

## City Stories



Rendering of the health and design building interior

October 3, 2019

## Reviving neighborhoods with health-driven design

In 2013, the Denver Housing Authority (DHA) announced it would begin a \$240 million revitalization process in Sun Valley, an 80-acre neighborhood on the border of University of Colorado Denver's campus. DHA has already begun tearing down and rebuilding 333 public housing units in Sun Valley Homes and Sun Valley Annex, and reshaping the neighborhood surrounding them. DHA and the [Sun Valley EcoDistrict](#) plan to make the neighborhood greener, more walkable, revitalize the riverfront, and restore industrial buildings like IronWorks for businesses and co-working spaces. Meow Wolf, New Mexico's experiential art development, is currently building its second home in the neighborhood. The city envisions leveraging the revitalization into \$400 million of infrastructure and development.

But the revitalization and gentrification around the city has left Sun Valley's residents skeptical of what it would actually mean for them.

Faculty from CU Denver's [College of Architecture and Planning](#) (CAP) knew that too often developers and architects consider everything about a new project except the people who live there. When it came to Sun Valley, they wondered: how could anyone tackle a project this big and ensure the existing neighborhood wasn't pushed out?

CAP's [Michael Jenson](#), [Austin Troy](#) and [Rocky Piro](#) applied for a [Colorado Health Foundation](#) grant to explore the ways in which we redevelop neighborhoods, using Sun Valley as their pilot project. In 2016, CAP was awarded \$430,000 from the Colorado Health Foundation to lead a three-year project called "Creating Healthy Places Through Transformational Education and Design" to transform the west Denver neighborhood by using the best principles of healthy community design and planning.

## A confluence of wealth and poverty

Sun Valley is home to 1500 residents. Eighty-three percent of the neighbors live below the poverty line and 70% are unemployed. According to the U.S. Census Bureau's American Community Survey, Sun Valley was the poorest tract by average household income in Colorado in 2017. Their neighborhood is a collision of the wealthy playground of sports fans with Empower Field at Mile High to the north, and a poverty-stricken immigrant and refugee neighborhood where children outnumber adults to the south.

The small remnant of the original neighborhood is centered on a couple of blocks lined with single family homes that go back to the earlier part of the last century. There's a school, but no grocery store within a mile of Colfax, making it a food desert. Sidewalks disappear into driveways and the neighborhood is home to one of Denver's highest-incident intersections at Federal Boulevard and 10th Ave. There, the traffic lights are timed to allow only two cars through the light at a time. If a resident hopes to cross the street, they have 12 seconds, half the time required for a human being to cross.

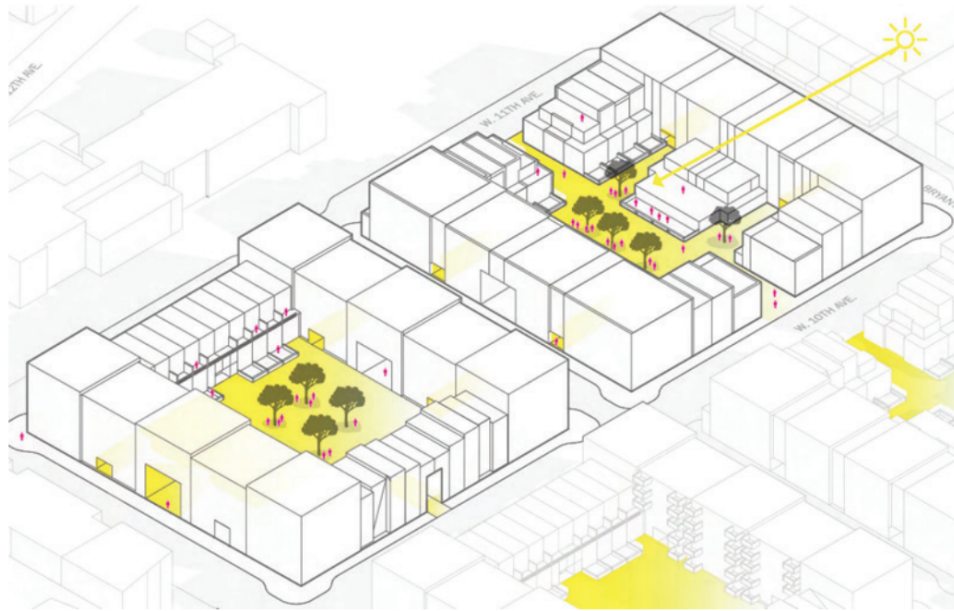
The rest of the neighborhood is home to light industry and distribution at the south end, surface parking lots for the football stadium at the north end, and pockets of brown sites that require environmental clean up from old power plants, oil storage tanks and contaminants from long-ago industries.

Development will be no easy task.

## The five-minute city



Photo courtesy of [Sun Valley EcoDistrict](#)



This design by CU Denver students shows diverse building forms wrapping central courtyards.

Last spring, Jenson, Troy, Piro, and the students who worked on the project, presented their findings at the Creating Healthy Places Collaboration Health Symposium luncheon. Not only did the group come up with a new set of best practices for the profession, they ended up creating a national guidebook for architects, planners and communities. They also brought together the [Colorado Healthy Places Collaborative](#), which now boasts 24 partner organizations that have united to work together to advance health and wellness in communities across the state.

The goal is to have a “five-minute city,” said Matthew Bossler, PLA, MUD, last May. “Everything you want to do in the course of a day should be within five minutes of your front door.”

As the Urban Land Institute notes in the Creating Healthy Places Guidebook, it was possible to live a healthy lifestyle in a lower-income neighborhood only a generation or two ago. Kids could play safely in the streets, residents could walk to their jobs or to do errands, and nutritious food was either homegrown or readily available. That changed with the postwar rise of auto-focused planning.

