



Comprehensive Accessibility Program  
(TCAP) - Web Application



# Comprehensive Accessibility Program (TCAP) - Web Application

## Overview

The Pedestrian Access Inventory Toolbox is a web application meant to access and work with ADA accessibility violation data collected as part of a pilot study in 2016/2017 and a statewide collection effort completed in 2019/2020. Components of the current Texas DOT Statewide Planning map have been integrated into this toolbox in order to cross reference that to the ADA collected data in one convenient environment. This web app consists of both ROW ADA and Facilities ADA violation data.

The Web app is currently under development and is being rolled out as a Phase 1 release to gain TxDOT user feedback. Please direct any functionality refinement requests or bug reports to [TCAPFeedback@colestl.com](mailto:TCAPFeedback@colestl.com). If you encounter and report any bugs, please include the steps that you were performing at the time the error occurred, including screenshots are also very helpful.

There will be a Phase 2 release of the web app that will include project data tracking, citizen request/grievances, and reporting in Jan 2022. Bugs will be corrected at the next release or within interim releases depending on how severe the bugs are or if they are limiting current functionality. Feature requests will be compiled and coordinated with appropriate TxDOT staff for incorporation into a Phase 3 release.

The location of the Web Map is:  
<https://txpai.expressiveanalytics.com>

## Security

Unique groups have been established to control access to certain tools dependent on the group a particular user belongs. This web application is meant only for TxDOT personnel, no outside access to these tools and content is available. Your unique provided username and password is what you are to use to access this content in the web app, please do not share user and passwords with other users.

## User Interface Characteristics

The overall map is broken up into three logical panes: Map Pane, Tool Pane, and Table Pane.

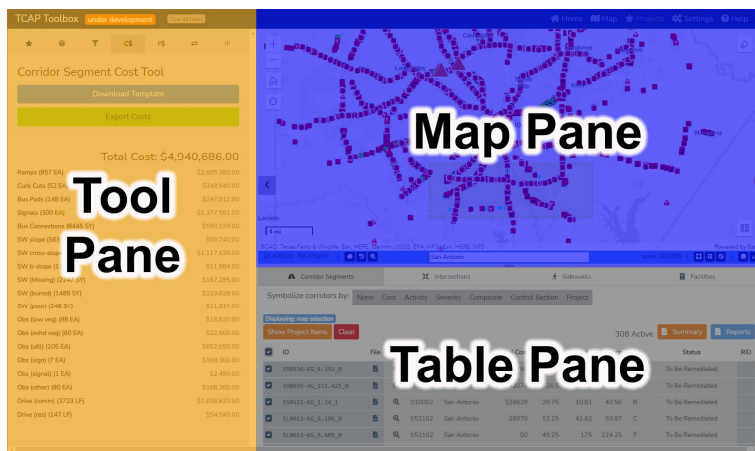


Figure 1 – Web App Panes

## Map Pane

The Map pane has multiple components to control zoom, view control, map size, scale, coordinates, basemaps and map legend. It also has the ability to select content in the map pane, expand/contract the map view, add custom layer, or zoom to a specific location.

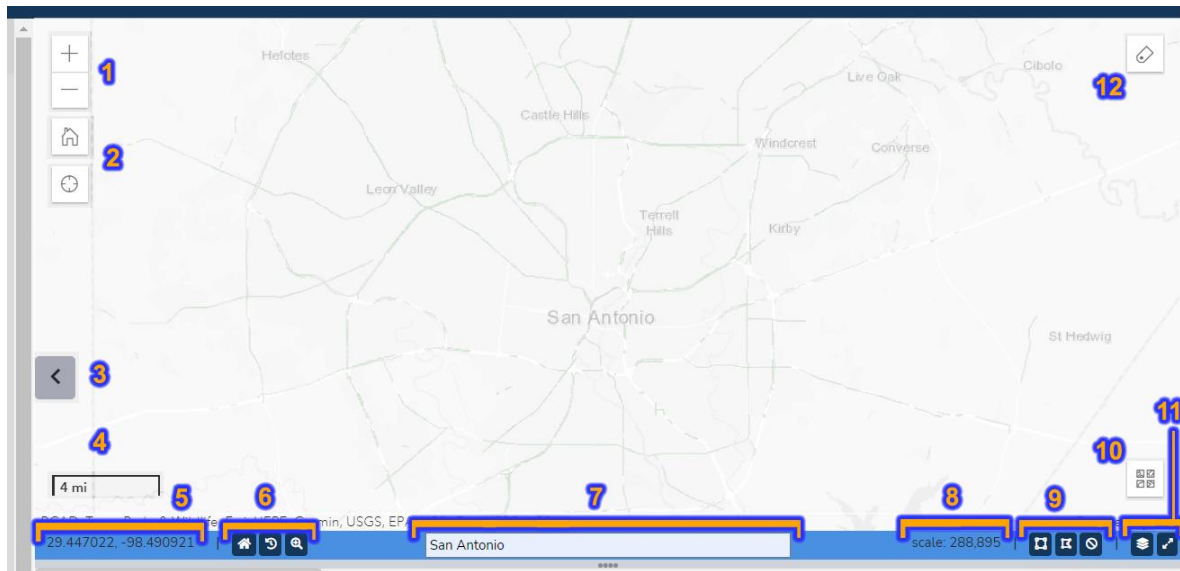


Figure 2 – Map Frame within Web App (background map faded to emphasize components)

### Components in Figure 2:

1. Zoom In and Zoom Out on Map
2. Home Button and Locate Me on Map
3. Expand/Contract Map View (Hide/Show Tool Pane)
4. Scale Bar (Adjusts Based on Zoom Level)
5. Coordinates (Latitude/Longitude of Mouse Location)
6. Home Location, Last View, Zoom In
7. Zoom To Search (Locate and Zoom to An Area)
8. Scale Display (Adjusts Based on Zoom Level)
9. Select By Window, Select by Polygon, and Clear Selection Window
10. Basemap Picker (Change Background Image/Map)
11. Add Custom Layer, Toggle Map View and Table Pane (Hides/Shows Map)
12. Legend Display

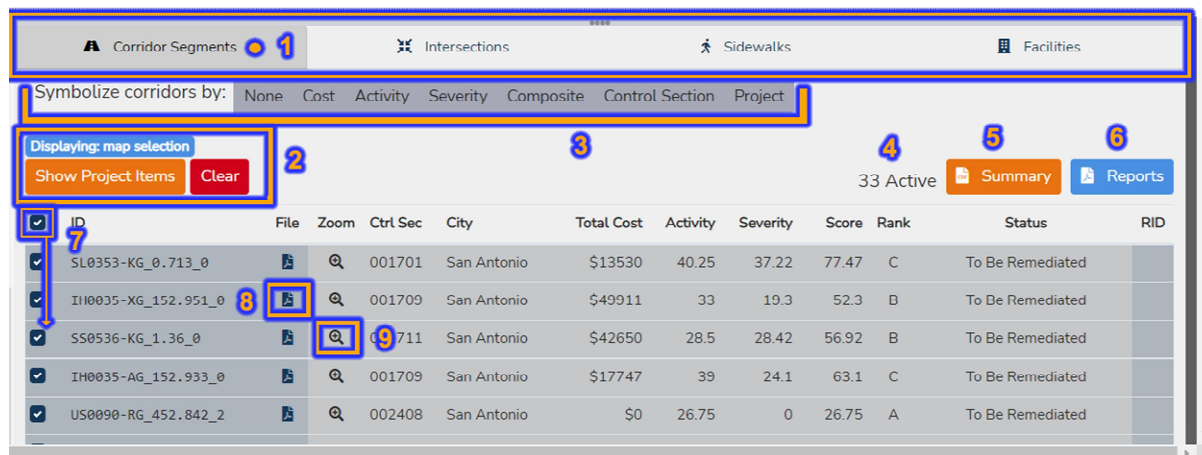
The map zoom level can be controlled by zooming in or out (Item 1), using the home button or locate me on the map (item 2). Users can reset to home location, return to previous zoom, zoom in on the map (item 6), or jump to a specific area by using the zoom to option (item 7). Coordinates will follow the mouse movement (item 5) and the scale of the zoom will be displayed in the tool bar (item 4) along with the actual scale value (item 8). The basemap can be changed to another available basemap (item 10) and the map pane can be enlarged by closing the tollbar pane (item 3) and table pane (item 11). A custom layer can also be added to the map (item 11). A legend can also be displayed (item 12) and

will be relative to layers that are visible in the map that can be turned on and off in the TxDOT and ADA layers in the Tool Pane.

## Table Pane

The table pane contains tabs for all the key ADA main layer categories, item sub layers per main layer category, and search results for each item. Each ADA layer has its own search results in the table pane that act independent of each other. Search results are populated by using the window selection tool found in the map pane (Item 9 in Figure 2). These will allow a user to select by rectangular window (first button) or polygonal window (second button) or reset windowed selection (third button). When using the polygon window be sure to click back at the start to complete the selection process.

