Final General Stop Design and Improvement Criteria Memo

To: Mike Costa, Placer County Transportation Planning Agency

From: WSP

Date: Tuesday, March 3rd

Subject: Final General Stop Design and Improvement Criteria Memo

Introduction

This memo summarizes the work completed for Task 5 – Draft General Stop Design and Improvement Criteria for the Placer County Transportation Planning Agency's (PCTPA) Placer Bus Stop Facilities Assessment and Improvement Plan. The task involves developing a typology of bus stop facility amenities for Placer County Transit (PCT), Roseville Transit, and Auburn Transit that range from basic (what should be provided at a minimum at all stops) to premium. Each category in the typology includes a list and description of the bus stop elements, design standards, and criteria for each typology. The typology will assist transit agency staff in making informed decisions regarding bus stop improvements that are more effective, provide the most benefit to the public, and are context-sensitive. In addition to assessing existing stops, this memo will assist future decisions when new bus stops are implemented by the three transit agencies. This memo organizes the existing and planned bus stops from PCTPA's Short-Range Transit Plan for the three transit agencies and related information collected in the bus stop inventory matrix as part of Task 2 – Bus Passenger Facility Data Collection and will support the subsequent work that will be completed as part of Task 6 – Bus Stop Improvement Recommendations.

Bus Stop Specifications

This section details the recommended bus stop design specifications and guidelines that are applicable to all bus stops regardless of category. These specifications include considerations for stop spacing, stop locations, curbside design, and amenities. Bus stop specifications were determined through an analysis of the following documents from other agencies and transit organizations:

- “Transit and Bus Stop Design Guidelines”, Berkely-Charleston-Dorchester Council of Governments, 2021, https://bcdcog.com/wp-content/uploads/2021/11/4.-Bus-Stop-Typologies.pdf.
- “Envision My Ride”, Charlotte Area Transit System, 2022, https://www.charlottenc.gov/CATS/Plans-Projects/Envision-My-Ride.
- “Transit Street & Bus Stop Design Guidelines”, Greater Cleveland Regional Transit Authority, 2024, https://www.riderta.com/sites/default/files/serviceplanning/BusStopTransitStreetDesignGuidelines.pdf.
- “Pittsburgh Regional Transit Bus Stop and Street Design Guidelines”, Pittsburgh Regional Transit, 2025, https://hdp-us-prod-app-rideprt-engage-files.s3.us-west-2.amazonaws.com/6117/6417/8635/PRT_Bus_Stop_Guidelines_3.1_final.pdf.
- “Rhode Island Bus Stop Design Guide”, Rhode Island Public Transit Authority, 2024, https://www.ripta.com/sites/default/files/2025-08/RIPTA-Bus-Stop-Design-Guide_FINAL_240528.pdf.
- “Bus Stop Design & Planning Guide”, Rogue Valley Transportation District, 2019, https://rvtd.org/wp-content/uploads/2021/02/Bus-Stop-Design-and-Planning-Guide-2019.pdf.
- “Peer Review Memorandum”, Shasta Regional Transportation Agency, 2022, https://www.srtabus.com/wp-content/uploads/SRTA_BSDG_Peer-Review-Memorandum_220325.pdf.
- “Bus Stop Design Standards Manual”, Suburban Mobility Authority for Regional Transportation, 2025, https://www.smartbus.org/Portals/0/SMART_Design%20Standards%20Manual.pdf.
- “Bus Stop Typology Study Kit of Parts Design Document”, Valley Regional Transit, 2022, https://www.valleyregionaltransit.org/wp-content/uploads/2022/11/BST_KitOfParts.pdf.
- “Urban Street Design Guide”, National Association of City Transportation Officials, 2013, https://nacto.org/publication/urban-street-design-guide/.
- “Stops, Spacing, Location and Design”, Federal Transit Administration, 2015, https://www.transit.dot.gov/research-innovation/stops-spacing-location-and-design.
- “Guidelines for the Location and Design of Bus Stops”, Transportation Research Board, 2014, https://www.trb.org/Main/Blurbs/153827.aspx.

Bus Stop Spacing

The bus stop spacing guidelines below describe the standards and considerations for how far apart fixed-route bus stops for the three transit agencies should be spaced from one another.

Stop Spacing Guidelines

The following stop spacing guidelines are set dependent primarily on population and job density in the coverage area as well as bus route classification. The three types of routes in the region's transit system include the following:

- Local fixed routes serve the majority of stops in the region and provide passengers with access to nearby destinations and key corridors. Currently, PCT operates six local routes and Roseville Transit operates ten local routes.
- Regional fixed routes are a hybrid between local and commuter fixed-routes. These are intended to provide frequencies similar to local routes while covering similarly long distances as commuter routes. These types of routes include PCT's Route 10 and the future RapidLink service.
- Commuter routes provide service between western Placer County and downtown Sacramento via the Interstate 80 corridor. PCT operates one commuter route that makes two roundtrips and Roseville Transit operates two commuter routes that make 11 trips in the AM and PM peak periods.

For local stops, areas with higher population density should be spaced between 900 feet and 1,300 feet apart, and 1,300 feet to 2,600 feet apart in lower population density areas. These ranges provide flexibility for the three transit agencies to place their stops in a way that balances accessibility of the stops while limiting impacts on travel times and route reliability.

Since they are designed for faster travel times while covering longer distances, regional and commuter route stops should be further apart than local route stops. They should focus on serving key destinations, transfer points, park-and-ride locations, and high ridership areas.

Stop Spacing Considerations

- The distance between stops affects both travel times and the convenience of passengers. When locating stops, the three transit agencies should consider the following trade-offs:
    - Closer-spaced stops can result in shorter walking distances to stops but longer travel times
    - Farther-spaced stops can result in longer walking distances but shorter travel times
- Bus stops in each direction should be paired so that passengers board and alight in the same general area in each direction to improve convenience for round trips
- Exceptions to the stop spacing guidelines above should be made based on components such as:

- Land use and proximity to key destinations
- Transit safety concerns
- Areas with high populations with disabilities, seniors, youth, zero-vehicle households, low-income, and minority populations
- Restricted right-of-way and pedestrian accessibility

Bus Stop Location

This section describes where bus stops should typically be located in relation to intersections. Where possible, all stops should be located on the far-side of intersections except for the following instances where other placements should be considered:

- Near-side
  - On long blocks where the near-side stop interfaces better with pedestrian destinations
  - Where the bus route is on a one-way street with one lane of traffic and does not permit passing
  - Where specific traffic calming features or parking provisions restrict the use of far-side stops
  - Where access to a senior center or hospital is located at the near-side of the intersection
  - Where driveways or alleys make the far-side stop location problematic
- Mid-block
  - Long blocks with important destinations mid-block
  - Major transit stops with multiple buses queuing

Far-Side Stops

As shown in Figure 1, far-side stops are bus stops that are located just after an intersection. These stops have the following considerations:

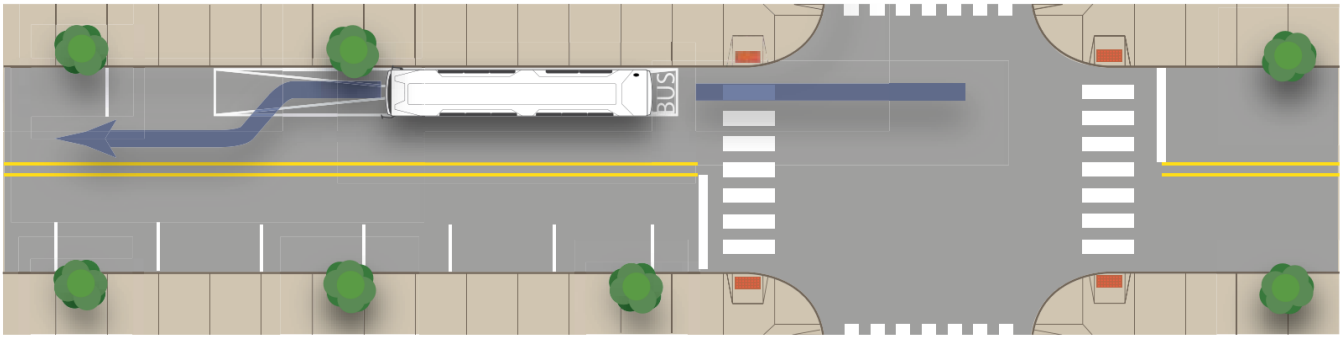
- Advantages
  - Minimizes conflicts with right-turning vehicles at intersection
  - Minimizes sight line conflicts for drivers and pedestrians
  - Encourages pedestrians to cross more safely behind the bus
  - Requires shorter deceleration distances for buses
  - Gap in traffic flow created by the signal allows the bus to pull back into the travel lane

- Works well with transit priority queue jumps

- Disadvantages
  - Bus may be caught in the intersection, resulting in both buses and cars “blocking the box”
  - Can cause the bus to double stop (once for the signal and once for boarding and alighting)
  - Rear-end incidents may be more frequent if distracted drivers do not realize the bus is stopping beyond the intersection
  - For pull-out stops, buses may have difficulty re-entering traffic until the prior signal cycle is complete

- Guidelines
  - Acceleration/deceleration space dimensions
    - 25 foot front buffer
    - 10 foot rear buffer
  - Minimum distance of 6 feet after designated crosswalks
  - Far-side stops should be avoided if bus route turns at prior intersection

Figure 1: Diagram of Far-Side Stop Placement



Source: Pittsburgh Regional Transit

Near-Side Stops

As shown in Figure 2, near-side stops are bus stops that are located just before an intersection. These stops have the following considerations:

- Advantages
  - Minimizes traffic interference because buses do not have to stop twice on both sides of an intersection and do not bunch in intersection during high traffic volume time periods

- Passengers can board the bus closer to the crosswalk
- Bus can use the intersection for acceleration space after serving the stop
- Bus driver has the advantage of full view of intersection activity while serving the stop
- Bus can make a right turn after the stop

- Disadvantages
  - Conflicts between the bus and right-turning vehicles may arise
  - Bus can physically obscure general traffic and pedestrian sight lines at intersection
  - Multiple buses queuing during peak hours may obstruct traffic flow
  - Bus may miss multiple traffic signal cycles while passengers board the bus
  - More curb space is needed for the bus to pull into stop
- Guidelines
  - Acceleration/deceleration space dimensions
    - 10 foot front buffer
    - 25 foot rear buffer
  - Minimum distance of 6 feet before designated crosswalks
  - Near-side stops should be avoided if bus route turns left at following intersections

Figure 2: Diagram of Near-Side Stop Placement

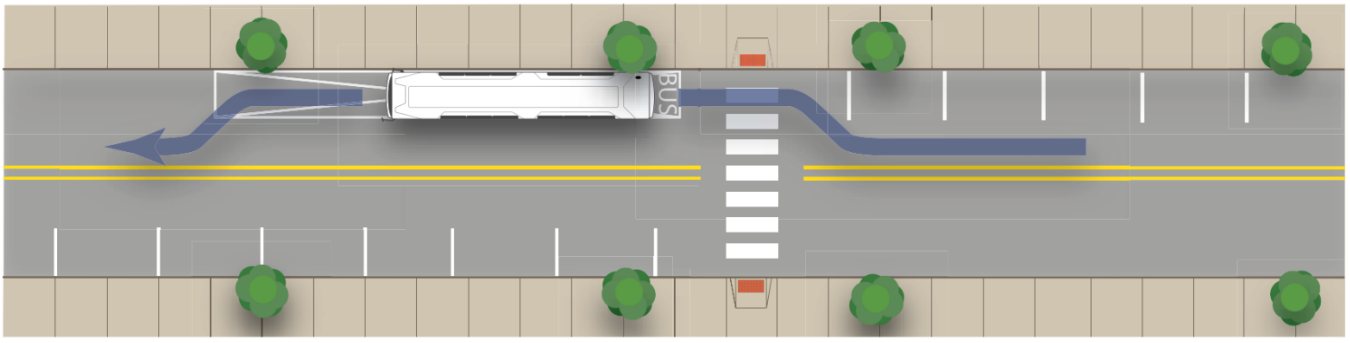
Source: Pittsburgh Regional Transit

Mid-Block Stops

As shown in Figure 6, mid-block stops are bus stops that are located between two intersections. These stops have the following considerations:

- Advantages
    - Minimizes sight line obstructions for both driver and passengers
    - Minimizes conflicts with intersections
    - Opportunity for more spacious boarding area because stop is located away from intersection sidewalk congestion
    - For high volume pull-out stops, reduces delays in re-entering traffic when the bus has an extended dwell time
    - Provides greater passenger convenience at key mid-block trip destinations
- Disadvantages
    - Can present safety concerns if a safe mid-block crossing is not provided; riders may be tempted to access stop without using a crosswalk
    - For pull-out stops, requires more physical space for the bus to accelerate and decelerate
    - Reduces space available for on-street parking because this stop type requires a longer bus zone
- Guidelines
    - Acceleration/deceleration space dimensions
        - 25 foot front buffer
        - 50 foot rear buffer

Figure 3: Diagram of Mid-Block Stop Placement



Source: Pittsburgh Regional Transit

Stops In Development Sites or Plazas

Bus stops that are located in a development site or plaza offer direct access to destinations such as grocery stores, medical facilities, transit centers, and schools. These stops have the following considerations:

- Advantages
    - Provide convenient pedestrian access to the building entrance for transit riders
    - Potentially minimize impacts to on-site parking
    - Waiting areas, including overhangs or shelters, can be integrated with the building
- Disadvantages
    - Creates higher conflict zones for pedestrians and waiting riders, and the potential for higher traffic activity near building entrances
    - Longer routing, which can increase bus travel times and delays for riders on board
    - Necessity for agreements with private property owners
- Guidelines
    - Fire lane access and other emergency vehicle access points must not be blocked by bus stop amenities
    - Constructing safe stop areas for both travel directions at a site may require obtaining and converting excess parking spaces to bus boarding areas

