



Public Engagement Series

10.17.24 - 10.19.24

Listen to the Public to Identify Opportunities

Summer of 2022



Evaluate Multimodal Improvement Strategies

Summer of 2024



Final Vision and Report



Review Traffic Conditions to Understand Needs

Fall of 2022



Evaluate Two-Way Traffic Conversion Feasibility

Winter of 2022-Spring of 2023



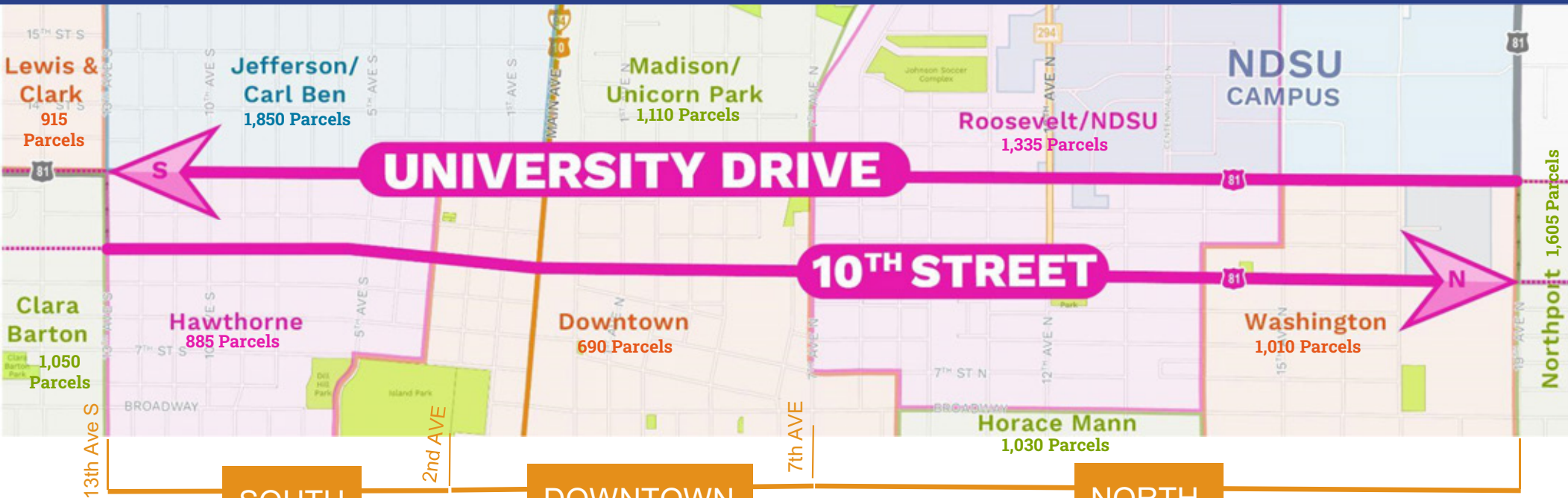
Engagement Public and Leadership for Feedback

Fall of 2024



Background

STUDY AREA



Multimodal Activity



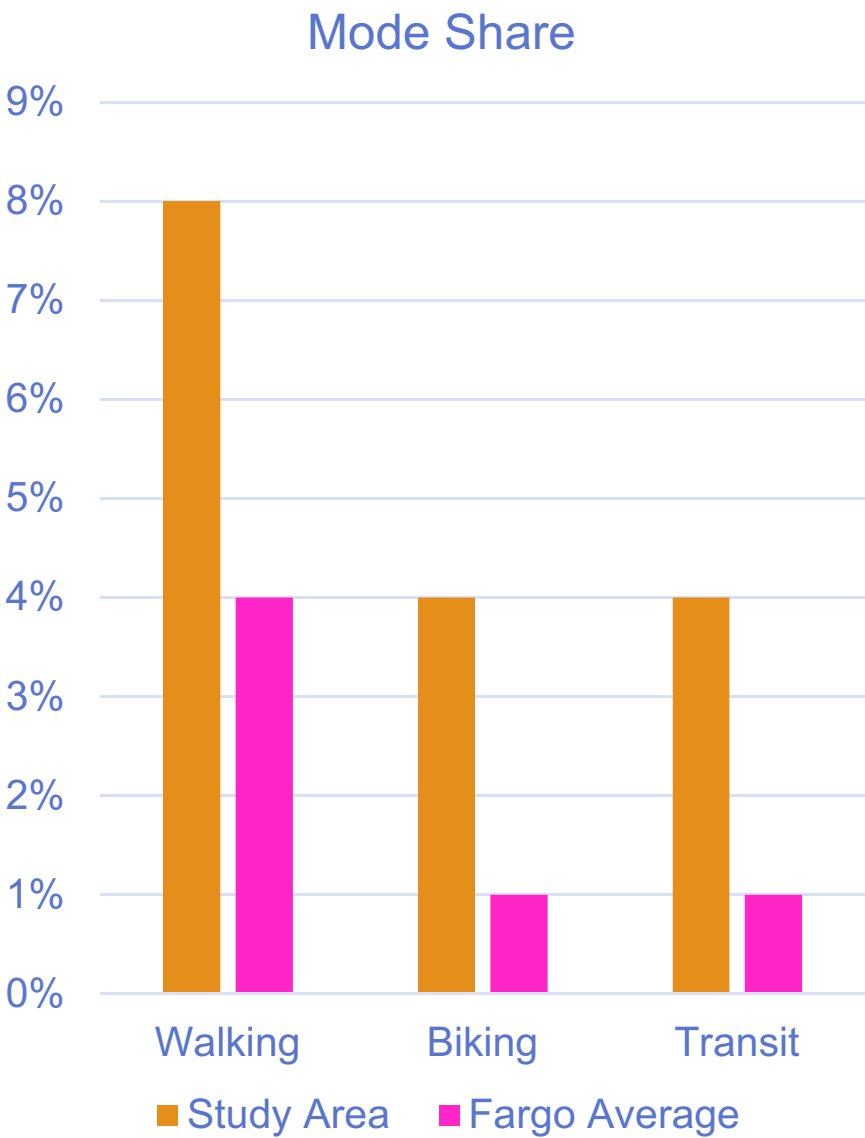
3,600 kids enrolled at 9 schools within ½ mile of study corridors



At any given time, more than 1,800 bikes on NDSU campus

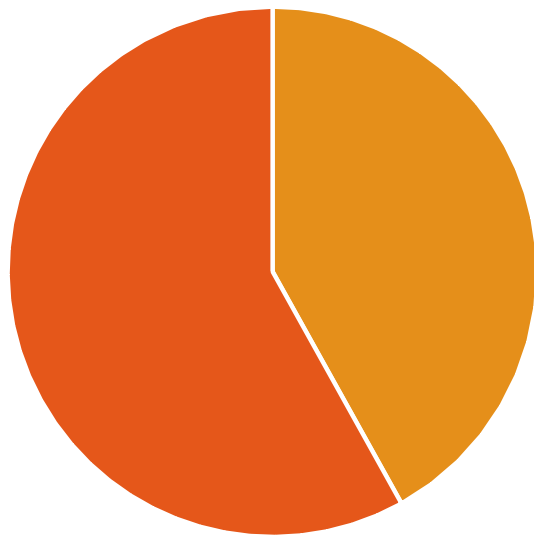


By 2025, segments of University Drive will see 19 buses an hour, the highest of any corridor in the metro



