CHAPTER 10

ACCESSIBILITY DESIGN STANDARDS

SUPPLEMENT TO THE
SFRTA STATION DESIGN GUIDELINES

Revised June 2012 to include 2012 Florida Accessibility Code Changes

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I. INTRODUCTION

To ensure a consistent approach to maintaining existing Tri-Rail Stations and other rail and bus service facilities, and to ensure that improvements, renovations, and construction of public transit facilities are conducted to meet specific standards, these guidelines for the design and alteration of Tri-Rail's revenue and service facilities have been developed and are presented in this chapter of the Station Design Guidelines. The standards and design templates included in this document have been developed with respect to the requirements of the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG) and the Florida Accessibility Code (FAC) (Florida Building Code Chapter 11). These standards and requirements help address issues related to accessibility, passenger comfort, safety/security, operational efficiency, and other considerations at Tri-Rail's stations and service facilities. The standards address the following categories:

- pedestrian access;
- passenger amenities;
- safety and security features;
- information/communication features;
- operational features; and
- parking facilities.

I.A. FEDERAL MANDATE FOR ADA COMPLIANCE

Accessible transportation facilities are mandated by Part 37 of the USDOT Final Rule, 49 CFR, "Transportation for Individuals with Disabilities". Subpart C of the legislation, "Transportation Facilities," requires that all newly constructed transportation facilities be readily accessible to and be usable by individuals with disabilities. In addition, if alterations are made to existing transportation facilities, those alterations are required to be readily accessible to the maximum extent possible.

Because compliance with the accessibility requirements of the ADA is given a high priority by SFRTA and because the accessibility guidelines that must be complied with in the design and construction of new transportation facilities and the renovation of existing facilities are complex, SFRTA has undertaken the development of this chapter of the Station Design Guidelines to include a series of checklists that can be used to verify conformance with the ADA in its facilities.

This chapter also provides instructions for conducting both a plan review and a facility review for ADA compliance and the checklists needed to evaluate the accessibility elements in the plans or facility. The chapter has been tailored for use by SFRTA staff and their consultants including engineers, maintenance and alteration staff, transportation planners, architects and design professionals.

Throughout this chapter and the included checklists, application of the Florida Building Code, Chapter 11, 2012 Florida Accessibility Code requirements are provided where appropriate. Note that the 2012 FAC incorporates requirements from the current USDOT and USDOJ ADA Standards. Text indicating a greater degree of accessibility (more stringent requirement) is bolded to highlight that the State requirement or the Federal requirement differs from the other.

I.B. SPECIAL FACILITY CONSIDERATIONS

The legislation mandating compliance with the Americans with Disabilities Act recognized that the accessibility requirements for certain types of facilities needed to be qualified because of their unique nature. The following sections describe the special requirements that the law prescribes for (1) alterations to transportation facilities, (2) for facilities that may be covered under historic preservation statutes, and (3) for key stations.

I.B.1 Alterations

The effective dates for the standards given in the table provided below apply to both new construction and to alterations. In general, alterations of specific elements or portions of a

facility must be completed in compliance with the requirements for new construction. However, full compliance with the alterations requirements is not required where it is technically infeasible. If an alteration affects or could affect the usability of or access to an area of a facility that contains a "primary function," an accessible path of travel must be provided to the altered area. In addition, restrooms, telephones, and drinking fountains serving the altered area must also be made accessible to the extent that the cost is not "disproportionate" to the cost of the overall alteration. Disproportionality is defined by the Act as a sum not to exceed 20% of the project cost of the alteration to the primary function area.

Table 10.1 Facility Type & Standards

Facility Type	NTP for Construction	Standard
Bus, light rail or rapid rail facilities	Prior to January 25, 1992	UFAS
Intercity or commuter rail stations	Prior to October 7, 1991	UFAS
Bus, light rail or rapid rail facilities	After January 25, 1992	ADAAG
Intercity or commuter rail stations	After October 7, 1991	ADAAG
All transportation facility types	April 9, 2004	ADAAG Revised
Key Stations	July 26, 1993	ADAAG

I.B.2 Historic Preservation

Alterations to a qualified historic building or facility must comply with the standards unless it is determined in accordance with procedures described in the Act that compliance with certain requirements would threaten or destroy the historic significance of the building or facility. In such a case, alternative requirements spelled out in the act may be used.

I.B.3 Key Stations

When the ADA was passed, existing rapid rail, light rail, and commuter rail transportation systems covered by the Act were required to identify "key stations" which were required to be accessible by July 26, 1993. Generally, key stations were considered to be stations with high boarding figures, transfer stations, major intermodal interchange points, end stations, and stations serving major activity centers. The accessibility requirements for key stations differ from those for new stations only in the following: (1) accessible station entrances need not coincide with those used by the majority of the general public, (2) an accessible direct connection to commercial, retail or residential facilities is not required, (3) persons with disabilities may be required to board or alight from a vehicle at a specific location on the platform, and (4) escalator specifications need not be complied with. Where specifications for these elements appear in the checklists, the notation “Not required for key stations.” is provided.

Tri-Rail has 18 commuter rail stations, of which all have been renovated to comply with federal accessibility standards.

I.C. BEST PRACTICES

Much has been documented since the creation of the ADA in 1990 to further the access to facilities and services of transportation systems. The general question that organizations ask is what they should do to be in compliance with disability rights laws. This section provides the best practices of transit organizations in developing and maintaining a position of ADA inclusion throughout the organization and adherence to the basic requirements of the ADA which mandates:

- nondiscrimination;
- equal opportunity (and the provision of any reasonable modifications, auxiliary aids or services necessary to achieve it);

- basic standards of architectural access; and
- equal access to employment, programs, activities, goods and services.

An organization's responsibilities and obligations under the Architectural Barriers Act, Section 504 of the Rehabilitation Act, and Titles I, II and III of the ADA focus on several key requirements. These laws and regulations do not tell organizations how to accomplish these goals. Instead, the laws and regulations have been written to allow as much flexibility as possible.

Achieving accessibility and compliance with disability laws is an ongoing process. Good accessibility practices can maximize the opportunity for compliance while minimizing risks. These practices should complement any existing accessibility efforts and planning that organizations have already undertaken.

The following best practices are provided for consideration by SFRTA in the practice of providing accessible services, facilities, and vehicles. These items are not specifically covered in the SFRTA ADA Checklists as they provide ADA service and program compliance practices whereas the checklists provide architectural specifications for physical accessibility. Most, if not all of these considerations are currently followed by the SFRTA organization, but are provided here in an effort to not exclude provisions of service and nondiscrimination requirements of the ADA from the SFRTA Checklist program.

A. Do not discriminate against individuals with disabilities.

Best Practice: Make nondiscrimination mandatory. Emphasize to employees and contractors that compliance with accessibility requirements and nondiscrimination laws is mandatory. By emphasizing and highlighting these provisions in all contracts, SFRTA makes all entities with which it does business aware of the importance of these provisions.

Best Practice: Make accessibility and nondiscrimination an integral and routine part of day-to-day operations. Secure leadership and institutional commitments from all employees from the board, executive director and management team, to every administrative, production, design and maintenance person, to volunteer docents and ushers. Make this commitment internally and externally visible.

Best Practice: Apply accessibility laws to all functions. Understanding that accessibility laws apply to all functions of the organization whether on-site or off-site is essential. This includes exhibits, conferences, panel meetings, demonstrations, and special events and staff gatherings—no matter where conducted. If an organization sponsors an off-site event, the alternate site must also be accessible. It is important to visit and evaluate a site before committing to it.

Best Practice: With rare exceptions, Section 504, and Titles II and III of the ADA require that organizations provide auxiliary aids and services to ensure effective communication with individuals with hearing or vision loss. These may include services such as qualified interpreters, readers and note takers; devices such as assistive listening systems, accessible computers, written materials for individuals with hearing loss, taped text and Braille or large print materials for individuals with vision loss; and flexibility in procedures, such as work schedules. Organizations should be inclusive in all aspects of their activities. They should create new or re-introduce existing programs and activities in which people with disabilities may participate in an integrated and inclusive environment.

Best Practice: Appoint a staff member to be the accessibility coordinator for the organization's accessibility efforts. The accessibility coordinator becomes the "in-house" expert for guiding the organization, its board, staff, employees, and contractors toward inclusion of people with disabilities and compliance with the ADA and Section 504 regulations. However, remember that compliance and accessibility must be everyone's responsibility.

Best Practice: Establish an access advisory committee. Seek out and include input and advice from knowledgeable individuals with disabilities representing different segments of the disability community. They can:

- educate the organization about legal and social issues related to accessibility;
- evaluate existing programs, policies and facilities; and
- identify areas for improvement; and recommend solutions.

Partnerships with local membership organizations for people with disabilities, parents of disabled children, service agencies, independent living centers, advocacy groups, schools, and local government entities, such as vocational rehabilitation and community service boards may be valuable.

Best Practice: Budget for accessibility. Generally, expenses fall into two categories: capital costs for new construction, alterations, renovations and removing architectural barriers, and program or operating costs for providing effective communication and auxiliary aids. Anticipate ongoing expenses for capital improvements, and for program costs to continue effective communication and to replenish auxiliary aids.

Best Practice: Hire qualified, knowledgeable professionals. Not all architects, designers, contractors and lawyers are familiar with accessibility requirements. Examine the work of these professionals before making commitments, and ask for references from persons in the disability rights community. Further, work with an advisory committee and/or local accessibility organizations to review plans and work as the project progresses.

Best Practice: Plan for accessibility. Working with the access advisory committee, identify the organization's accessibility assets by carefully evaluating four areas: nondiscrimination obligations (including policies, practices and procedures), facility and program accessibility, communications and employment. Then, develop strategies, plans and timelines for addressing strengths and weaknesses. Organizations should be prepared to respond to requests for effective communication such as captioning, sign language interpretation, Braille, or large print materials as well as other requests for accommodations. Implementing access does not have to be difficult or expensive. It can be a creative, engaging and instructive process in which the organization's entire staff participates.

Best Practice: Address every issue and policy with the question, "Does this provide equal access for everyone?" Equal access means making programs and services as close as possible to being the same for everyone and that access is functional, safe, convenient and dignified. Access means entering through the primary entrance of a facility, being able to work, to use a facility and to participate fully in programs and activities.

Best Practice: Educate and train board members, staff, employees, and contractors. Conduct regular training concerning accessibility issues for everyone including board members, executive and management staff, and employees to a level of proficiency in conducting their duties.

Best Practice: Establish an institutional memory on disability issues and compliance efforts. By tracking what it has been done (both good and bad), the organization can avoid costs by not having to "reinvent the wheel" every time a situation arises—whether it is access to a new program, construction or renovation of a facility or employment-related. The accessibility coordinator, the human resources office, the facilities office or the executive director's office might serve as the institutional policy archivist.

Best Practice: Emulate the successful practices of others. Network with other professionals and transit managers, find out what works and does not work, and keep abreast of access innovations and accessibility practices. It is perfectly acceptable for transit entities to incorporate other organizations' successful practices, giving credit where credit is due.

Best Practice: Review accessibility efforts at regular intervals. Routinely review, assess and update the organization's accessibility plans,

programs, policies and practices, in cooperation with the access advisory committee, at regular intervals. Frequent reviews will not only assist the organization in completing its goals, but also will provide a mechanism for revising and updating plans to incorporate fresh ideas, new technologies and other improvements as the organization evolves.

Best Practice: Review all personnel policies for compliance with nondiscrimination laws. The organization should adopt appropriate disability-related policies and monitor their application annually as it would all other employment practices. Policies should include, but not be limited to, reviewing position descriptions to ensure they are current, accurate and do not exclude or screen out persons with disabilities; making sure application forms and interviewers do not ask, directly or indirectly, about a disability; establishing a policy on reasonable accommodation; reviewing health insurance and benefit plans to make sure they do not discriminate; keeping medical information confidential; and having physical examinations be job related, consistent with business necessities.

I.D. ADA CHECKLIST DESCRIPTION, FORMAT, AND ORGANIZATION

The SFRTA ADA Checklists have been developed to be easily understood and oriented toward SFRTA facilities. Use of the checklists provide tools for SFRTA staff to establish quality controls for SFRTA's own work and aids SFRTA staff in planning the scope of ADA improvement or construction projects. The SFRTA checklists have been developed in a manner to consistently provide characteristics to meet the following standards:

- The checklists can be used to determine the extent to which facilities are compliant with ADAAG.
- The checklists are responsive to the specific types of facilities that are the responsibility of SFRTA.
- The checklists are functional and useable by SFRTA technical, professional, and general staff to determine the extent to which SFRTA facilities are compliant with ADAAG.
- The checklists are accurate and correctly interpret and apply ADA requirements.
- The checklists provide a comprehensive array of accessibility criteria applicable to all SFRTA facility types and to all SFRTA transit modes (railroad, rapid rail, light rail, and bus).
- The checklists provide criteria identifying discreet areas of SFRTA passenger and work facilities.
- The checklists are easy to understand interpretations of the ADAAG text provided in subject matter "yes or no" answers to questions asked for each applicable requirement.
- The checklists are formatted by elements such as; entrances, doors, ramps, etc. to allow segmenting assessments of elements or used in total to assess full facilities. This allows the checklists to be used as survey tools to ensure a concise evaluation of the element or facility.
- Each checklist has an introduction section providing specific guidance on the element to be assessed, ADAAG provided discussion on the application of the regulations to the specific element, and any special survey instructions to supplement those provided in this manual. Reference to the Florida Accessibility Code (FAC) requirements are also included in the checklists and where text preceding the checklists identifies a requirement that is more stringent, the text will be in bold font.
- The checklists are arranged in columnar format providing question (with ADAAG section reference), Yes or No answer block column, and a remarks column allowing the assessor space to record information and notes as appropriate.
- Where appropriate, each checklist provides figures, tables, or illustrations within the body of the question asked to allow for a visual

understanding of the regulation being applied.

- Where appropriate, each checklist provides ADAAG advisory language within the body of the question asked to more deliberately explain the requirements of the regulation being applied.
- Each checklist is 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.
- Each checklist provides space for the assessor to record a summary of findings, listed by item number, to allow a quick reference point of deficiencies for a given facility or elements of a facility.

The following table provides a listing of the checklist numbers assigned and the elements they assess.

Table 10.2 CHECKLIST TITLE	
1 Parking	15 Areas of Refuge
2 Accessible Routes	16 Toilet and Bathing Facilities
3 Passenger Drop-Off	17 Signage
4 Curb Ramps	18 Drinking Fountains
5 Entrances	19 Maneuvering/Reach Range
6 Doors and Gates	20 Handrails and Grab Bars
7 Ramps	21 Bus Stops
8 Elevators	22 Stairs
9 Escalators	23 Detectable Warning
10 Ticketing and Automatic Fare Vending	24 Miscellaneous Rooms and Spaces
11 Platforms	25 Controls and Operating Mechanisms
12 Mini-High Platforms	26 Other Facilities
13 Public Address Systems and Clocks	27 Commuter Rail Car
14 Telephones	

I.E. FACILITY OR ELEMENT ASSESSMENT METHODOLOGY AND CHECKLIST USE

The SFRTA ADA checklists present the technical requirements contained in the ADA Accessibility Guidelines (ADAAG) for transportation facilities in a format that permits each of the accessibility elements in a transit facility to be assessed for ADA compliance. The survey forms tell the user what to survey and provides the specific features those elements must have. Many of the ADAAG specifications, such as reach ranges, are repeated on different forms because they apply to more than one element. Some checklists refer you to others for detailed provisions rather than repeating them again.

In general, the checklists contain the ADAAG requirements for new construction. In performing alterations, one must first attempt to meet the requirements for new construction unless it is technically infeasible or special provisions apply. Although the checklists are structured for use on site, they can also be used by architects, facility managers or others to review architectural plans and drawings. Instructions for their use in reviewing plans and drawings are provided later in this section under, Plan Review Methodology.

It is imperative that the individual performing the assessment develop a basic understanding of the use and format of the checklists before

conducting the survey. When a more detailed understanding of the ADAAG requirements are desired, the Access Board web site in particular has numerous documents that explain, in common sense terms, the ADA and the accessibility guidelines (http://www.access-board.gov). The checklists alone, even though every effort has been made to make them as clear and unambiguous as possible, will not provide the user with an understanding of the accessibility regulations due to their formatting as a "yes or no" checklist. Because of this concept for the checklists, the ADAAG requirements have been interpreted and rewritten to be easily understandable allowing the assessor with limited knowledge of the regulations the ability to answer the questions asked.

I.E.1 Pre-Assessment Preparation

In advance of conducting the assessment, security and safety issues that may arise during the course of the assessment should be planned for. Likewise, the tools and documents needed to conduct the assessment should be assembled ahead of time and checked to make sure they are in good working order. Documents such as the ADAAG, multiple copies of checklists, and a photo log should also be assembled in advance of the survey.

A successful ADA facility compliance assessment begins with proper preparation. In addition to planning for security and safety contingencies, it is important the assessor develop a familiarity with the facility being assessed beforehand. With that foreknowledge of the facility, the person conducting the assessment can then determine the specific tools and checklists that will be needed. The following paragraphs describe the necessary security, safety, tool preparation, and site familiarization steps that are needed to conduct a safe and accurate facility assessment.

I.E.2 Security Precautions

If the assessment is being performed by a SFRTA employee, before beginning the assessment, the assessor should contact and advise the station or facility manager that a site assessment will be performed and that photographs will be taken. The transit police should also be advised of the assessment.

When arriving at the facility to conduct the assessment, the assessor should immediately contact the facility or station manager (or construction manager or superintendent if the site is under construction) if one is on site, and show them appropriate SFRTA identification and let them know that an accessibility assessment will be performed and ask that they advise the transit police. If during the course of the assessment a transit officer appears at the facility, the assessor should immediately approach the officer, provide identification, and explain the purpose of the assessment.

If the assessor is a contract employee performing an assessment, the steps described above should be coordinated with the contract technical project officer in order to ensure that station and transit police personnel are made aware of the assessment in advance. The contract technical project officer should provide the assessor with a letter, identifying the individual by name, and stating that the contractor is performing the assessment on behalf of SFRTA. If permitted by SFRTA, the assessor should be issued a temporary identification badge identifying the individual as a contract employee. When arriving at the facility to be assessed, the assessor should identify himself to onsite SFRTA personnel and transit police as described above.

Coordination with SFRTA station personnel and transit police is particularly important if the assessor is planning to assess any emergency communication telephones provided for public use at the facility and, if elevators are provided at the facility, the emergency communications element provided in the elevators.

I.E.3 Safety Precautions

The safety of the individual(s) performing the assessment should be of the highest concern throughout the assessment. Assessors should wear reflective safety vests throughout the assessment. When assessment efforts require proximity to tracks, track crossings, or in vehicular ways, a "buddy system" (or formal

flagging procedures as required by SFRTA operational procedures) should be used to ensure that one person is focused on vehicular safety issues while the second person is concerned with taking measurements and pictures. If the assessment is being conducted by a single individual, extreme care should be used, particularly when rail vehicles or highway traffic are present. If the assessment is being conducted at a site that is under construction or renovation, a hard hat should be worn.

High voltage is a particular concern when working in and around transit facilities. Care should be taken at all times to avoid contact with electrical equipment and "live rails" or overhead power systems. A metal tape measure should never be used in the vicinity of these elements.

SFRTA may require contractor personnel to have completed a state certified rail safety program prior to entering any areas of a facility not accessible to the public or any site under construction. Such requirements would be known to the contract technical project officer and are specified in SFRTA's System Safety and Security Program Plan.

I.E.4 Assemble and Inspect Assessment Tools

A successful site assessment requires considerable preparation of materials and tools that may be needed during the course of the assessment. The tools can be carried conveniently in a satchel that can be carried over the shoulder so that tools can easily be removed and returned to the satchel during the course of the assessment.

- Site Plans and Drawings. These are probably the most important tools you will use when conducting a survey. Plans should include layouts of parking lots or parking facilities that are provided by SFRTA at the facility. If drawings cannot be provided, then sketches will need to be created.
- Tape Measure. You will need a 1/2"- or 3/4"-wide 25-foot tape measure for measuring ramps, stairs, door openings and overhanging objects, and other building elements. A 100-foot tape is useful for measuring corridors, ramps, and walks.
- Pocket Ruler. A 6-inch ruler (or folding rule) is useful for measuring smaller elements such as railing width, lettering height, stair nosing, and uneven surfaces.
- Clipboard. This is an essential writing surface for filling out forms.
- Slope Measuring Tool. An electronic level is an excellent device for measuring slopes. It should be calibrated before each assessment, a simple process that requires only a few minutes, and an additional replacement battery for the unit should be brought along.
- Light meter. A small, hand held light meter is useful for measuring the illumination level in the interiors of facilities, especially elevators and stairwells that are often not well lit or the lighting in them is poorly maintained.
- Door-Pull Scale. You will need a device to measure the pressure required to open a door. A door pressure gauge can be used or an equally effective tool is use of an accurate fish scale.
- Stopwatch. This is required to determine the sweep-time of doors with automatic closers and the closing time of elevator doors. A wrist watch with a stop watch feature will also serve this purpose.
- Pens, Pencils and Chalk. Colored pens and pencils with erasers will facilitate the recording of data and make it easier to interpret at a later date. Color notations on maps and plans are much easier to locate. Chalk is useful in marking segments along a walkway or ramp when extreme distances need to be recorded.
- 60" Circle. A pre-cut 60" diameter circle makes it easy to determine if adequate turning radius for wheelchairs is provided. Felt is a good, inexpensive, and light weight fabric for this purpose.
- Camera and Photograph Log. A photo should be taken to record the condition of each non-compliant accessibility element identified during the assessment and a log used to document the subject and location of each photograph. It is imperative that photo file or

identification numbers generated by the digital camera (if used) be associated to the item on the checklist which shows the deficiency. Trying to assemble reports in concert with photos after several days have passed since the assessment was performed is difficult at best. Attention to detail when logging photos taken during the assessment cannot be overstressed.

- Safety Vest. A brightly colored safety vest will provide improved visibility and add to safety during the assessment. If the assessment is being conducted at a site where renovation or construction is occurring, a hard hat should also be worn.
- Checklists and Guidelines. A full copy of the checklists and a copy of the appropriate accessibility guidelines should be brought along. When the checklists are carried in a three ring binder the user is provided a firm writing surface to record measurements as well, negating the need for a clipboard.

Prior to beginning an assessment, the tools listed above, particularly the electronic level and camera, should be checked to make sure they are in good working order, and any maintenance, such as battery replacement and calibration, is done before beginning the assessment.

I.E.5 Assemble and Review Drawings and Checklists

It is important that drawings of the facility be obtained in advance and are reviewed to help understand the scope of the assessment and to organize the checklists that will be needed. If a building plan is not available, then a tour of the facility prior to the assessment will permit the specific elements that will be assessed to be identified and to prepare sketches of the facility. If drawings are not available and facility cannot be toured in advance of the assessment, then the first order of business upon beginning the assessment will be to “walk” the facility to become familiar with its layout and develop a sketch to identify the number and location of the accessibility elements and accessible paths which must be evaluated.

Whether working from drawings or a sketch, it is critical to label or assign unique numbers to areas and accessibility elements on the drawing or sketch. These labels will be use during the assessment to record observations on the appropriate checklists. Elements such as curb ramps, entrances, and elevators may be encountered numerous times in a facility and each should be given a unique number and its precise location identified on the drawing or sketch. If preparing a sketch of the layout of the facility is necessary, it is also useful to record the compass points and any unique landmarks that may be helpful later in providing orientation while reviewing photographs when assembling data and preparing the assessment report.

The next step in the pre-assessment process is to determine which checklists are needed and to organize them in the order that the accessibility elements will be encountered in the assessment. The assessment methodology described below utilizes a trip segment approach, which entails assessing the accessible elements in a site or facility in the logical order that they are encountered as an individual travels from a point outside of the facility, either the parking area, a drop off zone, or a stop utilized by public transportation such as bus or rail, to the interior spaces of the facility.

The identification of barriers is organized into categories according to the order that the barriers are generally encountered: i.e., exterior routes, parking, entrances, elevators, stairs, restrooms, and interior spaces. Following are the trip segments in a typical rail facility that should be used to guide the organization of the checklists:

- Accessible route between trip origin and the transit facility entrance.
- Accessible route between the transit facility entrance and the fare purchase and collection area.
- Accessible route between the fare purchase and collection area to the boarding platform.
- Accessible route between the boarding platform and the vehicle.

In some cases, multiple elements such as telephones or drinking fountains can be recorded on the same checklist by drawing multiple columns in the "observations" column on the checklist for those items and recording observations in the column assigned each unique telephone or drinking fountain. Other elements, such as mini-high platforms, require a separate checklist for each occurrence of the element.

When the preparation for the assessment is completed, you will have a series of checklists which are sequenced such that they will be used in order as you progress logically through the facility. The heading information should then be completed for each checklist identifying the facility, the date the assessment was conducted, and the date the Notice to Proceed with construction was issued.

I.E.6 Assessment Procedures

The trip segment assessment methodology described earlier provides a coherent, logical assessment process that ensures that each of the accessibility elements required to be accessible in a transportation facility are assessed and that information is captured on the correct checklist. The sequencing of checklists based on their occurrence in the logical origin-to-destination survey will, in most cases; result in a checklist ordering as follows:

- Site Parking
- Auto Drop-off at Station
- Bus Transit to Site
- Route(s) from:
- Parking, Drop-off, Bus Stop and Walk-on to Entrance
- Commercial, Retail or Residential Direct Connections to Entrance
- Entrance Area and Entrance to Fare Vending Area
- Approach and Use of Fare Machines
- Fare Machines through Fare Collection and Use of Fare Collection Equipment
- Ticket Purchase
- Fare Collection Area to Platform(s)
- On the Platform(s) and Access Between Platform(s)
- Platform Access to Vehicle

The pre-assessment security, safety, and materials preparation procedures described earlier will ensure that the necessary materials and tools needed to safely conduct a facility assessment are assembled for the survey.

- Sequenced checklists and facility drawing or sketch. Sequencing of the checklists in the logical order that the accessibility elements will be encountered in the assessment is a critical element in conducting an accurate and thorough assessment.
- Personal Identification and Authorization. If the assessment is being conducted by a SFRTA employee, their identification badge should be visible at all times. If the assessment is being conducted by a contract employee, the individual should be able to provide personal identification with a photo upon request as well as a copy of a letter from SFRTA authorizing him or her to conduct the assessment and to take photographs.
- Copy of the Accessibility Guidelines. Because the questions in the checklists are necessarily brief, it is helpful to have the standards with you to gain a thorough understanding of the full requirements. Also, not every illustration in the guidelines has been included in the checklists. Illustrations are provided in the checklists mostly for those survey questions which cannot easily be stated or understood using words alone.
- Assessment tools. A satchel containing the tools that will be needed should be prepared in the pre-assessment process.

The format of the checklists has been developed to identify existing barriers along a trip segment using simple "how to" instructions. A walk-through of the facility prior to beginning the formal assessment will help you understand the scope of the survey work to be done. Measurements and recordings must be accurate and consistent; the value of the assessment depends on the care taken during the measurement and recording of accessibility barriers.

Most questions in the checklists have an ADAAG section number provided in parenthesis following the question. If, after assessing a particular element, you do not understand the question, look up the section in the guidelines. Additional text or illustrations may be provided in the guidelines that will assist in better understanding a particular question.

The table below shows a typically worded question taken from the Drinking Fountain Checklist. For each element assessed, check "Yes" or "No" to record whether or not the element complies. If the assessor cannot determine whether or not it complies, put a question mark in the box. Do not leave blank boxes because it will confuse someone who later reviews the forms. If the element does not exist, write "N/A" for "Not Applicable" in the "Observation" column.

Table 10.3 Drinking Fountain Technical Specifications	Y	N	Observations
18.1.1 Minimum Required Are at least two drinking fountains provided, one being wheelchair accessible and the other designed to accommodate people who have difficulty bending or stooping? *(211.2)* EXCEPTION: Single units that provide both types of access are permitted as an alternative to multiple installations. Where fractions result (i.e., provision of an odd number of units), rounding up or down is permitted.	☐	☐	

Extra space is provided for the user to elaborate where a simple "yes" or "no" is insufficient. Note as precisely as possible what the problem is; for example, "clear opening width only 29 inches," "hand rail diameter 4 inches," or "ramp slope 1:10." This information will assist those using the assessment results at a later date to design remediation approaches or to evaluate which changes might be more critical in providing access.

When a deficiency is encountered, it is useful to take at least two pictures to document the observation - one picture to document the actual measurement and another to document the precise location of the observation. An example of such a combination of pictures might be a deficient curb ramp on the accessible path to a station entrance. A picture should be taken of the deficiency, perhaps a picture of the face of the electronic level showing an excessive slope reading, and wide angle pictures showing the path of travel to the curb ramp and away from the ramp. Care should be taken to record a description of each photograph taken in the photo log.

Photographs are very useful in recording observations that do not lend themselves to written or graphic description. It is important to maintain a photograph log and record on it the compass direction of the view, i.e., "View south along platform from elevator entrance" and pertinent details about the element being photographed, i.e., "light post protrude into accessible path reducing width to 32 inches". Photographs also provide good documentation for "before" and "after" conditions. A digital camera that records pictures in the 4 to 5 mega pixel range is best suited for site assessments. The higher pixilation permits elements of a picture to be expanded and cropped to show very small features. Care should be taken to bring along spare camera batteries and memory cards as necessary.

As described earlier, the assessment methodology utilizes the trip segment approach, which entails assessing the accessible elements of a location in the logical order that they are encountered as an individual travels from a point outside of the building, either the parking area, a drop off zone, or a stop utilized by public transportation such as a nearby bus stop, to the interior spaces of the building. The checklists should be organized into categories according to the order that the barriers are generally encountered: i.e., exterior routes, parking, entrances, elevators, stairs, platforms, and interior spaces.

Be accurate and consistent when measuring and recording readings; the value of captured data will depend on the care taken during the audit. Three areas in particular are troublesome when recording observations.

I.E.7 Electronic Level Readings

In recording both running and cross slopes on ramps or other surfaces, it is critical that the electronic level be placed in the center of the ramp surface exactly parallel to the ramp direction and perpendicular to the end of the ramp when measuring the running slope (the path of travel) and perpendicular to the side of the ramp when measuring cross slope (perpendicular to the path of travel). A skew to either side of perpendicular can reduce the reading on the level by as much as three percent (3%).

I.E.8 Undulating Ramp Slopes

An additional problem with taking running slope measurements is getting a consistent reading from the electronic level over the entire length of the slope. Unless a four foot level is used or the electronic level is mounted on a four foot straight edge, then several measurements should be taken at frequent intervals along the running slope and an average of the readings recorded.

I.E.9 Tape Measure Readings

It is common for a tape measure to be placed in a vertical measurement position that is not perpendicular to the surface and a false measurement taken. When readings must be taken in locations that are difficult or awkward to reach, particularly when reach around an object is required, it is useful to square the vertical using the electronic level before taking the measurement.

Before leaving a facility after completing an assessment, it is useful to find a quiet location and review each checklist and the photograph log to ensure that all observations have been recorded in adequate detail and that the photograph log reflects an entry documenting pertinent details for each observation. Post assessment reviews are extremely important when more than one facility is assessed in a day or multiple facilities are being assessed that have similar features that could lead to confusion during the assessment report preparation effort.

I.E.10 Report Preparation

The information collected in the assessment should be assembled and presented in narrative form that will permit the non-compliant elements to be identified and remediated using the assessment report without the aid of the person that did the assessment. The report should provide a brief description of the facility, the purpose of the assessment, a sketch or drawing of the facility showing the location of all noncompliant elements documented in the report, and a narrative describing each of the noncompliant elements identified in the survey.

The narrative portion of an assessment report for a complex facility should list each noncompliant element, describe the reason the element was not compliant and relate it to a position on the sketch or drawing with a unique number, give the measurement or reading taken for the element, and cite the accessibility standard that was not met.

I.E.11 Plan Review Methodology

An accessibility plan review is the study of proposed design drawings and specifications at the 30%, 65%, and 95% (or similar) complete stages that is done to determine compliance with accessibility standards for the accessibility elements on the plans. The plans can be for a new structure or for the renovation of an existing facility. Beginning with the site plan and progressing through the plans, elevations, sections and details, the review should identify and document all non-compliant accessibility elements for which a standard exists.

The methodology used to conduct a plan review entails using the trip segment approach provided earlier in the description of the facility assessment methodology in the previous section. The segments are the path of travel between (1) the trip origin and the transit facility entrance, (2) the transit facility entrance and the fare purchase

and collection area, (3) the fare purchase and collection area to the boarding platform, and (4) the boarding platform and the vehicle. The assessment is performed by locating and tracing the path of travel for each of the four basic trip segments on the plans and verifying the detail for the accessibility elements with the corresponding checklist for compliance.

In reviewing the trip segments on the plans, the functional elements that should be addressed are the physical components of the segment, including access roadways and walkways, passenger loading areas, parking, bus stops, entrances, ticketing/fare vending, elevators, escalators, stairs, ramps, platforms, and signage. Each of these components should be reviewed against the appropriate checklist for conformance with the specifications for such characteristics as width, clear height, surface texture, slope, cross slope, changes in level, protruding objects, and the presence of required signage on the drawings.

Tracing the path of travel for each trip segment, the reviewer will should identify each noncompliant element or unstated requirement on the plans, identify the applicable accessibility standard for the element, and record the details of the noncompliant element and the corrective action needed.

Depending on the size and complexity of the planned facility or the renovations planned for an existing facility, the plan review assessment report may range from a few pages to a comprehensive package including reference architectural drawings and further referrals. The report should identify the station, cite the specific set of plans being reviewed, identify the reviewer(s), and give the date the plan review was conducted.

The report narrative should generally provide three key elements of information for each observation: the plan/page number that the observation pertains to, cite the accessibility standard that applies to the observation, and describe the noncompliant element in as much detail as possible. The comments may document noncompliant accessibility elements, may identify accessibility elements that have been omitted from the plans, or may direct that specifications be added for accessibility elements on the plan to ensure that specific specifications are complied with in the construction stage.

II. PARKING

Accessible parking is required in all parking facilities where SFRTA has ownership, maintenance responsibility, or receives revenue from fees charged for parking at a facility.

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.

In the ADAAG, the term "parking facility" is used in 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.

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.

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.

