KAGY BLVD.
RECONSTRUCTION

MONTANA MDT DEPARTMENT OF TRANSPORTATION

CITY OF BOZEMAN · GALLATIN CO. MONTANA · 1883

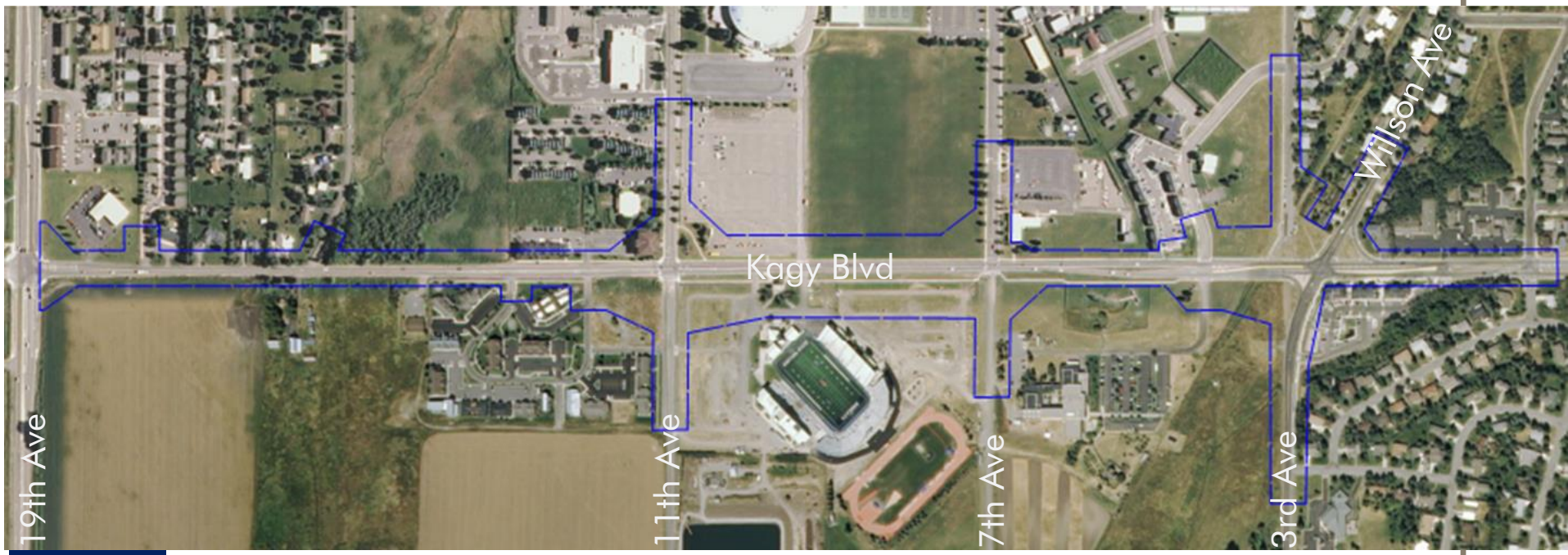
SANDERSON STEWART

Project Overview

*The **purpose** of the proposed project is to provide a **safe and efficient facility for all users** by reconstructing approximately 1.1 miles of Kagy Blvd from South 19th Ave to Willson Ave/South 3rd Ave. The project is needed to **address current deficiencies** and **accommodate future demands** for all modes of travel within the project's 20-year design horizon.*

