



INSPIRE HEALTH & WELLNESS

PURPOSE

As one of the nine Guiding Principles from the National Western Center Master Plan, “Inspire Health and Wellness”, aims to inspire a healthy and vibrant way of life, promote recreational opportunities, multi-modal connections and access to healthy food for all populations. As a part of the Campus Placemaking Study, a public realm study was conducted to identify specific design elements or site features to help meet the Master Plan Health and Wellness goals, including active design elements and programming opportunities in public spaces.

The information included herein reflects the outcomes of the study, which provides recommendations for strategies and integrated design features to be considered when designing the public realm. In most cases, the recommendations focus on program and design elements in the public realm on or near the campus. This includes the plaza spaces, courtyards, riverfront and exterior spaces between buildings. In some cases, the recommendations focus on building or architectural program and design elements.

The information included in this study provide recommendations and a basis of information for the overall campus design standards and guidelines.

NATIONAL WESTERN CENTER MASTER PLAN

The following information is a summary of the Master Plan Big Ideas, Guiding Principles and the Inspire Health and Wellness principles from the National Western Center Master Plan. This material was used as a basis for the work completed in this section.

MASTER PLAN BIG IDEAS

- Improve Access to and Health of the South Platte River
- Foster Regeneration
- Flexible, Year-Round Programs to Drive New Tourism
- Provide New Connections
- Provide Partnership Opportunities

GUIDING PRINCIPLES

- Community and Neighborhood Integration
- Engage the River and Nature
- Celebrate Western Heritage
- **Inspire Health & Wellness**
- Build Cultural Crossroads
- Be Pioneering: Break Trail and Foster Innovation
- Create Fun and Entertaining Experiences
- Grow Local, Regional, and Global Intelligence
- Embrace an Ethic of Regeneration
- Farmers’ Markets

The remaining pages of this section provide additional health and wellness goals and strategies, and recommended integrated design elements to include as site features to help meet the Master Plan Health and Wellness Goals. A corresponding plan exhibit and character images show recommended locations for site features in the campus and surrounding area.

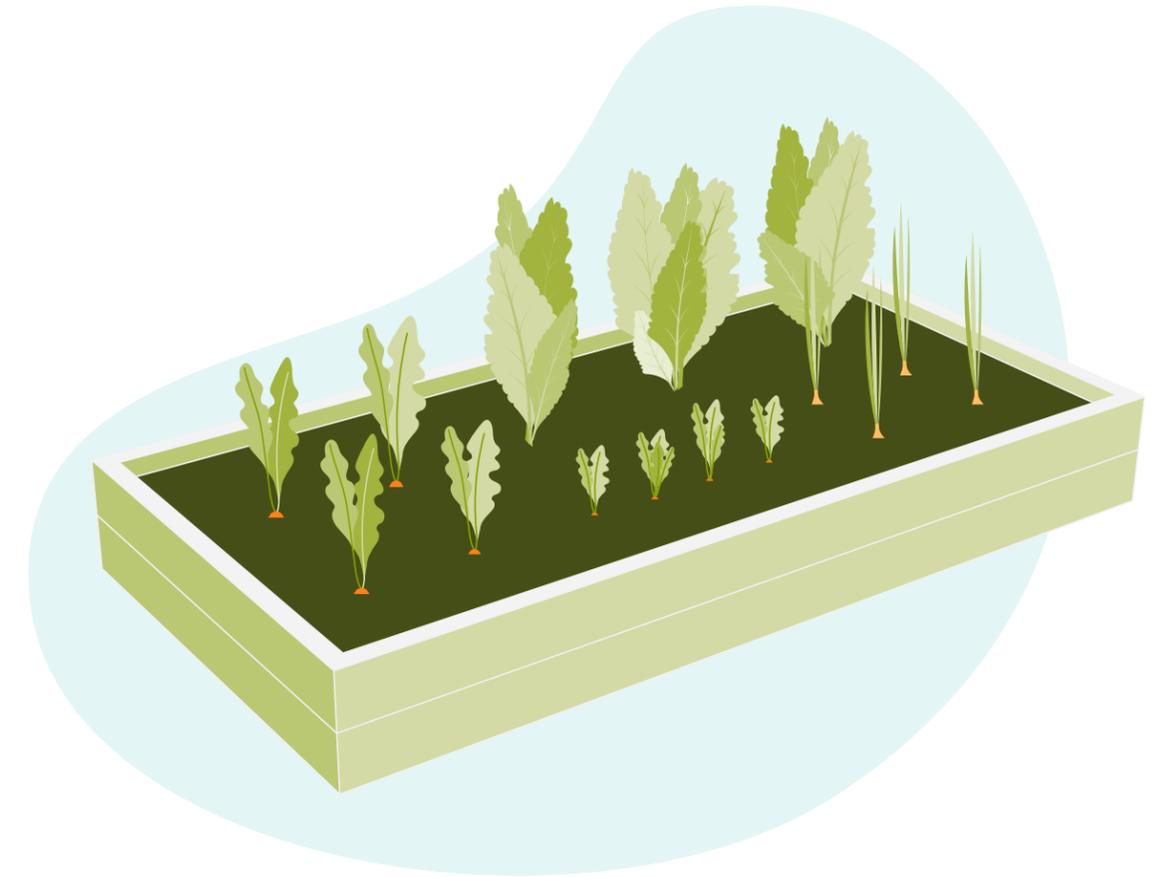
INSPIRE HEALTH AND WELLNESS

Inspiring and supporting healthy lifestyles is an important role of the NWCC. The National Western Center will:

- In conjunction with surrounding neighborhoods inspire a healthy and vibrant way of life locally, regionally and nationally through a demonstrated mix of housing, parks and open space, jobs and range of services, all of which consider active design principles.
- Promote recreational opportunities, multi-model connections and access to healthy food for all populations.
- Use assets at the NWCC to teach about human and animal health.

IHW 1.1

INCREASE AVAILABILITY OF HEALTHY, AFFORDABLE, CULTURALLY APPROPRIATE FOOD SOURCES, IDEALLY YEAR-ROUND, EITHER ON SITE OR IN PARTNERSHIP WITH SURROUNDING BUSINESSES AND ORGANIZATIONS.



STRATEGIES

- Provide places for local food production on the campus and in the surrounding neighborhoods, including community gardens, agricultural gardens, teaching garden and edible landscape.
- Grow culturally appropriate food and plants for use by the local community (chilies, tomatoes, onions, cabbage, tomatillos, potatoes, etc.)
- Grow cool season vegetables (leafy greens, root vegetables, herbs) that are both resilient and provide food for seasons outside of summertime
- Provide places for access to food within walking distance of main campus area and adjacent neighborhoods
- Introduce new farmers' markets or other spaces for seasonal/temporary markets
- Explore partnerships with local nonprofits organizations to bring educational or community-oriented food programming to the campus (e.g. The Urban Farm and The GrowHaus)

