

DESIGN TOOLBOX

Making State Street a signature street requires change in three areas:

1. The street
2. The streetscape
3. The building and site

This Design Toolbox addresses these spaces with good urban design principles that put people first and consider how to make spaces safe, functional and beautiful.

Different entities will ultimately have responsibility for construction and maintenance of different elements. All these entities will need to work together to make the connection between transportation and land use, and to make a seamless transition between these spaces we use every day.

The toolbox has recommendations for:

- **Street Safety:** The safety of everyone on the street comes down to two key strategies: first, slowing vehicle speeds; and second, frequent and comfortable pedestrian crossings.
- **Streetscape Design:** Everything between the buildings, including the adjacent façade, defines the character of a street. This includes sidewalks, landscaping, benches, bus stops, and public amenities, and often outdoor dining and sales racks.
- **Building and Site Design:** This private property area including buildings, private outdoor space, and parking, is covered by recommendations in both Streetscape Design and in the following section, Policy and Program Tools.



Tools are tailored to address the goals of this plan (Chapter 2):

The icons below represent the goals being addressed by each design tool:



Improve Safety & Security



Optimize Mobility



Expand Connectivity



Support Equitable Living Opportunities



Encourage Healthy & Sustainable Design



Drive Economic Prosperity



Improve Identity of Place

STREET SAFETY TOOLS



Pedestrian Crossings



Stakeholders agree that safety and walkability are very high priorities, but pedestrian crossings on State Street are few and far between. This is detrimental to the safety of both pedestrians and drivers. It also discourages walking and biking, and reinforces the dominance of the automobile.

Two approaches are recommended:

- **Enhancing existing crossings** (coordinate crossing improvements with bus stop locations)
- **Installing new crossings** (mostly mid-block unless a signalized vehicle intersection is justified)

Best practices for designing these crossings are included on the following pages. Additional study should be conducted to determine the specific combination of mitigation strategies that are to be used at the identified locations below.

Recommended Locations for New and Enhanced Crossings on State Street*



* Additional study should be conducted to determine the specific combination of mitigation strategies that are to be used at the identified locations below.



STREET SAFETY TOOLS

High-Visibility Markings



Higher visibility markings and unusual markings often help people notice crossings. Markings on State Street are dictated by the Utah MUTCD, which reserves “Continental”, or longitudinal crosswalks for Reduced Speed School Zones. However other high-visibility striping, such as “ladder” or “zebra”, could be considered for crosswalks on State Street. Unique patterns or colors could be considered on adjacent roads to make crosswalks more visible and contribute to the identity of the neighborhood.



“Ladder” pedestrian crosswalk



Unique crosswalk pavers. Potential crossing design option for another street in the network, if not State Street.

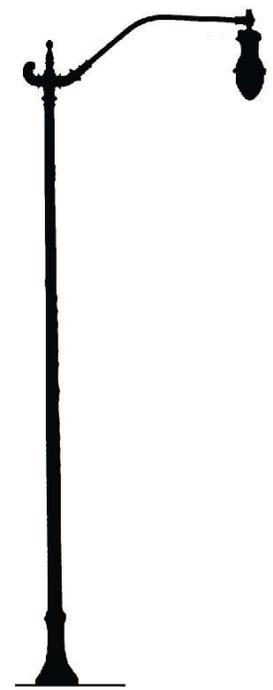


Branded striping

Street Lighting



Some stretches of State Street are poorly lit, as are some key pedestrian areas and crossings. Pedestrian-scale lighting and building lighting can improve the walkability of the street. Targeted lighting at corners and crosswalks can help enhance safety for all users.



Pedestrian-scale street lamp

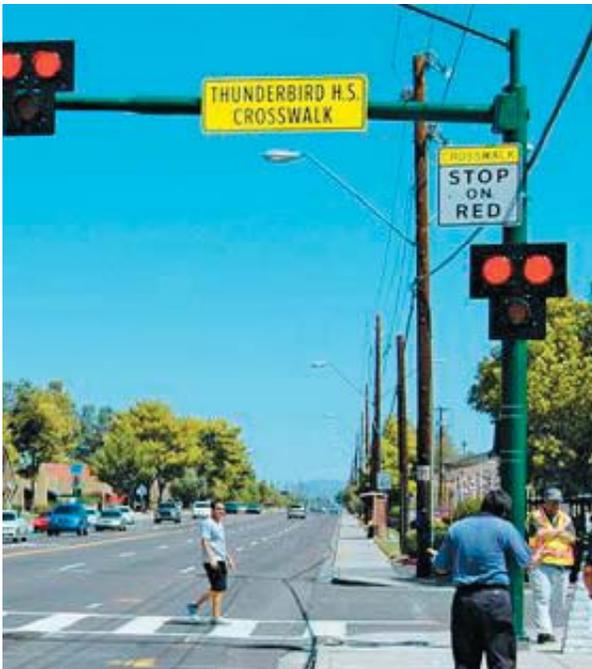


STREET SAFETY TOOLS

HAWK Beacons



HAWK (High Intensity Activated Crosswalks) beacons are a pedestrian activated traffic control signal that displays a yellow warning light, followed by a solid red light indicating motorists must stop. They should be synchronized with regular traffic signals, helping optimize traffic flow.