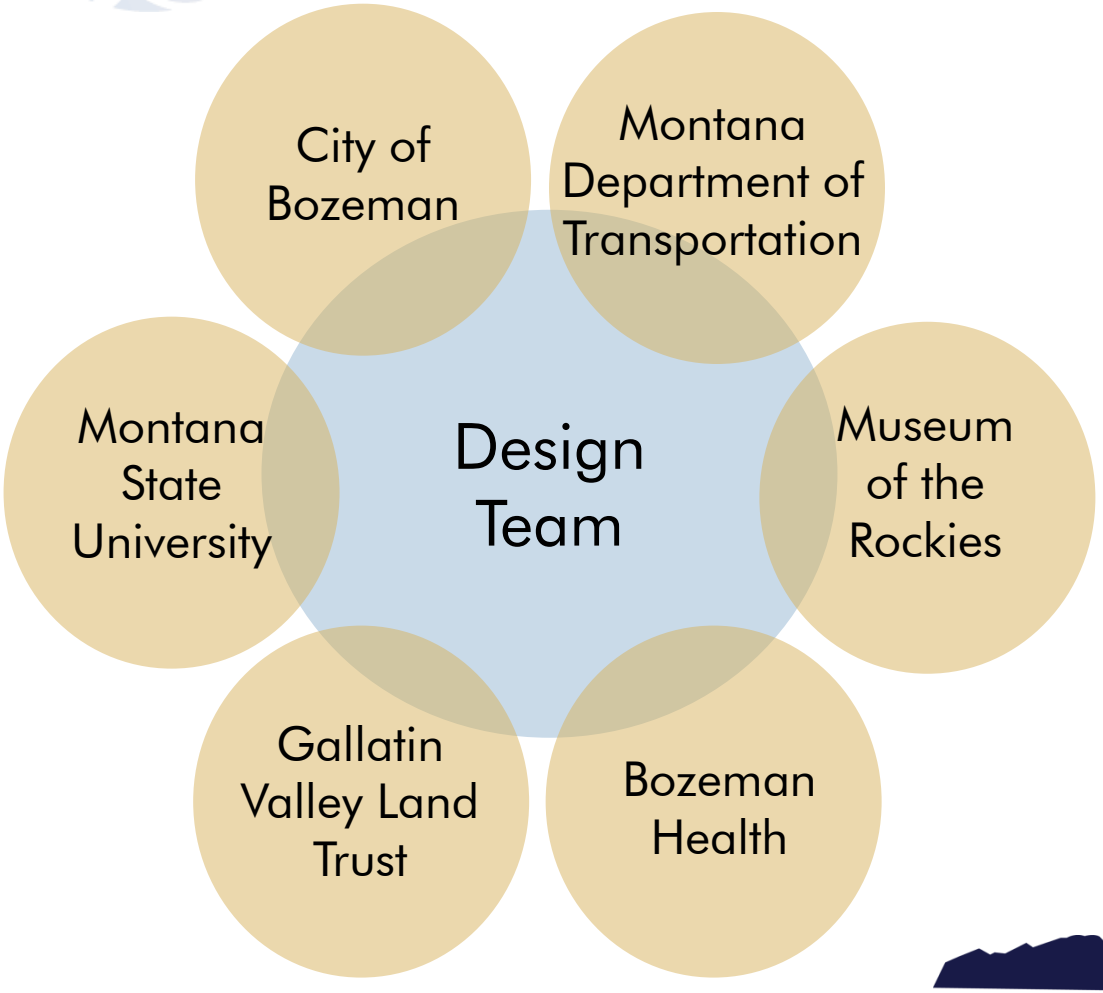
KAGY BLVD.
RECONSTRUCTION

Project Overview



KAGY BLVD.
RECONSTRUCTION

Project Stakeholders



KAGY BLVD. RECONSTRUCTION

Progress to Date

- Define Goals & Objectives
  - Safety
  - Capacity
  - Address multimodal needs
  - Design project to fit context
- Complete Field Work
  - Geotechnical
  - Environmental
  - Topographic Survey

KAGY BLVD. RECONSTRUCTION

Progress to Date

- Traffic Volume Projections
  - Land Use Projections
  - Modeling
- Analyze & Develop Alternatives
  - Single-Lane vs. Multi-Lane
  - Traffic Signals vs. Roundabouts
  - Various Bike/Pedestrian Accommodations

