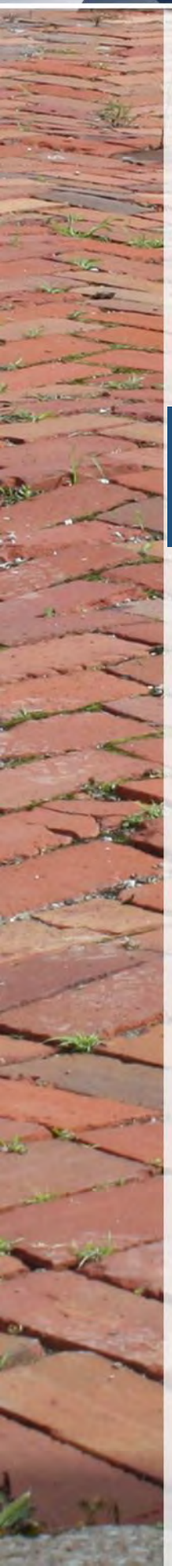
Downtown Broadway
Complete Street – Green Street

Louisburg, Kansas

June 2016

MARC Mid-America Regional Council | OLSSON ASSOCIATES



Acknowledgements

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David Cannon, Ward 2

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Introduction

Beginning in May of 2013, the City of Louisburg, in partnership with the Mid-America Regional Council (MARC), embarked on the Downtown Louisburg Revitalization Plan to develop a strategic vision and action plan for the city. This study, to develop a community-based concept for a complete street on Broadway, from Kansas Highway 68 (K-68) to Third Street, arose out this previous plan.

The complete street concept, with an emphasis on sustainable green street practices, relies on balancing the needs and desires of a mix of users, including motorists, pedestrians, bicyclists, and owners of adjacent businesses. This concept was developed through significant community involvement that shaped the alternatives before arriving at a consensus project.

As with many communities, the desire runs strong in Louisburg to have their historic downtown district become the focal point of the community. This has been reinforced recently with the city's renovation of a historic building at the corner of Broadway and Third Street to house their relocated City Hall. Broadway Street, from K-68 to Third Street, is at the center of downtown and is the focal point of several community events, including parades, Blazin' the Burg, Halloween on Broadway, and car shows.

Building on this momentum, the Downtown Broadway Complete Street – Green Street Plan identifies a plan and specific improvements to provide both the infrastructure that can support local businesses and the community and the amenities to encourage continued investments and activities.

This report summarizes the activities throughout the plan's development, including:

- Community and Stakeholder Involvement
- Existing Conditions
- Initial Alternatives
- Recommended Alternative
- Implementation Plan

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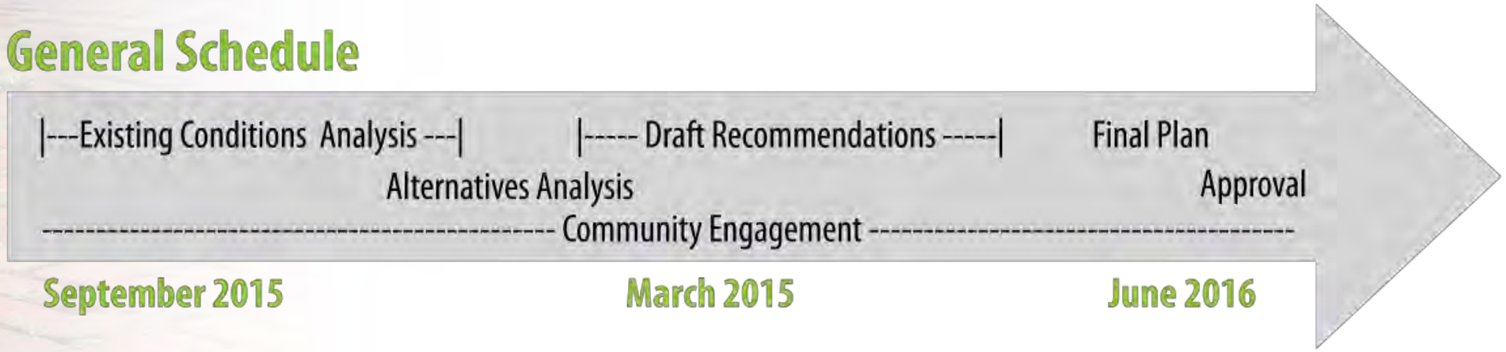
Community and Stakeholder Involvement

General Schedule



Over the course of 10 months, numerous opportunities were provided for the community of Louisburg to be engaged in identifying the future of the downtown Broadway corridor. The timeline for this process is displayed below. Community involvement efforts are summarized below, and meeting summaries can be found in the appendices.

Project Team

A project team provided leadership for this process. The team was comprised of representatives from the City of Louisburg, MARC, and representatives of the consulting team. The team met four times over the course of the project—twice in conjunction with the steering committee.

Steering Committee

A steering committee was formed and was comprised of a group of informed stakeholders and decision-makers representing various interests in downtown Louisburg. The committee was responsible for providing input and feedback during the design process. Members also provided general community outreach support.

Specifically, the steering committee had the following duties:

- Advised the project team on organizations, individuals, and interested people to engage and provide assistance in contacting them
- Provided assistance in getting interested people and groups to participate in the engagement activities and events
- Reviewed and commented on the deliverables for the project

The steering committee met twice over the course of the project timeline. Appendix A, in a separate technical appendix, includes a list of steering committee members and meeting summaries.

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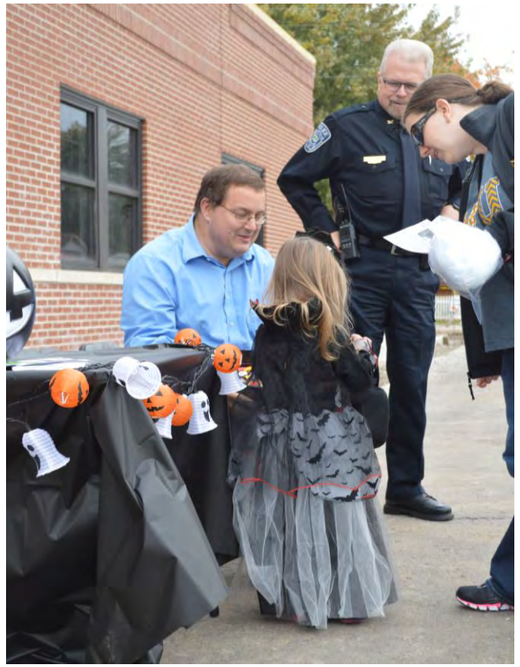
Community Events

The project team participated in two community events to inform residents and business owners about the Downtown Broadway Complete Street – Green Street Plan.

Halloween on Broadway

Members of the project team attended a community event called “Halloween on Broadway.” This free event allows Louisburg residents the opportunity to learn more about their community and businesses along Broadway, while allowing their children to celebrate Halloween. The project team had a booth at the event in front of the newly reconstructed City Hall. Team members passed out candy and provided information about the Downtown Broadway Complete Street – Green Street Plan and encouraged people to learn more about the plan by directing them to the project website.



Louisburg Chamber Year-End Meeting

Members of the project team attended an event hosted by the Louisburg Chamber on November 12, 2015. This annual event is hosted by the Chamber for their members to recap community activities and provide resources for business owners. The project team presented a brief overview of the Downtown Broadway Complete Street Plan and encouraged people to learn more about the plan by directing them to the project website.

Public Meetings

Open House #1

The first opportunity for the general public to fully participate in the planning process was at a February 22, 2016, open house. The purpose of the meeting was to communicate initial streetscape concepts for Broadway and gain feedback from the public for each concept. More than 60 people attended the meeting.

At the end of the meeting, the project team did not receive clear consensus on one concept. The community was open to improvements along Broadway, but they had concerns for traffic flow and parking reductions presented in the concepts. The project team took into account the feedback received at the open house,

and the project team refined the initial concepts into a final

recommendation.

Open House #2

The second and final open house, hosted on May 3, 2016, was designed to present the recommended concept for Broadway Street and gain feedback from the public. Approximately 14 people attended.

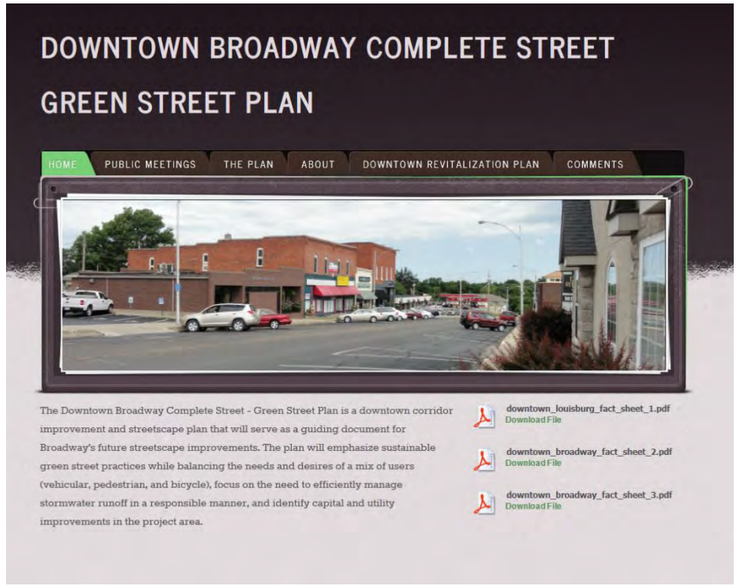
Overall feedback from the public was positive and supportive for the recommended concept. The project team reviewed feedback and finalized the alternative to be presented to the city council.

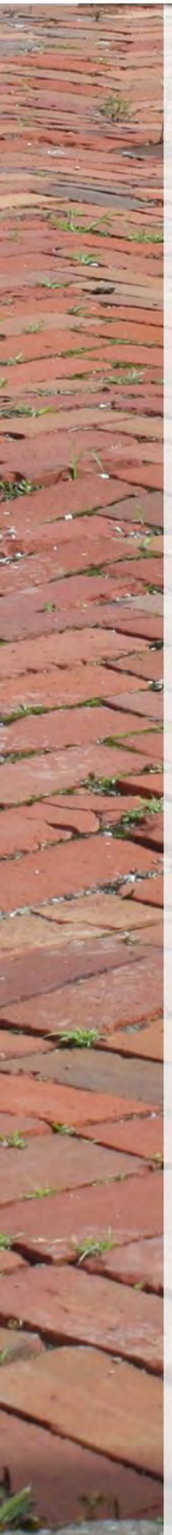
Website and Fact Sheets

In addition to the formal public engagement activities, a project website (www.downtownbroadwayplan.com) was used to convey information to the community. The website included:

- General background information about the Downtown Broadway Complete Street Plan
- Project updates
- Public meeting announcements
- Comment form to allow feedback

Three fact sheets were developed to keep the community updated on the planning process. The fact sheets were readily available at public meetings and through the project website.





Existing Conditions

Documentation of ADA

Existing sidewalks in downtown Louisburg are currently in poor condition and inaccessible for wheelchair users. The street corners have either ramps that are not meeting the Americans with Disabilities Act (ADA) requirements, or no ramps are present at all. Mid-block access to sidewalks for individuals with disabilities is difficult because of the tall curbs with no ramp access. Existing ramps on drives are too steep to comply with ADA requirements. A detailed inventory of the existing ADA facilities can be found in the technical appendix.

