Community & Strategic Planning
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Planning Commission Staff Report

October 22, 2012

Agenda #: Regular Agenda - #1

Title: Update of 2030 Transportation Plan to 2035 Transportation Plan

Applicant: City of Loveland
Public Works Department

Location: City of Loveland Growth Management Area (GMA)

Presenters: ***David Klockeman, PE, City Engineer***
Bill Fox of Fox Tuttle

Staff Planner: Karl Barton, AICP

Staff Recommendation

Subject to additional evidence presented at the public hearing, City staff recommends the following motion:

Recommended Motion:

Provide input and direction for continuation of process for updating the 2030 Transportation Plan to 2035. The 2035 Transportation Plan update will be brought back to the Planning Commission for a recommendation to City Council for approval.

Summary of Analysis

The primary purpose of the Transportation Plan is to provide a thorough yet easily understandable document that guides transportation decision making toward a future desirable to the community of Loveland. The 2030 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 2035 Transportation Plan is an update of the 2030 Transportation Plan's look at all modes of transportation—bike, pedestrian, transit, and automobile – and is an update 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.

The 2035 Transportation Plan is not a detail-oriented document. It is intended to establish transportation policies and to identify future improvement projects without determining the actual design. The plan lists the policies and goals City staff and elected officials will use for transportation decision-making over the next 23 years.

There is an important link between land use and transportation that warrants Planning Commission review of the document at this study session.

As part of the approval process, the 2035 Transportation Plan will be presented to the Planning Commission for review and recommendation because it is a functional component to the 2005 Comprehensive Master Plan.

I. SUMMARY

The primary purpose of the Transportation Plan is to provide a thorough yet easily understandable document that guides transportation decision making toward a future desirable to the community of Loveland. The 2030 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 2035 Transportation Plan is an update of the 2030 Transportation Plan's look at all modes of transportation—bike, pedestrian, transit, and automobile – and is an update 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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As part of the approval process, the 2035 Transportation Plan will be presented to the Planning Commission for review and recommendation because it is a functional component to the 2005 Comprehensive Master Plan.

II. ATTACHMENTS

1. PowerPoint Presentation
2. 2035 Transportation Plan Draft
3. Recommended 2035 Capital Improvements Map

III. BACKGROUND

The 2005 Comprehensive Plan recognizes the importance of planning for the transportation system. It includes *Guiding Principle 10B: Plan a safe and efficient, coordinated, and convenient multi-modal transportation system that serves the current needs of the community and establishes the foundation for a transportation system that is sustainable for future generations.*

There is an obvious link between the transportation network and land use. The Comprehensive Plan recognizes this by referencing transportation related issues in many of the Land Use Goals and Objectives, which are used to evaluate development decisions. For example, Residential Land Use Goal and Objective RES1:1.A states, "A consistent & balanced relationship between the Land Use pattern & capacity of streets, utilities, and community services should be met so that those systems are not overburdened."

Because of this link, Planning Commission Review of the update is very important

In the 2011 Implementation Plan, the Transportation Advisory Board includes Objective 10B.1.IP1: Review and amend the current transportation system plan within the community as well as it relates to the North Front Range by reviewing the anticipated growth patterns within the community in order to design and construct infrastructure improvements that address the long-term needs concerning growth, land use, and sustainability, within the 2012 calendar year. This update to the Transportation Plan accomplishes this objective.

IV. 2035 TRANSPOTATION PLAN HIGHLIGHTS

The following is a synopsis of the proposed plan components that will comprise the 2035 Transportation Plan.

Why Update the Transportation Master Plan?

While there are many benefits associated with Loveland's population growth and development, the transportation system is constantly looked at relative to not growing fast enough to accommodate the new demand. Each year, new streets are constructed and widened, but the overall street network requirements change over time as travel patterns change as well as the location of new residential, commercial and industrial facilities. Although the majority of this fits well into an overall system, specific details of the needs evolve over time. As a result, Loveland will continue to need to provide new transportation facilities and make difficult decisions about where, when, and how to accommodate traffic. The 2035 Transportation Plan updates the results of the 2030 Transportation Plan by looking at past, current and projected trends in order to provide direction and guidance for Loveland's transportation future.

Transportation Plan goals (numbered for reference, not priority)

1. 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.
2. Recognize the important **relationship between land use and transportation** and develop appropriate policies that promote a long-term sustainable transportation system.
3. Develop transportation plans and policies that recognize the importance and **value of the physical environment.**
4. Develop transportation plans that sustain the **economic vitality** of the community consistent with the Loveland Comprehensive Master Plan.
5. Develop street access policies that balance the needs of **property access** with safety, community mobility, and street capacity.
6. Develop **long-term travel demand management** policies that will allow the street system to maintain acceptable service levels far into the future.
7. Investigate all reasonable **funding strategies** and develop a plan and an implementation strategy that recognizes current funding realities and limitations.
8. Recommend a process for future **review and amendment** of this document, including the possible creation of a Transportation Policy Advisory Committee. (Completed with 2030 Transportation Plan)

Item 1. Review, Analyze and Update Data

As the 2035 Transportation Plan is an update to the 2030 Transportation Plan, a significant amount of the data had already been gathered. Therefore, the majority of the effort was to review the existing data, working closely with the City's Community and Strategic Planning Division (Karl Barton in particular) as well as coordinate with the North Front Range MPO for the regional impact on Loveland.

The update of the Model included:

- Looking at local and regional land use information
- Creating data for the Traffic Analysis Zones (TAZ's)
  - Region divided into logical sections in order to input land use information
    - Land Uses identified
      - Residential
      - Retail/Commercial
      - Office
      - Industrial
    - Current information (where are we at today)
    - Build-Out Information (If entire City is built-out according to the current Land Use Plan, what would Loveland look like)
    - Projections made for 2035 (What will City look like in 2035)
      - Trends Likely Development is plan basis as determined for 2030 Transportation Plan
- Transportation Network information entered
  - Street Classifications
    - Arterials
      - Major and Minor
    - Collectors
      - Major and Minor
    - Number of lanes for each roadway section
- Model is calibrated using existing road system and land use information
  - Results are compared to existing traffic counts until good match is realized
- Anticipated future road network is entered (what do we think we will need in the year 2030)
- 2035 Land Use information is entered for each TAZ
- Model is run
  - Gravity Model - Residences produce trips and Commercial/Retail, Office, and Industrial uses attract Trips
  - Iterative Model – Runs through processes until all of the trips are accounted for
- Model is revised after review in order to adjust network
- Model is re-run
- Results are reviewed
- Recommendations are developed

Level of Service

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.

After review of the various impacts related to Level of Service (LOS), it has been concluded to follow current City policies relative. That is:

- Continue LOS standards for City Streets
- Change to LOS D for US Highways (US 34 and US 287)
    - Recognizes that these regional highways double as commercial corridors through Loveland and tend to attract higher levels of traffic
    - Motorists expect to encounter slower traffic with a bit more congestion due to the mix of use and high level of local access
    - Recognizes that, regardless of traffic volume, routes are limited and City policy puts upper limit of 6 lanes (3 lanes in each direction) on roadways
    - Consistent with CDOT standards
    - Consistent with other entities standards along these regional corridors
    - Should not result in motorists diverting to other roadways in attempt to bypass congestion
- Hold integrity for link volumes (focus on street capacity for sections between intersections) with street widening phased as necessary
- Control Access (limit accesses to allow for through movement as much as possible)
- Improve intersections as necessary (phase in control such as stop signs, additional stops signs, traffic signals or roundabouts, and auxiliary lanes)

Project Cost Estimates

As part of the development of the 2035 Transportation Plan, detailed cost estimates were all recalculated for the variety of potential street improvements across the City. This full update was the direction given by City Council as part of the approval for the 2030 Transportation Plan, and included all roadway sections, intersections and traffic signal cost estimates.

Historic Funding Sources

The historic funding sources for Transportation Projects come from the following four areas:

- Capital Expansion Fees (Impact Fees)
  - Cost of Trips anticipated due to new growth
- Street Equivalent
  - Collector
- Other
  - Funds from Outside Sources (CDOT, Federal Government)
- General Fund
  - City's Share for existing traffic, Street Equivalent for land already developed, and Pass Through or External to External Traffic (E-E)

Most projects have a combination of funding from two or more of the above list. The percentage from each fund depends on the specific project make-up.

With the adoption of the Master Financing Agreement for Centerra, an additional funding source was created in 2004, and included in the 2030 and 2035 Transportation Plans:

- Centerra Metro District

Item 2. So, what do we build and how much will it cost?

See Attachment 3 for Recommended 2035 Capital Improvements.

DRAFT CIP SUMMARY BY FUNDING SOURCE		
	2035 Plan	2030 Plan
City Share	$33,934,009	$47,272,272
CEF Share	$129,226,011	$123,038,745
Street Equivalent	$44,009,280	$27,959,800
CDOT Share	$37,784,700	$51,305,150
Subtotal	**$244,954,000**	**$249,575,967**
Centerra - Local	$117,144,630*	$100,853,500
Centerra - Regional	$101,500,000*	$100,000,000
Subtotal	**$218,644,630***	**$200,853,500**
TOTAL	**$463,598,630***	**$450,429,467**

* Remaining costs adjusted to 2012 dollars

Item 3. Community Outreach and City Council, Board and Commission Involvement

Representatives from the Transportation Advisory Board have been intimately involved in the update of the data and assumptions related to the 2035 Transportation Plan. Going forward, the

Transportation Advisory Board as well as the Planning Commission and Construction Advisory Board will be involved. The 2035 Transportation Plan has been presented to City Council at a Study Session and is intended to be presented once again at a Council Study Session in November. After visiting the other Boards and Commissions, the 2030 Transportation Plan is anticipated to culminate with the proposed adoption by City Council in December 18th.

In addition, public outreach through an open house and a Planning Commission Presentation will be completed in November.

Item 4: Action Plan Forward

• Today - October 22nd – Planning Commission Study Session
• October 24th – Construction Advisory Board Study Session
• November 5th – TAB – Report on other meetings
• Additional Plan Revisions by Staff
• November 26th – Planning Commission Public Hearing and Recommendation to Council
• November 27th – Council Study Session
• December 3rd – TAB – Final Document / Recommendation to Council
• December 18th - Council Public Hearing and Adoption

V. FINDINGS, CONCLUSIONS, AND RECOMMENDATION

Findings and Conclusions

Staff believes the 2035 Transportation Plan is an update to the 2030 Transportation, that the process being undertaken is appropriate, and that upon integration of the input from City Council, various Boards and Commissions, and citizens, should be adopted later this year in order that it continue to be a strong tool in the guidance for the transportation infrastructure of Loveland.

Recommendation

Staff recommends that the Planning Commission provide input in order that the process of completing the 2035 Transportation Plan may continue.

2035 Transportation Plan – Status Update

Planning Commission
October 22, 2012

David Klockeman, PE, City Engineer
Justin Stone, PE, Civil Engineer
Bill Fox, PE, Fox – Tuttle Transportation Group

ATTACHMENT 1

Tonight's Discussion

- Updating the 2030 Plan
- Model Development
- Draft Project Cost Estimates
- Draft 2035 Capital Program
- Capital Expansion Fees – Streets
- Outline for 2035 Transportation Plan
- Action Plan Forward

ATTACHMENT 1

Updating from 2030 Plan

- 2030 Plan is basis for update
  - Data
  - Process
  - Results
- 2035 Plan is a comprehensive update
  - Additional Plans adopted since 2030 Plan:
    - Bike and Pedestrian Plan
    - Transit Plan
  - Growth projections revised
  - Cost estimates redone

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Model Development

- Foundation is critical
- Local and Regional
- Coordination with:
  - Community and Strategic Planning
    - Karl Barton– Key Player
  - North Front Range MPO Staff
    - Balanced local growth with respect for regional projections
      - Control totals

Traffic Analysis Zones (TAZ's)

- Develop Traffic Analysis Zones (TAZ's)
  - Region divided into logical sections in order to input land use information
    - Households
    - Non-Residential Uses
      - Retail/Commercial
      - Office
      - Industrial
    - Current Information
    - Build-out Information
    - Projection made for 2035
      - Trends Likely Development is plan basis

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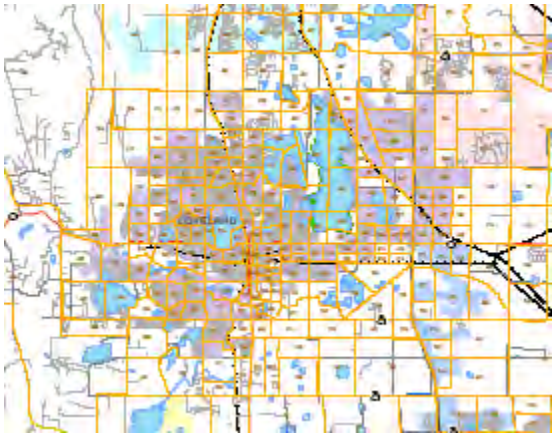
TAZ's (cont.)



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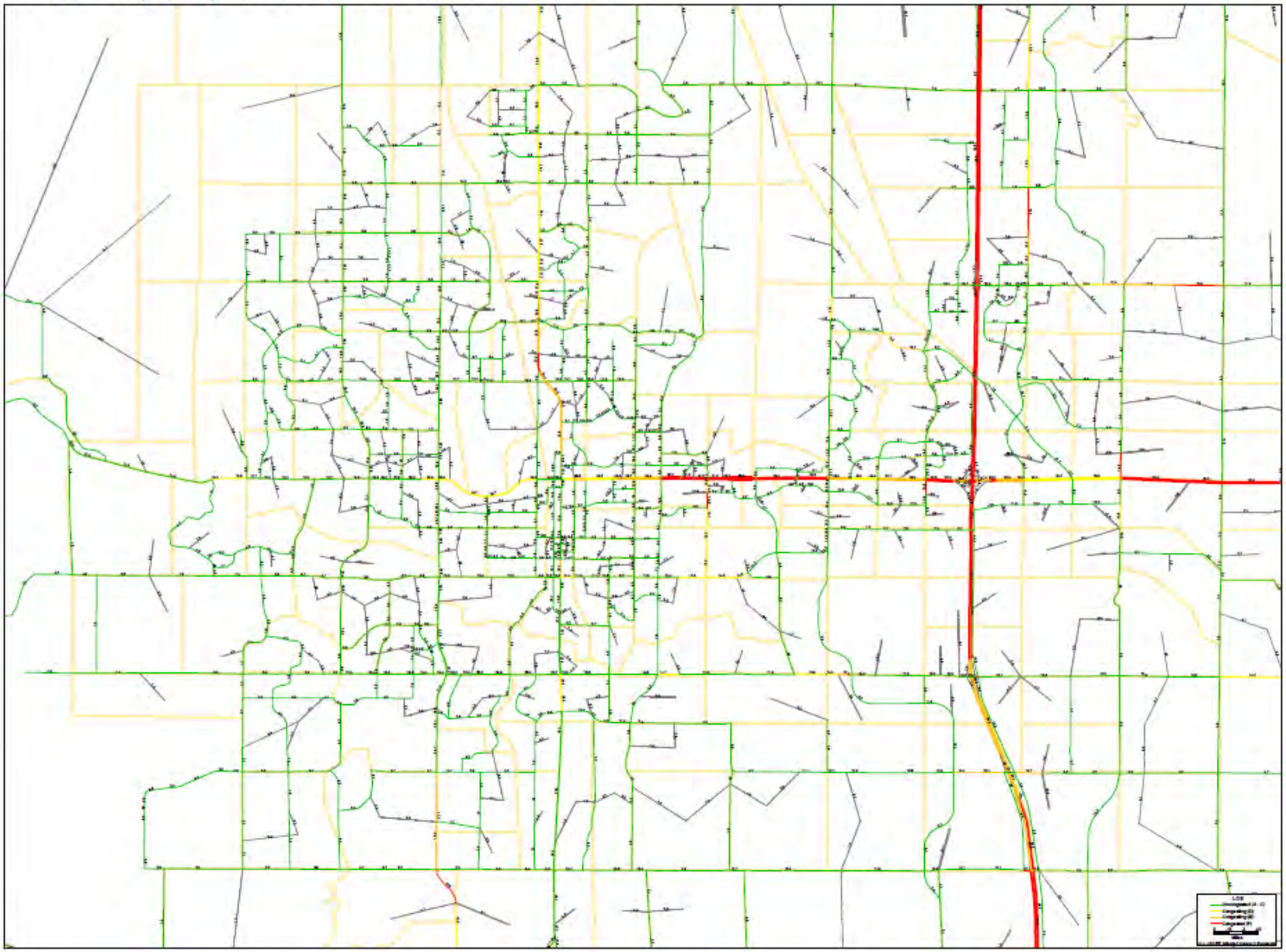
The "Model"

- Information entered
  - Roadway Network
  - Classification
    - Arterials (Major and Minor)
    - Collectors
    - Number of Lanes
  - Area Type (Urban, Suburban, Rural)
- Calibration using existing road system and land use information
  - Compared to existing traffic counts

Model (cont.)