INTEGRATED DESIGN FEATURE

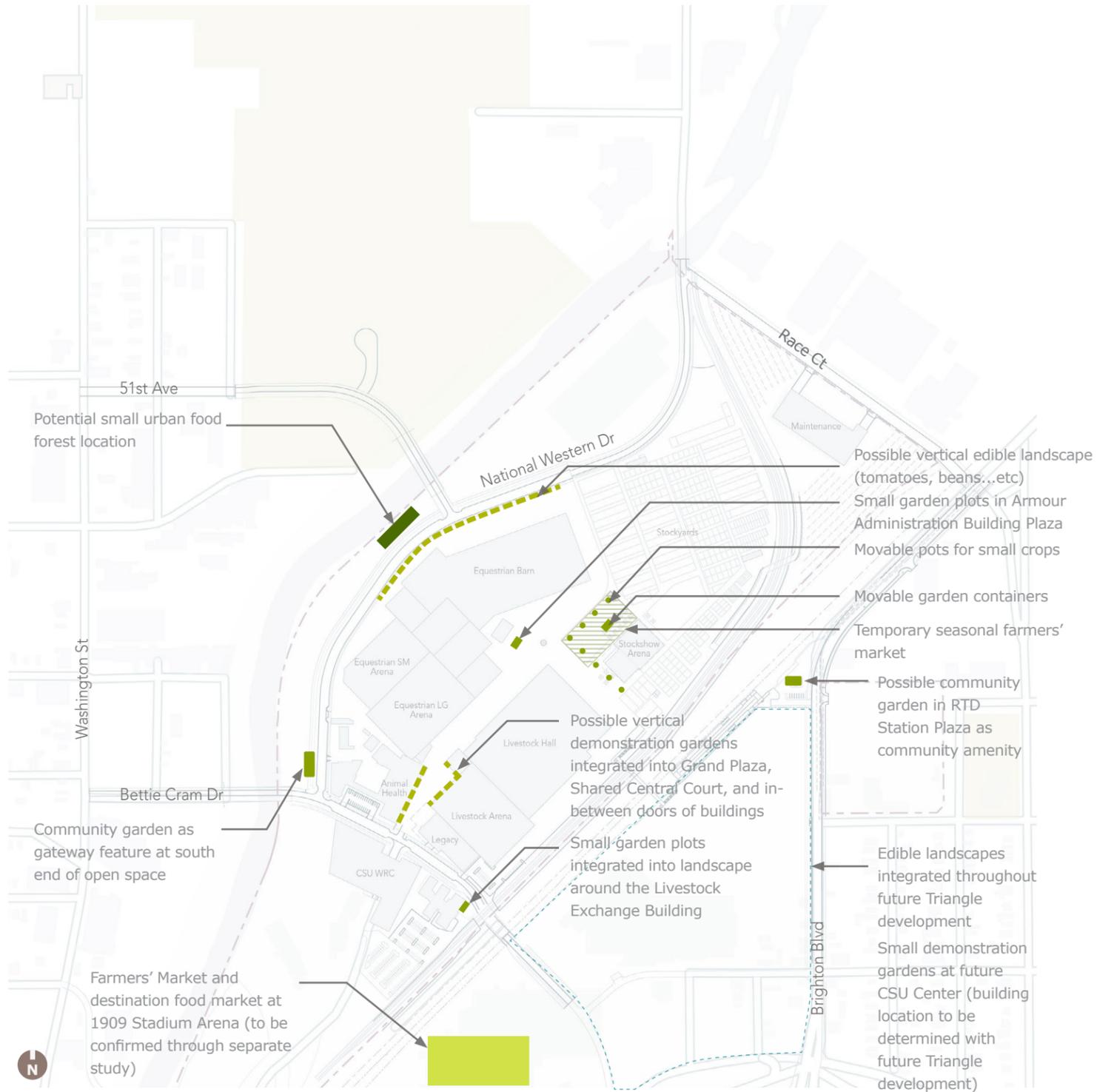
- Community gardens
- Agricultural gardens and/or space for agricultural growing
- Small garden plots / edible landscapes/ small urban food forest
- Farmers' markets
- Demonstration gardens
- Vertical Gardens integrated into building design

* Urban food forest: the use of fruit and nuts trees in urban settings.

* Edible landscape: the use of food producing plants, such as vegetables, herbs, and fruit trees in public space design.



The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of community garden



Example of small garden plot



Example of vertical edible landscape



Example of formal community garden integrated into a plaza, public space and streetscape



Example of urban food forest



Example of small garden plots in plaza

IHW 1.3

**PROMOTE YEAR-ROUND AVAILABILITY OF
LOCALLY SOURCED FOODS, EITHER ONSITE
OR IN PARTNERSHIP WITH SURROUNDING
BUSINESSES AND ORGANIZATIONS**



STRATEGIES

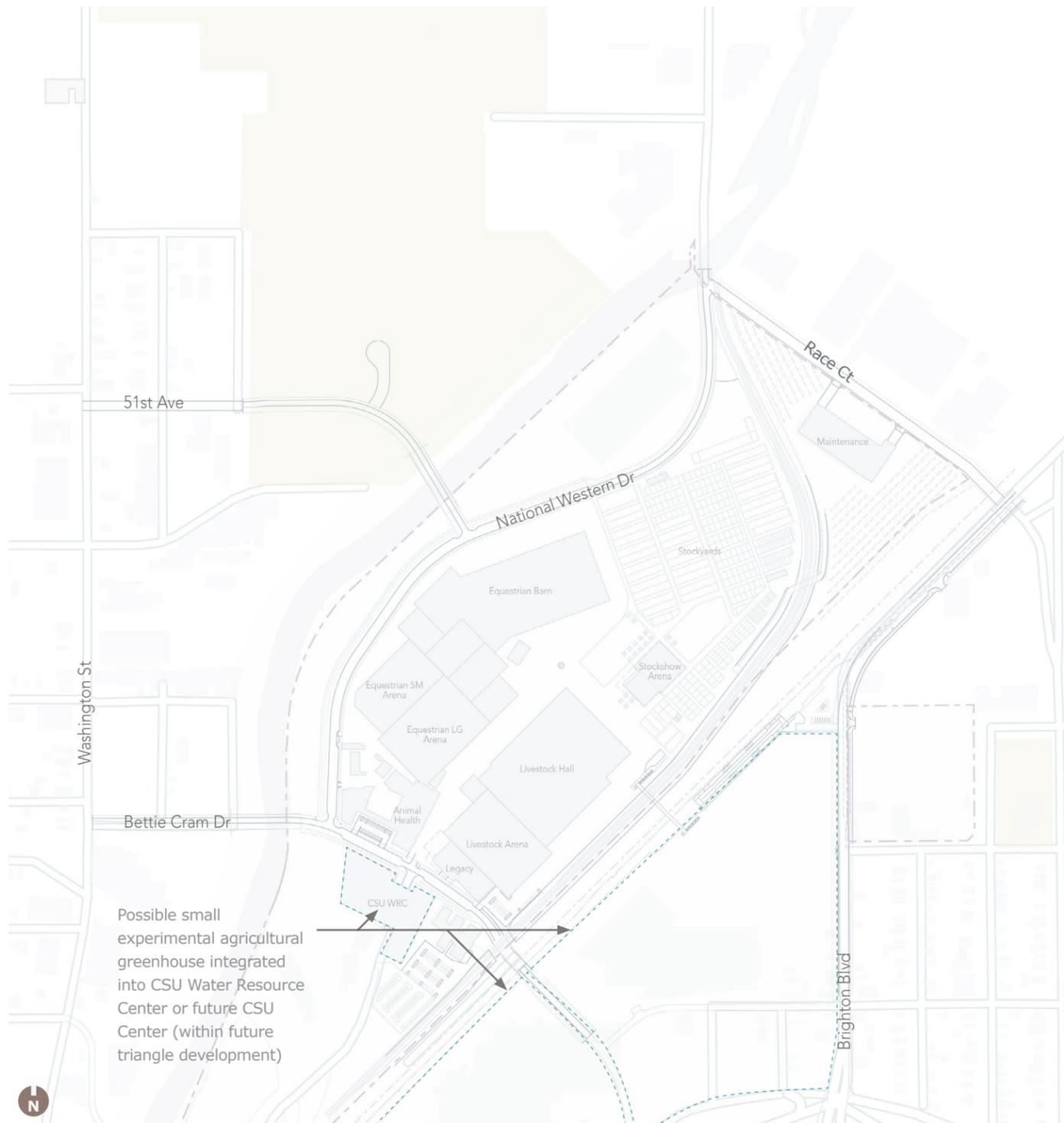
- Provide greenhouse spaces, in addition to garden plots, for year-round growth and availability of locally sourced foods
- Integrate vertical growing techniques into campus buildings and public spaces as site features and demonstration projects

INTEGRATED DESIGN FEATURES

- Permanent greenhouse areas for all-season growing and food production
- Temporary greenhouse space for pilot programs and multi-year programs in open space areas

*Greenhouse spaces are unlikely to be included in the Capital Build, but is encouraged in future development phases, in partnership with surrounding business and organizations.

