Planes, Trains and Funiculars: Working with Historic Transportation Infrastructure
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In this Issue

BY J. TODD SCOTT, THE ALLIANCE REVIEW EDITORIAL COMMITTEE

We’re taking a look at historic transportation infrastructure in this issue. It’s such a critical component of many of our historic districts that we felt it deserved a little attention. We start with a look at a restored and expanded airport terminal, at the second oldest continually operating airfield in the country. Then we move on to trains and take a look at landmark designation of historic rail cars in the Pacific Northwest.

Streets are always a hot topic, so we look at how Fredericksburg, Virginia deals with traffic in its historic downtown, and how Brooklyn is working on making historic stone streets more universally accessible. Finally we finish with a look at the last remaining historic funicular in downtown LA, and while we often focus on staff profiles, we have taken a look this time at a fervent advocate and gifted volunteer. As always, please let us know if there are topics you’d like to see covered, or if you would like to contribute an article to a future issue of The Alliance Review.
Adapting Aviation Infrastructure In Order To Preserve It

By Brantley Hightower, AIA

Just a few years after Orville Wright first took flight over the beaches of North Carolina, United States Army Lieutenant Benjamin Foulois took off in a used A-model Wright Flyer and circled over Fort Sam Houston in San Antonio, Texas. Although Lieutenant Foulois would become known as the “Father of Military Aviation” he was by no means an experienced pilot when he made those first few flights over the Alamo City. He had learned to fly partially through written correspondence with the Wright Brothers.

This approach to flight instruction had obvious limitations. That is why the Army later invited a more experienced aviation pioneer, Max Lillie, to come to San Antonio to help teach new pilots to fly - and more importantly to land - safely. To assist in the training Lillie brought with him a young woman by the name of Katherine Stinson.

Stinson was a talented pianist and the story goes that her initial, somewhat convoluted, plan was to earn enough money as a novelty exhibition flyer to pay for a classical musical education in Europe. After discovering she had natural talents as a pilot she decided to pursue a barnstorming career instead. She was the fourth woman in the United States to officially earn a pilot’s certificate and toured the country as “The Flying Schoolgirl,” setting several early aviation records along the way.

Soon after her siblings joined her in San Antonio she leased a flat, open piece of land on the south side of town. In 1916 the family established the
Stinson School of Aviation and went on to train many World War I pilots on what they christened Stinson Field. The airport has been in use ever since, making it the second-oldest continually operating airfield in the United States. In between the world wars Stinson Field served as San Antonio’s main commercial airport with service provided by American, Braniff and Eastern Airlines. In 1936 a terminal building was built by the WPA Works Progress Administration to meet the growing demands of passengers and cargo. The two-story concrete structure was clad in local sandstone and featured a modest but handsome collection of art-deco details.
After being used as a training base during the Second World War, Stinson Field was returned to civilian use. When work was completed on San Antonio International Airport, all commercial aviation moved to the north side of town. The new airport made Stinson no less important, however. According to Tim O’Krongley, “Stinson has always had a role of supporting and being a catalyst for aviation in San Antonio.” O’Krongley served as the Airport Manager of Stinson between 1998 and 2006. Even though Stinson was by then classified as a general aviation “reliever” airport it was still a hub of activity. With multiple flight schools and a growing number of corporate and private aircraft, by the early part of the twenty-first century it was clear the airport had outgrown its original terminal building and needed more administration space. Even though a handful of small additions had been made to the original structure over the years there were physical limitations to what the 7,000 square-foot building could handle.

In 2002 the City of San Antonio hired Beaty Palmer Architects to design a new administration building for the airport. No site was specified for the project and the initial assumption was that a completely new facility would be built separate from the original terminal building. The design team studied this and other options and ultimately concluded that the best course of action would be to expand the terminal building by adding to it. Although there was no significant cost savings associated with reusing the building, such a move better ensured the historic structure would remain an active part of the day-to-day life of the airport.

One curious aspect of early airport terminal design was that the “public” face of the building was typically oriented towards the runways. This was certainly the case at Stinson where a relatively flat, unadorned facade faced Mission Road. Beaty Palmer originally proposed an addition that obscured this secondary facade by expanding the building to the north towards the street. Local preservation groups including the San Antonio Conservation Society raised concerns about this approach and although the group had no official say in the matter, the architects listened to their concerns and developed an alternate approach that split the addition into two symmetrical wings that would be built on either side of the existing building.

Even though the airport is city-owned it still must go through the same review processes as any other project. San Antonio had recently streamlined this approval process: whereas the project’s design would have once been evaluated by multiple boards now a single consolidated Historic and Design Review Commission (HDRC) would have the sole authority to approve the project. Ann McGlone was the head of the city’s Office of Historic Preservation which made recommendations to the HDRC concerning the Stinson Terminal Building addition and helped shepherd the project through the process. She recognized that any addition to a historic structure was going to be controversial but also felt, “Preservation is about finding new uses for old buildings and not just wholesale abandoning them or tearing them down.” The HDRC ultimately agreed the updated design was good for Stinson and approved it. In time the Conservation Society was convinced as well and after the project was completed they awarded it a 2010 Historic Preservation Award.

According to Airport Manager Tim O’Krongley, the ultimate goal of the project was, “To celebrate the past while moving forward with the future.” Completed in 2009, the 4.8 million dollar project does exactly that. Approaching from Mission Road the two new wings angle outwards to create an entry courtyard that focuses attention on the original terminal building. An open canopy connects the ends of the wing additions and its arcing roofline
The addition's two-story wings are angled to create a forced perspective that frames the original WPA terminal building.

The material palette of the additions set them apart from the original building while remaining appropriate to their airport setting.
recalls the nearby hangar buildings. Because general aviation airports have minimal security requirements the courtyard is accessible as an open public space.

The wings themselves are clad mostly in corrugated galvanized metal and glass. This material palette sets it apart from the original building while remaining appropriate to its airport setting. Stone accents more directly reference the sandstone of the WPA terminal and help tie the entire composition together. Details of the new wings are “streamlined” to recall the art-deco features of the original building.

Despite being in use for seventy years the 1936 terminal building had been well maintained by the city and relatively little restorative work needed to be done. The construction of the addition allowed space to be opened up in the existing building by pulling out restrooms, mechanical rooms and other “modern” functions and moving them to the more spacious new wings. This allowed for a more expansive entry lobby on the building’s first floor and more generous airport administrative offices on the second. New terrazzo flooring helped tie the original building together with the additions. Display cases and photographs – many of which were provided from O’Krøngle’s personal collection – were dispersed throughout the public spaces of the building and help tell the story of Stinson and the individuals who played a part in the long history of aviation in San Antonio.

The project’s construction presented a handful of unique challenges. Because of the historic nature of the site the exact location of underground utility lines were unknown and so the excavation for the foundations had to be completed by hand. In addition the Federal Aviation Administration (FAA) mandated that the control tower on the existing building’s roof had to remain operational throughout the process. When completed in 2009 the
A new air traffic control tower features eight fabric-wrapped “wings” that recall the construction of the early aircraft that once called Stinson Field home.

28,000-square-foot addition along with the original 7,000-square-foot terminal building together housed the airport’s administration offices, the airport’s fixed base operator, a restaurant, leasable office space and shared meeting rooms. The second floor of the east wing of the addition also provided space for the Aviation Technology Department of Palo Alto College. It was fitting that over a century after the Stinson School of Aviation opened, the expanded Stinson Municipal Airport Terminal was continuing to help young aviators learn how to fly.

