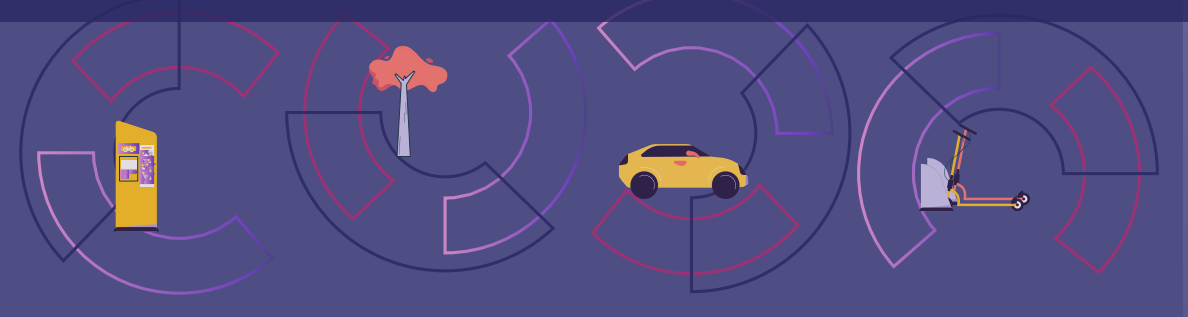


CONNECT Beyond

Mobility Hub Playbook

APRIL 2026



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Real People. Real Solutions.

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BUILD AMERICA BUREAU

Introduction

The CONNECT Beyond Mobility Hub Playbook serves as an accessible and practical resource for understanding and implementing mobility hubs within the Centralina region context. It provides a creative, graphic-rich toolbox for towns, cities, and agencies to guide the creation of people-centered mobility hubs where multiple modes of transportation meet, transfers are seamless, and communities are strengthened. Designed for urban, suburban, and rural contexts, the playbook helps plan for hubs that respond to local needs today while remaining adaptable for the future. It is designed to support communities from initial planning through full implementation by offering clear, actionable guidance.

Recognizing a gap in available resources, this effort extends beyond the CATS service area to provide support for communities that may not have access to existing mobility hub frameworks. Several larger cities and agencies across the U.S. have developed resource guides, which have informed this playbook. However, most of these focus on dense urban environments, leaving smaller or less urbanized communities without tailored support.

This manual begins by exploring the foundational transportation elements that typically define a mobility hub, then moves into how these elements interact, and concludes with an implementation checklist. It is structured around a series of core questions, which also serves as the table of contents:

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01

What is a Mobility Hub?

1.1 | A New Way of Getting Around

1.2 | Principles of Mobility Hub Design

1.3 | Meet Our Needs



A New Way of Getting Around



WHAT IS A MOBILITY HUB?

A mobility hub is a centralized location where multiple transportation options converge to support seamless travel and community connection. These hubs typically combine public transit (such as buses and trains), shared mobility services (including bikes, scooters, and carshare), and pedestrian-friendly infrastructure. Their purpose is to simplify transfers between modes while promoting sustainable, equitable, and efficient travel.

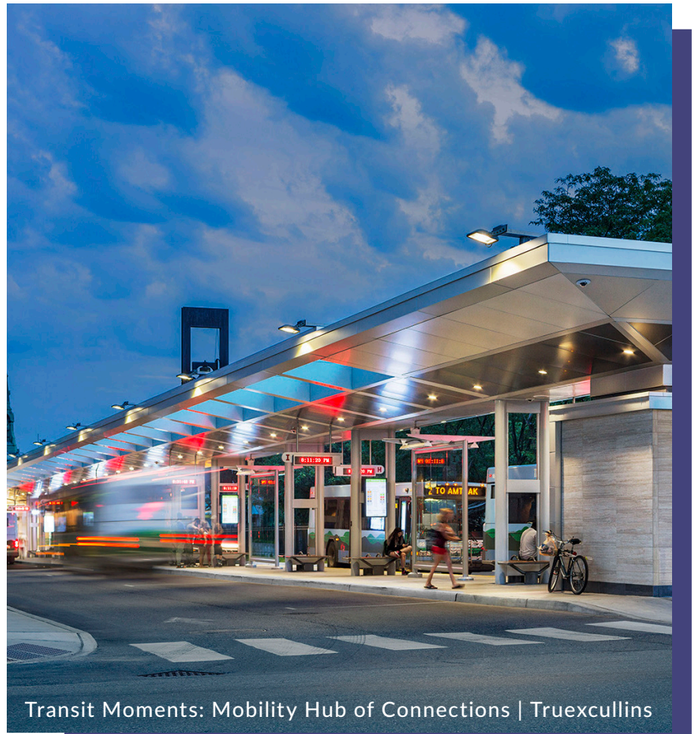
In the Centralina region, mobility hubs are envisioned not only as transit nodes but also as vibrant community destinations. They can feature amenities like real-time transit information displays, EV charging stations, secure bike parking, and public spaces that foster social interaction and economic activity. These hubs also play a critical role in bridging first/last mile gaps, making it easier for residents to connect to transit from their homes or workplaces.

Mobility hubs vary in scale, ranging from small neighborhood access points to major regional connectors. Their design is tailored to the specific needs and context of each community they serve.

WHY DO MOBILITY HUBS MATTER?

Mobility hubs matter because transportation is changing. How we get around is more complicated that simply getting from one point to another. Mobility, especially using modes of travel other than single-occupant vehicles, needs to be safe, comfortable, efficient, and enjoyable. Mobility hubs can help reduce reliance on private vehicles, cut greenhouse gas emissions, and promote sustainable, active travel options.

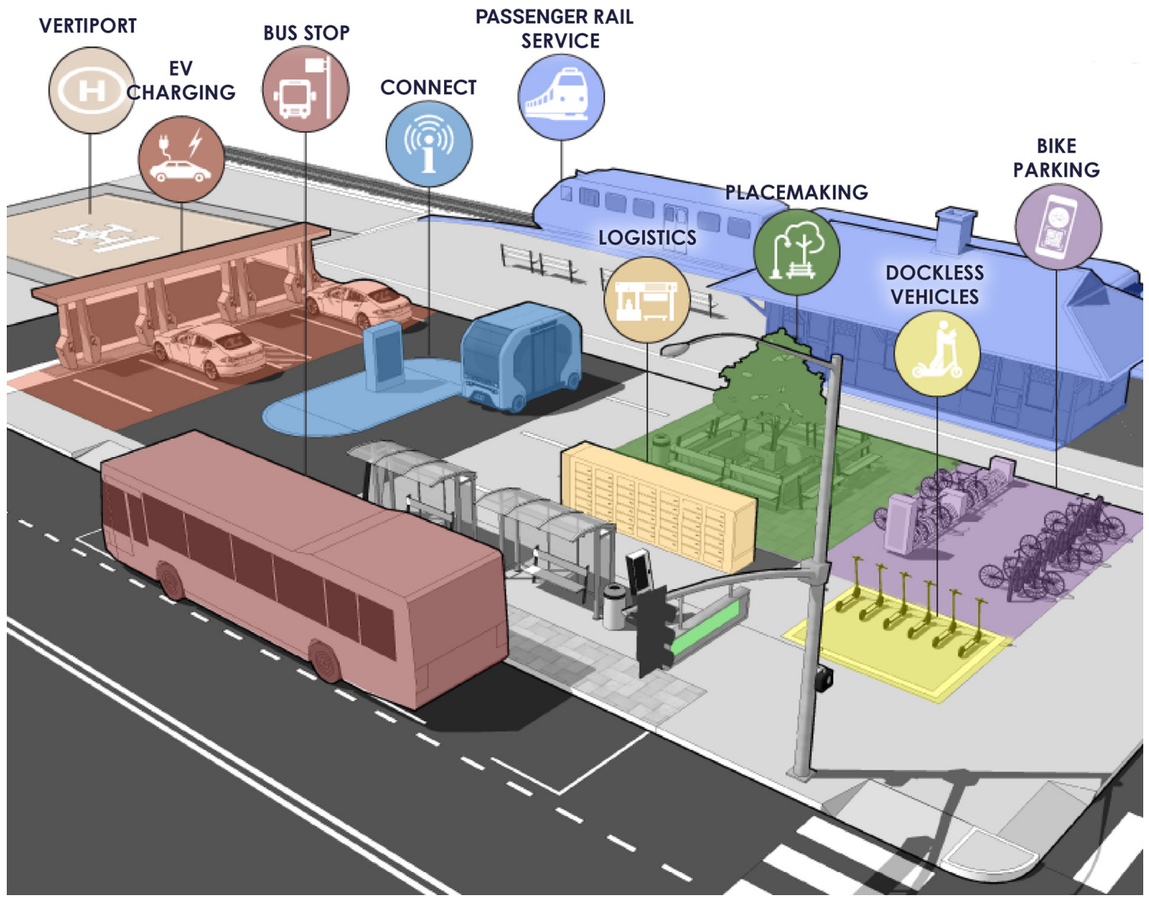
Designed with accessibility in mind, **mobility hubs offer equitable access along with amenities and community spaces.** Equitable access helps people of all ages, incomes, and abilities reach jobs, services, and daily needs, which strengthens overall quality of life by ensuring travel comfortable and reliable. **Mobility hubs strengthen economic vitality** by improving access to businesses and drawing people to activity centers. **They also advance environmental sustainability** by reducing congestion, lowering emissions, and supporting active and shared travel options. As transport nodes and social anchors, mobility hubs help cities meet climate and mobility goals while enriching the community.



Transit Moments: Mobility Hub of Connections | Truexcullins

A mobility hub is a strategically located, **multimodal** transportation node designed to integrate **diverse mobility services** into a **seamless** and **user-friendly experience.**

Principles of Mobility Hub Design



Above graphic is an example of elements potentially included in a mobility hub. (Source: S-Line Corridor Mobility Hub Plan Study by NCDOT.)

