A Diet that Works
AMATS Road Diet Analysis

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Overview

• What is a Road Diet?
• The Big Picture
  – Why does an MPO care about Road Diets?
• AMATS Road Diet Analysis/Examples
What is a Road Diet?

- Reduces the number lanes on a roadway
- Most common conversion is four lanes to three lanes
- One lane in each direction with a continuous turn lane
- Dropped lane width is allocated to other users
- Same pavement width, new lane configuration
- Very little additional infrastructure cost
Typical Configuration
Benefits of a Road Diet

• Safety
  – Overall crash reduction of 19 to 47 percent
  – Less rear-end and left turn crashes through use of a dedicated left turn lane
  – Calming effect on speed

• Fewer lanes for pedestrians to cross

• Extra width can accommodate other transportation modes such as bikes
Benefits of a Road Diet

• Smoother traffic flow, less slow and go flow

• Best use of pavement when the capacity of a roadway is greater than the demand
  – Highways designed in 50’s and 60’s based on the current growth patterns
  – Population projections never materialized
Why We Care About Road Diets

- Transportation Funding Difficulties
- Regional Demographics
- Connecting Communities/Complete Streets
- Re-imagining Spaces
Transportation Funding Difficulties

- Funding has remained unchanged while project costs continue to rise

- Bike and pedestrian connections often foiled by right-of-way/acquisition costs

- We can create important connections with minimal cost
- Loss of population
- Lower traffic counts
Connecting Communities and the Importance of Complete Streets
Complete Streets
Re-imagining Our Community

N Main St Akron - Existing
Re-imagining Our Community

N Main St Akron – During Better Block

Photo: Tim Fitzwater
Re-imagining Our Community

N Main St Akron - Existing
N Main St Akron – During Better Block
Tools

Baton Rouge

Tempea Paint & Duct Tape
The AMATS Road Diet Analysis

- Goal was to compile a list of streets where a road diet could be applied
- Start with an accurate inventory of roadways
  - GIS Database
  - ODOT Office of Technical Services
  - Highway Maintenance
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• Reduce the inventory by eliminating
  – Interstates and freeways
  – Divided roadways (freeway look-alikes)
  – Roadways with only two lanes

• In rare cases three lane roads and five lane roads can receive a road diet
The AMATS Road Diet Analysis

• Three lane roads must have unusually wide lanes
  – Reduce width of each lane
  – Allocate space for bike lane
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- Road diet applied to five lane roads has to have extra space well defined
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• Find average daily traffic (ADT)
  – Tier One: less than 10,000
  – Tier Two: 10,000 to 15,000
  – Tier Three: 15,000 to 20,000
  – Over 20,000 is probably not a good choice
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• Determine peak hour volume
  – If this is not provided it is usually 8-12% of the ADT

• Determine directional peak hour volume
  – If this is not provided use “engineering judgment”
  – Peak hour directional volume less than 800-900
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• Additional Analysis Recommended

  – Tier 2 roadways (ADT 10,000-15,000) key intersections should be analyzed, intersection spacing and length of queues considered

  – Tier 3 roadways (ADT 15,000-20,000) key intersections should be analyzed and corridor analysis for overall level of service
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- Additional Considerations
  - Roadway function and it’s environment
  - Continuity
  - Railroad tracks - queues twice as long with less lanes
  - Grades and slow moving vehicles
  - Frequently stopping vehicles, especially buses
  - Population and traffic volume trends
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- **Successful Implementation**
  - All stakeholders are part of the planning process
  - Coordinate with resurfacing projects/schedules
  - Community support
Road Diet Examples

Copley Rd (SR 162) in Akron, ADT = 13,300
Road Diet Examples

South St in Akron, ADT = 1,920
Road Diet Examples

South Main St in Summit Co., ADT ≈ 12,000
Road Diet Projects Planned

- Cedar St in Akron, three one-way lanes + parking, ADT = 9,370
Road Diet Projects Planned

- Exchange St in Akron, four one-way lanes, ADT = 10,390
High Ranking Candidates

Maple St in Akron, ADT = 5,760
High Ranking Candidates

Wolf Ledges Pkwy in Akron, ADT = 8,400
High Ranking Candidates

E. Exchange St in Akron, ADT ≈ 10,000
High Ranking Candidates

N. Main St in Akron, ADT ≈ 10,000
Questions?

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