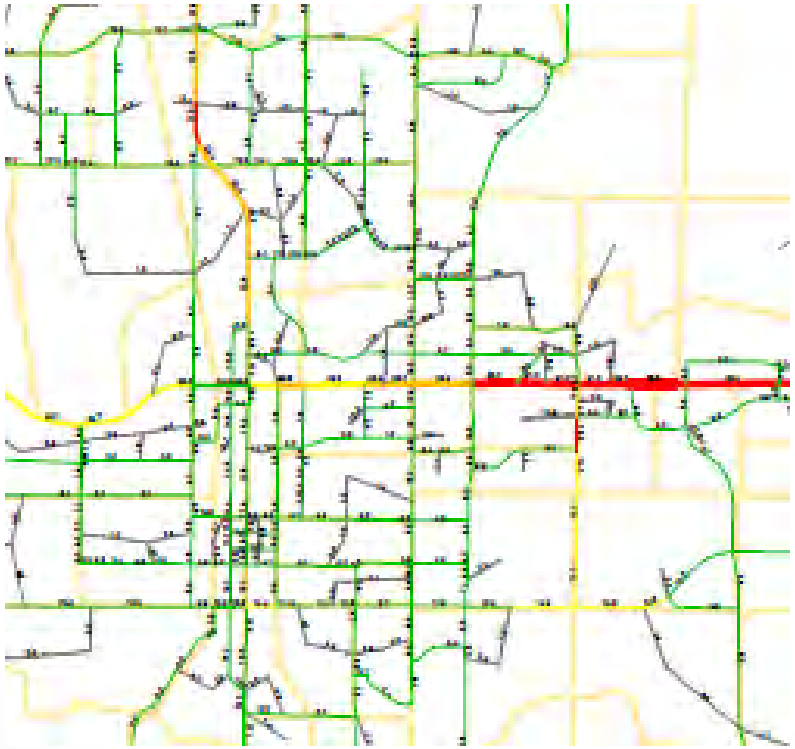
- Anticipated future road network is entered
- TAZ land use information is entered
- Model Runs
  - Gravity Model
    - Productions and Attractions (Origins and Destinations)
  - Iterative model
    - Runs through processes until all trips are accounted for

Loveland (2035) Alternative 2 Level of Service



ATTACHMENT 1

Model Output – Zoomed In



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Completing the Model

- Model is revised
  - Network, Classification, Lanes
  - TAZ Information
    - reviewed to look for inconsistencies or data entry errors
    - TAZ's may be split (to provide localized sensitivity)
  - Model is re-run
  - Results are reviewed
  - Recommendations are developed

Model Findings

- Started with 2030 Transportation Plan improvements
  - Not all were required based on revised land use
    - Extend life of existing County road sections at perimeter of City
    - Delay widening of existing roads
      - Examples
        - US 287 from 4 to 6 lanes north of 29th Street
        - SH 402
          - 4 lanes still necessary from US 287 to St. Louis and LCR 9 to I-25
          - 2 lanes with turn lanes and intersection improvements acceptable from St. Louis to LCR 9

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Model Findings (cont.)

- Results were tested (sensitivity analysis)
  - Some critical questions:
    - Were we on the edge of needing more improvements?
    - What about longer term?
  - Looked at additional scenarios:
    - With support from Community and Strategic Planning and our regional partners
    - Added 10% growth to entire region
      - Proposed network still worked
    - Looked at "build-out" (City and region fully developed per plans and long term growth projections)
      - Ultimate street network was adequate

Project Cost Estimates

- 2035 Plan Cost Estimates
  - From 2030 Plan – recalculate with future plan updates
    - Interim years – adjust per Colorado Construction Cost Index
  - Roadway Sections
    - Recalculated
  - Intersections
    - Recalculated
  - Signals
    - Updated to reflect current costs

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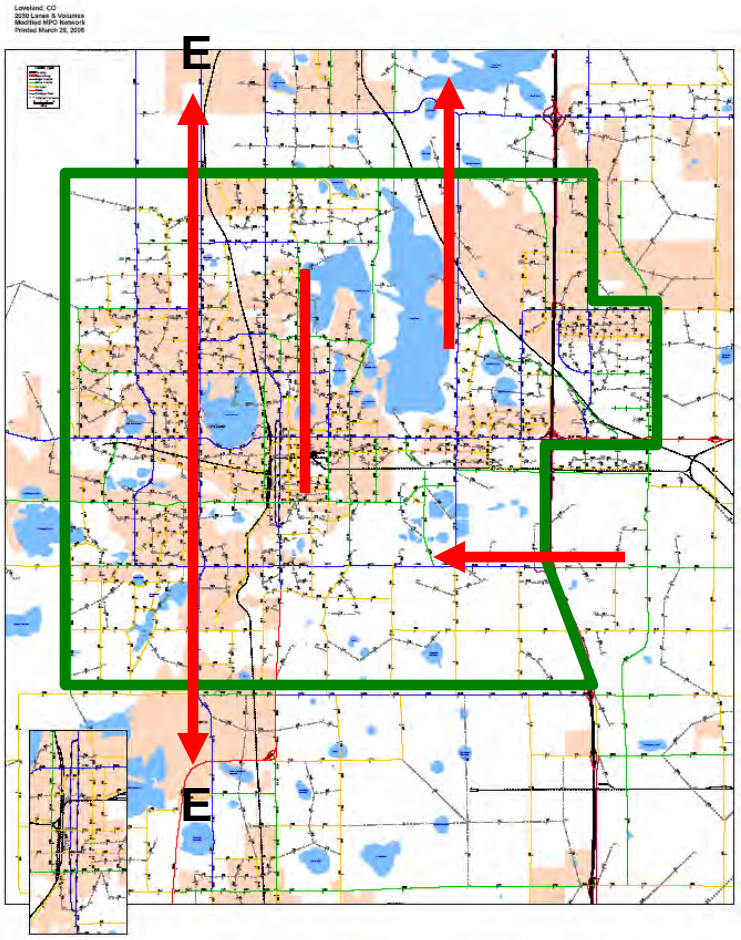
Funding Sources

- Capital Expansion Fees
  - Cost of Trips anticipated due to new growth
- Street Equivalent
  - Collector
    - Developer responsible for up to collector width for interior streets and ½ Collector width for adjacent perimeter streets
- Other
  - Funds from Outside Sources (CDOT, Federal Government)
- General Fund
  - City's Share for existing traffic, Street Equivalent for land already developed, and Pass Through or External to External Traffic (E-E)
- Centerra Metro District
  - Per Master Finance Agreement (MFA)

E–E Explanation



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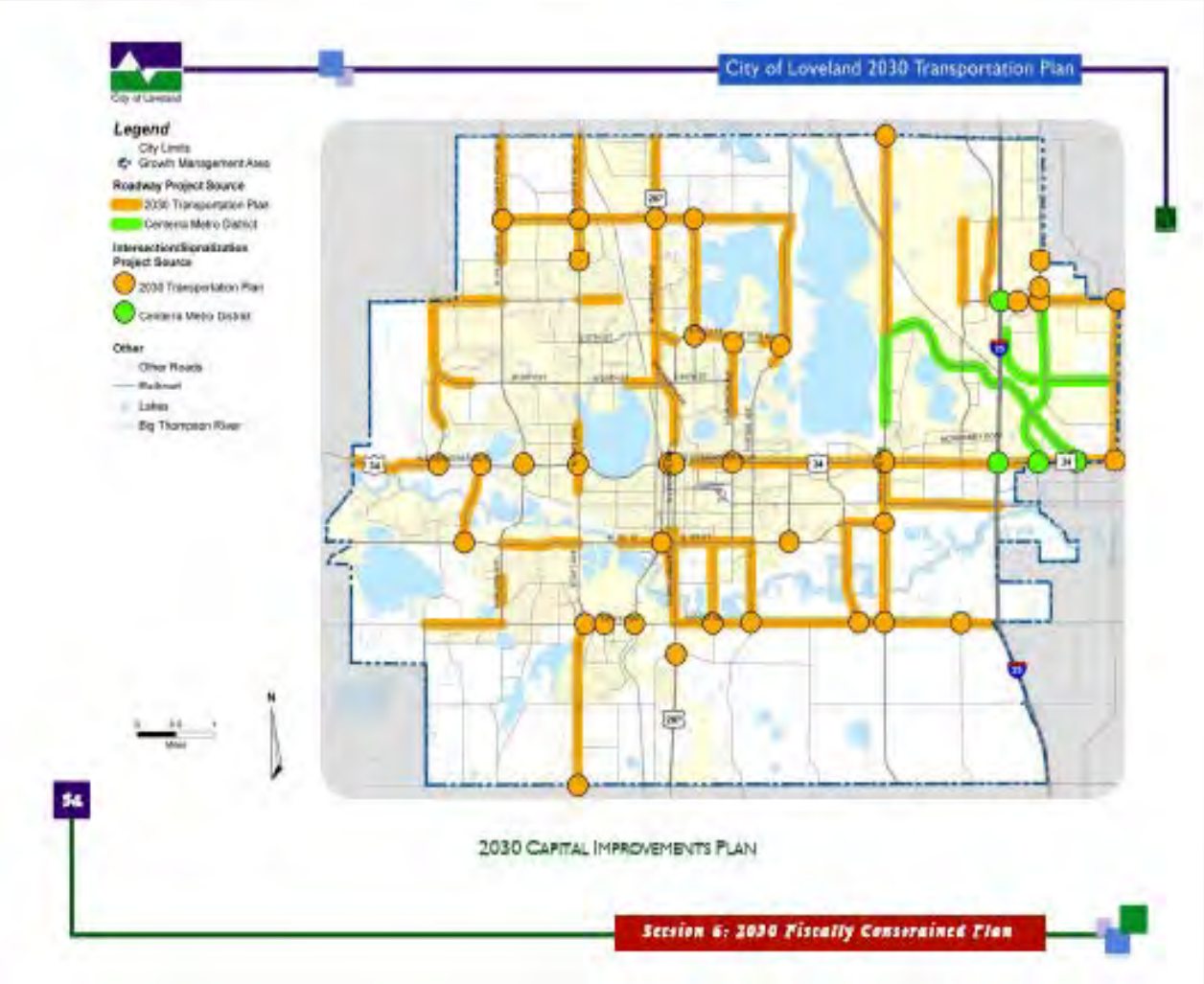
Review

- Land Use Component
- Model Run
- Cost Estimates
- Funding Sources

Based on the information, so what should we build by 2035?

2030 Capital Improvements



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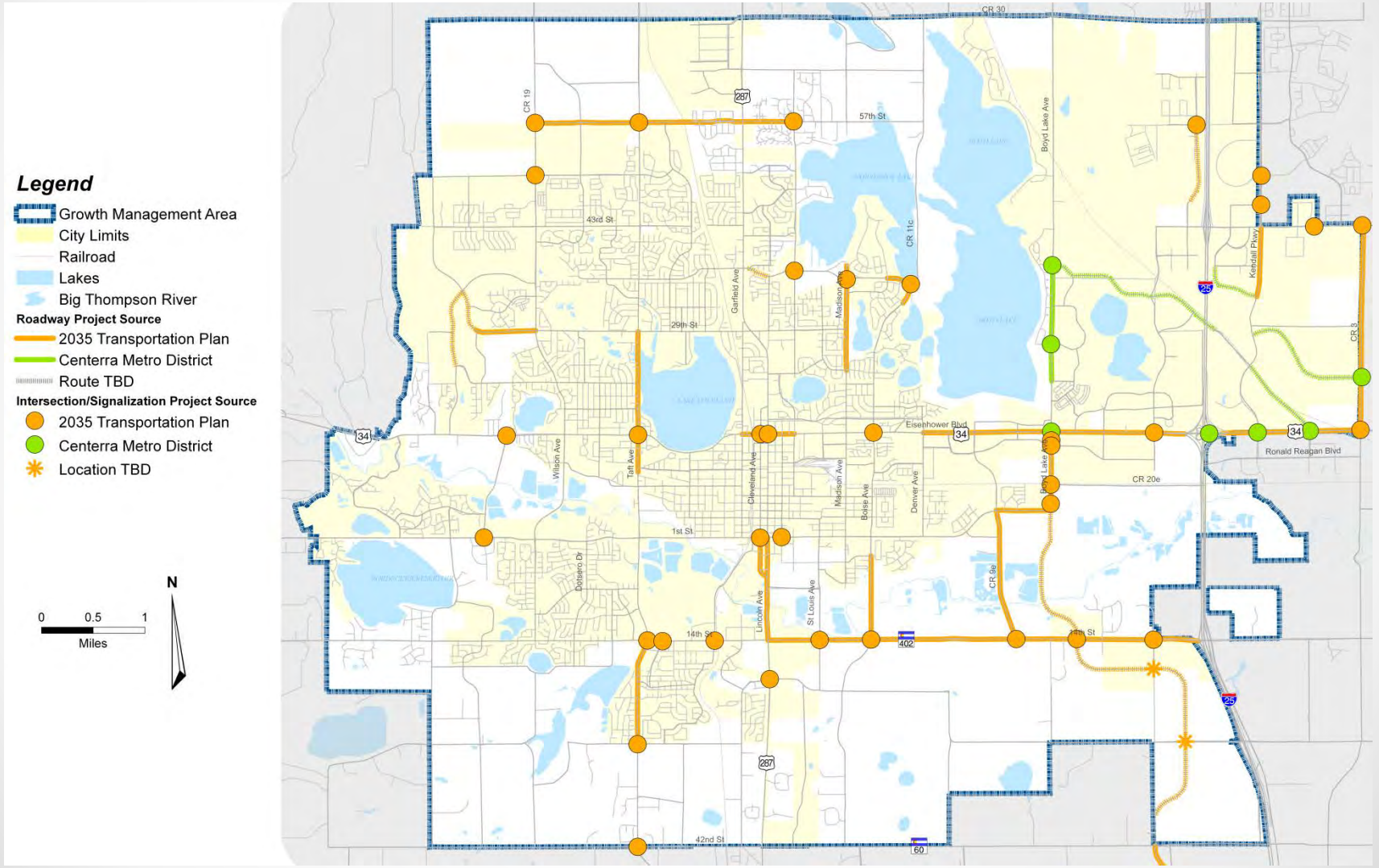
Draft 2035 Capital Improvements



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2035 Transportation Plan Costs

- $463,598,630 Total
  - $129,226,011 Capital Expansion Fees
  - $ 37,784,700 General Fund
  - $ 44,009,280 Collector Street Equivalent
  - $ 37,784,700 Other (CDOT, FHWA, outside sources)
  - $244,954,000 Sub-Total

  - $218,644,630 Centerra MFA
    - Remaining Costs of Transportation Infrastructure to be Constructed by Centerra per MFA (no part of City funding)
      - $117,144,630 Local Improvements (adjusted to 2012)
      - $101,500,000 Remaining Regional Improvements (adjusted to 2012)
- Projects include:
  - Roadway Sections
  - Intersections

ATTACHMENT 1

2035 Transportation CIP Areas

City Streets	$106,893,000
CDOT Roadways	$ 63,719,000
Other Projects	$ 74,342,000
Pedestrian and Bicycle Improvements	$ 8,700,000
Signal System Inter-Connects	$ 2,000,000
Intersection and Traffic Signal Improvements	$ 49,100,000
Eisenhower @ Lincoln and Cleveland	$ 7,000,000
Bridge replacements due to structural deficiency	$ 6,542,000
Professional Services for Transportation Planning	$ 1,000,000
Centerra Metro District Projects	$218,644,630

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Adopted Impact Fee Approach

- "Proportionate Share" - based on Traffic Added By Individual Project
  - Fee for each use based on anticipated Average Daily Traffic (portion of anticipated new Daily Trips added between today and 2035)
  - Rationale
    - What part of 545,248 new daily trips will your project use?
      - If growth happens as predicted, estimated funds will be collected and anticipated road improvements will be completed
      - If less growth happens, less roads will be necessary to coincide with less funding
      - If more growth happens, more roads will be necessary to coincide with more funding

Basis for Fees

- Total Capital Expansion Fees estimated to construct necessary road infrastructure in 2035: $129,226,011
- Total New Daily Trip Ends estimated due to new growth in 2035: 545,248
- Cost Per Trip = CEF Fees / Trip Ends = $129,226,011 / 545,248 = $237.00 per trip end (4.54% increase - Current: $226.71)
- "Proportionate Share" Impact Fee
  = ADT x % Primary Trips x $237.00 per Trip End
  - ADT from ITE – 9th Edition
  - % Primary Trips from ITE - 9th Edition
- Project must be included in 2035 costs to be eligible for reimbursement

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Proposed Street CEF Examples

Category	Unit or 1000 Sq. Feet	ITE ADT	Primary Trip %	Adjusted Trips	Fee Per Unit or SF
Single Family Detached	Unit	9.57	100%	9.57	$2,268.11
Multi-Family	Unit	6.72	100%	6.72	$1,592.65
Free Standing Discount Store	Square Foot	57.24	48%	27.47	$6.52
Fast Food with Drive In	Square Foot	496.12	30%	148.84	$35.27
Bank with Drive In	Square Foot	148.15	27%	40.00	$9.48
50,000 Square Foot Office Building	Square Foot	15.65	100%	15.65	$3.71
Medical / Dental Office	Square Foot	36.13	100%	36.13	$8.57
Warehouse	Square Foot	3.56	100%	3.56	$0.84
General Light Industrial	Square Foot	6.97	100%	6.97	$1.65

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Draft Outline of 2035 Plan

- Major Components
  - Executive Summary
  - Purpose and Process
  - Sustainability
  - Existing System
  - Change: 2000 - 2012
  - 2035 Analysis and Projections
  - Fiscally Constrained Plan / Plan Implementation
  - Performance Measurement for Plan Success
  - Recommendations for Change
  - Technical Appendices

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Action Plan Forward

- September 25th – Council Study Session
- October 1st – TAB Discussion (Draft Document)
- Staff Adjustments based on Council / TAB input
- October 17th – Open House
- Today - October 22nd – Planning Commission Study Session
- October 24th – Construction Advisory Board Study Session
- November 5th – TAB – Report on other meetings
- Additional Plan Revisions by Staff
- November 26th – Planning Commission Public Hearing and Recommendation to Council
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Questions?

2035 Transportation Plan

City of Loveland

LSA
LSA ASSOCIATES, INC.