See **NC Regional S-Line Mobility Hub Plan for more** information.

TOP 5 THINGS FOR DESIGNING A SUCCESSFUL MOBILITY HUB

EASY MODE SWITCHING

Clear routes, intuitive circulation, and minimal conflict points make it simple to move between walking, biking, micromobility, transit, and vehicles. This reduces stress and allows people to combine multiple modes in one trip.

TRUSTED ENVIRONMENT

Comfortable, safe, and convenient waiting areas with weather protection, seating, lighting, and basic amenities help travelers feel cared for and encourage daily use.

WELCOMING FOR ALL

Design the hub to support people of all ages, abilities, and incomes with features like ramps, tactile surfaces, clear wayfinding, wifi, and accessible seating, along with strong connections to affordable transit.

CLEAR IDENTITY & WAYFINDING

A strong identity created through design, wayfinding and public art helps the hub feel rooted in its community. This makes it memorable, easy to navigate, and more than just a transit stop.

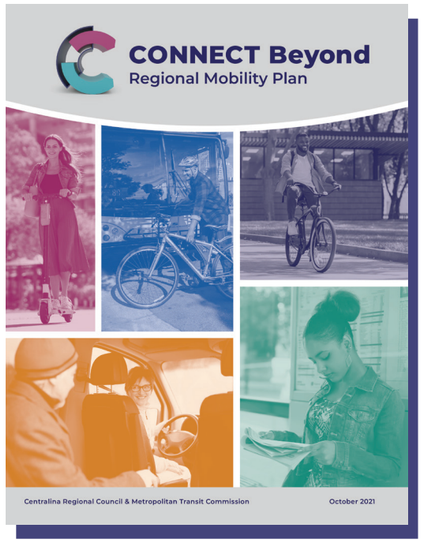
STRONG PARTNERSHIP

Collaborate with local businesses and organizations to activate the hub as a shared spaces with retail, and services, attracting people, enhancing safety, and benefiting the community.



Meeting Our Needs

This playbook aligns mobility hubs with the Centralina region's diverse needs.



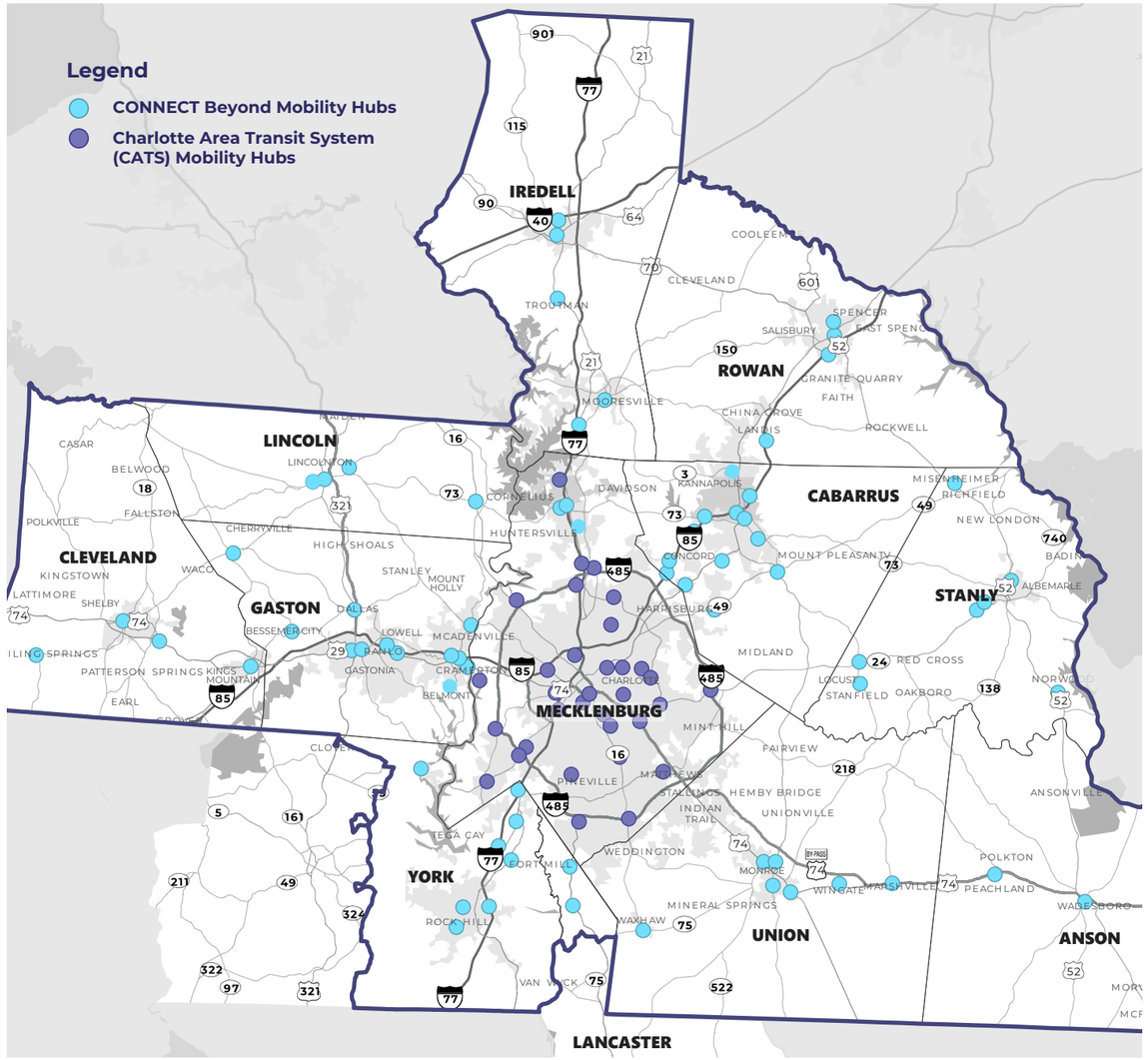
Mobility hubs are a central recommendation of the CONNECT Beyond Regional Mobility Plan, designed to expand mobility options and strengthen connections across the region. The strategy supplements local, regional, and interstate transit service in the area by providing tools and support for the entire region, including less urban contexts such as suburban and village centers that are not served by regular transit services. **CONNECT Beyond's approach focuses on creating mobility-friendly places, expanding choices, building better bus networks, investing in strategic corridors, and strengthening rural-to-urban connections.** The implementation strategy emphasizes regional partnerships, refining the methodology for siting mobility hubs, considering specific sites within established areas of interest, and identifying opportunities for pilot programs to test and improve the strategy.

CONNECT Beyond identified 74 locations throughout the region where mobility hubs could be implemented and serve as important connection points for the region's recommended strategic mobility corridors.

Our region is expected to continue to grow rapidly over the next twenty years, increasing the need to move people and goods. To meet these future transportation demands, **our region must develop a total mobility network that provides alternative options and better connects people, places, and opportunities.** CONNECT Beyond reviews current conditions, explains why a new approach is needed, and highlights priorities to ensure benefits for everyone in the CONNECT Beyond region.

The CONNECT Beyond Mobility Hub Playbook focuses on areas of the Centralina region not served by CATS while also serving as a reference for hubs that connect to or include shared CATS service. The CATS bus stop guidelines provide major references for hubs served by CATS. The map shows suggested locations from Connect Beyond Mobility Hub Locations, but the final site should be determined by local practitioners and is not limited to these options.

CONNECT Beyond Region Potential Mobility Hub Locations



Click this link for **Interactive Tool to explore Potential Mobility Hub Locations** in the region.

Click this link for information on **Charlotte Area Transit's Mobility Hub Guidelines.**

02

What Mobility Hub Elements Can We Use?

2.1 | Mobility Hub Elements

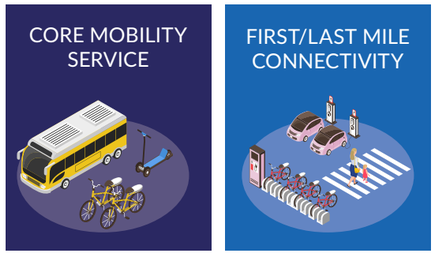


Mobility Hub Elements

FIVE KEY DESIGN CATEGORIES

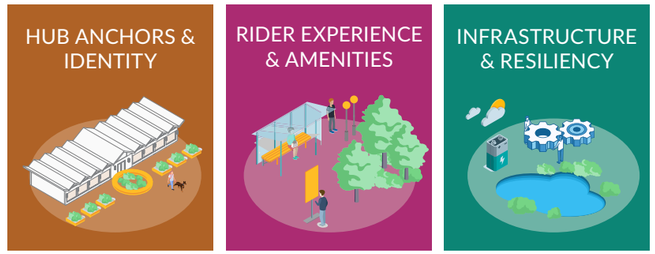
Core Mobility Services

These design elements form the foundation of every hub, ensuring seamless regional travel and easy access.



Supporting Services

These design elements are supportive, enhancing hubs with community services, identity, amenities, and resilient infrastructure.



The Mobility Hub Elements provides a flexible framework for creating mobility hubs that are consistent across the Centralina region while adaptable to the unique context of each community. By organizing hubs into clear categories, the playbook helps communities identify the right elements to include, scale, or phase based on available resources, density, and local needs. This approach ensures hubs can grow over time while still delivering immediate benefits to riders.

They matter because they help communities prioritize investments, ensure consistency across the region, and demonstrate how mobility hubs are more than just transit stops but they are community assets that connect people to opportunities, reflect local identity, and promote safe, equitable, and resilient mobility for all.

See **Appendix - Mobility Hub Elements** for more information.

