



Facilities & Services

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

University of Illinois Facilities & Services Transportation Demand Management Plan FY22 Achievement Report



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FY22 Achievement Report for the 2019-2024 Transportation Demand Management Plan

A Facilities and Services Plan for TDM at the University of Illinois Urbana-Champaign **June 30, 2022**

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Keywords

TDM – Transportation Demand Management
BFU – Bicycle Friendly University
CBP – Campus Bicycle Plan
iCAP – Illinois Climate Action Plan
UIUC - University of Illinois Urbana-Champaign
F&S – Facilities & Services
TAMP – Transportation Asset Management Plan
FY – Fiscal Year
PCI – Pavement Condition Index
DOR – Division of Responsibility
LTCCS – Long Term Climate Controlled Storage
EV – Electric Vehicle
NAFA – National Association of Fleet Administrators
GHG – Greenhouse Gas
IDOT – Illinois Department of Transportation
ICT – Illinois Center for Transportation
IFSI – Illinois Fire Service Institute
CEE – Civil and Environmental Engineering
MTD – Champaign-Urbana Mass Transit District
MCORE – Multimodal Corridor Enhancement
IGA – Inter Governmental Agreement
DRES - Disability Resources & Educational Services
ISSS – International Student and Scholar Services
CUUATS – Champaign-Urbana Urbanized Area Transportation Study
RPC – Regional Planning Commission
SSC – Student Sustainability Committee
CTAC – Campus Transportation Advisory Committee
BPAC – Bicycle and Pedestrian Advisory Commission
APBP – Association of Pedestrian and Bicycle Professionals
DIA – Department of Intercollegiate Athletics

Introduction

The mission of the University of Illinois Urbana-Champaign (UIUC) is to “enhance the lives of citizens in Illinois, across the nation, and around the world through our leadership in learning, discovery, engagement, and economic development.”¹ The mission of [Facilities & Services \(F&S\)](#) is to provide and maintain “a physical environment that is conducive to supporting learning, discovery, engagement, and economic development at the University of Illinois and is an active partner in research, teaching and learning.”² The campus strategic plan “The Next 150” includes a key objective of operational excellence,³ and F&S takes that goal very seriously.

The Transportation Demand Management (TDM) department in F&S at the university is responsible for oversight of a safe integrated transportation system, creating, maintaining, and coordinating the overall transportation network for all modes of travel on campus, including walking, bicycling, transit, and vehicles. TDM works to implement campus and community policies and objectives, including the related transportation objectives in the Illinois Climate Action Plan (iCAP). The Transportation Systems Manager is the primary decision authority for issues related to the campus transportation network, on behalf of the Executive Director of F&S, with delegated authority from the Chancellor.

This document reports on progress made in FY22 towards achieving the goals listed in the TDM Plan.

TDM Prioritization Methods

The TDM department prioritizes efforts based on the following factors:

- 1) Safety for users: this includes all modes of transportation, including multi modal interactions.
- 2) Location: this refers to the impact on the overall networks and the perception of that impact.
- 3) Volume of Traffic: this reflects the number of users in the respective areas.
- 4) Condition, such as PCI: this considers the condition of the pavement and the scale of improvements needed in the respective area.
- 5) Alignment with campus plans: this considers the connections to strategic priorities and potential coordination with other campus projects.

¹ <https://illinois.edu/about/index.html>

² <https://fs.illinois.edu/about-us/MissionVisionValues>

³ <http://strategicplan.illinois.edu/>

TDM Strategy

Key Goals

The TDM Vision is to provide safe, reliable, and sustainable transportation for all modes at the University of Illinois Urbana-Champaign.

