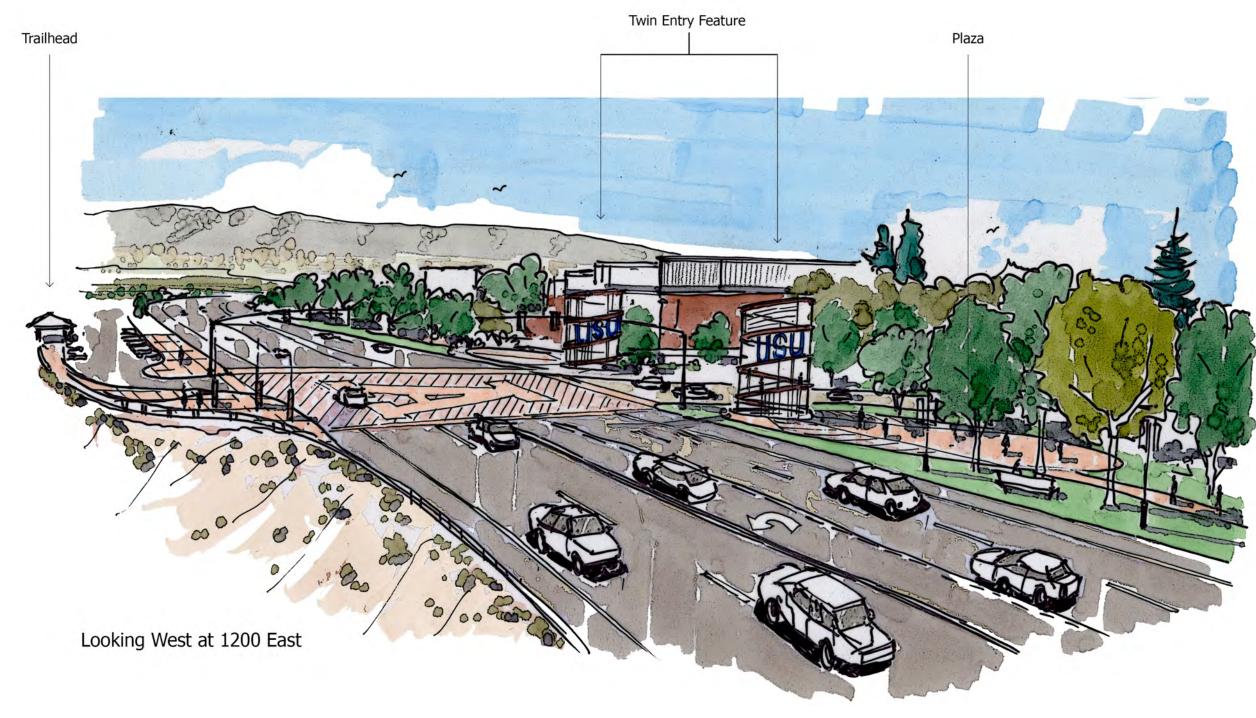
# LOGAN FOURTH NORTH CORRIDOR

# DESIGN & DEVELOPMENT CONCEPT PLAN

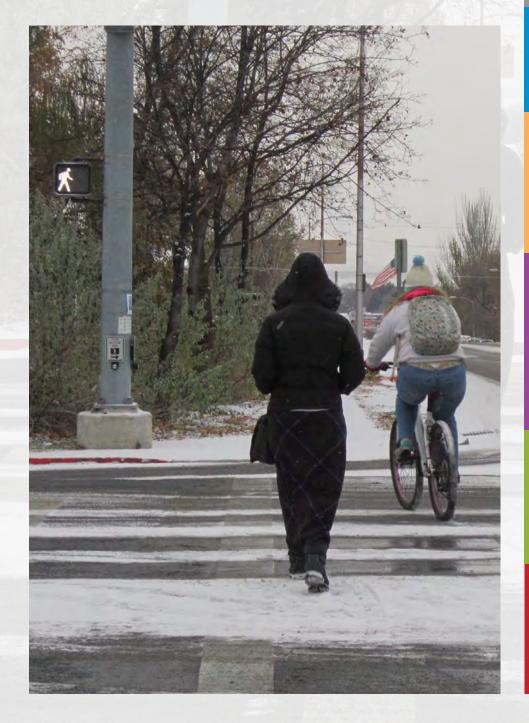






# **FABLE**

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A description of the project, its scope, and an understanding of the project purpose.

# CORRIDOR VISION ..... 6

This section covers the overall vision for the future design of the Fourth North corridor, as well as the mission and objectives to implement the vision.

# **CORRIDOR CONTEXT &** OPPORTUNITIES....

# DESIGN & DEVELOPMENT FRAMEWORK ...... 18

This section focuses primarily on the future function and form of the corridor by identifying its overall urban design and development framework at future key nodes and corridor sections. It identifies and analyzes nodes along the corridor which provide opportunities for long-term development of new uses and enhancement of existing uses. Several program components are identified for each of these key locations.

# 

This section outlines the strategies for executing some of the ideas and projects discussed in the document.

APPENDIX .... The appendix provides detailed information and background analysis used to craft the recommendations of the corridor concept plan, including market and traffic analysis documents, public outreach feedback, and historical research.

# PROJECT PURPOSE & INTRODUCTION

Fourth North is a highly utilized transportation corridor, serving as an entrance into Logan City and as a gateway up to the main campus of Utah State University and scenic Logan Canyon. The Fourth North Corridor Design and Development Concept Plan recognizes its importance as a transportation corridor while providing concepts and strategies to link its future form and function with its high profile utilization.

While the Fourth North corridor will continue to facilitate high volumes of automobile traffic, the potential and need for transforming it into a beautiful boulevard have become a priority for Logan City. This plan seeks to implement or complement principles, goals, and strategies from the Logan Comprehensive Plan, Adams Neighborhood Plan, Downtown Specific Plan, Logan City Bicycle & Pedestrian Plan, and the USU Transportation Master Plan.



The form of Fourth North has become overshadowed by its function. The Fourth North Corridor Plan provides a concept to create a meaningful streetscape design for the corridor that seeks to shift the emphasis to a more multi-modal approach. It lays out a design-oriented framework for future redevelopment and offers the opportunity to break down physical barriers bisecting the north and south portions of the Adams Neighborhood.

Redevelopment areas offer the opportunity for a transition in land use to a more pedestrian-oriented, mixed-use, multi-modal cultural hub that serves the neighborhood, broader community, and the campus. The corridor can reflect the character and culture of the city, neighborhood, and campus for those traveling its length. While the streetscape design and redevelopment approach alone will not automatically lead toward change, this plan provides the framework and is a first major step toward making it happen.



Area residents were introduced to the project scope and given an opportunity to help direct the vision and mission of the plan at the Adams Neighborhood Meeting. April 22, 2014



USU students, faculty, and staff provided input on the Fourth North public outreach boards at the USU Open Streets Festival. September 23, 2014

# STUDY AREA / PROJECT SCOPE

The study area includes the portion of 400 North between 100 West and the entrance to Logan Canyon, extending one block north and one block south of the corridor. The Fourth North Corridor Plan includes proposed concepts and strategies for:

- Urban Design,
- Streetscape,
- Land Use/Redevelopment,
- Connectivity,
- Mobility, and
- Gateways.



The context of the Fourth North corridor will continue to vary from commercial, to residential, to campus and canyon as it heads eastward.



The 400 North corridor is a major east to west corridor in Logan. The portion between 100 West and the entrance to Logan Canyon comprised the focus for this study and plan recommendations.

# PAST CONTEXT OF FOURTH NORTH CORRIDOR

# AERIAL IMAGERY SERIES

The physical context of the Fourth North corridor has changed over its history, from a tree-lined residential street until the early to mid-1950's to a major transportation corridor. It funnels automobile traffic to the USU Campus and up into Logan Canyon.



**1952:** In 1952, 400 North was a tree-lined residential street, as seen in this aerial image.



**1959:** By 1959, 400 North had been widened to four lanes with a center median as traffic increased.



**1981:** In 1981, the center medians have been phased out, with a continuous center turn lane in place.

# **BACKGROUND CONTEXT**

Until the early 1960s, the main transportation route between the city and the USU campus was along Fifth North, with Old Main as a vista and Fourth North was primariliy a tree-lined residential street. When Fourth North was widened to four lanes in the late 1950s and remade as the main road into Logan Canyon (replacing Canyon Road), and it became a primary transportation artery to campus, with main entrances on the south and east sides of campus. The intersection of Fourth North and Main Street subsequently shifted from a residential to a business section, serving the campus community and functioning as a gateway for automobile travelers into Logan Canyon.

The Adams Neighborhood Plan, adopted in October 2013, identified the need to visually transform the corridor into a beautiful boulevard that exemplifies the character of Logan and USU.

# **FUNCTION & FORM: VISION CONTEXT**

The Champs Elysee in Paris is one of the most recognized boulevards in the world. It sets a context for the vision of a future 'beautiful boulevard' in the Fourth North Corridor. The tree-lined streets, flanked by pedestrian oriented development and supported by an enhance streetscape present the complete package of what is possible from a form standpoint, while still serving as a functional transportation corridor.



# VISION

"a beautiful boulevard"

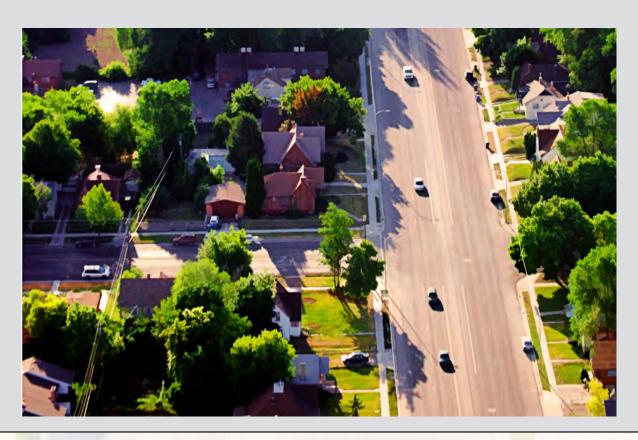
"400 North,,,should visually transform into a beautiful boulevard that exemplifies the enduring character of Logan and USU."

- Adams Neighborhood Specific Plan, 2013

# FOURTH NORTH CORRIDOR PLAN VISION & MISSION

The vision for the Fourth North corridor is to transform the street into a beautiful boulevard that will serve its function as a transportation conduit as well as being a livable street. The mission is to use the form and function of the streetscape design to make this transformation happen while visually connecting the range of use types that occur along its length. The 'big picture' ideas that comprise the vision and mission of the plan are to:

- **Enhance** the function and form of the corridor:
- Visually connect campus to downtown;
- Create **places & spaces** to connect campus to downtown;
- Improve multi-modal safety on/across the corridor;
- **Define** a design and development framework; and
- Stabilize the surrounding neighborhood.



# PLANNING FRAMEWORK/CONTEXT

400 North is a main arterial street in Logan City that is the main access route to Logan Canyon and beyond, and a primary access to Utah State University. It is a major gateway corridor for residents, visitors, and passers-by. While the potential exists to enhance the corridor as an iconic gateway for the city and university, consideration should be given to the flow of traffic due to its regional connection function.

Fourth North successfully serves as a thoroughfare for regional users, however it is currently less successful in meeting the needs of area residents along and adjacent to the corridor. This includes the Utah State University campus. Due to its auto-oriented nature, the corridor often presents barriers to community members who use or would like to use the corridor in a multi-modal fashion. This is in part due to limited visibility of crosswalks, limited or difficult access by pedestrians and bicyclists. And limited or difficult access to local and regional bicycle networks. The relative location of 400 North suggests direct connections to Logan Canyon and regional trail systems, such as the Bonneville Shoreline Trail. However, the reality is much different. Access from and along 400 North is difficult.

