Bike and Pedestrian Master Plan

Executive Summary

2021
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2. Key Challenges
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Setting the Stage
More of Albany is served by walking and biking networks that are welcoming, intuitive, and continuous.
1 More of Albany is served by walking and biking networks that are welcoming, intuitive, and continuous

2 Walking, biking, and transit are viable transportation options that support a sustainable future
More of Albany is served by walking and biking networks that are welcoming, intuitive, and continuous.

Streets feel safe and comfortable for all people who use them.

Walking, biking, and transit are viable transportation options that support a sustainable future.

The Vision
The Vision

1. More of Albany is served by walking and biking networks that are welcoming, intuitive, and continuous.

2. Walking, biking, and transit are viable transportation options that support a sustainable future.

3. Streets feel safe and comfortable for all people who use them.

4. A culture of awareness and compassion supports everyone who uses Albany's streets.
Promoting safe walking and cycling also promotes equity.

Non-drivers include people with lower incomes who cannot afford a car, children, young adults, the elderly, and people with disabilities. Walking and biking provide much-needed mobility options to these people.
This Plan aims to close gaps in walking and biking infrastructure where it would have the most equitable impact.
Goals

**THIS PLAN HAS SIX GOALS:**

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td><strong>Networks</strong></td>
<td>Improve walking and biking networks so they are viable transportation options</td>
</tr>
<tr>
<td>2</td>
<td><strong>Leadership</strong></td>
<td>Incentivize elected officials, policy makers, law enforcement officials, and roadway designers to take responsibility for including walking and biking as part of the transportation system</td>
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<tr>
<td>3</td>
<td><strong>Awareness</strong></td>
<td>Provide a shared awareness of and responsibility for street safety among all users of Albany streets</td>
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<td>4</td>
<td><strong>Encouragement</strong></td>
<td>Educate community members about the pleasures and concrete benefits that arise from incorporating walking and biking into their daily lives</td>
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<tr>
<td>5</td>
<td><strong>Resiliency</strong></td>
<td>Prioritize walking and biking to create resiliency in Albany's transportation network</td>
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<td>6</td>
<td><strong>Funding</strong></td>
<td>Delineate potential private and public funding sources for a strong bicycle and pedestrian network</td>
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Key Challenges
Key Challenges

1. Pedestrian Signals
   Need to continue increasing the number of pedestrian signals at signalized intersections

2. Presence of Sidewalks
   Lack of sidewalks in the western part of the city

3. Wide Street Crossings
   Pedestrian crossings of three lanes or greater can be unsafe, and a pedestrian barrier

4. Level of Traffic Stress (LTS)
   Major bike corridors proposed in 2009 Bicycle Master Plan are unsuitable for all ages and abilities

5. Western Connections
   Overall connectivity to the western part of the city

6. Crashes and Equity
   Cars are more likely to hit people walking and biking in areas with higher environmental justice sensitivity
Challenge 1:
Lack of pedestrian signals make crossing difficult
Challenge 2:
Lack of sidewalks in the western part of the city

EXISTING SIDEWALK
- SIDEWALK
- PAVED TRAIL
- UNPAVED TRAIL

DATA SOURCE: CITY OF ALBANY
Challenge 3: Pedestrian crossings of three lanes or greater can feel unsafe, and create a pedestrian barrier.
Challenge 4:
Major bike corridors proposed in 2009 Bicycle Master Plan are unsuitable for all ages and abilities.
Challenge 5:
Lack of bicycle and pedestrian connectivity to the western part of the city

POTENTIAL NETWORK CONNECTIONS
- **POTENTIAL CONNECTION**
- **EXISTING BIKE LANES/CYCLE TRACKS/TRAILS**
- **EXISTING SHARROWS/SIGNS**
- **SCHOOLS/LIBRARIES**
- **COMMERCIAL AREA**
- **LARGE EMPLOYER (MEDICAL)**
- **LARGE EMPLOYER (GOVERNMENT)**
- **LARGE EMPLOYER (EDUCATION)**
- **LARGE EMPLOYER (OTHER)**
Challenge 6:
Cars are more likely to hit people walking and biking in areas with higher environmental justice sensitivity