The top row of tabs in the table pane are the key ADA layers tabs (Figures 3, 4, & 5 item 1) that each have their own search results and subcomponents (Figure 4 item 3) that shows one or more sub items per layer with unique search results per subcomponent. Corridor Segments are the only item that do not have subcomponents, it instead can display the corridor segments by various types of content. Intersection Items, Sidewalks, and Facilities all have subcomponents (Figures 3, 4, & 5 item 3).



ID	File	Zoom	Ctrl Sec	City	Total Cost	Activity	Severity	Score	Rank	Status	RID
SL0353-KG_0_713_0			001701	San Antonio	\$13530	40.25	37.22	77.47	C	To Be Remediated	
IH0035-XG_152_951_0			001709	San Antonio	\$49911	33	19.3	52.3	D	To De Remediated	
SS0536-KG_1_36_0			001711	San Antonio	\$42650	28.5	28.42	56.92	B	To Be Remediated	
IH0035-AG_152_933_0			001709	San Antonio	\$17747	39	24.1	63.1	C	To Be Remediated	
US0090-RG_452_842_2			002408	San Antonio	\$0	26.75	0	26.75	A	To Be Remediated	

Figure 3 – Corridor Segments Results Table in Table Pane

Corridor Segments table consist of multiple options for displaying the Corridor Segment map elements by Cost range, Activity Score, Severity Score, Composite Score, Control Section, or Project content. These allow users to change the display of the Corridor Segments in the map view based on the display type.

Each table can be changed to show project items or map selection (Figures 3, 4, & 5 item 2) results within the table. Project items are not active in the Phase 1 release of the web app but will be active when Phase 2 is released. Clicking column headings in the table will allow you to sort by ascending or descending order with one or multiple columns options as additional columns are selected. Items may be selected individually, or you can select all items by clicking the square box in the column heading (item 7). All tables illustrate the number of items that are selected (item 4).

Summary CSV files can be exported (item 5) from selected table items on each of the various ADA component search result tables. Users can also download PDF reports of selected items within each table by selecting the “Report” button (item 6). Each row of data has various information based on the ADA layer component active. All have ADA components have options to view the Individual PDF (item 8) or gives you the ability to center the screen on any element (item 9).

Intersection items have Curb Ramps, Bus Pads, Island Curb Cuts, and Ped Signals that have similar table functionality as Corridor Segments. Figure 4 illustrates these items with the Bus Pads active. Like Corridor Segments above, Intersection items table functionality is similar functionality as outlined above.

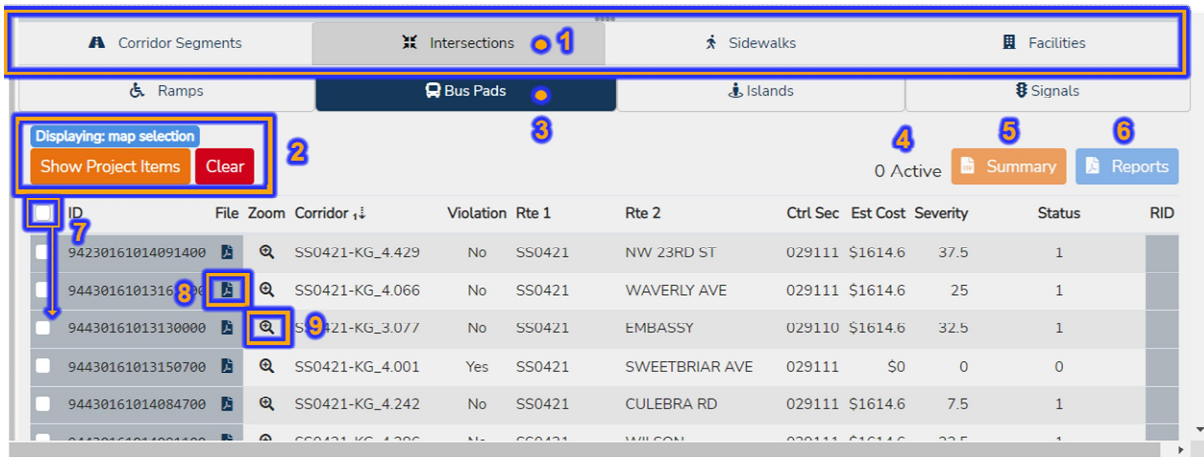


Figure 4 – Intersection Items with Bus Pads Sub Item Active in Table Pane

Sidewalks have subcomponents for Detailed Discontinuities (vertical heaves or horizontal gaps) represented as point elements. Detailed Driveways (residential or commercial) represented as point elements. Detailed Run Slope, Detailed Cross Slope are broken down into different ranges represented as line elements. Detailed Surface Condition is a line element representing areas where poor surface conditions exist on sidewalks. Sidewalk Connectivity are represented as lineal elements consisting of missing sidewalk/sidewalk gap, missing bus connection, and buried sidewalk.

Visual Sidewalk Violations are represented as a point element with a 25-foot coverage limit for cross slope issues, driveway with slope or other violation issues (residential or commercial), overhead or low vegetation issues, and single location violations for Discontinuity (0.5” and above), and Obstructions (Traffic Signal, Sign, Private, or Other). Visual driveway points are only those in violation vs all the driveways as is represented in the Detailed Driveway point elements.

Facilities Violations have three subcomponents that consist of Site Points, Exterior Points, and Building Points. Exterior and Building violations are represented as point elements that summarize items by a room or space. Site Points are a summation of all Exterior and Building Points. Table functionality for

Facilities data is the same as outlined above, except that there is an additional link to download an excel file with detailed representations of the various individual component violations of a room or space. Please see “Appendix B - Content Guide for Facility Data Workbook” for more details.

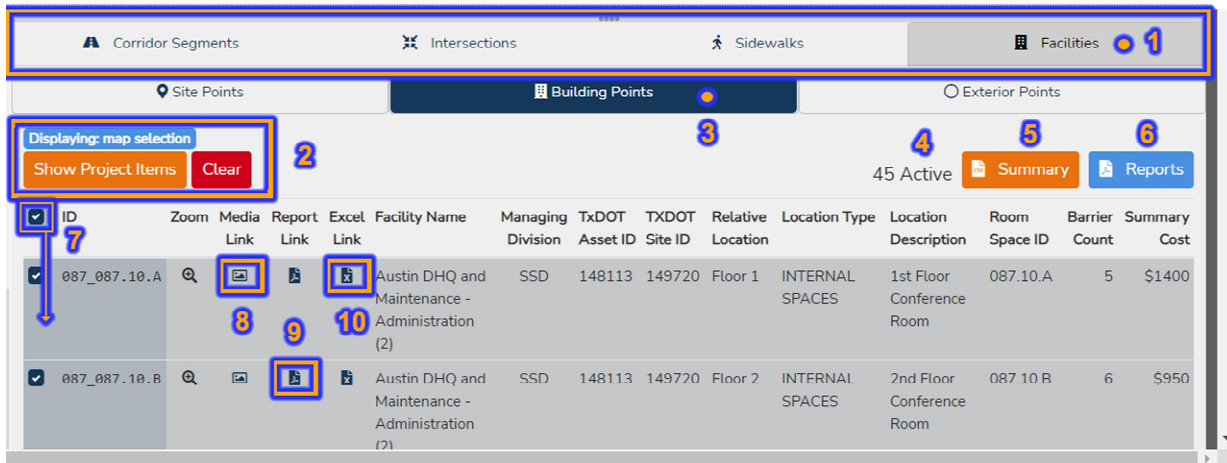


Figure 5 – Facilities Items with Building Points Sub Item Active in Table Pane

Components in Figure 3, 4, and 5:

1. Key ADA Layers Tabs (Corridor Segments, Intersections, Sidewalks, and Facilities Items)
2. Table Control (Change Display from Map Selection to Project Selection, Clear Table)
3. Corridor Display (Figure 3), Select Sub Layer Item (Figure 3- Bus Pads, 4-Building Points)
4. Count of Selected Table Rows (Count of Selected Items in Current Table)
5. Export Summary of Active Items (Will Download a CSV of Table Contents per Table Type)
6. Export PDF Reports of Active Items (Export a Zip File of All Reports Selected in Table)
7. Select All Items (Selects All Items in Table)
8. View Individual PDF Report (Figure 3 and 4), View HTM Page of Room/Space Summary (Figure 5)
9. Zoom To Individual Item
10. Download Facilities Detailed Violations (Figure 5 only)

## Toolbar Pane

The toolbar pane is where you can add or subtract layers from various sources, work with specific tools, and perform search filtering for map Items. There are multiple panes that can be switched by clicking on the icon in the header area to pick on each of the available options; TxDOT Layers, ADA Layers, Filter Tools, Corridor Segments Cost Tools, Facilities Cost Tools, Corridor Segments Prioritization Tools, and Implementation Planning tools.