The 2012 Florida Building Code, Chapter 11 – Accessibility (Florida Accessibility Code – FAC) specifies dimensions for accessible parking spaces that exceed ADAAG and the universal parking spaces dimensions and require vehicle spaces to be at least 12 feet wide minimum. Additionally, FAC requires that all spaces must be located on an accessible route no less than 44 inches wide so that users will not be compelled to walk or wheel behind parked vehicles. Access aisle requirements are the same as ADAAG. **FAC also specifies accessible space**

lines be blue in color. Therefore, the FAC requirements listed here exceed ADAAG requirements and must be applied to accessible parking spaces provided in Florida. The elements provided in the parking checklist below provide the necessary requirements to meet all applicable federal and state codes.

ADA CHECKLIST 1 □ 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, it is helpful to obtain an as-built drawing of the parking facility. The drawing will permit counting of the number of spaces in the lot or lots and to calculate the number of required accessible spaces. If the drawings identify the accessible spaces, determining the proximity of the spaces to the accessible entrance or entrances can be accomplished. 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.

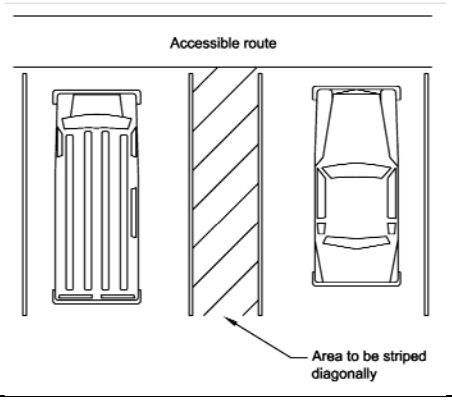
FACILITY: **DATE:**

1.0 Parking Technical Specifications	**Yes**	**No**	**Observations**
1.1 Number - Accessible Parking Spaces 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)*	□	□	

Total Parking in Area/Lot or Structure	**Required Minimum Number of Accessible Spaces**
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20 plus 1 for each 100 over 1000

Record numbers of spaces and accessible spaces in observations column.
Counts taken from physical count? □ From drawing? □

1.2 Each Area/Lot 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.	□	□	

1.0 Parking Technical Specifications	Yes	No	Observations
1.3 Van Accessible Spaces Is one in every six or fraction of six, accessible parking spaces (but not less than one) designated "van accessible" by a sign? *(208.2.4)*	☐	☐	
1.4 Location - Serving Accessible Entrance 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)*	☐	☐	
Florida Accessibility Code: Is the pathway connecting the accessible parking space access aisle no less than 44 inches wide and does not require users to walk behind parked vehicles? *(FAC 208.3.1)*	☐	☐	
1.5 Serving Multiple Accessible Entrances 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)*	☐	☐	
1.6 Separate Parking Facility 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? *(208.3.1)* Exceptions: 1. All van parking spaces shall be permitted to be grouped on one level within a multi-story parking facility. 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.	☐	☐	
Advisory 208.3.1 General Exception 2. 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.			
1.7 Parking Spaces and Access Aisles - Width of Parking Space Are accessible parking spaces, including van spaces, at least 144 inches wide with a demarcated access aisle with space and access aisle lines painted blue? (Two spaces may share a common aisle.) *(FAC 502.2)*  	☐	☐	

1.0 Parking Technical Specifications	Yes	No	Observations
1.8 Width of Car Access Aisles Are access aisles at least 60 inches wide? *(502.3.1)*	☐	☐	
1.9 Marking of Access Aisles Are access aisles marked so as to discourage parking in them with blue painted diagonal lines? *(502.3.3 and FAC 502.6.1)*	☐	☐	
1.10 Level 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)*	☐	☐	
1.11 Surfaces Are the surfaces of parking spaces and access aisles stable, firm, and slip resistant and located on the same level (elevation)? *(502.4)*	☐	☐	
Advisory 502.4 Floor or Ground Surfaces. 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.			
1.12 Access Aisle and Accessible Route Does each access aisle connect directly to an accessible route? *(206.2.1)* (If so, use Checklist 2: Accessible Route) Are access aisles placed so that the accessible route(s) do not compel users to walk or wheel behind parked vehicles other than their own vehicle? *(FAC 502.3)*	☐ ☐	☐ ☐	
Advisory 502.3 Access Aisle. 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.			
1.13 Location of Access Aisles Are access aisles placed so as to not overlap the vehicular way? *(502.3.4)* 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.	☐	☐	
1.14 Width of Accessible Route Is the accessible route a full 44 inches wide and not reduced in width by vehicles overhanging parking space(s)? *(FAC 502.3)*	☐	☐	

1.0 Parking Technical Specifications	Yes	No	Observations
1.15 Signs - Accessible Parking Spaces 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)* 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. In accordance with FAC, are accessible spaces posted with a permanent above-grade sign bearing the international symbol of accessibility, meeting the requirements of color and design approved by the Department of Transportation, of Section 703.7.2.1 and the caption “PARKING BY DISABLED PERMIT ONLY.” Such sign erected after October 1, 1996, must indicate the penalty for illegal use of the space. *(FAC 502.6.1)*	☐	☐	
1.16 Van Accessible Spaces 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)*	☐	☐	
1.17 Van Accessible Spaces - Vertical Clearance Do van accessible spaces have a vertical clearance of at least 98 inches? *(502.5)*	☐	☐	
1.18 Vehicular Access Route - Vertical Clearance Does one vehicular access route to and from van accessible spaces have a vertical clearance of at least 98 inches? *(502.5)* Note: Van accessible spaces may be grouped on one level of a parking structure.	☐	☐	

III. ACCESSIBLE ROUTE

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.

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%); parking; public transportation stops; passenger loading zones; doorways; ramps; curb ramps excluding the flared sides; elevators; and platforms.

Accessible routes generally correspond to typical trip segments used by patrons arriving, entering, and traveling through the site or facility:

- Accessible route between point of arrival (bus stop, parking, passenger drop-off, etc.) and the transit facility entrance.
- Accessible route between the transit facility entrance and the fare purchase and collection area.
- Accessible route between the fare purchase and collection area to the boarding platform.
- Accessible route between the boarding platform and the vehicle.

If conducting assessments, 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 Checklist 2, Accessible Route on the following pages.

ADA CHECKLIST 2 – ACCESSIBLE ROUTE

Survey Instructions. 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 to illustrate pathways. Notations should be made on the sketches where accessibility elements are located.

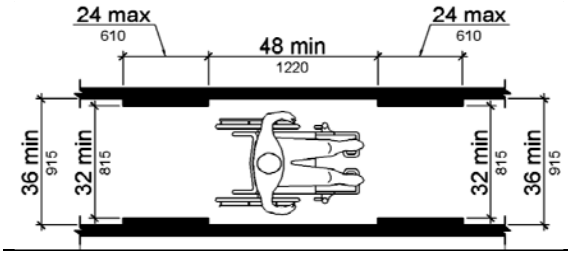
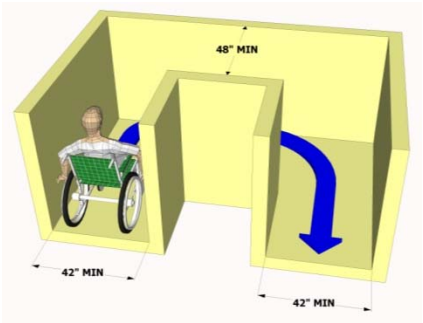
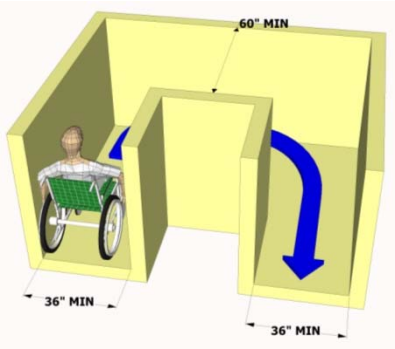
Issues to be Aware of. A checklist should be completed for each accessible route identified at a site or facility.

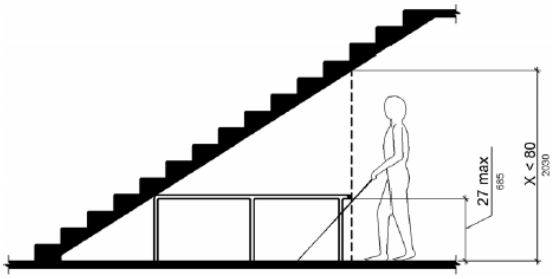
FACILITY: **DATE:**

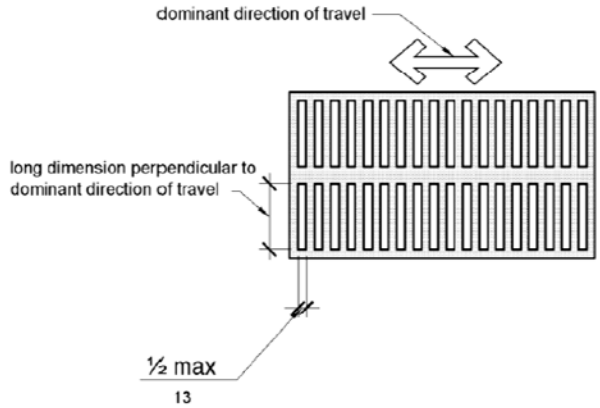
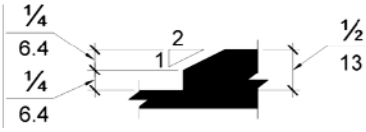
ACCESSIBLE ROUTE DESCRIPTION:

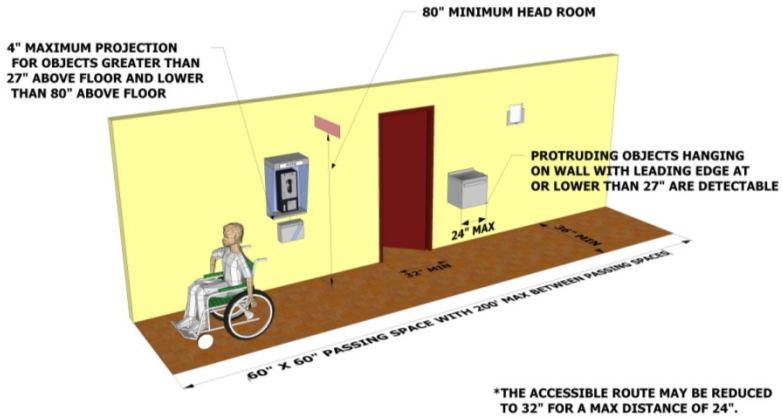
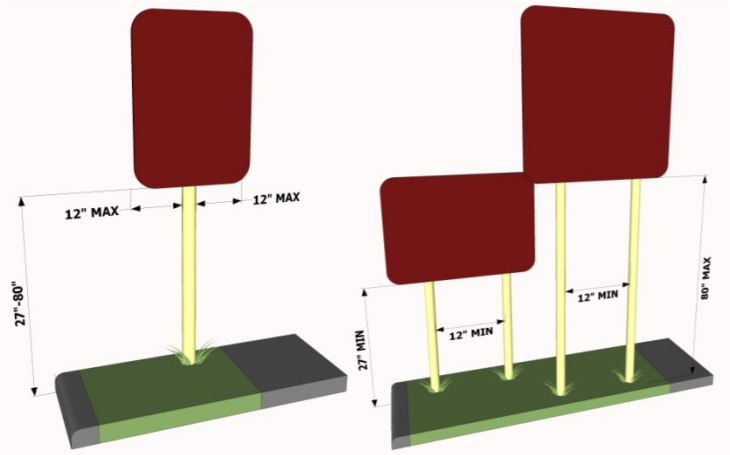
2.0 Accessible Route Technical Specifications	**Yes**	**No**	**Observations**
2.1 Accessible Route Site - Public Transportation Is there an accessible route within the boundary of the site linking an accessible building entrance with the following, if provided: public transportation stops; passenger loading zones; public streets, sidewalks, and all levels of the facility? (*206.2.1)* Identify and complete a separate checklist for each route required to be accessible. 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.	☐	☐	
Advisory 206.2.1 Site Arrival Points. 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.			
2.2 Route for General Public Does the accessible route generally coincide with the route for the general public including interior circulation paths, to the maximum extent feasible? *(206.3)*	☐	☐	
Advisory 206.3 Location. 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.			
2.3 Directions to Accessible Route and Entrances Where the accessible route diverges from general public route, do signs show direction to accessible entrance and route? *(216.4.3)*	☐	☐	
2.4 Directional Signage at Non-Accessible Entrances 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)*	☐	☐	

2.0 Accessible Route Technical Specifications	Yes	No	Observations
2.5 Accessible Means of Egress 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 17 – Signage)? *(216.4.1)*	☐	☐	
Advisory 216.4.1 Exit Doors. 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.			
2.6 Symbols Signage includes International Symbol of Accessibility*? (216.1, 703)*	☐	☐	
If provided, are the following elements identified by the International Symbol of Accessibility?			
(a) Accessible parking spaces?	☐	☐	
(b) Accessible passenger loading zones?	☐	☐	
(c) Accessible entrances when not all are accessible?	☐	☐	
(d) Accessible toilet and bathing facilities when not all are accessible?	☐	☐	
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)*	☐	☐	
Are visual characters on signs located no lower than 40 inches above the finished floor or ground surface? *(703.5.6)*	☐	☐	
2.7 Room Identification Signs Are signs which designate permanent rooms and spaces compliant with ADAAG requirements (use Checklist 17 - Signage)? *(216.2)*	☐	☐	
2.8 Pictograms If pictograms are provided as designations of permanent interior rooms and spaces, are the pictograms compliant with ADAAG 703.6 (use Checklist 17 – Signage) and are text descriptors of the pictograms provided? *(216.2)*	☐	☐	
Advisory 216.2 Designations. 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.			
2.9 Directional and Informational Signs Are signs which provide direction to, or information about, functional spaces of the building, compliant with ADAAG requirements (use Checklist 17 - Signage)? (*216.3)*	☐	☐	
Advisory 216.3 Directional and Informational Signs. 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.			

2.0 Accessible Route Technical Specifications	Yes	No	Observations
2.10 Accessible Route Width Is the width of the accessible route at least 36 inches? *(403.5.1)* EXCEPTION: 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.  	☐	☐	
2.11 Clear Width at Turns 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)*   	☐	☐	
2.12 Passing Spaces 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)*	☐	☐	
2.13 Provisions for Persons Who Are Blind - Head Room Is there at least 80 inches clear head room on the accessible route? *(307.4)* EXCEPTION: Door closers and door stops shall be permitted to be 78 inches minimum above the finish floor or ground.	☐	☐	

2.0 Accessible Route Technical Specifications	Yes	No	Observations
1.14 Cane Detectable Barrier – Head Room If there is less than 80 inches clear head room in an area adjoining an accessible route, is there a cane detectable barrier within 27 inches of the floor? *(307.4)* 	☐	☐	
2.15 Surface Surface is stable, firm and slip resistant? *(302.1)*	☐	☐	
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.			
2.16 Cross Slope Is the cross slope of the accessible route no greater than 1:48 (2%)? *(403.3)* Note: Cross slope is the slope of the surface perpendicular to the direction of travel.	☐	☐	
2.17 Running Slope Is the running slope of the accessible route no greater than 1:20 (5%)? *(403.3)* Note: Running slope is the slope of the surface parallel to the direction of travel.	☐	☐	
2.18 Ramp Requirements Where the slope is greater than 1:20 (5%), does the sloped segment of the walkway comply with the requirements for ramps (use Checklist 7 - Ramps)? *(303.4, 402.2, 403.3)*	☐	☐	
2.19 Platform Slope Is the slope of the rail platform no greater than 1:48 (2%) in any direction? *(810.5.1)* EXCEPTION: 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.	☐	☐	

2.0 Accessible Route Technical Specifications	Yes	No	Observations
2.20 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)*  	☐	☐	
2.21 Track Crossing 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 ½ inch gap on the inner edge of each rail? *(810.10)* 	☐	☐	
2.22 Changes In Level 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)*  	☐	☐	
Advisory 303.3 Beveled. A change in level of ½ inch (13 mm) is permitted to be ¼ inch (6.4 mm) vertical plus ¼ inch (6.4 mm) beveled. However, in no case may the combined change in level exceed ½ inch (13 mm). Changes in level exceeding ½ inch (13 mm) must comply with 405 (Ramps) or 406 (Curb Ramps).			
Are curb ramps, ramps, or elevators used for changes in level greater than 1/2 inch? *(303.4)* Note: Lifts may only be used in certain limited situations in new construction.	☐	☐	
Are the curb ramp, ramp, or elevator compliant? (Use Checklist 4 - Curb Ramps; Checklist 7 - Ramps; or Checklist 8 - Elevators)	☐	☐	

2.0 Accessible Route Technical Specifications	Yes	No	Observations
2.23 Protruding Objects: 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)* Exception: Handrails may protrude up to 4-1/2 inches.  	☐	☐	
Advisory 307.2 Protrusion Limits. 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).			
2.24 Post Mounted Protruding Objects 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)* EXCEPTION: The sloping portions of handrails serving stairs and ramps are not required to comply with 307.3.  	☐	☐	
2.25 Clear Width at Protruding Objects Is there an accessible path at least 36 inches clear alongside the protruding object? *(307.5)*	☐	☐	

IV. PASSENGER LOADING ZONE

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.

Tri-Rail's existing station layouts include passenger loading zones at most stations and comply with the original ADAAG specified requirements. This arrangement will not satisfy the revised ADAAG due to the multiple accessible loading zones requirement stated above. Specifically, if a length of curb space is provided at a facility that is greater than 100 linear feet in distance, a second or more accessible passenger loading zones will be required to satisfy the revised regulations. When alterations or restriping of existing passenger loading zone areas are accomplished, upgrading to the new requirements will be necessary.

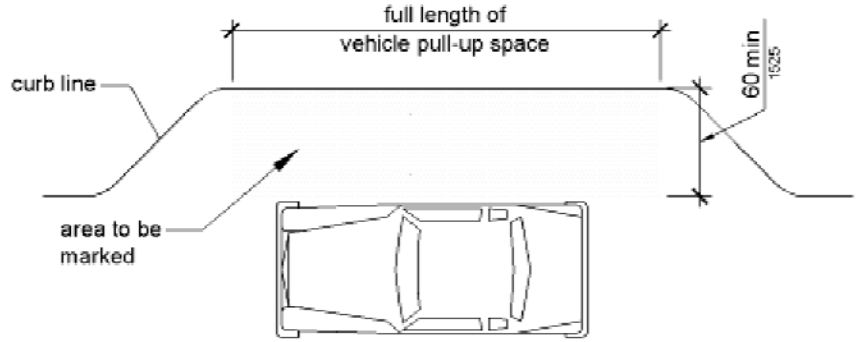
Checklist 3 – Passenger Loading Zone is provided on the following pages and provides detailed accessibility requirements dictated by ADAAG. Use of the checklist for plans or facility reviews will provide a compliance perspective and answer questions concerning areas needing improvement.

ADA CHECKLIST 3 – PASSENGER LOADING ZONE

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

Issues to be Aware of. The major issue to be aware of in assessing passenger loading zones is the number of passenger loading zones required by the ADA Accessibility Guidelines (ADAAG).

FACILITY: **DATE:**

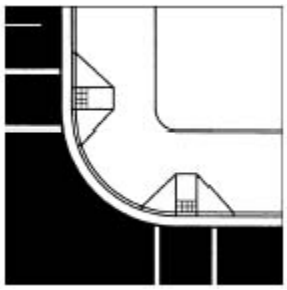
3.0. Passenger Loading Zone Technical Specifications	Yes	No	Observations
3.1 Passenger Loading Zones If passenger loading zones are provided, is there at least one in every continuous 100 linear feet of loading zone space, or fraction thereof? *(209.2.1)*	☐	☐	
3.2 Vehicle Pull-Up Space Does the loading zone provide a vehicular pull-up space 96 inches wide minimum and 20 feet long minimum? *(503.2)*	☐	☐	
3.3 Access Aisle Is there an access aisle adjacent to the vehicle pull-up space? *(503.3)*	☐	☐	
3.4 Overlap Vehicular Way Does the access aisle adjoin the accessible route, but not overlap the vehicular way? *(503.3)*	☐	☐	
3.5 Aisle Width Is the access aisle at least 60 inches wide? *(503.3.1)*	☐	☐	
3.6 Aisle Length Do the access aisles extend the full length of the vehicle pull-up spaces they serve? *(503.3.2)*	☐	☐	
3.7 Marking Is the access aisle marked so as to discourage parking in it? *(503.3.3)*  	☐	☐	

3.0. Passenger Loading Zone Technical Specifications	Yes	No	Observations
3.8 Floor and Ground Surfaces Is the vehicle pull-in space and access aisle surface stable, firm and slip-resistant? *(503.4)*	☐	☐	
Is the access aisle level, with no slope greater than 1:48 (2%) in all directions? *(503.4)*	☐	☐	
Are the vehicle pull-up space and access aisle at the same level with no changes in level? *(503.4)*	☐	☐	
3.9 Vertical Clearance 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)*	☐	☐	

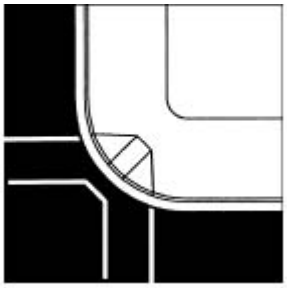
V. CURB RAMPS

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.

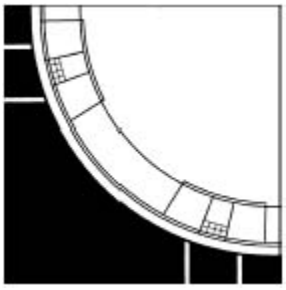
There are three basic curb ramp designs: curb ramps that are perpendicular to the curb line, diagonal to the curb line (also referred to as a corner curb ramp), and parallel to the curb line as shown below.



Perpindicular Curb Ramp



Diagonal Curb Ramp



Parallel Curb Ramp

The requirements for each type of curb ramp are provided in the technical specifications provided in ADA Checklist 4 – Curb Ramps, 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 November 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 November 29, 2006, should have detectable warning material applied in compliance with the original ADAAG Section 4.29, and curb ramps constructed after November 29, 2006, must have detectable warning material compliant with revised ADAAG Section 705.

The 2012 Florida Accessibility Code requires that curb ramps provide a clear width of 44 inches which exceeds the ADAAG requirement for a minimum 36 inches clear width. All other accessibility aspects for curb ramps specified by ADAAG meet or exceed FAC requirements and examined in this checklist. Additionally, FDOT design standard Index 304 dictates curb ramp width at 48 and 60 inches dependent on curb ramp designs fitting specific environmental conditions.

ADA CHECKLIST 4 – CURB RAMPS

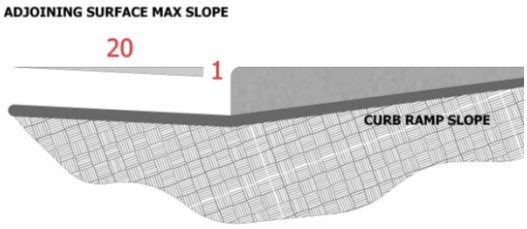
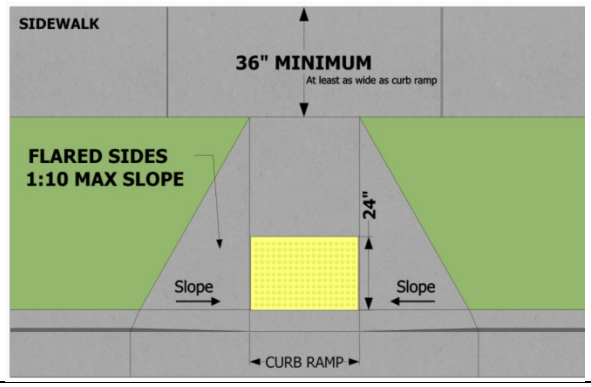
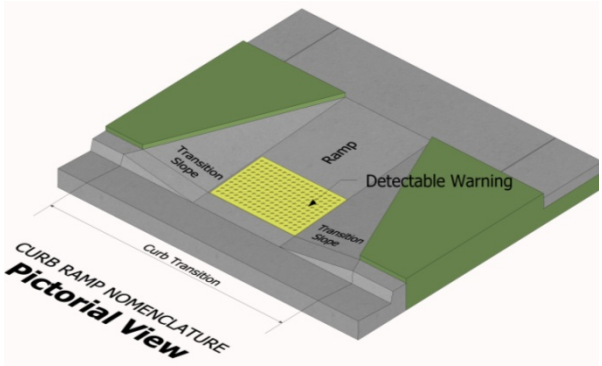
Survey Instructions. A 25-foot tape measure, an electronic level to measure slopes, and a digital camera are the principal assessment tools needed to conduct curb ramp assessments.

Issues to be Aware of. 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 January 26, 1992, should be ignored for purposes of this checklist.

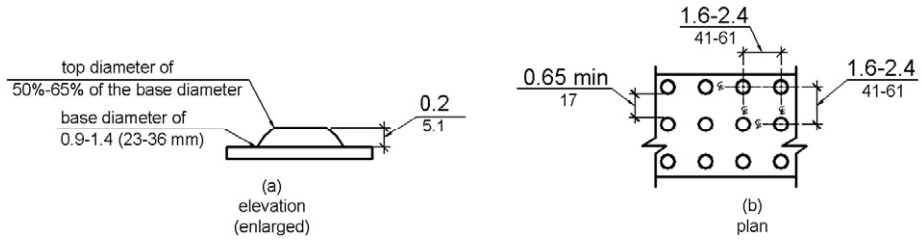
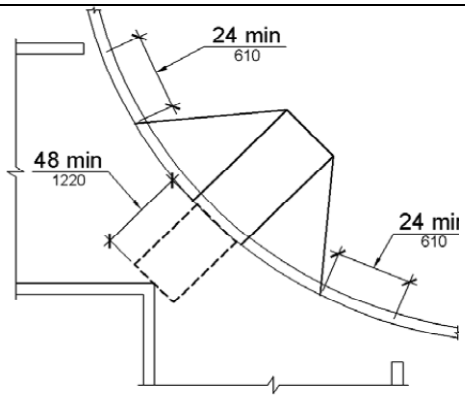
Care should be taken to capture all noncompliant aspects of a particular curb ramp in the "Observations" column next to each technical specification. Note precisely what the noncompliant aspect of the curb ramp is. For example, "clear width of curb ramp only 29 inches," "running slope of curb ramp is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

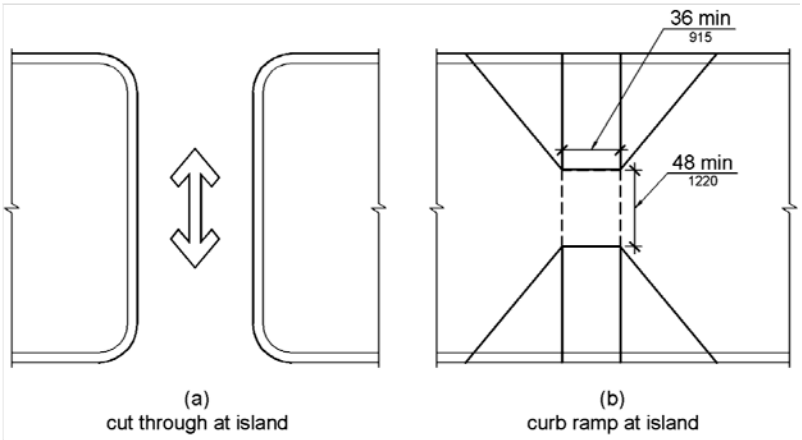
FACILITY: **DATE:**

4.0 Curb Ramp Technical Specifications	**Yes**	**No**	**Observations**
4.1 Curb Ramp Locations and Identification Are there curb ramps located on the accessible route(s) within the boundary of the site? *(406)* 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. Curb Ramp #1: Curb Ramp #2: Curb Ramp #3: Curb Ramp #4: Curb Ramp #5: Curb Ramp #6:	☐	☐	
4.2 Curb Ramps on Accessible Route Is a curb ramp provided at each location wherever the accessible route crosses a curb? *(303.4,406.1)* Also identify and record all locations on accessible routes where a curb is encountered and a curb ramp is not provided:	☐	☐	

4.0 Curb Ramp Technical Specifications	Yes	No	Observations
4.3 Counter Slope Are the running slopes of adjoining gutters, roads or accessible route surfaces immediately adjacent to the curb ramp no greater than 1:20 (5%)? *(406.2)*  	☐	☐	
4.4 Changes in Level at Transitions 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)*	☐	☐	
4.5 Side Flare Slope If side flares are provided on curb ramps, is the slope of the side flares equal to or less than 1:10 (10%). *(406.3)*  	☐	☐	
4.6 Landings Are landings at least 36 inches long and at least as wide as the curb ramp (excluding side flares) provided at the top of the curb ramp slope? *(406.4)* Exception: In alterations, landings are not required at existing sites, so long as the curb ramp side flares are no steeper than 1:12 (8.33%). *(406.4)* If this condition exists, are the side flares no steeper than 1:12?  	☐ ☐	☐ ☐	

4.0 Curb Ramp Technical Specifications	Yes	No	Observations
4.7 Curb Ramp Location Requirements			
4.7.1 Crosswalks Are curb ramps at crosswalks wholly contained within the crosswalk lines, except for the flared sides? *(406.5)*	☐	☐	
4.7.2 Parked Vehicles Are curb ramps located or protected to prevent their obstruction by parked vehicles? *(402.2)*	☐	☐	
4.7.3 Traffic Lanes 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)*	☐	☐	
4.8 Width of Curb Ramp Is the width of the curb ramp, not including the flared sides, at least 36 inches? *(403.5.1, 405.5)*	☐	☐	
Is the clear width of curb ramps along accessible routes from accessible parking to a facility entrance, not including the flared sides, at least 44 inches? *(FAC 502.3)*	☐	☐	
4.9 Curb Ramp Surface Is the surface of the curb ramp stable, firm, and slip resistant and have adjacent areas been constructed to prevent accumulation of water? *(302.1, 405.4, 405.10)*	☐	☐	
4.10 Running Slope of Curb Ramp Is the running slope (slope parallel to direction of travel) of the curb ramp surface 1:12 (8.33%) or less? *(405.2)* If not, record slope for each noncompliant curb ramp: Exceptions: At existing sites, buildings, and facilities where space limitations exist, ramps may have a running slope steeper than 1:12 as follows. 1) For a maximum rise of 3 inches, slope must be 1:10 (10%) to 1:8 (12.5%). 2) For a maximum rise of 6 inches, slope must be 1:12 (8.33%) to 1:10 (10%). 3) A slope steeper than 1:8 (12.5%) is prohibited.	☐	☐	
4.11 Cross Slope of Curb Ramp Is the cross slope of the curb ramp surface greater than 1:48 (2%)? *(405.3)*	☐	☐	
4.12 Detectable Warning			
4.12.1 Detectable Warning Provided Does the curb ramp have a detectable warning? *(USDOT Final Rule / FAC 406.8)*	☐	☐	
4.12.2 Truncated Domes Does the detectable warning consist of raised truncated domes? *(705.1)*	☐	☐	

4.0 Curb Ramp Technical Specifications	Yes	No	Observations
4.12.2.1 Truncated Dome Size 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)*  	☐	☐	
4.12.2.2 Truncated Dome Spacing 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)*	☐	☐	
4.12.3 Detectable Warning Visual Contrast Does the detectable warning contrast visually with adjoining surfaces (light-on-dark or dark-on-light)? *(705.1.3)*	☐	☐	
4.13 Diagonal Curb Ramps			
4.13.1 Curb Direction 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)*	☐	☐	
4.13.2 Maneuvering Space 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)*	☐	☐	
4.13.3 Crosswalk Clear Area 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)* *Note: Figure at right, shows crosswalks on left at diagonal curb ramp on right and clear 48 inch landing area within marked crossing.*  4.13.4 Curb Space in Crosswalk 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)*			

4.0 Curb Ramp Technical Specifications	Yes	No	Observations
4.14 Islands 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)*  	☐	☐	

VI. ENTRANCES

Entrances to Tri-Rail stations are generally well identified and marked with signage. All station entrances are also typically accessible.

The ADA Accessibility Guidelines (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.

ADA CHECKLIST 5 – 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, 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.

FACILITY: **DATE:**

5.0 Entrance Technical Specifications	**Yes**	**No**	**Observations**
5.1 Existing Facilities For existing facilities, is there at least one accessible entrance to the station/facility? *(206.4, 206.4.4.3)*	☐	☐	
5.2 New Construction For new construction of facilities, are at least 60 percent of the public entrances accessible? *(206.4.1)*	☐	☐	
5.3 Entrances from Tunnels or Elevated Walkways 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? *(206.4.3)*	☐	☐	
5.4 Parking Structure Entrances 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? *(206.4.2)*	☐	☐	
5.5 Multiple Transportation Facilities 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)* EXCEPTION: Retrofitted entrances to key stations and existing intercity rail stations are not required to comply with this requirement.	☐	☐	
5.6 Direct Connections 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)*	☐	☐	

5.0 Entrance Technical Specifications	Yes	No	Observations
5.7 Future Direct Connections 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)* EXCEPTION: In key stations and existing intercity rail stations, existing direct connections are not required to comply with this requirement.	☐	☐	
5.8 Entrance Door At each accessible entrance to a building or facility, is there at least one accessible door, doorway, or gate (use Checklist 6 – Doors and Ramps)? *(206.5.1)*	☐	☐	
5.9 Site Arrival Points 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? *(206.2.1)* Exceptions: 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. 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.	☐	☐	
Advisory 206.2.1 Site Arrival Points. 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.			
5.10 Entrance Signage 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? *(810.6.1)*	☐	☐	
5.11 Undefined Entrance Signage 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)*	☐	☐	
Advisory 810.6 Rail Station Signs Exception. Emerging technologies such as an audible sign system 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 wayfinding information that cannot be efficiently conveyed on Braille signs.			