CRASH ANALYSIS

<table>
<thead>
<tr>
<th>SEGMENT CRASHES</th>
<th>INTERSECTION CRASHES</th>
<th>EJ SENSITIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>LOW</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>HIGH</td>
</tr>
</tbody>
</table>
Community Engagement
Engagement Activities

JANUARY 2020 - JANUARY 2021

12 months online

Project Website

380 responses

Online Survey

624 online visits

WikiMAP Interactive Map

8

Community Listening Sessions

---

12

additional meetings

2

In-Person Meetings

5

Additional Meetings

12

Advisory Meetings

6 Technical + 6 Citizen

2

Quick Build Pilot Projects
Community Input

BARRIERS TO WALKING

ACCESS
It’s hard to get where I need to go by foot

LACK OF SIDEWALKS
Often there aren’t sidewalks, or they’re in bad condition

DISTANCE
The places I want to go are too far away to walk to

SAFETY
Walking and biking don’t feel safe enough to be realistic transportation options

BARRIERS TO BIKING

SAFETY
I don’t feel safe biking because of car traffic and speed

LACK OF BIKE LANES
There aren’t enough safe bike lanes to try biking

DISTANCE
The places I want to go are too far away to bike to
Community Input

BARRIERS TO WALKING

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The places I want to go are too far away to bike to

LACK OF BIKE LANES
There aren’t enough safe bike lanes to try biking
Pedestrian and Bike Recommendations
Proposed Bike Network

- **BIKE BOULEVARD**
- **CONVENTIONAL BIKE LANE**
- **PROTECTED/BUFFERED BIKE LANE**
- **PAVED MULTI-USE PATH OR TRAIL**
- **NON-PAVED MULTI-USE PATH OR TRAIL**
- **FACILITY AND/OR ALIGNMENT TO BE DETERMINED**
- **EXISTING FACILITY**

0  0.5  1 Mile
Proposed Bike Network

- Bike Boulevards: 43 mi
- Protected Bike Lanes: 30 mi
- Multi-Use Paths: 19 mi
- Conventional Bike Lanes: 4 mi

**Facility and/or Alignment to be Determined**

**Existing Facility**

0 0.5 1 Mile
**Safe Bike Facilities**

**DIFFERENT PEOPLE HAVE DIFFERENT OPENNESS TO BIKING**

<table>
<thead>
<tr>
<th>Level of Stress</th>
<th>No Way, No How</th>
<th>Interested but Concerned</th>
<th>Enthused and Confident</th>
<th>Strong and Fearless</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS 1</td>
<td>Low level of stress</td>
<td>No interest in riding a bike</td>
<td>Comfortable riding in traffic when they need to, but prefer dedicated bikeways</td>
<td>Comfortable riding on streets with or without dedicated bikeways</td>
</tr>
<tr>
<td>LTS 2</td>
<td>Low level of stress</td>
<td>Prefer complete separation from cars, or low-speed, low-volume routes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTS 3</td>
<td>High level of stress</td>
<td>Suitable for adults who have confidence on a bicycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTS 4</td>
<td>High level of stress</td>
<td>Suitable only for adults who can tolerate bicycling in traffic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **LTS 1**: Suitable for all ages and abilities, including children.
- **LTS 2**: Low level of stress. "Interested but concerned" population will typically feel safe.
- **LTS 3**: Suitable for adults who have confidence on a bicycle.
- **LTS 4**: Suitable only for adults who can tolerate bicycling in traffic.

**BIKE FACILITIES WITH A LOW LEVEL OF TRAFFIC STRESS (LTS) CAN ATTRACT A BROADER SET OF RIDER TYPES**
Safe Bike Facilities

DIFFERENT PEOPLE HAVE DIFFERENT OPENNESS TO BIKING

<table>
<thead>
<tr>
<th>Low level of stress.</th>
<th>High level of stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-use Path / Trail</td>
<td>LTS1</td>
</tr>
<tr>
<td>Protected Bike Lane</td>
<td>LTS2</td>
</tr>
<tr>
<td>Buffered Bike Lane</td>
<td>LTS3</td>
</tr>
<tr>
<td>Conventional Bike Lane</td>
<td>LTS4</td>
</tr>
<tr>
<td>Bicycle Boulevard</td>
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- **LTS 1**: Suitable for all ages and abilities, including children
- **LTS 2**: Low level of stress. Interested but concerned population will typically feel safe
- **LTS 3**: Suitable for adults who have confidence on a bicycle
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**PEDESTRIAN AND BIKE RECOMMENDATIONS**

