

CIRCULATION AND STREETSCAPE AMENITIES

Plan for the Sugar House Business District

AUGUST 2012



Prepared for:



SLCRDA

Prepared by:

FEHR & PEERS

2180 South 1300 East, Suite 220
Salt Lake City, UT 84106
P (801) 463-7600

CHAPTER 1: INTRODUCTION

The Circulation Plan for the Sugar House Business District (the *Plan*) document was completed by Fehr & Peers under the direction of Salt Lake City's Redevelopment Agency (RDA) and the Community and Economic Development Department (Transportation Division). A stakeholder committee comprised of staff from a range of departments, as well as property owners, business owners, and representatives from local institutions, provided guidance throughout the process.

Sugar House is a unique community that attracts a broad range of local and national retailers. Its festivals and markets (i.e. farmer's market, arts festival, Fourth of July fireworks, etc.) draw crowds from many areas of the Salt Lake region. The residential neighborhoods in and around the Sugar House Central Business District (CBD) provide for those seeking a rich urban lifestyle as well as those seeking a house and a yard on a quiet, leafy street.

As a result of this success, several of Sugar House's CBD streets are approaching their effective motor vehicle capacity during the peak hours of the day, and there are few opportunities or desire to expand capacity to accommodate more cars. For the Sugar House CBD to continue to thrive, it must make more efficient use of its existing transportation infrastructure. This means making better use of transit, managing parking supply more carefully, and increasing the walkability and bikability of CBD streets so that intra-CBD trips will primarily be served by walking, biking, and transit rather than driving.

This report is structured around these principles, and its chapters are arranged accordingly:



- **Chapter 2: Study Area Description**, provides multi-modal existing conditions information and data within the study boundaries of the plan.
- **Chapter 3: Vision and Goals**, identifies the community and stakeholders desires and goals.
- **Chapter 4: Project Evaluation**, examines the feasibility of specific transportation related projects in the study area.
- **Chapter 5: Implementation Plan**, includes a summary of the key projects, actions, and strategies.
- **Chapter 6: Next Steps**, identifies the next steps to achieve the circulation goals.
- **Chapter 7: Streetscape Amenities Plan**, identifies street amenities to enhance the visual characteristics of the corridors.

CHAPTER 2: STUDY AREA DESCRIPTION

The *Plan* Study Area is within the area bounded by 1300 East to the east, 900 East to the west, Interstate-80 (I-80) to the south, and Ramona Avenue to the north (see Figure 2-1).

2.1

Land Use

The Sugar House neighborhood is located in east-central Salt Lake City, Utah, along the Wasatch Front (the western slope of the Wasatch Mountain Range) (see Figure 2.1-1). Sugar House, one of the original streetcar communities of Salt Lake City and one of the oldest neighborhoods, includes a broad mix of land uses, including commercial, office, and residential. The portion of the corridor between 900 East and 1300 East is one of the few areas along the Wasatch Front with the mix and density of land uses that could facilitate active transportation (pedestrian and bicycle) investment. The area has a higher-than-average residential density and is within a convenient walk distance of many businesses. In addition, there are a number of potential redevelopment sites in the Study Area that could result in mixed-use development in areas surrounded by existing residential uses.

The north part of the Study Area is predominately single-family residential with clusters of neighborhood commercial and a few mixed residential/business corridors, such as 1100 East and 2100 South. Several parks and institutional uses are dispersed throughout the outer boundaries of the Study Area. The close proximity of many mixed uses promotes walking as a mode of transportation.

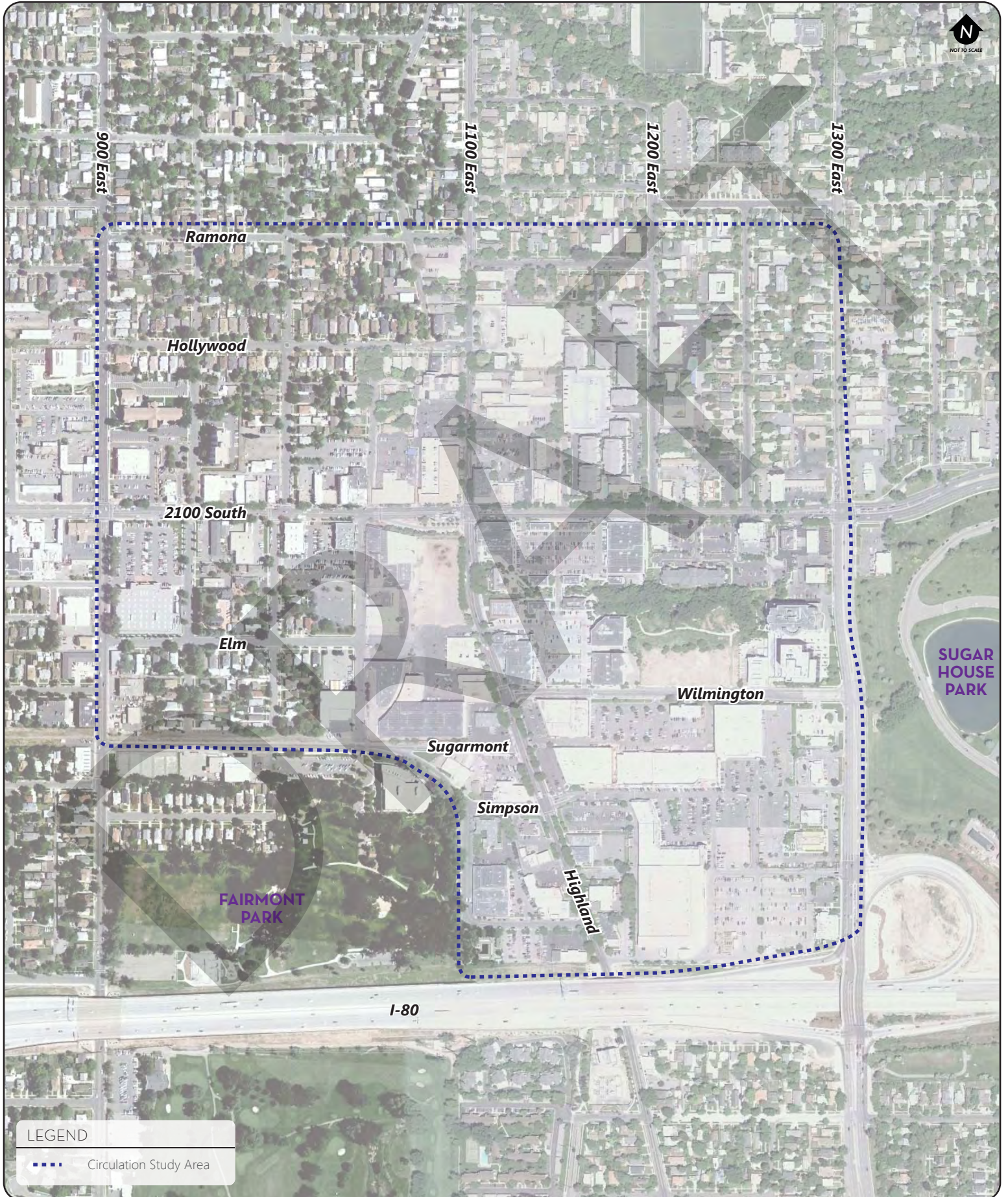
In addition to the general land uses described above, the following major activity centers are located within the Study Area:

- Sprague Library (Highland Drive)
- Sugar House Shopping Center (Highland Drive)
- Sugar House Shopping Commons (Highland Drive and 2100 South)



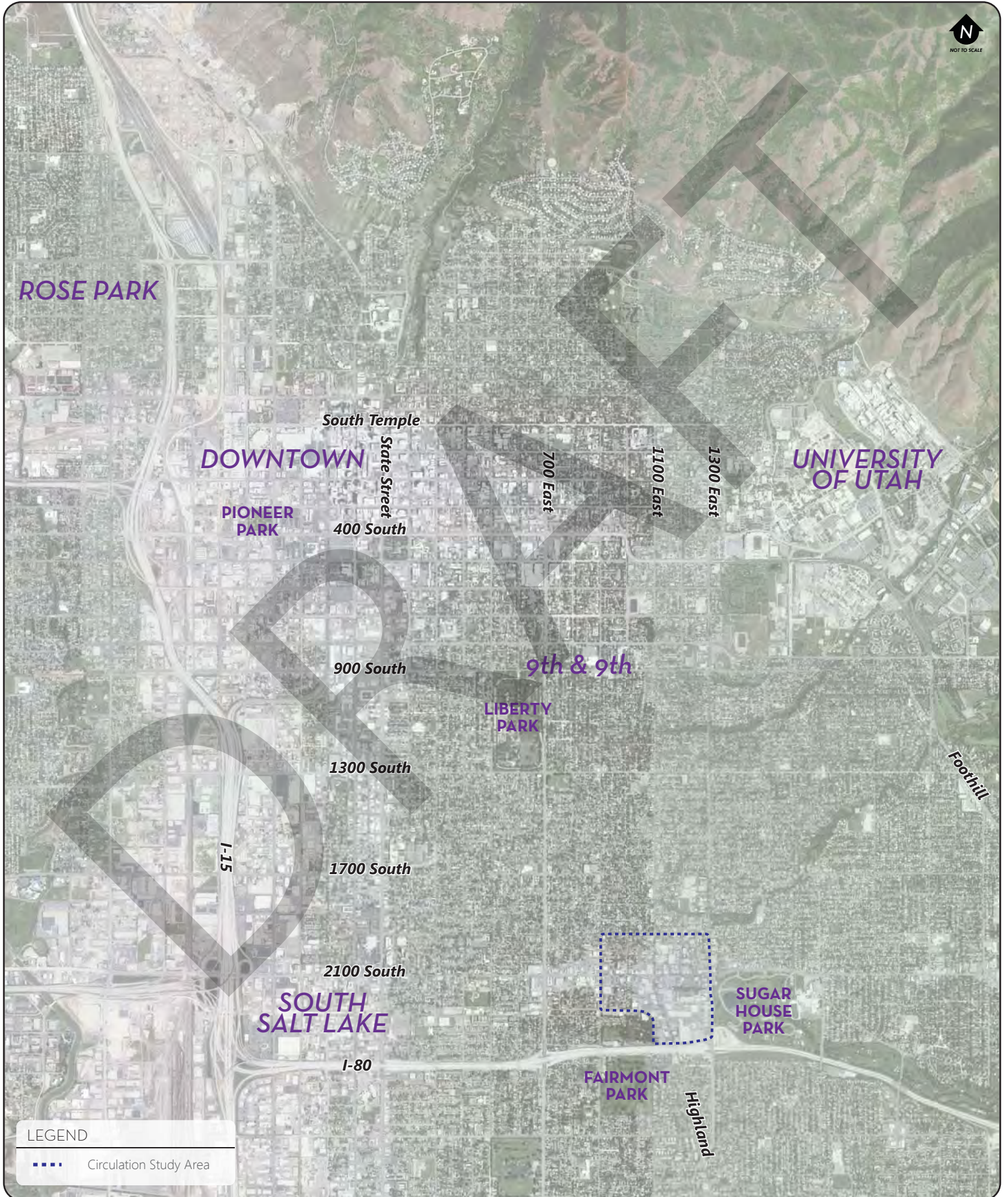
CIRCULATION STUDY AREA - NEIGHBORHOOD

Figure 2-1 | Sugar House Business District Circulation Plan



CIRCULATION STUDY AREA - REGIONAL

Figure 2-1.1 | Sugar House Business Plan Circulation Plan



Within one mile of the Study Area the following attractors also exist:

- Fairmont Park and Aquatic Center (Sugarmont Park)
- Sugar House Park (1300 East and 2100 South)
- Forest Dale Golf Course (900 East)
- Intermountain Health Center (900 East)
- Highland High School (2100 South)
- Westminster College (1300 East)

The Study Area and existing major activity centers are shown in Figure 2.1-2. In addition, four additional important activity centers are expected to soon be added to the Study Area:



- The Granite Block (on the south side of 2100 South at 1100 East). The Granite Block in downtown Sugar House is planned for redevelopment with a mix of residential, commercial, and office use. Development plans include 200 new residences and 200,000 square feet (SF) of commercial/office over the next several years.

- Westminster Student Housing (on the west side of 1300 East between Wilmington Avenue and 2100 South). The Westminster Student Housing project has begun construction on a mixed-use development with 16,000 SF of academic space; 14,000 SF of retail space; and 54,000 SF of housing.

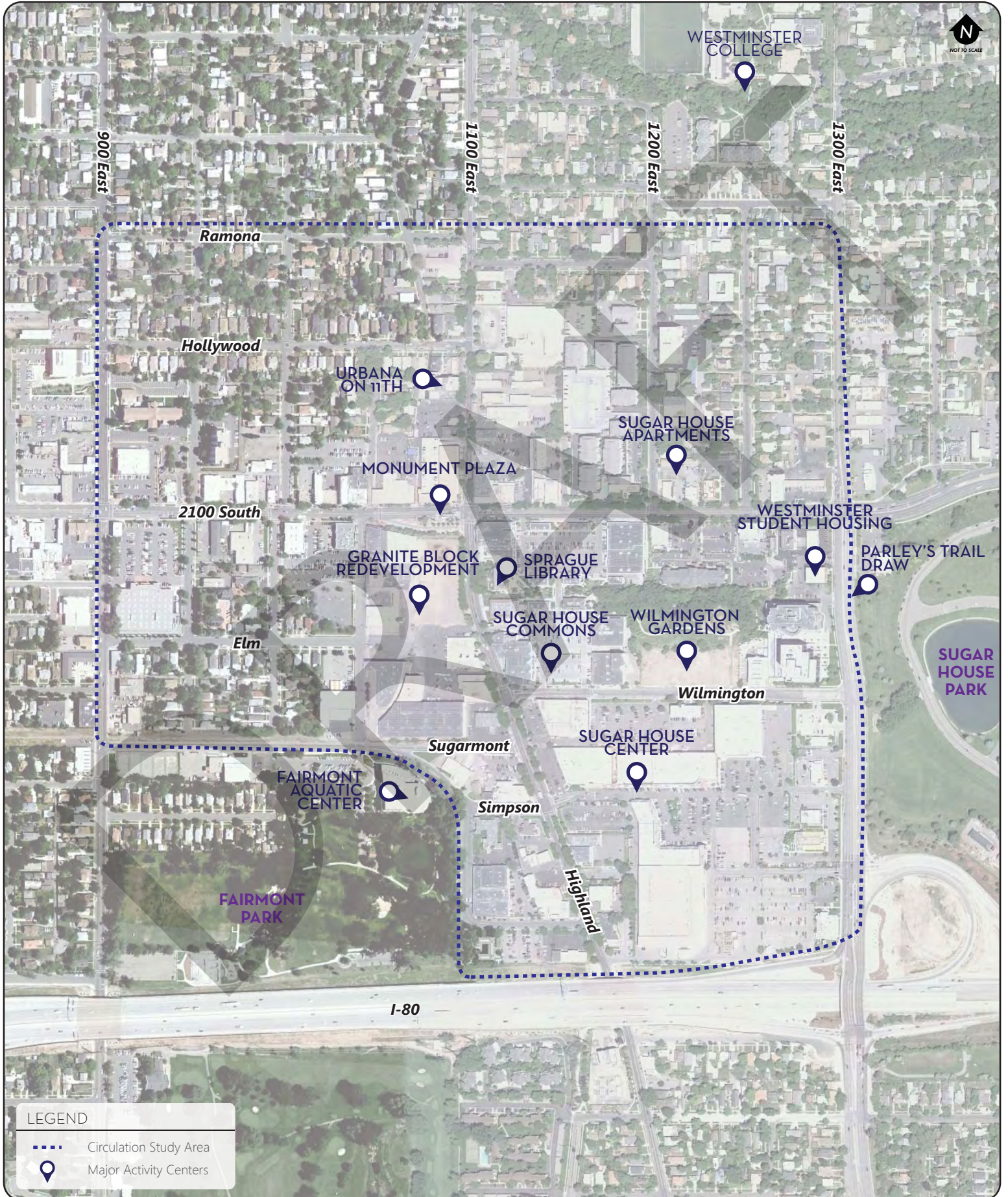
- Wilmington Gardens (Wilmington Avenue between Highland Drive and 1300 East). Wilmington Gardens in Sugar House is planned to be redeveloped with a mix of residential, community space, commercial, and office use.



- Development plans include 100,000 SF of residential with 20% affordable units; approximately 84,000 SF of commercial/office; and 45,000 SF of community space. Plans for Wilmington Gardens incorporate academic space for Westminster College.

MAJOR ACTIVITY CENTERS

Figure 2-1.2 | Sugar House Business District Circulation Plan



- Sugar House Center (south of Wilmington Avenue between Highland Drive and 1300 East). The Sugar House Center is planned to be a mixed-use redevelopment project separated into multiple phases. Full build-out plans include 800 residential units, 380,000 SF of commercial/office use. A structured parking garage is also planned for this development site.
- The Parley's Trail Draw (1300 East on the south side of Westminster Student House). The Parley's Trail Draw project is a tunnel under 1300 East connecting Sugar House Park to Hidden Hollow, an integral part of the Parley's Trail.

2.2 Development Plans

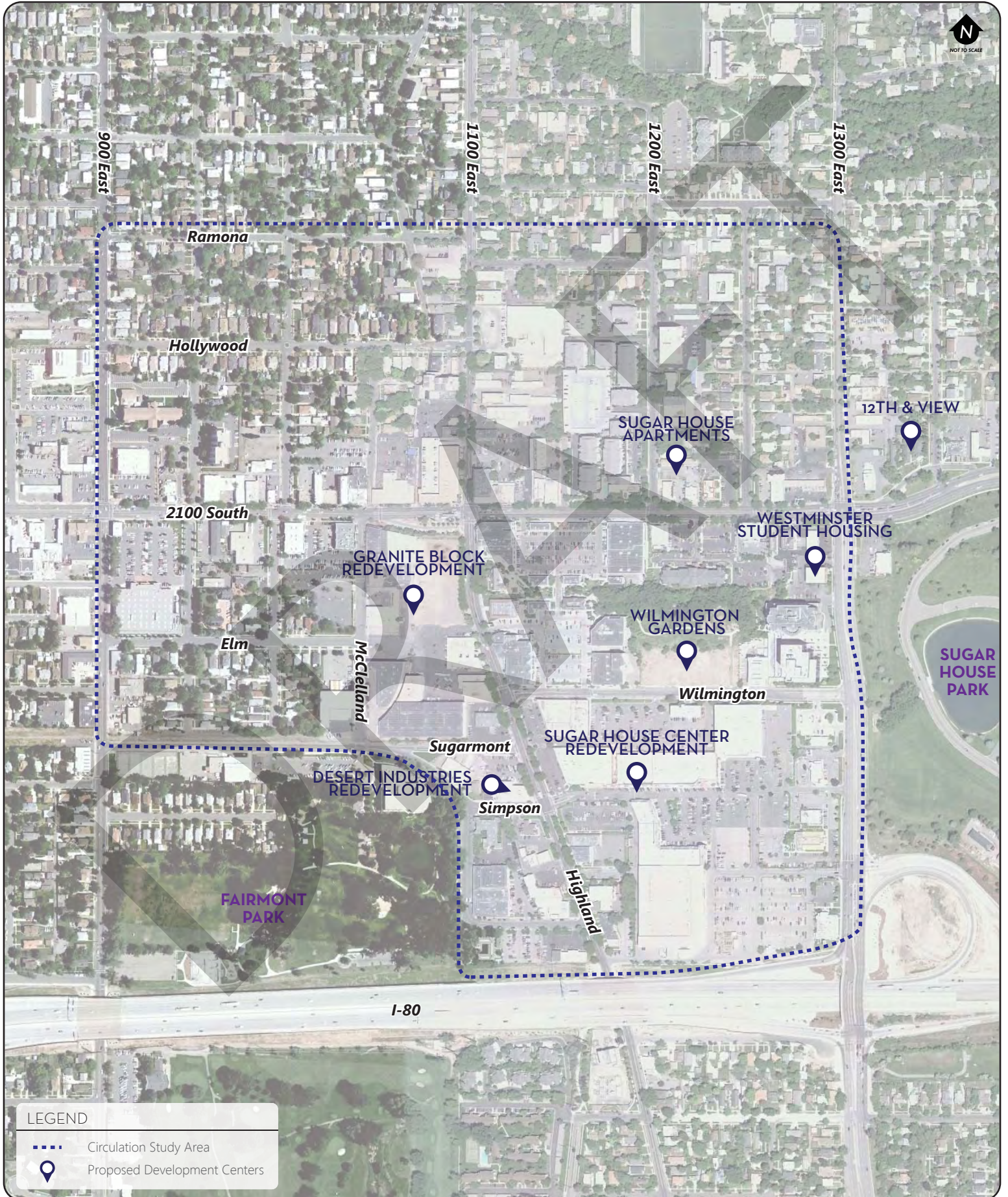
Planning for the Sugar House Streetcar Phase 1 Project has generated interest in the development community. The following developments within the Study Area have recently been constructed, are underway, or are approved, and are shown in Figure 2.2-1.

