



City of Alliance, Nebraska **COMPREHENSIVE PLAN**

—
2022-2023



RESOLUTION NO. 23-49

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF ALLIANCE, NEBRASKA:

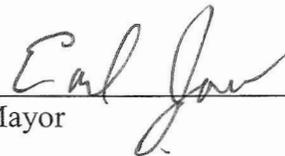
WHEREAS, the City of Alliance, Nebraska has a current Comprehensive Plan dated the Winter of 2009, pursuant to Neb. Rev. Stat. §§ 19-901, 19-903. The City has proposed and received a completely updated "Alliance Comprehensive Plan," attached hereto and incorporated herein by reference as Exhibit A.

WHEREAS, the Alliance Planning Commission, following public hearings, has reviewed and provided a recommendation for the adoption of the Alliance Comprehensive Plan as written, pursuant to Neb. Rev. Stat. § 19-901; and

WHEREAS, the City Council of the City of Alliance, Nebraska, following public hearing, has reviewed the Alliance Comprehensive Plan and is in favor of its adoption;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and the City Council of the City of Alliance, Nebraska that the current Comprehensive Plan of the City of Alliance, Nebraska, dated the Winter of 2009, is repealed and the Alliance Comprehensive Plan attached hereto and incorporated herein by reference as Exhibit A is the adopted as the comprehensive plan of the City of Alliance, Nebraska, pursuant to Neb. Rev. Stat. §§ 19-901, 19-903, effective June 28, 2023.

PASSED and APPROVED on June 20, 2023.



Mayor

ATTEST:


City Clerk (Seal)

Foundation

Alliance Introduced

History

The founding of Alliance was primarily due to the expansion of the Grand Island and Central Wyoming Railroad. Westward expansion brought homesteaders seeking free land and businessmen looking to establish their name and earn their fortune in the new towns that sprung up along the railroad.

The land where Alliance is located was originally a portion of Dawes County. In 1886, consistent growth in "Box Butte Country" and the difficulty of passing through the Pine Ridge to travel to the County Seat of Chadron, led residents of the southern half of Dawes County to petition for the creation of a new county. Box Butte County was established in 1887. The County contained several villages but it lacked a railroad to get local products to larger markets. Nonpareil was selected as the first seat of Box Butte County because of its central location. Nonpareil's future was short lived as the railroad located its tracks

4 miles to the east as it expanded through Box Butte County. The town ceased to exist within a year after losing the county seat to Hemingford in a special election.

The original town of Alliance was platted by the Lincoln Land Company, a subsidiary of the Burlington and Missouri River Railroad, in March 1888. Alliance was located a half mile west from the small town of Grand Lake which existed near the intersection of 3rd and Potash. Grand Lake consisted of tents and a few small frame buildings.

When the railroad built a small section house west of Grand Lake, the residents moved their tents and buildings across the creek to Alliance. Alliance was selected as a division point where shops would be constructed for the maintenance of rail equipment and the changing of train crews. Alliance also became the location of a large stockyards because of its location adjacent to the cattle producing Sandhills.

During the County Seat relocation from Nonpareil, Hemingford was narrowly selected over Alliance after the railroad intervened to sway people in Alliance to vote for Hemingford. At this point in time, the railroad was in the city building business and wanted two viable communities to sell land and provide services to, as opposed to only one. Alliance already had the railroad shops and commerce, and selecting Hemingford as the County Seat was the railroad's strategy to promote additional development in Box Butte County.

Following a long legal battle and additional elections, Alliance ultimately prevailed and the Box Butte County Courthouse was transported by rail from Hemingford to Alliance arriving July 4, 1899. The engineering skills of E.W. Bell, a bridge supervisor with the Chicago, Burlington, and Quincy Railroad made this feat possible. Descriptions of the event were published in Harper's Magazine and Scientific America.



Alliance Introduced

The offer of 160 acres of free land to Civil War Veterans encouraged many settlers to locate in the Box Butte Country. The Kincaid Act, approved by Congress in 1904, allowed a claim of 640 acres of land, which further encouraged settlers to locate in the arid Sandhills.

Alliance became a center for homesteaders and ranchers as well as a distribution hub for shipping grain and cattle to Omaha and other markets. The Nebraska Stock Growers Association was organized in Alliance in 1889. The Western Office of the Cattleman's Association remains in Alliance today.

Three disastrous fires between 1891 and 1893 destroyed most of the business district along Box Butte and Third Street prompting the City to construct a water system, organize a volunteer fire department, and adopt a building code. A City ordinance was passed requiring new buildings in the "fire district" to be constructed of fireproof material, which led to the establishment of two local brickyards.

The first permanent school building was constructed in Alliance in 1890 and the first City Hall was constructed in 1903. St. Joseph's Hospital was constructed in 1910 which replaced two smaller hospitals that were owned by local doctors. During this same time, a sanitary sewer system was

constructed and in 1911, the City purchased the Alliance Electric Light Company. A Carnegie Library was constructed in 1912 after a multi-year fundraising project to pay for the City's half and future maintenance.

The First World War created a demand for domestically produced potash. Exploitation of deposits near Antioch and Hoffland, fifteen miles east of Alliance, resulted in additional growth of all three communities. This boom, however, ended in 1920, leaving Antioch and Hoffland ghost towns. Many of the houses in Alliance were moved from Antioch and Hoffland in the early 1920s after the boom went bust.

In the 1920's, the Nebraska Potato Growers organized and made Alliance "The Potato Center of Nebraska." The High School newspaper reflects this history and is still called "The Spud."

In 1921, Alliance became the first city in Nebraska to adopt the Council-Manager form of government. It remained the only city in the State to use this form of government until 1947.

During the depression era, the City constructed a new municipal building, improved Central Park with a swimming pool and fountain, constructed a new water tower, and built a new power plant. The expansion of the power plant, along with Alliance's

central location played a role in the city's next phase of growth. The extra electrical generation capacity influenced the military to choose Alliance as the location of an Airborne Troop Training facility during World War II.

The Alliance Air Base was established in 1942 at the location of the present municipal airport. Alliance's population increased dramatically during this time period as construction workers and troops relocated to the community. A housing complex, known as "Chimney Town", was constructed to house dependents of military personnel. These housing units are now known as Sandhills Estates.

The 1950s and 1960's brought physical growth to Alliance albeit with a shrinking population. The City continued to plat new residential subdivisions and develop new infrastructure. It also paved several streets that had been dedicated but never developed. The City invested in its sewer and water infrastructure by constructing new trunk mains around the perimeter of the City in anticipation of future growth.

The nation's need for low sulfur coal and the location of new industries in Alliance spurred population growth. Burlington Northern Railroad expanded their facilities in Alliance in the 1970's. The railroad's expansion program included a new facility for locomotive and rail car

Alliance Introduced

repair, materials storage, an oil warehouse, a new yard office, a new division headquarters office building, and rail yard expansions.

In 1977, two additional businesses related to the railroad located in Alliance. Southwest Electric Power Company and the Rail Car Maintenance Corporation both built rail car repair facilities east of the City. The establishment of industries such as Woolrich, Inc. and the Parker-Hannifin

were major additions to the Alliance economy. Since the boom of the late 1970s, the City has seen multiple boom and bust cycles related to the railroad.

Additional growth in Alliance since the railroad boom has primarily been focused on smaller industrial development and agribusiness. A new industrial park east of town and expansion of farmer's co-ops as well as a grain

loading facility have been major sources of growth for Alliance.

Additional economic opportunities may present themselves to the City as the Heartland Expressway is constructed through the Nebraska Panhandle. This four lane expressway is planned to stretch from the United States southern border with Mexico to its northern border with Canada.



Comprehensive Plan Introduced

What is a Comprehensive Plan?

A comprehensive plan, also known as a master or general plan, is a document that establishes a vision for future community growth, development, and redevelopment.

Comprehensive plans are general, anticipatory, forward thinking, and long-range in nature. The life span of a comprehensive plan is typically a period of 20 to 30 years depending on the rate of growth.

An effective Plan provides guidance on future land use decisions such as rezones, annexations, code changes, and subdivisions, but it also serves as a check on municipal expenditures by ensuring capital purchases are utilized for achieving the goals in the Plan.

Each component of the Plan provides a brief history of the topic, a current assessment, and generic goals and guidance for the life of the Plan.

The Plan itself may be thought of as a large-scale view of the community. It shows the entire community but not in the same detail that a smaller scale view does. The Plan identifies areas where a smaller scale approach will be necessary to achieve the City's goals. The small-scale approach may also be called "strategic planning."

This is a 2-5 year plan where budgets, drawings, and

documents are prepared to target a specific project that helps accomplish the overall vision of the community as laid out in the Comprehensive Plan. In short, a Comprehensive Plan is not a Strategic Plan.

Legal Aspects of Comprehensive Planning

The Nebraska State Legislature requires any community or county that desires to enforce zoning and/or subdivision regulations to adopt a Comprehensive Plan. This requirement is based on the premise that land use decisions and capital purchases should not be arbitrary or capricious but are instead consistent with the community's vision and goals in the Plan.

Comprehensive Plans must contain both graphic and textual material, and designed to accommodate anticipated long-range future growth including, at a minimum, the following components:

1. A land use element which designates the proposed general distribution, general location, and extent of the uses of land for agriculture, housing, commerce, industry, recreation, education, public buildings and lands, and other categories of public and private use of land;
2. The general location, character, and extent of

existing and proposed major roads, streets, and highways, and air and other transportation routes and facilities;

3. The general location, type, capacity, and area served of present and projected or needed community facilities including recreation facilities, schools, libraries, other public buildings, and public utilities and services;

4. An energy element which: Assesses energy infrastructure and energy use by sector, including residential, commercial, and industrial sectors; evaluates utilization of renewable energy sources; and promotes energy conservation measures that benefit the community;

5. Identify sanitary and other improvement districts, subdivisions, industrial tracts, commercial tracts, and other discrete developed areas which are or in the future may be appropriate subjects for annexation and a general review of the standards and qualifications that should be met to enable the municipality to undertake annexation of such areas.

Planning Process

Preparation of the Comprehensive Plan was undertaken by the City Planning Commission and City staff. Data collection was obtained from a variety of sources such as the U.S. Census Bureau, previous Comprehensive Plans, public participation surveys, and City staff.

Comprehensive Plan Introduced

The Comprehensive Plan contains the following components:

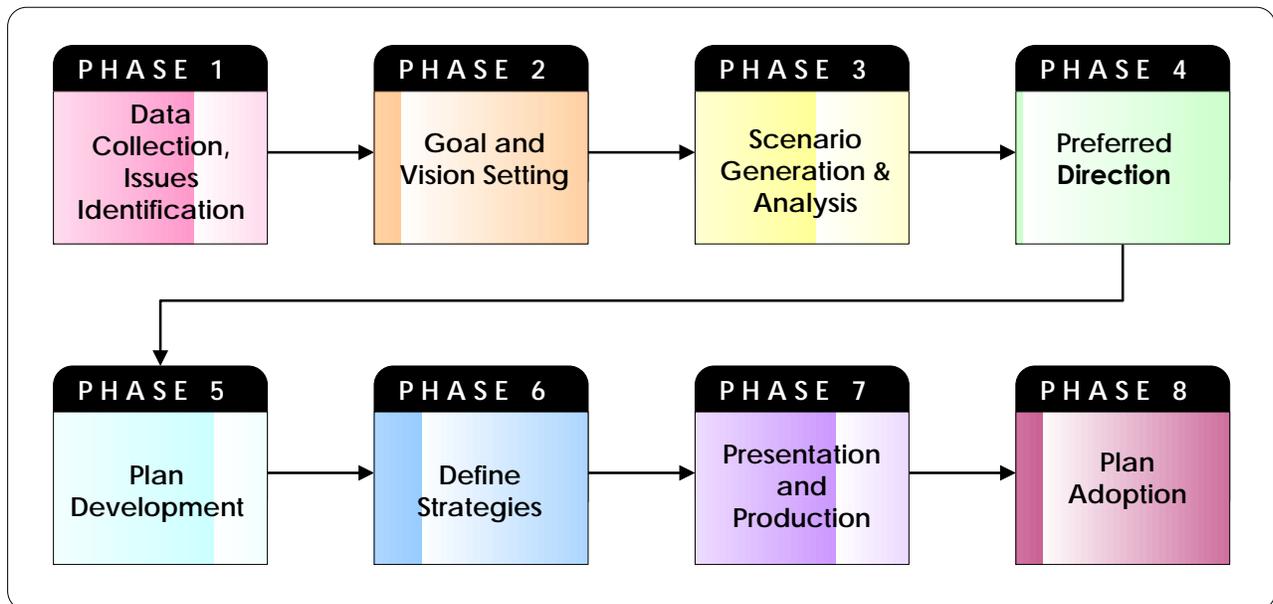
1. Introduction
 - a. History of Alliance
 - b. What is a Comprehensive Plan?
 - c. Legal Aspects of Comprehensive Planning
 - d. Plan Development Process
2. Public Facilities
 - a. Buildings
 - b. City Parks
 - c. Schools

3. Transportation
 - a. Introduction
 - b. Definitions
 - c. Existing Conditions
 - d. Access Management
 - e. Maintenance
 - f. Complete Streets
 - g. Transportation Model
 - h. Long Range Plan

4. Housing
 - a. Introduction
 - b. Housing Assessment
 - c. Census Tract Assessment
 - d. Housing Goals

5. Land Use
 - a. Introduction
 - b. Background
 - c. Land Use Inventory
 - d. Neighborhoods
 - e. Extraterritorial Zoning Jurisdiction
 - f. Annexation Plan
6. Sustainability
 - a. Community Assessment
 - b. Community Aesthetics
 - c. Energy Component

Alliance Planning Process



F.1

Alliance Community Survey

The Alliance Community Survey is carried over from the previous Comprehensive Plan. Survey results have remained the same or similar to results in Plans drafted over the last 40 years as well as the urban design study done in 1990. The survey was administered through the Comprehensive Plan project web site and readily available to all Alliance citizens. Ultimately, 157 Alliance citizens responded to the

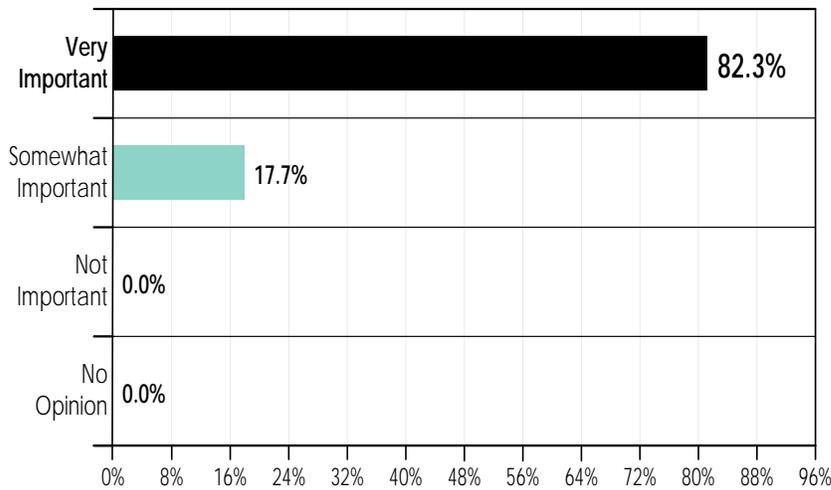
survey. The intent of the Community Survey is to provide all Alliance residents an opportunity to provide meaningful input to the Comprehensive Plan. While the survey lacks statistical validity, the results provide significant insight into citizen's perceptions about city services, community parks, housing issues, land use, and economic development among other items. Survey results are used to monitor community progress,

develop recommendations, and guide the Planning Commission and city staff in planning for the future of Alliance.

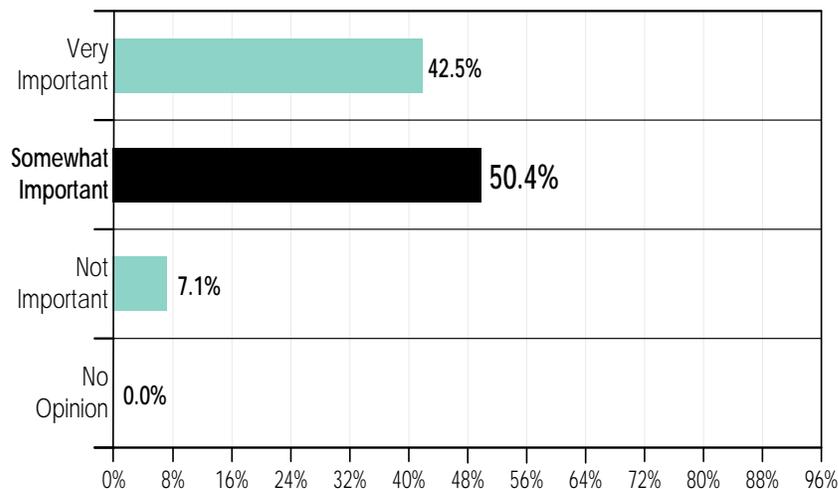
The graphical survey results are color coded as shown below to reflect the following elements:

- Quality of Life (Foundation)
- Public Facilities and Services
- Housing
- Land Use
- Community Appearance
- Demographic Information

Please indicate the importance of STREET REPAIR to your quality of life.

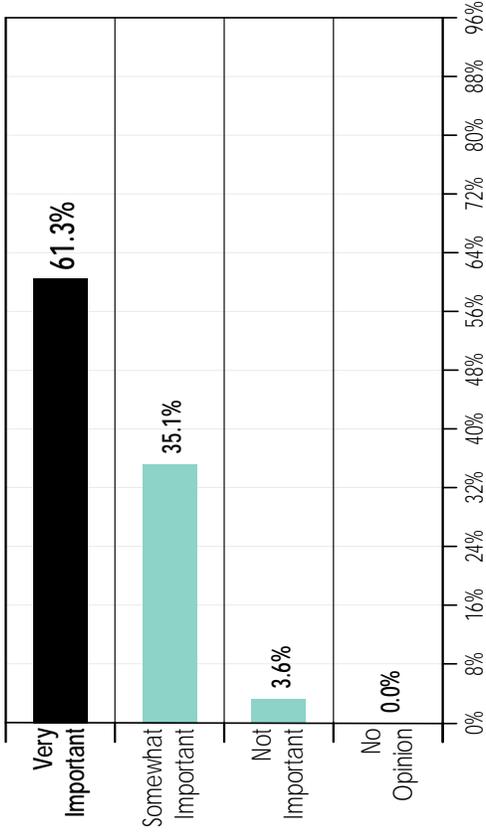


Please indicate the importance of STREET CLEANING to your quality of life.

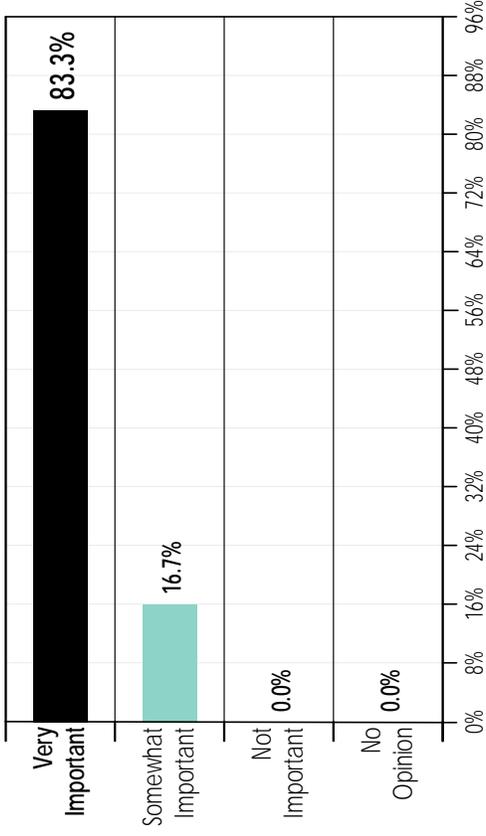


Alliance Community Survey

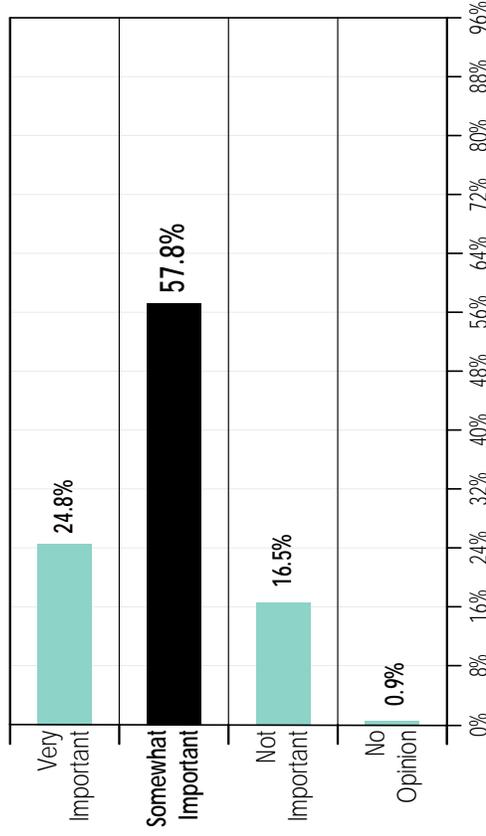
Please indicate the importance of STREET LIGHTING to your quality of life.



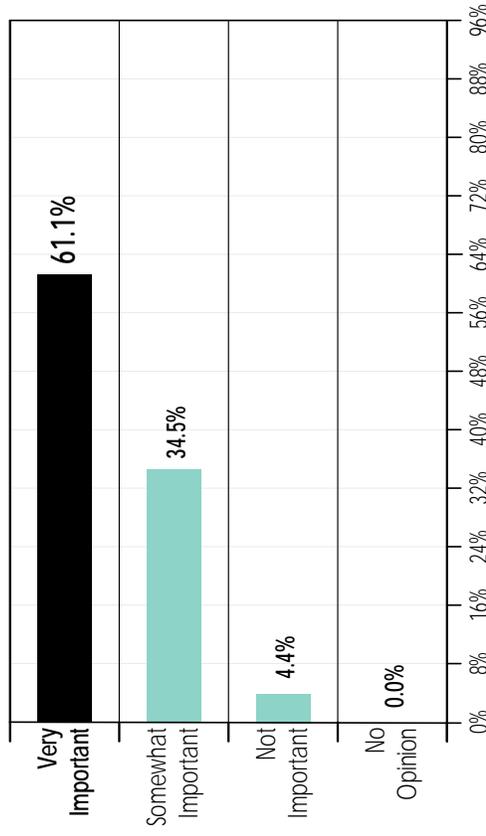
Please indicate the importance of SNOW REMOVAL to your quality of life.



Please indicate the importance of CURBS ON STREETS to your quality of life.

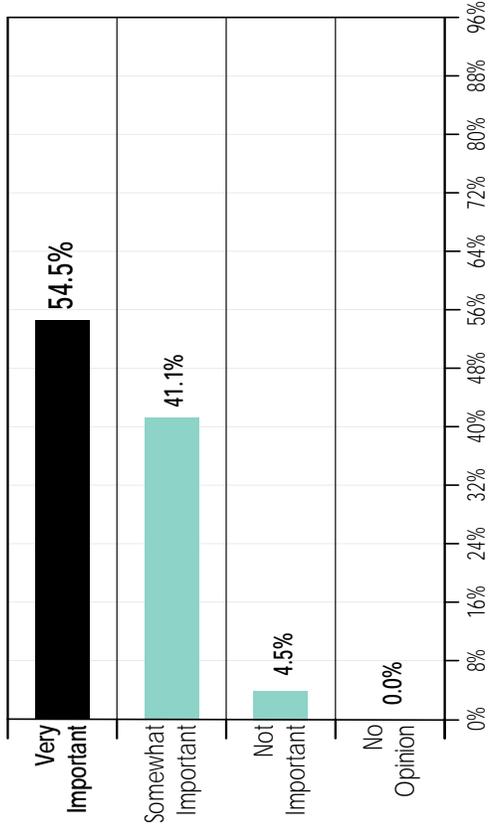


Please indicate the importance of STREET IMPROVEMENTS to your quality of life.

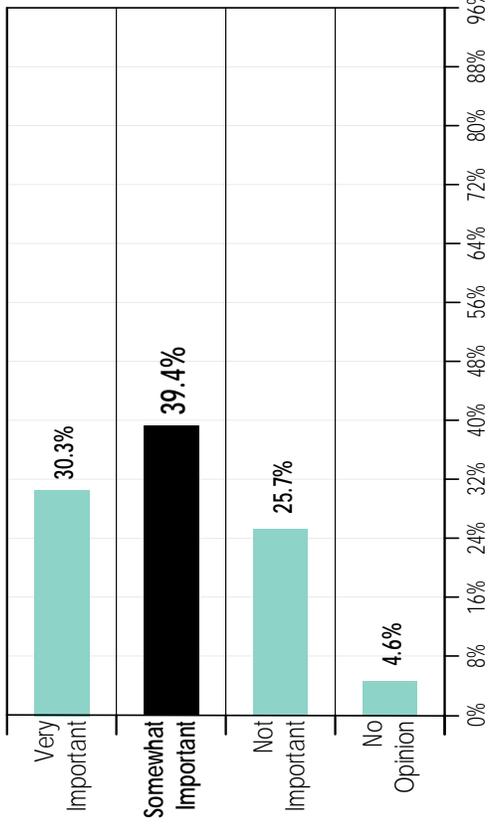


Alliance Community Survey

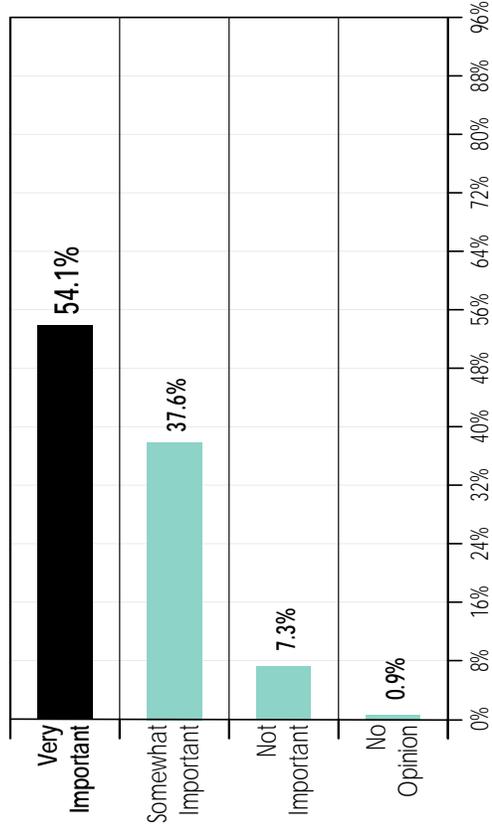
Please indicate the importance of EASE OF TRAVEL (CAR) to your quality of life.



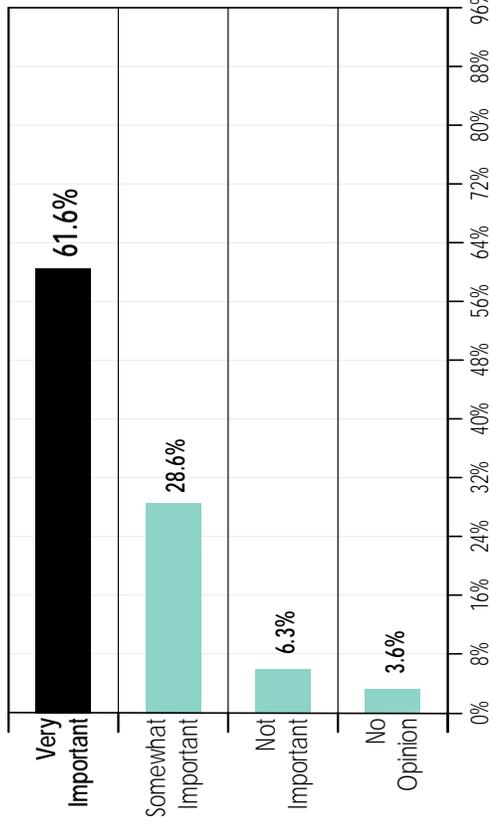
Please indicate the importance of EASE OF TRAVEL (Bicycle) to your quality of life.



Please indicate the importance of EASE OF PEDESTRIAN TRAVEL to your quality of life.

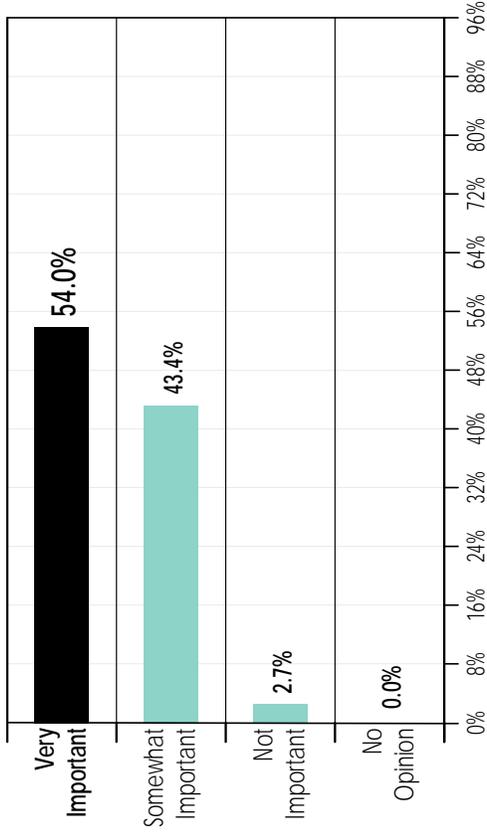


Please indicate the importance of POLICE TRAFFIC ENFORCEMENT to your quality of life.

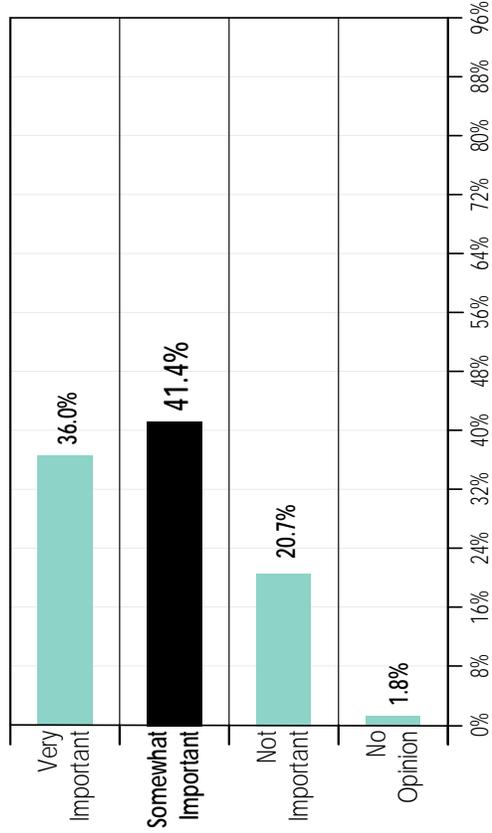


Alliance Community Survey

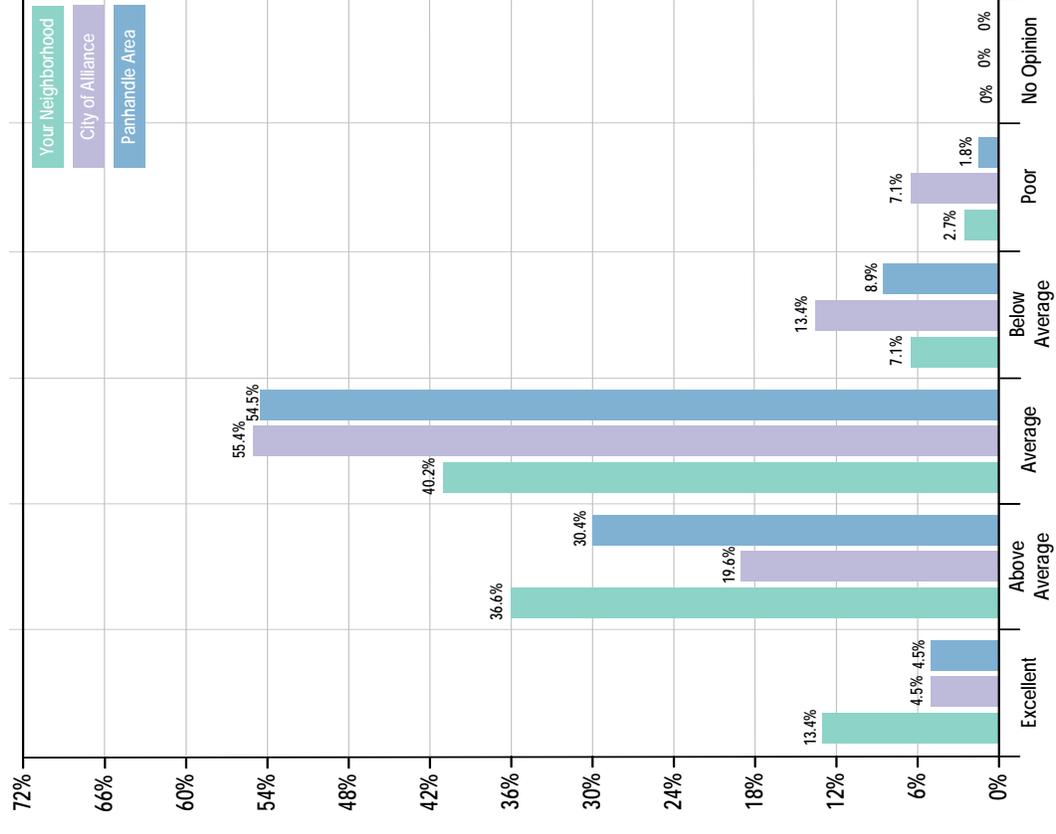
Please indicate the importance of PARKS IN THE CITY to your quality of life.



Please indicate the importance of OPEN SPACE IN THE CITY to your quality of life.

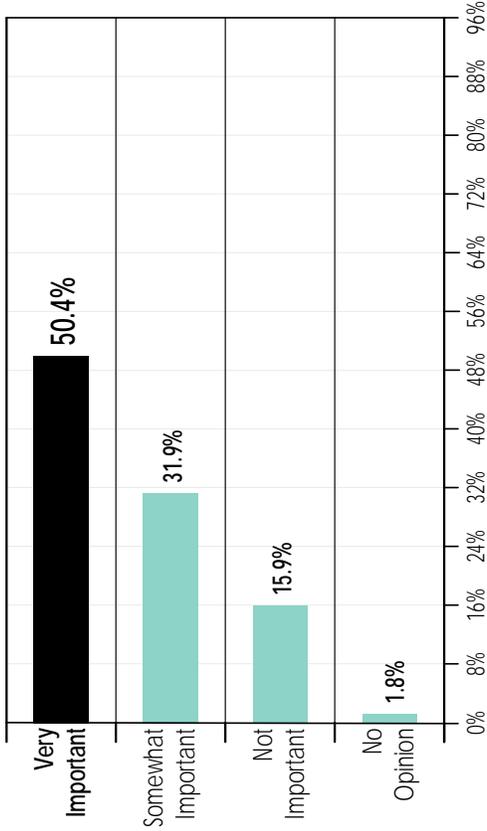


Rate of the QUALITY OF LIFE of each place.

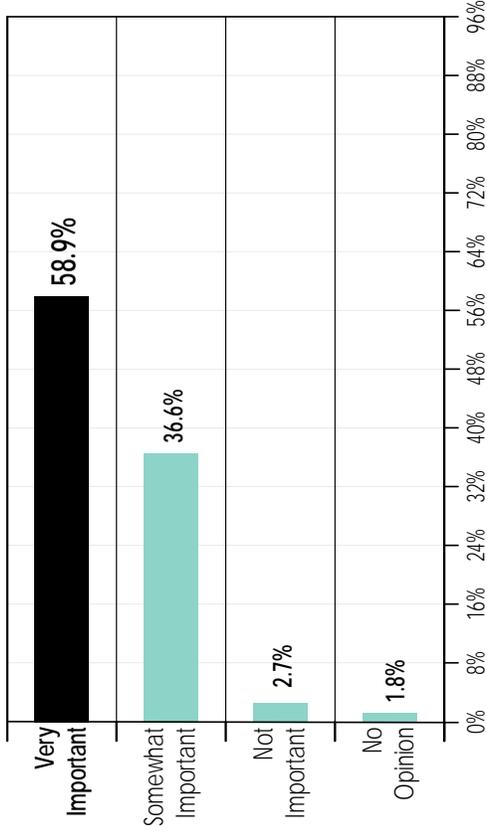


Alliance Community Survey

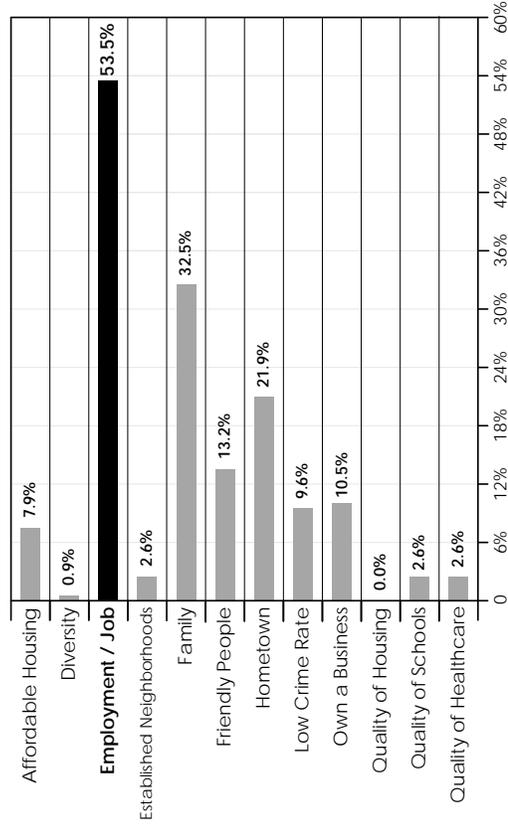
Please indicate the importance of ALLIANCE PUBLIC LIBRARY to your quality of life.



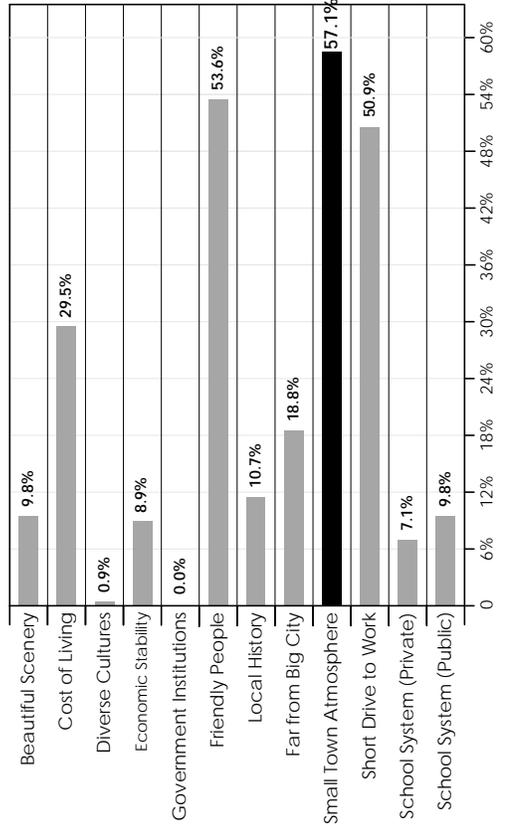
Please indicate the importance of TRASH COLLECTION to your quality of life.



What is the PRIMARY reason why you choose to live in Alliance?

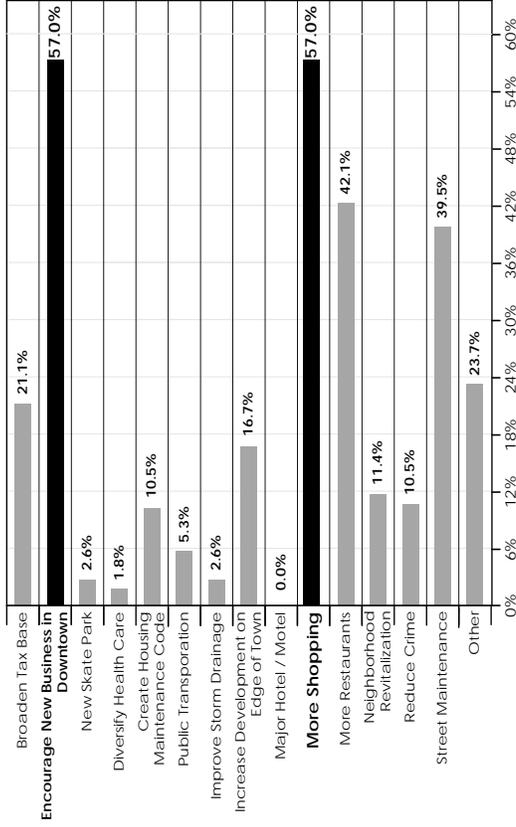


What three things do you like MOST about living in Alliance?

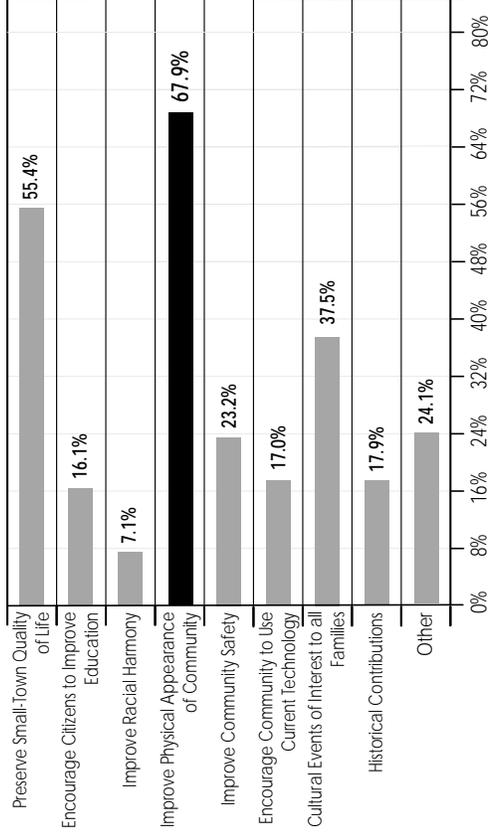


Alliance Community Survey

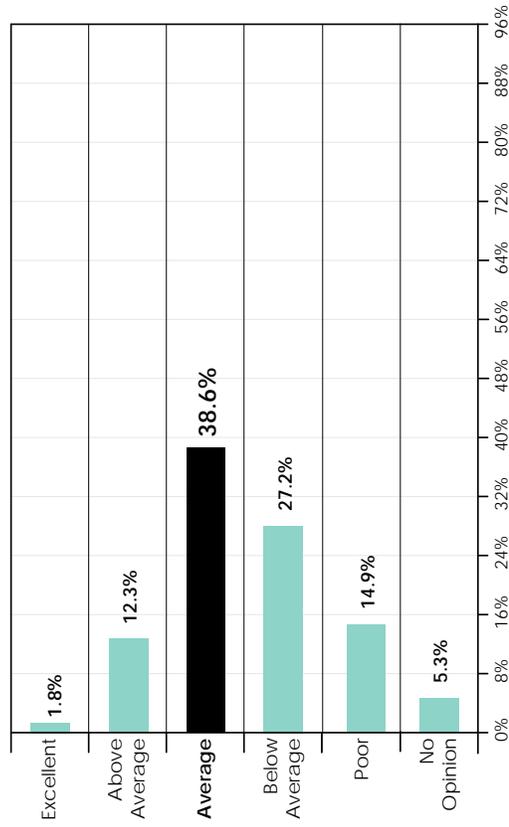
What are three major IMPROVEMENTS that Alliance should work on?



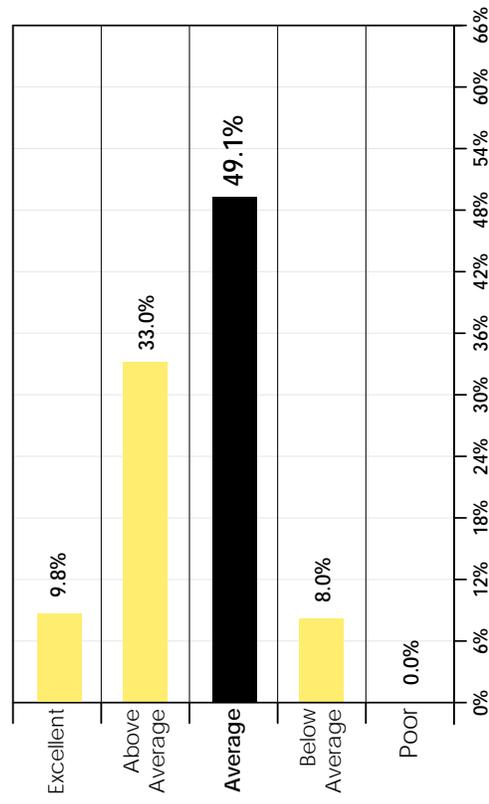
What three characteristics should Alliance include in its future vision?



How do NON-RESIDENTS perceive the Alliance community?

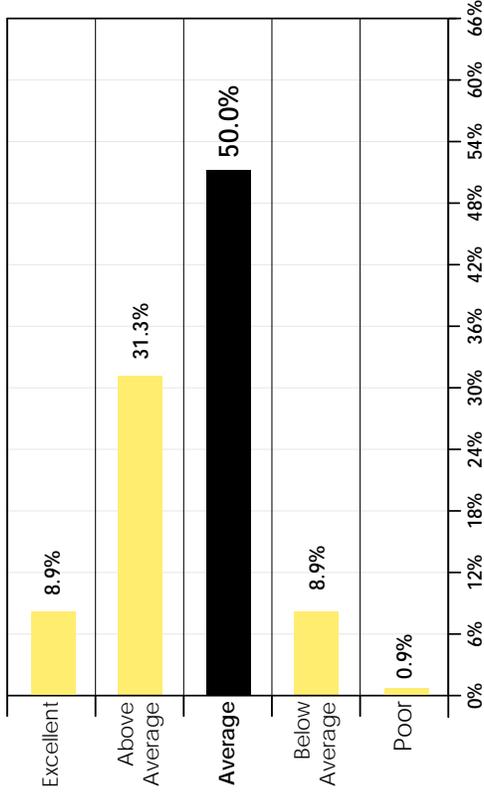


Rate the general APPEARANCE of your neighborhood.

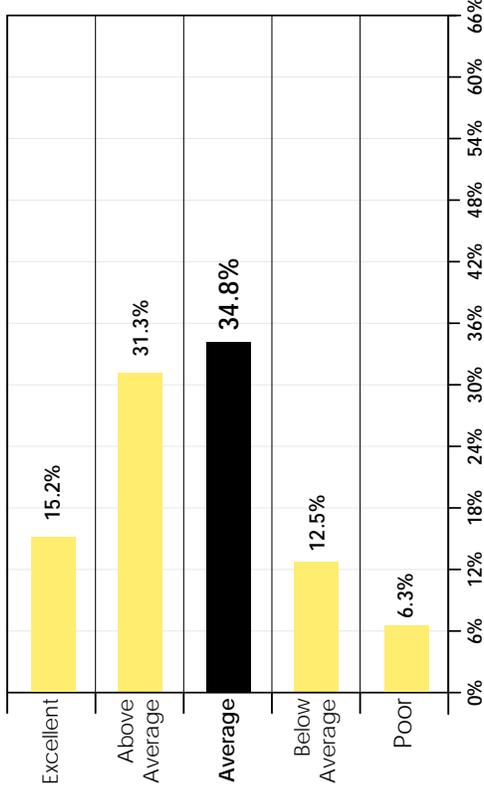


Alliance Community Survey

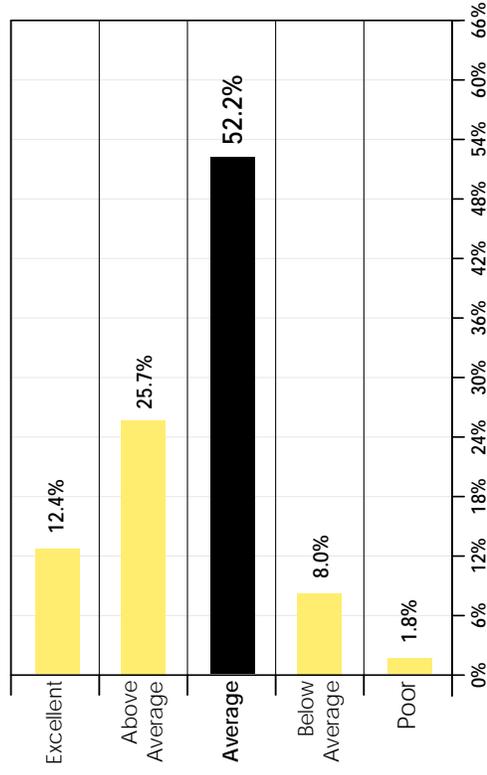
Rate the **CONDITION** of exteriors of homes on your street.



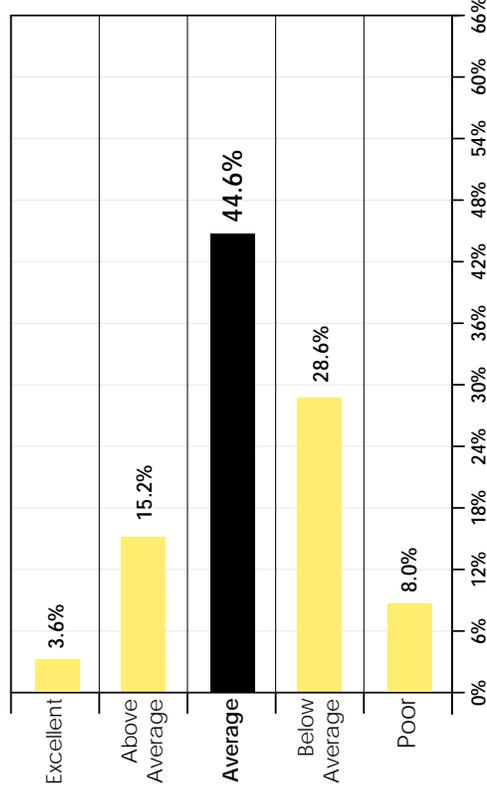
Rate **YARDS** free of debris of homes on your street.



Rate the **CONDITION** of lawns and landscaping of homes on your street.

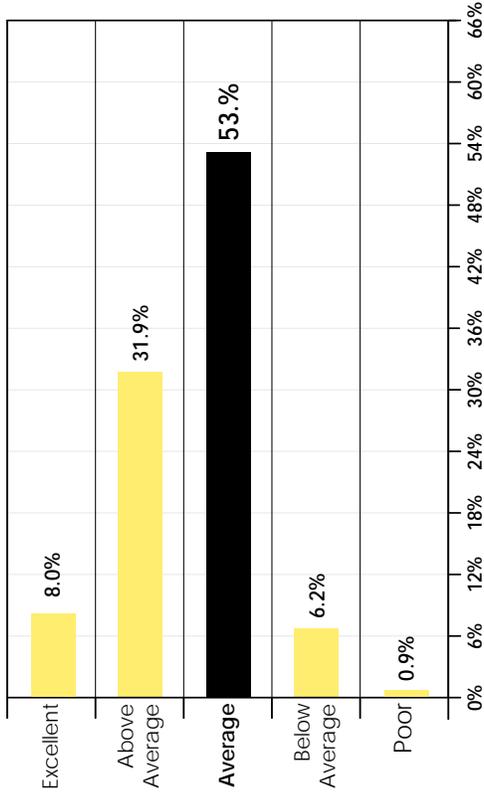


Rate the **CONDITION** of your neighborhood street.

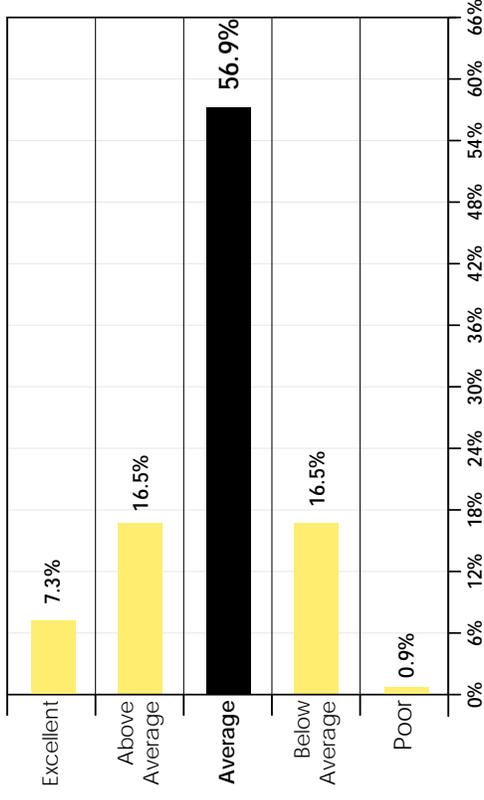


Alliance Community Survey

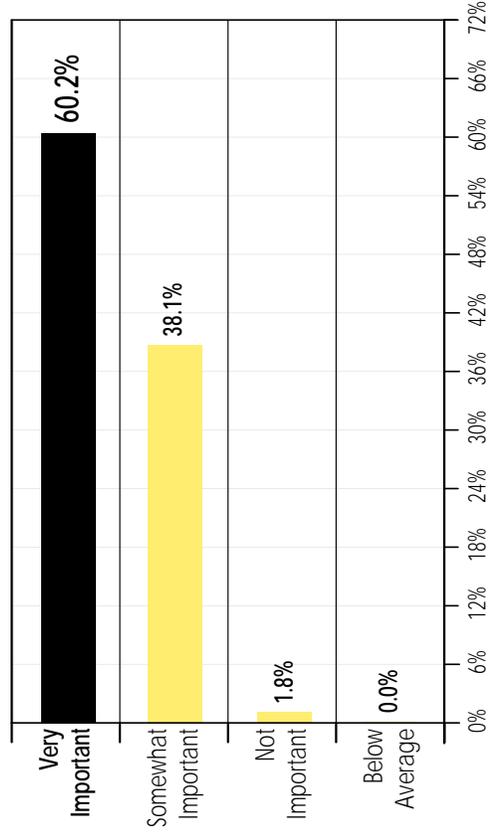
Rate the **CONDITION** of roofs on your street.



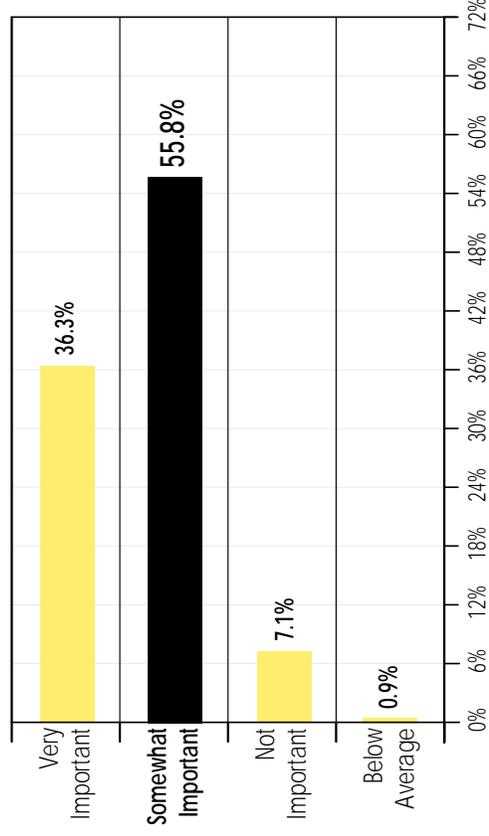
Rate the **CONDITION** of sidewalks on your street.



Rate the importance of **BUILDING APPEARANCE** in Alliance.

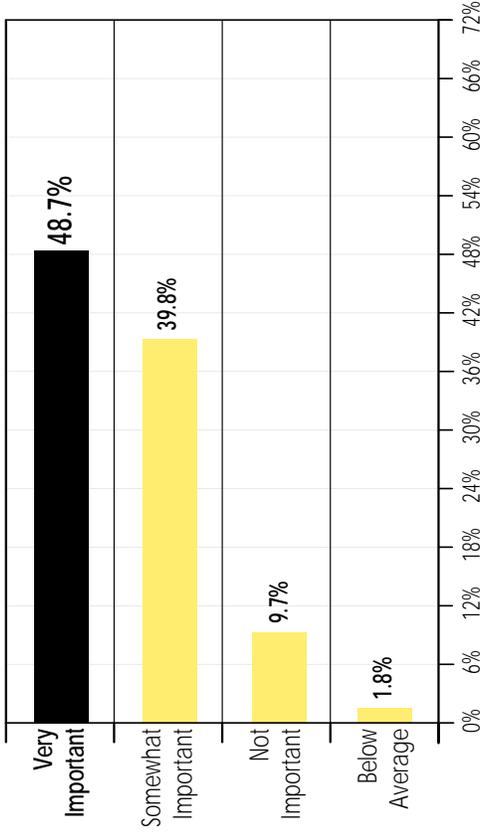


Rate the importance of **SIGN APPEARANCE** in Alliance.

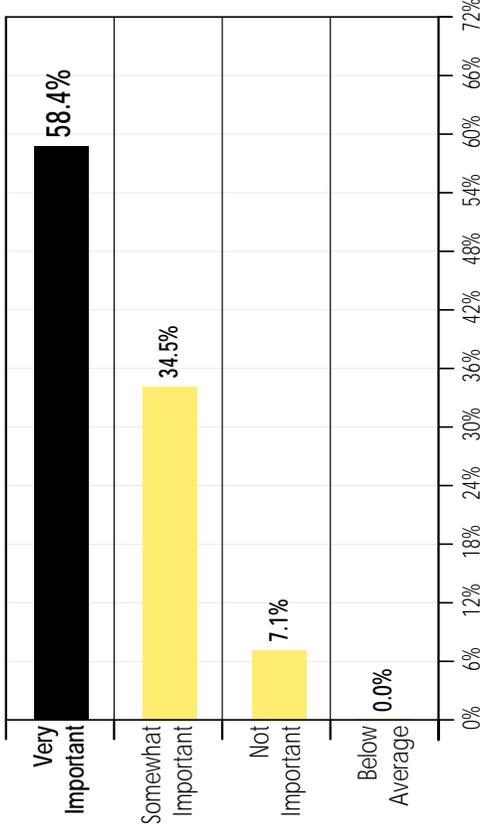


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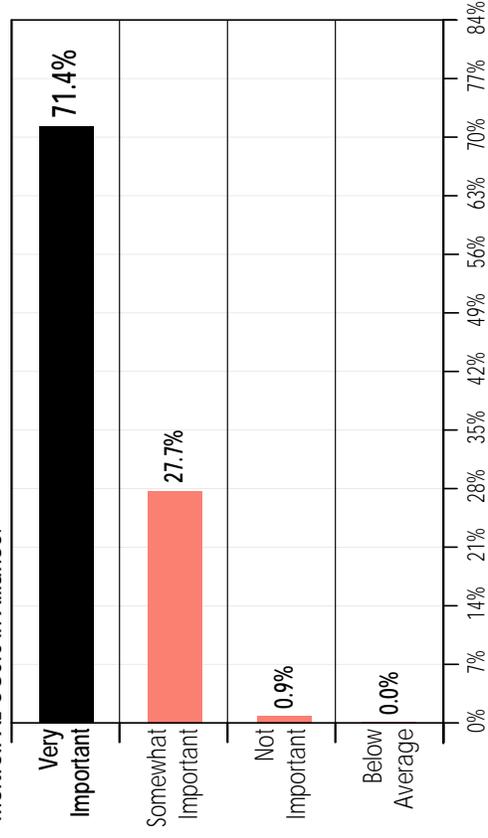
Rate the importance of DESIGN STANDARDS for future development in Alliance.



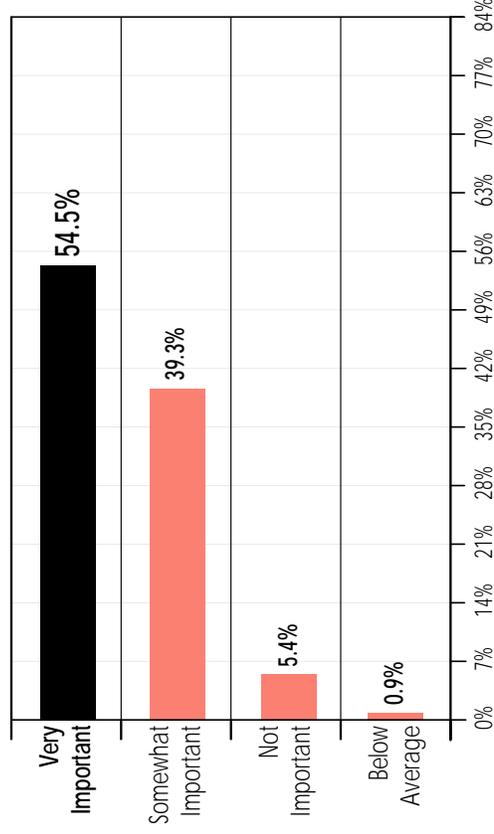
Rate the importance of REVITALIZING MAIN STREET in Alliance.



Rate the importance of promoting EFFICIENT DEVELOPMENT PATTERNS and LOW MUNICIPAL COSTS in Alliance.

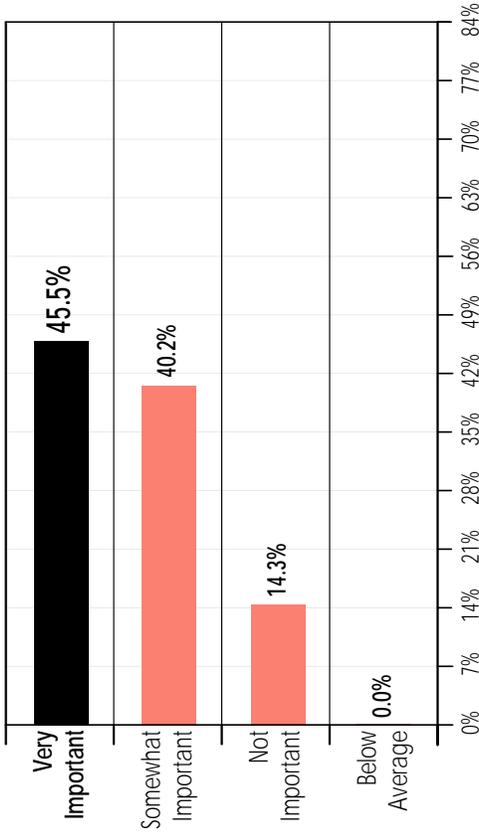


Rate the importance of encouraging MIXED USE DEVELOPMENT in Alliance.

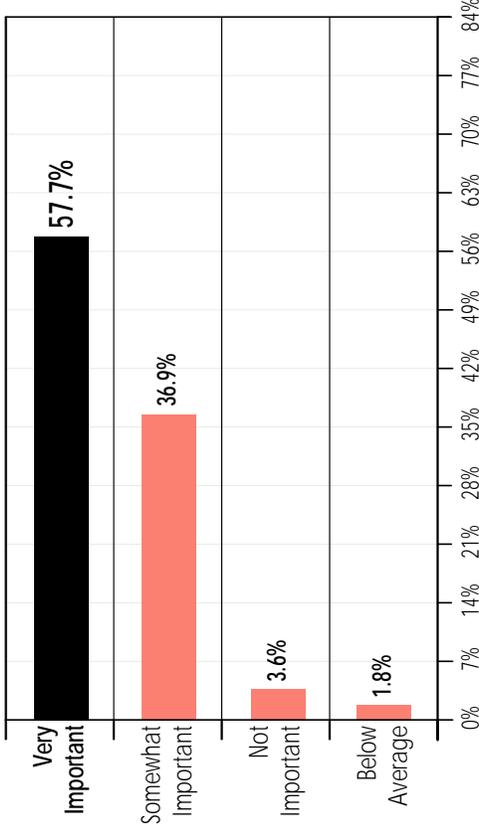


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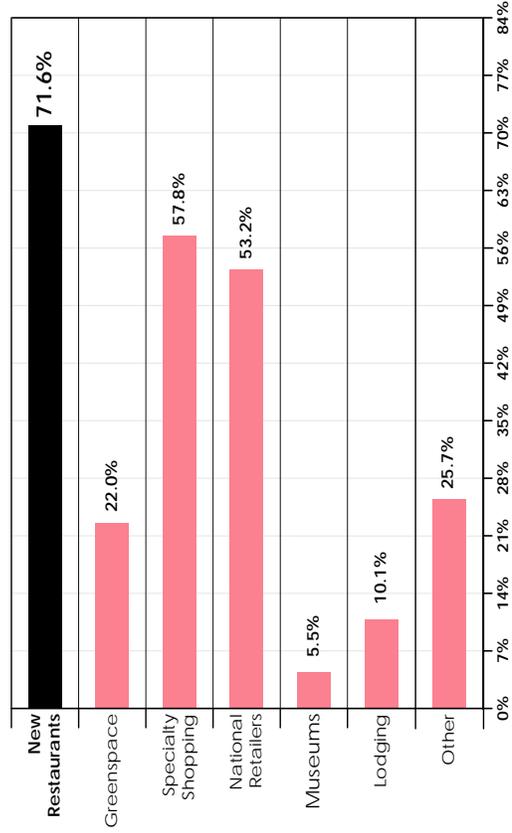
Rate the importance of PRESERVING CULTURAL, HISTORIC, AND ARCHEOLOGICAL SITES in Alliance.



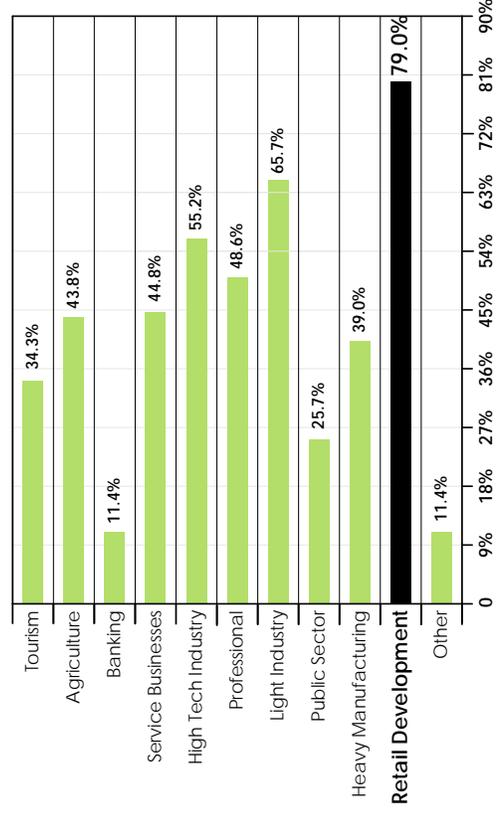
Rate the importance of balancing INDIVIDUAL PROPERTY RIGHTS with COMMUNITY INTERESTS in Alliance.



What would you like to see in downtown Alliance?

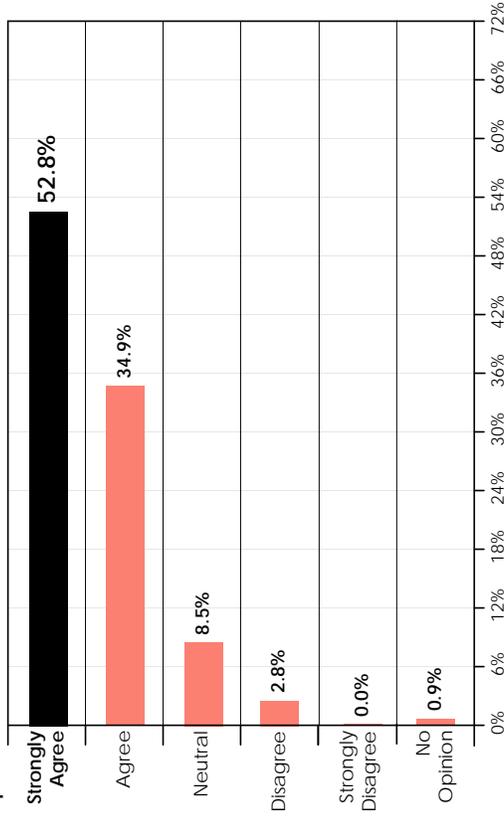


What types of businesses should Alliance attract?

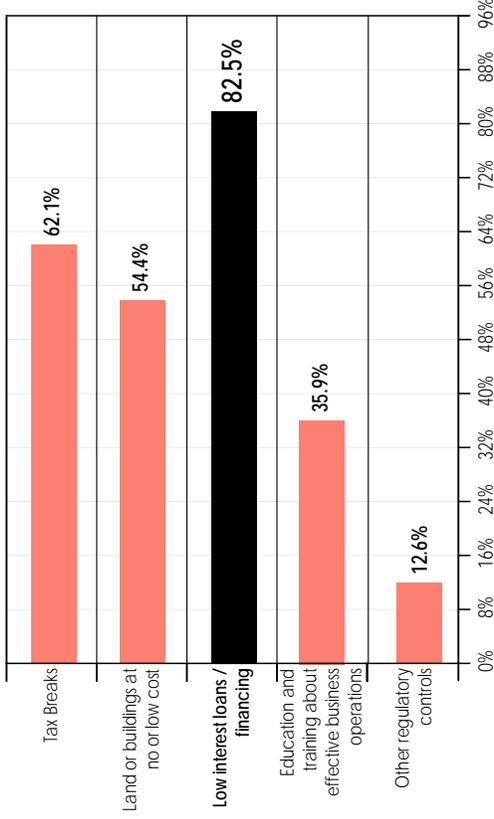


Alliance Community Survey

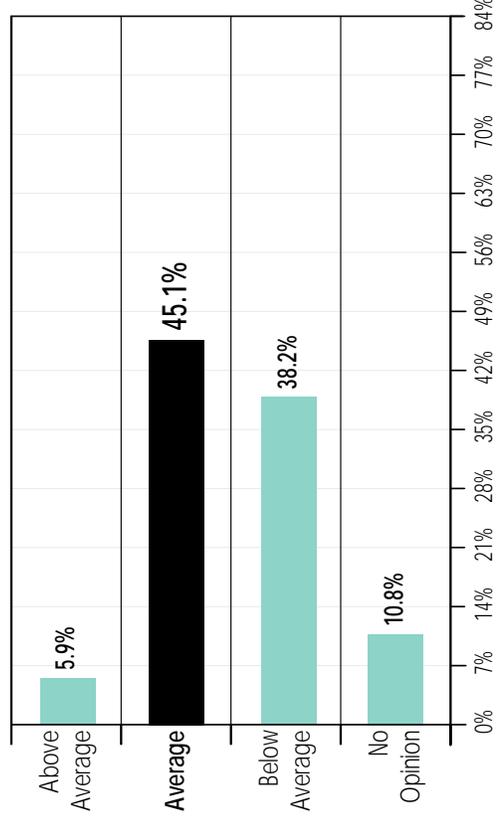
Placing new retail, commercial, and industrial development in ESTABLISHED areas is important.