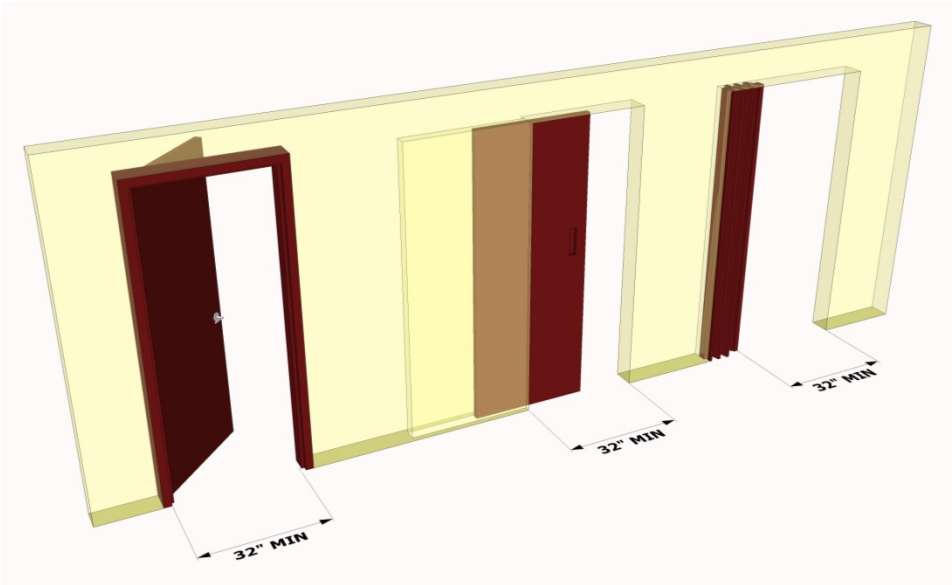
5.0 Entrance Technical Specifications	Yes	No	Observations
5.12 Multiple Entrances Signage If there are multiple entrances and not all entrances are accessible, is there signage at each non-accessible entrance directing passengers to the nearest accessible entrance and are such signs located to minimize backtracking? *(216.6)*	☐	☐	
5.13 Entrance Designation When not all entrances are accessible, is the accessible entrance designated with the accessibility symbol? *(216.6)*	☐	☐	
Advisory 216.6 Entrances. 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.			
5.14 Exit from Facility 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 17 – Signage)? *(216.4.1)* Note: ADAAG 216.4.1 is applicable to exit doors at passageways, exit discharge, and exit stairways in addition to accessible entrance/exit points.	☐	☐	
Advisory 216.4.1 Exit Doors. 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.			
5.15 Security Systems at Entrances 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)* EXCEPTION: 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.	☐	☐	

VII. DOORS AND GATES

Tri-Rail stations are generally free of entry barriers (doors or gates) and obstructions and provide an open access to station elements and trains. However, doors to service, storage, and equipment spaces at Tri-Rail stations and doors in office, maintenance, and administrative facilities are governed by ADAAG and FAC regulations.

The ADA Accessibility Guidelines (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 the ADA Checklist 6 – Doors and Gates on the following pages and should be used to determine accessibility and ADA compliance.

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.

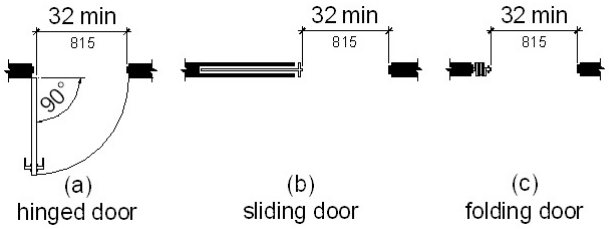


ADA CHECKLIST 6 – DOORS AND GATES

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.

FACILITY: **DATE:**

6.0 Doors and Gates Technical Specifications	**Yes**	**No**	**Observations**
6.1 Doors at Accessible Entrances At each accessible entrance to a building or facility, is there at least one accessible door, doorway, or gate? *(206.5.1)*	☐	☐	
6.2 Accessible Routes and Spaces Is there at least one accessible door at each accessible space in the facility? *(404.1)*	☐	☐	
6.3 Revolving Doors, Gates, and Turnstiles Are revolving doors, gates, and/or turnstiles encountered at an accessible entrance or accessible circulation path without an alternate means of egress nearby? *(404.2.1)*	☐	☐	
6.4 Double-Leaf Doors and Gates If the doorway has two independently operated door leaves, does at least one active leaf provide at least a 32 inch clear opening width? *(404.2.2)*	☐	☐	
6.5 Clear Width for Doors 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)* Note: Measurements to determine clear opening width should be taken as shown in Figure 404.2.3 below  	☐	☐	
6.6 Clear Width for Doors Recessed or in Alcove 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)*	☐	☐	

6.0 Doors and Gates Technical Specifications	Yes	No	Observations
6.7 Projections into Door Opening Are there projections into the clear opening width of a door lower than 34 inches above the finished floor or ground? *(404.2.3)*	☐	☐	
Are there projections into the clear opening width of a door greater than 4 inches between 34 inches and 80 inches above the finished floor or ground? *(404.2.3)* Exceptions: 1. In alterations, a projection of 5/8 inch maximum into the required clear width is permitted for the latch side stop. 2. Door closers and door stops shall be permitted to be 78 inches minimum above the finished floor or ground.	☐	☐	
6.8 Maneuvering Space If the door is not automatic or power assisted, does it have maneuvering space relative to the direction of approach as shown in Table 404.2.4.1 below (also see Figure 404.2.4.1 at end of checklist which illustrates maneuvering clearance scenarios)? *(404.2.4)*	☐	☐	

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

Type of Use		Minimum Maneuvering Clearance	
Approach Direction	**Door or Gate Side**	**Perpendicular to Doorway**	**Parallel to Doorway(beyond latch side unless noted)**
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.

Note: Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side of the door.

6.0 Doors and Gates Technical Specifications	Yes	No	Observations
6.9 Maneuvering Space at Doorways without Doors or Gates, Sliding Doors and Folding Doors 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)*	☐	☐	

Table 404.2.4.2 Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors

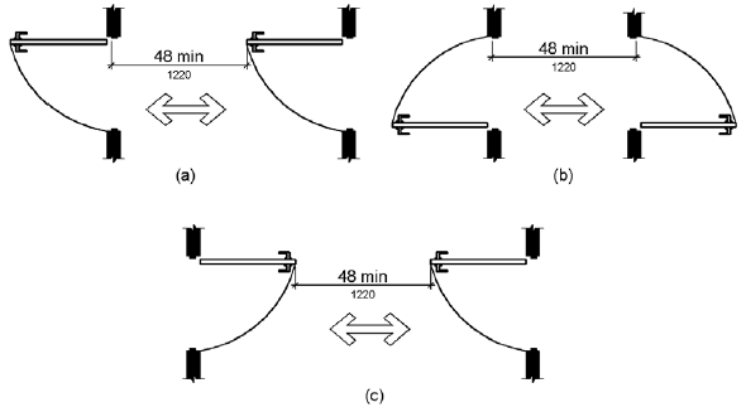
	Minimum Maneuvering Clearance	
Approach Direction	**Perpendicular to Doorway**	**Parallel to Doorway (beyond stop/latch side unless noted)**
From Front	48 inches	0 inches
From side (1)	42 inches	0 inches
From pocket/hinge side	42 inches	22 inches (2)
From stop/latch side	42 inches	24 inches

1. Doorway with no door only.
2. Beyond pocket/hinge side.

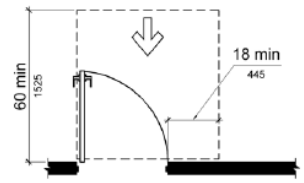
6.10 Maneuvering Space at Recessed Doors and Gates Is maneuvering clearance for a forward approach provided to doors that are recessed when an obstruction within 18 inches of the latch side of doorway projects more than 8 inches beyond the face of the door, measured perpendicular to the face of the door or gate (see Figure 404.2.4.3 at end of checklist which illustrates maneuvering clearances)? *(404.2.4.3)*	☐	☐	

Advisory 404.2.4.3 Recessed Doors and Gates. 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.

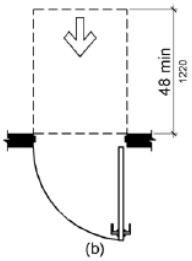
6.11 Floor or Ground Surface Except for the threshold characteristics, are the floor and ground surfaces within maneuvering clearances to doors stable, firm and slip resistant without changes in level and have slopes not in excess of 1:48 (2%)? *(404.2.4.4)*	☐	☐	
6.12 Thresholds If thresholds are provided at doorways, is the vertical change in level no greater than ½ inch? *(404.2.5)* 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.	☐	☐	

6.0 Doors and Gates Technical Specifications	Yes	No	Observations
6.13 Doors and Gates in Series If doors are in series (as in a vestibule), is the space between two hinged or pivoted doors or gates a minimum 48 inches plus the width of the doors or gates that swing into the space (see figure 404.2.6 below)? *(404.2.6)*  	☐	☐	
6.14 Swinging Door and Gate Hardware Are handles, pulls, latches, locks, and other operable parts on doors and gates 34 inches minimum and 48 inches maximum above the finished floor or ground surface, not require tight grasping, pinching, or twisting of the wrist to operate, and not require more than 5 pounds force to operate? *(404.2.7, 309.4)*	☐	☐	
6.15 Sliding Door and Gate Hardware Where sliding doors are provided and are in the fully open position is operating hardware exposed and usable from both sides? *(404.2.7)*	☐	☐	
Advisory 404.2.7 Door and Gate Hardware. 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.			
6.16 Door and Gate Closing Speed When a door or gate equipped with a closer is open to the 90 degrees position and allowed to swing shut to 12 degrees from the latch, is the time required to close the door or gate faster than 5 seconds? *(404.2.8.1)*	☐	☐	
When a door or gate equipped with spring hinges is open to the 70 degrees position and allowed to swing shut to the latch, is the time required to close the door or gate faster than 1.5 seconds? *(404.2.8.2)*	☐	☐	
6.17 Door and Gate Opening Force Is the force required to push or pull a door or gate open no greater than 5 pounds? *(404.2.9)* Note: Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. Note 2: The force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position should be excluded when determining the force to move the door.	☐	☐	

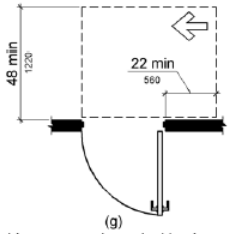
6.0 Doors and Gates Technical Specifications	Yes	No	Observations
Advisory 404.2.7 Door and Gate Hardware. Door hardware that can be operated with a closed fist or a loose grip accommodates the greatest range of users. Hardware that requires simultaneous hand and finger movements require greater dexterity and coordination, and is not recommended.			
6.18 Door and Gate Surfaces 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)* Note: 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. Exceptions: 1. Sliding doors are not required to have smooth surfaces. 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. 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. 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.	☐	☐	
6.19 Vision Lights 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? *(404.2.11)* Exception: 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.	☐	☐	
6.20 Automatic and Power-Assisted Doors and Gates 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? *(404.3.6)* Exception: 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.	☐	☐	



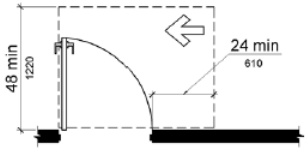
(a)
front approach, pull side



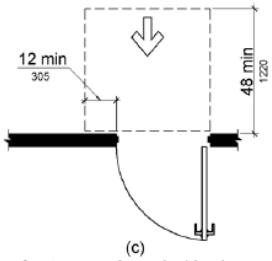
(b)
front approach, push side



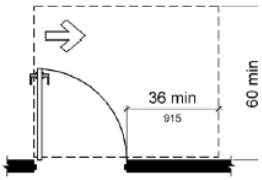
(g)
hinge approach, push side, door provided with both closer and latch



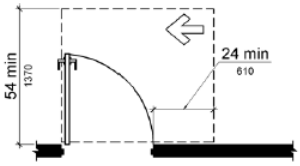
(h)
latch approach, pull side



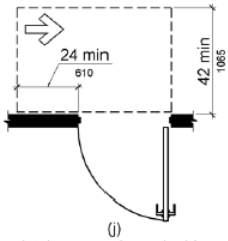
(c)
front approach, push side, door provided with both closer and latch



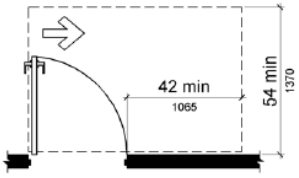
(d)
hinge approach, pull side



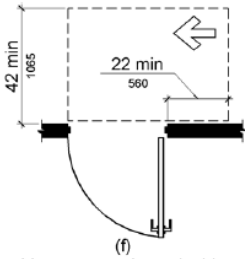
(i)
latch approach, pull side, door provided with closer



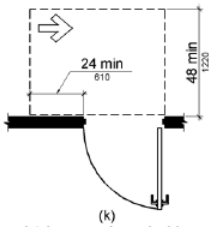
(j)
latch approach, push side



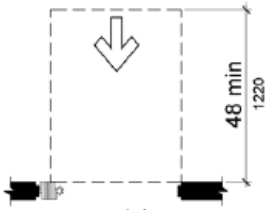
(e)
hinge approach, pull side



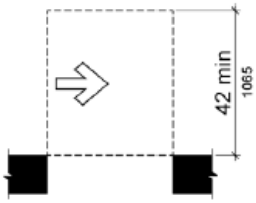
(f)
hinge approach, push side



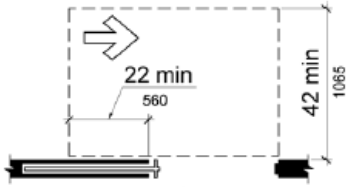
(k)
latch approach, push side, door provided with closer



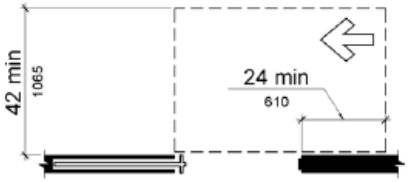
(a)
front approach



(b)
side approach



(c)
pocket or hinge approach



(d)
stop or latch approach

VIII. RAMPS

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.

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	2.08 %	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.

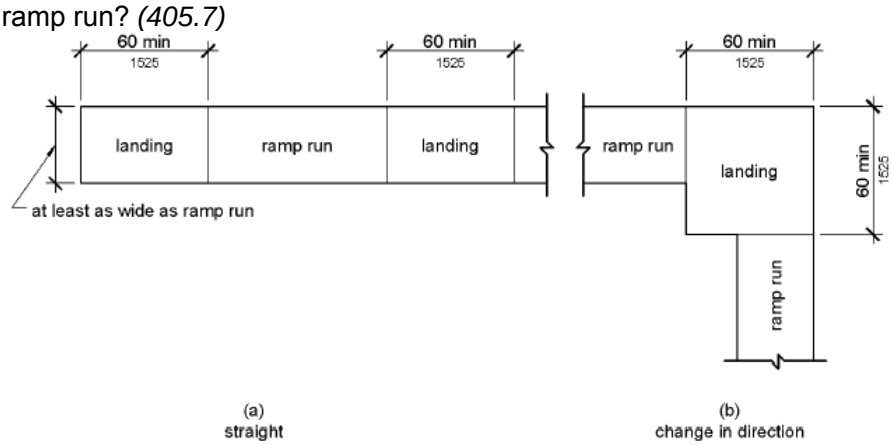
Typically, a broomed finish or similar surface treatment to concrete ramps provides suitable slip resistance to the surface. Untreated wooden ramp surfaces pose a potential for slippery conditions when wet and should have surface treatments to apply a slip resistance condition. Care should be taken during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

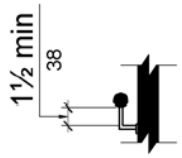
ADA CHECKLIST 7 - RAMPS

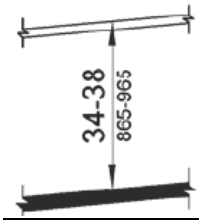
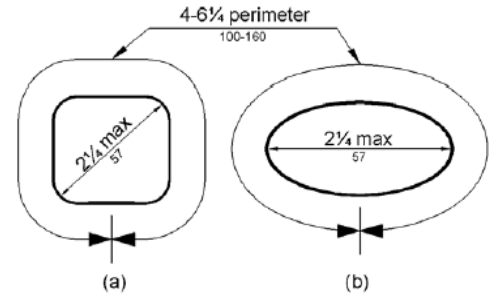
Survey Instructions. Before performing the technical assessment, determine the number of ramps at the facility and identify and uniquely number them on a drawing or sketch of the site. A tape measure, smart level, and digital camera are the principal assessment tools needed to conduct ramp assessments. 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 to elaborate where a simple "yes" or "no" answer to the checklist questions is insufficient. 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.

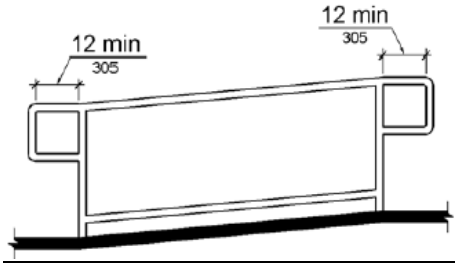
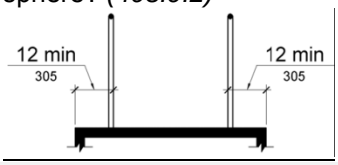
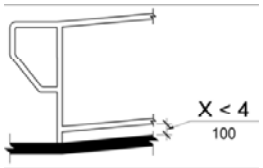
FACILITY: **DATE:**

7.0. Ramp Technical Specifications	**Yes**	**No**	**Observations**
7.1 Ramp Locations and Identification 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)* Ramp #7.1: Ramp #7.3: Ramp #7.2: Ramp #7.4:	☐	☐	
7.2 Ramp Requirement on Accessible Route Does each part of an accessible route with a slope greater than 1:20 (5%) comply with the technical ADAAG requirements for ramps? *(403.3)*	☐	☐	
7.3 Ramp Running Slope Are all ramp segments sloped 1:12 (8.3%) or less? *(405.2)* EXCEPTION: In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 (8.3%) as follows where such slopes are necessary due to space limitations: **Slope** — **Max Rise** Steeper than 1:10 (10%) but not steeper than 1:8 (12.5%) — 3 inches Steeper than 1:12 (12.5%) but not steeper than 1:10 (10%) — 6 inches	☐	☐	
Advisory 405.2 Slope. 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.			
7.4 Ramp Cross Slope Is the cross slope of the ramp surface no greater than 1:48 (2%)? *(405.3)*	☐	☐	
Advisory 405.3 Cross Slope. 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).			
7.5 Ramp Surface Is the ramp surface stable, firm and slip-resistant? *(302)* Note: Changes in level other than the running slope and cross slope are not permitted on ramp runs. *(405.4)*	☐	☐	

7.0. Ramp Technical Specifications	Yes	No	Observations
7.6 Grates in Ramp 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)*	☐	☐	
7.7 Ramp Clear Width Is the clear width of the ramp run and, where handrails are provided, the clear width between handrails, at least 36 inches? *(405.5)* EXCEPTION: 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)*	☐	☐	
7.8 Maximum Ramp Run Rise Is the maximum vertical rise for any horizontal ramp run 30 inches? *(405.6)*	☐	☐	
7.9 Changes In Level 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)*	☐	☐	
7.10 Ramp Landings Is there a level landing at the top and bottom of each ramp and each ramp run? *(405.7)*  	☐	☐	
Advisory 405.7 Landings. 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.			
7.10.1 Ramp Landing Slopes Is the running and cross slope of the landing no greater than 1:48 (2%)? *(405.7.1)*	☐	☐	
7.10.2 Ramp Landing Size Is each landing at least as wide as the ramp and at least 60 inches long? *(405.7.2 and 405.7.3)*	☐	☐	

7.0. Ramp Technical Specifications	Yes	No	Observations
7.10.3 Landings at Change in Ramp Direction Where the ramp changes direction, is there a landing of at least 60 by 60 inches? *(405.7.4)*	☐	☐	
7.10.4 Ramp Landing Surface Are landing surfaces stable, firm and slip resistant? *(302)*	☐	☐	
7.10.5 Doors at Landings of Ramps 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. Note: ADAAG 405.7.5 permits the maneuvering clearances required at doors to overlap the required landing area.	☐	☐	
7.11 Drainage on Ramp Are outside ramps and their approaches designed so that water will not accumulate on walking surfaces? *(504.7)*	☐	☐	
7.13 Handrails on Ramps If the ramp rises more than 6 inches, does it have a handrail on each side of ramp? *(405.8)* EXCEPTION: 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)* EXCEPTION: 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)* Note: Handrails are not required on curb ramps or adjacent to seating in assembly areas. *(505.3)* To assess handrail compliance independently, use Checklist 20 - Handrails.	☐	☐	
7.13.1 Handrail Gripping Surface Are gripping surfaces continuous along their length and not obstructed along their tops or sides? *(505.9)* Note: 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)*  	☐	☐	

7.0. Ramp Technical Specifications	Yes	No	Observations
EXCEPTION 1. Where handrails are provided along walking surfaces with slopes not steeper than 1:20 (5%), 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)*			
EXCEPTION 2. 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)*			
7.13.2 Inside Handrail On dogleg or switchback ramps, is the inside handrail continuous? *(505.3)*	☐	☐	
7.13.3 Fittings Are handrails fixed so that they do not rotate within their fittings? *(505.9)*	☐	☐	
7.13.4 Height Is the top of the handrail between 34 and 38 inches vertically above the ramp surface? *[505.4]*	☐	☐	
Note: Handrails shall be at a consistent height. *[505.4]*			
			
7.13.5 Diameter of Handrail			
7.13.5.1 Circular Handrail: 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)*	☐	☐	
7.13.5.2 Non-Circular Handrail: 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)*	☐	☐	
			
7.13.6 Handrail Surfaces 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)*	☐	☐	

7.0. Ramp Technical Specifications	Yes	No	Observations
7.13.7 Clearance Is the clear space between handrails and walls minimum 1-1/2 inches? *(505)*	☐	☐	
7.13.8 Top and Bottom Handrail Extensions 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)* EXCEPTION 1. Extensions are not required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps. *(505.10)* EXCEPTION 2. 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)* EXCEPTION 3. In alterations, full extensions of handrails are not required where such extensions would be hazardous due to plan configuration. *(505.10)*	☐	☐	
7.13.9 Extension Returns 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)* 	☐	☐	
7.14 Edge Protection on Ramps 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)* Note: 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)*	☐	☐	
7.14.1 Extended Floor or Ground Surface Does the floor or ground surface extend 12 inches minimum beyond the inside face of the handrail? *(405.9.1)*	☐	☐	
7.14.2 Curb or Barrier Does the curb or barrier provided prevent the passage of a 4 inch diameter sphere? *(405.9.2)*  	☐	☐	

Advisory 405.9.1 Extended Floor or Ground Surface. The extended surface prevents wheelchair casters and crutch tips from slipping off the ramp surface.

IX. ELEVATORS

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.

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 CHECKLIST 8 – 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.

FACILITY: **DATE:**

8.0 Elevators Technical Specifications	**Yes**	**No**	**Observations**
8.1 Vertical Access 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:	☐	☐	
Advisory 206.2.3 Multi-Story Buildings and Facilities. 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.			
8.2 Passenger Elevator Is the elevator provided for vertical access between levels of the facility a passenger elevator (not a freight elevator)? *(407.1)*	☐	☐	
8.3 Automatic Operation Is the elevator operation automatic? *(407.1)*	☐	☐	
Advisory 407.1 General. 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.			
8.4 Elevator Landings 8.4.1 Call Controls Are hall call buttons raised or flush with their mounting surfaces? *(407.2.1)* Exception: Existing elevators shall be permitted to have recessed call buttons.	☐	☐	
8.4.2 Operation of Controls 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)*	☐	☐	

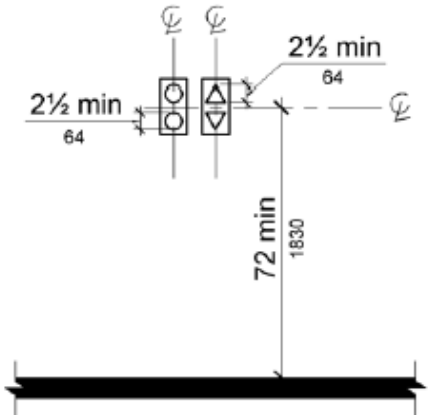
8.4.3 Activation Force Is the force required to activate the elevator hall call buttons or controls 5 pounds or less? *(407.2.1)*	☐	☐	
8.4.4 Height When measured to the centerline of the highest operable part, are hall call buttons or keypads located at, or between, 15 inches and 48 inches above the finished floor of the elevator hall landing? *(407.2.1.1)* Exception: 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.	☐	☐	
8.4.5 Size Are hall call buttons at least ¾ inch measured in the smallest dimension? *(407.2.1.2)* Exception: Existing elevator call buttons are not required to comply with 407.2.1.2.	☐	☐	
8.4.6 Clear Floor and Ground Space 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? *(407.2.1.3)* If other than unrestricted approaches to hall call controls exist, use Checklist 19 – Maneuvering/Reach Ranges to assess maneuvering space requirements.	☐	☐	

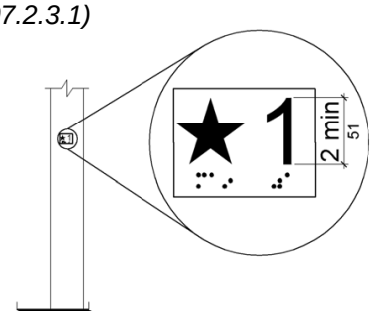
Advisory 407.2.1.3 Clear Floor or Ground Space. The clear floor or ground space required at elevator call buttons must remain free of obstructions including ashtrays, plants, and other decorative elements that prevent wheelchair users and others from reaching the call buttons. The height of the clear 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.

8.4.7 Changes in Level Are the surface slopes of the elevator landing areas no greater than 1:48 (2%) in all directions? *(407.2.1.3)*	☐	☐	
8.4.8 Location Is the hall call button that designates the up direction located above the call button that designates the down direction? *(407.2.1.4)* Exception: Destination-oriented elevators are not required to comply with 407.2.1.4.	☐	☐	

Advisory 407.2.1.4 Location Exception. 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.

8.4.9 Signals Do the elevator call buttons have visible signals to indicate when pressed and extinguish when each call is answered? *(407.2.1.5)* Note: Typically, call buttons illuminate when pressed and go dark when the elevator arrives at the landing.	☐	☐	

8.4.10 Keypads 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 17 – Signage), and have a single raised dot on the number five key? *(407.2.1.6)*	☐	☐	
8.4.11 Visible and Audible Signals (Hall Lanterns) 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)*	☐	☐	
8.4.12 In-Car Signals 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)*	☐	☐	
8.4.13 Visible Lantern Fixtures Are visible signals (lantern fixtures) located at 72 inches minimum above the finished floor or ground surface; are elements of the fixates 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)*  	☐	☐	
8.4.14 Audible Directional Signals 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)* Note: 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.	☐	☐	
8.4.15 Hoistway Signs 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 17 – Signage)? *(407.2.3.1)*	☐	☐	

8.4.16 Raised Star at Main Entry Level Is a raised star provided on both jambs at the main entry level landing? *(407.2.3.1)*  	☐	☐	
8.5 Elevator Door Requirements 8.5.1 Elevator Door Type Do the elevator doors open and close in a horizontal sliding arrangement? *(407.3.1)* 8.5.2 Elevator Door Operation Do the elevator doors open and close automatically? *(407.3.2)* 8.5.3 Door Reopening Device Are the elevator doors equipped with a reopening device that stop and reopen the car and hoistway doors automatically if the door becomes obstructed? *(407.3.3)* 8.5.4 Reopening Device Height Detection 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? *(407.3.3.1)* 8.5.5 Reopening Device Contact If present, does the elevator car and hoistway doors reopening device not require physical contact to be activated? *(407.3.3.2)* Note: Physical contact is permitted to occur before the door reverses. 8.5.6 Reopening Device Duration If present, do the elevator car and hoistway doors reopening device remain effective for at least 20 seconds? *(407.3.3.3)*	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐	
8.5.7 Door and Signal Timing Is the time from notification that the elevator car is answering a call until the elevator doors begin closing ≥ 5 seconds? *(407.3.4)* Note: ADAAG 407.3.4 provides a specific equation to use for calculating door and signal timing as: T = D/(1.5 ft/s) = 5 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. Exception: 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.	☐	☐	

8.5.8 Door Delay
Do elevator doors remain fully open when arriving at a landing for a minimum of 3 seconds? *(407.3.5)*

8.5.9 Door Width
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)*

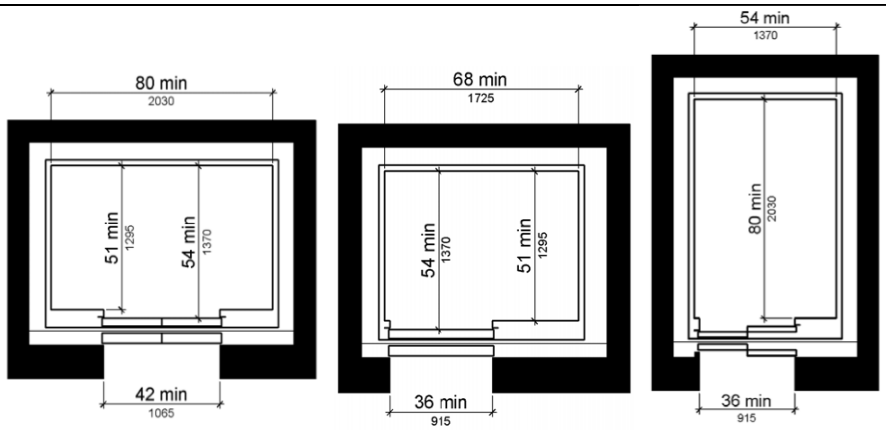
Door Location	Door Clear Width	Inside Car, Side to Side	Inside Car, Back Wall to Front Return	Inside Car, Back Wall to Inside Face of Door
Centered	42 inches	80 inches	51 inches	54 inches
Side (off-centered)	36 inches[1]	68 inches	51 inches	54 inches
Any	36 inches[1]	54 inches	80 inches	80 inches
Any	36 inches[1]	60 inches[2]	60 inches[2]	60 inches[2]

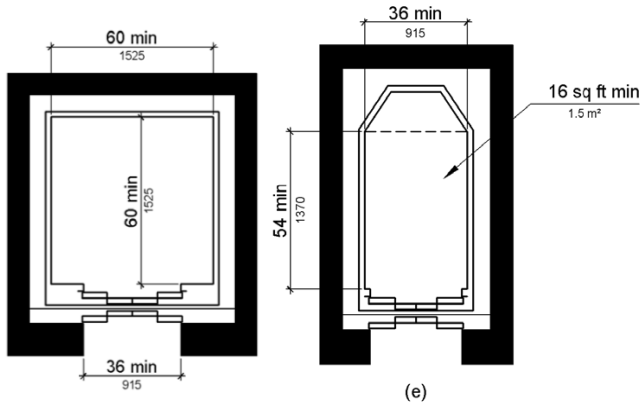
1. A tolerance of minus 5/8 inch is permitted.
2. Other car configurations providing a turning space with the door closed equaling a 60 inch diameter circle is permitted.

8.6 Elevator Car Requirements

8.6.1 Car Dimensions
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)*

EXCEPTION: 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.





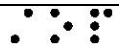
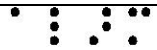
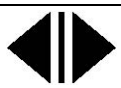
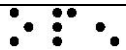
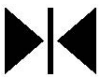
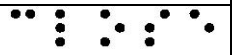
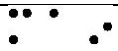
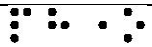
(d)
any door location

(e)
Exception
existing elevator car configuration

8.6.2 Floor Surfaces Is the elevator car flooring stable, firm, and slip resistant without changes in level? *(407.4.5)*	☐	☐	
8.6.3 Platform to Hoistway Clearance Is the clearance between the elevator car platform sill and the edge of any hoistway landing 1-1/4 inch maximum? *(407.4.3)*	☐	☐	
8.6.4 Leveling Does the elevator car automatically self-level and maintain the car floor to within ±½ inch maximum of the landing level? *(407.4.4)*	☐	☐	
8.6.5 Illumination 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)*	☐	☐	
8.7 Elevator Car Controls			
8.7.1 Location 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) EXCEPTIONS: 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. 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.	☐	☐	
8.7.2 Control Button Mounting Are hall call buttons raised or flush with their mounting surfaces? *(407.4.6.2)* Exception: In existing elevators, buttons shall be permitted to be recessed.	☐	☐	
8.7.3 Control Button Size Are hall call buttons at least ¾ inch measured in the smallest dimension? *(407.4.6.2.1)*	☐	☐	

8.7.4 Control Buttons Arrangement Are control buttons arranged with numbers in ascending order? *(407.6.2.2)* Note: When two or more columns of buttons are provided, they shall read from left to right.	☐	☐	
8.7.5 Keypads 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 17 – Signage), and have a single raised dot on the number five key? *(407.4.6.3)*	☐	☐	
8.7.6 Emergency Controls 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)*	☐	☐	
8.7.7 Car Controls Buttons			
8.7.7.1 Type 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)* Exception: 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.	☐	☐	
8.7.7.2 Symbols 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)*	☐	☐	

Table 407.4.7.1.3 Elevator Control Button Identification

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

8.7.7.3 Visible Indicators 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)*	☐	☐	
8.8 Car Position Indicators 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)*	☐	☐	
8.8.1 Floor Arrival Visible Indicator 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)*	☐	☐	
8.8.2 Audible Indicators Does a verbal annunciator automatically announce the floor at which the car is about to stop? *(407.4.8.2.1)* EXCEPTION: 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. Note: 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.	☐	☐	
8.9 Emergency Communication 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 17 – 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. *(407.4.9)*	☐	☐	

X. ESCALATORS

Although escalators are not commonly used at Tri-Rail stations, units are in use and may become more common in time.

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.

Use of the ADA Checklist 9 – Escalators will provide an overview of the compliance of an escalator as detailed on the following page.

ADA CHECKLIST 9 – ESCALATORS

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

FACILITY: **DATE:**

9.0. Escalator Technical Specifications	Yes	No	Observations
9.1 Clear Width Where provided, do escalators have a clear width of at least 32 inches? *(810.9)* Note: ADAAG exempts existing escalators in key stations from compliance. *(810.9)*	☐	☐	
9.2 Contiguous Treads 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)*	☐	☐	
9.3 Contrast Step Edges 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)*	☐	☐	
9.4 Slip Resistance 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)*	☐	☐	

XI. TICKETING AND AUTOMATIC FARE VENDING

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 CHECKLIST 10 – 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 and validation equipment assessments.

