



# MEMORANDUM

PLANNING DIVISION  
COMMUNITY & ECONOMIC DEVELOPMENT

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To: Salt Lake City Planning Commission

From: Becca Roof, Bicycle/Pedestrian Coordinator  
Nick Britton, Senior Planner

Date: February 26, 2014

Re: Bicycle and Pedestrian Master Plan

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The Bicycle and Pedestrian Master Plan project is approximately 70% complete, with preliminary recommendations now developed and follows an existing conditions analysis and an extensive public engagement process over the spring, summer, and fall. Public input on the preliminary recommendations has been primarily positive, and this briefing precedes the formal drafting of the plan.

The current preliminary recommendations include additional detail related to two focus areas of the plan: a University to Downtown enhanced bike connection, and a network of 'low-stress' bikeways for the Downtown. These two projects are also being studied in the context of the overall plan update. Additional detail on each of these efforts is described below.

The current draft materials are available at <http://www.walkbikeslc.com>

## **Background**

Salt Lake City's current Bicycle/Pedestrian Master Plan dates to 2004. Since that time, there have been many changes and innovations in the bicycle / pedestrian fields emphasizing mobility, sustainability, environment, and health. There has also been an ongoing emphasis in Salt Lake City on bicycle and pedestrian safety and facilities, including the passage of the City's Complete Streets ordinance in 2010. Additionally, the strongly-supported 2008 Downtown In Motion Master Plan recommended physically-separated bikeways located adjacent to the sidewalk in the more heavily-trafficked downtown area. As a result of these changes and ongoing bicycle/pedestrian emphasis, the Transportation Division requested and received funding to update Salt Lake City's plan to update the 2004 Plan.

Particularly in the field of bicycle planning and infrastructure design, a sea change is occurring nationally in the United States with a new emphasis on separated bikeways. Separated bikeways provide the safety and comfort that many potential bicyclists desire. Whereas painted bike lanes typically provide enough separation for about 5-6% of the population to feel comfortable on a street in city traffic; separated bikeways are attractive to as much as 50-60% of the general public to consider travel by bicycle. New on-street facilities that provide physical separation between bicyclists and traffic have been implemented, with great success, in cities including Chicago; New York; Long Beach;

Memphis; Seattle; San Francisco; Cambridge, MA; Missoula, MT; and Bend, OR – to name just a few. As part of this master planning process, Salt Lake City has placed a particular emphasis on identifying likely corridors for cycle tracks and other low-stress bikeways in two special projects, one connecting the University of Utah to downtown and the other concentrated within downtown. Both are further discussed below.

In 2012, Salt Lake City created our first, prototype protected cycle track on 300 East. Partly constructed in preparation for this upcoming master plan update, this project was installed on two blocks (1/4 mile) along an existing bikeway, giving Salt Lake City the opportunity to refine our design, gather input from our community, and learn how to best construct and maintain this new type of bikeway. The input from our community has been largely positive. Last summer, our bicycle/pedestrian master plan outreach team attended summer festivals, farmers' markets, concerts, and other events – and we heard many, many requests for more cycle tracks. While physically-separated and other low-stress bikeways are attractive to more riders, they also require a higher level of financial investment; therefore this plan seeks to be both visionary and strategic in recommending a network. A primer on types of bikeways is included as an attachment.

This plan update is being prepared in cooperating with other planning efforts ongoing in the City, specifically Plan Salt Lake, the Downtown Master Plan, and streetcar studies. Transportation data used to prepare existing conditions has also been used by other ongoing plans. Similarly, data and information gathered as part of other planning processes is incorporated into this planning process.

This is the third informational transmittal on this project. Transmittals from February 2013 and August 2013 provide additional background information.

### **Public Engagement**

Throughout the planning process, the public has opportunity to shape the direction of the plan. Public engagement has so far included two open houses, a public preference survey (nearly 1000 responses), a virtual open house for the preliminary recommendations (191 responses), and a presence at nearly 30 events over the summer, with hundreds of constituents actively engaged with the plan materials. In total we have received about 2,500 comments, survey responses, map mark-ups, and preference “sticky dots.” More detail on public input on the preliminary recommendations, specifically, is included below.

