

# ***Jordan and Salt Lake City Canal Trail Implementation Plan***

***March 2013***



JORDAN / SALT LAKE CITY  
**CANAL TRAIL**



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# 1. INTRODUCTION

## BACKGROUND

Salt Lake City is studying the feasibility of placing a bicycle and pedestrian trail within the Jordan and Salt Lake City Canal corridor. The Jordan and Salt Lake City Canal is an historic canal in the Salt Lake Valley, traversing the Valley from north to south. It connects the Jordan Narrows near Point-of-the-Mountain to City Creek in downtown Salt Lake City. The canal was initially constructed as an open channel but has since been enclosed in an underground culvert within Salt Lake City. This document, the Jordan and Salt Lake City Canal Trail Implementation Plan, identifies steps for implementing a trail within the canal corridor from 800 South to 3300 South in Salt Lake City. It discusses the process used to identify a preferred trail alignment and steps for moving forward. While the geographic content of this study is limited to Salt Lake City boundaries, future study of trail feasibility may be continued in Salt Lake County and other jurisdictions. A map of the Jordan and Salt Lake City Canal is provided in Figure 1.

The genesis for this trail study lies in the communities along the trail. Neighbors along the canal initiated efforts to establish a trail or parkway corridor within the Jordan and Salt Lake City Canal corridor. The East Central Community Council filed a Capital Improvement Program (CIP) application in 2008 to build a section of trail, approximately 1200 East between Harrison Avenue (1370 South) and Milton Avenue (1620 South). Salt Lake City reviewed the application and determined that more analysis would be necessary prior to constructing a trail, which led to this Jordan and Salt Lake City Canal Trail Implementation Plan.

This trail study outlines the analysis and considerations undertaken to determine the feasibility of a trail within the Jordan and Salt Lake City Canal corridor. It identifies alternatives evaluated, and recommends an alignment for future construction, as well as action items to be taken by various Salt Lake City departments. Currently no funding is available or allotted for such a trail project; funding sources for construction, operations, and ongoing maintenance must be secured before the Jordan and Salt Lake City Canal Trail may become a reality.

## CANAL HISTORY

Urban settlement in the Salt Lake Valley began in the mid-1800s. By 1860, settlers needed an additional water source for irrigational purposes. While the Jordan River carried large volumes of fresh water, it lay at too low an elevation to be used for irrigation. Salt Lake City administrators opted to build a dam at the Jordan River headwaters, and divert water through a canal to the east side of the City. Canal construction began in 1879, and the canal was completed in 1882. Today, the canal is operated and maintained by Salt Lake City Public Utilities (Public Utilities). The canal alignment is roughly 30 miles long and follows the 4,400' elevation mark. In the 1910s, the canal began to be replaced with buried conduit as farmland started to develop into residential areas. Today, the majority of the canal is located in underground conduits and, in some areas, structures have been built above the canal. More information

on the Jordan and Salt Lake City Canal can be found on the Public Utilities website (online at <http://www.slcgov.com/utilities/>, search for “Jordan and Salt Lake City Canal”).

## **PREVIOUS PLANS AND EFFORTS**

While this plan is the first to analyze trail feasibility within the corridor in detail, the Jordan and Salt Lake City Canal Trail has been formulating as an idea for several years. The 1992 Salt Lake City Open Space Plan identified the “Canal/McClelland Corridor” as a potential bicycle and pedestrian trail. While the Open Space Plan acknowledged the potential for a trail, it did not address physical and right-of-way constraints, leaving those issues to be resolved at a later date. Furthermore, the Open Space Plan’s version of the corridor extended only from 800 South to Interstate 80. For the purposes of this study, the southern boundary of the area of analysis is 3300 South.

Other local plans also acknowledged the possibility of a trail within the canal corridor. The March 2003 Westminster Neighborhood Small Area Master Plan recommended daylighting canal water, and creating a “McClelland Canal Plaza” near the intersection of Wilson Avenue and McClelland Avenue. Other documents, such as the Sugar House Business District Design Guidelines, do not name the canal specifically but laid the framework for pedestrian scale amenities in the business district. In addition, the Jordan and Salt Lake City Canal Trail appears on the Salt Lake City Bikeways map as a “proposed path.”

The Salt Lake City Sugar House Area Master Plan (2001) also mentions the Jordan and Salt Lake City Canal Trail. The “McClelland Corridor” is specifically identified as a trail corridor in the Parks and Open Space section of the Master Plan. Stated policies in the Sugar House Master Plan include:

- “Utilize the Salt Lake Jordan Canal/McClelland corridor right-of-way as a pedestrian link, especially as it transects the ‘Granite Furniture’ block”
- “Provide access and reopen obstructed segments of the Salt Lake Jordan Canal/McClelland Trail Corridor” (in reference to Brickyard Plaza)
- “Develop a pedestrian trail system that connects Parley’s Canyon, Sugar House Park, Hidden Hollow, the Salt Lake Jordan Canal/McClelland Trail Corridor, and Fairmont Park”

Most recently, Salt Lake City Redevelopment Agency’s internal goals involve working with developers to establish a trail following the Jordan and Salt Lake City Canal corridor within the Granite Block.

The Sugar House Community Council has actively voiced support for the trail for many years. Their actions of support have included:

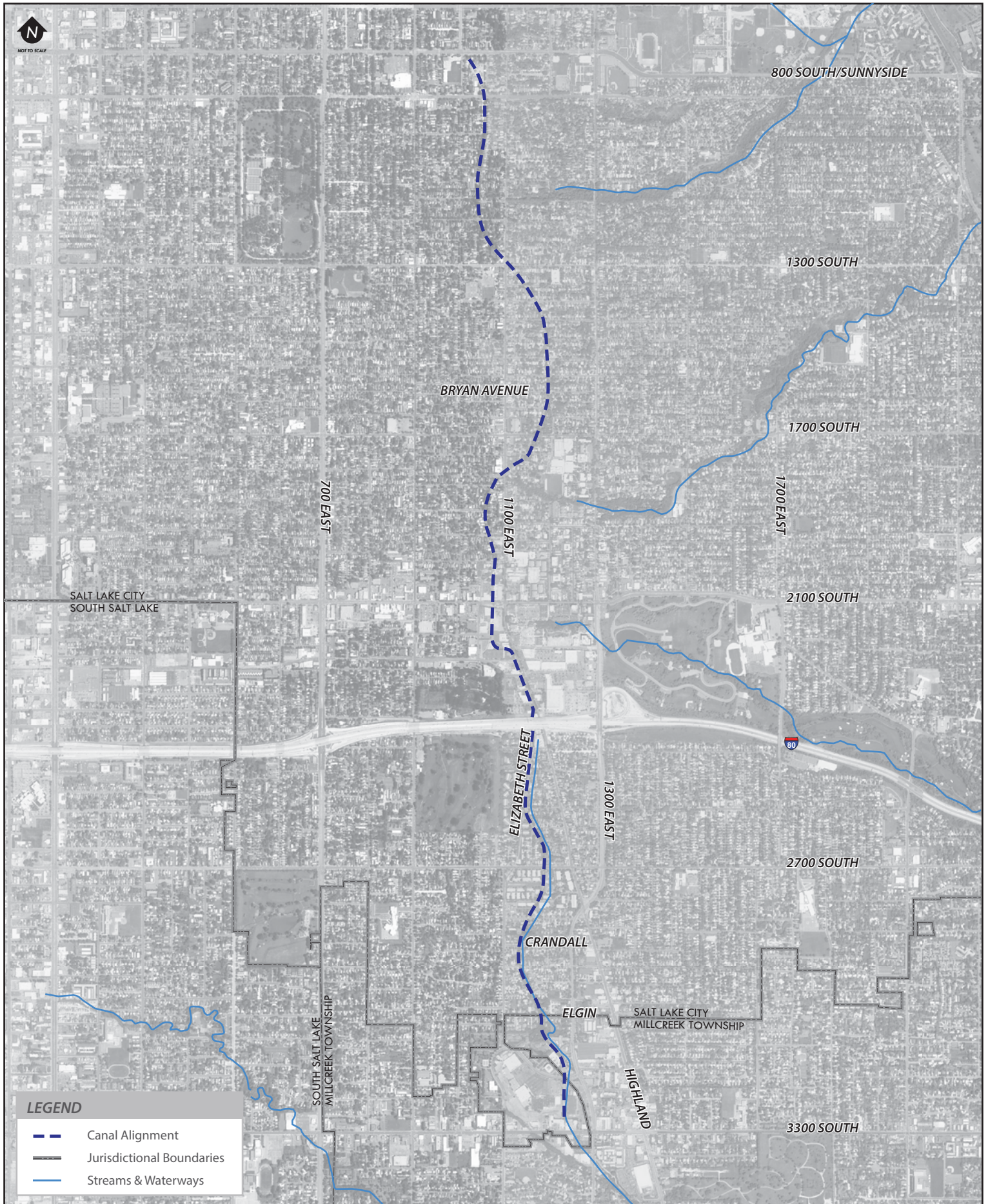
- Letters to Planning Division in 1998 and 1999, seeking assurance that a parking lot at 1986 S. 1100 East should not prevent future development of the trail to the west of the lot;
- Two letters to Salt Lake City Public Utilities and the Salt Lake City Planning Division sent in 2001, supporting public access to the canal corridor;
- Two letters to City Council representatives sent in 2005, asking for help to prevent encroachment on the canal corridor and to fund a master plan to guide decisions about using the canal right-of-way;

- Meetings in 2005 with a City Council member to discuss trail improvements, and subsequent issues concerning encroachment and potential damage to the canal from construction projects;
- Two motions passed in 2007 in support of the trail, which were sent to the previous administration, followed by letters to State Representatives, requesting help to protect the canal corridor from impacts of widening I-80;
- March 2008 meeting with Mayor Ralph Becker to present a Sugar House Community Council request for design and construction of a trail between Elizabeth Sherman Park and Hollywood Avenue; and
- October 2008 meeting with the Salt Lake City Department of Community and Economic Development to discuss development of a trail through the Sugar House Business District, in conjunction with redevelopment of the Granite Block.



# FIGURE 1. JORDAN AND SALT LAKE CITY CANAL OVERVIEW

## JORDAN AND SALT LAKE CITY CANAL TRAIL





## 2. EXISTING CONDITIONS

### REGIONAL AND LOCAL CONTEXT

Land use, transportation, and potential trip generators are important factors in understanding trail use potential. These elements determine who might use a trail, how often, in which directions, and for what purposes. This section identifies the prevalent land uses along the canal corridor, relevant transportation connections and links, and likely destinations for trail users. Figures 2 (Land Use and Activity Generators) and 3 (Transportation Links) illustrate potential trail relationships to geographic context.

### LAND USE

The study area for this section of the Jordan and Salt Lake City Canal encompasses a fairly large geographic area, with several distinct development and neighborhood types. Characteristics change gradually from north to south through the study area.

The neighborhoods from 800 South to 2100 South are predominantly single-family cottages and bungalows dating to the early part of the 20<sup>th</sup> century. Parcels are small, typically less than 10,000 square feet, and residential streets are typically quiet and tree-lined. Neighborhoods such as 9<sup>th</sup> & 9<sup>th</sup> and Sugar House are within a reasonable bicycling distance of major employment centers, such as the Salt Lake City Central Business District or the University of Utah and its medical centers and office park. Several commercial nodes are sprinkled through the area, with many locally-owned businesses at key intersections and on major streets such as 1100 East. Westminster College, near 1200 East and 1700 South, is a major generator of vehicle, bicycle, pedestrian, and transit trips in the neighborhood. Pocket parks are tucked away in these neighborhoods, providing recreation opportunities to residents of all ages. Several schools sit near the corridor north of 2100 South, including Judge Memorial High School, East High School, Rowland Hall St. Mark's High School, and Emerson Elementary.

Commercial development dominates from 2100 South to Interstate 80 along the canal corridor. 2100 South is a major business corridor, with casual restaurants, drive-through fast food, retail outlets, service businesses, and offices. The Granite Block, bounded by 2100 South, Sugarmont Drive, McClelland Street, and Highland Drive, is scheduled for redevelopment and will include a mix of multi-family housing, ground-floor retail, and other land uses. East of Highland Drive in this area is the Sugar House Commons shopping center, including Whole Foods and several other big-box retailers. Other uses within this section of the study area include fitness centers, the State Liquor Store, Fairmont Park, retail stores, restaurants, and taverns. A large area east of Highland Drive, north of Interstate 80, and south of Wilmington Avenue is also slated for redevelopment.

South of Interstate 80 and north of Elgin Avenue (3000 South), land uses are primarily single family homes and condominium or apartment complexes line the corridor, but development dates to the post-World-War-II era and the second half of the 20<sup>th</sup> century. Parcels are slightly larger than the neighborhoods to the north, but are still of moderate size. Some parts of this area are within unincorporated Salt Lake County, where streets generally lack sidewalks, curb or gutter.

South of Elgin Avenue, development patterns begin to shift to more suburban styles, with curvilinear streets linking neighborhoods to arterial roadways. The loss of the gridded street network has a negative impact on pedestrian connectivity and accessibility, requiring pedestrians to walk longer distances to reach their destinations. The Brickyard shopping center dominates the canal corridor between Elgin Avenue and 3300 South. This center is characterized by large surface parking lots, a big-box grocery store, and a strip mall of retailers.

Several parcels along the canal corridor are zoned as Open Space (OS) districts. These include Inglewood Park near the intersection of McClelland Avenue and Princeton Avenue, Fairmont Park near 1100 East and Interstate 80, and Elizabeth Sherman Park near Parkway Avenue and Elizabeth Street. The Salt Lake City Zoning Ordinance indicates that trails and pedestrian pathways are not permitted uses in Open Space districts. Chapter 2.90 of Title 2 of the Zoning Ordinance outlines the Open Space Lands Program and the rules that govern it. Chapter 2.26 of Title 2 outlines the Urban Forestry Ordinance, addressing landscaping and tree protection rules for the City.

## **TRANSPORTATION CONDITIONS**

Transportation links most relevant to trail users include on-street bicycle facilities, pedestrian infrastructure, trail links and transit networks. Both existing and future multi-modal networks are indicated here.

The Jordan and Salt Lake City Canal Trail could provide excellent links to local and regional bicycle facilities. These include:

- Existing bike lanes on 800 South, 900 South, 1300 South, 1100 East (from 1300 South to 1700 South), 1300 East, and Wilmington Avenue
- Planned bike lanes on 900 South
- Existing shared bike routes on 800 East, Highland Drive, and 2700 South
- A mix of bike lanes and shared lanes on 1700 South
- A planned connection to the Parley's Trail near Sugarmon Avenue

Planned trail facilities would accommodate both bicyclists and pedestrians.

Salt Lake City is considering a "road diet" on Highland Drive between 2100 South and Ashton Avenue, which would reduce the lanes from four to three (one in each direction with a center turn lane). This would allow space for bicycle lanes on Highland Drive. See the Draft Circulation and Streetscape Amenities Plan for the Sugar House Business District.

Pedestrian connectivity north of 2700 South is generally good. Neighborhoods typically have sidewalks, parkstrips, and street trees. Gridded street networks prevail north of 2700 South, providing pedestrians with multiple options when walking to a range of destinations. Several types of traffic control devices in the area accommodate pedestrians as well. The intersection of 800 South and 1100 East is equipped with pedestrian-activated overhead crosswalk warning beacons, advance warning beacons, a median refuge and a marked crosswalk. Near Westminster College (off the canal corridor), Salt Lake City installed two HAWK (High-intensity Activated crossWalk) beacons on 1300 East at Wilson Ave. and Downing Ave. In addition, there are four other HAWK beacons near the study corridor on 1300 East

(700 South near McGillis School, Yale Ave., Kensington Ave. and Stratford Ave.). The 2100 South corridor is fairly congested in Sugar House, with four travel lanes and no center median. Multi-lane cross-sections are more hazardous to crosswalk users: drivers in the inside lanes may not always see pedestrians in the crosswalk, as visibility is blocked by vehicles in the outside lanes. At the 2100 South and McClelland Street intersection, pedestrians and cyclists utilize overhead flashing warning beacons along with crosswalk flags to cross 2100 South. More improvements may be needed at this location to assist trail users to cross 2100 South. Other crosswalks at unsignalized intersections along 2100 South (at Douglas Street, 1200 East, and 1000 East, for example) have crosswalk flags but no overhead warning beacons.

South of 2700 South, neighborhood characteristics slowly shift toward a more suburban layout, with curvilinear streets and fewer grid connections. As the study area approaches 3300 South, the municipal jurisdiction shifts from Salt Lake City to Salt Lake County. Some County roads are more rural in nature, without sidewalks, parkstrips, or concrete curb and gutter.

Several Utah Transit Authority (UTA) bus routes parallel or intersect the canal corridor:

- Route 209, 900 East
- Route 213, Highland Drive
- Route 220, 1300 East
- Route 9, 900 South
- Route 17, 1700 South
- Route 21, 2100 South
- Route 33, 3300 South

In addition to existing bus routes, new transit facilities are planned in the study area for both the near and long term. The Sugar House Streetcar (Phase I), from the Central Pointe TRAX station to McClelland Street, will begin construction in 2012. Phase II of the streetcar, from McClelland Street to points north and east, is currently under study. The Wasatch Front Regional Council (WFRC) Long Range Transportation Plan also identified two future transit projects in the area: 700 East Bus Rapid Transit and 1300 East Bus Rapid Transit. Neither of these projects is currently funded.

## **PEDESTRIAN AND BICYCLE ACTIVITY GENERATORS**

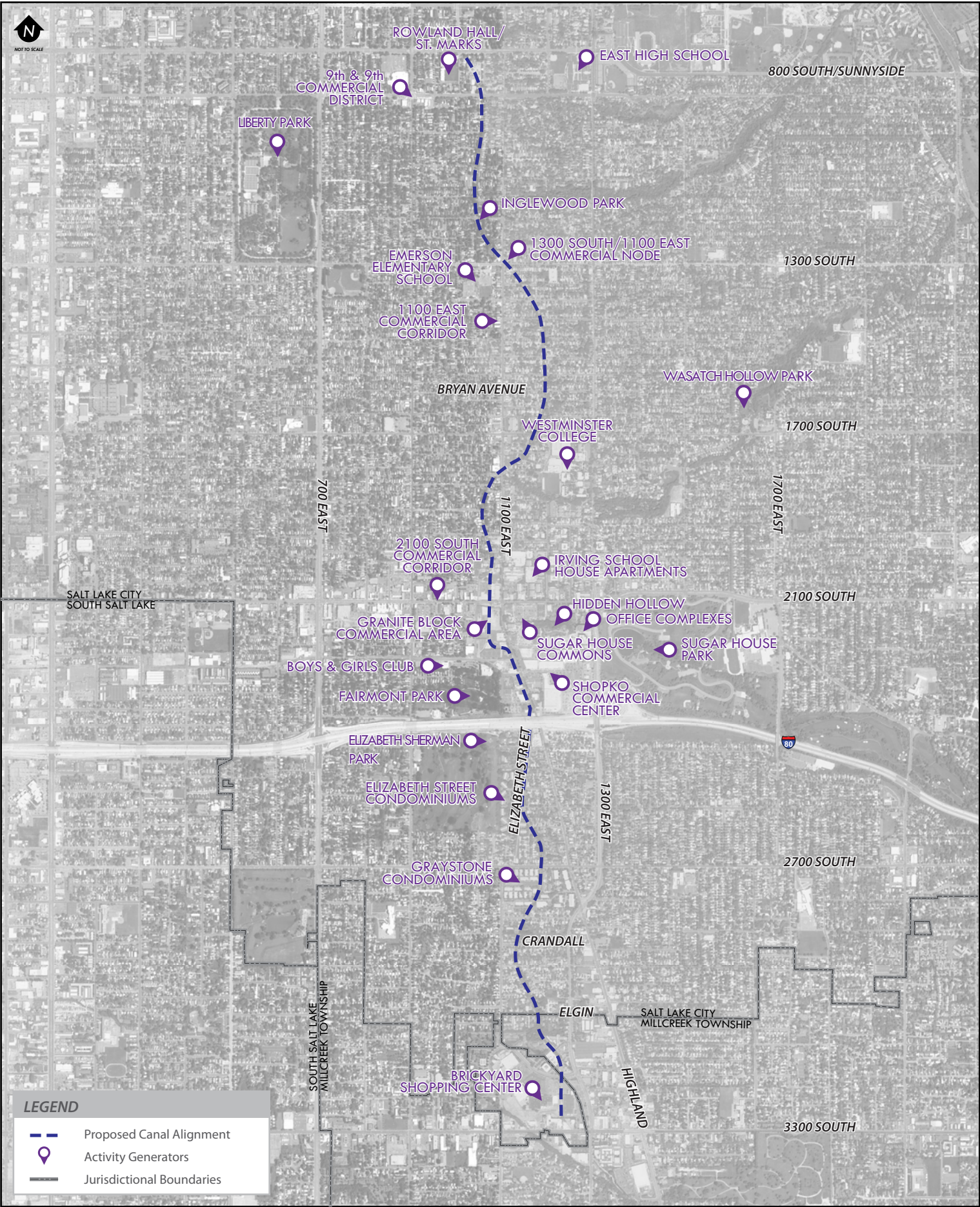
Many generators of bicycle and pedestrian activity exist within the Jordan and Salt Lake City Canal Trail study area, which could contribute to trail user volumes. These are shown in Table 1.



<b>Table 1</b> <b>Bicycle and Pedestrian Activity Generators</b>			
Generator	Distance from Canal		Likely Connection
Judge Memorial High School	800'	0.15 miles	McClelland Street
East High School	1,700'	0.32 miles	800 South or 900 South
Rowland Hall/St. Marks School	1,300'	0.25 miles	800 South or 900 South, Lincoln Street
9 <sup>th</sup> and 9 <sup>th</sup> commercial district	1,300'	0.25 miles	900 South
1100 East commercial corridor (1300 South to 2100 South)	100 – 400'	0.02 – 0.08 miles	Multiple side streets would connect from canal alignment to 1100 East
Emerson Elementary	1,000'	0.19 miles	Harrison Avenue
1300 South/1100 East commercial node	0'	0 miles	Canal goes through intersection
Inglewood Park	0'	0 miles	Canal goes through park
Wasatch Hollow	3,600'	0.68 miles	1700 South
Westminster College	400'	0.08 miles	1700 South, 1200 East
Westminster Park	1,100	0.21 miles	1700 South, Wilson Ave, Blaine Ave, 1000 East
2100 South commercial corridor	0'	0 miles	Canal crosses 2100 South
Sugar House Commons (complex containing Barnes & Noble, Whole Foods, and other tenants)	300'	0.06 miles	2100 South, Highland Drive, Wilmington Avenue
Office complexes near 1300 East and 2100 South	1,200'	0.23 miles	Wilmington Avenue
Granite Block commercial area	0'	0 miles	Canal passes through Granite Block
Irving School House Apartments	800'	0.15 miles	2100 South
Hidden Hollow	900'	0.17 miles	Wilmington Avenue
Sugar House Park	1,600'	0.30 miles	Wilmington Avenue

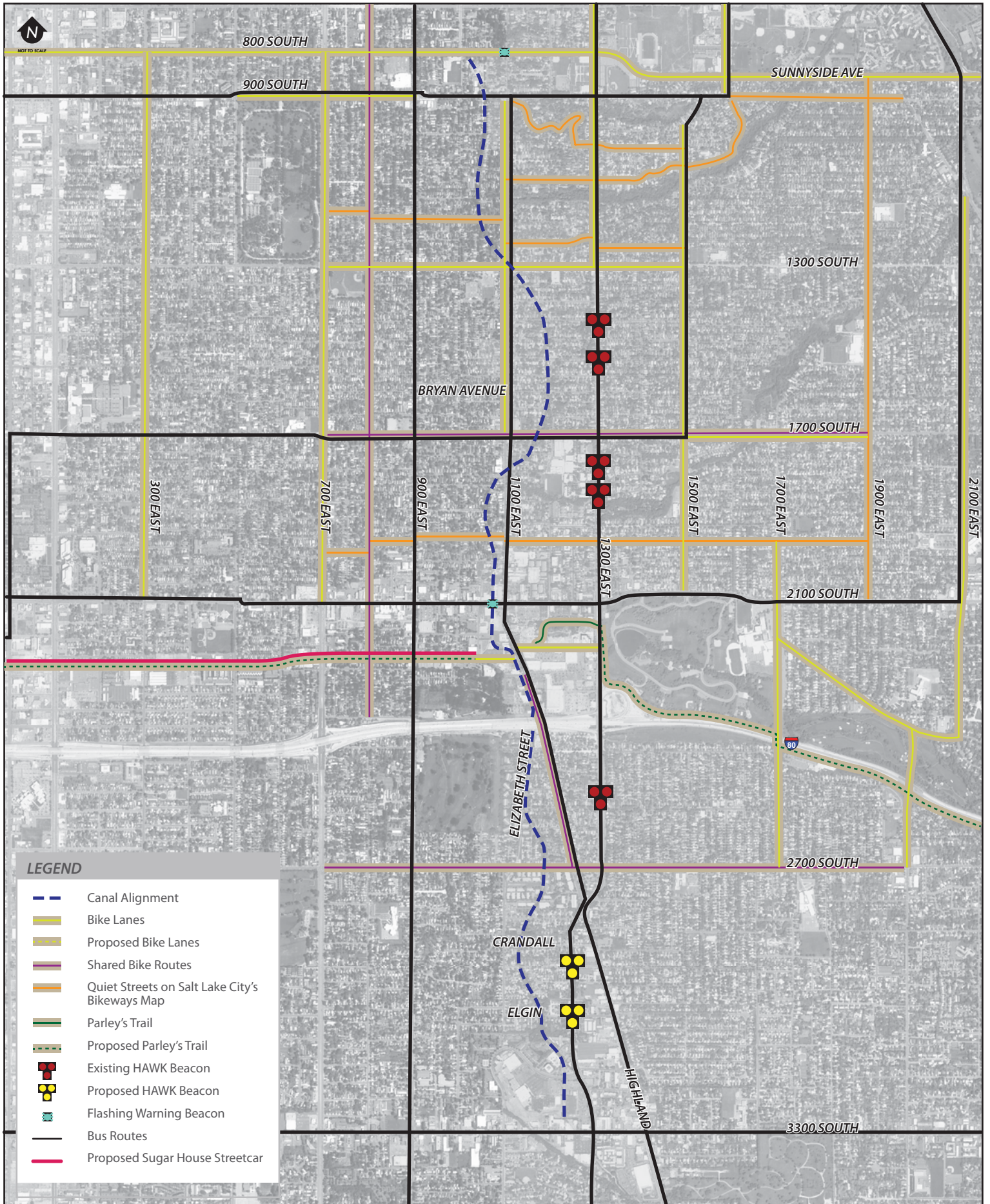
<b>Table 1</b> <b>Bicycle and Pedestrian Activity Generators</b>			
Highland High School	5,000'	0.95 miles	2100 South
Boys and Girls Club	1,200'	0.23 miles	Sugarmont Drive
Community Gardens (near 900 East and Sugarmont Drive)	1,300'	0.25 miles	Sugarmont Drive
Shopko commercial area	0'	0 miles	Adjacent to Highland Drive canal alignment
Graystone Condominiums	0'	0 miles	Canal passes through Graystone
Elizabeth Sherman Park	0'	0 miles	Canal goes through park
Fairmont Park and Aquatic Center	400'	0.08 miles	McClelland Street, Ashton Avenue, Simpson Avenue
Elizabeth Street	0'	0 miles	Adjacent to canal under Elizabeth Street
Brickyard shopping center condominiums	0 – 1,000'	0 – 0.19 miles	Canal passes through shopping center

FIGURE 2. LAND USE AND ACTIVITY GENERATORS  
JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 3. TRANSPORTATION LINKS**  
JORDAN AND SALT LAKE CITY CANAL TRAIL





## **CONSTRAINTS AND OPPORTUNITIES**

When planning a trail, it is important to understand constraints and opportunities that may be present in the study area. The Jordan and Salt Lake City Canal corridor has constraints such as canal maintenance and ownership issues, and opportunities such as redevelopment potential and existing on-street bicycle lane networks. The opportunities and constraints associated with a trail within the canal corridor are described in this section.

### ***Canal Constraints***

Constraints associated with the canal corridor range from right-of-way availability to maintenance needs to driveway access issues, among other concerns. These issues can be understood in general terms and with respect to specific parcels.

General canal issues pertain to right-of-way and maintenance. Some sections of the Jordan and Salt Lake City Canal corridor have adequate right-of-way width to accommodate a shared-use trail. However, ownership status varies throughout the length of the study corridor. Given that the canal dates back to 1882, it has endured through many political administrations, and those administrations were inconsistent in their dealings with the canal property. Some sections of the trail are still wholly owned and maintained by Public Utilities. In other sections, however, ownership has been sold to private parties, and Public Utilities only maintains an easement for canal-related purposes (meaning that a trail would not be considered an allowed use by the terms of the easement). The canal's ownership status in general is illustrated in Figure 4, and more details are provided in Figures 5 - 12.

Because the Jordan and Salt Lake City Canal is still in active use, Public Utilities maintenance vehicles must have access to the corridor. This means that any trail cross section improvements should be adequately designed to accommodate the department's service vehicles, and turn-around locations may need to be incorporated into trail design. In addition, Public Utilities crews may need to conduct subsurface work to maintain the canal, which could require disrupting the trail surface. Since the Salt Lake City Parks and Public Lands Division would likely be responsible for maintaining the trail as a recreational facility, Parks and Public Lands along with Public Utilities should establish an agreement for trail maintenance and repair.

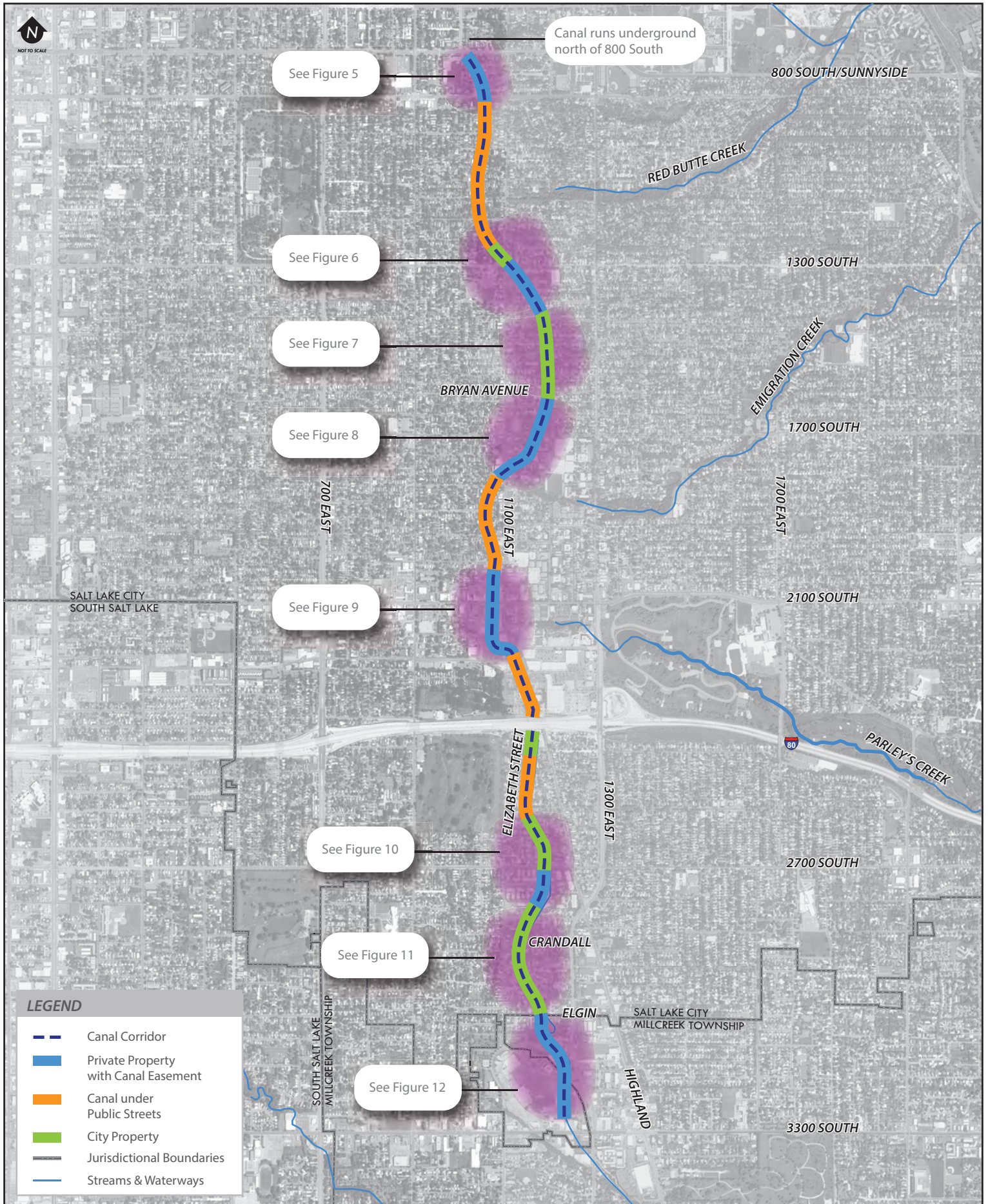
Parcel-specific issues pertain to access and encroachments. Some sections of the corridor, most notably the portion at roughly 1200 East between Harrison Avenue and Milton Avenue, are also used for private vehicle access. The history of canal-as-roadway in this section is unclear: Public Utilities representatives did not have a record of paving the corridor for vehicle use, nor of creating the curb ramps at street intersections. Moreover, there is not an official roadway defined here – only the canal corridor. The corridor's roadway-like appearance has contributed to some access-related issues along this section. Eight homes in this section have garages fronting onto the canal corridor.

For the purposes of this plan, members of the project team researched property ownership and license agreements on file with Public Utilities. While some property owners have legal license agreements with Public Utilities to use the canal corridor, others are encroaching illegally. None of the legal license agreements currently on file with Public Utilities include garage access. In addition, many of the

agreements were established in the early 1980's, and several properties along the canal corridor have changed ownership since that time. License agreements with Public Utilities do not transfer to the new property owner when a parcel changes hands, so some pre-existing agreements are no longer valid. License agreements are typically good for a ten-year period and property owners are expected to renew upon expiration. This issue is not limited to the Harrison-Milton section of the canal: other encroachments can be observed near Elgin Avenue and near 2700 South. Canal agreements for these sections are illustrated in Figures 7 and 11.

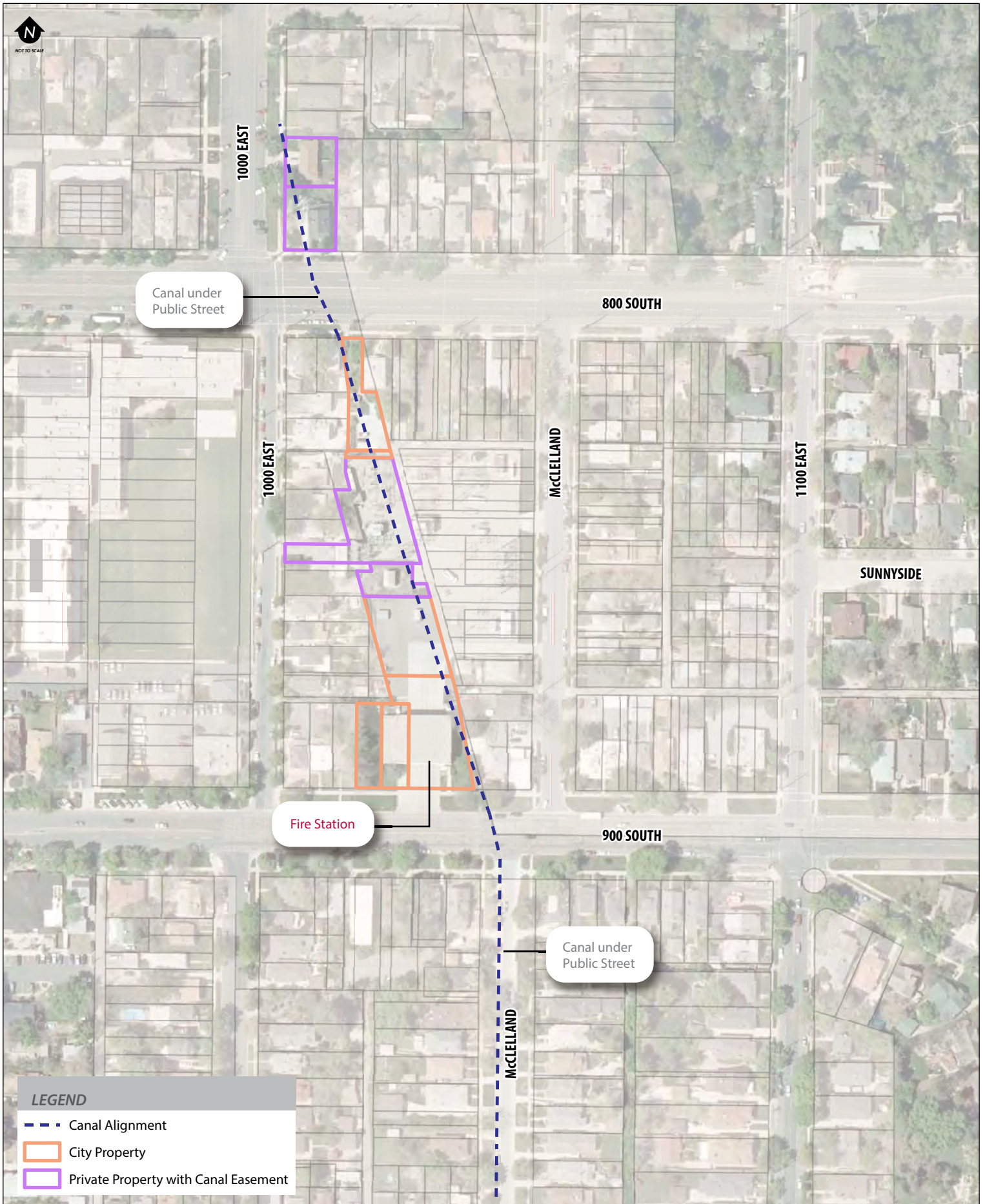


**FIGURE 4. JORDAN AND SALT LAKE CITY CANAL OWNERSHIP**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL



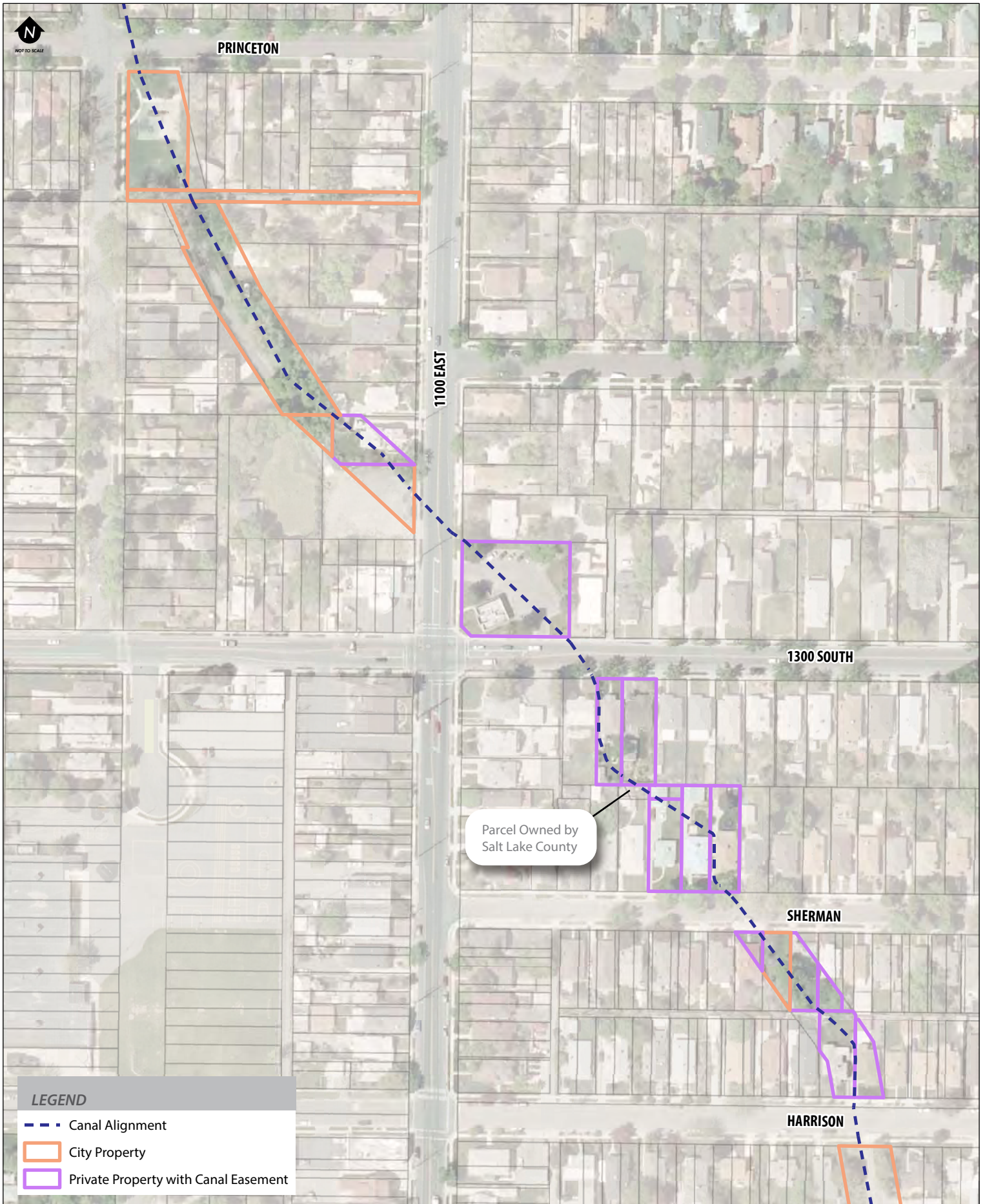


**FIGURE 5. CANAL OWNERSHIP: 800 SOUTH TO 900 SOUTH**  
JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 6. CANAL OWNERSHIP: PRINCETON TO HARRISON**  
JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 7. CANAL OWNERSHIP & AGREEMENTS: HARRISON TO MILTON**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL

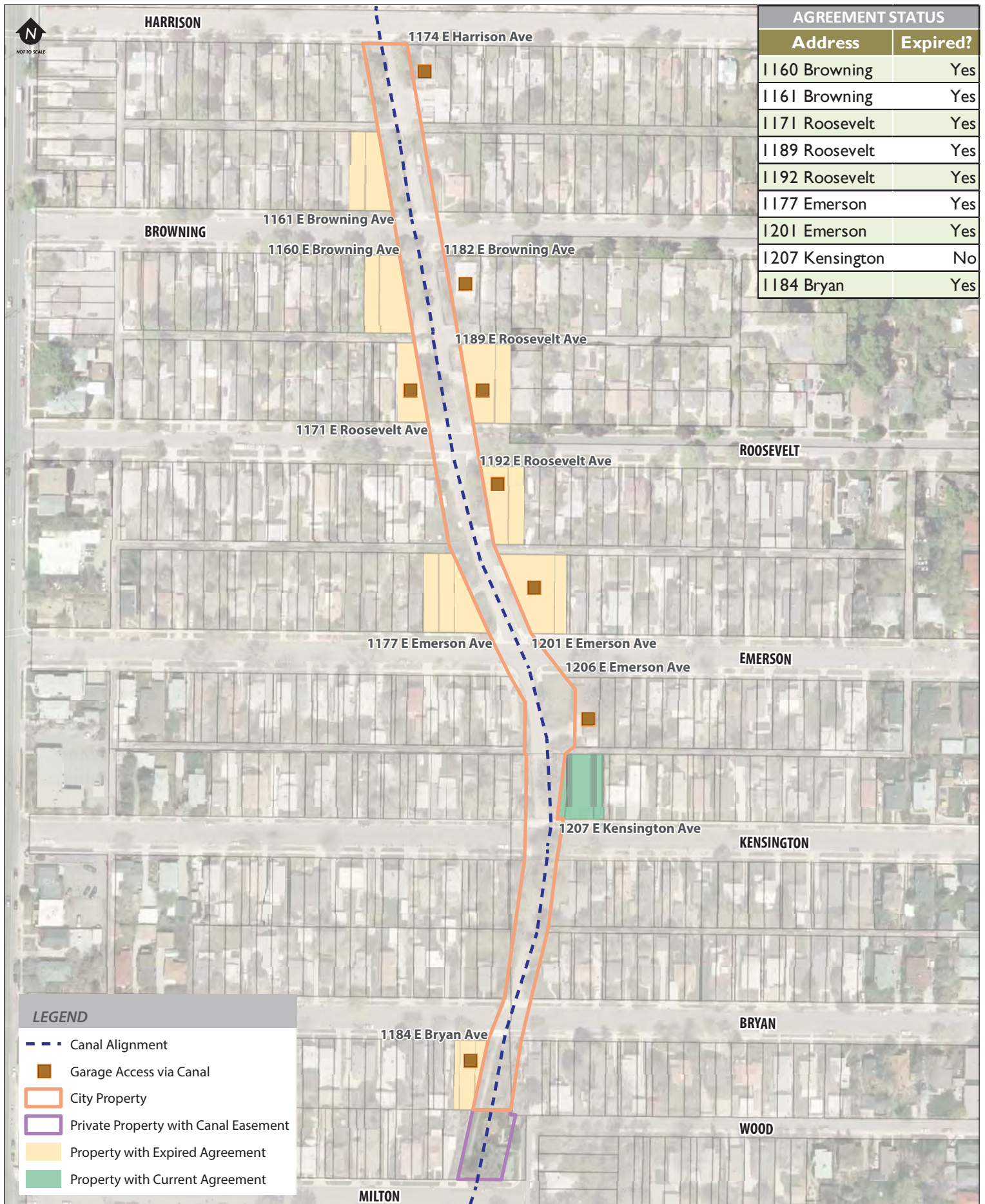




FIGURE 8. CANAL OWNERSHIP: MILTON TO WILSON  
JORDAN AND SALT LAKE CITY CANAL TRAIL

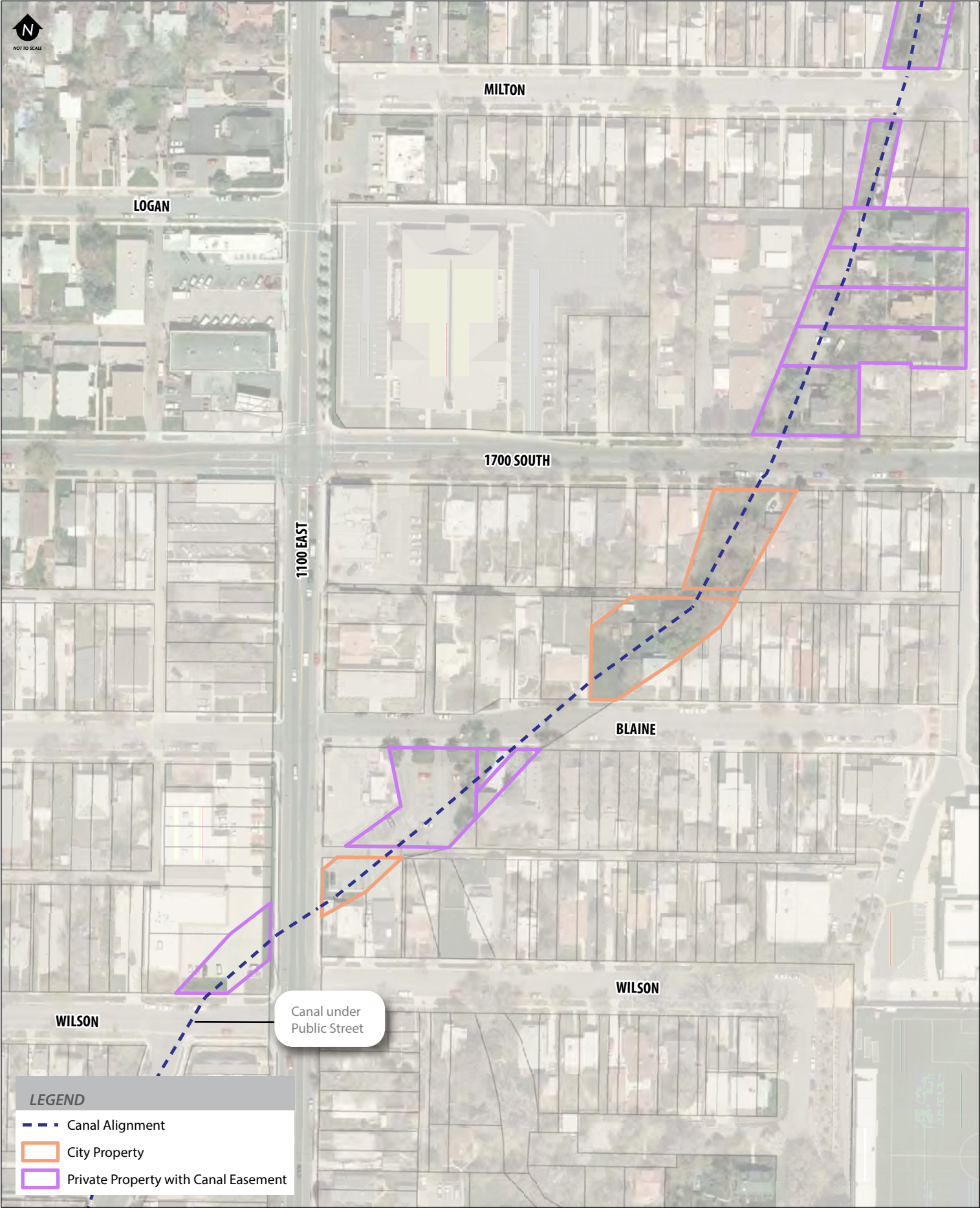




FIGURE 9. CANAL OWNERSHIP: HOLLYWOOD TO SUGARMONT  
JORDAN AND SALT LAKE CITY CANAL TRAIL

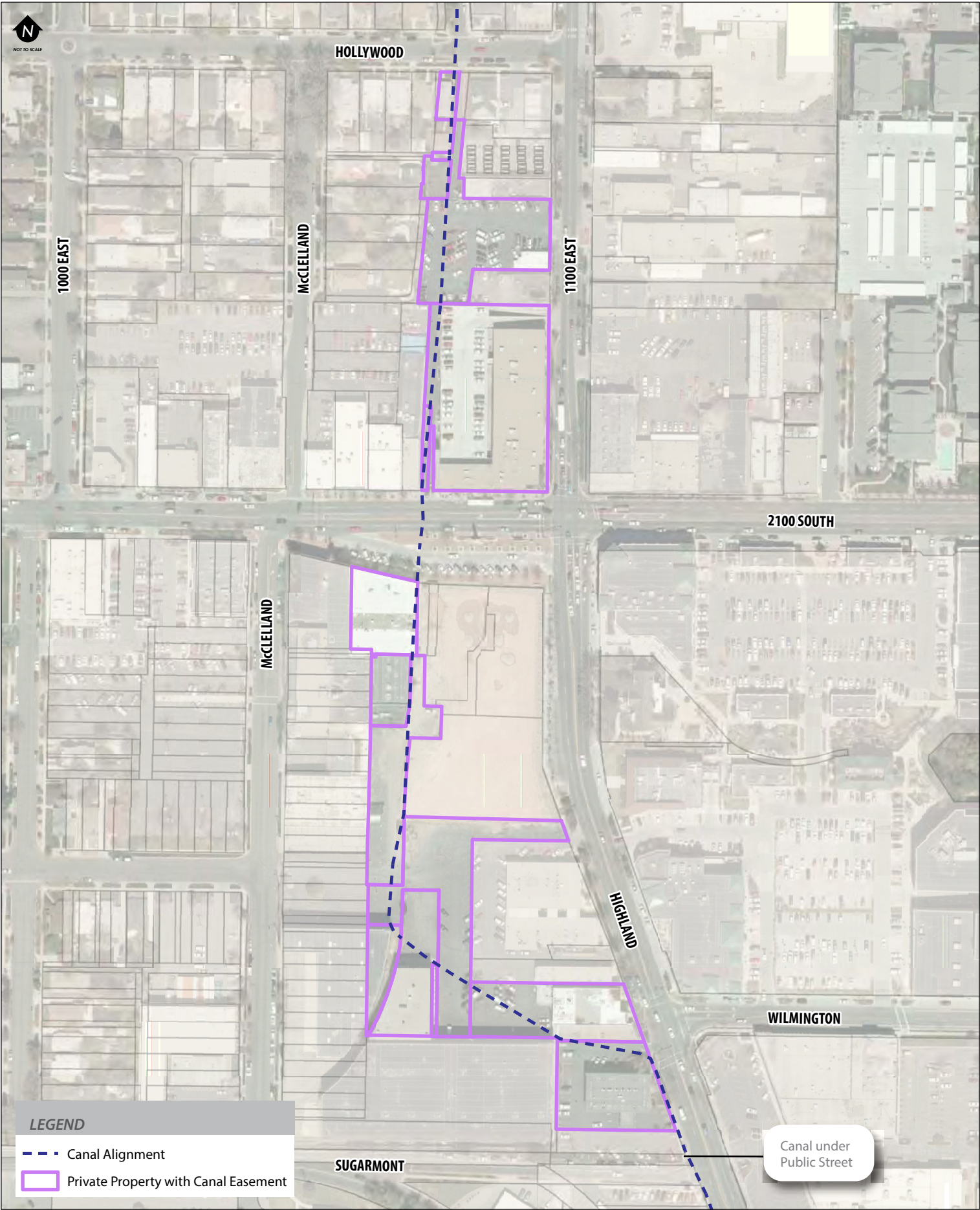
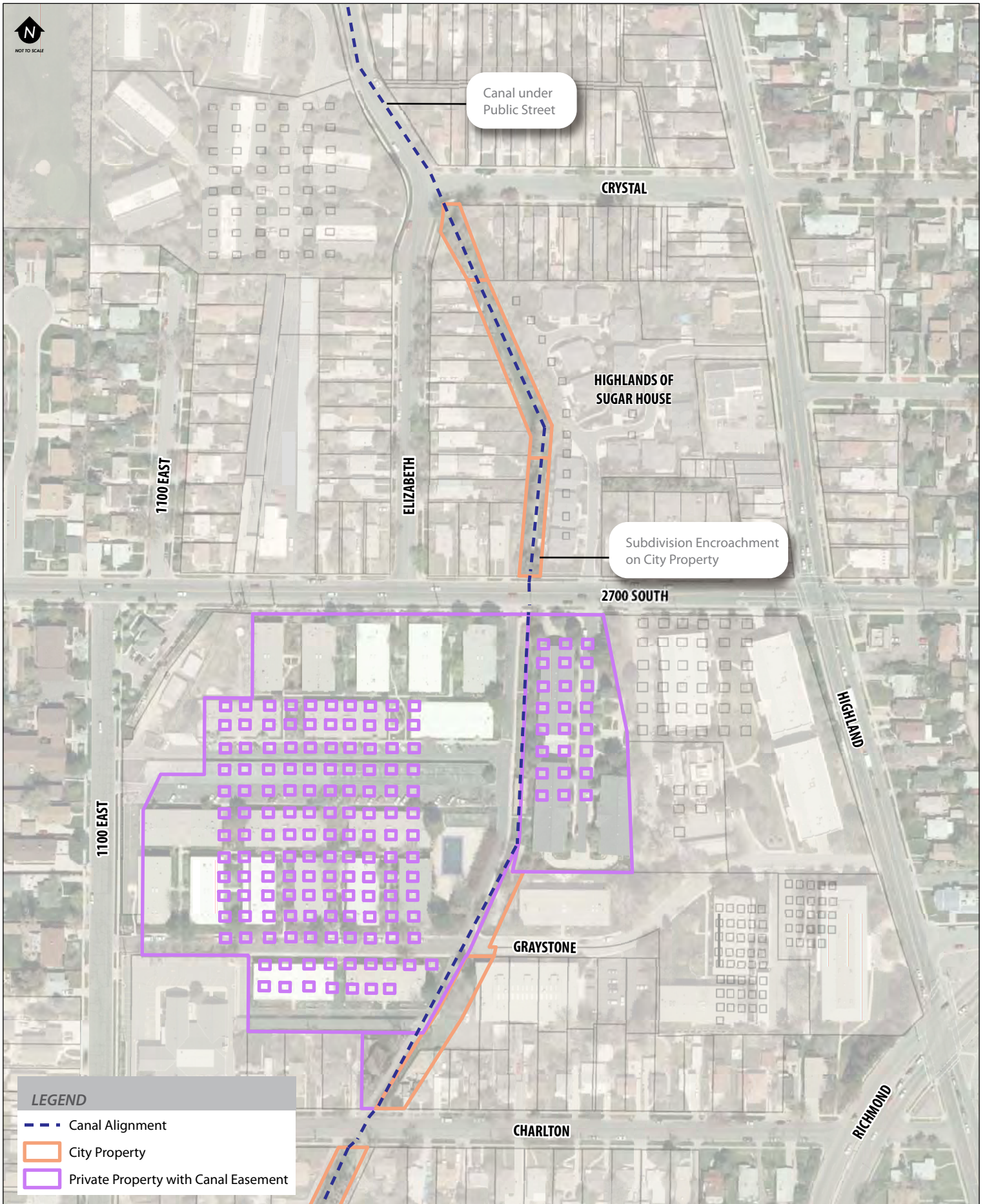


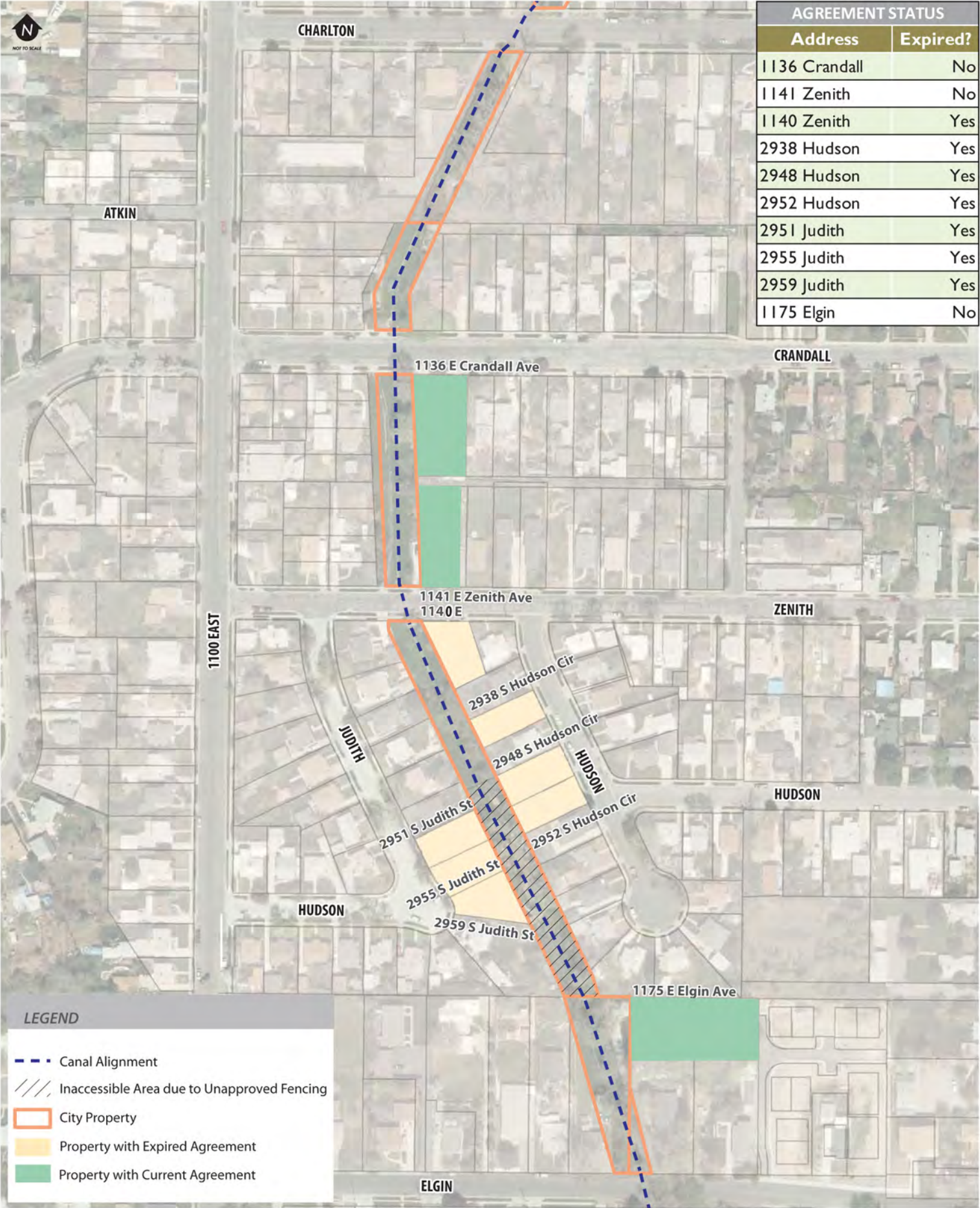


FIGURE 10. CANAL OWNERSHIP: CRYSTAL TO CHARLTON  
JORDAN AND SALT LAKE CITY CANAL TRAIL



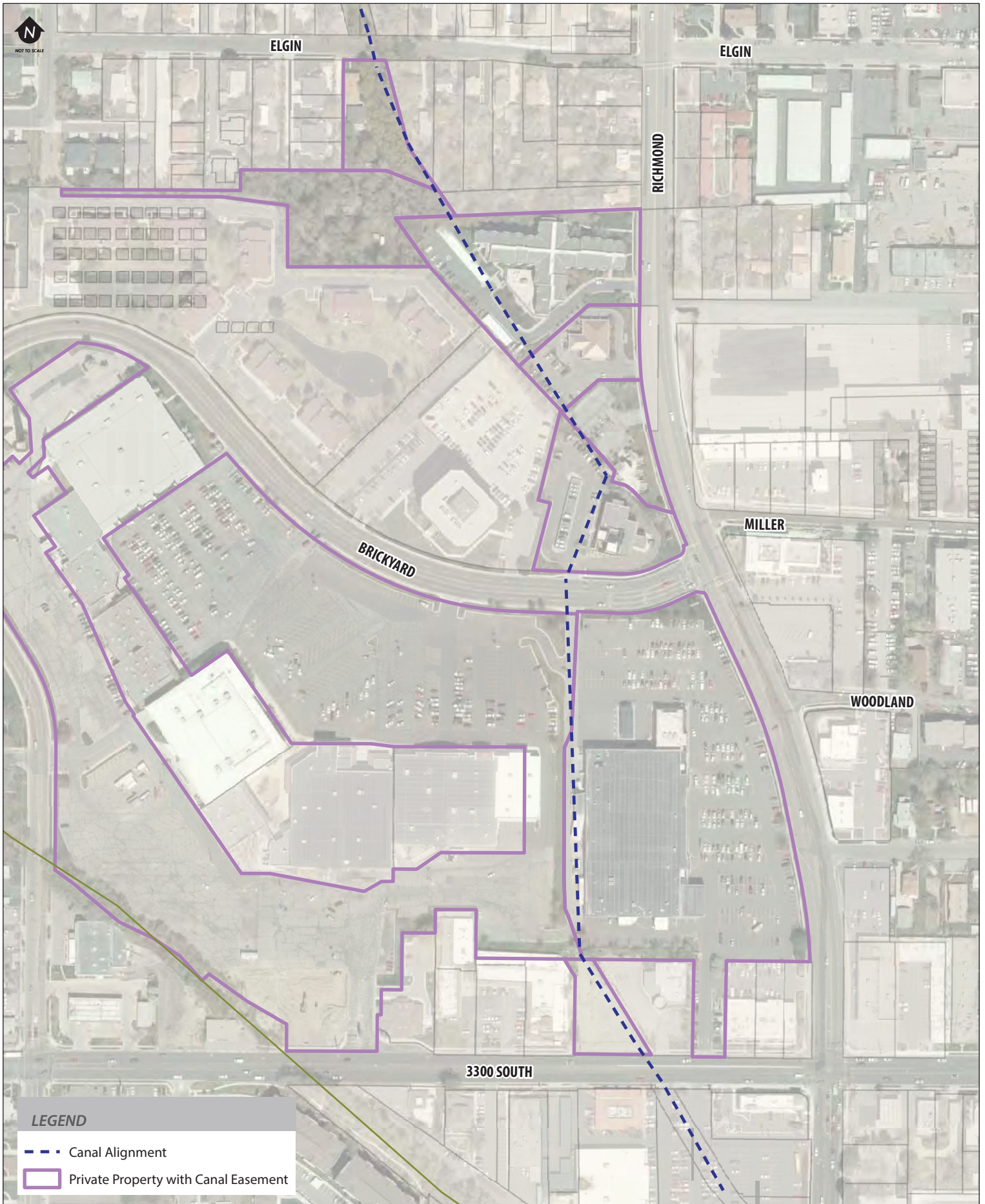


**FIGURE 11. CANAL OWNERSHIP & AGREEMENTS: CHARLTON TO ELGIN**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 12. CANAL OWNERSHIP: ELGIN TO 3300 SOUTH**  
JORDAN AND SALT LAKE CITY CANAL TRAIL





### ***Roadway Inventory***

The Jordan and Salt Lake City Canal Trail is intended to be a separated pathway for bicyclists and pedestrians. However, in many locations throughout the study corridor, a separate pathway is infeasible. Opportunities lie in Salt Lake City's strong gridded street network, which provides options for on-street bicycle and pedestrian facilities on roadways with relatively low traffic volumes. Several of these roadways, listed below, were incorporated into Jordan and Salt Lake City Canal Trail alignment alternatives. More information on these roadways, including pavement width, parking configurations, average annual daily traffic, speed limits, and presence of sidewalks are provided in Appendix A.

- McClelland Avenue (1040 East): 800 South – 1300 South
- 1300 South: 1000 East – 1100 East
- Harrison Avenue (1370 South): 1000 East – Canal corridor
- 1000 East: 1300 South – Harrison Avenue
- 1100 East: 1300 South – Harrison Avenue
- Emerson Elementary Alleyway (1075 East): 1300 South – Harrison Avenue
- Milton Avenue (1595 South): Canal corridor – 1200 East
- 1200 East: Milton Avenue – Wilson Avenue
- Wilson Avenue (1780 South): 1200 East – McClelland Avenue
- McClelland Avenue (1060 East): Wilson Avenue – Hollywood Avenue
- Hollywood Avenue (1970 South): McClelland Avenue (1060 East) – McClelland Avenue (1040 East)
- McClelland Avenue (1040 East): Hollywood Avenue to Sugarmont Avenue
- Highland Drive (1150 East): 2100 South to Interstate 80
- 1100 East: Sugarmont Avenue to Ashton Avenue
- Simpson Avenue (2250 South): 1100 East – Highland Drive
- Ashton Avenue (2310 South): 1100 East – Highland Drive
- Elizabeth Street (1150 East): Parkway Avenue -2700 South
- 1170 East: 2700 South – Charlton Avenue
- 1100 East: 2700 South – Elgin Avenue
- Charlton Avenue (2800 South): 1100 East – Canal corridor
- Crandall Avenue (2875 South): 1100 East – Canal corridor

- Elgin Avenue (3015 South): 1000 East – Canal corridor
- 1000 East: Elgin Avenue – 3300 South
- Mansfield Avenue (3135 South): 1000 East to dead end
- Riches Avenue (3190 South): 1000 East to Brickyard Road
- Brickyard Road: Mansfield Avenue to 3300 South

### ***Planning Opportunities***

While there are presently pedestrian and bicyclist destinations along the corridor, additional opportunities exist. Planned development projects could be enhanced through inclusion of pedestrian and bicyclist amenities. As development plans along the canal corridor unfold, it is integral to consider the canal, its easements, and the possibility of a trail into the development process. Opportunities present along the canal corridor include new redevelopment projects and potential trail amenities:

- The privately-owned parcel north of Liberty Heights Fresh (near the intersection of 1100 East and 1300 South) is currently undeveloped. This parcel contains a section of canal easement, which has development restrictions associated with it: the canal easement must be kept open for maintenance and access purposes. It is also adjacent to a City-owned parcel, under which the canal passes. The privately-owned parcel is currently bank-owned, and there are no development plans on file with the Planning Division for the site. However, a savvy developer could potentially incorporate a trail alignment to complement sidewalk dining, a coffee shop, or other use. In addition, the City-owned parcel to the north could also be used to accommodate a trail connection to 1100 East (see Photo 1).
- The Granite Block contains the canal easement, and the redevelopment project, currently being discussed, could potentially include pedestrian and bicycle connections within the block;



### 3. ANALYSIS OF ALIGNMENT ALTERNATIVES

#### STUDY AREA SEGMENTS

For the purpose of analyzing options for the Jordan and Salt Lake City Canal Trail, the canal corridor was divided into five segments:

- 800 South to Harrison Avenue
- Harrison Avenue to 1700 South
- 1700 South to Sugarmont Avenue
- Sugarmont Avenue to Parkway Avenue
- Parkway Avenue to Charlton Avenue
- Charlton Avenue to Elgin Avenue

In some of these segments, only one potential alignment was feasible; in others, many options were available. The following pages identify and describe the alignment options and Figures 13 – 19 illustrate the alignments considered in each segment.

#### ***800 South to Harrison Avenue***

The 800 South to Harrison Avenue segment is shown in Figure 13. From 800 South to Harrison Avenue, land uses are primarily residential. These neighborhoods are frequently referred to as “Harvard/Yale”. The northern terminus of this trail study is the intersection of McClelland Street (1050 East) and 800 South. At 800 South, trail users can link to bicycle lanes in both directions, and sidewalks on both sides of the street. In 2011 Salt Lake City conducted a “Complete Streets” study for 800 South/Sunnyside Avenue between 900 East and Foothill Drive. While the study recommended pedestrian visibility improvements such as high-visibility crosswalks, overhead flashers, and advance warning signage on the approach to crosswalks, no specific changes were recommended at McClelland Street and 800 South. The northern terminus of the trail is approximately a half-block west of an enhanced pedestrian crossing at 1100 East, equipped with pedestrian-activated overhead crosswalk warning beacons, advance warning beacons, a median refuge and a marked crosswalk. From 800 South to 900 South, the trail is proposed to be located on McClelland Street (1040 East), since the canal corridor in this segment is located underneath an electric substation. On McClelland Street, pedestrians can utilize existing sidewalks and cyclists could be accommodated by shared lane markings on the roadway. These markings indicate that, due to insufficient roadway width, cyclists may use the full travel lane. The markings are situated in the roadway to indicate where cyclists should ride to effectively “take the lane”.

Between 900 South and Princeton Avenue near Inglewood Park, the canal lies underneath McClelland Street (1040 East). The trail configuration between 900 South and Princeton Avenue could match the section to the north, utilizing sidewalks for pedestrians and shared lane markings for bicyclists.



At Princeton Avenue, the canal passes underneath Inglewood Park and an existing 10'-wide asphalt trail connecting to undeveloped property at 1100 East. One alternative would connect from McClelland Street to the existing trail via an alleyway, and continue along the trail to the intersection of 1300 South and 1100 East (near the Liberty Heights Fresh market). The area between the existing trail and Liberty Heights Fresh market consists of two separate parcels. One parcel, the northern portion of the area, is owned by Public Utilities and lies atop the canal. The other parcel, the southern portion of the area (adjacent to Liberty Heights Fresh) is private property, and is currently available for sale. A trail alternative along the northern portion of the area could benefit redevelopment of the southern portion: a sidewalk café, coffee shop or similar land use on the southern portion could create a pleasant urban interface with the trail and its users. The trail would then continue south on 1100 East to Harrison Avenue. However, the canal presents some challenges for redevelopment, as the canal property must remain unobstructed for canal maintenance and repair. In addition, trail improvements that affect the Inglewood Park Open Space district may require a conditional use permit to be issued by the Salt Lake City Planning Division. Changes to Open Space designations could also require a six-month public review process as per Chapter 2.90 of Title 2 of the Salt Lake City Zoning Ordinance.

Other alternatives between Princeton Avenue and Harrison Avenue include:

- McClelland Street: this would be an easy link with trail alignments north of Princeton Avenue, and would accommodate bicyclists using shared lane markings. However, McClelland terminates briefly at 1300 South, requiring trail users to divert elsewhere to continue south on the trail.
- 1000 East: This quiet residential street connects neighborhoods to Emerson Elementary. It is already popular with cyclists, but it is further west than desired for the trail alignment.
- 1075 East: This narrow alley between 1300 South and Harrison Avenue, has minimal traffic, sending trail users between garages and the Emerson Elementary playground. While it aligns nicely with trail options to the south, it places trail users in conflict with vehicles accessing the garages.
- Emerson Elementary: A trail could link through the northern edge of the playground, connecting a cul-de-sac across 1300 South from McClelland Street with the alley at 1075 East. Emerson Elementary officials showed some initial interest in this option, but more discussions with the Salt Lake City School District Board would be necessary.
- 1100 East: This road has existing sidewalks and bike lanes, a clear connection to the trail near Liberty Heights Fresh, and is the most direct connection to trail sections to the south. However, 1100 East has higher traffic volumes than the other options above, and may need more infrastructure improvements for cyclists and pedestrians at its intersection with 1300 South. The 1100 East/1300 South intersection currently has curb ramps, pedestrian signals with push buttons, and countdown timers. If the presence of the trail increases bicyclist and pedestrian

volumes at this intersection, additional improvements such as a pedestrian scramble (a pedestrian-only phase at a signalized intersection, where all vehicles stop), enhanced crosswalks or other elements might be beneficial.

The southern end of this section is Harrison Avenue (1370 South). Harrison Avenue would connect trail users (whether from 1000 East, the 1075 East alleyway, 1100 East, or other options) with an off-street section of trail at approximately 1170 East. Harrison Avenue is a residential street that runs parallel to Emerson Elementary's southern boundary. School children attending Emerson Elementary cross 1100 East, a relatively busy street, at Harrison Avenue: crossing guards and school zone speed limits assist children crossing at this location. A double-ladder crosswalk exists on the north leg of the Harrison Avenue/1100 East intersection, which southbound trail users could use to continue east on the Harrison Avenue section of the trail. The trail configuration on Harrison Avenue is proposed as shared lane markings and sidewalks.



### ***Harrison Avenue to 1700 South***

The Harrison Avenue to 1700 South segment is shown in Figure 14. From Harrison Avenue to Bryan Avenue, Public Utilities owns the 66'-wide canal corridor. From Bryan Avenue to Milton Avenue, the corridor is open but the property fronting onto Milton Avenue is privately owned. Many neighborhood residents already use the corridor between Harrison and Milton as a de-facto trail. As described in Chapter 2, some neighbors along the canal have had agreements with Public Utilities to use part of the canal for landscaping, fencing, gardening, or other activities. Eight properties have garages that can only be accessed via the canal corridor. Many neighbors are using the corridor without permission from Public Utilities, and as discussed in Chapter 2, and all but one of the license agreements have expired. Public Utilities may revoke existing agreements with a 30-day notice to the agreement holder. However, if adequate space exists in the corridor for a bicycle and pedestrian trail, separate from vehicle traffic accessing driveways along the corridor, revoking license agreements would likely not be necessary.

Other considerations for this section include:

- General maintenance: If a trail were constructed in the corridor, Public Utilities would continue to be the property owner and manage the canal, but the Parks and Public Lands Division would likely maintain trail-related improvements. These City departments/divisions may need a memorandum of agreement regarding pavement maintenance and repair responsibilities, particularly referring to situations where Public Utilities must temporarily disrupt the surface for canal work. Landscaping maintenance would need to be addressed as well. Some neighborhood

residents expressed frustration at the canal corridor's condition, which occasionally becomes overgrown. These residents desire the City conduct more regular landscape maintenance. To reduce costs, any trail-related landscaping here would likely need to be "water-wise", requiring minimal irrigation. Any landscape plantings would be restricted to those without root systems that might potentially extend into the canal.

- **Balancing safety and access:** Community members indicated a preference for a bicycle and pedestrian trail separated from vehicle traffic as much as possible. However, the presence of existing driveway accesses along the corridor makes it difficult to restrict motorized traffic. A compromise could define one portion of the corridor for bicycles and pedestrians, and another for motorized traffic. Bollards, landscaping, boulders, or pavement striping are all options for separation features. Separation features could be planned around existing driveway accesses, and "Driveway Access Only" signs could discourage potential drivers on the trail portion of the property.
- **Lighting:** Lighting is not proposed along the Jordan and Salt Lake City Canal Trail. However, lighting at cross-streets in this section would improve visibility at trail crossings, and may help relieve neighborhood concerns about crime along the trail. Neighborhood-scale streetlamps may be an option to consider; neighborhood associations in Salt Lake City may pursue a 50/50 match program (Private Decorative Lighting Program) to install pedestrian-scale lighting along residential streets.
- **Intersection treatments at cross-streets:** This section of the trail would cross seven east-west cross streets in mid-block locations. This may necessitate mid-block crossings which increase driver awareness of the trail and its users. Options could include raised crosswalks, neckdowns, or bulbouts that also calm traffic; or advance warning signage or high visibility crosswalks that make bicyclists and pedestrians more visible to drivers.

Beyond the mid-block canal corridor which terminates at Milton Avenue, the canal trail could follow an on-street alignment on 1200 East to 1700 South. Past 1700 South, the trail would enter Westminster College

### ***1700 South to Sugarmont Avenue***

The 1700 South to Sugarmont Avenue segment is shown in Figure 15. At the intersection of 1700 South and 1200 East, the trail alignment enters into Westminster College. Westminster College supports improved bicycle and pedestrian connectivity, and is pursuing plans to promote walking and bicycling on campus (see Appendix E for documentation of the meeting with Westminster College representatives). A potential trail alignment could follow Westminster's internal roadway at 1200 East. Westminster has several relevant facilities near the possible trail alignment:

- Major paved pedestrian networks running east-west through campus



- A student bicycle collective and community garden accessed via an alleyway intersecting with 1200 East
- Soft-surface pathways along the west and south edges of the Dumke Field and Parking Structure, connecting to neighborhoods and areas along Emigration Creek. Emigration Creek is protected by the Salt Lake City Riparian Corridor Overlay Zone, and any pathway connections in this area will need to comply with the requirements of that zone.



**Photo 3: Westminster College pathways**

While the Jordan and Salt Lake City Canal Trail alignment in this area could connect to Wilson Avenue westward from 1200 East, the existing paved and soft-surface pathways across campus also provide a valuable circulatory network for cyclists and pedestrians. The connection between 1200 East and Wilson Avenue is currently blocked by a closed and locked gate. Conversations with Westminster personnel (documented in Appendix E) revealed that this gate was installed in the early 2000's as a concession to the neighborhood while Westminster built its sports stadium. The college supports the idea of opening the gate to accommodate bicycle and pedestrian access. While neighbors might be amenable to opening the gate only to bicycle and pedestrian traffic, concerns about additional traffic and student parking overflow may need to be addressed.

Another potential trail alignment could use 1700 South to connect from 1200 East to 1100 East, and then follow 1100 East to Wilson Avenue. This alignment could take advantage of existing shared lane markings (westbound) and bike lanes (eastbound) on 1700 South, but no markings are available for cyclists on 1100 East south of 1700 South. This alignment would miss an opportunity to connect trail users directly to Westminster College and its network of pathways.

The proposed trail alignment would then follow Wilson Avenue westward on-street to connect to McClelland Street west of 1100 East. 1100 East is another major street crossing for the Jordan and Salt Lake City Canal Trail, and the Wilson Avenue/1100 East intersection has two offset legs. Key elements

of a trail crossing here could include crosswalks, median refuges, and accommodation of left-turns to and from both legs of Wilson. The trail would then continue south on McClelland Street until its intersection with Hollywood Avenue.



**Photo 4: Alleyway behind Urbana**

From Hollywood Avenue the trail could bear southward on McClelland Avenue to 2100 South. Another potential alternative in this area could follow the actual canal alignment between Hollywood Avenue and 2100 South. This alternative takes trail users through a parking lot utilized by several businesses, and through an apartment building garage driveway. Any alignment through this area would have to be established in cooperation with the underlying property owners, as Public Utilities only has an easement through this area for the canal and its maintenance but not for trail use.

This next section, between 2100 South and Sugarmont Avenue, encompasses the heart of Sugar House. It's here where the Jordan and Salt Lake City Canal Trail would interface with the Parley's Trail and the Sugar House Streetcar. Major changes are under way in this area, with multiple redevelopment projects planned for construction in the near future. This redevelopment provides the community with the opportunity to enhance its focus as a walkable, pedestrian-friendly, active destination. Three potential Jordan and Salt Lake City Canal Trail options are proposed in this section, as described below.

- **Granite Block Interior:** This alignment would connect through the center of the Granite Block (encompassed by McClelland Street and Highland Drive, and 2100 South and Sugarmont Avenue). The interior alignment would follow the existing canal alignment, through the center of the block and eventually angling eastward toward Highland Drive. Additional east-west connections through the Granite Block, as identified in Figure 15, would further enhance bicycle and pedestrian connectivity in this area. Following this alignment creates an opportunity to make an urban, walkable environment within the Granite Block and enhance accessibility of that development project. However, the actual canal crossing location at 2100 South is not ideal; trail users may need to be re-directed to the McClelland/2100 South intersection to cross this busy street, which has roughly 25,000 vehicles per day at this location. The Manual on Uniform Traffic Control Devices (MUTCD) also advises against placing pedestrian signals within 300' of an existing crossing, and the existing canal is located less than 200' away from the signal at the intersection of 1100 East and 2100 South.
- **McClelland Street:** The street has adequate right-of-way width to accommodate potential cross-section options such as on-street bike lanes, buffered bike lanes, or shared lane markings. Bike lane options would necessitate removal of on-street parking from at least one side of the street. The McClelland Street option utilizes the existing crosswalk with flags and overhead warning beacons at 2100 South, and provides a more direct route for bicycle commuters who might be using the trail. In addition, it increases "eyes on the street" in an area that has higher observed levels of transient activity. This alignment would benefit from modifications to the 2100 South pedestrian crossing such as a HAWK beacon or standard traffic signal.
- **Highland Drive:** The Salt Lake City Open Space Plan (1994), identified a preferred trail alignment along Highland Drive, which would foster a pedestrian-friendly environment along that road. In its current configuration, Highland Drive is a congested automobile corridor that is not necessarily conducive to cycling. The presence of UTA bus stops along Highland Drive also complicates cycling in

this corridor. A trail along Highland Drive would also have to contend with multiple driveway accesses, introducing conflict points for trail users and drivers; in addition, right-of-way may be necessary from private property owners near the Granite Block. If a road diet with the addition of bike lanes is implemented on Highland Drive between 2100 South and Ashton Avenue, as envisioned in the Draft Circulation and Streetscape Amenities Plan for the Sugar House Business District, a separate trail on Highland Dr. may not be needed.

### ***Sugarmont Avenue to Parkway Avenue***

The Sugarmont Avenue to Parkway Avenue segment is shown in Figure 16. This segment also has multiple opportunities to create a network of on-street or off-street routes for bicyclists and pedestrians, as described below.

- **Simpson Avenue:** This alignment would connect from McClelland Street to the canal alignment which exists along the west side of Highland Drive. Simpson Avenue is relatively low-traffic, with minimal on-street parking. This would be a relatively short east-west connector, but, as with the previous alignment, Highland Drive is a congested corridor with limited space for cyclists in its current configuration.
- **Simpson Avenue/1100 East:** This route would be a continuation of the McClelland Street option. Fairmont Park sits on the west side of Simpson Avenue and 1100 East, and an off-street trail could potentially be established along the east side of the park. Future design of this section of trail would need to address potential impacts and conflicts between trail users and people accessing the park from the on-street diagonal parking on the west side of 1100 East. Continuing south, an alignment through the park could then link to the Interstate 80 (I-80) right-of-way option as described below. Trail improvements that affect the Fairmont Park Open Space district may require a conditional use permit to be issued by the Salt Lake City Planning Division. Changes to Open Space designations could also require a six-month public review process as per Chapter 2.90 of Title 2 of the Salt Lake City Zoning Ordinance.
- **Ashton Avenue:** This east-west link would connect McClelland Street/Simpson Ave/1100 East to Highland Drive. Ashton Avenue has more vehicle traffic than other east-west links discussed here, likely due to its connection to a fitness center and the State Liquor Store. On-street parking is frequently utilized, and it may not be feasible to remove it to accommodate bike lanes or wider sidewalks.
- **Interstate 80 (I-80) right-of-way:** This potential off-street link would connect to a proposed off-street trail alignment along the east side of Fairmont Park, and take trail users behind the State Liquor Store utilizing excess space within the UDOT I-80 right-of-way. The I-80 alignment would link to the existing widened sidewalk along the west side of Highland Drive under the freeway overpass, then



connect trail users to the existing trail/walkway through Elizabeth Sherman Park. Initial discussions with UDOT representatives indicated a willingness to consider a trail alignment through this section; Salt Lake City would need to provide preliminary engineering drawings and coordinate with UDOT's right-of-way division to shift the freeway "No Access" line. Additional lighting features may be beneficial in this section to increase visibility for trail users. Documentation from the project team meeting with UDOT is included in Appendix E.