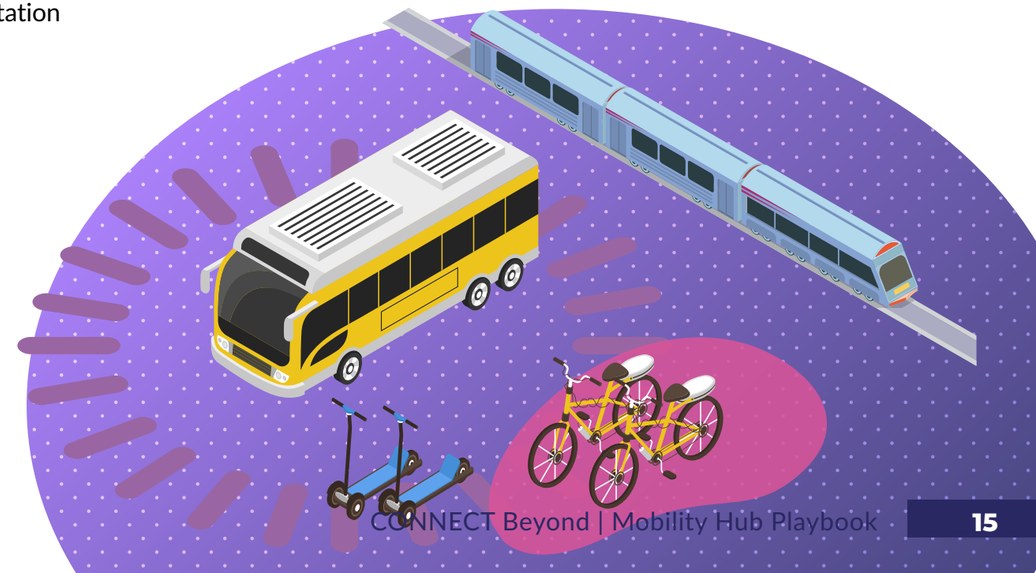
CORE MOBILITY SERVICES

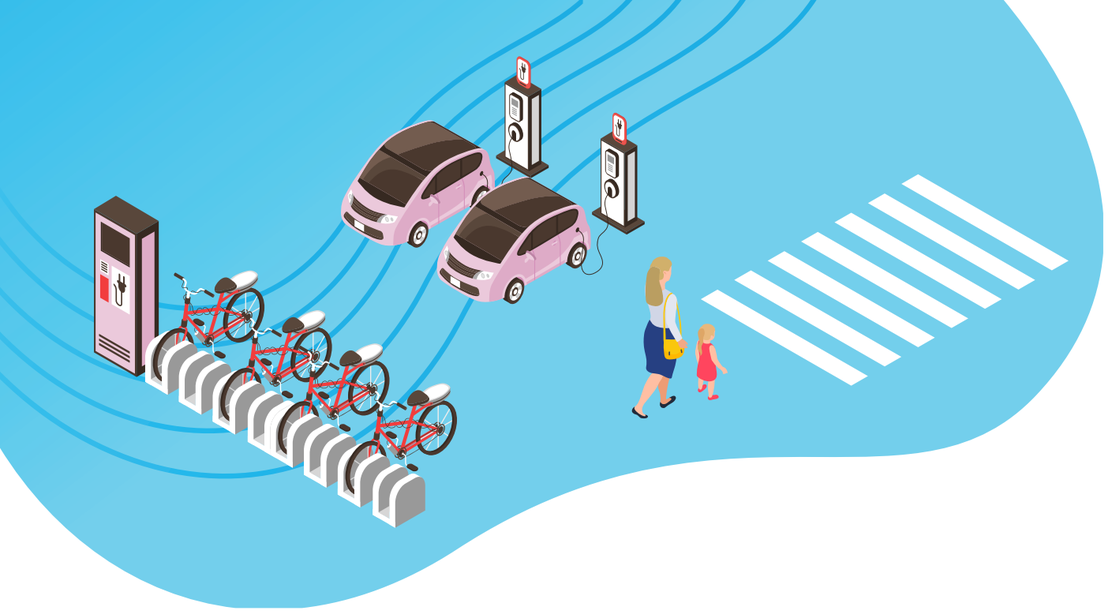
MOBILITY HUB ELEMENTS

- Regional Trail
- Bike/Scooter Parking & Sharing
- Park-and-Ride
- Rideshare Pick-up/Drop-off
- Local Bus Stop
- Regional Commuter Bus/ Inter-city Bus Station
- Rail Station

Core mobility service is the **heart** of mobility hubs, providing the **essential services** that move people to destinations.

Core Mobility Services are the essential functions that define what a hub is by moving people reliably and safely within and beyond the site. They range from regional trails and bike/scooter facilities, which create the minimum unit of a hub and support people-centered travel, to rideshare pick-up/drop-off zones for microtransit and TNCs (Transportation Network Companies), especially valuable in rural and suburban areas where fixed-route transit is limited. Local bus stops, regional commuter/inter-city buses, and rail stations add layers of service, acting as activity centers across rural, suburban, and urban contexts. Together, these elements form the backbone of a mobility hub and can be scaled to match the diverse needs of communities across the region.





Seamless connections across modes make every transfer **easy, comfortable, and intuitive** for all travelers.

FIRST / LAST MILE CONNECTIVITY

First and Last Mile Connectivity includes the infrastructure and services that help people safely and efficiently walk, roll, bike, or drive to and from the hub. In rural and suburban areas where transit options may be limited and service gaps are common, these connections are essential to making the entire system work. An equitable approach ensures that all community members, regardless of income, age, or ability, have reliable and affordable ways to reach transit and important destinations. The design elements includes pedestrian infrastructure, enhanced bike and scooter facilities, and options for personal vehicles, electric vehicles, or car sharing, all designed to create seamless and inclusive mobility for everyone.

MOBILITY HUB ELEMENTS

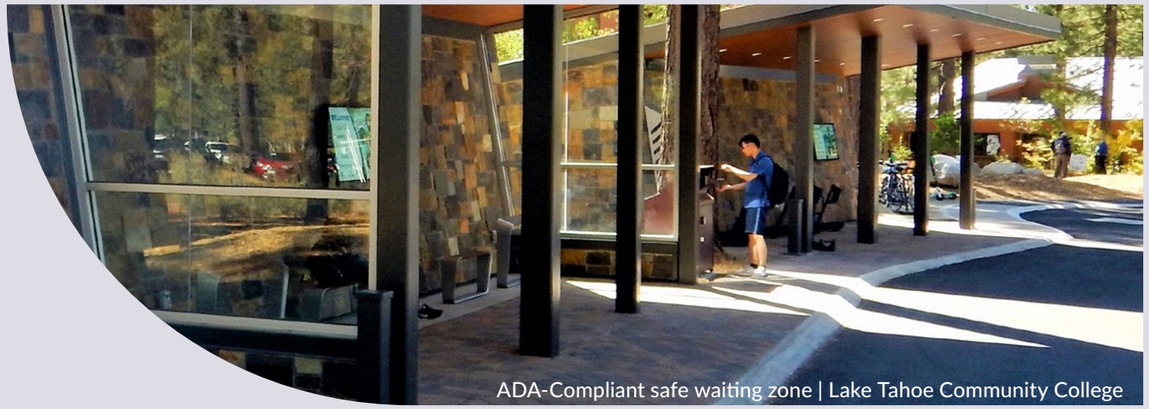
- Sidewalk
- Safe Pedestrian Crossing
- Safe Pick-up / Drop-off Zone
- Safe Cross-lot Walkway
- Electric Vehicle Charging/ Parking
- Bike/scooter charging & repairing
- Personal Vehicle Parking
- Car-share Facility



Shelter facilities and real-time transit info



Bus stops support multimodal connections



ADA-Compliant safe waiting zone | Lake Tahoe Community College

CASE STUDY: Lake Tahoe Community College Mobility Hub

Lake Tahoe, CA

The Lake Tahoe Community College Mobility Hub in South Lake Tahoe, California, is a sustainable transit center developed in partnership with the Tahoe Transportation District. Completed in 2019, it was designed to promote clean transportation and improve access to the college campus. The hub includes electric bus charging stations, multimodal access for bikes and scooters, heated ADA-compliant sidewalks, and real-time transit signage. It also connects to Lake Link, a free microtransit service that links users to local destinations. The project cost $1.46 million and was funded through a mix of state, federal, and local sources. Recognized with the 2020 Tallac Achievement Award, the hub has significantly reduced emissions and fuel use while enhancing regional mobility.

Key Features

- Transit shuttle to trailheads, ski resorts, town centers
- Integration with seasonal demand patterns
- Multimodal access for bikes and scooters
- Electric bus charging stations
- ADA-compliant sidewalks
- Real-time signage

HUB ANCHORS & IDENTITY

A **shared community destination** that reflects **civic identity** and enhances daily life.

Hub Anchors and Identity provide recognizable places and shared resources that strengthen a hub's role in the community. Anchors often come from co-located facilities such as libraries, clinics, or workforce centers that offer public access, especially valuable in low-density areas where sharing services saves funding and avoids duplicating facilities. Where public buildings are not available, open spaces, art, or markets can still serve as gathering points and help define the hub's character. In practice, people rarely say "meet me at the mobility hub", they name the library, town hall, or trailhead, which gives the hub identity, makes it easier to navigate, and builds trust as part of daily community life.

