Chapter Seven

Transportation

Introduction

Transportation and mobility systems have played a key role in the historical development and growth of the Newton community. Beginning in the 1870s, cattle from Texas were herded north on the Chisholm Trail and loaded onto rail cars in Newton to be shipped to urban markets. The railroads played an integral role in the local economy and community life until the 1980s, when the Santa Fe Railroad relocated its rail hub operations. Newton's future economic development strategy should return to a reliance on railroads by promoting freight rail service for industrial development within the Kansas Logistics Park.

The highway system has also played a defining role in the growth and development of the community. Interstate Highway I-135, situated on the eastern edge of Newton-North Newton, provides regional connections to I-70 to the north and I-35 to the south. This interstate highway plays a significant role in giving Newton convenient access to Wichita, as well as to the entire nation. US-50 provides east/west access to Hutchinson and to an emerging economic triangle between I-135, K-96, and US-50 highways.

Transportation

Regional

Goal: Promote and strengthen the I-135 regional transportation highway system linking Newton-North Newton to Wichita and to the I-135 mega-region connecting Houston, Texas to Kansas City, Missouri.

Goal: Coordinate regional transportation policies and investments to support the emerging economic development triangle between I-135, K-96, and US-50 highways.

Goal: Build on the regional intermodal assets readily available through the network of airports and confluence of rail.

Goal: Enhance passenger rail service connecting Newton to the metropolitan cities of Dallas, Oklahoma City, and Kansas City, as well as to Kansas communities west of Newton.

Goal: Promote the vision of a daily commuter train between Newton and Wichita.

Goal: Ensure that the views from I-135 and US-50 promote a positive aesthetic image of the community.

Citywide

Goal: Plan a transportation infrastructure — in redevelopment projects and new developments — to encourage compact, urban development patterns.

Goal: Provide a safe and energy-efficient transportation system that allows for convenient movement of people and goods.

Goal: Support increased reliance on bicycling, walking, and innovative or alternative modes of transportation to provide greater accessibility for residents and visitors, improve air quality, and minimize congestion.

Goal: Improve vehicular accessibility and pedestrian connectivity between the north and south areas of the community separated by US-50.

Goal: Expand and enhance pedestrian and bicycle mobility to enable safe and inviting access to shopping, work, schools, and recreation.

Goal: Enhance the livability of neighborhoods, and protect them from negative impacts of regional and citywide road and rail networks.

Goal: Explore the feasibility of a fixed-route public transportation system to serve the community.

Goal: Capitalize on development opportunities at the Newton City-County Airport.

Existing Areas of Concern

The following areas of concern with the existing mobility system were identified by city staff and the ReNewton Project Steering Committee. They are viewed as important long-term transportation planning issues.

US-50 and Anderson Avenue

Anderson Avenue is an important north/south intersection allowing cars to cross US-50. The housing development south of US-50 and the Sand Creek Station Golf Course have created community concerns about traffic safety and pedestrian crossing. To address these concerns, KDOT is planning a full interchange for this location with US-50 flying over an Anderson roundabout. The project includes widening of the bridge to the west along with other highway improvements, and is expected to be built in 2013.

Railroad Crossing in Downtown Newton

A major delay in vehicle traffic is created by the fueling and switching of trains on the railroad tracks downtown. This plan recommends the relocation of the switching yards from downtown to the edge of town. However, the traffic of freight and passenger trains through downtown is part of living in Newton. While there is public irritation with the delays created by the railroad crossings downtown, there are

few good options to solve this situation. The idea of creating an overpass has been offered for consideration, but this idea would severely damage the physical character of downtown, because of the need to elevate Main Street over the railroad tracks.

I-135 and US-50 Interchange

The current configuration prevents westbound traffic on US-50 from moving northbound, unless travelers use the Broadway roundabout on I-135 as a turnaround. This situation was identified in the Harvey County Stakeholders' Regional Economic Vision for Transportation as a critical deficiency; that document calls for the construction of a full interchange.