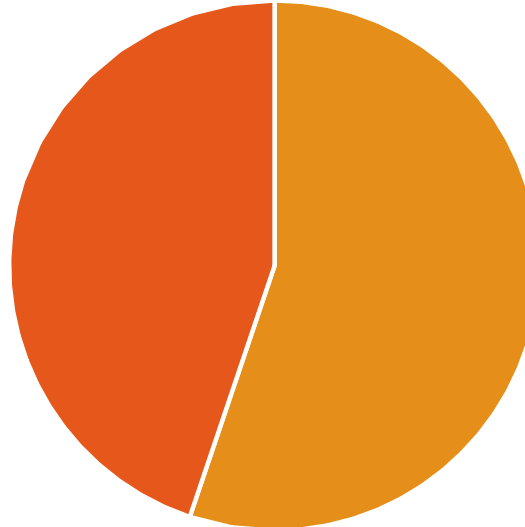
Pedestrian and Bicycle Safety

Mode Choice



■ Pedestrian ■ Bicycle

Traffic Control



■ At Signal ■ Unsignalized

~12% of Metro-Wide Ped/Bike Crashes

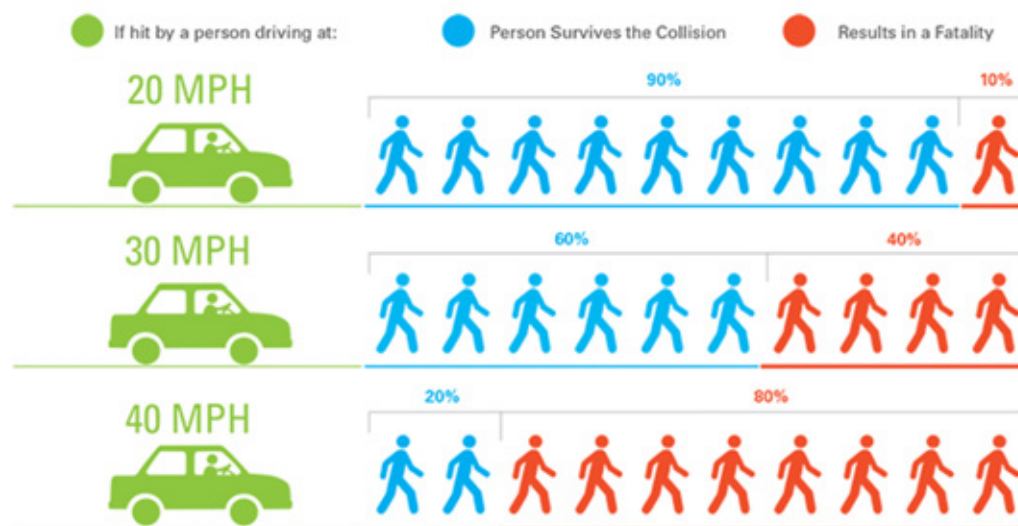
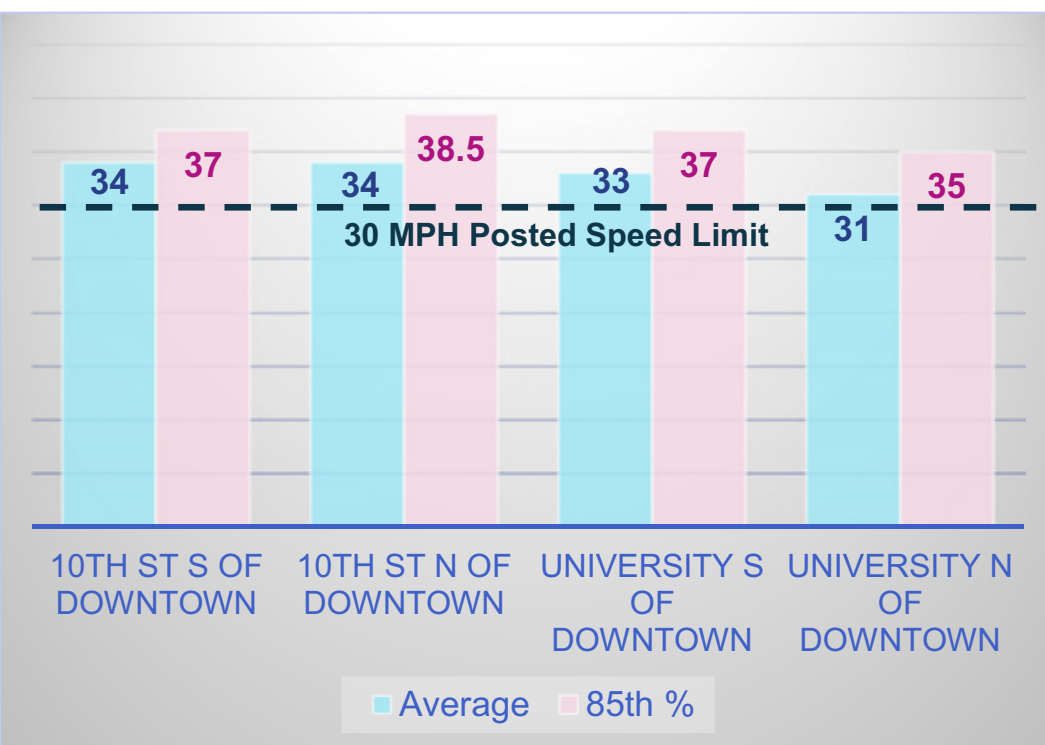
Uncomfortable or Non-Existent Bike Amenities



Speeding



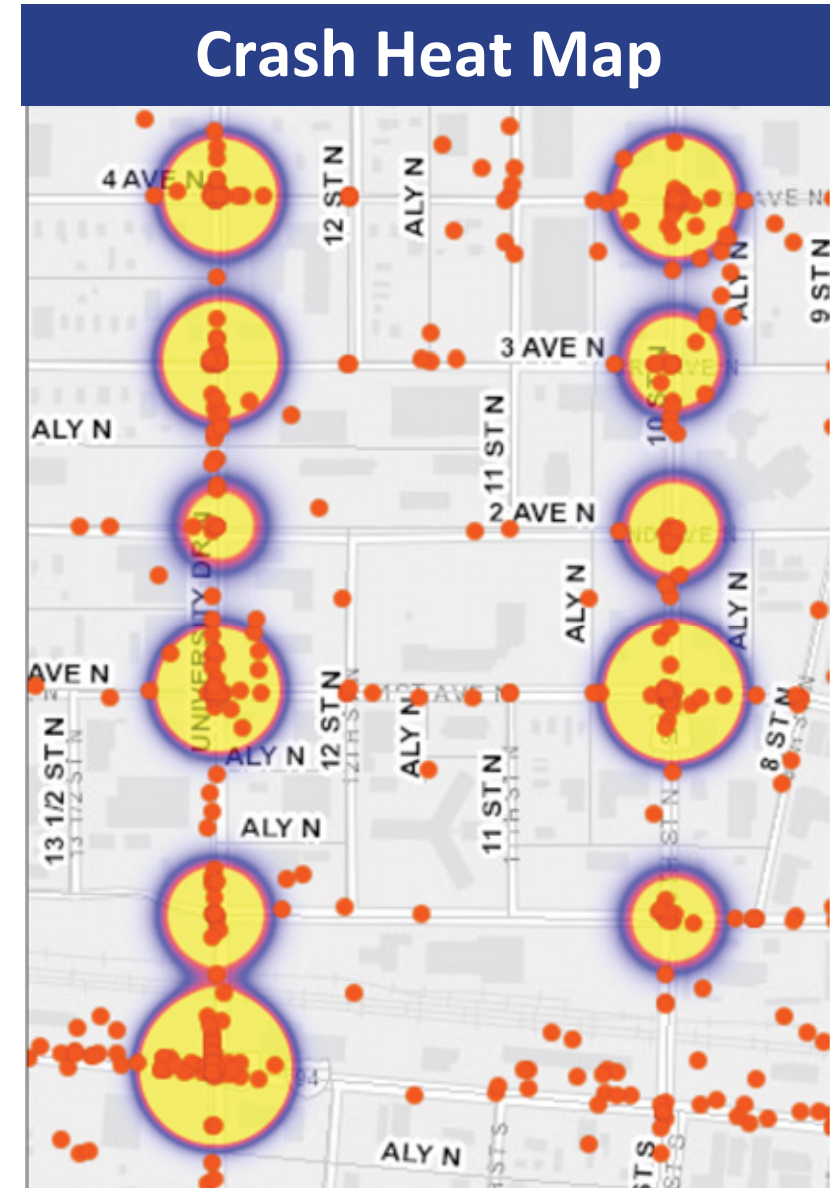
2022 field-collected speed data



- Common Public Complaint
- Majority of Traffic is within 5 MPH of Speed Limit
- Some Outliers late at night

Safety and Crash History

- 7 of the top 10 Crash Rate Intersections in Fargo
- 23% Higher Angled Crash Rate than Fargo Average leads to Increased Crash Severity Rates
- 42% of the Corridor is in the Upper Quartile of City-Wide Crash Rate



Segment	University Drive	10 th Street	Combined
South	15,500	11,800	27,300
Downtown	14,000	12,800	26,800
North	10,400	8,700	19,100



- US 81 is a State Truck Route
- Second Highest Trafficked Corridor When Viewed in Combination
- Events can Generate 40-140% More Traffic onto Corridors
- Growth Expected to Increase Traffic by 5-8%





Visioning

ENGAGEMENT EFFORTS

~600

**RESIDENTIAL
PROPERTIES VISITED**

31

**FOCUS GROUPS
RSVPs**

6,435

**POSTCARDS
MAILED**

~60

**BUSINESSES
VISITED**

7

**STAKEHOLDER
INTERVIEWS**

500+

ONLINE COMMENTS

Survey Results Priorities

Top Priorities according to all survey responses:

1. **Efficient movement** of people and goods (cars and trucks)
2. **Minimizing** the potential of severe **crashes and excessive speeding**
3. Making sure people of all abilities feel **safe walking** along or **crossing** the streets
4. Maintaining or increasing **tree cover and green space**



Corridor-Wide Two-Way Conversion

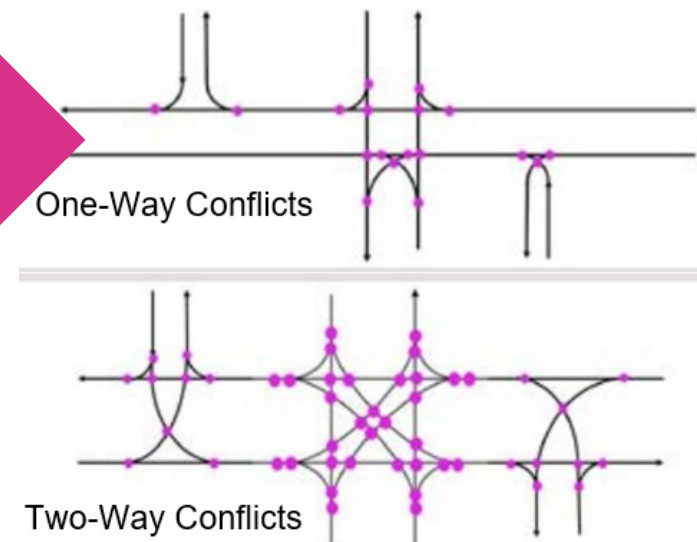


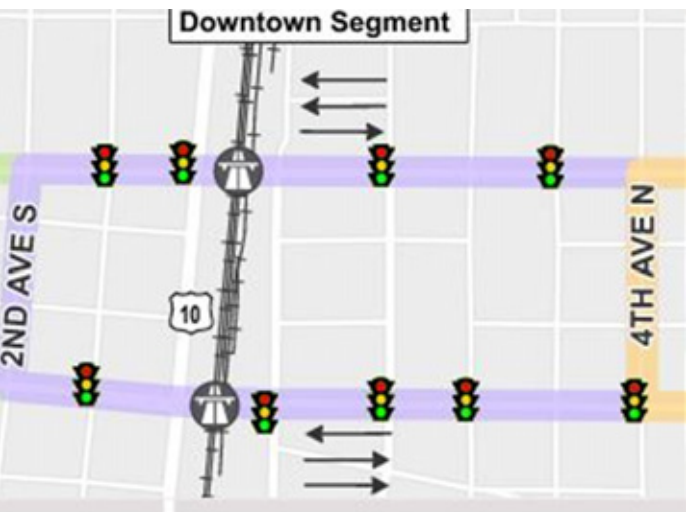
Qualitative Findings

- **No profound sentiment toward conversion**
- **Concern toward impact of trees**
- **Desire to reduce speeding**