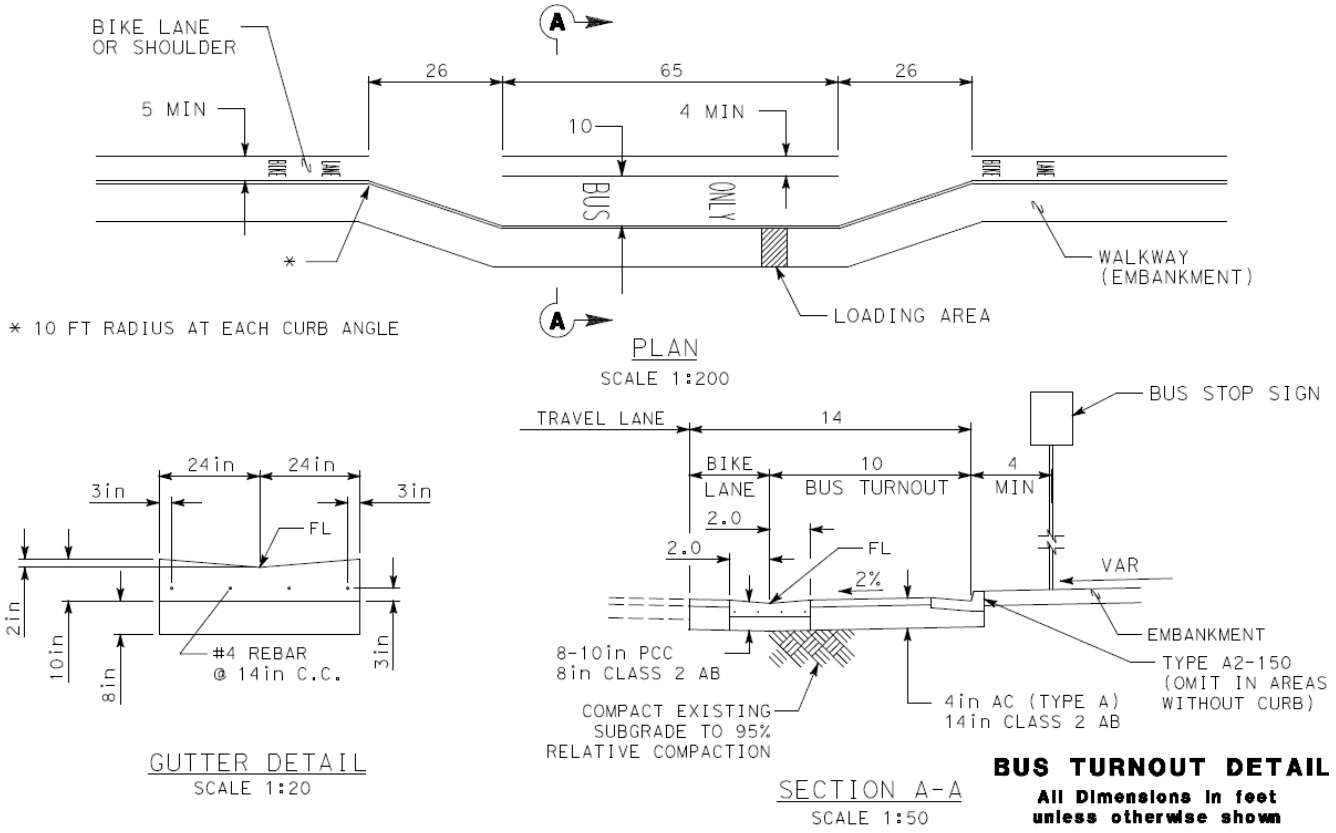
Bus Stop Curbside Design

This section covers guidance related to curbside design needs, or how buses service curbside stops. For the most part, stops can either be in-lane (bus serves the stop while remaining in the travel lane) or pull-out (bus enters a pull-out space and is removed from traffic while serving the stop).

Existing Transit Agency Standards

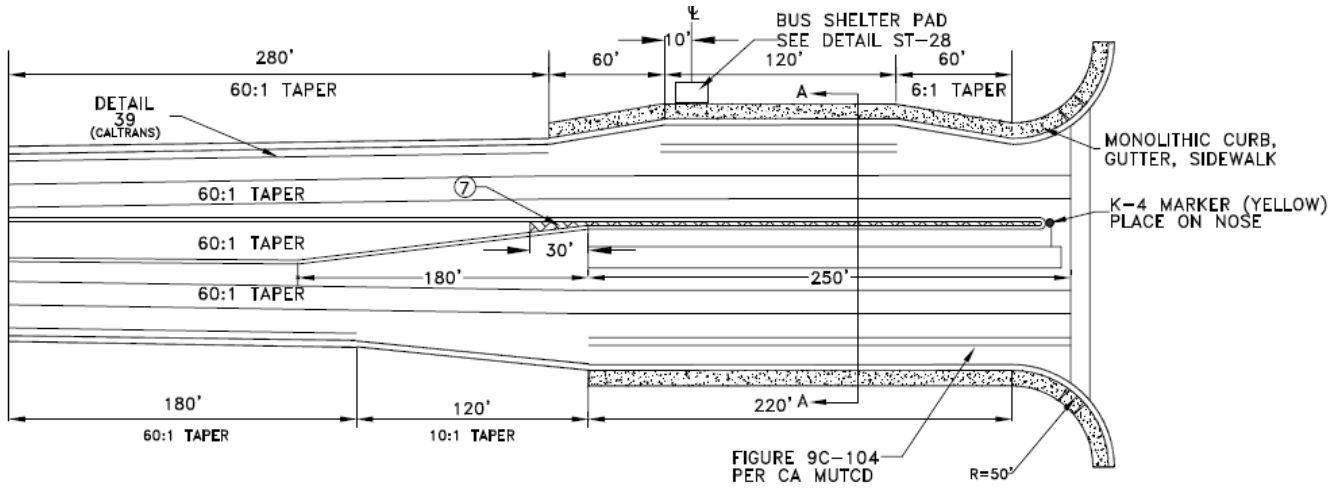
PCT's standards and specifications for bus turnouts are shown in Figure 4 and Roseville Transit's are shown in Figure 5. This includes interaction and widths/lengths of bike lanes, walkways, and bus loading areas. These dimensions can be adjusted as necessary based on existing conditions such as traffic speed, sight distances, and topography. While these standards currently exist for both PCT and Roseville Transit, findings from the following sections should be considered to augment and potentially modify the existing requirements to better align with industry best practices.

Figure 4: Placer County Transit Bus Turnout Details



Source: Placer County Transit

Figure 5: Roseville Transit Bus Turnout Details



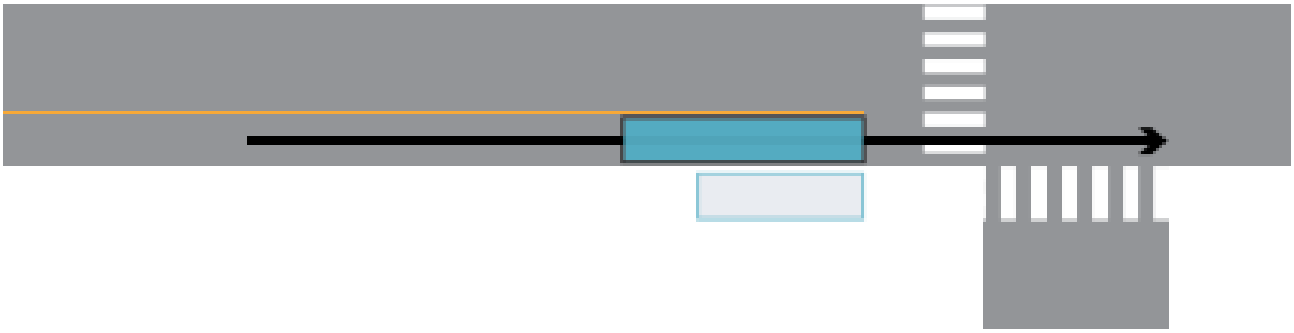
Source: Roseville Transit

In-Lane Stops

As shown in Figure 6, in-lane stop configuration for far-side, near-side, and mid-block stops share the following advantages and disadvantages:

- Advantages
    - Helps avoid travel time delays for buses because they do not have to wait to re-enter traffic
    - Less curb space needed for stopping
    - Easier to service stops in dense areas
    - Leaves curbside space for multimodal amenities
- Disadvantages
    - May cause delay to traffic, particularly on roads with higher volumes of traffic and/or traffic conflicts (if vehicular traffic stopped behind bus tries to get around the bus)
    - Potential for rear-end collisions with stopped bus on high-speed roads and/or if sight distances are limited

Figure 6: Example Near-Side Curbside In-Lane Stop



Source: Pittsburgh Regional Transit

Pull-Out Stops

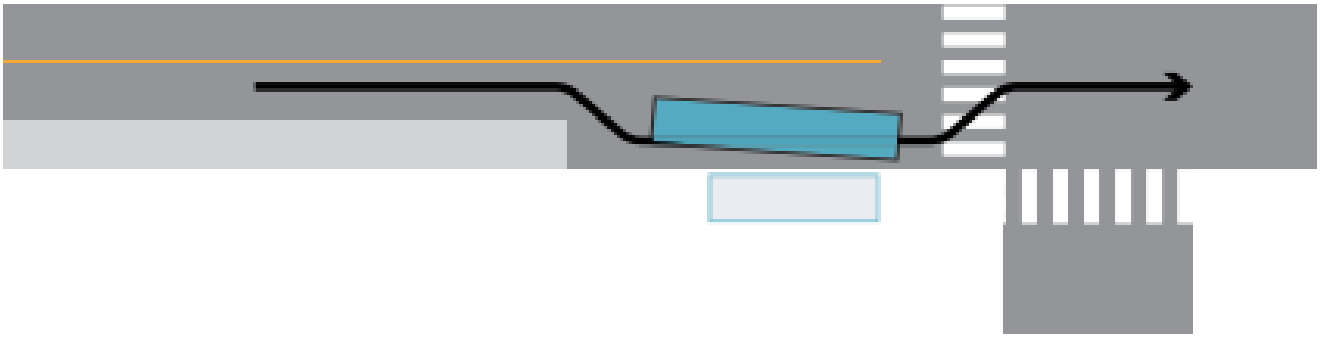
As shown in Figure 7, pull-out stops provide greater benefits to traffic flow since the bus removes itself from the travel lane when it stops.

- Advantages
    - Transit riders may have more time to board and alight buses
    - Flow of traffic maintained for other vehicles

- Allows for buses to dwell if running early compared to timepoints, or layovers

- Disadvantages
  - Difficult for buses to get back into the travel lane, which impacts on-time performance
  - More conflict points with other vehicles as buses re-enter traffic flow
  - Creates conflicts where a right-turn lane is present approaching the intersection
  - Cannot be used directly before a left turn in the bus's routing
  - Difficult to accommodate multiple buses at each stop

Figure 7: Example Near-Side Parking Lane Pull-Out Stop



Source: Pittsburgh Regional Transit

According to the Transportation Research Board's Guidelines for the Location and Design of Bus Stops, pull-out stops should be considered when the following factors are present:

- Traffic in the curb lane exceeds 250 vehicles during the peak hour
- Traffic speed is greater than 40 miles per hour
- Bus volumes are 10 or more per peak hour on the roadway
- Passenger volumes exceed 20 to 40 boardings an hour
- Average peak-period dwell time exceeds 30 seconds per bus
- Buses are expected to layover at the end of a trip
- Potential for auto/bus conflicts warrants separation of transit and passenger vehicles
- History of repeated traffic and/or pedestrian accidents at stop location
- Right-of-way width is adequate to construct the bay without adversely affecting sidewalk pedestrian movement

- Sight distances (i.e., hills, curves) prevent traffic from stopping safely behind a stopped bus
- A right-turn lane is used by buses as a queue jumper lane
- Appropriate bus signal priority treatment exists at an intersection
- Bus parking in the curb lane is prohibited
- Improvements, such as widening, are planned for a major roadway

Design Standards

When implementing the existing standards for PCT and Roseville Transit, all bus stops should also consider including the following minimum dimensions:

- Boarding landing area
    - Minimum dimensions of 5 feet by 8.4 feet for Americans with Disabilities Act (ADA) compliance
    - Slope perpendicular to the roadway of 2.1% or less
- Platform dimensions
    - 25 feet total of continuous hard surface for ADA compliance

Considerations

- A bus stop bicycle lane mixing zone is a design where an on-street bike lane overlaps with the bus stop vehicle zone length, and buses must cross over the bike lane to merge into the curb
- Boarding bulbs and/or curb extensions can be added to improve boarding and alighting
- Municipalities are responsible for No Parking Zone designations, as well as pavement markings for the bus stop
- Developers, local jurisdictions, and the three transit agencies should coordinate to ensure future developments in areas without existing transit service accommodate future bus infrastructure
    - This includes providing adequate right-of-way and distances for buses to enter/exit bus stops as shown in the Bus Stop Location section above

Bus Stop Amenities Design Guidelines

This section covers guidance related to the design guidelines for all potential amenities located at a bus stop. More information about which amenities are recommended for each bus stop typology is described in the Bus Stop Typology section. In areas with higher concentrations of populations with limited English proficiency, transit agencies are encouraged to either provide directly translated information, or

translation capability, on all signage and public-facing items at bus stops for languages other than English that are spoken in those areas.

Bus Stop Signage

Bus stop signs are important features that help both passengers and operators locate where a bus stop is located. Each bus stop sign should follow these guidelines:

- Design features
    - Text indicating “Bus Stop”
    - Unique bus stop ID number
    - Agency logo
    - Routes served
    - Bus graphic
    - Agency brand colors
    - QR code to access agency website and/or real-time arrival information by smartphone
- Specifications
    - Approximately 7 feet above the ground from the bottom of the bus stop sign
    - Placed at least 2 feet clear from the edge of the curb
    - Adjacent to the front boarding area to clearly indicate stop

Figure 8 shows an example of a bus stop sign from VIA Metropolitan Transit Authority.