The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of potential greenhouse space



Example of hydroponic greenhouse in cities

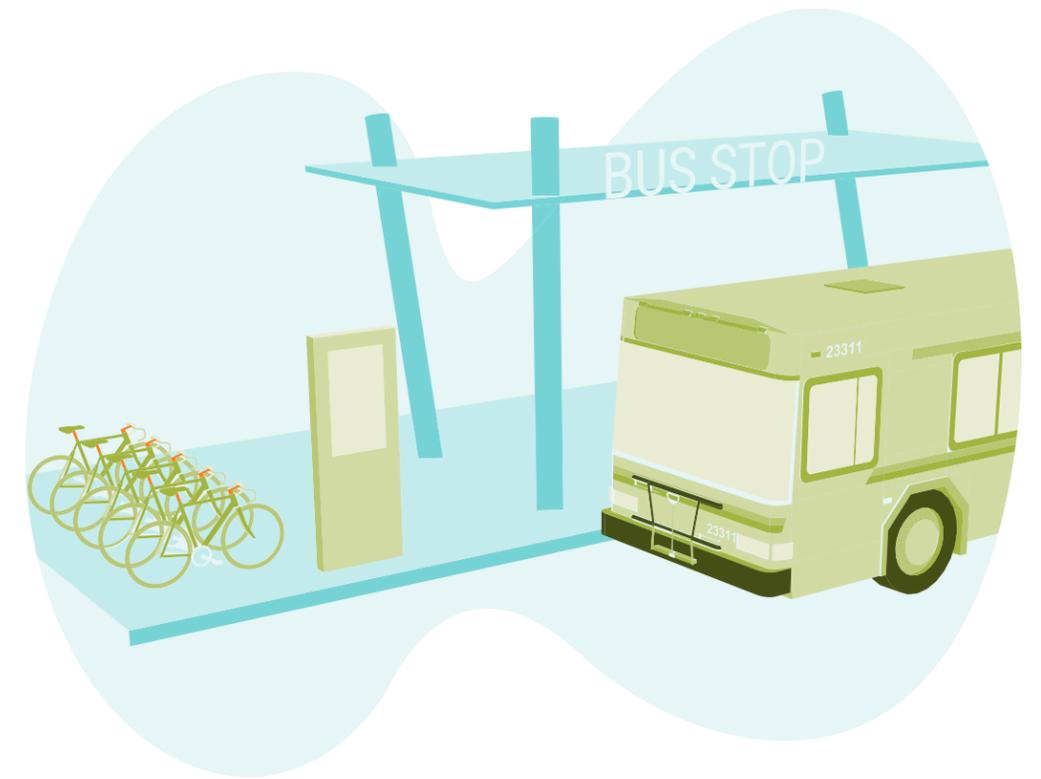


Example of potential integrated vertical greenhouse space in a CSU building or future development building



IHW 2.1

PROVIDE MULTI-MODAL TRANSPORTATION CONNECTIONS, PARTICULARLY TO MAJOR TRANSIT STOPS, NEIGHBORHOODS, EMPLOYMENT CENTERS, PARKS, AND OTHER DESTINATIONS



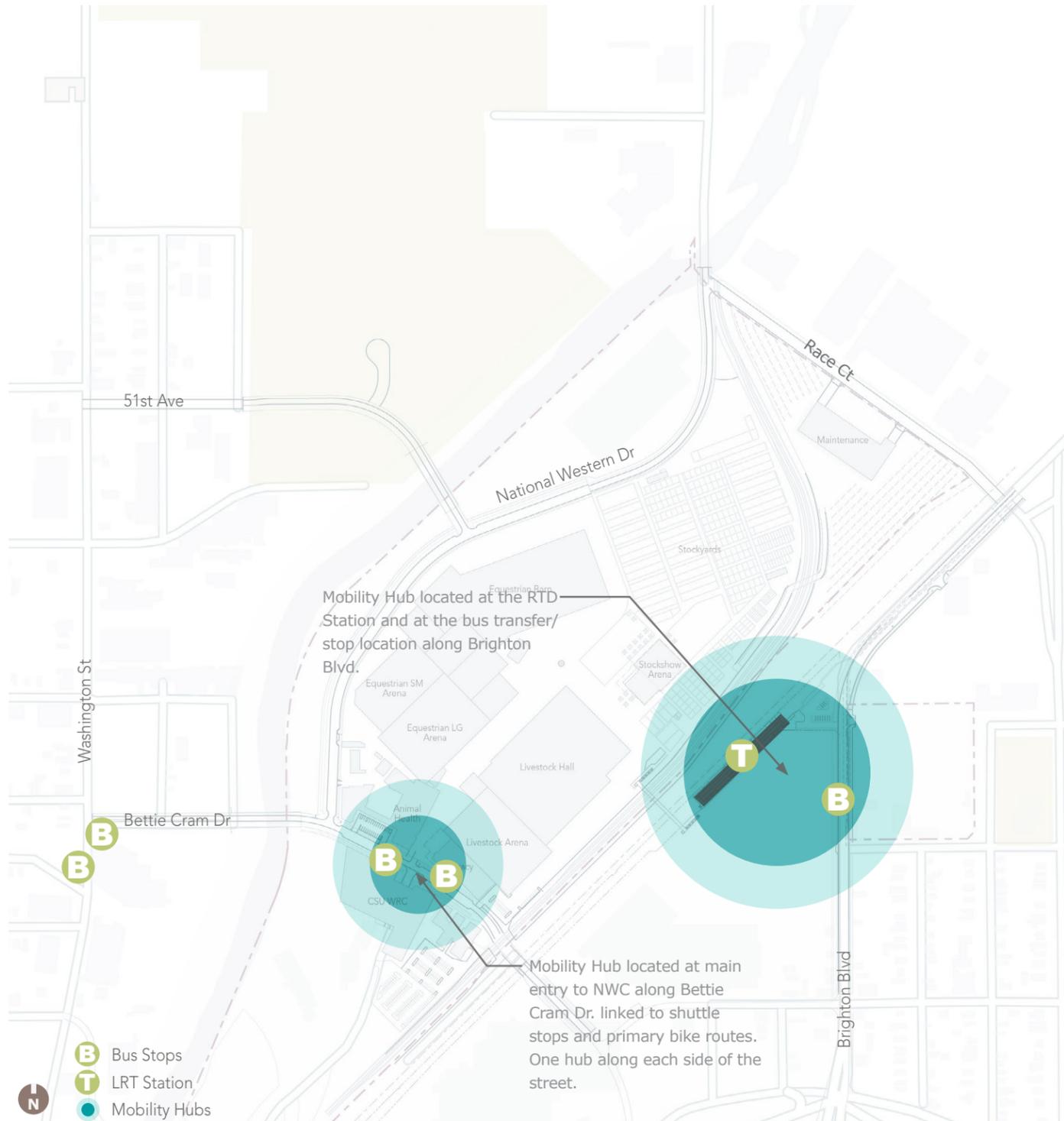
STRATEGIES

- Create walkable interconnected network with connections to neighborhood and campus destinations
- Locate transit/bus stops in highly visible locations and near main entries and destinations. Provide recognizable mobility infrastructure that provides protection from the weather and is comfortable for all users, including elderly and people with disabilities.
- Provide bicycle parking by transit stops/stations and key destinations on campus
- Integrate channels alongside stairways that facilitate walking a bicycle up or down the stairway
- Locate building entries near transit stops and along transit corridors
- Provide signage at buildings, transit stops, and key locations showing map and the distance, time, route and calories burned to the nearest destination
- Furnish bus stop shelters with seating and places to lean to make transit use more accessible for users who have difficulty standing for extended periods, such as the elderly and those who have trouble transitioning from seated to standing.

INTEGRATED DESIGN FEATURES

- Mobility hubs, bus stops and shelters as placemaking opportunities
- Comprehensive walking network within the campus. Provide connections to surrounding neighborhoods and path networks
- Interconnected bicyclist network that connects the campus to adjacent bicycle facilities and the regional network
- Mobility wayfinding and signage
- Enhanced pedestrian crossings at key mid-block locations, intersections and at areas within the site where building services interface with pedestrian/bike movement

The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of transit station and bike parking



Example of identifiable bus shelter



Example of combined bus shelter and bike share location



Identifiable bike station



Marked mobility wayfinding for ease of use



Architecturally defined bike shelter and depot



IHW 2.2

**DESIGN THE SITE FOR EXTENSIVE ACTIVE USE
(E.G., BIKING, RECREATION, WALKING)**



STRATEGIES

- Provide clear and marked walking loops of varying distances
- Provide spaces for different types of active uses and programming in plazas and open space areas
- Provide bike stations with information and bike repair equipment
- Encourage walking by creating active and engaging street environments that can accommodate artwork and events
- Incorporate marked or identifiable running/jogging paths and loops that link to adjacent open space areas along the river (Riverfront open space and Heron Pond /Heller/ Carpio-Sanguinette Park)
- Include smaller active recreational facilities in open spaces or plazas such as playgrounds or exercise facilities to encourage active uses, and co-locate physical activity spaces for children and parents or guardians to simultaneously promote physical activity in different age groups
- Design open spaces and plazas to accommodate a range of age groups and abilities, including children, parents, elderly persons and people with special needs
- Create children's play areas/features that provide outdoor spaces for moderate to vigorous physical activity among children

