

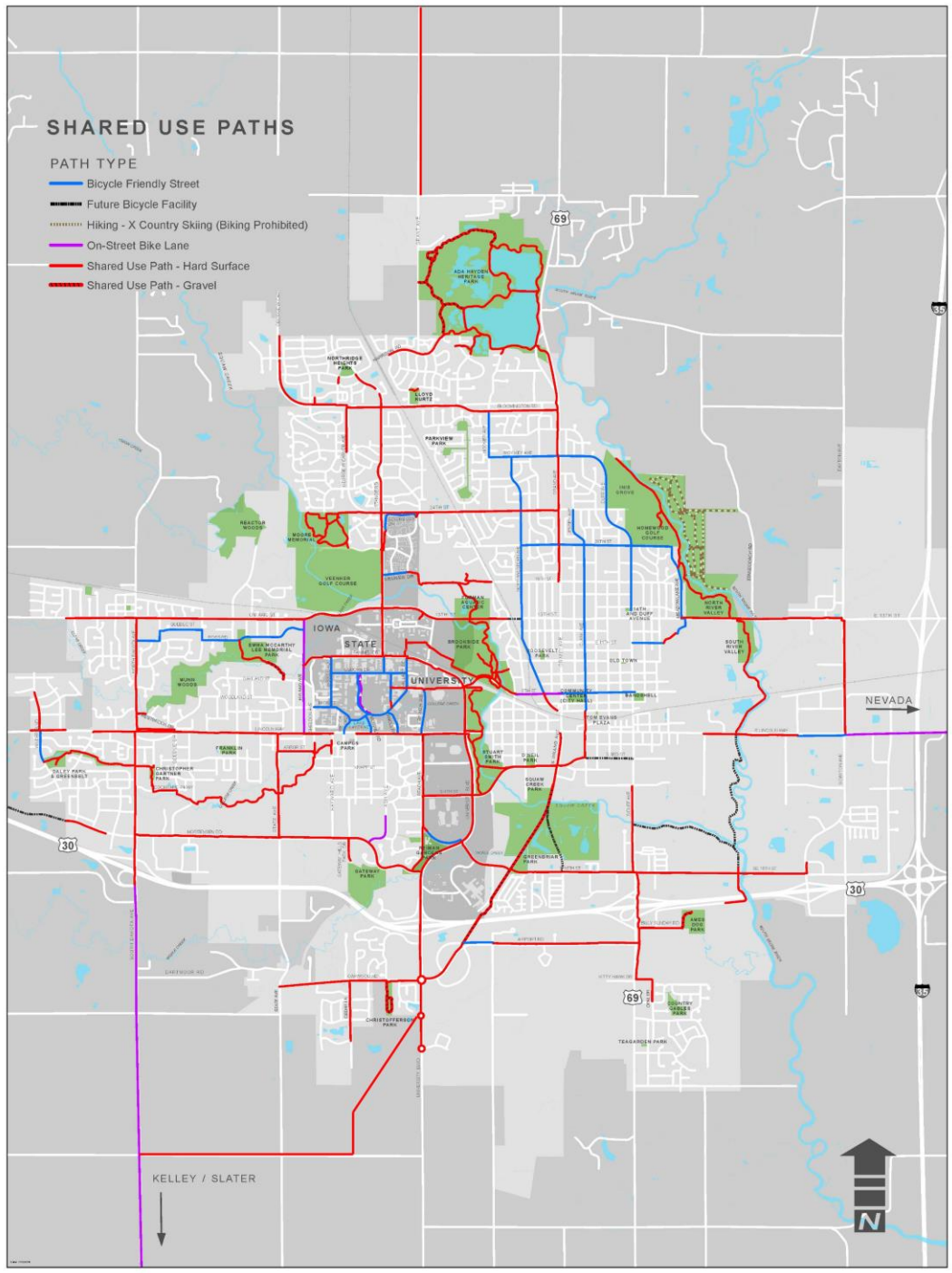
The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the left and right sides of the page, framing the central white area where the text is placed.

City of Ames Bike Infrastructure Workshop

October 19, 2021

Meeting Agenda

- ▶ Overview of existing Bicycle Network
 - ▶ Ames connection to High Trestle Trail
- ▶ Review of long-range plan for trails (Forward 45 MTP)
- ▶ Capital Improvements Plan for Trails
 - ▶ ISU Institutional Trails (Coordination with City of Ames)
- ▶ Bicycle guidance in Complete Streets Plan
- ▶ Upcoming Efforts: Bike & Pedestrian Master Plan
 - ▶ \$425,000 for Master planning & Trail Wayfinding Signage
- ▶ City of Ames Trail/Path Maintenance Overview & Techniques
- ▶ Potential uses of Eminent Domain (City vs. County)

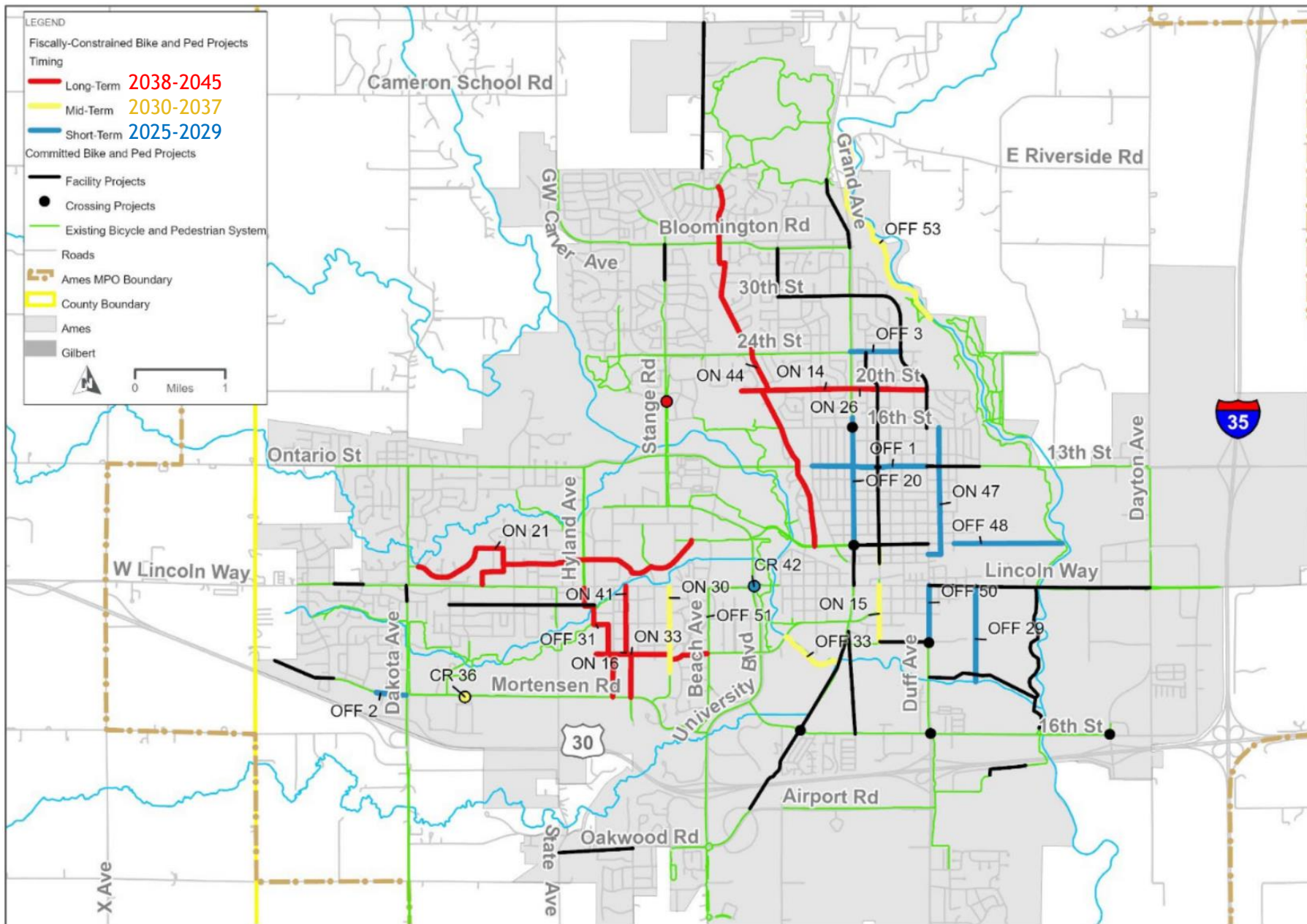


Existing Network



Bike Infrastructure Planning & Programming

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Forward 45 MTP (fiscally constrained list)



City of Ames Capital Improvements Plan

Current CIP (FY 22 - FY 26)

SHARED USE PATH SYSTEM EXPANSION

PROJECT STATUS: Site Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

This program provides for construction of shared use paths on street rights-of-way, adjacent to streets, and through greenbelts. The Long Range Transportation Plan (LRTP) identifies those paths that separate bicycle traffic from higher-speed automobile traffic.

COMMENTS

The projects included in this program are subject to acquiring voluntary easements from property owners. Construction of certain segments are contingent upon acquisition of land. Shared use path maintenance costs will increase due to new shared use path construction. The Bike and Pedestrian Master Plan will provide a systemwide conceptual design specific to local community needs in order to create a detailed and consistent non-motorized transportation network, which will ensure that Ames has a transparent and comprehensive plan for bikes and pedestrians. Whereas the MPO’s Long Range Transportation Plan provides information on regional connectivity but is prohibited under federal requirements from doing design and working through those local community issues.