FOX TUTTLE
TRANSPORTATION GROUP

Draft

September 2012

ATTACHMENT 2

City of Loveland

2035 Transportation Plan

Draft

September 2012

ATTACHMENT 2

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MAPS

ATTACHMENT 2

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.

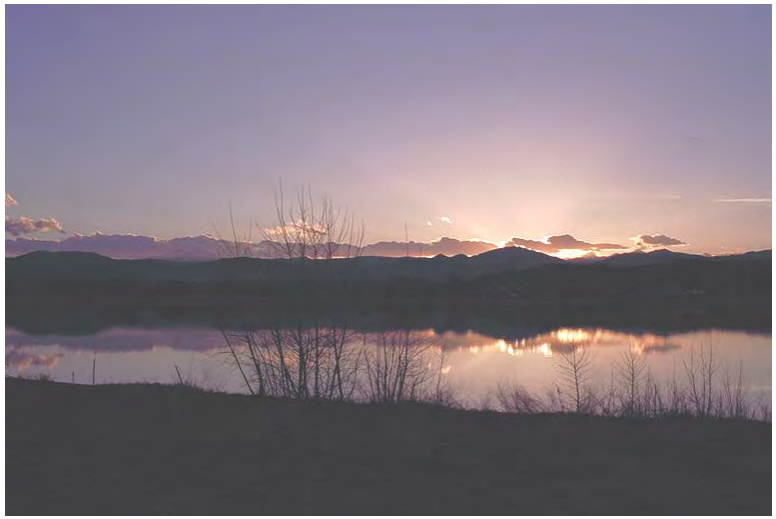
With a population around 69,000 in 2012, Loveland is typical of many of the communities along the Front Range. It continues to experience above average population growth and the corresponding traffic congestion concerns. Loveland's land use plan anticipates substantial new commercial and employment development 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, prepared in 2007. The 2035 Transportation Plan addresses these trends through the year 2035 and provides a summary of the changes between 2007 and 2012. Considerable research and analysis contributed to the preparation of the 2035 Plan. This 2035 update 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 for the average reader to understand.

Purpose

The primary purpose of the Transportation Plan is to provide a thorough yet easily understandable 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 2035 Transportation Plan is an update of the 2030 Transportation Plan's look at all modes of transportation—bike, pedestrian, transit, and automobile – and is an update 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.



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 not a detail-oriented document. It is intended to establish transportation policies and to identify future improvement projects without determining the actual design. 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:

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 the 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

As stated in the 2020 Transportation Plan, the City 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.
- Recommend a process for future review and amendment of this document, including the possible creation of a Transportation Policy Advisory Committee.

Planning Process

The process of updating the 2030 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), Joan Shaffer (City Council Liaison).

Public Input

The 2035 Transportation Plan was developed with input from citizens, through public meetings and membership on the Transportation Advisory Board. Some of the purposes of the Transportation Advisory Board are 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. Three public meetings will be held at strategic points in the process to elicit public comment, in addition to two City Council Study Sessions, a Planning Commission and Construction Advisory Board Study Sessions.

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 Transportation Plan addresses growth trends, identifies changes in travel patterns, and establishes transportation policies to guide transportation decision-making into 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. However, it compressed road system needs into a 20-year period when 30 years has turned out to be a more realistic timeframe.

- **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 2030 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. The EIS was completed in 2011.

- **North Front Range Transportation Alternatives Feasibility Study.** The North Front Range Transportation Alternatives Feasibility Study (NFRTAFS) was a major investment study sponsored by CDOT, the North Front Range Transportation and Air Quality Planning Council, the Upper Front Range Regional Planning Commission, and Denver Regional Council of Governments (DRCOG). The study's purpose was to develop regional solutions to safety problems, traffic congestion, air quality issues, and mobility problems between the northern Colorado population centers and the Denver metropolitan area. The study recommended: commuter rail along the I-25 corridor between the Denver Union Terminal to US-34 with branches to Greeley and Fort Collins; and widening of I-25 between SH-7 and SH-66 for general purpose and HOV/bus. This study is a key part of the above referenced North I-25 Environmental Impact Statement currently underway.

- **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.

- **Transit Strategic Plan (TSP).** The Transit Strategic Plan (TSP) 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 and the 2002 Transfort Strategic Operating Plan (TSOP) adopted by the Fort Collins City Council. Separate documents were created for COLT and Transfort in order to simplify the plan adoption process. The TSP 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.

Add City of Loveland ITS Progress Report / 5 Year Plan

- **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.

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; and
- An IGA that provides for Access Spacing on US 287 from 29th Street in Loveland north through Larimer County ending at Harmony Road in Fort Collins.

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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 Master 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.

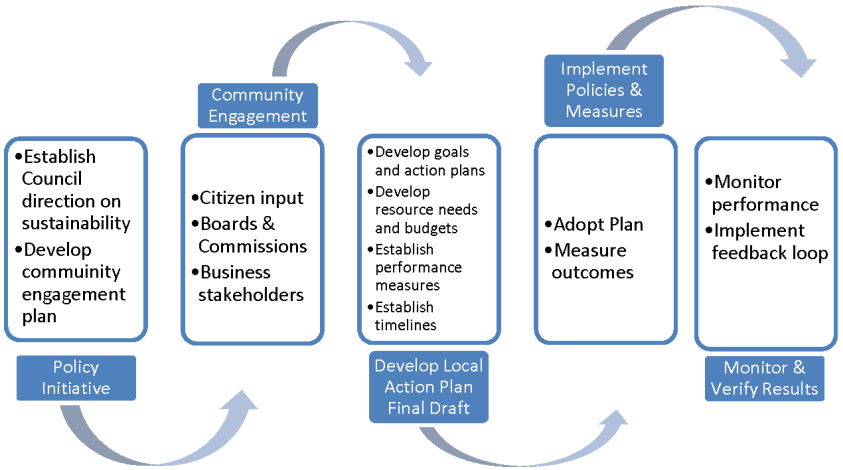
Process

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 Master 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.

Process Map



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 Principals

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.

How Does Loveland Compare

City staff reviewed actions taken in Colorado and across the Rocky Mountain West on the topic of sustainability to determine how Loveland compares to those other communities. For comparison, the table below shows similar communities and how they fare on five key milestones for sustainability.

City	Pop.	Set Sustainability Goals	Develop a Sustainability Plan	Conduct Sustainability Assessment	Implement the Plan	Monitor Evaluate Progress
Loveland, CO	67,000	D	D			
Carbondale, CO	6,600	X	X			
Aspen, CO	6,700			X		
Golden, CO	17,800	D	D			
Flagstaff, AZ	53,000	D		D		
Santa Fe, NM	62,200	X	X	X		
4Core * (CO)	70,800	X	X	X		
Longmont, CO	86,100	X	X	X	X	X
Greeley, CO	93,700	D	D			
Boulder, CO	100,400	X	X	X	X	X
Pueblo, CO	106,800	X				
Arvada, CO	107,700	D		D		
Westminster, CO	109,300	D				
Fort Collins, CO	136,400	X	X	X	X	X
Albuquerque, NM	522,000	X		X		
Denver, CO	611,500	X	X	X	X	X

X – Completed/D – In development
*4 Corners Region: La Plata County, Durango, Ignacio, Bayfield

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 Fox Trot 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 Master Plan.

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

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 1st 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.

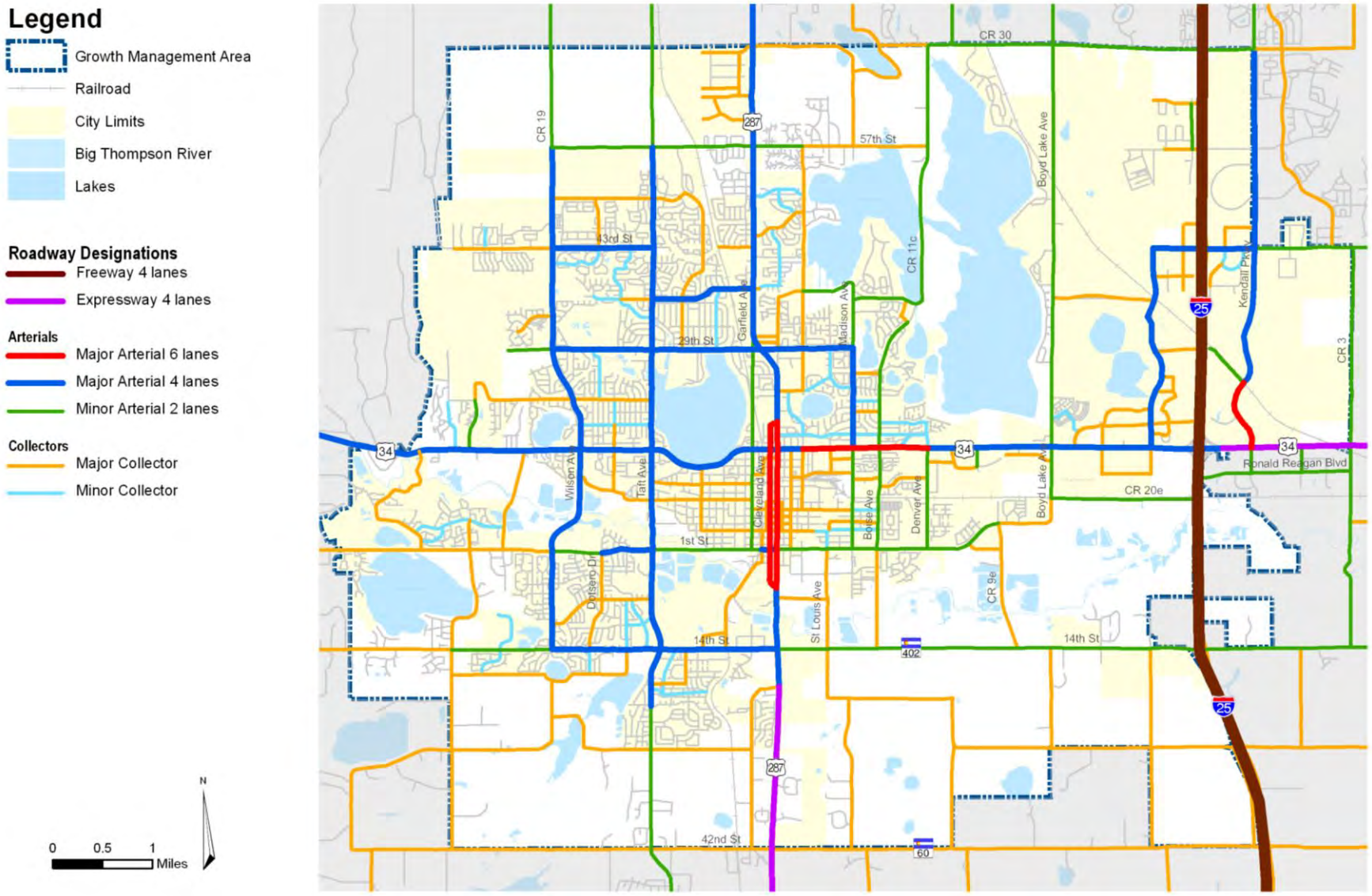
The recent growth areas have both suburban and rural characteristics, reflecting the development patterns of the 1970s and beyond, including fewer through streets, more curving roads and cul-de-sacs. The outer area also contains over 35 lakes of varying size and shape, which, when combined with the relative 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.

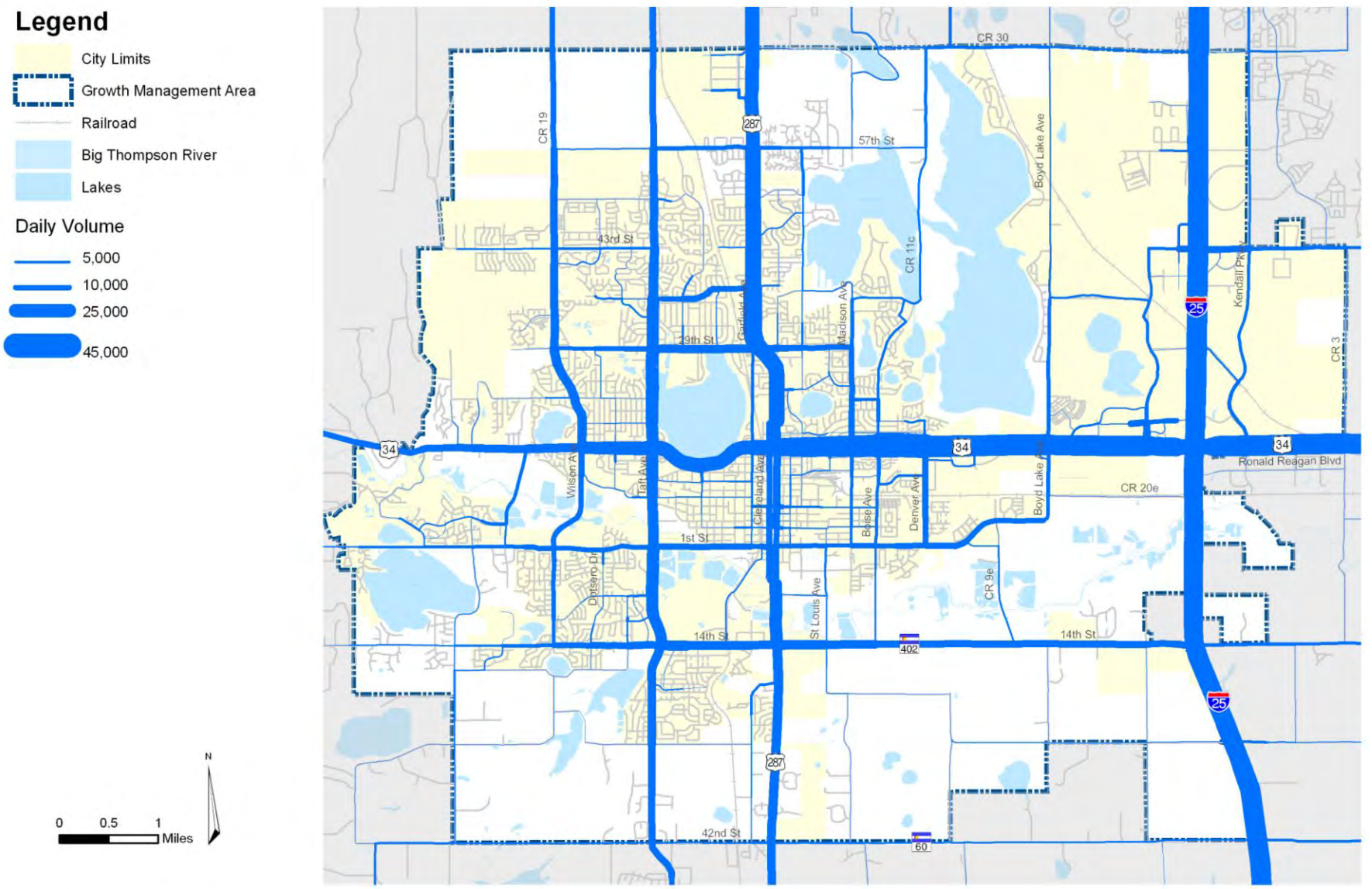
Existing Traffic Volumes and Patterns

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.



EXISTING STREET NETWORK

City of Loveland



EXISTING TRAFFIC VOLUMES

A number of streets are currently experiencing significant congestion problems:

- US 287 from the end of one way couplet to 71st Street
- SH 402 from US 287 to LCR 9E
- 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 (14th 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 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)

Currently, approximately one-third of the over 80 traffic signals within the City are connected through fiber optic cable into the City's Traffic Operations Center. As a result, many of the corridors are timed so that they act independently. Therefore, a problem at one location can create problems at one or more other locations as the system is not linked to make adjustments based on real-time conditions. In addition, the City currently has no variable message boards such as those on I-25 to advise motorists of local or regional conditions that may affect their ability to travel through the area.

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 advising motorists of traffic related items with link to CDOT system on I-25.

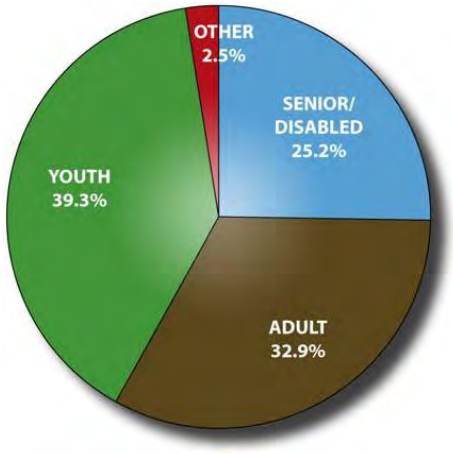
Existing Transit System

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 Blue, Green, and Orange 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.

