Architecture in the Public Realm: Spend a Day in My Wheelchair
Presented by Letrice Sherrillo, AIA
(November, 2016)

Course Description
AIA Learning Units: 1.00 hours (HSW)

This course complies with California licensure requirements for accessibility (SB 1608 and California Business and Professions Code Section 5600.05), the Texas BOE requirement related to barrier-free design, and provides essential information about accessibility requirements applicable in most states.

In this 60-minute course, Letrice Sherrillo, AIA, a recent wheelchair user, takes us through downtown San Francisco as she navigates hospitality, retail and public spaces. Viewers will gain a better understanding about how accessible spaces in the public realm often fall short of servicing the requirements of people with different levels of abilities.

As Letrice suggests, “Rent a wheelchair for just one day and your perspective will change, the way you design, not only for accessible design to meet ADA codes, but for overall Universal Design.”

About the Presenter
Letriche Sherrillo, AIA

Learning Objectives
1. Gain a better understanding about how accessible spaces in the public realm often fall short of servicing the requirements of people with disabilities.
2. Understand why truncated domes present challenges to wheelchair users and why truncated domes throughout California should be limited to only those areas required by California codes.
3. Understand why clear wayfinding and signage, often beyond what current codes require, are important to people with disabilities.
4. Understand the impact that architects and other design professionals can have on the built environment and the disable community if they gain a better perspective of the challenges faced by people with disabilities.

Important Information About Codes Standards and Interpretations
This course was produced in 2016 and reflects codes and standards in effect at the time. As codes, standards and interpretations are subject to change, viewers should check current codes and standards with regards to accessibility. Viewers should also conduct additional research as appropriate and discuss specific circumstances with building code officials and with regulatory and other agencies that have jurisdiction over their specific projects.

Note to Transcript Readers:
This transcript is a verbatim reflection of the video narrative and is provided so that those with hearing impairments can follow the video course. As with many verbal presentations, verbatim translations do not always result in the same type of concise language as if the transcript was developed and presented as a technical document.

The information included in this transcript is provided as a general resource. Users of this information should conduct additional research, check their local building codes and verify all information before applying it to their practices or to specific circumstances.
Chapter 1: Introduction

I'm Letrice Sherrillo and I'm a California architect. I have been practicing in the profession for 29 years and I'm here today to talk to you about the design of architectures and planning in the accessibility not only the codes, but just the accessibility and the difficulties around the environment, the build environment. Growing up I was exposed to people with disabilities because my mom was a caregiver and she worked with paraplegics, quadriplegics, people in wheelchairs, walkers, all sorts of disabilities. But this one client she had, Brian, he was a quadriplegic, and she worked for him for over 10 years so I saw a lot of the things that he could do, being a quadriplegic and I was very impressed.

And so when I became an architect I was definitely sensitive, more sensitive, I believe, than other people, on accessibility and accessibility codes and what we needed to do, because I had that experience traveling or seeing Brian and his difficulties. Then I became sick with lyme disease and got very sick and was bedridden for a while, it's been seven years since I've had the lyme disease and... Which is you get lyme disease from a tick, so I got it hiking. So about years into it I became disabled through mostly my legs, my shin bones. It was attacking all my body but my shin bones the most, to the point where when I stood and walk, I felt like they were going to break.

I started on crutches and then it became the wheelchair within a couple of months. So I'd been in the wheelchair for four years, four very long years, and so I've had experience on the accessibilities that are out there and even though they meet code, sometimes they're not really that accessible. So my eyes have opened even more so, that I had no idea, even though I was watching and around people with disabilities and in a wheelchair, yeah I had no idea what the difficulties in the built environment could be.

So when I first became disabled and I had to withdraw from a lot of the activities through architectural events and stuff like that, I had come back to different courses and classes about architecture and I would see people that I knew very well in committees that I was on, on the Code Committee and so many other committees locally, state wide and national—I was very active. And so I went to this course and I saw many people that I knew a lot, that I knew well, and to my disappointment or shock or whatever, I realized that the people that I knew weren't coming up to say hi to me and they were at a distance and so it was almost like they avoided me.