MOBILITY HUB ELEMENTS

- Civic & Social Anchor
- Active Public/ Gathering Space
- Commercial Anchor
- Public Art/ Sculpture/Signage
- Residential Anchor
- Community Notice Board
- Employer & Institution Anchor
- Landscaping





Ground-level transit hub



Shared-use path



Mixed-use development with residential and parking | gbArchitecture

CASE STUDY: Multimodal Transit Center with Housing

Montpelier, VT

The Multimodal Transit Center with Housing in Montpelier, Vermont—known as the Taylor Street Apartments and Transit Center—is a mixed-use development that combines a ground-level transit hub with 30 mixed-income residential units above. Completed in 2019, the project was designed to enhance downtown mobility while providing affordable housing. It includes enclosed transit facilities operated by Green Mountain Transit, a rooftop deck, and a shared-use path connecting key parts of the city. The development also incorporates flood resilience and environmental remediation strategies, and was funded through a combination of federal, state, and local sources totaling approximately $7.6 million.

Key Features

- Mixed-use building with Affordable Housing
- Covered bus bays for regional routes
- Rideshare pickup / drop-off areas
- Parking facility
- Shared-use path connection
- Indoor waiting area and public restrooms
- Climate resilience elements



RIDER EXPERIENCE & AMENITIES

Rider amenities make mobility hubs **comfortable, convenient, and welcoming.**

Rider Experience and Amenities include features that improve comfort, safety, convenience, and digital connectivity at the hub. This category provides supportive services, such as seating, shelters, restrooms, Wi-Fi, charging, and real-time information, to make travel smoother and more accessible for all users. Additional elements like parcel lockers, convenience retail, water fountains, lighting, landscaping, and safety features enhance usability, wellness, and security. Together, these amenities create inclusive, people-centered hubs that make trips reliable, comfortable, and convenient. They should be well-maintained and functional.

MOBILITY HUB ELEMENTS

- Seating
- Safe Shelter
- Lighting
- Wayfinding
- Wi-fi
- Water Fountain
- Indoor Waiting Area
- Food & Beverage
- Restroom
- Safety Call Box
- First Aid Kits/ AED
- Surveillance Camera
- Real-time Information
- Transit Ticket Kiosk
- Traffic Calming Measures
- Driver Rest Area
- Parcel Lockers & Shared Delivery Zone


Food and Beverage

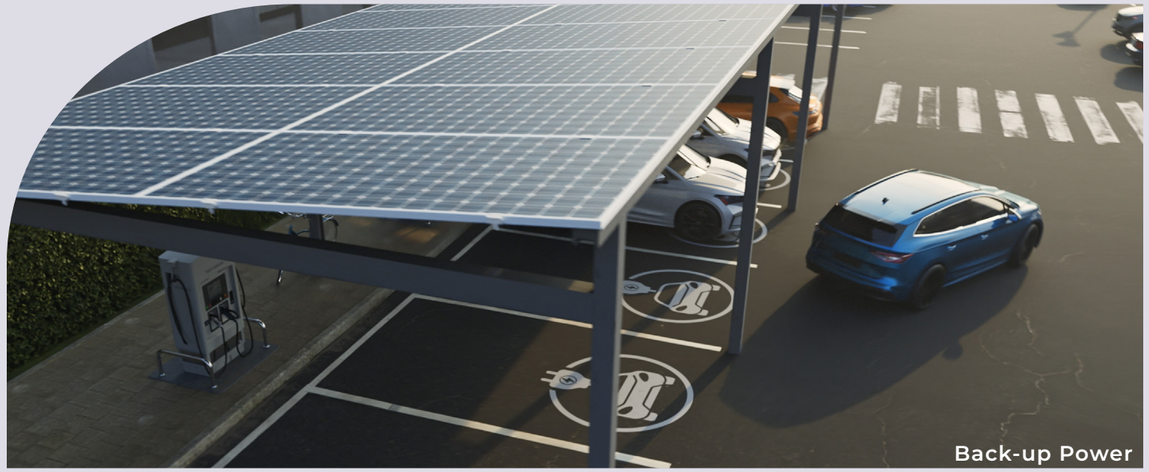

Restrooms


Shelter & Seat


Water Fountain


Wayfinding


Lighting



Back-up Power



Climate Resillience



Green Drainage Infrastructure



Smart Hub Integration



Maintenance/ Service Area

INFRASTRUCTURE & RESILIENCY

Infrastructure & Resiliency focuses on the systems that keep a mobility hub running safely and reliably over time. It includes essential needs such as power, water, drainage, and backup systems that are easy to maintain. Resilient design helps protect riders from flooding, heat, or storms, and keeps the hub operating even when conditions are tough. Reliable internet and energy connections support smooth daily operations and emergency response. Smart tools can monitor conditions and help fix problems before they grow.

For new hubs, infrastructure should be planned to be flexible, energy-efficient, and ready to support future technologies. For existing hubs, improvements can focus on upgrading drainage, adding renewable energy sources, improving lighting and safety, or strengthening communication and backup systems. Whether new or upgraded, resilient infrastructure helps ensure that hubs continue to serve their communities through change and disruption.

Infrastructure and Resiliency keeps the hub **reliable** and **smart**.



MOBILITY HUB ELEMENTS

- Drainage/ Stormwater Infrastructure
- Smart Hub Integration
- Climate Resilience
- Maintenance/ Service Area
- Emergency Vehicle Access
- Back-up Power

03

Which Hub Type Makes Sense for My Community?



3.1 | Why Hubs aren't One-Size-Fits All

3.2 | The Spectrum of Hub Types

3.3 | 4 Hub Typologies

Why hubs aren't one-size-fits-all

Different community contexts lead to different needs in building mobility hubs. Each community, such as rural, suburban, or urban, has distinct land use development density, population density, activity density, and travel patterns. Because mobility hubs cannot be one-size-fits-all, context-sensitive planning is essential.

DIFFERENT TOWNS, DIFFERENT LOOKS, DIFFERENT PLANS

- **Rural Areas (Very Low to Low Density):** Hubs act as vital anchors, connecting residents to regional destinations and filling critical gaps in transit access.
- **Suburban Areas (Low to Mid Density):** Hubs are needed to strengthen local connections and expand travel choices for short car, bike, or walking trips.
- **Urban Areas (High Density):** Hubs must support frequent transit, multimodal transfers, and last-mile connections.

The land use context and scale also varies. Rural and suburban hubs often adapt existing community spaces such as libraries, parks, or civic centers, while urban hubs are compact and integrated into dense streetscapes. Each setting requires a design approach that reflects its spatial character and community priorities.

In the Centralina region, where much of the land is rural or suburban, context-sensitive planning is especially important. Mobility hubs here can serve as vital anchors that connect residents to regional destinations while reflecting the unique identity and needs of each community.

DESIGN AROUND A RANGE OF TRIP PURPOSES

Understanding how people travel is essential for tailoring hub amenities. Designs should accommodate existing travel patterns while enabling new, more efficient trip arrangements.

Varying Travel Behaviors: Rural and suburban travelers typically make longer trips and rely heavily on private or shared vehicles. In contrast, urban travelers tend to make shorter, more frequent trips using multiple modes.

Specialized Trip Generators: Certain locations, such as employment centers, industrial areas, universities, and cultural destinations, generate high-volume or predictable trips. These require specific design interventions, such as flexible pick-up/drop-off zones or temporary facilities for seasonal peaks.

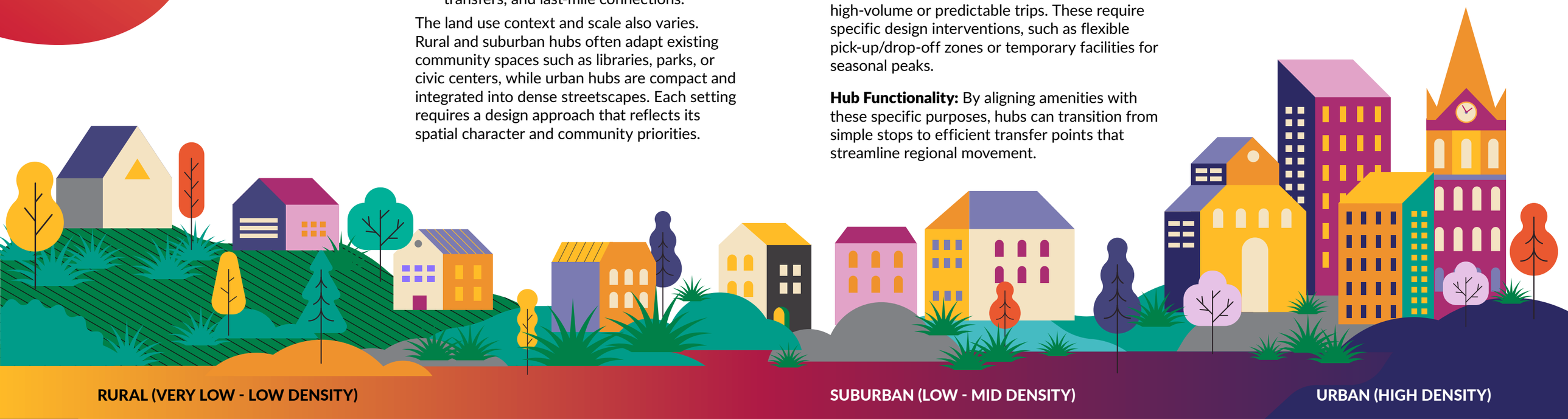
Hub Functionality: By aligning amenities with these specific purposes, hubs can transition from simple stops to efficient transfer points that streamline regional movement.

DESIGN FOR ALL

Mobility hubs play a critical role in addressing the unique equity and access needs of specific user groups within a town.

Bridging the Gap: Many rural and suburban residents face limited transportation choices and higher relative travel costs. Well-placed hubs are critical for bridging gaps, connecting people to jobs, healthcare, and education.

