



## **CITY OF TEMPE, ARIZONA - ADA TRANSITION PLAN**

### **Summary of Findings**

#### **Introduction**

The ADA prohibits discrimination in access to jobs, public accommodations, government services, public transportation and telecommunications. The City of Tempe has undertaken a comprehensive multi-year approach to the re-evaluation of its policies, programs and facilities to determine the extent to which individuals with disabilities may be restricted in their access to City services, activities and facilities.

The City is currently developing a document that will guide the planning and implementation of necessary program and facility modifications over the next several years. The City of Tempe is undergoing an evaluation of the City's programs, and suggested modifications of building and public right-of-way facilities to ensure accessibility. These evaluations are the first phase of facility evaluations selected by the City staff. The ADA Self-Evaluation and Transition Plan Update is significant in that it establishes the City's ongoing commitment to the development and maintenance of policies, programs and facilities that include all of its citizenry.

These surveys are the first phase of facility evaluations and represent the highest pedestrian use areas. The project limits encompasses the downtown area, ASU campus, major street corridors, accessible parking and several park facilities, as delineated in Exhibit A. In addition, there are a few park facilities that were evaluated that fall outside main survey limits.

The self-evaluation physical audit was performed of City facilities, as listed below, for pedestrian access to identify barriers and identify recommendations and alterations. The list of facilities surveyed included:

Scope of Assessment Performed:

#### **A. Public Right-of-way (Street Corridors)**

1. Sidewalk
2. Curb Ramps
3. Signalized Intersections
4. Bus Stops



**B. Public Parking Areas:**

1. City Hall Parking Garage
2. City Hall West Lot
3. Tempe Beach Park surface lot
4. Tempe Town Lake Park, parking lot (northside only)
5. On-street accessible parking

**C. City Parks:**

1. Corbell Park
2. Ehrhardt Park
3. Dwight Park
4. Selleh Park
5. Svob Park
6. Scudder Park
7. Benedict Field
8. Tempe Sports Complex
9. Pagago (NWC and SWC)
10. Tempe Town Lake Park (northside only)

**Facility Review: Public Rights-of-Way**

The street infrastructure evaluation process was accomplished using field survey crews equipped with measuring devices and Global Position System (GPS). Survey crews were equipped with data collection forms for the evaluation of curb ramps, signals and bus stops. For the sidewalk inventory, Cole utilized the ULIP-ADA (Ultra-Light Inertial Profiler) to measure sidewalk cross slope, running slope (grade), gaps and bumps. The technology was originally developed through a pilot program with the Federal Highway Administration (FHWA) and is listed as a “Best Practice” approach.

Generally, newly constructed facilities tend to comply with the 2011 PROWAG Guidelines or the 2010 ADA Standards. Pedestrian facilities constructed prior to the development of new guidelines and updated of new standards have a higher propensity of having minor access issues. The City of Tempe has updated their Construction Standard Details in an effort to increase accessibility and to make the City more inclusive.



### Sidewalk Corridors:

As previously mentioned, the majority of pedestrian facilities that have access issues tend to be constructed prior to ADA guidelines being established. A total of 38 miles of sidewalk were evaluated as part of the limited survey. The sidewalk corridors were evaluated for sidewalk running and cross slopes, obstructions, joint heaving, joint gaps and driveway crossings and obstructions. Survey results show that the 10.7 miles of the sidewalks have a compliance issue related to the current PROWAG Guidelines. The majority of identified sidewalk cross slope violations are only slightly above the 2% maximum. There are a few common issues that were observed along these sidewalk corridors. They included:

- Sidewalk Cross Slopes: 10.6 miles of sidewalk have cross slopes that exceed the 2% maximum. The majority of the cross slope violations are only slightly above the 2% maximum.
- Driveway crossings: cross slopes of driveway crossings often exceeded the 2% maximum. 455 individual driveways locations have cross slopes that exceed the maximum cross slope limit. The majority of driveways with cross slope issues, predate ADA guidelines.



*Figure 1: Accessible path behind driveway*



### Curb Ramps:

A total of 664 curb ramp locations were evaluated as part of the limited area survey. Surveyors began by classifying the ramp as one of the following: “none” (meaning there was sidewalk but no ramp access); or one of numerous existing ramp types (perpendicular, parallel, combination, blended transition, or diagonal). At each of these locations the field technicians noted the absence or presence of a ramp, or in the case of an existing ramp, the evaluation included running slope, cross slope, flares, land area slopes, presence of detectable warning systems and sizes and transition from ramp to pavement. Overall, 75% of the curb ramps were determined to be non-compliant or missing a curb ramp.