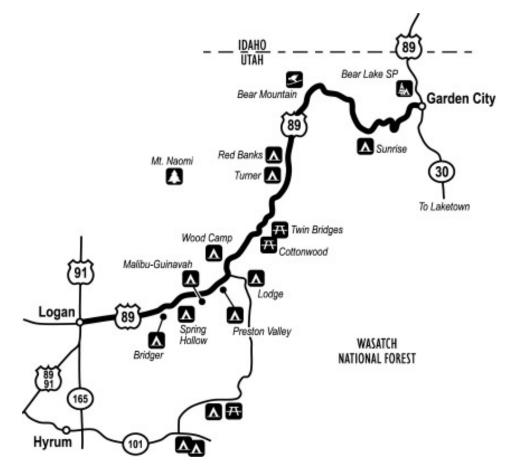
Today, 400 North presents a significant physical and psychological barrier between the north and south sides of the Adams Neighborhood it bisects. This is due in part to the fact that it doesn't safely support multiple modes by area residents, including students at USU, and due to its auto-oriented nature both in function and form. The following section provides an analysis of different sections of the corridor.



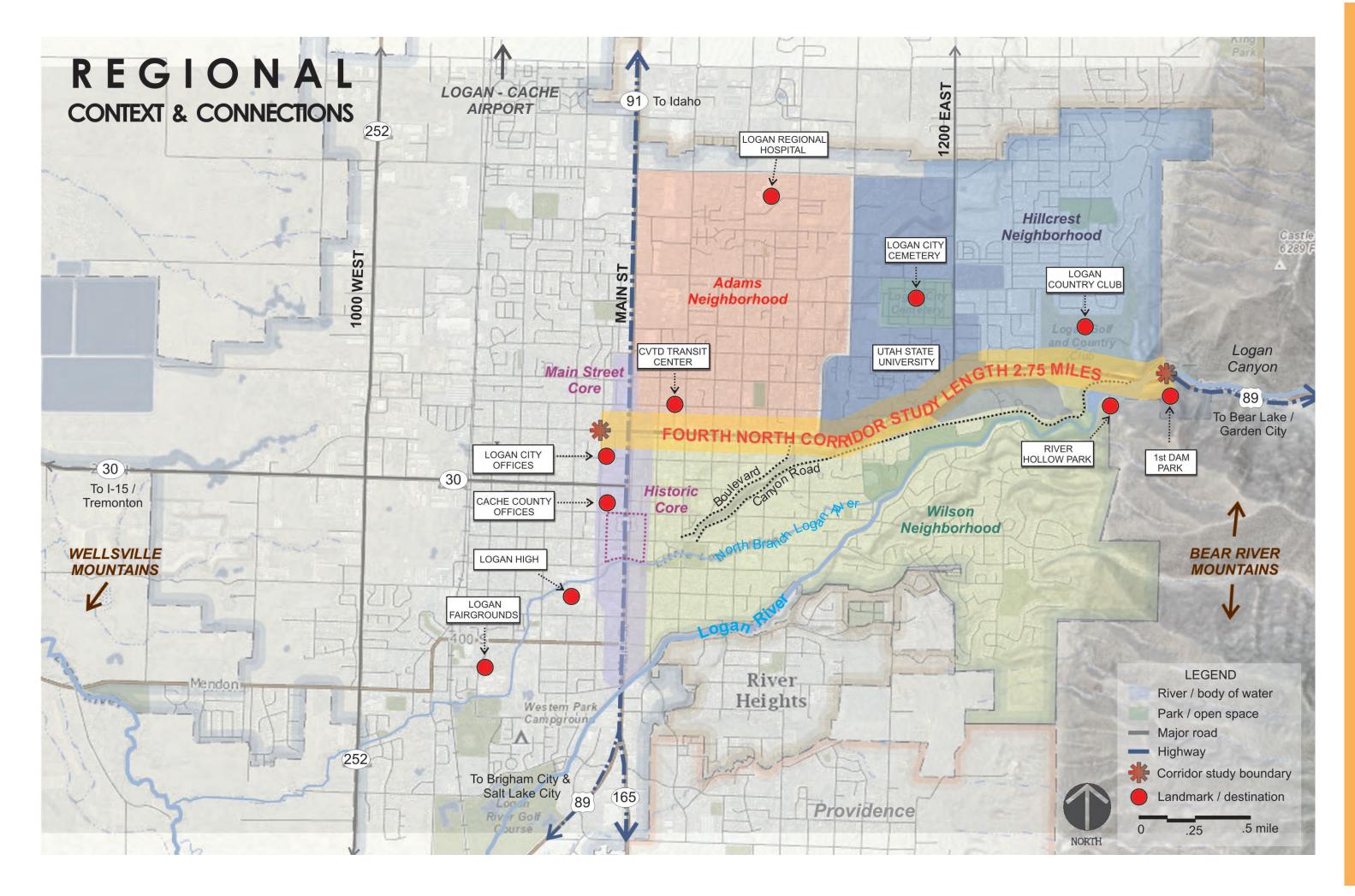
The Fourth North Corridor is a gateway into Logan Canyon with beautiful viewsheds.

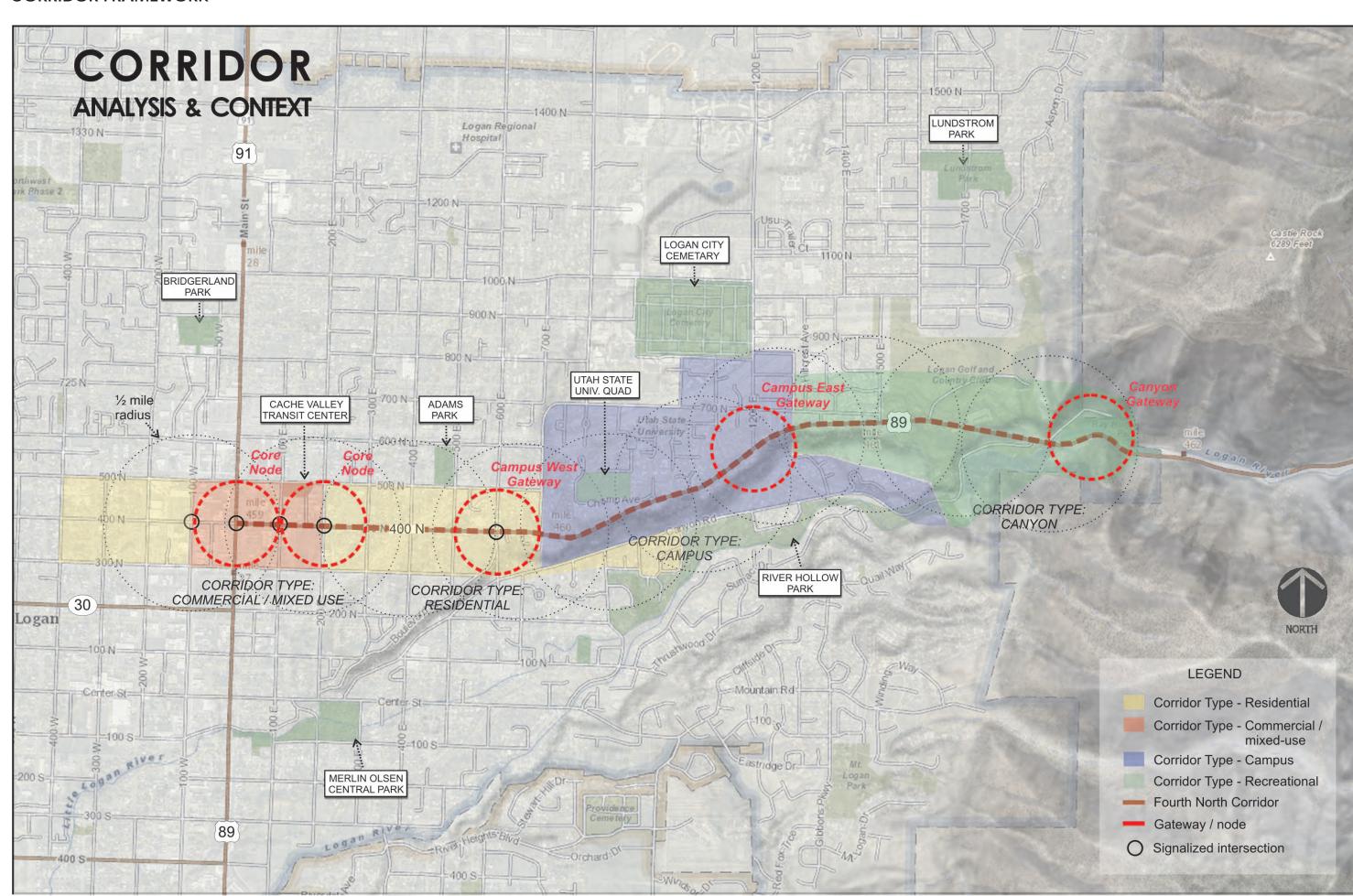
# **REGIONAL CONTEXT**

The corridor plays an important role as a primary link to areas east of Logan. It functions as a continuation of U.S. Highway 89 from Logan's Main Street, and proceeds up Logan Canyon to Bear Lake, where it exits Utah. The portion of the highway between Logan to Bear Lake is designated as the Logan Canyon Scenic Byway. The byway provides spectacular scenery and access to great recreational areas.



The map shows the portion of U.S. Highway 89 from Logan's Main Street, along 400 North and up Logan Canyon to Garden City and Bear Lake. The scenic byway provides access to camping sites along the way.





# CORRIDOR ANALYSIS: CURRENT CONTEXT

# **OVERVIEW**

The portion of 400 North between 100 West and the entrance to Logan Canyon passes through a range of contexts, with some different characteristics along its 2.75-mile length. The land uses change, while the physical characteristics and street cross section stay fairly consistent. In general, the development density along the corridor is low. Buildings, physical structures, and vegetation along the corridor contribute to the varying characteristics. The corridor can generally be characterized as three sections: commercial, residential, campus & canyon.

# **CROSS-SECTION**

The existing right-of-way varies moderately in width along the corridor. However, the basic cross-section remains fairly consistent. The primary differences are seen at either end. Main Street has two left-turn lanes heading westbound and eastbound. East of 700 East, the sidewalks and park-strips are not present. Pavement is uninterrupted from back of curb to back of curb.

# WEST END: COMMERCIAL

The west end of the corridor study area, from 100 West and 200 East, is primarily commercial in nature, with some residential along both ends of this section. This portion includes the major intersection of Main Street and 400 North, two state highways. The configuration of the street right of way responds to the heavy traffic flowing through this intersection. The west bound lanes include double turn lanes to head south on Highway 89/91.

## CENTRAL CORE: RESIDENTIAL

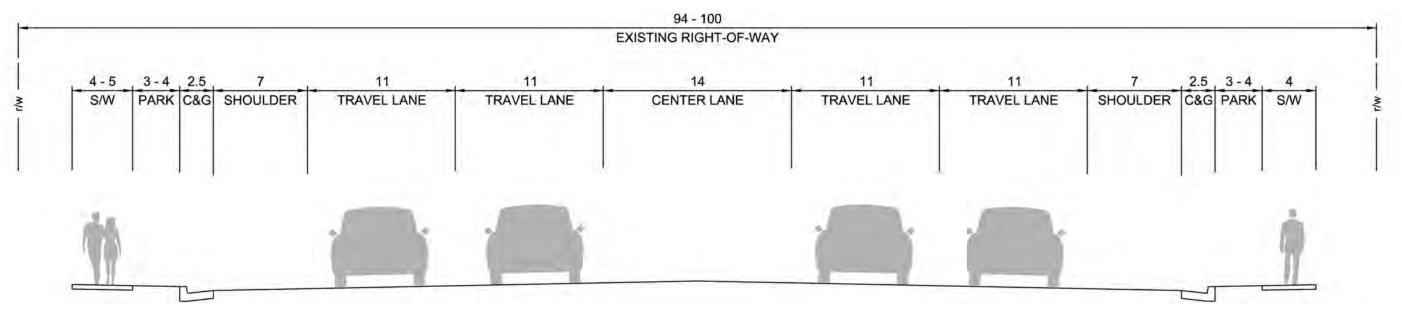
The central portion of the corridor, from 200 East to 700 East, is primarily residential in nature. It contains a mixture of structures, with the majority being single-family structures although many of these have been converted to multi-family units that are primarily utilized by students of USU. The corridor right of way consists of two travel lanes in each direction, a center turn lane, parallel parking on each side, a gutter apron, narrow grass park strip, and fairly narrow sidewalk.



