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# Accessible Community Transportation In Our Nation

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## ACCESSIBILITY DESIGN GUIDE FOR BUS RAPID TRANSIT SYSTEMS

Volume 2: ADA Compliance Checklists for Bus Rapid Transit Facilities Design and Construction

Easter Seals  
**Project ACTION**  
ACCESSIBLE COMMUNITY  
TRANSPORTATION IN OUR NATION



# ACCESSIBILITY DESIGN GUIDE FOR BUS RAPID TRANSIT SYSTEMS

## Volume 2: ADA Compliance Checklists for Bus Rapid Transit Facilities Design and Construction

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## ACKNOWLEDGMENTS

### Project Team and Advisory Committee

The *Accessibility Design Guide for Bus Rapid Transit Systems* was developed by TranSystems of Boston, Mass for Easter Seals Project ACTION. The project team included Project Manager **Rosemary Gerty** of TranSystems; **Caroline Ferris** of TranSystems; **Don Kloehn** of Tindale-Oliver & Associates in Tampa (formerly with TranSystems); and **Susan Bregman** of Oak Square Resources, LLC, in Brighton, Mass. The team was assisted by the Project Advisory Committee, which represented the diverse interests of transit agencies and people with disabilities.

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- **Terry Parker**, accessible services manager, Lane Transit District (LTD) (Eugene, Ore.) and Easter Seals Project ACTION National Steering Committee Liaison

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## Introduction

The Americans with Disabilities Act of 1990 was enacted to ensure that people with disabilities have opportunities and access to public spaces and services that are equal to those of individuals who do not have disabilities. The requirements of the ADA are clearly stated for conventional bus and rail systems; however, as noted in Volume 1, BRT is a hybrid service applying characteristics of both bus and rail facilities. This fact has generated some controversy and confusion as to how the ADA applies to BRT systems.

Easter Seals Project ACTION contracted with TranSystems to develop an *Accessibility Design Guide for Bus Rapid Transit Systems* for use by transit agencies, individuals with disabilities, and other stakeholders in communities that are planning, implementing, or operating BRT services. The project also included development of a self-assessment tool contained in the companion *ADA Compliance Checklists for Bus Rapid Transit Facilities Design and Construction*. The Design Guide is included in Volume 1; the Self-Assessment Checklists are included here in Volume 2.

The proper design of BRT station or stop zones and connecting pathways can increase transit access and convenience by eliminating barriers for all passengers, especially for individuals who have mobility limitations. As such, transit agencies implementing BRT services are looking for ways to keep the “rapid” in Bus Rapid Transit; that is, to find ways to move customer in and out of vehicles as quickly and safely as possible. This effort includes, for example, minimizing the gap between vehicles and boarding areas (i.e., level or near-level boarding) and improving circulation within vehicles.

### ***ADA Accessibility Guidelines***

In September 1991, the USDOT published regulations implementing the transportation-related provisions of Titles II and III of the ADA. Part 37 Subpart C of the Final Rule, “Transportation Facilities,” covered rail and bus facilities standards. To ensure consistency in the accessibility designs and modifications, DOT adopted the U.S. Access Board’s ADA Accessibility Guidelines for Buildings and Facilities (known as ADAAG) as the primary standards. On July 23, 2004, the U.S. Access Board adopted new ADA and Architectural Barriers Act Guidelines (sometimes called “new ADAAG” or “current ADAAG”). Effective on

Nov. 29, 2006, the DOT amended its ADA regulations to adopt the new ADAAG as its regulatory standard. A copy of the current ADAAG may be found online at <http://www.access-board.gov/ada-aba/final.cfm>.

The Access Board also has developed, and USDOT has adopted, ADA Accessibility Guidelines for Buses, Vans, and Over-the-Road Buses. On Nov. 19, 2008, the U.S. Access Board released a revised draft of proposed changes to the ADA Accessibility Guidelines for Buses and Vans, with public comments due by Jan. 20, 2009. Of particular interest to BRT systems is the inclusion of new requirements for “level boarding buses,” which did not exist in 1991 when the original guidelines were published, and are now being used in many BRT systems.

The 2008 draft guidelines define a “level boarding bus system” as:

“A system on which buses operate where some or all of the designated boarding and alighting areas have station platforms, and the design of the station platforms and the vehicles are coordinated to provide level boarding.”

The Access Board posted an online comparison of the proposed changes with the original 1991 vehicle guidelines.<sup>1</sup> A Notice of Proposed Rulemaking (NPRM) will be published for further comment and will be accompanied by a preliminary regulatory assessment. A final rule will be issued after comments to the NPRM are analyzed. Note that USDOT would have to adopt any amendments to the ADA Accessibility Guidelines before systems are required to follow the new guidelines.

The revised draft guidelines published in November 2008 also included proposed change to the requirements in Section 218 and Sections 810.5 through 810.10. Section 218.2 is proposed to change as follows:

- **Current Wording**

218.2 New and Altered Fixed Guideway Stations. New and altered stations in rapid rail, light rail, commuter rail, intercity rail, and high speed rail, and other fixed guideway systems shall comply with 810.5 through 810.10.

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<sup>1</sup> Available online at: <http://www.access-board.gov/transit/comparison.htm>.

- **Proposed Wording**

218.2 New and Altered Stations. New and altered stations **for level boarding bus systems and fixed guideway systems, including, but not limited to**, rapid rail, light rail, commuter rail, intercity rail, and high speed rail shall comply with 810.5 through 810.10.

Section 810.5 would change “rail” to “platforms” as follows:

- **Current Wording**

810.5 Rail Platforms. Rail platforms shall comply with 810.5.

- **Proposed Wording**

810.5 Station Platforms. Station platforms in level boarding bus systems and fixed guideway systems, shall comply with 810.5.

Note that, as stated above, the draft 2008 ADAAG requires buses used for level boarding to comply with the requirement to coordinate the vehicle-to-platform gap, and availability/use of bridge plates).

## ***Relevance to BRT Projects***

These proposed changes are significant because, if adopted, they would result in the requirement for BRT systems to adhere to ADAAG facilities and vehicle requirements that currently apply to fixed-guideway (rail) systems.

Although not required now, in practice, many transit agencies have adopted some or all of the current ADAAG rail design elements for their BRT “stations.” For example, a facility labeled as a “station” by a transit agency might include rail-like station amenities including an exclusive right of way or protected transit way lane, platform signage, detectable warnings on platform edges, level boarding (or near-level boarding), off-vehicle fare payment, canopies, and other design elements common to a light rail station. A facility labeled as a “stop” by a transit agency might look more like a typical bus stop with a stop sign, perhaps a bench, and may be incorporated into a sidewalk indistinguishable from a typical bus stop. The MBTA in Boston is an example of a system that uses a mix of “stations” in the underground portion of the

system, which runs along an exclusive right of way, as well as “stops,” which are located on city streets in mixed traffic and may be shared with conventional fixed route service.

### **BRT “Stops” versus “Stations”**

*It should be noted that, in practice, transit systems often choose to view their BRT systems as being more rail-like than bus-like and, therefore, may consider their systems to include “stations,” which are more akin to light rail stations, than bus “stops.” Nonetheless, at the time this document was prepared, BRT is considered to be a form of fixed route bus service and, therefore, rail station requirements in ADAAG do not specifically apply. The Federal Transit Administration (FTA), Office of Civil Rights, which is responsible for ensuring compliance with the ADA and USDOT regulations, has commented:*

*“While the U.S. Access Board is currently developing new vehicle accessibility standards, and USDOT specifically sought public comment on the issue of BRT as part of its Feb. 27, 2006 Notice of Proposed Rulemaking to amend its ADA regulations, no changes have been made and the existing requirements for buses and facilities continue to apply. Transit agencies with specific questions should direct their inquiries to the Federal Transit Administration’s Office of Civil Rights for technical assistance. If a transit agency believes that its BRT system is sufficiently innovative that it cannot possibly be regarded as a form of fixed-route bus transportation, 49 CFR 38.171(c) permits the Secretary of Transportation, in consultation with the U.S. Access Board, to develop accessibility requirements for vehicles and systems that are not otherwise covered by existing standards (49 CFR Part 38). To date, no such requests have been made for BRT or any other mode of transportation.”*

## ***Self-Assessment Checklists***

Although not currently required to follow the ADAAG requirements that only pertain to rail, it is likely that the proposed changes described above will be accepted by the Access Board and ultimately adopted by USDOT. If adopted as described, “level boarding bus systems” (e.g., BRT) will be required follow applicable ADAAG requirements.

Whether or not the proposed ADAAG modifications are adopted, implementing universal design features and making BRT systems accessible for all users, including people with disabilities, is good practice. And, as noted above, many transit agencies have already adopted many of the ADAAG requirements that are now primarily aimed at rail operations.

The ADA checklists included in this document have been developed for use by transit staff and design professionals and are based on the current ADAAG requirements. The intent is to make it easy for transit systems to assess their current accessibility efforts and to design and implement accessible BRT facilities that would be compliant with current ADAAG requirements. Of course, any changes made to the ADAAG may result in additional changes and/or requirements and should be monitored carefully.

In addition to the Federal guidelines contained in the ADAAG, state and local construction standards must also be adhered to providing the most accessible element required by the standards. Many states have adopted building codes adapted from the Uniform Construction Code (UCC) which originates from the International Building Code 2003, published by the International Code Council. Because the ADAAG and the UBC 2003 standards are nearly identical, the standards in the checklists are cited as the ADAAG requirements. Where the requirements differ between the current ADAAG and the IBC 2003, they are noted in the checklists.

For purposes of clarification and specific code compliance, the following table provides general guidance as to which accessibility standards are/were applicable based on the date the notice to proceed (NTP) for construction was issued (note that all alterations of or additions to existing transportation facilities must be conducted in compliance with the 2004 version of ADAAG):

ADA Compliance Checklists for BRT Facilities Design and Construction

<b>Facility Type</b>	<b>NTP for Construction</b>	<b>Standard</b>
Intercity or commuter rail stations	Prior to Oct. 7, 1991	Uniform Federal Accessibility Standards
Intercity or commuter rail stations	After Oct. 7, 1991	ADAAG
<b>Bus, light rail or rapid rail facilities</b>	<b>Prior to Jan. 25, 1992</b>	<b>UFAS</b>
<b>Bus, light rail or rapid rail facilities</b>	<b>After Jan. 25, 1992</b>	<b>ADAAG</b>
Key rail stations	July 26, 1993	ADAAG
<b>All transportation facility types</b>	<b>April 9, 2004</b>	<b>ADAAG (current)</b>

It is important to understand that, if an assessment is being conducted in preparation for a renovation, alteration, or addition to an existing facility, the 2004 ADAAG standard must be used, irrespective of the NTP date, to ensure that any modifications made to the facility conform to the existing applicable ADAAG specifications. The only exceptions to this rule are provisions in the law giving special treatment to alterations, key stations, and buildings covered by state or federal historical preservation statutes.

The 2004 ADAAG, adopted by USDOT in 2006, is the standard used for the checklists included here. Space is provided at the top of each checklist to record the name of the facility being assessed and the date of the assessment. Space is also provided to record the NTP for the facility, which is used to determine which accessibility regulations were applied to the design and construction of the facility or element shown in the following table.

ADA Compliance Checklists for BRT Facilities Design and Construction

#1 Parking	#11 Platforms
#2 Accessible Routes	#12 Mini-High Platforms
#3 Passenger Drop-Off	#13 Public Address Systems and Clocks
#4 Curb Ramps	#14 Telephones
#5 Entrances	#15 Signage
#6 Doors and Gates	#16 Maneuvering/Reach Range
#7 Ramps	#17 Handrails and Grab Bars
#8 Elevators	#18 Bus Stops
#9 Escalators	#19 Detectable Warning
#10 Ticketing and Automatic Fare Vending	#20 Controls and Operating Mechanisms

The checklists incorporate the following features, designed to make them flexible and easy to use:

- Checklists provide easy-to-understand interpretations of the ADAAG text with yes-or-no answers for each applicable requirement so that a “no” answer results in a non-compliant condition.
- Checklists are formatted by element, such as entrances, doors, ramps, etc. to allow assessments of individual elements or full facilities. This method of organization allows the checklists to be used as survey tools to ensure a concise evaluation of the element or facility.
- Each checklist includes an introductory section with specific guidance on the element to be assessed, information from ADAAG on the application of the regulations to the specific element, and any special survey instructions to supplement those provided in this manual.
- Checklists are arranged in columns, providing questions (with ADAAG section reference), “yes” or “no” answer check-off column, and a remarks column allowing the assessor space to record information and notes as appropriate.

- Where appropriate, checklists provide figures, tables, or illustrations within the body of the question to allow for a visual understanding of the regulation being applied.
- Where appropriate, checklists provide ADAAG advisory language within the body of the question to more deliberately explain the requirements of the regulation being applied.
- Checklists are uniquely numbered to isolate each element of a facility. Further, each question asked to determine ADA compliance is also uniquely numbered to allow the recording of deficiencies in a manner that allows an easy cross-reference when listed in a summary report.

### *Example Checklist Use*

Because BRT service is designated as bus and not rail service, the ADAAG Design Elements for Bus Stops are specifically applicable to all BRT. The Bus Stop checklist that follows includes the required ADAAG elements for bus stops and this form may be used when assessing individual stops for compliance with the ADAAG requirements. For example, the first set of elements—18.1 Bus Stop Technical Specifications—includes design specifications for:

- 18.1.1 Surface of boarding and alighting area
- 18.1.2 Dimensions of boarding and alighting area
- 18.1.3 Connection of boarding and alighting area to adjoining elements
- 18.1.4 Slope of bus stop boarding or alighting area
- 18.1.5 Bus shelter clear floor or ground space
- 18.1.6 Connection of bus shelters to adjoining elements
- 18.1.7 Bus stop signs

The numbering system used for the set of elements (i.e., #18 for Bus Stops) is for convenience; references within the cells, such as 810.2.1, refer to the specific citation within the current ADAAG that

applies to a particular element. Note that in some cases, the checklist will refer the user to another checklist for specific details related to the design element. For example, under 18.1.3 Connection of Boarding and Alighting Areas to Adjoining Elements, where the bus stop connects to streets, sidewalks, or pedestrian paths, there needs to be an accessible route provided, which is covered in Checklist #2 Accessible Routes and the specific requirements are included in ADAAG 810.2.3. Advisory notes are included within the ADAAG to better describe a particular design requirement.

## 1.0 Parking

### *Survey Instructions*

The parking assessment requires the counting and physical measurement of the dimensions of parking spaces and access aisles. Before beginning the assessment, obtain an as-built drawing of the parking facility. The drawing will permit you to count the number of spaces in the lot or lots and calculate the number of required accessible spaces. If the drawings identify the accessible spaces, you will be able to determine the proximity of the spaces to the accessible entrance or entrances. If an as-built or design drawing is not available, then time must be allocated to prepare a sketch of the parking facility and conduct a physical count of the number of spaces. The time required to do a physical count can be lengthy for large lots or multilevel parking facilities.

A tape measure, electronic level, and digital camera are the principal assessment tools needed to conduct the parking assessment.

### *Issues for Consideration*

The ADA Accessibility Guidelines (ADAAG) states that all or some of the accessible parking spaces may be in a different location if equivalent or greater accessibility is ensured. However, in such cases ADAAG requires that the number of parking spaces required to be accessible must be calculated *separately* for each parking facility; the required number is not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.

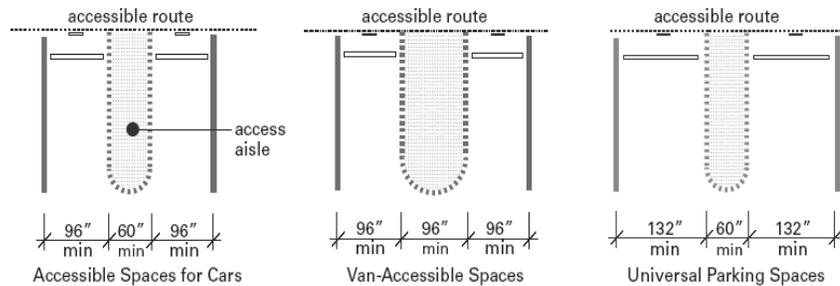
*Advisory 208.2 Minimum Number.* The term “parking facility” is used in Section 208.2 instead of the term “parking lot” so that it is clear that both parking lots and parking structures are required to comply with this section. The number of parking spaces required to be accessible is to be calculated separately for each parking facility; the required numbers not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.

## ADA Compliance Checklists for BRT Facilities Design and Construction

As an exception to the above requirement, ADAAG states that parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with parking space requirements. Therefore, when calculating the number of spaces in a facility, also record the number of spaces used exclusively by those vehicles listed above and exclude them from the quantity of available spaces before applying the accessible parking space requirement formula.

Be aware that, if you are working from a drawing of the parking facility, recent restriping or repaving may have altered the layout and care should be taken to make sure the drawing is up to date.

There are several issues having to do with parking space dimensions that are important to be aware of. Where car and van parking spaces are marked with lines, width measurements of parking spaces and access aisles are to be made from the centerline of the markings. However, if parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements can include the full width of the line defining the parking space or access aisle.



Car parking spaces are required to be 96 inches wide minimum and are to be provided with a 60 inch wide minimum access aisle. Van parking spaces are required to be 132 inches wide minimum or may be 96 inches wide minimum if provided with a 96 inch wide minimum access aisle. Universal parking spaces may serve as both an accessible space

for cars and vans and must be 132 inches wide minimum and must have an adjacent access aisle at least 60 inches wide. The figure below provides the dimensions of these three types of spaces for ease of reference. Regardless of design, a "van accessible" sign is required for each van accessible space.

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>1.1.1 Number - Accessible Parking Spaces</b>                      Where parking spaces are provided for self-parking by employees or visitors or both, is the required number of accessible parking spaces provided? (208.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

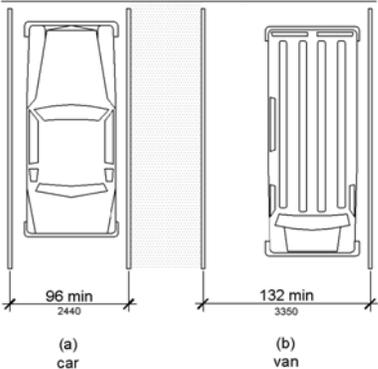
1.1 Parking Technical Specifications		Yes	No	Observations																								
<table border="1"> <thead> <tr> <th>Total Parking in Area/Lot or Structure</th> <th>Required Minimum Number of Accessible Spaces</th> </tr> </thead> <tbody> <tr> <td>1-25</td> <td>1</td> </tr> <tr> <td>26-50</td> <td>2</td> </tr> <tr> <td>51-75</td> <td>3</td> </tr> <tr> <td>76-100</td> <td>4</td> </tr> <tr> <td>101-150</td> <td>5</td> </tr> <tr> <td>151-200</td> <td>6</td> </tr> <tr> <td>201-300</td> <td>7</td> </tr> <tr> <td>301-400</td> <td>8</td> </tr> <tr> <td>401-500</td> <td>9</td> </tr> <tr> <td>501-1000</td> <td>2% of total</td> </tr> <tr> <td>1001 and over</td> <td>20 + 1 for each 100 over 1000</td> </tr> </tbody> </table>		Total Parking in Area/Lot or Structure	Required Minimum Number of Accessible Spaces	1-25	1	26-50	2	51-75	3	76-100	4	101-150	5	151-200	6	201-300	7	301-400	8	401-500	9	501-1000	2% of total	1001 and over	20 + 1 for each 100 over 1000			
Total Parking in Area/Lot or Structure	Required Minimum Number of Accessible Spaces																											
1-25	1																											
26-50	2																											
51-75	3																											
76-100	4																											
101-150	5																											
151-200	6																											
201-300	7																											
301-400	8																											
401-500	9																											
501-1000	2% of total																											
1001 and over	20 + 1 for each 100 over 1000																											
<p>Record numbers of spaces and accessible spaces in observations column. Counts taken from physical count? <input type="checkbox"/> From drawing? <input type="checkbox"/></p>																												

ADA Compliance Checklists for BRT Facilities Design and Construction

1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>1.1.2 Each Area/Lot</b>                      Are the accessible parking spaces located in each specific area/lot?                      OR                      If the accessible parking spaces are in a different location, is equivalent or greater accessibility provided in terms of distance from the accessible entrance, cost and convenience? (208.3.1) If so, describe conditions.</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	
<p><b>1.1.3 Van Accessible Spaces</b>                      Is one in every six, or fraction of six, accessible parking spaces (but not less than one) designated "van accessible"? (208.2.4)                      Record number of van accessible spaces in observations column.                      Is each van accessible space (no less than 1 in 6) identified by a "Van Accessible" sign?</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	
<p><b>1.1.4 Location - Serving Accessible Entrance</b>                      Are accessible parking spaces which serve a particular building on the shortest accessible route of travel from adjacent parking to the building's accessible entrance? (208.3.1)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p><b>1.1.5 Serving Multiple Accessible Entrances</b>                      If the building has multiple accessible entrances with adjacent parking, are the accessible parking spaces on the shortest accessible route of travel to the parking facility's accessible pedestrian entrance? (208.3.1)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	

ADA Compliance Checklists for BRT Facilities Design and Construction

1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>1.1.6 Separate Parking Facility</b></p> <p>Where a parking facility does not serve a particular building, are the accessible parking spaces on the shortest accessible route of travel to the parking facility's accessible pedestrian entrance? <i>(208.3.1)</i></p> <p><b>Exceptions:</b></p> <ol style="list-style-type: none"> <li>1. All van parking spaces shall be permitted to be grouped on one level within a multi-story parking facility.</li> <li>2. Parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee, and user convenience.</li> </ol>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 208.3.1 General Exception 2</b></p> <p><i>Factors that could affect "user convenience" include, but are not limited to, protection from the weather, security, lighting, and comparative maintenance of the alternative parking site.</i></p>			

1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>1.1.7 Parking Spaces and Access Aisles - Width of Parking Space</b></p> <p>Are accessible parking spaces, including van spaces, at least 96 inches wide with a demarcated access aisle? (Two spaces may share a common aisle.) (502.2)</p>  <p>The diagram illustrates two types of accessible parking spaces. On the left, labeled (a) 'car', a car is shown within a rectangular space that is 96 inches (2440 mm) wide. To the right of the car is a shaded rectangular area representing an access aisle. On the right, labeled (b) 'van', a van is shown within a larger rectangular space that is 132 inches (3350 mm) wide. A shaded rectangular area representing an access aisle is also shown to the right of the van.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.8 Width of Car Access Aisles</b></p> <p>Are access aisles at least 60 inches wide? (502.3.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.9 Width of Van Accessible Access Aisle</b></p> <p>If the parking space is designated as "van accessible," is the adjacent access aisle at least 96 inches wide OR is the van space at least 132 inches wide with an adjacent access aisle at least 60 inches wide? (502.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.10 Marking of Access Aisles</b></p> <p>Are access aisles marked so as to discourage parking in them? (502.3.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>Advisory 502.3.3 Marking</b></p> <p><i>The method and color of marking are not specified by these requirements but may be addressed by State or local laws or regulations. Because these requirements permit the van access aisle to be as wide as a parking space, it is important that the aisle be clearly marked.</i></p>			
<p><b>1.1.11 Level</b></p> <p>Are the accessible parking spaces and access aisles level with no slope greater than 1:48 in all directions? (This means a curb ramp cannot project into the access aisle.) ( 502.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.12 Surfaces</b></p> <p>Are the surfaces of parking spaces and access aisles stable, firm, and slip resistant and located on the same level (elevation)? (502.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 502.4 Floor or Ground Surfaces</b></p> <p><i>Access aisles are required to be nearly level in all directions to provide a surface for wheelchair transfer to and from vehicles. The exception allows sufficient slope for drainage. Built-up curb ramps are not permitted to project into access aisles and parking spaces because they would create slopes greater than 1:48.</i></p>			
<p><b>1.1.13 Access Aisle and Accessible Route</b></p> <p>Does each access aisle connect directly to an accessible route? (206.2.1)</p> <p>(If so, use Checklist 2: Accessible Routes)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>Advisory 502.3 Access Aisle</b></p> <p><i>Accessible routes must connect parking spaces to accessible entrances. In parking facilities where the accessible route must cross vehicular traffic lanes, marked crossings enhance pedestrian safety, particularly for people using wheelchairs and other mobility aids. Where possible, it is preferable that the accessible route not pass behind parked vehicles.</i></p>			
<p><b>1.1.14 Location of Access Aisles</b></p> <p>Are access aisles placed so as to not overlap the vehicular way. (502.3.4)</p> <p><i>NOTE: Access aisles may be placed on either side of the parking space except for angled van parking spaces which must have the access aisles located on the passenger side of the parking spaces.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.15 Width of Accessible Route</b></p> <p>Is the accessible route a full 36 inches wide and not reduced in width by vehicles overhanging parking space(s)? (502.7)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.16 Signs - Accessible Parking Spaces</b></p> <p>Does each accessible parking space have a vertical sign, mounted 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign, showing the International Symbol of Accessibility? (502.6)</p> <p><i>NOTE: Where a total of four or fewer parking spaces at a facility are provided, including accessible parking spaces, identification of accessible parking spaces is not required.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

1.1 Parking Technical Specifications	Yes	No	Observations
<p><b>1.1.17 Van Accessible Spaces</b>                      Do van accessible spaces have a vertical sign showing the International Symbol of Accessibility with an additional sign "Van-Accessible" mounted below the symbol of accessibility? (502.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.18 Van Accessible Spaces - Vertical Clearance</b>                      Do van accessible spaces have a vertical clearance of at least 98 inches? (502.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>1.1.19 Vehicular Access Route - Vertical Clearance</b>                      Does one vehicular access route to and from van accessible spaces have a vertical clearance of at least 98 inches? (502.5)  <i>NOTE: Van accessible spaces may be grouped on one level of a parking structure.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 2.0 Accessible Routes

### *Survey Instructions*

Accessible routes consist of elements from site arrival points and within the boundary of the site linking the route with an accessible building entrance and the path within the building to the station platform. These elements include: walking surfaces with a running slope not steeper than 1:20 (5 percent), parking, public transportation stops, passenger loading zones, doorways, ramps, curb ramps excluding the flared sides, elevators, and platforms.

Particularly important in assessing accessible routes is use of suitable measurement tools. Floor plans and site drawings are also important tools needed when conducting an accessible route survey. If drawings are not available, then sketches should be created as you go. Notations should be made on the sketches where accessibility elements are located.

### *Issues for Consideration*

The ADA Accessibility Guidelines (ADAAG) require (1) at least one accessible route be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones if provided, and public streets or sidewalks, to an accessible building entrance; and (2) at least one accessible route must connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site. An exception states that an accessible route shall not be required between accessible buildings, accessible facilities, accessible elements, and accessible spaces if the only means of access between them is a vehicular way not providing pedestrian access.

A checklist should be completed for each accessible route at a site or facility. Identification of accessible routes is discussed in detail in the handbook. Accessible routes generally correspond to typical trip segments used by patrons entering the site or facility:

- Accessible route between point of arrival (bus stop, parking, etc.) and the transit facility entrance.
- Accessible route between the transit facility entrance and the fare purchase and collection area.

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- Accessible route between the fare purchase and collection area to the boarding platform.
- Accessible route between the boarding platform and the vehicle.

Each trip segment should be given a unique sequence number and be assessed. The most common barriers encountered along an accessible route are protruding objects, changes in level, excessive cross and running slopes, and lack of appropriate signage identifying the route. Each of these elements is addressed in this checklist.

