# SZS CONSULTING GROUP

## Introduction to Interior Reports

## ADA ASSESSMENT & SURVEY



OREGON STATE UNIVERSITY (OSU)





Sacramento Office 770 L Street, Suite 950 Sacramento, CA 95814 Tel: 916.669.8750 Fax: 888.211.7441

Silicon Valley Office 2225 E. Bayshore Road, Suite 200 Palo Alto CA 94303 Tel: 866.694.7637 www.szs-consulting.com

March 24, 2014



Angelo Gomez Executive Director Office of Equity and Inclusion Oregon State University 526 Kerr Administration Bldg. Corvallis, OR 97331-2128

Re: ADA Accessibility Survey and Assessment – Introduction to Interior Space Reports

Dear Angelo,

We are pleased to submit this introduction to all future interior space reports. This report is part of our project to provide a Campus Accessibility Survey and Assessment for Oregon State University. It is our hope that this report will assist OSU in improving access to people with disabilities to campus facilities.

SZS has been pleased to be a part of this effort to evaluate campus buildings using federal and state statutes and regulations, as well as universal design principles in order to create performance standards that will guide design, construction and maintenance on campus.

We look forward to discussing our findings with your team.

Regards,

Syn 2. Smi

Syroun Z. Sanossian, Principal SZS Consulting Group LLC

#### **1. INTRODUCTION**

SZS Consulting Group is pleased to collaborate with OSU on this assessment process. This report is the one of the first steps in a process to develop a comprehensive physical environment accessibility improvement plan for Oregon State University (OSU). SZS has assessed the physical environment on campus as to consistency with the 2010 ADA standards, Oregon Structural Specialty Code (OSSC), and universal design principles developed by the University of North Carolina<sup>1</sup> which promote the idea that all new environments and products, to the greatest extent possible, should be usable by everyone regardless of their age, ability, or circumstance.

We used the standards in our analysis without regard to whether or not they would be legally required, as described in more detail below. This report provides recommendations for upgrades to OSU staff, including the University's Accessible University Advisory Committee, the Office of Equity and Inclusion, and the Department of Facilities Services to work towards the goal of developing the most accessible university campus as possible through the development and application of high performance standards.

Although this introduction and summary discusses some barriers that were found (especially those based on performance standards), all barriers recommended for removal are detailed separately within the barrier data records for each building. Each element identified as a barrier to access in this report has also been classified in terms of how severely the barrier affects people with disabilities and each barrier has also been prioritized for remediation. SZS has developed this systematic approach to barrier identification and severity rating to standardize our process and ensure consistency when analyzing overall building function. Our proprietary *barrier severity rating system* (BSRS) has been developed through many years of research and experience, and it allows our team to assign a severity rating that has actual scientific and practical merit. Please refer to the sample BSRS chart in the appendix for further information.



<sup>&</sup>lt;sup>1</sup> 1 http://www.ncsu.edu/project/design-projects/udi/center-for-universal-design/

### 2. INTENT

As stated earlier, the purpose of the assessment is to develop a comprehensive built environment accessibility improvement plan that includes the development of OSU best practice standards while applying universal design principles and standards for existing and new campus facilities and buildings.

To engage in comprehensive planning OSU wants full knowledge of barriers that exist on campus, regardless of whether the barriers are legally compliant or a required part of the accessible route or primary functions within campus buildings. The inclusion of stairways in this assessment is an example of the extra effort put forth in this process that exceeds the review of the accessible route exclusively. OSU has taken a proactive approach by initiating this process to assess campus facilities against very high accessibility standards not necessarily required by law. For example, we sometimes analyzed older buildings against the current 2010 ADA Standards and regulations, even though the 1990 ADA Standards may have applied to many existing campus facilities.

OSU has gone one step further in this process by mandating that best practices and universal design principles that exceed the 2010 ADA standards dictate the recommendations for to campus facilities cited in this report. This approach far exceeds the requirements based on state and federal regulations and statutes that govern public facilities.

OSU plans to combine the results of this assessment with their internal knowledge of program access needs, thus well positioning the campus far ahead of its peer public universities to engage in comprehensive strategic planning and prioritization.