Existing Utilities

The existing utilities for Broadway Street in downtown Louisburg are designated behind the businesses in the alley ways. The utilities located in the alley ways are gas, sanitary sewer, water, and overhead power. Currently, one water line crosses Broadway Street south of the intersection of Broadway and Third Street, and another water line crosses Broadway south of the intersection of Broadway and First Street. Overhead power is currently supplying businesses on Broadway Street as well as street lighting.

Parking

Vehicular parking is provided throughout downtown through a combination of on-street public parking and private and public off-street parking. The on-street parking along Broadway consists of a mixture of angled (pull-in) parking as well as some limited use of parallel parking. The public on-street parking has no time limits and is utilized by business patrons and employees. In total, there are approximately 129 on-street parking spaces along Broadway and along the adjacent cross-streets within a half-block of Broadway.

Storm Sewers

Much of the existing infrastructure that was installed for the conveyance of stormwater has crumpled and failed over the years, leaving the large surface ponding along streets and on adjacent properties. Some of this infrastructure has silted in, as shown on the image directly below, while at other points it is simply nonexistent. Ultimately, most of the stormwater flows north, under K-68.

Pavement Condition

Similar to the storm sewers, the existing pavement conditions along Broadway are in poor and deteriorated conditions. The deterioration, caused by age and inadequate management of stormwater, has progressed beyond routine maintenance and suggests the need for total replacement.

Demographic Indicators

As of 2014, the City of Louisburg has a population of approximately 4,300according to the U.S Census Bureau. The study area of this project is Broadway Street, from K-68 to Third Street. By using block groups as a level of analysis, more defined characteristics of the study area could be determined. Below, in Table 1, are select demographic indicators that can be used to measure the effect that the Downtown Broadway Complete Street, Green Street Plan would have on the city and immediate surrounding area in the following years. The data for the downtown area was found by analyzing the specific block group that the study area is in. It must be noted that because the geographical area of analysis is so small, there is a significant margin of error for the study area data. According to the American Community Survey 5-Year Estimate, the study area is currently experiencing a higher percentage in the elderly population (22.4 percent) and in the population below the poverty line (18.1 percent).

Table 1: Select Demographic Characteristics

	Louisburg, Kansas (%)	Study Area (%)
Total Population	4,313 (100%)	711 (100%)
Elderly Population (Age 60+)	629 (14.6%)	159 (22.4%)
Population Below Poverty Line	310 (7.2%)	129 (18.1%)
Disabled Population	413 (9.5%)	19 (5.1%)
Minority Population	66 (1.5%)	5 (.07%)

Source: U.S. Census Bureau, 2010 -2014 American Community Survey 5-Year Estimates (2014)

Air Quality

According to the Kansas Department of Health and Environment's (KDHE) 8-hour ozone reading for each hour from 2009 to 2015, Miami County (the county where Louisburg is) has had an average ozone reading of 33 parts per billion (ppb). This year the ozone standard has changed where the threshold for alerts is 70. A "green," or good, ozone reading is any reading under 55. As summarized in Table 2, air quality averages have consistently been in the "green" rating.

Table 2: Air Quality

Year	Ozone Reading Average (ppb)
2009	30.34
2010	34.88
2011	36.73
2012	38.75
2013	33.80
2014	30.37
2015	30.67
Average	**33.65**

Source: KDHE 8-Year Ozone Reading

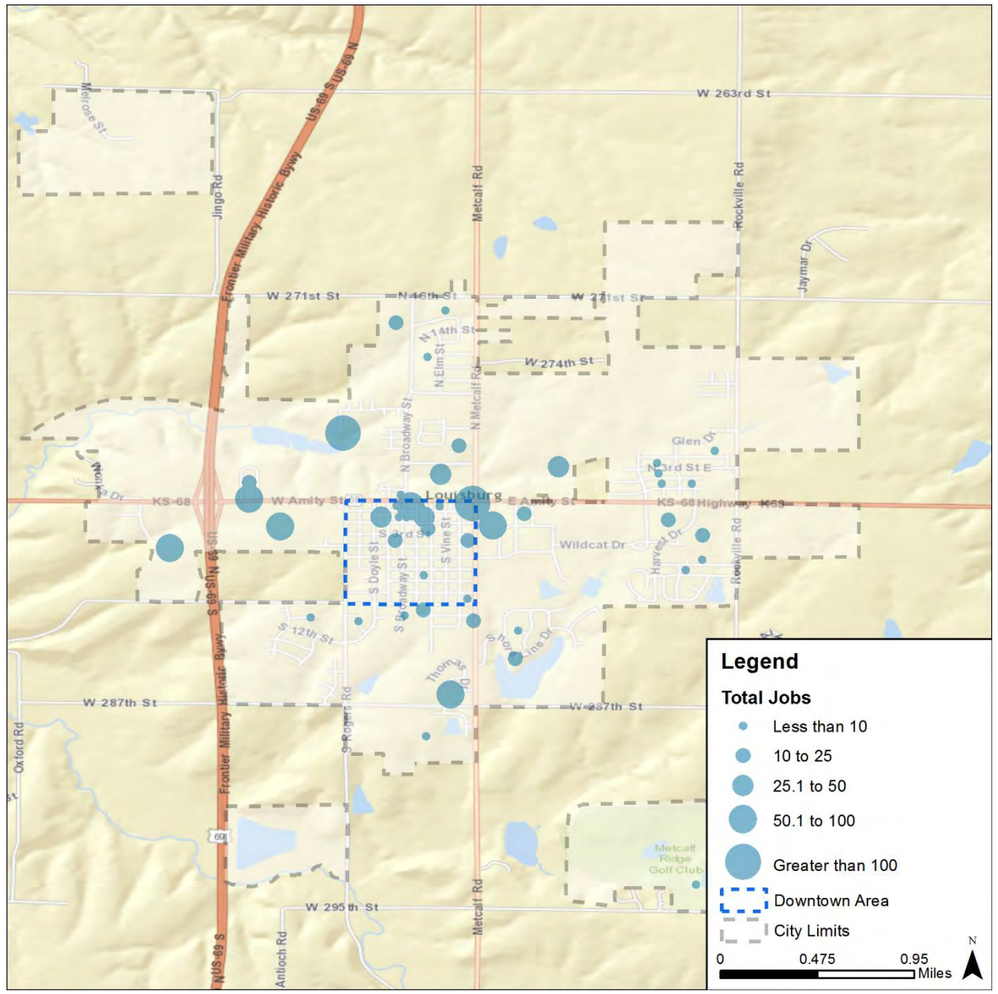
Employment

Approximately 1,172 jobs are located in Louisburg, Kansas, as of 2014, with around 40 percent of these being found in downtown Louisburg. The concentrations of jobs can be found in Figure 1. The majority of remaining jobs look to be to the northwest and south of the downtown area.

The most common sectors of work in Louisburg are educational services (21 percent), retail trade (14 percent), and accommodations and food services (13 percent). The predominance of these industry sectors is fairly common for cities like Louisburg. Table 3 goes deeper into the details of employment characteristics of Louisburg, Kansas.

As summarized in Table 3, the City of Louisburg displays several different interesting characteristics that should be monitored to judge the effect of the Downtown Broadway Complete Street - Green Street Plan. The high amount of workers who have received some form of higher education is almost 50 percent, which should affect the average earnings of workers. If improvements are made in downtown Louisburg, an area with a very large concentration of jobs, it should be studied as to whether or not these improvements have any effect on workers' earnings or the number of jobs in this area.

Figure 1: Louisburg Employment



Source: U.S. Census Bureau LEHD OnTheMap Application 2014

Table 3 – Employment Characteristics

Industry Sector	Jobs	Percentage (%) of Total
Educational Services	248	21.2
Retail Trade	168	14.3
Accommodations and Food Services	151	12.9
Health Care and Social Assistance	111	9.5
Finance and Insurance	84	7.2

Education Attainment	Jobs	Percentage (%) of Total
Less than High School	78	6.7
High School, No College	264	22.5
Some College, or Associate Degree	296	25.3
Bachelor's Degree or Advanced Degree	239	20.4

Worker Age	Jobs	Percentage (%) of Total
Age 29 or Younger	295	25.2
Age 30 to 54	640	54.6
Age 55 or Older	237	20.2

Worker Earnings	Jobs	Percentage (%) of Total
$1,250 per Month or Less	389	33.2
$1,251 to $3,333 per Month	444	37.9
More than $3,333 per Month	339	28.9

Baseline NRI Analysis

Purpose

There are several different purposes for this Natural Resources Inventory (NRI) and analysis. The NRI is a tool to guide the development of goals and strategies for resource conservation and management. Since the geographical scope of this project is limited to a fairly confined corridor, this NRI should serve to guide future efforts in the surrounding area and act as a document to guide policy development. Among other uses, this document should provide an evaluation of current natural resources found in the project area.

Figure 1 shows the study area for the Louisburg Broadway Street project as well as the municipal boundaries, transportation infrastructure, bodies of water, and watershed boundaries. This figure should be used as a reference point as the document goes deeper into the following sections: Geology/Soils, Water Resources, Habitats and Wildlife, Climate, Cultural Resources, and Land Use. The study area of this project has been defined by the boundaries of K-68 to the north, Third Street to the south, Peoria Street to the east, and Mulberry Street to the west.

Geology and Soils

Soil's importance to the area ranges from controlling ecological cycles through decomposition of organic matter to regulating water flow and habitat types; the existing soil is an important benchmark for the NRI analysis. The surrounding area of Louisburg, Kansas, is comprised of several different types of soils with the two most common types of soil in the Area of Interest (AOI) being Bucyrus silty clay loam (41 percent) and Grundy silt loam (31 percent). Remaining soil types can be explored in Table 4. This study area is made up of Soil Unit MT324B and MT328C. Both of these soil types drain well and have very low frequencies of flooding, which make them suitable to surrounding development as well as landscaping.