KAGY BLVD.
RECONSTRUCTION

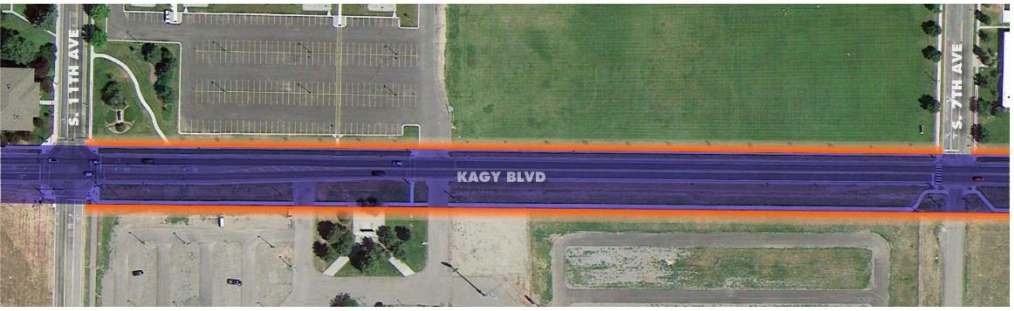
KAGY BLVD. RECONSTRUCTION

PROJECT CORRIDOR

NORTH

SEGMENT 1 - 19TH TO 11TH

SEGMENT 2 - 11TH TO 7TH



SEGMENT 3 - 7TH THROUGH WILLSON/S. 3RD

SANDERSON STEWART

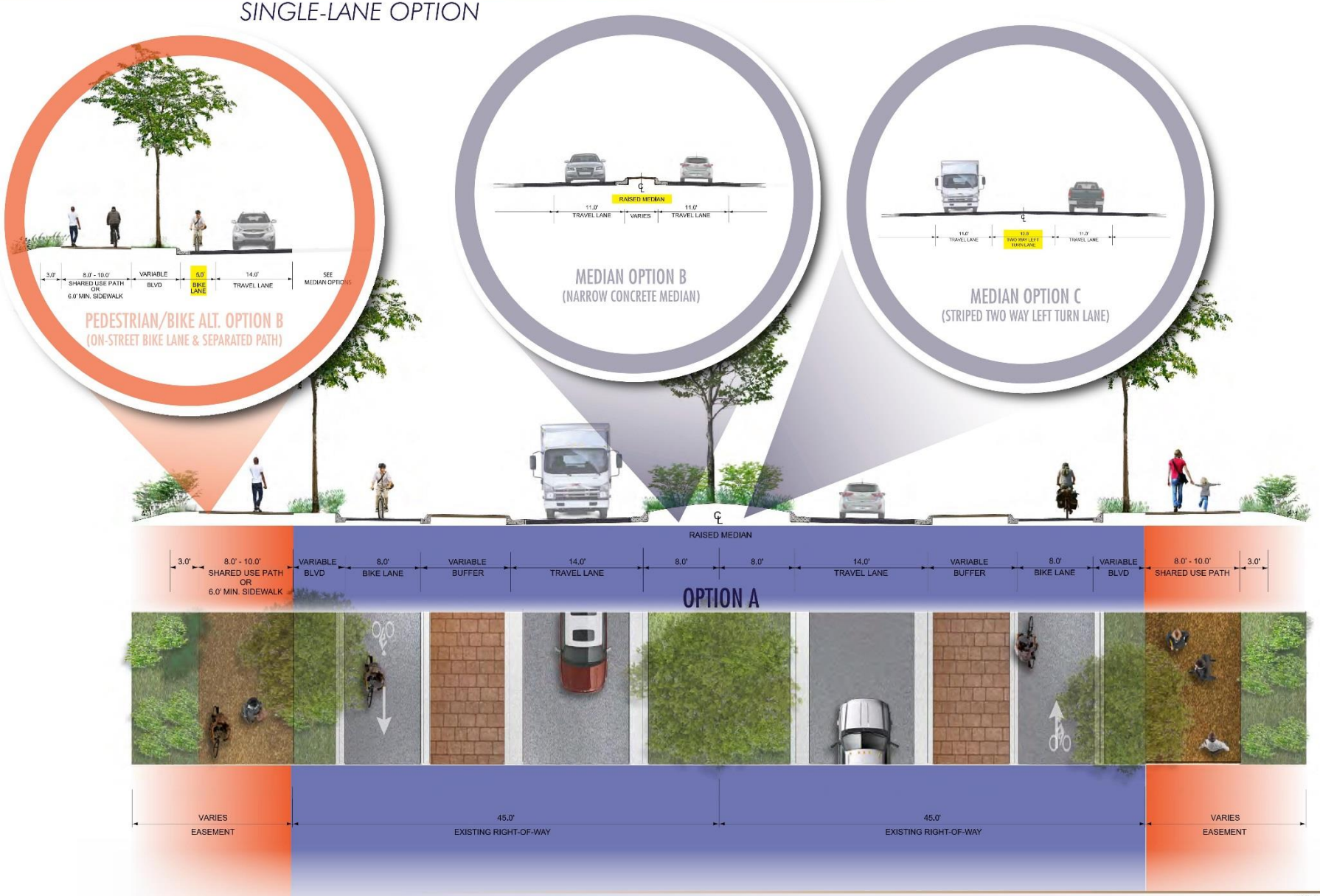
MDT

CITY OF BOZEMAN
GALLATIN CO. MONTANA
1883

KAGY BLVD. RECONSTRUCTION

TYPICAL SECTION ALTERNATIVES

SINGLE-LANE OPTION



SANDERSON STEWART

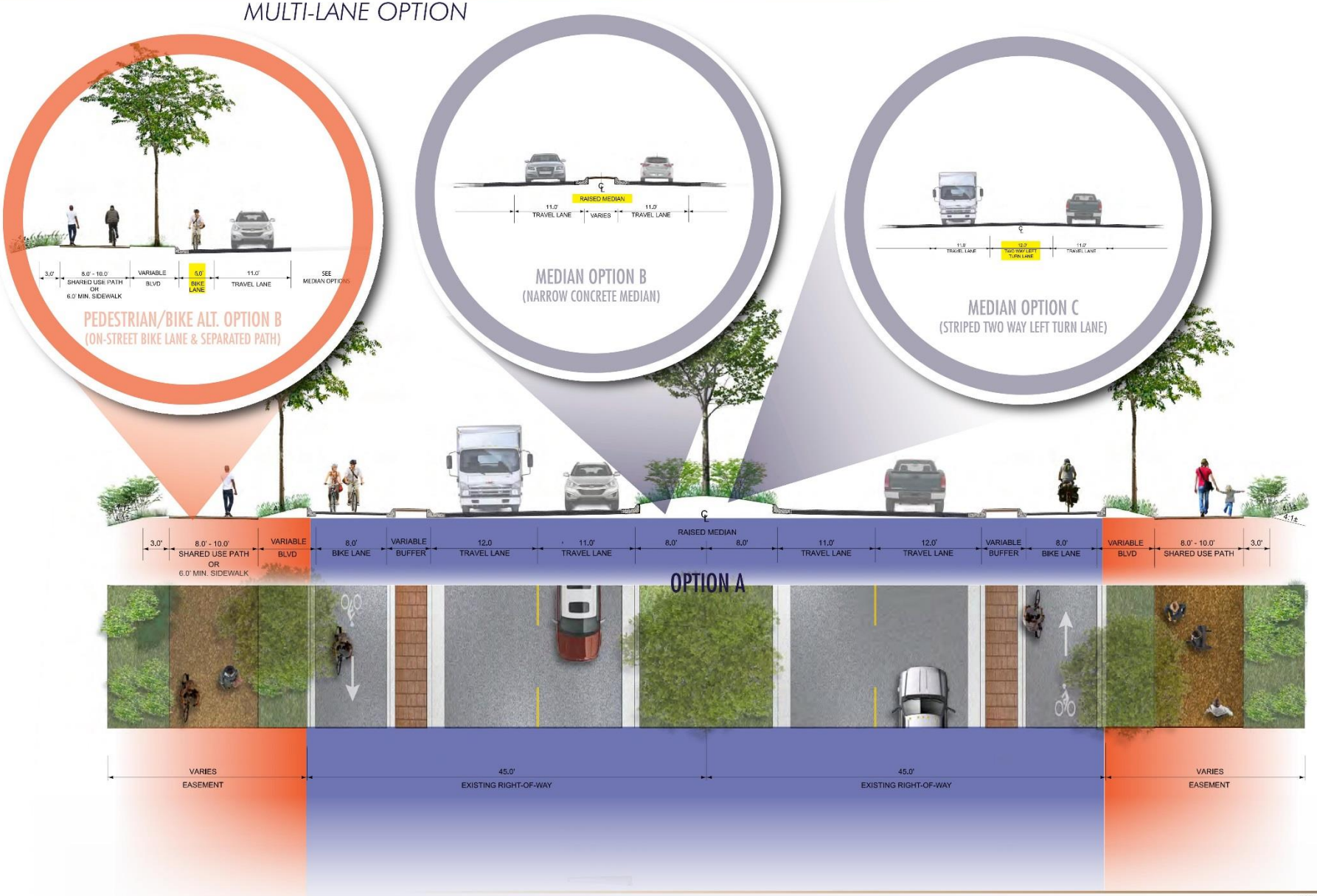