Figure 8: Bus Stop Signage Example

Source: VIA Metropolitan Transit Authority

Landing Pad

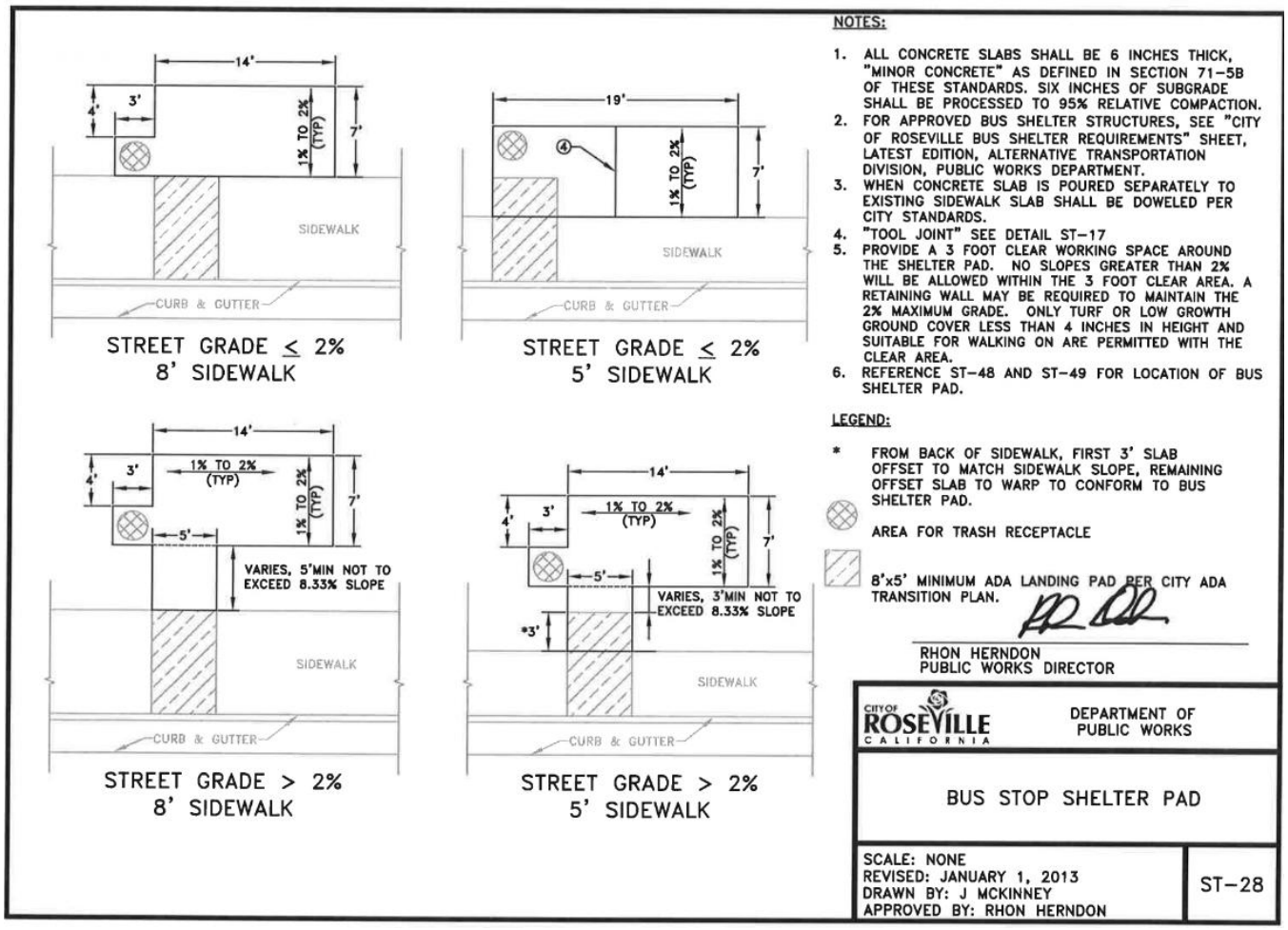
Existing Transit Agency Standards

Roseville Transit currently provides requirements for landing pads, as shown in Figure 9 and described below:

- Minimum 7 foot by 14 foot boarding area on a firm and stable surface adjacent to the bus stop sign

- All concrete slabs must be six inches thick
- There must be a three-foot-wide clear working space around the shelter pad, with slopes no greater than 2%

Figure 9: Roseville Transit Bus Landing Pad Design Standards



Source: Roseville Transit

While these standards currently exist for Roseville Transit, industry best practices described below should be considered to augment and potentially modify the existing requirements where appropriate. In some locations, spatial constraints (i.e., lack of connection to a sidewalk or lack of space at a bus stop location) may prohibit the installation of a landing pad. For locations that allow, each landing pad should incorporate these guidelines where feasible:

- Specifications
    - Minimum 5 foot by 8.4 foot boarding area on a firm and stable surface adjacent to the bus stop sign

- Slope perpendicular to the roadway of 2.1% or less
- Concrete (or similar) material

Figure 10 shows an example of a landing pad from the Santa Clara Valley Transportation Authority (VTA).

Figure 10: Landing Pad Example

Source: Santa Clara Valley Transportation Authority

Bench/Seating

Bus stop benches are important features that provide seating and resting amenities for passengers waiting at bus stops. The City of Roseville's Public Works Department's requirements currently say to include an aluminum bench with a back, in compliance with ADA guidelines. Each bus stop bench should consider also utilizing the following guidelines:

- Minimum of two to three seats with handrails for seniors and riders with disabilities

- Made of durable material and avoid obstruction of pedestrian pathways
    - Maintain required clear paths and clearance around seating
- Minimum 18" provided from the front edge of the seat and 18" from the front edge of the seat to the clear space
- Maintain ADA requirements for clear space

Figure 11 shows an example of a standalone bench from San Diego's Metropolitan Transit System.

Figure 11: Bench/Seating Example

Source: San Diego Metropolitan Transit System

Other options for seating at bus stops include:

- Compact seats
    - Single or double seat
    - Freestanding or attached to bus stop signage pole
    - Maintain ADA requirements for clear space

Figure 12 shows an example of compact seats from Valley Regional Transit.

Figure 12: Compact Seats Example

Source: Valley Regional Transit

- Lean bars
    - Made of metal material
    - Minimum 3 feet height by 2 feet length
    - Maintain ADA requirements for clear space

Figure 13 shows an example of a lean bar from the New York City Department of Transportation.

Figure 13: Lean Bar Example

Source: New York City Department of Transportation.

Lighting

Lighting at bus stops provides important safety features for bus stops that serve riders in the afternoon and evenings. Lighting provides increased security for passengers and allows transit vehicle operators to clearly see a bus stop and waiting passengers.

Existing Transit Agency Standards

The City of Roseville's Public Works Department currently provides requirements for lighting at bus stops. Updates to these requirements should be considered based on appropriate industry best practices:

- Shelter must have UL approved solar lighting system
- Solar panel lighting system must have autonomous energy reserve for a minimum of 5 nights with a minimum Array to Load (ALR) ratio of 1.2 to 1.25 range
- The lighting system must be able to provide lighting through the night, from civil twilight in evening to civil twilight following morning
    - Thorough factoring for shade, dirt and grim should be included
- ALR calculations must be based on solar panels on a horizontal surface (not optimal tilt)
- Lighting system must be vandal resistant
- IP67 or better ingress rating preferred
- LED lighting required
- Battery array shall be composed Valve Regulated Lead Acid Absorbed Glass Mat units that meet or exceed specifications of Genesis XE batteries
- Illumination provided must be capable of delivering up to 5 foot-candles peak at a level two feet above ground level, with average of 3 foot-candles providing illumination throughout the footprint of the shelter

Figure 14 shows an example of lighting at a VTA bus stop.

Figure 14: Lighting Example

Source: Santa Clara Valley Transportation Authority

Bus Shelter

Bus stop shelters are covered passenger waiting areas that are semi enclosed and often accompanied by a bus stop bench.

Existing Transit Agency Standards

The City of Roseville's Public Works Department currently provides requirements for lighting at bus stops. Updates to these requirements should be considered based on industry best practices following this list:

- Size must be 11 feet, six inches long by 5 feet deep by 7 feet, 5 inches high
- Provide a minimum of 30 inches by 48 inches clear floor space completely within shelter and connect this space to the accessible path of travel
- Flat roof design
- Include full rear panel and panels at each end
- Include bottom ventilation
- Fabricated of anodized bronze finished aluminum with a minimum of .125" thickness
- Shelter and anchors must meet Wind Load Criteria of 75 miles per hour, Exposure C
- Display case should be provided at each bus stop and meet the following requirements:
    - Include a map display case with a "live" or visible display area measurement of 34.5 inches high by 23.75 inches wide
    - Case must be built into the frame of shelter
    - Finish on frame of map case must match specified finish on bus shelter structure

Other guidelines to consider for bus shelters include:

- Overhead cover for weather protection
- Bus bench or other seating
- Use of durable building materials
    - Avoid use of glass to prevent vandalism and damage
- Located on landing pad in accessible area

Figure 15 shows an example of a bus shelter from Culver CityBus.

Figure 15: Bus Shelter Example

Source: Culver CityBus

Bike Racks

Bike racks provided at or near bus stops connect the transit network to the bike network and encourage bicycle connections to and from transit. Bike racks at bus stops should follow these guidelines:

- Bike racks should be located outside of bus boarding areas and door zones, with sufficient clearance from nearby objects to allow maneuvering of the bike
- Weather protection and security from theft and vandalism should be considered when selecting the type of rack and proposed location
- Bike racks should be in well-lit areas with high visibility
- The number and type of bike racks should reflect activity levels in the surrounding area

Figure 16 shows an example of bike racks from the City of Corvallis.

Figure 16: Bike Racks Example

Source: City of Corvallis

System Map

System maps at bus stops help passengers navigate the transit system and locate transfer points. Each system map should follow these guidelines:

- Minimum dimensions: 1.5 feet by 2 feet
- Located on bus stop pole or directly on bus shelter
- Protective screen to prevent vandalism
- Consistency with agency branding
- In lieu of a physical map, a QR code that directs passengers to an online system map accessible by smartphone

Figure 17 shows an example of a system map at a San Francisco Municipal Transportation Agency bus stop.

Figure 17: System Map Example

Source: San Francisco Municipal Transportation Agency

Trash Cans

Trash cans are recommended at bus stops in high activity areas where trash may accumulate. Each bus stop trash should follow these guidelines:

- Coordinate with local municipalities for maintenance and trash pickup schedule
- Secured to the pavement to prevent tripping hazards or unauthorized movement

Figure 18 shows an example of a trash can at a Los Angeles County Metropolitan Transportation Authority (LA Metro) bus stop.

Figure 18: Trash Cans Example

Source: Los Angeles County Metropolitan Transportation Authority and Palisades PRIDE

Security Features

Security features are important to maintain the quality and comfort of bus stops. Potential security features at bus stops include:

- Security cameras
- Handrails on seating
- Enhanced lighting
- Limit visual obstructions

Figure 19 shows an example of a security camera at a Rhode Island Public Transit Authority bus stop.

Figure 19: Security Camera Example

Source: Rhode Island Public Transit Authority and The Providence Journal

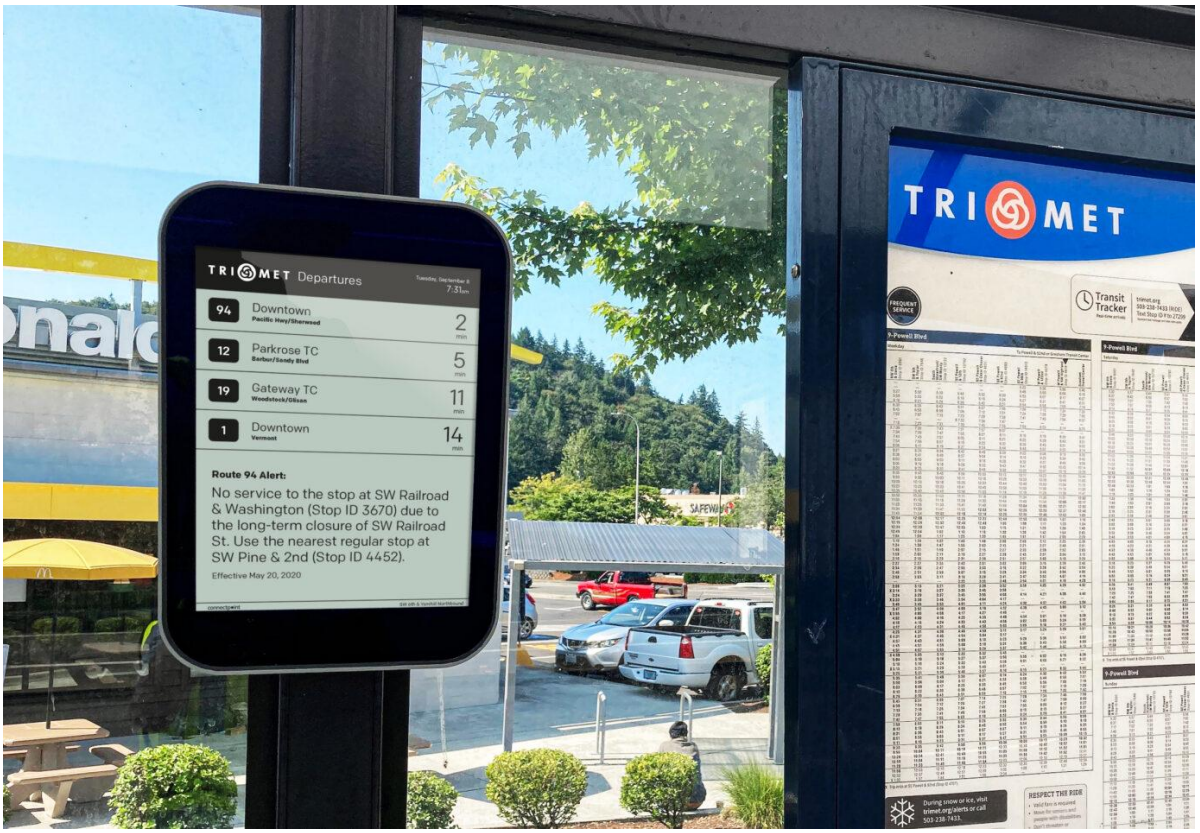
Real-Time Information

Real-time information displays use Intelligent Transportation Systems technology to indicate accurate wait times to passengers that allow for better trip planning and connections. Real-time information displays at bus stops should follow these guidelines:

- Display screen showing arrival information and wait times for incoming buses
- Notices of delays or service changes
- In lieu of a display screen, a QR code that directs passengers to real-time information accessible by smartphone
- Other items to be displayed on these signs could include service alerts, promotional items, or advertisements to raise revenue for transit agencies

Figure 20 shows an example of a real-time information sign at a Tri-County Metropolitan Transportation District of Oregon bus stop.