Quantitative Findings

- **Without widening does not function safely or effectively**
- **With widening impacted trees and lengthened crossings**





A Downtown Only Conversion has the Potential to Improve Circulation with Reduced Impacts



Improvement Packages



Downtown Configuration



Crossing Safety



Bicycle Connectivity



Traffic Calming



Crash History



Event Management



Downtown Reconfiguration

Visualizations

<https://www.bolton-menk.com/interactive/FMCOGUniversity/>



EXISTING CONFIGURATION DOWNTOWN



DOWNTOWN ONLY CONVERSION DOWNTOWN



SHARED USE PATH AND BUS TURNOUTS DOWNTOWN



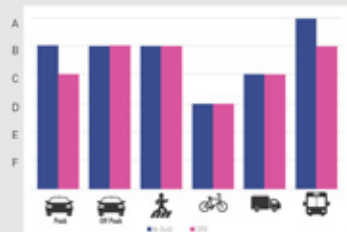
RAISED TWO-WAY CYCLE TRACK DOWNTOWN



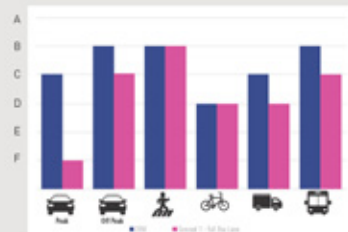
RAISED ONE-WAY BIKE LANES DOWNTOWN



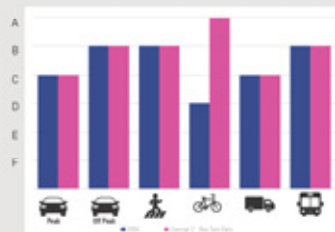
Level of Service



Level of Service



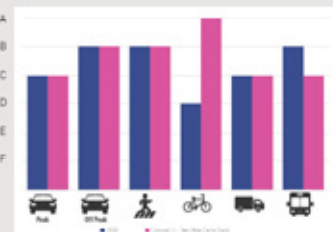
Level of Service



Level of Service



Level of Service



Travel Time



Travel Time



Travel Time



Travel Time



Travel Time



University Dr Typical Section



University Dr Typical Section



University Dr Typical Section

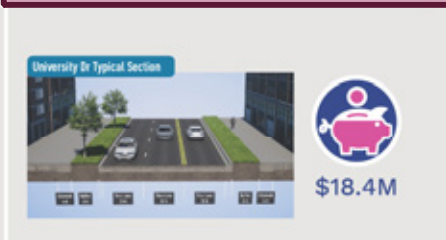
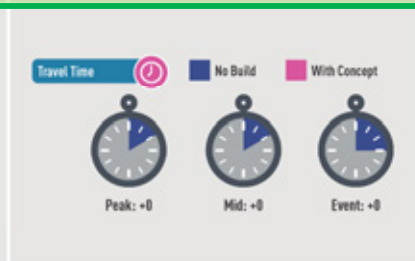
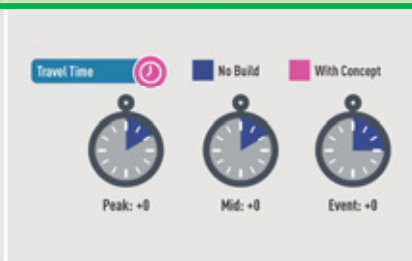
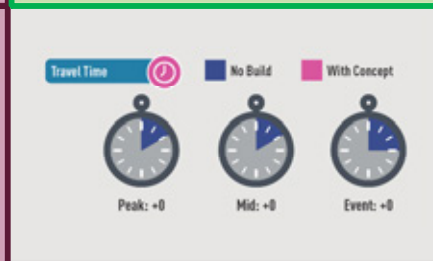
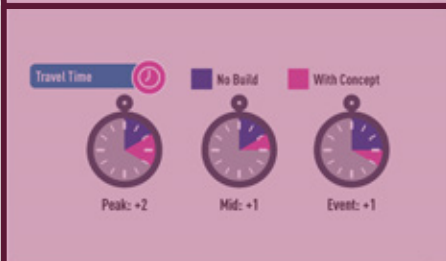
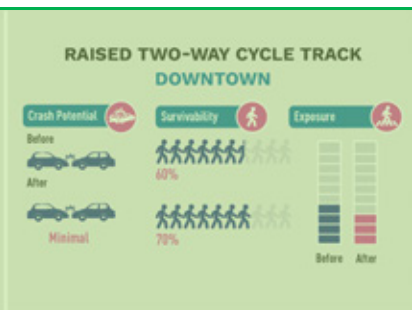
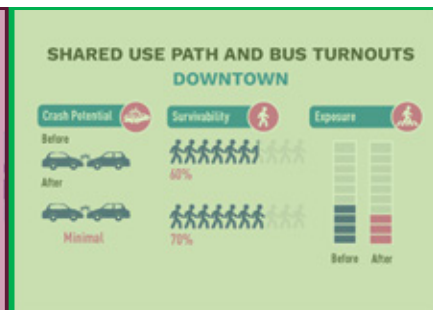
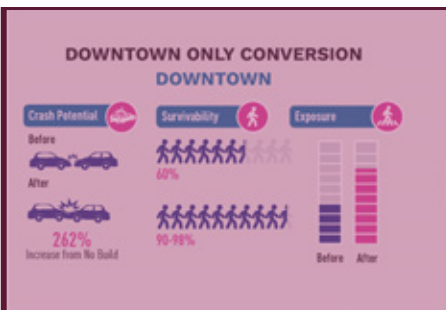
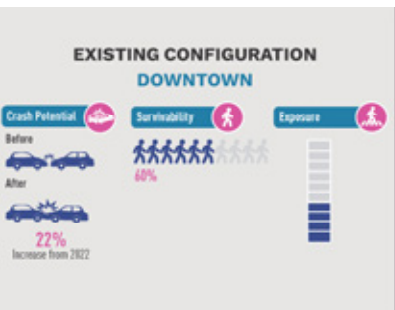


University Dr Typical Section



University Dr Typical Section







Crossing Safety

Signalized Improvements

- Each Intersections Receive 1-3 of the Following Safety Improvements
- Several Locations Reduced Wait Times



LEADING PEDESTRIAN INTERVAL (LPI)

Reduces vehicle-pedestrian crash potential up to 60%



PEDESTRIAN OMIT ON FLASHING YELLOW ARROW (POOFYA)

Reduces vehicle-pedestrian crash potential up to 28%



NO RIGHT TURN ON RED (NO RTOR)

60%+ Reduction in vehicle-pedestrian crashes

New Crossing Locations

- Rectangular Rapid Flashing Beacons
- One-Way Design Increases the Ease of Deployment



Safety Benefits:

RRFBs can
reduce crashes
up to:

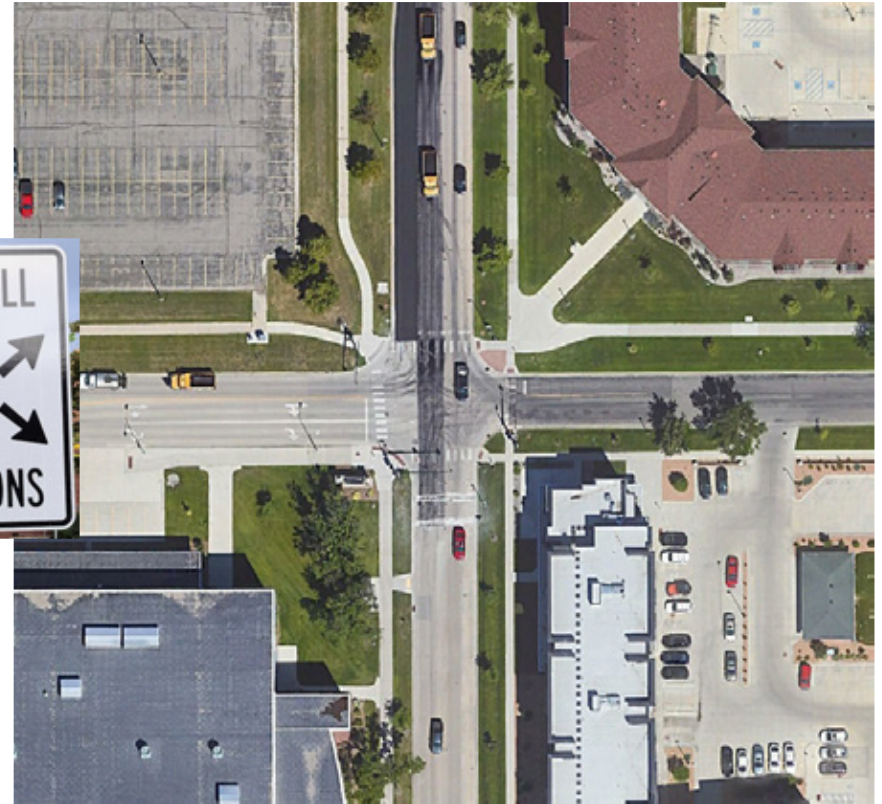
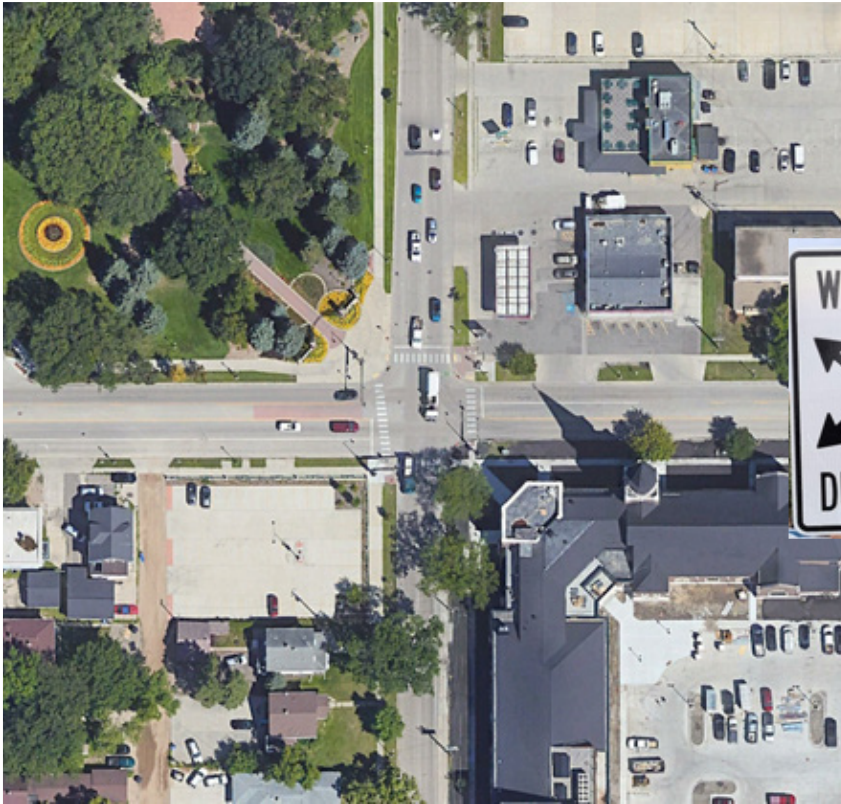
47%

