

# City of Northfield Transportation Plan Update November 15, 2007

Presented by  
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## Purpose of Meeting

- Present Transportation Plan Purpose
- Better Understand Transportation Issues and Challenges in Northfield
- First of Three Public Information Meetings



## Background

- A Transportation Plan is a System-Level Review and Vision for:
  - ◆ Streets and Highways
  - ◆ Sidewalks and Trails
  - ◆ Bicycle Routes
  - ◆ Transit and Aviation
- Current Plan Prepared in 1998
- Correspond with City's Updated Comprehensive Plan



## Transportation Plan Components

- Roadway Functional Classification
- Existing System Evaluation
- Future System Planning

*Safety – Capacity – Connectivity*



## Roadway Functional Classification

- Recognizes roadways operate in a network
- Defines primary role of each roadway
- Basis for nearly all transportation decisions
  - ◆ Including design speed, design standards, right-of-way widths, access management, jurisdiction, etc.

*Balance of Mobility and Access*

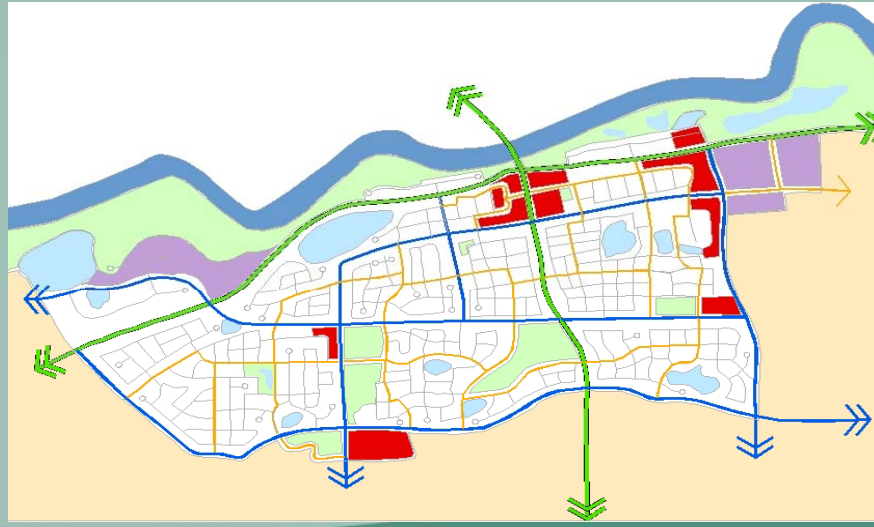


## Roadway Functional Classification

- Classifications Include
  - ◆ Principal Arterials
  - ◆ Minor Arterials
  - ◆ Collector Roadways
  - ◆ Local Roadways



## Roadway Functional Classification



## Roadway Functional Classification

- Roadway Network in Northfield
  - ◆ Lacks Adequate Arterial Roadways
    - ◆ TH 19 and TH 3 Can Not Bear All the Load
    - ◆ Results in Regional Traffic on “Local” Roads
  - ◆ Needs More Arterials to Balance Traffic Demands



## Existing System Evaluation

- Traffic Safety
  - ◆ Function of Driver Decisions
  - ◆ Roadway Elements can Present Complex Situations for Drivers
  - ◆ Higher Traffic Volumes can Expose Traffic Safety Issues

### Approach

- ◆ Review 10-yr Crash History
- ◆ Identify and Investigate Trends
- ◆ Identify “Hot Spots”



## Existing System Evaluation

- Traffic Safety in Northfield
  - ◆ Nearly 1500 Crashes (1997-2006)
  - ◆ 1/3 of Crashes Resulted in Injury
  - ◆ 35 (2.5%) Crashes Involved Pedestrian or Bicyclist



## Existing System Evaluation

- Roadway Capacity
  - ◆ Every Roadway has a Finite Limit of Traffic it Can Accommodate
    - ◆ 4-lane Urban Highways; 25,000-40,000 vpd
    - ◆ Urban Collectors/Parkways: 12,000-18,000 vpd
    - ◆ 2-lane Roadways; 7,500 to 12,000 vpd
  - Function of Number of Lanes, Access Spacing, and Intersection Control
  - Each New Household Adds Approx. 10 New Trips per Day



## Existing System Evaluation

- Roadway Capacity in Northfield
  - ◆ TH 19, West of TH 3
  - ◆ TH 246, East of TH 3
  - ◆ Division St, Downtown
  - ◆ Tolerable Capacity of “Local” Streets



## Existing System Evaluation

- Connectivity
  - ◆ Connect People with Destinations
  - ◆ Establish a Grid of Arterials and Collectors
    - ◆ Arterials Spaced at 1 to 2 miles
    - ◆ Collector Streets Spaced at ½ to 1 mile
  - ◆ Balance Travel Demand
  - ◆ Enable Each Roadway to Serve Its Primary Function



## Existing System Evaluation

- Connectivity in Northfield
  - ◆ Lacks East – West Connectivity
    - ◆ Cannon River
    - ◆ Union Pacific Railroad
  - ◆ Lacks North – South Connectivity
    - ◆ College Land Holdings
  - ◆ Plan for Collector Roadways – Jefferson/Thye Parkways



## Future System Planning

- Traffic Safety
  - ◆ Plan for Improvements
  - ◆ Roadway Design Standards
  - ◆ Education - Enforcement
- Roadway Capacity
  - ◆ Traffic Forecasts for Anticipated Growth
  - ◆ Plan for Improvements
  - ◆ Roadway Design Standards



## Future System Planning

- Roadway Connectivity
  - ◆ Plan for Adequate Arterial and Collector Roadways – Connect People and Places
  - ◆ Northwest Corridor Study
  - ◆ Cannon River Crossing
- Pedestrian and Bicycle Integration
  - ◆ Provide Choices in Trip Method
  - ◆ Opportunity for Unlicensed Drivers



## Future System Planning

### Pedestrian and Bicycle Integration

- Challenges in Northfield
  - Vulnerability to Vehicular Traffic
  - Pedestrian Visibility and Vigilance
  - Roadway Crossings
  - Facilities to Match User Needs



## Summary

- Functional Classification
  - System of Roadways w/ Distinct Roles
  - Balance of Mobility and Access
- Roadway System Evaluation & Planning
  - Existing and Future
  - Safety – Capacity – Connectivity
- Pedestrian & Bicycle Integration



## Plan Schedule

### Public Meeting #2 – Late January 2008

- Updated Goals and Objectives
- Draft Traffic Volume Forecasts
- Draft Safety – Capacity – Connectivity Needs
- Draft Design Recommendations

### Public Meeting #3 – April 2008

- Draft Transportation Plan Document



## Questions?

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