Figure 20: Real-Time Information Example



Source: Tri-County Metropolitan Transportation District of Oregon and Connectpoint

Wayfinding Signage

Wayfinding signage helps orient passengers to the surrounding areas and popular nearby destinations. Elements of wayfinding signage could include:

- Icons and arrows for directions
- Navigation to destinations including parks, malls, downtown/commercial areas, bus transfer locations, etc.
- Could include multimodal travel times (i.e., “5 minute walk to downtown”)

Figure 21 shows an example of wayfinding signage from the New York City Department of Transportation.

Figure 21: Wayfinding Signage Example

Source: New York City Department of Transportation

Landscaping

Landscaping at and around bus stops is encouraged to improve the bus stop environment and maximize passenger comfort. Landscaping amenities at bus stops could include:

- Urban trees
- Planted areas/planter boxes
- Public art/murals

Figure 22 shows an example of landscaping at a Transit Authority of the Lexington-Fayette Urban County Government bus stop.

Figure 22: Landscaping Example

Source: Transit Authority of the Lexington-Fayette Urban County Government and University of Kentucky

Restrooms

Restrooms at bus stops are useful amenities for bus operators to use at designated rest locations. Restrooms at bus stops should follow these guidelines:

- Limit access to operators only via key access
- Coordinate with local jurisdictions/utility providers
- Implementation subject to available space at potential bus stops

Figure 23 shows an example of a restroom at an LA Metro bus stop.

Figure 23: Restrooms Example

Source: Los Angeles County Metropolitan Transportation Authority and Los Angeles Daily News

Bus Stop Typology[1]

The combined service area of the three transit agencies covers a diverse range of land use types, including urban, suburban, rural, residential, commercial, institutional, and mixed-use. These different land uses have varying transit needs, leading to differing operating environments for the transit agencies. The following four bus stop typology addresses these differences and can be used to guide future bus stop improvements and implementation. The typology categorizes existing and proposed bus stops based on criteria such as operational characteristics, service levels, ridership, and surrounding land use contexts. As shown in Table 1, the four categories in the bus stop typology are:

1. Category 1 – Highest Priority
2. Category 2 – High Priority
3. Category 3 – Moderate Priority
4. Category 4 – Standard Priority

The bus stop typology will determine the recommended, preferred, and optional minimum design standards and type of amenities at each bus stop and will guide each agency in identifying where and what bus stop improvements are necessary. For all stops, preferred and optional components should be considered as funding becomes available. These categories and typology will lead to the identification of recommendations for amenities at each bus stop as part of the next task of the project.

To supplement the four main bus stop typology categories, sub-category designations were determined to help prioritize the implementation of recommended improvements within each bus stop category. While the main bus stop typology is based on operational characteristics, service levels, ridership, and surrounding land use contexts, the sub-category designations are determined by service functions and populations served. The purpose of these sub-categories is to serve as an overlay and help transit agencies determine which optional amenities to include at each bus stop and prioritize the implementation of bus stop improvements within each typology. The sub-categories can also help agencies determine if a stop should include amenities from a higher category in the typology. The sub-categories are:

1. Commuter stops: bus stops that are served by a commuter bus route.
2. Transfer stops: bus stops that are served by two or more local routes or provide local connections to regional transit options.
3. School zone stops: bus stops that are within a ¼ mile of schools, colleges, and/or universities.

[1] The data sources used to determine the criteria for each bus stop typology include local jurisdiction's General Plan zoning maps, transit agency ridership reports, system maps and timetables, and U.S. Census data (American Community Survey and Longitudinal Employer-Household Dynamics).

4. Equity area stops: bus stops that are in an area that is ranked very high in the Transit Needs Index (TNI),[2] in an area with a high percentage of minority populations, or is near hospitals and medical centers.
5. Key destinations: bus stops that are near schools, colleges, libraries, government services, senior facilities, medical facilities, large shopping centers, and other likely destinations for transit riders.

Table 1: Summary of Bus Stop Distribution by Typology[3]

Typology	Bus Stop Count
Category 1: Highest Priority	27
Category 2: High Priority	52
Category 3: Moderate Priority	105
Category 4: Standard Priority	112

Category 1 Stops – Highest Priority

Category 1 stops are located in areas with high existing ridership activity, high population density, and/or high job density. These are generally commercial areas, mixed-use areas, or transit centers/transfer stops. These stops typically serve multiple bus routes across the three transit agencies, have relatively higher frequences of buses arriving, and are in locations with higher volumes of transferring passengers. They are often in proximity to activity generators and are located in areas with multi-unit housing developments, mixed-use zoning, central business districts, employment centers, and commercial/retail areas. These stops have the region's highest levels of ridership and service, so they should provide a high level and range of facility amenities and customer information.

The following considerations were used to determine the design guidelines for Category 1 stops:

- Transfers between routes/regional connections
- Potential passenger accumulation
- Potential non-regular transit users
- Interactions with bicycle facilities
- Higher vehicle traffic levels

[2] The Transit Needs Index was developed for Placer County Transportation Planning Agency's Comprehensive Operational Analysis and includes the following characteristics: youth (age 18 and younger), seniors (age 65 and older), individuals with a disability, low-income individuals (below the federal poverty level), and households without a vehicle.
[3] The numbers shown only apply to bus stops in western Placer County and do not include those in Sacramento County. The numbers include existing and proposed bus stops from the Placer County Transportation Planning Agency's Short-Range Transit Plan.

- Wayfinding needs[4]

Design Standards

Table 2 shows the recommended, preferred, and optional amenities for Category 1 stops.

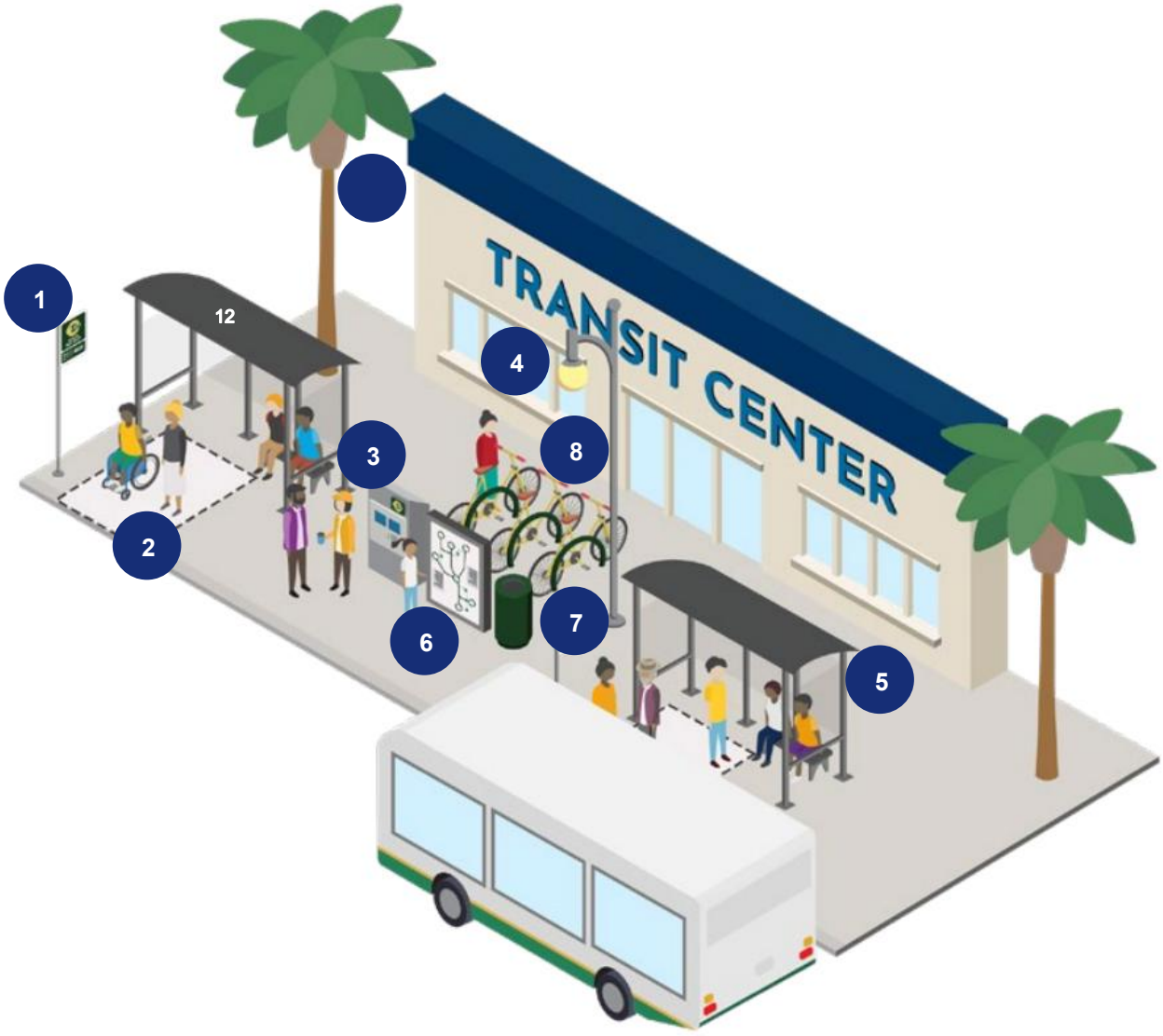
Table 2: Category 1 Stop Amenities

Recommended	Preferred	Optional
1. Bus stop signage 2. Landing pad 3. Bench/seating 4. Lighting 5. Bus shelter 6. System map 7. Trash cans	8. Bike racks 9. Security features 10. Real-time information 11. Wayfinding signage	12. Landscaping 13. Restrooms

Figure 24 depicts an example Category 1 Stop that includes all recommended, preferred, and optional amenities.

[4] These stops often serve trip generators for occasional transit users in urban areas. Wayfinding signage can assist riders with finding their destination after exiting from the bus.

Figure 24: Example Category 1 Stop Facility Design[5]



Source: Berkeley Charleston Dorchester Council of Governments Transit and Bus Stop Design Guidelines

Stop Criteria

The criteria for the operational characteristics, service levels, ridership, and surrounding land use contexts that determine Category 1 stops are reflective of high activity and dense areas in western Placer County. There are two ways that a bus stop can meet the criteria for Category 1 stops:

- Option 1: high density and ridership activity

[5] While not shown in the figure, security features, real-time information, and wayfinding signage is recommended and restrooms are optional for this category.

- 75th percentile ridership: 3.0 average daily boardings; and
- 75th percentile job density: 3,621 jobs per square mile; and
- 75th percentile population density: 4,595 persons per square mile.

- Option 2: highest density or ridership activity
  - 97th percentile ridership: 38.6 average daily boardings; or
  - 97th percentile job density: 12,629 jobs per square mile; or
  - 97th percentile population density: 7,057 persons per square mile.

To meet the criteria for the first option, a bus stop must satisfy all three listed requirements. To meet the criteria for the second option, a bus stop must satisfy only one of the three listed requirements.

Existing and Planned Bus Stops

Based on the criteria listed above, Figure 25 and Table 3 show the PCT and Roseville Transit bus stops that fit into the Category 1 stops typology.

Figure 25: Placer County Transit and Roseville Transit Existing and Planned Category 1 Stops

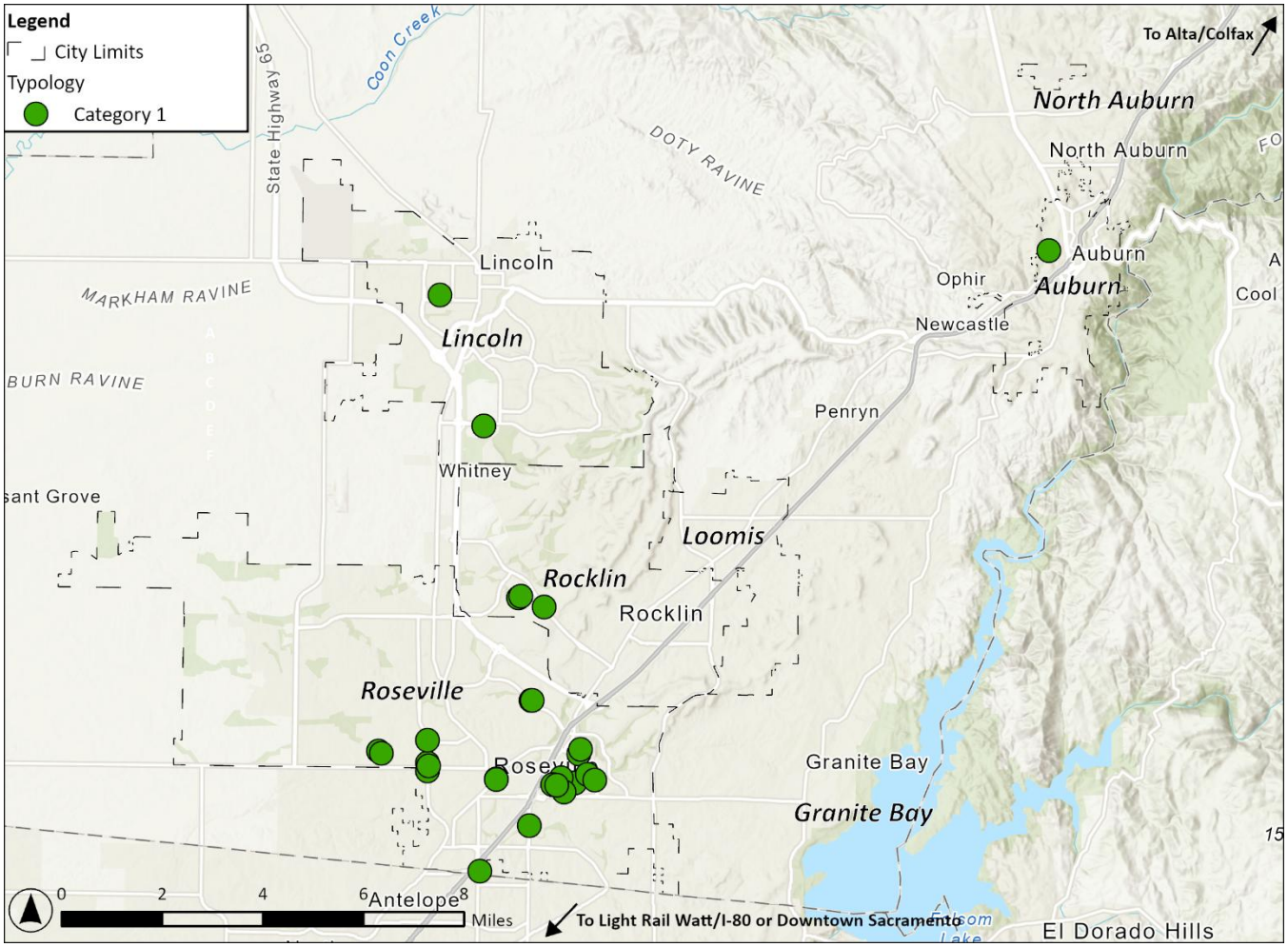


Table 3: Placer County Transit and Roseville Transit Existing and Planned Category 1 Stops