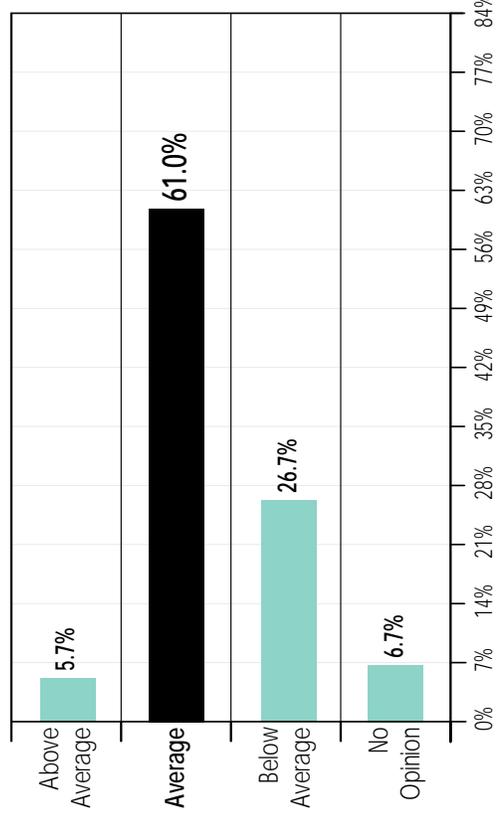
What types of INCENTIVES should the City offer to RETAIN existing businesses or ATTRACT new businesses to Alliance?



Rate the maintenance and condition of BANDSHELL BLOCK PARK.

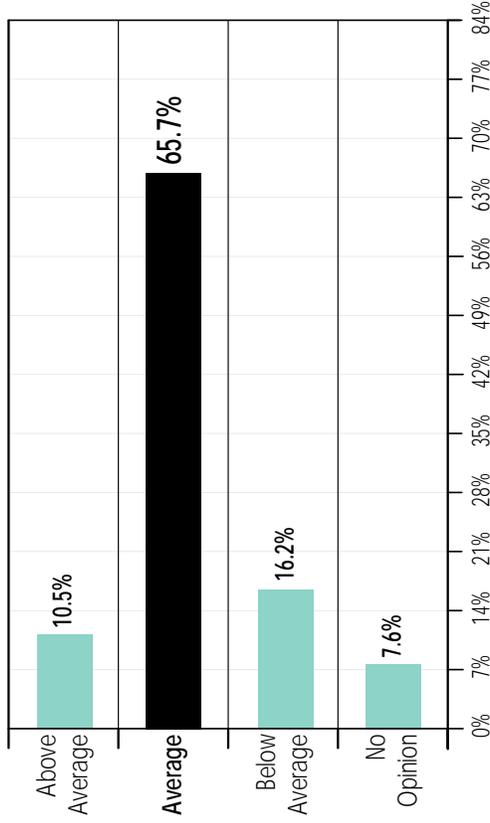


Rate the maintenance and condition of BOWER PARK.

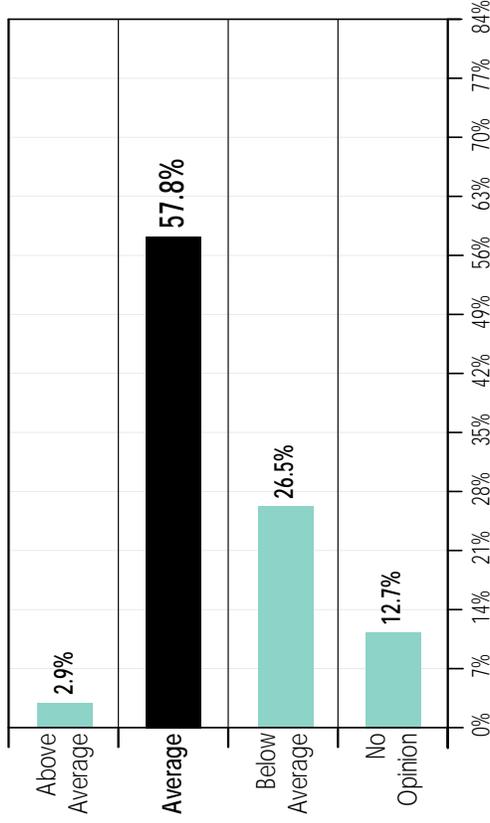


Alliance Community Survey

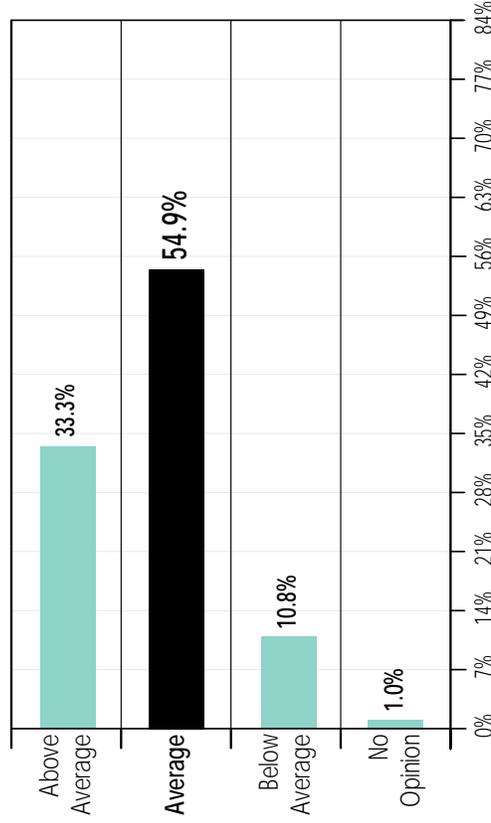
Rate the maintenance and condition of BOWER BASEBALL COMPLEX.



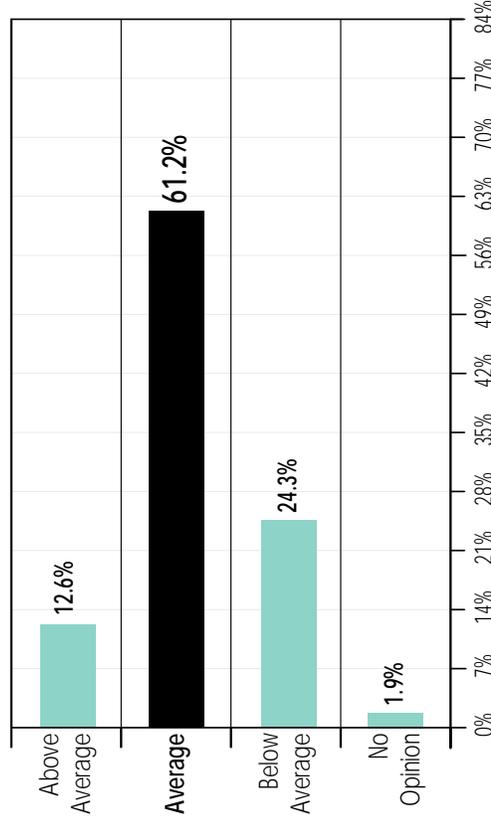
Rate the maintenance and condition of BURLINGTON NORTHERN PARK.



Rate the maintenance and condition of CENTRAL PARK.

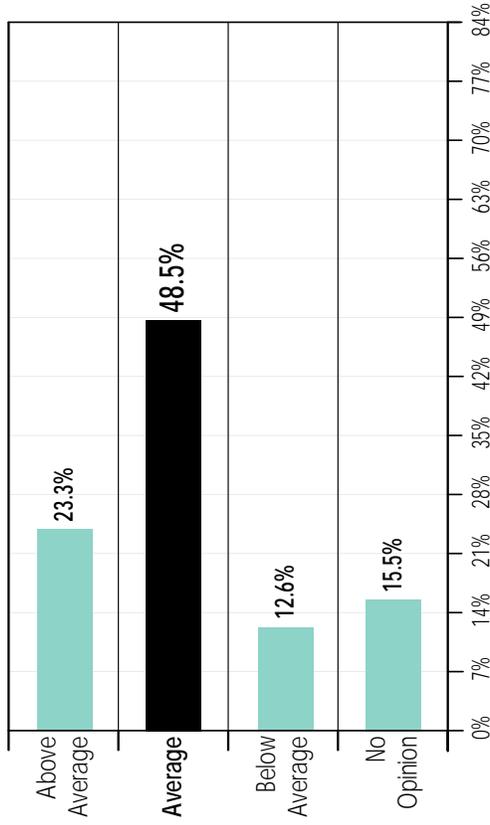


Rate the maintenance and condition of DOWNTOWN PARK.

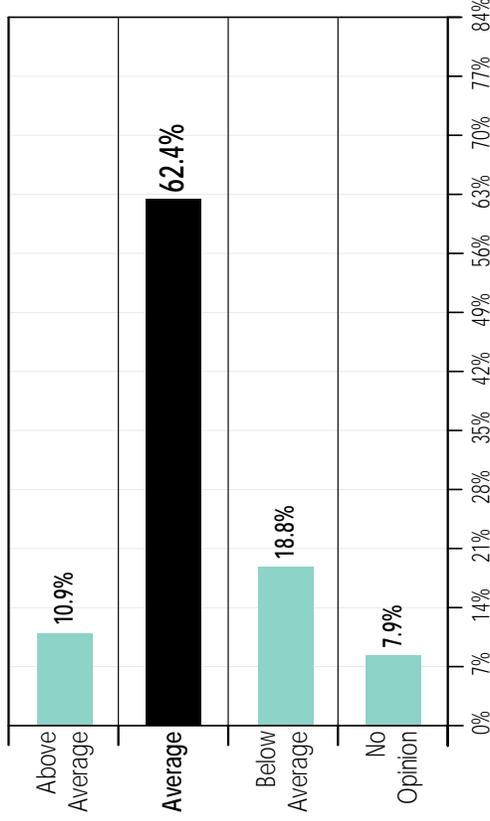


Alliance Community Survey

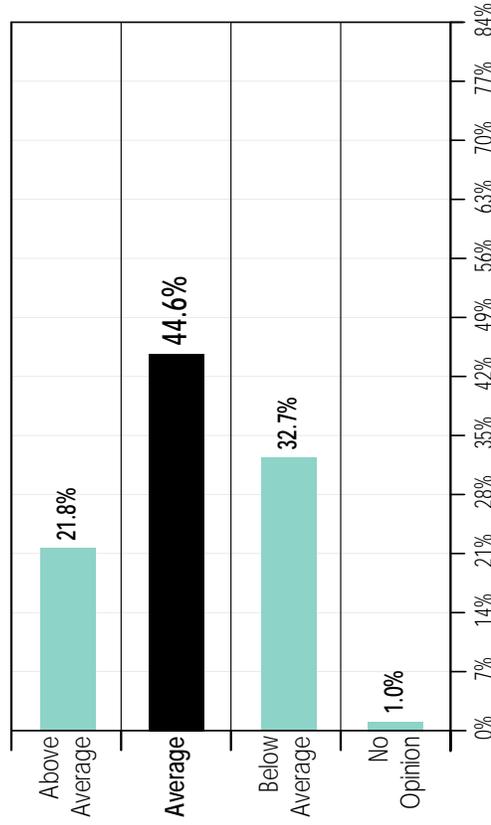
Rate the maintenance and condition of HAL MURRAY SOFTBALL COMPLEX.



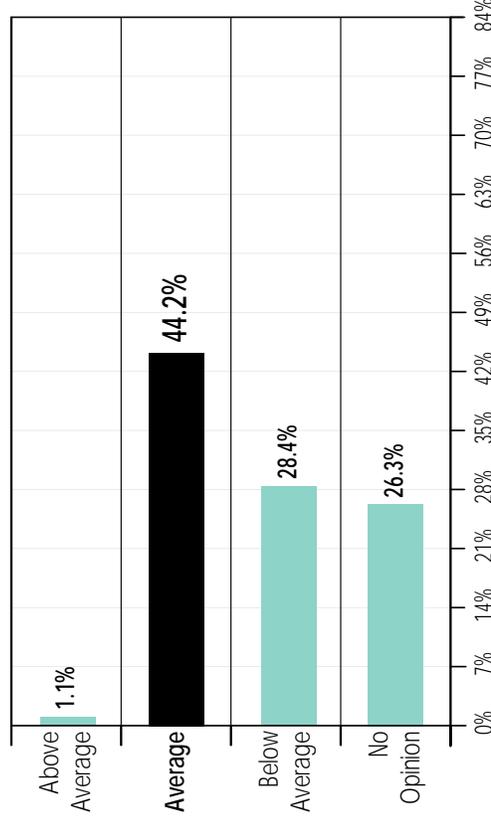
Rate the maintenance and condition of JAYCEE MINI PARK.



Rate the maintenance and condition of LAING PARK.

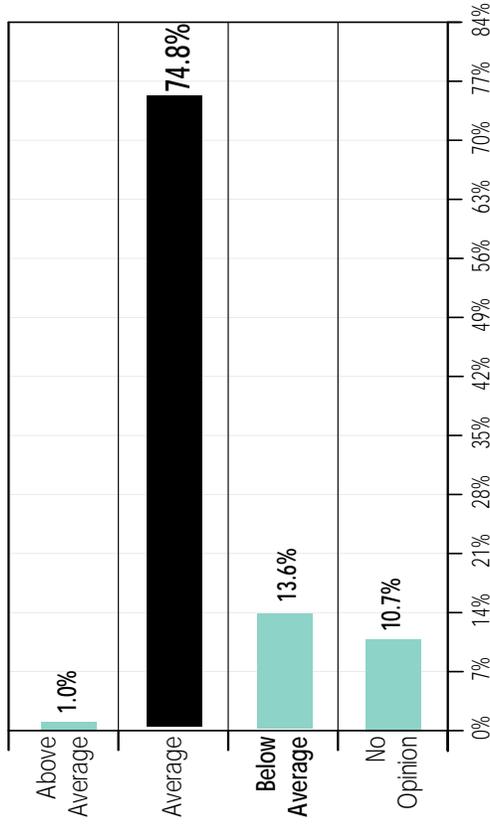


Rate the maintenance and condition of LIONS PARK.

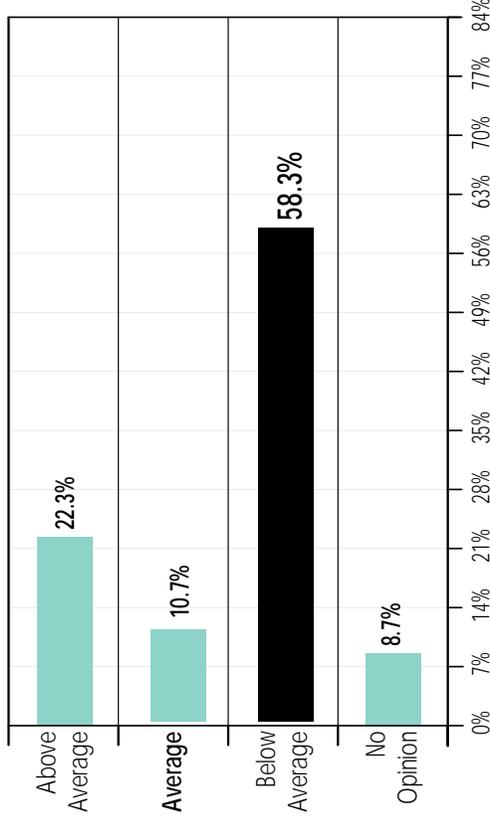


Alliance Community Survey

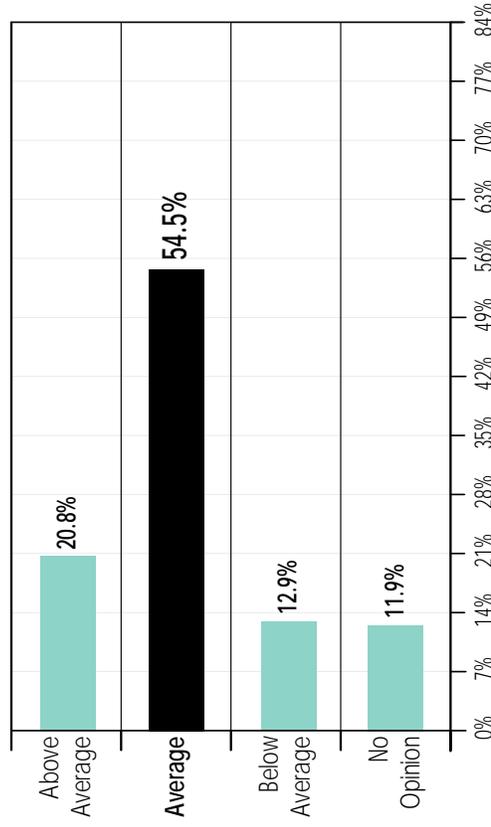
Rate the maintenance and condition of the OLD TENNIS COURTS.



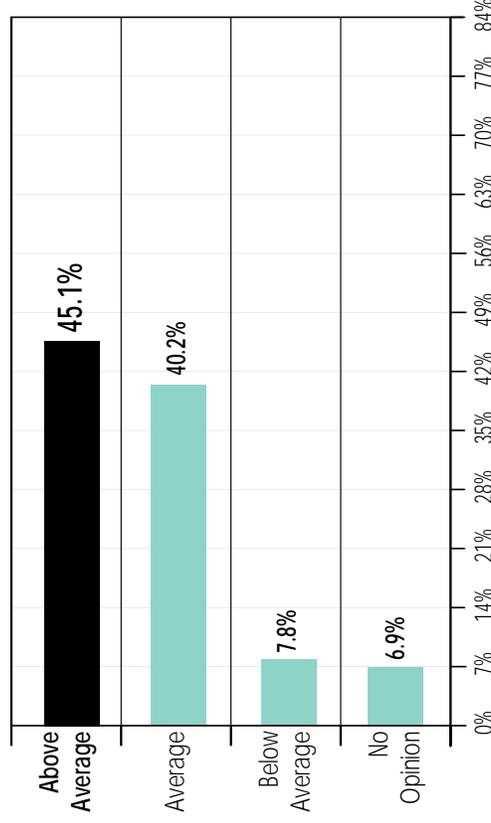
Rate the maintenance and condition of NEW TENNIS COURTS.



Rate the maintenance and condition of SUDMAN LITTLE LEAGUE FIELD.

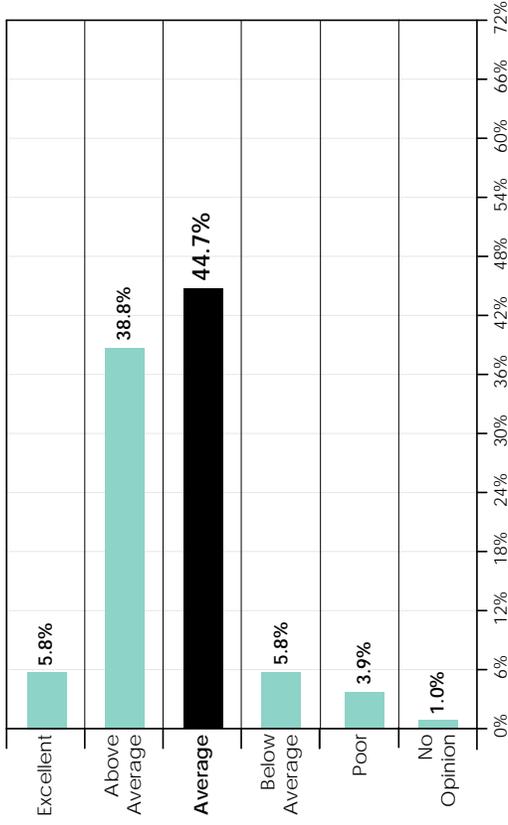


Rate the maintenance and condition of BIG BLUE BAY.

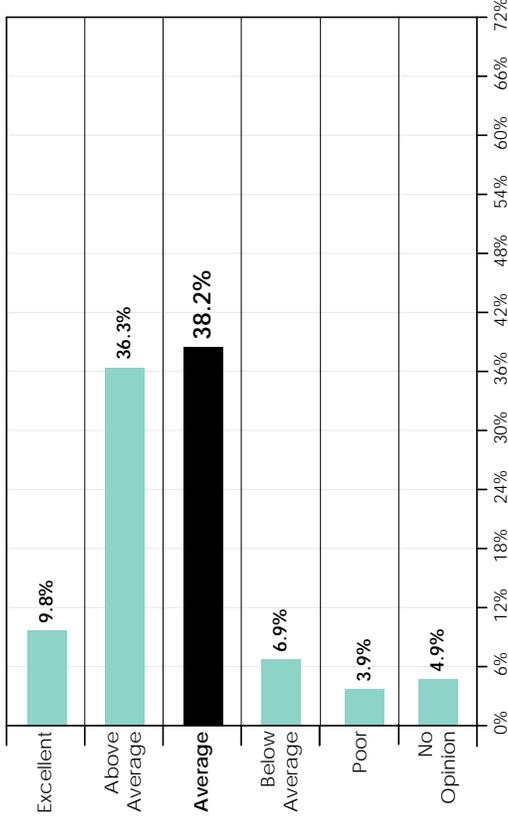


Alliance Community Survey

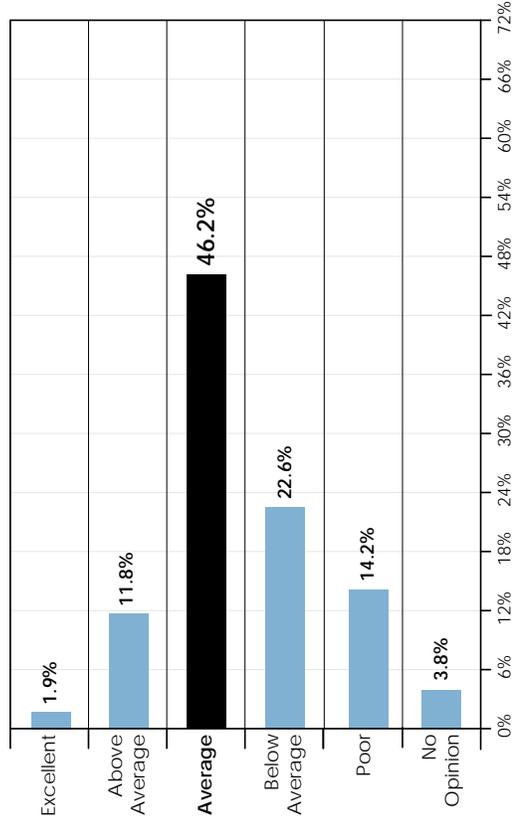
How would you rate PARKS in Alliance?



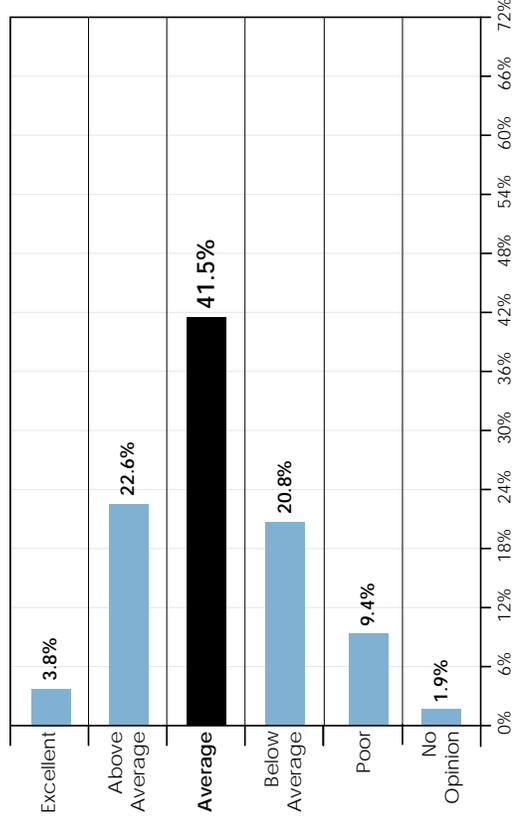
How would you rate the TRAIL NETWORK in Alliance?



Rate your satisfaction with the AVAILABILITY OF HOUSING in Alliance.

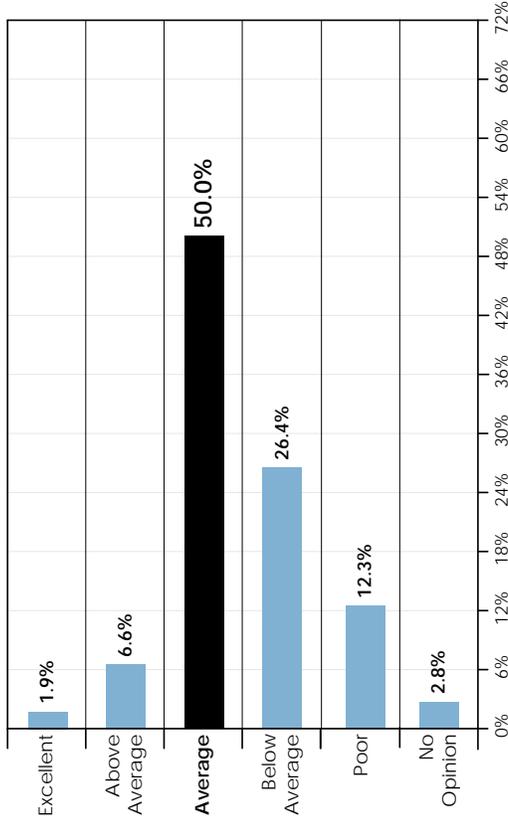


Rate your satisfaction with the AFFORDABILITY OF HOUSING in Alliance.

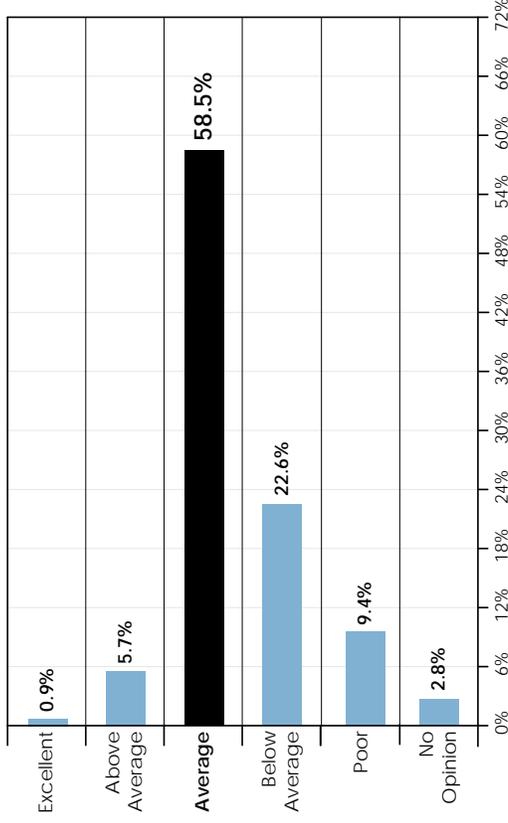


Alliance Community Survey

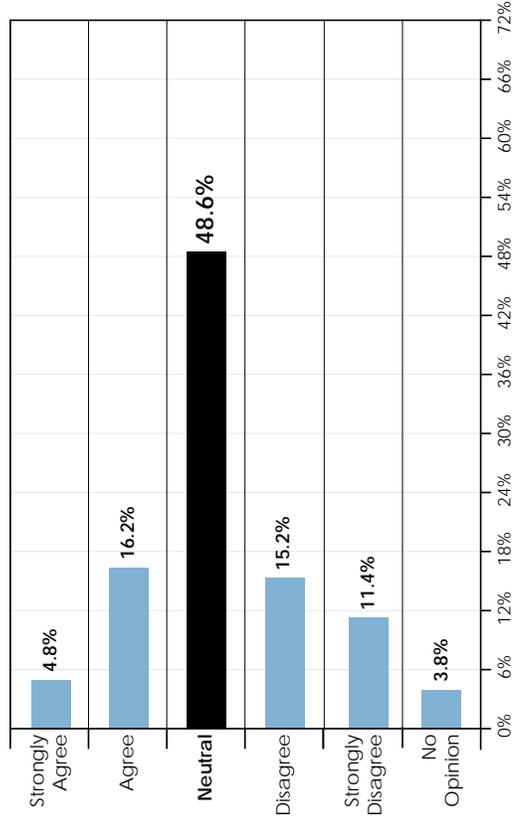
Rate your satisfaction with the QUALITY OF HOUSING in Alliance.



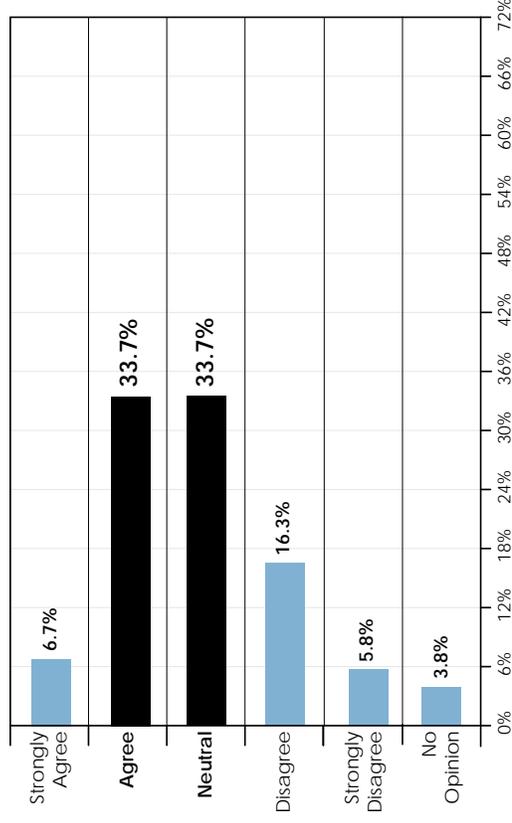
Rate your satisfaction with the STYLE OF HOUSING in Alliance.



Alliance needs ADDITIONAL DUPLEXES.

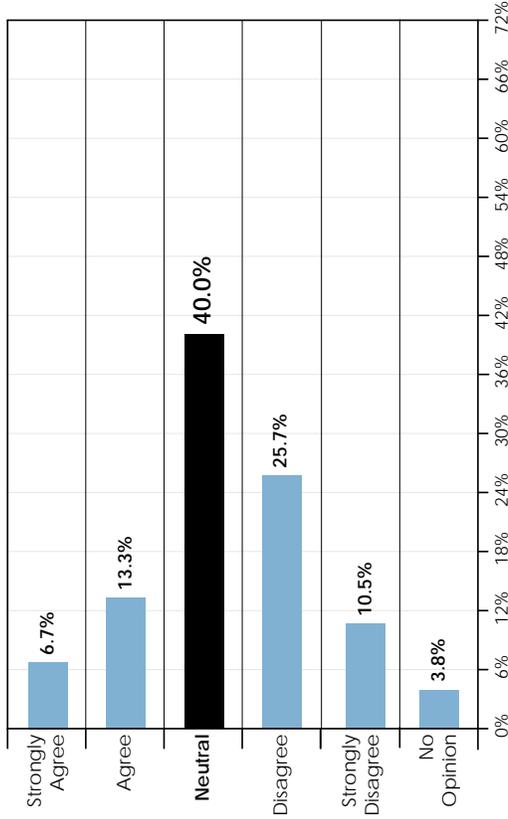


Alliance needs ADDITIONAL ASSISTED / SENIOR LIVING.

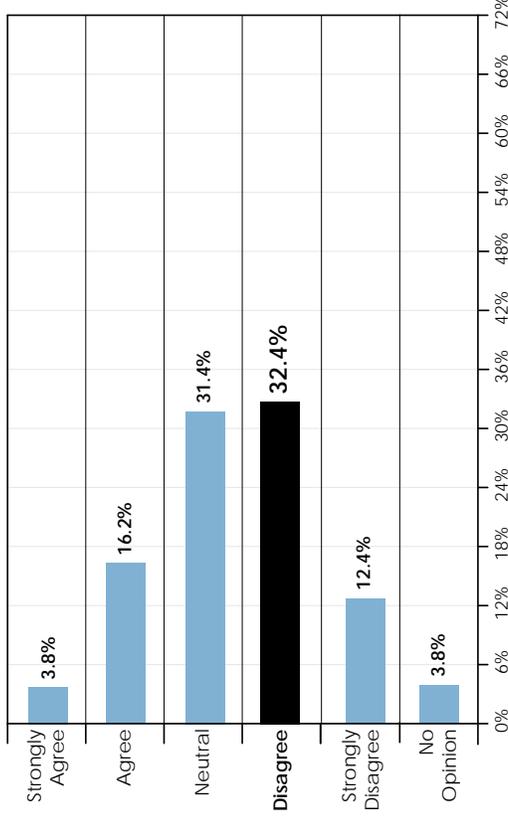


Alliance Community Survey

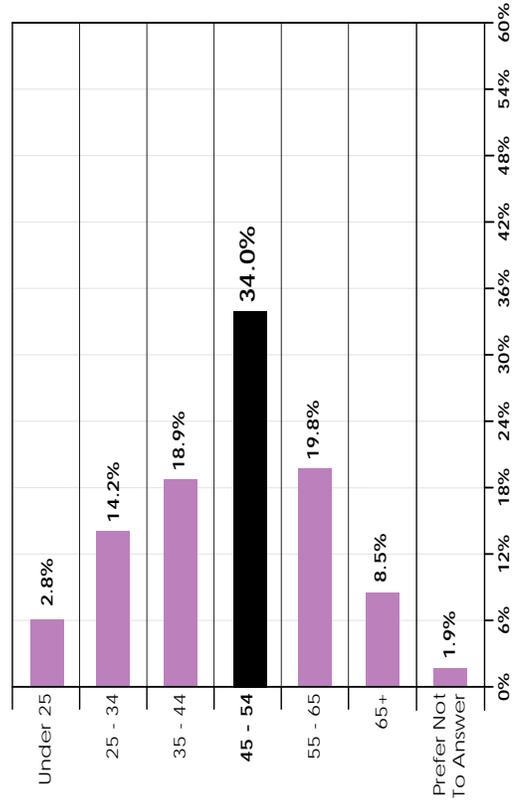
Alliance needs **ADDITIONAL MANUFACTURED HOUSING**.



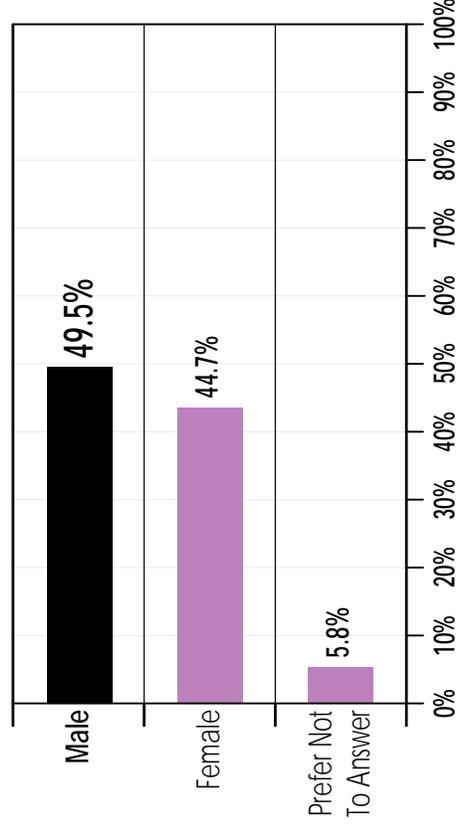
Alliance needs **SMALLER** lots balanced by **COMMON OPEN SPACE**.



What is your age?

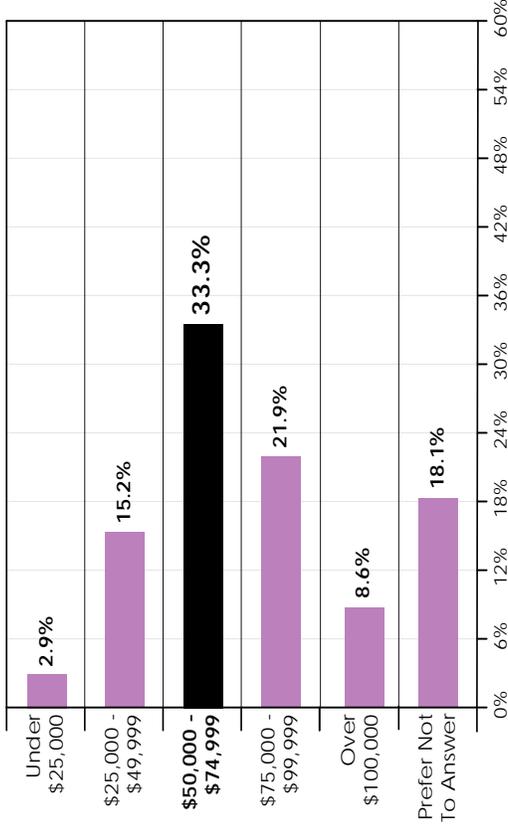


What is your gender?

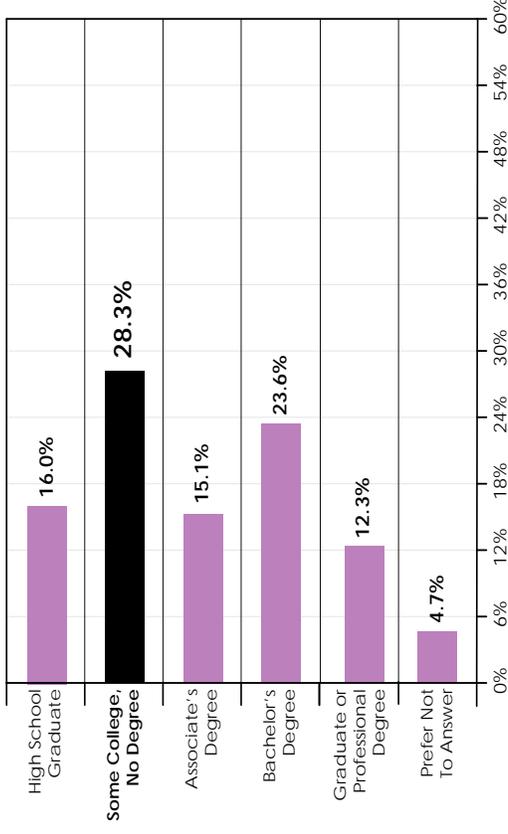


Alliance Community Survey

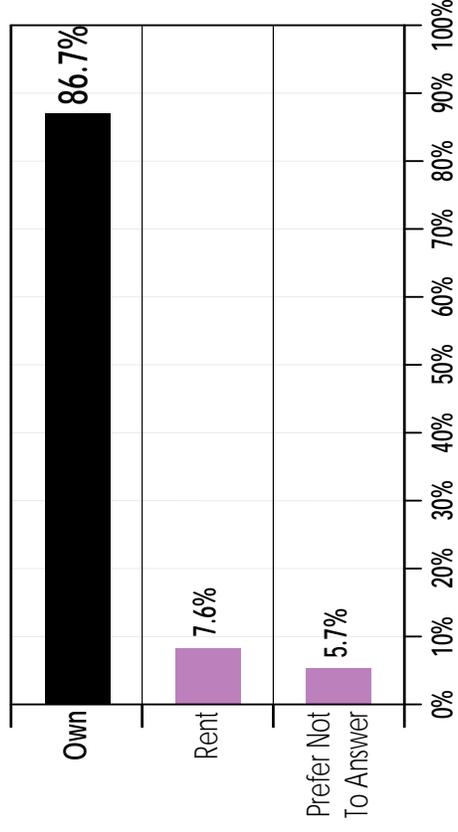
What is your annual household income?



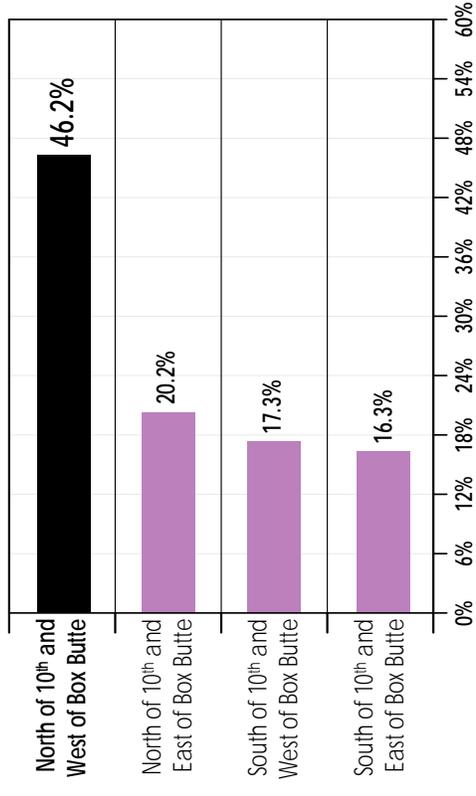
What is your highest level of education achieved?



Do you own or rent your current residence?



Please select the area which most accurately represents where you live.



Public Facilities

Public Facilities Introduced

Public Facilities

Public facilities and services are defined as any facility or service, including but not limited to buildings, property, and recreation areas, which are operated or funded by a governmental body or public entity.

Typically, these facilities and services serve the general public and the entire community. Public facilities and services include City Hall, libraries, police and fire stations, and schools.

These facilities and services educate our youth, keep us safe, deliver water and sewer services to our homes, and offer public areas to congregate.

High quality schools, cost effective utility systems, and effective public safety services can enhance the quality of life for existing residents and appeal to potential residents. This chapter of the Alliance Comprehensive Plan assesses and evaluates the existing public facilities and services within Alliance and their ability to adequately serve the community.

Parks

A park is a public area that is used for recreational purposes. Parks are designed to provide residents of all ages places to play, congregate, relax, and enjoy the natural environment. Parks offer a variety of benefits to the community. Neighborhood public open spaces serve as meeting areas and can

help build a rapport among community members. Parks are wonderful venues for physical exercise and activity and can thus contribute to improved public health. Parks and trails also offer economic benefits in the form of increased property valuation.

Utilities

Utilities are public services (i.e. water, sewer, electricity) that are provided by either private or public entities. Utilities are often buried beneath the ground and are therefore easily forgotten and taken for granted. However, utility services provide city residents with convenience and contribute to a high standard of living.



Public Facilities Assessed

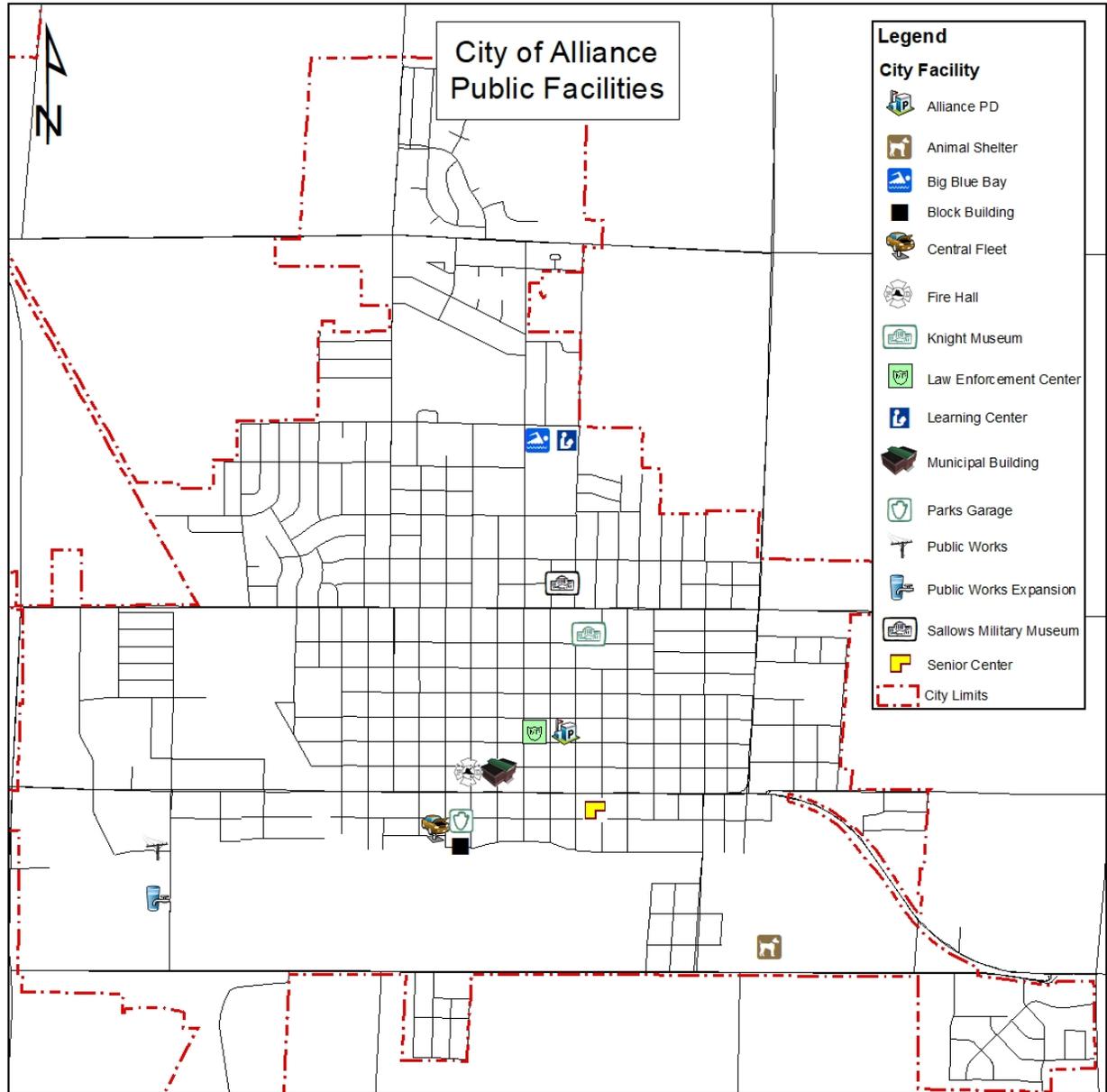


Fig. PF1

Public Facilities Assessed

Each public facility and service within the City of Alliance was inventoried and assessed. These assessments are used in conjunction with development projections to most accurately determine future public facility and service needs. The adequate provision of public facilities and services is vitally important as Alliance continues to grow.

PUBLIC FACILITIES

Alliance Learning Center The Alliance Learning Center is located at 1750 Sweetwater Avenue and was built in 1997 to replace the Slagle Memorial Building. The Learning Center also includes classrooms, office space, conference rooms, and serves as a satellite location for Western Nebraska Community College. It has a brick and mortar exterior with steel and concrete structure. The library portion has a wood vaulted ceiling with skylights and the building has asphalt shingles replaced in 2022. It is ADA compliant and the condition is overall very good.

The building components and finishing, however, are showing signs of age. The HVAC system has never worked properly and more problems have begun to surface as it gets older. The HVAC and control system are in the process of being replaced as this Plan is being prepared. The issue should be monitored to ensure it has been resolved.

In 2014 engineers designed repairs to the foundation and basement wall on the east side of the building. The area habitually leaked and was found to be structurally deficient. Fixes included excavation of the foundation and the application of water proofing materials to the basement wall. The space was graded and concrete was poured to the correct slope. These repairs appear to have resolved the leaking issues.

In 2021 Meeting Room C was converted into the Alliance City Council Chambers. The addition of the council table resulted in Meeting Room C no longer being used as a public meeting space and increased the use of the dividers between meeting rooms. The dividers that separate the three meeting spaces are damaged and a more user friendly system should be installed in their places. When the council chambers were moved to Room C a sound system was added.

The interior of the building should be updated. Many of the fixtures are out of date, difficult to find parts for, and difficult to service and clean. Newer, more energy efficient lighting was installed in the main area of the library, but other portions of the building should be upgraded as well.

Several library staff offices and small public gathering rooms have been updated with paint and new furnishings. In other areas of the building, the wall coverings are outdated and

show the buildings age. Walls should she repaired and coverings painted or re-papered. Exterior doors are also showing signs of their age and some do not operate correctly as the building has settled over the years. These should be repaired or replaced.

Animal Shelter

The Alliance Animal Shelter is located at 1040 East Kansas Street. It is an 850ft² block and mortar building constructed in 1997. There is office space for the animal control officer, a laundry room, eight indoor kennels for dogs, eight spaces for cats, and a fenced in yard located along the north side of the building. The fenced in area is rocked and contains three dog runs as well as an incinerator for cremating animal remains.

The building is in very good condition. The building was recently rehabilitated by staff and volunteers but it will require further investment by the City in the future. This includes normal maintenance such as painting and repairs but also landscaping improvements, new kennels, fencing, and a replacement incinerator for cremation.

Big Blue Bay

The Big Blue Bay was built in 2003 to replace the pool located in the North Park Recreation Complex (Sudman Block). It is located at 101 East 18th Street and the campus encompasses 86,000ft².

Public Facilities Assessed

The bath house is 5600ft², the pool is 9900ft², and the pump house is 1200ft². The two buildings are block and mortar with wood truss roofing support, stucco finish, and asphalt shingle roofing.

The pump house had significant settling issues for a few years after construction but has since stopped. It should be continuously monitored by staff.

The acid tank, which was originally located inside the pump house, was relocated to a separate enclosure east of the building after noticing significant corrosion to fixtures and equipment in the pump house. This eliminated the corrosion damage to the interior of the building.

The mechanical chemical control box was upgraded in 2016, as the original unit was not operational. The four main circulation pumps were removed and evaluated in 2019. All necessary repairs were completed to ensure efficient operation. The basket strainer on the water slide supply line is scheduled to be replaced in 2023.

The pool basin was completely resealed and repainted in 2017. Staff continually fills cracks and paints areas of the pool as necessary.

City staff continually repairs the funbrella structures and canvases, replaces and repairs bathroom fixtures

and completes other repairs as necessary. The bathhouse is beginning to show some wear with water damage to painted surfaces and some corrosion on metal door frames in areas that have settled and hold water for long periods of time. Long term, these issues will need to be monitored closely and dealt with accordingly to keep the building from deteriorating further.

Block Building – Warehouse #2

Warehouse #2 is located at 105 Big Horn Avenue. It is a 5950ft², block and mortar building built in 1950 and is used primarily as storage for the Parks, Streets, and Water Departments. Because of its previous use as a railcar loading and unloading warehouse for the City, the south two thirds of the building is elevated approximately 40" and does not allow for ground level storage. Items must be lifted or lowered to get to or from ground level.

Baker and Associates Engineering of Scottsbluff Nebraska assessed the building in 2013 and found structural issues. The block work on the south side was beginning to sag over the door and detach from the building. A main beam running the length of the building was found to be structurally deficient and bracing was constructed to temporarily stabilize the structure. Since the parks department has moved to

109 Big Horn, this building should be vacated and razed.

Fire Station

The Alliance Fire Station is located at 315 Cheyenne Ave. Although this location used to be centrally located, most of the recent community growth has occurred to the north. This facility was originally constructed in 1982. The building has a brick and mortar exterior with block wall interior and steel structure.

The west bay occupies 5260ft² and the east bay occupies 3900ft². There is approximately 500ft² of storage located along the north and east wall of the east bay. Between the east and west bays is approximately 3250ft² of space occupied by offices, sleeping dormitories, volunteer club kitchen, clubroom, and storage.

This facility serves 952 square miles. The fire station has eight bays which includes three east bays, four west bays, and one wash area. The fire station operates 20 vehicles, including one ladder truck, two engines, four ambulances, two tankers, five grass rigs, a HAZMAT, and a command unit.

The fire station includes five staff employees, and 47 volunteer firefighters. The list of services provided by the fire station includes advanced life support,

Public Facilities Assessed

basic life support, hospital transportation, community smoke detector review, fire patrol, emergency medical technician classes, fire extinguisher classes, and junior fire patrol.

The existing fire station would benefit from another addition to house equipment, an indoor training space that would allow additional practice space, an area for a bumper-to-bumper check, and indoor hose bays.

The current fire station is not in good condition, rather it rates average. There have been two studies done on the structural issues of the fire station. The first report was done by Maxim Technologies Inc. from Casper, Wyoming in 1996. The second report was done by M.C. Schaff and Associates from Scottsbluff, Nebraska and was dated July 15, 1997.

Both reports gave recommendations to help alleviate current and future issues. There was no indication any of the recommendations were followed at that time.

A third update report was done on February 15, 2008 by M.C. Schaff and Associates. They looked at and reviewed their findings from the previous report, however, they did not do a comprehensive study of the structure and it is believed that there are new and additional structural issues.

The City should consider combining the Fire Station and Police Station into one facility as both have similar problems that will need to be resolved during the life of this Plan. As detailed in the Police Department section of this chapter, both entities suffer from similar issues, namely the lack of room for existing equipment, let alone for expansion, as well as the structural and mechanical issues with the buildings themselves.

Fleet Garage

The City Fleet Garage was constructed by the City Utility Department in 1930 as a machine shop and storage warehouse for the power plant. It is a 3670ft² brick and mortar building with a 525ft² steel lean-to against the north wall. It is located at 106 Big Horn Avenue. It is currently used by the police department for storage but is otherwise unused. Since fleet services was eliminated in 2008, the building has served as storage and as the temporary location of the Parks Department until 2022.

The heating system was updated in the early 2010's while occupied by the Parks Department. It is a combination of electric baseboard heat and forced air. The vehicle lift is unusable as it has developed a crack and many of the tools used for fleet maintenance have migrated to other facilities since it closed. The City no longer maintains its fleet in house as vehicles became more complex and in

house repairs became less common. The City should re-purpose this building as it is structurally sound and the HVAC system is relatively new.

Knight Museum and Sandhills Center

The Daughters of the American Revolution and W.E. Spencer established the first museum associated with the City in 1933. The museum was a sod house and sat in Central Park north of the sunken garden. It was razed in 1938 after a spring downpour flooded the park and museum, damaging the north wall. The museum artifacts were stored in other locations until a permanent museum could be constructed. The Knight Museum was built in 1964 using \$15,000 left by F.M. Knight for that purpose. It was substantially enlarged to approximately 20,000ft² in 2008 using a grant from the Eldred Foundation.

It is a steel and concrete structure. It not only functions as a museum but as a depository for all items pertaining to the regions history. There is a theater, meeting rooms, heritage room for family genealogy research, a place for meal preparation, as well as office space for the Parks and Recreation Manager and Museum Manager. The building is ADA compliant. Future improvements include an HVAC assessment and routine maintenance.

Public Facilities Assessed

Municipal Building

The City of Alliance Municipal Building was constructed between 1935 and 1937. It was designed by John Latenser and Sons of Omaha, Nebraska and originally housed City administrative offices, the water-sewer department, electric department, police department, and fire department, as well as a club room, public restrooms for downtown shoppers, a municipal auditorium and meeting rooms.

Although its roll has diminished somewhat as offices were moved to other facilities, its use for administrative offices and its central location in the community keep it a prominent and relevant landmark in Alliance.

The exterior walls are brick and mortar with Bedford Limestone water table and accents. The interior walls are primarily block and mortar with fixtures originally finished in Art Deco. The structure itself is poured concrete and rebar, and is in good condition. The City has invested approximately \$100,000 into rehabilitating the building over the past 10 years.

Most notably the brickwork was re-pointed in 2011, the front steps were removed and re-poured in 2013, which included an embedded heat grid to eliminate ice buildup, the utility office was remodeled in 2014 and brought up to ADA standards, HVAC

systems were installed in the offices in 2011, and other small improvements.

Future projects should restore and maintain the architectural integrity of the building.

Some of the windows were replaced in the 1980s but some still date back to 1937. The half windows should be restored to full size. Improvements in window insulation since the 1980s will provide better insulation than was possible at the time and eliminate the need to block off half the window openings. The exterior doors should be replaced with newer, more energy efficient doors. Many of the doors do not seal, close all the way, or even open.

When the boiler was removed in 2011, only the office areas were provided with new HVAC systems, leaving lobbies, hallways, etc. without sufficient heating and cooling.

Until a major renovation of the building, federal law does not require an ADA retrofit but the City should be proactive in providing accessibility to the public. An addition placed behind one of the two front wings of the building could provide the location for both accessibility and restroom requirements for most of the building.

The north entry has suffered from years of neglect. The City already sought out professional engineering services and was presented with a solution. The entry should be disassembled, a new footing poured, and reassembled with better drainage of the surrounding area.

The wood floor in the auditorium was replaced in 1981 but the quality of the replacement floor was substandard. The auditorium should be restored with a new floor, paint, curtain for the proscenium arch, and a better solution for the HVAC system than the two unit heaters placed behind the arch.

Parks Garage

The Parks Department garage was built in 1975 and was originally used as the City Street garage. The Parks Department moved in to this facility in 2022 when the Street Department moved to a new building at 106 South Cody Avenue. The building is 11,000ft² and is primarily used for working on and storing parks equipment. It also contains a break area, supervisor's office, shower, and restroom. The structure itself is in good condition but parts of the building are showing signs of age. The paint is fading and there are panels on the exterior of the building that need to be replaced as they are rusting along the base.

Public Facilities Assessed

Police Station

The Alliance Police Station is centrally located at 512 Niobrara Avenue. The building was built in 1977 and is constructed of concrete blocks. This facility is ADA compliant. The exterior condition of the building is excellent. Interior wiring problems, however, make it difficult to run additional lines contributing to a lack of outlets and blown circuit breakers.

The police station operates a total of 20 vehicles, including one animal control vehicle, three unmarked cars, and six marked patrol vehicles. The police department staff includes 19 sworn officers. The list of services contained within the police facility includes city dispatch, records, a weather computer, the K-9 unit, and a tornado shelter

Several police station modifications and upgrades are planned. They include a new 911 wireless communication system, new breathalysers, and new in-car video cameras. The existing police station facility is at capacity and will not be able to support additional staff, services, or storage.

As stated in the Fire Department section in this Chapter, if the City moves forward with a new facility for either the Fire Hall or Police Department, the City should consider combining the them into one facility as both have similar problems that will need to be resolved during the life of this Plan.

Public Works (Utility Facility)

Public Works was built in 2001 at 1313 W 1st St. to house the Electric, Water/Sewer, and the City Warehouse. The building is 23,000ft² and currently houses the electric department, warehouse, and some water-sewer storage. The warehouse occupies approximately 10,230ft², the offices 4000ft², the electric department equipment storage 6600ft², and the rest is occupied by the break room, wash bay, and small storage spaces.

Public Works is a steel framed building with steel panel exterior and is in good condition. Future building improvements includes window and door replacement as the originals stopped working when the building settled, expansion of the storage yard including necessary paving, and routine maintenance and updating.

Public Works Expansion

The Public Works Expansion was built at 106 S Cody Ave. in 2021 to house the Water/ Sewer, Streets, and Public Transit Departments. The building is 15,960ft². Vehicle storage occupies 15,000ft² and the rest of the building is office space, a breakroom, and restrooms. It is a steel framed building with steel panel exterior and is in excellent shape. Driveway and parking lot improvements should be budgeted to make them meet the City’s development code. Apart from routine maintenance and updating, improvements to the

building include the extension of an existing paved area to include a valley drain pan and concrete surface on the north side of the structure as well as the addition of a second driveway entrance on the south edge of the property on Cody Avenue.

Sallows Military Museum

Sallows Military Museum is a 2150ft² structure built in 1935 as the bathhouse for the swimming pool. The structure is concrete, hollow wall tile, and wood. It is generally in good condition. The HVAC system should be assessed and possibly replaced but beyond that, routine maintenance and updating should be adequate.

The conservatory behind the museum is a 2900ft² structure composed of plastic panels that let the sun in and steel siding. It was badly damaged in 2021 and should be razed.

There is a 1700ft² steel storage building located to the north of the conservatory. This building should also be assessed for structural soundness and either razed or rehabilitated to eliminate the poor aesthetic it currently contributes to.

Senior Center

The Senior Center was constructed in 1977 and is a steel structure. Future improvements primarily consist of updating interior finishings and routine maintenance.

Public Facilities Assessed



Alliance Municipal Building



Alliance Fire Station



Alliance Law Enforcement Center



Alliance Public Library

School Facilities Assessed

SCHOOLS

Alliance High School

Alliance's high school is located at 1450 Box Butte Avenue. The 147,799-square-foot building was constructed in various stages starting in 1954. The overall condition of the facility is good. Alliance High School is ADA compliant. The high school includes grades nine through twelve.

Approximately 450 students are currently enrolled. No future building modifications or upgrades are planned and none are needed. The school mascot is the bulldog.

Alliance Middle School

Alliance Middle school is located at 11th and Laramie streets. The 75,504-square-foot building was constructed in various stages starting in 1922. The overall condition of the facility is good. Alliance Middle School is ADA compliant. The middle school includes grades five through eight.

Approximately 300 students are currently enrolled. No future building modifications or upgrades are planned and none are needed. The school mascot is the bullpup.

Emerson Elementary School

Emerson Elementary School is located at 700 Black Hills Street. The 34,144-square-foot building was constructed in various stages starting in 1948. The overall condition of the facility is good. Emerson Elementary is ADA compliant. Emerson Elementary School includes kindergarten through second grade.

Approximately 300 students are currently enrolled. No future building modifications or upgrades are planned and none are needed.

Grandview Elementary School

Grandview Elementary School is at 615 Grand Street. The 33,677 square foot building was constructed in various stages starting in 1922. The overall condition of the facility is good. Grandview Elementary is ADA compliant. Grandview Elementary School includes grades two through four. Approximately 230 students are currently enrolled.

No future building modifications or upgrades are planned and none are needed.

School Facilities Assessed

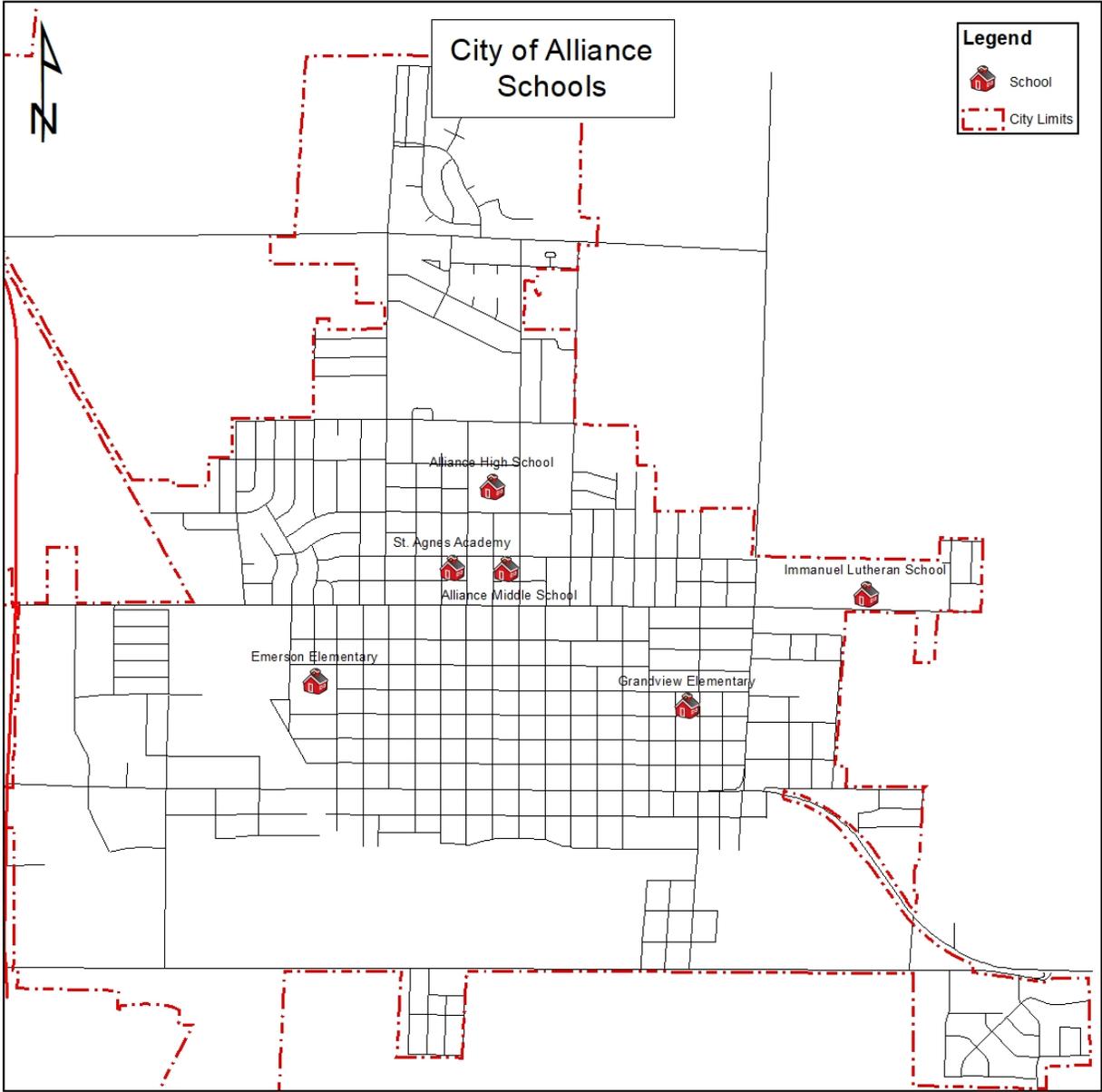


Fig. PF2

Parks Assessed

PARKS INTRODUCED

Alliance’s collection of mini-parks, neighborhood parks, community parks, and regional parks contain a broad variety of activities and amenities that are designed to accommodate the active and passive recreational needs and desires of all Alliance residents.

The National Recreation and Park Association’s 1996 document entitled Park, Recreation, Open Space, and Greenway Guidelines has served as a primary reference for defining park guidelines and standards and is used by both park designers and park planners.

This document suggests that a community’s park system should contain 10 acres of public open space for every 1,000 residents. In addition to defining park standards, the document also includes a park classification system. The size of a park strongly affects the types of uses available, the service area, and the site characteristics. Parks are generally categorized into one of four types:

Mini-Park

A mini-park is typically one acre or less and is intended to serve less than a quarter-mile radius. Mini-parks are designed to include specialized facilities for a specific population group (e.g., senior citizens or children). Mini-parks are typically found near higher-density residential

developments or near elderly housing centers.

Neighborhood Park

A neighborhood park is typically 15-plus acres and is intended to serve a single neighborhood, a one-half mile radius, or a population of approximately 5,000 residents. Neighborhood parks are designed to provide areas for both active recreation activities (e.g., playgrounds, field games) and passive recreation activities (e.g., picnicking, trails).

Neighborhood parks should be strategically placed within the center of several neighborhoods so they are easily accessible to all surrounding residents.

Community Park

A community park is typically 25-plus acres and is intended to serve several neighborhoods or a 1- mile to 2-mile radius. Community parks are designed to provide a broad range of active and passive recreation activities.

Common community park features include: ball fields, large swimming pools, playgrounds, walking trails, natural areas, water bodies, and picnic areas.

Community park uses are primarily defined by site suitability and community needs.

Regional Park

A regional park is typically 200-plus acres and is intended to serve several communities. Regional parks are often found along a natural resource and may

support boating, camping, fishing, picnicking, swimming, walking, and playing.

The City of Alliance maintains 109 acres of park land. Alliance’s park system includes five mini-parks, two neighborhood parks, two community parks, and three sports complexes. The 3 sports complexes collectively house 4 lighted softball fields, 3 lighted baseball fields, 8 lighted tennis courts, and a swimming pool.

Parks

Bandshell Park

Band Shell Park is located at 7th and Sweetwater and was developed in 1934. A bandshell was constructed and used for outdoor concerts from 1934 to 1976 when it was torn down. The park is 1 acre in size. The City trail starts at the south end of this block and accessibility is excellent.

The park has a tranquil and inviting environment surrounded by single-family residences. Overall, the park is well-kept, but the small legacy wall that wraps the park is in poor condition and needs to be restored for safety and aesthetic reasons. Comfort and image are both very positive here. The park is easily accessible to surrounding residences and well linked to other parks and activity centers by the way of the community trail. Easy access and appropriate linkage also improve the sociability of the facility.

Parks Assessed

Bower Park

Bower Park is located at East 2nd Street and Potash Avenue. The City developed Bower Park as a means of improving Alliance's image to visitors entering town from the east. Highway 2 entered Alliance under the railroad tracks via Potash Avenue until 1935. Originally called South Park, improvements began in 1932 but were slow as most resources were directed to Central Park.

The City dedicated enough money and labor for minor landscaping and grading, but their primary focus was transplanting trees from Central Park to South Park to make way for improvements being constructed there. In 1940, the City drafted plans to convert the west two thirds of South Park into a baseball field. The park was renamed Bower Park in 1941 to honor long time park superintendent John Bower.

The park is approximately 3 acres and the overall condition is good. The park currently features playground equipment installed in 2008, a steel frame picnic shelter, and two horse shoe pits. Some issues pointed out in the previous Comprehensive Plan include the bisection of the park by the City drainage ditch without a way to traverse it and a lack of pedestrian connectivity to the rest of the community. It also pointed out the lack of property maintenance of the adjacent properties that ultimately detracts from the parks image.

Box Butte Park

In 1971, the Alliance Garden Club and a group of Alliance High School students obtained permission from the Guardian State Bank to develop a mini park on their vacant lot at the corner of 3rd Street and Box Butte Avenue. The park contains benches, a drinking fountain, a billboard kiosk that doubles as storage for electrical and irrigation equipment, and restrooms. Its location serves to help welcome visitors to Alliance's downtown. The park was formally given to the City in 1992 by the Abbott bank along with a \$6000 grant to further develop the park.

Burlington Northern Park

Burlington Northern mini-park is located at the corner of West 16th Street and Buchfinck Avenue. It was constructed in 1980 using part of a \$16,000 grant given to the City from the Burlington Northern Railroad. It occupies .6 of an acre and is used primarily by residents of the surrounding neighborhood.

The park is not connected to the City trail system but access to the park via sidewalk is very good. The playground equipment was installed in 2008 and is in excellent condition. Portions of the public sidewalk and chain link fence are in need of maintenance and should be repaired or replaced.