INTEGRATED DESIGN FEATURES

- Walking and running loops
- Active use features such as climbing walls and areas to exercise
- Bicycle stations or other hubs for bike sharing opportunities
- Outdoor cafes and movable seating opportunities to enhance street and plaza activity
- Incorporate temporary and permanent public art into streetscape to provide a more attractive environment
- Frequent seating, drinking/water fountains and restrooms to support use by children and seniors
- Children's play areas, both formal and informal, of various sizes that promote different types of physical activity



The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of natural play areas to promote climbing and physical activity



Example of playful element in a plaza or streetscape



Example of playful and movable/flexible seating for plaza areas in the center of the campus



Example of exploration play in public spaces using natural rock and water



Example of integrated play elements in plazas and public spaces



Example of small climbing and play elements that can be dispersed throughout the campus



IHW 2.3

IMPROVE CONNECTIVITY TO NATURAL AREAS AND PLACES OF RESPITE, INCLUDING THE SOUTH PLATTE RIVER



STRATEGIES

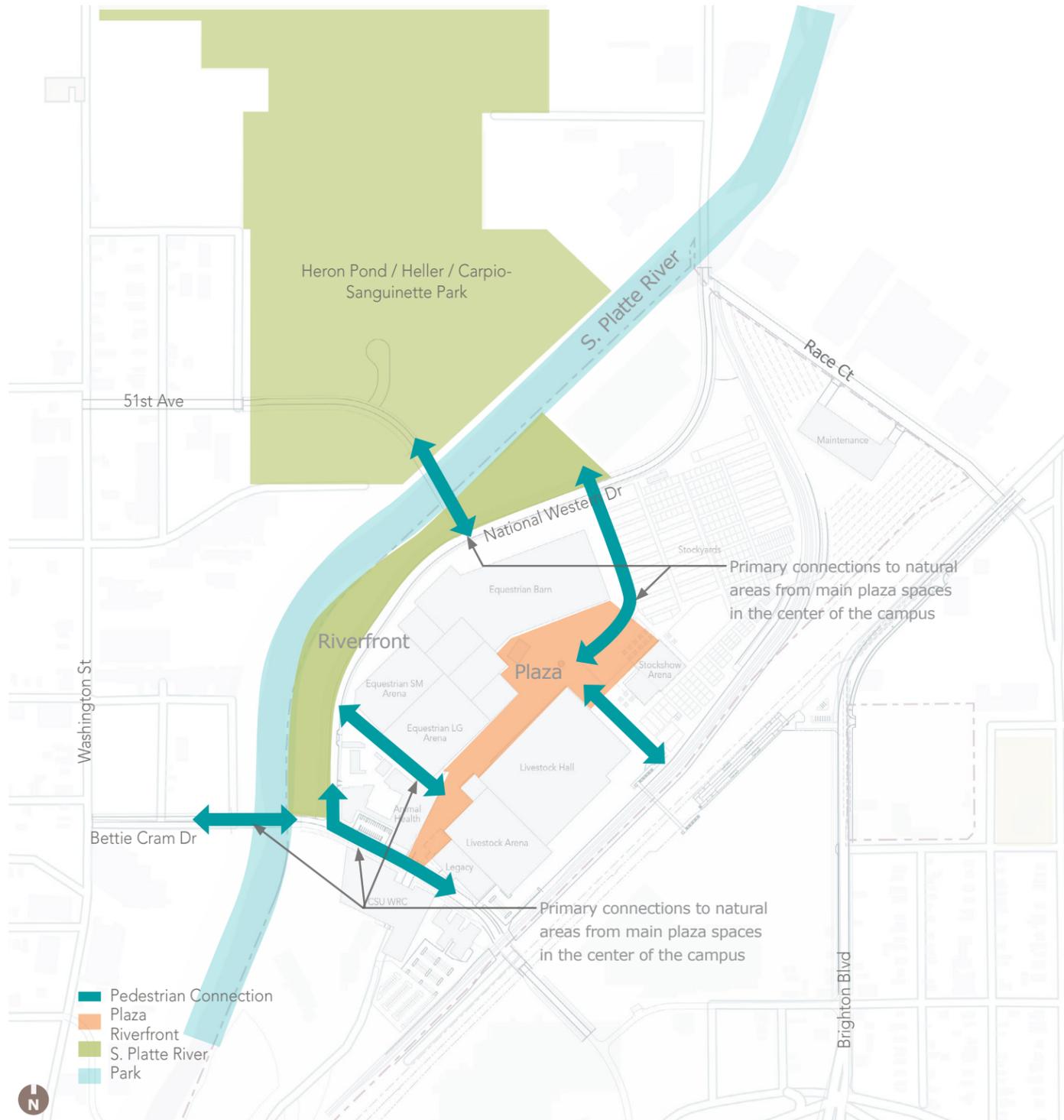
- Create clear walking and bike connections to S. Platte River, Heron Pond / Heller / Carpio-Sanguinette Park, surrounding parks and open space areas
- Provide natural areas along South Platte River open space that enhance the river ecosystem and create natural places of respite for users
- Provide clusters of trees on campus to create places of respite on campus

INTEGRATED DESIGN FEATURES

- Multi-use paths
- Bike facilities connecting users of the site to surrounding natural areas
- Walking paths and sidewalks connecting users of the site to surrounding natural areas
- Graphic markings or painted graphics indicating clear walking and biking paths
- Nature gardens, constructed wetland areas and riverwalk along the South Platte River



The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of connections to natural areas



Example of multi use path for bicycles and pedestrians



Example of small places of respite inside plaza



Example of connection to natural river corridor



Example of children connecting to smaller natural areas



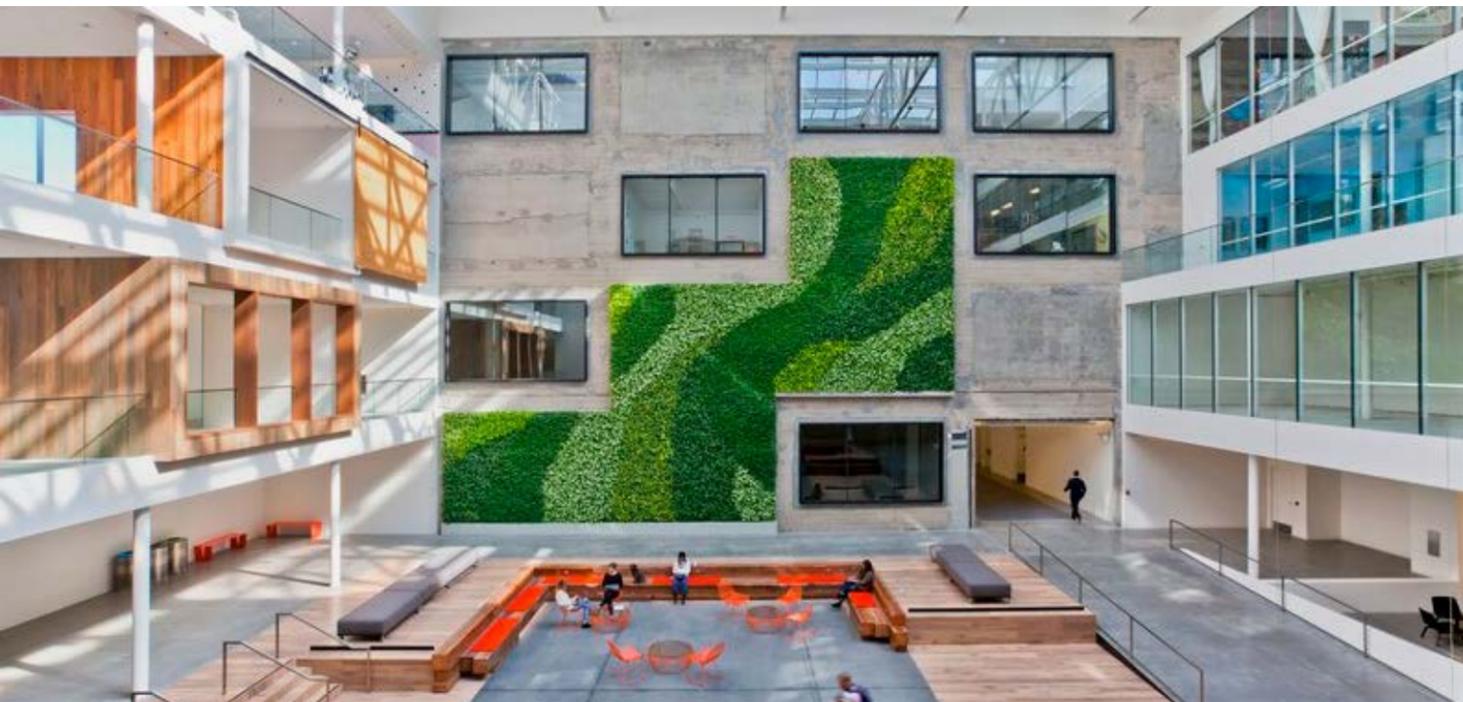
Example of multi use trail



INSPIRE HEALTH AND WELLNESS (IHW) GOALS

IHW 3

DESIGN BUILDINGS TO MAXIMIZE PHYSICAL AND MENTAL HEALTH OF OCCUPANTS



STRATEGIES

- Promote ease of movement between interior and exterior spaces at key locations near major plazas and public spaces
- Design building facades along plazas with windows, transparency and entries to provide more natural light in interior spaces and direct access to outdoor spaces
- Provide adequate planting, landscape and trees in plazas and near buildings to promote comfortable environment for users and visitors
- Consider designing buildings and establish guidelines to meet healthy building standards, including but not limited to, WELL Building, Certified Health or other standard such as the health components of LEED.

