DATE June 3, 2015
TO GCTD Board of Directors
FROM Claire Johnson-Winegar, Planning Manager
SUBJECT Consider Approval of Gold Coast Transit District Bus Stop Guidelines

I. EXECUTIVE SUMMARY

This item is to consider Gold Coast Transit District (GCTD) Bus Stop Guidelines. The attached Bus Stop Guidelines have been prepared by GCTD Planning staff with input and review from each member agency, GCTD’s General Counsel and Technical Advisory Committee. A complete copy of the guidelines is attached to this report.

The Bus Stop Guidelines are intended to provide GCTD’s member agencies with physical design specifications that are recommended to be integrated with local comprehensive plan policies, land use ordinances, pedestrian plans, and street design guidelines. The purpose of the guidelines are to promote consistency in bus stop placement and design, encourage member agencies and developers to design clean and attractive bus stops that meet the operational requirements of our fleet and encourage members of the community to use public transit through the provision of safe, comfortable, convenient, and consistent transit stops. The document contains information on policies and procedures, stop spacing and placement, stop guidelines and amenities.

The Policies and Procedures section set guidelines for adding, moving or removing stops; reviewing member agency development plans; how to handle construction impacts and bus stop maintenance. The Bus Stop Spacing and Placement section specify preferable distance between stops and where best to locate them from an operational perspective. The Bus Stop Design Guidelines section provides direction for curb clearance, pull-outs, bus bulbs, bus pads, turning radii, boarding area, rural or undeveloped stops, pedestrian connectivity and parking restrictions. The Amenities section provides guidance on the types of amenities appropriate for stops based on ridership and other factors, as well as guidance on location and dimensions of those elements.

II. BACKGROUND INFORMATION

While many transit agencies have bus stop guidelines or standards, Gold Coast Transit District never has. As we grow, these guidelines are necessary to promote bus stop consistency and provide the best bus stops possible to serve our passengers' needs as well as GCTD’s operational needs. The Bus Stop Guidelines have been reviewed by all member agencies and have been sent to local community based transit-rider groups for their review and input as well.
III. ADDITIONAL INFORMATION

The Bus Stop Guidelines are meant to be used as a tool to evaluate bus stop changes on a case by case basis. They are not intended to be a strict set of rules, rather they aim to give suggestions on how best to create bus stops that suit both the passengers’ and agency’s needs. They are proposed to be used for new stops and stop changes, rather than requiring that all current stops conform to the guidelines.

IV. RECOMMENDED ACTION

It is recommended that the GCTD Board of Directors consider the Technical Advisory Committee’s and Staff recommendation to approve the Gold Coast Transit District Bus Stop Guidelines.

__________________________
General Manager’s Concurrence
GCTD BUS STOP GUIDELINES

DISCLAIMER
The purpose of these guidelines is to develop suggested design criteria that should be considered when designing and placing bus stops and amenities. This information is not to be used as a set of standard details on which to base a final design, but rather as recommended criteria and general guidance for the placement and safe design of transit stops and facilities. It cannot be overemphasized that these guidelines must be used in conjunction with sound evaluation of the facts and engineering judgment. These guidelines are intended to be used for actions on new or revised stop locations, and do not intend to apply to existing stop locations. Member agencies, in adopting these guidelines, indicate their general acceptance of the information provided. Their acceptance of these guidelines does not modify or supersede current standards and/or policies otherwise adopted by the member agency.

ACKNOWLEDGEMENTS
This work was developed by the Planning and Marketing Department of the Gold Coast Transit District (GCTD). We would like to thank those involved in previous work on bus stop guidelines, as these were used as base information to develop our local guidelines. We specifically would like to thank OMNITRANS, Santa Barbara Metropolitan Transit District (MTD), Orange County Transit Authority (OCTA), Washington Metropolitan Area Transit Authority (WMATA), National Association of City Transportation Officials, and the Texas Department of Transportation for guidelines or documents referenced.

ABOUT GCTD
The Gold Coast Transit District (GCTD) provides safe, responsive, convenient, efficient, and environmentally responsible fixed-route bus and paratransit public transportation that serves the diverse needs of the cities of Ojai, Oxnard, Port Hueneme and Ventura, and in the unincorporated Ventura County areas between the cities. Utilizing a fleet of 54 clean-burning compressed natural gas (CNG) buses, GCTD carries over 3.8 million passengers annually on its 20 bus routes. GCTD is a transit district governed by a Board of Directors made up of an elected official from each member agency.
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Appendix
1. INTRODUCTION & PURPOSE

This document summarizes the recommended guidelines for bus stop placement and design in the GCTD Service Area. The guidelines are intended to provide GCTD and its member agencies physical design specifications that are recommended to be integrated with local comprehensive plan policies, land use ordinances, pedestrian plans, and street design guidelines. These guidelines should be referred to when planning access improvements to transit facilities. Developers or builders who are interested in designing transit friendly projects may also make use of these design guidelines. The general public may find these guidelines useful in understanding the current practices for the placement of transit facilities, as well.