OSU has commissioned SZS as an independent consultant to perform an objective assessment of the campus. SZS provides a progressive stance on accessibility coupled with a high level of expertise not only the ADA Standards but in the application of universal design principles with the goal of achieving a barrier-free environment.

SZS has been asked to establish a physical barrier inventory based on far higher standards than code requirements. Many of the physical elements identified in this report have been given recommended solutions for barrier removal that are based on performance standards, rather than minimum requirements in state or federal code.

OSU has chosen to perform this assessment process with the goal of a barrier-free environment through the application of universal design principles because the campus aspires to the highest degree of accessibility that can reasonably be achieved.



### 3. EXPERTISE

SZS is not the typical A/E firm – we provide an array of services from improving access in one building, to create code performance standards that affect broader systems of higher learning. We are not only well versed in design and construction for university settings, but we also have the expertise to pinpoint the steps where crucial changes are necessary to change the existing process of design and construction so that in the future, facilities are designed and constructed more efficiently, managed more costeffectively and made usable for all members of the community. That know-how is essential when a comprehensive plan to improve accessibility in the built environment is required.

Our team has focused on performing accessibility assessments and implementing the principles of universal design since 1994. SZS brings a wealth of professional experience and expertise as disability compliance officers, chief building officials, plan reviewers, building inspectors, architects, landscape architects, ergonomic designers, civil engineers and GIS analysts. SZS has provided services to create more than 50 ADA Transition Plans and Self-Evaluations for cities, counties and school districts.

We excel at assisting colleges and universities to improve access in complex environments through a variety of services including ADA Assessments and Accessibility Master Plans (AMP) for 12 California State University (CSU) campuses including Chico State, Fresno State, Humboldt State, CSU East Bay, Cal Poly Pomona, CSU Monterey Bay, CSU San Marcos, CSU Los Angeles, CSU Stanislaus, San Francisco State University, Cal Poly San Luis Obispo, Cal State Long Beach thus far.

We are highly successful with clients who see the value of implementing universal design principles and performance standards to improve accessibility, even beyond legal requirements. We believe that the two concepts are complementary; universal design principles intend to make environments more usable for all without having to resort to any adaptation or specialized design while performance standards are *tangible technical tools* put in place to assist design professionals, engineers and contractors in ensuring that the built environment is usable by and accessible to people with disabilities well into the future.

The relationship between the two is that of principles and tools – ideas turned into actions. Our efforts are driven by one overriding goal - to affect social change.



SZS provides solutions when the traditional system of design and construction falls short.



## 4. HISTORICAL CONTEXT AND COMMON CHALLENGES

People are living longer today. The average lifespan has increased to 76, largely due to healthier living, better medicine, and vaccines and sanitation that have virtually eliminated many killer infectious diseases. Nearly 80% of the population now lives past the age of 65. Projections based on U.S. Census Bureau estimates indicate that the number of persons ages 65 and over will grow to almost 40 million by the year 2010<sup>2</sup>.

In addition, more people are now living with disability. World war I & II created a huge population of veterans with disabilities in the last century and the on-going wars in Iraq and Afghanistan have increased that population exponentially. Many of these returning soldiers will want to seek an education at centers of higher learning like OSU and also make use of the programs, services and activities that take place on campus. These demographic changes result in a population that is more disabled than ever before and these trends will only continue. The limitations imposed by products and environments designed and built without regard to the needs and rights of all American citizens are significant but often unrecognized.

Early on, advocates of barrier-free design and architectural accessibility recognized the legal, economic, and social power of a concept that addressed the common needs of people with and without disabilities. As architects began to wrestle with the implementation of standards, it became apparent that segregated accessible features were "special," more expensive, and often unsightly.

It also became apparent that many of the environmental changes needed to accommodate people with disabilities actually benefited everyone. Recognition that many such features could be made commonly available and thus less expensive, more attractive, and even marketable created a foundation for the universal design movement. The report illustrates areas of challenge, but this process is enormously important in developing a strategic and comprehensive plan to improve accessibility based on universal design principles.