Central Park

Central Park originally consisted of two blocks located between East 10th and 9th Streets, and Niobrara and Yellowstone Avenues. The land was acquired by the City in 1912 and laid out in 1914 by Philip Edinborough of the Lincoln, Nebraska parks department. The original plan included a small lake that could be used for ice-skating in winter, a bandstand, walkways, benches, playground equipment, tennis courts, a lighting plan, and recommendations for the planting of shrubs, trees, and other plants. The initial plans changed in 1931 when the City hired John Bower as its Park Superintendent.

The park is approximately 7 acres and contains multiple structures including two shelters, one open and one closed, sunken gardens and pergola, the Knight Museum and Sandhills Center, and public restrooms. The Knight Museum will be covered in a separate section of the Comprehensive Plan.

The playground equipment was installed in 2008 and is in excellent condition. The south picnic shelter is a 1200ft² open shelter built in 1957 with broken concrete, wood rafters, and a steel support columns. The enclosed shelter house was built in 1954 and is a similar design but equipped with a restroom and small kitchen. The park restrooms were built in 1999 and are block and mortar construction.

Parks Assessed

The sunken garden and pergola were built between 1933-35. The pergola was replaced in 2021 and the sunken garden was rehabilitated at the same time. A root cellar was constructed in 1935 and is primarily used for storage for the museum. The City trail system runs through the park and access to the rest of the community is excellent.

Jaycee Park

The Jaycee mini-park is located at the corner of West 7th Street and Cheyenne Avenue. The Alliance Jaycees constructed the park in 1976. It is a 14,000 ft² park and is utilized primarily by residents of the surrounding neighborhood. It is not connected to the City trail system but access via sidewalk is very good. The playground equipment was installed in 2008 and is in excellent condition.

Knight Park

Knight Park is a .6 acre park located west across Dakota Avenue from the Burlington Ballfields. The two parks used to share the same restroom facilities which were located in this park but were razed as they were in need of replacement. There are also 6 horseshoe pits and a small picnic shelter.

Laing Park

Laing Park is a community park generally located north of 18th Street and west of Box Butte Avenue. As the largest park in the community, the park

possesses numerous passive and active uses and activities, in addition Laing Lake.

Active park uses include modern playground equipment, a skate park, fishing dock, disc golf course, and community trail system. The park also exhibits a variety of natural animal and vegetative habitats. The numerous amenities combine to create a highly utilized and well-maintained park facility. The overall comfort, image, and condition of the facility are excellent.

The lake and surrounding tranquil environment project a high level of comfort and a positive image. Proximity to significant community activity centers such as the library, pool, and high school help promote and maintain a safe environment for park visitors. Laing Park is easily accessed by pedestrians, surrounding single-family residences, and vehicles.

The community trail system links the park to other activity centers such as the high school, municipal pool, and Central Park. The park displays several obvious areas for social gathering, including the playground equipment, the skate park, picnic shelters, and a fishing dock.

Lions Club Park

The Lions Club mini-park is located at the corner of West 6th Street and Buffalo Avenue. It was developed between 1977 and 1980 by

the Alliance Lions Club. It is a 29,294 ft² park and is utilized primarily by residents of Meadows Mobile Home park. It is not connected to the City trail system. Sidewalks along the park provide access but their width is nonconforming to current standards and are narrow. The equipment was installed in 2008 and is in good condition.

The park is isolated from the rest of the community in much the same way the softball complex is. The commercial use of the property to the south and the industrial use of the property to the northwest detracts from this parks appearance. Trees should be placed to minimize these effects and the sidewalks should be widened to current City standards.

Maxwell Park

The City developed Maxwell Park east of South Potash Avenue in South Alliance in 1962. The 10-acre park had a small fishing lake that diverted cooling water from the power plant and was stocked with fish by the Nebraska Game and Parks.

The lake went dry when the power plant ceased electricity production and the park no longer contains any buildings or equipment. Unless a unique plan or idea is proposed, this park should not be developed at this time as its proximity to Bower Park would render it largely redundant. Conditions may change in the future that would warrant

Parks Assessed

redevelopment of Maxwell Park, but those conditions do not exist at this time.

Sallows/Fountain Park

A special election for the issuing of bonds in early 1934 included the purchase of an additional 4.5 acres of land north of 10th Street between Niobrara and Sweetwater Avenues as well as a new municipal swimming pool. The pool was completed in late summer 1934 and is today a part of the Sallows Conservatory and Military Museum.

The City purchased a General Electric fountain and constructed it south of the then new pool in spring of 1935 after much deliberation as to where it should be placed. It has undergone substantial renovation twice with the most recent being 2008. The area north of the pool was graded and packed for tennis courts in 1940 to help alleviate the heavy use of the paved courts south of East 9th Street; however, today it is an open park. The City trail system runs through the eastern part of the park and access to the park is excellent.

Wiggly Field Dog Park Wiggly Field Dog Park is a 2.5 acre dog park located along Box Butte Avenue between 16th and 18th Streets. The park was developed over a period of 4 years by volunteers.

Parks Assessed



Laing Lake



Laing Park



Laing Park



Jaycee Mini Park



Lion's Park



Old Tennis Courts

Parks Assessed

Parks Facilities

Bower-Shankland Baseball Field

The City began planning a baseball diamond on the western portion of then called South Park in the spring of 1935. Formal plans were approved in 1940 and construction began immediately by relocating trees to other City parks and working on the grading. The plan called for grandstands, dugouts, lights, a perimeter fence, and the relocation of the City drainage ditch to allow for field expansion.

The field was ready for play 6 weeks after construction began and the grandstands were completed the summer after. The diamond was officially named Bower Field during the 1940 season opener in honor of the Alliance parks superintendent, John Bower. It was renamed in 1986 to Bower Shankland to honor Richard Shankland and his contribution to baseball in Alliance.

The ballfield is located at 2nd Street and Mississippi Avenue and consists of a 3900ft² grandstand, a 435' x 145' gravel off street parking lot, concession stands, restrooms, a perimeter fence, and underground irrigation. The irrigation system was replaced in 2015 and was extended into the curb strip along East 2nd Street. There was additional landscaping installed in the right of way at the same time to improve the appearance of the park from the street.

Portions of the perimeter fence were replaced in 2018 but some sections remain dilapidated and are in need of replacement. The park is not served by any pedestrian sidewalks and is not connected to the City trail system. This park should have sidewalks and a pedestrian entrance installed and connected to the trail system at such time it is extended south from the Bandshell Block.

The grandstands have undergone alterations such as the addition of an ADA ramp on the west side of the main seating area as well as upgrades and rehabilitation of some the original construction. In 2014, the City of Alliance collaborated with the Legion organization to replace the existing chain link backstop with a suspended net backstop system.

Surrounding the grandstands, there are elevation changes and retaining walls to protect the seating area, which is partially sunken behind home plate. These retaining walls need to be reinforced and partially redesigned to better control erosion on the perimeter of the grandstands.

The condition and maintenance of the parking lot is a challenge for the City. Staff continually adjusts the grade of the parking lot to alleviate flooding onto the field and into the storage building located by the entrance gates. This parking lot is used to dump snow collected from the wind rows formed when plowing

Box Butte Avenue and 3rd Street during the winter. The use of heavy snow equipment as well as the melting of large amounts of snow each spring cause continual maintenance challenges in the parking lot. The parking lot should be surveyed and graded to reduce the amount of flooding and erosion.

The condition of the surrounding property, especially across the alley, detracts from the appearance of the facility. Private property west of the parking area is cluttered with rubbish and useless vegetation is being allowed to grow the length of the alley. Increased code enforcement would be beneficial to improve the aesthetic appeal in the area surrounding the ballpark.

Burlington Ballfields

Burlington Ballfield is a 2.5 acre park located at the intersection of West 6th Street and Dakota Avenue. The property was donated to the City in 1948 as part of the development of the "west side ballfields." The park consists of a soccer field, a little league baseball diamond, 3 dugouts, a concession stand, and fencing.

Central Park Tennis Courts

Central Park expanded south to 7th Street in 1919 when the City determined it was cheaper to own the property than provide storm drainage for development. A tourist camp for motorists was opened by the City on

Parks Assessed

the portion of the park between East 9th and 8th Streets in 1921. The City moved a building from Antioch and another from Bronco Lake to add accommodations such as restrooms, a shelter, and showers. The camp was considered too small, was not well maintained, and closed in 1927.

In 1931, the north half of the old camp was converted to paved tennis courts and the south half into a playground. The playground was converted to paved tennis courts in 1956 including a curb and gutter rim around the newly paved portion that was designed to be flooded during the winter for ice-skating.

This part of central park is approximately 1 acre and is still used for tennis, pickleball, and basketball courts. They were recently rehabilitated to extend their useful life. The City trail runs adjacent to the courts along the west side of the property and access is excellent. The block retaining wall and drainage ditch should be monitored for deterioration and repaired as necessary.

Hal Murray Softball Complex

The Hal Murray Softball Complex is a four field sporting complex located one block east of Cody Avenue between West 4th and West 6th Streets. The complex is named after Hal Murray, an umpire, coach, and instrumental figure in

Alliance in the 1980's and 90's. The fields were constructed in 1985 and the concession stand building was constructed in 1987. A second story was added to the concession stand building in 1996 for score-keeping. It is a 2000ft² block and mortar building that houses the concession stands, restrooms, electric, irrigation, score keeping, and field maintenance equipment.

Despite its location, the complex is relatively isolated from the rest of the City. Vehicle transportation to the complex is served by West 4th Street, which was not developed to City Standards. The road surface consists of packed asphalt fines and lacks curb, gutter, and drainage. A 24" storm sewer was installed in the right of way for West 4th Street in 1977 during the construction of Hiles Addition but the pipe is not utilized to drain 4th Street itself.

West 6th Street borders the property to the northwest but is also undeveloped. Howard Avenue is located at the southeast corner of the complex but is undeveloped and neighboring landowners have fenced the right of way in as their own property. A sidewalk and pedestrian underpass that runs under the railroad tracks was paved along the north property line of the softball complex property in 1987.

This serves as the only pedestrian access to the complex.

The addition of roofs over the dugouts on Fields A, C, and D would improve the usefulness of the complex as sanctioned events often require covers over dugouts to protect players from stray foul balls. Only Field B currently has enclosed dug out areas. The lighting is original, is damaged by hail, and should be replaced. Modern lighting will require far fewer poles and fixtures, will use less electricity, and provide better light for the fields.

The parking area is not well defined and should be improved with better grading and surface material. There is a site plan showing grading and parking lot improvements that was drawn at the same time the original construction drawings were, but it appears these plans weren't completed. West 4th street should be paved to City Standards and another entrance/exit to the property should be developed in case of an emergency. Sidewalks should be installed to the complex. They should be placed adjacent to West 4th Street when it's paved and another extended from the north pedestrian underpass to the complex itself.

Parks Assessed

Sudman Baseball Fields

The Sudman Baseball Fields are located between Cheyenne and Box Butte Avenues south of 18th Street. They were constructed in 1975 and named after Clyde Sudman. Clyde was a champion of the project and donated much of his own time and money to it. There are two baseball diamonds in this complex. Each field is a different size to cater to children of different skill levels. The complex is in relatively good condition. This facility lacks off street parking other than what is available at the old pool location. The west and north sides of this block lack sidewalk so people must walk in the street to access the park. The City should pave the sidewalk and repave the old pool parking lot to help alleviate some of the on street parking and traffic problems.

Sudman Block Tennis Courts

The tennis courts located at 102 West 16th Street were paved in 1980 and were intended to replace the courts in Central Park. They were resurfaced in 2010 but the repairs deteriorated quickly to the point the courts were no longer usable. The City rehabilitated the tennis courts in Central Park and are in the process of repaving these courts with complete removal of the old surface and the utilization of post-tension concrete to aid with the poor subsurface soil conditions.

Swimming Pool

The swimming pool at 1603 Cheyenne Avenue was constructed in 1969 and was replaced in 2003 by the Big Blue Bay. The bathhouse and pool were demolished but the parking lot remains. It is currently used for dirt and gravel storage and is in very poor condition. It is also used as overflow parking for the Alliance High School and the Sudman Baseball Fields. The current condition of the parking lot detracts from area and should either be resurfaced or removed.

CB&Q #719 Locomotive

CB&Q #719 was built in 1903 in Havelock, Nebraska and was donated to the citizens of Alliance in April of 1962. It was moved from 3 different locations before being displayed at the southwest corner of the intersection of Box Butte Avenue and 18th Street in 1981. It was cosmetically restored in 1980 by the BN Employees Club and the Railroad Veterans Club at no cost to the City. A restored caboos was added to the display by the City in 1991. The locomotive is unfenced, uncovered, and open to the elements. It is in very poor condition and pieces of the locomotive are being stolen. The City should encourage local philanthropic groups to provide labor, cosmetically restore the locomotive, and possibly add a decorative fence to keep more of the locomotive from being stolen.

Parks Master Plan

Additional goals, details, and improvements beyond those covered in the City Comprehensive Plan are found in the Comprehensive Parks Master Plan prepared in 1998-1999. The Parks Plan goes into much greater detail than is found here and it, as well as any amendments or changes thereto, are included as if adopted as part of the City Comprehensive Plan.

Parks Assessed



Bower Baseball Field



Burlington Northern Park



Bower Park



Bandshell Park



Bower Park



Bandshell Park

Parks Assessed

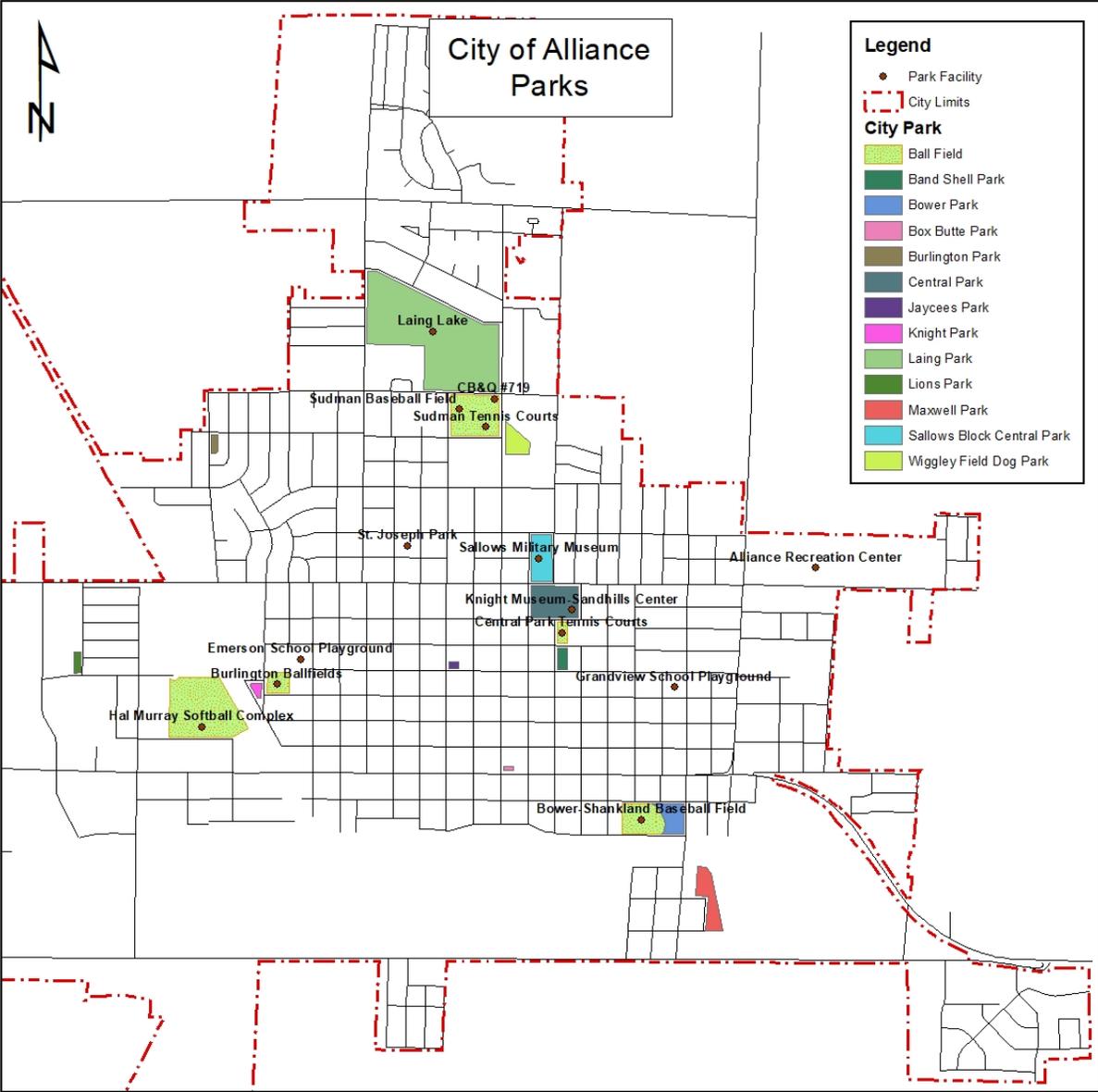


Fig. PF3

Utilities Assessed

UTILITIES

Sanitary Sewer

The City began installing sanitary sewer main in 1910 after public complaints of the foul odors present in the City particularly during summer months. The original system consisted of 32,000 feet of sewer main and a large leach field located at corner of Flack Avenue and Iowa Street. In 1928 the State condemned the leach field and the City started looking for alternative methods of disposing of its sewage. In 1930 the City purchased a section of land 3.5 miles east and 2.5 miles south of current City Limits and constructed 6 miles of 18" sewer outfall to the lake. A lift station was built in place of the leach field to pump the sewage uphill until gravity could carry the effluent to the lake.

Collection:
The sanitary sewer system consists of approximately 66 miles of sewer main and outfall line ranging in the date of installation from 1910 to 2019.

Sewermain:

The City has "cured in place" lined approximately 47,500 feet of sanitary sewer to extend its useful life. The City cleans its sanitary sewer system once a year and cleans historically known trouble spots twice a year.

All of the City is served by sanitary sewer except for the West Plains Grain and Railroad annexations as well as most of the City's Extraterritorial Zoning Jurisdiction. There are not any plans to extend the sanitary sewer system beyond its current limits but extensions should be considered based on proposed future land use and annexation.

The City is served by two outfall sewer lines carrying sanitary sewer effluent from the City to the sewer lagoons. One is an 18" line installed in 1930 and the other is a 27" line installed in 1985. The 27" line is used as the primary outfall and the 18" line is a backup. They are tied together by 4 equalization boxes located between the City and the lagoon. In the

situation where an outfall line plugs, the sewage will cross over through one of these equalization boxes to the other line. The airport outfall is an 18" pipe installed in 1942 as part of the U.S. Army Air Field. It is not connected to the City outfall lines but does empty into the City sewer lagoon.

Lift Stations:
The topography in and around Alliance does not provide the necessary grade for the gravity flow of all sanitary sewer main. Five lift stations are required to pump sewage uphill to a point where gravity can take over.

"A Station" is the largest lift station and collects sewage from all of the City except Homestead Addition and the Industrial Park. This includes the effluent from "B Station" and "C Station." It pumps approximately 20,000 gallons of sewage a day and has a design capacity of 1,000,000 gallons per day. The current lift station was built in 2022 and replaced one built in 1968. The building for the old lift station continues to provide

Main Diameter in Inches	Feet	Miles
6	1870	0.35
8	189,024	35.8
10	48,292	9.1
12	9459	1.8
15	13,104	2.5
18	58,439	11.1
27	26,660	5.1
Total	346,846	65.75

Fig. PF-4

Utilities Assessed

shelter for the auxiliary power unit for the new lift station.

"B Station" was built in 1968 and pumps sewage collected generally from the northwest part of town south of 18th Street and west of Black Hills Avenue. It pumps an average of 1,500 gallons of waste per day and has a capacity of 400,000 gallons per day. It does not have an auxiliary power unit; however, in the event of an outage, flow from this lift station does not create a problem for 48 hours. It was rehabilitated in 2018-2019 with new pumps, valves, and control equipment.

"C Station" was built in 1968 and pumps sewage collected generally from the part of town north of 16th Street. It pumps an average of 1,500 gallons of waste per day and has a capacity of 450,000 gallons per day. The auxiliary power unit is located in the same building as the control panel. C Station was rehabilitated in 2018-2019 with larger pumps, valves, and control equipment.

This new equipment has shown to be a problem for the existing APU. The APU was designed for the electrical draw of the pumps and equipment that were installed in 1968. Currently, when both pumps run simultaneously, the APU may stall out leaving the lift station without power. In the event of a power outage,

backed up flow from this lift station starts creating problems within 2 hours.

"D Station" was built in 1977 and collects sewage from Homestead Addition. It pumps an average of 9,000 gallons per day and has a capacity of 250,000 gallons per day. The auxiliary power unit is in the same building as the control panel.

"E Station" was built in 2005 and collects sewage from the east half of the Alliance Industrial Park. It pumps 200 gallons of sewage per day and has a capacity of 250,000 gallons per day. It does not have an auxiliary power unit. In the event of a power outage, backed up flow from this lift station would not create problems for at least 72 hours.

The airport lift station was built in 1994 to replace a World War II era lift station constructed in 1942. It pumps approximately XX gallons per day and has a capacity of XX gallons per day. The pumps were replaced in XXXX? It does not have an auxiliary power unit. In the event of a power outage, backed up flow from this lift station would not create problems for at least XX hours.

Sewer Lagoon
The outfall sewer main carries effluent from the City and Airport to sewer lagoons located 3.5 miles east and 2.5 miles south of the City. The primary sewer lagoon is 122 acres with additional capacity in Lake 3, which is

36 acres. Lake 3 is generally unused and requires a minimum 24-hour notice to the landowner that the City will be sending sewage to it. The primary lake is supplemented by a land application system that pumps water out of the sewer lagoon and applies it to grassland via two circle pivots located to its west. The land application system was built in 1987. The pivots were replaced in 2013 and the sump inlet valve in 2022.

Water

The first water main in Alliance was constructed in 1894 after a series of fires destroyed much of the central business area. The original water system was generally located along a four-block strip centered on Box Butte Avenue from First Street to Eighth Street. There was a 100' tall standpipe at 8th and Box Butte Avenue for pressure and water storage. Some of this system is still in use.

Distribution:
The City maintains approximately 76 miles of water main ranging in installation date from 1894 to 2017. The City has been replacing old, undersized, and problem water main as far back as 1929 but the pace increased in later years with approximately 80,560 feet being replaced since 1990. Pressure is good throughout the system and varies from 60 psi to 75 psi depending on location and time of day.

Utilities Assessed

Watermain Installation Era

Decade Installed	Amount (feet)	Percent of System
1890's	7,696	2
1900's	4,695	1
1910's	28,356	7
1920's	21,848	5
1930's	10,536	3
1940's	47,783	12
1950's	24,307	6
1960's	29,697	7
1970's	114,785	29
1980's	31,755	8
1990's	35,697	9
2000's	33,887	8
2010's	10,976	3

Fig. PF-5

Watermain Size

Decade Installed	Amount (feet)	Percent of System
1890's	7,696	2
1900's	4,695	1
1910's	28,356	7
1920's	21,848	5
1930's	10,536	3
1940's	47,783	12
1950's	24,307	6
1960's	29,697	7
1970's	114,785	29
1980's	31,755	8
1990's	35,697	9
2000's	33,887	8
2010's	10,976	3

Fig. PF-6

Utilities Assessed

Wells:
The City has 11 wells, 7 of which are located in the wellfield 1 mile west of town and 4 are located in the City. There is a combined pumping capacity of 8.3 million gallons per day (mgd). This is down from a pumping capacity of 11.2 mgd as calculated in the 2009 Comprehensive Plan.

Wellfield: Well 1 was drilled in 1998 to a depth of 385 feet and has a capacity of 1.66 mgd. Well 2 was drilled

in 1998 to a depth of 395 feet and has a capacity of 1 mgd but it must be blended with another well to keep arsenic levels below federal limits. Well 3 was drilled in 1998 to a depth of 405 feet and has a capacity of 1 mgd. Well 4 was drilled in 1998 to a depth of 425 feet and has a capacity of 1 mgd. Well 5 was drilled in 2006 to a depth of 421 feet and has a capacity of .68 mgd. Well 6 was drilled in 2006 to a depth of 391 feet and has a capacity of .68 mgd.

Well 7 was drilled in 2010 and has a capacity of .86 mgd.

City: Burnham Well was drilled in 1997 to a depth of 440 feet, has a pumping level of 260 feet, and daily pumping capacity of .86 mgd. Static water level at the time of drilling was 88 feet. 18th and Colorado Well was drilled in 2010 to a depth of 445 feet, has a pumping level of 266.6 feet, and a daily pumping capacity limited to .86 mgd.

Well Pumping Capacity

Well	Year Drilled	Depth (feet)	Pumping Level (feet)	Original Static Water Level (feet)	Current Static Water Level (feet)	Designed Capacity (gpm)	Observed Capacity (gpm)
Well 1	1998	385	94	28	58	1150	1200
Well 2*	1998	395	94	26	57	700	700
Well 3	1998	405	131	64	65	700	700
Well 4	1998	425	136	84	88	700	700
Well 5	2006	421	258	90	99	475	500
Well 6	2006	421	228	90	102	475	500
Well 7	2011				86	600	750
25 th & Toluca	1993	445	320	60	125	500	550
Burnham Treatment	1997	440	260	88	104	600	600
18 th & Colorado Treatment	2010	445	266.6	114	120	600	600
Elkhorn Treatment	2010	425	237.7	89	95	600	600

Total Designed Capacity: 7,100 gpm or 10.2 mgd
 Firm Capacity: 5,950 gpm or 8.6 mgd
 Observed Capacity: 7,400 gpm or 10.6 mgd
 Observed Firm Capacity: 6,200 gpm or 8.9 mgd
 Average Daily Demand: 1.6 mgd
 Peak Demand: 4.8 mgd

Fig. PF-7

Utilities Assessed

Storage:

The current total storage capacity for the City of Alliance is 2.5 million gallons. West 3rd Street water tower was built in 1999 and has a capacity of 1 million gallons. It was last repainted in 2018 and is in excellent condition. Elkhorn water tower was built in 1968 and has a capacity of 750,000 gallons. It was last repainted in 2010 and is in very good condition. Toluca water tower was built in 1936 and has a capacity of 250,000 gallons. It was last repainted in 2007 and is in good condition.

The Big Horn underground reservoir was built in 1916 and has a capacity of 500,000 gallons. It was last drained for maintenance in 2018 at which time it was cleaned and coated. It is in good condition. The pump station for the underground reservoir was built in 1985 and is in good condition. This pump station also houses the water Supervisory Control and Data Acquisition (SCADA) system that monitors and controls the City water storage and wells.

Quality:

The quality of water in Alliance is very good. It is naturally fluoridated and is considered very hard. The City has treatment plants at Burnham, 18th and Colorado, and Elkhorn well sites to reduce the amount of arsenic in the well water before it is pumped into the system. The west wellfield has a chlorine injection station at the northeast corner of the property to pump chlorine into the transmission main that carries water from the wellfield to the City. The treatment plants and chlorine injection station were all constructed between 2009-2010.

T *ransportation*

Long Range Transportation Plan Introduced

This chapter of the Comprehensive Plan documents the Long Range Transportation Plan (LRTP) for the City of Alliance. The LRTP evaluates both existing and future transportation needs in the City of Alliance along with recommended transportation improvements. The LRTP provides guidance for the City of Alliance regarding short, mid, and long-term projects to implement as growth and/or development occurs. The transportation planning component of this plan is from the 2009 LRTP which included the development of a computerized, GIS-based transportation model to assist with the evaluation of future transportation needs in the Alliance area.

Due to downward population trends, current traffic patterns, and a lack of major land developments over the past decade, this model is still mostly applicable. The transportation model was developed in accordance with Nebraska Department of Roads (NDOR) guidelines and included consultation with NDOR staff. This model is based upon the land use components of the Comprehensive Plan and can be updated and modified in future years so that on-going transportation planning can be conducted efficiently.



Definitions

- **Urban Principal Arterials** include major state highways and are intended to move large volumes of high-speed, through traffic. These roadways also serve as primary circulation routes for local traffic. While the movement of traffic is their primary function, these roadways do provide some direct access to adjacent properties and, in some areas such as in the central business district (CBD), include on-street parking.
- **Urban Minor Arterials and Collectors** from the remainder of the City's primary roadway network, serving relatively large volumes of traffic and providing connections to major destinations within the City as well as the State Highway System. The movement of traffic is again a primary function of these roadways as traffic moves between major activity centers, however increasing levels of direct property access are provided. Direct property access and on-street parking should be limited to the extent possible on all roadways classified as collector or higher.
- **Local Roadways** round out the functional classification system providing direct access to adjacent properties and serving lower traffic volumes and shorter trip lengths.
- **Roadway functional classification** describes how a particular roadway is intended to function with respect to capacity, speed, mobility, and level of access provided. Higher functional classifications typically provide greater capacity, higher speeds, and limited access as compared to lower functional classifications.
- **Level of Service (LOS)** at signaled and unsignalled intersections is defined in terms of control delay. Control delay includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The amount of delay is assigned a letter grade A through F, with LOS A representing little or no delay and LOS F representing congested conditions. Level of service C or D operation is typically considered acceptable in most areas.
- **Complete streets** are streets that are for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders. People of all ages and abilities are able to safely move along and across streets in the community, regardless of how they are traveling.
- **The roadway network** serves several purposes in transportation system analysis. First, it is an inventory of the existing transportation system. It is the physical status of the highway system for present and future years. Second, the network is used in traffic modeling to estimate the highway travel impedance between zones in the region, which is the driving time and roadway distance between different areas of the study area. Third, the roadway network is used to simulate automobile travel and estimate associated impacts, such as Vehicle-Miles-Traveled (VMT), Vehicle-Hours-Traveled (VHT) and congestion.

Transportation System

In addition to the specific roadway improvement recommendations provided herein, the following general transportation system policies should be enforced:

- **Complete Streets** should be implemented to accommodate users of all abilities and transportation modes, especially in areas of new development. A network of cycling routes should be implemented throughout existing neighborhoods and sidewalk to sidewalk and sidewalk to trail connections should be completed so as to avoid gaps in service. Other safety measures, such as increased pathway lighting, bus turnouts, signs, signals, etc. should be installed as an aspect of all roadway projects. Compliance with ADA requirements is paramount.
- **Corridor preservation** should be a priority for all future roadways classified as collector or above to ensure adequate right-of-way is reserved for future roadway construction and/or widening. Typically, 80-100 feet of right-of-way should be preserved for arterial roadways and 60-800 feet of right-of-way for collector roadways. This will provide adequate width for the roadway, sidewalks/trails, utilities, and green space. Additional right-of-way may be required on the approaches of major intersections for additional turning lanes or to accommodate roundabout designs.
- **Access management** should be a priority along all non-residential roadways. Every effort should be taken to improve existing access management deficiencies. Refer to the Access Management section of this chapter for specific access management recommendations.
- **A continuous collector roadway** network should be developed to supplement the arterial roadway system. In undeveloped areas, a collector roadway master plan should be developed to ensure dedication of right-of-way when development occurs and the ability to maintain continuity throughout the community. It is critical that a planned roadway system is envisioned prior to development so that it may guide development, rather than the roadway system being implemented in a piecemeal fashion as individual developments are planned and constructed. Dead-end roadways should be prohibited, and perimeter roads constructed as part of all types of development.
- **Traffic signals** may be warranted at additional intersections in Alliance based on projected future traffic volumes. It is important to keep in mind that signalization typically increases overall traffic delay at an intersection and may also increase the accident rate or frequency of certain types of accidents. A thorough traffic signal warrant evaluation, in accordance with the requirements of the Manual on Uniform Traffic Control Devices (MUTCD) should be conducted prior making decisions regarding future traffic signal needs.
- **Roundabouts** are an excellent alternative to traditional forms of traffic control (i.e., two-way stop, four-way stop, and traffic signals). For similar traffic conditions, roundabouts typically offer greater capacity and substantially fewer accidents. It is recommended that roundabouts be considered first, as appropriate, for future intersections where 4-way stop control or signalization is being considered. Roundabouts would likely work well for the volume conditions existing or projected for many intersections in Alliance, although further studies would be required to evaluate deficiencies and improvement opportunities at specific intersection locations.

Existing Transportation Conditions

A primary purpose of the existing conditions analysis was to establish baseline transportation conditions in the City of Alliance. Elements of the existing conditions analysis were also used for the transportation model development task as well as to identify transportation improvements that will be included in the recommended LRTP.

The existing conditions analysis included data collection, safety analyses, traffic operations analyses for selected intersections, and circulation analyses based on review of available information and field review of the City roadway network. The existing conditions analysis included operational analysis for the morning and evening peak hours for selected intersection locations and a review of high crash locations based on information provided by the City.

Certain Summaries, Exhibits and Figures are included hereafter for reference, however for more detailed information, please refer to the 2009 Long Range Transportation Plan.

The City of Alliance transportation system can be characterized as a grid network. Direct access to Alliance is provided by Nebraska Highway 2, Nebraska Highway 87, and US 385. Additional primary North/South roadways include Cody Avenue, Buchfinck Avenue, Emerson Avenue, Box Butte Avenue, and Flack/Hwy 87.

Primary East/West roadways include Kansas, 3rd/Hwy 2, 8th, 10th, 18th and 25th Streets. All roadways within the City of Alliance are two-lane roadways with the exceptions of Box Butte Avenue which has a four-lane roadway section from 6th to 10th Street, and 3rd Street which has three-lane and five-lane roadway sections between Flack Avenue and US 385.

The existing street network and functional classification system defined for the City of Alliance is shown in Figure 1. The existing functional classification system in Alliance includes Urban Principal Arterials, Urban Minor Arterials, Urban Collectors, and Local Roadways.

There are four signalized intersections in the City of Alliance at the intersections of 3rd Street/Cody Avenue, 3rd Street/Laramie Avenue, 3rd Street/Box Butte Avenue, 10th Street/Box Butte Avenue.

All-Way Stop controlled intersections are located at the intersections of 7th Street/Potash Avenue, 8th Street/Black Hills Avenue, 10th Street/Colorado Avenue, 12th Street/Laramie Avenue, and 14th Street/Box Butte Avenue. Other intersections are either stop controlled (typically two-way stop) or uncontrolled (no stop signs). Existing roadway characteristics are illustrated in Figures 2 through 6. Daily volumes along Highway 2 range from 2,000 – 4,000 vehicles per day (vpd) on the East and West edge of the City to nearly 11,500 vpd in the downtown area.

Daily volumes on the other collector and arterial roadways in Alliance range from as low as 980 vpd on Kansas Street to 4,000 – 6,000 vpd on portions of Box Butte Avenue, Flack Avenue and 10th Street. Daily volumes on other local streets (not illustrated in Figure 5) are typically less than 500 – 1000 vpd. Existing peak hour turning movement volumes are shown in Figure 7. Typical roadway capacities can be found in Table 1.

Table 1: Roadway Link Capacities

Type of Roadway	Directional Daily Capacity (Vehicles/lane/day) (Level of Service E)
Urban Principal Arterial	11,500
Urban Minor Arterial	8,400
Urban Collector	6,700
Other Network Roadway	3,350

Figure 1: Existing Functional Classification of Roadways

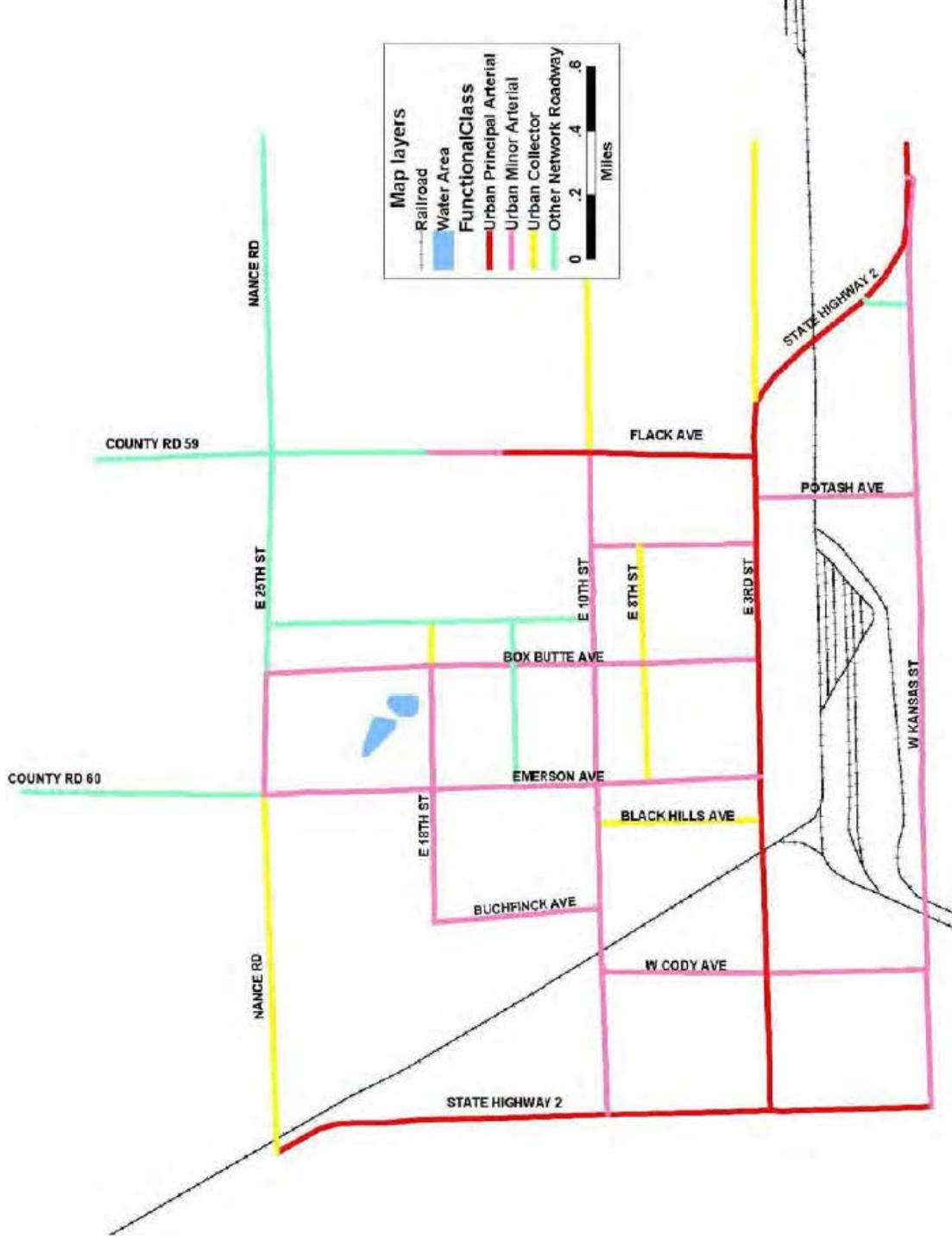


Figure 2: Roadway Speed Limits

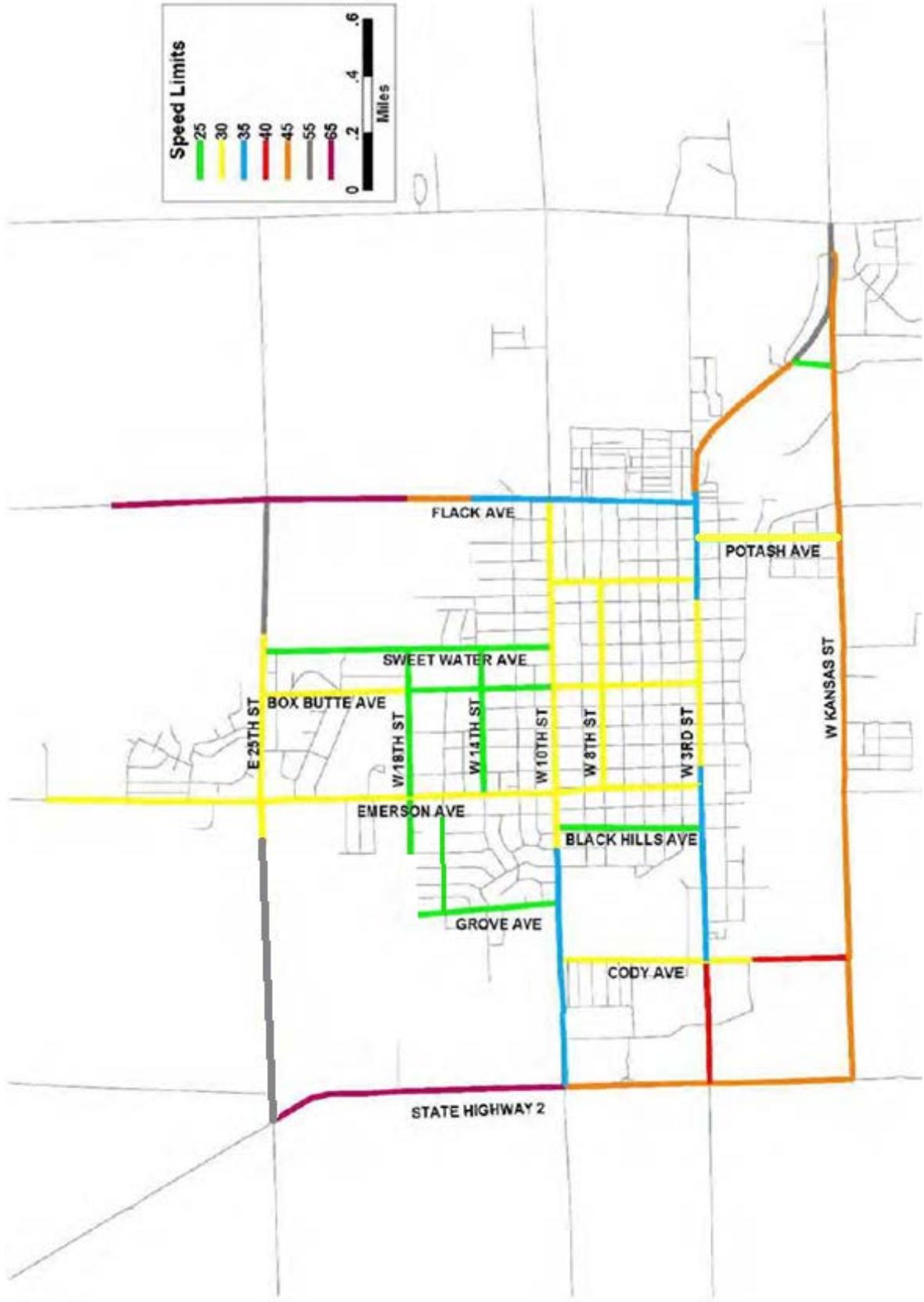


Figure 3: Number of Lanes



Figure 4: Parking Characteristics

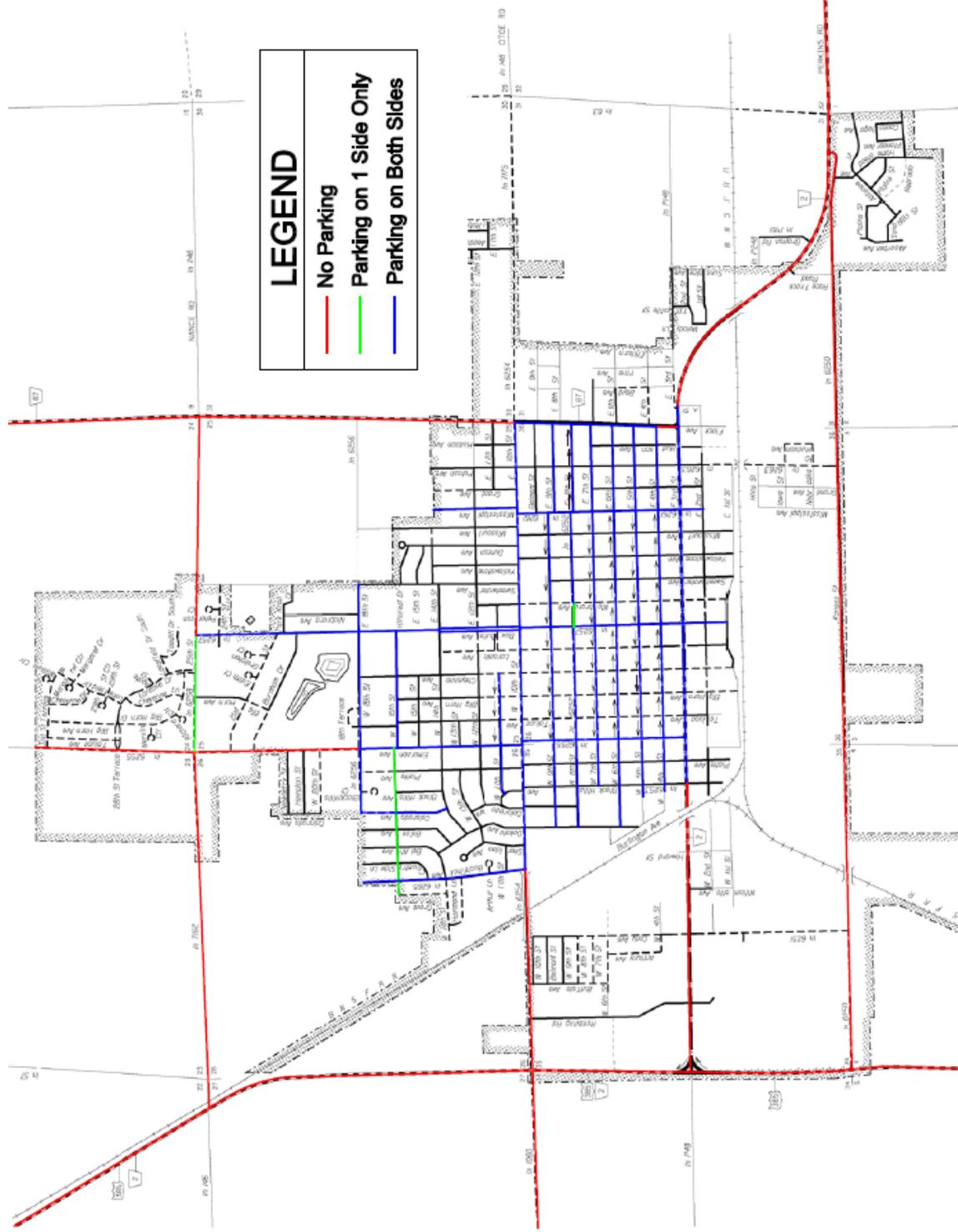


Figure 5: Sidewalks

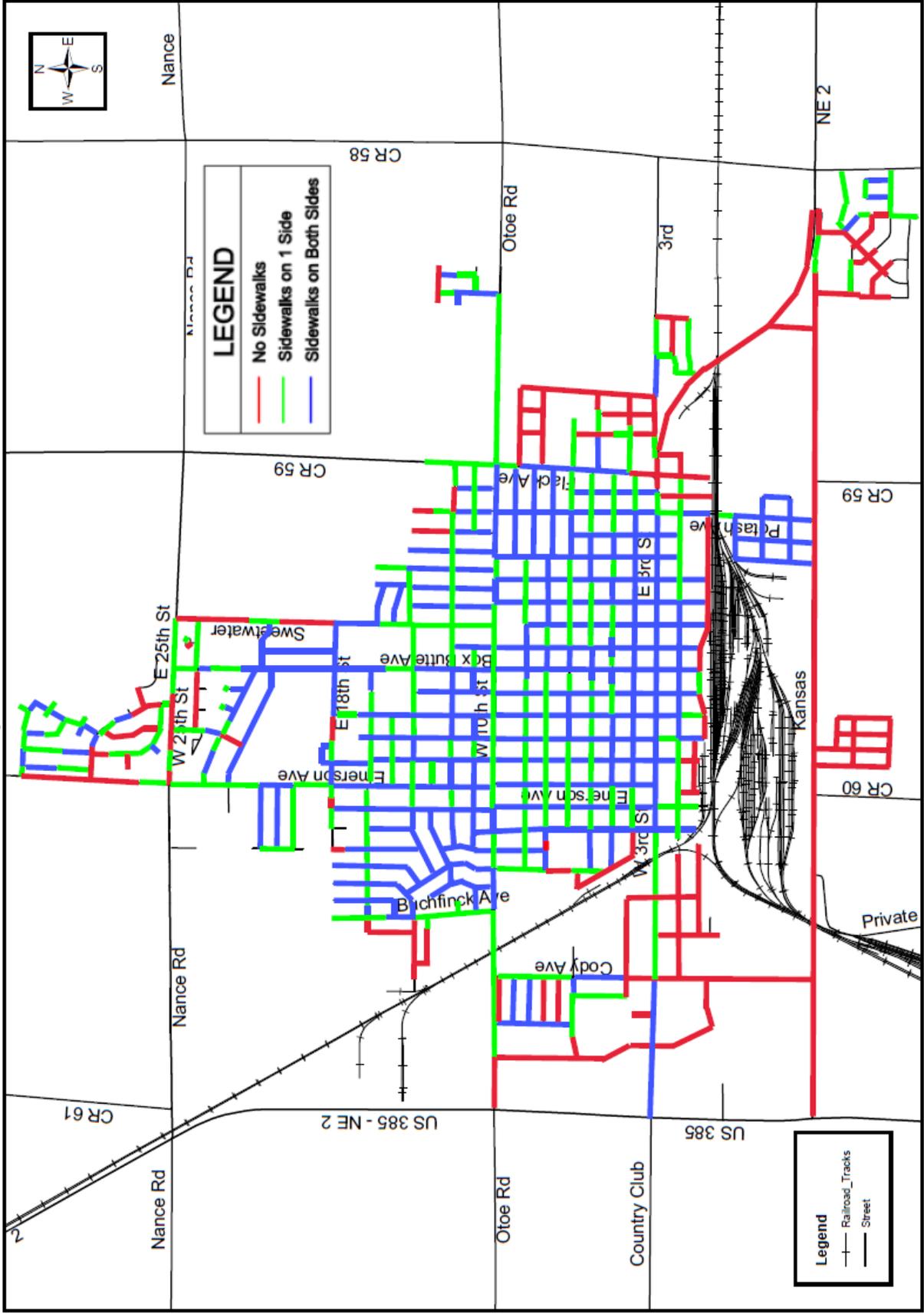


Figure 6: Paved/Unpaved Roadways

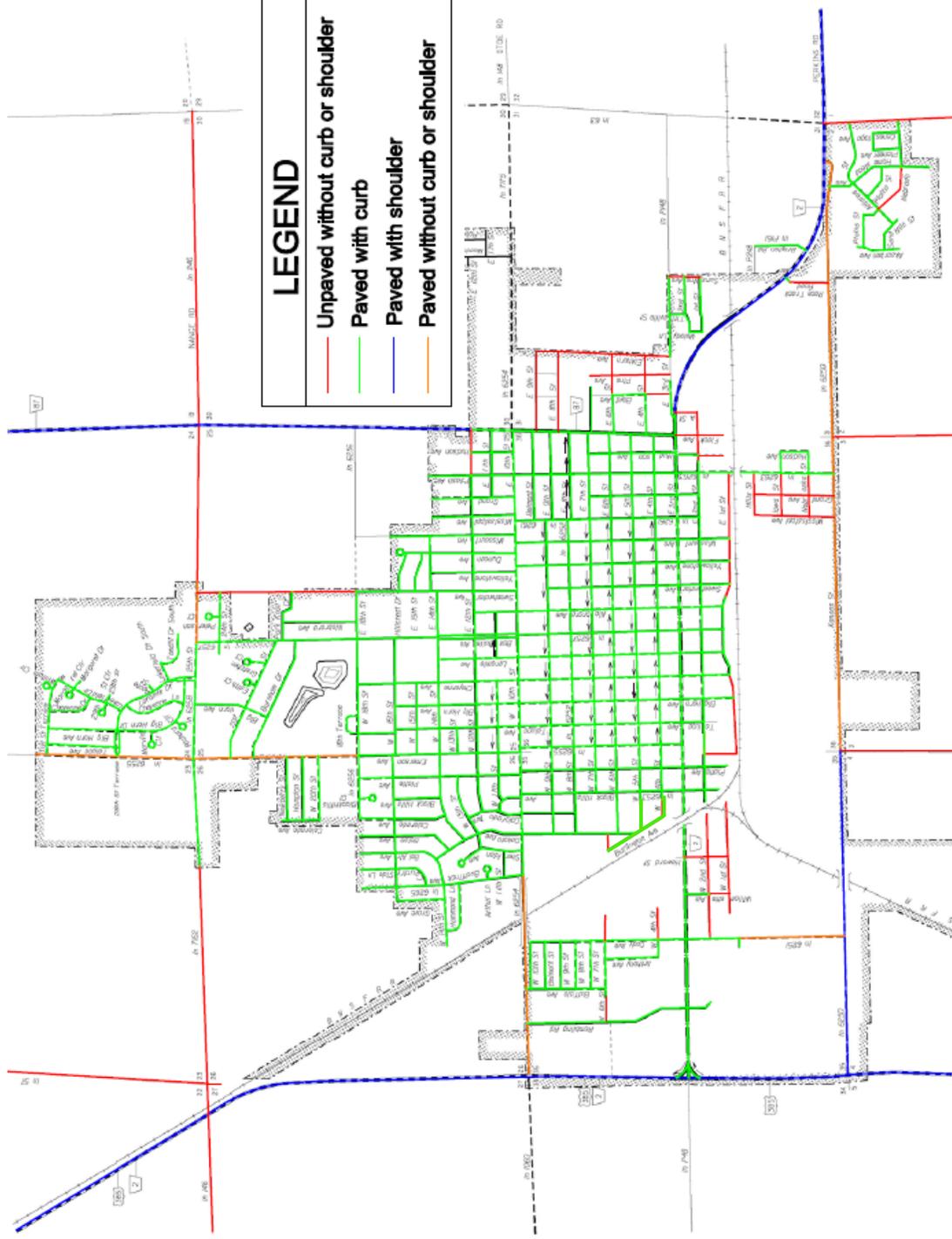
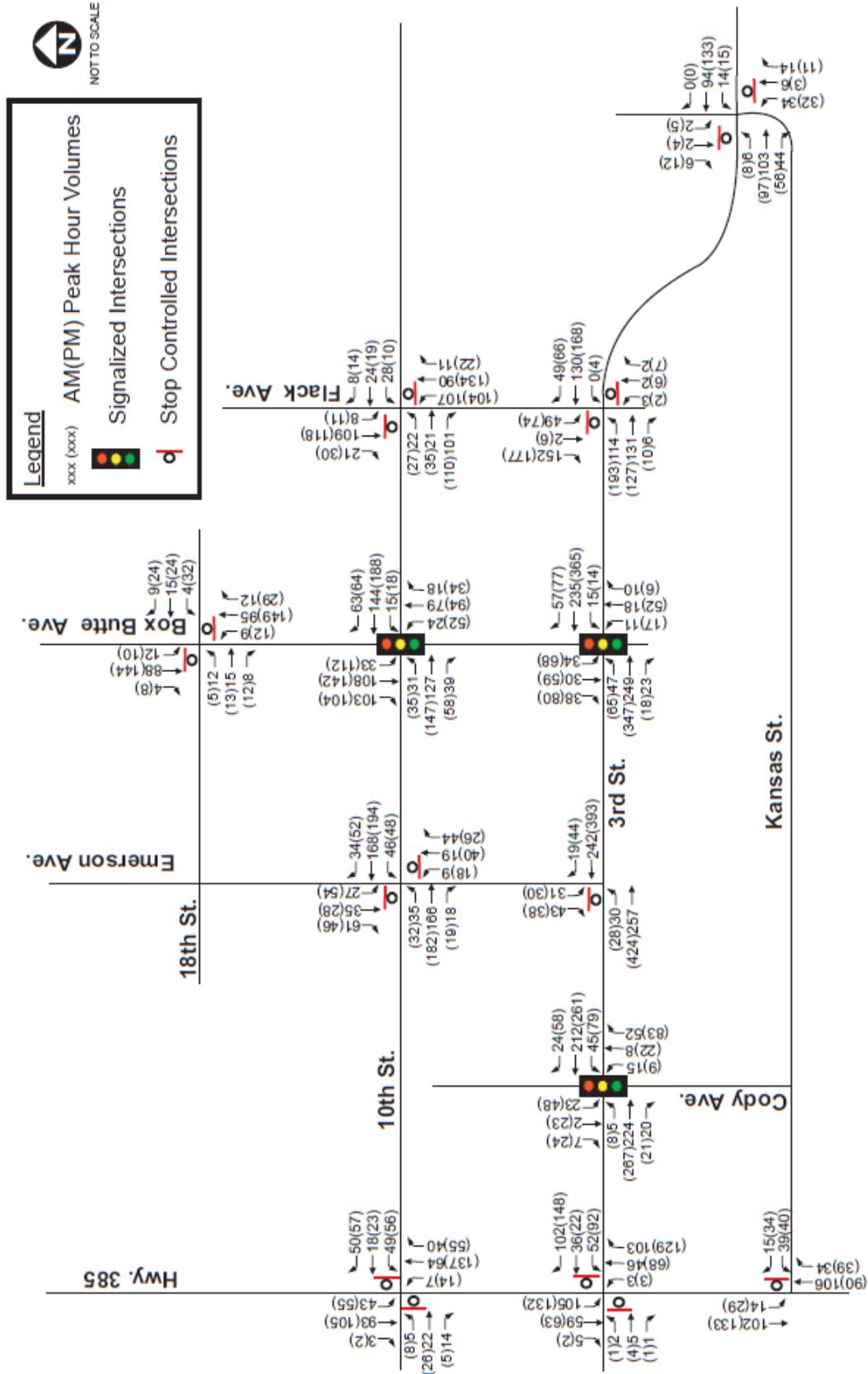


Figure 7: Existing Peak Hour Turning Movements



Existing Conditions Analysis

Safety Analysis

Crash Data was reviewed for intersections and roadway segments citywide to identify potential safety deficiencies that should be addressed as part of the transportation plan. From the data, crash rate calculations were performed to compare locations with higher frequencies with statewide data from similar facilities. While there were not

large safety concerns due to the rates, the results of the safety analysis revealed that six intersections and roadway segments have crash rates higher than statewide average crash rates for similar intersection and/or roadway facility-types. Intersections and roadway segments with the highest crash rates in the City are summarized in Table 2.

Table 2: High Crash Rate Locations

Intersections	Roadway Segments
3 rd Street and Rambling Road	Box Butte Avenue – 3 rd to 6 th Streets
3 rd Street and Cody Avenue	Box Butte Avenue – 6 th to 10 th Streets
8 th Street and Emerson Avenue	Box Butte Avenue – 14 th to 25 th Streets
3 rd Street and Potash Avenue	Box Butte Avenue – 10 th to 14 th Streets
3 rd Street and Flack Avenue	Emerson Avenue – 3 rd to 25 th Street
3 rd Street and Niobrara Avenue	3 rd Street – Flack to Black Hills Avenues

In many instances, the high crash rates are likely not statistically significant and can be attributed to the low intersection or roadway segment volume, which can result in artificially high crash rates (even with low crash frequency). However, a field review was conducted for each potential high crash rate location to help

identify field conditions or other contributing circumstances that may contribute to the crash history at these locations. In general, significant deficiencies or potential contributing circumstances were not identified during the field review. Potential strategies that were identified to improve safety at various locations include:

- Removal of sight distance restrictions such as trees and parked vehicles at unsignalized intersections.
- Evaluation of signal timing and phasing to ensure adequate capacity and progression between intersections.
- Evaluation of vehicle clearance intervals (yellow and all-red) at signalized intersections to ensure they are appropriate for each signalized intersection location.
- Potential conversion of angle parking options in the central business district.
- Removal of on-street parking on narrow streets to improve safety and capacity.
- Implement traffic calming features to reduce vehicle speeds and improve safety.
- Increase speed enforcement in key locations.

Operational Analysis

Level of service criteria for signalized and unsignalized intersections is summarized in **Table 3**.

Table 3: Level of Service Criteria (seconds/vehicle)

LOS	Signalized	Unsignalized
A	≤ 10	≤ 10
B	>10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	>35 and ≤ 55
F	> 80	> 55

Capacity analyses were conducted to assess existing operations during both the AM and PM peak hours at the twelve intersections listed below:

- Highway 2 and Kansas Street
- Highway 385 and Kansas Street
- Highway 385 and 3rd Street
- Highway 385 and 10th Street
- 3rd Street and Box Butte Avenue
- 3rd Street and Cody Avenue
- 3rd Street and Emerson Avenue
- 3rd Street and Flack Avenue
- 10th Street and Box Butte Avenue
- 10th Street and Emerson Avenue
- 10th Street and Flack Avenue
- 18th Street and Box Butte Avenue

Each of the intersections evaluated currently operates at a LOS B or better during both the AM and PM peak hour periods with all individual movements operating at a LOS C or better. Intersection lane configurations and level of service results for intersections evaluated are shown in **Figures 8 and 9**.

Circulation Analysis

In addition to the safety and traffic operations analysis results discussed above, other general circulation system characteristics were identified during the field review to be considered in the development of the City’s Long Range Transportation Plan:

- Highway 2 (E 3rd Street) Access Management – Access is fairly well-restricted along 3rd Street at the present time. It will be important to maintain high levels of access control along 3rd Street as traffic volumes increase in the future to provide efficient traffic operations.
- One-way Street System – It is important to maintain roadway with along the East/West one-way street system where several parked cars can limit throughput of the street operations. Parking restrictions could be evaluated to improve flow along these segments.

Figure 8: Intersection Lane Geometrics

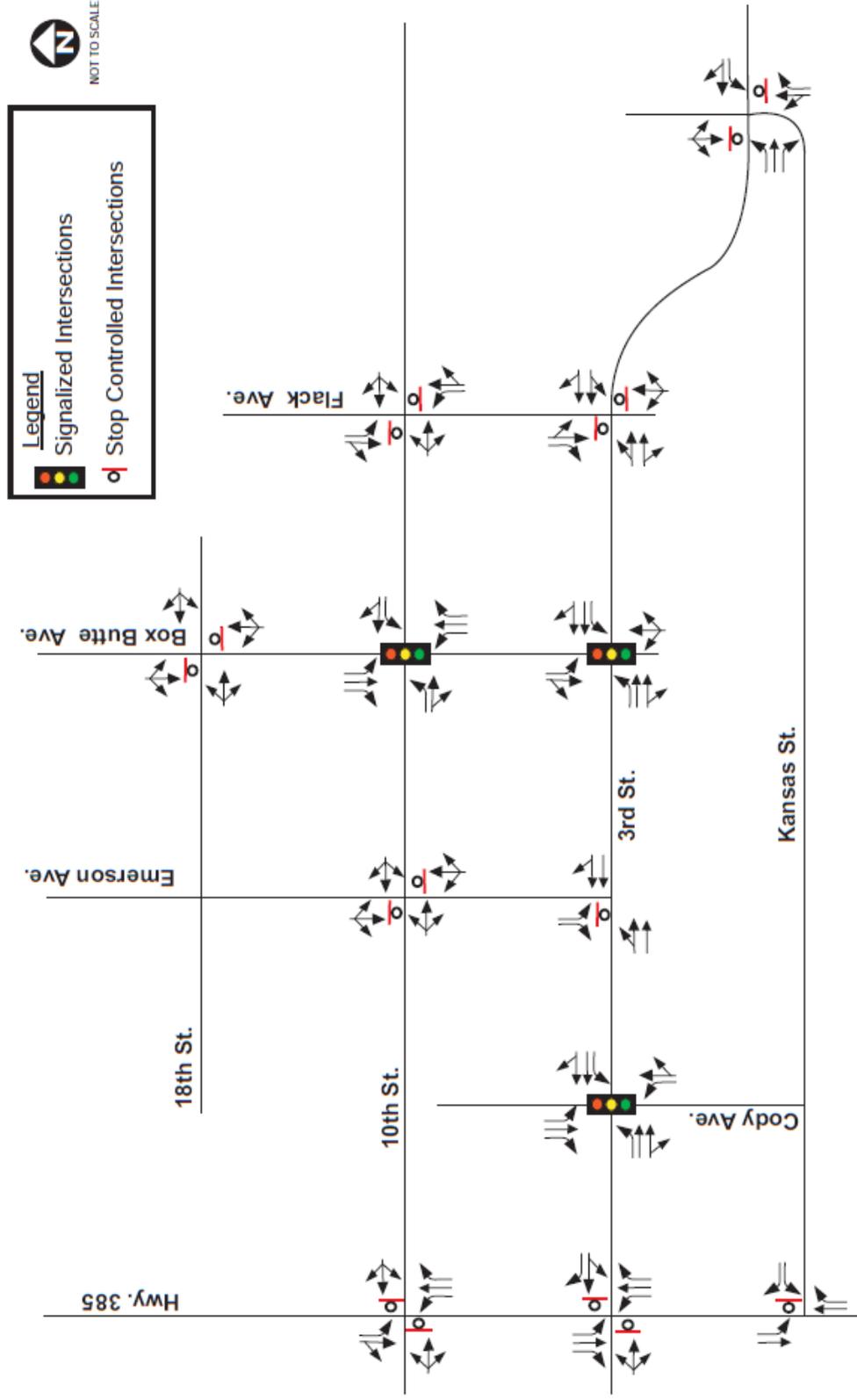
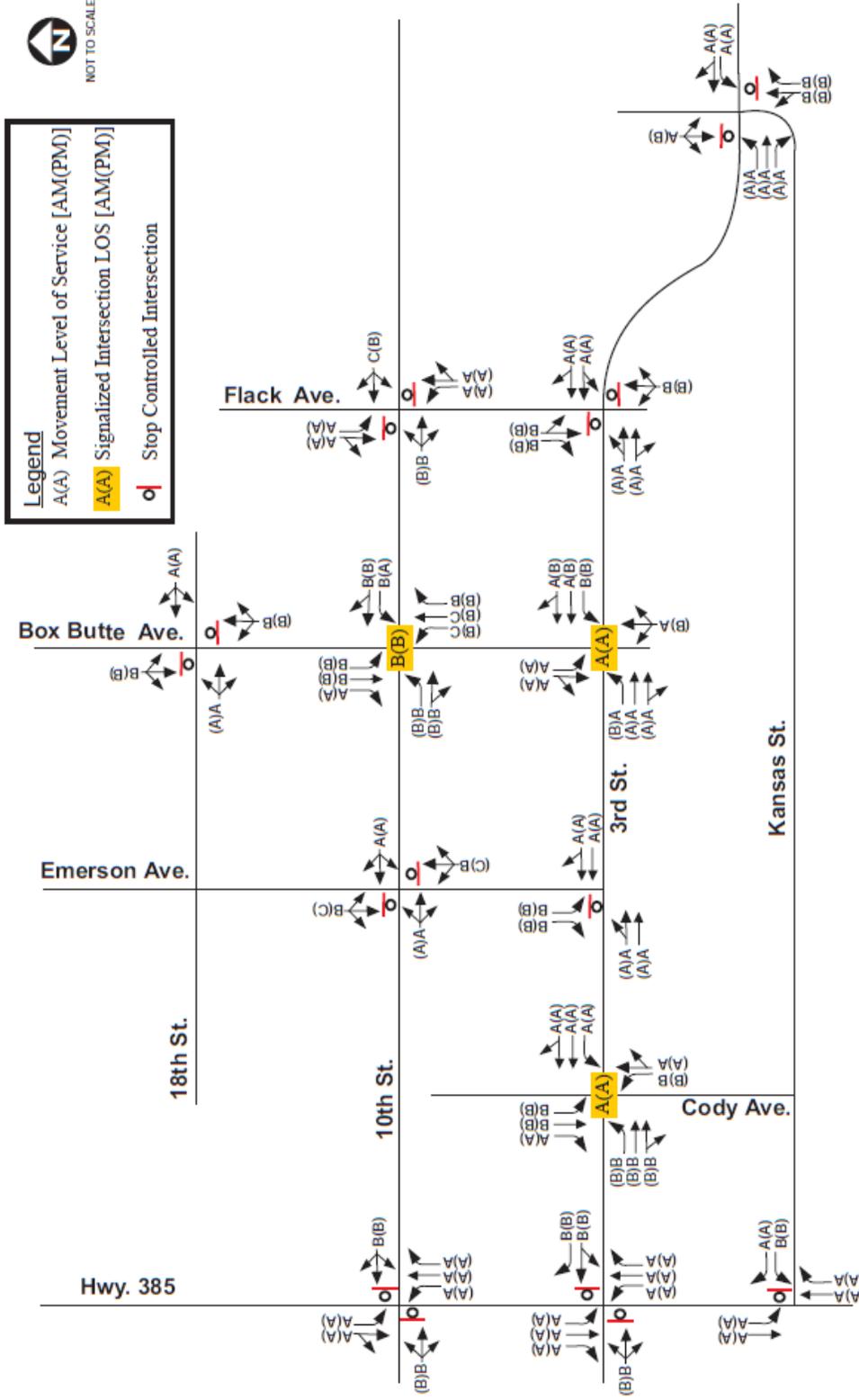


Figure 9: Intersection Capacity Analysis



Access Management

This section outlines recommended access management guidelines that should be implemented by the City of Alliance. Access management is characterized as the strategic provision of access along streets. It includes the systematic control of the location, spacing, design, and operation of street and driveway connections to a roadway. Access management should be a priority along all arterial and collector streets. These standards are applicable to new development and should be utilized for existing areas and roadways to the greatest extent practicable.

Traffic Signal Spacing

Future traffic signals on principal arterials should be planned for spacing at 1/2 - mile intervals. All other arterial roadways should allow for signalized intersection spacing at no less than 1/4 - mile intervals.

Median Break Spacing

Although Alliance does not currently have issues with divided roadways, guidelines for breaks in a median-divided roadway are provided for future reference as roadway types in Alliance may change over time. Median breaks, and allowances for them, are an important component of access management. The following guidelines should apply to the design and control of median breaks.

- No median breaks on arterial roadways should be allowed within 1,000 feet of a grade separation/interchange.
- Full median break access can be allowed where traffic signals, if installed at some point in the future, would be adequately spaced from adjacent traffic signals.
- Non-signalized median breaks on divided principal arterials should be spaced at 1/4 - mile intervals and 1/8 - mile intervals along other arterial roadways.

Private Driveways

A key access management issue is the location and type of access driveways on the street network. The guidelines listed below should be incorporated for all planned access drives. For existing driveways, consideration should be given to eliminate, consolidate and improve separation of drives to the extent possible. These guidelines will allow for safer and more efficient traffic flow.