These guidelines, developed by GCTD in conjunction with its member agencies, take into consideration the operational needs of the District, the requirements of the Americans with Disabilities Act (ADA), other federal and state accessibility mandates, and public safety. The purpose of these guidelines is to:

- Promote consistency in bus stop placement and design;
- Encourage member agencies and developers to design clean and attractive bus stops that meet the operational requirements of our fleet;
- Encourage members of the community to use public transit through the provision of safe, comfortable, convenient, and consistent transit stops.

To the extent any of a portion of these guidelines is inconsistent with the ADA or any other federal, state, or local laws or regulations, the applicable law or regulation shall control. Developers, design professionals, engineers, contractors, and other persons who utilize these guidelines shall be responsible for complying with all applicable laws.

2. BUS STOP POLICIES & PROCEDURES

It is GCTD’s intent to establish consistent and systematic policies and procedures for the review of proposed bus stops and bus stop revisions. These policies specify the process for making decisions, developing transit plans and reviewing projects that may affect transit operations. These policies and procedures ensure that the bus stops receive the proper assessment and technical review before bus stops are moved or constructed.

2.1 ADDING, MOVING OR REMOVING BUS STOPS

Requests for new bus stop locations or concerns regarding existing stops may originate from any number of sources including GCTD staff, bus operators, the public, developers, and member agencies. These requests may include issues such as requests to add, move, or remove bus stops or amenities; or may be operational and/or safety issues related to the stop location. The process for these requests is as follows:

**Requests:** Bus stop requests may be made directly to GCTD or to a member agency. All bus stop requests will be reviewed by GCTD staff. If the member agency receives the request, it will be forwarded to GCTD staff for action.

**Review:** Requests are forwarded to the GCTD Bus Stop Committee for review. The Committee is compromised of planning and operations staff who will evaluate the potential impacts on passengers, residents, businesses in the surrounding area as well as GCTD operations. A site visit by both GCTD staff and the member agency staff may be scheduled at the discretion of GCTD to determine whether the request is feasible.


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**Recommendation:** GCTD planning staff will advise the appropriate member agency of GCTD’s recommendation. Based on GCTD’s recommendation, the member agency will determine whether to implement the change.

**Implementation & Monitoring:** GCTD and the member agency will establish a plan to notify adjacent property owners, implement the stop and monitor usage. GCTD and/or the member agency may implement a temporary stop or change on a trial basis before deciding on a permanent stop or change.

2.2 DEVELOPMENT PLAN REVIEW

GCTD shall review all development and roadway improvement plans that meet the following criteria early in the site planning process. The intent of this process is to incorporate quality public transit into development or roadway improvement plans.

**Intake:** Plans which include one or more of the following criteria shall be sent to GCTD for review:

- Street(s) with existing transit routes,
- Proposed street(s) with public transit identified in General, Community or Specific Plans,
- Major arterial or connector streets,
- Proposed high density development, including residential, commercial, industrial, educational or medical institutions,
- Developments that are anticipated to have a high number of transit riders, or
- Any other project that in the member agency’s opinion should be assessed for current or future transit needs.

**Review:** The member agency should send one (1) set of development plans to GCTD and include basic project information such as proposed usage, the name of the contact person at the member agency, and the name and contact information for the project.

**Recommendation:** GCTD planning staff will review and provide comments on plans including recommended placement of bus stops, amenities, and bus movement paths. Revised plans should be returned to GCTD along with prior comments for subsequent reviews.

2.3 CONSTRUCTION IMPACTS TO BUS OPERATIONS

Some construction projects will temporarily disrupt a bus route(s) or bus stop(s), even if there is no long term affect on transit operations or bus stops. Prior to approval of traffic mitigation plans, it is highly desirable that GCTD is notified by the member agency or the project proponent. For short term disruptions, GCTD should be notified no less than two weeks before construction. Longer term disruption should be reviewed and discussed in a manner similar to the development plan review process discussed in section 2.2. GCTD staff will work with the member agency to develop a plan that maintains reasonable transit access and operations while the project is being constructed.