HAWK Beacon pedestrian crossing signal

Signal Synchronization



Pedestrian signals should be designed or calibrated to work in synchrony with nearby traffic signals. This keeps vehicle traffic flowing and can also offer a longer pedestrian signal time to cross.



Improved signal synchronization

Increased Pedestrian Walk Signal Times



Typical pedestrian signals are timed to give a person one second per three feet of distance to cross. This is not adequate for many people, especially the old, the young, and disabled. Additional time reduces the chance of being stranded or not being seen once the cycle ends.



Increased pedestrian walk signal times allow for safe crossings for everyone

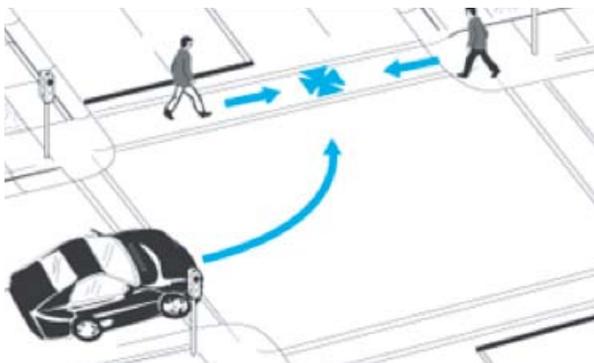


STREET SAFETY TOOLS

Leading Pedestrian Intervals



At signalized intersections, pedestrians are released into the crosswalk at least three seconds in advance of motorists. This provides pedestrians additional time to cross a wide street and the head start into the crosswalk provides greater visibility.

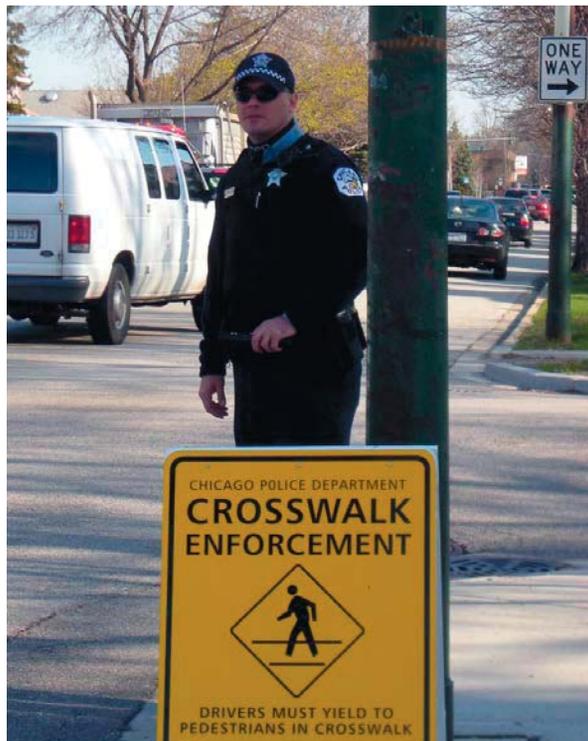


Leading pedestrian intervals allow pedestrian to safely enter the intersections and avoid conflicts with turning vehicles

Crosswalk Enforcement



Utilize traffic patrol stings, cameras, and speed measurement signs to familiarize people with crosswalk locations and rules. Aim for zero tolerance.



Crosswalk enforcement can improve safer and more considerate behavior

Improve the First-Last Mile Connection



Travelers not in cars need safer, more comfortable ways to start and end their trips. This includes upgraded transit stops with shade, shelter and lighting as well as more emphasis on the walking/biking routes to TRAX stations. It includes safe bike lanes, bike parking, and employee showers in new development. Shared car use technology within public right-of-way must also be accommodated.



Bus shelter in Palm Springs



STREET SAFETY TOOLS

Curb Extensions/Pedestrian Bulb-outs



Curb extensions at crossings shorten crossing distances, increase visibility of both pedestrians and vehicles, and encourage motorists to drive slower. Shorter crossings mean shorter pedestrian phase lengths, which help keep traffic flowing. Bulb-outs should also be installed to help with transit loading efficiency.



Curb Extension/Bulb-out

Reduced Curb Radii



The radius of a curb at a corner strongly influences how fast a vehicle can turn. Shorter radii force cars to slow down for a sharper turn. This increases the chance they will see a pedestrian, reducing the frequency and severity of pedestrian-vehicle collisions. Reduced curb radii have the added benefit of reducing crossing distances.



Reduced curb radii

Consolidated Right Turn Lane



Some intersections on State Street have dedicated right turn lanes. These are often areas of pedestrian-vehicle conflicts and aren't always needed to reduce congestion. Where right turn lanes can be consolidated with the adjacent through travel lane, they can be replaced with wider sidewalks, curb extension, or additional amenities.



Schematic illustration of a consolidated right turn lane



STREET SAFETY TOOLS

Pedestrian Refuges



Refuges, or protected islands in the middle of the street, create a place for pedestrians to safely stop if they are unable to make it across the street before their signal ends. They also gives pedestrians the chance to focus attention one direction of traffic at a time.