Stinson Municipal Airport is home several other historic structures including hangars that date back to the Second World War. Although not ideal for the dimensions of modern aircraft, these structures remain in use and the airport is committed to preserving its built history and sensitively adapting its historic buildings when necessary. This year will see the completion of a new air traffic control tower on the opposite side of the airport from the terminal building. Design by AJT Engineering, the 11 story tower is made of precast concrete panels whose color matches the stone of the original terminal building. Eight fabric-wrapped “wings” hang off the side of the tower and recall the form and construction type of the early aircraft that first called Stinson Field home. These wings are also internally illuminated, allowing the tower to act as a modern beacon for the historic Stinson Municipal Airport.
The railroad determined not only the social and economic growth of communities nationwide, but it inexorably changed the physical landscape itself. To this day, settlement patterns in the Pacific Northwest follow the tracks of historic railroads and their terminals. For 19th century Washington, railroads represented the means to develop and expand the forest industry by allowing the economical transportation of raw logs to a mill and then lumber from mill to market. Similarly, the mineral resources—everything from asbestos to zinc—could be profitably mined using railroad technology both inside the mine, between mine and smelter, and then smelter to market. Then there was the economic engine the railroad itself represented, which emulated a primary sector industry because of the sheer size of the infrastructure, and the requirements to maintain and operate it 24 hours a day. By 1920, there were less than 110 million people in the entire country, yet there were more than two million people employed by the railroads, a truly remarkable economic impact even by the standards of the 21st century.
The railroad’s impact was felt in nearly every aspect of society because it was such a revolutionary advancement in technology. In a sense, it was a time machine that compressed months or weeks of transit time into days or hours, and vastly reduced the cost of shipping voluminous goods. Furniture and other manufactured consumer goods, mail, staples such as flour, machinery, farm implements, and pretty much anything imaginable arrived by train. In short, the railroad changed everything.

**Importance and Issues of Preservation**

One of the strongest arguments for protecting historic buildings is that they can physically relate an experience of history beyond that which is available through archival material or museum objects. Buildings are larger than you. You can step inside one, explore its rooms and spaces, discern its function and place in the surrounding landscape through its scale, design, and form. Our daily lives are structured by the environment that surrounds us, and historic buildings, when in place and used well, are an integral and unavoidable part of that environment. They have a defining presence whether you know the stories behind them or not.

Historic preservation is based on this idea – that maintaining a depth of cultural history in our landscape is an overarching social value, similar in a sense to what is mandated by zoning restrictions and building codes. Preservation recognizes a kind of cultural commons rooted within the sense on a personal interest in history. This social value is most clearly reflected in an ordinance-driven design review process, one intended to be thoughtful about the impact of development and change on our evolving in historic preservation as a whole, is: which historic resources shall be recognized and protected? Like buildings, less traditional historic structures such as railcars and ships also convey important cultural stories, and have the capacity to
create an immersive visceral experience of history. While important facets of railroad history are regularly captured in associated architectural forms such as depots, stations, bridges, and railyards, there is a great deal of social, political and industrial life that happened only on the railroad itself.

One obstacle to the preservation of railcars and locomotives has been that these structures reflect patterns of our engineering and technological past, and so are typically not as adaptable to modern uses as are buildings. Once superseded by more advanced technology they are removed from everyday experience, no longer relevant to the mechanics of our daily lives. Historically, some railcars found a second life on the railroad, modified – sometimes extensively – to perform a new function, and continued as useful tools and machines long after their design life. For instance, some boxcars found a second life as a tool car or bunk car for railroad workers. Passenger cars found a second life as outfit cars and spent many decades as rolling railroad camps for the workers that rebuilt and repaired the track and structures. Still fewer railcars continued to be used as stationary structures after they were taken off the rails, converted to houses, storage sheds, offices. But proportionally, very few were reused this way, and the ones that were are often not continuously well-maintained. Now, railcars and locomotives that are intact enough to offer the kind of personal experience so valuable to conveying a sense of history are usually found in an outdoor museum context. Given the overall rarity of historic railcars, and the expense of restoring and maintaining them, landmark designation can offer some significant benefits, from broadened public exposure, to grants and financial incentives available only to designated historic structures.
Chapel Car 5 is a wooden railroad car and features a truss system in the car side. Rehabilitation efforts required extensive rework.

Richard Anderson, Executive Director of the Northwest Railway Museum shows local landmark commissioners the specially designed reproduction light fixtures for Chapel Car 5.

Evaluation Considerations
A common conversation today among preservationists and others concerned with material history is about how to evaluate these features of the cultural landscape not captured by traditional standards and guidelines. The depth of history in but many of our guidelines and practices are, and that can cause problems when applying a narrow architecturally focused framework to non-architectural resources. With railcars and other mobile properties, guidelines based on the National Register of Historic Places and Secretary of the Interior’s Standards actually translate pretty well – the issue tends to be that these resources just aren’t often considered for designation. Typical preservation commissions may not regularly deal with historic resources related to industrial, engineering or technological systems, even when they have had major influences on social and cultural development.

In King County, Washington, four very different railroad cars have been landmarked over the last 20 years, making not only regulatory protections possible, but also valuable financial incentives aimed at restoring and maintaining these resources for the public good. All four of them were constructed in the late 19th/early 20th century, and all four survived into the 21st century because they remained in service for unusually long periods of time, either in their original use or as a second or third adaptive use. The breadth of variety between them showcases the advantage of protecting these kinds of structures within the framework of formal landmark recognition – both for the historical information they embody and for the kind of direct experience they can offer once restored. The cars are all owned by and housed at the Northwest
Railway Museum and have either been fully restored or are currently undergoing restoration.

Chapel Car 5 “Messenger of Peace” – Constructed in 1898 by the Barney and Smith Car Company of Dayton, Ohio, this was the fifth of seven American Baptist cars built to provide religious services. This passenger car was constructed almost entirely of wood and used as a travelling church, capable of reaching people in far-flung western regions served by the railroad, and newer settlements that had no churches. Chapel cars were a modern adjunct to the travelling tent revivals and the circuit-riding preachers of the 19th century, and for the America Baptist Publication Society, the bicycle-riding colporteurs. The concept derived from the traveling churches of the Russian Orthodox Church except American chapel cars usually conducted meetings and provided services on the house track at railroad depots or other rail facilities for residents of the towns and villages over a period of weeks or months rather than a day at a time. With the development of other means of transportation, especially the automobile, the age of the chapel car drew to an end during the first half of the 20th century; Chapel Car 5 was the last and it remained in service until 1946. After being deconsecrated in 1948, the car was adapted to more stationary uses, including as a roadside café and then as a residential cottage along the Pacific Ocean. Were it not for these unconventional uses the structure never would have survived.

Northern Pacific Railway Steam Locomotive 924 – Steam locomotives were the engine of the industrial revolution and western expansion, and the Northern Pacific Railway (NPR) was instrumental in setting broad patterns of settlement and development across the northern portion of the country from Minnesota to Washington. Locomotive 924 was constructed by Rogers Locomotive Company, who by the end of the steam era was recognized as the second largest builder of steam locomotives in America. For many decades before, during and after the Civil War, Rogers was an innovative manufacturer who developed many features that became common – or even standard – on nearly all steam locomotives, yet by the time the 924 was built in 1899, other locomotive builders had surpassed them in innovation and efficacy. The 924 is a rare surviving example of late 19th century locomotive construction that embodies many of the once ubiquitous design features of the era. The 924 was quite a small locomotive for a mainline American railroad and it was retired
in 1924. This light 0-6-0 switcher was sold to a forest products company in Spokane, Washington, where it continued in service — incredibly — until 1968 when it was retired and preserved.

Puget Sound Electric Railway Car 523 — Beginning in the late 19th century, electric interurban railways appeared all across the country from major cities to small rural centers, built specifically to connect rural and suburban areas. Puget Sound Electric Railway (PSER) Car 523 was constructed by the St. Louis Car Company in 1907 and in 1910 was extensively reworked by the railway in their own shops in Kent, Washington. It is a rare surviving example of the once common interurban car, especially of those constructed predominantly of wood. Similar cars operated in most urban areas of North America and played a decisive role in settlement patterns of the communities they connected. It was associated with a variety of prominent early 20th century events, including the 1909 Alaska - Yukon - Pacific Exposition and the extensive troop movements during and after WWI. The PSER was powered with electricity generated at Snoqualmie Falls, the world’s first underground power station, and the Georgetown Steam Plant, among the first commercially viable steam turbines. The 523 is the only known surviving car from this regional interurban system that was embargoed in 1928 and scrapped in 1930, and is the historical antecedent of the modern rail transit system now under construction in Puget Sound. Afterwards, the 523 served briefly as a rail yard office in Tacoma, but was soon sold for use as a residence in the city of Federal Way. In 1963, a keen-eyed railroad buff spotted the car, identified it for what it was, and purchased it for preservation. It remained in storage for more than 50 years hidden from public view.

