The current bike network for the Lincoln MPO is tied closely to the streets and trails network. It includes existing paved and unpaved routes, proposed trails and trail easements, on-street bike routes, dedicated bike lanes on 11th and 14th streets in the Downtown area and a separated bike lane on N Street from 23rd Street to Arena Drive. Riding bicycles is not allowed on the sidewalk in the following commercial areas because of the large number of pedestrians:

- Downtown
- Havelock
- College View

Bicycles can play an important role in the community by providing a healthy alternative to the automobile, reducing traffic congestion, improving air quality, and creating a more balanced transportation system.

While Lincoln has some on-street bicycle facilities, there is desire from the public to expand the on-street system. The Lincoln Bike Plan outlines a city-wide on-street bicycle facility system.

Improvement of existing street and trail facilities that are presently suitable for bicycles and other users, and the development of an expanded system of bicycle-friendly roads and trails for the City of Lincoln and Lancaster County’s future have been expressed as strong community goals.

**Existing Multi-Use Trails System**

The community has an existing system of multi-use trails that currently provides a trail within one mile of 95% of dwelling units in the City. The system serves users such as bicyclists, pedestrians, roller-bladers, and parents with strollers and wagons. The present system serves both commuter bicyclists and pedestrians who use the trails daily for work and shopping trips and tend to travel from point to point, and recreational bicyclists and pedestrians who tend to use the trails on a more occasional basis, seeking attractive and safe routes, as shown on Map 10.1: Existing and Committed Trails.

Much of the current trail system is built in the right-of-way of abandoned railroad corridors. Others are built along streams in the floodplain, along one side of major arterial streets, or as part of residential development. Maintenance of the system includes litter pick-up, mowing, trail clearing and signage. The Lincoln Parks and Recreation Department, Public Works and Utilities Department, and the Lower Platte South Natural Resource District are primarily responsible for trail development in Lancaster County. Lincoln Parks and Recreation,
should be considered “design users,” with most streets being considered a “bicycle facility.” Education and enforcement of the rules of the road are keys to encourage bicycling as viable transportation and creating an environment that is safe and convenient for cyclists and motorists. The bicycle and pedestrian program should include education and promotional activities to encourage full and safe use of these facilities.

During the development of the LRTP, the community expressed a desire to continue expanding the network of on-street bike facilities to complement the trail system. Further study of the complete on-street bike network in Lincoln was assessed during the development of the Lincoln Bike Plan and includes various facility types, depending on street context, such as cycle tracks, road diets, striped bike lanes, and signed bike routes as seen in Map 10.12: Bicycle and Pedestrian Capital Plan. The Bicycle and Pedestrian Capital Plan should be updated and advanced in the near future and should include consideration of how bicycle improvements can be cost-effectively incorporated at the time of routine street maintenance.

A major element of the overall bicycle plan is the provision for adequate bicycle facilities as part of the existing urban area. For example, while parking for cars is routinely planned for, rarely is there a place where bicyclists can lock or store their bicycle. These facilities can be public facilities or part of private development. In addition to basic bicycle locking and storage facilities, many communities and larger mixed-use centers provide basic shower facilities for commuter bicyclists. The bicycle and pedestrian program should include subdivision and building codes that plan for the inclusion of appropriate bicycle facilities.

Lincoln currently has a well-developed sidewalk system, and the requirement of sidewalks on both sides of all streets should continue. However, this system is in need of rehabilitation in many areas. The sidewalk rehabilitation program should be funded at a level to replace a minimum of three (3) miles of sidewalk, or one percent of the sidewalk system annually. Pedestrian crossing signals should be updated and installed when warranted at appropriate sites along with other visual cues to alert drivers to pedestrian crossing points and to increase the safety and security of pedestrians. Some policies that should remain in place to support pedestrian facilities include the policy stating sidewalks should not be placed adjacent to the curb but separated by a landscaped parkway consistent with the City’s Design Standards for street trees, parking screening, and landscaping. This policy, in conjunction with others, will benefit the pedestrian environment.