A barrier-like median downtown could become a welcoming pedestrian refuge

Planted Medians



Similar to street trees on the sides of the street, planted medians play the dual role of providing a visual cue to motorists to slow down, while also beautifying the street and city. Wherever left turn pockets can be reduced along the corridor, or center turn lanes eliminated for safety and access management, an opportunity arises to install a planted median. Planted medians can also incorporate a pedestrian refuge.

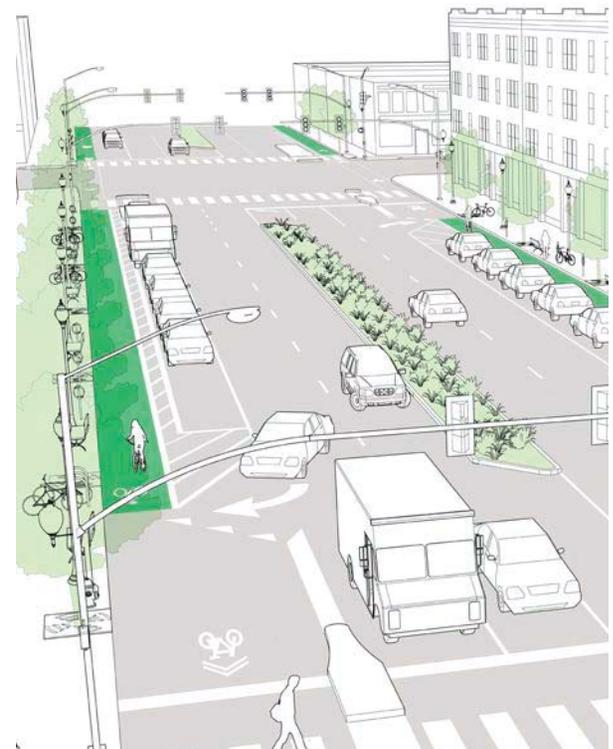


Planted median with integrated storm water infrastructure

Narrow the Visual Width of Street



Vertical streetscape elements such as trees, on-street parking, and lighting naturally slow people down and make people more aware of their surroundings.



On-street parking visually narrows the width of the street

STREETSCAPE DESIGN TOOLS



Widened Sidewalks



Wider sidewalks make space for urban life. They encourage pedestrians and even bikes for short stretches. They make transit trips more comfortable. They make it possible to have amenities such as street trees, benches, bus shelters, public art, pavement patterns, and lighting. These features help spur activity that brings more people to local businesses and destinations. They add to a district's character and show that a community cares.



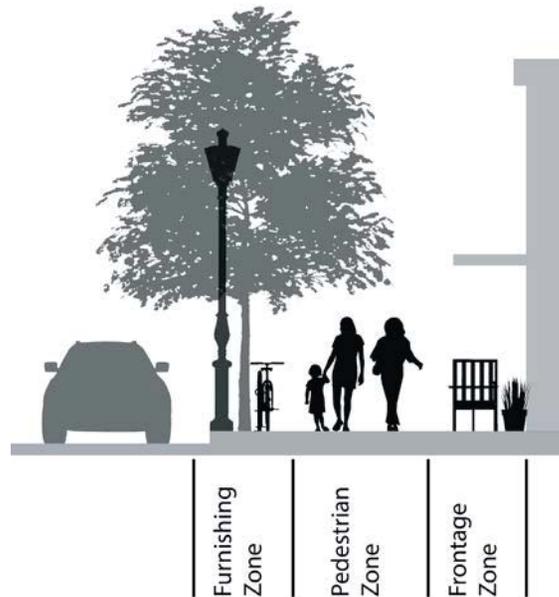
Wide sidewalk in Santa Barbara



Design Recommendation:

At a minimum, sidewalks should be 12' wide, and where possible or desired, 15'-20+' wide to accommodate activities like sidewalk shopping and dining. Sidewalks have three distinct zones:

- ▶ **Frontage Zone:** provides space for café seating, small plazas and greenscape elements to buffer residential ground floor uses. This zone should be min. 2' wide or where outdoor activity is encouraged (such as dining), a min. 6' wide.
- ▶ **Pedestrian Zone:** is where pedestrians travel and should be clear of any utilities, furniture, obstructions or hazards. In areas of high pedestrian traffic, this zone should be min. 8' wide. In all other areas, a min. of 5' is recommended.
- ▶ **Furnishing Zone:** provides a buffer between pedestrians and street traffic, and can contain trees and other landscaping, furniture, transit facilities, signage, lighting, and other amenities. This zone should be a min. of 5' wide to support street tree, though additional space is ideal for a large street tree canopy.





STREETSCAPE DESIGN TOOLS

Street Trees



Street trees are the best way to improve a streetscape that is lacking in green and natural features. They are proven to increase property values, business bottom lines and community health. Trees provide shade for pedestrians and

bicyclists, calm traffic by creating a sense of enclosure along the corridor, and beautify the neighborhood. Street trees should be required with any new development projects on the corridor.