Table 4: Soil Types

Soil Unit	Soil Name	Acres in AOI	Percentage (%) of AOI
7521	Grundy silt loam, 1 to 3 percent slopes	129	31.1
8301	Verdigris silt loam, 0 to 1 percent slopes, frequently flooded	2.2	0.5
8663	Clareson-Rock outcrop complex, 3 to 15 percent slopes	25.2	6.1
8789	Lebo channery silty clay loam, 15 to 30 percent slopes	1.9	0.4
MT324B	Bucyrus silty clay loam, 1 to 3 percent slopes	170.3	41.1
MT328C	Bucyrus silty clay loam, 3 to 8 percent slopes	85.9	20.7

Source: United States Department of Agriculture, Natural Resource Conservation Survey Web Soil Survey

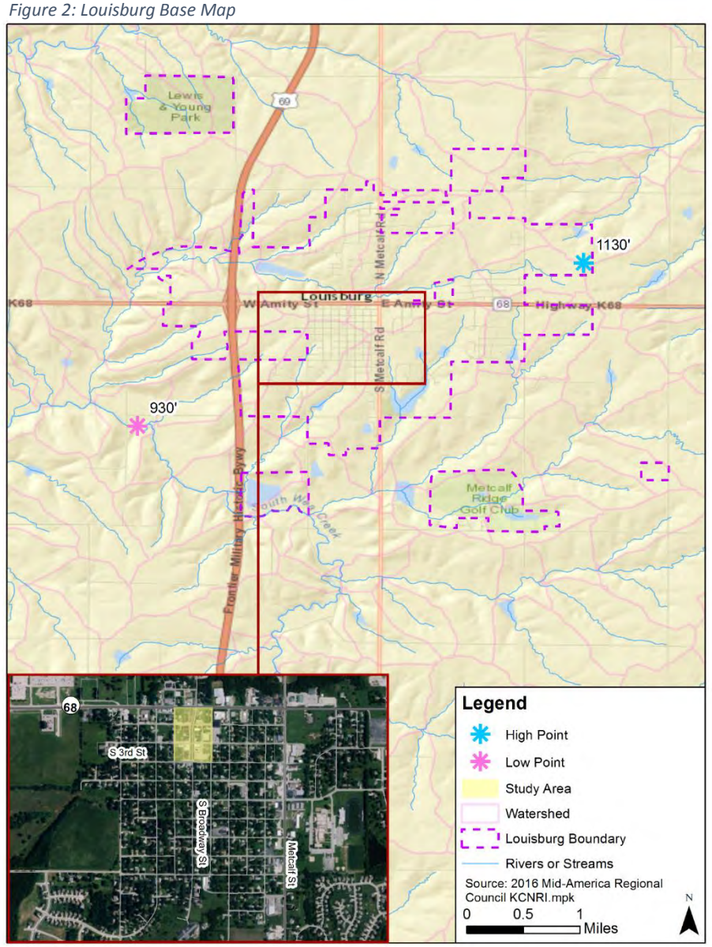
Water Resources

The area of and surrounding the study area can be mostly characterized by low percentages of slopes. This low percentage of elevation change means that the study area and surrounding areas have little to no chance of soil erosion from water sources. Louisburg, Kansas, depends on surface water for the majority of their drinking water supply. This water is most often purchased through a water treatment plant jointly owned by the cities of Paola and Louisburg, Kansas. Because their drinking water supply comes primarily from surface water, it is important to monitor this project's impact on possible increases/decreases to runoff. As of 2014, the City of Louisburg reported no water violations in their "2014 Drinking Water Consumer Confidence Report."

Watersheds have a large impact on the study area as water that is put into the drinking supply comes directly from runoff that is fed into surrounding water features through watersheds. Characteristics of Louisburg watersheds can be seen in Figure 2. These watersheds provide some of the most logical units for studying and managing water resources.

Streams and reservoirs, lakes, and ponds represent an incredibly important water resource to the surrounding community of Louisburg. Not only do these represent the main source of drinking water, but they also provide important habitats for the area's wildlife. Maintaining the health of these resources is an important consideration throughout this project.

Figure 2: Louisburg Base Map



Habitats and Wildlife

Biodiversity speaks to the variety of life found in the system in the study area. An area's birds, mammals, amphibians, reptiles, etc. help shape the natural and cultural landscape. Interactions between the built world and these living organisms must be studied in order to preserve the area's biodiversity. This section will take a look at the area's invasive species, variety of habitats, and the significant plant and animal species of the area.

The state of Kansas lists several different items of interest and specific threats that involve the area's invasive species. While the items of interest include the emerald ash bore, which has destroyed ash tress all across the United States, the state-specific threats include more specific invasive species that should be explored and planned for. Examples of these pests include the Argentine ant and the European chafer. The full list of invasive species and their locations can be found on the United States Department of Agriculture's website. Proponents of the study area are considering adding trees to the current landscape. Because of this, tree types and their abilities to endure invasive species like the ash bore should be taken into account.

The variety of habitats in Louisburg are similar to many other places in Kansas. Bodies of water are home to different species of fish, snakes, frogs, turtles, and many others. The area's forests are home to mule deer, white-tailed deer, coyotes, and other common furbearers/small game. Louisburg also provides habitats for several types of migratory and upland birds including species of duck, geese, cranes, and pheasant. When developing a project consideration of the area's wildlife ensures the equitable and sustainable treatment of the natural landscape, an even more important consideration must be made to the area's threatened and endangered species. Critical endangered species in this vicinity include mucket mussels and the broadhead skink. A full list of native wildlife, including threatened and endangered species can be found on the Kansas Department of Wildlife, Parks, and Tourism website.

More than 861 species of plant life are native to the state of Kansas. From wildflowers to grasses to trees, the native plant life is vibrant and important to the biodiversity of the area. Popular wildflowers include the common sunflower and milkwort. Kentucky coffee trees, redbuds, and elms are only a few of the trees that can be found in the surrounding area. Since the project will include natural features like flowers, trees, and shrubs it is important to understand the ability of these plants to survive in the area's climate. Figure 3 shows the vast natural resources available in the city and the different plant life found in and around the city. It should be noted that the study area is characterized primarily by herbaceous plants that have no persistence of a woody stem above ground and upland deciduous forest, which is characterized by continuous, often dense hardwood forests.

Mucket Mussels

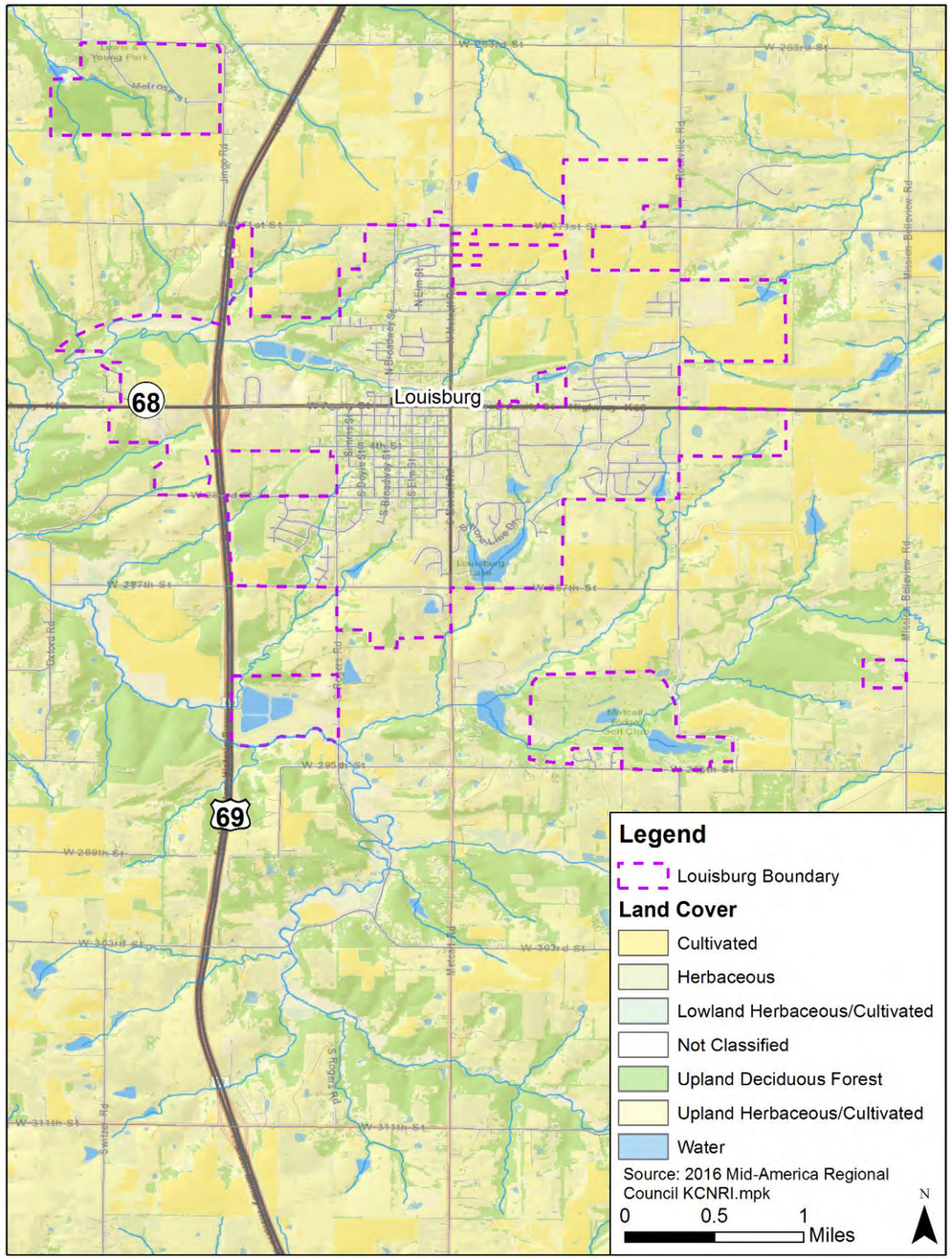
Broadhead Skink

Photo Credit: Amy Coffman/USFWS

Common Sunflower

White-Tailed Deer

Figure 3: Louisburg Natural Resource Inventory



Climate Conditions

The climate of the area dictates many of the characteristics found in the environment. Activities, natural wildlife, and seasonal changes are all effected by climate conditions. On average Louisburg receives about 40 inches of rain per year which is slightly above the U.S. average of 37 inches. Weather is also mostly sunny with Louisburg reporting 219 sunny days in 2015, which was above the average of 205. Temperatures in the summer reach about 90 degrees on average while averaging 19 degrees during winter. When choosing vegetation to use in the landscaping portion of this project plants and trees that can endure large temperature variances and spans of no to little rain should be considered.

Land Use

According to Louisburg's Land Use Map the study area is currently zoned as commercial with surrounding uses including higher density residential, low to moderate density residential, and public institutional. These zoning regulations have a large and direct impact on the community. Zoning can be used to increase general health, welfare and community engagement. As this project affects an older commercial area the land use should be considered and used to influence design choices of landscapes. More information regarding Louisburg land use can be found the Louisburg city website under "Planning and Zoning".

Non-Motorized Connectivity

A key component of the Broadway Street project is the bicycle and pedestrian connection between Broadway Street and Metcalf Road. In order to provide efficient and safe connections between these two streets, two areas of improvements have been identified to provide pedestrians and bicyclists with a safe route between Metcalf Road and Broadway Street. In creating these suggestions, multiple factors were discussed. These included an examination of existing conditions of the area and appropriate facility types. The following section will be a brief examination of the existing conditions of affected streets and a discussion of the two connections with detail given to the appropriate facility types for each.

Corner of West Amity Street and Broadway Street

Existing Conditions

The study area is primarily characterized by commercial and residential uses. This area includes Louisburg's historic downtown and many single-family residential housing units. The close proximity of a historic downtown district to residential units creates a prime opportunity for promoting non-motorized forms of transportation.

The heaviest traffic volume is found on West Amity Street and South Metcalf Road. These two streets also represent the highest speed limits with Metcalf being 35 miles per hour (mph) and West Amity Street being 30 mph. Many of the smaller residential streets in the area register a speed limit of 25 mph and have a lower volume of traffic, which presents opportunities for bicyclists to share the road.

Currently there are few pedestrian facilities, and many of the existing ones are either in need of repair or safety upgrades. The image on this page shows an example of a current sidewalk near the project area. This sidewalk on the corner of Broadway Street and West Amity Street has been placed adjacent to the street with no separation, is cracked in many areas, and ends abruptly, causing pedestrians to cross the street and continue their journey on the north side of the road. Further to the south, the sidewalks along Broadway are wider, albeit in poor repair and without adequate ADA accommodations as previously discussed.

No designated bicycle facilities can currently be found in the City of Louisburg. Patterns of development have created an auto-oriented transportation system with little consideration of alternative active transportation modes. Despite this, Metcalf is used by bicyclists—notably on the weekends—for recreational purposes.

