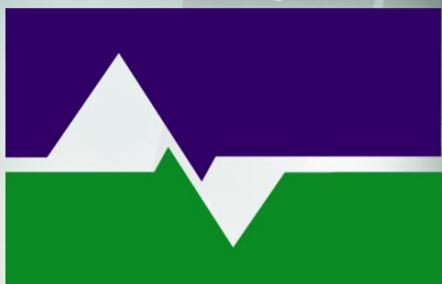


# 2035 Transportation Plan



City of Loveland

LSA

LSA ASSOCIATES, INC.



Draft Final

November 2012



# 2035 Transportation Plan



**Draft Final**  
November 2012

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City of Loveland

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# Section 1: Purpose & Process

## Introduction

Located along the eastern base of the Rocky Mountains, the City of Loveland enjoys a spectacular natural setting, serving as a gateway to Rocky Mountain National Park and the mountain communities to the west. Its residents enjoy a high quality of life and have expressed a desire to preserve it. The City has a diverse employment base, attracting clean, high tech industry. There are many other public and private amenities, including recreation and cultural facilities, as well as natural amenities such as the Big Thompson River, the Hogback areas, and many lakes that make Loveland an attractive place to live.

With a population around 69,000 in 2012, Loveland is typical of many of the communities along the Front Range. It continues to experience above average population growth and the corresponding traffic congestion concerns. Loveland's land use plan anticipates substantial new commercial and employment development along east Eisenhower Boulevard and the I-25 corridor. New residential development will likely be predominantly single family in the northwestern and southeastern sectors of the City. Additional industrial development is forecast near and east of the Fort Collins-Loveland Airport. New schools will also be required to serve the growing population.

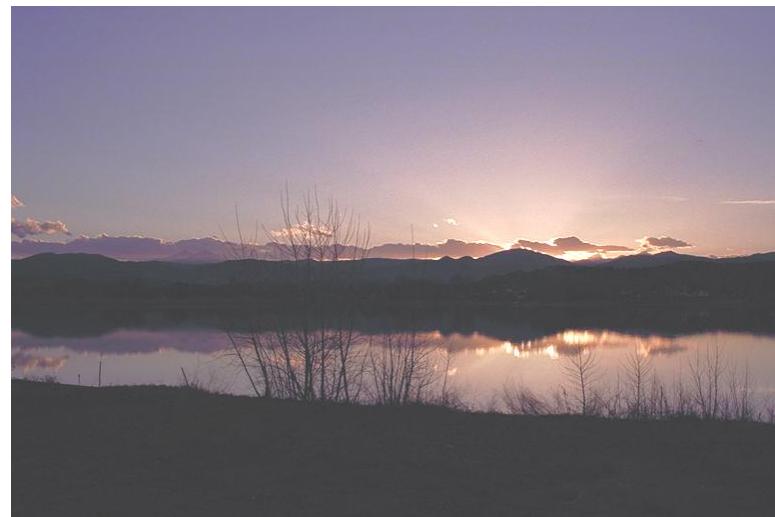
These factors continue to have a dramatic effect both today and on the future of Loveland's transportation system. Mobility in the community plays a large role in the standard of living for residents. A well-balanced, well-maintained transportation system is critical for sustaining Loveland's high quality of life.

The 2035 Transportation Plan is an update to the 2030 Transportation Plan, updated in 2007. The 2035 Transportation Plan addresses the transportation system needs through the year 2035, and provides a summary of the changes between 2000 and 2012. Considerable research and analysis contributed to the preparation of the 2035 Transportation Plan, and it reflects the changes that have occurred over the last several years. As part of this document, summary maps have been prepared

to convey the essential information in a concise, graphical format that is easy to understand.

## Purpose

The primary purpose of the Transportation Plan is to provide a document that guides transportation decision making toward a future desirable to the community of Loveland. The last major transportation plan was completed in 2007. An update of this plan was needed to address the changes the community has experienced in recent years. The update of the 2030 Transportation Plan's look at all modes of transportation – bike, pedestrian, transit, and automobile – and is a revision to the long-term plan for improving Loveland's transportation systems. The plan includes updated recommendations, policies, and strategies to ensure that a high quality of life is preserved over the next 23 years.



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*Sunset over the Rocky Mountains west of Loveland*

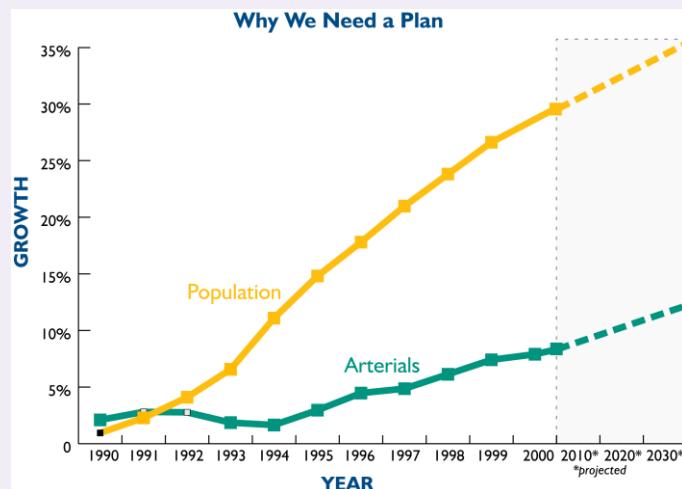


## Why do we need a Plan?

While there are many benefits associated with Loveland's population growth and development, the transportation system is not growing fast enough to accommodate the new demand. Each year, new streets are constructed and widened, but arterial street construction has not kept pace with growth in recent years.

If trends continue, Loveland will need to provide new transportation facilities and make difficult decisions about where, when, and how to accommodate traffic. The 2035 Transportation Plan updates the analysis of these trends and provides direction and guidance for Loveland's transportation future.

### Graph of Population Growth from 1990 through 2035



The 2035 Transportation Plan is intended to establish guidance, transportation policies, and to identify future improvement projects. The plan lists the policies and goals City staff and elected officials will use for transportation decision-making over the next 23 years.

## What are the important transportation planning issues?

The transportation planning process defined specific issues that were deemed necessary to address to ensure a strong and comprehensive transportation plan. The following issues, included in the development of the 2020 Transportation Plan, were identified through the public participation process and still hold true today:

**Interdependent relationship of land use and transportation.** Each has a major effect on the other and can create a negative "cycle of impacts" that is difficult to break.

**Modes of surface transportation.** The primary issues, costs, and impacts associated with each.

**Levels of service for each transportation mode.** The purpose, time, destinations, physical improvements, and policies needed to achieve a given service level and the associated costs and implications.

**Growth patterns and design horizons.** Need for consistency with the adopted Loveland Comprehensive Plan and the utility master plans. Must deal with the questions of where growth will occur, what type is needed, and how much should be allowed. Important to include the "build-out" scenario to address long-term needs.

**Capital versus operating costs.** Investigate the impacts building new infrastructure has on maintenance and operations activities and cost.

**Financing options.** Leave no stone unturned. Investigate all reasonable options for financing capital, operations, and maintenance costs for transportation.

**Ongoing Transportation Advisory Board Involvement.** The creation of a citizen advisory board for City transportation policy, proposed in the 2020 Transportation Plan, came to realization in 2002, and has functioned as a sounding board and review group throughout the development of the 2030 Transportation Plan.



## Transportation Goals and Objectives

The City has developed the Transportation Plan with citizen input on specific goals. Developing a shared vision for the future and the transportation system necessary to support that vision was an essential step in the planning process. The goal statements are a verbal expression of each aspect of the vision for the future. The following goals were identified in 2000 as priorities for meeting Loveland's future transportation needs and are still accurate today.

### Transportation Plan Goals

- Recognize the important relationship between land use and transportation and develop appropriate policies that promote a long-term sustainable transportation system.
- Plan a safe, efficient, continuous, coordinated and convenient multi-modal transportation system that serves the needs of the community now and establishes the foundation for a transportation system that is sustainable for future generations.
- Develop transportation plans and policies that recognize the importance and value of the physical environment.
- Develop transportation plans that sustain the economic vitality of the community consistent with the Loveland Comprehensive Master Plan.
- Develop street access policies that balance the needs of property access with safety, community mobility, and street capacity.
- Develop long-term travel demand management policies that will allow the street system to maintain acceptable service levels far into the future.
- Investigate all reasonable funding strategies and develop a plan and an implementation strategy that recognizes current funding realities and limitations.

## Planning Process

The process of updating the 2030 Transportation Plan to the 2035 Transportation Plan involved a number of discrete steps as well as ongoing tasks and coordinating efforts. The public input component, for example, was active throughout the project, both directing and responding to the various stages of plan development. The first step in the planning process was to reaffirm the goals and objectives for the future of Loveland's transportation system. Second, each transportation system — bike, pedestrian, transit, and automobile — was reassessed to determine existing capacities and deficiencies. Third, using growth projections from the City's Community and Strategic Planning Division and neighboring areas through the North Front Range Metropolitan Planning Organization, combined with travel demand forecasts, development over the past 12 years, and current development trends, a long-range transportation model was developed to address the future travel needs of the community.

In reality, these steps were iterative and repeated a number of times throughout the process. Each of the above steps depends on future land use development scenarios, funding options, system improvements, and travel behavior choices. In order to examine a number of alternatives, this process was repeated, until an acceptable, affordable, and achievable plan for Loveland's transportation system emerged.

## Public Participation

### Transportation Advisory Board

The Transportation Advisory Board (TAB) was formed in 2002 to respond to a growing need for community participation in the evolving transportation issues facing Loveland. The purpose of the TAB is to serve in an advisory capacity to the City Council and City Staff on transportation issues. Their directive is to assist in the planning and development of multi-modal transportation systems, other than those considered solely recreational, by providing the Council and Staff with advice and recommendations related to the following:

- Local and regional transportation and transit matters, including those matters related to local and regional transportation projects and organizations.
- Policies, standards and code amendments concerning transportation and transit



- The City's ten-year capital improvements plan as it relates to transportation, transit revenues, and expenditures.
- Proposed amendments to the City's transportation master plan.
- Transportation and transit fees, rates and other charges to be approved by the Council.

Current Members of the TAB are: Bruce Croissant, Irene Fortune, Daniel Hill, David Martinez, Robert Massaro, Gary Thomas (Chair), and Joan Shaffer (City Council Liaison).

## Public Input

The 2035 Transportation Plan was developed with input from citizens through a public meeting and Citizen Members on the Transportation Advisory Board. Some of the purposes of the public input were to:

- **Guide the development** of the Loveland Transportation Plan,
- **Inform the community** of transportation issues being addressed and propose options,
- **Build community consensus** for the Transportation Plan,
- **Provide citizen input** to Staff, consultants, the Planning Commission, and the City Council regarding transportation policies and goals for the City of Loveland, and
- **Develop specific recommendations** for use by the Planning Commission and the City Council in approving a Transportation Plan for the City of Loveland.



In addition to the Transportation Advisory Board, there were several options for general public participation in the Transportation Plan's development. A public meeting was held in addition to a City Council Study Session, Planning Commission Study Session, a Construction Advisory Board Study Sessions, a Planning Commission Public Hearing, and a City Council Public Hearing.

## Planning Context

### Comprehensive Master Plan Overview

Within the City's Comprehensive Master Plan, there are many specific and general references to the Transportation Plan. This is desirable and necessary due to the fact that they are based on common elements (steps) identified in the Comprehensive Master Plan:

- Step 1: The Community Profile: Where are we now?
- Step 2: The Trend Statement: Where are we going?
- Step 3: The Vision Statement: Where do we want to be?
- Step 4: The Action Plan: How do we get there?

In addition, the development of future traffic projections is directly related to future development within Loveland, as identified in the City's Land Use Plan.

### Related Plans & Studies

In order to compile relevant data and ensure coordination with concurrent transportation and land use planning efforts, a number of recent and ongoing transportation and land use studies and plans in the region were examined.

- **City of Loveland 2030 Transportation Plan.** The Loveland City Council adopted the current Transportation Plan in 2007. The 2030 Transportation Plan addresses growth trends, identifies changes in travel patterns, and establishes transportation policies to guide transportation decision-making to 2030. The 2030 Transportation Plan was developed with extensive input from citizens, Planning Commission, Transportation Advisory Board and City Council. This document proved to be an accurate representation of the long-term transportation needs for Loveland.



- **Loveland Comprehensive Master Plan Update.** The Loveland City Council adopted the current comprehensive master plan in September 2005. This plan was updated through extensive citizen, Planning Commission, and City Council involvement and addressed the major issues within the Loveland community since 1994. The plan's elements focus on the physical development of the community as well as the cultural, social, and educational aspects of Loveland. The Loveland Comprehensive Master Plan Update resulted in a revised community vision and short-term action plan based on the current state of the community.
- **East-West Mobility Study (EWMS).** In March of 1997, the City Council reviewed the recommendations of a citizen advisory group that studied, over the course of a year, the probable impacts of future growth on east-west mobility within the greater Loveland community. The study grew out of concern for plans to widen portions of Eisenhower Boulevard to six through lanes of traffic. The recommendations were summarized in a 24-page final report and included revisions to the street plan for Loveland. The street plan revisions were adopted by a City Council resolution.
- **Transit Development Plan (TDP).** The City of Loveland prepared a TDP to "identify needs and options and to develop a realistic, effective plan for community transit and ridesharing for the residents of Loveland and the surrounding area." The plan was completed in 2005 and evaluated existing services, growth, and development trends in order to develop transit options. As a result of this plan, service and route revisions occurred in 2006 and early 2007 to address the growing demand for the service. Additional future changes have not been approved by City Council.
- **North Front Range Metropolitan Planning Organization (MPO) 2035 Regional Transportation Plan (2035 RTP).** The NFR MPO's 2035 RTP includes consideration of planning factors {(A) support the economic vitality of the metropolitan area; (B) increase the safety and security of the transportation system for motorized and non-motorized users; (C) increase the accessibility and mobility options available to people and for freight; (D) protect and enhance the environment, promote energy conservation, and improve quality of life; (E) enhance the integration and

connectivity of the transportation system, across and between modes, for people and freight; (F) promote efficient system management and operation; and (G) emphasize the preservation of the existing transportation system.}, to create a fiscally constrained plan as well as a vision plan between through the year 2035. This regional plan was adopted in late 2011.

- **North I-25 Environmental Impact Statement.** The Federal Highway Administration, Federal Transit Administration and the Colorado Department of Transportation commissioned an Environmental Impact Statement (EIS) to determine the effect that adding various transportation improvements along I-25 will have on the lives of residents and commuters in the area. This EIS helps plan for transportation improvements along the I-25 corridor as well as improvements to parallel facilities. The EIS was completed in 2011.
- **City of Loveland Bicycle and Pedestrian Plan.** The City of Loveland prepared a bicycle and pedestrian study to document the existing bicycle and pedestrian network and to identify gaps in the system, estimate future bicycle and pedestrian demand based on evaluation of key destinations and developed a long term plan which prioritized projects over time. The plan also provided best practices in bicycle and pedestrian planning as a resource for future planning. The plan was based on extensive public outreach that included workshops where stakeholders identified areas of need. The City of Loveland Bicycle and Pedestrian Plan was adopted May 1, 2012.
- **2009 Transit Plan Update.** The Transit Plan Update process was a collaborative partnership among the City of Loveland-COLT, the City of Fort Collins-Transfort, and the Poudre School District (PSD). The purpose of the TSP was to provide a coordinated effort in updating the 2004 COLT Transit Plan and the 2002 Transfort Strategic Operating Plan (TSOP). The plan also identified funding mechanisms and practical phasing options, and addresses financial solutions required to create and sustain a high-performing transit system. The 2009 TSP was an update to the 2004 COLT Transit Plan adopted by Loveland City Council. Separate



documents were created for COLT and Transfort in order to simplify the plan adoption process. The Transit Plan identifies needs and options to develop a realistic, effective plan for community transit and ridesharing for the residents of Loveland and the surrounding area." The plan was completed in 2009 and approved by City Council.

- **City of Loveland Intelligent Transportation System (ITS) Progress Report / 5 Year Plan (ITS) – November 2009:** Intelligent Transportation Systems (ITS) uses modern communication, computer, and control technologies to maximize the use of the existing transportation road network. The City's current ITS plan included a history of the implementation of ITS in Loveland, including an inventory of existing ITS related improvements, and outlined the desired ITS related improvement through 2014. The planned ITS related improvements provide a guide for the orderly implementation of ITS field devices and computer systems in response to increasing traffic congestion in Loveland and in coordination with CDOT and the surrounding entities. The plan established phased objectives to incrementally deploy ITS citywide, with the primary focus on enhancements to the City's Traffic Operations Center (TOC)., the expansion of the high speed communication system the addition of ITS related field devices included upgraded traffic signal controllers and more locations equipped with video technology, and enhancements to the system to allow users to access real time data and information to assist with route choices.
- **Colorado Department of Transportation 2035 Statewide Transportation Plan:** Published in March 2008, the "2035 Statewide Transportation Plan represents the vision that the people of Colorado would like to see for their transportation system. The corridor visions identified in this Plan integrate local land use decisions, community values and environmental considerations with local and statewide transportation needs. Within each corridor vision, specific improvement strategies are identified that will help achieve that vision. These visions represent an ultimate goal to work toward and are not time-specific. The corridor visions and strategies developed by the public and identified in the Plan provide a context within which to include and prioritize projects in the six-year capital programming

document called the Statewide Transportation Improvement Program (STIP). Projects included in the STIP must be consistent with the corridor visions identified in the Plan. The rate of population and employment growth, travel patterns and local land-use decisions all will influence the prioritizing and timing of transportation improvements, but these improvements must all help achieve the corridor vision. These corridor visions will help CDOT coordinate with local governments to prioritize the investment of available dollars into projects that best meet the visions expressed by the public." (Note: Excerpt from "2035 Statewide Transportation Plan" Introduction.)

- **North Front Range Metropolitan Planning Organization Long range Transportation Demand Management Plan (December 2010):** In 2010, the North Front Range Metropolitan Planning Organization (MPO) prepared the Long Range Transportation Management Plan. The plan serves as long-term guidance for Transportation Efficiency Programs in NFRMPO region, including the City of Loveland. This guidance includes unique strategies for the region and the City of Loveland to: 1) assist businesses to identify efficient and affordable transportation options for their employees, and 2) assist governments in increasing the ridership of their existing transit systems, bicycle/pedestrian programs, and ridesharing efforts.

### Regional & State Context

The City of Loveland 2035 Transportation Plan fits within the context of other transportation planning efforts as described above. All of these plans are necessary and must be well coordinated to ensure transportation systems work effectively and efficiently. The City of Loveland must integrate local (Loveland) planning efforts with those of the region (North Front Range Metropolitan Planning Organization) and the State (CDOT Region 4, as well as the entire state) as transportation within the region as well as future plans for the State Highway System will affect traffic demand estimates within Loveland.

Development of the 2035 Transportation Plan considered the existence of common design elements and requirements. Loveland, Fort Collins, and Larimer County all utilize the Larimer County Urban Area Street Standards. The Plan will also need to consider whether or not surrounding municipalities have designated Impact Fees (called Capital Expansion Fees or CEFs in Loveland) and/or Adequate Community Facilities Criteria, similar to Loveland. Adequate Community Facilities Criteria are policies that impose minimum infrastructure requirements related to new development. The City of Loveland's Transportation Plan was updated with the Colorado Department of Transportation 2035 Statewide Transportation Plan.

### Local Geographic Context

Smaller scale coordination is also necessary between Loveland and its neighbors. As part of preparation of the Long Term Land Use Plan, the Growth Management Area (GMA) was determined. The GMA represents Loveland's ultimate limits. Loveland's GMA borders Larimer County on the west; Fort Collins, Larimer County, and Windsor on the north; Windsor, Weld County, and Johnstown on the east; and Berthoud and Larimer County on the south. In some cases, Loveland's limits overlap with those of neighboring municipalities. In order to compensate for this, a significant amount of coordination and communication is required.

### Intergovernmental Agreements Affecting Transportation

In order to address the situation of Loveland being surrounded on all sides by different government entities, several Intergovernmental Agreements or IGAs have been developed. These are formal agreements adopted by City Councils, Boards of Trustees and/or Boards of Commissioners to address items that overlap. Specific examples of IGAs include:

- Larimer County requires that projects outside Loveland City Limits but within Loveland's GMS be referred to the City of Loveland for review and comment;
- Numerous government entities regulate Access Control on US 34 from I-25 to Kersey;
- An agreement between Loveland and Windsor that the roadways at their common boundaries will be adopted by either Loveland or Windsor (not both) so that criteria will be consistent;



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# Section 2: Draft Community Sustainability Plan

## Introduction

In 2008, the City of Loveland began a staff-initiated effort to define and establish sustainability efforts for the City. The City of Loveland Draft Community Sustainability Plan (August 2012) reflects the work of that effort and identifies what steps the City has already taken to guide and improve sustainability in the Loveland community. The focus of the Draft Community Sustainability Plan is about defining smart business initiatives and community policies targeting the continued preservation, enhancement, and economic development of Loveland. Its objectives are to facilitate decision-making to support good return on investment, community engagement, and attracting jobs to the region.

The Draft Community Sustainability Plan seeks to provide a high-level document to clarify the city's position and role in the goals of creating a sustainable community. The Draft Plan is a first step in beginning the community discussion necessary to identify, clarify, and provide definition to the goals and action plans for the community and City government. Once adopted, these goals will inform all Citywide planning efforts, including the Transportation Plan.

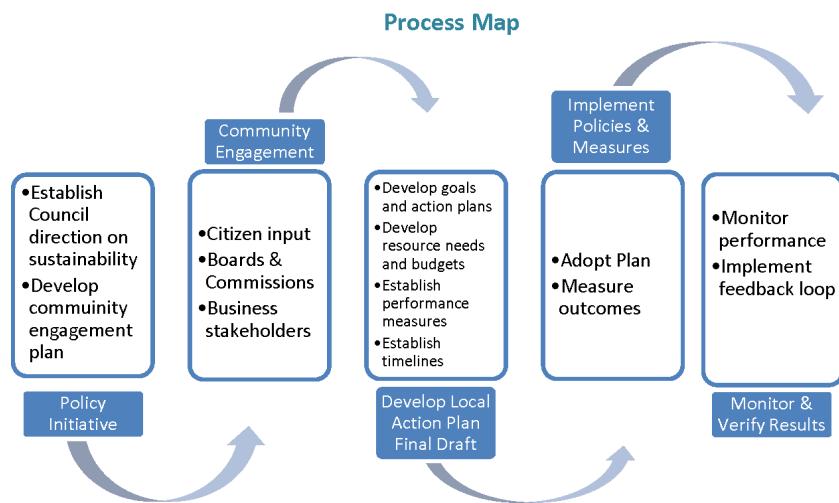
This section provides an overview of the Draft Community Sustainability Plan prepared by the City of Loveland. As described above, the Draft Plan identifies Guiding Principles for improving sustainability in the community and establishes goals and sub-goals for seven key goal areas, including Transportation.

## Process

To assist the City of Loveland and community leaders in working to support and drive a sustainable Loveland, eight Guiding Principles have been developed. These guiding principles have been further enunciated into seven specific goal areas, with parallels to the Comprehensive Plan. These seven goal areas are: 1) Resource Conservation; 2) Transportation; 3) Environmental, Open Space, and Community Health; 4) Economic Development; 5) Land Use and the Built Environment; 6) Buildings and Energy; and 7) Community Education and Civic Participation. The City of Loveland will establish performance measures, both quantitative and qualitative, assessing the impacts of the Community Sustainability Plan. The performance measures will be centered on the seven goal areas described above.

The City will undertake a three-step approach to addressing sustainability. The first priority will be taking business steps to move the City organization to more sustainable practices. Priority 2 will be a larger community discussion on sustainability and how it relates to governmental policy, community action, and funding. Following the community discussion, the third priority will be to integrate the community goals on sustainability into the existing City of Loveland Plan structure, interweaving the consideration of sustainability into key community planning documents, including the Loveland Comprehensive Plan, Transportation Plan, Parks and Recreation Master Plan, Open Space Plan, Title 18, Water Master Plan, Power Master Plan, and other key community planning documents.

The City of Loveland has not officially adopted a sustainability policy or set of goals. In order to more fully develop a Community Sustainability Plan, and the ensuing action plans and policies associated with the adopted plan, the City will seek community input into the Draft Community Sustainability Plan.



## Defining Sustainability

The City of Loveland has defined Sustainability as “Efforts at reducing the impact community and business operations have on the environment, this includes life-cycle planning, preservation and resource conservation efforts, and policies that support a long term vision for the community and citizens.”

## Guiding Principles

1. The concept of sustainability is interwoven into City policy; programs and projects will consider sustainability in addition to other project factors.
2. Balancing the needs of economic vitality, environmental health, and the community fabric is essential to long term community sustainability. Community resiliency for emergency management is an essential component of sustainability.
3. Public participation and community awareness are essential to building a sustainable city.
4. Sustainability priorities will be developed through a process of community input, led by City Council, with an emphasis on economically viable programs and policies.
5. Partnerships among government, business, non-profits, and the community-at-large are essential to achievement of community goals.
6. The City of Loveland government organization, in our business operations, will strive to lead by example in sustainable business practices.
7. Protecting, preserving, and restoring the community and regions natural environment is a priority for the City of Loveland.
8. The City of Loveland recognizes its role as a community, regional, and national partner in making sustainable decisions.