<sup>&</sup>lt;sup>2</sup> Jones and Sanford, 1996

### 5. HISTORY AND PHASED PLAN FOR SZS ASSESSMENT

This project was intended to review and evaluate construction project in campus buildings and the review included starting at points of arrival and leading to building entrances that were analyzed as part of the phase 1 work in 2011. The actual building sites include on-site parking with exterior areas including walkways, ramps and benches installed near the building being assessed. The building interior spaces assessed include building entry vestibules, lobbies, sanitary facilities (restrooms and shower rooms or locker rooms, where provided), classrooms and laboratory space, and interior and exterior building signage. The result of this assessment has been to provide a report and recommendations for needed upgrades to OSU staff, including the University's Accessible University Advisory Committee, the Office of Equity and Inclusion, and the Department of Facilities Services.

The project is planned as a phased project which will take place over a number of years as funding becomes available, and will include these elements as a minimum:

- An assessment of the existing transportation system that includes an internal shuttle system (including shuttle stops and shelters), bicycle paths, on-campus parking and local transit district services
- An assessment of the pedestrian circulation system to include accessible pathsof-travel
- An assessment of campus buildings for access to persons with disabilities, including existing buildings and new construction projects
- Interior and external signage
- The development of criteria to implement improvements that preserve the heritage of the buildings included in the University Historic District and the mandate to develop an accessible university campus
- And potentially assessments of the accessibility of campus auxiliaries such as student housing, Memorial Union/Student Activities, and athletic and entertainment facilities

The reports for all buildings being reviewed will include a review, analysis, and cost estimation for all physical elements identified during the field investigation. The information obtained during this review is contained in each specific building report.



## 6. METHODOLOGY

SZS assists clients in setting goals to create a barrier-free environment. We recommend the application of best practices and performance standards to provide a standardized approach to barrier remediation projects that create more usable built environment. The implementation of performance standards can provide consistency that may be lacking in the existing design, construction and maintenance of campus facilities.

#### A. STANDARDS UTILIZED

The federal and state regulations and statutes in effect when this project was designed and constructed were used in this analysis. In addition, this project has applied the following standards with the goal of creating a barrier-free environment:

- The 7 Principles of Universal Design developed by the University of North Carolina and accepted as standard practice
- The Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (MUTCD) to govern signalization and other elements within the public rights-of-way
- The federal Access Board's Public Rights-of-Way Guidelines (PROWAG) that are the gold standard for compliance in the public rights-of-way assessment and design
  - We recommend that all clients become familiar with the federal Access Board's Special Report: Accessible Public Rights-of-Way Planning and Design for Alterations<sup>3</sup>
- The Americans with Disabilities Act/Architectural Barriers Act (2010 ADAS) Accessibility Guidelines which contain standards that replaced the ADAAG as of March 15, 2011
- The federal Access Board's *Recreation Area Guidelines* and *Outdoor Developed Area Guidelines* that apply to recreation areas, parks and trails and other developed areas exist
- ADA/ABA standards for *Transportation Facilities* (transit stops, train stations, bus and shuttle stops, etc.) adopted by the US Department of Transportation

While these principles and standards are vital to this project, our actual experience with clients is evidence that we not only know the concepts but apply the principles and standards on a daily basis. One case in point is the performance standard we advocate for the design of ramps and sloped walkways. Federal and state code allows exterior and interior ramps to be designed with a maximum longitudinal (running) slope of 8.3%



<sup>&</sup>lt;sup>3</sup> http://www.access-board.gov/prowac/alterations/guide.htm

and sloped walkways are allowed to be sloped at no more than 5.0%. The two elements within a pedestrian route are inextricably bound.

Universal design principals dictate that ramps and sloped walkways should be designed with the least possible slope possible, but site constraints and budgetary restrictions place limitations on how far that concept can be taken. At the other ends of the spectrum, when ramps are designed at the maximum allowable slope we refer to the situation as *designing for failure*. In doing so, the architect or engineer is not allowing for construction tolerances, erroneous topographical references, construction errors or other issues that commonly cause ramps to result in slopes that exceed the maximum allowable slope when complete.

SZS performance standards limit the upper end of running slope to 7.5% for ramps and 4.5% for sloped walkways, where extreme site constraints do not exist. The result has been a reduction in inspection efforts, complaints and litigation because the ramps constructed have been more than fully compliant.

In sloped walkways, performance standards are even more crucial; a sloped walkway that exceeds 5.0% changes by definition from a walkway to a ramp, which triggers a set of requirements for handrails, level landings, clear width, etc. that do not exist for walkways.