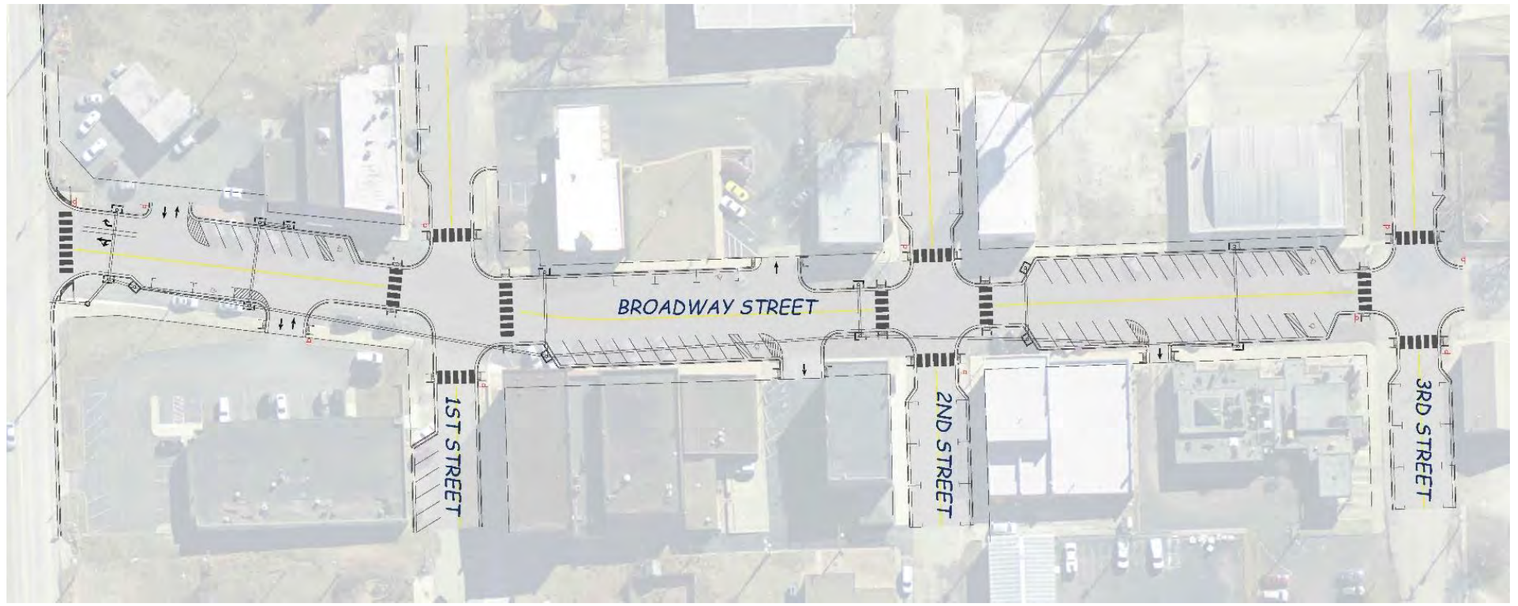
Initial Recommendations

Following an evaluation of the existing conditions, several alternatives were developed along Broadway, from K-68 to Third Street. Common to all of these options was a recognition that all of the public infrastructure within the right-of-way would need to be replaced because of the poor existing conditions of the sidewalks, ADA accommodations, storm drainage, and pavement.

The only immediate impacts for utilities would be the recognition that the water line, which crosses Broadway at two locations, should be upgraded at the time of construction to minimize the need for future maintenance. Consistent with each of these alternatives is an upgraded storm sewer collection system, including additional inlets and a main drainage line running along the west side of Broadway and under K-68.

Intersection “bump-outs” or “bulb-outs” were utilized in each option for a variety of reasons:

- They provide adequate space for the provision of ADA ramps designed to current standards.
- They significantly shorten the distance a pedestrian must cross and remain exposed to vehicular traffic.
- They provide enhanced, physical definition of where on-street parking is provided.
- They help ensure adequate sight distance at the cross-street with enhanced sight lines around parked vehicles.

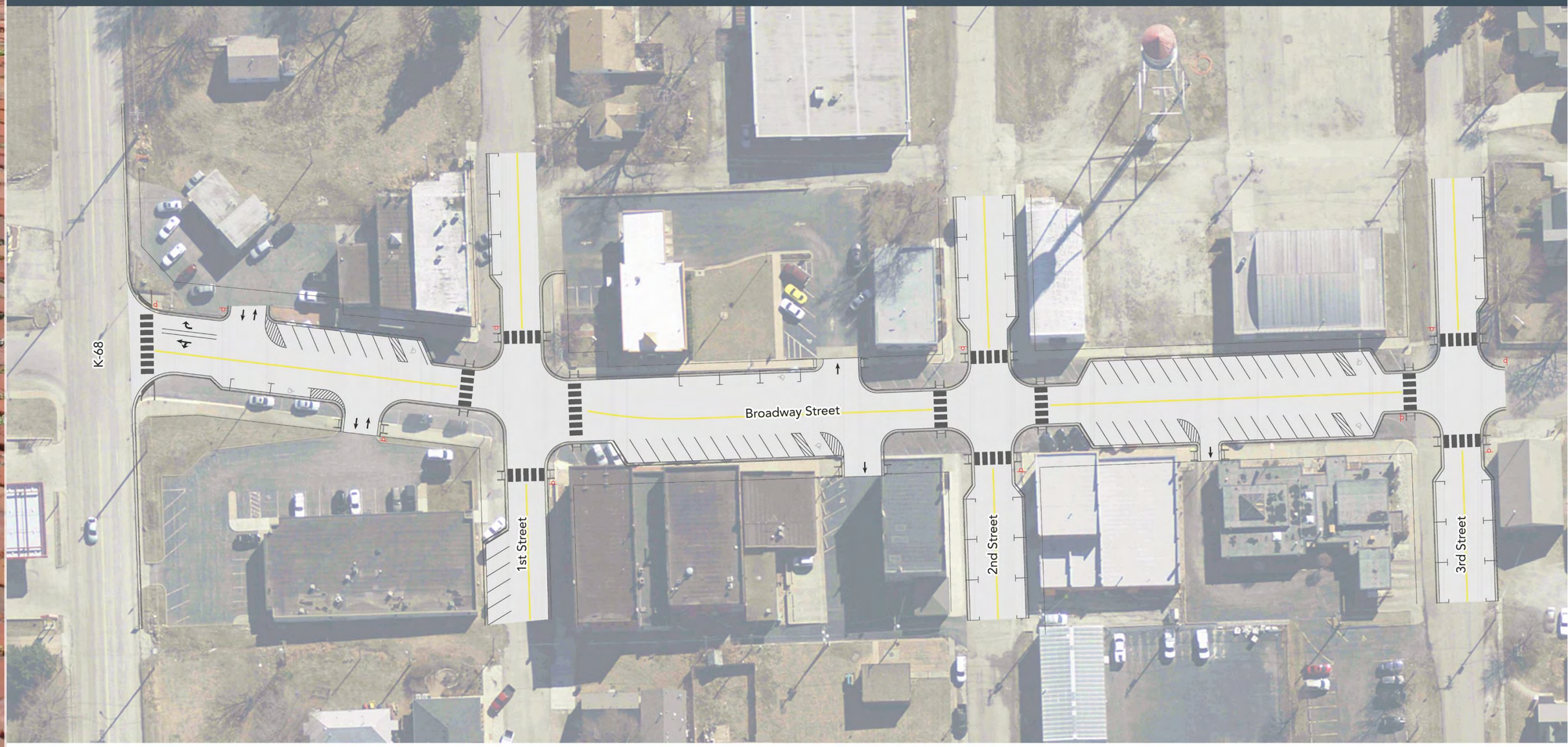


Option 1, shown above, maintains much of the existing configuration along Broadway, with one lane in each direction and a combination of parallel and angled parking, although the vast majority of parking is angled.

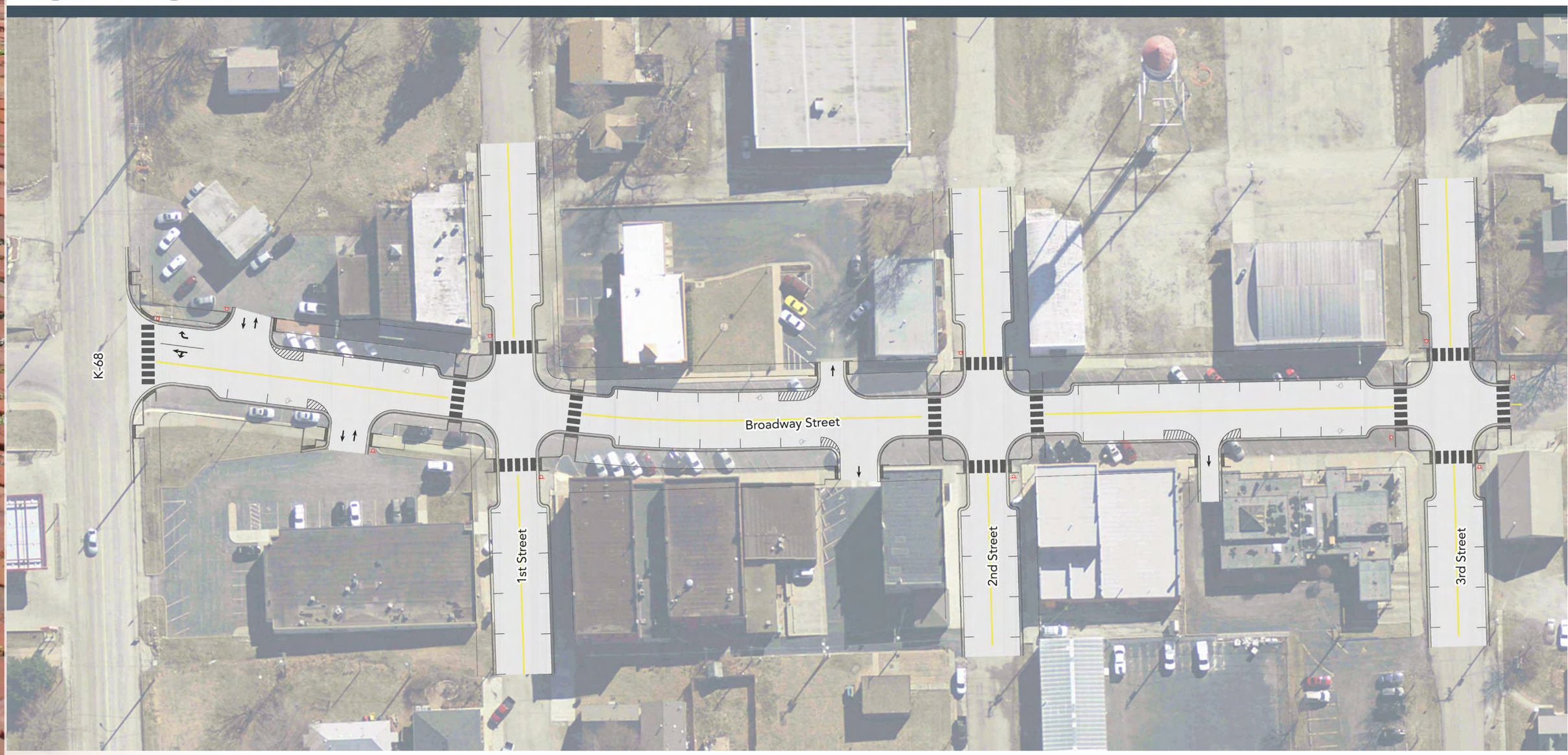
Option 2 maximizes the amount of space for pedestrian and streetscape amenities by minimizing the roadway section. This is accomplished by converting the angled parking spaces to parallel parking, significantly reducing the roadway width.