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FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

ACCESSIBLE ROUTE DESCRIPTION: \_\_\_\_\_

NTP: \_\_\_\_\_

2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.1 Accessible Route Site - Public Transportation</b></p> <p>Is there an accessible route within the boundary of the site linking an accessible building entrance with the following, if provided: public transportation stops; passenger loading zones; public streets, sidewalks, and all levels of the facility? (206.2.1)</p> <p>Identify and complete a separate checklist for each route required to be accessible.</p> <p><i>NOTE: An accessible route is not required between site arrival points and the building or facility entrance if the only means of access between them is a vehicular way not providing pedestrian access.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 206.2.1 Site Arrival Points</b></p> <p><i>Each site arrival point must be connected by an accessible route to the accessible building entrance or entrances served. Where two or more similar site arrival points, such as bus stops, serve the same accessible entrance or entrances, both bus stops must be on accessible routes. In addition, the accessible routes must serve all of the accessible entrances on the site.</i></p>			
<p><b>2.1.2 Route for General Public</b></p> <p>Does the accessible route generally coincide with the route for the general public including interior circulation paths, to the maximum extent feasible? (206.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>Advisory 206.3 Location</b></p> <p><i>The accessible route must be in the same area as the general circulation path. This means that circulation paths, such as vehicular ways designed for pedestrian traffic, walks, and unpaved paths that are designed to be routinely used by pedestrians must be accessible or have an accessible route nearby. Additionally, accessible vertical interior circulation must be in the same area as stairs and escalators, not isolated in the back of the facility.</i></p>			
<p><b>2.1.3 Directions to Accessible Route and Entrances</b></p> <p>Where the accessible route diverges from general public route, do signs show direction to accessible entrance and route? (216.4.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.4 Directional Signage at Non-Accessible Entrances</b></p> <p>When not all entrances to the facility are accessible, is there directional signage indicating the accessible route to an accessible entrance at the non-accessible entrances? (216.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.5 Accessible Means of Egress</b></p> <p>Are doors at exits from the facility, from exit passageways, and exit stairwells identified with a raised letter and Braille sign meeting ADAAG requirements (use Checklist 15 – Signage)? (216.4.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 216.4.1 Exit Doors</b></p> <p><i>An exit passageway is a horizontal exit component that is separated from the interior spaces of the building by fire-resistance-rated construction and that leads to the exit discharge or public way. The exit discharge is that portion of an egress system between the termination of an exit and a public way.</i></p>			

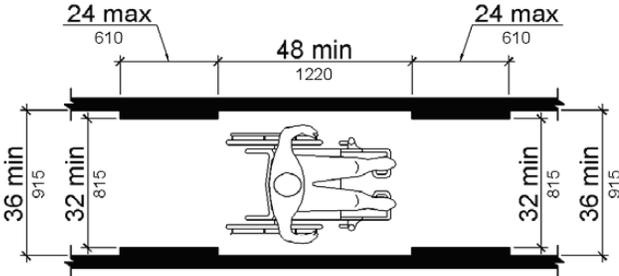
ADA Compliance Checklists for BRT Facilities Design and Construction

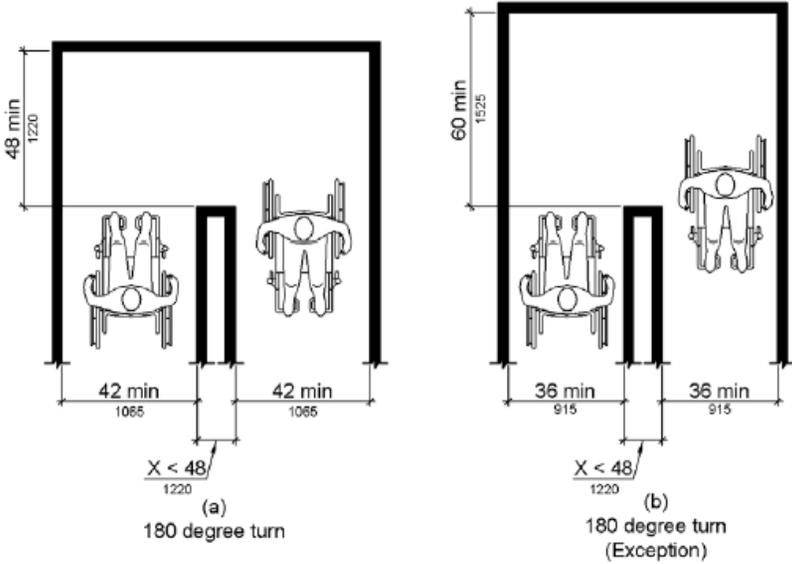
2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.6 Symbols</b></p> <p>Signage includes International Symbol of Accessibility? (216.1, 703)</p> <p>If provided, are the following elements identified by the International Symbol of Accessibility?</p> <p>(a) Accessible parking spaces?</p> <p>(b) Accessible passenger loading zones?</p> <p>(c) Accessible entrances when not all are accessible?</p> <p>(d) Accessible toilet and bathing facilities when not all are accessible?</p> <p>Are tactile characters on signs located 48 inches minimum above the finished floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character? (703.4.1)</p> <p>Are visual characters on signs located no lower than 40 inches above the finished floor or ground surface? (703.5.6)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p><b>2.1.7 Room Identification Signs</b></p> <p>Are signs which designate permanent rooms and spaces compliant with ADAAG requirements (use Checklist 15 - Signage)? (216.2)</p> <p><b>2.1.8 Pictograms</b></p> <p>If pictograms are provided as designations of permanent interior rooms and spaces, are the pictograms compliant with ADAAG 703.6 (use Checklist 15 – Signage) and are text descriptors of the pictograms provided? (216.2)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	



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2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>Advisory 216.2 Designations</b></p> <p><i>Section 216.2 applies to signs that provide designations, labels, or names for interior rooms or spaces where the sign is not likely to change over time. Examples include interior signs labeling restrooms, room and floor numbers or letters, and room names. Tactile text descriptors are required for pictograms that are provided to label or identify a permanent room or space. Pictograms that provide information about a room or space, such as “no smoking,” occupant logos, and the International Symbol of Accessibility, are not required to have text descriptors.</i></p>			
<p><b>2.1.9 Directional and Informational Signs</b></p> <p>Are signs which provide direction to, or information about, functional spaces of the building, compliant with ADAAG requirements (use Checklist 15 - Signage)? (216.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 216.3 Directional and Informational Signs</b></p> <p><i>Information about interior spaces and facilities includes rules of conduct, occupant load, and similar signs. Signs providing direction to rooms or spaces include those that identify egress routes.</i></p>			

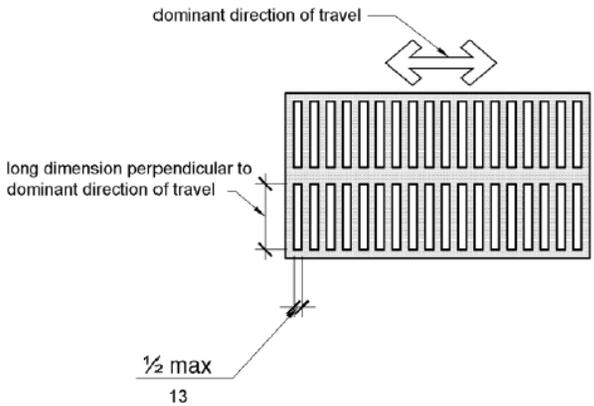
2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.10 Accessible Route Width</b></p> <p>Is the width of the accessible route at least 36 inches? (403.5.1)</p> <p><i>EXCEPTION:</i> The clear width shall be permitted to be reduced to 32 inches minimum for a length of 24 inches maximum provided that reduced width segments are separated by segments that are 48 inches long minimum and 36 inches wide minimum.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.11 Clear Width at Turns</b></p> <p>Where the accessible route makes a U-turn around an obstacle less than 48 inches wide, is the pathway width at least 42 inches on approaches and 48 inches in the turn? (403.5.2)</p>  <p>(a) 180 degree turn</p> <p>(b) 180 degree turn (Exception)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.12 Passing Spaces</b></p> <p>If the accessible route is less than 60 inches wide, are there passing spaces at least 60 inches wide and 60 inches long or intersecting walks allowing passing at reasonable intervals not exceeding 200 feet? (403.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

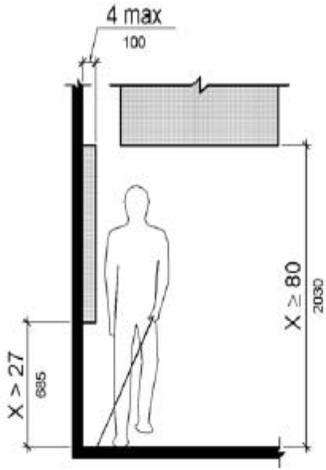


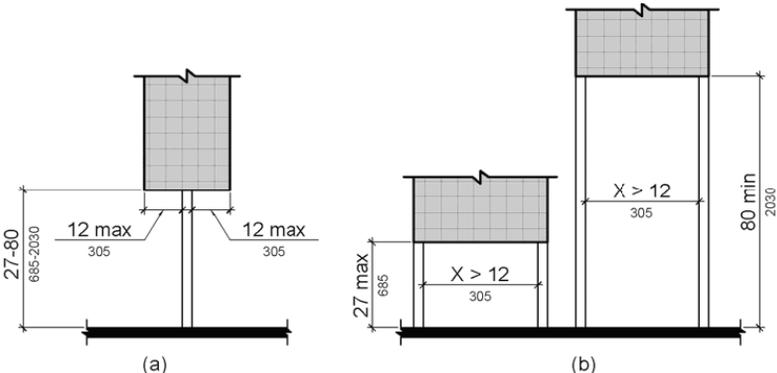
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2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.16 Cross Slope</b>                      Is the cross slope of the accessible route no greater than 1:48 (2 percent)? (403.3)  <i>NOTE:</i> Cross slope is the slope of the surface perpendicular to the direction of travel.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.17 Running Slope</b>                      Is the running slope of the accessible route no greater than 1:20 (5 percent)? (403.3)  <i>NOTE:</i> Running slope is the slope of the surface parallel to the direction of travel.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.18 Ramp Requirements</b>                      Where the slope is greater than 1:20 (5 percent), does the sloped segment of the walkway comply with the requirements for ramps (use Checklist 7 - Ramps)? (303.4, 402.2, 403.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.19 Platform Slope</b>                      Is the slope of the rail platform no greater than 1:48 (2 percent) in any direction? (810.5.1)  <i>EXCEPTION:</i> Where platforms serve vehicles operating on existing track or track laid in existing roadway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the roadway or existing track.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.20 Grates</b></p> <p>Is the smaller dimension of grate openings no more than 1/2 inch, and are long dimensions of rectangular gaps placed perpendicular to the usual direction of travel? (302.3)</p>  <p>The diagram shows a rectangular grate with a grid of openings. A double-headed arrow above the grate indicates the 'dominant direction of travel'. A dimension line on the left side of the grate indicates the 'long dimension perpendicular to dominant direction of travel'. A dimension line at the bottom left indicates the '1/2 max' opening size. The number '13' is written below the '1/2 max' label.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>2.1.21 Track Crossing</b></p> <p>Where necessary to cross tracks to reach boarding platforms, is the walking surface level and flush with the top of the rail at the outer edge and between the rails, except for a maximum 2 1/2 inch gap on the inner edge of each rail? (810.10)</p>  <p>The diagram shows a cross-section of a track crossing. Two rails are shown on a bed. A dimension line above the gap between the rails indicates a '2 1/2 max' gap. The number '64' is written below the dimension line. The walking surface is shown as a dark area that is level and flush with the top of the rail at the outer edge.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.22 Changes In Level</b></p> <p>When walkway levels change, is the vertical difference between them less than 1/4 inch? (303.2) OR - Are changes in level between 1/4 inch and 1/2 inch beveled with a slope no greater than 1:2? (303.3)</p> <p>1/4 max 6.4</p> <p>1/4 6.4</p> <p>1/4 6.4</p> <p>13</p> <p>2</p> <p>1</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 303.3 Beveled</b></p> <p><i>A change in level of 1/2 inch (13 mm) is permitted to be 1/4 inch (6.4 mm) vertical plus 1/4 inch (6.4 mm) beveled. However, in no case may the combined change in level exceed 1/2 inch (13 mm). Changes in level exceeding 1/2 inch (13 mm) must comply with 405 (Ramps) or 406 (Curb Ramps).</i></p>			
<p>Are curb ramps, ramps, or elevators used for changes in level greater than 1/2 inch? (303.4)</p> <p><i>NOTE:</i> Lifts may only be used in certain limited situations in new construction.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>Are the curb ramp, ramp, or elevator compliant? (Use Checklist 4 - Curb Ramps; Checklist 7 - Ramps; or Checklist 8 - Elevators)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.23 Protruding Objects:</b></p> <p>If objects mounted to the wall have leading edges between 27 and 80 inches above the floor, do they project less than 4 inches horizontally into the pathway? (Wall mounted objects with leading edges at or below 27 inches may project any amount so long as the required clear width of an accessible route is not reduced.) (307.2)</p> <p><i>EXCEPTION:</i> Handrails may protrude up to 4-1/2 inches.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>Advisory 307.2 Protrusion Limits</b></p> <p><i>When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact. Elements located on circulation paths, including operable elements, must comply with requirements for protruding objects. For example, awnings and their supporting structures cannot reduce the minimum required vertical clearance. Similarly, casement windows, when open, cannot encroach more than 4 inches (100 mm) into circulation paths above 27 inches (685 mm).</i></p>			
<p><b>2.1.24 Post Mounted Protruding Objects</b></p> <p>Do free standing objects mounted on posts with leading edges between 27 and 80 inches high (such as a sign or telephone) project less than 12 inches into the perpendicular route of travel? (307.3)</p> <p><i>EXCEPTION:</i> The sloping portions of handrails serving stairs and ramps are not required to comply with 307.3.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

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2.1 Accessible Route Technical Specifications	Yes	No	Observations
<p><b>2.1.25 Clear Width at Protruding Object</b>                      Is there an accessible path at least 36 inches clear alongside the protruding object? <i>(307.5)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 3.0 Passenger Loading Zones

### *Survey Instructions*

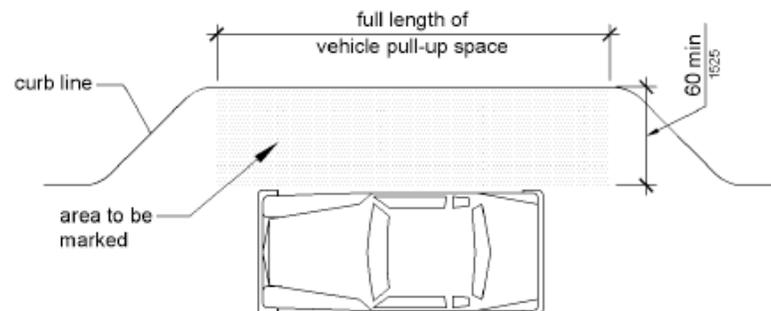
A tape measure, electronic level, and digital camera are the principal tools needed to conduct assessments of passenger loading zones.

### *Issues for Consideration*

The major issue to be aware of in assessing passenger loading zones is the number of passenger loading zones required by ADAAG. ADAAG requires one compliant passenger loading zone for every continuous 100 linear feet of loading zone space. The ADAAG does not require that passenger loading zones be provided, but if space has been designated at a facility for passenger drop-off or loading such as a pull in lane or kiss-and-ride area, the requirements of the ADAAG for accessible passenger loading zone(s) must be provided.

ADAAG requires that the vehicular pull-up space be 96 inches wide minimum and 20 feet long minimum with an adjoining access aisle marked at least 60 inches wide and as long as the vehicle pull-up space.

For ease of reference, the following diagram illustrates a typical passenger loading zone.



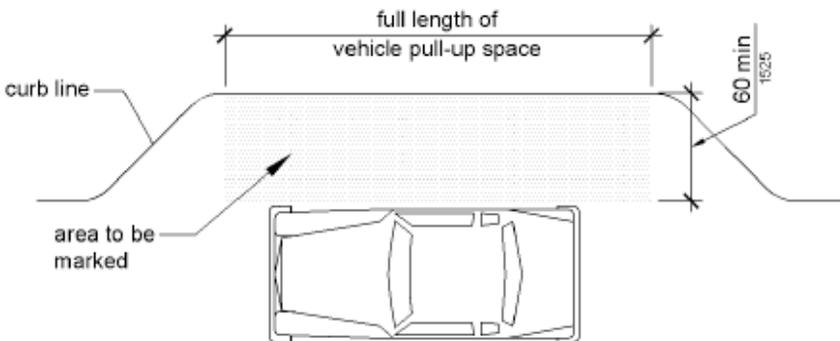
ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

3.1. Passenger Loading Zone Technical Specifications	Yes	No	Observations
<b>3.1.1 Passenger Loading Zones</b> If passenger loading zones are provided, is there at least one in every continuous 100 linear feet of loading zone space, or fraction thereof? <i>(209.2.1)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3.1.2 Vehicle Pull-Up Space</b> Does the loading zone provide a vehicular pull-up space 96 inches wide minimum and 20 feet long minimum? <i>(503.2)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3.1.3 Access Aisle</b> Is there an access aisle adjacent to the vehicle pull-up space? <i>(503.3)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3.1.4 Overlap Vehicular Way</b> Does the access aisle adjoin the accessible route, but not overlap the vehicular way? <i>(503.3)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3.1.5 Aisle Width</b> Is the access aisle at least 60 inches wide? <i>(503.3.1)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3.1.6 Aisle Length</b> Do the access aisles extend the full length of the vehicle pull-up spaces they serve? <i>(503.3.2)</i>	<input type="checkbox"/>	<input type="checkbox"/>	

3.1. Passenger Loading Zone Technical Specifications	Yes	No	Observations
<p><b>3.1.7 Marking</b></p> <p>Is the access aisle marked so as to discourage parking in it? (503.3.3)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>3.1.8 Floor and Ground Surfaces</b></p> <p>Is the vehicle pull-in space and access aisle surface stable, firm and slip-resistant? (503.4)</p> <p>Is the access aisle level, with no slope greater than 1:48 (2 percent) in all directions? (503.4)</p> <p>Are the vehicle pull-up space and access aisle at the same level with no changes in level? (503.4)</p>	<input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>	<input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>	
<p><b>3.1.9 Vertical Clearance</b></p> <p>Is there at least 114 inches vertical clearance at the vehicle pull-up spaces, the access aisles serving them, a vehicular route from an entrance to the passenger loading zone, and from the passenger loading zone to a vehicular exit? (503.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 4.0 Curb Ramps

### *Survey Instructions*

A 25-foot tape measure, an electronic level to be used to measure slopes, and digital camera are the principal assessment tools needed to conduct curb ramp assessments.

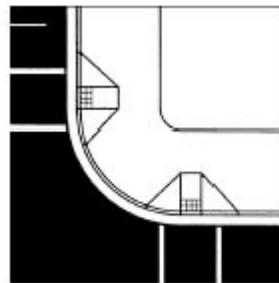
### *Issues for Consideration*

Because it is likely that multiple curb ramps will be encountered on the accessible routes at the site being assessed, identification and uniquely numbering a drawing or sketch of each of the curb ramps on the accessible routes to and through the facility. Curb ramps that are not on an accessible route to or through the facility and that were constructed (NTP for construction) before Jan. 26, 1992, should be ignored for purposes of this checklist.

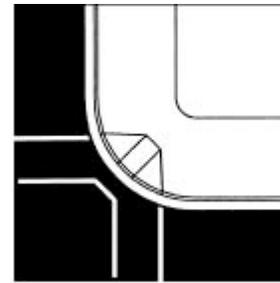
Variations in standard design and construction of curb ramps often occur where existing site conditions are not typical. Design and construction efforts often attempt to satisfy the dimensional and slope requirements of the ADA Accessibility Guidelines (ADAAG) to fit a particularly atypical site condition. The surrounding environment must be considered when performing assessments of curb ramps to maintain not only an accessible approach for persons using wheelchairs or walkers, but a usable pathway for everyone.

There are three basic curb ramp designs: curb ramps that are perpendicular to the curb line, diagonal to the curb line (also referred to as a corner curb ramp), and parallel to the curb line as shown here.

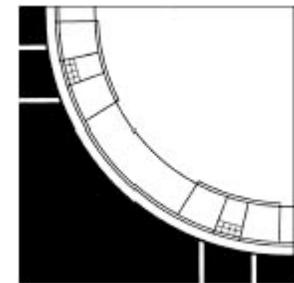
The requirements for each type of curb ramp are provided in the technical



Perpendicular Curb Ramp



Diagonal Curb Ramp



Parallel Curb Ramp

specifications which follow. The logical approach to evaluating maneuverability for each of the curb ramp designs is to consider the ability of a person using a wheelchair to navigate the curb ramp in relationship to the adjoining accessible pathway. Sufficient space within, at the top, and at the bottom of the curb ramp must be provided to allow a person in a wheelchair to enter the curb ramp, navigate its slope and maneuver onto the adjoining accessible path without encountering barriers such as excessive slopes, changes in elevation along the slope or adjoining surfaces, or insufficient space to turn the wheelchair in preparation for advancing.

The U.S. Department of Transportation (USDOT) Final Rule requires that detectable warning material be applied to the surfaces of curb ramps. This requirement had been specified in the original ADAAG regulations, but had been dropped during the revision of the code. USDOT has mandated the continuation of the requirement in its adoption of the revised ADAAG on Nov. 29, 2006, and the requirement is therefore applicable to those curb ramps installed on accessible routes at and within public transportation sites. The ADAAG revision has also altered the detectable warning material characteristics. Therefore, it is important to note that curb ramps constructed between July 26, 2001, and Nov. 29, 2005, should have detectable warning material applied in compliance with the original ADAAG Section 4.29, and curb ramps constructed after Nov. 29, 2006, must have detectable warning material compliant with revised ADAAG Section 705.

Care should be taken to capture all noncompliant aspects of a particular curb ramp in the "Observations" column next to each technical specification. Note precisely what the noncompliant aspect of the curb ramp is. For example, "clear width of curb ramp only 29 inches," "running slope of curb ramp is 11 percent," or "cross slope at top landing of curb ramp is 5 percent" are the types of information that should be captured. The information will be valuable in developing recommendations for modifications needed to correct noncompliant elements.

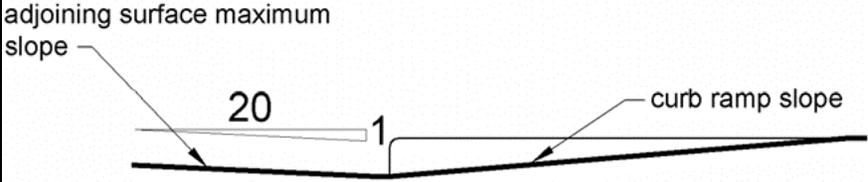
ADA Compliance Checklists for BRT Facilities Design and Construction

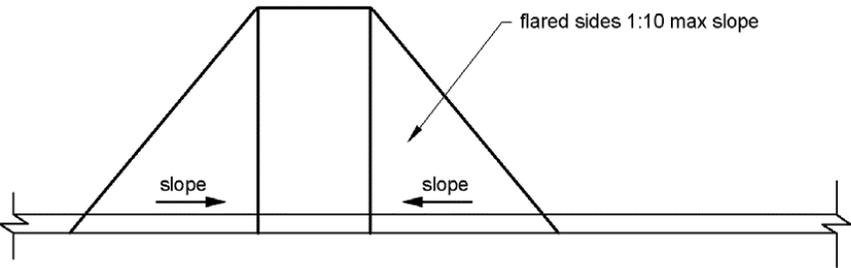
FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.1 Curb Ramp Locations and Identification</b></p> <p>Are there curb ramps located on the accessible route(s) within the boundary of the site? <i>(406)</i></p> <p>If curb ramps are provided, assign each curb ramp a unique number and record its location on a drawing or sketch of the site and assess for compliance. Use additional pages or back of form if needed to record observations.</p> <p>Curb Ramp #1:                      Curb Ramp #2:                      Curb Ramp #3:                      Curb Ramp #4:                      Curb Ramp #5:                      Curb Ramp #6:</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.1.2 Curb Ramps on Accessible Route</b></p> <p>Is a curb ramp provided at each location wherever the accessible route crosses a curb? <i>(303.4,406.1)</i></p> <p>Also identify and record all locations on accessible routes where a curb is encountered and a curb ramp is not provided:</p>	<input type="checkbox"/>	<input type="checkbox"/>	

4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.3 Counter Slope</b>                      Are the running slopes of adjoining gutters, roads or accessible route surfaces immediately adjacent to the curb ramp no greater than 1:20 (5 percent)? (406.2)                      If not, record slope for each noncompliant adjoining surface:</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.1.4 Changes in Level at Transitions</b>                      Are transitions where the curb ramp meets the sidewalk and where it meets the street or gutter flush with no abrupt change in vertical elevation? (406.2)                      Record transition deficiencies for each noncompliant curb ramp:</p>	<input type="checkbox"/>	<input type="checkbox"/>	

4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.5 Side Flare Slope</b>                      If side flares are provided on curb ramps, is the slope of the side flares equal to or less than 1:10 (10 percent). (406.3)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

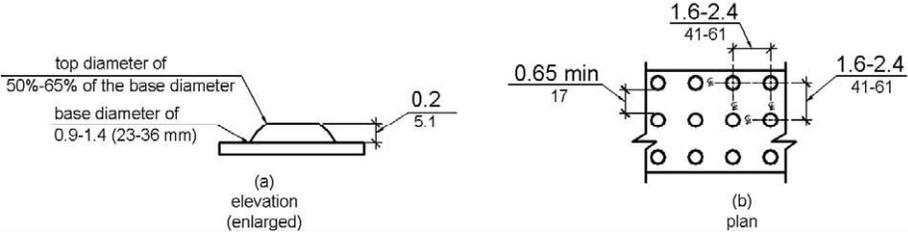


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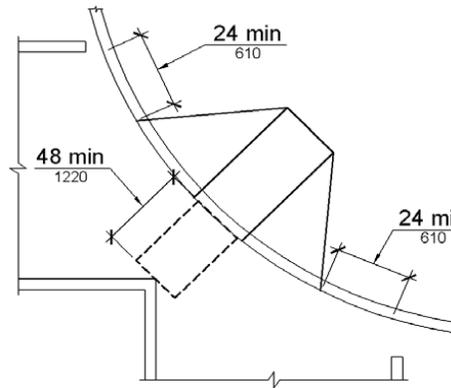
4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.7 Curb Ramp Location Requirements</b></p> <p><b>4.1.7.1 Crosswalks</b> Are curb ramps at crosswalks wholly contained within the crosswalk lines, except for the flared sides? (406.5)</p> <p><b>4.1.7.2 Parked Vehicles</b> Are curb ramps located or protected to prevent their obstruction by parked vehicles? (402.2)</p> <p><b>4.1.7.3 Traffic Lanes</b> Are curb ramps, including any flared sides, located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles? (406.5)</p> <p>Record deficiencies for each noncompliant curb ramp.</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	
<p><b>4.1.8 Width of Curb Ramp</b> Is the width of the curb ramp, not including the flared sides, at least 36 inches? (403.5.1, 405.5)</p> <p>If not, record widths of any non compliant curb ramps by curb ramp number:</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p><b>4.1.9 Curb Ramp Surface</b> Is the surface of the curb ramp stable, firm, and slip resistant and have adjacent areas been constructed to prevent accumulation of water? (405.4, 405.10)</p> <p>Record surface deficiencies by curb ramp number:</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	

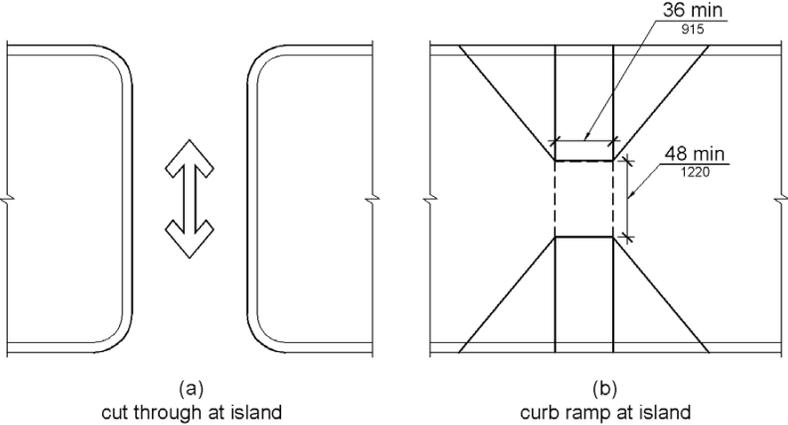
ADA Compliance Checklists for BRT Facilities Design and Construction