When performance standards are not instituted for sloped walkways, it can be highly problematic for access even though the pathways were designed to be legally compliant. When designers just meet the bare minimum requirements in code, the result can be barriers because they leave no leeway in the construction process for imperfections that are a typical part of the process.

When the traditional way of *doing business as usual* is the rule, new construction projects may be required to be demolished and reconstructed over and over again. For example, even the addition of handrails and wheel guides on a sloped walkway after the fact can reduce the required clear width. Past that, the landings required at the top and bottom of a ramp are seldom level for sloped walkways. Intermediate landings are also required when the rise or run of the ramp exceeds applicable limitations (30 inches or 30 feet), yet the provision of an intermediate landing within a constructed walkway means extensive demolition and may not achieve accessibility without replacing the entire route of travel.



## 7. ACCESS DEFINITIONS

The following definitions apply for the purposes of interpreting the information contained in this report, and may not be legally recognized or required definitions of the same terms.

ACCESSIBLE ROUTE is a continuous and unobstructed path connecting all accessible elements and spaces within a building or within a site that can be negotiated by a person with a disability using a wheelchair, and that is also safe for and usable by persons with other disabilities. Exterior accessible routes may include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts. In comparison, the Pedestrian Access Route (PAR) is an accessible route within the public rights-of-way.

**ACCESSIBLE ELEMENT** is a physical element specified by OSSC chapter 11A (i.e., telephones, controls, drinking fountains, dispensers, card readers, etc.).

ACCESSIBLE EXIT is an exit, as defined in OSSC Section 1002 does not contain stairs, steps or escalators.

**ACCESSIBLE MEANS OF EGRESS** is a path of travel, usable by a person with a disability (mobility, visual, etc), that leads to a public way.

ACCESSIBLE ROUTE is a continuous unobstructed path connecting all accessible elements and spaces of a building or facility. Interior accessible routes may include corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include connections to the public right-of-way, parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps and lifts.

**ADDITION** is an expansion, extension or increase in the gross floor area of a building or facility.

**ARCHITECTURAL BARRIERS** are physical design features that restrict the full use of affected buildings and their related facilities by persons with disabilities.

**AREA OF RESCUE ASSISTANCE** is an area, which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

**ASSEMBLYAREA** is a room or space accommodating a group of individuals for recreational, educational, political, social or amusement purposes, or for the consumption of food and drink. A classroom or lecture hall is considered an assembly area.

**AUTOMATIC DOOR** is a sliding door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat or manual switch (see also "power-assisted door").



**BLENDED TRANSITION**: A continuation of a curb in a pedestrian way that provides a flush transition into the roadway for the purpose of providing a pedestrian access route. Running slope within a blended transition shall not to exceed 5.0%. Other curb ramp requirements apply (detectable warnings, etc.)

**BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE** is an accessible entrance to a building that is connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available.

**CIRCULATION PATH** is an exterior or interior way of passage from one place to another for pedestrians, including, but not limited to walks, hallways, courtyards, stairways and stair landings.

CLEAR is unobstructed.

**CLEAR FLOOR SPACE** is the minimum level unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

**COMMON USE** is those interior and exterior rooms, spaces or elements that are made available for the use of a restricted group of people (for example, occupants of a homeless shelter, the occupants of an office building, or the guests of such occupants).

**CROSS SLOPE** is the slope that is perpendicular to the direction of travel.

**CURB CUT** is an interruption of a curb at a pedestrian way, which separates surfaces that are substantially at the same elevation for the purpose of providing an accessible route across an otherwise non-accessible curb.

**CURB RAMP** is a sloping pedestrian way intended for pedestrian traffic, which provides access between a walk or sidewalk and a surface located above or below an adjacent curb face.

**DETECTABLE WARNING** is a standardized surface or feature built into or applied to walking surfaces or other elements to warn visually impaired persons of hazards in the path of travel.

**EGRESS, MEANS OF** is an exit system that provides a continuous, unobstructed and undiminished path of exit travel from any occupied point in a building or structure to a public way. A means of egress comprises vertical and horizontal travel and may include intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits, courts and yards. An accessible means of egress is one that complies with this chapter and does not include stairs, steps or escalators. Areas of rescue assistance or evacuation elevators may be included as part of an accessible means of egress.