FACILITY: **DATE:**

10.0 Ticketing and Fare Vending Technical Specifications	Yes	No	Observations
Ticketing 10.1 Accessible Route 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)*	☐	☐	
10.2 Service Counters (Parallel Approach) 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)* EXCEPTION: Where the counter surface is less than 36 inches long, the entire counter surface shall be 36 inches high maximum above the finished floor.	☐	☐	
10.3 Service Counters (Forward Approach) If only a forward approach is afforded, is the counter 30 inches long minimum and 36 inches high maximum? *(904.4.2)* Note: 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)* Note: For forward approach, clear ground and floor space of 30 inches minimum by 48 inches minimum must be provided at the counter. *(305.3)*	☐	☐	
10.4 Security Glazing Where counters or teller windows have security glazing to separate personnel from the public, is a method to facilitate voice communication provided? *(904.6)* Note: Telephone handset devices, if provided, shall comply with ADAAG 704.3.	☐	☐	

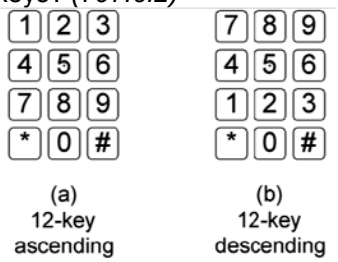
Advisory 904.6 Security Glazing. Assistive listening devices complying with 706 can facilitate voice communication at counters or teller windows where there is security glazing which promotes distortion in audible information. Where assistive listening devices are installed, place signs complying with 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.

Automatic Fare Vending, Collection, or Adjustment Machines 10.5 Location 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)*	☐	☐	

Advisory 707.1 General. 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.

10.6 Accessible Route If provided, do fare vending, collection, or adjustment components adjoin or overlap an accessible route? *(305.6)*	☐	☐	
10.7 Clear Floor Area Is a clear floor area at least 48 inches deep by 30 inches wide provided at each fare vending, collection, or adjustment device area serving at least one of each type of device provided? *(707.2)*	☐	☐	
10.8 Confined Space – Forward Approach 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)*	☐	☐	
10.9 Confined Space – Parallel Approach 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)*	☐	☐	
10.10 Reach to Controls If coin or card slots or controls necessary for operation are provided on fare vending, collection, or adjustment devices, are the controls mounted between 15 inches and 48 inches above the finished floor with a maximum horizontal reach of 10 inches or less? *(308.2; 308.3)*	☐	☐	
With horizontal reach greater than 10 inches and less than 24 inches, are controls mounted between 15 inches and 44 inches above the finished floor? *(308.2.2)*	☐	☐	
10.11 Operable Parts 10.11.1 Clear or Correct Key If a clear or correct key is not provided, is each operable part of the device able to be differentiated by sound or touch, without activation? *(707.3)*	☐	☐	
10.11.2 Operation of Controls Are operable parts of the device operable with one hand and do not require tight grasping, pinching, or twisting of the wrist? *(309.4)*	☐	☐	
10.11.3 Operating Force Is the force required to activate operable parts of the device 5 pounds or less? *(309.4)*	☐	☐	
10.11.4 Privacy Does the fare vending, collection, or adjustment device provide the opportunity for the same degree of privacy of input and output available to all individuals (typically inclusion of private headset jack)? *(707.4)*	☐	☐	

Advisory 707.4 Privacy. 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.			
10.12 Speech Output Are instructions for use of the fare vending, collection, or adjustment device provided in human digitized or synthesized speech? *(707.5)* Exceptions: 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. 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. 3. Where speech synthesis cannot be supported, dynamic alphabetic output shall not be required to be audible.	☐	☐	
10.12.1 User Control Are speech instructions capable of being repeated or interrupted? *(707.5.1)* Exception: Speech output for any single function shall be permitted to be automatically interrupted when a transaction is selected.	☐	☐	
10.12.2 Volume Control Is volume control provided for the speech function? *(707.5.1)*	☐	☐	
10.13 Receipts 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)* Exceptions: 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.	☐	☐	
10.14 Input Devices *(707.6)*			
10.14.1 Input Controls Is at least one tactilely discernible input control provided for each function? *(707.6.1)*	☐	☐	
10.14.2 Key Surfaces If provided, are key surfaces not on active areas of display screens raised above their surrounding surfaces? *(707.6.1)* Note: Where membrane keys are the only method of input, each shall be tactilely discernible from surrounding surfaces and adjacent keys.	☐	☐	

10.14.3 Numeric Keys 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)*  	☐	☐	
Advisory 707.6.2 Numeric Keys. 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.			
10.15 Function Keys *(707.6.3)* 10.15.1 Contrast Do function keys contrast visually from background surfaces? *(707.6.3.1)* Note: Characters and symbols on key shall contrast visually from key surfaces. Visual contrast shall be either light-on-dark or dark-on-light. Exception: Tactile symbols on special function keys (see 10.1.15.2) are not required to contrast visually from their background surfaces. 10.15.2 Tactile Symbols Are the following special function key surfaces identified with tactile symbols? *(707.6.3.2)* 1. Enter or Proceed key: Raised Circle 2. Clear or Correct key: Raised Left Arrow 3. Cancel key: Raised letter X 4. Add Value key: Raised Plus Sign (+) 5. Decrease Value key: Raised Minus Sign (-)	☐ ☐	☐ ☐	
10.16 Display Screen Characters 10.16.1 Font Are characters displayed on the screen in sans serif font? *(707.7.2)* 10.16.2 Character Height Are characters displayed on the screen at least 3/16 inch high based on the uppercase letter "I"? *(707.7.2)* 10.16.3 Contrast 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)*	☐ ☐ ☐	☐ ☐ ☐	
10.17 Braille Instructions Are Braille instructions for initiating the speech mode provided? *(707.8)*	☐	☐	

XII. PLATFORMS

The location and configuration of platforms for Tri-Rail stations are generally determined by existing track alignments, and the right-of-way boundaries of the rail corridor. Platforms are typically provided in a side-platform design so that each direction of travel is served independently.

Tri-Rail platforms are low-level whereby step entry into Tri-Rail trains is necessary. Accessible boarding of trains is provided by a mini-high (high-block) platform set back from the trackway to provide required clearance for freight train loads. A bridge plate is deployed by the train crew when necessary to board from the mini-high platform. The bridge plate must meet the dimensional and structural requirements of 49 CFR Part 38. These requirements are contained in Checklist 27, Commuter Rail Car.

Several Tri-Rail stations are shared with other transit and freight haul providers, most notably Amtrak. At these stations, certain design criteria, such as platform length, may be modified to suit the service requirements of these other providers. Tri-Rail tracks are also shared with CSX freight operations posing a strict clearance criterion that prevents the construction of high-level, full length level-boarding for individuals with disabilities, particularly those that use wheelchairs or other mobility devices.

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).

The ADA Accessibility Guidelines (ADAAG), in Section 218.2 states: "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. Use of Checklist 4 – Curb Ramps, at section 4.12, will determine detectable warning material compliance.

ADA CHECKLIST 11 – PLATFORMS

Survey Instructions. Before performing a 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 to elaborate where a simple "yes" or "no" is insufficient. 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.

FACILITY: **DATE:**

11.0 Platform Technical Specifications	**Yes**	**No**	**Observations**
11.1 Platform(s) Identification 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:	☐	☐	
11.2 Accessible Access to Platform and Boarding Areas Is there a minimum of 36 inches between elements such as walls or columns along an accessible route? *(403.5.1)* EXCEPTION: 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.	☐	☐	
11.3 Wheelchair Passing Space 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)*	☐	☐	

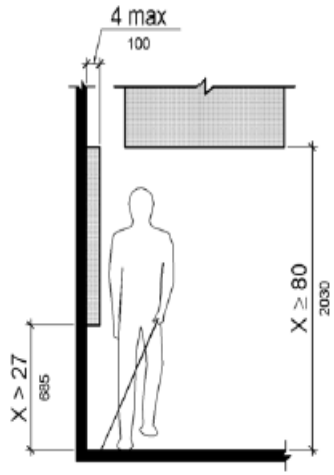
11.0 Platform Technical Specifications	Yes	No	Observations
11.4 Changes in Level When approach walkways and platform levels change, is the vertical difference between them less than 1/4 inch? OR Are changes in level between 1/4 inch and 1/2 inch beveled with a slope no greater than 1:2? (*303)*	☐	☐	
11.5 Boarding Locations 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)*	☐	☐	
Advisory 206.3 Location. 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.			
11.6 Surface Conditions Are the walkway surfaces of the platforms stable, firm, and slip resistant? *(302.1)*	☐	☐	
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.			
11.7 Track Crossings Where circulation paths serving boarding platforms crosses tracks, is the walking surface level and flush with the rail top at the outer edge and between the rails, except for a maximum 2 ½" gap on the inner edge of each rail? *(810.10)* 	☐	☐	
11.8 Platform Drop-off Protection Are the boarding edges of the platform that border a drop-off protected by platform screens, guard rails or detectable warning material along the full length of the public use area of the platform? *(810.5.2)* Note: IBC 2003, consistent with ADAAG, stipulates that ends of platforms where an unprotected drop-off exists must be protected by platform screens, guards, or a detectable warning 24 inches wide, which is a more stringent requirement than imposed by the ADAAG.	☐	☐	

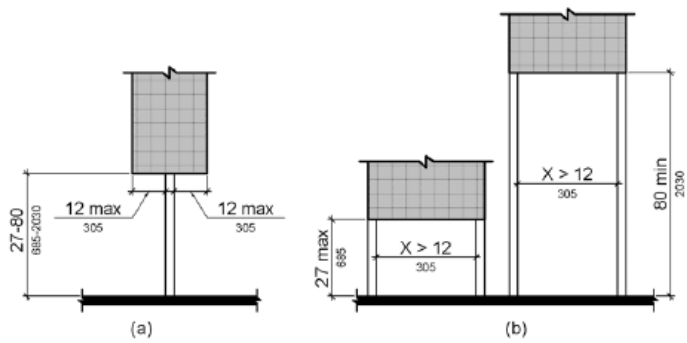
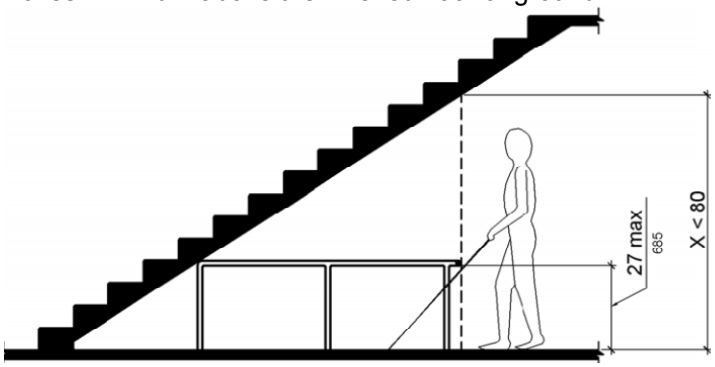
11.0 Platform Technical Specifications	Yes	No	Observations
11.9 Detectable Warning If the boarding edges of the platform that border a drop-off are not protected by platform screens or guard rails, is there a 24 inch wide detectable warning along the entire length of the public use area of the platform? *(810.5.2)* If Yes, also complete Checklist 23 – Detectable Warning.	☐	☐	
11.10 Platform Signage 11.10.1 Tactile Station Name Sign Is there at least one tactile station name sign on each platform or boarding area which identifies the specific station? *(810.6.2)*	☐	☐	
11.10.2 Uniform Sign Locations If provided, is the tactile station name sign placed in uniform locations on all platforms within the transit system? *(810.6.2)*	☐	☐	
11.10.3 Station Identification Signs 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 are one or two signs for every car length.) *(810.6.3)* If Yes, also complete Checklist 17 - Signage.	☐	☐	
Advisory 810.6.3 Station Names. 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.			
11.10.4 Other Signs 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)* Exception: 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 17 - Signage.	☐	☐	
Advisory 810.6.2 Routes and Destinations. Route maps are not required to comply with the uniform location placement standard otherwise required for informational signage.			
11.11 Platform Slopes Does the surface of the platform exceed a slope of 1:48 (2%) in any direction? *(810.5.1)* EXCEPTION: 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.	☐	☐	

11.0 Platform Technical Specifications	Yes	No	Observations
11.12 Platform and Vehicle Floor Coordination			
11.12.1 Low Level Platforms			
Are low level platforms 8 inches minimum above the top of rail? *(810.5.3)*	☐	☐	
EXCEPTION: Where vehicles are boarded from sidewalks or street-level, low-level platforms shall be permitted to be less than 8 inches.			
11.12.2 Vertical Alignment			
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)*	☐	☐	
11.12.3 Horizontal Alignment			
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)*	☐	☐	

Advisory 810.5.3 Platform and Vehicle Floor Coordination. 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 www.access-board.gov. 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.

11.13 Protruding Objects:			
11.13.1 Wall Mounted Objects			
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)*	☐	☐	



11.0 Platform Technical Specifications	Yes	No	Observations
Advisory 307.2 Protrusion Limits. 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			
11.13.2 Post Mounted Objects			
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)*	☐	☐	
			
11.13.3 Clear Width			
Is there an accessible path at least 36 inches clear alongside the protruding object? *(307.5)*	☐	☐	
11.13.4 Vertical Clearance Is the clear vertical clearance 80 inches high minimum?	☐	☐	
Note: 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)*			
Exception: Door closers and door stops shall be permitted to be 78 inches minimum above the finished floor or ground.			
			

XIII. MINI-HIGH PLATFORMS

Mini-high platform and vehicle floor coordination issues are important elements in efforts to provide an accessible transit environment for people with disabilities. 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.

The ADA Accessibility Guidelines (ADAAG), in Section 218.2 states: "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).

Typically, Tri-Rail stations have at least one mini-high platform provided on each low-level platform serving the two directions of travel. Accessible boarding of Tri-Rail trains from the mini-high platforms is accommodated via a car borne bridge plate. The bridge plate is deployed by the train crew when necessary to board from the mini-high platform. The bridge plate must meet the dimensional and structural requirements of 49 CFR Part 38. These requirements are contained in Checklist 27, Commuter Rail Car.

Because the mini-high platforms present a drop-off at the boarding edge of the platform, a detectable warning material is required at the boarding edge. Use of Checklist 4 – Curb Ramps, at section 4.12, will determine detectable warning material compliance.

ADA CHECKLIST 12 – 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. Typically, Tri-Rail stations have at least one mini-high platform provided on each low-level platform serving the two directions of travel. 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 to elaborate where a simple "yes" or "no" is insufficient. 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, defective or missing detectable warning material at the boarding edge of the platform, and missing edge treatment on the ends of platforms.

A tape measure, smart level, and digital camera are the principal assessment tools needed to conduct mini-high platform assessments.

FACILITY: **DATE:**

12.0 Mini-High Platform Technical Specifications	**Yes**	**No**	**Observations**
12.1 Platform(s) Identification 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:	☐	☐	
12.2 Accessible Access to Mini-High Platform Boarding Areas Is there a minimum of 36 inches between elements such as walls or columns along an accessible route? *(403.5.1)* EXCEPTION: 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.	☐	☐	

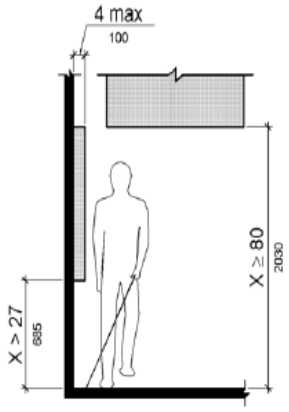
12.0 Mini-High Platform Technical Specifications	Yes	No	Observations
12.3 Changes in Level When approach walkways and platform levels change, is the vertical difference between them less than 1/4 inch? OR Are changes in level between 1/4 inch and 1/2 inch beveled with a slope no greater than 1:2? (*303)*	☐	☐	
12.4 Boarding Locations 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)*	☐	☐	
Advisory 206.3 Location. 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.			
12.5 Ramps Is the mini-high platform accessed by a ramp? If yes, also complete Checklist 7 – Ramps.	☐	☐	
12.6 Surface Conditions Are the walkway surfaces of the mini-high platforms stable, firm, and slip resistant? *(302.1)*	☐	☐	
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.			
12.7 Track Crossings Where a circulation path serving boarding platforms crosses tracks, is the walking surface level and flush with the rail top at the outer edge and between the rails, except for a maximum 2 ½" gap on the inner edge of each rail? *(810.10)* 	☐	☐	
12.8 Mini-High Platform Drop-off Protection Are the boarding edges of the mini-high platform that border a drop-off protected by platform screens, guard rails or detectable warning material along the full length of the public use area of the mini-high platform? *(810.5.2)* Note: IBC 2003, consistent with ADAAG, stipulates that ends of platforms where an unprotected drop-off exists must be protected by platform screens, guards, or a detectable warning 24 inches wide, which is a more stringent requirement than imposed by the ADAAG and must be complied with by Tri-Rail.	☐	☐	

12.0 Mini-High Platform Technical Specifications	Yes	No	Observations
12.9 Detectable Warning If the boarding edges of the mini-high 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 mini-high platform? *(810.5.2)* If Yes, also complete Checklist 23 – Detectable Warning.	☐	☐	
12.10 Mini-High Platform Signage 12.10.1 Tactile Station Name Sign Is there at least one tactile station name sign on each mini-high platform or boarding area which identifies the specific station? *(810.6.2)*	☐	☐	
12.10.2 Uniform Sign Locations If provided, is the tactile station name sign placed in uniform locations on all boarding areas within the transit system? *(810.6.2)*	☐	☐	
12.10.3 Station Identification Signs 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 are one or two signs for every car length.) *(810.6.3)* If Yes, also complete Checklist 17 - Signage.	☐	☐	
Advisory 810.6.3 Station Names. 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.			
12.10.4 Other Signs 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? *(810.6.2)* Exception: 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 17 - Signage.	☐	☐	
Advisory 810.6.2 Routes and Destinations. Route maps are not required to comply with the uniform location placement standard otherwise required for informational signage.			
12.11 Mini-High Platform Slopes Does the surface of the mini-high platform exceed a slope of 1:48 (2%) in any direction? *(810.5.1)* EXCEPTION: 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.	☐	☐	

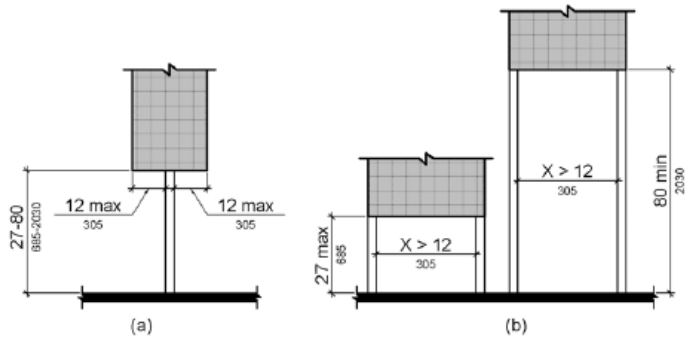
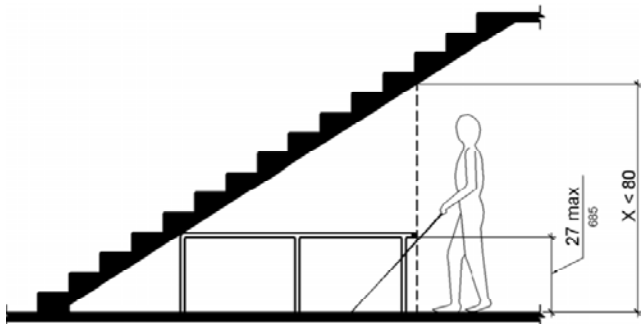
12.0 Mini-High Platform Technical Specifications	Yes	No	Observations
12.12 Mini-High Platform and Vehicle Floor Coordination			
12.12.1 Vertical Alignment			
Does the vertical alignment of the mini-high platform or any portion along its length and the vehicle floor have a difference within plus or minus 1-1/2 inches, when the vehicle is at rest, under normal passenger load conditions? *(810.5.3)*	☐	☐	
12.12.2 Horizontal Alignment			
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)*	☐	☐	

Advisory 810.5.3 Platform and Vehicle Floor Coordination. 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 www.access-board.gov. 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.

12.13 Protruding Objects:			
12.13.1 Wall Mounted Objects			
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)*	☐	☐	



Advisory 307.2 Protrusion Limits. 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

12.0 Mini-High Platform Technical Specifications	Yes	No	Observations
12.13.2 Post Mounted Objects 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)*  	☐	☐	
12.13.3 Clear Width Is there an accessible path at least 36 inches clear alongside the protruding object? *(307.5)* 12.13.4 Vertical Clearance Is the clear vertical clearance 80 inches high minimum? Note: 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)* Exception: Door closers and door stops shall be permitted to be 78 inches minimum above the finished floor or ground.  	☐ ☐	☐ ☐	

XIV. PUBLIC ADDRESS SYSTEMS AND CLOCKS

Though public address (PA) systems are common in Tri-Rail commuter rail stations, the ADA Accessibility Guidelines (ADAAG) do 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. Tri-Rail typically accomplishes this mandate by providing programmable visual messaging signs at each station (several per platform) that provide equivalent visual messages as those provided over the audible public address system.

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 CHECKLIST 13 – 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.

FACILITY: **DATE:**

13.0 Public Address Systems and Clocks Technical Specifications	Yes	No	Observations
Public Address Systems 13.1 Comparable Information Provided 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? *(810.7)*	☐	☐	
Clocks 13.2 Clock Face If clocks are provided for use by the public, is the clock face uncluttered so that its elements are clearly visible? *(810.8)* Note: 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. For signage requirements, complete Checklist 17 - Signage.	☐	☐	

XV. TELEPHONES

The scoping requirements, or minimum requirements, for accessible public telephones and for text telephones are among the more complex in the revised 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.

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.

Public telephone placement at Tri-Rail stations typically involves the installation of at least one pay telephone centrally located on each platform. The unit placed on the southbound platform is typically equipped with a TTY telephone unit with the northbound unit being a standard pay telephone with signage provided indicating the location of the TTY unit.

ADA CHECKLIST 14 - 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.

FACILITY: **DATE:**

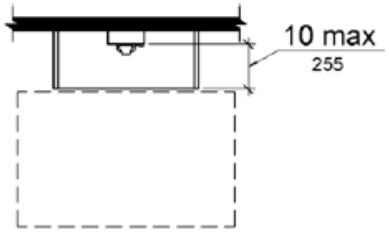
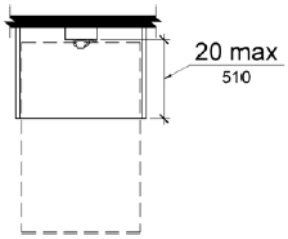
14.0 Telephone Technical Specifications	**Yes**	**No**	**Observations**
14.1 General Requirement Where coin-operated public pay telephones, coinless public pay telephones, public closed-circuit telephones, public courtesy phones, or other types of public telephones are provided, is at least one accessible public telephone provided for each type of public telephone provided? *(217.1)*	☐	☐	
Advisory 217.1 General. These requirements apply to all types of public telephones including courtesy phones at airports and rail stations that provide a free direct connection to hotels, transportation services, and tourist attractions.			
14.2 Wheelchair Accessible Telephones 14.2.1 Minimum Requirements If a facility has one bank of public telephones, is there at least one wheelchair accessible telephone (48 inch high forward reach; 15 inch low forward reach) per bank, level, and exterior site provided? *(217.2)* Note: A bank of telephones shall be considered to be two or more adjacent telephones.	☐	☐	
If there are one or more single public pay telephones per floor, is at least one wheelchair accessible? *(217.2)*	☐	☐	
Where two or more banks of public pay telephones are provided on a floor, is at least one telephone per bank wheelchair accessible? *(217.2)*	☐	☐	
14.3 Volume Controls Are all public pay telephones equipped with a volume control? *(217.3)* Note 1: 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. Note 2: 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)*	☐	☐	

Advisory 704.3 Volume Control Telephones. 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.

14.4 Text Telephones/ TTYs - Minimum Number			
14.4.1 Bank Requirement Where four or more public telephones are provided at a bank, is at least one text telephone provided? *(217.4.1)* Exception: 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.	☐	☐	
14.4.2 Floor Requirement Where at least one public pay telephone is provided on a floor, is at least one text telephone provided on the floor? *(217.4.2.1)*	☐	☐	
14.4.3 Exterior Site Requirement Where four or more public pay phones are provided on an exterior site, is at least one text telephone provided on the site? *(217.4.4)*	☐	☐	
14.4.4 Transportation Facilities Requirement 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? *(217.4.7)*	☐	☐	

Advisory 217.4 TTYs. 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.

14.5 Text Telephone, Shelves and Outlets 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)* EXCEPTION: The shelf and outlet are not required at a bank of telephones with a text telephone.	☐	☐	

14.6 Clear Floor Space 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)* Note: 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.  *Parrallel Approach*  *Forward Approach*	☐	☐	
Advisory 704.2.1 Clear Floor or Ground Space. 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.			
14.7 Controls 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)*	☐	☐	
14.8 Directories If provided, are telephone books also within the 48 inch maximum and 15 inch minimum reach range? *(704.2.3)*	☐	☐	
14.9 Cord Length Is the cord from the telephone to the handset at least 29 inches long? *(704.2.4)*	☐	☐	
14.10 TTYs 14.10.1 Location Requirement Are TTYs required at a public telephone permanently affixed within, or adjacent to, the telephone enclosure? *(704.4)*	☐	☐	
14.10.2 Acoustic Coupler Where an acoustic coupler is used, is the telephone cord sufficiently long to allow connection of the TTY and the telephone receiver? *(704.4)*	☐	☐	
14.10.3 Height 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)* Exception: Where seats are provided, TTYs are not required to be at least 34 inches high.	☐	☐	

Advisory 704.4.1 Height. 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).

Advisory 704.4.1 Height Exception. 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.

14.10.4 TTY Shelf 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)* Note: 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.	☐	☐	
14.11 TTY Symbol Are required text telephones identified by the international TTY symbol? *(216.9.1, 703.7.2.2)* 	☐	☐	
14.12 Directional Signs 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)* Note: 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).	☐	☐	
14.13 Accessible Route Is there an accessible route at least 36 inches wide adjoining or overlapping the clear floor space at accessible public telephones? *(305)*	☐	☐	
14.14 Protruding Objects 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)*	☐	☐	
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)*	☐	☐	

XVI. AREAS OF REFUGE

As of this checklist development, Tri-Rail stations are all configured as at-grade stations and are open-air platforms. This condition does not require that formal areas of refuge be provided based on ADAAG provisions. However, it is common for Tri-Rail stations to provide an area at each end of the platforms for assembly, rescue, or other fire/life activity scenarios in support to public evacuation or safety.

ADAAG Section 207, Accessible Means of Egress, provides the scoping requirements, or minimum requirements, for areas of refuge (previously referred to as Areas of Rescue Assistance). Section 207 refers the reader to the International Building Code (IBC) section 1003.2.13 (of the 2000 and 2001 IBC) or section 1007 of the 2003 edition of the IBC where means of egress requirements are provided and necessary for ADAAG compliance. For application at transit facilities, ADAAG provides one exception for an accessible means of egress by stating at 207.1, Exception 1, "Where means of egress are permitted by local building or life safety codes to share a common path of egress travel, accessible means of egress shall be permitted to share a common path of egress travel."

Florida Building Code maintains its standards with the IBC. Therefore, no variance in the requirements of IBC's means of egress regulations is necessary. The Areas of Refuge checklist on the following pages provides the regulatory requirements of IBC section 1007.

ADA CHECKLIST 15 – AREAS OF REFUGE

Survey Instructions. A tape measure, smart level, and digital camera are the principal assessment tools needed to conduct assessments of areas of refuge. 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, "stairway width is only 38 inches," or "Forward reach is 50 inches to the communications device control button." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements.

Issues to be Aware of. The first step for use of this checklist is to determine if an area of refuge is required at the station being assessed. An Area of Refuge is required if any of the following conditions exist:

- Greater than 50% of the exterior walls are open to the outside (IBC 2003 Section 1007).
- The facility has no automatic sprinkler system (IBC 2003 Section 1007).
- The emergency evacuation route is not accessible (IBC 2003 Section 1007).
- Elevators or Lifts on the emergency evacuation route do not have standby power (ADAAG 207.2)

If any of the preceding conditions exist at the facility being assessed, this checklist should be used to determine the accessibility of the area of refuge.

FACILITY: **DATE:**

15.0 Areas of Refuge Technical Specifications	**Yes**	**No**	**Observations**
15.1 An Area of Refuge is required if any of the following conditions exist:			
A. >50% of the exterior walls are open to the outside?	☐	☐	
B. The facility has no automatic sprinkler system?	☐	☐	
C. The emergency evacuation route is not accessible?	☐	☐	
D. Elevators or Lifts on the emergency evacuation route do not have standby power?	☐	☐	

If the answer to any of the four items above is YES, identify and assign each area of refuge a unique number and record its location and assess each for compliance. *(207)*

Area of Refuge 1:

Area of Refuge 2:

15.2 Space Does the area of refuge provide at least two accessible areas for wheelchair space of at least 30 inches by 48 inches each? *(IBC 2003 1007.6.1)*	☐	☐	
15.3 Encroachment Does the area of refuge wheelchair spaces encroach on any required exit width? *(IBC 2003 1007.6.1)*	☐	☐	
15.4 Stair Width Clearance If stairways are adjacent to the area of refuge and used for emergency egress, is at least 48 inches of clear width between the handrails provided? *(IBC 2003 1007.8.2)*	☐	☐	

15.5 Communications Is a method of two-way communication with both visual and audible signals provided between the area of refuge and the primary facility entry? *(IBC 2003 1007.6.3)*	☐	☐	
15.6 Identification Signage Is the area of refuge identified by a visual sign that includes the words, "AREA OF REFUGE" and the international symbol of accessibility? *(IBC 2003 1007.6.5)* Note: When exit signs are illuminated, the above required sign must also be illuminated.	☐	☐	
15.7 Directional Signage Are signs displayed at all inaccessible exits and where it is necessary to identify the direction to an area of refuge? *(IBC 2003 1007.7)*	☐	☐	
15.8 Instructions for Use Are instructions for use of the area of refuge posted near the two-way communication system? *(IBC 2003 1007.6.4)*	☐	☐	

XVII. TOILET AND BATHING FACILITIES

SFRTA employees arrive at various locations and facilities throughout the transit system necessary for the performance of their duties. These work or reporting locations may provide restroom, bathing, or related support spaces for employees to use before and after working. Spaces provided for these purposes must be minimally accessible where appropriate. Use of this checklist will allow an evaluation of the spaces to determine compliance with accessibility standards.

ADAAG does not stipulate that restrooms be provided in facilities. However, if toilet rooms and/or bathing facilities are provided in a facility, they must comply with accessibility standards provided in ADAAG sections 213 and 603 through 609. These sections provide the specifications for accessible restrooms, toilet rooms, toilet elements and amenities, urinals, mirrors, lavatories and sinks, bathtubs, shower compartments, and grab bars (note that grab bars are assessed using Checklist 20 – Handrails and Grab Bars).

ADAAG 213.2 provides several exceptions for the application of accessible toilet rooms and bathing facilities as follows:

1. In alterations where it is technically infeasible to an accessible toilet or bathing rooms, altering existing toilet or bathing rooms shall not be required where a single accessible unisex toilet room or bathing room is provided and located in the same area and on the same floor as existing inaccessible toilet or bathing rooms.
2. Where exceptions for alterations to qualified historic buildings or facilities are permitted by 202.5, no fewer than one toilet room for each sex complying with 603 or one unisex toilet room complying with 213.2.1 shall be provided.
3. Where multiple single user portable toilet or bathing units are clustered at a single location, no more than 5% of the toilet units and bathing units at each cluster shall be required to be accessible. Portable toilet units and bathing units that are accessible shall be identified by the International Symbol of Accessibility.
4. Where multiple single user toilet rooms are clustered at a single location, no more than 50% of the single user toilet rooms for each use at each cluster shall be required to be accessible.

ADAAG 213.2 also provides the following advisory notes.

1. These requirements allow the use of unisex (or single-user) toilet rooms in alterations when technical infeasibility can be demonstrated. Unisex toilet rooms benefit people who use opposite sex personal care assistants. For this reason, it is advantageous to install unisex toilet rooms in addition to accessible single-sex toilet rooms in new facilities.
2. A “cluster” is a group of toilet rooms proximate to one another. Generally, toilet rooms in a cluster are within sight of, or adjacent to, one another.

Unisex toilet rooms (single-use or family spaces) must contain no more than one lavatory, and two water closets without urinals or one water closet and one urinal. Unisex bathing rooms must contain one shower or one shower and one bathtub, one lavatory, and one water closet. Doors to unisex toilet rooms and unisex bathing rooms shall have privacy latches.

ADA CHECKLIST 16 – TOILET AND BATHING FACILITIES

Survey Instructions. A tape measure, electronic level, and digital camera are the principal assessment tools needed to assess toilet and bathing facilities in SFRTA facilities.

Issues to be Aware of. This checklist provides criteria for the assessment of restrooms and elements of restrooms, toilet rooms, showers, and bathing facilities. For the assessment of adjoining fitting rooms, locker rooms, and storage areas as a part of the evaluation of toilet and bathing spaces, refer to Checklist 24 – Miscellaneous Rooms and Spaces.

Many of the formed checklists developed for SFRTA use in evaluating facility and element accessibility compliance with the ADA Accessibility Guidelines (ADAAG) are applicable for use when evaluating toilet and bathing facility spaces. Where appropriate, this checklist will direct the user to a specific checklist for the assessment of specific elements such as doors, accessible route, maneuvering space, reach range, etc.

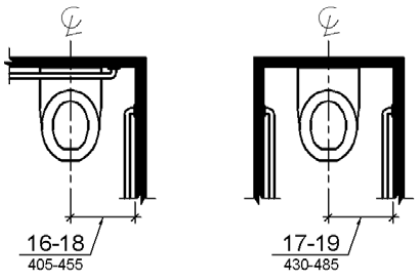
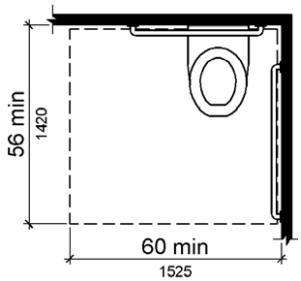
Access to interior spaces of a facility cannot be fully assessed for accessibility compliance without evaluating the entire accessible route from points of arrival at the facility to the space of interest. The assessor should consider this fact and utilize appropriate checklists to provide a complete assessment.