- Direct driveway access should not be allowed on future principal arterial roadways. Driveways that may potentially produce traffic volumes that would warrant signalization shall be located to satisfy the traffic signal spacing requirements.
- Residential driveway access should not be allowed on arterial roadways and should be limited to the extent possible on contractor roadways.
- Non-residential driveway access should not be allowed within an intersection influence area. An intersection influence area is defined as within 500 feet of an intersection along an arterial roadway, and within 300 feet of an intersection along a collector roadway.
- Spacing between driveways should be kept at a minimum of 300 feet and preferably 400 feet.

Maintenance

Pavement represents one of the largest infrastructure investments for Alliance and must be maintained or risk the higher costs associated with complete replacement. The region's diverse climate and harsh weather conditions take a significant toll on our pavement's structural integrity. Weather factors such as heavy precipitation, snow, and ice can lead to pavement damage, including potholes, cracks, and surface irregularities.

One of the primary effects of weather on pavement is freeze-thaw cycles. In Nebraska the seasons are characterized by significant temperature fluctuations that cause the pavement to expand and contract. As a result, the pavement becomes vulnerable to cracking. Potholes occur when water seeps into cracks in the pavement, freezes, and expands, causing the pavement to break apart. Potholes are a significant hazard to motorists and can cause vehicle damage and accidents.

Preventative maintenance activities such as crack sealing, which involves filling cracks in the pavement with a sealant that prevents water from seeping through and causing further damage, and pothole filling should be funded and conducted on a regular basis.

Currently, the City's State-mandated 1 and 6-year plan for pavement maintenance are geared almost exclusively toward maintenance activities and largely involve pavement overlays. An overlay involves laying a new layer of asphalt on top of the existing pavement. This method is used for pavements that have significant damage and cannot be repaired through other methods.

The city uses a 1.5-inch thick overlay for streets that have a significant amount of damage, however while this method extends the life of the pavement, it only postpones the inevitable replacement of the pavement. Funding, above and beyond maintenance, will need to be generated or identified to address the projects found in the Long-Range Transportation Plan and to account for eventual full pavement replacement.

In order to maintain its pavements and to ensure the safety of motorists and pedestrians, the city should continue to improve its pavement maintenance program by conducting regular inspections and repairs. The city's maintenance program begins with a visual inspection of the pavement condition at which time city staff identifies the areas that need repair.

In 2022, the City of Alliance took advantage of new technology to perform a system-wide inspection of the pavement network utilizing 360-degree cameras to record pavement conditions which was then analyzed and scored using artificial intelligence. This data should be used to establish long-term plans for pavement maintenance and rehabilitation; maintenance projects will be in addition to those found in this plan.

Complete Streets

What are Complete Streets?

Complete streets are streets that are for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders. People of all ages and abilities are able to safely move along and across streets in the community, regardless of how they are traveling. Complete streets are good for business, neighborhoods and residents' well-being. Streets designed for people of all ages and abilities create stronger, healthier, and safer communities.

Communicating Complete Streets

Advocates, elected officials, and practitioners need to effectively communicate the benefits of complete streets to build support and to express the need for complete streets. Communication is a critical piece of advancing policy and should not be taken lightly. Communicating complete streets must highlight three key themes:

- o Safer streets
- o Healthier streets
- o More prosperous streets

Adopting Complete Streets

This complete streets policy could take many forms, but generally follows the design principles found in the NACTO Urban Street Design Guide, latest edition, with other design guides consulted as contextually appropriate. Transportation should be designed with the following elements in mind:

1. A strong vision of what the design will accomplish to further complete street goals
2. Account for all users and all modes
3. Address all phases of projects
4. Involve all relevant agencies and departments
5. Specify and limit exceptions
6. Emphasize local and regional connectivity
7. Use the best and latest design standards
8. Look for context-sensitive solutions
9. Set rigorous performance measures
10. Outline tangible implementation steps

Complete Streets

Implementing Complete Streets

Developing and adopting a policy is essential, but can easily sit on a shelf without impacting real world outcomes.

Implementation requires cross-department cooperation, public transparency, and aligning staff goals for safe and accessible streets. Effective implementation requires that plans and specifications be continuously improved to meet local needs. Upon adoption of this LRTP, Complete Streets implementation should generally follow this pattern:

1. Plan for implementation
2. Update the process
3. Reviewing and updating design guidelines
4. Training and education
5. Measure performance

Funding Complete Streets

Complete Streets can be implemented incrementally by adding minor improvements to roadway and pavement projects and by requiring its implementation in new developments.

Complete Streets Policy

Successful implementation of complete streets means designing, building and operating the streets to routinely accommodate safe travel by all modes and all people. A complete street serves everyone who travels, be it by driving, walking, bicycling, riding transit or other means while connecting to a larger transportation network. People of all ages and abilities are able to safely move along and across streets, regardless of how they are traveling. Complete streets are essential for access by people who cannot drive. Streets without safe access for non-motorized transportation represent a barrier for people who use wheelchairs, and for older adults and children. A complete street may look quite different on different sides of the city, but are to be designed to balance safety, access and mobility for everyone using the street.

The City of Alliance recognizes the need for complete streets and will accommodate elements that create a complete street where possible. Some elements for inclusion on a complete street could be sidewalks, shared use paths, bike lanes, fewer travel lanes, narrower lane widths, improved street crossings, bump outs, pedestrian signals, signs, street furniture, street trees, and transit shelters, access and facilities. All designs should be context-sensitive to meet the needs of the community and surrounding area while emphasizing safe and accessible travel for all people.

Every city, state and federally funded transportation improvement and project phase should be approached as an opportunity to create safer, more accessible streets for all users. Project phases include planning, programming, design, right-of-way acquisition, construction, construction engineering, reconstruction, and operations as well as any change to transportation facilities within street rights-of-way such as capital improvements, re-channelization projects, and major maintenance. To this end, Alliance will review and revise related procedures, plans, regulations, design guides and other processes to align goals with the Complete Streets Policy and ensure accommodation of all users in all projects.

Complete Streets

1.0 The design and development of the transportation infrastructure shall improve conditions for transit users, motorists, bicyclists, pedestrians and other users through the subsequent steps:

1.1 Plan projects for the long-term. Transportation improvements are long-term investments that remain in place for many years. The design and construction of new facilities should anticipate likely future demand for transit, bicycling, and walking facilities and not preclude the provision of future improvements.

1.2 Address the need for bicyclists and pedestrians to cross corridors as well as travel along them. Even where bicyclists and pedestrians may not commonly use a particular corridor that is being improved or constructed, they will likely need to be able to cross that corridor safely and conveniently. Therefore, the design of intersections and interchanges shall accommodate bicyclist and pedestrians in a manner that is safe, accessible, and convenient.

1.3 Design facilities to the best currently available standards and guidelines. The design of facilities for should follow design guidelines and standards that are commonly used, such as:

- o AASHTO Guide for the Development of Bicycle Facilities;
- o AASHTO's A policy on Geometric Design of Highways and Streets;
- o AASHTO's Guide for the Planning, Design, and Operation of Pedestrian Facilities;
- o Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways;
- o ITE Recommended Practice Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities; and,
- o National Association of City Transportation Officials (NACTO) Urban Street Design Guide,

With primary consideration given to the latest edition of the NACTO Urban Street Design Guide. The design considerations found in **Table 4** should be followed as the default design criteria unless the context of the design requires otherwise:

Table 4: Intersection Capacity Analysis

Potential Impacts		Pedestrian – Oriented NACTO Requirements
Minimum Lane Width	Travel lanes over 10 feet encourage cars to drive faster and increases the distance pedestrians have to cross the street	10 feet
Curb Offset	A curb offset increases the effective lane width and encourages speeding	N/A
Clear Zone (40 mph or less)	Clear zones in urban setting can prevent street trees, cafe seating and other amenities that help create an inviting pedestrian environment.	Recommends not using minimum setback requirements for clear zone
Minimum Curb Radius	A larger radius increases the turning speed of cars at the intersection may make it less safe for pedestrians and bicyclists	10 feet is recommended and should rarely exceed 15 feet
Design Speed	A design speed that's higher than the posted speed encourages speeding	Design speed = posted speed
On-Street Parking	On-street parking provides a buffer between people walking and car on travel lanes. This buffer helps create a comfortable environment for the pedestrian	Highly encouraged depending on context
Minimum Parking Lane Width	Wider parking lanes take up valuable space and increases the crossing distance for pedestrians	7 - 9 feet
Street Trees	Street trees create welcoming spaces, buffer pedestrians from car traffic, and reduces speeding	Encourages the use of street trees along all streets with pedestrian accommodation

Complete Streets

2.0 Pedestrian and bicycle ways and transit considerations shall be established in new construction and reconstruction of street and bridge projects within Alliance unless one or more of three conditions are met:

2.1 Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, a greater effort may be necessary to accommodate all users (bicyclists, motorists, transit vehicles and users, and pedestrians of all ages and abilities) elsewhere within the right of way or within the same transportation corridor.

2.2 The cost of establishing bikeways and walkways would be excessively disproportionate to the need or probable use or exceed budget costs (ex. resurfacing). Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project. However, the twenty percent threshold is a guideline; in areas where high levels of bicycle and pedestrian traffic are anticipated, the threshold for "excessively disproportionate" could be much higher. In cases where the additional cost is considered excessively disproportionate, the project sponsor may propose an alternate design or spend twenty percent of the project cost of the larger project to improve accommodations for all users.

2.3 Where sparsity of population or other factors indicate an absence of future need. This is defined as streets developed as a cul-de-sac with six or fewer dwellings or if the street has severe topographic or natural resource restraints. Also an indication of absence of need is when the annual average daily traffic (AADT) is projected to be less than 500 vehicles per day over the life of this project.

Exception requests shall be reviewed by a licensed Professional Engineer and granted by the Public Works Director. Documentation of any granted exceptions shall be made publicly available.

3.0 Using performance measures to evaluate the progress of the Complete Streets Policy is a valuable and essential part of successfully implementing safer, more complete streets. The City will publicly report on the annual increase or decrease for each performance measure compared to the previous year(s). These measures may include:

- o Rate of crashes, injuries and fatalities by mode;
- o Percentage of transit stops accessible via sidewalks and curb ramps;
- o Number of approved and denied exceptions;
- o Completion of Safe Routes to School projects;
- o Total miles of on-street bicycle facilities;
- o Total miles of off-street bicycle facilities;
- o Bicycle and pedestrian counts; and,
- o Other relevant measures.

4.0 The City views complete streets as integral to everyday transportation options. To this end:

4.1 Relevant departments, agencies and committees will incorporate complete streets principles into Master Plans and other manuals, checklists, decision trees, rules, regulations, programs, etc. as appropriate.

4.2 The Departments of Public Works, Planning and/or other relevant departments will review current design standards, including subdivision regulations that apply to new roadway construction, to ensure that they reflect the best available design guidelines, and effectively implement complete streets.

4.3 When available, the City shall encourage staff professional development and training on non-motorized transportation issues through attending conferences, classes, webinars, and workshops.

Complete Streets

4.4 City staff shall identify all current and potential future sources of funding for street improvements and recommend improvements to the project selection criteria to support complete streets projects.

4.5 The City shall promote project coordination among City departments and agencies with an interest in the activities that occur within the public right-of-way in order to better use fiscal resources.

4.6 An annual report will be made to the City Council by the lead department or City Manager showing progress made implementing this policy.

4.7 A Complete Streets Advisory Council is hereby created to serve as a resource and a collaborative partner for the City elected officials, municipal staff, and other appropriate agencies.

a. The Advisory Council is to be composed of three voting members appointed by the City Manager with approval by the City Council who are interested in achieving Complete Streets and who want to explore opportunities for pedestrians, bicyclists, transit riders, children, the elderly, people with disabilities, and all other transportation users. Representatives shall be from stakeholder constituencies, including transportation professionals, public health, parks, schools, groups representing older adults, people with disabilities, bicyclists, pedestrians, transit users, etc.

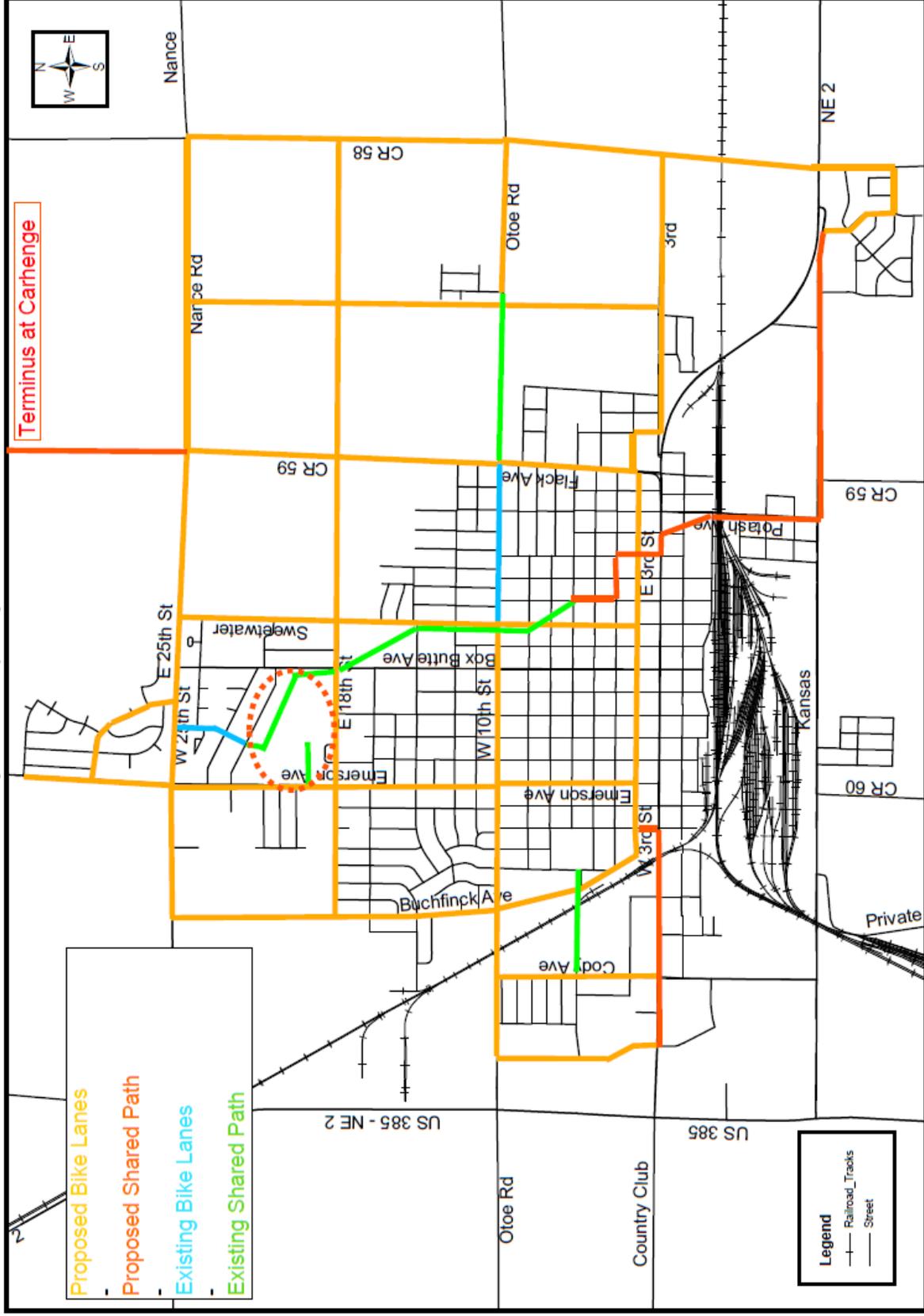
b. Complete Streets Advisory Council Membership shall be for a period of four years, with alternating terms of two years with two members serving in one cycle and the remaining member serving in the alternating cycle so that all members are not renewed on the same date. City Manager may remove and appoint members at their discretion and as necessary to maintain an active Council.

c. The duties of the Advisory Council shall include, but not be limited to, examining the needs for bicyclists, transit users, motorists, and pedestrians of all ages and abilities; conducting a baseline study of current practices and accommodations; advising on appropriate inter-departmental performance measures, promoting programs and facilities for pedestrians, bicyclists, and transit users; and advising appropriate agencies on best practices in Complete Streets implementation.

d. The Advisory Council will meet no less than once per year, and more often as necessary. The Advisory Council shall review the yearly written report evaluating the City's progress, and advise on implementation measures prior to submission to the Alliance City Council.

5.0 The backbone of the proposed cycling network can be found in **Figure 10**. Current sidewalks can be found in **Figure 5**. Special attention should be given to providing ADA-compliant ramps and sidewalk. Other considerations may include accommodations for bus stops, street lighting, street furniture and resting areas.

Figure 10: Bicycling Network



Summary of Existing Conditions

The results of the existing conditions analysis indicate generally acceptable traffic operations and roadway safety conditions in Alliance. In addition to the safety and traffic operations analysis results discussed above, other circulation system deficiencies and potential improvement strategies were identified based on field review. Potential improvement strategies are discussed throughout the L RTP. Ultimately they are combined with improvement strategies identified during the future conditions transportation analysis and transportation modeling tasks to help form the recommended Long Range Transportation Plan.

Figure 11: 2007 Model Roadway Network



Transportation Model

For more information on the methodology, inputs, and model, please refer to the City of Alliance 2009 Comprehensive Plan and Long Range Transportation Plan.

- The City of Alliance and the Nebraska Department of Roads should continue to conduct traffic counts (daily roadway volumes and peak hour intersection turning movement volumes) in Alliance on a regular basis so that accurate traffic count data is available to update traffic signal timing plans and conduct traffic operations and safety studies at key locations, as needed.

Transportation Model Process Overview

The travel demand forecasting model developed for the City of Alliance provides daily traffic volumes (24-hour counts) based on existing land use and roadway network, to be used by engineers and planners in their designs. A travel demand forecast might include the number of cars on a future network roadway such as a new arterial or the number of cars that may use a newly constructed bridge or viaduct or other changes impacting consumer behavior.

The two major types of data which are to be used as inputs to travel model updates are proposed land use data, which describes the number of households and number of employees by employment categories for the study area, and the second type is the transportation system which allows the urban activities to communicate with one another; that is, people travel to work, to shop, and to visit friends.

Land use data such as number of households by type (single and multiple family units), commercial/retail developments (Sq ft.), number of employees by type, and student enrollments are collected for each sub-area, known as a Traffic Analysis Zone, or TAZ. TAZs are geographic areas dividing the study area into relatively similar areas of land use and land activity. TAZs represent the origins and destinations of travel activity within the study area. The transportation system is represented as an abstract network of what is actually on the ground, and as such does not include every local street in the area.

A key attribute of the roadway network is the roadway functional classification. City of Alliance roadway classification is based on the National Functional Classification obtained from Nebraska Department of Roads. Existing functional classifications can be found in : [Table 1.1](#) and Proposed functional classifications can be found in : [Table 1.2](#).

Trip Generation

The trip generation model estimates trip ends for a typical weekday. The process of attracting trips to a zone where a trip terminates or originates and whose existence is due to an activity carried out in that zone is said to be a trip attraction. For example, a zone where a trip originates or terminates and whose existence is due to the traveler's residence in that zone is said to be trip production a person who made two trips in a day, one from home to work and one from work to home, would generate two productions at the home end and two work attractions at the work end. Trips which neither begin nor end at the traveler's home are called non-home based trips and the trip ends are called origins and destinations – with the origin being the beginning of the trip and the destination being the end of the trip.

Transportation Model

Next, vehicle trip generation estimates are grouped into multiple trip purposes. For the City of Alliance model, the vehicle trips are converted to three trip purposes as follows:

1. Home Based Work: Trips made for the purpose of work and which either begin or end at the traveler’s home. This is a typical trip purpose that is obviously related to the employment and the income of the traveler or the household.
2. Home Based Other: Any trip made with one end at the home except for the purpose of work. This includes trips made for shopping, school, social visits, recreational trips, or personal-business.
3. Non-Home Based: Any trip that neither begins nor ends at home.

Applying the trip generation model outlined above, the number of vehicles were calculated using the base year land use data and trip generation rates by trip purpose. Data from the external traffic zones and the Census 2000 Journey-to-Work (JTW) trips for the City of Alliance are combined with the internal zone trips to create the total productions and attractions for the model.

A summary of the vehicle trip productions and attractions are provided in **Table 5**. The percent of trips by trip purpose appear reasonable as compared to the report Travel Estimation Techniques for Urban Planning, NCHRP Report 365, 1998.

Table 5: Summary of Vehicle Trip Productions and Attractions

Trip Purpose	Total Trips	Percent of Trips	NCHRP 365
Home-Based Work	11,709	27%	20%
Home-Based Non-Work	21,226	50%	57%
Non Home-Based	11,740	23%	23%

Trip Distribution

The trip distribution was the second major step in the travel modeling process. The first major step, trip generation provides estimation of trip productions and trip attractions. Trip distribution is the step that links the trip productions to the trip attractions for each zonal pair. The purpose of trip distribution is to produce a trip table of the estimated number of trips from each TAZ to every other TAZ within the study area.

Traffic Assignment

Traffic assignment was the third major step of the TDF model. The assignment of trips to the network is the final output of the modeling process and becomes the basis for validating the model set’s ability to replicate observed travel in the base year as well as to evaluate transportation improvements in future years. The inputs for traffic assignment include the roadway network and trip tables. Model traffic volumes and existing traffic counts are presented in **Figure 12**.

Future Conditions

This section documents the future conditions traffic analysis conducted as part of the Comprehensive Plan Update. The future conditions analysis included development of 2030 model volumes and planning-level analyses of alternative 2030 transportation and land use scenarios and model runs. Results of the future conditions analysis were used to identify transportation improvements included in the Long-Range Transportation Plan (LRTP).

Future Transportation Network Evaluation

Future transportation needs were initially evaluated by modeling 2030 land use conditions with the 2030 base roadway network. For the City of Alliance, the future base roadway network is essentially the existing roadway network in terms of modeling conditions. Several overlay and street segments are included in the “One and 6 Year Plan”, but will not add significant capacity to the street network. For the future 2030 land use conditions, modifications were made to land use intensities where relevant. Many of the TAZs did not change based on the land use data provided.

Forecast 2030 model volumes for the City of Alliance are shown in **Figure 13**. The forecast volumes generally show small to moderate volume increases on most study area roadways. The forecast volumes on all roadways are below the coded roadway capacities with all roadways expected to continue to operate at an acceptable level of service (LOS C or better) based on daily traffic volumes levels. This does not suggest that no roadway improvements are required to serve future traffic demand. Nor does it suggest, as discussed in the next section, that there will be no deterioration in level of service at specific intersections during peak traffic periods.

Future Alternatives Tested

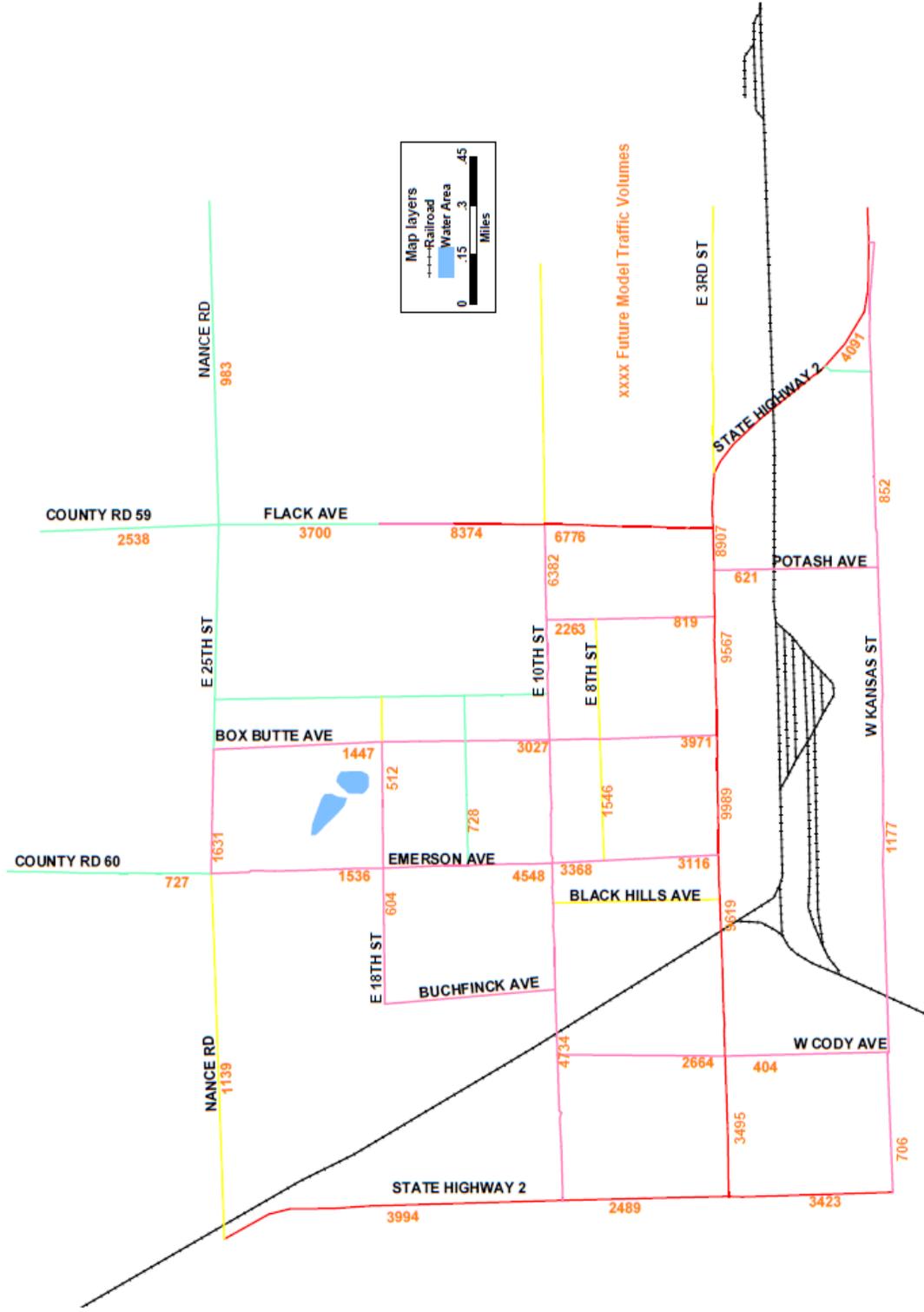
Transportation alternatives are generally identified to accomplish one of the following goals:

- Improve roadway segments with unacceptable operations (i.e., level of service D or worse)
- Improve a roadway to provide better compliance with the desired roadway functional classification
- Provide logical extensions to existing roadways
- Provide roadway connections and improvements that do not exist today to improve overall circulation and network continuity.
- Provide major transportation improvements such as bypass roadways that are needed to ensure an effective transportation system in the future.

A variety of transportation alternatives were evaluated to (1) add capacity to existing roadways, (2) widen existing, or (3) pave roadways that are currently gravel. Since there are no major capacity constraints in the existing or future base transportation model, these improvements generally resulted in insignificant changes to the forecast volumes on Alliance roadways. This finding was not unexpected and does not negate the importance of future roadway improvements to enhance traffic operations and safety on Alliance roadways or to serve transportation demand in growing areas of the community.

Several improvements identified were based on feedback and stakeholder involvement and were more operational in nature. The largest-scale improvements identified through the planning and modeling process include roadway upgrades and extensions of streets for such facilities as 18th and 25th Streets, and Sweetwater and Emerson Avenues in the areas impacted by the expected land use in-fill and growth.

Figure 13: Forecast 2030 Model Volumes



Alternative Transportation Elements Summary

Aviation

The Alliance Municipal Airport, opened in the 1940's, is publicly owned and operated by the City of Alliance. Commercial airline service is provided to Denver, CO. The airport site is comprised of approximately 3,500 acres located three miles south-east of the City of Alliance and includes one of the longest runways in the state. The Alliance Municipal Airport contains three asphalt paved runways. As an economic development effort, synergies from the airport, railroad, and local highways should be joined via construction of an inter-modal shipping center.

Railroads

BNSF Railway Company is headquartered in Ft. Worth Texas and operates one of the largest rail networks in the U.S. with 35,000 miles of rail lines operating through the 28 most western states for over 150 years. The BNSF mechanical division operates eight locomotive maintenance facilities that perform preventive maintenance, repairs and servicing of equipment. The largest of these facilities are located in Alliance, Nebraska and Topeka, Kansas. The mechanical division also controls 46 additional facilities responsible for car maintenance and daily running repairs.

The major BNSF facility in Alliance is located south of Highway 2 (3rd Street) and north of Kansas Street. It is at the junction of three main track lines that converge from the north, south and east. These track lines are adjacent to Highway 385 and Highway 2 in the vicinity of Alliance. It is important for the growth of any community to consider the elimination of under used at-grade crossing locations and to evaluate grade-separation opportunities where expected vehicular and train conflicts will increase.

Transit

There is currently a rural public transportation system provided in the City of Alliance which is available on a per-call basis. The Box Butte County operates public transportation between communities. These services are open to the general public. As the community grows, potential options for other transit and/or shared services should be evaluated pending the needs of an increasing elderly population. A set bus route with scheduled stops should be considered as Alliance grows.

Trails

Alliance's existing trail system is moderate and consists primarily of the beautiful Snake Creek Trail. This is a two mile paved trail that connects Central Park to Laing Lake Park. There are also several other sidewalk connections that allow for access in and around several of the other park areas. This is an area that was deemed important in several of the focus groups and new trail connections should continue to be identified as development occurs and/or opportunities to replace existing sidewalks become necessary. The ability to provide safe routes for pedestrian activity in the Alliance community with the positive park system that currently exists is an asset that should be promoted and kept in mind as infrastructure projects move forward. Trails should be extended further south to Bower Park and east to connect to the Homestead subdivision, north to Lakefield Addition and considered as part of new subdivisions.

Recommended Long-Range Transportation Plan

The recommended Long-Range Transportation Plan (LRTP) for the City of Alliance is presented in this section. The goal of the plan is to identify transportation improvements that serve the needs of the community. Recommended improvements are based on the results of the traffic analysis and transportation modeling, as well as efforts at traffic calming, and implementation of multiple transportation modes.

The projects identified in the Comprehensive Plan, as well as other new projects that may arise based on growth and opportunity should be reviewed annually to determine which projects should be included in the City of Alliance "One- and Six-Year Plan" or NDOR's "One- and Five-Year Plan." The NDOR "One- and Five-Year Plan" establishes the present and future program for improvements to the state highway system. It is important that projects, following approval from the City Council, be included as appropriate in the City and/or NDOR plans so that the City is eligible to receive state or federal funding for such projects.

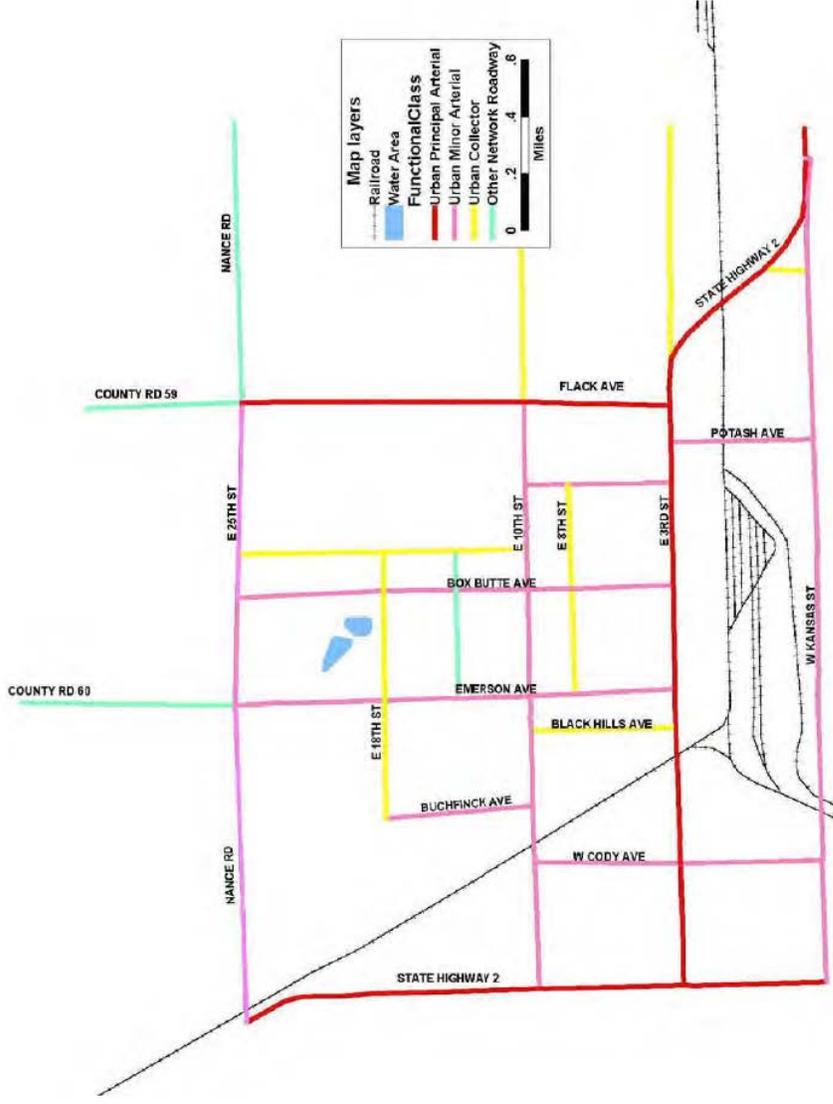
Future Functional Classification Map

The recommended future functional classification map for the City is illustrated in **Figure 14**. Changes to the functional classification of several roadways is recommended based on projected land use changes, increasing traffic volumes and the intended future function of the roadway. These changes include:

- Nance Road (Highway 2 to Emerson Avenue) – upgrade to urban minor arterial
- 25th Street (Box Butte to Flack Avenues) – upgrade to urban minor arterial
- 18th Street (Buchfink to Box Butte Avenues) – downgrade to urban minor arterial
- Sweetwater Avenue (10th to 25th Streets) – upgrade to urban collector
- Flack Avenue (18th to 25th Streets) – upgrade to urban principal arterial
- Race Track Road (Kansas Street to Highway 2) – upgrade to urban collector

The roadway functional classification categories used by the NDOR in the existing functional classification map have been maintained in the future functional classification map.

Figure 14: Recommended Future Classification



Recommended Roadway Improvements

Recommended roadway improvements have been identified and divided into short-term (0 – 5 years), mid-term (6 – 15), and long-term (15+ years) time frames. These improvements, which are not prioritized within each timeframe, are summarized in **Tables 6, 7, and 8**, and illustrated in **Figures 15, 16, and 17**.

There are several recommendations to implement future roadway improvements. While traffic volumes may not warrant such improvements for many years, it is important that these improvements be included in the Long-Range Transportation Plan for right-of-way preservation purposes and to provide important planning information to the community. Traffic studies and road counts should be conducted on a regular basis to identify areas that are trending toward the need for capacity improvements.

Recommended Long-Range Transportation Plan

Further study will be required to evaluate and define transportation deficiencies and potential solutions as the community grows, when land uses change and transportation issues arise. Any improvements that would have regional transportation implications or which are located outside of the current City limits will require close coordination between the City of Alliance and outside agencies. Specific projects requiring coordination are included in **Table 9** and illustrated in **Figure 18**.

Funding Evaluation

Various federal, state, and local funding sources could be considered for implementation of transportation improvements in Alliance. Possible funding sources are discussed below:

- Federal Surface Transportation Program (STP) dollars. This program returns federal gas tax dollars to states on an annual basis. These funds can be used for improvements to any public roadway. The Nebraska Department of Roads allocates these funds to cities and counties and retains some for state use.
- State Highway Dollars. The Nebraska Department of Roads collects state gas taxes for funding of improvements to the state highway system. These funds could be used for improvements to state highways in Alliance such as Highways 2, 87 and 385.
- Grade-Separation Dollars. The Nebraska Department of Roads collects a train-mile tax from railroads in the state. These funds are used to fund new grade-separation structures.
- Burlington Northern Santa Fe Dollars. Railroads such as Burlington Northern Santa Fe have provided funding in the past to communities for closing at-grade highway-rail intersections.

- State and Federal Airport Dollars: Funding generated from airport use taxes is available for airport maintenance and improvements.
- State and Federal Highway Safety Dollars: Funding is available for improvements at hazardous intersection and roadway locations.
- Intelligent Transportation System (ITS) Dollars. Federal and state funds are frequently set aside for ITS projects to improve traffic and transit operations. These funds are administered by both FHWA and FTA. Some state and local areas have obtained Congressional "earmarks" for specific ITS projects or programs.
- Transportation Enhancement Dollars: Federal programs exist for transportation enhancements such as trails.
- City Sales or Other Tax Dollars. The City has traditionally used some of its city taxes for transportation maintenance and operational improvements.
- Bonding Dollars. Many communities have used bonding to fund transportation improvements. A source of funding to repay the bonds is required.

The number of potential improvement projects likely exceeds the funding that may be available for these improvements. Thus, it is critical that a recommended transportation plan be adopted so that available funding sources can be explored and appropriate projects included in the City's Capital Improvement Program (CIP) and the State's Transportation Improvement Program (TIP).

Recommended Long-Range Transportation Plan

Table 6. Short Term Recommendations Shown on Fig. 15 (0-5 years)

Project Number	Location	Project Description
1	Various Locations	1-6 Year Street plan (continuous)
2	Various Locations	Gap Paving Assessments (continuous)
3	Various Locations	Delineation and Striping of bicycle lanes
4	Various locations throughout Alliance (ex. Cody Ave & Hwy 2, Cody Ave & Kansas Ave, 10 th St and Box Butte Ave)	Improve wayfinding and street name signing (intersection signing, mast-arm signing, etc.)
5	Emerson Avenue	Implement urban section with sidewalk from 18 th to 31 st Terrace
6	Hwy 2 and E 3 rd Street	Close existing intersection; create cul-de-sac; create new intersection to the east
7	10 th Street and Emerson Avenue	Replace skewed intersection with a roundabout to improve traffic flow and safety

Table 7. Mid-Term Recommendations Shown of Fig. 16 (6-15 years)

Project Number	Location	Project Description
8	Various locations	Construction of shared use and connecting paths
9	10 th Street Overpass	Repaving
10	Kansas Street	Pavement repair and replacement
11	25 th Street/Nance Road	Implement urban section with sidewalks between Sweetwater and Emerson Avenues
12	Hal Murray Softball Complex	Upgrade Pedestrian Underpass
13	Rambling Road	Re-stripe as a 3-lane section as further development and access occurs
14	Sweetwater Avenue	Pave urban section between 18 th and 25 th Streets.
15	Box Butte Avenue	Install landscaped median on Box Butte from 6 th to 10 th , 14 th to 18 th

Figure 15: Recommended Short Term Roadway Improvements

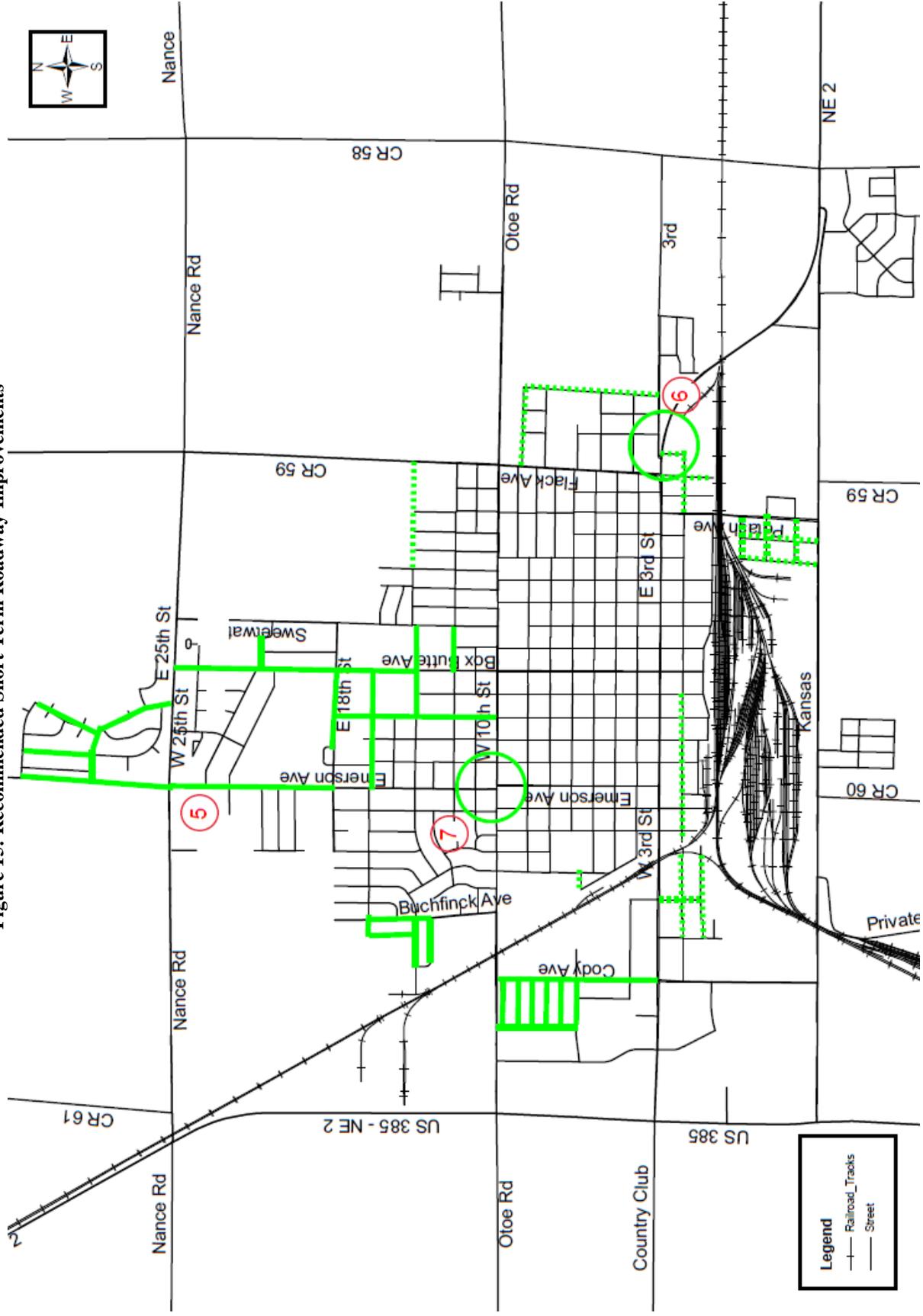
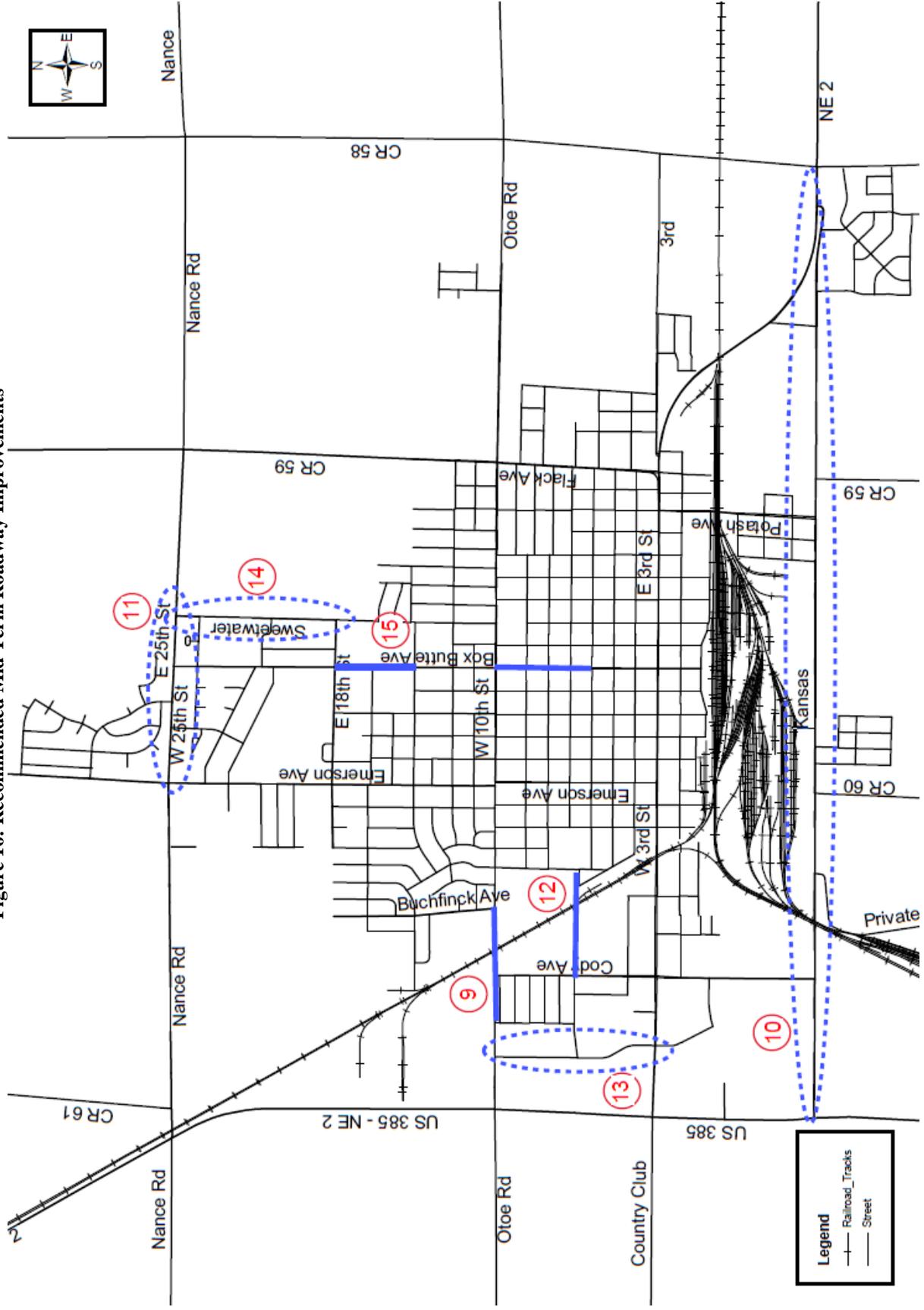


Figure 16: Recommended Mid Term Roadway Improvements



Recommended Long-Range Transportation Plan

Table 8. Long Term Recommendations Shown on Fig. 17(16+ years)

Project Number	Location	Project Description
16	Kansas Ave	Widen to 3-lane section with right turn lanes and drainage improvements from Hwy 385 to Hwy 2
17	Alliance Airport	Intermodal Shipping Center; Connecting Hwy 385, Hwy 2, Hwy 87, Railroad spur and Alliance Municipal Airport
18	Flack and Railroad	Build overpass and connection from Flack(Hwy 87) to truck route/Kansas Street at CR 59
19	18 th Street	Extend roadway section to West to Hwy 385
20	18 th Street	Extend roadway section to East to Flack Avenue
21	Buchfinck Avenue	Connect Burlington Avenue to Buchfinck Avenue
22	Buchfinck Avenue	Extend Buchfinck Avenue north to Nance Road/25 th

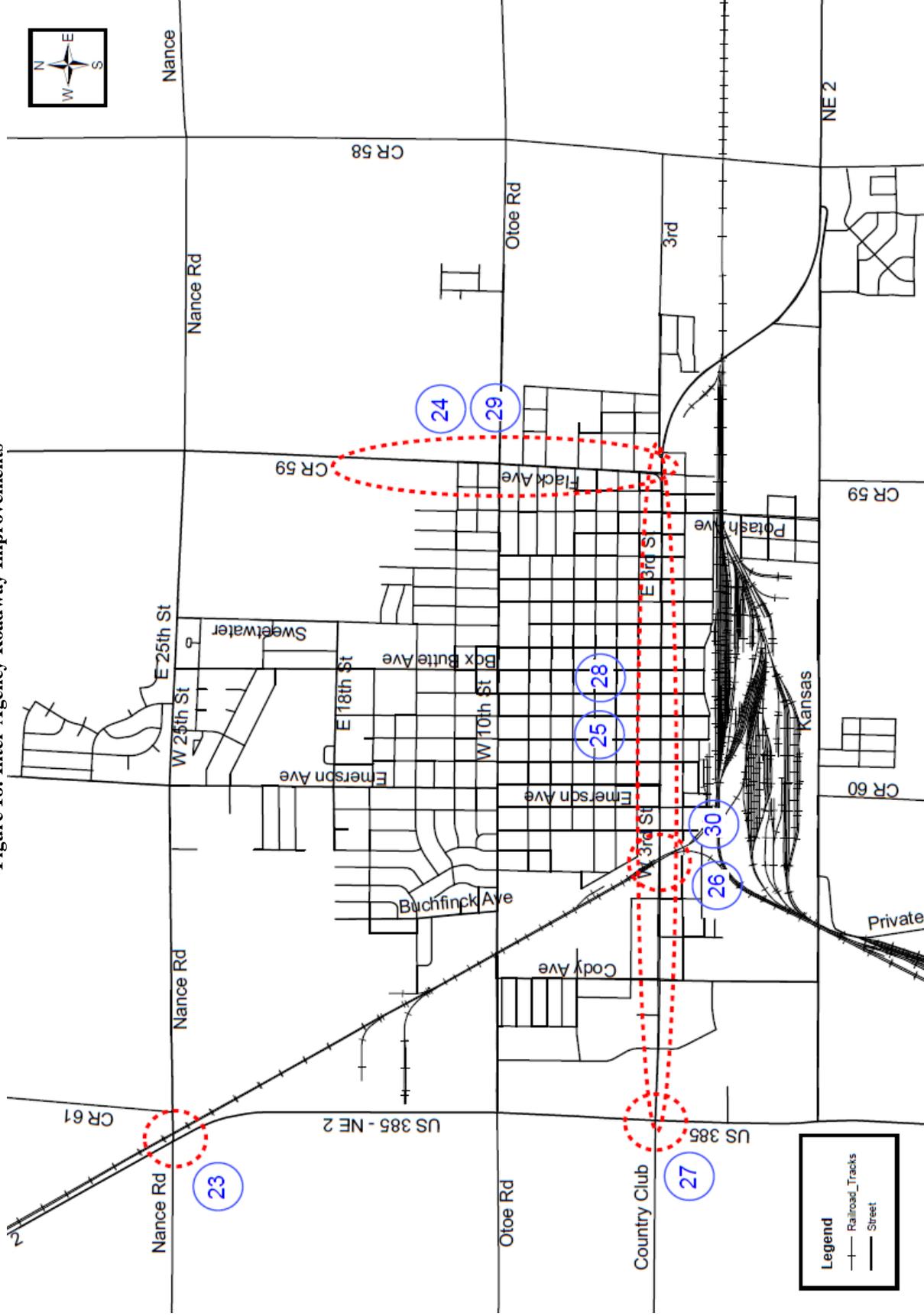
Table 9. Inter-Agency Recommendations Shown on Fig. 18

Project Number	Location	Project Description
23	Highway 385 & 25 th Street/Nance Road	Implement turn lanes for the North and South directions and add Southbound fly-by lane due to limited stacking with the railroad tracks
24	Highway 87/Flack Avenue	Widen to 3-lane urban section from 3 rd Street to 18 th with sidewalk provisions
25	Highway 2/3 rd Street Corridor	Implement consistent 5-lane roadway section through the entire East/West corridor
26	3 rd Street – near underpass	Improve the sidewalk/pedestrian provisions on both sides of the street East/West
27	Highway 385 and 3 rd Street	Install a traffic signal as warranted
28	Highway 2/3 rd Street	Implement improved pavement markings, lane destinations, signing, etc. through City limits
29	Flack Avenue	Improve pavement markings North and South through the City limits
30	Highway 2/3 rd Street	Widen underpass to 5 lanes

Figure 17: Recommended Long Term Roadway Improvements



Figure 18: Inter-Agency Roadway Improvements



Summary

- Complete Street considerations are required in all new developments and recommended wherever feasible
- A Complete Streets Advisory Council is to be created
- Corridor reservation is sacrosanct. Corridors are to be reserved and considered as part of all plat reviews
- Access Management is sacrosanct. Planning efforts shall prohibit conflicts and existing infrastructure should be reviewed to improve traffic flow.
- Dead ends are prohibited (not including cul-de-sacs) and developers should construct perimeter roads as part of their developments
- Conduct regular traffic counts and traffic studies, and regularly review crash rates and locations
 - o Look for opportunities to improve roadway safety for all users
 - o Review traffic signal warrants
 - o Expansion of roadway network as a means for economic development and as
- Roundabouts are the preferred choice for intersection design
- Completion of node to node sidewalks is recommended; Expand trails and bike lane network
- Paving of dirt roadways is recommended
- Transportation should be viewed as an economic development tool
- Consider creation of an intermodal shipping center
- Consider the elimination of at-grade railroad crossings
- Consider a set bus route
- Expand funding for maintenance and construction activities; Plan funding for comprehensive plan projects
- Work with outside entities to expand and improve the roadway network

Housing

Housing Introduced

The Merriam-Webster dictionary defines a house as a, "building that serves as living quarters for one or a few families." While this perfunctory definition adequately details and describes a home, a house serves as much more than a living quarters.

To many, houses represent dreams. To others, homes represent their most significant investment and a means of passing on wealth to their family. While housing forms vary greatly, the functions of homes are more consistent. We gather, sleep, celebrate, raise families, mourn, and entertain within our homes. Houses are not merely walls, windows, doors, and rooms. Homes are places you can truly call your own.

The future growth of Alliance is intertwined with the ability of the community to provide a diverse supply of affordable and quality housing. Every community faces different housing challenges. Assessing local housing conditions,

projecting future housing needs, examining the housing and jobs balance, and identifying available housing programs are key components of the housing chapter.

An accurate assessment of existing conditions yields a usable and appropriate housing action plan. This plan will be used to alleviate existing issues and determine future needs.

Housing Assessed

The Housing Assessed section of the Housing chapter evaluates housing information. National, regional, city, and census tract housing information is assessed, although the emphasis of this section is on local housing data. The Housing Assessed section opens with a brief review of national housing trends. Highlights include a review of how changing national demographics affect household growth and an explanation of how housing characteristics and market expectations have changed over the past four decades.

A housing affordability assessment follows. Alliance housing demographics are then compared to county and state levels. A peer community comparison looks to see how Alliance's housing characteristics contrast to other area communities, including Gering, Scottsbluff, and Chadron. A detailed assessment of Alliance's housing demographics follows. The Housing Assessed section closes with census tract assessment data, which includes a housing suitability analysis, census tract profiles, and census tract housing demographic data.

The outline of the Housing Assessed section includes:

- National Housing Trends
- Alliance Affordable Housing Inventory
- Alliance/Box Butte County/Nebraska Housing Demographics
- Comparable Community Demographics
- Census Tract Demographics
- Housing Suitability Analysis



Housing Assessed

National Housing Assessed

National housing trends will have a significant affect on Alliance's housing and real estate market. This section of the Housing chapter highlights important national housing trends and reveals how changing demographics are affecting household growth and homeownership rates. Factors that contribute to housing affordability challenges are also discussed. Finally, this section includes details that describe how housing characteristics (i.e, size, exterior wall materials, number of bathrooms, number of bedrooms) have changed over the years.

Household Growth

Several important demographic trends over the next ten years suggest favorable conditions for the overall housing industry, which includes home builders, real estate agents, and mortgage lenders. These demographic trends include extensive household growth, a shifting age structure, and an increase in minority buyers.

According to the Joint Center for Housing Studies of Harvard University approximately 1.3 -1.5 million new households are constructed each year.

Much of the household growth can be attributed to large in-migration of immigrants and the entrance of Millennials into the housing market. Looking forward, the Joint Center predicts that approximately 1.5 million households will need to be created each year until 2028 to keep up with housing market demand.

Even with higher than previous numbers of new houses, the supply of existing homes for sale has never been tighter. This combined, with increasing material costs, has contributed to rising housing costs. There were 1.03 million existing homes on the market in February 2021, down from an already low 1.46 million a year earlier. This amounts to a 29% decline in just one year and a 37% drop in two years. Single-family homes accounted for only 870,000 of the existing units available—the lowest level on record dating back to 1982.

The top concerns among homebuilders in 2020 were the scarcity and cost of building materials. The price of inputs to new residential construction overall rose by a substantial 14% year over year in March 2021. The surge in softwood prices over pre-covid costs

was alarming, up some 83% over the same period. The jump in lumber costs added about \$36,000 to the average price of a new single-family home.

While Baby Boomers remaining in their homes longer than previous generations will increase the average age of homeowners, it does not constitute new growth in the housing market. Millennials entering the housing market are the primary source of the increase in new home buyers. Between 2016 and 2019, adults under the age of 35 constituted 250,000 new households annually and adults 35-44 contributed another 200,000 households annually.

The covid pandemic slowed this growth in 2020 but post pandemic numbers indicate it was only temporary. Pre pandemic growth averaged 1.3 million new households per year. The average number of new households was up from 2020 into March of 2021 to 1.5 million, passing pre pandemic averages. While household ownership amongst Millennial adults is low compared to previous generations, it is expected to pick up at least until 2028 barring any major recession of the U.S. economy.

Housing Assessed

Housing Characteristics

The National Association of Homebuilders indicates that the average size of a new single-family home has increased significantly since 1950. Information obtained from the U.S. Census indicates that the average household size has experienced a steady decline. Combined, these factors indicate that the average square foot per household person has climbed from 290 square feet per person in 1950 to 909.5 square feet per person in 2019. Average house size peaked at 1,062 square feet per person in 2015.

Since 1950, the average size of a new single-family home has increased by 1,318 square feet. In 1950, the average size of a new single-family home was 983 square feet. The average size of a household in 1950 was 3.38 persons. So, not only were houses smaller, they also contained more residents. If we divide the total number of square feet of a new 1950 house by the total number of household residents, we find that a new 1950 house averaged 290 square feet per person.

In 1970 the average size of a new single-family home was 1,500 square feet. This represents a 52% increase in home size since 1950. The average size of a household in 1970 was 3.11 persons. If we divide the total number of square feet of a new house in 1970 by the average number of

household residents, we find that a new house in 1970 averaged 482 square feet per person.

In 1990 the average size of a new single-family home was 2,080 square feet. This represents a 38% increase in home size since 1970. The average size of a household in 1990 was 2.63. If we divide the total number of square feet of a new house in 1990 by the average number of household residents we find that a new house in 1990 averaged 790 square feet per person.

In 2015 the average size of a new single-family home was 2,687 square feet. This represents a 29% increase in home size since 1990. The average size of a household in 2015 was 2.53 persons. If we divide the total number of square feet of a new house in 2015 by the average number of household residents we find that a new house in 2015 averaged 1,062 square feet per person. The average number of bedrooms and bathrooms has steadily increased in new single-family homes since 1950 as well.

In 1977, 30% of new single-family homes had 1 ½ bathrooms or less, 47% had two bathrooms, and 23% had 2 ½ bathrooms. In 1987, 17% of new single-family homes had 1 ½ bathrooms, 45% had two bathrooms, 26% had 2 ½ bathrooms, and 12% had three bathrooms or more.

In 1997, 9% of new single-family homes had 1 ½ bathrooms, 41% had two bathrooms, 33% had 2 ½ bathrooms, and 17% had three bathrooms or more. In 2006, 5% of new single-family homes had 1 ½ bathrooms, 36% had two bathrooms, 33% had 2 ½ bathrooms, and 26% had three bathrooms or more. In 2020, 3% of new single family homes had 1 bathroom, 65% had 2 bathrooms, 25% had 3 bathrooms, and 7% had 4 or more bathrooms.

In 1977, 11% of new single-family homes had two bedrooms or less, 66% had three bedrooms, and 23% had four bedrooms or more. In 1987, 19% of new single-family homes had two bedrooms or less, 58% had three bedrooms, and 23% had four bedrooms or more.

In 1997, 13% of new single-family homes had two bedrooms or less, 56% had three bedrooms or less, and 31% had four bedrooms or more. In 2006, 12% of new single-family homes had 2 bedrooms or less, 49% had three bedrooms, and 39% had four bedrooms or more. In 2020, 10% of new single-family homes had 2 bedrooms or less, 45% had 3 bedrooms, 36% had 4 bedrooms, and 9% had 5 bedrooms or more.

Housing Assessed

Affordable Housing Assessed

According to the U.S. Department of Housing and Urban Development (HUD), Alliance's area median income (AMI) is \$80,800 (ACS \$57,898). AMI is defined by HUD as, "the midpoint in the income distribution within a specific geographic area. By definition, 50% of households earn less than the median income, and 50% earn more. AMI is used to determine the eligibility of applicants for both federally and locally funded housing programs." Alliance households that earn between 50 and 80% of the AMI are categorized as "low income," Alliance households that earn between 30 and 50% of the AMI are categorized "very low income," and Alliance households that earn 30% or less of the AMI are categorized "extremely low income."

The purpose of this assessment is to first identify the value of homes each income classification is able to afford and then determine if the housing availability in Alliance is affordable for each income bracket. This is determined by comparing the inventory of available homes for sale by the amount that each income category is able to buy.

The HUD program defines an affordable housing allowance to be 30% of the total household monthly income. Therefore, a household that earns Alliance's AMI of \$80,800 should spend 30% or less of its \$6,733.33 monthly income (\$2,020) on housing. If we assume that 20% of the house purchase price would be paid with cash and that the remaining 80% would be financed with a mortgage, an affordable house for a household that earns the AMI is worth between \$220,800 and \$230,400.

A household that earns between 50% and 80% of Alliance's AMI could qualify for a \$144,000 to \$152,000 mortgage. If we assume that 20% of the house purchase price would be paid with cash and that the remaining 80% would be financed with a mortgage, an affordable house for a Low Income household would be worth between \$172,800 and \$182,400.

A household that earns between 30% and 50% of Alliance's AMI could qualify for a \$86,400 to \$94,400 mortgage. If we assume that 20% of the house purchase price would be paid with cash and that the remaining 80% would be financed with a mortgage, an

affordable house for a Very Low Income household would be worth between \$103,680 and \$113,280.

A household that earns 30% or less than Alliance's AMI could qualify for a \$40,000 to \$48,000 mortgage. If we assume that 20% of the house purchase price would be paid with cash and that the remaining 80% would be financed with a mortgage, an affordable house for an Extremely Low Income household would be worth between \$48,000 and \$57,600.

A recent property listing review indicates that 18 residential homes were for sale in Alliance. The least expensive home available in Alliance was \$55,000 and the most expensive home available in Alliance was \$650,000. Of the available inventory, 17 of the 18, or 94% of the homes are considered affordable for Alliance households who earn the AMI, 56% or 10 of the homes are considered affordable for Low Income Alliance households, 17% or 3 of the homes are considered affordable for Very Low Income Alliance households, and none of the homes are considered affordable for Extremely Low Income Alliance households.

Housing Assessed

Housing Availability (For Sale)

A stated in the previous section, the intent of the affordable housing assessment is two-fold; identify the value of homes each income classification is able to afford and to determine if the housing availability in Alliance is affordable for each income bracket. This is determined

by comparing the inventory and price of for-sale and rental properties available with the monthly housing allowance of each income bracket. Through segmentation of the housing market into size (# of bedrooms), type, and style, a detailed inventory of available and affordable housing within each income bracket is created.

The following graphic provides a detailed breakdown of for-sale housing units available to each income bracket by size, type, and style.

The graphic on the adjacent page provides a similar breakdown for rental properties.

	Area Median Income AMI	Low Income 50% to 80% of AMI	Very Low Income 30% to 50% of AMI	Extremely Low Income 30% or less of AMI
Yearly Income	\$80,800.00	\$52,520.00	\$32,320.00	\$24,240.00
Monthly Income	\$6,733.33	\$4,376.67	\$2693.33	\$2020.00
Affordable Housing Allowance	\$2,020.00	\$1313.00	\$808.00	\$606.00
Available 1-3 Bedroom Units	21	19	10	2
Available 4+ Bedroom Units	5	4	1	0
Available Single Story Units	14	12	6	1
Available Split Level Units	4	1	0	0
Available Two-Story Units	8	10	5	0
Available Single Family Units	26	23	11	2
Available Multi-Family Units	0	0	0	0
Available Townhome / Condo Units	0	0	0	0
Available Mobile Home Units	1	1	1	1

Fig. H1

Housing Assessed

Housing Availability (Rental) Assessed

	Area Median Income AMI	Low Income 50% to 80% of AMI	Very Low Income 30% to 50% of AMI	Extremely Low Income 30% or less of AMI
Yearly Income	\$80,800.00	\$52,520.00	\$32,320.00	\$24,240.00
Monthly Income	\$6,733.33	\$4,376.67	\$2693.33	\$2020.00
Affordable Housing Allowance	\$2,020.00	\$1313.00	\$808.00	\$606.00
Available 1-3 Bedroom Units	3	3	0	0
Available 4+ Bedroom Units	0	4	1	0
Available Single Family (House) Units	5	12	6	1
Available Apartment Units	9	9	9	0
Available Duplex Units	1	10	5	0
Available Townhome Units	0	0	0	0
Available Mobile Home Units	2	2	2	0

Fig. H2

Housing Assessed

Units Per Housing Structure

The percentage of total housing units is identified on the y-axis and the type of housing structure is identified on the x-axis. The U.S. Census Bureau identifies two primary types of single-family housing units: 1-unit detached and 1-unit attached.

The overwhelming majority of housing units in Alliance, Box Butte County, and Nebraska are single-family 1-unit detached housing structures. Approximately 74.4% of housing units in Alliance, 77.5% of housing units in Box Butte County, and 73.4% of housing units in

Nebraska are defined as 1-unit detached housing structures. The percentage of multi-family units, which are grouped by size, are relatively consistent in Alliance, Box Butte County, and Nebraska. Approximately 3.3% of Alliance's total housing units are mobile homes.

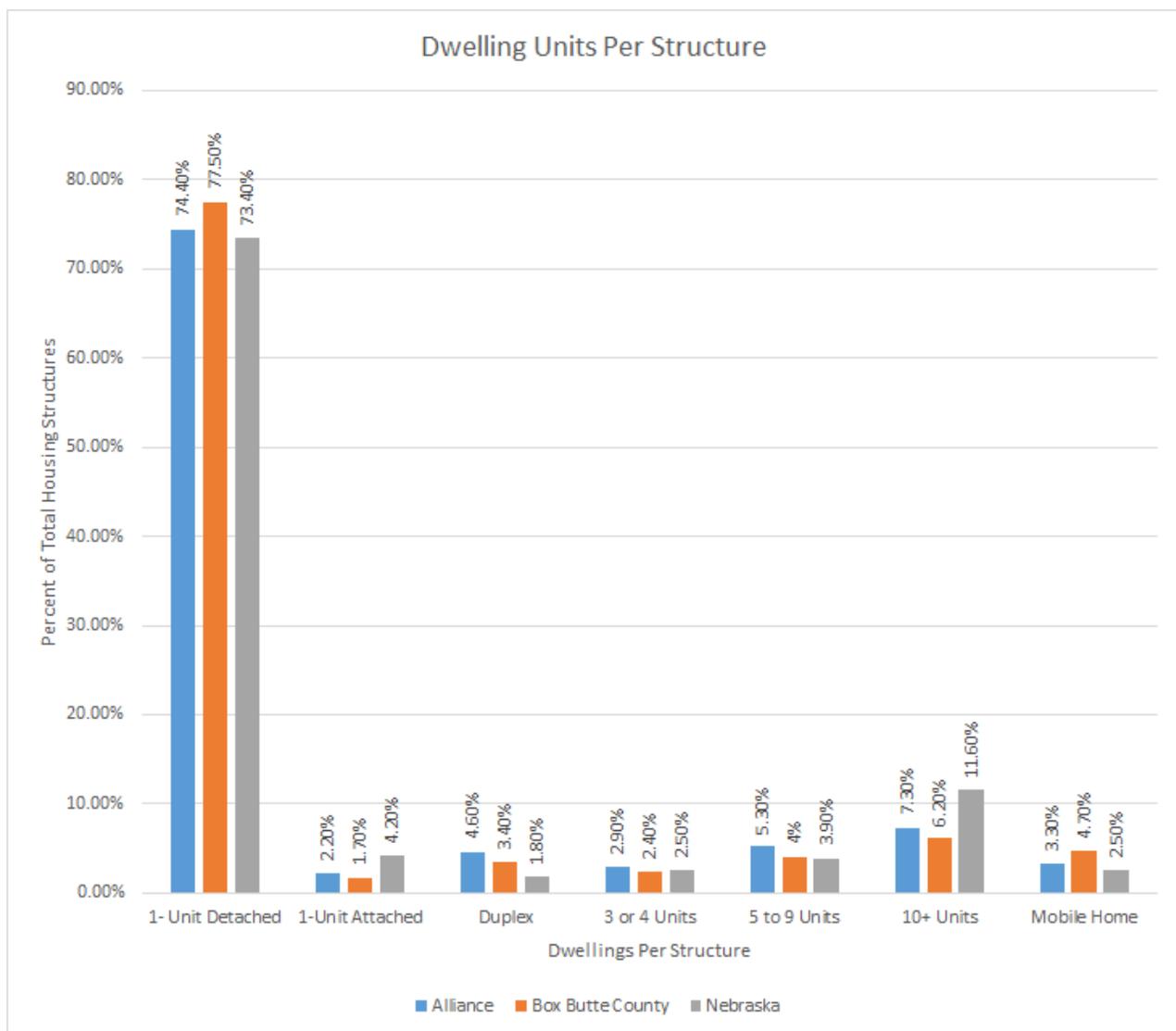


Fig. H3

Source: U.S. Census Bureau

Housing Assessed

Year Built

The y-axis identifies the percentage of total housing units and the x-axis lists eight date ranges. Alliance's largest housing construction boom occurred between 1970 and 1979. Older homes (those that were constructed in 1939 or earlier) account for 30.6% of Alliance's total housing stock. This means that nearly one-third of Alliance's homes are at least 80 years old.

New home construction has waned since 1980. Homes constructed between 1980 and now represent 21.6% of Alliance's housings stock. Comparatively, Alliance's home construction patterns are fairly similar to both Box Butte County and Nebraska. The notable exception to this is that Alliance and Box Butte County have lagged behind Nebraska in the percentage of total housing units constructed since 1980.