**ELEMENT** is an architectural or mechanical component of a building, facility, space or site such as a telephone, curb ramp, door, drinking fountain, seating or water closet.

**EMPLOYEE WORK AREA** is an area used exclusively by employees as work areas, including work stations, mechanical rooms and closets, unless otherwise defined as a floor or portion of a floor not customarily occupied or an observation gallery used primarily for security purposes. Employee work areas do not include common use or public use areas.

**ENTRY** is any access point to a building or portion of a building or facility used for the purpose of entering. An entry includes the approach walk; the vertical access leading to the entry platform; the entry platform itself; vestibules, if provided; the entry door(s) or gate(s); and the hardware of the entry door(s) or gate(s).

**EQUIVALENT FACILITATION** is an alternate means of complying with the literal requirements of these standards and specifications that provides access consistent with the purpose of these standards and specifications.

**FACILITIES** are defined as all or any portion of buildings, structures, site improvements, complexes, equipment, roads, walks, passageways, parking lots or other real or personal property located on the site.

**GROUND FLOOR** is any occupiable floor less than one story above or below grade with direct access to grade. A building or facility always has at least one ground floor and may have more than one ground floor where a split-level entry has been provided or where a building is built into a hillside (see OSSC Section 1106.1.10.3 for mixed occupancies).

**HISTORIC BUILDING** is a structure, in whole or in part, that is listed on or is eligible for listing on the National Register of Historic Places, established and maintained under the National Historic Preservation Act of 1966 (P.L. 89-665), or if the National Register of Historic Places ceases accepting nominations, is approved for listing on an Oregon register of historic places, or is a locally designated landmark protected by ordinance.

**LANDING** is a level area (except as otherwise provided), within or at the terminus of a stair or ramp.

**LAVATORY** is a plumbing fixture primarily intended for washing and laving as part of personal hygiene. Lavatories are generally located within toilet and bathing facilities but may be located separately in a guest room or hospital patient room or work area. See definition for "sink" below.

**INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA)** is that symbol adopted by Rehabilitation International's 11th World Congress for the purpose of indicating that buildings and facilities are accessible to persons with disabilities.





**LANDING** is a level area (except as otherwise provided), within or at the terminus of a doorway, stair or ramp.

**LEVEL AREA** is a specified surface that does not have a slope in any direction exceeding  $\frac{1}{4}$  inch (6.4 mm) in 1 foot (305 mm) from the horizontal (2.083-percent gradient).

**MARKED CROSSING** is a crosswalk or other identified marked path intended for pedestrian use in crossing a vehicular way. Best practices dictate that the marked crossing surface material shall have a minimum 70% contrast against the adjacent roadway surface.

**MAXIMUM EXTENT FEASIBLE** applies to the occasional case where the nature of an existing facility makes it virtually impossible to fully comply with applicable accessibility standards through a planned alteration. In these circumstances, alterations to improve accessibility are recommended to be performed to provide the maximum physical accessibility feasible. Any altered features of the facility that can be made accessible are recommended to be made accessible. If providing accessibility in conformance with the ADA Standards or OSSC for individuals with certain disabilities (e.g., those who use wheelchairs) would not be feasible, the facility is recommended to be made accessible to persons with other types of disabilities (e.g., those who use crutches, those who have impaired vision or hearing, or those who have other impairments).

**MEZZANINE OR MEZZANINE FLOOR** is that portion of a story that is an intermediate floor level placed within the story and having occupiable space above and below its floor.

**NOSE, NOSING** is that portion of a stair or stairway tread projecting beyond the face of the riser immediately below.

**OPEN RISER** is the airspace between a stair or stairway tread projecting beyond the face of the riser immediately below.

**OPERABLE PART** is a part of a piece of equipment or appliance used to insert or withdraw objects, or to activate, deactivate, or adjust the equipment or appliance (for example, coin slot, push button, handle).

**PATH OF TRAVEL** is a continuous, unobstructed way of pedestrian passage by means of which an altered area may be approached, entered and exited, and which connects the altered area with an exterior approach (including sidewalks, streets and parking areas), an entry to the facility, and other parts of the facility. For the purposes of this chapter, the term "path of travel" also includes restrooms, telephones and water fountains serving the altered area.