MDT

CITY OF BOZEMAN
GALLATIN CO. MONTANA
1883

KAGY BLVD. RECONSTRUCTION

TYPICAL SECTION ALTERNATIVES

MULTI-LANE OPTION



SANDERSON STEWART

MDT

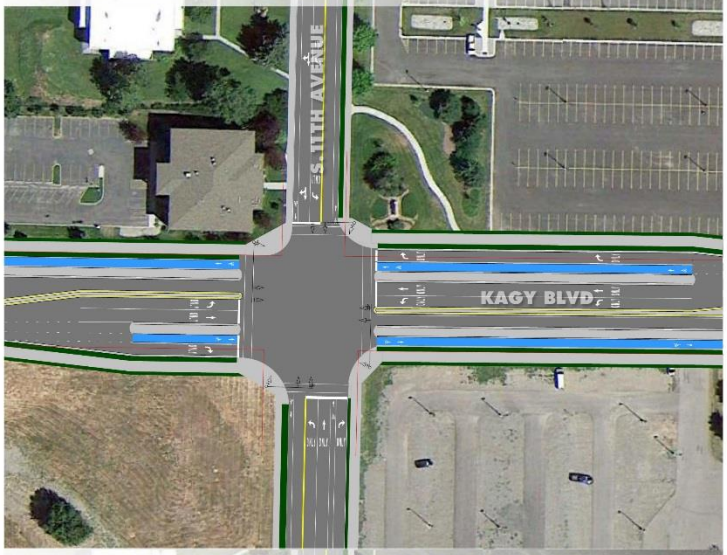
CITY OF BOZEMAN

KAGY BLVD. RECONSTRUCTION

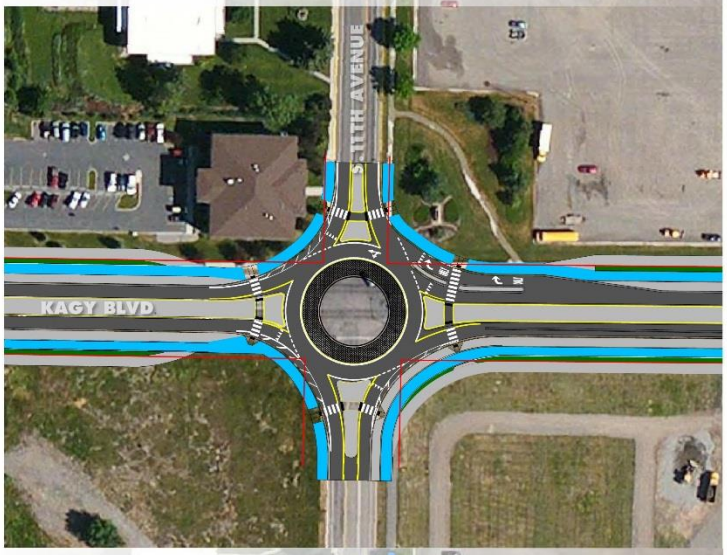
S. 11TH AVENUE

NORTH

SINGLE-LANE SIGNALIZED INTERSECTION

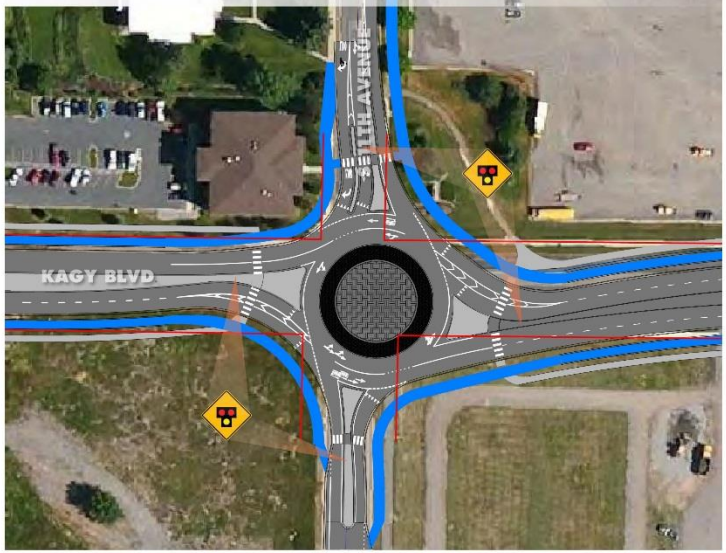


SINGLE-LANE ROUNDABOUT



MULTI-LANE SIGNALIZED INTERSECTION