Other pedestrian improvements should be made, such as completing missing gaps, increasing amenities at and around transit stops, and other projects like mid-block crossing improvements, pedestrian countdown signal heads, and a wayfinding system.

**Multi-Use Trails — 2040 Needs**

The grid pattern of roadways and the use of the Rails-to-Trails program have provided a strong foundation for a quality trail system. This system should be completed and new growth areas should be connected to it as they develop. Opportunities to develop trails (See Map 10.13: Countywide Trails Plan) in the County should be identified as they are presented and efforts to complete these projects should be made as funding opportunities allow.

As the trail system begins to age, rehabilitation of trails will become a larger issue. A rehabilitation program should be developed and funded adequately in order to complete projects as they are needed. Additionally, some trail segments have already begun to see more use than was originally anticipated. New trails should be built to a ten foot width and in some areas existing trails should be widened to 10 or 12 feet as they are rehabilitated.
Map 10.12: Bicycle and Pedestrian Capital Plan
the funded and priority transit projects. These projects are expected to be funded within the Fiscally Constrained 2040 Plan. Additional transit enhancements (such as next bus information and transit signal priority) will be addressed in the ITS and Technology Program.

**Committed Trail Projects**

The 2016–2022 CIP includes six Trail Projects that are assumed to be fully funded and completed within the first six years of the plan. These committed Trail Projects total $7.75 million and include the Rock Island Connection, the Waterford Trail, the Fletcher Landmark Trail, the Wilderness Hills Trail, the Woodland Trail, and the Salt Creek Greenway Corridor Trails. There are several additional Trail Projects with committed funding (outside the LRTP future funding revenues) that will be constructed in the near future. These projects are listed on Map 10.16.

**Trail Projects**

The Trails Scoring Committee evaluated more than 40 Trail Projects using evaluation criteria that align with the seven goals, as described previously. Based on annual revenues and year of expenditure project costs (assuming a 3 percent annual inflation rate, which is consistent with recent trends in trail construction cost inflation), approximately 21 new Trail Projects (36 miles of trail) could be added by 2040 using the $20.31 million allocation. In addition, five of the Trail Projects are part of street projects in the Fiscally Constrained Plan. A total of 55 miles of new trails (including the Committed Trail projects) are expected to be constructed by 2040. Table 10.7 lists the Priority Trail Projects that are expected to be funded within the time horizon of the LRTP. The order of projects may change depending on opportunities for funding.

Trail Projects that improve trail crossings of a railroad may be funded with RTSD funds, as described in the RTSD Projects section of this chapter.

Appendix G of the *Technical Report* includes the Trails Project scoring results.

**Other Bike/Ped and Travel Demand Management (TDM)**

This program includes sidewalk repairs, ADA compliant ramps, restriping and road diets to improve safety and to add bike lanes, and the travel options program. The allocation of $33.51 million would cover roughly 3 miles of sidewalk repairs per year.

**On-Street Bike Facilities**

The public comments received through the LRTP have included much praise for the N Street Cycle Track. During the development of the LRTP, the community expressed a desire to continue expanding the network of on-street bike facilities to complement the trail system. Further study of the complete on-street bike network in Lincoln was assessed during the development of the Lincoln Bike Plan and includes various facility types, depending on street context, such as cycle tracks, striped bike lanes, and signed bike routes (shared lanes). The Bikeshare program will further increase the demand for on-street facilities in the core area of Lincoln.

The future on-street bike facilities identified in the *LRTP Technical Report*, Chapter 4 (Figure 29), are assumed to be funded, to the extent possible, through the existing street improvement programs. Further study of these on-street facilities was conducted during the development of the Lincoln Bike Plan and includes consideration of how they can be cost-effectively incorporated at the time of routine street maintenance.

With the success of the N Street Cycle Track, the City of Lincoln is considering a future north-south separated bike lane on 13th Street as bicycle demand increases and funding is available in the downtown area. Further study will be required to assess the feasibility of a separated bike lane along 13th Street or another north/south Downtown street. Private
funding and/or grants should be pursued to help fund bike projects such as this.

