



# Downtown Traverse City Circulation Study

# Why Is The DDA Pursuing Conversion of Downtown Streets to Two-Way Operation?

- Support pedestrian movement and safety and enhance public space (slowing vehicular speed on State Street)
- Provide better connectivity to the existing grid system (especially with planned construction projects)
- Support and encourage private investment and increase vitality of commercial areas throughout downtown.
- A desire to implement a best practice – moving to a “to” versus “through” approach



# Why Is The DDA Pursuing Conversion of Downtown Streets to Two-Way Operation?

- Spurred by recent efforts to redesign East Front Street
- Successful two-way operation during the summer of 2020 (between Union and Park)
- Existing traffic signals are reaching the end of their life span and will need to be replaced



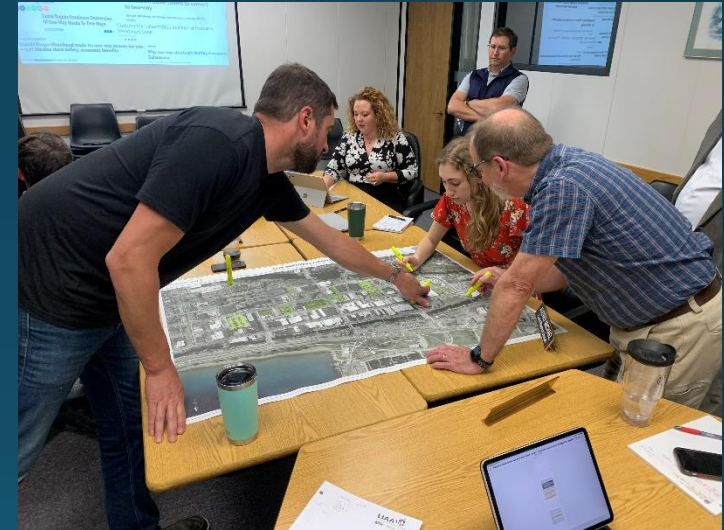


# Study Objective

Investigate the Conversion of Traverse City's Downtown Street Grid to Two-Way Operation

## Methodology

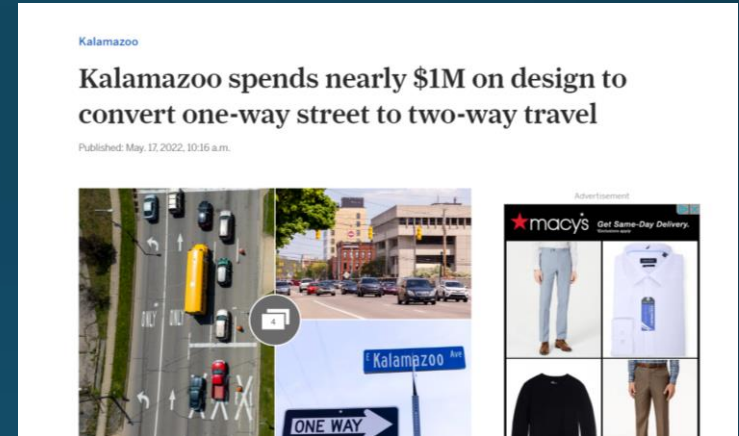
- Historical and case study research
- Data driven approach
  - Traffic counts
  - Model level of service
- Public Engagement
- Evaluate alternatives
- Integrate feedback from key stakeholders (city engineering and public works dept., DDA, and elected/appointed officials)
- Cost estimation
- DDA Sub-Committee/DDA Recommendation



May 12, 2022 DDA Sub-Committee Meeting

# Case Studies and National Trends

- Beginning in the late 1990's, many cities began to rethink one-way streets downtown ("to" rather than "through")
- Rethinking role of automobile on downtown streets
- As of 2018, 78 cities around the United States had restored downtown streets to two-way travel



## Lansing seeks final input on two-way street conversion

Six downtown Lansing streets set to allow cross traffic this fall

The map shows a grid of streets in downtown Lansing. Six streets are highlighted with red arrows pointing in both directions, indicating the planned conversion to two-way traffic. The streets are labeled as CITTARIA ST, ALLEGAN ST, GRAND ST, GRAND ST, GRAND ST, and GRAND ST.