And it wasn't until I came home to my husband to discuss this, I was very distraught about what occurred, and he brought some light to it and said, "Letrice, they just don't know what to say, they don't know. I mean how do you say, 'How are you doing,' when they know you're not doing well, they see you in a wheelchair and they don't know why." So that was totally different for me and so I learned to approach them and say, "Hey, how's it going?" and start the conversation and take that hard part away from them, to greet me.

When I'm out on the street in the city or somewhere, people kind of ignore you and they step in front of you or on the side of you or they don't really pay attention and I'm at a lower level than people standing and so I see different reactions, which again, shock me still. But then there's other people that are very sweet and smile at me and ask me if I need help, so there's kind of two sides, but the darker side was always kind of a shock in the beginning and so now I'm better equipped, hopefully, mostly, when I ran into these problems.

Chapter 2: Principles of Universal Design

I absolutely view the build environment differently. I view it as obstacles, in one sense, because I'm trying to get to particular places or buildings and a lot of them have, some of them have monumental stairs, such as churches, such as a lot of different larger buildings. And the wayfinding, the signage, is not there in all cases and if it is there it's not placed where... I have to kind of go find it or ask many people, "Where's the accessible entrance to get into this building?"

Ground Surfaces

Also, I found that ground surfaces are different. Something that in the beginning myself, I thought cobblestones and different paving type is really beautiful on an outside surface, wherever it is, by the Embarcadero, but once I was in the wheelchair I found how, I don't know, debilitating it is, my chair bouncing constantly and shooting pains in my body from that bouncing. Whether it be brick or tile and the grout, the grout lines, the joints... I'm sorry, the grout joints, again, it just bumps and bumps and it's quite debilitating and bothersome.

Safety

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And so I see all these different obstacles that I had never seen, which I actually before on the eyes they're beautiful. And they are beautiful, but when you're in a wheelchair it's not so beautiful, you'd rather take the beauty out. So it's that hard cross of how I see the built environment now, and I always, like at night when I'm maneuvering around in my wheelchair I don't feel as safe as I always thought, depending on the height of trees or things in the path, I just want to make sure I'm in an open space for people to see me so I don't get mugged, I'm an easy target. So that's another way I kind of see the built environment, I look for lights.

**Acute Hearing Sensitivity**

One of the disabilities that I got from lyme disease is acute hearing, so it makes it difficult when there's surrounding noise at times, where the brain just kind of stops computing. But there's other people there that even has more of acute disability, which completely shuts down their body, regular conversation is 60 decibels. But if you go into restaurants they're somewhere to 70 to 80 decibels, depending on how many people are there, depending on the number of hard surfaces, depending on the music in the background, it's quite interesting. And again, I didn't notice this until I got the lyme disease. So as architects we need to be sensitive, more sensitive about the spaces we design for sound and how the sound is absorbed or bounces off hard surfaces.

**Cross Slopes**

I'd like to talk now about cross slopes for drainage and the difficulties in a wheelchair, a manual wheelchair, going down a hill or up a hill with that cross slope. It's extremely difficult, again, something no one would even see to the eye, really, of a cross slope. I mean I never really noticed it until I was in the wheelchair and then going downhill you are pushing with one arm and on the other one you're... I have gloves on almost every time I go in the wheelchair, but and you have to push on the other side, you push on the wheel to steer you, to pull you to the right if the cross slope is going to the left.

And granted, you're not even... You're not just trying to do the cross slope, but you're trying to go uphill or you're trying to go downhill. So downhill becomes much more dangerous and uphill becomes much more, much more difficult trying to put all your power just going uphill, but now you're doing it with one hand and the other hand you're putting pressure against the wheel, which slows you down, but it's steering you and to make you continue to go straight. So it meets code and it's definitely something that is needed for drainage, the cross slope on sidewalks, but I just wanted to point that out, it's these small little things that people don't really realize until we're in a situation like I am no.