Northern Pacific Railway Steam Rotary Snowplow #10 — Built in 1907 by Alco’s Cooke Works in Paterson, New Jersey, this piece of rolling stock was used through Stampede Pass in the Cascade Mountains of western Washington for more than 50 years. It was not self-propelled so had to be
pushed by locomotives in order to clear the tracks of snow. Historically, Stampede Pass has recorded as much as 442 inches of snow in a season so the Rotary was a vital tool in the seasonal battle fought to keep the rail line through the mountains open during the winter. Traditionally, a wedge-type snowplow would push snow off the tracks to one side or the other much like a snowplow clears a road. When the snow gets really deep, the traditional plow has nowhere to push the snow. The rotary snowplow was developed to shave off scoop-sized portions of snow and hurl it off to the side of the tracks. The rotary blades at the front of the plow were driven with steam generated in the on-board boiler. The blade operated at 60 rpm and could throw snow 30 yards or more from the track. It is one of the last remaining rotary snowplows from the period, and one of the very few that was not converted to electricity.

Landmarking Process

While they tend to be relatively similar, the laws, policies and procedures adopted by governmental agencies define their own landmark designation process, and this process can vary in specifics from place to place. Generally, unless of remarkable national importance, rail cars, like buildings and other structures, must have a clear historic relationship to the place in which they are considered for landmark designation. However, given the networking function of rail systems, that “place” may be notably larger than one associated with a building. It could even be regional, since the railroad functioned to create relationships between places sometimes quite distant from each other.

All resources being considered for designation need to have retained (or be restored to the point of) sufficient historic integrity to convey their significance. They must be intact enough to communicate that experience of history. Design, materials, workmanship, feeling and association are aspects of integrity that are evaluated similarly to buildings. Location and setting, however, may be considered a little differently. If there is a clear relationship to the place where railcars are designated, and they are situated in a related setting (defined by the National Register as “a locomotive on tracks or in a railyard,” rather than enclosed within a museum) they have reasonably retained those aspects of integrity, regardless of whether or not they are in the exact location and surroundings they were historically.

Another categorical detail is worth mentioning here. So far, railcars have been referred to in this article as structures. Intact aircraft, ships and rail/trolley cars are considered structures under the National Register categorization system, because they are functional constructions “made usually for purposes other than creating human shelter.” But rail/trolley cars also fit into the category of object. An object is a “material thing of functional, aesthetic, cultural, historic or scientific value that
may be, by nature or design, movable yet remain related to a specific setting or environment.” Nota-
bly, of the four railcars landmarked in King County, three are listed as objects, one as a structure.

**Applying Guidelines**

Most local preservation ordinances, and the guidelines developed from them, are based on the Secretary of Interior’s Standards for Rehabilitation. Individuals and organizations interested in the protection and restoration of railcars are most often those who intend to interpret them for public benefit – in an outdoor railroad museum, for example. Because of this, many landmark commissions will encounter railcars only when they are presented for designation, and the work undertaken on them almost entirely some form of restoration. When commissions do need to weigh proposed actions on and/or alterations to non-architectural landmarks, they’ll find most of the ten Secretary’s Standards for Rehabilitation translate well. Standard Five – preserving distinctive features, finishes and construction techniques – may be the standard best suited to restoration projects on railroad structures, but Standards Two through Six will probably be applicable in some way to most circumstances. If a locality has developed its own preservation guidelines, focusing on those that directly address historic character will likely be the most relevant.

Like all aspects of our cultural life, historic preservation is constantly evolving – considering and reconsidering what facets of our material history should be interpreted, protected, recognized and reused. Our cultural landscapes are comprised of not only historic buildings, but social spaces, industrial structures, ecological systems, engineered networks, even elements of intangible cultural meaning overlaid on to the physical landscape. To capture the complexity and depth of the landscapes we constantly create, we need to step outside the boxes of architecture.
In the field of historic preservation, our great challenge is to see that historic buildings remain viable components of a community, used for their intended purpose (homes, offices, churches, etc.) as much as possible and adapted to new uses when the viability of a previous use has passed. Buildings alone, however, do not revitalize or sustain places; activity does. Neighborhoods need populations, commercial enterprises need customers, and communities in general need civic engagement that helps, among other things, to define and realize preservation goals.

Pragmatic officials embrace the seemingly mundane development and implementation of local regulations, as these are the legal framework for historic preservation. In addition to concerted attention to the physical attributes of place, however, we need to also consider how a community functions. Like bureaucratic imperatives, infrastructure is an integral part of the preservation discussion, but that effort drops us into the realm of traffic engineers and road builders. To these individuals tasked with ensuring citizen safety, the Manual of Uniform Traffic Control Devices is every bit as compelling as the Secretary of the Interior’s Standards are to us. We all know to work with zoning administrators and building code officials as a team. They have their own rules to follow and in recognizing and respecting their parameters, we encourage them to recognize ours. The same goal of teamwork is also desirable with the traffic engineers.

Transportation Philosophy

Everything we do is interconnected through infrastructure. Urban places do not work well without several modes of transportation. Cities that have built expressways into and through their downtown communities have learned an expensive lesson – that roadways alone do not revitalize central business districts. Instead, urban centers thrive on a variety of transportation modes that serve a broad range of needs. We already know that a mix of commercial uses draws customers, and that
appropriate residential densities provide healthy numbers of residents who add to that activity. As an added benefit, those residents also become community caretakers. Active places are thus inevitably focused on people. Our transportation system needs to do the same.

**Traffic and Freight**

Automobile traffic tells us a lot about historic communities. Limited traffic might suggest an economically struggling place, great for keeping historic buildings affordable, but not drawing needed investors. More traffic might be problematic, but also indicates growth potential and long term viability. In the early days of trying to revitalize downtown Fredericksburg, we often said that we aspired to have the traffic and parking problems associated with more successful places. Our shining example of success was Alexandria, Virginia to our north. There was an unexpected flip side, though. An Alexandria planner once told that they missed the days when they were like Fredericksburg, more funky than hip. The take-away is that our communities are evolving, with related and even predictable challenges.

Historic preservationists and traffic engineers have not typically been on the same team. About twenty five years ago, I attended a meeting of the Commonwealth Transportation Board dispensing its millions of dollars for projects recommended by the Virginia Department of Transportation. An engineer presented a request for funds to improve a roadway through a small community. Some local citizens had expressed concern that adapting their narrow streets to provide easier travel for automobiles would adversely impact some of their sidewalks. The engineer informed the state board that addressing those citizen concerns would “compromise the road design.” A few seconds later, the Commission voted to compromise the community rather than the road design.
The above mind-set was all too real, but most highway departments have since become attuned to multi-modal travel systems. We all know about transportation enhancement programs mandated by federal highway legislation. Preservationists, however, mostly focus on those funding set-asides, rather than engaging in the larger transportation discussion. Who can blame them? Long range transportation planning can be a grind. Travel demand modelling, for instance, looks decades into the future and needed solutions identified today will invariably change and look different long before they can be funded. Staying on top of that process, though, is where opportunity lies to make sure needed infrastructure fully supports community goals.

Constant re-evaluation is what transportation planners endure, but also allows us to make old plans better. For decades, in Fredericksburg, we have had a two-lane road identified in long range plans for expansion to four lanes, a once-typical response to anticipated traffic. As we get closer to the time when those road improvements will actually get accomplished, however, we are revisiting potential solutions. We are examining that route for its transit potential, for the feasibility of introducing bicycle and pedestrian facilities, and whether we can provide fewer lanes with a series of traffic circles that will make left turns unnecessary. Sometimes the original concept turns out to be the most effective, but we still routinely examine alternatives.

We should also acknowledge that many road decisions made in the days of automobile primacy were made in good faith. Traffic engineers helped Fredericksburg to establish one-way pairs of streets across its historic downtown, to address modern vehicular needs in a community laid out in the eighteenth century. The one-way pairs facilitate on-street deliveries for growing businesses, where alleys and loading zones have been lacking or are insufficient.

