate impact area
- Integration between demand models and simulation
- Other Traffic Analysis Tools
  - Signal timing software
  - Planning-level analysis tools (e.g. ARTPLAN)
- Structured Public Involvement
  - Democratic
  - Equal voice to all
  - Avoid strategic behavior
Lessons Learned

- Very emotional issue involving different perspectives
- Each situation unique
- See the “big picture”
- Account for induced growth
- Consider traffic diversion
- Consider pedestrian, parking, truck impacts
- Use the right tools
- Include public involvement
- Effective communication a must
- Retain objectivity → Provide information only
- Leave ultimate decision to decision-makers
Questions?