The TxDOT layers pane (Figure 6) of the Toolbar contains layers that are typically found in the Texas DOT Statewide Planning Map web application. This content is utilizing live connections to the GIS content feeding that web application, as content is updated at TxDOT these layers will reflect those changes automatically. We have broken the layers into logical categories, each can be expanded by hitting the drop-down arrow next to each category. The most recently used layers will be loaded to the

top section. We have also added pedestrian specific crash data from 2019 that was parsed out from the TxDOT C.R.A.S.H system. There is a limit of three layers active at a time, similar to the operation of the TxDOT Planning map.

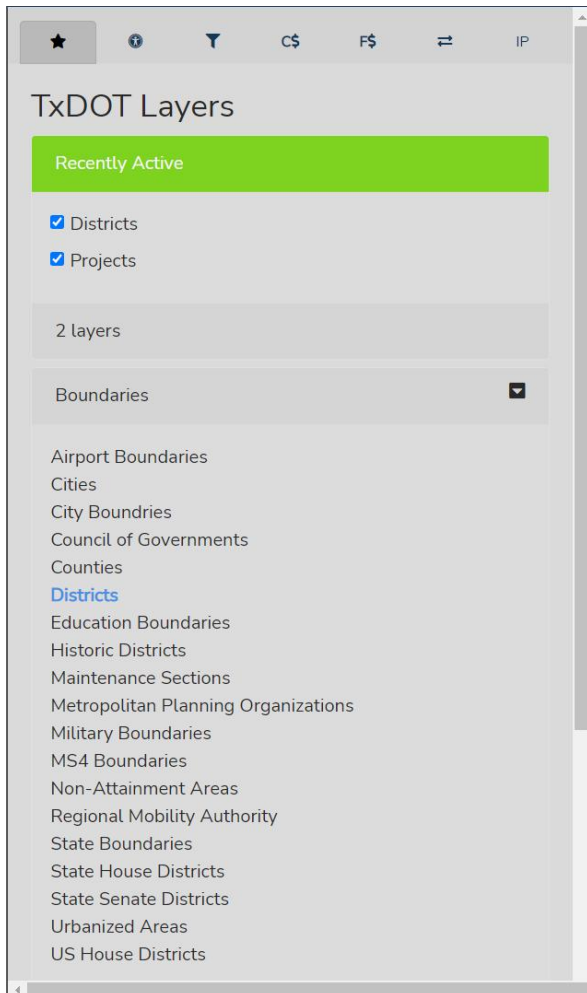


Figure 6 – TxDOT Layers

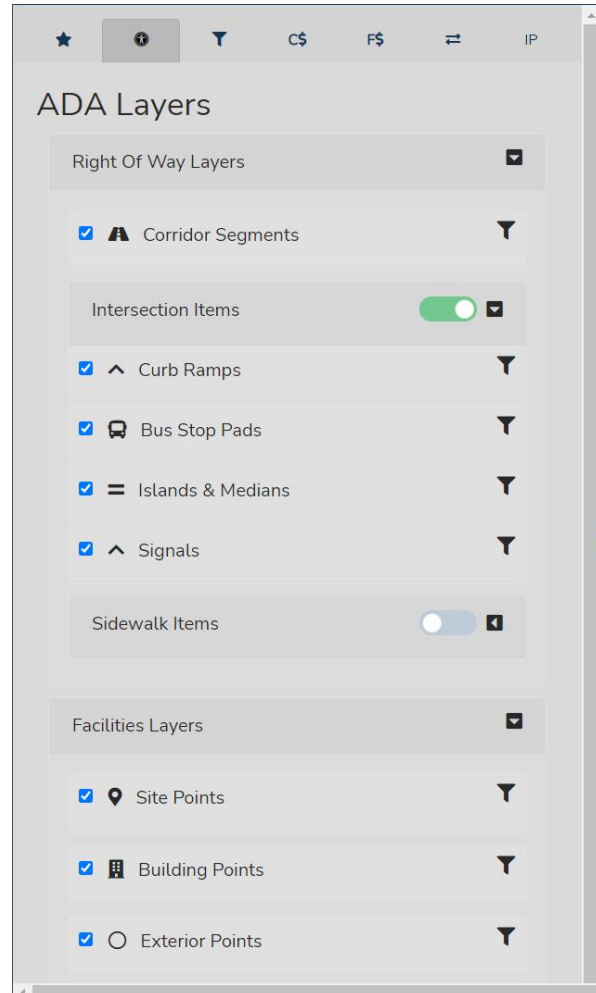
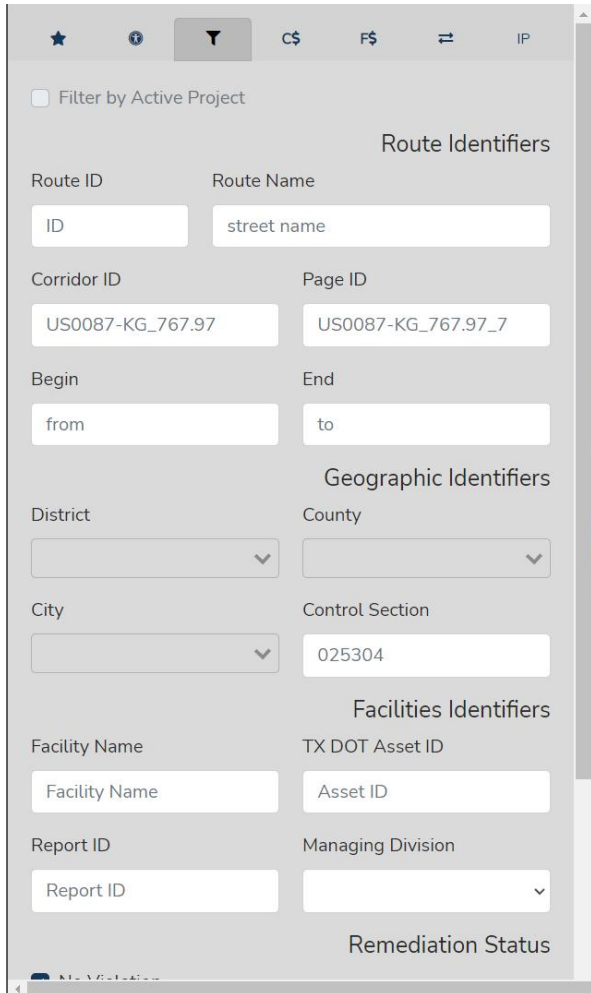


Figure 7 – ADA Layers

ADA Layers (Figure 7) are the resultant ADA specific content that contains Corridor Segments (street to street along a state-controlled corridor). Intersection items which consist of Curb Ramps, Bus Stop Pads, Island & Medians, and Pedestrian Signals. Sidewalk elements which consist of Detailed Discontinuities, Detailed Driveways, Detailed Run Slope, Detailed Cross Slope, Detailed Surface Condition, Sidewalk Connectivity, and Visual violations as outlined above in the table section. Each of these layers have the ability to apply specific filtering to show only content that belongs to that data, the filter icon next to each layer name shows which layers filterable content are available per different type of data.

ADA Layers are scale dependent and only show at various zoom levels depending on the level of detail of the ADA violation data. This means that if the layer is turned on, it may not show until a user

zooms into the map. More detailed content such as sidewalk collection lines and violations data such as detailed or visual sidewalk violations, will only show up if the zoom level is at a scale of 1:12,000 or less.



The Filter Tool interface includes a toolbar with icons for home, search, filter, currency, fullscreen, and print. Below the toolbar is a 'Filter by Active Project' checkbox. The main area is divided into several sections:

- Route Identifiers:** Fields for Route ID (ID), Route Name (street name), Corridor ID (US0087-KG\_767.97), and Page ID (US0087-KG\_767.97\_7).
- Geographic Identifiers:** Fields for Begin (from) and End (to), District (dropdown), County (dropdown), City (dropdown), and Control Section (025304).
- Facilities Identifiers:** Fields for Facility Name and TX DOT Asset ID (Asset ID).
- Other:** Report ID and Managing Division (dropdown).
- Remediation Status:** A section at the bottom.

Figure 8 – Filter Tool



The Corridor Segment Cost Tool interface features a toolbar with icons for home, search, filter, currency, fullscreen, and print. It includes two main buttons: 'Download Template' (blue) and 'Export Costs' (green). Below these buttons, the total cost is displayed as \$4,940,686.00. A table lists various corridor segments and their associated costs:

Segment	Cost
Ramps (857 EA)	\$2,605,380.00
Curb Cuts (52 EA)	\$349,940.00
Bus Pads (148 EA)	\$247,912.00
Signals (300 EA)	\$1,377,591.00
Bus Connections (8445 SY)	\$590,929.00
SW slope (563 SY)	\$50,741.00
SW cross-slope (12418 SY)	\$1,117,635.00
SW b-slope (134 SY)	\$11,984.00
SW (Missing) (2247 SY)	\$157,295.00
SW (buried) (1485 SY)	\$133,628.00
SW (poor) (248 SY)	\$21,837.00
Obs (low veg) (98 EA)	\$18,620.00
Obs (ovhd veg) (60 EA)	\$22,800.00
Obs (util) (105 EA)	\$652,050.00
Obs (sign) (7 EA)	\$168,300.00
Obs (signal) (1 EA)	\$2,490.00
Obs (other) (90 EA)	\$168,300.00
Drive (comm) (3723 LF)	\$1,638,623.00
Drive (res) (147 LF)	\$54,549.00

Figure 9 – Corridor Segment Cost Tool

The Filter toolbar pane (Figure 8) contains methods to limit the display of ADA content in the map pane. These tools allow you to limit the display of content to work with the resultant ADA violations more easily within the Map Pane. These do not affect the TxDOT Layers.