The Fourth North corridor, is generally characterized by 2 11-foot travel lanes in each directions with a center turn lane. Sidewalks are 4 to 5 feet in width, with a narrow park strip of 3 to 4 feet. View from 100 West, looking east.

# EAST END: CAMPUS & CANYON

The east end of the corridor, from 700 East to the mouth of the Canyon, is primarily campus and canyon in nature. The adjacent land uses are the USU campus on the north and the canyon park/bluff on the south. The corridor begins a steep grade uphill as you head east. The corridor right of way continues the same travel lanes as the Central Section, but the sidewalks and planted park strips are no longer extant.



# CORRIDOR ANALYSIS & OPPORTUNITIES: BLOCK-BY-BLOCK

The following existing conditions analysis outlines current barriers, as well as opportunities faced by the 400 North corridor in terms of overall streetscape character and land use mix. Opportunities include pedestrian-friendly/oriented sections in the residential portion of the corridor, and development infill potential on surface parking lots that front onto the corridor.

# **100 WEST to MAIN STREET**

This section of 400 North is primarily commercial and/or mixed-use in nature, but transitions to residential at its west end. The surrounding context to the west is primarily residential.

Bldg Heights	1-3 stories
Setbacks	0-20 ft
ROW	94 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside, behind, and in front of buildings
Vegetation	Sparse, few street trees
Overall Character	Not a pleasant walking experience. Street wall not continuous

Residential



Commercial



Mixed Use



Pedestrian friendly/ oriented zone

# MAIN STREET to 100 EAST

This section of 400 North is primarily commercial with large expanses of surface parking. The surrounding context is also commercial.

Bldg Heights	1 story
Setbacks	0-30 ft
ROW	94-101 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside, behind, and in front of buildings
Vegetation	Very sparse
Overall Character	Mostly parking lots. No building presence on street. No street wall. Not a pleasant walking experience



Residential



Commercial



Pedestrian friendly/ oriented zone

# 100 EAST to 200 EAST

This section of 400 North is a mix of commercial, office, institutional, and residential. The surrounding context to the north and south is a mix as well.

Bldg Heights	1-2 stories
Setbacks	4-40 ft
ROW	96-101 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside, behind, and in front of buildings
Vegetation	Sparse
Overall	Street wall not continuous
Character	



Residential



Commercial

Office



Institutional



Pedestrian friendly/ oriented zone

# 200 EAST to 300 EAST

This section of 400 North is primarily residential, with a large institutional use on one corner of 200 East. The surrounding context is primarily residential.

Bldg Heights	1-3 stories
Setbacks	20-40 ft
ROW	94-100 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside and behind buildings
Vegetation	Intermittent tree clusters, dense around canal
Overall Character	Residential with a stronger street wall and more pleasant pedestrian experience



Residential

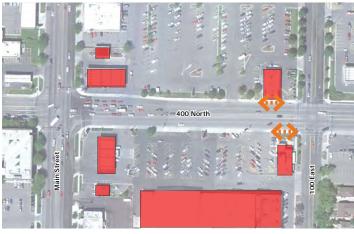


Institutional



Pedestrian friendly/ oriented zone









# 300 EAST to 400 EAST

This section of 400 North is primarily residential in nature, with a combination of owner and renteroccupied dwellings.

# 400 EAST to 500 EAST

This section of 400 North is primarily residential in nature, with a combination of owner and renteroccupied dwellings.

# 500 EAST to 600 EAST

This section of 400 North is primarily residential in nature, with a combination of owner and renteroccupied dwellings.

# 600 EAST to 700 EAST

This section of 400 North is primarily residential in nature, with a combination of owner and renteroccupied dwellings.

Bldg Heights	1-2 stories
Setbacks	4-40 ft
ROW	94-100 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside and behind buildings
Vegetation	Dense and significant tree canopy on both sides of street
Overall Character	Strong neighborhood core. Pleasant walking experience. Human scale

Bldg	1-2 stories
Heights	
Setbacks	12-40 ft
ROW	94-100 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside, behind and infront of
	buildings
Vegetation	Intermittent tree clusters
Overall	Residential with houses at a human scale
Character	

Bldg	1-2 stories
Heights	
Setbacks	20-30 ft
ROW	94-100 ft
Sidewalks	Present, 4 ft wide
Parking	off-street: alongside, behind and infront of
	buildings
Vegetation	Intermittent tree clusters; mature trees
Overall	Strong neighborhood core. Pleasant
Character	walking experience. Human scale

Bldg Heights	1-2 stories
Setbacks	20-40 ft
ROW	94-100 ft
Sidewalks	Present, 4 ft wide
Parking	Off-street: alongside, behind, and infront of buildings
Vegetation	Strong tree canopy; mature trees
Overall	Residential with large tree canopies and
Character	houses at a human scale



Residential



Commercial



Pedestrian friendly/ oriented zone



Residential



Commercial



Pedestrian friendly/ oriented zone



Residential



Commercial



Pedestrian friendly/ oriented zone



Residential



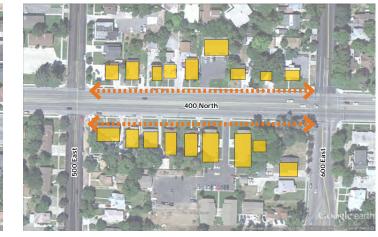
Commercial



Pedestrian friendly/ oriented zone









# CORRIDOR OPPORTUNITIES: MARKET/DEVELOPMENT OPPORTUNITY ANALYSIS OVERVIEW

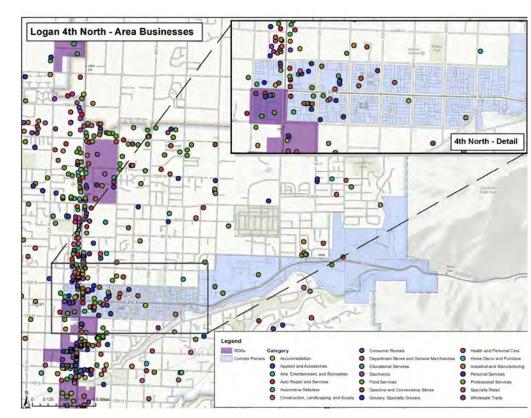
For the plan, Zions Bank Public Finance (ZBPF) conducted an economic analysis of the corridor in order to better understand: 1) the role of the corridor in relation to the City as a whole; and 2) opportunities for future development along the corridor. ZBPF also conducted a multi-family housing absorption analysis to understand the redevelopment potential of the residential portions of the corridor. (Full reports available in the Appendix)

The analysis found that 61 percent of Logan's sales tax revenues originate from businesses located along Main Street. There is a significant cluster of businesses at 400 North and Main Street that account for roughly nine percent of total sales citywide. Other than that, however, the remainder of the 400 North corridor, as it stretches eastward toward the mountains, has minimal commercial development and provides very little sales tax revenues for the City.

Logan is a regional retail hub that captures an estimated 190 percent of retail sales, meaning that residents from outside of the area come to Logan to make purchases (as reflected by a capture rate of over 100 percent). However, even with this high capture rate, there are still opportunities to increase the sales and property tax base along 400 North by: extending retail into the two blocks east of Main Street, infill and densification of existing retail properties, recapture of lost sales in some retail categories, and increased retail opportunities due to population and employment growth in Cache County.

East of 200 East there is very little retail, with multi-family residential units interspersed with a single-family dwelling units. Over time, this area should see increased density of housing units, with some mixed uses as well near the USU campus. The following section discusses potential absorption of multi-family housing along 400 North in more detail.

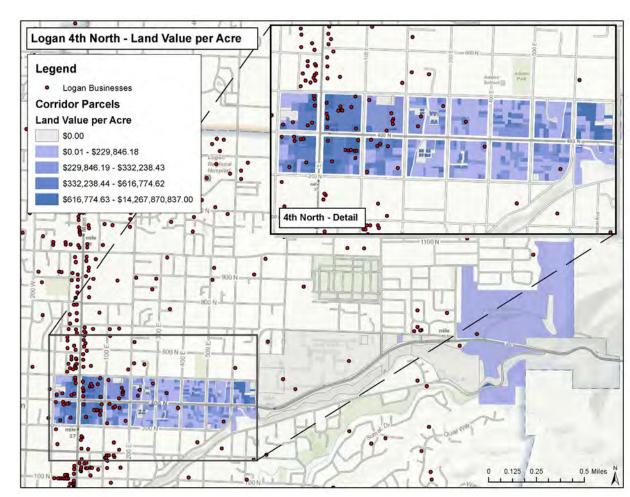
Similar to the trend seen in other areas of the State, Cache County experienced a significant drop in the number of housing unit building permits during the 2008 recession. The number of permits began to rise again, but has not seen the numbers close to those in the four years before the recession. Over the past 10 years, 32 percent of total housing unit permits in Cache County occurred within Logan City. As a whole, housing units other than detached single-family residential account for 35 percent of the total permits over the past ten years. In Logan, the inverse is seen. Only 35 percent of permits are for singlefamily, while 65 % are for attached or multi-family units, including duplexes, condos, and apartments.



The market analysis evaluated the businesses within the study area according to business category. This identifies current clusters as well as under-represented categories that might do well along 400 North.

Logan accounts for 61 percent of the attached/multi-family units permitted in Cache County. This higher portion of multi-family and attached housing is supported by the demand in Logan due to Utah State University and its function as the largest city and county seat of Cache County. The potential for future attached and multi-family housing to occur along 400 North to the east of Main Street is dependent on demand and recent or planned developments in other areas of the city. The current context of 400 North as a heavy traffic corridor makes it less attractive for owner-occupied housing, whether in a detached or attached form. Demand for this general area is mainly for rental units. Most of the demand is driven by college students, who are primarily looking to rent two-bedroom units or smaller in a multi-family development. The rent for a three-bedroom apartment is high enough to push renters looking for more space to move into a rental house.

Demand is linked to the future growth of the USU student population, which is expected to grow in enrollment. A fair amount of multi-family student housing is currently under construction or planned/approved in locations near the University. With the high amount of construction underway, it is anticipated that the 400 North corridor will see little demand for additional multi-family/attached units over the next few years. A small number of housing units (up to 20) geared toward married students would likely comprise the type of demand seen. This would assume the new construction stays within an affordable price point for students, ranging from \$400 to \$550 a month for one- and two-bedroom apartments.



An evaluation of the land value per acres helps identify areas where redevelopment is more likely to occur, based on market viability.

J-U-B completed a planning level circulation and transportation analysis for 400 North (US 89) from Main Street (US 91) to Canyon Road. The planning level analysis evaluated existing and future year 2035 traffic volumes to identify the number of travel lanes required to accommodate the future travel demand on the 400 North Corridor. (Full report available in the Appendix)

# **ROADWAY NETWORK**

400 North is one of the primary east-west corridors in Logan and is an important gateway to Utah State University. It is also the gateway to Logan Canyon, which provides access to Bear Lake Valley and points beyond. 400 North is also a state highway designated as US-89 and is under the jurisdiction of the Utah Department of Transportation (UDOT). The City of Logan Surface Transportation Master Plan identifies 400 North as a primary arterial. Currently, the corridor has two-travel lanes plus a two-way left-turn lane (TWLTL) from Main Street (US-89) to 1350 East. From 1350 East to Canyon Road there is one eastbound and two westbound travel lanes. The posted speed limit on the corridor is 40 mph from Main Street (US-91) to approximately 1400 East with four signalized intersections at Main Street, 100 East, 200 East and 600 East. From 1400 East to Canyon Road the speed limit is 50 mph with no signalized intersections.