I-135 and 36th Street Interchange

Local leaders and city planners see this interchange becoming critically important with residential growth in Newton within the I-135 corridor. It will also serve as a major truck route to the Kansas Logistics Park. Improvements to this interchange have been submitted to KDOT for consideration in their T-Works program. Interim improvements that widened the ramps were completed in 2010 to accommodate 19-axle vehicles that will be driving to the Kansas Logistics Park.

US-50 Four-Lane Improvements

Local leaders and planners are working with regional partners to construct a four-lane widening of US-50 from Emporia to Dodge City (including through Newton) to help traffic flow, improve safety, provide convenient travel for local constituents, and boost the economy.

US-50 Access Issues

KDOT closed the Old Main at-grade access to US-50 in the interests of safety. There have been discussions about similar problems on US-50 west of town. However, in Lazy Creek Addition, US-50 provides the only access to recent development. Therefore, consideration should be given to extending S.W. 7th Street east, to tie into Meridian at some point in the future. Consideration should also be given to upgrading the Meridian interchange at US-50. This interchange is quite antiquated and not built to current standards, e.g., acceleration and deceleration lanes should be longer to accommodate weaving patterns. The intersection of Cow Palace Drive and US-50 is also in this same area and carries a significant amount of industrial traffic to the county landfill and recycling facility. A new interchange should possibly include improvements to the Cow Palace access at the highway as well.

North-South Arterial between K-15 and I-135

There is no straight through-traffic route on the east side of town, west of I-135. Prior to any closures of local streets in this area, traffic analysis is essential in order to keep traffic flow for local travelers and emergency vehicles efficient and safe. Opening new routes or extending existing streets, especially High or Kansas, would be preferable.

South Kansas Avenue Upgrades

As the city continues to grow to the south and the new subdivision additions fill in south of US-50, improvements to South Kansas Avenue should occur in accordance with the South Side Newton Traffic Study, 2007.

Transportation Improvements near Newton High School

Teenage drivers are the most vulnerable since their driving experience is limited. Parents bring kids to school and often get caught in traffic jams, causing forced idling that impacts the environment and causes lost work time. Boyd Avenue was extended to the north with recent high school improvements. However, as the housing development planned for the area west of the school moves forward, W. 17th Street will need to be extended to Meridian to lessen the load on the 12th Street and Boyd intersection. This improvement will require a bridge or RCB (reinforced concrete box) to span the drainage area. 12th Street west of Boyd is in need of reconstruction now because of narrow driving lanes and steep ditches; this roadway should be considered for serious improvements.

Kansas Logistics Park Issues

As the industrial areas and Kansas Logistics Park grow to the east and expand toward the airport, significant transportation infrastructure changes and improvements will be necessary. Specifically, Hillside Road will require paving from S.E. 12th Street northward to US-50. Consideration should be given to tying Broadway from the east into Hillside as well as changing the intersection at US-50 and paving 12th Street to the airport. To accommodate drainage and rail improvements, Hillside alignment may change and allow for a future northern entrance or interchange to the area off US-50 at 36th Street N. rather than on Hillside. Annexation of the airport in the near future will spur other changes and improvements in the area.

Freight Rail Service

The Kansas Logistics Park will take advantage of the existing Class I carriers (Union Pacific and BNSF), along with the short line railroads (e.g., WATCO), to attract manufacturers and suppliers seeking a central location to ship large components into the heart of the nation's wind resources. Rail extensions are planned from the S.E. 12th

Street area northward. It is possible that portions of the rail will be owned by the city, making the City of Newton a short line rail company too. Partnerships between the railroads and Harvey County are essential as the rail is extended for service in the new industrial areas.

Since these rail lines traverse the community at strategic road intersections on K-15 (downtown Newton and the entranceway into North Newton and Broadway), it is important to ensure public safety at all railroad crossings. The number of rail cars through town will no doubt increase in the future, and consideration of a northern rail corridor for through trains could be worthwhile.