- **Brickyard Rail Corridor:** This alignment would follow the former Brickyard Rail Corridor which runs roughly north-south between Sugarmont Avenue and the I-80 corridor. This option would create a mid-block off-street connection, and the redevelopment of property near the fire station could create an opportunity to place a small section of trail in that location. However, at this time most of the rail corridor is privately owned. The corridor is used for parking between Simpson and Ashton Avenues, and lies underneath the State Liquor Store south of Ashton Avenue. In addition, a mid-block crossing location may be challenging on Ashton Avenue due to the congested environment and the presence of highly-utilized on-street parking which would reduce pedestrian visibility at a mid-block crossing.

From I-80 southward to Crystal Avenue, the Jordan and Salt Lake City Canal Trail has few alternatives. The canal follows a pedestrian walkway under I-80 to Elizabeth Sherman Park, located on the south side of I-80 and adjacent to a power substation. Any trail improvements through the Elizabeth Sherman Park Open Space district may require a conditional use permit to be issued by the Salt Lake City Planning Division. As with the Open Space areas mentioned along other sections of the trail alignment, this could require a six-month public review process. The walkway terminates at Parkway Avenue, where bollards prevent vehicles from driving on the walkway.

### ***Parkway Avenue to Charlton Avenue***

The Parkway Avenue to Charlton Avenue Segment is shown in Figure 17. From Parkway Avenue, the canal follows Elizabeth Street southward, and the canal alignment would be on-street using shared lane markings for bicyclists and sidewalks for pedestrians until roughly Crystal Avenue (2590 South). At this point, two options emerge: continue on Elizabeth Street southward to 2700 South, or utilize an off-street section of canal property.

A short section of off-street canal property passes between Crystal Avenue and 2700 South. While minimal maintenance is done on this section, it remains an opportunity for an off-street trail. Near the Highlands of Sugar House subdivision on the north side of 2700 South, the property owners have purchased a section of the canal property for use in yards and landscaping. In addition, there is some degree of encroachment onto the canal corridor that is not currently permitted with Public Utilities. Nevertheless, adequate space remains in the canal corridor to accommodate a trail: of an original 48'-wide-corridor, the Highlands of Sugar House developers purchased 15', leaving 33' remaining in the corridor which could be used to accommodate a trail. This section of the canal is shown in more detail in Figure 10.

Between 2700 South and Charlton Avenue, the canal is located under private property as it passes through the Graystone condominiums. Public Utilities maintains an easement through the Graystone property, but only for canal-related purposes. Through Graystone, the canal is located partly under a narrow roadway traversing the development, and partly under landscaping and an existing building. A trail alternative in this section could be on-street shared lane markings connecting through the Graystone property to Charlton Avenue. Cyclists would ride on the roadway, with pedestrians using the sidewalks.

**Photo 5: Graystone entrance**



Any future alignment through Graystone would have to be accomplished with the permission of the property owners. As of 2011, interviews with Graystone Home Owners Association representatives indicated little support for a trail through the property (refer to Appendix E for documentation of the meeting with Graystone representatives).

An on-street alternative between Crystal Avenue and Charlton Avenue would follow Elizabeth Street to 2700 South, turn westward on 2700 South to 1100 East, and turn southward on 1100 East. This alignment is contained completely within public right-of-way and would not require obtaining easements or private property. Bicyclists could be accommodated using shared lane markings, and pedestrians could use the sidewalks. A HAWK beacon could be installed at the intersection of 2700 South and 1100 East to facilitate crossing pedestrians using the trail.

### ***Charlton Avenue to Elgin Avenue***

The Charlton Avenue to Elgin Avenue Segment is shown in Figure 18. South of Charlton Avenue, Public Utilities owns a 55'-wide off-street corridor to Elgin Avenue. In the past, some residents in this area have expressed interest in creating a linear parkway along the corridor. However, as of November 2012, the most recent discussions between City and neighborhood representatives indicated a lack of support for park or playground facilities, and only support for a trail through the corridor. Throughout this section, the canal's elevation is high enough that the canal boxes and structure can be seen above the ground. This would represent some constraints for trail construction. As with the off-street section between Harrison and Milton Avenue, some adjacent residents have agreements with Public Utilities allowing them to utilize the corridor for landscaping, fencing, and related uses. These are illustrated in Figure 11, and many of the agreements are out of date. In addition, some property owners are encroaching fully across the corridor, leaving no space for a trail. While it is preferred that the trail alignment would avoid license agreement areas as much as possible, in some locations encroachment issues will need to be addressed.

On-street, the canal trail could potentially follow 1100 East. This alignment could utilize on-street shared lane markings to create a space for cyclists, with pedestrians using the sidewalk. 1100 East continues

southward until Elgin Avenue (3000 South). On-street facilities could be included along this entire section.

### ***Elgin Avenue to 3300 South***

The Elgin Avenue to 3300 South segment is shown in Figure 19. South of Elgin Avenue, the canal is located under private property to 3300 South. Public Utilities holds an easement but only for purposes immediately related to the canal (maintenance, repair, operations, etc). A trail would not be considered an allowable use of the easement without permission from each property owner. The canal currently traverses underneath parking lots in the Brickyard shopping center, and does not necessarily represent an ideal trail alignment in its current state. Options for the Jordan and Salt Lake City Canal Trail considered in the Elgin Avenue to 3300 South section are described below.

- **Brickyard Condominiums:** A short trail connection from 1100 East through Brickyard Condominiums to Brickyard Road would enhance links for Brickyard residents to areas northward, and provide an improved link for neighbors to the north desiring access to the Brickyard shopping center. This option would require obtaining an easement from the Brickyard Condominiums Home Owner's Association to pass through their property, using an existing roadway next to their clubhouse and swimming pool. The complex's dumpsters would need to be relocated to accommodate the trail, and some removal of existing vegetation would be necessary as well. During the public outreach process, Brickyard Condominium residents voiced a lack of support for this concept (see the meeting minutes in Appendix E for documentation of the discussion with Urban Outsourcing who acts as the Property Manager. Also, see Appendix F Open House Documentation for October 27, 2011, comments 11 and 28).
- **1000 East:** On-street facilities could be connected to 1000 East from 1100 East and Elgin Avenue. This section of the study area is in Salt Lake County, and as such has different street cross sections. Sidewalks are occasionally missing; trail types on this alignment would consist of shared lane markings and sidewalk improvements. 1000 East facilities could also branch off to other side streets or trail alignments, such as eastward via Mansfield Avenue or Riches Avenue to Brickyard Road. Both Mansfield and Riches Avenues are relatively undeveloped, rural-style cross sections without curb, gutter, or sidewalk. Mansfield does not connect all the way to Brickyard Road but rather has an undeveloped wooded section with an established informal dirt path. Establishing a trail alignment here would require an easement over private property.



It is unclear where the desired connection lies for the trail south of 3300 South. The canal itself is located under developed parking lots in the Brickyard area and daylights as an above ground canal south



of 3300 South and east of 1300 East. Salt Lake County jurisdiction begins near 3300 South, and the Salt Lake County Parks and Recreation division currently has no plans for the canal corridor outside Salt Lake City boundaries.

**FIGURE 13. ALTERNATIVES - 800 SOUTH TO HARRISON**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 14. ALTERNATIVES - HARRISON TO 1700 SOUTH**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 15. ALTERNATIVES - 1700 SOUTH TO SUGARMONT**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 16. ALTERNATIVES - SUGARMONT TO PARKWAY**  
JORDAN AND SALT LAKE CITY CANAL TRAIL

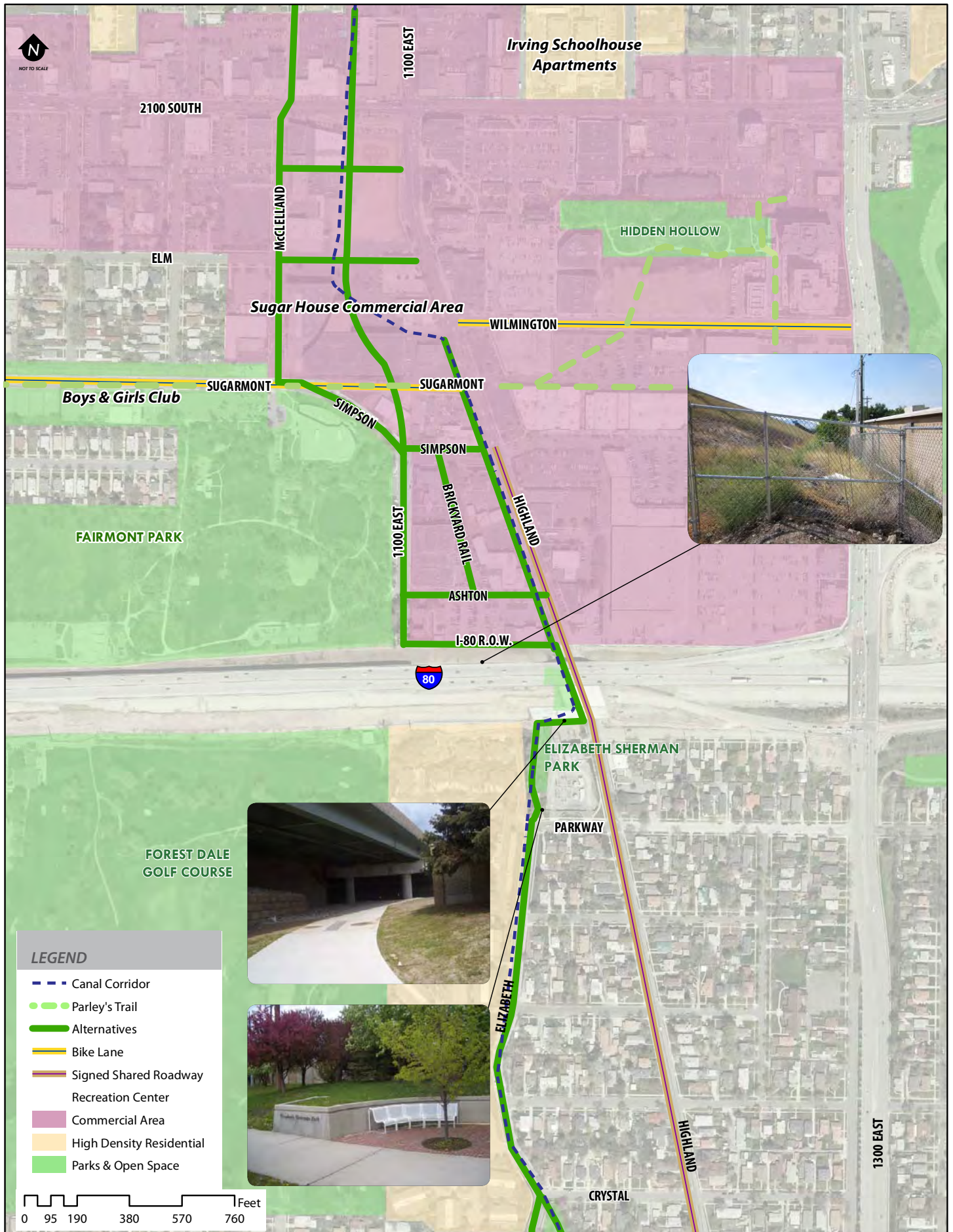




FIGURE 17. **ALTERNATIVES - PARKWAY TO CHARLTON**  
JORDAN AND SALT LAKE CITY CANAL TRAIL



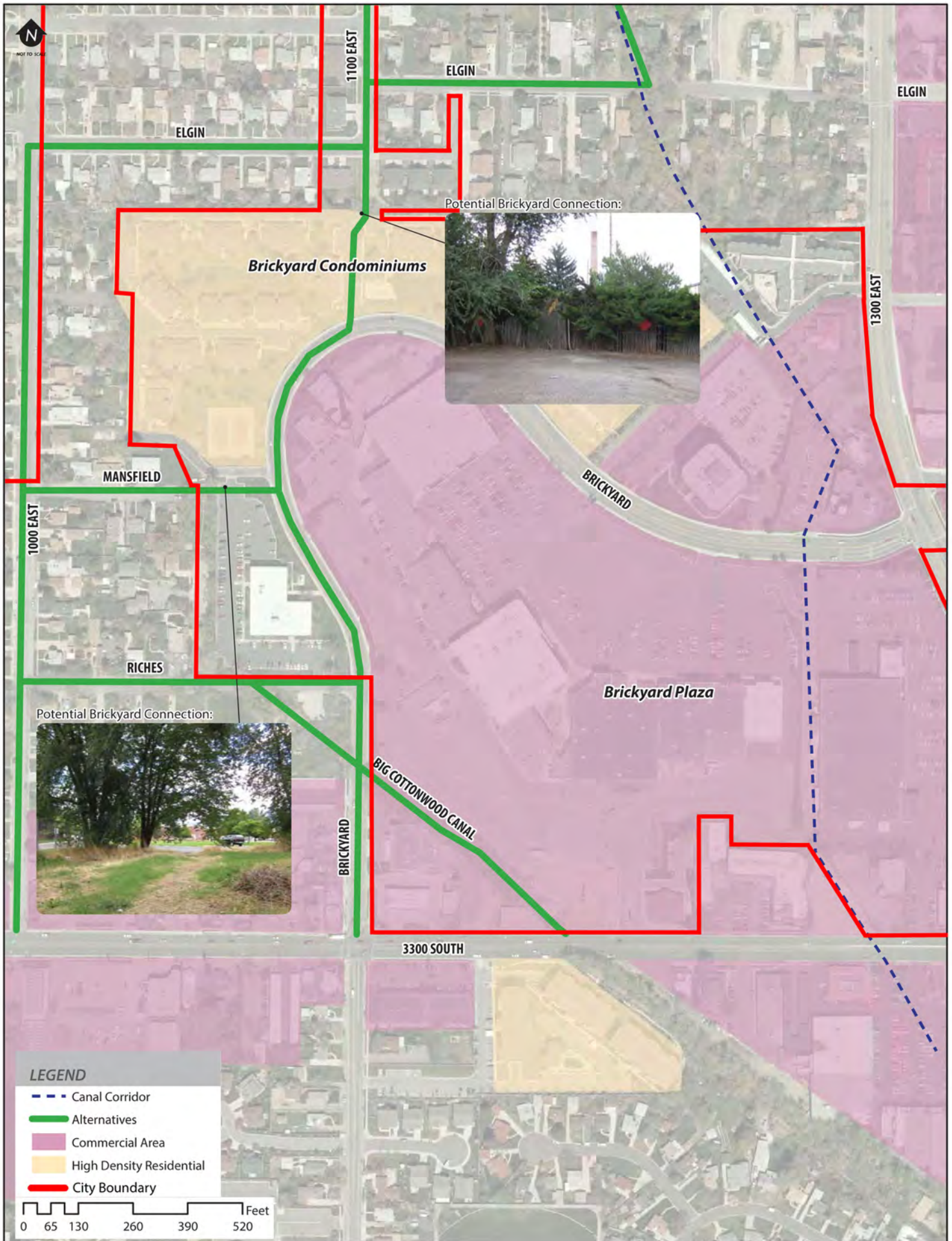


**FIGURE 18. ALTERNATIVES - CHARLTON TO ELGIN**  
JORDAN AND SALT LAKE CITY CANAL TRAIL





**FIGURE 19. ALTERNATIVES - ELGIN TO 3300 SOUTH**  
 JORDAN AND SALT LAKE CITY CANAL TRAIL



## 4. PREFERRED ALIGNMENT

Trail alignments were evaluated through a process of analysis and investigation of feasibility. Stakeholders and the public weighed in on the alternatives under consideration as well. Where some sections of the study area had only one viable trail option, others had several. This chapter identifies the preferred alignment for the Jordan and Salt Lake City Canal Trail throughout the study area, and reiterates those sections where only one alternative is feasible. Typical cross sections and illustrations of key areas are provided. The preferred trail alignment for the Jordan and Salt Lake City Canal Trail is illustrated in Figure 20, and trail treatment recommendations are shown in Figure 21.

### TRAIL ALIGNMENT

From 800 South to Princeton Avenue, the preferred trail alignment follows McClelland Street. The alignment in this section, as previously discussed, would consist of on-street shared lane markings for bicyclists and sidewalks for pedestrians. At 900 South, trail users must cross the street at an offset alignment to continue southward on the trail. A pedestrian refuge is proposed in the median on 900 South, to protect pedestrians and cyclists crossing the street (see Figure 21B for an illustration of a conceptual crossing for 900 South). Design of the refuge should be sizable enough to afford protection, but short enough to allow left turns from both legs of McClelland Street onto 900 South. Salt Lake City Transportation Division has mentioned it is considering converting this four-lane roadway to three lanes (two westbound and one eastbound). A six-foot bike lane will be added to the eastbound (uphill) direction, along with three-foot buffers on either side of the bike lane. Shared lane markings will be added to the outside westbound (downhill) travel lane. Since a time frame for making these striping changes has not been set, any design for a pedestrian refuge island should take the proposed roadway configuration into account.

The preferred trail alignment continues south on McClelland Street to Princeton Avenue. Along McClelland Street, the shared lane markings would not require removal of on-street parking, so the cross-section would not change. At Princeton Avenue, wayfinding signage could direct trail users to the existing 10' asphalt trail passing through Inglewood Park and into the canal property near the southeast corner of the park. The canal property connects the park to the vacant property north of Liberty Heights Fresh market. There is a small segment of existing trail that is located on private property near the northwest corner of the vacant lot. The Parks and Public Lands Division should work with the property owners to establish a trail easement for this segment. Salt Lake City's Transportation and Planning Divisions should collaborate to create a development solution at the parcel north of the market: any development project must take the canal property and trail design into consideration, but the presence of the trail may be an amenity to a development project here (as discussed in Chapter 3). Salt Lake City's Transportation, Planning, and Parks and Public Works Divisions should collaborate with the future developer of the property to accommodate a trail alignment.



From the vacant lot, the trail would parallel 1100 East and head southward. At the 1300 South intersection, Salt Lake City may want to consider an enhanced intersection design to bring more attention to trail users, school children, and other cyclists and pedestrians. In other areas, communities have recreated intersections as vital public spaces and added amenities around intersections such as kiosks, benches, public art, and other features. One example is Share-It-Square, (at the intersection of SE 9<sup>th</sup> and Sherrett Avenue in Portland's Sellwood neighborhood - more information available online at the Project for Public Spaces website). Salt Lake City may wish to engage the University of Utah's College of Architecture + Planning or the Fine Arts Department in a Design Competition whereby students or other community members submit ideas for recreating the 1300 South/1100 East intersection in a more pedestrian- and cyclist-friendly model.

From 1300 South, the preferred trail alignment continues southward on 1100 East to Harrison Avenue, trail users can cross at the existing crosswalk to head east on Harrison Avenue to the off-street trail section between Harrison and Milton Avenues. Wayfinding signage could mark the entrances to the off-street trail section at either end. At each location where the trail intersects with cross streets, Salt Lake City may want to consider crossing enhancements to increase trail visibility and calm traffic on the streets. At the southern end of the off-street section near Milton Avenue, one piece of the canal corridor has been sold to a private property owner. Salt Lake City would need to obtain an easement for the trail in order to connect to Milton Avenue and continue the trail southward.

From the off-street section, the trail heads eastward on Milton Avenue to 1200 East. The preferred trail alignment continues southward on 1200 East to 1700 South. Salt Lake City would need to install some type of pedestrian crossing enhancements at this location which currently has no painted crosswalk. The trail would then enter Westminster College via the internal roadway at 1200 East. The trail would be marked by on-street shared lane markings in this section, and would require permission from Westminster College since this is a privately owned roadway. Several elements in this section indicate coordination with Westminster College: additional wayfinding signage to the Westminster College bicycle collective just west of the alignment, and creating connections to Westminster's network of soft-surface trails that encircle the





south and west edges of campus. In addition, as previously mentioned, Westminster College would like to establish a bicycle and pedestrian bridge over Emigration Creek, connecting the soft-surface pathways to 1200 East south of campus. However, any changes proposed within the Riparian Corridor Overlay Zone for Emigration Creek will need to adhere to the requirements of that zone. While the additional wayfinding, trail connections, and bridge are not included in the cost estimate for the Jordan and Salt Lake City Canal Trail, Salt Lake City could work with Westminster College to create these features to enhance overall connectivity in the area. Salt Lake City would also need to work with Westminster College to modify the gate at the east end of Wilson Avenue, adjacent to campus, to allow bicyclist and pedestrian passage. City staff members may need to research the agreements with Westminster College that led to the construction of the gate; if the gate was built as part of a conditional approval, removing it may need to be approved by the Planning Commission.

From Westminster College, the trail would follow Wilson Avenue westward across 1100 East. Trail users at the 1100 East crossing would benefit from enhanced visibility. An enhanced crosswalk with a median refuge is proposed. Salt Lake City may want to look to examples in Portland, OR (see Photo 9, taken at the intersection of SE 41<sup>st</sup> Street and Stark in Portland) for ideas on shared lane treatments at offset intersections for major road crossings. Final design of the median refuge should take into consideration accommodation of bus stops on 1100 East and on-street parking needs. The trail alignment from Wilson Avenue to McClelland Avenue, and along McClelland Avenue to Hollywood Avenue, would be on-street shared lane markings. As with the other on-street sections of the trail, on-street parking would be maintained and pedestrians would use the sidewalks.



From Hollywood Avenue to Sugarmont Avenue, the preferred trail alignment is along McClelland Street. This alignment takes advantage of the existing overhead flashing warning beacons along with crosswalk flags to cross 2100 South. This crossing could be upgraded to a HAWK beacon to further aid trail users in crossing 2100 South. Other bicycle and pedestrian connections are proposed through the Granite Block redevelopment area, and must be negotiated with the owners of those properties as development occurs. The preferred alignment of the Jordan and Salt Lake City Canal Trail along McClelland Street in the downtown Sugar House area intersects with the proposed Parley's Trail alignment and the Sugar House Streetcar at Sugarmont Avenue, by the Fairmont Aquatic Center and Fairmont Park. This creates an opportunity for an "intermodal hub" connecting cyclists, pedestrians, other trail users, and streetcar riders at the McClelland/Sugarmont intersection. Future design of this intersection could be oriented towards non-motorized transportation, with high-quality crossing treatments, excellent visibility, streetscape amenities, and other features.



South of Sugarmont, the preferred alignment becomes an off-street trail along the east edge of Fairmont Park, on the west side of Simpson Avenue/1100 East to the I-80 right-of-way. Salt Lake City's Parks and Public Lands and Transportation Divisions should coordinate on the placement of the trail along the park's east edge. Fairmont Park is zoned as Open Space by Salt Lake City, and as such is protected by Salt Lake City Title 2 Chapter 2.90, Open Space Lands Program. In addition, Fairmont Park receives additional environmental protection under national Section 4(f) legislation; if construction of the Jordan and Salt Lake City Canal Trail occurs on Park property and uses federal funds, documentation of any potential impacts to the park will be required to meet federal regulations.

South of Sugarmont, the preferred alignment becomes an off-street trail along the east edge of Fairmont Park, on the west side of Simpson Avenue/1100 East to the I-80 right-of-way. Salt Lake City's Parks and Public Lands and Transportation Divisions should coordinate on the placement of the trail along the park's east edge. Fairmont Park is zoned as Open Space by Salt Lake City, and as such is protected by Salt Lake City Title 2 Chapter 2.90, Open Space Lands Program. In addition, Fairmont Park receives additional environmental protection under national Section 4(f) legislation; if construction of the Jordan and Salt Lake City Canal Trail occurs on Park property and uses federal funds, documentation of any potential impacts to the park will be required to meet federal regulations.

The trail is proposed to continue within the I-80 right-of-way along the north side of the freeway corridor. Initial discussions with UDOT indicated that a trail placement is possible here. Salt Lake City will need to submit preliminary engineering drawings and work with UDOT's right-of-way division to shift the "No Access" line for the freeway to accommodate the trail (see the meeting minutes in Appendix E for documentation of the discussion with UDOT).

South of I-80, the trail alignment would follow the existing pathways south of the freeway through Elizabeth Sherman Park, and then become on-street shared lane facilities for bicyclists and sidewalks for pedestrians from Parkway Street to 2700 South. While an on-street alignment is identified as the preferred alternative in this section at this time, future study should continue regarding the off-street section of canal property between Crystal Avenue and 2700 South. Adequate right-of-way is owned by Public Utilities to establish an alignment here. However, the Highlands of Sugar House subdivision is likely encroaching on the Public Utilities property: in the past, this subdivision purchased part of the canal property for use in the development, but field observations suggest that the subdivision is

encroaching further into the property than was intended. This issue should be resolved before a future trail alignment can be established here.

At 2700 South, the preferred trail alignment continues westward on 2700 South to 1100 East. Bicyclists would ride on 2700 South (which is a designated bike route) and pedestrians would be on the sidewalk. A HAWK beacon could be installed at the intersection of 1100 East and 2700 South to aid trail users in crossing 2700 South. South of 2700 South, the preferred trail alignment is along 1100 East to Charlton Avenue, using on-street shared lane markings for bicyclists and sidewalks for pedestrians. While this on-street alignment is currently preferred for the Jordan and Salt Lake City Canal Trail, the ultimate preferred alignment passes through Graystone Condominiums to reach the off-street canal corridor south of Charlton Avenue. Graystone Condominiums is privately owned, including the roadway along the canal which the trail would utilize for a preferred alignment. Public Utilities owns a canal easement along the roadway, but as previously stated these easements cannot be used for trail purposes: a separate trail easement must be purchased by the Parks and Public Lands Division for a trail. Discussions held with Graystone Condominium representatives in 2011 indicated little support for the trail through the condominium property (documentation from the project team meeting with Graystone representatives is provided in Appendix E). However, the City should continue discussions with Graystone representatives and work towards building supportive consensus around a Graystone trail alignment.

From Charlton Avenue southward to Elgin Avenue, the preferred trail alignment is located in the canal corridor. Future engineering and design of the trail in this corridor must take the canal structure into account, since the pipelines and drainage boxes for the canal are largely located above ground in this corridor. In addition, several property owners along the section of canal between Zenith and Elgin Avenues have extended their yards into the canal, closing off access. Review of existing permits and agreements with Public Utilities revealed that any permits previously issued for use of the canal in this section have expired and are no longer valid. The Public Utilities, Parks and Public Lands, and Transportation Divisions should work with these property owners to accommodate the trail alignment in this section.

For the purpose of this study, Elgin Avenue is the southern terminus of the Jordan and Salt Lake City Canal Trail at this time. Of the alternatives identified for extending the trail south to 3300 South, none provided a logical terminus or connection southward, and one alternative, through the Brickyard Condominiums, was informally rejected (through feedback provided at an October 2011 open house, See Appendix F) by property owners at that complex. As a result, the most logical ending point for the trail at this time is at Elgin Avenue. In the future, if redevelopment plans take shape for the Brickyard area, Salt Lake City and Salt Lake County should continue to work towards a trail alignment that follows the canal from Elgin Avenue to 3300 South. A future trail here would likely not occur for some time, but should be kept in mind as plans for the area change. In addition, Salt Lake County representatives are interested in investigating the possibility of continuing the Jordan and Salt Lake City Canal Trail south through the unincorporated County and other jurisdictions between 3300 South and the canal's end approximately one mile north of the Jordan Narrows in Bluffdale City.



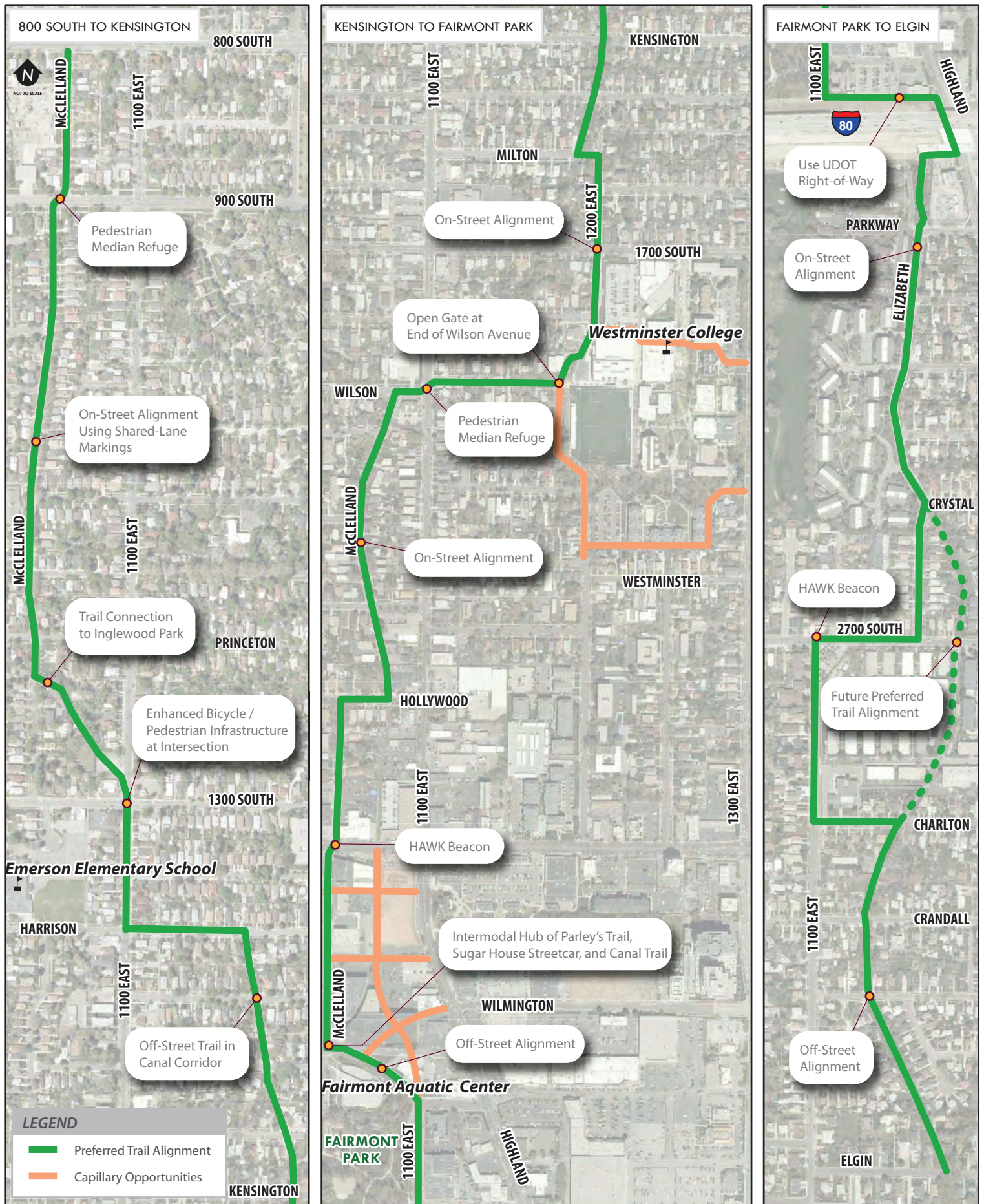
## **TREATMENT TYPES AND CROSS SECTIONS**

Typical trail treatments and cross-sections have been identified in this study, and included in the conceptual cost estimate for construction costs. These treatments include a variety of styles including:

- On-street shared lane markings
- Off-street pathways separated from vehicle traffic by removable bollards and gates, with raised crosswalks at cross-sections
- Median refuges and high-visibility crosswalks at several crossing locations
- HAWK beacons at two crossing locations

These trail and crossing treatment types are designated and illustrated in Figures 20, 21A, and 21B.

**FIGURE 20. PREFERRED TRAIL ALIGNMENT**  
JORDAN AND SALT LAKE CITY CANAL TRAIL





# FIGURE 21A. TRAIL TYPES AND CROSSING TREATMENTS

## JORDAN AND SALT LAKE CITY CANAL TRAIL

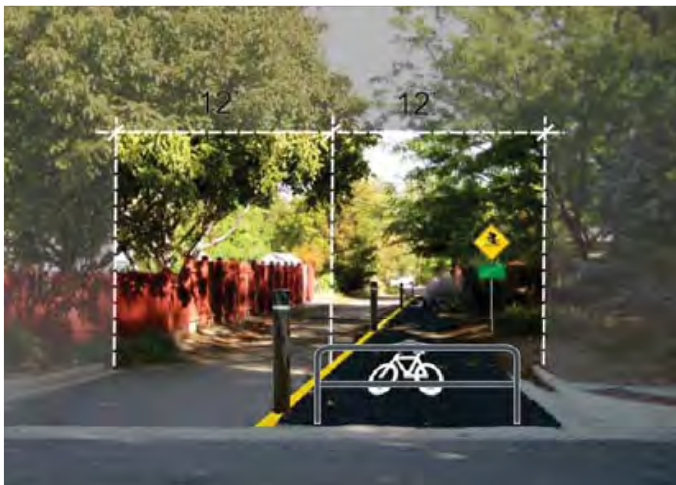
On-Street Shared Lane Markings:  
McClelland Street near Yale Avenue



Off-Street Trail:  
Fairmont Park



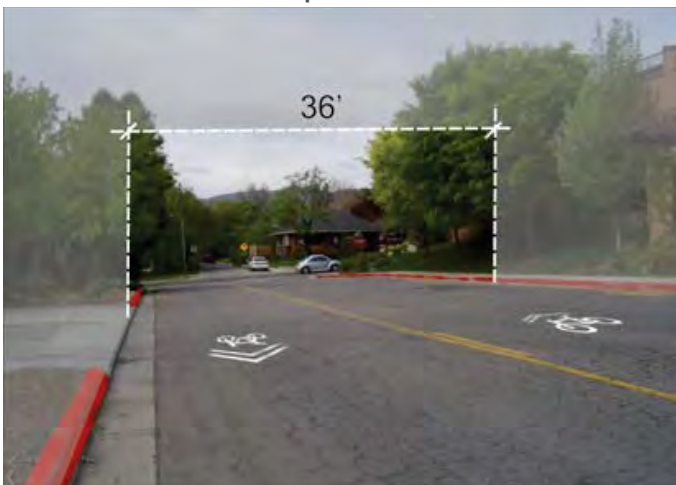
Canal Corridor Trail:  
Harrison Avenue to Milton Avenue



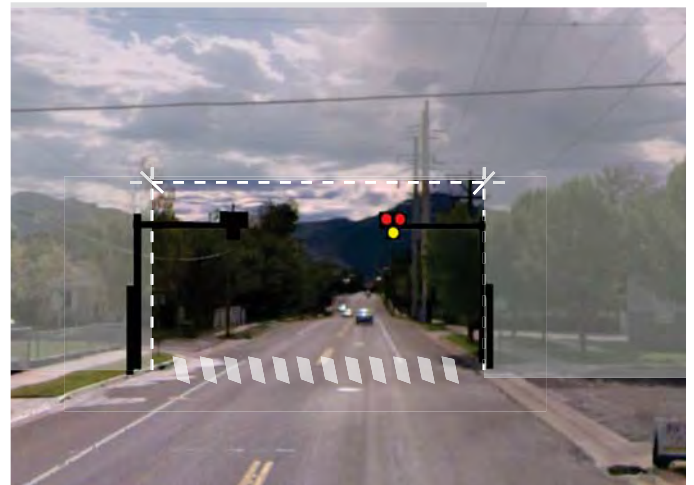
On-Street Shared Lane Markings:  
Elizabeth Street



On-Street Shared Lane Markings:  
Westminster Campus



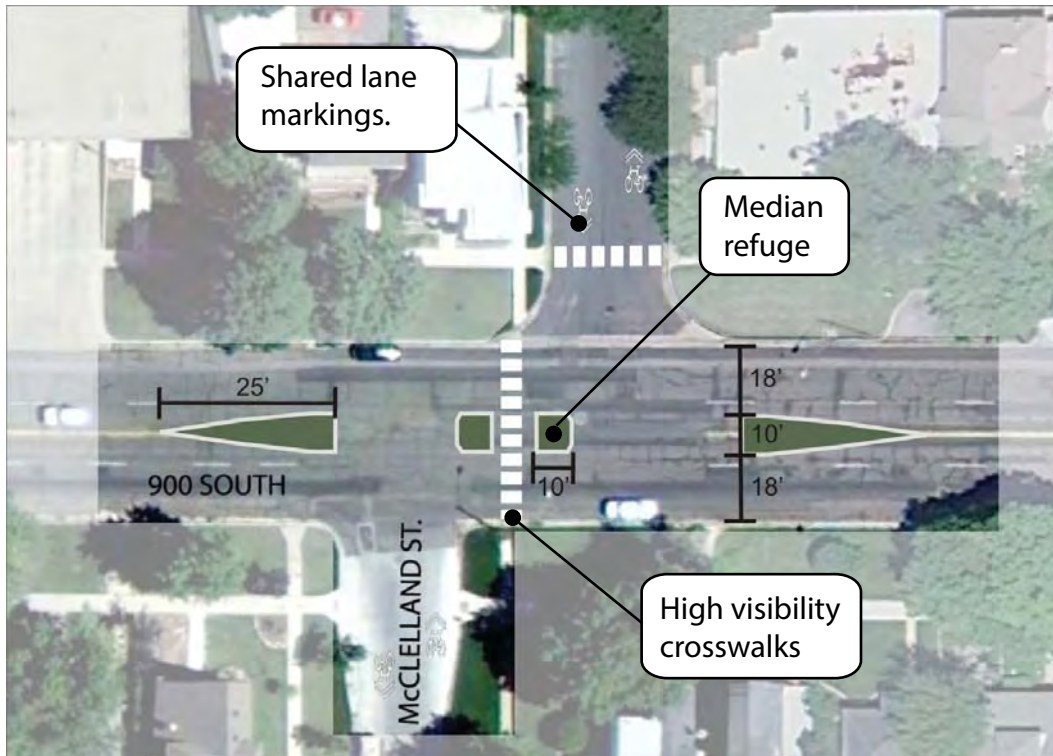
HAWK Crossing Beacon:  
2700 South at 1100 East





**FIGURE 21B. TRAIL TYPES AND CROSSING TREATMENTS**  
*JORDAN AND SALT LAKE CITY CANAL TRAIL*

### 900 South Trail Crossing



### 1100 East Trail Crossing



## 5. IMPLEMENTATION

Many elements of the preferred Jordan and Salt Lake City Canal Trail alignment make for relatively easy implementation: much of the preferred alignment is already in public ownership with Salt Lake City, and many sections of the trail alignment could be installed at a fairly low cost. This section identifies the steps and actions needed to make the Jordan and Salt Lake City Canal Trail a reality.

### PHASING

Construction of the Jordan and Salt Lake City Canal Trail can be implemented in phases. The recommended strategy is to implement the simplest sections first, followed by those that are more challenging and require more legwork. Coincidentally, the recommended phasing plan for the Jordan and Salt Lake City Canal Trail matches up with the study sections from north to south:

- Phase 1: 800 South to Harrison Avenue
- Phase 2: Harrison Avenue to 1700 South
- Phase 3: 1700 South to Sugarmont Avenue
- Phase 4: Sugarmont Avenue to Parkway Avenue
- Phase 5: Parkway Avenue to Charlton Avenue
- Phase 6: Charlton Avenue to Elgin Avenue
- Future Undefined Phases: Elgin Avenue to 3300 South, and southward

### COST AND FUNDING

The following table identifies estimated conceptual costs to construct the Jordan and Salt Lake City Canal Trail. The costs are summarized in Table 3 below, with overall costs by phase in Table 4. Detailed conceptual cost estimates by construction phase are available in Appendix C.

Table 3 Conceptual Cost Estimate					
Item	Unit	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
<b>Jordan &amp; Salt Lake City Canal Trail - Summary</b>					
Trail Construction	LF	2,605	\$ 72,936.98	\$ 18,234.24	\$ 91,171.22
Trail Construction at I-80	LF	525	\$ 121,449.39	\$ 30,362.35	\$ 151,811.74
Trail Construction at Fairmont Park	LF	750	\$ 25,212.88	\$ 6,303.22	\$ 31,516.10
Reseed disturbed areas	SF	38,800	\$ 2,910.00	\$ 727.50	\$ 3,637.50
Rebuild sidewalk	LF	1,240	\$ 25,833.33	\$ 6,458.33	\$ 32,291.67
Retaining Wall	SF	240	\$ 15,600.00	\$ 3,900.00	\$ 19,500.00

Table 3 Conceptual Cost Estimate					
Item	Unit	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
Pedestrian Lighting					
Pole lighting	EA	14	\$ 84,000.00	\$ 21,000.00	\$ 105,000.00
Bollard lighting	EA	57	\$ 28,500.00	\$ 7,125.00	\$ 35,625.00
Signing					
Wayfinding signage (18" x 24")	EA	58	\$ 8,700.00	\$ 2,175.00	\$ 10,875.00
Trail signage (12" x 18")	EA	16	\$ 1,600.00	\$ 400.00	\$ 2,000.00
Striping/Pavement Markings					
Bike Lane Striping	LF	2,595	\$ 3,892.50	\$ 973.13	\$ 4,865.63
Shared Lane Markings	EA	133	\$ 3,325.00	\$ 831.25	\$ 4,156.25
Median Refuge Islands					
at 900 South	EA	1	\$ 10,650.00	\$ 2,662.50	\$ 13,312.50
at 1100 East	EA	1	\$ 9,702.50	\$ 2,425.63	\$ 12,128.13
Artistic/Historic Interpretive elements	EA	4	\$ 20,000.00	\$ 5,000.00	\$ 25,000.00
Raised Crosswalks	EA	9	\$ 54,000.00	\$ 13,500.00	\$ 67,500.00
Bike rack	EA	5	\$ 2,500.00	\$ 625.00	\$ 3,125.00
HAWK beacons	EA	2	\$ 176,000.00	\$ 44,000.00	\$ 220,000.00
Brick paver crosswalk	SF	1,930	\$ 37,535.33	\$ 9,383.83	\$ 46,919.17
Replace gate	EA	1	\$ 1,500.00	\$ 375.00	\$ 1,875.00
Replace sidewalk	LF	100	\$ 1,194.44	\$ 298.61	\$ 1,493.06
		<b>SUB-TOTAL</b>	<b>\$ 707,042</b>	<b>\$ 176,761</b>	<b>\$ 883,803</b>
Mobilization		8%	\$ 707,042		\$ 56,563
Construction survey		5%	\$ 707,042		\$ 35,352
Maintenance of Traffic		3%	\$ 707,042		\$ 21,211
Right-of-Way/Easement		1%	\$ 707,042		\$ 7,070
Construction Administration and Management		5%	\$ 707,042		\$ 35,352
		<b>TOTAL</b>	<b>\$ 707,042</b>	<b>\$ 176,761</b>	<b>\$ 1,039,352</b>

Table 4 Conceptual Cost Estimate by Phase		
Phase	Segment Description	Conceptual Cost Estimate
1	800 South – Harrison Avenue	\$121,902



Table 4 Conceptual Cost Estimate by Phase		
Phase	Segment Description	Conceptual Cost Estimate
2	Harrison Avenue – 1700 South	\$239,874
3	1700 South – Sugarmont Avenue	\$156,720
4	Sugarmont Avenue – Parkway Avenue	\$265,350
5	Parkway Avenue – Charlton Avenue	\$142,061
6	Charlton Avenue – Elgin Avenue	\$113,446

Conceptual illustrations showing the placement of various design elements are provided in Appendix B. Some elements impacting trail costs include right-of-way, landscaping, and maintenance issues. These are described below.