**Public Transit**

To touch on public transit, I have found there are some great things on public transit, I love public transit, it makes me able to be, again, more independent and travel around to different areas. But there are a few things... I live in San Diego, they have the trolley system, and so one of the most difficult things for me is—and it seems small but it's not, if you're in a wheelchair and you want to get onto the trolley. So there's particular doors, and you don't know on different trolleys, there's a handicap button to push to get the ramp out so you can get onto the trolley. And there's a green one to open it for regular people.

The difficulty comes when there's so many people around or is rushing towards the door and you can't get to it first, or you yell out, "Push the handicap button," but you don't make it and they push the green button. So the doors open and the ramp never comes out, so that means I have to wait for the next trolley and that's happened to me several times. Even though I try my best to get and figure out maybe where the door is, you don't know where that handicapped button is going to be or where it's going to stop at that station, so it makes it really difficult.

And let me tell you, I've been late to different things because of that and trying to yell out, "Push the handicapped button," but they don't understand that, they just push the button, the green button. And the same thing getting out, where some of the cars are so fully packed and you have a particular place in the trolley that you need to, ahead of time, tell the people that are there, to hit the handicapped button so the ramp comes out. Most of the time from the inside out is better but I've had times where people just push the green button and then I'm stuck and then I have to go further than I need to go and then get off the trolley and wait again and come backwards.
So those are some little things, but overall I really, I love the public transit, the bus works too. I was in Canada for this one, they didn't hook me up, and the bus stopped pretty quickly and being that my wheelchairs are kind of a hard plastic, and I had my brakes on, the wheelchair just slid and I fell into the lap of this gentleman facing him with my chair. But most buses that I've been on have hookups but I typically use the trolley. Those are just a few of the public transit obstacles. What we can do as architects is help with the public transit through having meetings with them and talking through, but…

And some of them already do this, you have a designated spot and I think San Francisco is pretty good with this, they have a designated spot and they put it in blue. And so they know, that's where the disabled, the handicapped, I mean the people in the wheelchair need to stay. They need to be at this point and they know they can get on to the public transit. San Diego they do not have that and so you're hit or miss, so it's just about the architects talking with public transit and how they can help build a better public transit and environment as a whole.

Chapter 3: Educating the Public

Like I mentioned, I did get what was supposed to be an accessible room. The first room was not accessible at all, the second room did have a roll in shower, but the rest of the room was extremely tight and there was no area to really turn around. It didn't meet code. Yeah, there's chairs and I couldn't even get my wheelchair around to the bed through where the chairs are and the table, and then just trying to maneuver out of that space really, I was running into the furniture and everything.

So my question is, how can that be accessible? In the system they may be accessible but not in real life and not with people in a wheelchair.

Male: That room how it was set up. I have never seen it.

Okay.

I've made a reservation for an accessible room and the first one they brought me in was not accessible at all and had a tub and so… I think it was room 1511.

Female: Okay.

And so we had the room changed to 2811, room 2811, and they had the roll in shower, which was good, and the bathroom was all accessible, but the room, it… The room was not. I mean you were able to get…

Female: You don't have the width to get around.

You don't have the width. I had the width to kind of go by the bed, barely, but with the office chair sticking out and the rails, but to get to those comfy chairs that are by the window and all that, it's way… I couldn't even get into it. I mean so…

Female: Let me take a look and see what we have available.

Well, I'm checking out now.

Female: Oh, you're checking out now.

I spent the night there. I was totally exhausted and so we already changed, so that was the second room, I just wanted to go to bed. But where the chairs are against the window, I mean so the bed was here and I could barely… I couldn't really get through my chair, my pedals were hitting.

Female: You didn't have that width for…

Right. And if the chairs weren't there and everything… But then again, the chairs should be there for anybody, whether accessible or not. So my question is, is what happened? If they're accessible rooms, two of them I went in were not accessible. Yeah, exactly the same layout. And so I had tried just to get in there and then trying to actually back up and getting out was extremely difficult, I was sitting… Yeah, I need that five-foot turnaround.