- Urbana on Eleventh—29 condominiums and 750 SF of ground floor retail. This project is 100 percent constructed.
- John Gardiner Apartment Complex—70 apartment units. This project is currently under construction and will be complete by 2014.
- Westminster Mixed-Use Project—44 three- and four-bedroom apartment units with a total of 164 beds, approximately 15,000 SF of office space, and 8,500 SF of retail space. Residential development associated with this project is part of the Westminster College expansion, and will serve as student housing. This project is currently under construction and will be complete by fall 2012.
- Wilmington Gardens Project—between 212 residential units, including 5 townhomes; approximately 30,000 SF of office; and 60,000 SF of retail development. This project will be complete by 2013.
- Olsen Development—residential and retail space is planned to front Wilmington Avenue on the Olsen property, which is located directly across the street from Wilmington Gardens. This project is in partnership with Wilmington Gardens, and the



PROPOSED DEVELOPMENT LOCATIONS

Figure 2.2-1 | Sugar House Business District Circulation Plan



developers are working together to implement a new vision for Sugar House over several acres. At the corner of Highland and Wilmington Avenues, the group is planning retail, office, and residential development. The group estimates that by 2015, an additional 100 residential units and 60,000 square feet of retail will be completed.

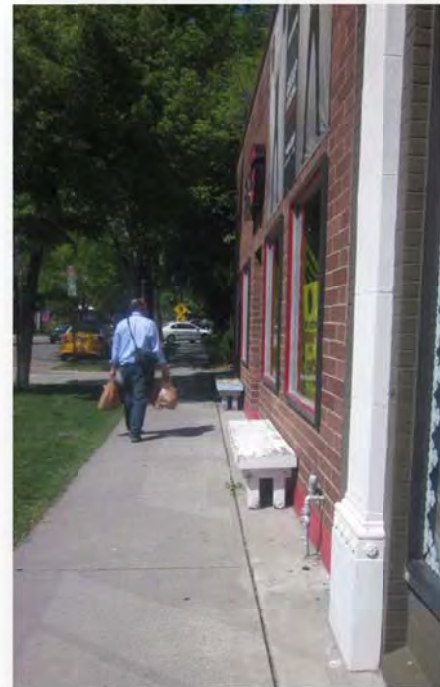
- Granite Block Development—210 residential units and 56,000 SF retail space by 2015, with the addition of 50,000 SF of office space by 2030.
- Boulder Venture Project – 20,000 SF of retail and 30,000 SF of office. This project is currently under construction and will be complete in the spring of 2013.
- Cowboy Partners Project – 170 residential units and 1,200 SF of retail. This project will be completed in 2014.

2.3 *Transportation*

The urban pattern in the Study Area is built on a network of arterial and collector roads, generally running in a north-south/east-west grid pattern, bus routes and stops, pedestrian connections (sidewalks), and only a few bicycle lanes.

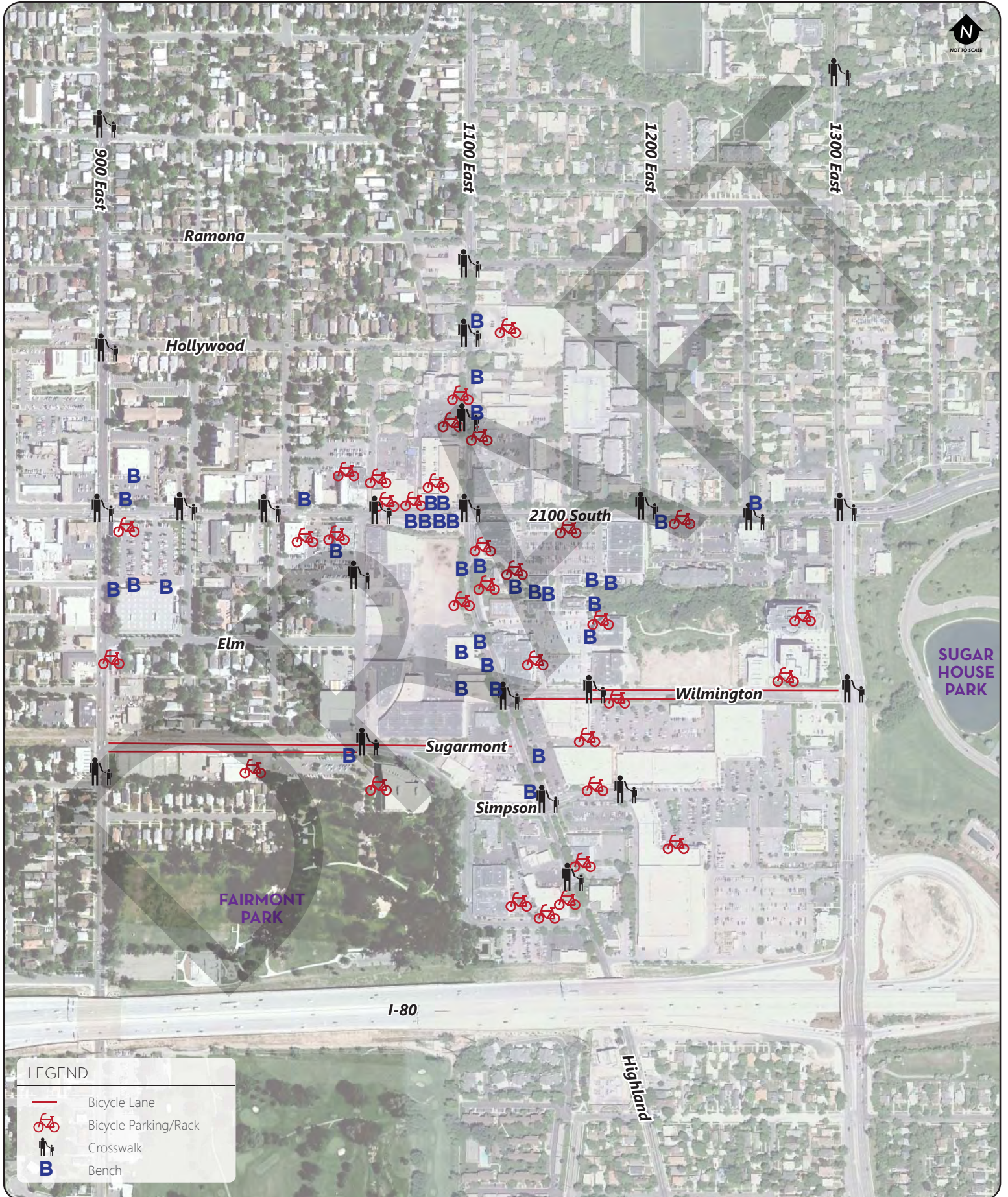
2.3.1 Pedestrian Network

All streets in the Study Area, except Sugarmont, include sidewalks, which are the foundation of the pedestrian network. This foundation is improved with a good trail network in areas such as the large parks near the Study Area (see Figure 2.3-1 for existing pedestrian facilities). Two regional trails are planned in the Study Area. The eight-mile Parley's Trail will transect the Study Area. Further detail on the route of the trail is explained in subsequent chapters. The trail will regionally connect Parley's Canyon on the east side of the County to the Jordan River on the west side of the County. The proposed Jordan and Salt Lake Canal Trail will enter the Study Area along McClelland Street before curving around the east side of Fairmont Park. This trail is proposed to run from 800 South to 3300 South in Salt Lake City along an historic canal. The walk travel times along key pedestrian routes in the Study Area are shown in Figure 2.3-2



EXISTING PEDESTRIAN AND BIKE AMENITIES

Figure 2.3-1 | Sugar House Business District Circulation Plan



WALK TIME COMPARISON

Figure 2.3-2| Sugar House Business District Circulation Plan



2.3.2 Bicycle Network

Sugarmont Drive and Wilmington Avenue are the only streets in the study area with designated bicycle lanes (see the previous Figure 2.3-1 for existing bicycle lanes). Salt Lake City performed bicycle counts on 2100 South at 1100 East in September 2011. The bicycle counts indicate the average number of bicycles on 2100 South on a weekday is approximately 102. Each direction (north, south, east, and west) is about equal in number of bicyclists. The average number of bicyclists who ride on the sidewalk ranged from 53% to 80% and the remaining percentage rides on the road.



2.3.3 Transit Network

Existing transit facilities (see Figure 2.3-2) in the Study Area include several bus routes, with TRAX lines located two miles west and north of the Study Area. Bus routes that operate in the Study Area are routes 17, 21, 209, 213, and 220. Table 2.3-1 shows nominal headways for each of the routes in the travel shed:

Table 2.3-1. Nominal Headways in Minutes

Route	Mode	Peak	Off-Peak	Evenings	Saturday	Sunday
17	Local Bus	30	30	0	0	0
21	Local Bus	15	15	30	30	80
209	Local Bus	15	15	30	30	60
213	Local Bus	30	30	30	60	0
220	Local Bus	20	20	30	30	60

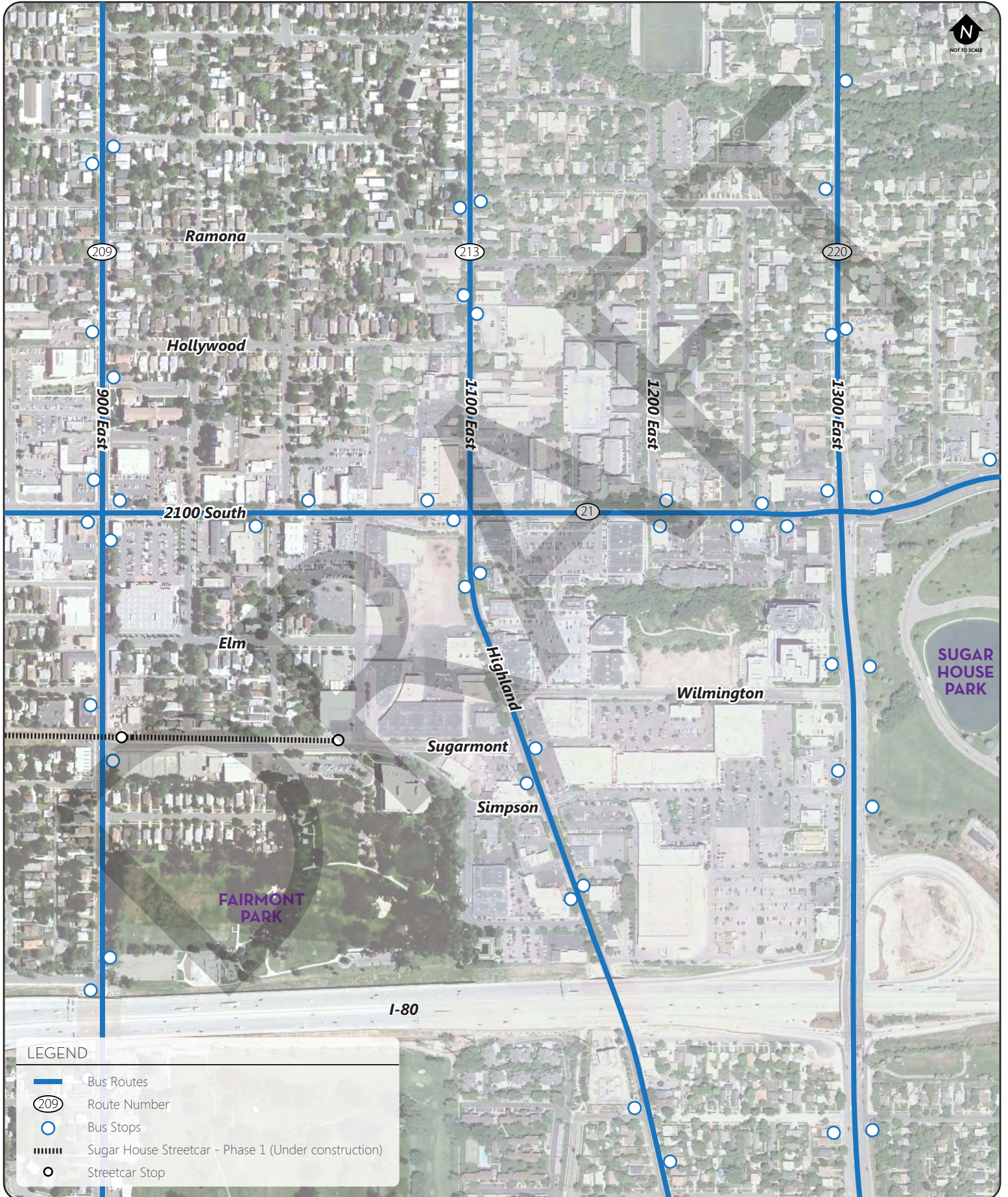
Source: UTA 2011

Route 21 travels along 2100 South within the Study Area. This route parallels the Sugar House Streetcar Phase 1 Project. The current bus runs one to three minutes late in the peak hour, but is still considered on-time for UTA performance (which is up to five minutes late for a local bus).

With the completion of the Sugar House Streetcar Phase 1 Project (currently under design and construction); the north-south portion of TRAX will be connected to the Sugar House area as far east as 1050 East/McClelland. This link will connect a thriving, regional commercial center (the Sugar House CBD) to the highly successful regional TRAX and commuter rail.

EXISTING TRANSIT NETWORK

Figure 2.3-3 | Sugar House Business District Circulation Plan



An Alternatives Analysis (AA) is currently in progress for an extension of the Phase 1 Sugar House Streetcar. The AA is evaluating possible mode and alignment alternatives. The Locally Preferred Alternative would take the streetcar eastbound from McClelland onto Simpson Avenue, north on Highland Drive to the monument plaza at 2100 South, returning south on Highland Drive to Sugarmont Avenue, and westbound on Sugarmont Avenue to McClelland Street and onward.

2.3.4 Roadway Network

The important minor arterials are 1300 East, Highland Drive/1100 East, 900 East, and 2100 South. A network of local collector streets serves the communities between these major and minor roads. The primary roadways in the Study Area are described below:



- **900 East** is a north-south arterial road with one travel lane in each direction and a center two-way left-turn lane. 900 East has a posted speed limit of 30 miles per hour (mph).
- **Highland Drive/1100 East.** 1100 East becomes Highland Drive just south of 2100 South. 1100 East is a two-lane collector street with on-street parking. Intersections are full-movement, and major intersections have separated left-turn lanes. Highland Drive between 2100 South and Stringham Avenue is a four-lane arterial. South of Stringham Avenue, Highland Drive becomes a two-lane road with on-street parking. Highland Drive/1100 East has a posted speed limit of 30 mph.
- **1300 East** is a north-south arterial in the Salt Lake Valley. In the Study Area, north of 2100 South, 1300 East consists of a single travel lane in each direction with a continuous center two-way left-turn lane. South of 2100 South, it consists of three travel lanes in each direction, a raised center median, and single-lane protected left-

turns at the major intersections. It intersects with I-80 at about 2300 South. 1300 East has a posted speed limit of 35 mph.

- **2100 South** is an east-west arterial in the Salt Lake Valley. In the Study Area, it consists of two travel lanes in each direction. Some intersections have left- and right-turn lanes. 2100 South has signalized intersections at 1300 East, Highland Drive/1100 East, and 900 East. 2100 South has a posted speed limit of 30 mph.
- **Wilmington Avenue** is an east-west local road with a posted speed limit of 30 mph. Wilmington Avenue has one travel lane in each direction with on-street parking and bicycle lanes on both sides.
- **Sugarmont Drive** is an east-west local road with a posted speed limit of 25 mph. Sugarmont Drive has one travel lane in each direction and bicycle lanes on both sides. The Sugar House Streetcar Phase 1 and Parley's Trail will run parallel with Sugarmont Drive to the north of the road. The eastern 500 feet of Sugarmont Drive is a westbound one-way street.

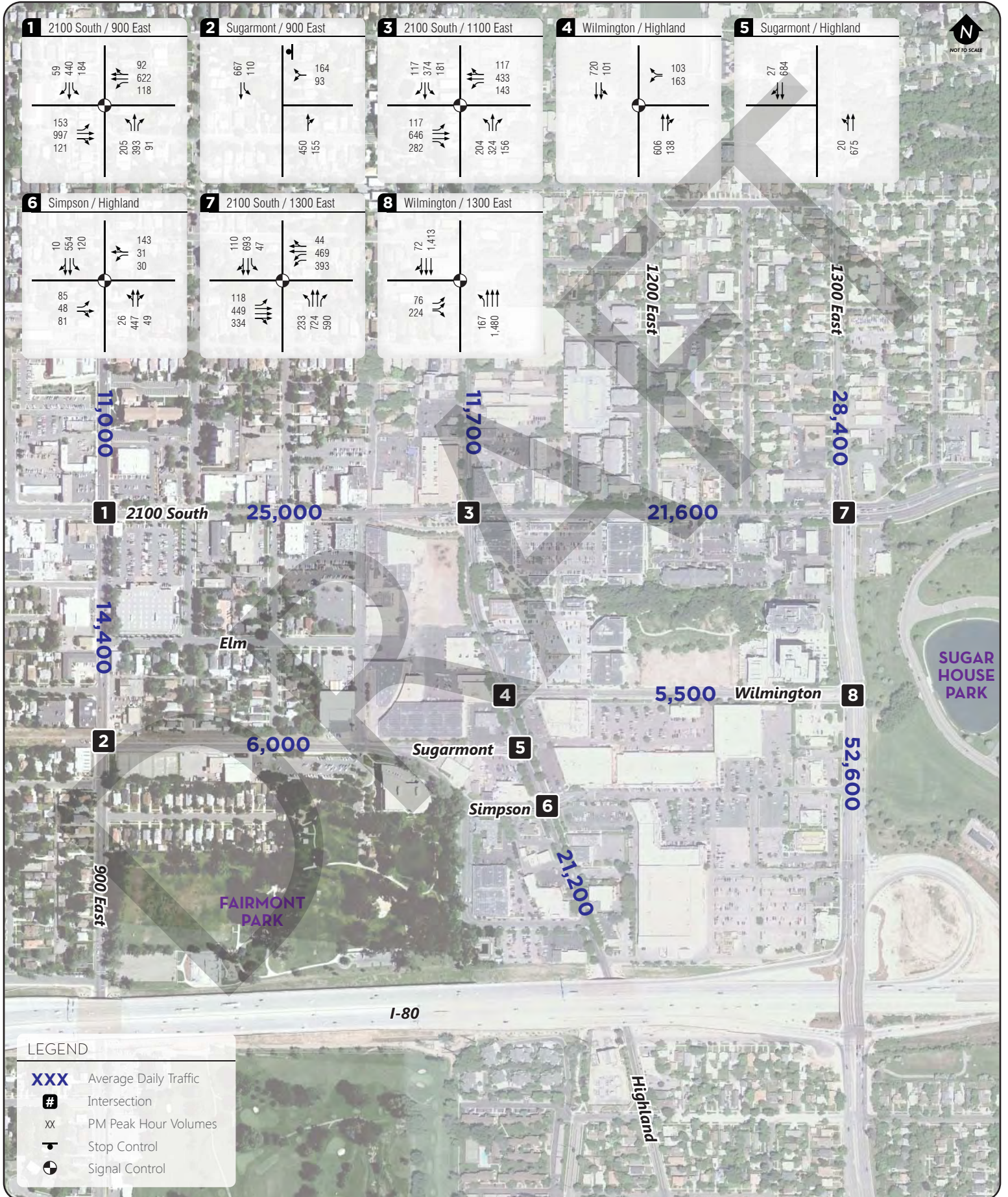
2.3.5 Traffic Conditions

Figure 2.3-3 shows the Average Daily Traffic (ADT) on the key roadways within the study area. The ADTs are based on 2010 counts from UDOT's Traffic on Utah Highways database, with the exception of Sugarmont Drive and Wilmington Avenue, of which the ADTs were calculated based on the rule of thumb that the PM peak hour volume equals approximately 10% of the ADT. The weekday PM peak hour experiences the highest traffic congestion than any other time the day in the Sugar House area. PM peak hour traffic volumes were gathered from previous traffic studies done in the Sugar House area and new traffic counts were collected at 2100 South / 1100 East and Simpson Avenue / Highland Drive in October 2011 and April 2012, respectively. Figure 2.3-3 also shows the PM peak hour turning movement volumes at the key intersections in the study area. Many of the major roadways in the Sugar House CBD area have less traffic than they did three to four years ago, contributing to slightly less congested conditions than five years ago. The decrease in traffic volumes could be due to a combination of several factors including: fuel prices, economy, other modes being used, etc.