**BIKE FACILITIES WITH A LOW LEVEL OF TRAFFIC STRESS (LTS) CAN ATTRACT A BROADER SET OF RIDER TYPES**

- **No Way, No How**: No interest in riding a bike
- **Interested but Concerned**: Prefer complete separation from cars, or low-speed, low-volume routes
- **Enthused and Confident**: Comfortable riding in traffic when they need to, but prefer dedicated bikeways
- **Strong and Fearless**: Comfortable riding on streets with or without dedicated bikeways
Safe Bike Facilities

WHAT DO THE DIFFERENT BIKE FACILITIES LOOK LIKE?

- Multi-use Path or Trail
  - LTS 1 ➔ LTS 2

- Bike Boulevard
  - LTS 1 ➔ LTS 2

- Protected Bike Lane
  - LTS 1 ➔ LTS 2

- Buffered Bike Lane
  - LTS 1 ➔ LTS 3

- Conventional Bike Lane
  - LTS 2 ➔ LTS 4
Safe Bike Facilities

WHAT DO THE DIFFERENT BIKE FACILITIES LOOK LIKE?

- Multi-use Path or Trail
- Bike Boulevard
- Protected Bike Lane
- Buffered Bike Lane
- Conventional Bike Lane
Bike Facility Selection

1. BEGIN WITH LOW STRESS STREETS

- **BICYCLE BOULEVARDS**
  Fewer than 2,000 vehicles per day and speeds of 20 MPH or less

- **CONVENTIONAL BIKE LANES**
  Fewer than 3,000 vehicles per day and speeds of 25 MPH or less

- **BUFFERED BIKE LANES**
  Fewer than 6,000 vehicles per day and speeds of 25 MPH or less

2. REALLOCATE ROAD SPACE

- Narrow travel, turning, and parking lanes
- Road diets streets with four + lanes and fewer than 20,000 vehicles per day
- Remove on-street parking

3. ANALYZE ALTERNATIVE PARALLEL STREETS

- Edge of pavement to right-of-way line is a minimum of 10’, ideally 12’-16’

**REMOVAL ON-STREET PARKING**

- Do most residences have private parking?
- Is there off-street parking nearby?

**ROAD DIET**

- Convert roads with 4+ lanes to 3 or fewer lanes, one per direction and a center turn lane

**NARROW ROAD LANES**

- Travel lanes should be 10’, 11’ where transit operates

- If needed

**PHYSICALLY SEPARATED BIKE LANES**

- If none of the previous conditions exist, determine if the street can accommodate physically separated or protected bike lanes using the following street reconfiguration approaches:
Proposed Pedestrian Network

- **Sidewalks needed on one side of the road**
- **Sidewalks needed on both sides of the road**
- **Improvements needed on existing sidewalks**
- **Proposed paved multi-use path or trail**
- **Existing paved multi-use path or trail**
- **Existing non-paved multi-use path or trail**
- **Existing sidewalks**

0 0.5 1 Mile
**PEDESTRIAN AND BIKE RECOMMENDATIONS**

### Pedestrian Infrastructure

- **Parking Restrictions for Visibility**
  Prohibit parking in close proximity to intersections to maintain sight lines.

- **Pedestrian Signals**
  Tell people walking when they can cross the street safely.

- **Painted or Raised Crosswalks**
  Raise driver awareness of pedestrian crossings.

- **ADA Curb Ramps**
  Provide access across intersections for people using mobility devices, walking bikes, or pushing strollers.

- **No Right Turn on Red**
  Provide pedestrians with added safety when crossing the street by preventing right vehicle turns.

- **Pedestrian Head Start**
  Pedestrians allowed a few second head start to claim the right-of-way ahead of turning traffic.

- **Curb Extensions**
  Shorten crossing distances, increase visibility, and slow turning vehicles.
Pedestrian Infrastructure

Access to Bus Stops
Pedestrian infrastructure near transit makes it easier to walk and take the bus.

Low-Cost Pilots
Pilot test infrastructure with low-cost, temporary materials.

