600/700 North
Mobility, Safety, and Transit Improvements Study

DRAFT Existing Conditions Report

Introduction

This report summarizes the existing, and in some cases, projected conditions for the 600 and 700 North corridor. The report addresses the corridor infrastructure, the key transportation networks, and key aspects of community context. The report is organized into the following sections:

- Corridor Overview: Corridor structure and street configuration
- Vehicle Traffic Conditions: Roadway network, corridor volumes, traffic operations, and traffic safety
- Freight: East of I-15, west of I-215 and between I-15 and I-215
- Transit service: Existing transit service and planned transit improvements
- Active Transportation: Conditions for pedestrians and conditions for people on bicycles
- Land Use: Existing land use, zoning, and parks and recreation
- Utilities: Power poles, street lights, traffic signals, and utility boxes

Corridor Overview

Corridor Structure

Much of this plan is about transforming the 600/700 North corridor to better reflect the places the corridor serves. These places are largely defined by three types of elements: 1) community context; 2) nodes; and 3) gateways. These elements are shown on Figure 1. Each is discussed below.

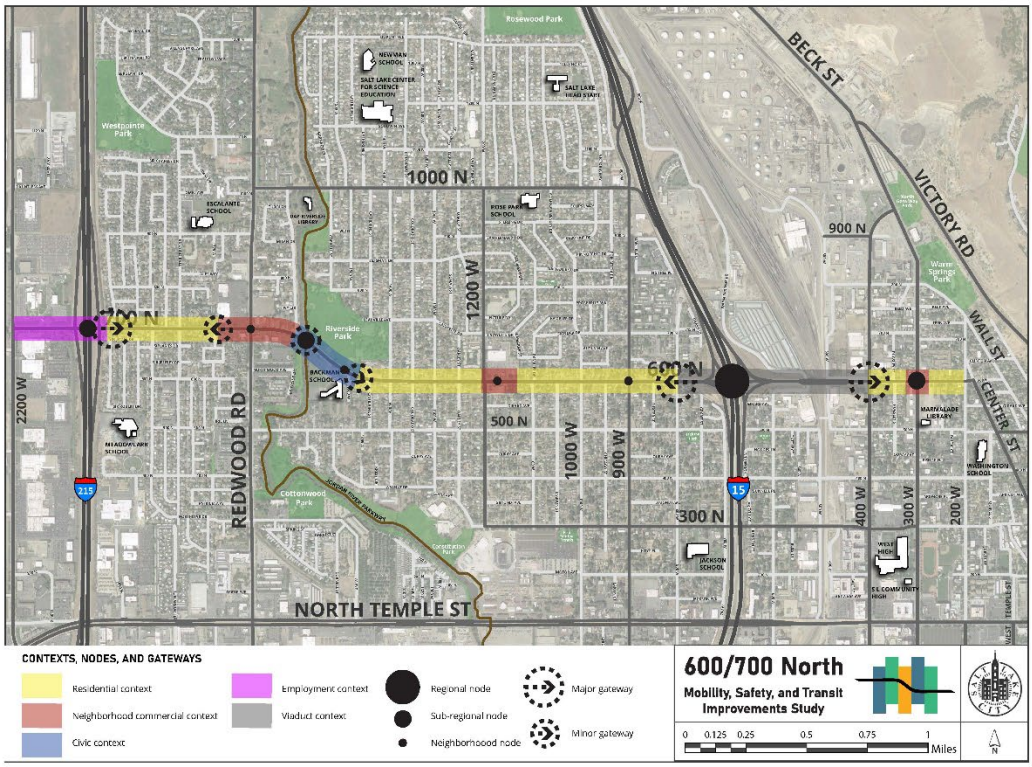


Figure 1: Contexts, Nodes, and Gateways

Community Contexts

Community context refers to the character of the places alongside the corridor. Community context influences how people use the corridor and should inform the design of the street. There are five types of contexts for the 600/700 North corridor: Residential, Commercial, Civic, Employment, and Viaduct.

Residential Context

The residential context is the most prevalent type of context along the 600/700 North corridor. The corridor is primarily comprised of residential neighborhoods, with other types of context periodically interspersed. The corridor's residential context is defined primarily by single family homes with some multifamily housing.

There are five segments of residential context along the corridor (west to east):

- I-215 to Sir Anthony Drive (approx. 1800 West)
- 1500 West to 1200 West
- Rambler Drive (1100 West) to 800 West
- 400 West to 300 West
- 300 West to 200 West

Figure 2: single family residential context (left); and multifamily residential context (right)

Neighborhood Commercial Context

While the character of the corridor is largely residential, short but distinct neighborhood commercial places exist periodically. Neighborhood commercial nodes exist where 600/700 North intersects a major commercial corridor like Redwood Road or 300 West. There is also a 'free-standing' node at 1200 West. The character of much of the neighborhood commercial is auto-oriented strip commercial. The exception is the 300 West area, where new redevelopment has begun to produce more walkable commercial areas.

There are three segments of neighborhood context along the corridor:

- Greater Redwood intersection
- Greater 1200 West intersection
- Greater 300 West intersection

Because of their locations at major cross streets, these commercial contexts are also considered "nodes" – see Nodes section below.

Note that some small off-corridor commercial context exists on the corridor, such as at 500 West and Oakley Street.

Figure 3: neighborhood commercial context

Civic context

Riverside Park, the Jordan River Parkway, and Backman Elementary School comprise a significant segment of what we call civic context: educational, recreational, and community destinations in the heart of the corridor. This context is largely defined by the need for neighborhood and, in some cases, citywide users to access these destinations from the 600/700 North corridor. It is also defined by people using the Jordan River Parkway and passing through the corridor. In general, this is one of the most identifiable segments of the corridor, creating the potential for a unique place.

Figure 4: Civic context

Employment context

A short segment of the corridor in the west end is surrounded by places of office and industrial employment, such as L3 Technologies and Federal Aviation Administration. This is a distinct segment, between I-215 and the corridor's west terminus at 2200 West. West of 2200 West, there are numerous airport and aviation land uses that are access-restricted, like the Air National Guard Base.

Figure 5: **Employment context**

Viaduct context

A relatively long segment of the corridor – approximately three-quarters of a mile - is defined by the lack of community context. The viaduct over the FrontRunner/Union Pacific rail tracks and I-15 takes the corridor out of community context for this segment, dividing the Marmalade area from the Rose Park/Fairpark areas to the west. This segment includes the I-15 single point urban interchange (SPUI).

Figure 6: Viaduct context

Street typologies

Salt Lake City is in the process of finalizing a system of context-based street typologies. These typologies supersede the Functional Classifications of Arterial, Collector, Local, etc. and provide broader guidance that incorporates all transportation modes while responding to the types of places that the streets serve.

Under the current draft typologies system, 600/700 North is classified as a series of typologies. In some ways these classifications align with the contexts above. The typologies applied to the corridor include (generally west to east):

- Neighborhood corridor: The typology that occurs most frequently, in three segments (I-215 to Star Crest; Riverside Drive to 1300 West; 1100 West to 800 West). Mirrors the "residential" context.
- Neighborhood center: One segment, from 1300 West to 1100 West, encompasses frontage of the "Smith's" commercial node.
- Urban Village Main Street: One segment, from Star Crest Drive to Riverside Drive, encompasses frontage of the Redwood Road commercial node.
- Two-way Thoroughfare: the viaduct from 800 West to 400 West
- Destination Thoroughfare: the far eastern end of the corridor, from 300 West to 400 West

Nodes

Nodes are places with concentrated transportation activity – whether through intersecting streets, transit access, trailheads and accesses, parking accesses, freight moving through, and crossing pedestrians and cyclists. The corridor has three types of nodes: 1) regional; 2) sub-regional; and 3) neighborhood.

Regional nodes

Regional nodes are access points used by longer-distance travelers from throughout the Wasatch Front region. They are also portals to the region for destinations within Salt Lake City.

The 600/700 North corridor has one regional node, at Interstate 15. This node is a popular access point to downtown Salt Lake City, the Utah State Capitol, and freight destinations to the north. This node is primarily an auto and freight node.

Sub-regional nodes

Similar to Regional nodes, Sub-regional nodes provide important access for those throughout the Wasatch Front, albeit at a smaller scale and for fewer subsets of people.

The 600/700 North corridor has three sub-regional nodes –

- I-215/700 North interchange – serves employment and neighborhoods access to I-215.
- Jordan River Parkway crossing of 700 North and Riverside Park – serves sub-regional access to the regional attraction of the parkway, as well as parking and access for the park.
- 300 West – serves access from the I-15 regional node, freight, and access to Marmalade destinations such as the Marmalade Branch Library.

Figure 7: I-215 and 700 North, example of a sub-regional node

Neighborhood nodes

Neighborhood nodes are places used by travelers primarily from the surrounding neighborhoods in order to access commercial, open space, educational or other amenities, or as a portal to the city and region.

The 600/700 North corridor has four neighborhood nodes:

- Two are commercial and coincide with the Neighborhood Commercial context: Redwood Road and 1200 West.
- The intersection of 600 North with 900 West, a collector-level street.
- Backman Elementary School, a major destination at specific times a day for students and their families.

Gateways

Gateways are the entries into places. On the 600/700 North corridor, gateways primarily mean entries into neighborhoods. With freeway interchanges and residential neighborhoods sitting side-by-side on this corridor, neighborhood gateways are crucial to establishing a sense of place and a sense of livability for residents, visitors, and through-travelers alike.

There are six key gateways along the 600/700 North corridor, divided into major gateways and minor gateways

Major gateways provide a transition between a regional freeway and a neighborhood. Major gateways include:

- I-15 to 600 North westward
- I-15 to 600 North eastward
- I-215/700 North

Minor gateways provide a transition between sub-regional streets or trails and neighborhoods. Minor gateways include:

- 600/700 North – transition from Redwood Road to 1500 West
- Redwood Road/700 North - westward
- 700 North/Jordan River Parkway – two-way north-south gateway between neighborhood and parkway

Figure 8: Example of a gateway element at 800 West

Street Configuration

The second key piece of the Corridor Overview is how the street is configured – how the different lanes, sidewalks, and landscape are put together. We look at this in two ways: longitudinally (how the street changes as one moves along the corridor) and in the cross section (the detailed configuration of the street at different points along the corridor).

Longitudinal Configuration

The project team diagrammed the lane configurations along the corridor shown on Figure 9. The corridor includes travel lanes, turn lanes, parking lanes, shoulders, bike lanes, sidewalks, and park strips.

As part of this longitudinal configuration, the team also mapped crosswalks, street trees, and bus stops.

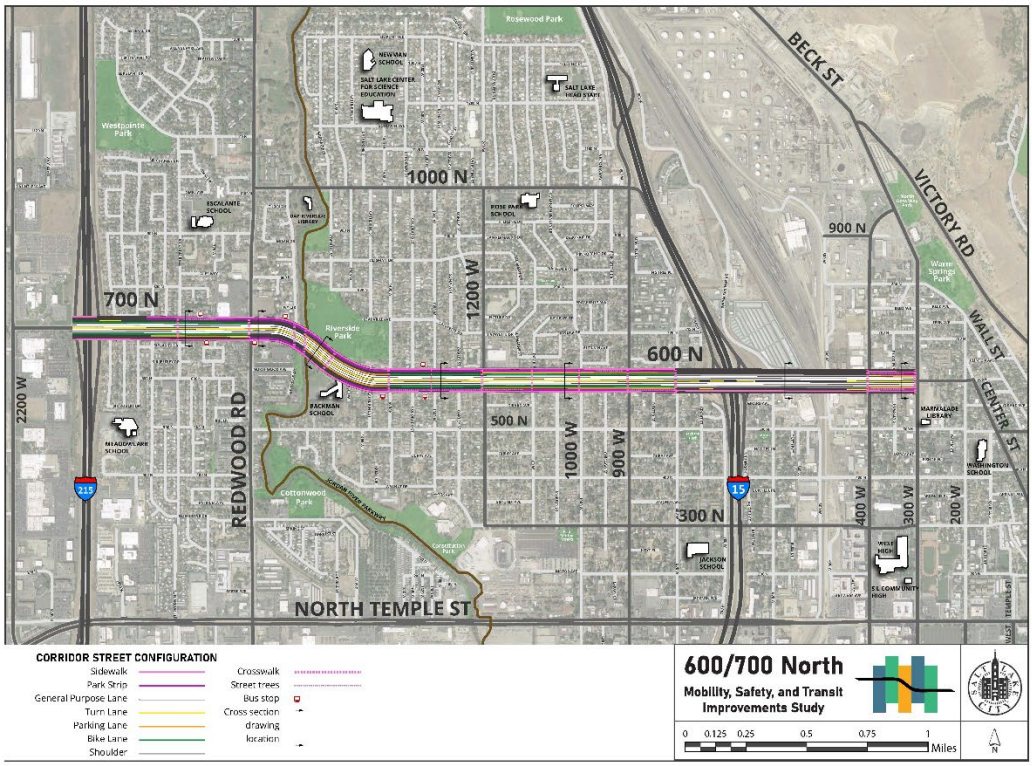


Figure 9: Corridor street configuration

Cross Section

Because of the variation in street configurations along the corridor, the project team drew existing cross sections at seven locations which are shown in Figures 10 to 16. This set of cross sections best represents the variety of cross sections typical of the corridor.