Level of Service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 2.3-2 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. The Highway Capacity Manual 2000 (HCM 2000) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For unsignalized intersections, LOS is

EXISTING TRAFFIC CONDITIONS

Figure 2.3-4 | Sugar House Business District Circulation Plan



reported based on the worst movement. The software package Synchro / SimTraffic was used for this study.

Table 2.3-2. Level of Service Descriptions

LOS	Description	Signalized Intersections (Avg Delay: sec/veh)	Unsignalized Intersections (Avg Delay: sec/veh)
A	Free Flow / Insignificant Delay	0 to 10	0 to 10
B	Stable Operations / Minimum Delays	>10 to 20	>10 to 15
C	Stable Operations / Acceptable Delays	>20 to 35	>15 to 25
D	Approaching Unstable Flows / Tolerable Delays	>35 to 55	>25 to 35
E	Unstable Operations / Significant Delays Can Occur	>55 to 80	>35 to 50
F	Forced, Unpredictable Flows / Excessive Delays	>80	>50

Source: Fehr & Peers Descriptions, based on Highway Capacity Manual 2000 Methodology (Transportation Research Board)

The existing PM peak hour LOS for the key intersections within the study area are shown in Table 2.3-3. As shown in Table 2.3-3, traffic conditions in the Sugar House CBD are generally stable with the exception of the intersection of 1300 East / 2100 South which experiences heavy delays during the peak hours of the day.

Table 2.3-3. Existing PM Peak Hour Level of Service

ID	Intersection	Control	Delay (sec/veh)	LOS
1	900 East / 2100 South	Signal	34.1	C
2	900 East / Sugarmont Dr	WB Stop	16.0	C
3	1100 East / 2100 South	Signal	32.1	C
4	Highland Dr / Wilmington Ave	Signal	10.1	B
5	Highland Dr / Sugarmont Dr	-	5.7 ¹	A
6	Highland Dr / Simpson Ave	Signal	10.0	B
7	1300 East / 2100 South	Signal	106.9	F
8	1300 East / Wilmington Ave	Signal	19.0	B

Notes:

¹Represents the worst movement (northbound left-turn)

Source: Fehr & Peers, July 2012

CHAPTER 3: VISION AND GOALS

The RDA initiated the *Plan* to create a coordinated plan for infrastructure improvements around the Sugar House CBD. The goals of the *Plan* are to provide recommendations that will improve local and regional mobility and access while retaining the special character of the Sugar House community.

3.1 *Community Goals*

Review of the Sugar House Master Plan and consultation with approximately 25 stakeholders during a set of interviews, group workshops, and study area walking tour resulted in the identification of community goals and values for the *Plan*. A total of 24 stakeholders were involved from the following organizations:

- Bicycle Community
- East Central Community Council
- Gardiner Properties
- Mecham Management
- Olsen Properties
- Parley's Rails, Trails, and Tunnels Coalition
- Salt Lake City Fire Department
- Sprague Library
- Sugar House Community Council
- Sugar House Merchants Association
- Sugar House Park Authority
- Utah Department of Transportation
- Utah Transit Authority
- Wasatch Front Regional Council
- Westminster College
- Woodbury Corporation
- Zions Bank

The community's multi-modal transportation visions, principles, and goals are as follows:

- Extend transit service to serve a greater number of households, employment, student trips, and transit connections.
- Provide an alternative to auto travel to accommodate the increase in trips resulting from future development in the Sugar House CBD and the surrounding area.
- Support regional goals for livability, connectivity, and the improvement of air quality, transit ridership, and transit-oriented development.



- Provide a safe, attractive, and functional pedestrian environment to promote a walkable community.
 - Improve quality of life for residents and visitors to Sugar House; access to transit, jobs, and recreation centers; reduced expenditures on personal transportation; and improve health and air quality.
 - Provide multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards.
- Divide larger blocks into smaller blocks.
 - Redesign the present circulation system to provide better internal access within the CBD.
 - Enhance pedestrian crossings along with traffic calming measures, and provide access through the district that connects Sugar House Park, Hidden Hollow, and Fairmont Park.
 - Provide or enhance a central public plaza with strong pedestrian connections to other blocks.
 - Evaluate the feasibility and impacts of realigning Sugarmont Drive with Wilmington Avenue at the Highland intersection; in addition to the extension of Elm Street to Highland Drive as a limited access or pedestrian way.
 - Plan for streetscape amenities, including transit shelters, a street lighting theme, benches, and street trees.
 - Utilize the Salt Lake Jordan Canal / McClelland corridor right-of-way as a pedestrian link, especially as it transects the "Granite Block".
 - Additional places for pedestrians to cross 2100 South and enhancement of existing crossings are needed.
 - Evaluate the feasibility of making Highland Drive, south of 2100 South in the CBD a two-lane street, with a continuous center turn lane and angled or parallel on-street parking.
 - Connection of the Parley's Trail alignment should be pursued.
 - Link Hidden Hollow with the Parley's Creek trail corridor and the Salt Lake Jordan Canal / McClelland corridor with safe, elegant, and cost effective trailways.

- Evaluate the feasibility of installing pedestrian crosswalks at intervals of approximately 400 feet across collector and arterial streets (as stated in the Sugar House Master Plan).
- Evaluate the feasibility of installing a button activated pedestrian traffic signal on 2100 South at 1200 East.
- Provide bicycle lanes where appropriate and feasible.
- Unite the parks and recreation areas with the open space trail system to develop a continuous bikeway system for inter- and intra-city travel for recreation as well as alternative transportation.
- Provide an alternative to auto travel to accommodate the increase in trips resulting from future development in the Sugar House Business District and the surrounding area.

The *Plan* was a collaborative effort to prepare a timeline for implementing projects in the short-term (2012-2014), mid-term (2014-2020), and long-term (beyond 2020). Conceptual projects were established based on input from the project stakeholders, the Sugar House Master Plan, and feasibility studies (including technical analysis) presented in Chapter 4.

CHAPTER 4: PROJECT EVALUATION

The following chapter evaluates the feasibility of six potential circulation related projects within the Study Area. The seven projects were selected by the RDA and the City Transportation Division based on the goals and visions stated in the Sugar House Master Plan. The following is the list of the projects:

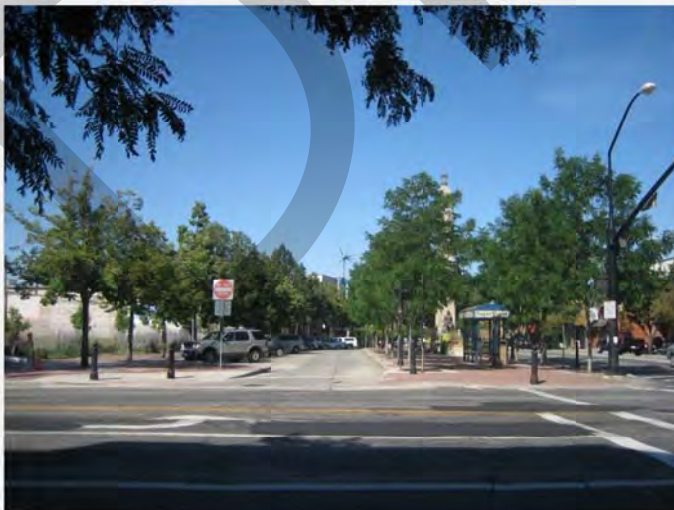
- Reconfiguring and/or expanding the Monument Plaza on 2100 South and 1100 East into a town square.
- Realigning Sugarmont Drive and Wilmington Avenue.
- Reducing Highland Drive from four-lanes to three-lanes (Road Diet).
- Dividing large blocks into smaller blocks within the CBD.
- Adding bicycle lanes on 2100 South through the Study Area and beyond.
- Connecting the two ends of the Parley's Trail through the CBD.
- Raising the street level of Highland Drive between Sugarmont Drive and Simpson Avenue

4.1

Monument Plaza on 2100 South

This section summarizes the feasibility of expanding the Monument Plaza. The Plaza sits in the heart of the Sugar House CBD. Feedback from various stakeholders and community members from field trips and workshops have reiterated that the Plaza is “the heart of Sugar House – it’s where people want to be – it’s the focal point of Sugar House.” Expanding the Plaza is also a goal from the Sugar House Master Plan.

Existing Conditions



The Plaza is currently divided from the sidewalk to the south on 2100 South by an exclusive eastbound right-turn lane and 18 on-street parking stalls. The exclusive right-turn lane is occasionally blocked off for community events and activities such as the farmer’s market and festivals. Vehicular eastbound right-turns are then accommodated by sharing the outside eastbound through lane at the 1100 East / 2100 South intersection.

Adjacent to the Plaza, 2100 South carries approximately 25,000 ADT and 1100 East (south of 2100 South) carries approximately 21,200 ADT. The PM peak hour turning movement volumes are shown in Figure 4.1-1. Assuming the exclusive eastbound right-turn is not blocked off in existing conditions, the existing overall intersection LOS for 1100 East / 2100 South is a LOS C with an average of 32.1 seconds of delay per vehicle (see Table 4.1-1 below). The existing eastbound approach LOS for 1100 East / 2100 South is a LOS D with an average of 33.8 seconds of delay per vehicle. The existing 95th percentile queue for the eastbound approach is approximately 400 feet (about to McClelland Street).

Expanding the Plaza

Expanding the Plaza would consist of eliminating the exclusive eastbound right-turn. The vehicular eastbound right-turns are then accommodated by sharing the outside eastbound through lane at the 1100 East / 2100 South intersection. The impacts to traffic with this change are shown in Table 4.1-1. The 95th percentile queue for the eastbound approach would increase to approximately 900 feet (about the Subway restaurant).

Table 4.1-1. Monument Plaza on 2100 South Level of Service Analysis

Scenario	Eastbound Approach		Overall Intersection	
	Avg. Delay (sec/veh)	LOS	Avg. Delay (sec/veh)	LOS
Existing	33.8	C	32.1	C
No Exclusive EB Right-turn	86.4	F	51.7	D

Source: Fehr & Peers, July 2012

With this increase in queue length with the exclusive right-turn removed, it is likely motorists will use alternative routes more often during the peak hours. The alternative routes could include 900 East, Lincoln Street, 1000 East, and McClelland Street. An alternative to reduce delay and queue lengths for the eastbound direction of travel is to move the monument to the south or west to accommodate a 10 foot exclusive right-turn lane adjacent to the through lane; however, this is not a popular alternative to the public. This would still allow the expansion of the plaza to the south, but alleviate some of the impacts of losing the existing exclusive right-turn lane that bisects the plaza today.

The public (including the adjacent property owners and the project stakeholders) have expressed positive interest in the expansion of plaza. One property owner voiced concern with the expansion due to the loss of on-street parking that is adjacent to his property.

An extension (Phase Two) of the Phase One streetcar is now under consideration, and the locally preferred alternative (LPA) would take the streetcar eastbound from McClelland onto Simpson Avenue, north on Highland Drive to the Monument Plaza at 2100 South, returning south on Highland Drive to Sugarmont Avenue, and westbound on Sugarmont Avenue to

McClelland Street and onward. It should be noted that the traffic volumes used in this analysis do not account for the internal capture and streetcar ridership that will occur with the proposed redevelopment and/or the streetcar line. Figure 4.1-1 shows a conceptual illustration of the expanded plaza with the proposed streetcar line.

The following Table 4.1-2 summarizes the feasibility criteria for evaluation.

Table 4.1 -2. Monument Plaza on 2100 South Feasibility Criteria

<i>Project</i>	<i>Relationship to Goals</i>	<i>Mobility Benefits (ped/bike/veh /transit)</i>	<i>Technical Constraints</i>	<i>Project Cost (low/med /high)</i>
Monument Plaza on 2100 South	<ul style="list-style-type: none"> • Encourages pedestrian-first zone • Provides pedestrian-scale activities in the Sugar House CBD by providing open space corridors • Establishes the Sugar House Plaza Monument as the community focal point • Provides a central public plaza with strong pedestrian connections • Provides enhanced pedestrian crossings • Encourages safer and increased levels of bicycling and walking • Provides potential end-of-line station location for streetcar 	+ / + / - / + ¹	<ul style="list-style-type: none"> • Loss of on-street parking (18 spaces) • Increase of 19.6 seconds of average delay for overall intersection • Increase of 52.6 seconds of average delay for the eastbound approach • 95th percentile queue increase of 500 feet for eastbound approach 	Medium

Notes:
¹Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.
 Source: Fehr & Peers, July 2012

MONUMENT PLAZA RECONFIGURATION

Figure 4.1-1 | Sugar House Business District Circulation Plan



4.2 Sugarmont Drive / Wilmington Avenue Realignment

This section summarizes the feasibility of realigning Sugarmont Drive and Wilmington Avenue at Highland Drive. This realignment is included in the Sugar House Master Plan.

Existing Conditions

Wilmington Avenue is a two-lane street about a ¼ mile in length in the Study Area from 1300 East to Highland Drive. The terminus of Wilmington Avenue at these two streets is a signalized tee-intersection. Wilmington Avenue has sidewalks and bicycle lanes on both the north and south side of the street. The ADT on Wilmington Avenue is approximately 5,500. Wilmington Avenue provides vehicular access to various commercial and office spaces, as well as to the future Wilmington Gardens and Sugar House Center developments. There is also a pedestrian and bicycle connection from Wilmington to the Hidden Hollow. The signalized intersection of Wilmington Avenue / Highland Drive operates at a LOS A with an overall average delay per vehicle of 8.9 seconds.



Sugarmont Drive is a two-lane street about a 1/3 mile in length in the Study Area from Highland Drive to 900 East. All intersections along Sugarmont Drive and at the terminus are unsignalized, stop-controlled intersections. The eastern 450-foot portion of Sugarmont Drive that intersects with Highland Drive is one-way travel in the westbound direction until it merges with Simpson Avenue, then it converts to two-way travel. Sugarmont Drive provides access to the Fire Station, Fairmont Aquatic Center, and Fairmont Park. There are no sidewalks on the north side of Sugarmont Drive or about 300 feet on the westerly end (near the tennis courts) of the south side. The intersection of Sugarmont Drive / Highland Drive operates at an LOS A with an average worst movement (northbound left-turn) delay per vehicle of 5.7 seconds. The intersection of Sugarmont Drive / 900 East operates at an LOS C with a worst approach (westbound) delay of 16.0 seconds per vehicle.

Realigning Sugarmont Drive and Wilmington Avenue

The realignment of Wilmington would likely occur with the east leg remaining in its current location and a new west leg extending from the Highland / Wilmington intersection to connect with Sugarmont near the McClelland intersection. Figure 4.2-1 shows a conceptual illustration

REALIGNMENT - WILMINGTON & SUGARMONT

Figure 4.2-1 | Sugar House Business District Circulation Plan



of the realignment. Simpson Avenue would also connect to the new Wilmington alignment as well as a potential new north/south street bisecting the Granite Block. Global Positioning System (GPS) travel time runs were performed on three routes in the study area, as shown in Figure 4.2-2. The purpose of the travel time runs was to compare the time it takes to go from 1300 East / Wilmington Avenue to 900 East / 2100 South utilizing three different routes. Table 4.2-1 shows the travel time comparison. The route (Route #1) using Wilmington, Highland, Sugarmont, and 900 East is most similar to the route that would exist if Wilmington and Sugarmont were realigned.

Table 4.2 -1. Travel Time Comparison

<i>Route</i>	<i>Description</i>	<i>Eastbound¹</i>	<i>Westbound¹</i>	<i>Total¹</i>
1	Wilmington, Highland, Sugarmont, 900 East	2:55	3:00	5:55
2	Wilmington, Highland, 2100 South	2:43	3:00	5:43
3	1300 East, 2100 South	3:25	2:40	6:05

Notes:

¹Represents the travel time in minutes:seconds

Source: Fehr & Peers, July 2012

As shown in Table 4.2-1, all routes are within 22 total seconds of each other, but Route #1 has the shortest total travel time. With that said, either of the routes could vary by up to a minute (higher or lower) depending on at what moment a vehicle arrives at an intersection during the cycle of the signal. One could assume that Route #1 would be similar in travel time to the route along the proposed realigned Wilmington and Sugarmont.

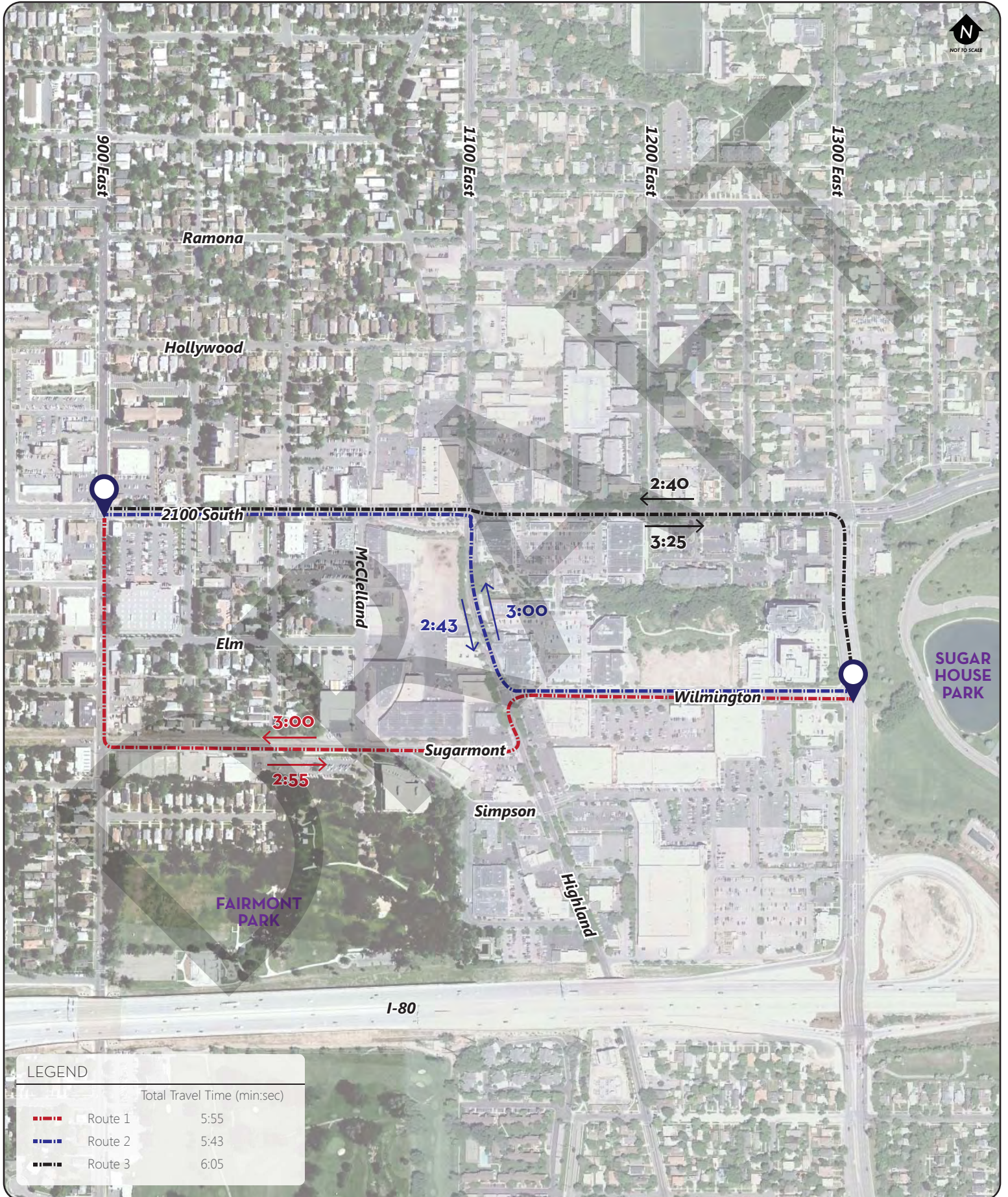
Route #2 could be reduced by implementing some minor modifications to roadway striping on the northbound approach of the 1100 East / 2100 South intersection (see Implementation Plan in Chapter 5). The eastbound travel time for Route #2 could increase with the elimination of the exclusive eastbound right-turn lane (see Section 4.1) at 1100 East / 2100 South.