LOCATION

- 2021/22 loway Creek (South Skunk River to South Duff Avenue-\$680,800); South of Lincoln Way path expansion (Franklin Park to Wilmoth Avenue-\$290,000)
- 2022/23 Grand Avenue path (Lincoln Way to Sixth Street)
- 2023/24 East Lincoln Way path (Carnegie Avenue to Dayton Avenue-\$300,000); Bike & Pedestrian Master Plan (\$175,000)
- 2024/25 Skunk River (South Duff trail connection along Billy Sunday Road)
- 2025/26 South Dayton Avenue (East Lincoln Way to SE 16th Street)

| | TOTAL | 2021/22 | 2022/23 | 2023/24 | 2024/25 | 2025/26 |
|------------------------|------------------|----------------|----------------|----------------|----------------|----------------|
| COST: | | | | | | |
| Engineering | 713,000 | 168,000 | 75,000 | 235,000 | 90,000 | 145,000 |
| Land Acquisition | 88,800 | 88,800 | | | | |
| Construction | 2,369,000 | 714,000 | 575,000 | 240,000 | 260,000 | 580,000 |
| TOTAL | 3,170,800 | 970,800 | 650,000 | 475,000 | 350,000 | 725,000 |
| FINANCING: | | | | | | |
| Local Option Sales Tax | 2,621,800 | 811,800 | 650,000 | 475,000 | 350,000 | 335,000 |
| MPO/STP Funds | 549,000 | 159,000 | | | | 390,000 |
| TOTAL | 3,170,800 | 970,800 | 650,000 | 475,000 | 350,000 | 725,000 |

PROGRAM - ACTIVITY:

Transportation - Shared Use Paths

DEPARTMENT:

Public Works

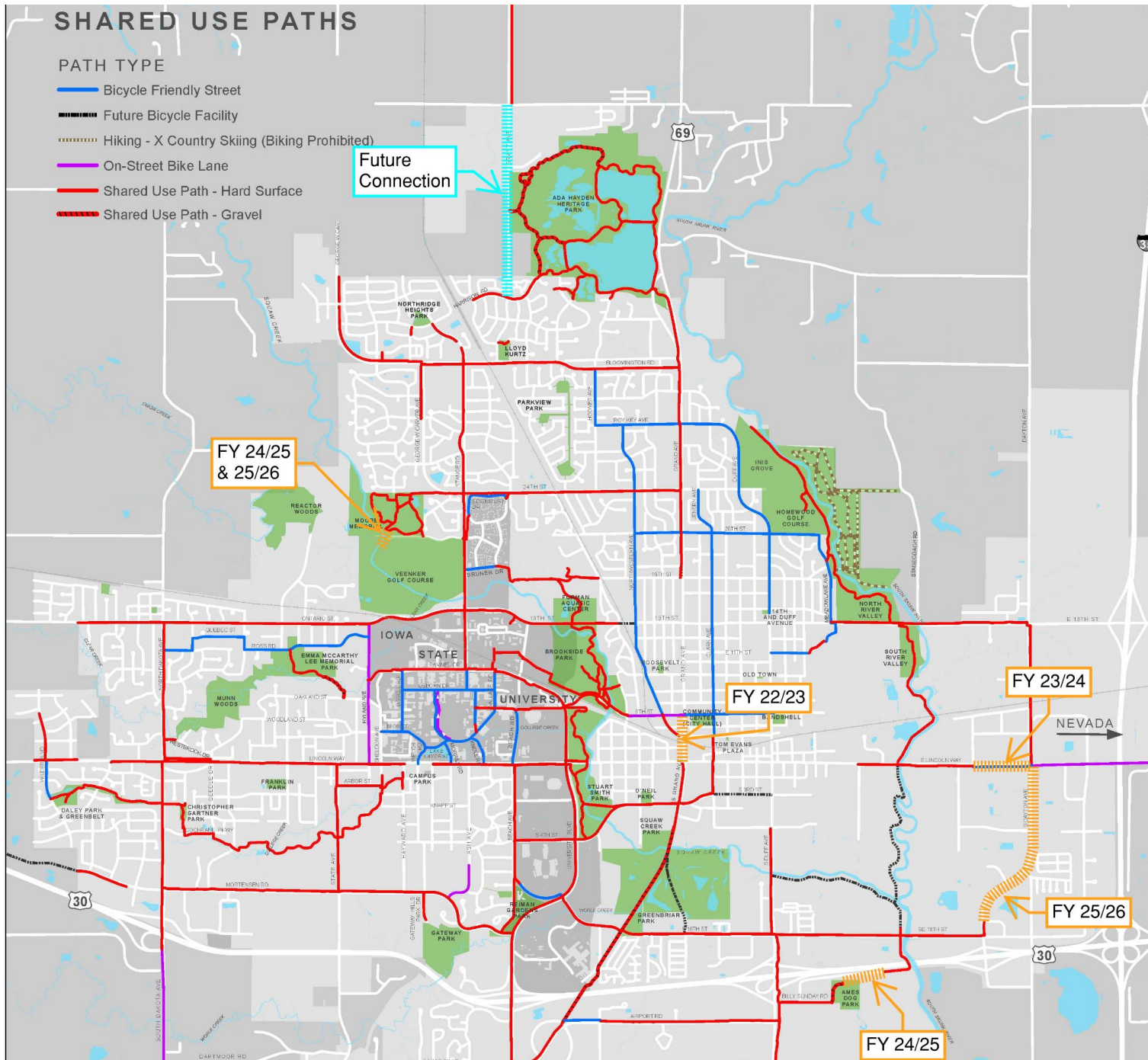
ACCOUNT NO.

030-8830-439, 320-8830-439, 030-8831-439

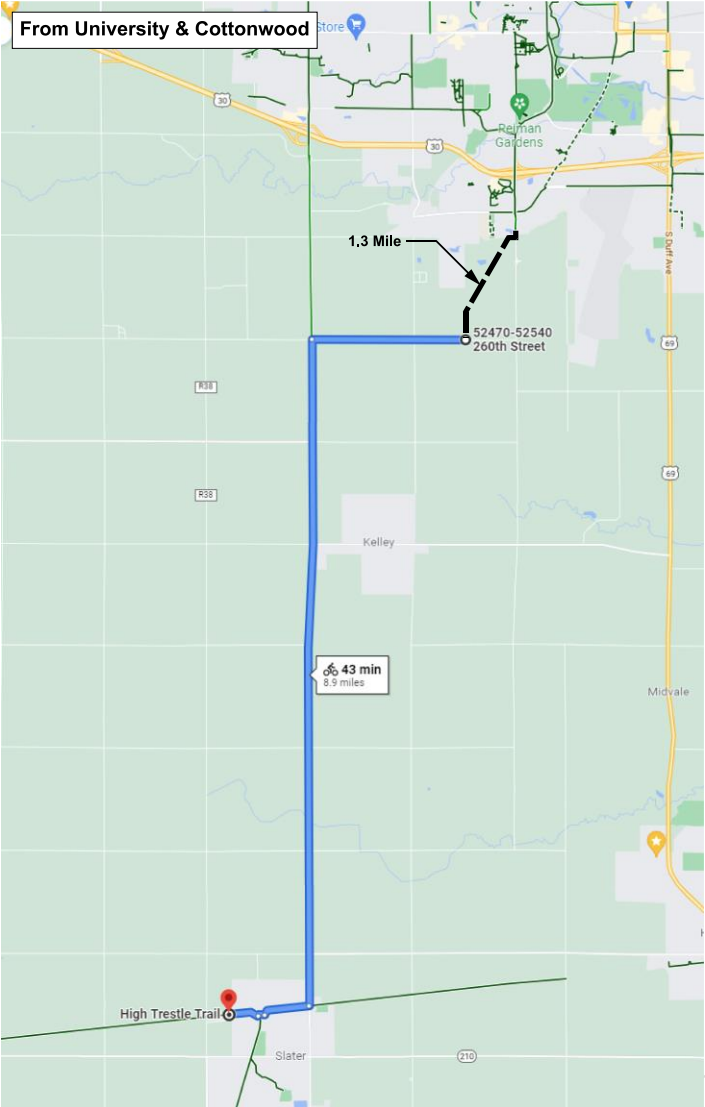
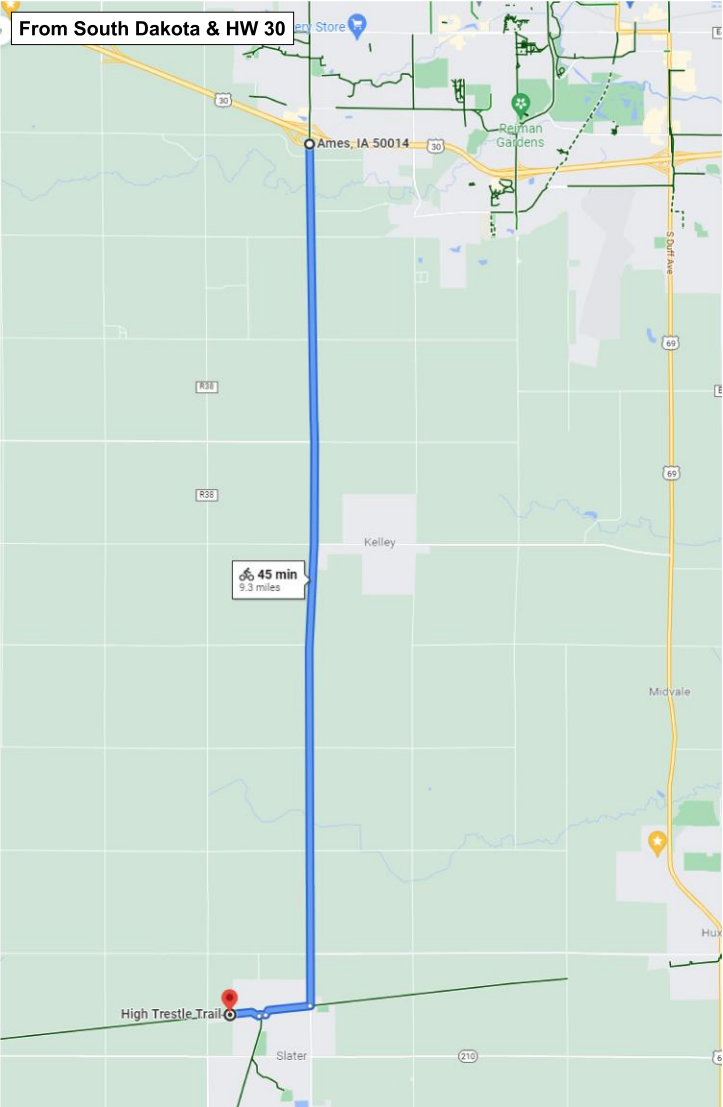
SHARED USE PATHS