# HISTORIC TRAFFIC VOLUMES

Average Annual Daily Traffic (AADT) volumes are used in the planning process to show the AADT volumes on a roadway. AADT is the annualized average two-way daily traffic volume at a specific point or section of roadway. Figure 1 – shows the 20 year traffic volumes from 1993 through 2013. The reported traffic volumes have decreased between 24% and 54% since 2004 depending on the corridor segment. Since the AADT volumes showed a significant decline in recent years, the AADT volumes were compared with UDOT's Signal Performance Metrics which provide estimated approach volumes at the signals on the corridor. Since the Signal Performance Metrics showed significantly higher volumes on the corridor than reported in UDOT's Traffic on Utah Highways, J-U-B requested that Logan City conduct traffic counts. Traffic counts were conducted for a 24-hour period on October 29, 2014 and are compared to the reported 2013 AADT in Table 1. As seen below, the count volumes are significantly higher than the reported 2013 AADT, and are similar to those from earlier counts.

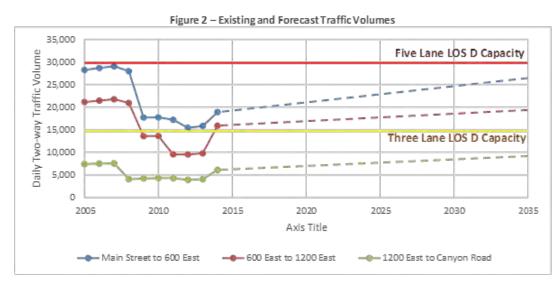
# TRAFFIC FORECASTS

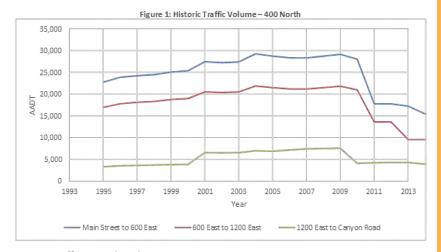
In order to provide a conservative estimate of future traffic volumes on the corridor, the 2014 count volume was used as the basis of forecasting traffic volume on the corridor. Traffic growth from the Cache Metropolitan Planning Organization (CMPO) regional travel demand model was used to develop daily traffic forecasts for the corridor. Based upon the model traffic volumes, traffic is anticipated to grow between 1% and 2.5% per year depending upon the highway segment.

# **EXISTING CAPACITY**

Level of Service (LOS) is an engineering term used to describe the quality of service for a variety of modes. It ranges from the most optimum level, LOS A, which represents free flow traffic with little or no delay, to the lowest or worst evel, LOS F, consisting of extreme delay and congestion.

The following table illustrates the LOS criteria for automobiles at intersections as defined in the Highway Capacity Manual (HCM) 2010 published by the Transportation Research Board (TRB). Because UDOT operates under a fiscally constrained model, UDOT has adopted LOS D as the acceptable LOS





Source: Traffic on Utah Highways, UDOT

Table 2 - Level of Service Criteria

Level of Service	Signalized Intersection (Delay in Seconds per Vehicle)	Unsignalized Intersection (Delay in Seconds per Vehicle				
A	≤ 10	≤ 10				
В	> 10 - 20	>10-15				
C	> 20 - 35	> 15 - 25				
D	> 35 - 55	> 25 - 35				
E	> 55 - 80	> 35 - 50				
F	> 80	> 50				

standard in urbanized areas. Traffic modeling software, ARTPLAN (2012), was used to complete a conceptual planning analysis of the existing capacity and is consistent with HCM methodologies. ARTPLAN estimates daily LOS service volumes based upon characteristics of the corridor and intersections. These daily service volumes reflect the LOS during the peak hour although they are expressed as a daily volume and represent the maximum traffic volume that can be accommodated on each highway segment for any particular LOS classification. ARTPLAN analysis is available at Appendix B. These estimated capacities only consider the through movement of cars on 400 North and do not reflect the LOS for north/south traffic on the cross streets such as 100 East, 200 East, and the other streets that can be accessed from 400 North. Changes to the median type, turn lanes, parking, and speed limit or intersection onfigurations will result in changes to the capacity estimates. The existing LOS D capacity of 400 North with two travel lanes in each direction with a TWLTL is 29,800 vehicle per day and with one travel lane with a TWLTL it would be 14,700 vehicles per day. As shown in Figure 2, the existing capacity on 400 North will accommodate the forecasted traffic volumes at LOS D or better.

## CONCLUSION

As a result, no capacity improvements are anticipated to be needed before the forecast year 2035. However, the existing traffic volumes are higher than the capacity of a three-lane roadway so lane reductions would not be recommended between Main Street and 1200 East.

# CORRIDOR OPPORTUNITIES: LAND USE/DEVELOPMENT PATTERN

# INTRODUCTION

400 North provides spectacular views to Logan Canyon when traveling east and to Downtown Logan when traveling west. Views of the Utah State University campus are somewhat limited from the corridor. Improvements at key intersections will assist in the transition of Fourth North from an automobile-focused roadway into a multi-modal transportation gateway corridor, both for the city and the USU campus. A key consideration in the design and development of the corridor is the protection of existing viewsheds and vistas, and the enhancement of new visual connections. Opportunities have identified to improve and enhance the form and function of the corridor, both from a land use and development perspective as well as a streetscape design perspective. The overview here describes key development opportunities and redevelopment priorities, setting the context for the overall Fourth North Corridor Design and Development concept.

## CORRIDOR TYPE: COMMERCIAL/MIXED USE

This area between 100 West and 200 East is envisioned to transform from auto-oriented commercial into a commercial and mixed-use area that is oriented to multiple modes of transportation. The Main Street intersection can be enhanced through a shift toward buildings that are designed to orient to the street; a vision that was also identified in the Downtown Logan Specific Plan from 2012. A new neighborhood node at 200 East will act as a demarcation between the commercial/mixed-use portion of the corridor and the residential portion to the east, acting to prevent commercial creep east along the corridor. This node will concentrate a mix of neighborhood-scale uses that serve both area residents and the USU campus. The uses will complement rather than compete with the cultural draw and higher intensity of Main Street and Downtown.

# **DEVELOPMENT PRIORITY**

# HIGH PRIORITY/SHORT TERM (0-10 years)



CAMPUS MIXED-USE NODE



CAMPUS MIXED-USE MEDIUM DENSITY



CAMPUS MIXED-USE LOWER DENSITY

# MEDIUM PRIORITY/MID TERM (5 - 15 years)



NEIGHBORHOOD MIXED-USE NODE



NEIGHBORHOOD MIXED-USE MEDIUM DENSITY

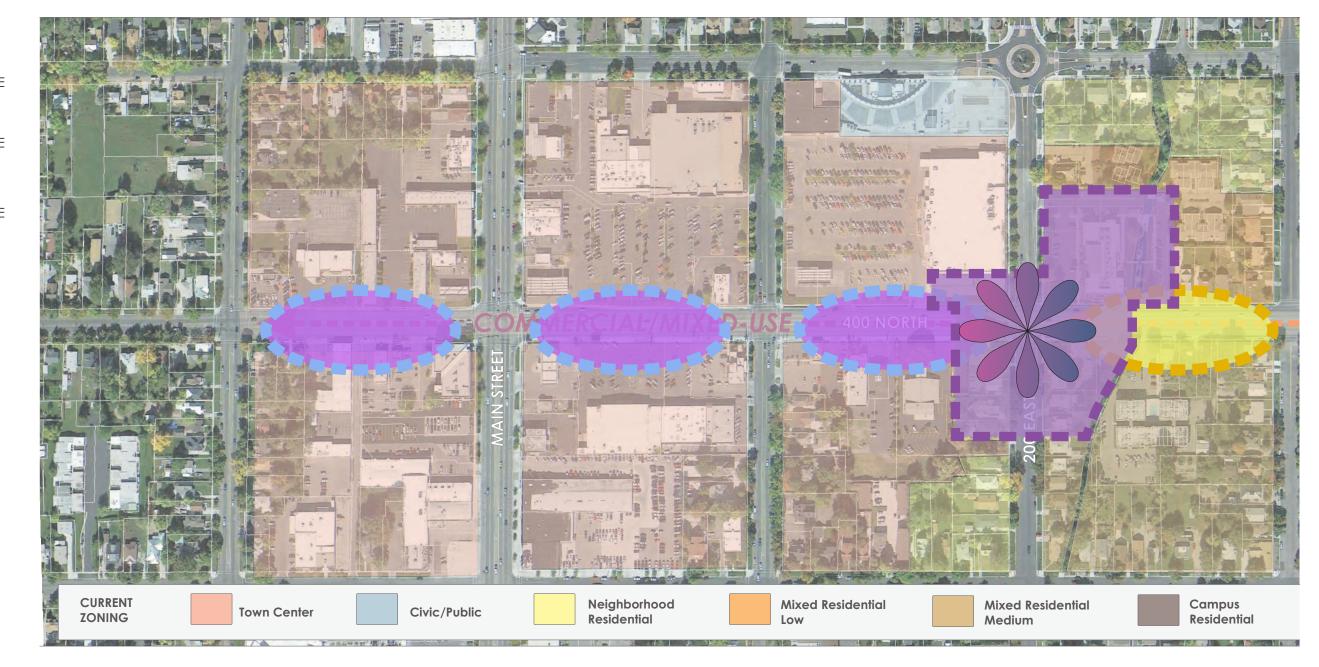


INFILL MIXED-USE

# LOWER PRIORITY/LONG TERM (10 - 20 years)



INFILL RESDIENTIAL



# CONTEXT

# CORRIDOR TYPE: RESIDENTIAL

This portion of the corridor will have two nodes acting as bookends, to help stabilize the residential pattern of development. The 200 East node will act as the shift between the commercial area near downtown, while the 600 East node will act as a gateway into campus and mixed-use opportunities that can directly capitalize on the demographics of the campus setting. The predominant residential use type is currently single-family dwellings that are a combination of owner and renter-occupied. Opportunities to accommodate future growth in Logan via additional multi-family housing may occur in the long-term, and it is recommended that development be similar to the form of the current residential development for visual and functional compatibility. A directed, phased approach for zoning to allow multi-family housing will be guided by market absorption rates to help avoid haphazard redevelopment. Current absorption rates indicate the demand for multi-family housing along the corridor is more long-term, due to planned higher-density housing development near campus. Reinvestment in existing single-family structures may occur with investment in the physical infrastructure of the corridor.

# CORRIDOR TYPE: CAMPUS/MIXED USE/CANYON

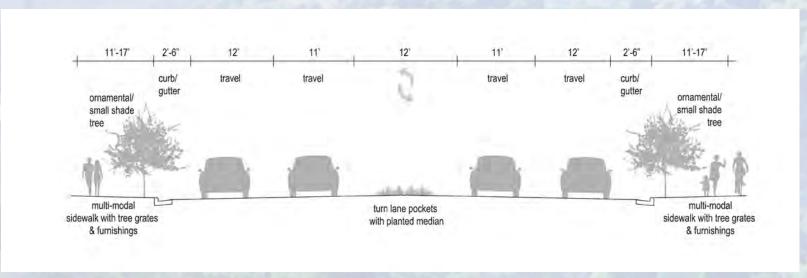
This portion of the corridor begins at 600 East and continues up to the entrance of Logan Canyon. It is envisioned as an opportunity for the 600 East intersection to become a gateway to campus. While the southeast/southwest/northwest corners will be lower density in nature (to protect viewsheds and buffer existing lower density residential), the block on the northeast corner of this intersection is envisioned as a campus-oriented mixed-use area of medium density. Residential over retail that is geared toward campus users will be promoted at the northeast corner of 400 North and 600 East and elsewhere on that block as absorption rates allow.