4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.10 Running Slope of Curb Ramp</b>                      Is the running slope (slope parallel to direction of travel) of the curb ramp surface 1:12 (8.33 percent) or less? <i>(405.2)</i>                      If not, record slope for each noncompliant curb ramp:  <i>EXCEPTIONS:</i> At existing sites, buildings, and facilities where space limitations exist, ramps may have a running slope steeper than 1:12 as follows.</p> <ol style="list-style-type: none"> <li>1. For a maximum rise of 3 inches, slope must be 1:10 (10 percent) to 1:8 (12.5 percent).</li> <li>2. For a maximum rise of 6 inches, slope must be 1:12 (8.33 percent) to 1:10 (10 percent).</li> <li>3. A slope steeper than 1:8 (12.5 percent) is prohibited.</li> </ol>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.1.11 Cross Slope of Curb Ramp</b>                      Is the cross slope of the curb ramp surface greater than 1:48 (2 percent)? <i>(405.3)</i>                      Record slope measurement for each noncompliant curb ramp cross slope.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.1.12 Detectable Warning</b>  <b>4.1.12.1 Detectable Warning Provided</b>                      Does the curb ramp have a detectable warning? <i>(USDOT Final Rule)</i>  <b>4.1.12.2 Truncated Domes</b>                      Does the detectable warning consist of raised truncated domes? <i>(705.1)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.12.2.1 Truncated Dome Size</b></p> <p>Do the truncated domes in the detectable warning surface have a base diameter of 0.9 inch minimum and 1.4 inches maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch? (705.1.1)</p>  <p>The diagram consists of two parts: (a) elevation (enlarged) and (b) plan. Part (a) shows a truncated dome with a height of 0.2 inches (5.1 mm). The top diameter is labeled as 50%-65% of the base diameter, and the base diameter is labeled as 0.9-1.4 inches (23-36 mm). Part (b) shows a plan view of a square grid of domes. The center-to-center spacing is labeled as 1.6-2.4 inches (41-61 mm), and the base-to-base spacing is labeled as 0.65 min (17 mm).</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.1.12.2.2 Truncated Dome Spacing</b></p> <p>Do the truncated domes in a detectable warning surface have a center-to-center spacing of 1.6 inches minimum and 2.4 inches maximum, and a base-to-base spacing of 0.65 inch minimum, measured between the most adjacent domes on a square grid? (FRG 705.1.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.1.12.3 Detectable Warning Visual Contrast</b></p> <p>Does the detectable warning contrast visually with adjoining surfaces (light-on-dark or dark-on-light)? (705.1.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.13 Diagonal Curb Ramps</b></p> <p><b>4.1.13.1 Curb Direction</b>                      If diagonal, or corner type curb ramps are provided along the accessible route, are the returned curbs on either side of ramp, or other well defined edges parallel to the direction of pedestrian travel? (406.6)</p> <p><b>4.1.13.2 Maneuvering Space</b>                      Is there a clear space 48 inches minimum outside any active traffic lanes of the roadway provided at the bottom of the diagonal curb ramps? (406.6)</p> <p><b>4.1.13.3 Crosswalk Clear Area</b>                      If crosswalks are provided at diagonal curb ramps, is the clear 48 inch area at the bottom of the ramp included within the marked crossings? (406.6)</p> <p><i>NOTE:</i> Figure at right, shows crosswalks on left at diagonal curb ramp on right and clear 48 inch landing area within marked crossing.</p> <p><b>4.1.13.4 Curb Space in Crosswalk</b>                      Is there a segment of curb 24 inches long minimum located on each side of the curb ramp and within the marked crossing? (406.6)</p> <p>Record deficiencies by curb ramp number for each noncompliant curb ramp.</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	



4.1 Curb Ramp Technical Specifications	Yes	No	Observations
<p><b>4.1.14 Islands</b></p> <p>If islands are encountered along the accessible route at street/road crossings, are the islands cut through level with the street surface or are curb ramps provided at both sides and a level area at least 48 inches long and 36 inches wide at the top of each curb ramp in the part of the island intersected by the crosswalks? (406.7)</p> <p>Record deficiencies for each noncompliant island:</p>  <p>(a) cut through at island</p> <p>(b) curb ramp at island</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 5.0 Entrances

### *Survey Instructions*

Before performing the technical assessment, become familiar with the site and facility conditions to determine the number of entrances to the facility and identify and uniquely number them on a drawing or sketch of the site. A tape measure, smart level, resistance scale, and digital camera are the principal assessment tools needed to conduct the entrance assessment.

In completing the checklist, notice that extra space is provided to elaborate where a simple "yes" or "no" observation is insufficient. You should note as precisely as possible what the problem is; for example, "clear opening width only 29 inches," "threshold at entrance door is 1 inch high," or "ISA not displayed at accessible entrance door." This information will be useful at a later date to summarize the assessment and develop modifications to correct noncompliant elements.

### *Issues for Consideration*

ADAAG requires (in new construction) at least 60 percent of public entrances to be accessible and the number of accessible public entrances to be equivalent to the number of exits required by applicable building and fire codes. Building and fire codes typically require at least two exits to be provided from a facility. Thus, under ADAAG and in new construction of a facility, where two public entrances exist in a facility, both entrances must be accessible.

At existing facilities, instead of requiring at least 60 percent of public entrances, the original ADAAG required at least 50 percent of public entrances to be made accessible plus a number equal to the number of required exits to be made accessible. Thus, where two public entrances exist in a facility, only one of the entrances must be accessible. Further, ADAAG contains exceptions that limit the number of accessible entrances required in alterations to existing facilities. When entrances in an existing facility are altered and the facility has an accessible entrance, the entrance being altered is not required to be accessible, unless a primary function area is also altered -- then an accessible path of travel must be provided to the primary function area to the extent the cost is not disproportionate.

Where multiple public entrances serve different site arrival points, ADAAG requires at least one accessible route to be provided from each site arrival point, including accessible parking spaces, accessible passenger loading zones, public streets and sidewalks, and public transportation stops, to an accessible public entrance that serves the site arrival point.

**ADAAG refers to defined or undefined entrances when describing the entrance signage requirements. The definitions section of the manual provides the following definition for entrances.**

**Entrance.** Any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.

This definition clearly defines the principals to apply when determining whether an entrance to a facility exists and should be followed when performing facility assessments while determining entrance locations and characteristics.

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ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

5.1 Entrance Technical Specifications	Yes	No	Observations
<b>5.1.1 Existing Facilities</b> For existing facilities, is there at least one accessible entrance to the station/facility? <i>(206.4, 206.4.4.3)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>5.1.2 Key Stations</b> At key stations and existing intercity rail stations is there at least one accessible entrance to the station? <i>(206.4.4.3)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>5.1.3 New Construction</b> For new construction of facilities, are at least 60 percent of the public entrances accessible? <i>(206.4.1)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>5.1.4 Entrances from Tunnels or Elevated Walkways</b> Where direct access is provided for pedestrians from a pedestrian tunnel or elevated walkway to a building or facility, is at least one direct entrance to the building or facility from each tunnel or walkway accessible? <i>(206.4.3)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>5.1.5 Parking Structure Entrances</b> Where direct access is provided for pedestrians from a parking structure to a building or facility entrance, is each direct access to the building or facility entrance accessible? <i>(206.4.2)</i>			

ADA Compliance Checklists for BRT Facilities Design and Construction

5.1 Entrance Technical Specifications	Yes	No	Observations
<p><b>5.1.6 Multiple Transportation Facilities</b>                      In new construction of transportation facilities, where different entrances serve different transportation fixed routes or groups of fixed routes, is there at least one public accessible entrance serving each fixed route or group of fixed routes? (206.4.4.1)  <i>EXCEPTION:</i> Retrofitted entrances to key stations and existing intercity rail stations are not required to comply with this requirement.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>5.1.7 Direct Connections</b>                      In new construction of transportation facilities, do direct connections to other facilities provide an accessible route from the point of connection to boarding platforms and all transportation system elements required to be accessible? (206.4.4.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>5.1.8 Future Direct Connections</b>                      In new construction of transportation facilities, are elements provided to facilitate future direct connections on an accessible route connecting boarding platforms and all transportation system elements required to be accessible? (206.4.4.2)  <i>EXCEPTION:</i> In key stations and existing intercity rail stations, existing direct connections are not required to comply with this requirement.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>5.1.9 Entrance Door</b>                      At each accessible entrance to a building or facility, is there at least one accessible door, doorway, or gate (use Checklist 6 – Doors and Gates)? (206.5.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

5.1 Entrance Technical Specifications	Yes	No	Observations
<p><b>5.1.10 Site Arrival Points</b></p> <p>Is there at least one accessible route provided within the site from accessible parking spaces and accessible passenger loading zones; public streets and sidewalks; and public transportation stops to each accessible building or facility entrance? <i>(206.2.1)</i></p> <p><i>EXCEPTIONS</i></p> <ol style="list-style-type: none"> <li>1. Where exceptions for alterations to qualified historic buildings or facilities, no more than one accessible route from a site arrival point to an accessible entrance is required.</li> <li>2. An accessible route is not required between site arrival points and the building or facility entrance if the only means of access between them is a vehicular way not providing pedestrian access.</li> </ol>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 206.2.1 Site Arrival Points</b></p> <p><i>Each site arrival point must be connected by an accessible route to the accessible building entrance or entrances served. Where two or more similar site arrival points, such as bus stops, serve the same accessible entrance or entrances, both bus stops must be on accessible routes. In addition, the accessible routes must serve all of the accessible entrances on the site.</i></p>			
<p><b>5.1.11 Entrance Signage</b></p> <p>If there is a visual sign provided at or near an entrance to the station that identifies the station or system, is there a tactile (raised lettering and Braille) station name sign also provided at each entrance identified by a visual sign and placed at uniform locations to the maximum extent practicable? <i>(810.6.1)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

5.1 Entrance Technical Specifications	Yes	No	Observations
<p><b>5.1.12 Undefined Entrance Signage</b>                      If a sign is provided at a station that has no defined entrance, such as a rail station that permits boarding at street level using the public right-of-way, is there at least one tactile (raised lettering and Braille) sign placed in a central location? (810.6.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.6 Rail Station Signs Exception</b>  <i>Emerging technologies such as audible sign systems using infrared transmitters and receivers may provide greater accessibility in the transit environment than traditional Braille and raised letter signs. The transmitters are placed on or next to print signs and transmit their information to an infrared receiver that is held by a person. By scanning an area, the person will hear the sign. This means that signs can be placed well out of reach of Braille readers, even on parapet walls and on walls beyond barriers. Additionally, such signs can be used to provide way-finding information that cannot be efficiently conveyed on Braille signs.</i></p>			
<p><b>5.1.13 Multiple Entrances Signage</b>                      If there are multiple entrances and not all entrances are accessible, is there signage at each non-accessible entrance directing passengers to the nearest accessible entrance and are such signs located to minimize backtracking? (216.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>5.1.14 Entrance Designation</b>                      When not all entrances are accessible, is the accessible entrance designated with the accessibility symbol? (216.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

5.1 Entrance Technical Specifications	Yes	No	Observations
<p><b>Advisory 216.6 Entrances</b></p> <p><i>Where a directional sign is required, it should be located to minimize backtracking. In some cases, this could mean locating a sign at the beginning of a route, not just at the inaccessible entrances to a building.</i></p>			
<p><b>5.1.15 Exit from Facility</b></p> <p>If accessible entrances also serve as exits from the facility, is a raised letter and Braille sign displayed at each point of exit (use Checklist 15 – Signage)? (216.4.1)</p> <p><i>NOTE:</i> ADAAG 216.4.1 is applicable to exit doors at passageways, exit discharge, and exit stairways in addition to accessible entrance/exit points.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 216.4.1 Exit Doors</b></p> <p><i>An exit passageway is a horizontal exit component that is separated from the interior spaces of the building by fire-resistance-rated construction and that leads to the exit discharge or public way. The exit discharge is that portion of an egress system between the termination of an exit and a public way.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

5.1 Entrance Technical Specifications	Yes	No	Observations
<p><b>5.1.16 Security Systems at Entrances</b></p> <p>If security barriers, including but not limited to, security bollards and security check points are provided at an entrance, is the required accessible route or accessible means of egress obstructed by the security barriers? (206.8)</p> <p><i>EXCEPTION:</i> Where security barriers incorporate elements that cannot comply with these requirements such as certain metal detectors, fluoroscopes, or other similar devices, the accessible route shall be permitted to be located adjacent to security screening devices. The accessible route shall permit persons with disabilities passing around security barriers to maintain visual contact with their personal items to the same extent provided others passing through the security barrier.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 6.0 Doors and Gates

### *Survey Instructions*

Before performing the technical assessment, become familiar with the site and facility conditions to determine the number of doors and gates along accessible paths to and within the facility and identify and uniquely number them on a drawing or sketch of the site. A tape measure, resistance scale, and digital camera are the principal assessment tools needed to conduct the entrance assessment.

In completing the checklist, notice that extra space is provided to elaborate where a simple "yes" or "no" observation is insufficient. You should note as precisely as possible what the problem is; for example, "clear opening width only 29 inches," "threshold at entrance door is 1 inch high," or "hardware is not accessible at accessible entrance door." This information will be useful at a later date to summarize the assessment and develop modifications to correct noncompliant elements.

### *Issues for Consideration*

ADAAG requires that doors to accessible spaces be accessible. In general, this means that the doorway clear opening must be at least 32 inches wide, the hardware on the door be accessible, and the threshold at the doorway be accessible. Each of these requirements is detailed in the technical specification of this checklist.

Automatic and power-assisted doors and gates must meet the same characteristics dimensional limits specified for manual swinging or sliding doors. This includes clear width, maneuvering clearances, thresholds, doors and gates in series, and controls and hardware.

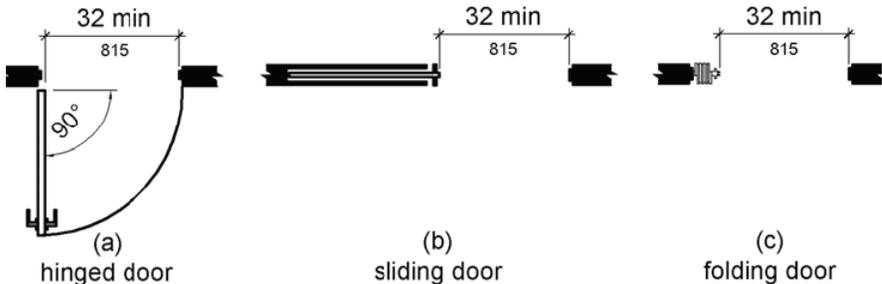
ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

6.1 Doors and Gates Technical Specifications	Yes	No	Observations
<b>6.1.1 Doors at Accessible Entrances</b> At each accessible entrance to a building or facility, is there at least one accessible door, doorway, or gate? <i>(206.5.1)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6.1.2 Accessible Routes and Spaces</b> Is there at least one accessible door at each accessible space in the facility? <i>(404.1)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6.1.3 Revolving Doors, Gates, and Turnstiles</b> Are revolving doors, gates, and/or turnstiles encountered at an accessible entrance or accessible circulation path without an alternate means of egress nearby? <i>(404.2.1)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6.1.4 Double-Leaf Doors and Gates</b> If the doorway has two independently operated door leaves, does at least one active leaf provide at least a 32 inch clear opening width? <i>(404.2.2)</i>	<input type="checkbox"/>	<input type="checkbox"/>	

6.1 Doors and Gates Technical Specifications	Yes	No	Observations
<p><b>6.1.5 Clear Width for Doors</b></p> <p>When a door is open 90 degrees, is there a clear opening width at least 32 inches measured between the face of the door and the door stop on the latch side? (404.2.3)</p> <p><i>NOTE:</i> Measurements to determine clear opening width should be taken as shown in Figure 404.2.3 below.</p>  <p>(a) hinged door      (b) sliding door      (c) folding door</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>6.1.6 Clear Width for Doors Recessed or in Alcove</b></p> <p>When door is recessed or in an alcove greater than 24 inches deep, is the clear opening with at least 36" when measured as shown above? (404.2.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	



6.1 Doors and Gates Technical Specifications				Yes	No	Observations
<b>Table 404.2.4.1</b> <b>Maneuvering Clearances at</b> <b>Manual Swinging Doors and Gates</b>						
<b>Type of Use</b>		<b>Minimum Maneuvering Clearance</b>				
<b>Approach Direction</b>	<b>Door or Gate Side</b>	<b>Perpendicular to Doorway</b>	<b>Parallel to Doorway (beyond latch side unless noted)</b>			
From front	Pull	60 inches	18 inches			
From front	Push	48 inches	0 inches (1)			
From hinge side	Pull	60 inches	36 inches			
From hinge side	Pull	54 inches	42 inches			
From hinge side	Push	42 inches (2)	22 inches (3)			
From latch side	Pull	48 inches (4)	24 inches			
From latch side	Push	42 inches (4)	24 inches			
(1) Add 12 inches if closer and latch are provided. (2) Add 6 inches if closer and latch are provided. (3) Beyond hinge side. (4) Add 6 inches if closer is provided.						

6.1 Doors and Gates Technical Specifications	Yes	No	Observations																								
<p><b>6.1.9 Maneuvering Space at Doorways without Doors or Gates, Sliding Doors and Folding Doors</b></p> <p>Do doorways that are less than 36 inches wide without doors or gates, sliding doors, or folding doors have maneuvering space relative to the direction of approach as shown in Table 404.2.4.2 below (also see Figure 404.2.4.2 at end of checklist which illustrates maneuvering clearance scenarios)? (404.2.4.2)</p> <table border="1" data-bbox="193 602 1276 1357"> <thead> <tr> <th colspan="3" data-bbox="193 602 1276 743"> <b>Table 404.2.4.2                      Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors</b> </th> </tr> <tr> <th colspan="3" data-bbox="193 743 1276 813">Minimum Maneuvering Clearance</th> </tr> <tr> <th data-bbox="193 813 525 946">Approach Direction</th> <th data-bbox="525 813 810 946">Perpendicular to Doorway</th> <th data-bbox="810 813 1276 946">Parallel to Doorway (beyond stop/latch side unless noted)</th> </tr> </thead> <tbody> <tr> <td data-bbox="193 946 525 1003">From Front</td> <td data-bbox="525 946 810 1003">48 inches</td> <td data-bbox="810 946 1276 1003">0 inches</td> </tr> <tr> <td data-bbox="193 1003 525 1068">From side (1)</td> <td data-bbox="525 1003 810 1068">42 inches</td> <td data-bbox="810 1003 1276 1068">0 inches</td> </tr> <tr> <td data-bbox="193 1068 525 1166">From pocket/hinge side</td> <td data-bbox="525 1068 810 1166">42 inches</td> <td data-bbox="810 1068 1276 1166">22 inches (2)</td> </tr> <tr> <td data-bbox="193 1166 525 1255">From stop/latch side</td> <td data-bbox="525 1166 810 1255">42 inches</td> <td data-bbox="810 1166 1276 1255">24 inches</td> </tr> <tr> <td colspan="3" data-bbox="193 1255 1276 1357">                     (1) Doorway with no door only.                      (2) Beyond pocket/hinge side.                 </td> </tr> </tbody> </table>	<b>Table 404.2.4.2                      Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors</b>			Minimum Maneuvering Clearance			Approach Direction	Perpendicular to Doorway	Parallel to Doorway (beyond stop/latch side unless noted)	From Front	48 inches	0 inches	From side (1)	42 inches	0 inches	From pocket/hinge side	42 inches	22 inches (2)	From stop/latch side	42 inches	24 inches	(1) Doorway with no door only. (2) Beyond pocket/hinge side.			<input type="checkbox"/>	<input type="checkbox"/>	
<b>Table 404.2.4.2                      Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors</b>																											
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From stop/latch side	42 inches	24 inches																									
(1) Doorway with no door only. (2) Beyond pocket/hinge side.																											

ADA Compliance Checklists for BRT Facilities Design and Construction

6.1 Doors and Gates Technical Specifications	Yes	No	Observations
<p><b>6.1.10 Maneuvering Space at Recessed Doors and Gates</b>                      Is maneuvering clearance for a forward approach provided to doors that are recessed when an obstruction within 18 inches of the latch side of doorway projects more than 8 inches beyond the face of the door, measured perpendicular to the face of the door or gate (see Figure 404.2.4.3 at end of checklist which illustrates maneuvering clearances)? (404.2.4.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 404.2.4.3 Recessed Doors and Gates</b>  <i>A door can be recessed due to wall thickness or because of the placement of casework and other fixed elements adjacent to the doorway. This provision must be applied wherever doors are recessed.</i></p>			
<p><b>6.1.11 Floor or Ground Surface</b>                      Except for the threshold characteristics, are the floor and ground surfaces within maneuvering clearances to doors stable, firm and slip resistant without changes in level and have slopes not in excess of 2 percent? (404.2.4.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>6.1.12 Thresholds</b>                      If thresholds are provided at doorways, is the vertical change in level no greater than ½ inch? (404.2.5)  <i>NOTE: Existing or altered thresholds are allowed ¾ inch high thresholds if they are beveled on each edge with a slope not steeper than 1:2.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	





6.1 Doors and Gates Technical Specifications	Yes	No	Observations
<p><b>Advisory 404.2.7 Door and Gate Hardware</b></p> <p><i>Door hardware that can be operated with a closed fist or a loose grip accommodates the greatest range of users. Hardware that requires simultaneous hand and finger movements require greater dexterity and coordination, and is not recommended.</i></p>			
<p><b>6.1.18 Door and Gate Surfaces</b></p> <p>Are swinging door and gate surfaces that are within 10 inches above the finish floor or ground provided with a smooth surface on the push side of the door or gate and cover the full width of the door or gate? (404.2.10)</p> <p><i>NOTE:</i> Parts creating horizontal or vertical joints in the smooth surfaces must be within 1/16 inch of the same plane as the other. Cavities created by added kick plates must be capped.</p> <p><i>EXCEPTIONS:</i></p> <ol style="list-style-type: none"> <li>1. Sliding doors are not required to have smooth surfaces.</li> <li>2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch bottom smooth surface height requirement.</li> <li>3. Doors and gates that do not extend to within 10 inches of the finish floor or ground are not required to meet the 10 inch bottom smooth surface height requirement.</li> <li>4. Existing doors and gates without smooth surfaces within 10 inches of the finish floor or ground are not required to provide smooth surfaces complying with 404.2.10 provided that if added kick plates are installed, cavities created by such kick plates are capped.</li> </ol>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

6.1 Doors and Gates Technical Specifications	Yes	No	Observations
<p><b>6.1.19 Vision Lights</b>                      Are glazed panels within doors or gates, or adjacent to doors or gates, that permit viewing through the panels have the bottom edge of at least one glazed panel located no higher than 43 inches above the finished floor? <i>(404.2.11)</i>  <i>EXCEPTION:</i> Vision lights with the lowest part more than 66 inches from the finished floor or ground shall not be required to comply with 404.2.11.</p>			
<p><b>6.1.20 Automatic and Power-Assisted Doors and Gates</b>                      Where automatic or power-assisted doors or gates are provided as a means of egress without standby power, is a clear break out opening provided that is at least 32 inches wide for emergency use? <i>(404.3.6)</i>  <i>EXCEPTION:</i> Where accessible manual swinging doors and gates are provided that serve the same means of egress as the automatic or power-assisted doors or gates, an emergency break out opening is not required.</p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

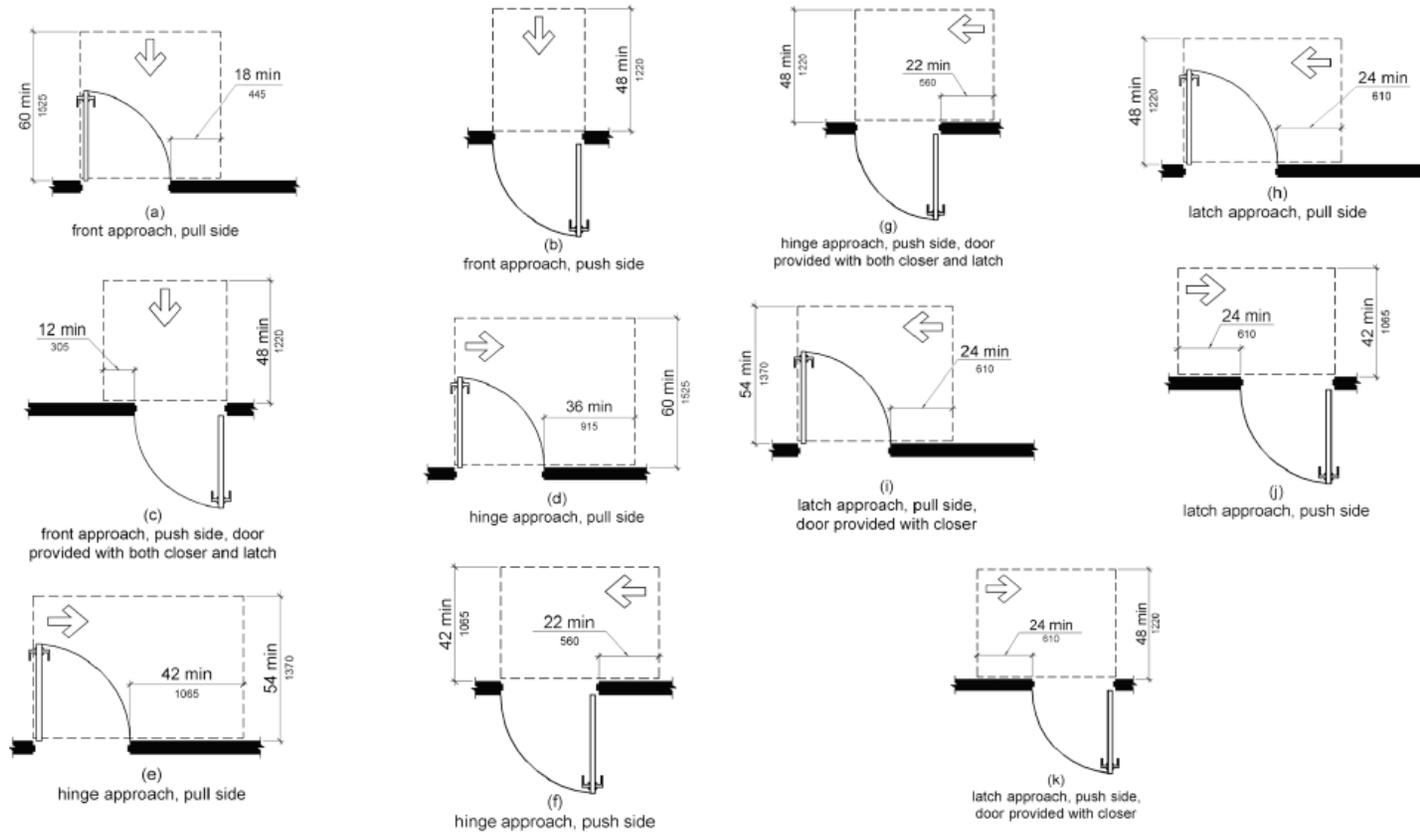
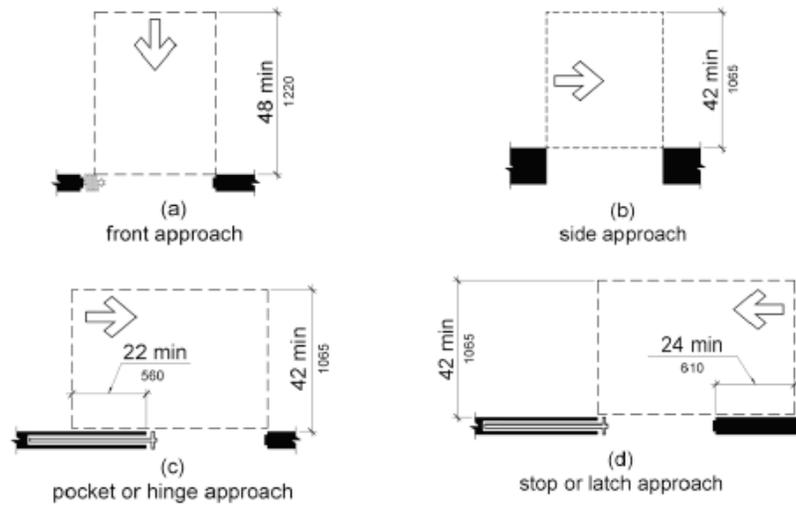


Figure 404.2.4.1  
Maneuvering Clearances at Manual Swinging Doors and Gates

ADA Compliance Checklists for BRT Facilities Design and Construction



**Figure 404.2.4.2**  
**Maneuvering Clearances at Doorways**  
**without Doors, Sliding Doors, Gates, and Folding Doors**

ADA Compliance Checklists for BRT Facilities Design and Construction

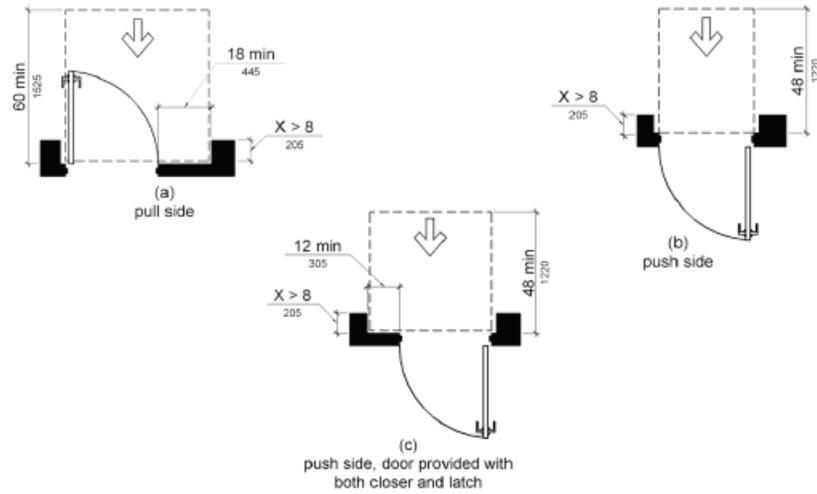


Figure 404.2.4.3  
Maneuvering Clearances at Recessed Doors and Gates

## 7.0 Ramps

### *Survey Instructions*

Before performing the technical assessment, determine the number of ramps at the facility and identify and uniquely number them on a drawing or sketch of the site. A tape measure, smart level, and digital camera are the principal assessment tools needed to conduct ramp assessments. The ramp checklist has space in the first block space to identify specific ramps by unique number and location. Extra space is provided in the "Observations" column for you to elaborate where a simple "yes" or "no" answer to the checklist questions is insufficient. You should note as precisely as possible the problem; for example, "handrail height only 29 inches" or "hand rail diameter 4 inches." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements.