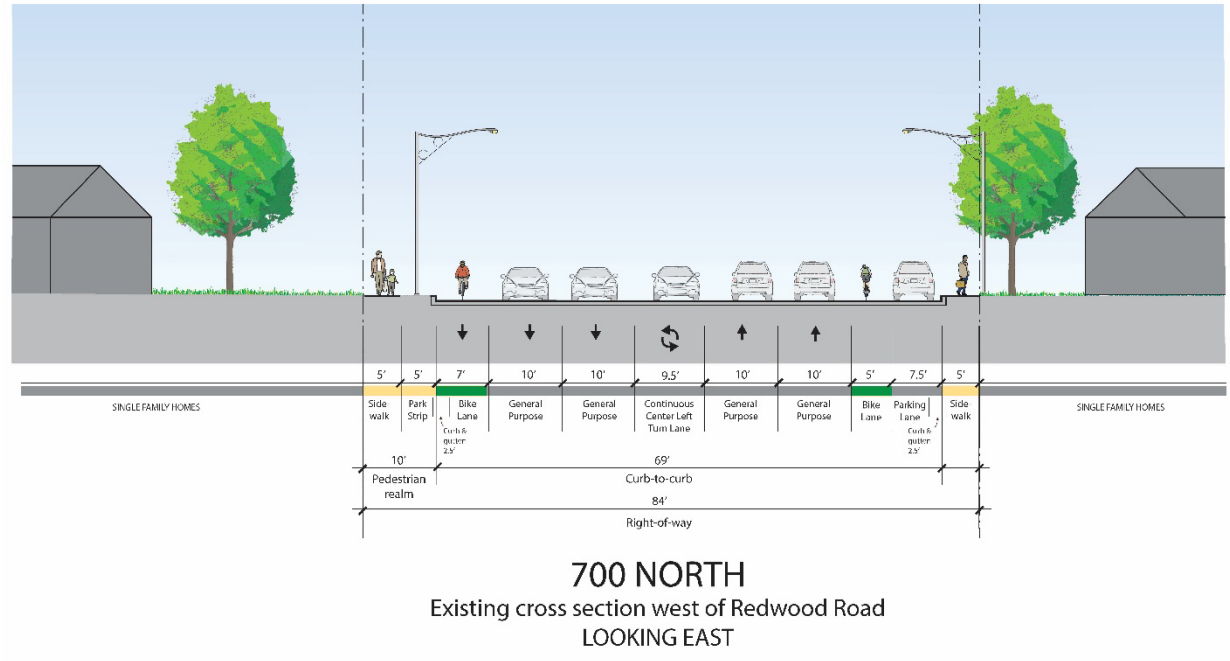


Figure 10: Typical corridor cross section, west of Redwood Road

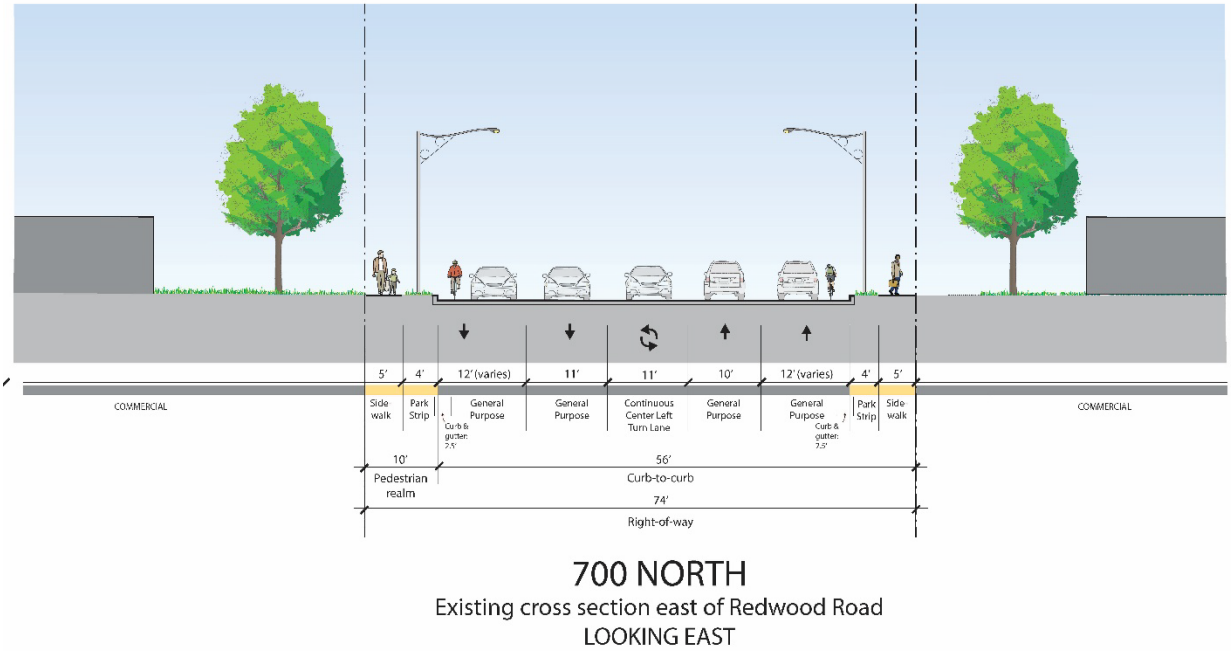
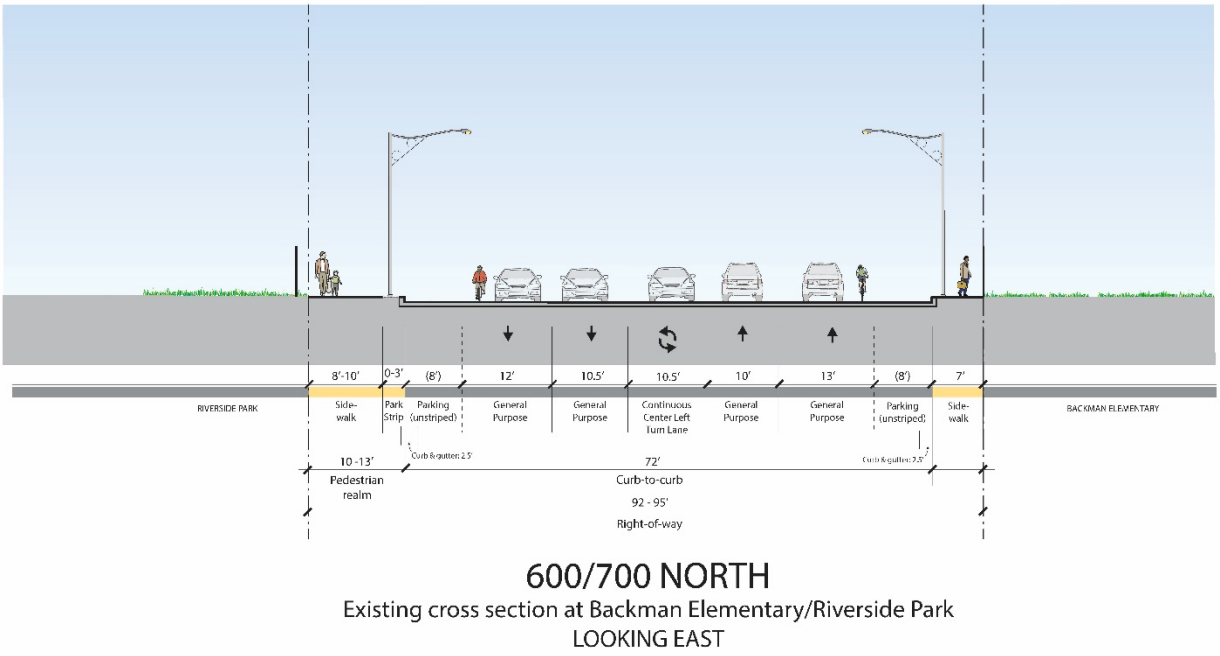
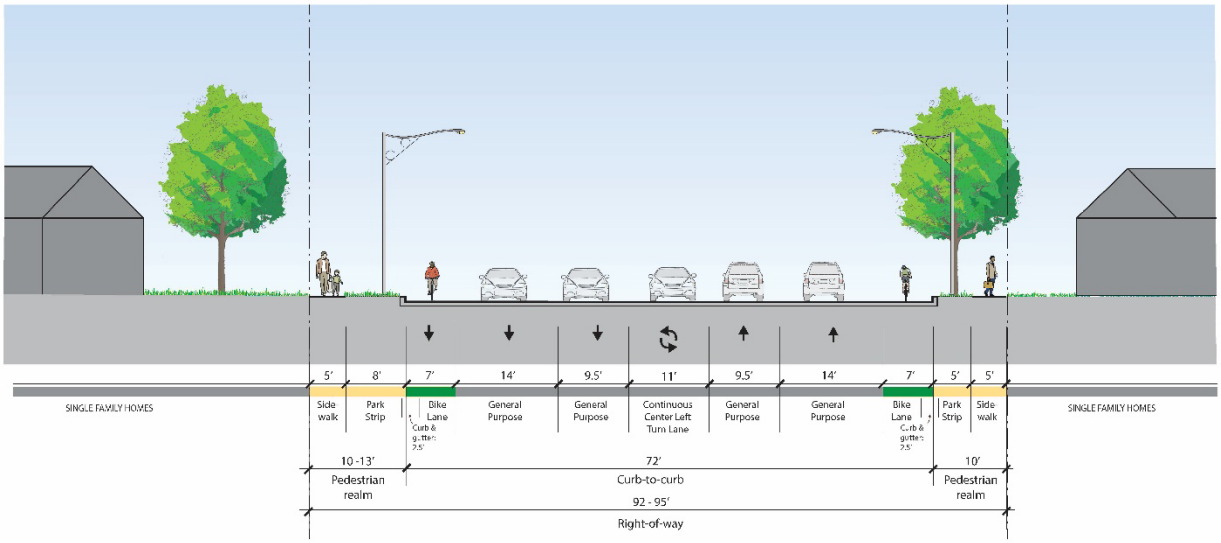


Figure 11: Typical corridor cross section, east of Redwood Road



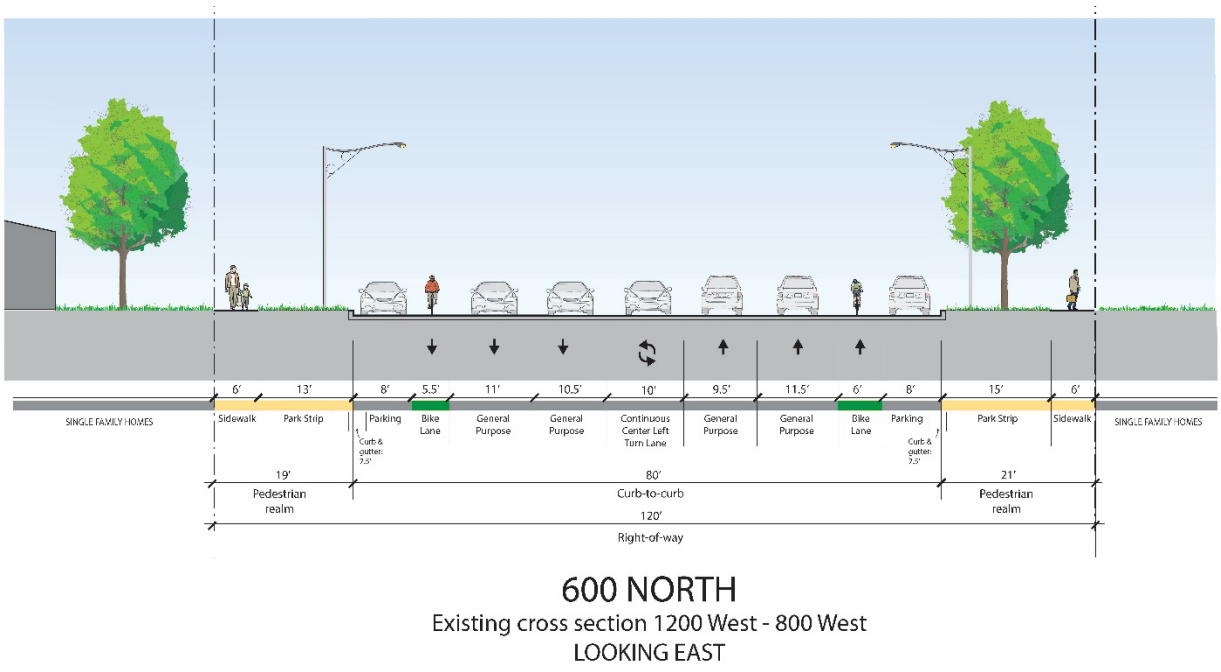
600/700 NORTH
Existing cross section at Backman Elementary/Riverside Park
LOOKING EAST

Figure 12: Typical corridor cross section at Backman Elementary and Riverside Park



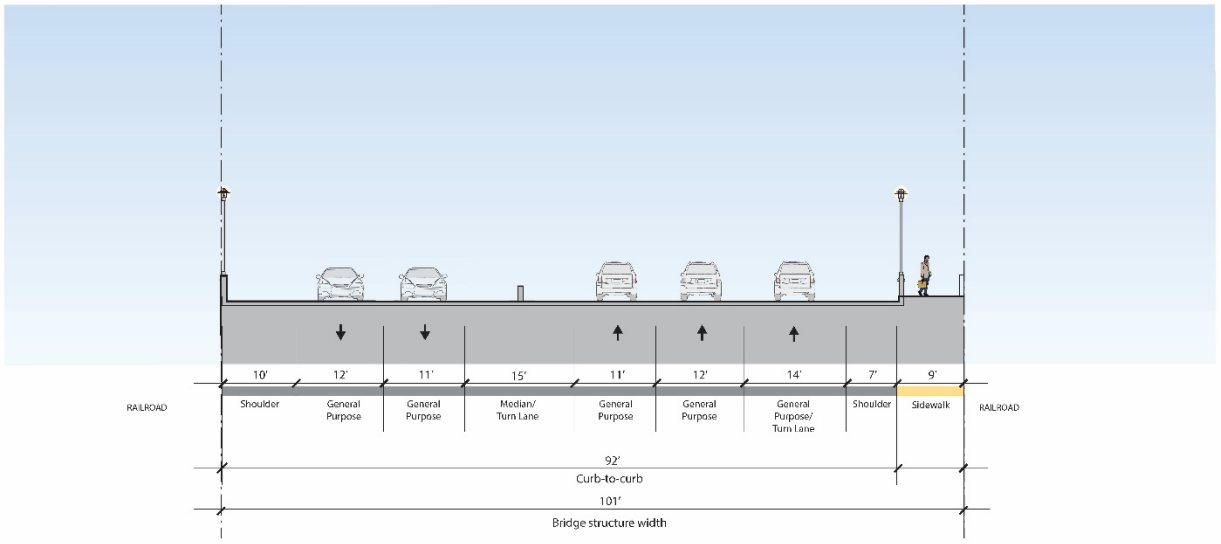
600 NORTH
Existing cross section 1400 West - 1200 West
LOOKING EAST

Figure 13: Typical corridor cross section, 1400 West to 1200 West



600 NORTH
Existing cross section 1200 West - 800 West
LOOKING EAST

Figure 14: Typical corridor cross section, 1200 West to 800 West



600 NORTH
I-15/Railroad structure
LOOKING EAST

Figure 15: Typical corridor cross section, I-15/railroad structure

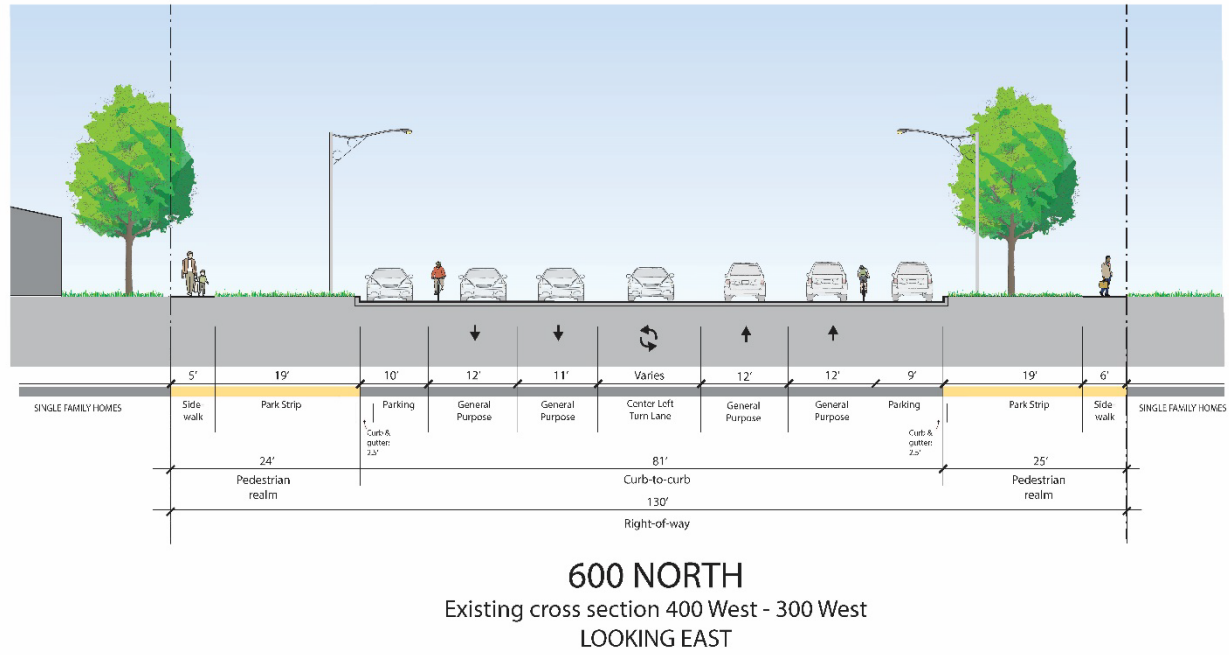


Figure 16: Typical corridor cross section, 400 West – 300 West

A "default" street configuration could be described as:

- Two through lanes each way
- Center turn lane
- Bike lane (unbuffered)
- Parking lane
- Pedestrian realm with sidewalk and park strip

However, some of these elements are inconsistent; for example, the bike lane is not continuous. Others street elements vary quite a bit in width, such as the travel lanes and the park strip.