INTEGRATED DESIGN FEATURES

- Stairwells visible from main entries and welcoming to users
- Buildings with open relationship between interior and exterior spaces to encourage natural light and air for users
- Windows, doors, entries and transparency along plazas and public spaces
- Small garden and landscape areas adjacent to buildings and entries



The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of open stairs, natural light and space with views to exterior spaces



Example of shade structure as transitional element



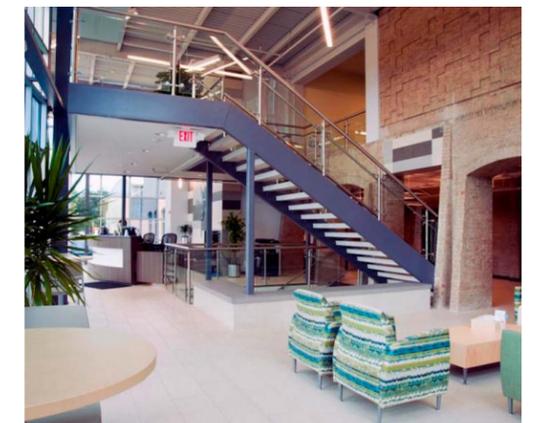
Example of open stairs and space with views to exterior spaces



Example of movable panels to create access from interior to exterior space



Example of light, glass and landscape to promote interior/exterior connections



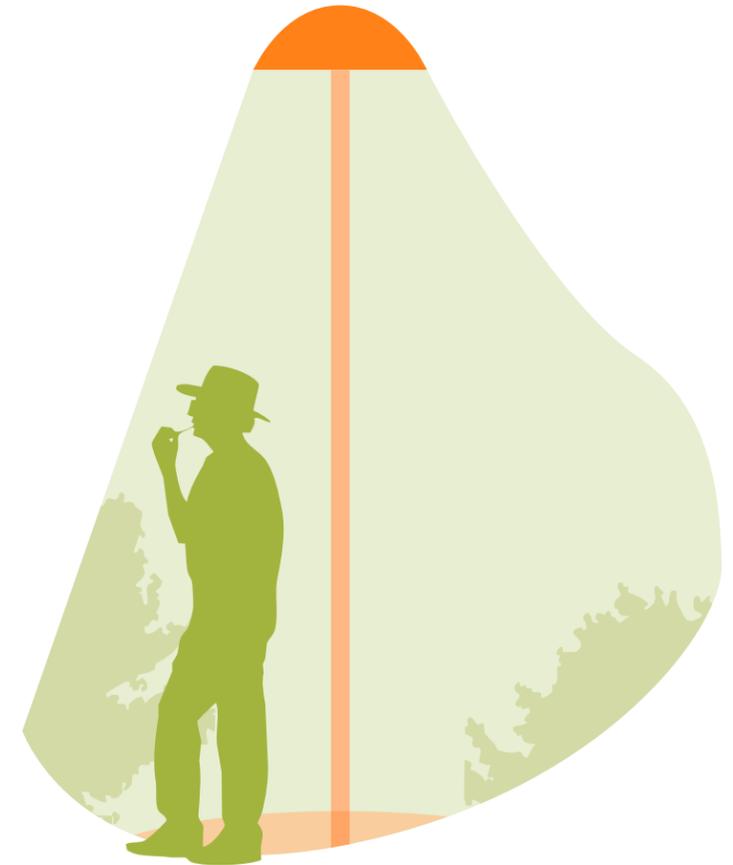
Example of an open common area with stairs and visibility to exterior spaces



INSPIRE HEALTH AND WELLNESS (IHW) GOALS

IHW 4

ESTABLISH AND MEET OR EXCEED QUALITY OF LIFE INDICATORS (ODOR, NOISE, LIGHT POLLUTION, TRAFFIC, ETC.) FOR VISITORS AND NEIGHBORHOODS



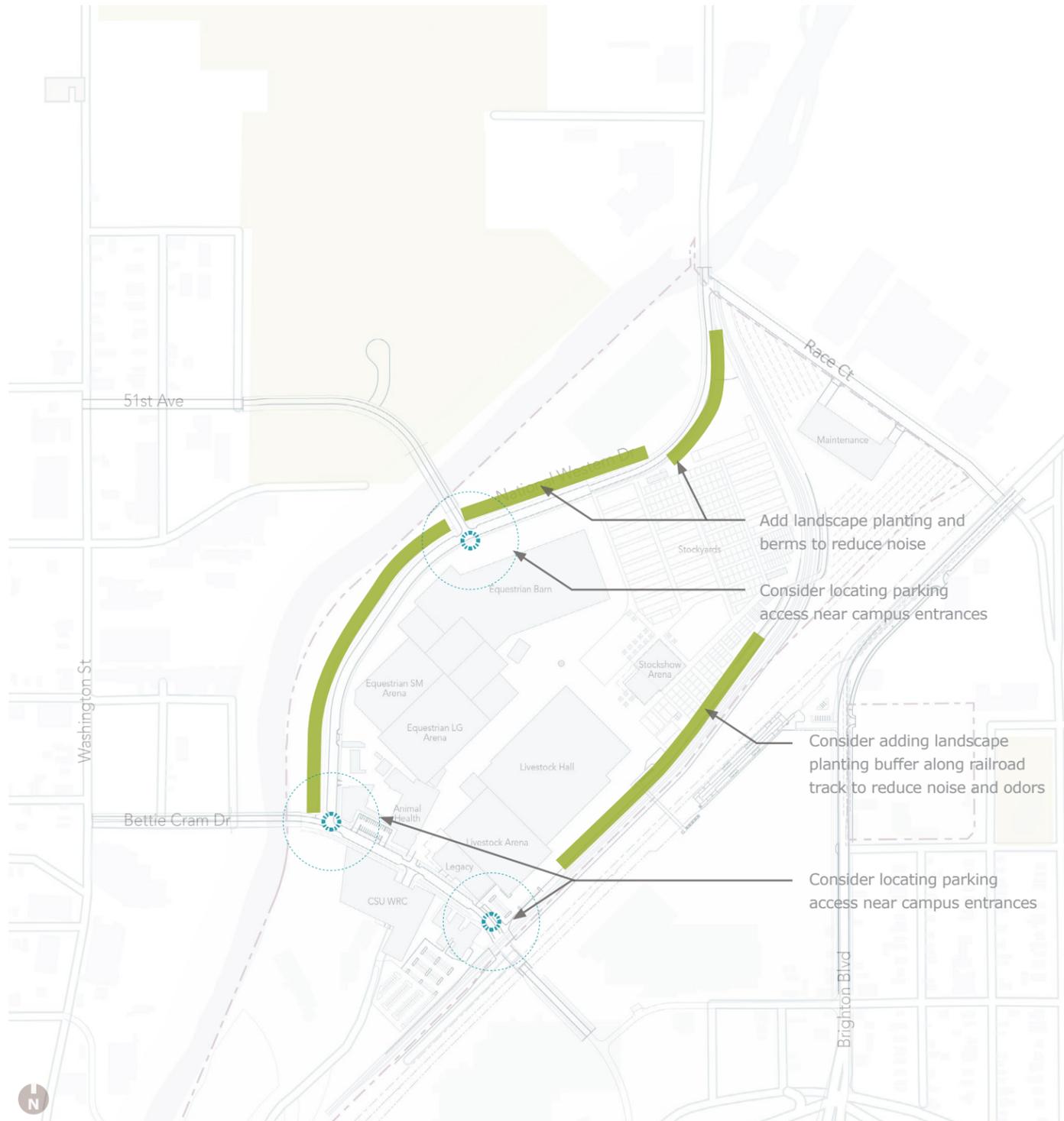
STRATEGIES

- Use full cutoff fixture on campus to reduce light pollution.
- Locate parking structure access close to campus entrances to reduce vehicular traffic going through the site
- Use landscape berms and planting around campus perimeter to mitigate noise pollution
- Locate animal and materials with pungent odor close to stockyard areas, and away from main pedestrian zones.