Passenger Rail Service

Amtrak currently provides passenger rail service to Newton. Unfortunately for the community, the train arrives in the middle of the night, thus providing little benefit to downtown businesses. KDOT is investigating the expansion of passenger rail service between the metro cities of Kansas City, Oklahoma City, and Dallas. According to the Feasibility Study of Expanded Passenger Rail Service in Kansas, "most of the proposed expansion would operate on existing freight-hauling rail." While still in the preliminary planning stages, the possibility of Newton being part of an expanded passenger rail service is a positive development for the future. A significant economic opportunity exists if this passenger train arrives or departs downtown Newton during business hours, allowing passengers time to explore downtown.

Newton City-County Airport

An updated Airport Master Plan is planned for the Newton City-County Airport in 2010-11. This plan is intended to identify how the airport can serve as a catalyst for economic development in the coming years. An important element of the master plan will be to identify future land uses for the airport property, as well as strengthen the relationship to surrounding properties to ensure airport safety, compatibility, and reduction of adverse impacts. The airport is considered an important economic development resource for the community. The airport master plan should be a complementary document to the ReNewton 2030 Comprehensive Plan.

Bicycle Mobility

The Sand Creek Trail Bike Path provides a high-quality bicycle trail for the community, although it is primarily a recreational trail. The city-wide Sand Creek trail system must be extended and should continue to connect neighborhoods. In addition to a trail network, bicycling should be promoted as a practical way to travel the local street system. Enabling people to safely ride a bicycle to work, school, shopping, or to see friends should become a community priority. This

means creating bike lanes, multi-use paths, signed bicycle routes, and a bicycle education program to advocate public safety.

Future Strategies & Policies

Complete Streets

"Complete streets" is a framework for cities to use when planning and designing streets to accommodate safe access for all users, including pedestrians, bicyclists, and motorists of all ages and abilities. The intended result is for new streets to accommodate not only automobiles, but also walkers and bikers. These principles can also apply to the reconstruction or widening of existing streets in older areas of the community. The complete streets approach also confirms the city's commitment to children, the elderly, and persons with disabilities by providing safe and accessible facilities in the public right-of-way.

The importance of complete streets is that the entire right-of-way is designed and operated to enable safe access for all users. This means the community is willing to ensure that streets are designed and built to these principles. While the City of Newton's current street design guidelines include sidewalks and bike paths, with the implementation of complete streets policies, engineers will include these elements in the initial design phase.

The implementation of complete streets policies must remain flexible since all streets are different. Individual street contexts and needs must be balanced with existing conditions, land use patterns, user needs, and municipal budget constraints.

Complete Streets Policies

- Specify that "all users" includes pedestrians, bicyclists, and public transportation passengers of all ages and abilities, as well as trucks, public transportation vehicles, and automobiles.
- Encourage street connectivity and aim to create a comprehensive, integrated, connected network for all modes.
- Are adoptable by all agencies to cover all roads.
- Apply to both new and retrofit projects, including design, planning, maintenance, and operations for the entire right-of-way.
- Make any exceptions specific and set a clear procedure that requires high-level approval of exceptions.
- Direct the use of the latest and best design standards while remaining flexible in balancing user needs.

- Direct that complete streets solutions will complement the context of the community.
- Establish performance standards with measurable outcomes.

Source: National Complete Streets Coalition

Brick Street Renovation Program and Policy

The city has been saving bricks from past street reconstruction projects to use for a brick street renovation project, specifically within a historic district. A program to preserve and restore existing brick streets should be considered. Many cities are recognizing the historic value of brick streets and are preventing asphalt overlays and funding restoration projects. The city should evaluate and prepare a formal policy on utility-cut replacements in historic districts and specify the use of bricks to retain the historic character of brick streets.

