Client Information

City of East Lansing
Department of Planning & Community Development
Lori Mullins, Senior Project Manager
Presentation Overview

- Project Background & Goals
- Study Area Boundaries
- A Sense of the Hagadorn Corridor
- Strengths, Weaknesses, Opportunities, Threats
- Socio-Economic Profile
- Methods
- Recommendations
Project Background & Goals

Working with the City of East Lansing to:

- Conduct a corridor study of North Hagadorn Road to identify, inventory, and assess current land use, pedestrian friendliness, traffic flow and roadway design

- Make recommendations for future development in terms of pedestrian safety, sense of place, zoning and capital improvements
Study Area Boundaries

Hagadorn Road

Grand River Avenue to Haslett Road
A Sense of the Hagadorn Corridor
<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>
| • Proximity to Michigan State University  
• Proximity to elementary & middle schools | • Lack of mixed-use  
• Lack of pedestrian amenities such as sidewalk buffers, lighting, and an adequate number of crosswalks |
| Opportunities | Threats |
| • Width of the roadway provides for the possibility to be redesigned | • Roadway design does not allow for proper traffic control measures to slow speeds |
Socio Economic Profile
Source: 2000 US Census

Total Population: 6,331
• Block Group 1: 2,160
• Block Group 2: 862
• Block Group 3: 1,673
• Block Group 4: 1,636
City of East Lansing Population: 46,687

Race:
• Block Group 1: 84.3% White / 5.0% Black
• Block Group 2: 93.9% White / 5.0% Asian
• Block Group 3: 89.0% White / 4.2% Asian
• Block Group 4: 94.2% White / 2.4% Asian
City of East Lansing: 81% White / 8% Asian
Socio Economic Profile
Source: 2000 US Census

Median Income
- Block Group 1: $32,461
- Block Group 2: $38,828
- Block Group 3: $23,750
- Block Group 4: $31,433

City of East Lansing Median Income: $28,217

Age
- Block Group 1: 75+ yrs (20.0%)  
- Block Group 2: 19-24 yrs (25.0%)  
- Block Group 3: 19-24 yrs (70.1%)  
- Block Group 4: 19-24 yrs (57.9%)  

City of East Lansing: 19-24 yrs (51.2%)
**Socio Economic Profile**

*Source: 2000 US Census*

**Mode of Transportation to Work:**
- Car-Drove Alone: 2,630
- Car-Pooled: 313
- Public Transportation: 99
- Walked: 254
- Biked: 90
- Worked at Home: 94

**Mean Travel Time to Work:**
- Block Group 1: 15 minutes
- Block Group 2: 7 minutes
- Block Group 3: 17 minutes
- Block Group 4: 16 minutes
Methods

- Residential & Commercial Evaluation
- Walkability Evaluation
- Sidewalk Quality Evaluation
- School Zone Evaluation
- Traffic Analysis and Comparables
Land Use

- 98 Residential Properties
  - 51% Owner Occupied
  - 49% Renter Occupied
- 7 Commercial Use Areas
- 3 Community Uses
- 2 Schools
- 2 Churches

123 Parcels Total
## Land Use Evaluation

### Criterion Used

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exterior</strong></td>
<td>Undamaged, no sign of weathering</td>
<td>Some weathering</td>
<td>Over $\frac{1}{4}$ observed damaged</td>
<td>Over $\frac{1}{2}$ observed damaged</td>
</tr>
<tr>
<td><strong>Windows/Doors</strong></td>
<td>Intact, no sign of weathering</td>
<td>Minor damage</td>
<td>Over $\frac{1}{4}$ broken/damaged</td>
<td>Over $\frac{1}{2}$ broken/damaged</td>
</tr>
<tr>
<td><strong>Roof</strong></td>
<td>Fully intact, no visible sign of damage</td>
<td>Minor damage and weathering</td>
<td>Over $\frac{1}{4}$ damaged/weathered</td>
<td>Over $\frac{1}{2}$ damaged/weathered</td>
</tr>
<tr>
<td><strong>Yard</strong></td>
<td>Clean and free of debris</td>
<td>Clean, small amount of debris</td>
<td>Some debris and some overgrowth</td>
<td>Significant debris and overgrowth</td>
</tr>
</tbody>
</table>

Source: Adapted from “Neighborhood Commercial Corridor Revitalization Study: For the South West Area Neighbors West Fulton Street Corridor Study, Grand Rapids, Michigan, 2003
Land Use Evaluation

Residential

Residential Property Overall Condition Rating

- Excellent: 10%
- Fair: 7%
- Good: 83%

Example of a house rated “Excellent”

Example of a house rated “Good”

Example of a house rated “Fair”
Land Use Evaluation
Commercial & Other Uses

Commerical Stock and Other Use Properties Overall Condition Rating

- Good: 36%
- Excellent: 16%
- Fair: 48%

Example of a property rated “Good”

Example of a property rated “Excellent”
Walkability Evaluation

How Walkable Is Your Community? Survey

• Crosswalks located only at major intersections (Haslett Road, Burcham Drive, Grand River Avenue)

• Inadequate benches, public art, trash facilities, lighting, and buffers

• Timing of crosswalks not adequate, especially for persons with disabilities

• Sidewalks are adequate width

Source: Pedestrian and Bicycle Information Center
## Sidewalk Quality Evaluation

<table>
<thead>
<tr>
<th>Quality</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>Free of cracks, debris, or unevenness</td>
</tr>
<tr>
<td>Good</td>
<td>Mostly clear of cracks, debris, or unevenness</td>
</tr>
<tr>
<td>Fair</td>
<td>Over ¼ has cracks, debris, or unevenness</td>
</tr>
<tr>
<td>Poor</td>
<td>Over ½ has cracks, debris, or unevenness</td>
</tr>
</tbody>
</table>