## Five Milestones for Sustainability

1. Set Sustainability Goals – The sustainability goals define the overarching objectives and scope of the sustainability plan. The type and number of goals can vary by jurisdiction, but likely will include an emissions reduction target along with other goals addressing issues such as workforce housing, natural resources conservation, and/or public transportation.
2. Develop a Sustainability Plan - The local government develops a sustainability plan, ideally with robust public input from stakeholders. The plan details the policies and measures that the local government will take to improve local sustainability and achieve the goals defined in the community and region. Most plans include a timeline, a description of financing mechanisms, and an assignment of responsibility to departments, the community, and stakeholders. This step should involve a public participation component to solicit ideas from the public and to receive feedback on measures being considered for inclusion in the plan.
3. Conduct a Sustainability Assessment - To begin the assessment process, a local government needs to first research and assess environmental, economic, and social equity challenges within the jurisdiction, and the programs in place to address these issues. The sustainability assessment typically includes a greenhouse gas emissions inventory and forecast for local government operations and the community as a whole and takes into account other key sustainability indicators.
4. Implement the Sustainability Plan - The local government implements the policies and measures in the sustainability plan.
5. Monitor and Evaluate Progress - Monitoring and verifying implementation progress is an ongoing process. Achieving this step involves annually reporting on implementation progress and monitoring the overall sustainability of the jurisdiction using the sustainability indicators identified.

## Current Efforts

In 2008 and 2009, City staff began the task of developing an inventory of all activities, policies, and processes that support moving to a more sustainable business operation. This task compiled a significant snapshot of the city's current efforts based on the seven goal areas described above. The list represents Loveland's sustainability success as of 2010. Current sustainability efforts related to transportation include:

- **Catch the Bus:** 2009 saw the expansion of local bus service in the downtown corridor, seeing ridership jump from zero to 19 passengers an hour. The city also received \$776,000 in ARRA Federal Stimulus funds to purchase buses to support expansion of the regional FLEX bus route in June 2010. This first north-south regional route provides riders a connection from RTD in Longmont, through Berthoud, Loveland, and ending in Fort Collins. The new regional route is a partnership among seven regional governments. The buses on this route operate as alternative fuel, hybrid vehicles. Total ridership is averaging over 17 riders per hour and carrying over 154,100 passengers in the first 12 months.
- **Pedestrian Friendly:** Through the work of City Council, city staff, and the Loveland Downtown Team, a downtown Strategic Master Plan for both business and streetscaping was completed. The new plan identifies a framework to reignite historic downtown Loveland and lay a foundation for Living Streets that enhance and support pedestrian, bicycle, and alternative travel.
- **Roll with It:** Bike to work day was the biggest in years and laid the foundation for the 2010 and 2011 development of a new community-wide Bicycle and Pedestrian Master Plan. In 2010, the city was named "Honorable Mention" as a bike friendly community.
- **T-n-T:** The City collaborated with Thompson R-2J School District to rollout an improved and growing Safe Routes to Schools program. The goals included upgraded pedestrian and bike friendly improvements around schools, and programs to encourage walking and biking for students. The hallmark of the program T-n-T Tuesdays (Tennies and Tires) was able to document a 70 percent increase in biking and walking to school and over 12,700 reduced vehicle trips at several elementary schools in the District.



- **Turn off the Engine:** In 2010, City of Loveland began a fleet-wide anti-idling education program in partnership with Fort Collins, Larimer County, and Poudre Schools. The goal is to improve both winter and summer air quality and improve fleet gas mileage.
- **Reduce the Footprint:** Between 2000 and 2010, the City of Loveland fleet has reduced greenhouse gas emissions (GHG) by an average of 10.52% per vehicle.

### Sustainability Goals

In an effort to enhance discussion and provide a platform for community policies and plans around sustainability efforts, the City of Loveland has developed a series of potential goals in each of the key goal areas. The draft goals were developed based on past community planning efforts, such as the Comprehensive Master Plan and a review of sustainability plans from like-sized communities in the United States. These goals are a starting point to develop broad overarching goals that will then be used to create specific action plans, schedules, and funding and resources plans.

### Transportation Goals

The goal and sub-goals for Transportation, as outlined in the Draft Community Sustainability Plan, are as follows:

**Transportation Goal** - While transportation is essential to the economic vitality of both the community and individuals, impacts created by transportation are far reaching and contribute significantly to sustainability. The City's transportation planning must embrace multi-modal solutions, regional mobility, and efforts to reduce vehicle miles traveled.

**Transportation Sub-Goal 1** - Establish parameters for "Living Street" in the City's Transportation Plan.

**Transportation Sub-Goal 2** - Grow transit opportunities both locally and regionally.

### Lifelong Communities

Clearly the City's Sustainability Plan and its goals are intertwined with the 2035 Transportation Plan. From a transportation perspective, the current national guiding concepts of *Sustainability*, *Livability*, *Smart Growth*, *Complete Streets*, *Transit-Oriented Development*, *Safe Routes to School*, and *Context Sensitive Solutions and Design* are all important considerations and are reflected in the multi-modal components of this Plan. An additional guiding concept of *Lifelong Communities* is important as the City's population ages and the transportation system will be called upon to provide more mobility choices for residents. With that in mind, this Transportation Plan has increased the focus on pedestrian, bicycle, transit, and special transit systems for the future to provide improved community connectivity.

The transportation planning process has also been closely coordinated with the City's land use planning process where neighborhood services and housing type choices have also been important considerations that affect senior citizens. In concert, the City's Sustainability Plan, the Land Use Plan, and the Transportation Plan will work together to provide effective *Lifelong Communities* in Loveland for its aging population.

# Section 3: Overview of Existing System

A clear understanding of the existing transportation facilities and how well they are serving the needs of Loveland's residents is an essential first step toward a relevant and useful planning document. This chapter summarizes the inventory of street, transit, bicycle, and pedestrian facilities as well as the various Transportation Demand Management programs that are currently in place.

## Existing Street Network

The street network in Loveland has approximately 330 miles of arterial, collector and local streets. Its historic core is roughly bounded by 1<sup>st</sup> Street, Madison Avenue, Eisenhower Boulevard, and Taft Avenue. The core was fully developed in Loveland's early history and is mostly laid out in a tight grid system of tree-lined streets that provide many routing options for motorists seeking either local or through travel to their destinations.

The recent growth areas have both suburban and rural characteristics, reflecting the development patterns of the 1970s and beyond, including fewer through streets, more curving roads and cul-de-sacs. The outer area also contains over 35 lakes of varying size and shape, which, when combined with the relative lack of through streets, present many manmade and natural barriers to through travel. These barriers contribute to a lack of continuous arterial streets and limit both north-south and east-west travel in and through the City.

Streets in Loveland are classified using the typical hierarchy of arterial, collector and local streets. The functional classification of streets is related to the degree of mobility or access they provide. Arterial streets function primarily to provide mobility through the community. They typically are two, four or six lanes wide, carry traffic volumes in excess of 7,000 vehicles per day, provide limited access and accommodate higher travel speeds. Collector streets have less restricted access points, "collecting" traffic from local areas by providing mobility through connections to the arterial network. Collectors typically consist of two lanes and carry 1,000 to 7,000 vehicles per day.

Local streets have the most access points to adjacent land uses and are typically low-speed, two lane streets with traffic volumes less than 1,000 vehicles per day.



## Existing Traffic Volumes and Patterns

Construction and widening of the existing freeway and arterial street systems has not kept pace with the growth in traffic. While Loveland has made significant expenditures to maintain, widen, and extend the street network, the increase in local and regional travel is pushing many of the facilities beyond the adopted acceptable level of service.





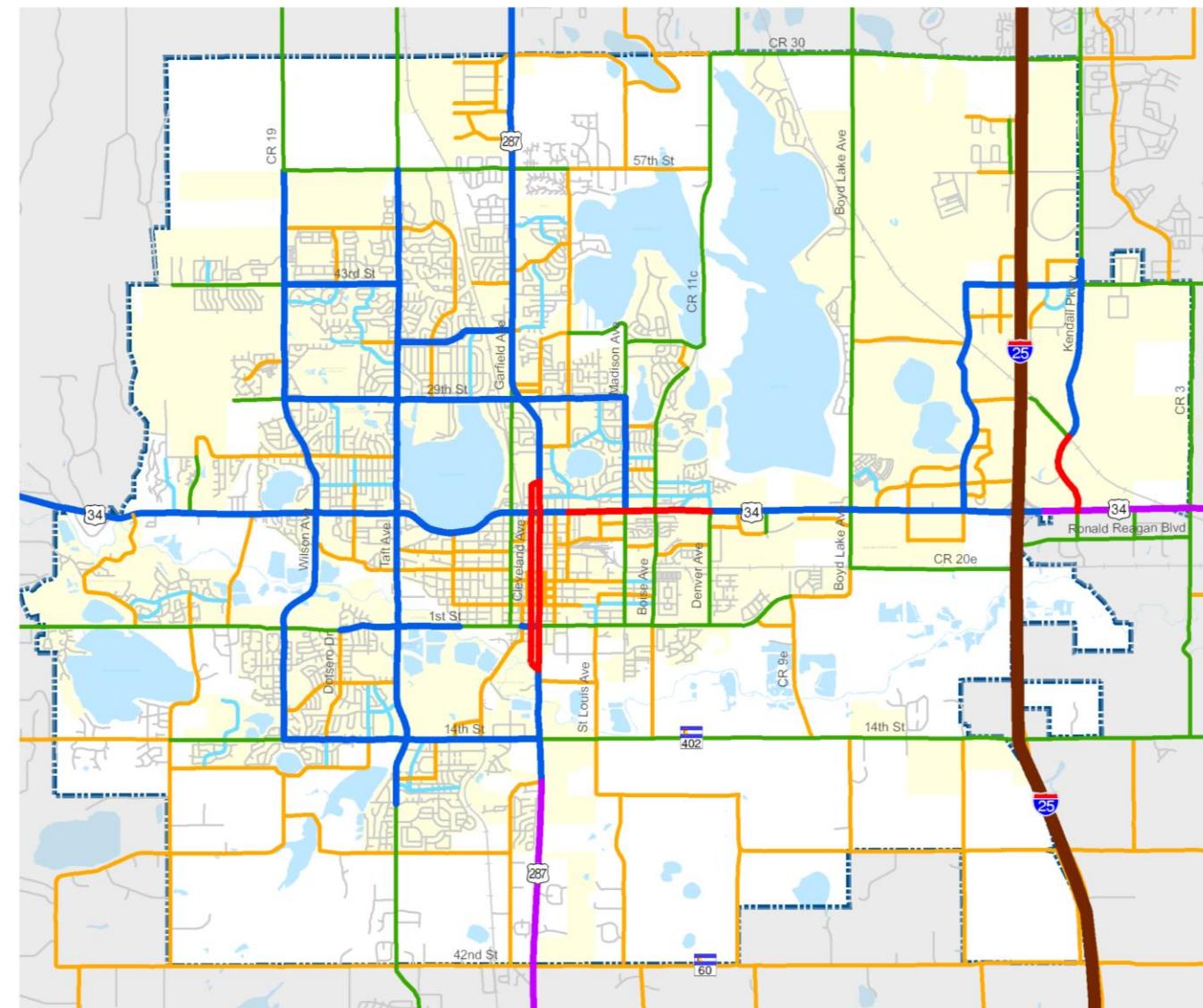
## Legend

- Growth Management Area
- Railroad
- City Limits
- Big Thompson River
- Lakes

### Roadway Designations

- Freeway 4 lanes
- Expressway 4 lanes
- Major Arterial 6 lanes
- Major Arterial 4 lanes
- Minor Arterial 2 lanes
- Major Collector
- Minor Collector

0 0.5 1 Miles



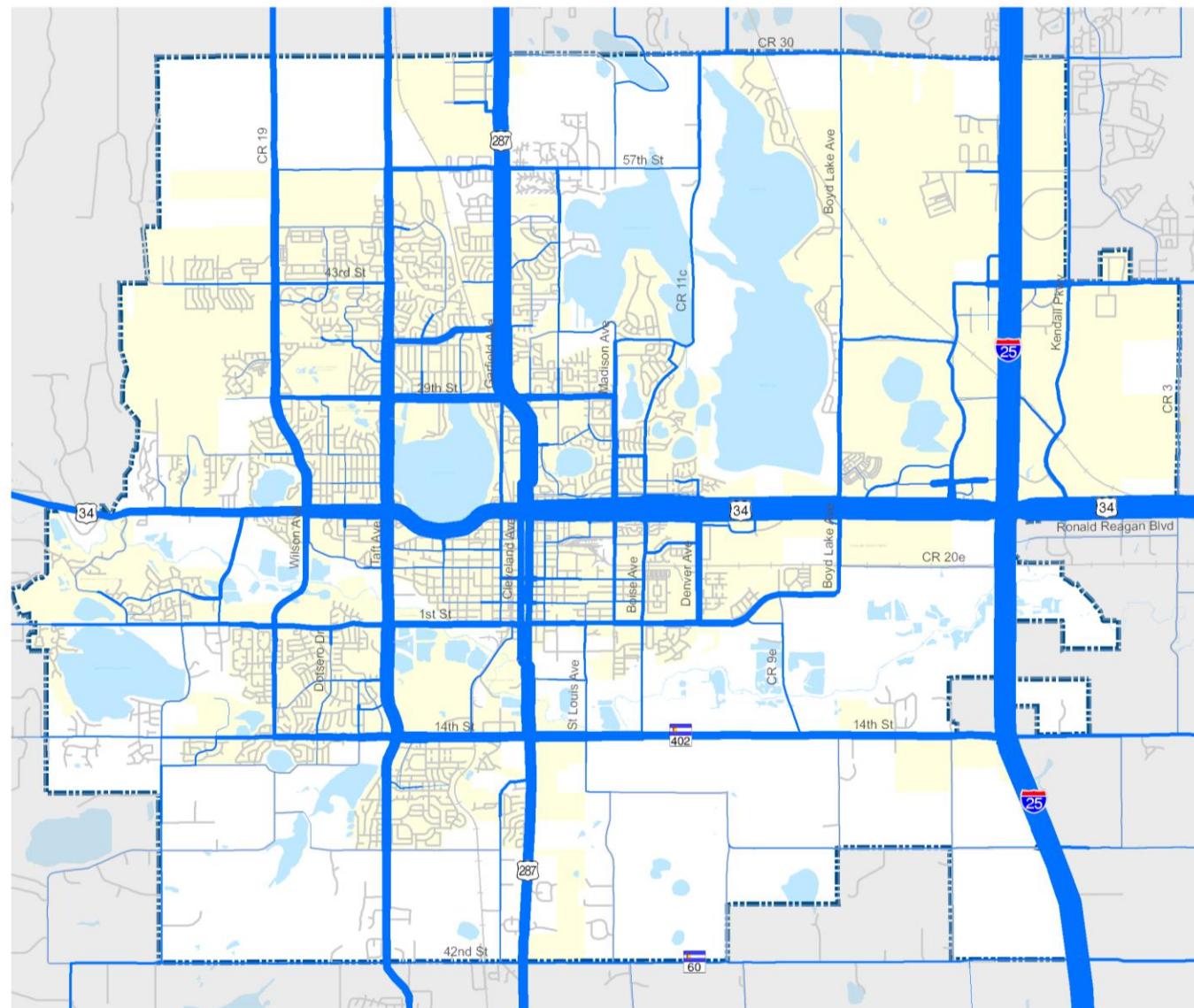
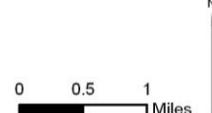
EXISTING STREET NETWORK

**Legend**

- City Limits
- Growth Management Area
- Railroad
- Big Thompson River
- Lakes

**Daily Volume**

- 5,000
- 10,000
- 25,000
- 45,000 or more



EXISTING TRAFFIC VOLUMES



A number of streets are currently experiencing significant congestion problems:

- US 287 from the north end of one way couplet to 71<sup>st</sup> Street
- Numerous sections of Eisenhower Boulevard

East-west mobility, addressed in the aforementioned East-West Mobility Study, continues to present challenges to the continuous flow of traffic in Loveland. Since the network is physically constrained by the lakes in the City, US-34 (Eisenhower) and SH-402 (14<sup>th</sup> Street) are forced to carry the majority of east-west traffic. North-south mobility in the City is also limited to a few key streets (US 287 and Taft Avenue) that provide a continuous route through the entire City, and these routes are also constrained by the geography around Loveland.

## Level of Service

Congestion problems in the City are directly related to the amount of traffic the street network can carry. Accurate measurement of the capacity of a given street in the network is essential to develop a clear picture of when and where improvements will be necessary.

Accordingly, one measure used to evaluate levels of service is the volume to capacity, or V/C ratio. On a level of service (LOS) scale of "A" to "F," streets capable of carrying more traffic than they currently have receive higher grades, and those with little or no excess capacity are referred to as failing. Currently, a number of streets in Loveland are experiencing LOS D, E, and F. Sections of Eisenhower and US-287 are congested and approaching or exceeding their estimated capacity.

During the development of the original 2020 Transportation Plan, a new, more refined methodology to measure street capacity was developed. Under the traditional LOS capacity measures, streets with similar functional classification and number of lanes are assigned the same estimate of capacity. The actual capacity of the street, however, is affected by a number of additional variables and can vary dramatically between arterials, collectors, and local streets with the same number of lanes.

Twenty-three of the most significant factors affecting street capacity are included in the "Adequate Community Facilities (ACF) Volume" methodology developed by Loveland's transportation engineering staff. Among these 23 variables are measurements of both engineering factors and human factors, which are then assigned an adjustment value to increase or decrease the effective number of vehicles per lane per hour that can be accommodated by the facility. The inclusion of these additional factors provides a more comprehensive view of actual street capacity. In general the allowable traffic has increased on state highways and newly reconstructed City arterials that have been built to higher standards. The ACF methodology is still in use today.

## What is Level of Service (LOS)?

In 1965, the Transportation Research Board released the Highway Capacity Manual with the objective of defining a uniform measurement for determining how well a transportation system operates. The product of this work effort was the development of a grading system from A to F, where A is defined as excellent levels of service and F is failure.

Although there have been a number of updates to the Highway Capacity Manual since its first release in 1965, the measurement of level of service is typically defined by travel time and delay. This travel time and delay is calculated for intersections through delay equations which examine factors such as peak hour intersection turn volumes, lane configurations and signal timing. Levels of service for arterials are typically based on a volume/capacity ratio where the existing or projected volume of a roadway is divided by the roadway's capacity.

Whereas the methodology for determining level of service is relatively consistent between various communities and states, the threshold of what is determined as acceptable varies. The City of Loveland has established high standards for its street network. In 1996, the City Council adopted a LOS C standard for arterial streets, LOS B for collectors, and LOS A for local streets.

## Existing External to External (E to E) Traffic

One significant impact on existing routes through the City is the external to external traffic that uses US 34, US 287, Taft Avenue, SH 402 and other streets to pass through on the way to and from other locations. As the region continues to grow and the number of visitors to Rocky Mountain National Park and Estes Park increases, this problem will continue to add to existing traffic volumes created by Loveland itself.

## Existing Intelligent Transportation System (ITS)

The City of Loveland currently has approximately 93 traffic signals. The City has been very aggressive in ITS projects to maximize the carrying capacity of the City's street system and improve safety. Key ITS projects implemented by the City include the following.

- Loveland was the first city in Northern Colorado to install large, urban variable message signs (VMS). The first locations were two large LED variable message signs in the median of US 34 just west of Denver Avenue. These message boards are now shared and operated by CDOT from its state-wide Traffic Operations Center located in Golden, Colorado. The second location, on US 287 south of Loveland on Derby Hill, has one LED variable message sign. The Traffic Division designed and installed the smaller VMS sign in conjunction with a new weather station and video camera. This sign gives northbound US 287 motorists approaching the traffic signal at 19th Street SE at the south end of Loveland short roadway condition messages. This sign flashes messages including "icy roads" or fog when triggered by sensors from the roadway and weather station.
- Loveland was the first city in Northern Colorado to partner with CDOT to provide video camera images and roadway/weather data to CDOT's on-line traveler information system via COTRIP.ORG.
- A 2012-2013 project now underway includes the design and installation of four VMS message signs. The locations are on US 34 East of I-25 and on Fairgrounds Boulevard near the Budweiser Events center. These locations will feature 2 signs back to back in the roadway medians.

- A current project in progress is installing state of the art, radar based, vehicle detection systems to optimize timing along Centerra and Crossroads Blvd. Using this vehicle detection technology, signal timing will become more responsive to changing traffic needs in this big event, high traffic, area. This project uses FHWA grants for the majority of its funding.
- New central traffic signal system software and traffic signal controllers have been installed. Loveland was the first in Northern Colorado to use federal and local funds to replace an older central traffic computer system with a Naztec system and signal controllers at 85 of the 93 signalized intersections. Central control, easy timing plan updates, adjustments for special events, and incident management are some of the benefits.
- Fourteen miles of fiber optic cable have been installed in the past 3 years which includes a 5 miles extended to the Loveland-Fort Collins Airport offices. Design is now underway for the construction of 14 more miles of fiber (project cost of about \$1 million dollars (\$880,000 federal)). Expanded communications to additional traffic signals, video cameras, weather stations and other ITS devices city-wide will be the benefits of this project. Currently fiber provides communications to 30 traffic signals with 55 more signals using Ethernet radios for communications.
- A newly remodeled Traffic Operations Center was opened in 2012. This modern TOC has two operator work stations, and a video wall to monitor 11 video surveillance cameras and traffic signals.
- The Traffic Division monitors pavement and/or weather conditions at 5 locations in the City, sharing data with CDOT. The city owns and operates four of the five locations while sharing the data with CDOT, Loveland Street Department, and other city users. Some of this data is displayed along with video at COTRIP.ORG.

## Key Street Issues

### Street Network

- **East-West and North-South Mobility.** Improvements to the street network are limited by Loveland's geography and the arterials that are in place will need to be improved and new arterials constructed to complete gaps in the system and provide relief to existing streets.
- **Capacity Assessment.** In order to meet level of service standards and prioritize funding of improvements, a baseline assessment of ACF volumes for all major streets has been determined and needs to be updated on a regular basis.
- **Traffic Volumes and Patterns.** In order to maintain appropriate level of service standards, analysis of development activity and phasing of improvements for both roads and intersections should continue.
- **E to E Traffic.** External to External traffic (traffic that moves through Loveland without stopping) will continue to impact Loveland's traffic volumes.
- **ITS Improvements.** Completion of interconnection of all traffic signals to centralized computer so that real-time adjustments can be coordinated to improve flow of continuously changing traffic.
- **Variable Message Boards.** Construction of new variable message boards at strategic locations to advise motorists of traffic related items with link to CDOT system on I-25.

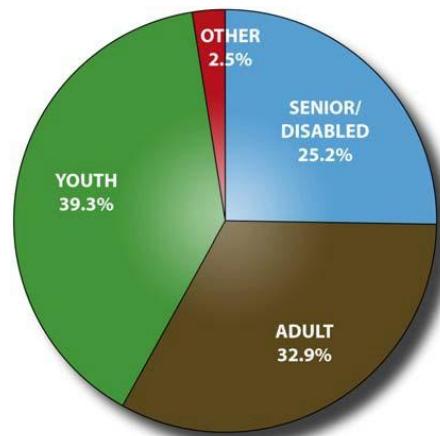


### Existing Transit System

The City of Loveland Transit (COLT) provides local and paratransit service in the City of Loveland. The Flex provides a connection to Fort Collins. COLT operates three routes, the 100, 200, and 300 routes. Fixed-route service is provided Monday through Saturday and generally begins between 6:30 and 6:40 AM, with the last trip scheduled to depart between 5:30 and 6:00 PM. Service frequencies are generally 60 minutes door-to-door. Paratransit service currently operates between the hours of 6:38 AM and 6:15 PM Monday through Saturday within the Loveland city limits. COLT operates under an informal service philosophy that intends to provide as much service as possible throughout the community within existing resources in a safe and efficient manner.

COLT serves a variety of transit users including adults, seniors and persons with disabilities, youth, and Paratransit users. Ridership composition for the existing transit service by fare category is shown in Figure ES-1. As shown, the majority of riders are either youth or adults.