Planners have talked about the potential to return these one-way streets to two-way travel, ostensibly to provide for slower speeds and a more pedestrian-friendly environment. Not bad goals, but the one-way pairs have truly helped to revitalize the central business district. Places like Savannah can accommodate deliveries, refuse pickup, location of utilities, and other service needs through a generous network of alleys that cut through blocks well behind that...
Many times during the day in Fredericksburg, a lane of traffic is blocked by trucks delivering food, beverages, linens, merchandise and so on. People are careful not to block both lanes and our police department recognizes this reality as “curbside management,” an elegant term for common sense. We are once again looking at the potential for returning at least portions of the one-way pairs to two-way traffic. This step will certainly slow traffic, with tangible benefits to the affected neighborhoods. Where freight deliveries must still be accommodated, however, we will continue to live with one-way streets, without angst.

Numerous studies show a growing expectation that walking and biking opportunities be available. An organization at the University of Ottawa, called Sustainable Prosperity, has studied the hidden costs of suburban sprawl. In a 2013 report, they showed that rising Millennials and retiring Baby Boomers constitute fully half of the U.S. population and are driving the demand for walkable urban places. Another study (2015) by the National Association of Realtors found that 79 percent of the American population prefers walkable communities. That full percentage does not actually live in fully walkable communities, but it represents the market demand, which is apparently strong and growing.

A private company called Walk Score developed a methodology to measure the walkability of cities, towns, neighborhoods, and even individual addresses. It is an index of a location’s efficiency for convenient travel options. Walk Score cannot be considered an exact science because it relates to human behavior, but the index provides relative comparisons and has been enthusiastically embraced by the real estate industry. In addition to walk scores, the company has expanded its
improvements received renewed attention in July 2018, when the council unanimously adopted a revised Pathways Plan that aggressively pushes for a more connected community. We intend to increase the Walk Score of our outlying neighborhoods (45) closer to the Walk Score of our downtown core (90). Due attention to integrating walkability, traffic patterns, and freight deliveries remains a constant need. To ensure that a high level of coordination is brought to issues of infrastructure, Fredericksburg recently (in 2018) established an integrated planning team within our city staff. Participants include senior level representatives from public works (the director and his traffic engineers), planning (the director and his senior planner), parks and recreation (the director and her senior division manager), police (the chief and a captain), and our full transportation division (planning and implementation). The planning department brings in its historic preservation planner, as needed. This group's workload has increased significantly, as participants realize the range of issues that can be productively addressed through an inter-disciplinary process. We have found a niche that we did not realize needed this level of attention, an avenue to help make the community function more effectively as a good place to live and do business.

**The Political Dimension**

For more than a decade, Fredericksburg’s city council has fully embraced the concept of connectivity. In fact, we have deliberately redefined trails as basic infrastructure rather than calling them amenities.

We also continue to revise our local zoning codes to support emerging solutions in community design and multi-modal infrastructure. Bicycle/pedestrian

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<td>50-69</td>
<td>Some errands can be accomplished on foot</td>
<td>There are many nearby public transit options</td>
<td>Some bicycle infrastructure is available</td>
</tr>
<tr>
<td>25-49</td>
<td>Most errands require a car</td>
<td>There are few nearby public transit options</td>
<td>Minimal bicycle infrastructure</td>
</tr>
<tr>
<td>0-24</td>
<td>Almost all errands require a car</td>
<td>It is possible to get on a bus</td>
<td>Minimal bicycle infrastructure</td>
</tr>
</tbody>
</table>

Table 1 – 1: Walk Score Standards.

analysis into transit scores and bike scores. The above table shows the criteria associated with the various conditions.

Walk Score has used its algorithm to calculate the walkability of cities large and small. New York, for instance, has a Walk Score of 89. San Francisco’s Walk Score is 86. Washington D.C. has a score of 77. The City of Fredericksburg has an overall Walk Score of 45, which reflects the relative inaccessibility of several outlying neighborhoods. When Fredericksburg’s downtown historic core is evaluated on its own, however, the Walk Score jumps to an impressive 90. As noted, these scores are based on an algorithm and may not fully represent a community’s actual conditions, but they are an intriguing window into how places nationwide are being defined for marketing purposes. Go on-line at www.walkscore.com and see for yourself.
With 150 National Register listed structures, 27 National Historic Districts, 2 National Historic Landmarks, 22 Local Historic Landmarks, and 3 Local Historic Districts, Des Moines’ historic neighborhoods are a dynamic part of our award winning capital city.

Preserving our past to build our bright future.


Welcome home.
Belgian Blocks And Beyond: Creating Accessible Historic Streetscapes

By Jeff Byles, AICP and Denisha Williams, RLA

Amid the ongoing work of protecting and celebrating civic heritage, a humble urban asset is often overlooked: historic pavement. Asphalt could be anywhere, but whether it’s brick, granite, cobblestone, or wood block, an old pavement tells stories about who and where we are that contribute powerfully to a community’s sense of place. Yet historic paving materials are increasingly vulnerable as cities across the United States face competing demands upon historic streets. Neighborhoods once full of factories and warehouses are becoming centers of loft living and creative industry. Today they must accommodate not horse-drawn carts or railcars but a new influx of residents and modes of transportation necessary to create a walkable, bikeable, sustainable city of the 21st century.

As part of this urban evolution, the 1990 Americans with Disabilities Act (ADA) and subsequent regulations mandated that our streets and sidewalks be accessible for all who use them, including those who use wheelchairs, walkers, canes, or whose mobility otherwise depends on smooth, unobstructed surfaces. Accessibility improvements in historic areas, however, have often resulted in the removal of original paving materials. In particular, ADA accessibility standards have been viewed by many city agencies as incompatible with older pavements, leading to an extensive loss of irreplaceable historic fabric.

Can place-defining pavements be preserved while still meeting modern accessibility standards? Seeking to answer this question, New York City’s
Historic Districts Council asked our practice to examine how to best balance historic preservation and accessible streetscape design. We focused on one historic New York City neighborhood: DUMBO, Brooklyn, where capital improvement projects and routine utility work have significantly impacted historic streets and sidewalks. We were asked to evaluate street reconstruction work to date in the district, and to suggest ways that accessibility improvements could be achieved while retaining historic materials to the greatest extent possible.

**Learning From DUMBO**

To inform design and policy decisions, we set out to assess whether DUMBO’s historic pavements could meet ADA standards; explore national and international precedents for accessible streetscapes; and research best practices for creating accessible surfaces. Our work included historic documentation to understand how crosswalks, sidewalks, and roadbeds were designed and constructed in the 19th and early 20th centuries, helping us assess the historic appropriateness of streetscape interventions. We conducted field analysis to evaluate the compliance of DUMBO’s pavements with ADA standards. And, concluding our study, we developed a set of recommendations based on what we learned in DUMBO that could help other municipalities better plan, design, and maintain historic streets.

Located on the East River waterfront, DUMBO (short for “Down Under the Manhattan Bridge Overpass”) is typical of many once-industrial places whose surviving original pavements speak volumes about a district’s vivid and enriching past. Here streets were once entirely paved with rectangular granite paving stones known as Belgian blocks. As in other parts of
New York, these stones, dating to the 19th and early 20th centuries, offer a direct link to industrial uses that dominated the city’s waterfront neighborhoods. DUMBO’s Belgian blocks, we found, were [despite their name] largely obtained from quarries on the New England coast. Especially when laid on concrete foundations, Belgian blocks were hard, durable, and offered a much smoother and more regular surface than cobblestones, making them particularly suited for use along waterfronts and other areas with heavy commercial traffic. By 1900, the stones used for such purposes were shaped to a relatively uniform width of between 4 and 5 inches, said to be proportioned to the size of a horseshoe. This allowed horses drawing heavy loads to secure a firm foothold in the joints between blocks. DUMBO’s pavements thus played an integral role in the life of the district’s bustling sugar refiners, coffee roasters, paper box manufacturers, and shoemakers, who all relied on the transportation of raw materials and finished goods to and from docks, freight terminals, and railroad lines.