PATH TYPE

-  Bicycle Friendly Street
-  Future Bicycle Facility
-  Hiking - X Country Skiing (Biking Prohibited)
-  On-Street Bike Lane
-  Shared Use Path - Hard Surface
-  Shared Use Path - Gravel

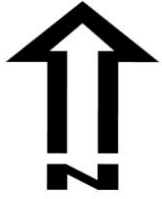


High Trestle Trail Connection

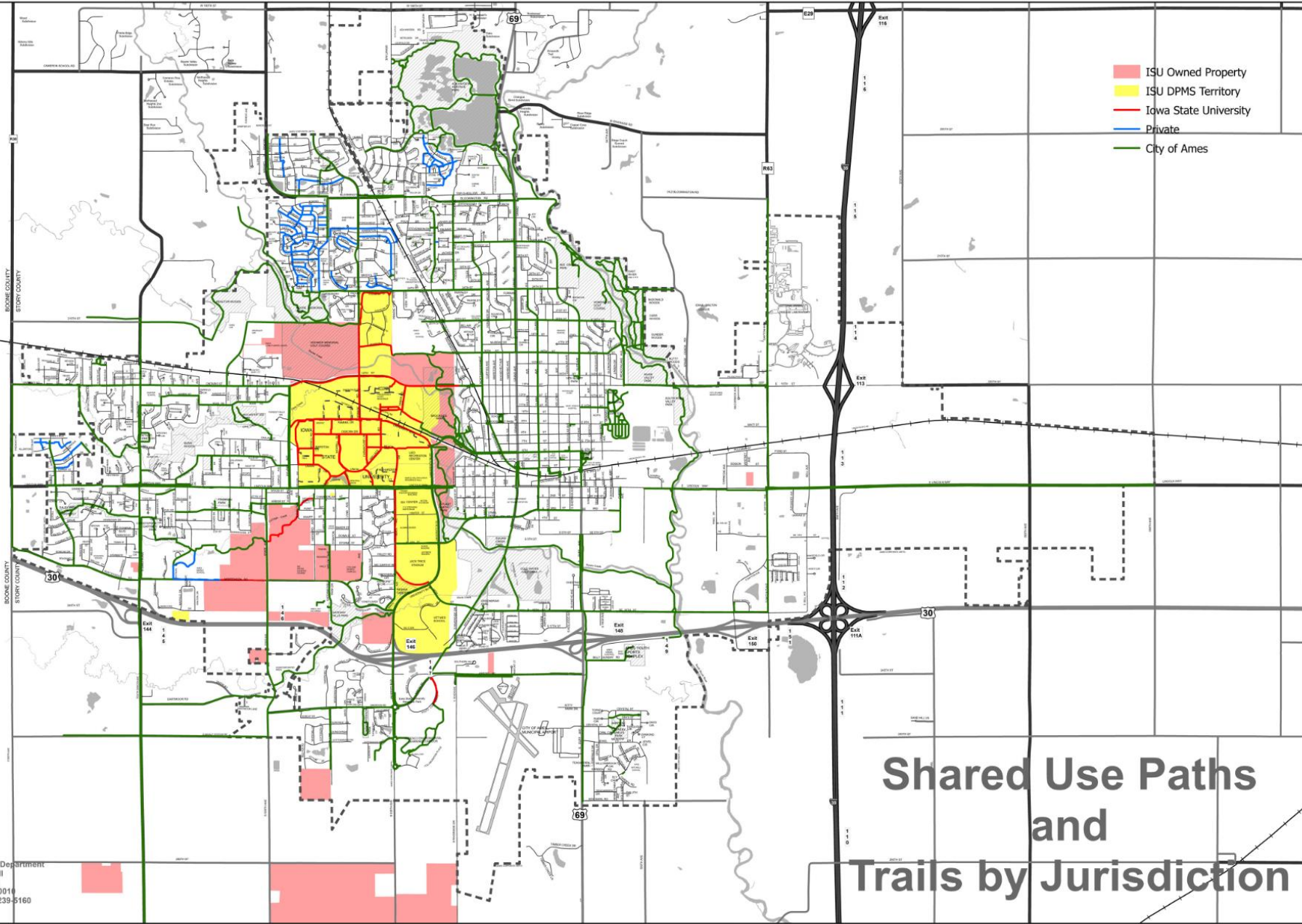


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City of Ames, Institutional (ISU) Trails connections



- ISU Owned Property
- ISU DPMS Territory
- Iowa State University
- Private
- City of Ames



Shared Use Paths and Trails by Jurisdiction

ISU Bicycle Circulation

“ Once within the campus, bikes generally use the network of peripheral streets to access areas of bike parking...”

1991 Campus Master Plan - Sasaki and Associates



Pedestrian Oriented



Coordination & Engagement

Parking Division - ISU Department of Public Safety

- Transportation Advisory Council
- Bicycle Advisory Group

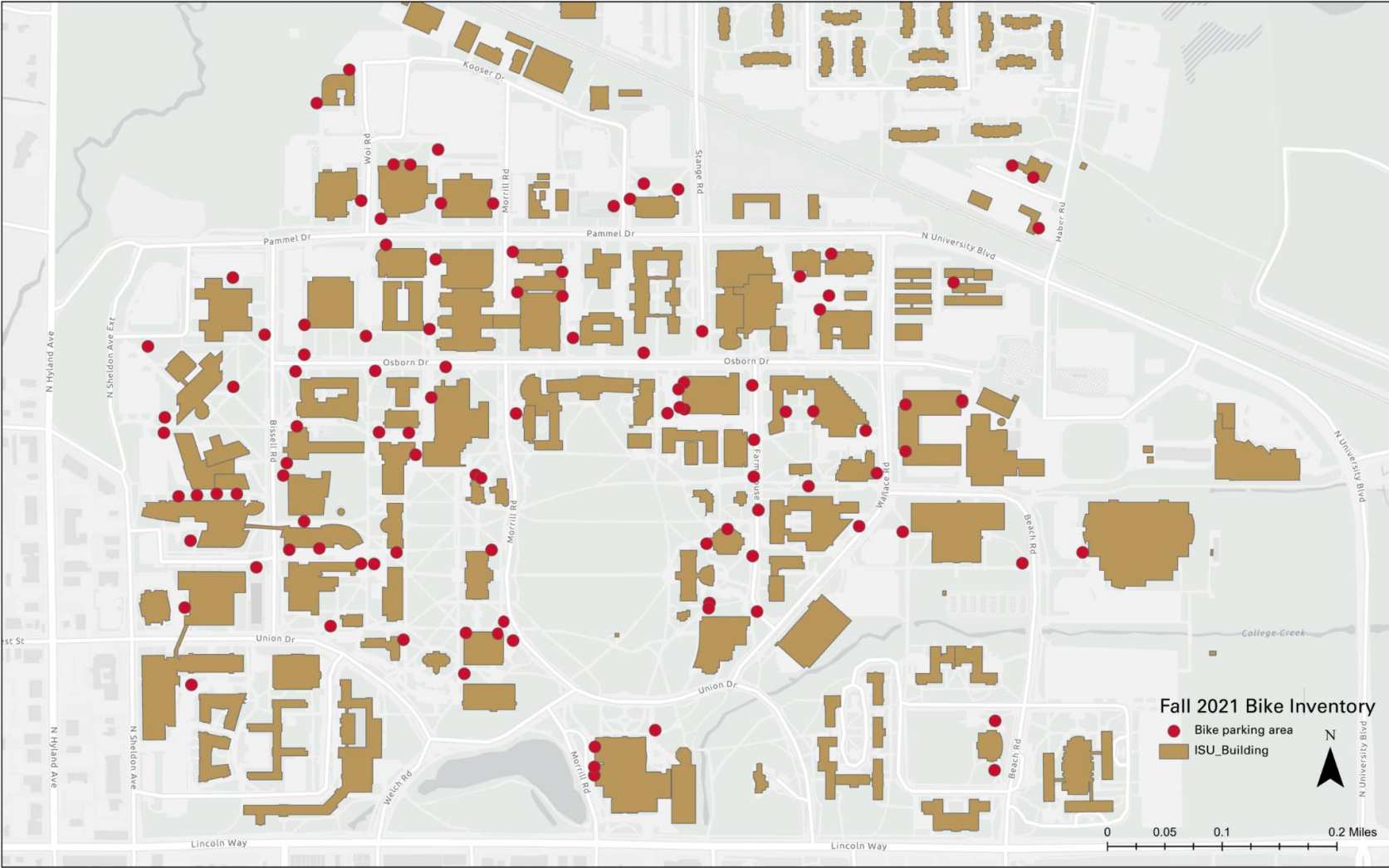
Ames Community (biannually)

