CASE STUDY

Making the Most of a

Colorado State University is growing. The parking program had to grow right along with it.

By Doug Mayhew, CAPP

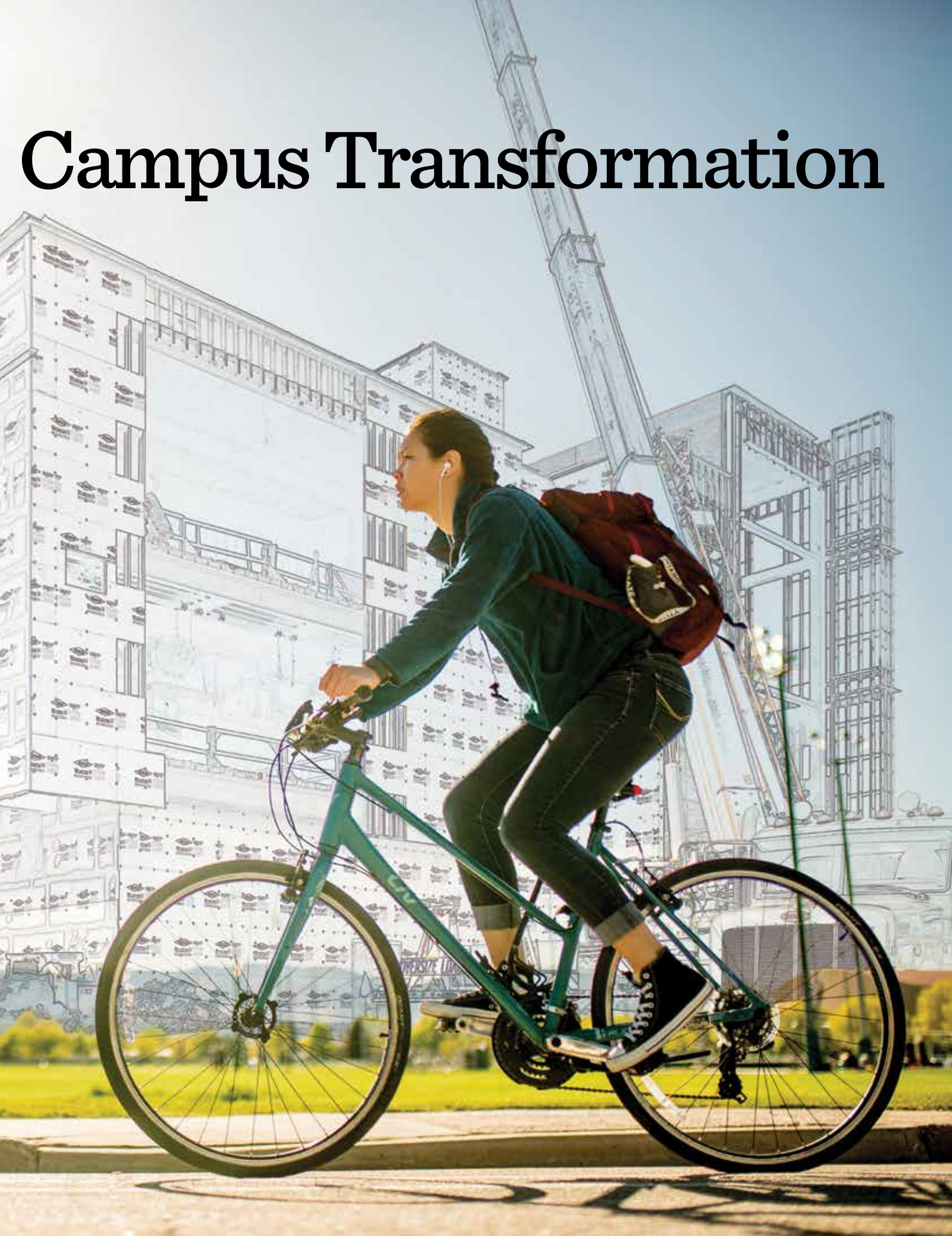
Colorado State University (CSU) is building for success. The physical environment around campus has changed more than the Colorado seasons. The university has seen unprecedented growth in both campus infrastructure and attendance and, with the goal of being a 35,000-student campus by 2020, has invested $1.4 billion in building renovation and construction.