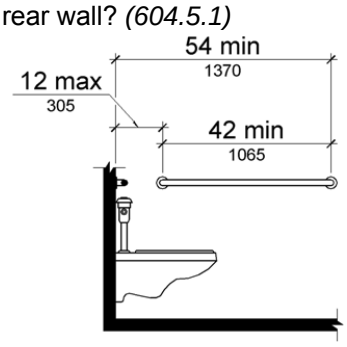
This extensive checklist provides accessibility assessment of the following elements and the page number they are found:

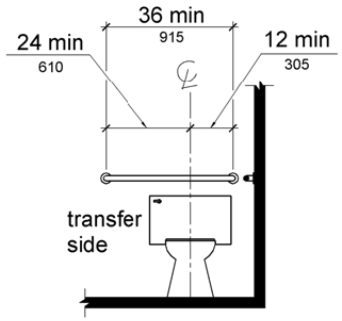
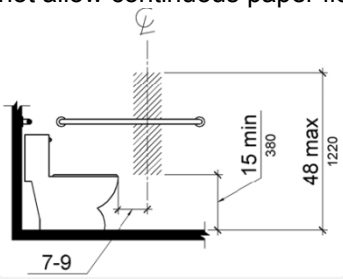
Approach to Toilet Compartments (10-98)
Bathtub Controls (10-103)
Bathtub Enclosures (10-103)
Bathtub Grab Bars (10-101)
Bathtub Seats (10-101)
Bathtub Shower Spray Units (10-103)
Bathtubs (10-101)
Coat Hooks and Shelves (10-94)
Dispensers (10-96)
Door Swing (10-93)
Toe Clearance at Toilet Compartments (10-98)
Toilet and Bathing Room Clearances (10-93)
Toilet Compartment Doors (10-98)
Toilet Compartments (10-97)
Urinal Flush Controls (10-100)
Urinals (10-99)
Water Closet Flush Controls (10-96)
Water Closets (10-94)
Faucets at Lavatories and Sinks (10-99)
Grab Bars at Water Closets (10-95)
Lavatories and Sinks (10-100)
Mirrors (10-93)
Shower Compartment Controls (10-107)
Shower Compartment Grab Bars (10-105)
Shower Compartment Spray Units (10-108)
Shower Compartment Thresholds (10-109)
Shower Compartments (10-103)
Shower Enclosures (10-109)

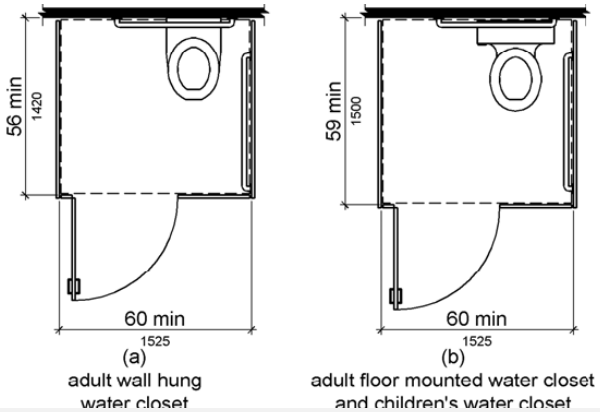
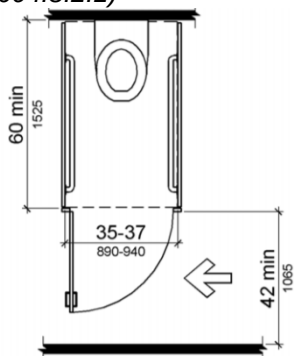
FACILITY/SPACE: **DATE:**

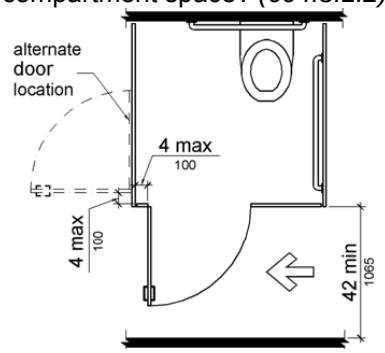
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.1 General Where toilet rooms and bathing rooms are provided at a facility, is at least one of each provided on an accessible route (use Checklist 2 – Accessible Route), have doors or openings meeting accessible standards (use Checklist 6 – Doors and Gates)? *(213.1)*	☐	☐	
16.2 Toilet and Bathing Room Clearances 16.2.1 Turning Space Is a turning space compliant with ADAAG 304 requirements provided within the room (use Checklist 19 – Maneuvering/Reach Range)? *(603.2.1)* Note: Required clear floor spaces, clearance at fixtures, and turning space within toilet and bathing rooms are permitted to overlap.	☐	☐	
16.2.2 Door Swing Do doors to toilet and bathing rooms swing outward, or inward, but not into the clear floor space or clearance required for any fixture within the space? *(603.2.3)* Note: Doors are permitted to swing into the required turning space. EXCEPTIONS: 1. Doors to a toilet room or bathing room for a single occupant accessed only through a private office and not for common use or public use shall be permitted to swing into the clear floor space or clearance provided the swing of the door can be reversed to comply with 603.2.3. 2. Where the toilet room or bathing room is for individual use and a clear floor space 30 inches by 48 inches minimum is provided within the room beyond the arc of the door swing, doors shall be permitted to swing into the clear floor space or clearance required for any fixture.	☐	☐	
Advisory 603.2.3 Door Swing Exception 1. At the time the door is installed, and if the door swing is reversed in the future, the door must meet all the requirements specified in 404. Additionally, the door swing cannot reduce the required width of an accessible route. Also, avoid violating other building or life safety codes when the door swing is reversed.			
16.3 Mirrors If mirrors are provided and located above lavatories or countertops, is at least one installed with the bottom edge of the reflecting surface 40 inches maximum above the finished floor or ground? *(603.3)*	☐	☐	
If mirrors are not located above lavatories or countertops but elsewhere, is at least one installed with the bottom edge of the reflecting surface 35 inches maximum above the finished floor or ground? *(603.3)*	☐	☐	
Advisory 603.3 Mirrors. A single full-length mirror can accommodate a greater number of people, including children. In order for mirrors to be usable by people who are ambulatory and people who use wheelchairs, the top edge of mirrors should be 74 inches (1880 mm) minimum from the floor or ground.			

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.4 Coat Hooks and Shelves Where coat hooks are provided in toilet and bathing rooms are they located within the reach range requirements of ADAAG 308 (use Checklist 19 – Maneuvering/Reach Range)? *(213.3.5, 603.4)*	☐	☐	
Are shelves located 40 inches minimum and 48 inches maximum above the finished floor? *(213.3.5, 603.4)*	☐	☐	
16.5 Water Closets and Toilet Compartments			
16.5.1 Water Closets Where water closets are provided, is at least one accessible? *(213.3.2)*	☐	☐	
16.5.2 Water Closet Location Is the water closet positioned with a wall or partition to the rear and to one side? *(604.2)*	☐	☐	
Is the centerline of the water closet 16 inches minimum to 18 inches maximum from the side wall or partition? *(604.2)* Note 1: In ambulatory accessible toilet compartments, the centerline of the water closet must be 17 inches minimum and 19 inches maximum from the side wall or partition. Note 2: Water closets must be arranged for a left-hand or right-hand approach.  (a) wheelchair accessible water closets (b) ambulatory accessible water closets	☐	☐	
16.5.3 Clearance at Water Closets Is the clearance around a water closet 60 inches minimum when measured perpendicular from the side wall and 56 inches minimum when measured perpendicular from the rear wall? *(604.3.1)*  	☐	☐	

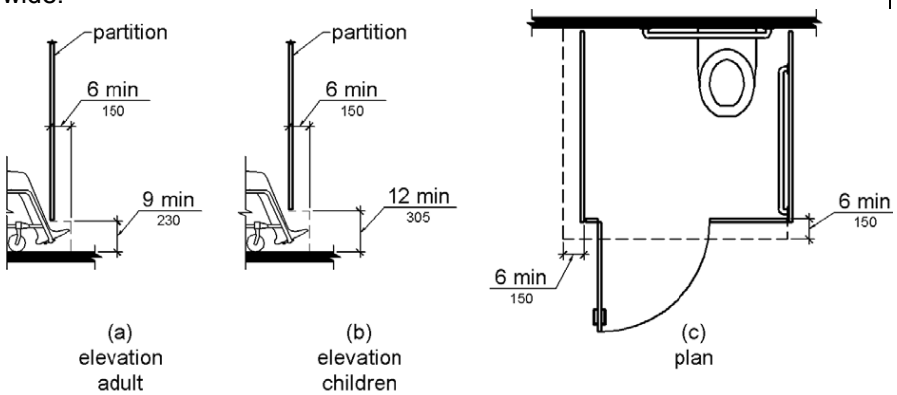
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.5.4 Overlap Are there fixtures or other obstructions located within the required water closet clearance area? *(604.3.2)* Note: The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space.	☐	☐	
Advisory 604.3.2 Overlap. When the door to the toilet room is placed directly in front of the water closet, the water closet cannot overlap the required maneuvering clearance for the door inside the room.			
16.5.5 Water Closet Seats Is the seat height of the water closet above the finished floor 17 inches minimum and 19 inches maximum measured to the top of the seat? *(604.4)* Note: Water closet seats must not be sprung to return to a lifted position. EXCEPTION: A water closet in a toilet room for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 604.4.	☐	☐	
16.5.6 Grab Bars at Water Closets Are grab bars provided on the side wall closest to the water closet and on the rear wall and meet ADAAG 609 requirements (use Checklist 20 – Handrails and Grab Bars). *(604.5)* EXCEPTION: Grab bars shall not be required to be installed in a toilet room for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.	☐	☐	
Advisory 604.5 Grab Bars Exception 2. Reinforcement must be sufficient to permit the installation of rear and side wall grab bars that fully meet all accessibility requirements including, but not limited to, required length, installation height, and structural strength.			
16.5.7 Side Wall Grab Bars at Water Closets Is the side wall grab bar 42 inches long minimum, located 12 inches maximum from the rear wall and extending 54 inches minimum from the rear wall? *(604.5.1)*  	☐	☐	
16.5.8 Rear Wall Grab Bar at Water Closets Is the rear wall grab bar 36 inches long minimum and extend from the centerline of the water closet 12 inches minimum on one side and 24 inches minimum on the other side? *(604.5.2)*	☐	☐	

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
EXCEPTIONS: 1. The rear grab bar shall be permitted to be 24 inches long minimum, centered on the water closet, where wall space does not permit a length of 36 inches minimum due to the location of a recessed fixture adjacent to the water closet. 2. Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, then the rear grab bar shall be permitted to be split or shifted to the open side of the toilet area.  			
<u>16.5.9 Water Closet Flush Controls</u> Are flush controls hand operated or automatic, not require a force greater than 5 pounds to operate, not require tight grasping, pinching, or twisting of the wrist, and located on the open side of the water closet except in ambulatory accessible compartments? *(604.6)*	☐	☐	
Advisory 604.6 Flush Controls. If plumbing valves are located directly behind the toilet seat, flush valves and related plumbing can cause injury or imbalance when a person leans back against them. To prevent causing injury or imbalance, the plumbing can be located behind walls or to the side of the toilet; or if approved by the local authority having jurisdiction, provide a toilet seat lid.			
<u>16.6 Dispensers</u> Are toilet paper dispensers operable by hand, not require tight grasping, pinching, or twisting of the wrist, not require a force exceeding 5 pounds to operate, and located 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser? *(604.7)*	☐	☐	
Are toilet paper dispensers located 15 inches minimum and 48 inches maximum above the finished floor and not located behind grab bars? *(604.7)* Note: Dispensers must not be of a type that controls delivery or that does not allow continuous paper flow.  	☐	☐	
Advisory 604.7 Dispensers. If toilet paper dispensers are installed above the side wall grab bar, the outlet of the toilet paper dispenser must be 48 inches maximum above the finish floor and the top of the gripping surface of the grab bar must be 33 inches minimum and 36 inches maximum above the finish floor.			

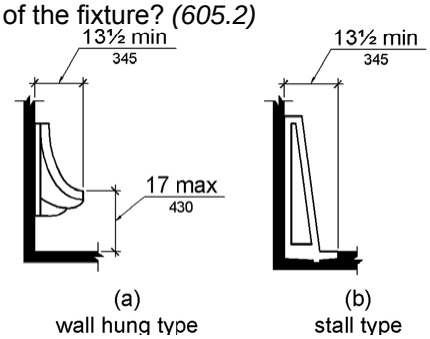
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.7 Toilet Compartments			
16.7.1 Toilet Compartment Size Where toilet compartments are provided, is at least one toilet compartment accessible and at least 60 inches wide measured perpendicular to the side wall, and 56 inches deep minimum for floor mounted water closets and 59 inches deep minimum for floor mounted water closets measured perpendicular to the rear wall? *(213.3.1, 604.8.1.1)*  	☐	☐	
Advisory 604.8.1.1 Size. The minimum space required in toilet compartments is provided so that a person using a wheelchair can maneuver into position at the water closet. This space cannot be obstructed by baby changing tables or other fixtures or conveniences, except as specified at 604.3.2 (Overlap). If toilet compartments are to be used to house fixtures other than those associated with the water closet, they must be designed to exceed the minimum space requirements. Convenience fixtures such as baby changing tables must also be accessible to people with disabilities as well as to other users. Toilet compartments that are designed to meet, and not exceed, the minimum space requirements may not provide adequate space for maneuvering into position at a baby changing table.			
16.7.2 Ambulatory Toilet Compartment Where six or more toilet compartments are provide, or where the combination of urinals and water closets totals six or more fixtures, is at least one compartment accessible and at least 60 inches deep minimum and 35 inches wide minimum and 37 inches maximum? *(213.3.1, 604.8.2.1)*  	☐	☐	

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
Advisory 213.3.1 Toilet Compartments. A toilet compartment is a partitioned space that is located within a toilet room, and that normally contains no more than one water closet. A toilet compartment may also contain a lavatory. A lavatory is a sink provided for hand washing. Full-height partitions and door assemblies can comprise toilet compartments where the minimum required spaces are provided within the compartment.			
16.7.3 Toilet Compartment Doors Do toilet compartment doors and hardware meet the requirements of ADAAG 404 (use Checklist 6 – Doors and Gates)? *(604.8.1.2)*	☐	☐	
If the approach to a toilet compartment door is to the latch side, is clearance between the door side of the compartment and any obstruction 42 inches minimum? *(604.8.1.2)*	☐	☐	
Are toilet compartment doors located in the front partition or in the side wall or partition farthest from the water closet? *(604.8.1.2)*	☐	☐	
Where located in the front partition, is the door opening 4 inches maximum from the side wall or partition farthest from the water closet? *(604.8.1.2)*	☐	☐	
Where located in the side wall or partition, is the door opening 4 inches maximum from the front partition? *(604.8.1.2)*	☐	☐	
Is the toilet compartment door self-closing? *(604.8.1.2)*	☐	☐	
Is an accessible door pull placed on both sides of the door near the latch? *(604.8.1.2)*	☐	☐	
Do toilet compartment doors swing away from the minimum required compartment space? *(604.8.1.2)*	☐	☐	
			
16.7.4 Approach to Toilet Compartments Are toilet compartments arranged to allow for left-hand or right-hand approach to the water closet? *(604.8.1.3)*	☐	☐	
16.7.5 Toe Clearance at Toilet Compartments Is toe clearance of 9 inches minimum above the finished floor and 6 inches deep minimum beyond the compartment-side partition provided at the front partition and at least one side partition? *(604.8.1.3)* Note: Measurements are exclusive of partition support members.	☐	☐	

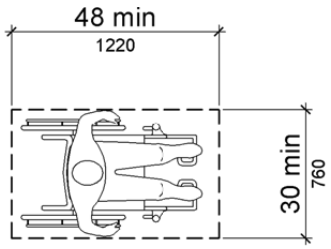
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches deep with a wall-hung water closet or 65 inches deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches wide.			



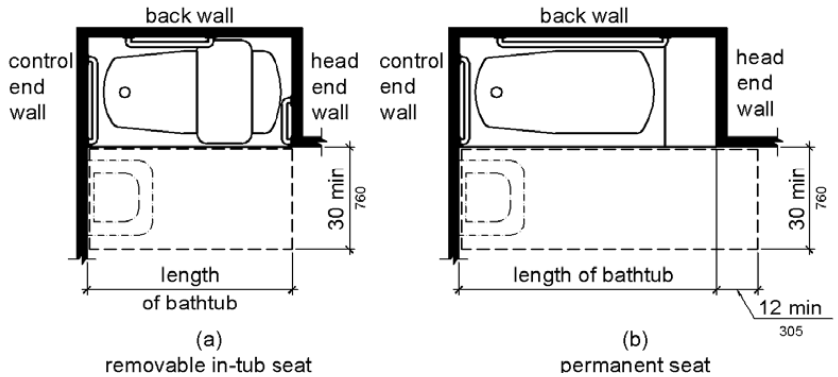
16.8 Urinals If more than one urinal is provided in a toilet compartment, is at least one accessible? *(213.3.3)*	☐	☐	
Advisory 605.1 General. Stall-type urinals provide greater accessibility for a broader range of persons, including people of short stature.			
16.8.1 Urinal Height and Depth Are urinals the stall type or wall-hung type with the rim 17 inches maximum above the finished floor or ground and 13-1/2 inches deep minimum when measured from the outer face of the urinal rim to the back of the fixture? *(605.2)*	☐	☐	

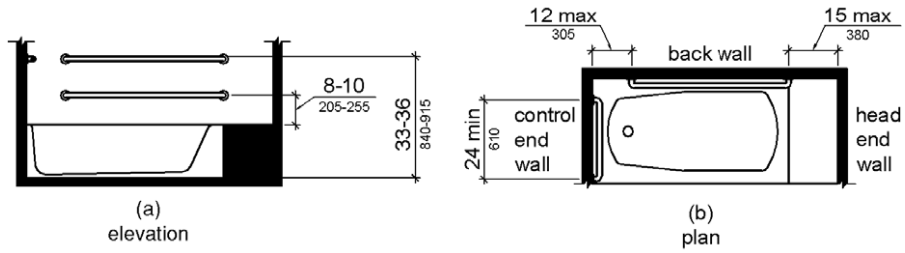
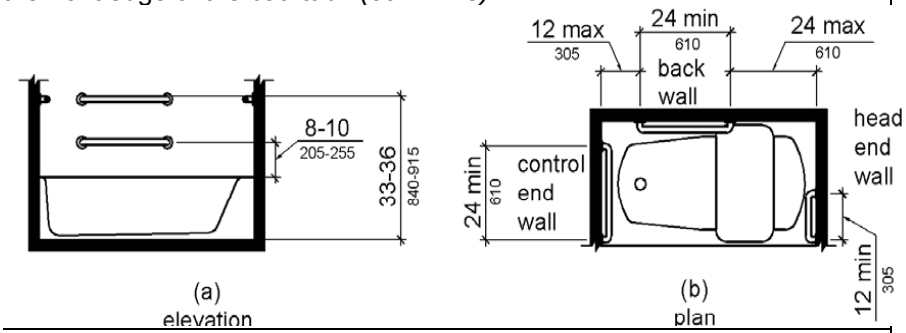


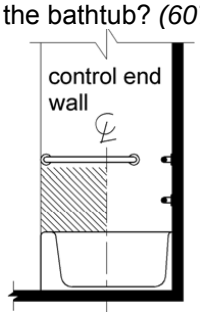
16.8.2 Clear Floor Space at Urinals Is a clear space at least 30 inches by 48 inches allowing a forward approach to the urinal provided?	☐	☐	

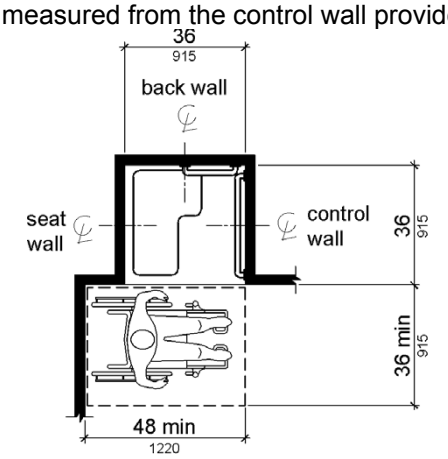
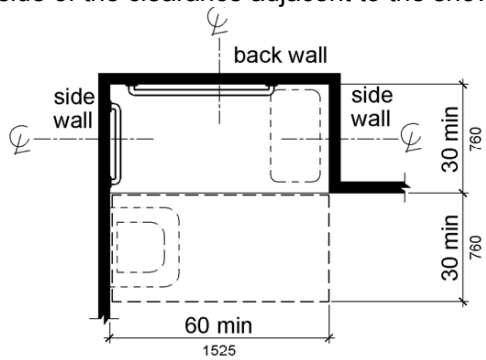


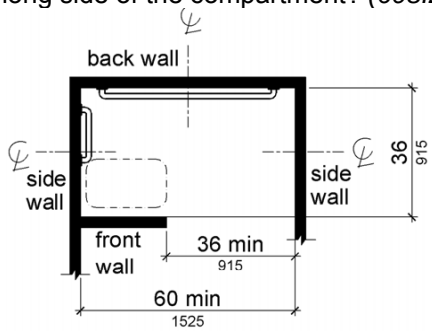
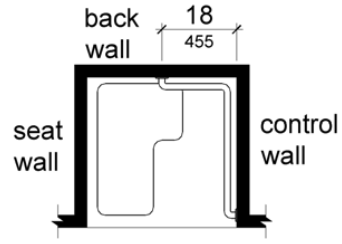
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.8.3 Urinal Flush Controls Are flush controls hand operated or automatic, not require a force greater than 5 pounds to operate, not require tight grasping, pinching, or twisting of the wrist, and located on the open side of the water closet except in ambulatory accessible compartments? *(605.4)*	☐	☐	
16.9 Lavatories and Sinks 16.9.1 General Where lavatories are provided in toilet facilities, is at least one accessible lavatory provided which is not located in a toilet compartment? *(213.3.4)*	☐	☐	
Advisory 606.1 General. If soap and towel dispensers are provided, they must be located within the reach ranges specified in 308. Locate soap and towel dispensers so that they are conveniently usable by a person at the accessible lavatory.			
16.9.2 Clear Floor Space at Lavatories and Sinks Is a clear space at least 30 inches by 48 inches and knee and toe clearances provided to allow a forward approach to the lavatory? *(606.2)* EXCEPTIONS: 2. A lavatory in a toilet room or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to provide knee and toe clearance complying with 306. 6. The dip of the overflow shall not be considered in determining knee and toe clearances. 7. No more than one bowl of a multi-bowl sink shall be required to provide knee and toe clearance complying with 306.	☐	☐	
16.9.3 Lavatories and Sinks Height Are lavatories and sinks installed with the front of the rim or counter surface (whichever is higher) 34 inches maximum above the finished floor? *(606.3)* EXCEPTION: A lavatory in a toilet or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 606.3.	☐	☐	
16.9.4 Faucets at Lavatories and Sinks Are controls for faucets hand operated or automatic, not require a force greater than 5 pounds to operate, not require tight grasping, pinching, or twisting of the wrist, and located on the open side of the water closet except in ambulatory accessible compartments? *(605.4)*	☐	☐	
Where hand-activated metering faucets are provided, does water flow for at least 10 seconds? *(605.4)*	☐	☐	
16.9.5 Exposed Pipes and Surfaces Under Lavatories and Sinks Are water supply and drain pipes under lavatories and sinks insulated or otherwise configured to protect against contact? *(606.5)*	☐	☐	
Are surfaces of objects under lavatories or sinks free of sharp or abrasive conditions? *(606.5)*	☐	☐	

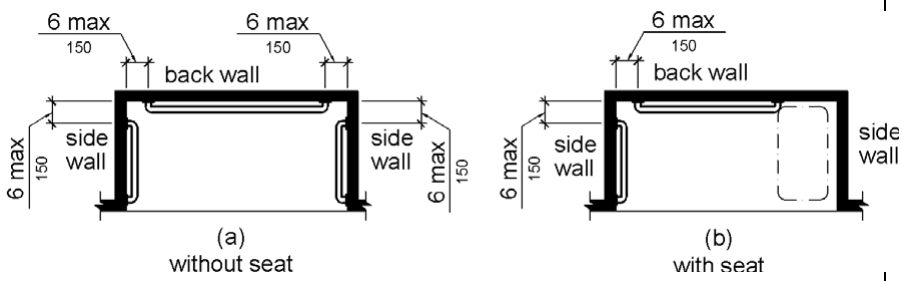
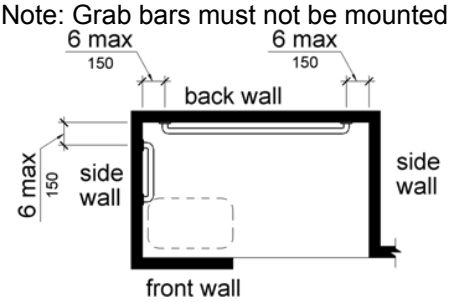
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.10 Bathtubs			
16.10.1 General Where bathtubs are provided, is at least one bathtub accessible? *(213.3.6)*	☐	☐	
16.10.2 Bathtub Clearance Is a clear area at least 30 inches wide provided in front of the bathtub and extend the length of the bathtub? *(607.2)*	☐	☐	
Note: An accessible lavatory shall be permitted at the control end of the bathtub clearance area and where a permanent bathtub seat is provided at the head end of the bathtub, the clearance area must extend 12 inches minimum beyond the wall at the head end of the bathtub.  (a) removable in-tub seat (b) permanent seat			
16.10.3 Bathtub Seat Is a permanent seat provided at the head end of the bathtub or a removable in-tub seat provided? *(607.3)*	☐	☐	
16.10.4 Bathtub Grab Bars Do grab bars for bathtub comply with ADAAG 609 (use Checklist 20 – Handrails and Grab Bars)? *(607.4)* EXCEPTION: Grab bars shall not be required to be installed in a bathtub located in a bathing facility for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 607.4.	☐	☐	
16.10.4.1 Back Wall of Bathtub with Permanent Seats For bathtubs with permanent seats, are two grab bars installed on the back wall, one located horizontally at 33 inches minimum and 36 inches maximum above the finished floor measured to the top of the gripping surface, and the other located 8 inches minimum and 10 inches maximum above the rim of the bathtub? *(607.4.1.1)*	☐	☐	

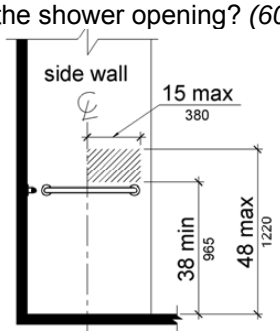
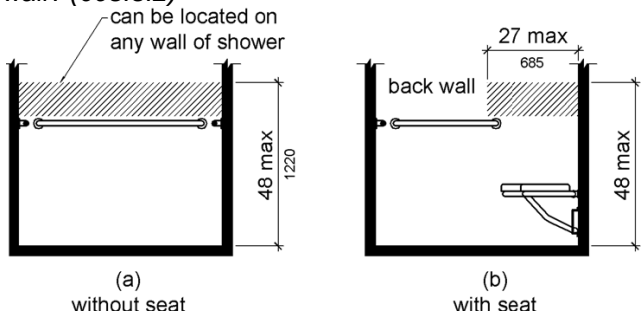
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.10.4.2 Control End Wall of Bathtub with Permanent Seats Is a grab bar 24 inches long minimum installed on the control end wall of the front edge of the bathtub? *(607.4.1.2)*	☐	☐	
			
16.10.4.3 Back Wall of Bathtub Without Permanent Seats For bathtubs without permanent seats, are two grab bars installed on the back wall, one located horizontally at 33 inches minimum and 36 inches maximum above the finished floor measured to the top of the gripping surface, and the other located 8 inches minimum and 10 inches maximum above the rim of the bathtub? *(607.4.2.1)*	☐	☐	
16.10.4.4 Control End Wall of Bathtub Without Permanent Seats Is a grab bar 24 inches long minimum installed on the control end wall of the front edge of the bathtub? *(607.4.2.2)*	☐	☐	
16.10.4.5 Head End Wall of Bathtub Without Permanent Seats Is a grab bar 12 inches long minimum installed on the head end wall at the front edge of the bathtub? *(607.4.2.3)*	☐	☐	
			

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.10.5 Bathtub Controls Are bathtub controls, other than drain stoppers, located on the end wall? *(607.5)*	☐	☐	
Are bathtub controls hand operated or automatic, not require a force greater than 5 pounds to operate, and not require tight grasping, pinching, or twisting of the wrist? *(607.5)*	☐	☐	
Are bathtub controls located between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub? *(607.5)*  	☐	☐	
16.10.6 Shower Spray Unit and Water Is a shower spray unit with a hose 59 inches long minimum that can be used both as a fixed-position shower head and as a hand-held shower provided? *(607.6)* Does the shower spray unit have an on/off control with a non-positive shut-off? *(607.6)* Note: If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.	☐	☐	
Advisory 607.6 Shower Spray Unit and Water. Ensure that hand-held shower spray units are capable of delivering water pressure substantially equivalent to fixed shower heads.			
16.10.7 Bathtub Enclosures Are controls, faucets, shower and spray units free of obstructions by a bathtub enclosure allowing transfer from wheelchairs onto bathtub seats or into the bathtub? *(607.7)* Note: Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.	☐	☐	
16.11 Shower Compartments 16.11.1 General Where shower compartments are provided, is at least one shower accessible? *(213.3.6)*	☐	☐	
Advisory 608.1 General. Shower stalls that are 60 inches (1525 mm) wide and have no curb may increase the usability of a bathroom because the shower area provides additional maneuvering space.			

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.11.2 Size and Clearances for Transfer Type Shower Compartments Are transfer type shower compartments 36 inches by 36 inches clear inside dimensions measured at the center points of opposing sides and is the entry on the face of the shower compartment 36 inches wide minimum? *(608.2.1)*	☐	☐	
Is a clear area 36 inches wide minimum by 48 inches long minimum when measured from the control wall provided? *(608.2.1)*  Note: inside finished dimensions measured at the center points of opposing sides	☐	☐	
16.11.3 Size and Clearances for Standard Roll-In Type Showers Are standard roll-in type shower compartments 30 inches wide by 60 inches deep minimum clear inside dimensions measured at the center points of opposing sides and is the entry on the face of the shower compartment 60 inches wide minimum? *(608.2.2)*	☐	☐	
Is a clear area 30 inches wide minimum by 60 inches long minimum clearance provided adjacent to the open face of the shower compartment? *(608.2.2.1)* EXCEPTION: A lavatory complying with 606 shall be permitted on one 30 inch wide minimum side of the clearance provided that it is not on the side of the clearance adjacent to the controls or, where provided, not on the side of the clearance adjacent to the shower seat.  	☐	☐	

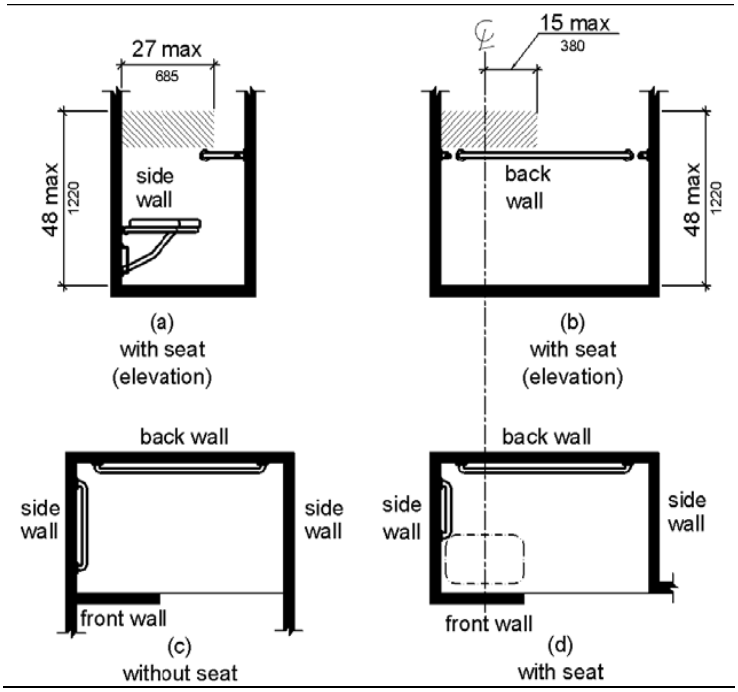
16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.11.4 Size and Clearance for Alternate Roll-In Type Showers Are alternate roll-in type shower compartments 36 inches wide and 60 inches deep minimum clear inside dimensions measured at center points of opposing sides? *(608.2.3)*	☐	☐	
Is a clear area 36 inches wide minimum entry provided at one end of the long side of the compartment? *(608.2.3)*  	☐	☐	
16.11.5 Shower Compartment Grab Bars Do grab bars in shower compartments comply with ADAAG 609 (use Checklist 20 – Handrails and Grab Bars)? *(608.3)*	☐	☐	
Where multiple grab bars are used, are the required horizontal grab bars installed at the same height above the finished floor? *(608.3)* EXCEPTIONS: Grab bars shall not be required to be installed in a shower located in a bathing facility for a single occupant accessed only through a private office, and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 608.3.	☐	☐	
16.11.6 Grab Bars for Transfer Type Shower Compartments In transfer type shower compartments, are grab bars provided across the control wall and back wall to a point 18 inches from the control wall? *(608.3.1)*  	☐	☐	

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.11.7 Grab Bars for Standard Roll-In Shower Compartments Where a seat is provided in standard roll-in type shower compartments, are grab bars provided on the back wall and side wall opposite the seat (grab bars must not be mounted above the seat)? *(608.3.2)*	☐	☐	
Where a seat is not provided in standard roll-in type shower compartments, are grab bars provided on three walls installed 6 inches maximum from adjacent walls? *(608.3.2)*	☐	☐	
			
16.11.8 Grab Bars for Alternate Roll-In Type Shower Compartments In alternate roll-in type shower compartments, are grab bars provided on the back wall and the side wall farthest from the compartment entry and installed 6 inches maximum from adjacent walls? *(608.3.3)* Note: Grab bars must not be mounted above the seat.	☐	☐	
			

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.11.9 Controls for Transfer Type Shower Compartments Are transfer type shower compartment are controls, faucets, and shower spray unit hand operated or automatic, not require a force greater than 5 pounds to operate, and not require tight grasping, pinching, or twisting of the wrist? *(608.5)*	☐	☐	
Are controls, faucets, and shower spray unit in transfer type shower compartments located on the side wall opposite the seat 38 inches minimum and 48 inches maximum above the shower floor and located on the control wall 15 inches maximum from the centerline of the seat toward the shower opening? *(608.5.1)* 	☐	☐	
16.11.10 Controls for Standard Roll-In Type Shower Compartments Are standard roll-in type shower compartment are controls, faucets, and shower spray unit hand operated or automatic, not require a force greater than 5 pounds to operate, and not require tight grasping, pinching, or twisting of the wrist? *(608.5)*	☐	☐	
Are controls, faucets, and shower spray unit in standard roll-in type shower compartments located above the grab bar, but no higher than 48 inches above the shower floor? *(608.5.2)*	☐	☐	
Where a seat is provided in a standard roll-in type shower compartment, are the controls, faucets, and shower spray unit located on the back wall adjacent to the seat wall and located at 27 inches maximum from the seat wall? *(608.5.2)* 	☐	☐	

Advisory 608.5.2 Standard Roll-in Type Shower Compartments. In standard roll-in type showers without seats, the shower head and operable parts can be located on any of the three walls of the shower without adversely affecting accessibility.