- Ames Bike Coalition

City of Ames (quarterly)

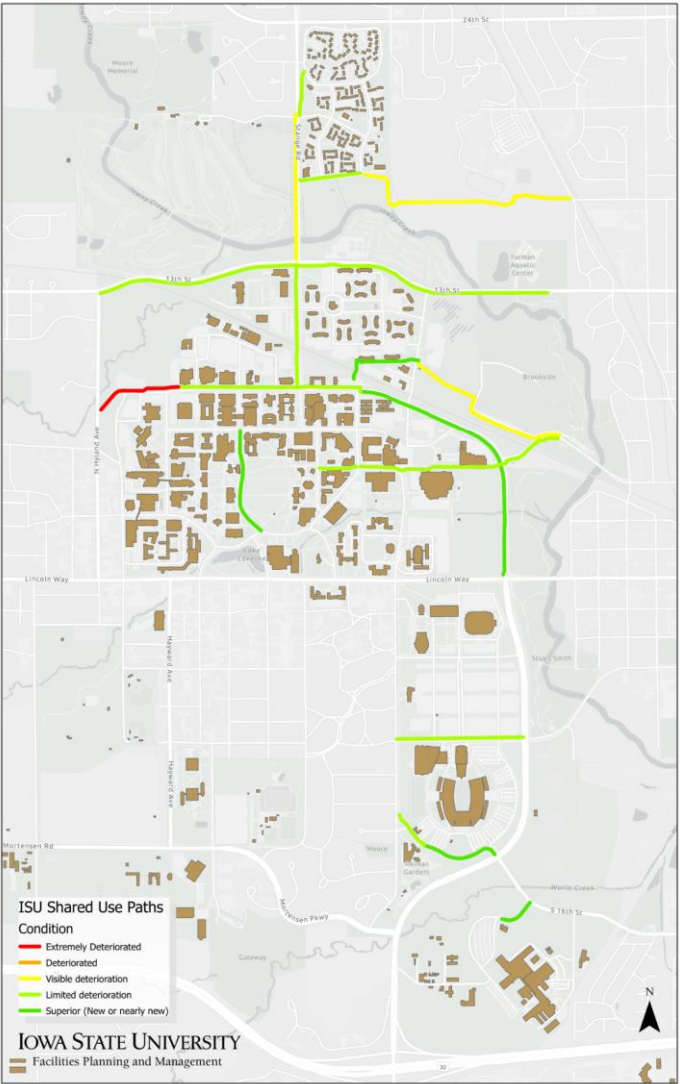
- Public Works
- Parks & Recreation

Bicycle Parking



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Path Maintenance



Esri Community Maps Contributors, Iowa State University, City of Ames, County of Story, Iowa DNR, Esri, HERE, Garmin, Swatch, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Campus Bicycle Planning study

Infrastructure Focus Areas

The project team identified five locations/corridors on the ISU campus that have the greatest need for improvements to bicycling infrastructure and bicycle network connectivity. The locations were chosen based on input received from the bicycle advisory group, public input received from the online interactive map and the online survey, and from project team members field observations on campus. Each of the five locations is described in detail on the following pages, including the issues observed at each location and potential opportunities for improvement. Figure 3 identifies the locations of the five focus areas.

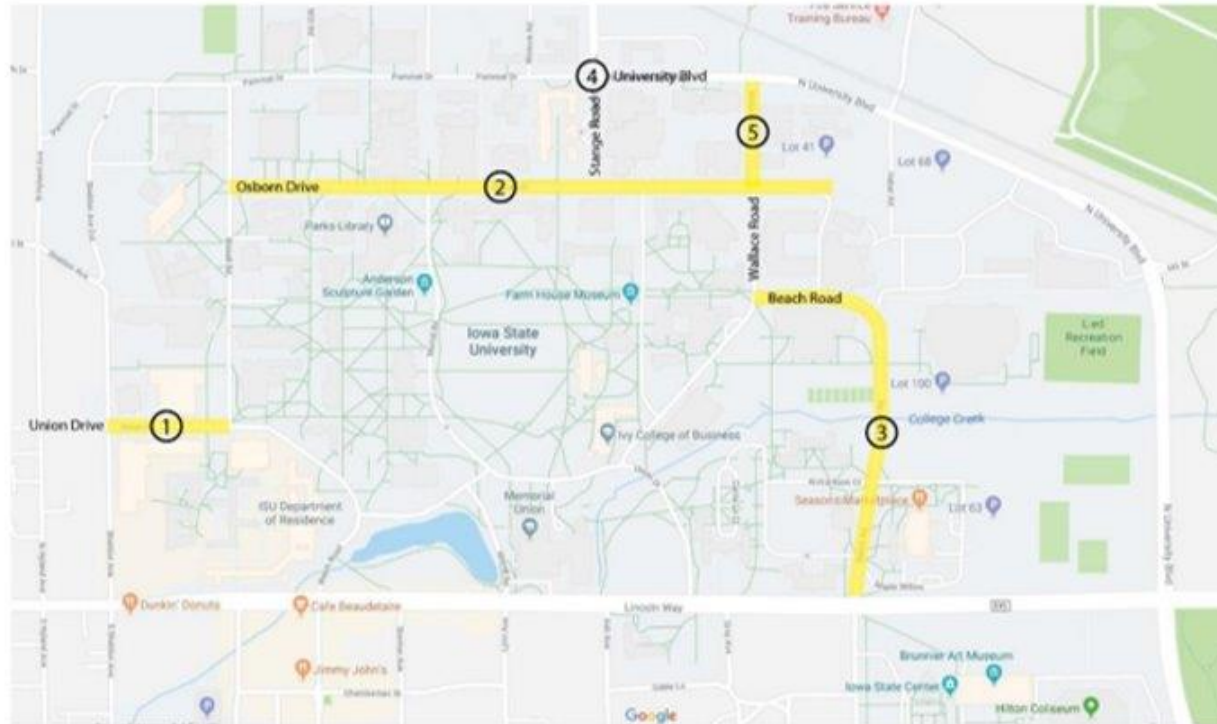
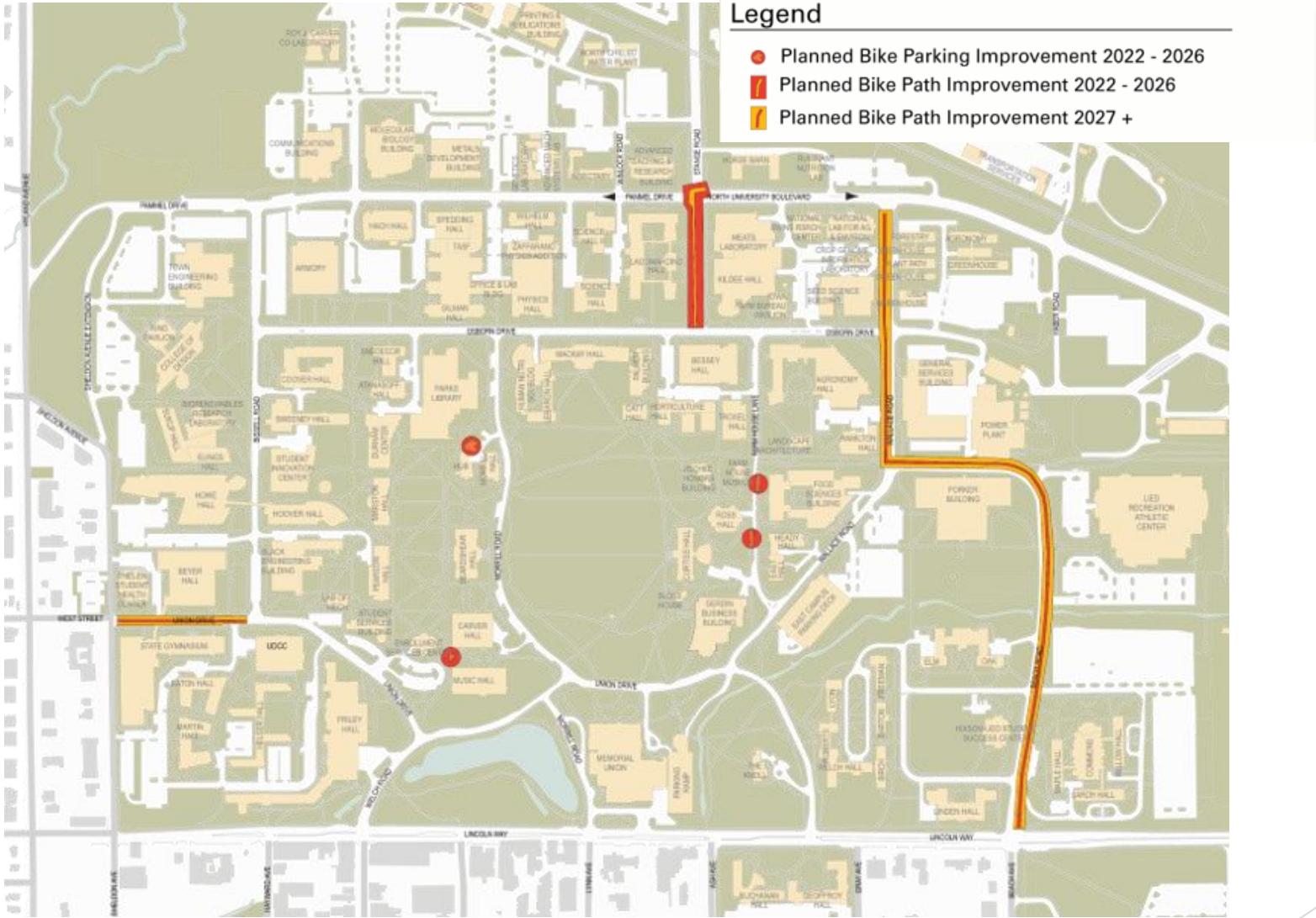


Figure 3: Map locations of the five infrastructure focus areas on the ISU campus.