Using the travel time data and traffic counts currently on the roadways, the change in PM peak hour traffic volumes was estimated. The traffic volumes at Wilmington / Highland increased (due to the addition of another intersection approach) by approximately 3% with the realignment which resulted in the LOS staying at a B and an increase of 2.7 seconds of delay per vehicle.

Pedestrian and bicycle amenities could be added to the new realignment to connect to existing pedestrian and bicycle facilities on Wilmington, Sugarmont and the Parley's Trail. The realignment could also be utilized as a route by the future streetcar extension.

TRAVEL TIME COMPARISON

Figure 4.2-2| Sugar House Business District Circulation Plan



In summary, the realignment of Wilmington and Sugarmont would create more accessibility and connections for the Sugar House CBD area. The benefit of the realignment is more centralized to the core of Sugar House and is less of a regional mobility benefit due to the “t”-intersections on both ends of the route at 1300 East and 900 East. As redevelopment continues along the Granite Block and potentially at the tennis courts/community gardens at 900 East / Sugarmont, the need for the realignment could be more beneficial and important than it currently appears in the short-term.

The following Table 4.2-2 summarizes the feasibility criteria for evaluation.

DRAFT

Table 4.2-2. Sugarmont Drive / Wilmington Realignment Feasibility Criteria

Project	Relationship to Goals	Mobility Benefits (ped/bike/veh /transit)	Technical Constraints	Project Cost (low/med /high)
Sugarmont Drive and Wilmington Realignment	<ul style="list-style-type: none"> Improves all modes of mobility including street and trail networks, transit, pedestrian and bicycle movement opportunities Creates useable connections to existing and future pedestrian and bicycle path systems Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards Redesigns the present circulation system to provide better internal access within the business district Evaluated the feasibility and impacts of realigning Sugarmont with Wilmington at the Highland Drive intersection Provides bicycle lanes where appropriate and feasible 	+ / + / 0 / 0 ¹	<ul style="list-style-type: none"> Loss of commercial property (i.e. Zions Bank, and other Granite Block buildings) Cost to acquire land from property owners Access to property on one-way section of Sugarmont could potentially be lost Potentially challenging intersection where McClelland, Wilmington, Simpson, Sugarmont, Streetcar, and Parley's Trail all intersect. 	High

Notes:

¹Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

4.3 Highland Drive Road Diet

This section summarizes the feasibility of converting Highland Drive from a four-lane cross section of traffic to three-lanes from 2100 South to the I-80 overpass. The evaluation of this conversion is included in the Sugar House Master Plan.



Existing Conditions

Highland Drive between 2100 South and Stringham Avenue is a four-lane arterial. South of Stringham Avenue, Highland Drive becomes a two-lane road with on-street parking on both sides. Highland Drive has a posted speed limit of 30 mph in the Study Area. Highland Drive has the following street widths:

- 60 feet (includes gutters) – consists of two travel lanes in each direction and parallel on-street parking on both sides. Located throughout sections between Wilmington Avenue and 2100 South.
- 48 feet – consists of two travel lanes in each direction. Located primarily between Simpson Avenue and Wilmington Avenue. There is no parking in this section.
- 40 feet – consists of two travel lanes in each direction. Located in various sections between Wilmington Avenue and 2100 South (where there is no on-street parking) and south of Simpson Avenue.

The existing LOS for the key intersections along Highland in the Study Area is shown below in Table 4.3-1.

Highland Drive Road Diet

The road diet of Highland Drive would consist of a three-lane cross section with one travel lane in each direction, a center turn lane, parallel on-street parking (at existing locations only), and bicycle lanes between the I-80 overpass and 2100 South (approximately 1,900 feet in length). The center turn lane will need to terminate at the I-80 overpass in order for the three-lane section to join with the two-lane section that exists south of the overpass. The width of travel and bicycle lanes would vary based on the actual width of the roadway. The amount and location of on-street parking does not change with the implementation of the road diet. There is not enough right-of-way width to consider alternative parking configurations, such as angled parking. Figure 4.3-1 shows the extent and location of the road diet area and proposed cross sections. The following Table 4.3-1 shows the traffic operations results of reducing the number of travel lanes for the road diet. The existing lane configurations at 1100 East / 2100 South intersection would not change with the road diet.

Table 4.3-1. Highland Drive Road Diet Level of Service Analysis

<i>Intersection</i>	<i>Four Lanes (Existing)</i>		<i>Three Lanes (Road Diet)</i>	
	<i>Avg. Delay (sec/veh)</i>	<i>LOS</i>	<i>Avg. Delay (sec/veh)</i>	<i>LOS</i>
1100 East / 2100 South	28.3	C	30.6	C
Highland Dr / Wilmington Ave	10.1	B	13.0	B
Highland Dr / Simpson Ave	10.0	B	13.5	B

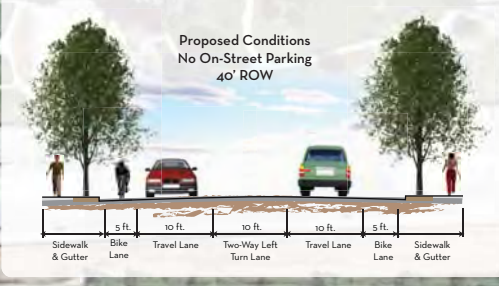
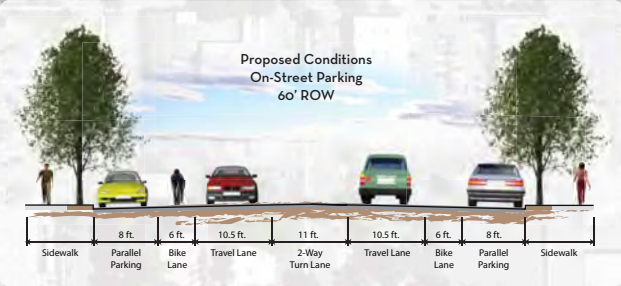
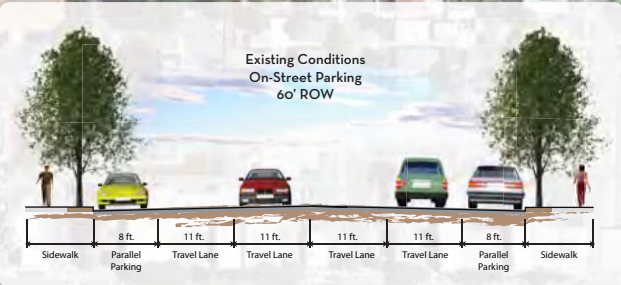
Source: Fehr & Peers, July 2012

As shown in Table 4.3-1, the impact to vehicle delay of implementing the road diet on Highland Drive is minimal.

The following Table 4.3-2 summarizes the feasibility criteria for evaluation.

HIGHLAND DRIVE ROAD DIET

Figure 4.3-1 | Sugar House Business District Circulation Plan



LEGEND

Road Diet Extent

Table 4.3-2. Highland Drive Road Diet Feasibility Criteria

Project	Relationship to Goals	Mobility Benefits (ped/bike/veh /transit)	Technical Constraints	Project Cost (low/med /high)
Highland Drive Road Diet	<ul style="list-style-type: none"> Improves bicycle mobility Provides a safe, attractive, and functional pedestrian environment to promote a walkable community Creates useable connections to existing and future pedestrian and bicycle path systems Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards Provides bicycle lanes where appropriate and feasible Evaluated the feasibility of making Highland Dr, south of 2100 South in the CBD a two-lane street, with a continuous center turn lane and angled or parallel on-street parking 	+ / + / 0 / 0 ¹	<ul style="list-style-type: none"> In areas where the street width is 40 feet, bicycle lane widths (five feet) and travel lane widths (10.5 feet) will likely need to be less than standard for Salt Lake City. 	Low

Notes:

¹Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

In summary, the Highland Drive road diet would have minimal vehicular impact along the street and key intersections. Although the lane reduction would slightly increase average delay at the key signalized intersections, roadway segment delay would likely decrease due to the center turn lane that would exist which removes stopped turning vehicles from the travel lane. The road diet would also provide bicycle lanes which improve the multi-modal accessibility in

the Study Area. Also, by reducing travel lanes and providing a buffer (bicycle lanes) between the sidewalk and the vehicle travel lanes will create a better and more comfortable environment for pedestrians. The net supply of on-street parking remains the same in either condition.

4.4 *Division of Large Blocks*

This section summarizes the feasibility of dividing larger blocks into smaller blocks within the Study Area. The evaluation of this division is a goal from the Sugar House Master Plan.

Existing Conditions

The Sugar House CBD consists of large blocks with minimal and/or undefined multi-modal connections to the existing street grid. The large blocks in the Study Area that need to the most improvement include: the Granite Block and the Sugar House Center block.

Division of Large Blocks

Large blocks can be divided into smaller blocks with defined pedestrian, bicycle, vehicular, and/or transit connections. Smaller blocks create better accessibility, walkability, and distribution of traffic, which results in an increase in mobility and a decrease in congestion. Figure 4.4-1 shows the proposed division of blocks with pedestrian pathways (including trail systems and general walkways) and streets.

The following Table 4.4-1 summarizes the feasibility criteria for evaluation.

DIVIDING LARGER BLOCKS

Figure 4.4-1 | Sugar House Business District Circulation Plan

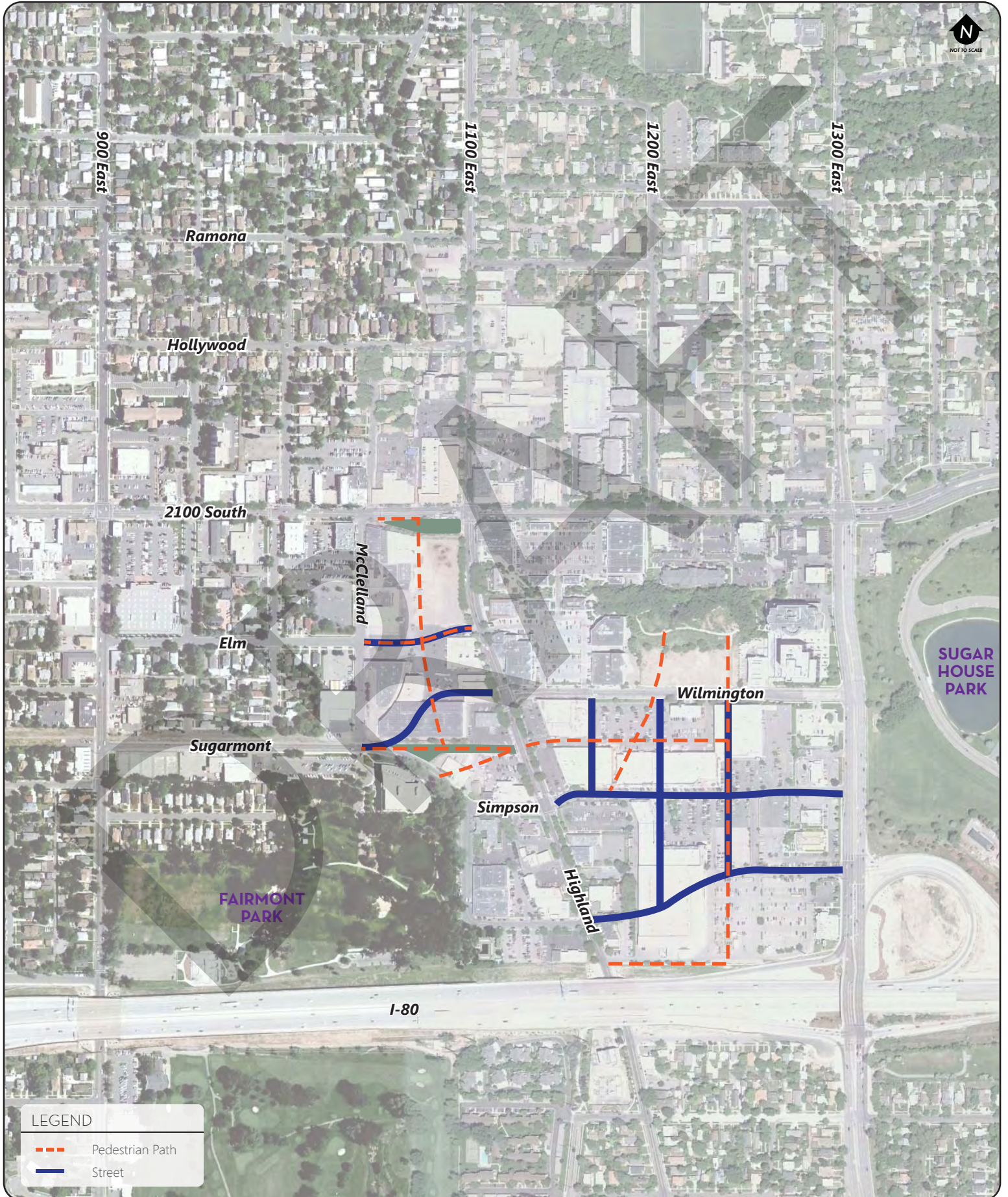


Table 4.4-1. Division of Large Blocks Feasibility Criteria

Project	Relationship to Goals	Mobility Benefits (ped/bike/veh /transit)	Technical Constraints	Project Cost (low/med /high)
Division of Large Blocks	<ul style="list-style-type: none"> Improves bicycle mobility Provides a safe, attractive, and functional pedestrian environment to promote a walkable community Creates useable connections to existing and future pedestrian and bicycle path systems Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards Provides better multi-modal connectivity Provides better internal access Divides large blocks into smaller blocks 	+ / + / + / + ¹	<ul style="list-style-type: none"> Collaboration with property owners for implementation 	Med to High

Notes:

¹Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

4.5

Addition of Bicycle Lanes on 2100 South

This section summarizes the feasibility of adding bicycle facilities to 2100 South. Although the Study Area of this *Plan* is from 900 East to 1300 East, for this particular feasibility study the Study Area was expanded to include all of 2100 South within Salt Lake City boundaries. 2100 South is a major road in the heart of Sugar House, connecting it to residential neighborhoods to the east, and residential, commercial, and industrial districts to the west. The roadway is



owned by Salt Lake City. Several goals and statements within the Sugar House Master Plan relate to this topic in various ways, including:

- Provide for multiple modes of transportation that are safe, convenient, and comfortable;
- Provide a pedestrian and bicycle circulation plan and identify the right-of-way necessary to support multi-modal alternatives;
- Evaluate the existing policy that prohibits cyclists from using the

sidewalk in the Sugar House Business District and leaves the cyclist without a bicycle lane or path as an alternative;

- Ensure new land uses located adjacent to bicycle routes require installation of street improvements, and provide bicycle lanes where appropriate and feasible;
- Provide safe bicycle routes to parks from residential areas, and establish a separate bicycle arterial system that connects Westminster College, the University of Utah, the Sugar House Business District, and other major destination points with one another;
- Use American Association of State Highway and Transportation Officials (AASHTO) and National Association of City Transportation Officials (NACTO) standards for bicycle lane width and signage for new construction; and use road construction projects as opportunities to upgrade existing bicycle lanes to meet these standards;
- Unite the parks and recreation areas with the open space trail system to develop a continuous bikeway system for inter- and intra-city travel for recreation as well as alternative transportation;
- Connect bicycle routes with regional trail systems in other jurisdictions and neighboring communities;
- Support the elimination of on-street parking on one side of roadways to allow the addition of bicycle lanes; and
- Provide bicycle racks and lockers at destination points and at transit terminals;
- Enhance pedestrian crossings along 2100 South;
- A pedestrian first zone, reducing travel distances encourages safer and increased levels of bicycling and walking;
- Pedestrians should have the right-of-way over all other modes of transportation;
- Use a landscaped area to provide a buffer zone

Existing Conditions

In the heart of Sugar House, 2100 South is a four-lane roadway with an occasional center turn median. The roadway has variable characteristics along its length between 300 West and Parley’s Way, which represents the majority of the urban roadway. Table 4.5-1 identifies major segments of the roadway and their characteristics.

Table 4.5-1. 2100 South Characteristics

Segment	No. of Lanes	Sidewalks	Parkstrip	On-Street Parking	ADT ¹
300 West to 200 East	4	Yes	No	No	18,000
200 East to 700 East	4	Yes	Yes	No	17,000
700 East to 900 East	4	Yes	Yes	No	26,000
900 East to 1300 East	4	Yes	Yes	Some	25,000
1300 East to 1700 East	5	Yes	Yes	North side only	22,000
1700 East to 2100 East	4	Yes	Yes	No	19,000 ²
2100 East to Parley’s Way	4	Yes	Yes	No	15,000 ²

Notes:

¹2010 Average Daily Traffic data from UDOT’s Traffic on Utah Highways.

²2010 Average Daily Traffic from Salt Lake City Transportation Division

Source: Fehr & Peers, July 2012

Accommodating Bicycle Lanes

Salt Lake City could pursue several options for accommodating bicycle lanes on 2100 South. These include removing a traffic lane (also known as a “road diet”), removing on-street parking, widening the roadway, or establishing a shared bicycle/vehicle/transit on outside lanes. These options are outlined in Table 4.5-2.

Table 4.5-2. 2100 South Possible Bicycle Lane Alternatives

Alternatives	Technical/Safety Constraints	Project Cost (low/med/high)
Add bicycle lanes through a Road Diet on 2100 South	<ul style="list-style-type: none"> Road diets for a four-lane to three-lane cross section can generally be successful with volumes up to 20,000 ADT depending on the application; see Table 4.1-8 for 2100 South ADT. Intersection at 2100 South and 700 East is frequently congested with high right-turn volumes. Potential delay for bus routes if congestion increases. East of 1300 East, a road diet is feasible in the eastbound direction by replacing the outside travel lane between 1300 East and 1700 East with an uphill bicycle lane. A cycle track is also a possibility in this segment. This alternative is not likely west of 1300 East. 	Low

Table 4.5-2. 2100 South Possible Bicycle Lane Alternatives

<i>Alternatives</i>	<i>Technical/Safety Constraints</i>	<i>Project Cost (low/med/high)</i>
Remove on-street parking to add bicycle lane	<ul style="list-style-type: none"> On-street parking is only present in limited sections of 2100 South (see Table 4.1-8). Removes buffer between pedestrians and travel lanes. Potential for bus conflicts across bicycle lanes. Street lights would need to be relocated as well as parkstrip trees. Current on-street parking levels would need to be analyzed further to determine utilization. 	Medium
Shared bicycle/vehicle outside lane	<ul style="list-style-type: none"> Frequent right turns and intersections create possible safety hazards. 	Low
Widen roadway to accommodate bicycle lanes	<ul style="list-style-type: none"> Additional cost and building acquisition associated with widening between 600 East and 1300 East. Right-of-way may be available between 200 East – 600 East and east of 1300 East via removal of on-street parking or road diets. 	High
Widen the sidewalk to better accommodate cyclists ¹	<ul style="list-style-type: none"> Additional cost and building acquisition associated with widening sidewalks between 600 East and 1300 East. Some street lights would need to be relocated. Some parkstrips would need to be removed. Conflicts between pedestrians and cyclists on the sidewalk. Safety issues with vehicles entering/exiting driveways, not expecting to see cyclists on the sidewalk. 	High

Notes:

¹While this is not a typical preferred solution, it should be noted that bicycle counts conducted at the intersection of 1100 East and 2100 South revealed that 53 – 80% of the cyclists traveling through that intersection were on the sidewalk.