The following analysis of the balance of person space (sidewalks, park strips, trails, pathways, and protected bike lanes) and through traffic space (general purpose lanes, turn lanes, and shoulders) reveals an overall imbalance of person space and traffic space on the corridor, especially on the west end. As the historic Salt Lake City 130-foot cross section transitions to a more suburban, constrained cross section of less than 100 feet, pedestrian space is sacrificed.

Table 1: Person space and traffic space in 600/700 North Corridor

Person space and through traffic space throughout 600/700 North corridor

** Based on recommended thresholds of at least 50% person space and no more than 40% through traffic space*

Section number	Section location	Total space	Person space	Through traffic space	Percentage person space	Percentage thru traffic space
Section 1	700 North west of Redwood Rd	84	15	49.5	18%	59%
Section 2	700 North east of Redwood Rd	74	18	56	24%	76%
Section 3	600/700 North at Backman	95	20	56	21%	59%
Section 4	600 North 1400 - 1200 West	95	23	60	24%	63%
Section 5	600 North 1200 West - 800 West	120	40	52.5	33%	44%
Section 6	600 North I-15 / Railroad structure	101	9	92	9%	91%
Section 7	600 North 400 West - 300 West	130	49	62	38%	48%

With these analyses, three key issues emerge:

- Range of rights-of-way: The effective corridor right-of-way (measuring from back-of-sidewalk to back-of-sidewalk) varies widely on the corridor, from as little as 84 feet (at the Redwood intersection) to as much as 130 feet (east of the I-15 viaduct).
- Lack of consistency: The corridor does not provide a consistent experience for many users, especially those on foot and bike. The key interruptions are at the I-15/rail viaduct, the "bend" where 600 North becomes 700 North, and at Redwood Road.
- Lack of matching of street design to context: Especially the wide-open roadway in the residential segments. Overall, there is little attention given in the current street design to the largely residential context.

Vehicle Traffic Conditions

Roadway Network

The 600/700 North corridor is an arterial road that runs east-west in Salt Lake City. The road connects to two major freeways (I-15 and I-215), and also intersects two arterial state routes (Redwood Road and 300 West). At approximately 1500 West, 600 North veers north to cross the Jordan River and becomes 700 North. Within the study area, the street spans from 2200 West (to the west) to Wall Street (to the east).

Street Functional Classifications

Salt Lake City has identified the functional classification of 600 North as a "City Street Arterial". As described in the *Salt Lake City Transportation Master Plan,* these streets "facilitate through traffic movement over relatively long distances such as from one end of the city to the other and from neighborhood to neighborhood. Arterials are generally Multi-Lane streets carrying high traffic volumes at relatively high speed limits. These are commuter streets and typically offer controlled access to abutting property."

Traffic Control

600 North is controlled by traffic signals at freeway interchanges, as well as intersections with primary arterials, minor arterials, collector streets, side streets, and at some pedestrian-activated crossings. There is a total of 10 traffic signals along the length of the corridor, and two pedestrian-activated signals. Most the signal controlled intersections have between ¼ mile and ½ mile spacing with ¾ miles as the longest distance between the Redwood Road to 1200 West.

Speed Limits

The posted speed limit on the 600 / 700 North corridor in the study area between 400 West and 2200 West is 35 miles per hour (mph). The speed limit on 600 North decreases to 25 mph east of the 400 West intersection. North-south roads which intersect the 600 / 700 North corridor mostly have 25 mph speed limits; however, there are several roads with higher speed limits including 2200 West with a 45 mph limit, Redwood Road with a 35 mph speed limit, 400 West with a 30 mph speed limit, and 300 West with a 40 mph speed limit. In addition to the north-south cross streets, I-215 and I-15 on the western and eastern edges of the corridor are 70 mph facilities and have interchanges to the 600 / 700 North corridor.

Parking

On-street parking is allowed on some parts of the corridor. Parallel, curb-side parking is permitted on 600 North from 800 West to 1100 West that has parking on both sides of the street. A section of 700 North between Morton Drive and Redwood Road has parallel, curb-side parking on the south side of the street.

In front of Backman Elementary School, the roadway shoulder is used for bus parking and drop-off on school days but can be used as parking on weekends, holidays, and in the summer. This area, which is located on the corridor's curved section, has been noted to be used heavily, along with the Backman Elementary School parking lot, for pick-up, drop-off and parking for sports events that occur at Riverside Park.

Corridor Volumes

Intersection turning movement counts were conducted during the weekday AM and PM peak hours at the following intersections along the 600/700 North corridor in February 2020:

- I-215 Southbound Ramps
- I-215 Northbound Ramps
- Redwood Road
- 900 West
- 400 West
- 300 West

These counts were captured during typical weekday traffic volumes at each of the intersection movements in 15-minute intervals. In addition to the intersections listed above, weekday AM and PM traffic counts were obtained from Salt Lake City at the following intersections:

- I-15 Interchange/600 North
- 1200 West/500 North

All of the intersection turning movement counts were used to evaluate current traffic volumes and travel patterns on the 600/700 North corridor as well as the parallel 500 North corridor during the weekday peak hours as well as over an average weekday. These turning movement counts were also used as the basis for the traffic operations model of the 600/700 North corridor.

The highest traffic volumes along the corridor were observed between 400 West and the I-15 SPUI. This segment of 600 North serves a high volume of vehicles entering and exiting Downtown Salt Lake City on 300 West and 400 West via the I-15 interchange (see Regional Nodes, above). During the weekday AM peak hour, there were approximately 1,850 eastbound right-turns from 600 North to either 300 West or 400 West which accounted for nearly 50 percent of the total traffic on that corridor segment. Conversely, during the weekday PM peak hour there were approximately 1,300 northbound left-turning vehicles from 300 West or 400 West turning onto 600 North with the majority of the vehicles assumed to travel to the I-15 SPUI. With this magnitude of volumes traveling to/from the south, it is necessary to employ efficient intersection timing and other congestion management strategies on the eastside of the corridor in order to prevent excessive traffic congestion during peak periods.

Traffic volumes on the west side of the corridor at the I-215 interchange were lower during the weekday peak hours than on the east side. During the weekday AM peak hour, the highest demand movements include traveling to 2200 West from 700 North and the I-215 northbound off-ramp and westbound traffic on 700 North traveling to the I-215 southbound on-ramp. During the weekday PM peak hour, traffic volumes at the 700 North interchange followed reverse patterns with a high-percentage of drivers traveling to the I-215 southbound on-ramp from the east and west sides of the interstate.

Along the 600/700 North corridor between the two freeways, the traffic volumes are fairly consistent with the Redwood Road intersection and the 900 West intersections having the highest volumes. It is likely that the majority of drivers are not typically using the corridor as a thoroughfare and are instead accessing homes and businesses after traveling to the neighborhood on regional connections like I-15, I-215, and Redwood Road.

The estimated average weekday traffic along the corridor, which allows for a visualization for how traffic volumes change along different segments of the corridor is included in Figure 17. Similar to the weekday peak hours, the highest traffic volumes on the corridor are on the eastern segments between I-15 and 400 W which serves as a regional node into Downtown Salt Lake City. Daily traffic volumes west of I-15 are typically between 13,000 and 18,000 daily vehicles on 600/700 North and 2,000 daily vehicles on 500 North.

Figure 17: 600/700 North and 500 North, Average Daily Traffic Weekday Volumes

Traffic Operations

Traffic operations along the corridor were modeled for the weekday AM and PM peak hour by Salt Lake City staff using a VISSIM microsimulation model. This model allows for the evaluation of traffic flow through the closely spaced signalized intersections on either end of the corridor near the freeway interchanges.

Once alternatives are developed for this project, the VISSIM model will allow for a detailed analysis of traffic operations along the corridor. The proposed alternatives will be analyzed relative to the existing conditions to analyze the impacts to travel times, speed, delay, and queuing along the 600/700 North corridor.

Due to variations in traffic volumes throughout each of the peak hours, traffic operations at each intersection were evaluated in three-minute increments. Each intersection was analyzed to determine the total minutes within the 60-minute peak hour in which the average vehicle delay on a single approach exceeded 55 seconds per vehicle. An average vehicle delay of 55 seconds is equivalent to Level of Service (LOS) E by Highway Capacity Manual (HCM) 2010 methodology and is the typical threshold used where traffic flow begins to break down and drivers may have to wait for more than one signal cycle to proceed through an intersection. In addition to the total minutes of delay, the percentage of the peak hour which each approach operates with LOS E or worse traffic conditions was also evaluated.

Existing traffic operations along the 600/700 North corridor for the weekday AM and PM peak hour are summarized in Table 1. Consistent with standard practice, traffic operations characteristics at the I-215 interchange were evaluated as a single intersection.

Table 2: Existing Weekday Peak Hour Traffic Congestion

Intersection / Approach	Weekday AM Peak Hour Congestion		Weekday PM Peak Hour Congestion	
	Minutes	Percentage	Minutes	Percentage
I-215 / 700 N				
Eastbound	0	0%	18	30%
Westbound	33	55%	0	0%
Northbound	24	40%	0	0%
Southbound	0	0%	39	65%
Redwood Road / 700 N				
Eastbound	0	0%	0	0%
Westbound	0	0%	0	0%
Northbound	0	0%	0	0%
Southbound	0	0%	0	0%
900 W / 600 N				
Eastbound	0	0%	0	0%
Westbound	0	0%	0	0%
Northbound	0	0%	0	0%
Southbound	0	0%	0	0%
I-15 / 600 N				
Eastbound	6	10%	0	0%
Westbound	0	0%	0	0%
Northbound	0	0%	0	0%
Southbound	0	0%	0	0%
400 W / 600 N				
Eastbound	0	0%	3	5%
Westbound	0	0%	0	0%
Northbound	0	0%	18	30%
Southbound	0	0%	15	25%
300 W / 600 N				
Eastbound	0	0%	0	0%
Westbound	0	0%	0	0%
Northbound	6	10%	0	0%
Southbound	0	0%	0	0%

As shown in Table 2, none of the intersection approaches is anticipated to operate at LOS E or worse for the entire weekday AM or PM peak hour. During the weekday AM peak hour, the greatest amount of delay is anticipated at the I-215/700 North interchange with LOS E operations anticipated on the Westbound and Northbound approaches. In the weekday PM peak hour, the I-215/700 North interchange and 400 W/600 North intersections had LOS E congestion for part of the peak hour on

multiple approaches. Overall, peak hour traffic congestion along the corridor is primarily focused around vehicles traveling to the two interstate interchanges on the east and west sides of the corridor with minimal traffic congestion noted on 600/700 North between the two interchanges.

Traffic Safety

An analysis of current safety conditions along the corridor helps identify any problematic areas and can inform plans for future improvements. This section provides an overview of crash data for the 5-year period of 2014-2018.

All Crashes

The relative density of all crashes along the corridor and the parallel 500 North corridor between 2014 – 2018 is shown in Figure 18, a heatmap that shows the relative density of all crashes along the corridor. As observed, the highest concentration of all types of crashes on 600/700 North occurred at the intersection of 700 North and Redwood Road. Other areas with elevated crash rates include the intersections at 1200 West, and at 300 West.

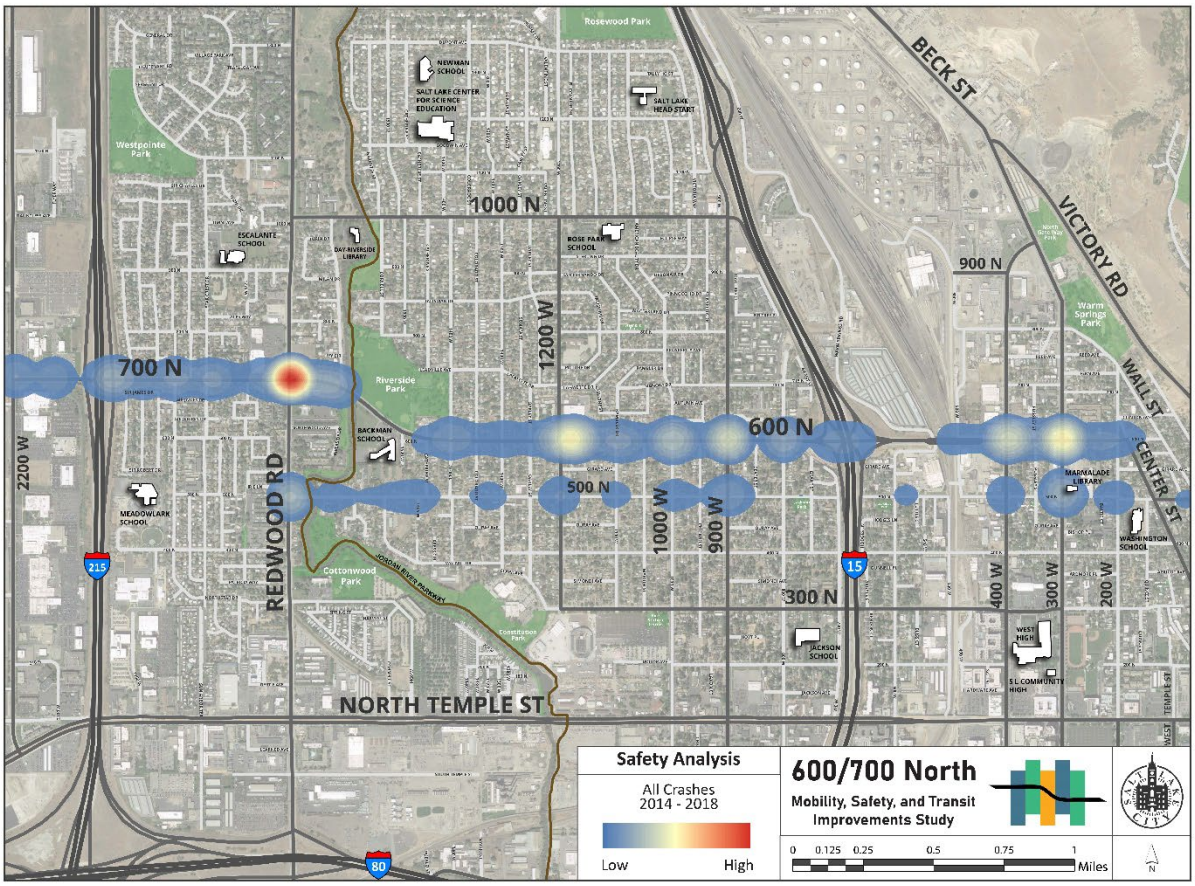


Figure 18: 600/700 North and 500 North, all crashes, 2014-2018

500 North had relatively few crashes compared to 600/700 North overall, though increases were also observed at Redwood Road and 300 West.

Severe Crashes

Severe crashes (crashes that resulted in serious injuries or death) along the study area corridors are shown in Figure 19 and shows a similar trend to the overall crash rates. The majority of severe crashes within the study area occurred at the Redwood Road intersection with the 900 West intersection also having a higher share of severe crashes.