To evaluate these pavements, we measured their properties against the 2010 ADA Standards for Accessible Design, a set of enforceable standards revising the Americans with Disabilities Act of 1990. In addition to meeting ADA standards, many municipalities (including New York City) also seek to meet or exceed standards set forth in the United States Access Board’s Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way. Both sets of standards define requirements for accessible routes, which are continuous, unobstructed paths of travel for pedestrians with disabilities. Within the public right-of-way, every crosswalk, sidewalk, and other circulation element must contain a fully accessible pathway. Among other requirements, the paving surfaces within these pathways must be firm, stable, and slip-resistant, with changes in vertical surface level no more than 1/4 inch. The guidelines also stipulate that horizontal surface discontinuities, such as gaps between paving stones, must be no more than 1/2 inch. In addition, surfaces...
should be smooth, having minimal gaps, rough textures, and vibration-causing features.

In DUMBO, we found that many granite stones, dating to the 1870s, feature a rough-hewn texture and irregular profile. Blocks of this type, we concluded, largely could not meet accessibility guidelines that emphasize smooth and planar surfaces. Flatter and more regular Belgian blocks in other parts of New York City could potentially meet these standards if properly installed, but DUMBO’s older paving stones, we concluded, would need to be replaced by modern materials within accessible routes. This means that crosswalks and sidewalks would need to be reconstructed to provide ADA-compliant pathways a minimum of 3 feet wide (or 4 feet wide, according to the Access Board), using materials such as saw-cut granite blocks with a thermal finish; tinted concrete; or other types of accessible unit pavers.

**Retrofitting the Right-Of-Way**

Our conclusions largely supported the installation of new crosswalks in DUMBO’s designated historic district as part of a multi-year capital construction project. These new crosswalks consisted of granite slabs with a textured surface to provide ADA-compliant slip resistance. Each band of slabs is separated by a course of historic Belgian blocks, with a new granite block header course along the crosswalk’s outer edges. This design was closely modeled on historic crosswalks found throughout New York City in the 19th and early 20th centuries. While its design unquestionably contrasts with the surrounding Belgian block roadways, we believe it achieves a reasonable compromise between
historic sensitivity, accessibility, maintainability, and contemporary transportation practice, which prioritizes pedestrian safety.

Certain aspects of DUMBO’s street reconstruction work, we found, deserved reconsideration. For example, as part of an earlier project phase, existing Belgian blocks within the roadbed were removed and replaced with new granite blocks treated with a thermal finish to provide slip resistance. With their pinkish color and flat profile, the new thermal blocks do not replicate the existing local historic materials, and it is unclear why new blocks were needed within the roadbed, which is not part of an accessible route. Our recommendations stress that historic pavement conditions should be modified as minimally as possible to accommodate accessible routes, and that when streets are to be reconstructed, original, historic materials should be reused wherever feasible.

We also evaluated other streetscape elements, including Belgian block sidewalks and historic rail tracks, to assess how they might potentially conform with ADA guidelines. DUMBO contains several surviving instances where sidewalks are constructed from Belgian blocks or, in rare cases, from larger granite slabs. Like crosswalks, we concluded, such sidewalks would need to be reconstructed to provide an accessible route with a minimum clear width of 3 feet. As discussed above, this portion of the sidewalk must use ADA-compliant materials. For wider sidewalks, however, the accessible route may not necessarily need to encompass the entire sidewalk width, leaving open the potential for Belgian blocks to remain in “furnishing zones” on either side of the accessible route.
Rail tracks remain among the most character-defining elements of DUMBO’s industrial heritage. Like the High Line in Manhattan, these tracks tell a remarkable story about the district’s industrial history. In some cases they extended directly into individual buildings, providing at-grade access to factory floors. Where they cross accessible routes, these tracks pose significant challenges to ADA compliance, due to variations in vertical and horizontal dimensions created by the rails and their flangeways – the openings parallel to each rail that permitted the passage of wheel flanges. In spite of the challenges, we believe, it would be feasible to design treatments of rails and adjacent pavements that could meet ADA requirements. For example, a “toolkit” of options might include partially filling flangeways to within 1/4 inch of the rail, so that the historic flangeway is still identifiable while meeting the ADA standard limiting change in vertical height.

Preservation advocates in DUMBO may be understandably disappointed that the district’s Belgian blocks are largely unfit for use in accessible routes. They aren’t alone: other cities have reached similar conclusions about historic pavements. Both the National Association of City Transportation Officials and the National Trust for Historic Preservation queried their respective networks for our study, seeking information about efforts to meet ADA standards within historic streetscapes. Respondents across the country indicated that ADA standards are being met with modern replacements for historic materials, whether wire-cut brick, sawn granite blocks, or tinted concrete.

We also consulted with accessibility experts from the International Society of Wheelchair Professionals and the Human Engineering Research Laboratories at the University of Pittsburgh, which have pioneered research to improve the mobility of people with disabilities. Their work has offered new tools to assess the impacts of pavement surfaces on wheelchair users. Our recommendations include the deployment of new digital technologies they have developed to measure pavement characteristics, which can improve the often subjective process of evaluating streetscape conditions for ADA compliance.
Our report, *Toward Accessible Historic Streetscapes*, includes an appendix offering technical guidance highlighting what we found to be among the most successful strategies for achieving ADA compliance for pavement in historic contexts. This section includes standards for the installation of granite and clay brick pavers; discusses a pilot project in New York City’s Gansevoort Market district to reuse historic granite blocks within accessible routes through a careful scheme of salvage, sorting, and grading; and offers an overview of the *City of Minneapolis Warehouse District Heritage Street Plan*, one of the most comprehensive planning documents to date focusing on historic streets, and a rare best-practices model for the preservation and rehabilitation of industrial infrastructure within a historic district.

**Preservation-Minded Placemaking**

We believe historic pavements everywhere deserve stewardship befitting a precious historic resource. To this end, our study offers recommendations to support preservation-minded placemaking in DUMBO and beyond. Most centrally, we propose the development of Historic Streetscape Design Guidelines for New York City that would bring clarity and predictability to interventions in historic streets, which have often been implemented on a case-by-case basis. We also recommend the creation of a block-by-block streetscape preservation plan for DUMBO, developing fine-grain preservation strategies for significant streetscape elements. Other recommendations include:

- the establishment of a Historic Streets Maintenance Plan to provide for the regular maintenance of historic streets, which have special maintenance needs;
- closer monitoring of utility work to safeguard historic paving materials from insensitive alterations;
- the use of more sophisticated methods of analysis to provide better data about pavement surfaces; and
- improvements to the regulatory review process that would ensure landscape architects are included on New York City’s Landmarks Preservation Commission, allowing their expertise to guide deliberations over the complex historic, aesthetic, and technical aspects of streetscape projects (currently the Commission is required to include either a landscape architect or a city planner among its 11 members).
Through a strong emphasis on consultation with the public and the preservation community, we believe, these steps will help provide common ground among many different stakeholders of a city’s streets—public agencies, community groups, preservation advocates, bicycle riders, and local residents and businesses. Accessibility and preservation need not be mutually exclusive. Designing streets that are accessible for all is an opportunity to ensure that historic neighborhoods and their place-defining pavements are given the resources they need to endure and inspire for generations to come.

Angels Flight Railway – Persisting And Thriving

By Caroline Labiner and Samuel Hopp

Angels Flight is a delight on Hill Street in downtown Los Angeles. It is a tiny turn-of-the-century funicular with two passing, angled cars (Olivet and Sinai) that bring people up a 33% incline for 298 feet from commercial Los Angeles to a Station House folly at the California Plaza above with offices, apartments and museums nearby. It opened at the turn of the last century, was mothballed in 1969 as its Bunker Hill destination became a victim of urban renewal and was resurrected in 1996 a half a block south of its original location. It is a useful folly, an icon and still an integral part of the complicated transportation network of LA.