Street Trees line this busy thoroughfare in Washington, DC, creating a comfortable environment for all users



Design Recommendation:

- ▶ Plant native, broad canopy tree species that are resilient to the harsh environment of a heavily trafficked roads.
- ▶ The sidewalk zone should utilize structural soil or a similar technique that allows roots to spread beyond a tree grate.
- ▶ Minimum spacing requirements should aim to have a continuous canopy and assume that trees will not grow to their normal height and width due to space constraints. Small trees spaced at 20' on center and medium-large trees spaced at 30' on center typically achieve this if well cared for.
- ▶ Permanent, dedicated tree maintenance funding is a necessity.

STREETSCAPE DESIGN TOOLS



Pocket Parks and Street Art



Additional sidewalk or setback space should be used for small parks or plazas. These spaces should hold art installations, additional landscaping and seating, or water features, encouraging people to linger, building the character of State Street.



Example of a pocket park providing seating on the street

Green Infrastructure



State Street itself should be green infrastructure. Increased tree canopy and stormwater management facilities that are incorporated into planters can help address aging or absent stormwater infrastructure.



Storm water facility and bike parking space

Green Corridors



Draw attention to the greenways that cross State Street (9-Line, Parley's, Millcreek) and build high-comfort crossings for them to connect neighborhoods.



The 9-Line Corridor is being planned to extend its multi-modal corridor across State Street at 900 South



Parley's Trail and the S-Line greenway traverse the neighborhood at approximately 2250 South



STREETSCAPE DESIGN TOOLS

Pedestrian-Scale Lighting



Lighting features that are designed for pedestrian comfort and function create more inviting streetscapes and help increase actual safety as well as the perception of safety, both personal and traffic related. A well-lit area encourages activity after dark which in turn discourages loitering and other undesirable activities.



Accent lighting along Millcreek Trail at 3300 South



Design Recommendation:

Pedestrian-scale lighting should not exceed 15' off the ground. Cities should coordinate and install lighting throughout the corridor with unique and interesting designs to help build the aesthetic and brand of State Street.

Parking and/or Travel Lane Reduction



On-street parking does slow traffic and make sidewalk users feel safer. However, in locations where on-street parking is deemed unnecessary, or travel lanes can be reduced, the cities have an opportunity to replace these areas with wider sidewalks, green features, and/or seating areas.

Manage Curb Space for Maximum Benefit



Ride-hailing services, such as Uber and Lyft, have increased the demand for curbside pickups and drop off. This space has to be shared with valet and taxi areas, as well as transit service. Additionally, on-street parking in Salt Lake City has undergone changes to make way for dedicated bike lanes. As these uses grow, streets need to be studied for what the highest and best use of limited curb space might be. Long-term and even short-term parking on State Street may need to be reconsidered on some blocks.

BUILDING AND SITE DESIGN

Modify Current Zoning and Development Standards



There are several areas of the cities' land development codes that should be amended in order to shape future development in the vision of this plan. State Street is overzoned for retail and underzoned for other uses. Zoning should make higher density housing and office space the default, not large-format retail.

While the policy frameworks and regulating bodies differ between Salt Lake City and South Salt Lake, both employ a use-based zone along most of State Street. Many that have experience with these zones see them as outdated and a major hindrance to "good" development. Height restrictions, deep setbacks and high parking standards within the use-based zones were cited as development challenges. The development standards on the following pages serve as general recommendations to apply in the future code amendments of both cities.



Policy updates include:

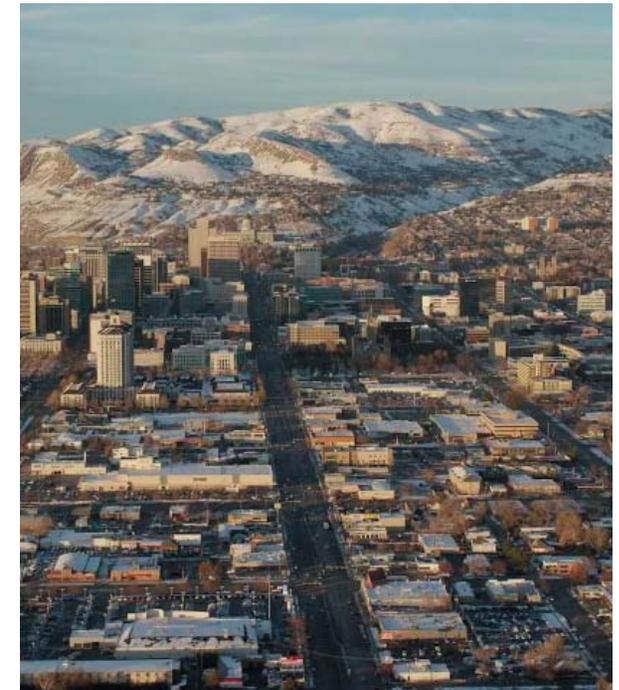
- Building Height
- Building Frontage
- Ground Floor Transparency
- Active Ground Floors
- Amenity Space
- Pedestrian Activity Zone
- Ground Floor Residential Treatments
- Parking Standards
- Parking Orientation



Zone for Mixed Use



Current zoning prioritizes retail over other uses. Establishing more mixed-use zones on State Street will allow for higher density developments of housing and office space combined with retail in the ground level.