The stakeholder committee for the master plan has met a total five times, providing key input to the plan's process and recommendations prior to vetting to the broader public. Initial meetings focused on existing conditions, including current travel patterns and modes; a discussion of Salt Lake City's Complete Streets ordinance / policy; information about current best practices in the field including trends toward separated bikeways; and stakeholder input on primary goals for the master plan. Later meetings focused on stakeholder input on the preliminary recommendations for the plan's citywide bicycle network; downtown low-stress bikeway network; pedestrian improvements for typical situations found in Salt Lake; spot improvements critical to connecting bicycle and pedestrian facilities across gaps in the network.

The first public open house, focused on existing conditions, goals, and public preferences for bicycling and walking – was held in April with about 100 people in attendance. Over the course of the summer, staff attended nearly 30 public events, festivals, and fairs and

received input from hundreds of constituents; an online visual preferences survey received nearly 1,000 responses.

The extensive public input received throughout the summer guided the development of the plan's recommendations – applying the expressed goals and preferences to the city's streetscapes based on a technical analysis of street widths, volumes, and overall existing conditions. A second public open house featuring the preliminary recommendations for the plan was held in October, with about 60 people in attendance. Subsequent to this open house, an online "virtual" open house received additional comment from nearly 200 people.

### **Infrastructure Preliminary Recommendations**

**Walking:** Because pedestrian improvements are so fine grained, the project's scope of work focused on evaluating the city's processes for pedestrian improvements and providing examples of typical pedestrian improvements in a variety of environments.

The preliminary recommendations provide examples of typical pedestrian improvements to ideally be considered in several types of situations – local business district nodes, strip mall retrofits, downtown cycle tracks (pedestrian aspects of streetscape changes), and business / industrial park retrofits. While these four types of pedestrian improvements are not relevant to all situations, they represent a diverse mix of treatments.

A related technical memo provides national best practices critique and recommendations to the City's process for evaluating unsignalized pedestrian crosswalks for improvements such as HAWK beacons, overhead or street-side warning signs enhanced with flashing lights, or other crossing enhancements.

**Multi-use paths:** Over the 20-year horizon of the plan, key corridors have been identified for multi-use paths to serve as the backbone of both the bicycling and walking network. Due in part to opportunities to adapt existing service roads (such as along canals or rail transit corridors) into trails, multi-use trails are the category with the highest potential mileage of all of the facility types. To convert some of these corridors into trails may require only a relatively inexpensive investment such as an easement, management decision, or topcoat of asphalt.

**Bicycling:** The preliminary recommendations identify likely bicycling facilities on streets as appropriate to traffic volume, width, grade, surrounding land use, and other existing conditions. These recommendations show likely bicycle facilities based on these parameters, while recognizing that additional analysis will need to be completed prior to implementation. In some cases, this further analysis may result in a different treatment or corridor ultimately being selected. As requested in the scope of work, the master plan's recommendations have an emphasis on "low stress" bikeways that are appropriate for residents of all ages and abilities to feel safe and comfortable bicycling in the urban environment.

Below are some highlights of the recommendations:

- The recommendations identify a fairly small number of miles of our highest quality, most expensive facilities – such as cycle tracks – complemented by a greater number

of miles of buffered bike lanes. About 7-8 miles of cycle tracks are recommended in the next 10 years, along with 20 miles of buffered bike lanes.

- Cycle tracks are recommended strategically, mostly in the downtown area, as already included in the 2008 Downtown in Motion Master Plan.
- The conventional bike lane network is mostly complete on City streets, with only 14 miles identified for future construction.
- Our grid system presents good opportunities for additional bicycle boulevards, with about 45 miles proposed. Bicycle boulevards use quiet neighborhood streets as bicycle corridors and make relatively few changes to the streetscape from the point of view of motorists.
- Shared lane markings continue to have their place, but at a modest total of 17 miles over the next 20 years. Shared lane markings would also appear on bicycle boulevards.
- In some cases, streets are recommended for combination treatments based on different facilities such as grade. For example, shared lane markings downhill are recommended as a “combo” with a more separated facility (bike lane or cycle track) uphill.
- Partnering with UDOT continues to be a priority, with close to 35 miles of bikeways proposed on UDOT facilities or right-of-way.
- Some corridors need further study; about 17 miles. About half of these are on UDOT facilities, and half on City streets.
- Somewhat surprisingly, the study identifies 48 miles of trails and paths. Some of these, however, are tapping existing service roads or other corridors that mostly need a coat of asphalt (and a management decision or easement) to become a trail.