INTEGRATED DESIGN FEATURES

- Cutoff light fixtures
- Cluster of landscape planting as buffer
- Landscape berms





Example of potential planting buffer along railroad



Example of lighting fixture



Examples of landscape planting and berms in Riverfront Open Space



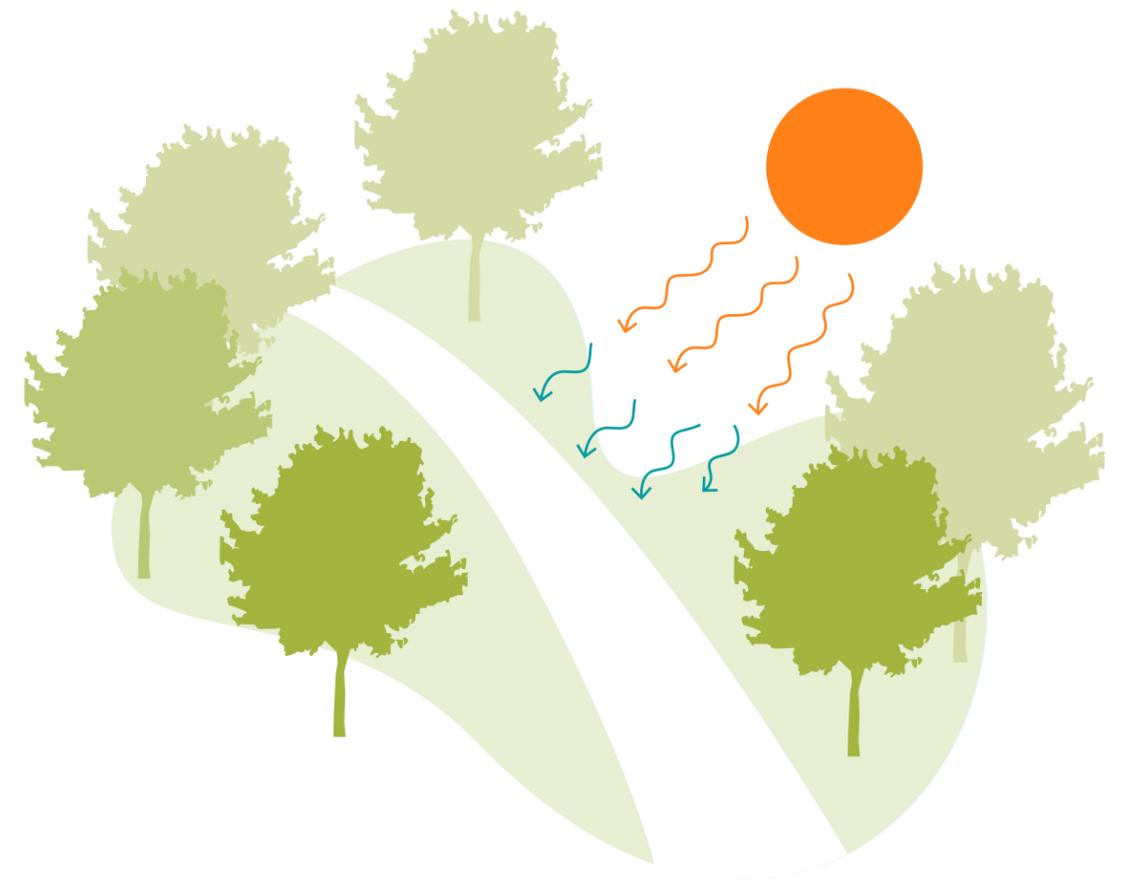
Example of landscape berms in plaza to reduce noise



INSPIRE HEALTH AND WELLNESS (IHW) GOALS

IHW 5

REDUCE AND/OR MITIGATE HEAT ISLAND EFFECT



STRATEGIES

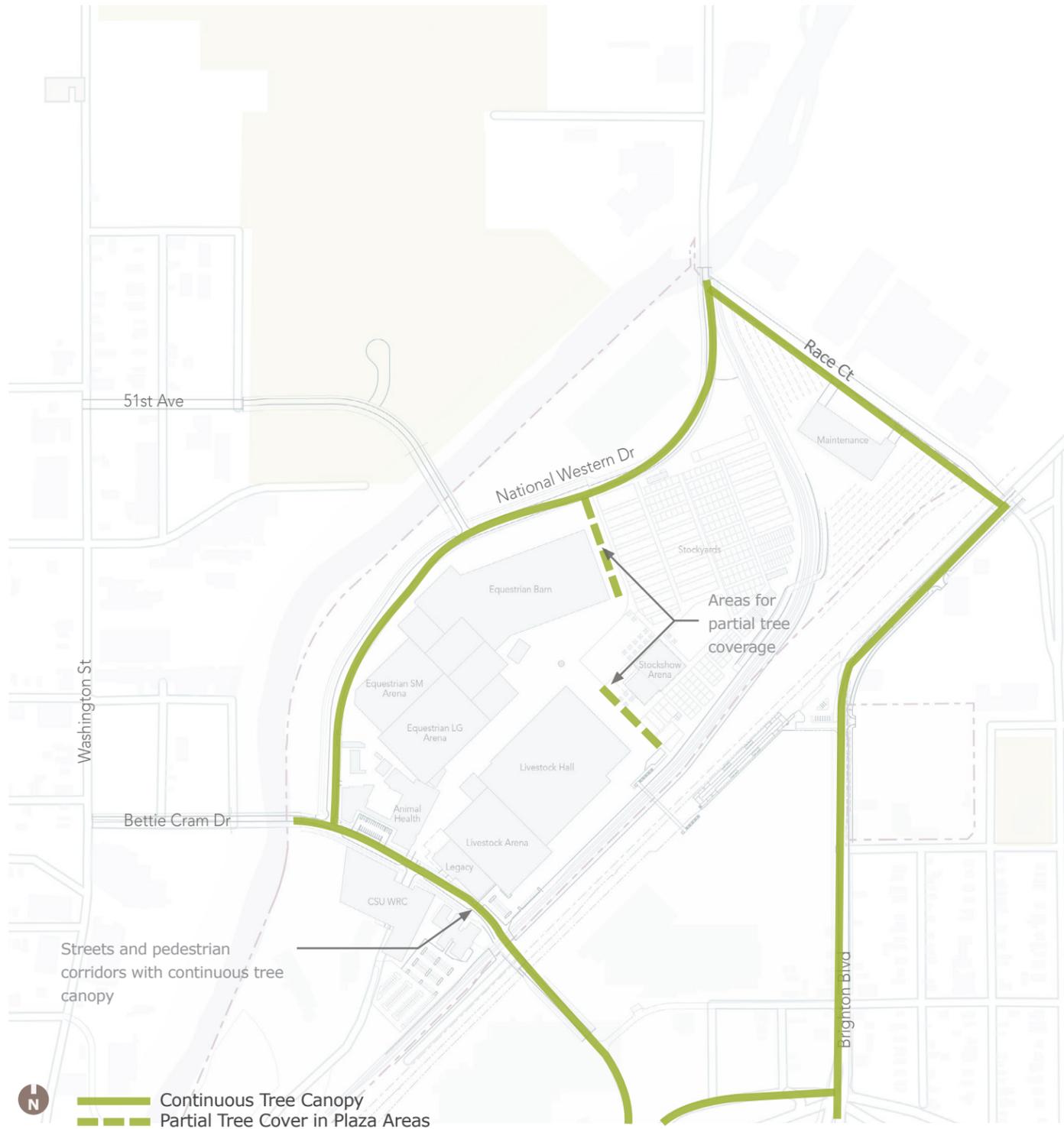
- Use hardscape material with an SRI of at least 29
- Provide sufficient tree canopy and understory landscape to reduce heat island effect
- Include shade trees to provide shade and visual interest
- Use roofing materials that helps reduce heat island effect

INTEGRATED DESIGN FEATURES

- Pedestrian pathways that are continuous and tree-lined



The campus plan exhibit shown below includes potential locations and areas for recommended Health and Wellness related design elements.