Where traffic volumes allow, the City of Lincoln has considered painted bike lanes as part of the Complete Streets initiative. In some cases, four-lane roadways may be considered for “road diets,” in which they would be converted to two through lanes, a center left turn lane and bike lanes. Example streets where this type of treatment has been implemented include:

- S. 13th Street from K Street to South Street
- Vine Street from 16th Street to Antelope Valley Road and to the east
- 16th Street from P Street to Vine Street through the UNL Campus

This type of treatment could be done very cost-effectively, particularly if it is paired with a planned street overlay or rehabilitation projects.

While the allocation to this program is not sufficient to fund major on-street bike facilities such as a cycle track, funds for these types of projects could be pursued through Tax Increment Financing (TIF) with commercial redevelopment in the downtown area (similar to funding for the N Street Cycle Track).

With the South Beltway funded and planned for construction in the near future, it is important to plan for bicycle connectivity across the Beltway. Bicycle connectivity will be accommodated through the Highway 77 and Highway 2 system interchanges. The City of Lincoln and NDOR are coordinating to identify opportunities to accommodate planned trails in south Lincoln.

**Travel Demand Management (TDM) Program**

The TDM portion of this program may include partnerships with employers to support biking, walking, and transit commuting; flexible work hours; and remote work options. The program could also consider partnerships with Transportation Network Companies (TNC) such as Uber or Lyft, as well as car share and bike share options, to support shared mobility options in Lincoln.

**Roadway Construction Activities**

**RTSD and State Train Mile Tax Projects**

The $188.11 million allocated to RTSD and State Train Mile Tax Projects is directly from the two highly restrictive funding sources. This amount is estimated to cover major railroad grade separation projects at 33rd and Adams and the South Beltway, along with railroad crossing gates and flashers at two crossings per year, and six railroad crossing surface upgrades per year.

Trail projects that improve trail crossings of a railroad may be constructed as a part of larger RTSD Projects or constructed as stand-alone projects with RTSD funds. Examples of such trail projects include the 33rd and Cornhusker project, the Rock Island Trail bridge in Densmore Park, and a South 14th and Yankee Hill Road trail crossing.

**Two Plus Center Turn Lane Projects**

The City of Lincoln has been adding a center left turn lane as part of programmed street rehabilitation along two lane minor arterials and some collectors for many years. This program has successfully increased the capacity and safety of a two-lane roadway and minimized traffic congestion, while preserving the character and viability of the established neighborhoods and other components of the built environment.

Approximately 14 miles of Two Plus Center Turn Lane (2+1) projects remain in Lincoln. The allocation of $43.29 million will allow construction of approximately 7.5 miles of 2+1 projects. This estimate accounts for the increasing cost of construction projects using a 5 percent annual inflation rate. The candidate list of projects are identified in Table 10.8.

**Intersection Safety and Capacity**

Much of the current and future congestion on the street network occurs at existing intersections. The LRTP resource allocation includes an increased allocation to this program over historic funding
• Continue to work with NDOR to pursue funding options for construction of the East Beltway.

• Continue funding the Railroad Transportation Safety District (RTSD).

• Consider creative alternative funding sources, such as public-private partnerships.

• Consider indexing the Wheel Tax.

• Improve communication to the public about the need for increased transportation funding.

PEDESTRIAN AND BICYCLE FACILITIES

Dedicated funding for an ongoing pedestrian and bicycle capital program is identified as a priority in the 2040 Long Range Transportation Plan. Ongoing study of the system should identify projects that are most needed, including but not limited to assessment of the existing bike route system, signing the bike route system, the development of bike parking standards, locations of potential on-street bike facilities, wayfinding and signage needs, pedestrian crossing locations, pedestrian and bike amenities needs, identification of needed local and state law adjustments, and education and promotional strategies.

STRATEGIES

• Identify possible amendments to state law that protect the status of bicyclists as equal users of transportation facilities.

• Consider the establishment of a bicycle licensing fee, the proceeds of which would be dedicated to bicycle improvements and programs.