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/Square Mile)
Auburn / Nevada Station (Auburn)	105.8	1566	1474
Roseville Galleria (Roseville)	153.0	5749	2881
Sunset Blvd & Pebble Creek Dr (Rocklin)	1.5	2084	7156
Twelve Bridges Library (Lincoln)	116.6	450	1198
R St & Shamrock Ct (Lincoln)	7.4	1192	11862
Louis Orlando Transfer Point (Rocklin)	74.0	3367	4595

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/Square Mile)
Foothills Blvd & Main St (SB) (Roseville)	0.3	1529	7285
Foothills Blvd & Main St (SB) (Roseville)	0.0	1529	7285
Foothills Blvd & Junction Blvd (NB) (Roseville)	0.2	1293	7131
Vernon St & Grant St (SB) (Roseville)	57.6	3402	4251
Vernon St & Grant St (NB) (Roseville)	40.8	3402	4251
N Sunrise Ave & Eureka Rd (NB) (Roseville)	1.3	14962	929
N Sunrise Ave & Stone Point Dr (SB) (Roseville)	0.9	14962	929
Sunrise Ave & Coloma Wy (NB) (Roseville)	4.4	4241	5807
Galeria Transfer Point (Roseville)	100.0	5749	2881
Lead Hill Blvd & Rocky Ridge Dr (EB) (Roseville)	1.3	14962	929
Junction Blvd & Country Club Dr (WB) (Roseville)	0.5	475	7057
Lead Hill Blvd & N Sunrise Ave (EB) (Roseville)	0.3	14962	929
Sierra Gardens Dr & N Sunrise Ave (EB) (Roseville)	26.7	13340	1448
Sierra Gardens Dr & Douglas Blvd (NB) (Roseville)	0.5	13340	1448
Sierra Gardens Dr & Santa Clara Dr (WB) (Roseville)	4.4	13340	1448
Foothills Bl & Main St (NB) (Roseville)	2.7	1529	7285

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/Square Mile)
Eureka Rd at Lead Hill Blvd (Roseville)	Proposed new stop	14962	929
Eureka Rd at Rocky Ridge Dr (Roseville)	Proposed new stop	14962	929
Junction Blvd at Country Club Dr (Roseville)	Proposed new stop	475	7057
Park Dr. after Big Sky Dr. (Rocklin)	Proposed new stop	2138	8122
Park Dr. after Solitude Wy (Rocklin)	Proposed new stop	2395	7070

Category 2 Stops – High Priority

Category 2 stops are located in areas with high existing ridership activity that have either moderate population density or moderate job density. These stops are generally in medium-density residential, mixed-use development, and community commercial areas. They typically serve multiple bus routes in the transit system, have moderate transit frequency, and are near activity generators. These stops are located in areas with multi-unit and single-unit housing developments, mixed-use zoning, and neighborhood/community commercial areas. Since these stops have high levels of ridership and service, they should provide a wide range of information and facility amenities.

The following key considerations were used to determine the design guidelines for Category 2 stops:

- Transfers/connections between routes
- Interactions with bicycle facilities
- Higher traffic levels
- Population considerations (transit reliant populations)

Design Standards

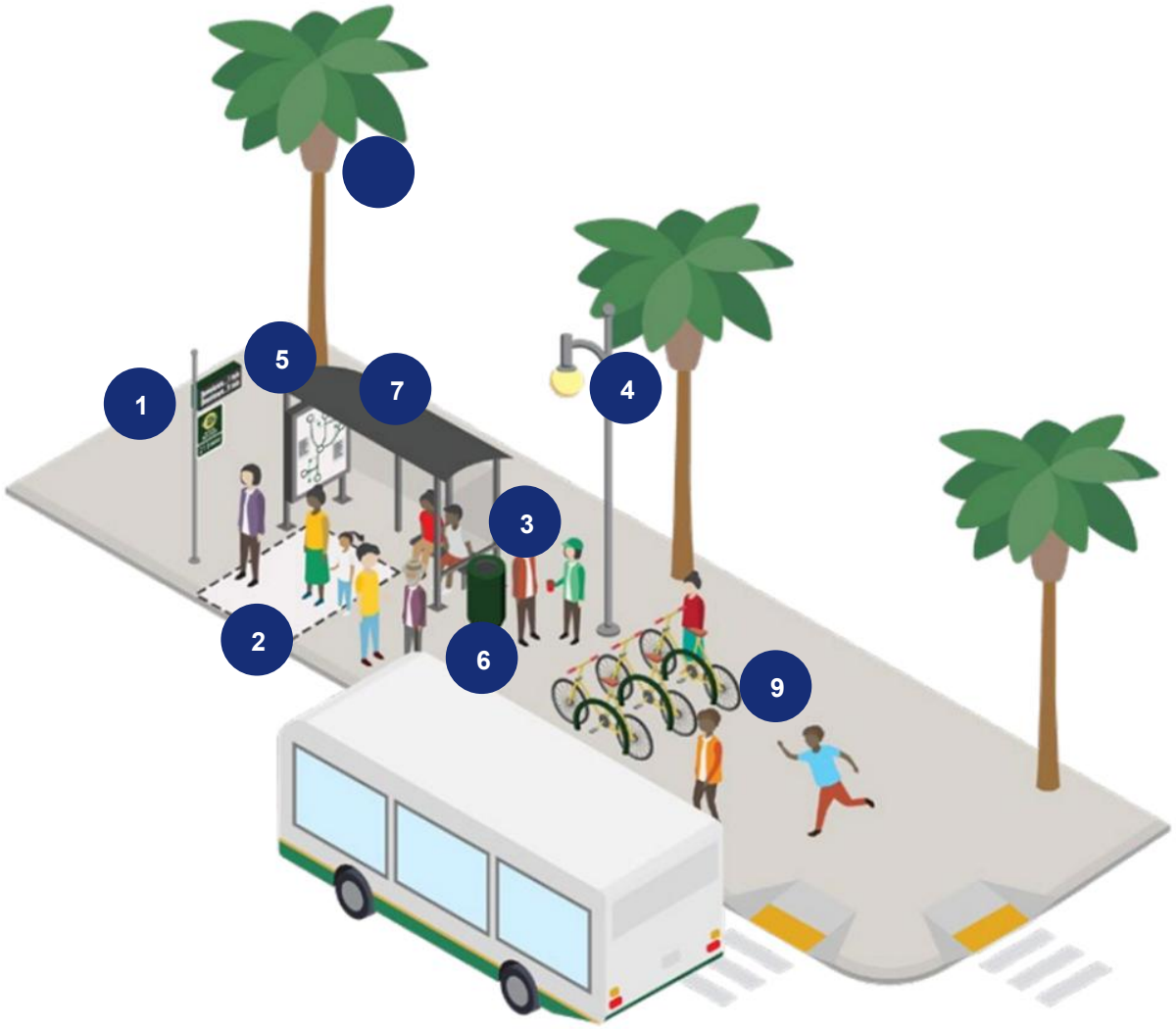
Table 4 shows the recommended, preferred, and optional amenities for Category 2 stops.

Table 4: Category 2 Stops Facility Amenities

Recommended	Preferred	Optional
1. Bus stop signage 2. Landing pad 3. Bench/seating 4. Lighting 5. System map (if shelter is provided, otherwise include QR code) 6. Trash cans	7. Bus shelter 8. Security features 9. Bike racks	10. Landscaping 11. Restrooms

Figure 26 depicts an example Category 2 Stop that includes all recommended, preferred, and optional amenities.

Figure 26: Example Category 2 Stop Facility Design[6]



Source: Berkeley Charleston Dorchester Council of Governments Transit and Bus Stop Design Guidelines

Stop Criteria

The criteria for the operational characteristics, service levels, ridership, and surrounding land use contexts that determine Category 2 stops are reflective of areas with high ridership activity and either moderate job or population density in western Placer County. There are three ways that a bus stop can meet the criteria for Category 2 stops:

- Option 1: high ridership activity and moderate job density

[6] While not shown in the figure, security features are recommended and restrooms are optional for this category.

- 75th percentile ridership: 3.0 average daily boardings; and
- 50th percentile job density: 1,828 jobs per square mile.

- Option 2: high ridership activity and moderate population density
  - 75th percentile ridership: 23.0 average daily boardings; and
  - 50th percentile population density: 3,126 persons per square mile.
- Option 3: high density new stops
  - 50th percentile job density: 1,828 jobs per square mile; and
  - 50th percentile population density: 3,126 persons per square mile.

To meet the criteria for the first two options, a bus stop must satisfy both listed requirements. To meet the criteria for the third option, a bus stop must be a new bus stop and meet both listed requirements.

Existing and Planned Bus Stops

Based on the criteria listed above, Figure 27 and Table 5 show the PCT and Roseville Transit bus stops that fit into the Category 2 stops typology.

Figure 27: Placer County Transit and Roseville Transit Existing and Planned Category 2 Stops

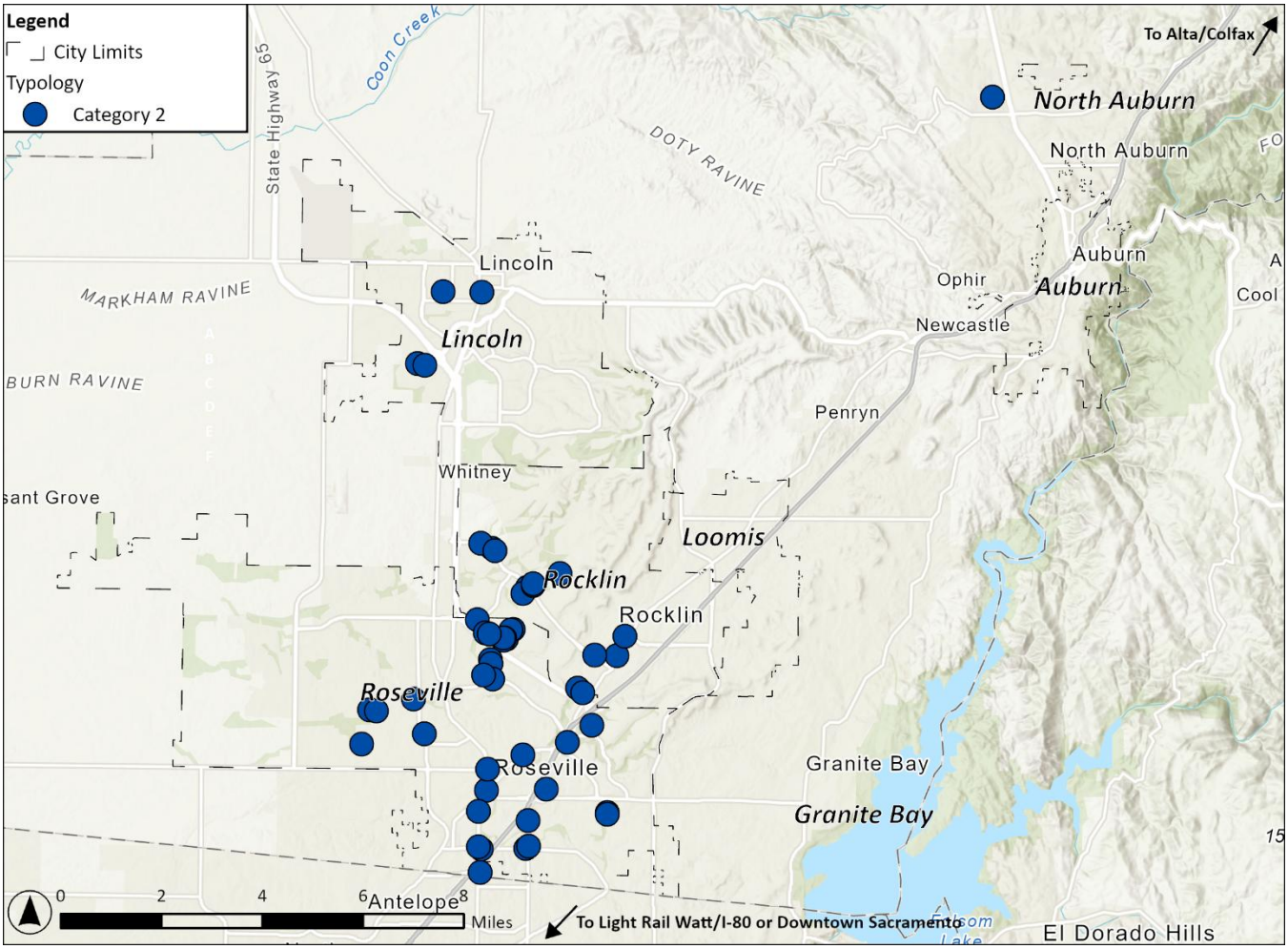


Table 5: Placer County Transit and Roseville Transit Existing and Planned Category 2 Stops

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Louis Ln & Orlando Ave (Rocklin)	37.5	3367	4595
Pacific St & Farron St (Rocklin)	3.5	2099	2861
Sunset Blvd & Springview Dr (Rocklin)	3.0	1166	3161
Sunset Blvd & W Stanford Ranch Rd (Rocklin)	4.0	2160	3374
Sunset Blvd & Atherton Rd (Rocklin)	9.7	2364	2827