Dirt-Street Paving Program

Newton has several dirt streets. The city should evaluate whether a dirt-street paving program should be funded in the Capital Improvement Program.

Shared Driveway Standards

Shared driveways in commercial, as well as in limited residential development, are necessary or are sometimes appropriate in order to minimize an excessive number of driveways on high-traffic streets. Frontage roads should also be considered to provide access to lots. The city should evaluate and adopt a formal policy.

Frontage Roads and Connected Parking Lots

Frontage roads should be considered to provide public access to lots or development tracts, and the city should adopt a formal policy identifying when frontage roads should be constructed. In instances when a frontage road is not advisable or suitable, and inter-connected private parking lots are being used to move traffic, then the internal roadways should be designed and constructed to support the projected traffic demand, including large delivery trucks and 18-wheel trucks.

Transportation Drainage Facilities

An important element when designing transportation systems is appropriate drainage facilities. This includes pursuing best management practices in stormwater quality and handling to minimize the impact upon surrounding properties, streams, or wetlands.

Street Functional Classifications

Streets are defined by a functional classification system. These functional classifications establish common definitions of the use of a street and its character, regulate access from adjacent properties, and determine how the costs of new street construction are shared between the city and surrounding properties.

Arterial Streets. Arterial streets should function to connect areas of principal traffic generation and important highways. They provide for the distribution and collection of traffic to and from collector streets and local streets. The arterial street is given preferential treatment over collector and local streets in signing and signalization of intersections. It is preferable that private properties not have direct access to arterials, but be provided access to the arterial through the local and collector street system.

Collector Streets. Collector streets serve traffic between major arterials and local streets, and are used mainly for traffic movement within residential, commercial, and industrial areas. Collector routes provide the combined functions of through-traffic service and access to adjacent land, but they should discourage long distances of continuous through traffic. In order to safely accommodate local traffic without unnecessarily disrupting the character of residential areas, experience has shown that collector streets should be spaced at intervals of roughly one-half mile. Collectors should be given preferential treatment over local streets at intersections.

Local Streets. The primary function of a local street is to provide access to abutting property. Continuity of local streets is not important and through traffic should be discouraged. Local streets should be designed to intersect with a collector street and provide easy access to adjacent property. Although they should not be unnecessarily confusing, it is often preferable for local streets to have a curvilinear alignment. This frequently improves the visual appearance of the area, slows the speed of traffic, and allows the street to be more naturally integrated with the topography.

Functional Classification Characteristics

	Right-of-Way	Lanes	Bike Lane	Sidewalks
Arterial	100-120’	4	yes	yes
Collector	70-80’	2	yes	yes
Local	50-60’	2	possibly	yes

The above dimensions are for the roadway corridor, and larger dimensions may be necessary to accommodate landscape medians

and turning lanes. The city's Engineering Division of the Public Works Department design standards determine the design of streets, sidewalks, and bike lanes. Complete streets concepts should be incorporated into design specifications and standards.

Recommended Street Design Elements

- Arterial streets should be divided roadways with four travel lanes in 110-foot right-of-ways, including 6-foot bike lanes, and 8-foot sidewalks separated from the curb by a 7-foot landscape strip. Bulbouts may be appropriate at some intersections to reduce the crossing distance for pedestrians and discourage speeding through intersections.
- Collector streets should have two travel lanes in a 70- to 80-foot right-of-way, 4-foot bike lanes, and 6-foot sidewalks separated from the curb by a 7-foot landscape strip.
- Local streets where low speeds are appropriate should have a 31- to 32-foot street width with 5-foot sidewalks separated from the curb by a 6-foot landscape strip. In some instances, bike lanes may be appropriate when in compliance with bicycle route plans.

Connectivity

Many subdivision designs in the past 20 to 40 years, which relied extensively on cul-de-sacs, have resulted in entire neighborhoods with only one or two exits on the same block face. This creates situations where people are forced to make extended trips to visit nearby neighbors or go shopping. When sidewalks are not provided, particularly between subdivisions or neighborhoods, children are not able to walk safely. Increased reliance on vehicles to go even short distances is an unintended consequence of these poorly connected housing developments.