• Projects should be coordinated through a continuing program of data collection, interagency cooperation and public input and participation.

• Develop and implement a coordinated system of well-connected pedestrian and bicycle facilities that serve both new and older neighborhoods and provide access to activity centers such as schools, parks, employment areas and shopping.

• Consider on-street bicycle facilities that are designed to meet the capacity and the opportunity of new and retrofitted roadways. These facilities may vary from bike routes with signage to dedicated on-street bicycle lanes to protected bicycle lanes.

• Develop a program of standards and incentives to include bicycle amenities in employment, commercial, educational and office centers such as lockers, showers, and bicycle parking.

• Develop design standards for a variety of on and off street bicycle facilities that may be appropriate for roadways of different traffic levels.

• Implement the Lincoln Bike Plan improvements as funding is available.

• Include bicycle and pedestrian amenities as part of all City and County facilities to serve as a model for private investment.

• Cooperate with public and private organizations to develop and deliver educational programs for pedestrians, bicyclists and motorists on the rules, regulations, and benefits of alternative transportation.

• Continue to examine funding options that more closely match the identified needs in the sidewalk rehabilitation program.

• Rehabilitate one percent of sidewalks annually.

• Implement Complete Streets projects and expand the on-street bike network for community purposes.

• Add bike lanes in conjunction with street rehabilitation “road-diet” projects.
Implement and fully support the bike share program.

Consider installation of protected bikeways to provide a physical separation between bicyclists and motorists.

Make adequate maintenance of bicycle and pedestrian facilities a priority.

Add bicycle parking where appropriate.

Elevate the status of pedestrians and bicyclists in the community to be an integral part of the transportation network in Lincoln.

A dedicated funding source for pedestrian and bicycle projects and programs should be established.

**Multi-Use Trails**

Lincoln's multi-use trail system should continue to be a priority for the community. A well connected multi-use trail system provides recreational and health benefits, acts as an alternative transportation network, and promotes economic development in the community. Plans for this system in the Fiscally Constrained Transportation Plan identify prioritized trail segments for construction within the 24-year planning period as well as connections to be made after 2040, or as funding is available. A countywide trail system is also planned and should be considered in future development.

**Strategies**

- Continue the development of the multi-use trail network according to the priorities as shown on the Fiscally Constrained Transportation Plan trails map. Maintain existing route maps for all trails, lanes, and routes.
- Implement a useful and visually pleasing wayfinding signage program along the trail system.
- Increase trail safety for all users.
- Consider the location and alignment of multi-use trails and bike lanes in reviewing development applications; request that the platform for trails be graded in conjunction with the associated development.
- Consider grade separated crossings in conjunction with all new construction and reconstruction of transportation projects.
- In rural areas of the County, identify potential bicycle corridors that serve existing and planned activity centers and link to existing and planned City bicycle facilities.
- Continue to expand the trail counting system for data tracking and development.
- Expand and enhance public information and education programs.
- Continue the practice of widening and paving the shoulders of County roads. This should occur when reconstruction or resurfacing of the road is planned, with safety of users as a primary consideration.
- Increase direct access to the trail system from adjacent neighborhoods.
- Take advantage of abandoned railroad corridors and drainage ways, when possible, to expand the multi-use trail system.
- Adequately maintain existing and proposed trails.
- Develop a methodology to monitor trail conditions.

**Transit**

To achieve viable long range transit service for the City of Lincoln and Lancaster County in the year 2040, a number of broad policies and actions are needed to guide successful implementation and expansion of public transit. These policies and action items are to be guided by the results
of the updated Transit Development Plan (TDP). The TDP is the guide for near and mid-term transit planning for the 2040 Long Range Transportation Plan. Included in a Transit Development Plan is a comprehensive operations analysis, near and long term transit service alternatives, updated service standards and policies, and management and funding options.