5 Year Bicycle Infrastructure Plan 2022/26



City of Ames Compete Streets Plan

The right side of the page features a decorative graphic consisting of several overlapping, semi-transparent green triangles and polygons in various shades of green, ranging from light lime to dark forest green. These shapes are arranged in a way that they appear to be layered, creating a sense of depth and movement. The overall design is clean and modern, with a focus on the title text.

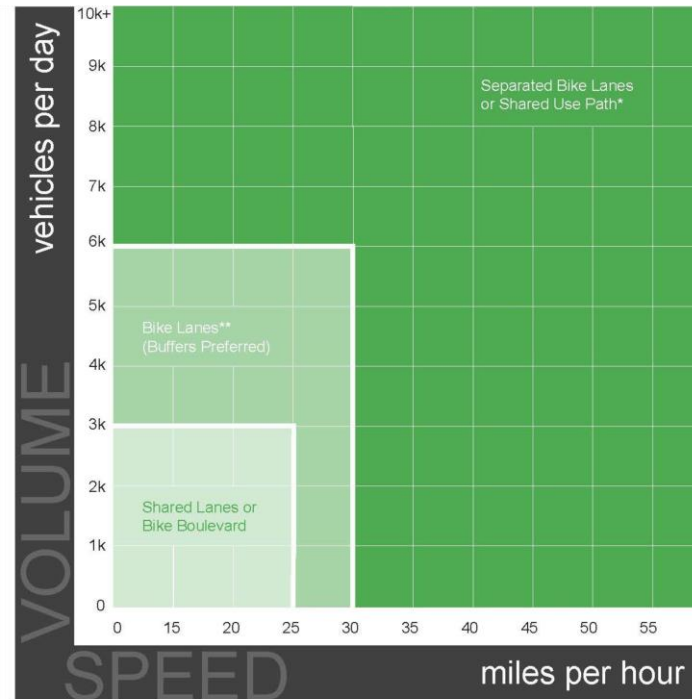
Complete Streets Plan

- ▶ Bike infrastructure guidance is dependent on a combination of “Place Type” and “Street Type” (main factor for bike facility).
- ▶ Specific design of facility is decided through engineering judgment and design standards.
 - ▶ Traffic volume and speed data is used to determine facility selection
 - ▶ Neighborhood feedback is also critical
 - ▶ The context of the street (ROW impacts, cost, topography, etc.)

FIGURE 2: BICYCLIST TYPES AND PREFERENCES



FIGURE 3: BICYCLE FACILITY SELECTION



*To determine whether to provide a shared-use path or separated bike lane, consider pedestrian and bicycle volumes or, in the absence of volume, consider land use.

**Advisory bike lanes may be an option where traffic volume < 4K ADT

Review of Street Types

Shared Street: A street or alley with no curbs or separate areas for various types of transportation. Emphasizes nonmotorized access; pedestrians have priority.



Local Road - Central Business District (CBD)

Street Types cont.

Mixed Use Street: A street with a diverse mix of retail, housing, office and/or educational uses, with people using several types of transportation to circulate.



Arterial or Collector Road - Central Business District (CBD)

Street Types cont.

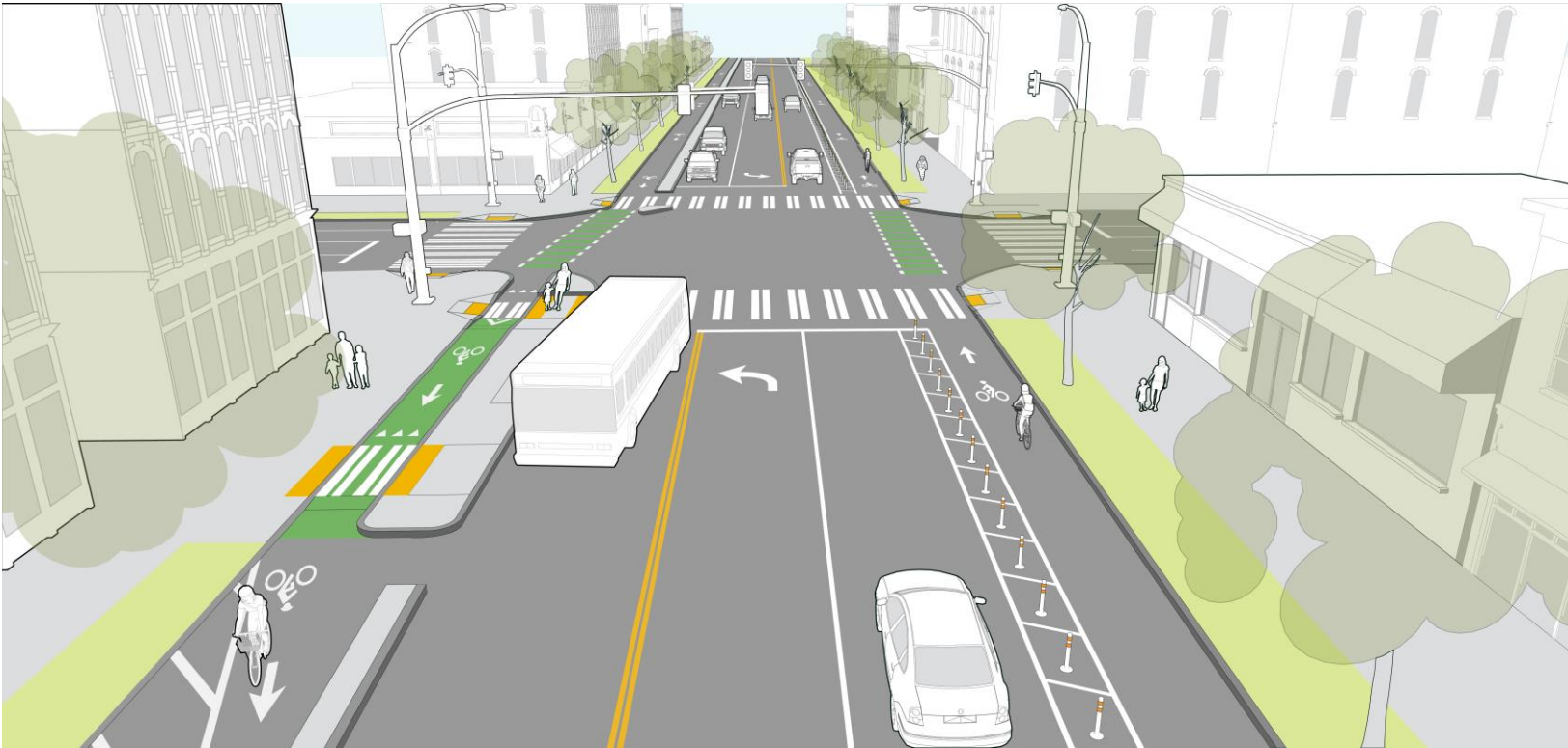
Neighborhood Street: A low traffic street with housing and separated walkways, sometimes with on-street parking.



Local Road

Street Types cont.

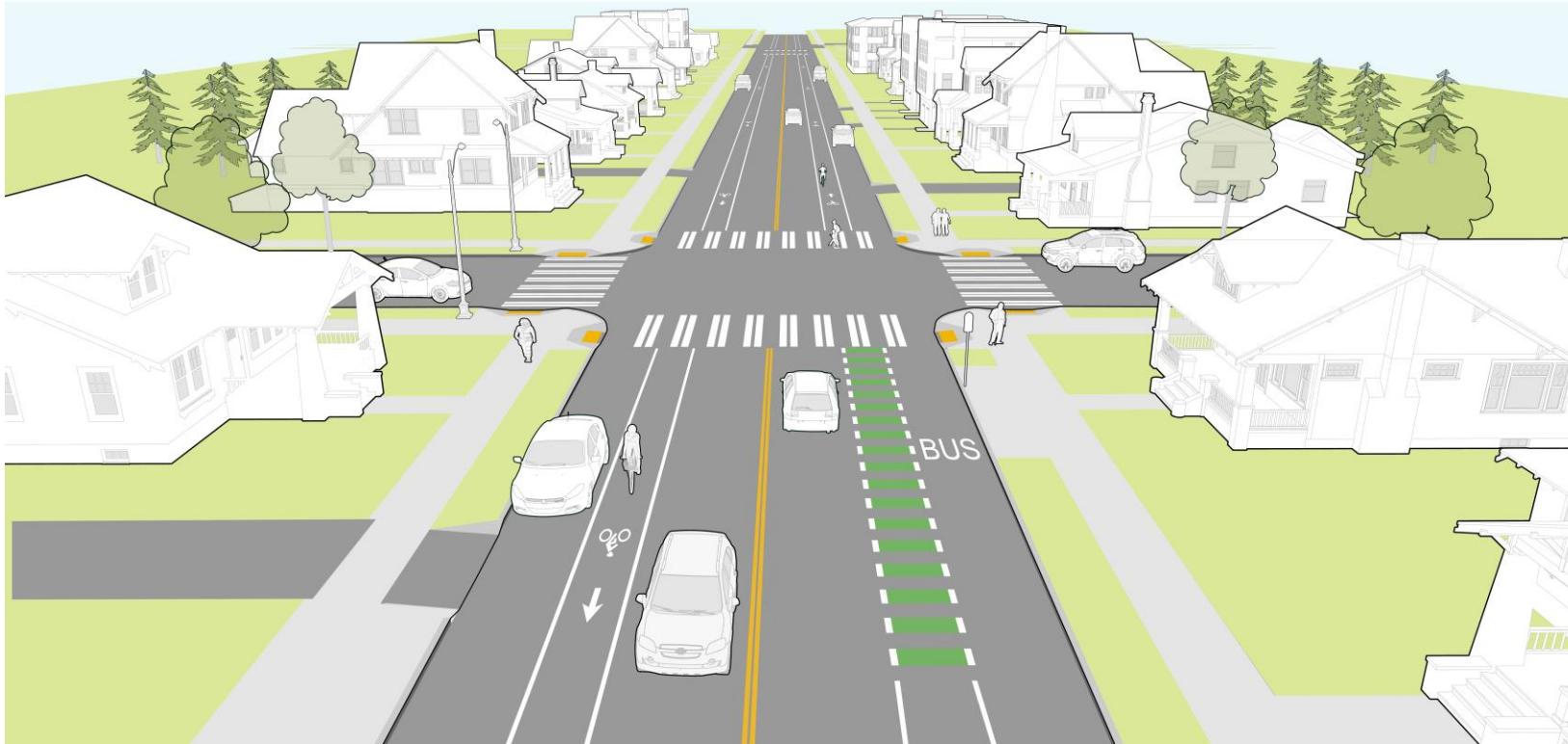
Mixed Use Avenue: A street with a diverse mix of retail, housing, office and/or educational uses, with people using several types of transportation, but with increased transit and motor vehicle demand compared to that of a Mixed-Use Street.