#### ***Right-of-Way Costs***

Several sections of the trail require right-of-way acquisition. The Parks and Public Lands Division is responsible for open space property negotiations/acquisitions and maintenance of trails.

**Milton Avenue:** The property at 1195 East Milton Avenue, on the north side of the street, was formerly owned by Public Utilities but was purchased by an adjacent property owner prior to 1996. While a de-facto trail exists within the canal alignment through this area, the trail alignment cannot be formalized without obtaining a trail-specific easement from the property owner. As previously noted, the relevant easements that Salt Lake City holds over private property along the alignment are for canal-related use only and cannot be used for a trail.

**Westminster College:** 1200 East, on campus, is a private street owned by the College. However, Westminster personnel indicated support for the trail concept and would allow shared lane markings on 1200 East on campus. Campus planners would appreciate the City’s assistance in obtaining permission to build a bridge over Emigration Creek near 1200 East.

**UDOT Interstate 80 Corridor:** Discussions with UDOT revealed a willingness to accommodate the trail in a short section of I-80 corridor right-of-way, behind the State Liquor Store and an adjacent business/office complex. Necessary steps to be taken to obtain an easement include working with UDOT’s right-of-way division to shift the “No Access” line for the freeway. Salt Lake City will also need to create preliminary design drawings for UDOT’s review.

Graystone Condominiums: Discussions with Graystone representatives indicated a lack of support for a trail through the Graystone complex. Nevertheless, it remains an important link in the overall trail corridor. Public Utilities does not own the canal property, but rather a canal easement along the canal alignment. The Transportation Division and Public Utilities should consider incentives that may be attractive to Graystone in negotiations for a future trail easement through the site. These could include financial reimbursement for a trail easement, decreased liability for Graystone regarding trail users, or funding for maintenance or repairs along the canal. In addition, Graystone's management building is located on top of the canal structure, and the property managers have been hesitant to invest in the aging building due to uncertainty around its legal status: if Public Utilities needs to conduct maintenance under the building, the building may be demolished and the complex may not necessarily be compensated for the loss. Salt Lake City may be able to negotiate an arrangement for replacing or updating this building as part of trail easement discussions.

### ***Funding Options***

Many funding options, several of them competitive grant programs, exist for bicycle and pedestrian projects. Some of the options are described below.

Local funding options could include bond financing, property taxes, sales taxes, or other options. Some Utah municipalities, such as Park City and St. George, have had success in financing trail, bicycle and pedestrian improvements through local bond elections. Bonds are securities that are issued for the purpose of financing the infrastructure needs of the issuing municipality/county/state, etc. These bonds establish a payment plan over the life of a facility. Voters could also approve a separate tax for transportation improvements like trails, bike lanes, or other elements. In Salt Lake County, voters in recent years have already approved sales tax increases for transit improvements, and regional governments may consider asking for tax increases to fund bicycle and pedestrian improvements as well. Other tools used by local jurisdictions include special assessment or taxing districts, where properties within a defined area are charged a sum to pay for improvements that benefit those properties. Local appointed and elected leaders should be involved in the development of these kinds of tools.

In some locations along the preferred alignment, trail construction may potentially be negotiated with property owners along the canal. At the Granite Block and near 1100 East/1300 South, off-street trail sections are in locations where property is currently planned for redevelopment or may be redeveloped at some point in the future. Salt Lake City's Planning and Transportation Divisions may wish to pursue discussions with property owners in these locations to secure trail placement where desired.

City-based fees may be another option for funding bicycle and pedestrian projects such as the Jordan and Salt Lake City Canal Trail. This could include impact fees, which can be imposed on new developments to pay for bicycle and pedestrian projects serving that area. They are mainly used to extend utilities or put in traffic or pedestrian enhancements that serve the area. Other fee programs could include parking fees or parking meter districts, in which parking revenues are pooled to fund public amenities and infrastructure in that district.



Several state- and federally-based funding programs could be valuable in the implementation of the Jordan and Salt Lake City Canal Trail. These include:

- **Transportation Enhancement Program:** This program funds projects such as construction of pedestrian and bicycle facilities, acquiring scenic or historic easements, and landscaping and beautification. A 20 percent match is required of the local jurisdiction applicant, and grant applications are usually available each spring from the Utah Department of Transportation.
- **Congestion Mitigation and Air Quality (CMAQ):** CMAQ funds can be used for construction of bike lanes and sidewalks, but not for maintenance or repairs. CMAQ funds are administered by Wasatch Front Regional Council
- **Safe Routes to School (SR2S):** SR2S funds can be used for bicycling and walking infrastructure near schools, as well as for non-infrastructure projects such as education and awareness programs.
- **Recreational Trails Program (RTP):** The RTP program is administered through the Utah Division of State Parks, and has funded many trail projects throughout the State of Utah. RTP funds may be used to build and maintain trails, and requires a 50 percent local match.
- **Community Transformation Grants:** This program, authorized by the 2010 Affordable Care Act, promotes healthy living and is intended to reduce health disparities by creating healthier school environments, encouraging physical activity, and other goals. This is a competitive grant program administered by the Center for Disease Control, and more information can be found online at [www.cdc.gov](http://www.cdc.gov).

Private sponsors can be a creative option to fund bicycle and pedestrian projects locally. One example in Utah is the Clear Creek Trail in Sevier County. This trail was built by a coalition of public and private groups, including UDOT, Sevier County, Rocky Mountain Power, and Big Rock Candy Mountain Resort. Other examples include corporate sponsorships of bike sharing programs in large cities, such as Barclays's sponsorship of London's bike share, and Kaiser Permanente in Denver. Several merchants associations and business groups are present in the Sugar House area, such as the Sugar House Merchants Association or the Vest Pocket Business Coalition. This could represent one way for local community members to get more involved in bicycling and walking locally. Other private funding examples include the Regence Foundation, which is the non-profit arm of Regence Blue Cross Blue Shield of Utah. This agency provides grants ranging from \$20,000 - \$35,000 to be used for planning activities.

### ***Landscaping and Maintenance Costs***

Ongoing landscaping and maintenance costs associated with the Jordan and Salt Lake City Canal Trail should be negotiated between the Public Utilities, Parks and Public Lands, and Transportation Divisions.

The Transportation Division would need to obtain permission from Public Utilities to place a trail in the off-street sections of the canal property. Furthermore, if Public Utilities needs to conduct canal repairs underneath the trail, Public Utilities and the Transportation Division should determine which division would be responsible for trail restoration. This would include pavement repair and any other ancillary costs such as landscaping, bollards, signage, or other elements.

Landscaping along the off-street sections will likely vary. In the section between Harrison and Milton Avenue, no trail-related landscaping is proposed. This is for several reasons. First, if existing license agreements or encroachments are not revoked for the trail, then limited space is available for a trail, particularly if neighbors along the trail wish to continue to use the canal corridor for driveway access, landscaping, fencing, and other uses. Additional landscaping may simply not fit in the corridor. Second, the types of plants that could be allowed would be limited to those with shallow root systems that would not extend into the canal. Third, irrigation lines would likely not be installed for landscaping support, which limits landscaping options to xeri- or zero-scape species. Fourth, the neighborhoods in the area have historically had many complaints about the lack of maintenance of vegetation in the corridor; adding more landscaping that needs maintenance may not be the best solution in this case.

Existing vegetation in the canal corridor between Charlton and Elgin avenues is currently maintained by Public Utilities to accommodate service vehicle access. If this landscaping is enhanced to better suit trail users, Transportation needs to work out an agreement with the Public Utilities and Parks and Public Lands Divisions to establish responsibility for landscaping and its maintenance.

Snow removal may also be necessary along the Jordan and Salt Lake City Canal Trail. The Parks and Public Lands Division currently has responsibility for clearing snow from trails throughout the City. However, the Division's budget for snow clearing is fully utilized, and the Parks and Public Lands Division would need to approach the Salt Lake City Council for additional funding to provide snow clearing services for the Jordan and Salt Lake City Canal Trail. In fact, the Parks and Public Lands Division's budget is at capacity for many maintenance issues, and needs to be increased by the City Council if any maintenance activities along Jordan and Salt Lake City Canal Trail become part of the Park and Public Lands Division's responsibilities.

## **ACTION ITEMS**

Transportation, Planning, Public Utilities, Parks and Public Lands, and other divisions will have multiple actions items that must be completed to implement construction of the Jordan and Salt Lake City Canal Trail. These items are identified in the table below and organized in accordance with the phasing order previously discussed.



<b>Table 3</b> <b>Action Items</b>		
Action Item	Responsible Division	Time Frame
Obtain funding for trail/route segments	Transportation, Parks and Public Lands	Near
Develop a conceptual plan to elevate bicycle and pedestrian status at the 1300 South/1100 East intersection	Transportation	Near
Approach property owners of Parcel #1608452019 to establish an easement for the existing trail corridor	Transportation, Parks and Public Lands	Near
Request additional funding from the Salt Lake City Council to conduct maintenance along the trail	Parks and Public Lands	Near
Approach property owner at 1195 East Milton to negotiate the terms of a trail easement	Transportation, Parks and Public Lands, and Public Utilities	Near
Resolve outstanding lapsed license and encroachment issues in off-street canal corridor between Harrison – Milton Avenues *	Public Utilities	Near
Negotiate maintenance, repair, and landscaping agreements between City divisions for trail	Transportation, Parks and Public Lands, and Public Utilities	Near
Coordinate with UDOT to develop preliminary design drawings for I-80 right-of-way section of trail	Transportation, Parks and Public Lands	Near
Work with Westminster College and the surrounding neighborhood to open and/or reconstruct the gate connecting campus to Wilson Avenue. Research conditions for original gate construction.	Transportation, Planning, Parks and Public Lands	Near

<b>Table 3</b> <b>Action Items</b>		
Action Item	Responsible Division	Time Frame
Negotiate with owners of the Granite Block to include bicycle and pedestrian passageways through the block	Planning, Redevelopment Agency, Transportation	Near
Coordinate on trail design and construction on the east edge of Fairmont Park	Parks and Public Lands, Transportation	Near
Engage in discussions with Westminster College regarding a potential bridge crossing at 1200 East, pathway connections, and wayfinding to the Westminster College bicycle collective	Transportation, Planning	Medium
Resolve lapsed license agreements and potential trail conflicts between Zenith Avenue and Elgin Avenue	Transportation, Parks and Public Lands, Public Utilities	Medium
Approach owners of Graystone Condominiums to negotiate the establishment of a trail easement	Transportation, Parks and Public Lands	Medium
Resolve encroachment issues at the Highlands of Sugar House subdivision	Public Utilities	Medium
*Note: Lapsed license agreements and encroachments will be resolved with Public Utilities on a case-by-case basis, as needed.		



## 6. PUBLIC FEEDBACK

### PUBLIC PROCESS

The project team for this implementation plan engaged in a detailed public engagement process. This included coordination with a stakeholder committee, one-on-one interviews with affected parties, three open houses, and online discussion via Salt Lake City's Open City Hall website. The process is described in more detail in this chapter.

#### *Stakeholder Committee*

The Committee represented a range of interest groups in the study area:

- Sugar House Community Council
- Eastside Community Council
- Salt Lake City Mayor's Bicycle Advisory Committee
- Granite Block property owners
- Salt Lake City Public Utilities
- Salt Lake City Parks and Public Lands
- Salt Lake City Police

The Stakeholder Committee met four times throughout the study process, and advised on general project vision and goals, corridor opportunities and constraints, trail alternatives, and the final document and recommendations. Minutes from the stakeholder meetings are provided in Appendix D.

#### *Interviews*

Several "one-on-one" interviews were conducted around specific topic areas, as shown below:

- Salt Lake City Public Utilities: Status of ownership, easements, encroachments, and license agreements in the off-street sections of the corridor.
- UDOT: Feasibility of placing an off-street pathway in the UDOT right-of-way along the north side of the I-80 freeway corridor.
- Westminster College: Feasibility of placing alignments on internal college roadways, enhancing circulation surrounding the college campus, and opening the gate at the top of Wilson Avenue.
- Urban Outsourcing: Feasibility of placing a trail alignment through Brickyard Condominiums.
- Salt Lake County: Future plans for Jordan and Salt Lake City Canal Trail alignments between Elgin Avenue and the Brickyard Business area and south of 3300 South.
- Graystone Condominiums: possibility of obtaining a trail easement along interior roadways for the Jordan and Salt Lake City Canal Trail.

- Salt Lake City Parks and Public Lands: expectations for construction, maintenance, landscaping, and operation of the trail.

Minutes from the one-on-one interviews are provided in Appendix E.

### ***Public Open Houses***

The project team hosted three open houses to gather public input about the proposed Jordan and Salt Lake City Canal Trail. The first public open house was held on Wednesday, July 27, 2011 at the Sprague Library. The purpose of this open house was to introduce the trail project, and gather feedback from the public on general trail preferences and related issues or concerns. According to the sign-in sheets, 57 people attended the open house. Participants had an opportunity to indicate their preference on a variety of bicycle and pedestrian facility types, from off-street pathways to on-street bike lanes and cycle tracks. According to the participants, the most preferred facilities were those that separated bicycles and pedestrians completely from vehicle traffic. Many participants felt that they would use a trail for recreational purposes, or for transportation to shopping or schools. Common themes in the comments received included:

- Many attendees were excited about the trail and indicated they would use it for transportation and recreational purposes.
- Some property owners were concerned that the trail will require right-of-way from their property, not be maintained, and increase crime.
- Participants would like to see distinguishable areas for pedestrians and bicyclists.
- Participants believed that the history along the trail is of interest and interpretive displays would be beneficial.

A second open house was held on October 27, 2011, at Westminster College. According to the sign-in sheets, 94 people attended the open house, which was held to provide information on both the Jordan and Salt Lake City Canal Trail and the Sugar House Streetcar Phase Two study. Meeting participants could view the trail alignment alternatives discussed in Chapter 3 of this study, and provide feedback on their favored alignments. While many meeting participants were supportive of a trail concept and the alignments proposed, some were still concerned about the potential impacts of a trail corridor near their homes. In particular, residents of the Brickyard Condominium complex showed a lack of support for a trail connection through their property, citing concerns about crime, parking impacts, and other issues. Other trail alignment sections were generally favorably received.

A third open house was held on March 1, 2012, at the former Deseret Industries building. Meeting participants viewed the preferred trail alignment and concepts, and provided comments.

A summary of the feedback received at the open houses is provided in Appendix F.

## APPENDICES

Appendix A: Roadway Characteristics Table

Appendix B: Canal Conceptual Improvements Maps

Appendix C: Conceptual Cost Estimate

Appendix D: Stakeholder Group Meeting Minutes

Appendix E: Interview Meeting Minutes

Appendix F: Public Open House Summary Documents

Appendix G: Community Correspondence



## **APPENDIX A: ROADWAY CHARACTERISTICS TABLE**

Roadway Inventory Table									
Road	Extent	Curb-to-curb width	Speed Limit	Parking	# Lanes	Coordinate	AADT	Count Year	Footnotes
McClelland	800 S - 1300 S	36	25	Y	2	1040 E.	600 - 800	2003	
1300 South	1000 East - 1100 East	40	30 (sz)	Y (SO)	2		9,500 - 10,000	2011	1
1000 East	1300 South - Harrison	40	25	Y	2		1,000 - 1,500	2003	
Harrison	1000 East - canal	40	25	Y	2	1370 S.	300 - 400	2001	
1100 East	1300 South - Harrison	44	25 (sz)	Y	2		9,000 - 10,000	2009	2
Emerson Alley	1300 South - Harrison	15	N/A	N	1	1075 E. (apx)	NA		3
Milton	Canal - 1200 East	36	25	Y	2	1595 S.	NA		
1200 East	Milton - Wilson	20	25	Y (EO)	2		NA		
Wilson	1200 E - McClelland	36	25	Y	2	1780 S.	NA		
McClelland	Wilson - Hollywood	36	25	Y	2	1060 E.	NA		
Hollywood	McClelland - McClelland	40	25	Y	2	1970 S.	1,500 - 1,600	2001	
McClelland	Hollywood - Sugarmont	36	25	Y	2	1040 E.	1,000 - 2,000	2001	
Highland Drive	2100 South - I-80	48	30	N	4	1150 E.	NA		
1100 East	Sugarmont - Ashton	48	25	Y	2		NA		
Simpson	1100 East - Highland	48	25	Y	2	2250 S.	NA		
Ashton	1100 East - Highland	40	15	Y	2	2310 S.	NA		
Elizabeth	Parkway - 2700 South	30	25	Y	2	1150 E.	500 - 1,000	2001	4
2700 South	Elizabeth - 1100 East	42	35	Y	2		10,000 - 15,000	2009	
1170 East	2700 South - Charlton	20	N/A	N	1		NA		
1100 East	2700 South - Elgin	42	25	Y	2		1,000 - 2,000	2001	
Charlton	1100 East - Canal	36	25	Y	2	2800 S.	NA		
Crandall	1100 East - Canal	36	25	Y	2	2875 S.	NA		
Elgin	1100 East - Canal	34	25	Y	2	3015 S.	NA		
Elgin	1000 East - 1100 East	40	25	Y	2		NA		
1000 East	Elgin - 3300 South	54	25	Y	2		NA		5
Mansfield	1000 East - dead end	28	25	Y	2	3135 S.	NA		
Riches	1000 East - Brickyard Road	26	25	Y	2	3190 S.	NA		
Brickyard	Mansfield - 3300 South	40	30	Y	2		NA		

#### Notes and Observations:

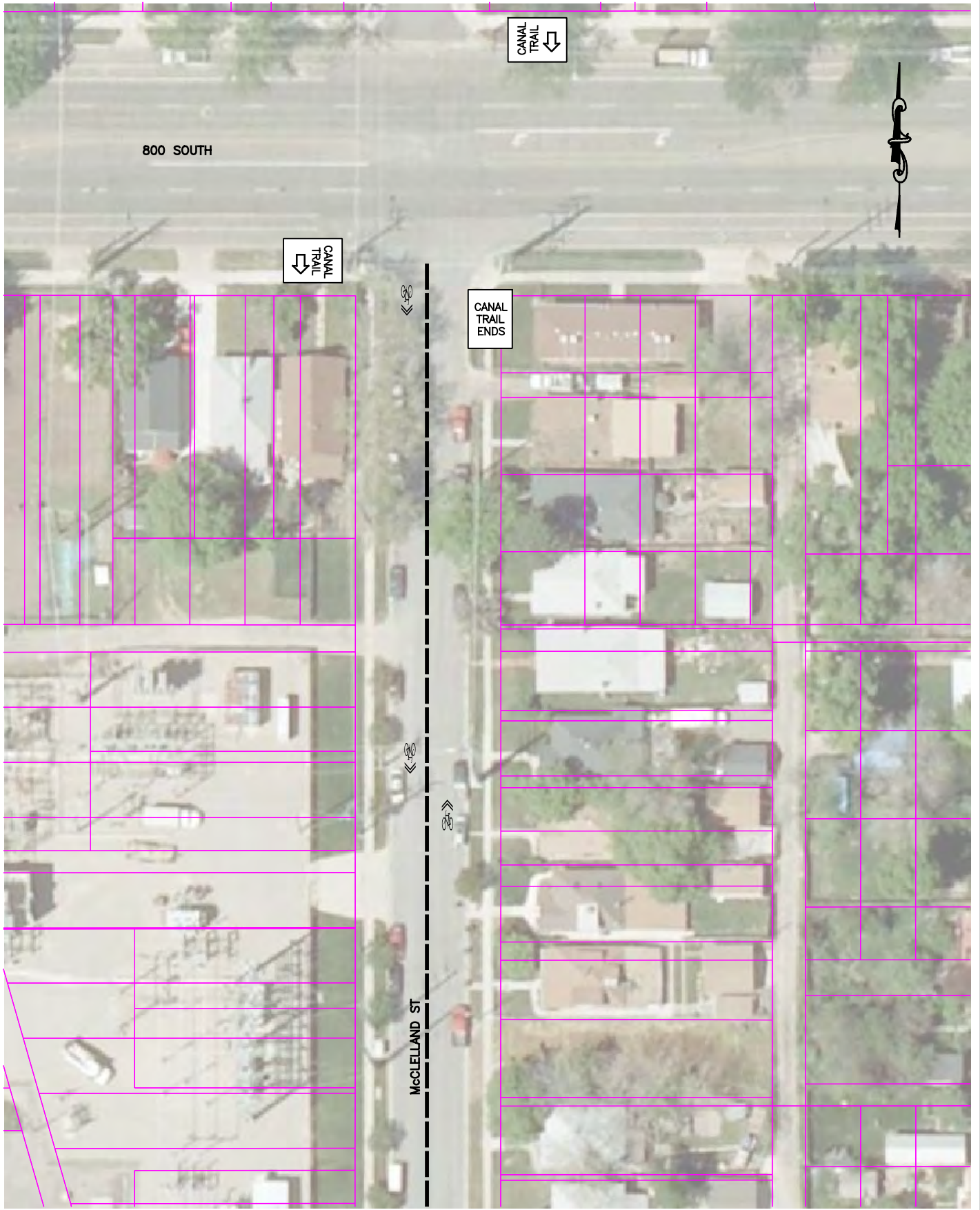
**SZ** - School Zone located on street

**SO & EO** - Parking on South side of street or East side of street respectively

- 1 Bike lane located on south side of street
- 2 Bike lanes located on both sides of street
- 3 Coordinates are approximate
- 4 From Whitlock (2535 S.) to Parkway there is no street parking and large grass medians
- 5 No curb or gutter on street - measurements are from sidewalk to sidewalk

## **APPENDIX B: CANAL CONCEPTUAL IMPROVEMENT MAPS**

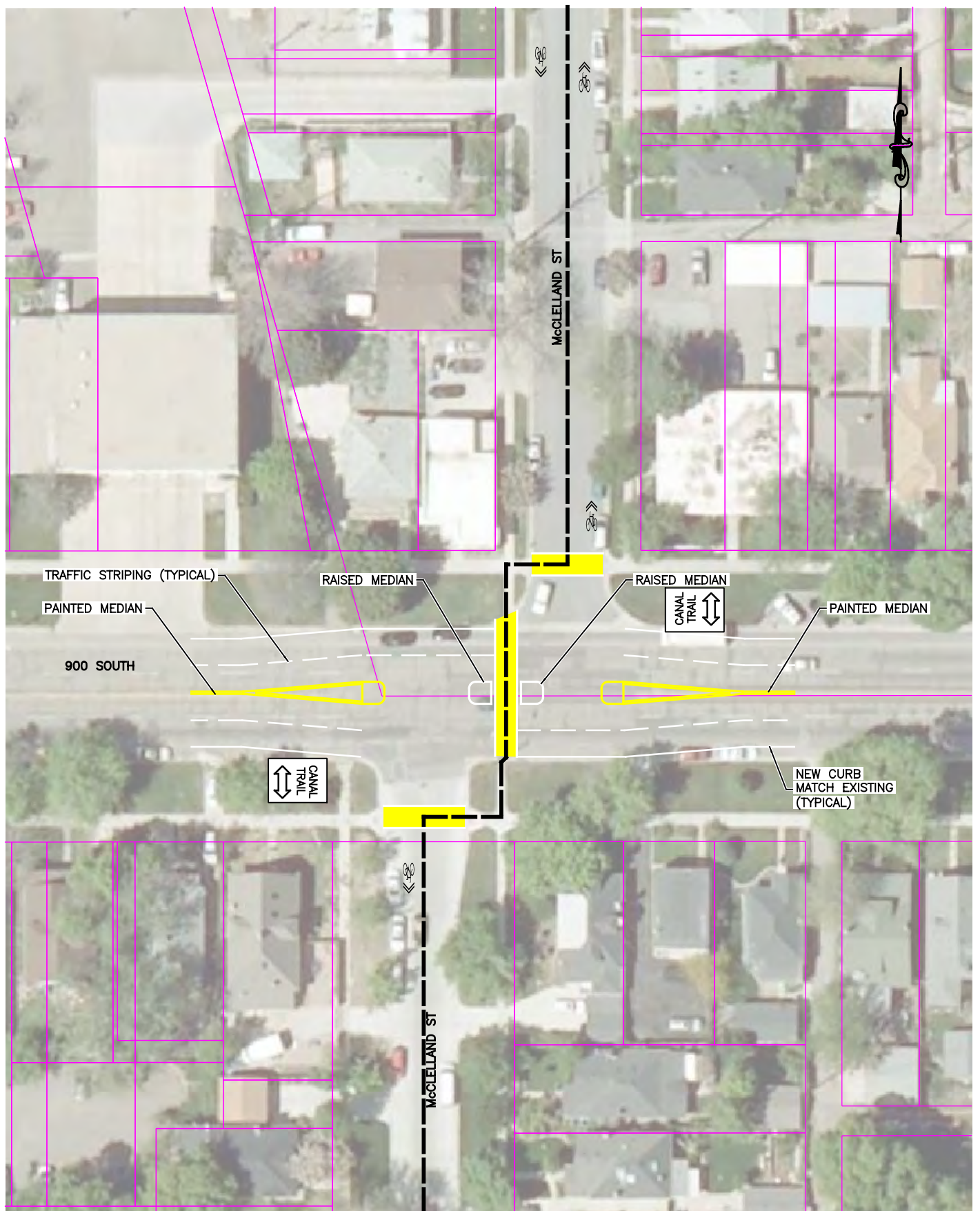




**LEGEND**

- PARCELS
- TRAIL ALIGNMENT
- SHARED PAVEMENT MARKING

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |  | CROSSWALK       |
|  | PAINTED MEDIAN          |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL





**LEGEND**

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

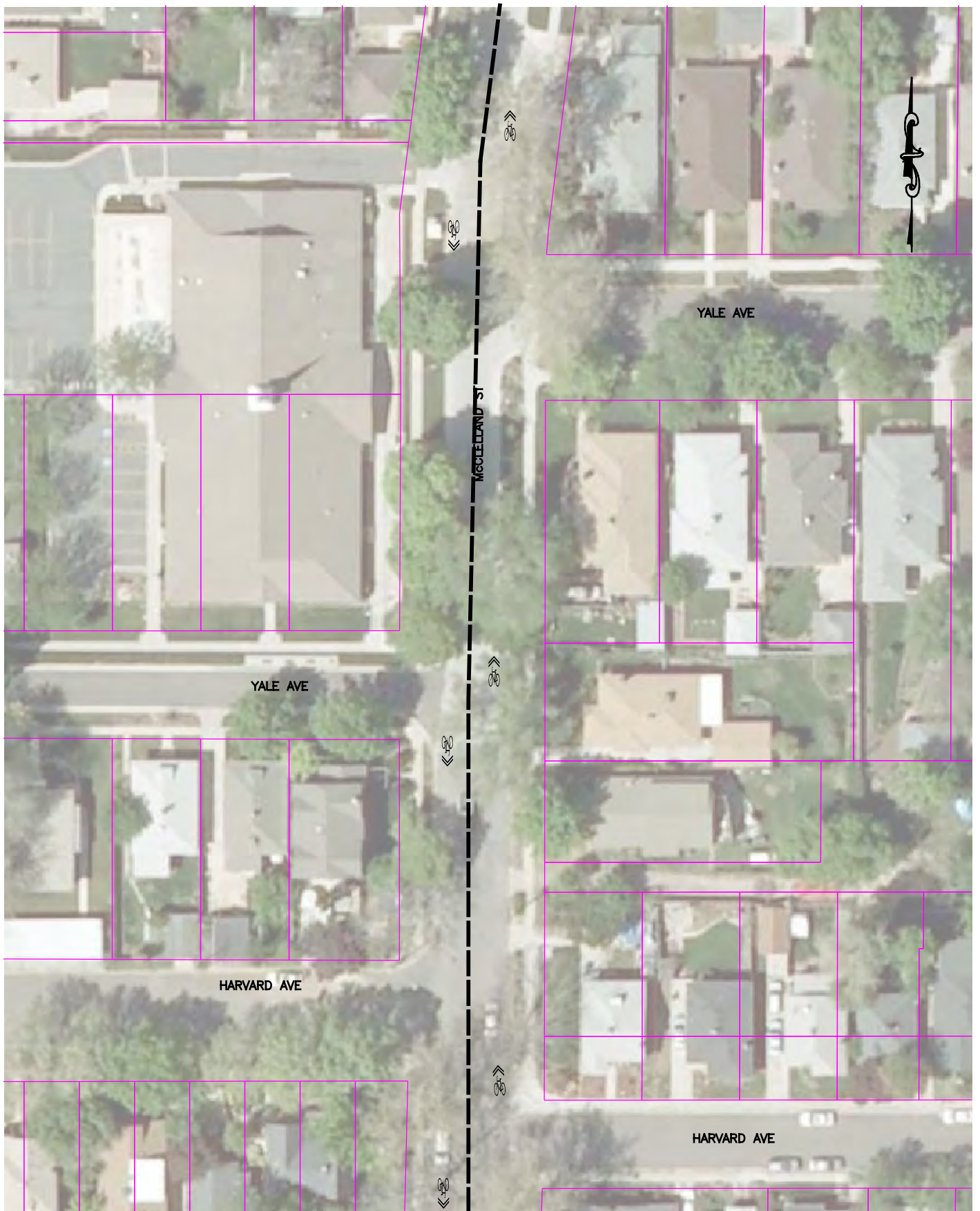




LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

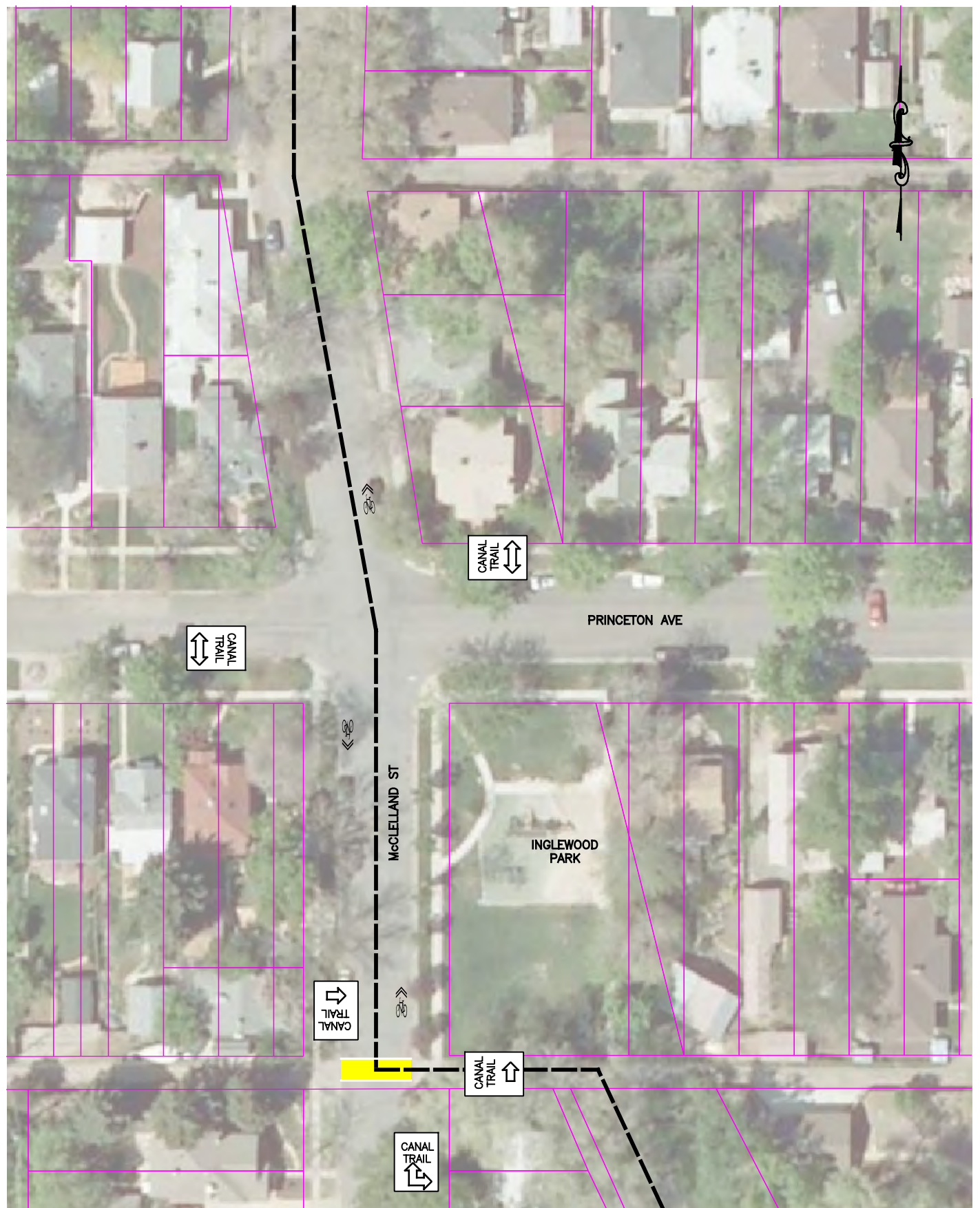


LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL





**LEGEND**

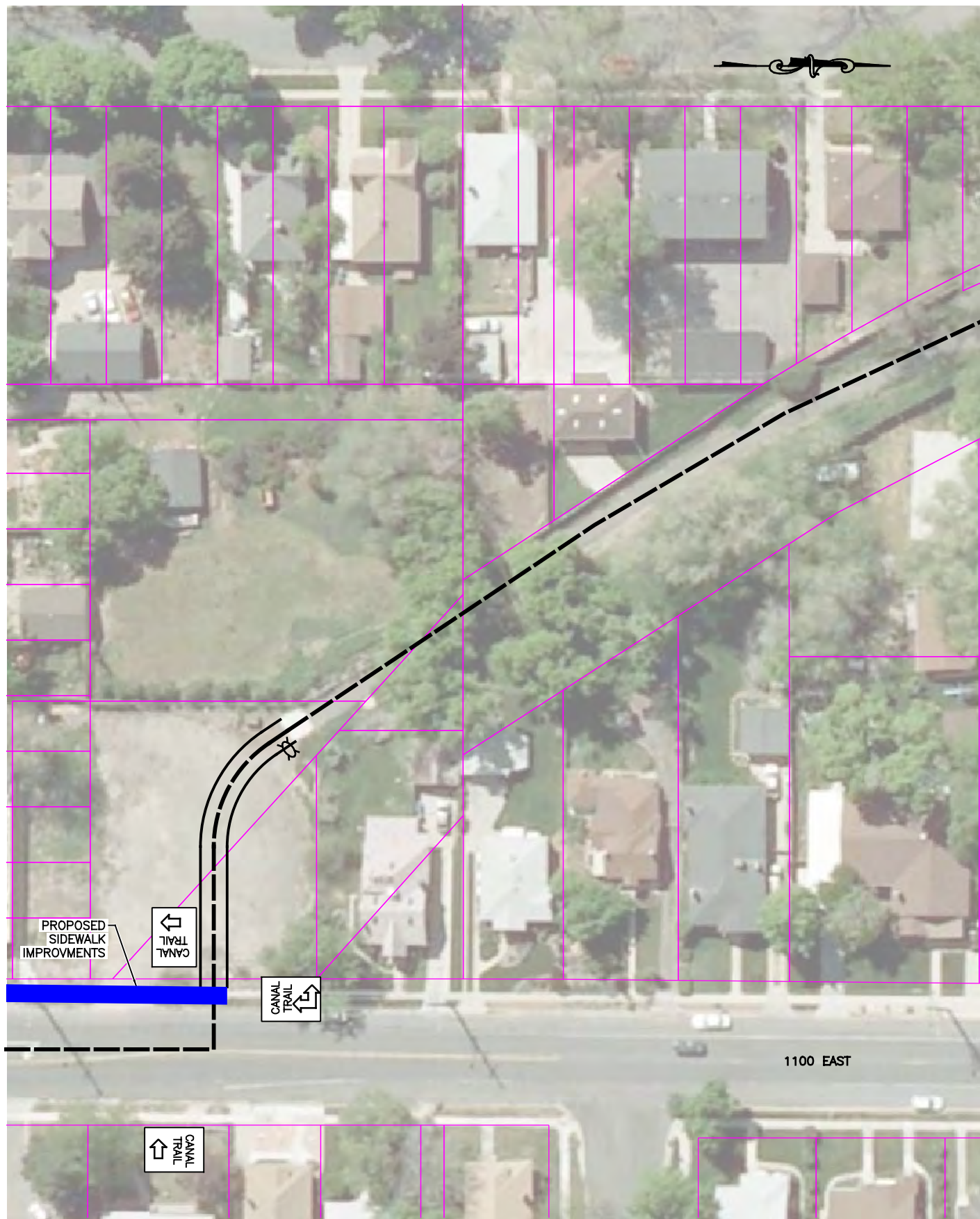
- |  |                         |  |                 |
|--|-------------------------|--|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |  | CROSSWALK       |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL










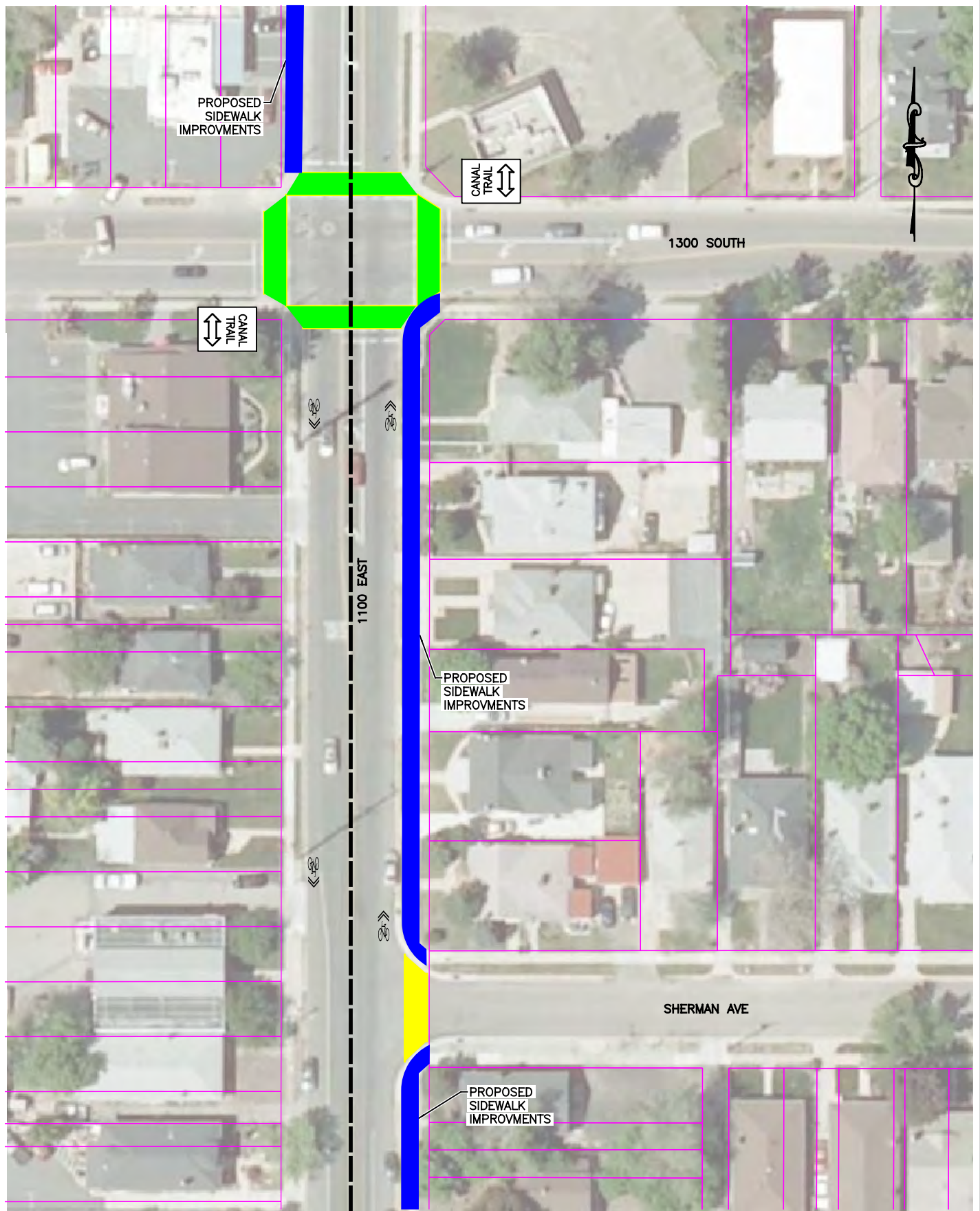










LEGEND

- |  |   |
|--|---|
|  PARCELS                        |  TRAIL ALIGNMENT |
|  PROPOSED LIGHT POLE            |  TRAIL LIMITS    |
|  PROPOSED SIDEWALK IMPROVEMENTS |   |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



**LEGEND**





- |  |  |
|--|--|
|  PARCELS                        |  TRAIL ALIGNMENT  |
|  SHARED PAVEMENT MARKING        |  RAISED CROSSWALK |
|  PROPOSED SIDEWALK IMPROVEMENTS |  CROSSWALK        |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