### Map of Sidewalk Quality

- **Excellent**: Free of cracks, debris, or unevenness
- **Good**: Mostly clear of cracks, debris, or unevenness
- **Fair**: Over ¼ has cracks, debris, or unevenness
- **Poor**: Over ½ has cracks, debris, or unevenness

The map shows the quality of sidewalks along the corridor, with different sections rated as Excellent, Good, Fair, or Poor.
School Zone Evaluation

Safe Routes to School Audit

• A crosswalk was observed to be needed on Burcham Drive at John R Street
• Sidewalk ends on Burcham Drive, east of school
• Pedestrian signals at Hagadorn Road and Burcham Drive do not provide adequate time to cross
• School zone signage is inconsistent
• Crosswalks need to be repainted at Hagadorn Road and Burcham Drive
Traffic Evaluation
Snapshot of the Hagadorn Corridor

- 4-lane undivided 2-way road, with no center turn lane
- Lane width is 12 feet
- Posted speed is 30 mph (except during specific times in school zones where it is 25 mph)
- No areas of permitted parking
- 2 prohibited turns, at Burcham Drive and Grand River Avenue
- No bike lanes
Traffic Evaluation
Accident Data 1994-2003
Source: City of East Lansing

536 Accidents Total:
- Approximately 96% Vehicular
- 4% Bicycle
- 0.4% Pedestrian

High percentage of accidents at:
- Grand River Avenue
Traffic Evaluation
Current Counts and Future Projections

Capacity of a 4-Lane Road: 63,600 vpd

2002 Estimate: 19,000 vpd
2025 Estimate: 18,400 vpd

Source: Tri-County Regional Planning Commission and City of East Lansing
Recommendations for Hagadorn Road

- Power Lines
- School Zone
- Land Use
- Pedestrian Improvements
- Four-Lane to Three-Lane Conversion
- Bike Lanes
- Future Follow-up
Recommendation

Facilities Improvements

• Determine feasibility of burying power lines to improve aesthetics of corridor
Recommendation

School Zone

• Consistent distances from schools

• Uniform design
Recommendation
Land Use

• Maintain current land-use characteristics

• Future development should be mindful of school presence

• Ensure affordable housing for students and low-income residents
Recommendation
Pedestrian Improvements

• Stripe new, and restripe existing, pedestrian crosswalks at intersections

• Add appropriate signage at new crosswalks

• Increase timing of crosswalks

• Add pedestrian oriented lighting

• Add benches and trash facilities along corridor
Recommendation

Four-Lane to Three-Lane Conversion

Feasibility

<table>
<thead>
<tr>
<th>Vehicles Per Hour (vph)</th>
<th>Feasibility</th>
<th>Hagadorn vph (TCRPC 2025 projections)</th>
<th>Feasible on Hagadorn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 1,500 vph</td>
<td>Probable</td>
<td>750-800 vph</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Capacity of Two-Lane Road with TWCTL: 35,604 vpd
- Current 2002 Estimate: 19,000 vpd
- Future 2025 Estimate: 18,400 vpd

Source: Southside Traffic Reduction Initiative for Determining our Environment and Tri-County Regional Planning Commission
Recommendation
Four-Lane to Three-Lane Conversion

Benefits

• Improves vehicular, pedestrian, and bicycle safety
• Traffic calming
• Aesthetically pleasing
• Relatively inexpensive
• Improved emergency vehicle response time
Four-Lane to Three-Lane Conversion Improves Safety and Traffic Calming

- 3 lane roads have fewer accidents than 4 lane roads
- Average speeds are lower on 3 lane roads
- The center lane provides a safe haven for pedestrian and bicyclists trying to cross the road

<table>
<thead>
<tr>
<th></th>
<th>Angle</th>
<th>Rear End</th>
<th>Sideswipe</th>
<th>Left Turn</th>
<th>Bike</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 18, 1998 to May 31, 1999</td>
<td>10</td>
<td>21</td>
<td>7</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>54</td>
</tr>
<tr>
<td>July 18, 1999 to May 31, 2000</td>
<td>7</td>
<td>10</td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>30</td>
</tr>
</tbody>
</table>

- 44% Reduction in overall accidents after three-lane conversion
- 100% Reduction in bicycle-related accidents

Source: City of East Lansing
Four-Lane to Three-Lane Conversion
*Aesthetically Pleasing & Relatively Inexpensive*

- Change in roadway character
- No reconstruction needed—just restriping of lanes
- Determine feasibility of adding bus pull-outs

Pictures from the City of East Lansing
**Recommendation**

**Bike Lanes**

- Add one bike lane for each travel direction
- Consult the Tri-County Bicycle Association for proper design, signage, and maintenance
- Provides buffer between pedestrians and motorists
- Provides an alternative form of transportation to automobiles

*Source: Tri-County Bicycle Association*
Recommendation

Recommended follow-up for the City of East Lansing

• Take traffic counts every one to two years
• Continue to monitor traffic accidents
• Periodically examine the timing configuration of traffic signals
• Determine feasibility of adding bus pull-outs
• Determine feasibility of burying power lines
Conclusion

Through our recommendations we hope to improve pedestrian friendliness, sense of place, and implement the correct traffic control measures to improve the quality of life for those living along the Hagadorn corridor.
Thank You!