Percentage of Ridership by Fare Category



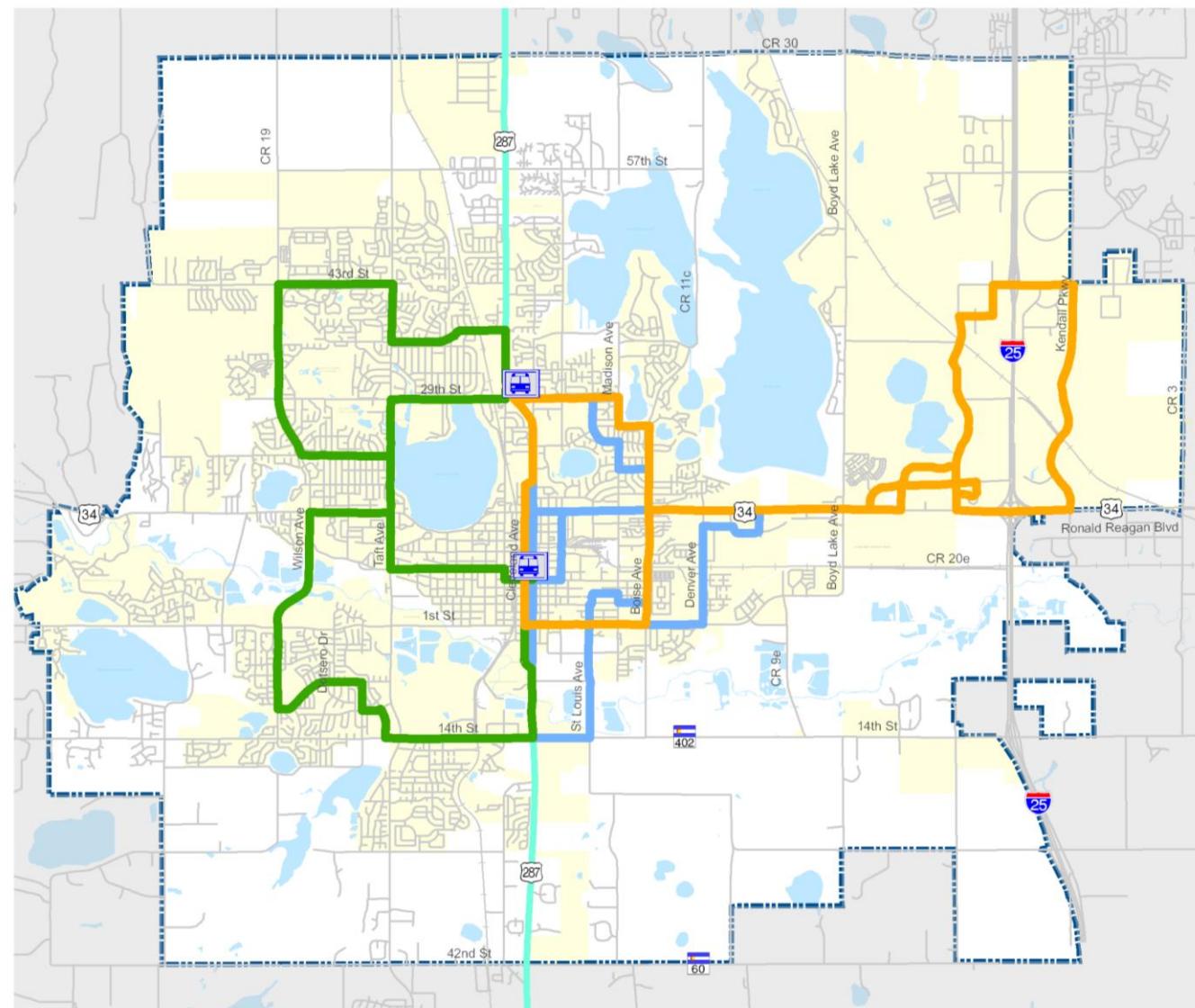
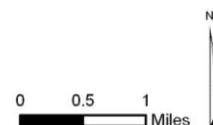
Source: Loveland-COLT

COLT owns and maintains 11 vehicles as part of its fleet and services and currently utilizes three designated transit facilities: the North Transfer Station (located at approximately US 287 and 29th Street at the Orchards Shopping Center), the South Transfer Station (located near Lincoln and 8th Street). An existing East Park and Ride facility near I-25 and US 34 is not directly served by transit, but does serve as a location for carpools to meet. An assessment of existing transit system performance was conducted in order to identify the productivity and effectiveness of the existing COLT system. System-wide, COLT reported approximately 136,000 passenger trips in 2008, the largest number to date and a 17% increase over 2007. Key productivity measures were evaluated for each route in order to identify those routes which are more efficient, those that are underperforming, and routes which are not able to accommodate high demand. This analysis contributed to the development of service concept improvements.



## Legend

- City Limits
- Growth Management Area
- COLT Route 300
- COLT Route 200
- COLT Route 100
- Flex Route
- Transit Center
- Railroad
- Big Thompson River
- Lakes



EXISTING TRANSIT SYSTEM

## Existing Bicycle Facilities



Bicycle mobility in Loveland is supported by infrastructure facilities in new developments, the existing on-street bicycle system, and highly utilized off-street paths. The street grid of Loveland's core area lends itself well to the needs of bicyclists.

The City of Loveland's existing bicycle system is presented in the Existing Bicycle Facilities map. The bicycle system includes recreational trails, shared use paths, bike lanes, and bike routes. These facilities are defined as follows:

- **Bikeway** - A general term for any street or trail which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designed with bike lanes for the exclusive use of bicycles or are to be shared with other transportation modes.
- **Trails/Paths** - This is a shared use bicycle and pedestrian facility that is physically separated from motor vehicle traffic by open space or a barrier and is either within the road right-of-way or within an independent right-of-way. These are also referred to as shared-use or multi-use paths or recreation trails.
- **Bicycle Lane** - This is a bikeway on a portion of a street that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicycles.
- **Bicycle Route** - A segment of a system of roadways signed to designate a bicycle connection where riding on the roadway is encouraged.
- **Striped Shoulder** - A shoulder on rural road that provides an edge line that separates the vehicle from the bicyclist.
- **Rural Road Shoulder** - A shoulder on a rural road that is at least four feet wide from edge line to pavement edge that provides a separation between the vehicle and bicyclist.

In review of the Existing Bicycle Facilities map, a number of observations can be made, summarized as follows:

1. The system of bicycle trails, lanes and routes provides the framework for a good bicycle system to serve the City of Loveland.
2. Many existing bicycle facilities have missing segments that impact the continuity of the system and can impede bicycle mobility and travel.
3. Some bicycle facilities begin and end erratically, often associated with new development improvements adjacent to land areas that have not been developed with an unknown timeframe for completion.
4. Many of the bicycle facilities have obstacles, such as missing bike lanes along roadways with high traffic volumes or difficult to cross streets.
5. Many of the City's bicycle facilities are in need of repair and require basic maintenance such as sweeping or removing tree overhangs.
6. Bike lanes are often depositories for snow, making them unavailable to bicyclists during winter conditions.



In reviewing the bicycle system, it is also important to consider the types of bicycle travel, the experience of the bicycle rider, and the type of facilities riders may use.

In general, there are three types of bicycle travel: commuting, adult recreation, and children. The design of bikeways differs considerably for each of these purposes. Commuter bicyclists are typically advanced riders and use their bicycles as they would a motor vehicle. They want direct access to destinations with minimal detour or delay and are typically comfortable riding beside motor vehicle traffic. However, on higher speed roadways, they need sufficient operating space in a bicycle lane or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position. Commuting bicyclists often want to ride the most direct route from their origin to their destination. Normally, extensive development along such routes limits the construction of detached bicycle/multi-purpose paths. However, prevalence of heavy traffic along such routes is only a minor hindrance to commuting bicyclists.



Recreational adult riders may also use their bicycles for transportation purposes (e.g., to get to the store or to visit friends), but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, recreational riders are comfortable riding on recreational trails, shared use paths, and neighborhood streets. They may also consider bicycle lanes or wide shoulder lanes on busier streets. Recreational riders may also use their bicycles for pleasure and exercise without a specific destination in mind. Such riders may prefer recreational trails along open spaces instead of traveling adjacent to or with motor vehicle traffic.



Children under 12, riding on their own or with their parents, may not travel as fast as their adult counterparts, but still require access to key destinations in their community, such as schools, convenience stores, and recreational facilities. Residential streets with low motor vehicle speeds linked with recreational trails or shared use paths are the preferred bicycle routes for children.

In review of the existing bicycle system from the perspective of the types of riders, the existing bicycle system primarily serves the experienced commuter and to a lesser extent, the children recreation riders.

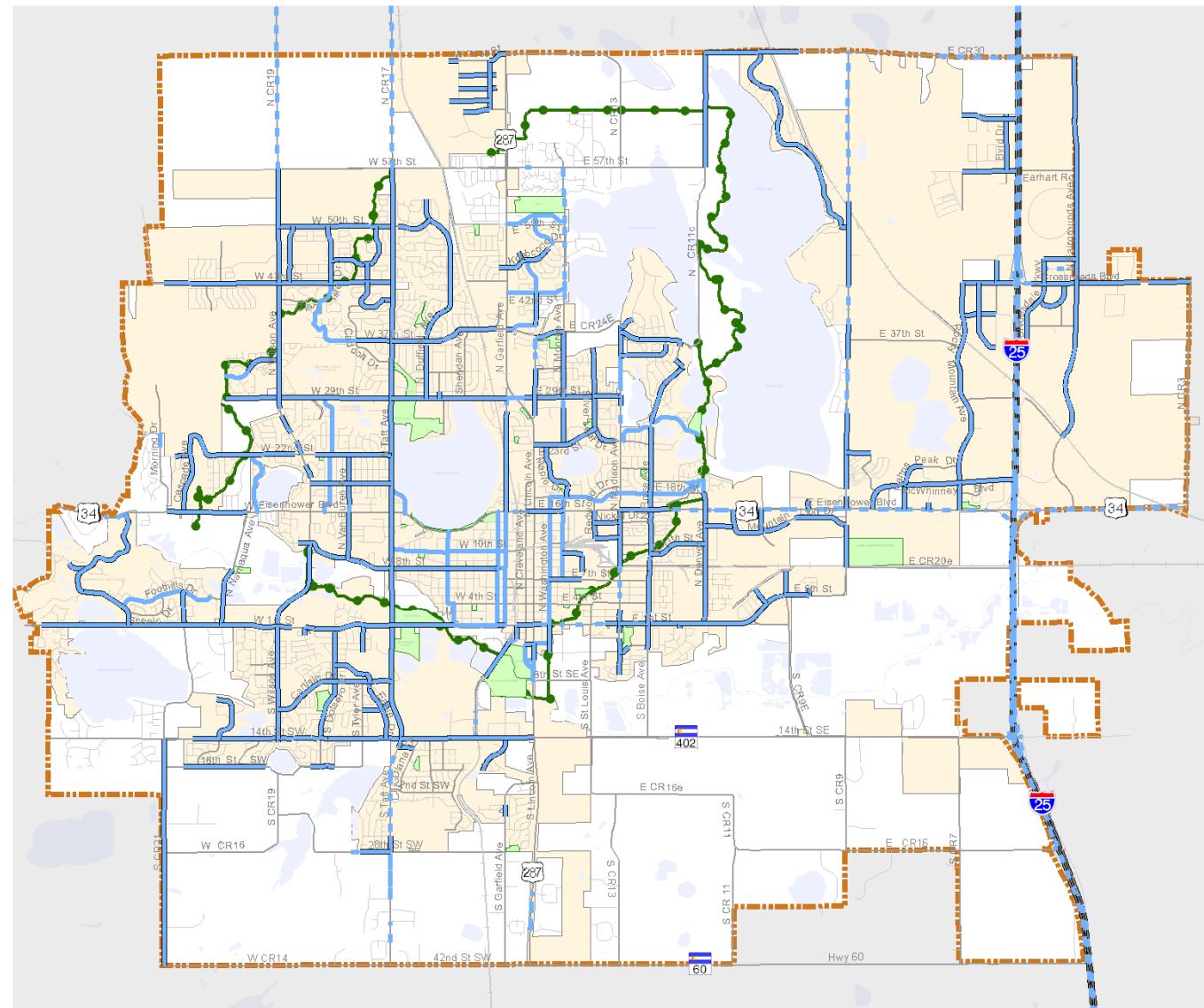


## Legend

-  City Limits
-  Growth Management Area
-  Parks

## Bicycle Facilities

- Existing Bike Lanes
- Existing Bike Routes
- Existing Striped Shoulders  
(4 Ft. in Width or Greater)
- Existing Recreation Trails



## EXISTING BICYCLE NETWORK

## Existing Pedestrian Facilities

Pedestrian mobility is the most fundamental transportation mode, yet is often overlooked in transportation planning. Transit trips require pedestrian connections at both ends of the trip. Pedestrian connections to and between activity centers help minimize automobile impacts to the arterial street system.

The City of Loveland's existing pedestrian facilities map is presented below. The pedestrian system includes the sidewalks along our streets, recreational trails, and shared use paths. The pedestrian system also includes street crossings.

The ideal pedestrian system is best described as a grid system of streets with sidewalks on both sides that provide easy and direct connections between the trip origin and destination. The ideal pedestrian system should also provide for convenient and safe street crossings and include some basic amenities, such as sidewalks separated from streets and shade from trees.

In general, the City of Loveland has good sidewalk coverage. Most neighborhood streets have sidewalks along both sides, although some neighborhood streets have sidewalks along one side or no sidewalks at all. This lack of sidewalks requires a pedestrian to make additional street crossings in their pedestrian trip or walk in the street.

Some of these arterials are major facilities such as east Eisenhower, which supports major commercial centers that generate pedestrian trips. Eisenhower also has transit; in which both ends of a transit trip include a pedestrian trip.

Garfield north of 29th Street is another retail, service, and transit corridor that does not have sidewalks.



Along older commercial corridors, particularly US 287 and US 34, while there are sidewalks present, the condition and design of these sidewalks and surrounding areas does not create an environment that is conducive to people walking. Pedestrians feel exposed to the speeding traffic because the sidewalks are too narrow and they are attached to the curb.

The presence of frequent curb cuts inhibits pedestrian activity by creating more points for pedestrian and vehicle conflict and because the sidewalk is attached, the sidewalk must slope to allow for vehicle access. In many cases, there is no separation between the sidewalk and adjacent parking lots, which can lead to vehicles intruding into the pedestrian sidewalk area.

The general lack of trees and landscaping create an uncomfortable microclimate for pedestrians because there is no shade and the pavement creates an urban heat island effect. Also, the traffic passing at high speed creates a wind that affects pedestrians or splashes them when the roadway is wet.

The ability of pedestrians to safely cross US 34 and US 287 is also an issue. The controlled crossings are infrequent and the pedestrian is exposed to multiple lanes of high speed traffic. This impedes the ability of residents in the surrounding neighborhoods to access businesses along these corridors by foot or bike.



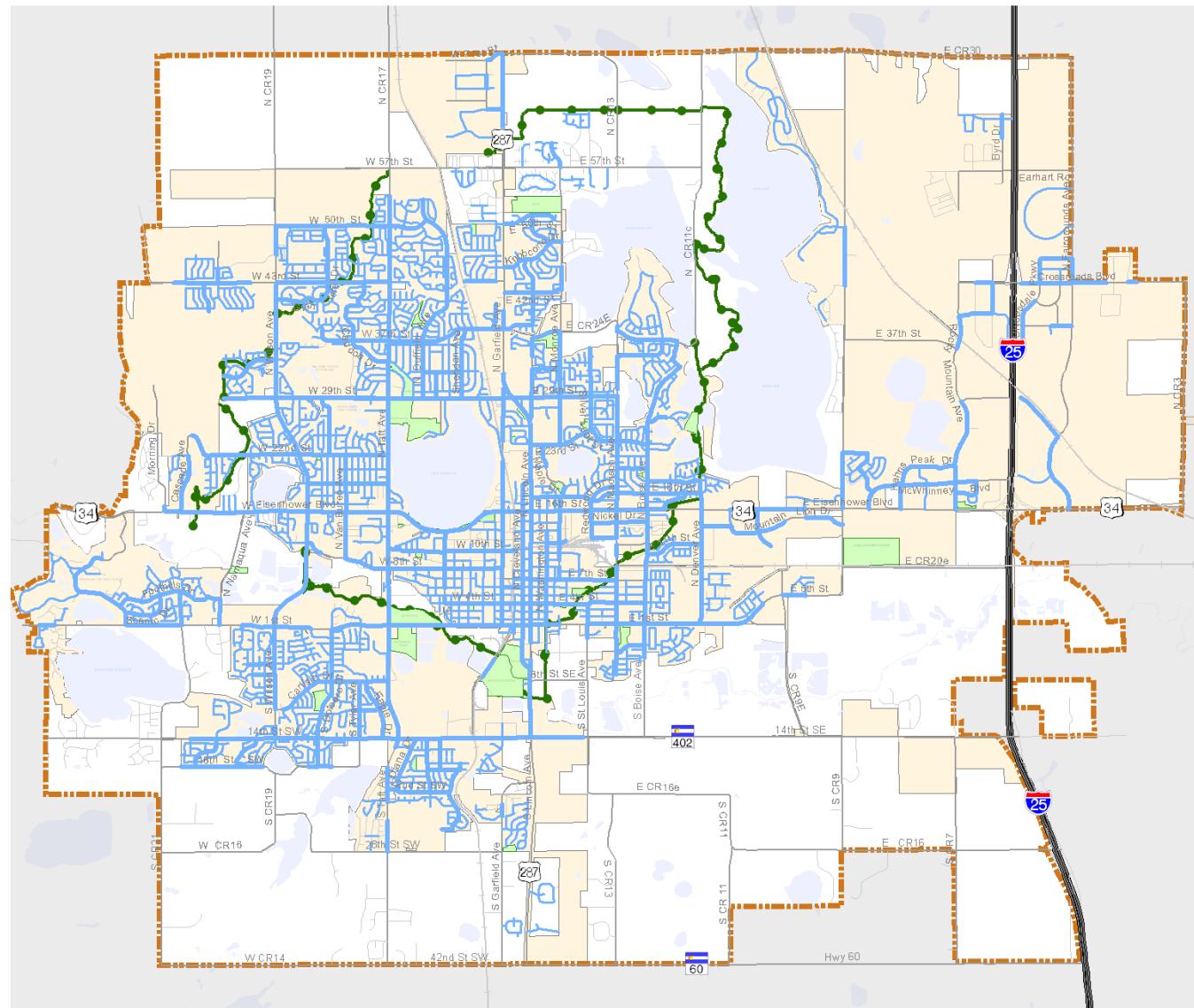
On a positive note, it should be stated that the City of Loveland's downtown area has a very strong grid system with short blocks and sidewalks on all facilities. The narrow streets in the downtown area increase the safety of travel for the pedestrian because traffic travels slower and the pedestrian has reduced exposure to the automobile when crossing a narrow street.

**Legend**

- City Limits
- Growth Management Area
- Parks

**Pedestrian Facilities**

- Existing Sidewalks
- Existing Recreation Trails



25

**EXISTING PEDESTRIAN SYSTEM**

## Existing Transportation Demand Management (TDM)

Transportation Demand Management (TDM) planning is an important strategy for ensuring access to activity centers in an efficient, timely, and cost-effective manner. TDM products and services include flexible work-hour programs, parking management tactics, and incentives to use transportation alternatives such as carpools, vanpools, transit, bicycles, and walking.

Transportation Demand Management includes actions that improve the efficiency of the transportation system by altering transportation system demand rather than embarking on roadway capital expansion. It is a common misconception that TDM is strictly reliant on "getting people out of their cars" through methods like carpooling and transit. In reality, TDM is a broad spectrum of strategies that involve business owners, employees, non-profit organization, transportation and land use planning, and non-work commuters of the transportation system. TDM programs are tailored to the unique travel needs of a community or region. Like roadway expansion, transportation efficiency programs are measurable for their ability to reduce congestion, reduce commute costs, and improve air quality and livability.

The primary methods for achieving a higher efficiency of the transportation system include:

- Reducing Single Occupancy Vehicle Trips
  - Ridesharing (carpooling, vanpooling)
  - Walking and Bicycling
  - Transit
  - Telecommuting (working from home)
  - Parking Pricing and/or Parking Maximums
- Encourage Off-Peak Travel
  - Alternative Work Schedules
  - Congestion Pricing
- Shrink Trip Time or Length
  - Intelligent Transportation Systems (traffic routing, trip times, weather conditions)
  - Commuter-oriented Development (striving for a jobs / housing balance)

TDM programs have been implemented by businesses, non-profit organizations, schools, and governments for the benefit of commuters and taxpayers. For example, many employers in Northern Colorado and the City of Loveland have instituted their own telework programs, flextime policies, subscribe to the VanGo program, and encourage bicycling by providing secure storage, showers, and other amenities.

TDM is managed at the regional level through the North Front Range Metropolitan Planning Organization. The North Front Range Metropolitan Planning Organization is an association of 15 local governments, including the City of Loveland working together to improve regional transportation and air quality. The NFRMPO does long-range and short-range planning, and prioritizes which projects in those plans will receive state and federal funding. The goal of the NFRMPO is to enhance air quality and mobility among northern Colorado communities, and between the North Front Range and the Denver Metro area, by developing cooperative working relationships and financial partnerships among its member governments.



# Section 4: Change - 2000 to 2012

## Overview

Since the 2020 Transportation Plan was adopted in 2000, Loveland and Northern Colorado have undergone tremendous change. Loveland's population has grown from 50,600 to a count of 66,859 in 2010, according to the US Census and an estimate of 68,825 in 2012. This growth has translated to growth in households, employment, shopping, and many other associated areas as well. From 2000 to 2011, Loveland grew from 28.58 to 35.21 square miles and the overall street system grew from 255 to 330 total centerline miles.

## Growth

### Population/Residential



As Loveland has grown, the number of housing units has correspondingly grown as well. The 2010 Census found 28,557 units in Loveland, up from 20,300 in 2000. In 2012, there are estimated to be 29,178 housing

units. The average Persons per Household continues to decline slightly from 2.49 (2000) to 2.43 (2007) and to 2.35, according to the 2010 Census. In 2010, the housing stock of Loveland was 68% single family detached separate homes. The recent recession caused the development of new housing units in Loveland to slow radically from its peak in 2006-2007. Also, due to the resulting change in the nature of housing demand, multi-family and attached single family units have

increased as a percentage of new residential construction. (Source: "City of Loveland Annual Data and Assumptions Report, February 22, 2012.")

### Commercial/Industrial

Since 2000, a number of new Commercial/Industrial facilities have been constructed or expanded including Medical Center of the Rockies, McKee Medical Center, Heska, and Big Thompson Medical Group Facility. The nationwide recession caused a slowdown in the development of commercial projects in Loveland. The redevelopment of the former Agilent / HP facility as the Rocky Mountain Center for Innovation and Technology, although only in its first stages, appears to have the potential to lead to significant growth in industrial employment in Loveland.

### Retail

The recession caused retail sales tax receipts in Loveland to decline considerably. Recently, sales tax collection has begun to grow again. The opening of the Super Wal-Mart on North Hwy 287 has been one of the largest recent additions to Loveland's retail base, to go along with the opening of the Promenade Shops at Centerra in October 2005 and new retail at Taft Avenue and 14<sup>th</sup> Street SW, and along Eisenhower Boulevard (US 34), east of Madison Avenue (Lowes, Target, Super WalMart, Sportsmen's Warehouse, Home Depot, numerous restaurants and other retail shops of varying sizes), and throughout the City (CO's BMW, Thunder Mountain Harley Davidson, etc).

## Financial Considerations

### Local Funding

Over the past twelve years, local funding has increased in two areas. Starting in 2003, the City Council has allocated up to \$2,000,000 in General Fund Sales and Use Tax revenues for transportation projects, a significant increase from previous years. Due to the amount of growth occurring in the City, additional Capital



Expansion Fees (Impact Fees required for new development) have been collected and utilized to fund various projects as well as to reimburse development for oversizing portions of projects. Over the past several years, both of these funding areas have decreased. However, it is anticipated that both areas will increase as the economy recovers.

### Federal/State Funding

During this same period in which local funding has increased, State and Federal Funding has sharply declined because of no increase in Federal/State Gas Tax and more funds have been directed to maintenance. Based on forecasts, this trend is likely to continue for the foreseeable future.