**PEDESTRIAN** is an individual who moves within walking areas <u>with or without</u> the use of walking-assistive devices such as crutches, leg braces, wheelchairs, etc.



**PEDESTRIAN RAMP** is a sloped accessible route intended for pedestrian traffic and is differentiated from a curb ramp.

**PEDESTRIAN WAY** is a route by which a pedestrian may travel. The difference between an accessible route and a pedestrian way is the level of compliance. The pedestrian backbone designated in the accessibility master plan is a pedestrian way, rather than an accessible route due to existing barriers to access documented for removal in future new construction and alterations projects.

**POWER-ASSISTED DOOR** is a swinging door used for human passage with a mechanism that helps to open the door, or relieve the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.

**PRIMARY ENTRY** is the principal entry through which people enter the building. A building may have more than one primary entry.

**PRIMARY ENTRY LEVEL** is the floor or level of the building on which the primary entry is located.

**PRIMARY FUNCTION** is defined as a major function for which the facility is intended, including all customer service areas and employee work areas, but does not include mechanical rooms, boiler rooms, supply storage rooms, floors or portions of a floor not customarily occupied, observation galleries used primarily for security purposes, employee lounges or locker rooms, janitorial closets, entrances, corridors, toilet facilities and bathing facilities, unless such areas are the major function of the facility.

**PUBLIC USE** spaces are interior or exterior rooms or spaces that are made available to the general public. Public use may be provided at a building or facility that is privately or publicly owned.

**PUBLIC-USE AREAS** are those interior or exterior rooms or spaces that are made available to the general public. Public use may be provided at a privately or publicly owned building or facility.

**RAMP:** See pedestrian ramp.

**RUNNING SLOPE** is the slope that is parallel to the direction of travel.

**SERVICE ENTRY** is an entry intended primarily for delivery of goods or services.

**SIDEWALK**: A pedestrian walkway adjacent to a roadway. Running slope in sidewalks is not regulated by code, but may be ameliorated through building construction and the use of elevators and building entries at various levels.



**SIGNAGE** is displayed verbal, symbolic, tactile or pictorial information. A directional sign is a publicly displayed notice which indicates by use of words or symbols a recommended direction or route of travel.

**SINK** is a plumbing fixture primarily intended for cleaning of equipment or materials. Sinks are generally located in kitchens, laundries, classrooms, laboratories, janitor closets and similar spaces.

**SLEEPING ACCOMMODATIONS** are rooms in which people sleep; for example, dormitory and hotel or lodging house guest rooms or suites.

**SITE** is a parcel of land bounded by a property line or a designated portion of a public right-of-way.

**SITE IMPROVEMENT** is the landscaping, paving for pedestrian and vehicular ways, outdoor lighting, recreational facilities, etc., added to a site.

**SLIP RESISTANCE** is the frictional force necessary to keep a shoe heel or crutch tip from slipping on a walking surface under conditions likely to be found on the surface at the time of approval. Slip resistance is the specified static coefficient of friction of the surface under design conditions.

**SPACE** is a definable area; e.g., room, toilet room, hall, assembly area, entry, storage room, alcove, courtyard or lobby.

**STORY** is that portion of a building between the upper surface of a floor and upper surface of the floor or roof next above. If such portion of the building does not include occupiable space, it is not considered a story for purposes of this chapter. There may be more than one floor level within a story, as in the case of a mezzanine.

**TACTILE** is defined as an object that can be perceived using the sense of touch.

**TECHNICALLY INFEASIBLE** is defined as an alteration 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 site constraints prohibit modification or addition of elements, spaces or features that are in full and strict compliance with the minimum requirements for new construction and are necessary to provide accessibility.

**TEXT TELEPHONE** is machinery or equipment that employs interactive graphic (i.e., typed) communications through the transmission of coded signals across the standard telephone network. Text telephones include telecommunications display devices or telecommunications devices for the deaf (TDDs), text typewriters (TTYs) or computers.

**TRANSIENT LODGING** is lodging except for an owner-occupied establishment renting not more than five rooms or inpatient medical care facilities, a building, facility, or portion thereof, which contains sleeping accommodations to be used for short-term



stays, generally less than one month. Transient lodging intended for short-term stays is considered a public accommodation under ORS 447.210(11) and includes an inn, hotel, congregate residence (including homeless shelters) or other place of public lodging such as campus dormitories.