Source: Fehr & Peers, July 2012

200 East to 600 East

Conclusion

It is feasible to add a bicycle lane through elimination of on-street parking between 200 East – 600 East on both sides of the street.

Considerations

- Further evaluate the necessity of on-street parking for businesses and residences throughout these areas.
- Safety concerns from a shared bicycle lane and bus stops would need to be addressed.

600 East to 1300 East

Conclusion

An on-street bicycle facility is not recommended in this section, due to high traffic volumes and inadequate width for cyclists. Salt Lake City should support finding other east-west alternates for cyclists, such as Westminster Avenue or the proposed Parley's Trail. A road diet is not recommended based on the daily traffic volumes.

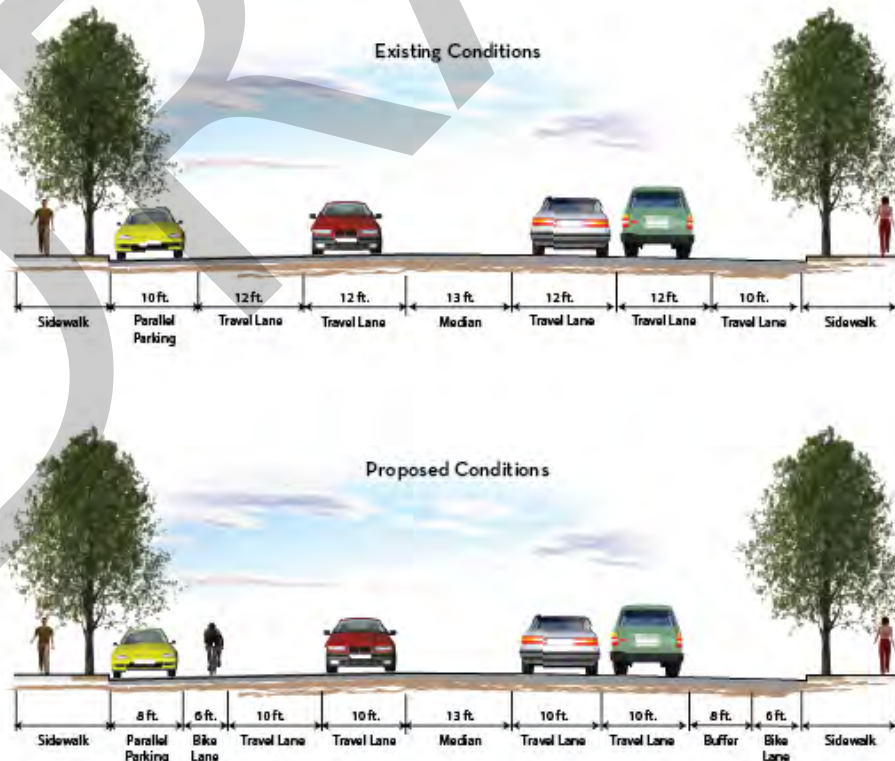
Considerations

Percentage of total bicycles on 1100 East and 2100 South using the sidewalk ranged from 53% - 80%. The option of allowing cyclists to ride on the sidewalk is unconventional, but reflects the trends that are already occurring on the corridor. Given that these behaviors are already taking place, Salt Lake City may wish to consider safety treatments that alert motorists to the potential presence of cyclists on the sidewalk.

1300 East to 1700 East

Conclusion

A road diet is feasible on eastbound 2100 South between 1300 East and 1700 East, which will allow space for a buffered bicycle lane. Narrowing westbound vehicle and parking lanes can provide adequate space for a westbound bicycle lane as well. These can be accomplished without major resurfacing of the roadway. Space reallocations are demonstrated in the following cross-sections.



Considerations

A two-way “cycle track” is also feasible on the south side of 2100 South if the existing outside eastbound lane is removed. Cycle track alignments would not continue west of 1300 East or east of 1700 East. Cycle track treatments would need to transition at these intersections to match bicycle treatments in adjacent roadway segments. Intersections between 1300 East and 1700 East will require special treatments as well in order to accommodate a cycle track.

1700 East to 2300 East

Conclusion

It is feasible to add a bicycle lane in both directions by instituting a road diet, through eliminating the outside travel lane and adding bicycle lanes plus a center turn lane. Another option would be to establish outside shared lanes eastbound and westbound, using shared lane markings and “Bikes May Use Full Lane” signage.

Considerations

- Any transition between bicycle treatments on the corridor (bicycle lanes vs shared lane markings) will need to be carefully designed to minimize confusion and enhance bicyclist safety.
- Salt Lake City should conduct a traffic analysis to verify that a road diet will not result in undue traffic congestion in this corridor; it is possible that the surrounding neighborhoods will voice concerns regarding cut-through traffic. It is recommended that the City perform public outreach prior to implementation of a road diet.
- Safety concerns from a shared bicycle lane and bus stops would need to be addressed.
- Logical termini for bicycle lanes on 2100 South is 2300 East due to the presence of bicycle lanes on this roadway; adequate space may exist east of 2300 East to accommodate a bicycle lane on the shoulder, but the roadway eventually transitions into a freeway on-ramp without space for cyclists. Other logical connections east of 2300 East may be considered if bicycle lanes were to continue further.

4.6

Parley's Trail Connection

This section summarizes options for a Parley's Trail alignment between the Fairmont Aquatic Center (located on Sugarmont Avenue and McClelland Avenue) and Hidden Hollow Park (located west of 1300 East and north of Wilmington Avenue). Establishing a Parley's Trail connection meets several goals from the Sugar House Master Plan, such as:

- Provide for multiple modes of transportation that are safe, convenient, and comfortable;

- Provide a pedestrian and bicycle circulation plan and identify the right-of-way necessary to support multi-modal alternatives;
- Provide safe bike routes to parks from residential areas, and establish a separate bicycle arterial system that connects Westminster College, the University of Utah, the Sugar House Business District, and other major destination points with one another;
- Unite the parks and recreation areas with the open space trail system to develop a continuous bikeway system for inter- and intra-city travel for recreation as well as alternative transportation; and
- Connect bike routes with regional trail systems in other jurisdictions and neighboring communities.

Planning Context

Several factors must be considered when evaluating options for the Parley's Trail in this section. These include adjacent Parley's Trail sections and their design treatments, potential transportation investments in the area, and development plans for private property parcels in the section under study.

Adjacent Trail Sections

West of McClelland Avenue, the Parley's Trail is planned for co-location with the Sugar House Streetcar, generally within the UTA right-of-way. East of Hidden Hollow, a tunnel (The Draw) will soon be under construction at 1300 East which will connect trail users from Hidden Hollow to Sugar House Park, and to trail links eastward from there. The trail from Hidden Hollow to 1700 East will be paved for use by both bicyclists and pedestrians, but separated from vehicles.



Potential Transportation Investments

Two potential transportation investments between McClelland Avenue and Hidden Hollow are noteworthy for the Parley's Trail. First, Salt Lake City has, for some time, considered realigning Wilmington Avenue with Sugarmont Drive. Both roads terminate at Highland Drive, and currently do not align. A realignment of these two roads could potentially join the two roadways together and create better accessibility of traffic in the Sugar

House area (see Section 4.1.2 and the figure above). It could establish an on-street Parley's Trail alignment, placing trail users on bike lanes and pedestrians on sidewalks to connect between McClelland Avenue and Hidden Hollow. However, realignment is not feasible in the short-term, but could be more viable in the mid- to long-term as redevelopment continues along Sugarmont Drive and land is acquired on the Granite Block. Since the realignment is not considered feasible in the short-term future, it is also not currently available as an option for the Parley's Trail.



Another potential transportation investment in the area is Phase Two of the Sugar House Streetcar. Phase One of the Sugar House Streetcar extends from the 2100 South (Central Pointe) TRAX Station to McClelland Avenue, and began construction in spring 2012. An extension (Phase Two) is currently under consideration, and would take the streetcar eastbound from McClelland onto Simpson Avenue, north on Highland Drive to the monument at 2100 South, returning south on Highland Drive to Sugarmont Avenue, and westbound on Sugarmont Avenue to McClelland Street and onward. The following figure illustrates the locally preferred

alternative (LPA) alignment for the streetcar in this area. An eventual streetcar extension along 1100 East to 1700 South may be considered in the future. Sugarmont Drive, currently a one-way road westbound with on-street space for bicyclists and pedestrians, would be closed to vehicles other than the streetcar.

Development Plans

As previously discussed in Section 2.1.2, several major redevelopment projects are progressing in the Sugar House area. This includes Wilmington Gardens between Highland Drive and 1300 East north of Wilmington Avenue, and Sugar House Center between Highland Drive and 1300 East, south of Wilmington Avenue. Both projects involve developers who are supportive of the Parley's Trail concept and bicycle and pedestrian facilities in general. The Wilmington Gardens project will establish a bicycle-specific trail on the east edge of their project to accommodate cyclists exiting Hidden Hollow using the Parley's Trail, while pedestrians may connect from the trail in Hidden Hollow to Wilmington Gardens from a pedestrian plaza and corridor in the center of the project. Development plans at the Sugar House Center are in a preliminary stage, and will become more detailed after this Plan is complete.

Recommendations and Considerations

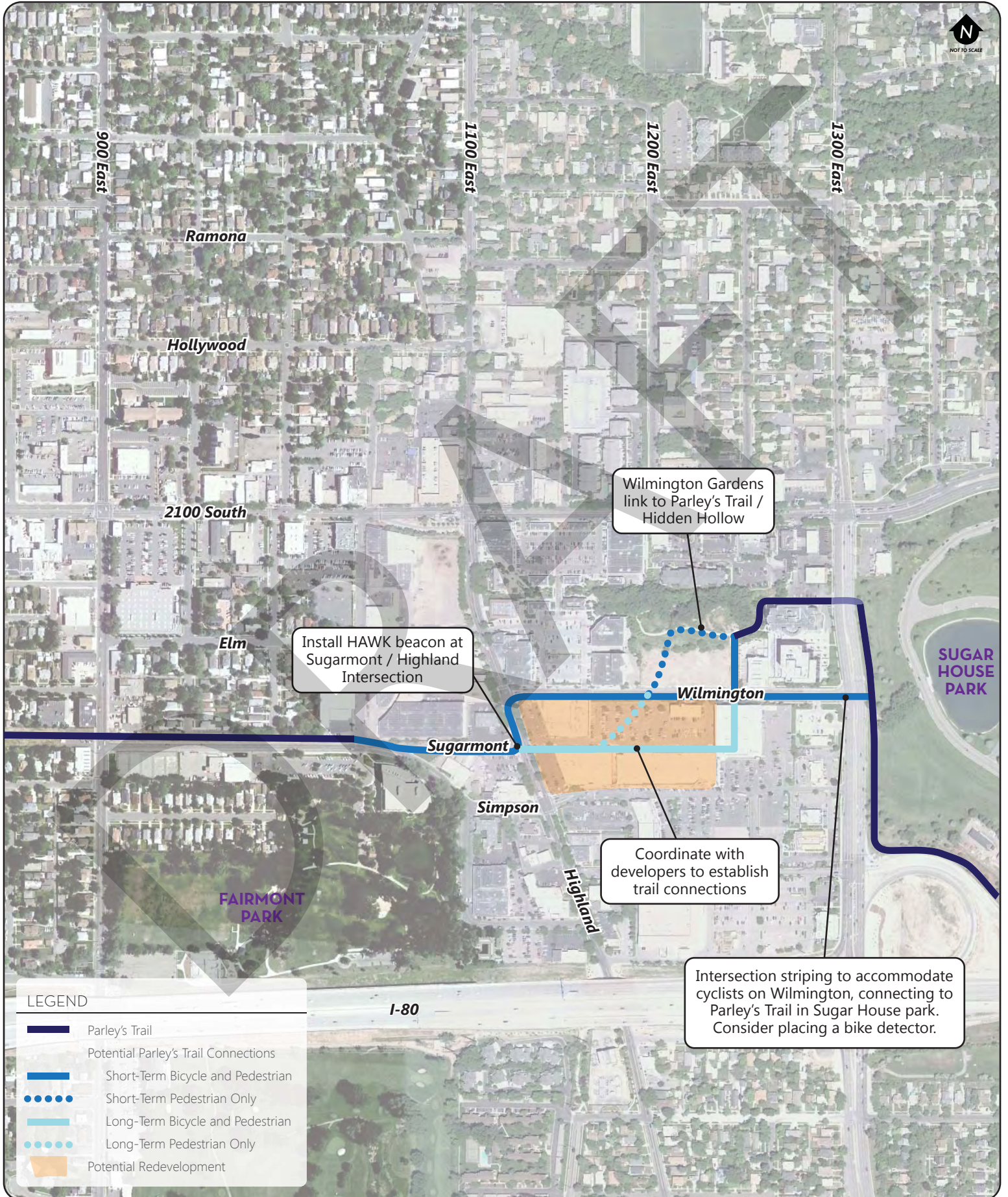
The recommendations for the Parley's Trail are shown in Figure 4.6-1. Specific improvements associated with the recommendations include:

- Parley's Trail users can use planned separate connections in the Wilmington Gardens project to travel between Wilmington Avenue and Hidden Hollow: bicyclists using the trail on the eastern edge of the property, pedestrians through the corridor and plaza in the center of the project.
- Existing bicycle lanes on Wilmington Avenue should be restriped, including accommodations for cyclists to make left turns at both ends of the corridor. Bicycle detector loops should be considered.
- For the near future, trail users should use Wilmington Avenue and Highland Drive to connect to the Sugar House Streetcar greenway on Sugarmont Drive.
- Salt Lake City should continue discussions with the developers of the Sugar House Center to establish pedestrian corridors linking from Wilmington Gardens to Sugarmont Drive.

DRAFT

PARLEY'S TRAIL CONNECTION

Figure 4.6-1 | Sugar House Business District Circulation Plan



LEGEND

- Parley's Trail
- Potential Parley's Trail Connections
- Short-Term Bicycle and Pedestrian
- Short-Term Pedestrian Only
- Long-Term Bicycle and Pedestrian
- Long-Term Pedestrian Only
- Potential Redevelopment

Wilmington Gardens link to Parley's Trail / Hidden Hollow

Install HAWK beacon at Sugarmont / Highland Intersection

Coordinate with developers to establish trail connections

Intersection striping to accommodate cyclists on Wilmington, connecting to Parley's Trail in Sugar House park. Consider placing a bike detector.

- A HAWK beacon at the intersection of Sugarmont Drive and Highland Drive is recommended; this would ideally connect interior pathways at the Sugar House Center to the Sugar House Streetcar and greenway. This will become more critical as pedestrian connections are established through the Sugar House Center and if the proposed streetcar line extends to Highland Drive.
- Adequate space exists on Sugarmont Drive, with roughly 35 feet of right-of-way, to accommodate both the streetcar and the Parley's Trail along the streetcar's south side. The turning radius for the streetcar may necessitate more space from the trail area; if this is the case, the trail could be shifted slightly southward into property owned by Salt Lake City that is planned for redevelopment.

4.7 *Raised Street Level on Highland Drive*

This section summarizes the feasibility of raising the street level of Highland Drive between Sugarmont Drive and Simpson Avenue. The evaluation of this project was recommended by RDA staff.

Existing Conditions

Highland Drive has a four-lane cross section between Sugarmont Drive and Simpson Avenue and has a posted speed limit of 30 mph. The ADT on Highland Drive is approximately 21,200.

Raised Street Level

A raised street would consist of raising the street level to the same elevation as the sidewalks and future proposed plazas in the area. With the redevelopment of the Sugar House Center and the Deseret Industries block, as well as the proposed plaza at Sugarmont – the raised street level could tie all the developments and plazas together creating a synergy between them, the plazas, and Farimont Park. As previously discussed, this is also the proposed location for the Parley's Trail connection. The streetscape and amenities plan should provide further evaluation of this project.

The following Table 4.7-1 summarizes the feasibility criteria for evaluation.

Table 4.7-1. Raised Street Level on Highland Feasibility Criteria

Project	Relationship to Goals	Mobility Benefits (ped/bike/veh /transit)	Technical Constraints	Project Cost (low/med /high)
Raised Street Level on Highland	<ul style="list-style-type: none"> Improves bicycle mobility Provides a safe, attractive, and functional pedestrian environment to promote a walkable community Creates useable connections to existing and future pedestrian and bicycle path systems Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards Provides better multi-modal connectivity 	+ / + / 0 / 0 ¹	<ul style="list-style-type: none"> Streetcar design (going up and down the elevation change) Bollards (or something similar) may need to be placed on either end to visually segregate pedestrian plazas from the raised street area 	Med to High

Notes:

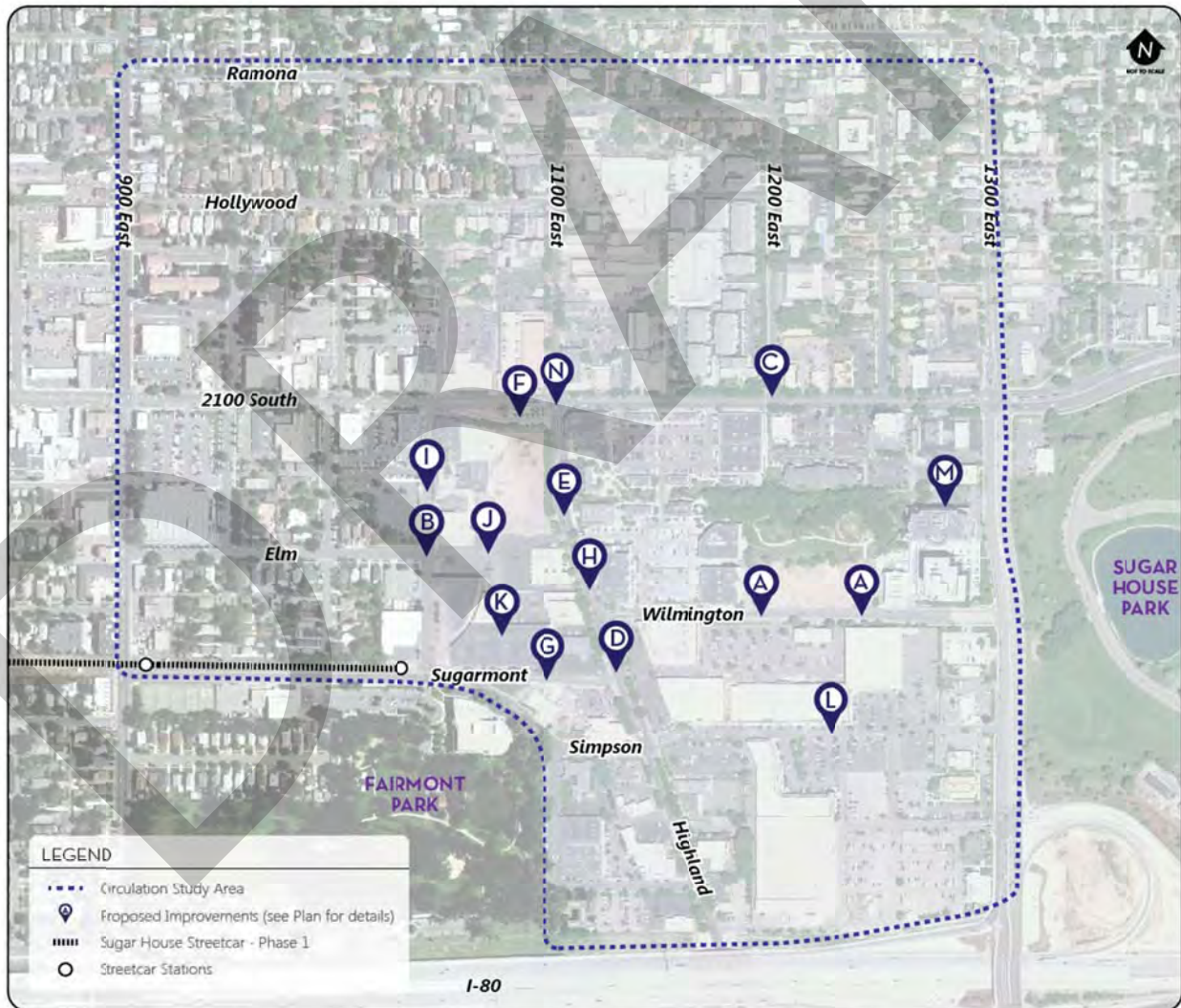
¹Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

CHAPTER 5: IMPLEMENTATION PLAN

5.1 Proposed Improvements - Specific Locations

The figure below illustrates locations where opportunities for specific improvements were identified. A series of Project Sheets follow that correspond with map locations. It should be noted that the improvements shown on some of the Project Sheets can serve as prototypical improvements that could be applied at other locations. Also note that currently no safety studies have been conducted in these locations. These studies, along with greater examination of drainage and parking impacts, are necessary before making any determination on how to proceed. This *Plan* was a collaborative effort to prepare a timeline for implementing projects in the short-term (2012-2014), mid-term (2014-2020), and long-term (beyond 2020). Conceptual projects were established based on input from the project stakeholders, the Sugar House Master Plan, and feasibility studies (including technical analysis) presented in Chapter 4.