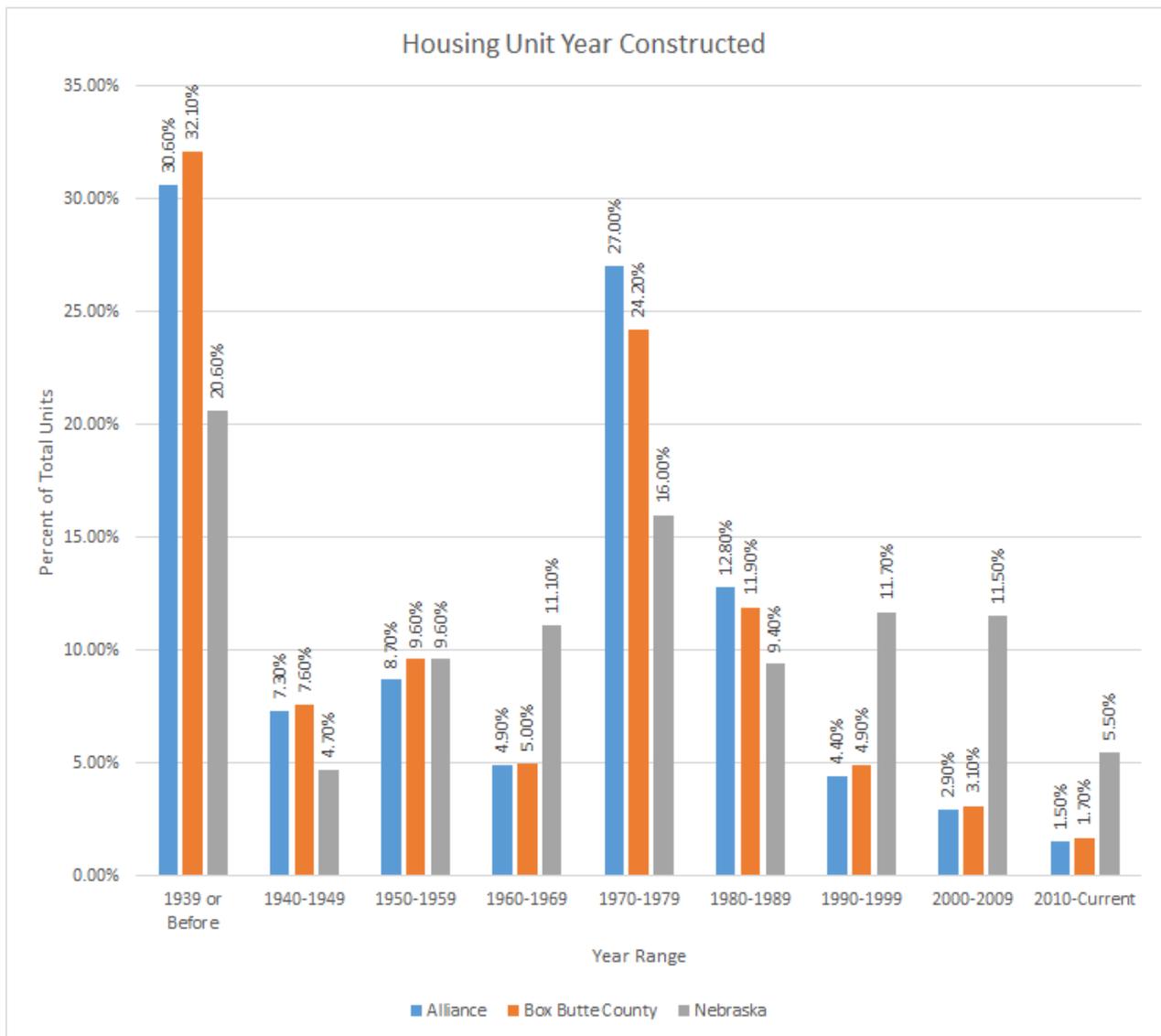


Fig. H4

Source: U.S. Census Bureau

Housing Assessed

Monthly Owner Costs

The percentage of owner-occupied housing units is identified on the y-axis and seven monthly mortgage home owner cost ranges are depicted on the x-axis. Eight tenths of a percent of Alliance home owners that have a mortgage spend less than \$500 per month on household ownership costs, about 28.7% spend \$500 to \$999 per month on household ownership costs, and 45.3% spend \$1000 to \$1499 per month on household ownership costs.

Nineteen and a half percent of Alliance home owners with a mortgage spend \$1,500 to \$1,999 on household ownership costs and 5.8% of Alliance home owners with a mortgage spend more than \$2000 on household ownership costs. This is significantly lower than the Nebraska average for those spending \$2000 or more on household ownership costs(19.3%).

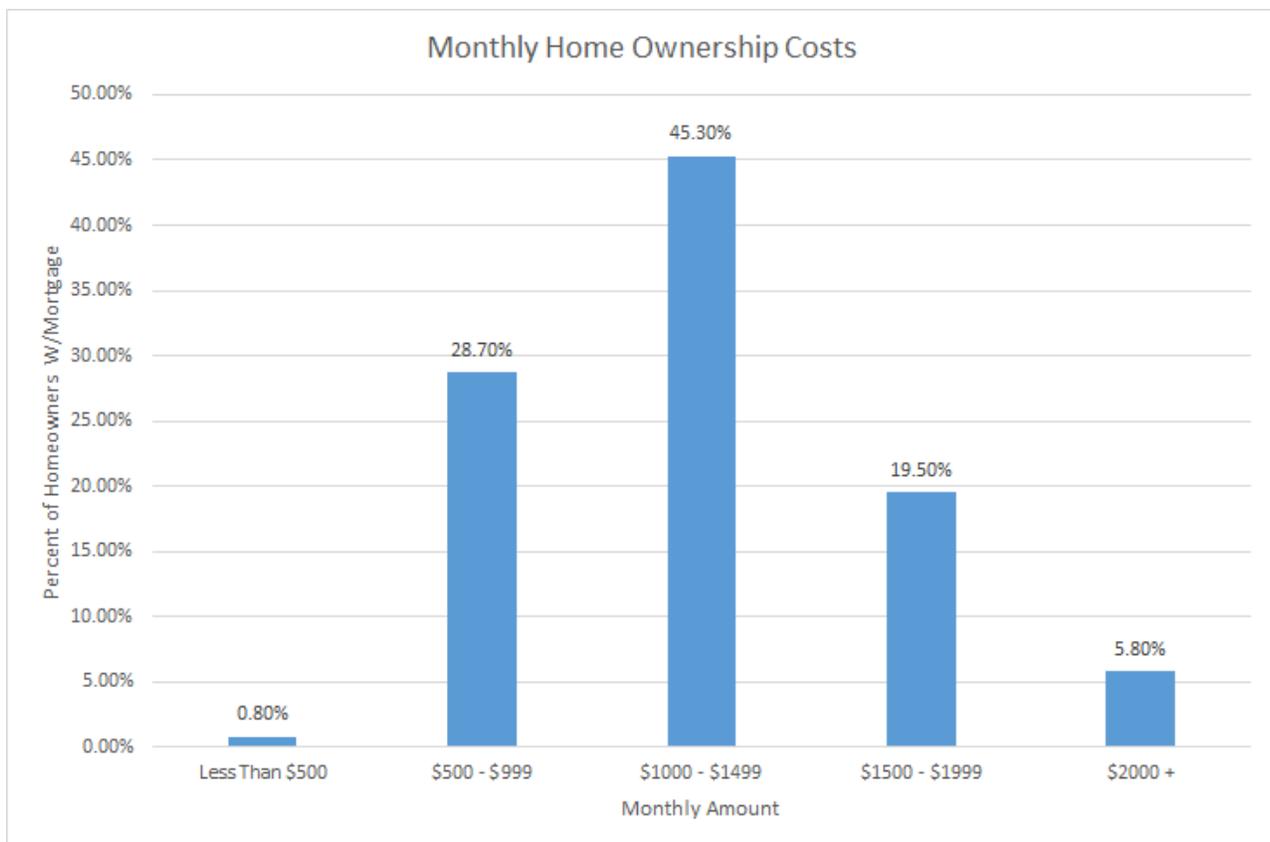


Fig. H5

Source: U.S. Census Bureau

Housing Assessed

Monthly Rental Costs

The percentage of rental-occupied housing units is depicted on the y-axis and rental cost ranges are depicted on the x-axis. Nearly 30% of Alliance renters spend less than \$500 per month on housing costs, 66.6% spend \$500 to \$999 per month on housing costs. Box Butte County's monthly rental cost breakdown is similar to Alliance's.

However, significant differences exist between the rental cost range percentages between Alliance and the state of Nebraska. The monthly rental cost range of \$1000 to \$1499 offers the most striking difference. Only 4.9% of Alliance renters are in this range compared to 23.5% of Nebraska renters.

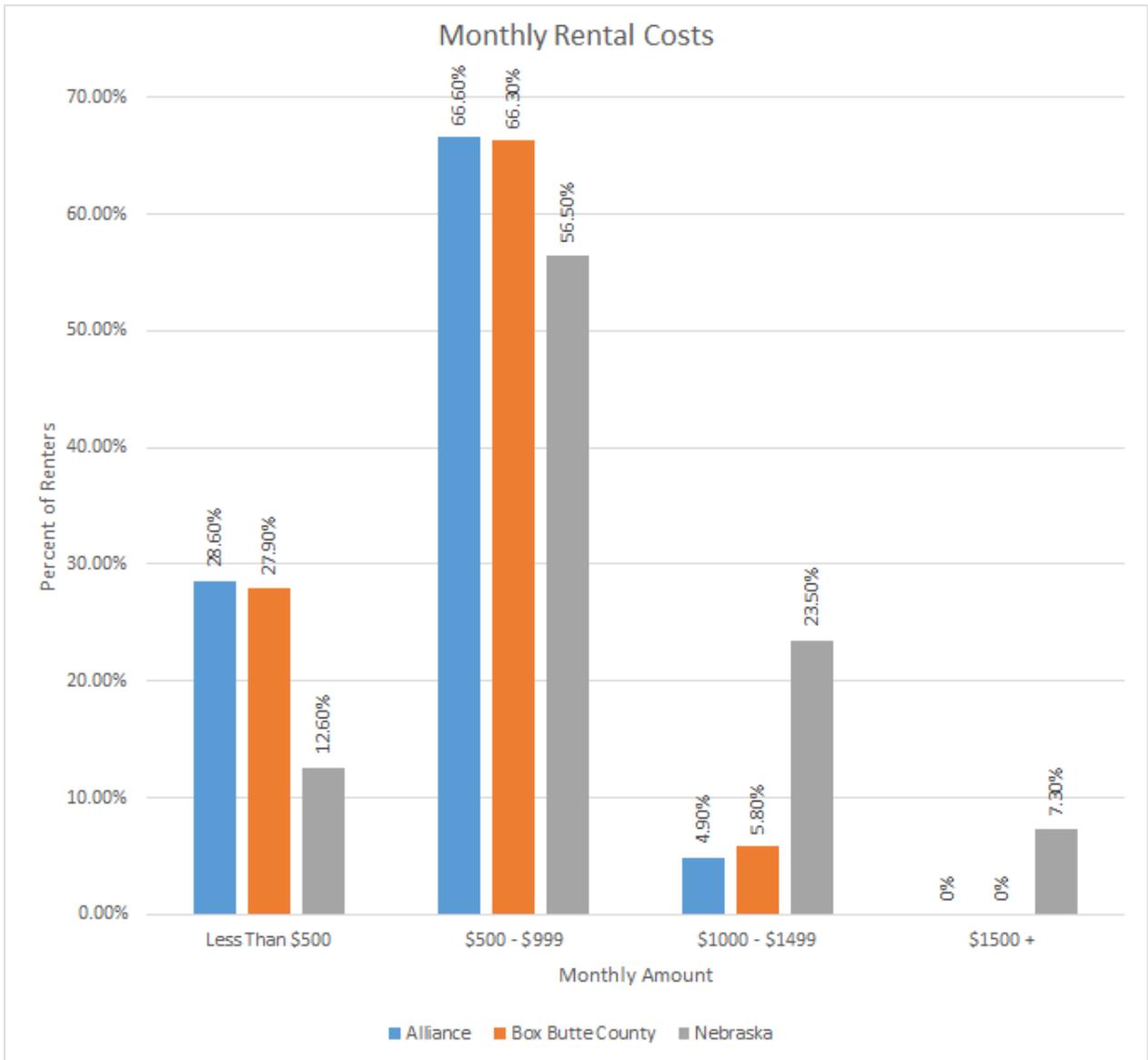


Fig. H6

Source: U.S. Census Bureau ACS

Housing Assessed

**Tenure By Household Size
Owner-Occupied Housing Units**

The percentage of owner-occupied housing units is depicted on the y-axis and four household sizes are depicted on the x-axis. Approximately 42% of Alliance's owner-occupied housing units are inhabited by two-person households,

24.9% of Alliance owner-occupied housing units are inhabited by one-person households, and 11.9% of Alliance owner-occupied housing units are inhabited by three-person households. About 21% of Alliance's owner-occupied housing units are inhabited by 4 or more persons.

When we compare Alliance's tenure of owner-occupied housing units by household size to Box Butte County and the state of Nebraska, we find that the statistics are very similar.

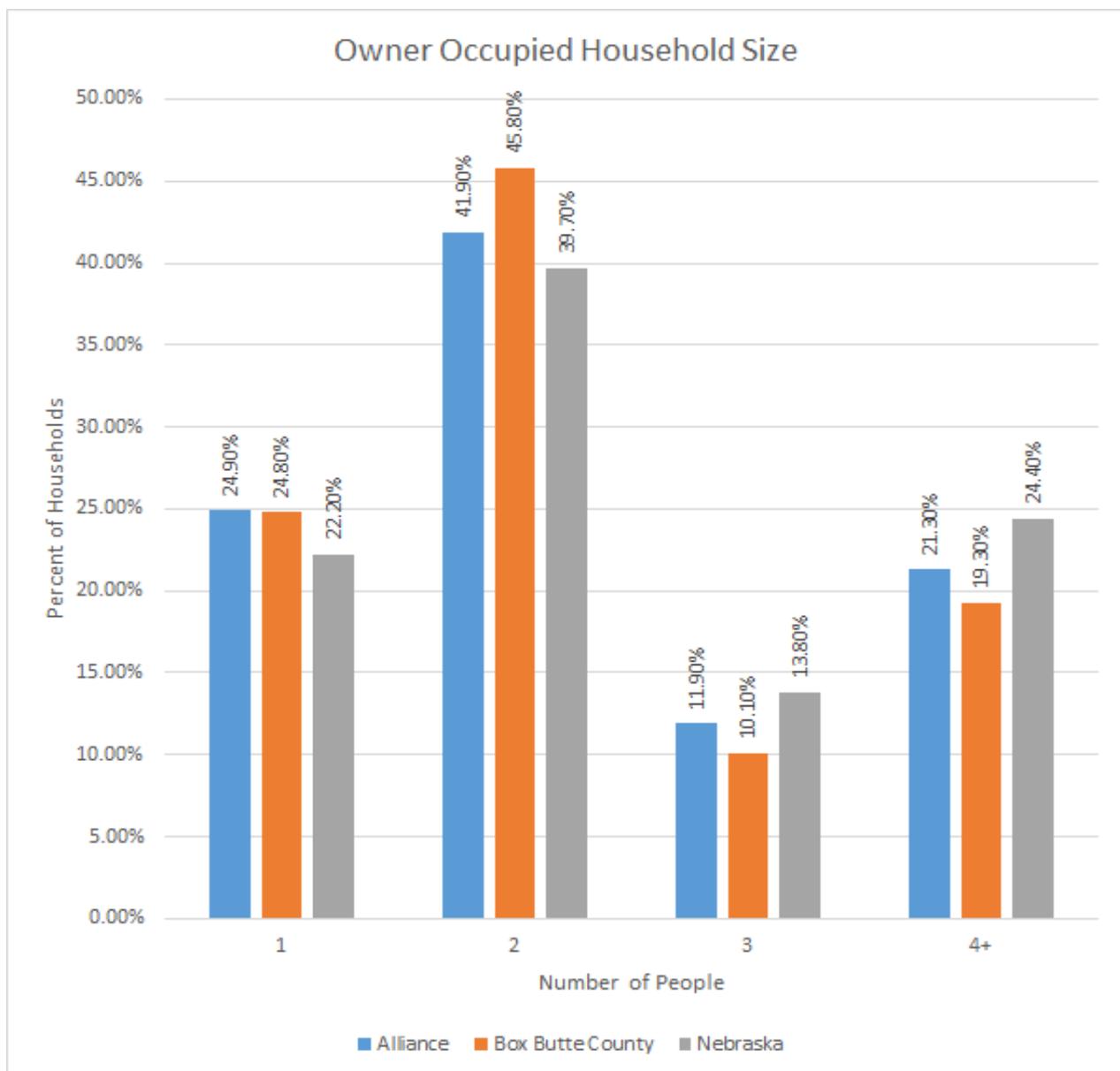


Fig. H7

Source: U.S. Census Bureau ACS

Housing Assessed

Tenure by Household Size Renter Occupied Housing Units

This graph identifies the tenure of renter-occupied housing units by household size in Alliance, Box Butte County, and the state of Nebraska. The percentage of renter-occupied housing units is depicted on the y-

axis and seven household sizes are depicted on the x-axis. With 51.5% of the renter-occupied housing units, one-person households occupy the highest percentage of renter-occupied housing in Alliance. The three-person household size contains the least amount of households at 10.5%.

When we compare Alliance's tenure of renter-occupied housing units by housing size to Box Butte County and the state of Nebraska, we find that th statistics are very similar.

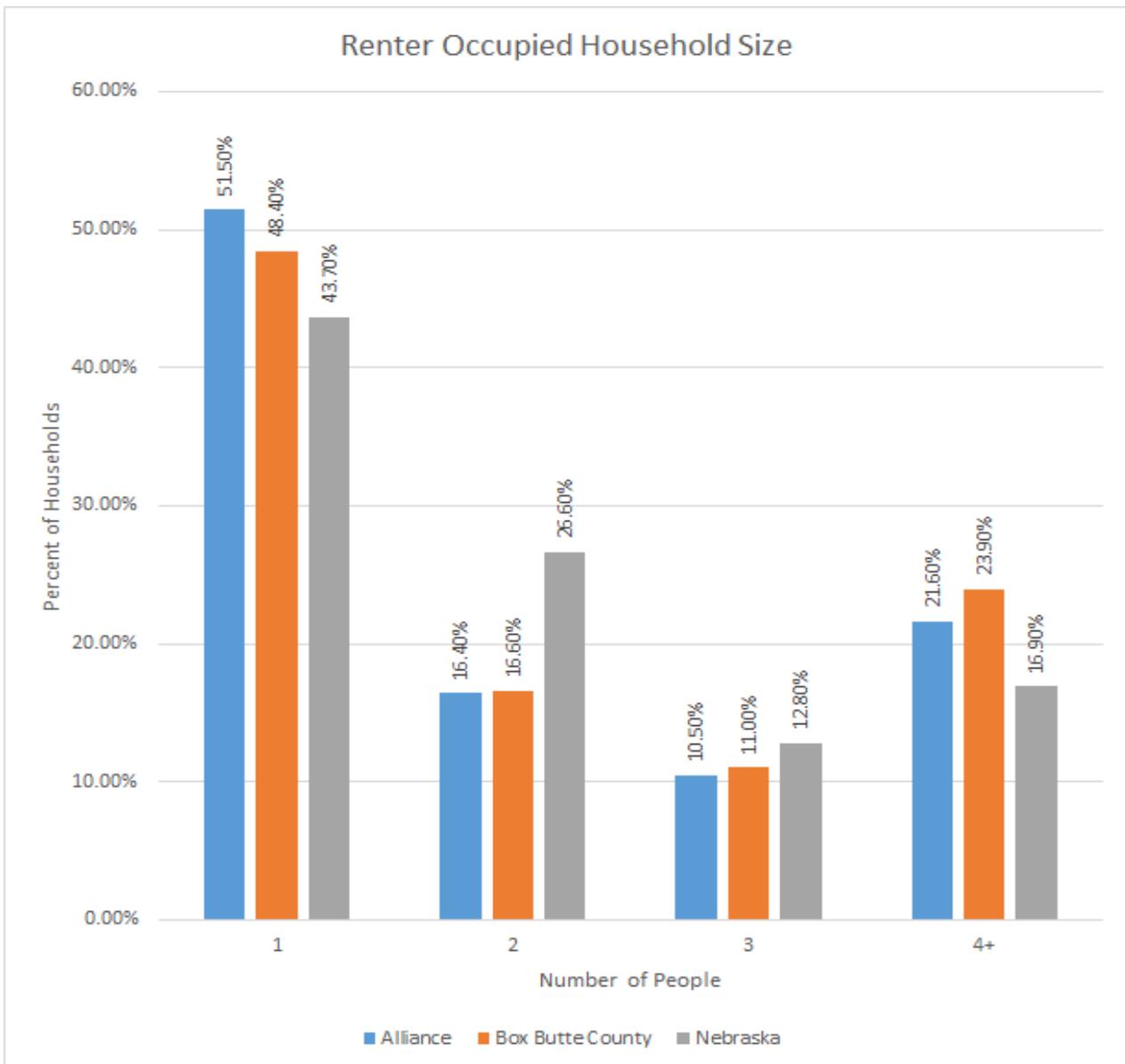


Fig. H8

Source: U.S. Census Bureau ACS

Housing Assessed

Home Value

The y-axis identifies the percentage of total housing units and the x-axis lists eight price ranges. Comparatively, the value of Box Butte County homes is similar and consistent with Alliance home values. There are small discrepancies in value between Alliance homes and Nebraska homes but they primarily follow the same trends and fall in the same pricing categories.

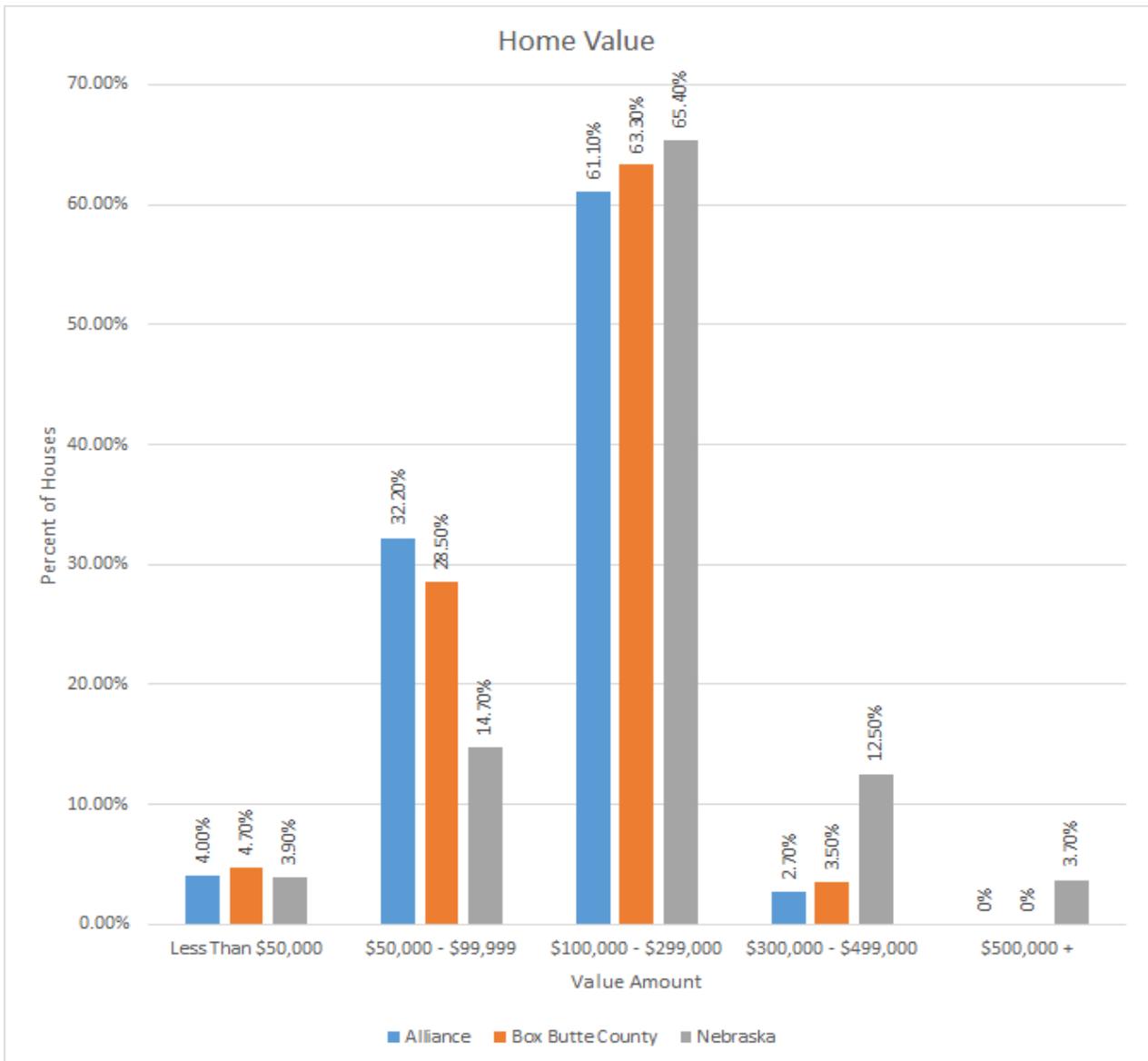


Fig. H9

Source: U.S. Census Bureau

Housing Assessed

Tenure by Age of Owner Occupied Housing Units

This graph identifies the tenure of owner-occupied housing units by age of householder in Alliance, Box Butte County, and the state of Nebraska. The percentage of owner-

occupied housing units is depicted on the y-axis and age cohorts are depicted on the x-axis. The 55 to 64 age cohort occupies the highest percentage of owner occupied housing in Alliance, Box Butte County, and Nebraska.

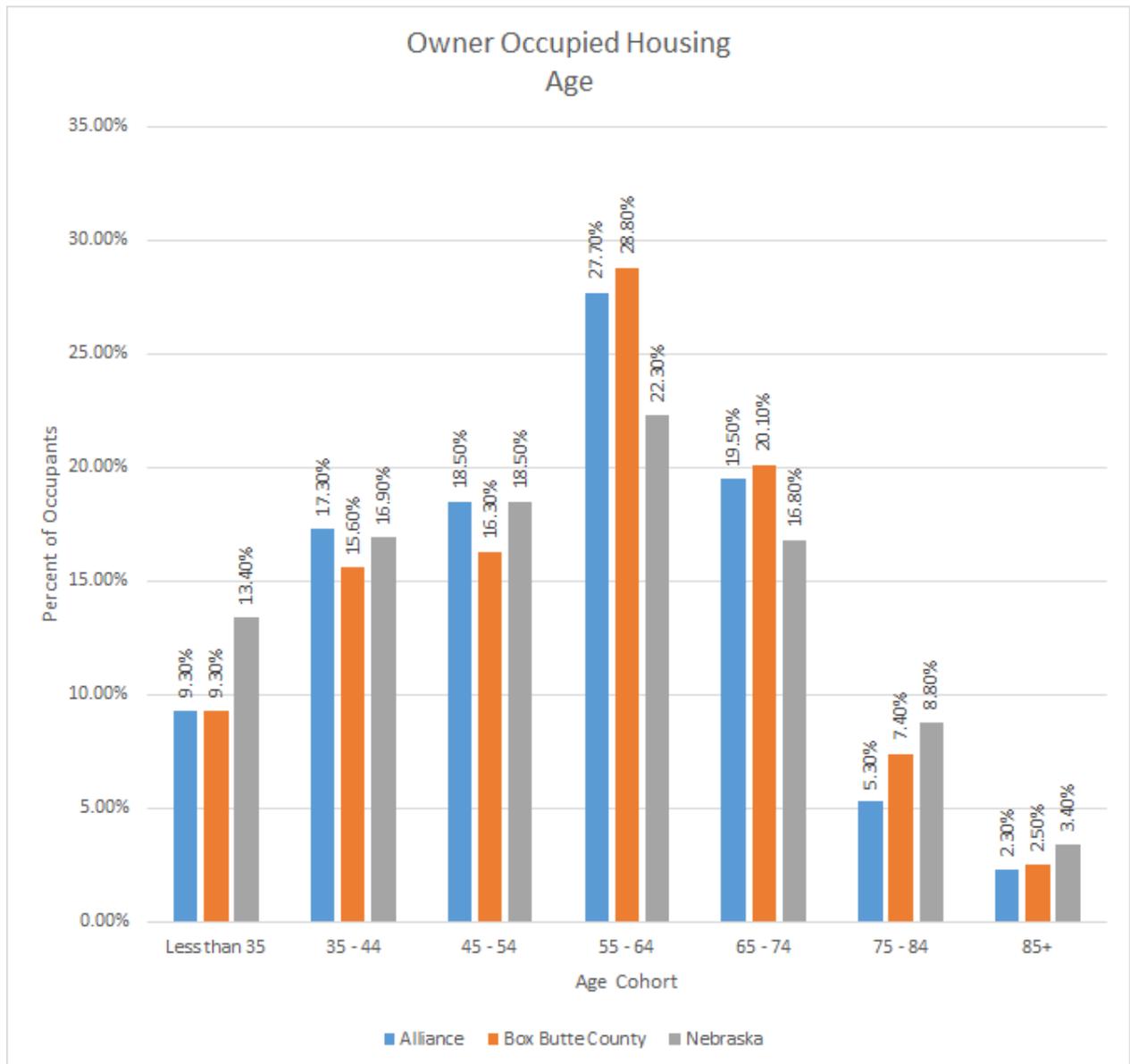


Fig. H10

Source: U.S. Census Bureau

Housing Assessed

Tenure by Age of Renter Occupied Housing Units

This graph identifies the tenure of renter-occupied housing units by age of householder in Alliance, Box Butte County, and the state of Nebraska. The percentage of renter-occupied housing units is depicted on the y-axis and eight age cohorts are contained on the x-axis. With 37.9% of the renter-occupied housing

units, the under 35 age cohort occupies the highest percentage of renter-occupied housing in Alliance. The 35 to 44 age cohort contains the second highest percentage of renters in Alliance. The tenure by age of renter-occupied housing units allocation breakdown is fairly consistent across Alliance, Box Butte County, and the state of Nebraska. Only minor discrepancies exist.

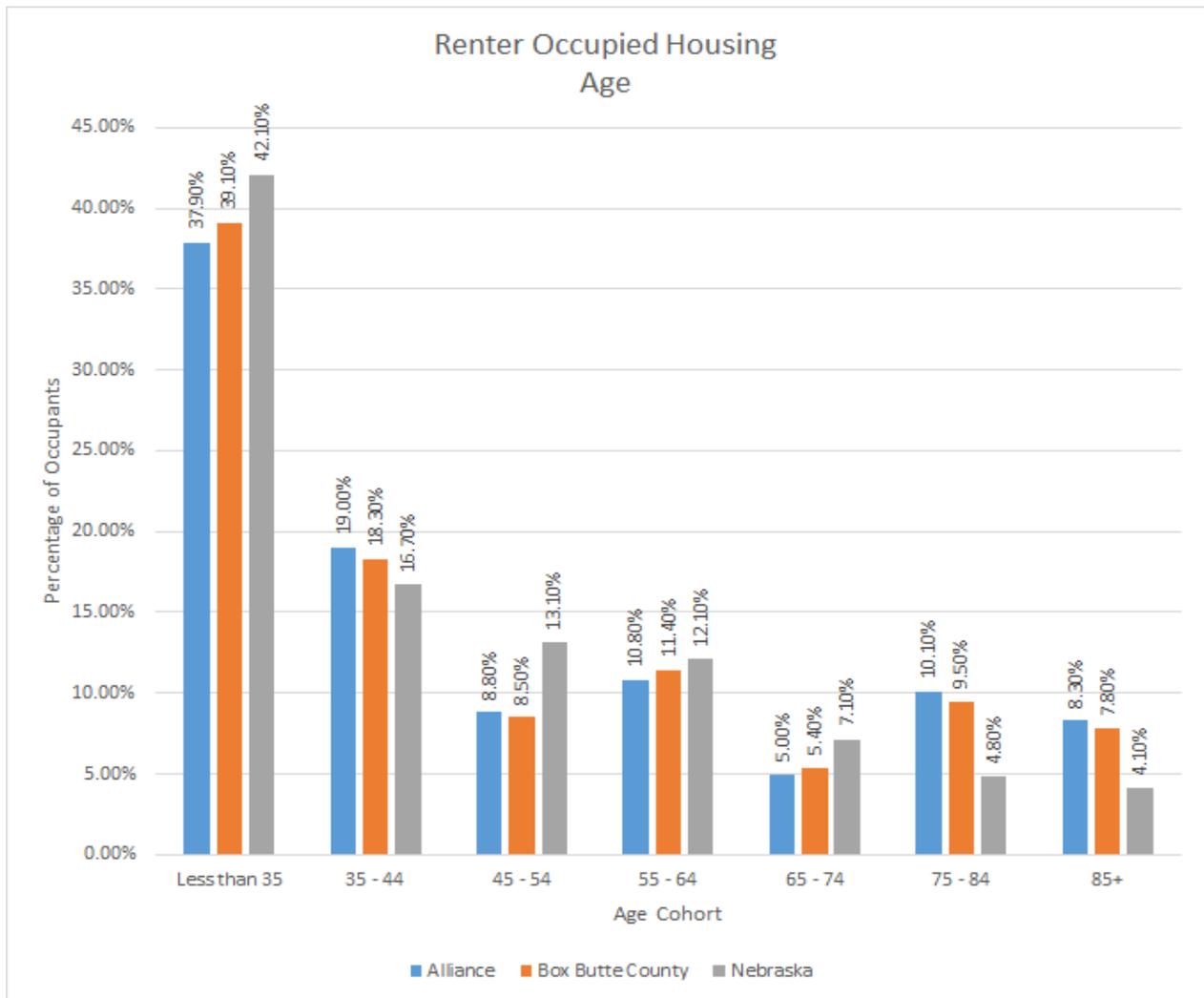


Fig. H11

Source: U.S. Census Bureau

Housing Assessed

Comparable Communities Assessed

Newly Authorized Housing Units (2014-2022)

The y-axis displays the number of housing units constructed between 2014 and 2022 according to the American Community Survey. Alliance had 9 new units, Gering had 6 new housing units, Chadron had 25, and Scottsbluff had 25.

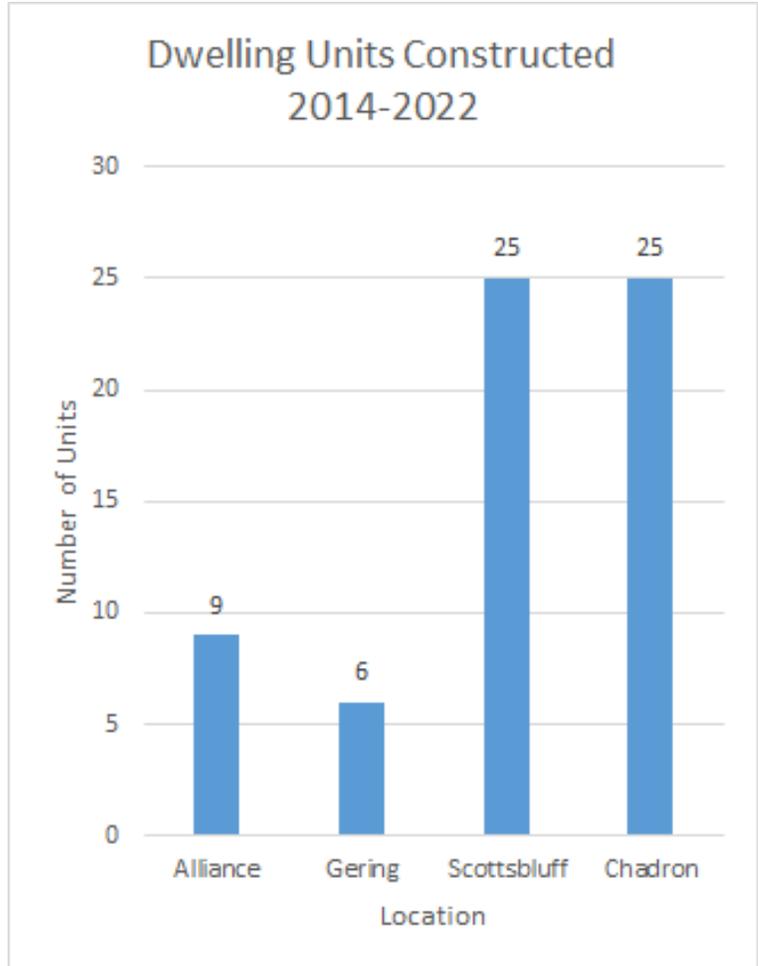


Fig. H12

Source: ACS

Housing Assessed

Homeowner Vacancy Rate

The y-axis displays the homeowner vacancy rate and the x-axis contains the names of the comparable communities. The U.S. Census Bureau defines the homeowner vacancy rate as, “the number of vacant housing units offered for sale only divided by the total number of owner housing units, expressed as a percentage. The numerator does not include vacant units that are offered either for rent or sale.” With a homeowner vacancy rate of .6%, Alliance has a slightly lower homeowner vacancy rate than the state of Nebraska, which has a homeowner vacancy rate of .9%. Comparatively, Chadron and Gering have homeowner vacancy rates of 0%, and Scottsbluff has a homeowner vacancy rate of 1.5%. Of the comparable communities, Scottsbluff has the highest homeowner vacancy rate and Chadron and Gering have the lowest homeowner vacancy rate.

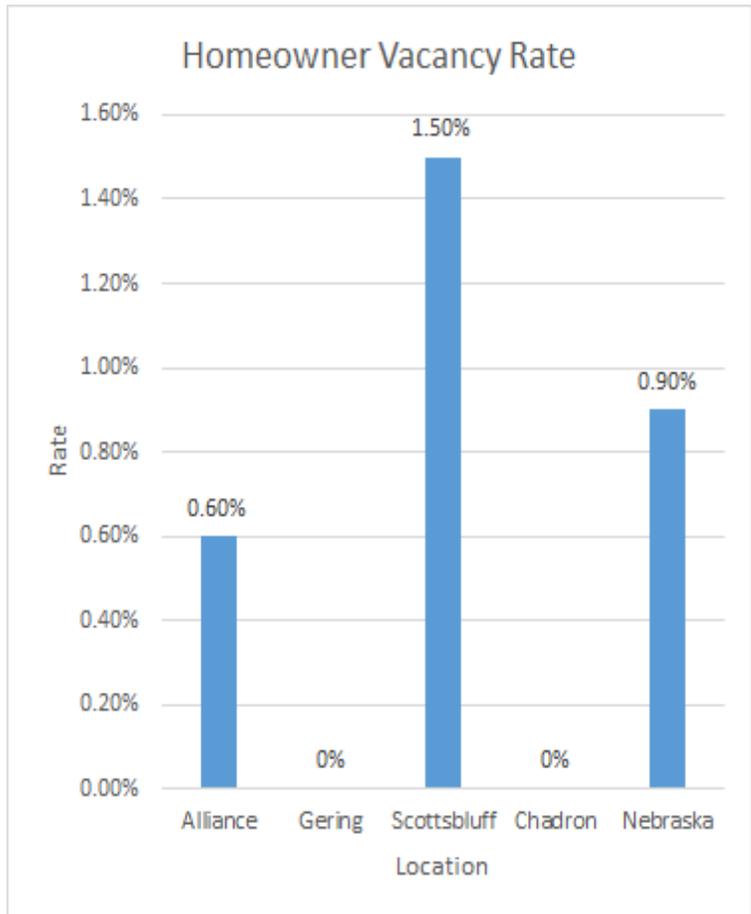


Fig. H13

Source: ACS

Housing Assessed

Rental Vacancy Rate

The y-axis displays the rental vacancy rate and the x-axis contains the names of the comparable communities. The University of New Mexico defines the rental vacancy rate as, "the percentage relationship of the number of vacant units for rent to the total rental inventory. It is computed by dividing the number of vacant units for rent by the sum of the renter-occupied units and the number of vacant units for rent." With a rental vacancy rate of 8.3%, Alliance has a higher rental vacancy rate than the state of Nebraska, which has a rental vacancy rate of 5.4%. Comparatively, Gering has a rental vacancy rate of 2%, Scottsbluff has a rental vacancy rate of 4.3%, and Chadron has a rental vacancy rate of 11.7%. Of the comparable communities, Alliance has the second highest rental vacancy rate and Gering has the lowest rental vacancy rate.

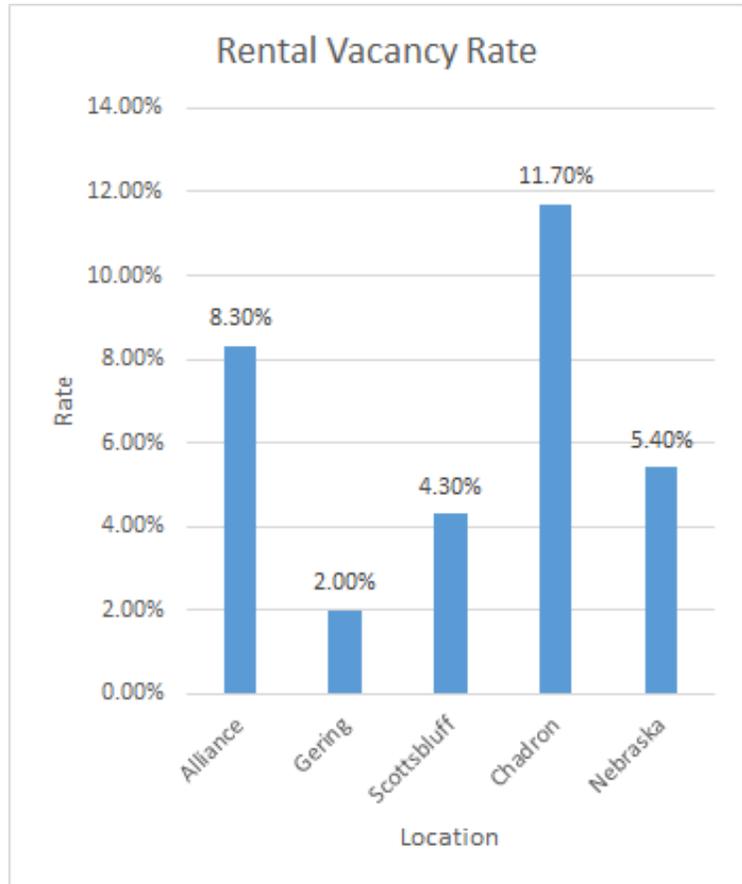


Fig. H14

Source: ACS

Housing Assessed

Homeownership Rate

The y-axis displays the homeownership rate and the x-axis contains the names of the comparable communities. The homeownership rate is defined by the U.S. Census Bureau as, "the proportion of households that own their housing units. The rate is calculated by dividing the number of households that are owners (owner-occupied housing units) by the total number of households (total occupied housing units).

The owner or co-owner must live in the unit." With a homeownership rate of 66.6%, Alliance has a slightly higher homeownership rate than the state of Nebraska, which has a homeownership rate of 66.2%.

Comparatively, Gering has a homeownership rate of 73%, Scottsbluff has a homeownership rate of 54.7%, and Chadron has a homeownership rate of 57%. Of the comparable communities, Scottsbluff has the lowest homeownership rate and Gering has the highest homeownership rate.

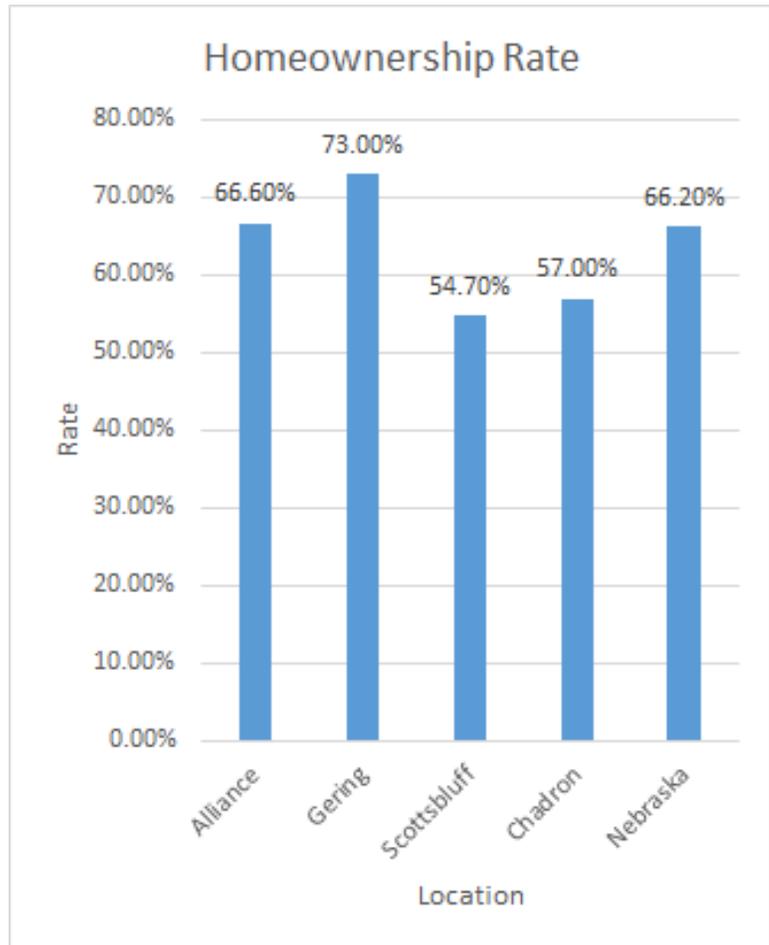


Fig. H15

Source: ACS

Housing Assessed

Percent of Housing Built Before 1970

The y-axis displays the percentage of housing units built before 1970 and the x-axis contains the names of the comparable communities. With 50.5% of its homes built prior to 1970, Alliance's housing stock is slightly younger than Nebraska's housing stock at 45.5%.

Comparatively, 59.7% of Scottsbluff's housing units were built before 1970, 40.9% of Gering's, and 70.6% of Chadron's housing units were built before 1970. Of the comparable communities, Chadron has the highest percentage of housing units built before 1970 and Gering has the lowest percentage of housing units built before 1970.

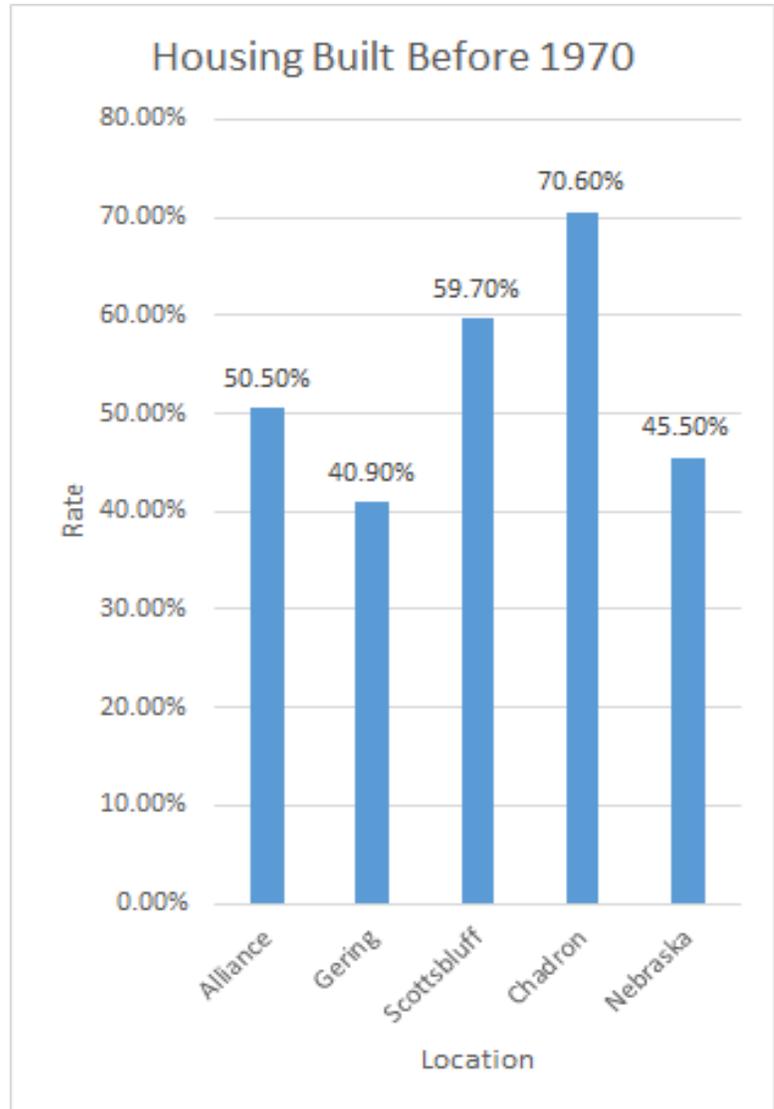


Fig. H16

Source: ACS

Housing Assessed

Median Home Loan Amount

The y-axis displays the average house loan amount and the x-axis contains the names of the comparable communities. With a median loan amount of \$132,400, the median house loan amount in Alliance is lower than the state of Nebraska at \$165,600. Comparatively, the median house loan amount in Scottsbluff is \$123,000, \$147,000 in Gering, and the median house loan amount in Chadron is \$137,800. Of the comparable communities, Scottsbluff has the lowest median house loan amount and Gering has the highest.



Fig. H17

Source: ACS

Housing Assessed

Percentage of Renter Occupied Households with Cost Burden

The y-axis displays the percentage of households with a cost burden and the x-axis contains the names of the comparable communities. The U.S. Census Bureau states, "A household has a housing cost burden if it spends 30% or more of its income on housing costs." In Alliance, 41.3% of the households have a housing cost burden.

This means that over 1/3 of all Alliance households spend 30% or more of their income on housing costs. Comparatively, the Nebraska average is 38.8%, 33.5% of Gering households have a housing cost burden, 42.8% of Scottsbluff households have a housing cost burden, and 25.5% of Chadron households have a housing cost burden. Of the comparable communities, Gering has the lowest percentage of households with a housing cost burden and Scottsbluff has the highest.

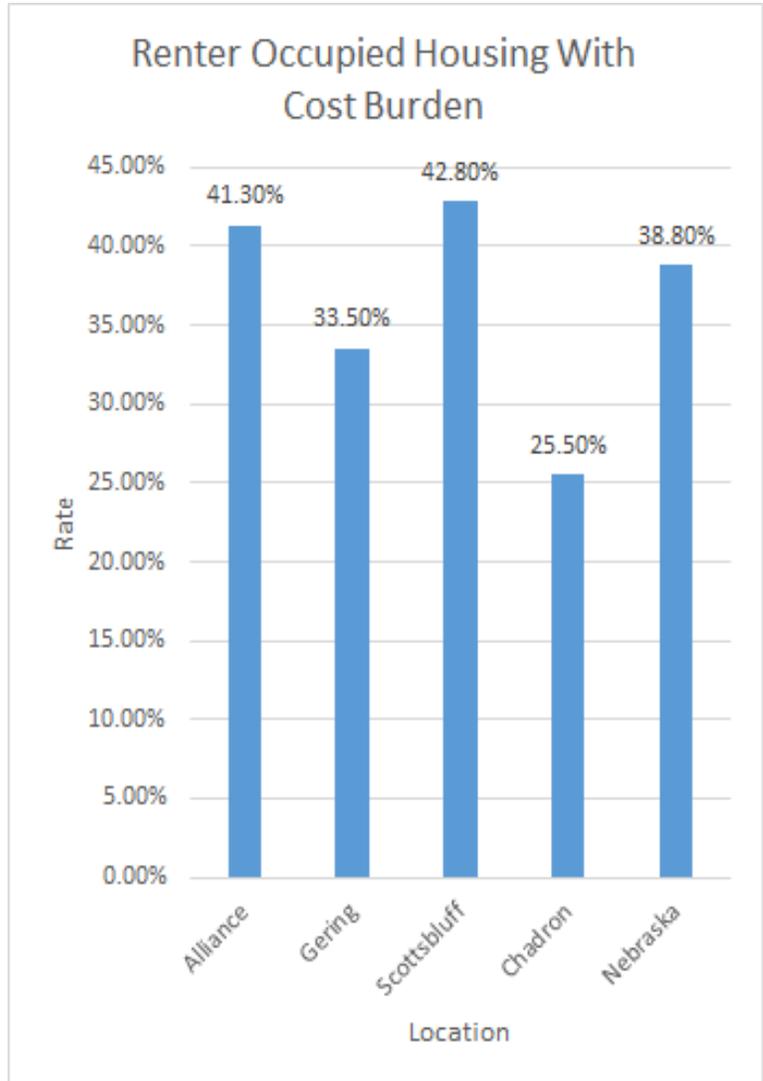


Fig. H18

Source: ACS

Housing Assessed

Percent of Owner Occupied Households with Cost Burden

The y-axis displays the percentage of households with a severe cost burden and the x-axis contains the names of the comparable communities. The U.S. Census Bureau states, "A household has a severe housing cost burden if it spends 30% or more of its income on housing." 23.4% of Alliance's households have a severe housing cost burden. Alliance's percentage of households with a severe housing cost burden is slightly higher than the Nebraska state average of 20.5%. Comparatively, 20.6% of Gering households have a severe housing cost burden, 22.3% of Scottsbluff households have a severe housing cost burden, and 8.9% of Chadron households have a severe housing cost burden.

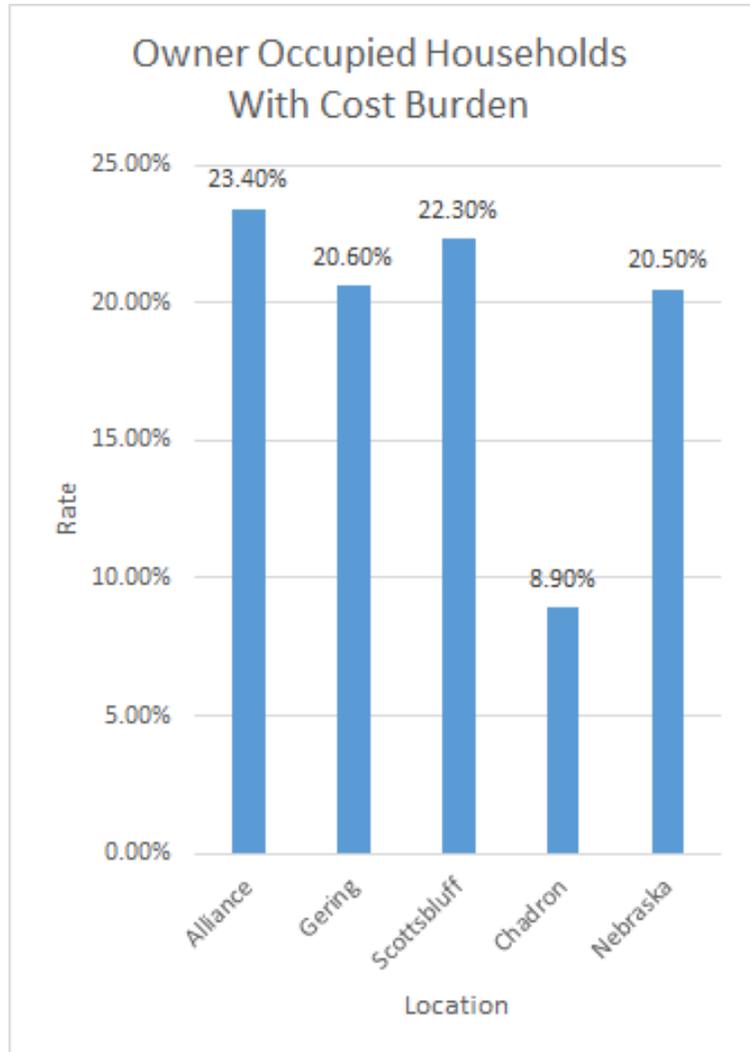


Fig. H19

Source: ACS

Census Tracts Assessed

Census Tract 9512 Profile

Census Tract 9512 encompasses much of northern Alliance. The tract is generally bounded by 10th Street on the south, and the city limits on the east, west, and north. While census tract 9512 is much larger than the area included within Alliance city limits, nearly 1,150 acres of the census tract are within the city boundaries. The tract has a residential housing density of 1.96 dwelling units per acre.

Issues and concerns in tract 9512 include a high percentage of households with a housing cost burden or severe housing cost burden.

The census tract does have a higher than average median household income and a low homeowner vacancy rate. Also, the tract includes several community parks, recreational facilities, and schools.

Census Tract 9512 Map

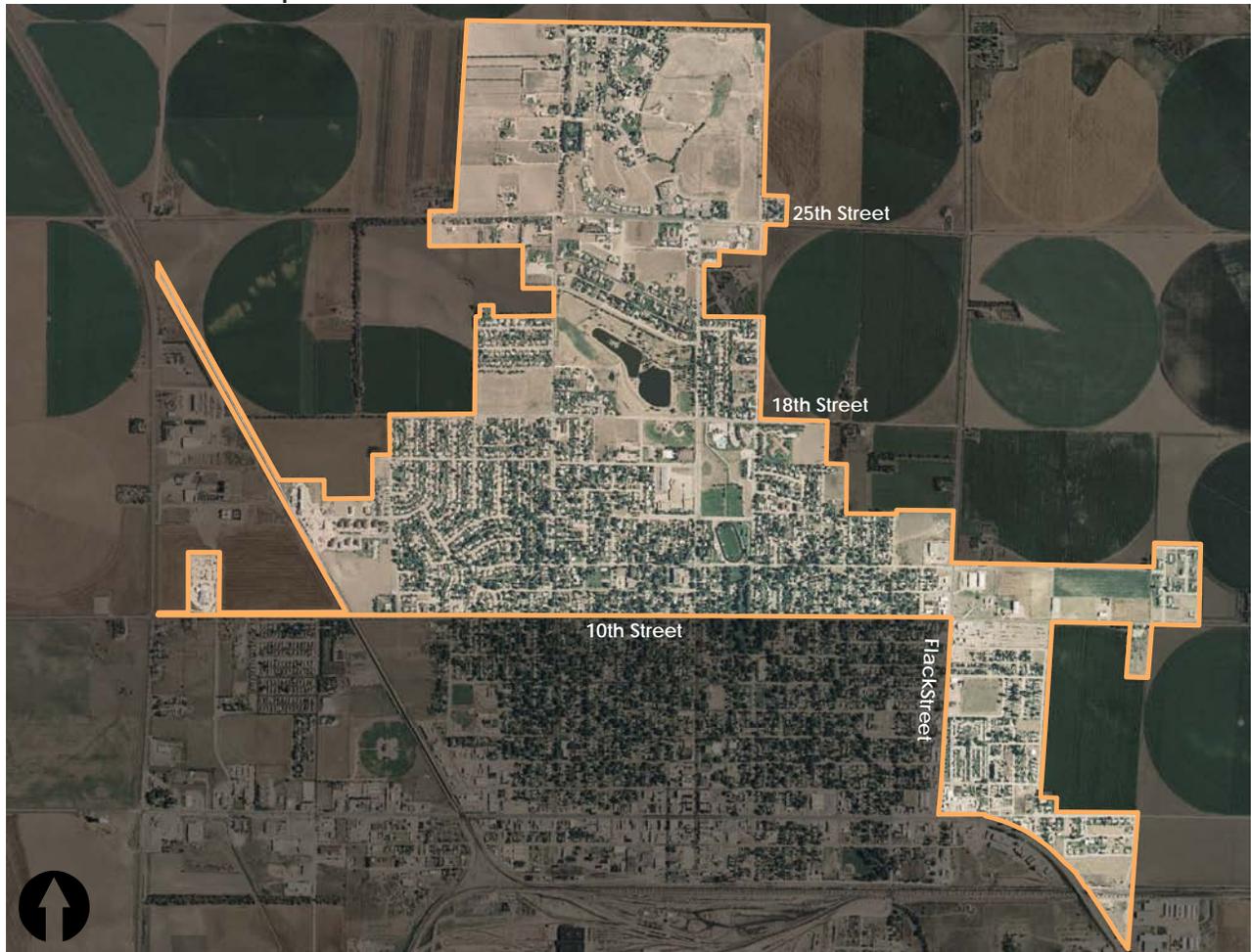


Fig. H20

Census Tracts Assessed

Census Tract 9513 Profile

Census Tract 9513 includes much of southern Alliance. The tract is generally bounded by 10th Street on the north, Highway 385 on the west, Kansas Street on the south, and the city limits on the east. Census tract 9513 is also much larger than the area included within Alliance city limits. About 1860 acres of tract 9513 fall within Alliance city limits. The tract has a residential housing density of 1.1 dwelling units per acre.

Issues and concerns in tract 9513 include a lower than average median household income, high poverty rate, and a significant number of housing structures built before 1970. Also, the tract has very high percentages of households with a housing cost burden or a severe housing cost burden. The census tract includes several community parks and schools. Also, the tract includes a police and fire station.

Census Tract 9513 Map

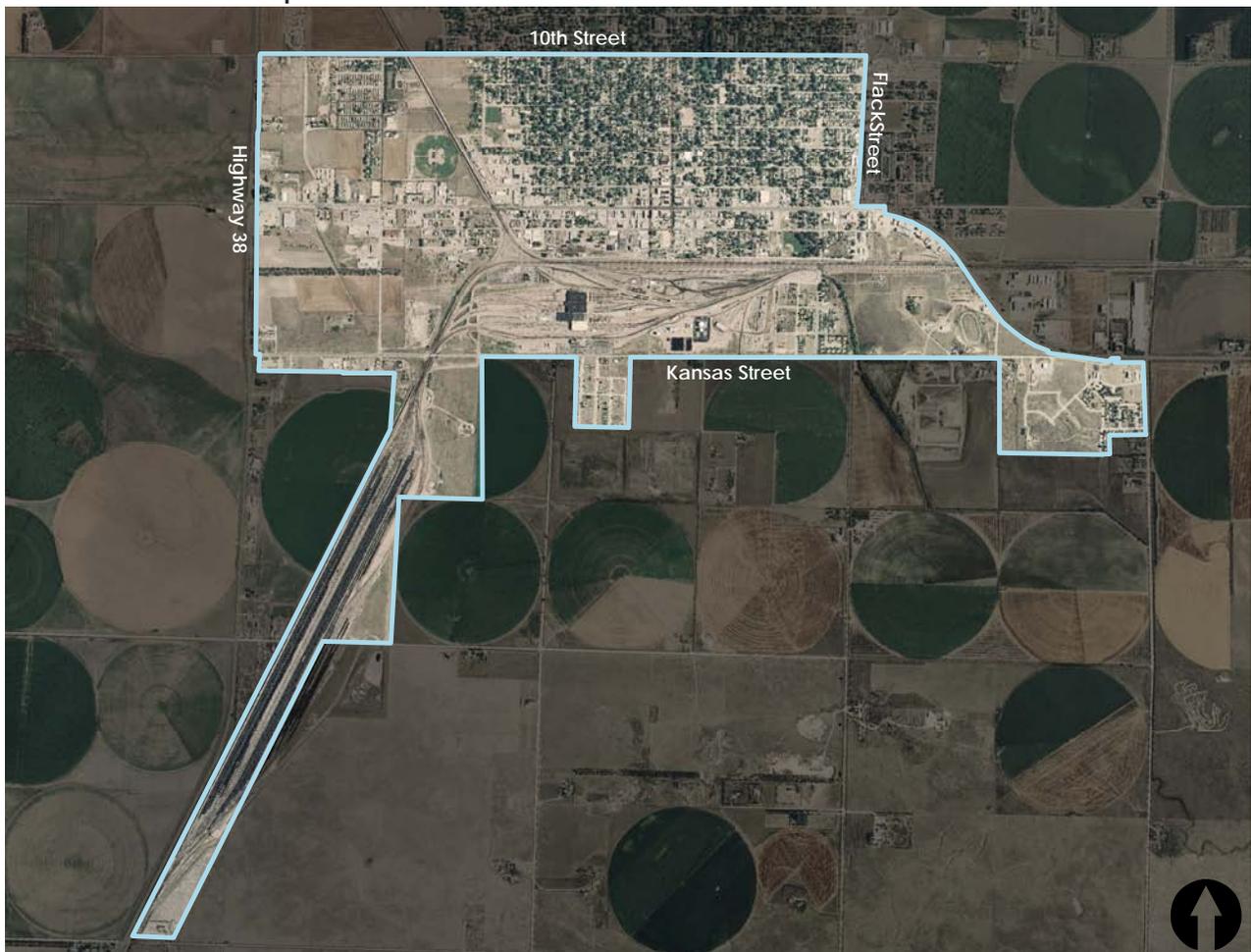


Fig. H21

Census Tracts Assessed

Total Population

This map depicts the total population by census tract for both tracts within the City of Alliance corporate limits. Total population is the number of person living within each census tract. Both Census Tracts extend beyond the Corporate Limits which is why the total of both tracts is more than the population of the City. With a total population of 4,736 persons, census tract 9512

has a slightly higher population than census tract 9513, which has 3,889 persons. While tract 9512 is smaller in size (acres), it contains more housing units and a greater housing density. Another factor that may affect total population is existing land use. The primary land use within tract 9512 is residential, while tract 9513 includes a considerable amount of commercial development.

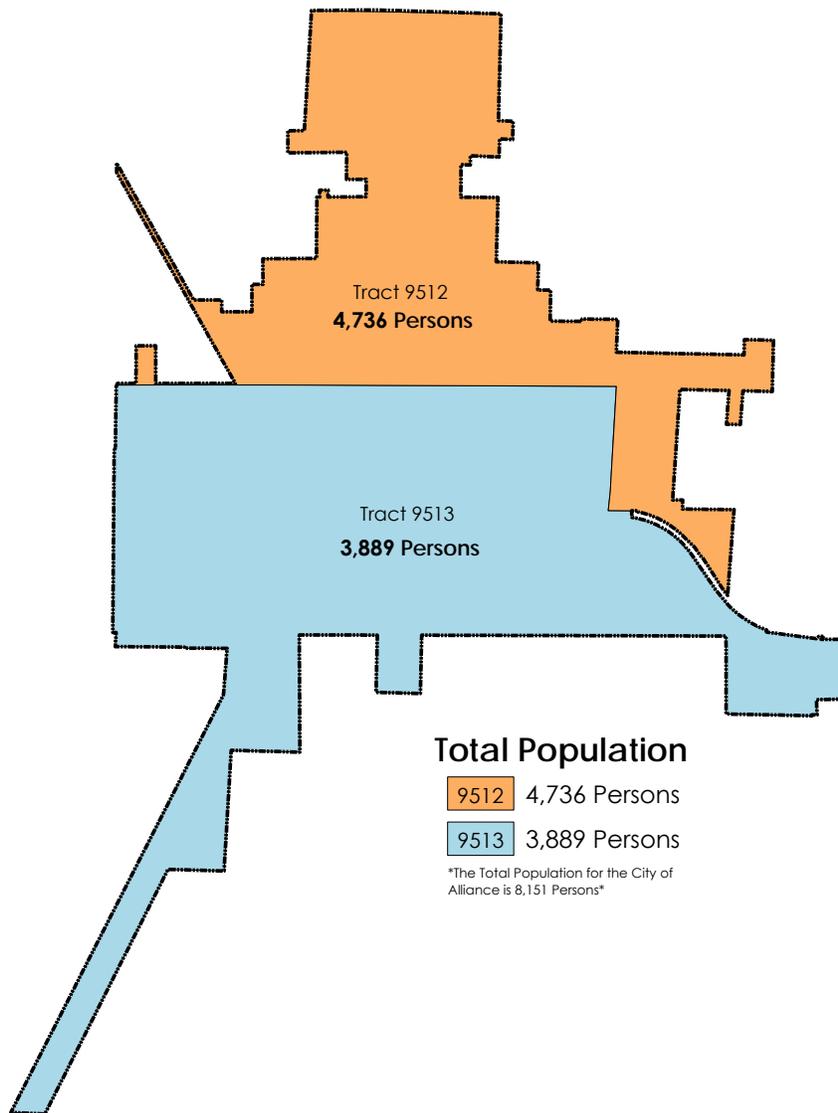


Fig. H22

Census Tracts Assessed

Median Household Income

This map depicts Median Household Income for each census tract within the City of Alliance. In decennial census data, household income includes the income of the householder and all other individuals 15 years old and older in the household, whether they are related to the householder or not. This statistical may indicate or influence available housing types within each census tract.

The difference between median household income between Census tract 9512 and 9513 is relatively minor. Census tract 9512 has a median house-hold income of \$49,883 and census tract 9513 has a median household income of \$51,250. The median income in the State of Nebraska is \$61,439.

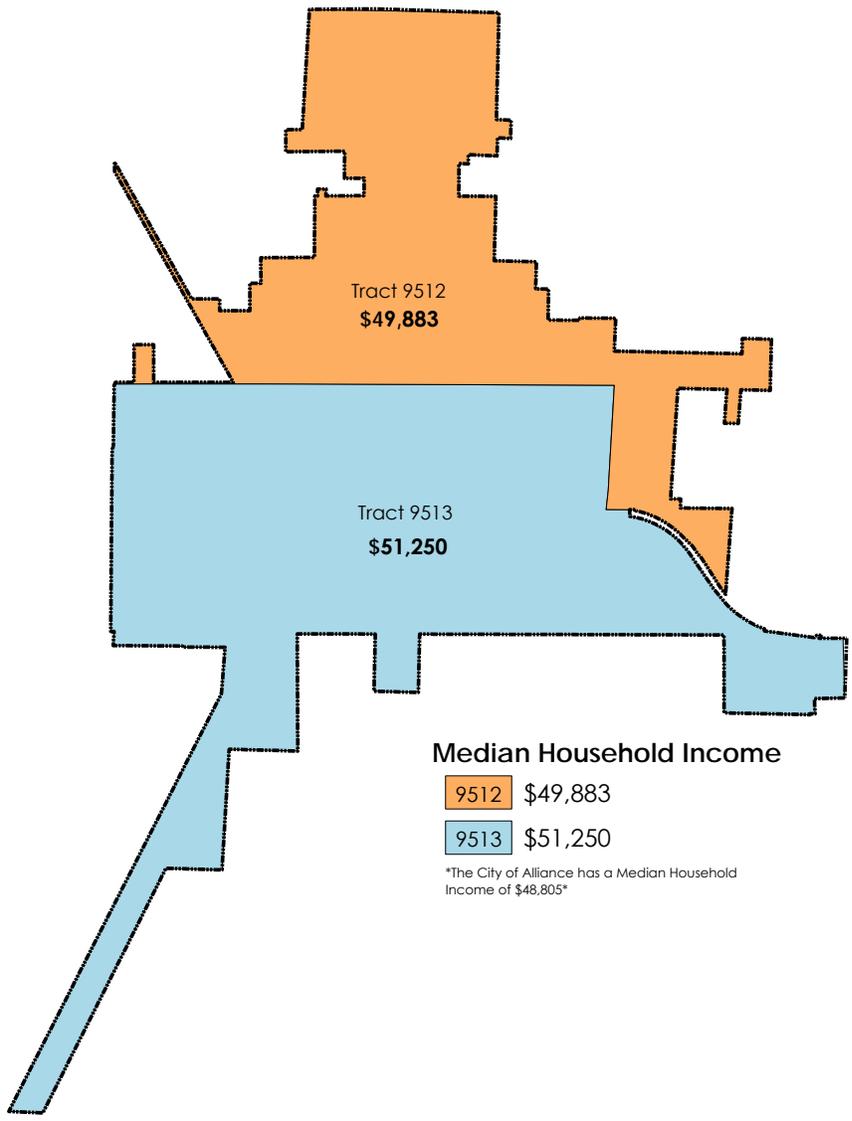


Fig. H23

Census Tracts Assessed

Total Housing Units

This map depicts the total number of housing units found within each census tract. Total housing units is a measure of all total individual living units within the census tract. This statistical measure is also used in determining housing density and persons per household within each tract.