## Transportation Projects Completed

These changes bring both opportunities and challenges, particularly related to transportation. In Loveland, a large number of transportation projects were completed between 2000 and 2012. These include:

- **Taft Avenue**
  - Big Thompson River to old Arkins Branch Railroad, including intersection of Taft and 8<sup>th</sup> Street – Widening of through lanes, sidewalks and bike lanes and adding turn lanes
  - 43<sup>rd</sup> Street to 50<sup>th</sup> Street – widened to 4 lanes with additional turn lanes
  - Taft and 14<sup>th</sup> Street SW - Additional turn lanes
  - Taft and 43<sup>rd</sup> & 50<sup>th</sup> Intersection Improvements and Traffic Signals
  - Taft and 57<sup>th</sup> Intersection Improvements
  - Taft and Eisenhower Intersection Improvements
  - Taft and 23<sup>rd</sup> Street SW – Intersection Improvements and Traffic Signal
- **Wilson Avenue**
  - 29<sup>th</sup> to 50<sup>th</sup> – Reconstruction and widening to 4 lanes including turn lanes and bike lanes
  - West 18<sup>th</sup> Street to West 23<sup>rd</sup> Street - Median Replacement
  - Wilson and 37<sup>th</sup> – Intersection Improvements and Traffic Signal
  - Wilson and 43<sup>rd</sup> – Intersection Improvements and Traffic Signal
  - Wilson and Eisenhower - New right-turn lane, median and Traffic Signal Improvements

- 14<sup>th</sup> St SW to 6<sup>th</sup> St SW – widened to 4 lanes with sidewalk improvements.
- **43<sup>rd</sup> Street**
  - Completion of connection between Wilson and Taft
  - Cascade Avenue to Wilson – Constructed ultimate improvements
- **Boise**
  - Connection from 1<sup>st</sup> Street to Eisenhower
  - Connection from Park Drive to 37<sup>th</sup> Street
  - Boise and 1<sup>st</sup> Street – Intersection Improvements and Traffic Signal
  - Boise at Eisenhower – Intersection Improvements
- **Denver Avenue**
  - Connection from 1<sup>st</sup> Street to Eisenhower
  - Denver and Eisenhower – Intersection Improvements
- **1<sup>st</sup> Street**
  - Boise to Boyd Lake Avenue – Widening and additional turn lanes
  - Washington Avenue to Boise – Additional turn lanes
  - 1<sup>st</sup> Street and St. Louis Avenue - New Traffic Signal
  - 1<sup>st</sup> Street and Denver Avenue – New Traffic Signal
- **Rocky Mountain Avenue**
  - McWhinney Boulevard to Crossroads – completion of connection, widening to 4 lanes, additional turn lanes, new intersections, and landscaped medians
- **Crossroads Boulevard**
  - Rocky Mountain Avenue to I-25 - widen to 4 lanes, additional turn lanes, new intersection at Byrd Drive with Traffic Signal, and landscaped medians
  - New roundabouts at I-25 Ramp intersections
  - I-25 to LCR 5 – Widened to 4 lanes with additional turn lanes and new signal at Clydesdale Parkway
  - Crossroads at LCR 5 – Ultimate Intersection Improvements and Traffic Signal
- **LCR 5 (Fairground Boulevard)**
  - Construction to complete connection to SH 392
- **Centerra Parkway**
  - Construction north of Eisenhower to Crossroads Boulevard including ultimate improvements to Draft Horse Drive

- Eisenhower (US 34)
  - East of Wilson – New Median
  - Lincoln to Monroe – widening and addition of bike lanes
  - Madison to Greeley-Loveland Irrigation Canal – new storm sewer and roadway widening
  - Eisenhower at Mountain Lion Drive – New Intersection
  - Eisenhower at Sculptor Drive – New Intersection and Traffic Signal
  - Eisenhower at Hahn's Peak Drive – New Intersection and Traffic Signal
  - Eisenhower at Centerra Parkway - New intersection, turn lanes, and Traffic Signal
  - Eisenhower at Madison Avenue – New continuous flow intersection
  - Monroe Avenue to Denver – Widened to 6 lanes by restriping
  - US 34 and I-25 Interim Interchange
- 14<sup>th</sup> Street SE (SH 402)
  - 14<sup>th</sup> Street SE at Lincoln - Additional turn lanes and new Traffic Signal
  - Lincoln to St. Louis - Widening, additional turn lanes, and new median
- Lincoln (US 287)
  - Lincoln Avenue at 19<sup>th</sup> Street SE – New signal
- Hahn's Peak Drive - US 34 to Rocky Mountain Ave - New 2 lane arterial

## Planning for Development

One of the key components in the oversight of the transportation system in Loveland is the review and approval of new development. The Transportation Development Review Division of the Public Works Department is responsible for analyzing and evaluating information regarding transportation needs and improvements associated with new land developments proposed within and near the City's municipal boundaries. The division works very closely with both the Current Planning Division of the Development Services Department and the Project Engineering and Traffic Engineering Divisions of the Public Works Department. These departments collaborate closely with one another and with all other City departments involved in the review of new development projects.

The primary objectives of the Transportation Development Review Division are to:

- Identify facilities necessary to serve transportation needs in the community, and
- Ensure that these facilities are designed and constructed for the safety and convenience of the traveling public.

## Other Considerations

Other items affecting change from 2000 to today include:

- **Environmental Requirements** – Focus has increased in this area with respect to discharge of stormwater from construction sites, impacts on historical structures, and items related to Environmental Justice.
- **Americans with Disabilities Act (ADA) Needs** – In the time since the ADA was originally passed, increased emphasis on mobility for a broader cross range of the population has changed the way transportation projects are designed and constructed, in many cases adding to the complexity of projects.
- **Demographics of Loveland Population** – As the Baby-Boomers age, this shift in the population will affect the shape of the community today and going forward.





City of Loveland

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# Section 5: 2035 Analysis and Projections

## Introduction

To develop a successful transportation plan for the City of Loveland, a careful balance was sought between three critical, interrelated elements: land use, level of service expectations, and transportation improvements. Accordingly, a significant portion of the previous Transportation Plan planning process was spent evaluating a number of possible future scenarios with different assumptions in each of these areas. The previous findings have been brought forward into the 2035 Transportation Plan.

**Land use** is difficult to directly relate to traffic congestion on a particular street. However, the type, intensity, and location of growth directly affect travel patterns within Loveland and the region. Land use can be influenced by local policy documents such as the Comprehensive Land Use Plan and the Zoning Code, but it is also affected by the land use and transportation choices made by Loveland's regional neighbors.

Loveland's **level of service** expectations for the transportation system in 2035 continues to be LOS C on all City owned arterials. This desire, expressed as a policy statement, reflects the importance of mobility to Loveland's residents and the strong concern about street congestion and its negative impacts on quality of life. On major state highways through town (most significantly US 34 and US 287), the LOS goal has been reduced to LOS D operations for the following reasons:

- Regional highways that double as commercial corridors through town tend to attract higher levels of traffic. Motorists expect to encounter slower traffic with a bit more congestion in these mixed use areas as these roadways provide both mobility and a high level of local access.
- CDOT has adopted a LOS D goal for these state highways.

- Adjacent communities, such as Fort Collins to the north and Longmont to the south along US 287, have adopted LOS D as an operational goal.
- At signalized intersections, LOS D means that the average motorist is delayed between 35 and 55 seconds while passing through the intersection.
- Many Front Range communities routinely experience LOS D or E operations during peak periods on this type of corridor, and typically consider that level of congestion acceptable. This is particularly true when the impact of widening a roadway to add capacity and improve LOS has a very high price tag and a negative impact on community character.
- Allowing LOS D on these state highway corridors will minimize the need to widen roadways, and in this context is consistent with the City's new sustainability plan.
- It is important to note that reducing the LOS goal to D on state highways in Loveland should not have a negative traffic impact on the surrounding roadway network in the community. The increase in delay associated with LOS D should not be high enough to cause motorists to divert onto other roadways with a lower classification in an attempt to bypass congestion.
- This City has a policy that it does not want to see major arterials widened beyond 6 through lanes. Allowing LOS D operations is an important consideration in minimizing the need to widen major arterial roadways.

The last element, **transportation system improvements**, has been discussed in some detail throughout Section 2.0. Capacity can be expanded by constructing additional streets, by widening existing streets, and to some extent, by increasing transit service, alternative mode facilities, and TDM programs like telework and vanpooling. The relationship between capacity expansion and improved level of service is direct, but is limited by funding constraints.



The following plans for Loveland's transportation system reflect the outcome of extensive analysis and numerous discussions about the complex relationships between these three elements.

## Street Plan

### Alternatives Analysis

The transportation committee associated with development of the original Transportation Plan began by considering both potential land use alternatives and possible street improvement scenarios for both 20 year and buildout (beyond 2050) planning horizons to ensure the long term success of transportation system investments. In the last update, the recommendations were reevaluated and refined for the 2030 planning horizon.

For the 2035 Transportation Plan update, staff has incorporated the most current land use projections for the year 2035, and once again has developed regional land use projections for the longer term buildout planning horizon.

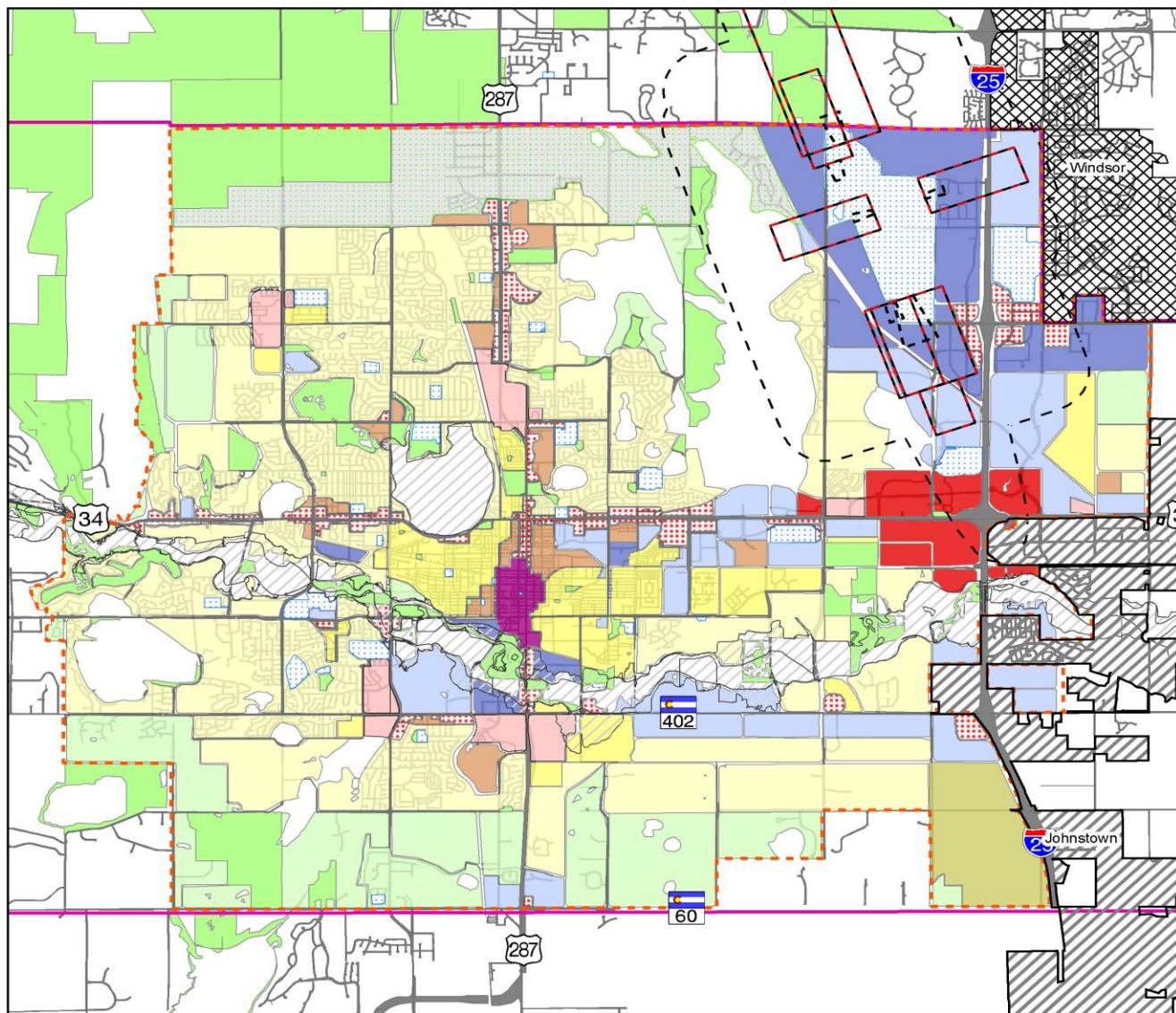
To analyze these various future alternatives, a traffic model was developed and served as the primary tool to project the effects of widening existing streets, adding new roadway connections, and changing the land use assumptions. The travel model was developed by starting with the current MPO regional model and then adding detail and refinement in the Loveland area. In this way a solid foundation was constructed for the 2035 Transportation Plan. The effort put into this critical piece of the data gathering process will ensure that this foundation will be utilized going forward for future updates to the Transportation Plan.

As the alternatives and projections were analyzed, it once again became clear that even with substantial widening and expansion of Loveland's street network, Loveland could not provide the level of service desired by the community on all streets. This is due, in large part, to regional land use and travel patterns that Loveland has little control over. In other words, even if the City of Loveland built an extremely expensive combination of bypasses and widening, regionally generated traffic could still cause some streets to operate below desirable LOS standards.

In close cooperation with the City's Community and Strategic Planning Division, the Land Use Plan was the basis for updating information from the 2030 Transportation Plan to be utilized in the 2035 Plan.

The Land Use Projections map represents anticipated growth over the next 23 years in the greater Loveland area. It divides Loveland into eight logical sub-areas. Within each sub-area, the projected growth in residential housing (dwelling units) and employment is shown. Although residential growth is spread out over the entire City, the vast majority of employment growth is projected to occur in the I-25 and US-34 corridors.





## Legend

### Land Use Categories

- Estate Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Regional Activity Center
- Downtown Activity Center
- Community Activity Center
- Corridor Commercial
- Employment
- Industrial
- Parks, Golf Courses, Open Lands
- Schools, Hospitals, Public Facilities
- Development Reserve
- Fort Collins - Loveland Plan

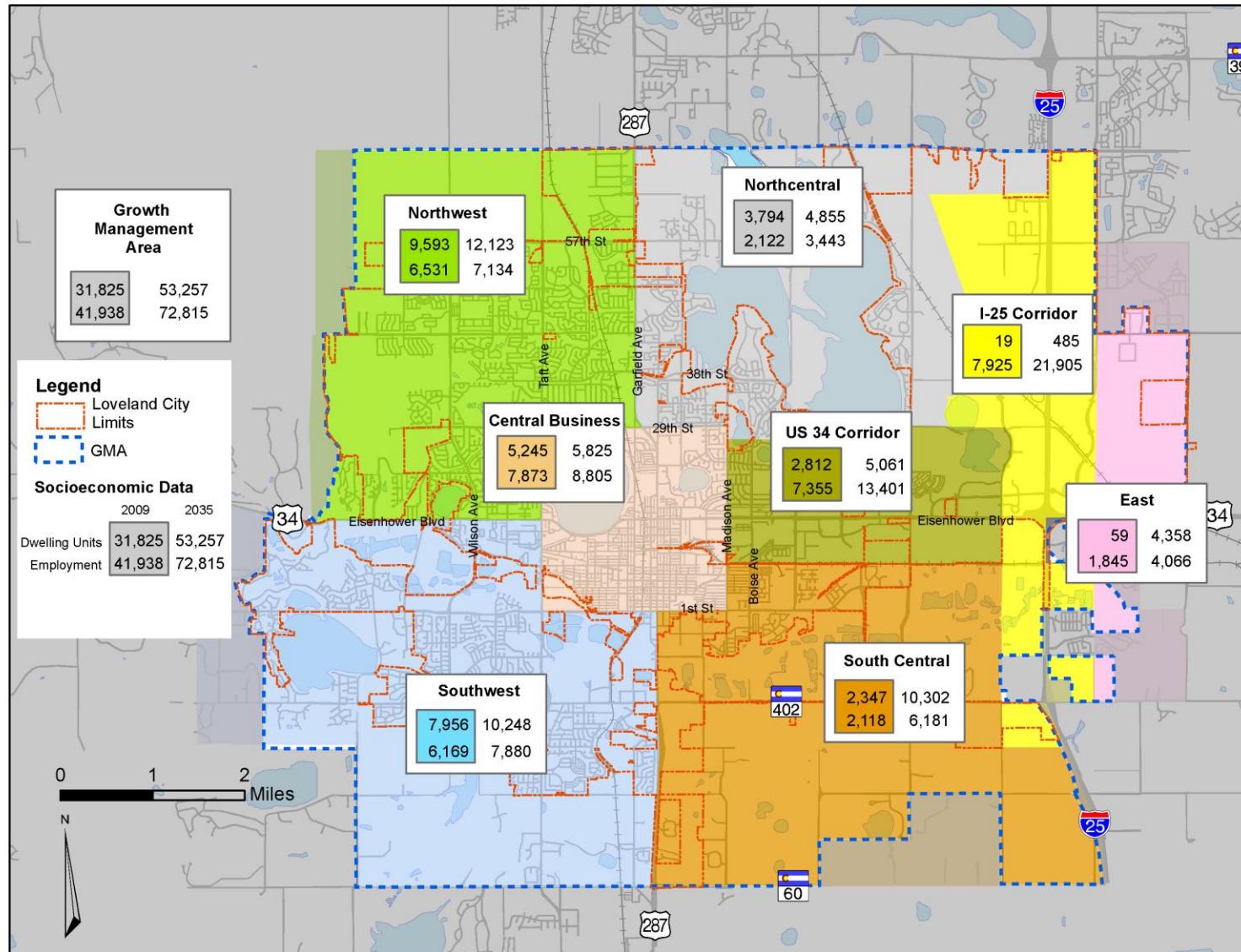
### Planning Boundaries

- CIA
- GMA
- Street Rights-Of-Way
- 100 Year Flood
- Airport Influence Area
- Airport Critical Zones
- Johnstown
- Windsor

## LAND USE PLAN



City of Loveland



## LAND USE PROJECTIONS

## Street Network Alternatives

The 2030 Transportation Plan was the starting point for the future street network of the 2035 Transportation Plan. From there, modifications were made to reflect changes that occurred between 2007 and 2012, including: new developments; land use changes due to rezoning (including property being designated as conservation easements); updated road layouts due to proposed development and the impact on natural areas, other physical constraints, and in the economy in recent years. This plan update process has also revisited and tested some of the street improvements that were included in the 2030 plan, and in at least a few instances, has downsized some of the existing plan's recommendations for roadway widening.

### Alternative Analysis Conclusions Identified in past Transportation Plans is still Accurate

- **Traffic conditions depend in part on Loveland's neighbors.** Loveland's traffic is determined by the growth in the entire Front Range community, not just by the size of Loveland. Loveland is part of a regional community with people traveling into, out of, and through Loveland for work, recreation, shopping, social events, and more. Accordingly, the growth of Loveland itself has less influence on traffic congestion than was initially assumed.
- **Building more roads or widening existing roads will reduce congestion.** While building bypasses to route traffic away from the City's core area was considered, widening existing roads helps reduce congestion in a cost effective manner, with fewer negative impacts. This approach puts the dollars into the most effective plan that will have the least negative impact.
- **The North Front Range cities are growing toward I-25.** The cities on the west side of I-25 are growing toward the east. With I-25 as the primary north-south corridor, it makes sense to pursue improvements on I-25 and regional transit alternatives in this corridor.

- **Bypasses are not the answer for the entire City.** Previous analysis of bypass options revealed that they are not the best way to control traffic in the northwest, northeast, or southeast parts of town. In these areas, it makes more sense to widen current streets and extend others. The best opportunity to adopt this principle is the development of parallel north-south arterials adjacent to I-25 (i.e. Boyd Lake Avenue and LCR 5 (Centerra Parkway/Fairgrounds Boulevard)) in order to provide relief for short trips from I-25.
- **Transportation alternatives only reduce traffic slightly.** Public transit systems and pedestrian and bicycle routes are important mobility components of Loveland's Transportation Plan. Based on other Front Range cities, aggressive TDM measures have reduced peak hour traffic by less than 10%. With this in mind, the plan is more focused on improving the street system.

## 2035 Street Plan

The proposed street improvements for 2035 are illustrated on the proposed 2035 Street Plan. The primary goal of the recommended improvements is to maintain the overall ease of travel as the City grows while meeting or exceeding the City's level of service C threshold (LOS D on State Highways) per City policy. In all cases, facilities should not exceed six lanes regardless of LOS.



To accomplish these goals, the plan proposes constructing new streets based on current street standards, widening existing streets and adding through lanes, adding center turn lanes, adding turn lanes at intersections, and improving signalization throughout the City.



City of Loveland

## Legend

- City Limits
- Growth Management Area
- Railroad
- Big Thompson River
- Lakes

## Roadway Designations

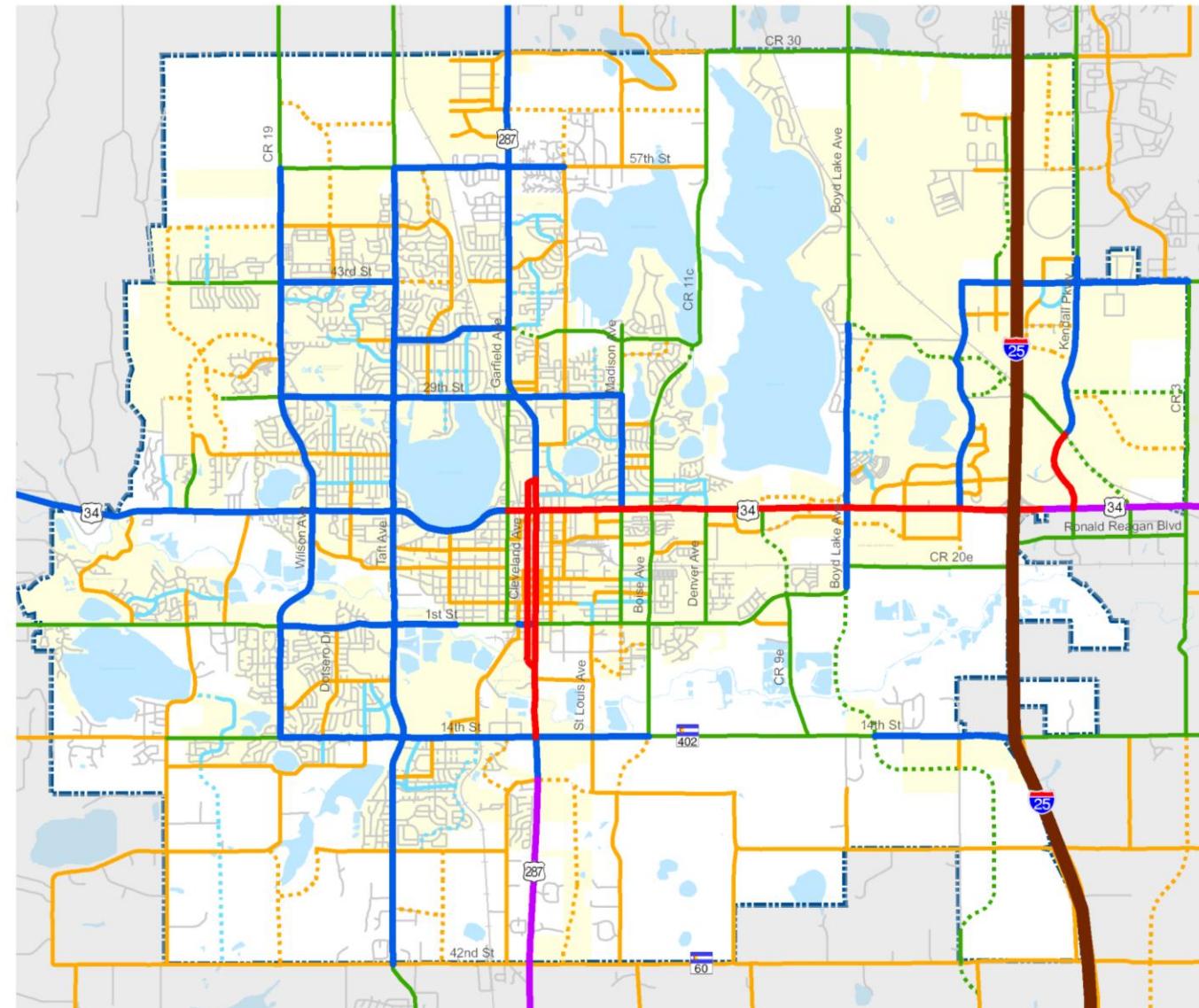
- Freeway 4 lanes
- Expressway 6 lanes
- Arterials
  - Existing
  - Future
  - Major Arterial 6 lanes
  - Major Arterial 4 lanes
  - Minor Arterial 2 lanes
- Collectors
  - Existing
  - Future
  - Major Collector
  - Minor Collector

In undeveloped areas, collector streets may be added, deleted, or classifications changed by the Public Works Director to best meet the needs of the areas served by those streets.

Location of future routes and intersections are conceptual only. Exact locations will be determined later by separate study

0 0.5 1 Miles

N



## 2035 STREET PLAN

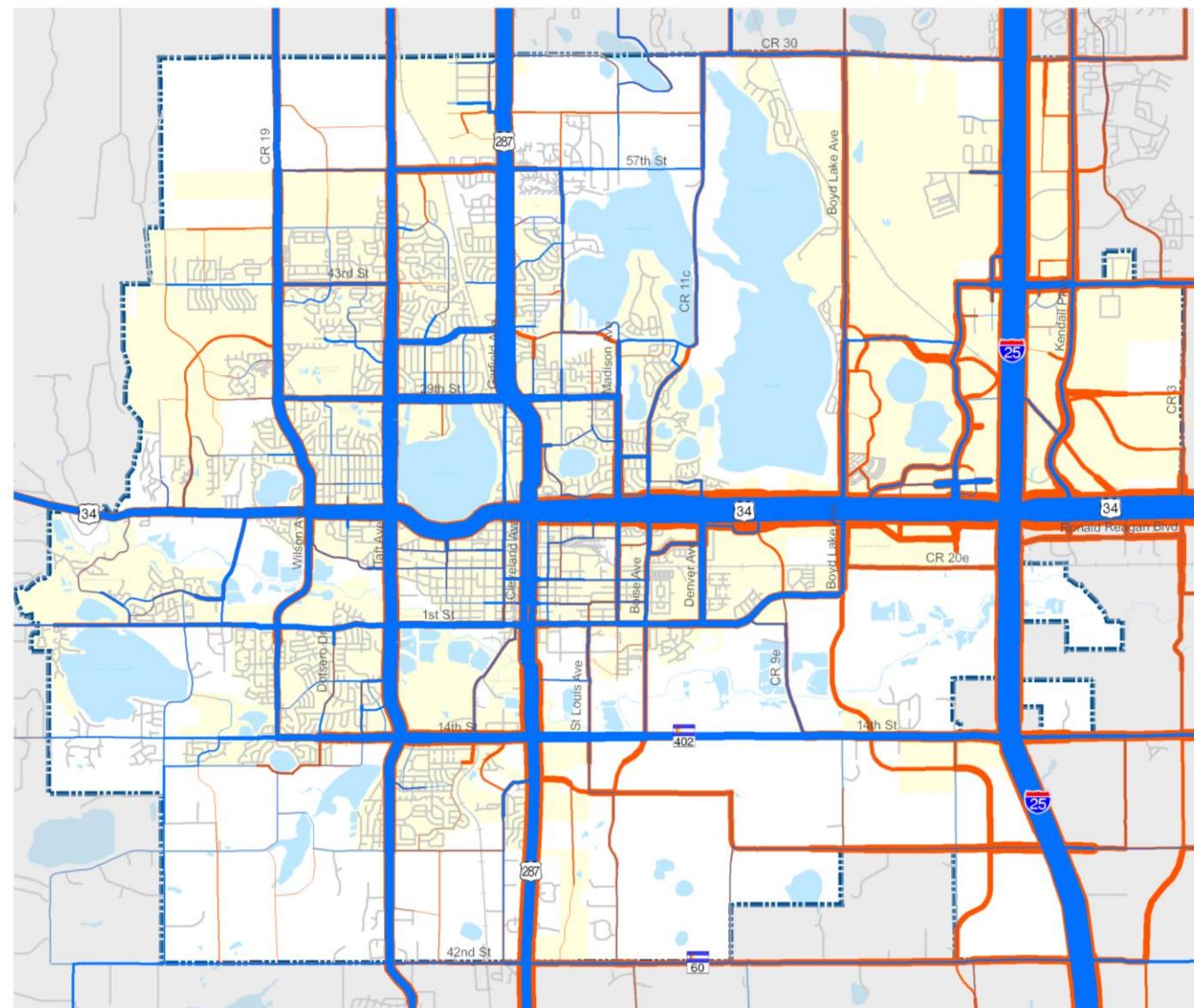


## Legend

The legend consists of five entries, each with a colored square and a label: a yellow square for 'City Limits', a blue square with a dashed border for 'Growth Management Area', a grey square for 'Railroad', a light blue square for 'Big Thompson River', and a medium blue square for 'Lakes'.