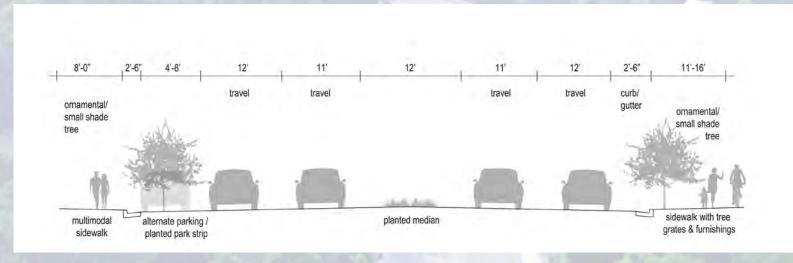
# PROPOSED CORRIDOR DESIGN & DEVELOPMENT FRAMEWORK: CROSS SECTIONS FOR CORRIDOR TYPES

These three cross-section diagrams capture the typical proposed design and development framework for the three corridor types in the plan area: Commercial/Mixed-Use; Residential/Mixed-Use; and Campus/Canyon. Variations along the corridor are captured on the node concept plans in this section.

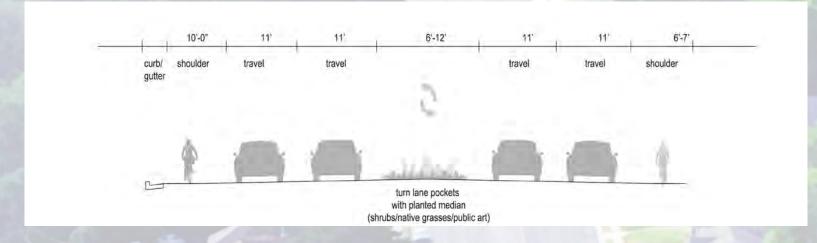
# CORRIDOR TYPE: COMMERCIAL/MIXED-USE 100 WEST TO 200 EAST



# CORRIDOR TYPE: RESIDENTIAL/MIXED-USE 200 EAST TO 600 EAST



# CORRIDOR TYPE: CAMPUS/CANYON 600 EAST TO 1500 EAST



# STREETSCAPE DESIGN ZONES

Urban design is the practice of giving form, shape, and character to neighborhoods, districts, or places. In the case of the Fourth North Corridor, a combination of aesthetics and safety improvements are envisioned to provide an identifiable character using streetscape design. Some elements of the concept plan will seek to unify different sections of the corridor with each other or to other areas of Logan City, while other elements will seek to define the sections from one another in order to highlight the change in uses, currently and anticipated for the future.

# Street Zone: Design Components from back of curb to back of curb





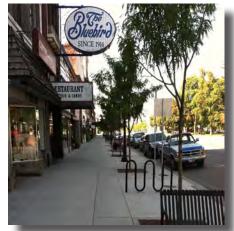








Sidewalk Zone: Design Components from back of curb to edge of right-of-way/ front property line













Development Zone: Design & Development Components from back of right-of-way/front property line