**STRATEGIES**

- Implement the recommendations in the Transit Development Plan (TDP). Extend evening service hours per the recommendations in the TDP.
- Examine alternatives to change from a coverage based transit system to a productivity based transit system.
- Consider Mixed Use Redevelopment Nodes and Corridors in developing transit corridors.
- Pursue funding for construction of a downtown Multimodal Transportation Center.
- Continue to have discussions regarding technology advances and how they can be implemented for enhanced transit.
- Evaluate opportunities for public/private relationships for funding transit services.
- Provide amenities at transit stops that encourage multi-modal use.
- Work with the Public Works and Utilities Department on implementing a new Biogas Facility and update bus fleet to utilize this system.
- Identify opportunities to improve the connectivity between travel modes such as pedestrian access and bike parking at bus stops.
- Develop a well-functioning transit system that provides options to both riders by choice and those who ride out of necessity.

**STREETS AND ROADS**

Although investment in other modes of transportation may decrease reliance on the automobile, streets and highways will continue to form the backbone of the entire region’s transportation system. The streets and roads programs are integral to a well-functioning system and are responsible for meeting the day to day demands of the system, providing routine maintenance of the roadways, utilizing technology to improve efficiencies in the system and supporting alternative modes of transportation.

**STRATEGIES: GENERAL**

- Implement the recommendations of the Mayor’s Road Design Task Force to maximize cost-effectiveness in roadways, build roads to serve the traffic projected in the near term, and ensure all roadways within the future service limit are served by an appropriately paved surface. Consider updating these recommendations to best reflect current needs and conditions.
- Collaborate to refine the Rural to Urban Transition for Streets (RUTS) program standards to identify efficient transitions from rural to urban conditions.
- Encourage the use of alternative travel modes (biking, walking and transit) to lessen the demand on the streets.
- Continue advancing preventative maintenance strategies (i.e. pothole repairs and crack sealing) to extend the life of Lincoln’s streets and minimize the life-cycle costs.
- Implement the funding program and construct the committed and priority Roadway Capital Projects per the Fiscally Constrained Plan.
- Rehabilitate 5% of major streets and 3% of residential streets each year.
Strategies: Roadway Studies

Alternative approach corridor studies focus on the use of technology, such as traffic signal coordination, and strategic intersection improvements versus major widening projects. By applying this alternative approach to these corridors, the limited funding available for Roadway Capital Projects can be stretched to address the congestion needs on more corridors. Alternative corridor studies are recommended for the following corridors:

- Highway 2 from South Street to S. 84th Street
- N. 84th St between O St and Adams St
- O St between Antelope Valley and 46th St
- O St between Wedgewood Drive and 98th St
- Cornhusker Hwy between N. 20th St and N. 33rd St
- Van Dorn St between S. 70th St and S. 84th St

Additional roadway corridor and intersection projects should be evaluated for their impacts on surrounding properties as well as to the transportation system overall. Roadway corridor studies are recommended for the following projects:

- 33rd and Cornhusker – Complete the Planning and Environmental Linkages (PEL) Study to identify and evaluate potential railroad grade separated structures in the vicinity of N. 33rd and Cornhusker Highway. This project should aim to eliminate train conflicts with vehicles, bicyclists and pedestrians.
- Continue RTSD at-grade crossing studies to reduce or eliminate automobile/pedestrian and railroad conflicts.
- As part of the US-77/West Beltway freeway project, study a potential overpass at US-77 and Old Cheney Road and Rokeby Road. The study is to be a joint State/County/City feasibility study, including a traffic analysis, a citizen participation...
element, an appropriate environmental review, and will be started no later than one year prior to the contract letting of the West Bypass freeway upgrade. The study will comply with FHWA procedures for Federal Aid projects and will attempt to maintain an Old Cheney connection to 1st Street. (Study for a potential overpass at Rokeby Road has been approved by the County Board only.)