Female: There's a width requirement for those rooms.

Right, right.
Female: Okay. I was unaware, I am so sorry about that.

And I was looking forward, because it's such a nice hotel and so I just wanted to bring that to your attention so other people in a wheelchair or other accessibilities, that they have the full access in the room.

**Chapter 4: Hotel Accommodations**

Here I am at one of San Francisco's finest hotels and I have an accessible room, which portion of it is accessible and the other portion is not. So being in the room we've got this pathway to a desk and chairs but this is as far as I can go, there's no room to turn or anything to get to the side of the room and there's no five-foot turnaround so I have to back myself up very carefully. And this portion works pretty good but again, tight, I'm hitting the furniture, to go back in here to then turn around.

And we can go into the restroom here, so here's the accessible bathroom. For the most part it's pretty good, I've got my five-foot turnaround, I've got the shower, the roll in shower, so you've got the handrails here and the restroom and the counter height is great, I can turn around, I can pull myself up to it, it's a good height and also, the towel racks I can get to. So the bathroom is pretty good and so here is the shower, so this is accessible, you've got a seat that works and just pivot yourself to the seat. So the bathroom is fully accessible, so go back into the room.

Again, if I wanted to get to these magazines it would be difficult to get to the magazines over here. Again, we have maybe a foot and a half to the bed, to the chairs and it would be accessible if they didn't have these chairs here or this table, but then again it needs to be a bigger room because why should anybody that's accessible minus the chairs? So the room's supposed to be bigger with a five-foot turnaround to really have access to the room, not to mention space for your bags to be placed in. So this is a non-accessible room and I was a little disappointed when I checked in, to see the tight, tight space and that I couldn't fully get around.

**Chapter 5: Curb Cuts and Truncated Domes**

Curb cuts are accessible if they are... Now I'm talking in a wheelchair, from my perspective, my personal perspective. If a curb cut is flush with the ground surface, the street, and it comes up, then it's great, I have no problems. But if the curb cut has any type of lip, a quarter inch of lip or even an eighth of a lip, these small wheels on the front of the chair stop immediately at that lip. And one of the first times I was in the chair and my husband was pushing me, we went up a curb cut and my chair just stopped immediately and I almost propelled myself out of the chair and I had to grab on.

So and even he cannot push me straight, even with a lip he either has to tilt me backwards, which I don't like, and push up, or typically he will turn me around backwards so the bigger wheels will run up them. So really, the flush curb cuts are the accessible, the lips are not, at least to a wheelchair. So truncated domes, that's my biggest complaint, my biggest obstacle in my life in a wheelchair. So the truncated domes, they're difficult to get up. If I'm pushing myself, which typically I am because I like to be independent, I have to start, if I'm crossing the street, I start after about three quarters of the way, I start, as I say, a running start to get up the truncated domes because, again, the small wheels that are in front of a wheelchair, they twist and turn through all these truncated domes.

And so, and there's an incline, and you may not think that it's a very long or steep incline but when you're in a wheelchair and you have these truncated domes, try it, it's not fun. It just twists your chair, you're struggling to get up it and out of the street before a car comes around and not only that, it jars my body where it just, again, it shoots pain either in my back or up in my head because it's very bumpy. That's probably the biggest complaint or difficulty, I would say, difficulty and obstacle. And I know people with walkers, they've complained too, that they can't push the walkers up and so again, yes we need something for the blind to stop them from getting in the street, but maybe there is a better universal design that hits all the disabilities.

**Chapter 6: Wayfinding**

We're in one of the most tourist places in San Francisco and we are right around the BART station. So I'm trying to determine where the elevator is, there's a tall vertical element in front of me but I don't see any signage to say if that's the elevator or not. And then there's another vertical element here, it says tickets, but I just saw this when I came up on it, but when I was out cruising around trying to figure out which the elevator was, this didn't have any signage too so...
I'm still not sure the elevator is to get down to the BART station. So here's another view of the vertical element that I assume is the elevator, so I'm going to go around to see if it is the elevator and see if there's any signage at all, because it's really hard to tell.