Street design should include road access in at least two directions and pedestrian and bicycle access in at least three directions where this is not precluded by wholly incompatible adjacent land uses. Cul-de-sacs should be discouraged unless site topography or other physical barriers dictate their use. When they are used in a street design, then bicycle and pedestrian connections between them should be encouraged.

Newton-Wichita Commuter Train

The public has often expressed the need for commuter train service connecting Newton to Wichita. This visionary idea is reflective of the emerging priority to develop alternative transportation options in response to rising energy prices. The general concept is that people living in Newton, who are employed in Wichita, would arrive in downtown Wichita via rail and then use the Wichita Transit bus system to travel to their jobs. The commuter train could also be used by Newtonians wanting to take advantage of the recreational, cultural, and entertainment options available in Wichita. Conversely, people

from Wichita could take the train to Newton in order to spend time shopping, dining, and enjoying the atmosphere of downtown, as well as special cultural events at Bethel College.

In one respect, this vision is a rediscovering of our past. The Arkansas Valley Interurban train, which operated from 1910 to 1938, connected Wichita to Newton and Hutchinson. Taking advantage of existing rail infrastructure and adapting to new market conditions (driven by higher energy prices) offers Newton options for the future.

Transportation Policies

Pedestrians and Bicycles

Policy 1. Continue developing the Sand Creek Trail Bike Path.

Policy 2. Continue the "Safe Routes to Schools" program.

Policy 3. Investigate the advisability of creating a Newton-North Newton Bicycle and Pedestrian Advisory Committee. This citizens' committee would assist with the planning, development, and implementation of bicycling and walking programs and facilities.

Policy 4. Identify major traffic generators and destinations for potential bicycle and pedestrian trips — such as Bethel College, public buildings, the downtown district, parks, schools, places of employment, and other attractions — and plan for pedestrian and bike connections among them.

Policy 5. Designate official bicycle and pedestrian routes in the community through proper signage and pavement markings.

Policy 6. Incorporate the "complete streets" design principles into zoning and subdivision regulations, as well as Public Works design standards and specifications.

Policy 7. Ensure that private developments adjacent to the Sand Creek trail system, or planned extensions of the citywide trail system, provide for public access to the trail.

Policy 8. Ensure that residential subdivisions or multi-family developments are designed and built to provide for multiple, safe, and direct bike and pedestrian connections in all directions, as well as provide connectivity of land uses within the neighborhood and to areas outside the neighborhood.

Policy 9. Ensure that commercial developments are designed and built to accommodate safe and direct bike and pedestrian connections, including bicycle parking facilities.

Land Use and Transportation

Policy 1. Within the urban service area, promote a section-line road grid of arterial streets, and when advisable promote an internal collector street network, primarily following a north-south or east-west orientation.

Policy 2. Provide a continuous interconnected roadway system to preserve mobility throughout the community.

Policy 3. Support necessary arterial roadway and intersection improvements as traffic volume increases, to reduce the potential of neighborhood cut-through traffic.

Policy 4. Conduct traffic impact studies to evaluate the interaction between existing transportation infrastructure and proposed development projects.

Policy 5. Recognize the importance of energy conservation, and ensure that the Newton community takes a leadership role in reducing greenhouse gas emissions.

Policy 6. Reduce both reliance on automobile travel and the number of daily trips by locating activities closer together and promoting mixed-use development.

Policy 7. Incorporate opportunities for tree planting and provide a landscape buffer zone for residential areas bordering a highway.