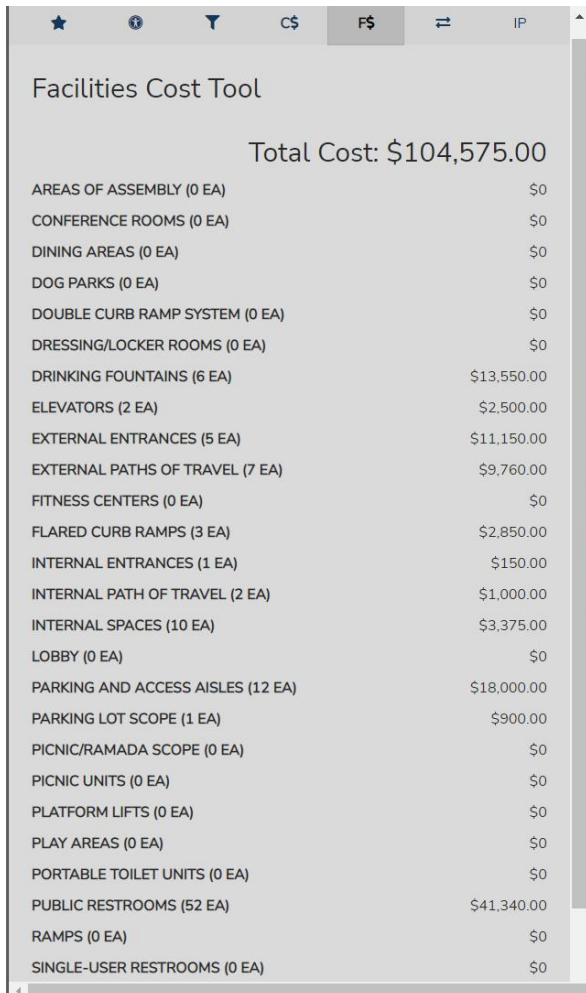
Route and Geographic identifiers are key elements that apply to ROW data and include Route ID, Route Name, Corridor ID, Page ID and beginning and ending DFO values. Corridor IDs are sections or TxDOT routes that break at natural breaks (intersecting streets, TxDOT boundaries, and key centerline breaks, etc.) and can have lengths longer than 1500 foot.

Page ID are subdivisions of a Corridor ID section that has unique identifiers that define the PDF report pages along a Corridor. These segments of a route are usually 1500 foot or less to allow PDF reports to have the appropriate amount of content. DFO beginning and end values can further limit the display



of content within a Page ID if desired and is reserved for advanced filtering within a sub-Page ID section. Many items can typically be captured within the selection tools to select content on the screen with the map selection tools (Figure 2, Item 9) vs using the DFO beginning and ending filtering.

There are Facilities identifiers that can limit the display of Facility violation data collected. These only apply to Facilities content and do not apply to ROW ADA layers. Available options are Facility name, TxDOT Facility Asset ID (where applicable), Managing Division, and Report ID. Report IDs are unique identifiers for the Site Report associated with the Facilities Data.

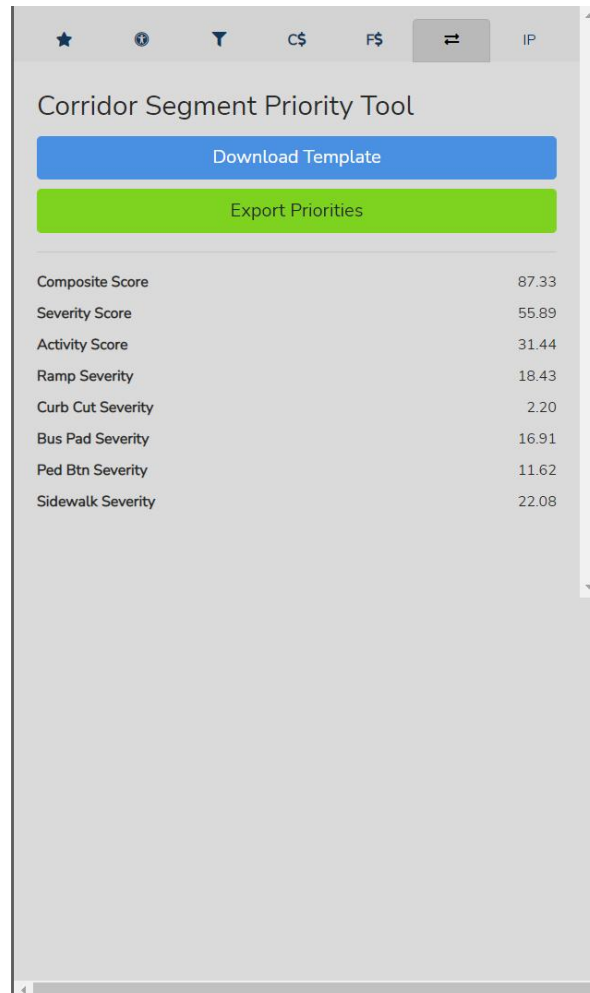


**Facilities Cost Tool**

Total Cost: \$104,575.00

AREAS OF ASSEMBLY (0 EA)	\$0
CONFERENCE ROOMS (0 EA)	\$0
DINING AREAS (0 EA)	\$0
DOG PARKS (0 EA)	\$0
DOUBLE CURB RAMP SYSTEM (0 EA)	\$0
DRESSING/LOCKER ROOMS (0 EA)	\$0
DRINKING FOUNTAINS (6 EA)	\$13,550.00
ELEVATORS (2 EA)	\$2,500.00
EXTERNAL ENTRANCES (5 EA)	\$11,150.00
EXTERNAL PATHS OF TRAVEL (7 EA)	\$9,760.00
FITNESS CENTERS (0 EA)	\$0
FLARED CURB RAMPS (3 EA)	\$2,850.00
INTERNAL ENTRANCES (1 EA)	\$150.00
INTERNAL PATH OF TRAVEL (2 EA)	\$1,000.00
INTERNAL SPACES (10 EA)	\$3,375.00
LOBBY (0 EA)	\$0
PARKING AND ACCESS AISLES (12 EA)	\$18,000.00
PARKING LOT SCOPE (1 EA)	\$900.00
PICNIC/RAMADA SCOPE (0 EA)	\$0
PICNIC UNITS (0 EA)	\$0
PLATFORM LIFTS (0 EA)	\$0
PLAY AREAS (0 EA)	\$0
PORTABLE TOILET UNITS (0 EA)	\$0
PUBLIC RESTROOMS (52 EA)	\$41,340.00
RAMPS (0 EA)	\$0
SINGLE-USER RESTROOMS (0 EA)	\$0

Figure 10 – Facilities Cost Tool



**Corridor Segment Priority Tool**

Download Template

Export Priorities

Composite Score	87.33
Severity Score	55.89
Activity Score	31.44
Ramp Severity	18.43
Curb Cut Severity	2.20
Bus Pad Severity	16.91
Ped Btn Severity	11.62
Sidewalk Severity	22.08

Figure 11 – Corridor Segment Priority Tools

The Corridor Segment Cost Tools (Figure 9) toolbar pane allows a user to work with Corridor Segments to summarize and adjust unit costs and recalculate detailed costing reports. This tool will allow a user to see a summary of costs by items type as outlined in Figure 9. This tool works in conjunction with the Corridor Segments selected in the table results pane. This is accomplished by first downloading the Cost Template by clicking on the Download Template button, then download the costs that feed the template by clicking on the Export Costs button. Please see Appendix A for complete instructions on using this Cost Tool.

Facilities Cost tool (Figure 10) allows a user to select Exterior and Building Points and see a summation of quantities and cost total per type of room or space.