MULTI-LANE ROUNDABOUT



SANDERSON STEWART

MDT

CITY OF BOZEMAN 1883

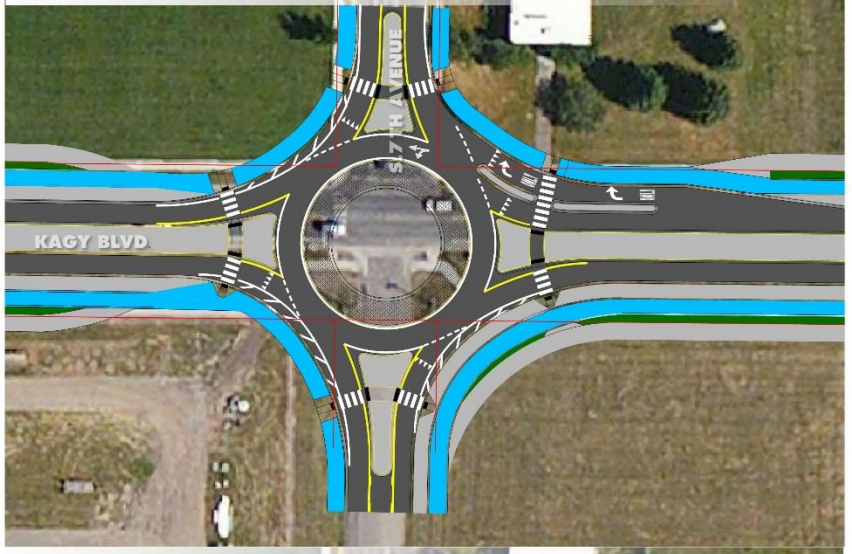
KAGY BLVD. RECONSTRUCTION

S. 7TH AVENUE

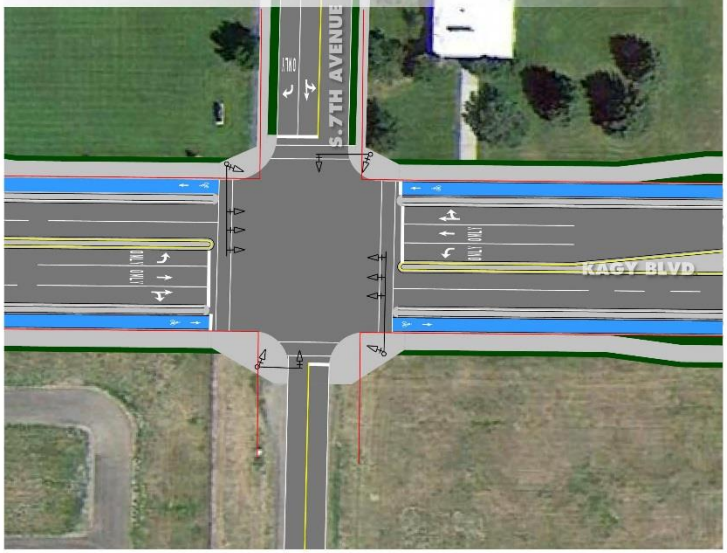
NORTH

SINGLE-LANE SIGNALIZED INTERSECTION

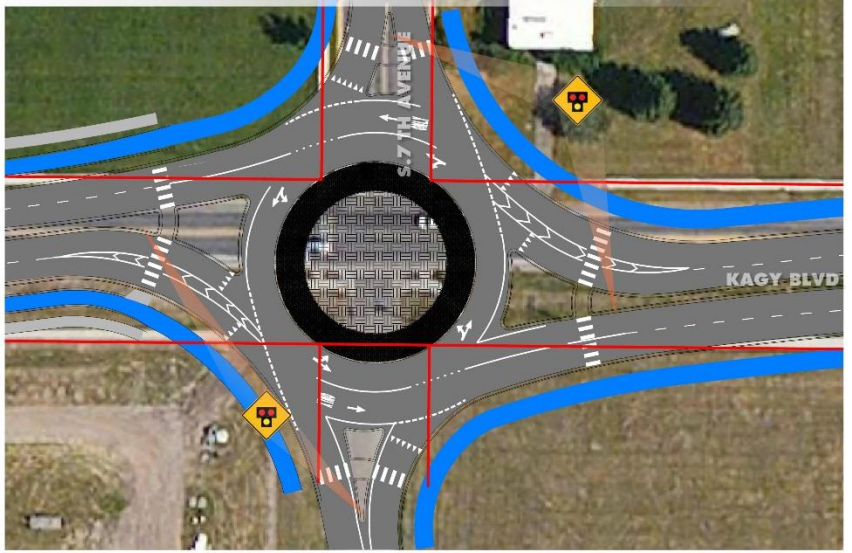
SINGLE-LANE ROUNDABOUT



MULTI-LANE SIGNALIZED INTERSECTION



MULTI-LANE ROUNDABOUT



SANDERSON STEWART

MDT

CITY OF BOZEMAN 1883 GALLATIN CO. MONTANA

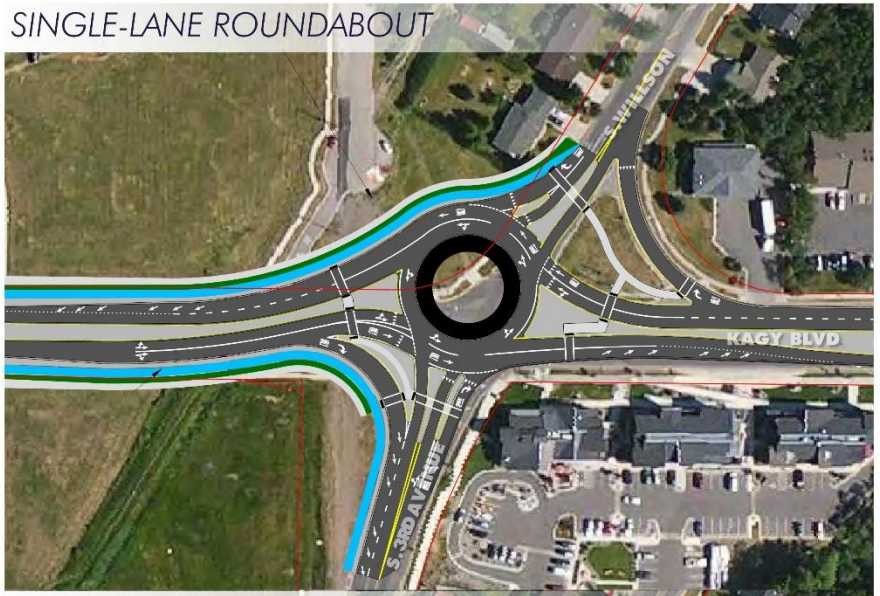
