Colorado State University

Alternative Transportation Fee Advisory Board

2023-2024 Project Proposal Form

Fill out and return proposal documents via email to ATFAB_CSU@colostate.edu and Aaron.Fodge@colostate.edu. ***Deadline for final submissions — Friday, January 19, 2024***.

If the project involves infrastructure construction, ***CSU Facilities must review cost estimates and proposal schedule. Facilities Deadline — Friday, December 8, 2023.*** Please email to David Hansen at David.Hansen@colostate.edu.

Note: If proposal is accepted for funding consideration, you will be asked to give a 30-minute formal presentation to ATFAB.

Project Name/Location: CSU Corridor Infrastructure Study

Estimated Initial Cost: **$80,000.00**

Estimated Recurring Cost (if applicable): **$0**

Funding Request form ATFAB: **$80,000**

Matching Funds (if applicable): **$0**

Please Attach the Full Budget: Include total cost, amount requested from ATFAB, breakdown of all expenses, funding from other sources, etc. Please be thorough and specific.

Submitting Unit:

Name: David Hansen Telephone: 970.567.0031

Email Address: David.hansen@colostate.edu Department: Facilities Management

College or Division: University Operations

Approvals (Signatures): Brendan Hanlon

Provost/VP: Click or tap here to enter text.

Signature: Brendan Hanlon (Jan 19, 2024 14:51 MST) Date: Jan 19, 2024

Department Head/Director*

Name: Click or tap here to enter text. Tom Satterly

Signature: Date: Jan 18, 2024

*Whomever oversees the areas affected by the proposed project. For example, if the proposal was to add covered bike parking near the LSC, you need to contact the Director/Department Head in charge of the LSC. Please contact ATFAB with any questions.

Facilities Management Approval of Estimated Budget/Schedule

Name:

Signature: _____ Date: _____

As an attached document, please answer the following:

1. Please describe the project (limit description to 500 words or less).

   This project would be an engineering design study to realize two safety infrastructure improvements on the CSU Campus that have been identified as worthy of consideration by CSU Police Department (CSUPD) and the Vision Zero Safety Task Force. There are three major corridors that have been identified for the study: Hughes Way, Pitkin Street, and Lake Street (potentially in conjunction with the City of Fort Collins).

   Infrastructure Elements

   1. Protected bike lanes: Cyclists on campus and in our existing street corridors predominantly ride at street level with vehicles in designated bike lanes that lack physical protection and separation. The study would strive to determine where and how protected bike lanes could be implemented through various means of infrastructure (raised, delineated, barrier fencing, etc.) For the entire 1-mile corridor of Pitkin Street through the CSU campus. This corridor is identified as part of the low-stress bike network that traverses across Fort Collins, making it a safer segment through campus would enhance the network in addition to making it safer for CSU community members to travel.

   2. Speed Tables: CSUPD has expressed increased concern for user safety (pedestrians, cyclists, and other drivers) on CSU streets due to an uptick in the number of motorists speeding. A preliminary speed table assessment was developed by an officer of CSUPD in 2022 for Hughes Way and West Pitkin Street but lacked engineering review and confirmation. This study would analyze this assessment and confirm that the recommendations meet certain engineering criteria related to speed and safety. It might also determine if additional speed tables or other speed control infrastructure that weren't identified would be beneficial to campus.

   CSU lacks the in-house engineering expertise to develop infrastructure plans and needs to hire an engineering firm that can develop them on the university's behalf. CSU Facilities Management in partnership with Parking and Transportation Services, would develop a scope of work that would allow for a qualified engineering firm to develop schematic design plans to a level of 30% complete and associated cost opinions.

This funding request is for ATFAB funds to be used as match toward a federally funded Safe Streets and Roads for All (SS4A) planning grant that would be submitted by CSU. SS4A requires a local match of no less than 20% of the total project costs. FM and PTS estimate that a 30% design plan for these corridors will be approximately $400,000. Given the scope of work and size of the project, FM and PTS believe this may be the most successful way for the University to fund a design study of this magnitude. The City of Fort Collins may also apply for a similar grant that would assess the Lake Street Corridor in a similar scope.

2. Approximate timeline for the project (have you contacted Facilities for a bid and proposed schedule, if applicable?).

   If approved and funding transferred, it is anticipated that the overall timeline for this design study could range from 10-12 months based on experience working with engineering consultants previously. The requested funding amount of $80,000 for match is based on CSU and City of Fort Collins experience working on design studies of street infrastructure with engineering consultants.