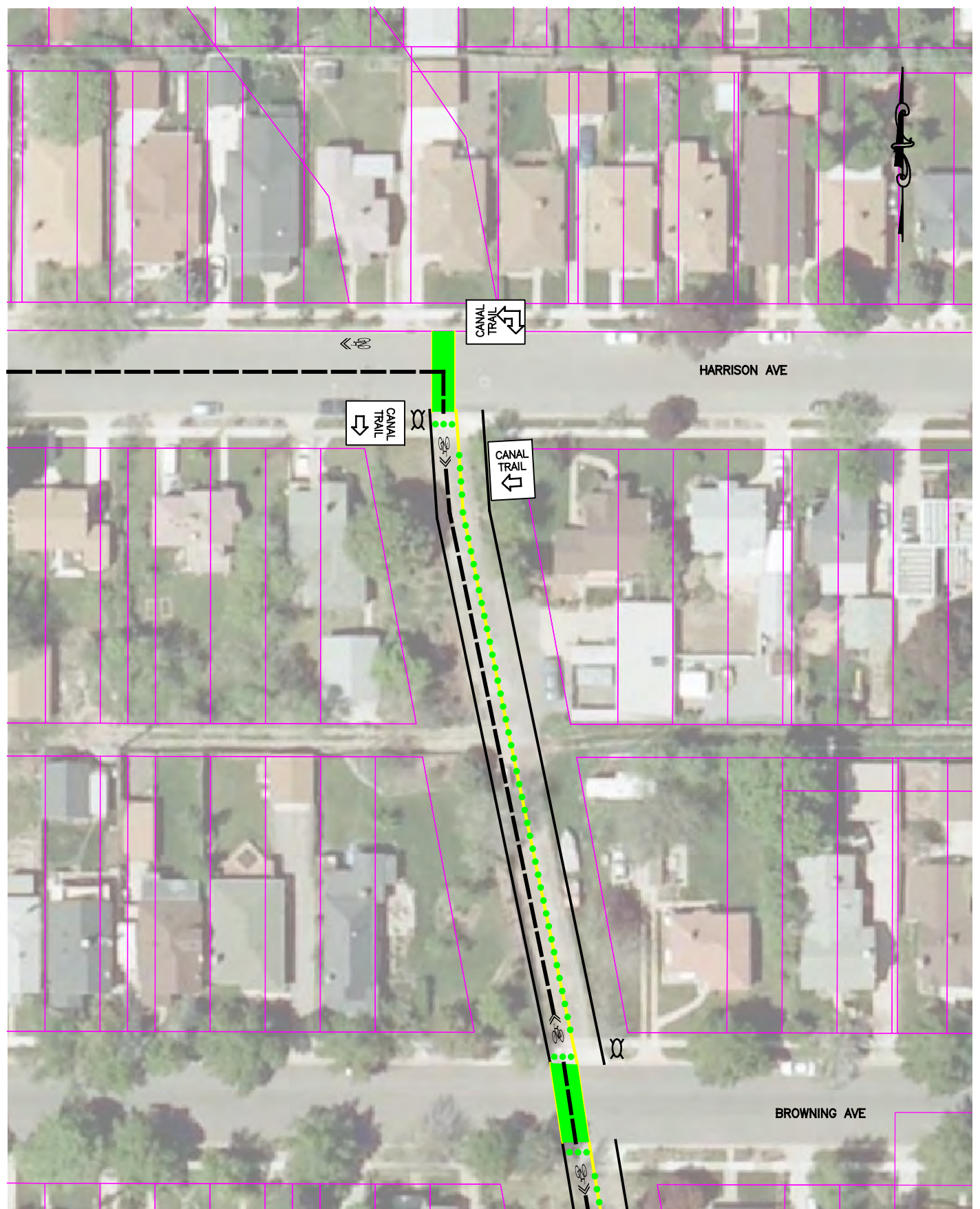




LEGEND

-  PARCELS
-  TRAIL ALIGNMENT
-  SHARED PAVEMENT MARKING
-  PROPOSED SIDEWALK IMPROVEMENTS

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

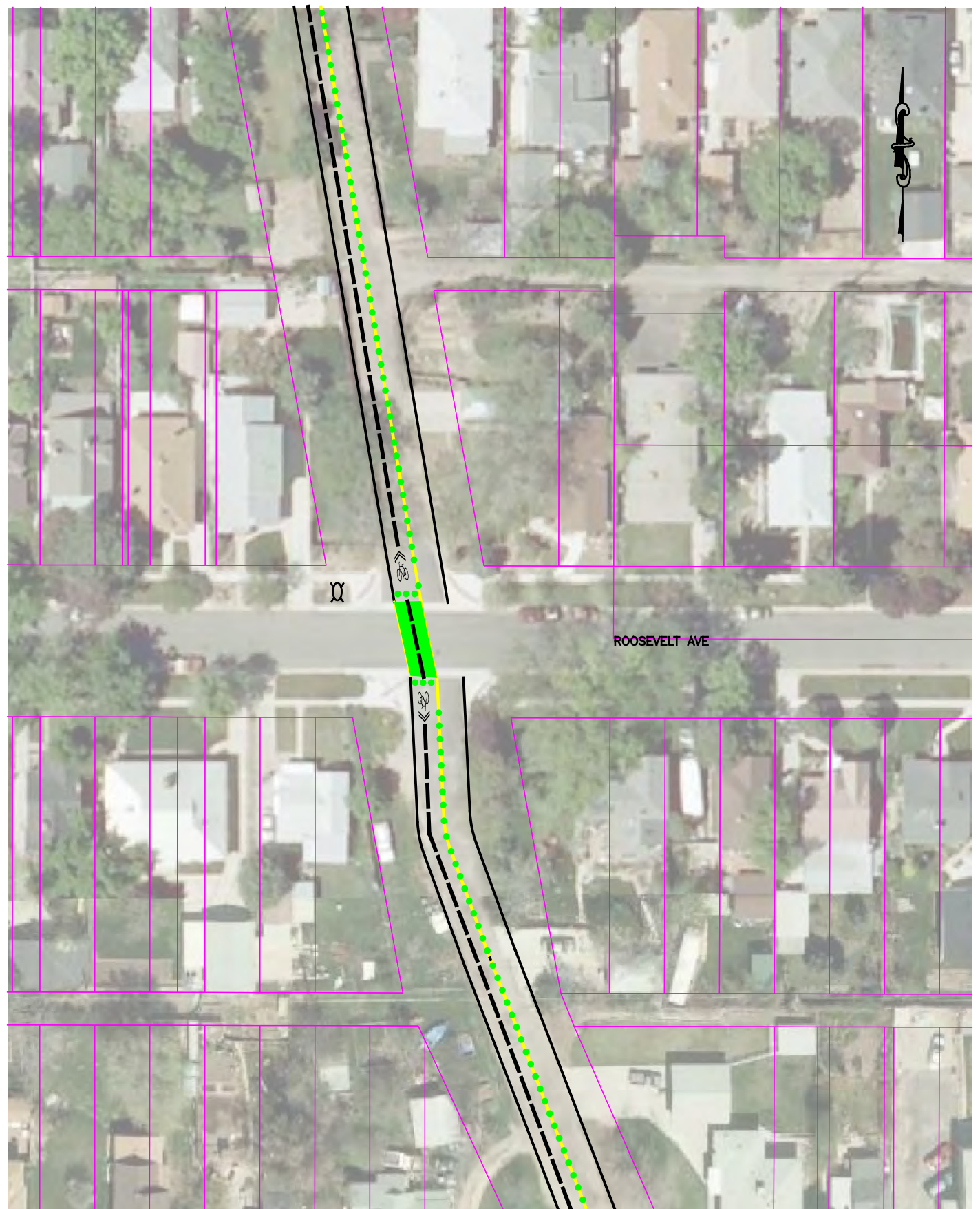


LEGEND

- |  |                             |  |                     |
|--|-----------------------------|--|---------------------|
|  | BOLLARDS WITH YELLOW STRIPE |  | TRAIL ALIGNMENT     |
|  | BOLLARD                     |  | TRAIL LIMITS        |
|  | PARCELS                     |  | RAISED CROSSWALK    |
|  | SHARED PAVEMENT MARKING     |  | PROPOSED LIGHT POLE |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



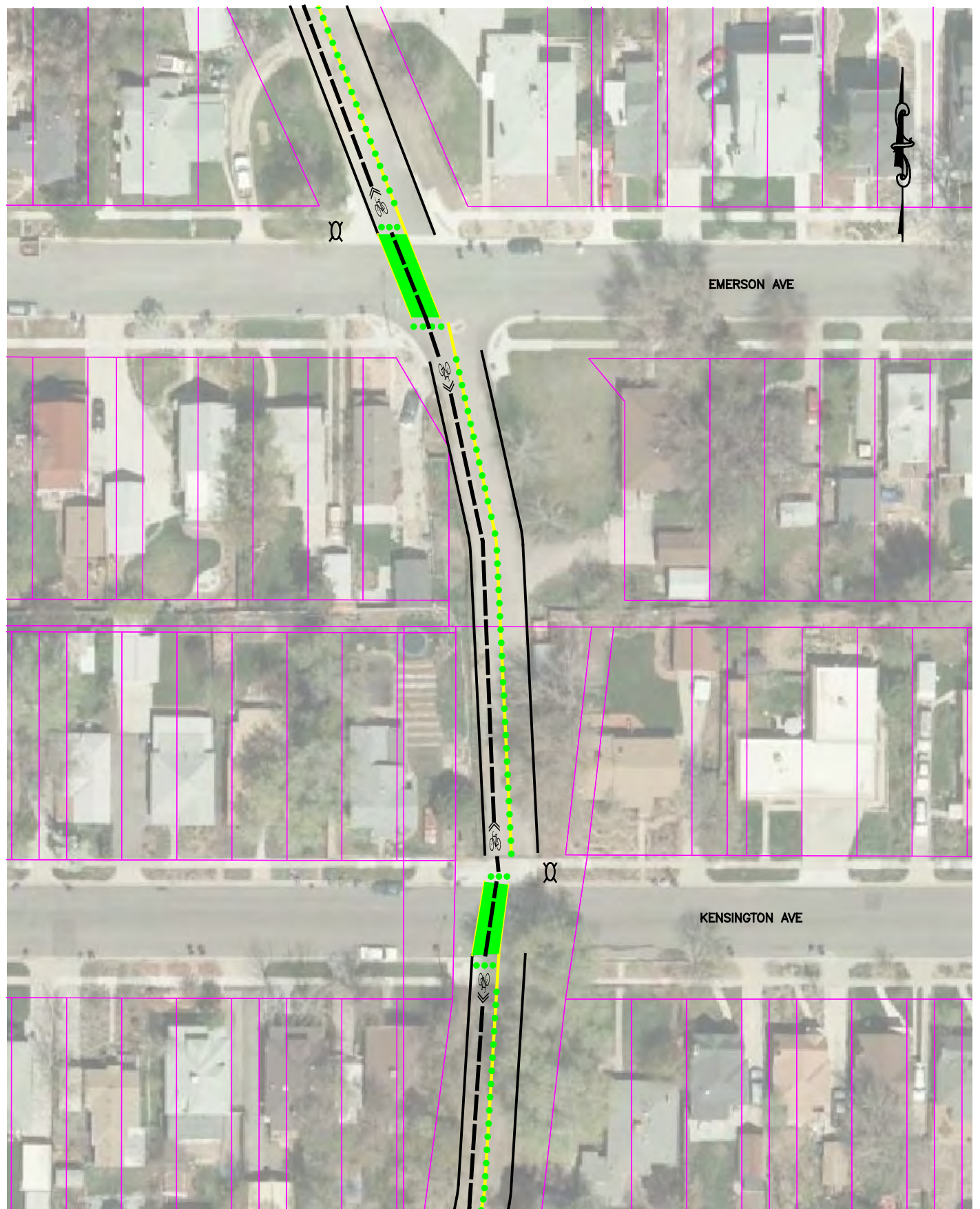


LEGEND

- |  |                             |  |                     |
|--|-----------------------------|--|---------------------|
|  | BOLLARDS WITH YELLOW STRIPE |  | TRAIL ALIGNMENT     |
|  | BOLLARD                     |  | TRAIL LIMITS        |
|  | PARCELS                     |  | RAISED CROSSWALK    |
|  | SHARED PAVEMENT MARKING     |  | PROPOSED LIGHT POLE |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

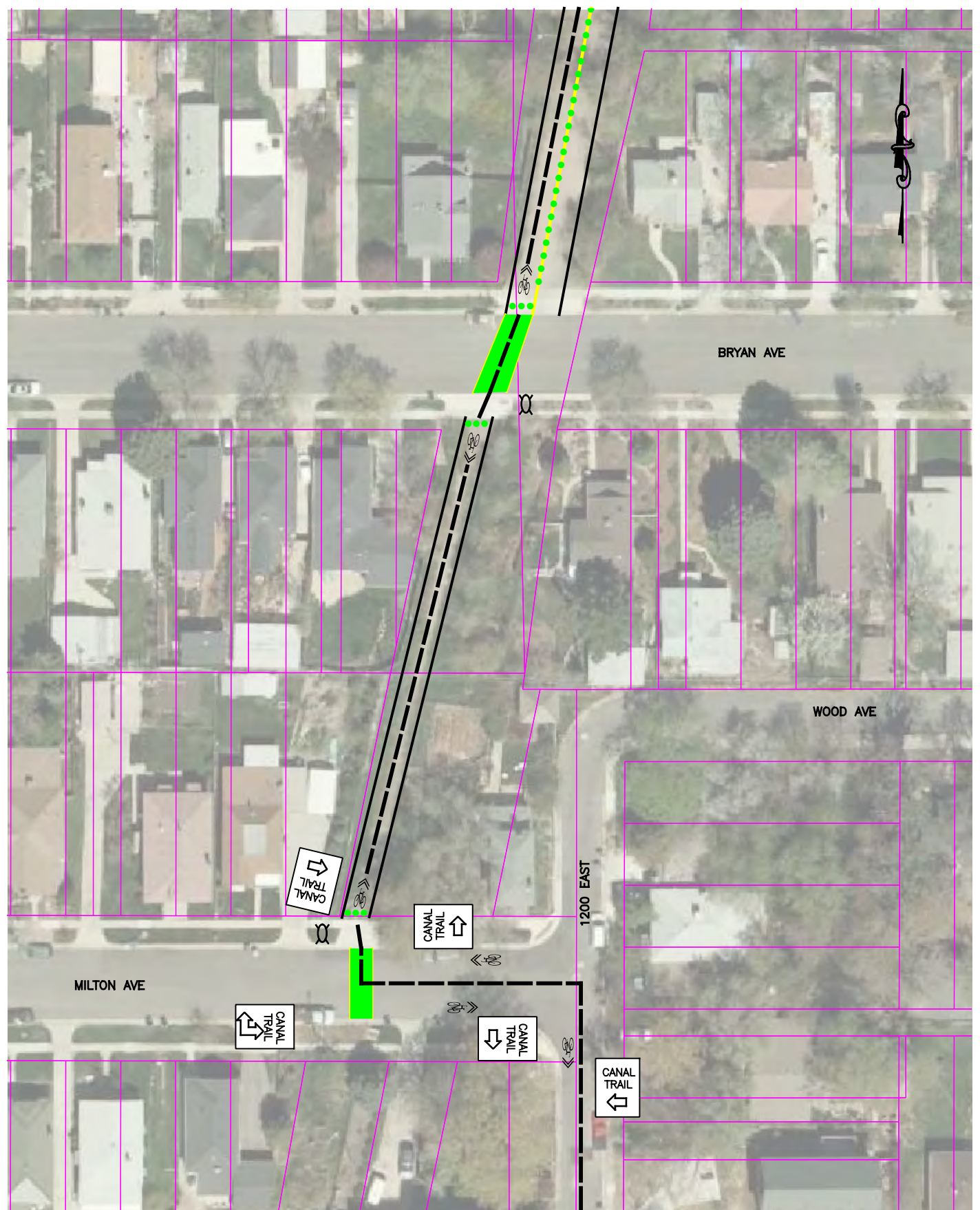




LEGEND

- |  |                             |  |                     |
|--|-----------------------------|--|---------------------|
|  | BOLLARDS WITH YELLOW STRIPE |  | TRAIL ALIGNMENT     |
|  | BOLLARD                     |  | TRAIL LIMITS        |
|  | PARCELS                     |  | RAISED CROSSWALK    |
|  | SHARED PAVEMENT MARKING     |  | PROPOSED LIGHT POLE |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

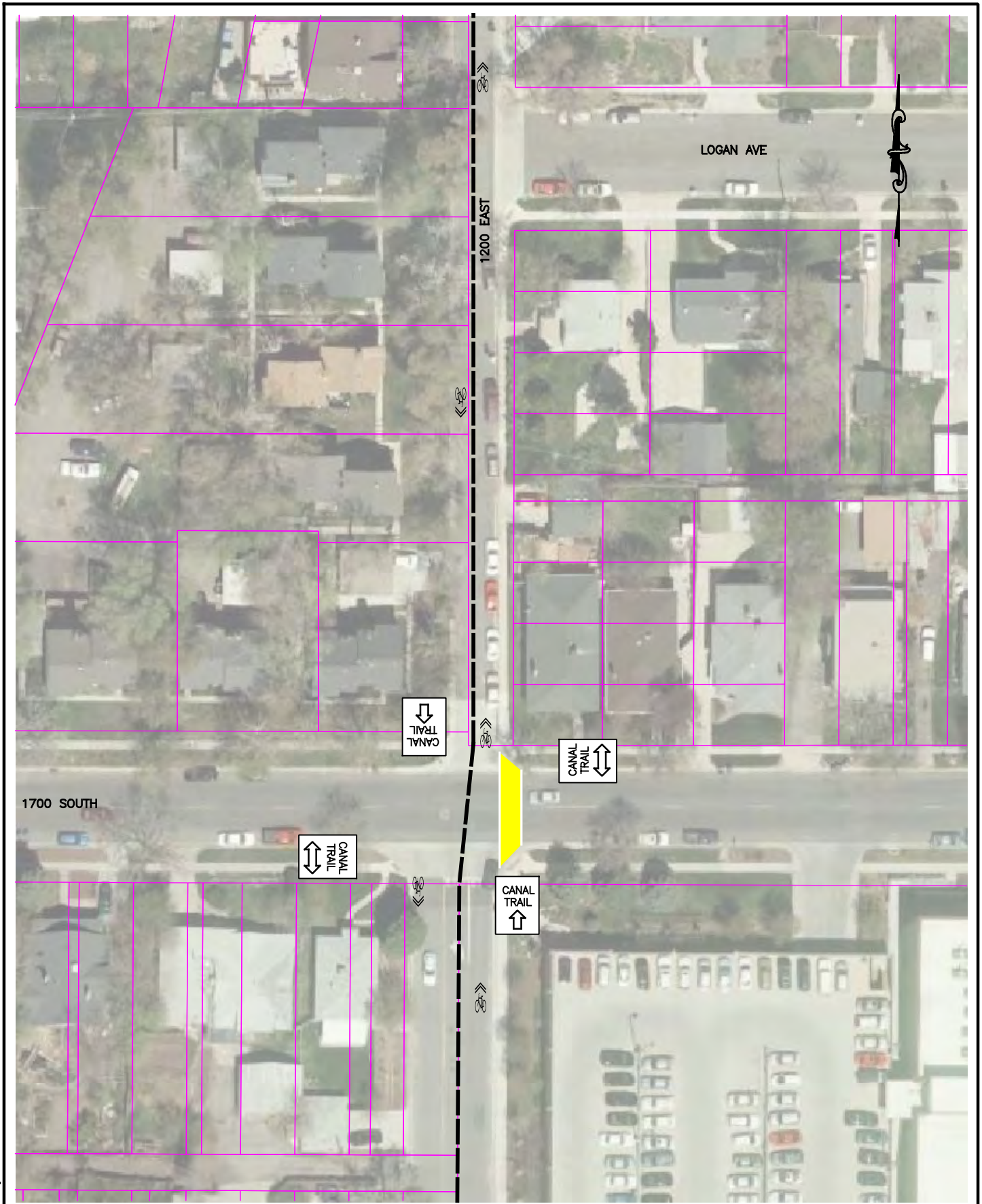


LEGEND






- |  |                             |  |                     |
|--|-----------------------------|--|---------------------|
|  | BOLLARDS WITH YELLOW STRIPE |  | TRAIL ALIGNMENT     |
|  | BOLLARD                     |  | TRAIL LIMITS        |
|  | PARCELS                     |  | RAISED CROSSWALK    |
|  | SHARED PAVEMENT MARKING     |  | PROPOSED LIGHT POLE |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



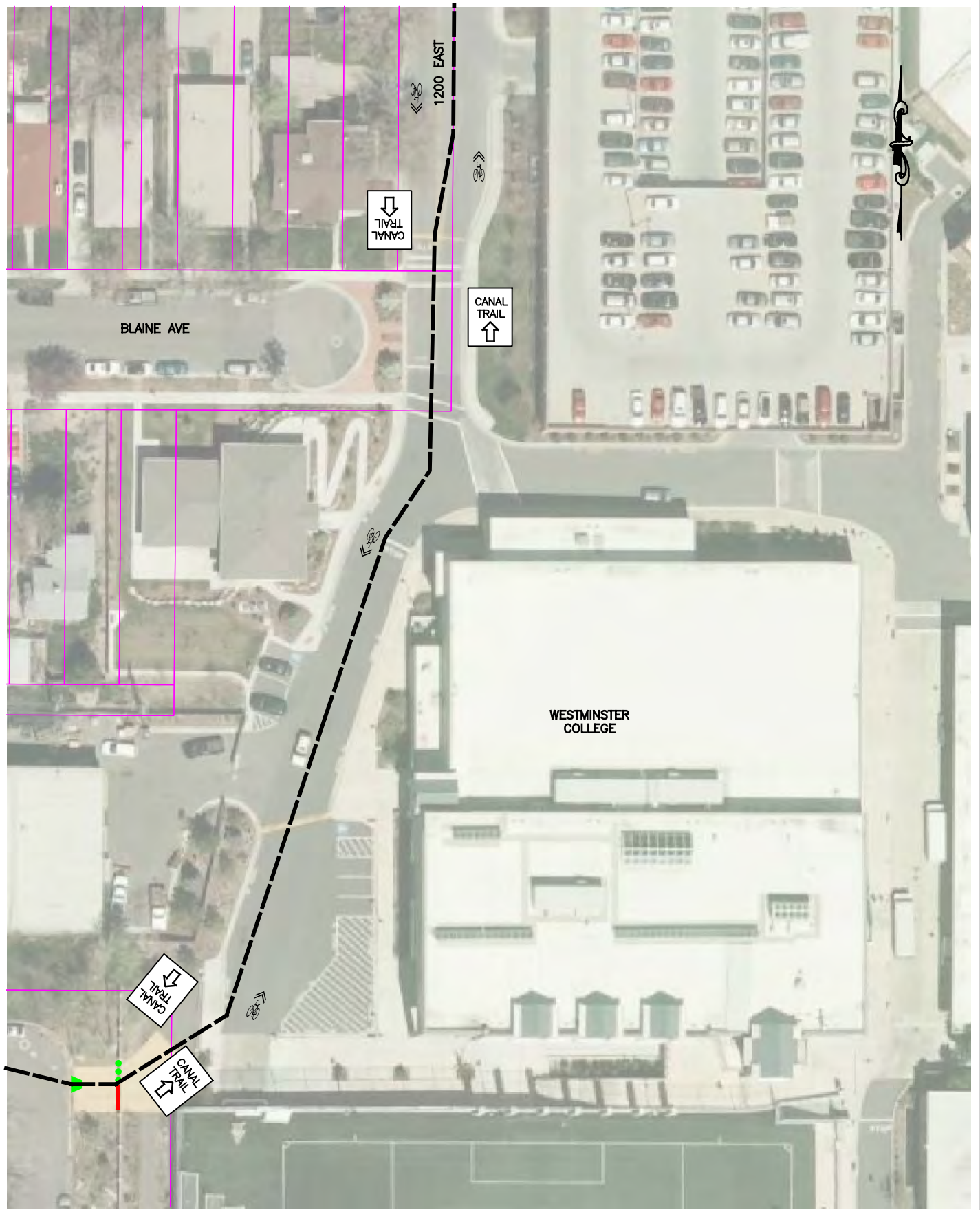


**LEGEND**







- |   |  |
|---|--|
|  PARCELS                 |  TRAIL ALIGNMENT              |
|  SHARED PAVEMENT MARKING |  PROPOSED ADA PEDESTRIAN RAMP |
|   |  CROSSWALK                    |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

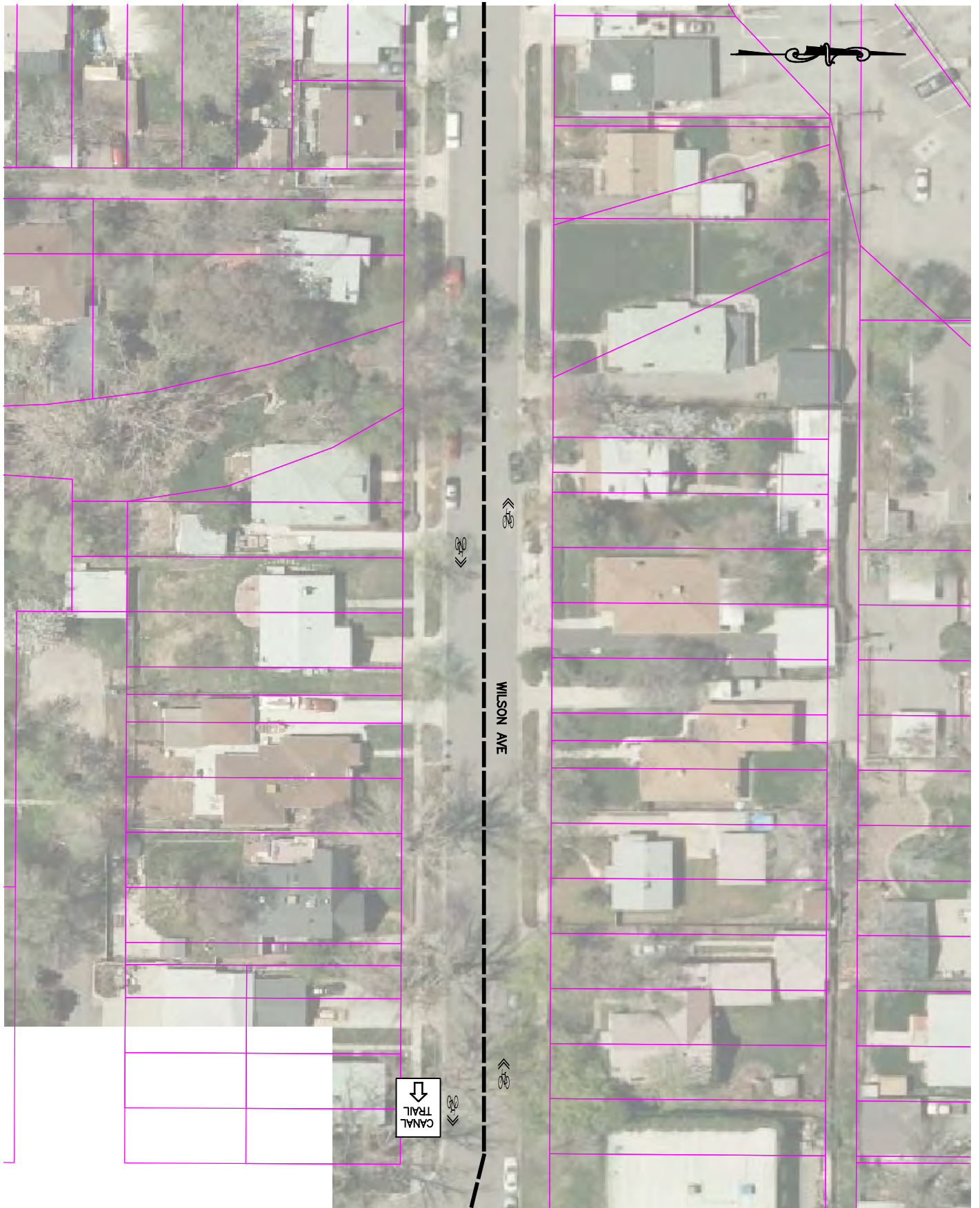




LEGEND

- |   |                         |   |                              |
|---|-------------------------|---|------------------------------|
|  | BOLLARD                 |  | TRAIL ALIGNMENT              |
|  | PARCELS                 |  | PROPOSED ADA PEDESTRIAN RAMP |
|  | GATE                    |   |                              |
|  | SHARED PAVEMENT MARKING |   |                              |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

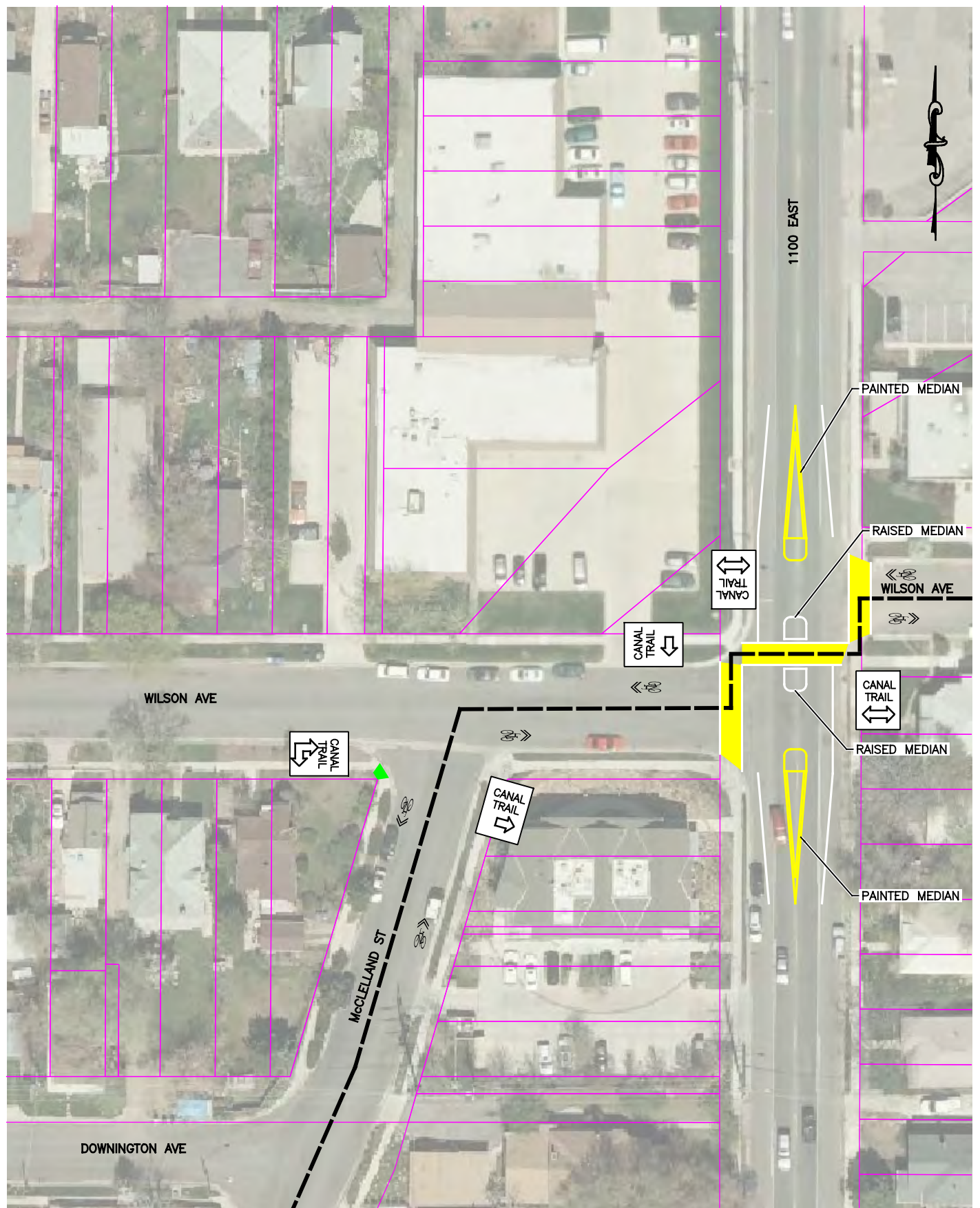


**LEGEND**

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

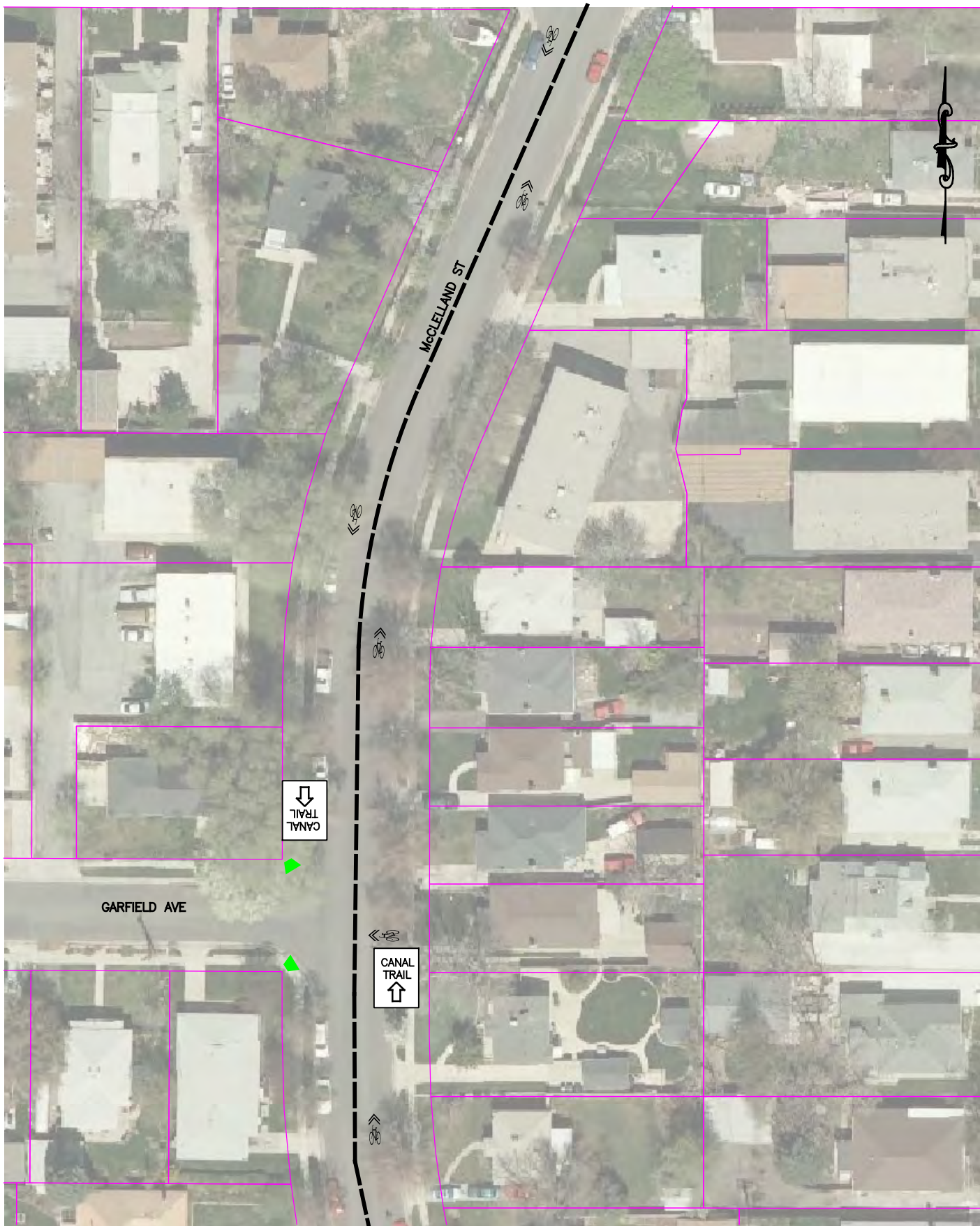




LEGEND

- |                         |                              |
|-------------------------|------------------------------|
| PARCELS                 | TRAIL ALIGNMENT              |
| SHARED PAVEMENT MARKING | PROPOSED ADA PEDESTRIAN RAMP |
| PAINTED MEDIAN          | CROSSWALK                    |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



**LEGEND**

- |   |  |
|---|--|
|  PARCELS                 |  TRAIL ALIGNMENT              |
|  SHARED PAVEMENT MARKING |  PROPOSED ADA PEDESTRIAN RAMP |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

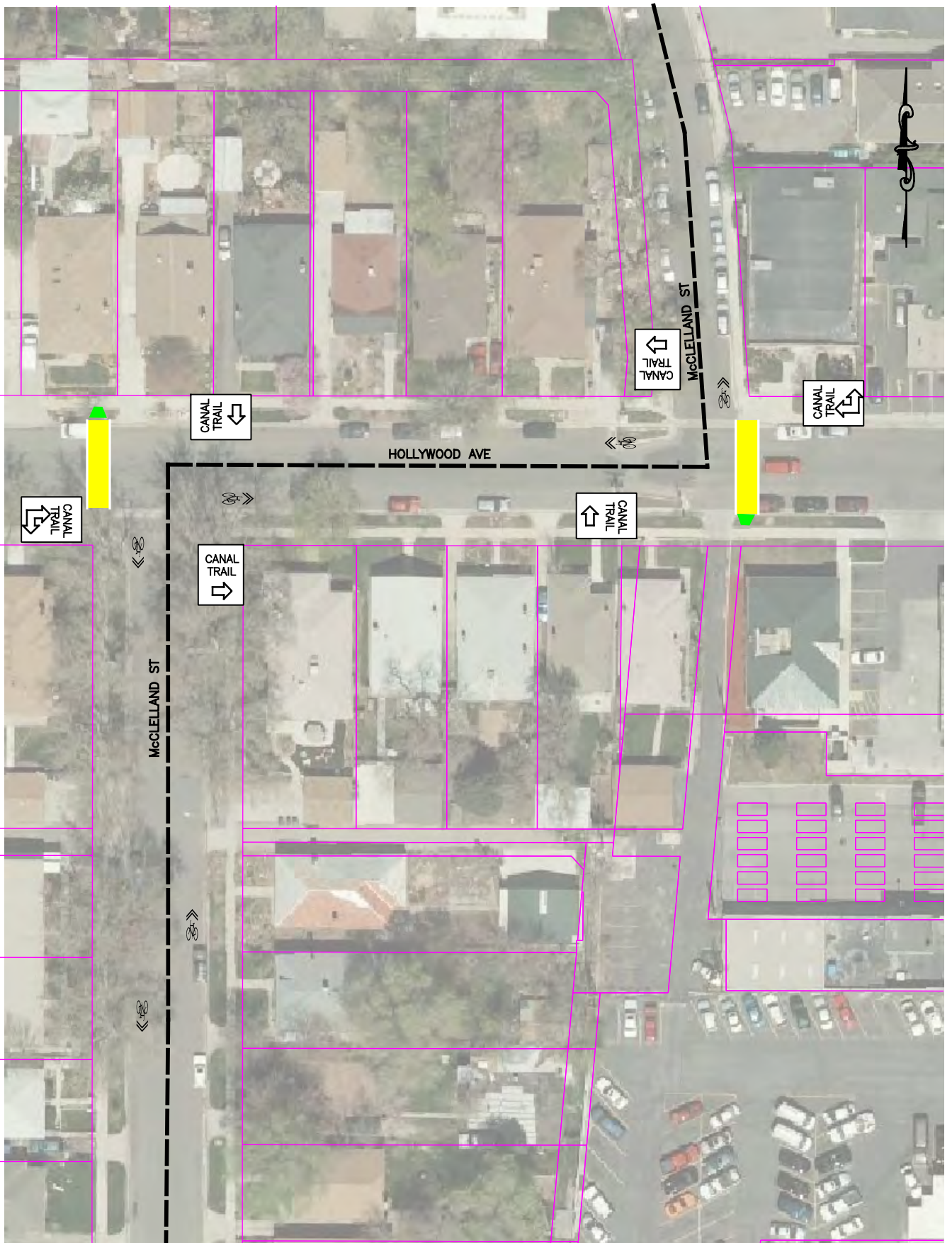




# LEGEND

- |   |                         |   |                              |
|---|-------------------------|---|------------------------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT              |
|  | SHARED PAVEMENT MARKING |  | PROPOSED ADA PEDESTRIAN RAMP |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

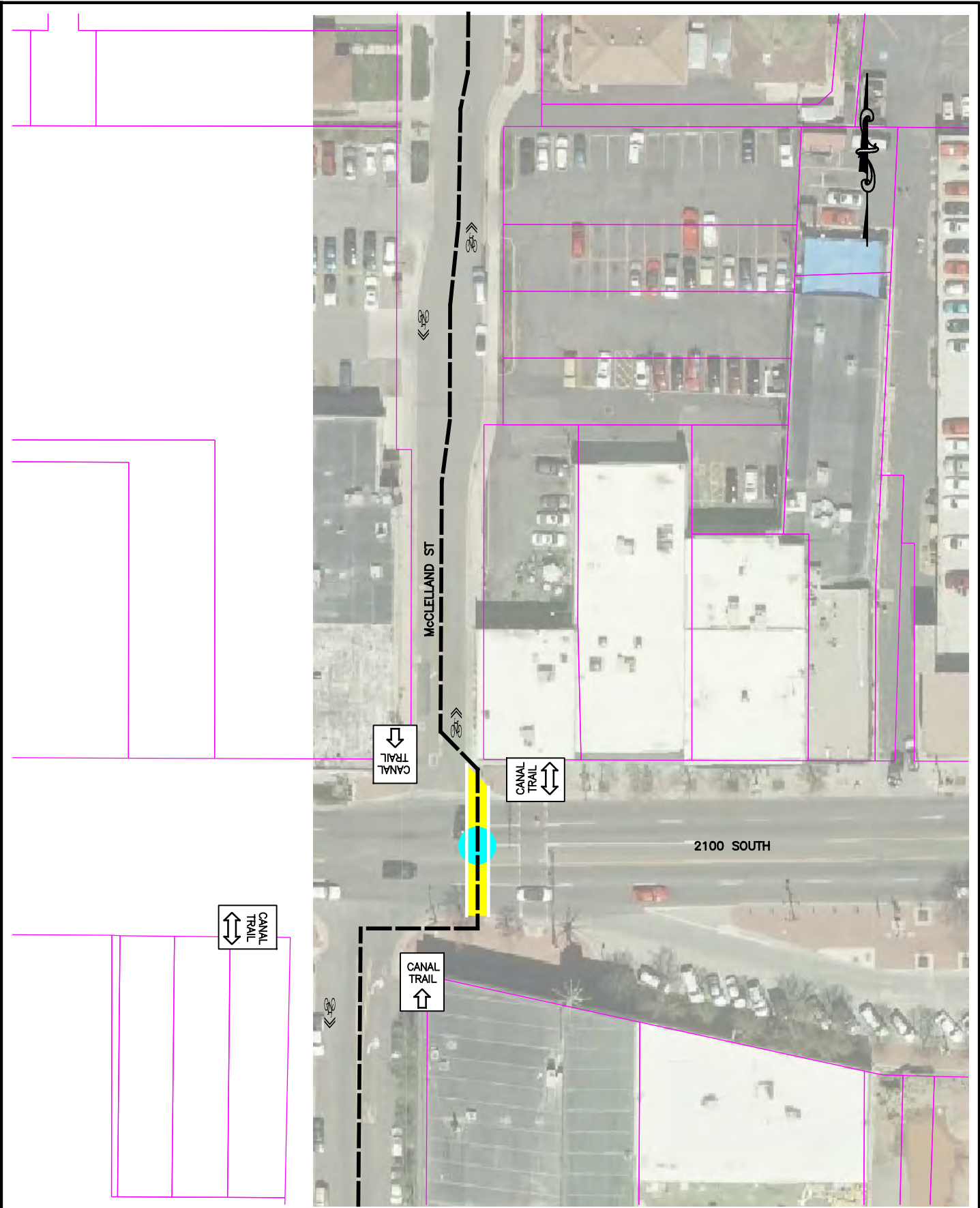


**LEGEND**

- |   |                         |   |                              |
|---|-------------------------|---|------------------------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT              |
|  | SHARED PAVEMENT MARKING |  | PROPOSED ADA PEDESTRIAN RAMP |
|   |                         |  | CROSSWALK                    |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