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Galena Dr & Quartz Dr (Auburn)	5.8	1470	3148
Rocklin Station (Rocklin)	15.4	1992	3101
Roseville - Taylor Rd Park and Ride (Sunsplash) (Roseville)	20.7	8562	1773
3rd St & F St (Walmart) (Lincoln)	22.1	1649	3126
Ferrari Ranch Rd & Sorrento Pkwy (Lincoln)	5.0	152	3998
Ferrari Ranch Rd & Caledon Cir (E) (Lincoln)	14.8	152	3998
3rd St & O St (Senior Complex) (Lincoln)	5.3	1131	5948
Foothills Blvd & Mcnally Dr (SB) (Roseville)	3.1	1277	6920
Woodcreek Oaks after Junction NE (Roseville)	3.1	562	5166
Pleasant Grove Blvd & Woodcreek Oaks Blvd (WB) (Roseville)	3.8	688	4479
Pleasant Grove Blvd & Foothills Blvd (EB) (Roseville)	4.7	2655	2910
N Sunrise Ave & E Roseville Pkwy (NB) (Roseville)	4.2	8949	2211
N Sunrise Ave & Douglas Blvd (NB) (Roseville)	5.5	11630	2209
Sunrise Ave & Conroy Ln (SB) (Roseville)	5.8	3545	5442
Cirby Wy & Sunrise Ave (WB) (Roseville)	8.3	2326	4637
Cirby Wy & Riverside Ave (EB) (Riverside)	4.2	4976	4575
Riverside Ave & Cirby Wy (NB) (Riverside)	4.9	4976	4575

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Vernon St & Judah St (SB) (Roseville)	3.5	3697	4349
Atlantic St & Center St (SB) (Roseville)	5.6	2277	2045
Sunrise Ave & Cirby Wy (NB) (Riverside)	7.8	2433	4853
Pleasant Grove at Woodcreek Oaks SE (Roseville)	3.7	688	4479
Riverside Ave & Cherry St (NB) (Roseville)	3.9	5295	3932
Roseville Pkwy at Gibson Dr (Roseville)	Proposed new stop	3505	6056
Pleasant Grove Blvd before Highland Point Dr (Roseville)	Proposed new stop	8097	3740
Pleasant Grove Blvd after Highland before Chambord Way (Roseville)	Proposed new stop	8097	3740
Eureka Rd at Deer Valley (Roseville)	Proposed new stop	4749	4037
Eureka Rd at Deer Valley (Roseville)	Proposed new stop	4749	4037
Fairway Dr at Pleasant Grove Blvd (Roseville)	Proposed new stop	3516	4069
Park Dr. after Sunset @ McD's (Rocklin)	Proposed new stop	2292	6572
Pleasant Grove Blvd after Fairway (Roseville)	Proposed new stop	3516	4069
Pleasant Grove Blvd after Highland Pk (Roseville)	Proposed new stop	3266	4929
Park Dr. before light Rock Creek Plaza Safeway (Rocklin)	Proposed new stop	2570	6856
Park Dr. after Park @ AM/PM (Rocklin)	Proposed new stop	2292	6572
Stanford Ranch Rd after Sunset Blvd (Rocklin)	Proposed new stop	2160	3374

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Park Dr. after Boardwalk (Rocklin)	Proposed new stop	1888	5887
Park Dr. before Sunset @ Wells Fargo (Rocklin)	Proposed new stop	2292	6572
Washington Blvd at Main St (Roseville)	Proposed new stop	2507	4524
Roseville Pkwy at Pleasant Grove Blvd (Roseville)	Proposed new stop	3505	6056
Fairway Dr at Rosehall Dr (Roseville)	Proposed new stop	6513	3277
Fairway Dr at Highland Park Dr (Roseville)	Proposed new stop	6513	3277
Fairway Dr at Blue Oaks Blvd (Rocklin)	Proposed new stop	3212	3234
Springview Dr between Woodsteam & Placer W Dr. (Rocklin)	Proposed new stop	5087	3676
Springview Dr across from The Vue (Rocklin)	Proposed new stop	4117	3966
Pleasant Grove Blvd after Highland Park Dr. (Roseville)	Proposed new stop	3266	4929
Pleasant Grove Blvd. before Fairway Dr (Roseville)	Proposed new stop	3516	4069
Pleasant Grove Blvd after Fairway Dr (Roseville)	Proposed new stop	6220	3702
Park Dr. after Boardwalk (Rocklin)	Proposed new stop	1888	5887

Category 3 Stops – Moderate Priority

Category 3 stops are located in areas that meet at least one of the following: high existing ridership activity, high population density, or high job density. These stops usually serve one or more bus routes in the transit system, have moderate transit frequency, and are located near or between activity generators. These stops are typically near areas with single-unit housing developments, neighborhood/community commercial areas, and parks/recreational activities. Since these stops have low to moderate levels of ridership and service, they should provide more information and facility amenities than standard stops.

The following key considerations were used to determine the design guidelines for Category 3 stops:

- More distance between stops
- Commuting needs
- School zones
- Longer wait times
- Population considerations (transit reliant populations)

Design Standards

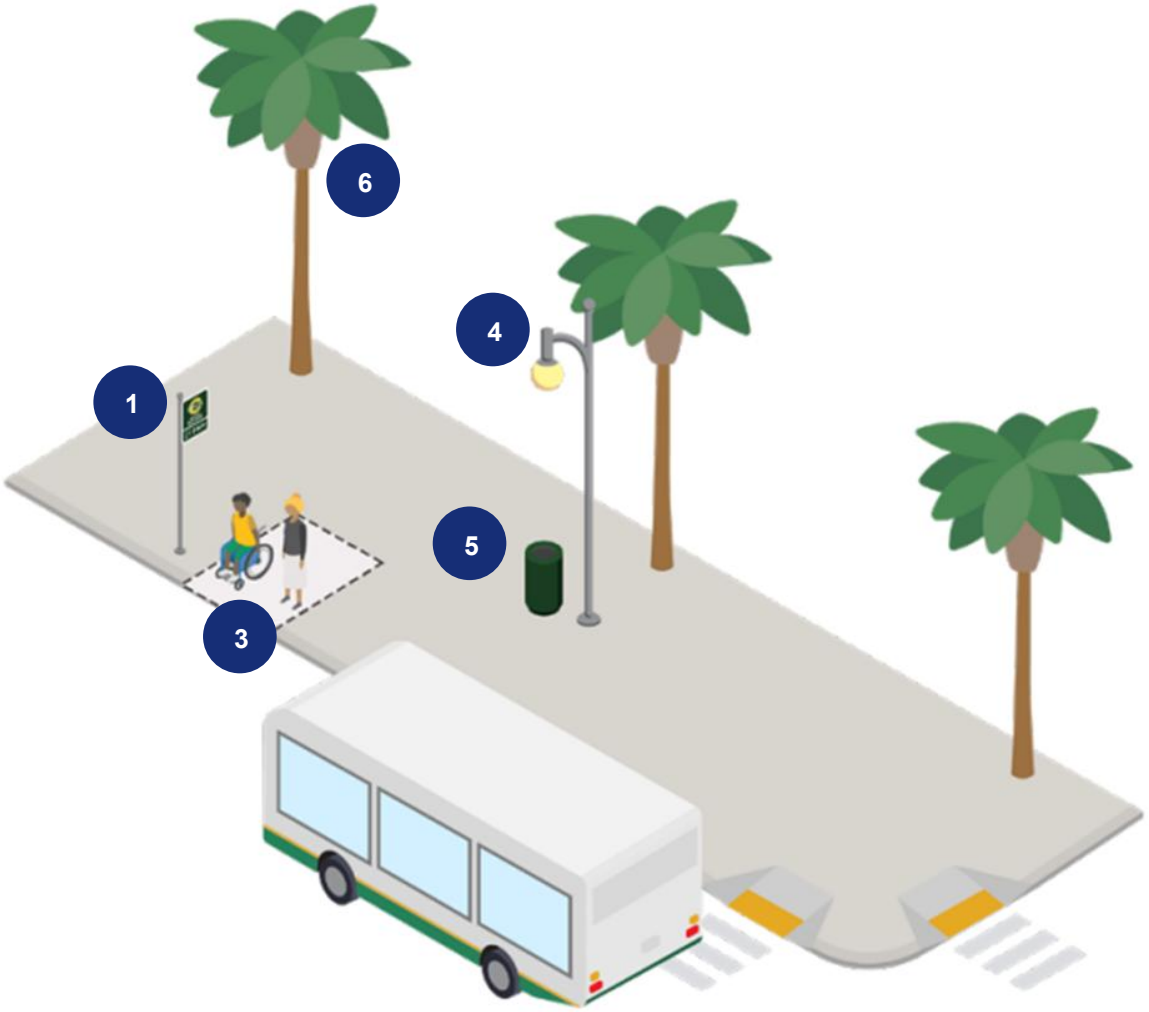
Table 6 shows the recommended, preferred, and optional amenities for Category 3 stops.

Table 6: Category 3 Stops Facility Amenities

Recommended	Preferred	Optional
1. Bus stop signage 2. Bench/seating 3. Landing pad	4. Lighting 5. Trash cans	6. Landscaping

Figure 28 depicts an example Category 3 stop that includes all recommended, preferred, and optional amenities.

Figure 28: Example Category 3 Stop Facility Design[7]



Source: Berkeley Charleston Dorchester Council of Governments Transit and Bus Stop Design Guidelines

Stop Criteria

The criteria for the operational characteristics, service levels, ridership, and surrounding land use contexts that determine Category 3 stops are reflective of areas with a high concentration of ridership, job density, or population density in Placer County. There is one option for a bus stop to meet the criteria for Category 3 stops:

- Option 1: high ridership activity, job density, or population density

[7] While not shown in the figure, bench/seating is recommended for this category.

- 75th percentile ridership: 3.0 average daily boardings; or
- 75th percentile job density: 3,621 jobs per square mile; or
- 75th percentile population density: 4,595 persons per square mile.

To meet the criteria for Category 3 stops, a bus stop must satisfy any one of the listed requirements.

Existing and Planned Bus Stops

Based on the criteria listed above, Figure 29 and Table 7 show the PCT and Roseville Transit bus stops that fit into the Category 3 stops typology.

Figure 29: Placer County Transit and Roseville Transit Existing and Planned Category 3 Stops

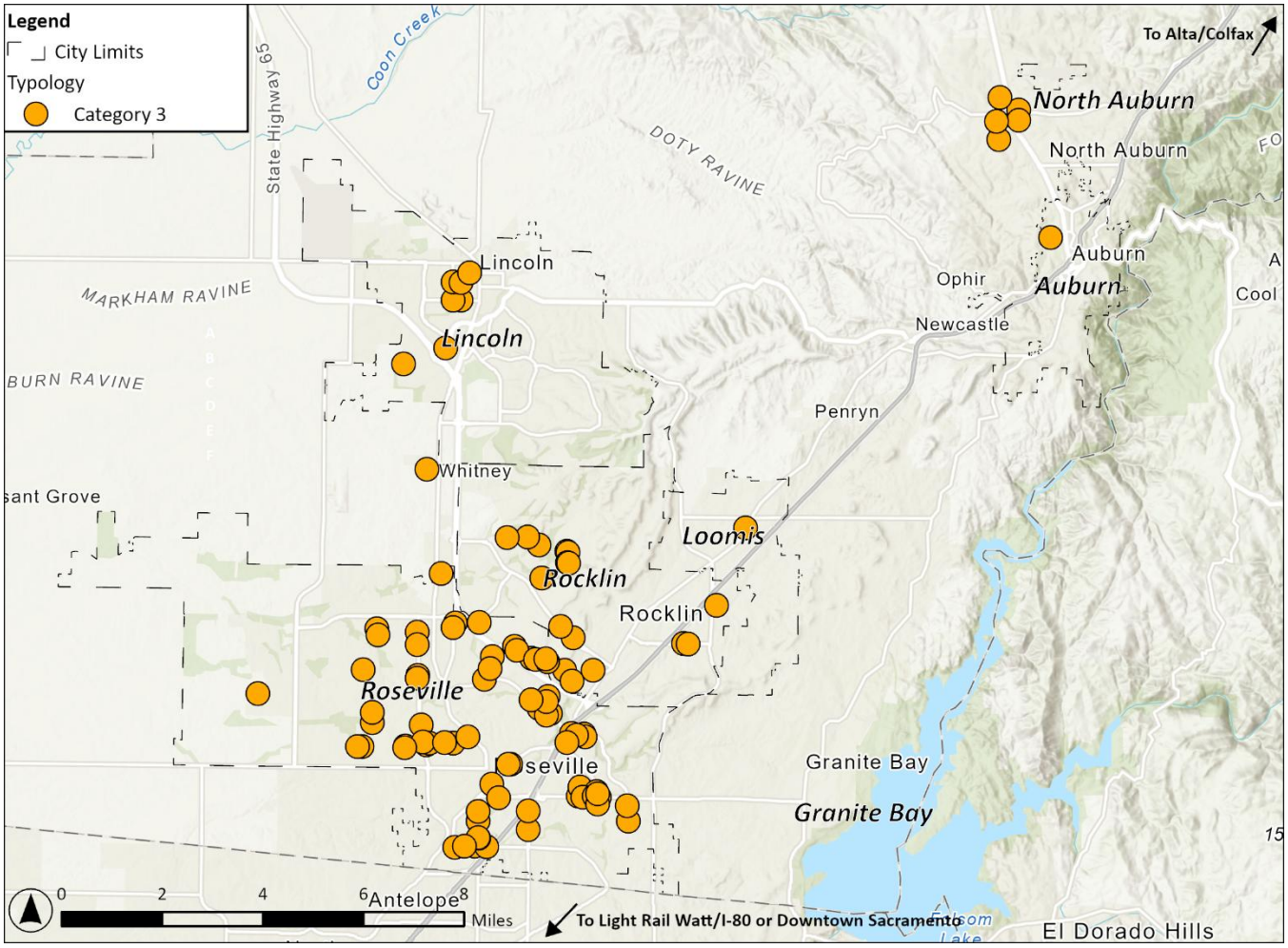


Table 7: Placer County Transit and Roseville Transit Existing and Planned Category 3 Stops