Census tract 9512 has 2,267 units, while census tract 9513 has 1,985 units. Total housing units is the common denominator in determining persons per household. Tract 9512 has an average of 2.49 persons per household. Tract 9513 has an average of 2.21 persons per household.

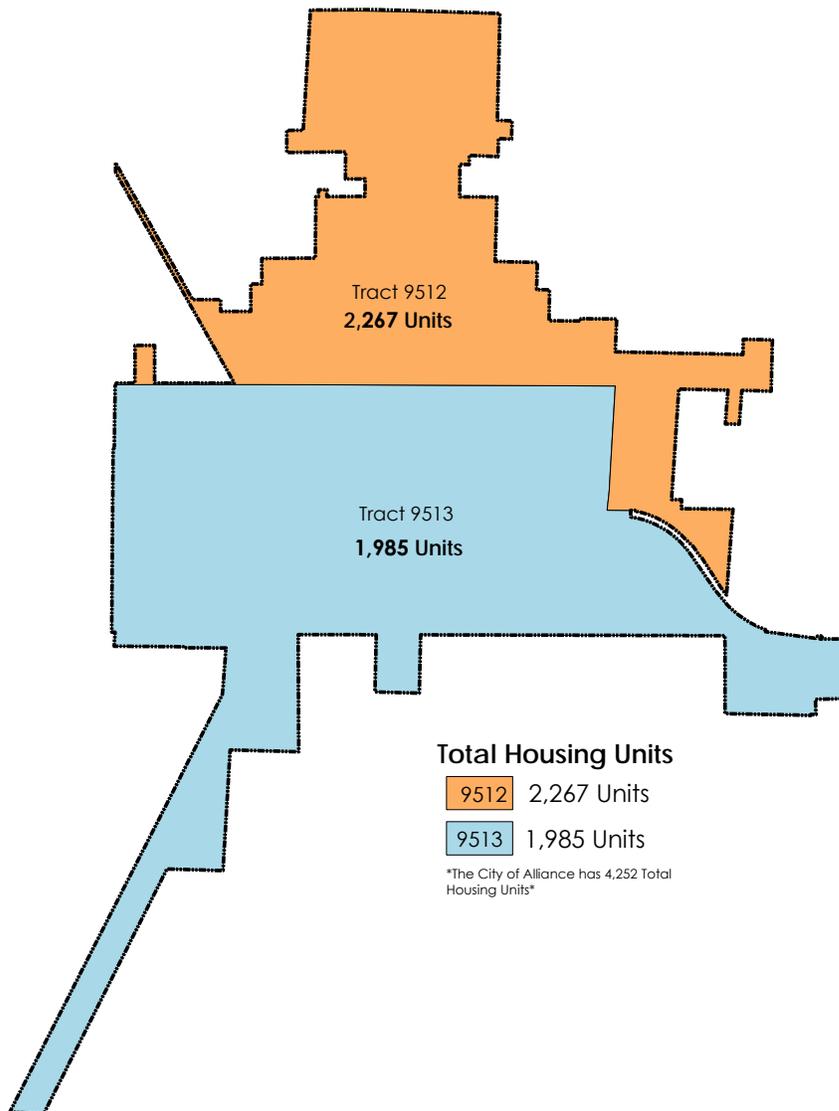


Fig. H24

Census Tracts Assessed

Vacancy Rate

This map depicts vacancy rate as a percentage within each census tract. Vacancy rate measures total vacant housing units as a percent of total housing units within each census tract. The housing vacancy rate is the proportion of housing inventory that is available for “sale” or “rent.” This statistical measure is a common indicator in available housing and housing market viability. High vacancy can have adverse economic impacts on communities.

The national vacancy rate is 11.6% and the state of Nebraska vacancy rate is 9.2%. Both census tracts within the City of Alliance have comparably high vacancy rates. Tract 9512 has an 11.5% vacancy rate, while tract 9513 has a 16.5% vacancy rate. Of the 4,036 housing units in the City of Alliance, nearly 589 units are currently vacant.

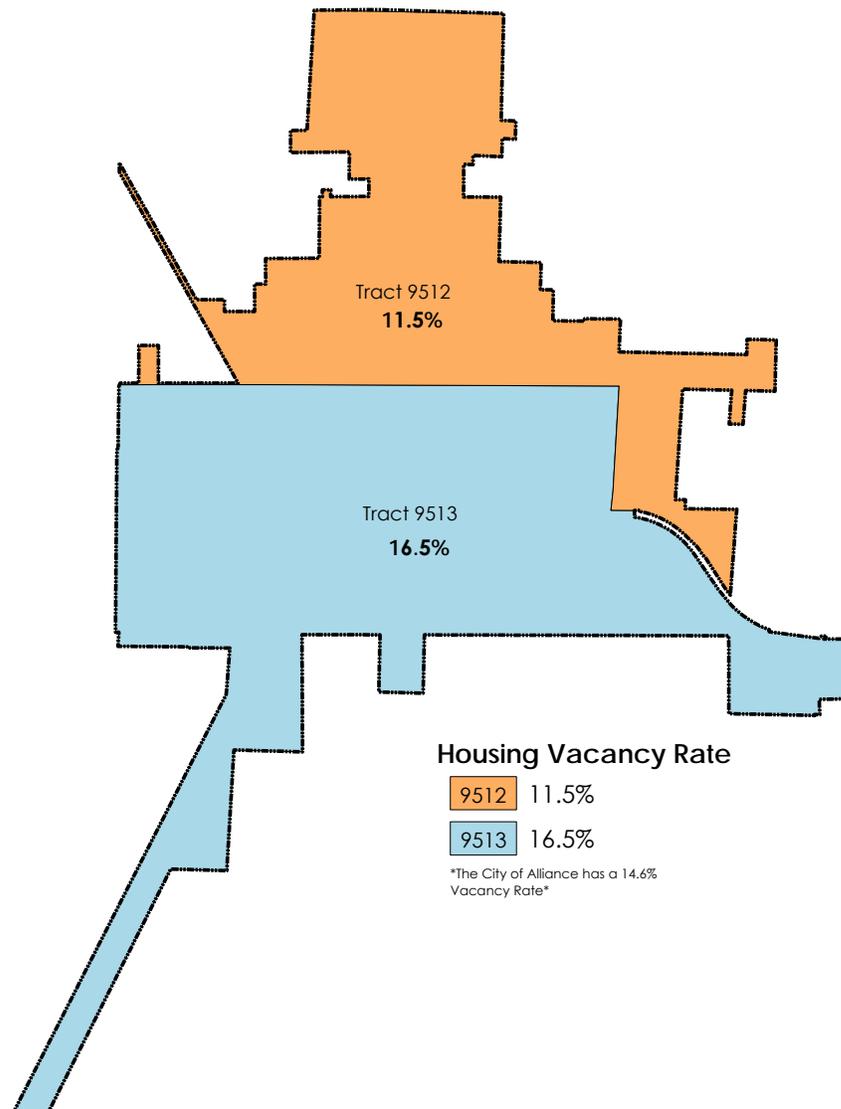


Fig. H25

Census Tracts Assessed

Homeownership Rate

This map depicts the Homeownership Rate as a percentage found within each census tract. The homeownership rate is owner-occupied housing units as a percent of total occupied housing units. Homeownership rate is a strong indicator of community and housing sustainability. Increasing homeownership is a priority in all communities nationwide.

Comparably, homeownership rates in both census tracts is higher than the national (64.4%) and state (66.2%) averages at 66.5% in Tract 9512 and 71% in Tract 9513.

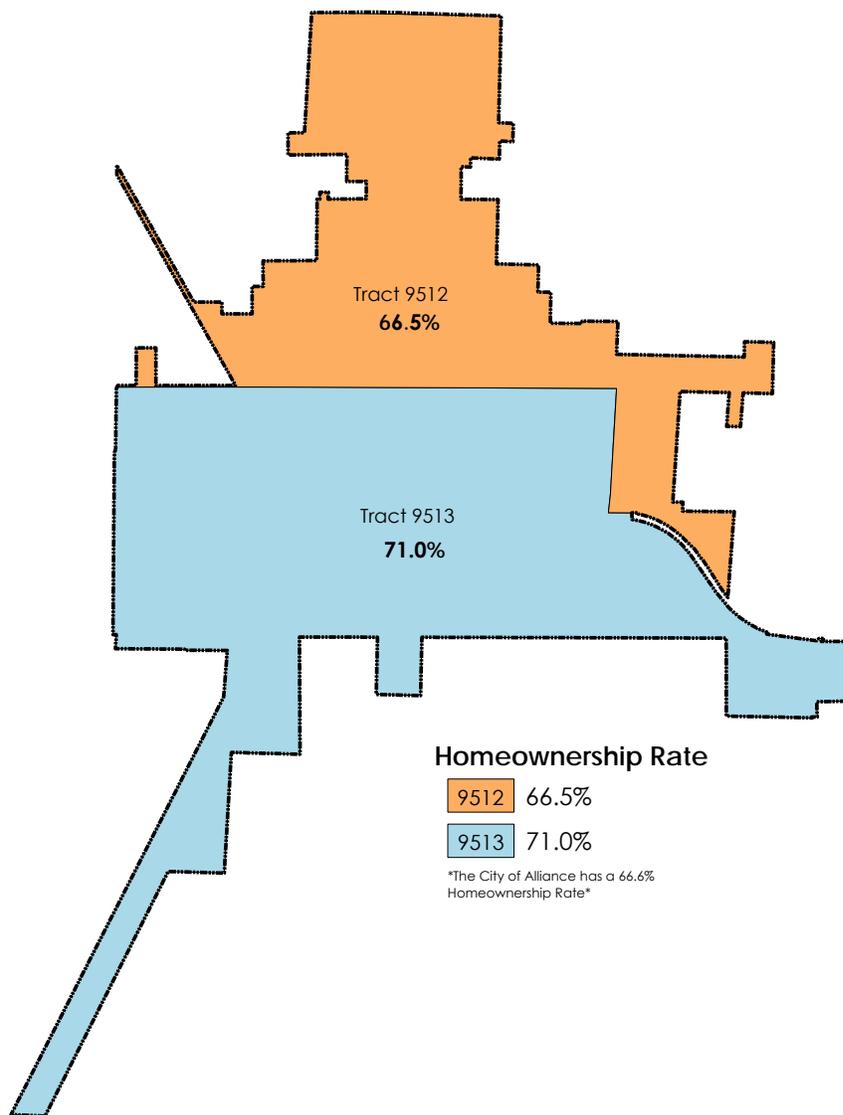


Fig. H26

Census Tracts Assessed

Housing Unit Age

The following table depicts the age of housing units built in Alliance broken down by Census Tract and the entire community. “Year Structure Built” is a census statistical category that refers to when a building was first constructed, not remodeled, expanded, or converted. This statistical measure is a housing sustainability indicator.

It is important to recognize that housing age is not necessarily an indicator of housing quality.

Year Range	Tract 9512	Tract 9513	Alliance
Built 2014 or later	0	9	9
Built 2010 to 2013	73	0	54
Built 2000 to 2009	100	16	116
Built 1990 to 1999	73	103	176
Built 1980 to 1989	382	167	519
Built 1970 to 1979	779	336	1,090
Built 1960 to 1969	181	37	200
Built 1950 to 1959	133	238	350
Built 1940 to 1949	152	156	294
Built 1939 or earlier	394	923	1,236

Fig. H27

Census Tracts Assessed

Households with Cost Burden

This map depicts the percentage of households that have a “housing cost burden.” If a household spends 30% or more of its income on housing costs, they are considered to have a housing cost burden. This statistical measure is a housing sustainability indicator.

In Alliance, 41.3% of renters and 16.3% of owners are considered cost burdened. This is less than the national average of 46% for renters and 27.7% for owners, but greater than the state average of 38.8% for renters and less than 20.2% for owners. In census tract 9512, 40.7% of rentals and 20.9% of owner households qualify as cost burdened households. In census tract 9513 42.2% of rental and 12% of owner households are cost burdened.

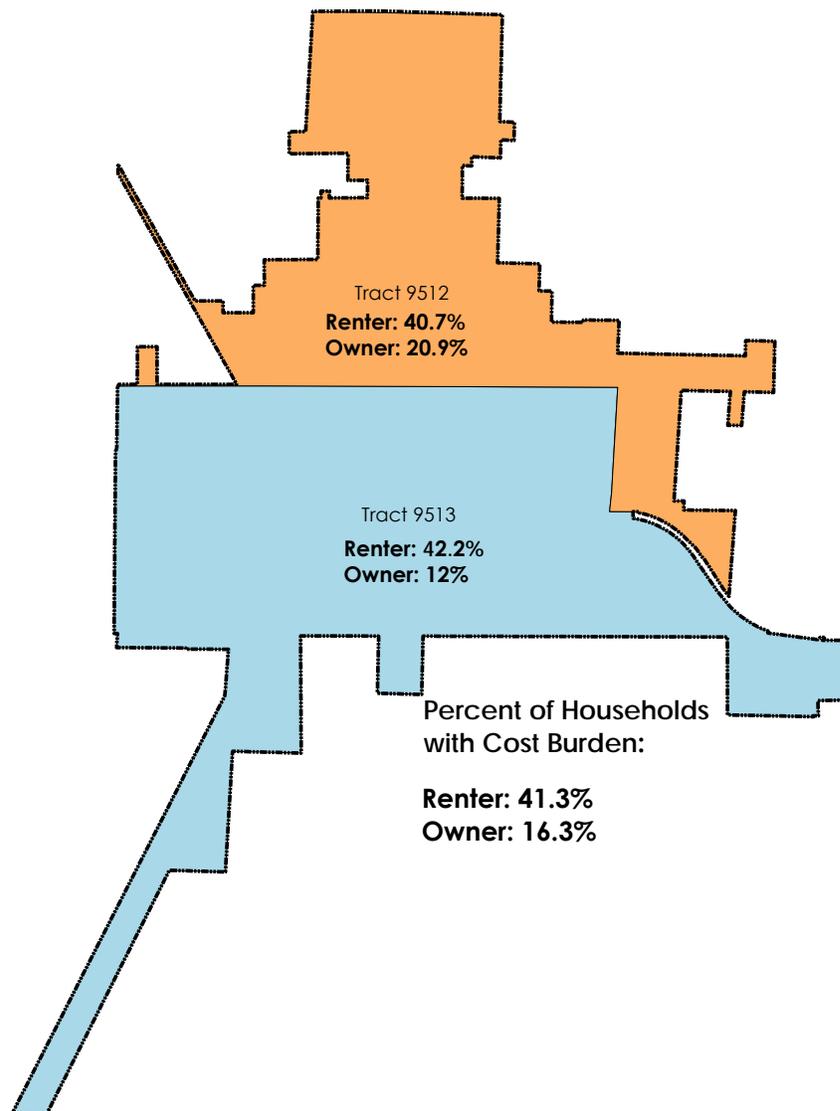


Fig. H28

Census Tracts Assessed

Households with Severe Cost Burden

This map depicts the percentage of households that have a “severe cost burden,” within each census tract. If a household spends 50% or more of its income on housing cost, they are considered to have a severe housing cost burden. Only households whose income is 0-80% of area median income are considered. This statistical housing measure is a housing sustainability indicator.

Within the entire City of Alliance, 19% of renters have a severe cost burden. This is lower than the national average of 22.9% but higher than the state average of 17.8%. However, there is a significant disparity between the two census tracts. In tract 9512, 23.8% of households renting qualify as severe cost burden and in tract 9513, 13.1% qualify as severe cost burden households.

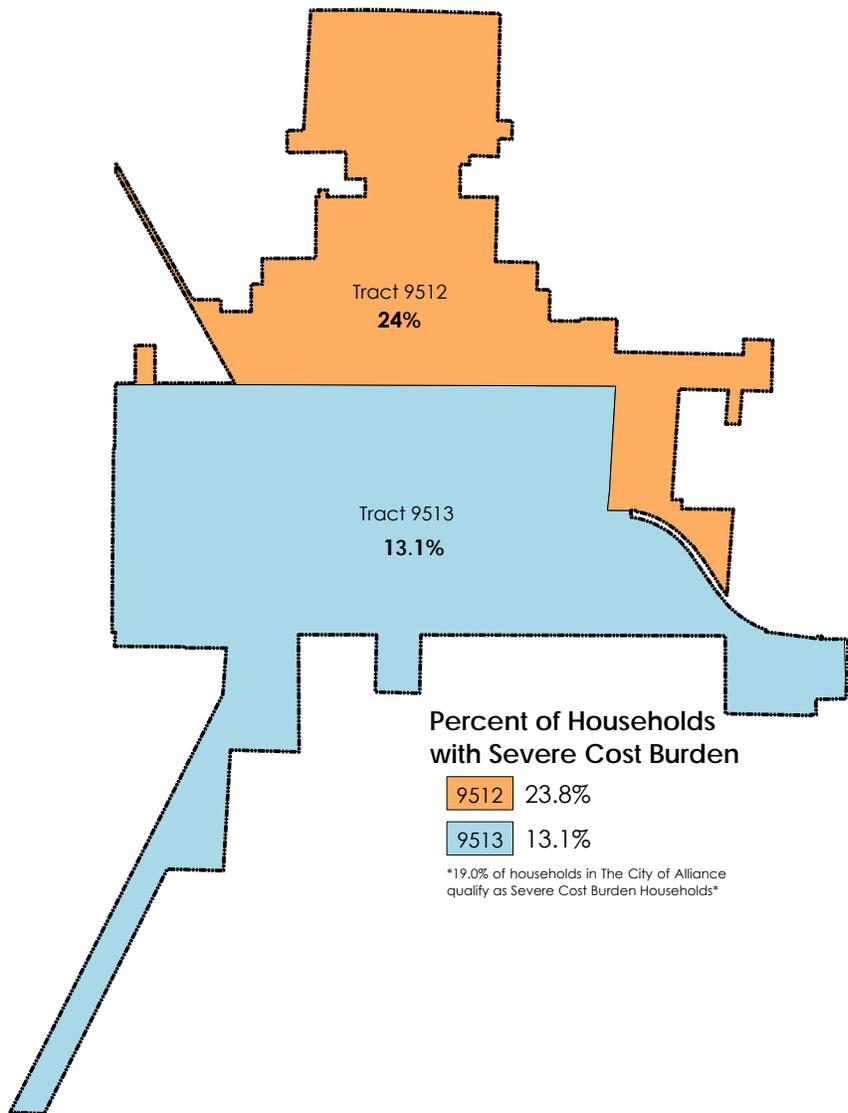


Fig. H29

Housing Goals

Rehabilitation of Existing Housing:

1. Assess the current boundaries of the Blight and Substandard areas to determine if older housing developments should be included within that designation.
2. Utilize the Property Maintenance Code to encourage property owners to maintain and repair any dilapidated housing.

Development of Infill Housing :

Infill development utilizes lots typically located in the center or older parts of the community. Some benefits include the use of existing utilities and infrastructure, eliminating the "missing tooth" appearance of a vacant lot in the middle of a developed residential neighborhood, and providing housing closer to the community center.

New Housing Subdivisions:

As Alliance' housing stock continues to grow, new housing subdivisions will need to be developed. Periods of contracting population in Alliance, such as in the 1950's and 1960's, still saw the community footprint grow, albeit at slower rates than seen in the 1970's and early 80's. Subdivisions such as Buchfinck, Bryson, and Park Hill, were developed a block or two at a time. This growth was more manageable for the City and the developer.

The infrastructure was installed at different intervals rather than all at once as required now. For example, the streets were graded, sanitary sewer, and water main were installed before the property was developed. The storm sewer, curb and gutter, and street paving was done after the subdivision filled out.

City Owned Residential Lots:

Due to the railroad boom and bust of the 1970's and 80's, the City is the owner of a number of residential zoned lots that are still vacant. The City can develop these lots similarly to the vacant infill lots. Low income housing, modular housing, and modest workforce housing are all options for these lots.

Accessory Dwelling Units (ADU):

Accessory Dwelling Units were used in Alliance during the WWII housing shortage. It consists of allowing two dwelling units on the same residential lot. Typical development is either a small apartment in an existing single family house, an apartment shared with a detached garage, or a separate smaller house. Alliance should amend their code to allow these types of dwelling units as a Conditional Use on lots meeting minimum size criteria.

Commercial Structure

Housing: Alliance's code permits dwelling units above and below the ground floor of a commercial business. Downtown apartments have long been discussed but not acted on as they are costly to develop because of fire separation requirements. City code also permits the conversion of portions of the main floor of a commercial building to a dwelling. Allowing dwellings on the main floor of a commercial structure is relatively unique to Alliance and should be reassessed as to whether or not it is the desired use of a commercial structure.

Community Redevelopment Authority:

The City of Alliance Community Development Authority should be utilized to the extent their funding permits. The CRA could be utilized to aid in each of these goals provided it is in their jurisdiction to do so. Depending on how aggressive the Council wants the CRA to be, they may require additional funding to achieve their goals.

Box Butte Development Housing Study:

Box Butte Development completed a housing study for Box Butte County in 2020. The study listed housing types that are needed in Alliance, potential funding sources, etc. This study should be utilized as an additional guide by the City to help with future housing development and redevelopment in Alliance.

Land Use

Land Use Introduced

Land use refers to the activity on a lot, land, or parcel. Existing land uses have a tremendous impact on future growth, development, and redevelopment within a community. As such, it is necessary that an accurate land use survey be conducted to make better recommendations for future rezoning requests. The importance of this chapter cannot be overstated, as rezones that are not consistent with the goals in the Comprehensive Plan tend to be capricious and benefit the current property owner at the expense of the adjacent property, community planning, and future growth.

A community with inconsistent zoning districts and land uses may be viewed as less predictable in their development process, more difficult to plan development in, and less attractive for investment. The chapter will begin with a brief explanation of different types of land uses, continue with a study of current land uses, an annexation guide, and end with desired future land uses.

Goals

1. To ensure orderly and efficient growth of all land uses to maintain, improve, and protect the general welfare of the residents of the community.

2. To protect and conserve the community's unique heritage and physical resources.

3. To maintain and improve the community and its surrounding area by undertaking improvements that will provide a high quality of living and working environment.

4. To maintain and foster a strong and balanced economy capable of ensuring the economic future of all residents.

5. To achieve safety, convenience, and economic growth through the wise distribution of land uses and development activities.

Land Use Classification

Existing land use may not reflect the current zoning district in which it resides. The property may have been rezoned and the preexisting land use is still carried out on the property. Land use and zoning are not the same thing, but the desired land use is a function of zoning.

The classifications of land use are a combination of a few factors such as the use and who owns it. This document uses some of the Land Based Classification Standards from the American Planning Association. (Fig. LU2)

For our purposes, not all of their classifications will be used as they take into account all property ownership and individual structure use. Primary land use classifications are:

Residential

Residential land use is any land use where the primary activity is a long term residence. Long term means greater than 30 days. This includes single-family houses, duplexes, multifamily housing, low income housing, etc. The land use map breaks this land use down by Single Family Residential, Mobile Home Residential, and Multi-Family Residential.

Commercial

Commercial land use is any use where products, goods, or services are purchased, exchanged, or sold. This includes retail stores, hotels, convenience stores, gas stations, and off street parking. The land use map breaks down commercial uses into Parking, Office, and Commercial / Retail.



Land Use Introduced

Industrial

Industrial land uses are those uses that involve the production of goods and products that aren't necessarily sold on the same premises as well as wholesaling, processing of commodities, storage of materials, etc. The land use map breaks down industrial uses into Light Industrial, Heavy Industrial, and Railroad.

Parks

Parks include land developed for the purpose of recreation and playgrounds. This land use is broken into public parks and recreation facilities.

Public or Semi-Public

Public and semi-public land uses are those uses that include churches, philanthropic organizations, government, or any other public and/or nonprofit use.

Storage

Storage land use is any land use used for commercial storage, outdoor storage, and personal storage of goods, junk, materials, or any other personal property.

Undeveloped Land

Undeveloped land is any land that is yet to have a physical structure or use associated with it.

Vacant

Vacant land use is any property that was developed but has since ceased use.

Land Use Inventory

The existing land use inventory is a description of how each lot or parcel of land is currently utilized. This inventory only applies to those land uses within the Corporate City Limits. The map will be used to visualize patterns of previous growth, view the current land uses, inventory inappropriate or misplaced land uses, and plan for future growth and rezones. (Fig. LU1)

Land Use	Number of Acres 2009	Number of Acres 2022	Percent of City 2022
Agriculture	270.23	294.0	11.4
Single-Family Res	613.06	683.7	26.4
Multi-Family Res	63.54	73.2	2.9
Mobile Home Res	71.16	67.6	2.5
Parking	4.46	7.3	.3
Office	7.02	25.9	1.0
Commercial / Retail	77.48	118.2	4.6
Light Industrial	108.06	159.7	6.2
Heavy Industrial	0	194.3	7.5
Railroad	549.36	499.1	19.3
Park	99.418	70.6	2.7
Recreation Facility	24.55	53.4	2.1
Public / Semi-Public	78.6	84.0	3.3
Storage		92.8	3.6
Undeveloped	307.67	130.7	5.1
Vacant		29.3	1.1

Fig. LU1

Land Use Introduced

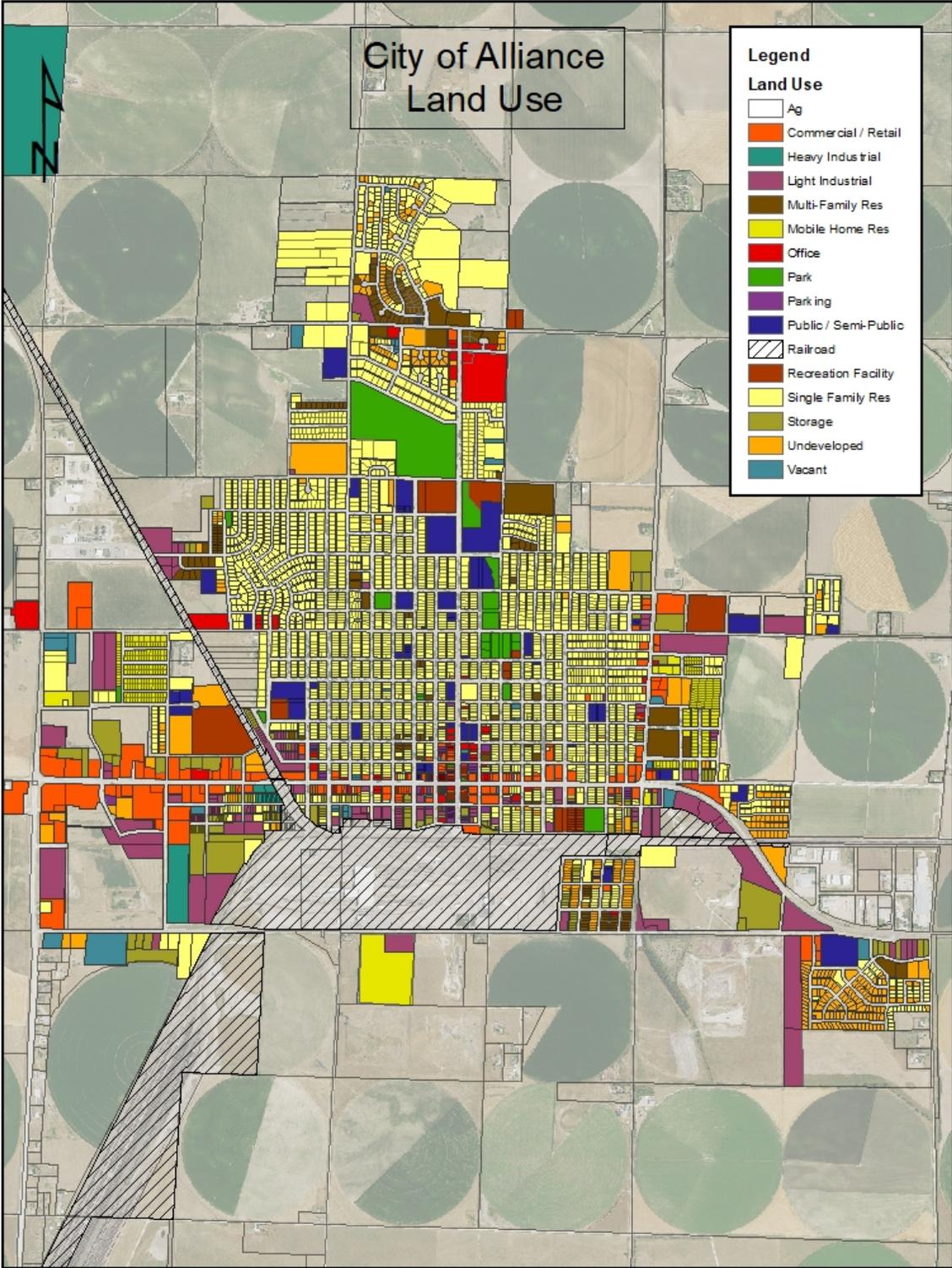


Fig. LU2

Neighborhoods Introduced

Communities are essentially a collection of neighborhoods. A neighborhood can be defined as a network of individuals, families, and households that share several characteristics. These include geographic location, cultural dynamics, activity patterns, organizational relationships (HOA), jurisdictional boundaries (voting wards), social interests, public facilities and services, schools and parks.

Neighborhoods are the social foundations of every community. The social fabric of all communities is directly intertwined and dependent upon neighborhood strength and vitality. Neighborhoods provide residents with a sense of place, pride of community, opportunity for social interaction, and recognizable community character. Existent and functional neighborhoods create stronger communities with distinct character.

Successful neighborhoods can be defined by the diversity of housing types, styles, and price ranges. Many communities have established neighborhoods located near the original downtown. As a result, these neighborhoods are built upon the existing grid street pattern. These classic neighborhoods are successful because they offer a variety of housing choices that appeal to people of all ages and socioeconomic levels. These neighborhoods are also successful because they contain ample open space and are located on interconnected and pedestrian-friendly streets.

The fabric and composition of today's neighborhoods contain different characteristics than neighborhoods of the past. However, successful neighborhoods of any era commonly include a variety of consistent themes. Rich and diverse neighborhoods result from the preservation, restoration, and use of historic and classic structures.

Neighborhoods that embrace the conservation and restoration of environmental resources also provide more value for residents.

Public spaces or civic buildings like libraries, schools, community activity centers, or post offices can give the neighborhood definition and character. Interconnected streets with attractive landscapes provide pedestrians with an inviting and pleasant streetscape. Successful neighborhoods also include ample green spaces. Green spaces include block parks, school playgrounds, biking trails, and linear trails. Ideally, these green spaces connect and link neighborhoods together.

Alliance has been broken down into seven distinct neighborhoods for this section. Each neighborhood is provided with a brief synopsis, a broad array of details about the neighborhood, some of its topical issues, and its possible future direction. (Fig. LU3)

Neighborhoods Introduced

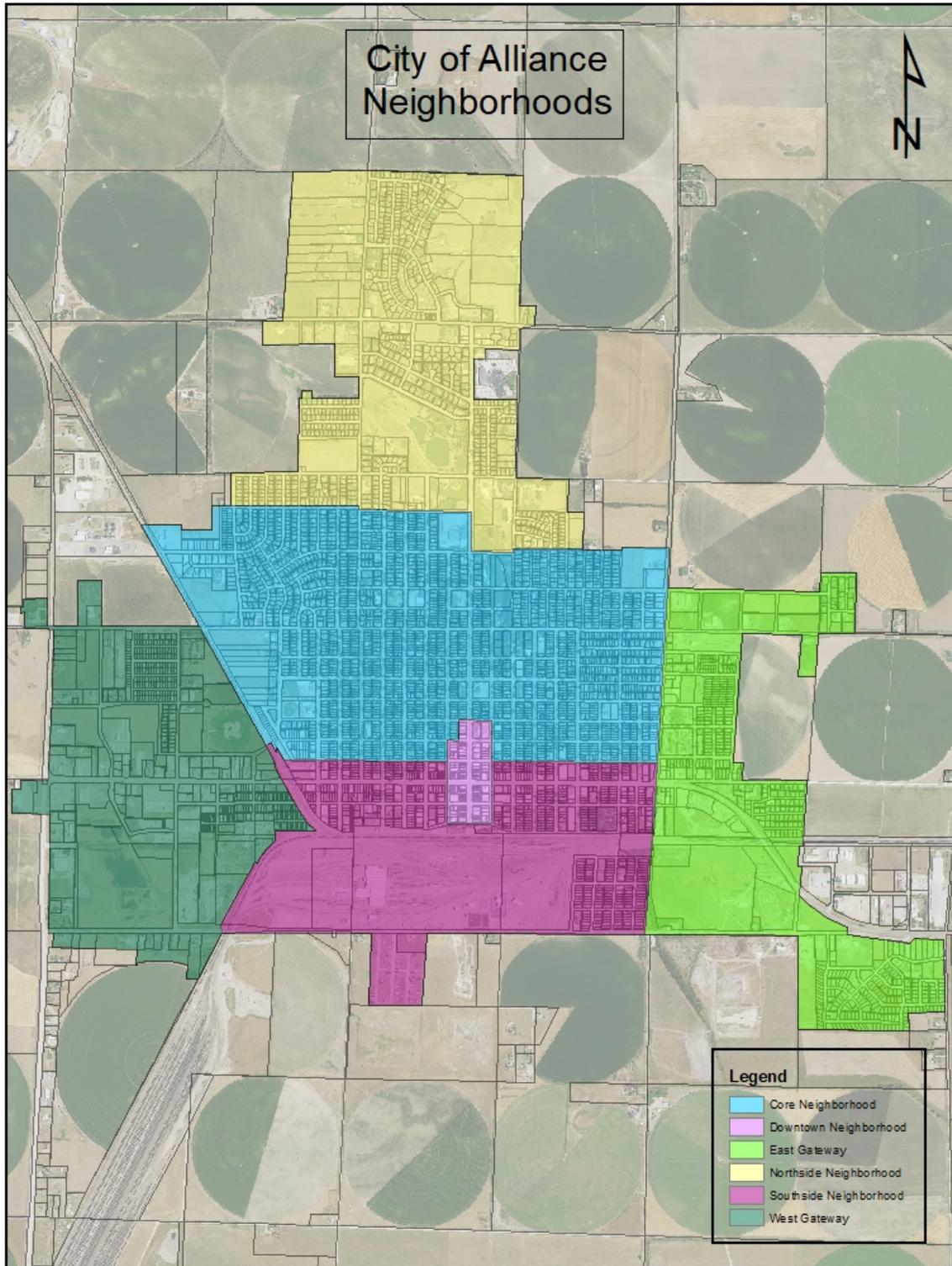


Fig. LU3

Neighborhoods

Northside Neighborhood

Boundaries

The Northside Neighborhood is generally bound by 16th Street to the south, and the Corporate City Limits to the north, east, and west. (Fig. LU4)

Synopsis

Newer homes, attractive recreation areas, and connected uses all effectively describe the Northside Neighborhood. The quality of development, both public and private, is complemented by beautiful natural areas to produce a lovely neighborhood.

Alliance High School and Laing Lake serve as transitional uses between older Alliance and newer Alliance. While the community has continued to expand and interject newer development techniques and styles in the Northside Neighborhood, it has also remained connected and cognizant of historic Alliance.

Transportation

The streets and roadways in the Northside Neighborhood follow an irregular pattern. The newer "suburban" styles of neighborhoods produce a less predictable and more curvilinear street network. Roadways in the neighborhood are consistently wide and allow for on-street parking. The conditions of the streets are generally good.

Sidewalks within the Northside Neighborhood are inconsistent throughout. Because the Northside Neighborhood contains newer subdivisions, it has larger lot sizes than other neighborhoods in the community. While the neighborhood is not completely deficient of streetscape elements, it lacks any memorable or prominent streetscape corridors. As the area ages, its streetscapes will develop more character.

Residential

Many of the community's newest homes, those built after 1970, are within the Northside Neighborhood. The newness of the units contributes significantly to the overall good condition of the housing stock; however, wood and cement panel siding on some of the homes built in the 1970s and 1980s are beginning to show their age through rot and decay. Wider and larger lots, attached garages, and generally larger homes project a far different image than the rest of Alliance.

Commercial

Although the Northside Neighborhood is predominantly a residential district, the area does contain neighborhood retail and professional services primarily adjacent to the hospital and major arterials. The neighborhood also contains municipal employment areas such as the library, high school, and pool.

Industrial

There is a small amount of industrial land use located along the west edge of this neighborhood adjacent to the BNSF Railway tracks. The residential land uses are buffered and shielded from the industrial uses and should remain so to maintain the residential character of the neighborhood.

Landmarks and Activity Centers

The neighborhood contains many of the premier recreational uses in the community. Laing Park, the Alliance Learning Center, and the Big Blue Bay are all contained within the neighborhood and are connected through the linear community trail system. These recreation areas also connect with the high school, providing residents opportunities for both passive and active recreation. Northward expansion of the linear park and trail system through Lakefield Addition should be prioritized.

Vacant Land

There were 70 vacant lots in the Northside Neighborhood at the time this document was prepared. Thirtynine of those are zoned for single family residential, 29 are zoned for multifamily residential, and 2 are zoned for commercial office space.

Neighborhoods

Vacant land is undesirable as it creates a gap in the appearance of an otherwise filled out neighborhood. It also encourages outdoor storage. Both of which detract from the neighborhood's appearance and desirability.

Land Use Conflicts

This neighborhood is relatively absent of conflicting land uses. City Code enforcement and zoning should be able to continue to prevent any potential conflicting land uses.

Future Land Use

The current land uses and zoning in this neighborhood should be carried into the future to maintain the residential and light commercial characteristic that has made this neighborhood so attractive and appealing. Intrusion by industrial and heavy commercial land uses would destroy the overall character of this neighborhood as Alliance's modern residential district.

Neighborhood Goals

Residential: Infill of existing residential neighborhoods is the most economical way to increase housing stock. There are currently 39 vacant lots zoned single family residential under various ownership names and 29 zoned for multifamily residential. Eleven of those lots are located along Big Horn Drive and fall between the Rosewood Estates age

based housing and Alliance Housing Authority's low income housing.

The City should pursue an additional income or age based housing development such as the Rosewood estates to fill out these 12 lots, as investment in single-family housing in this location is unlikely. There are an additional 12 lots zoned single family residential that are without public utilities and streets. Some of the existing housing in this neighborhood is beginning to show signs of minor deterioration. The City should look for situations where the municipal code and Property Maintenance Code may apply to keep housing from further deteriorating.

Commercial: The location of commercial zoning in the Northside Neighborhood is primarily centered around Box Butte General Hospital. The City should maintain the existing location of commercial zoning to prohibit its intrusion into the residential neighborhoods.

Industrial: The industrial land use in the Northside Neighborhood is located along the west edge next to the BNSF Railroad tracks. This land use should remain buffered from the residential and light commercial land uses.

Transportation: Sidewalk connectivity is fairly consistent south of 18th Street however north of 18th Street it is less consistent or predictable.

There are certain lots that weren't required to install a sidewalk when developed. This requires pedestrian traffic to use the street or cross the street to use sidewalk on the other side.

The City trail system ends at West 25th Street and lacks connecting sidewalks to direct pedestrian traffic elsewhere. The trail system should be extended into the Lakefield Addition and the City should begin the process of infilling missing sidewalks. Some of the streets in this neighborhood have been milled and overlaid along with the replacement of broken curb and gutter.

The streets in this neighborhood are comparatively new to the rest of the community but still display signs of wear and potholes. The City should continue their street replacement program including retrofitting non-accessible sidewalk crossings at intersections.

Code Enforcement: Because the North Side Neighborhood is comparatively newer than the rest of the City, this neighborhood does not exhibit as many of the same code enforcement issues. However, to improve and maintain its aesthetic appeal, this neighborhood would benefit from occasional proactive code enforcement.

Neighborhoods

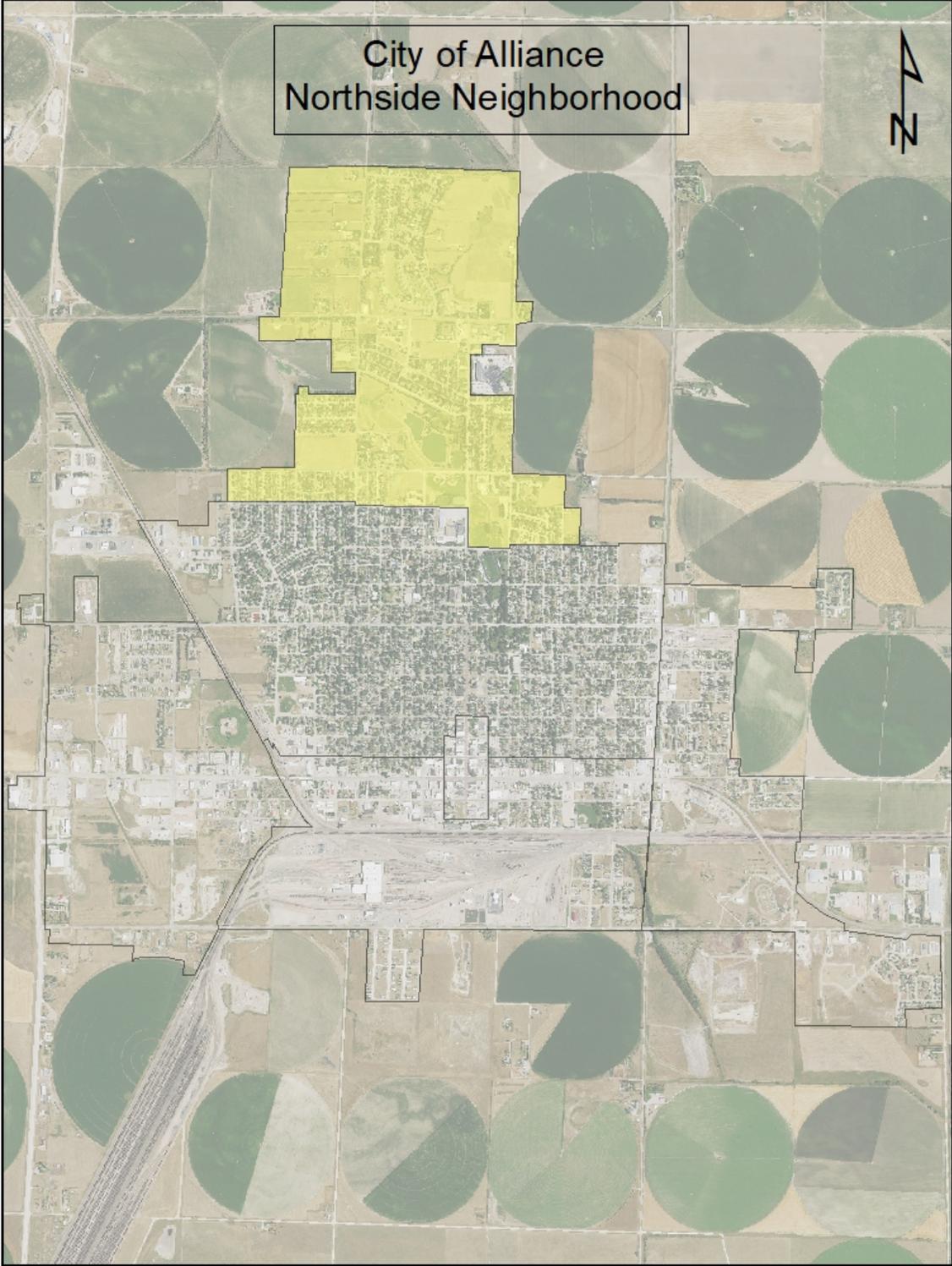


Fig. LU4

Neighborhoods

West Gateway Neighborhood

Boundaries

The West Gateway Neighborhood is generally bound by US Highway 385 on the west, City Limits on the north, and the railroad tracks on the south and east. (Fig. LU5)

Synopsis

The West Gateway Neighborhood is best described as an eclectic mix of uses and functions. As the primary gateway into the community, the overarching theme of the area is difficult to grasp. The lack of continuity between uses and streetscape conditions detracts from the initial impression of the community. Design standards for building material, setbacks, and signage would promote more aesthetically pleasing structures and development.

Transportation

The streets and roadways of the West Gateway Neighborhood follow an inconsistent pattern. Some of the streets follow a traditional grid-like pattern, while others follow an irregular pattern. Streets and roadways in the neighborhood are generally wide, many serving as major transportation corridors within the community. The conditions of the streets are generally good.

This neighborhood has an inconsistent and unconnected sidewalk network. The neighborhood lacks continuity among setbacks along the main transportation corridors and is void of any recognizable or memorable streetscape design. The neighborhood contains 3rd Street, 10th Street, and Highway 385, which are all major transportation corridors in the community.

Residential

Housing in the West Gateway Neighborhood is mostly localized to the north-central segment of the area. Subdivisions are predominantly made up of single-family units and mobile home residential units. The condition of the manufactured homes is generally poor, while the condition of single-family units is fair to good.

In terms of diversifying housing value, the neighborhood contains housing best suited for lower incomes, but also contains some middle-income housing stock. The general age of housing units within the district is 40 years for single-family dwellings. Mobile homes are currently being replaced by the park owner however this does not encompass all the houses in the park.

Residential density is higher than other neighborhoods because of the close proximity of the mobile homes to each other compared to typical single-family construction housing.

Commercial

Retail and commercial uses are primarily concentrated along 3rd Street and Highway 385. In the west portion of this neighborhood, there are large tracts of vacant land that serve as transition areas between uses and functions. There is a clear delineation between uses, mostly due to lack of development in select areas.

Industrial

The neighborhood also possesses a variety of industrial uses that were outside the community in the past. As the City grew west towards Highway 385, commercial land uses adjacent to the highway grew around the industrial

uses and they now detract from the overall image of the community.

Landmarks and Activity Centers

Hal Murray Softball Complex and the Lions Park are located in this neighborhood as well as the primary entrance to the City from the Heartland Expressway.

Vacant Land

There is approximately 168 acres of vacant land located in the West Gateway Neighborhood. Most of it is located behind the strip development along West 3rd Street and US Highway 385. The development and land subdivision pattern adjacent to these streets is irregular and makes development adjacent to and behind these strip developments difficult.

Land Use Conflicts

The West Gateway Neighborhood was once located at the western edge of the City. As such, there were many industrial uses that would be considered inappropriate adjacent to gateway streets within City limits. At one time there were four salvage yards in this neighborhood but only one is left. As the City grew around these land uses they were slowly redeveloped into commercial land use. There also exists the opportunity for intrusion of commercial land use in to residential areas.

Future Land Use

The current zoning map should be changed to reflect the commercial nature of the property adjacent to West 3rd Street. The land uses along the north side of 3rd Street are permitted by the commercial zoning but still remain zoned industrial. The

Neighborhoods

industrial land uses that exist adjacent to residential zoning and West 3rd street should be shielded from the less intense land uses and rights of way.

Neighborhood Goals

Residential: The City should pursue declaring more of the West Gateway as Blighted and Substandard to allow for Tax Increment Financing and pursue grant funding for workforce housing. There are 7 vacant lots adjacent to Cody Avenue zoned for single family residential and a block between Cody Avenue and the Softball Complex that is zoned for multifamily residential.

Commercial: The proposed land use in the West Gateway Neighborhood, particularly adjacent to highways, is commercial. There are some commercial land uses that have taken the place of industrial uses but the zoning remained unchanged. The zoning north of 3rd Street should be changed to Commercial to prevent the land uses from reverting to heavy industrial. A significant portion of the commercial property in the West Gateway is already blighted and substandard.

Industrial: Some of the historic industrial land uses still exist in the West Gateway Neighborhood. The commercial development that followed the increase in

traffic along Highway 2 and US 385 grew around the industrial land uses and in many instances replaced it.

Extra care should be taken to keep the industrial land uses from interfering with the commercial and residential land uses. Landscaping requirements should be considered along the West 3rd Street corridor to soften the image of the remaining industrial land uses and the heavy commercial land uses.

Transportation: The West Gateway Neighborhood is not well connected with sidewalks. The residential areas in the north are not connected via sidewalk to the commercial areas along West 3rd Street. This is due to a lack of sidewalk along vacant lots and lots that were developed but no sidewalk was installed. The sidewalks in the mobile home park are not compliant with current City code or accessibility code. They lack ramps at intersections and are only 2.5 feet wide. Options to improve these sidewalks could include grants and assessments to repave them to meet code.

The City should plan to extend the trail system from Central Park to Lions Park as this could add Emerson Elementary School, Jaycees Park, the Lions Park, and the Softball Complex to the trail system and make the West Gateway Neighborhood

more accessible to the rest of the community via sidewalk.

The streets in this neighborhood range from very good to poor. There is a large number of gravel streets south of West 3rd Street and the streets in the mobile home park are beginning to exhibit large fissures in the pavement. West 4th Street provides access to the softball complex but is paved with asphalt fines, lacks curb and gutter, and regularly has large holes in the roadway.

Code Enforcement: This area would benefit greatly from an increase in code enforcement. As the primary gateway to the community from the Heartland Expressway this area provides visitors and potential developers with their first impression of Alliance.

The City of Alliance should consider gateway design regulations on signage, landscaping, setbacks, and streetscapes to ensure a more positive "first impression" of the community. This could be an overlay zone for properties developed within a certain distance from the gateway or the arterial street. Care should be taken to adopt a code that improves the appearance of new development or redevelopment that doesn't deter the project from happening.

Neighborhoods

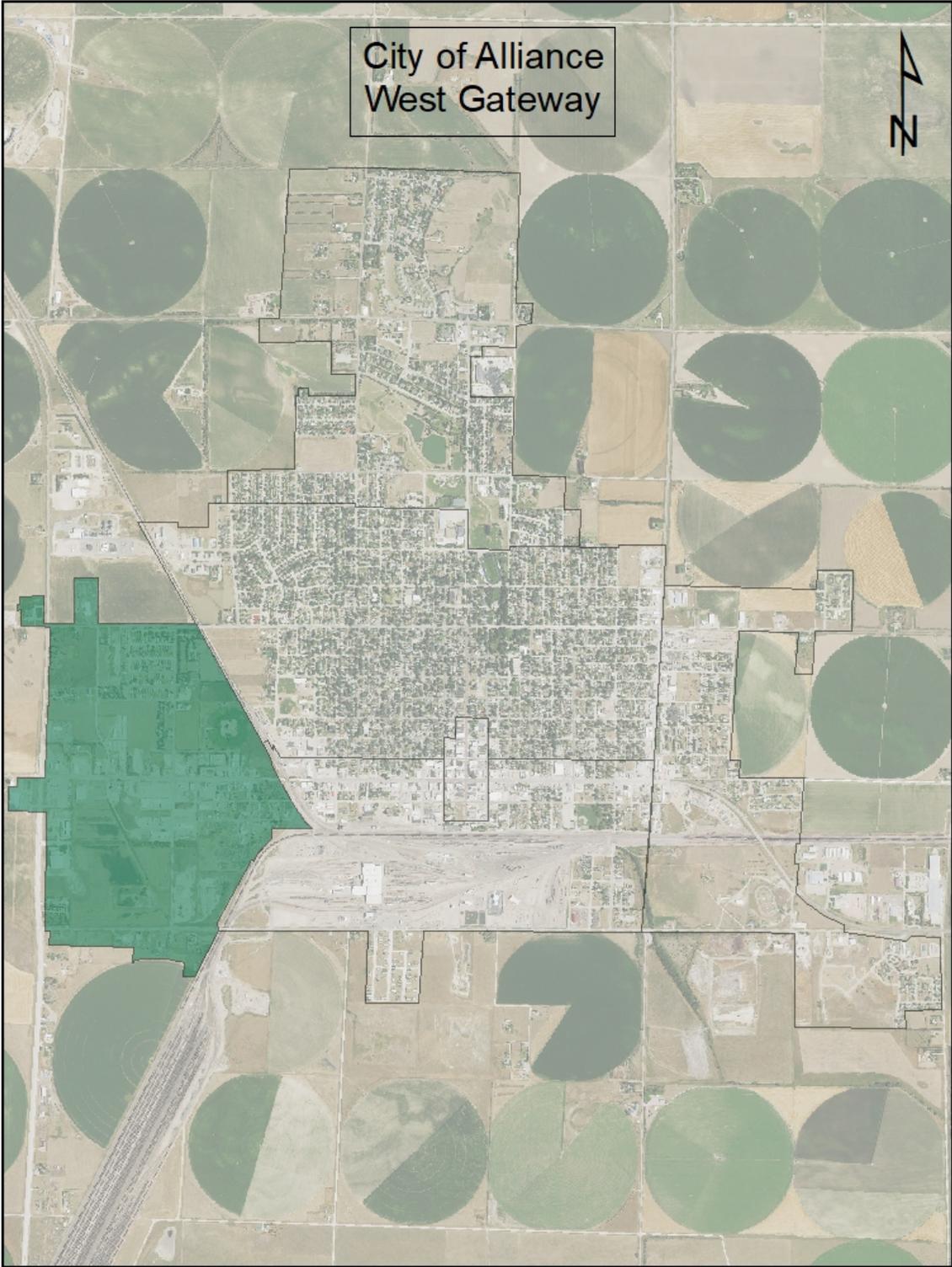


Fig. LU5

Neighborhoods

Core Neighborhood

Boundaries

The Core Neighborhood is bounded generally by 16th Street to the north, Flack Avenue to the east, the BNSF Railroad tracks to the west, and 4th Street to the south. (Fig. LU6)

Synopsis

The Core Neighborhood should be considered the “heart” of Alliance. Its location, classic ambiance, and parks create and project a distinct character and image. The neighborhood serves as a transition area between downtown Alliance and newer Alliance. The well-designed park and trail system connects and links community landmarks and activity centers along the north-south park corridor. The importance of this neighborhood to the community cannot be overstated.

Transportation

The streets and roadways within the Core Neighborhood follow a traditional grid pattern and are well connected via sidewalks. Generally, the roadways are wider and allow for on-street parking. Shorter setbacks and a consistent sidewalk network are traits that make the Core Neighborhood inviting and pedestrian friendly. Major street corridors, such as Box Butte Avenue, Flack Avenue, and 10th Street, serve as commercial areas, cultural areas, and activity centers. Subdivision speed limits (25-30 mph) throughout the neighborhood help maintain a safe environment for vehicles and pedestrians. Over time, the natural elements of the area have matured, creating strong streetscapes. Additional streetscape improvements have been made along Box Butte Avenue, which also

enhance the neighborhood. The area has a significant amount of one-way streets. While these one-way streets move traffic very efficiently, they can also be incredibly confusing for visitors especially around the Grand View Elementary School area where the one-way streets reverse direction.

Residential

The Core Neighborhood contains many of the oldest and finest homes in the community. Classic and historic Alliance homes line Box Butte Avenue and surrounding streets. These homes, combined with a linear park and trail system, produce a memorable residential area. The condition of the housing within the neighborhood is generally good; however, some units within the area are beginning to deteriorate.

The diversity of housing styles, sizes, and price points within the area is broad. Units located on or near main corridors are typically larger and in better condition, while other areas contain smaller homes and smaller lots. The density of the neighborhood is generally higher than other areas due, in large part, to narrower lots, which allows for a greater number of dwelling units per acre.

The transition between “Classic Alliance” and “New Alliance” can be seen on the northern and western edges of this area as it transitions into the housing and infrastructure developed during the railroad boom of the 1970's.

Commercial

The neighborhood is predominantly residential but does contain some commercial and employment along Box Butte and Flack Avenues.

There are also professional offices located adjacent to arterials in the residential neighborhoods. This is a good example of the neighborhood commercial zoning that works similar to form based zoning allowing nonresidential uses provided they meet the same setback and parking requirements that residential zoning requires.

Industrial

There are a few industrial land uses located in the southwest portion of this neighborhood near the railroad tracks. The remainder of the neighborhood is currently shielded from this land use and should remain so.

Landmarks and Activity Centers

Central Park, Bandshell Park, and the linear trail system highlight the excellent recreational uses within the area. The parks and trail system connect schools and neighborhoods, helping to make this neighborhood the heart of the community. The City of Alliance has converted once topographic constraints (floodplain, floodway) into dynamic parks and recreation uses and functions.

Significant community landmarks and activity centers within the area include Central Park, Knight Museum and Sandhills Center, and Bulldog Stadium.

Vacant Land

Vacant land in the Core Neighborhood consists primarily of narrower lots that aren't conducive to modern home layouts. There are 17 vacant lots at the time this document was prepared. Vacant land is undesirable as it creates a gap in the appearance of an otherwise filled out neighborhood. It also encourages outdoor

Neighborhoods

storage. Both of which detract from the neighborhoods appearance and desirability.

Land Use Conflicts

The primary land use conflict within the Core Neighborhood is created by the intrusion of preexisting higher density residential development into single-family housing unit neighborhoods. Preexisting multi-family housing sites are scattered throughout this neighborhood. The primary conflict created at these sites involves traffic safety concerns due to limited, or a complete lack of, off-street parking.

The city should ensure that future multi-family housing projects in all areas of the city provide adequate off-street parking and work with property owners to install off street parking for existing dwellings regardless of size. Having adequate off street parking will help eliminate traffic issues in these areas and the amount of parking in the curb strip

Additional conflicts are created in residential areas along Box Butte Avenue, Tenth Street, and Emerson Avenue due to existing traffic patterns. These street systems are heavily utilized for inter-city and intra-city commuter and shopping routes. Options for the removal of these conflicts appear to be limited.

Future Land Use

The Core Neighborhood is primarily single family residential with some two family and multi-family dwellings. There is some neighborhood commercial mixed with the residential along the arterial streets but it is otherwise a residential neighborhood. The current land uses in this neighborhood should be

maintained. Multifamily and neighborhood commercial may be considered appropriate when the lot sizes and transportation systems are shown to be conducive to the increase in density and traffic.

Neighborhood Goals

Residential: Infill of existing residential neighborhoods is one of the most economical way to increase housing stock. The lots in the Core Neighborhood make it difficult to fit modern house layouts without combining two lots which necessitates razing two houses instead of one. The City should work with stakeholders to find housing solutions for these narrower lots including the possibility of attractive manufactured housing. Manufactured housing has progressed greatly in the past 30 years and may act as a solution to building on vacant lots.

Some of the existing housing stock is exhibiting signs of deterioration. To reduce the number of houses needing razed and increasing the number of vacant lots that aren't easily redeveloped, the City should begin identifying issues with houses located in this neighborhood before they become large problems. The City can use the adopted property maintenance code and nuisance abatement code to help accomplish this.

The City should consider adding another single-family residential zoning district to accommodate the Belmont and Duncan's Residence Tract areas as they were developed on smaller lots with shorter setbacks. This has created problems for property owners trying to make improvements to the housing in this area. The City should also create code accommodating

improvement of existing reverse corner lot houses without allowing the creation of new ones.

Commercial: The City should be cautious about any commercial development in the Core Neighborhood as it may damage the neighborhoods character. The City has adopted a neighborhood commercial zoning district but its use should be limited to its intent.

Industrial: The existing industrial land uses located in the southwest portion of the neighborhood should remain shielded from the residential and light commercial uses to protect the character of the neighborhood.

Transportation: The Core Neighborhood is well connected to the rest of the City by way of sidewalk. This is an asset of this neighborhood; however, because this neighborhoods infrastructure is comparatively older to other neighborhoods, sidewalks here exhibit more instances of heaving, cracking, and spalling.

There are also intersections where there aren't ramps or wheelchair provisions at street crossings. Ramps and indicator pads should be retrofitted during street repaving projects but also budgeted for as individual improvement projects on streets that were recently repaved.

The City should encourage people to take advantage of the sidewalk replacement program and return their sidewalks to good condition. The streets in this neighborhood are the oldest in Alliance and many of them have been

Neighborhoods

repaved over the past 10 years. This trend should continue as there are still many streets in the Core neighborhood that are in need of repaving as opposed to just annual maintenance.

Code Enforcement: This area could benefit greatly from code enforcement to avoid an increase in the amount clutter, outdoor storage, and streetscape overgrowth. These detract from the character and ambiance of the Core Neighborhood and from the City in general. The City should identify properties that may be in violation of the property maintenance code and work with the owner to fix it up before the structure must be razed.

Neighborhoods

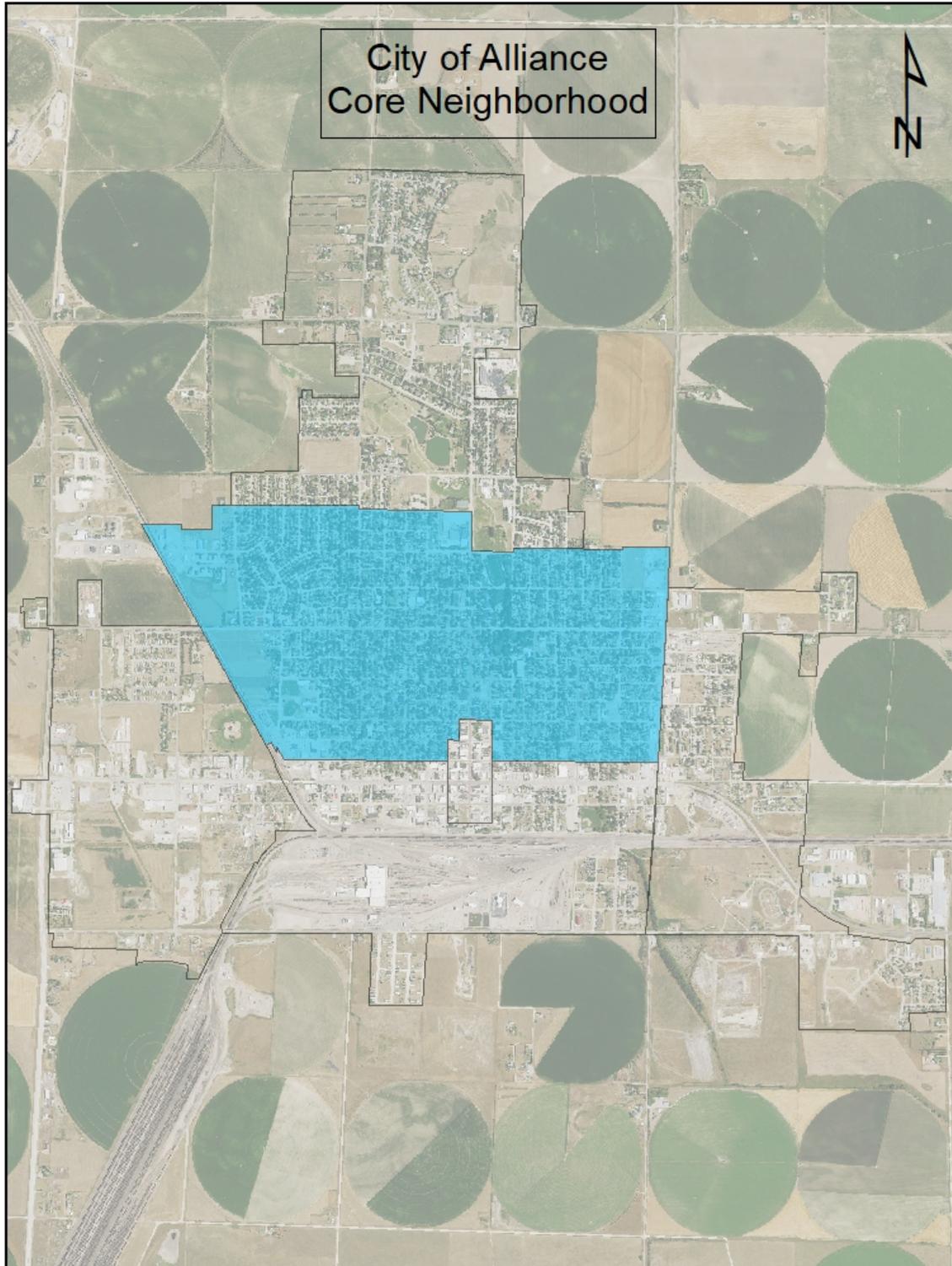


Fig. LU6

Neighborhoods

East Gateway Neighborhood

Boundaries

The East Gateway Neighborhood is generally bound by 12th Street to the north, Flack Avenue to the west, corporate boundaries to the south, and County Road 58 to the east. (Fig. LU7)

Synopsis

As the eastern gateway into the community, this area should contain some of the most prominent and memorable streetscapes, signage, and directional wayfaring. Existing conditions within this neighborhood portray a different environment.

The area is marked by poor housing and inconsistencies in roadway and pedestrian sidewalk infrastructure. The East Gateway Neighborhood would benefit greatly from design standards, housing rehabilitation, and landscaping requirements along Flack Avenue.

Transportation

The pattern of roads within the East Gateway Neighborhood is very inconsistent. Vacant lots contribute to a lack of continuity, and road networks produce streets that end abruptly. Street widths also are inconsistent. City roadways are typically wider and allow for on street parking, while private roadways and City Streets in mobile residential areas are narrower and unimproved. The overall condition of streets within the district is poor, and the neighborhood contains a significant amount of non-paved and unimproved roadways.

As with street pattern and width, setbacks and sidewalk provisions are also inconsistent. The variance in housing type and style contributes significantly to

inconsistent setbacks, while unimproved and inconsistent roadways contribute to poor sidewalk networks. Major transportation corridors within the neighborhood include Highway 87 (Flack Avenue) and Highway 2 (East 3rd Street).

The East Gateway Neighborhood is deficient in streetscape elements. The combination of all these factors produces poor pedestrian infrastructure, uninviting residential areas, and uninviting commercial areas. As the eastern gateway into the city and along the route to Carhenge, an emphasis must be placed on the beautification and presence of streetscapes and infrastructure within the area.

Residential

The East Gateway Neighborhood contains some of the community's most substandard housing. The overall condition of housing within the neighborhood is poor, with some areas appearing rundown. Many of the residential units within the area are mobile residential or public housing, an abandoned high-density nursing home complex suffers from deteriorated conditions. The diversity of housing value and style is limited and is typically reserved for lower income residents.

Commercial

The East Gateway Neighborhood is predominately residential but does contain limited highway commercial. As the designation for US highway 385 moved from Flack Avenue to Highway 2 west of Alliance, many of the businesses that cater to the traveling public in this neighborhood have relocated or gone out of businesses.

Industrial

In addition to commercial uses, heavy industrial uses provide various employment opportunities within the neighborhood. The industrial uses are located primarily in the southeast portion of the neighborhood adjacent to the BNSF railroad tracks.

Landmarks and Activity Centers

Although the area lacks a community park, it contains the Alliance Recreation Center (ARC), Carhenge, and is connected to the City trail system via the 10th Street trail extension. Access to a functional and usable open space area would benefit the residents of this neighborhood. This could be accomplished by better pedestrian connectivity to the Core Neighborhood or to the ARC.

Vacant Land

Vacant land in the Eastern Gateway Neighborhood is concentrated primarily in the southeast residential portions. This includes Homestead and HERB Additions. There are 118 vacant single family residential lots, one, two family residential zoned lot, and 3 multi family zoned lots in Homestead Addition of various sizes.

There are 25 single family residential zoned lots and 14 multifamily residential zoned lots in HERB Addition. Of those lots, three of the multifamily residential lots and 10 of the single family residential lots have access to all public infrastructure. There are also 2 lots between the mobile home communities and the vacant assisted living facility as well as various mobile home lots that are vacant.

Land Use Conflicts

There are land use conflicts that have deferred development primarily in the

Neighborhoods

HERB and Homestead Additions. The proximity of HERB addition to the BNSF railroad tracks and Nebraska State Highway 2 overpass detracts from the marketability of these lots as residential as there is no buffer between these heavily utilized transportation routes and the neighborhood.

Homestead addition suffers from similar land use conflicts but are caused by the commercial and educational land uses located to the north of the subdivision and the City Landfill to the west of it. The outdoor storage occurring in and around these subdivisions also detracts from these neighborhoods as desirable residential neighborhoods. They also suffer from isolation from the City as there isn't a way to safely walk or bike from these subdivisions without using arterial roadways.

Future Land Use:

Future land use in the East Gateway should focus on rehabilitation and redevelopment of existing land uses, particularly along Nebraska Highway 87 and Highway 2. This business corridor has struggled since the realignment of US Highway 385 to the west side of town. Zoning should be changed back to residential for existing houses located adjacent to the highway.

The commercial zoning that extends north out of City Limits should be changed back to Agriculture zoning. The City should remain flexible in returning their zoning back to commercial should the need arise but the current zoning is creating problems with home financing and improvements to the existing land uses. The rezoning to commercial

was in anticipation of Flack Avenue remaining the primary north-south highway through the City and growing into a major commercial corridor.

Much of the business corridor is already declared Blighted and Substandard. Design standards for Flack Avenue that incorporate landscaping, signage, and parking would help improve the community's appearance when redevelopment takes place.

Many of the developments along Flack Avenue were constructed when such criteria did not exist. This makes the corridor look dated, and in the case of sidewalk separation from parking lots, dangerous and unwelcoming. Changes of zoning to accommodate desired land use in this neighborhood is not generally required. Redevelopment and rehabilitation of existing land uses should be the priority.

Neighborhood Goals:

Residential: Four of Alliance mobile home parks are located in this neighborhood. One of the owners is actively improving their park by removing dilapidated housing and replacing them with new mobile homes. Increased property maintenance code and nuisance code enforcement would encourage other parks to do the same.