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
16.11.11 Controls for Alternate Roll-In Type Shower Compartments Are alternate roll-in type shower compartment are controls, faucets, and shower spray unit hand operated or automatic, not require a force greater than 5 pounds to operate, and not require tight grasping, pinching, or twisting of the wrist? *(608.5)*	☐	☐	
Are controls, faucets, and shower spray unit in alternate roll-in type shower compartments located above the grab bar, but no higher than 48 inches above the shower floor? *(608.5.3)*	☐	☐	
Where a seat is provided in alternate roll-in type shower compartments, are the controls, faucets, and shower spray unit located on the side wall adjacent to the seat 27 inches maximum from the side wall behind the seat or on the back wall opposite the seat at 15 inches maximum, left or right, of the centerline of the seat? *(608.5.3)*	☐	☐	
Where a seat is not provided in a alternate roll-in type shower compartments, are controls, faucets, and shower spray unit located on the side wall farthest from the compartment entry? *(608.5.3)*	☐	☐	



16.11.12 Shower Spray Unit and Water in Shower Compartments Does the shower spray unit provide a hose 59 inches long minimum that can be used both as a fixed-position shower head and as a hand-held shower? *(608.6)* EXCEPTION: A fixed shower head located at 48 inches maximum above the shower finish floor shall be permitted instead of a hand-held spray unit in facilities that are not medical care facilities, long-term care facilities, transient lodging guest rooms, or residential dwelling units.	☐	☐	

16.0 Toilet and Bathing Facilities Technical Specifications	Yes	No	Observations
Does the shower spray unit provide and on/off control with a non-positive shut-off? *(608.6)*	☐	☐	
If an adjustable-height shower head on a vertical bar is provided, is the bar installed so as not to obstruct the use of grab bars? *(608.6)* Note: Shower spray units must deliver water that is 120°F maximum.	☐	☐	
Advisory 608.6 Shower Spray Unit and Water. Ensure that hand-held shower spray units are capable of delivering water pressure substantially equivalent to fixed shower heads.			
16.11.13 Shower Compartment Thresholds Are thresholds in roll-in type shower compartments ½ inch high maximum? *(608.7)*	☐	☐	
Are thresholds in transfer type shower compartments ½ inch high maximum and beveled, rounded, or vertical? *(608.7)* EXCEPTION: A threshold 2 inches (51 mm) high maximum shall be permitted in transfer type shower compartments in existing facilities where provision of a ½ inch (13 mm) high threshold would disturb the structural reinforcement of the floor slab.	☐	☐	
16.11.14 Shower Enclosures Are controls, faucets, shower and spray units free of obstructions by a shower compartment enclosure allowing transfer from wheelchairs onto shower seats? *(608.8)*	☐	☐	

XVIII. SIGNAGE

The technical requirements for signs addressed by ADAAG are grouped 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 in the signage checklist for ease of reference. The technical requirements for signs unique to transportation facilities are also provided in the signage checklist.

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 signage checklist sections.

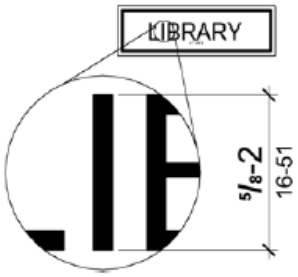
Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, can be provided (216.1, 703.1). In parking facilities, signs are required to comply only with Means of Egress (216.4) 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 CHECKLIST 17 - SIGNAGE

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.

FACILITY: **DATE:**

17.0 Signage Technical Requirements	Yes	No	Observations
Signage Unique to Transportation Facilities			
17.1 Bus Stop Signs 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)*	☐	☐	
To the maximum extent practicable, do bus stop route identification sign comply with Character Height cited below? EXCEPTION: Bus schedules, timetables and maps posted at bus stop or bus bay are not required to comply.	☐	☐	
17.2 Rail Station Entrance Signs 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)*	☐	☐	
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)* EXCEPTION. 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.	☐	☐	
17.3 Routes and Destinations 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)* EXCEPTION: Where sign space is limited, characters are not required to exceed 3 inches.	☐	☐	
17.4 Platform Signs 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)* EXCEPTION. 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.	☐	☐	

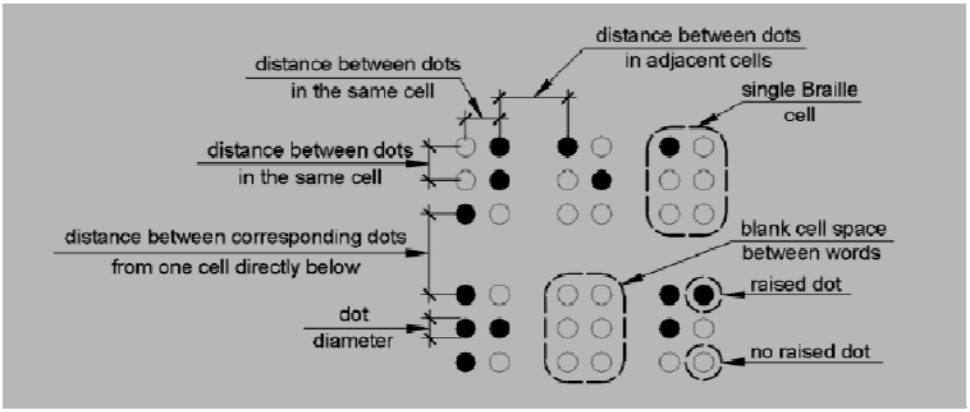
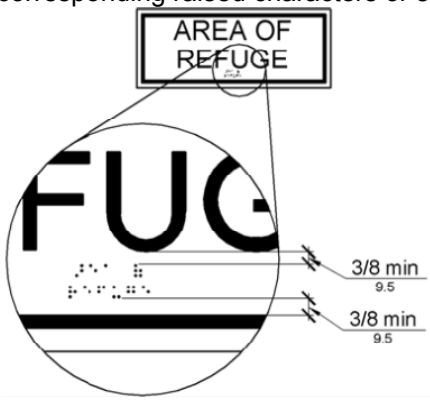
17.0 Signage Technical Requirements	Yes	No	Observations
17.5 Station Name Signs Are identification signs complying with visual signage requirements clearly visible and within the sight lines of standing and sitting passengers from within the vehicle on both sides when not obstructed by another vehicle? *(810.6.3)*	☐	☐	
Advisory 810.6.3 Station Names. 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.			
Raised Characters *(703.2)*			
17.6 Condition Do tactile characters have sharp or abrasive edges? *(703.2)*	☐	☐	
17.7 Depth Are characters raised 1/32 inch minimum above their background? *(703.2.1)*	☐	☐	
17.8 Case Are all raised characters uppercase? *(703.2.2)*	☐	☐	
17.9 Style Are raised characters in a sans serif font? *(703.2.3)* Note: Raised characters must not be italic, oblique, script, highly decorative, or of other unusual forms.	☐	☐	
17.10 Character Proportions Is the width of the uppercase raised letter "O" 55% minimum and 110% maximum of height of uppercase letter "I" for selected font? *(703.2.4)*	☐	☐	
17.11 Character Height 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)* EXCEPTION: Where separate raised and visual characters with same information are provided, raised character height is permitted to be 1/2 inch minimum.  	☐	☐	
17.12 Stroke Thickness Is the stroke thickness of uppercase letter "I" 15% maximum of the height of the character? *(703.2.6)*	☐	☐	

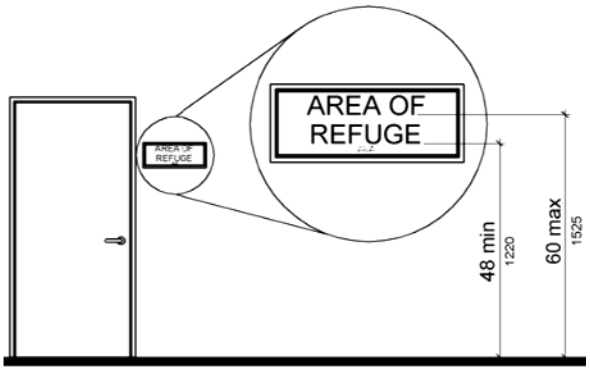
17.0 Signage Technical Requirements	Yes	No	Observations
17.13 Character Spacing Character spacing is measured between two closest points of adjacent raised characters within a message, excluding word spaces and must meet the following conditions. *(703.2.7)*			
a. Rectangular Cross Sections. Where characters 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)*	☐	☐	
b. 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)*	☐	☐	
c. Distance from Borders. Are characters separated from raised borders and decorative elements 3/8 inch minimum? *(703.2.7)*	☐	☐	
17.14 Line Spacing Is spacing between baselines of separate lines of raised characters within message 135 % minimum and 170 % maximum of raised character height? *(703.2.8)*	☐	☐	
Braille *(703.3)*			
17.15 Application Are signs with raised characters duplicated in Braille? *(703.2)*	☐	☐	
17.16 Braille Type Is Braille contracted (Grade 2)? *(703.3)*	☐	☐	
17.17 Dimensions Do Braille dots have domed or rounded shape and measurements complying with Table 703.3.1 below, and ? *(703.3.1)*	☐	☐	

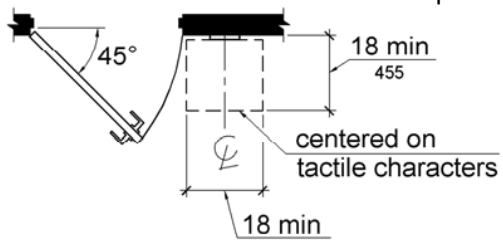
ADAAG Table 703.3.1 Braille Dimensions

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[1]	0.241 to 0.300
Dot height	0.025 to 0.037
Distance between corresponding dots from one cell directly below[1]	0.395 to 0.400

[1.] Measured center to center.

17.0 Signage Technical Requirements	Yes	No	Observations
			
17.18 Capitalization 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)*	☐	☐	
17.19 Position Is Braille positioned below corresponding text? *(703.3.2)* If text is multi-lined, is Braille placed below the entire text? *(703.3.2)* 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)* EXCEPTION: 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. 	☐ ☐ ☐	☐ ☐ ☐	
Installation Height and Location *(703.4)*			
17.20 Height Above Finish Floor or Ground 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)* EXCEPTION: Tactile characters for elevator car controls are not required to comply with 703.4.1.	☐	☐	



17.21 Location Where a tactile sign is provided at door, is the sign located alongside the door at the latch side? *(703.4.2)*	☐	☐	
Where a tactile sign is provided at double doors with one active leaf, is the sign located on the inactive leaf? *(703.4.2)*	☐	☐	
Where a tactile sign is provided at double doors with two active leafs, is the sign located to the right of right hand door? *(703.4.2)*	☐	☐	
Where there is no wall space at the latch side of single door or at the right side of double doors, is the sign located on the nearest adjacent wall? *(703.4.2)*	☐	☐	
Are signs containing tactile characters located so that a clear floor space of 18 inches minimum by 18 inches minimum, centered on tactile characters, is provided beyond the arc of any door swing between the closed position and the 45 degree open position? *(703.4.2)* EXCEPTION: Signs with tactile characters are permitted on push side of doors with closers and without hold-open devices.  	☐	☐	

Visual Characters *(703.5)*

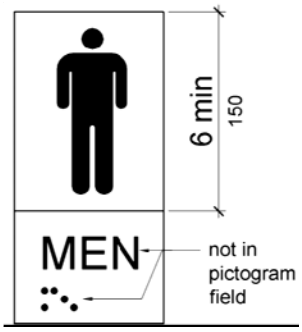
17.22 General Do characters in visual signs comply with finish and contrast, case, style, character proportions and height, stroke thickness, character and line spacing (703.5.1 - 703.5.9) cited below? *(703.5)* EXCEPTION: Where visual characters comply with 703.2 [Raised Characters] and are accompanied by Braille complying with 703.3, they are not required to comply with 703.5.2 through 703.5.9.	☐	☐	

17.0 Signage Technical Requirements	Yes	No	Observations
17.23 Finish and Contrast 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)*	☐	☐	
Advisory 703.5.1 Finish and Contrast. 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.			
17.24 Case Are characters uppercase or lowercase or combination of both? *(703.5.2)*	☐	☐	
17.25 Style Are characters in conventional form? Characters must not be italic, oblique, script, highly decorative, or of other unusual forms. *(703.5.3)*	☐	☐	
17.26 Character Proportions Are characters selected from fonts where width of uppercase letter "O" is 55% minimum and 110% maximum of the height of the uppercase letter "I"? *(703.5.4)*	☐	☐	
17.27 Character Height 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)*	☐	☐	

ADAAG Table 703.5.5 Visual Character Height

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
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

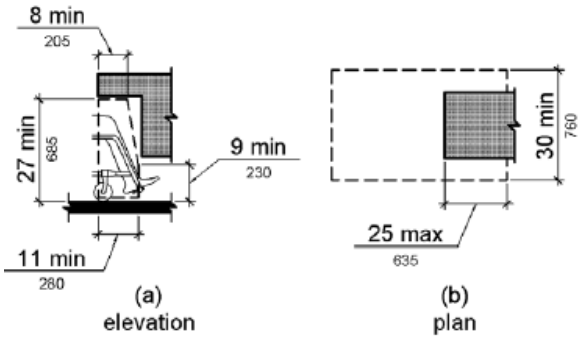
17.28 Height From Finish Floor or Ground Are visual characters 40 inches minimum above the finished floor or ground? *(703.5.6)* EXCEPTION: Visual characters indicating elevator car controls are not required to comply with 703.5.6.	☐	☐	
17.29 Stroke Thickness Is the stroke thickness of the uppercase letter "I" 10% minimum and 30% maximum of height of the character? *(703.5.7)*	☐	☐	

17.0 Signage Technical Requirements	Yes	No	Observations
17.30 Character Spacing Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Is spacing between individual characters 10% minimum and 35% maximum of the character height? *(703.5.8)*	☐	☐	
17.31 Line Spacing Is spacing between the baselines of separate lines of characters within a message 135% minimum and 170% maximum of the character height? *(703.5.9)*	☐	☐	
Pictograms *(703.6)*			
17.32 Pictogram Field Is the field height of a pictogram 6 inches minimum? *(703.6.1)* Note: Characters and Braille are not to be in pictogram field. 	☐	☐	
17.33 Finish and Contrast 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)*	☐ ☐	☐ ☐	
17.34 Text Descriptors Do pictograms have text descriptors directly below the pictogram field? *(703.6.3)* Note: Text descriptors must comply with 703.2 (raised Characters), 703.3 (Braille) and 703.4 (Installation Height and Location).	☐	☐	
Symbols of Accessibility *(703.7)*			
17.35 Finish and Contrast Do symbols of accessibility and their background have a non-glare finish? *(703.6.3)* Do symbols of accessibility contrast with their background with either light symbol on dark background or dark symbol on light background? *(703.7.1)*	☐ ☐	☐ ☐	

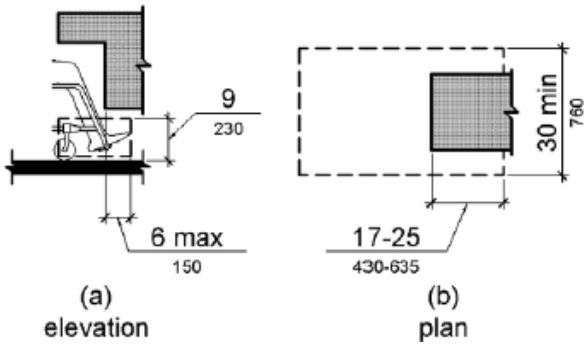
17.0 Signage Technical Requirements	Yes	No	Observations
17.36 International Symbol of Accessibility Does the International Symbol of Accessibility comply with figure as shown below? *(703.7.2.1)* 	☐	☐	
17.37 International Symbol of TTY Does the International Symbol of TTY comply with figure as shown below? *(703.7.2.2)* 	☐	☐	
17.38 Volume Control Telephones. Are telephones with volume control identified by pictogram of telephone handset with radiating sound waves on square field as shown below? *(703.7.2.3)* 	☐	☐	
17.39 Assistive Listening Systems Are assistive listening systems identified by the International Symbol of Access for Hearing Loss as shown below? *(703.7.2.4)* 	☐	☐	

XIX. DRINKING FOUNTAINS

The most critical measurements having to do with water fountain compliance are the toe and knee clearances specifications for accessible fountains. The sketches and specifications below are provided to give clarification to those requirements.



Knee Clearances



Toe Clearances

Toe Clearance: Space under an element between the finish floor or ground and 9 inches above the finish floor or ground shall be considered toe clearance.

- Maximum Depth. Toe clearance shall extend 25 inches maximum under an element.
- Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches minimum under the element.
- Additional Clearance. 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.
- Width. Toe clearance shall be 30 inches wide minimum.

Knee Clearance: Space under an element between 9 inches and 27 inches above the finish floor or ground shall be considered knee clearance.

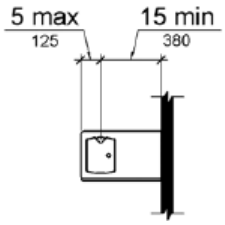
- Maximum Depth. Knee clearance shall extend 25 inches maximum under an element at 9 inches above the finish floor or ground.
- Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground, and 8 inches deep minimum at 27 inches above the finish floor or ground.
- Clearance Reduction. Between 9 inches and 27 inches above the finish 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.
- Width. Knee clearance shall be 30 inches wide minimum.

Survey Instructions. Before performing the technical assessment, walk through the facility and note the number of drinking fountains provided and identify and uniquely number them on a sketch of the facility. A tape measure and digital camera are the principal assessment tools needed to conduct the drinking fountain assessment.

In completing the checklist, note that extra space is provided to elaborate where a simple "yes" or "no" is insufficient. Record as precisely as possible what the problem is; for example, "Clear floor space in front of fountain only 36 X 36 inches," or "Toe clearance limited to 12 inches under fountain." This information will be helpful later in summarizing the results of the assessment and preparing recommended modifications to correct noncompliant elements.

FACILITY: **DATE:**

18.0 Drinking Fountain Technical Specifications	**Yes**	**No**	**Observations**
18.1 Minimum Required Are at least two drinking fountains provided, one being wheelchair accessible and the other designed to accommodate people who have difficulty bending or stooping? *(211.2)* EXCEPTION: Single units that provide both types of access are permitted as an alternative to multiple installations. Where fractions result (i.e., provision of an odd number of units), rounding up or down is permitted.	☐	☐	
18.2 More than Minimum Number Where there is more than one drinking fountain on a floor, do 50% offer dual accessibility? *(211.3)* EXCEPTION: Where 50 percent of the drinking fountains yields a fraction, 50 percent shall be permitted to be rounded up or down provided that the total number of drinking fountains complying with 211 equals 100 percent of drinking fountains.	☐	☐	
18.3 Accessible Route Is the accessible drinking fountain on an accessible route? *(402)*	☐	☐	
18.4 Clear Floor Space Do units provide a clear floor space (30 inches by 48 inches minimum) for a forward approach, centered on the unit, and are required knee and toe clearances provided (see 18.0 section)? *(602.2)* EXCEPTION: A parallel approach shall be permitted at units for children's use where the spout is 30 inches maximum above the finish floor or ground and is 3-1/2 inches maximum from the front edge of the unit, including bumpers.	☐	☐	
18.5 Protruding Objects If a wall mounted drinking fountain has a leading edge between 27 and 80 inches from the floor, does it project less than 4 inches into the pathway? *(307.2)* Note: Wall mounted fountains 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.	☐	☐	
18.6 Spout - Height At an accessible drinking fountain, is the spout outlet no higher than 36 inches from the floor? *(602.4)* Note: Spout outlets of drinking fountains for standing persons shall be 38 inches minimum and 43 inches maximum above the finish floor or ground. *(602.7)*	☐	☐	

18.0 Drinking Fountain Technical Specifications	Yes	No	Observations
18.7 Spout Location Is the water spout located 15 inches minimum from the vertical support and 5 inches maximum from the front edge of the unit, including any bumpers? *(602.5)* 	☐	☐	
18.8 Water Flow Does the spout provide a flow of water 4 inches high minimum and is it located 5 inches maximum from the front of the unit? *(602.6)* Note: The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches and 5 inches maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum. *(602.6)*	☐	☐	
Advisory 602.6 Water Flow. The purpose of requiring the drinking fountain spout to produce a flow of water 4 inches (100 mm) high minimum is so that a cup can be inserted under the flow of water to provide a drink of water for an individual who, because of a disability, would otherwise be incapable of using the drinking fountain.			
18.9 Controls - Location Are the controls located on the front or the side near the front edge? *(309.3)*	☐	☐	
18.10 Operable Parts Are the controls operable with one hand, without tight grasping, pinching, or twisting of the wrist, and is the force to operate the controls no greater than 5 lbf? *(602.3)*	☐	☐	

XX. MANEUVERING AND REACH RANGE

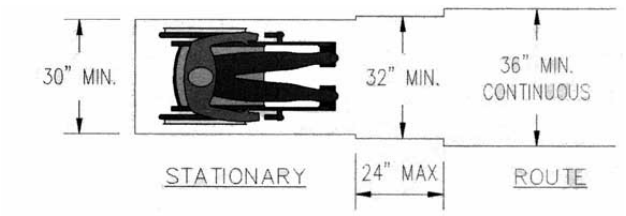
Accessible reach ranges are specified according to the approach (forward or side) and the depth of reach over any obstruction. The ADA Accessibility Guidelines (ADAAG) permit a forward high reach maximum of 48 inches and a forward low reach minimum of 15 inches. ADAAG also specifies a maximum side (parallel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

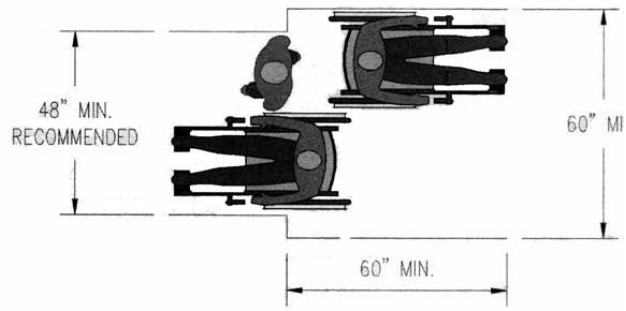
The technical specifications for maneuvering spaces and reach ranges have been liberally supplemented with sketches and drawings illustrating the various maneuvering space and reach range configurations to simplify the interpretation and application of the standards.

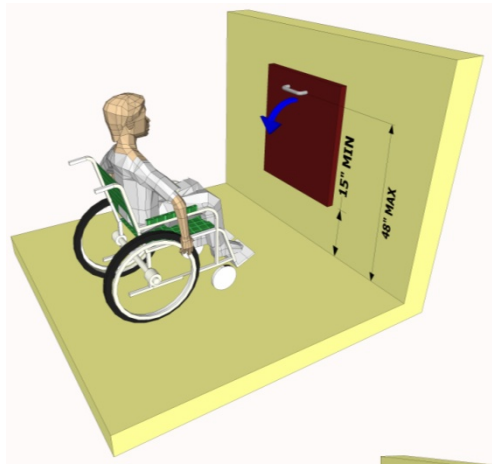
Adult dimensions and measures for standard manual wheelchairs form the basis of many of the accessibility standards. Space at least 30 by 48 inches is the minimum required for a person using a wheelchair. A minimum width of 30 inches is generally sufficient for stationary space and additional clearance 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.

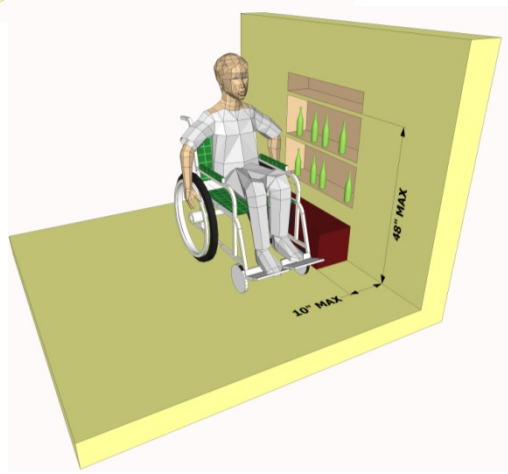
A minimum width of 30 inches is generally sufficient for stationary space. Additional clearance is needed for maneuvering and sway. A clear width of at least 48 inches (recommended but not required) allows for comfortable flow for people who use wheelchairs and people who are ambulatory. Space at least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

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.





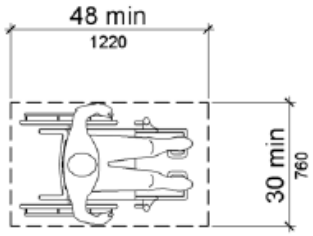


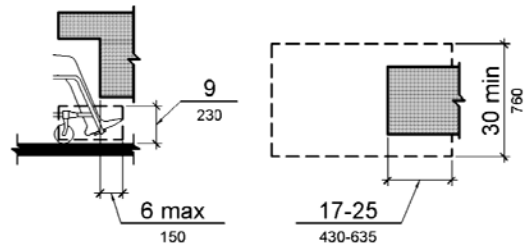
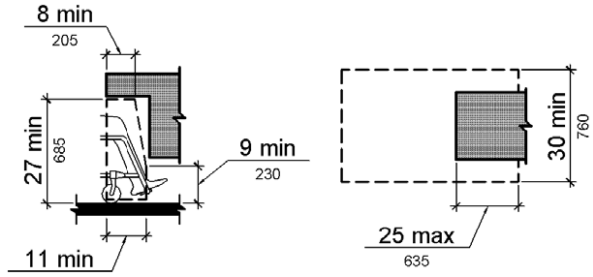


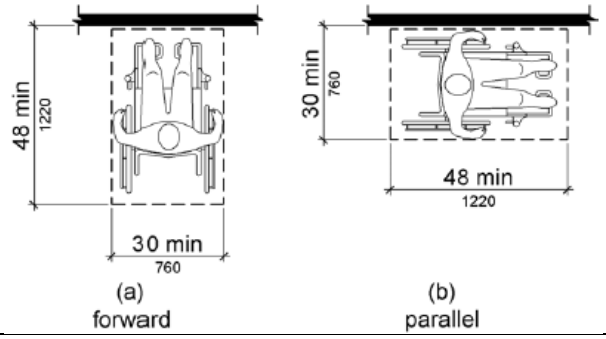
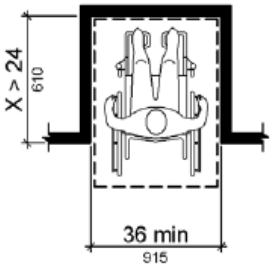
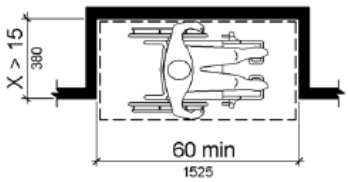
ADA CHECKLIST 19 – MANEUVERING AND REACH RANGE REQUIREMENTS

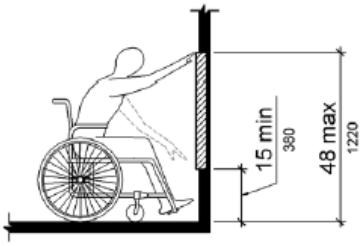
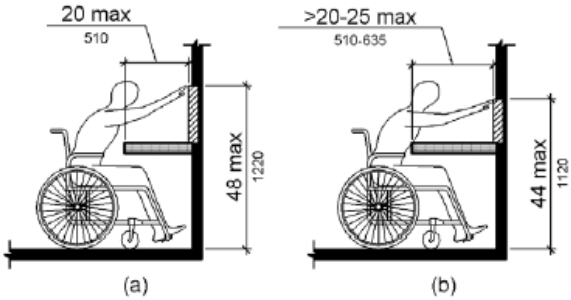
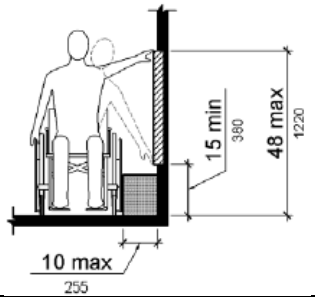
Survey Instructions. A tape measure and digital camera are the principal assessment tools needed to assess the maneuvering spaces and reach ranges in SFRTA facilities.

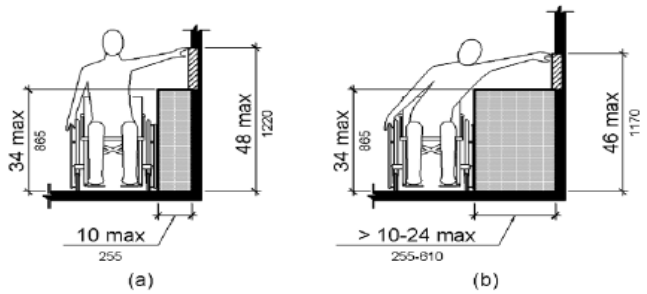
FACILITY: **DATE:**

19.0 Maneuvering and Reach Range Technical Specifications	**Yes**	**No**	**Observations**
19.1 Clear Floor or Ground Space			
19.1.1 General Is the clear floor or ground space stable, firm, and slip resistant, and free of changes in level? *(305.2)*	☐	☐	
19.1.2 Size Is the provided clear floor or ground space 30 inches minimum by 48 inches minimum? *(305.3)* 	☐	☐	
19.2 Knee and Toe Clearance Note: Unless otherwise specified, clear floor or ground space shall be permitted to include knee and toe clearance. *(305.4)*			
19.2.1 General Note: 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)*			
Advisory 306.1 General. 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.			
19.2.2 Toe Clearance 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)*	☐	☐	
19.2.2.1 Maximum Depth Does the toe clearance extend 25 inches maximum under an element? *(306.2.2)*	☐	☐	

19.0 Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
19.2.2.2 Minimum Required Depth 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)* 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)*	☐	☐	
19.2.2.3 Width Is the toe clearance at least 30 inches wide? *(306.2.5)* 	☐	☐	
19.2.3 Knee Clearance Is space provided under an element between 9 inches and 27 inches above the finished floor or ground for knee clearance? *(306.3.1)*	☐	☐	
19.2.3.1 Maximum Depth Does the knee clearance extend 25 inches maximum under an element at 9 inches above the finished floor or ground? *(306.3.2)*	☐	☐	
19.2.3.2 Minimum Required Depth 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)* Note: 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)*	☐	☐	
19.2.3.3 Width Is the knee clearance at least 30 inches wide? *(306.3.5)* 	☐	☐	

19.0 Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
19.3 Position Is clear floor or ground space positioned to allow for either a forward or a parallel approach to an element? *(305.5)*  	☐	☐	
19.4 Approach 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)*	☐	☐	
19.5 Maneuvering Clearance 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)* 19.5.1 Forward Approach Is the forward maneuvering clearance in alcoves 36 inches wide minimum where the depth exceeds 24 inches? *(305.7.1)*  	☐	☐	
19.5.2 Parallel Approach Is the alcove 60 inches wide minimum where the depth exceeds 15 inches for a parallel approach? *(305.7.2)*  	☐	☐	

19.0 Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
19.6 Reach Ranges 19.6.1 Unobstructed Forward Reach 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? *(308.2.1)* 	☐	☐	
19.7 Obstructed Forward High Reach 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)* Note. 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. 	☐	☐	
19.8 Unobstructed Side Reach 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)* EXCEPTION 1: 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. 	☐	☐	

19.0 Maneuvering and Reach Range Technical Specifications	Yes	No	Observations
<u>19.9 Obstructed High Side Reach</u> 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)* Note. 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.  	☐	☐	

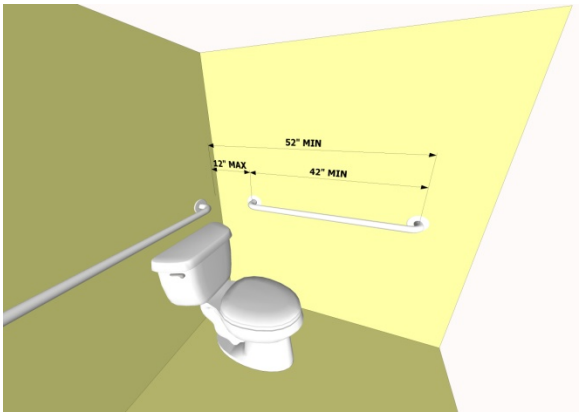
XXI. HANDRAILS AND GRAB BARS

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%), 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 summary of the ADAAG technical requirements for handrails and grab bars follows:

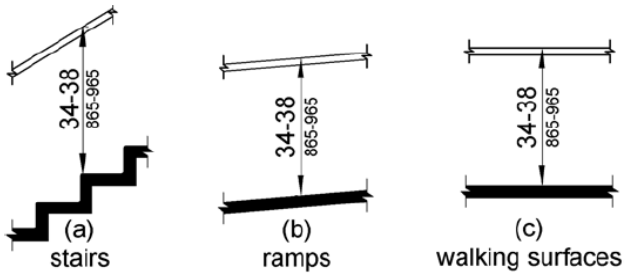
- The clearance between handrail gripping surfaces and adjacent surfaces must be 1½ inches minimum.
- Handrail gripping surfaces must have edges with rounded edges.
- Handrail gripping surfaces with a circular cross section are to have an outside diameter of 1¼ inches to 2 inches. Handrail gripping surfaces 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 ⅛ inch for each ½ 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 (or when they become hazardous to cross pedestrian traffic).

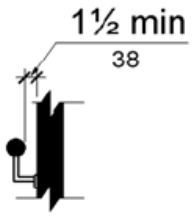
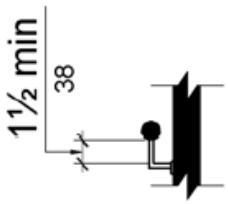


ADA CHECKLIST 20 – HANDRAILS AND GRAB BARS

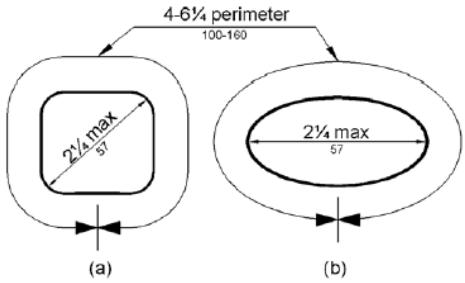
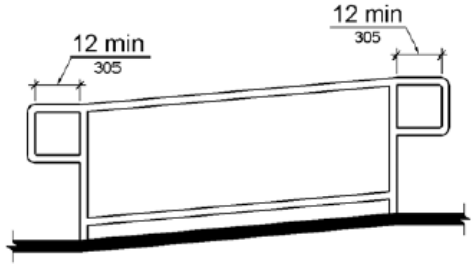
Survey Instructions. A tape measure and digital camera are the principal assessment tools needed to conduct the handrail and grab bar assessments.