**UNISEX RESTROOM** is a sanitary facility containing one of each type of fixture (water closet, lavatory and optional bathing facility) with privacy lock and an occupied indicator.

**VEHICULAR OR PEDESTRIAN ARRIVAL POINTS** are public or resident parking areas, public transportation stops passenger loading zones, and public streets or sidewalks. The accessible route begins, by definition, at these points of arrival and ends at the building entrances.

**VEHICULAR WAY** is a route intended for vehicular traffic such as a driveway or parking lot.

**WALK (WALKWAY)** is a surfaced pedestrian way not located contiguous to a street used by the public sloped not to exceed 5.0%. Campuses generally have far more walkways than sidewalks.



#### A. BARRIER PRIORITIZATION FOR REMEDIATION

The physical barriers to access that are identified in this report include both those defined as code deviations and other barriers that hinder or prevent people with disabilities from enjoying full use of the pedestrian facilities provided by OSU, again regardless of whether the barriers comply with federal and state law. Each element identified as a barrier to access in this report has also been classified in terms of how severely the barrier affects people with disabilities when they use the facility. After barriers are categorized with a barrier severity rating, the entire group of barriers must be prioritized for barrier removal in a reasonable manner. SZS has opted to follow guidance for this prioritization process as found in certain statutes and regulations.

For example, SZS looked to OSSC guidance on how to prioritize barrier removal in alterations projects intended within buildings, although it does not specifically address pedestrian facilities. Please note the information below as it does not contain the terms sidewalk, walkway, curb ramp, etc. as they are part of the *paths of travel* noted below:

## ORS 447.241 Standards for renovation, alteration or modification of certain buildings; barrier removal improvement plan.

(1) Every project for renovation, alteration or modification to affected buildings and related facilities that affects or could affect the usability of or access to an area containing a primary function shall be made to insure that, to the maximum extent feasible, the paths of travel to the altered area and 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.

(2) Alterations made to the path of travel to an altered area may be deemed disproportionate to the overall alteration when the cost exceeds 25 percent of the alteration to the primary function area.

(3) If the cost of alterations to make the paths of travel to the altered area fully accessible is disproportionate to the cost of the overall alteration, the paths of travel shall be made accessible to the extent that it can be made accessible without incurring disproportionate costs.

(4) In choosing which accessible elements to provide under this section, priority shall be given to those elements that will provide the greatest access. Elements shall be provided in the following order:

- (a) Parking;
- (b) An accessible entrance;
- (c) An accessible route to the altered area;
- (d) At least one accessible restroom for each sex or a single unisex restroom;
- (e) Accessible telephones;
- (f) Accessible drinking fountains; and
- (g) When possible, additional accessible elements such as storage and alarms.



SZS also looked to 28 CFR 35.151 for guidance from the federal regulations on setting priorities for barrier removal:

#### Priority 1

Path of travel - a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, streets, and parking areas), an entrance to the facility, and other parts of the facility.

#### Priority 2

Restrooms

#### Priority 3

Telephones

#### Priority 4

#### Drinking fountains

Barrier removal within an ADA Assessment and Survey process utilized here is not necessarily the same as a building alterations project. For instance, the vast majority of elements in this report are found in priorities 2-4 rather than priority 1 and new construction projects also have a warranty period in which the contractor and design professional still retain liability for their work which requires no prioritization to determine barrier removal priorities. SZS recommends a more detailed system of prioritization. We recommend using the following priorities:

- Priority 1 Pedestrian route including access to the building from points of arrival and from the building site and hazards
- Priority 2 Primary building function
- Priority 3 Signage and remaining barriers that affect people with disabilities as a hindrance or low severity barrier

Please note that staff-only areas were not included in this assessment.

A discussion must be conducted regarding the removal of barriers of lower severities (3hindrance and 4 - low severity). SZS believes that this in a crucial decision making process as the effect that a barrier has on people with disabilities should play a significant role within the barrier removal process.