To minimize service disruption to passengers during construction projects, the following guidance should be followed:

- Contractors shall make every effort to schedule their work to minimize impacts and duration of impacts to transit operations and the general public.
- Contractors shall invite GCTD to the project's pre-construction conference.
- Whenever possible, maintain access to the existing bus stop during construction. However, if that is not possible, a temporary bus stop location should be identified and discussed with GCTD for approval.
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- All work shall conform to the requirements of the Americans with Disabilities Act (ADA) including provisions for temporary access to and from bus stops and providing temporary bus stop locations.
- The contractor shall provide GCTD with the name and telephone number of the contractor’s construction manager prior to the commencement of all construction projects involving bus stops or bus route detours.
- The contractor shall receive approval from the member agency for the location of street furniture placement prior to construction of the passenger boarding area.
- GCTD will provide and/or post the appropriate temporary bus sign signage.
- The contractor shall notify GCTD in advance of construction completion to allow GCTD to reinstate normal operations.

It is the contractor’s responsibility to reinstall the bus stop sign or reconstruct the stop as soon as reasonably feasible after work is performed.

2.4 BUS STOP MAINTENANCE

The member agencies are responsible for maintaining their bus stop amenities, and monitoring these items for compliance. Well-maintained bus stops are crucial to the image and attractiveness of the transit system. Damaged street furniture and trash build-up should be addressed in a timely manner to create a positive impression for transit patrons and the general public. GCTD does not own or maintain any bus stop amenities system-wide, other than Guide-A-Ride (GAR) panels installed on selected bus stop sign poles. Maintenance should happen as often as necessary and should include:

- Full wash down of shelter and accessories.
- Removal of all dirt, graffiti, pasted material, or stickers.
- Removal and replacement of trash bags at least once a week depending on the amount of trash that accumulates at the stop.
- Litter pick up around the stop.
- Manual or chemical removal of weeds when needed.
- Pruning of obstructing foliage (in particular branches in advance of the bus stop).
- Touch up of marred or chipped paint.
- Verifying shelter lighting levels and replacement of bad bulbs and ballasts.
- Repair of items that pose a safety concern as soon as possible.

3. BUS STOP SPACING & PLACEMENT

The proper spacing and placement of bus stops is critical to the safety of passengers and motorists, and for effective transit operations. Because of the number of factors involved, each new or relocated stop must be examined on a case-by-case basis. However, general guidelines for stop spacing and placement are as follows.

3.1 SPACING ALONG THE ROUTE

Bus stops should be spaced close enough together so that people can reach them easily, but far enough apart so that the bus is not continually stopping and starting, making the trip excessively slow. Generally, bus stops should be spaced every 1/4-mile (0.25 mile). However, in dense areas, closer spacing may be necessitated to meet operational needs and in rural areas spacing may be 1/2-mile apart (0.5 mile).

3.2 MAJOR ACTIVITY CENTERS

Bus stops should always be placed at major trip generators, including major employment centers, dense residential areas, major retail centers, educational centers, and major medical
facilities. When feasible, a bus stop should be located to minimize walking distances to the major activity center.

3.3 MAJOR TRANSFER LOCATIONS
At locations where transfer activity between routes is heavy, stops should be located as near to each other as possible to shorten paths for passengers transferring to other routes.

3.4 PLACEMENT OF BUS STOPS AT INTERSECTIONS
Bus stops are generally located at intersections, on either the nearside (before the intersection) or farside (after the intersection). Under certain circumstances or to accommodate a major trip generator, bus stops may also be placed at a mid-block location. It is most often recommended to place bus stops on the farside of the intersection unless special circumstances exist where that is infeasible or would be unsafe to do so. It should be noted, where feasible, stops should be located as near to a crosswalk as possible (within 200 feet). Table 1 summarizes the major advantages and disadvantages related to locating bus stops either nearside, farside, or mid-block of an intersection.

<table>
<thead>
<tr>
<th>Bus Stop Location</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Recommended When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farside Located immediately after an intersection (200 ft or less)</td>
<td>• Stopped bus does not obscure sight distance for vehicles making a right turn into the intersection.</td>
<td>• If multiple buses are stopped at one time and there is only adequate room for one bus, the cross street may be blocked.</td>
<td>• Whenever possible as long as it is safe and there is adequate room to place the stop.</td>
</tr>
<tr>
<td></td>
<td>• Pedestrians will cross the street behind the bus.</td>
<td>• If the bus stops in the travel lane, it may result in queued traffic behind it blocking the intersection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Does not conflict with vehicles turning right.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reduces transit travel time since at</td>
<td></td>
<td></td>
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</tbody>
</table>
### GCTD BUS STOP GUIDELINES