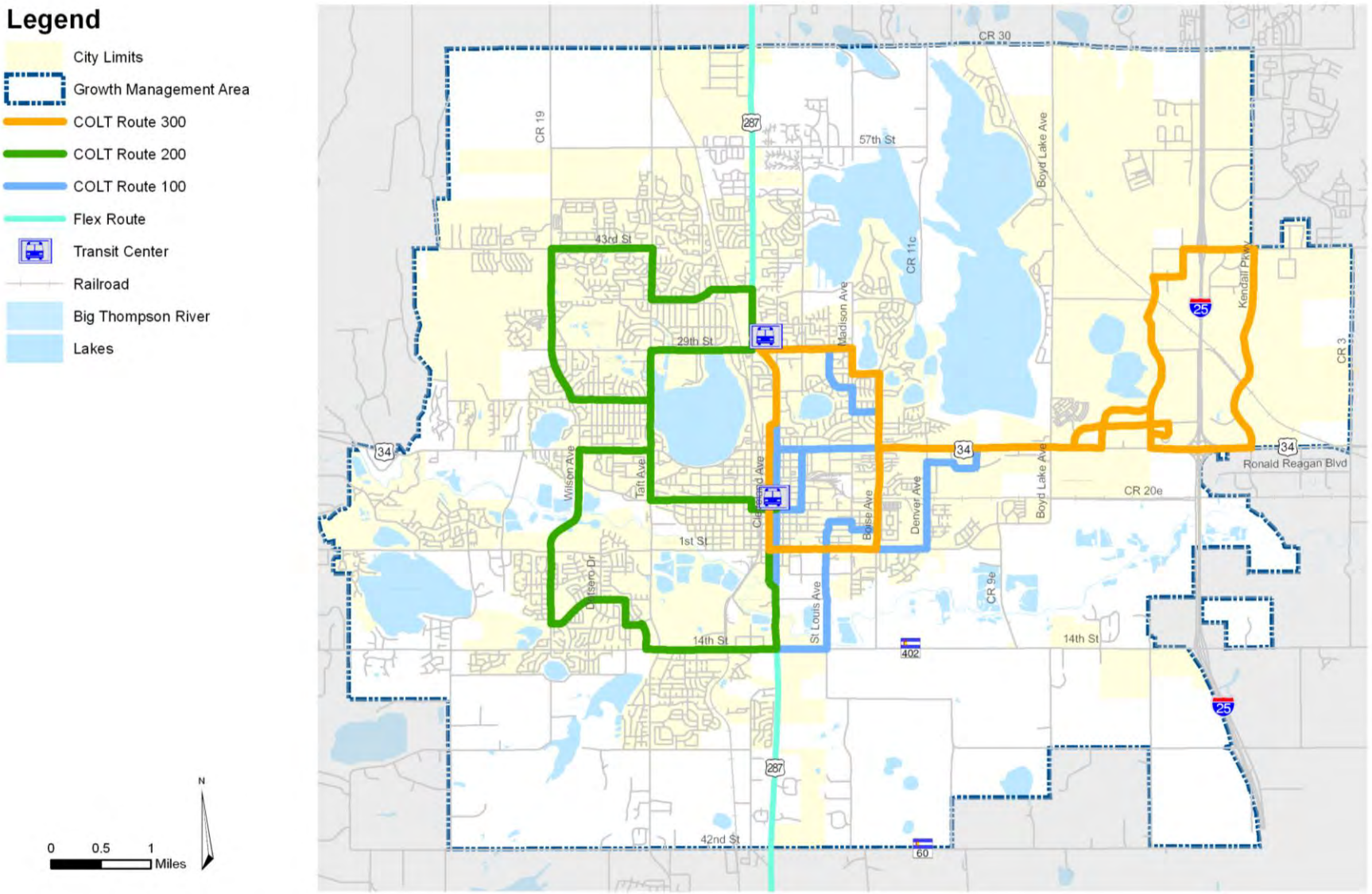
COLT serves a variety of transit users including adults, seniors and persons with disabilities, youth, and Paratransit users. Ridership composition for the existing transit service by fare category is shown in Figure ES-1. As shown, the majority of riders are either youth or adults.

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), and the East Transfer Station (located near I-25 and US 34 in Centerra). 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.



EXISTING TRANSIT SYSTEM

Existing Bicycle Facilities

Bicycle mobility in Loveland is supported by 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.

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.

Bike Routes, Lanes, and Paths - How Are They Different?

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 a 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 for the shared use of automobiles and bicyclists without striping or pavement markings.

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 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 besides motor vehicle traffic. However, 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.

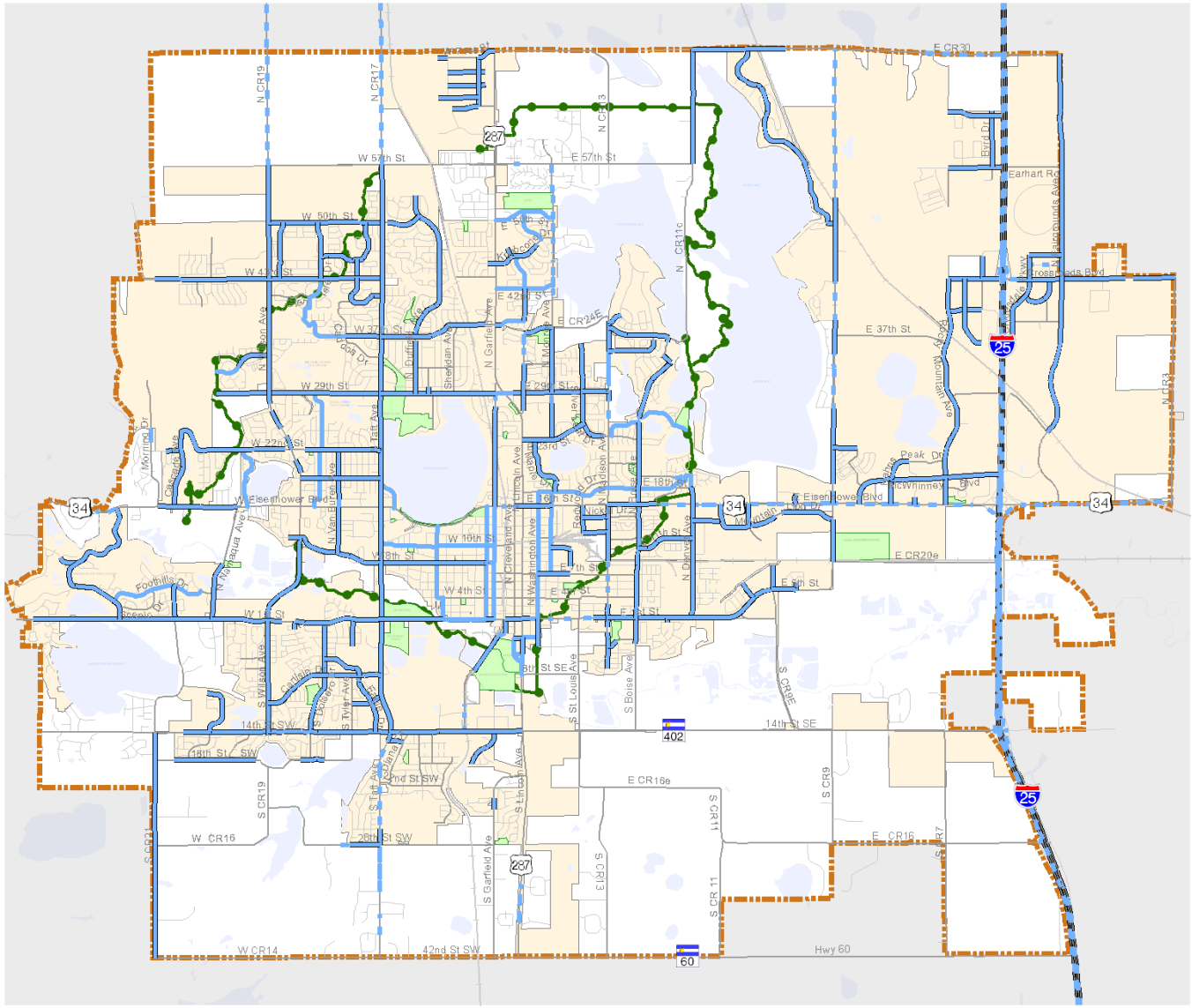
In review of the existing bicycle system from the perspective of the types of riders, the existing bicycle system primarily serves the experienced commuter and to a lesser extent, the children recreation riders.

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



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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 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.

Although most arterials also have sidewalks along both sides of the street, there are some arterials that have no sidewalks or only on one side. 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 is a pedestrian trip.

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

Along our older commercial corridors, particularly US 287 and US 34, that 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 realm 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.

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.

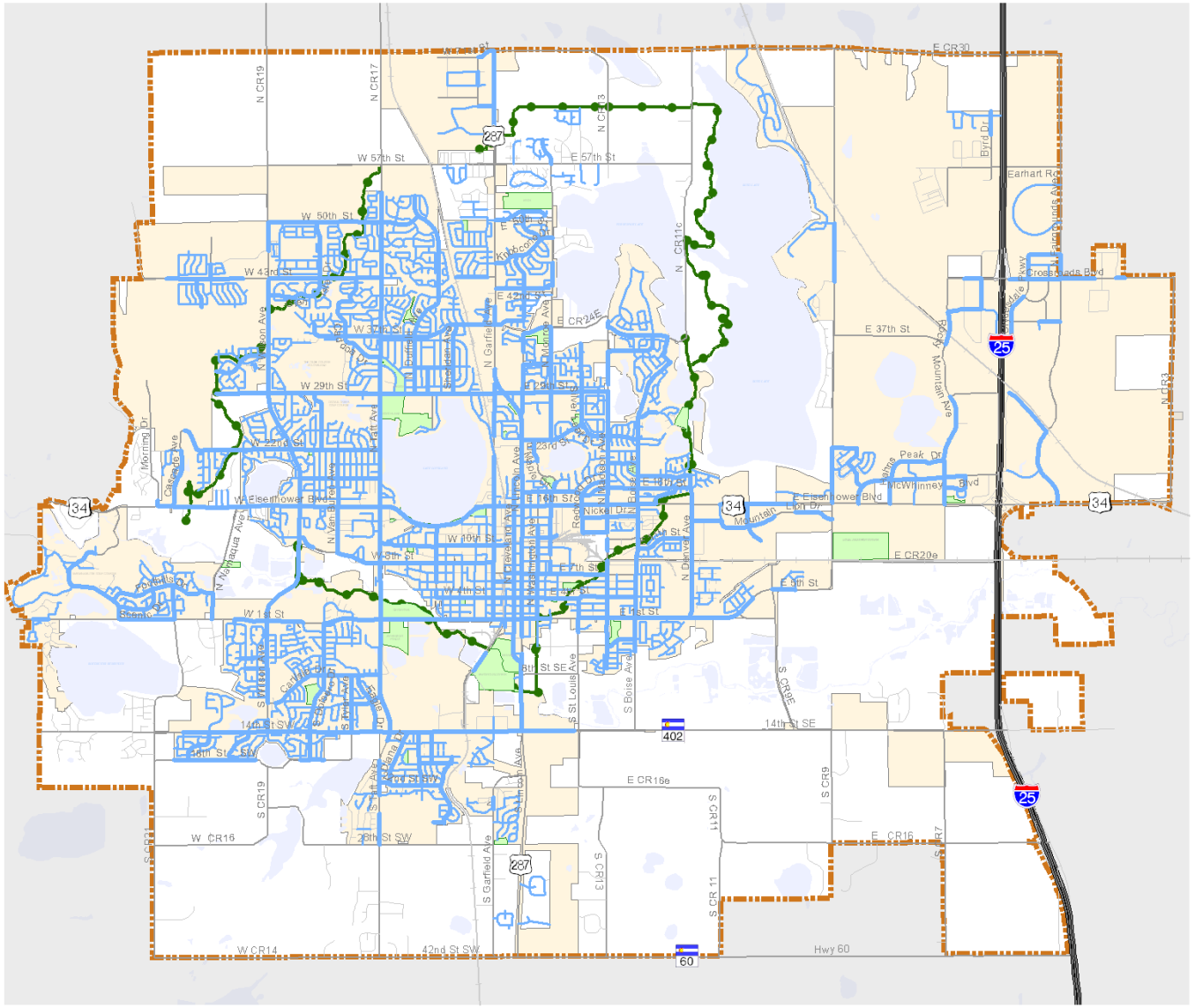
On a positive note, it should be noted that the City of Loveland's downtown area has a very strong grid system with short blocks and sidewalks on all facilities. The narrow streets in the downtown area increase the safety of travel for the pedestrian because traffic travels slower and the pedestrian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

Legend

- City Limits
- Growth Management Area
- Parks

Pedestrian Facilities

- Existing Sidewalks
- Existing Recreation Trails



0 0.5 1 Miles

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EXISTING PEDESTRIAN SYSTEM

Existing Transportation Demand Management (TDM)

Like its Northern Colorado neighbors, Loveland is experiencing significant growth outside the established City center, placing greater and greater dependency on the automobile to access downtown, centers of work and business, and shopping destinations. Communities in Colorado are also generally experiencing a greater number of trips per household, as there are more multi-worker households and more trip activities. Residents of Loveland are also driving further from outlying subdivisions to downtown and widely dispersed regional work locations.

The City is working with SMART*Trips*™, the regional organization that promotes and coordinates TDM activities. The SMART*Trips*™ program focuses on the following methods to promote alternate modes of transportation: Business Outreach, Special Events & Promotions, Community Education & Advertising, and Infrastructure improvements (sidewalks, bike lanes, Intelligent Transportation Systems, etc.): Bike Month; Drive-Less Loveland; Loveland Bike Month; Loveland Earn-A-Shirt ; VanGo™ Vanpooling; Carpool Matching; C.O.L.T. (City of Loveland Transit); CDOT Bicycle and Pedestrian Program; Loveland Bikeway Map; Loveland Recreation Bike Trails; Peloton Cycles; Guaranteed Ride Home; Services For Businesses; Bike Rodeo; and Larimer County SAFE KIDS Coalition.

Key TDM Issues

- **Shifting the public's attitudes and behaviors**. For most, the choice of alternate modes of travel is a gradual shift, be it walking to the video store, bicycling to work or carpooling to Denver.

- **Cost-effectiveness of the program**. Behavior changes take time. Due to the time and cost involved to market these choices, TDM programs may appear to have a low return on investment. TDM choices need to be as common and easy as recycling.

- **Staff coordination and entering prime markets**. SMART*Trips* ™ finds most success in the business market. Challenges include getting an audience with the right business customers, creating a seamless approach, and brokering resources from SMART*Trips* ™ specialists, transit providers and other services.

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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 stated above, the population of Loveland has grown from 50,600 in 2000 to an estimated 68,825 in 2012. . The number of housing units has correspondingly grown has 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. The recent recession caused the development of new housing units in Loveland to slow radically form 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 14th 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 $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.

Federal/State Funding

During this same five year period in which local funding has increased, State and Federal Funding has sharply declined. 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 8th Street – Widening of through lanes, sidewalks and bike lanes and adding turn lanes
  - 43rd Street to 50th Street – widened to 4 lanes with additional turn lanes
  - Taft and 14th Street SW - Additional turn lanes
  - Taft and 43rd & 50th Intersection Improvements and Traffic Signals
  - Taft and 57th Intersection Improvements
  - Taft and Eisenhower Intersection Improvements
  - Taft and 23rd Street SW – Intersection Improvements and Traffic Signal
- Wilson Avenue
  - 29th to 50th – Reconstruction and widening to 4 lanes including turn lanes and bike lanes
  - West 18th Street to West 23rd Street - Median Replacement
  - Wilson and 37th – Intersection Improvements and Traffic Signal
  - Wilson and 43rd – Intersection Improvements and Traffic Signal
  - Wilson and Eisenhower - New right-turn lane, median and Traffic Signal Improvements
  - 14th St SW to 6th St SW – widened to 4 lanes with sidewalk improvements.
- 43rd Street
  - Completion of connection between Wilson and Taft
  - Cascade Avenue to Wilson – Constructed ultimate improvements
- Boise
  - Connection from 1st Street to Eisenhower
  - Connection from Park Drive to 37th Street
  - Boise and 1st Street – Intersection Improvements and Traffic Signal
  - Boise at Eisenhower – Intersection Improvements
- Denver Avenue
  - Connection from 1st Street to Eisenhower
  - Denver and Eisenhower – Intersection Improvements
- 1st Street
  - Boise to Boyd Lake Avenue – Widening and additional turn lanes
  - Washington Avenue to Boise – Additional turn lanes
  - 1st Street and St. Louis Avenue - New Traffic Signal
  - 1st 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
- 14th Street SE (SH 402)
  - 14th 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 19th 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.

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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 2020 Transportation Plan considered 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 Transportation Plan update, the recommendations were reevaluated and refined for the 2030 planning horizon.