Maps and a chart showing the preliminary recommendations for mileages and phasing for each of the facility types are included as attachments.

### **Education, Encouragement, and Enforcement Programs**

The master plan update addresses needs for programs – education, encouragement, and enforcement aspects of bicycling and walking, as well as the infrastructure needs.

Preliminary recommendations for programs include:

- A bicycle-friendly business districts program
- Recreational bicycle routes expanding on the well-received “Cycle the City” route launched in 2013
- Expanded and targeted multi-modal enforcement by police
- Classroom bicycle safety education, especially for elementary and middle-school, as well as for high school drivers’ education
- Additional and ongoing Open Streets events

- Continued publication of the popular Salt Lake City Bikeways map, along with an improved mobile “app”.

### **Special Projects Update**

The scope of work for the master plan identified two special projects for technical analysis and public input to be incorporated into the master plan.

#### *Special Project #1: University to Downtown Enhanced Bikeway*

The first special project is a University to Downtown enhanced bikeway, specifically to connect these two key destinations with a lower-stress facility than existing on-street bike lanes provide. Travel between the U and downtown is among the highest in the city by all modes of transportation. The university is already one of the state’s primary bicycle commuting destinations, and also offers educational and cultural destinations for residents and those who work downtown. The City would also like to encourage members of the University community to come downtown for its social, cultural, and retail offerings. A low-stress bikeway will enable more people to travel between the U and Downtown by bicycle.

Following on the technical analysis of all potential corridors and input from a focus group of citizen and business stakeholders, 300 South (with a jog to 400 South to minimize hills) was indicated as the preferred corridor. Based on technical and analysis and public feedback a conceptual design for a low-stress bikeway was developed. This bikeway would likely consist largely of cycle tracks interspersed with buffered bike lanes and some connecting shared lane markings on steeper downhill segments with low traffic volume.

This recommendation has been generally well-received through the public open house and some initial broader outreach, including through the Downtown Alliance, Downtown Merchant’s Association, East Central Community Council, and Downtown Community Council. A more detailed design will be developed prior to more targeted outreach along the corridor. Pending additional public input a portion of this bikeway through the downtown could occur in 2014, in keeping with the recommendations already adopted by the City in the Downtown in Motion Master Plan. The full-length project will be vetted further to gain additional insight and incorporated into the overall master plan.

#### *Special Project #2: Downtown Low-Stress Bikeway Network*

Downtown has a high concentration of trips of all types in the Salt Lake region, and also the most destinations for bicyclists and motorists alike. The wide roads and higher traffic volumes are intimidating to many people who might otherwise like to bicycle downtown, including families headed for destinations such as the farmers’ market, or commuters who arrive at the Intermodal Center. Our new bike share system helps people arriving by transit or motor vehicle to make “last mile” connections to destinations downtown, be it their work place, a business meeting, or lunch with a friend or colleague. Even bicyclists arriving downtown from a distance often have a choice to ride on lower-volume quiet streets in the neighborhoods, and then are faced with wider and higher volume streets downtown. In this type of streetscape, separation is the key to making bicycling safe and comfortable to a broader population.

The 2008 Downtown In Motion Master Plan strongly supported separated bikeways throughout downtown, and suggested placing bicyclists between parked cars and the sidewalk. Building on this concept, the preliminary recommendations for the Bicycle &

Pedestrian Master Plan update provide specific corridors as appropriate to traffic volume and width. A total of 7-8 miles of cycle tracks are recommended in the next 10 years, to be complemented by several additional miles of buffered bike lanes. These low-stress facilities work together to create a network that is linked to transit within downtown and linked to neighborhoods by existing bicycle facilities including, where possible, connections to multi-use paths and bicycle boulevards. The plan also recommends the consideration of Main Street as a future “plaza street,” although this is in a longer-term horizon.

Within this network, the consultants have preliminarily identified two streets for more rapid implementation:

- 200 West – 900 South to North Temple
- 300 South – Pioneer Park to 800 E or 900 E (with later connections to the Intermodal Hub and to the University of Utah)

Two other corridors that continue to rise to the top are 900 South, with its upcoming TransValley Corridor study, and an eastern cycle track on either 200 East or 300 East. Ultimately, the preliminary recommendations for the low-stress bikeway network show the potential for a target density of around 2-3 bikeways per mile in the downtown area, both north-south and east-west. Some trickier connections, especially from downtown to Memory Grove and the Avenues, may require further study as shown on the attached map.