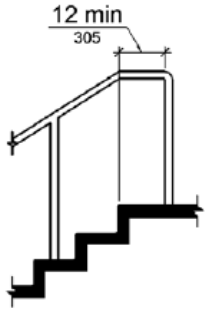
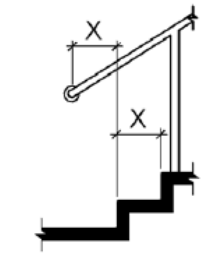
FACILITY: **DATE:**

20.0 Handrails and Grab Bars Technical Specifications	Yes	No	Observations
20.1 Where Handrails Are Required If handrails are required, are they provided on both sides of stairs and ramps? *(505.2)* EXCEPTION: 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.	☐	☐	
Advisory 505.1 General. 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%). 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.			
20.2 Continuity of Handrails Are handrails continuous within the full length of each stair flight or ramp run? *(505.3)*	☐	☐	
20.3 Inside Handrail On dogleg or switchback ramps, are the inside handrails continuous? *(505.3)*	☐	☐	
20.4 Handrail Height Is the top gripping surface of the handrail between 34 and 38 inches vertically above walking surfaces, stair nosings, and ramp surfaces? *(505.4)* Note: Handrails shall be at a consistent height. *(505.4)*  	☐	☐	

20.5 Handrail Clearance Is the clear space between handrail gripping surfaces and adjacent surfaces at least 1-1/2 inches? *(505.5)*  	☐	☐	
20.6 Handrail Gripping Surface Are handrail gripping surfaces continuous along their length and not obstructed along their tops or sides? *(505.6)* Note: 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)*  EXCEPTION 1. Where handrails are provided along walking surfaces with slopes not steeper than 1:20 (5%), 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. EXCEPTION 2. 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.	☐	☐	

Advisory 505.6 Gripping Surface. 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.

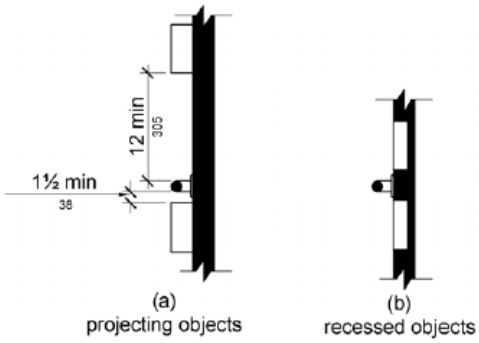
20.7 Diameter of Handrail 20.7.1 Circular Handrail: Do handrail gripping surfaces with a circular cross section have an outside diameter of 1-1/4 inches minimum and 2 inches maximum? *(505.7.1)* 20.7.2 Non-Circular Handrail: Do handrail gripping surfaces with a non-circular cross section have a perimeter 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)* 	☐ ☐	☐ ☐	
20.8 Handrail Surfaces 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)*	☐	☐	
20.9 Handrail Fittings Are handrails fixed so that they do not rotate within their fittings? *(505.9)*	☐	☐	
20.10 Handrail Extensions 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)* EXCEPTION 1. Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps. EXCEPTION 2. 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. EXCEPTION 3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.	☐	☐	
20.11 Extension Returns on Ramps: 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)* 	☐	☐	

20.12 Handrail Extension at Top of Stairs 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)*  	☐	☐	
20.13 Handrail Extension at Bottom of Stairs 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)*  Note: X = tread depth	☐	☐	
20.14 Handrail Extension Returns 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)*	☐	☐	

Grab Bars

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)*

20.15 Grab Bar Spacing Between Wall Is the space between the wall and the grab bar 1-1/2 inches? *(609.3*	☐	☐	
20.16 Grab Bar Spacing Between Projecting Objects Below and at Ends Is the space between the grab bar and projecting objects below it and at the ends 1-1/2 inches minimum? *(609.3)*	☐	☐	

<u>20.17 Grab Bar Spacing Between Projecting Objects Above</u> Is the space between the grab bar and projecting objects above it 12 inches minimum? *(609.3)* EXCEPTION: 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.  	☐	☐	
<u>20.18 Position of Grab Bars</u> 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)*	☐	☐	
<u>20.19 Grab Bar Surface Hazards</u> Are grab bars and wall or other surfaces adjacent to grab bars free of sharp or abrasive elements and have rounded edges? *(609.5)*	☐	☐	
<u>20.20 Grab Bar Installation</u> 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)*	☐	☐	
<u>20.21 Grab Bar Structural Strength</u> 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)*	☐	☐	

XXII. BUS STOPS

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 SFRTA constructs a bus boarding and alighting 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 SFRTA constructs a new 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."

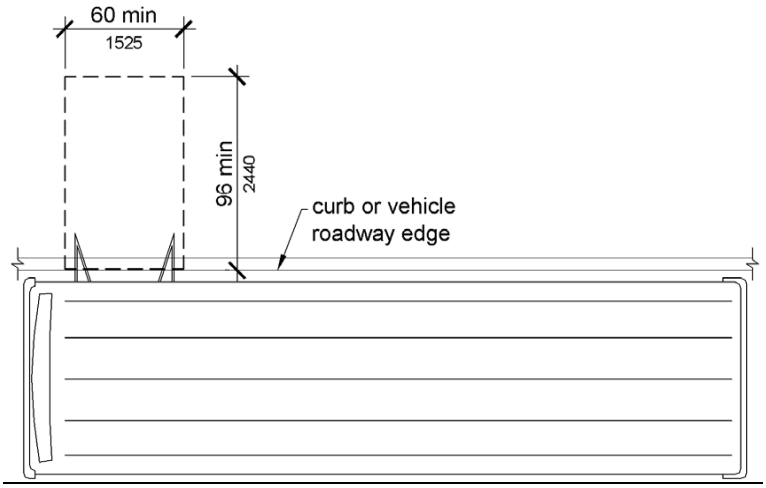
There is no "path of travel" requirement in Title II of the ADA. That means, if SFRTA puts in a new bus stop pole, it is responsible for the accessibility of the pole. Primarily, that means the sign on it. However, the implementing regulation requires SFRTA to exert whatever design control it may have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

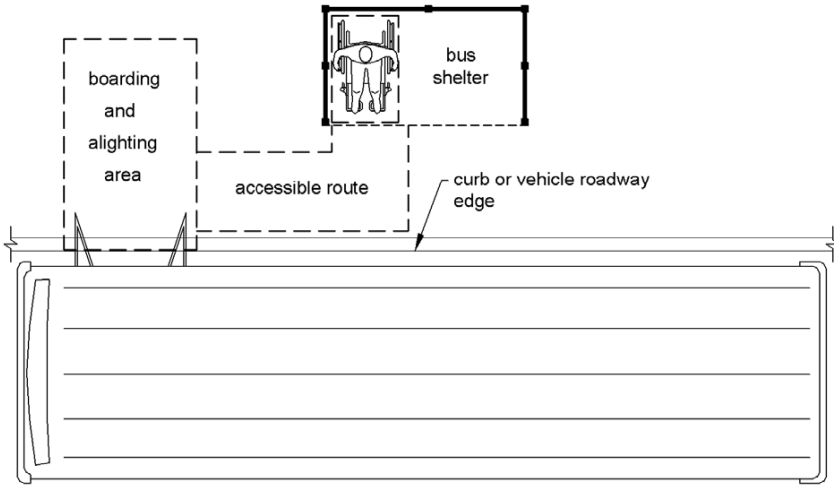
Curb ramps may also present a problem with respect to bus stops. If the curb ramps in the vicinity of a bus stop were constructed as a part of the bus stop construction or improvement effort, USDOT Final Rule adopting the revised ADAAG (November 29, 2006) requires that a detectable warning complying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

ADA CHECKLIST 21 – 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 SFRTA 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.

FACILITY: **DATE:**

21.0 Bus Stop Technical Specifications	Yes	No	Observations
21.1 Surface of Boarding and Alighting Area Does the boarding and alighting area have a firm, stable surface? *(810.2.1)*	☐	☐	
21.2 Dimensions of Boarding and Alighting Area 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? *(810.2.2)*  	☐	☐	
21.3 Connection of Boarding and Alighting Area to Adjoining Elements Is the bus stop boarding and alighting area connected to streets, sidewalks, or pedestrian paths by an accessible route? Use Checklist 2 – Accessible Route. *(810.2.3)*	☐	☐	
21.4 Slope of Bus Stop Boarding or Alighting Area 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)*	☐	☐	
Perpendicular to the roadway, is the slope of the bus stop boarding and alighting area no steeper than 1:48 (2%)? *(810.2.4)*	☐	☐	

21.0 Bus Stop Technical Specifications	Yes	No	Observations
21.5 Bus Shelters Clear Floor or Ground Space 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)* Note: 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 19 - Maneuvering/Reach Ranges, for detailed requirements.	☐	☐	
Advisory 810.2 Bus Boarding and Alighting Areas. 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.			
21.6 Connection of Bus Shelters to Adjoining Elements If the bus stop has a shelter, is it connected by an accessible route to the boarding and alighting area? Use Checklist 2 – Accessible Route. *(810.3)*  	☐	☐	
21.7 Bus Stop Signs 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)* Note: See Checklist 17 - Signage, for detailed sign specifications such as character height, proportions, size and spacing. EXCEPTION: Bus schedules, timetables and maps that are posted at the bus stop or bus bay shall not be required to comply.	☐	☐	

XXIII. STAIRS

Only interior and exterior stairs that are part of a means of egress in existing SFRTA facilities are required to be compliant. However, ADAAG requires that, in alterations, stairs between levels that are connected by an accessible route are not required to be compliant, except that compliant handrails must be provided when the stairs are altered. It is important to be aware that although the ADA Accessibility Guidelines may not require accessibility, most building codes require stairs to comply with similar requirements, particularly when stairs are provided between levels not connected by an accessible means of vertical travel.

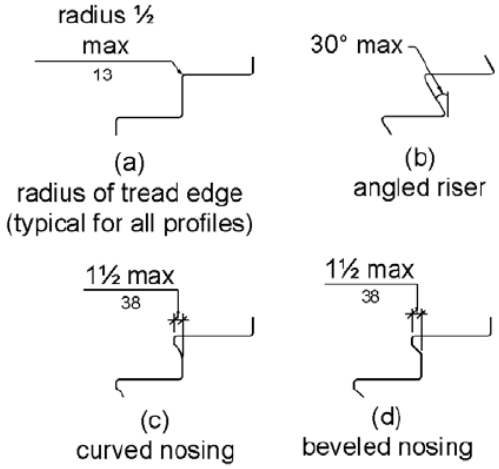
Handrails are a significant consideration when determining accessibility compliance of stairways. Handrail complexity and requirements are included in the SFRTA Checklist 20 – Handrails and Grab Bars and must be used in conjunction with this checklist to provide a comprehensive evaluation of the stairway accessibility.

ADA CHECKLIST 22 – STAIRS

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

FACILITY: **DATE:**

22.0. Stairs Technical Specifications	Yes	No	Observations
Stairs 22.1 Requirement Is interior or exterior stairs part of a means of egress? *(210.1)* Exception: In alterations, stairs between levels that are connected by an accessible route shall not be required to be accessible, except that compliant handrails shall be provided when the stairs are altered. Note. Stairs are generally not considered a part of the accessible route and are not required to be compliant unless they are part of a means of egress. For handrail requirements at stairs, use Checklist 20 - Handrails and Grab Bars.	☐	☐	
Advisory 210.1 General. Although these requirements do not mandate handrails on stairs that are not part of a means of egress, State or local building codes may require handrails or guards.			
22.2 Treads and Risers 22.2.1 Uniformity In any one flight of stairs, do all the steps have uniform riser heights and tread depths? *(504.2)*	☐	☐	
22.2.2 Riser Dimensions Are stair risers at least 4 inches high and not more than 7 inches high? *(504.2)*	☐	☐	
22.2.3 Tread Dimensions Are stair treads at least 11 inches deep? *(504.2)*	☐	☐	
22.2.4 Closed Risers Are the risers closed? *(504.3)*	☐	☐	
22.2.5 Tread Surface Are stair tread surfaces firm, stable, and slip resistant? *(504.4)*	☐	☐	
22.2.6 Tread Changes in Level Do stair tread surfaces have changes in level no greater than ¼ inch or have changes in level between ¼ inch and ½ inch and beveled at a 1:2 slope? *(504.4)*	☐	☐	
22.2.7 Tread Surface Slope Is the slope of stair tread surfaces equal or less than 1:48 (2%)? *(504.4)*	☐	☐	
22.3 Nosings Do stair nosings project no more than 1-1/2 inches over the tread below? *(504.5)*	☐	☐	

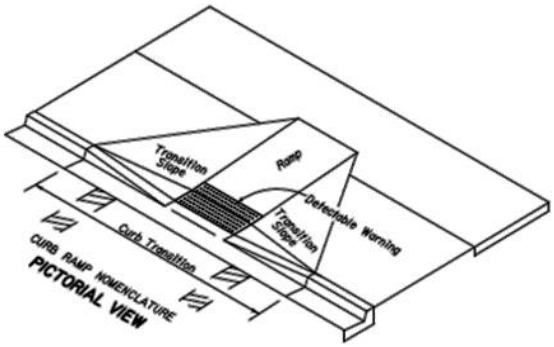
22.0. Stairs Technical Specifications	Yes	No	Observations
			
22.4 Riser Slope If nosings do project, do the risers slope toward the nosings and slope under the tread at an angle of 30 degrees maximum from vertical to prevent tripping in an ascending direction? *(504.5)*	☐	☐	
22.5 Nosing Radius Is the radius of the curvature at the leading edge of the tread no more than 1/2 inch? *(504.5)*	☐	☐	

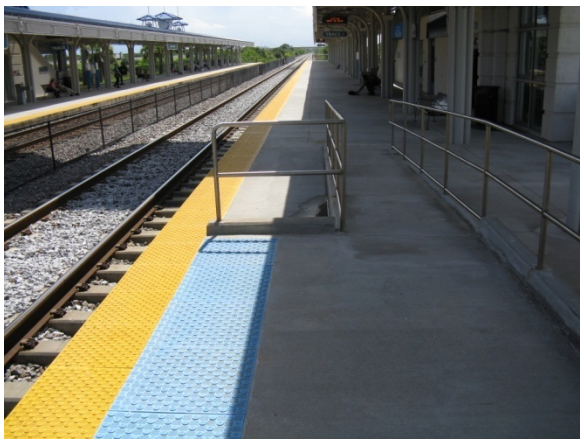
XXIV. DETECTABLE WARNING

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 November 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 (DOJ) and Transportation (DOT), 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.

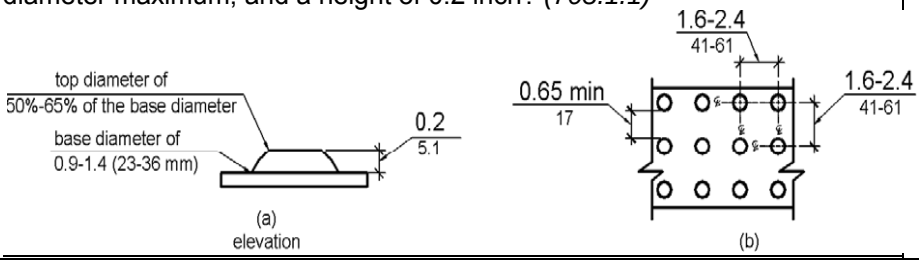




ADA CHECKLIST 23 – DETECTABLE WARNING

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

FACILITY: **DATE:**

23.0 Detectable Warning Technical Specifications	Yes	No	Observations
23.1 Configuration Does the detectable warning consist of raised truncated domes? *(705.1)*	☐	☐	
23.2 Dome Size 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)*  	☐	☐	
23.3 Dome Spacing 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)*	☐	☐	
23.4 Visual Contrast Does the detectable warning contrast visually with adjacent walking surfaces (light-on-dark or dark-on-light)? *(705.1.3)*	☐	☐	

XXV. MISCELLANEOUS ROOMS AND SPACES

Many of the formed checklists developed for SFRTA use in evaluating facility and element accessibility compliance with the ADA Accessibility Guidelines (ADAAG) are applicable for use when evaluating special spaces such as dressing, fitting, locker rooms, and storage spaces. Where appropriate, this checklist will direct the user to a specific checklist for the assessment of specific elements such as doors, accessible route, maneuvering space, reach range, etc.

Access to interior spaces of a facility cannot be fully assessed for accessibility compliance without evaluating the entire accessible route from points of arrival at the facility to the space of interest. The assessor should consider this fact and utilize appropriate checklists to provide a complete assessment.

SFRTA employees arrive at various locations and facilities throughout the transit system necessary for the performance of their duties. These work or reporting locations may provide spaces for employees to dress, prepare, or clean-up before and after working. Spaces provided for these purposes must be minimally accessible where appropriate. Use of this checklist will allow an evaluation of the spaces to determine compliance with accessibility standards.

ADA CHECKLIST 24 – MISCELLANEOUS ROOMS AND SPACES

Survey Instructions. A tape measure, electronic level, and digital camera are the principal assessment tools needed to assess miscellaneous rooms and spaces in SFRTA facilities.

Issues to be Aware of. This checklist provides criteria for the assessment of dressing rooms, fitting rooms, locker rooms, storage areas, benches, dining surfaces, and work surfaces. For toilet and bathing facilities assessment as a part of the evaluation of dressing, fitting, and locker room spaces, refer to Checklist 16 – Toilet and Bathing Facilities.

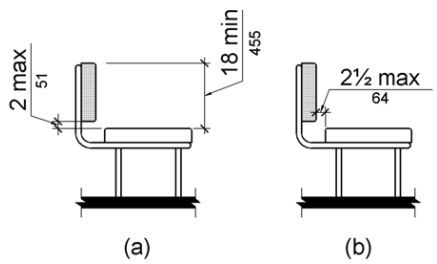
FACILITY/SPACE: **DATE:**

24.0. Miscellaneous Rooms and Spaces Technical Specifications	Yes	No	Observations
24.1 General Where dressing rooms, fitting room, or locker rooms are provided, are at least 5%, but no fewer than one, of each type of use in each cluster accessible? *(222.1, 803.1)* EXCEPTION: In alterations, where it is technically infeasible to provide rooms in accordance with 222.1, one room for each sex on each level must be accessible. Where only unisex rooms are provided, unisex rooms shall be permitted.	☐	☐	

Advisory 222.1 General. A "cluster" is a group of rooms proximate to one another. Generally, rooms in a cluster are within sight of, or adjacent to, one another. Different styles of design provide users varying levels of privacy and convenience. Some designs include private changing facilities that are close to core areas of the facility, while other designs use space more economically and provide only group dressing facilities. Regardless of the type of facility, dressing, fitting, and locker rooms should provide people with disabilities rooms that are equally private and convenient to those provided others.

Advisory 803.1 General. Partitions and doors should be designed to ensure people using accessible dressing and fitting rooms privacy equivalent to that afforded other users of the facility. Section 903.5 requires dressing room bench seats to be installed so that they are at the same height as a typical wheelchair seat, 17 inches (430 mm) to 19 inches (485 mm). However, wheelchair seats can be lower than dressing room benches for people of short stature or children using wheelchairs.

24.2 Coat Hooks and Shelves Where coat hooks or shelves are provided in dressing, fitting or locker rooms without individual compartments, or provided in individual compartments, does at least one of each type comply with the reach range requirements of ADAAG 308 (use Checklist 19 – Maneuvering/Reach Range)? *(222.2, 803.5)*	☐	☐	
24.3 Turning Space Is a turning space compliant with ADAAG 304 requirements provided within the room (use Checklist 19 – Maneuvering/Reach Range)? *(803.2)*	☐	☐	
24.4 Doors to Spaces If provided, do the door(s) to dressing, fitting, and locker rooms comply with ADAAG 404 (use Checklist 6 – Doors and Gates)? *(404)*	☐	☐	
24.5 Door Swing Does the door to the room swing into the room where a clear floor or ground space complying with ADAAG 305.3 is provided beyond the arc of the door swing (use Checklist 19 – Maneuvering/Reach Range)? *(803.3)*	☐	☐	

24.0. Miscellaneous Rooms and Spaces Technical Specifications	Yes	No	Observations
24.6 Benches *(803.4)*			
24.6.1 Clear Floor and Ground Space Is a space at least 30 inches by 48 inches positioned at the end of the bench seat and parallel to the short axis of the bench provided? *(903.2)*	☐	☐	
24.6.2 Size Are bench seats at least 42 inches long and 20 inches deep, and no more than 24 inches deep? *(903.3)*	☐	☐	
24.6.3 Back Support Do benches have back supports or are they affixed to a wall? *(903.4)*	☐	☐	
Are bench back supports at least 42 inches long and extend from a point 2 inches maximum above the seat surface to a point at least 18 inches above the seat surface? *(903.4)* Note: Bench back supports must be 2-1/2 inches maximum from the rear edge of the seat when measured horizontally.  	☐	☐	
Advisory 903.4 Back Support. To assist in transferring to the bench, consider designs providing grab bars on a wall adjacent to the bench, but not on the seat back. If provided, grab bars cannot obstruct transfer to the bench.			
24.6.4 Height Is the top of the bench seat surface at least 17 inches and no more than 19 inches above the finished floor or ground? *(903.5)*	☐	☐	
24.6.5 Structural Strength Does the bench support a maximum vertical force of 250 pounds applied at any point on the seat, fastener, mounting device, or supporting structure? *(903.6)*	☐	☐	
24.6.6 Wet Locations Where in installed in wet locations, does the surface of the bench seat have a slip resistant surface and not accumulate water? *(903.7)*	☐	☐	
24.7 Storage *(225, 811)*			
24.7.1 General Where storage is provided in accessible spaces, is at least one of each type accessible? *(225.1)*	☐	☐	

24.0. Miscellaneous Rooms and Spaces Technical Specifications	Yes	No	Observations
Advisory 225.2 Storage. Types of storage include, but are not limited to, closets, cabinets, shelves, clothes rods, hooks, and drawers. Where provided, at least one of each type of storage must be within the reach ranges specified in 308; however, it is permissible to install additional storage outside the reach ranges.			
24.7.2 Lockers Where lockers are provided, are at least 5%, but no fewer than one of each type accessible? *(225.2.1)*	☐	☐	
Advisory 225.2.1 Lockers. Different types of lockers may include full-size and half-size lockers, as well as those specifically designed for storage of various sports equipment.			
24.7.3 Clear Floor or Ground Space Is a space at least 30 inches by 48 inches provided at storage spaces? *(811.2)*	☐	☐	
24.7.4 Height Where storage spaces are provided, does at least one of each type comply with the reach range requirements of ADAAG 308 (use Checklist 19 – Maneuvering/Reach Range)? *(811.3)*	☐	☐	
24.7.5 Operable Parts Are controls and operating mechanisms operable with one hand and do not require tight grasping, pinching, or twisting of the wrist? *(811.4)* Note: ADAAG requires that the force required to activate operable parts not exceed 5 foot pounds force.	☐	☐	
24.8 Dining Surfaces and Work Surfaces *(226, 902)* 24.8.1 General Where dining surfaces are provided for the consumption of food or drink, are at least 5% of the seating spaces and standing spaces at the dining surfaces accessible? In addition, where work surfaces are provided for use by other than employees, are at least 5% accessible? *(226.1)* EXCEPTION: Sales counters and service counters shall not be required to comply with 902.	☐	☐	
Advisory 226.1 General. In facilities covered by the ADA, this requirement does not apply to work surfaces used only by employees. However, the ADA and, where applicable, Section 504 of the Rehabilitation Act of 1973, as amended, provide that employees are entitled to "reasonable accommodations." With respect to work surfaces, this means that employers may need to procure or adjust work stations such as desks, laboratory and work benches, fume hoods, reception counters, teller windows, study carrels, commercial kitchen counters, and conference tables to accommodate the individual needs of employees with disabilities on an "as needed" basis. Consider work surfaces that are flexible and permit installation at variable heights and clearances. **Advisory 902.1 General.** Dining surfaces include, but are not limited to, bars, tables, lunch counters, and booths. Examples of work surfaces include writing surfaces, study carrels, student laboratory stations, baby changing and other tables or fixtures for personal grooming, coupon counters, and where covered by the ABA scoping provisions, employee work stations.			
24.8.2 Dispersion Are dining surfaces and work surfaces required to be accessible dispersed throughout the space or facility containing dining surfaces and work surfaces? (226.2)	☐	☐	

24.0. Miscellaneous Rooms and Spaces Technical Specifications	Yes	No	Observations
24.8.3 Clear Floor or Ground Space Is a space at least 30 inches by 48 inches provided at dining and work surfaces required to be accessible? *(902.2)*	☐	☐	
24.8.4 Height Are the tops of dining and work surfaces required to be accessible at least 28 inches and no more than 34 inches above the finished floor or ground? *(902.3)*	☐	☐	

XXVI. CONTROLS AND OPERATING MECHANISMS

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:

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.

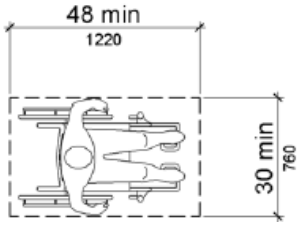
5. HVAC diffusers shall not be required to comply with 309.

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.

ADA CHECKLIST 25 – 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.

FACILITY: **DATE:**

25.0. Controls and Operating Mechanisms Technical Specifications	Yes	No	Observations
25.1 General Operable parts on accessible elements, accessible routes, and in accessible rooms and spaces shall comply with the provisions of ADAAG 309 below. *(205.1)*			
Advisory 205.1 General. 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.			
25.2 Clear Floor Space Is the clear floor or ground space at the control or operating mechanism 30 inches minimum by 48 inches minimum? *(309.2)* 	☐	☐	
25.3 Height Is the highest operable part of controls, dispensers, receptacles, and other operable equipment within at least one of the reach ranges specified in Checklist 19 - Maneuvering Space and Reach Ranges? *(309.3)* Note: ADAAG provides for a maximum high forward and side reach of 48 inches and a minimum low forward and side reach of 15 inches.	☐	☐	
25.4 Operation Are controls and operating mechanisms operable with one hand and do not require tight grasping, pinching, or twisting of the wrist? *(309.4)* Note: ADAAG requires that the force required to activate operable parts not exceed 5 foot pounds force.	☐	☐	

XXVII. OTHER FACILITIES

The ADA checklists used by SFRTA are based on the compliance requirements for new construction and alterations of transportation facilities in Title II, Subtitle B (Public Transportation) of the ADA. The checklists are designed to be used in conjunction with the Department of Justice's regulations in 28 CFR Part 36 (for existing buildings and facilities other than transportation facilities), the Department of Transportation's regulations in 49 CFR Part 37 (Final Rule of November 29, 2006), and the Americans with Disabilities Act Accessibility Guidelines (ADAAG – revised version of 2004 adopted by USDOT on 11/29/06).

The specifications in the checklists are based on the specifications in the Access Board's Final Revised Guidelines, published on July 23, 2004. Prior to the enactment of the ADA in 1991, the prevailing accessibility requirements in place were the Uniform Federal Accessibility Standards. Because the ADAAG guidelines largely mirrored the UFAS standards, they are not addressed in the checklists or elsewhere.

In addition to the Federal guidelines contained in the ADAAG, SFRTA must adhere to state and local construction standards. Dates of effectiveness are important when determining which regulations to apply. The following table provides the dates noted in the ADA for applicable application of the accessibility regulations.

Facility Type	NTP for Construction	Standard
Bus, light rail or rapid rail facilities	Prior to January 25, 1992	UFAS
Intercity or commuter rail stations	Prior to October 7, 1991	UFAS
Bus, light rail or rapid rail facilities	After January 25, 1992	ADAAG
Intercity or commuter rail stations	After October 7, 1991	ADAAG
All transportation facility types	April 9, 2004	ADAAG Revised
Key Stations	July 26, 1993	ADAAG

It is important to understand that, if an assessment is being conducted in preparation for a renovation, alteration, or addition to a facility, the 2004 ADAAG standard should be used (or FAC as applicable), irrespective of the NTP date, to ensure that any modifications made to the facility conform to the existing applicable ADAAG specifications. The 2004 ADAAG is the standard used in the development of all SFRTA checklists.

Use of this document is to allow assessors of SFRTA facilities to conduct a pre-assessment evaluation of the facility or elements to be examined to ensure application of the correct checklists and approach concerning existing conditions.

Applicable Standards

In assessing new buildings or sites for ADA compliance, the accessibility requirements are as stated in the checklists for each of the applicable ADAAG standards. The requirements differ somewhat for existing facilities and conditions compared to alterations or additions to existing buildings and facilities which invokes new construction requirements. The regulations also provide exceptions for certain facilities that could not logically be expected to provide uniform accessibility. The differences in applicable standards are described below for the following categories: (1) additions, (2) alterations, (3) alterations affecting primary function areas, and (4) alterations to qualified historic buildings and facilities as noted below. Note that in no circumstances does ADAAG require a level of accessibility be provided that exceeds the requirements for new construction.

1. Additions. Each addition to an existing SFRTA building or facility must comply with ADAAG standards with the possible exception of alterations to an area containing a primary function, which is addressed below.

2. Alterations. Where existing elements or spaces are altered, each altered element or space is required to comply with the applicable standard. There are two exceptions to this requirement. The first is that where elements or spaces are altered but the circulation path to the altered element of space is not, an accessible route to the altered element or space is not required. The second exception states that where compliance with the applicable requirements is infeasible, the alteration shall comply with the standards to the maximum extent feasible.

3. Alterations Affecting Primary Function Areas. Primary functions in transportation facilities include ticket purchase and collection areas, passenger waiting areas, train or bus platforms, baggage checking and return areas and employee work areas (except those involving non-occupiable spaces accessed only by ladders, catwalks, crawl spaces, vary narrow passageways, or freight elevators used only by repair personnel). In addition to the requirements for alterations described above, an alteration that affects the usability or access to an area containing a primary function must be made so that the path of travel to the altered area, including the rest rooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, unless such alterations are disproportionate to the overall alterations in terms of cost and scope.

The ADA regulations state, "Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the primary function area." Primary function areas are not limited to public use areas. For example, both a ticket purchase area and the SFRTA employee areas where tickets are sold are primary function areas. The regulations state that mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, corridors, and restrooms are not primary function areas.

4. Alterations to Qualified Historic Buildings and Facilities. Alterations to qualified historic buildings or facilities are required to comply with the alterations and primary functions requirements described above in items (2) and (3) with the following exception: Where the State Historic Preservation Officer or Advisory Council on Historic Preservation determines that compliance with the requirements for accessible routes, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, the exceptions for alterations to qualified historic buildings or facilities for that element shall be permitted to apply.

<u>Exceptions</u>

The ADA regulations provide exemptions for the above requirements for selected sites, buildings, and facilities that could not be expected to comply with the standards. These include: (1) construction sites, (2) raised areas, (3) limited access spaces, (4) machinery spaces, (5) single occupant structures, and (6) employee work areas.

1. Construction Sites. Structures and sites directly associated with the actual processes of construction, including scaffolding, bridging, materials hoists, materials storage, and construction trailers are not required to comply with the standards or to be on an accessible route. Portable toilet units provided for use exclusively by construction personnel on a construction site are not required to comply or to be on an accessible route.

2. Raised Areas. Areas raised primarily for purposes of security, life safety, or fire safety, including observation or lookout galleries are not required to comply with these requirements or to be on an accessible route.

3. Limited Access Spaces. Spaces accessed only by ladders, catwalks, crawl spaces, or very narrow passageways are not required to comply with these requirements or to be on an accessible route.

4. Machinery Spaces. Spaces used only by service personnel for maintenance, repair, or occasional monitoring of equipment are not required to comply with these requirements or to be on an accessible route. Machinery spaces include elevator pits or elevator penthouses; mechanical, electrical or communications equipment rooms; piping or equipment catwalks; water or sewage treatment pump rooms and stations; electric substations and transformer vaults; and highway and tunnel utility facilities.

5. Employee Work Areas. Spaces and elements within employee work areas must comply with the requirements for means of egress and shall be designed and constructed so that individuals with disabilities can approach, enter, and exit the employee work area. Employee work areas, or portions of employee work areas, other than raised courtroom stations, that are less than 300 square feet and elevated 7 inches or more above the finish floor or ground where the elevation is essential to the function of the space are not required to comply with these requirements or to be on an accessible route.

A final group of SFRTA facilities to consider is the requirements for the accessibility of Key Stations. When the ADA was passed, existing rapid rail, light rail, and commuter rail transportation systems covered by the Act were required to identify "key stations" which were required to be accessible by July 26, 1993. Generally, key stations were considered to be stations with high boarding figures, transfer stations, major intermodal interchange points, end stations, and stations serving major activity centers. The accessibility requirements differ from those for new stations only in the following:

1. Accessible station entrances need not coincide with those used by the majority of the general public.
2. An accessible direct connection to commercial, retail or residential facilities is not required.
3. Persons with disabilities may be required to board or alight from a vehicle at a specific location on the platform.
4. Escalator specifications need not be complied with.

Where specifications for these elements appear in the checklists, the notation “Not required for key stations” is provided. Of SFRTA’s 18 commuter rail stations, 10 are designates as federal key stations all of which have been renovated to comply with ADAAG requirements.

The above information should be considered as applicable for assessment of facility or elements of a facility when determining use of appropriate checklists for assessment of existing conditions.

XXVIII. COMMUTER RAIL CAR

The US Access Board's accessibility guidelines for vehicles are codified at 36 CFR Part 1192. The implementing regulations of the Department of Transportation (DOT) are codified at 49 CFR Part 38. Except for some minor editorial differences, they are identical and, except for the prefix, the numbering systems are parallel. For example, Section 1192.23 in this Access Board's document corresponds to 38.23 in the DOT regulation. The requirements for commuter rail vehicle accessibility are described in 36 CFR Part 1192; Subpart E-Commuter Rail Cars and Systems.