### *Issues for Consideration*

Running slope and cross slope are important features that must be assessed in evaluating ramps for ADA compliance. Slope is defined as the number of units (inches, feet, etc.) of vertical rise ("rise") for every like unit of horizontal travel ("run"). Slope can be expressed as a unit-to-unit ratio or as a percentage. All of the slope measurements in the ADAAG are expressed as ratios of inch-to-inch. The table below shows the percent and "inch-to-feet" ratios for the slope involved in ramp assessments. The "inch-to-feet" ratios are approximate and are provided only as a common sense guide.

ADA Compliance Checklists for BRT Facilities Design and Construction

Slope	Percentage	Inches-to-Feet (Approximation)
1:8	12.5%	1-1/2 inches: 1 foot
1:10	10%	1-1/4 inches: 1 foot
1:12	8.3%	1 inch: 1 foot
1:20	5%	5/8 inch: 1 foot
1:48	2%	1/4 inch: 1 foot
1:50	2%	1/4 inch: 1 foot

Slip resistance on walking surfaces, including ramps, is another important element in assessing the accessibility of ramps. ADAAG does not offer specific guidance for slip resistance, but does offer an understanding of the term via an advisory at Section 302 as given below.

***Advisory 302.1 General.** A stable surface is one that remains unchanged by contaminants or applied force, so that when the contaminant or force is removed, the surface returns to its original condition. A firm surface resists deformation by either indentations or particles moving on its surface. A slip-resistant surface provides sufficient frictional counterforce to the forces exerted in walking to permit safe ambulation.*

Typically, a broomed finish or similar surface treatment to concrete ramps provides suitable slip resistance to the surface. Untreated wooden ramp surfaces pose a potential for slippery conditions when wet and should have surface treatments to apply a slip resistance condition. Care should be taken during the assessments of ramp surfaces to judge the slip resistance of the surface in a consistent manner.

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

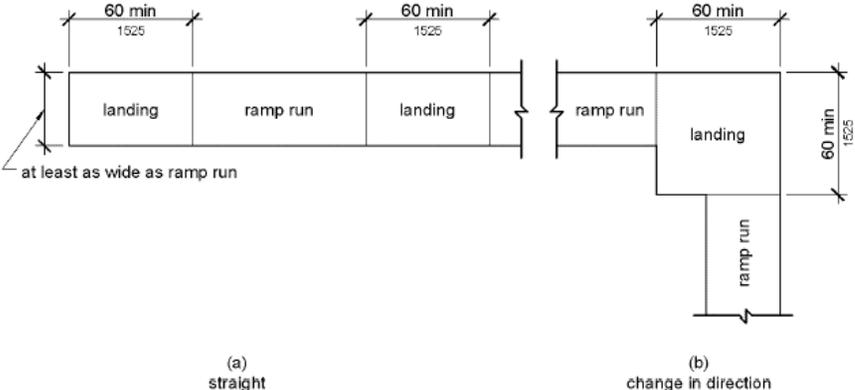
7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.1 Ramp Locations and Identification</b>                      Are there ramps located on the accessible route(s) within the boundary of the site? If so, assign each ramp a unique number and record its location and assess each for compliance. (405.1)</p> <p>Ramp #7.1:                      Ramp #7.2:                      Ramp #7.3:                      Ramp #7.4:</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.2 Ramp Requirement on Accessible Route</b>                      Does each part of an accessible route with a slope greater than 1:20 (5 percent) comply with the technical ADAAG requirements for ramps? (403.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations						
<p><b>7.1.3 Ramp Running Slope</b>                      Are all ramp segments sloped 1:12 (8.3 percent) or less? (405.2)  <i>EXCEPTION:</i> In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 (8.3 percent) as follows where such slopes are necessary due to space limitations:</p> <table border="1" data-bbox="289 537 1205 781"> <thead> <tr> <th data-bbox="289 537 953 594">Slope</th> <th data-bbox="953 537 1205 594">Max Rise</th> </tr> </thead> <tbody> <tr> <td data-bbox="289 594 953 688">Steeper than 1:10 (10 percent) but not steeper than 1:8 (12.5 percent)</td> <td data-bbox="953 594 1205 688">3 inches</td> </tr> <tr> <td data-bbox="289 688 953 781">Steeper than 1:12 (12.5 percent) but not steeper than 1:10 (10 percent)</td> <td data-bbox="953 688 1205 781">6 inches</td> </tr> </tbody> </table>	Slope	Max Rise	Steeper than 1:10 (10 percent) but not steeper than 1:8 (12.5 percent)	3 inches	Steeper than 1:12 (12.5 percent) but not steeper than 1:10 (10 percent)	6 inches	<input type="checkbox"/>	<input type="checkbox"/>	
Slope	Max Rise								
Steeper than 1:10 (10 percent) but not steeper than 1:8 (12.5 percent)	3 inches								
Steeper than 1:12 (12.5 percent) but not steeper than 1:10 (10 percent)	6 inches								
<p><b>Advisory 405.2 Slope</b>  <i>To accommodate the widest range of users, provide ramps with the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, e.g., people with heart disease or limited stamina.</i></p>									
<p><b>7.1.4 Ramp Cross Slope</b>                      Is the cross slope of the ramp surface no greater than 1:48 (2 percent)? (405.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>							
<p><b>Advisory 405.3 Cross Slope</b>  <i>Cross slope is the slope of the surface perpendicular to the direction of travel. Cross slope is measured the same way as slope is measured (i.e., the rise over the run).</i></p>									

ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.5 Ramp Surface</b>                      Is the ramp surface stable, firm and slip-resistant? (302)  <i>NOTE:</i> Changes in level other than the running slope and cross slope are not permitted on ramp runs. (405.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.6 Grates in Ramp</b>                      If the ramp surfaces or landings contain grates, is the smaller dimension of grate openings no more than 1/2 inch, and are long dimensions of rectangular gaps placed perpendicular to the usual direction of travel? (302.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.7 Ramp Clear Width</b>                      Is the clear width of the ramp run and, where handrails are provided, the clear width between handrails, at least 36 inches? (405.5)  <i>EXCEPTION:</i> Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed. (405.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.8 Maximum Ramp Run Rise</b>                      Is the maximum vertical rise for any horizontal ramp run 30 inches? (405.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.9 Changes In Level</b>                      When walkway levels change, is the vertical difference between them less than 1/4 inch? OR Are changes in level between 1/4 inch and 1/2 inch beveled with a slope no greater than 1:2? (303.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

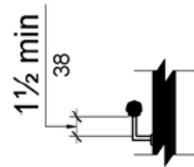
7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.10 Ramp Landings</b>                      Is there a level landing at the top and bottom of each ramp and each ramp run? (405.7)</p>  <p>(a) straight</p> <p>(b) change in direction</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 405.7 Landings</b></p> <p><i>Ramps that do not have level landings at changes in direction can create a compound slope that will not meet the requirements of this document. Circular or curved ramps continually change direction. Curvilinear ramps with small radii also can create compound cross slopes and cannot, by their nature, meet the requirements for accessible routes. A level landing is needed at the accessible door to permit maneuvering and simultaneously door operation.</i></p>			
<p><b>7.1.10.1 Ramp Landing Slopes</b>                      Is the running and cross slope of the landing no greater than 1:48 (2 percent)? (405.7.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.10.2 Ramp Landing Size</b> Is each landing at least as wide as the ramp and at least 60 inches long? (405.7.2 and 405.7.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.10.3 Landings at Change in Ramp Direction</b> Where the ramp changes direction, is there a landing of at least 60 by 60 inches? (405.7.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.10.4 Ramp Landing Surface</b> Are landing surfaces stable, firm and slip resistant? (302)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.10.5 Doors at Landings of Ramps</b> If a doorway is located adjacent to a landing, does the area in front of the door comply with the maneuvering space requirements for doors? (405.7.5) Use Checklist 6 - Doors and Gates, to assess maneuvering space requirements for landings at doors. <i>NOTE:</i> ADAAG 405.7.5 permits the maneuvering clearances required at doors to overlap the required landing area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.11 Drainage on Ramp</b> Are outside ramps and their approaches designed so that water will not accumulate on walking surfaces? (504.7)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

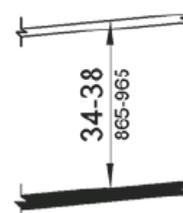
ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.12 Handrails on Ramps</b></p> <p>If the ramp rises more than 6 inches, does it have a handrail on each side of ramp? (405.8)</p> <p><i>EXCEPTION:</i> Within employee work areas, handrails are not required where ramps that are part of common use circulation paths are designed to permit the installation of compliant handrails. Ramps not subject to the exception must be designed to maintain a 36 inch minimum clear width when handrails are installed. (405.8)</p> <p><i>EXCEPTION:</i> In assembly areas, handrails are not required on both sides of aisle ramps where a handrail is provided at either side or within the aisle width. (505.2)</p> <p><i>NOTE:</i> Handrails are not required on curb ramps or adjacent to seating in assembly areas. (505.3)</p> <p>To assess handrail compliance independently, use Checklist 17 – Handrails and Grab Bars.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.1 Handrail Gripping Surface</b></p> <p>Are gripping surfaces continuous along their length and not obstructed along their tops or sides? (505.9)</p> <p><i>NOTE:</i> The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1-1/2 inches minimum below the bottom of the handrail gripping surface. (505.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

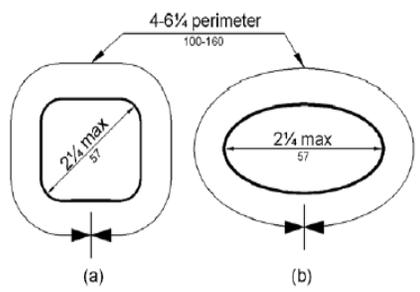


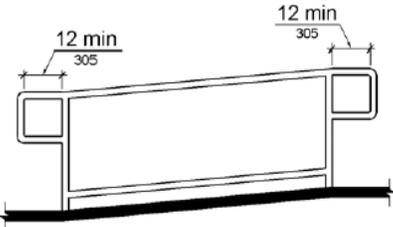
ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><i>EXCEPTION 1.</i> Where handrails are provided along walking surfaces with slopes not steeper than 1:20 (5 percent), the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards. (505.6)</p>			
<p><i>EXCEPTION 2.</i> The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch for each 1/2 inch of additional handrail perimeter dimension that exceeds 4 inches. (505.6)</p>			
<p><b>7.1.12.2 Inside Handrail</b> On dogleg or switchback ramps, is the inside handrail continuous? (505.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.3 Fittings</b> Are handrails fixed so that they do not rotate within their fittings? (505.9) <i>NOTE:</i> The FRG has separated the requirements for handrails and grab bars. The specifications below are required for both in ADAAG but are not required for handrails in the FRG.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.4 Height</b> Is the top of the handrail between 34 and 38 inches vertically above the ramp surface? (FRG 505.4; ADAAG 4.8.5) <i>NOTE:</i> Handrails shall be at a consistent height. (FRG 505.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

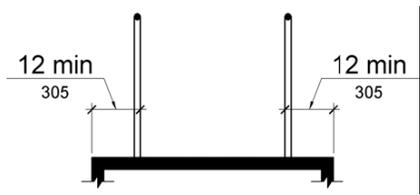
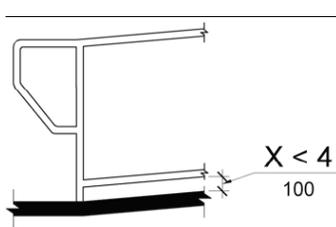


ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.12.5 Diameter of Handrail</b></p> <p><b>7.1.12.5.1 Circular Handrail</b></p> <p>Do handrail gripping surfaces with a circular cross section have an outside diameter of 1-1/4 inches minimum and 2 inches maximum? (505.7.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.5.2 Non-Circular Handrail</b></p> <p>Do handrail gripping surfaces with a non-circular cross section have a perimeter dimension of 4 inches minimum and 6 1/4 inches maximum, and a cross-section dimension of 2-1/4 inches maximum? (505.7.2)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.6 Handrail Surfaces</b></p> <p>Are handrail gripping surfaces and any surfaces adjacent to them free of sharp or abrasive elements and do gripping surfaces have rounded edges? (505.8)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.7 Clearance</b></p> <p>Is the clear space between handrails and walls minimum 1-1/2 inches? (505)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.12.8 Top and Bottom Handrail Extensions</b></p> <p>Do handrail gripping surfaces extend horizontally above the landing for 12 inches minimum beyond and in the same direction of ramp runs? (505.10.1)</p> <p><i>EXCEPTION 1.</i> Extensions are not required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps. (505.10)</p> <p><i>EXCEPTION 2.</i> In assembly areas, extensions are not required for ramp handrails in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles. (505.10)</p> <p><i>EXCEPTION 3.</i> In alterations, full extensions of handrails are not required where such extensions would be hazardous due to plan configuration. (505.10)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.12.9 Extension Returns</b></p> <p>Do extensions return to a wall, guard, or the landing surface, or are continuous to the handrail of an adjacent ramp run? (505.10.1)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

7.1. Ramp Technical Specifications	Yes	No	Observations
<p><b>7.1.13 Edge Protection on Ramps</b></p> <p>If a ramp or landing has a drop off, does it have edge protection provided on each side of ramp runs and at each side of ramp landings? (405.9)</p> <p><i>NOTE:</i> Edge protection is not required on (1) ramps that are not required to have handrails, (2) on landings having a drop-off of ½ inch maximum within 10 inches of the landing area, and (3) on the sides of ramp landings serving an adjoining ramp run or stairway. (405.9 Exceptions)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.13.1 Extended Floor or Ground Surface</b></p> <p>Does the floor or ground surface extend 12 inches minimum beyond the inside face of the handrail? (405.9.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>7.1.13.2 Curb or Barrier</b></p> <p>Does the curb or barrier provided prevent the passage of a 4 inch diameter sphere? (405.9.2)</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 405.9.1 Extended Floor or Ground Surface</b></p> <p><i>The extended surface prevents wheelchair casters and crutch tips from slipping off the ramp surface.</i></p>			

## 8.0 Elevators

### *Survey Instructions*

A tape measure and digital camera are the principal assessment tools needed to conduct elevator assessments. The elevator checklist has space in the first block space to identify specific elevators by unique number and location. Extra space is provided in the "Observations" column for you to elaborate where a simple "yes" or "no" answer to the checklist questions is insufficient. You should note as precisely as possible the problem; for example, "audible signal only provided for up direction" or "car does not level and is 1" above sill." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements.

### *Issues for Consideration*

ADAAG Section 407 covers passenger elevators, including destination-oriented elevators and existing elevators. This section also requires compliance with the industry safety code, ASME/ANSI A17.1- 2000 Safety Code for Elevators and Escalators. ADAAG references the most recent edition of this code (105.2.2).

During the ADAAG revision process, the requirements for elevators were extensively revised and reformatted. In the USDOT final rule, different types of elevators were covered by separate subsections: standard elevators (407.2), destination-oriented elevators (407.3), limited-use/limited-application elevators (407.4), and existing elevators (407.5). In addition, residential elevators were addressed in a separate chapter covering residential facilities (11). Since there was considerable redundancy in the specifications between some types of these elevators, the regulations have been integrated into one section (407) providing the requirements for standard, destination-oriented, and existing elevators. Various exceptions specific to destination-oriented and existing elevators have been incorporated into this section to preserve the substance of differing specifications. Requirements for limited-use/limited-application (LULA) elevators and residential elevators are provided in sections 408 and 409, respectively.

## ADA Compliance Checklists for BRT Facilities Design and Construction

Use of this checklist provides a standalone assessment of elevators for compliance with the accessibility requirements of ADAAG and ASME/ANSI A17.1. If safety and/or operational control considerations are sought, ASME A17.1 must be consulted to ensure compliance with those guidelines. The ASME and ANSI guidelines are in a constant state of review, revision, and republication. Frequent updates of the elevator safety code are published where ADAAG is not regularly updated.

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.1 Vertical Access</b>                      Is an elevator provided to access each public use level of the facility where a ramp is not provided? If so, assign each elevator a unique number and record its location and assess each for compliance. (206.2.3)                      Elevator #8.1:                      Elevator #8.2:                      Elevator #8.3:                      Elevator #8.4:</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 206.2.3 Multi-Story Buildings and Facilities</b>  <i>Spaces and elements located on a level not required to be served by an accessible route must fully comply with [ADAAG]. While a mezzanine may be a change in level, it is not a story. If an accessible route is required to connect stories within a building or facility, the accessible route must serve all mezzanines.</i></p>			
<p><b>8.1.2 Passenger Elevator</b>                      Is the elevator provided for vertical access between levels of the facility a passenger elevator (not a freight elevator)? (407.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.3 Automatic Operation</b>                      Is the elevator operation automatic? (407.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>Advisory 407.1 General</b></p> <p><i>The ADA and other Federal civil rights laws require that accessible features be maintained in working order so that they are accessible to and usable by those people they are intended to benefit. Building owners should note that the ASME Safety Code for Elevators and Escalators requires routine maintenance and inspections. Isolated or temporary interruptions in service due to maintenance or repairs may be unavoidable; however, failure to take prompt action to effect repairs could constitute a violation of Federal laws and these requirements.</i></p>			
<p><b>8.1.4 Elevator Landings</b></p> <p><b>8.1.4.1 Call Controls</b></p> <p>Are hall call buttons raised or flush with their mounting surfaces? (407.2.1)</p> <p><i>EXCEPTION:</i> Existing elevators shall be permitted to have recessed call buttons.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.2 Operation of Controls</b></p> <p>Where provided, are hall call buttons or keypads operable with one hand and do not require tight grasping, pinching, or twisting of the wrist? (407.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.3 Activation Force</b></p> <p>Is the force required to activate the elevator hall call buttons or controls 5 pounds or less? (407.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

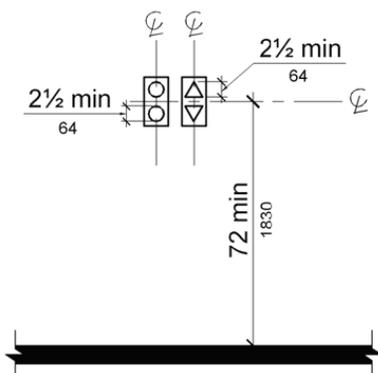
8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.4.4 Height</b>                      When measured to the centerline of the highest operable part, are hall call buttons or keypads located at, or between, 15 inches and 48 inches above the finished floor of the elevator hall landing?  <i>(407.2.1.1)</i>  <i>EXCEPTION:</i> Existing call buttons and existing keypads shall be permitted to be located at 54 inches maximum above the finished floor, measured to the centerline of the highest operable part.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.5 Size</b>                      Are hall call buttons at least ¾ inch measured in the smallest dimension? <i>(407.2.1.2)</i>  <i>EXCEPTION:</i> Existing elevator call buttons are not required to comply with 407.2.1.2.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.6 Clear Floor and Ground Space</b>                      Is an unobstructed space at least 30 inches wide by 48 inches deep provided at the hall call buttons or keypad and adjoin the accessible route? <i>(407.2.1.3)</i>                      If other than unrestricted approaches to hall call controls exist, use Checklist 16 – Maneuvering/Reach Range to assess maneuvering space requirements.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

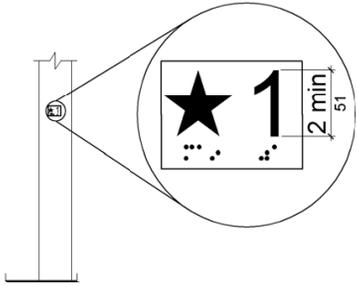
8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>Advisory 407.2.1.3 Clear Floor or Ground Space</b></p> <p><i>The clear floor or ground space required at elevator call buttons must remain free of obstructions including ashtrays, plants, and other decorative elements that prevent wheelchair users and others from reaching the call buttons. The height of the clear floor or ground space is considered to be a volume from the floor to 80 inches (2030 mm) above the floor. Recessed ashtrays should not be placed near elevator call buttons so that persons who are blind or visually impaired do not inadvertently contact them or their contents as they reach for the call buttons.</i></p>			
<p><b>8.1.4.7 Changes in Level</b></p> <p>Is the surface slope of the elevator landing area no greater than 1:48 (2 percent) in all directions? (407.2.1.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.8 Location</b></p> <p>Is the hall call button that designates the up direction located above the call button that designates the down direction? (407.2.1.4)</p> <p><i>EXCEPTION:</i> Destination-oriented elevators are not required to comply with 407.2.1.4.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 407.2.1.4 Location Exception</b></p> <p><i>A destination-oriented elevator system provides lobby controls enabling passengers to select floor stops, lobby indicators designating which elevator to use, and a car indicator designating the floors at which the car will stop. Responding cars are programmed for maximum efficiency by reducing the number of stops any passenger experiences.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.4.9 Signals</b>            Do the elevator call buttons have visible signals to indicate when pressed and extinguish when each call is answered? (407.2.1.5)  <i>NOTE:</i> Typically, call buttons illuminate when pressed and go dark when the elevator arrives at the landing.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.10 Keypads</b>            Where keypads are provided, are they provided in a standard telephone keypad arrangement and are the keypad buttons identified by characters centered on the corresponding keypad button meeting visual signage requirements (703.5 – use Checklist 15 – Signage), and have a single raised dot on the number five key? (407.2.1.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.11 Visible and Audible Signals (Hall Lanterns)</b>            Are visible and audible signals provided at each hoistway entrance to indicate which elevator is answering a call and the car's direction of travel? (407.2.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.12 In-Car Signals</b>            Where signals are provided in the elevator car, are the signals visible from the floor area adjacent to the hall call buttons? (407.2.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.4.13 Visible Lantern Fixtures</b></p> <p>Are visible signals (lantern fixtures) located at 72 inches minimum above the finished floor or ground surface; are elements of the fixtures at least 2-1/2 inches when measured along the vertical centerline of the element; and are signals visible from the floor area adjacent to the hall call button? (407.2.2.2)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.14 Audible Directional Signals</b></p> <p>Are audible signals provided that sound once for the up direction and twice for the down direction, or are verbal annunciators provided to indicate the direction of the elevator car travel? (407.2.2.3)</p> <p><i>NOTE:</i> Audible signals shall have a frequency of 1500 Hz maximum. Verbal annunciators shall have a frequency of 300 Hz minimum and 3000 Hz maximum. The audible signal and verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the hall call button.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.4.15 Hoistway Signs</b>                      Are floor designation signs provided on both jambs of each elevator hoistway entrance (each landing level) in raised character(s) and Braille with the raised character(s) 2 inches high minimum (use Checklist 15 – Signage)? (407.2.3.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.4.16 Raised Star at Main Entry Level</b>                      Is a raised star provided on both jambs at the main entry level landing? (407.2.3.1)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.5 Elevator Door Requirements</b>  <b>8.1.5.1 Elevator Door Type</b>                      Do the elevator doors open and close in a horizontal sliding arrangement? (407.3.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.5.2 Elevator Door Operation</b>                      Do the elevator doors open and close automatically? (407.3.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.5.3 Door Reopening Device</b>                      Are the elevator doors equipped with a reopening device that stop and reopen the car and hoistway doors automatically if the door becomes obstructed? <i>(407.3.3)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.5.4 Reopening Device Height Detection</b>                      If present, does the elevator car and hoistway doors reopening device detect and reopen the car and hoistway doors by sensing an obstruction passing through the opening at 5 inches and 29 inches above the floor? <i>(407.3.3.1)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.5.5 Reopening Device Contact</b>                      If present, does the elevator car and hoistway doors reopening device not require physical contact to be activated? <i>(407.3.3.2)</i>  <i>NOTE:</i> Physical contact is permitted to occur before the door reverses.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.5.6 Reopening Device Duration</b>                      If present, does the elevator car and hoistway doors reopening device remain effective for at least 20 seconds? <i>(407.3.3.3)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.5.7 Door and Signal Timing</b></p> <p>Is the time from notification that the elevator car is answering a call until the elevator doors begin closing <math>\geq 5</math> seconds? (407.3.4)</p> <p><i>NOTE:</i> ADAAG 407.3.4 provides a specific equation to use for calculating door and signal timing as: <math>T = D/(1.5 \text{ ft/s}) = 5</math> seconds minimum, where T equals the total time in seconds and D equals the distance from the point in the lobby or corridor 60 inches directly in front of the farthest call button controlling that car to the centerline of its hoistway door.</p> <p><i>EXCEPTION:</i> For cars with in-car lanterns, T shall be permitted to begin when the signal is visible from the point 60 inches directly in front of the farthest hall call button and the audible signal is sounded.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.5.8 Door Delay</b></p> <p>Do elevator doors remain fully open when arriving at a landing for a minimum of 3 seconds? (407.3.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications					Yes	No	Observations
<b>8.1.5.9 Door Width</b> Do elevator door widths conform to the minimum dimensions provided in the following table for the elevator car size and door location? (407.3.6)					<input type="checkbox"/>	<input type="checkbox"/>	
			<b>Inside Car, Back Wall to Front Return</b>	<b>Inside Car, Back Wall to Inside Face of Door</b>			
<b>Door Location</b>	<b>Door Clear Width</b>	<b>Inside Car, Side to Side</b>					
Centered	42 inches	80 inches	51 inches	54 inches			
Side (off-centered)	36 inches <sup>1</sup>	68 inches	51 inches	54 inches			
Any	36 inches <sup>1</sup>	54 inches	80 inches	80 inches			
Any	36 inches <sup>1</sup>	60 inches <sup>2</sup>	60 inches <sup>2</sup>	60 inches <sup>2</sup>			
1. A tolerance of minus 5/8 inch is permitted. 2. Other car configurations providing a turning space with the door closed equaling a 60 inch diameter circle is permitted.							