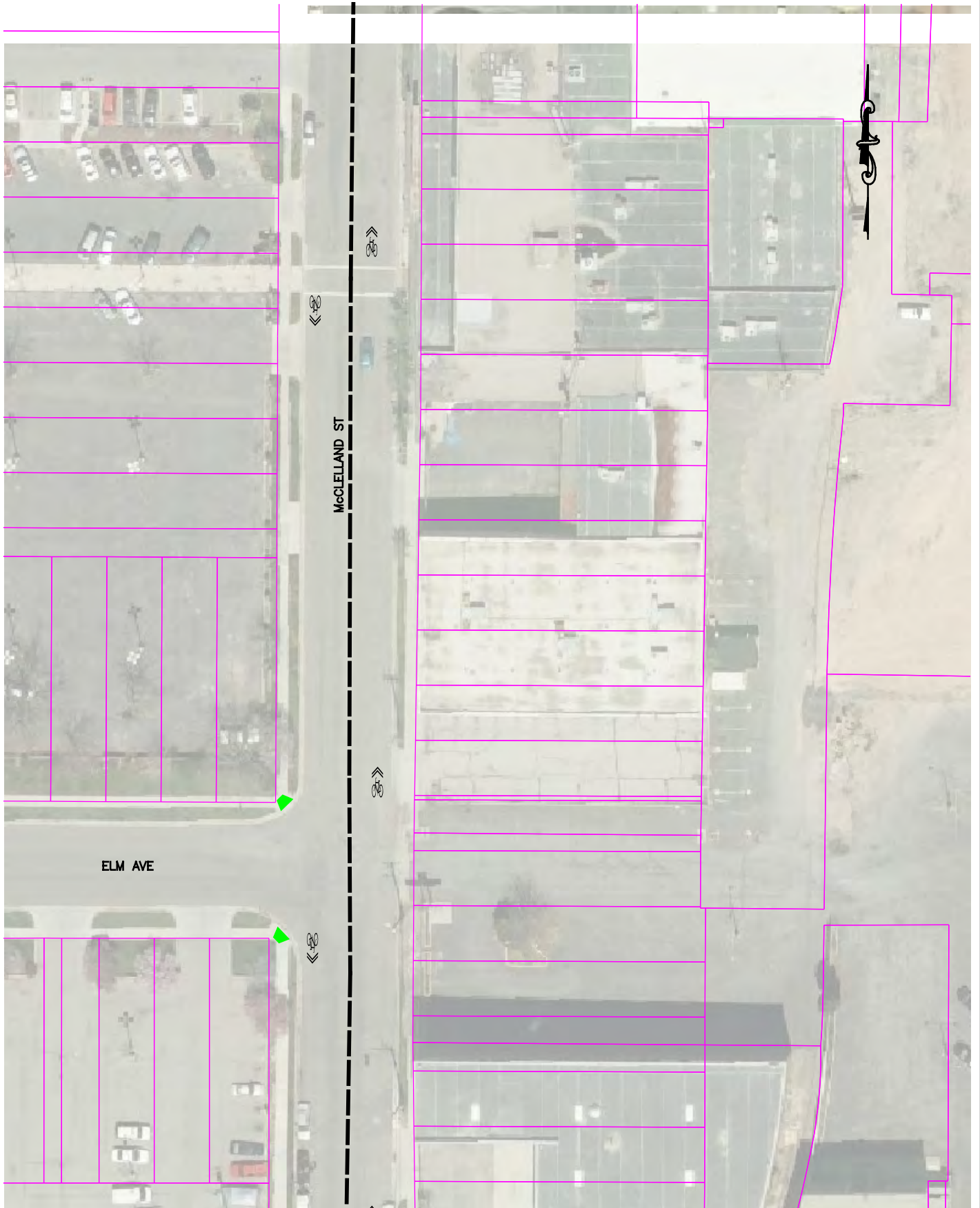




LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |  | CROSSWALK       |
|  | HAWK SIGNAL             |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

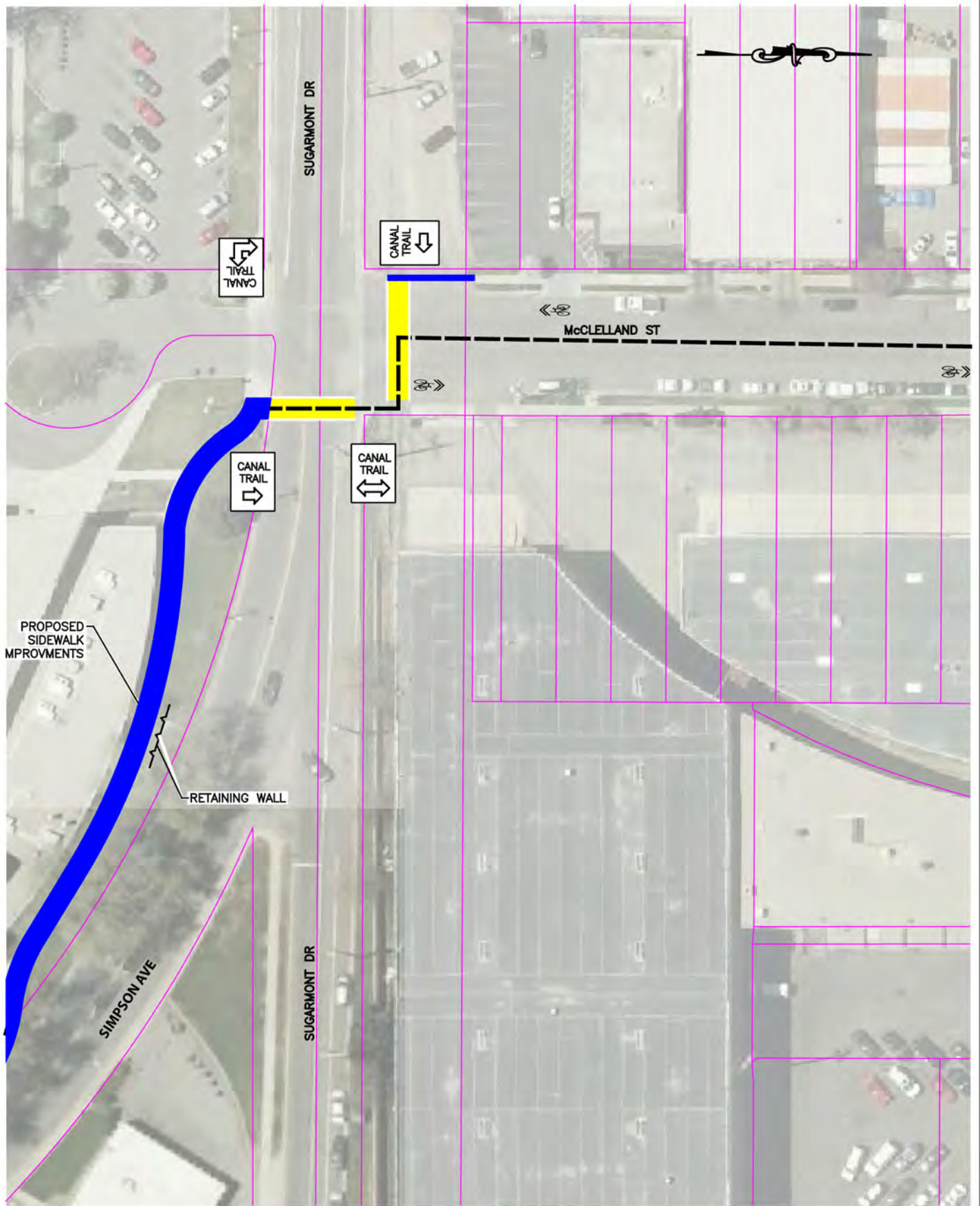


**LEGEND**

- |   |                         |   |                              |
|---|-------------------------|---|------------------------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT              |
|  | SHARED PAVEMENT MARKING |  | PROPOSED ADA PEDESTRIAN RAMP |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

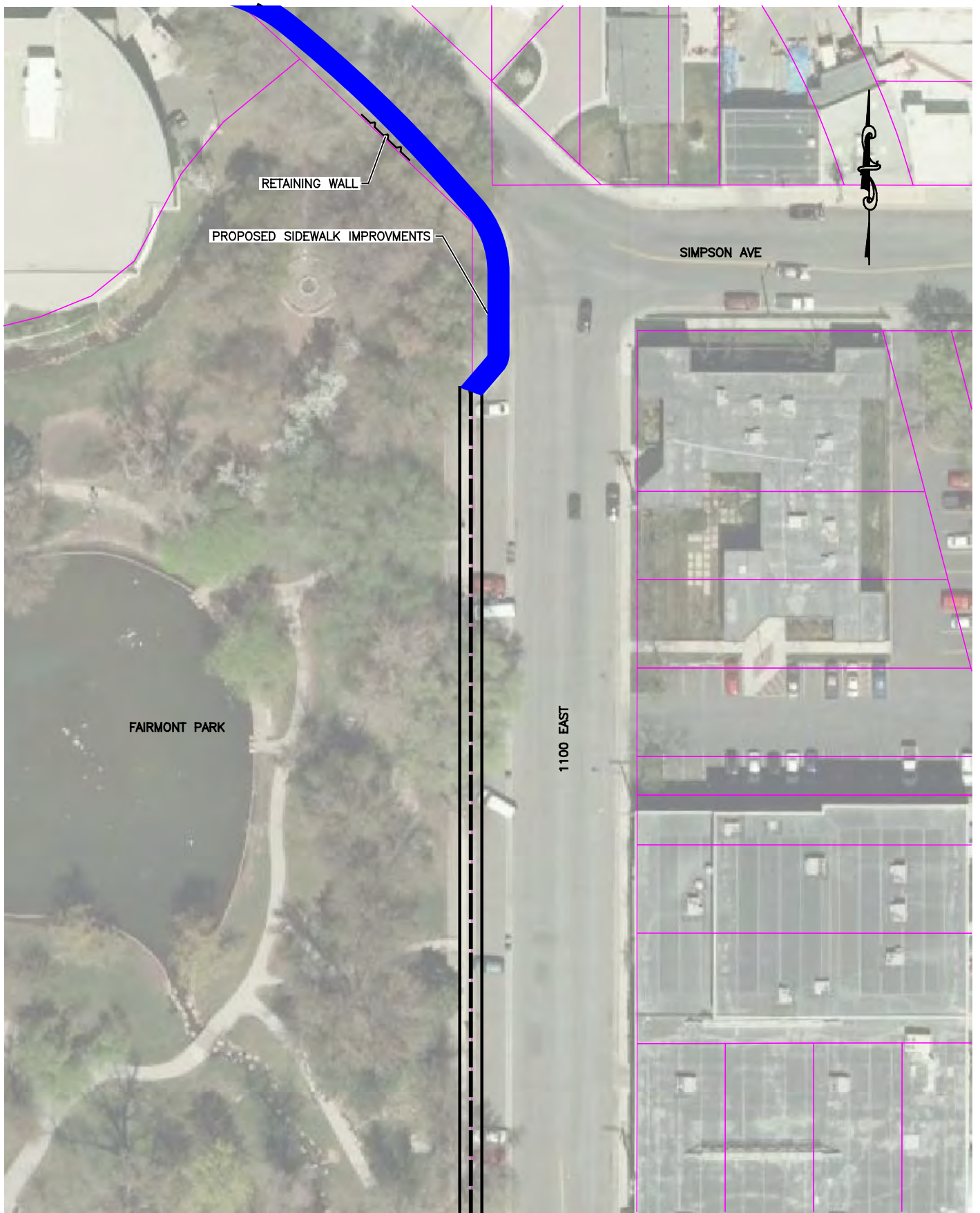




**LEGEND**

- |  |                                |  |                 |
|--|--------------------------------|--|-----------------|
|  | PARCELS                        |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING        |  | RETAINING WALL  |
|  | PROPOSED SIDEWALK IMPROVEMENTS |  | CROSSWALK       |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

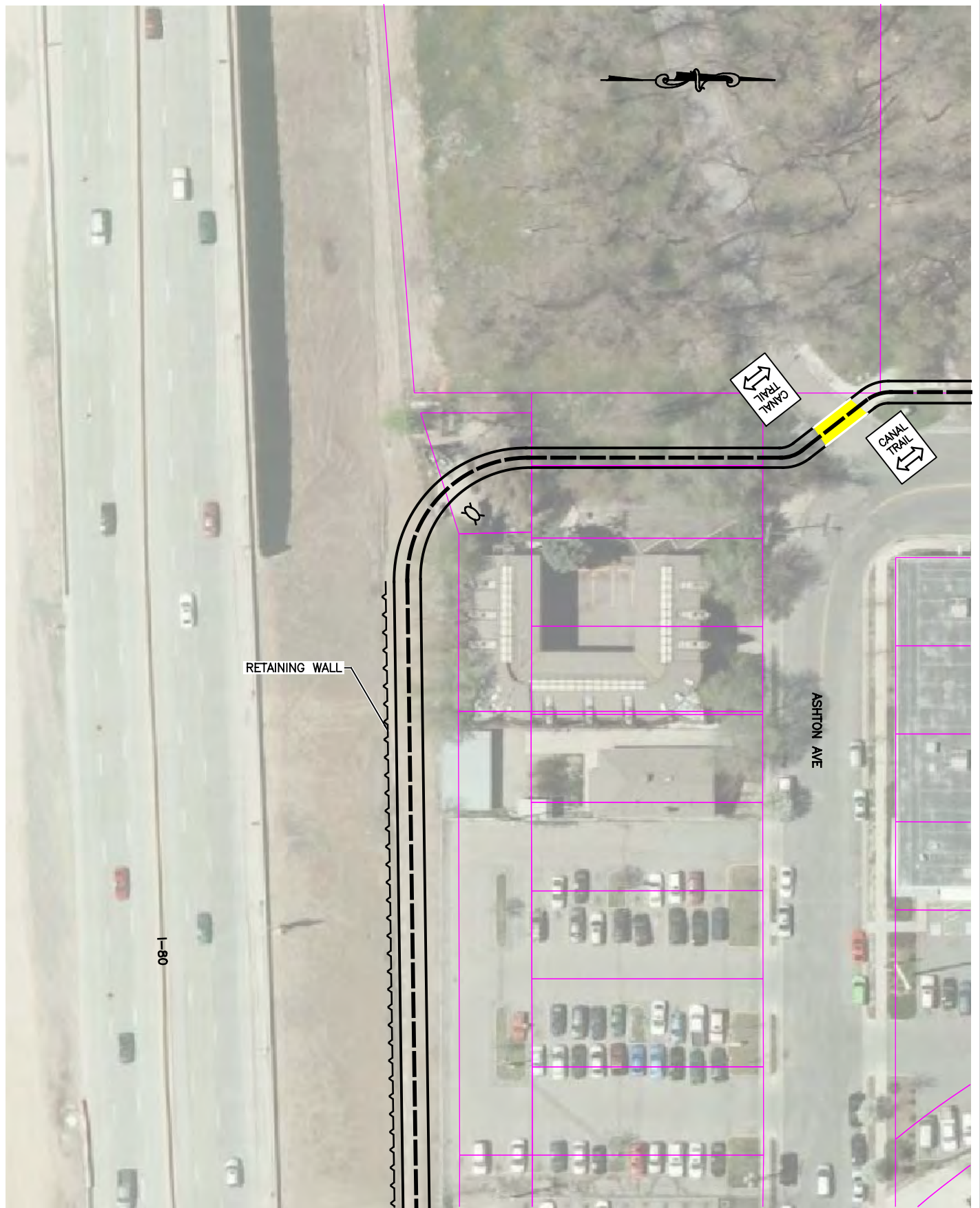


LEGEND







- |  |   |
|--|---|
|  PARCELS                        |  TRAIL ALIGNMENT |
|  PROPOSED SIDEWALK IMPROVEMENTS |  TRAIL LIMITS    |
|  |  RETAINING WALL  |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL





LEGEND

- |   |                     |   |                 |
|---|---------------------|---|-----------------|
|  | PARCELS             |  | TRAIL ALIGNMENT |
|  | PROPOSED LIGHT POLE |  | TRAIL LIMITS    |
|   |                     |  | RETAINING WALL  |
|   |                     |  | CROSSWALK       |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



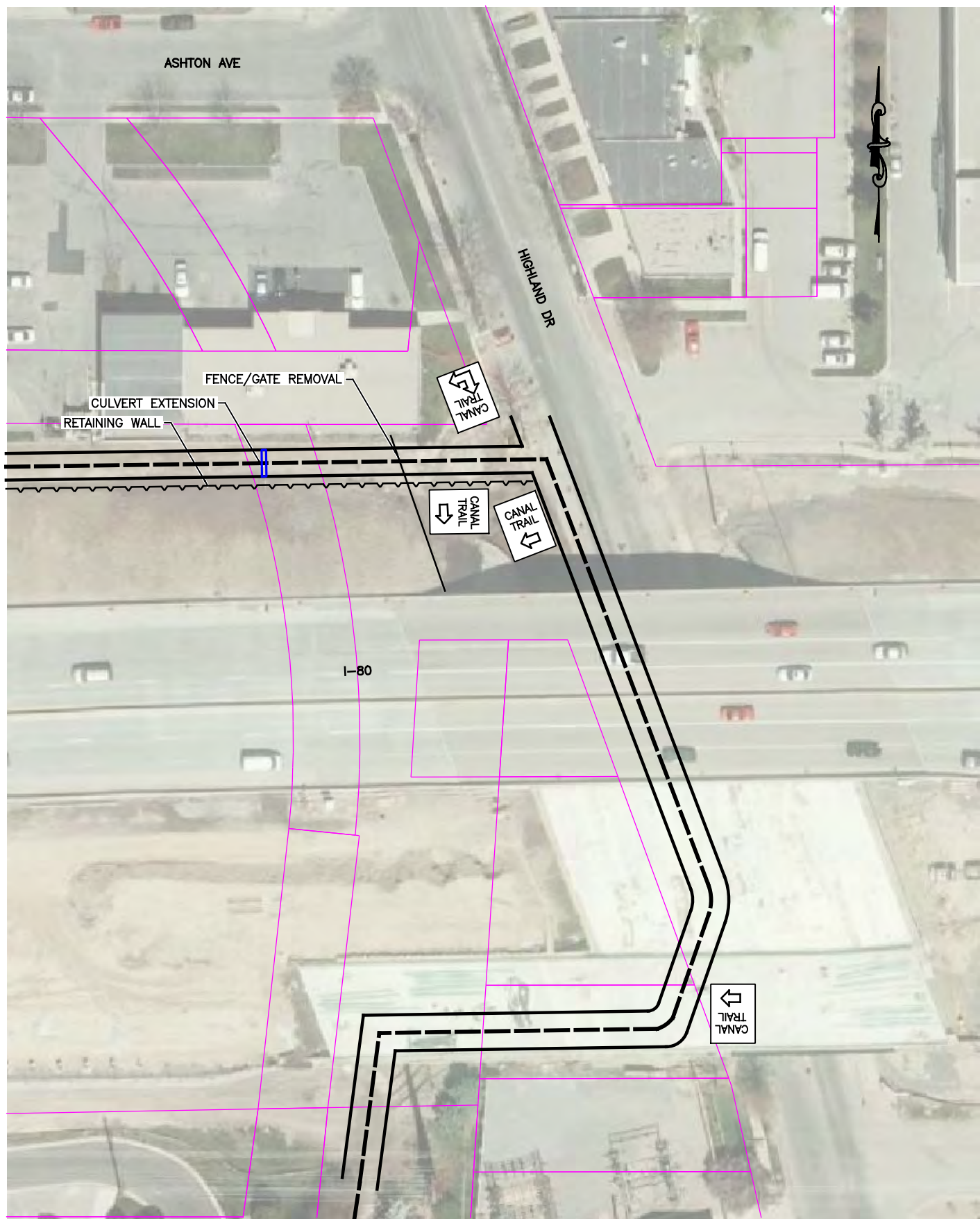
**LEGEND**

— PARCELS  
 ■ PROPOSED SIDEWALK IMPROVEMENTS






— TRAIL ALIGNMENT  
 — TRAIL LIMITS  
 - - - RETAINING WALL

JORDAN AND SALT LAKE CITY  
 CANAL TRAIL  
 FAIRMONT PARK

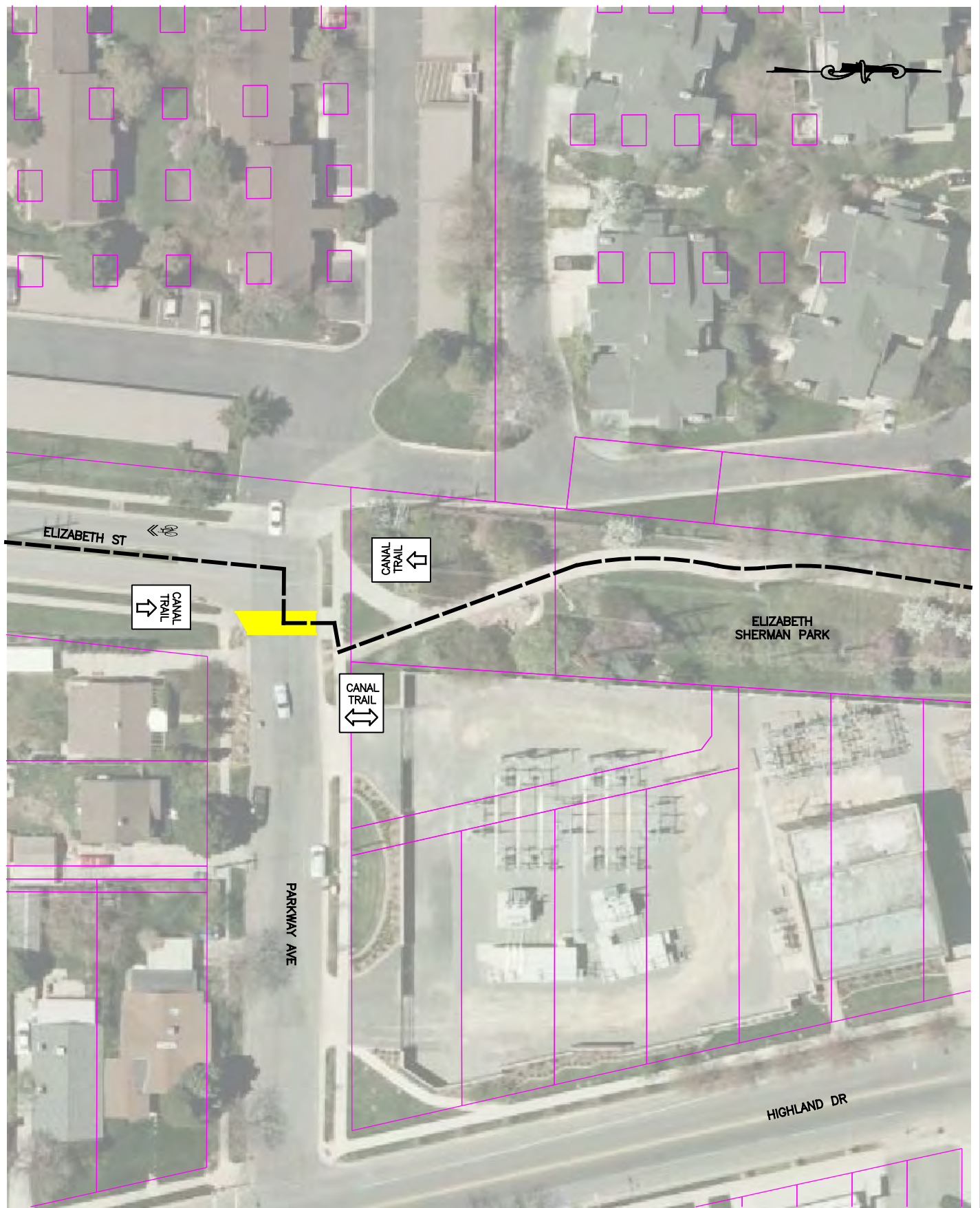




**LEGEND**

- |   |   |
|---|---|
|  PARCELS                 |  TRAIL ALIGNMENT |
|  SHARED PAVEMENT MARKING |  TRAIL LIMITS    |
|   |  RETAINING WALL  |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |  | CROSSWALK       |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

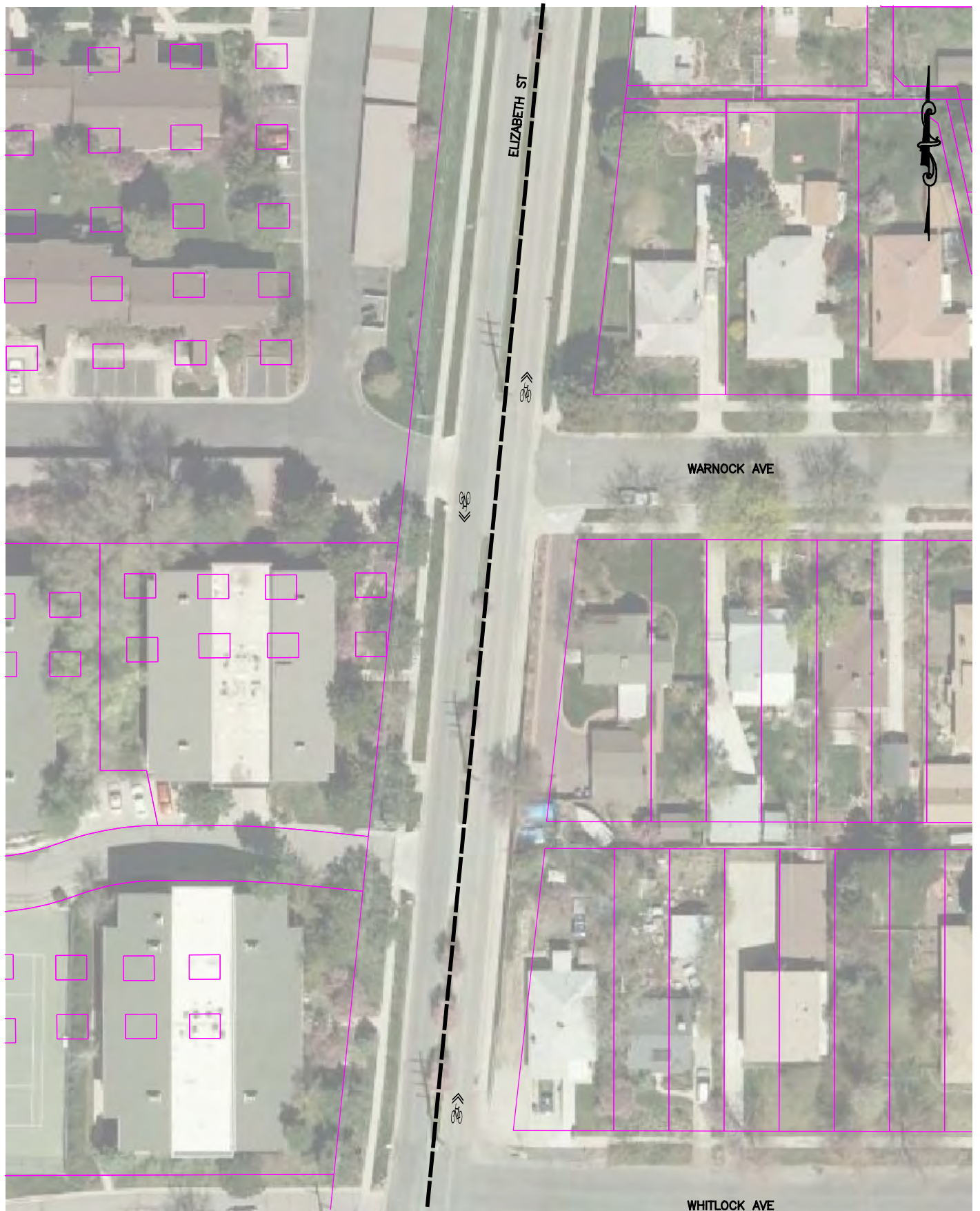




LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |  | CROSSWALK       |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL  
ELIZABETH SHERMAN PARK

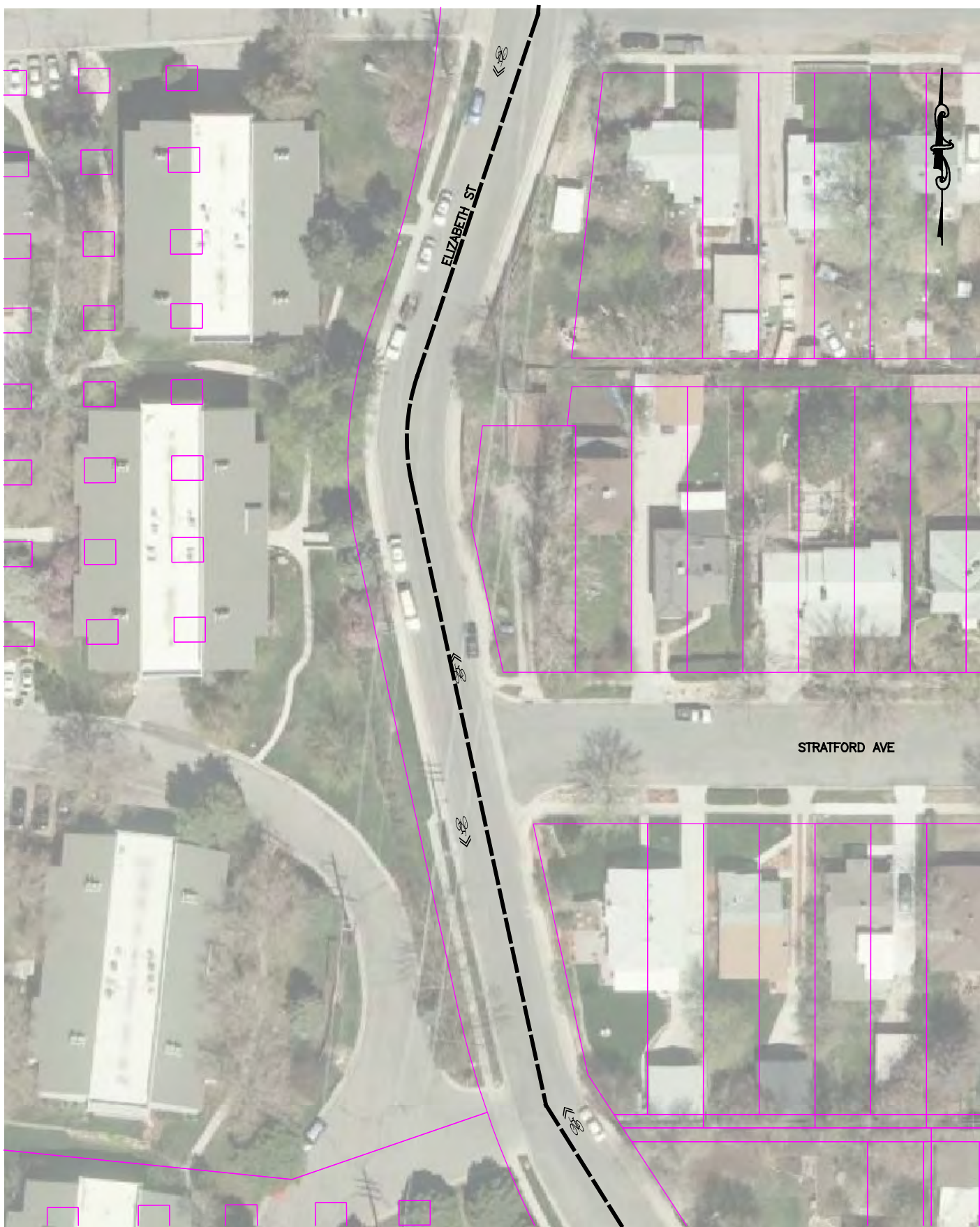


**LEGEND**

- PARCELS
- TRAIL ALIGNMENT
- SHARED PAVEMENT MARKING

JORDAN AND SALT LAKE CITY  
CANAL TRAIL





**LEGEND**

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



LEGEND

-  PARCELS
-  TRAIL ALIGNMENT
-  SHARED PAVEMENT MARKING

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

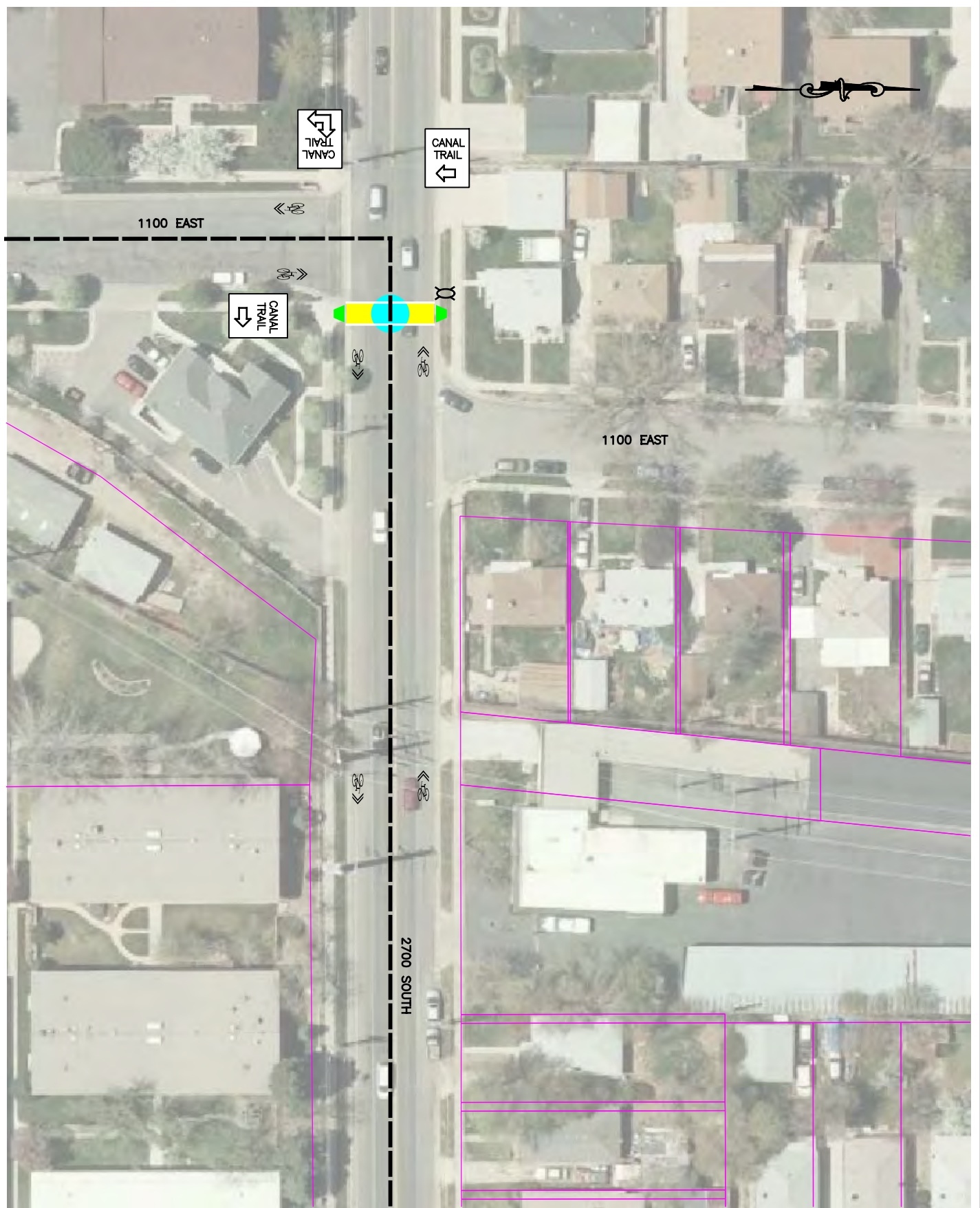











**LEGEND**

- PARCELS
- TRAIL ALIGNMENT
- SHARED PAVEMENT MARKING

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

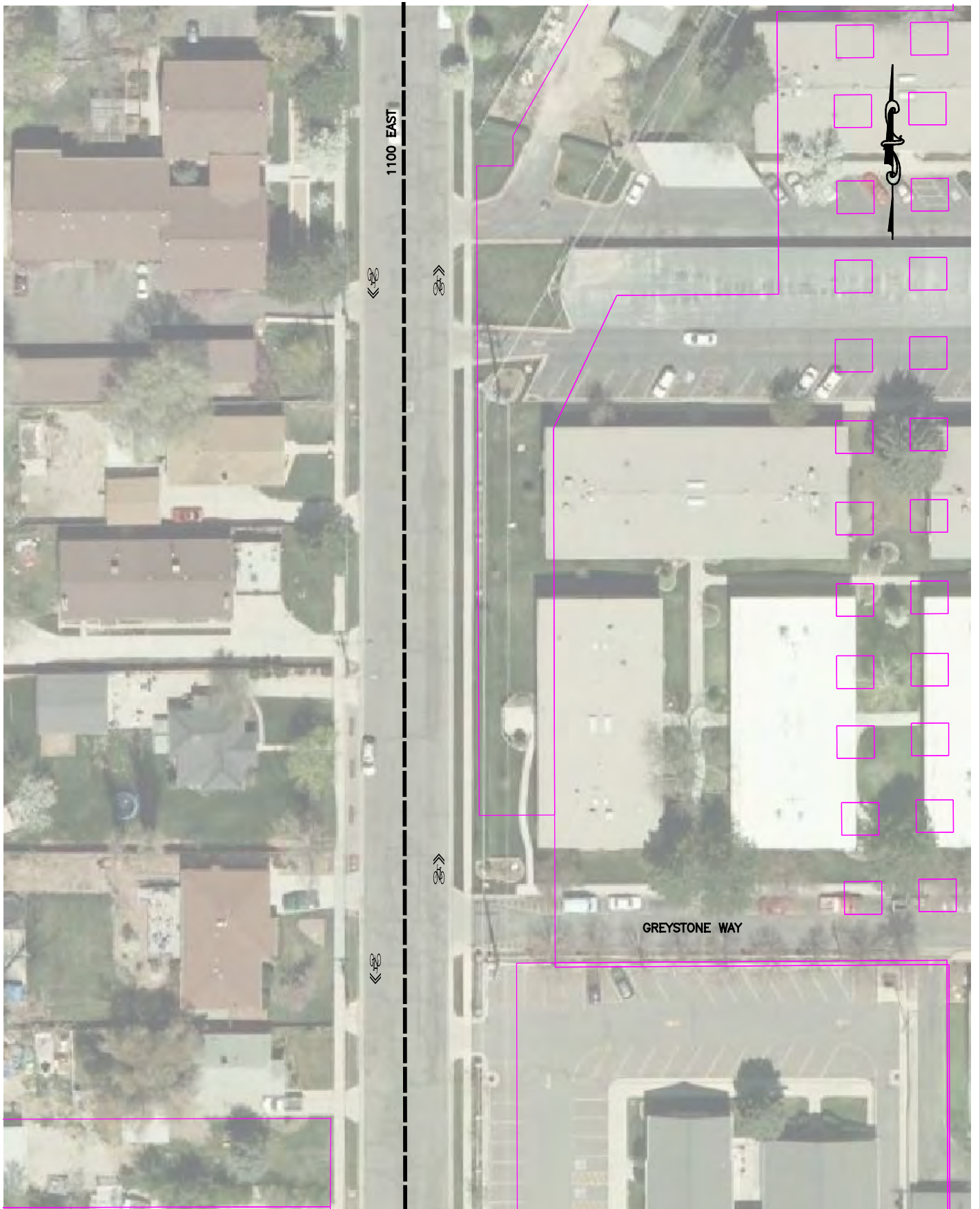


LEGEND

- |   |                         |   |                              |
|---|-------------------------|---|------------------------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT              |
|  | SHARED PAVEMENT MARKING |  | PROPOSED ADA PEDESTRIAN RAMP |
|  | PROPOSED LIGHT POLE     |  | CROSSWALK                    |
|  | HAWK SIGNAL             |   |                              |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