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Sierra College (WB) (Rocklin)	32.5	1606	2446
Sierra College (EB) (Rocklin)	10.0	1606	2446
Thunder Valley Casino (Lincoln)	35.3	196	93
Rocklin Crossings (Walmart) (Rocklin)	5.7	443	835
Nevada St & Enterprise Dr (Post Office) (Auburn)	4.0	495	786
Target (Auburn)	6.9	1600	1068
Sapphire Dr & Garnet Way (Auburn)	4.4	1015	1204
Plaza Dr & Plaza Way (Auburn)	4.4	1600	1068
Atwood Rd & Corral Dr (Auburn)	3.5	1152	1138
1st St & C Ave (DeWitt) (Auburn)	4.4	1300	1334
Colfax Depot (Colfax)	7.6	146	736
Alta Store (Alta)	4.0	1	11
Loomis Station (Loomis)	4.7	1097	1322
Ferrari Ranch Rd & Caledon Cir (W) (Lincoln)	3.0	456	1652
Ferrari Ranch Rd & Groveland E (Lincoln)	8.2	501	1869
1st St & L St (Lincoln)	0.0	1226	6131
1st St & O St (Lincoln)	1.1	1226	6131
5th St & O St (Lincoln)	0.0	1238	5287
5th St between L St & M St (Lincoln)	0.0	1238	5287
7th St & J St (High School) (Lincoln)	3.2	1344	2516
Cirby Wy & Riverside Ave (WB) (Roseville)	0.7	7705	5478

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Cirby Wy & Vernon St (EB) (Roseville)	0.2	2645	5193
Foothills Blvd & Junction Blvd (SB) (Roseville)	0.4	1518	6829
Foothills Blvd & Mcnally Dr (NB) (Roseville)	0.0	1016	6645
Foothills Blvd & Misty Wood Dr (NB) (Roseville)	0.1	3905	1357
Foothills Blvd & Misty Wood Dr (SB) (Roseville)	0.1	3905	1357
Foothills Blvd & Blue Oaks Blvd (SB) (Roseville)	0.4	3905	1357
Junction Blvd & Woodcreek Oaks Blvd (EB) (Roseville)	0.0	562	5166
Pleasant Grove Blvd & Roseville Pkwy (WB) (Roseville)	0.0	3505	6056
Junction Blvd & Barbara Dr (EB) (Roseville)	0.3	1561	7028
Junction Blvd & Foothills Blvd (EB) (Roseville)	1.2	1518	6829
Atlantic St & Yosemite St (NB) (Roseville)	0.0	4647	3991
Atlantic St & Yosemite St (SB) (Roseville)	2.0	4647	3991
Roseville Pkwy & Taylor Rd (WB) (Roseville)	1.5	9041	1759
E Roseville Pkwy & N Sunrise Ave (WB) (Roseville)	1.0	10795	1807
Sunrise Ave & Coloma Wy (SB) (Roseville)	1.4	4241	5807
Cirby Wy & Cirby Hills Dr (WB) (Roseville)	2.6	5202	4799
Riverside Ave & Kenroy Ln (NB) (Roseville)	2.0	6607	4773

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Vernon St & Taylor St (NB) (Roseville)	0.9	3739	4572
Riverside Ave & Sixth St (SB) (Roseville)	2.2	6521	4535
Riverside Ave & Kenroy Ln (SB) (Roseville)	0.4	6607	4773
Douglas Blvd & Eureka Rd (EB) (Roseville)	0.5	12503	1936
Douglas Blvd & Rocky Ridge Dr (WB) (Roseville)	1.5	11935	1968
Rocky Ridge Dr & Lead Hill Blvd (SB) (Roseville)	1.5	11935	1968
Eureka Rd & Douglas Blvd (SB) (Roseville)	1.3	12503	1936
Douglas Blvd & Rocky Ridge Dr (EB) (Roseville)	1.9	11935	1968
Douglas Blvd & Eureka Rd (WB) (Roseville)	0.8	12503	1936
Woodcreek Oaks Blvd & Jonquil Dr (NB) (Roseville)	0.2	345	4958
Woodcreek Oaks Blvd & Painted Desert Dr (SB) (Roseville)	1.1	3621	1910
Taylor Rd (Roseville)	NA	8562	1773
Douglas Blvd & Buljan Dr (SB) (Roseville)	0.0	5502	4472
Roseville Pkwy & Galleria Blvd (EB) (Roseville)	1.4	6116	1680
N Sunrise Ave & E Roseville Pkwy (SB) (Roseville)	2.2	10795	1807
Foothills Blvd & Hp Main Entry (SB) (Roseville)	0.2	3905	1357
Galleria at Roseville (Roseville)	NA	5749	2881

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Roseville Pkwy & Reserve Dr (EB) (Roseville)	2.4	4816	2420
Galleria Bl & Roseville Pw (SB) (Roseville)	1.2	6116	1680
Justice Center Drive & Industrial Ave (WB) (Roseville)	4.4	320	86
Pleasant Grove Blvd & Highland Pointe Dr (SB) (Roseville)	2.6	5589	3920
Riverside Ave & Fourth St (SB) (Roseville)	2.7	4216	4158
Galleria Bl & Antelope Creek Dr (NB) (Roseville)	2.0	9584	3399
Fairway Dr & Five Star Blvd (WB) (Roseville)	0.4	6066	3926
Fairway Dr & Central Park Dr (WB) (Roseville)	1.5	6066	3926
Rothbury Ln & Elmsett Pl (EB) (Roseville)	4.9	216	2383
Fairway Dr & Central Park Dr (EB) (Roseville)	2.5	6066	3926
Fairway Dr & Five Star Bl (EB) (Roseville)	1.5	6066	3926
Stanford Ranch Rd & Fairway (SB) (Rocklin)	1.2	2549	4770
Galleria Bl & Antelope Creek Dr (SB) (Roseville)	0.3	5749	2881
E Roseville Pkwy & Eureka Rd (NB) (Roseville)	0.6	4272	4057
E Roseville Pkwy & Village Dr (NB) (Roseville)	0.4	8516	2609
Sunrise Ave & Frances Dr (SB) (Roseville)	2.3	3214	5012
Cirby Wy & Lindsay Dr (WB) (Roseville)	0.1	3183	5785

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Fairway Dr & Stanford Ranch Rd (WB) (Rocklin)	1.0	2549	4770
Junction Bl & Revere Dr (WB) (Roseville)	0.2	532	6951
Woodcreek Oaks Bl & Junction Bl (SB) (Roseville)	1.3	532	5706
Woodcreek Oaks Bl & Mcanally Dr (NB) (Roseville)	1.7	834	4621
Junction Bl & Foothills Bl (WB) (Roseville)	2.7	1518	6829
Pleasant Grove Bl & Roseville Pw (NB) (Roseville)	1.9	4844	5206
Woodcreek Oaks Bl & Crimson Ridge Wy (NB) (Roseville)	0.2	3621	1910
Eureka Rd at Douglas Blvd (Roseville)	Proposed new stop	12503	1936
E Roseville Pkwy at Taylor Rd (Roseville)	Proposed new stop	10576	1937
Thrive Dr at Washington Blvd (Roseville)	Proposed new stop	4262	1999
Eureka Rd at Professional Dr (Roseville)	Proposed new stop	12503	1936
Junction Blvd at Aldridge Ln (Roseville)	Proposed new stop	532	6951
Junction Blvd at Sawtell Rd (Roseville)	Proposed new stop	1561	7028
Junction Blvd at Washington Blvd (Roseville)	Proposed new stop	742	4742
Washington Blvd at Freedom Way (Roseville)	Proposed new stop	4500	1514
Stanford Ranch Rd at Savemart Plaza (Rocklin)	Proposed new stop	1064	4881

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Stanford Ranch Rd after Wildcat (Rocklin)	Proposed new stop	749	5195
Stanford Ranch Rd after West Oaks (Rocklin)	Proposed new stop	671	5978
Stanford Ranch Rd after Darby (Rocklin)	Proposed new stop	695	6225
Stanford Ranch Rd B4 Park Dr. X -Savemart Plaza (Rocklin)	Proposed new stop	1064	4881
Park Dr. after Theona Wy. (Rocklin)	Proposed new stop	1064	4881
Park Dr. after Farrier Rd (Rocklin)	Proposed new stop	1728	6377
Woodcreek Oaks Blvd at Pleasant Grove Blvd (Roseville)	Proposed new stop	658	4646
Fairway Dr at Cortina Cir (Roseville)	Proposed new stop	4110	2939
Springview Dr after S. Whitney Bvld. (Rocklin)	Proposed new stop	1045	5409
Springview Dr after Antelope Creek before Brookside Cir. (Rocklin)	Proposed new stop	762	4844
Springview Dr after E Sunwood (Rocklin)	Proposed new stop	762	4844
Sunset Blvd after Topaz Ave (Rocklin)	Proposed new stop	1272	4859
Sunset Blvd after Fairway Dr. (Rocklin)	Proposed new stop	1116	6245
Park Dr. before Santa Fe (Rocklin)	Proposed new stop	1064	4881
Stanford Ranch Rd after Darby (Rocklin)	Proposed new stop	695	6225
Stanford Ranch Rd after West Oaks (Rocklin)	Proposed new stop	671	5978
Stanford Ranch Rd after Wildcat (Rocklin)	Proposed new stop	749	5195

Category 4 Stops – Standard Priority

Category 4 stops are located in areas with low to moderate existing ridership activity, job density, and population density. These stops usually serve a single bus route in the transit system, have a low transit frequency, and are generally in low-density suburban and/or more rural areas and not near activity generators. These stops are typically surrounded by areas with single-unit housing developments, agricultural and rural land uses, neighborhood/community areas, and open space. Since these stops have the lowest levels of ridership and service, they should provide basic information and facility amenities.

The following key considerations were used to determine the design guidelines for Category 4 stops:

- Large distance between stops
- Long wait times
- Commuting needs
- Higher travel speeds
- Connections to trails/recreational activities
- Population considerations (transit reliant populations)

Design Standards

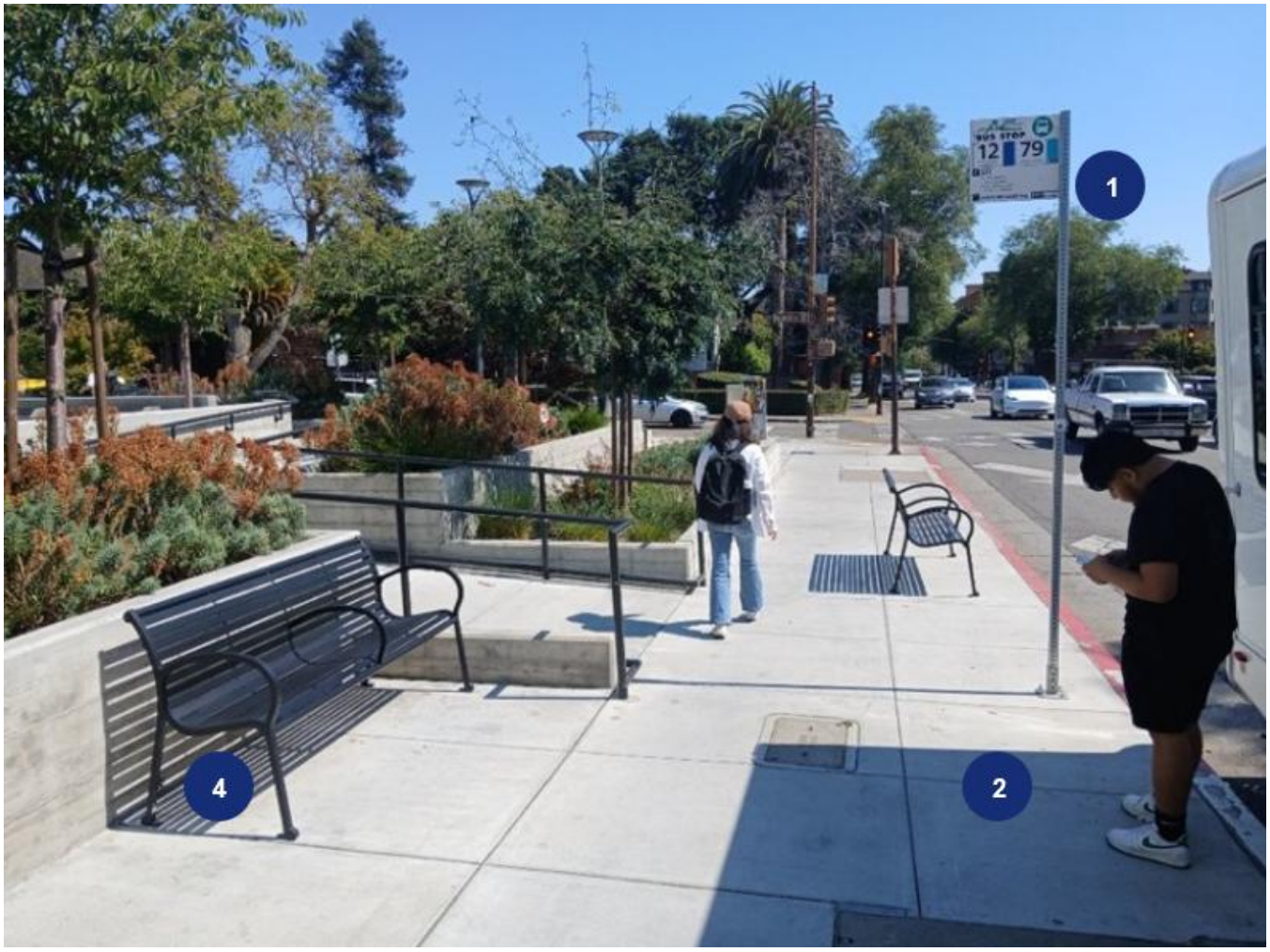
Table 8 shows the recommended, preferred, and optional amenities for Category 4 stops.

Table 8: Category 4 Stops Facility Amenities

Recommended	Preferred	Optional
1. Bus stop signage 2. Landing pad	3. Trash cans 4. Bench/seating	5. Lighting

Figure 30 depicts an example of a Category 4 stop that includes bus stop signage and a bench.

Figure 30: Example Category 4 Stop Facility Design[8]



Source: City of Berkeley and Berkeleyside

Stop Criteria

The criteria for the operational characteristics, service levels, ridership, and surrounding land use contexts that determine Category 4 stops are reflective of areas that do not have high ridership activity, job density, or population density in Placer County. These are stops that are below the 75th percentile for ridership activity, job density, and population density, and include all remaining bus stops in the PCTPA transit system.