Example of tree canopy near open space areas



Example of tree canopy in plaza spaces



Example tree canopy along sidewalks



Example of vertical green wall in small spaces



Example of tree canopy in courtyard or plaza



Example of hanging plantings



DESIGN STRATEGIES

DESIGN FEATURES RECOMMENDATIONS

In an effort to establish a comprehensive plan for the overall campus public realm design, the IHW strategies and integrated design features are applied to key public realm areas. Each area provides an opportunity to integrate multiple design features to achieve a successful public realm that promotes the IHW Goals. The illustration depicted here identifies the four key public realm areas and their position in the overall campus plan, as well as their role in relation to overall campus-wide circulation, landscape areas/plazas, and major gathering areas.

The following pages illustrate specific ways to achieve the IHW goals in each area.

Notes:

Diagram shows suggestive areas for health and wellness strategies and not to be regarded as actual design.

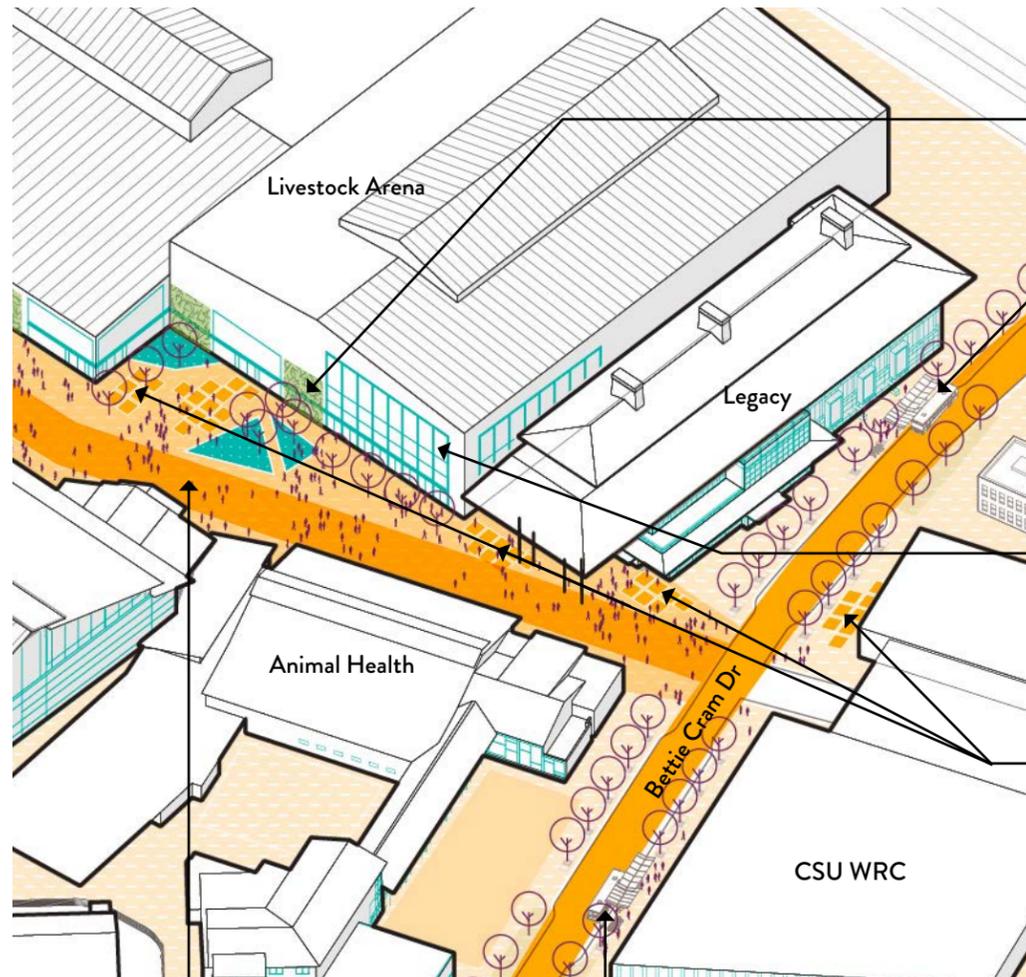
LEGEND

- HARDSCAPE
- SOFTSCAPE
- WALKING/RUNNING LOOP



DESIGN STRATEGIES

1 ENTRY PLAZA



FOOD SOURCES

IHW 1.1 Vertical demonstration gardens integrated into building design

MOBILITY HUB WEST OF BETTIE CRAM DR

IHW 2.1 Link bus shuttle stops with bike routes and bike parking. Using mobility hubs, bus stops, and signage and wayfinding as placemaking opportunities.

BUILDING TRANSPARENCY

IHW 3 Windows along plazas and public spaces to enhance indoor outdoor relationship

AREA FOR PLAYFUL ELEMENTS

IHW 2.2 Children's play areas and integrated play elements to promote play and active lifestyle

EXTENSIVE ACTIVE USE

IHW 2.2 Walking and running loops connecting main areas within the campus and along the riverfront open space

MOBILITY HUB WEST OF BETTIE CRAM DR

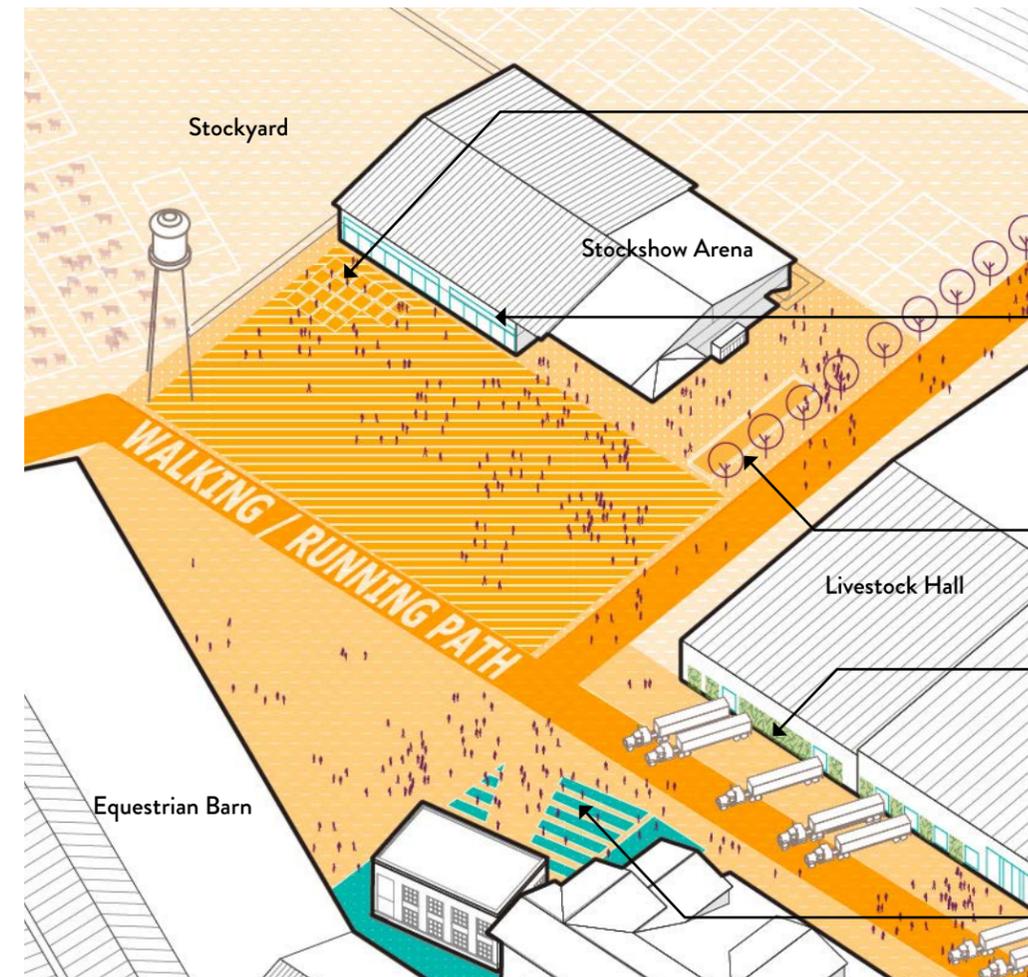
IHW 2.1 Link bus shuttle stops with bike routes and bike parking. Using mobility hubs, bus stops, and signage and wayfinding as placemaking opportunities.