Encourage high-density, mixed-use development to continue south along State Street from downtown SLC



BUILDING AND SITE DESIGN

Building Height



Building heights are closely tied to the price of land and the type of construction required for different heights of buildings. They are also important in defining the feel and identity of a place. To this end, both cities want to:

- **Create a consistent human scale.** 3 to 6 stories achieves this. For buildings over 3 stories, a stepback allows more light and space for greater comfort.
- **Create a sense of enclosure.** A 1:2 ratio of buildings to street achieves this. This is a 66' high building on 132' wide street.
- **Create an urban environment.** A recommended min. density of 25 housing units/acre on future development will promote transit use and an urban character.
- **Clearly delineate the urban cores.** Both cities should clearly define downtown core (with taller buildings) with surrounding urban neighborhoods (with mid-rise buildings)



Design Recommendation:

Current Zoning:

- SLC currently permits 65' by right or 120' with Design Review.
- SSL allows unlimited height in the downtown zone, 45' in the East Streetcar zone and xx on other sections of State Street

Recommended Zoning:

- Minimum 3 stories maximum of 6 stories along the corridor
- No height limit in downtown cores



Design Recommendation:

75% of the primary street frontage and 50% of side or rear frontages should be buildings.

Building Frontage Standards



Buildings define their streets by enclosing the space and creating outdoor areas for people. Buildings located on or close to the property line create a much more human-scaled environment than parking lots, drive-thrus or driveways. Consistent frontages are important, and filling in the gaps between buildings and ensuring that buildings are in-line to the greatest extent possible creates a higher quality environment.



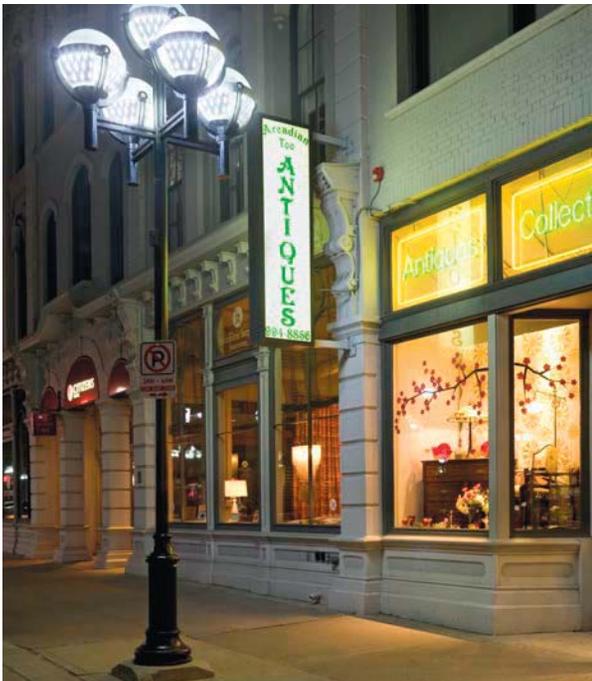
Active building frontage

BUILDING AND SITE DESIGN

Ground Floor Transparency Standards



Transparent windows and doors on the ground floor of buildings increase the liveliness of a street. Passers-by can see the action inside, and those inside can watch people and keep eyes on the street; in turn creating a higher perception of safety and security.



A building with high ground floor transparency



Design Recommendation:

60% of a building façade with frontages **that are not residential uses** should be made of transparent windows and doors and allow visibility to the inside of the building.

For residential uses see next page (page 77)

Amenity Space



Outdoor amenity space, which may include landscaping, street furnishings, public art, trees, sidewalk cafes, or other amenities, should be required or incentivized.



Bogardus Plaza in Lower Manhattan is a good example of outdoor amenity space that activates an entire area



BUILDING AND SITE DESIGN

Ground Floor Residential Treatments



An active ground floor does not require retail to enhance the pedestrian experience and the vibrancy of an area. Residences built on the ground floor, when done correctly, can contribute in equal measure to lively, comfortable and safe streets. In an area like State Street, where “over-retailing” is already a risk and additional housing is anticipated, design guidelines should be implemented that encourage residential uses to engage with the street and provide opportunities for interaction at the street edge.

Important principals of these ground floor residential uses include:

- Distinct transitions between public and private space;
- Clear and identifiable living space;
- The ability of residents to use the space to promote more “eyes on the street.”



Design Recommendation:

Set-back frontages create a usable and defensible private open space that encourages public interaction and surveillance.

- ▶ between six and ten feet from the property line
- ▶ landscaping with generous stoops, porches, terraces, or patios enhance social interaction and safety in the public realm



Raised ground floor provides a greater sense of ownership, leading to more use in the setback.

- ▶ between three and five feet above the sidewalk
- ▶ create a direct line of sight to people on the street, but still allow for privacy



Fences, railings, gates, grilles, planters and retaining walls create defensible spaces and delineate private from public space.