### Daily Volume

Category	Year 2009	Year 2035
5,000	Blue bar	Orange bar
10,000	Blue bar	Orange bar
25,000	Blue bar	Orange bar
45,000 or more	Blue bar	Orange bar



## 2035 STREET VOLUMES



## Forecast Year (Buildout) Street Plan

The ultimate buildout improvements map is also illustrated on the proposed Forecast Year (Buildout) Street Plan. This map is based on buildout of the proposed land use and illustrates the roadway network that will be necessary in the long term planning horizon that is beyond the year 2035. This map can be used to help the City of Loveland reserve future right-of-way in key transportation corridors.

## ITS

*Intelligent Transportation Systems (ITS) improves transportation safety and mobility and enhances productivity through the use of advanced communications technologies.*

ITS encompass a broad range of wireless and wire line communications-based information and electronics technologies. When integrated into the transportation system's infrastructure, and in vehicles themselves, these technologies relieve congestion, improve safety and enhance productivity.

ITS is made up of many types of technology based systems. These systems include.

- Arterial Management
- Freeway Management
- Transit Management
- Incident Management
- Emergency Management
- Electronic Payment
- Traveler Information
- Information Management
- Crash Prevention and Safety
- Roadway Operations and Maintenance
- Road Weather Management
- Commercial Vehicle Operations
- Inter-modal Freight
- Collision Avoidance Systems

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- Collision Notification Systems
- Driver Assistance Systems

The City of Loveland currently has "intelligent infrastructure" in several of these areas and will be working on enhancing and expanding them in the future.

### Arterial Management Systems

Arterial management systems manage traffic along arterial roadways, employing traffic detectors, traffic signals, and various means of communicating information to travelers. These systems make use of information collected by traffic surveillance devices to smooth the flow of traffic along travel corridors. They also disseminate important information about travel conditions to travelers via technologies such as dynamic message signs (DMS) or highway advisory radio (HAR).

The City now has up to 93 traffic signals and 27 school flasher zones. Our signal system is nearly double the 48 signals and 14 school zones that were in operation 15 years ago. These big expansions are due to the need to accommodate a very high growth period and by taking over all CDOT signals and flashers located on state highways.

Current efforts are underway to link each of these signals to the Traffic Operations Center and provide for the addition of future signals. Additional anticipated improvements include the installation of cameras (for traffic only, not photo radar or red light cameras) at all signalized intersections to provide real time pictures of intersections. The Traffic Operations Center will include upgraded Traffic Signal System Software housed in a centralized computer that will allow for system adjustments related to traffic volumes and flow. In addition, the real time pictures will allow for further adjustments of signal timings and synchronization.

**Legend**

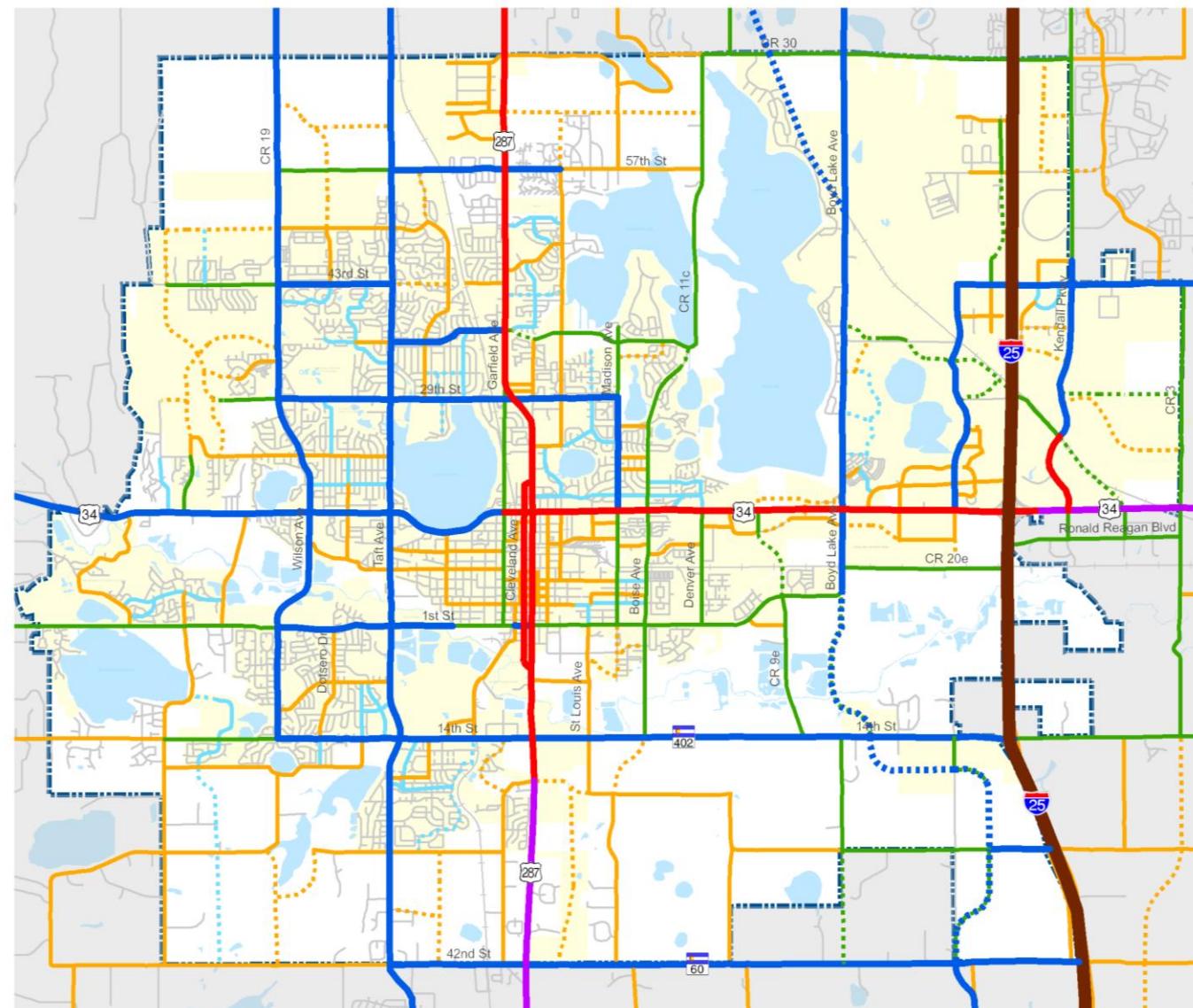
- Railroad
-  Growth Management Area
- Big Thompson River
- Lakes
- City Limits

**Roadway Designations**

-  Freeway 6 lanes
-  Expressway 6 lanes
- Arterials**
- Existing  Future  Major Arterial 6 lanes
-  Major Arterial 4 lanes
-  Minor Arterial 2 lanes
- Collectors**
- Existing  Future  Major Collector
-  Minor Collector

In undeveloped areas, collector streets may be added, deleted, or classifications changed by the Public Works Director to best meet the needs of the areas served by those streets.

Location of future routes and intersections are conceptual only. Exact locations will be determined later by separate study



FORECAST YEAR (BUILDOUT) STREET PLAN



Proposed ITS projects for the City of Loveland include:

- Fiber Optics Communication system upgrade for communications to traffic signals
- Create modern traffic operations center (TOC)
- Update ITS Communications Plan to promote coordination of signals in key corridors.
- Update and maintain Roadway/Remote Weather Information Systems (RWIS) that have been developed to gather field information regarding road and weather conditions.
- Continue to share ITS traffic data with the public through the Loveland Road Report/Web page, local AM radio and newspaper.

## Street Maintenance

### Background

The City of Loveland currently maintains 330 miles of public streets, not including the State Highways or private roads within the City. This equates to over 7.1 million square yards of pavement that must be maintained at an acceptable level to the citizens of Loveland. This street system carries an average of over one million vehicle miles traveled each day. This transportation network forms the basis for almost all travel within and through the City, and is essential to many aspects of daily life within our community. The replacement cost of the roads including curb, gutter and sidewalk is over \$360 Million in 2012 dollars.

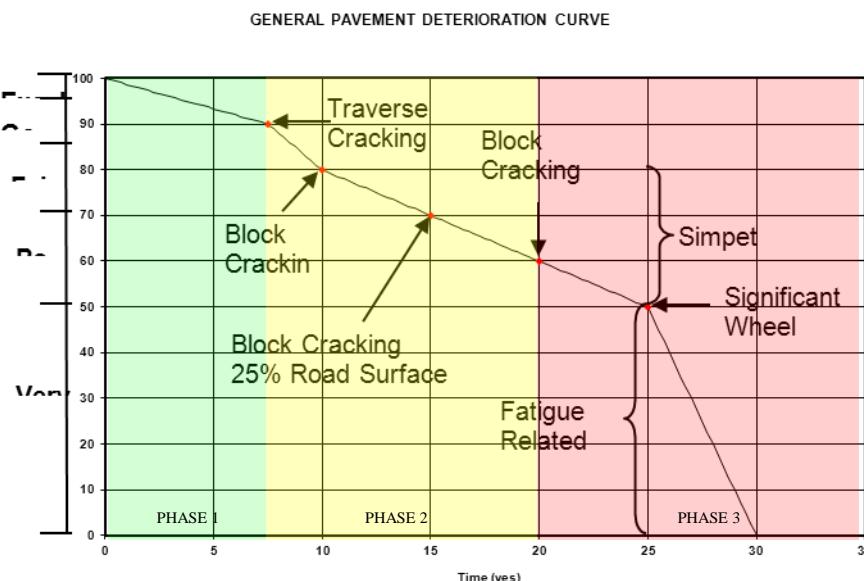
To more effectively manage the long term maintenance and rehabilitation of this street system, the City implemented a computer based pavement management program (PMP) in 1986. The premise upon which the PMP operates is straightforward:

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- As pavement ages its deterioration usually follows a curve similar to the one on the following page.
- As the pavement deteriorates it becomes more expensive to rehabilitate.
- After a pavement deteriorates beyond a certain point the repair costs increase dramatically.

Based on these principles, it is more cost effective to apply less expensive treatments early in the pavement's life cycle rather than allowing the pavement to deteriorate to the point of reconstruction and significant cost.

During the first stage of the pavement life cycle, a road can be restored to nearly new condition with the application of relatively inexpensive crack seal and chip sealing the surface or with thin overlays. During the second and third stages the pavement has lost some structural strength, especially where water intrudes at cracks, softening the foundation soils and increasing freeze-thaw deterioration of the asphalt itself, requiring patching. If allowed to deteriorate further, the pavement has lost so much structural integrity that it usually needs to be reconstructed. The goal of the PMP is to use low cost, but socially acceptable maintenance techniques at the appropriate time to keep pavement on the "high end" of the curve to minimize long term costs. This translates into a goal of keeping 75 percent of the City's inventory in the good to excellent category of our rating system.



Current funding levels have allowed the City to meet this goal. The ability of the City to continue to meet this goal in the future depends on providing additional funding to cover additional roadway area generated by new development and increased cost of maintenance activities due to inflation of labor and materials.

### Past and Current PMP Strategy

In 1996, the City Engineer developed a strategy to keep costs as low as possible and to develop a program that can be funded every year. This program emphasized preventative maintenance and asphalt overlays rather than roadway reconstruction. Placing the emphasis on treating streets in relatively good condition is somewhat counterintuitive, in that work on roadways in poor condition is postponed to allow dollars for maintenance of roads in good condition.

The City's current strategy focuses on crack and chip sealing street surfaces that are in good condition to prevent moisture penetration and asphalt degradation caused by oxidation and sunlight (UV) exposure. The asphalt membrane placed with a chip seal is analogous to painting a wood sided house to prevent the

wood from rotting. The chip layer is necessary to provide for a friction surface that provides adequate skid resistance for safety. This process is then rotated on a seven to 10-year cycle with an asphalt overlay which adds structure to the roadway to replace that lost due to freeze thaw.

From 2000 through 2003 the PMP focused on the rehabilitation of major streets in Loveland. These streets carry the greatest volume of traffic and, therefore, yield the highest return on investment (benefit to cost ratio). By 2004, many of the serious maintenance problems on the major streets had been addressed so the focus shifted to resurfacing operations on local streets.

Local streets comprise nearly sixty percent of the street network and most carry less than 300 vehicles per day, with very few trucks, (mainly trash trucks). Because local streets have light traffic both in terms of volume and weight, they are prime candidates for low cost seal-coating techniques if the ride is good and the surface stable.

Newly constructed streets provide a challenge for pavement maintenance in that they are not always stable due to the changing nature of the soils below the new street. These changes include heavy construction traffic, trench settlement in newly constructed utilities, and changes in moisture due content as new home owners irrigate new lawns.

Generally the maintenance strategy for a newly constructed street consists of:

- A leveling course and overlay around year 7 to 10 in order to smooth ride issues related to trench settlement of the utilities trenches located under the road.
- Crack sealing is typically done in year 10 to 14 to prevent moisture intrusion as cracks form in the asphalt surface due to water and oxidation aging.
- Chip seal of the surface is typically done in year 12 to 14. This procedure reinforces the crack sealing efforts by placing a membrane of polymer modified asphalt across the surface of the road and covering the road with a new surface of chip.



- This cycle is then repeated as needed. Typically a chip seal on a stable road can last 10 to 12 years. Stable roads are dependent on the initial pavement design and construction quality, utility trench construction quality, presence of swelling soils, water intrusion at concrete joints and back of walk, traffic levels, utility repairs/ patching and watering practices of the adjacent parcels.

This typical 25-year pavement strategy generally preserves the road in the good category (PCI of 80 or better). Additional maintenance beyond this time line can sustain a pavement for longer periods without reconstruction. The condition of a similar road with no maintenance during this period would generally drop below a PCI of 50 which is the point where the road must be reconstructed at roughly twice the cost of routine maintenance.

The ability to utilize seal coats is a critical element to the success of a PMP that focuses on low cost sealing techniques. According to our modeling, if chip sealing were to be eliminated from the strategy pool, the City would need to budget an additional \$500,000 per year in today's dollars to maintain the inventory at the current average network PCI level of 80. *It must be clearly understood that this PMP is not a one-time project but instead a perpetual maintenance program.* The long term savings of this program will only be realized if there is a commitment to on-going funding and use of the most appropriate treatment.

### Success Areas

The following is a list of successes with the street maintenance program to date:

- Slowly reduced City's inventory of streets that have significant problems.
- Changed to overlays over using chip seals in the bulb of cul-de-sacs in an effort to reduce chip seal complaints. This combined with efforts to sweep up loose chip within a month of the initial treatment has allowed for a significant reduction in complaints.
- Successfully utilized a paving train treatment to rehabilitate older, thin asphalt pavements that have stable base layers but the asphalt is oxidized to the point of reconstruction.
- Consistently able to cover ten percent of our inventory each year which keeps us on a 10-year treatment cycle.

- Incorporated ADA ramps at most of the street intersections throughout the City.
- Successfully worked with local railway companies to share cost in the reconstruction of six at grade crossings located at 1st Street, 37th Street, 14<sup>th</sup> Street SW, Monroe Ave, 10<sup>th</sup> Street, Garfield, and Boyd Lake Avenue, with additional crossings planned for the future.

### Areas for Improvement or Change

Significant challenges both for design, execution and for budgeting include:

- Concrete curb, gutter and sidewalk conditions in the old town area are in poor to very poor condition.
- Significant issue with manhole and valve box ride issues. These features have to be raised during an overlay. This issue is being addressed with better riser ring materials that seat better and money to reconstruct the areas around these features.
- Significant problems with utility trench settlement in new roads. Depressions appear in the roads where backfill material was not placed to required density. This issue requires that the depressions must be repaired prior to treatment with a chip seal. Extensive trench settlement requires an overlay to address the problem areas thus forcing the City to use a more expensive initial treatment.
- Significant issues with over watering of lawns in new subdivisions. With the advent of underground sprinkler systems, homeowners have opted to over water their lawns leading to extensive runoff. This runoff softens the road along the curb and gutter where home owners abut to the roadway. The water enters the clay soil from the back of the curb and through the many joints in the gutter. A number of roadway failures have occurred due to moisture sensitive clays and heavy construction traffic.

## Summary

The Pavement Management Program currently used is a least cost approach to pavement management City-wide. The purpose of the program extends beyond just pavement, and it attempts to keep the infrastructure for all travel modes in good condition. It also incorporates safety improvements to some streets as part of the rehabilitation effort. A variety of resurfacing and rehabilitation techniques are employed, and each street receives the most cost effective maintenance strategy needed to keep the street in good condition, within the constraints of the budget. It is essential to continue to provide consistent funding at a level sufficient to reach streets early in the deterioration cycle so costs can be kept as low as possible. The high level of safe mobility that is part of our enviable quality of life in Loveland relies on the well-being of this system.

## Recommendations

- Increase funding for street rehabilitation and maintenance to \$0.58 per square yard in 2012 dollars with increases for annual inflation and increases in inventory.
- Continue chip seal program and increase crack sealing efforts.
- Increase concrete repair efforts in the older areas of town where stable roadways do not require overlays.
- Complete curb, gutter and sidewalk inventory.
- Revise specifications for utility trench construction and review existing roadway construction warranty policies.
- Develop a comprehensive bridge maintenance, repair and replacement program to assist with budget development for these activities.
- Develop a program to work with local railroads to maintain at-grade crossings.

## Transit Plan

A public transit system of a size and quality commensurate with the needs of future Loveland residents and businesses is an important element of the Transportation Plan.

The City already operates a small fixed-route bus system for the general public, as well as complimentary paratransit service for persons with disabilities, and seniors as required by the Federal Transit Administration (FTA). These services provide the basis for a system that will integrate local and intercity bus routes into a seamless regional transit network that also may include a commuter rail corridor along the Front Range. The need for such a system will become increasingly great as the distribution, variety, and density of land uses expand, and as neighboring cities in the North Front Range extend to the borders of Loveland.

The primary customer base for COLT will remain “transit dependent” riders such as seniors, disabled, students, and those of limited financial means. Due to financial constraints such as limited federal funding, decreasing general fund dollars, and no Regional Transit Authority (RTA) or the like, growth in the transit system will be stagnant. Loveland will adopt a status quo approach to transit growth for the future. Limited improvements for potentially reducing headways on existing routes and controlling operating costs and inflationary adjustments will be considered. Periodic review and update of the COLT Transit Plan, as required by the federal government, will ensure that Loveland’s transit system can adapt to the changing needs of the City.

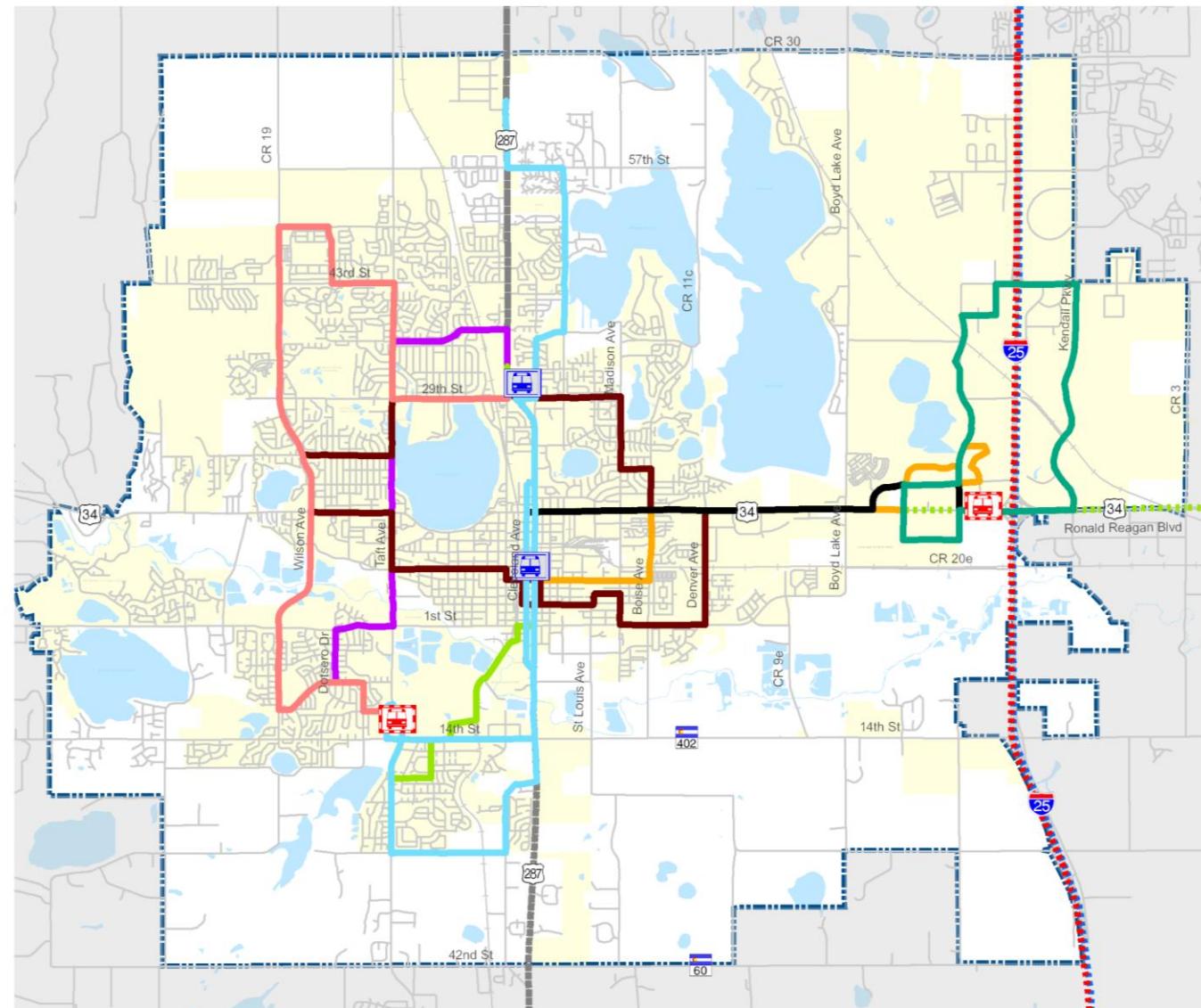
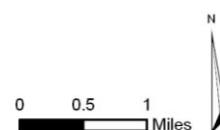




City of Loveland

## Legend

- Proposed Transit Center
- Existing Transit Center
- Route 101
- Route 102
- Route 103
- Route 104
- Route 105
- Route 106
- Route 107
- Route 108
- Route 51
- Route 52
- Route 53
- Route 56
- Railroad
- Growth Management Area
- Big Thompson River
- Lakes
- City Limits



## PROPOSED TRANSIT PLAN

The City of Loveland's transit plan was a framework for implementation of future transit improvements in three phases. Phase 1 recommends substantial transit growth over existing service in Loveland. It also recommends bi-directional service and a new regional connection to Longmont. Partnering strategies would likely be considered for the implementation of regional services.

The Future Transit Map identifies service improvements recommended for Loveland. An overview of these recommendations follows.

## Phase 1

### Local Services

- Proposes redesigned routes to provide Loveland with bi-directional loop service instead of one-way loops

### Regional Services

- Proposes a new regional route between Loveland and Longmont with weekday and Saturday service

## Phase 2

Phase 2 recommends further expansion of transit service in Loveland, as well as expansion of regional connections. Partnering strategies would likely be considered for implementation of regional services. This phase provides greater route coverage, higher service frequencies, and longer span of service in Loveland. An overview of these recommendations follows.