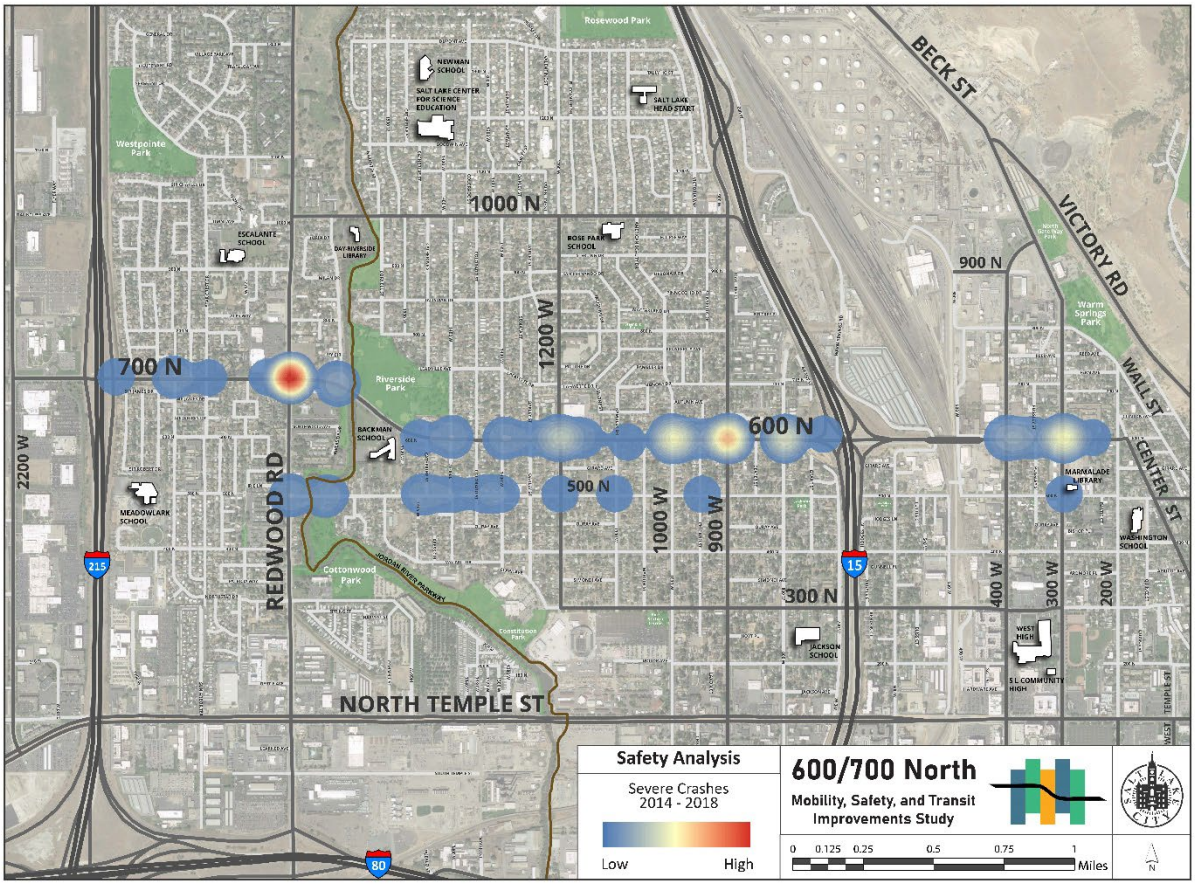


Figure 19: 600/700 North and 500 North, severe crashes 2014 - 2018

500 North only had a few severe crashes reported during the 2014-2018 period. This is presumably due to the lower traffic volumes as well as the lower speed limit and street design elements which reduce the severity of crashes.

Bicycle/Pedestrian Incidents

All bicyclist and pedestrian involved incidents from 2014-2018 are shown in Figure 20. On 600/700 North, most incidents occurred on 600 North between 800 West and 1200 West. There was one fatal incident at 800 West which occurred in 2017 and involved a person driving eastbound that hit and killed a person walking in the west leg crosswalk. In response to this incident, the intersection was upgraded with curb bulbouts and center median refuge island to shorten the crossing distance and a Rectangular Rapid Flashing Beacon was installed. On 500 North there were few incidents overall, though one fatal incident occurred at 465 West.

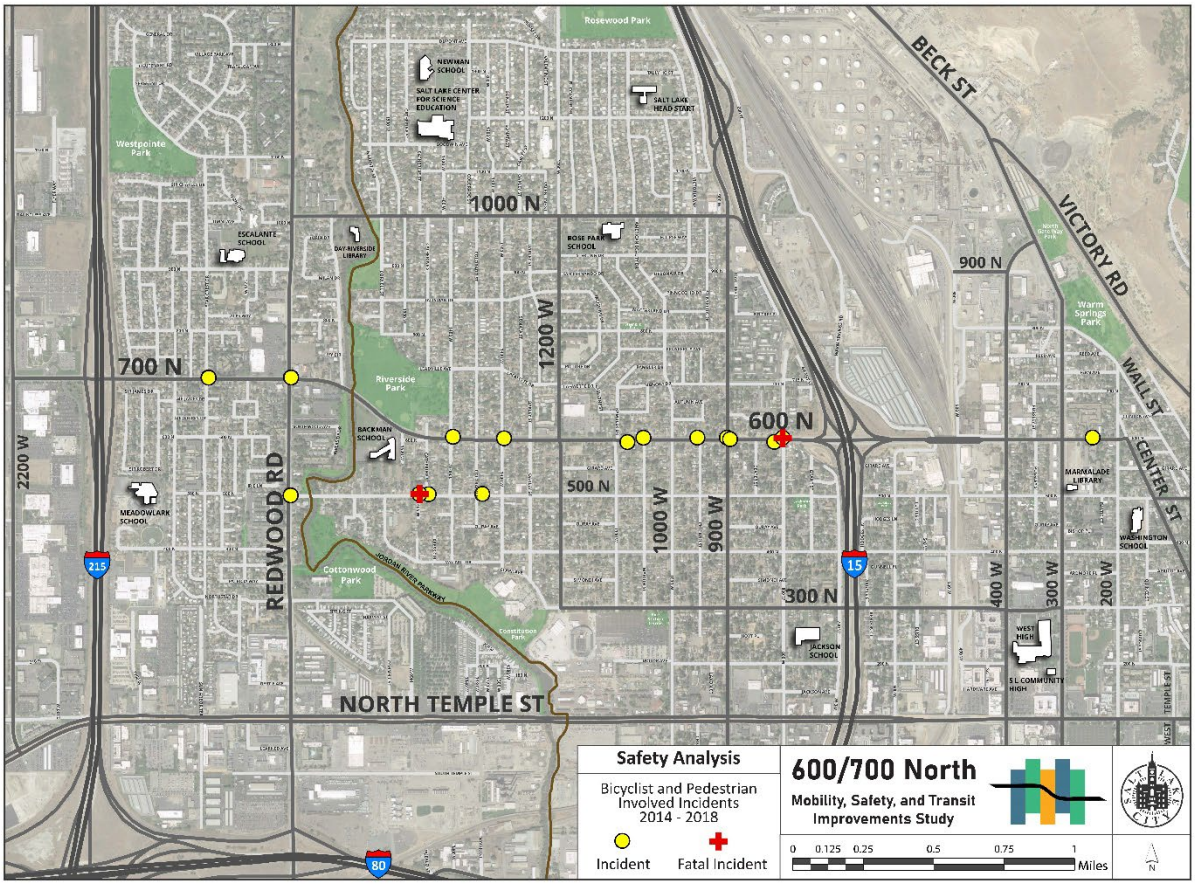


Figure 20: 600/700 North and 500 North, bicyclist and pedestrian involved incidents 2014 - 2018

Traffic speeds

A speed analysis was conducted by Salt Lake City on the corridor near the 1300 West intersection over an eight-day period June 2019. For drivers traveling in the eastbound direction, approximately 50 percent of the vehicles were recorded traveling faster than the posted 35 mph speed limit with about 12

percent (approximately 5,000 vehicles over the eight-day study) of vehicles traveling greater than 5 mph over the posted speed limit.

For the westbound direction, approximately 70 percent of all drivers on the corridor were traveling faster than the posted speed limit with 25 percent traveling greater than 5 mph over the posted speed limit. Over the course of the study, approximately 650 of the vehicles were observed traveling faster than 50 mph (15 mph over the speed limit) with a top speed of 75 mph recorded. This information suggests the posted speed limit is inconsistent with the design of the street, as evidenced by the fact that drivers consistently feel comfortable driving above the posted speed limit.

Parallel to the 600/700 North corridor, vehicle speeds were also analyzed on 500 North near 1400 West over a ten-day period in February 2019. This road has a speed limit of 25 mph is primarily a neighborhood street but has connections to major north-south corridors in the central part of the study area. This street has a different character than 600/700 North as the street is narrower, unstriped and curbside parking is typically allowed on both sides. There are numerous residential access driveways along the street with several marked crosswalks for people walking and bicycling. In the eastbound direction, approximately 75 percent of the vehicles were measured traveling above the posted speed limit with greater than 25 percent of all drivers traveling greater than 5 mph over the speed limit. Similarly, in the westbound direction, 65 percent of all vehicles were measured traveling above the posted speed limit with 20 percent of drivers traveling greater than 5 mph over the speed limit.

Along the corridor near the I-15 interchange contributing factors such as the SPUI design, extended viaduct crossing over the railroad tracks, and wide travel lanes can lead to drivers feeling comfortable driving speeds higher than the posted speed limit. This can cause speeding issues on the corridor in areas where bicyclists or pedestrians may be trying to cross or other drivers are turning into residential or commercial drivers. Higher speeds give drivers less time to react to potential hazards in the roadway and contribute to increasing quantity and severity of crashes. On the corridor, it is likely that drivers traveling in the westbound direction were observed having higher speeds due to the proximity to the I-15 interchange. As drivers exit the freeway and travel west on 600 North, along with a downhill grade from the viaduct, there are limited roadway cues that signal to drivers to travel slower speeds due to the width of the corridor and ease to continue to travel at higher speeds.

In addition to driver safety, comfort and safety for people walking and bicycling is greatly affected by the speed of drivers in the adjacent travel lanes. Studies have shown that when a person is hit by a driver traveling 40 mph, the person walking or bicycling only has a 20 percent chance of surviving the crash. As vehicle speeds are reduced, people have a 40 percent chance of surviving being hit by a vehicle when it is traveling 30 mph and 90 percent chance of surviving when the vehicle is traveling 20 mph.

Changes to the geometric design of roadways and instituting traffic calming measures, such as reducing sight distance and narrowing lateral space, can reduce the speed of vehicles. This can contribute to a more comfortable environment for people walking and bicycling and increase overall safety of the corridor for all users.

Freight

With 600/700 North bounded by I-15 on the east and I-215 on the west, the interchanges act as important nodes for local and regional freight traffic. The primary freight-generating land uses on the corridor are described in the sections below.

East of I-15

East of I-15 and north of the 600/700 North corridor along US-89 are numerous industrial land uses that generate freight traffic on a daily basis. US-89 is also designated an intermodal connector in the 2017 *Utah Freight Plan*. This area is primarily zoned as light and heavy manufacturing and includes the Marathon oil refinery and Utah Sand and Gravel among other industrial land uses. Over the course of the day, UDOT traffic counts show approximately 12 percent of the total daily vehicles on 600 North east of I-15 are heavy vehicles (commercial tractor-trailer vehicles) .

Heavy vehicle traffic counts were conducted at the 400 West/600 North intersection during the weekday AM peak hour. The counts show approximately 11 percent of all eastbound left-turns from 600 North to 400 West were heavy vehicles and approximately 14 percent of all vehicles on the southbound right-turn were heavy vehicles. These vehicles are likely using the 600 North interchange from I-15 to access the land uses located on 300 West and 400 West with only a small percentage of the heavy vehicles continuing on 600 North west of I-15. Overall, the percentage of trucks on this segment is less during the peak hour than estimated throughout the other off-peak hours of the day. This is likely due to the higher proportion of private vehicles during the weekday commute periods and fewer trucks on the road during the peak traffic periods.

West of I-215

West of I-215 on the 700 North corridor, the land uses are primarily zoned light manufacturing and includes a mix of industrial and office uses between 2200 West and I-215. On the west side of 2200 West, there are airport-related uses which have access to the Salt Lake City Airport runways. Freight vehicles accessing this area likely use the 700 North interchange from I-215 to access other regional freeways.

Between I-15 and I-215

Due to the land use zoning along the 600/700 North corridor and the location of the I-15 and I-215 interchanges, there is only a small demand for freight vehicles along the interior portion of the corridor to serve the local uses. Local heavy delivery vehicles can use either the 600/700 North corridor or Redwood Road to access local businesses for deliveries and pick-ups. Along Redwood Road near the 600/700 North corridor, data from UDOT show approximately 96 percent of the vehicles are cars with three percent single-unit trucks and one percent combination trucks. There is likely a similar or slightly smaller share of heavy vehicles along the 600/700 North corridor.

Transit Service

Although the corridor is located near Downtown Salt Lake City and within a mile of the Utah Transit Authority (UTA) TRAX Green Line, the corridor and the adjacent residential neighborhoods are not served well by the existing transit service. The existing transit service on and near the corridor as well as current plans for expanded transit service in the area are described in the following sections.

Existing Transit Service

Existing transit service along the 600/700 North corridor is provided by the Utah Transit Authority (UTA). The sole transit route along the corridor currently is Route 519. This route has approximately 60-minute headways begins at the Salt Lake Central Station and runs in a clockwise loop through the Fairpark and Rose Park neighborhoods.

In addition to Route 519, several bus routes cross the corridor at various points. The bus routes are shown in the Table 2 below:

Table 3: Existing Transit Service along the 600/700 North Corridor

Transit Route	Primary Corridor in Study Area	Service Area
Route F522	2200 W	1950 N to N Temple St
Route 456	2200 W	Ogden to N Temple St
Route 217	Redwood Rd	Rose Park to West Jordan
Route 519	1200 W/900 W	Rose Park to Downtown
Route 455	300 W	Weber St University to U of U
Route 460	300 W	Woods Cross to Downtown SLC
Route 470	300 W	Ogden to Downtown SLC
Route 471	300 W	Centerville to Downtown SLC
Route 472	300 W	Riverdale to Downtown SLC
Route 473	300 W	Ogden to U of U

As shown in Table 3, with the exception of the Route 217 along Redwood Road, all other transit routes crossing the corridor are along either the eastern (400 West) or western extent (2200 West) of the study area and are not focused on serving the corridor neighborhoods.

The nearest UTA TRAX stations are located on North Temple Street and serve the Green Line. The Green Line provides service between the Salt Lake City Airport and West Valley Mall via Downtown which allows for transfers to other rail and bus lines. However, this is approximately 1 mile from the corridor (20 to 30-minute walk). Due to the Jordan River, the street grid, and the existing development patterns in the area, there is typically not direct walking routes connecting 600/700 North to the North Temple Trax stations.

Planned Transit Improvements

One of the primary goals listed in the current *Salt Lake City Transit Master Plan* (2017) is to implement a Frequent Transit Network throughout the City. The Frequent Transit Network would utilize the City's grid system and provide frequent and reliable service everyday with headways of 15-minutes or less during the day and 30-minutes in the early morning and late evening. By providing frequent and reliable service, transit riders are more willing to show up at a stop without consulting a schedule and feel confident they can make spontaneous change of plans because things come up.

UTA has begun implementing the Frequent Transit Network along existing corridors in the City which already have transit service on 200 South, 900 South, and 2100 South. Since these corridors already had service, beginning service meeting the Frequent Transit Network goals only involved increasing service on them to allow for shorter headways during the day and expanded service hours during the mornings and evenings.

Remaining Frequent Transit Network improvements within this project's study area include additional high-priority corridors which would include frequent service on the 600/700 North corridors and Redwood Road as well as longer-term implementation plans for frequent service on 900 West and 1000 North. With the implementation of the complete Frequent Transit Network, mobility by transit along the 600/700 North corridor as well as for the surrounding neighborhoods will be greatly increased allowing for reliable and frequent connections to and from Downtown Salt Lake City, North Temple, and along Redwood Road. Similarly, the Redwood Road frequent transit line would run from approximately 700 North to Sandy Civic Center. This would provide frequent and reliable transit service for individuals into the heart of the Rose Park / Fairpark neighborhood along the study corridor and would provide close connections to the 600/700 North frequent transit line. In addition, the Redwood Road line would provide an important, direct north-south transit corridor to enhance mobility through Salt Lake County without needing to travel through the Downtown area.