Curb Ramp Type	Total	Percentage
Perpendicular	392	59%
Parallel	52	7.8%
Directional	39	5.9%
Diagonal	123	18.5%
Blended Transition	13	2.0%
No Ramp	45	6.8%
Total	664	100%

As part of the curb ramp evaluation, 123 diagonal curb ramps were surveyed. Draft guidelines established by the Access Board, included in the Proposed 2011 PROWAG Guidelines, recommend the removal and replacement of diagonal ramps. The Access Board does not recommend diagonal curb ramps for new construction.

Observations have showed that a high percentage on newly constructed curb ramps were in compliance with current PROWAG standards. There were several common issues observed at many existing curb ramps. They included:

- Non-compliant curb ramps: ramps had non-compliant or missing landings or missing detectable warning systems (truncated domes).
- No Ramps: there are various locations where a curb ramp is warranted but none is present.



Figure 2: Compliant Perpendicular Ramp



Figure 3: Install Detectable Warning System

### Signalized Intersections:

A total of 28 accessible pedestrian signalized intersections were evaluated as part of the limited area survey. As part of this assessment Cole surveyed and analyzed 75 individual pedestrian street crossings. At each of these locations the surveyors noted the absence or presence of pedestrian street crossing signal controls. The signal component features were measured against PROWAG Guidelines and 2009 MUTCD standards (Sections 4e.08 through 4e.13). Surveyors classified each pedestrian signal location by identifying and assessing the components of pedestrian signal features for each pedestrian street crossing. 60 signalized intersections were also investigated, that did not have signal components that would classify them as APS signals.

Observations showed that many accessible pedestrian signals were not in compliance with current ADA standards, there were a few common issues observed at these locations. They included:

- Many of the pedestrian pushbutton locations had clear floor space slopes that exceeded the maximum allowable slope of 2%
- Several pushbutton locations were outside the MUTCD limits when measuring the distance to the curb and from the crosswalk.



Figure 4: Pedestrian Push Button

### Bus Stops:

A total 131 Bus stops were evaluated as part of the limited survey. Areas that were evaluated for each bus stop included access to the bus stop, landing and alighting areas, clear floor space adjacent to seating and signage. Sixty-three (63%) percent of the Bus Stops were found to be in full compliance. The assessment of bus stops also included the presence of shade at each stop. Seventy-seven (77%) percent of the bus stops had full or partial shade. The remaining twenty three (23%) percent had no shade.

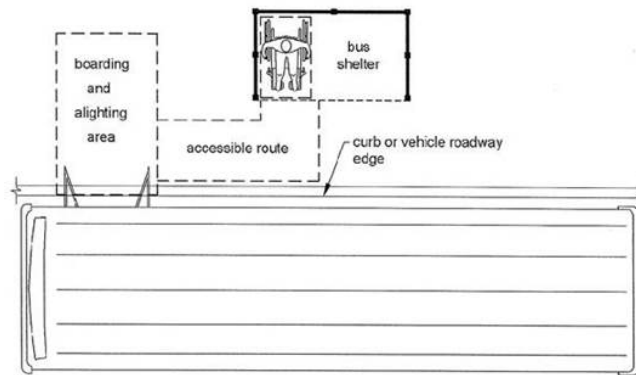


Figure 5: Transit Stop Diagram

There were a few common issues observed at these stops. They included:

- Bus stop landing pad: the landing pad adjacent to the curb was either too small or had cross slope compliance issues.



- Clear floor space: the area adjacent to the seating was not available or the space was insufficient.



Figure 4: Compliant Transit Stop



Figure 5: Expand Bus Pad Landing

## Facility Review: Parking

### Downtown

The metered parking within the downtown area was evaluated within the boundaries of E. Rio Salado Parkway to the north, E. University Drive to the south, S. College Avenue to the east and S. Ash Avenue to the west. Based on the 2011 proposed Public Rights-of-Way Accessibility Guidelines (PROWAG) and the number of metered parking spaces provided, the City is lacking a sufficient number of accessible parking spaces. There are approximately 500 metered parking spaces within the evaluated boundaries which are dispersed among the various city blocks. PROWAG requires that accessible parking be determined based on the number of pay parking spaces per block perimeter. Twenty seven (27) total accessible parking spaces are required and only sixteen (16) are currently provided.