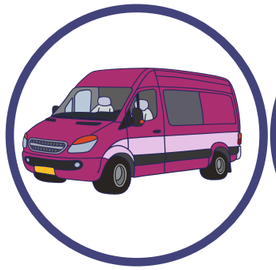
Serving Diverse Populations: Hubs must go beyond basic utility to prioritize the comfort, safety, and dignity of those who rely on transit the most. This requires identifying and removing barriers for historically underserved groups, such as senior citizens, people with disabilities, low-income households, youth and students, families and caregivers, non-English speakers.





A PEOPLE-POWERED HUB

People-centered hub for micromobility options



B RIDESHARE HUB

Flexible, short-distance and demand-responsive connections



C LOCAL CONNECTOR HUB

Local/Regional fixed-route service



D REGIONAL CONNECTOR HUB

High-Volume regional transit service

Spectrum of Hub Types

Mobility hubs are organized based on their core mobility mode, defining what the hub is and the primary way it serves travelers. This approach makes it clear to users, planners, and communities what to expect from each hub and how it supports mobility.

These hubs form a continuum, with each higher-order hub incorporating all the services provided by the lower-order hubs.

PEOPLE-POWERED HUB is primarily a hub serving people walking, biking, or using shared micromobility. Its core service is connecting trails or local trips to nearby destinations or transit.

RIDESHARE HUB is a anchored by microtransit and on-demand transportation services. Its core service is providing a safe, organized location for on-demand pickups and first- or last-mile connections.

LOCAL CONNECTOR is centered on scheduled bus or fixed-route services. It offers reliable, accessible transit access and acting as a convenient transfer point to serve a local and community scale.

REGIONAL CONNECTOR HUB serves major transit lines, such as bus rapid transit, commuter express bus, inter-city bus and heavy/light rail, commuter rail and streetcars/ trolley. Its core service is handling large volumes of passengers efficiently and complexity in service coordination and mode options, while serving passengers at the regional level.

See **Appendix - Mobility Hub Elements** for more information.

PEOPLE-POWERED HUB

CORE MOBILITY SERVICES

- Design direct, intuitive connections to trails, regional bikeways and sidewalks.
- Prioritize walking, biking, and small personal mobility devices such as scooters as the primary modes of mobility.
- Provide secure bike parking and repair stations to support active, human-scale and low-emissions travel.

FIRST/LAST MILE CONNECTIVITY

- Incorporate sidewalks and safe pedestrian crossings for accessible routes.
- Connect the hub to homes, destinations, nearby parks, regional trail network, and other mobility hubs.

HUB ANCHORS & CIVIC IDENTITY

- Integrate hubs with trailheads, parks, recreation center, and familiar civic or community spaces.
- Highlight local character and culture through materials, art, or signage.
- Provide flexible open spaces for small events, markets, or seasonal use.

RIDER EXPERIENCE & AMENITIES

- Provide shaded seating, rest areas, and wellness features for user comfort.
- Include water fountains and optional fitness/stretching stations.
- Ensure visibility, lighting, and clear sightlines for safe and intuitive use.
- Install clear wayfinding and signage to orient riders and build confidence.

INFRASTRUCTURE & RESILIENCY

- Use durable, low-maintenance amenities suited to local conditions.
- Incorporate natural landscaping for shade, stormwater management, and contextual integration.
- Provide climate resilience features, including drainage, stormwater infrastructure, and backup power.
- Ensure access for emergency vehicles and design flexibility to accommodate future community needs.



RIDESHARE HUB

CORE MOBILITY SERVICES

- Provide a safe, comfortable, and visible waiting area for riders using demand-response transit, shuttles, and TNC services such as Uber, Lyft, or Via.
- Design clear, intuitive circulation and signage that make pick-up and drop-off areas easy to locate and use.

FIRST/LAST MILE CONNECTIVITY

- Ensure seamless first- and last-mile connections to nearby destinations through pedestrian, micromobility, and parking access.
- Organize circulation to minimize conflicts between vehicles, pedestrians, and micromobility users for a smooth and safe travel experience.

HUB ANCHORS & CIVIC IDENTITY

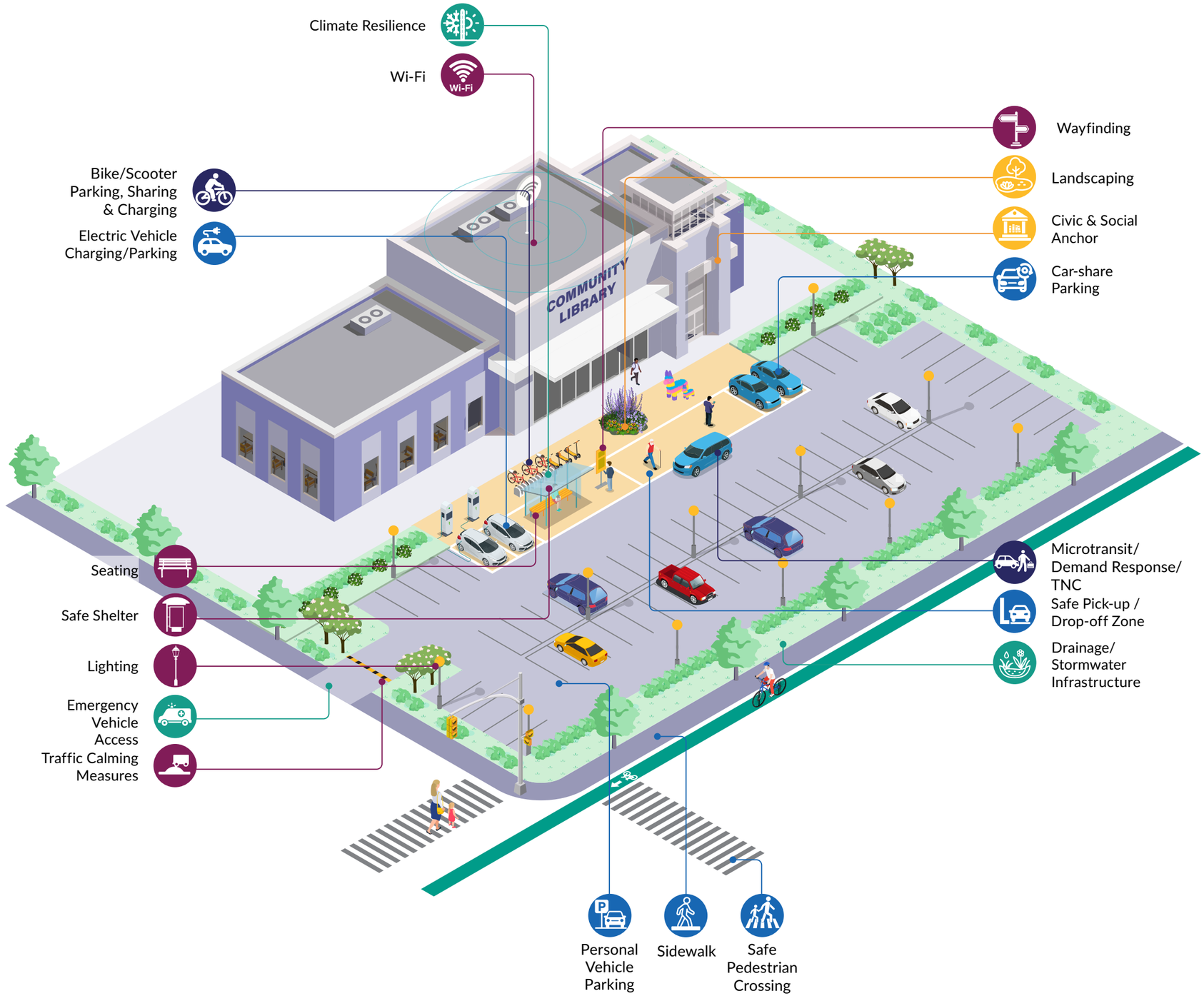
- Co-locate hubs with community anchors are common in low to mid density areas. Anchors such as libraries, post offices, social service centers, retail areas, or some multi-family housing offer 24/7 or extended public access.
- Partner with these anchors to share spaces and resources, such as restrooms, water fountain and indoor waiting area helping stretch limited budgets and expand community benefits.
- Establish a strong civic identity by building each hub as a recognizable place for meeting, waiting, and sharing information.

RIDER EXPERIENCE & AMENITIES

- Provide safe, comfortable waiting areas with shaded seating, shelters, and weather protection.
- Offer wi-fi for people to track arrival information, clear signage, and designated pick-up and drop-off zones to reduce confusion and improve efficiency.
- Ensure well-lit, visible locations with clear sightlines for easy wayfinding and personal safety.

INFRASTRUCTURE & RESILIENCY

- Use durable, low-maintenance materials designed for high-turnover areas and frequent vehicle movement.
- Incorporate shade trees, planting buffers, and stormwater features to improve comfort, safety, and environmental performance.
- Provide adaptable layouts that can accommodate new mobility services, changing demand, or future infrastructure upgrades.



LOCAL CONNECTOR HUB

CORE MOBILITY SERVICES

- Design bays, curb space, and turning radii to safely accommodate buses or trolleys of various sizes.
- Provide clear separation between boarding, alighting, and through-traffic areas to minimize conflicts. Support multiple routes and timed transfers with well-organized platforms or stops.
- Include space for future service expansion or new routes.

FIRST/LAST MILE CONNECTIVITY

- Provide continuous sidewalks, marked crosswalks, and curb ramps on all approaches to the hub.
- Integrate bike and scooter secure parking or share stations to support convenient first- and last-mile connections, and ensure their zones don't block pedestrian flow.
- Ensure clear and direct routes between the hub and nearby destinations such as schools, shops, or civic facilities.