The existing transit service within the study area, as well as the planned future Frequent Transit Network routes are shown on Figure 21.

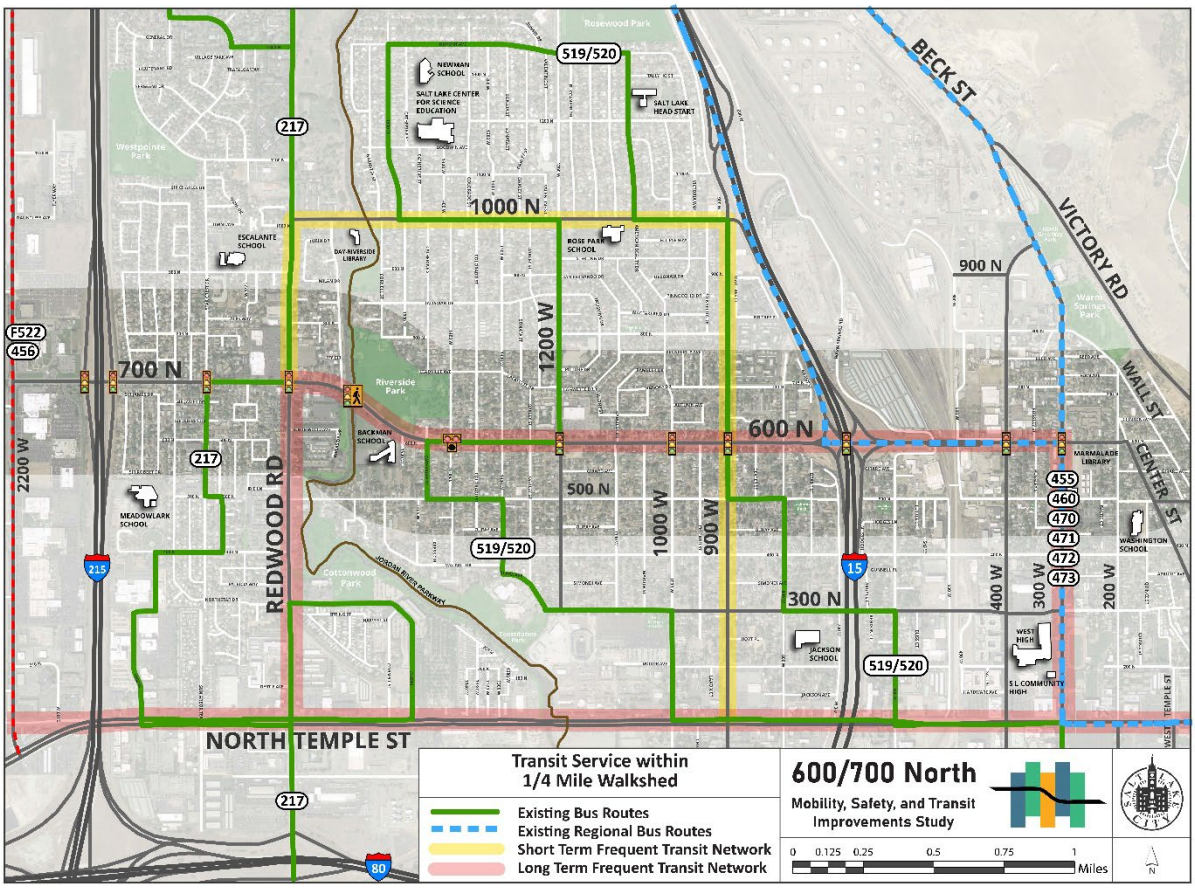


Figure 21: Transit service

Active Transportation

This section examines accommodations for pedestrians and bicyclists traveling along and across the 600/700 North corridor; analyzing existing infrastructure through the lens of user comfort and accessibility. While consideration has been given to more vulnerable road users through past improvement projects, the corridor does not achieve an environment that encourages safe and comfortable walking and biking.

Conditions for pedestrians

Access along the corridor

Taking an inventory of pedestrian access along the corridor reveals that several ramps and sidewalks don't meet current ADA[1] standards and leave room for improvement to the overall comfort of pedestrians. Figure 22 highlights access issues along the corridor which are described in detail in the following sections.

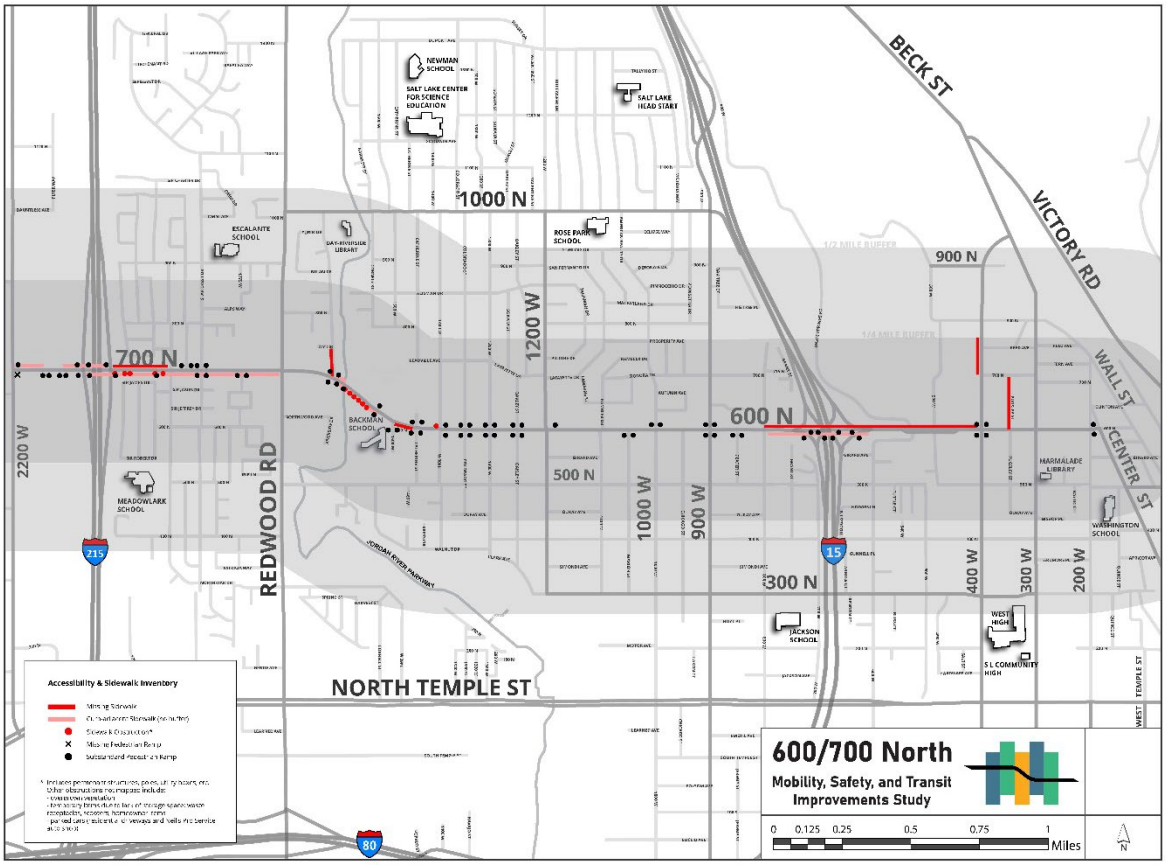


Figure 22: Accessibility and sidewalk inventory

[1] Americans with Disabilities Act

Substandard and non-existent ramp locations

- The two primary reasons pedestrian ramps were deemed "substandard" are 1) the lack of sufficient detectable warning and 2) poor ramp orientation. The current City standards for pedestrian ramps use truncated dome detectable warning surfaces, usually brick pavers or composite panels cast-in-place; however many ramps were originally installed with concrete scored for traction, but without the standard truncated domes. have likely changed since the construction of these ramps and the majority of ramps should be updated. Ramp orientation is an important element particularly for individuals with vision impairments and those in wheelchairs. Poorly oriented ramps can direct pedestrians into harm's way by not aligning them with the crosswalk or the ramp opposite the street. Issues not mapped but that are prevalent along the corridor include:
    - Ramp slopes that are too steep in relation to the cross slope of the street, creating a dip that is too difficult for people in wheelchairs and pushing strollers to traverse. See photo of low angle shot of gutter pan below.
    - Upheaved concrete that creates tripping hazards and difficult bumps for small wheels, including front wheels of wheelchairs and strollers.

Figure 23: Repeated asphalt overlays combined with steep sidewalk ramps create abrupt dips that make it difficult for pedestrians with wheels to safely cross the street.

Sidewalk obstructions

- For the purposes of this analysis, obstructions were considered anything permanent in nature such as structures, utility poles, utility boxes, etc. Other obstructions not mapped include overgrown vegetation, temporary items due to lack of storage space or maintenance (e.g. waste receptacles, shared e-scooters, and homeowner possessions), and parked cars in residential driveways and in local commercial driveways.

Missing sidewalks

- Looking at all sidewalks along the corridor and connecting sidewalks within a quarter-mile of the corridor, existing gaps within the sidewalk network are highlighted in Figure 22.

Curb-adjacent sidewalks

- Curb-adjacent sidewalks are sidewalks that lack any kind of buffer between the pedestrian realm and the street. These exist near the two freeway interchanges as well as in front of Backman Elementary School, as shown in Figure 24. Between 1200 West and 800 West, ample buffers are present (12-16' planted park strips) are shown in Figure 25. Elsewhere throughout the corridor, three to five-foot buffers are present providing some added comfort to the pedestrian experience. Figure 22 indicates locations where no buffer is present.

Figure 24: Curb-adjacent sidewalk in front of Backman Elementary School.

Figure 25: Between 800 and 1200 W, 12-16' landscape buffers provide pedestrians with ample separation from traffic.

Crossing the Corridor

It was widely recognized by stakeholders during the initial phases of the planning process that 600/700 North is a strong divide between neighborhoods north and south of the corridor due to high traffic speeds, width of the roadway, and limited opportunities for safe crossing. Figure 26 identifies every crossing of the corridor within the study area for people traveling by foot or bike. Crossing types include:

- Full signals (10)
- Hybrid beacons (one at 1400 West)
- Rectangular Rapid Flashing Beacons, or RRFBs (one at 800 West)
- Marked crosswalks (4)
- Stop-controlled intersections (one at 200 West)

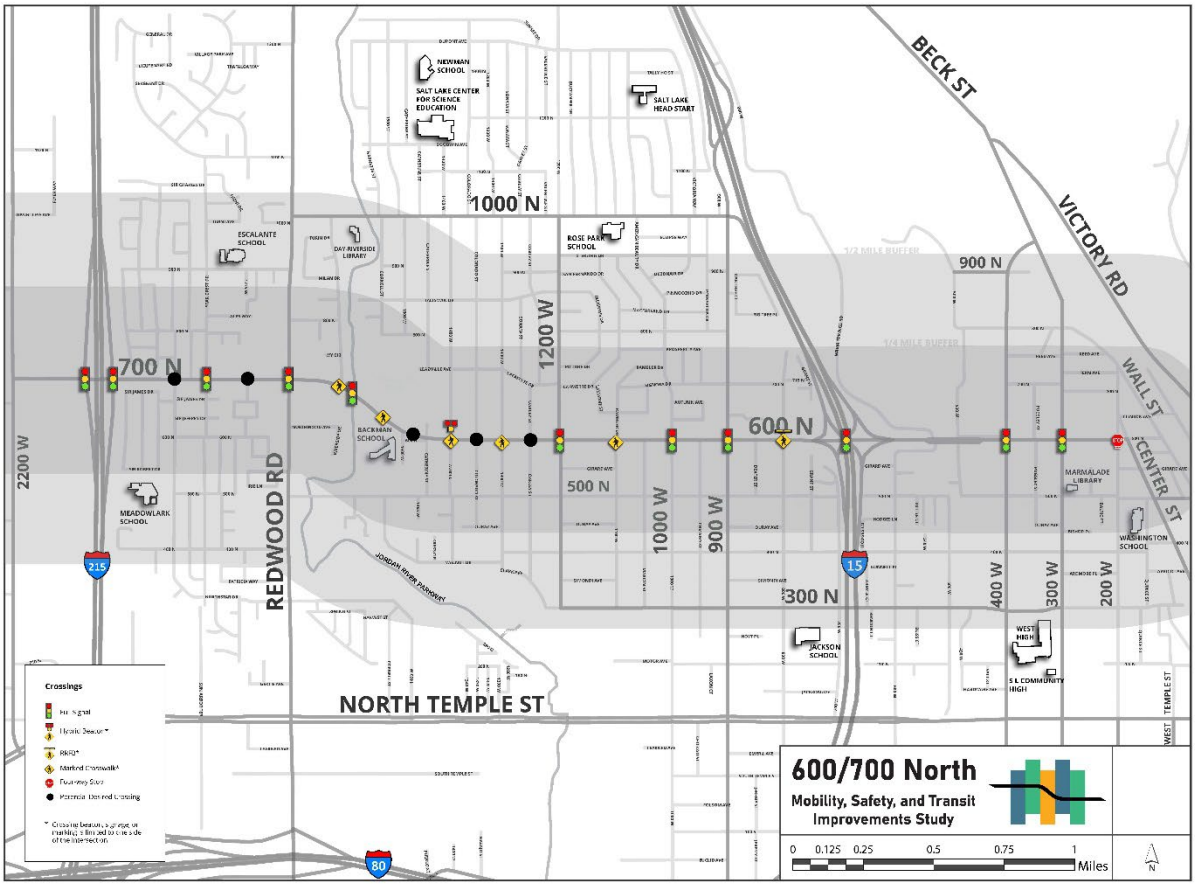


Figure 26: Crossings for people on foot and bike

In discussions with stakeholders, improving crossing conditions at Backman Elementary School and the Smith's grocery store are of particular importance, given the high volume of foot traffic to these destinations. The RRFB crossing at 800 West was a response to a fatal crash involving a pedestrian in 2017 and is shown in Figure 27. Similarly, the hybrid beacon at 1400 West was a response to one cyclist-involved crash (not fatal) and encouragement from concerned residents and Backman Elementary School staff and parents.

Along the corridor, marked crosswalks typically occur only on one side of the intersection which they serve. These crossings, and other locations where crossing is not accommodated leave more to be desired in improving the ability of pedestrians and bicyclists to cross the corridor safely and with reduced out-of-direction travel. Locations which could benefit from improved crossings for people are marked with a black dot on Figure 26.

Figure 27: Rectangular Rapid Flashing Beacon at 800 W. Crossing enhancements such as beacons, high-visibility crosswalks, and pedestrian refuge medians greatly improve the comfort of pedestrians and increase motorist yield behavior.

Conditions for People on Bicycles

The following sections discusses existing conditions on the corridor for people bicycling.

Existing and Planned Bikeways

Existing conditions along the 600/700 North corridor accommodate people riding bicycles with standard bike lanes varying in width from 5 to 7 feet for the majority of the corridor. As shown on Figure 28, sections with no designated bikeways span from Redwood Road to 1400 West and again from 800 West to 300 West across the I-15 overpass. Adjacent on-street parking is the typical condition in locations where bike lanes exist. The Salt Lake City Pedestrian & Bicycle Master Plan (2015) shows

recommendations for a high-comfort bikeway (buffered or protected) from 2200 West to 800 West and again from 400 West to 300 West, with standard bike lanes proposed across the I-15 overpass.