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.6 Elevator Car Requirements</b></p> <p><b>8.1.6.1 Car Dimensions</b></p> <p>Are the inside dimensions of the elevator car in conformance with the table provided above at item 8.1.5.8 and the illustrations below? (407.4.1)</p> <p><i>EXCEPTION:</i> Existing elevator car configurations that provide a clear floor area of 16 square feet minimum and also provide an inside clear depth 54 inches minimum and a clear width 36 inches minimum shall be permitted.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>(a) centered door</p> <p>(b) side (off-centered) door</p> <p>(c) any door location</p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p>(d) any door location</p> <p>(e) Exception existing elevator car configuration</p> <p>16 sq ft min 1.5 m<sup>2</sup></p>			
<p><b>8.1.6.2 Floor Surfaces</b> Is the elevator car flooring stable, firm, and slip resistant without changes in level? (407.4.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.6.3 Platform to Hoistway Clearance</b> Is the clearance between the elevator car platform sill and the edge of any hoistway landing 1-1/4 inch maximum? (407.4.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.6.4 Leveling</b> Does the elevator car automatically self-level and maintain the car floor to within <math>\pm 1/2</math> inch maximum of the landing level? (407.4.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.6.5 Illumination</b> Is the level of illumination at the elevator car controls, platform, car threshold, and car landing sill at least 5 foot candles? (407.4.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.7 Elevator Car Controls</b></p> <p><b>8.1.7.1 Location</b></p> <p>Are elevator controls located at or less than 48 inches above the floor and at or more than 15 inches above the floor? (407.4.6.1)</p> <p><i>EXCEPTIONS:</i> 1. Where the elevator panel serves more than 16 openings and a parallel approach is provided, buttons with floor designations shall be permitted to be 54 inches maximum above the finish floor.</p> <p>2. In existing elevators, car control buttons with floor designations shall be permitted to be located 54 inches maximum above the finish floor where a parallel approach is provided.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.7.2 Control Button Mounting</b></p> <p>Are hall call buttons raised or flush with their mounting surfaces? (407.4.6.2)</p> <p><i>EXCEPTION:</i> In existing elevators, buttons shall be permitted to be recessed.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.7.3 Control Button Size</b></p> <p>Are hall call buttons at least <math>\frac{3}{4}</math> inch measured in the smallest dimension? (407.4.6.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.7.4 Control Buttons Arrangement</b></p> <p>Are control buttons arranged with numbers in ascending order? (407.6.2.2)</p> <p><i>NOTE:</i> When two or more columns of buttons are provided, they shall read from left to right.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.7.5 Keypads</b></p> <p>Where keypads are provided, are they provided in a standard telephone keypad arrangement and are the keypad buttons identified by characters centered on the corresponding keypad button meeting visual signage requirements (703.5 – use Checklist 15 – Signage), and have a single raised dot on the number five key? (407.4.6.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.7.6 Emergency Controls</b></p> <p>Are the centerlines of emergency control buttons no lower than 35 inches above the elevator floor are grouped at the bottom of the car control panel? (407.4.6.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.7.7 Car Controls Buttons</b></p> <p><b>8.1.7.7.1 Type</b></p> <p>Are car control buttons identified by raised characters and Braille designations placed immediately to the left of the control button to which the designations apply? (407.4.7.1)</p> <p><i>EXCEPTION:</i> Where space on an existing car operating panel precludes tactile markings to the left of the controls, markings shall be placed as near to the control as possible.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

8.1 Elevators Technical Specifications	Yes	No	Observations																					
<p><b>8.1.7.7.2 Symbols</b>                      Are the control buttons for the emergency stop, alarm, door open, door close, main entry floor, and communications device identified with tactile symbols as shown in the table below? (407.4.7.1.3)</p> <table border="1" data-bbox="191 488 1215 1177"> <caption>Table 407.4.7.1.3 Elevator Control Button Identification</caption> <thead> <tr> <th>Control Button</th> <th>Tactile Symbol</th> <th>Braille Message</th> </tr> </thead> <tbody> <tr> <td>Emergency Stop</td> <td></td> <td>                      ⠠⠠⠠                      "ST"OP" Three cells</td> </tr> <tr> <td>Alarm</td> <td></td> <td>                      ⠠⠠⠠⠠                      AL"AR"M Four cells</td> </tr> <tr> <td>Door Open</td> <td></td> <td>                      ⠠⠠⠠                      OP"EN" Three cells</td> </tr> <tr> <td>Door Close</td> <td></td> <td>                      ⠠⠠⠠⠠⠠                      CLOSE Five cells</td> </tr> <tr> <td>Main Entry Floor</td> <td></td> <td>                      ⠠⠠⠠                      MA"IN" Three cells</td> </tr> <tr> <td>Phone</td> <td></td> <td>                      ⠠⠠⠠⠠                      PH"ONE" Four cells</td> </tr> </tbody> </table>	Control Button	Tactile Symbol	Braille Message	Emergency Stop		 ⠠⠠⠠ "ST"OP" Three cells	Alarm		 ⠠⠠⠠⠠ AL"AR"M Four cells	Door Open		 ⠠⠠⠠ OP"EN" Three cells	Door Close		 ⠠⠠⠠⠠⠠ CLOSE Five cells	Main Entry Floor		 ⠠⠠⠠ MA"IN" Three cells	Phone		 ⠠⠠⠠⠠ PH"ONE" Four cells	<input type="checkbox"/>	<input type="checkbox"/>	
Control Button	Tactile Symbol	Braille Message																						
Emergency Stop		 ⠠⠠⠠ "ST"OP" Three cells																						
Alarm		 ⠠⠠⠠⠠ AL"AR"M Four cells																						
Door Open		 ⠠⠠⠠ OP"EN" Three cells																						
Door Close		 ⠠⠠⠠⠠⠠ CLOSE Five cells																						
Main Entry Floor		 ⠠⠠⠠ MA"IN" Three cells																						
Phone		 ⠠⠠⠠⠠ PH"ONE" Four cells																						
<p><b>8.1.7.7.3 Visible Indicators</b>                      Do the elevator car control buttons with floor designations have visible signals to indicate when pressed and extinguish when the car arrives at the designated floor? (407.4.7.1.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>																						

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.8 Car Position Indicators</b>                      Are audible and visual car position (floor level) indicators provided in the elevator car that have characters at least ½ inch high, located above the car control panel or above the door? (407.4.8.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.8.1 Floor Arrival Visible Indicator</b>                      As the car passes a floor and when a car stops at a floor served by the elevator, does the corresponding character illuminate? (407.4.8.1.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>8.1.8.2 Audible Indicators</b>                      Does a verbal annunciator automatically announce the floor at which the car is about to stop? (407.4.8.2.1)  <i>EXCEPTION:</i> For elevators other than destination-oriented elevators that have a rated speed of 200 feet per minute (1 m/s) or less, a non-verbal audible signal with a frequency of 1500 Hz maximum which sounds as the car passes or is about to stop at a floor served by the elevator shall be permitted.  <i>NOTE:</i> The verbal annunciator must be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the annunciator (407.4.8.2.2) and the verbal annunciator must have a frequency of 300 Hz minimum to 3000 Hz maximum.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

8.1 Elevators Technical Specifications	Yes	No	Observations
<p><b>8.1.9 Emergency Communication</b>                      If provided, emergency two-way communication systems between the elevator and a point outside the hoistway must be identified by a raised symbol and lettering adjacent to the device (use Checklist 15 – Signage). The highest operable part of a two-way communication system shall be a maximum of 48 inches from the floor of the car and no lower than 15 inches above the floor. <i>(407.4.9)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 9.0 Escalators

### *Survey Instructions*

A tape measure and digital camera are the principal assessment tools needed to conduct stair and escalator assessments.

### *Issues for Consideration*

ADAAG contains a reference to relevant provisions in the ASME A17.1 Safety Code for Elevators and Escalators instead of providing its own specification for elements concerning safety issues such as flat contiguous steps at the top and bottom of an escalator and color striping of step edges. The ASME code requires steps to be demarcated by yellow lines 2 inches wide maximum along the back and sides of steps. It also requires at least two flat steps and no more than four flat steps at the entrance and exit of every escalator.

ADAAG provides an exception from compliance requirements for existing escalators in key stations.

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

9.1. Escalator Technical Specifications	Yes	No	Observations
<p><b>9.1.1 Clear Width</b>                      Where provided, do escalators have a clear width of at least 32 inches? (810.9)  <i>NOTE: ADAAG exempts existing escalators in key stations from compliance. (810.9)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>9.1.2 Contiguous Treads</b>                      At the top and bottom of each escalator run, are at least two contiguous treads level beyond the comb plate before the risers begin to form? (810.9; ASME A17.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>9.1.3 Contrast Step Edges</b>                      Are all escalator treads marked by a strip of clearly contrasting color 2 inches wide, parallel to and on the nose of each step? (The edge of the tread must be apparent from both ascending and descending directions.) (810.9; ASME A17.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>9.1.4 Slip Resistance</b>                      Is the contrasting strip of material on the escalator step treads at least as slip resistant as the remainder of the tread? (810.9; ASME A17.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 10.0 Ticketing and Automatic Fare Vending

### *Survey Instructions*

A tape measure and digital camera are the principal assessment tools needed to conduct ticketing and automatic fare vending assessments.

### *Issues for Consideration*

For ticketing, baggage claim areas, and automatic fare vending the accessibility requirements are complex. ADAAG requires a portion of the main counter at ticketing counters to be at least 36 inches long with a maximum height of 36 inches. ADAAG requires that the space in front of the counter provide for a parallel approach or, if the counter is not at least 36 inches long, then it must be at least 30 inches long and provide knee and toe space under the counter for a forward approach.

In addition to the length and height requirements, ticket counters providing a front approach must satisfy knee and toe clearance requirements. Though technically the same as for drinking fountains, the knee and toe space under counters is typically clear to the wall they are mounted on and so the assessment must ensure that a forward approach providing a 17 to 19 inch clearance depth is provided to permit a person in a wheelchair to pull up far enough under the counter to utilize it as a work surface.

Automatic ticket vending, collection, and adjustment device accessibility requirements are very complex and technically challenging. Care should be taken to understand the requirement as questioned in the checklist before determining compliance.

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
<p><b>Ticketing</b></p> <p><b>10.1.1 Accessible Route</b></p> <p>Where provided, are ticketing areas located on an accessible route and placed to minimize travel distance compared to path used by the general public and do they permit persons with disabilities to obtain a ticket? (206.2.4; 206.3; 904.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.2 Service Counters (Parallel Approach)</b></p> <p>At ticketing counters, is there a portion of the main counter or auxiliary counter at least 36 inches long and no more than 36 inches high? (904.4.1)</p> <p><i>EXCEPTION:</i> Where the counter surface is less than 36 inches long, the entire counter surface shall be 36 inches high maximum above the finished floor.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.3 Service Counters (Forward Approach)</b></p> <p>If only a forward approach is afforded, is the counter 30 inches long minimum and 36 inches high maximum? (904.4.2)</p> <p><i>NOTE:</i> For a forward approach a 17 to 19 inch clearance depth is needed to permit a person in a wheelchair to pull up far enough under the counter to utilize it as a work surface. (306.1)</p> <p><i>NOTE:</i> For forward approach, clear ground and floor space of 30 inches minimum by 48 inches minimum must be provided at the counter. (305.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
<p><b>10.1.4 Security Glazing</b></p> <p>Where counters or teller windows have security glazing to separate personnel from the public, is a method to facilitate voice communication provided? (904.6)</p> <p><i>NOTE:</i> Telephone handset devices, if provided, shall comply with ADAAG 704.3.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 904.6 Security Glazing</b></p> <p><i>Assistive listening devices complying with 706 can facilitate voice communication at counters or teller windows where there is security glazing which promotes distortion in audible information. Where assistive listening devices are installed, place signs complying with 703.7.2.4 to identify those facilities which are so equipped. Other voice communication methods include, but are not limited to, grilles, slats, talk-through baffles, intercoms, or telephone handset devices.</i></p>			
<p><b>Automatic Fare Vending, Collection, or Adjustment Machines</b></p> <p><b>10.1.5 Location</b></p> <p>Where self-service fare vending, collection, or adjustment machines are provided, is at least one of each type provided at each location accessible (compliant with ADAAG Section 707)? (220.1; 707.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 707.1 General</b></p> <p><i>If farecards have one tactually distinctive corner they can be inserted with greater accuracy. Token collection devices that are designed to accommodate tokens which are perforated can allow a person to distinguish more readily between tokens and common coins. Place accessible gates and fare vending machines in close proximity to other accessible elements when feasible so the facility is easier to use.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
<p><b>10.1.6 Accessible Route</b>                      If provided, do fare vending, collection, or adjustment components adjoin or overlap an accessible route? (305.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.7 Clear Floor Area</b>                      Is a clear floor area at least 48 inches deep by 60 inches wide by 80 inches high provided at each fare vending, collection, or adjustment device area serving at least one of each type of device provided? (305.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.8 Confined Space – Forward Approach</b>                      If fare vending, collection, or adjustment machines are within a confined space and only a forward approach is provided, is the depth of the confined space no less than 24 inches and the width of the approach at least 36 inches wide? (305.7.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.9 Confined Space – Parallel Approach</b>                      If fare vending, collection, or adjustment machines are within a confined space and only a parallel approach is provided, is the depth of the confined space no less than 15 inches and the width of the approach at least 60 inches wide? (305.7.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	



ADA Compliance Checklists for BRT Facilities Design and Construction

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
<p><b>Advisory 707.4 Privacy</b></p> <p><i>In addition to people who are blind or visually impaired, people with limited reach who use wheelchairs or have short stature, who cannot effectively block the ATM screen with their bodies, may prefer to use speech output. Speech output users can benefit from an option to render the visible screen blank, thereby affording them greater personal security and privacy.</i></p>			
<p><b>10.1.12 Speech Output</b></p> <p>Are instructions for use of the fare vending, collection, or adjustment device provided in human digitized or synthesized speech? (707.5)</p> <p><i>EXCEPTIONS:</i></p> <ol style="list-style-type: none"> <li>1. Audible tones shall be permitted instead of speech for visible output that is not displayed for security purposes, including but not limited to, asterisks representing personal identification numbers.</li> <li>2. Advertisements and other similar information shall not be required to be audible unless they convey information that can be used in the transaction being conducted.</li> <li>3. Where speech synthesis cannot be supported, dynamic alphabetic output shall not be required to be audible.</li> </ol>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.12.1 User Control</b></p> <p>Are speech instructions capable of being repeated or interrupted? (707.5.1)</p> <p><i>EXCEPTION:</i> Speech output for any single function shall be permitted to be automatically interrupted when a transaction is selected.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.12.2 Volume Control</b></p> <p>Is volume control provided for the speech function? (707.5.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
<p><b>10.1.13 Receipts</b>            Where receipts are provided, does the speech output device provide audible balance inquiry information, error messages, and all other information on the printed receipt necessary to complete or verify the transaction? (707.5.2)  <i>EXCEPTIONS:</i>            1. Machine location, date and time of transaction, customer account number, and the machine identifier shall not be required to be audible.            2. Information on printed receipts that duplicates information available on-screen shall not be required to be presented in the form of an audible receipt.            3. Printed copies of bank statements and checks shall not be required to be audible.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.14 Input Devices (707.6)</b>  <b>10.1.14.1 Input Controls</b>            Is at least one tactilely discernible input control provided for each function? (707.6.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.14.2 Key Surfaces</b>            If provided, are key surfaces not on active areas of display screens raised above their surrounding surfaces? (707.6.1)  <i>NOTE:</i> Where membrane keys are the only method of input, each shall be tactilely discernible from surrounding surfaces and adjacent keys.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations																								
<p><b>10.1.14.3 Numeric Keys</b></p> <p>Are numeric keys arranged in a 12-key ascending or descending telephone keypad layout with the number five key tactilely distinct from the other keys? (707.6.2)</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td></tr> <tr><td>*</td><td>0</td><td>#</td></tr> </table> <p>(a) 12-key ascending</p> </div> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>7</td><td>8</td><td>9</td></tr> <tr><td>4</td><td>5</td><td>6</td></tr> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td>*</td><td>0</td><td>#</td></tr> </table> <p>(b) 12-key descending</p> </div> </div>	1	2	3	4	5	6	7	8	9	*	0	#	7	8	9	4	5	6	1	2	3	*	0	#	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3																									
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1	2	3																									
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<p><b>Advisory 707.6.2 Numeric Keys</b></p> <p><i>Telephone keypads and computer keyboards differ in one significant feature, ascending versus descending numerical order. Both types of keypads are acceptable, provided the computer-style keypad is organized similarly to the number pad located at the right on most computer keyboards, and does not resemble the line of numbers located above the computer keys.</i></p>																											
<p><b>10.1.15 Function Keys (707.6.3)</b></p> <p><b>10.1.15.1 Contrast</b></p> <p>Do function keys contrast visually from background surfaces? (707.6.3.1)</p> <p><i>NOTE:</i> Characters and symbols on key shall contrast visually from key surfaces. Visual contrast shall be either light-on-dark or dark-on-light.</p> <p><i>EXCEPTION:</i> Tactile symbols on special function keys (see 10.1.15.2) are not required to contrast visually from their background surfaces.</p>	<input type="checkbox"/>	<input type="checkbox"/>																									

ADA Compliance Checklists for BRT Facilities Design and Construction

10.1 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
<p><b>10.1.16 Display Screen Characters</b></p> <p><b>10.1.16.1 Font</b></p> <p>Are characters displayed on the screen in sans serif font? (707.7.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.16.2 Character Height</b></p> <p>Are characters displayed on the screen at least 3/16 inch high based on the uppercase letter "I"? (707.7.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.16.3 Contrast</b></p> <p>Do characters displayed on the screen contrast with their background with either light characters on a dark background or dark characters on a light background? (707.7.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>10.1.17 Braille Instructions</b></p> <p>Are Braille instructions for initiating the speech mode provided? (707.8)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 11.0 Platforms

### *Survey Instructions*

Before performing the technical assessment, determine the number of platforms at the facility and identify and uniquely number them on a drawing or sketch of the site. The platform checklist has space in the first block of the technical specifications to identify each platform by unique number and location. Each boarding platform provided at the facility should be assessed separately and the findings for each recorded. Extra space is provided in the "Observations" column for you to elaborate where a simple "yes" or "no" is insufficient. You should note as precisely as possible the problem; for example, "detectable edge is 18 inches wide," or "platform cross slope is 4 percent." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements. Mini-high platforms should not be assessed using this checklist - a separate checklist is provided which addresses the technical specifications for mini-high platforms.

In assessing platforms care should be taken to note protruding objects on platform walls, posts, and columns or suspended from overhead, excessive platform slope conditions, missing signage, and missing edge treatment on the ends of platforms.

A tape measure, folding rule (for gap measurements), smart level, and digital camera are the principal assessment tools needed to conduct platform assessments.

### *Issues for Consideration*

Platform and vehicle floor coordination issues are important elements in providing an accessible transit environment for people with disabilities, particularly individuals who use wheelchairs or other mobility aides. Horizontal and vertical platform-to-vehicle gaps should be measured at various locations along the platform and with several vehicles to get an average measurement. Conditions such as passenger loading, rail car age and maintenance level, new construction versus existing facility, and mode of transit significantly affect the measurements and should be recorded with each assessment.

Illumination levels for signage areas on platforms is not mentioned in ADAAG except for the remark that lighting positions may cause shadowing on the surface of signs thereby reducing or affecting contrast and readability (703).

ADAAG states in Section 218.2: "New and altered stations in rapid rail, light rail, commuter rail, intercity rail, high speed rail, and other fixed guideway systems shall comply with the following provisions as applicable: (810.5) Platform boarding edges not protected by platform screens or guards shall have detectable warnings complying with 705 along the entire length of the public use area of the platform." Additionally, ADAAG Section 218.3 requires that Key Stations and existing intercity rail stations shall also comply with ADAAG 810.5.

By qualifying its specification for platforms by stipulating "boarding edges," ADAAG has not addressed edge treatment on the other three sides/edges of the platform. Failure to specify edge treatment for all platform edges where drop-offs occur may lead to unsafe conditions. The International Building Code (IBC) requires edge treatment on all mini-high platform edges. The IBC requirement is more stringent and should therefore be followed as appropriate.

ADAAG Section 705 (Detectable Warnings) has established variations in specifications of the detectable warning characteristics applied to the drop-off edges from that specified by the original ADAAG. The truncated dome pattern and dimensions have been changed and should be examined for compliance based on date of installation.

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ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.1 Platform(s) Identification</b>                      Are platforms provided to allow boarding of vehicles at the facility?                      If so, identify each of the boarding platforms assessed and refer to identifier for each deficiency noted on checklist:                      Platform #11.1:                      Platform #11.2:                      Platform #11.3:                      Platform #11.4:</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.2 Accessible Access to Platform and Boarding Areas</b>                      Is there a minimum of 36 inches between elements such as walls or columns along an accessible route? (403.5.1)  <i>EXCEPTION:</i> The clear width shall be permitted to be reduced to 32 inches minimum for a length of 24 inches maximum provided that reduced width segments are separated by segments that are 48 inches long minimum and 36 inches wide minimum.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.3 Wheelchair Passing Space</b>                      If the clear width of the traveled path is less than 60 inches, are there passing spaces at least 60 inches by 60 inches or T-intersections at intervals no more than 200 feet apart? (403.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.4 Changes in Level</b>                      When approach walkways and platform levels change, is the vertical difference between them less than 1/4 inch? OR Are changes in level between 1/4 inch and 1/2 inch beveled with a slope no greater than 1:2? (303)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.5 Boarding Locations</b>                      Is the station designed or constructed so as to require persons with disabilities to board or alight from a vehicle at a location other than one used by the general public? (USDOT Final Rule Modifications to 206.3 and 810.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 206.3 Location</b>  <i>The accessible route must be in the same area as the general circulation path. This means that circulation paths, such as vehicular ways designed for pedestrian traffic, walks, and unpaved paths that are designed to be routinely used by pedestrians must be accessible or have an accessible route nearby. Additionally, accessible vertical interior circulation must be in the same area as stairs and escalators, not isolated in the back of the facility.</i></p>			
<p><b>11.1.6 Surface Conditions</b>                      Are the walkway surfaces of the platforms stable, firm, and slip resistant? (302.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	



ADA Compliance Checklists for BRT Facilities Design and Construction

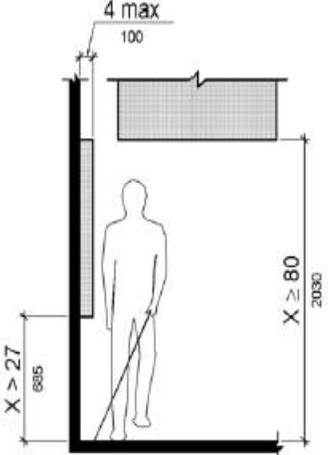
11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.9 Detectable Warning</b>                      If the boarding edges of the platform that border a drop-off are not protected by platform screens or guard rails, is there a 24 inch wide detectable warning along the entire length of the public use area of the platform? (810.5.2)                      If Yes, also complete Checklist 19 – Detectable Warning.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.10 Platform Signage</b>  <b>11.1.10.1 Tactile Station Name Sign</b>                      Is there at least one tactile station name sign on each platform or boarding area which identifies the specific station? (810.6.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.10.2 Uniform Sign Locations</b>                      If provided, is the tactile station name sign placed in uniform locations on all platforms within the transit system? (810.6.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.10.3 Station Identification Signs</b>                      Are there station identification (station name) signs placed at frequent intervals and clearly visible from within the vehicle on both sides when not obstructed by another train? (“Frequent intervals” is one or two signs for every car length.) (810.6.3)                      If Yes, also complete Checklist 15 - Signage.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.6.3 Station Names</b>  <i>It is also important to place signs at intervals in the station where passengers in the vehicle will be able to see a sign when the vehicle is either stopped at the station or about to come to a stop in the station. The number of signs necessary may be directly related to the size of the lettering displayed on the sign.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

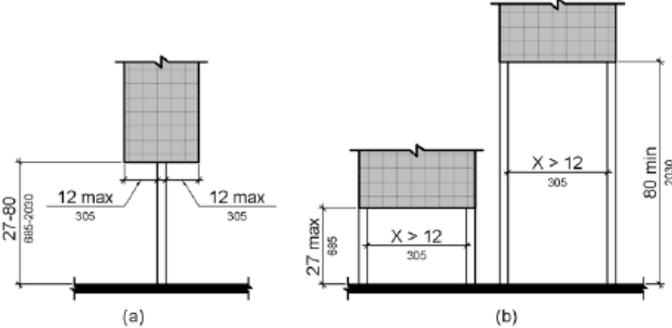
11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.10.4 Other Signs</b>                      If there are signs on the platform which list stations, routes or destinations served by this station, are these signs placed at uniform locations within the transit system? (810.6.2)  <i>EXCEPTION:</i> Where sign space is limited, characters are not required to exceed 3 inches in size where otherwise required when visual signs are mounted higher than 120 inches above the finished floor or ground.                      If Yes, also complete Checklist 15 - Signage.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.6.2 Routes and Destinations</b>  <i>Route maps are not required to comply with the uniform location placement standard otherwise required for informational signage.</i></p>			
<p><b>11.1.11 Platform Slopes</b>                      Does the surface of the platform exceed a slope of 1:48 (2 percent) in any direction? (810.5.1)  <i>EXCEPTION:</i> Where platforms serve vehicles operating on existing track or track laid in existing roadway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the roadway or existing track.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.12 Platform and Vehicle Floor Coordination</b>  <b>11.1.12.1 Low Level Platforms</b>                      Are low level platforms 8 inches minimum above the top of rail? (810.5.3)  <i>EXCEPTION:</i> Where vehicles are boarded from sidewalks or street-level, low-level platforms shall be permitted to be less than 8 inches.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

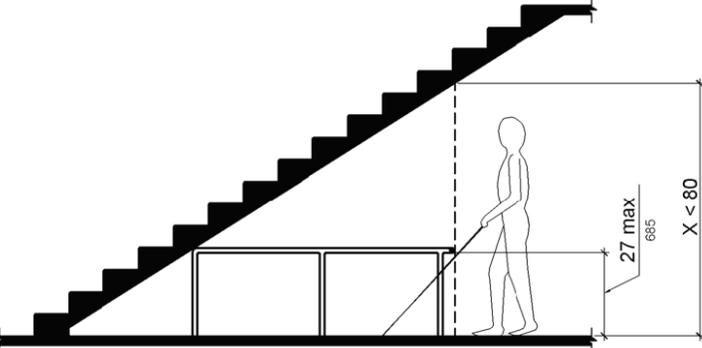
ADA Compliance Checklists for BRT Facilities Design and Construction

11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.12.2 Vertical Alignment</b>                      Does the vertical alignment of the platform or any portion along its length and the vehicle floor have a difference within plus or minus 1-1/2 inches, when the vehicle is at rest, under normal passenger load conditions? (810.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.12.3 Horizontal Alignment</b>                      Does the horizontal alignment of the platform or any portion along its length and the vehicle door have a maximum gap of 3 inches for at least one door of each vehicle or car? (810.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.5.3 Platform and Vehicle Floor Coordination</b></p> <p><i>The height and position of a platform must be coordinated with the floor of the vehicles it serves to minimize the vertical and horizontal gaps, in accordance with the ADA Accessibility Guidelines for Transportation Vehicles (36 CFR Part 1192). The vehicle guidelines, divided by bus, van, light rail, rapid rail, commuter rail, intercity rail, are available at <a href="http://www.access-board.gov">www.access-board.gov</a>. The preferred alignment is a high platform, level with the vehicle floor. In some cases, the vehicle guidelines permit use of a low platform in conjunction with a lift or ramp. Most such low platforms must have a minimum height of eight inches above the top of the rail. Some vehicles are designed to be boarded from a street or the sidewalk along the street and the exception permits such boarding areas to be less than eight inches high.</i></p>			

11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.13 Protruding Objects:</b>  <b>11.1.13.1 Wall Mounted Objects</b>                      If objects mounted to the wall have leading edges between 27 and 80 inches from the floor, do they project less than 4 inches into the pathway? (Wall mounted objects with leading edges at or below 27 inches may project any amount so long as the required clear width of an accessible route is not reduced.) (307.2)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 307.2 Protrusion Limits</b></p> <p><i>When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact. Elements located on circulation paths, including operable elements, must comply with requirements for protruding objects. For example, awnings and their supporting structures cannot reduce the minimum required vertical clearance. Similarly, casement windows, when open, cannot encroach more than 4 inches (100 mm) into circulation paths above 27 inches.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.13.2 Post Mounted Objects</b></p> <p>Do free standing objects mounted on posts with leading edges between 27 and 80 inches high (such as a sign or telephone) project less than 12 inches into the perpendicular route of travel? (307.3)</p>  <p>Diagram (a) shows a post-mounted object with a height of 27-80 inches (685-2030 mm) and a maximum projection of 12 inches (305 mm) on both sides. Diagram (b) shows two post-mounted objects: a shorter one with a height of 27 inches (685 mm) and a projection of X &gt; 12 inches (305 mm), and a taller one with a height of 80 inches (2030 mm) and a projection of X &gt; 12 inches (305 mm).</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>11.1.13.3 Clear Width</b></p> <p>Is there an accessible path at least 36 inches clear alongside the protruding object? (307.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

11.1 Platform Technical Specifications	Yes	No	Observations
<p><b>11.1.13.4 Vertical Clearance</b></p> <p>Is the clear vertical clearance 80 inches high minimum?</p> <p><i>NOTE:</i> Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches high. The leading edge of the guardrail or barrier must be located 27 inches maximum above the finish floor or ground. (307.4)</p> <p><i>EXCEPTION:</i> Door closers and door stops shall be permitted to be 78 inches minimum above the finished floor or ground.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

## 12.0 Mini-High Platforms

### *Survey Instructions*

Before conducting the technical assessment, the site should be surveyed to determine the number of mini-high platforms at the facility so that they can be identified and uniquely numbered on a drawing or sketch of the site. The mini-high platform checklist has space in the first block of the technical specifications to identify each platform by unique number and location. Each mini-high boarding platform provided at the facility should be assessed separately and the findings recorded. Extra space is provided in the "Observations" column for you to elaborate where a simple "yes" or "no" is insufficient. You should note as precisely as possible the problem; for example, "ramp to mini-high handrail height only 29 inches" or "hand rail diameter 4 inches." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements.