The accessible parking spaces provided at W. 3<sup>rd</sup> St. and at W. 4<sup>th</sup> Street are served by curb ramps that project into the accessible parking access aisle, which is not permitted.



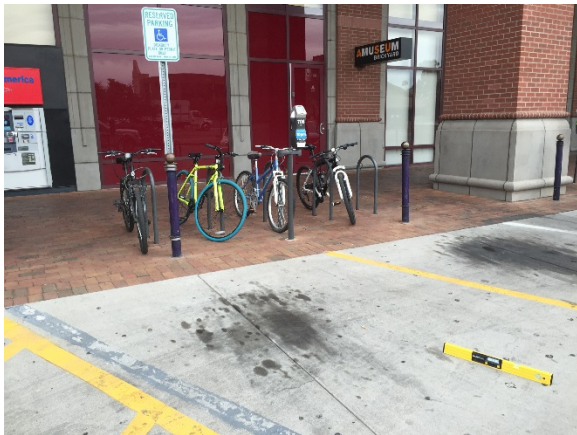
*Figure 6: W. 3<sup>rd</sup> St. – Curb ramp within access aisle. 15% slope on curb ramp*



*Figure 7: W. 4<sup>th</sup> St. – Curb ramp within access aisle*

The accessible parking spaces along E. 7<sup>th</sup> Street have slopes within the parking spaces and aisles that exceed 1:48. The slopes range from 2.9% to 6.0%. Slopes within the accessible parking spaces and access aisles are required to be 1:48 (2.08%) in all directions for the full length and width of both areas.

The accessible parking spaces at W. 4<sup>th</sup> Street have a 4.9% slope within the parking spaces and aisles where 1:48 maximum is required.



*Figures 8 and 9: E. 7<sup>th</sup> St. – Slopes up to 6.0% within parking spaces*





Figures 10 and 11: W. 4<sup>th</sup> St. – 4.9% slope within parking spaces

The accessible parking signs provided at the accessible parking spaces on E. 6<sup>th</sup> Street are too low. The signs are currently installed at approximately 36” above the parking surface where 60” minimum is required.



Figure 12: Parking signs too low.



### City Hall Garage

The accessible parking within the City Hall garage parking structure is in substantial compliance except that it is recommend that one accessible parking space be relocated to the “hotel van only” parking space. This space provides a shorter route to the accessible hotel entrance.



*Figure 13: “Hotel Van Only” is a closer space to the hotel entrance.*

### City Hall West

The existing accessible parking within this lot is not in substantial compliance. Issues include obstructed accessible parking signs and excessive slopes within the accessible parking spaces and aisles.



*Figure 14: City Hall West – Curb ramp within access aisle*



*Figures 15 and 16: City Hall West – 4.0% slope within space and aisle*

### Tempe Beach Parking

This parking lot is lacking one accessible parking space based on the total number of parking spaces provided. The existing accessible parking signs are too low at 43” and there is a non-compliant slope with the current van accessible parking space. The overhangs of vehicles parked at the sidewalk could potentially obstruct the clear width of the sidewalk. Wheel stops are recommended within these parking spaces. The sidewalk connection to the van accessible parking space includes a change in level greater than ½”.



*Figure 17: Change in level at access point*



*Figure 18: Parking signs are too low.*



*Figures 19 and 20: Slopes greater than 1:48 within accessible parking*

Tempe Town Lake (East – lower parking area)

The accessible parking spaces are in substantial compliance; however, the connection between the asphalt parking surface and the sidewalk at the head of the spaces includes a level change greater than ½". Sand is constantly covering the sidewalk at the head of the spaces, creating a loose surface. The sidewalk is required to be maintained in an accessible condition. Stairs are provided from N. Mill Avenue that provide access to the lower level. No accessible pedestrian route is provided from N. Mill Avenue. An accessible route is required in the same general location as the general circulation route. Disabled pedestrians traveling north along N. Mill Avenue have no access to the lake edge.



*Figure 21: Sand covering accessible route*



*Figure 22: Level change between parking and accessible route*



Figure 23: No accessible route from N. Mill Ave.