Dimensions given for elements of the commuter rail car that are not noted in the checklist as minimum or maximum are absolute (1192.4(a)). However, all dimensions are subject to conventional engineering tolerances for material properties and field conditions, including normal anticipated wear not exceeding accepted industry-wide standards and practices (1192.4(b)).

36 CFR Part 1192, § 1192.91 stipulate the applicability of the commuter rail car accessibility requirements as follows:

(a) New, used, and remanufactured commuter rail cars, to be considered accessible by regulations issued by the Department of Transportation in 49 CFR Part 37, shall comply with this subpart.

(b) If portions of the car are modified in such a way that it affects or could affect accessibility, each such portion shall comply, to the extent practicable, with the applicable provisions of this subpart. This provision does not require that inaccessible cars be retrofitted with lifts, ramps or other boarding devices.

(c) (1) Commuter rail cars shall comply with §§ 1192.93(d) and 1192.109 for level boarding wherever structurally and operationally practicable.

(2) Where level boarding is not structurally or operationally practicable, commuter rail cars shall comply with § 1192.95.

(d) Existing vehicles retrofitted to comply with the ‘‘one-car-per-train rule’’ at 49 CFR 37.93 shall comply with §§ 1192.93(e), 1192.95(a) and 1192.107 and shall have, in new and key stations, at least one door on each side from which passengers board which complies with § 1192.93(d). Vehicles previously designed and manufactured in accordance with the program accessibility requirements of section 504 of the Rehabilitation Act of 1973, or implementing regulations issued by the Department of Transportation that were in effect before October 7, 1991, and which can be entered and used from stations in which they are to be operated, may be used to satisfy the requirements of 49 CFR 37.93.

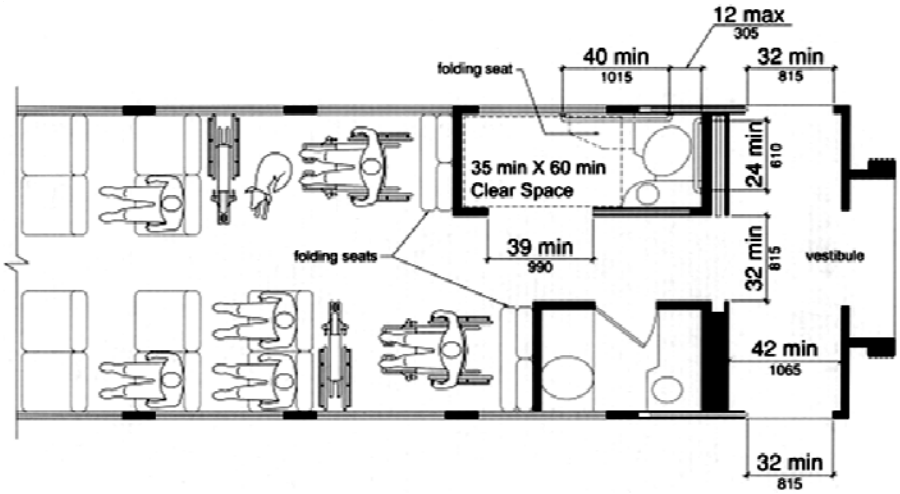
ADA CHECKLIST 27 – COMMUTER RAIL CAR

Survey Instructions.

This checklist was developed in consideration of the applicable requirements of the Americans with Disabilities Act of 1990 (ADA).

RAIL CAR MANUFACTURER/MODEL/TYPE:

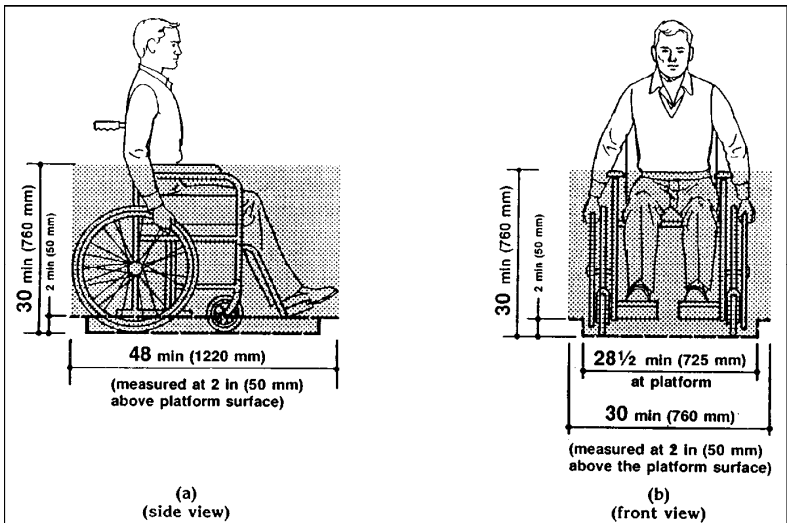
RAIL CAR YEAR OF MANUFACTURE: **DATE:**

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
DOORWAYS			
Does at least one door on each side of the car from which passengers board open onto station platform(s)? *1192.93(a)(1)*	☐	☐	
Is at least one doorway on each side of the car from which passengers board from platform(s) into the passenger coach compartment, if provided, have a minimum clear opening of 32 inches? *1192.93(a)(1)*	☐	☐	
If doorways connecting adjoining cars in a multi-car train are provided, and if such doorway is connected by an aisle with a minimum clear width of 30 inches to one or more of the wheelchair or mobility aid spaces, does the door provide a clear opening of at least 30 inches? *1192.93(2)* Note: This requirement applies to the maximum extent practicable in accordance with the regulations issued under the Federal Railroad Safety Act of 1970 (49 CFR parts 229 and 231).	☐	☐	
PASSAGEWAYS			
Do passageways from accessible car doors to the wheelchair or mobility aid spaces have a minimum clear width of 32 inches? *1192.93(b)*	☐	☐	
In cars where passage through vestibules is required to gain access to the passenger coach compartment, does the vestibule have a minimum width of 42 inches? *1192.93(b)*  	☐	☐	
SIGNALS			
If doors to the platform close automatically or from a remote location, are auditory and visual warning signals provided to alert passengers of closing doors? *1192.93(c)*	☐	☐	

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
COORDINATION WITH BOARDING PLATFORM			
If cars operate in stations with high platforms, or mini-high platforms, is coordination with the boarding platform design such that the horizontal gap between a car at rest and the platform is no greater than 3 inches and the height of the car floor is within plus or minus 5/8 inch of the platform height? *1192.93(d)(1)*	☐	☐	
Note: Vertical alignment may be accomplished by car air suspension, platform lifts or other devices, or any combination.			
Exception 1 to 1192.93(d)(1): New vehicles operating in existing stations may have a floor height within plus or minus 1-1/2 inches of the platform height. At key stations, the horizontal gap between at least one accessible door of each such vehicle and the platform shall be no greater than 3 inches.	☐	☐	
Exception 2 to 1192.93(d)(1): Where platform setbacks do not allow the horizontal gap or vertical alignment specified in paragraph (d) (1) or (2) of this section, car, platform or portable lifts complying with § 1192.95(b), or car or platform ramps or bridge plates, complying with § 1192.95(c), shall be provided.	☐	☐	
Exception 3 to 1192.93(d)(1): Retrofitted vehicles shall be coordinated with the platform in new and key stations such that the horizontal gap shall be no greater than 4 inches and the height of the vehicle floor, under 50% passenger load, shall be within plus or minus 2 inches of the platform height.	☐	☐	
SIGNAGE			
Is the International Symbol of Accessibility displayed on the exterior of all doors which offer an accessible entrance to the rail car unless all doors are accessible? *1192.93(e)*	☐	☐	
Are signs displayed on the exterior of accessible doors to the rail car which indicate that door(s) are adjacent to an accessible restroom if applicable? *1192.93(e)*	☐	☐	
MOBILITY AID ACCESS			
Is level boarding from platform to rail car provided by level entry, level-change mechanism, or boarding device (lift, ramp, bridge plate)? *1192.95(a)(1)*	☐	☐	
Exception to 1192.95(a)(1): If portable or platform lifts, ramps or bridge plates meeting the applicable requirements of this section are provided on station platforms or other stops, or mini-high platforms complying with § 1192.93(d) are provided, at stations or stops required to be accessible by 49 CFR part 37, the car is not required to be equipped with a car-borne device. Where each new car is compatible with a single platform mounted access system or device, additional systems or devices are not required for each car provided that the single device could be used to provide access to each new car if passengers using wheelchairs or mobility aids could not be accommodated on a single car.			

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
CAR LIFT			
Is the design load of the lift at least 600 pounds? *1192.95(b)(1)*	☐	☐	
Note: Working parts, such as cables, pulleys, and shafts, which can be expected to wear, and upon which the lift depends for support of the load, shall have a safety factor of at least six, based on the ultimate strength of the material. Nonworking parts, such as platform, frame, and attachment hardware which would not be expected to wear, shall have a safety factor of at least three, based on the ultimate strength of the material.			
Are lift controls interlocked with the car brakes, propulsion system, or door, or other appropriate mechanisms or systems, that ensure the car cannot be moved when the lift is not stowed and so the lift cannot be deployed unless the interlocks or system are engaged? *1192.95(b)(2)(i)*	☐	☐	
Does the lift deploy to all platform levels normally encountered in the operating environment of the rail car? *1192.95(b)(2)(i)*	☐	☐	
Where provided, do controls for deploying, lowering, raising, and stowing the lift and lowering the roll-off barrier be of a momentary contact type switch requiring continuous manual pressure by the operator and not allow improper lift sequencing when the lift platform is occupied? *1192.95(b)(2)(i)*	☐	☐	
Do the lift operating controls allow reversal of the lift operation sequence, such as raising or lowering a platform that is part way down, without allowing an occupied platform to fold or retract into the stowed position? *1192.95(b)(2)(i)*	☐	☐	
Is the lift equipped with an emergency method of operating the lift should power fail? *1192.95(4)*	☐	☐	
Is the lift platform equipped with barriers that prevent any wheelchair or mobility aid wheels from rolling off of the lift during its operation? *1192.95(5)*	☐	☐	
Note: A movable barrier or inherent design feature shall prevent a wheelchair or mobility aid from rolling off the edge closest to the car until the lift is in its fully raised position.			
Are lift platform barriers at least 1-1/2 inches high at the sides of the platform? *1192.95(5)*	☐	☐	
Note: Side barriers must not interfere with maneuvering into or out of the rail car.			
Is the loading-edge barrier (outer barrier) which functions as a loading ramp when the lift is at ground or station platform level, sufficient for wheelchair boarding when raised or closed, or is a supplementary system provided, to prevent a power wheelchair or mobility aid from riding over or defeating the barrier? *1192.95(5)*	☐	☐	
Does the outer barrier of the lift automatically rise or close and remain raised, closed, or engaged at all times that the lift platform is more than 3 inches above the station platform and the lift is occupied? *1192.95(5)*	☐	☐	
Note: Alternatively, a barrier or system may be raised, lowered, opened, closed, engaged or disengaged by the lift operator provided an interlock or inherent design feature prevents the lift from rising unless the barrier is raised or closed or the supplementary system is engaged.			
Is the lift platform surface free of any protrusions over 1/4 inch high slip resistant? *1192.95(6)*	☐	☐	

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
Does the lift platform surface provide a clear width of at least 28-1/2 inches at the platform and 30 inches clear width minimum measured 2 inches above the lift platform surface, and a minimum clear length of 48 inches measured from 2 to 30 inches above the surface of the platform? *1192.95.(6)*	☐	☐	
Are any openings between the lift platform surface and the raised barriers equal or less than 5/8 inch? *1192.95(7)*	☐	☐	
When the lift is at the rail car floor height with the inner barrier (if provided) down or retracted, are any gaps between the forward lift platform edge and car floor equal or less than 1/2 inch horizontally and 5/8 inch vertically? *1192.95(7)* Note: Platforms on semi-automatic lifts may have a hand hold not exceeding 1-1/2 inches by 4-1/2 inches located between the edge barriers.	☐	☐	
Is the slope of the entrance ramp or loading-edge barrier used as a ramp, of the lift platform not greater than 1:8 (12.5%) when measured on level ground, for a maximum rise of 3 inches? *1192.95(8)* Note: The transition from station platform to the ramp platform may be vertical without edge treatment up to 1/4 inch. Thresholds between 1/4 inch and 1/2 inch high must be beveled with a slope no greater than 1:2 (50%).	☐	☐	
Does the lift platform (not including the entrance ramp) deflect 3 degrees or less in any direction between its unloaded position and its position when loaded with 600 pounds applied through a 26 inch by 26 inch test pallet at the center of the lift platform? *1192.95(9)*	☐	☐	
Does the lift platform move at a rate of 6 inches per second or less during lowering and lifting an occupant, and no faster than 12 inches per second during deployment or stowage of the platform? *1192.95(10)* Note: This requirement does not apply to the deployment or stowage cycles of lifts that are manually deployed or stowed. The maximum platform horizontal and vertical acceleration when occupied shall be 0.3g.	☐	☐	
Does the lift platform permit both inboard and outboard facing of wheelchairs and mobility aids? *1192.95(11)*	☐	☐	



27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
Does the lift accommodate use by standees including persons using walkers, crutches, canes or braces or who otherwise have difficulty using steps? *1192.95(12)* Note: The lift may be marked to indicate a preferred standing position.	☐	☐	
Is the platform lift equipped with handrails located on two sides, which move in tandem with the lift, are graspable, and provide support to standees throughout the entire lift operation? *1192.95(13)*	☐	☐	
Are graspable elements of the lift platform handrails at least 8 inches long and mounted between 30 inches (lowest portion) and 38 inches (highest portion) above the lift platform? *1192.95(13)*	☐	☐	
Are the lift platform handrails capable of withstanding a force of 100 pounds concentrated at any point on the handrail without permanent deformation of the handrail or its supporting members? *1192.95(13)*	☐	☐	
Do the lift platform handrails have a cross-sectional diameter between 1-1/4 inches and 1-1/2 inches or provide an equivalent grasping surface? *1192.95(13)*	☐	☐	
Do the lift platform handrails have rounded edges with corner radii of not less than 1/8 inch? *1192.95(13)*	☐	☐	
Are the lift platform handrails placed to provide at least 1-1/2 inches of knuckle clearance from the nearest adjacent surface? *1192.95(13)*	☐	☐	
Are lift platform handrails placed so they do not interfere with wheelchair or mobility aid maneuverability when entering or leaving the rail car? *1192.95(13)*	☐	☐	
<u>CAR RAMP OR BRIDGE PLATE</u> Do car access ramps or bridge plates that are 30 inches or longer support a load of 600 pounds, placed at the center of the ramp or bridge plate and distributed over an area of 26 square inches? *1192.95(c)(1)* Note: Ramps or bridge plates shorter than 30 inches must support a load of 300 pounds. A safety factor of at least 3 based on the ultimate strength of the material must be applied as appropriate.	☐	☐	
Is the ramp or bridge plate surface continuous and slip resistant? *1192.95(c)(2)*	☐	☐	
Is the ramp or bridge plate surface free of protrusions from the surface greater than 1/4 inch high? *1192.95(c)(2)*	☐	☐	
Is the ramp or bridge plate surface at least 30 inches clear width and accommodate both four-wheel and three-wheel mobility aids? *1192.95(c)(2)*	☐	☐	
Are the transitions from the station platform to the ramp or bridge plate and the transition from the car floor to the ramp or bridge plate no greater than 1/4 inch vertical without edge treatment? *1192.95(c)(3)* Note: Thresholds between 1/4 inch and 1/2 inch high must be beveled with a slope no greater than 1:2 (50%).	☐	☐	
Are barriers at least 2 inches high provided on each side of the ramp or bridge plate to prevent mobility aid wheels from slipping off? *1192.95(c)(4)*	☐	☐	

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
When the rail car is under 50% passenger load, is the maximum slope of the ramp or bridge plate:			
No greater than1:4 (25%) when the height of the vehicle floor is 3 inches or less above the station platform:	☐	☐	
No greater than 1:6 (16.7%) when the height of the vehicle floor is 6 inches or less, but more than 3 inches above the station platform?	☐	☐	
No greater than 1:8 (12.5%) when the height of the vehicle floor is 9 inches or less, but more than 6 inches above the station platform?	☐	☐	
No greater than 1:12 (8.3%) when the height of the vehicle floor is greater than 9 inches above the station platform.	☐	☐	
Note: Folding or telescoping ramps are permitted provided they meet all of the structural requirements of 36 CFR Part 1192. *1192.95(c)(5)*			
When used for boarding or alighting, is the ramp or bridge plate attached to the vehicle, or otherwise prevented from moving such that it cannot be displaced when in use? *1192.95(c)(6)*	☐	☐	
Are any gaps between the vehicle and the ramp or bridge plate; and gaps between the station platform and the ramp or bridge plate 5/8 inch or less? *1192.95(c)(6)*	☐	☐	
Exception: Ramps or bridge plates which are attached to, and deployed from, station platforms are permitted in lieu of car devices provided they meet the displacement requirements of 1192.95(c)(6).			
Are portable ramps or bridge plates stowed in a manner to not impinge on passenger's wheelchair or mobility aid or pose any hazard to passengers in the event of a sudden stop? *1192.95(c)(7)*	☐	☐	
If handrails are provided on ramps or bridge plates, are they mounted to allow persons with disabilities to grasp them from outside the car while starting to board and to continue to use them throughout the boarding process with the top of the handrail between 30 inches and 38 inches above the ramped surface? *1192.95(c)(8)*	☐	☐	
If handrails are provided on ramps or bridge plates, are they capable of withstanding a force of 100 pounds concentrated at any point on the handrail without permanent deformation of the handrail or its supporting members? *1192.95(c)(8)*	☐	☐	
If handrails are provided on ramps or bridge plates, do the handrails have a cross-sectional diameter between 1-1/4 inches and 1-1/2 inches or provide an equivalent grasping surface? *1192.95(c)(8)*	☐	☐	
If handrails are provided on ramps or bridge plates, do the handrails have rounded edges with corner radii of not less than 1/8 inch? *1192.95(c)(8)*	☐	☐	
If handrails are provided on ramps or bridge plates, are the handrails placed so they do not interfere with wheelchair or mobility aid maneuverability when entering or leaving the rail car? *1192.95(c)(8)*	☐	☐	
<u>MOBILITY AID SEATING LOCATION</u>	☐	☐	
Are at least two spaces having a minimum clear floor space of 48 inches by 30 inches adjoining an accessible path (spaces may overlap the accessible route) provided in each accessible rail car? *1192.95(a)(1) & 1192.95(d)*			

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
Do mobility aid seating areas have toe/footrest space that is not more than 6 inches under another seat and a minimum vertical clearance under the seat of 9 inches from the floor to the lowest part of the seat overhanging the space? *1192.95(d)*	☐	☐	
Use of fold-down or removable seats are permitted to accommodate other passengers when a wheelchair or mobility aid user is not occupying the area. When folded up, do the seats provide an unobstructed clear floor space? *1192.95(d)*	☐	☐	
INTERIOR CIRCULATION, HANDRAILS, AND STANCHIONS			
If provided, are handrails and stanchions within the passenger compartment placed to permit sufficient turning and maneuvering space for wheelchairs and other mobility aids to reach a seating location from the car's accessible entrance? *1192.97(a)*	☐	☐	
Is the diameter or width of the gripping surfaces of interior handrails and stanchions between 1-1/4 inches and 1-1/2 inches or provide an equivalent grasping surface? *1192.97(a)*	☐	☐	
Are the interior handrails and stanchions placed to provide at least 1-1/2 inches of knuckle clearance from the nearest adjacent surface? *1192.97(a)*	☐	☐	
If provided, are interior handrails and stanchions sufficient to permit safe boarding, on-board circulation, seating and standing assistance, and alighting by persons with disabilities? *1192.97(b)*	☐	☐	
At entrances to rail cars equipped with steps, are handrails or stanchions provided in the entrance in a configuration which allows passengers to grasp handrail from outside of the car while starting to board, and to continue using the handrail throughout the boarding process? *1192.97(c)*	☐	☐	
FLOORS, STEPS, AND THRESHOLDS			
Are floor surfaces on aisles, step treads, places for standees, and areas where wheelchair and mobility aid users are to be accommodated slip resistant? *1192.99(a)*	☐	☐	
At rail car do thresholds and step edges, is a band of color running the full width of the step or threshold provided which contrasts from the step tread and rise or adjacent floor (either light-on-dark or dark-on-light)? *1192.99(b)*	☐	☐	
LIGHTING			
Is a light fixture providing at least 2 foot-candles of illumination provided at any stepwell or doorway where a lift, ramp, or bridge plate used? *1192.101(a)* Note: The illumination level must be measured on the step tread, ramp, bridge plate, or lift platform.	☐	☐	
Where lighted station platforms are not provided, are outside lights provided at car doors which, when the door is open, provide at least 1 foot-candle of illumination on the station platform surface for a distance of 3 feet perpendicular to all points on the bottom step tread edge? *1192.101(b)* Note: Outside door lights must be shielded to protect the eyes of entering and exiting passengers.	☐	☐	

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
PUBLIC INFORMATION SYSTEM Is each rail car equipped with an interior public address system which permits agency personnel, or recorded or digitized human speech messages, to announce stations and provide other passenger information? *1192.103(a)* Note: Alternative systems or devices which provide equivalent access are also permitted.	☐	☐	
PRIORITY SEATING SIGNS Does each car contain a sign or signs which indicate that certain seats are priority seats for persons with disabilities and that other passengers should make such seats available to those who wish to use them? *1192.105(a)*	☐	☐	
Are the characters on priority seating signs compliant with the following requirements? • Width-to-height ration between 3:5 and 1:1 • Stroke width-to-height ration between1:5 and 1:10 • Minimum character height of 5/8 inch (upper case X) • Character spacing at least 1/16 the height of upper case letters • Contrast with the background either light-on-dark or dark-on-light *1192.105(b)*	☐	☐	
RESTROOMS If a restroom is provided on the rail car, is the restroom accessible by a person using a wheelchair or mobility aid? *1192.107(a)*	☐	☐	
Is the minimum clear floor area of the restroom 35 inches by 60 inches? *1192.107(a)(1)* Note: Permanently installed fixtures may overlap the clear floor area a maximum of 6 inches, if the lowest portion of the fixture is a minimum of 9 inches above the floor, and may overlap a maximum of 19 inches, if the lowest portion of the fixture is a minimum of 29 inches above the floor, provided such fixtures do not interfere with access to the toilet. Fold down or retractable seats or shelves may overlap the clear floor space at a lower height provided they can be easily folded up or moved out of the way.	☐	☐	
Is the height of the top of the toilet seat between 17 and 19 inches above the floor? *1192.107(a)(2)*	☐	☐	
Is a grab bar at least 24 inches long mounted behind the toilet? *1192.107(a)(3)*	☐	☐	
Is a horizontal grab bar at least 40 inches long mounted on at least one side wall with one end not more than 12 inches from the back wall? *1192.107(a)(3)*	☐	☐	
Are grab bars mounted at a height between 33 inches and 36 inches above the floor? *1192.107(a)(3)*	☐	☐	
Are faucets and flush controls operable with one hand and not require tight grasping, pinching, or twisting of the wrist? *1192.107(a)(4)*	☐	☐	
Is the force required to activate controls no greater than 5 pounds? *1192.107(a)(4)*	☐	☐	
Are toilet flush valves mounted no more than 44 inches above the floor? *1192.107(a)(4)*	☐	☐	

27.0 Commuter Rail Car Technical Specifications	Yes	No	Observations
If the restroom door is located on the end of the enclosure, opposite the toilet, is the minimum clear opening width of the door 32 inches? *1192.107(a)(5)*	☐	☐	
If the restroom door is located on the side wall of the enclosure, opposite the toilet, is the minimum clear opening width of the door 39 inches? *1192.107(a)(5)*	☐	☐	
Is restroom door hardware operable with one hand and not require tight grasping, pinching, or twisting of the wrist? *1192.107(a)(5)*	☐	☐	
Is the accessible restroom located in close proximity to at least one of the wheelchair or mobility aid seating locations and connected to such space by an unobstructed path having a minimum clear width of 32 inches? *1192.107(b)*	☐	☐	
BETWEEN-CAR BARRIERS Where vehicles operate in a high-platform, level-boarding mode, and where between-car bellows are not provided, are devices or systems provided to prevent, deter, or warn individuals from inadvertently stepping off the platform between cars (appropriate devices include, but are not limited to, pantograph gates, chains, motion detectors, or other suitable devices)? *1192.109*	☐	☐	

XXIX. PROVISIONS OF SERVICE

Provisions of service for the operation of Tri-Rail Commuter Rail Service are mandated by the ADA to meet minimum standards as specified in this section.

49 CFR Part 37, Subpart G provides the provisions of service requirements imposed by the ADA for all public transit agencies receiving federal financial support. Those provisions of service applicable to commuter rail service specific to SFRTA/Tri-Rail operations are summarized below for informational purposes and reference by SFRTA management staff as guidance for system operational checks.

§ 37.161 Maintenance of accessible features. This section requires that public and private entities providing transportation services must maintain in operative condition those features of facilities and vehicles that are required to make the vehicles and facilities readily accessible to and usable by individuals with disabilities. These features include, but are not limited to, lifts and other means of access to vehicles, securement devices, elevators, signage and systems to facilitate communications with persons with impaired vision or hearing. Accessibility features must be repaired promptly if they are damaged or out of order. This section does not prohibit Isolated or temporary interruptions in service or access due to maintenance or repairs.

§ 37.165 Lift and securement use. The applicable portions of this section include the requirement to ensure that common wheelchairs and their users must be allowed to be transported on Tri-Rail's vehicles in those places designated for such use as specified in 49 CFR Part 38. Agency staff is required to assist individuals with disabilities with the use of securement systems, ramps and lifts.

§ 37.167 Other service requirements.

(b) Stop announcements must be made to inform riders of the next station stop and made in advance of the stop to allow sufficient time for patrons to prepare to depart the vehicle.

(d) Service animals must be permitted to accompany individuals with disabilities in vehicles and facilities.

(f) Tri-Rail must make available to individuals with disabilities adequate information concerning the provided transportation service(s). This obligation includes making adequate communications capacity available, through accessible formats and technology, to enable users to obtain information and schedule service.

(g) Tri-Rail cannot refuse to permit a passenger who uses a lift to disembark from a vehicle at any designated stop, unless the lift cannot be deployed, the lift will be damaged if it is deployed, or temporary conditions at the stop, not under the control of Tri-Rail, preclude the safe use of the stop by all passengers.

(h) Tri-Rail cannot prohibit an individual with a disability from traveling with a respirator or portable oxygen supply, consistent with applicable Department of Transportation rules on the transportation of hazardous materials (49 CFR subtitle B, chapter 1, sub-chapter C).

(i) Tri-Rail must ensure that adequate time is provided to allow individuals with disabilities to complete boarding or disembarking from the vehicle.

(j) (1) When an individual with a disability enters a vehicle, and because of a disability, the individual needs to sit in a seat or occupy a wheelchair securement location, Tri-Rail staff shall ask the following persons to move in order to allow the individual with a disability to occupy the seat or securement location:

(i) Individuals, except other individuals with a disability or elderly persons, sitting in a location designated as priority seating for elderly and handicapped persons (or other seat as necessary);

(ii) Individuals sitting in or a fold down or other movable seat in a wheelchair securement location.

(2) This requirement applies only to the extent practicable.

(3) Tri-Rail is not required to enforce the request that other passengers move from priority seating areas or wheelchair securement locations.

(4) In all signage designating priority seating areas for elderly persons and persons with disabilities, or designating wheelchair securement areas, Tri-Rail shall include language informing persons sitting in these locations that they should comply with requests by transit provider personnel to vacate their seats to make room for an individual with a disability. This requirement applies to all fixed route vehicles when they are acquired by the entity or to new or replacement signage in Tri-Rail's existing fixed route vehicles.

§ 37.173 Training requirements. Tri-Rail must ensure that personnel are trained to proficiency, as appropriate to their duties, so that they operate vehicles and equipment safely and properly assist and treat individuals with disabilities who use the service in a respectful and courteous way, with appropriate attention to the difference among individuals with disabilities.

XXX. DEFINITIONS

Definitions. The following acronyms and definitions are important in understanding and interpreting the technical specifications in the SFRTA checklists.

Access Aisle. The area adjacent to a parking space reserved for a person with disability and that is to be used exclusively by that person for the purpose of entering and exiting a vehicle.

Accessible Means of Egress. A continuous and unobstructed way of egress travel from any point in a building or facility that provides an accessible route to an area of refuge, a horizontal exit, or a public way.

Accessible Route. A continuous unobstructed path connecting accessible elements and spaces in a building or within a site that can be negotiated by a person with a disability. Interior accessible routes may include corridors, floors, ramps, elevators and lifts. Exterior accessible routes may include parking access aisles, curb ramps, walks, ramps and lifts.

Accessible. A site, building, facility, or portion thereof that complies with the ADAAG regulations.

ADAAG. The Americans with Disabilities Act Accessibility Guidelines. ADAAG was originally published by the Access Board on September 6, 1991, was revised and published by the Access Board on July 23, 2004, and was adopted as the standard for accessible transportation facilities and services by the U.S. Department of Transportation on November 29, 2006.

Addition. An expansion, extension, or increase in the gross floor area or height of a building or facility.

Administrative Authority. A governmental agency that adopts or enforces regulations and guidelines for the design, construction, or alteration of buildings and facilities.

AFG. Above finish floor or ground.

Iteration. A change to a building or facility that affects or could affect the usability of the building or facility or portion thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.

Assembly Area. A building or facility, or portion thereof, used for the purpose of entertainment, educational or civic gatherings, or similar purposes. For the purposes of these requirements, assembly areas include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, motion picture houses, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands, or convention centers.

Assistive Listening System (ALS). An amplification system utilizing transmitters, receivers, and coupling devices to bypass the acoustical space between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct-wired equipment.

Building. Any structure used or intended for supporting or sheltering any use or occupancy.

Characters. Letters, numbers, punctuation marks and typographic symbols.

Circulation Path. An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings.

Common Use. Interior or exterior circulation paths, rooms, spaces, or elements that are not

for public use and are made available for the shared use of two or more people.

Cross Slope. The slope that is perpendicular to the direction of travel (see running slope).

Curb Ramp. A short ramp cutting through a curb or built up to it.

Detectable Warning. A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path.

Element. An architectural or mechanical component of a building, facility, space, or site.

Employee Work Area. All or any portion of a space used only by employees and used only for work. Corridors, toilet rooms, kitchenettes and break rooms are not employee work areas.

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, vestibules if provided, the entry door(s) or gate(s), and the hardware of the entry door(s) or gate(s).

Facility. All or any portion of buildings, structures, site improvements, elements, and pedestrian routes or vehicular ways located on a site.

ISA. International Symbol of Accessibility: The symbol used to designate facilities and elements that are required to be accessible.

Key Station. Rapid and light rail stations, and commuter rail stations, as defined under criteria established by the Department of Transportation in 49 CFR 37.47 and 49 CFR 37.51, respectively.

Marked Crossing. A crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

Mezzanine. An intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are located. Mezzanines have sufficient elevation that space for human occupancy can be provided on the floor below.

Newel Post. A tall post at the head or foot of a stair or ramp.

Occupant Load. The number of persons for which the means of egress of a building or portion of a building is designed.

Operable Part. A component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element.

Passenger Loading Zone. The space adjacent to a curb or edge of roadway reserved for the exclusive use of vehicles during the loading or unloading of passengers.

Pictogram. A pictorial symbol that represents activities, facilities, or concepts.

Private Building or Facility. A place of public accommodation or a commercial building or facility subject to title III of the ADA and 28 CFR part 36 or a transportation building or facility subject to title III of the ADA and 49 CFR 37.45.

Public Building or Facility. A building or facility or portion of a building or facility designed, constructed, or altered by, on behalf of, or for the use of a public entity subject to title II of the ADA and 28 CFR part 35 or to title II of the ADA and 49 CFR 37.41 or 37.43.

Public Entrance. An entrance that is not a service entrance or a restricted entrance.

Public Use. Interior or exterior rooms, spaces, or elements that are made available to the public. Public use may be provided at a building or facility that is privately or publicly owned.

Public Way. Any street, alley or other parcel of land open to the outside air leading to a public street, which has been deeded, dedicated or otherwise permanently appropriated to the public for public use and which has a clear width and height of not less than 10 feet.

Qualified Historic Building or Facility. A building or facility that is listed in or eligible for listing in the National Register of Historic Places,

or designated as historic under an appropriate State or local law.

Ramp. A walking surface that has a running slope steeper than 1:20 (5%).

Restricted Entrance. An entrance that is made available for common use on a controlled basis but not public use and that is not a service entrance.

Running Slope. The slope that is parallel to the direction of travel (see cross slope).

Service Entrance. An entrance intended primarily for delivery of goods or services.

Site. A parcel of land bounded by a property line or a designated portion of a public right-of-way.

Space. A definable area, such as a room, toilet room, hall, assembly area, entrance, storage room, alcove, courtyard, or lobby.

Story. That portion of a building or facility designed for human occupancy included between the upper surface of a floor and upper surface of the floor or roof next above. A story containing one or more mezzanines has more than one floor level.

Tactile. An object that can be perceived using the sense of touch.

Technically Infeasible. With respect to an alteration of a building or a facility, something that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame; or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with the minimum requirements.

Telephone Volume Control. 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.

Transfer Device. Equipment designed to facilitate the transfer of a person from a wheelchair or other mobility aid to and from an amusement ride seat.

TTY. An abbreviation for teletypewriter or text telephone. Machinery that employs interactive text-based communication through the transmission of coded signals across the telephone network. TTYs may include, for example, devices known as TDDs (telecommunication display devices or telecommunication devices for deaf persons) or computers with special modems. TTYs are also called text telephones.

UFAS. The Uniform Federal Accessibility Standards. UFAS standards were created and adopted in 1972 as part of the Rehabilitation Act of 1973 and set accessibility standards for Federal facilities as well as facilities constructed with Federal funds. UFAS accessibility standards are currently applicable to Federal facilities controlled by the U.S. Departments of Defense and Housing and Urban Development.

Vehicular Way. A route provided for vehicular traffic, such as in a street, driveway, or parking facility.

Walk. An exterior prepared surface for pedestrian use, including pedestrian areas such as plazas and courts.

Wheelchair Space. Space for a single wheelchair and its occupant.

Work Area Equipment. Any machine, instrument, engine, motor, pump, conveyor, or other apparatus used to perform work. As used in this document, this term shall apply only to equipment that is permanently installed or built-in in employee work areas. Work area equipment does not include passenger elevators and other accessible means of vertical transportation.