In assessing mini-high platforms care should be taken to note noncompliant ramp widths and slopes, excessive platform slope conditions, missing signage, and missing edge treatment on the ends of platforms.

In assessing mini-high platforms care should be taken to note protruding objects on platform walls, posts and columns or suspended from overhead, excessive platform slope conditions, missing signage, and missing edge treatment on the ends of platforms.

A tape measure, folding rule (for gap measurements), smart level, and digital camera are the principal assessment tools needed to conduct mini-high platform assessments.

### *Issues for Consideration*

Mini-high platform and vehicle floor coordination issues are important elements in efforts to provide an accessible transit environment for people with disabilities. Approaches to provide compliant horizontal and vertical gaps at the vehicle-door-to-platform-edge interface vary based on the mode of transit being offered (commuter rail, rapid rail, light rail, or intercity rail). If the transit agency provides, or supports,

all of these modes of transit, the assessment of mini-high platforms for each type of transit environment must be considered independently. The technical specifications that follow are based on the federal ADA requirements for gap compliance. Horizontal and vertical gaps must be measured and recorded at various locations along the mini-high platform and with several vehicles to seek an average measurement. Conditions such as rail car age and level of maintenance, new construction versus existing facility, and mode of transit affect compliance considerations. Accuracy in measuring and recording gap dimensions is critical to determining compliance.

ADAAG states in Section 218.2: "New and altered stations in rapid rail, light rail, commuter rail, intercity rail, high speed rail, and other fixed guideway systems shall comply with the following provisions as applicable: (810.5) Platform boarding edges not protected by platform screens or guards shall have detectable warnings complying with 705 along the entire length of the public use area of the platform." Additionally, ADAAG Section 218.3 requires that Key Stations and existing intercity rail stations shall also comply with ADAAG 810.5. These requirements are also applicable to boarding edges of mini-high platforms.

By qualifying its specification for platforms by stipulating "boarding edges," ADAAG has not addressed edge treatment on the other three sides/edges of the platform. Failure to specify edge treatment for all platform edges where drop-offs occur may lead to unsafe conditions. The International Building Code (IBC) requires edge treatment on all mini-high platform edges. The IBC requirement is more stringent and should therefore be followed as appropriate.

ADAAG Section 705 (Detectable Warnings) has established variations in specifications of the detectable warning characteristics applied to the drop-off edges from that specified by the original ADAAG. The truncated dome pattern and dimensions have been changed and should be examined for compliance based on date of installation.

Illumination levels for signage areas on boarding platforms is not mentioned in ADAAG except for the remark that lighting positions may cause shadowing on the surface of signs thereby reducing or affecting contrast and readability (703).

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.1 Platform(s) Identification</b>                      Are mini-high platforms provided to allow boarding of vehicles at the facility?                      If so, uniquely identify each of the mini-high platforms assessed and refer to identifier for each deficiency noted on checklist:                      Mini-High Platform #12.1:                      Mini-High Platform #12.2:                      Mini-High Platform #12.3:                      Mini-High Platform #12.4:</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.2 Accessible Access to Mini-High Platform Boarding Areas</b>                      Is there a minimum of 36 inches between elements such as walls or columns along an accessible route? (403.5.1)  <i>EXCEPTION:</i> The clear width shall be permitted to be reduced to 32 inches minimum for a length of 24 inches maximum provided that reduced width segments are separated by segments that are 48 inches long minimum and 36 inches wide minimum.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.3 Changes in Level</b>                      When approach walkways and platform levels change, is the vertical difference between them less than 1/4 inch? OR Are changes in level between 1/4 inch and 1/2 inch beveled with a slope no greater than 1:2? (303)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.4 Boarding Locations</b></p> <p>Is the station designed or constructed so as to require persons with disabilities to board or alight from a vehicle at a location other than one used by the general public? (<i>USDOT Final Rule Modifications to 206.3 and 810.5.3</i>)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 206.3 Location</b></p> <p><i>The accessible route must be in the same area as the general circulation path. This means that circulation paths, such as vehicular ways designed for pedestrian traffic, walks, and unpaved paths that are designed to be routinely used by pedestrians must be accessible or have an accessible route nearby. Additionally, accessible vertical interior circulation must be in the same area as stairs and escalators, not isolated in the back of the facility.</i></p>			
<p><b>12.1.5 Ramps</b></p> <p>Is the mini-high platform accessed by a ramp? If yes, also complete Checklist 7 – Ramps.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.6 Surface Conditions</b></p> <p>Are the walkway surfaces of the mini-high platforms stable, firm, and slip resistant? (<i>302.1</i>)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 302.1 General</b></p> <p><i>A stable surface is one that remains unchanged by contaminants or applied force, so that when the contaminant or force is removed, the surface returns to its original condition. A firm surface resists deformation by either indentations or particles moving on its surface. A slip-resistant surface provides sufficient frictional counterforce to the forces exerted in walking to permit safe ambulation.</i></p>			



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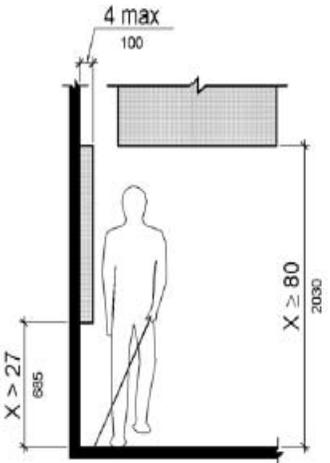
12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.10 Mini-High Platform Signage</b>  <b>12.1.10.1 Tactile Station Name Sign</b>                      Is there at least one tactile station name sign on each mini-high platform or boarding area which identifies the specific station?  <i>(810.6.2)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.10.2 Uniform Sign Locations</b>                      If provided, is the tactile station name sign placed in uniform locations on all boarding areas within the transit system? <i>(810.6.2)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.10.3 Station Identification Signs</b>                      Are there station identification (station name) signs placed at frequent intervals and clearly visible from within the vehicle on both sides when not obstructed by another train? ("Frequent intervals" is one or two signs for every car length.) <i>(810.6.3)</i>                      If Yes, also complete Checklist 15 - Signage.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.6.3 Station Names</b>  <i>It is also important to place signs at intervals in the station where passengers in the vehicle will be able to see a sign when the vehicle is either stopped at the station or about to come to a stop in the station. The number of signs necessary may be directly related to the size of the lettering displayed on the sign.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

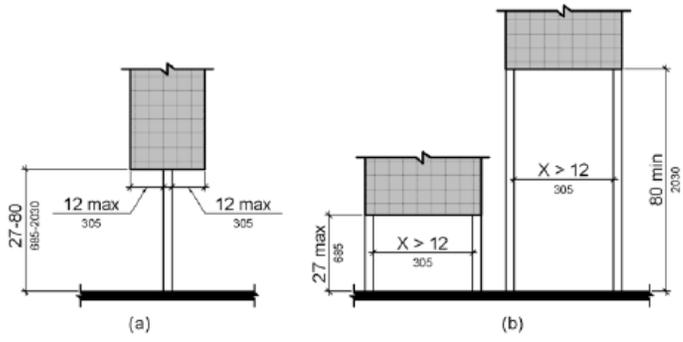
12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.10.4 Other Signs</b></p> <p>If there are signs on the mini-high platform which list stations, routes or destinations served by this station, are these signs placed at uniform locations within the transit system? <i>(810.6.2)</i></p> <p><i>EXCEPTION:</i> Where sign space is limited, characters are not required to exceed 3 inches in size where otherwise required when visual signs are mounted higher than 120 inches above the finished floor or ground.</p> <p>If Yes, also complete Checklist 15 - Signage.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.6.2 Routes and Destinations</b></p> <p><i>Route maps are not required to comply with the uniform location placement standard otherwise required for informational signage.</i></p>			
<p><b>12.1.11 Mini-High Platform Slopes</b></p> <p>Does the surface of the mini-high platform exceed a slope of 1:48 (2 percent) in any direction? <i>(810.5.1)</i></p> <p><i>EXCEPTION:</i> Where platforms serve vehicles operating on existing track or track laid in existing roadway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the roadway or existing track.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.12 Mini-High Platform and Vehicle Floor Coordination</b></p> <p><b>12.1.12.1 Vertical Alignment</b></p> <p>Does the vertical alignment of the mini-high platform or any portion along its length and the vehicle floor have a difference within plus or minus 1-1/2 inches, when the vehicle is at rest, under normal passenger load conditions? <i>(810.5.3)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

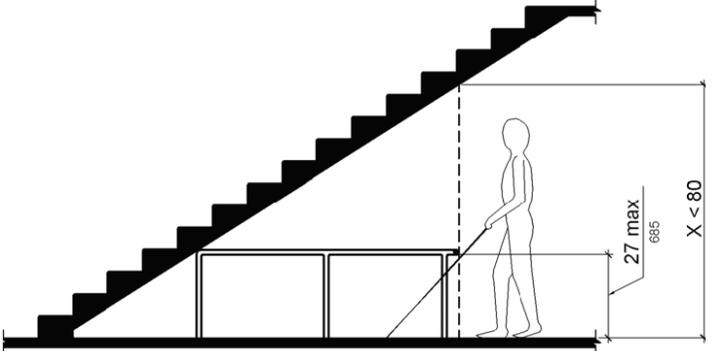
ADA Compliance Checklists for BRT Facilities Design and Construction

12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.12.2 Horizontal Alignment</b></p> <p>Does the horizontal alignment of the mini-high platform or any portion along its length and the vehicle door have a maximum gap of 3 inches for at least one door of each vehicle or car? (810.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.5.3 Platform and Vehicle Floor Coordination</b></p> <p><i>The height and position of a platform must be coordinated with the floor of the vehicles it serves to minimize the vertical and horizontal gaps, in accordance with the ADA Accessibility Guidelines for Transportation Vehicles (36 CFR Part 1192). The vehicle guidelines, divided by bus, van, light rail, rapid rail, commuter rail, intercity rail, are available at <a href="http://www.access-board.gov">www.access-board.gov</a>. The preferred alignment is a high platform, level with the vehicle floor. In some cases, the vehicle guidelines permit use of a low platform in conjunction with a lift or ramp. Most such low platforms must have a minimum height of eight inches above the top of the rail. Some vehicles are designed to be boarded from a street or the sidewalk along the street and the exception permits such boarding areas to be less than eight inches high.</i></p>			

12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.13 Protruding Objects:</b>  <b>12.1.13.1 Wall Mounted Objects</b></p> <p>If objects mounted to the wall have leading edges between 27 and 80 inches from the floor, do they project less than 4 inches into the pathway? (Wall mounted objects with leading edges at or below 27 inches may project any amount so long as the required clear width of an accessible route is not reduced.) (307.2)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 307.2 Protrusion Limits</b></p> <p><i>When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact. Elements located on circulation paths, including operable elements, must comply with requirements for protruding objects. For example, awnings and their supporting structures cannot reduce the minimum required vertical clearance. Similarly, casement windows, when open, cannot encroach more than 4 inches (100 mm) into circulation paths above 27 inches.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.13.2 Post Mounted Objects</b></p> <p>Do free standing objects mounted on posts with leading edges between 27 and 80 inches high (such as a sign or telephone) project less than 12 inches into the perpendicular route of travel? (307.3)</p>  <p>Diagram (a) shows a post-mounted object with a height range of 27-80 inches (895-2030 mm) and a maximum projection of 12 inches (305 mm) on both sides. Diagram (b) shows two objects: a shorter one with a height of 27 inches max (685 mm) and a projection of X &gt; 12 inches (305 mm), and a taller one with a height of 80 inches min (2030 mm) and a projection of X &gt; 12 inches (305 mm).</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>12.1.13.3 Clear Width</b></p> <p>Is there an accessible path at least 36 inches clear alongside the protruding object? (307.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

12.1 Mini-High Platform Technical Specifications	Yes	No	Observations
<p><b>12.1.13.4 Vertical Clearance</b></p> <p>Is the clear vertical clearance 80 inches high minimum?</p> <p><i>NOTE:</i> Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches high. The leading edge of the guardrail or barrier must be located 27 inches maximum above the finish floor or ground. (307.4)</p> <p><i>EXCEPTION:</i> Door closers and door stops shall be permitted to be 78 inches minimum above the finished floor or ground.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

## 13.0 Public Address Systems and Clocks

### *Survey Instructions*

The tools needed to assess public address systems and clocks are a 25-foot tape measure and a digital camera.

### *Issues for Consideration*

Though public address (PA) systems are common in most transit facility environments, the ADAAG does not prescribe accessibility requirements specifically for PA systems. However, ADAAG does state that when they are provided to convey information to the public, there must also be a means of conveying the same or equivalent information to persons with hearing impairments. Transit properties most commonly supplement their PA systems with visual display monitors or remotely programmable variable message systems that can be programmed to provide the same information being provided by the audible public address system. Less sophisticated but equally compliant approaches include use of chalkboards or “whiteboards” placed at station entrances with messages to provide hearing impaired patrons information such as delayed train arrival times or elevator outages at nearby stations.

The accessibility requirements for clocks are simple - the clock face must be uncluttered so that its elements are clearly visible. ADAAG requires that clock hands, numerals and digits must contrast with the background, either light-on-dark or dark-on-light and, where clocks are installed overhead, the numerals and digits must comply with size requirements for visual characters in signs.

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

13.1 Public Address Systems and Clocks Technical Specifications	Yes	No	Observations
<p><b>Public Address Systems</b></p> <p><b>13.1.1 Comparable Information Provided</b></p> <p>If a public address system is provided to convey information to the public, is there a means of conveying the same or equivalent information to persons with hearing impairments? (8.10.7)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Clocks</b></p> <p><b>13.1.2 Clock Face</b></p> <p>If clocks are provided for use by the public, is the clock face uncluttered so that its elements are clearly visible? (8.10.8)</p> <p><i>NOTE:</i> ADAAG requires that hands, numerals and digits must contrast with the background either light-on-dark or dark-on-light and, where clocks are installed overhead, the numerals and digits must comply with requirements for visual characters in signs.</p> <p>For signage requirements, complete Checklist 15 - Signage.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 14.0 Telephones

### *Survey Instructions*

Before performing the technical assessment, walk through the facility and record the number of public pay telephones and text telephones provided at the entrance and on each floor, if the facility has multiple floors, and identify and uniquely number them on a sketch of the facility.

A tape measure, smart level, and digital camera are the principal assessment tools needed to conduct assessments of telephones. In completing the checklist, note that extra space is provided to elaborate where a simple "yes" or "no" is insufficient. Note as precisely as possible the problem; for example, "clear floor space in front of phone only 36 X 36 inches," or "Forward reach range 58 inches to handset." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements.

The scoping requirements, or minimum requirements, for accessible public telephones and for text telephones are among the more complex in the ADAAG. ADAAG requires that if one or more public pay telephones are provided on each floor of a building, then at least one accessible public phone must be provided on each floor. Further, if banks of public phones are provided, then one unit in the bank must be wheelchair accessible, though if there are multiple banks on a floor, then the accessible unit may be installed as a single unit in proximity to the bank. All telephones required to be accessible must be equipped with volume control.

Where at least one public pay telephone serves a particular entrance to a bus or rail facility, at least one public TTY must be provided to serve that entrance. If an interior public pay telephone is provided in a transit facility at least one interior public text telephone must be provided in the station. Where four or more public pay telephones serve a particular entrance to a rail station and at least one is in an interior location, at least one interior public text telephone must be provided to serve that entrance. Signs are required at all phone banks without TTYs indicating the location of the nearest TTY. If there are no other

banks, directional signage is required at building entrances. The international TTY symbol is used on all TTY signs.

Where a bank of telephones in the interior of a building consists of three or more public pay telephones, at least one public pay telephone in each such bank shall be equipped with a shelf and outlet that could be used by a person with a portable text telephone.

### ***Issues for Consideration***

The ADA addresses public telephones that are fixed and requires access for people who use wheelchairs and for people who are deaf, hard of hearing, or who have speech/language impairments. A wheelchair accessible public telephone is required at all interior and exterior pay telephone "banks" (i.e., two or more adjacent phones). If telephones are installed as single units, one per floor must be wheelchair accessible.

Wall- or post-mounted pay telephones and enclosures, due to their location above the standard sweep of canes (i.e., 27 inches high from the floor), can be a hazard to people with vision impairments. Telephone placement and enclosures must be designed and installed so that the telephone is not a hazardous protruding object. Enclosures with a bottom edge that is within 27 inches above the floor or ground are detectable by a person using a cane.

ADAAG requires that wheelchair accessible public telephones, including pay and closed circuit telephones, provide a volume control and be hearing aid compatible. Telephones made in or imported into the U.S. are compatible with hearing aids as a result of the Hearing Aid Compatibility Act of 1988. Volume controls on pay telephones are located in either the base or the handset and are operated by pressing a button or key. Telephones required to have a volume control must be identified by a sign containing a depiction of a telephone handset with radiating sound waves.



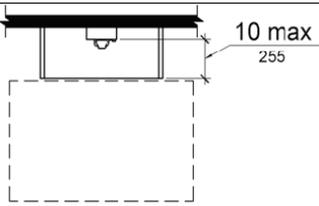
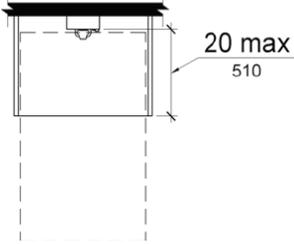
14.1 Telephone Technical Specifications	Yes	No	Observations
<p><b>14.1.3 Volume Controls</b></p> <p>Are all public pay telephones equipped with a volume control? (217.3)</p>  <p><i>NOTE 1:</i> Telephones with a volume control are required to be identified by a pictogram of a telephone handset with radiating sound waves on a square field such as shown.</p> <p><i>NOTE 2:</i> Public telephones required to have volume controls shall be equipped with a receive volume control that provides a gain adjustable up to 20 dB minimum. For incremental volume control, provide at least one intermediate step of 12 dB of gain minimum. An automatic reset shall be provided. (704.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 704.3 Volume Control Telephones</b></p> <p><i>Amplifiers on pay phones are located in the base or the handset or are built into the telephone. Most are operated by pressing a button or key. If the microphone in the handset is not being used, a mute button that temporarily turns off the microphone can also reduce the amount of background noise which the person hears in the earpiece. If a volume adjustment is provided that allows the user to set the level anywhere from the base volume to the upper requirement of 20 dB, there is no need to specify a lower limit. If a stepped volume control is provided, one of the intermediate levels must provide 12 dB of gain. Consider compatibility issues when matching an amplified handset with a phone or phone system. Amplified handsets that can be switched with pay telephone handsets are available. Portable and in-line amplifiers can be used with some phones but are not practical at most public phones covered by these requirements.</i></p>			

ADA Compliance Checklists for BRT Facilities Design and Construction

14.1 Telephone Technical Specifications	Yes	No	Observations
<p><b>14.1.4 Text Telephones/ TTYs - Minimum Number</b></p> <p><b>14.1.4.1 Bank Requirement</b></p> <p>Where four or more public telephones are provided at a bank, is at least one text telephone provided? <i>(217.4.1)</i></p> <p><i>EXCEPTION:</i> TTYs are not required at banks of telephones located within 200 feet of, and on the same floor as, a bank containing a public TTY.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>14.1.4.2 Floor Requirement</b></p> <p>Where at least one public pay telephone is provided on a floor, is at least one text telephone provided on the floor? <i>(217.4.2.1)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>14.1.4.3 Exterior Site Requirement</b></p> <p>Where four or more public pay phones are provided on an exterior site, is at least one text telephone provided on the site? <i>(217.4.4)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>14.1.4.4 Transportation Facilities Requirement</b></p> <p>In transportation facilities, in addition to the requirements above, where at least one public pay telephone serves a particular entrance to a bus or rail facility, is at least one public TTY provided to serve that entrance? <i>(217.4.7)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

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14.1 Telephone Technical Specifications	Yes	No	Observations
<p><b>Advisory 217.4 TTYs</b></p> <p><i>Separate requirements are provided based on the number of public pay telephones provided at a bank of telephones, within a floor, a building, or on a site. In some instances one TTY can be used to satisfy more than one of these requirements. For example, a TTY required for a bank can satisfy the requirements for a building. However, the requirement for at least one TTY on an exterior site cannot be met by installing a TTY in a bank inside a building. Consideration should be given to phone systems that can accommodate both digital and analog transmissions for compatibility with digital and analog TTYs.</i></p>			
<p><b>14.1.5 Text Telephone, Shelves and Outlets</b></p> <p>If there are three or more telephones in an interior bank of telephones, does at least one telephone have a shelf and electrical outlet for use with a portable text telephone? (217.5)</p> <p><i>EXCEPTION:</i> The shelf and outlet are not required at a bank of telephones with a text telephone.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

14.1 Telephone Technical Specifications	Yes	No	Observations
<p><b>14.1.6 Clear Floor Space</b></p> <p>Does the accessible telephone have at least 30 by 48 inches clear floor space that allows either a forward or parallel approach by wheelchair users? (704.2.1)</p> <p><i>NOTE:</i> The clear floor or ground space at a telephone must not be obstructed by bases, enclosures, or seats. A clear floor space from the edge of the telephone enclosure to the face of the telephone unit a maximum of 10 inches for parallel approach and a maximum of 20 inches for forward approach must be provided.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>10 max 255</p> <p><i>Parallel Approach</i></p> </div> <div style="text-align: center;">  <p>20 max 510</p> <p><i>Forward Approach</i></p> </div> </div>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 704.2.1 Clear Floor or Ground Space</b></p> <p><i>Because clear floor and ground space is required to be unobstructed, telephones, enclosures and related telephone book storage cannot encroach on the required clear floor or ground space and must comply with the provisions for protruding objects.</i></p>			
<p><b>14.1.7 Controls</b></p> <p>Does the telephone have pushbutton controls unless such service is unavailable, have controls that are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist, and is the force required to activate the controls less than 5 pounds? (704.2.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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14.1 Telephone Technical Specifications	Yes	No	Observations
<b>14.1.8 Directories</b> If provided, are telephone books also within the 48 inch maximum and 15 inch minimum reach range? (704.2.3)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14.1.9 Cord Length</b> Is the cord from the telephone to the handset at least 29 inches long? (704.2.4)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14.1.10 TTYs</b> <b>14.1.10.1 Location Requirement</b> Are TTYs required at a public telephone permanently affixed within, or adjacent to, the telephone enclosure? (704.4)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14.1.10.2 Acoustic Coupler</b> Where an acoustic coupler is used, is the telephone cord sufficiently long to allow connection of the TTY and the telephone receiver? (704.4)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14.1.10.3 Height</b> When in use, is the touch surface of the TTY keypads at least 34 inches above the finished floor or ground surface? (704.4.1) <i>EXCEPTION:</i> Where seats are provided, TTYs are not required to be at least 34 inches high.	<input type="checkbox"/>	<input type="checkbox"/>	

ADA Compliance Checklists for BRT Facilities Design and Construction

14.1 Telephone Technical Specifications	Yes	No	Observations
<p><b>Advisory 704.4.1 Height</b></p> <p><i>A telephone with a TTY installed underneath cannot also be a wheelchair accessible telephone because the required 34 inches (865 mm) minimum keypad height can causes the highest operable part of the telephone, usually the coin slot, to exceed the maximum permitted side and forward reach ranges. (See Section 308).</i></p> <p><b>Advisory 704.4.1 Height Exception.</b></p> <p><i>While seats are not required at TTYs, reading and typing at a TTY is more suited to sitting than standing. Facilities that often provide seats at TTY's include, but are not limited to, airports and other passenger terminals or stations, courts, art galleries, and convention centers.</i></p>			
<p><b>14.1.10.4 TTY Shelf</b></p> <p>Where public pay telephones are required to accommodate portable TTYs, is a shelf and an electrical outlet within or adjacent to the telephone enclosure provided? (704.5)</p> <p><i>NOTE:</i> The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a TTY and shall have 6 inches minimum vertical clearance above the area where the TTY is to be placed.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>14.1.11 TTY Symbol</b></p> <p>Are required text telephones identified by the international TTY symbol? (216.9.1, 703.7.2.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	



ADA Compliance Checklists for BRT Facilities Design and Construction

14.1 Telephone Technical Specifications	Yes	No	Observations
<p><b>14.1.12 Directional Signs</b></p> <p>Is directional signage provided to indicate the location of the nearest text telephone provided at all banks of public telephones not containing a text telephone? (216.9.2)</p> <p><i>NOTE:</i> The directional signage must be placed adjacent to all telephone banks which do not contain a text telephone and must display the international TTY symbol. If the facility does not have any telephone banks, the directional signage must be provided at the entrance (e.g., in a building directory).</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>14.1.13 Accessible Route</b></p> <p>Is there an accessible route at least 36 inches wide adjoining or overlapping the clear floor space at accessible public telephones? (305)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>14.1.14 Protruding Objects</b></p> <p>If a wall-mounted telephone has leading edges between 27 and 80 inches from the floor, does it project less than 4 inches into the pathway? (305)</p> <p>If a telephone is mounted on a post with leading edges between 27 and 80 inches high, does it project less than 12 inches into a perpendicular route of travel? (305)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 15.0 Signage

The technical requirements for signs addressed by ADAAG are grouped below in the following categories: Raised Characters, Braille, Visual Characters, Pictograms, and Symbols of Accessibility. The ADAAG section number and title are provided at the beginning of each technical requirement for ease of reference. The technical requirements for signs unique to transportation facilities are also provided below.