- ▶ screening elements should be between three and six feet tall, and should not be solid above three feet
- ▶ if located on top of a landing or porch, railings and fences should be allowed as seen in the picture to the right, but should be at least 75% transparent



BUILDING AND SITE DESIGN



Activated Intersections



Active uses on the ground floor of buildings, such as restaurants and shops, add to the vibrancy and liveliness of the street. They are vital parts of a city, but are typically a small fraction of total square footage and need a large population base to support. This neighborhood can only support active ground floor uses in some buildings, so they should only be required at critical locations.

Recommended intersections on State Street:

(900, 1300, 1700, 2100, S-Line, 2700, 3300)



Design Recommendation:

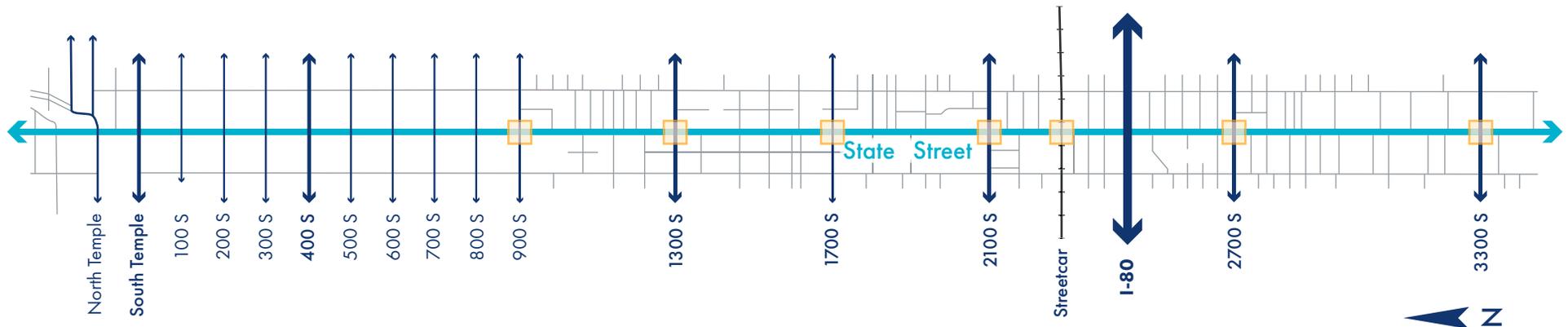
Key activity centers and intersections should make a visual impact with:

- ▶ Active ground floor uses, such as restaurants, shops, offices
- ▶ Build to lines within 5' of property (no driveways, parking or drive-thrus)
- ▶ Minimum height of 3 stories
- ▶ Corner treatment on building, such as a recessed entrance or awning
- ▶ Space for pedestrian waiting

Pedestrian Activity Zone



In areas where the right-of-way is constrained and cannot be modified to provide more sidewalk space, cities should consider requiring a 10-foot "Pedestrian Activity Zone" setback on all primary frontages. This zone essentially acts as an extension of the sidewalk, providing additional space for pedestrians, outdoor seating, and other amenities.





BUILDING AND SITE DESIGN

Parking Standards



State Street needs to move away from the model of free parking, to support higher and better uses. In urban areas, parking is an inefficient and expensive use of space, especially when it requires a parking structure to accommodate it. This cost is passed on in rents, making housing and commercial space less affordable. Or, it may make a project too expensive to build.

Free or low-cost parking is also an incentive to drive, which is counter-productive to creating compact, walkable centers. In areas with many options for riding transit, biking, walking, and ride services, parking standards can be set much lower.

A lower parking requirement expands options for different development styles and price points, and as a result, a wider diversity of tenants. The emphasis on walking, transit, and biking builds a more vibrant urban center, reduces vehicle miles traveled, and improves the environment.



Design Recommendation:

- **Residential:** A minimum of 0.75 spaces per residential unit. Reductions may be possible if the project is near a transit station, and a parking study shows lower demand.
- **Commercial:** A minimum average of 2 per 1,000 square feet of commercial space. Exempt the first 3,000 square feet of commercial in a mixed-use building with a shared parking plan to reduce the cost burden for small businesses.
- **Parking maximum:** A parking maximum should be set for each development type to discourage overbuilding parking and parking-intensive uses. It can also spur redevelopment of underutilized parking as demand decreases.

Parking Orientation

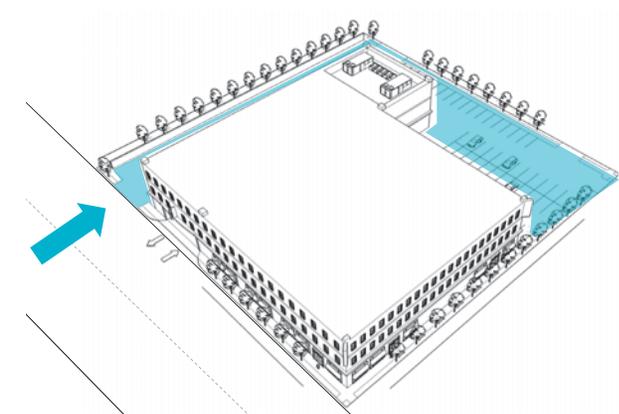


Parking on the rear and sides of buildings frees up the street frontage for pedestrian activity. It also makes businesses more visible from the sidewalk and street.