The story of the railway gives a particular window into Los Angeles’ history – the strong influence of means of transportation, the love of the fantastic and the power of real estate. Its revival is also a story of how dedicated and knowledgeable preservationists can work with and around obstacles, public and private. Angels Flight is not just a beneficiary of preservation efforts but is an anchor for its surrounding neighborhoods and both new and historic buildings.

A Bit Of LA History

Los Angeles was founded in 1781 as El Pueblo de Nuestra Señora de Los Angeles de Porciúncula on a low-lying area, a safe distance north of the Los Angeles River and at the foot of Fort Hill and Bunker Hill. The Plaza and our oldest street, Olvera Street, remain – a little bit north of the current Civic Center and about a mile northeast of Angels Flight. The original plan of a grid around a plaza was common to towns of Hispanic origins.
in the Western Hemisphere – a later thought was to spread the grid across adjacent low-lying areas and ignore the sheer hills all around. Los Angeles is actually more a city of hills with sediment filling the basins making flat land in between.

As the population increased with the discovery of gold in 1848 and the arrival of the Santa Fe railroad in 1885 the plan to ignore the downtown hills soon disappeared. Kevin Starr in Discover Los Angeles noted that Los Angeles was at the time a hard place to get to. Inevitably, hungry to grow, we occupy our hills for their close location, vistas and clean air – using tiny roads and staircases and a few incline rails confident that snow will not interfere with our commutes. Prudent Beaudry bought twenty acres of the top of what he named Bunker Hill (in celebration of American Revolution’s Centenary), where he developed a residential neighborhood for the business class who worked in the city below. He built reservoirs and graded and paved elm lined streets on the hill and became Mayor. “Dream castles” were built up high with views of Pasadena or the Pacific Ocean. They were Queen Anne and Eastlake style with bric-a-brac, gothic roofs, verandas, cupolas, and stick and ball catalogue parts.

**Angels Flight**

In Los Angeles’ Bunker Hill Jim Dawson says from every direction you had to climb Bunker Hill up an almost impassable grade. J. Ward Eddy built Angels Flight, the shortest paying railway in the world, with one ascending and one descending car and a parallel stair. It rose from Hill Street to the dead end of Olive Street with the charming arcaded machine room and Angels Nest station at the top. Eddy later added a 150-foot observation tower called Angels View with a camera obscura at the top above the station. After free trips on opening day, December 31, 1901, the initial fare was one cent with a discount for residents. It was soon raised to five cents to cover the cost of many Bunker Hill residents scalping.
began to decline – the Board of Public Works closed the Angels View tower in the 1920s and much of the pavilion next to it was removed soon after. Only two bays of the original Angels Nest survive.

Angels Flight’s fortunes declined with those of Bunker Hill. The houses were turned into rooming houses and apartments and the neighborhood became home to retirees, artists, Mexican, Italian and dust bowl immigrants and writers. Many vacant areas were turned into parking lots. As early as 1928 plans were floated to demolish the hill itself entirely as a nuisance and an impediment to the success of the downtown. The Depression stopped those plans, but there was a steady decline in the economic strength of the neighborhood. As the Depression eased off Home Owners Corporation issued a report saying Bunker Hill had become thoroughly blighted. The Los Angeles Regional Planning Commission suggested that “block after block of buildings must be cleared to make way for freeways; neighborhoods must be razed.” Bunker Hill remained an active neighborhood but with a very different character. Angels Flight catered to a new group of residents in the still handsome houses and apartment buildings.

Decline Of Bunker Hill
At almost the same time as Angels Flight opened, a new Third Street tunnel was built to remove the obstacle of Bunker Hill to vehicular and carriage access coming into downtown. Various electric trolleys had been running since 1886 and in 1901 the Pacific Electric Railway was created and began consolidating other companies. Bunker Hill was still a lively, charming community but the pace of development all over Los Angeles was swift and the pull towards suburbs had begun. There was a thriving business in moving buildings in Los Angeles so oddly enough some glamorous Victorians survive having been moved to newer, fashionable neighborhoods. Bunker Hill’s fortunes
parquetry floors are scratched and worn through the once glossy finish and the wide sweeping staircases are dark with time and with cheap varnish laid on over generations of dirt. In the tall rooms, haggard landladies bicker with shifty tenants. On the wide cool front porches, reaching their cracked shoes into the sun, and staring at nothing, sit the old men with faces like lost battles."

When postwar movie directors went looking for a gritty location for dark movies they shot on Bunker Hill, according to Jim Dawson in his Bunker Hill history. What was captured on film was the background for what was going on behind the scenes, run by the city’s power brokers. What is left of a vanished hill and community is many film images, paintings, literary descriptions and a few salvaged buildings – and Angels Flight. The remaining hill is itself mostly vestigial – the earth excavated for tunnels and foundations and parking below.

**Bunker Hill Demolished And Angels Flight Disappeared**

The California Community Redevelopment Law of 1945 and the Federal Housing Acts of 1946 and 1949 led to the creation of the Community Redevelopment Agency (CRA), and Los Angeles was finally armed with the necessary laws to clear Bunker Hill as a blight on the downtown. In 1948 the CRA and the federal act gave the agency the authority to red line blighted areas and seize the property for the value they asserted. In 1963 CRA announced plans to negotiate the sale of the vacant land for the first new Bunker Hill construction. The new Harbor Freeway was carved out of the hill's western base. The descent of the neighborhood was well documented – in the first color episode of Perry Mason (1966) Perry and Della take Angels Flight down to a bar and find their car stripped by juvenile delinquents when they return twenty minutes later.

By 1969, the final two Victorian houses on Bunker Hill (The Castle and The Salt Box) were relocated to Heritage Park – a lot with relocated Victorian buildings off the Arroyo Seco Parkway / Pasadena Freeway in Montecito Heights. Bunker Hill was lowered and redeveloped and Angels Flight packed into storage in 1969 – a promised temporary measure. In the Foothills chapter of his

seminal work, Los Angeles: The Architecture of Four Ecologies, Reyner Banham described the nostalgia that accompanied the initial impulse to save Bunker Hill: “it would be nice if Pershing Square was still full of old men playing chess and if the Angels Flight funicular still climbed between those narrow streets of picturesque piles of crumbling rooming houses but it could only happen nowadays under such auspices as produced Olvera Street or Disneyland.” It is true that Angelenos have a penchant for stage sets and fantasy architecture, but in the 1960s Bunker Hill was not just denuded it was leveled and prepared for a new city. All that’s left is plaza above, the tunnels beneath and Angels Flight.

**Negotiating For Angels Flight & Reinstallation**

An agreement during the urban renewal of Bunker Hill had provided for reconstruction of the funicular. The razing of Bunker Hill was part of a big celebratory urban renewal enthusiasm for downtown Los Angeles that involved most of the local movers and shakers. In 1978 a committee was charged with planning the 1981 celebration of the city’s 1781 founding. A city councilman appointed a young native Angeleno, John Welborne, who had just returned to Los Angeles to the committee. As fundraising grew difficult, he suggested reaching further into the community with an ask that stressed Los Angeles history and a bit of nostalgia. With the enthusiasm of youth and ignorance he was charged with drafting a letter signed by an impressive list of local leaders and soliciting funds that would be acknowledged on a donor wall. He began lobbying other committee members to place that wall at the top of the promised Angels Flight on Bunker Hill. Putting the donor wall there was a reminder to city officials to push for its renovation and return.

The support of the popular Bicentennial Committee and their commitment to acknowledge their financial supporters was invaluable to the return of Angels Flight. Even great projects need political as well as community support and prodding. Letters were sent, articles written, advertisements placed, the money gathered and the efforts memorialized in a handsome book. The proposed reinstallation of Angels Flight was initially planned at a lower level, which meant not only was re-construction difficult with the change in elevation, it also undermined the significance of the railway. Enlisting the support of the arts community, and consultant Merry Norris, provided the pressure needed to redesign the project. In the meantime, plans had been developed between Welborne and the Committee, with Dennis Luna of the CRA providing public money to rebuild Angels Flight and run it in perpetuity as a community benefit. After 22 years in storage the historic Railway buildings were brought back to the site and a foundation was created to look after the future of Angels Flight.