Asset Management

Transportation Asset Management Plan (TAMP) for streets

- 1) In FY22, we received \$1,250,000 for pavement maintenance and improvement projects.
- 2) Scheduled (funds have been encumbered)
 - Pennsylvania Ave – Asphalt patching West of Maryland: \$98,471.81
 - First and Peabody – Concrete patching: \$47,866.28
 - College Ct west bound lane near PAR – Concrete patching: \$42,055
 - Campus-wide – Spray injection: \$25,000
 - Campus-wide – Crack sealing: \$25,000

Projects for Existing Infrastructure

- 1) F&S TDM team worked with Facilities Information Resources (FIR) to create a Level-1 Division of Responsibility (DOR) map, which identified the ownership of the campus pavement network at a broad level. In this project, we divided the DOR between Facilities & Services, Auxiliary, City of Champaign, City of Urbana, Village of Savoy, Champaign County, IDOT, and Private. We continue to work with F&S Grounds and Maintenance and University Landscape Architect to further clarify DOR.
- 2) Bike infrastructure projects
 - a) Bike Shelter was installed in July 2021
 - b) Removal of abandoned bike paths
 - Bike path along east side of Wright St Sidewalk from Springfield Ave to White St
 - Completed in FY21
 - Total cost for this project: \$58,000
 - Dedicated bicycle path along south side of Springfield Avenue from Grainger Library to Mathews Avenue
 - Scheduled for calendar year 2022
 - Estimated cost for this project is \$130,000
 - c) Upgrade Hazelwood path from Lincoln Ave to Orchard Downs through the Arboretum



- Indefinitely on hold, pending the new Doris Kelley Christopher Illinois Extension Center project (U21054)
- d) Sixth Street
 - Removed bike path on east side of Sixth St from Gregory to Lorado Taft
 - Added sharrows to the Sixth St from Gregory Drive to Pennsylvania Ave in summer 2021
 - Total cost for this project: \$17,498.61
 - Completed in FY22
- e) Peabody Drive and Path
 - Sharrows were added to Peabody Drive between First Street and Fourth Street
 - Completed in FY22
- f) Lorado Taft Path
 - Removal of dedicated bicycle path north of Siebel Center for Design from Fourth to Sixth St – Scheduled for calendar year 2022
 - The estimated cost to complete this project is \$75,000
- g) Pennsylvania Avenue
 - Added sharrows to the Pennsylvania Avenue from Goodwin Avenue to Lincoln Avenue in FY22
- h) Evaluate remaining projects and prioritize per 2014 Campus Bicycle Plan.
 - We updated the 2014 Campus Bicycle Plan, but we still need to evaluate feasible projects that can be undertaken.

Programming

Encourage Active Modes of Transportation

- 1) TDM department collaborated with the Parking department, Illini Union, KCPA, Veo, and ZipCar to provide benefits for the Commuter Program. We continue work with CRC to inform the campus, and start the enrollment process in fall 2022.
- 2) League of American Bicyclists (LAB) sent their recommendations for UIUC to become more bicycle friendly in October 2020. We identified some feasible options for UIUC for implementation.
- 3) Following are the locations where TDM department has installed Eco-Counters (bicycle and pedestrian counters):
 - a) Green Street near Illini Union: Installed in March 2020
 - b) Intersection of Wright Street and Healey Street: Installed in August 2021
 - c) Intersection of Armory Avenue and Sixth Street: Installed in April 2022
 - d) Intersection of Green Street and Goodwin Avenue: Installed in May 2022