## 8. FIELD INVESTIGATION

The field investigation for the interior spaces began in 2012. The exterior site elements were assessed originally as part of the pedestrian facilities assessment in June- September 2011 and are included as an essential part of this report. Images of each physical element identified in this report were captured in HD digital photos while manual measurements were taken to establish as-built conditions to facilitate the process of cost estimating. Digital photographs are provided within the report for each barrier to access to facilitate the review of the data collected. We have found that technical data can be difficult to interpret without a visual component; the photos provide a clear connection between the technical data and each barrier to access.

Barriers to access exist in virtually every building, whether new or existing.

No "perfect" building exists in the real world.

This ADA Assessment and Survey report is intended to not only identify barriers to access, but to provide solutions. The basis for this ADA Assessment and Survey process is the underlying desire on the part of OSU to improve access by relying on higher standards than the minimum requirements in state and federal building codes. SZS intends to provide the information in this report in a clear and easy to understand format. The information in this report is compiled for use by designated OSU staff and other interested persons, so the content is designed to be understood by professionals and laymen alike.

The findings presented are both narrative and technical in nature; barriers to access identified during the field investigation process are documented in two ways;

 <u>Narrative Analysis:</u> The analysis of findings is contained in an executive summary in a narrative form that not only describes each type of barrier identified but also provides a discussion that analyses the functionality of physical elements. We also provide the reasoning and research behind the identification of barriers that conflict with universal design principles. This analysis may be accompanied by digital photographs or diagrams, where applicable.

NOTE: Understanding building function and usage is essential when interpreting the findings held in this report. The narrative is intended to facilitate this process.

<u>Barrier Data Records</u>: Individual barriers to access are entered into the SZS database so that technical information on the barriers can be provided as barrier data records. These barrier data records include digital photographs of each barrier identified, code references that determine the barrier to access, as-built measurements, barrier severity ratings, budgetary cost estimates, recommended solutions for barrier removal and a priority for barrier removal. The information is formatted with two barriers on each report page.

In order to consolidate the report data, some of the more typical barriers found in multiple locations have been grouped within the barrier data records with a description of the locations in which they were found. This could result in more than 100 repetitive records without consolidation.



## 9. EXECUTIVE SUMMARY OF FINDINGS

By commissioning this study, OSU has shown that it is committed to culture change in addressing these issues. Many stakeholders play a part in the goal of creating a barrier-free environment on campus. OSU is not atypical; the issues with accessibility on campus are actually an endemic problem that most public entities face. Change within the process of design and construction is fundamental when addressing these issues.

At OSU, the city of Corvallis oversees planning, plan review and inspection of design and construction projects on campus. Through this responsibility, the city plays a significant role in affecting the level of access that exists on campus. The city's actions effectively mark the starting point for design and construction on campus because their approval is obtained to proceed with any design or construction project. In fact, city construction specifications and details are currently used for constructing curb ramps on campus.

Other stakeholders include licensed professionals (architects, landscape architects or engineers) hired by OSU through competitive bid to design facilities on campus. They are responsible to design to the current standards for all disciplines including accessibility.

Contractors are hired to build the facilities designed according to the plans that the city approves and the design professionals create. An inspection process during construction should take place, but it also is generally a process that inspects according to the information in the construction documents, whether it was accurate or not.

In the end, the campus is the primary stakeholder when they take possession of facilities. Accessibility is only one of hundreds of concerns that the various stakeholders focus on, so it should not be surprising that not all buildings are perfectly accessible. OSU has the ability to affect change within many steps within this process, but other stakeholders also must be willing to make changes.

SZS has experience performing plan review and construction monitoring across the country for numerous agencies and clients and we have found that the vast majority of physical barriers to access are created by licensed professionals within their construction documents. Building contractors are required to follow the construction documents exactly when building, or to submit requests for information to the design professionals when errors are detected in plans, but they are not required to ask the design professionals to redesign the facility when minimum code standards are met, even if those standards do not create accessible facilities.

OSU acts in a reasonable manner when they place trust in their licensed professionals but in the field of design and construction, we have found that a lack of full accessibility is the rule, rather than the exception. We believe that the current way of doing business in the design and construction industry must change to improve access significantly. SZS advocates the institution of performance standards to affect that change. Our role with OSU is to assist the campus in making the cultural changes that they seek, whether or not legally required.