And the more I have to maneuver myself around to these structures, it's hard, it's hard on my arms. Okay, so we're going to wrap around here and see if we can find the elevator down to the BART station. Okay, on this side there's no signage so still not 100 percent sure if that's the elevator or not. Okay, so it is the elevator but it seems to be out of operation, so now I'm not too sure what to do. Go blocks and find another BART, which is going to be extremely difficult. But again, as you can see, there's no signage on the back or the sides to route an accessible person over to this entrance.

Chapter 7: Retail Stores

So retail spaces are extremely difficult to get around in a wheelchair and probably walkers, especially clothing stores. The racks are so tight together, you might have a foot and a half to get through them. Not all, but there are so many that you cannot... And it's supposed to be 32 inches clear in between the obstacles, in between display racks, 32 inches and we're talking maybe a foot and a half on some of these. And one was so bad I was trying to squeeze through and I had some clothes that got caught up on my wheel and tore off the rack.

I mean and I just can't get around to the different places I want to in the store to see what I'm looking for. When we sit down and program with the client, that would be the time to fully discuss and space plan for their desires of their program; how many racks do they want, what kind of displays? Because there's all types of displays, a lot of them have corners, and to lay it out so that we know that they have these 32 inches clearance between their displays, racks, whatever it is. Granted, they will take it upon themselves if they wanted to have other racks, but if we lay it out with their program then it should meet code.

Another problem is counter heights, where you come and check out and you have to look up and strain yourself to sign, do your card, sign it at a different level, at a high level, and sometimes you can't even... I can't even reach the monitor to do what I need to do. But there are a lot of places with handicap counters that meet code, they have a high one, they have a low one. But what I find at least 50 percent, if not more, they use that lower counter to display their merchandise or computers are on it, so it's not usable, I still have to go over to the high counter and do my transaction. Again, we can have everything meet code but it's the users that then make it disabled with what they do on their own.

Chapter 8: Table Legs

So when I approach tables for eating and I come up to the table and I start going under the table with my pedals, the leg itself stops my pedals and so I'm about a foot and a half away from the table, which makes it really difficult to eat. So one of the issues is the leg design and sometimes you can't help it because we do need structure for the table and a pole and so it's just one of the difficulties when you're in a wheelchair, of... This is an example of one of the tables that we found that you can go right up and under, because the legs or the structure was on both sides, so I was able to pull right underneath the table and have my body right up against the table to eat.

Chapter 9: Accessible Ramps and Lifts

I love these lifts for wheelchairs for disable people. It makes it very easy and accessible and close to places where you can just get into these lifts and just go up whatever height you need to instead of going to find an elevator to get you up to a position instead of walking around to figure that out. So lifts are great, in my eyes as someone in a wheelchair, to get me up quickly to where I want to go and it's a very easy process.

Here's a great example of an accessible outdoor space in San Francisco and I just really love it. There's greenery, the hardscape is doable to go down in my wheelchair with very little bumps rattling and I'm amongst all the tall buildings, which I love – all the architecture. And we've got the water fountain and its wide so people can go past me and I don't have to worry about running into people. It's beautiful, it's sunny, one of my favorite places in San Francisco.
Chapter 10: Summary

Disability is not a choice, it’s a fact of life. For me, I was bit by the wrong tick and my life changed. As we go through life or as we age, we experience different levels of ability.

I believe that every architect would benefit significantly, not only architectural designers but urban planners and interior designers, in the realm of heightening accessibility design awareness and the impact that it can have on the built environment, if they designated one entire day, morning to night, in a wheelchair. This would give architects, planners and interior designers a personal point of view, a glimpse, a memory, on the impact on the disabled community. For instance, a ramp is 30 feet at a1:12 (slope). 30 feet is a long ways for someone in a wheelchair, especially if you're disabled, you don't have all the strength that maybe you used to have. Do the challenge, rent a wheelchair for just one day and your perspective will change, the way you design, not only for accessible design to meet ADA codes, but for overall Universal Design.

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