### Local Services

- Recommends facility improvements at two existing transfer stations: the North
- Transfer Station at Orchards Shopping Center and the South Transit Center at
- 8th Street/US 287
- Recommends a new shared park-and-ride and transfer facility adjacent to
- Centerra near I-25 and US 34

- Proposes two new routes providing enhanced connections between south Loveland and Centerra, and expansion of north/south service to the south Loveland area
- Proposes early evening service (until 8:30 PM) on weekdays and Saturdays for two routes

### Regional Services

- Recommends a new regional route connecting Fort Collins, Loveland (Centerra), and Denver
- Proposes a more direct connection between central Loveland and Greeley
- Proposes early evening service (until 8:30 PM) on the route to Longmont and late evening service (until midnight) for the route replacing the FoxTrot to Fort Collins
- Proposes Saturday service for three regional routes

## Phase 3

Phase 3 recommends additional transit growth in Loveland including longer service hours and limited Sunday service. An overview of these recommendations follows.

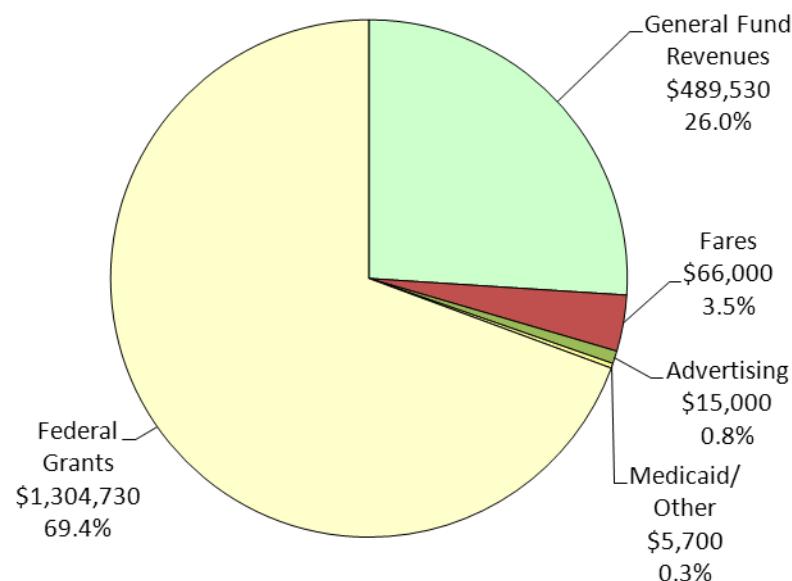
### Local Services

- Proposes a new South Transfer Station at Thompson Valley Towne Centre (14th
- SW and Taft)
- Recommends two new routes expanding service to the west Loveland area along
- Wilson and Taft
- Proposes improvements to service frequency on the primary central loop route
- Proposes early evening service (until 8:30 PM) for four routes and late evening service (until midnight) for two routes on weekdays and Saturdays
- Proposes Saturday service for all eight routes
- Proposes Sunday service for four routes

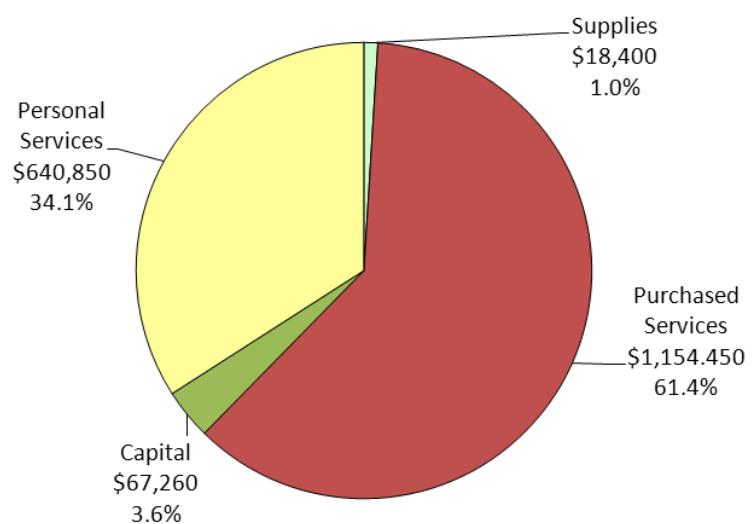
#### Regional Services

- Proposes a new highway route providing connections between South Fort
- Collins, Loveland (Centerra), Longmont, and Boulder
- Recommends reconfiguration of a regional route to provide service between Fort
- Collins, Loveland, Berthoud, and Longmont, with Saturday and Sunday service
- Recommends additional late evening service (until midnight) for the route between Fort Collins and Longmont (via Loveland)

**Transit Revenues: \$1,880,960**



**Transit Expenditures: \$1,880,960**



## North Front Range Transit Vision Plan

The Cities of Loveland and Fort Collins, the Town of Berthoud, Larimer County, and the North Front Range Metropolitan Planning Organization (NFRMPO) are exploring the feasibility of a regional decision-making and funding structure for regional transit services. There are three separate transit operations within the TMA boundaries. The operations include the City of Fort Collins Transfort, the City of Loveland's COLT (City of Loveland Transit) and the Town of Berthoud, the Berthoud Area Transit Service (BATS).

The recent process to develop a North Front Range Transit Vision was a collaborative effort between Fort Collins, Loveland and the Poudre School District. As a part of the development of the vision, a Financial Advisory Committee (FAC) was organized. The eight-member FAC consisted of residents from Fort Collins and Loveland, and represented a broad range of public and private interests. The FAC was tasked with making a recommendation to the governing councils with regard to funding mechanisms to support the implementation of regional transit.

While the committee recommended a combination of funding strategies, it also recommended a subsequent study to explore the feasibility of the formation of a regional transit provider to serve as the administration, organization, and consolidation of transit operations for Fort Collins and Loveland.

## Transit Oriented Development Concept

Transit Oriented Development is the exciting new fast growing trend in creating vibrant, livable communities, and is an item that will be considered for the future in Loveland. Also known as Transit Oriented Design, or TOD, it is the creation of compact, walkable communities centered around high-quality transit systems (bus and/or rail). This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival.

## What is a Transit Center?

Transit centers are significant components of most successful transit systems. Such facilities serve multiple functions as safe and convenient transfer points between local routes, as park-n-ride access points for regional and commuter express services, and as transportation focal points for commercial and high-density residential districts. The 2030 transit plan proposes that off-street transit centers be preserved at possibly four key transfer points:

**Downtown Loveland** will be an important destination for local and regional transit riders. Regional service between Fort Collins and Boulder will almost certainly exist in one form or another and will traverse downtown Loveland. Local routes will focus on the redeveloped central business district and the Civic Center complex. Under most development scenarios, the preferred location for a downtown transit center is along US-287 between 2nd and 5th Streets.

**US-287/29th Street** will be an increasingly important destination for transit trips, as well as a logical transfer point for bus travel between Fort Collins and points in Loveland north of downtown. The transit center at this location should provide effective pedestrian access to adjacent commercial destinations.

**The I-25 interchange at US-34** will be both an important local destination and access point for transit services to other parts of the region. The City's land use plan will focus additional retail development around the Factory Outlet Stores and on the four sides of the interstate highway cloverleaf. Regional connections to Greeley, the Denver metro area, and DIA will be available at this location. The optimal transit center design will provide expedited access and egress for express buses using I-25 and local buses approaching from Loveland via Eisenhower Boulevard. Park-ride capacity should be provided adjacent to the transit center.

**I-25 at the State Highway 402 interchange** will be an important feeder point for south Loveland residents using regional transit in the I-25 corridor and seeking access to planned commercial and employment facilities to be developed in the vicinity of the interchange. Park-ride capacity should be provided adjacent to the transit center.



## Factors Driving the Trend Toward TOD

- Rapidly growing, traffic congestion nation-wide
- Growing distaste for suburbia and strip development
- Growing desire for quality urban lifestyle
- Growing desire for more walkable lifestyles away from traffic
- Changes in family structures: more singles, empty-nesters, etc.
- New focus of Federal policy

## Components of Transit-Oriented Design

- Walkable design with pedestrian as the highest priority
- Train station as prominent feature of town center
- A regional node containing a mixture of uses in close proximity including office, residential, retail, and civic uses
- High density, high-quality development within 10-minute walk circle surrounding train station
- Collector support transit systems including trolleys, streetcars, light rail, and buses, etc.
- Designed to include the easy use of bicycles, scooters, and rollerblades as daily support transportation systems
- Reduced and managed parking inside 10-minute walk circle around town center/train station

## Benefits

- Higher quality of life
- Better places to live, work, and play
- Greater mobility with ease of moving around
- Increased transit ridership
- Reduced traffic congestion and driving
- Reduced car accidents and injuries
- Reduced household spending on transportation, resulting in more affordable housing
- Healthier lifestyle with more walking, and less stress
- Higher, more stable property values
- Increased foot traffic and customers for area businesses
- Greatly reduced dependence on foreign oil
- Greatly reduced pollution and environmental destruction

## How is increased transit service planned?

To ensure that Loveland will have a transit system with appropriate service levels as it grows, *transit development thresholds* are used as a planning tool. These thresholds are used as guidelines for the level of transit service in the corridors exhibiting certain land use and demographic characteristics. As the level of development increases, the ability to provide well used transit service increases. Five levels of development are considered:

**Level 0**—No fixed route transit service is generally required in corridors that are in the early stages of development. This would include corridors that have a population density of under 1,000 persons per square mile, limited commercial or employment-related development, large tracts of undeveloped property, and no special generators that would justify regular bus service.

**Level 1**—At least 50% of the land in the corridor is developed. Residential density is in the range of 1,000 to 2,000 persons per square mile. One or more small retail clusters (over 25,000 sq. ft.), small office centers, or other employment sites (over 250 jobs) are present or planned for the near-term future.

**Level 2**—At least 75% of the land in the corridor is developed. Residential density is in the range of 1,500 to 2,500 persons per square mile. Multiple small retail clusters or a shopping center (over 100,000 sq. ft.), office buildings, or other employment sites (over 500 jobs) are present or planned for the near-term future.

**Level 3**—At least 90% of the land in the corridor is developed. Residential density is in the range of 2,000 to 3,000 persons per square mile. Multiple retail clusters or shopping centers (over 250,000 sq. ft.), office buildings, or other employment sites (over 1,000 jobs) are present. Community facilities (e.g., library, post office) are located in the corridor.

**Level 4**—Virtually all land in the corridor is developed. Residential density exceeds 3,000 persons per square mile. Multifamily housing clusters are located in the corridor. Multiple retail clusters or shopping centers (over 500,000 sq. ft.), office buildings, or other employment sites (over 2,500 jobs) are present. Community facilities (e.g., library, post office) are located in the corridor. A continuous street and sidewalk network links adjacent neighborhoods to the corridor.

- Reduced incentive to sprawl, increased incentive for compact development
- Less expensive than building roads and sprawl
- Enhanced ability to maintain economic competitiveness

Source: [TransitOrientedDevelopment.org](http://TransitOrientedDevelopment.org), Alexandria, VA

## Bicycle Plan

The bicycle is a healthy alternative to the automobile for many trips. It can also play an important role in helping the City to improve its air quality and to develop a more balanced transportation system. This element of the Transportation Plan proposes improvements to existing street and trail facilities that are presently suitable for bicycles and development of an expanded system of bicycle-friendly roads and trails for Loveland's future. The plan has been developed on the basis of the analysis of existing conditions as well as input from Loveland's Bicycle and Pedestrian Committee. The following mission statement was developed by the committee and guides this plan:

*"To make the City of Loveland a place where walking and bicycling are safe, accessible and convenient modes of transportation and recreation. It is the objective of this plan to improve bicycle ... and intermodal safety and mobility because the increased use of these modes of travel will have significant benefits for the community's quality of life, environment and economy. Implementation of the plan will make it possible for Loveland residents of all ages, abilities, and income to have the choice to bicycle...to work, educational facilities, shopping centers and other destinations as an integrated component of the City's Transportation Master Plan."*

The proposed 2035 Bicycle Plan recommends significant improvements to the existing bicycle system, including new roads with added bike lanes, improvements to existing roads without bike lanes, and a comprehensive commuter trail system to compliment the City's recreational trails system and accommodate all modes of travel.

With these improvements, the future City of Loveland bike system will be of the highest quality, providing safe convenient bicycle facilities to go from virtually any place to anywhere on bicycle within the City.

The City of Loveland Bicycle Plan includes both new bicycle lanes and enhancements to existing bicycle lanes, such as bike lane widening, stripping, and signage. These improvements are also presented for high, medium, and low priority projects.

The Bicycle Plan also makes reference to facilities that are controlled and planned by other entities that are part of the comprehensive Bicycle system. Many planned improvements are from the Colorado Department of Transportation (CDOT); Larimer County; the Centerra master planned community; as well as many regional recreational and commuter trail plans.

Also included in the plan are existing and future Recreational (Multi-Use) Trails.

Although these Recreational Trails are constructed and maintained by the City of Loveland's Park and Recreation Department, they were included in the map to illustrate the system of bicycle connections that would be available with the completion of both on-street bicycle facilities and the recreational trails. The phasing of these trails is the responsibility of the Parks and Recreation Department.



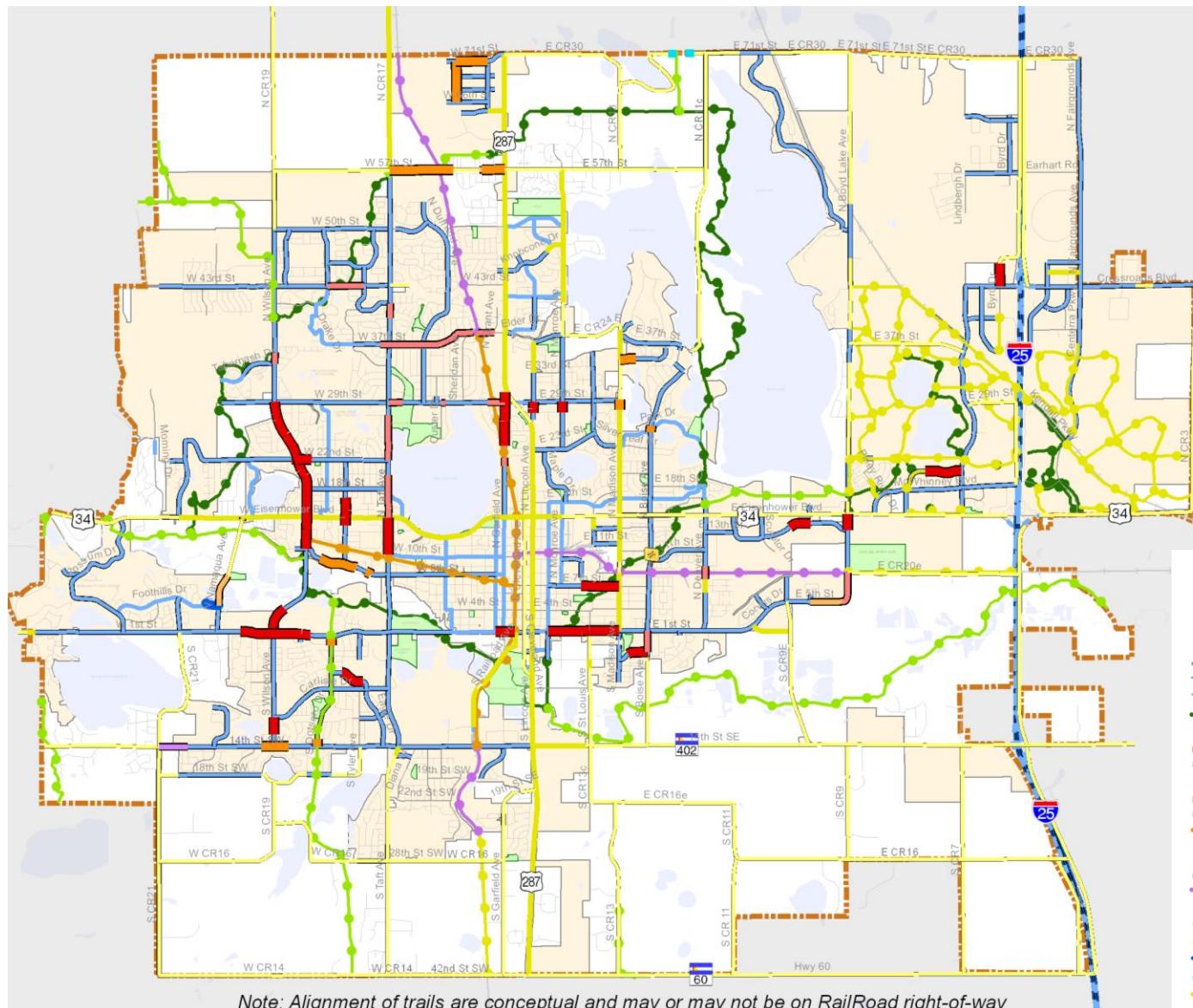
Although the Recreation Trail is primarily for recreation use and this plan deals mainly with transportation use, there is a lot of synergy between the two. Some people use the Recreation Trail for commuting while others use the bicycle and pedestrian facilities along certain streets for recreational use. Coordination is critical where the Recreational Trail connects or crosses with the bike and pedestrian facilities.

Because a lot of these planned facilities by other agencies have a lot of cross-over benefits, there may be opportunities to share in the cost and also receive bonus consideration when being evaluated for grant funding.



City of Loveland

## City of Loveland 2035 Transportation Plan



### PROPOSED BICYCLE NETWORK

## Pedestrian Plan

The Pedestrian Plan began with a long list of potential improvements based on a comprehensive field survey of missing links to address connectivity, continuity, safety problems, and provided access to schools. The pedestrian plan includes construction of new sidewalks, filling in missing segments, intersection improvements and widening of existing sidewalks.

The pedestrian projects are divided into high, medium, and low priority improvements based on the evaluation of each project based on the evaluation criteria. In addition, a fourth category was added, projects required of future developers. These projects are not priorities, but would be developed as part of future development.



### What's important to a pedestrian?

Most people know a comfortable walking environment when they see one, but not many can say what exactly determines how enjoyable a pedestrian area feels. For the pedestrian plan, a number of pedestrian elements were defined, which begin to address the various factors that are important to pedestrians.

1. **Directness**—Walking distance to destinations like transit stops, schools, parks, and commercial or activity areas should be direct.
2. **Continuity**—The sidewalk/walkway system should be complete, without gaps. The pedestrian corridor should be integrated with the activities along the corridor and should provide continuous access to destinations.
3. **Street Crossings**—Safety and comfort is essential while crossing streets, intersections and mid-block crossings. Factors that affect street crossing; number of lanes to cross, signal indication, crosswalks, lighting, raised medians, visibility, curb ramps, pedestrian buttons, convenience, comfort and security.
4. **Visual Interest and Amenity**—Pedestrians enjoy visually appealing environments that are compatible with local architecture and include street lighting, fountains, and benches.
5. **Security**—Pedestrians should be visible to motorists, separated from motor vehicles and bicycles, and under adequate street lighting.
6. **Surface Condition**—Pedestrian facilities should be free from obstructions, cracks, and interruptions.





City of Loveland

**Legend**

- City Limits
- Growth Management Area
- Parks

**Existing Pedestrian Facilities**

- Existing Sidewalks
- Existing Recreation Trails

**High Priority Improvements**

- New Intersection Improvements
- New Sidewalks

**Medium Priority Improvements**

- New Intersection Improvements
- New Sidewalks
- New Commuter Trail Crossing

**Low Priority Improvements**

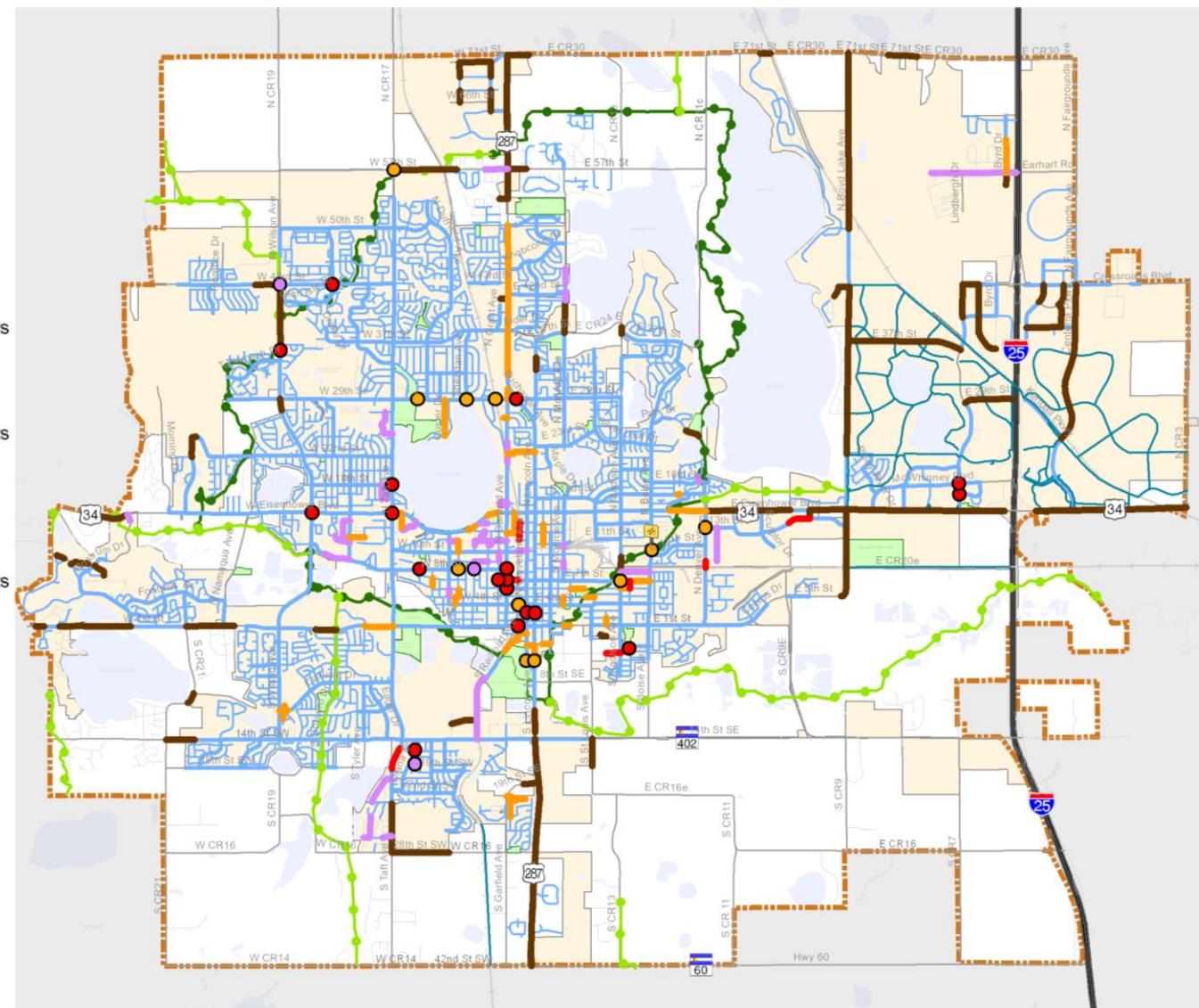
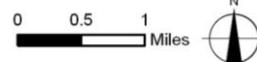
- New Intersection Improvements
- New Sidewalks

**Developer Responsible Improvements**

- New Sidewalks

**Future Planned Improvements**

- New Recreation Trails



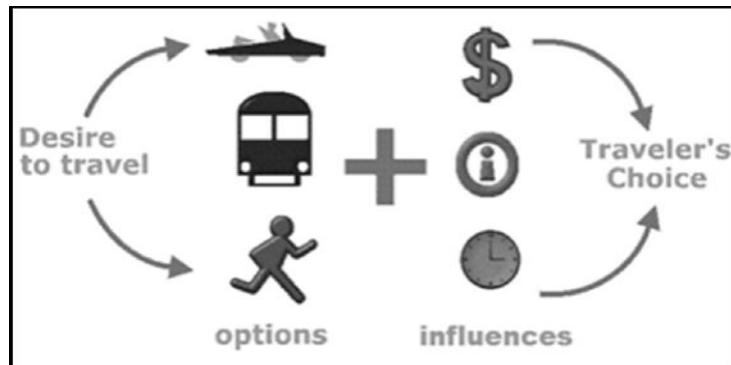
**PROPOSED PEDESTRIAN PLAN**

## Transportation Demand Management



Transportation Demand Management includes actions that improve the efficiency of the transportation system by altering transportation system demand rather than embarking on roadway capital expansion.

TDM is a broad spectrum of strategies that involve business owners, employees, non-profit organization, transportation and land use planning, and non-work commuters of the transportation system. TDM programs are tailored to the unique travel needs of a community or region. Like roadway expansion, transportation efficiency programs are measurable for their ability to reduce congestion, reduce commute costs, and improve air quality and livability.



### What is an SOV trip?

SOV stands for Single Occupant Vehicle and reducing the number of trips made by people driving alone (SOV trips) is a major goal of transportation demand management programs across the county. Along with Fort Collins and Greeley, the City of Loveland is working to reduce SOV trips by providing a number of transportation alternatives. Some of the strategies include employer-based programs to encourage use of transportation alternatives, regional education efforts, facility enhancements and land use policies, and transit and ridesharing subsidies.