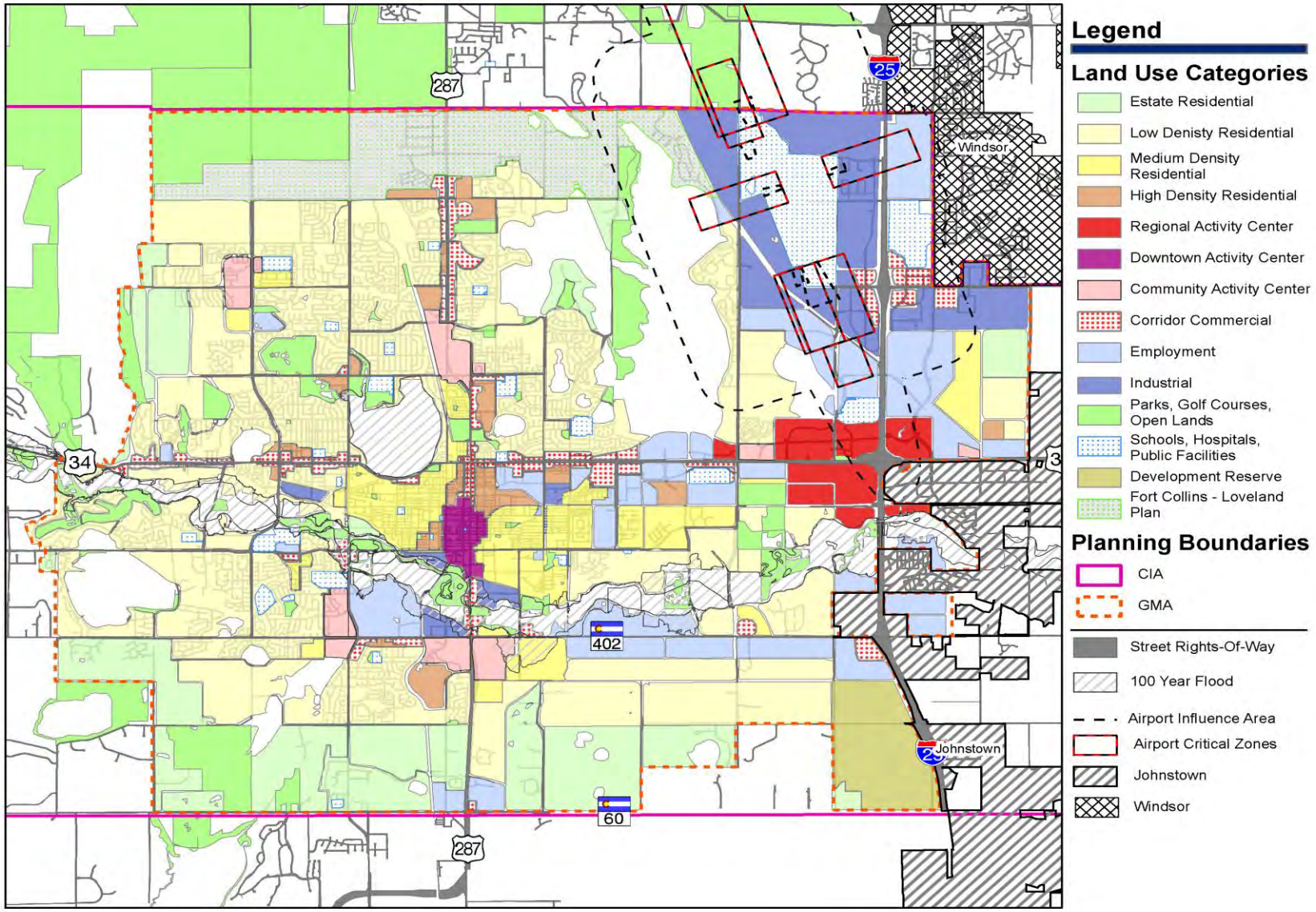
For this 2035 Transportation Plan update, staff has incorporated the most current land use projections for the year 2035, and once again has developed regional land use projections for the longer term buildout planning horizon. .

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 bypasses, 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.

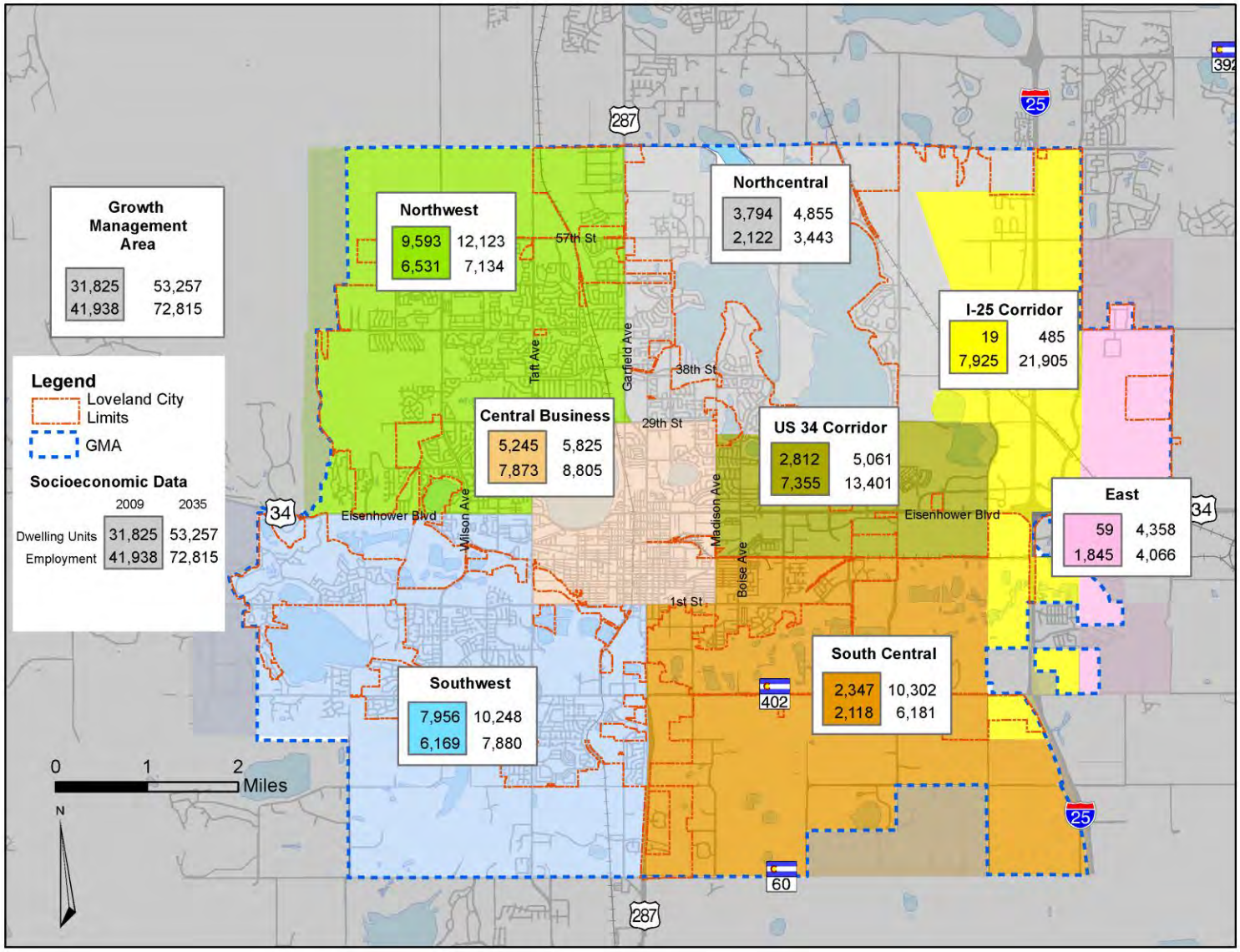
As the alternatives and projections were analyzed, it once again became clear that even with substantial widening and expansion of Loveland's street network, Loveland could not provide the level of service desired by the community on all streets. This is due, in large part, to regional land use and travel 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.



LAND USE PLAN



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.

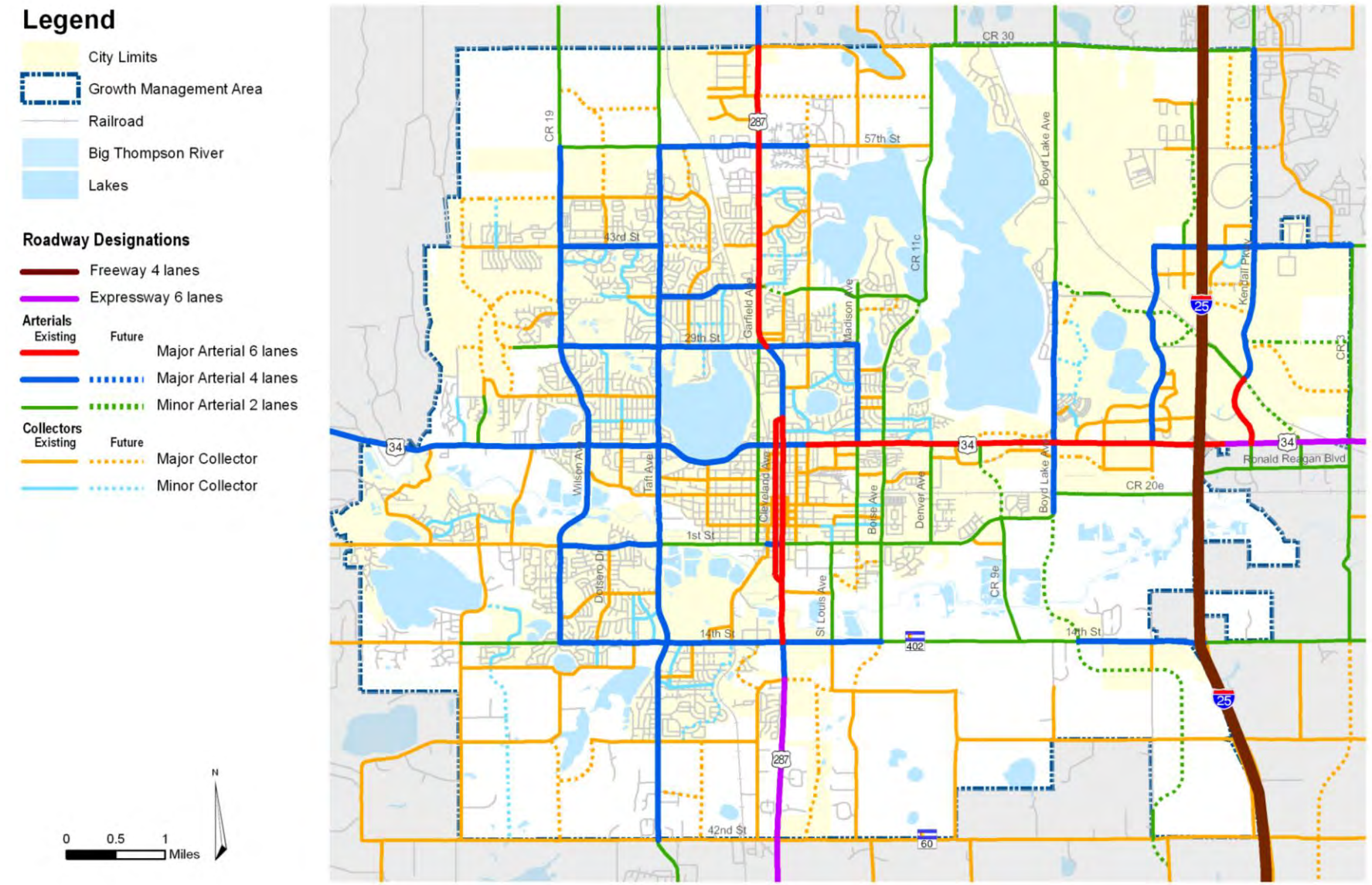
- **Bypasses are not the answer for the entire City.** Analysis of the bypass options revealed that they are not the best way to control traffic in the northwest, northeast, and southeast parts of town. In these areas, it makes more sense to widen current streets and extend others. The best opportunity 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. However, even with aggressive TDM measures, these transportation alternatives would only reduce traffic congestion 10-15% at most. With this in mind, the plan is more focused on improving the street system.

2035 Street Plan

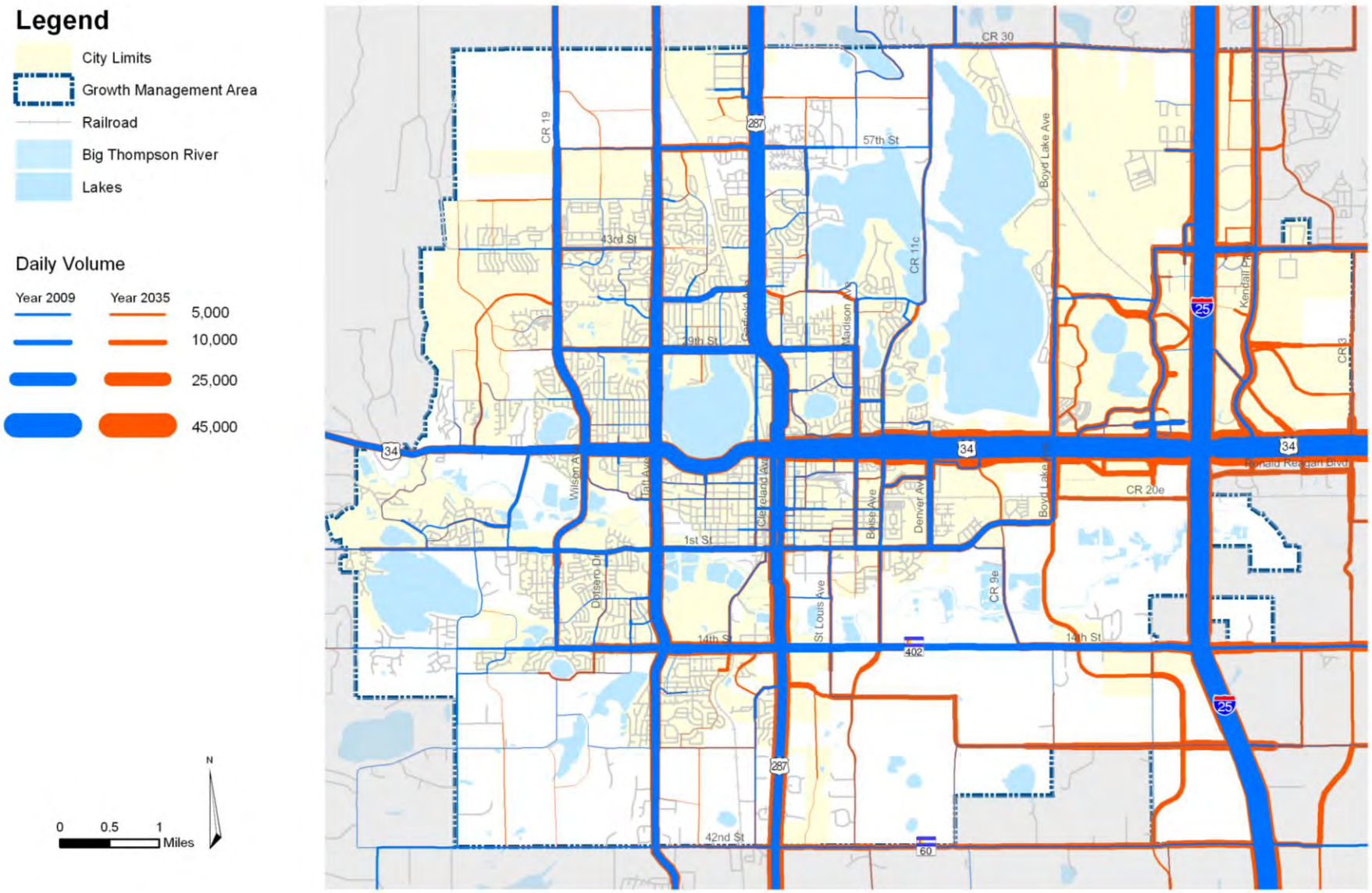
The proposed street improvements for 2035 are illustrated on the proposed street network map. The primary goal of the recommended improvements is to maintain the overall ease of travel as the City grows while meeting or exceeding the City's level of service C threshold (LOS D on State Highways). In all 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.



2035 Street Plan

City of Loveland



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 American productivity.

ITS is made up of 16 types of technology based systems. These systems are divided into intelligent infrastructure systems and intelligent vehicle systems.

Intelligent Infrastructure Systems

- 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

Intelligent Vehicle Systems

- Collision Avoidance Systems
- Collision Notification Systems
- Driver Assistance Systems

Definitions, Existing, and Future Systems

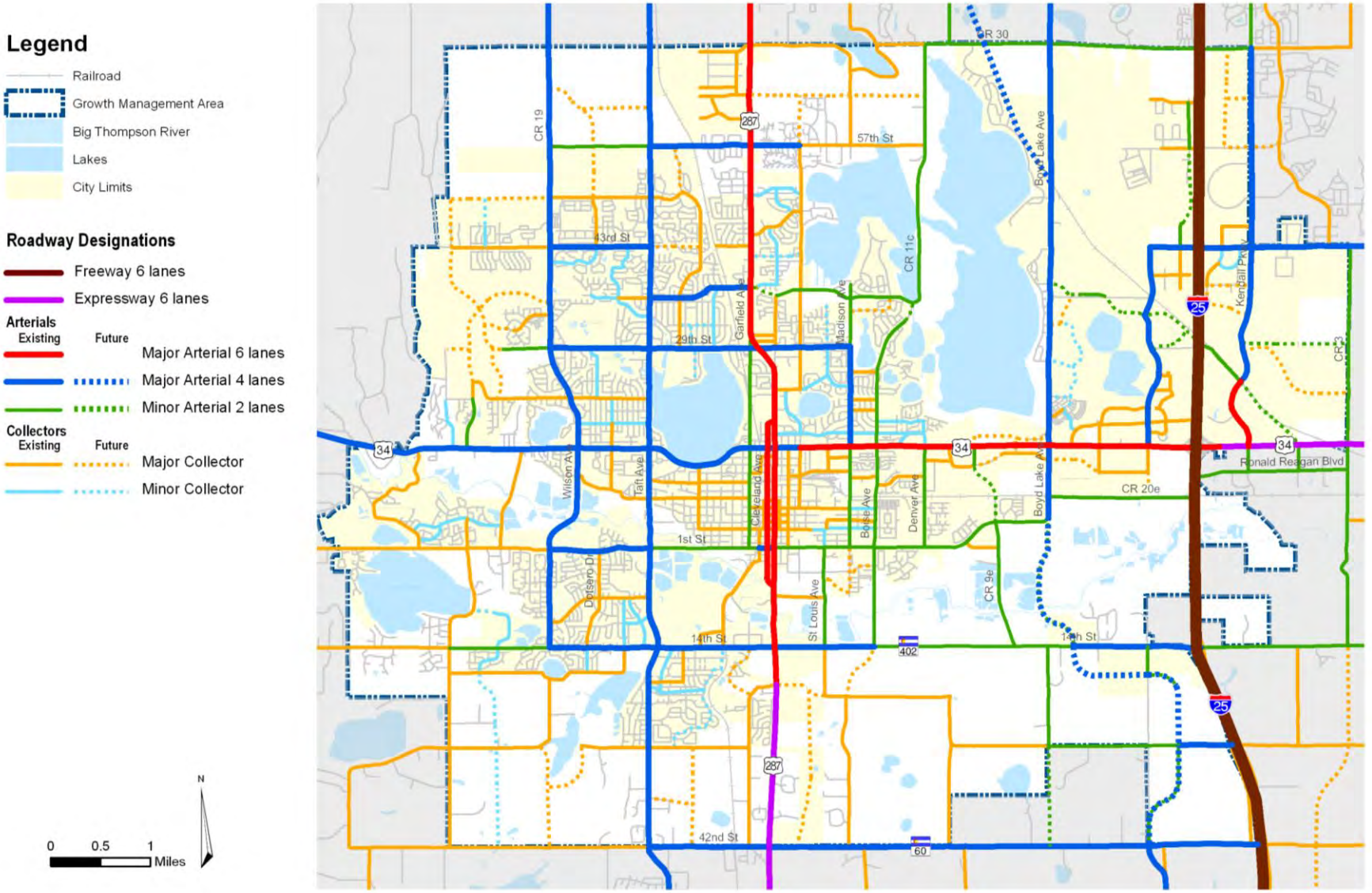
The City of Loveland currently has "intelligent infrastructure" in several of these areas and will be working on enhancing and expanding them in the future.