for pedestrian crashes.⁴

RRFBs can
increase
motorist
yielding rates up
to:

98%

(varies by speed limit, number
of lanes, crossing distance, and
time of day).³

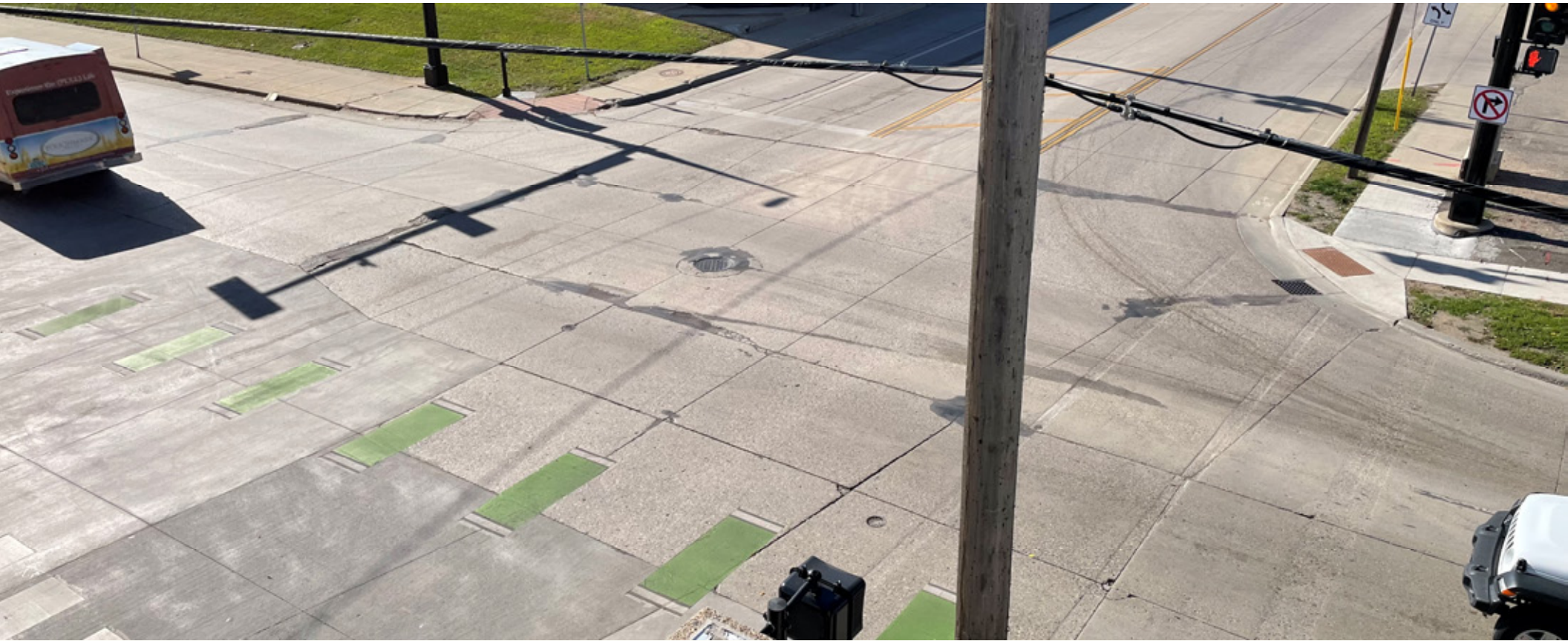


● University/12th Avenue

- Land Use Conducive to Bi-Directional Crossings Common
- >700 Pedestrian Crossings during Normal School Conditions
- Enough Capacity to Support Drop in Vehicular Level of Service

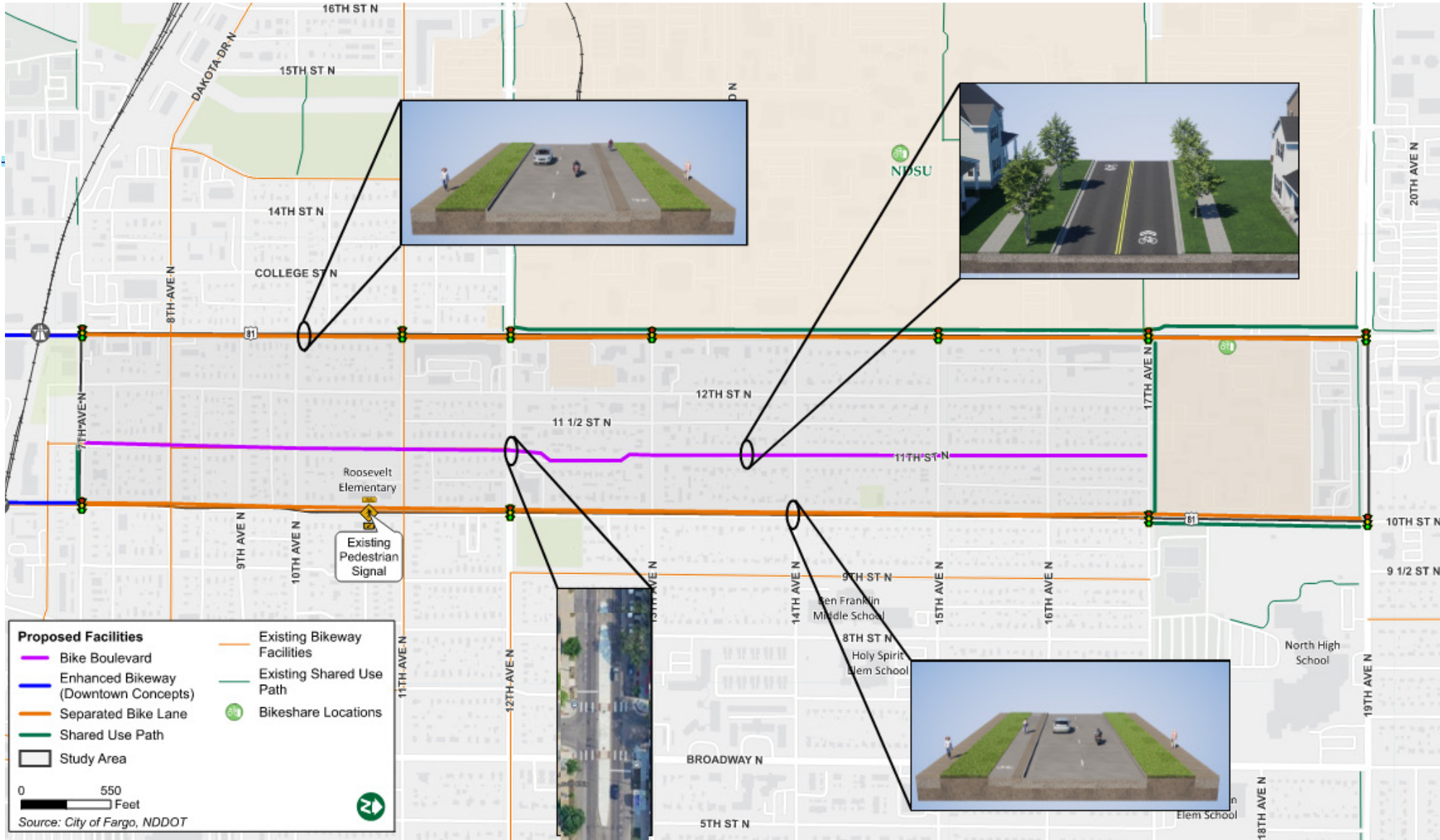
● University/17th Avenue

- Land Use Conducive to Bi-Directional Crossings Common
- ~5,000 Pedestrian Crossings During Peak Events
- Enough Capacity to Support Drop in Vehicular Level of Service