3. Describe how users will be supported by the project (limit to 250 words or less).

   Safety is a major concern and consideration for students, staff and visitors who travel on campus. The two infrastructure elements that have been identified within the scope of work (protected bike lanes and speed control) would support campus users through the lens of safety and would directly align with the goals of Vision Zero. Vision Zero strives to protect the most vulnerable roadway users and infrastructure improvements are a key component that effort. By developing these design plans and understanding the associated costs, CSU is better positioned to prioritize projects for future funding and implementation as opportunities arise.

4. Describe the benefits to students in accordance with ATFAB By-Laws (see Article VII Funding Rules on the Website: https://atfab.colostate.edu/atfab-bylaws/).

   CSU students would ultimately be the direct beneficiary of constructed infrastructure on the identified campus corridors as safer conditions would be provided. The corridors identified represent some of the most traveled by on-campus residents as well as off-campus commuters that navigate the campus daily. The first step in realizing these safer conditions is to develop engineered plans that will result in proposed infrastructure solutions and estimates of potential associated costs.

5. Please provide any evidence that there is student support for the proposal (i.e. petitioning, letters of support, requests for proposal by students, ASCSU resolutions, college council approvals, etc.). It is highly recommended that proposers reach out to students; the level of student support for your proposal will likely affect the board's decision to fund it.

   In 2021, ASCSU representatives approached the Vision Zero safety task force expressing interest in implementing speed bumps throughout campus to control speeds. Students expressed concern that vehicular speeds throughout campus were becoming unsafe and needed to be

controlled. This conversation ultimately fizzled out as there are many challenges that come with adding infrastructure like this throughout campus and it was determined that a more holistic safety evaluation needed to be considered. CSUPD took the first step in analyzing the concern and developed a speed control recommendation document looking specifically at Pitkin Street and Hughes Way.

Notes taken at Bike to School tabling events that occurred in the Fall of 2023 indicate student concerns for safety that align with this proposal. Similarly, feedback collected during the stakeholder engagement process for the 2023 Transportation Demand Management Plan development indicated a need for addressing safety concerns along these corridors. Students expressed concern about intersections along Pitkin Street, Hughes Way, and Meridian Avenue corridors. Notes shared suggest that the implementation of protected bike lanes and speed control infrastructure could, in many of these cases, provide a safer way to navigate and cross these corridors.

6. Is your project mentioned in any of the CSU Campus Master Plan documents? Have any campus advisory committee discussed this project? It is recommended that you consult an applicable planning or advisory committee for letters of support and advice regarding your proposal. Please attach any documents if applicable.

A Complete Street Design Concept document from 2022, developed by a hired consultant, suggests how the Pitkin Street corridor along with several others on campus might be realized with alternative designs in the future. The study considered protected bike lanes, restriping, road diets and other measures to make the corridors safer to navigate. These plans were presented and reviewed by the Campus Bicycle Advisory Committee along with the Vision Zero Safety Task Force.

Elements of the Concept document are further supported by a Complete Streets Design Guidelines document that was developed in a separate effort in 2022 for CSU. The Design Guidelines document will become a standard document for all consultants working on campus to use as a resource for design solutions as it provides a menu of infrastructure alternatives that could be considered when redesigning a campus corridor. The speed control recommendation document developed by CSUPD was also presented to the Vision Zero Safety Task force.

The 2014 Bicycle Master Plan recommends separate facilities on key corridors across campus for optimal bicycle travel. Additionally, the recently completed Transportation Demand Management Master Plan recommends installation of separated infrastructure and speed control devices as key strategies for increasing travel via active modes such as walking and biking.

The 2023 Transportation Demand Management Plan, prepared as a supplemental document to the University Master plan, and was shared multiple times with the Master Plan committee for review and feedback. The plan involved nearly a year of process to develop an updated planning document for the University. Within the strategies section of the plan, recommendations include:

- pursue proposed complete street redesigns on campus,
- improve intersections to create safe crossings on streets
- focus on building out more protected and well-connected facilities

7. Please include anything else you would like to communicate about your project.

It is mentioned in this proposal that the City of Fort Collins might also be a participant in this engineering design study. Lake Street, which traverses the south edge of the Main Campus, is owned and maintained by the City of Fort Collins. Any infrastructure or improvements on this street must be reviewed and approved by the City. CSU Facilities Management and Parking and Transportation Service believe that any design consideration of Hughes Way and Pitkin Street should also include consideration of Lake Street and what impacts might occur to Lake Street if changes are made on CSU-owned corridors on campus. The City of Fort Collins is considering a larger study of Lake Street and have expressed interest in also applying for a Safe Streets and Roads for All grant that would allow for concurrent studies to occur.