Option 3 provides a significant change to roadway usage, through a proposal to convert Broadway from a two-way street to a one-way street serving southbound traffic only. Doing so allows angled parking to be provided on both sides of Broadway, maximizing the amount of on-street parking.

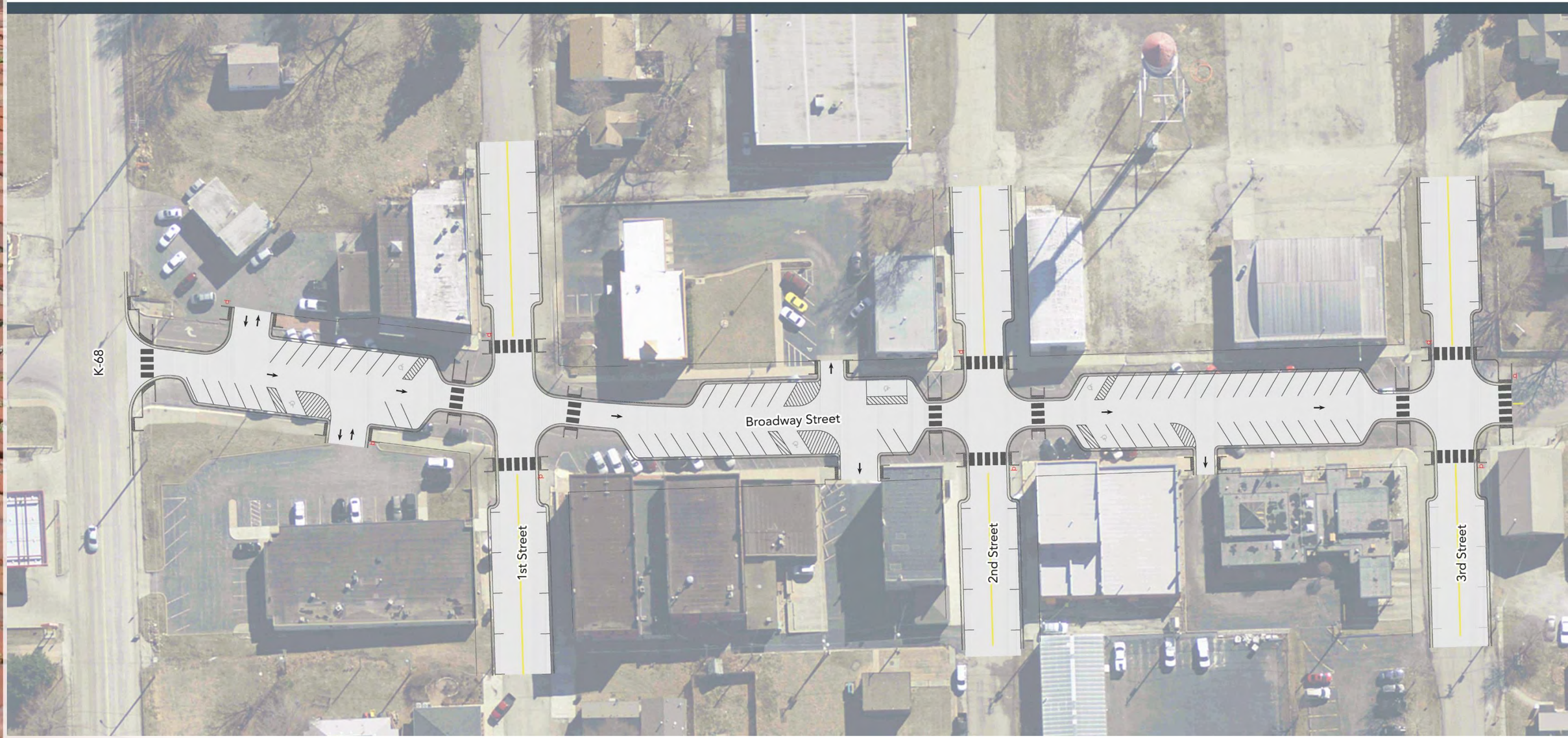
OPTION 1



OPTION 2



OPTION 3



Parking

When compared to existing conditions, each of the options identified reduce on-street parking either through the introduction of the bulb-outs at the intersections or through changes in on-street parking configurations related to parallel or angled parking spaces. Table 6 summarizes the existing and proposed parking for each option and the approximate reduction in on-street parking for each option.

Table 5: On-Street Parking Summary

On-Street Parking Spaces			
Alternative	***Existing***	***Proposed***	***Reduction***
Option 1	129	86	43
Option 2	129	64	65
Option 3	129	97	32

Streetscape Alternatives

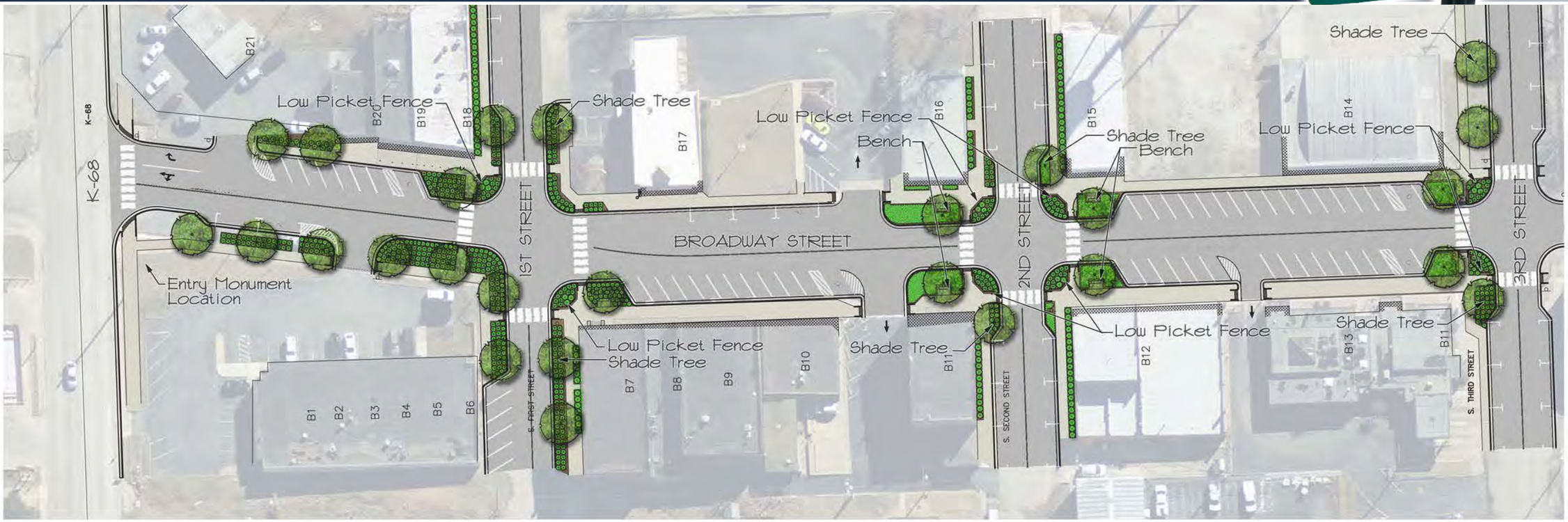
Each of the options initially developed for Broadway brought different opportunities to enhance the streetscape, creating varying opportunities that enhance downtown Louisburg as a distinct place. These concepts, which include potential materials and options for entryway monuments at the intersection of Broadway and K-68, are shown on the following pages.

Concept 1, built from the roadway improvements identified in Option 1, has the least amount of streetscape available between the built roadway and the existing business frontages. As a result, the concept identified for this corridor focuses on enhancements at the intersections, where the bulb-outs provide the most opportunities for streetscape enhancements. A short picket fence, located at the intersections, is proposed in this concept to provide a unique identifier for downtown Louisburg.

Concept 2, corresponding to Option 2, has the most space available between the roadway and businesses and, as a result, provides additional opportunities for enhancements. In addition to enhancements at the intersections, this concept provides additional landscaping between the businesses and street as well as the distinct usage of a solid seating wall.

Concept 3, aligning with Option 3, has less space for amenities than Concept 2 does, but it provides more than Concept 1 does. With Concept 3, street trees are strategically placed and hardscape amenities are provided that complement the one-way nature of the roadway, drawing visibility into the businesses along Broadway.

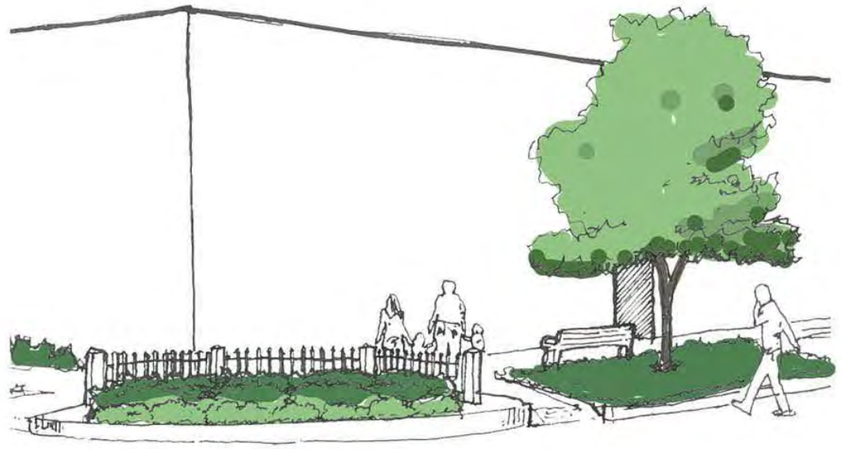
In addition to options for materials, including plantings and hardscape, the unique opportunities for entry monuments at Broadway and K-68 have been identified and summarized.