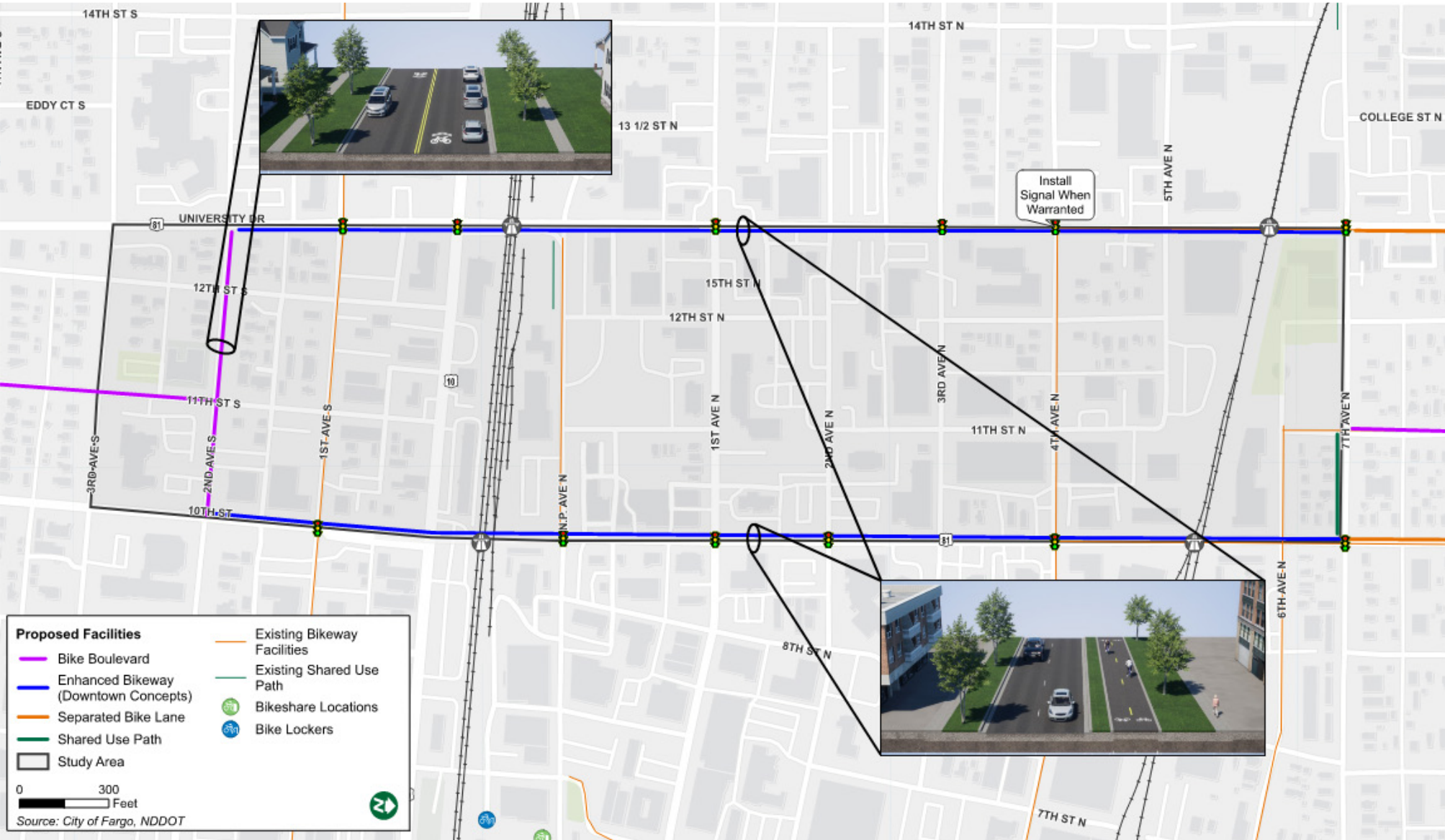


Bicycle Connectivity

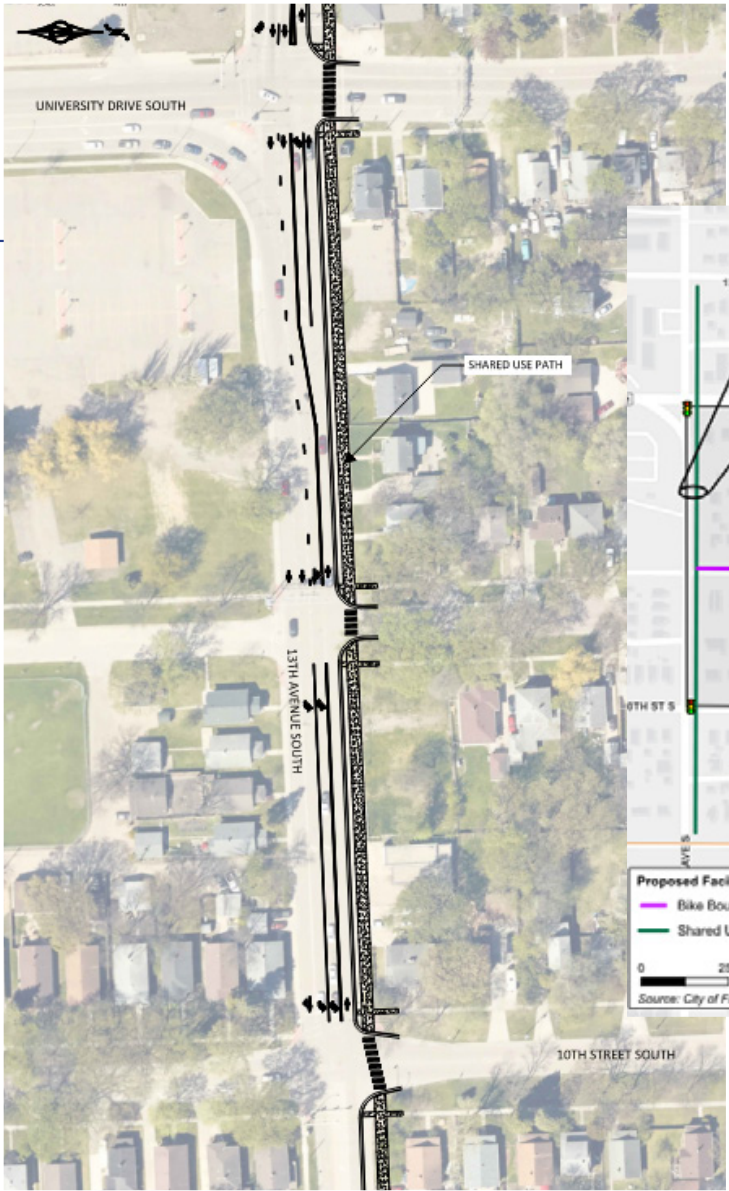
Bicycle Network Improvements North Subarea



Bicycle Network Improvements Downtown Subarea



Bicycle Network Improvements South Subarea





Traffic Calming

Signage and Signal Timing



Dynamic Speed Signs:

Initially effective; 6-7 MPH Reduction

Research shows declining effectiveness over time and downstream

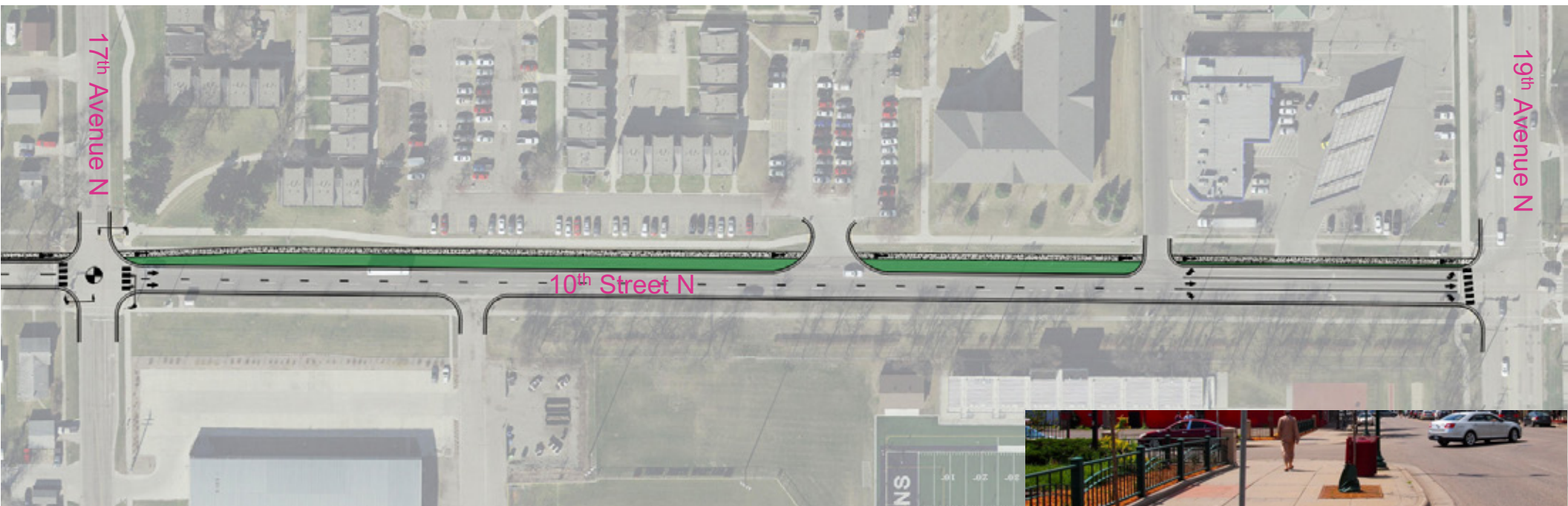


Signal Timing:

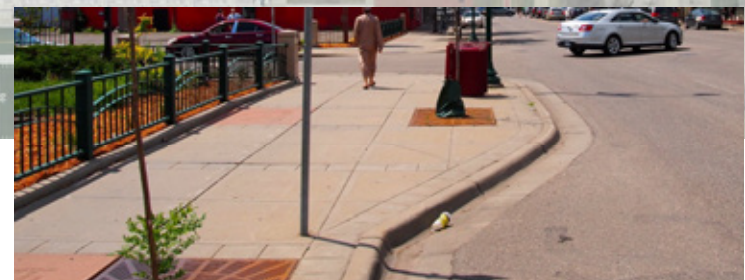
Coordination for specific speed + public education could discourage speeding