Mid-Block Crossing
Special mid-block signals—RRFB or HAWK—for crossing long blocks between intersections.

Wayfinding
Orient people on key destinations.

Landscaping
Improve landscaping and stormwater drainage.
Traffic Calming

HOW CAN WE CALM TRAFFIC TO MAKE STREETS SAFER FOR PEOPLE WALKING AND BIKING?

1. **Radar speed signs** and **reduced speed limits** to remind motorists to drive slowly
2. **Raised crosswalks** to slow car traffic and make it easier to cross the street
3. **Pavement treatments** to make an intersection feel unique and pedestrian-oriented
4. **Curb extensions** and **reduced curb radii** to prevent turns at high speeds
5. **Center median islands** to shorten crossing distances or prevent certain turn movements
6. **Traffic circles** or **mini roundabouts** to slow down car traffic at intersections with low volumes
7. **Speed humps** to slow down cars
8. **Traffic diverters** to prevent vehicular through traffic on local streets
9. **Chicanes** to slow down cars
Traffic Calming

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Policies, Programs, and Procedures
Recommended Policies, Programs, and Procedures

### Policies
- Implement this Plan
- Prioritize Bicycle and Pedestrian-related projects
- Eliminate Traffic Deaths
- Dedicated Funding

Policies translate plan goals into operational standards, guidelines, and practices, establishing street design, and operational and maintenance standards to increase safety and reduce collisions.

### Programs
- Bicycle Share Programs
- Bicycle Parking and Repair Stations
- Wayfinding
- Education and Encouragement

Programs are targeted, actively managed City-led initiatives and partnerships that involve community members to create enthusiasm and attraction to cycling, spread education, and to elevate biking and walking as primary modes of transportation and to improve safety and comfort for people.

### Procedures
- Refine maintenance standards
- Establish performance measures to track progress

Procedures are the day-to-day operations that can have a profound impact on the quality of the City’s walking and cycling network.
Example Policy: Eliminate Traffic Deaths

Establishing a **Toward Zero Death** or **Vision Zero policy** formalizes a commitment to eliminate traffic deaths.

By operating under the belief that every death in a traffic crash is preventable, Albany can work to produce the safest possible outcomes with every infrastructure project.

A key component of the Vision Zero mission is the reduction of auto speeds on streets where people walk and bike. Toward this end, cities across the US and the world have begun adopting "20 is Plenty" policies that reduce speed limits, encourage design changes to reduce the design speeds of roads, and encourage targeted, equitable prioritization of speed enforcement.

An **Eliminate Traffic Deaths** policy will involve:

- Advocating to the State Legislature to reduce City Speed Limit
- Design changes and speed limits that reduce auto speed
- Preventing parking close to intersections
- Reevaluating sections of Albany’s vehicle and traffic ordinance
Example Program: Wayfinding

A wayfinding system is crucial to building a successful bicycle and pedestrian network. Wayfinding provides information that allows people to make informed decisions about which streets and routes to choose to arrive to their destinations. It can also be an economic development tool, by directing people walking and biking to retail, farmers markets, and special events.

A **Wayfinding** program will involve:

- Consistent design
- Different sign types at different stages of a journey, e.g., “decision signs”, “confirmation signs”, and “turn signs”
- Placement near major retail, employment, education, and tourist destinations
- Inclusion of time and distance to reach destinations
Example Procedure: Bike and Pedestrian Counts

Developing and using performance measures—like Pedestrian Counts—is an important step in monitoring progress toward meeting the goals of this plan.
Implementation Considerations
Implementation Considerations

1. Project Scoring
   - Safety
   - Equity
   - Connectivity
   - Demand
   - Proximity to parks

2. City’s Complete Streets Process
   - City-sponsored projects
   - Private-sponsored projects

3. Agency Coordination
   - Task Force to meet quarterly
   - City of Albany
   - CDTC
   - NYSDOT
   - Utility agencies

4. Funding
   - Public and Private Funding sources
   - Expenditure Plan
   - Timeline

5. Key Performance Factors
   - Activity
   - Funding pursued or secured
   - Priority project funded annually
   - Miles of constructed bike facilities
   - Miles of new/fixed sidewalks and new/updated crossings
Thank you