5.2 Mid-Block Crossings

A. Wilmington Avenue



Short Term

Existing Site Characteristics

- Currently, there is one mid-block crossing on Wilmington near Highland and a crosswalk at the intersection of Wilmington and 1300 East.
- The nearest crossing point to the proposed crossing area is 250 feet away.
- Wilmington Avenue is a low-volume road.

Design Recommendations

- Improve visibility through signage and striping
- Possibly raise crosswalk and texture
- Cost may be associated with development projects

Possible Concerns

- As development occurs along Wilmington, roadway volumes may increase.



B. McClelland at Elm



Short Term

Existing Site Characteristics

- Currently, there is one mid-block crossing on McClelland Street, 230 feet north.
- McClelland Street is a low-volume road, with a number of development plans along both sides.
- A Sugar House Streetcar station will be located 375 feet south of this intersection.

Design Recommendations

- Improve visibility through signage and striping
- Possibly raise crosswalk and texture

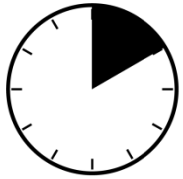
Possible Concerns

- Conflict with proposed cycle track and trail users.



5.3 HAWK Beacons

C. 2100 South at 1200 East (already funded by the City)



Short Term

Existing Site Characteristics

- The crossing features flags for pedestrians to use to increase visibility on both approaches.
- UTA bus stop is close to crosswalk.
- Westminster sees 1200 East as a pedestrian connection to the college.

Design Recommendations

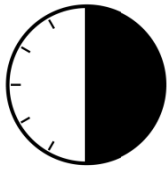
- Improve visibility of crossing through electronic signals.

Possible Concerns

- Ability to retain street trees.



D. Highland at Sugarmont



Mid Term

Existing Site Characteristics

- Signalized crossings are located 170 and 220 feet away.
- Will become a crossing for the Parley's Trail, currently being constructed alongside the Sugar House Streetcar.
- Connects Sugar House Park and Fairmont Park.

Design Recommendations

- Construct a HAWK beacon to facilitate trail users and streetcar riders.

Possible Concerns

- Spacing to the Wilmington and Simpson traffic signals.

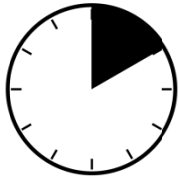


5.4

Road Diet

E.

Highland



Short Term

Existing Site Characteristics

- Highland Drive is currently two lanes in each direction with pockets of on-street parking.
- Delay occurs as drivers wait in-lane to turn left.

Design Recommendations

- From 2100 South to Stringham Avenue, convert roadway into one lane in each direction, with a center turn lane, and bike lanes in both directions. Maintain on-street parking where it exists.

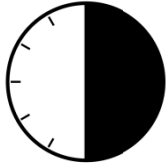
Possible Concerns

- An increase in ADT with less capacity as future developments come on line in the Study Area.



5.5 *Plazas*

F. Monument Plaza



Mid Term

Existing Site Characteristics

- Stop-controlled, eastbound right-turn bay.
- Plaza area with monument, bus stop, and trees.
- Angled parking along south side of right-turn bay.

Design Recommendations

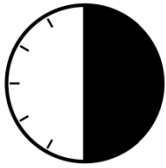
- Close Plaza to automobile traffic and remove parking.
- Provide space for streetcar to enter plaza in short-term and for streetcar station in long-term.
- Make plaza space at one, consistent level.
- Allow fronting development to use Plaza as sitting and dining space.

Possible Concerns

- Removal of trees.
- Removal of 18 on-street parking stalls.
- Loss of exclusive eastbound right-turn lane. Could increase vehicular delay and eastbound queue length.



G. Sugarmont between McClelland and Highland



Mid Term

Existing Site Characteristics

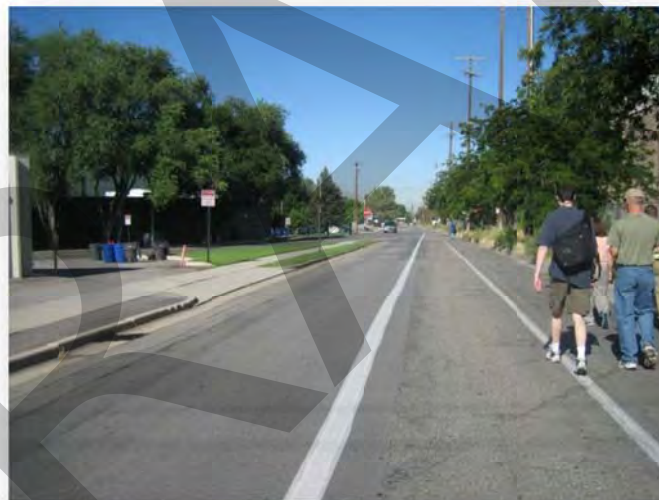
- One-way, westbound traffic with bike lane.
- Provides access for returning fire department vehicles.

Design Recommendations

- Close Sugarmont to automobile traffic, with exception for fire department vehicles.
- Provide space for streetcar and Parley's Trail users.
- Make plaza space at one, consistent level.
- Allow fronting development to use Plaza as sitting and dining space.

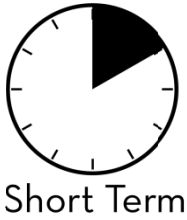
Possible Concerns

- None



5.6 Bicycle Lanes

H. Highland



Short Term

Existing Site Characteristics

- Highland Drive is currently two lanes in each direction with pockets of on-street parking.
- There are no bicycle lanes.

Design Recommendations

- From 2100 South to Stringham Avenue, convert roadway into one lane in each direction, with a center turn lane, and bicycle lanes in both directions. Maintain on-street parking where it exists.

Possible Concerns

- None.



I. McClelland from 2100 South to Sugarmont



Existing Site Characteristics

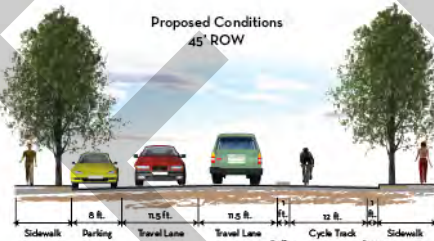
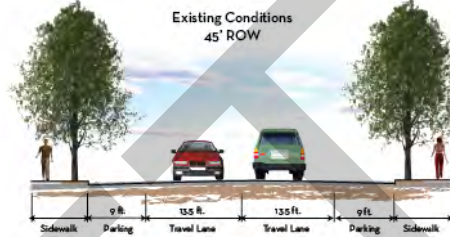
- One travel lane in each direction with unsigned on-street parking.
- No striping on roadway.
- Low traffic volumes set to increase with redevelopment on both sides of roadway.
- Future alignment for Jordan and Salt Lake Canal Trail.

Design Recommendations

- Two-way cycle track on east side of roadway.
- Cycle track minimum width of 12 feet.
- Parking in one direction should be maintained.
- Physical buffer separation from vehicular traffic.

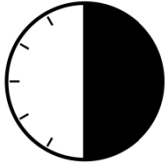
Possible Concerns

- Driveway/minor street crossings.
- Entering/exiting cycle track.



5.7 Pedestrian Connections

J. Various Locations



Mid Term

Existing Site Characteristics

- A number of large developments with limited inviting pedestrian spaces and large parking lots.

Design Recommendations

- Create clearly delineated and signed pedestrian pathways through large blocks.
- As part of the development review process for new developments/reuse of existing developments, encourage the construction or conversion of larger blocks into smaller blocks separated by a network of narrow, short streets and/or pedestrian and bicycle corridors.

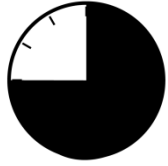
Possible Concerns

- None.



5.8 New Roadways

K. Wilmington Extension



Long Term

Existing Site Characteristics

- Wilmington Avenue exists from 1300 East to Highland Drive.
- Current configuration is one lane in each direction with bike lanes.

Design Recommendations

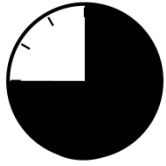
- Extend Wilmington through Granite Block to Sugarmont at intersection of McClelland.
- One travel lane in each direction with bike lanes and on-street parking.

Possible Concerns

- Intersection at McClelland/Sugarmont/Simpson.
- Development potential of parcels.



L. Simpson Extension



Long Term

Existing Site Characteristics

- Simpson currently exists from McClelland to Highland.
- Current configuration is one lane in each direction.

Design Recommendations

- Extend Simpson from Highland through Sugar House Center to 1300 East.
- One travel lane in each direction with on-street parking.

Possible Concerns

- Intersection at 1300 East will likely be restricted to right-in right-out movements only.



5.9 Parley's Trail

M. Sugar House Connection



Short Term

Existing Site Characteristics

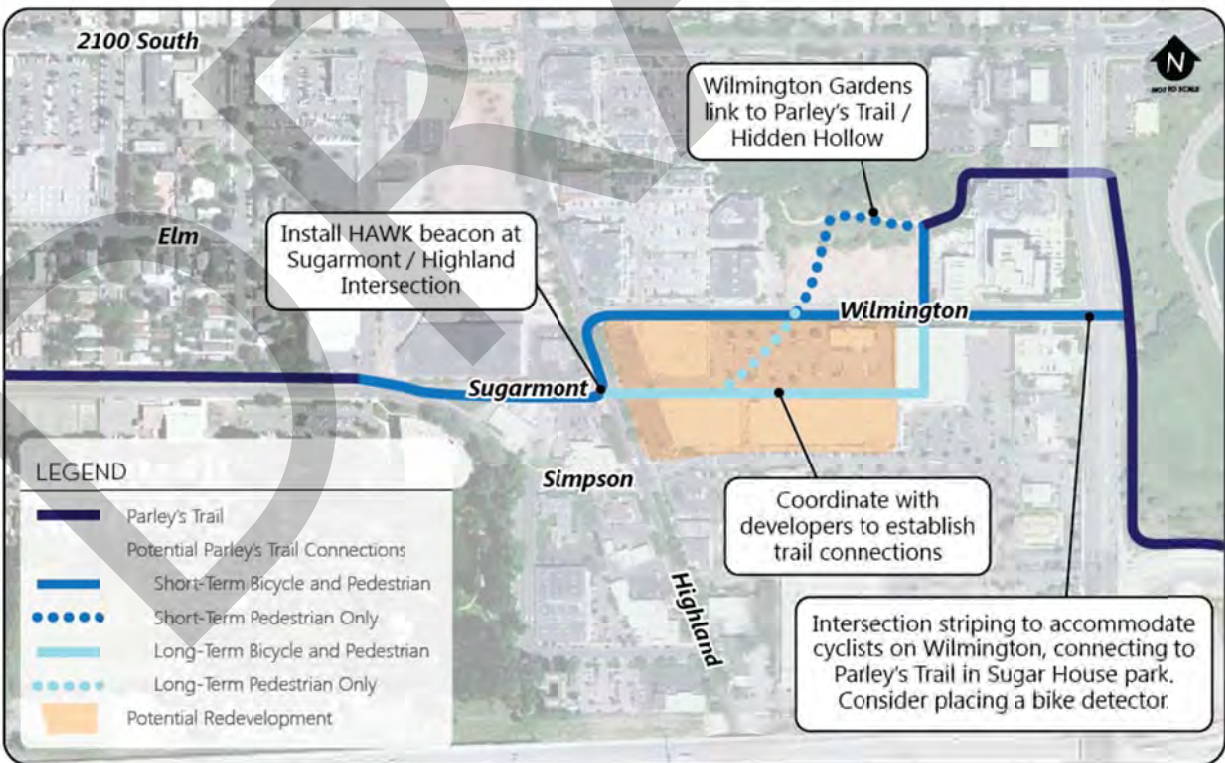
- There is no planned connection between McClelland Street (end of Greenway corridor) and the Draw (at 1300 East between 2100 South and Wilmington).

Design Recommendations

- In short term, connect the Trail on-street via Wilmington, which has on-street bicycle lanes and sidewalks on both sides.
- The Wilmington Gardens development has planned connections, both pedestrian and bicycle, for the Parley's Trail.
- In long term, work with Sugar House Center developers to accommodate trail with possible redevelopment opportunities.

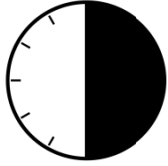
Possible Concerns

- Wayfinding.
- Ability to integrate trail into development plans.



5.10 Intersection Improvements

N. 2100 South/Highland Eastbound Right-Turn Closure



Mid Term

Existing Site Characteristics

- The current eastbound configuration at the intersection of 2100 South and Highland is one left turn lane, two through lanes, and one right-turn lane.
- Right-turn lane is stop controlled and separated from the main intersection.
- The existing right-turn lane is on the south side of Monument Plaza.

Design Recommendations

- Close right turn lane to vehicular traffic and parking.
- Eastbound movement would become one left turn lane, one through lane, and one shared through-right turn lane.

Possible Concerns

- Small increase in overall delay at intersection. More substantial increase in eastbound delay.
- Loss of 18 on-street parking stalls.
- Extended queue lengths eastbound on 2100 South.



O. Northbound Approach Improvements at 2100 South/Highland



Short Term

Existing Site Characteristics

- The current northbound configuration at the intersection of 2100 South and Highland is one left turn lane, one through lane, and one right-turn lane.
- Right lane is a trap lane, meaning all traffic in the right lane must turn right.
- Left turn lanes consistently exceeds storage lane, blocking northbound traffic.

Design Recommendations

- Reconfigure northbound approach so that the left lane turns into a left-turn trap lane.
- Northbound right would become a turn pocket.

Possible Concerns

- This configuration is only applicable prior to the implementation of the proposed Highland Drive road diet.



CHAPTER 6: Next Steps

- The City should undertake a prioritization and costing exercise beyond the scope of this *Plan*.
- In setting its priorities, the City should consider how these recommended projects help to achieve its circulation goals.
- The City should continue its engagement of property owners to help implementation the projects which are located on private property.
- Additional analysis may be needed for projects that could have a significant and unequal impact to certain modes.
- Salt Lake City should identify a variety of funding sources to construct the recommended projects described in the implementation section of this *Plan*.

CHAPTER 7: COMPLETE STREETS/STREETSCAPE AMENITIES

An opportunity for incorporating the Complete Streets concept is arriving in Sugar House. The streets within the Sugar House redevelopment area are transforming from an automobile intensive use and design to a multi-modal intensive use. This document introduces the Complete Streets concept, evaluates the current streetscape amenities within the Sugar House Business District, and then establishes a set of streetscape design standards to better accommodate this multi-modal use and guide the renovation to a Complete Streets environment. The objective is to document existing resources, discuss how to build off and incorporate existing amenities into an overarching Complete Streets design, evaluate opportunities to enhance and unify the design theme and to replace amenities that have served their lifecycle or are outdated and underperforming.

Background

The Sugar House Master Plan states, “The Business District can be improved in terms of making it a more pedestrian-oriented experience. The City needs to think “pedestrian first” when approving new developments or when implementing its own public works projects. This includes pedestrian circulation between blocks and within individual developments. It is essential that pedestrian crossings on 2100 South are added and the existing crossings are enhanced. Furthermore, implementing a pedestrian first policy for the Business District to ensure the pedestrian is given priority consideration when developing new projects or programs is recommended.” The nationally recognized Complete Streets approach will assist with fulfilling the desired Master Plan goals.



Sugar House Monument
photo by: Clint Gardner, creative commons license

Complete Streets Concept

Complete Streets are roadways designed to promote and implement safe, attractive, and comfortable access and travel for all user types, ages and abilities. Implemented through planning and urban design policy, Complete Streets are ideal tools for redevelopment areas.

A Complete Street is a roadway with accommodations provided for pedestrians, cyclists, automobiles, and, where applicable,



mass transit. Connectivity, inclusive user accommodations, neighborhood character and quality of life are the defining attributes of a Complete Street. In contrast to roadways that function solely as an automobile thoroughfare, a Complete Street functions as more of a place and experience.

The Complete Street User

The user of a Complete Street can take the form of different types of mobility: pedestrians, cyclists, streetcars, buses and automobiles. Complete Streets utilize design and amenities to make streets and the surrounding streetscape safe and accessible to the needs of these different mobility types. Connectivity and the aesthetics of the streetscape environment are key factors for creating a Complete Street experience, especially for pedestrians and bicyclists. Well-designed streets allow motorists and public transportation modes to efficiently use the street without impeding or endangering other user groups.

Complete Streets Features

It is not just the design of the space from curb to curb that define the context of Complete Streets. The surrounding environment, from the architecture to the streetscape amenities, plays a large role in establishing a Complete Streets context. The design of Complete Streets incorporates multiple components of the streetscape, including:

- Street Dimensions & Configuration
- Sidewalk Dimensions & Configuration
- Amenities & Aesthetics
- Spatial Definition



photograph by: CRSA

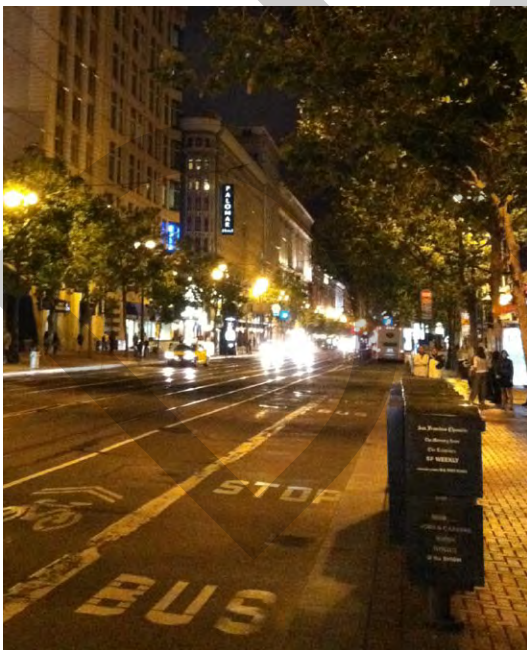
“We shouldn’t just use some antiquated language that says we have to post the speeds according to what 85 percent of motorists are doing. Instead we should take control of our streets. If 85 percent of our motorists are driving faster than we want them to, then we need to redesign the street, rather than letting the tail wag the dog. There’s something wrong with our street design if you’re getting 85 percent of our motorists to drive 10 miles an hour faster than is safe for the conditions.”

-Dan Burden, Executive Director of Walkable Communities, Inc.

Street Dimensions & Configuration

The curb to curb travel areas of Complete Streets include designated or shared-use lanes for bicyclists and transit modes. In contrast to regular streets, Complete Streets incorporate components in the street space that may include narrower travel lanes, landscaped medians, and on-street parking. A key indicator of a Complete Street is the designation of bicycle lanes or shared-use lanes. Shared lanes allow for both auto and bicycles to use the travel lane while dedicated bicycle lanes separate the users. Dedicated bike lanes also provide protection for cyclists and encourage bike use. The travel way is enhanced and defined through the use of raised crosswalks, intersection designs, colored multi-use travel lanes and decorative paving. Street width is defined as the physical curb-to-curb space. Effective width can be defined by amenities that promote a Complete Streets environment, such as on-street parking, bike lanes, painted edge lines, or bulb-outs. The edges of travel ways are spatially defined through the use of amenities such as street trees, planted park strips, and bollards. These elements all work to create a safe and inviting environment designed for multiple users.