Geometric Designs

Uni  10th



Long-term Road Diet:
~5 MPH Reduction



Short-term Bulb-Outs:
~4 MPH Reduction

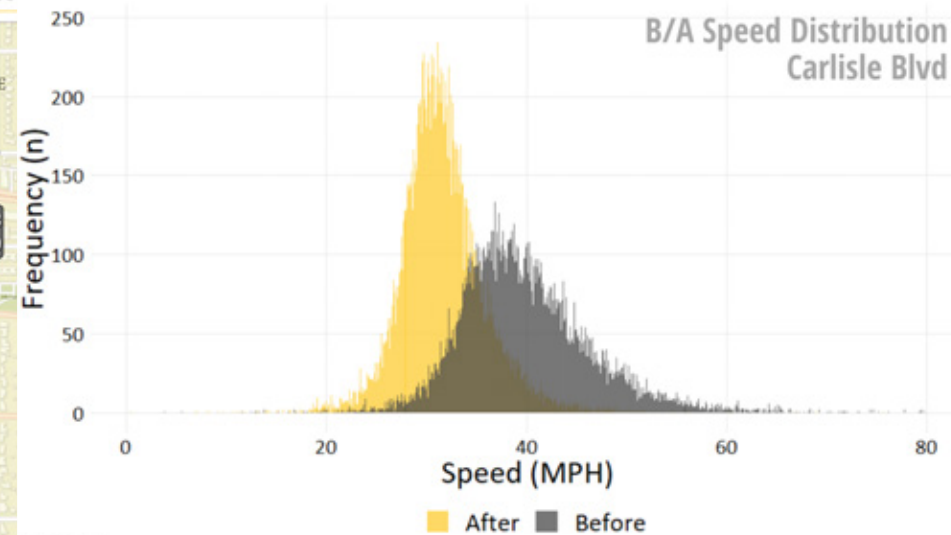
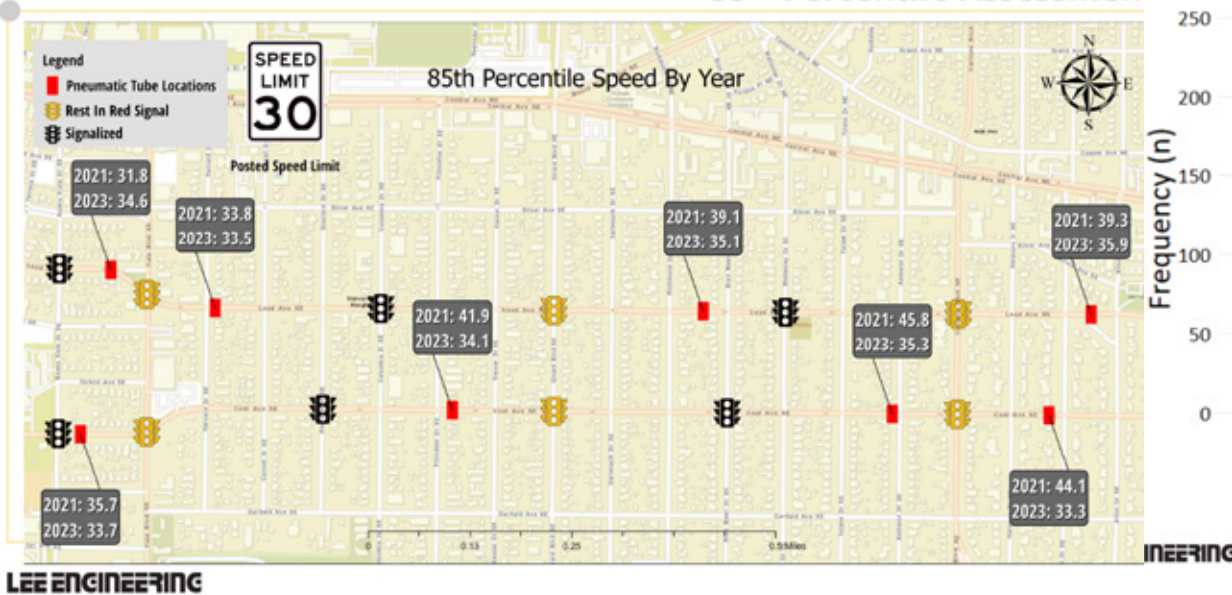
Rest In Red Signal Revisions

- Utilizes advanced detection to evaluate vehicle speeds
- Signal rests in red – only changes to green if vehicles are traveling slower than a specified speed
- Can incorporate removal of overnight flash – data suggests an intersection-specific 48% crash reduction with this change



Rest In Red: Case Study

85th Percentile Assessment



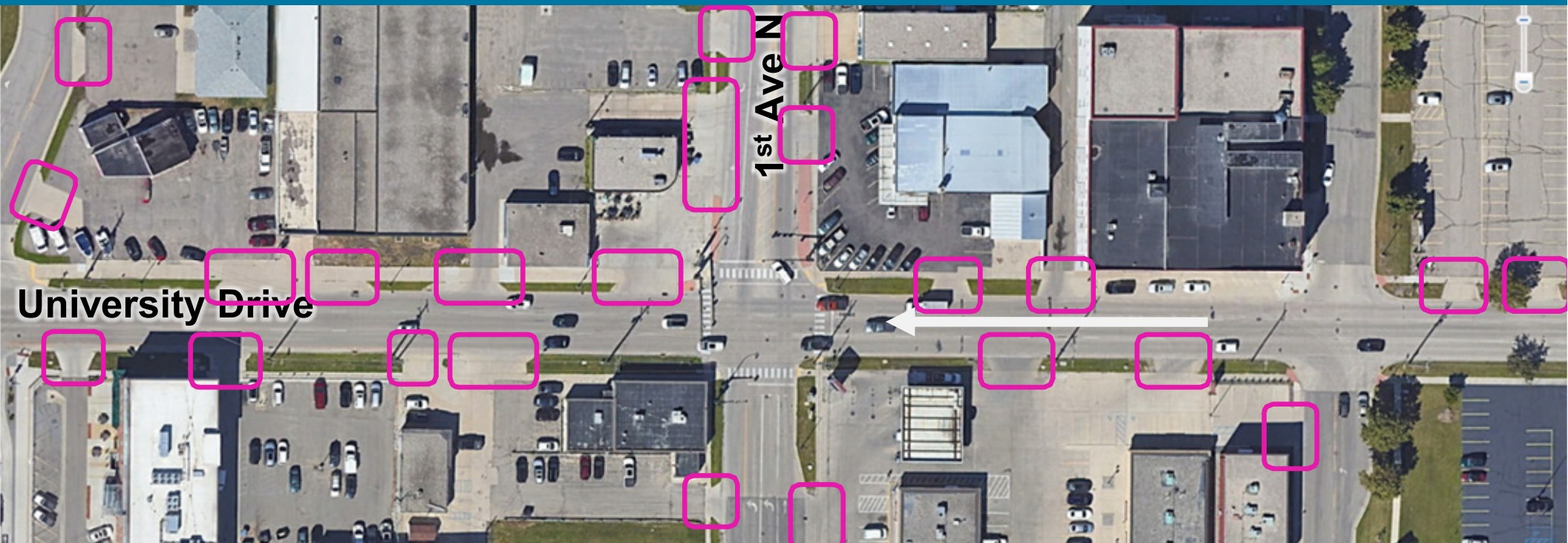
- Case study from Lead and Coal One-Way Pair in Albuquerque, NM
- Study shows vehicle speeds were reduced by around 5 mph after rest on red implementation
- Case study also showed crash reduction (limited crash data)



Crash History

Access Management

Access Density is 2.5X to 6X Denser than NDDOT Standards



- Opportunities Exist for Improvements in Commercial Areas but Few Exist through Neighborhoods
- Challenging to Retrofit without Reconstruction Project or Business Reconfiguration

Line of Sight Obstructions



At 30 MPH, Sight Distance for side street traffic is **335'** per Standards



- City of Fargo Maintains a Street Tree Replacement Policy
 - Aimed at Reducing Visibility Constraints and Utility Conflicts
 - Diversifying Tree Types
- Do NOT Recommend Removal of Trees but Systematic Replacement with Narrower Trees or Not Replacing Trees in Difficult Locations

Law-Enforcement Detection Lights

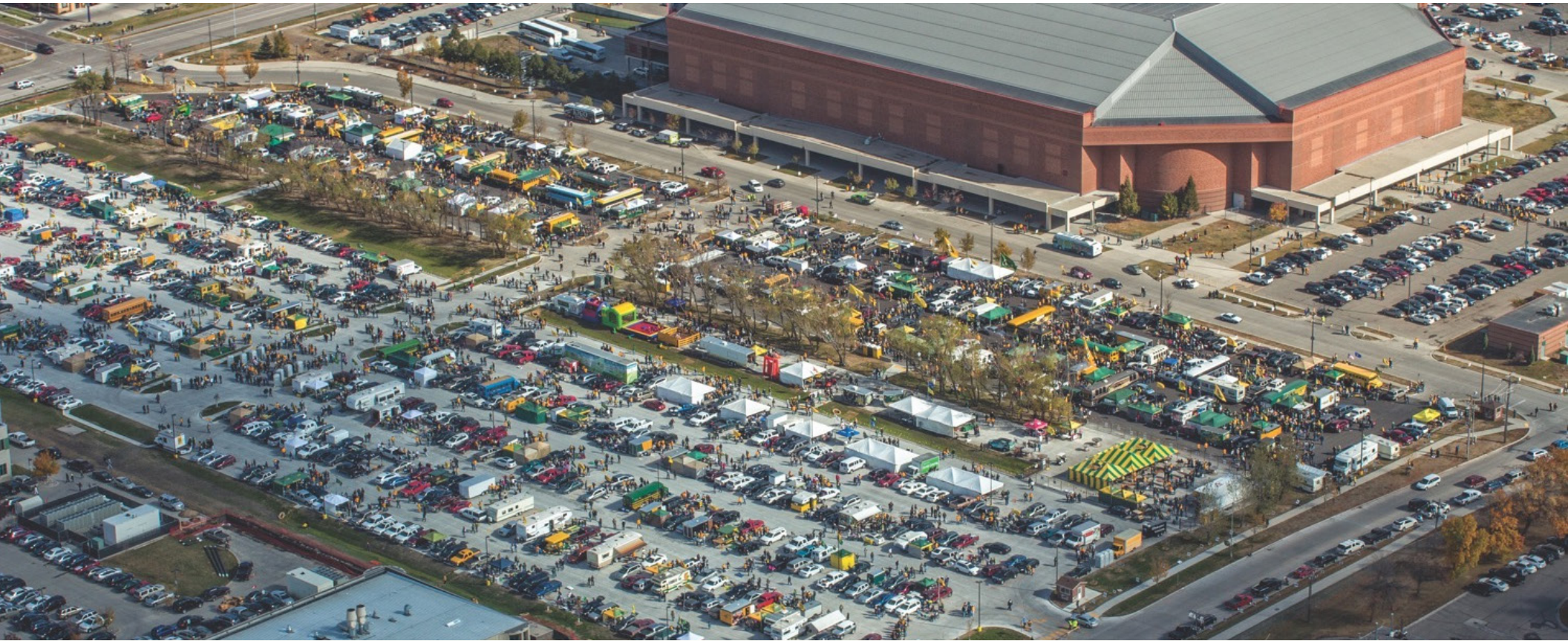
Connected to red signal indication → turn on when light is red

