The Way Forward

Analysis for implementing Non-motorized transportation networks in the City of Lansing
Project Overview

Client
• City of Lansing
  – Project Liaison- Andy Kilpatrick
  – Mayor’s Task Force on Walking and Biking

Products
• Non-Motorized Transportation Planning Resource
• Data CD
What is Non-Motorized Transportation?

Nonmotorized Transportation (also known as Active Transportation and Human Powered Transportation) includes Walking, Bicycling, Small-Wheeled Transport (skates, skateboards, push scooters and hand carts) and Wheelchair travel.
Motivations for NMT Planning?

- There has been much change in public opinion on this topic
- There is a growing need to create active, healthier communities.
- Better use of land throughout the city
- Contributes to a more sustainable future
What is an NMT PLAN?

- Review of 25 NMT Plans
  - Including surrounding communities
  - Comparable cities
  - National leaders

- 4 content areas in an Exemplary NMT Plan
Sections of an NMT PLAN?

• **Introduction**
  – Overview of NMT, Purpose of NMT Plan, Key findings, Goals and vision for the NMT Plan

• **Existing Conditions**
  – NMT User Profile, Community socioeconomic profile, Inventory of existing NMT facilities, Land use patterns, Public safety, Local, State, Federal Laws and Regulations

• **Design Guidelines**
  – Design/Construction guidelines for NMT facilities

• **Implementation**
  – Recommended actions, policies, strategies
What about Lansing?
Existing Conditions

NMT User Profile

– Who uses NMT?

– How/Why NMT Is used?
NMT User Profile

Recreational vs. Utilitarian NMT Use

- NMT is utilized for recreation more than for commuting.
NMT User Profile

Lansing has low levels of NMT for Utilitarian use

Walking to work

<table>
<thead>
<tr>
<th>Location</th>
<th>Walking to Work</th>
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</thead>
<tbody>
<tr>
<td>United States</td>
<td>2.93</td>
</tr>
<tr>
<td>Lansing, Michigan</td>
<td>2.45</td>
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<td>Springfield, Ill.</td>
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<td>Kalamazoo, Mich.</td>
<td>6.96</td>
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<td>Ann Arbor, Mich.</td>
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<td>Iowa City, Iowa</td>
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<tr>
<td>East Lansing, Mich.</td>
<td>15.54</td>
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<td>Madison, Wis.</td>
<td>21.41</td>
</tr>
<tr>
<td>United States</td>
<td>10.66</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Decennial Census SF3 Table 30
NMT User Profile

Existing Conditions: Percentage Commuting to Work by Bicycle
NMT User Profile

Existing Conditions: Percentage Walking to Work & NMT Facilities
NMT User Profile

NMT Transportation to Work

• Respondents in Lansing rely on private automobiles for transportation to work

![Bar chart showing transportation modes in Lansing, Michigan. Private auto is the highest mode at 90.97%.

Figure 3 Source: 2000 U.S. Decennial Census SF3 P30]
NMT User Profile

Age
• Cyclists tend to be younger
  – 66% of cyclists are under 45 (BTS Survey)

Gender
• There are significant differences in the way men and women use NMT
Socioeconomic Factors

Factors Influencing NMT

- Income/Poverty
- Vehicle Access
- Facilities/Infrastructure
- Land Use Patterns
- Public Safety
- Schools (K-12)
Socioeconomic Factors

Median Household Income in Lansing

- $34,833 Median household income in Lansing (2000 Census)
Socioeconomic Factors

Household Poverty in Lansing

- The average household poverty level is 15%

- 21 of 54 (38%) census tracts have higher than average household poverty levels
Existing Conditions: Percentage of Households Below/Above Poverty

[Map showing distribution of household poverty with areas highlighted in red indicating areas where the percentage of households living in poverty is above 15%.]

Legend:
- Average Number of Households Living in Poverty
  - <15%
  - >15%

Existing NMT Facilities (Including Widened Sidewalks)

2000 Census Tract Boundaries

Lansing Boundary

East Lansing Boundary

Road

Data from 2000 Decennial Census SF1 and TCRRA.
Socioeconomic Factors

Vehicle Access

- 89% of households had access to at least one vehicle (2000 census)

- 17 census tracts have lower than average rates of vehicle access
15 of these 17 also have above average poverty
Social Equity: NMT Usage and Need

Based on combined data from "NMT User Composite" and "Social Equity" maps. Analysis and calculations by Author, 2007.
NMT Facilities and Infrastructures

- Facilities and Infrastructure
  - Includes:
    - Sidewalks
    - Shared roadways
    - Bicycle Parking and Storage
    - Bike Lanes and Paths
  
  - Most Common in Lansing
    - Bike Parking, Bike Lanes and other types of bicycle paths
Bicycle Parking in Lansing

• Currently there are over 340 bicycle parking locations in Lansing