<table>
<thead>
<tr>
<th></th>
<th>Nearside Located immediately before an intersection (200 ft or less)</th>
<th>Mid-Block Located 300 feet or more beyond or before an intersection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The bus boarding door is close to the crosswalk.</td>
<td>• The stopped bus does not obstruct sight distances at an intersection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bus has the intersection to merge into traffic.</td>
<td>• May be closer to major activity centers than the nearest intersection.</td>
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</tr>
<tr>
<td></td>
<td>• Bus Driver can see oncoming buses with transfer passengers.</td>
<td>• Requires most curb clearance of the three options (unless there is sidewalk extension or bus bulb).</td>
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</tr>
<tr>
<td></td>
<td>• Potential conflicts with right turning traffic due to cars cutting in front of the bus.</td>
<td>• Sometimes results in mid-block jaywalking.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Could be difficult for bus to reenter traffic if stop is not in travel lane.</td>
<td>• Increases walking distances for passengers crossing the street.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The stopped bus may block visibility of the stop signs or traffic signals.</td>
<td>• Can be difficult for bus to reenter traffic if stop is not in travel lane.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Visibility conflicts with pedestrians having to cross in front of bus.</td>
<td>• When it’s unsafe to place stop on farside of intersection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Can result in schedule delays at signalized intersections if bus does not make the light.</td>
<td>• When a major trip generator is located on the nearside of the intersection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• When street crossings and other pedestrian movements are safer.</td>
<td>• When the passenger traffic generator is located in the middle of a long block.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• When the interval between adjacent stops exceeds stop spacing standards for the area.</td>
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</tbody>
</table>

### 3.5 GUIDELINES FOR PLACEMENT OF BUS STOPS

It is important to consider operational needs and the unique circumstances at each potential bus stop location, including:

- Relation to driveways and rail crossings, and bus turning requirements,
- Length of curb clearance to allow for re-entering the travel lane,
- Presence of protected crossings at signalized or stop controlled intersections,
- Availability of adequate sidewalks and right-of-way (meets minimum ADA standards),
- Convenient passenger transfers to other routes,
- Pedestrian access to adjacent properties,
- Open and visible passenger waiting areas for personal security and passenger visibility,
- Adequate illumination including street lighting and pedestrian path lighting,
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- Locations of catch basins, as this creates a potential tripping hazard,
- Areas which tend to accumulate standing water, as pooling and muddy conditions can be a problem, and
- Locations where visibility is limited for the bus or for oncoming traffic, such as hills and curves. If a bus stop must be located at such a stop, approaching cars should be warned of the need to be prepared to stop, and the stop should include a bus pullout if possible.

3.6 SIDEWALKS
All new bus stops shall comply with the ADA. When possible, stops should be located along existing sidewalk facilities. In rural or less developed areas where this is not possible or feasible due to lack of sidewalks, specially designed landing areas that meet ADA standards are recommended. See section 4.7 for more information. It is important that the bus stops be placed in a location that will not obstruct pedestrian visibility of oncoming traffic or vice versa.

3.7 BUS STOPS AND DRIVEWAYS
If a bus stop must be placed near a driveway, it is best to place it on the farside of the driveway where it will not impede with entering and exiting traffic. If blocking a driveway is unavoidable, special design considerations shall be given in order to prevent vehicles from attempting to squeeze by the bus in a situation with reduced sight distance. When there are two driveways to a parcel on the same street, it is better to block the upstream driveway forcing vehicles to turn behind the bus to access the driveway.

Source: Orange County Transit Authority Bus Stop Safety and Design Guidelines March 24, 2004
4. BUS STOP DESIGN GUIDELINES

4.1 CURB CLEARANCE
The recommended minimum requirement for curb clearance for one 40-foot bus stop zone is 60 feet. It should be noted that these clearances may not always be feasible but should be used as a guideline to ensure that buses have space to stop parallel to the curb with adequate space to exit and re-enter the travel lane. Each bus stop should be reviewed on a case by case basis for curb clearance.

In regards to curb clearance, the following should be taken into consideration:
- Where possible, there should be a minimum of 60 feet clearance for all stops.
- When stops are placed on the farside of an intersection after a bus has just made a right turn, the bus stop zone should begin at least than 40 feet from the intersection.
- Where the parking lane or shoulder lane is over eight feet in width, or where bus pull-outs are used, additional space may be needed for the bus to reenter the traffic flow.
- For bus stops at which more than one bus typically stop at the same time, additional curb clearance may be needed. A general rule of thumb is to add 50 feet for each additional bus.