Arterial or Collector Road; Transit or High-Density Mixed-Use Corridor

Street Types cont.

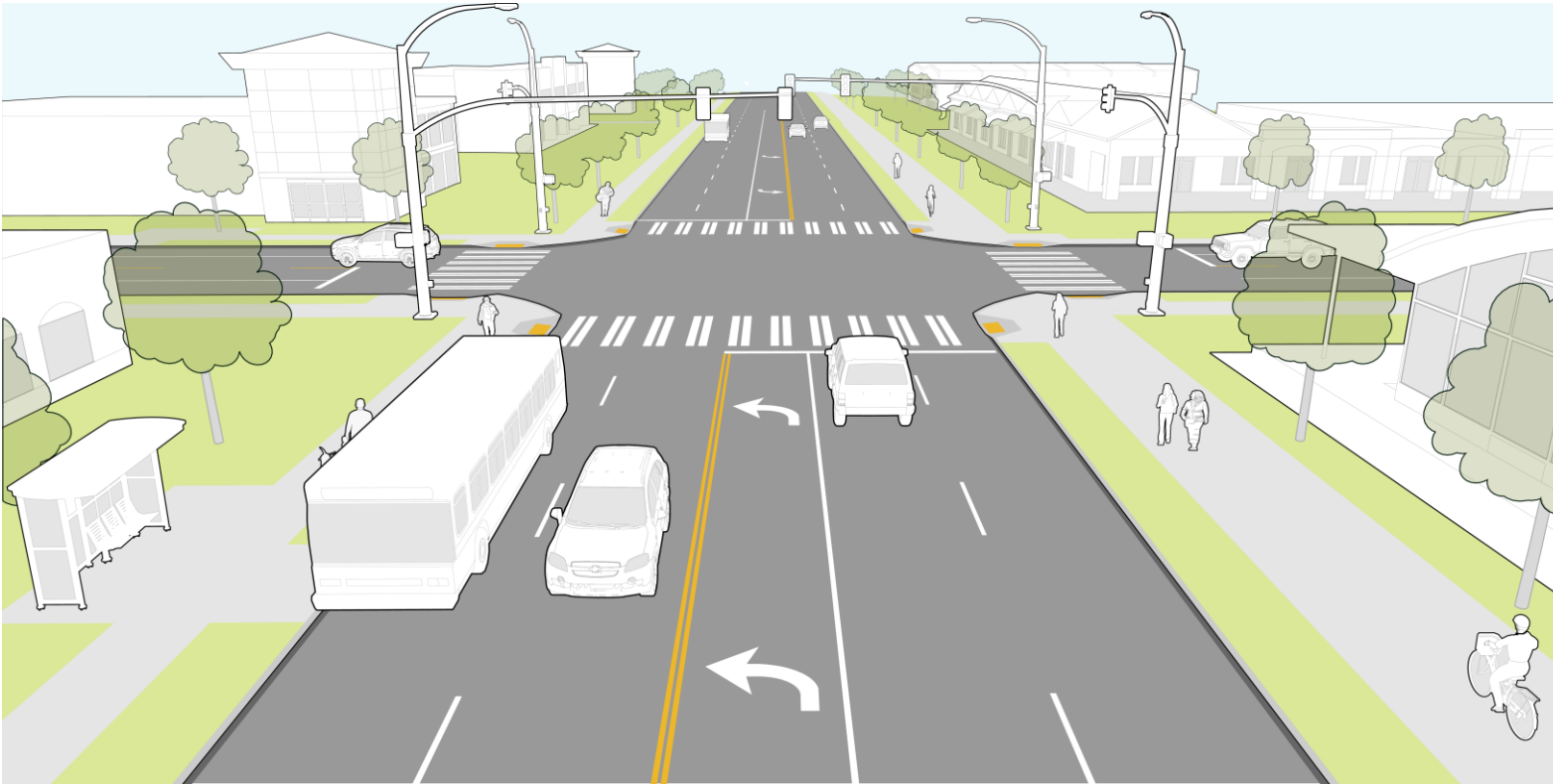
Avenue: A street with a moderate amount of traffic, wider than a Neighborhood Street. These may include on-street parking and bike lanes.



Collector Road; Possibly Arterial Roads

Street Types cont.

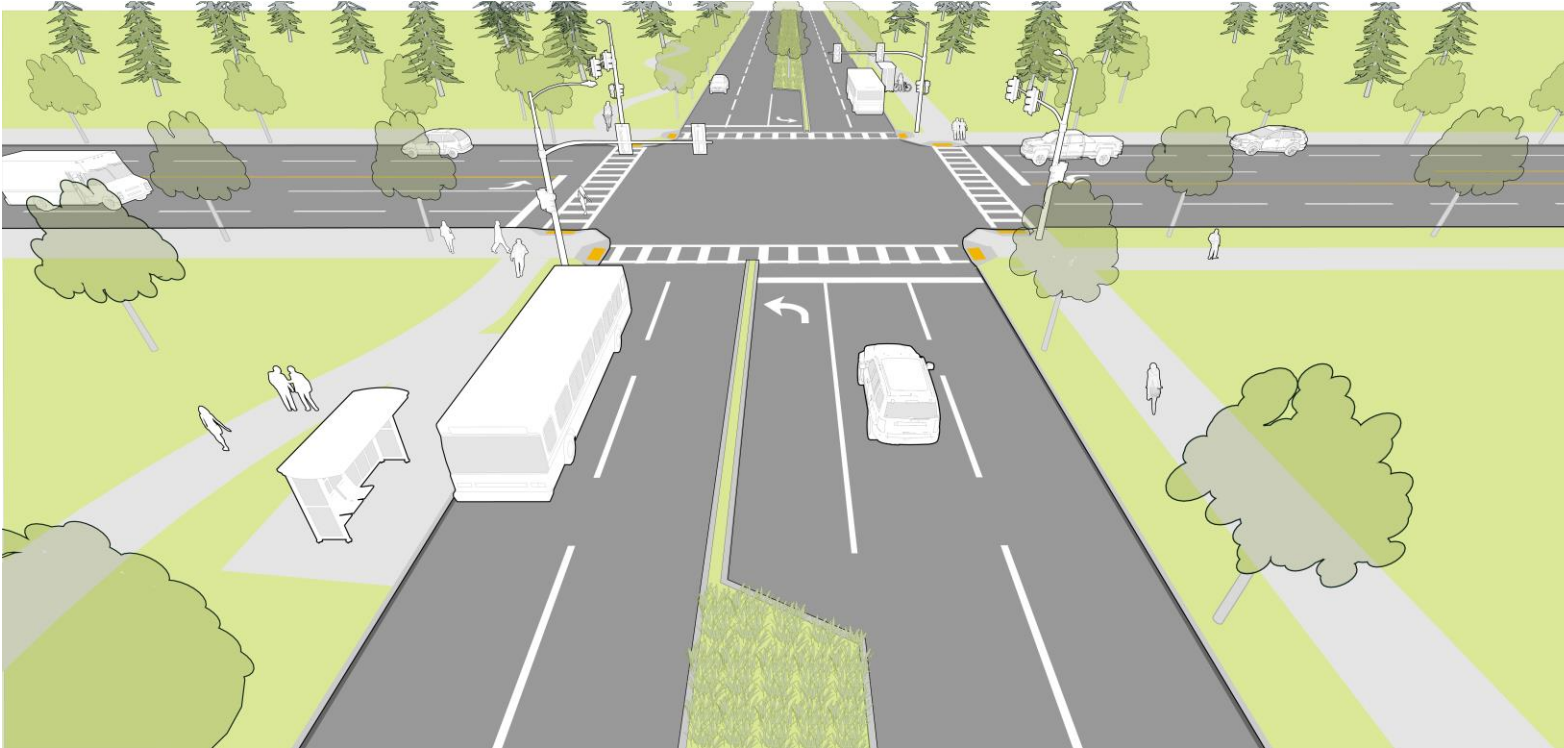
Thoroughfare: A street with moderate to high amounts of traffic, most often used for longer distance travel and automobile-oriented uses. Thoroughfares are often state highways.