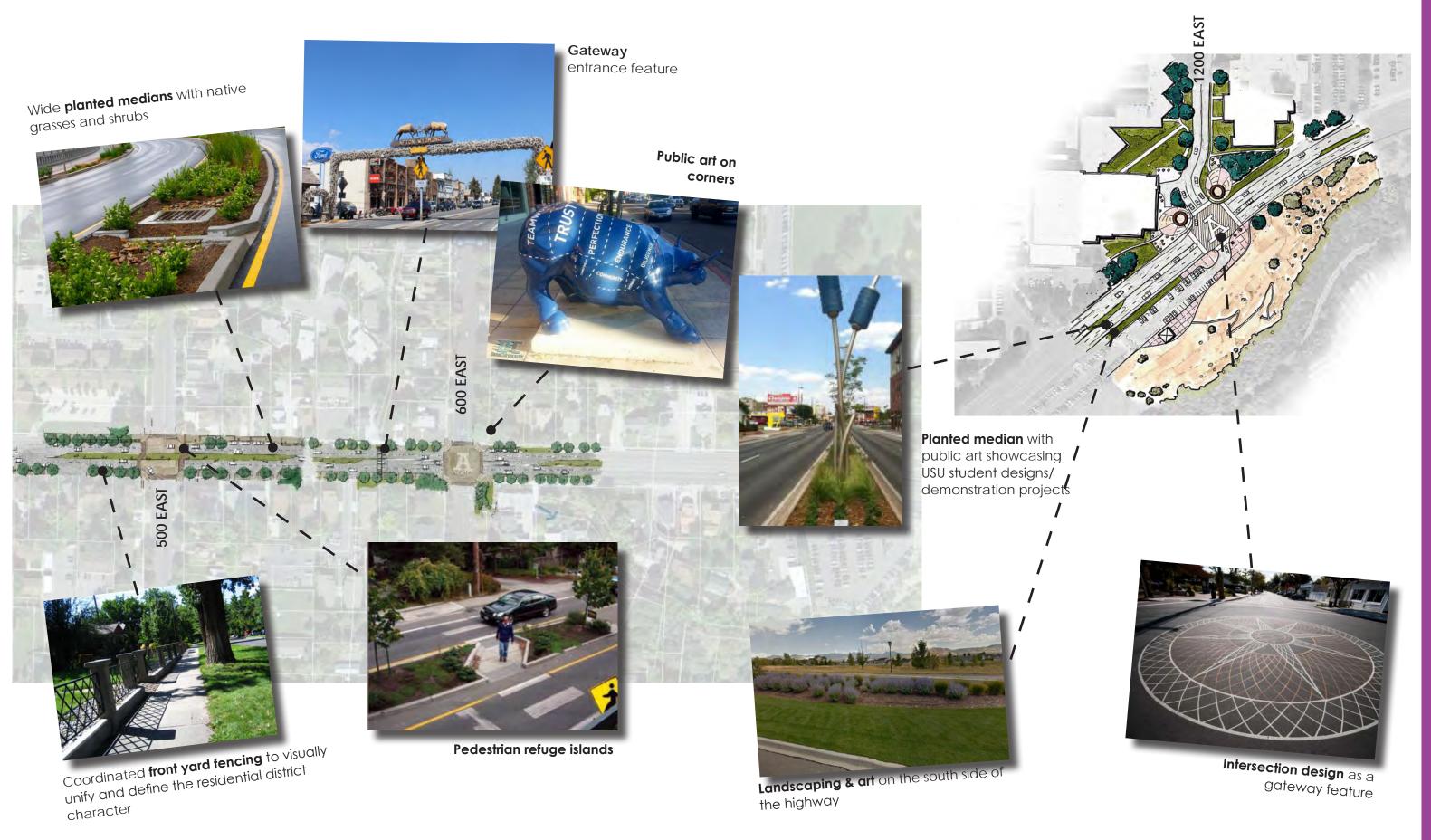


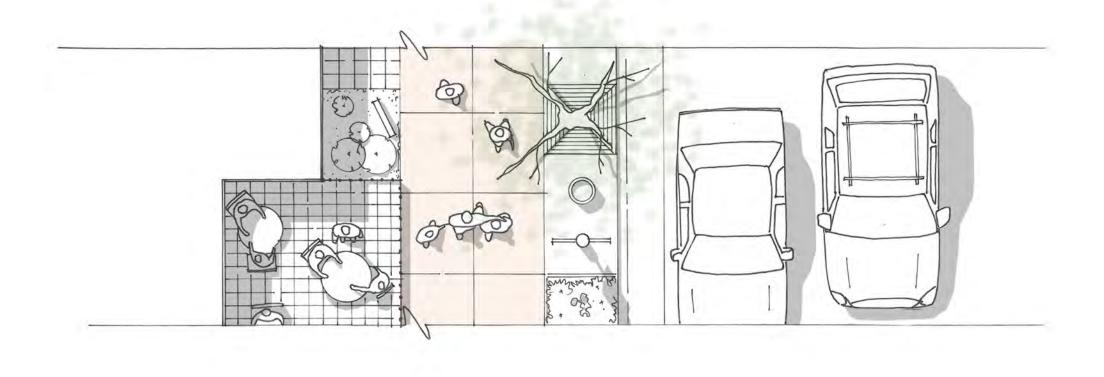


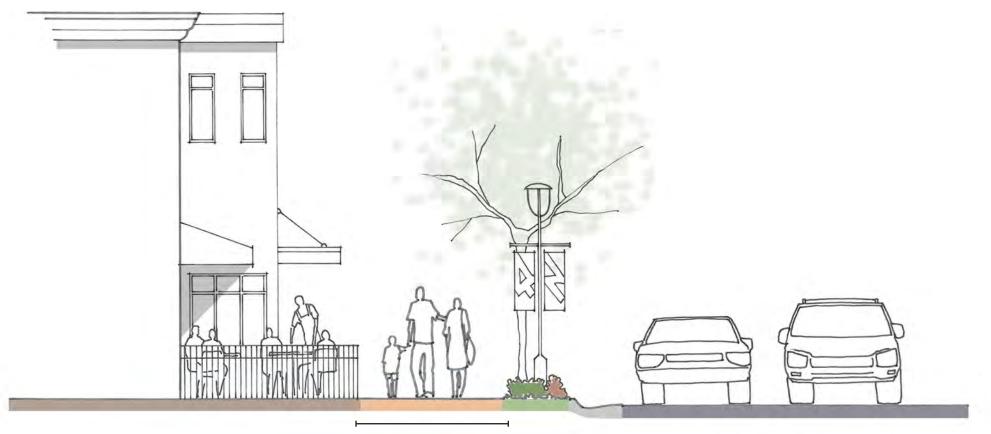


# FOURTH NORTH CORRIDOR DESIGN & DEVELOPMENT CONCEPT PLAN COMPOSITE







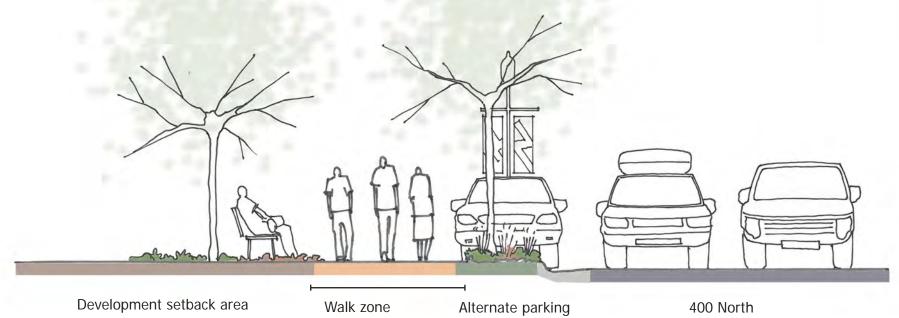


Mixed Use Development/Sidewalk Dining

8-foot walk zone

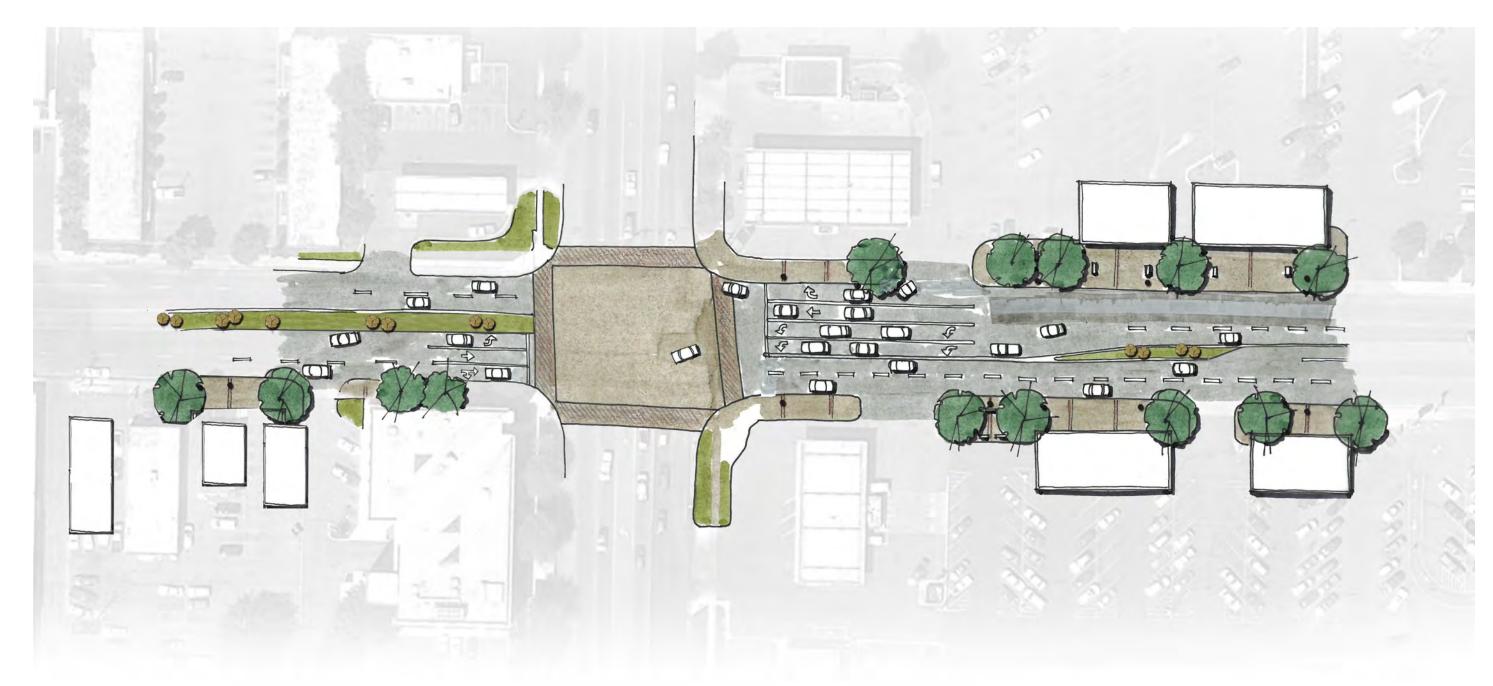
400 North





Alternate parking and parkstrip

# CORRIDOR TYPE: COMMERCIAL/MIXED-USE 1 - MAIN STREET NODE: DESIGN & DEVELOPMENT CONCEPT & COMPONENTS





# COMPONENT 1A: RETAIL PADS

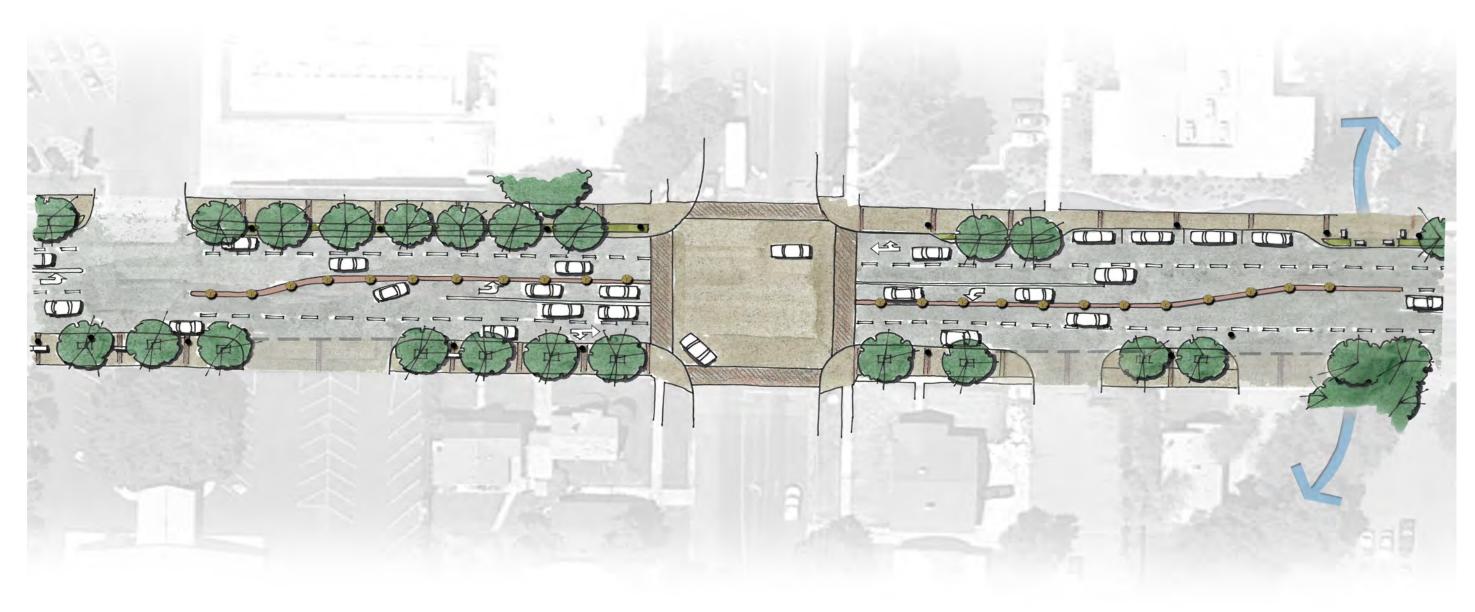
Street-oriented retail pads could connect campus to downtown. Campus is already a walking environment and retail pads would extend that environment to downtown.



# COMPONENT 1B: PLANTED MEDIAN

Any median can control traffic. Planted medians, however, perform several roles simultaneously. In addition to traffic control, planted medians change the scale of the street for a more comfortable height-to-width ratio, plantings are visually appealing, and series of street trees provide a visual connection to campus. Planted medians also present an opportunity for storm water management systems such as bio-swales.

# CORRIDOR TYPE: COMMERCIAL/MIXED-USE 2 - 200 EAST NODE: DESIGN & DEVELOPMENT CONCEPT & COMPONENTS





# COMPONENT 1C: URBAN SIDEWALK

Sidewalks wide enough to comfortably accommodate pedestrian uses plus street furniture, street trees, outdoor dining and other activities, are a critical component of creating a multi-modal corridor. People need a destinations to walk to and a comfortable and safe way to reach destinations. Sidewalks should be planned for three zones: the frontage zone immediately adjacent to buildings, the pedestrian through zone, and the street furnishings/buffer zone.



# COMPONENT 1D: TREE GRATES

Trees provide bring an pedestrian scale to the street as well as providing much needed shade during summer months. In areas where the sidewalk is narrow and a greater hardscaped area is desired, tree grates allow for trees without taking away from pedestrian area.

# CORRIDOR TYPE: RESIDENTIAL 3 - 300 EAST & 500 EAST INTERSECTIONS: DESIGN & DEVELOPMENT CONCEPT & COMPONENTS





# COMPONENT 3A: PLANTED MEDIAN

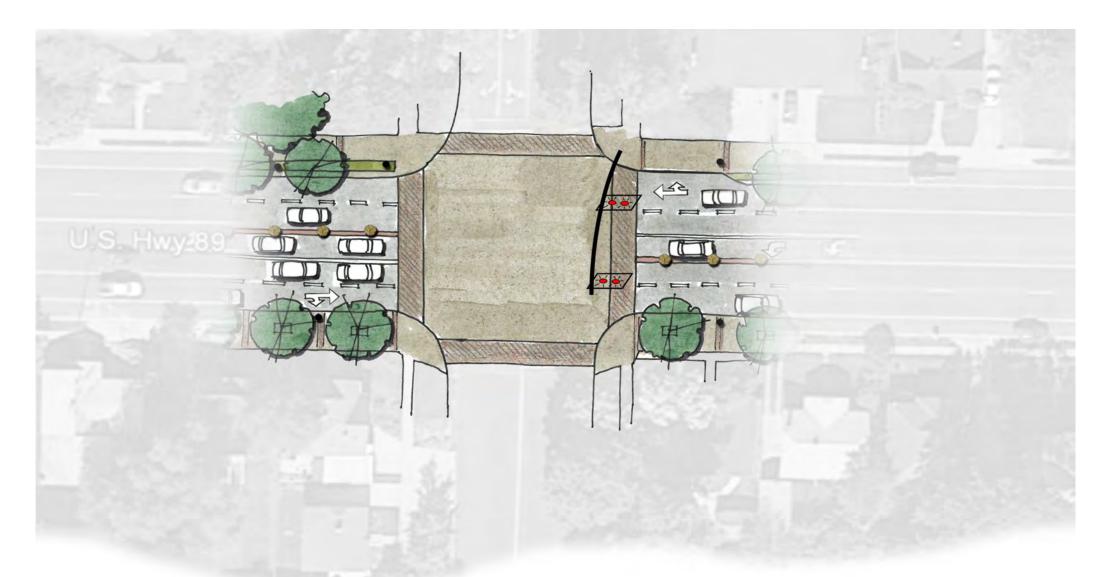
In this section of the residential corridor, the planted median is extended through the intersection to improve safe crossing at unsignaled intersections. Any median can control traffic. Planted medians, however, perform several roles simultaneously. In addition to traffic control, planted medians change the scale of the street for a more comfortable height-to-width ratio and are visually appealing, Planted medians also present an opportunity for storm water management systems such as bio-swales.



# COMPONENT 3B: PEDESTRIAN REFUGE

A space for pedestrians to wait at un-signalized intersections helps to improve safety while crossing the roadway. The off-set design allows the pedestrian to face toward the direction of traffic to better visualize oncoming vehicles.

# CORRIDOR TYPE: RESIDENTIAL 4 - 400 EAST INTERSECTION: DESIGN & DEVELOPMENT CONCEPT & COMPONENTS





# COMPONENT 3C: LANDSCAPED SETBACKS

The residential uses of this corridor should continue to be supported with a landscaped front setback. Differing use types and forms can be tied together with a consistent landscaping approach.



# COMPONENT 3D: FENCING

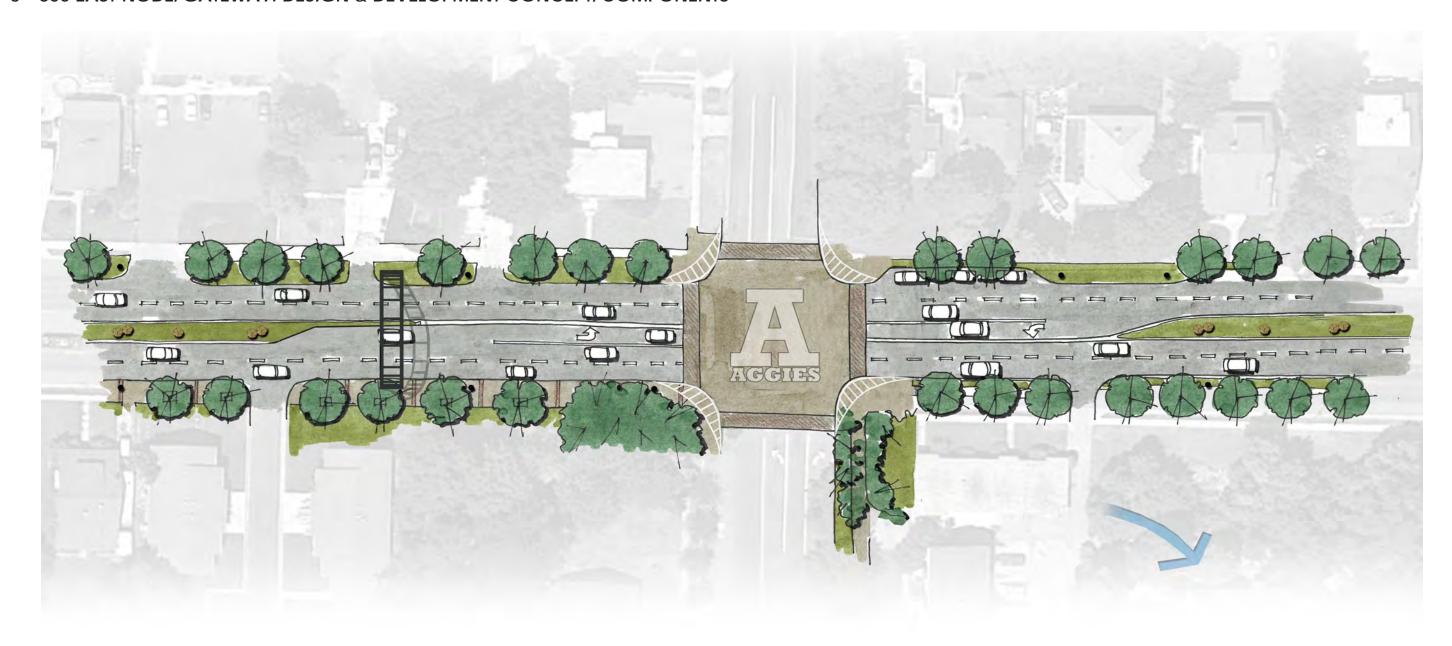
A consistent fencing style and placement adjacent to the sidewalk will provide visual continuity. Fencing also communicates what is public space and what is an owner's semi-private front yard space.