HUB ANCHORS & CIVIC IDENTITY

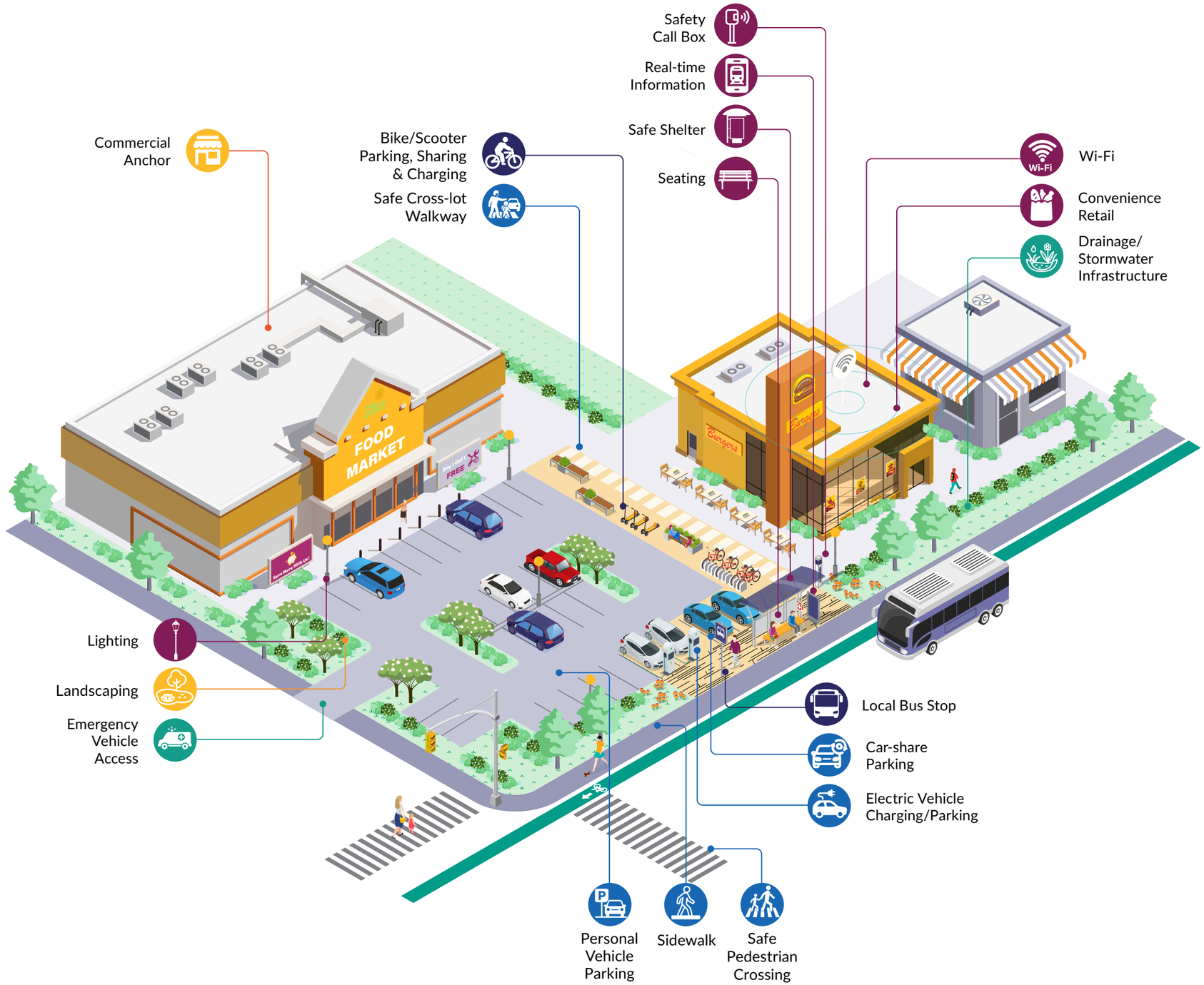
- Fit the hub's scale and design to surrounding land use and character (for example, a small neighborhood stop vs. a downtown transfer hub).
- Include landscape, art, and signage to create an identifiable, community-centered place.

RIDER EXPERIENCE & AMENITIES

- Offer ADA-accessible boarding areas with level platforms, tactile paving, and clear zones for mobility devices.
- Ensure weather protection through shelters, shade structures, and wind barriers.
- Provide lighting and clear sightlines to improve safety and visibility day and night.
- Add wayfinding, route maps, and real-time service information displays for clarity and confidence.
- Consider restrooms or nearby access to public facilities at larger hubs.
- Include emergency call boxes or security cameras in higher-volume areas.

INFRASTRUCTURE & RESILIENCY

- Design bus pads, curbs, and pavements with reinforced surfaces to support repeated bus loading.
- Provide reliable stormwater management with permeable paving, drainage inlets, and grading to prevent pooling.
- Include shading elements, tree canopy, or green infrastructure to reduce heat and improve comfort.



REGIONAL CONNECTOR HUB

CORE MOBILITY SERVICES

- Design seamless, accessible circulation between platforms, concourses, other transit mode and surrounding streets for clear, intuitive movement.
- Support multiple transit services with coordinated schedules and easy transfers to other modes.
- Ensure efficient operations with adequate space for queuing, ticketing, and passenger flow during peak periods.

FIRST/LAST MILE CONNECTIVITY

- Create safe pedestrian zones separated from traffic, with controlled crossings and clear visibility at all entry points.
- Provide designated drop-off, pick-up and transfer zones close to station access.
- Offer micromobility areas for shared scooters and bikes.
- Add EV charging stations and car-sharing options within parking areas to support sustainable travel.

HUB ANCHORS & CIVIC IDENTITY

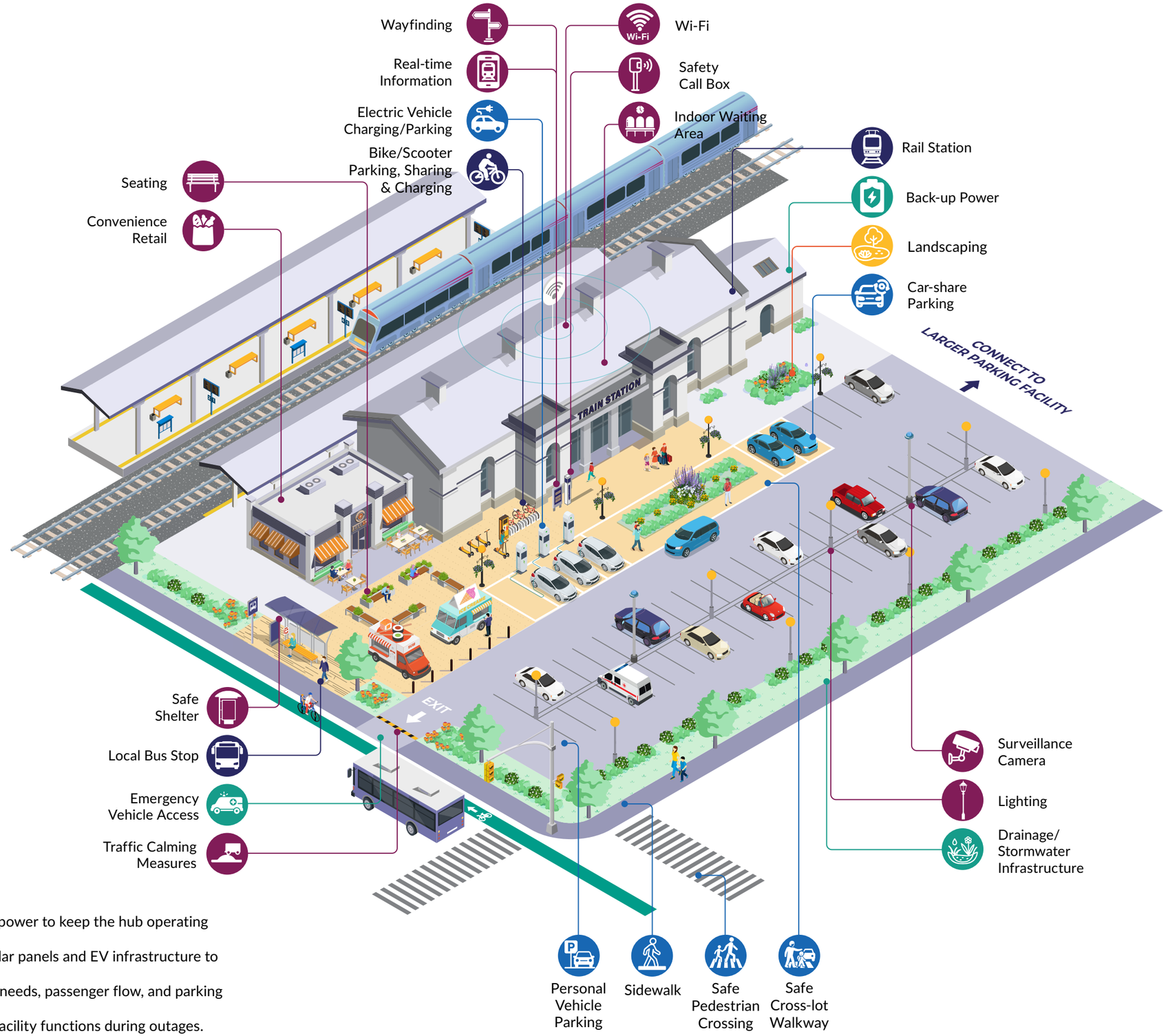
- Position stations as central community anchors tied to civic, cultural, and mixed-use districts that generate consistent daily activity.
- Express local identity and pride through architecture, public art, materials, landscape, and signage.
- Integrate retail, dining, or public services in or adjacent to stations to keep spaces active throughout the day.
- Establish a clear sense of place with a recognizable station name, plaza, or landmark that serves as a public gathering point.
- Partner with nearby civic and private entities to share spaces and resources, maximizing community benefit and operational efficiency.