### **Public Input on Preliminary Recommendations**

The preliminary recommendations, developed based on both input from the public and technical analysis of existing conditions, have been presented at both a live open house and online as a “virtual” open house. The stakeholder and steering committees both reviewed the recommendations prior to these open houses. Approximately 60 people attended the open house in person, with nearly 200 online responses adding to the input. The majority of the responses generally favored the recommendations as presented. For the online survey, the majority self-identified as active and engaged bicyclists, with around 20% identifying as either “interested but concerned about traffic/safety” or “no way, no how.”

Key “takeaways” from public input on the preliminary recommendations:

- **University to Downtown Bikeway** – both live and virtual open house respondents generally supported the concept of the University to Downtown bikeway, and agreed with the selection of 300/400 South as the preferred corridor. At the physical open house, this was the most commented station.
- **Bicycle wayfinding** was a very common theme in conversations with open house attendees as one way to alleviate lack of direction, lack of knowledge of available/best bike routes, etc. Bicycle boulevards, as recommended throughout the city’s neighborhoods, typically include a strong bicycle wayfinding component.
- **Foothill Drive** (I-80 to University) in particular was identified by many attendees of the open house as an important corridor, along with connection to and through the **University of Utah** (in collaboration with their plan). Foothill Drive is identified in the recommendations as needing further study, as appropriate to some current discussions with UDOT. The University of Utah’s Bicycle Master Plan has been incorporated into the City’s

maps, and a funding request for some project implementation has been submitted to the City's 2014/15 Capital Improvement Program.

- **Education** received much attention in the virtual open house, especially driver education, beginning in schools and being solidified in driver education and then reinforced through ad campaigns and ticket diversion courses.
- **Pedestrian Typologies** received considerable positive feedback especially in the virtual open house:
  - The strip mall retrofit was very popular, especially the concept of adding street and sidewalk-fronting businesses.
  - Physical buffers (between peds and bikes, and between bikes and cars) received many positive comments.
  - Sugar House center was referred to many times as a very neat place and a potential hotbed of activity, but that 2100 South and 1100 East / Highland are so inhospitable, that the area isn't growing and thriving like it should.
  - Back-in angled parking in the business district and the bike/ped combo lane in the suburban business park typologies were considered less than ideal.
- **Key education and encouragement programs** identified as the public's priorities:
  - Winter bicycling encouragement programs (and many write-in comments about winter maintenance)
  - Bicycle-friendly business districts
  - Recreational bicycle routes
  - School bike trains
  - Connections between bikeways and transit
  - Education, including driver education
  - Bike theft deterrence (frequent write-in suggestion in online open house)
  - Midblock walkways programming

### **Synergy with Plan Salt Lake**

Constituent input for Plan Salt Lake reflects a high level of interest in walking and bicycling in our community. Comments for Plan Salt Lake even outside the "transportation" category often referenced walking and bicycling:

- *Air Quality* – while public transport and reduced idling were the primary comments, about a quarter of the responses referred to walking or bicycling as a partial solution.
- *Diversity* – about 15% of the responses went to diversity of transportation choices, with walking and bicycling both strongly mentioned.
- *Neighborhoods, Downtown, and Outdoors* each category included comments, about 10-20% of those received, in support walking and bicycling.
- *Transportation* – between a third and half of the comments referenced walking or bicycling, with expansion of the current bikeway network being requested in about half of those comments. Nearly all commentary on bikeways was positive and requesting more. A few comments requested more education or enforcement of laws for bicycling, walking, and driver attention to bicyclists/pedestrians.

This strong support for improved bicycling and walking is compatible with other broad public input, such as the biennial Dan Jones opinion phone survey conducted by the City. In the most recent edition of the poll:

- 66% would be very willing or somewhat willing to support a tax increase to improve pedestrian and bicycle trails.
- 63% would be very willing or somewhat willing to support a tax increase to improve commuter bike lanes.

### **Schedule and Next Steps**

Updated timeframes for TAB, Planning Commission and City Council review are as follows:

- February / March – drafting of the plan.
- April / May – adoption process.