# COMPONENT 4A: PEDESTRIAN ACTIVATED CROSSWALK BEACON

To improve safety for this designated school crossing, a pedestrian-activated crosswalk beacon is recommended.

# CORRIDOR TYPE: CAMPUS/CANYON 5 - 600 EAST NODE/GATEWAY: DESIGN & DEVELOPMENT CONCEPT/COMPONENTS





# COMPONENT 5A: CAMPUS MIXED-USE DEVELOPMENT

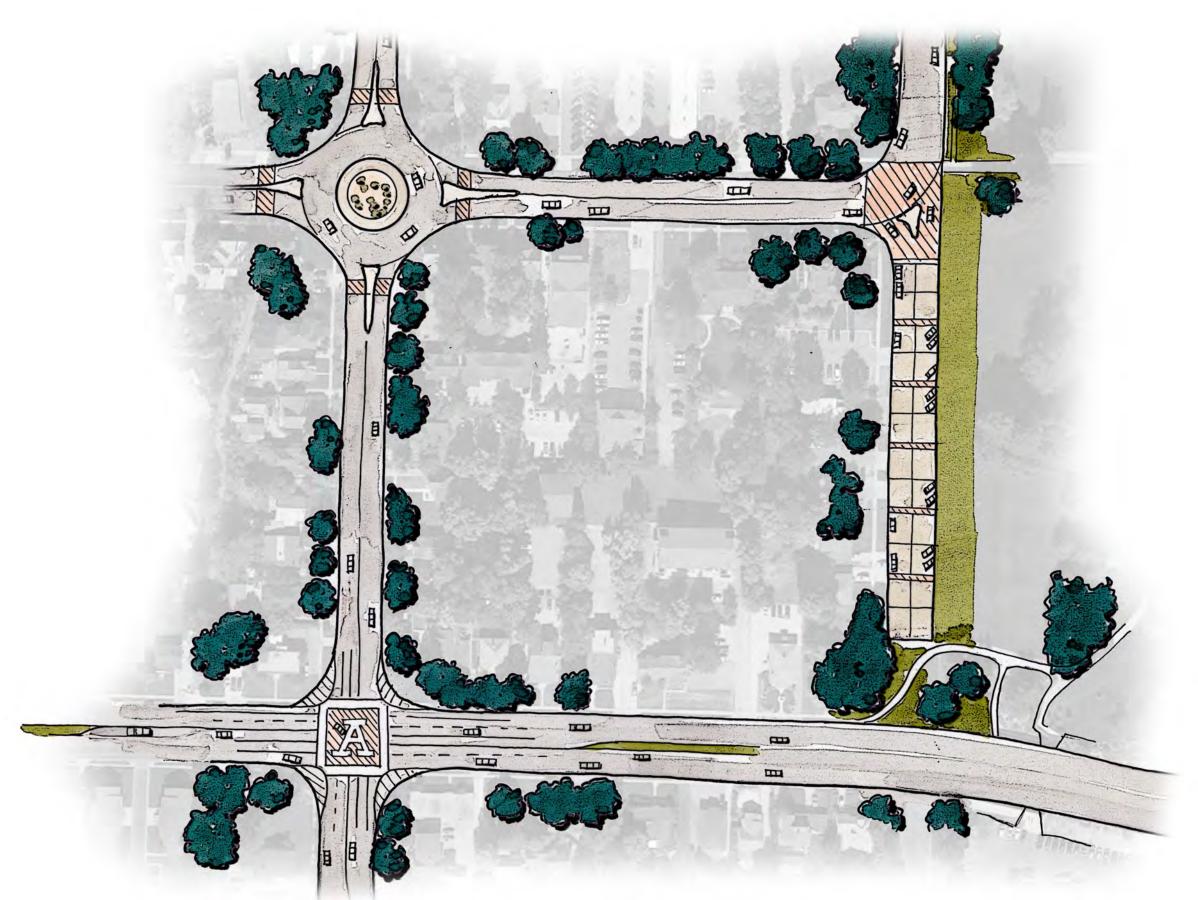
Allowing a mix of uses creates a node within a residential setting in a way that blends uses. The commercial/retail uses do not overwhelm the residential character when they are implemented in a mixed-used format. Low-rise buildings are a method for blending in with the surrounding area.



# COMPONENT 5B: INTERSECTION DESIGN IMPROVEMENT

Intersection design improvements create safer and more inviting places for people to walk. People walking on the street is a critical component to improving multi-modal safety and connecting campus with downtown. Intersection design improvements can also contribute towards neighborhood stabilization. If an area is inviting, then it becomes desirable and people want to stay and live there.

# CORRIDOR TYPE: CAMPUS/CANYON 5 - 600 EAST NODE/GATEWAY: DESIGN & DEVELOPMENT CONCEPT/COMPONENTS





COMPONENT 5C: ROUNDABOUT

A better flow and entrance to the USU campus can be achieved through a re-design of the series of intersections users follow, including a roundabout at 500 North/600 East.



COMPONENT 5D: WOONERF

The section of 700 East located to the north of 400 North has been closed to address safety issues with poor sight lines due to the steep hill up the canyon. An opportunity to make this area a campus gathering place can be achieved through the use of a woonerf - a street type for all modes.

# CORRIDOR TYPE: CAMPUS/CANYON 6 - 1200 EAST NODE/GATEWAY: DESIGN & DEVELOPMENT CONCEPT/COMPONENTS



COMPONENT 6A: LANDSCAPE MEDIAN

In this section of the residential corridor, the planted median is extended through the intersection to improve safe crossing at unsignaled intersections. Any median can control traffic. Planted medians, however, perform several roles simultaneously. In addition to traffic control, planted medians change the scale of the street for a more comfortable height-to-width ratio, plantings are visually appealing, and series of street trees provide a visual connection to campus. Planted medians also present an opportunity for storm water management systems such as bio-swales. In this particular section it is important to note that median plants should be kept to lower shrubs instead of trees in order to preserve mountain and valley views.



COMPONENT 6B: SIDE LANDSCAPING

Plantings along the south edge of the roadway can provide visual softness and continuity along the route. It is important to note that plants should be kept to lower shrubs instead of trees in order to preserve mountain and valley views. This area is also a potential location for public art.



# CORRIDOR TYPE: CAMPUS/CANYON 6 - 1200 EAST NODE/GATEWAY: DESIGN & DEVELOPMENT CONCEPT/COMPONENTS

# Twin Entry Feature Trailhead Plaza Looking West at 1200 East

# COMPONENT 6C: USU GATEWAY FEATURE

Gateway features are a method of efficiently communicating the entrance to a district of a city such as a campus. Gateway features can contain a variety of components such as intersection design treatments, vertical elements such as sculptures, signs, and arches. Interactive elements such as a mini-lookout tower with USU signage could also be included here. Art projects by USU students are an additional opportunity for gateway elements.

# COMPONENT 6D: ENHANCE PEDESTRIAN CONNECTIONS TO TRAILS

A trail ends in a parking lot in this section yet to reach the trail, pedestrians must cross a busy highway.
Once across, people must then search for the trail.
Enhancing pedestrian connections with intersection improvements, signage, and a trailhead would contribute towards the vision of a multi-modal corridor.



# **MAKING IT HAPPEN - IMPLEMENTATION & ACTION ITEMS**

Implementation describes the strategies by which projects (concepts and components) generated in this planning process can be brought to fruition in real life and not 'left on the shelves.' Implementation is not a one-time event but rather an ongoing process (which could take several years) within which various projects are tackled incrementally as resources and circumstances become feasible to do so. In some cases, streetscape design improvements will be a catalyst for private investment in development projects along the Fourth North Corridor. In other cases, a proposed development project may be the catalyst for implementing certain components of the streetscape design. Implementation may also address maintenance and suggest strategies for the upkeep of the infrastructure.

The aim of this implementation section is to identify projects that are:

- 1. Low cost and easy to do in the short term
- 2. High impact and bring the character of the Fourth North vision to life over the mid to long term
- 3. Championed by the community, City, University, private market or a combination

For the concepts identified, information on the tables included in this section preliminarily identifies:

- Where along the corridor will it go (what corridor type)?
- When is it recommended to happen (short, mid, or long-term) based on the implementation framework?
- What is the estimated relative cost to implement (minimum, moderate, or major investment)?
- Who will be involved/lead the implementation?

# IMPLEMENTATION FRAMEWORK

A general framework is established in this section that acts as a basis for categorizing projects for implementation based on their impacts and barriers.

**Impacts** capture benefits to the corridor and surrounding community, such as beautification, improvements to existing transportation networks, improved access, public gathering and recreational offerings, increased community pride, and generating new businesses and development.

Barriers for Implementation refer to costs or funding requirements, regulatory restrictions which pose impediments, challenges presented by coordinating with multiple stakeholder groups, complexity of the undertaking as well as time-intensive projects.

The matrix chart on this page depicts the general framework by which projects can be categorized for implementation using information about potential impacts and

		ZONE A	ZONE B	ZONE C
		High Impact Low Barriers	High Impact Mid Barriers	High Impact High Barriers
		ZONE D	ZONE E	ZONE F
IMPACT		Mid Impact Low Barriers	Mid Impact Mid Barriers	Mid Impact High Barriers
		ZONE G	ZONE H	ZONE I
		Low Impact Low Barriers	Low Impact Mid Barriers	Low Impact High Barriers

# BARRIERS FOR IMPLEMENTATION/COSTS

barriers. It is designed to be flextible and is intended to aid Logan City in choosing which projects to undertake as resources become available and circumstances change. Projects are grouped into the various zones depending on their impact on the overall character of the corridor and community, balanced against anticipated barriers for implementation. For the projects identified in this concept plan, the framework tool is used to categorize their implementation into a short, mid, or long-term timeframe,

Zone A (High Impact/Low Barriers) is a Priority Zone. Projects that fall in this zone are considered desirable and the most feasible, and are the focus of the recommended short-term projects described in the following section. If additional projects are considered for the corridor in the future, they can be evaluated using this same framework. It is recommended for Logan City to revaluate projects on an annual basis, as impacts and barriers may shift, making a project become a higher priority. By contrast, a suggested project may be re-evaluated and fall into a low impact zone, making it a lower priority or no longer feasible.