Mode specific travel markets throughout the region are summarized below.

- **Bicycling:** Expand the bicycling infrastructure in the City of Loveland and regional connections through TDM programs and services.
- **Transit:** Targeting TDM services to increase the use of transit between within the City and to other cities within the region.
- **Carpooling:** Carpooling services targeted to areas that do not have transit services.
- **Vanpooling:** The VanGo™ program is very strong in the region for the long-distance commute market from Fort Collins, Loveland, and Greeley/Evans to points south including Denver, Boulder, and Longmont. The long distance nature of these trips makes them economical for vanpooling and the NFRMPO continues to target this market for vanpooling.
- **Telework:** The use of telework is already a part of many large employers. These employers implement telework options to telework one or more days per week which increases employee retention. A strong telework program that offers educational assistance, best practices from the region, and sample telework program policies will help facilitate telework program implementation at the local level and reduce congestion on the regional transportation network. Telework assistance should be targeted to employers throughout the region, including rural areas as well as cities.
- **Carsharing:** Carsharing is a model of car rental where people can rent cars for a short period of time, usually only a few hours. Typically carsharing works best initially in downtown areas, dense neighborhoods, and university settings.
- **Intelligent Transportation Systems (ITS):** Implement ITS infrastructure as recommended in the *CDOT Region 4 Regional ITS Architecture* and use ITS to provide travelers with better information to make decisions about when and how to travel throughout the region.



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# Section 6: Financial Plan

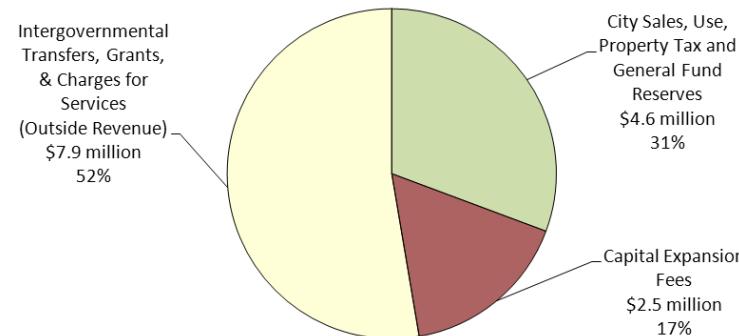
This section describes both Loveland's current transportation expenditures and revenues, and the 2035 Transportation Plan costs and funding sources. The finance plan described here addresses both the estimated transportation impacts associated with Loveland's land use plan and the costs related to maintaining and rehabilitating the existing transportation system.

## Current Transportation Revenues

For 2012, the total Revenue and Expenditures includes the base \$15.0 million, plus unused funds from 2011 (rollover) of \$2.8 million plus an additional grant of \$1.1 million, for a total of \$15 million.

- **General City Taxes**, including sales tax, use tax and property tax, and reserves contribution of \$4.6 million in 2012. These taxes are not limited in their use to specific types of activity.
- **Capital Expansion Fees**. \$2.5 million, including \$1.1 million estimated in 2012, plus \$1.4 million in unused fees from 2011. These fees are specifically charged on building permits for the construction of specific street improvements and cannot be used for other work, such as plowing snow or fixing potholes.
- **Intergovernmental Transfers, Grants, and Charges for Services (Outside Revenues)**, estimated at \$7.9 million in 2012, there are about a dozen such sources of revenue, the main ones include the following. (Some must be used specifically for certain activities, like street maintenance; others are more general in nature.)
  - Highway Users Tax from the state: \$2,598,510
  - State Road and Bridge Tax: \$295,250
  - Motor Vehicle Fees: \$244,310
  - State signal and street maintenance contracts: \$437,140
  - Transportation Maintenance Fee: \$1,917,250
  - Grants: \$2,363,460
  - Charges for Services: \$62,300

## Total 2012 Revenues (\$15 million)



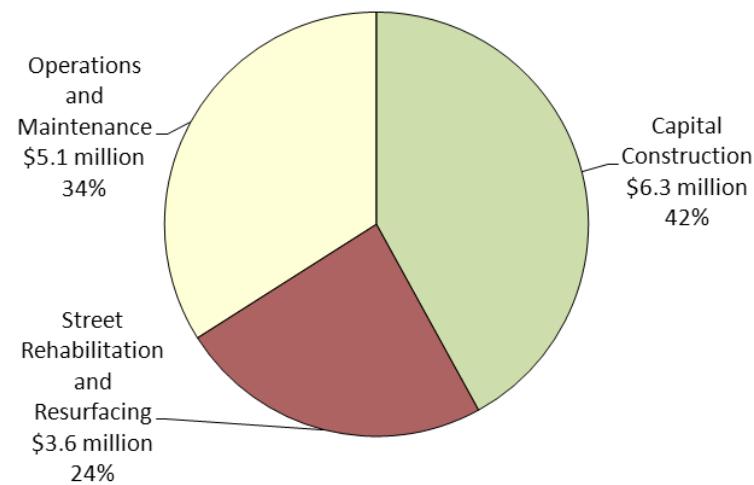
## Current Transportation Expenditures

The City of Loveland currently spends approximately \$11.1 million a year on transportation. This is broken down into three main categories:

- **Capital Construction.** This is the construction of new facilities or reconstruction and expansion of existing facilities. The new continuous flow intersection of Eisenhower at Madison and the I-25 and US 34 interim interchange improvements are two recent examples of this type of activity. \$6.3 million a year is currently available for this work through Capital Expansion Fees, the fees assessed to all new development in the City, and the General Fund from Sales and Use Taxes. The City periodically receives federal and state grants for specific projects, but this source of revenue is highly variable and generally not available for building City streets.

- **Street Rehabilitation and Resurfacing.** This program was established fifteen years ago to keep the 330 miles of City streets in good repair. The annual budget is now \$3.6 million, which is about one percent of the replacement cost of the streets. This program focuses on major street rehabilitation, such as overlaying an entire street with asphalt, rather than minor repairs, like filling potholes.
- **Operations and Maintenance.** This is the bulk of the daily activities associated with the transportation department. It includes everything from plowing snow, changing the light bulbs in traffic signals, and patching potholes, answering phone calls and doing engineering design work. Approximately \$5.1 million is spent on these activities.

### Total 2012 Expenditures (\$15 million)



### 2035 Transportation Plan Costs

The proposed 2035 Transportation Plan is an ambitious endeavor that was developed to adequately accommodate the existing traffic as well as mitigate the estimated traffic impacts for the estimated growth between today and 2035. The key points of the transportation plan and the associated costs (in current year 2012 dollars) are listed below.

- Roughly 19 miles of road widening or new road construction on City streets, not including Centerra. Total estimated cost of \$106.9 million.
- Centerra related improvements, including \$117.1 million for roadway and intersection improvements and \$101.5 million for Regional Improvements (on I-25 and US 34) for a total of \$218.6 million.
- Widening of 10.2 miles of state highways at an estimated cost of \$63.7 million.
- \$8.7 million of sidewalk and on-street bike facilities improvements to provide safe and convenient travel for those not traveling in motor vehicles to encourage a reduction in driving. This is exclusive of the off-street recreational trail system that is built and managed by the Parks and Recreation Department.
- Transit service is largely dependent on funding from the Federal Transit Administration as the City became eligible for urban system programs as Loveland exceeds a population of 50,000 in the 2000 census.
- Signal and intersection improvement projects. It is estimated that new traffic signals will be needed in the next 23 years, as well as improved communication links between the signals. In addition, existing signalized intersections will need major improvements, primarily adding more turning lanes. These improvements are estimated to cost \$51.9 million.

- The final element is \$6.5 million for bridge replacements and \$1.0 million for professional services to support the 2035 Capital Improvement Program.

### Why not just charge new development all the street improvement costs?

There are legal restrictions on how street improvement costs are assessed as a fee against new development. It is not legal to charge new developments in Loveland for the traffic that passes through town from other cities. So when the fees are calculated, it is necessary to reduce the impact fees for street construction by the percentage of pass through trips that are on the streets being improved. It is also not legal to force new development to pay fees to fix existing problems that are not a result of the new development. In the proposed transportation plan, the impact fees for new development will cover 62% of the cost of the City streets. The other 38% will need to come from other sources.

Including the above elements, the capital costs of the proposed Plan improvements total \$464,423,630 in constant 2012 dollars.

### Why doesn't the Colorado Department of Transportation pay for the new streets?

The State is facing the same situation as Loveland and most other cities: The cost of needed road construction and repairs exceeds the money available. The state has taken the official position that federal and state funds under their control will be used only on federal and state highways.

## 2035 Transportation Plan Capital Cost Funding

Proposed funding for capital costs associated with the 2035 Transportation Capital Improvement Plan projects are presented in four components, based on the revenue source.

1. Collector Street Equivalent Improvement Costs
2. Capital Expansion Fees - New Development's Share of Regional Transportation Improvements
3. Colorado Department of Transportation or Federal Funding
4. General City Funds (including sales and use taxes)
5. Centerra portion (from Master Finance Agreement and Centerra Metro District)

### Collector Street Equivalent Improvement Costs

Developers are required to construct or pay for the costs of all local and collector streets. On larger streets, such as those included in the 2035 Transportation Capital Improvement Plan, developers are still required to pay for the portion of the street that would be equivalent in cost to a collector street. This typically includes two travel lanes, bike and parking lanes, and the curb, gutter and sidewalk on both sides of the street. Along vacant land, this cost is assigned to the land and is due when the property develops.

The collector street cost equivalent in the 2035 Transportation Plan is \$44,009,280 in current (year 2012) dollars.

### Capital Expansion Fees (New Development's Share of Improvements)

New development's share of 2035 Transportation Plan improvements, will continue to be financed with the Streets Capital Expansion Fee (CEF). Regional improvements include medians, the third through sixth lane, left turn lanes, bridges and signals. New development's share includes the portion of improvements attributable to vehicle trips generated by new development.



The City of Loveland first adopted the Streets CEF in 1983. The CEF fee schedule was updated in 1994, 2001, 2007, and in 2009. This Plan updates and revises the CEF calculations so that they are consistent with the 2035 Transportation **Capital Improvement Plan**. The background, methodology and calculations are presented in the Appendix.

The Capital Expansion Fee in the 2035 Transportation Plan is \$129,886,011 in current (year 2012) dollars.

### Colorado Department of Transportation (CDOT) Share

The City anticipates that the Colorado Department of Transportation will provide partial funding for improvements to portions of US 34, US 287, and SH 402. The CDOT share is estimated to be \$37,784,700, which comprises about 50 percent of the total costs of these improvements.

### City Share

Approximately \$34,099,009 in transportation improvements are attributable to the "City's Share." These include improvements that correct existing deficiencies, upgrade the quality of existing improvements, and accommodate through trips (external to external or E-E trips discussed in other parts of this document). Funding for the City Share typically comes from the General Fund.

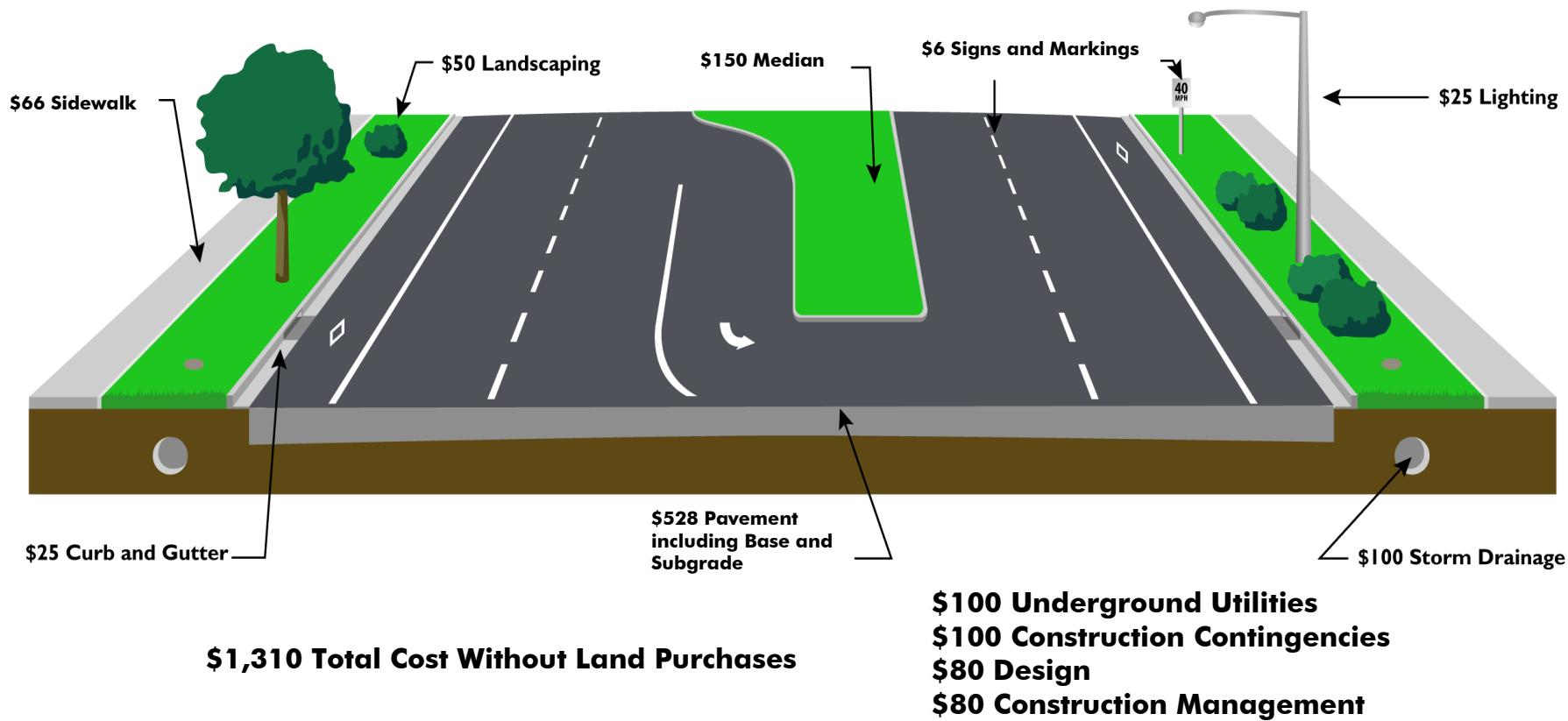
### Centerra Metro District

As part of the Master Finance Agreement and Centerra Metro District Agreement, the City required that the Developers are responsible for not only City-related road infrastructure improvements but regional improvements (large scale improvements to I-25 and US 34) in which the City would not typically participate. These improvements comprise the final \$218,644,630 included in the 2035 Transportation Plan.

## How much do new road improvements cost?

It varies dramatically from one situation to another but in most cases new roads and road widening projects cost a lot more than you might imagine. It becomes very expensive to widen a road in an area that is already fully developed and does not have a wide enough right-of-way for the proposed road. Not only must the City pay for the land, but also sometimes many utilities must be relocated. In a situation like this, the total cost for widening a two-lane road to four lanes can easily exceed \$15 million a mile. Even in the best situations, it is very difficult to build a new arterial street for less than \$7 million a mile.

### TYPICAL COST PER RUNNING FOOT FOR A FIVE LANE ARTERIAL STREET





## Other Financing Considerations

### State and Federal Funding

This analysis assumes that the City will be successful in securing \$37.8 million in State and Federal funding for eligible projects within the 2035 Transportation Capital Improvement Plan over the next 23 years. If the City is more successful than this target, then the need to earmark sales and use tax revenues will decline.

2035 Transportation Plan Note: While State and Federal dollars are shrinking, the projects included in the 2035 Transportation Plans have been identified by CDOT and the North Front Range Metropolitan Planning Organization as priorities. As in previous plans, the 2035 Transportation Plan conservatively estimated State and Federal Funding.

### Annual Cash Flow Requirements

The need to construct some road improvements will precede the time when all of the necessary funding is in place. In these circumstances, the City will be required to (a) fund the needed projects with future reimbursement from the CEF and new development excise tax revenues, (b) create districts to fund the improvements with future reimbursement, (c) require developers to fund the improvements with future reimbursement or (d) not construct the improvement when needed. This Plan anticipates that these types of circumstances will be resolved on a case-by-case basis.



# Section 7: 2035 Fiscally Constrained Plan

## Definition

The Fiscally Constrained Plan portion of the 2035 Transportation Plan was prepared by reducing the anticipated long-term overall plan for Loveland's transportation system to the highest priority projects that can be accommodated with future expected revenues. Those projects and expenditures retained in the Fiscally Constrained Plan provide the greatest transportation benefit to the City of Loveland and fit within the context of the projects identified regionally.

## 2035 Capital Improvements

The 2035 Capital Improvements Plan consists of projects identified as necessary to be completed by 2035, based on the anticipated growth within the City of Loveland. The plan includes specific roadway sections and intersections with cost estimates based on 2012 dollars. It also breaks out sections of the CDOT road system within Loveland that will be expanded with outside dollars as well as the area within the Centerra Metro District with projects that are eligible to be constructed if growth and development happens in that area as expected.

The projects identified in the plan are eligible for reimbursement through the City's Street Oversizing policies, subject to annual appropriation through the City's Budget Process. Projects not included on the plan are not eligible for reimbursement as they were not included in the calculation of Capital Expansion Fees imposed on new development.

CIP Summary	
City	\$34,099,009
CEF	\$129,886,011
Col St Equiv	\$44,009,280
CDOT	\$37,784,700
Centerra	\$218,644,630
<b>TOTAL</b>	<b>\$464,423,630</b>

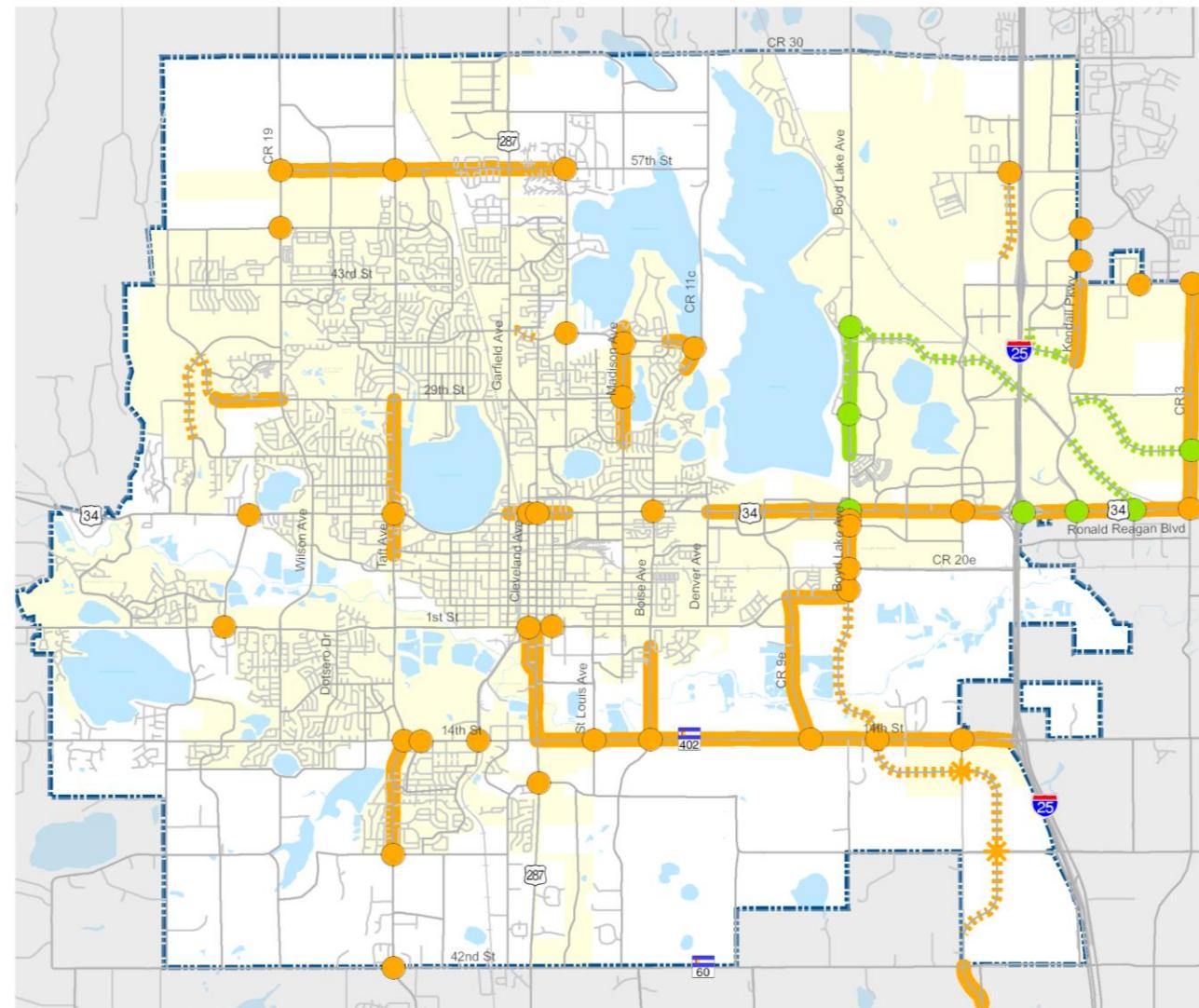
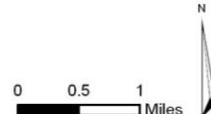


City of Loveland

## Legend

- City Limits
- Growth Management Area
- Roadway Project Source
  - 2035 Transportation Plan
  - Centerra Metro District
  - Alignment to be determined by separate study and public process
- Intersection/Signalization Project Source
  - 2035 Transportation Plan
  - Centerra Metro District
  - Location To Be Determined
- Railroad
- Big Thompson River
- Lakes

Location of future routes and intersections are conceptual only. Exact locations will be determined later by separate study



## 2035 CAPITAL IMPROVEMENTS PLAN

## COST ALLOCATIONS: CITY STREETS

Street Name	From	To	Length (Ft)	Classification	2035 ADT Volume	2035 Total V/C ADT Ratio	Total Project Cost	% Growth Related	% Local Traffic	Collector Street Equivalent Length (ft)	Reduction for Cost Equivalent of Collector Street	Maximum CEF Cost	City Financing After CEFs & Collector Street Equivalent	Description of Improvement
29th St	Cascade Ave.	Wilson Ave.	4,700	Arterial Minor	2,400	0.15	\$ 3,975,000	100%	100%	7,000	\$ 1,554,000	\$ 2,421,000	\$ -	New 2- lane arterial
37th St	US 287	Lincoln Ave.	1,400	Arterial Minor	9,600	0.60	\$ 2,384,000	100%	100%	2,100	\$ 466,200	\$ 1,917,800	\$ -	New 2- lane Arterial / upgrade collector
37th St	Seven Lakes Drive	LCR 11 C	650	Arterial Minor	3,900	0.24	\$ 506,000	100%	92%	-	\$ -	\$ 465,520	\$ 40,480	New 2- lane arterial
57th St	Wilson Ave.	Taft Ave.	5,280	Arterial Minor	5,400	0.34	\$ 4,098,000	100%	98%	10,560	\$ 2,344,320	\$ 1,718,606	\$ 35,074	Reconstruct 2-lane County Road to 2-lane Arterial
57th St	Taft Ave.	US 287	5,280	Arterial Major	16,300	0.45	\$ 8,215,000	100%	89%	4,300	\$ 954,600	\$ 6,461,756	\$ 798,644	Reconstruct 2- lane county road to 4- lane arterial
57th St	US 287	Monroe	2,650	Arterial Major	9,700	0.27	\$ 4,397,000	100%	98%	1,000	\$ 222,000	\$ 4,091,500	\$ 83,500	Reconstruct 2- lane county road to 4- lane arterial
Boise Ave.	SH 402	4th St SE	4,280	Arterial Minor	8,800	0.55	\$ 6,849,000	50%	98%	3,800	\$ 843,600	\$ 2,942,646	\$ 3,062,754	Widen 2- lane county road to 2- lane arterial
Boise Ave.	Mount Columbia Ave	E 37th St	1,050	Arterial Minor	6,600	0.41	\$ 2,558,000	50%	88%	1,000	\$ 222,000	\$ 1,027,840	\$ 1,308,160	New 2 lane Arterial
Boyd Lake Ave.	Hwy 60	E County Rd 16	6,000	Arterial Minor	9,100	0.57	\$ 2,664,000	100%	74%	12,000	\$ 2,664,000	\$ -	\$ -	Interim 2 lane Collector
Boyd Lake Ave.	E County Rd 16	Big Thompson Bridge	12,000	Arterial Minor	11,300	0.71	\$ 7,157,000	100%	94%	19,000	\$ 4,218,000	\$ 2,762,660	\$ 176,340	New 2 lane Minor Arterial
Boyd Lake Ave.	Big Thompson Bridge	LCR 20C	4,000	Arterial Minor	8,000	0.50	\$ 1,776,000	100%	97%	-	\$ -	\$ 1,722,720	\$ 53,280	Interim 2 lane Collector
Boyd Lake Ave.	LCR 20C	LCR 20E	1,350	Arterial Major	23,400	0.65	\$ 1,452,000	100%	98%	2,700	\$ 599,400	\$ 835,548	\$ 17,052	Widen 2- lane county road to 4- lane arterial
Boyd Lake Ave.	LCR 20E	US 34	2,700	Arterial Major	19,000	0.53	\$ 3,474,000	100%	96%	3,550	\$ 788,100	\$ 2,578,464	\$ 107,436	Widen 2- lane county road to 4- lane arterial
Byrd Dr.	Crossroads Blvd.	Earhart Rd.	3,650	Arterial Minor	10,700	0.67	\$ 3,553,000	100%	82%	7,300	\$ 1,620,600	\$ 1,584,568	\$ 347,832	Widen to 2-lane arterial
Cascade Ave.	22nd St	W 35th St	5,280	Arterial Minor	3,200	0.27	\$ 3,941,000	100%	81%	10,560	\$ 2,344,320	\$ 1,293,311	\$ 303,369	New 2 lane Arterial
Centerra Pkwy.	Cross Roads Blvd	0.5 miles south	2,600	Arterial Major	13,700	0.76	\$ 2,648,000	75%	72%	4,540	\$ 1,007,880	\$ 885,665	\$ 754,455	Widen 2 to 4 lane Arterial
LCR 20C (5th St)	Callisto Dr.	Boyd Lake Ave.	1,350	Arterial Minor	13,300	0.83	\$ 983,000	50%	98%	2,700	\$ 599,400	\$ 187,964	\$ 195,636	Widen 2- lane county road to 2- lane arterial
LCR 3	US 34	Crossroads Blvd.	10,500	Arterial Minor	16,900	1.06	\$ 8,230,000	50%	57%	21,000	\$ 4,662,000	\$ 1,016,880	\$ 2,551,120	Upgrade to 2- lane arterial
LCR 9E	SH 402	Corvus Dr.	6,800	Arterial Minor	6,400	0.40	\$ 5,997,000	100%	98%	13,450	\$ 2,985,900	\$ 2,950,878	\$ 60,222	Widen 2- lane county road to 2- lane arterial
Madison Ave.	Silverleaf Dr.	29th St	2,200	Arterial Major	14,400	0.40	\$ 3,520,000	100%	98%	1,320	\$ 293,040	\$ 3,162,421	\$ 64,539	Widen 3- lane arterial to 4- lane arterial
Madison Ave.	29th St	37th St	3,000	Arterial Minor	8,900	0.56	\$ 2,019,000	50%	97%	6,000	\$ 1,332,000	\$ 333,195	\$ 353,805	Widen 2- lane county road to 2- lane arterial
Taft Ave.	28th St SW	14th St SW	5,380	Arterial Major	20,100	0.56	\$ 9,053,000	100%	88%	4,400	\$ 976,800	\$ 7,107,056	\$ 969,144	Widen 4-lane road with no center turn lane or bike lanes to 4-lane arterials
Taft Ave.	Arkins Branch	US 34	1,900	Arterial Major	25,700	0.71	\$ 10,104,000	75%	90%	-	\$ -	\$ 6,820,200	\$ 3,283,800	Widen 4- lane street with no center turn lane or bike lanes to 4- lane arterial
Taft Ave.	US 34	29th St	4,700	Arterial Major	25,400	0.71	\$ 7,340,000	75%	91%	-	\$ -	\$ 5,009,550	\$ 2,330,450	Widen 4- lane street with no center turn lane or bike lanes to 4- lane arterial
<b>City Projects</b>			<b>Totals:</b>	<b>18.69 miles</b>			<b>\$ 106,893,000</b>			<b>138,280</b>	<b>\$ 30,698,160</b>	<b>\$ 59,297,748</b>	<b>\$ 16,897,092</b>	