The technical specifications are to be applied to the following sign types: Designations for Permanent Rooms and Spaces, Directional and Information Signs, Means of Egress (Exit Doors, Areas of Refuge), Directional Signs, Parking, Entrances, Elevators, Toilet Rooms, and TTYs (Identification Signs, Directional Signs). The specific requirements for numbers and placement of these sign types are addressed in the applicable checklist sections.

### *Survey Instructions*

A flexible measuring tape to measure heights and viewing distances to signs will be needed for the assessment. A smaller six inch pocket ruler is useful for measuring raised and visual character dimensions and spacing. An inside, outside, and depth micrometer may be required if finer measurements of raised characters or Braille is needed and a digital camera is helpful to document findings.

### *Issues for Consideration*

Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, can be provided (216.1, 703.1). In parking facilities, signs are required to comply only with Means of Egress (216.4) and Parking (216.5, 216.1). Temporary signs, 7 days or less, are not required to be compliant (216.1). Where raised characters are required, they must be duplicated in Braille (703.2).

ADA Compliance Checklists for BRT Facilities Design and Construction

FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

NTP: \_\_\_\_\_

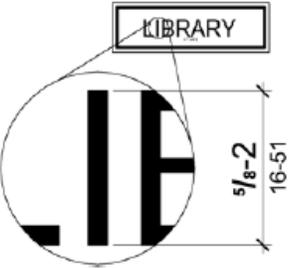
15.1 Signage Technical Requirements	Yes	No	Observations
<b>Signage Unique to Transportation Facilities</b>			
<p><b>15.1.1 Bus Stop Signs</b></p> <p>Does bus stop route identification sign comply with Finish and Contrast, Case, Style, Character Proportions, Stroke Thickness, and Character Spacing cited below for visual characters? (810.4)</p> <p>To the maximum extent practicable, do bus stop route identification sign comply with Character Height cited below?</p> <p><i>EXCEPTION:</i> Bus schedules, timetables and maps posted at bus stop or bus bay are not required to comply.</p>	<input type="checkbox"/>          <input type="checkbox"/>	<input type="checkbox"/>          <input type="checkbox"/>	
<p><b>15.1.2 Rail Station Entrance Signs</b></p> <p>Where signs identify a transit station or its entrance, is there at least one sign at each entrance complying with Raised Characters and Braille requirements cited below and placed in uniform locations to the maximum extent practicable? (810.6.1)</p> <p>Where signs identify a transit station that has no defined entrance, is there at least one sign complying with Raised Characters and Braille requirements and placed in a central location? (810.6.1)</p> <p><i>EXCEPTION.</i> Entrance signs are not required to comply with above requirement where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.</p>	<input type="checkbox"/>          <input type="checkbox"/>	<input type="checkbox"/>          <input type="checkbox"/>	

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15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.3 Routes and Destinations</b>            Do lists of stations, routes and destinations served by the station located on boarding areas, platforms, or mezzanines comply with Visual Characters requirements cited below? (810.6.2)  <i>EXCEPTION:</i> Where sign space is limited, characters are not required to exceed 3 inches.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.4 Platform Signs</b>            Is at least one tactile sign identifying the specific station and complying with Raised Characters and Braille requirements provided on each platform or boarding area? (810.6.2)            Are signs covered by this requirement, to maximum extent practicable, placed in uniform locations within system? (810.6.2)  <i>EXCEPTION.</i> Platform signs are not required to comply with above requirement where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.5 Station Name Signs</b>            Are identification signs complying with visual signage requirements clearly visible and within the sight lines of standing and sitting passengers from within the vehicle on both sides when not obstructed by another vehicle? (810.6.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>Advisory 810.6.3 Station Names</b></p> <p><i>It is also important to place signs at intervals in the station where passengers in the vehicle will be able to see a sign when the vehicle is either stopped at the station or about to come to a stop in the station. The number of signs necessary may be directly related to the size of the lettering displayed on the sign.</i></p>			
<p><b>Raised Characters (703.2)</b></p>			
<p><b>15.1.6 Condition</b> Do tactile characters have sharp or abrasive edges? (703.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.7 Depth</b> Are characters raised 1/32 inch minimum above their background? (703.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.8 Case</b> Are all raised characters uppercase? (703.2.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.9 Style</b> Are raised characters in a sans serif font? (703.2.3) <i>NOTE: Raised characters must not be italic, oblique, script, highly decorative, or of other unusual forms.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.10 Character Proportions</b>                      Is the width of the uppercase raised letter "O" 55 percent minimum and 110 percent maximum of height of uppercase letter "I" for selected font? (703.2.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.11 Character Height</b>                      Is raised character height measured vertically from the baseline of character 5/8 inch minimum and 2 inches maximum based on the height of uppercase letter "I"? (703.2.5)  <i>EXCEPTION:</i> Where separate raised and visual characters with same information are provided, raised character height is permitted to be 1/2 inch minimum.</p>  <p>The diagram shows a rectangular sign with the word 'LIBRARY' in raised characters. A circular callout provides a magnified view of the raised letter 'I'. A vertical dimension line indicates the height of the raised character, with a range of 5/8 to 2 inches.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.12 Stroke Thickness</b>                      Is the stroke thickness of uppercase letter "I" 15 percent maximum of the height of the character? (703.2.6)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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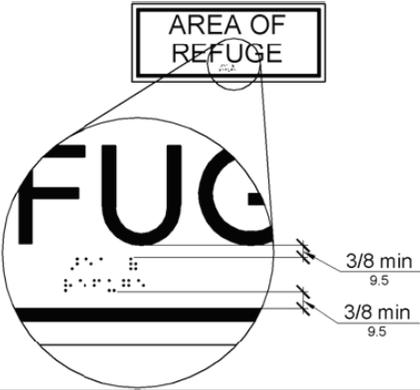
15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.13 Character Spacing</b>                      Character spacing is measured between two closest points of adjacent raised characters within a message, excluding word spaces and must meet the following conditions. (703.2.7)</p> <p>1. Rectangular Cross Sections. Where characters have rectangular cross sections, is spacing between individual raised characters 1/8 inch minimum and 4 times raised character stroke width maximum? (703.2.7)</p> <p>2. Other Cross Sections. Where characters have other cross sections, is spacing between individual raised characters 1/16 inch minimum and 4 times raised character stroke width maximum at base of cross sections, and 1/8 inch minimum and 4 times raised character stroke width maximum at top of cross sections? (703.2.7)</p> <p>3. Distance from Borders. Are characters separated from raised borders and decorative elements 3/8 inch minimum? (703.2.7)</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	
<p><b>15.1.14 Line Spacing</b>                      Is spacing between baselines of separate lines of raised characters within message 135 percent minimum and 170 percent maximum of raised character height? (703.2.8)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p><b>Braille (703.3)</b></p>			
<p><b>15.1.15 Application</b>                      Are signs with raised characters duplicated in Braille? (703.2)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	

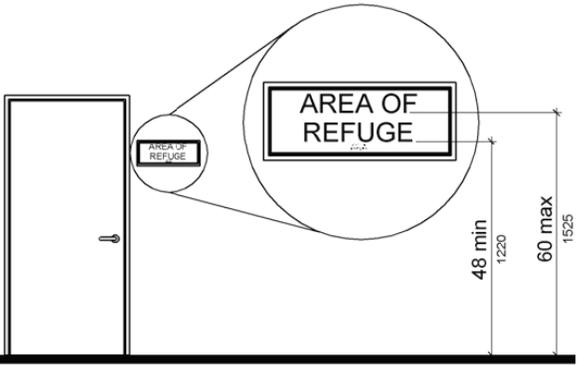
ADA Compliance Checklists for BRT Facilities Design and Construction

15.1 Signage Technical Requirements	Yes	No	Observations														
<b>15.1.16 Braille Type</b> Is Braille contracted (Grade 2)? (703.3)	<input type="checkbox"/>	<input type="checkbox"/>															
<b>15.1.17 Dimensions</b> Do Braille dots have domed or rounded shape and measurements complying with Table 703.3.1 below? (703.3.1)	<input type="checkbox"/>	<input type="checkbox"/>															
<b>ADAAG Table 703.3.1 Braille Dimensions</b> <table border="1" data-bbox="191 643 1228 1182" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="191 643 905 813">Measurement Range</th> <th data-bbox="905 643 1228 813">Minimum in Inches Maximum in Inches</th> </tr> </thead> <tbody> <tr> <td data-bbox="191 813 905 862">Dot base diameter</td> <td data-bbox="905 813 1228 862">0.059 to 0.063</td> </tr> <tr> <td data-bbox="191 862 905 911">Distance between two dots in same cell (1)</td> <td data-bbox="905 862 1228 911">0.090 to 0.100</td> </tr> <tr> <td data-bbox="191 911 905 1000">Distance between corresponding dots in adjacent cells<sup>1</sup></td> <td data-bbox="905 911 1228 1000">0.241 to 0.300</td> </tr> <tr> <td data-bbox="191 1000 905 1049">Dot height</td> <td data-bbox="905 1000 1228 1049">0.025 to 0.037</td> </tr> <tr> <td data-bbox="191 1049 905 1130">Distance between corresponding dots from one cell directly below<sup>1</sup></td> <td data-bbox="905 1049 1228 1130">0.395 to 0.400</td> </tr> <tr> <td data-bbox="191 1130 905 1182">(1) Measured center to center.</td> <td data-bbox="905 1130 1228 1182"></td> </tr> </tbody> </table>	Measurement Range	Minimum in Inches Maximum in Inches	Dot base diameter	0.059 to 0.063	Distance between two dots in same cell (1)	0.090 to 0.100	Distance between corresponding dots in adjacent cells <sup>1</sup>	0.241 to 0.300	Dot height	0.025 to 0.037	Distance between corresponding dots from one cell directly below <sup>1</sup>	0.395 to 0.400	(1) Measured center to center.				
Measurement Range	Minimum in Inches Maximum in Inches																
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Distance between corresponding dots from one cell directly below <sup>1</sup>	0.395 to 0.400																
(1) Measured center to center.																	

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15.1 Signage Technical Requirements	Yes	No	Observations
<p>The diagram illustrates various Braille technical requirements. It shows a grid of Braille cells with labels: 'distance between dots in the same cell', 'distance between dots in adjacent cells', 'single Braille cell', 'distance between corresponding dots from one cell directly below', 'dot diameter', 'blank cell space between words', 'raised dot', and 'no raised dot'.</p>			
<p><b>15.1.18 Capitalization</b>                  Is indication of an uppercase letter or letters used only before first word of sentences, proper nouns and names, individual letters of alphabet, initials, and acronyms? (703.3.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.19 Position</b></p> <p>Is Braille positioned below corresponding text? (703.3.2)</p> <p>If text is multi-lined, is Braille placed below the entire text? (703.3.2)</p> <p>Is Braille separated 3/8 inch minimum from any other tactile characters and 3/8 inch minimum from raised borders and decorative elements? (703.3.2)</p> <p><i>EXCEPTION:</i> Braille provided on elevator car controls must be separated 3/16 inch minimum and must be either directly below or adjacent to corresponding raised characters or symbols.</p> 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

15.1 Signage Technical Requirements	Yes	No	Observations
<b>Installation Height and Location (703.4)</b>			
<p><b>15.1.20 Height Above Finish Floor or Ground</b></p> <p>Are tactile characters on signs 48 inches minimum above the finished floor or ground surface, measured from the baseline of the lowest tactile characters and 60 inches maximum above the finished floor or ground surface, measured from the baseline of the highest tactile character? (703.4.1)</p> <p><i>EXCEPTION:</i> Tactile characters for elevator car controls are not required to comply with 703.4.1.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	



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15.1 Signage Technical Requirements	Yes	No	Observations
<b>Visual Characters (703.5)</b>			
<p><b>15.1.22 General</b>            Do characters in visual signs comply with finish and contrast, case, style, character proportions and height, stroke thickness, character and line spacing (703.5.1 - 703.5.9) cited below? (703.5)  <i>EXCEPTION:</i> Where visual characters comply with 703.2 (Raised Characters) and are accompanied by Braille complying with 703.3, they are not required to comply with 703.5.2 through 703.5.9.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.23 Finish and Contrast</b>            Do characters and their background have a non-glare finish? (703.5.1)            Do characters contrast with their background with either light characters on dark background or dark characters on light background? (703.5.1)</p>	<input type="checkbox"/>  <input type="checkbox"/>	<input type="checkbox"/>  <input type="checkbox"/>	
<p><b>Advisory 703.5.1 Finish and Contrast</b>  <i>Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.</i></p>			
<p><b>15.1.24 Case</b>            Are characters uppercase or lowercase or combination of both? (703.5.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.25 Style</b>                      Are characters in conventional form? Characters must not be italic, oblique, script, highly decorative, or of other unusual forms. (703.5.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.26 Character Proportions</b>                      Are characters selected from fonts where width of uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I"? (703.5.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.27 Character Height</b>                      Does minimum character height comply with Table 703.5.5 below? Viewing distance must be measured as horizontal distance between character and an obstruction preventing further approach towards sign. Character height must be based on the uppercase letter "I". (703.5.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

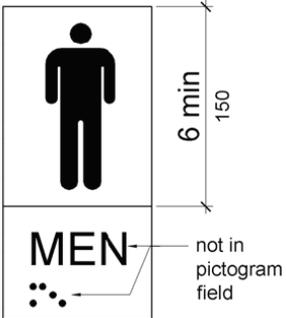
ADA Compliance Checklists for BRT Facilities Design and Construction

15.1 Signage Technical Requirements			Yes	No	Observations
<b>ADAAG Table 703.5.5 Visual Character Height</b>					
<b>Height to Finish Floor or Ground From Baseline of Character</b>	<b>Horizontal Viewing Distance</b>	<b>Minimum Character Height</b>			
40 inches to less than or equal to 70 inches	less than 72 inches	5/8 inch			
	72 inches and greater	5/8 inch, plus 1/8 inch per foot of viewing distance above 72 inches			
greater than 70 inches to less than or equal to 120 inches	less than 180 inches	2 inches			
	180 inches and greater	2 inches, plus 1/8 inch per foot of viewing distance above 180 inches			
greater than 120 inches	less than 21 feet	3 inches			
	21 feet and greater	3 inches, plus 1/8 inch per foot of viewing distance above 21 feet			

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15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.28 Height From Finish Floor or Ground</b>            Are visual characters 40 inches minimum above the finished floor or ground? (703.5.6)  <i>EXCEPTION:</i> Visual characters indicating elevator car controls are not required to comply with 703.5.6.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.29 Stroke Thickness</b>            Is the stroke thickness of the uppercase letter "I" 10 percent minimum and 30 percent maximum of height of the character? (703.5.7)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.30 Character Spacing</b>            Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Is spacing between individual characters 10 percent minimum and 35 percent maximum of the character height? (703.5.8)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>15.1.31 Line Spacing</b>            Is spacing between the baselines of separate lines of characters within a message 135 percent minimum and 170 percent maximum of the character height? (703.5.9)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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15.1 Signage Technical Requirements	Yes	No	Observations
<b>Pictograms (703.6)</b>			
<p><b>15.1.32 Pictogram Field</b>                      Is the field height of a pictogram 6 inches minimum? (703.6.1)  <i>NOTE:</i> Characters and Braille are not to be in pictogram field.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>15.1.33 Finish and Contrast</b>                      Do pictograms and their field have a non-glare finish? (703.6.2)                      Do pictograms contrast with their background with either light pictogram on dark field or dark pictogram on light field? (703.6.2)</p>		<input type="checkbox"/>  <input type="checkbox"/>	<input type="checkbox"/>  <input type="checkbox"/>
<p><b>15.1.34 Text Descriptors</b>                      Do pictograms have text descriptors directly below the pictogram field? (703.6.3)  <i>NOTE:</i> Text descriptors must comply with 703.2 (raised Characters), 703.3 (Braille) and 703.4 (Installation Height and Location).</p>		<input type="checkbox"/>	<input type="checkbox"/>



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15.1 Signage Technical Requirements	Yes	No	Observations
<p><b>15.1.39 Assistive Listening Systems</b>                      Are assistive listening systems identified by the International Symbol of Access for Hearing Loss as shown below? (703.7.2.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	



## 16.0 Maneuvering/Reach Range

### *Survey Instructions*

A tape measure and digital camera are the principal assessment tools needed to assess maneuvering spaces and reach ranges.

### *Issues for Consideration*

Accessible reach ranges are specified according to the approach (forward or side) and the depth of reach over any obstruction. The ADA Accessibility Guidelines (ADAAG) permit a forward high reach maximum of 48 inches and a forward low reach minimum of 15 inches. ADAAG also specifies a maximum side (parallel approach) high reach of 48 inches and the minimum low side reach to 15 inches.

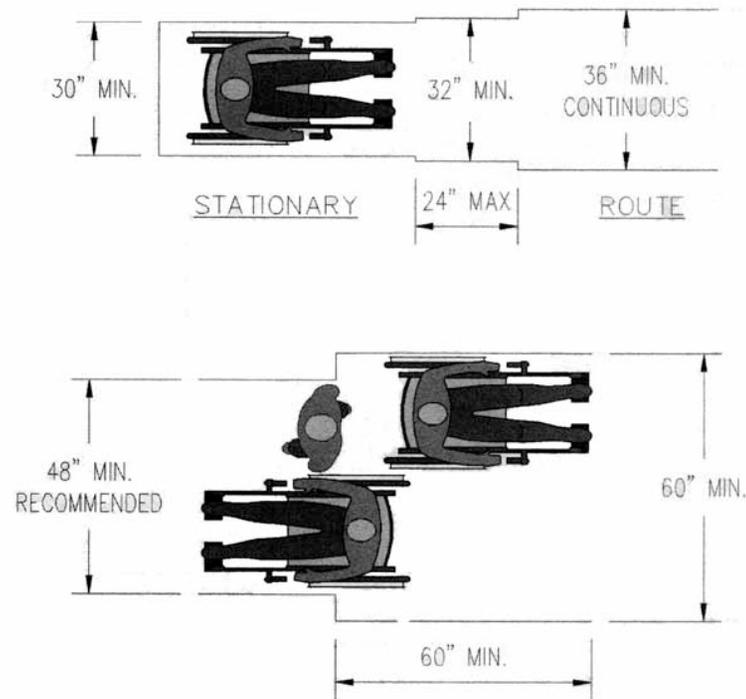
The technical specifications for maneuvering spaces and reach ranges have been liberally supplemented with sketches and drawings illustrating the various maneuvering space and reach range configurations to simplify the interpretation and application of the standards.

Adult dimensions and measures for standard manual wheelchairs form the basis of many of the accessibility standards. Space at least 30 by 48 inches is the minimum required for a person using a wheelchair. A minimum width of 30 inches is generally sufficient for stationary space and additional clearance is needed for maneuvering. A clear path width of at least 48 inches (recommended but not required) allows for a comfortable flow for people who use wheelchairs and people who are ambulatory. Space at least 60 inches wide is the minimum width that allows passage of two wheelchairs.

A minimum width of 30 inches is generally sufficient for stationary space. Additional clearance is needed for maneuvering and sway. A clear width of at least 48 inches (recommended but not required) allows for comfortable flow for people who use wheelchairs and people who are ambulatory. Space at least 60 inches wide is the minimum width that allows passage of two wheelchairs.

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Generally, the depth of usable floor space below fixed elements with knee and toe clearance is limited to 19 inches and a clearance at least 27 inches high and 19 inches deep is necessary for a person using a wheelchair to pull-up to tables and computers.

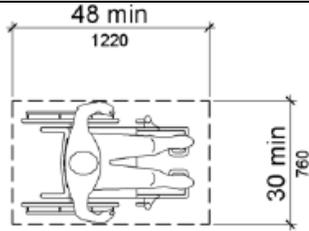


FACILITY: \_\_\_\_\_

DATE: \_\_\_\_\_

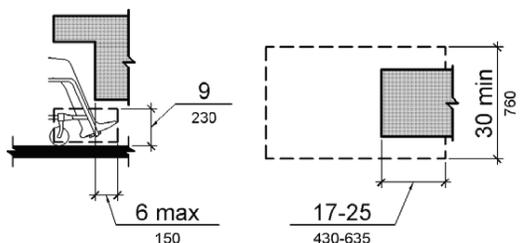
NTP: \_\_\_\_\_

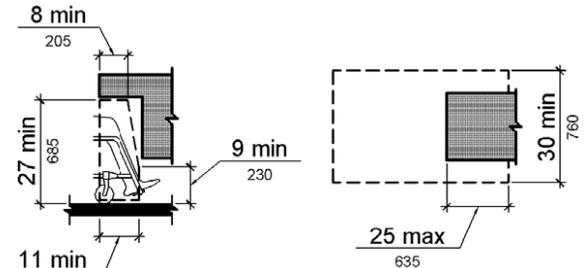
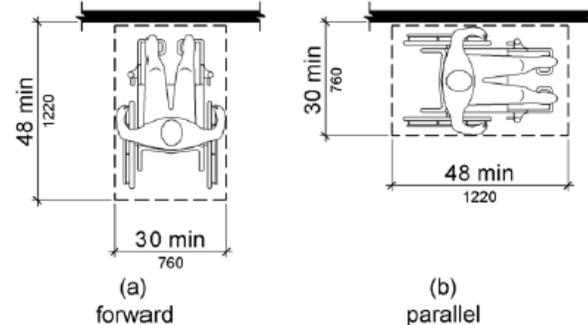
16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.1 Clear Floor or Ground Space</b>  <b>16.1.1.1 General</b>                      Is the clear floor or ground space stable, firm, and slip resistant, and free of changes in level? (305.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.1.2 Size</b>                      Is the provided clear floor or ground space 30 inches minimum by 48 inches minimum? (305.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.2 Knee and Toe Clearance</b>  <i>NOTE:</i> Unless otherwise specified, clear floor or ground space shall be permitted to include knee and toe clearance. (305.4)  <b>16.1.2.1 General</b>  <i>NOTE:</i> Where space beneath an element is included as part of clear floor or ground space or turning space, the space must comply with the following provisions. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear floor or ground space or turning space. (306.1)</p>			

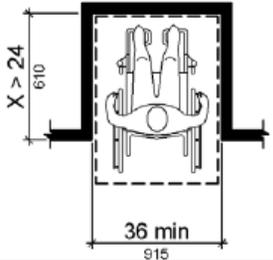
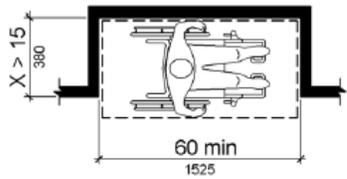


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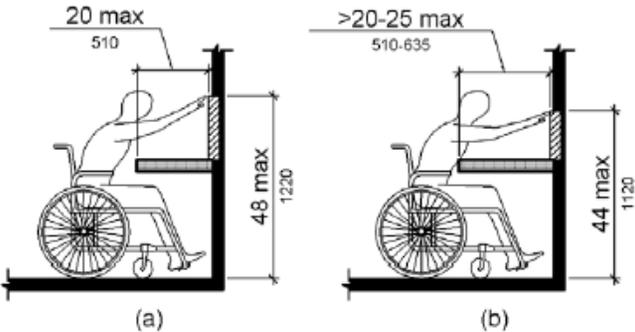
16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>Advisory 306.1 General</b></p> <p><i>Clearances are measured in relation to the usable clear floor space, not necessarily to the vertical support for an element. When determining clearance under an object for required turning or maneuvering space, care should be taken to ensure the space is clear of any obstructions.</i></p>			
<p><b>16.1.2.2 Toe Clearance</b></p> <p>Is the space under an accessible element between the finished floor or ground and 9 inches above the finished floor or ground provided? (306.2.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.2.2.1 Maximum Depth</b></p> <p>Does the toe clearance extend 25 inches maximum under an element? (306.2.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.2.2.2 Minimum Required Depth</b></p> <p>Where toe clearance is required at an element as part of a clear floor space, does the toe clearance extend at least 17 inches under the element? (306.2.3)</p> <p><i>NOTE: Space extending greater than 6 inches beyond the available knee clearance at 9 inches above the finish floor or ground shall not be considered toe clearance. (306.2.4)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

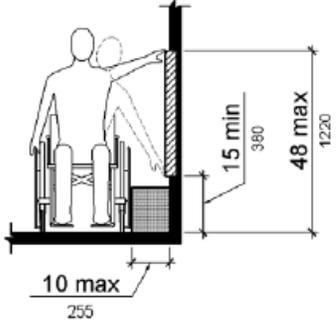
16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.2.2.3 Width</b>                      Is the toe clearance at least 30 inches wide? (306.2.5)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.2.3 Knee Clearance</b>                      Is space provided under an element between 9 inches and 27 inches above the finished floor or ground for knee clearance? (306.3.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.2.3.1 Maximum Depth</b>                      Does the knee clearance extend 25 inches maximum under an element at 9 inches above the finished floor or ground? (306.3.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.2.3.2 Minimum Required Depth</b>                      Where knee clearance is required under an element as part of a clear floor space, is the knee clearance at least 11 inches deep at 9 inches above the finished floor or ground, and at least 8 inches deep at 27 inches above the finished floor or ground? (306.3.3)  <i>NOTE:</i> Between 9 inches and 27 inches above the finished floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch in depth for each 6 inches in height. (306.3.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

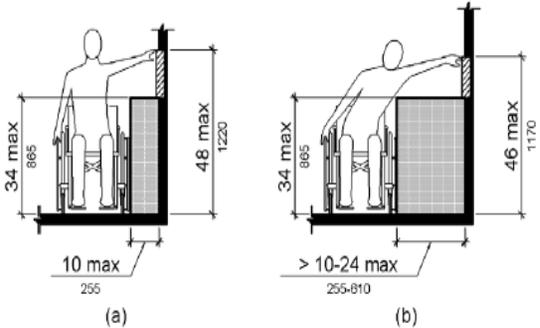
<p><b>16.1. Maneuvering and Reach Range Technical Specifications</b></p>	<p>Yes</p>	<p>No</p>	<p>Observations</p>
<p><b>16.1.2.3.3 Width</b>                      Is the knee clearance at least 30 inches wide? (306.3.5)</p> 	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p><b>16.1.3 Position</b>                      Is clear floor or ground space positioned to allow for either a forward or a parallel approach to an element? (305.5)</p> 	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	
<p><b>16.1.4 Approach</b>                      Does one full unobstructed side of the clear floor or ground space adjoin an accessible route or adjoin another clear floor or ground space? (305.6)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	

16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.5 Maneuvering Clearance</b>                      Where a clear floor or ground space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearance shall be provided as follows. (305.7)</p> <p><b>16.1.5.1 Forward Approach</b>                      Is the forward maneuvering clearance in alcoves 36 inches wide minimum where the depth exceeds 24 inches? (305.7.1)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>16.1.5.2 Parallel Approach</b>                      Is the alcove 60 inches wide minimum where the depth exceeds 15 inches for a parallel approach? (305.7.2)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.6 Reach Ranges</b>  <b>16.1.6.1 Unobstructed Forward Reach</b>                      Where a forward reach is unobstructed, is the high forward reach 48 inches maximum and the low forward reach 15 inches minimum above the finish floor or ground? <i>(308.2.1)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	

16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.7 Obstructed Forward High Reach</b></p> <p>Where a high forward reach is over an obstruction, does the clear floor space extend beneath the element for a distance not less than the required reach depth over the obstruction? (308.2.2)</p> <p><i>NOTE.</i> The high forward reach is 48 inches maximum where the reach depth is 20 inches maximum. Where the reach depth exceeds 20 inches, the high forward reach is 44 inches maximum and the reach depth is 25 inches maximum.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.8 Unobstructed Side Reach</b></p> <p>Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, is the high side reach 48 inches maximum and the low side reach 15 inches minimum above the finish floor or ground? (308.3.1)</p> <p><i>EXCEPTION:</i> An obstruction shall be permitted between the clear floor or ground space and the element where the depth of the obstruction is 10 inches maximum.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

16.1. Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<p><b>16.1.9 Obstructed High Side Reach</b></p> <p>Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, is the height of the obstruction 34 inches maximum and the depth of the obstruction 24 inches maximum? (308.3.2)</p> <p><i>NOTE.</i> The high side reach shall be 48 inches maximum for a reach depth of 10 inches. Where the reach depth exceeds 10 inches, the high side reach shall be 46 inches maximum for a reach depth of 24 inches maximum.</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

## 17.0 Handrails and Grab Bars

### *Survey Instructions*

Compliant handrail installation on ramps and stairs and grab bar installation in bath and toilet facilities are critical to access to these elements for persons with disabilities, permitting them to maintain balance, transfer, and prevent falls.