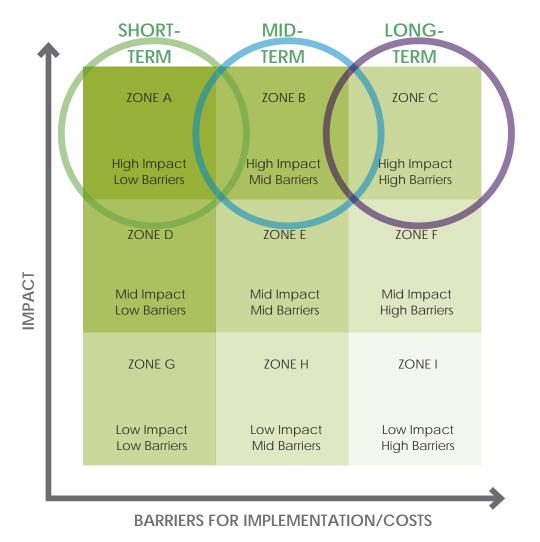
# POTENTIAL TIMELINE FOR IMPLEMENTATION

The recommended streetscape design components have been selected because of their high potential impact (Implementation Zones A, B, and C in the framework). In order to create as much flexibility as possible for decision makers regarding implementation of these components, there is intentionally no particular schedule given. This means that no hard-and-fast implementation schedule is prescribed, but rather a rough approximation of time and effort anticipated for implementation based on known conditions such as level of difficulty or potential barriers once a project is undertaken. In some cases implementation may be moved to a later phase because it requires a project in a previous phase as a pre-requisite to enable successful implementation. The estimated time frames are as follows:

**Short-term: Zone A -** This type of component can usually be immediately implemented with high impact and low barriers such as cost or coordination. These will be the most quick and easy projects for implementation.

**Mid-term: Zone B -** These projects will generally have high potential impact and may have low or medium barriers of implementation. They are likely to be implemented without extensive advance planning and coordination efforts. Some may have low barriers and could be short-term projects, but are likely dependent on other mid-term projects for implementation.

**Long-term: Zone C -** Projects in this category will have a high potential impact, but they likely have medium or high barriers for implementation which may require significant advance planning including funding or coordination. Some may also potentially have low or medium barriers for implementation but require projects to be implemented in prior phases in order for their success.



# **ACTION GROUPS**

Projects can also be identified under the most likely project champion (or champions) who could successfully oversee its implementation. This approach is recommended because it helps make clear to each of the groups on which projects their involvement is needed to successfully implement the corridor vision. When all action groups are working together to bring projects to fruition, they have the greatest chance for success. Most projects are a collaboration, and involve multiple groups, even if one group is the champion.

These <u>recommendations</u> are made on the basis of resources available to each group, knowledge and/or expertise, potential ability and willingness and likelihood for success. The action groups considered for the purposes of this implementation plan are:

# 1. Community-Sponsored:

These are projects that can be implemented by developers, as well as the Adams Neighborhood Council, various community organizations, non-profit organizations, schools, neighborhoods, families, churches or other local groups. These projects create the most sense of ownership since they are championed by property owners, residents or community members and encourage grassroots participation. These projects may have limited implementation barriers and little or no cost, but usually require so-called 'sweat equity'. Often, this group of entities can contribute to the long-term success of implemented projects through maintenance and upkeep, rather than funding or implementing the project itself. An example is for business and/or property owners to sign an agreement for the upkeep of any city-funded improvements that fall in the sidewalk or development zone.

# 2. City-Sponsored:

These project types would most likely be championed by Logan City, the RDA or a consortium of several local public agencies. These projects need the authority and capacity of the City to bring to pass. The City can also provide the necessary incentives to encourage public-private partnerships, raise funds, coordinate with other agencies, such as UDOT, and attract investment. Creation of a Community Development Area (CDA) for the corridor would allow for funds to be used on public improvement projects. As the area evolves, supporting a business improvement committee may help with implementation.

# 3. University-Sponsored:

These projects may be reliant on the financial contributions of Utah State University, or a partnership with USU. The University may garner support from specific donors or wrap projects into other funding requests. Other projects may be geared for success through the incorporation of student work, such as art and landscaping in the medians proposed for the corridor as it passes by the campus and nears the 1200 East gateway. Approaches like these are generally considered to be low-cost and high-impact.

# 4. UDOT Sponsored:

These projects would be implemented by UDOT and/or through a partnership to access federal improvement funds to implements design components. In general, these projects would be related to the overall safety of the corridor, rather than purely aesthetic improvements. However, future improvements would rely on the guidance of this plan for context-sensitive design.

**DEVELOPMENT ZONE** 



SIDEWALK ZONE

STREET ZONE

The tables on the following pages are divided into three categories, one for each of the improvement zones for the corridor. As described earlier in the concept plan and illustrated in the adjacent diagram, the three zones are as follows:

Street Zone: Components that are located in the area between back of curb on one side of the street corridor to back of curb on the other side are included in the street zone.

Sidewalk Zone: Components located in the area from the back of curb to the edge of the right-of-way and/or front property line are considered to be in the sidewalk zone. In some cases, this includes aspects of the development zone, such as sidewalk dining.

Development Zone: All components located from the back edge of the right-of-way and/or front property line are part of the development zone. Regulatory direction regarding the form of components in this zone is critical for the overall success of the corridor improvements.

Each table catpures the following information:

What - a breif description of the project

When - what is the timeframe for the project

How Much - the general estimated cost for the project

Where - on which section(s) of the corridor will the project occur

Who - an indication of the action groups involved in making the project happen

# IMPLEMENTATION: DEVELOPMENT ZONE IMPROVEMENTS

WHAT/PROJECT DESCRIPTION		WHEN/TIMEFRAME			HOW MUCH/COST		WHERE/CORRIDOR TYPE			WHO/INVOLVEMENT			
DEVELOPMENT ZONE IMPROVEMENTS		Mid-term	Long-term	Minimum Investment	Moderate Investment	Major Investment	Commercial	Residential	Campus/Canyon	Community	City	University	UDOT
Retail/Mixed-Use pads – fill in surface parking, orient to street (100 West to 200 East)	✓	✓				✓	✓			✓	✓		
Mixed-Use Development (200 East, 600 East)		✓	✓			✓	✓	✓		✓	✓		
Sidewalk Dining – use of setback to enhance/extend public realm of sidewalk zone	✓			✓			✓		✓	✓	✓	✓	
Fencing in front yards – unifying character for residential uses	<b>√</b>			<b>√</b>				<b>√</b>		✓	<b>√</b>		

# IMPLEMENTATION: SIDEWALK ZONE IMPROVEMENTS

WHAT/PROJECT DESCRIPTION	WHEN/TIMEFRAME			HOW MUCH/COST			,	WHERE/CORRIDO	DR TYPE	WHO/INVOLVEMENT			
SIDEWALK ZONE IMPROVEMENTS	Short-term	Mid-term	Long-term	Minimum Investment	Moderate Investment	Major Investment	Commercial	Residential	Campus/Canyon	Community	City	University	UDOT
Wide Urban Sidewalk		✓			✓		✓	✓	✓	✓	✓	✓	✓
Corner Treatments – bulb outs or extended apron	✓			✓			✓	✓	✓		✓		✓
Pedestrian-scaled street lighting – use same style as on Main Street to unify streetscape improvements		✓		✓			✓	<b>√</b>			✓		
Street furniture –use same bench style as on Main Street	✓			✓			✓			✓	✓	✓	
Tree Grates – use same style as Main Street		✓			✓		✓	✓			✓		
Public Art – in medians, on corners, and as part of Gateways	✓			✓			✓	✓	✓	✓	✓	✓	
Gateway Feature – 1200 East		✓				✓			✓		✓	✓	
Landscaping in Setbacks – compatibility with adjacent development	✓			✓				✓		✓	✓	✓	
Landscaping along south side of road up the canyon from 700 East and eastward		✓		<b>√</b>					✓	✓	✓	<b>✓</b>	~

# IMPLEMENTATION: STREET ZONE IMPROVEMENTS

WHAT/PROJECT DESCRIPTION	WHEN/TIMEFRAME			HOW MUCH/COST				WHERE/CORRIDO	DR TYPE	WHO/INVOLVEMENT			
STREET ZONE IMPROVEMENTS	Short-term	Mid-term	Long-term	Minimum Investment	Moderate Investment	Major Investment	Commercial	Residential	Campus/Canyon	Community	City	University	UDOT
Travel lane resizing – right lane to be 12 feet to accommodate loss of shoulder to wider sidewalk/on-street parking	✓			✓			✓	✓			✓		✓
Center lane – reduced width and alternating turn lane pockets with planted median when possible (235' left turn loading length provided)		<b>✓</b>			✓		✓	✓	✓		✓		✓
Narrow planted median to separate traffic when not enough room for full planted median – 2 foot width		<b>✓</b>			<b>√</b>		✓				✓		✓
Intersection Design – 600 East & 1200 East			✓			✓		✓	✓	✓	✓	✓	✓
On-street Parking – north side of 400 North	✓			✓				✓			✓		✓
Crosswalks – improved with pedestrian refuge island (300 East and 500 East)		✓			<b>√</b>			✓			✓		✓
Crosswalks – improved with Pedestrian Activated Beacon (400 East)	<b>✓</b>			✓				<b>✓</b>			<b>√</b>		<b>✓</b>
Overhead Gateway Feature – Archway across 600 East		✓		✓				✓	✓	✓	✓	✓	

# IMPLEMENTATION IN ALL ZONES: SORETED BY RECOMMENDED TIMEFRAME

WHAT/PROJECT DESCRIPTION	V	WHEN/TIMEFRAME			HOW MUCH/COST			WHERE/CORRIDO	OR TYPE	WHO/INVOLVEMENT			
	Short-term	Mid-term	Long-term	Minimum Investment	Moderate Investment	Major Investment	Commercial	Residential	Campus/Canyon	Community	City	University	UDOT
Sidewalk Dining – use of setback to enhance/extend public realm of sidewalk zone	✓			✓			✓		✓	✓	✓	✓	
Fencing in front yards – unifying character for residential uses	✓			✓				✓		✓	✓		
Travel lane resizing – right lane to be 12 feet to accommodate loss of shoulder to wider sidewalk/on-street parking	✓			✓			✓	✓			✓		✓
On-street Parking – north side of 400 North	<b>√</b>			<b>√</b>				<b>√</b>			<b>√</b>		<b>√</b>
Crosswalks – improved with Pedestrian Activated Beacon (400 East)	<b>V</b>			<b>V</b>				<b>V</b>	,		<b>∀</b>		· ·
Corner Treatments – bulb outs or extended apron	<b>√</b>			<b>√</b>			<b>√</b>	✓	✓		•		<b>✓</b>
Street furniture –use same bench style as on Main Street	<b>√</b>			<b>√</b>			<b>√</b>		,	<b>√</b>	<b>√</b>	<b>√</b>	
Public Art – in medians, on corners, and as part of Gateways	•			<b>√</b>			✓	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	
Landscaping in Setbacks – compatibility with adjacent development	✓			✓				✓		✓	✓	✓	
Retail/Mixed-Use pads – fill in surface parking, orient to street (100 West to 200 East)	✓	✓				✓	✓			✓	✓		
Center lane – reduced width and alternating turn lane pockets with planted median when possible (235' left turn loading length provided)		✓			✓		✓	✓	✓		✓		✓
Narrow planted median to separate traffic when not enough room for full planted median – 2 foot width		✓			✓		✓				✓		✓
Crosswalks – improved with pedestrian refuge island (300 East and 500 East)		✓			✓			✓			✓		✓
Overhead Gateway Feature – Archway across 600 East		✓		✓				✓	✓	✓	✓	✓	
Wide Urban Sidewalk		✓			✓		✓	✓	✓	✓	✓	✓	✓
Pedestrian-scaled street lighting – use same style as on Main Street to unify streetscape improvements		✓		✓			✓	✓			✓		
Tree Grates – use same style as Main Street		✓			✓		✓	✓			✓		
Gateway Feature – 1200 East		✓				✓			✓		✓	✓	
Landscaping along south side of road up the canyon from 700 East and eastward		<b>√</b>		✓					✓	✓	✓	✓	✓
Mixed-Use Development (200 East, 600 East)		✓	<b>√</b>			<b>√</b>	<b>√</b>	✓		✓	✓		
Intersection Design – 600 East & 1200 East			✓			✓		✓	✓	✓	✓	✓	<b>√</b>