Not automated enforcement → Ineffective if not monitored and enforced

Crash Reduction:

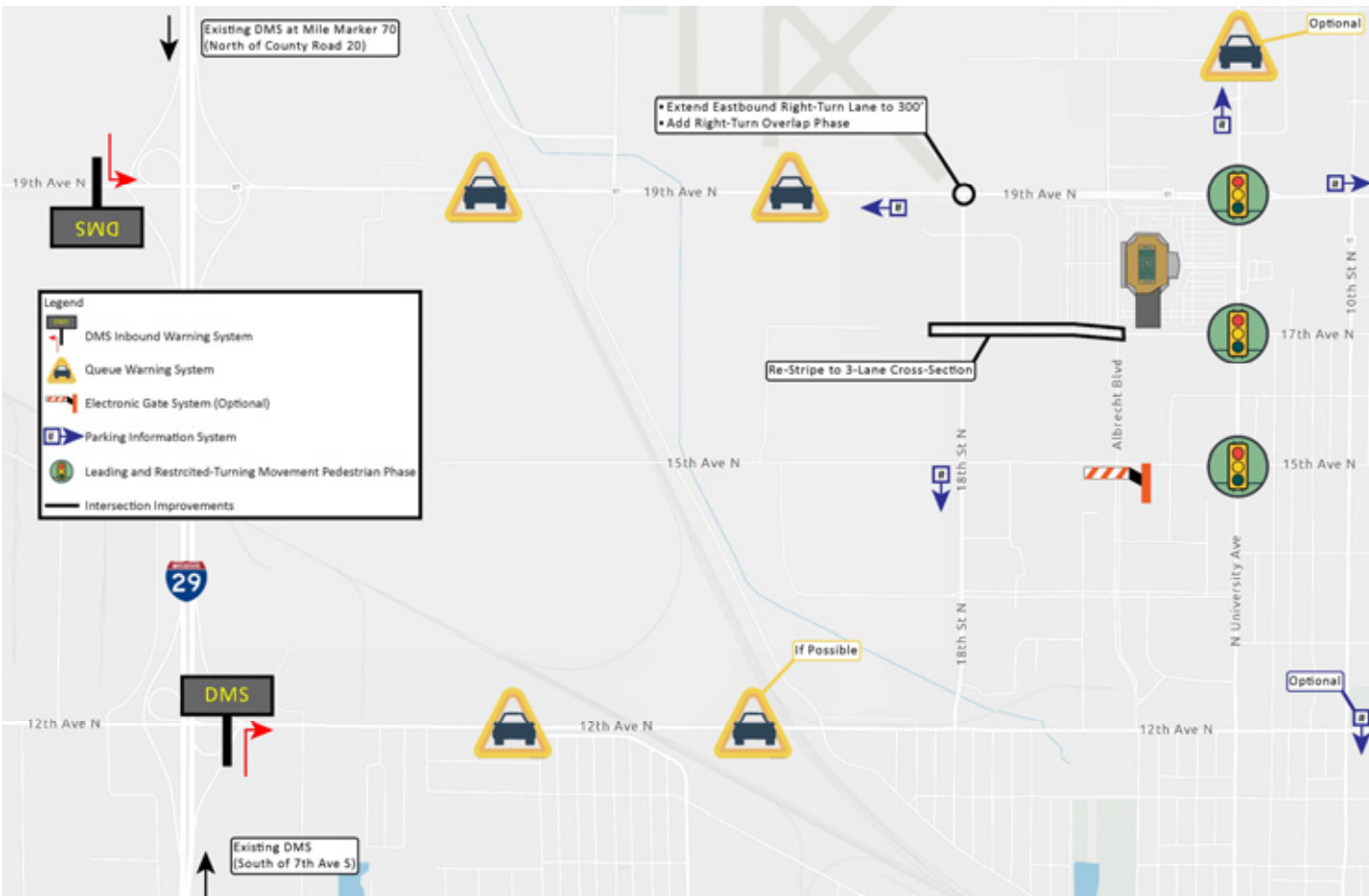
- -40% to Left-Turn
- -11% to Angled
- -29% to Fatal





Event Management

Technology Solutions





Corridor-Wide Alternatives

LEGEND



Downtown Reconfiguration

CROSSING SAFETY



Traffic Signal Improvements



Pedestrian Crossing Beacon

TRAFFIC CALMING



Speed-Controlled Traffic Signal



Dynamic Speed Limit Sign

BICYCLE CONNECTIVITY



Protected Bike Lane



Bike Boulevard



Shared Bike/Walk Path



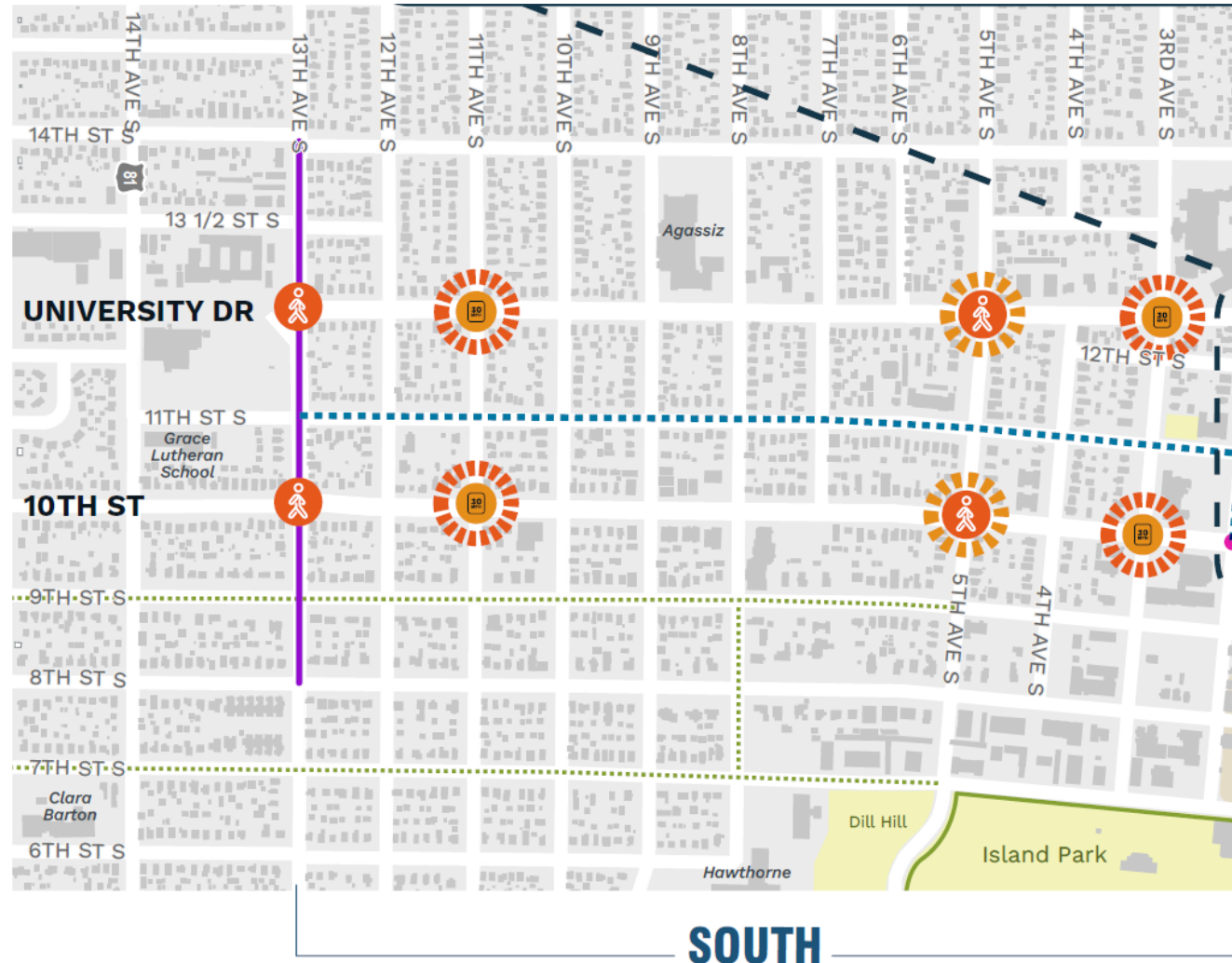
Road Diet



Existing Bike Lane



Existing Shared Bike/Walk Path



- Maintain one way pair
- Add biking route on 11th St. S
- Improve traffic lights and pedestrian crossings



THREE TRAFFIC LANES

- Three lanes in each direction
- Wide and busy with fast-moving vehicle traffic
- Difficult to cross, walk on, and bike on