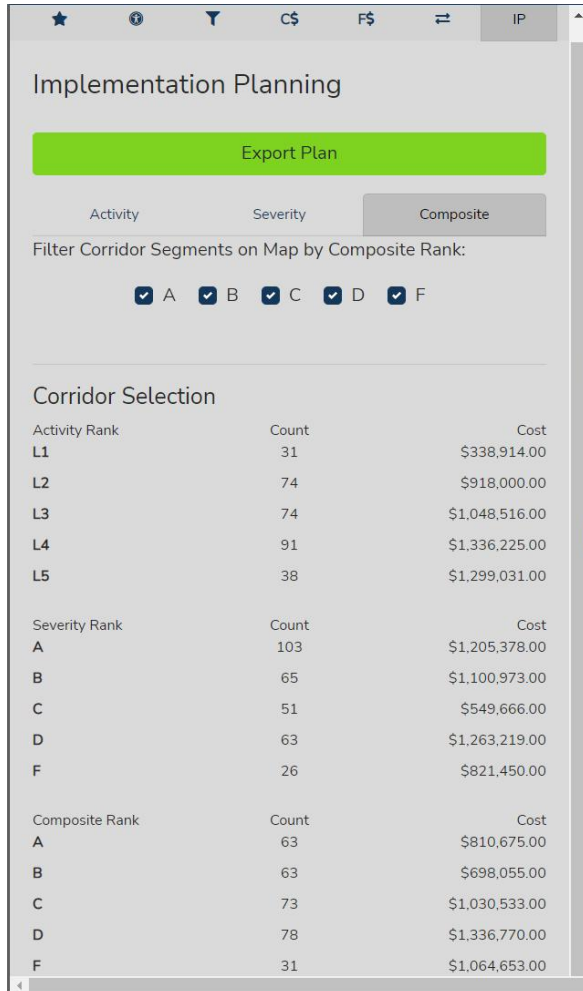


Figure 12 – Implementation Planning Tools

The Corridor Segments Priority Tools (Figure 11) of the toolbar pane allows a user to work with ADA prioritization data for Corridor Segments in a similar way to the cost data where prioritization data can be exported and adjusted in an external excel file. This tool will allow a user to see a summary of prioritized items by type as outlined in Figure 11 and allows the ability to export a prioritization template and Corridor Segment prioritization data. This tool also works in conjunction with the Corridor Segments selected in the resulting search tables section. Please see Appendix A for complete details on using the Corridor Segment Priority Tool.

The Implementation Planning Tools (Figure 12) toolbar pane allows a user to further define the details of Corridor Segment illustrating the count and costs of elements falling into the various Activity, Severity, and Composite ranks. This toolbar also allows a user to filter content in the map pane to only show Corridor Segments that fall into one of five ranks within Activity rank (level L1 to L5), Severity



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rank (A to F) and Composite rank (A to F) of Corridor Segments in the map Pane. The tool also changes the color of the Corridor Segments to better illustrate the breaks of these items in the map pane.

### **Appendix A – Corridor Segments Cost Estimation and Prioritization Tools**

This appendix covers the process of using the Cost Tools (Figure 9) and Priority Tools (Figure 10) to download a cost or prioritization template and content that feeds those templated, to manipulate unit costs or prioritization weightings.

### **Appendix B – Content Guide for Facility Data Workbook**

This appendix covers the usage of the Facilities Excel Data files that can be exported on any Facilities items within the Web App.



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## Appendix A

### Corridor Segments Cost Estimation and Prioritization Tools



**Comprehensive Accessibility Program (TCAP) - Web Application**  
**ADA Cost Estimation and Prioritization Tools**

**I. Procedures to Download and Use ADA Cost Estimation and ADA Prioritization Reports**

1. Use the Web Application to select a Set of Corridors Segments within the Tables section.
2. Cost Tab – Displays Overall Remediation Cost Estimates by category for active Selection.
3. Prioritization Tab – Displays Average Severity and Activity Scores for active selection.
4. Export Excel Template from either or both tabs.
5. Excel Templates download to “Download” folder or other folder determined by user’s local browser settings.
6. Use the button on the corresponding tab to “Export Costs” and/or “Export Priorities.” Exported data from the Active Set (corridor-costs.csv and/or corridor-priorities.csv) will download to the same folder as the Excel Template(s).
7. Move Template(s) and corridor-costs.csv and/or corridor-priorities.csv file(s) to a permanent file storage location.
8. Open a Template. User will likely be prompted to “Enable Content” across the top of the Excel Workbook (a Microsoft Office security precaution): select “Enable Content”. The Template will automatically prompt with a new window: Import text file. Use this window to select the corresponding corridor-costs.csv or corridor-priorities.csv file. Navigate to the permanent storage location of the desired CSV and select Open.
9. The worksheet will link to the chosen CSV file with an active Data Connection and populate the Data Source tab with the data contained in the CSV. Once the data is imported, the Excel Template will transform itself into an Excel Workbook with an automatically modified file name. The formulas from the Template and the data from the CSV are combined in the new Workbook and will automatically calculate based on the imported data.
10. Use Save As to save the Excel Workbook with the updated data to a location of the user’s choice.
11. Template should remain unchanged and can be reused to generate additional reports simply by importing different CSV datasets exported from the Web Application.

**II. Structure and Use of ADA Cost Report Workbook**

Data exported from the Web Application (exported active selected table items) provides the scope of the analysis in the ADA Cost Report Workbook.

Excel Template Name: **TXDOT\_ADACostAdjustment\_Template.xlsx**

Cost Data Export (CSV): **corridor-costs.csv**

**Five Worksheets (tabs) are generated in the ADA Cost Report Workbook:**

<b>Worksheet</b>	<b>Description</b>
Overall Cost Report	Highest level summary of costs by PROW feature category for entire Active Set
Overall Cost Detail	Additional detail about the PROW facilities and components thereof that contribute cost to each PROW feature category for the entire Active Set
Cost Worksheet	Full detail of all ADA Remediation Costs for each Corridor Segment within the Active Set <ol style="list-style-type: none"> <li>i. Frozen pane provides Corridor Segment ID, Pre-calculated Priority Rank, State Highway Name, Beginning and End Street of Segment, and associated Control Section</li> </ol>



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**ADA Cost Estimation and Prioritization Tools**

	<ul style="list-style-type: none"> <li>ii. Header provides column labels and a subtotal for each column</li> <li>iii. Columns G – N are the same categories shown in Overall tabs</li> <li>iv. Columns P – AG provide a detailed breakdown of Sidewalk Deficiencies, which are subtotaled by row in Column N</li> </ul>
<b>Dynamic-Unit Costs</b>	Unit Costs on this worksheet are meant to be modified by the user. Unit costs on this tab drive the cost customization of the Cost Report. Workbook will automatically recalculate to reflect the unit costs provided. Default unit costs used in the pre-calculated data are provided for reference.
<b>Source Data</b>	Displays imported data (corridor-costs.csv) in raw form, as exported. This tab must be populated for the rest of the Workbook to function.

After using the exported CSV and the Excel Template to create the new ADA Cost Report Workbook, it is possible to use the document, without modification, as a series of summary reports with varying levels of detail.

The other more powerful option is to use the “Dynamic-Unit Costs” tab to substitute loaded unit costs or adjust individual unit costs to reflect localized conditions. To modify unit costs, simply replace the values in the yellow cells of the “Dynamic-Unit Costs” tab with the desired unit costs. All cells other than yellow cells are locked for editing, but the formulas in the Workbook will automatically recalculate to reflect the adjusted unit cost(s). Pre-calculated values (gray cell color) remain unchanged as a reference. As noted in the “Dynamic-UnitCosts” tab, the curb ramp, island/curb cut, and bus stop pad costs are generalized to one unit cost each in the ADA Cost Report Workbook, meaning that the Pre-calculated and User-Defined totals will most likely not match for these categories even when the Workbook is first created (before any user modifications). Detailed component-based remediation evaluation of curb ramps, islands/curb cuts, and bus stop pads with unit cost adjustment is available only with the Curb Ramps, Island Curb Cut/Medians, Bus Stop Pad Analysis, and Ped Signals Program and is beyond the scope of this Workbook.

**III. Structure and Use of ADA Prioritization Report**

Data exported from the Web Application (exported Active Set) provides the scope of the analysis in the ADA Prioritization Report Workbook.

Excel Template Name: **TXDOT\_ADAPrioritizationAdjustment\_Template.xlsx**

Prioritization Data Export (CSV): **corridor-priorities.csv**

**Three Worksheets (tabs) in ADA Prioritization Report Workbook:**

<b>Worksheet</b>	<b>Description</b>
Prioritization Worksheet	The main summary and analysis worksheet. Letter grades are displayed with customizable scoring ranges. Because the ranges are continuous across grades, it is necessary only to change the highlighted cells to adjust score ranges (the worksheet calculates the others).