Arterial Road

Street Types cont.

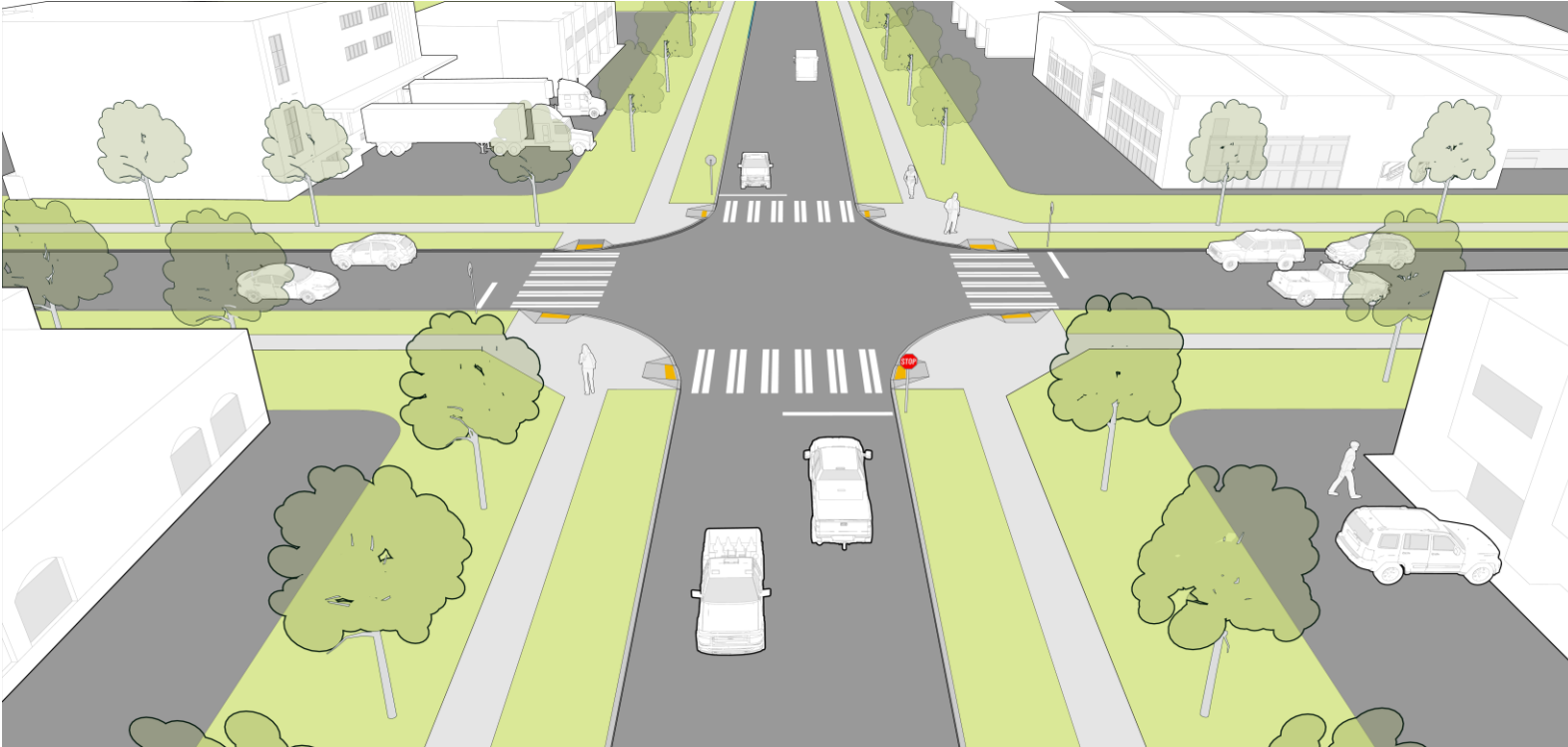
Boulevard: A street with moderate to high amounts of traffic, with a landscaped median used to separate lanes of traffic and provide refuge for crossing pedestrian and bicycle traffic.



Arterial Road

Street Types cont.

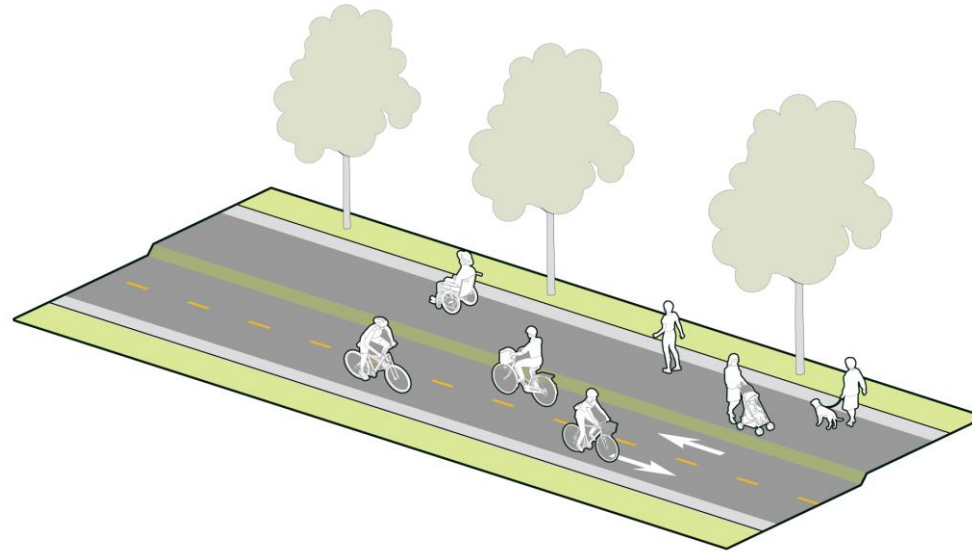
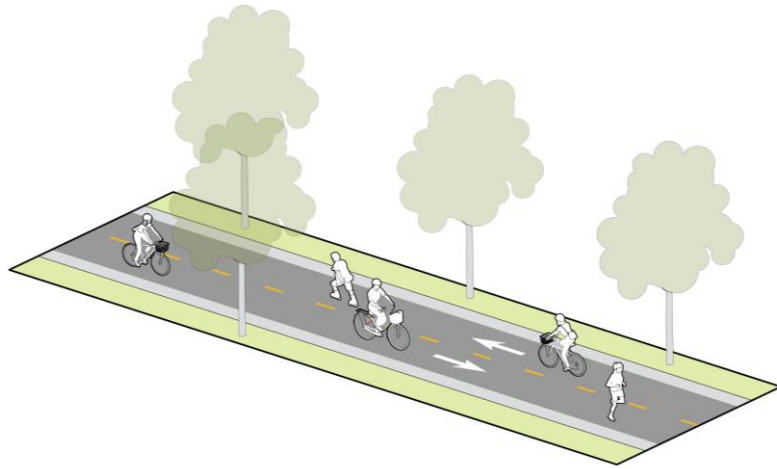
Industrial Street: A low-traffic street, often with a high percentage of truck traffic, accessing centers of manufacturing and large-scale retail.



Arterial, Collector, or Local Roads

Street Types cont.

Greenways: Shared-use paths in independent alignments, such as through parks, along waterways, or rail trails.



Bike facilities outside of ROW

Upcoming Bike/Ped Efforts

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Bike & Ped Master Plan

▶ Goals:

- ▶ Create a data-driven detailed network evaluation to be used for future implementation of expansion and in-fill projects.
- ▶ Establish a network-wide wayfinding plan which includes both City of Ames destinations and regional trail connections.
- ▶ Create a bike facility selection guide to establish the proper infrastructure level in each corridor.
- ▶ Create a bike infrastructure framework for growth areas.
- ▶ Use forecasted revenues and expenses to establish priority tiers for future network build-out. (Plan is not constrained by time and cost)

▶ Schedule:

- ▶ Solicit proposals from consultants in Winter '21-22 for a finalized plan in 2022. Implementation of Wayfinding improvements to be completed in 2023-24.


Maintenance Activities

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Maintenance of Paths

► Data Driven





- Visual
- User Input - Ames on the Go
- Iowa Data Bike - Des Moines MPO

| ID | Status | Details | Created | Due | Media |
|---------|----------|--|------------------------|-----|---|
| 8874262 | Archived | Trail Maintenance 304 S Riverside Dr Ames IA 50010, United States Assignee: Justin C.-PW Ops Hi this is on the bike path between the river and the cement plant The fence is hanging precariously over the trail for about 75 yds I think the fence belongs to the cement plant Can CoA please ask the cement plant to promptly fix this hazard? Thanks ... | 11/06/2020 10:41 AM | |  |

Iowa Data Bike

The Data Bike is a proof-of-concept initiative by the Des Moines Area Metropolitan Planning Organization in partnership with Iowa Department of Public Health and Iowa Natural Heritage Foundation. Using an app that senses the roughness of pavement, the Data Bike will generate data scoring the condition of trails. The Data Bike will also collect 360-degree imagery along trails for Google Street View.