If CSU's SS4A grant submission is unsuccessful, we recommend that the funds still be utilized for a scaled down design study for the most used portions of these corridors at CSU. The scope of work would need to be evaluated to determine the amount of design work that could be completed with the awarded funding. Before proceeding with the scaled down design study, staff would provide recommendations to ATFAB and seek the Board's approval regarding any contracted work.

Appendix A: Corridor Study Graphic, Excerpt from CSUPD speedbump report

W. Pitkin Street

Spot Treatments

A At the S Shields Intersection east of the median, paint the existing left-turn lane directing bicyclists onto the off-street trail green to resemble a two-stage bicycle turn box.

B Add a speed hump adjacent to Summit Hall to mitigate vehicle speeding. Throughout the corridor a crossing or traffic calming treatment should be placed roughly every 500 feet to attenuate opportunities to speed.

C Install a transit boarding island at the Horn bus stop adjacent to Canvas Stadium parking entrance. Relocate the crosswalk from Aspen Hall to match the trail crossing and improve visbility by having pedestrians cross in front of the bus stop (rather than behind).

D Build high visibillity decorative crosswalks at the entrance to Meridian Ave and install curb ramps north of the Stadium to provide accessible pedestrian crossing.

E Build a roundabout at Meridian Village just east of the Stadium. Close east leg of intersection to vehicles, and move Braiden Hall parking entrance to new Meridian Street.

F Remove marked crosswalks across portion closed to cars. This is funded to become a bicycle and pedestrian roundabout and crossing.

G Improve signage for pick-up and drop-off.

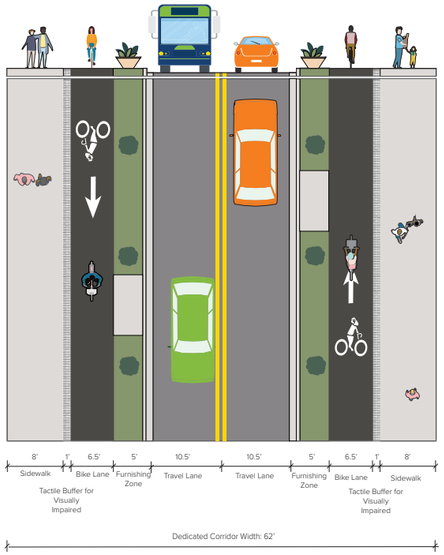
H Ramp the existing separated bike lane on the south side of W Pitkin onto a 4 ft wide sidewalk extension to facilitate bicyclists turning left onto Campus Loop Trail.

Cross Sections
(Looking East)

S Shields St to Closure East of Meridian Ave

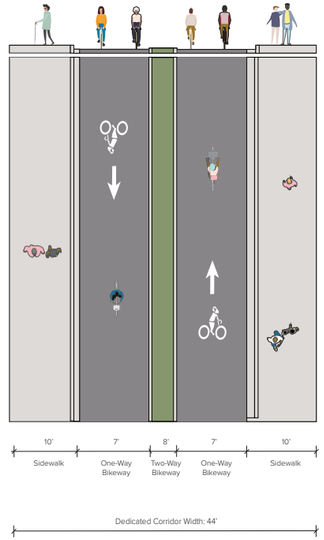
Build a sidewalk-level separated bike lane, separated from vehicle traffic by a furnishing zone with planters and benches.

Add intermittent concrete in the furnishing zone to allow for access to the curb and accomodate drop-offs.