Handrails are required on walking surfaces on the accessible route with running slopes greater than 1:20 (5 percent), on ramp runs with a rise greater than 6 inches, and on certain stairways. Handrails are not required on walking surfaces with running slopes less than 1:20. However, if they are provided on walking surfaces with running slopes less than 1:20, they must comply with the accessibility standards in the ADA Accessibility Guidelines (ADAAG).

A tape measure and digital camera are the principal assessment tools needed to conduct the handrail and grab bar assessments.

### *Issues for Consideration*

A summary of the ADAAG technical requirements for handrails and grab bars follows:

- The clearance between handrail gripping surfaces and adjacent surfaces must be 1½ inches minimum.
- Handrail gripping surfaces must have edges with rounded edges.
- Handrail gripping surfaces with a circular cross section are to have an outside diameter of 1¼ inches to 2 inches. Handrail gripping surfaces with a non-circular cross section must have a perimeter dimension of 4 inches to 6¼ inches, and a cross section dimension of 2¼ inches maximum.
- Handrail gripping surfaces are to be continuous along their length and not obstructed along their tops or sides. The bottoms of handrail gripping surfaces must not be obstructed more than 20 percent of their length. Where provided, horizontal projections must occur at least 1½ inches below the bottom of the handrail gripping surface. An exception permits the distance between the horizontal projections

and the bottom of the gripping surface to be reduced by  $\frac{1}{8}$  inch for each  $\frac{1}{2}$  inch of additional handrail perimeter dimension that exceeds 4 inches.

- Handrails at the bottom of stairs must extend a horizontal distance at least equal to one tread depth beyond the last riser nosing. An exception is given for alterations to existing facilities that exempts handrails at the top and bottom of ramps and stairs from providing full extensions where it would be hazardous due to plan configuration.

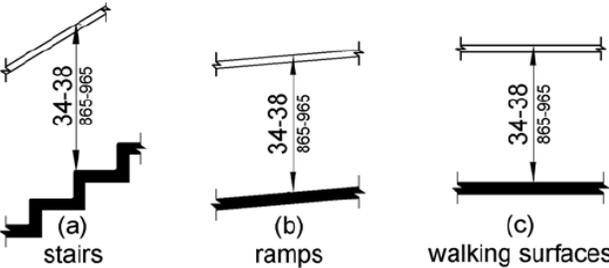
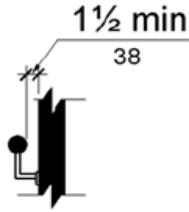
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FACILITY: \_\_\_\_\_

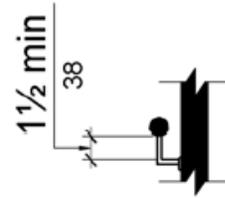
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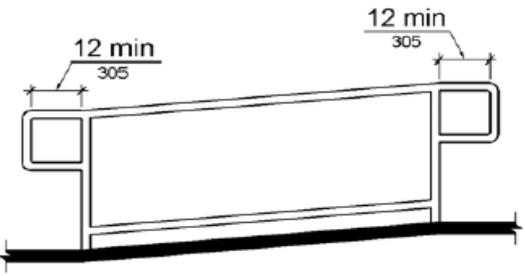
17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.1 Where Handrails Are Required</b>                      If handrails are required, are they provided on both sides of stairs and ramps? (505.2)  <i>EXCEPTION:</i> In assembly areas, handrails shall not be required on both sides of aisle ramps where a handrail is provided at either side or within the aisle width.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 505.1 General</b>  <i>Handrails are required on ramp runs with a rise greater than 6 inches and on certain stairways. Handrails are not required on walking surfaces with running slopes less than 1:20 (5 percent). However, handrails are required to comply with ADAAG when they are provided on walking surfaces with running slopes less than 1:20. ADAAG Sections 505.2, 505.3, and 505.10 do not apply to handrails provided on walking surfaces with running slopes less than 1:20 as these sections only reference requirements for ramps and stairs.</i></p>			
<p><b>17.1.2 Continuity of Handrails</b>                      Are handrails continuous within the full length of each stair flight or ramp run? (505.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.3 Inside Handrail</b>                      On dogleg or switchback ramps, are the inside handrails continuous? (505.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

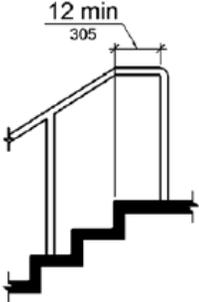
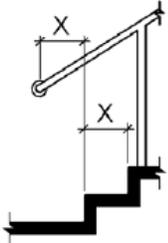
17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.4 Handrail Height</b></p> <p>Is the top gripping surface of the handrail between 34 and 38 inches vertically above walking surfaces, stair nosings, and ramp surfaces? (505.4)</p> <p><i>NOTE:</i> Handrails shall be at a consistent height. (505.4)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.5 Handrail Clearance</b></p> <p>Is the clear space between handrail gripping surfaces and adjacent surfaces at least 1-1/2 inches? (505.5)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	

17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.6 Handrail Gripping Surface</b></p> <p>Are handrail gripping surfaces continuous along their length and not obstructed along their tops or sides? (505.6)</p> <p><i>NOTE:</i> The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1-1/2 inches minimum below the bottom of the handrail gripping surface. (505.6)</p> <p><i>EXCEPTION 1.</i> Where handrails are provided along walking surfaces with slopes not steeper than 1:20 (5 percent), the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.</p> <p><i>EXCEPTION 2.</i> The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch for each 1/2 inch of additional handrail perimeter dimension that exceeds 4 inches.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 505.6 Gripping Surface</b></p> <p><i>People with disabilities, older people, and others benefit from continuous gripping surfaces that permit users to reach the fingers outward or downward to grasp the handrail, particularly as the user senses a loss of equilibrium or begins to fall.</i></p>			



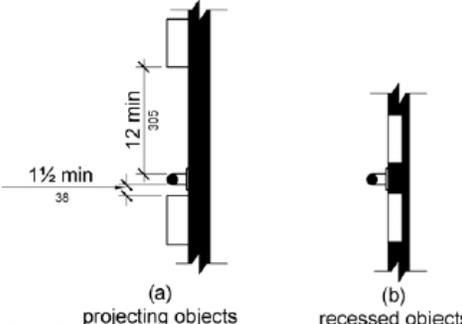


17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.10 Handrail Extensions</b></p> <p>Do handrail gripping surfaces extend horizontally above the landing for 12 inches minimum beyond the top and bottom and in the same direction of stair flights and ramp runs? (505.10)</p> <p><i>EXCEPTION 1.</i> Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.</p> <p><i>EXCEPTION 2.</i> In assembly areas, extensions shall not be required for ramp handrails in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles.</p> <p><i>EXCEPTION 3.</i> In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.11 Extension Returns on Ramps</b></p> <p>Do extensions at landings return to a wall, guard, or the landing surface, or are continuous to the handrail of an adjacent ramp run? (505.10.1)</p>  <p>The diagram shows a handrail profile on a ramp. At the top of the ramp, there is a horizontal extension of the handrail. Dimension lines indicate that this extension is at least 12 inches (305 mm) long on both the left and right sides of the landing area. The handrail itself is shown as a continuous line along the length of the ramp.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.12 Handrail Extension at Top of Stairs</b></p> <p>At the top of a flight of stairs, are the handrails extended horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing? (505.10.2)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.13 Handrail Extension at Bottom of Stairs</b></p> <p>At the bottom of a flight of stairs, are handrails extended at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing? (505.10.3)</p>  <p>Note: X = tread depth</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.14 Handrail Extension Returns</b>                      Are the extensions at the top and bottom of stairs returned to a wall, guard, or the landing surface, or continuous to the handrail of an adjacent stair flight? (505.10.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Grab Bars</b>                      Grab bars required by ADAAG in toilet and bathing facilities must meet accessibility standards. The specifications for grab bars are the same as handrails given above with respect to cross section/diameter, and fittings. The specifications cited below are unique to grab bars. (609)</p>			
<p><b>17.1.15 Grab Bar Spacing Between Wall</b>                      Is the space between the wall and the grab bar 1-1/2 inches? (609.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.16 Grab Bar Spacing Between Projecting Objects Below and at Ends</b>                      Is the space between the grab bar and projecting objects below it and at the ends 1-1/2 inches minimum? (609.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.17 Grab Bar Spacing Between Projecting Objects Above</b>                      Is the space between the grab bar and projecting objects above it 12 inches minimum? (609.3)  <i>EXCEPTION:</i> The space between the grab bars and shower controls, shower fittings, and other grab bars above shall be permitted to be 1-1/2 inches minimum.</p>  <p>(a) projecting objects      (b) recessed objects</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.18 Position of Grab Bars</b>                      Are grab bars installed in a horizontal position, 33 inches minimum and 36 inches maximum above the finished floor measured to the top of the gripping surface? (609.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.19 Grab Bar Surface Hazards</b>                      Are grab bars and wall or other surfaces adjacent to grab bars free of sharp or abrasive elements and have rounded edges? (609.5)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>17.1.20 Grab Bar Installation</b>                      Are grab bars installed in a manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space? (609.7)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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17.1 Handrail and Grab Bar Technical Specifications	Yes	No	Observations
<p><b>17.1.21 Grab Bar Structural Strength</b>                      Is the grab bar mounted with structural strength sufficient to withstand a vertical or horizontal force of 250 pounds applied at any point on the grab bar, fastener, mounting device, or supporting structure? (609.8)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 18.0 Bus Stops

### *Survey Instructions*

A tape measure, electronic level, and digital camera are the principal tools needed to conduct a bus stop assessment. It is important to note in the assessment whether the stop is the property of the transit agency or is owned by a local municipality. It is the owner's obligation to correct any noncompliant elements at the bus stop though it is common for transit properties to undertake remediation activities in order to make its fixed route service accessible.

### *Issues for Consideration*

The auditing of bus stops is perhaps the least understood assessment in the transportation accessibility compliance process. Implicit in the ADA Accessibility Guidelines (ADAAG) is the phrase "where provided." Except for curb ramps, which are explicitly required by statute, no facilities are required by the ADA. Rather, the requirement is that, IF you build something, it must be accessible. Thus a bus stop can be as simple as a pole and a sign. The entity establishing a bus stop however, must ensure that the site chosen for the bus stop affords the greatest accessibility practicable. Additionally, if a transit agency constructs a bus pad or a shelter, then the pad or shelter must conform to the technical requirements for bus stops as is true for any amenity of features provided at the bus stop.

If the transit agency constructs a bus pad or alters an existing pedestrian boarding and alighting area, those elements must meet the new construction standard in the ADAAG to the maximum extent feasible; that is, the elements must meet the dimensional requirements to the extent there is room given structural or topographical conditions. There is no requirement in the ADA to acquire additional right of way.

The ADA design, construction and alteration standards apply only to the space or element of the bus stop that has been designed, constructed or altered. If the sidewalk has been altered, for example, it must meet the ADAAG standards. But responsibility for the alteration is limited to that which was altered: "what you touch, you fix."

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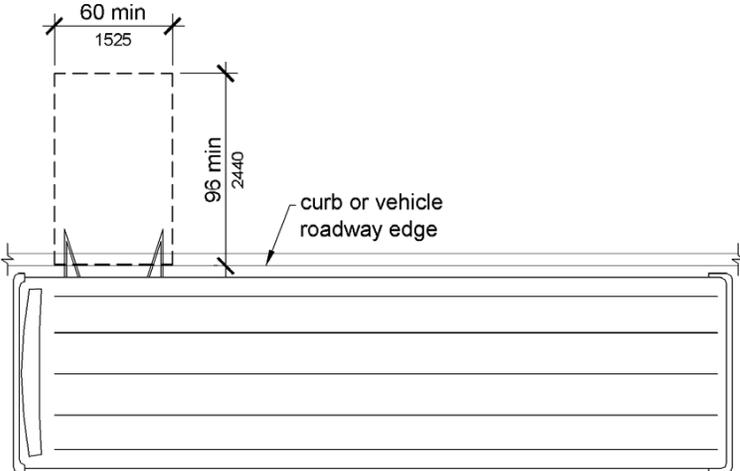
There is no “path of travel” requirement in Title II of the ADA. That means, if the transit agency puts in a new bus stop pole, it is responsible for the accessibility of the pole. Primarily, that means the sign on it. However, the implementing regulation requires the transit agency to exert whatever design control it may have when a passenger boarding and alighting area (e.g. a sidewalk) is constructed by another agency such as the city’s public works department.

Curb ramps may also present a problem with respect to bus stops. If the curb ramps in the vicinity of a bus stop were constructed as a part of the bus stop construction or improvement effort, USDOT Final Rule adopting the revised ADAAG (Nov. 29, 2006) requires that a detectable warning complying with ADAAG 705 be installed on the curb ramp surfaces at transportation facilities.

FACILITY: \_\_\_\_\_

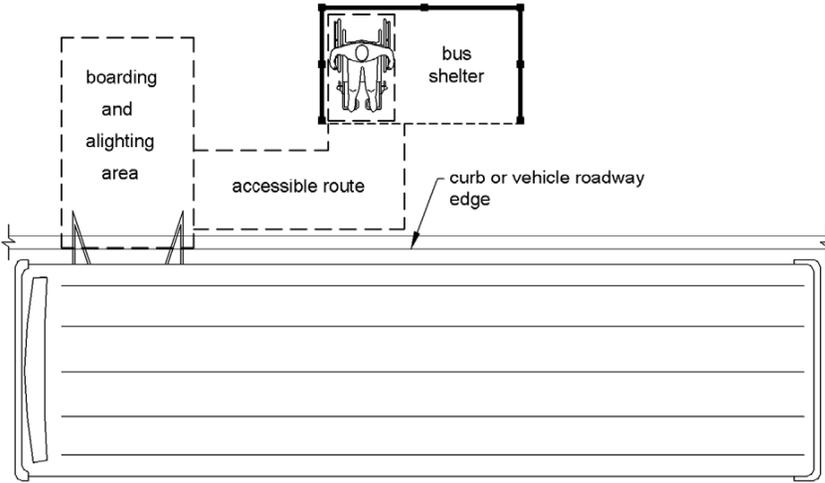
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18.1 Bus Stop Technical Specifications	Yes	No	Observations
<p><b>18.1.1 Surface of Boarding and Alighting Area</b>                      Does the boarding and alighting area have a firm, stable surface?  <i>(810.2.1)</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>18.1.2 Dimensions of Boarding and Alighting Area</b>                      Does the bus stop boarding and alighting area provide a clear length of 96 inches minimum, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches minimum, measured parallel to the vehicle roadway? <i>(810.2.2)</i></p>  <p>The diagram illustrates a rectangular boarding area. A dashed rectangle indicates the required clear dimensions: a width of 60 inches (1525 mm) and a length of 96 inches (2440 mm). The length is measured perpendicular to the curb or vehicle roadway edge, which is shown as a solid line with a small triangle representing the curb. The width is measured parallel to the roadway edge. Below the dimensions, a perspective drawing shows a bus stop shelter with a flat top and a ramp leading to the boarding area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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18.1 Bus Stop Technical Specifications	Yes	No	Observations
<p><b>18.1.3 Connection of Boarding and Alighting Area to Adjoining Elements</b></p> <p>Is the bus stop boarding and alighting area connected to streets, sidewalks, or pedestrian paths by an accessible route? Use Checklist 2 – Accessible Routes. (810.2.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>18.1.4 Slope of Bus Stop Boarding or Alighting Area</b></p> <p>Is the slope of the bus stop boarding and alighting area parallel to the roadway the same as the slope of the roadway, to the maximum extent practicable? (810.2.4)</p> <p>Perpendicular to the roadway, is the slope of the bus stop boarding and alighting area no steeper than 1:48 (2 percent)? (810.2.4)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>18.1.5 Bus Shelters Clear Floor or Ground Space</b></p> <p>If the bus stop has a shelter, does it provide a minimum clear floor or ground space complying with ADAAG entirely within the shelter? (810.3)</p> <p><i>NOTE:</i> Clear floor or ground space requires space for a wheelchair of 48 inches minimum by 30 inches minimum and compliant maneuvering clearance into, within, and out of the shelter. Use Checklist 16 - Maneuvering/Reach Range, for detailed requirements.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>Advisory 810.2 Bus Boarding and Alighting Areas</b></p> <p><i>At bus stops where a shelter is provided, the bus stop boarding and alighting pad can be located either within or outside of the shelter.</i></p>			

18.1 Bus Stop Technical Specifications	Yes	No	Observations
<p><b>18.1.6 Connection of Bus Shelters to Adjoining Elements</b>                      If the bus stop has a shelter, is it connected by an accessible route to the boarding and alighting area? Use Checklist 2 – Accessible Routes. (810.3)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>18.1.7 Bus Stop Signs</b>                      Do bus route identification signs have a non-glare finish, the characters contrast with their background with either light characters on a dark background or dark characters on a light background, and are not in italic, oblique, script, highly decorative, or of other unusual forms? (810.4)</p> <p><i>NOTE:</i> See Checklist 15 - Signage, for detailed sign specifications such as character height, proportions, size and spacing.</p> <p><i>EXCEPTION:</i> Bus schedules, timetables and maps that are posted at the bus stop or bus bay shall not be required to comply.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 19.0 Detectable Warning

### *Survey Instructions*

A tape measure and digital camera are the principal assessment tools needed to conduct the assessment of detectable warning surfaces.

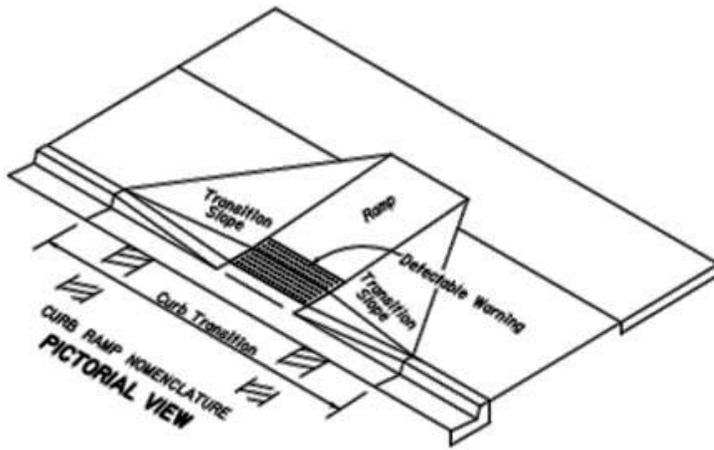
### *Issues for Consideration*

Detectable warnings, a distinctive surface pattern of domes detectable by cane or underfoot, are used to alert people with vision impairments of their approach to streets and hazardous drop-offs. By issue of the Final Rule, USDOT adopted the revised ADA Accessibility Guidelines (ADAAG) on Nov. 29, 2006, and established the requirement for detectable warnings on the surface of curb ramps, because the curb ramps remove a tactile cue otherwise provided by curb faces, and at other areas where pedestrian ways blend with vehicular ways. They are also required along the edges of boarding platforms in transit.

The technical criteria in the ADAAG specifications for detectable warnings are responsive to concerns that had been raised to the U.S. Access Board about the impact of the truncated dome surface on wheelchair maneuvering. The Access Board has stated that it believes that the revised ADAAG specifications, which permit wider dome spacing, an in-line grid pattern, and smaller surface coverage at curb ramps (24 inches instead of the full ramp length, set back from the curb line) will improve usability of surfaces without affecting detectability.

The Access Board temporarily suspended the requirements for detectable warnings in 1994 due to concerns raised about the specifications, availability of complying products, maintenance issues such as snow and ice removal, usefulness, and safety. This suspension applied to all requirements for detectable warnings except those at boarding platforms in transit stations. The U.S. Departments of Justice and Transportation, which maintain enforceable standards based on ADAAG, joined the Board in this action. As a result, the requirements for detectable warnings were temporarily removed from the ADA standards. The suspension expired on July 26, 2001. Consequently, the requirements for detectable warnings at curb ramps and other areas are again part of ADAAG and the enforceable standard.

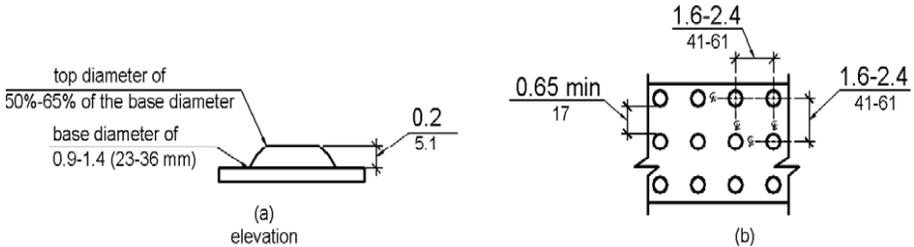
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19.1 Detectable Warning Technical Specifications	Yes	No	Observations
<p><b>19.1.1 Configuration</b> Does the detectable warning consist of raised truncated domes? (705.1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>19.1.2 Dome Size</b> Do the truncated domes in the detectable warning surface have a base diameter of 0.9 inch minimum and 1.4 inches maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch? (705.1.1)</p> 	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>19.1.3 Dome Spacing</b> Do the truncated domes in a detectable warning surface have a center-to-center spacing of 1.6 inches minimum and 2.4 inches maximum, and a base-to-base spacing of 0.65 inch minimum, measured between the most adjacent domes on a square grid? (705.1.2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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19.1 Detectable Warning Technical Specifications	Yes	No	Observations
<p><b>19.1.4 Visual Contrast</b>                      Does the detectable warning contrast visually with adjacent walking surfaces (light-on-dark or dark-on-light)? (705.1.3)</p>	<input type="checkbox"/>	<input type="checkbox"/>	

## 20.0 Controls and Operating Mechanisms

### *Survey Instructions*

A tape measure, an instrument to measure push and pull force, and a digital camera are the principal assessment tools needed to conduct the assessment of controls and operating mechanisms covered by the accessibility standards.

### *Issues for Consideration*

ADAAG states that operable parts on accessible elements, accessible routes, and in accessible rooms and spaces shall be compliant with the standards (for example, light switches and dispenser controls) and shall be accessible including height and operation.

ADAAG contains three exceptions that exempt “special equipment,” and electrical and communications systems receptacles covering operable parts intended only for use by service or maintenance personnel; electrical or communication receptacles serving a dedicated use; and floor electrical receptacles. Operable parts covered by these exceptions are exempt from all the technical requirements for operable parts.

The height of the element being assessed should be of particular concern when conducting control and operating mechanism assessments. The operable portions of controls and operating mechanisms must be within established reach ranges for either a forward or side reach and the maximum height for reaches over obstructions beyond certain depths should be carefully noted. This is important where controls and switches are mounted on walls above counters. The maximum reach height pertains to the highest operable portion of controls and operating mechanisms and includes coin slots or credit card slots. Electrical outlets must be at least 15 inches above the finished floor or ground surface. Connections for equipment not intended for regular use by building occupants, such as receptacles for wall-mounted clocks and refrigerators, are not required to comply.

ADAAG Scoping provision 205.1 provides the following specific exemptions for operable parts:

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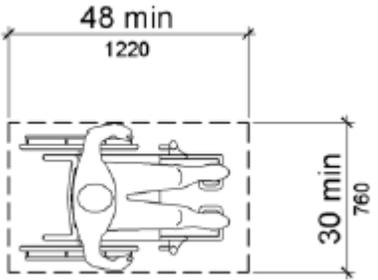
1. Operable parts that are intended for use only by service or maintenance personnel shall not be required to comply with 309.
2. Electrical or communication receptacles serving a dedicated use shall not be required to comply with 309.
3. Where two or more outlets are provided in a kitchen above a length of counter top that is uninterrupted by a sink or appliance, one outlet shall not be required to comply with 309.
4. Floor electrical receptacles shall not be required to comply with 309.
5. HVAC diffusers shall not be required to comply with 309.
6. Except for light switches, where redundant controls are provided for a single element, one control in each space shall not be required to comply with 309.
7. Cleats and other boat securement devices shall not be required to comply with 309.3.
8. Exercise machines and exercise equipment shall not be required to comply with 309.

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DATE: \_\_\_\_\_

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20.1. Controls & Operating Mechanisms Technical Specifications	Yes	No	Observations
<p><b>20.1.1 General</b>                      Operable parts on accessible elements, accessible routes, and in accessible rooms and spaces shall comply with the provisions of ADAAG 309 below. (205.1)</p>			
<p><b>Advisory 205.1 General</b>  <i>Controls covered by 205.1 include, but are not limited to, light switches, circuit breakers, duplexes and other convenience receptacles, environmental and appliance controls, plumbing fixture controls, and security and intercom systems.</i></p>			
<p><b>20.1.2 Clear Floor Space</b>                      Is the clear floor or ground space at the control or operating mechanism 30 inches minimum by 48 inches minimum? (309.2)</p>  <p>The diagram illustrates a control panel with a clear floor space of 48 inches by 30 inches. The panel is shown with a dashed line indicating the clear space dimensions. The panel itself is 1220 units wide and 760 units high. The clear space is 48 inches wide and 30 inches high.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

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20.1. Controls & Operating Mechanisms Technical Specifications	Yes	No	Observations
<p><b>20.1.3 Height</b>                      Is the highest operable part of controls, dispensers, receptacles, and other operable equipment within at least one of the reach ranges specified in Checklist 16 – Maneuvering/Reach Range? (309.3)  <i>NOTE:</i> ADAAG provides for a maximum high forward and side reach of 48 inches and a minimum low forward and side reach of 15 inches.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>20.1.4 Operation</b>                      Are controls and operating mechanisms operable with one hand and do not require tight grasping, pinching, or twisting of the wrist? (309.4)  <i>NOTE:</i> ADAAG requires that the force required to activate operable parts not exceed 5 foot pounds force.</p>	<input type="checkbox"/>	<input type="checkbox"/>	