Improvements can be made in the existing street infrastructure to create a Complete Streets context. Bike and pedestrian corridors are an effective strategy for creating more walkable, dense development environments. The addition of these corridors can create smaller blocks without adding additional automobile streets. This facilitates a higher degree of connectivity by creating more permeability among the development environment. Provision of pedestrian and bike only corridors allows them to flow through the network without needing to use busier streets.



photograph by: CRSA



photographs by: CRSA

Sidewalk Dimensions & Configuration

Complete Streets sidewalks function as more than just pedestrian walkways. When strategically designed, sidewalks become outdoor living rooms, where people eat, work, play and experience the public realm. Components of the sidewalk space can include outdoor dining, decorative planter boxes, street trees, outdoor retail space to extend store fronts, vendor kiosks, food carts, and lighting. At the corners of sidewalk space, bulb-outs extend the pedestrian space and act as buffers from faster moving traffic.

Amenities & Aesthetics

While in many city features form does follow function, good design can also be both aesthetic and functional. Textured streets, landscaping, building form and material, sidewalks and crosswalks enhance the aesthetic to a Complete Street system. Complete Street design helps to create a place and is inviting to all users.

Besides the environmental and sustainable features, trees also bring design aesthetics to the streetscape. Visually speaking trees add vertical and spatial dimension to street spaces. Street trees help make up the urban forest ecology



photograph by: CRSA

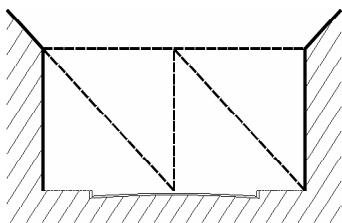
photograph by: CRSA

within cities. Tree diversity is a critical practice to maintain healthy urban forests. While consistent themes and design are important to the street aesthetic, this doesn't mean that all the trees and shrubs need to be mono-culture in species selection.

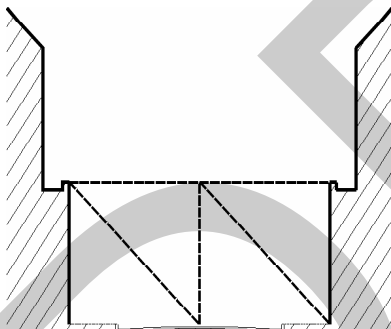
Spatial Definition

The spatial definition of the street helps to frame the perspectives of the users. In addition to buildings that are designed to shape the street with their massing, form, and orientation, other elements can define these spatial ratios. These include amenities that are part of the Complete Streets context, such as street trees, landscaping, and public art or monuments. (See Figure 1)

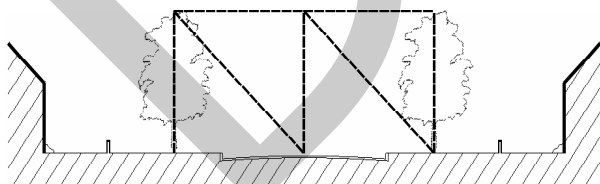
The best current example of this in the SHBD is the Sugar House Monument, which contributes to defining the spatial form of the street and enhances the area around the intersection of 2100 South and Highland Drive.



By Facade



By Recess Line/Setback



By Landscaping

Figure 1: While spatial form is often best defined by primary building facades, landscaping and stepbacks/recessed facades also are elements that define the street.



photograph by: CRSA

Existing Amenities

The collection of existing streetscape amenities in the SHBD are representative of past and current efforts to improve the experience of people who come to Sugar House to shop, eat, work, and play.

In this section, documentation of the existing amenities that define the Sugar House Business District streetscape are catalogued. Following are recommendations for which of these amenities can play a role in defining the Complete Streets context of the SHBD, and how they can be supplemented/improved upon.

The following categories define the different types of streetscape amenities found in the SHBD:

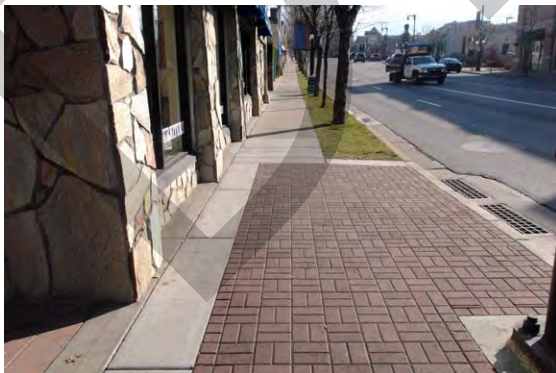
- Hardscape
- Softscape
- Lighting & Signage
- Furniture & Fixtures
- Art & Culture

Hardscape

Decorative Paving

Two types of decorative paving are currently used in the streetscape of the SHBD. The predominant type is a red, textured pavement. This textured paving material has been used in the most recent updates to areas of the SHBD, including the monument plaza, corner treatments, and bulb outs.

The other type is a smooth surface, red brick. This treatment was installed along the north side of the Granite Block as sidewalk material. However, the smooth surface becomes slick when wet and snowy, leading to unsafe pedestrian conditions.



Red Textured Paving



Smooth, red brick pavers and Street trees

Textured pavement locations include the Monument Plaza, areas along 2100 South, 1100 East, and Highland Drive.

Bulb-outs

Bulb outs are used to narrow the crossing distance and/or to act as traffic calming devices. They also define areas of on-street parking. Locations include 1100 East, Highland Drive, and 2100 South.

Crosswalks

The majority of cross walks in the SHBD are the standard striped crosswalk, defined by two parallel white painted lines. In a few locations, the more visible 'zebra' striping pattern is used. Overhead, pedestrian-activated crossing lights are located at the McClelland crosswalk on 2100 South. Additionally, orange pedestrian flags are located there and at the mid-block crosswalk just north of 2100 South on 1100 East.

Recommendations:

- Although the textured paving is fairly recent, the city should consider updating the paving scheme as the monument plaza and Granite Block are reconfigured. The smooth pavers should be replaced with a more durable, safe surface.*
- Bulb-outs should be retained, although the paving material may be updated to be consistent with the monument plaza.*
- Crosswalks should be updated with textured pavement or zebra striped lines to enhance visibility. Additional crosswalk enhancement may include HAWK lights at key locations.*



Striped Crosswalk and Street Trees



Bulb-out for on-street parking



Crosswalk with pedestrian-activated lights

Softscape

A variety of landscaping and other softscape treatments work to enhance the SHBD.

Street Trees

Street trees have been in place in the SHBD since improvements done in the 1980s. In more residential areas surrounding the SHBD, mature trees also line the street. The primary tree used in the central SHBD is the honey locust.

Tree Grates

Tree grates are used around street trees where the surrounding surface is hardscape.

Park Strips

A planted park strip separates the sidewalk from the street and contains street trees. Most areas that are not hardscaped incorporate a planted park strip.

Plantings

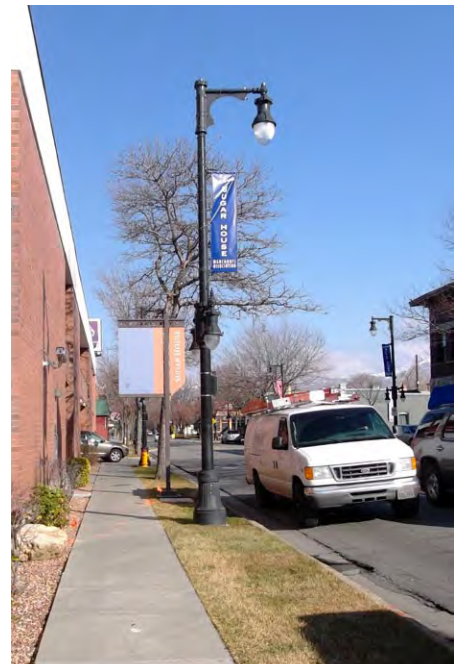
Plants are located in the base of the monument as well as in low concrete planters in a few locations on the plaza and in front of the Granite Furniture building.

Recommendations:

- Select replacement of some street trees may be in order. The lifespan of the honey locust species is near its typical end. The varieties should be selected so that their canopies are of a height that maintains unobstructed passage of different user types, including vehicles and pedestrians and bicyclists. Spacing between trees and from buildings and*



Concrete planter



Planted park strip and street trees

other structures should be designed to allow for full canopy growth. Careful consideration should be given regarding the location of street trees in front of businesses so as not to obstruct signage or building identification.

- Tree grates may need to be replaced as street trees are reconfigured or replaced. Those that remain should be evaluated and repaired when necessary.*
- Retention and enhancement of the planted park strip is recommended to maintain the softscape elements that convey a pleasant environment and balance the predominant hardscape of the street and plaza areas.*
- Plantings should remain in the base of the monument. Previous evaluation of the re-installation of the water feature was not recommended due to damage the water caused the monument structure. Additional planters should be located throughout the SHBD.*

Lighting & Signage

Street lights in the SHBD are primarily a black metal pole with teardrop light fixtures. The lights include a pair of lower pedestrian-scaled fixtures and a pole for hanging banners. The base includes lettering for “Sugar House” and a sugar beet emblem. These have been installed throughout the SHBD over the past decade. This lighting fixture was chosen in response to SHBD Design Guidelines, which called for the following specifications:

- “Choose light poles, arms, and fixture designs to preserve the historic character of the streetscape.”
- “Select lighting to be in scale with the pedestrian experience.”

Signage in the SHBD is primarily of two different types. Concrete gateway signs with metal lettering that say “Sugar House” are located at entrance points to the SHBD. These are of two different eras and the newer versions have slightly different lettering than the originals.

Wayfinding signage is located throughout the SHBD. This signage has a blue and orange flat surface with arrows indicating the direction of local attractions. The signs are mounted on a brown metal frame.



Black street lights with banner poles



Wayfinding Signage and concrete planters

Recommendations:

- The street lights currently in place are recommended to remain. Some are in need of repair, and regular maintenance is necessary to maintain a safe environment and clean appearance. The addition of accent lighting is recommended to enhance seating areas and softscape elements.*
- The signage theme for the SHBD should be unified. The concrete gateway signs have some historical significance and should likely remain. However, updates to match the style and font of the lettering on the signages is recommended. The wayfinding signs are not necessarily representative of a Sugar House color scheme. If one is identified, these signs should be updated/replaced to be consistent.*

Furniture & Fixtures

A variety of furniture and fixtures serve as amenities in the SHBD. These include transit canopies/shelters, benches, bike racks, bollards, and trash cans.

The transit canopies date back to the 1980s. These are located on the monument plaza and in front of Sprague Library.

Benches are primarily located on the monument plaza and consist of a treated wood product with metal arms/legs. Additionally, there are several concrete 'couches' that were installed as a public art commission that serve as bench seating.

Bike racks are located throughout the SHBD. The type and design vary.

Bollards are used in the main area of the SHBD to serve as barriers between pedestrians and the traffic lanes. The majority are a black metal bollard that is similar in style to the street lights. A few older concrete bollards remain on the north side of the Granite Block.



Black metal bollard and tree grate



Transit Canopy on monument plaza

Trash cans are located throughout the SHBD. These are pebbled concrete and brown metal, and square in configuration.

Recommendations:

- *The transit canopies are in need of replacement. While functional, they don't indicate the importance of transit users to the area. When amenities are provided at transit stop areas, the area is more immediately defined as a Complete Street environment to users of all types. Well-designed canopies with benches signal that the transit user is an integral and expected component of the Complete Street environment. Amenities that make the transit stops a comfortable place to sit and wait are a necessity. The location of the canopies and benches at transit stops need to be located far enough from the travel lanes to create a safe and comfortable space.*
- *The fixed-in-place benches are not frequently used, except during special events located around the monument plaza. Movable seating is recommended to replace or complement fixed benches. Seating opportunities should incorporate a range of options beyond benches and chairs. Low walls, planters, steps, and fountain edges. These additional elements function not only as seating, but also amenities that improve the aesthetics of an area and establish its niche as a public space.*
- *The current black metal bollards may continue to work, but replacement should be considered if they would be more consistent with other amenities that are part of the Complete Streets context in the SHBD.*
- *Trash cans should be replaced. Metal cans with more decorative features should be considered.*



Trash can



Concrete bollard



Benches and plantings on the monument plaza

Art & Culture

There is a great deal of public art and cultural amenities located in the SHBD. The most recognizable piece of art is the Sugar House Monument. Other pieces of art have been installed through the RDA's funding for the Sugar House project area. These include bronze sugar beet sculptures, located in front of Sprague Library and at the entrance to Hidden Hollow, and metal fish sculptures, located along 2100 South. Anagram lettering is installed in the textured paving at several locations throughout the SHBD and reference aspects of the area's history.

A cultural marker located on the monument plaza indicates the location of the Jordan and Salt Lake Canal, which runs north through the Granite Block and across the west end of the plaza.

Recommendations:

- *Existing art should be retained and highlighted as amenities. Additional art pieces are recommended and should be interactive, fun, and unique to the SHBD. The art pieces that people tend to gravitate to are those that invite closer inspection and interaction, such as the bronze sugar beets.*
- *The monument plaza should continue to be defined and highlighted as the 'center' of the SHBD. Other amenity types should work toward this objective.*
- *Additional cultural markers that spotlight historical or current facts about the area are encouraged to uniquely define the SHBD.*



Sugar House Monument



Canal marker



Bronze Sugar Beet sculpture

DRAFT

NEW AMENITY GUIDELINES

While the business district currently contains many amenities, a consistent, coordinated theme has not been completed. The implementation of the Complete Streets concept presents the opportunity to establish a design that strengthens the identity of the area. These guidelines represent the next step. They build off the efforts of the existing amenities while embracing the Complete Streets concept to truly make the streets of the SHBD accessible and defined by users of different mobility types.

This section extends the recommendations discussed in the existing amenities section. To begin, amenities that are recommended to remain are established as a base upon which to link new amenities. Then guidelines are provided for updating existing amenities or incorporating new amenities to enhance the Complete Streets context in Sugar House. To conclude, information on classification of streets in the central SHBD by street type is provided. For three of the street types, streetscape plan sections indicate how these amenities can be incorporated to advance the Complete Streets concept in the SHBD.

UNIFYING AND DEFINING AMENITIES

The overall theme for amenities in the SHBD is to establish a classic base and provide opportunities for splashes of color and verve. Rather than lock into one particular 'period' look, the amenities should represent a cross-section of styles in much the way the buildings in the business district represent the evolving history of the SHBD over the past century. These guidelines include amenities that are recommended to be unifying in their design and those that are intended to be defining. Unifying amenity types are intended to be applied district-wide, while amenities classified as defining are intended to create identities for sub-areas within the SHBD. In addition, certain aspects of each amenity will work to link it with the others.

Unifying elements:

Street lights, Bollards, HAWK poles, Base sidewalk and plaza paving, Tree grates, Trash/Recycling cans, Signage, Crosswalk treatments

Defining elements:

Benches/seating, Landscaping/planters, Bike racks, Accent paving, intersection paving

AMENITY ANCHOR: Existing Street Lights

The current black, metal street lights are recommended to serve as the primary anchor for new amenities in the SHBD. The streetlight represent the implementation of previous guidelines for the SHBD and have been installed on most of the major streets. Their overall look is classic, yet specific to Sugar House with vernacular details on the base of the pole.

Unifying details: black, metal, classic design

Location: Tall street light with lower pedestrian lights on all street types except 'Residential Village'; Lower single globe lights on 'Residential Village' street type



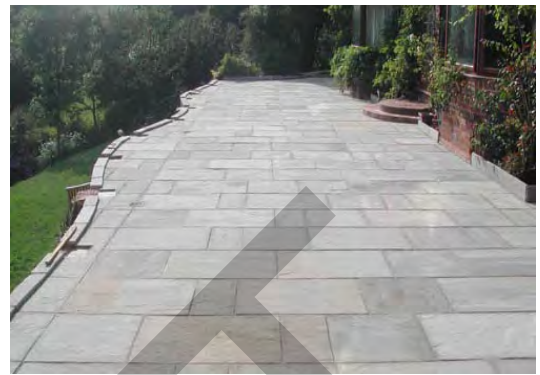
Hardscape: Base Paving for Sidewalks

Materials: Concrete; colored and/or textured

Color: light to medium gray/slate

Location: Primary paving material for sidewalks; recommended to cover 85 to 95% of sidewalk paving, with the remainder for accent paving materials.

Implementation Projects: I & J



Hardscape: Accent Paving for Sidewalks/ Parkstrips

Materials: Concrete; colored and/or textured

Color: medium to dark gray/slate; bluish-gray; greenish-slate

Location: Accent paving material for sidewalks; recommended to cover 5 to 15% of paving on sidewalks and be located on streets with hardscaped park strips (2100 South between McClelland and Elizabeth Street; Highland Drive between Hollywood and Sugar mont/ Wilmington; East side of McClelland between 2100 South and Sugarmont)

Implementation Projects: I & J





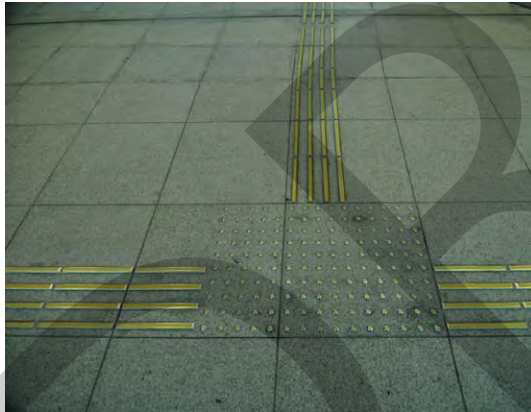
Hardscape: Base Paving for Plazas

Materials: Concrete; colored and/or textured

Color: medium gray/slate

Location: Primary paving material for plazas; recommended to cover 60 to 75% of plaza paving, with the remainder for accent paving materials. Base paving materials should be the same for all plazas.