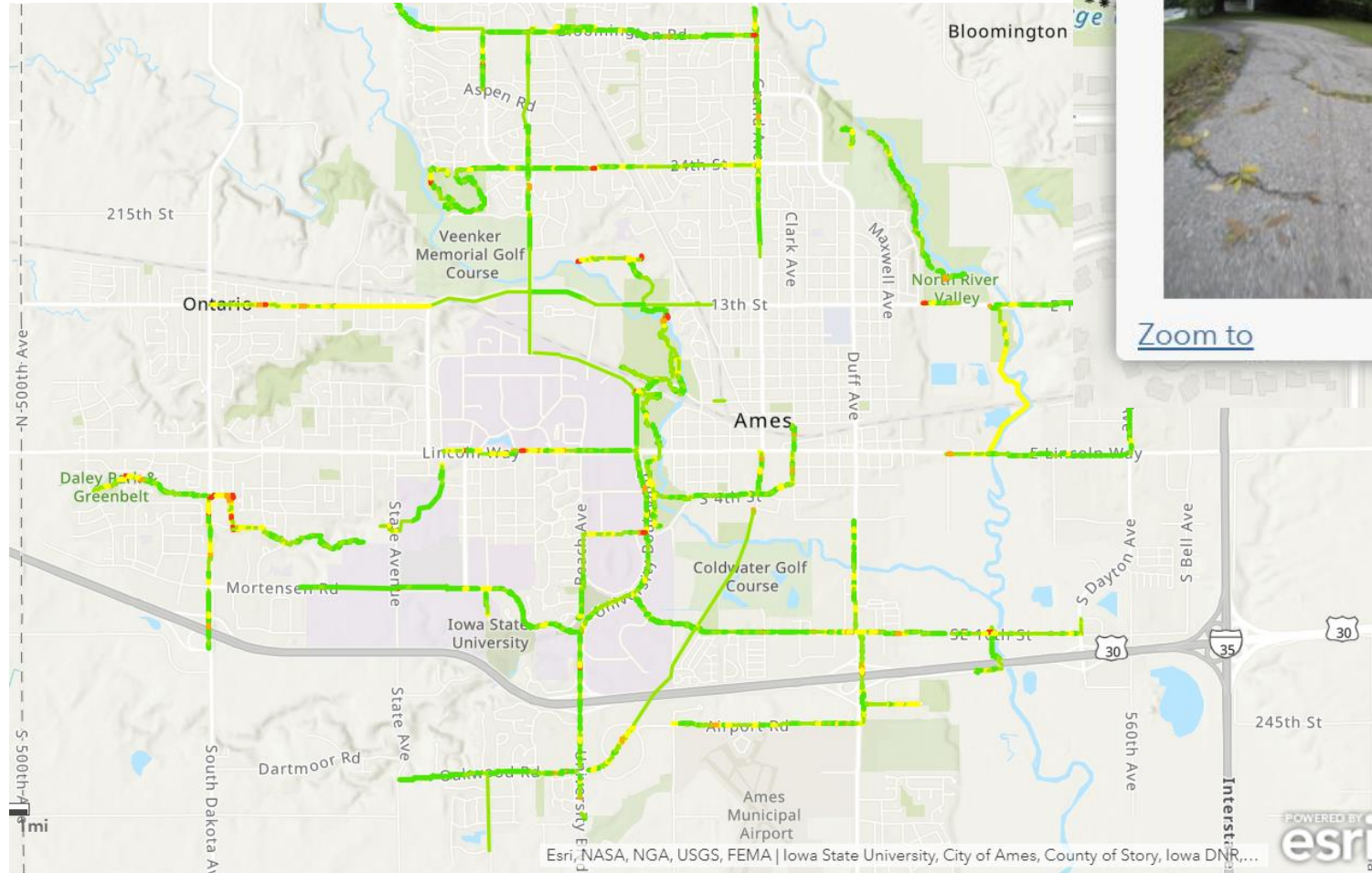


-  1. Using a Yuba Spicy Curry electric bicycle, the rider will maintain a steady speed to collect consistent data on the trails.
-  2. A Samsung Gear 360-degree camera uploads imagery for Google Street View.
-  3. An iPhone running the rRuf App will measure the roughness of trails and helps score condition of pavement.
-  4. A rear-facing GoPro camera will take geo-referenced photos of the trail conditions.



Maintenance of Paths


► Iowa Data Bike



(1 of 18) ▶ □ ×

Surface Image Taken 2018:10:02 12:28:13

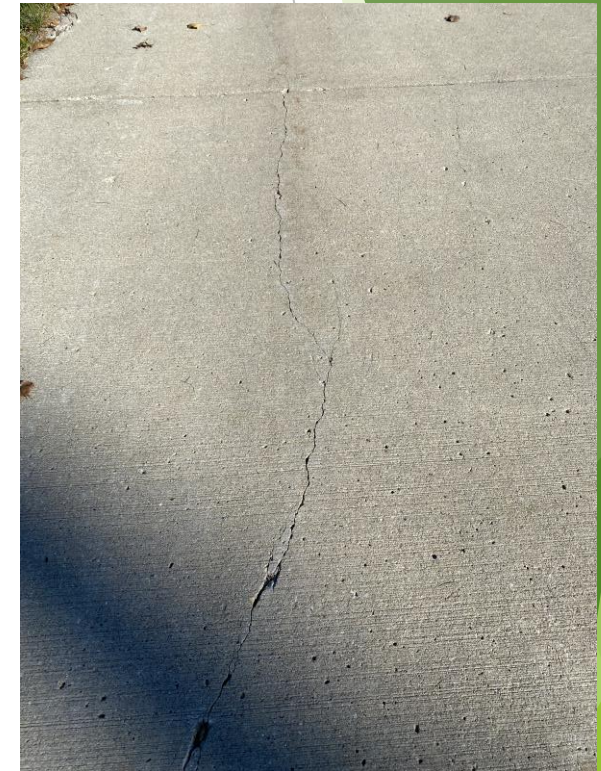
Hyperlink [More info](#)



[Zoom to](#)

Maintenance of Paths

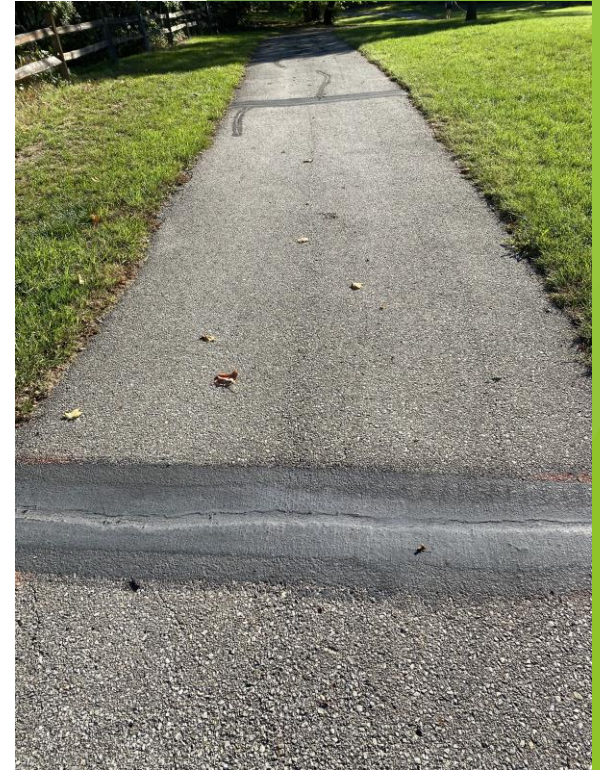
- ▶ Capital Improvements Plan - \$125,000 Annually for Shared Use Path Maintenance



Concrete Repair Example

Maintenance of Paths

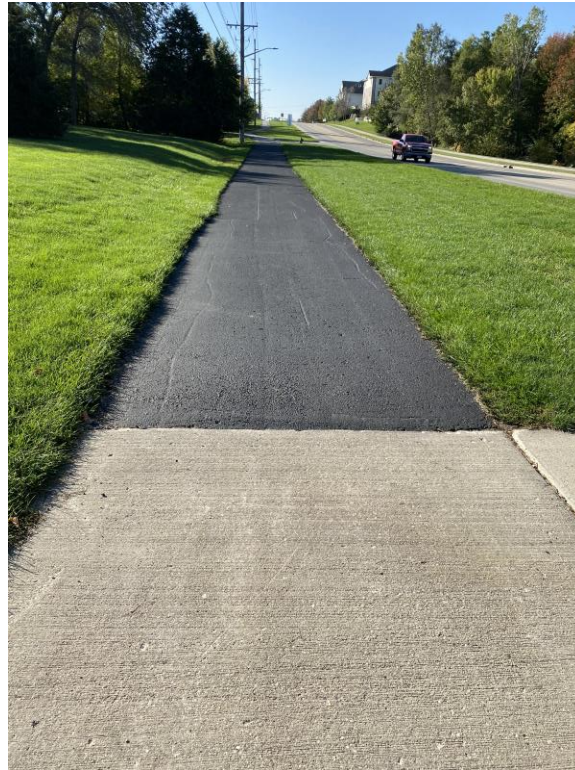
- ▶ Capital Improvements Plan - \$125,000 Annually for Shared Use Path Maintenance



Asphalt Crack Filling/ Joint Repair Examples

Maintenance of Paths

- ▶ Capital Improvements Plan - \$125,000 Annually for Shared Use Path Maintenance



Asphalt Seal Coat Example

Maintenance of Paths

- ▶ Capital Improvements Plan - \$125,000 Annually for Shared Use Path Maintenance



Asphalt Overlay Example

Eminent Domain for Trails



Potential use of Eminent Domain

- ▶ The City of Ames Attorney's legal opinion is that the use of eminent domain for recreational trails is lawful. However, this does not include the authority to condemn **agricultural land** (10 or more acres) as defined by Iowa Code 6A.21.

Questions?

- ▶ Link to current and past Capital Improvement Plans:
 - ▶ <https://www.cityofames.org/government/departments-divisions-a-h/finance>
- ▶ Link to current MTP (Forward 45)
 - ▶ <https://www.cityofames.org/government/aampo/long-range-transportation-planning>
- ▶ Link to Complete Streets Plan
 - ▶ <https://www.cityofames.org/government/departments-divisions-i-z/public-works/traffic/complete-streets>