LEGEND

- HARDSCAPE
- SOFTSCAPE
- WALKING/RUNNING LOOP

DESIGN STRATEGIES

2 STOCKSHOW ARENA PLAZA



AREA FOR PLAYFUL ELEMENTS

IHW 2.2 Children's play areas and integrated play elements to promote play and active lifestyle

BUILDING TRANSPARENCY

IHW 3 Windows along plazas and public spaces to enhance indoor outdoor relationship

FOOD SOURCES

IHW 1.1 Movable garden pots for small crops

FOOD SOURCES

IHW 1.1 Vertical demonstration gardens integrated into building design

FOOD SOURCES

IHW 1.1 Small garden plots as local food source and landscape feature

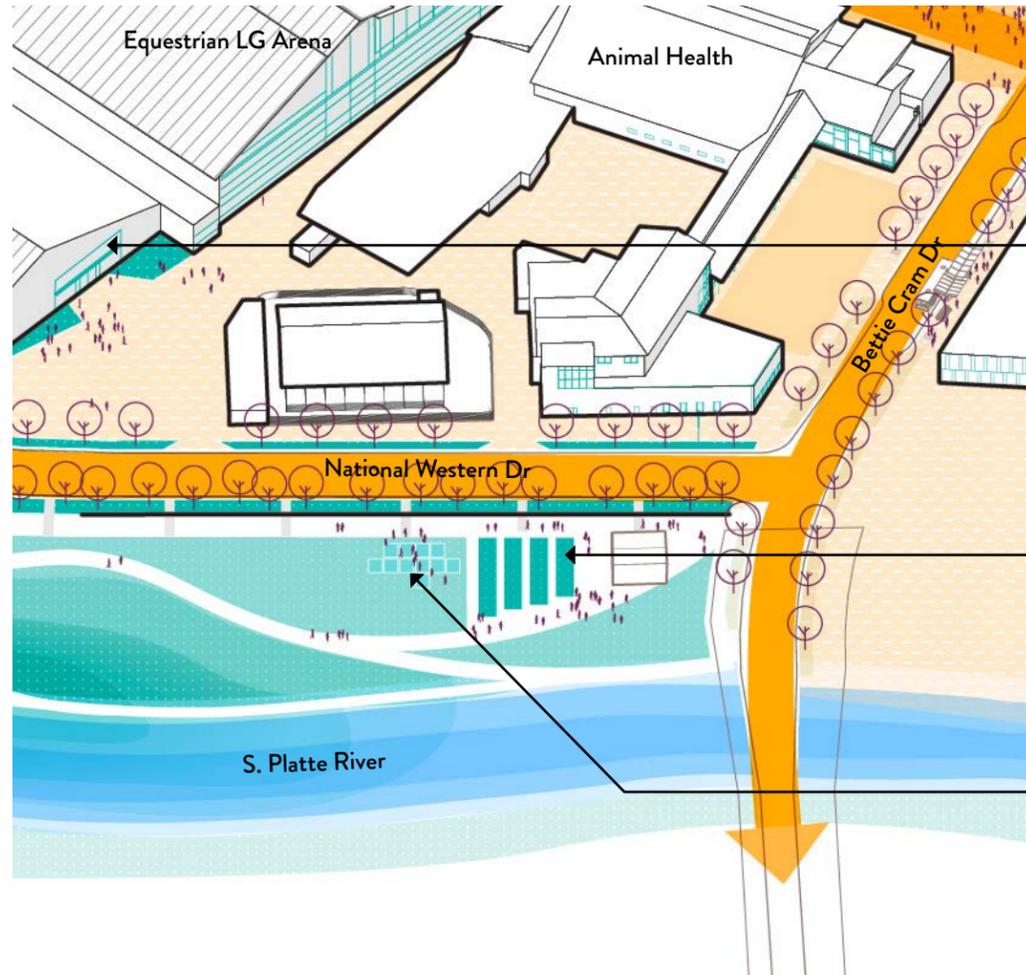
LEGEND

- HARDSCAPE
- SOFTSCAPE
- WALKING/RUNNING LOOP



DESIGN STRATEGIES

3 RIVERFRONT OPEN SPACE - SOUTH



BUILDING TRANSPARENCY

IHW 3 Windows along plazas and public spaces to enhance indoor outdoor relationship

FOOD SOURCES

IHW 1.1 Community garden as gateway feature. Integrate with plaza

AREA FOR PLAYFUL ELEMENTS

IHW 2.2 Children's play areas and integrated play elements to promote play and active lifestyle

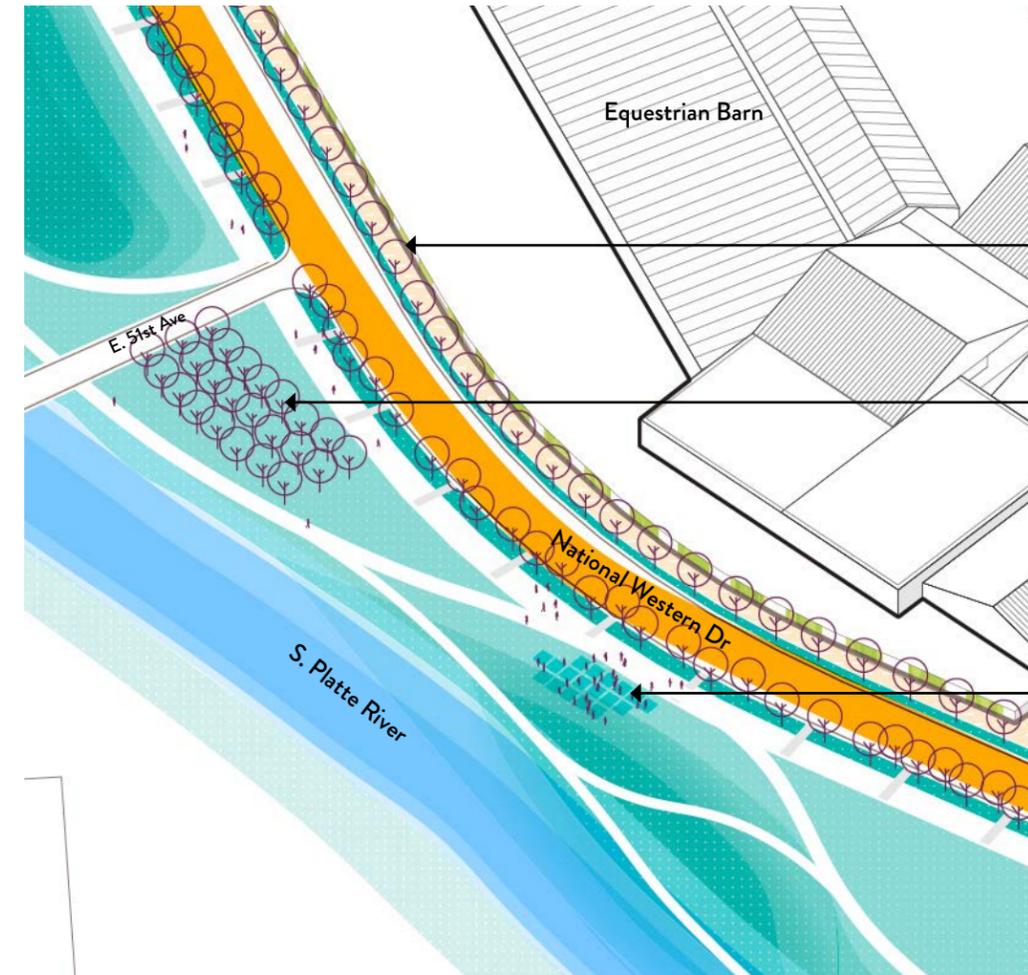
LEGEND

- HARDSCAPE
- SOFTSCAPE
- WALKING/RUNNING LOOP



DESIGN STRATEGIES

4 RIVERFRONT OPEN SPACE - NORTH



FOOD SOURCES

IHW 1.1 Vertical edible landscape integrated into garage facade building design

FOOD SOURCES

IHW 1.1 Area for small urban food forest as part of riverfront open space placemaking

EXTENSIVE ACTIVE USE AREA

IHW 1.1 Area for natural play to promote climbing and physical activity

LEGEND

- HARDSCAPE
- SOFTSCAPE
- WALKING/RUNNING LOOP