Implementation Projects: F & G



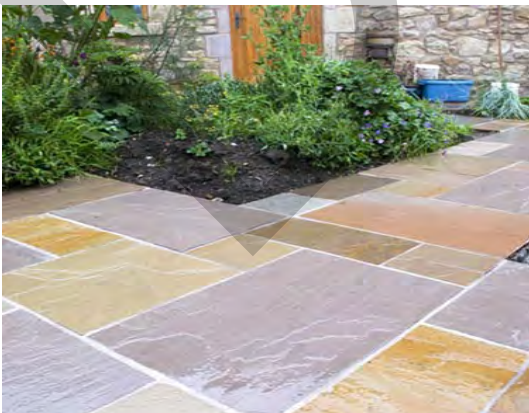
Hardscape: Accent Paving for Plazas

Materials: Concrete; colored and/or textured

Color: dark gray/slate; bluish-gray; greenish-slate

Location: Accent paving material for plazas; recommended to cover 25 to 40% of plaza paving, with color specific to each individual plaza (e.g. bluish-gray for the SH Monument Plaza and greenish-slate for the new Sugarmont/Highland Drive Plaza)

Implementation Projects: F & G



Intersection Designs

Materials: Concrete; colored and/or textured

Base Color: medium gray/slate

Accent Colors: dark gray/slate; bluish-gray; greenish-slate

Location: Primary intersections - 2100 S & Highland Drive

Implementation Project: O



Crosswalk Treatments

Materials: Zebra striped or raised with accent paving

Base Paving Color: medium gray/slate

Accent Paving Colors: dark gray/slate; bluish-gray; greenish-slate

Location: All major crosswalks

Implementation Projects: A, B, C, & D





Furniture: Benches

Materials: Metal

Colors: Stainless, blue, green, yellow

Location: Hardscaped parkstrips, plazas, transit stops (color and style can be unique to location)

Implementation Projects: F & G



Furniture: Trash/Recycle Cans

Materials: Metal

Color: black, stainless

Location: District-wide



Furniture: Bike Racks

Materials: Metal

Colors: Stainless, black, blue, green

Location: Hardscaped parkstrips, plazas, transit stops (color and style can be unique to location)

Implementation Projects: F & G



Fixtures: Tree Grates

Materials: Metal

Color: black, stainless

Location: District-wide

Implementation Projects: I & J



Fixtures: Bollards

Materials: Metal

Color: black

Details: Solar powered lights; ram-tested for plazas

Location: District-wide

Implementation Projects: F & G



Transit Canopies

Materials: Metal

Colors: Stainless, bronze, varied

Location: Major transit stops (color and style can be unique to location)



Softscape: Street Trees

Species: Ash, Linden, Maple

Location: All sidewalks and plazas (retain older, residential street trees)

North/South Streets: Ash (to replace honey locust)

East/West Streets: Linden (retain existing on plaza, 2100 South)

Corners: Maple

Implementation Projects: I & J



Softscape: Landscape Parkstrips

Plantings: lawn or low groundcover

Location: All sidewalks not included in hardscape parkstrip description

(lawn to be prioritized for areas with minimum 6' width)



Softscape: Landscape Planters

Plantings: native and/or drought-tolerant species

Planter materials: concrete and/or recycled wood

Planter colors: neutral

Location: Hardscaped parkstrips and plazas

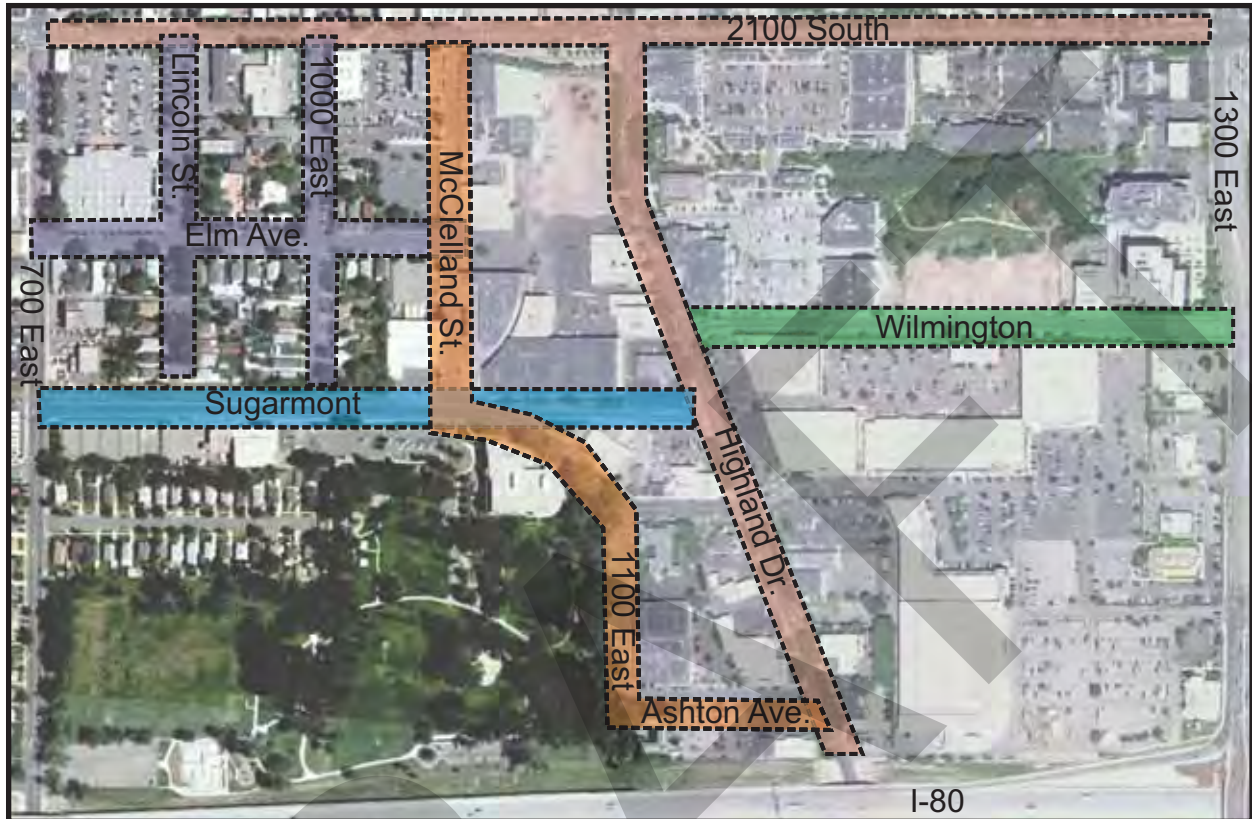
Implementation Projects: F & G



Sugar House Streetscape Guide

Complete Streets Classification

Classification Boundaries: North: 2100 South - South: I-80; East: 1300 East
East - West: 900 East



The Sugar House Classification document had been created to act as a guideline that reflect current streetscapes and plans for future streetscape treatments in the Sugar House area. These guidelines reference the suggestions as illustrated in the Complete Streets Program. Specific category names were created for this sector of Salt Lake City. The boundary area is:
North: 2100 South to South: I-80, and East: 1300 East to West: 900 East.

There are five types of street designs:

- Urban Village
- Urban Collector
- Residential Village
- Transit Village
- Transitional Mix

Each classification type reflects the current and future development that abut the streets. Each design type contains a matrix to guide the street classification standards.

Sugar House Streetscape Guide Complete Streets Classification

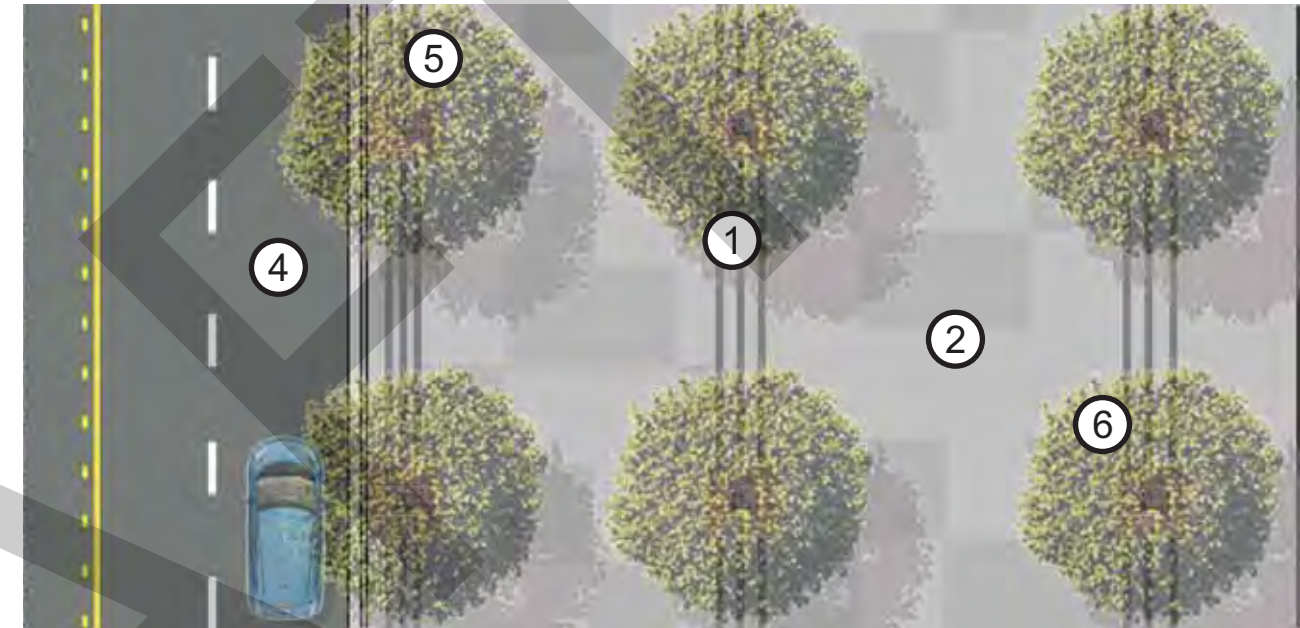
Urban Collector: 2100 South (EW 1300 East to 700 East)

2100 South - Street Section & Treatment

2100 South - South Side

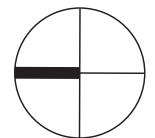


* Core Sugar House Business District Plazas



LEGEND

- 1- Accent Pavers
- 2- Plaza/ Sidewalk
- 3- Not Used
- 4- Traffic Lane
- 5- Tree Grate
- 6- Linden Tree(s)



	Classification	Range/ Size/ Scale	Specification
Type	Urban Village	Pedestrian	
Street width	Collector	ROW 65'-100'	10.5' lanes
Parking strip width	Urban	0'-5'	Grates & Planters
Sidewalk width	Urban	8'-12'	Textured Plaza
On street parking	Partial	Parallel 9'x20'	Asphalt
Landscaping	Urban	0"-36"	Drought resistant
Street trees	Medium*	H: 40' x W: 20'	Little Leaf Lindon
Street wall	Office & Retail	Pedestrian	Complete

Sugar House Streetscape Guide Complete Streets Classification

Urban Collector: Highland Drive (NS 2100 South to Ashton Ave.)

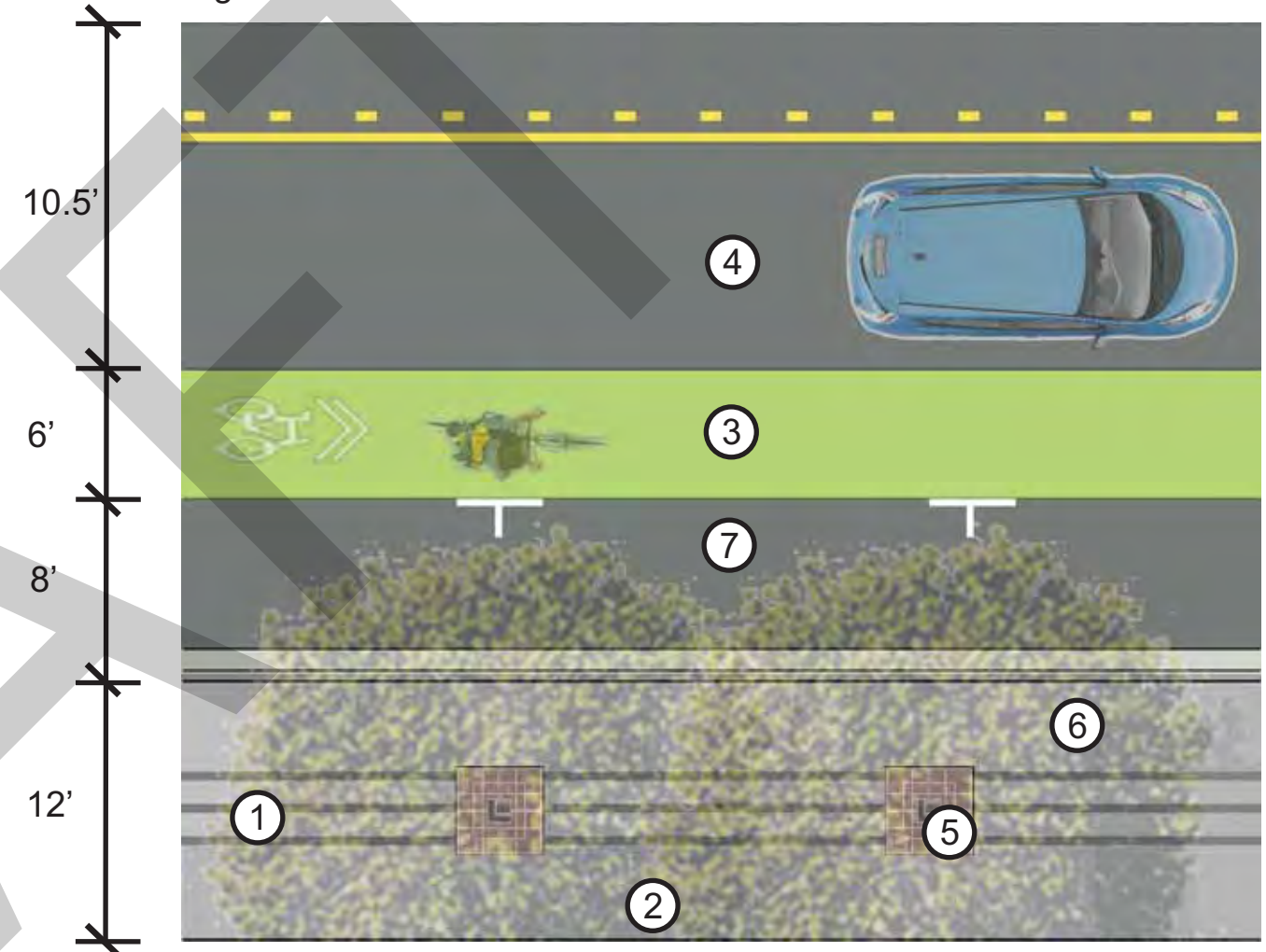


	Classification	Range/ Size/ Scale	Specification
Type	Urban Village	Pedestrian	
Parking strip width	Urban	0'-5'	Grates & Planters
Sidewalk width	Urban	8'-12'	Textured Plaza
Landscaping	Urban	0"-36"	Drought resistant
Street trees	Medium*	H: 40' x W: 20'	Lacebark Elm
Street wall	Office & Retail	Pedestrian	Complete
Lighting	Existing	Pedestrian	SLC Standard

* Salt Lake City Urban Forestry Guidelines

Highland Dr. - Street Section & Treatment

Highland Drive - West Side



LEGEND

- 1- Accent Pavers
- 2- Sidewalk
- 3- Bicycle Lane
- 4- Traffic Lane
- 5- Tree Grate
- 6- Ash Tree(s)
- 7- Parallel Parking

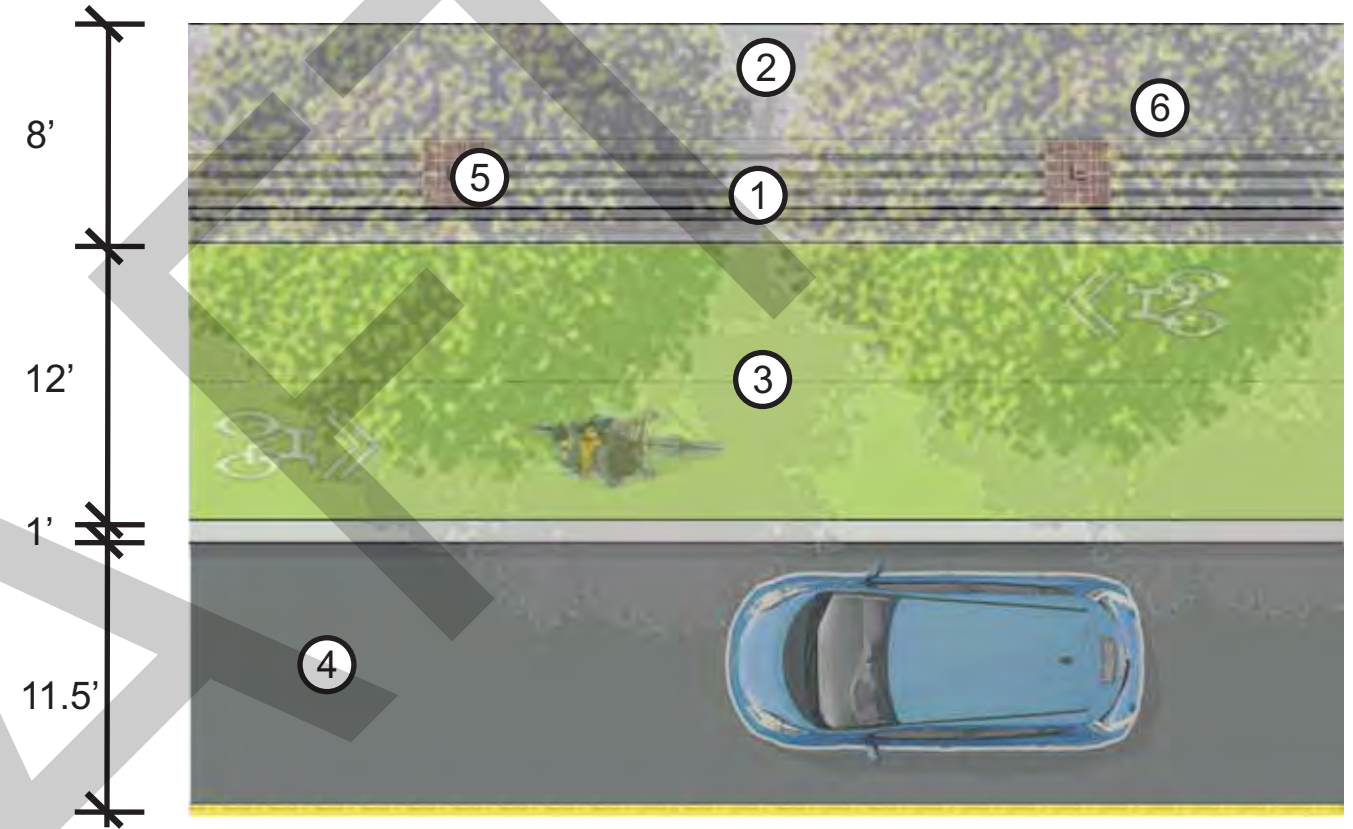
Sugar House Streetscape Guide Complete Streets Classification

Transitional: McClelland & 1100 East (2100 South to I-80)



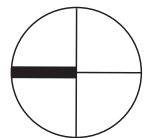
McClelland & 1100 East - Street Section & Treatment

McClelland Street - East Side



LEGEND

- 1- Accent Pavers
- 2- Sidewalk
- 3- Cycle Track
- 4- Traffic Lane
- 5- Tree Grate
- 6- Ash Tree(s)



	Classification	Range/ Size/ Scale	Specification
Type	Mixed Village	Pedestrian	
Parking strip width	Urban/ Res	0'- 8'	Grate & Staked
Sidewalk width	Urban	5'-8'	Reinforced concrete
Landscaping	Urban/ Res/ Park	Varies	Drought resistant
Street trees	North/South	Medium	Lacebark Elm
Street wall	Mix	Pedestrian	Segmented
Lighting	Existing Historic	Pedestrian	SLC standard

* Salt Lake City Urban Forestry Guidelines

Sugar House Streetscape Guide Complete Streets Classification

Urban Village Boundaries: Wilmington (Highland to 1300 East)

Wilmington - Street Section & Treatment



	Classification	Range/ Size/ Scale	Specification
Type	Urban Village	Pedestrian	
Street width	Connector	ROW 55'-65'	10' lanes
Parking strip width	Urban	0'-5'	Grates & Planters
Sidewalk width	Urban	8'-12'	Textured plaza
Landscaping	Urban	0"-36"	Drought Resistant
Street trees	Medium*	H: 40' x W: 20'	Little Leaf Lindon
Street wall	Office & Retail	Pedestrian	Complete
Lighting	Exiting Historic	Pedestrian	SLC Standard

* Salt Lake City Urban Forestry Guidelines

Sugar House Streetscape Guide Complete Streets Classification

Residential Village: Elm, Lincoln, and 1000 East (2100 South to Sugarmont, and 900 East to McClelland)



Elm (Typical Residential) - Street Section & Treatment

	Classification	Range/ Size/ Scale	Specification
Type	Residential Village	Pedestrian	single family
Street width	Local	ROW 40'-65'	10.5' lanes
Parking strip width	Residential	5'- 10'	Staked & wired
Sidewalk width	Residential	5'-8'	Reinforced concrete
On street parking	Both sides	Parallel 9'x20'	Asphalt
Landscaping	Residential	Varies	Drought resistant
Street trees	Large*	H: 60' x W: 40'	London Plain
Street wall	Mix	Pedestrian	Segmented

* Salt Lake City Urban Forestry Guidelines

Sugar House Streetscape Guide Complete Streets Classification

Transit Village: Sugarmont (900 East to McClelland)

Sugarmont - Street Section & Treatment



* Core Sugar House Business District Plazas

	Classification	Range/ Size/ Scale	Specification
Type	Transit Village	Pedestrian	
Street width	Local	ROW 40'-65'	10.5' lanes
Parking strip width	Urban/ Res	5'- 10'	Stake & wired
Sidewalk width	Urban	6'-10'	Reinforced concrete
Landscaping	Residential/ Park	Varies	Drought resistant
Street trees	Medium-Large*	Varies	October Glory Maple
Street wall	Mix	Pedestrian	Segmented
Lighting	Existing Historic	Pedestrian	SLC Standard

* Salt Lake City Urban Forestry Guidelines