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## History of Downtown Circulation In Downtown Traverse City

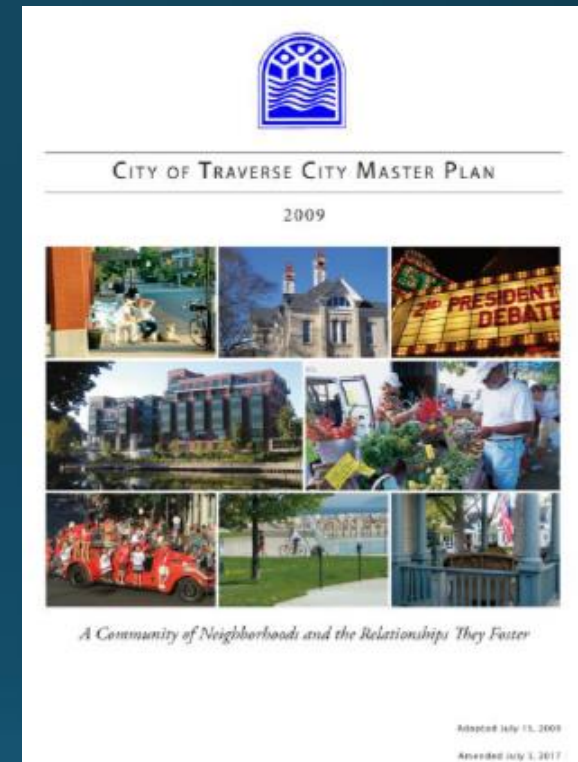
- Spring 1967, segments of Front, Pine, State and Boardman converted from two-way to one-way operation
- Primary goal was to alleviate congestion without sacrificing on-street parking
- Different planning ideals at that time: auto-centric, emphasis on “through” versus “to”



Looking east from 100 block of Front Street, 1960's

## Master Plan and Amendments

- TC-5 Neighborhood is the most formally and intensely developed....**focus is on high intensity, regional, commercial activity**
- Encourage compact development patterns, which will **curtail vehicular traffic and shorten trips**
- **Street Form and Function**  
Provide well-planned connections within and throughout the transportation network improving the efficient distribution of travel trips and lengths. Identify a framework of major streets providing connectivity through the City and region with a focus on the access to goods, services, and people. Routinely promote the use of alternatives to the single-occupancy vehicle in both planning and costs related comparison to the general public.



# Case Studies and National Trends

## Rationale (Benefits)

- Economic
- Safety
- Efficiency
- Placemaking



# Rationale (Economic)

## Clematis Street

West Palm Beach, FL

Metro Population: 5,564,635 | City Population: 99,919



After

Photo: Google



Before

Photo: Ian Lockwood

**Downtown West Palm Beach was once only for commuters, but now attracts shoppers, families, and tourists.**

- Widened sidewalks, landscaping, trees and street furniture all contributed to an improved pedestrian realm.
- Three lanes were reduced to two as the street was converted from one way to two way.



# Rationale (Economic)



Clematis Street, West Palm Beach, Florida

## WEST PALM BEACH, FL

In the City of West Palm Beach, Florida:

- Property values along Clematis Street increased from \$10-40 per square foot to \$50-100 per square foot after converting from one-way to two-way.
- Commercial rents increased from \$6 per square foot to \$30 per square foot.
- Retail vacancies went from 50% to 0%.
- Private investors injected \$350 million into the local economy.

Clematis Street is now the premier address for retail and office uses in West Palm Beach.

[https://newhavenurbanism.files.wordpress.com/2015/08/newhaven\\_onetotwowayconversion\\_compressed.pdf](https://newhavenurbanism.files.wordpress.com/2015/08/newhaven_onetotwowayconversion_compressed.pdf)



## Rationale (Economic)

8<sup>th</sup> Street: \$4.5 million in road construction (including the bridge) has led to \$20.5 million in private investment in 3 years





# Rationale (Safety)

## NEW ALBANY, IN

“New Albany, Indiana, switched more than four miles of city streets while implementing traffic-calming measures made possible by the conversions. Police Chief Wm. Todd Bailey reports, in a public letter, that the two-way street designs are “overwhelmingly” superior in the following respects:

- Accidents involving pedestrians are down.
- Speeding is reduced. The previous one-way configurations allowed motorists to travel “well above posted speed limits,” Bailey says, whereas the new designs “have slowed traffic as planned.”
- Motor vehicle crashes are down, especially injury crashes, compared to previous years.
- In general, the streets work better. “It has been our observation that the new designs allow for motor vehicles, bicycles, and pedestrians to all interact in a much smoother manner,” he says. “Additionally, due to the new design, when we experience a problem, we are provided with more options to redirect traffic. The design has also facilitated a better response from police and fire as those options have multiplied.”

<https://www.cnu.org/publicsquare/2019/07/09/cities-benefit-one-way-two-way-conversions>



# Rationale (Safety)

● If hit by a person driving at:

● Person Survives the Collision

● Results in a Fatality

20 MPH



90%

10%



30 MPH



60%

40%



40 MPH



20%

80%



# One-Way vs. Two-Way (In General)

	Pro	Con
One-Way	<ul style="list-style-type: none"> <li>• Greater vehicle capacity</li> <li>• Generally faster throughput</li> <li>• Fewer conflict points at intersections</li> <li>• Only have to look one direction when crossing a street</li> </ul>	<ul style="list-style-type: none"> <li>• Less common → less intuitive</li> <li>• Requires more signage to alert users</li> <li>• Less direct (more circuitous)</li> </ul>
Two-Way	<ul style="list-style-type: none"> <li>• Slower vehicle speeds → accidents less severe</li> <li>• Fewer vehicles circulating to find parking</li> <li>• More common → more intuitive</li> <li>• On-street parking on right-side more natural to drivers</li> </ul>	<ul style="list-style-type: none"> <li>• Less vehicle capacity</li> <li>• Increased vehicle delay, including emergency response vehicles</li> <li>• Traffic signals more complex</li> <li>• More conflict points</li> </ul>