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**ADA Cost Estimation and Prioritization Tools**

	<ul style="list-style-type: none"> <li>i. Frozen pane provides Corridor Segment IDs, State Highway Name, Beginning and End Street, and associated Control Section</li> <li>ii. Priority Rank displays a color-coded Letter Grade reflecting the user-defined ranges at the top of the worksheet</li> <li>iii. Priority Score is the sum of the Pre-calculated Severity Score and the User-Defined Activity Score</li> <li>iv. User-defined Activity Score reflects the Category Weights saved in the User-Defined fields on the “Dynamic-Activity” worksheet</li> <li>v. Pre-calculated Activity Score provided for reference</li> <li>vi. Pre-calculated Severity Score displays the total score from all severity score categories (e.g. Sidewalk Severity, Curb Ramp Severity, etc) for each Corridor Segment</li> </ul>
<p align="center">Dynamic-Activity</p>	<p>Category Weights on this tab are meant to be modified by the user to adjust the relative influence of the displayed activity categories. Category Weights are intended to total 100 points. This worksheet will monitor the Weight Total and display either green (“OK”) or red (“Modify Weights”) to warn the user. Additional color-coded guidance will appear across the top of the worksheet to guide the user when the Weight Total does not equal 100 points. Default values, used for the pre-calculated Activity Scores are provided for reference.</p>
<p align="center">Source Data</p>	<p>Displays imported data (corridor-priorities.csv) in raw form, as exported. This tab must be populated for the rest of the Workbook to function.</p>

After using the exported CSV and the Excel Template to create the new ADA Prioritization Report Workbook, it is possible to use the document, without modification, as a report of the Prioritization of the Corridor Segments exported from the Web Application.

The other more powerful option is to use the “Dynamic-Activity” tab to re-weight the Activity Categories. To modify weights, simply replace the values in the yellow cells of the “Dynamic-Activity” tab with the desired weights. Weights do not need to be whole numbers, but all weights must total 100 points. The “Dynamic-Activity” worksheet calculates the Weight Total and warns the user if the total does not equal 100. The Weight Total cell will display either green (“OK”) or red (“Modify Weights”) to warn the user. Additional color-coded guidance will appear across the top of the worksheet to guide the user when the Weight Total does not equal 100 points. All cells other than yellow cells are locked for editing, but the formulas in the Workbook will automatically recalculate to reflect the adjusted weight(s). Pre-calculated values (gray cell color) remain unchanged as a reference. Modifications to Severity Score or to the detailed parameters of the Activity scoring components are outside the scope of this Workbook.

Once the desired Activity Weights are achieved in the “Dynamic-Activity” tab, review the updated scores on the Prioritization Worksheet. The Prioritization Worksheet will assign a letter grade to the Priority Rank column based on the score in the Priority Score column for



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each Corridor Segment. The score ranges that apply to each letter grade are displayed on the Worksheet and the ranges can be changed by the user. Only the four yellow-highlighted cells can be edited to control the ranges. Because the ranges are continuous, the worksheet calculates all other values for the ranges based on the entries in the four yellow-highlighted cells. Letter grades are assigned based on Priority Scores greater than or equal to the Range-Min and less than or equal to the Range-Max for each grade. Letter grades are assigned in the Priority Rank column and the values are color-coded to match the color-coded letter grade scale at the top of the Worksheet. Prior to modification of User-Defined values for the Activity Weights and letter grade ranges, the color coding of the Priority Rank will match the color of the Corridor Segment boundary shown on the Web Application map and Corridor Compliance Reports (pdf).

### IV. General Usage Suggestions

- Corridor Segments in the exported CSV are not sorted by Corridor Segment ID when imported. It is possible and recommended to highlight the entire Source Data worksheet and Sort by CID\_CorridorID (Column A).
  - To access Sort in Excel: keyboard shortcut Alt-A-SS. In the Sort window that opens, select “My data has headers” and select “CID\_CorridorID” from the drop-down menu.
  - After Sort, the rows in the Cost or Prioritization Worksheet will reflect the sorted rows in the Data Source.
  - If Corridor Segments were selected in the Web Application as a continuous set of segments, this sort will order the rows so that adjacent segments are adjacent rows in the table.
  - Beginning and End Streets (Segment termini) are provided for each Corridor Segment and should be continuous with adjacent rows when sorted in this way.
- Most of the Workbook is protected to preserve the structure and function of the Workbook.
  - Even with the worksheets from the Template locked, it is possible to add additional worksheets to the Workbook and reference the output of any cell on any other worksheet, meaning that additional analyses can be constructed using the Source Data or summaries in the base Workbook as a starting point.
  - Not Recommended, although possible: Worksheets can be unprotected by providing the password “TXDOTADA”
- The formulas in the Templates have an input limit of 1500 Corridor Segments (*i.e.* rows in the Data Source).
- Yellow Highlighting indicates fields that are meant to be edited by the user or fields that display values dependent on the user-defined values. User customization within the Reports is dependent on use of these fields.
- CSV means comma-separated values. CSV is a commonly used text-based file data structure for tabular data where each line of the file is a data record from the table and table columns are separated by commas. The first row in the CSV often contains the column names from the source table (known as a “header” when present). CSV format can be easily imported into Excel.
- Both the exported CSV and the new Workbook file that results from importing data into a Template file must be preserved for the report to function. If desired, imported data can





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be unlinked from the CSV data source by removing the Data Connection (keyboard shortcut to Excel Ribbon: Alt-A-O). Imported data will remain in the Data Source tab after the Data Connection is removed.

- The Report Templates are only as useful as the data imported into them. Each Workbook represents an analysis of the data chosen in the TXDOT Pedestrian Access Inventory Toolbox and exported to the user's computer. Export CSVs reflect a snapshot of the enterprise database at the time of the export.
- Templates can be downloaded from the TXDOT Pedestrian Access Inventory Toolbox on each use or can be stored locally and reused, as long as the user uses "Save As" to save each set of imported data as its own Workbook and preserves the Template in its original form. Administrators of the TXDOT Pedestrian Access Inventory Toolbox may periodically modify/update the Template(s), making the updated Template(s) available in the Web Application for users to download. In the case of Template updates, users will need to discontinue use of any locally saved copies of the old Template version(s). Depending on the modifications, new Templates may not work properly with old versions of exported data.
- **There is no link between the exported CSVs or the ADA Report Workbooks, to the enterprise database that provides data to the TXDOT Pedestrian Access Inventory Toolbox. This means that any edits to the exported data or modified calculations are local (limited to the exported file(s) only) and have no connection to edit/update the enterprise database. Edits to the enterprise database require a database connection (e.g. via ESRI products, Database Management System (DBMS), or other related means) that is not present in the Workbooks.**



# Comprehensive Accessibility Program (TCAP) - Web Application

## Appendix B

### Content Guide for Facility Data Workbook



## Workbook Introduction

The Facilities Workbook (Workbook) contains all information regarding non-compliant items that were identified during ADA site assessments that took place between November 2020 and February 2021.

The information contained within the Workbook is intended to guide TxDOT divisions and their representatives to achieving compliance within the build environments under TxDOT's responsibility. Potential solutions to identified deficiencies contained within this Workbook, and estimated costs of the proposed solutions, are for planning purposes only and may not reflect realized costs or final remediation solutions.

For example, since the ADA does not "necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities" (Title II Regulations § 35.150(a)), but rather, requires Title II entities to ensure that "each service, program, or activity... when viewed in its entirety, is readily accessible to and usable by individuals with disabilities" (Title II Regulations § 35.150(a)); final remediation solutions for non-compliant items may not involve structural solutions and compliance may ultimately be achieved through other methods such as "redesign or acquisition of equipment, reassignment of services to accessible buildings, assignment of aides to beneficiaries, home visits, ...or any other methods that result in making its services, programs, or activities readily accessible to and usable by individuals with disabilities." (Title II Regulations § 35.150(b)).

Within the Workbook there are several columns of information containing characters in purple. Text in purple is used to represent identifiers (i.e., "ID's") that can be used to cross reference data between the available sources (i.e., Web App, Workbook, and Site Reports). There are three levels of information that are available through these ID's, which are also represented by the three sheets within the Workbook.

- Whole facility and associated site- For all information regarding a facility, and the site associated with the facility, reference the "Report ID." Within the Web App, the "Report ID" or the "ADA\_ID" can be referenced. It is important to note that at District Headquarter campuses, multiple "Report ID's" will need to be referenced to view all exterior information collected at the campus. This information is contained within this workbook on the "Site Point Detail" sheet.
- Whole room/space- For all information regarding a room/space, reference the "Room/Space ID." Within the Web App, the "Room/Space ID" or the "ADA\_ID" can be referenced. This level of detail is the most granular level available through the Web App. Within the workbook, this information is found in the "Room/Space Point Detail" sheet.
- Individual item issue or item attribute issue- For all information regarding a particular item issue, reference the "Site Report Reference #." This information is contained only within the Workbook in the "Item Detail" sheet.

If there are any questions regarding the data within this workbook, or how to approach remediation, please contact the Civil Rights Division or your District/Division ADA Liaison.



## Overview of Site Point Detail Sheet

The Site Point Detail Sheet provides a summary of all the collected information from a site/facility. To provide continuity between the different data sources for facility information, this sheet mirrors the information contained within the Web App.

## Description of Sheet Columns

Facility Name- TxDOT name for the facility. District Headquarters is abbreviated to DHQ. Safety Rest Area is abbreviated to SRA. Travel Information Center is abbreviated to TIC.