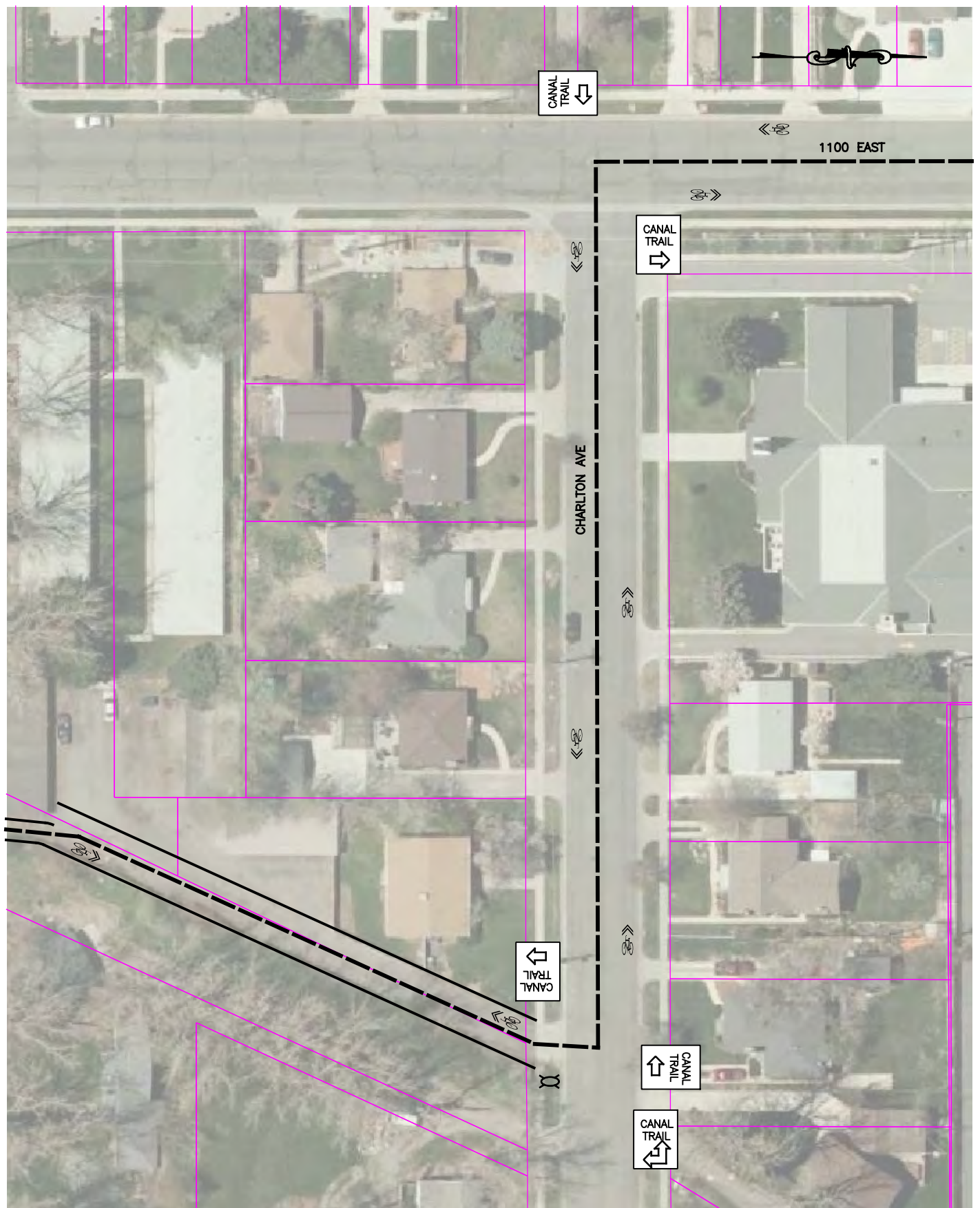









**LEGEND**

- PARCELS
- TRAIL ALIGNMENT
- SHARED PAVEMENT MARKING
- PROPOSED LIGHT POLE

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

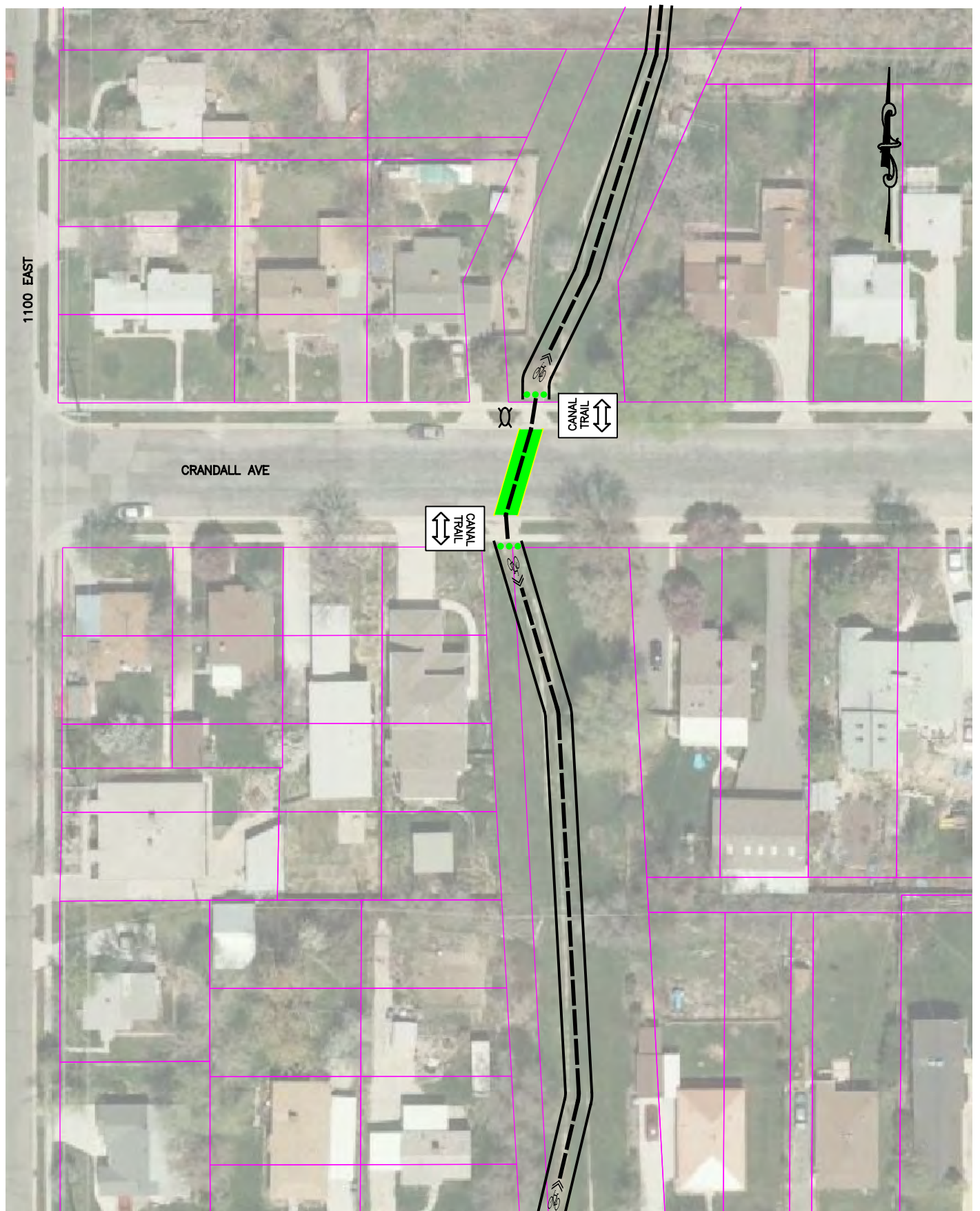


LEGEND

- |   |                         |   |                 |
|---|-------------------------|---|-----------------|
|  | PARCELS                 |  | TRAIL ALIGNMENT |
|  | SHARED PAVEMENT MARKING |  | TRAIL LIMITS    |
|  | PROPOSED LIGHT POLE     |   |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



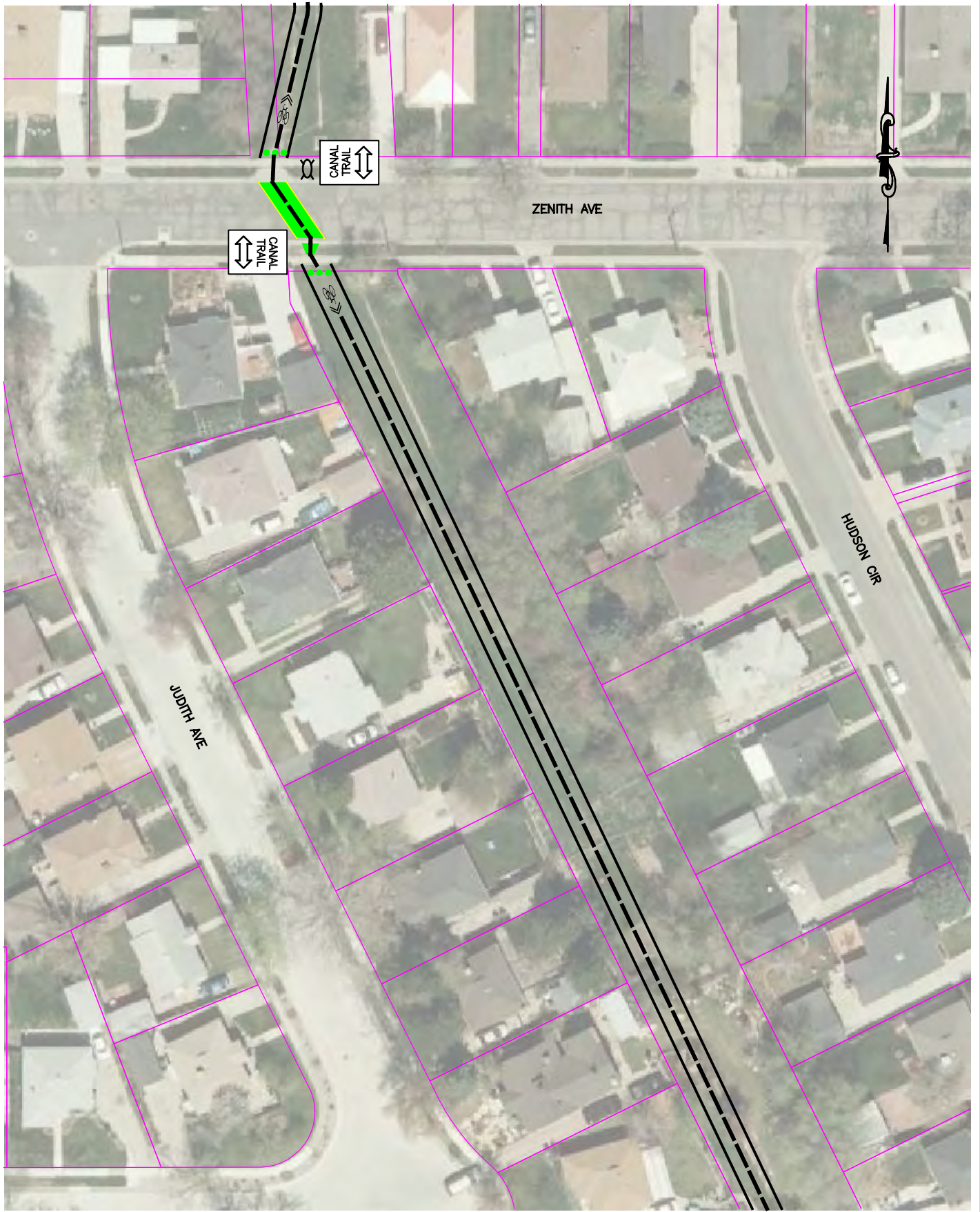


LEGEND

- |                          |                   |
|--------------------------|-------------------|
| ● BOLLARD                | — TRAIL ALIGNMENT |
| — PARCELS                | — TRAIL LIMITS    |
| ⤴<br>⤵<br>Bicycle Symbol | RAISED CROSSWALK  |
| ⌘ PROPOSED LIGHT POLE    |                   |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL



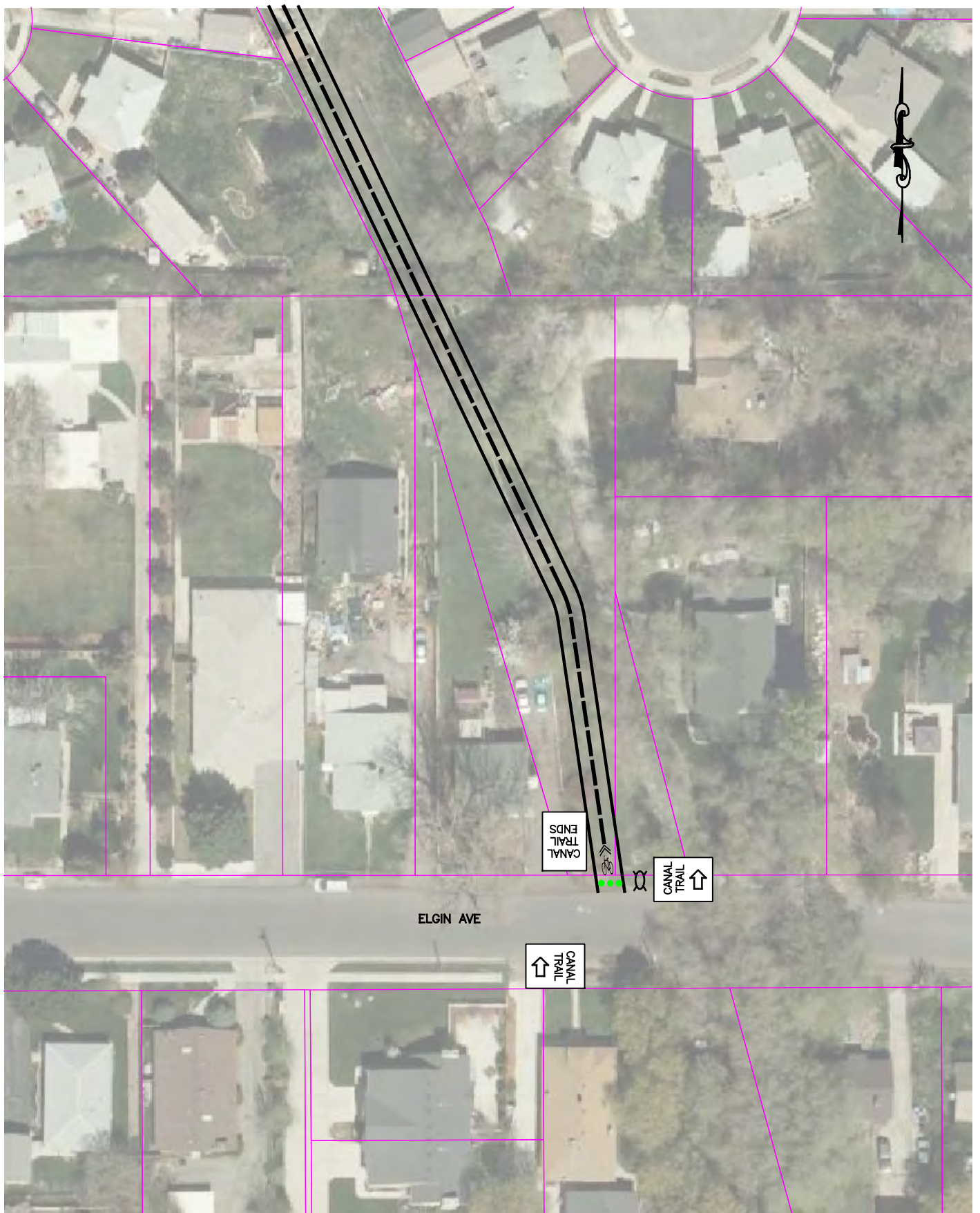


**LEGEND**

- |   |   |
|---|---|
| <span style="color: green;">●</span> BOLLARD  | <span style="border-bottom: 2px dashed black; width: 50px; display: inline-block;"></span> TRAIL ALIGNMENT                    |
| <span style="border-bottom: 2px solid magenta; width: 50px; display: inline-block;"></span> PARCELS | <span style="border-bottom: 2px solid black; width: 50px; display: inline-block;"></span> TRAIL LIMITS                        |
| SHARED PAVEMENT MARKING   | <span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span> PROPOSED ADA PEDESTRIAN RAMP |
| PROPOSED LIGHT POLE   | <span style="background-color: green; width: 30px; height: 15px; display: inline-block;"></span> RAISED CROSSWALK             |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL





**LEGEND**

- |     |                         |     |                 |
|-----|-------------------------|-----|-----------------|
| ●   | BOLLARD                 | --- | TRAIL ALIGNMENT |
| --- | PARCELS                 | --- | TRAIL LIMITS    |
| »»  | SHARED PAVEMENT MARKING |     |                 |
| ⌘   | PROPOSED LIGHT POLE     |     |                 |

JORDAN AND SALT LAKE CITY  
CANAL TRAIL

## APPENDIX C: CONCEPTUAL COST ESTIMATE



	Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
	<b>Jordan &amp; Salt Lake City Canal Trail - Summary</b>						
1	Trail Construction	LF	\$ 28.00	2,605	\$ 72,936.98	\$ 18,234.24	\$ 91,171.22
2	Trail Construction at I-80	LF	\$ 231.33	525	\$ 121,449.39	\$ 30,362.35	\$ 151,811.74
3	Trail Construction at Fairmont Park	LF	\$ 33.62	750	\$ 25,212.88	\$ 6,303.22	\$ 31,516.10
4	Reseed disturbed areas	SF	\$ 0.08	38,800	\$ 2,910.00	\$ 727.50	\$ 3,637.50
5	Rebuild sidewalk	LF	\$ 20.83	1,240	\$ 25,833.33	\$ 6,458.33	\$ 32,291.67
6	Retaining Wall	SF	\$ 65.00	240	\$ 15,600.00	\$ 3,900.00	\$ 19,500.00
7	Pedestrian Lighting						
	Pole lighting	EA	\$ 6,000.00	14	\$ 84,000.00	\$ 21,000.00	\$ 105,000.00
	Bollard lighting	EA	\$ 500.00	57	\$ 28,500.00	\$ 7,125.00	\$ 35,625.00
8	Signing						
	Wayfinding signage (18" x 24")	EA	\$ 150.00	58	\$ 8,700.00	\$ 2,175.00	\$ 10,875.00
	Trail signage (12" x 18")	EA	\$ 100.00	16	\$ 1,600.00	\$ 400.00	\$ 2,000.00
9	Striping/Pavement Markings						
	Bike Lane Striping	LF	\$1.50	2,595	\$ 3,892.50	\$ 973.13	\$ 4,865.63
	Shared Lane Markings	EA	\$25.00	133	\$ 3,325.00	\$ 831.25	\$ 4,156.25
10	Median Refuge Islands						
	at 900 South	EA	\$ 10,650.00	1	\$ 10,650.00	\$ 2,662.50	\$ 13,312.50
	at 1100 East	EA	\$ 9,702.50	1	\$ 9,702.50	\$ 2,425.63	\$ 12,128.13
11	Artistic/Historic Interpretive elements	EA	\$ 5,000.00	4	\$ 20,000.00	\$ 5,000.00	\$ 25,000.00
12	Raised Crosswalks	EA	\$ 6,000.00	9	\$ 54,000.00	\$ 13,500.00	\$ 67,500.00
13	Bike rack	EA	\$ 500.00	5	\$ 2,500.00	\$ 625.00	\$ 3,125.00
14	HAWK beacons	EA	\$ 88,000.00	2	\$ 176,000.00	\$ 44,000.00	\$ 220,000.00
15	Brick paver crosswalk	SF	\$ 19.45	1,930	\$ 37,535.33	\$ 9,383.83	\$ 46,919.17
16	Replace gate	EA	\$ 1,500.00	1	\$ 1,500.00	\$ 375.00	\$ 1,875.00
17	Replace sidewalk	LF	\$ 11.94	100	\$ 1,194.44	\$ 298.61	\$ 1,493.06
				<b>SUB-TOTAL</b>	<b>\$ 707,042</b>	<b>\$ 176,761</b>	<b>\$ 883,803</b>
	Mobilization			8%	\$ 707,042		\$ 56,563
	Construction survey			5%	\$ 707,042		\$ 35,352
	Maintenance of Traffic			3%	\$ 707,042		\$ 21,211
	Right-of-Way/Easement			1%	\$ 707,042		\$ 7,070
	Construction Administration and Management			5%	\$ 707,042		\$ 35,352
				<b>TOTAL</b>	<b>\$ 707,042</b>	<b>\$ 176,761</b>	<b>\$ 1,039,352</b>

\* Design - 10%  
Contingency - 15%

Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
<b>Jordan &amp; Salt Lake City Canal Trail - 800 South to Harrison Avenue</b>						
1 Trail Construction	LF	\$ 28.00	130	\$ 3,639.85	\$ 909.96	\$ 4,549.81
2 Trail Construction at I-80	LF	\$ 231.33	0	\$ -	\$ -	\$ -
3 Trail Construction at Fairmont Park	LF	\$ 33.62	0	\$ -	\$ -	\$ -
4 Reseed disturbed areas	SF	\$ 0.08	1,300	\$ 97.50	\$ 24.38	\$ 121.88
5 Rebuild sidewalk	LF	\$ 20.83	740	\$ 15,416.67	\$ 3,854.17	\$ 19,270.83
6 Retaining Wall	SF	\$ 65.00	0	\$ -	\$ -	\$ -
7 Pedestrian Lighting						
Pole lighting	EA	\$ 6,000.00	1	\$ 6,000.00	\$ 1,500.00	\$ 7,500.00
Bollard lighting	EA	\$ 500.00	0	\$ -	\$ -	\$ -
8 Signing						
Wayfinding signage (18" x 24")	EA	\$ 150.00	16	\$ 2,400.00	\$ 600.00	\$ 3,000.00
Trail signage (12" x 18")	EA	\$ 100.00	2	\$ 200.00	\$ 50.00	\$ 250.00
9 Striping/Pavement Markings						
Bike Lane Striping	LF	\$1.50	475	\$ 712.50	\$ 178.13	\$ 890.63
Shared Lane Markings	EA	\$25.00	31	\$ 775.00	\$ 193.75	\$ 968.75
10 Median Refuge Islands						
at 900 South	EA	\$ 10,650.00	1	\$ 10,650.00	\$ 2,662.50	\$ 13,312.50
at 1100 East	EA	\$ 9,702.50	0	\$ -	\$ -	\$ -
11 Artistic/Historic Interpretive elements	EA	\$ 5,000.00	1	\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
12 Raised Crosswalks	EA	\$ 6,000.00	0	\$ -	\$ -	\$ -
13 Bike rack	EA	\$ 500.00	1	\$ 500.00	\$ 125.00	\$ 625.00
14 HAWK beacons	EA	\$ 88,000.00	0	\$ -	\$ -	\$ -
15 Brick paver crosswalk	SF	\$ 19.45	1,930	\$ 37,535.33	\$ 9,383.83	\$ 46,919.17
16 Replace gate	EA	\$ 1,500.00	0	\$ -	\$ -	\$ -
17 Replace sidewalk	LF	\$ 11.94	0	\$ -	\$ -	\$ -
			<b>SUB-TOTAL</b>	<b>\$ 82,927</b>	<b>\$ 20,732</b>	<b>\$ 103,659</b>
Mobilization			8%	\$ 82,927		\$ 6,634
Construction survey			5%	\$ 82,927		\$ 4,146
Maintenance of Traffic			3%	\$ 82,927		\$ 2,488
Right-of-Way/Easement			1%	\$ 82,927		\$ 829
Construction Administration and Management			5%	\$ 82,927		\$ 4,146
			<b>TOTAL</b>	<b>\$ 82,927</b>	<b>\$ 20,732</b>	<b>\$ 121,902</b>

\* Design - 10%  
Contingency - 15%



	Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
	<b>Jordan &amp; Salt Lake City Canal Trail - Harrison Avenue to 1700 South</b>						
1	Trail Construction	LF	\$ 28.00	1,575	\$ 44,098.17	\$ 11,024.54	\$ 55,122.72
2	Trail Construction at I-80	LF	\$ 231.33	0	\$ -	\$ -	\$ -
3	Trail Construction at Fairmont Park	LF	\$ 33.62	0	\$ -	\$ -	\$ -
4	Reseed disturbed areas	SF	\$ 0.08	15,750	\$ 1,181.25	\$ 295.31	\$ 1,476.56
5	Rebuild sidewalk	LF	\$ 20.83	0	\$ -	\$ -	\$ -
6	Retaining Wall	SF	\$ 65.00	0	\$ -	\$ -	\$ -
7	Pedestrian Lighting						
	Pole lighting	EA	\$ 6,000.00	7	\$ 42,000.00	\$ 10,500.00	\$ 52,500.00
	Bollard lighting	EA	\$ 500.00	36	\$ 18,000.00	\$ 4,500.00	\$ 22,500.00
8	Signing						
	Wayfinding signage (18" x 24")	EA	\$ 150.00	7	\$ 1,050.00	\$ 262.50	\$ 1,312.50
	Trail signage (12" x 18")	EA	\$ 100.00	12	\$ 1,200.00	\$ 300.00	\$ 1,500.00
9	Striping/Pavement Markings						
	Bike Lane Striping	LF	\$1.50	1,400	\$ 2,100.00	\$ 525.00	\$ 2,625.00
	Shared Lane Markings	EA	\$25.00	22	\$ 550.00	\$ 137.50	\$ 687.50
10	Median Refuge Islands						
	at 900 South	EA	\$ 10,650.00	0	\$ -	\$ -	\$ -
	at 1100 East	EA	\$ 9,702.50	0	\$ -	\$ -	\$ -
11	Artistic/Historic Interpretive elements	EA	\$ 5,000.00	2	\$ 10,000.00	\$ 2,500.00	\$ 12,500.00
12	Raised Crosswalks	EA	\$ 6,000.00	7	\$ 42,000.00	\$ 10,500.00	\$ 52,500.00
13	Bike rack	EA	\$ 500.00	2	\$ 1,000.00	\$ 250.00	\$ 1,250.00
14	HAWK beacons	EA	\$ 88,000.00	0	\$ -	\$ -	\$ -
15	Brick paver crosswalk	SF	\$ 19.45	0	\$ -	\$ -	\$ -
16	Replace gate	EA	\$ 1,500.00	0	\$ -	\$ -	\$ -
17	Replace sidewalk	LF	\$ 11.94	0	\$ -	\$ -	\$ -
				<b>SUB-TOTAL</b>	\$ 163,179	\$ 40,795	\$ 203,974
Mobilization				8%	\$ 163,179		\$ 13,054
Construction survey				5%	\$ 163,179		\$ 8,159
Maintenance of Traffic				3%	\$ 163,179		\$ 4,895
Right-of-Way/Easement				1%	\$ 163,179		\$ 1,632
Construction Administration and Management				5%	\$ 163,179		\$ 8,159
				<b>TOTAL</b>	\$ 163,179	\$ 40,795	\$ 239,874

\* Design - 10%  
Contingency - 15%

Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
<b>Jordan &amp; Salt Lake City Canal Trail - 1700 South to Sugarmont Avenue</b>						
1 Trail Construction	LF	\$ 28.00	0	\$ -	\$ -	\$ -
2 Trail Construction at I-80	LF	\$ 231.33	0	\$ -	\$ -	\$ -
3 Trail Construction at Fairmont Park	LF	\$ 33.62	0	\$ -	\$ -	\$ -
4 Reseed disturbed areas	SF	\$ 0.08	0	\$ -	\$ -	\$ -
5 Rebuild sidewalk	LF	\$ 20.83	0	\$ -	\$ -	\$ -
6 Retaining Wall	SF	\$ 65.00	0	\$ -	\$ -	\$ -
7 Pedestrian Lighting						
Pole lighting	EA	\$ 6,000.00	0	\$ -	\$ -	\$ -
Bollard lighting	EA	\$ 500.00	3	\$ 1,500.00	\$ 375.00	\$ 1,875.00
8 Signing						
Wayfinding signage (18" x 24")	EA	\$ 150.00	19	\$ 2,850.00	\$ 712.50	\$ 3,562.50
Trail signage (12" x 18")	EA	\$ 100.00	0	\$ -	\$ -	\$ -
9 Striping/Pavement Markings						
Bike Lane Striping	LF	\$1.50	510	\$ 765.00	\$ 191.25	\$ 956.25
Shared Lane Markings	EA	\$25.00	44	\$ 1,100.00	\$ 275.00	\$ 1,375.00
10 Median Refuge Islands						
at 900 South	EA	\$ 10,650.00	0	\$ -	\$ -	\$ -
at 1100 East	EA	\$ 9,702.50	1	\$ 9,702.50	\$ 2,425.63	\$ 12,128.13
11 Artistic/Historic Interpretive elements	EA	\$ 5,000.00	0	\$ -	\$ -	\$ -
12 Raised Crosswalks	EA	\$ 6,000.00	0	\$ -	\$ -	\$ -
13 Bike rack	EA	\$ 500.00	0	\$ -	\$ -	\$ -
14 HAWK beacons	EA	\$ 88,000.00	1	\$ 88,000.00	\$ 22,000.00	\$ 110,000.00
15 Brick paver crosswalk	SF	\$ 19.45	0	\$ -	\$ -	\$ -
16 Replace gate	EA	\$ 1,500.00	1	\$ 1,500.00	\$ 375.00	\$ 1,875.00
17 Replace sidewalk	LF	\$ 11.94	100	\$ 1,194.44	\$ 298.61	\$ 1,493.06
<b>SUB-TOTAL</b>				<b>\$ 106,612</b>	<b>\$ 26,653</b>	<b>\$ 133,265</b>
Mobilization				8%	\$ 106,612	\$ 8,529
Construction survey				5%	\$ 106,612	\$ 5,331
Maintenance of Traffic				3%	\$ 106,612	\$ 3,198
Right-of-Way/Easement				1%	\$ 106,612	\$ 1,066
Construction Administration and Management				5%	\$ 106,612	\$ 5,331
<b>TOTAL</b>				<b>\$ 106,612</b>	<b>\$ 26,653</b>	<b>\$ 156,720</b>

\* Design - 10%  
Contingency - 15%



Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
<b>Jordan &amp; Salt Lake City Canal Trail - Sugarmont Avenue to Parkway Avenue</b>						
1 Trail Construction	LF	\$ 28.00	0	\$ -	\$ -	\$ -
2 Trail Construction at I-80	LF	\$ 231.33	525	\$ 121,449.39	\$ 30,362.35	\$ 151,811.74
3 Trail Construction at Fairmont Park	LF	\$ 33.62	750	\$ 25,212.88	\$ 6,303.22	\$ 31,516.10
4 Reseed disturbed areas	SF	\$ 0.08	12,750	\$ 956.25	\$ 239.06	\$ 1,195.31
5 Rebuild sidewalk	LF	\$ 20.83	500	\$ 10,416.67	\$ 2,604.17	\$ 13,020.83
6 Retaining Wall	SF	\$ 65.00	240	\$ 15,600.00	\$ 3,900.00	\$ 19,500.00
7 Pedestrian Lighting						
Pole lighting	EA	\$ 6,000.00	1	\$ 6,000.00	\$ 1,500.00	\$ 7,500.00
Bollard lighting	EA	\$ 500.00	0	\$ -	\$ -	\$ -
8 Signing						
Wayfinding signage (18" x 24")	EA	\$ 150.00	2	\$ 300.00	\$ 75.00	\$ 375.00
Trail signage (12" x 18")	EA	\$ 100.00	0	\$ -	\$ -	\$ -
9 Striping/Pavement Markings						
Bike Lane Striping	LF	\$1.50	50	\$ 75.00	\$ 18.75	\$ 93.75
Shared Lane Markings	EA	\$25.00	0	\$ -	\$ -	\$ -
10 Median Refuge Islands						
at 900 South	EA	\$ 10,650.00	0	\$ -	\$ -	\$ -
at 1100 East	EA	\$ 9,702.50	0	\$ -	\$ -	\$ -
11 Artistic/Historic Interpretive elements	EA	\$ 5,000.00	0	\$ -	\$ -	\$ -
12 Raised Crosswalks	EA	\$ 6,000.00	0	\$ -	\$ -	\$ -
13 Bike rack	EA	\$ 500.00	1	\$ 500.00	\$ 125.00	\$ 625.00
14 HAWK beacons	EA	\$ 88,000.00	0	\$ -	\$ -	\$ -
15 Brick paver crosswalk	SF	\$ 19.45	0	\$ -	\$ -	\$ -
16 Replace gate	EA	\$ 1,500.00	0	\$ -	\$ -	\$ -
17 Replace sidewalk	LF	\$ 11.94	0	\$ -	\$ -	\$ -
			<b>SUB-TOTAL</b>	<b>\$ 180,510</b>	<b>\$ 45,128</b>	<b>\$ 225,638</b>
Mobilization			8%	\$ 180,510		\$ 14,441
Construction survey			5%	\$ 180,510		\$ 9,026
Maintenance of Traffic			3%	\$ 180,510		\$ 5,415
Right-of-Way/Easement			1%	\$ 180,510		\$ 1,805
Construction Administration and Management			5%	\$ 180,510		\$ 9,026
			<b>TOTAL</b>	<b>\$ 180,510</b>	<b>\$ 45,128</b>	<b>\$ 265,350</b>

\* Design - 10%  
Contingency - 15%

Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
<b>Jordan &amp; Salt Lake City Canal Trail - Parkway Avenue to Charlton Avenue</b>						
1 Trail Construction	LF	\$ 28.00	0	\$ -	\$ -	\$ -
2 Trail Construction at I-80	LF	\$ 231.33	0	\$ -	\$ -	\$ -
3 Trail Construction at Fairmont Park	LF	\$ 33.62	0	\$ -	\$ -	\$ -
4 Reseed disturbed areas	SF	\$ 0.08	0	\$ -	\$ -	\$ -
5 Rebuild sidewalk	LF	\$ 20.83	0	\$ -	\$ -	\$ -
6 Retaining Wall	SF	\$ 65.00	0	\$ -	\$ -	\$ -
7 Pedestrian Lighting						
Pole lighting	EA	\$ 6,000.00	1	\$ 6,000.00	\$ 1,500.00	\$ 7,500.00
Bollard lighting	EA	\$ 500.00	0	\$ -	\$ -	\$ -
8 Signing						
Wayfinding signage (18" x 24")	EA	\$ 150.00	11	\$ 1,650.00	\$ 412.50	\$ 2,062.50
Trail signage (12" x 18")	EA	\$ 100.00	0	\$ -	\$ -	\$ -
9 Striping/Pavement Markings						
Bike Lane Striping	LF	\$1.50	160	\$ 240.00	\$ 60.00	\$ 300.00
Shared Lane Markings	EA	\$25.00	30	\$ 750.00	\$ 187.50	\$ 937.50
10 Median Refuge Islands						
at 900 South	EA	\$ 10,650.00	0	\$ -	\$ -	\$ -
at 1100 East	EA	\$ 9,702.50	0	\$ -	\$ -	\$ -
11 Artistic/Historic Interpretive elements	EA	\$ 5,000.00	0	\$ -	\$ -	\$ -
12 Raised Crosswalks	EA	\$ 6,000.00	0	\$ -	\$ -	\$ -
13 Bike rack	EA	\$ 500.00	0	\$ -	\$ -	\$ -
14 HAWK beacons	EA	\$ 88,000.00	1	\$ 88,000.00	\$ 22,000.00	\$ 110,000.00
15 Brick paver crosswalk	SF	\$ 19.45	0	\$ -	\$ -	\$ -
16 Replace gate	EA	\$ 1,500.00	0	\$ -	\$ -	\$ -
17 Replace sidewalk	LF	\$ 11.94	0	\$ -	\$ -	\$ -
			<b>SUB-TOTAL</b>	<b>\$ 96,640</b>	<b>\$ 24,160</b>	<b>\$ 120,800</b>
Mobilization			8%	\$ 96,640		\$ 7,731
Construction survey			5%	\$ 96,640		\$ 4,832
Maintenance of Traffic			3%	\$ 96,640		\$ 2,899
Right-of-Way/Easement			1%	\$ 96,640		\$ 966
Construction Administration and Management			5%	\$ 96,640		\$ 4,832
			<b>TOTAL</b>	<b>\$ 96,640</b>	<b>\$ 24,160</b>	<b>\$ 142,061</b>

\* Design - 10%  
Contingency - 15%



Item	Unit	Unit cost	Quantity	Total Cost	Design & Contingency *	Total Cost + Contingency
<b>Jordan &amp; Salt Lake City Canal Trail - Charlton Avenue to Elgin Avenue</b>						
1 Trail Construction	LF	\$ 28.00	900	\$ 25,198.96	\$ 6,299.74	\$ 31,498.70
2 Trail Construction at I-80	LF	\$ 231.33	0	\$ -	\$ -	\$ -
3 Trail Construction at Fairmont Park	LF	\$ 33.62	0	\$ -	\$ -	\$ -
4 Reseed disturbed areas	SF	\$ 0.08	9,000	\$ 675.00	\$ 168.75	\$ 843.75
5 Rebuild sidewalk	LF	\$ 20.83	0	\$ -	\$ -	\$ -
6 Retaining Wall	SF	\$ 65.00	0	\$ -	\$ -	\$ -
7 Pedestrian Lighting						
Pole lighting	EA	\$ 6,000.00	4	\$ 24,000.00	\$ 6,000.00	\$ 30,000.00
Bollard lighting	EA	\$ 500.00	18	\$ 9,000.00	\$ 2,250.00	\$ 11,250.00
8 Signing						
Wayfinding signage (18" x 24")	EA	\$ 150.00	3	\$ 450.00	\$ 112.50	\$ 562.50
Trail signage (12" x 18")	EA	\$ 100.00	2	\$ 200.00	\$ 50.00	\$ 250.00
9 Striping/Pavement Markings						
Bike Lane Striping	LF	\$1.50	0	\$ -	\$ -	\$ -
Shared Lane Markings	EA	\$25.00	6	\$ 150.00	\$ 37.50	\$ 187.50
10 Median Refuge Islands						
at 900 South	EA	\$ 10,650.00	0	\$ -	\$ -	\$ -
at 1100 East	EA	\$ 9,702.50	0	\$ -	\$ -	\$ -
11 Artistic/Historic Interpretive elements	EA	\$ 5,000.00	1	\$ 5,000.00	\$ 1,250.00	\$ 6,250.00
12 Raised Crosswalks	EA	\$ 6,000.00	2	\$ 12,000.00	\$ 3,000.00	\$ 15,000.00
13 Bike rack	EA	\$ 500.00	1	\$ 500.00	\$ 125.00	\$ 625.00
14 HAWK beacons	EA	\$ 88,000.00	0	\$ -	\$ -	\$ -
15 Brick paver crosswalk	SF	\$ 19.45	0	\$ -	\$ -	\$ -
16 Replace gate	EA	\$ 1,500.00	0	\$ -	\$ -	\$ -
17 Replace sidewalk	LF	\$ 11.94	0	\$ -	\$ -	\$ -
			<b>SUB-TOTAL</b>	<b>\$ 77,174</b>	<b>\$ 19,293</b>	<b>\$ 96,467</b>
Mobilization			8%	\$ 77,174		\$ 6,174
Construction survey			5%	\$ 77,174		\$ 3,859
Maintenance of Traffic			3%	\$ 77,174		\$ 2,315
Right-of-Way/Easement			1%	\$ 77,174		\$ 772
Construction Administration and Management			5%	\$ 77,174		\$ 3,859
			<b>TOTAL</b>	<b>\$ 77,174</b>	<b>\$ 19,293</b>	<b>\$ 113,446</b>

\* Design - 10%  
Contingency - 15%

## APPENDIX D: STAKEHOLDER MEETING MINUTES



## JORDAN AND SALT LAKE CANAL TRAIL FEASIBILITY STUDY

Date: Tuesday June 9, 2011

Time: 10:00 – 11:30

Location: Fehr & Peers, 2180 South 1300 East

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### ***Meeting Minutes***

#### Attendees:

Esther Hunter, Eastside Community Council  
Lee Bollwinkel, Salt Lake City Parks  
Dan Fazzini, Salt Lake City Mayor's Bike Advisory Committee  
Russ Callister, Meacham Management  
Lynne Olsen, Sugar House Community Council  
Wayne Mills, Salt Lake City Planning Department  
Tyler Boelter, Salt Lake City Police Department  
Karryn Greenleaf, Salt Lake City Public Utilities  
Dan Bergenthal, Salt Lake City Transportation Department  
Ed Butterfield, Salt Lake City Redevelopment Agency  
Robin Hutcheson, Fehr & Peers  
Maria Vyas, Fehr & Peers

#### Notes:

- Local history of the canal is an interesting facet, and historical information could be added as an interpretive element to the trail
- Stakeholders are excited about the prospect of both the Jordan and Salt Lake Canal as a new north-south facility, and the Parley's Trail as an east-west facility
- Trail alignment should connect to amenities such as bike shops, commercial destinations, and other attractors along the way
- Some community members see the trail as an opportunity to "clean up" overgrown areas, and create spaces for activities such as picnics, nature education, wildlife viewing, etc
- Screening the trail from adjacent homes using landscaping or other means could be desirable
- It will be important to find a balance between increasing activity and visibility of trail, and protecting the privacy of adjacent property owners
- Interest in the trail as both a long-distance commuter facility and a neighborhood trail. Stakeholder committee will evaluate a range of alternatives in the coming months to identify the best options.
- Maintenance issues will need to be considered throughout the course of the study. The trail will need to be accessible year-round, and will likely require snowplowing. Native landscaping is relatively low maintenance, but may not meet neighborhood expectations for appearances.
- SLC Public Utilities needs to maintain vehicle access for the canal, and trail design should consider pullout locations for vehicles to park without blocking the trail.
- The trail may have different characteristics in different sections
- The Brickyard rail corridor will be added as an alternative in the Granite Block area

## JORDAN AND SALT LAKE CANAL TRAIL FEASIBILITY STUDY

Date: Tuesday July 19, 2011

Time: 1:00 – 2:30

Location: Fehr & Peers, 2180 South 1300 East

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### ***Meeting Minutes***

#### Attendees:

Esther Hunter, Eastside Community Council  
Brandon Fleming, Salt Lake City Parks  
Dan Fazzini, Salt Lake City Mayor's Bike Advisory Committee  
Russ Callister, Meacham Management  
Lynne Olson, Sugar House Community Council  
Karryn Greenleaf, Salt Lake City Public Utilities  
Kate Bradshaw, East Emerson Neighborhood  
Dan Bergenthal, Salt Lake City Transportation Department  
Robin Hutcheson, Fehr & Peers  
Maria Vyas, Fehr & Peers  
John Buttenob, HDR  
Kelly Gillman, CRSA

#### Notes:

- Lynne provided an update from the Sugar House Community Council Parks, Open Space and Trails Committee. Notes are attached.
- Granite Block alignments for the canal trail include an outer regional route along McClelland, and interior connections roughly 200-250' apart, heading both east-west and north-south. Further discussions with property owners are needed to refine placement and width of passages inside the block. Buildability of land areas is a concern.
- Daylighting the canal along the trail would be challenging – the canal is 20-25' wide in some places, and daylighting would require structures that may use up the available space in the easement.
- Review of regional transportation networks and pedestrian/bicycle activity generators within the study area. Some new developments are planned near the intersection of 1300 South/1100 East that may be of interest to trail users.
- Local businesses are important in the corridor, and stakeholders are interested in creating connections for trail users to access businesses.
- Trail may be an opportunity to improve landscaping or land use near the 800 South electrical substation.
- Canal between Logan and Harrison acts as a 1200 East corridor. Locals frequently use it as an alternative to 1100 East or 1300 East.
- Many driveways and accesses connect to the canal between Logan and Harrison, and encroachments and license agreements in this section would need to be resolved prior to constructing a trail here.
- Salt Lake City may own parcels along the canal near Elgin Avenue, which could help development of a trail alternative.



## JORDAN AND SALT LAKE CANAL TRAIL FEASIBILITY STUDY

Date: Tuesday January 24, 2012

Time: 1:00 – 2:30 PM

Location: Fehr & Peers, 2180 South 1300 East

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### ***Meeting Minutes***

#### Attendees:

Esther Hunter, Eastside Community Council  
Russ Callister, Meacham Management  
Lynne Olsen, Sugar House Community Council  
Karryn Greenleaf, Salt Lake City Public Utilities  
Dan Bergenthal, Salt Lake City Transportation Department  
John Bittenob, HDR  
Kelly Gillman, CRSA  
Bryce Ward, CRSA  
Maria Vyas, Fehr & Peers

#### Notes:

- Progress since last meeting included the October open house, one-on-ones with Graystone and Salt Lake City Parks Department, refining alignments, easement research and field verification, cost estimates and phasing, and report preparation
- Stakeholders support the preferred alignment and intend to voice their support from the community perspective
- The group wants to receive links to download the draft document and review it
- The “intermodal hub” at Sugarmont/McClelland needs to be accounted for in one of the design and construction projects – which project should include it? Parley’s Trail, Jordan and Salt Lake Canal Trail, Sugar House Streetcar, or all of them? Design teams need to discuss this.
- The Wilmington/Sugarmont realignment is still under discussion but may not be an option for Granite Block trail links.
- Salt Lake City should coordinate with Rocky Mountain power on the beautification of the section between 800 South – 900 South along McClelland Street.
- Brickyard Plaza represents long-term trail development opportunities but these do not exist right now.