4.2 BUS PULL-OUTS
Bus pull-outs permit traffic to pass an occupied bus stop unhindered. Pull-outs should only be installed if there are compelling safety or capacity reasons. While they may minimize the disturbance to through traffic, they hinder transit travel times by adversely impacting the ability of the bus to rejoin the traffic flow.
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Pull-outs may be considered where:
- Traffic moves at higher speeds and where there is not adequate shoulder or curbside space for the bus to decelerate out of traffic safely,
- The impact of the bus stopping creates a potential hazard (such as where sight distances prevent traffic from stopping safely behind or seeing around a stopped bus),
- The stop is a layover point for a route or at major bus stops with a high number of boardings, and on
- Streets with 2 or less lanes in the traffic direction.

Bus Pull-Out Advantages:
- Allows traffic to proceed around the bus, reducing delay for general traffic
- Allows for additional boarding time out of traffic where ridership is high or there are large numbers of passengers with limited mobility.
- Reduces potential for rear-end accidents by removing the bus from the travel lane

Bus Pull-Out Disadvantages:
- More difficult to re-enter traffic, increasing bus delay and increasing average transit travel times
- May reduce sidewalk width for pedestrians
- Discourages motor vehicles from driving with awareness or in cooperation with buses

Design Guidelines for Bus Pull-Outs:
- Pull-outs should be wide enough to safely accommodate the bus and mirrors to avoid sideswipe accidents.
- On streets with bike lanes, the pull-out should not impede the bike lane.
- Pull-outs in mid-block locations are not desirable unless associated with key pedestrian access to a major transit-oriented activity center.
- Where feasible, the far side of an intersection is the preferred pull-out location.

4.3 BUS BULBS
A bus bulb is essentially a sidewalk extension through the parking lane that is directly adjacent to the travel lane. When used as a bus stop, a bus will stop in the traffic lane instead of weaving into the parking lane, therefore operating similarly to curb-side bus stops.

Advantages of bus bulbs include:
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- Reduction of transit travel times by not adversely impacting the ability for the bus to continue traveling and merging with traffic.
- Additional space at the bus stop for shelters, benches, and other transit patron improvements.
- Additional space for bus patrons to comfortably board and alight the bus away from nearby general pedestrian traffic.
- Shortened pedestrian walking distance across a street, which reduces pedestrian exposure to on-street vehicles.

Design Guidelines:
- Bus bulbs should be considered on streets with high pedestrian volumes, and where parking along the curb is permitted. Bulbs have particular application along streets with lower traffic speeds and/or low traffic volumes where it would be acceptable to stop buses in the travel lane.
- Bulbs should be designed to accommodate vehicle turning movements to and from side streets.
- Bulbs should be considered at locations where bus layovers are not scheduled.
4.4 BUS PADS
Roadway pavements (or shoulders, if that is where the buses stop) need to be of sufficient strength to accommodate repetitive bus axle loads of up to 25,000 pounds. Stops that have high ridership or where buses make a turn are of particular concern because of the increased loads associated with these activities. In these areas, using reinforced concrete pavement pads (shown on right) is ideal because it reduces pavement failure problems that are common with asphalt. The pad should be a minimum of 10 feet wide with a pavement section of at least 9-inches of Class A 3,000 psi concrete with adequate sub-grade preparation to accommodate anticipated loadings. The length of the pad should be based on the anticipated length of the bus that will use the bus stop and the number of buses that will be at the stop simultaneously.

4.5 CORNER RADII FOR BUSES
The corner curb radii used at intersections can affect bus operations when the bus makes a right turn. Some advantages of a properly designed curb radius are as follows:

- Less bus/vehicle conflict at heavily used intersections (buses can make turns at higher speeds and with less encroachment)
- Higher bus operating speeds and reduced travel time
- Improved bus patron comfort

![Diagram of corner radii for buses](image)

Source: Texas Department of Transportation Driveway Design Principles

The design of corner curb radii should be based on the following elements:

- 40 foot bus turning radius
- Width and number of lanes on the intersecting street
- Allowable bus encroachment into other traffic lanes
- On-street parking
A balance should be achieved between providing a curb radius large enough to accommodate a bus turn, while still allowing for minimal exposure to pedestrians. The additional time that a pedestrian is in the street because of larger curb radii should be considered in signal timing and median treatment decisions.

4.6 BOARDING AREA
Bus stop sites shall be chosen to comply with the ADA such that, to the maximum extent practicable, lifts or ramps can be deployed on a firm, stable surface such as sidewalks, as to permit a wheelchair or mobility aid user to maneuver safely onto or off the bus.

Dimensions: The minimum boarding area requirement for a bus stop is a continuous, unobstructed solid area contiguous to the curb that measures at least 5 feet parallel to the street and at least 8 feet perpendicular to the street at the front door. These are the minimum dimensions needed to deploy a lift or ramp and allow a customer in a wheelchair to board or alight the vehicle. Typical Dimensions are shown below.