CONCEPT 1 BROADWAY STREET OVERALL LAYOUT

INSPIRATION IMAGES

CONCEPT 1 ENTRY MONUMENT



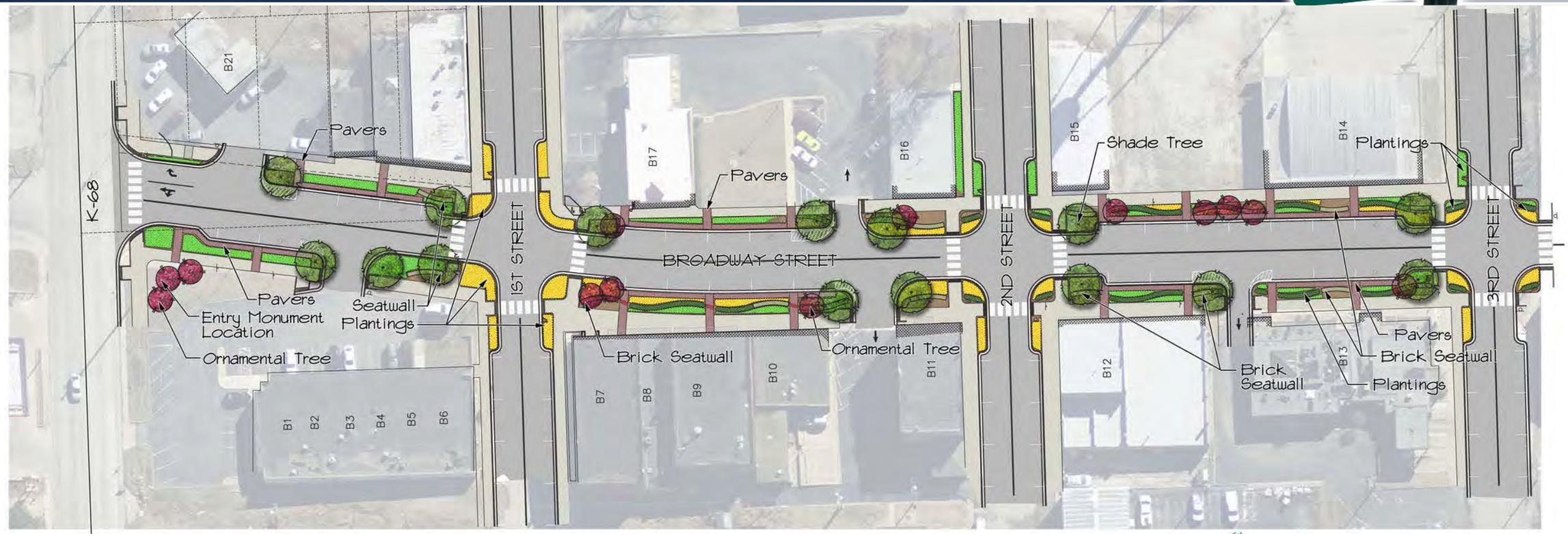
CONCEPT 1 INTERSECTION DETAIL

BROADWAY STREET
LOUISBURG, KANSAS

OCHSNER HARE & HARE
a design studio of OLSSON ASSOCIATES

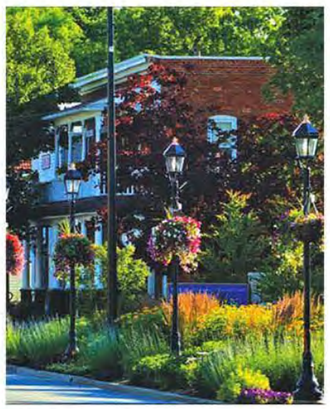
OLSSON ASSOCIATES

June 20th, 2016 Project Number 015-2669



CONCEPT 2 BROADWAY STREET OVERALL LAYOUT

0' 15' 30' 60'



INSPIRATION IMAGES

CONCEPT 2 ENTRY MONUMENT

CONCEPT 2 SEATWALL PERSPECTIVE

BROADWAY STREET
LOUISBURG, KANSAS

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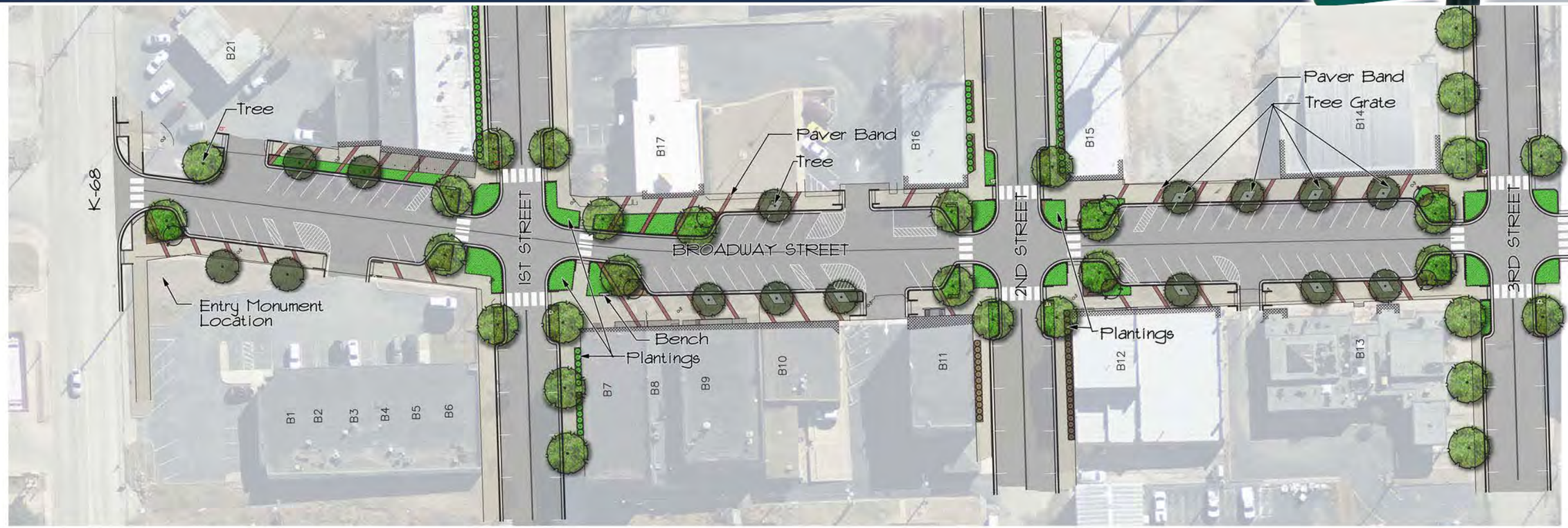
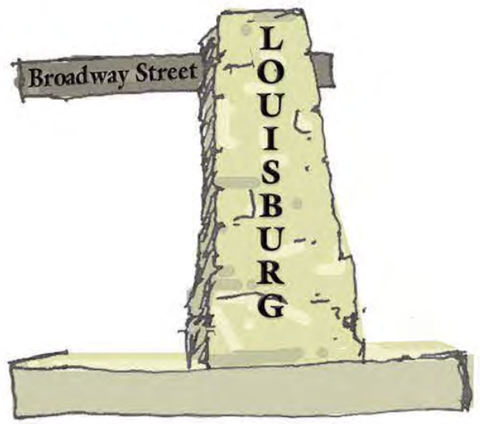


CONCEPT 3 BROADWAY STREET OVERALL LAYOUT

0' 15' 30' 60'

INSPIRATION IMAGES



CONCEPT 3 ENTRY MONUMENT

CONCEPT 3 INTERSECTION PERSPECTIVE

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SIGNAGE AND MONUMENTS

HARDSCAPE DETAILS

TREES

Espresso Kentucky Coffee Tree

Frontier Elm

Sterling Silver Linden

SHRUBS

Peach Drift Rose

Little Devil Ninebark

Little Henry Sweetspire

Winterberry Holly

Little Lime Hydrangea

Gro Low Sumac

LOW EVERGREEN SHRUBS

Hughes Juniper

Globe Blue Spruce

Buffalo Juniper

GRASSES

Switchgrass

Karl Foerster Feather Reed

Praire Munchkin Little Bluestem

Prairie Dropseed

Blue Grama

PERENNIALS

Early Sunrise Coreopsis

Plumbago

Tuscan Sun Sunflower

BROADWAY STREET
LOUISBURG, KANSAS

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OPTION 1 MONUMENT

OPTION 2 MONUMENT

OPTION 3 MONUMENT

BROADWAY STREET
LOUISBURG, KANSAS

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Cost Comparison

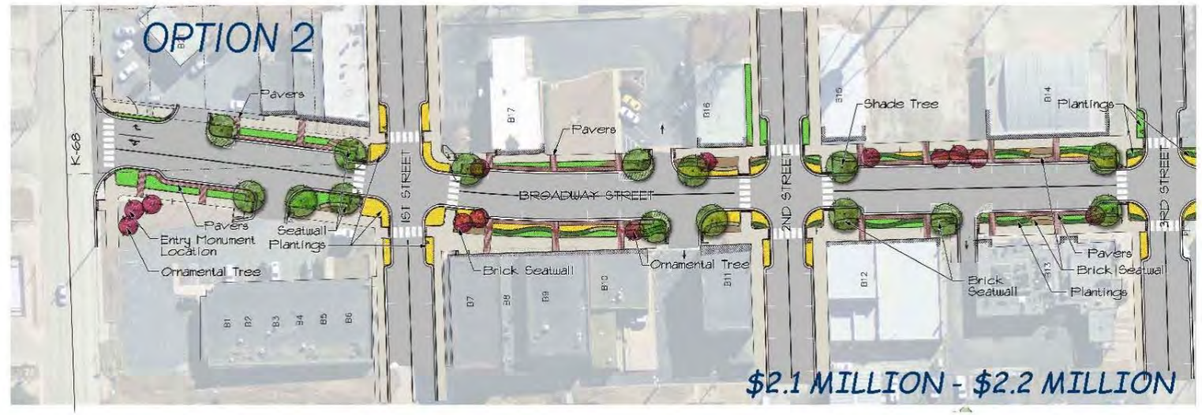
Total project cost estimates were prepared for each of the options initially developed. These estimates, which ranged from $1.8 to $2.3 million, reflected total project costs including construction (roadway, sidewalk, utilities, storm sewer, streetscape, etc.) as well as soft costs for design and inspection. Given the early stages of design, a contingency was also factored in to provide a conservative estimate. Details of the cost estimates can be found in the technical appendix.

Public Feedback Summary

A public open-house meeting was held on February 22, 2016, to gather input on the options developed. The meeting was well attended by approximately 63 members of the public, representing a cross-section of city officials, the general public, and business owners.

The public meeting generated good conversations between those in attendance and the project team. While there was no clear consensus of a preferred alternative, the input proved useful to shaping the ultimate preferred alternative. The comments received have been summarized in Tables 7 – 9, with the full comments documented in the technical appendix.

Figure 4: Cost Summary



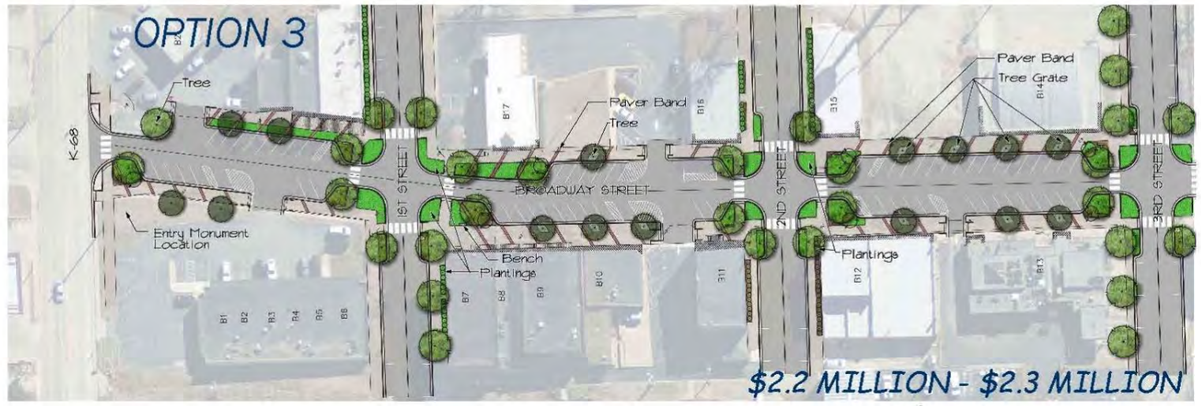


Table 6 – Option 1 Comments

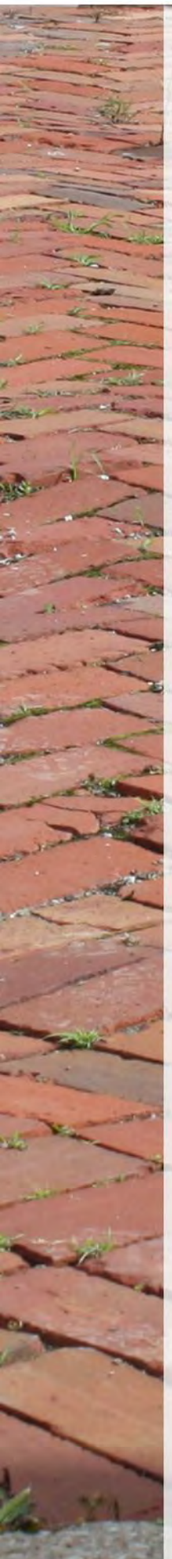
Summary of Option 1 Comments	
LIKES	DISLIKES
Two-Way Street (2)	Loss of Parking (3)
Parking (5)	Minimal Changes
Landscaping (3)	“Least Bad Option”
Bulb-outs / Narrow Pedestrian Crossings (3)	Prefer Parallel Parking
Most-Liked (3)	Minimal Streetscape (6)