Following development of the CSU 2014 Physical Development Master Plan, the infrastructure construction, which includes a new multi-use football stadium in the heart of campus, has removed numerous surface parking spaces, leaving most parking on the outer edge of campus. Between 2013 and 2018, the plan projected 2,299 out of 10,447, or 22 percent, of our interior main campus parking spaces would be eliminated and replaced with buildings.

During this time, the administration was approached by a real estate private equity fund about a possible deal to privatize CSU's parking operation. A lengthy study followed that compared the university and its parking program to peer universities and examined the financial stability of the existing parking program and its outlook for the future. After an exhaustive study, the university's administration decided not to monetize the parking program.

The neighborhoods around campus have undergone their own

Campus Transformation



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transformations. Private developers have found the campus neighborhoods ripe for building new apartments with parking garages. Buildings with rooms for in excess of 4,000 beds have been built within two miles of campus, and another 2,000 are in development review. While not all of the beds are for our campus constituents, the developers built the apartments with CSU students in mind.

With all of this happening at once, to meet the needs of our growing community and changing physical campus, the parking program needed an overhaul. Multiple measures were taken to find the right program for the university. Using peer comparison studies, constituent surveys and open forums, and consultant recommendations, the department found answers to questions of what programmatic principles needed to change. By combining proven transportation methods, innovative technology, and sustainable building practices, we built and offered new parking and transportation options that meet the needs of our constituents.

Expanding the Name

With all the physical changes happening on and around campus, it was evident that mobility and movement options needed to be improved. We needed to change our parking-management-only focus to include transportation options and provide sustainable and safe access to, on, and from campus for the success of students, faculty, staff, and visitors. Running parallel to the master plan, we developed our own plan to combine parking strategies with new transportation strategies.

We recognized the importance of providing safe, equitable, and efficient access to the university by all campus users, and it was important to provide maximum access to the university with minimum impact on the surrounding community. A vibrant campus that safeguards the pedestrian opportunity to learn and maximize the campus experience was important; it was also important to meet university greenhouse gas emission reduction goals by reducing single-occupancy vehicle trips.

Parking and Transportation Master Plan

After extensive planning that included the university facility planner and staff, it was important for us to know if what we had been thoughtfully working on was actually attainable and could be implemented with success. To that end, we hired Kimley-Horn to review our ideas and plans for mobility around campus. It was important to us to have our thoughts and ideas vetted through a non-affiliated expert in the parking and transportation field. After receiving confirmation that we were on the right track, the end result was the affirmation of our CSU Parking and Transportation Master Plan.

TDM Initiatives

To meet our new goals and to put our new plan into motion, we launched a national search for an alternative-transportation manager. We needed a professional to move our plan forward by:

- Developing and promoting awareness of transit and alternative transportation programs managed by CSU Parking and Transportation Services.
- Developing an annual marketing and outreach plan for all transportation alternatives to the single-occupant vehicle.
- Preparing and overseeing grant applications to enhance funding of alternative transportation improvements for the university.
- Ensuring the inclusion of alternative-transportation opportunities, including bicycle, pedestrian, and mass transit, in development-review actions.

The results have exceeded our expectations:

- An internal campus shuttle that serves more than 800 riders daily.
- A remote lot shuttle that makes 200+ roundtrips to and from the main campus.
- Four new city transit routes (5,539 daily boardings) and three new private transit routes bringing students to and from main campus.

- Five thousand new bike racks installed on campus, which is nearing a total of 18,000 racks.
- Bike Platinum designation earned in 2014.
- New program issuing all employees city transit passes at no cost to the employees.