KAGY BLVD. RECONSTRUCTION

S. WILLSON/S. 3RD AVENUE

NORTH

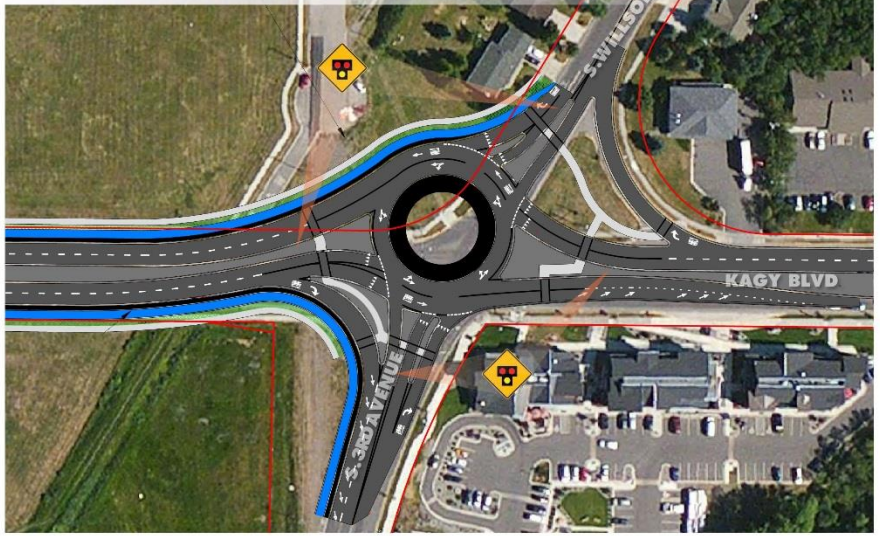
SINGLE-LANE SIGNALIZED INTERSECTION

SINGLE-LANE ROUNDABOUT



MULTI-LANE SIGNALIZED INTERSECTION

MULTI-LANE ROUNDABOUT



SANDERSON STEWART

MDT

CITY OF BOZEMAN 1883

Transportation Demand Management

Car, Bus, Bicycle and Pedestrian Space Requirements. Photo courtesy Thomas Jefferson Planning District Commission, Charlottesville, VA.