## Public Engagement (July – November 2021)

# East Front Street Redesign & Downtown Traffic Circulation Study

- 3 rounds of community engagement
- 20 public meetings
- 225 attendees
- 2 public surveys
- 926 respondents
- Stakeholders: municipal staff, community advocates and partners, elected & appointed officials, residents, business & property owners, etc.





# Study Area and Data Collection



# Study Area and Existing Data Collection (July 2021)

- Traffic Volumes
- Pedestrian Volumes
- Bicycle Volumes
- Crash Data
- Level of Service (generally good – B or C)
- Travel Times (current and future)





# Considered Two Different Approaches

## **Alternative One.**

All Two-Way Traffic Pattern

## **Alternative Two.**

Hybrid Traffic Pattern

# Alternative One. All Two-Way Traffic Pattern





# Alternative Two. Hybrid Traffic Pattern



## Key Findings (for vehicular movement only)

Operate Acceptably During Peak Hours

Eastbound travel times on State Street have modest increase at peak hours

Over time, may require traffic signals at State & Park & Boardman intersections



# Considerations



Cost to physically convert

Traffic signals

Pavement markings

Signage

Curb adjustments

Parking modifications



Safety

Crash data



Maintenance Costs

Equipment

Labor

Materials

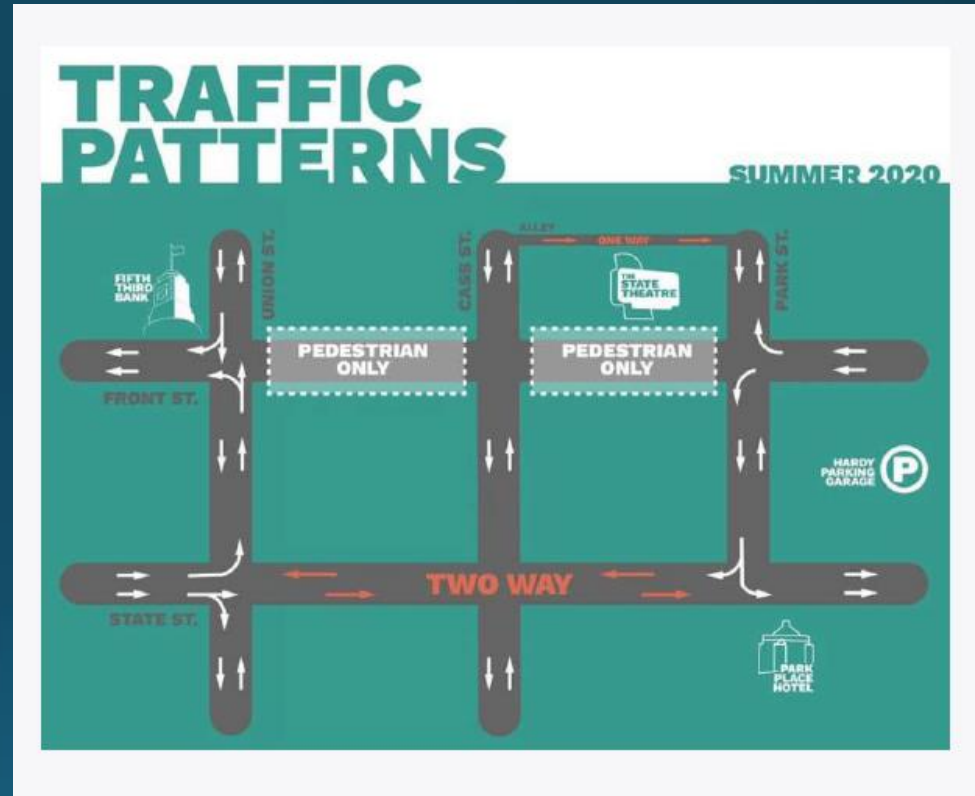


Economic impact

Data from case studies

## 2020 Two-Way State Street Pilot

- Generally well-received
- Reasonable level of service
- Some challenging intersections (Union & State)
- Did not experience winter maintenance cycle



## Recommendation

- Two-Way Pilot on Pine, State and Boardman for Two-Years (with option to extend pilot another two-years)

## Implications of Pilot

- Will require infrastructure investments
- Will require a dedicated barricade crew for road closures during snow removal
- Spring 2023 transition
- Study Metrics
- Time to consider additional street treatments to support pedestrian movement





**Questions?**