Planners began building neighborhoods around vehicles. Speed limits rose, traffic cut off access to parks, walkable corner shops and markets were replaced to chain stores a drive away. As a result, residents moved less and drove more; the connections of neighborhoods frayed. Our sedentary lifestyle grew alongside mental health problems and obesity rates.

“We’ve spent the last 70 years dealing with the fallout of a world in which communities are built around vehicular travel and we’ve taken it to its logical extreme,” said Chris Smith, senior program officer for the Colorado Health Foundation. “Now we’re seeing the outcomes of that: the numbers of sick people are reaching crisis levels. So what will the next 70 years look like?”

## Health and design





Conceived by a CU Denver student, this plaza showcases the activation of public space by means of local food production and distribution

The next generation of architects and planners are hoping the answer lies in health and design.

For planners, that means finding the existing and potential “community spines,” where residents can access social services, grocery stores and a diversity of housing tenures types. Street medians need to become greener with public spaces for events. Like Barcelona’s Rambla neighborhoods, trucks and cars would be permitted to travel in the neighborhoods, but residents could constantly maintain access to the grid.

For architects, it means designing buildings that encourage community engagement through courtyards, using green building products and paints, and considering the lives led by the people who will live there.

“When you look at design professions, there is an element of technical expertise and an element of creativity,” says Smith. “Architects approach a project by thinking about the creative potential of spacemaking. When you talk about people and their role in the design, that belongs to a special category of discussion instead of what it should be: the whole point.”

CHF wants to influence the way communities see the role they do or do not play in improving health of the population. To begin they wanted to look at the drivers that influence why people are sick in the first place. By tapping CU Denver’s CAP program, they had the manpower to find out

## A new paradigm for planners



This rendering by CU Denver students illustrates how living walls can be incorporated into a range of building types

“As an industry, we’ve rediscovered the health impact assessment, but it tends to be applied at the end of the process, when there’s already a proposal and a project design” said Piro, FAICP, executive director of the [Colorado Center for Sustainable Urbanism](#) at CU Denver. “The paradigm should always begin with health. We should be assessing it all the way through, along with the environmental and equity assessments, to provide the foundation for decision making and policy.”

With the grant, the researchers used a three-prong approach to understand the problem: education, research and creation of a professional network. They needed to disrupt the way architects and planners are taught and practice.

“Sun Valley wasn’t some made up, hypothetical community,” said Michael Jenson, PhD, assistant vice chancellor for research/creative activities and professor of architecture. “It was a real place and we were engaging with real agencies, professionals and practitioners.”

As part of their graduate study curriculum, students joined a handful studios focused on four program areas: planning, urban design, architecture and landscape architecture. Too often, said Jenson, each discipline sticks to its own silo. He and Piro brought the disciplines together—as well as the subsets of health and building materials, health in the natural environment, economics and health—for Sun Valley.

## Integrating health into a built environment





Pathways, grassy areas, trees, and water are incorporated into this park design by a CU Denver student

To begin the project, the trio of faculty set up interdisciplinary studio design courses in CAP that leveraged each of the disciplinary strengths of planning, architecture, and landscape architecture in ways that placed health and well being at the forefront of the design agenda. They pushed students to envision new typologies for civic buildings, parks, community markets, and other urban spaces. Over three years, 110 students focused on the neighborhood. While some of the neighborhood's development projects had long been in the works, the researchers and their students hoped to influence the ongoing process.

Meanwhile, 20 research assistants scanned best practices literature to build a bigger, better industry guidebook. Others began dialogues between the Colorado chapters of the American Society of Engineers, American Planning Association, American Institute of Architects, American Society of Landscape Architects, among several other public health, land use and environmental organizations. The goal: provide new models for integrating health into the design and planning of the built environment, both educationally and professionally.

In Sun Valley, they had their work cut out for them. The residents already had planning fatigue. The researchers did inventory and found that the community had been engaged in several planning processes over the years. With help from Esther Sullivan, PhD, associate professor of sociology, they designed surveys that would gather information about the fears, motivations, hopes and goals of the existing community.

## Learning to ask new questions

When Smith attended the design review process, the questions the students asked had vastly changed from his tenure at the school. He says the common equation used to be: here's a mom with two kids, come up with a program for housing them.

"We never asked if she was employed, if she was healthy or disabled, the status of her mental health; we never talked about race or the language she speaks or how those might affect her opportunities," said Smith. "The kids in CAP were asking those questions. I was so impressed."

"We've got at least 110 students now who get it," says Jenson. "They will be the ones—in their future professional fields, in whatever agency or organization they work—to say at the outset, we really need to look at these health issues."

## Transformation begins at CU Denver

The pilot program ended with the guidebook, the professional network and website, and the creation of an evaluation tool called the "[Health Assessment Lens](#)." The publicly available tool allows practitioners and community members to assess their project via eight categories: equity and justice, human well-being, education and wellness, economic resiliency, harmony with nature, healthy homes and buildings, health communities and healthy connections. To further educate the public, the group also created a [GuideBox to Healthy Places](#), a box filled with a card deck and other easy-to-use resources that will help community members initiate conversations and increase awareness of health impacts within their communities.

With the infrastructure in place, the hope is to see it continue and grow across the nation.

"This project is about transformation," says Smith. "And that transformation began and now resides in CAP."

By [Rachel Sturtz](#), Research Services



Ongoing exposure to nitrogen dioxide and fine particular matter found in soils affects cognitive development in children.



HEALTH & the ENVIRONMENT | Soils

An example of one of the 52 cards in the Guidebox to Healthy Places



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