- e) Intersection of Wright Street and John Street: Purchase in progress
- 4) Industry standard for Green Fleets has changed, this objective needs to be re-evaluated
- 5) TDM department collaborated with MTD to hold the “It’s Your MTD Too!” workshop on Friday, March 25, 2022. This event is particularly targeted towards faculty and staff, but students were welcome to join.
- 6) Bike Education and Bike at Illinois
 - a) The Bike at Illinois (<https://bike.illinois.edu>) website is updated regularly. We added 4 most recent bicycle-related iCAP Portal updates to the Bike at Illinois home page
 - b) In FY22, the TDM department started a monthly raffle program to anyone who register their bicycle. Learn more at <https://bike.illinois.edu/register-your-bike/bicycle-registration-affle/>
 - c) Added metal bike registration signs at 12 high traffic bike parking locations across the campus.
 - d) Added the [Campus Bicycle Feedback Form](#) to the Bike at Illinois website in the “Resources” section
 - e) Added two educational videos and one event video to the Bike at Illinois website under “[Videos](#)” in the “Resources” section. Following are the videos currently available on this webpage:
 - o Bike at Illinois: 6 Basic Things to Know About Biking on Campus: This video was created in collaboration with Campus Recreation – <https://youtu.be/lwE3bEhZ6Yc>
 - o Bike at Illinois: How to Lock Your Bicycle to U-Loop and Ladder Racks: This video was created in collaboration with Campus Recreation – <https://youtu.be/4cENTu-nKes>
 - o Bike to Work Day 2021: This video was created by Institute for Sustainability, Energy, and Environment – <https://youtu.be/yliL21vpkzo>
 - f) Added all the [Bike Census](#) information to the Bike at Illinois website. This page contains information from all the previous bike census as well.
 - g) Created a crowdfunding page in collaboration with “With Illinois” to cover the expenses for Bike Day 2021. However, the funding drive was not successful. Here is the crowdfunding page link: “[Help Bike at Illinois improve your bicycle experience on campus!](#)”
 - h) Received \$750 funding in December 2021 to cover part of the expense for Bike Day 2021 from the Illinois Dad’s Association.
- 7) Bike Sharing



- The University of Illinois Urbana-Champaign was the “Lead Agency” for the Bike Share IGA between the University, City of Champaign, and City of Urbana. This change came into effect at the beginning of FY22.
 - Bike Share IGA was updated to allow vendors to have 750 bicycles.
- 8) F&S TDM department conducted a thorough Walkability Audit of the campus in FY22 with the help of a Master’s in Urban Planning (MUP) student. Nearly 75 volunteers collected the data for the following surveys:
- a) Walkability Audit survey, which focused on the general walkability of the campus (macro level)
 - b) Deficiency Reporting survey, which focused on identifying specific faults on-campus (micro level analysis)

Sutapa Banerjee, a MUP-2 student, analyzed the Walkability Audit survey to determine the walk index of 76.2 for the campus. The TDM department continue to analyze the Deficiency Reporting survey data and incorporate this information with the ADA Transition Plan Supplement to improve accessibility on-campus. The data collected in FY22 will be the baseline for our campus for future Walkability Audits of the campus. The TDM department will conduct a Walkability Audit every 10 years.

Academic and Peer-to-Peer Collaborations

- 1) Following are the academic collaboration projects/classes that the TDM department has supported in FY22
 - a) Design and Installation of a Bike Canopy by the Newmark Civil and Environmental Engineering building. This project is in collaboration with Dr. Ann Sychterz. Ann has reached out to a structural engineer on retainer to be ready to sign off on the drawings for the bike canopy.
 - b) Bio-oil as a biobinder for asphalt project. This project is in collaboration with Dr. Lance Schideman (ISTC), Dr. Ramez Hajj (CEE & ICT), and Dr. Yuanhui Zhang (ABE).
 - c) Examine the wear and tear of permeable pavement installed at the State Farm Center. This project is in collaboration with Dr. Ramez Hajj (CEE)
 - d) Self-healing and crack sealing of Concrete pavement (Dr. Nishant Garg) and Asphalt pavement (Dr. Ramez Hajj). This project is currently in the Lab phase, but the TDM department is very interested in collaborating with them to implement their research on-campus pavement.