Table 7 – Option 2 Comments

Summary of Option 2 Comments	
LIKES	DISLIKES
Two-Way Street	Parking Reductions (14)
Landscaping / Streetscape (9)	Parallel Parking (9)
Ability to Extend Business Outside	“Green Space is not good”
Teach people how to parallel park	
“Best Option”	

Table 8 – Option 3 Comments

Summary of Option 3 Comments	
LIKES	DISLIKES
Landscape / Streetscape (7)	One-Way Streets (11)
Parking (5)	Returning to K-68
	Traffic flow on adjoining streets
	Sight distance at K-68



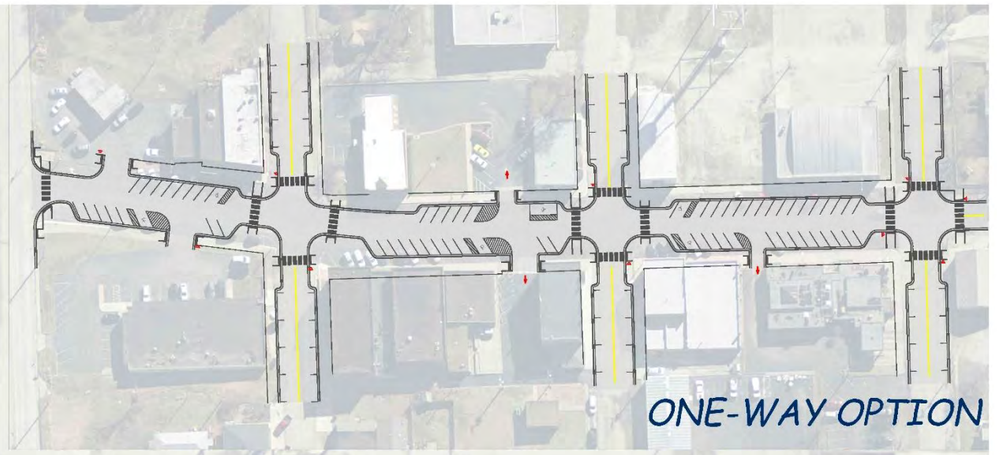
Preferred Recommendation

Based on the input and further discussion with stakeholders and elected officials, a preferred alternative for Broadway was developed that was, in essence, a combination of the initial Options 1 and 3. This new alternative, the Recommended Alternative, provides the flexibility to accommodate either one-way or two-way traffic. Under the one-way traffic option, on-street parking would be provided through angled parking, while the two-way traffic option would provide angled parking on one side and parallel parking on the other.

One of the strongest items of feedback heard during the initial recommendation was the concern over loss of parking. The City of Louisburg, however, owns several lots surrounding the new City Hall at Third Street and Broadway and around the city park / farmer's market location immediately to the west. These lots, shown on the adjacent figure, could potentially yield an additional 146 parking spaces, which would more than offset the loss of any on-street parking.

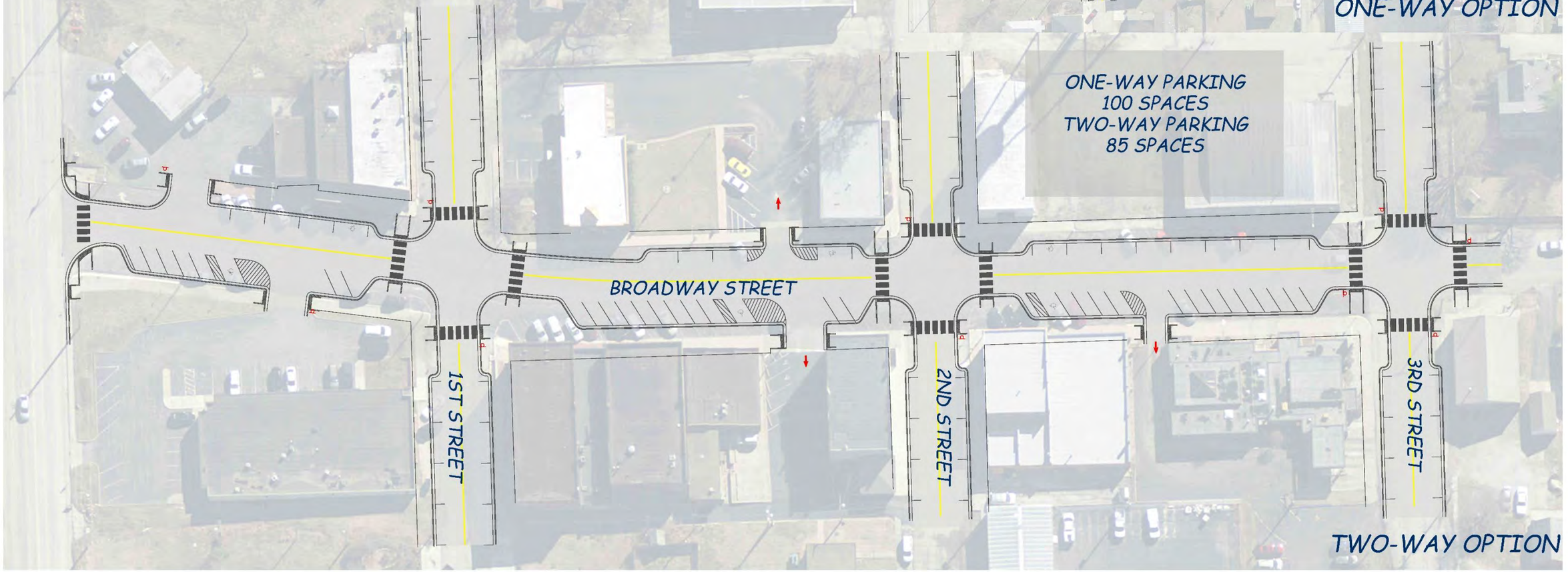
Based on the feedback from the initial meeting and from subsequent conversations with stakeholders in the vicinity, options for more robust entry monuments were also developed for the intersection of K-68 and Broadway.

RECOMMENDED ALTERNATIVE



ONE-WAY OPTION

ONE-WAY PARKING
100 SPACES
TWO-WAY PARKING
85 SPACES



TWO-WAY OPTION

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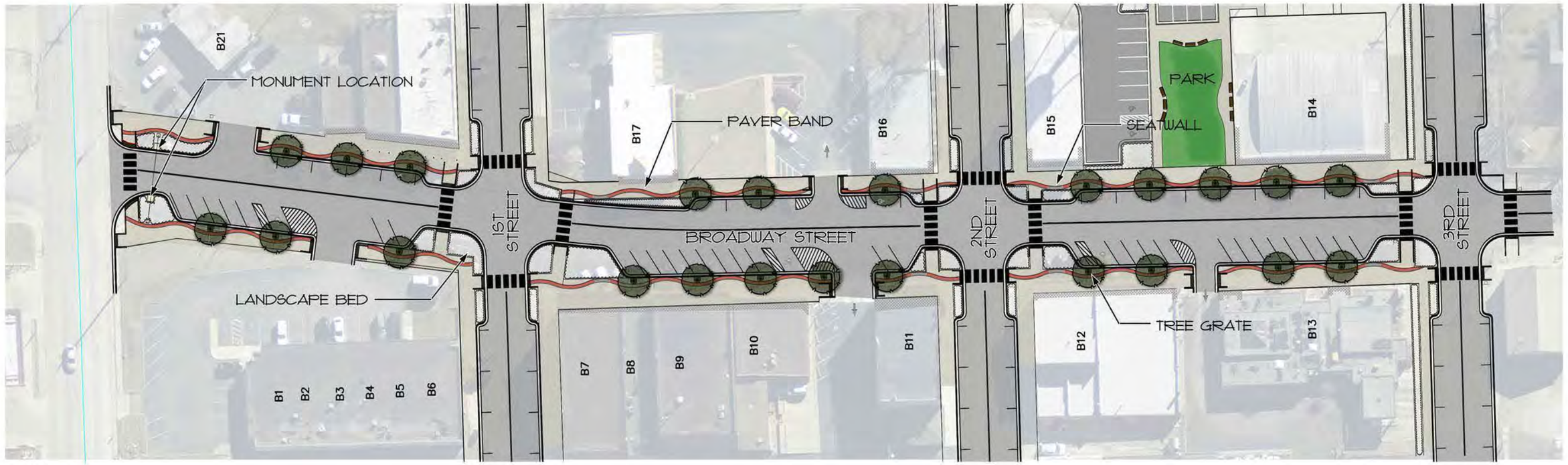
0' 15' 30' 60'

May 3rd, 2016 Project Number 015-2669



OPTION 4 PLAN

PERSPECTIVE FROM 2ND STREET LOOKING SOUTH

PERSPECTIVE FROM FIRST OPTION BANK LOOKING NORTH

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OPTION 1 MONUMENT

OPTION 3 MONUMENT

OPTION 2 MONUMENT

OPTION 4 MONUMENT

BROADWAY STREET
LOUISBURG, KANSAS

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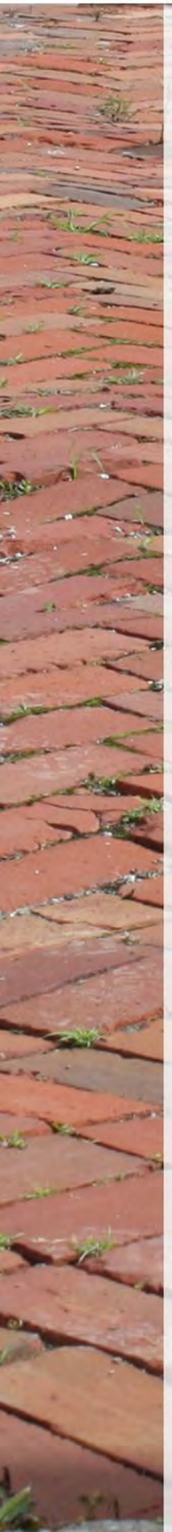
May 3rd, 2016 Project Number 015-2669



Pedestrian Connection

In order to increase the safety and comfort of those individuals who choose to walk, the pedestrian connection to South Metcalf Road should be addressed. Emphasizing pedestrian connection between Broadway Street and South Metcalf Road would provide a safe non-motorized link between two high-volume areas. This connection would serve users of Louisburg's downtown commercial businesses by giving them access to commercial uses on the south side of West Amity Street and those on South Metcalf Road. The following shows the recommended pedestrian connection with an aerial of surrounding land uses. This proposed connection would focus on a new pedestrian facility (sidewalk) on K-68 because of the current lack of facilities and/or state of disrepair that exist. Figure 5 represents the increased connection between these two areas of Louisburg.