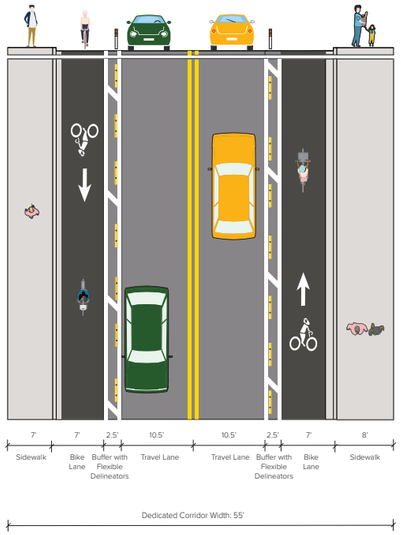
Meridian Ave to Newton Memorial

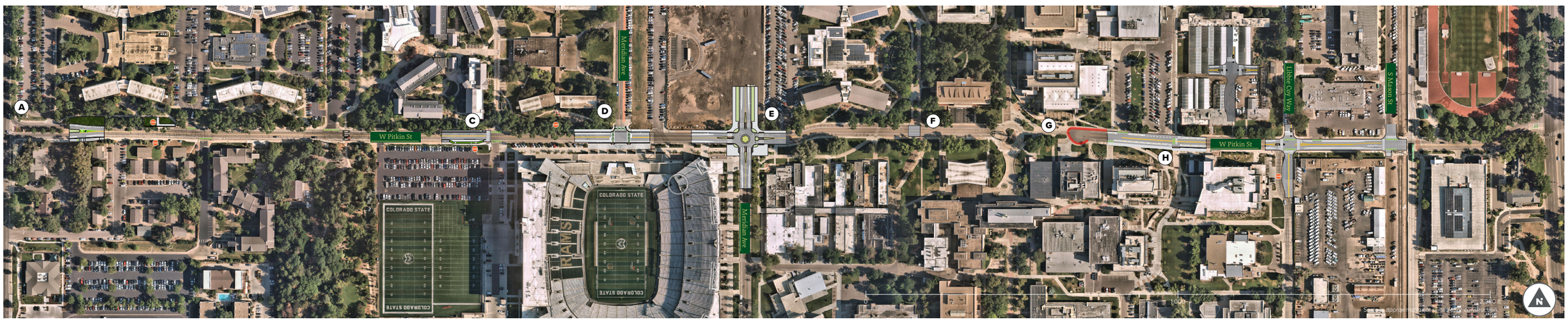
Build a center-running median with one-way bikeways and pedestrian walkways on edges, all at street grade.



Newton Memorial to S College Ave

Build a separated bike lane while maintaining existing curbline.





Document Excerpt

Colorado State University

Vision Zero Proposal

Colorado State University strives to ensure the campus is safe for its students, faculty, staff, and the surrounding community. The Vision Zero team is tasked with maintaining and improving the transportation safety philosophy to eliminate traffic deaths and severe injuries in the transportation system. As a member of the Vision Zero team and Colorado State University Police Officer, I see transportation safety and strive to eliminate traffic deaths and severe injuries in the transportation system. Throughout this proposal, I'll explain my observations and philosophies to ensure a safe campus.

Speed Humps and Speed Tables

Speed humps are found in residential areas, schools, parks, or community centers. Several studies have shown that speed humps reduce vehicle speed when the drivers travel ten miles per hour or more over the speed limit. The decision to install speed humps includes considering the posted speed limit and the operating speed of traffic. Speed humps are usually recommended only on streets where the speed limit is 30 mph (50 km/h) or less. The combined results for speed humps and speed tables investigated in the City of Portland (OR) showed an average traffic reduction of 28%.

Speed Tables are essentially flat-topped speed humps and may have a textured material on the flat section with asphalt or concrete for the approaches. Speed tables are sometimes called "trapezoidal humps" or "speed platforms." If marked as a pedestrian crossing, speed tables may be referred to as "raised crosswalks" or "raised crossings." Most speed tables are a height of 3 to 3.5 inches (76 to 90 mm) and a travel length of 22 feet (6.7 m). Speed tables generally consist of 10 foot (3.1 m) plateau with 6-foot (1.8 m) approaches on either side that can be straight, parabolic, or sinusoidal in profile. The longer lengths of speed tables provide a gentler ride than speed humps and generally result in vehicle operating speeds ranging from 25 to 30 mph on streets, depending on the spacing between speed tables. Speed tables are generally used on residential collectors, emergency routes, or transit routes.

Document Excerpt

W. Pitkin St.

Red Rectangle =Speed hump

Yellow & Red Rectangle = Beacon Crosswalk & Speed hump

Ingersoll Hall south speed hump

Five hundred and fifty feet eastbound from S. Shields Street would be south of Ingersoll Hall's southeast corner. This would be the location of the first speed hump on W. Pitkin Street. The location of this speed hump is just before the entrances to Ingersoll Hall, Edwards Hall parking lot to the north, and Summit Hall to the south.