Homestead and HERB Additions would benefit greatly from the installation of sidewalks and/or a trail to connect them to the core of the City. They would also benefit from the City buffering the adjacent industrial and commercial land uses that detract from the neighborhoods and make them a more appealing place to move or construct a new home.

Commercial: The viability of the commercial development along Flack Avenue has been in question since the Heartland Expressway relocated US Highway 385 to the west City limit. The City has already declared the Flack Avenue corridor Blighted and Substandard so redevelopment activities are eligible for Tax Increment Financing. Even then, no redevelopment has occurred since 2013.

Industrial: The industrial land uses in the southeast corner of the Neighborhood are primarily older industrial developments and some are now abandoned. The lots adjacent to the highway east of A Street were declared Blighted and Substandard by the City but no redevelopment has taken place.

Transportation: The East Gateway Neighborhood is not well connected by way of pedestrian sidewalks. The residential areas east of the core community, including HERB and Homestead Additions, are not connected via sidewalk to the commercial areas along Flack Avenue or to the rest of the community. Installation of sidewalk or the extension of the trail system to Homestead Addition would remedy the lack of connectivity to the rest of the City but the intermittent sidewalk installation within subdivisions would still need to be corrected.

The Eastern Gateway Neighborhood contains a large amount of undeveloped and underdeveloped streets. The City should pursue development grants for the paving of the streets and sidewalks in the lower income portions of the community including those in this neighborhood.

Neighborhoods

Underdeveloped streets require more maintenance than paved and appear to reflect less permanent and ad hoc development.

Code Enforcement: One of the largest obstacles of development in any neighborhood is outdoor storage. This area would benefit greatly from an increase in code enforcement to abate or cover up as much of the outdoor storage as possible. As the primary gateway to the community to and from Carhenge and all three cemeteries, this area provides many visitors and potential developers with their first impression of Alliance.

Neighborhoods

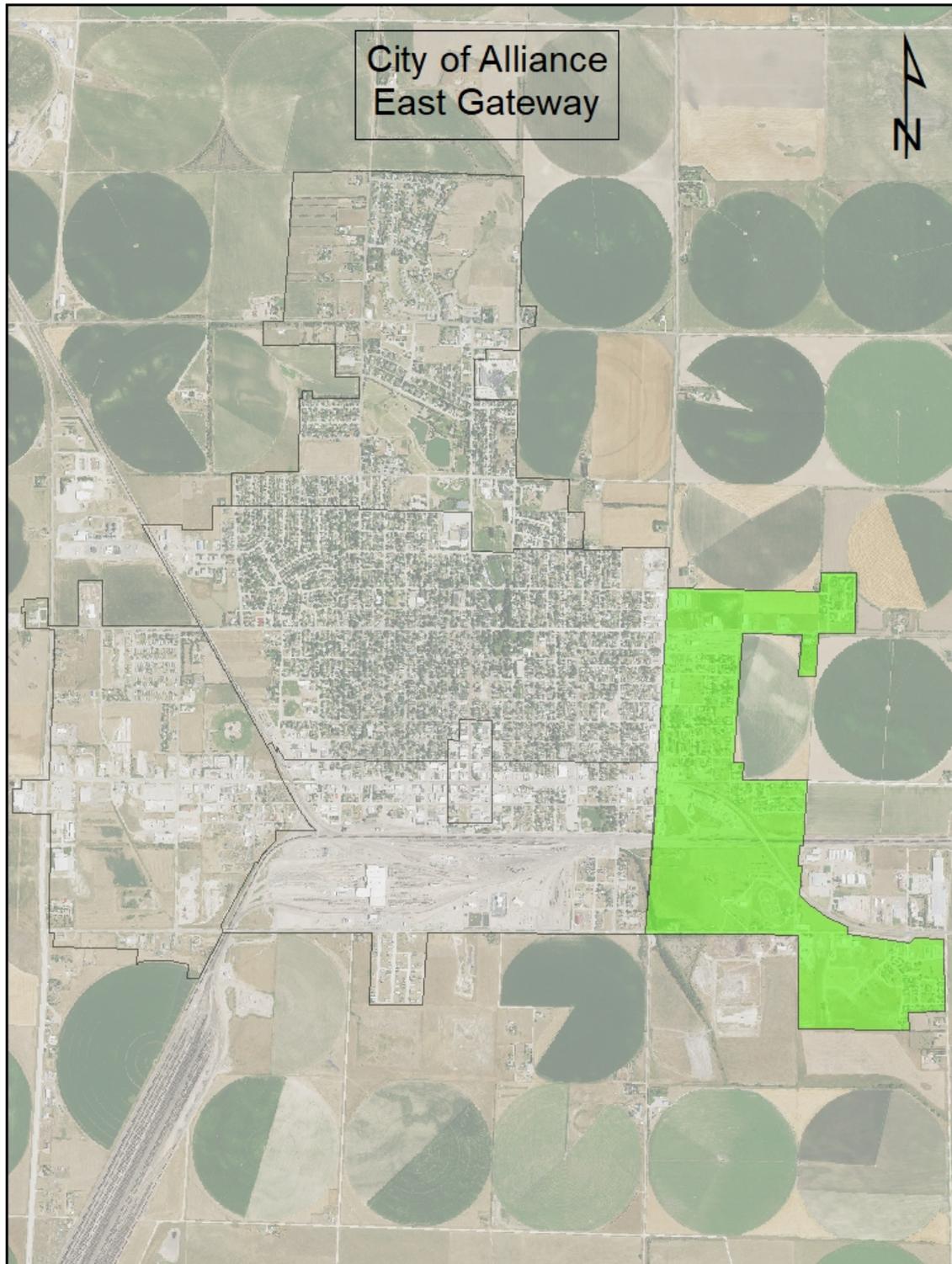


Fig. LU7

Neighborhoods

Southside Neighborhood

Boundaries

The Southside Neighborhood is generally bound by 4th Street to the north, Flack Avenue to the east, the railroad tracks to the west, and corporate City limits to the south. (Fig. LU8)

Synopsis

The current state of the district is fair at best and will require the continued attention of the community in redevelopment efforts. Improved housing and business conditions, more compatible land uses and functions, and a more attractive and healthy neighborhood can be achieved through creative and innovative thinking. The Southside Neighborhood can and should be a more formidable presence within the community.

Transportation

Streets and roadways within the Southside Neighborhood generally follow the same traditional grid pattern as found in the Core Neighborhood with the exception of 1st Street. Most of the roadways are wider, which allows for on-street parking. The condition of the roadways within this area is inconsistent. Some streets, such as 1st Street, are gravel and are in very poor condition and would benefit from improvements; however, other streets within the area are in good condition.

Inconsistent setbacks negatively impact the

continuity and overall image of the neighborhood. The area does have a consistent sidewalk network, often times on both sides of the street.

Major street corridors, such as 3rd Street and portions of Box Butte Avenue, serve as commercial areas, employment centers, and activity hubs. The neighborhood is substantially deficient in streetscape elements. Strong and natural streetscapes create more inviting neighborhoods and increase pride in ownership.

Residential

The Southside Neighborhood is marked by middle to low income housing units, many of which appear to be aging or deteriorated. The residential density within the neighborhood is moderate given the high number of vacant lots. An abundance of vacant lots and abandoned units project low pride of ownership and a lack of ongoing maintenance. The overall condition of housing in the area is best described as poor.

Commercial

The commercial land uses in the Southside Neighborhood are located primarily adjacent to 3rd Street and Box Butte Avenue. Behind that strip of commercial is light industrial and pockets of residential followed by the BNSF railroad yards.

Industrial

The area contains the largest employer in Alliance (BNSF Railway). Transitions between functions within the

neighborhood are generally poor. Residential units are located next to industrial and commercial areas, many times on the same street, with limited buffers in place. The industrial land uses are found primarily adjacent to the railroad and south of the commercial land uses along Third Street.

Landmarks and Activity Centers

BNSF Railway is a significant landmark within the community. BNSF has a staff of nearly 1,800, which also makes this neighborhood a major activity center. This neighborhood also contains Bower Park, Bower-Shankland Baseball Field, Maxwell Park, and the Landfill.

Vacant Land

The primary location of vacant land in the Southside Neighborhood is located in South Alliance. Its location adjacent to the railroad yards combined with the large amount of outdoor storage in South Alliance limits potential land uses of these vacant lots. Development of vacant land in this neighborhood in general will be difficult because of its location to existing industrial land uses and the number of unimproved streets adjacent to these lots.

Land Use Conflicts

There are many land use conflicts in the South Side Neighborhood. These include the residential land uses sandwiched between the industrial uses adjacent

Neighborhoods

to and including the railroad yards, and the commercial land uses adjacent to Third Street. There is also a large amount of outdoor storage in this neighborhood, which greatly detracts from its appearance.

Future Land Use

The older residential development located between the commercial and industrial land uses presents a unique challenge. The residential area is concentrated and is a neighborhood within the neighborhood but is bordered by land uses that are less than ideal.

The intrusion of additional commercial and industrial uses should be avoided by landscaping and fencing requirements as well as a careful examination of the zoning map to ensure the residential development is preserved. The commercial and industrial uses located adjacent to the highway and railroad are appropriate for their location.

Neighborhood Goals

Residential: The existing residences should be protected from further intrusion of commercial and industrial uses. This may include things such as landscaping and

fencing requirements for expansion of existing commercial and industrial land uses as well as for new commercial or industrial uses. Grants for owner occupied housing improvements would help rehabilitate some of the existing housing and keep the residential blocks in this neighborhood from becoming vacant or re-purposed as commercial or industrial. Additional rezones may be necessary to maintain the existing housing in this neighborhood.

Industrial: The primary industrial use in the South Side neighborhood is the BNSF Railroad. There are also industrial land uses located adjacent to the railroad property along the southeast and southwest portions of the neighborhood.

Transportation: The South Side neighborhood is relatively well connected to the core of the city. The grid street system common in the Core neighborhood extends to the South Side Neighborhood and as such exhibits the same sidewalk development patterns. There are areas, particularly in South Alliance without sidewalk along vacant lots.

but is otherwise well developed. The condition of the sidewalks is fair to poor as they exhibit signs of heaving and cracking.

There are a number of streets in this neighborhood that are unpaved both with and without curb and gutter. The City should pursue grant opportunities to pave the streets and repave sidewalks in this neighborhood as well as work to acquire additional land for the right of way for First Street. It does not meet minimum width requirements in multiple places.

Code Enforcement: This area would benefit greatly from code enforcement as there is a substantial amount of clutter, outdoor storage, and streetscape overgrowth. These detract from the character and ambiance of the neighborhood and from the City in general. The City should identify properties that may be in violation of the property maintenance code and work with the owner to fix it before the structure must be razed. Owner occupied housing rehabilitation grants and TIF could be used to help achieve this goal.

Neighborhoods

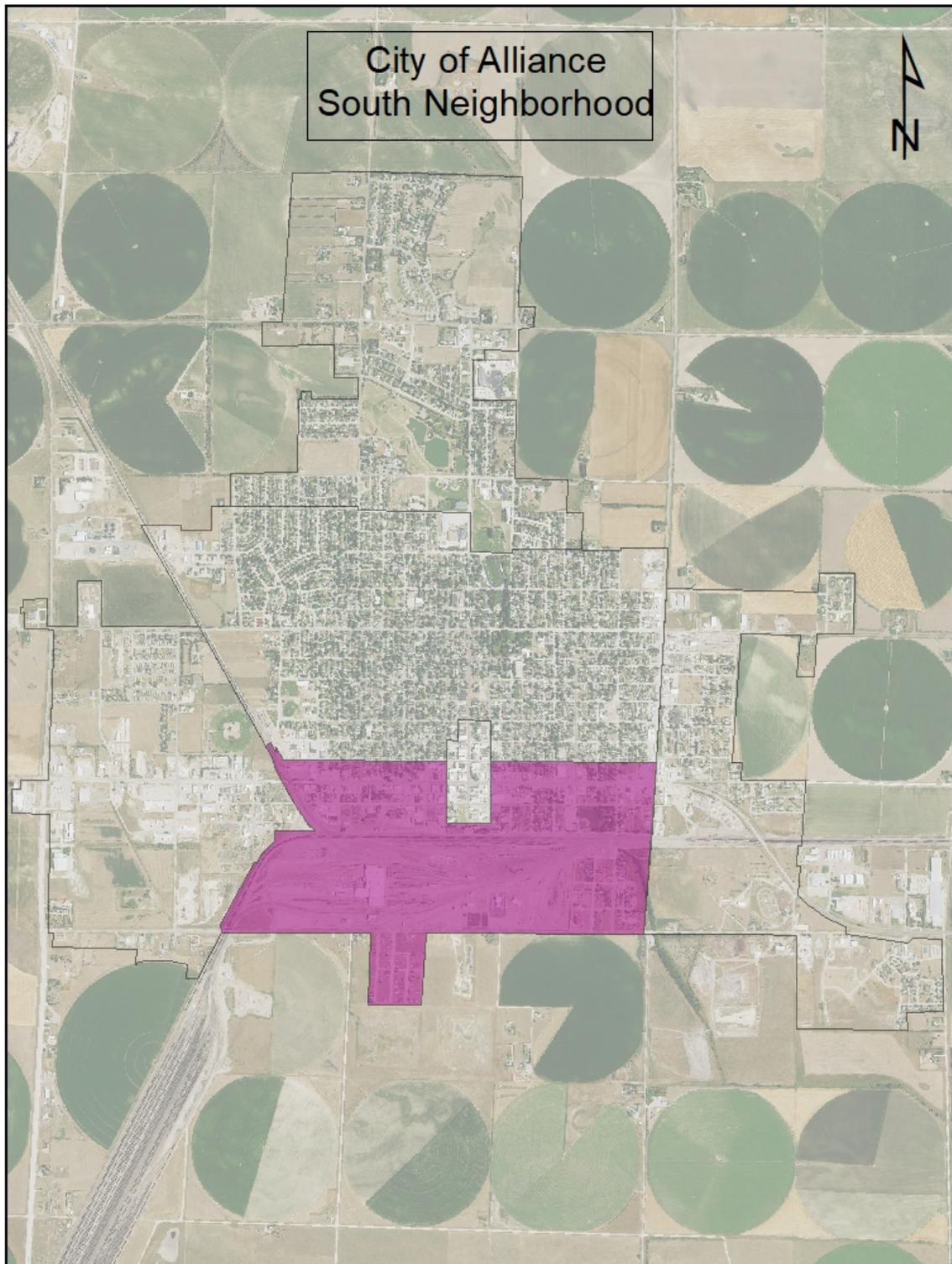


Fig. LU8

Neighborhoods

Downtown Neighborhood

Boundaries

The Downtown Neighborhood is generally bound by 6th Street to the north, 1st Street to the south, Laramie Avenue to the west and Niobrara Avenue to the east. (Fig. LU9)

Synopsis

The strength of a small community is often measured through the vibrancy, image, and usage of its downtown. Downtown Alliance projects a positive and strong image but can continue to be improved by refurbishing aging buildings and full occupancy of empty buildings and vacant lots. A united effort among downtown business owners to create a standardized downtown “brand” would help attract residents, visitors, and future businesses.

Transportation

The Downtown Neighborhood is marked by wide, brick roadways that support on-street angled and parallel parking. The area follows a traditional grid pattern but does include a substantial number of one-way streets. The roadways are in good condition and clearly delineate the neighborhood. A 20 mph speed limit is enforced throughout the Downtown Neighborhood.

The neighborhood is dominated by public and retail uses, and has small

setbacks that create a pedestrian oriented environment. A wide and consistent sidewalk network supports the pedestrian environment very well. The sidewalks are in good condition. Well maintained streetscapes create a pleasant street level environment.

Residential

While the primary use within the Downtown Neighborhood is commercial, there are some residential dwellings above the ground floor of commercial establishments.

Commercial

The area is dominated by niche retail and public service commercial. The conglomeration of locally-owned retail, coupled with some entertainment and recreational opportunities, generates an active downtown atmosphere. The centrality of city and county public employment provides a consistent base of pedestrians in the district.

Industrial

There is very little industrial land use in this neighborhood. There is some industrial zoned land to the south west of the neighborhood that is used primarily for storage.

Landmarks and Activity Centers

The Downtown Neighborhood is home to a number of notable

community landmarks such as Box Butte County Courthouse, City Hall, and the Newberry Building. The movie theatre, a pocket park, and Ken and Dales serve as downtown activity centers.

Vacant Land

There are approximately eight lots located in this neighborhood where buildings have been torn down that could be redeveloped if the demand arose for such a type of building.

Land Use Conflicts

The primary sources of land use conflicts in this neighborhood are industrial uses located along the southwest boundary of this neighborhood and the use of visible downtown commercial space for storage and residential.

Future Land Use

The primary use of this neighborhood should remain commercial. Apart from second story residential dwellings, the adjacent uses should not be permitted to grow into the Downtown Neighborhood.

Neighborhood Goals

Residential: The City allows dwellings above or below the ground floor of downtown buildings. This type of redevelopment should be encouraged by the City. This increases the foot traffic and population downtown and makes it more attractive to new businesses considering locating in this neighborhood.

Neighborhoods

Commercial: As a commercial corridor, the adjacent noncommercial land uses should be discouraged from encroaching into this neighborhood to maintain its historic use and character.

Industrial: The primary industrial uses are located in the southwest portion and the uses are primarily outdoor storage and the railroad. Industrial land uses should not be permitted to encroach into the downtown neighborhood.

Transportation: The Downtown Neighborhood is well connected to the rest of the City. The grid street system common in the Core and South Neighborhoods

extends into the Downtown Neighborhood and as such exhibits the same sidewalk development patterns.

Most of the sidewalk is in good condition but some flaws in the streetscape project design, such as the heaving sidewalk brick, should be fixed. Other sidewalks outside the project area should be evaluated for replacement.

All of the streets in this neighborhood are paved with brick and have concrete curb and gutter. Some of the brick paving as well as the side street curb and gutter are exhibiting signs of distress. Examples of this include spalling, heaving, potholing, and bricks that have

disintegrated. The brick streets provide one of the most unique aspects of this neighborhood, and Alliance in general, and should be maintained.

Code Enforcement: Some of the facades in the Downtown Neighborhood would benefit from an increase in property maintenance code enforcement and rehabilitation. Other portions of the property would benefit from an increase in nuisance abatement to decrease the amount of outdoor storage present. Facade grants could be utilized to aid business owners that are trying to rehabilitate their buildings to increase their curb appeal.

Neighborhoods

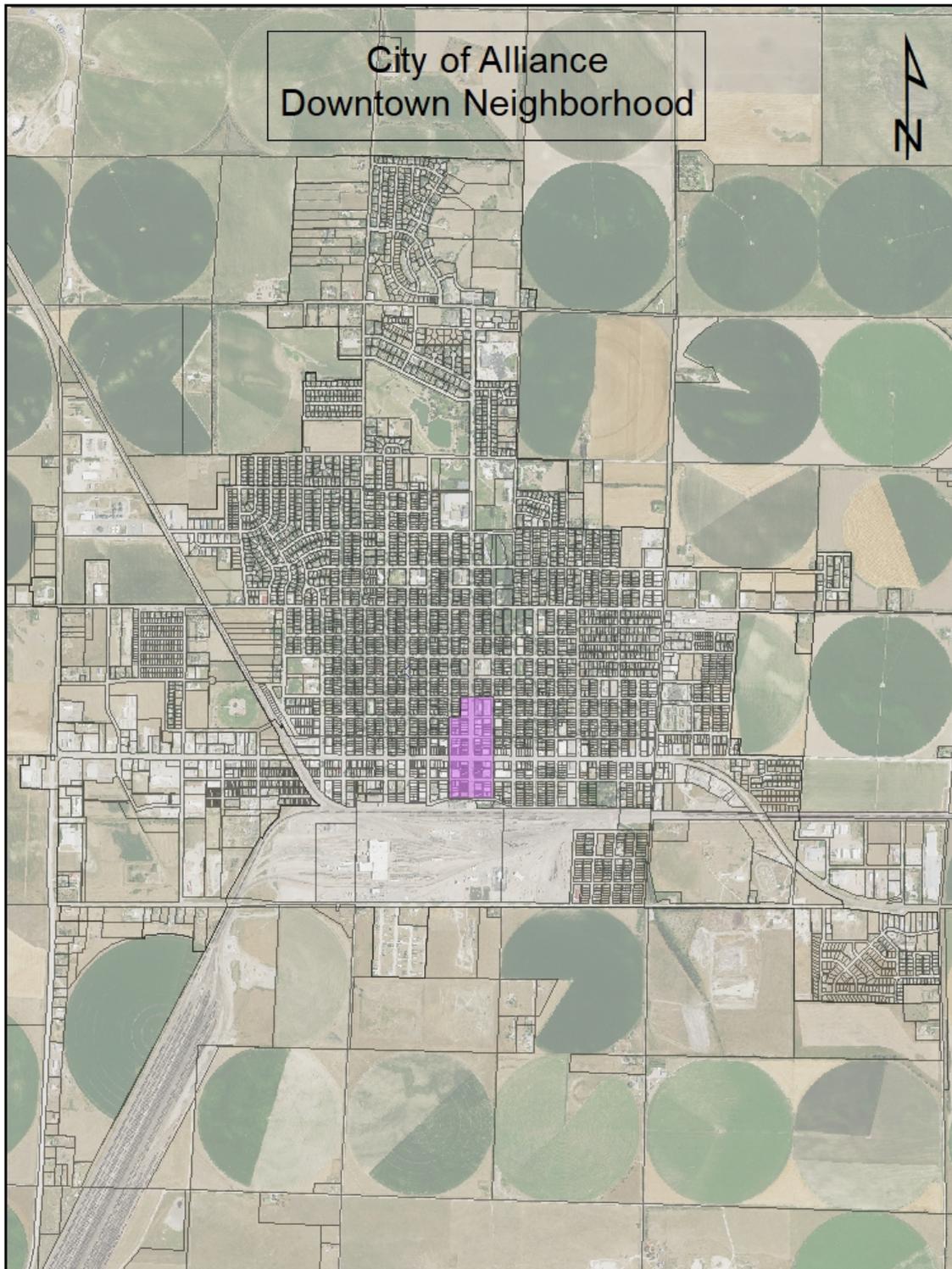


Fig. LU9

Neighborhoods

Extraterritorial Zoning

Jurisdiction Boundaries

The Extraterritorial Zoning Jurisdiction (ETJ) is generally described as the land within a two-mile radius of Corporate City Limits. For ease of enforcement, boundaries were drawn at section or quarter section lines as shown on the ETJ Map. (Fig. LU10)

Synopsis

The ETJ may be thought of as the buffer between the rural County and urban City. It functions as a transition zone wherein the City can ensure its future growth by requiring development in this area to meet the subdivision and building code requirements of the City. The ETJ is primarily used for agriculture but it does contain some fringe growth along highways and well-maintained county roads.

Transportation

The majority of the transportation routes in the ETJ are County Roads that are laid out in a grid like system along section lines. Box Butte County is responsible for maintaining these roads. Nebraska Highway 87 runs north and south through the eastern portion of the ETJ and dead ends at its intersection with Nebraska Highway 2 in Alliance. Nebraska Highway 2 enters the ETJ from the east and leaves running north-west concurrent with United States Highway 385, which runs north and south through the western portion of the ETJ

and City. These highways are maintained by the State of Nebraska Department of Transportation except portions within corporate City Limits.

Residential

Most of the land use outside of corporate limits is agriculture but there are some residential dwellings along well-maintained roads. Most of these residential land uses developed before the City enforced its zoning code and subdivision requirements in the ETJ.

Commercial

The ETJ contains a small number of commercial land uses adjacent to highways. There isn't a central location or business corridor per say and these uses are dispersed throughout the ETJ.

Industrial

There are a few industrial land uses adjacent to the BNSF railroad tracks but they are otherwise dispersed and not connected to each other.

Landmarks and Activity Centers

Carhenge, the Alliance Cemetery, Calvary Cemetery, the Nebraska State Veterans Cemetery, and a portion of the Alliance Municipal Airport are located in the ETJ. Rail fans are occasionally seen stopped on the highway taking pictures along the BNSF railroad tracks and yards.

Vacant Land

There is very little vacant land

in the ETJ as most of it is used for agricultural purposes. Potential development and expansion of the City limits into the ETJ will become more difficult and costly as the price of farm ground and infrastructure continues to increase.

Land Use Conflicts

The primary land use conflicts are a result of uses that existed before the City extended its jurisdiction beyond the Corporate City Limits. These include the mix of industrial, commercial, and residential land uses south of the City adjacent to US Highway 385. This also extends to lots or plats of land that don't meet the City's minimum requirements in the subdivision code.

Future Land Use

Future land uses in the ETJ should be an extension of existing land uses in City Limits or in the logical development path thereof. This will help prevent conflicting land uses as the City continues to grow. Fringe growth in the ETJ without the guidance of a master development plan should also be avoided as any development may cause land use conflicts with other proposed future developments. Previous expansion of the ETJ boundaries after the City annexed the BNSF railroad right of way and yards should be assessed and possibly reversed.

Neighborhoods

Neighborhood Goals

Development and redevelopment within current City Limits should be prioritized over new development in the ETJ.

Residential: If residential developments are to occur outside corporate limits, they should be platted and developed adjacent to existing residential developments.

Commercial: Commercial growth in the ETJ should be extensions of current

commercial growth and placed primarily adjacent to highways utilizing frontage roads for access.

Industrial: Industrial growth should occur primarily in areas where there is access to both railroad and highway or well-maintained county roads.

Transportation: Transportation in the ETJ is primarily maintained by Box

Butte County and the State of Nebraska Department of Roads.

Code Enforcement: Code enforcement should be carried out in the ETJ the same as it is in the rest of the community. Although primarily used for agriculture, the ETJ does function as the first gateway and provides a first impression of the City. This is why consistent and compatible land use is advised in the ETJ.

Neighborhoods

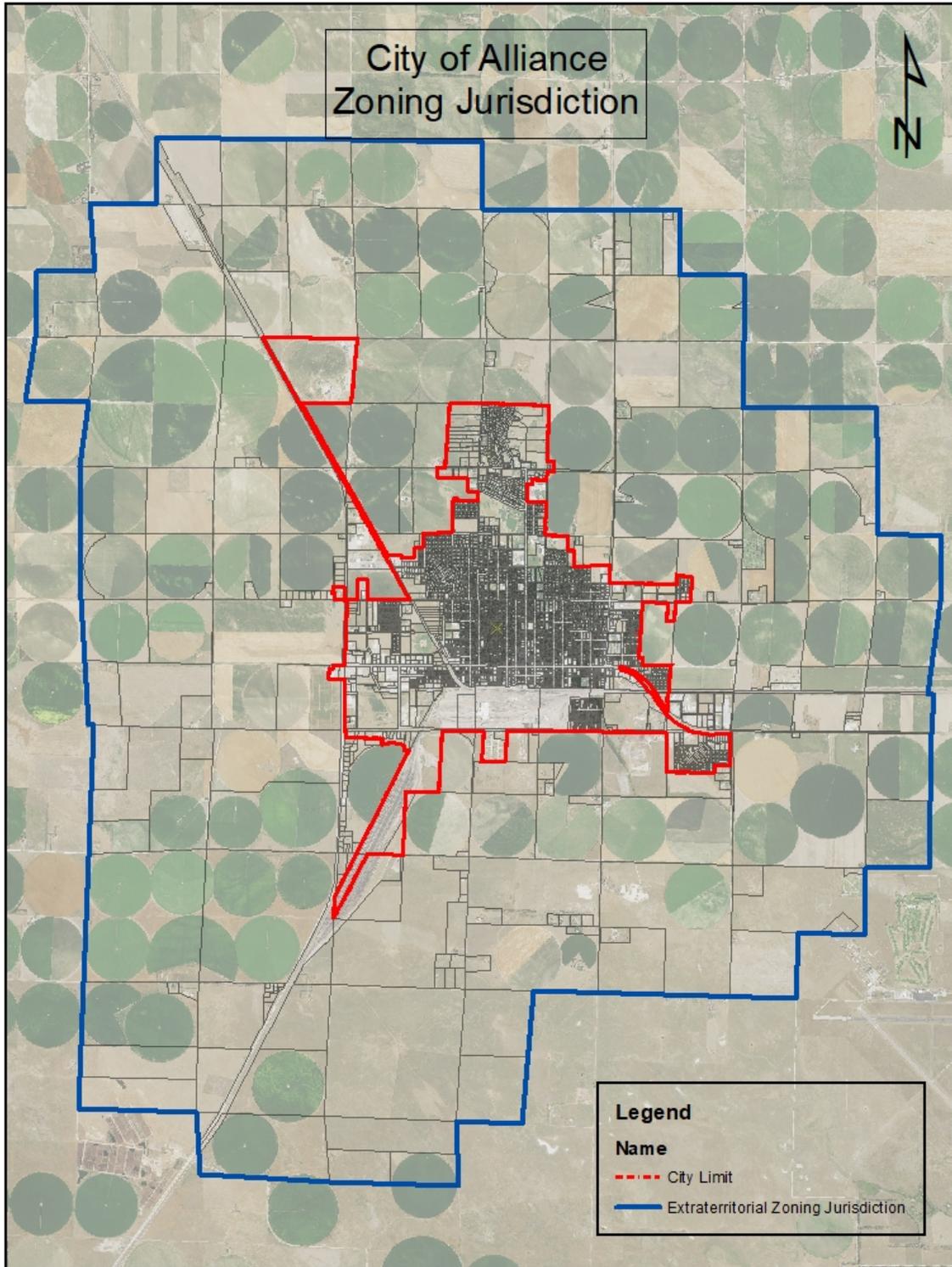


Fig. LU10

Annexation

Annexation

The annexation map prioritizes the land surrounding the City for inclusion within the Corporate City Limits. Prioritization takes in to account the location of the land in relationship to existing utilities, its proximity to current City Limits, the likelihood of the land to be developed, the adjacent land use, and the areas current land use. In addition, the State requires that annexations must be urban or suburban and not rural in character. (Fig. LU11)

The highest priority for new development and redevelopment is within current City Limits. In most instances, infill allows for the use of existing infrastructure as well as occupying property already covered by City police and fire protection. Using existing infrastructure reduces the cost of private development and the long-term cost to the City for providing services to an area larger than is necessary.

The priorities for annexation are broken down into four categories. High, Medium, Low, and Not Prioritized. High Priority annexations are characterized by small developments that are already served by City Utilities and are adjacent to current City Limits; or land that is adjacent to current City Limits and is well positioned to develop but will require minor extension of City services upon doing so.

Medium Priority annexations are those developments or future developments that are adjacent to current City Limits, require the extension of public services, and are moderately positioned for development. Low priority

annexations are those that are adjacent to City Limits but not well positioned for development at this time. Lands that are Not Prioritized are lands that are not well positioned for development, are not adjacent to City Limits, and/or not suitable for land use outside of Agriculture at this point in time.

**Area # 1
Heartland Expressway**

The Heartland Expressway Corridor is primarily bordered by commercial uses and commercial zoning to the east. The growth of the community around this corridor should cater to the traveling public and present a pleasing and welcoming atmosphere. Strip development or saw tooth development should be discouraged and master planning conducted to ensure growth adjacent to the Expressway doesn't negatively affect development of the surrounding land.

**Area #2
Emerson Avenue**

This area is bordered by single family dwellings to the south and east and rural residential dwellings to the north. The location of the floodplain limits the development of this area but also provides opportunities for larger parcels or parkland. Previous Plans have called for this area to be a mixture of larger lots zoned for rural residential on the north portion and single-family residential on the south half or some variation thereof.

**Area #3
Sweetwater Avenue**

This area is attractive to growth as it has not been divided into smaller agriculture tracts. It is adjacent to residential land uses to the south and

southwest and commercial office to the northwest. The zoning currently reflects this desired land use. It also contains heavy commercial in the southeast portion adjacent to the highway. Since the relocation of US Highway 385 to the west side of the City, commercial growth is not anticipated here and this should be returned back to Ag zoning until such time as development is more likely.

**Area #4
Kansas Street**

Additional industrial growth could happen south of Kansas Street as this area is directly south of the BNSF railroad yards. Appropriate landscaping and spacing requirements should be required to separate the existing residential land uses from any industrial use.

**Area #5
Elkhorn Avenue**

This area would be suitable for additional residential growth. It is bordered to the north, south, and west by residential neighborhoods.

**Area #6
Nebraska Highway 2**

This area is adjacent to the Alliance Industrial Park and would be an extension of that land use to the east.

Annexation

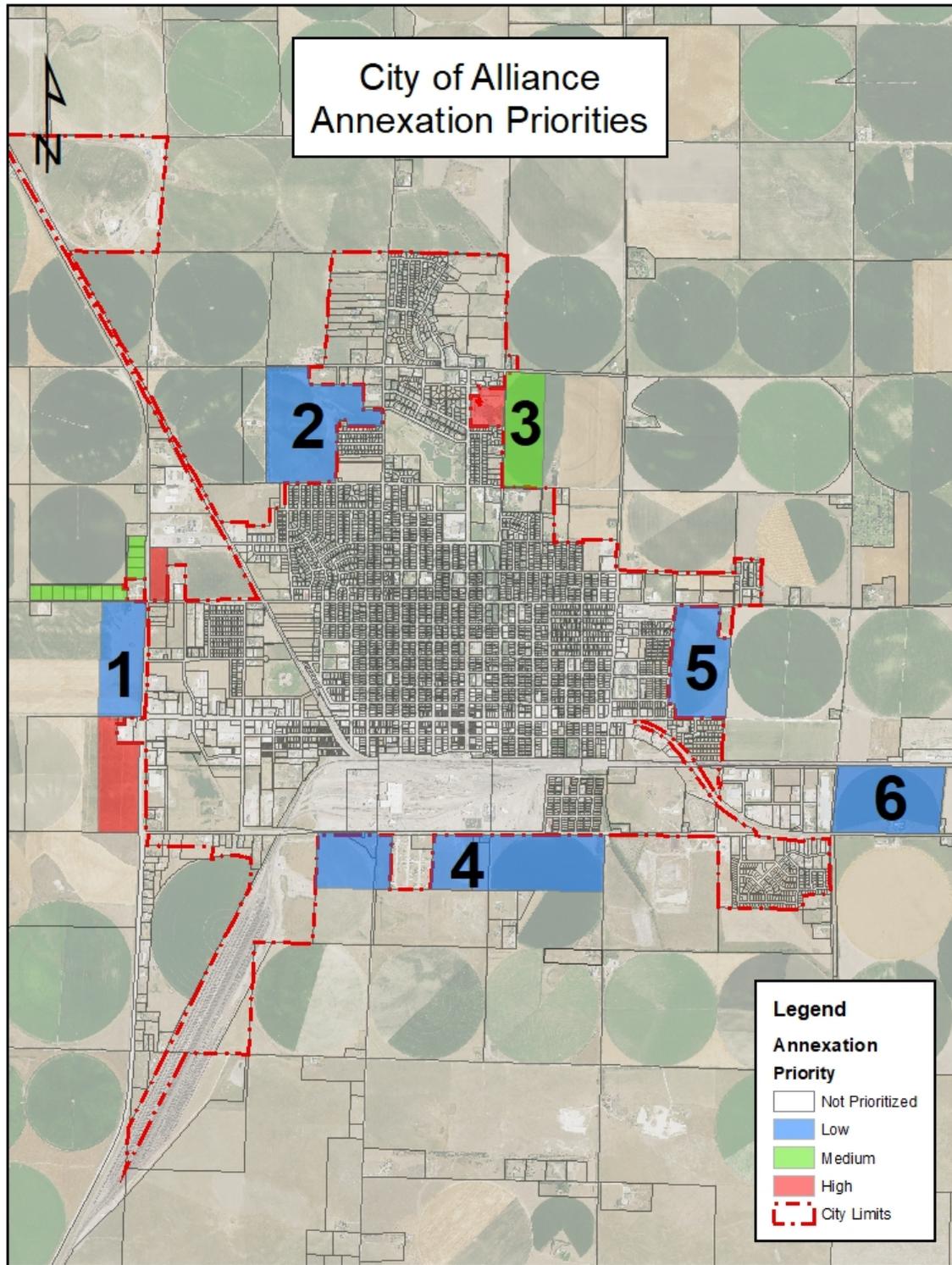


Fig. LU11

ustainability

Sustainability Introduced

The Merriam-Webster dictionary defines sustainability as, “a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.” This definition can be interpreted and applied several different ways.

To some, community sustainability is achieved through total separation from a modern way of life to a more community oriented, self-production method. To others, a sustainable community is one that is developed more compactly, designed around public transportation and walking routes, promotes waste reduction, and minimizes energy and water consumption.

Each approach to creating sustainable communities is uniquely credible. However, regardless of the approach, creating sustainable communities requires a change in attitude and adjustments in the way of living.

The recent interest in sustainability in smaller communities is largely the result of the continued decline of their population and an increase in the cost of living partly due to the increased cost of energy.

To create more sustainable communities, leaders will need to look beyond the short term benefits and critically analyze the long term consequences of their decisions. Many decisions made in communities that are declining in population are impulsive, made for the sake of "getting something done," and do not take the future needs or growth of the community into consideration.

The Sustainability Chapter of the Comprehensive Plan is divided into three sections. The first section presents sustainability indicators that compare past Alliance to present Alliance as well as present Alliance to other communities.

A sustainability indicator is a useful tool to assess whether a community is becoming more sustainable or less sustainable over time. Indicators are grouped into three categories: socio-cultural, environmental, and economic. Each indicator will be objective, measurable, and based on empirical and readily available data.

The second section is an assessment of the appearance of the community. Community appearance is a visual indicator of the overall health of the community and an important component of the stop and stay factor that draws people to Alliance to shop, live, and invest.

The third section is an Energy Assessment of the City of Alliance. This will compare current and previous energy consumption in the City of Alliance as well as the State of Nebraska.



Alliance Assessed

A single indicator, in and of itself, is a useful assessment of whether or not a community is meeting the needs of its residents. However, without any comparisons, it is difficult to determine the true value of any metric. Is the indicator score good or bad? Is the community improving or declining? This component of the Sustainability Assessed section compares indicators of Alliance then (2000) to Alliance now (2022). Historical comparative indicators are the first component of the Sustainability Assessed section.

Population

A stable population is a useful indicator of a healthy and sustaining community. Population growth or stability suggests that new homes are being built and businesses are expanding. According to the U.S. Census, the population of Alliance in 2000 was 8,959, 8,491 in 2010, and 8,151 in 2020. Between 2000 and 2020, Alliance lost 808 residents, which represents a 9 percent population loss. Alliance's population peaked in 1980 with a total of 9920 residents. (Fig. S1)

Home Ownership Rate

Home Ownership Rate is considered an indicator of sociocultural sustainability for many reasons. Home ownership rate is a measure of stable or growing populations, population turnover, and neighborhood continuity.

These factors all affect the sustainability of the community. Continual improvement and an increase in home ownership should be a goal of all communities. Alliance's home ownership rate in 2000 was 68.05 percent, in 2010 it was 63.7 percent, and in 2020 it was 63.8 percent. (Fig. S2)

Average Household Income

Average household income is a useful socioeconomic indicator because it provides insight into the employment base and the local pay rate. Alliance's average family income has increased from \$46,274 in 2000 (\$69,003 adjusted for inflation) to \$77,309 in 2019. Alliance's average family income has increased by 40 percent from 2000 to 2019 or 12 percent when taking inflation into account. (Fig S3)

Unemployment Rate

The unemployment rate represents the percentage of individuals, within the available civilian workforce, currently unemployed. The unemployment rate is an indicator of economic sustainability. Like job growth, the unemployment rate is widely used as a predictor of local economic stability. Alliance's unemployment rate, which has consistently been lower than the national average, was 4.2 percent in 2012. The unemployment rate dropped to 2.0 percent in 2022. (Fig S4)

Average Travel Time to Work

Several factors can affect the average travel time to work, including the proximity of local employers, the condition and congestion of roadways, and the availability of multi-modal transportation options. This metric is a useful indicator because of its relationship to overall quality of life. More time spent in the car means less time to spend with family or pursuing recreational interests. Additional commuting time also has environmental consequences in the form of increased pollution. Alliance's average travel time to work in 2000 was 13.6 minutes. This decreased to 8.3 minutes in 2019. (Fig. S5)

Educational Attainment

The educational attainment rate represents the percentage of individuals, over the age of 25, who have achieved either a bachelor's, master's, or doctorate degree. The educational attainment rate is an indicator of sociocultural sustainability. The educational attainment rate is a measure of a community's ability to retain and attract highly educated residents. To some degree, the educational attainment rate is an indicator of available and types of employment located within Alliance. Alliance's educational attainment rate was 13.71 percent in 2000. The educational attainment rate increased to 16.9 percent in 2019. (Fig. S6)

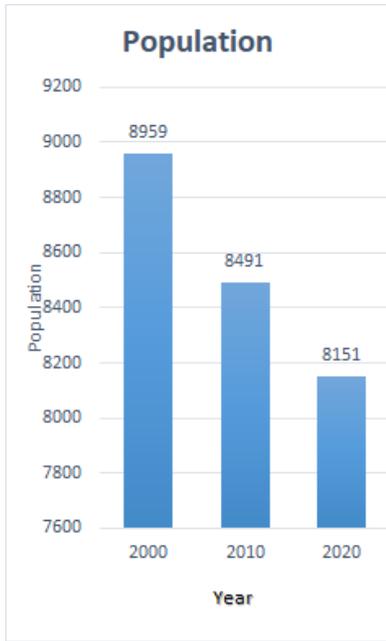


Fig. S1

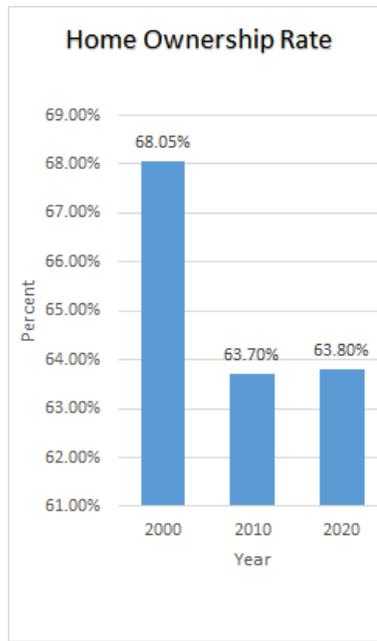


Fig. S2

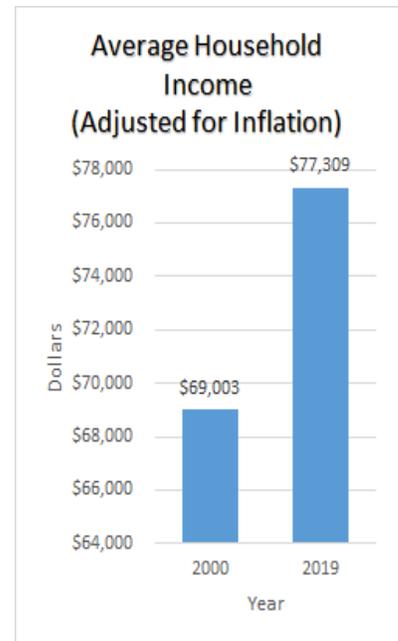


Fig. S3

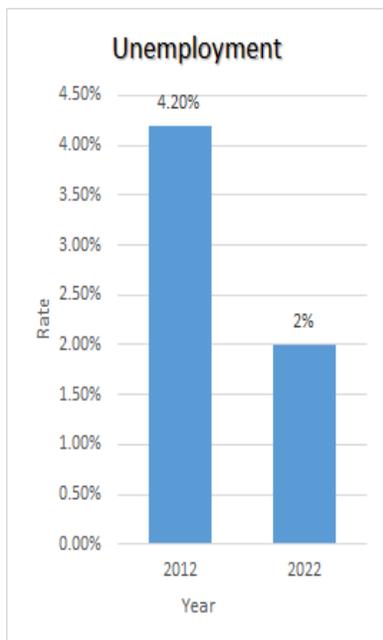


Fig. S4

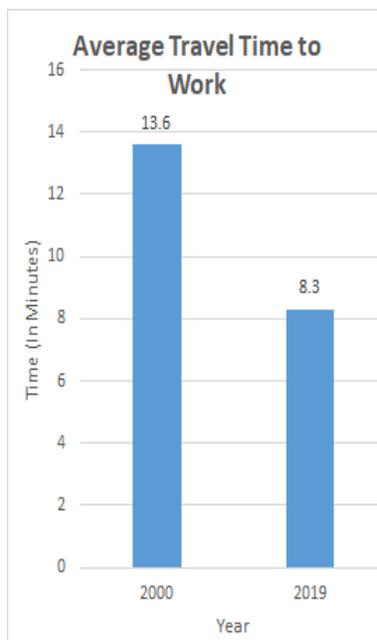


Fig. S5

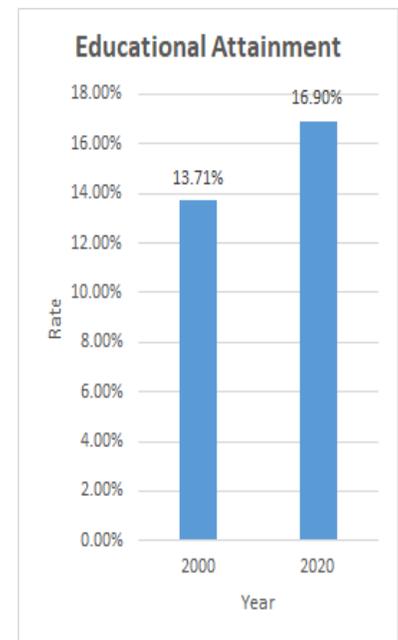


Fig. S6

Alliance Assessed

Regional comparative indicators are the second component of the Sustainability Assessed section. The indicators compare Alliance to other communities in the region to identify Alliance's strengths and areas where improvement may be necessary.

Home Ownership Rate

The City of Alliance compares favorably to other communities with a home ownership rate of 63.8 percent, higher than North Platte (59.3 percent), Chadron (54 percent), Sidney (60.7 percent), Scottsbluff (53.5 percent), and Rapid City, South Dakota (61.8 percent). Other communities such as Gering (75.3 percent) and Cheyenne, Wyoming (65.9 percent) have higher homeownership rates. The national average home ownership rate is 64 percent and the State of Nebraska average is 66.1 percent. (Fig. S7)

Racial Diversity Index

The racial diversity index measures the "diversity" of the population and is the likelihood that two people chosen at random will not be of the same race or ethnic group. Racial diversity is an indicator of sociocultural sustainability. Studies indicate more racially diverse communities create greater macroeconomic gains, show improved creative

decision making, and enhance the overall productivity of cities.

The City of Alliance has a 34.3 percent index score, while North Platte has 26.1 percent, Gering 43.9 percent, Sidney 23.5 percent, Chadron 27.7 percent, Cheyenne, Wyoming, 41.2 percent, and Rapid City, South Dakota, 40.9 percent. The national average is 61.1 percent and the State of Nebraska is 40.8 percent. (Fig. S8)

Crime Rate

Crime rate relates the incidence of crime to population and is typically expressed as the number of crimes per 1,000 residents in a given year. This statistical measure allows uniform comparison of all communities regardless of population size. Crime rate measures the number of violent and property crimes in a given area. Crime rate is a sociocultural sustainability indicator. Communities with lower crime rates are perceived to be safer, friendlier, and generally more attractive places to live.

Alliance has a lower than average crime rate of 84, Scottsbluff has a crime rate of 105, North Platte 75, Gering 45, Sidney 72, Chadron 44, Cheyenne, Wyoming 107, Rapid City, South Dakota 86. The national average is 100 and the Nebraska State average is 81. (Fig. S9)

Health Insurance Coverage

Health insurance coverage indicates the percentage of residents with any type of health insurance coverage. Health insurance coverage is an indicator of sociocultural sustainability as it reflects community health, the ability to stay healthy, and accessibility to health-related services.

The City of Alliance compares favorably to other communities. The percentage of residents with health insurance coverage in Alliance is 93 percent. This percentage is higher than North Platte (88.4 percent), Scottsbluff (89.7 percent), Gering (91.9 percent), Chadron (92.2 percent), and Rapid City, South Dakota (88.4 percent). Sidney (94.8 percent) and Cheyenne, Wyoming (93.3 percent) have a higher percentage of residents with health insurance coverage. Nationally, 91.2 percent of people have health insurance and 91.8 percent of people are covered in Nebraska. (Fig. S10)

Alliance Assessed

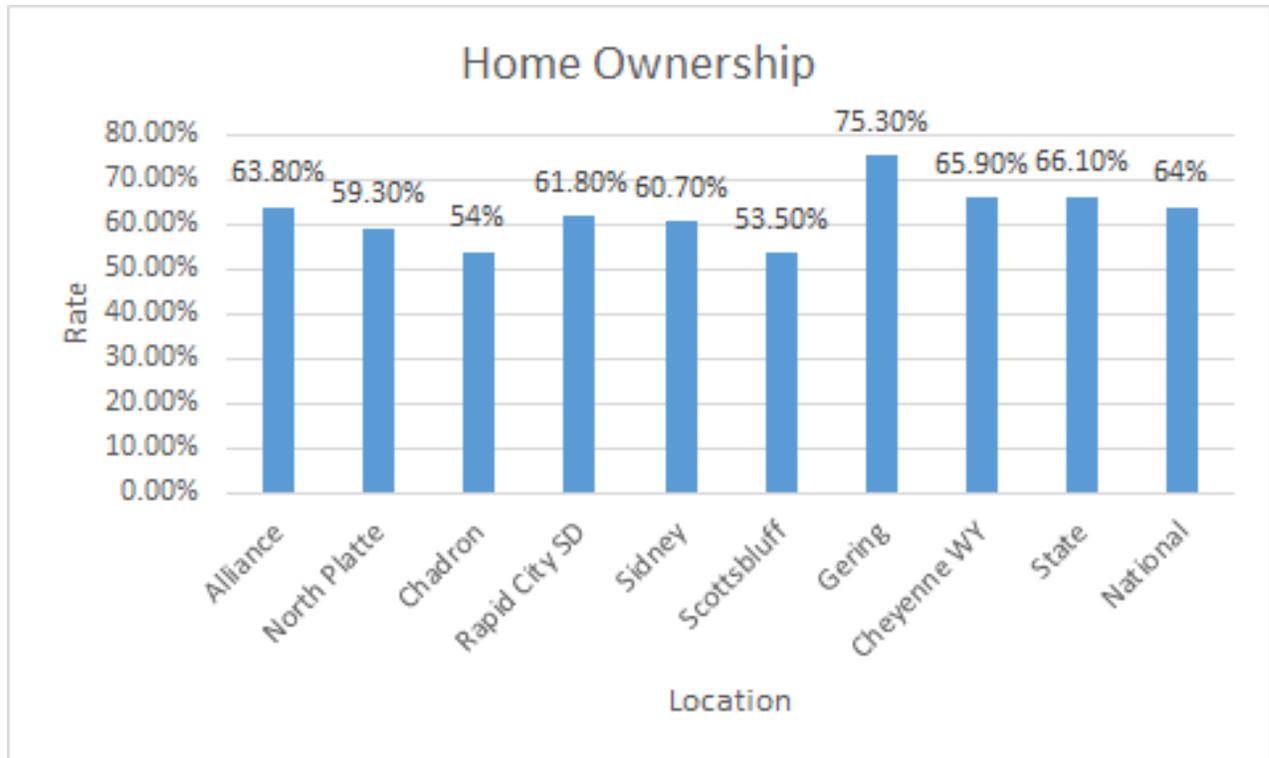


Fig. S7

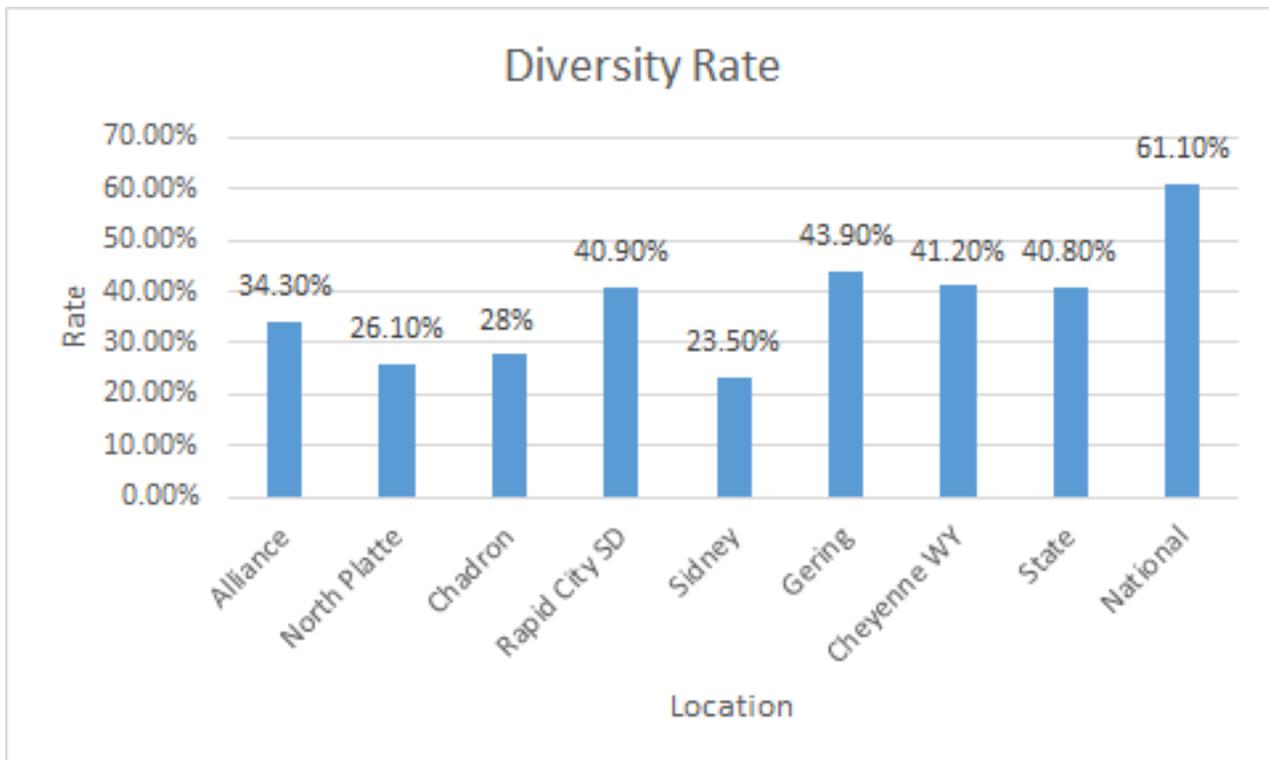


Fig. S8

Alliance Assessed

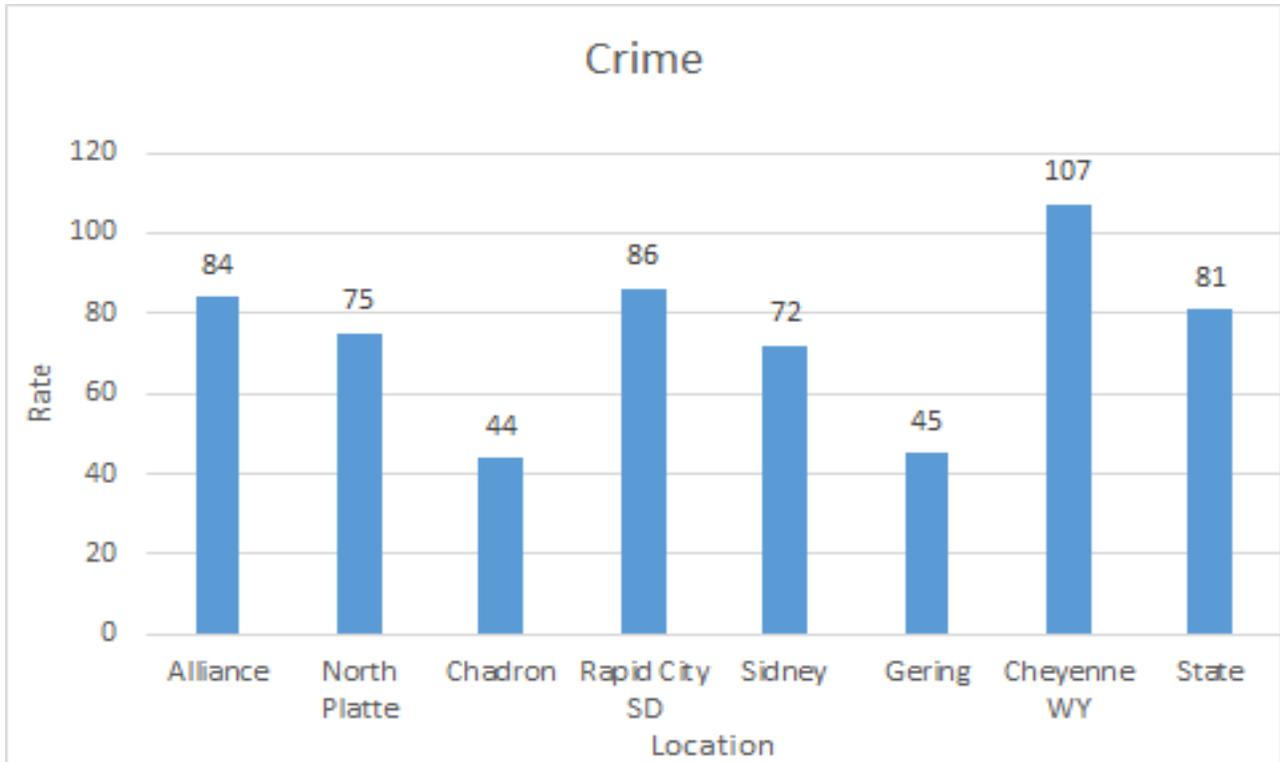


Fig. S9

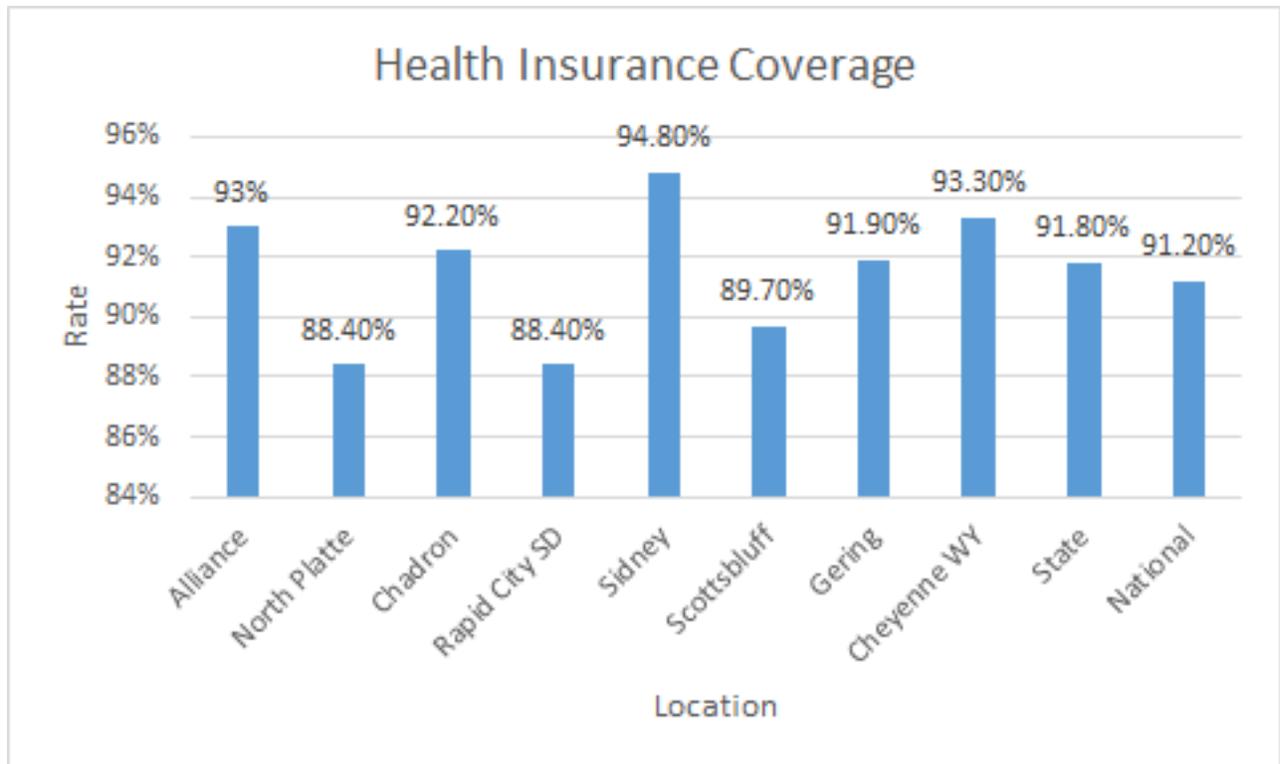


Fig. S10

Alliance Assessed

Test Scores

The test scores indicator measures test performance as a percentage against the state average. Test scores are an indicator of sociocultural sustainability as they provide an objective measure of education against the performance of other students statewide.

Test scores are not the only measure of community education, but do provide objective insight into student performance. The statistical measure is an average of all test takers, therefore eliminating the ability of a small number of very low or very high scores to skew results.

Reading Scores

The City of Alliance compares poorly to other communities in regard to reading test scores. The City of Alliance scores at 38 percent or 10 percent below the state average of 48 percent. Gering tests at 43 percent, Chadron 60 percent, Sidney 66 percent, and Scottsbluff 53 percent. North Platte, at 31 percent, was the only City in this comparison that tested lower. (Fig. S11)

Math Scores

The City of Alliance compares poorly to other communities in math test scores as well. The City of Alliance scores 27 percent or 19 percent lower than the state average of 46 percent. Gering was 43 percent, Chadron 61 percent, Sidney 44 percent, Scottsbluff 35 percent, and North Platte 31 percent. (Fig. S12)

Divorce Rate

The divorce rate is the percentage of individuals whose marriage ends in dissolution before the death of either spouse. Divorce rate is an indicator of sociocultural sustainability as sociological studies indicate divorce has at very least, significant short term social impacts on families. High community divorce rates can lead to housing and family instability, increase population turnover, and affect socioeconomic status within the community.

The City of Alliance compares similarly with other communities. The City of Alliance has a divorce rate of 12.8 percent, Chadron 9.8 percent, Gering 12.4 percent, North Platte 14.2

percent, Scottsbluff 13.9 percent, Sidney 12.9 percent, Cheyenne, Wyoming 15.1 percent, and Rapid City, South Dakota 13.7 percent. (Fig. S13)

Job Growth

The following graph illustrates the percentage of new jobs created annually. A negative value represents jobs lost annually. Job growth is an indicator of economic sustainability. New job creation represents increased employment opportunity for existing and potential residents. Also, this statistical measure is widely used in local economic forecasting. Employment opportunity is directly related to population stability as well.

The City of Alliance compares similarly to other communities evaluated. The City of Alliance lost employment at a -.7 percent rate in 2021. Gering and Scottsbluffs job growth was .5 percent, Chadron -1.1 percent, Sidney -2.9 percent, North Platte -.1 percent, Cheyenne, Wyoming -2.1 percent, and Rapid City, South Dakota 2.5 percent. (Fig. S14)

Alliance Assessed

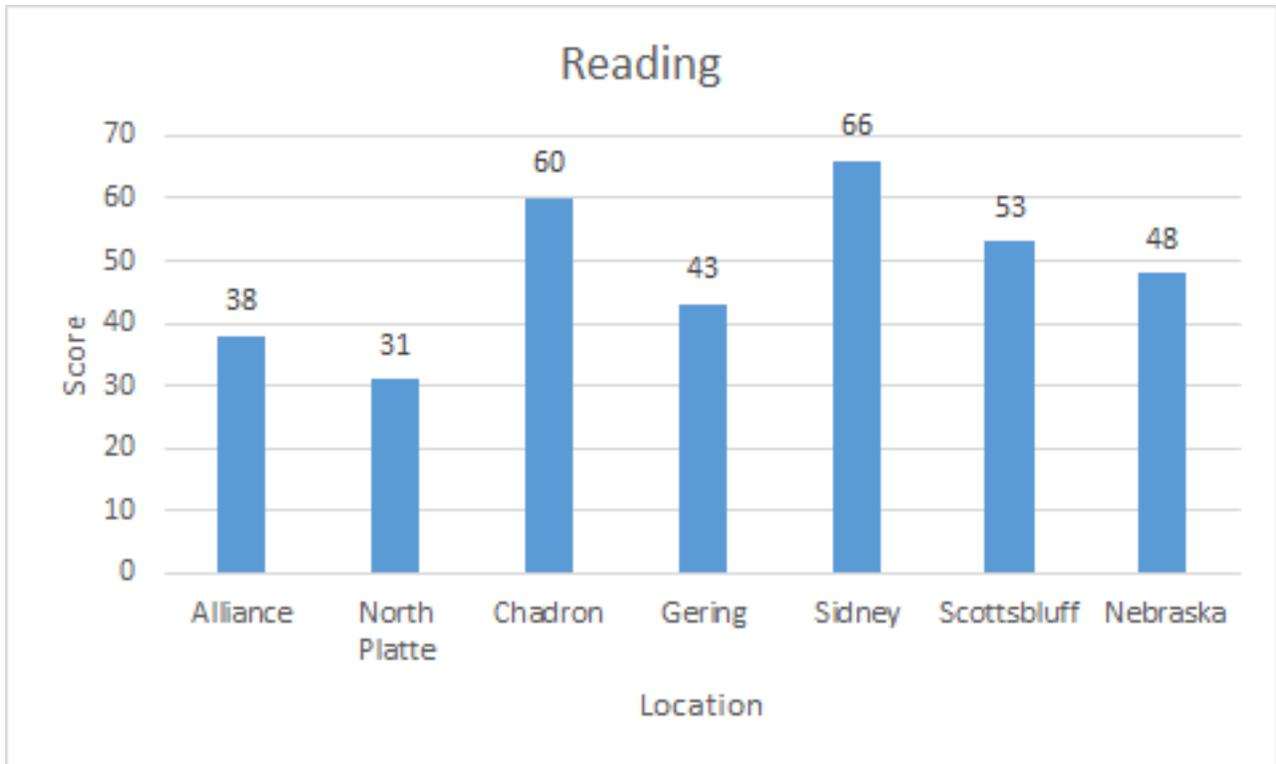


Fig. S11

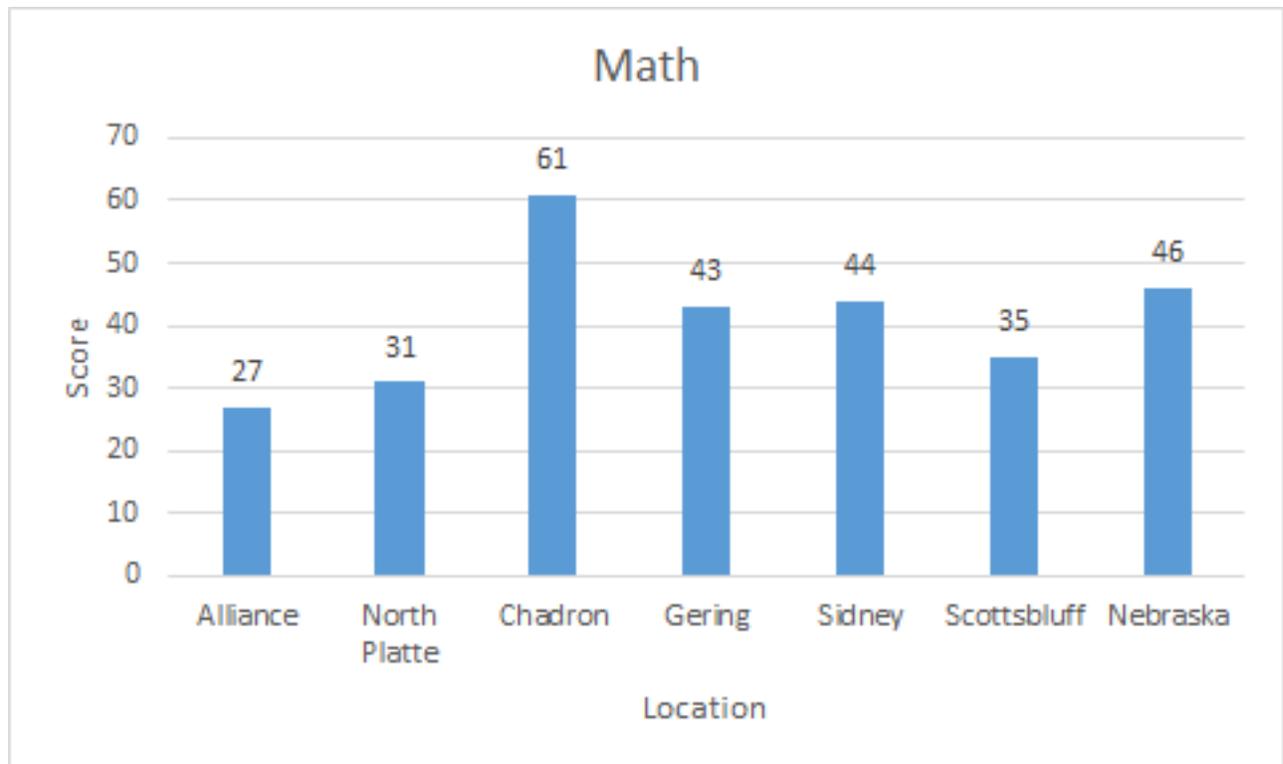


Fig S. 12

Alliance Assessed

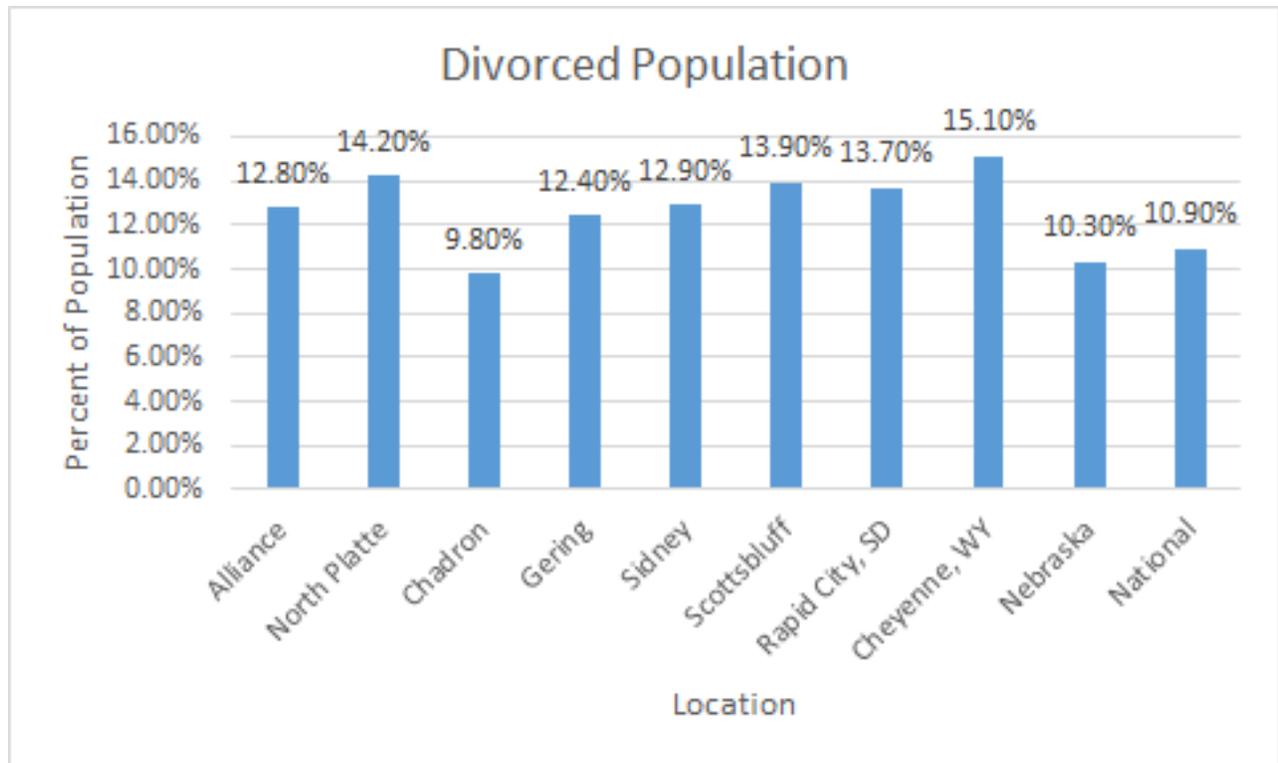


Fig. S13

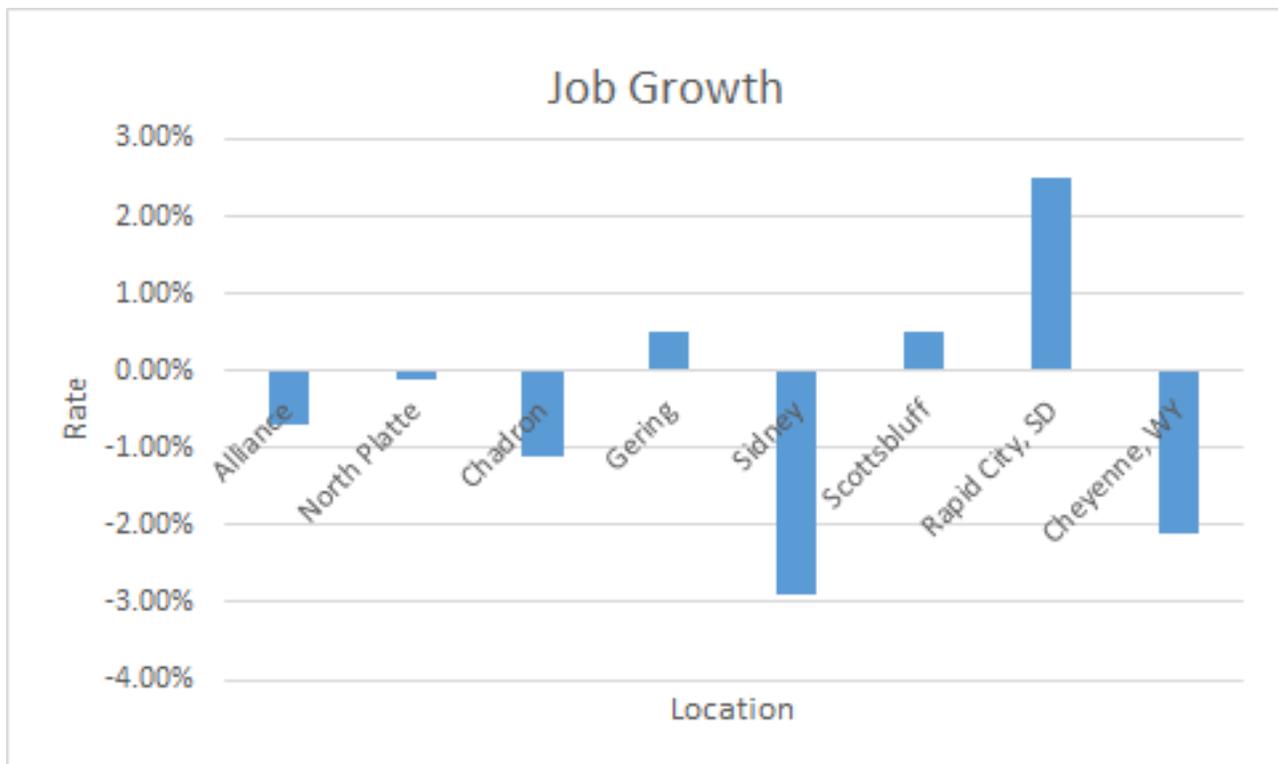


Fig. S14

Alliance Assessed**Unemployment Rate**

Unemployment rate represents the number of unemployed as a percent of the civilian labor force. Unemployment rate is another indicator of economic sustainability.