When speaking of pedestrian use, the recommended facility type for this area would be a standard 5-foot-wide sidewalk. While this width provides ample space for pedestrians in both directions, it encourages bicyclists to use the roads. This sidewalk would allow for pedestrians with bags, strollers, and other accessories to safely interact with their surrounding environment. In order to estimate cost for these improvements, past numbers from contractor bids were examined. For projects done in Overland Park, similar facilities were quoted for approximately $150,000 per mile. This number also depended upon other factors like ramps, grade change, and cut-and-fill areas.

Bicycle Connection

Connecting spaces in a community through bicycle infrastrucutre promotes a healthy lifestyle and creates a safe route for commuter and recreational bicyclists. Connecting the downtown area of Louisburg to Metcalf Road would provide multiple benefits to the community. These benefits include connecting the frequent recreational users on Metcalf to the busineses of the downtown district as well as increasing possible recreational uses for single-family residential areas surrounding the downtown area.

In order to achieve an effective bicycle connection between Broadway Street and South Metcalf Road, adding appropriate bicycle facilities to South Third Street is suggested. The residential nature of this street, between Broadway Street and South Metcalf Road, creates a link with low traffic volume and a lower speed limit (25 mph). Because of the lower traffic volume and lower speed limit, this link presents a great opportunity for a shared-use road and the presence of wayfinding signage along South Metcalf Road, South Third Street, and Broadway Street. Figure 6 shows the possible bicycle connection between the streets.

Figure 5: Louisburg Pedestrian Connection

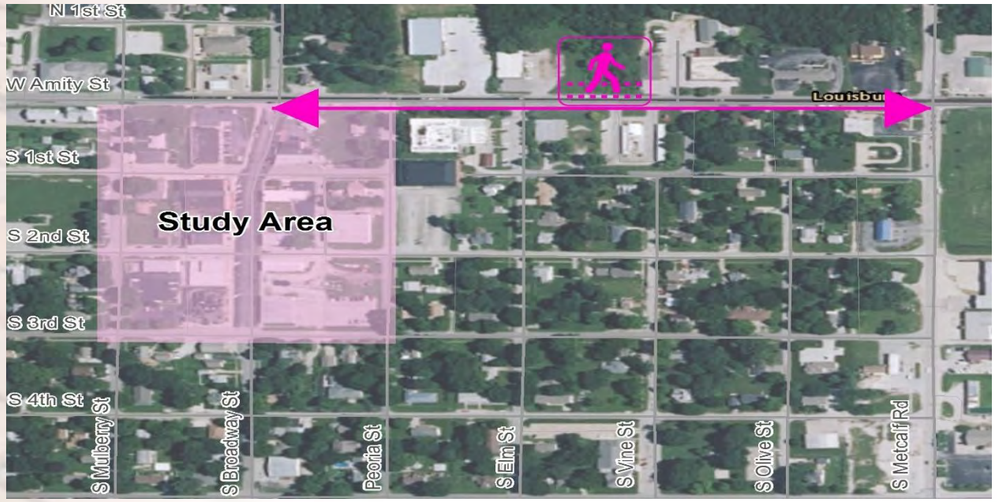
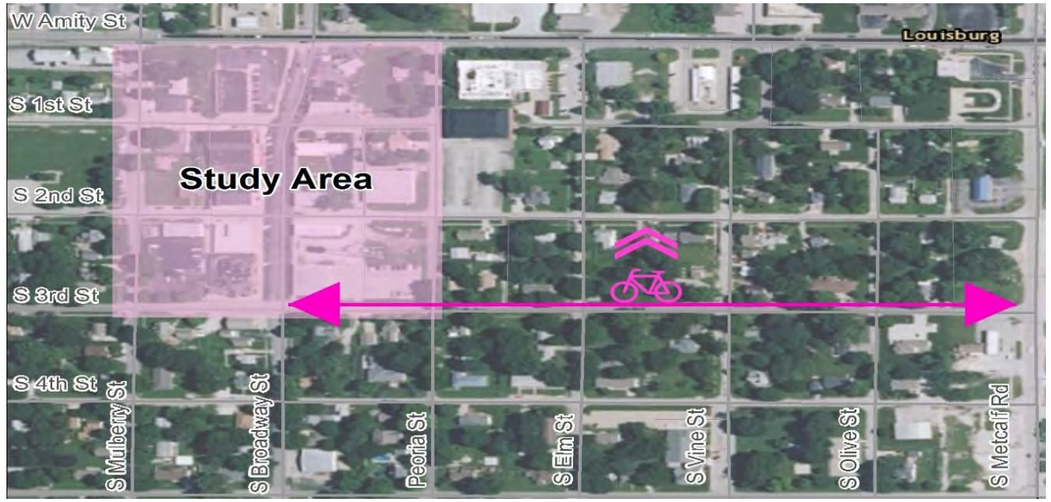


Figure 6: Louisburg Bicycle Connection



The following section is dedicated to giving readers a brief introduction to the proposed bicycle improvements that would connect South Metcalf Road to Broadway Street via South Third Street. For more information regarding these facility types please refer to the National Association of City Transportation Officials (NACTO) “Urban Bikeway Design Guide.”

Sharrows: This facility type uses shared-use pavement markings to indicate a shared lane environment for bicycles and automobiles. According to NACTO’s “Ubran Bikeway Design Guide” mentioned above, “Among other benefits, shared lane markings reinforce the legitmacy of bicycle traffic on the street, recommed proper bicyclist positions, and may be configured to offer directional and wayfind guidance.” Image 6 shows how different pavement markings can be used to accomplish the benefits of sharrows.

Shared-Use Pavement Markings

Wayfinding: This form of signage is intended to establish safe and efficient bicycle routes to and from popular destinations. These are most effective when used as an additional aid to a bicycle network and when used along popular corridors like South Metcalf Road. According to the NACTO guide, “A bicyce wayfinding system consists of comprehensive signing and pavement markings to guide bicyclists to their destinations along preferred bicycle routes.” Some of the most important benefits of wayfinding includes familiarizing people with their local surrondings and overcoming barriers to entry for infrequent bicyclists. Image 7 shows an example of how wayfinding could be used in Louisburg.

Wayfinding Signage

Project Impact Analysis

Now that the current uses and characteristics of the site and surrounding areas have been explored, the impact of the Louisburg Broadway Street project can be projected. The project area consists of about 21 acres of Louisburg’s downtown commercial district. This area largely consists of impervious surfaces, which are this area’s main contribution to the NRI. There are currently instances of green space with shrubs, but there are very few trees found in this project area.

The project team has provided several alternative designs to increase the image, usability, and green space along this road, while maintaining the identity of Louisburg. All alternative designs proposed increase the amount of green space along Broadway. This growth in natural features not only increases the cosmetic appeal of the street, but it also introduces more natural growth into an area with significant concrete and pavement. The introduction of more landscaping and plant life will also cause a decrease in Louisburg’s impervious land areas. These natural areas will provide a way for the water to travel back into the groundwater basins by using the land’s natural hydrology.

While these natural areas are sure to provide an increase in Louisburg’s natural resources, the species of these organisms should be examined to ensure their fit in the surrounding ecosystem. Landscape specialists have designated three types of trees to be used for this project, which can be seen in Image 8. All three trees have been selected for their abilities to endure local climate conditions and for their resiliencies to pests.

Many of the decorative shrubs and grasses have also been chosen with the same principles in mind. Decorative grasses, like switchgrass and blue grama, have been chosen for their native qualities to the area while other grasses, like prairie dropseed, have been chosen for their draught-endurance capabilities.

Choosing natural materials based on their abilities to thrive in the project area allows for the community of Louisburg to benefit from the increase in green space for many years to come.

Image 8: Types of Trees

Espresso Kentucky Coffee Tree

Frontier Elm

Sterling

The increase in green space is not the only benefit that this project will have on the area. Increasing bicycle and pedestrian connectivity from Broadway Street to South Metcalf Road will enhance the citizens' abilities to choose non-motorized forms of transportation and create a safer atmosphere for these modes. Not only will safety increase, but the increase in bicycle and pedestrian connectivity could also cause people to choose walking or biking over driving, which could then cause a decrease in traffic congestion and traffic emissions.

While it may seem that altering a small area could not have many impacts to the surrounding environment, small changes can have large effects. By increasing green space, Louisburg could increase their water and air quality, and decreasing the amount of impervious surfaces could also improve water quality. Informed decisions on the species of plants will ensure the sustainability of the trees, shrubs, and decorative grasses for the enjoyment of the community. Finally, by increasing non-motorized connectivity in the community, a safer atmosphere for all could be created.

Public Feedback Summary

A public meeting was held on May 3, 2016, to present the recommended alternative and solicit feedback/input from the public. Approximately 19 people attended the meeting and voiced support of the alternative developed. While there was still not a clear consensus on the use of a one-way or two-way option from Broadway, there was an agreement that maintaining the flexibility for either option was preferred.

Cost Estimate

The total estimated project costs for the identified improvements are approximately $2.85 million. This preferred alternative, however, can be phased in multiple segments, and some of the improvements—such as the parking lots—may not need to be fully constructed. A summary of the cost estimate is provided in Table 10, with details provided in the technical appendix.

Table 10 – Cost Estimates

Cost Estimates for Preferred Alternative	
Parking Lots	**$250,000**
Reconstruction of Broadway	**$1,900,000**
Streetscape Elements	**$600,000**
Sidewalks on K-68 to Metcalf	**$100,000**
Total Project Cost	**$2,850,000**

The cost estimates for the reconstruction of Broadway include new sidewalks and ramps where needed, for street crossings and for access to businesses. These costs are estimated as total project costs, including survey, design, construction, inspection, utility relocations, and construction easements. These estimates are based on a conceptual design using recent construction bid tabs.

Implementation

With the identification of the preferred concept, the securement of funds for final design and construction remains the next hurdle. A number of funding sources may be utilized; these include city funds that can be obtained through bonds or other existing sources, to federal funds that can be secured through a competitive process with other communities within MARC. Quite often, a combination of several funding sources are pooled to complete a project. Some of the federal programs that may be applicable include the Surface Transportation Program (STP) and the set-aside within that program for transportation alternatives (formerly referred to as TAP funding).

Because of the requirements to rebuid this infrastucture, which includes storm sewers, utility crossings, sidewalks, and actual pavement, the ability to divide these improvements into various construction contracts will be limited. The only phase that potentially could be constructed at a later time would be some of the streetscape improvements, including the entry monument.

Once funding is secure, several steps for design will still need to occur. A sample schedule is shown, detailing the steps and potential overall schedule. As with any construction schedule, additional delays could occur because of utility conflicts, weather conditions, contractor availbility, and any necessary right-of-way or easement activity. Once funding is secure, we anticipate the project could be reasonably designed and constructed in a time frame of one to two years.

Phase	MONTH															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Survey																
Preliminary Design																
Right-of-Way Plans																
Final Design																
Right-of-Way Acquisition																
Bidding																
Utility Relocation																
Construction																