RIDER EXPERIENCE & AMENITIES

- Provide climate-controlled waiting areas with seating, restrooms, and drinking fountains.
- Offer real-time departure information, clear wayfinding, and multilingual signage.
- Ensure safety and accessibility with bright lighting, visible security, and open sightlines.
- Add charging stations, Wi-Fi, and shaded outdoor seating for extra comfort.

INFRASTRUCTURE & RESILIENCY

- Provide strong stormwater management, flood protection, and backup power to keep the hub operating during disruptions.
- Use energy-efficient systems and renewable energy sources such as solar panels and EV infrastructure to lower impacts and costs.
- Integrate smart systems that track and adjust energy use, maintenance needs, passenger flow, and parking activity to improve operations.
- Maintain redundant power for essential lighting, communications, and facility functions during outages.
- Ensure safe access for emergency vehicles and keep evacuation routes clear under all conditions.



04

How Do We Build the Hub?

4.1 | Where Mobility Hubs Can Happen

4.2 | Who Could Help Make This a Reality in our community

4.3 | Implementation Checklist



Where Mobility Hubs Can Happen

Mobility Hubs are most effective when located at the intersection of opportunity, demand and available space. They thrive where existing transportation and supportive infrastructure already provide a foundation for connectivity. They are ideal solutions for areas where land is underutilized or vacant lots, or oversized parking areas into vibrant community assets. Crucially, they belong where popular destinations are actively serving people, ensuring that hubs are integrated directly into the places where residents work, shop, learn, and play.



TRANSPORTATION INFRASTRUCTURE

- Transit stations and terminals
- Bus transfer centers and park-and-ride lots
- Highway rest areas or interchanges
- Airport and intercity transport station access areas



STREET AND RIGHT-OF-WAY SPACES

- Curbside zones (along thoroughfares or arterials)
- Medians, curb extensions, or other expanded pedestrian areas
- Street corners
- Under or beside overpasses or bridges



PARKING FACILITIES

- Surface parking lots (public or private)
- Ground levels of parking garages
- Park-and-ride lots

The sizing of hubs is highly variable and should be customized based on localized demand and available space, while considering future scalability and expansion needs. Generally, areas characterized by higher travel demand and significant land availability are better suited for larger-scale and higher-level hub typologies. By integrating these factors, planners can ensure that facilities remain functional as regional requirements evolve.



VACANT OR UNDERUSED LAND

- Left-over spaces
- Vacant lots or infill sites
- Former gas stations or car lots
- Underutilized parking lots



PUBLIC AND CIVIC PROPERTIES

- Town halls, libraries, community centers/ social services, or schools
- Parks, plazas and recreation areas
- Universities and hospitals



PRIVATE AND COMMERCIAL PROPERTIES

- Shopping centers, grocery stores, or retail plazas
- Office campuses or corporate headquarters
- Multi-family residential developments

Who could help make this a reality in our community

Mobility hub implementation is a **phased process** from planning and design to construction and ongoing evaluation, ensuring **adaptability** and **community alignment.**

OVERVIEW

The implementation of mobility hubs is a multi-phased process that transforms conceptual plans into functional, community-serving infrastructure. It begins with strategic planning, emphasizing network assessment, stakeholder engagement, and alignment with local goals. As the process advances, technical assessments, site selection, and governance structures are established, alongside the development of sustainable funding strategies. In the long term, detailed design, permitting, and construction are undertaken, followed by ongoing evaluation using performance metrics to ensure hubs meet user needs and regional objectives. Existing sites can be incrementally refined and modernized, leveraging partnerships and flexible funding sources.

Effective management models, ranging from centralized oversight to community-led maintenance and public-private partnerships, ensure that hubs remain responsive, well-maintained, and adaptable to evolving transportation patterns. Continuous monitoring and transparent reporting foster accountability and guide future improvements, making mobility hubs resilient assets for urban, suburban, and rural communities.

For more information on implementing mobility hubs, please refer to the **CONNECT Beyond Mobility Hub Implementation Guide** in the Appendix. The guide provides clear direction, resources, key considerations, and useful tools to navigate the implementation process.

See **Appendix - Mobility Hub Implementation Guide** for more information.

PARTNERSHIPS

Establishing a successful mobility hub is a complex, multi-faceted endeavor that hinges on strong collaboration among a diverse set of partners. Each project partner brings unique expertise, resources, and responsibilities that collectively shape the hub's success. Public agencies often provide regulatory oversight, funding mechanisms, and long-term policy direction, while private partners may host the mobility hub, conduct maintenance, and provide innovative services. Community organizations play a vital role in fostering trust among local residents, and technology providers enable seamless integration of digital tools for trip planning, payment systems, and real-time data sharing.

IMPLEMENTATION

Because planning , funding, construction, and operational management intersect at various stages, clear definition of responsibilities is essential. Establishing well-documented implementation roles not only ensures accountability but also streamlines decision-making processes, reduces duplication of effort, and mitigates potential conflicts. Furthermore, this clarity supports long-term sustainability by creating a governance framework that adapts to evolving mobility needs and technological advancements.



Implementation Checklist

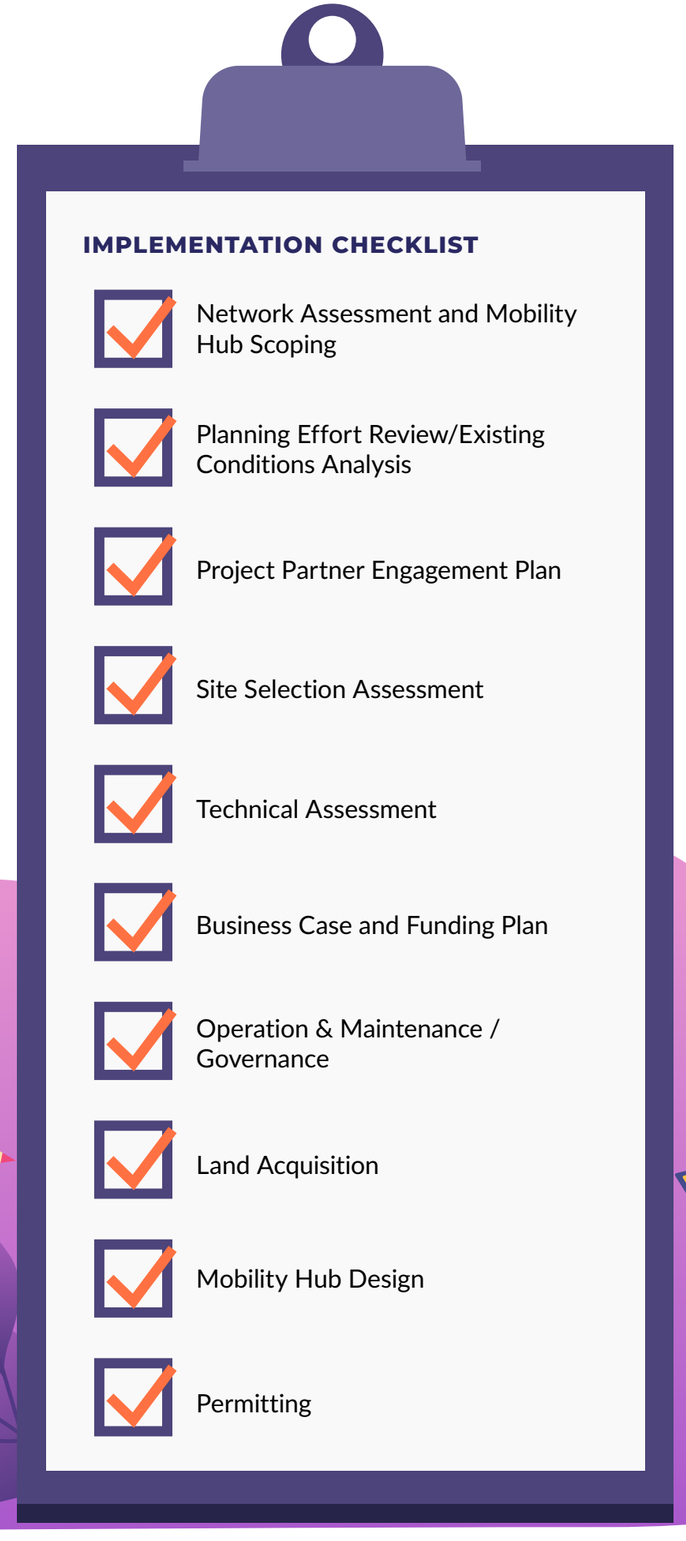


Mobility Hub featuring with multiple transit modes and amenities

Implementing a mobility hub, or retrofitting an existing site, requires a structured, step-by-step approach to ensure that each element—from initial planning to final operations—is thoroughly addressed.

The checklist outlines key phases such as initial assessment and engaging project partners to technical evaluations and mobility hub design. Depending on situation and local context, actual steps may vary, but this checklist serves as a practical roadmap for agencies and project partners to streamline decision-making, reduce risks, and create a mobility hub that serves the community.

Each checklist item includes multiple considerations. To prioritize the next mobility hub, assess network connectivity, community needs, and site feasibility. Confirm jurisdiction and align on design intent, engagement level, and partner roles. Develop a vision and framework, supported by an engagement strategy and communication plan. Conduct site and multimodal transport analyses to ensure accessibility, equity, and resiliency goals, while determining hub type and future services. Finally, complete spatial design and environmental impact assessments to guide implementation.