POTENTIAL SOLUTION:

- Reconfigures one travel lane to create a safer and better connected downtown for all

ALTERNATIVE 1



DOWNTOWN-ONLY TWO-WAY CONVERSION

- Increases downtown circulation and accessibility
- Better circulation for vehicles and emergency responders
- Slows traffic, increasing pedestrian and bike safety
- Slows and shortens pedestrian crossing distances
- Expected to increase travel times by 10-15% depending on time of day

ALTERNATIVE 2



ONE WAY WITH SHARED BIKE/WALK PATH

- Easier to Cross the Street for Pedestrians
- Shared Use Path for Bicyclists and Pedestrians
- Space for Additional Parking
- Space for Bike Share Station
- Similar Travel Times for Vehicles

ALTERNATIVE 3



ONE WAY WITH RAISED 2-WAY BIKEWAY

- Fewer Vehicle Lanes to Cross for Pedestrians
- Separate Space for Bi-Directional Bike and Pedestrian Travel
- Similar Travel Times for Vehicles

ALTERNATIVE 4



ONE WAY WITH RAISED 1-WAY BIKEWAY

- More Separation between Bicycles and Traffic
- Fewer Vehicle Lanes to Cross for Pedestrians
- Similar Travel Times for Vehicles

DOWNTOWN RECONFIGURATION **WHAT'S YOUR PREFERENCE FOR DOWNTOWN?** There is an opportunity for Fargoans to shape the streetscape improvements — [let us know what you think!](#)

LEGEND

Downtown Reconfiguration

CROSSING SAFETY



Traffic Signal Improvements



Pedestrian Crossing Beacon

TRAFFIC CALMING



Speed-Controlled Traffic Signal



Dynamic Speed Limit Sign

BICYCLE CONNECTIVITY

Protected Bike Lane

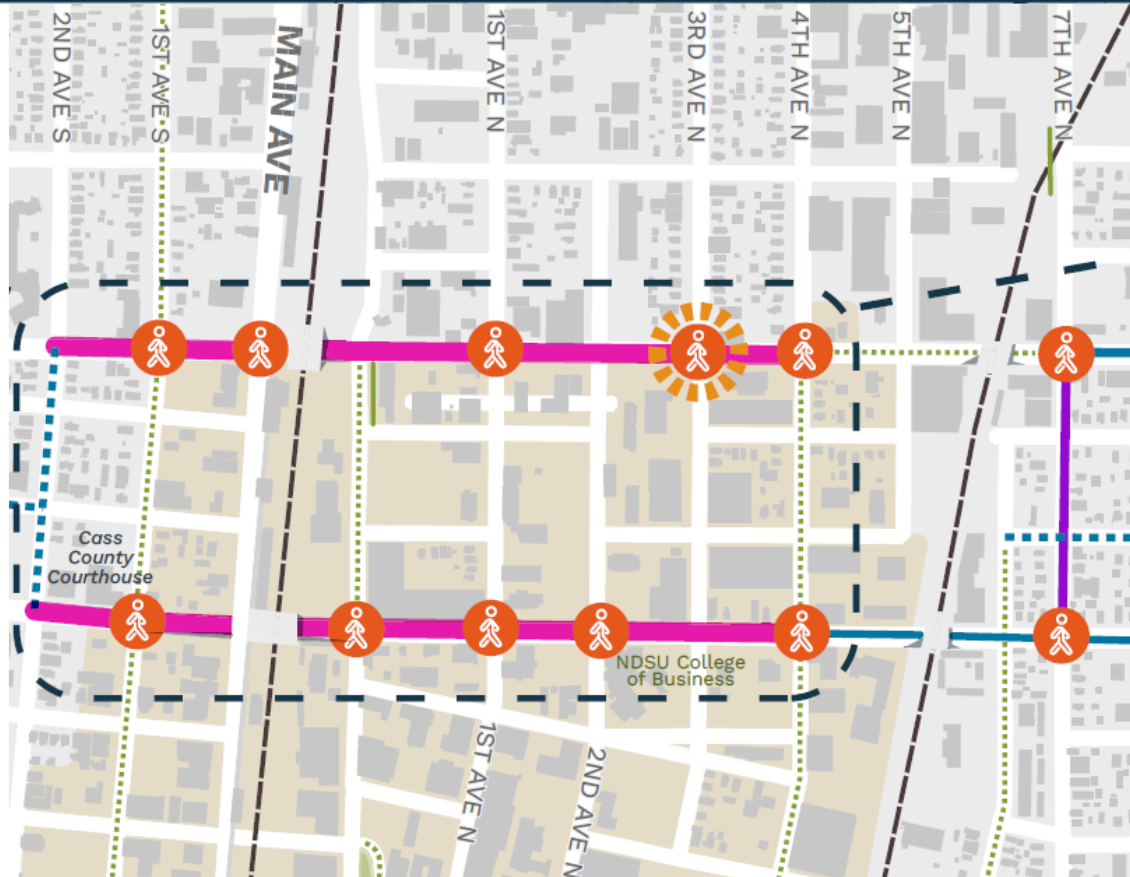
Bike Boulevard

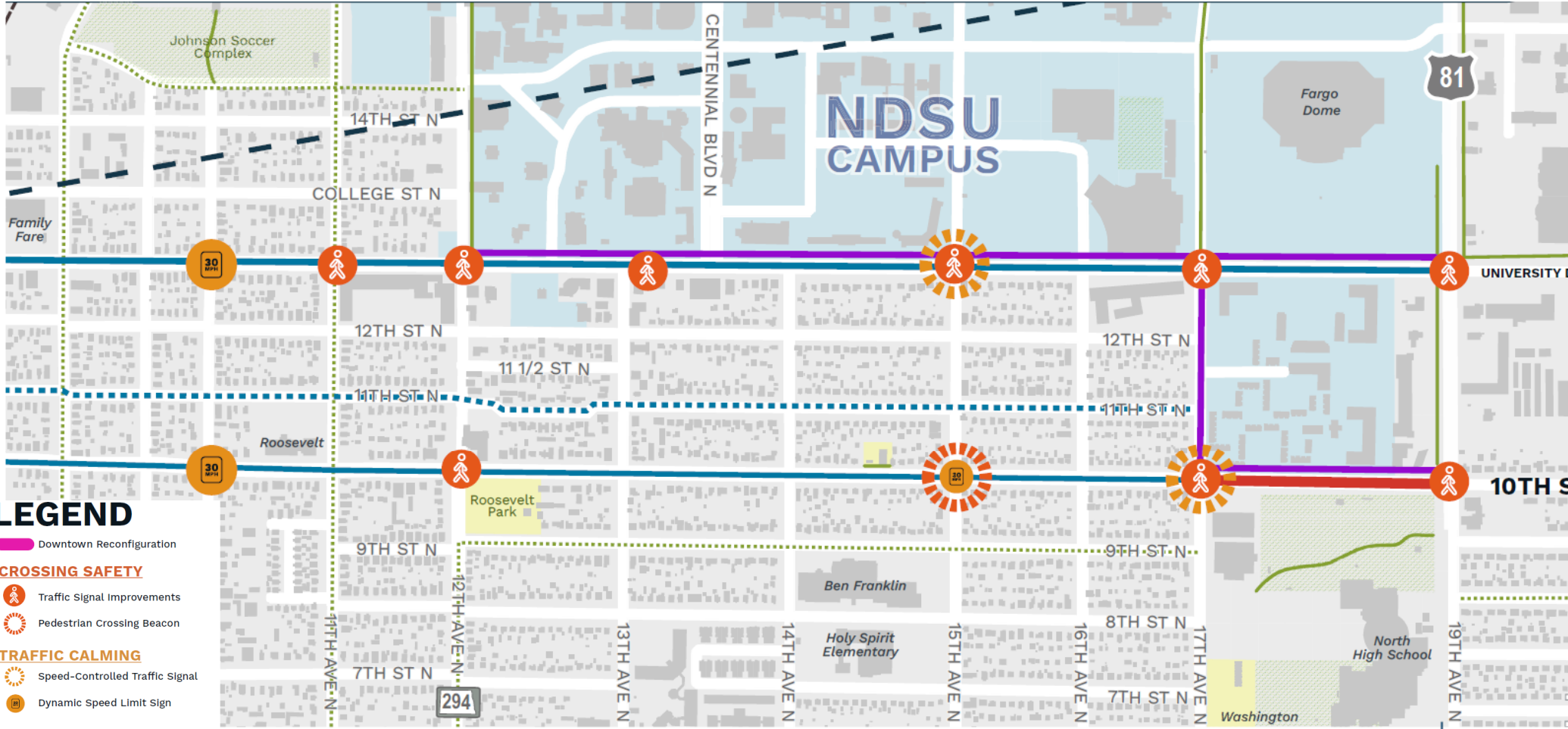
Shared Bike/Walk Path

Road Diet

Existing Bike Lane

Existing Shared Bike/Walk Path





- LEGEND**
- Downtown Reconfiguration
 - CROSSING SAFETY**
 - Traffic Signal Improvements
 - Pedestrian Crossing Beacon
 - TRAFFIC CALMING**
 - Speed-Controlled Traffic Signal
 - Dynamic Speed Limit Sign
 - BICYCLE CONNECTIVITY**
 - Protected Bike Lane
 - Bike Boulevard
 - Shared Bike/Walk Path
 - Road Diet
 - Existing Bike Lane
 - Existing Shared Bike/Walk Path

NORTH

- Maintain one way pair
- Provide alternative biking route on 11th St. N
- Improve traffic lights, crossings, and pedestrian access to NDSU
- Improve event traffic flow

WANT TO PROVIDE FEEDBACK ONLINE?
VISIT: bit.ly/Uni_10



What Are Your Thoughts?

How to Provide Comments

- We'll Record Comments from Meetings
- Visit the Website
 - QR Code
 - Metro COG Website
 - Fargo Streets Link