Tempe Town Lake (West – upper parking area)

There is insufficient accessible parking spaces within this parking area. Signs are provided indicating that there is no accessible route to the lake edge from this level. However, there are stairs that provide direct pedestrian access to the lake edge. An accessible route is required in the same general location as the general circulation route. No accessible route is provided from the sidewalk along southbound N. Mill Avenue to the lake edge. Pedestrians without disabilities are able to utilize the stairs down to the lake edge and pedestrians with disabilities traveling south along N. Mill Avenue have no access the lake edge.



Figure 24: No accessible route to lake edge



Figures 25 and 26: Curb ramp slope 10.9%



Parks

Nine city parks were evaluated (Benedict, Corbell, Dwight, Ehrhardt, Papago, Selleh, Scudder, Svob and Tempe Sports Complex). General issues included no accessible on-street parking, no accessible picnic tables/grilles; no accessible routes to the park amenities (playgrounds, picnic areas, basketball courts, ball fields, soccer fields, etc.). Only one playground, Papago Park, included accessible playground elements although the playground was not in full compliance. The remaining eight (8) parks included playground equipment and playground surfaces that are not in compliance.



*Figure 27: Corbell – Ex: Playground equipment and surfaces not accessible*



*Figure 28: Corbell – Ex: No accessible route to amenities*



*Figures 29 and 30: Dwight – Ex: No accessible route to amenities*

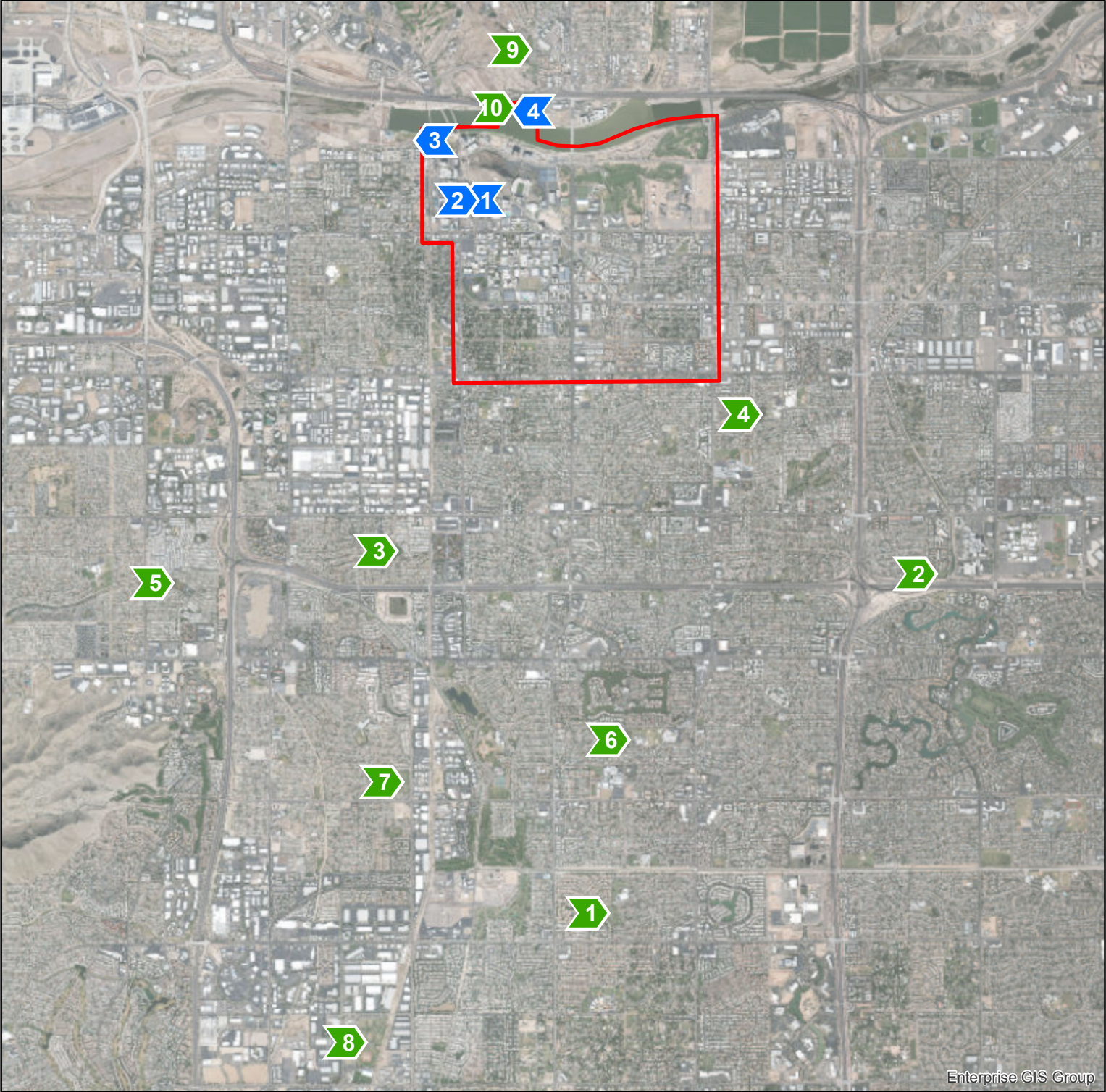


*Figure 31: Selleh – Ex: Existing non-compliant routes*

**Next Steps:**

Cole is making preparations for upcoming Disability outreach program to solicit public input on the development of the City’s Transition Plan. A Public Open House is tentatively scheduled for May, 2016. We are preparing reports that document the findings of the ADA surveys, developing content for the Public Open House event and coordinating with the City on an online questionnaire.

# Parks and Parking - Tempe, AZ : Exhibit A



## LEGEND

Phase 1 Right of Way Survey Limits

### Parking Lot Name

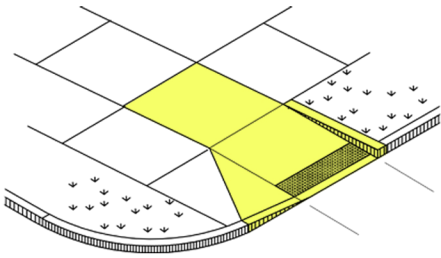
- City Hall Parking Garage
- City Hall West Lot
- Tempe Beach Park Lot
- Tempe Town Lake Lot

### Park Name

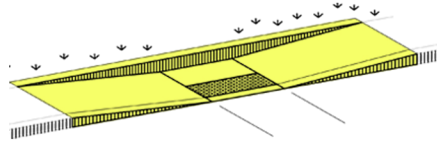
- Corbell Park
- Ehrhardt Park
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- Selleh Park
- Svob Park
- Scudder Park
- Benedict Field
- Tempe Sports Complex
- Papago Park
- Tempe Town Lake Park



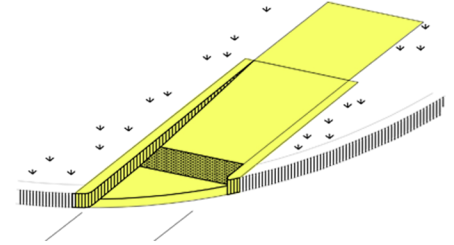
# Tempe, AZ : Exhibit B



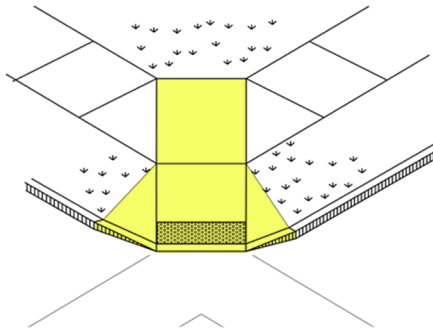
Perpendicular  
Ramp



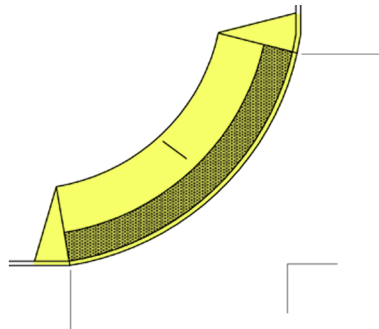
Parallel Ramp



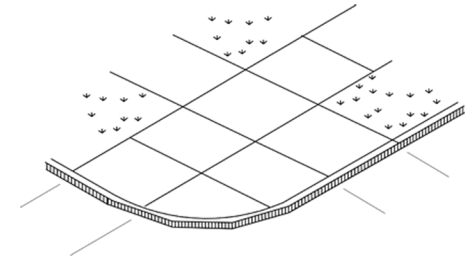
Directional 1 Ramp



Perpendicular  
Diagonal Ramp



Blended Transition  
Ramp



No Ramp