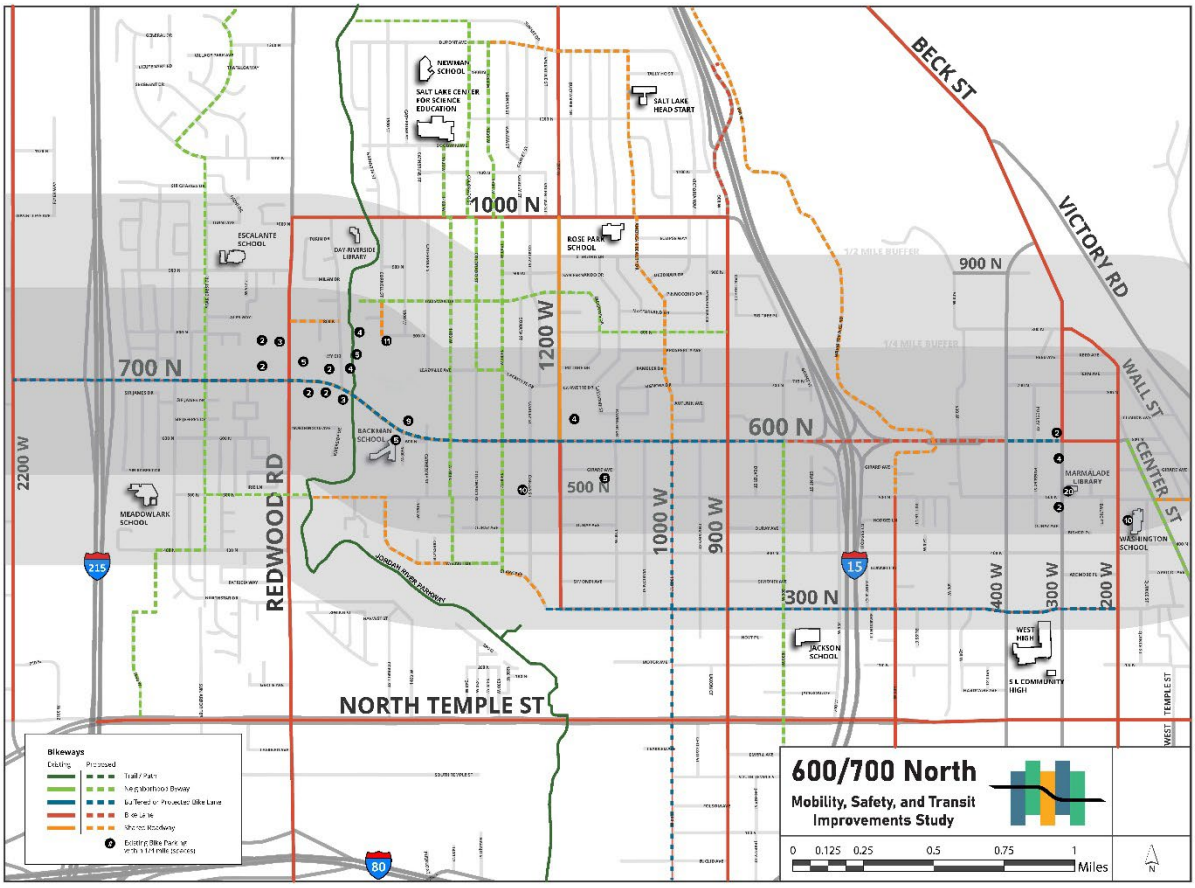


Figure 28: 600/700 North area bikeways

Figure 28 also illustrates existing and planned bikeways that cross the corridor. These routes should be considered during the development of design alternatives for the corridor to ensure that crossings are improved at these locations. Concurrent to this study, Salt Lake City is planning the alignment of the proposed 1300 West neighborhood byway from the 2015 Master Plan. Alternative alignments are being considered, including 1400 West, and recommendations from this plan may guide the decision-making process for that important north-south bike route.

Bicycle Parking

Figure 28 also illustrates the locations and capacities of publicly accessible bike parking within a quarter-mile of the corridor. As expected, existing bike parking is associated with commercial land uses and is located primarily along store fronts at the intersection of Redwood Road and along 300 W. Other locations where bike parking is found include in schools, Smith's grocery store on 1200 W, and in and

around Riverside Park, and along storefronts of the neighborhood commercial node at 500 N and Oakley Street. With the exception of the Marmalade Branch location of The City Library, bike racks within the study area fall short of best practices in terms of capacity, rack selection, and rack location, and, in general, several land uses that should provide bike parking either lack sufficient capacity or don't provide parking at all.

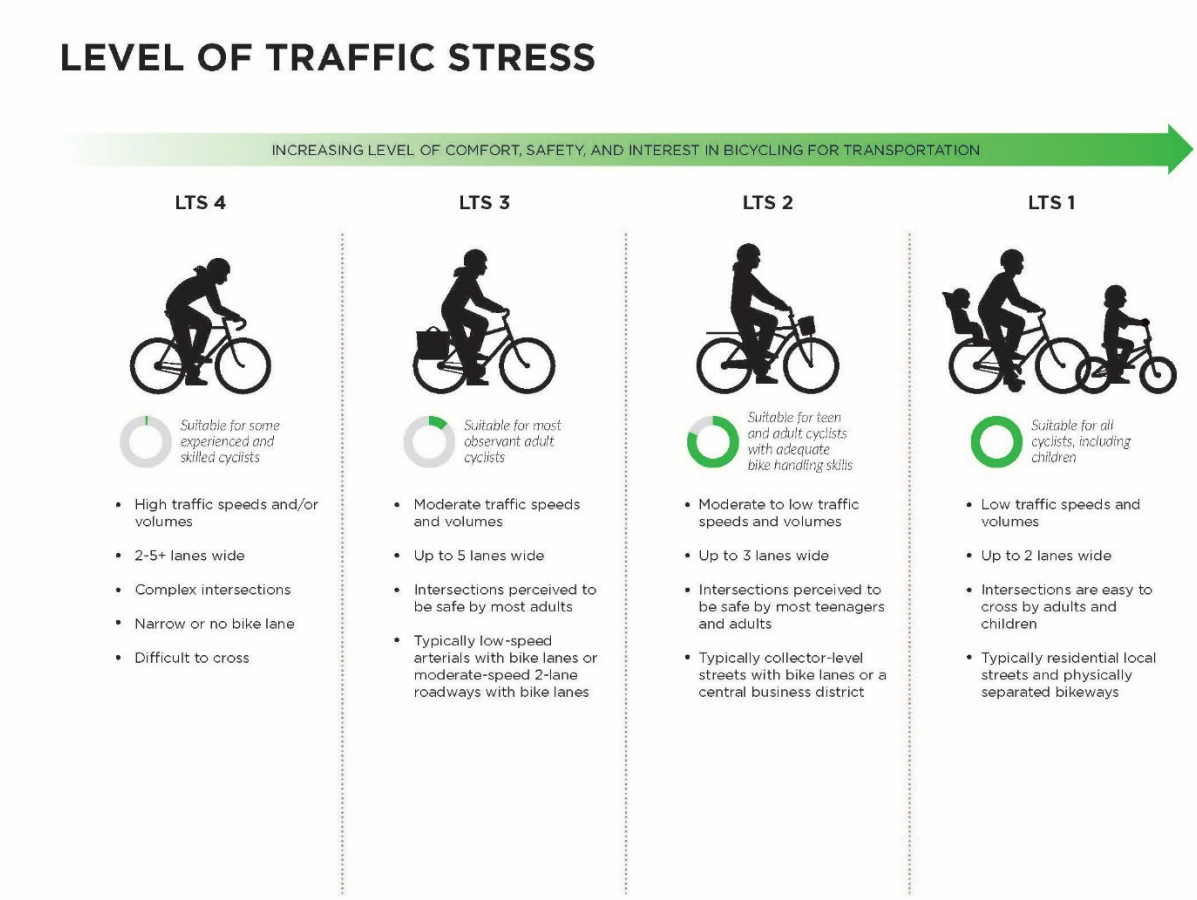
Bicycle Level of Traffic Stress

The presence of bike lanes does not always indicate safe and comfortable accommodations for people on bikes as shown in Figure 29. There are several other factors that contribute to safety and comfort, including vehicle speeds and volumes, road width or number of travel lanes, bike lane obstructions, the presence of on-street parking, and others. To paint a clearer picture of conditions of people on bicycles, a Bicycle Level of Traffic Stress (LTS) analysis was conducted. This analysis uses street characteristics to rate the roadway on a scale of 1 (most comfortable) to 4 (least comfortable). While the LTS completed focuses on bicycle travel, improvements for bicyclists generally translate into improved conditions for pedestrians, as well. This is particularly true for crossing conditions, as improvements are measured in terms of reduced exposure to motor vehicle travel speed and the number of travel lanes crossed.

Figure 29: 600 North near 1300 West. Current roadway characteristics, especially high motor vehicle speeds, discourage some people from using bike lanes.

The methods used for the Level of Traffic Stress Analysis were adapted from the 2016 Oregon Department of Transportation (ODOT) *Analysis Procedure Manual*. The approach outlined in the ODOT report uses roadway network data, including posted speed limit, the number of travel lanes, and the presence and character of bicycle lanes. Road segments are classified into one of four levels of traffic stress based on these factors. The lowest level of traffic stress, LTS 1, is assigned to roads that would be suitable for most children to ride, and also to multi-use paths that are separated from motorized traffic. LTS 2 roads are those that could be comfortably ridden by the average adult population. The higher levels of traffic stress, LTS 3 and 4, correspond cyclists behaviors characterized by in the *Four Types of Cyclists* report. LTS 3 is the level assigned to roads that would be acceptable to current "enthused and confident" cyclists while LTS 4 is assigned to segments that are only acceptable to "strong and fearless" bicyclists, who will tolerate riding on roadways with higher motor traffic volumes and speeds. The definitions for each level of traffic stress are shown in Table 3.

Table 4: Levels of Traffic Stress Definitions Source: ODOT Analysis Procedure Manual, Version 2



Methodology

LTS categorization for the corridor was completed by analyzing three parts of every street link (a section of roadway). The three parts include

- Street segments: the space of roadway between intersections
- Intersection approaches: the area leading up to an intersection that includes turn lanes
- Intersections/crossings: Locations where crossing the corridor is likely. For this metric, signalized or full-stop intersections are not included. Similarly, segments that 'T' into the corridor were not considered unless previously identified as a potential desired crossing on Figure 26.

The overall LTS score a link received was based on a "weakest link" methodology. That is, if a link received a segment score of 2 and an approach score of 4, the overall link score assigned was LTS 4. Intersections were scored independently. Specific factors that led to the LTS score for each street link include prevailing vehicle speeds (or posted speed limit), the presence or lack of dedicated bicycle lanes, the width and/or buffer of existing bicycle lanes, the presence of on-street parking, frequent bike lane blockage, number of travel lanes, and the separation of cyclists and vehicles at intersections, to name a few. A complete outline of LTS factors and metrics can be found within the tables located in Appendix X.

Level of Traffic Stress Results Summary

Figure 30 illustrates bicycle LTS for the corridor based on the above methodology, showing both along (line segments) and across the corridor (circles). As shown, while some accommodations for people on bicycles are present, the LTS analysis results suggest that existing conditions are only suitable for a small percentage of potential bicyclists, and that most adults would feel uncomfortable using 600/700 North as a bike route.

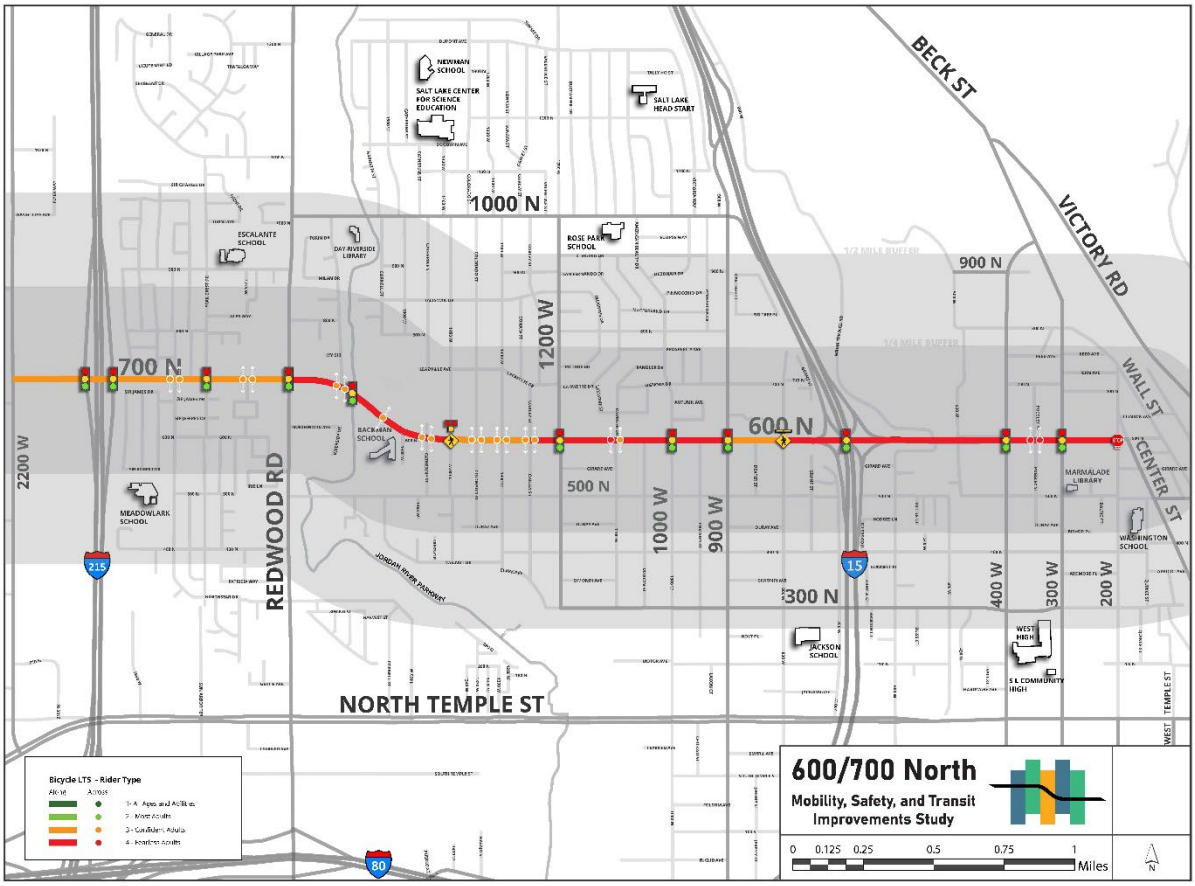


Figure 30: 600/700 North corridor level of traffic stress for people on bicycles

This is especially true along the 600 North viaduct crossing I-15 and the railroad tracks where comfort is likely further decreased by the higher speeds of vehicles and significant commercial truck traffic exiting and entering the freeway. Improvements to the corridor that would enhance the comfort of people on bicycles include decreased speeds, greater separation from motor vehicle traffic, and enhanced crossings where other bikeways intersect the corridor.

Land Use

The following sections discuss the existing land uses along and adjacent to the 600/700 North corridor and how these uses create assets, challenges and opportunities for the street.

Existing Land Use

Existing land use along the 600/700 North corridor are shown in Figure 31 and can be described by four distinctive segments as follows:

- From Center Street to 400 West, which is transitioning from industrial and single-family residential to multi-family/mixed uses;
- From 400 West to I-15, which is primarily industrial;
- From I-15 to I-215 which is dominated by single-family residential neighborhoods and punctuated by commercial nodes at 1200 West and Redwood Road and a recreational/civic node at the Jordan River (Riverside Park and Backman Elementary School); and
- The segment west of I-215, which is primarily industrial and warehousing-type uses.