- Below 75th percentile ridership: 3.0 average daily boardings; and
- Below 75th percentile job density: 3,621 jobs per square mile; and
- Below 75th percentile population density: 4,595 persons per square mile.

[8] While not shown in the figure, trash cans are recommended and lighting is optional for this category.

Existing and Planned Bus Stops

Based on the criteria listed above, Figure 31 and Table 9 show the PCT and Roseville Transit bus stops that fit into the Category 4 stops typology.

Figure 31: Placer County Transit and Roseville Transit Existing and Planned Category 4 Stops

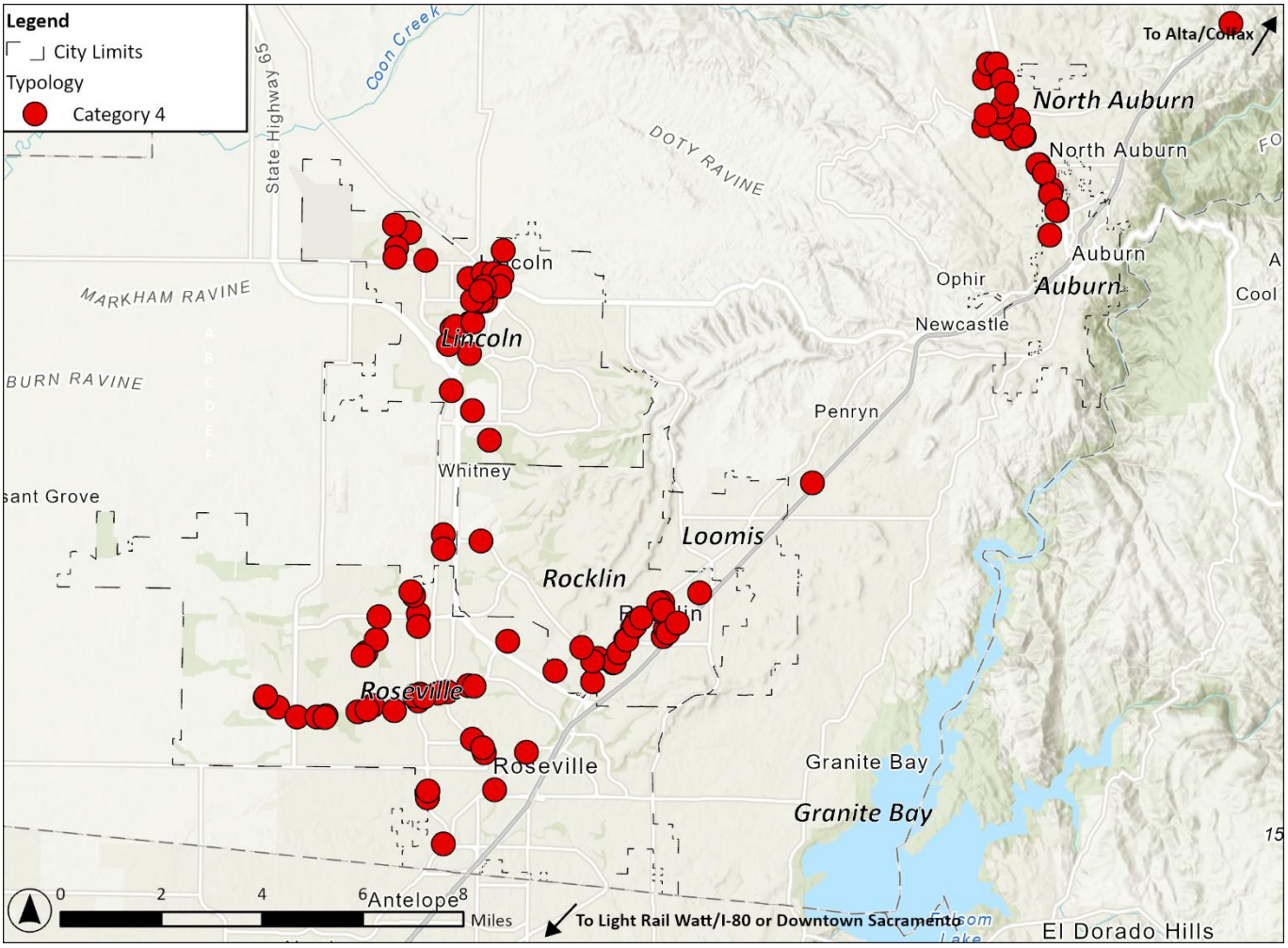


Table 9: Placer County Transit and Roseville Transit Existing and Planned Category 4 Stops

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Nicolaus and Joiner (Lincoln)	0.0	317	1201
Foskett Ranch School (Lincoln)	0.0	302	872
Venture at Lakeside (Lincoln)	0.0	302	872

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Lakeside Dr after Floradale Way/Cobblestone Dr (Lincoln)	0.0	507	4404
Lakeside Dr at St Andrews (Lincoln)	0.0	250	2746
12th and East St (Lincoln)	2.2	1714	3206
Ferrari Ranch Rd after Danbury (Lincoln)	2.0	640	1022
Kaiser Lincoln (South Entrance) (Lincoln)	0.0	641	138
Twelve Bridges Middle School (Lincoln)	0.0	296	2058
Granite Drive (Rocklin)	2.0	2148	2458
Sierra Meadows Dr & Manzanita Dr (Rocklin)	0.0	3233	2313
Sierra Meadows Dr & Chaparral Ct (AFM Rocklin Lanes) (Rocklin)	0.0	1828	1280
Sierra Meadows Dr & Pacific St (Rocklin)	0.0	1828	1280
Pacific St/Midas Ave (Rocklin)	1.0	1765	3405
Pacific St & Pine St (Rocklin)	1.0	1992	3101
Pacific St & Bush St (Rocklin)	0.0	1992	3101
Pacific St & Sunset Blvd (Rocklin)	2.5	1811	3199
Sunset Blvd & Atherton Rd (Rocklin)	0.0	2364	2827
S Whitney Blvd & Lincoln Ave (Rocklin)	0.0	2299	4571
Sunset Blvd & Springview Dr (Rocklin)	0.0	1166	3161
Pacific St & Sunset Blvd (Rocklin)	1.7	1689	3561
Pacific St & Farron St (Rocklin)	0.0	2099	2861

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Pacific St & Bush St (Rocklin)	0.0	1992	3101
Pacific St & Pine St (Rocklin)	0.0	1992	3101
Pacific St/Midas Ave (Rocklin)	0.0	1817	1669
Pacific St & Sierra Meadows Dr (Rocklin)	1.7	1828	1280
Sierra Meadows Dr & Chaparral Ct (AFM Rocklin Lanes) (Rocklin)	1.7	1828	1280
Granite Dr & Sierra Meadows Dr (Rocklin)	0.0	2148	2458
Target (Auburn)	2.0	3233	2313
Granite Dr (Across from Church) (Rocklin)	0.0	3233	2313
Nevada St (Theater) (Auburn)	1.0	1139	2135
Hwy 49 & Edgewood Rd (Auburn)	1.0	848	2585
Hwy 49 & Luther (Auburn)	2.0	718	2669
Atwood Rd (Drive In) (Auburn)	0.0	2541	1563
Richardson Dr & B Ave (Auburn)	2.0	1300	1334
F Ave & 1st St (DeWitt) (Auburn)	1.5	1152	1138
Hwy 49 & Atwood Rd (Bel Air) (Auburn)	0.0	2541	1563
Plaza Dr & Plaza Way (Auburn)	1.0	1600	1068
Professional Dr & Bell Rd (Auburn)	1.0	1061	1183
Education St & Professional Dr (Auburn)	2.9	1061	1205
Chana Park (Auburn)	0.0	1470	3148
Richardson Dr & Dry Creek (Auburn)	0.0	1223	1882

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Dry Creek Rd & Dry Lake Ln (Auburn)	1.5	967	927
Hwy 49 & Dry Creek Rd (RCMHP) (Auburn)	2.9	1061	1183
Hwy 49 & Quartz Dr (Auburn)	1.5	1015	1204
Bell Rd & County Center Dr (Auburn)	0.0	1300	1334
Hwy 49 & Luther (Auburn)	0.0	932	1914
Hwy 49 and Live Oak Ln (Auburn)	0.0	718	2669
Nevada Way & Nevada St (Auburn)	1.5	848	2585
Nevada St (Theater) (Auburn)	0.0	1139	2135
Nevada St & Post Office (SB) (Auburn)	0.0	495	786
Hwy 49 & Atwood Rd (Bel Air) (Auburn)	2.9	2541	1563
Clipper Gap Park-n-Ride (Auburn)	1.2	43	244
Penryn Park and Ride (Penryn)	1.8	220	729
E St & 1st St (Lincoln)	1.6	1490	3442
Ferrari Ranch Rd & Lincoln Blvd (Lincoln)	1.0	1002	2854
Sterling Pkwy & Joiner Pkwy (Lincoln)	1.1	639	949
Ferrari Ranch Rd & Groveland W (Lincoln)	1.6	500	1448
Ferrari Ranch Rd & Kensington Ln (Lincoln)	0.0	1054	4542
Lincoln Blvd & Ferrari Ranch Rd (Lincoln)	0.0	1002	2854
Lincoln Blvd & 1st St (Lincoln)	0.0	987	2363
1st St & F St (Lincoln)	0.0	1490	3442
1st St & I St (Lincoln)	0.0	1490	3442
J St & 6th St (Lincoln)	0.0	1386	2557

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
7th St & F St (Lincoln)	0.0	1344	2516
7th St & C St (Lincoln)	1.1	1714	3206
East Ave & 6th St (Lincoln)	0.0	189	504
McBean Park Dr & A St (Lincoln)	0.0	232	688
McBean Park Dr & E St (Lincoln)	0.0	1649	3126
3rd St & F St (Across from Walmart) (Lincoln)	0.0	1649	3126
Foothills Blvd & Vineyard Rd (SB) (Roseville)	0.1	896	1437
Foothills Blvd & Pleasant Grove Blvd (SB) (Roseville)	1.0	2655	2910
Foothills Blvd & Pleasant Grove Blvd (NB) (Roseville)	0.2	3184	2803
Foothills Blvd & Blue Oaks Blvd (NB) (Roseville)	0.6	3384	2228
Pleasant Grove Blvd & Foothills Blvd (WB) (Roseville)	0.7	2655	2910
Pleasant Grove Blvd & Sun City Blvd (WB) (Roseville)	0.7	695	3360
Pleasant Grove Blvd & Washington Blvd (EB) (Roseville)	1.1	3356	2491
Pleasant Grove Blvd & Gallilee Rd (WB) (Roseville)	0.5	3356	2491
Pleasant Grove Blvd & Hallisey Dr (WB) (Roseville)	0.0	2494	4432
Pleasant Grove Blvd & Gold Coast Dr (EB) (Roseville)	0.7	2494	4432

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Washington Blvd & All American City Blvd (SB) (Roseville)	0.3	1025	3296
Washington Blvd & Junction Blvd (SB) (Roseville)	0.3	1001	3984
Atlantic St & Center St (NB) (Roseville)	0.0	2277	2045
Foothills Blvd & Albertsons Dr (NB) (Roseville)	0.0	3384	2228
Foothills Blvd & Vineyard Rd (NB) (Roseville)	0.0	896	1437
Woodcreek Oaks Blvd & Pleasant Grove Blvd (NB) (Roseville)	1.4	688	4479
Woodcreek Oaks Blvd & Horncastle (NB) (Roseville)	0.3	2549	2671
Woodcreek Oaks Blvd & Crimson Ridge Wy (SB) (Roseville)	0.6	2549	2671
Woodcreek Oaks Blvd & Horncastle Ave (SB) (Roseville)	0.6	2549	2671
Pleasant Grove Blvd & Foothills Blvd (EB) (Roseville)	1.9	3184	2803
Taylor St & Royer St (WB) (Roseville)	1.7	3443	4581
Foothills Blvd & Cirby Wy (NB) (Roseville)	0.0	1272	1728
Foothills Blvd & Winding Creek Way (SB) (Roseville)	2.7	195	122
Foothills Blvd & Winding Creek Court (NB) (Roseville)	0.1	195	122
Pleasant Grove Blvd & Mahany Park And Ride Lot (NB) (Roseville)	0.0	658	4438

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Fairway Dr & Pleasant Grove Blvd (EB) (Roseville)	2.5	3516	4069
Pleasant Grove Bl & Kennerleigh Pw (WB) (Roseville)	0.9	280	2110
Pleasant Grove Bl & Rothbury Ln (EB) (Roseville)	2.6	280	2110
Pleasant Grove Bl & Fiddyment Rd (EB) (Roseville)	2.7	437	2582
Pleasant Grove Bl & Camino Real Wy (EB) (Roseville)	1.8	695	3360
Pleasant Grove Bl & Woodcreek Oaks Bl (EB) (Roseville)	1.8	688	4479
Pleasant Grove Bl & Country Club Dr (EB) (Roseville)	1.3	723	4527
Pleasant Grove Bl & Village Plaza Dr (WB) (Roseville)	1.1	218	2259
Blue Oaks Blvd at Woodcreek Oaks Blvd (Roseville)	Proposed new stop	2803	2974
Washington Blvd at All America City Blvd (Roseville)	Proposed new stop	1025	3296
Pleasant Grove Blvd at Sun City Blvd (Roseville)	Proposed new stop	695	3360
Springview Dr after Springview meadows (Rocklin)	Proposed new stop	1350	4290
Springview Dr before 2nd Shannon Bay Dr. (Rocklin)	Proposed new stop	1166	3161
Sunset Blvd after Whitney Blvd (Rocklin)	Proposed new stop	1247	3625

Bus Stop Name	Average Weekday Boardings	Job Density (Jobs/Square Mile)	Population Density (Persons/ Square Mile)
Lincoln Park & Ride (Lincoln)	Proposed new stop	602	504
Placer Corp Dr before Industrial Ave (Lincoln)	Proposed new stop	333	115
S. Loop Rd. before Sunset Blvd (Rocklin)	Proposed new stop	333	115