**Strategies: Congestion Management Process**

One area of ongoing emphasis is the Congestion Management Process. Congestion mitigation efforts should continue and remain flexible. There should be a regular process in place to identify and respond to traffic congestion challenges. Many management and operational actions will be undertaken at the departmental level to provide the quickest possible resolution, while more serious issues may require a formal study process. Additional studies may be desirable to identify specific congestion mitigation strategies that appear most reasonable for a particular location. Where deficiencies are identified, the MPO Technical Committee may suggest strategies for congestion mitigation. Studies or recommendations for congestion mitigation should address as a minimum the impacts on the following:

- Projects should be evaluated against the recommendations and guiding principles of the Alternative Transportation Modes, Complete Streets Committee, Travel Demand Management Techniques, Two-Plus Center Turn Lane Program, Intersection Capacity Improvements as well as the Congestion Management Process adopted in 2009. Specific projects to address congestion management include but are not limited to implementation of the Green Light Lincoln initiative and strategic intersection improvements and signal coordination.

- Implement the Green Light Lincoln program.

- Improve intersection operations and coordinate signal timing.

- Replace 15 signals each year (3 percent).

- Implement intelligent transportation systems (ITS).

- Consider the impacts that emerging technologies in transportation (e.g., autonomous cars and online goods delivery) may have on travel behaviors and the future capacity needs of the system.

- Implement transportation demand management (TDM) tools such as van-sharing.

- Help the transportation system recover swiftly from incidents.

**Airports and Airfields**

Lincoln Municipal Airport is governed by the Lincoln Airport Authority (LAA). The LAA is part of the MPO and participates in its activities; however, planning for airport facilities is done in a separate process. Private airports and airfields must abide by the rules of the Nebraska Department of Aeronautics as well as County and City zoning code.

**Strategies**

- Maintain compatible land uses and zoning within the 60 DNL and 75 DNL noise contour lines.

- Continue to enforce zoning restrictions for building and structure height in the approach and turning zones.

**Freight**

A network of railroad tracks and the highway system in Lincoln and Lancaster County play an important role in freight movement. Land with highway and/or rail accessibility may be desirable...
for employment center development and should be sited according to Lincoln/Lancaster County Future Land Use Plan.

**STRATEGIES**

- Continue coordinated efforts with representatives from all appropriate modes to ensure that projects proposed by the private sector are incorporated into the planning and programming process. The focus of discussion on freight bottlenecks with the freight community during the development of the 2040 Plan was on needed improvements to Highway 2 and the anticipated construction of the South Beltway as a major benefit to freight operations in the region.

- Coordinate with the State’s efforts to develop a state-wide freight plan.

- Review existing policies concerning separation between conflicting land uses and continue the assessment of risk concerning hazardous materials and impact on nearby land uses.

- Enhance access to external transportation connectors (e.g., Interstate system) in order to minimize impact on existing land uses.

- Enhance the internal transportation routes (e.g. State highways and City arterials) in order to minimize impact on existing land uses.

- Encourage and support the development of individual inter-modal projects by private industry. Opportunities for expanding the intermodal facility should be encouraged in the Lincoln Airport and Airpark areas where rail access exists.

- To the extent possible, eliminate conflicts between highway traffic and railroads in Lincoln and Lancaster County.

- Expand the use of technology to improve the efficiency of freight trucking routes.

- Implement adaptive signal control with emphasis on major truck routes.

**PERFORMANCE MEASURES**

Under MAP-21 and FAST Act, performance-based planning was established. Therefore, this Long Range Transportation Plan incorporates performance measures (detailed in Section 4, Goals) that relate to local and national goals. Performance-based planning affords a structure for this LRTP to ensure that scarce resources are used effectively and equitably. The community values of transportation are woven into the goals, objectives, performance measures, and ultimately, evaluation criteria, used to identify high-priority transportation projects. The LRTP is based on a set of goals intended to implement the vision and support the transportation needs and community values, while aligning with national goals and federal planning factors. Individual performance measures have been identified and included in the Implementation Section found in the strategies of each applicable mode of transportation.

**PERFORMANCE TRACKING STRATEGIES**

- Develop a methodology for and begin tracking those performance measures (in Section 4) that are not currently being tracked.

- Track the progress in each performance measure annually and provide an annual performance report.

- Update the City’s Asset Management Plan to include improved tracking and reporting.