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).

In this area, the City of Loveland currently has over 80 traffic signals. 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.

City of Loveland



FORECAST YEAR (BUILDOUT) STREET PLAN

Freeway Management Systems

There are six major ITS functions that make up freeway management systems: Traffic surveillance systems use detectors and video equipment to support the most advanced freeway management applications. Traffic control measures on freeway entrance ramps, such as ramp meters, can use sensor data to optimize freeway travel speeds and ramp meter wait times. Lane management applications can address the effective capacity of freeways and promote the use of high-occupancy commute modes. Special event transportation management systems can help control the impact of congestion at stadiums or convention centers. In areas with frequent events, large changeable destination signs or other lane control equipment can be installed. In areas with occasional or one-time events, portable equipment can help smooth traffic flow. Advanced communications have improved the dissemination of information to the traveling public. Motorists are now able to receive relevant information on location specific traffic conditions in a number of ways, including dynamic message signs, highway advisory radio, in-vehicle signing, or specialized information transmitted only to a specific set of vehicles.

Although Loveland has no freeways within the actual City, linking the City's system into the I-25 corridor will allow for traveler coordination and information transfer for vehicles entering and exiting at Loveland.

Transit Management Systems

Transit ITS services include surveillance and communications, such as automated vehicle location (AVL) systems, computer-aided dispatch (CAD) systems, and remote vehicle and facility surveillance cameras, which enable transit agencies to improve the operational efficiency, safety, and security of the nation's public transportation systems.

This area is still being developed for the City's Transit System.

Incident Management Systems

Incident management systems can reduce the effects of incident-related congestion by decreasing the time to detect incidents, the time for responding vehicles to arrive, and the time required for traffic to return to normal conditions.

Incident management systems make use of a variety of surveillance technologies, often shared with freeway and arterial management systems, as well as enhanced communications and other technologies that facilitate coordinated response to incidents.

Through the implementation of items listed above, incident management will be improved greatly through the centralized ability to manage signal systems through localized sensors and real time pictures.

Emergency Management Systems

ITS applications in emergency management include hazardous materials management, the deployment of emergency medical services, and large and small-scale emergency response and evacuation operations.

Having just commemorated the 36th anniversary of the Big Thompson Flood, enhancements and growth in this area are critical in order to provide information to the traveling public related to emergencies. Currently, only the Loveland Police Department vehicles have computers. The Loveland Fire Department and Thompson Valley EMS (ambulance) are anticipated to add this in the future.

Traveler Information

Traveler information applications use a variety of technologies, including Internet websites, telephone hotlines, as well as television and radio, to allow users to make more informed decisions regarding trip departures, routes, and mode of travel. Ongoing implementation of the designated 511 telephone number will improve access to traveler information across the country.

As vehicles travel within and through Loveland, the future ability to provide them with information about US 34 in Estes Park, Loveland or Greeley, or I-25 will help provide real-time data and information for better decision making and route choosing and adjusting. This area is developing and some progress is expected over the next few years with major progress anticipated within the life of the 2035 Transportation Plan.

Crash Prevention & Safety

Crash prevention and safety systems detect unsafe conditions and provide warnings to travelers to take action to avoid crashes. These systems provide alerts for traffic approaching at dangerous curves, off ramps, restricted overpasses, highway-rail crossings, high-volume intersections, and also provide warnings of the presence of pedestrians, and bicyclists, and even animals on the roadway. Crash prevention and safety systems typically employ sensors to monitor the speed and characteristics of approaching vehicles and frequently also include environmental sensors to monitor roadway conditions and visibility. These systems may be either permanent or temporary. Some systems provide a general warning of the recommended speed for prevailing roadway conditions. Other systems provide a specific warning by taking into account the particular vehicle's characteristics (truck or car) and a calculation of the recommended speed for the particular vehicle based on conditions. In some cases, manual systems are employed, for example where pedestrians or bicyclists manually set the system to provide warnings of their presence to travelers.

This area is developing quickly and will be coming into the City of Loveland in the near future. It is expected that this area will see significant technological improvements over the next 5 to 10 years.

Roadway Operations & Maintenance

ITS applications in operations and maintenance focus on integrated management of maintenance fleets, specialized service vehicles, hazardous road conditions remediation, and work zone mobility and safety. These applications monitor, analyze, and disseminate roadway and infrastructure data for operational, maintenance, and managerial uses. ITS can help secure the safety of workers and travelers in a work zone while facilitating traffic flow through and around the construction area. This is often achieved through the temporary deployment of other ITS services, such as elements of traffic management and incident management programs.

As Loveland continues to grow and the existing roadway system expanded, updated and improved, real-time data and information about work zones and alternate routes will become more critical in easing congestion for the traveling public.

Road Weather Management

Road weather management activities include road weather information systems (RWIS), winter maintenance technologies, and coordination of operations within and between state DOTs. ITS applications assist with the monitoring and forecasting of roadway and atmospheric conditions, dissemination of weather-related information to travelers, weather-related traffic control measures such as variable speed limits, and both fixed and mobile winter maintenance activities.

Road Weather Management is currently being utilized to provide road condition reports to drainage and snow removal crews, not only in the area of precipitation measuring but also in pavement temperature and overall weather conditions that can lead to unsafe conditions. Enhancement in this area is expected over the next few years through more coverage of the City as well as in the areas of the information provided.

In many of these areas, the rate of technological improvements will dictate the speed and path of ITS. What may not even be imagined today can easily exist tomorrow in this area, keeping ITS on the forefront as the most exciting part of part of transportation planning and management.

Street Maintenance

Background

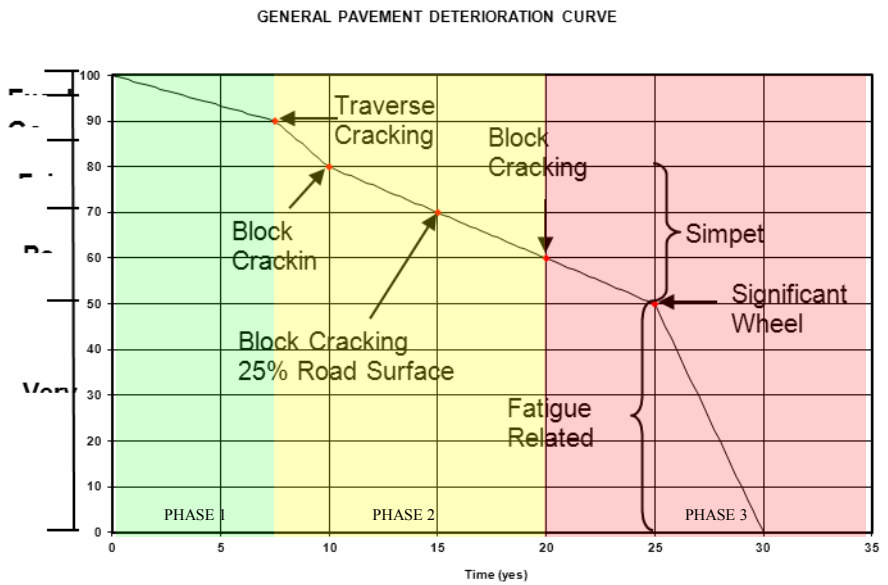
The City of Loveland currently maintains 330 miles of public streets, not including the State Highways or private roads within the City. This equates to over 7.1 million square yards of pavement that must be maintained in at an acceptable level to the citizens of Loveland. This street system carries 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:

- 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.
- Coordinated with CDOT to overlay US 287 through City.
- 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, 14th Street SW, Monroe Ave, 10th Street, Garfield, and Boyd Lake Avenue, with additional crossings planned for 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.
- No specific budget exists to maintain City bridges. A list of needed repairs has been prepared by a consultant and the repair cost is estimated to be $55,000 per year over a ten year period. These maintenance needs are currently going unaddressed and funds for emergency repairs are taken from the resurfacing program.
- No inventory system for curb, gutter and sidewalk to allow maintenance budget projections.
- 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

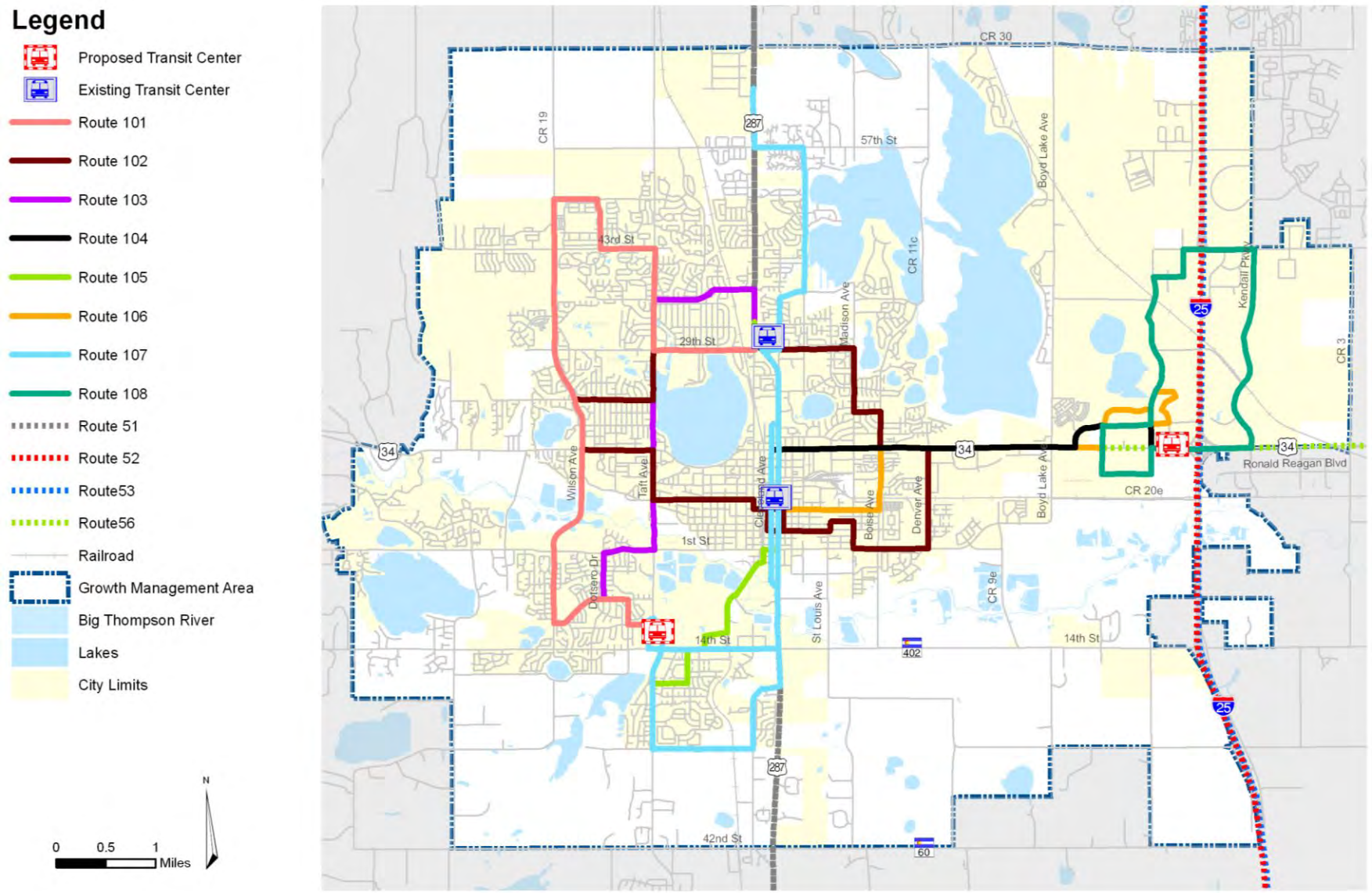
- Increase funding for street rehabilitation and maintenance to $0.58/SY with increases for annual inflation and increases in inventory.
- Continue chip seal program and increase crack sealing efforts.
- Increase concrete repair efforts in the older areas of town where stable roadways do not require 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. 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), 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.



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.

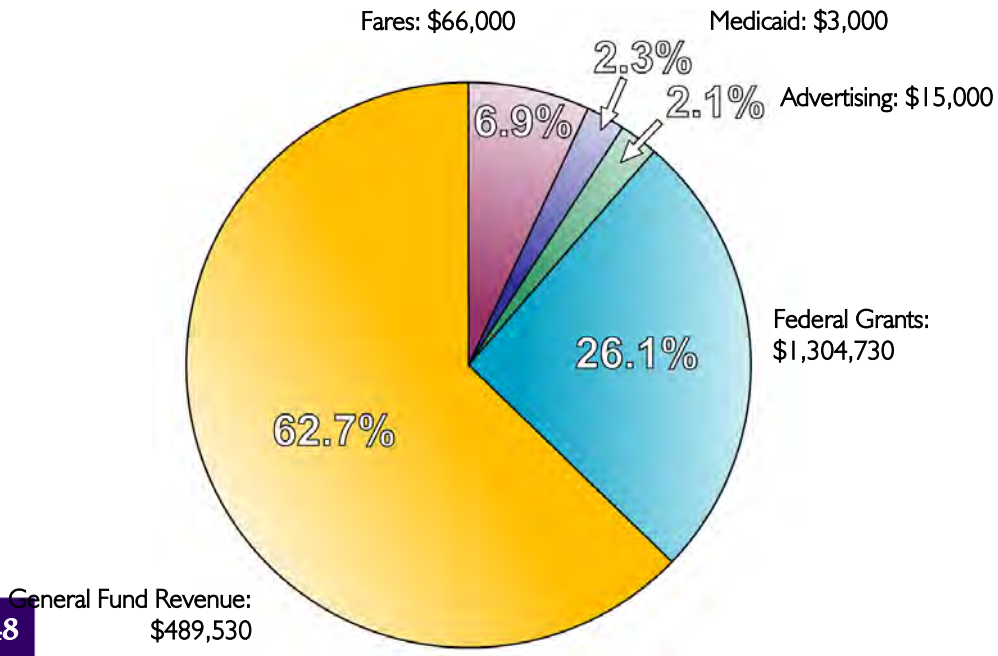
Local Services

- 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

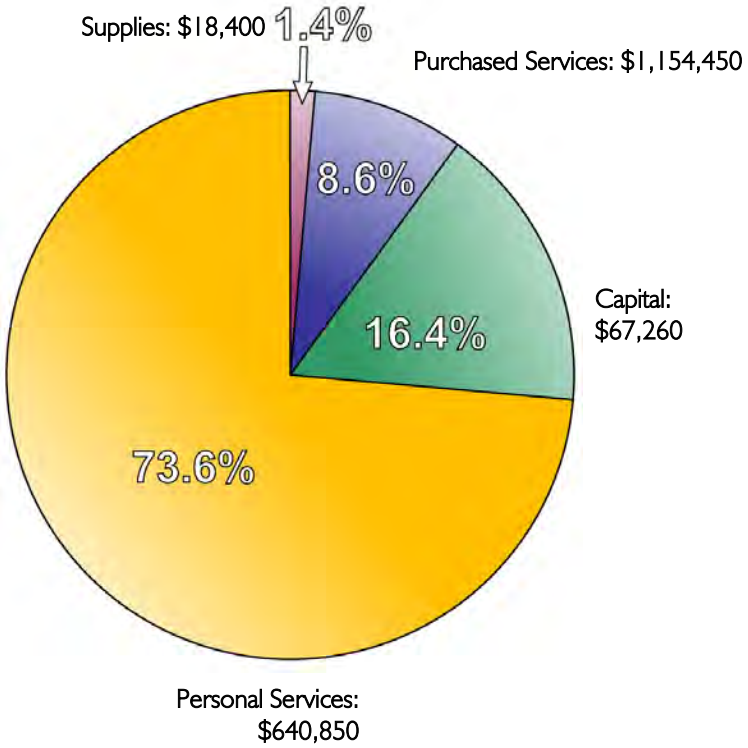
Regional Services

- 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



2012 Transit Revenues			**$ 1,880,960**
	General Fund Revenue		$ 489,530
	Federal Grants		$ 1,304,730
	Fares		$ 42,000
	Medicaid		$ 3,000
	Advertising		$ 15,000
	Pass Sails		$ 24,000
	Other?		$ 2,700
2012 Transit Expenditures			**$ 1,880,960**
	Personal Services		$ 640,850
	Supplies		$ 18,400
	Purchased Services (Including Fixed Charges)		$ 1,154,450
	Capital		$ 67,260
	Other		$ -

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.

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

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 County Road 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.

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
- 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, Alexandria, VA

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.

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.