KAGY BLVD. RECONSTRUCTION

Transportation Demand Management

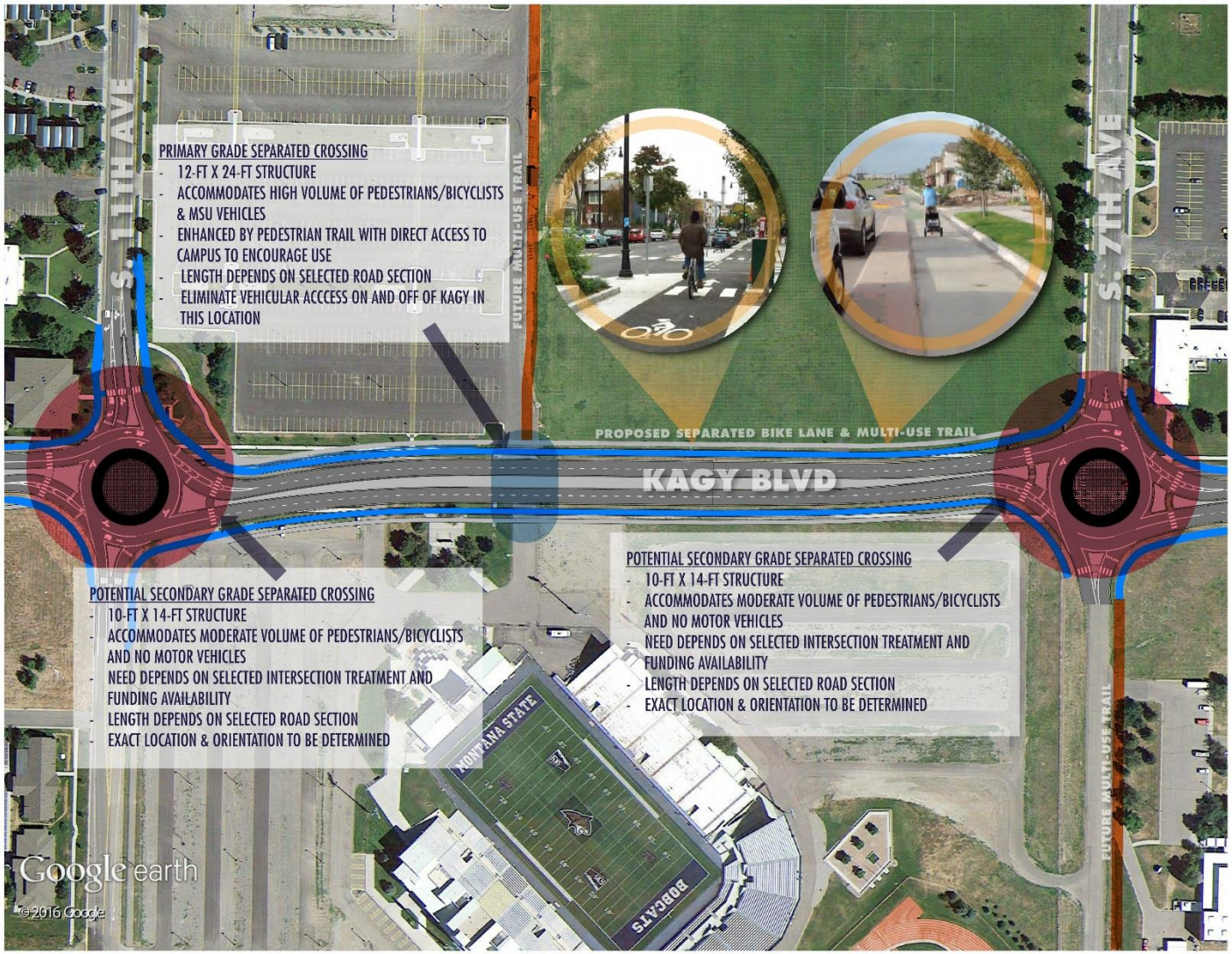
- What are some examples for Bozeman?
  - Financial incentives not to drive
  - Priority parking for carpool vehicles
  - Vanpools or rideshare matching options
  - Guaranteed ride home programs
  - Alternative scheduling
  - Telework/Telecommute