## APPENDIX E: INTERVIEW MEETING MINUTES

## JORDAN AND SALT LAKE CITY CANAL TRAIL STAKEHOLDER ONE-ON-ONE MEETING MINUTES

Date: October 6, 2011  
Time: 10:00 AM – 11:00 AM  
Location: UDOT Region 2

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### ATTENDEES

STAKEHOLDER	
Jason Davis	UDOT Region 2
PROJECT TEAM	
Dan Bergenthal	Salt Lake City Transportation
Maria Vyas	Fehr & Peers

### MEETING SUMMARY

The Jordan and Salt Lake City Canal Trail team is interested in locating a short (~500') section of trail in the UDOT I-80 right-of-way, behind the Sugar House DABC location. Dan had previously met with a UDOT Region 2 Project Manager (John Montoya), who was very familiar with the I-80 corridor but recommended a meeting with Jason to discuss the issue.

UDOT is willing to consider putting a trail in the right-of-way, but would ask for Salt Lake City's cooperation in another matter in return. When UDOT recently reconstructed the I-80 corridor, it was with the understanding that Salt Lake City would assist with maintenance of landscaping at the interchanges in the City. However, after the freeway was completed, the City has not since agreed to maintain the landscaping. Jason was particularly concerned about the interchanges at 700 East and 1300 East, and the overpasses at Highland Drive and 900 East. It was unclear which representatives at Salt Lake City would have been engaged in maintenance negotiations, but Dan can pursue the issue further at the City level. John Montoya may have additional notes on previously-held landscape maintenance discussions.

The procedure for obtaining the right-of-way would include shifting the No-Access line for the freeway, which could be coordinated through Jesse Sweeten in UDOT's right-of-way group. This change would require permission from FHWA. Jason did not anticipate that there would be a cost for the transfer of right-of-way to the City, but it would likely come with a contingency attached if UDOT ever needs to take the property back. A trail easement would need to be developed for this section.

Jason suggested that the City develop a preliminary design for the trail in this area, and identify how much right-of-way might be needed.



## JORDAN AND SALT LAKE CITY CANAL TRAIL STAKEHOLDER ONE-ON-ONE MEETING MINUTES

Date: October 12, 2011  
Time: 1:00 PM – 2:00 PM  
Location: Westminster College

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### ATTENDEES

STAKEHOLDER	
Michael Bassis	Westminster College
Curtis Ryan	Westminster College
Annalisa Holcombe	Westminster College
PROJECT TEAM	
Dan Bergenthal	Salt Lake City Transportation
Maria Vyas	Fehr & Peers

### MEETING SUMMARY

Westminster College is very interested in increasing bicycle and pedestrian access and connectivity to campus. The College has a number of their own initiatives, including creating a Bicycle Station on a college-owned property near 1700 South and 1200 East. The Westminster College Master Plan also identified 1200 East as a major bicycle and pedestrian corridor, particularly in respect to connecting campus to the neighborhoods to the south. In addition, the College is interested in finding connections east of 1300 East to connect their Garfield School property to the main campus, and has an easement closer to 1500 East near the creek that they may eventually use for an east-west trail.

Several specific elements of the Jordan and Salt Lake City Canal Trail would involve Westminster College. The desired trail alignment near Westminster College would direct trail users along 1200 East to connect to Wilson Avenue, and proceed westward along Wilson Avenue across 1100 East. A gate blocks the passage between the College and Wilson Avenue, which was put in during the early 2000's to appease neighborhood concerns while the College built its sports complex. The neighbors who were most vocal in their concerns were located at the eastern end of Wilson, adjacent to the College. However, the neighborhood's major issues seem to be related to visual impacts – view of parking lots, light pollution, and other concerns. The neighborhood may be amenable to opening the gate only for bicycle and pedestrian access, but they would also likely be concerned about the potential for students parking in their neighborhood.

Westminster College owns a residential property at the eastern end of Garfield Avenue, across the creek from the main campus. They have considered bridging the stream to create a pedestrian and bicycle corridor across the water to 1200 East, but are concerned about the City's restrictions around riparian zones. The Jordan and Salt Lake City Canal study document could potentially include a statement about Westminster College and Salt Lake City working together to create a bridge across the creek. Westminster College may have funding available for the bridge if the City can help them get through the approvals process.

## JORDAN AND SALT LAKE CITY CANAL TRAIL STAKEHOLDER ONE-ON-ONE MEETING MINUTES

Date: October 13, 2011  
Time: 4:00 PM – 5:00 PM  
Location: Fehr & Peers

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### ATTENDEES

STAKEHOLDER	
Elvie Nelson	Urban Outsourcing
PROJECT TEAM	
Dan Bergenthal	Salt Lake City Transportation
Maria Vyas	Fehr & Peers

### MEETING SUMMARY

Elvie Nelson and Urban Outsourcing act as property managers for the Brickyard Condominiums. Elvie assists the Brickyard HOA in managing property and accounting issues, and acts as a filter for those who wish to contact the HOA. One trail alignment alternative for the Jordan and Salt Lake City Canal Trail passes through the Brickyard property at approximately 1100 East.

The section where the trail connection is proposed on Brickyard's property is the clubhouse, pool, and guest parking area. There are 15-20 parking spaces in the area, which are typically shared between guests and Brickyard condominium owners. Elvie anticipated that the residents would be concerned about impacts to the parking. The project team explained that the trail would be located on-street here, with pedestrians using existing sidewalks and cyclists riding in the road. No parking spaces would be lost due to the trail.

Many Brickyard property owners are seniors, and Elvie guessed that they would be concerned about certain trail issues: the volume of people who might come through Brickyard on the trail, the type of people using the trail, any potential increase in transient or illegal activity, etc. Elvie will circulate a flier for the upcoming October 27<sup>th</sup> 2011 open house among Brickyard residents and encourage them to attend.

## JORDAN AND SALT LAKE CITY CANAL TRAIL STAKEHOLDER ONE-ON-ONE MEETING MINUTES

Date: November 15, 2011  
Time: 10:00 AM – 11:00 AM  
Location: Salt Lake County Parks and Recreation Department

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### ATTENDEES

STAKEHOLDER	
Angelo Calacino	Salt Lake County Parks and Recreation
Lynn Larsen	Salt Lake County Parks and Recreation
PROJECT TEAM	
Dan Bergenthal	Salt Lake City Transportation
Maria Vyas	Fehr & Peers

### MEETING SUMMARY

Salt Lake County has a comprehensive parks and recreation master plan dating to 2005. This master plan did not include the Jordan and Salt Lake Canal among its recommended projects, but future versions of the plan may include the canal alignment as a proposed trail. Salt Lake County has had some discussions with Jeff Niermeyer at Salt Lake City Public Utilities about using part of the Jordan and Salt Lake Canal alignment for the Jordan River Trail. Angelo and Lynn suspected that the Jordan and Salt Lake Canal trail might not be on the map due to potential land ownership issues. The Utah and Salt Lake Canal Trail is the only canal-related trail currently on the plan.

In their discussions with the Utah and Salt Lake Canal Company, Salt Lake County has been negotiating placement of a trail along the canal's maintenance road that accesses the canal. Angelo and Lynn suggested that this may be an option for the daylighted sections of the Jordan and Salt Lake Canal as well. As part of the trail negotiations, Salt Lake County will indemnify the Utah and Salt Lake Canal Company for any liability for trail users along the canal (the County will be indemnified as well). Among the conditions in the indemnification agreement are that the Canal Company can't charge a user fee for the trail, nor can the company impede passage along the trail. The County will then be responsible for maintenance of the trail along the canal access road. This provides an incentive for the canal company to cooperate with the project, since their maintenance costs are then reduced. Lynn will send Dan a copy of the indemnification agreement they're working on with the canal company; Salt Lake City may wish to arrange a similar agreement for the Jordan and Salt Lake Canal. These agreements need to be in place before the trail is completed in order for indemnification to be assured.

Federal funding requirements have added some construction items to the Utah and Salt Lake Canal trail that the County wasn't expecting, which could be relevant to southern sections of the Jordan and Salt Lake Canal Trail as well (outside the 3300 South study boundary). A guard rail is required if a trail comes within 5' in elevation of canal water, so Salt Lake County is planning a 2" diameter pipe guardrail with 3 horizontal bars.



The Big Cottonwood Canal approaches the Jordan and Salt Lake Canal near 3300 South, and the feasibility study team wondered whether this would be a potential trail alignment and a logical terminus for the Jordan and Salt Lake Canal Trail. Salt Lake County had been approached by the president of the Big Cottonwood Canal Company in recent years, who suggested that the County purchase the Big Cottonwood Canal right-of-way and convert it to a trail. Salt Lake County Parks representatives researched the canal right-of-way and determine that much of it lay beneath developed areas such as parking lots, apartment complexes, and other inaccessible areas. The County did not continue further discussions to purchase the right-of-way as a result.

Salt Lake County agreed that the Jordan and Salt Lake Canal Trail should be considered on the countywide regional trails plan, which they will revisit in the coming years. The County would be very interested in studying the regional feasibility of the trail, which would require some coordination with Midvale, Sandy, and the other municipalities along the canal alignment; a potential connection with the Porter Rockwell trail should be considered.

## JORDAN AND SALT LAKE CITY CANAL TRAIL STAKEHOLDER ONE-ON-ONE MEETING MINUTES

Date: December 1, 2011  
Time: 1:00 PM – 2:00 PM  
Location: Graystone Condominiums

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### ATTENDEES

STAKEHOLDER	
Leone Rogers	Graystone
Rick Duggar	Graystone
PROJECT TEAM	
Maria Vyas	Fehr & Peers

### MEETING SUMMARY

Leone Rogers is the president of the Graystone Home Owners Association (HOA), and Rick Duggars is the property manager. Graystone is operated as a “community for older persons”, referring to people 18 years of age and older. According to Rick, Graystone was the first condominium complex in the United States; it was originally referred to as “Apartment Homes” because the term “condominium” had not yet been established. Leone and Rick were aware that the canal alignment traverses through the property. Leone has been a resident of Graystone since the 1960’s, and remembers that Graystone had carports constructed atop the canal that were torn down in that decade due to their incompatibility with the canal. Leone and Rick were both aware that the complex’s management building currently sits on top of the canal, and this is of concern to the property managers. The building is aging, but the owners are hesitant to invest in improvements because they believe (correctly) that Public Utilities could require them to tear down the building if canal maintenance in that section is needed. Public Utilities would not be required to compensate Graystone for the loss.

Leone, Rick, and others at Graystone have been approached in the past (maybe 5-6 years ago) about accommodating a trail along the canal alignment through Graystone. They were opposed to the idea in the past and continue their opposition now. However, Leone and Rick acknowledged that the population in Graystone is changing, and that younger generations may be more open to accommodating a trail as the population continues to turn over. The HOA can hold a board vote on whether to support the trail concept or not, if Salt Lake City wishes to continue discussions around it; Leone and Rick felt confident that the HOA board vote would be against a trail, but this may change in time if the residents in general begin to support the idea.

Trespassing and privacy are big concerns at Graystone, and Rick frequently receives calls from residents complaining about non-Graystone residents on the property.

Graystone’s regulations also prohibit dogs, with the exception of service animals. A trail that allowed people to walk their dogs through Graystone would present a management problem for Graystone, in their view. They already have problems with neighbors from the adjacent areas walking through

Graystone with their dogs; Rick reports that they also have problems with crime, vandalism, and damages from trespassers coming through. The addition of more traffic – vehicle, bicycle, pedestrian, or otherwise – concerns Graystone representatives.

Rick and Leone also expressed concerns about any potential liability Graystone might have for injuries suffered by trail users. Maria mentioned the state legislation that provides immunity to private property owners allowing a trail on their property; currently, Graystone would not benefit from this immunity since Grasytone is private property without a trail easement.



## JORDAN AND SALT LAKE CITY CANAL TRAIL STAKEHOLDER ONE-ON-ONE MEETING MINUTES

Date: December 6, 2011  
Time: 9:00 AM – 10:00 AM  
Location: Salt Lake City Parks Department

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### ATTENDEES

STAKEHOLDER	
Lee Bollwinkel	Salt Lake City Parks and Public Lands
PROJECT TEAM	
Dan Bergenthal	Salt Lake City Transportation
Maria Vyas	Fehr & Peers

### MEETING SUMMARY

Salt Lake City Parks and Public Lands Division would be responsible for maintenance and upkeep of the Jordan and Salt Lake City Canal Trail. The project team has put together some preliminary cost estimates for the trail, and Lee had some additional suggestions for including in the costs. These included adding in waste receptacles for trailheads or pocket parks, park benches (\$2500 each), drinking fountains (\$3000 each), and increased cost estimates for playground furniture (\$25,000 for a starting cost).

The Open Space Program would be responsible for purchasing and negotiating trail easements. The Parks and Public Lands Division doesn't purchase land or easements, only maintains facilities once they are built and maintained. The Division uses a contractor for monitoring for trail lighting and maintenance needs.

Lee is also concerned about the Parks and Public Lands Division having adequate funding for snow removal. Current the Parks and Public Lands Division is at the upper limit of their ability to fund snow removal activities. The addition of other facilities to be plowed means that the Parks and Public Lands Division will need to request additional maintenance funding from the City Council. Lee suggested that the feasibility study should mention that additional maintenance demands will increase costs and that the City Council should be approached to increase funding.

Dell Cook, the city's Landscape Architect, would have responsibility to put together concept plans for potential park facilities along the trail. Transportation should approach Dell about putting some preliminary plans together.

## APPENDIX F: OPEN HOUSE DOCUMENTATION



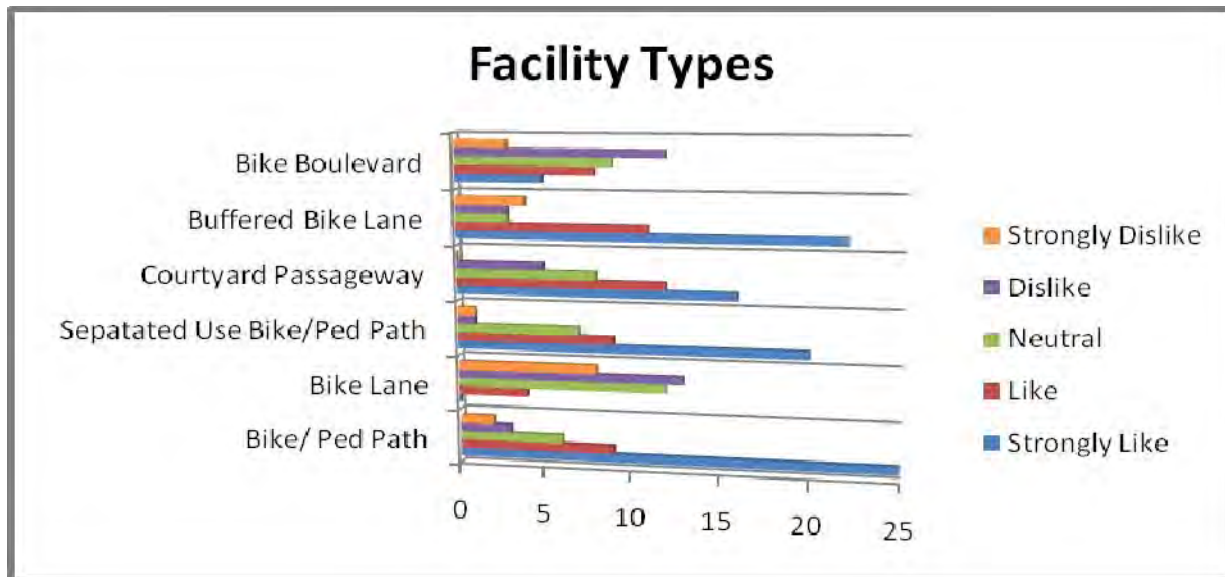
## OPEN HOUSE SUMMARY

Wednesday July 27, 2011

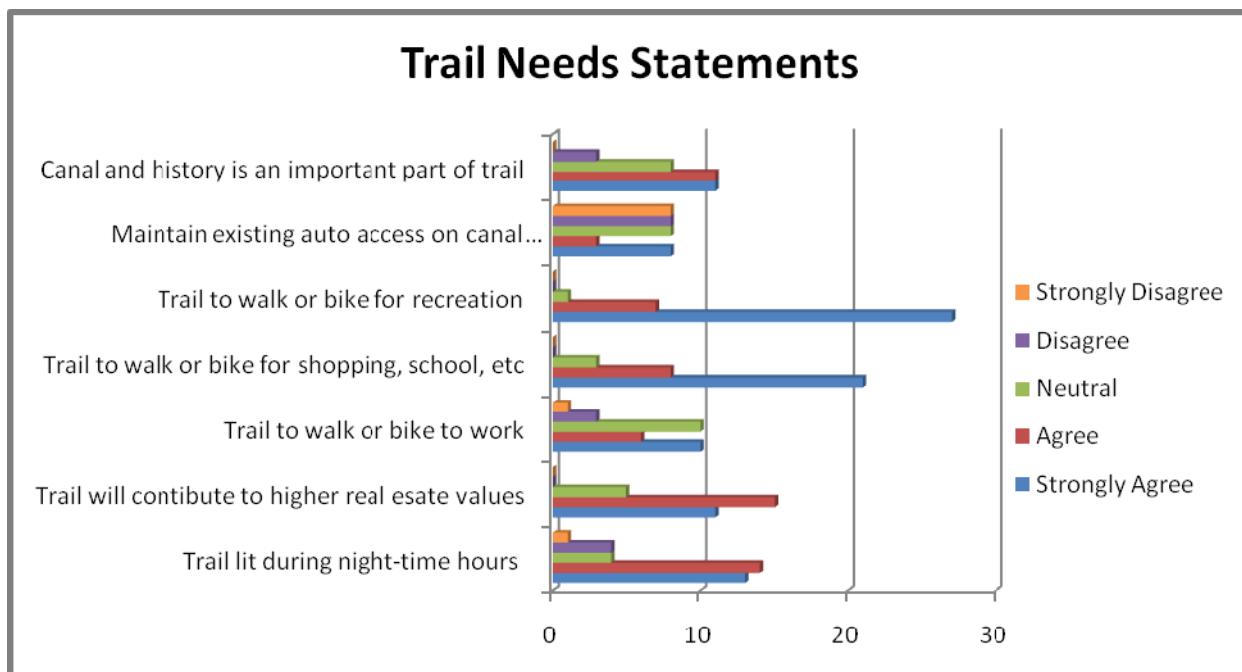
The Sprague Library

4:30 to 6:30 p.m.

- **Total Attendees: 57 (based on sign-in sheets)**
- **Board Responses: Facility Types**
  - Most Preferred Facilities: Bike/Pedestrian Path, Separated Use Bike/ Pedestrian Path, and Buffered Bike Lane
  - Least Preferred Facilities: Bike Lane and Bike Boulevard



- **Board Responses: Trail Needs Statements**
  - Most agreed statement: "I would use this trail to walk or bike for recreation"
  - Most disagreed statement: "Maintain existing auto access to the canal corridor"







### OPEN HOUSE SUMMARY (Cont.)

- **Total Comments: 24**
- **Summary of frequent and notable comments:**
  - Many attendees were excited about the trail and cannot wait to use the trail as an alternative transportation option and recreational area. Comments reflected the excitement and anticipation.
  - A handful of attendees live next to the canal and are worried the trail will take their property, not be maintained, and worried about crime and easy access for others to their properties. (These property owners are on Roosevelt Avenue and Harrison Avenue)
  - If the trail is completed residents would like to see different surface application on the trail, some are better for walking, others for biking. If not then distinguishable areas for pedestrians and bicyclists.
  - Residents believe that the history along the trail will be significant and signage along the trail would be beneficial.
  - Many residents and attendees think that the sections of the trail that are ready to be constructed should be ASAP, and that the rest can be finished later.
  - Concerns about trail maintenance were brought up by an attendee who frequents the Jordan River Parkway and sites examples of its poor maintenance (example a light bulb on the trail out for 2 years).
  - Other residents are concerned about dog owners and trail use. Many want the ability to have dogs off leash or the consideration for residents and their pets on the trail.
  - There were a couple requests for maps and scroll plots to be sent to residents via email.

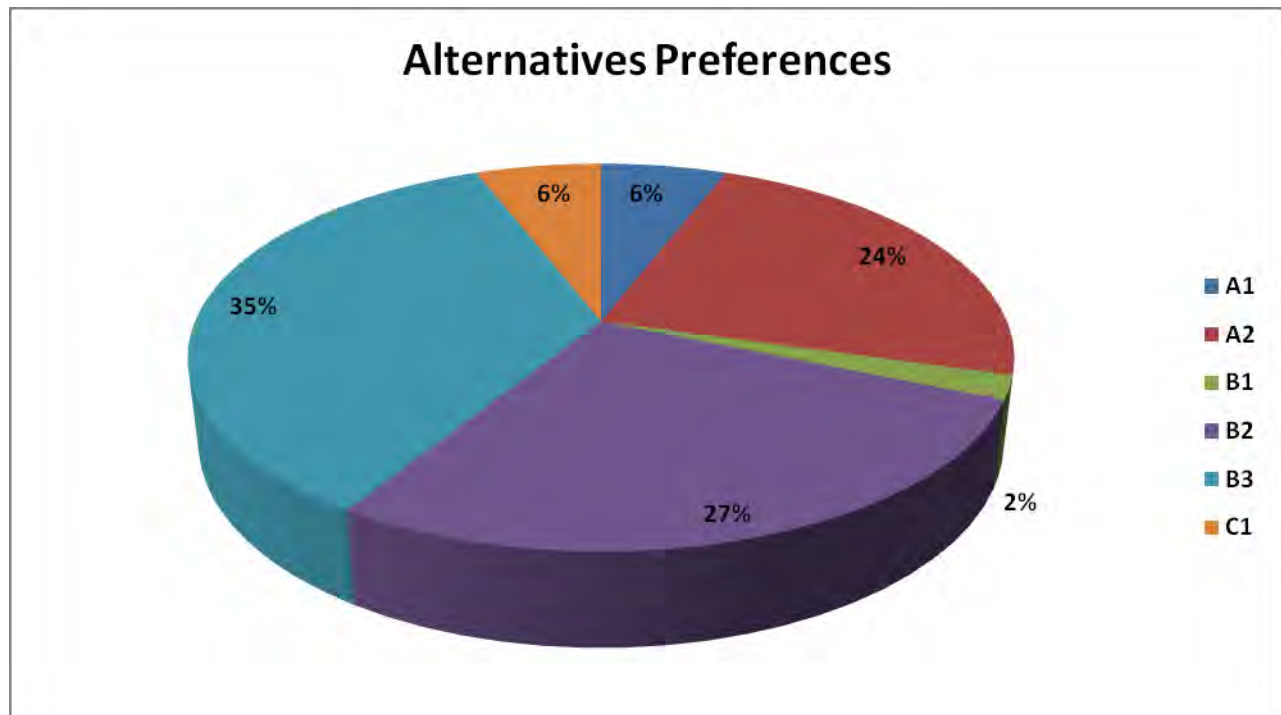
# JOINT OPEN HOUSE SUMMARY: SUGAR HOUSE ALTERNATIVES ANALYSIS PHASE 2, JORDAN AND SALT LAKE CITY CANAL TRAIL

Thursday October 27, 2011

Westminster College

5:00 to 8:00 p.m.

- **Total Attendees: 94 (based on sign-in sheets)**
- **Board Responses: Alternative Preferences**
  - Most preferable alternative: B3
  - Least preferable alternative: B1



- **Total Comments: 34**
1. AA: I prefer alternative A2 and alternative B2, if integration with the Sugar House center block is not feasible. I am disappointed that alternatives connecting Westminster College and the University of Utah were not presented, but A2 and B2 are a good start! – Mike Christensen ([mrc@cascadepeak.com](mailto:mrc@cascadepeak.com))
  2. BOTH: My family lives on 11<sup>th</sup> East. We are concerned that a streetcar on 11<sup>th</sup> East would disturb the peace of the neighborhood, and lower the value of our home. We have lived there for 35 years. –David Thorpe, son of Don and Catherine Thorpe
  3. BOTH: I prefer alternatives A1, and B3. I don't want the streetcar in front of my house, not being able to get out of my driveway or park in front of my house. I don't like noisy streets. It would create congestion to place the streetcar on 11<sup>th</sup> Ea to 1700 So and we lose a lot of value on our property. Please choose A1 and B3. Not B2. – Don Joseph Thorpe (Son of Don Thorpe)



SLCRDA

4. BOTH: I want A1 and B3 alignments. I don't want A2 or B2. 11<sup>th</sup> Ea is way too narrow; it'd cause trouble for parking for people who live right on 11<sup>th</sup> Ea. and cause property values to drop. I don't want you to go north of 1700 So. Which is more residential. It'd cause noise and congestion on my street. I prefer alternatives A1 and B3, B3 makes a lot more sense to the foothill area. It's growing commercially. The street is wider than 11<sup>th</sup> Ea. It needs added transportation to reach Foothill Drive and then go north to Sunnyside and U of U. – Catherine Thorpe (801-582-6019 [vivelafranceschool@gmail.com](mailto:vivelafranceschool@gmail.com))
5. BOTH: DO NOT OPEN The Westminster Gate on 12 East and Wilson Ave.– Steve Summers 1150 Wilson Ave SLC, UT 84105
6. BOTH: As a retired property owner on 11<sup>th</sup> East (11<sup>th</sup> So) I am concerned that alternatives A2 and B2 would have great negative impact on property value and activity in front of my house. It would increase noise and congestion. I prefer alternatives A1 and B3. B3 would make more sense, because the foothill area is growing commercially and needs added transportation.- Don Thorpe 1087 S. 1100 E. (801-582-6019 [donthorpe@gmail.com](mailto:donthorpe@gmail.com))
7. BOTH: We live on easement between Broadway and Roosevelt. Recommend speed bumps on motor vehicle portion, esp. between Harrison and Westminster. Have impact lighting on trail only. SL Police bike patrols. Honor current easement embranchments, which include fences, landscaping, etc.
8. JSL TRAIL: My house is adjacent to the canal (my back door is probably 20 feet away!) and I'm very concerned about safety and noise! I have read the studies, but they do not study trails that are wedged by houses, as this trail would be between 2700 S. and Elgin St. I love running and biking, and I'm excited about the idea of a trail in my neighborhood. But I am very opposed to the route on the canal because of close it would be to my house! What kind of monitoring and security would take place, there needs to be lighting and a noise ordinance. Again, please note the canal is tightly compacted by houses. It would be so easy for someone to hop the fence and into our homes. Jordan River trail, while a beautiful public trail has had its share of problems- runners getting attacked, homeless people making camp. But the Jordan River trail is a large corridor with houses relatively far away. From public access. These problems would be right in our backyards! PLEASE look at the canal space between Judith and Hudson streets. The neighbors have leased that space from the city and extended their yards, obviously its city property. But the canal is not big enough for a trail there! Also, where will people park? It will not just be locals using this space.
9. BOTH: I LOVE the SLC canal trail. I totally support it. I also really like Parley's trail and hope that the city provides funding to support it. As a local avid bike rider, I would definitely utilize and appreciate both trails.
10. BOTH: Why aren't we encouraging walking to shopping areas or shuttles to shopping areas at the end of a lane? What will happen to the current bus transportation to the area you propose to add lines to? They have served to areas well for years until "we" improve things and make it worse. If you don't already have the money for this where will it come from? Our taxes CANNOT keep going up for pet projects. How are people getting to the trail systems? If you walk it goes in a straight line and does not loop back to take you back to your beginning. The parks have it where you can begin and end at one place. Are you providing parking areas for people to drive to park and walk and drive back home? The trail system will encourage more people not in the vicinity to drive and then walk. Where do they park their cars? Have you actually contacted those who live next to the "trail proposed area" they need input. This is called door to door





knocking and asking. I can't afford to have more taxes as a home owner in this area.

11. BOTH: Please do not cut through Brickyard Condos with a trail or road of any sort. I am an owner and do not believe this will be of benefit to our private property. Taxes will increase and they are already high enough. I cannot vote until I know how my money will be raised for this and how much it will cost. There are more important needs to be addressed before doing something like streetcar lines and trails.  
Respectfully- Jim and Roanne Dale
12. A.A.- Can the public ride the rails of a potential vehicle/ streetcar to understand the scale of the car?
13. BOTH: Look closely at 1200 E as it is very narrow and there is much parking on 12<sup>th</sup> between 1700 S. and Milton making it very narrow. Lighting at cross streets for the bike path. Attention needs to be paid to the Route from Harrison Ave. to 1700 S. The alley is overgrown, poorly lit, or not lit at all. The Milton Ave/Wood Ave/ 1200 E. intersection is a potential danger point. 1200 E. from Milton to 1700 S. is a narrow use lane street that is commonly congested. Addition of further pedestrian/ bike traffic at this point creates a significant hazard. If this route is chosen, 1200 E should be vehicle/ parking restricted. Or closed to vehicle traffic.
14. BOTH: I would like to see the C1 alignment with the B3. Extension length and location.
15. BOTH: I strongly support both projects. I would love for the streetcar to travel up 11<sup>th</sup> east for a future connection to U of U, 9<sup>th</sup> and 9<sup>th</sup>, and or a loop past liberty park connecting to TRAX at library, courthouse, or 9<sup>th</sup> south.
16. A.A.- I am very concerned about the section of 1100 east from 2100 south to the post office. Of adding another element of heavy traffic street with the tree and landscaping along the street- I would not support widening the street to add a streetcar- and the traffic between 4-6 PM is backed up from the street light to the smith's gas station. The business access to the street (from business parking lot) is tricky now. Need to allow a flow of traffic to the businesses along 1100 east to maintain a good business climate.
17. BOTH: I support B3 option. I have little preference about how it connects from McClelland (Wilmington/ Sugarmont on Simpson). It's important to stop at 2100 S. to make the plaza a public stop. I prefer taking the line east along 2100 S. to support movement east for the park, residents, and burgeoning nodes to expand walk ability. We already have destinations and 2100 S. is better situated (i.e. rezoning) to develop more retail vs. 1100 E. I am thankful we were able to include this project in the study. It's an important project and opportunity for the community and city. I strongly support the inclusion of the canal trail throughout the business district. My preference is to keep the trail off busy streets as much as possible to increase use of bicycles and pedestrians.
18. BOTH: Great Initiatives! Keep it up.
19. A.A.: I live on 11<sup>th</sup> and 11<sup>th</sup> – our house will be worthless! Please have an alternative -somewhere less residential. Too much noise and extra traffic –I'll leave SLC!

20. A.A.: Very important to use 100 East to serve Westminster College, and ultimately to continue to 9<sup>th</sup> south, down (west) on 9<sup>th</sup> south to B12 district, liberty park, and eventually TRAX or the university.
21. BOTH: I would strongly support extension of the streetcar north, on 11<sup>th</sup> East –Please also consider a further extension on 11<sup>th</sup> East to 9<sup>th</sup> South and then west.
22. BOTH: I would encourage SLC to develop the McClelland trail: specifically add a pocket park immediately north of liberty heights fresh on 11<sup>th</sup> East, and develop (landscape & light) the trail over to Inglewood park (McClelland and Princeton).
23. BOTH: I live on 11<sup>th</sup> East north of 1700 South. I don't want B2 in my front yard! Please choose B3! It's more logical to find alternative, to have a stop in front of Sugar House Park with all the new businesses growing on 21<sup>st</sup> South, all the way to Foothill.
24. JSL TRAIL: Wonderful concept to southern areas of SLC area with the more central areas. Any time that there is the ability to have separate bike paths, those should be utilized before sharing lands.
25. BOTH: I like the trail/path, having a better route to walk or bike should promote people to walk/bike rather than drive, plus it will be nice for recreation. Having an area to have dogs off leash is certainly needed in SLC as well. I don't understand the purpose of the streetcar. It seems like a big waste of money. Why not just walk or change a bus route?
26. JSL TRAIL: Overall great idea and needed to make SLC very live able and biking and walking friendly. Consider low impact lighting along final trail- maybe solar lighting. Use SLC police on bike patrol. Minimize taking property as much as possible. Seems like speed bumps may be helpful if bike and car share canal. Consider roundabouts to beautify and keep with traffic (similar to Hollywood and 9<sup>th</sup> East).
27. JSL TRAIL: We have witnessed drug trafficking between Harrison and 1700 South on the Canal Path. Trail and low impact lighting may help this situation as well as police bike patrol.
28. I love the streetcar connection. Awesome. Walking paths are great and would be a nice addition but PLEASE do not run them through the Brickyard Condominium Complex. Thank You!
29. BOTH: Alternative A1: Good/ Excellent for S.H. Center redevelopment –I heard about preliminary brain storms from a private planning group when I served on SLC Transportation Advisory Board. Why not make it a complete return loop? If my memory is correct the planning group suggested this. –Milton Braselton
30. BOTH: Alternative A2: Is the only way to get close to Westminster College to go up 11<sup>th</sup> East? Going into S.H. Center redevelopment is problematic, wide-detour, out-of-the-way, a TRANSIT TIME KILLER if your objective is to get to/from Westminie. – Milton Braselton
31. BOTH: Alternative B1: You're kidding! You have got to be kidding!! Why was this "alternative" even presented??? How useless! Why wasn't this alternative put on the historic rail spur alignment through the granite block to terminate at the south side sidewalk on 21<sup>st</sup> South????? –Milton Braselton

32. BOTH: Alternative B2: Why not make the turn from Sugarmont to Highland through that acute corner in a broad curve around the Zions Bank branch building??? If you have observed (as I have) they NEVER EVER use all the space in their lot. – Milton Braselton
33. BOTH: Alternative B3: To avoid narrow streets, heavy traffic, run trolley line straight east on historic D&RGW alignment under 13<sup>th</sup> E –Where there would be a 2-level interconnect station –and then trolley would continue (avoiding PRATT land form) on gradual easier grade on map slant up to wider, less traffic 21<sup>st</sup> so. Not just to 17<sup>th</sup> E. but all the way to commercial shopping node at 21<sup>st</sup> E, and even on to new Walmart. –Milton Braselton
34. A.A.: 1. Don't spend money on the small Wilmington loop (not enough benefit for the extra cost). 2. Combine C1 and B3 (street and rail to Highland Dr.) Then follow B3 to 15<sup>th</sup> #, then north to 1700 S, then west to 900 E, then south to Sugarmont.  
Benefits: 1. This route takes care of Westminster and residents. Residents can get to the Sugar House business district without driving. (Reduces traffic and increases business). 2. Provides safe access for Westminster to/from business district and connects to Garfield school. (New Westminster art center).  
Great Job! –Larry Migliaccio [migliaccio@pbworld.com](mailto:migliaccio@pbworld.com) 801-244-7545





## APPENDIX G: COMMUNITY CORRESPONDENCE

# SUGAR HOUSE COMMUNITY COUNCIL



## SUGAR HOUSE COMMUNITY COUNCIL

Ray Pugsley, Chair  
Su Armitage, Vice Chair  
Helen Peters, Vice Chair  
Robert Marsh, Vice Chair  
Alice Edvalson, Secretary  
Lynne Olson, Asst. Sec'y  
Dolores Donohoo, Treasr.

January 13, 2001

Mr. LeRoy W. Hooten, Jr., Director  
Salt Lake City Public Utilities Department  
1530 South West Temple  
SLC UT 84115

Re: Proposed Neighborhood Park at 11<sup>th</sup> Ea. & Crandall Ave:

Dear Mr. Hooten,

On December 6, 2000, the Sugar House Community Council heard a presentation by Mr. Kevan Adams, regarding a proposal to create a neighborhood park on the publicly owned property at 1150 East 2800 South, between Crandall Avenue and Zenith Avenue. During his presentation, Mr. Adams told members of the Council that the property is owned by Salt Lake City Corporation, and that it is located over the existing Salt Lake/Jordan Canal. We understand that he has circulated a petition among the residents of the surrounding area to gather support for the park development proposal.

The Salt Lake City Open Space Master Plan, adopted in 1992, recommends the development of a bicycle and pedestrian trail along the corridor, which marks the location of the Canal. The Master Plan states, "Canal/McClelland Corridor follows the path of the historic Jordan and Salt Lake Canal which ... was piped underground in the early 1900's. Existing "alleyways" wind through a densely developed neighborhood along the old canal route. These "alleys" form the basis for this corridor." Under the section titled "Recommendations and Priorities," the Master Plan suggests acquiring appropriate lots for neighborhood parks along this corridor; and maintaining the existing right-of-way from disposition and encroachment. The Sugar House Community Master Plan Draft supports the recommendations of the Salt Lake City Open Space Master Plan.

Trustees of the Sugar House Community Council voted to support the proposal to build a neighborhood park along the Canal Corridor. The vote was 11 in favor, 0 opposed, and 1 abstaining. The Community Council Trails committee will be pleased to help Mr. Adams with his project in any way we can.

Sincerely,

Lynne Olson, Correspondence Secretary  
Sugar House Community Council

Cc: Kevan Adams  
Rick Graham, SLC Public Services Department  
Tim O'Hara, SLC Public Utilities  
Karen Greenleaf, SLC Public Utilities  
Jeff Salt, Mayor's Open Space Advisory Committee  
Melissa Anderson, SLC Planning Division

*Lynne Olson*  
*1878 Lincoln Street*  
*Salt Lake City, UT 84105*  
*801-484-8352*

March 7, 2001

Stephen Goldsmith, Director  
SLC Division of Planning  
Salt Lake City & County Building  
SLC UT 84111

Re: Encroachments on Canal/McClelland Corridor

Dear Mr. Goldsmith,

Thank you for making the time to walk the rails with Melissa, Rawlins, Helen, and me last month. It was the first time in years that I had seen that part of the proposed trail corridor from that perspective. I enjoyed hearing your observations and ideas, and appreciated Dell Cook's comments, as well. I hope that we can learn about your trip to Germany and see your photos some time soon.

As we were walking through the Elizabeth Sherman Park, I mentioned to you that there were a few instances of encroachment along the Canal/ McClelland trail corridor, south of the Utah Light and Traction substation. I made notes about some of them on a field trip with Rawlins and Bill Allayaud last year. I have listed the addresses below. Residents in the Forest Dale neighborhood, through which the canal flows, have said that they have revocable permits to encroach on the City's property over the canal. One explanation for issuing the permits is that the Public Utilities Department welcomes citizen participation in the maintenance of public open space.

I also mentioned to you an encroachment policy for Salt Lake City which was prepared by the Planning Department in 1993, but which apparently is not being enforced. A copy of the policy is attached.

There seems to be a conflict between the needs of the City to maintain public property, the needs of the abutting residents who are accustomed to having the use of the land, and the needs of the rest of the public who want access to the corridor for a pedestrian/bicycle trail. Maybe this is a good time for the City to take another look at the process for granting revocable permits to private individuals for exclusive use of public property. And perhaps the old encroachment policy will offer some solutions to the conflict.

Again, thank you for your attention to Sugar House, and for listening to our concerns. And thank you for Melissa Anderson.

Sincerely,  
*Lynne Olson*  
Lynne Olson

South of Elgin (Salt Lake County?) there appears to be a fence across the parkway. Going north from Elgin, in Salt Lake City:

- A four-unit parking garage built over the canal east of duplex built at 1142-1144 Charlton
- Encroachment on Graystone Lane.



**From:** Lynne Olson [mailto:lynneolson@msn.com]

**Sent:** Thursday, May 19, 2005 3:32 PM

**To:** Zunguze, Louis

**Cc:** Spencer, John; Greenleaf, Karryn; Graham, Rick; Romney, Lisa; Wheelwright, Doug

**Subject:** Public Notice agenda, 5-25, SL Jordan Canal

## Mayor's Open Space Advisory Committee

Helen M. Peters, Chair  
2803 Beverly Street  
Salt Lake City, Utah 84106  
801-466-7170  
hmpeters@uofu.net

May 19, 2005

Louis Zunguze, Planning Director  
Salt Lake City Planning Division  
Salt Lake City Corporation  
451 South Statc Strcct, #406  
SLC UT 84111

Re: Public Notice Agenda – May 25, 2005/Jordan and Salt Lake City Canal

Dear Louis,

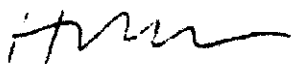
The Mayor's Open Space Advisory Committee [MOSAC] requests that items number 4b and 4c on the Planning Commission agenda for May 25, for use of the Jordan and Salt Lake City Canal rights-of-way, be removed from the public notice agenda and be placed on a public hearing agenda for the Planning Commission. We also request that prior to being placed on the public hearing agenda for the Planning Commission, these proposals be presented to the newly-created Open Lands Advisory Committee. The Open Space Lands Advisory Board is staffed by Rick Graham, Director of Public Services.

As you know, the MOSAC has had several discussions regarding encroachment by private property owners on publicly owned land. Members of MOSAC have made several requests to the Administration, requesting that the City enforce its policy regarding encroachment, with the purpose of securing the public's right to access public property. A letter sent on this subject last November is attached.

MOSAC continues to oppose any exclusive use of public property by private property owners. In particular, we oppose any encroachment on the historic Jordan and Salt Lake City Canal, because it has been identified as a potential bicycle-pedestrian trail in Salt Lake City's Open Space Master Plan. The Open Space Master Plan recommends that the City "maintain the existing right-of-way from disposition and encroachment" (p. 6).

Please don't hesitate to call me if you have any questions.

Regards,



Helen M. Peters, Chair

cc: Doug Wheelwright  
John Spencer  
Karryn Greenleaf  
Rick Graham  
Lisa Romney  
Members of the Open Lands Board

ENCROACHMENT POLICY.doc (Binary attachment)

Canal encroachment 1206 E Emerson, Hannah.doc (Binary attachment)

August 10, 2005

Councilmember Dale Lambert  
SLC Council District 7

Dear Dale,

Last month, I had the opportunity to walk along the Canal/McClelland Trail with Jill Remington Love and others to discuss the trail improvements that will be funded with District Five's Olympic Legacy money. Much of the discussion concerned encroachments on the canal corridor that might impede the improvements and compromise the success of the project. Jill asked Dell Cook to initiate a survey of the corridor to inventory the incidents of encroachment, in hopes of forestalling any conflicts that might occur.

Similar encroachments have occurred along District Seven's section of the Jordan and Salt Lake canal. Some of them have been permitted by SLC Public Utilities; many are illegal encroachments upon the public right-of-way. One of the more egregious examples is north of Brickyard Road, where, in 1988, Salt Lake City and County spent \$139,681.30 to cover a segment of the canal for future use as part of a linear parkway. Portions of that segment have since been fenced off for private use by adjacent homeowners. At 1142-44 East 2810 South, a four-unit parking garage has been built over the canal. In the 1980's, condominium development was permitted within inches of the canal.

Encroachment along the canal corridor, permitted or otherwise, poses two serious concerns. First, the construction of homes and garages close to or over the canal could damage the pipeline. Second, property owners whose use of the public land has been allowed or uncontested for a sufficient length of time could assume prescriptive rights to the land, and bar public access for use or improvements to the canal property.

In 1992, Salt Lake City prepared an encroachment policy to handle such issues, but it has never been enforced. I believe this is the right time to begin to grapple with the issue, and hope you will agree that a survey of the canal corridor is a good place to begin.

Sincerely,  
Lynne Olson  
1878 Lincoln St, 84105  
484-8352