- e) Low-cost inspection and sustainable repair of campus pavements. This is a two-year project funded by SSC. TDM department collaborated with Dr. Nishant Garg in his application.
 - f) Creating and installing permanent (metal) bicycle registration signs. TDM department collaborated with an undergraduate student, Shayna Talpallikar, for the SSC applications. We installed 12 metal bike registration signs at high traffic bike parking locations in FY22 and we received estimate to install 4 additional signs in FY23.
 - g) Bike Cage at ECE. TDM department collaborated with Joyce Mast at ECE in the SSC application for this project.
 - h) CEE 190 Project Based Learning class
 - Bike shelter with security feature with Alan Wagner, Max Saucedo, Yaritza Frias, Charlotte Poole
 - Mathews Ave bike path with Tom Kunst, Daniel Oawlakm Carlos Carretero, Henry Bahrs
 - Grind2Energy Systems with Matthew Krauss, Megan Juneman, Carlie Olsen, Anja Kranenburg
 - Biogas for campus buses with Sofia Orozco. Advised other options too
 - i) Reimagine Competition interview about HTL with Aria Ruan (student)
 - j) Bike lane safety with Spencer Steeves (student)
 - k) Circle Cycle
 - l) Feasibility of a new Bike Shelter on-campus. Collaborated with Pranjali Shah (MUP-1 student) in fall 2021. Pranjali is volunteering her time for this project in spring and summer 2022.
 - m) Walkability Audit project with Sutapa Banerjee (MUP-2 student). We also collaborated with Dr. Lindsay Braun and Dr. Bumsoo Lee (Department of Urban and Regional Planning), Mylinda Netherton (Disability Resources Educational Services), Allison Kushner (Office of Access & Equity), Ryan Welch (F&S Grounds), Brent Lewis (F&S Capital Programs), Chad Kupferschmid and Justin Pinnell (F&S Facilities Information Resources).
- 2) In FY22, TDM department facilitated the discussion between Parking and F&S Design Review Team. It was determined that we need to update the current Standard or create a new one to address EV charging on campus.
- 3) TDM department discussed the biofuel options for campus fleet vehicles with Pete Varney. Even though we are very interested in vehicles that use more sustainable fuel options, they may not be economically feasible.

TDM Marketing Plan and Communication

- 1) TDM website updates
 - a) The TDM biking page⁴ added and updated the list of the bicycle initiatives taken since the TDM Plan was published.
 - b) The TDM website⁵ was updated to show the embed information from the iCAP Portal. 5 most recent project updates from the transportation-related projects on the iCAP Portal are shown on the main TDM webpage. 5 most recent project updates from the bicycle-related projects from the iCAP Portal are shown on the Biking page of the TDM website. Also, the metric showing monthly data of bicycle and pedestrian counts from the Eco-Counters at Green Street in front of Illini Union and the intersection of Wright and Healey St has been added to the TDM Biking and Walking and Running pages, respectively.
 - c) The TDM website added links to the Bike at Illinois website as well as websites for Parking, Public Safety, MTD, Campus Bike Center, etc. Similarly, the Parking website added the link back to the TDM website (under active transportation).
- 2) Shared important transportation-related information using the F&S channels.
- 3) [Near & Far Without a Car](#)
 - a) Updated the Near & Far Without a Car flyer (go.illinois.edu/CarFree) in October 2021
 - b) The Car Free flyer is also promoted using any tabling events and/or transportation-related events on campus, e.g., Light the Night.
 - c) The TDM department participates in Illinois Human Resources' (IHR's) monthly New Employee Orientation to discuss all modes of transportation available on-campus, where the Car Free flyers are handed out to the attendees.
- 4) Used the F&S Customer Relations and Communications (CRC) as a resource for communication with the campus and community.
- 5) The TDM team developed Publicity Plan documents that list all the resources that could be used to promote events on campus and in the community. For example,
 - a) [Promoting Mode Choice Survey](#)⁶
 - b) [Promoting Bike Day 2021](#)⁷
 - c) [Promoting CLMP Student input session and the CLMP Public Forum](#)⁸

⁴ <https://fs.illinois.edu/services/more-services/tdm/biking>

⁵ <https://fs.illinois.edu/services/more-services/tdm>

⁶ [e-week, GradLinks, Email+ to UG and other methods used for Mode Choice Survey](#)

⁷ [List of avenues used to promote Bike Day 2021](#)

⁸ [List of avenues used to promote Student input session and Public Forum for CLMP](#)

ADA Right of Way improvement (U19132)

- \$1,000,000 for a capital project was awarded to address and focus on improving the deficiencies identified in the ADA Transition Plan Supplement for Priority 1 and Priority 2 buildings.
- We consolidated and reviewed the deficiency data collected by CUUATS sidewalk network inventory and assessment project, ADA Transition Plan Supplement (in 2017-18), and the Deficiency Reporting survey during the Walkability Audit 2021-22.