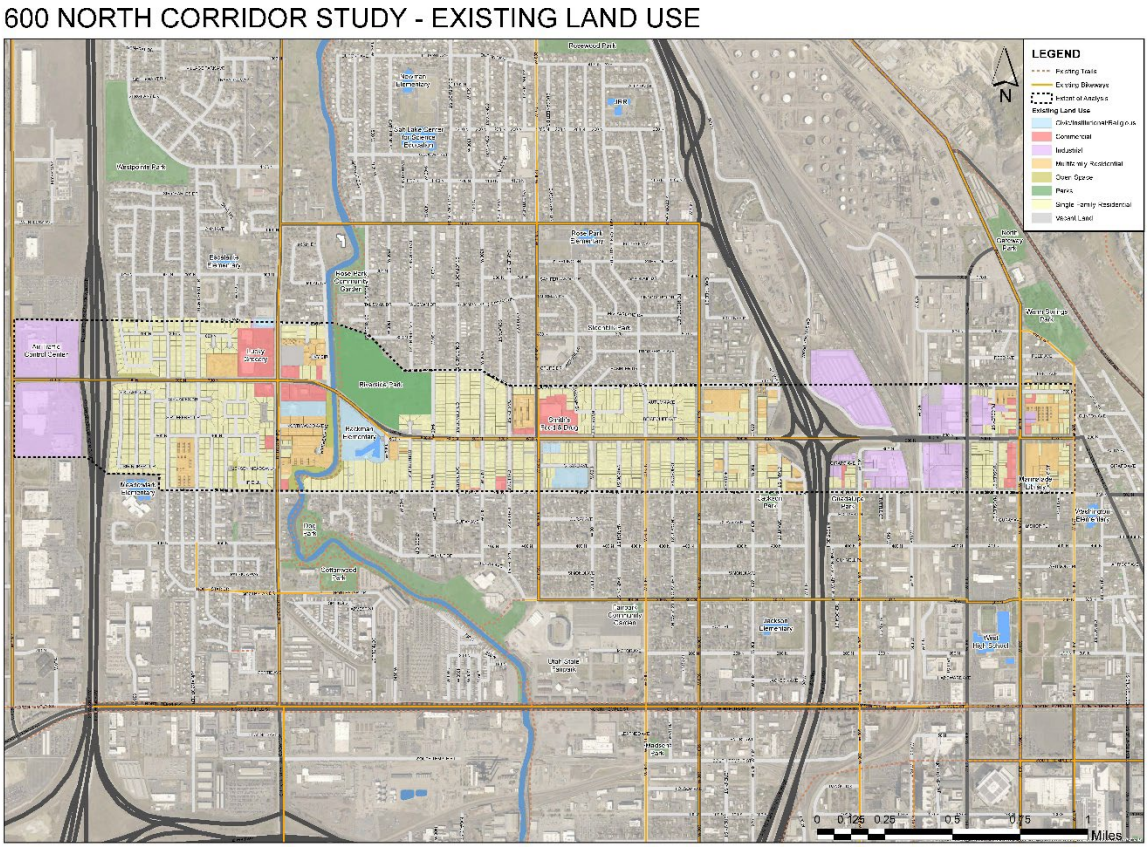


Figure 31: Existing land use

Transitions between existing land uses tend to be abrupt, corresponding to major dividers such as rail, highway and river crossings. The predominant land use along the corridor is single-family residential, which is distributed in an insular development pattern that results in few properties facing 600 North, and poor pedestrian access to commercial centers. As such, if connectivity is desired between residential and commercial uses, opportunities for these connections may need to be explored beyond the main arterial itself, with linkages within the neighborhoods.

Zoning

Existing zoning for the corridor is shown in Figure 32. The zoning illustrates the future redevelopment vision of the area, and to a lesser degree recent land use changes which as result cause a disconnect between the zoning in-place and the existing land uses. For example, the Transit Center Transition Zone east of I-15 and the Special Development Pattern Residential Zones both indicate significant change from the land uses which currently exist, the blocks transitioning to higher density, pedestrian and transit-oriented uses. In contrast, zoning in the area between I-15 and I-215 suggests that the single-family residential uses which exist should remain as a long-term use.

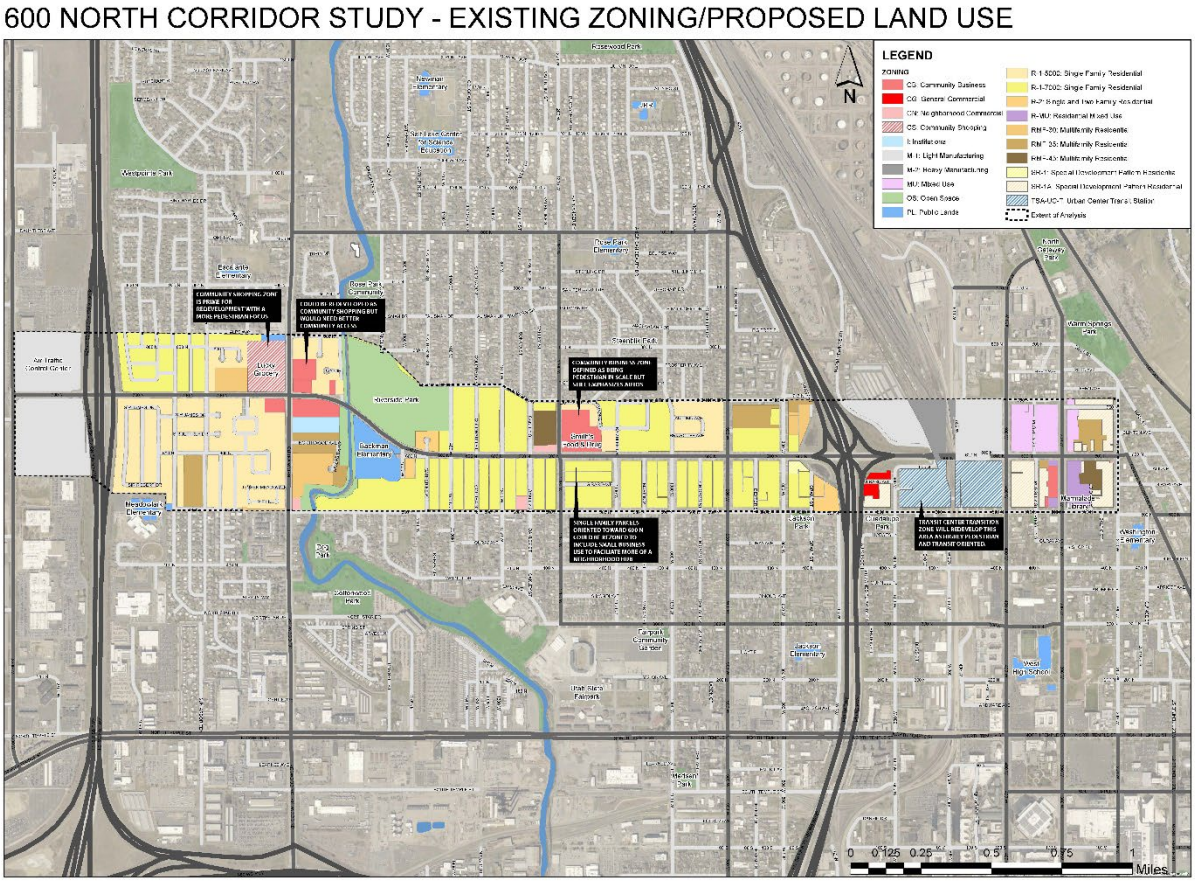


Figure 32: Existing zoning and proposed land use

The zoning of the commercial nodes at Redwood Road and 1200 West envisions limited change and may be enhanced by zoning that supports significant changes and transformations. At Redwood Road, the Lucky Grocery parcel is zoned as Community Shopping, which supports this use as a prime opportunity for redevelopment with a more pedestrian focus. Similar designations might be considered for other commercial properties at this intersection, helping to transform the entire node into a community destination that supports the needs of the surrounding neighborhoods. Similar zoning modifications might also be helpful at the 1200 West commercial node, rezoning some of the residential parcels that front 600 North and 1200 West to include small business uses, thereby helping to create a more discernible and integrated neighborhood hub.

Parks and Recreation

The corridor's neighborhoods are graced by a number of well-established park and recreation resources. While the focus tends to be on the Jordan River Parkway and Riverside Park complex, there are numerous other parks - Constitution Park, Cottonwood Park, Westpointe Park, Warm Springs Park, Rosewood Park – that together provide a well-distributed and potentially well-connected parks and open space system to serve corridor users as shown in Figure 33. Combined with improved bike and pedestrian links, these facilities could be linked with nearby civic/cultural destinations such as the Marmalade and Day-Riverside branches of the Salt Lake Public Library, the Utah State Fairpark, and the commercial nodes along the 600 North corridor. The opportunity to seamlessly link the 600 North urban trail corridor with these major and minor parks and recreation facilities would create a robust and significant regional link, and an enviable parks and open space system to serve a wide range of local, citywide and regional users.

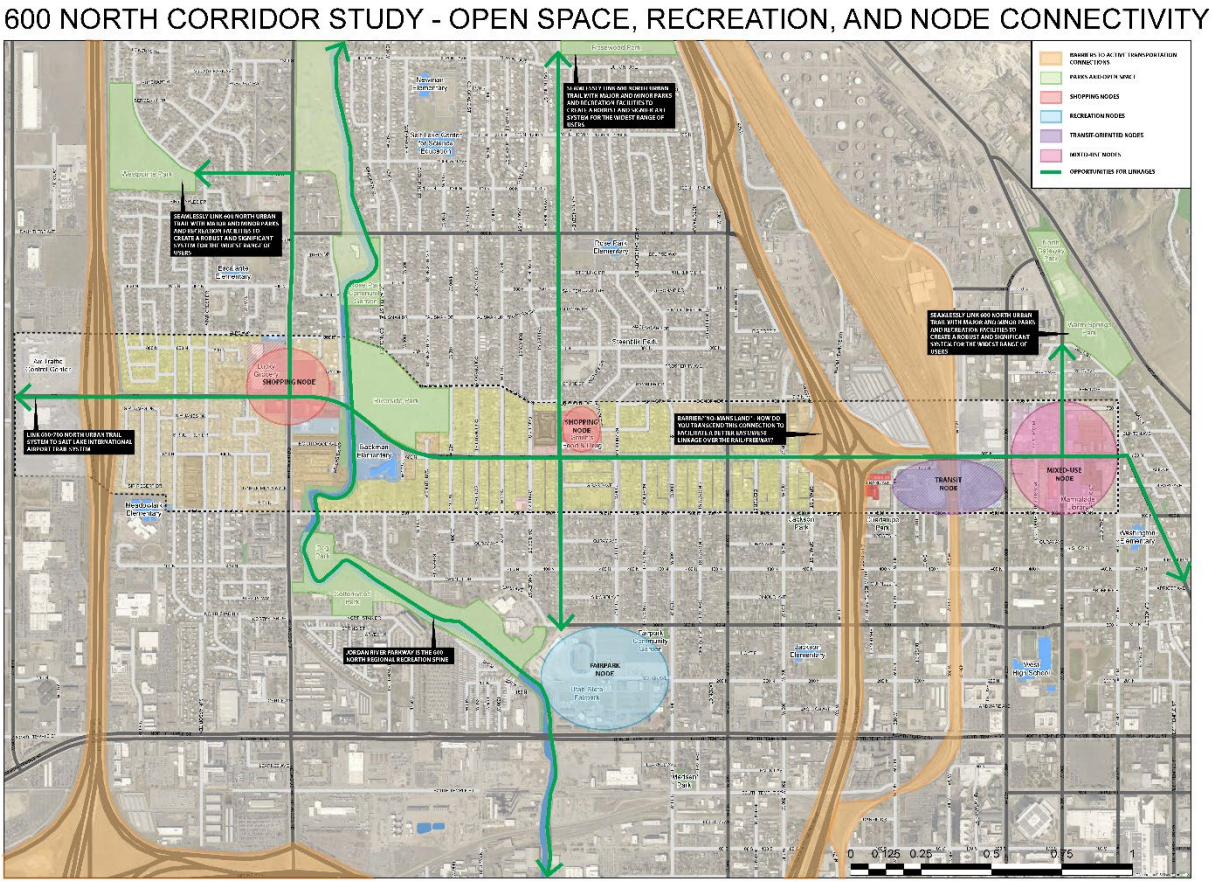


Figure 33: Open space, recreation, and node connectivity

Park access

Access to Riverside park and its many programmed and unprogrammed activities is a major issue on the corridor. Figure X shows existing parking in lots and on-street. There are approximately 80 lot spaces in two lots (4 of them handicapped) and approximately 240 on-street spaces, about 40 of requiring crossing of 600/700 North.

Utilities

A review of the utilities and structures within the 600/700 North corridor right-of-way was conducted to determine locations where changes to the street outside of the existing curb limits could impact utilities adjacent to the roadway and could have potentially greater costs in constructing elements of the corridor plan. These are summarized in the sections below and are shown in Figure 34.

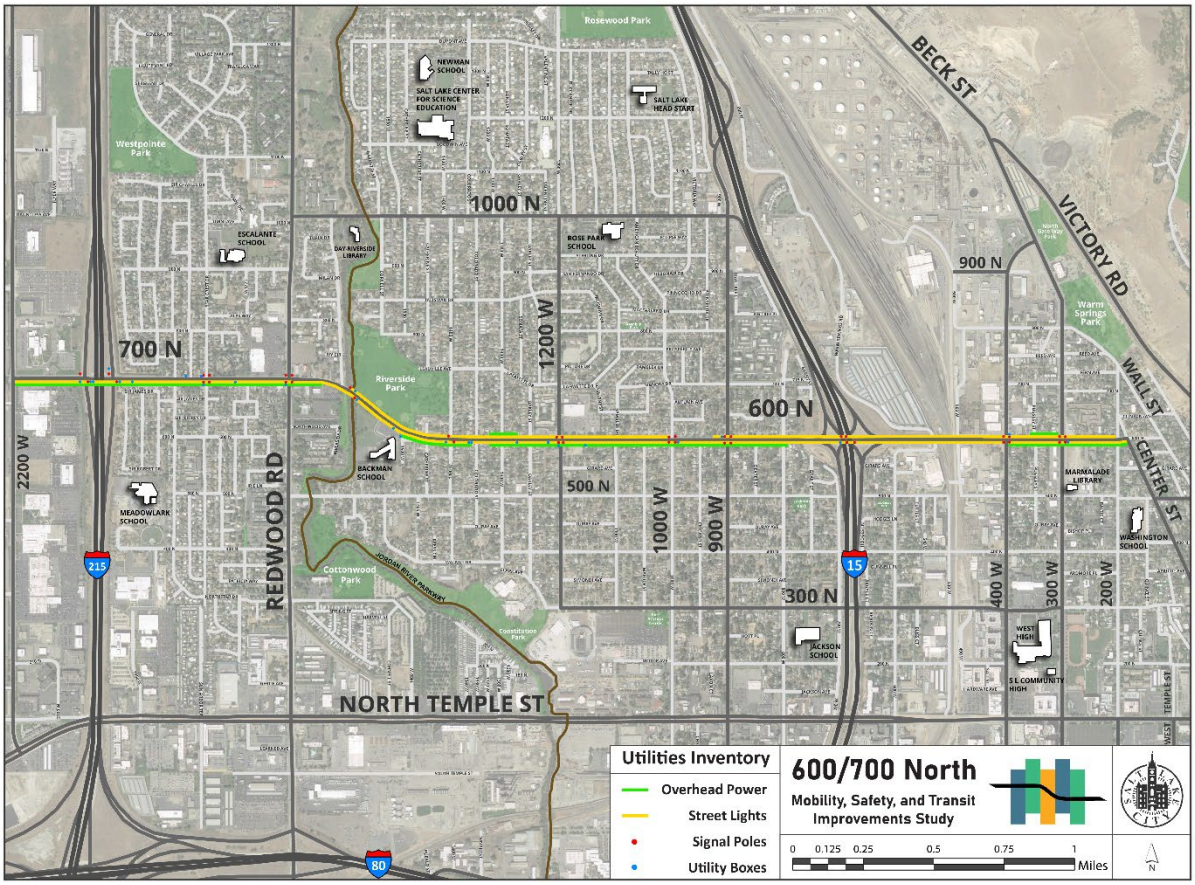


Figure 34: Utilities inventory

Power Poles

Power poles and overhead powerlines exist along a large part of the corridor (shown with green-marked lines in Figure 34. These overhead powerlines are primarily located on the south side of the corridor, though there are some areas where powerlines are not present on either side (for example, within a block of both sides of the Jordan River Parkway and between 800 West and 400 West). Also, most of the corridor has separated sidewalks (with landscaped park strips), and the power poles are typically located 2-3 feet from the back of curb within these park strips. Power poles are also often near the back of curb in cases where there are no sidewalks present. Some of the corridor has curb-adjacent sidewalks with

no landscape buffers. In these locations, the power poles are typically located within a few feet from the back of the sidewalk. Some powerlines span the street (such as at Redwood Road or 900 West), but most run parallel to 600 North.