The City of Alliance compares similarly to other communities evaluated. The unemployment rate in Alliance is 2.0 percent. This is comparable to North Platte (1.7 percent), Scottsbluff and Gering (2.2 percent), Sidney (2.3 percent), Chadron (1.6 percent) Cheyenne, Wyoming (3.1 percent), and Rapid City, South Dakota (2.2 percent). The national unemployment rate is 3.6 percent and the Nebraska unemployment rate is 1.9 percent. (Fig S15)

Long Commute Times

This statistical measure is an indicator of environmental sustainability as a high percentage of long commute times suggest higher carbon emission associated with vehicular trips and displaced employment requiring a significant commute.

The City of Alliance has a percentage similar to other communities evaluated. Within the City of Alliance, 1.6 percent of residents have a commute time greater than 45 minutes. Chadron (4.2 percent), Gering (6.3 percent), North Platte (3.1 percent), Scottsbluff (2.5 per-cent),

Sidney (3.7 percent), Cheyenne Wyoming, (4.3 percent), and Rapid City, South Dakota (3.8 percent) all have greater population with commute times longer than 45 minutes. The National rate is 17.6 percent and the State of Nebraska rate is 6.6 percent. (Fig. S16)

Average Commute Time

Average commute time is the average time (minutes) each resident spends commuting to their place of employment. Average commute time is an indicator of environmental sustainability. High average commute times suggest higher ratios of carbon emissions per resident. Also, commute times reflect proximity of employment within each community. It should be noted that larger (area) communities will generally have greater commute times.

The City of Alliance compares favorably to other communities evaluated. The average commute time for Alliance residents is 8.3 minutes. This commute time is the lowest of all communities evaluated. Chadrons commute time is 10.2 minutes, North Platte (12.5), Gering (14.0), Scottsbluff (10.8), Sidney (10.7), Cheyenne, Wyoming (14.3), and Rapid City, South Dakota (18.2). The national average commute time is 26.9 minutes and the Nebraska average is 18.8 minutes. (Fig. S17)

Residents who Walk or Bike to Work

This statistical measure is an environmental sustainability indicator as a higher percentage of residents who walk or bike to work suggest a community is less auto-dependent. A decrease in vehicular transit is a positive indicator of environmental sustainability.

The City of Alliance has a lower than average rate of residents who walk or bike to work but is comparable with other cities when compared. In Alliance, 1.2 percent of residents walk or bike to work, Chadron (14 percent), North Platte (2.5 percent), Gering (0.9 percent), Scottsbluff (1.6 percent), Sidney (4.3 percent), Cheyenne (1.7 percent), Rapid City, South Dakota (0.4 percent) are all similar. The national rate of people walking or biking to work is 3.2 percent and the Nebraska rate is 3.0 percent. (Fig. S18)

Alliance Assessed

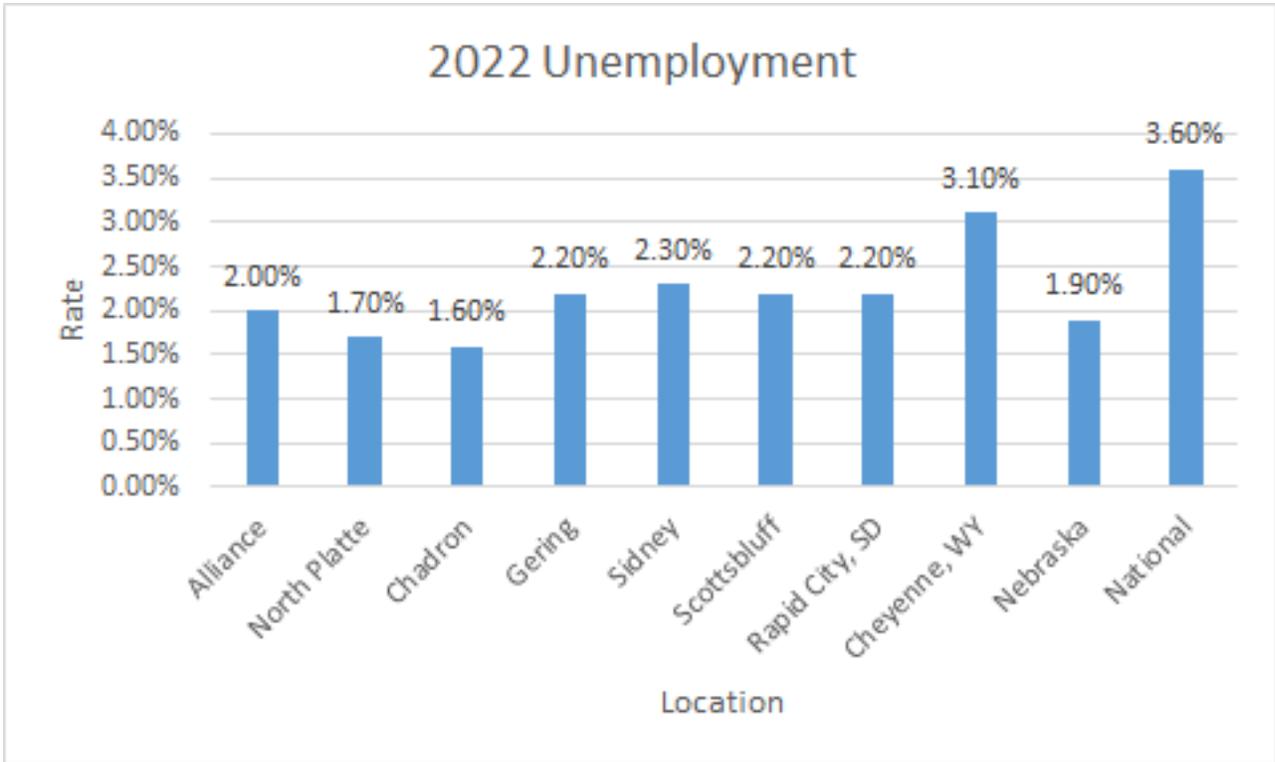


Fig. S15

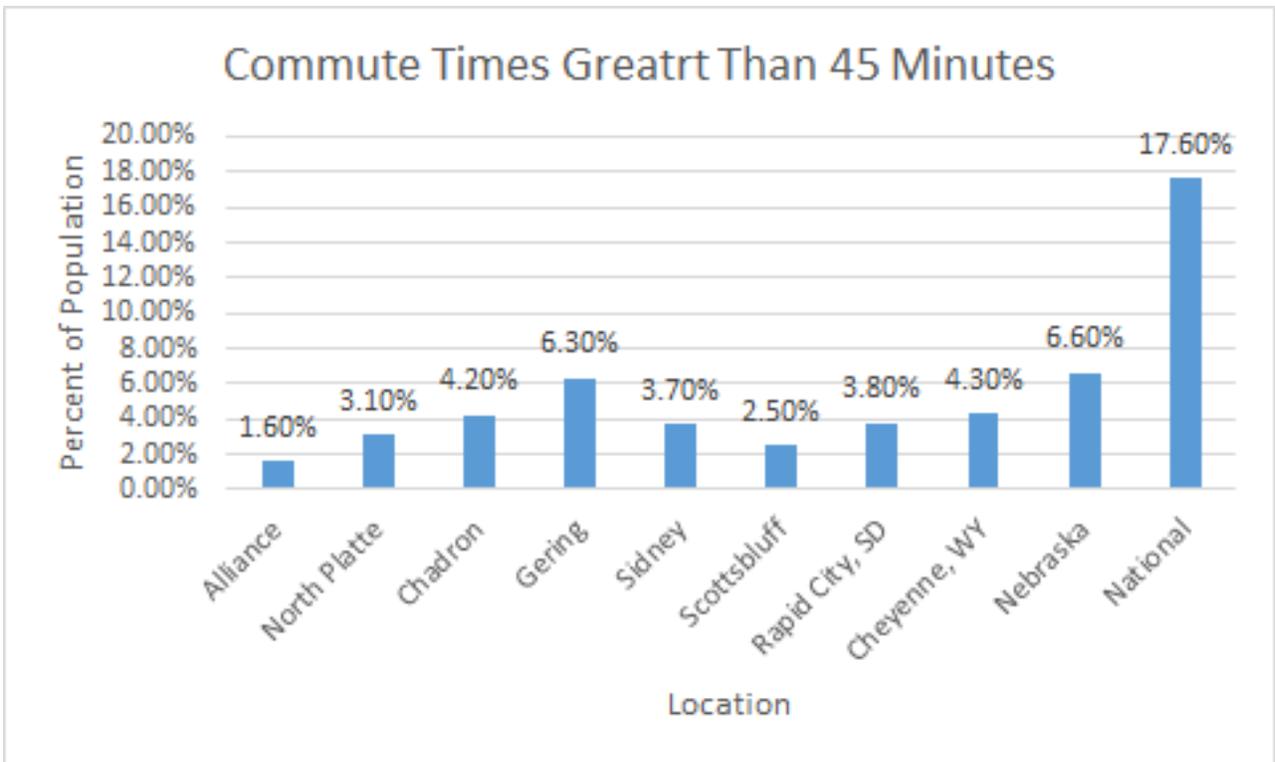


Fig. S16

Alliance Assessed

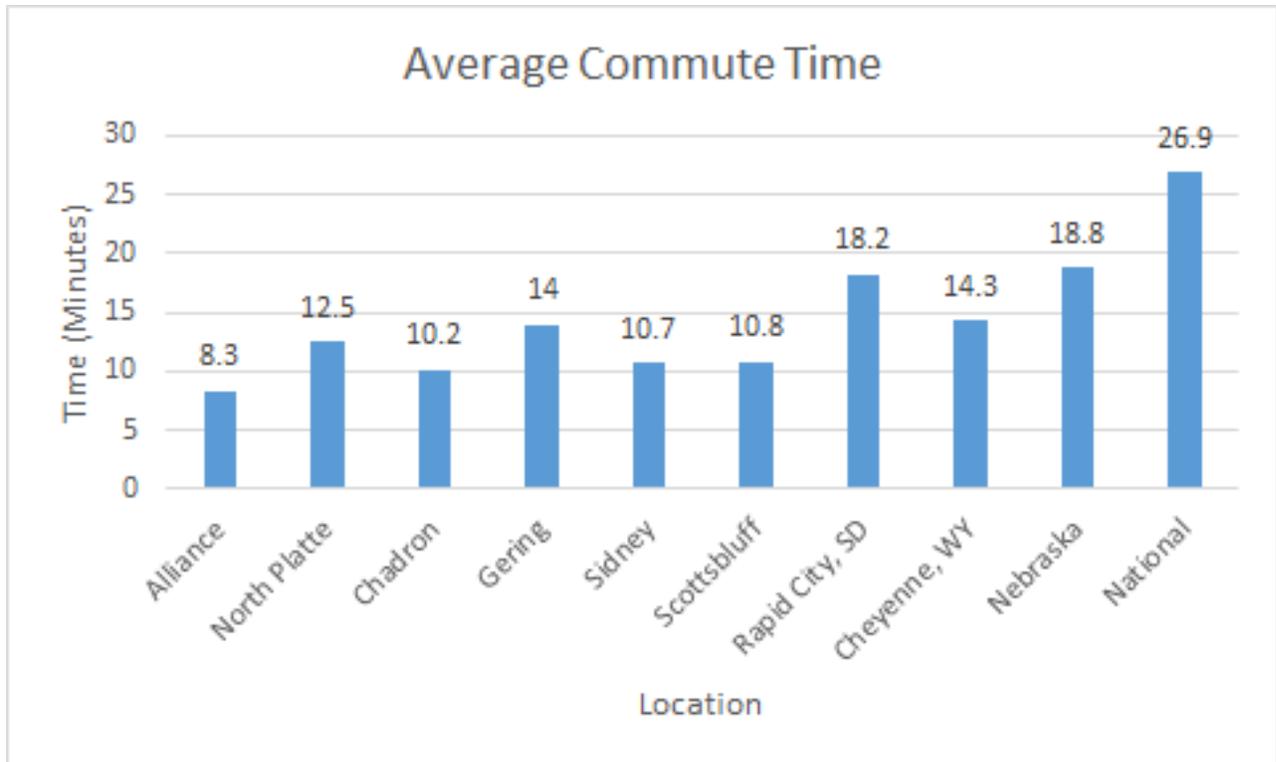


Fig. S17

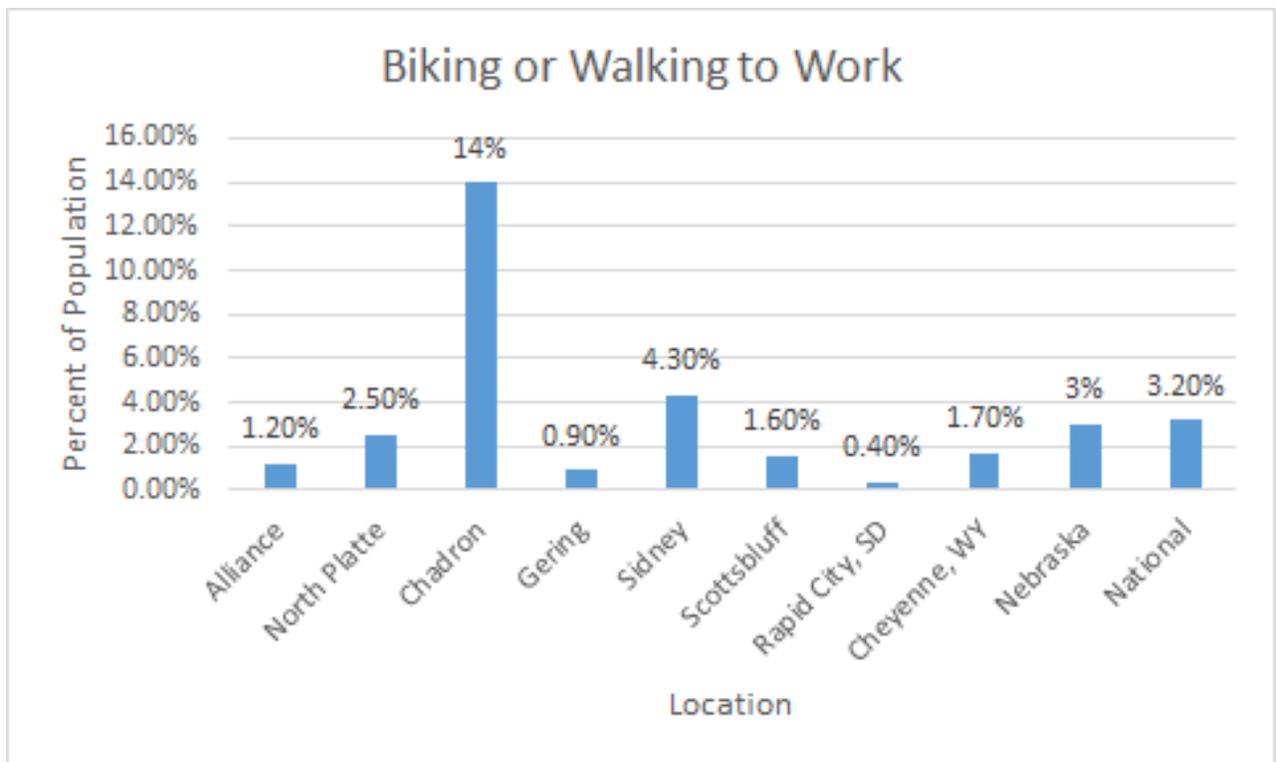


Fig. S18

Alliance Assessed

Family Income

There are two economic sustainability factors related to family income. The first, median family income, is the income that equally divides a community. One half of the families within the community have income greater than the median, and one half of families within community have income less than the median. The second factor, family purchasing power, reflects median income with a cost-of-living adjustment. Both of these factors are indicators of economic sustainability. Analyzed together, these factors offer insight into demographic makeup, employment opportunities, and overall cost-of-living.

Median Family Income

The City of Alliance median family income compares favorably to other communities evaluated. The City of Alliance has a median family income of \$73,945. This compares well to Chadron (\$69,444), North Platte (\$69,656), Gering (\$80,245), Scottsbluff (\$55,907), Sidney (\$79,041), Cheyenne, Wyoming (\$78,911), and Rapid City, South Dakota (\$64,561). The National median family income is \$77,263 and the State of Nebraska is \$78,212. (Fig. S19)

Family Purchasing Power

The City of Alliance family purchasing power income also compares favorably with other communities evaluated. The City of Alliance family purchasing power income is \$56,068. This is higher than North Platte (\$52,683), Gering (\$46,006), Cheyenne, Wyoming (\$51,799), and Rapid City, South Dakota (\$49,790). Only Middleton, Wisconsin (\$85,516) and Papillion (\$93,448) have higher family purchasing power incomes.

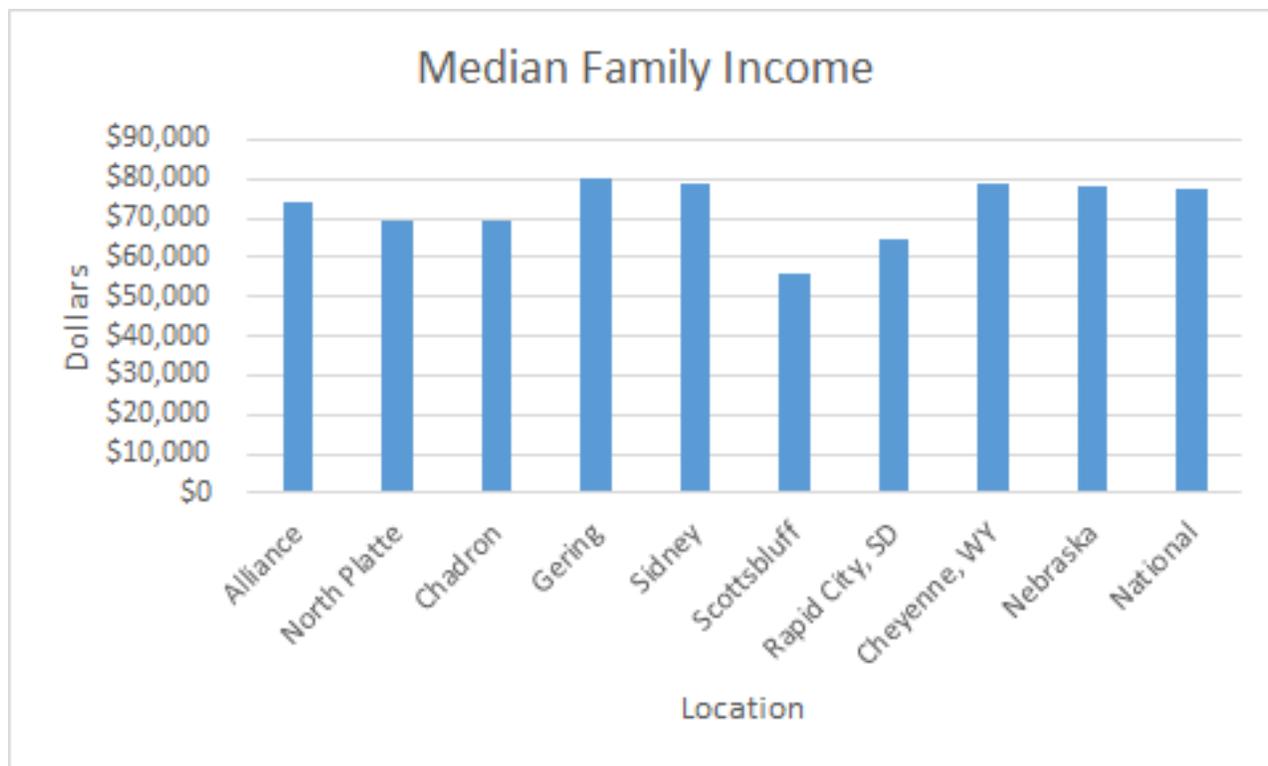


Fig. S19

Community Appearance

The entrance to any community is the front door to residents, visitors, and potential developers alike. Areas of high visibility, such as gateways, major arterial corridors, and commercial districts, reflect community character through design and appearance.

Communities that value design and appearance recognize the value in providing parameters for design in the form of minimum guidelines and standards. Design guidelines promote the desired appearance of an area, enhance the pedestrian environment, and create visually distinct communities.

The design and appearance of communities is a very prominent component of community growth and sustainability.

Many potential residents, investors, and developers considering moving to a community heavily weigh the aesthetics of the community to gauge its overall health. If public facilities, streetscapes, housing, and businesses portray a poor aesthetic appeal, one may conclude that the community is struggling and choose to live or invest their money in a healthier more vibrant city.

There are many steps, both large and small, that can be taken to greatly improve the appearance and aesthetics of the community to appeal to those potential future residents and investors.

The Community Appearance Section introduces the importance of community design, assesses existing

appearance, and provides strategies for community form improvement.

While the land use chapter is very much about function, the community appearance section is very much about form. If land use defines where and how future development is to occur, community appearance provides direction for high quality, cohesive, and well-designed developments and streetscapes.

The Community Appearance section is comprised of two major components, an assessment of the aesthetic conditions adjacent to major gateways, arterials, and local neighborhood streets; followed by both larger and smaller strategies that should be implemented to improve these conditions.



Community Appearance

All communities should desire to become areas of distinct character through the design and appearance of gateways, major corridors, historic structures, wayfinding systems, major commercial districts, etc. This section assesses areas of high visibility based on design and appearance. This assessment provides insight into the existing “look and feel” of the community.

Gateways

A community gateway is just that, a gateway or entryway into the community. It serves as a first impression to visitors as they enter a community. Thus, the layout and design of the gateway should attract visitors to stop, explore, and eventually leave with a positive image of Alliance.

West Gateway

Location:
The West Gateway is generally located at the intersection of Highway 385 and Highway 2. This gateway serves as an entrance to Alliance from the north, south, and west.

Image:

Image and comfort of the western gateway is suspect giving the sparse development pattern, non-compatible land uses, and lack of identifiable streetscape elements. While road conditions are good, inconsistent setbacks and building orientation contribute to a lack of character.

Access and Linkage:

The West Gateway is easily accessible as a major interchange between two state highways. Highway 2 (3rd Street) is a direct link to the central business district and other Alliance activity centers. Sidewalks run along both sides of the roadway creating pedestrian accessibility as well.

Uses and Functions:

Inconsistent setbacks and land uses characterize the West Gateway. The gateway includes residential, highway commercial, abandoned “big-box” commercial, and industrial uses. As an entryway to the community, this gateway should function as “bait” to attract visitors to explore Alliance. At this time, the lack of a cohesive development pattern and poor image contribute to the gateway functioning as a stop-and-go rather than a stop-and-stay area.

East Gateway

Location:
The East Gateway generally begins at the intersection of Highway 2 and County Road 58. This gateway serves as an entrance to Alliance from the east and northeast.

Image:

The gateway does not “present” itself in a welcoming or comfortable way. The roadway is primarily lined with aged industrial and commercial uses, and surrounding neighborhoods are fair to poorly maintained. The surroundings indicate no clear entryway into the city as the “Welcome to Alliance” sign appears prior to the area.

Access and Linkage:

Highway 2 co-locates with 3rd Street upon entering the city. Third Street serves as a primary east-west thoroughfare in Alliance and is well connected to downtown as well as the West Gateway. However, the re-routing of Highway 385 decreased the amount of traffic moving toward the East Gateway on 3rd Street.

Uses and Functions:

At this time, the gateway lacks a consistent development pattern. Industrial and highway commercial uses occupy the gateway. Without activity centers or community landmarks, the area will continue to have low levels of pedestrian activity and present itself poorly to incoming travelers.

ALLIANCE COMPREHENSIVE PLAN

Community Appearance

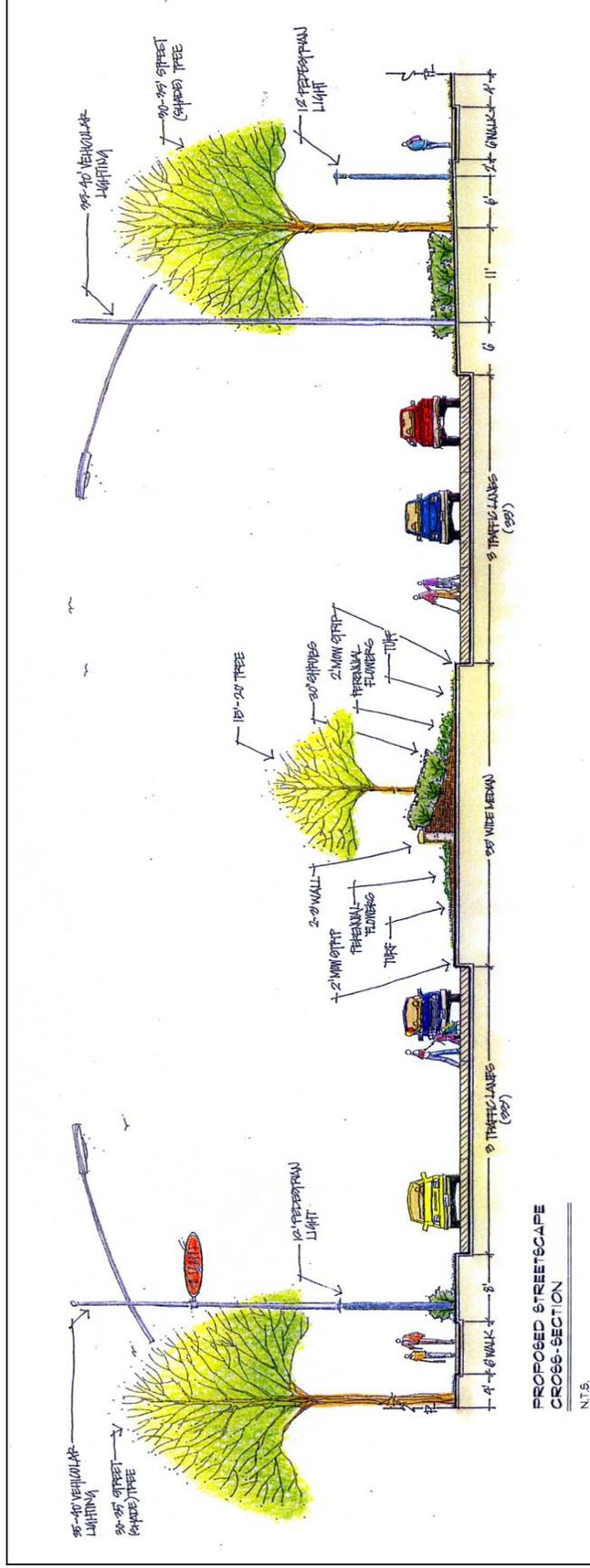


Fig. S20



Community Appearance

Arterial Corridors

There are 4 primary arterials that visitors are likely to utilize when visiting Alliance. Box Butte Avenue has been broken into 3 parts as it has 3 distinct characteristics as one moves from south to north.

Box Butte Avenue 1st to 6th Street

Street:

The roadway is in good condition and wide, allowing for on street diagonal parking. The brick roadway creates a unique feeling that fits well within the central business district. The brick roadway also serves as a traffic calming device. The few areas of brick that are failing should be repaired.

Sidewalk:

Both sides of the street are lined by fifteen foot sidewalks, which are generally well maintained. The sidewalk accommodates high levels of pedestrian activity and does include pedestrian lighting structures. The sidewalk also includes street-side plantings, trash receptacles, and benches.

Streetscape:

Overall, the existing streetscape is very good. This section of Box Butte Avenue represents the Central Business District. Most of this section recently went through the process of a streetscape reconstruction project. The brick sections of the sidewalk have become a tripping hazard in some circumstances, which should be fixed.

Box Butte Avenue 6th to 10th Street

Street:

Box Butte Avenue between 6th and 10th Streets is characterized by well-maintained brick streets. The brick roadway projects a comforting image and naturally slows vehicular traffic. The wide roadway allows for on street parallel parking as well.

Sidewalk:

Both sides of the street are lined by four-foot and six-foot wide sidewalks, which are generally well maintained. Other than irregularly placed trash receptacles, the sidewalk lacks street-side furnishings. The sidewalk does accommodate high levels of pedestrian activity, both on foot and bike, and provides appropriate pedestrian lighting.

Streetscape:

Overall, the existing streetscape is good. As a prominent north-south roadway, Box Butte Avenue connects the high school, library, municipal swimming pool, and other activity centers with downtown Alliance.

Dense, concentric, and consistent development characterize the streetscape. The pride of ownership along the roadway is very evident but there are some instances where additional code enforcement would be appropriate.

Box Butte Avenue 10th to 14th Street

Street:

The roadway is both in good condition and wide, allowing for on-street parallel parking. Painted crosswalks, adequate vehicular lighting, and on-street wayfaring signage are all good characteristics of this street.

Sidewalk:

Both sides of the street are lined by four foot sidewalks, which are generally well maintained. Sidewalks have been enhanced by corner treatments including flowers, shrubs, and small trees. Center median lighting provides a safe corridor for pedestrians and vehicles.

Streetscape:

Overall, the existing streetscape is good. The streetscape is characterized by historic, well maintained, housing units and mature street trees. These elements contribute to a positive pedestrian experience and high levels of street-side activity. This area can and should as a model for other Alliance streetscapes.

Alliance Gateways and Major Arterials Map

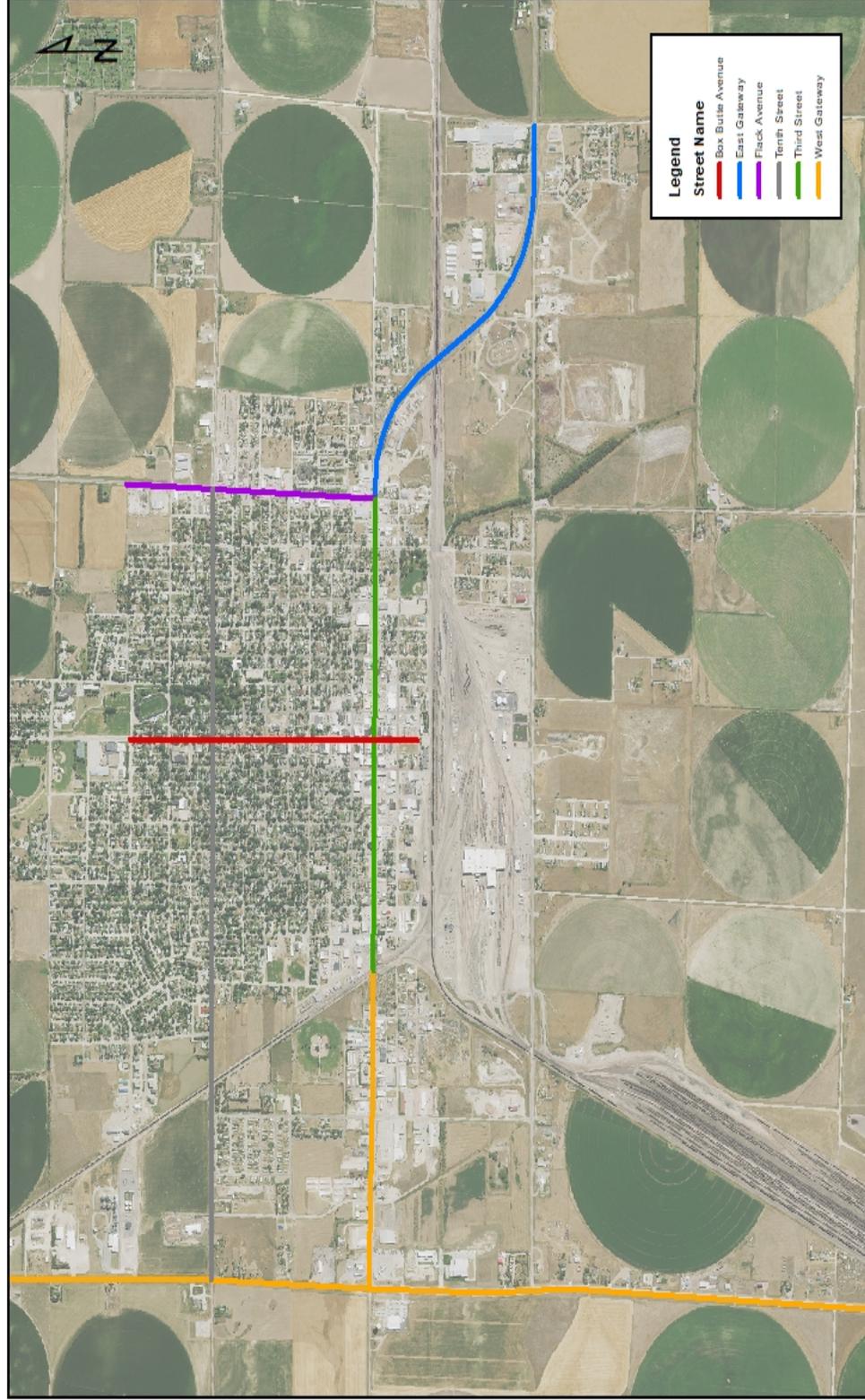


Fig. S21

Community Appearance

Flack Avenue - 3rd to 12th Street

Street:

The condition of the 2 lane roadway is fair. The roadway lacks a center turn-lane but does allow for on-street parallel parking.

Sidewalk:

At this time, the presence of pedestrian sidewalks along the street is inconsistent. In some areas 4-foot sidewalks are provided, but the gaps in sidewalk installation prohibit use for all residents. The area lacks street furnishings and pedestrian lighting.

Streetscape:

The overall condition of the streetscape is poor. A sparse development pattern marked by vacant lots, parking lots that lack landscaping, and closed businesses disrupt continuity and contribute to a lack of identifiable street form. These elements reduce pedestrian activity and the stop and stay appeal of Alliance.

3rd Street - Flack Avenue to BNSF Underpass

Street:

The condition of the four lane roadway is very good. The roadway lacks a center turn-lane, but allows for on-street parallel parking. Traffic volumes are high on this prominent east-west corridor.

Sidewalk:

Both sides of the street are lined with 4-foot sidewalks, which are generally in fair condition. Because the corridor is predominantly designed for vehicles, there are little to no street furnishings, corner treatments.

Streetscape:

The overall condition of the streetscape is poor. The lack of street trees and the poor aesthetics signal that pedestrians are an afterthought on this thoroughfare.

Tenth Street – US Highway 385 to Flack

Street:

The roadway is generally in good condition except the western most 1200 feet which lacks curb and gutter and proper drainage. The roadway east of this is wide and allows for on street parallel parking.

Sidewalk:

The north side of the street has sidewalk from Buchfinck Avenue to Flack Avenue. The sidewalk along the south side is inconsistent and located primarily from Yellowstone to Flack Avenue. The same portion of West 10th Street that lacks curb and gutter also lacks sidewalks.

Streetscape:

The overall condition of the streetscape is good. The majority of the residences adjacent to the street keep their property well maintained but would improve with increased code enforcement and the paving of curb and gutter in areas where it is missing.

Collector Streets

A collector street may be thought of as the street that serves the neighborhood it is located in and has little through traffic.

Streetscape maintenance along collector streets is typically the responsibility of the adjacent property owner but is still subject to minimum standards and requirements found in the municipal code book.

Most of the streetscapes have either a curb strip of grass, rock, or some other landscaping between the sidewalk and road surface, or if there is a curb side walk, that strip is part of the adjacent property's front or side yard.

Both of these scenarios would benefit from minimum design guidelines and requirements to keep them uniform and maintained.

The overall condition of the streetscapes along collector streets in Alliance is good. This is dependant on location but the occasional poor or fair streetscape conditions could be remedied by increased enforcement of existing nuisance codes instead of adopting new ones.

ALLIANCE COMPREHENSIVE PLAN

Community Appearance



Alliance Streetscape Condition Map

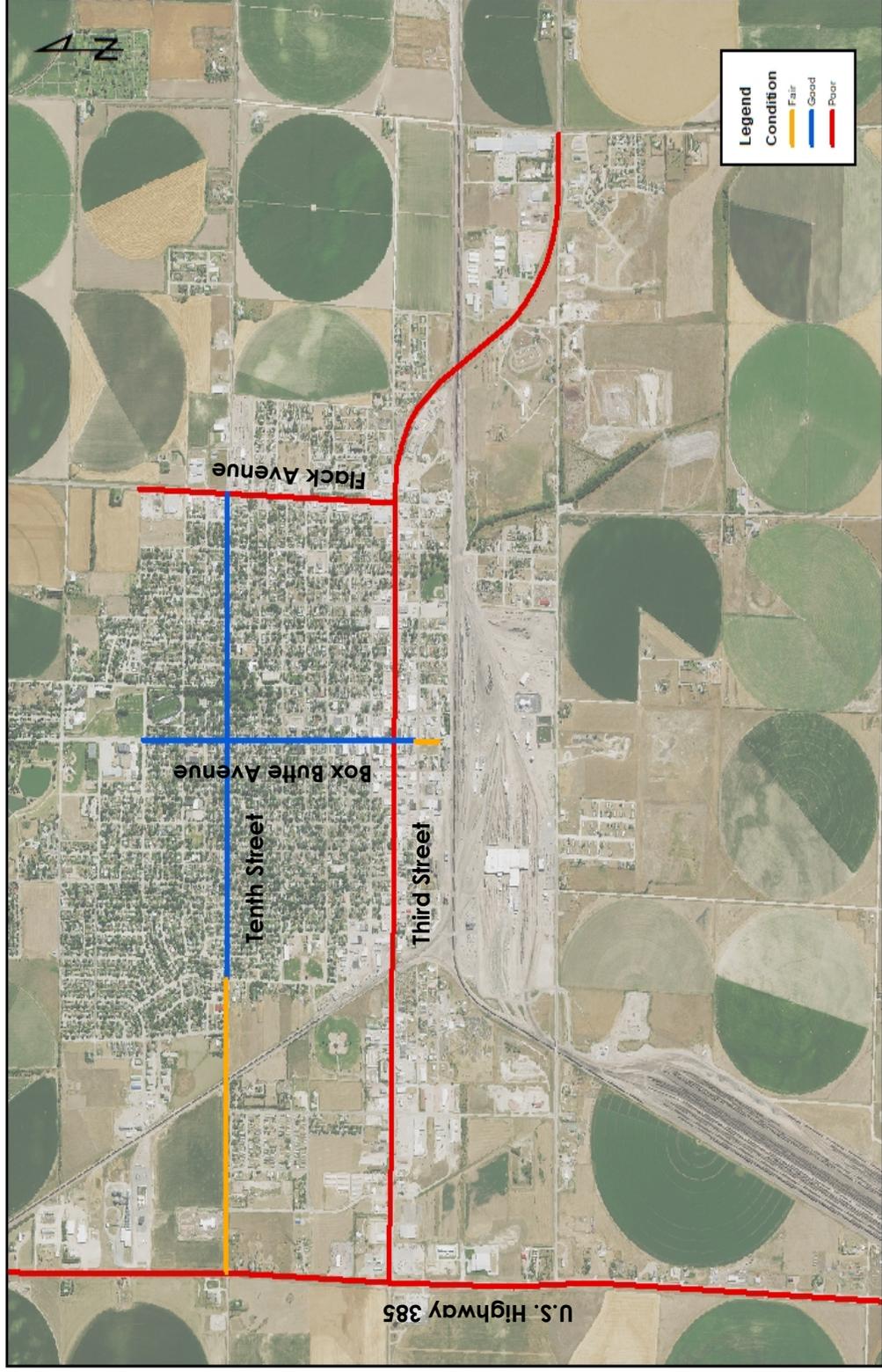


Fig. S22

Energy Assessment

Introduction

On April 12, 2010, the Nebraska State Legislature passed Legislative Bill 997 requiring the adoption of an “Energy Element” as part of any new or updated Community Comprehensive Plan. The Energy Element is a general assessment and speculative outlook of energy use in the State of Nebraska and the City of Alliance separated by sector.

Distribution Systems

The Alliance Municipal Electric System (AMES) is owned and operated by the City of Alliance. AMES maintains approximately 171 miles of rural electrical line, 59 miles of line within Alliance City limits, and four electric substations.

Electricity is delivered to the City by way of transmission lines owned and operated by the Western Area Power Administration (WAPA). The electricity is purchased by the City from the Municipal Energy Agency of Nebraska (MEAN) which is a division of the Nebraska Municipal Power Pool (NMPP).

NMPP Energy serves nearly 200 member communities in six Midwest and Rocky Mountain States through four organizations in the

areas of wholesale electricity, wholesale and retail natural gas, and energy-related services.

The Nebraska Municipal Power Pool (NMPP) was created in 1975 when 19 municipal electric utilities pooled their resources to better handle escalating fuel prices while still serving their communities effectively and efficiently. The passage of legislation in 1981 allowed the formation of the Municipal Energy Agency of Nebraska (MEAN), a wholesale electric supply organization. NMPP then shifted its focus on providing more diverse energy related services.

At its inception, MEAN primarily relied upon member generation as part of its power supply and, with its growth, has steadily secured a diverse supply portfolio outside member generation. Today MEAN supplies wholesale electricity to more than 65 communities in Colorado, Iowa, Nebraska, and Wyoming.

Echoing the principles of local control and working together, four communities who owned their own natural gas systems and were seeking to secure a

reliable, low-cost gas supply, formed the Nebraska Public Gas Agency in 1991. With the addition of NPGA under the NMPP umbrella, a new company trade name — NMPP Energy — was created to reflect the diversity of the organization. As NPGA expanded, the name was changed from “Nebraska” to “National” in 2002. Today, NPGA serves approximately 30 communities in eight states.

NMPP Energy jumped into the retail natural gas arena in 1998. A group of Nebraska communities that did not own their own gas systems saw an opportunity to take charge of their natural gas rates by asking NMPP to compete as a supplier in the Nebraska Choice Gas program. The Public Alliance for Community Energy (ACE) was created with the mission of supplying competitively priced natural gas, and at the same time, keeping revenues in the state to benefit member communities. Today, ACE supplies natural gas to more than 22,000 customers and includes 72 member communities and one public power district.



Energy Assessment

Kansas-Nebraska Energy brought natural gas service to Alliance in 1955 as part of their northward pipeline expansion being undertaken to increase their customer base. Today, the natural gas pipeline and distribution network are owned and maintained by Black Hills Energy. Although Black Hills Energy is the current owner of the distribution system, NMPP provides the Citizens of Alliance the ability to choose their natural gas service provider, creating competition and keeping prices low.

The entities that make up NMPP Energy serve separate needs to their member communities. Collectively, however, they subscribe to the core philosophies of local control and working together in providing reliable, low-cost energy, and energy-related services to member communities.

Consumption

The Nebraska Energy Office compiles statistics on energy consumption at the State level by sector. The most current statistics available are from 2019.

For the residential, commercial, and industrial sectors, a net total or net energy consumption (less electrical system energy losses) is provided to indicate the energy actually consumed by these sectors.

In addition, energy consumed in the generation, transmission, and distribution of electricity (electrical system energy losses) is allocated to each sector based on the electricity consumed by the sector. Thus, total energy consumption represents the energy consumed by the sector as well as that used to provide electricity to the sector.

Residential: Between 2010 and 2019, residential sector net energy use increased 1.06% to 91.2 trillion British thermal units (Btu), which was 6.2% below the peak of 97.2 trillion Btu recorded in 1972.

Total energy consumption attributed to the residential sector in 2019 was 169.2 trillion Btu, an increase of 1.04% from 2010. Petroleum use decreased 7.7% from 2010, renewable energy use increased 43.9%, electricity use increased 2%, natural gas use increased 10.6%, and coal consumption remained at a level low enough to round to zero.

In 2019, nearly half (48.9%) of the residential sector's energy needs were met by natural gas. Thirty eight point six percent (38.6%) of the energy consumed in the residential sector was electricity, 8.7% was petroleum products, and 4% was renewable energy. (Fig. S23)

According to the 2019 American Community Survey, 59% of Nebraska's

households used natural gas for home heating, 31% used electricity, 7% used propane, 0.4% used heating oil, and 0.01% used coal. [1]

Commercial: The commercial sector consists of non-manufacturing business establishments. Included are hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; health, social, and educational institutions; and federal, state, and local governments, streetlights, pumps, bridges, and public services are also included.

Fuel used in motor vehicles for commercial purposes is included in the transportation figures. Examples of common uses of energy in the commercial sector include space heating, water heating, refrigeration, air conditioning, and cooking.

From 2010 to 2019, commercial sector net energy use increased 12.6% to 76.8 trillion British thermal units (Btu). Total energy use in the sector increased 5.1% to 148.3 trillion Btu. Petroleum use increased 133% although it comprises only 6.7% of the energy used by the commercial sector. Renewable energy use increased 9.4% and electricity use decreased 1% from 2010 while natural gas use increased 17.9%. Coal consumption was small enough to round to zero between 2010 and 2019.

Energy Assessment

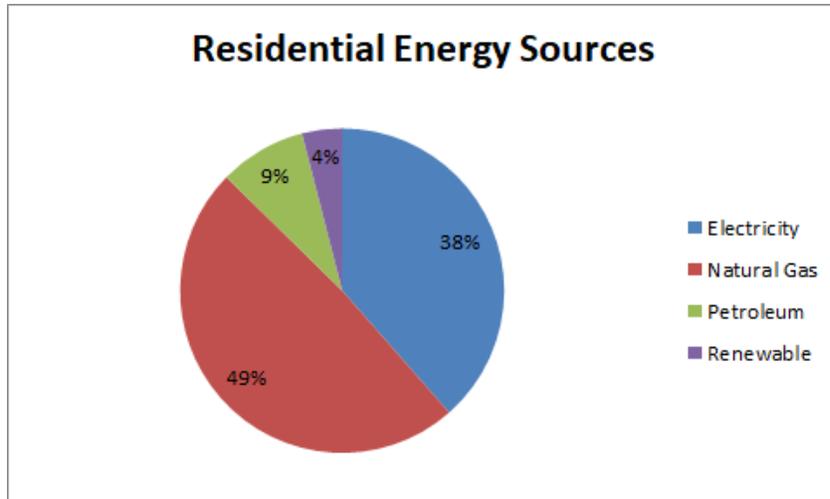


Fig. S23

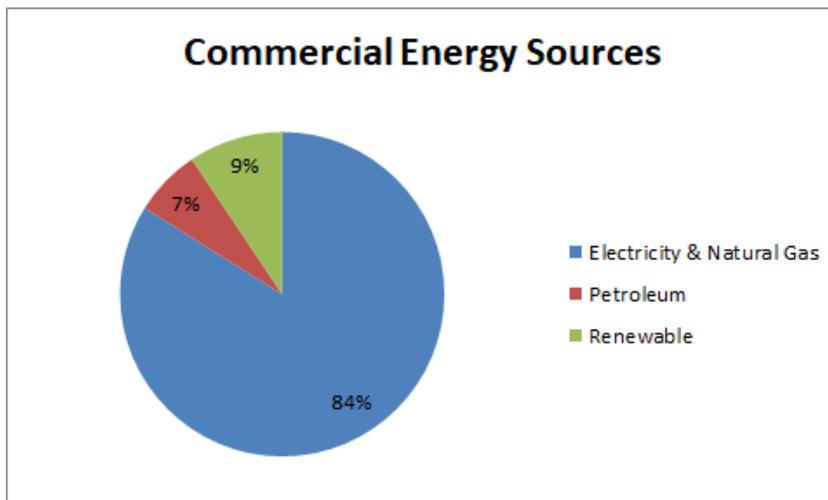


Fig. S24

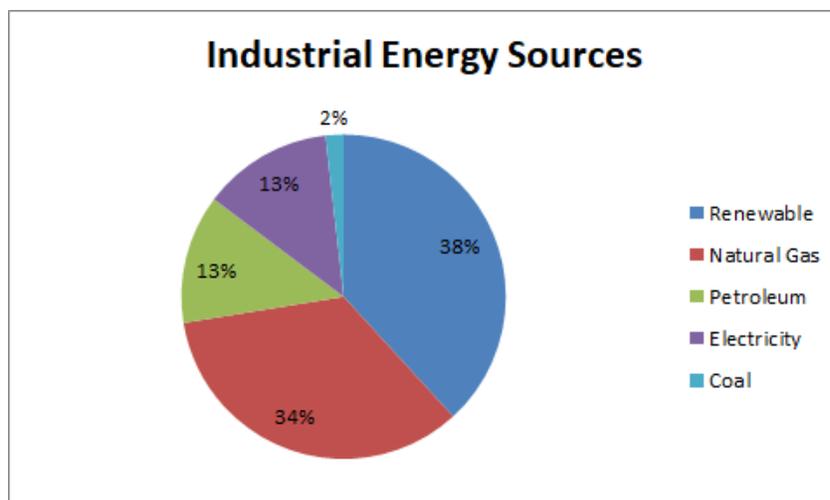


Fig. S25

Energy Assessment

In 2019, 91% of the commercial sector's energy needs were met by electricity and natural gas. Petroleum products made up 6.7% of the energy consumed in the commercial sector, and 1.7% was renewable energy. [2] (Fig. S24)

Industrial: The industrial sector consists of manufacturing, construction, mining, agriculture, and forestry organizations. Energy used by this sector to transport products to market is included in the transportation sector.

Between 2010 and 2019, industrial sector net energy use increased 8.4% to 295.78 trillion British thermal units (Btu). Total energy consumption attributed to the industrial sector in 2019 was 376.1 trillion Btu, an increase of 7.2% from 2010. Petroleum use decreased 1%. Coal use increased 37.5%, renewable energy use increased 6.4%, electricity use increased 4%, and natural gas use increased 11.8% from 2010. Renewable energy consumption was comprised of ethanol, solar, wood, and waste.

In 2019, the industrial sector energy needs were met by

renewable energy at 36.3%, natural gas 32.5%, petroleum products 12.2%, and electricity 12.3%. One and seven tenths percent (1.7%) of the energy consumed in the industrial sector was coal. (Fig. S25)

The majority of the petroleum products consumed by the industrial sector were diesel fuel at 73.6%, asphalt and road oil 14.2%, propane 6.7%, and motor gasoline 8.2%; the rest of the products each comprised less than 3%. [3]

Renewables

In 2019, Nebraska consumed 952.87 trillion British thermal units (Btu) of primary energy, which included 199.3 trillion Btu from renewable energy sources. Renewable resources met 21% of Nebraska's energy consumption.

Nebraska consumed energy from these renewable resources in 2019:

- Biofuels (Ethanol, Biodiesel)
- Geothermal Energy
- Hydroelectric Power (Conventional)
- Photovoltaic and Solar Thermal Energy
- Wind Energy
- Wood and Waste

In 2019, biofuels provided the largest supply of renewable energy at 57%,

followed by wind 32.2%, hydroelectric 6%, wood/waste 2.8%, and solar at .2% of total renewable supply. (Fig. S26)

City of Alliance Electricity Consumption

Electricity use in the City of Alliance declined between 2010 and 2019 from 113,945 Megawatt Hours (MWh) to 108,070 MWh. This is a decrease of 5,875 MWh or 5.2%.

Residential: Residential electricity use increased between 2010 and 2019 to 39,157 Megawatt Hours (MWh) from 37,048 MWh. This is an increase of 2,109 MWh or 5.7%.

Commercial: Commercial electricity use decreased between 2010 and 2019 from 48,316 MWh to 40,050 MWh. This is a decrease of 8,266 MWh or 17.1%.

The reduction in energy use is attributed primarily to the reduced frequency of farmers irrigating their crops. The heavier moisture during most of the summer months of the sample period combined with more water efficient crops being planted reduced the amount of electricity required to pump well water for crop irrigation.

Energy Assessment

The majority of the agricultural irrigation within the AMES rural system is dependent on wells for water; the electricity consumption rate is likely to change based on annual precipitation, crop planting, and irrigation water conservation efforts by the Upper Niobrara White Natural Resource District.

Industrial: Industrial electricity use remained relatively flat between 2010 and 2019 increasing slightly from 28,581 MWh to 28,863 MWh. This is an increase of only 282 MWh or less than 1%. (Fig. S27)

City of Alliance Electricity Supply

As a member of the Municipal Energy Agency of Nebraska, Alliance's electricity resources are diverse. Coal is currently the primary source of electricity at 38%, followed by hydro 23%, displaced hydro 11% (purchased from Southwest Power Pool), wind 12%, oil/gas 11%, nuclear 4%, and landfill gas 1%. The generation plant located at Cody Substation is included in the oil/gas statistic and is primarily used for emergency generation only. (Fig. S28)

MEAN is working to reduce the amount of carbon resources necessary to

meet its power supply needs including the addition of photovoltaic systems constructed throughout their member area. Their goal is to be carbon neutral by 2050.

City of Alliance Natural Gas Consumption

Black Hills Energy owns and maintains the supply pipeline and distribution network within the City of Alliance. As such, the City does not have direct access to natural gas use by sector. Black Hills Energy provided consumption information back to 2017 but could not provide the information for the entire 10-year period between 2010 and 2019.

Because Black Hills Energy pays the City a fixed percentage per Therm on an annual basis, we were able to calculate the total number of Therms used based off the fee paid to the City. The drawback to using this method is that consumption cannot be broken down by sector.

In 2010, total consumption of natural gas in the City was 3.6 million Therms. In 2019, usage was 4.5 million Therms. This is an increase of .9 Million Therms or 25%.

Natural gas use in the City fluctuated up and down

within .2 million Therms of the 2010 value until 2017 when it began trending up and passed 4 million total Therms. This increase coincides with cheaper natural gas prices and the BNSF railroad converting their heat plant from coal to natural gas.

Energy Conservation Measures that benefit the community

A. Energy Codes – One of the most important measures in the conservation of energy is the adoption of an updated building code and energy code for new construction. Under §§81-1608 to 81-1616, the State of Nebraska has adopted the International Energy Conservation Code as the Nebraska Energy Code.

The State has enabled all cities to adopt and enforce the Nebraska Energy Code or an equivalent energy code along with their typical building codes.

Energy Assessment

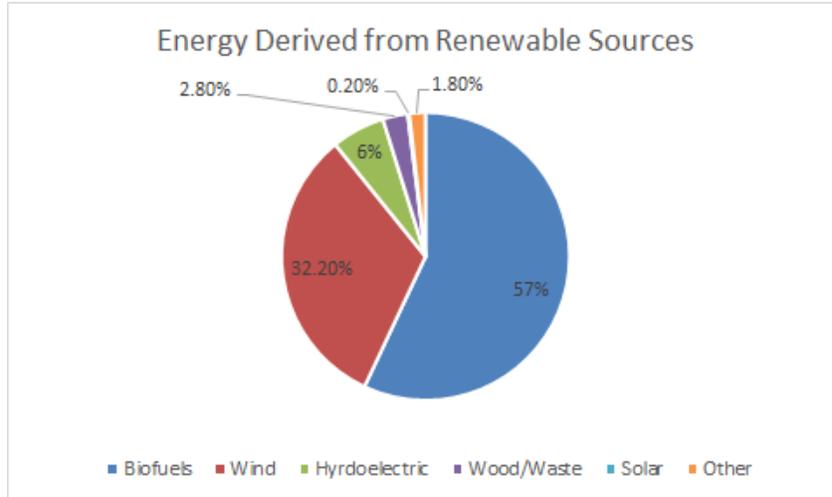


Fig. S26

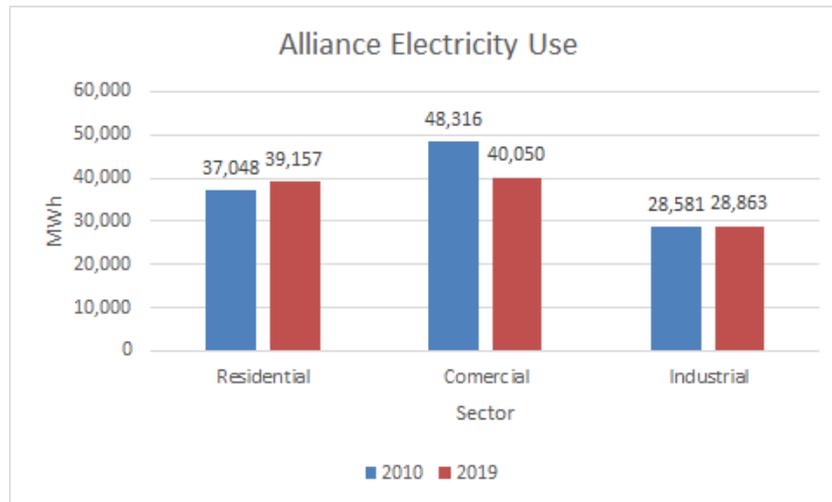


Fig. S27

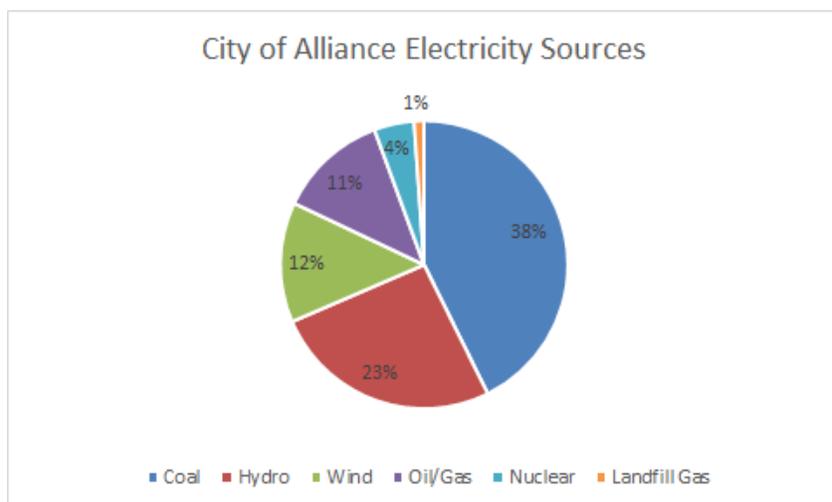


Fig. S28

Energy Assessment

The purpose of the Code, under §81-1608, is to ensure that newly built or additions to houses or buildings meet uniform energy efficiency standards. The statute finds:

“that there is a need to adopt the . . . International Energy Conservation Code in order:

- (1) to ensure that a minimum energy efficiency standard is maintained throughout the state,
- (2) to harmonize and clarify energy building code statutory references,
- (3) to ensure compliance with the National Energy Policy Act of 1992,
- (4) to increase energy savings for all Nebraska consumers, especially low-income Nebraskans,
- (5) to reduce the cost of state programs that provide assistance to low-income Nebraskans,
- (6) to reduce the amount of money expended to import energy,
- (7) to reduce the growth of energy consumption,
- (8) to lessen the need for new power plants, and
- (9) to provide training for local code officials and residential and commercial builders who implement the International Energy Conservation Code.”

The City of Alliance has adopted the 2018 Edition of the International Energy Conservation Code along with the 2018 Building and Construction Codes.

The Code was adopted in 2021 and applies to all new buildings as well as renovations or additions to any existing buildings.

B. Energy Efficiency – The most effective way to promote energy efficiency is to show consumers the long-term cost savings. The City of Alliance should supply Utility Customers with information regarding the long-term money saving benefits of energy efficiency.

The City should involve itself in conservation efforts with the distribution of information that helps customers identify energy wasting habits and the potential cost savings from implementing energy conservation measures. This information may be included pamphlets, brochures, social media postings, etc.

As the electric and water utility provider for the community, the City of Alliance can promote and demonstrate conservation practices directly to the consumer. By using less water and electricity, the City, its businesses, and residents can conserve energy, save money, and reduce excessive wear on our energy infrastructure.

C. “Energy Saving Tips” – The Nebraska Energy Office has provided ways to save money on energy bills for the home, farm, business, or vehicle. Options for energy savings are listed on the Office’s web site at <http://www.neo.ne.gov/tips/tips.htm>.

The link should be available on the City of Alliance webpage at www.CityofAlliance.net. The City of Alliance, the residents, and businesses in the City are encouraged to take advantage of the conservation measures.

Energy Future

It is difficult to project future energy needs when a significant portion of consumption is dependent on crop irrigation, which in turn varies on moisture conditions. The other significant variable in predicting energy use is the heating and cooling needs caused by the frequency of extreme hot and cold weather conditions.

However, when looking at the overall direction of consumption between 2010 and 2019, discounting irrigation, use has steadily increased despite Alliance’s declining population.

A U.S. Department of Energy study indicated that electricity use could increase by as much as 38% by 2050. Much of this increase is expected to come from the continued increase in the use of electronic devices and electric vehicles (EV’s).

Unbeknownst to the public, many electronic devices use electricity when switched off or put in standby. These

Energy Assessment

“phantom loads” will increase as more consumer electronic devices are used and left plugged in.

The other substantial increase will be the transition to electric vehicles (EVs) from internal combustion gasoline and diesel engines.

Legacy vehicle manufacturers have begun reallocating research and development dollars from internal combustion engines to electric and hydrogen as

a means of vehicular propulsion.

According to Forbes, each manufacturer has set different goals but they all predict a large shift away from the internal combustion engine in the 2030s. [7] This mirrors the anticipated increase in energy use as detailed in a Department of Energy study.

The study predicts that the largest period of growth of electricity use will happen between 2030 and 2040. It

is expected to peak in 2035 and begin to trend down as the market begins to saturate with EV's. [6]

A study from the University of Texas indicated that consumption in Nebraska is predicted to increase by 23% during the wide spread adoption of EV's. The study used a 100% market share to calculate the increase; it did not take in to account lesser market capture by EV's. [8]

Sources:

1. <https://neo.ne.gov/programs/stats/inf/09.html>
2. <https://neo.ne.gov/programs/stats/inf/12.html>
3. <https://neo.ne.gov/programs/stats/inf/15.html>
4. <https://neo.ne.gov/programs/stats/inf/92.html>
5. <https://mean.nmppenergy.org/about/power-supply-resources>
6. <https://www.energy.gov/sites/prod/files/2019/12/f69/GITT%20ISATT%20EVs%20at%20Scale%20Grid%20Summary%20Report%20FINAL%20Nov2019.pdf>
8. <https://theconversation.com/switching-to-electric-vehicles-could-save-the-us-billions-but-timing-is-everything-106227>
7. <https://www.forbes.com/wheels/news/automaker-ev-plans/>

	Community Appearance Plan	Time Frame
	Ensure existing streetscape elements such as sidewalks, bike racks, curb and gutter, etc. are in good condition.	Ongoing
	Increase code enforcement to eliminate any junk, litter, abandoned cars, etc.	Ongoing
	Assess the consistency and connectivity and identify areas where additional sidewalk and streetscape elements may be appropriate.	5
	Adopt a gateway overlay zone along City entrances to eliminate land uses that are undesirable and provide for attractive development.	2

	Energy Plan	Time Frame
	Create an energy code information sheet to distribute to local builders and homeowners applying for building permits	3
	Provide links to energy saving tips on the City of Alliance Website	3
	Provide attachments to the energy building code and energy information sheet on the City of Alliance Website	3
	Distribute energy conservation information to City of Alliance Utility Customers detailing the benefits of energy efficient appliances	3
	Promote conservation practices amongst City employees and City projects to reduce the amount of energy used within the organization	Ongoing
	Keep the energy related code up to date by adopting new versions of the City Building Code.	Ongoing
	Ensure the zoning code has provisions for on-site renewable sources of energy	5
	Convert streetlights to LED	10
	Determine the anticipated future demand needs of the Alliance Municipal Electric System	10
	Perform upgrades to the system based off anticipated increases to ensure reliable electric service	20

Wellfield: Well 1 was drilled in 1998 to a depth of 385 feet and has a capacity of 1.66 mgd. Well 2 was drilled in 1998 to a depth of 395 feet and has a capacity of 1 mgd but it must be blended with another well to keep arsenic levels below federal limits. Well 3 was drilled in 1998 to a depth of 405 feet and has a capacity of 1 mgd. Well 4 was drilled in 1998 to a depth of 425 feet and has a capacity of 1 mgd. Well 5 was drilled in 2006 to a depth of 421 feet and has a capacity of .68 mgd. Well 6 was drilled in 2006 to a depth of 391 feet and has a capacity of .68 mgd. Well 7 was drilled in 2010 and has a capacity of .86 mgd.

City: Burnham Well was drilled in 1997 to a depth of 440 feet, has a pumping level of 260 feet, and daily pumping capacity of .86 mgd. Static water level at the time of drilling was 88 feet. 18th and Colorado Well was drilled in 2010 to a depth of 445 feet, has a pumping level of 266.6 feet, and a daily pumping capacity limited to .86 mgd. Static water level at the time of drilling was 114 feet. Toluca Well was drilled in 1993 to a depth of 445 feet with a pumping level of 320 feet and has a capacity of .72 mgd. Elkhorn Well was drilled in 2010 to a depth of 425 feet with a pumping level of 237.7 feet and a daily pumping capacity limited to .86 mgd. Static water level at the time of drilling was 89 feet.

The current total storage capacity for the City of Alliance is 2.5 million gallons. West 3rd Street water tower was built in 1999 and has a capacity of 1 million gallons. It was last repainted in 2018? and is in excellent condition. Elkhorn water tower was built in 1968 and has a capacity of 750,000 gallons. It was