Innovative Technology

We are committed to researching and implementing the latest and greatest technology to offer our constituents the easiest and best customer service possible. After selling physical permits, using and collecting from single-space meters, and writing tickets on foot for years, we have advanced all elements of our parking program with some of the latest technology. By linking software, license plate recognition (LPR), and pay-by-plate meters together, we have improved our operational efficiency and made our customer experience easier. With the three different technology disciplines talking to each other, we have seen incredible improvements in all three parts of our program.

Virtual permitting has made purchasing a permit online easy for our customers. Ninety percent of student purchases and 75 percent of all purchases are made online; we have eliminated long lines and customer dissatisfaction during permit-renewal time.

Installing LPR hardware and software on four hybrid vehicles has allowed us to manage and monitor our parking lots two to three more times per day than when we were on foot patrol. We have lowered our total number of staff hours and increased enforcement of our lots.

We have 43 multi-space meters available for 968 metered spaces on the main campus. Thirty-six of the meters are solar-charged and battery-operated. The meters accept coin, debit or credit card, and campus card and can be paid via mobile app. Eighty percent of meter payment is debit or credit card, 13 percent is via mobile app, 4 percent is paid with campus card, and only 3 percent of users still use coins. Reconciling our meter revenues is easier thanks to card usage.

We installed parking guidance systems in our two garages. Customers see where an open space is via individual-space LED lights and how many spaces are available on each floor of the garages via monument signs at the garage entrances or an accessible app on our website. Staff is able to monitor garage usage by accessing the reporting software of the systems, allowing us to study trends to make any needed space allocation changes.

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Sustainable Building Practice

CSU is the first in the world to have its sustainability efforts go platinum twice via the Sustainability Tracking, Assessment & Rating System (STARS), through the Association for the Advancement of Sustainability in Higher Education (AASHE). CSU Parking and Transportation Services has been all-in on the sustainability efforts. To recoup some of the lost surface parking after infrastructure construction, we built two parking garages on the edge of the main campus and a large remote lot one mile from the main campus.

The Lake Street Garage is one of the last garages to be certified LEED Gold before the Leadership in Energy and Environmental Design rating system was changed to exclude standalone garages. It was also a Green Parking Council Demonstrator Site at the time. The Lake Street Garage was awarded the 2011 IPI Award of Excellence for Best Design of a Parking Facility with 800 or More Spaces.

The South College Garage was designed and built in accordance with Parksmart principles. Rain gardens, low-water-use plantings, and native plants appropriately manage stormwater and minimize potable water use. Lighting controls with daylight harvesting and LED lighting reduce energy consumption.

Both garages have direct access to a public transit stop and have ample bicycle storage. The parking guidance systems in the garages allow customers to find a parking space faster, decreasing vehicle exhaust and unnecessary fuel used by driving around looking for a space.

We built a 900-space surface lot one mile south of the main campus near our south campus. The lot was built incorporating rain gardens and using low-water-use and native plants to manage storm water and minimize potable water use. Numerous tree islands were constructed with air quality in mind, and LED lights were installed with daylight sensors and dimming capability. The lot was a 2016 IPI Award of Merit honoree.

Sustainable building is a way of life on the CSU campus. Before a shovel goes into the ground all sustainability issues and questions are addressed and answered. Another example of this is our 2013 IPI Award of Merit project, the Library-Hartshorn Parking Lot. Two separate lots, divided by an irrigation ditch in the flood plain, were joined together using a number of sustainable principles. The use of concrete instead of asphalt to reduce heat island effect, bioswales, the use of adaptive and native plants and tree islands, and the installation of LED lighting are some of the principles we employed in the project.

The changes that we have been going through are not unique to CSU. Other universities are experiencing similar issues. How these issues are addressed lies in the hands of the decision-makers and the support of your university partners. We have been very fortunate to have the support of our administration and the help from our friends in facilities management. It has been a concerted effort by all to get where we are. In typical university fashion, we are excited about how far we have come, but know a new wave of change might be on its way.

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