Looking west at new location of Angels Flight, 2016. Credit: Caroline Labiner
Today And The Future
The railway reopened in 1996 and is now open 365 days a year from 6:45 am to 10 pm charging one dollar each way. It has given more than 100 million rides along its hillside track and is still a viable part of LA’s transit infrastructure: it is part of the Metropolitan Transit Authority system and there is a discount with an MTA transit card. Angels Flight is not an anachronism – as Bunker Hill has been more fully built up the funicular remains a well-used link from the base to the top. New construction at this end of downtown is vigorous – there will be new bridges at the top of the hill over Temple Street to the north and the railway will be part of a pedestrian link for several blocks from Hope to Grand – Grand Avenue of the Arts linking the Broad Museum, MoCA, the Colbert Music School to the new bridge with a ten-story elevator. There is a new public magnet school and an 88-story tower planned across the street from the railway.

The 118-year-old funicular is an integral part of the unlikely but serious plan to make Los Angeles a walkable city. It will take on a new role once the Regional Connector – an underground light-rail line serving popular destinations within downtown Los Angeles – opens in 2022. One of the Regional Connector’s stations will be located on 2nd Place and Hope Street (Grand Avenue Arts / Bunker Hill Station), located within walking distance from the Top Station of Angels Flight at California Plaza. Accordingly, once the Regional Connector opens, Angels Flight will serve as a means to travel between the Regional Connector station on Bunker Hill and the Red and Purple Lines (subway) located at the Pershing Square Station at the bottom of Angels Flight on Hill and 4th Streets. Hence, while Angels Flight has always served as a means of travel between the bustling downtown core and the top of Bunker Hill, the future role that it will play as a connector between the Regional Connector and Red and Purple Line stations is one that the initial founders of Angels Flight presumably did not expect nor plan for. As we move into the future, Angels Flight will continue having the same role that it has had ever since it opened – to transport individuals (both tourists and locals alike) up and down the steep slopes of Bunker Hill.

While Angels Flight has most definitely had its ups and downs throughout its long and compelling history, its future not only looks bright, but also appears to be very favorable for the overall success and advancement of downtown Los Angeles. The endurance of Angels Flight is a wonderful symbol – now applauding the importance of the pedestrian to a thriving city.

For more information: Angels Flight website (https://angelsflight.org/) includes a very good 3-D tour of the Olivet car and links to a 1965 documentary and a blog about Bunker Hill with its own links and fine photography collection.
TRANSPORTATION SOLUTIONS FOR SOUTHERN CALIFORNIA

Los Angeles once boasted one of the most extensive and acclaimed public transportation systems in the country, though many of the components were privately owned. These were not necessarily built to promote the civic good: “Los Angeles’ city builders never doubted that transportation was the key to success” wrote Jeffrey Samudio and Portia Lee in their photographic history of Los Angeles. When promoters had a sales problem they often solved it with transportation solutions. Since the earliest cable car systems in 1873, Los Angeles’ transportation scene has constantly changed with the requirements of the city itself.

While modern-day Los Angeles does, in fact, have a growing public transportation system – consisting of an extensive bus network, two heavy-rail subway lines, four light-rail lines, and a regional commuter rail system – it does not nearly resemble the urban rail network that once traversed and shaped Los Angeles’ urban landscape.

The early cable car lines were often built to promote land development. The Pacific Electric Railway (the “Red Cars”) and the Los Angeles Railway (the “Yellow Cars”) were the two major public transit systems that served the Los Angeles region for more than half of the 20th century. Steeper terrain demanded additional solutions which included inclined and funicular railways. Angels Flight Railway is not the only incline railway that climbed the hills of downtown Los Angeles. Court Flight, which began operation in 1905, ascended and descended the 200 foot Court Hill between First and Second Streets, west of Hill Street in the Civic Center. It ascended at a grade of 43 degrees – steeper than Angels Flight. The uphill fare was 5 cents; downhill was free. In early years, Court Flight catered to sightseers, advertising 100-mile views of the ocean and flatlands below. In its later years, Court Flight shuttled courthouse workers between their jobs and inexpensive hilltop parking. Low profits and a lack of labor due to the war led to the permanent closure of Court Flight in 1943. Although not as iconic as its neighbor Angels Flight, it is well remembered.

These were by no means the only inclined railways in the greater Los Angeles region. The Los Angeles and Mount Washington Incline Railways – which operated from 1909 until 1918 – transported passengers up and down Mount Washington to provide access to the Mount Washington Hotel and explore the empty lots that were available for purchase at the top of the hill. It was developed by Robert Marsh “who thought a funicular could transform the inaccessible land into valuable real estate by connecting the hilltop with the Los Angeles Consolidated Electric Railway streetcars running on Marmion Way below.” Other inclined railways operated within the greater Los Angeles region as well: the Santa Catalina Island Incline Railway (beginning operations in 1905) and the Mount Lowe Railway in the St. Gabriel mountains, beginning operations in 1893 and working until 1938. There was also an early subway built in 1926 to the San Fernando Valley – the tunnel for which is still visible just west of downtown Los Angeles.
The Historic Bridge Foundation is a national advocacy organization for the preservation of historic bridges in the United States. “Every bridge tells a story” according to the nonprofit organization that focuses on public outreach and education to carry out its mission. Executive Director Kitty Henderson, along with a small group of Board members situated around the country, advises individuals and groups interested in preserving historic bridges and consults with public officials to devise reasonable alternatives to demolishing or adversely affecting historic bridges. In particular, the organization emphasizes “bridge marketing,” when a bridge slated for replacement is given to a new owner for relocation and reuse. Historic bridges can be incorporated into bike trails, nature paths, and even golf courses, and the Historic Bridge Foundation has a list of examples to prove it. The Foundation’s Historic Bridge Bulletin is published three times a year with articles and papers relating to historic bridges as well as updates on the Foundation’s ongoing activities. Subscription to this email newsletter is free and it can also be found on the Historic Bridge Foundation’s website. The website contains a wealth of resources, including bridge biographies and bibliographies, an illustrated guide to identifying bridge types, a list of bridges in the United States, and even a list of bridges portrayed in film. Visitors to the site can also find a thoughtful step-by-step guide on “How to Save a Bridge,” as well as historic bridge rehabilitation case studies. The Historic Bridge Foundation seems to cover all the bases, even offering a Historic Bridge Finder mobile app, allowing users to locate, learn about, and visit historic bridges near their location.

As Executive Director Kitty Henderson explains, “Across our country we devote millions of dollars to the preservation of buildings, schools, and other cultural and historic landmarks. Often, however, when a community takes inventory of its historic properties, the local historic bridge fails to make the list. Somehow we must elevate the importance of our historic bridges in the stories of our communities to say ‘this bridge is part of who we are and it must be saved.’”

If you are concerned about the fate of a historic bridge in your community, visit the Historic Bridge Foundation website at http://historicbridgefoundation.com/ and track the Foundation’s latest activities on its Facebook page: https://www.facebook.com/historicbridgefoundation.
Angels Flight in downtown Los Angeles owes its survival in no small part to dedicated volunteers and preservation boosters, and one in particular. A single person with enthusiasm, vision and knowledge can ignite a community and move a project to fruition better than any other civic force.

John Welborne’s credentials are professional – his lack of remuneration and unfettered personal drive put him in the category of amateurs.

Welborne was born and raised in Los Angeles. His grandmother’s family had lived not far from the location of Angels Flight at the turn of the last century. Though he spent his high school years in New Jersey at Lawrenceville, he is a product of our University of California system: his undergraduate degree is from UC Berkeley, his law degree is from UC Davis and his Masters of Public Administration focused on transportation is from UCLA. As a land use attorney, he is invaluable to Los Angeles’ most powerful boards and back rooms, delighting his compatriots with his hard work and dedication to his native city. Since 2015 he has been the publisher of a local newspaper, The Larchmont Chronicle. He is a fine photographer, adventure traveler, a local catalyst and an éminence grise in a seersucker suit (in season). John has changed Los Angeles in many ways – giving his valuable time and wisdom to preservation, advocating for projects, and drafting and supporting special zoning ordinances. He is President of the Angel’s Flight railway, former Trustee of the National Trust for Historic Preservation, and husband of architect Martha Lampkin Welborne, a national leader in urban development, transportation and mobility.