05

Pilot Projects

5.1 | Belmont Trolley Barn Hub

5.2 | Huntersville Gateway Station Hub

5.3 | Lincoln County Transit Hub

5.4 | Kannapolis Train Station Hub









PILOT PROJECT -
BELMONT TROLLEY BARN HUB

The Belmont Trolley Barn site is a 2.58-acre NCDOT-owned parcel leased by the City of Belmont. Located on the back side of downtown, the site borders an active railroad corridor and currently functions as a parking lot supporting nearby retail uses. Its position provides future connectivity to the Carolina Thread Trail and places it within walking distance of downtown businesses and civic destinations.

This setting creates an opportunity to transform the site into a mobility hub that complements the future Trolley Barn while supporting downtown activity and regional trail access.

OPPORTUNITIES FOR A MOBILITY HUB

The Belmont Trolley Barn site presents several opportunities to create a flexible, community-oriented mobility hub that supports both downtown Belmont and the future Trolley Barn. Key opportunities include:

- Enhancing the trail connection and creating a defined trailhead with amenities and signage
- Relocating dumpsters to improve visual quality and free up functional parking areas
- Adding shaded seating, landscaping, lighting, and parklets to create a welcoming public space
- Implementing traffic-calming measures to support safe pedestrian movement along the greenway edge
- Integrating micro-mobility options such as bike share, repair stations, and secure bike storage
- Installing cohesive wayfinding and signage to orient users and connect them to key destinations
- Providing a multi-use drop-off zone supporting buses, events, rideshare services, and microtransit opportunities

These improvements will allow the site to support the trolley service while creating a stronger linkage between downtown, the greenway, and surrounding neighborhoods.







PILOT PROJECT -
HUNTERSVILLE GATEWAY STATION HUB

The Huntersville Gateway Station is an active park-and-ride facility owned by Mecklenburg County and the Charlotte Area Transit System (CATS). Situated within the Gateway Business Association, the site occupies a strategic position surrounded by retail, commercial uses, and multi-family residential developments. It also benefits from direct recreational and neighborhood connectivity via the Torrence Creek Tributary Greenway, which links the station to several large subdivisions.

This combination of land uses and regional access positions the Gateway Station as a natural anchor for a future mobility hub serving both transit riders and greenway users.

OPPORTUNITIES FOR A MOBILITY HUB

The Gateway Station aligns with CATS' guidelines for a facility that falls between a mobility plaza and a mobility center, offering the potential to deliver a wide range of user amenities. Key opportunities include:

- Modernizing the transit stop with enhanced shelters, lighting, real-time information, and ADA-compliant features
- Leveraging the adjacent greenway to strengthen first- and last-mile connections
- Introducing multimodal infrastructure, such as micro-mobility docks, EV charging, and designated rideshare zones
- Supporting local economic activity by drawing users toward nearby retail and commercial destinations
- Creating a community-oriented public space that blends mobility, recreation, and placemaking

The site's size and location provide ample flexibility to incorporate these elements





PILOT PROJECT -
LINCOLN COUNTY TRANSIT HUB

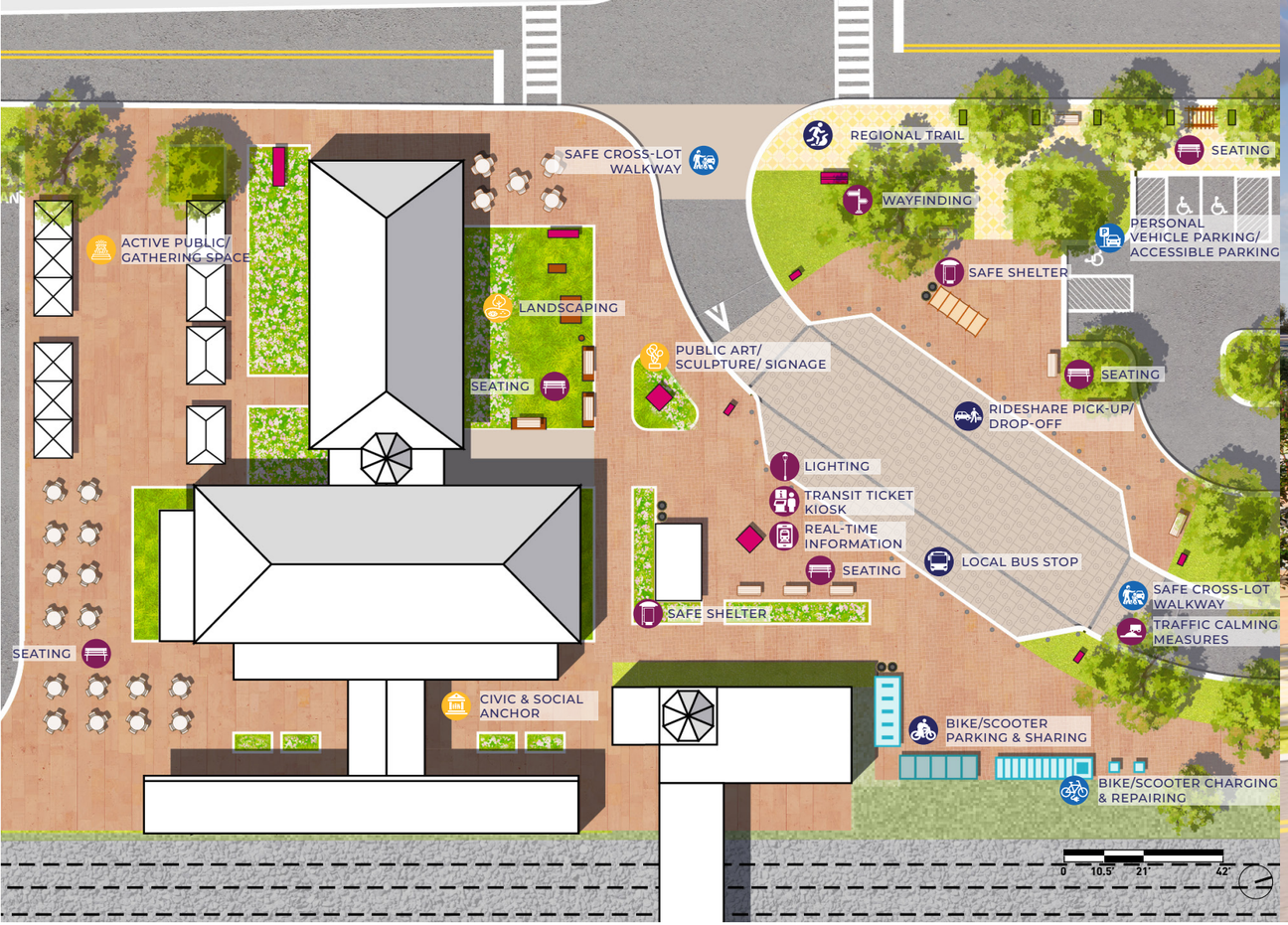
The proposed transit center represents an initial step toward establishing a centralized mobility facility that expands access to essential transportation services in Lincoln County. Envisioned as a Park & Ride and public transit hub, the project introduces a physical framework to support both existing services such as demand response and paratransit, as well as future regional connections. At this stage, the design effort focuses on defining a flexible site concept that can accommodate key program elements, user amenities, and evolving service needs over time.

The project is informed by regional mobility goals identified in the CONNECT Beyond Regional Mobility Plan and supported through coordination with partners including the Town of Lincolnton, the Gaston-Cleveland-Lincoln MPO, and NCDOT. While general areas for the transit center have been identified, schematic design remains focused on site organization, spatial relationships, and adaptability rather than a fixed layout or final site selection.

OPPORTUNITIES FOR A MOBILITY HUB

The transit center presents a strong opportunity to function as a multimodal mobility hub that integrates a range of transportation options within a cohesive and user-friendly environment. From a schematic design perspective, the site can be organized to support Park & Ride functions, future express transit services, and vanpool operations, while maintaining flexibility for phased expansion.

Opportunities also exist to incorporate multimodal connections such as pedestrian and bicycle access, micro-mobility integration, and clear circulation patterns that enhance safety and ease of use. By drawing from peer system precedents and conceptual planning, the design can prioritize adaptable infrastructure, coordinated service areas, and quality passenger amenities. Collectively, these elements position the transit center as a scalable framework for improving connectivity and supporting long-term mobility needs in the region.





PILOT PROJECT -
KANNAPOLIS TRAIN STATION HUB

The Kannapolis Train Station Mobility Hub is located at the edge of downtown and currently serves the community through regional Amtrak service. The site is within walking distance of major civic and entertainment destinations, including the North Carolina Research Campus and Atrium Health Ballpark. Surrounding land uses include retail corridors, established neighborhoods, A.L. Brown High School, and a network of informal walking trails that contribute steady foot traffic to the station.

This combination of regional transit access, community amenities, and nearby residential activity positions the station as a strong anchor for a future mobility hub serving both visitors and local residents.

OPPORTUNITIES FOR A MOBILITY HUB

The Kannapolis Train Station site has strong potential to become a vibrant mobility hub that serves as both a transportation node and a community amenity. Key opportunities include:

- Establishing a clear, welcoming main entrance with enhanced wayfinding
- Modernizing transit facilities with real-time information, covered waiting areas, and ADA-compliant features
- Activating hardscaped areas with shade, landscaping, seating, and placemaking elements
- Expanding micro-mobility options such as bike share, scooter share, improved bike lockers, and secure parking
- Creating designated drop-off zones for transit, rideshare, shuttles, and micro-transit services
- Developing flexible public spaces that support community groups and events
- Leveraging the future skybridge and new parking lot to improve cross-track connections and expand programming

These improvements can help transform the station from a simple transit stop into an active, user-focused destination.

FOR MORE INFORMATION

Appendix - Mobility Hub Elements

Appendix - Mobility Hub Implementation Guide

Appendix - Mobility Hub Related Plans and Resources

Appendix - Pilot Projects



THANK YOU

CONNECT BEYOND Mobility Hub Playbook