South Bend Smart Streets Before & After Study

March 7, 2018
Overview

• Smart Streets
• Before & After Comparison
• Lessons Learned
South Bend in the 1960’s
Before Smart Streets
Before Smart Streets
Before Smart Streets

Main Street

St Joseph St
Before Smart Streets
Smart Streets Philosophy

“Smart Streets” is an effort to improve the role of streets within South Bend.

Projects within this initiative utilize the “Complete Streets” philosophy which advocates for the design of streets to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.
Smart Streets Elements

1-Way to 2-Way Conversion
Complete Streets
Road Diets
Existing Roadways
Why Smart Streets?

• Pedestrian Safety
• Circulation Network Connectivity
  o Reduces out of direction travel distances and motorist confusion
  o Benefits ‘trips serving’ by providing more direct routes to destinations
• Economic Vitality
Where are they?

- Chippewa Ave
- Western Ave
- Monroe St
- LaSalle Ave
- St Joseph St
- Main St
- Sample St
- Michigan St
- Ewing Ave
- Chippewa Ave
Smart Streets
Smart Streets
Smart Streets
Smart Streets
Smart Streets
Cycle Track
Intersection Transformations
Did it Work?
# Traffic Analysis

## Before Study

<table>
<thead>
<tr>
<th>2014 Counts</th>
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## After Study

<table>
<thead>
<tr>
<th>2017 Counts &amp; Analysis</th>
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<th>2014 &amp; 2038 Analysis</th>
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<tr>
<th>Guided the Design Phase</th>
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## Retimed Signals

<table>
<thead>
<tr>
<th>Before Study</th>
<th>After Study</th>
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<tbody>
<tr>
<td>Design</td>
<td>2017 Analysis</td>
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<tr>
<td>Construction</td>
<td>Retimed Signals</td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Before Study</th>
<th>After Study</th>
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<tbody>
<tr>
<td>2014</td>
<td>Jul Dec 2014</td>
<td>Jan Dec 2015</td>
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<tr>
<td>2015</td>
<td>Jul Dec 2015</td>
<td>Jan Dec 2016</td>
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<tr>
<td>2016</td>
<td>Jul Dec 2016</td>
<td>Jan Dec 2017</td>
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PM Operations

Before

After

2018 PURDUE ROAD SCHOOL

AMERICAN STRUCTUREPOINT
AM Travel Times (Michigan/MLK)

Speeds: ▲ 7.9 mph
AM Travel Times (Main St)

Speeds: ▲ 11.4 mph
PM Travel Times (Michigan/MLK)

Speeds: ▲ 6.1 mph
PM Travel Times (Main St)

Speeds: ▲ 8.2 mph
More Pedestrians & Bicyclists
Redevelopment
Lessons Learned
Travel Demand Modeling

One Way Streets

Two Way Streets
Diversion of Thru Trips

Reduced Capacity thru Downtown
= Diversion to Alternate Routes
Traffic Volumes

• TDM did not accurately predict traffic volumes
• 50% Reduction in AADT
• 40%-70% Reduction in Hourly Volumes
Alternate Routes

- Multiple routes to avoid downtown
- No issues identified on these alternate routes
Old Habits (Are Hard to Break)
Old Habits (Are Hard to Break)

- Little To No Queues on New NB Route
- Lengthy Queues on Former NB Roadway
Construction & Contractual Challenges
Access Issues
Knockdowns

Former Light Poles
Conclusion

Smart Streets was a major success

- Slowed & Calmed Traffic
- Moved Unwanted Traffic Out of Downtown
- Beautified the Downtown
- Lead to Redevelopment Generating over $100 Million in Investment
- Created over 500 Market Based Apartments and Condominiums
- Returned Downtown South Bend to the People
Questions

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