Street Lights

Most of the corridor has streetlights on both sides of the street (see yellow lines in Figure X (P5). A section from Redwood Road to 2200 West and from 1000 West to 900 West only has streetlights on the south side of the street. Many of these lights are attached to power poles (where present) and are a standard "cobra head" style that extend over the roadway, though some (such as around the I-15 interchange area) are the single pedestrian globe streetlight style. Most of the streetlights are connected to power via overhead powerlines.

Traffic Signals

Where traffic signals are present, typically there is a pole at each corner of a four-way intersection (behind the sidewalk). There are 4-way traffic signals present at the following intersections along 600 North: Starcrest Drive, Redwood Road, 1200 West, 1000 West, 900 West, I-15 Interchange, 400 West, 300 West. There are also traffic signal poles on two sides of the street at the I-215 Interchange (on and off ramps), and at two pedestrian-activated crossings at the Jordan River Parkway Trail, and at 1400 West. Traffic signals are marked in red on the accompanying figure.

Utility Boxes

The relocation of utility boxes can also significantly impact project costs. Utility boxes that are near the 600 North right-of-way are shown in blue on Figure X (P5). Utility boxes are often found next to traffic signals, though there are several exceptions. Most of the utility boxes along 600 North are located on the south side of the street.

Assets, Challenges, and Opportunities

This section takes the existing conditions analysis and applies it to the Draft Corridor Goals developed by the Stakeholder Committee and Project Team. For each Draft Goal, we summarize:

- The assets that the corridor presents toward existing achievement of the goal;
- The challenges that the corridor presents against existing achievement of the goal; and
- The opportunities that the corridor presents toward future achievement of the goal.

In considering these assets, challenges, and opportunities, we use the framework of the Draft Performance Measures we have developed to measure each goal.

CONNECTIONS

Goal 1: Maintain and enhance the link among 600/700 North corridor neighborhoods and the rest of Salt Lake City

The plan will maintain and enhance the corridor's connection of neighborhoods to one another and to the rest of the city, for all transportation modes.

Draft performance measures

- Traffic performance
- Transit connections
- Bike connections
- Pedestrian connections

Assets

- The corridor provides a direct east-west connection
- Generally, very little traffic delay at most intersections
- Low traffic volumes west of I-15
- Planned Frequent Transit Network corridors on 600 North and crossing the corridor
- Sidewalk with good buffer for most of corridor
- Good amount of roadway and right-of-way to improve connections for other modes

Challenges

- Poor existing transit connections, especially connecting corridor neighborhoods to downtown Salt Lake City and the east side of I-15.
- Inconsistent bike connection with unsafe areas
- Substandard and non-existent ramps throughout the corridor

- Sidewalk obstructions in the Backman School area
- Curb-adjacent sidewalks in three segments: I-215 to Redwood, south side; Backman School, south side; and I-15 SPUI, south side 9no sidewalk on north side)
- Poor bicycle (and pedestrian) connection across the I-15 interchange and viaduct

Goal 2: Link people and neighborhoods across 600/700 North

Make 600/700 North a seam rather than a barrier, with a focus on frequent, well-placed, and high-quality pedestrian crossings.

Draft performance measures

- Crossing location: spacing and access to destinations
- Crossing quality: length and amount of protection

Assets

- Regular signalized crossings for majority of corridor – generally every quarter to half mile
- Marked crosswalks between the signals, in 800 West to Redwood Road segment

Challenges

- Long crossings/wide roadway
- High traffic speeds
- Crossings not always paired with desire lines
- Some longer ½ mile stretches without marked/signalized crossings, especially in eastern and western ends of the study area
- Particularly poor crossings at Backman Elementary and Smith's grocery store
- Some intersections only have one crosswalk leg

Goal 3: Maintain the corridor's regional connections

The corridor's regional connections include its freeway interchanges, freight routes, transit service, and trails. The plan will balance these regional considerations with neighborhood livability.

Draft performance measures

- Interchange function for traffic
- Interchange infrastructure
- Freight route connectivity

Assets

- I-15 interchange functions without major delay
- Plan for Davis-SLC BRT
- Lessened demand for freight during peak hour

Challenges

- Some delay at I-215/700 North interchange: WB/NB in the a.m. (55%/40% of the time) and EB/SB in the p.m. (30%/65% of the time)
- Not great regional connections for transit: 217 and TRAX
- Heavy turning movements at 300 West and 600 North
- Continuing to serve freight traffic to high demands for freight traffic on east end of corridor (12 percent of vehicles) while mitigating conflicts with Marmalade neighborhood.

LIVABLE NEIGHBORHOODS

Goal 4: Calm traffic to create a safe corridor

Lower vehicle speeds are integral to the success of the corridor. The plan will mitigate concern with consistent, targeted, and proven strategies.

Draft performance measures

- Speed of the roadway (existing traffic and future design speed)
- Mode conflicts
- Ped-related crashes (existing only)
- 500 North traffic speeds

- Degree to which approach is proven (concepts/scenarios only)

Assets

- Overall, very few assets
- The two pedestrian activated crossings (results of community advocacy)
- Planned neckdown for 500 South

Challenges

- High traffic speeds – for example, according to the 2019 speed study at 1300 West, 70 percent of drivers traveling in the westbound direction were recorded traveling faster than the posted 35 mph speed limit with about 25 percent traveling greater than 5 mph over the posted speed limit. Over the course of the study, approximately 650 of the vehicles were observed traveling faster than 50 mph (15 mph over the speed limit) with a top speed of 75 mph recorded.
- High traffic speeds on 500 North - in the eastbound direction, approximately 75 percent of the vehicles were measured traveling above the posted speed limit with greater than 25 percent of all drivers traveling greater than 5 mph over the speed limit. Similarly, in the westbound direction, 65 percent of all vehicles were measured traveling above the posted speed limit with 20 percent of drivers traveling greater than 5 mph over the speed limit.
- A wide roadway with few traffic calming measures
- Truck traffic on the east side of the corridor
- Heavy traffic and poor pedestrian and bike environments at the 700 North/I-215 interchange
- The 600-700 transition bend, with high school, park and parkway activity, curb adjacent sidewalks, vehicle speeds, and lack of visibility, creates an especially dangerous area
- Redwood Road is the major hot spot for crashes in the corridor
- Concentration of pedestrian and bicycle-related crashes between 800 West and 1200 West
- High levels of traffic stress for cyclists – largely due to traffic speeds

Goal 5: Create a beautiful street with great places reflecting neighborhood pride

The plan will leverage existing neighborhood assets to create an authentic sense of place. It will create awareness and tell the stories of the neighborhoods to residents and visitors. While some things are hard to fix and beauty comes at a cost, this is an opportunity for the corridor's communities to shine.

Draft performance measures

- Tree and landscape coverage
- Percentage of person space in the cross section
- Neighborhood awareness on the corridor – memorability/imageability
- Amount and quality of public spaces on the corridor

Assets

- Some consistent street trees in the central part of the corridor
- Nice balance of person space and traffic space east of 400 West due to historic layout – largely due to generous park strips
- Generous park strips from 800 West to 1200 West
- Rose Park gateway signs- especially the 800 West sign, combined with the pedestrian crossing, creates some sense of entry
- Park/parkway/school presents a large series of public spaces that can become central to the corridor
- Triangle at 1500 West next to Backman school is nicely landscaped and could present opportunity for an occupiable public space
- Neighborhood commercial nodes provide potential for neighborhood identity and gateways
- Canal area along 700 North provides potential for beautification/public space

Challenges

- Consistent street trees for only 25 percent of the corridor (excluding the viaduct)
- Major sense of imbalance between person space and traffic space, which tends to become worse the further west one goes. West of 1200 West, the balance is far below the recommended at least 40 percent person space and less than 50 percent traffic space.
- Little sense of entry at all other gateway points, despite Rose Park signs
- Few public spaces other than at the park/parkway/school

- Traffic speeds and lack of quality pedestrian environment undermines the quality of the park/parkway/school public space
- Lack of human scaled streetscape elements.

Goal 6: Improve access to and leverage Jordan River Parkway, Riverside Park, and the surrounding corridor parks and open space network.

Jordan River Parkway and Riverside Park are destinations at the heart of a network of open space and parks in the area. Access to them must be increased for all transportation modes and must be safer. The plan will consider the river's natural area, as well as synergy with the adjacent Backman Elementary School.

Draft performance measures

- Connectivity of park network
- Amount and quality of parking - auto and bike
- 600/700 North roadway safety at park/parkway location

Assets

- Jordan River parkway – regional connection
- Synergy among parkway, park, and school
- Connectivity among park, parkway and school – and surrounding neighborhoods
- 80 spaces (4 handicapped) in the two lots accessed off Leadville (north) and 600 North (south).
- Additional approximate 240 spaces on directly adjacent streets.
- Backman school parking, which is not used during much of the time the park events are happing, is just across the street.
- Well-connected local street network for pedestrian and bike access to the park – park can be accessed on all four sides.
- Planned transit for access to the park.
- Other key parks and open spaces: Other spaces along the Jordan River Parkway, Westpointe Park, Rosewood Park, Warm Springs and North Gateway Parks.
- Direct street connections to these parks.
- Airport trail system.

Challenges

- Connections from Jordan River Parkway and Riverside Park to other parks
- Lack of quality parking for Riverside Park, especially for its weekend and evening sports and events
- Reliance on Riverside Drive for parking
- Lack of safety in the "bend" area where people are walking, biking, and parking to access the park and parkway.
- Approximately 40 of the on-street spaces are across the busy roadway of 600/700 North.
- Impact of approximately 160 of the on-street spaces on the residents and neighborhoods.
- Lack of quality connections from 600 North to the surrounding parks – i.e. along 1200 West or 300/400 West, or 1100 North.

Goal 7: Support and shape corridor commercial nodes with walkable character and neighborhood-oriented services

Leverage the existing commercial pockets and do it carefully, making sure to maintain the corridor's largely residential character. The plan will focus on walkable amenities and neighborhood-oriented businesses.

Draft performance measures

- Zoning - ability for commercial square footage
- Node walkability
- Residential character - scale
- Neighborhood amenities

Assets

- Transit Center Transition zone indicate transformation toward more intensity and mixed use east of I-15, at the southwest corner of 600 North and 400 West, as do the Special Development Pattern residential zones between 400 West and 200 West.
- The zoning quite strictly preserves existing single-family residential use and scale tightly around 1200 West center.
- Community Shopping designation of Lucky Grocery center supports redevelopment with a more pedestrian focus.

- The trees create a shady spot at the northeast corner of 1200 West and 600 North.
- Two grocery stores are great neighborhood anchor commercial uses.
- Some other restaurants and other food uses, especially in the center next to the Jordan River.
- Cornerstone church is a community-oriented use at the 1200 West node.
- New and planned pedestrian-oriented investment at 300 West/600 North

Challenges

- Existing zoning of commercial zones at 1200 West and Redwood Road allow limited change.
- Community business zone that encompasses Smiths center is defined as being pedestrian in scale but still emphasizes autos.
- Lack of connectivity between residences and commercial centers.
- The centers at Redwood and 1200 are primarily auto oriented, with parking lots in front of commercial buildings.
- Almost no pedestrian-oriented streetscape amenities at any of the centers
- New and planned pedestrian-oriented investment at 300 West and 600 North hasn't fully come together as a place

TRANSPORTATION CHOICES

Goal 8: Implement and support Salt Lake City's Frequent Transit Network and other transit connections

600/700 North is a priority corridor for the city's Frequent Transit Network – high-frequency transit service is coming to the corridor neighborhoods. The plan will create an equally great environment for bus operations, passenger pedestrian and bike access, and passenger waiting and alighting.

Draft performance measures

- Transit vehicle operations
- Quality of waiting environments
- Access to stops

Assets

- The greatest asset is the high-quality transit service coming to the corridor.
- Currently, open wide roadway is relatively conducive to straightforward transit operations.

- Wide right-of-way has big potential for quality waiting environments and transit operating conditions.
- Lack of delay throughout the corridor is good for transit operations.
- Redwood Road corridor is major transit corridor: The Redwood Road frequent transit line would run from approximately 700 North to Sandy Civic Center, providing an important, direct north-south transit corridor to enhance mobility through Salt Lake County without needing to travel through the Downtown area.
- Generally, local streets are connected and provide good access to 600/700 North corridor, especially in central and east sides of corridor.

Challenges

- Lack of quality transit stop waiting environments.
- Some of current pedestrian realm areas are narrow and are constrained for bus stops.
- Some street dis-connectivity on west side of corridor, on either side of redwood Road, to I-215.

Goal 9: Improve the safety, consistency, and comfort of east-west bicycle travel in the project area.

600/700 North and its nearby parallel streets will connect people riding bikes among destinations along the corridor. In particular, the plan will improve the ride over the I-15 interchange and viaduct.

Draft performance measures

- Level of traffic stress
- Consistency and clarity of bike experience
- Bike access to major destinations on the corridor – i.e. end of trip facilities

Assets

- Presence of the bike lane for much of 600 North.
- Parallel routes such as 500 West run most of the corridor west of I-15.
- 600 North sits amid a relatively comprehensive network of bike routes, both existing and planned.
- Great access to the trail spine of the Jordan River Parkway.
- Planned 1300 West neighborhood byway and other intersecting byways.

- Plan for 600 North to have a protected or buffered bike lane.

Challenges

- The I-15 interchange and viaduct over the rail tracks provides a challenging environment for bicycle travel. Specifically, crossing the on and off ramps of the freeway is dangerous for cyclists. This location is challenged by the high vehicle speeds, lack of separation from this traffic, and lack of visibility of cyclists.
- The bike lane is discontinuous, disappearing at key points such as the "bend" and Redwood Road.
- Even with the bike lane, the overall level of comfort is low because of the lack of buffer from moving the traffic and the high speeds of that traffic. It is suited only for "confident" and, in some cases, "fearless" adults.
- Lack of clarity in knowing how to ride the whole corridor east to west safely and comfortably.

IMPLEMENTATION

Goal 10: Create a comprehensive and integrated set of solutions for the entire corridor

600/700 North is currently a patchwork of uncoordinated improvements. The plan will set out an elegant suite of improvements that, while context-sensitive, creates a consistent experience. The plan will also integrate citywide and neighborhood initiatives, making the corridor plan greater than a sum of its parts.

Draft performance measures

- Coordination of projects and initiatives
- Street infrastructure consistency
- Utilities configuration

Assets

- Coordinate with other plans and initiatives.
- Active neighborhood groups that could use more coordination and connection among one another.

Challenges

- The corridor in general has many places where solutions have been Band-Aid-ed on to the street.

- Many of the details don't work, like on 1200 West, where the two sides of the intersection don't really meet up straight.
- The street has many different cross sections and widths of lanes and pedestrian realm elements, leading to an inconsistent and confusing experience for all users.
- Overhead utilities provide challenge for unified corridor improvements.