To provide for rear-door alighting, the landing area should be longer than the minimum dimensions. Stops where more than one bus is boarding/alighting passengers at the same time will need additional sidewalk to be determined by the size and placement of the buses serving each stop.

Slope: The slope of the landing area must be parallel to the slope of the roadway in order for the bus wheelchair lift or ramp to be effectively deployed. The slope should be in compliance with the ADA.

Surface Material: The landing area must be firm, stable, and slip-resistant. Concrete is the preferred surface for the landing area. When new bus stops are constructed, a continuous surface from the curb and the sidewalk should be provided.

Height Relative to the Street: It is preferable that the landing area be elevated above street level for pedestrian safety. For stops served by low-floor, ramp-equipped buses, a standard curb provides an acceptable ramp slope.

Sidewalk Impediments: Items such as newspaper boxes, utility poles, trash cans, and encroaching grass or bushes should be organized and re-arranged if necessary to ensure a minimum of 4 feet clearance to be accessible to wheelchair users. If necessary, the existing sidewalk should be widened or new sidewalk constructed to ensure that customers are able to get to and from the bus stop.

4.7 Rural or Undeveloped Area
All bus stops added or altered after July 26, 1990 shall comply with the ADA. For bus routes that traverse rural or undeveloped areas or on streets with uncurbed shoulder areas, design consideration should be given to constructing a concrete waiting area that complies with the ADA standards. Where construction of a concrete raised bus stop is not feasible, a compacted and stabilized surface meeting ADA requirements should be provided. In addition, tactile warnings should be provided in accordance with the ADA.
4.8 Pedestrian Connectivity
Connections to the bus stop shall comply with the ADA. To the extent feasible, sidewalk connections to bus stops should provide safe pedestrian access to trip generators near the bus stop. Buildings and streets should be designed to minimize walking distances between the destination and the bus stop.

Quality pedestrian access can be achieved by considering the following guiding principles:
- Pedestrian routes to bus stops should be designed to accommodate all users including disabled, elderly, and parents with children.
- New developments should be designed to include sidewalks and bike paths that provide a direct link to transit stops. The use of elements that restrict pedestrian movement such as walled communities, cul-de-sacs, and expansive parking lots should be minimized.
- Barriers to and from pedestrian paths to transit stops should be eliminated. This includes landscaping and berms.
- Accessible pedestrian paths should include curb cuts, ramps, visual guides, signage, lighting and railings where needed.
- Where a bus stop serves as a transfer point between intersecting routes, there should be a paved connection to allow passengers to quickly travel between bus stops.

4.9 PARKING RESTRICTIONS AT BUS STOP
Parking restrictions (either red curb or “No Parking” signs) should be placed at all bus stops. Unauthorized parking in bus stops negatively impacts bus movement, limits safe sight distance, and reduces passenger access to board the bus from the curb. It is important that these parking regulations be enforced in a consistent and expedient manner by the appropriate local jurisdiction.

5. BUS STOP AMENITIES

The design of bus stop waiting areas and provision of amenities to enhance passenger security and comfort plays a significant role in a person’s decision to use transit. The following sections detail the types of amenities appropriate for bus stops in our service area.

5.1 BUS STOP CLASSIFICATION AND RECOMMENDED AMENITIES
In order to prioritize the distribution of amenities at bus stops, the bus stop classification system below should be used to determine the minimum recommended amenities to be installed at bus stops.

<table>
<thead>
<tr>
<th>Amenities</th>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pole with Bus Stop Sign and Route Number</td>
<td>21 + daily boardings</td>
<td>10 to 20 daily boardings</td>
<td>&lt; 10 daily boardings</td>
</tr>
<tr>
<td>Red Curb or No Parking Restriction</td>
<td>Required at all stops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td>Desired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bench</td>
<td>Provide*</td>
<td>Recommended</td>
<td>Optional</td>
</tr>
<tr>
<td>Trash Can</td>
<td>Provide</td>
<td>Recommended</td>
<td>Optional</td>
</tr>
<tr>
<td>Passenger Information Panel (Guide-A-Ride)</td>
<td>Provide</td>
<td>Recommended</td>
<td>Optional</td>
</tr>
<tr>
<td>Shelter</td>
<td>Recommended*</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>
GCTD BUS STOP GUIDELINES

<table>
<thead>
<tr>
<th>Bike Rack</th>
<th>Recommended</th>
<th>Optional</th>
<th>Optional</th>
</tr>
</thead>
</table>

*Stops with 50 or more daily boardings may require more than one shelter and bench.*

The recommended amenities listed above should be used as a minimum guideline. Additional amenities may be added based on other factors, including:
- Proximity to major trip generators,
- Passenger transfer activity,
- Planned neighborhood improvements,
- Equity among neighborhoods in the communities,
- Proximity of other nearby sheltered areas, and
- Customer and community requests

5.2 BUS STOP SIGNS
Each bus stop must be marked with a sign indicating where the bus will stop. Bus stop signs inform passengers what routes stop at the bus stop, as well as publicize the availability of transit service to the general public.