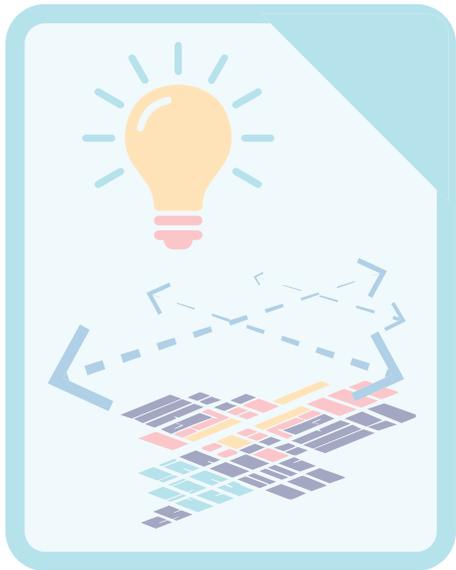


Design Recommendation:

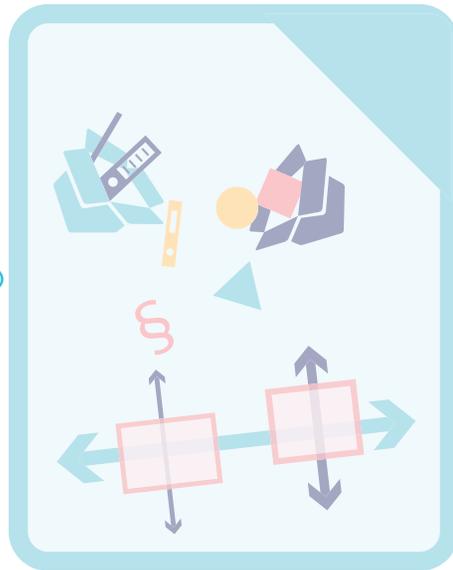
Parking areas should comprise not more than 25% of street frontage. Parking located between the building's front façade and the primary street should be prohibited or severely limited.



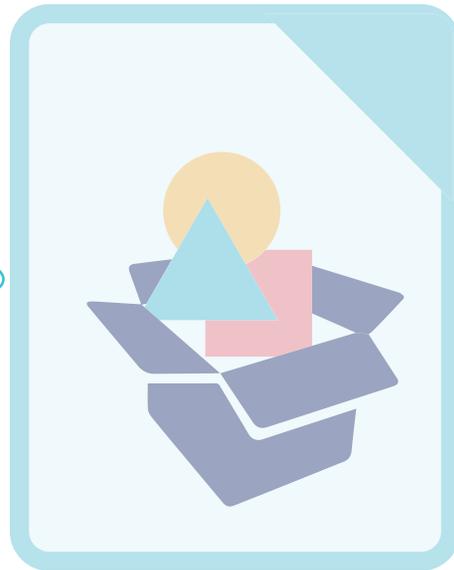
Surface parking on the side and rear of building



CONCEPT PLAN



CATALYTIC SITES



**DESIGN
TOOLBOX**



**POLICY +
PROGRAM TOOLS**



POLICY + PROGRAM TOOLS

Establish programs to incentivize development

Cities can encourage and support the types of projects they wish to see through funding, public services, and programs. These programs should reduce barriers to entry, support existing tenants, and add the amenities the neighborhoods need. Some funds can come through city redevelopment agencies. Additional city and outside funding and partnerships will be required.

Programs should include:

- Shared Parking
- Development Incentives
- Improved Development Approvals Process
- Incentivize Housing for All
- Main Street programs



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Improve Safety & Security



Optimize Mobility



Expand Connectivity



Support Equitable Living Opportunities



Encourage Healthy & Sustainable Design



Drive Economic Prosperity



Improve Identity of Place

POLICY + PROGRAM TOOLS



Shared Parking



Cities should conduct a parking utilization study and create a parking management strategy to reduce overall parking demand and provide parking closer to buildings that lack it. Consolidated free or low-cost public parking lowers parking requirements, opens up the option for removing street parking, and makes it easier for smaller businesses to offer parking. Shared parking will require new parking lots or even structures, and funding mechanisms to pay for their construction and management.

Parking Costs per space (National Average)

Structured parking	\$20,000
Underground parking	\$50,000
Surface parking	\$3,000

Research on Transit Oriented

Developments (TODs) by University of Utah research has shown that parking at TODs is overbuilt, with typically a maximum 75% of it in use.

Policy Recommendation:

- ▶ Dedicate a share of capital improvements budgets to a parking facility fund.
- ▶ Establish a parking fee-in-lieu program for developers to buy into a shared parking facility instead of being required to provide their own where cost or space may be prohibitive.
- ▶ Work with developers and property owners to identify opportunities to build parking.
- ▶ Explore creating a Business Improvement District fund for parking.

Improve the Development Process



Developers and property owners deserve a quick, fair review based on clear rules and transparent process. Public input is important, but the more than can be discussed and decided up front, while writing new plans and ordinances, the better.