City of Loveland

## COST ALLOCATIONS: STATE HIGHWAYS

Street Name	From	To	Length (Ft)	Classification	2035 ADT Volume	2035 Total V/C ADT Ratio	Total Project Cost	% Growth Related	% Local Traffic	Anticipated CDOT Funding	Local Share	Collector Street Equivalent Length (ft)	Collector Street Equivalent Responsibility	Maximum CEF Share	City Financed Share	Description of Improvement
SH 402	US 287	St Louis Ave.	2,650	Arterial Major	15,900	0.44	\$ 3,363,000	100%	96%	\$ 1,681,500	\$ 1,681,500	3,580	\$ 794,760	\$ 851,270	\$ 35,470	Widen 2-lane County Road to 4-lane arterial
SH 402	St Louis Ave.	Boise Ave.	2,620	Arterial Major	14,500	0.40	\$ 4,603,000	100%	97%	\$ 2,301,500	\$ 2,301,500	5,240	\$ 1,163,280	\$ 1,104,073	\$ 34,147	Widen 2 to 4-lanes
SH 402	Boise Ave.	Boyd Lake Ave.	10,460	Arterial Minor	13,700	0.86	\$ 3,000,000	100%	91%	\$ -	\$ 3,000,000	-	\$ -	\$ 2,730,000	\$ 270,000	Spot Improvements and Bike Lanes
SH 402	Boyd Lake Ave.	I-25 Ramps	6,230	Arterial Major	24,500	0.68	\$ 6,870,000	100%	84%	\$ 3,435,000	\$ 3,435,000	12,460	\$ 2,766,120	\$ 561,859	\$ 107,021	Widen 2-lane County Road to 4-lane arterial
US 287	SH 402	One Way Split	3,300	Arterial Major	37,600	0.70	\$ 7,165,000	100%	89%	\$ 3,582,500	\$ 3,582,500	-	\$ -	\$ 3,188,425	\$ 394,075	Widen 4 to 6 lane Arterial
US 287	One Way Split (NB Lincoln)	1st St	2,100	Arterial Major	18,800	0.70	\$ 2,748,000	100%	88%	\$ 1,374,000	\$ 1,374,000	-	\$ -	\$ 1,209,120	\$ 164,880	Widen 4 to 6 lane Arterial
US 287	One Way Split (SB Cleveland)	2nd St	2,900	Arterial Major	19,700	0.73	\$ 3,522,000	100%	89%	\$ 1,761,000	\$ 1,761,000	-	\$ -	\$ 1,567,290	\$ 193,710	Widen 4 to 6 lane Arterial
US 34	Garfield Ave	Monroe Ave	2,650	Arterial Major	45,300	0.84	\$ 2,020,000	100%	93%	\$ 1,010,000	\$ 1,010,000	-	\$ -	\$ 939,300	\$ 70,700	Widen 4-lane arterial to 6-lane arterial
US 34	Denver Ave.	Boyd Lake Ave.	6,500	Arterial Major	56,800	1.05	\$ 9,480,000	100%	94%	\$ 4,740,000	\$ 4,740,000	10,280	\$ 2,282,160	\$ 2,310,370	\$ 147,470	Widen 4- lane arterial to 6- lane arterial
US 34	Boyd Lake Ave.	Rocky Mountain Ave.	5,300	Arterial Major	50,500	0.94	\$ 7,770,000	100%	93%	\$ 3,885,000	\$ 3,885,000	10,600	\$ 2,353,200	\$ 1,424,574	\$ 107,226	Widen 4- lane arterial to 6- lane arterial
US 34	Rocky Mountain Ave.	I-25 Ramps	1,600	Arterial Major	59,600	1.10	\$ 2,334,000	100%	94%	\$ 1,167,000	\$ 1,167,000	3,200	\$ 710,400	\$ 429,204	\$ 27,396	Widen 4- lane arterial to 6- lane arterial
US 34	I-25 Ramps	Centerra Pkwy.	2,000	Arterial Major	68,400	0.95	\$ 3,114,000	100%	71%	\$ 1,557,000	\$ 1,557,000	4,000	\$ 888,000	\$ 474,990	\$ 194,010	Widen 4- lane arterial to 6- lane arterial
US 34	Centerra Pkwy.	LCR 3	5,300	Arterial Major	54,400	0.76	\$ 7,730,000	100%	66%	\$ 3,865,000	\$ 3,865,000	10,600	\$ 2,353,200	\$ 997,788	\$ 514,012	Widen 4- lane arterial to 6- lane arterial
CDOT Projects		Totals:	10.15 miles				\$ 63,719,000			\$ 30,359,500	\$ 33,359,500	59,960	\$ 13,311,120	\$ 17,788,264	\$ 2,260,116	

## COST ALLOCATIONS: OTHER PRIORITIES

Other Projects	Total Project Cost	CEF Split %	CEF	Other (CDOT or Federal)	City	Notes
Pedestrian and Bicycle	\$ 8,700,000	80%	\$ 6,960,000	\$ -	\$ 1,740,000	Pedestrian and Bicycle Plan costs not in Transportation Plan. Took average of high and low cost after subtracting out streets that are in Transportation Plan.
Signal System Connect	\$ 2,000,000	80%	\$ 1,600,000	\$ -	\$ 400,000	\$2.9 million from 2030 Plan Inflated (\$3.5 million minus \$1.5 million built since 2030 Plan)
Intersection & Signal Improvements	\$ 49,925,000	80%	\$ 39,940,000	\$ -	\$ 9,985,000	
Eisenhower @ Lincoln & Cleveland intersection rebuild	\$ 7,000,000	100%	\$ 3,500,000	\$ 3,500,000	\$ -	Intersection or roundabouts (\$7.0 Million = \$5.8 million from 2030 Plan x 1.207 for inflation)
Bridge replacements due to structural deficiency	\$ 6,542,000	0%	\$ -	\$ 3,925,200	\$ 2,616,800	These bridges typically have sufficient width for the future street traffic volumes and are not eligible for Capital Expansion Fee funding. Replacement is necessary due to structural deficiency, NOT a need for additional width to serve additional traffic lanes.
Professional Services for Transportation Planning	\$ 1,000,000	80%	\$ 800,000	\$ -	\$ 200,000	
<b>Total Other Projects</b>	<b>\$ 75,167,000</b>		<b>\$ 52,800,000</b>	<b>\$ 7,425,200</b>	<b>\$ 14,941,800</b>	



## COST ALLOCATIONS: CENTERRA METRO DISTRICT PROJECTS

Location	Project Cost	District	CDOT	City	Notes
<b>East of I-25</b>					
Centerra Parkway	US34 to 37th St	\$ 9,478,900	\$ -	\$ -	Done
Clydesdale Parkway	37th St to LCR 3	\$ 7,169,600	\$ 7,169,600	\$ -	\$ -
Sky Pond Drive	Centerra Pkwy to W End	\$ 1,354,000	\$ -	\$ -	Done
Cordova Pass Drive	US34 to I-25	\$ 6,435,400	\$ 6,435,400	\$ -	Change Cordova Pass Dr to Kendall Pkwy
US34	I-25 to Cordova Pass Dr	\$ 4,454,400	\$ 4,454,400	\$ -	Change Cordova Pass Dr to Kendall Pkwy
Interior Arterial Streets	Additional Streets	\$ 9,694,100	\$ 9,694,100	\$ -	\$ -
6 Major Intersections		\$ 5,306,400	\$ 5,306,400	\$ -	\$ -
Centerra Parkway	Railroad Underpass	\$ 3,120,500	\$ -	\$ -	Done
Cordova Pass Drive	Interim I-25 Underpass	\$ 1,584,000	\$ 1,584,000	\$ -	Change Cordova Pass Dr to Kendall Pkwy
Cordova Pass Drive	Ultimate I-25 Underpass	\$ 6,336,000	\$ 6,336,000	\$ -	Change Cordova Pass Dr to Kendall Pkwy
Sky Pond Drive	Bridge over Drainage Way	\$ 3,168,000	\$ 3,168,000	\$ -	\$ -
LCR 3E RR Underpass	UPRR Additional Crossing	\$ 3,001,700	\$ 3,001,700	\$ -	\$ -
<b>Subtotal</b>		<b>\$ 61,103,000</b>	<b>\$ 47,149,600</b>	<b>\$ -</b>	<b>\$ -</b>
<b>West of I-25</b>					
Boyd Lake Avenue	US34 to Canal	\$ 2,185,900	\$ 2,185,900	\$ -	\$ -
Boyd Lake Avenue	Plum Ck Dr to 37th St	\$ 6,328,600	\$ 6,328,600	\$ -	\$ -
29th Street	Rocky Mtn Ave to I-25	\$ 2,233,900	\$ 2,233,900	\$ -	\$ -
37th Street	Boyd Lake Dr to Rky Mtn	\$ 5,119,200	\$ 5,119,200	\$ -	Change 37th St to Kendall Pkwy
Hahn's Peak Drive	US34 to Rocky Mtn Ave	\$ 2,285,400	\$ -	\$ -	Done
US34	Boyd Lake to I-25	\$ 812,600	\$ 812,600	\$ -	\$ -
McWhinney Blvd	Misc. Improvements	\$ 2,528,000	\$ -	\$ -	Done
Fall River Drive	US34 to	\$ 1,059,700	\$ -	\$ -	Done
Interior Col. Streets	Additional Streets	\$ 7,606,100	\$ 7,606,100	\$ -	\$ -
9 Major Intersections		\$ 6,098,400	\$ 6,098,400	\$ -	\$ -
Boyd Lake Ave Culvert	Greelet-Loveland Canal	\$ 2,692,800	\$ 2,692,800	\$ -	\$ -
US34 Culvert	Farmer's Ditch	\$ 562,300	\$ 562,300	\$ -	\$ -
Fall River Dr Culvert	Rehab at Farmer's Ditch	\$ 237,600	\$ -	\$ -	Done
<b>Subtotal</b>		<b>\$ 39,750,500</b>	<b>\$ 33,639,800</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Regional Improvements</b>					
Crossroads and I-25 Interchange		\$ 20,000,000	\$ -	\$ -	Done
US34 and I-25 Interim Interchange		\$ 10,000,000	\$ -	\$ -	Done
US34 and Centerra Parkway Interchange		\$ 15,000,000	\$ 15,000,000	\$ -	\$ -
US34 and Cordova Pass Dr (LCR 3E) Interchange		\$ 15,000,000	\$ 15,000,000	\$ -	\$ -
US34 and I-25 Ultimate Interchange		\$ 40,000,000	\$ 40,000,000	\$ -	\$ -
<b>Subtotal</b>		<b>\$ 100,000,000</b>	<b>\$ 70,000,000</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total - Centerra Metro District Projects (2004 Dollars)</b>					
		\$ 200,853,500	\$ 150,789,400	\$ -	\$ -
2004 CCI		4742.55			
2012 CCI		6889.53			
% Inflation 2012 to 2012		45%	1.45	1.45	1.45
<b>Total - Centerra Metro District Projects (2012 Dollars)</b>					
		\$ 291,237,575	\$ 218,644,630	\$ -	\$ -
Local (2004 dollars)		\$ 100,853,500	\$ 80,789,400		
Regional (2004 dollars)		\$ 100,000,000	\$ 70,000,000		
<b>Total (2004 dollars)</b>		<b>\$ 200,853,500</b>	<b>\$ 150,789,400</b>		
<b>Regional (2012 dollars)</b>					
		\$ 146,237,575	\$ 117,144,630		
Local (2012 dollars)		\$ 145,000,000	\$ 101,500,000		
<b>Total (2012 dollars)</b>		<b>\$ 291,237,575</b>	<b>\$ 218,644,630</b>		

## COST ALLOCATIONS: INTERSECTIONS

Location	Category	Estimated Signal/Roundabout Cost (x000)	Estimated Aux Lane Cost (x000)	OTHER	TOTAL
Wilson Ave/57th St	Minor intersection rebuild	\$175	\$650	\$0	\$825
Taft Ave/57th St	Major intersection rebuild	\$175	\$1,300	\$0	\$1,475
57th St/Monroe Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
Byrd Dr/Earhart Rd	Minor intersection rebuild	\$175	\$650	\$0	\$825
Wilson Ave/50th St	Upgrade Signal	\$75	\$0	\$0	\$75
Fairgrounds Ave/Arena Cir (S)	Minor intersection rebuild	\$175	\$650	\$0	\$825
Fairgrounds Ave/Rodeo Dr	New Signal	\$175	\$0	\$0	\$175
Crossroads Blvd/Ward Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
Crossroads Blvd/LCR 3 (High Plains Blvd)	Minor intersection rebuild	\$175	\$650	\$0	\$825
37th St/Monroe Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
37th St/Madison Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
37th St/Boise Ave	Major intersection rebuild	\$175	\$1,300	\$0	\$1,475
29th St/Madison Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
US 34/Namaqua Ave	Minor intersection rebuild	\$350	\$650	\$0	\$1,000
US 34/Taft Ave	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
US 34/US 287 SB (Cleveland Ave)	Major intersection rebuild	\$3,500	\$0	\$0	\$3,500
US 34/US 287 NB (Lincoln Ave)	Major intersection rebuild	\$3,500	\$0	\$0	\$3,500
US 34/Boise Ave	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
US 34/Boyd Lake Ave	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
US 34/Rocky Mountain Ave	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
US 34/LCR 3 (High Plains Blvd)	Major intersection rebuild	\$350	\$1,300	\$400	\$2,050
Boyd Lake Ave/Mountain Lion Dr	Major intersection rebuild	\$175	\$1,300	\$0	\$1,475
Boyd Lake Ave/LCR 20E	Major intersection rebuild	\$175	\$1,300	\$300	\$1,775
Boyd Lake Ave/LCR 20C (5th St)	Major intersection rebuild	\$175	\$1,300		\$1,475
1st St/Namaqua Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
1st St/Railroad Ave	Minor intersection rebuild	\$175	\$650	\$300	\$1,125
1st St/Washinton Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
14th St SW/Taft Ave	Reconfigure Signal	\$175	\$0	\$0	\$175
14th St SW/Douglas Ave	Minor intersection rebuild	\$175	\$650	\$0	\$825
14th St SW/Roosevelt Ave	Minor intersection rebuild	\$175	\$650	\$300	\$1,125
SH 402 (14th St SE)/St Louis Ave	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
SH 402 (14th St SE)/Boise Ave	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
SH 402 (14th St SE)/LCR 9E	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
SH 402 (14th St SE)/Boyd Lake Ave ext	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
SH 402 (14th St SE)/LCR 7	Major intersection rebuild	\$350	\$1,300	\$0	\$1,650
US 287/19th St SE	Minor intersection rebuild	\$0	\$650	\$0	\$650
Boyd Lake Ave/LCR 7	Major intersection	\$350	\$1,300	\$0	\$1,650
Taft Ave/28th St SW (LCR 16)	Minor intersection rebuild	\$175	\$650	\$0	\$825
Boyd Lake Ave/LCR LCR 16	Minor intersection	\$175	\$650	\$0	\$825
Taft Ave (LCR 17)/42nd St SW (LCR 14)	Minor intersection rebuild	\$175	\$650	\$0	\$825
<b>Totals</b>		<b>\$15,475</b>	<b>\$33,150</b>	<b>\$1,300</b>	<b>\$49,925</b>



## TRANSPORTATION CIP PRIORITIZATION PROCESS

Weight	Factors
20	<b>1. System Continuity / Congestion Mitigation</b> <ul style="list-style-type: none"><li>• Capacity<ul style="list-style-type: none"><li>◦ Existing</li><li>◦ Future</li></ul></li><li>• Growth Factor</li><li>• Development</li><li>• Constriction</li><li>• Air Quality</li></ul>
25	<b>2. Safety Enhancements</b>
5	<b>3. Multi-Modal Enhancement</b> <ul style="list-style-type: none"><li>• Alternate Modes</li></ul>
10	<b>4. Environmental</b> <ul style="list-style-type: none"><li>• Growth Factor</li><li>• Development</li></ul>
15	<b>5. Implementability</b> <ul style="list-style-type: none"><li>• Political Sensitivity</li><li>• Community Sensitivity</li><li>• Opportunities for Interim Solutions</li></ul>
20	<b>6. Economic Impact</b> <ul style="list-style-type: none"><li>• Ability for Outside Funding</li><li>• Maintenance History</li><li>• Related Utilities</li><li>• Indirect Infrastructure Costs</li><li>• Opportunities for Interim Solutions</li><li>• Need for Additional Right-of-Way</li><li>• Arts Contribution</li></ul>
5	<b>7. Regionally Significant Corridor</b>
100	<b>SUBTOTAL</b>

**Multipliers**

- 4 Major Factor / Minimal Economic or Environmental Impact
- 3 Factor / Minor Economic or Environmental Impact
- 2 Minor Factor / Economic or Environmental Impact
- 1 Not a Factor / Major Economic or Environmental Impact

**Equation**

For each factor, the score equals the Weight X Multiplier with the Total Score equaling the sum of all these values.  
Minimum Possible Score = 100  
Maximum Possible Score = 400

# Section 8: Performance Measures for Plan Success

Defining success and measuring performance is essential to execution of any plan, both in the short and long term. In the 2020 Transportation Plan, no clear performance measures were defined and enunciated to assess Loveland's progress in meeting the criteria defined in the Transportation Plan. The 2035 Transportation Plan is a dramatic step forward in this direction.

The measurement of the plan is tied directly into the City of Loveland and Public Works Performance Measurement system. Annually, the Department of Public Works will publish Transportation Plan Performance Results in the Public Works Department Annual Report beginning in 2012.

Performance Measures that will be included the annual report:

## Overall Statistics

- Total lane miles
- Total estimated square yardage of roadway
- Total vehicle miles traveled
- Total traffic signals
- Estimated annual trip totals
- Total population
- Total change in lane miles
- Projected build out of road classification types
- Average travel times in critical corridors

## Intelligent Transportation Measures

- Total signals
- Total signals with central command and communications
- Total signals served with fiber
- Accident data as tabulated by Loveland Police Department
- Visual camera data stations

## Travel Demand Management Measures

- Total SmartTrips Participation
- Vehicle miles avoided
- Participating statistics

## Transit Measures

- Passenger ridership
- Disabled ridership
- Senior ridership
- Federal funding/Local funding share
- Cost per trip
- Total miles of system services
- Total operating hours
- Fare revenue
- Advertising revenue
- Paratransit rides not accommodated





City of Loveland

### Bike/Pedestrian Measures

- Total bike facilities
- Percent change in bike facilities
- Gaps in system percentage
- Total pedestrian facilities
- Total bike facilities
- Percent change in bike facilities
- Gaps in system percentage
- Percent pedestrian facilities ADA-compliant

### Street Maintenance Measures

- Annual reconstruction/maintenance data
- Cost per mile to maintain (all factors/specific factors)
- Cost per mile to construct
- Annual cost per citizen of maintenance program

These data points represent a sampling of measures that will be included in the annual transportation report. Each factor will be tracked for the current year as well as past years with applicable data. Recommended annual performance goals in each area will define progress toward the key achievements defined in the 2035 Transportation Plan.

# Section 9: Recommendations

The 2020 Transportation Plan was the City of Loveland's first major transportation planning effort aimed at identifying the City's needs from 2000 through the City's projected build out. The 2035 Transportation Plan represents a further update to that plan building on the 2030 Transportation Plan, and as such, additional opportunities for continuing improvement have been identified. This section outlines those forthcoming plan improvements, as well as the newly defined public participation program.

## Short-Term Strategic Plans

Several critical areas require sub-level strategic plans for defining and improving plan conditions in both the short and long term. The following plans will be developed with public participation

### Vibrant Corridors Strategic Plan

The tone of a community for both visitors and residents is often defined by the most highly traveled corridors in a City. Based on this premise, and working with the City's Community Development and Cultural Services arms, the most prominent corridors in the City will be evaluated for aesthetic issues and plans will be defined for the enhancement of these corridors. The goal of this planning will be to define a vision for the vibrancy of these areas, including landscaping, visual art, welcoming character, and consistency with the City's personality. These efforts will be based upon the visions defined in the community's Comprehensive Master Plan. Based upon this evaluation and plan, programming will begin to develop initiatives aimed at aiding existing property owners and new development in contributing to the vibrancy of these corridors.



### Street/Pavement Maintenance Strategic Plan

The City of Loveland tracks all pavement surfaces in the City for level of performance. This plan will define the steps necessary, expenditures required, and financing options for maintaining and upgrading existing roadways. This plan will further build on the outstanding program already in place at the City.



### Bicycle & Pedestrian Plan

Defining the City of the future for multi-modal transportation is essential to building an interconnected network for bicycle and pedestrian transportation. This initial plan was developed and adopted on May 1, 2012. Periodic updates to this plan will be necessary to keep it current.

### Railroad Crossings Strategic Plan

Loveland has 24 railroad crossings, only 76% of which are currently either grade separated or protected with gates and/or signals. Investments in crossing infrastructure are shared between rail companies and the City of Loveland. With increasing frequency nationwide of railroad and pedestrian or vehicle interactions, the necessity to define the rail crossing issues and build a strategic plan for improvements with our rail partners is essential. No such plan has been previously developed in Loveland.

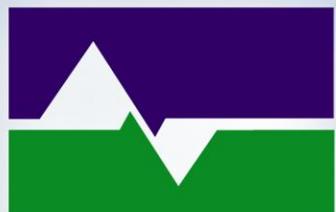




## Public Participation Program

Since 2000 the City of Loveland has significantly redefined public participation in the transportation planning process including not just macro planning at the City-wide level but also neighborhood planning at the project level. These efforts include traffic calming, route planning, transit planning, and the City's Comprehensive Master Plan. The City of Loveland has also added a citizen Transportation Advisory Board (TAB) to guide the public input process.

Using this model, the City will seek input on the individual strategic plans to be defined in the next steps of the transportation master planning process, transit related system changes and improvements, neighborhood issues associated with projects, and general feedback and input on transportation efforts. The City will also continue to be a supporting player in public participation programs by the Colorado Department of Transportation (CDOT) and the North Front Range Metropolitan Planning Organization (NFR MPO), as well as our neighboring communities and Larimer County.



City of Loveland



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