KAGY BLVD.
RECONSTRUCTION

KAGY BLVD. RECONSTRUCTION

PEDESTRIAN & BICYCLE ACCOMMODATIONS

NORTH



SANDERSON STEWART

MDT

CITY OF BOZEMAN

KAGY BLVD. RECONSTRUCTION

PEDESTRIAN & BICYCLE ACCOMMODATIONS

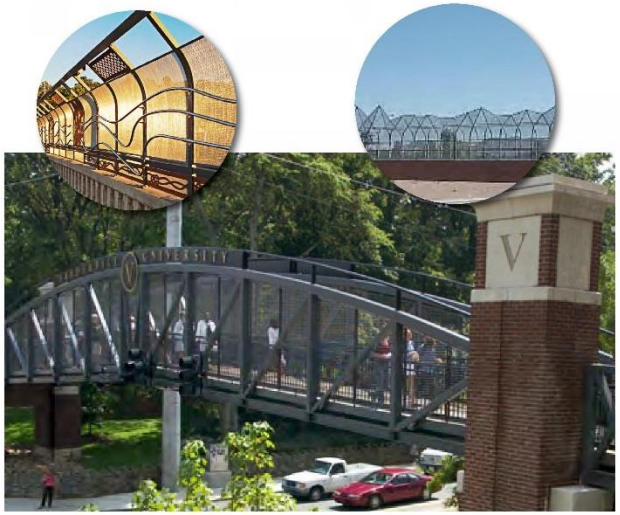
NORTH

PRIMARY GRADE SEPARATED CROSSING CONCEPTS

Pedestrian Tunnel

Pedestrian Bridge

Aesthetic Treatment Examples



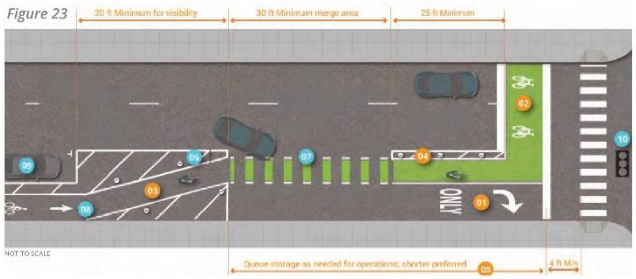
SANDERSON STEWART

MDT

CITY OF BOZEMAN 1883 GALLATIN CO. MONTANA

PEDESTRIAN & BICYCLE INTERSECTION DETAILS

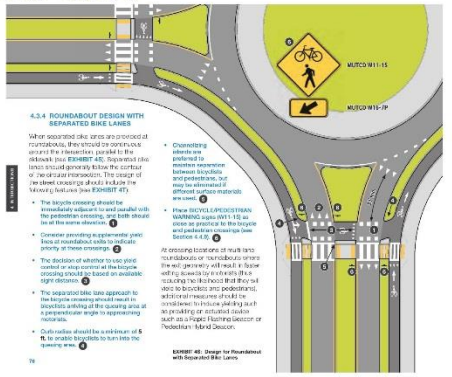
Figure 23



Separated Bike Lane with Lateral Shift

A lateral shift moves cyclists to the left of the motor vehicle right turn lane before vehicles can move right. This places the responsibility for yielding clearly on drivers turning right, and brings bicyclists into a highly visible position. In the lateral shift configuration, like the mixing zone (see page 107), potential conflicts between right-turning vehicles and through bicyclists occur *before* the intersection. A lateral shift treatment is effective for intersections where a separate bicycle signal and signal phasing is not feasible, because bicyclists can proceed in the same signal phase as through and right-turning vehicles.

Roundabout Design with Separated Bike Lanes

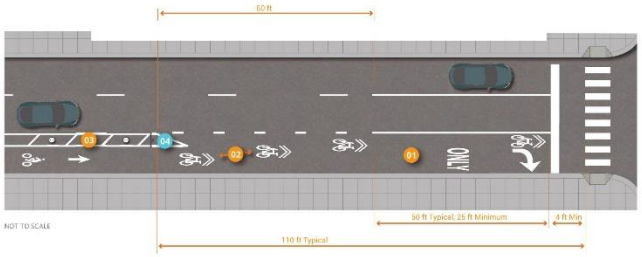


Separated Bike Lane with Mixing Zone

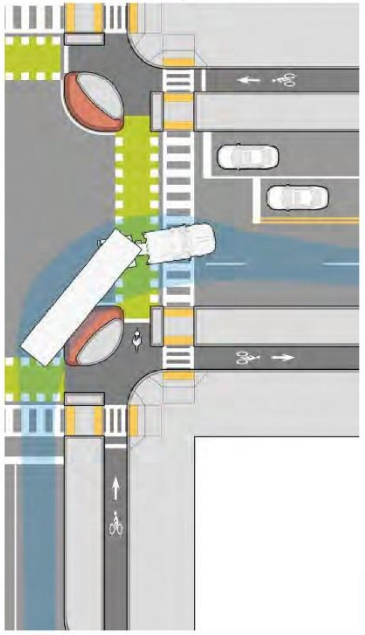
A mixing zone is an area where bicyclists and right-turning automobiles merge into one travel lane approaching an intersection. Mixing zones provide a design option in which the potential conflict between right-turning vehicles and through bicyclists occurs before the intersection, similar to the lateral shift. Mixing zones may provide the best option in locations without on-street parking and/or with a constrained right-of-way where the roadway width will not accommodate both a bicycle lane and a right-turn lane at the intersection.

Figure 24

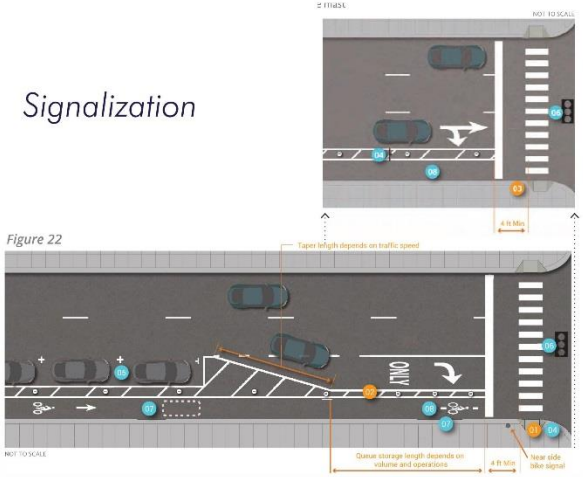
Additional mixing zone designs are highlighted in the pictures on pages 50, 102, and 108.



Recessed Stop Line



Signalization



HAWK Signal at Roundabout

Figure Sources: MASSDOT Separated Bike Lane Planning & Design Guide
FHWA Separated Bike Lane Planning & Design Guide - May 2015

SANDERSON STEWART

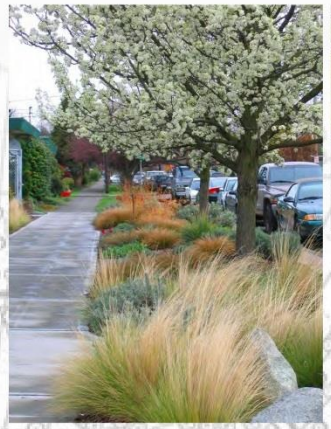
MDT

CITY OF BOZEMAN 1883

AESTHETICS

CAMPUS

RURAL



SANDERSON STEWART

MDT

CITY OF BOZEMAN · GALLATIN CO. MONTANA · 1883

Additional Opportunities for Input

- www.mdt.mt.gov/pubinvolve/kagyblvd/
  - View Information
  - Provide Comments
- Upcoming Presentations
  - Bozeman Area Bicycle Advisory Board
  - Pedestrian & Traffic Safety Committee
  - Transportation Coordinating Committee
  - Bozeman City Commission

KAGY BLVD.
RECONSTRUCTION