Cities need to address shortfalls with the development approval and building permitting process. City staff should work to reduce conflicting direction, duplicative approvals (from different departments), and hierarchy questions.



POLICY + PROGRAM TOOLS

Development Incentive



The cities' Redevelopment Agencies (RDAs) have some established RDA districts on State Street. There are several additional opportunities for new areas that should be created. Redevelopment tools should be applied in these areas to support a wide range of projects.

Policy Recommendation:

- ▶ Assist developers with design solutions and predevelopment activities.
- ▶ Provide financial support, such as loans, gap financing, grants or land buy-downs.
- ▶ Provide funding for infrastructure, such as roads, lighting, and streetscape, utilities.
- ▶ Support tenants with improvement loans or grants for uses that provide key neighborhood services.

Promote Housing for All



Cities have recognized the need and should prioritize affordable housing (Growing Salt Lake City 2018-2022).

Cities should make it more attractive to build by providing the amenities that new residents seek (trees, parks, places to walk and bike, events, and attractive streets). Cities should also support non-profit developers who provide affordable housing with incentives, grants, low-interest loans, or tax abatement programs.



Central Point Condos in Salt Lake City

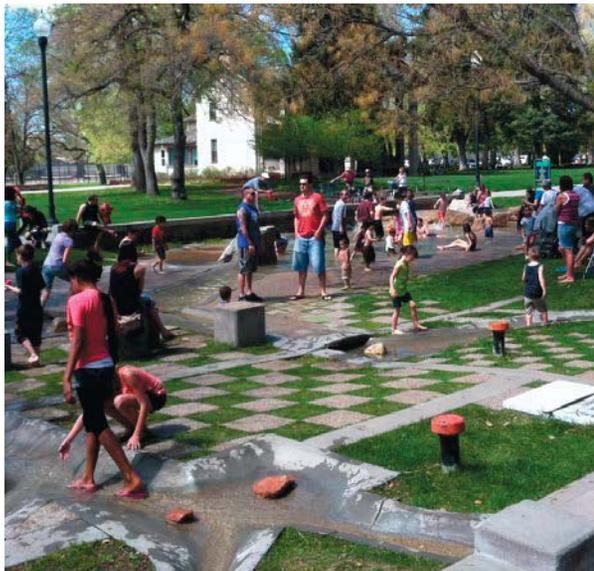


POLICY + PROGRAM TOOLS

Add Green Space



This neighborhood needs parks, open space, and public amenities. Land is available, and parks should be strategically located for maximum benefit. Small parklets, plazas, and infill open spaces should be used to knit the urban fabric together. Draw attention to the greenways that cross State Street (9-Line, Parley's, Millcreek) and build high-comfort crossings for them to connect neighborhoods.



Seven Canyons Fountain at Liberty Park

Support Existing Businesses



State Street business owners are a dedicated and diverse group. They have survived and often thrived under current conditions and while they are generally supportive of change, are wary of anything that might upset their business. Often, construction projects damage a business to the point of endangering them. The cities must consider how to help businesses thrive under the stresses of a construction project. Priority should be placed on assisting business owners by supporting paths to building ownership and also on small business relocation.



Existing Businesses in South Salt Lake on State Street

Adopt a Main Street America Approach



State Street can benefit from many of the grassroots techniques promoted by the "Main Street America" program of the National Trust for Historic Preservation. The aim of the program is to bring economic vitality to older neighborhoods that have a classic Main Street form, but need to adapt to a modern economy. They also help existing businesses to adapt and thrive in a changing environment.

These tools and training, which are being used by Salt Lake City, are comprehensive, inclusive, place based, and people focused. Efforts include incentives, storefront and tenant improvement, design assistance programs, support for co-location opportunities, and other innovative solutions.



POLICY + PROGRAM TOOLS

Build Identity through Placemaking



The cities should play a large role in boosting the image of State Street and giving the neighborhood a positive, unique reputation. Design guidelines for character, ordinances for preservation of buildings and iconic signs, and flexible zoning for adaptive reuse of buildings are proven tools for building on historic assets. The cities also should invest time and energy into events, and into merchants and community group organizing to help grassroots efforts to build a better neighborhood.

Tactical urbanism projects are another effective tool to make quick changes and build buzz. Projects such as food truck parks, public art, pop-up community gardens, and container parks have been used effectively to kick start neighborhood image. Quick transportation projects like temporary bulb outs and bollards help people gain a sense of control and community that builds its character.

A wide variety of projects and programs should work together to create a sense of place and a clear brand for State Street. Salt Lake City has employed the Main Streets USA program to build this. South Salt Lake is starting a Creative Industries Zone project that builds on the same type of assets.

Recommended programs include:

- **Signage and wayfinding program** – Create a plan that identifies key signage and wayfinding locations and styles.
- **Public art program** – Create spots that people can remember and share their experience.
- **Historic preservation program** – Promote the reuse and restoration of buildings and signs.
- **Business district** – A merchants group should help support programming (concerts, strolls, etc.) and projects (lighting, planters, etc.) that make this place stand out.



Food Truck Thursdays at the Gallivan Center