Welborne was President of the Los Angeles County Host Committee for the Olympic Games and CEO of the California Sesquicentennial Foundation organizing the 150th celebration of the discovery of gold. He edited and published the Los Angeles Bicentennial: A Legacy for the Future. He has also served on the boards of Los Amigos del Pueblo, Los Angeles AIA, Frank Lloyd Wright’s Ennis House Foundation and the Pershing Square Restoration Campaign Committee, among others.

In the late 1970s and 80s he led a successful effort to preserve the handsome Bertram Goodhue designed Los Angeles Central Library, adding a significant new iconic garden entry to the building. As an LA Conservancy leader he was part of the effort to save the downtown Cathedral of St. Vibiana, after serious earthquake damage convinced the local Catholic leadership to build a
new, grander cathedral a bit farther north. His effort to save Angels Flight Railway® began in 1980 and continues to this day. The railway is in many gritty film noirs, but John Welborne himself can be seen briefly operating the railway in the more recent *La La Land*.

The impact on Los Angeles of John’s preservation work is substantial. The library and Angels Flight not only are lovely specimens but have enlivened their neighborhoods and their impact goes far beyond the structures themselves. His time and effort on committees and working with elected representatives and city staff, conservation organizations and stakeholders has made a real difference in preserving the local history, character and the shape of the future LA. John Welborne saved Angels Flight for Los Angeles with research, work, gracious reminders, affection and a gift for understanding people and the mallets that need to be swung.

John Welborne caught with his trusty tools: tape measure, National Trust tote and strong coffee works with architects and city designers to carve a pocket playground from a small parking lot on a historic shopping street in Windsor Square.
INDIANA
After 50 years, the Greenville town flag is back. Lost for more than a decade, it recently caught the attention of the Greenville Historic Preservation Commission. In 1969, local citizens established a contest for the fifth grade of Greenville Elementary to design a flag to represent the Town of Greenville. Glenn Burkhart was named the winner, with his design of an American bison on a green background, surrounded by a yellow band commemorating the town’s name and the year it was founded. Glenn’s vision for a flag was green and gold, which represented Greenville’s school colors back then. The bison represents early travel through the region using the Buffalo Trace which runs just south of U.S. 150 and Greenville. But eventually the flag was lost, and the recently established Historic Preservation Commission set its sights on reproducing the flag for the Floyd County Bicentennial. They used Glenn’s original drawing from 1969 and a picture from the original flag dedication ceremony to re-create the flag. The Commission worked closely with an artist from Oates Flag Co. to design and edit a digital image of the reproduced Greenville Flag. Thanks to donations made by Commission members, the flag is once again on display in Greenville.
https://www.newsandtribune.com

MICHIGAN
Community partners believe an urban playground with natural features is the best use for a former Kalamazoo church that has sat vacant, though historic preservationists may mourn the loss of a prominent downtown fixture. First Congregational Church and the Kalamazoo Nature Center unveiled a plan to demolish the church and replace it with a public natural “playscape.” Originally organized as the First Reformed Church by Dutch settlers in 1850, the current building wasn’t built until 1870. It is neither Kalamazoo’s first nor oldest church building, but it sits in the historic “church square” block near Bronson Park. Titus Bronson’s original plat map of Kalamazoo designated the block for church use. First Congregational conducted a national search for developers, and offered to sell it to the city of Kalamazoo and larger church organizations from outside the area. Various concepts included a music venue, meeting space, maker space and incubator for nonprofits. No one was willing to take it on. The structure would require $3 million to $5 million in deferred maintenance expenses to make it operational as a church. The city’s Historic Preservation Commission has no jurisdiction over the property, since it doesn’t sit within a local historic district. Kalamazoo Nature Center said the playground would recreate a natural environment, complete with landscape features like sloped hills, natural foliage and water. The playscape would be fenced in but free and available for all, and they estimate there are 1,500 children ages 2-10 within a 10-block radius of the proposed site.
https://www.mlive.com

TEXAS
The Hays County Soil & Water Conservation District (SWCD) recently supported local landmark status for Cape’s Dam and Mill Race near downtown San Marcos. In September the San Marcos Historic Preservation Commission voted to submit a petition on behalf of the City of San Marcos to designate Thompson/Cape’s Dam and Ditch Engineering Structure as a local historic landmark. It is considered significant to the history of San Marcos and was originally built by William Alexander Thompson over 150 years ago. However, in November, the San Marcos Planning and Zoning Commission voted to deny the designation, saying they did not feel it was the commission’s place to designate a manmade structure in the San Marcos River as a historic landmark. From a historic agricultural standpoint, the SWCD said they would like to remind the public and the San Marcos City Council of the agrarian history of the San Marcos area, where a gin and mill were operated, bringing prosperity to the area; some of the oldest water rights in the county fall just behind Cape’s Dam. The dam is also eligible for the National Register of Historic Places. City Council will have the final say on designation.
https://smcorridornews.com/hays-county-swcd-announces-support-for-preserving-capes-dam/

VIRGINIA
Richmond’s Monroe Park will have to live cheek by jowl with an unsightly electrical control unit. The Richmond Planning Commission allowed the unit to remain, although it was installed in violation of municipal policy, without consultation or permission from either the Urban Design Committee or the Planning Commission; nor was it reviewed by the office of Virginia’s State Historic Preservation Officer. Richmond Park is listed in the National Register of Historic Places. Representatives of the design firm doing improvements to the park said they were unaware that infrastructural elements, such as the
electrical control station, should have been part of the review process. In an attempt to disguise the ill-placed electrical equipment (which will be painted green), twelve Kay Parris magnolias will be planted in a semicircular arc around the rear façade of the Monument. The Cultural Landscape Foundation listed Monroe Park in its Landslide program in July 2018, pointing out that the new electrical equipment mars views of the WWII Monument from the park’s western entrance, significantly diminishes the historic visual and spatial experience of the park, and adversely affects the original design of the Monument, meant as a place of remembrance. https://tclf.org/monroe-park-commemorative-landscape-remain-marred

WASHINGTON

The Queen Anne Historical Society (Seattle) is asking its members to “police” alterations to the 1962 Key Arena at Seattle Center. The arena was built as the Washington State Pavilion for the Century 21 Exposition, the 1962 World’s Fair. After the fair the modernist pavilion became the Coliseum and served as the home of the Seattle Super Sonics NBA team for many years. Recently a development group has started renovations on the building as part of the city’s efforts to obtain an NHL and/or NBA team. The building is a designated city landmark, and the historical society wants to make sure the developers follow the rules as they modify the building over the next year and a half. The society is concerned that staff serving the Landmark Preservation Board will not be able to watch the construction as closely as members of the society who live and work in the neighborhood. Only two city staff have oversight of the more than 400 buildings designated as individual landmarks in the city and that is not the limit of their responsibilities. The society has asked its members to be watchdogs helping staff make sure the redevelopment occurs as intended. Some of those changes include removal of the non-historic west, south and east plazas of the arena, and selective removal, storage and reinstallation of the arena’s west, north and east curtain wall framing and glazing.

http://www.magnolianews.net

WISCONSIN

The 1969 Marcus Center for the Performing Arts in Milwaukee, currently planned for redevelopment, has been nominated for historic designation. Designation would not scuttle the center’s redevelopment, proposed in early December, but would establish design standards to guide future modifications. If designated, the performing arts center would be the youngest, historically-protected building in town. It was designed by Chicago architect Harry Weese, with the surrounding public grounds including a grove of horse chestnut trees designed by landscape architect Dan Kiley. The redevelopment plans include a number of exterior changes, including replacing or expanding the use of glass to connect the Brutalist structure with the surrounding area. The grounds of the campus would be redesigned as well, with the tree grove and fountain replaced with an entirely new layout. The proposed development of the Marcus Center could be required to go through a redesign if the city designates the building and its campus as historic.

https://urbanmilwaukee.com/2019/01/28/eyes-on-milwaukee-is-the-marcus-center-a-historic-building/

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