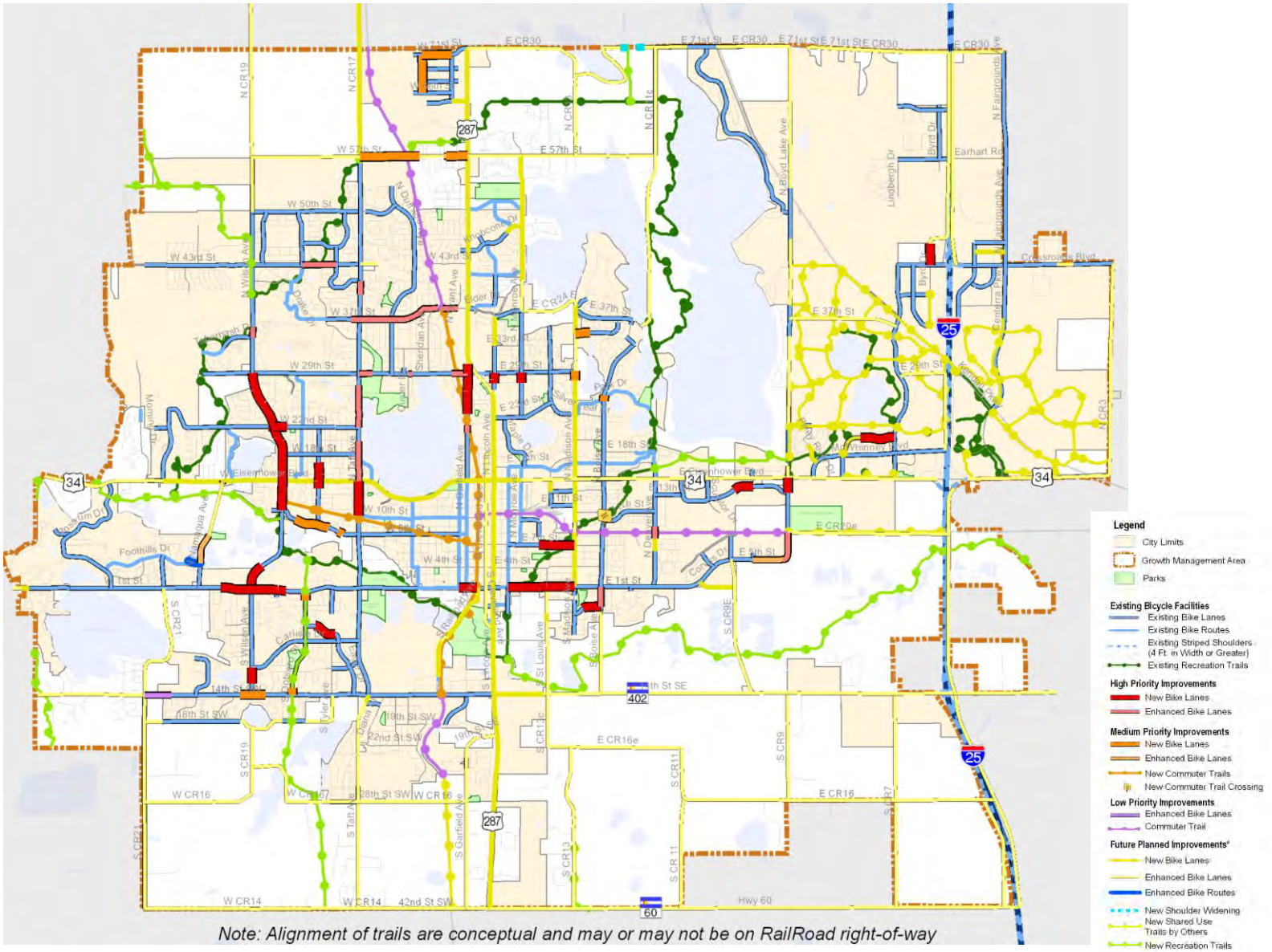
The City of Loveland Bicycle Plan includes both new bicycle lanes and enhancements to existing bicycle lanes, such as bike lane widening, stripping, and signage. These improvements are also presented for high, medium, and low priority projects.

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.



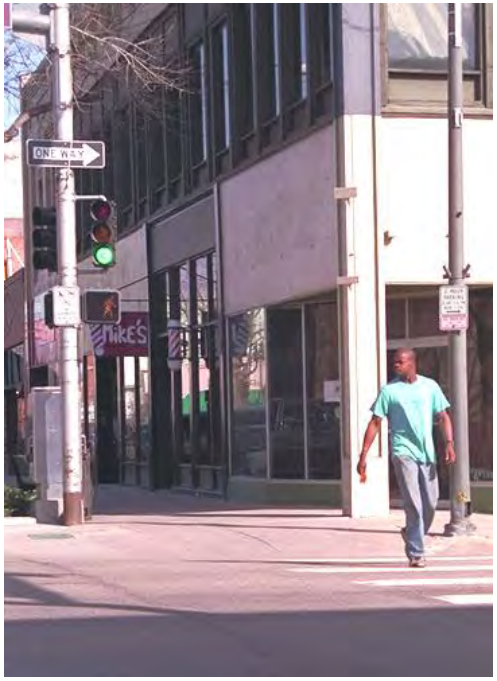
Note: Alignment of trails are conceptual and may or may not be on RailRoad right-of-way

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.

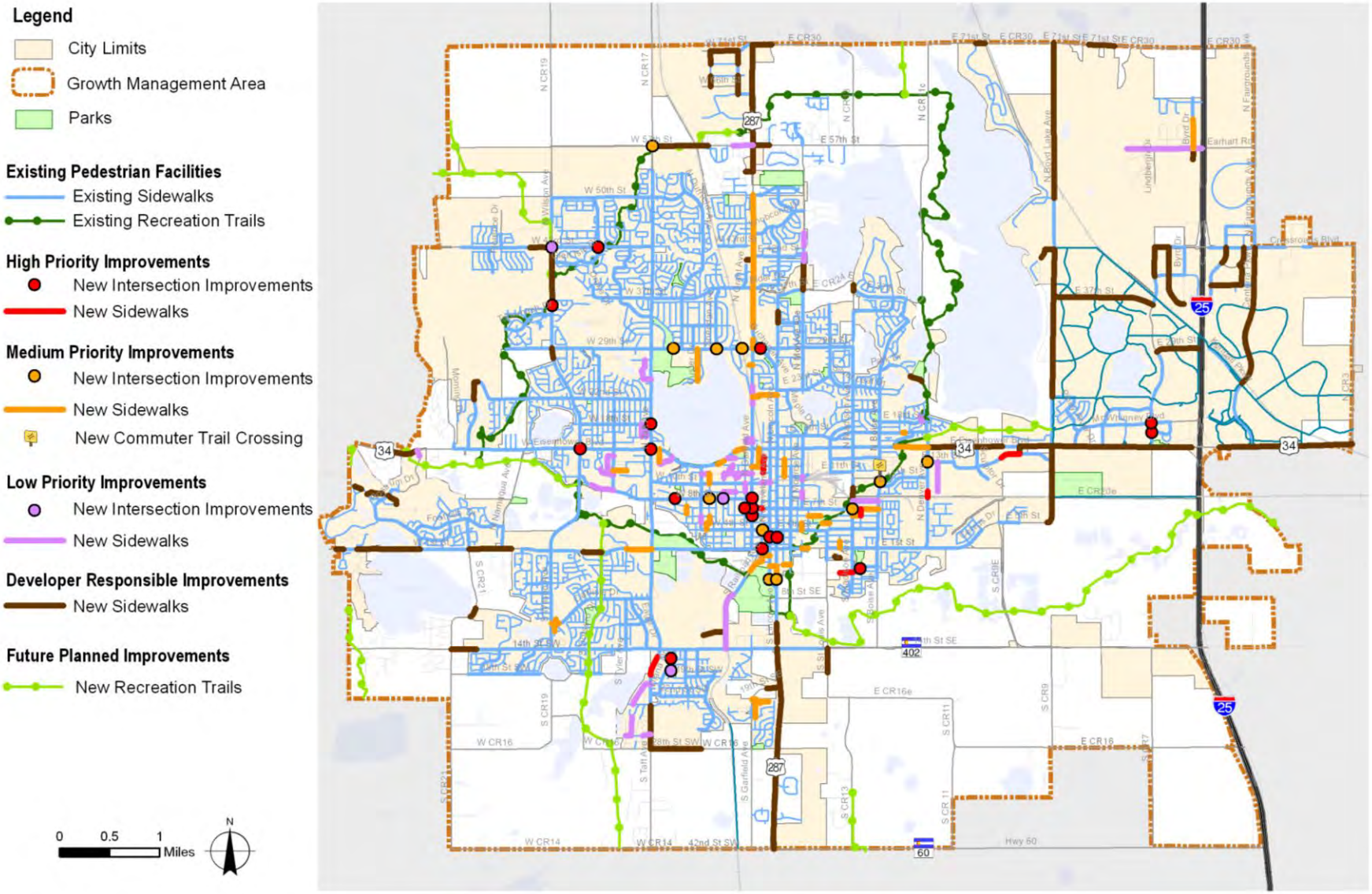
2. **Continuity**—The sidewalk/walkway system should be complete, without gaps. The pedestrian corridor should be integrated with the activities along the corridor and should provide continuous access to destinations.

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.

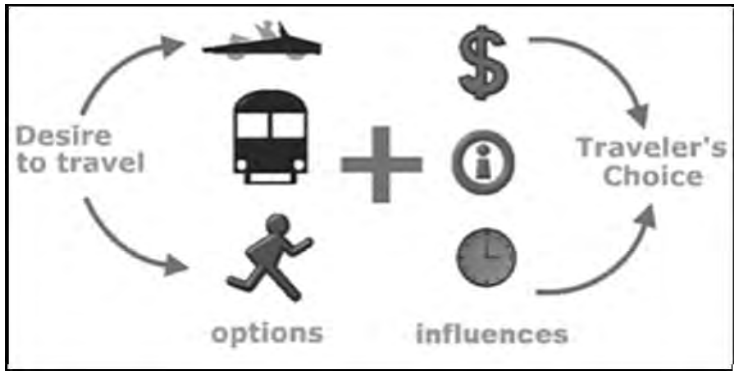


PROPOSED PEDESTRIAN PLAN

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.



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

- Reducing Single Occupancy Vehicle Trips
  - Ridesharing (carpooling, vanpooling)
  - Transit
  - Telecommuting (working from home)
- 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)

Transportation Demand Management for Northern Colorado and the City of Loveland is operated by the North Front Range Metropolitan Planning Organization (NFRMPO). Today, NFRMPO provides several TDM strategies in the form of the VanGo™ vanpooling program (about 85 vans), ridematching through the smarttrips.org web site, and business outreach services and events. In 1996, the NFRMPO began implementation of the SmartTrips program as part of a package of strategies developed to reach the goals established in the Long Range Regional Transportation Plan (RTP), of reducing by 10 percent the number of trips made in single occupant vehicles (SOVs).

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: T**he 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 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 reconstruction of the Wilson Avenue bridge over the Big Thompson River and the widening of Eisenhower Boulevard from Lincoln Avenue to Jefferson are two recent examples of this type of activity. $2.4 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.

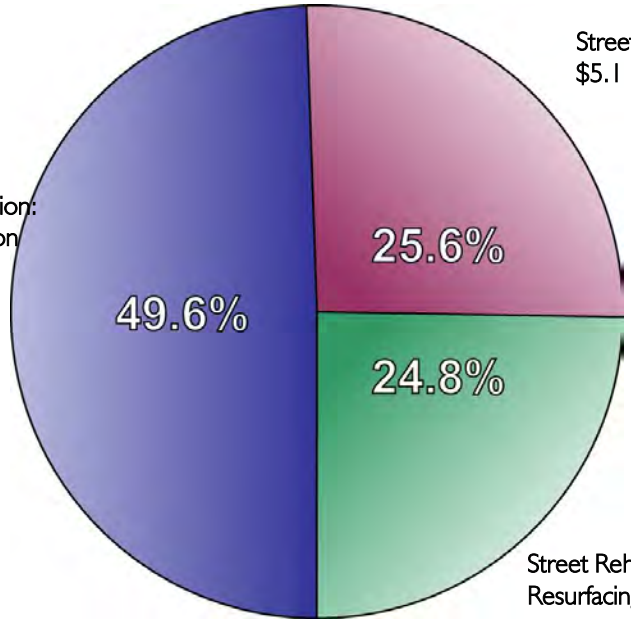
- **Street Rehabilitation and Resurfacing.** This program was established fifteen years ago to keep the 330 miles of City streets in good repair. The annual budget is now $3.6 million, which is about one percent of the replacement cost of the streets. This program focuses on major street rehabilitation, such as overlaying an entire street with asphalt, rather than minor repairs, like filling potholes.

2012 Transportation Revenues			**$ 14,474,140**
	General City Taxes		$ 3,253,270
	General Fund Reserves		$ 1,240,000
	Capital Expansion Fees		$ 831,570
	Special Fees & Taxes (See below)		$ 7,500,000
	Highway User Tax & FASTER	$ 2,500,000	
	Road and Bridge Tax	$ 295,250	
	Motor Vehicle Fees	$ 244,310	
	State Signal & Street Maintenance Contracts	$ 437,140	
	Transportation Maintenance Fee	$ 1,900,000	
	Other Special Fee & Taxes?	$ 2,123,300	
	Other Transportation Revenue?		$ 1,649,300
2012 Transportation Expenditures			**$ 14,474,140**
	Capital Construction		$ 5,725,290
	Street Rehabilitation & Resurfacing		$ 3,644,900
	Operations & Maintenance		$ 5,103,950
	Other		$ -

- **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: $11.1 million

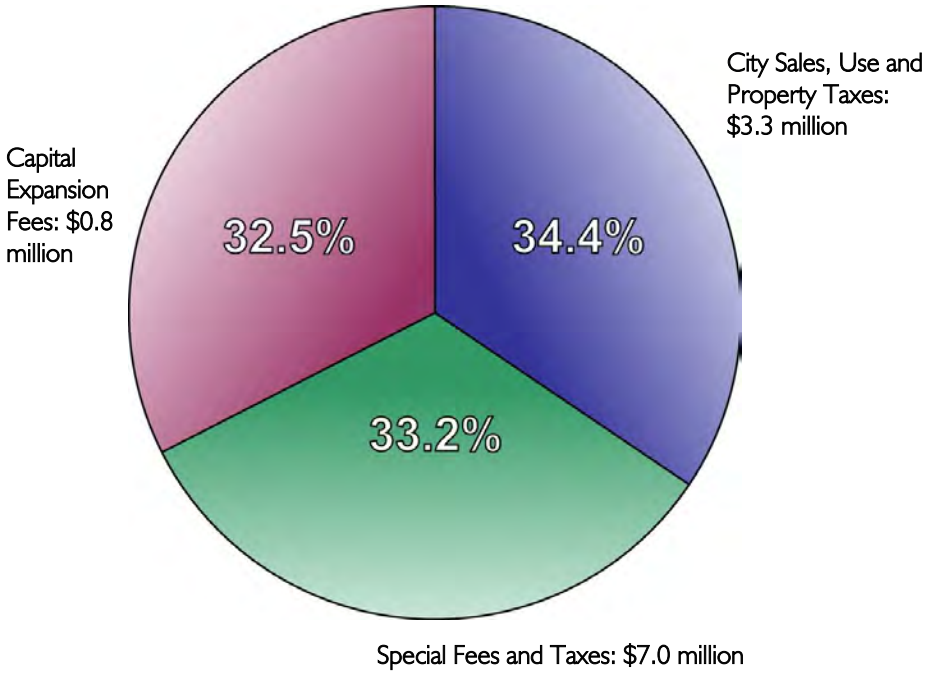
ATTACHMENT 2



Current Transportation Revenue

Revenues for transportation activities come in three (3) main categories.

Total 2012 Revenue: $11.1 million



- General City Taxes, including sales tax, use tax and property tax. $3.3 million in 2012. These taxes are not limited in their use to specific types of activity.

- Capital Expansion Fees. $0.8 million estimated in 2012. 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.

- Special Fees and Taxes. Estimated at $7.0 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. $2,500,000
    - State Road and Bridge Tax. $295,250
    - Motor Vehicle Fees. $244,310
    - State signal and street maintenance contracts. $437,140
    - Transportation Maintenance Fee. $1,900,000

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 becomes 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 $49.1 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 update% of the cost of the City streets. The other update% will need to come from other sources.