ADA ID- A unique ID for the site that ties the line of data back to the Web App.

Media Link- This link will open a web page displaying an aerial image of the facility, and site, that the line of data is pertaining to. For facilities that are a part of a campus, the specific facility associated with the line of data will be contained within a blue shape on the aerial image. This most often occurs at District Headquarter Sites. Please note that the blue shape does not accurately define the boundary of the exterior assessment associated with this facility/site and should only be used to clarify which facility is associated with the line of data.

Report Link- This link will open the Site Report associated with the line of data.

Managing Division- The TxDOT Division which has the primary responsibility for this facility/site.

District- The TxDOT District where the facility/site is located.

City- The City in which the facility/site is located. This will be "N/A" for many SRAs.

County- The County in which the facility/site is located.

Report ID- A unique identifier for the Site Report associated with the line of data. This ID can also be found in the Web App and the other sheets of this Excel workbook.

TXDOT Asset ID- TxDOT identifier for the facility associated with the line of data. This will be "N/A" for SRAs.

TXDOT Site ID- TxDOT identifier for the site associated with the line of data. This will be "N/A" for SRAs.

Relative Location- Within the Site Point Detail Sheet this column simply reiterates that the line of data represents the summary of all the data contained within the Site Report. This column will have more meaning in the other sheets of the Workbook.

Lat- The latitude coordinate that relates to the line item's Site Point within the Web App.

Long- The longitude coordinate that relates to the line item's Site Point within the Web App.

Barrier Count- This is the total number of NO and RVW items contained within the Site Report for the line of data.

Summary Cost- This is the total estimated cost of remediation for all NO and RVW items contained within the Site Report for the line of data.



## Overview of Room/Space Point Detail Sheet

The Room/Space Point Detail Sheet provides a summary of all the collected information from a particular room/space. To provide continuity between the different data sources for facility information, this sheet mirrors the information contained within the Web App.

In the Site Reports, rooms/spaces are represented by Chapters. To view this room/space within the corresponding Site Report, click the "Report Link". This will open the Site Report to the corresponding Chapter of the report on your web browser. Alternatively, the corresponding chapter can be found within Site Reports by using the characters in the 2<sup>nd</sup> and 3<sup>rd</sup> position of the "Room/Space ID."

For example, for the Room/Space ID *031.10.A*, the Chapter in the report where this room/space can be found is 10(A). The first position of the Room/Space ID is the "Report ID." Positions in the ID are separated by periods.

At times, a room/space may not have easily identifiable boundaries, such as an "external path of travel." To identify where this space is located, and the boundaries as defined by the data collection team which assessed the site/facility, please reference the Media Link or Site Report associated with the room/space where Location Image(s) will provide the appropriate context.

## Description of Sheet Columns

**Facility Name**- TxDOT name for the facility. District Headquarters is abbreviated to DHQ. Safety Rest Area is abbreviated to SRA. Travel Information Center is abbreviated to TIC.

**ADA ID**- A unique ID for the room/space that ties the line of data back to the Web App.

**Media Link**- This link will open a Room/Space Summary document on your web browser. The document will contain summary information and images of the room/space for this line of data.

**Report Link**- This link will open the Site Report to the specific chapter associated with the line of data on your web browser.

**Managing Division**- The TxDOT Division which has the primary responsibility for this facility/site.

**District**- The TxDOT District where the facility/site is located.

**City**- The City in which the facility/site is located. This will be "N/A" for many SRAs.

**County**- The County in which the facility/site is located.

**Report ID**- A unique identifier for the Site Report associated with the line of data. This ID can also be found in the Web App and the other sheets of this Excel workbook.

**TXDOT Asset ID**- TxDOT identifier for the facility associated with the line of data. This will be "N/A" for SRAs.

**TXDOT Site ID**- TxDOT identifier for the site associated with the line of data. This will be "N/A" for SRAs.

**Relative Location**- The relative location within the facility/site where the room/space associated with the line of data can be found. For exterior items, the relative location will be a generic "exterior". For interior items, the relative location will be the floor of the facility where the room/space is located. For



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facilities with only one level, or where only one level was assessed as a part of this project, the relative location will be "interior".

Lat- The latitude coordinate of the exterior room/space for the line of data. For spaces that encompass a large area, such as "External Paths of Travel", the latitude coordinate is located in the relative mid-point of the space. For interior room/spaces, the value will be "N/A".

Long- The longitude coordinate of the exterior room/space for the line of data. For spaces that encompass a large area, such as External Paths of Travel, the latitude coordinate is located in the relative mid-point of the space. For interior room/spaces, the value will be "N/A".

Location Type- A generic descriptor of the room/space associated with the line of data. The "Location Type" will match the associated Chapter Title in the Site Report for the line of data.

Location Description- A site/facility specific descriptor of the room/space associated with the line of data. These descriptors are also contained within the associated Chapter Title in the Site Report for the line of data. The "Location Description" is located after the forward slash symbol (/) of the related Chapter Title.

Room/Space ID- A unique identifier for the room/space associated with the line of data. This ID can also be found in the Web App and the Item Detail sheet of this Excel workbook.

Barrier Count- This is the total number of NO and RVW items contained within the room/space for the line of data.

Summary Cost- This is the total estimated cost of remediation for all NO and RVW items contained within the room/space for the line of data.



## Overview of Item Detail Sheet

The Item Detail Sheet provides the detailed information regarding a non-compliant item. Each line item represents a separate non-compliant finding. As such, an item with multiple non-compliant attributes will be represented by multiple lines of data. If remediation efforts by TxDOT are going to address individual items, it is important to ensure that all lines of data pertaining to the item are being considered.

The information contained in this sheet *cannot* be found in the Web App and only partially within the Site Report.

In the Site Reports, items are represented as "Questions" within a Chapter. To view this item within the corresponding Site Report, click the "Report Link." This will open the Site Report to the corresponding Chapter on your web browser. Next, scroll down to the corresponding question number. The question number can be found in this sheet in the "Question Number" column.

## Description of Sheet Columns

Facility Name- TxDOT name for the facility. District Headquarters is abbreviated to DHQ. Safety Rest Area is abbreviated to SRA. Travel Information Center is abbreviated to TIC.

Site Report Reference #- A unique ID for the line of data. This ID is only found in this sheet. It is important to note that items may have more than one non-compliant attribute. As such, the Site Report Reference # represents an item's non-compliant attribute, not the item in its entirety. The exception to this would be if the item only had one non-compliant attribute.

Media Link- This link will open an Item Summary document on your web browser. The document will contain summary information and images for the item for this line of data.

Report Link- This link will open the Site Report to the specific chapter associated with the line of data on your web browser.

Chapter Number- This is the Chapter number within the Site Report where the item associated with the line of data can be found.

Question Number- This is the specific question number within a Site Report Chapter where the item associated with the line of data can be found. Within the report, each question displays an ID which begins with the chapter number then the question number. For example, in the 4<sup>th</sup> chapter the 1<sup>st</sup> question would be displayed as, 4.1.

At times, there will be more than one item under a question number. When this happens, the question text will be preceded by a number in parentheses. For example, if in the 4<sup>th</sup> chapter the 1<sup>st</sup> question had 3 items under that question, the question numbers would display, 4.1(1), 4.1(2), and 4.1(3). In the Excel table, this use of parentheses can be found in the Site Report Reference # column.

Managing Division- The TxDOT Division which has the primary responsibility for this facility/site.

District- The TxDOT District where the facility/site is located.



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Report ID- A unique identifier for the Site Report associated with the line of data. This ID can also be found in the Web App and the other sheets of this Excel workbook.

TXDOT Asset ID- TxDOT identifier for the facility associated with the line of data. This will be "N/A" for SRAs.

TXDOT Site ID- TxDOT identifier for the site associated with the line of data. This will be "N/A" for SRAs.

Relative Location- The relative location within the facility/site where the item associated with the line of data can be found. For exterior items, the relative location will be a generic 'exterior'. For interior items, the relative location will be the floor of the facility where the room/space is located. For facilities with only one level, or where only one level was assessed as a part of this project, the relative location will be "interior".

Lat- The latitude coordinate of the exterior room/space for the line of data. For spaces that encompass a large area, such as External Paths of Travel, the latitude coordinate is located in the relative mid-point of the space. For interior room/spaces, the value will be "N/A".

Long- The longitude coordinate of the exterior room/space for the line of data. For spaces that encompass a large area, such as External Paths of Travel, the latitude coordinate is located in the relative mid-point of the space. For interior room/spaces, the value will be "N/A".

Location Type- A generic descriptor of the room/space where the item associated with the line of data is located. The Location Type will match the associated Chapter Title in the Site Report for the line of data.

Location Description- A site/facility specific descriptor of the room/space where the item associated with the line of data is located. These descriptors are also contained within the associated Chapter Title in the Site Report for the line of data. The Location Description is located after the forward slash symbol (/) of the related Chapter Title.