Funding Resources

Transportation Asset Management Plan (TAMP)

- \$1.25M was allocated for pavement maintenance work starting in FY22.

Bicycle Infrastructure and Programming Fee

The Bike Fee revenue received in FY22 was used to cover the deficit incurred in FY21

- The TDM department did not use the Bike Fee for any infrastructure or programming project in FY22

Student Sustainability Committee

SSC funded projects

- 1) Bike and Ped Counters project – Completed
 - a) This project was part of a scope change from the Bicycle Registration and RFID Project to Bike Ped Counters in 2021
 - i. Funding available \$25,208
 - ii. This funding was used to
 - install Eco-Counter at the intersection of Wright Street and Healey Street in August 2021
 - purchase a set of Eco-Counter for the intersection of Green Street and Goodwin Avenue
 - iii. Eco-Counters installed using TDM funding
 - Intersection of Armory Avenue and Sixth Street – installed in April 2022
 - Intersection of Green Street and Goodwin Avenue – installed in May 2022
 - iv. Final report submitted in May 2022
 - 2) Purchase and Install Eco-Counters project
 - a) SSC awarded \$20,000 to purchase and install one set of Eco-Counter in fall 2021
 - b) Purchase Order was approved for the purchase of one of Eco-Counter in June 2022
 - 3) Bicycle Registration signs projects



- a) SSC awarded \$1,200 in spring 2021 and \$4,732.38 in spring 2022 to create and install metal bike registration signs at high traffic bicycle parking areas across campus
 - i. We installed these signs to 12 Priority 1 high traffic locations in fall 2021
 - ii. Estimate received for the creation and installation of four additional signs
- 4) Low-cost inspection and sustainable repair of campus pavements project
 - a) TDM department assisted with the SSC application that resulted in the award of \$76,000 to Dr. Nishant Garg and his team for this project.

SSC project funding requested in spring 2022

- 1) Additional bike/ped counters for MCORE corridors – Awarded \$120,000
- 2) Bike Cage at ECE – requested in spring 2022 – Assisted with the SSC application that resulted in the award of \$3,000 to Joyce Mast at ECE
- 3) Bike Canopy at Newmark Civil Engineering building – Assisted with the SSC application that resulted in the award of \$12,000 to Ann Sychterz at CEE

Community Engagement

1) Champaign Urbana Urbanized Area Transportation Study (CUUATS)

- Transportation Systems Manager attended the CUUATS Technical and Policy Committee meetings in FY22.

The TDM department was a part of the following committees through CCRPC:

- Community Safety Committee
- Several Corridor Studies throughout the region
 - Florida Avenue Corridor Study
 - Lincoln Avenue Corridor

2) Campus Transportation Advisory Committee

- In spring 2021, the Campus Transportation Advisory Committee (CTAC) met on April 20, 2021. The primary topic of discussion for this meeting was Walkability Audit of the campus. Learn more about this meeting here: [CTAC spring 2021: Presentation and meeting recording](#)
- In fall 2021, CTAC met on December 3, 2021. The primary topic of discussion was update on the Walkability Audit project and data collection. Learn more about this meeting here: [CTAC fall 2021: Charge Letter, Presentation file, Meeting recording](#)



- In spring 2022, CTAC met on April 18, 2022. The topic of discussions included updates from the Walkability Audit project, Mode Choice Survey, abandoned bicycles, and TDM updates. Learn more about this meeting here: [Campus Transportation Advisory Committee \(CTAC\) spring 2022](#)
- 3) *Bicycle and Pedestrian Advisory Commission (BPAC)*
 - Sustainable Transportation Assistant attended the BPAC meetings in FY22.
- 4) *Association of Pedestrian and Bicycle Professionals (APBP)*
 - Sustainable Transportation Assistant renewed his APBP young professional membership in January 2022.
 - Sustainable Transportation Assistant joined the APBP webinaros and membership committees as a volunteer
- 5) *League of American Bicyclists (LAB)*
 - Sustainable Transportation Assistant renewed his LAB membership in January 2022.