Including the above elements, the capital costs of the proposed Plan improvements total $463,598,630 in constant 2012 dollars. The associated operations and maintenance costs deficit over 23 years' totals $11.5 million, also in constant, year 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

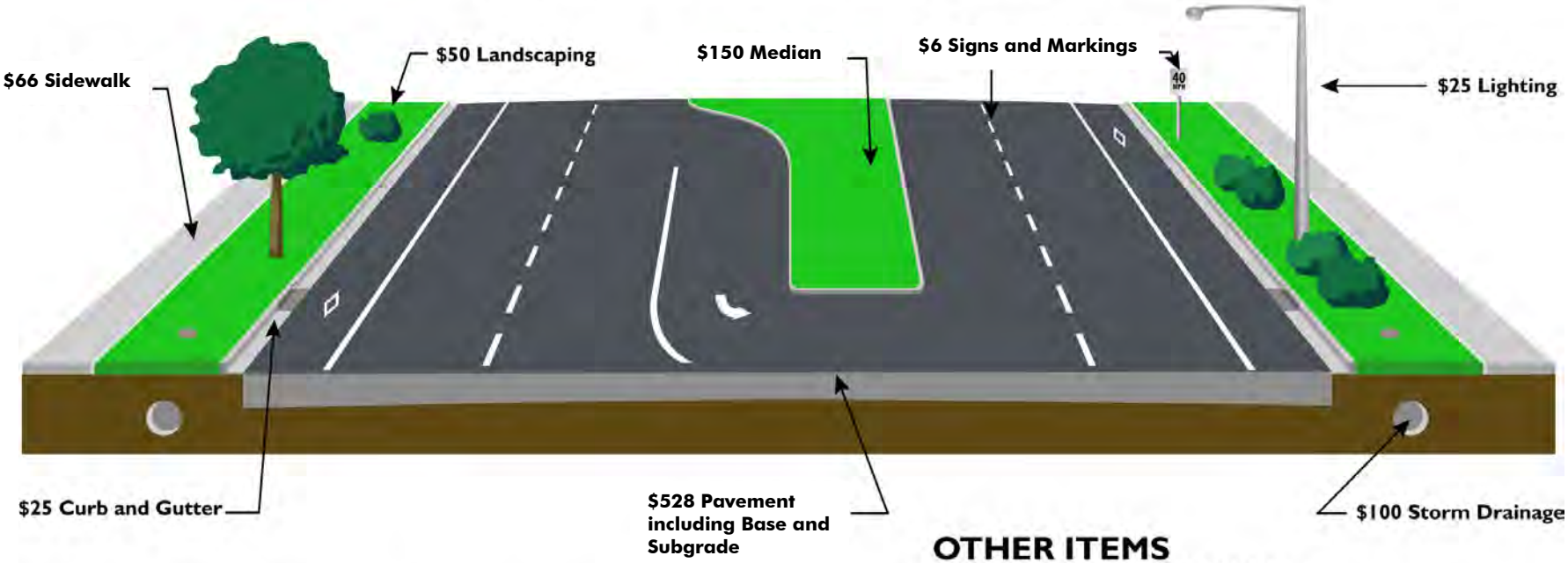
Developers are required to construct or pay for the costs of all local and collector streets. On larger streets, such as those included in the 2035 Transportation Capital Improvement Plan, developers are still required to pay for the portion of the street that would be equivalent in cost to a collector 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.

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 $7update million a mile.

TYPICAL COST PER RUNNING FOOT FOR A FIVE LANE ARTERIAL STREET



$1,310 Total Cost Without Land Purchases

OTHER ITEMS

$100 Underground Utilities
$100 Construction Contingencies
$80 Design
$80 Construction Management

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, 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 $129,226,011 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 $33,934,009 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).

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.

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 2020 and now 2035 Transportation Plans have been identified by CDOT and the North Front Range Metropolitan Planning Organization as priorities and are still priorities. As before, the 2035 Transportation Plan conservatively estimated State and Federal Funding.

Annual Cash Flow Requirements

The need to construct some road improvements will proceed 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 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 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	$33,934,009
CEF	$129,226,011
Col St Equiv	$44,009,280
CDOT	$37,784,700
Centerra	$218,644,630
TOTAL	$463,598,630

ATTACHMENT 2

City of Loveland

Legend

City Limits

Growth Management Area

Roadway Project Source

2035 Transportation Plan

Centerra Metro District

Route TBD

Intersection/Signalization Project Source

2035 Transportation Plan

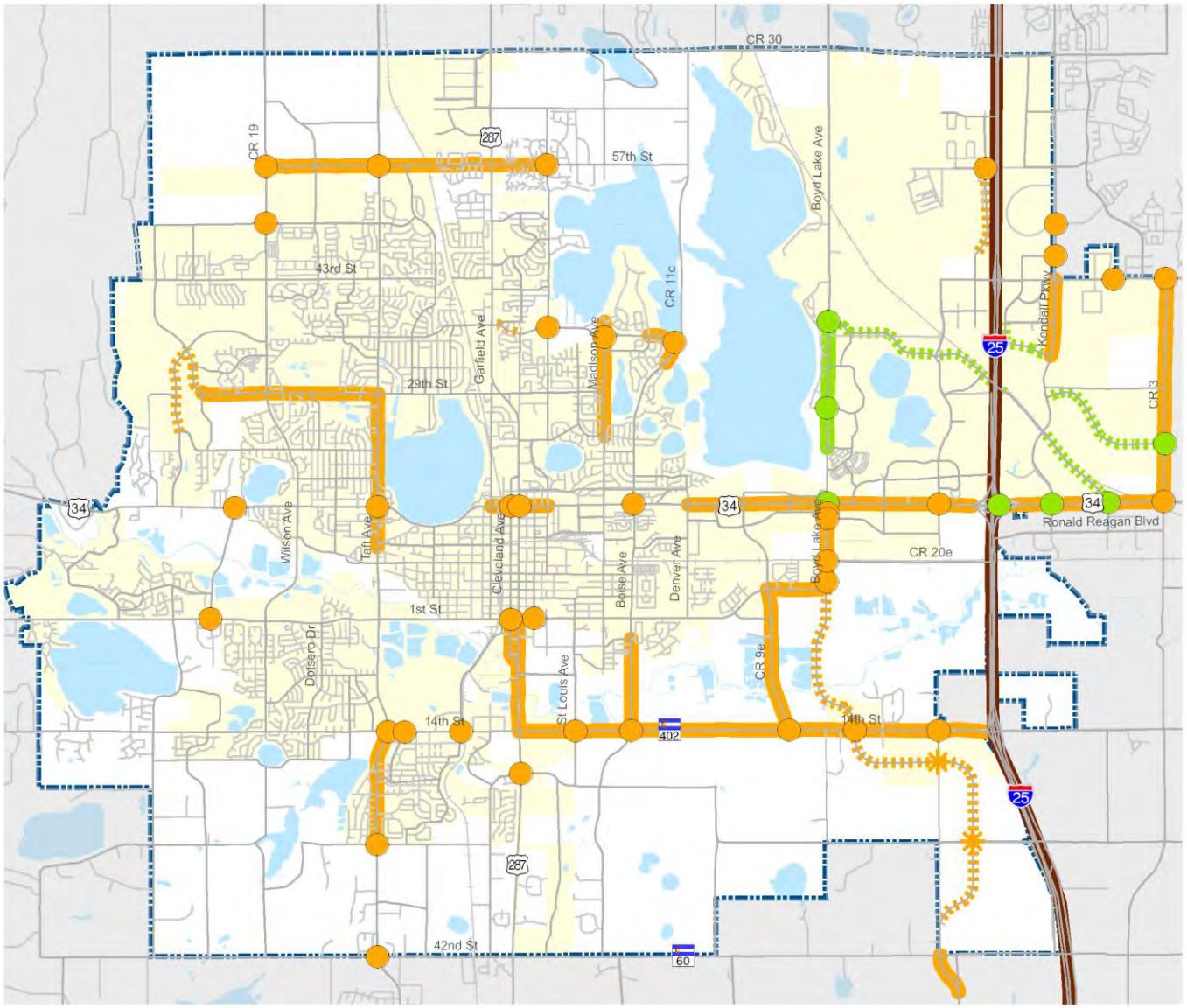
Centerra Metro District

Location TBD

Railroad

Big Thompson River

Lakes



2035 Capital Improvements Plan

Street Name	From	To	Length (Ft)	Classification	2035 ADT Volume	2035 Total V/C ADT Ratio	CIP Priority	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
	City Projects	**Totals:**	**18.69**	**miles**				**$ 106,893,000**			**138,280**	**$ 30,698,160**	**$ 59,297,748**	**$ 16,897,092**	

25 Year CIP With Cost Allocations: City Streets

Street Name	From	To	Length (Ft)	Classification	2035 ADT Volume	2035 Total V/C ADT Ratio	CIP Priority	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**	

25 Year CIP With Cost Allocations: State Highways

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	$ 49,100,000	80%	$ 39,280,000	$ -	$ 9,820,000	
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 typcially 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	
Total Other Projects	**$ 74,342,000**		**$ 52,140,000**	**$ 7,425,200**	**$ 14,776,800**	

25 Year CIP With Cost Allocations: Other Priorities

Location		Project Cost	District	CDOT	City	Notes
East of I-25						
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	$ -	$ -	
Subtotal		**$ 61,103,000**	**$ 47,149,600**	**$ -**	**$ -**	
West of I-25						
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
Subtotal		**$ 39,750,500**	**$ 33,639,800**	**$ -**	**$ -**	
Regional Improvements						
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	$ -	$ -	
Subtotal		**$ 100,000,000**	**$ 70,000,000**	**$ -**	**$ -**	
Total - Centerra Metro District Projects (2004 Dollars)		**$ 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	1.45	
Total - Centerra Metro District Projects (2012 Dollars)		**$ 291,237,575**	**$ 218,644,630**	**$ -**	**$ -**	
	Local (2004 dollars)	$ 100,853,500	$ 80,789,400			
	Regional (2004 dollars)	$ 100,000,000	$ 70,000,000			
	Total (2004 dollars)	**$ 200,853,500**	**$ 150,789,400**			
	Regional (2012 dollars)	$ 146,237,575	$ 117,144,630			
	Local (2012 dollars)	$ 145,000,000	$ 101,500,000			
	Total (2012 dollars)	**$ 291,237,575**	**$ 218,644,630**			

25 Year CIP With Cost Allocations: Centerra Metro District Projects

Location	LCUASS Intersection Type	Category	Estimated Signal/Roundabout Cost (x000)	Estimated Aux Lane Cost (x000)	OTHER	TOTAL
Wilson Ave/57th St	Major	Minor intersection rebuild	$175	$650	$0	$825
Taft Ave/57th St	Major	Major intersection rebuild	$175	$1,300	$0	$1,475
57th St/Monroe Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
Byrd Dr/Earhart Rd	Major	Minor intersection rebuild	$175	$650	$0	$825
Wilson Ave/50th St	Major	Upgrade Signal	$75	$0	$0	$75
Fairgrounds Ave/Arena Cir (S)	Minor	Minor intersection rebuild	$175	$650	$0	$825
Fairgrounds Ave/Rodeo Dr	Major	New Signal	$175	$0	$0	$175
Crossroads Blvd/Ward Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
Crossroads Blvd/LCR 3 (High Plains Blvd)	Major	Minor intersection rebuild	$175	$650	$0	$825
37th St/Monroe Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
37th St/Madison Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
37th St/Boise Ave	Major	Major intersection rebuild	$175	$1,300	$0	$1,475
US 34/Namaqua Ave	Major	Minor intersection rebuild	$350	$650	$0	$1,000
US 34/Taft Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/US 287 SB (Cleveland Ave)	Major	Major intersection rebuild	$3,500	$0	$0	$3,500
US 34/US 287 NB (Lincoln Ave)	Major	Major intersection rebuild	$3,500	$0	$0	$3,500
US 34/Boise Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/Boyd Lake Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/Rocky Mountain Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/LCR 3 (High Plains Blvd)	Major	Major intersection rebuild	$350	$1,300	$400	$2,050
Boyd Lake Ave/Mountain Lion Dr	Major	Major intersection rebuild	$175	$1,300	$0	$1,475
Boyd Lake Ave/LCR 20E	Major	Major intersection rebuild	$175	$1,300	$300	$1,775
Boyd Lake Ave/LCR 20C (5th St)	Major	Major intersection rebuild	$175	$1,300		$1,475
1st St/Namaqua Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
1st St/Railroad Ave	Major	Minor intersection rebuild	$175	$650	$300	$1,125
1st St/Washinton Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
14th St SW/Taft Ave	Major	Reconfigure Signal	$175	$0	$0	$175
14th St SW/Douglas Ave	Minor	Minor intersection rebuild	$175	$650	$0	$825
14th St SW/Roosevelt Ave	Major	Minor intersection rebuild	$175	$650	$300	$1,125
SH 402 (14th St SE)/St Louis Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/Boise Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/LCR 9E	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/Boyd Lake Ave ext	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/LCR 7	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 287/19th St SE	Major	Minor intersection rebuild	$0	$650	$0	$650
Boyd Lake Ave/LCR 7	Major	Major intersection	$350	$1,300	$0	$1,650
Taft Ave/28th St SW (LCR 16)	Major	Minor intersection rebuild	$175	$650	$0	$825
Boyd Lake Ave/LCR LCR 16	Minor	Minor intersection	$175	$650	$0	$825
Taft Ave (LCR 17)/42nd St SW (LCR 14)	Major	Minor intersection rebuild	$175	$650	$0	$825
		Totals	**$15,300**	**$32,500**	**$1,300**	**$49,100**

25 Year CIP With Cost Allocations: Intersections

Weight	Factors
20	**1. System Continuity / Congestion Mitigation**
	● Capacity
	○ Existing
	○ Future
	● Growth Factor
	● Development
	● Constriction
	● Air Quality
25	**2. Safety Enhancements**
5	**3. Multi-Modal Enhancement**
	● Alternate Modes
10	**4. Environmental**
	● Growth Factor
	● Development
15	**5. Implementability**
	● Political Sensitivity
	● Community Sensitivity
	● Opportunities for Interim Solutions
20	**6. Economic Impact**
	● Ability for Outside Funding
	● Maintenance History
	● Related Utilities
	● Indirect Infrastructure Costs
	● Opportunities for Interim Solutions
	● Need for Additional Right-of-Way
	● Arts Contribution
5	**7. Regionally Significant Corridor**
100	**SUBTOTAL**

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

TRANSPORTATION CIP PRIORITIZATION PROCESS

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

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 for Change

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

Intelligent Transportation System (ITS) Strategic Plan

Currently the City of Loveland has a limited capacity related to ITS improvements. With the continued project growth of both, population and vehicle miles traveled, this Plan will focus on the mitigation and improvement of congestion management. The Plan will also define the current state of affairs and what technology, infrastructure, and personnel expenditures will be necessary to address current deficiencies and planned improvements.

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 plan was developed and adopted on May 1, 2012

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

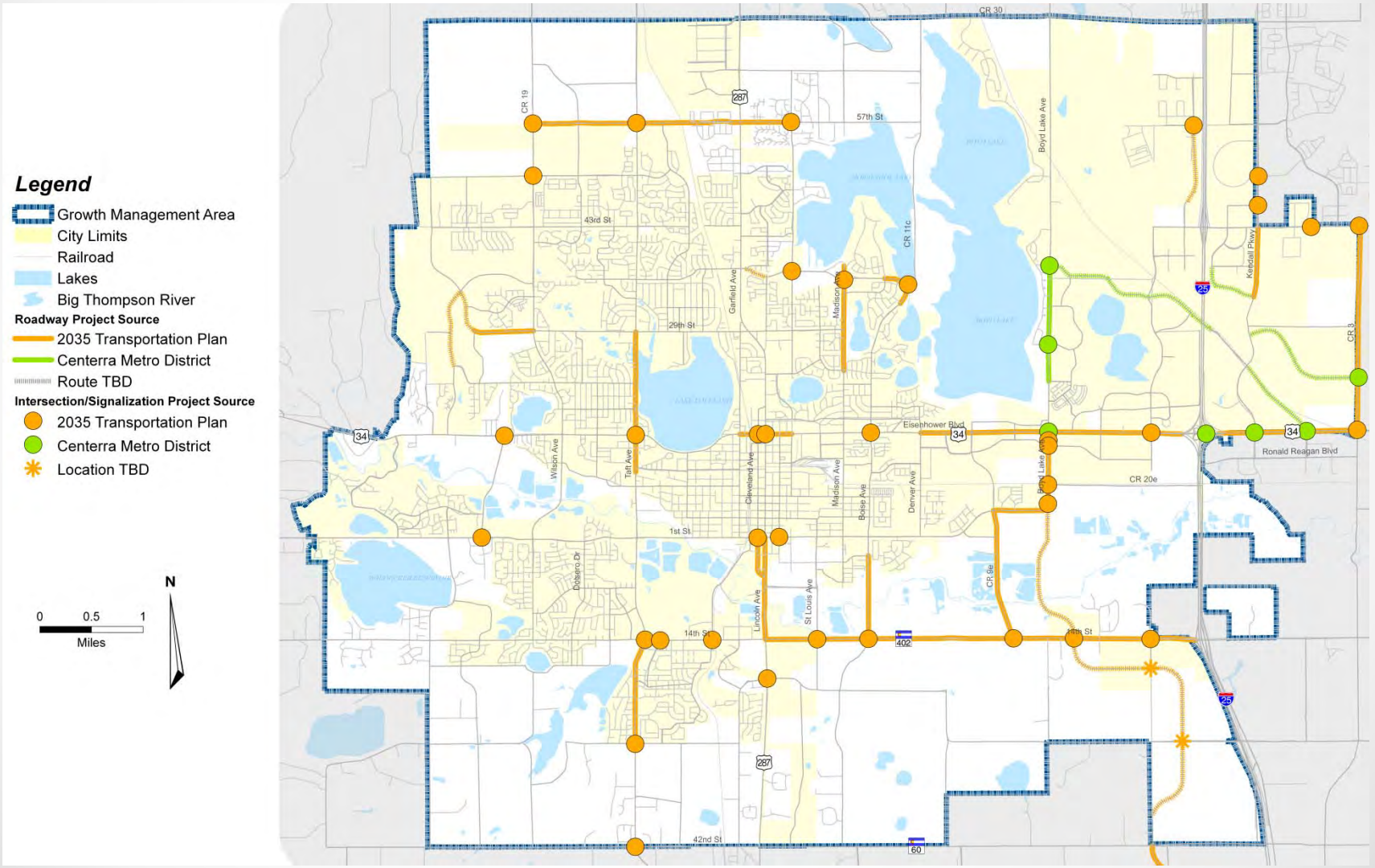
Since 2000 the City of Loveland has significantly redefined public participation in the transportation planning process including not just macro planning at the City-wide level but also neighborhood planning at the project level. These efforts include traffic calming, route planning, transit planning, 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

ATTACHMENT 2

Draft 2035 Capital Improvements



ATTACHMENT 3