GCTD staff will work with staff of the member agencies to determine best bus stop sign location. Once the location is determined, GCTD will provide the sign to the respective member agency to complete installation.

The following are general guidelines for installation and placement of bus stop poles and signs:
- Whenever possible bus stop signs should be placed independently of all other street signs, on its own pole, to maintain transit stop identity.
- The pole should be set back at least 10 inches from the curb face to prevent the sign from being struck by bus mirrors.
- The sign should be located at the front of each bus stop zone, nearest to the bus’s front door when stopped at the location.
- The sign must be located so it is easily visible to the approaching bus driver.
- The bottom of the sign should be seven feet above grade and no higher than 10 feet, consistent with the diagram below.

GCTD will provide bus stop signs to member agencies for installation. Below are guidelines for GCTD’s bus stop signs:
- In order for the bus stop sign to meet ADA minimum specifications, route numbers must be at least 3 inches high.
- All signs should include the GCTD Logo and route numbers of all buses using that stop.
- Signs should utilize reflective material so they are visible at night.
- Easy to read fonts should be used for the signs.

GCTD provides wayfinding or Guide-a-Ride panels at all timepoints and other major stops throughout its service area. Guide-a-Ride panels should be mounted no higher than 60 inches above grade.
5.3 LIGHTING
Since all of GCTD’s bus stops are served after dark, member agencies may want to evaluate installation of lighting features at all bus stops and sidewalks leading to bus stops to improve visibility. Lighting helps passengers feel safe and also helps the bus operator see passengers waiting at the bus stop.

To determine if a bus stop has adequate lighting, stops should be visited at nighttime to determine if the lighting provided by existing street lights is adequate. If a shelter is present, both interior and area lighting are recommended. The placement and maintenance of lighting is the responsibility of the member agency.

At bus stops where additional lighting would be beneficial, the following may be solutions:
- Ornamental lighting,
- Bus shelter lighting, or
- Solar lighting.

5.4 BUS SHELTERS
Bus Shelters are provided by the member agencies at selected bus stops to provide weather and sun protection as well as seating for waiting passengers.

Cities are encouraged to develop their own bus shelter programs. For example, the City of Oxnard has developed a shelter program that provides for the installation of shelters by a private provider, which installs and maintains the shelter without cost to GCTD or the member agency by including advertising in the shelter design. Some member agencies may also choose to require developers to include shelters in new development plans. Maintenance of shelters will be provided by the member agency that shelter lies within.
Member agencies staff should coordinate with GCTD staff prior to installing a shelter to ensure good placement. In general, the following design factors should be considered:

- Use of materials and paint treatments resistant to weather, graffiti, cutting, etc.
- Required dimensions of the concrete pad to ensure wheelchair accessibility. Per ADA regulations, clear floor space for people in wheelchairs must be provided.
- Provision of electrical or solar conduits for lighting or future communication panels. Placement of a shelter should not block sight distance at intersections or driveways. This can normally be accomplished by placing the shelter more than 25 feet from the beginning or end of curb return of an intersection or driveway.
- Minimum of 7.5 feet clearance between the underside of the roof and sidewalk should be provided.
- Minimum of 2 feet clearance between overhead canopy and curb face is required.
- Shelter canopy should be waterproof with provisions for drainage away from waiting passengers and boarding area.
- The shelter should be located in reasonably close proximity to where the front door of the bus will open to facilitate timely passenger loading.

5.5 BENCHES

Benches are provided by member agencies to provide passengers with a comfortable place to wait for the bus. Benches are also installed inside all bus shelters. Below are samples of bus benches typically used at bus stops.

The following should be considered when installing benches at a bus stop:

- Benches need to be placed on a firm surface facing the street.
- Use of materials and paint treatments should be resistant to weather conditions, graffiti, cutting, fire, and other forms of vandalism.
GCTD BUS STOP GUIDELINES

- Benches on sidewalks should be placed on the back side of the sidewalk, to allow pedestrians to move past people sitting on the bench.
- Bench placement must follow ADA regulations and allow clear floor space for people in wheelchairs to board the bus.