Category- A classification of the item associated with the line of data used to group like items together across the dataset. For example, if a user wanted to identify all the non-complaint features of parking spaces at a given site/facility, this field could be filtered to "Parking Spaces." Technical terminology and abbreviations found in this column will be defined in the Glossary of Terms section.

DOJ Priority- This value represents the relative priority to remediate the non-compliant item, or item attribute, associated with this line of data in relation to all other non-compliant items found at this site/facility. There are four possible values (1-4), with 1 being the highest priority. The value assigned should be considered a "jumping off point" in terms of defining final priority and order of remediation. Ensuring the primary functions, or services, the building is providing to the public (i.e., non TxDOT employees) are accessible to all users should always be the primary consideration when deciding what physical items and spaces to remediate.

For example, a non-compliant restroom at a Safety Rest Area may have a level 3 priority assigned, but as the restroom is often the primary reason a member of the public visits a Safety Rest Area, TxDOT should consider placing this restroom in a higher priority level.





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**Room/Space ID-** A unique identifier for the room/space associated with the line of data. This ID can also be found in the Web App and the Room/Space Point Detail sheet of this Excel workbook.

**Element Description-** This field contains site/facility specific information to further describe the item associated with this line of data. It is often used for items that fall into "Categories" which could apply to various types of elements. For example, in the "Category" "Operable Part", there could be many different elements which fall into this category. The "Element Description" field would be used to specify which "Operable Part" within the room/space was found to be non-compliant (e.g. paper towel dispenser, trash can, light switch, etc.). As a reminder, the "Media Link" for this line of data can be clicked on to see photo(s) associated with an item.

**Issue-** A high level description of the issue identified with the item detailed in the line of data. The issue will be further described in the column "Survey Question." The described "Issue" correlates to a deficiency to an applicable accessibility standard. The specific standard can be found in the "ADA Code(s)" column.

**Survey Question-** This is the question the field data collection team answered to identify the non-compliant attribute of the item associated with the line of data.

**As Built-** This value of the measurement taken by field data collectors. Slope measurements are represented in percent (%). All other dimensions are represented in inches. For items such as an accessible route, where non-compliant slopes were found to be continuous for a distance rather than a singular location, the "As Built" column will display the range of the slope found in this room/space. For example, for an accessible route that had non-compliant slopes found between 2.6% and 4.5%, the cell would display 2.6–4.5. For questions that return a "NO" response, the cell will display "N/A." This happens most often with scoping related questions.

**Variance-** This represents the difference between the "As Built" measurement of an item and the required value for this item as prescribed by the applicable accessibility standard. For items which had a range for the "As Built" value (such as non-compliant accessible route slopes), the variance is calculated using the max value of the "As Built."

**Compliant?-** There are two possible values for this cell, which are "NO" and "RVW." These values are described in detail within the executive summary that proceeds each Site Report. Items that were found to be compliant during a site assessment can also be found in the Site Report.

**Program Access / Not Best Practice?-** This cell is used to distinguish what type of "RVW" the item associated with the line of data is when the item falls into the "RVW" category of compliance. If the item is in the "NO" compliance category, this cell will display "N/A." If this cell is "YES", please reference the "Notes" column (Column AM) of the line of data for further detail. For an explanation of "Program Access" and "Not Best Practice", please reference the executive summary which proceeds all Site Reports.

**Potentially Safe Harbor?-** This cell is used to distinguish what type of "RVW" the item associated with the line of data is when the item falls into the "RVW" category of compliance. If the item is in the "NO" compliance category, this cell will display "N/A." If this cell is "YES", please reference the "Notes"



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column (Column AM) of the line of data for further detail. For an explanation of "Potentially Safe Harbor", please reference the executive summary which proceeds all Site Reports.

Finding Description- This is a description of why the item was found to be non-compliant.

Potential Solution- This is a potential solution to structurally remediate the non-compliant item associate with the line of data. It is important to note that the purpose of the survey to collect this information was done for determining compliance with applicable accessibility standards and did not include an engineering study of the site/facility. As such, the method detailed in this cell for physical remediation of the item may ultimately not be feasible or the most practical approach for TxDOT to take. Additionally, TxDOT may choose to remediate the non-compliant item though other non-structural means or methods as permissible with the Americans with Disabilities Act Title II Regulations 28 CFR Part 35 §35.150(b).

ADA Code(s)- The applicable accessibility standard citation(s) for the item associated with this line of data. The following standards are represented in this column:

- 2010 ADA Standards for Accessible Design
  - Citations referencing these standards will be represented by "2010-"
- 1991 ADA Standards for Accessible Design
  - Citations referencing these standards will be represented by "1991-"
- 2004 Architectural Barriers Act Standards
  - Citations referencing these standards will be represented by "ABA: 2004-"
- 2013 Proposed Passenger Vehicle Accessibility Guidelines
  - Citations referencing these standards will be represented by "PVAG: 2013-"

Quantity- The values in this column were collected to inform costing processes. Quantities were collected almost exclusively for accessible routes with non-compliant slopes.

Estimated Cost- This is the estimated cost of physical remediation of the item associated with the line of data. It is important to note that sum of the costs provided in this sheet vs the "Summary Cost" provided in the "Room/Space Detail" and "Site Point Detail" sheets may be different due to the application of "Category Price Maximum's." These "maximums" were applied at the room/space level because at certain thresholds, it is more cost effective to remove and replace an item than to fix all the item's non-compliant attributes.

For example, if a designation sign lacks Braille and tactile characters, does not have contrasting colors, and is also mounted in the wrong location, it is cheaper to remove and replace the sign versus fixing each of those individual attributes. Within the Item Detail sheet however, because each line of data represents a non-compliant attribute of an item, costs were applied to each attribute. This should be kept in mind if remediation efforts are being applied to singular items rather than entire rooms/spaces.

Cost Explanation – A high-level description of what the costs associated with the line of data are intended to accomplish.

Notes – This text provided additional detail for items which fall into the "RVW" compliance category.



## **Glossary of Terms**

### **Workbook Terms & Abbreviations**

AA- Stands for Ambulatory Accessible. In the "Category" "Toilet Compartment, AA", this means the data was collected relative to an ambulatory accessible toilet compartment. There are two types of accessible toilet compartments, wheelchair accessible compartments users and ambulatory accessible compartments. Reference 2010 ADA section 604.8.1 and 604.8.2 for further detail.

Scope- When this term is used, the associated data is a compliance issue relating to; the lack of an accessible item being provided, or the lack of a sufficient quantity of an item being provided accessibly. Reference the ADA Codes(s) associated with a line of data for additional detail.

Water closet- The term used by the 2010 ADA Standards to refer to a toilet.

WC- Stands for Wheelchair. In the "Category" "Toilet Compartment, WC", this means the data was collected relative to a wheelchair accessible toilet compartment. There are two types of accessible toilet compartments, wheelchair accessible compartments users and ambulatory accessible compartments. Reference 2010 ADA section 604.8.1 and 604.8.2 for further detail.

### **2010 ADA Standard Defined Terms**

Accessible - A site, building, facility, or portion thereof that complies with this part.

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.

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.

Alteration - 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.

[Boarding Pier](#) - A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

[Boat Launch Ramp](#) - A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

[Boat Slip](#) - That portion of a pier, main pier, finger pier, or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

[Building](#) - Any structure used or intended for supporting or sheltering any use or occupancy.

[Characters](#) - Letters, numbers, punctuation marks and typographic symbols.

[Children's Use](#) - Describes spaces and elements specifically designed for use primarily by people 12 years old and younger.

[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.

[Closed-Circuit Telephone](#) - A telephone with a dedicated line such as a house phone, courtesy phone or phone that must be used to gain entry to a facility.

[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.

[Elevated Play Component](#) - A play component that is approached above or below grade and that is part of a composite play structure consisting of two or more play components attached or functionally linked to create an integrated unit providing more than one play activity.

[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, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.



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

Ground Level Play Component - A play component that is approached and exited at the ground level.

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.

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.

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

Play Area - A portion of a site containing play components designed and constructed for children.

Play Component - An element intended to generate specific opportunities for play, socialization, or learning. Play components are manufactured or natural; and are stand-alone or part of a composite play structure.

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 (3050 mm).

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.

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).

Self-Service Storage - Building or facility designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.



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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.

Structural Frame - The columns and the girders, beams, and trusses having direct connections to the columns and all other members that are essential to the stability of the building or facility as a whole.

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.

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.

Transition Plate - A sloping pedestrian walking surface located at the end(s) of a gangway.

TTY - An abbreviation for teletypewriter. 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.

Use Zone - The ground level area beneath and immediately adjacent to a play structure or play equipment that is designated by ASTM F 1487 (incorporated by reference, see "Referenced Standards" in Chapter 1) for unrestricted circulation around the play equipment and where it is predicted that a user would land when falling from or exiting the play equipment.

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.