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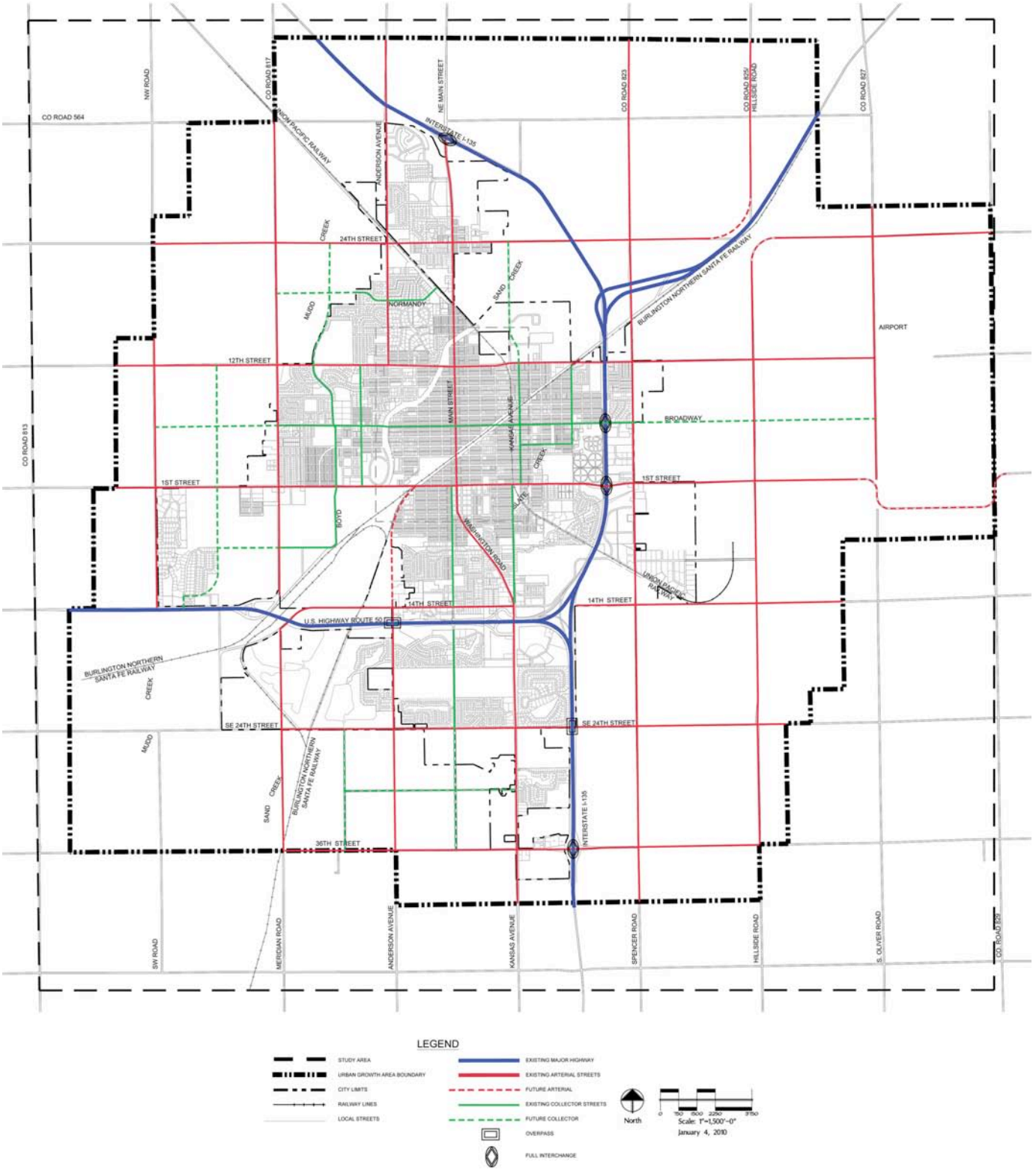

FUTURE TRANSPORTATION MAP

COMPREHENSIVE MASTER PLAN

NEWTON–NORTH NEWTON, KANSAS

Landplan Engineering, P.A.