Boarding Area

Benches should be anchored to prevent unauthorized movement but should allow for relocation in case of bus route changes, street improvement projects, etc.

5.6 TRASH CANS
It is recommended that stops with a high volume of foot traffic and/or trash in the area have a trash can installed. GCTD relies on member agencies to provide receptacles and collect trash. Developers and member agencies may design a special style to fit into the landscape and/or complement the architectural style of their project or streetscape. Trash cans must be placed to maintain proper clearances for passage and wheelchair boarding areas. Trash cans should be made of materials and paint treatments resistant to weather conditions, graffiti, cutting, fire, and other forms of vandalism.

5.7 PASSENGER INFORMATION PANELS
Passenger Information panels, also known as Guide-a-Ride panels, provide trip information to passengers waiting at the stop. For all timepoint stops, the Guide-a-Ride panels show bus arrival times. For non-timepoint stops that have Guide-a-Ride panels, route frequency is shown.

GCTD installs and maintains all Guide-a-Ride panels throughout the system. GCTD staff will determine the best placement for Guide-a-Ride panel locations.

Design considerations:
- Guide-a-Ride panels should be directly mounted on the bus stop pole facing the same direction as the bus stop sign itself.
- The top of the Guide-a-Ride panels should be placed no higher than 60 inches from the ground.
- Panels should be laminated and encased in a metal or other damage resistant frame.
GCTD BUS STOP GUIDELINES

- Plexiglas covers should be kept graffiti and sticker free.

5.8 BICYCLE RACKS AT BUS STOPS
Bicycle parking facilities, such as bike racks and storage lockers, may be provided at bus stops by member agencies or adjacent property owners for the convenience of bicyclists using transit. Bicycle racks give passengers the option to park their bike when the racks on the bus are full and also can discourage the practice of locking bicycles onto bus facilities or adjacent property. Bike racks or lockers also reduce visual clutter and maintain appropriate pedestrian clearances.

The guidelines for the placement of bicycle parking facilities are:

- Bike racks or lockers should be located away from other pedestrian or bus patron activities to improve safety and reduce congestion.
- The location of bicycle parking facilities should be coordinated with existing on-site or street lighting.
- Ensure parked bikes are visible at all times. Do not locate bicycle parking where views are restricted by a bus shelter, landscaping, or existing site elements, such as walls.

When selecting bicycle rack or locker devices, consider the following:

- Ability to lock bicycle frame and at least one wheel should be provided.
- Bicycles should be supported without pinching or bending the wheel. If the wheel slot is too narrow, a mountain bike tire will not fit.
- Scratching the paint on the frame of the bike should be avoided.
- A place to lean the bike while locking the bike should be provided.
- Locking procedure should be quick and easy to identify.
- It should require minimal space as possible.
- Design of bike rack or lockers should not trap debris.
- Device should be easy to install but difficult to steal.

Bike racks or lockers must be located in a manner that maintains access to paths of travel and other features consistent with the minimum standards of the ADA.

5.9 LANDSCAPE FEATURES
Landscaping can enhance the level of passenger comfort and attractiveness of transit, but should be positioned and maintained so that safety, accessibility and visibility are not compromised by encroaching bushes, uneven grass surfaces, etc. Tree branches that extend into the roadway below 11 feet should be trimmed back at least two feet from the curb; otherwise, they become an obstacle that the bus driver may or may not be able to avoid hitting.

5.10 NEWSPAPER AND VENDOR BOXES
Newspaper and vendor boxes can provide waiting transit customers with convenient access to reading material. However, newspaper boxes should not be placed in a location that obstructs access to the landing area, sidewalk, shelter, or posted transit information. Newspaper boxes should not be chained or otherwise affixed to the bus stop sign pole, shelter, or bench.
5.11 TRANSIT CENTERS AND MAJOR BUS STOP HUBS

Transit Centers and major bus stop hubs are where several bus routes connect so that passengers can easily transfer between routes. GCTD has three major Transit Centers (Oxnard Transit Center, Ventura Transit Center, and C St Transfer Center), and seven major bus stop hubs (where four or more routes stop) including Esplanade Shopping Center, Rose & Gonzales/St. Johns, Ventura College, Oxnard College, C & 4th/5th, 4th & B St. and the Ventura County Government Center.

At transit centers and major stops, route information needs to be provided for all routes. Space for a sign holder, kiosk or other information delivery systems should be provided. Extra space for passenger waiting, along the shelter or clear curb space, should be included in design. Due to the variation in needs between the different transit centers, each one should be designed specifically based on the proposed operation and locale of the center.

At major bus stop hubs, additional shelters, trash cans, and benches may help improve the functionality and attractiveness of the bus stop.