







April 2010



Truck Traffic in the Northeastern Quadrant of the NFRMPO Region

A North Front Range MPO Sub-Regional Study





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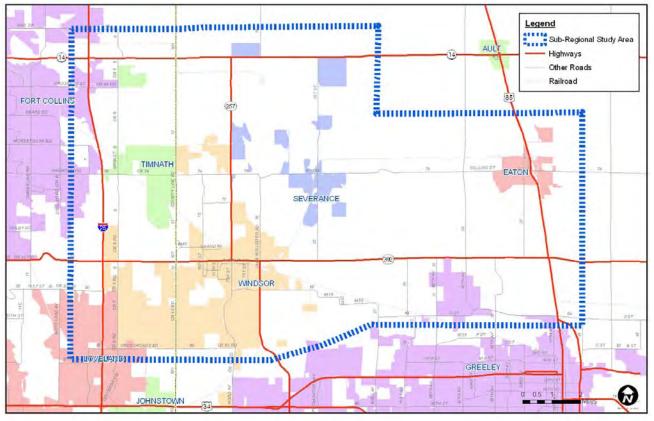
PREFACE

The North Front Range Metropolitan Planning Organization (NFRMPO) adopted a *Strategic Action Plan* in March of 2004. Its purpose is to provide policy guidance to the organization over the subsequent six to ten years, setting the overall direction for the MPO. This action plan established long range

goals for the organization, which are stated in terms of both "Value Statements" and "Propositions." Along with each of several Value Statements and Propositions, the plan outlines multiple "Key Strategies" and "Action Steps."

While all of the "Value Statements" and "Propositions" are guiding the planning activities of the NFRMPO, there are some that are of particular relevance to the Sub-Regional Study which resulted in this report.

As is typical of the NFRMPO planning area, the road and street network serving the Sub-Regional Study Area is administered and maintained by a combination of state and local agencies. The Colorado Department of Transportation (primarily the Great Western Railroad) provides freight service to the area. Refer to Value Statement B in **Appendix A**, which addresses shared responsibilities of participating governmental entities in the North Front Range MPO.



(CDOT), two counties and roughly seven municipalities share responsibilities within this study area for the road and street network. In addition to the street and road network, a railroad Sub-Regional Study Area



EXECUTIVE SUMMARY

Concept of the Study

As growth, development, and redevelopment continue within and immediately outside the boundaries of the North Front Range Metropolitan Planning Organization of Colorado, the transportation-related consequences are challenging and increasingly complex. Small and large communities have traditionally sought to address through their own efforts and through cooperation and coordination with the Colorado Department of Transportation (CDOT) most of the changes in traffic characteristics that have occurred. A typical response to increased traffic has been to widen roadways, at least to make them safer, if not to add new lanes. More recently, however, local officials have been prompted to investigate a wider variety of actions that can reduce or minimize the undesirable effects on communities from increased traffic.

Even though public officials recognize how crucial it is for their communities to have good transportation connections for freight, there are difficulties associated with truck and train traffic that include the following:

- Increased costs to maintain safe, smooth pavement conditions on roads and streets where truck traffic is prevalent.
- Concerns about safety of pedestrians and bicyclists when they are traveling the same roadways as trucks.
- Increased noise and air pollution in adjacent neighborhoods from trucks and train locomotives.
- Increased levels of congestion on the street and roadway network attributable to slower-moving trucks and delays of highway traffic at rail-highway crossings when trains are passing through them.

Timnath has had an ordinance since the 1990s that restricts truck traffic within its town limits. Signs showing weight limits are posted at the town limits (see photo, Page 17)

The realization by town officials in Timnath that increased volumes of truck traffic passing through from neighboring communities was having undesirable effects prompted them to ask for a sub-regional transportation planning study to be facilitated by the North Front Range Metropolitan Planning Organization (NFRMPO). At the same time, it had been recognized by neighboring communities, too, that growth and development of industrial sites was not always occurring in places that were well-served by the existing road and State Highway system. One of the most commonly cited examples was the truck traffic serving industrial sites in the area to the south and east of downtown Windsor. This traffic uses Interstate 25 and, therefore, travels State Highway 392 through Windsor as a connecting route. As the general volumes of traffic have increased on both State Highway 392 and Interstate 25, the existing interchange of these two highways has become congested, causing traffic to divert to other parallel routes during peak hours. One of those parallel routes is Harmony Road through Timnath. Downtown Windsor's Main Street (SH 392) is also an undesirable route for truck traffic, given the potential conflicts with pedestrians in the retail area and the vicinities of schools.

Based on these concerns, the NFRMPO staff started the facilitation of this study during the summer of 2007 by meeting with elected officials and staffs of the sub-regional study area's various municipalities and the two counties (Larimer and Weld). On September 10, 2007, the NFRMPO staff held a work session with local agency officials and staffs, including staff members from the CDOT Region 4, at the Poudre Valley REA building on SH 392 at LCR 5. The main objective of the workshop was to define the scope of the study.



Review of Past Responses to Truck-Related Concerns in the Region

At a September 2007 meeting arranged by the NFRMPO, participants in the study process, comprised of the staff representatives of the municipalities, the counties, and CDOT viewed maps prepared by the MPO staff depicting the projected changes in land use (both housing-related and employment-related) over the next few decades. There were also maps showing current and forecasted truck traffic.

One of several major challenges facing the smaller communities in the northeastern portion of the North Front Range Transportation Planning Region is how best to address the steadily increasing volumes of truck traffic that are being predicted. They have witnessed over the last few decades the extraordinary efforts of the larger cities to find better ways to address growing volumes of traffic. These efforts have been concentrated on the State Highway system, which carries a lot of truck traffic. Some proposed solutions have only been partially implemented.

The proposed Fort Collins Expressway was originally planned in the 1970s as a new, limited access highway that would bypass the US 287/Jefferson/Riverside/SH 14 route through downtown Fort Collins. Only one portion of it has been constructed, that being a US 287 bypass of Laporte, northwest of Fort Collins. Subsequently, there have been some ongoing studies by the City of Fort Collins that analyzed alternative routes farther to the north. A city-wide referendum had prompted the City to investigate these alternatives to the "Expressway" concept. They were intended to provide an eastwest connector between US 287 and I-25 but none has gained the necessary acceptance or funding for implementation. Greeley's two State Highway bypass routes – one for US 34 and another for US 85 – were successful at diverting a substantial amount of through truck traffic away from the central core of that city. The US 34 Bypass route was improved from two to four lanes less than fifteen years ago – making it even more attractive as a truck route. The necessary right-of-way for this improvement had been acquired in the early 1970s when the western portion of the bypass route was being built as a two-lane highway along the southern and southwestern edges of Greeley.

Alternative Responses Considered and Conclusions

With the NFRMPO staff serving in a facilitation role, subsequent steps in the study included a number of sessions with the staffs of local agencies (individually and in small groups) to conceive, or revisit, and then test the effectiveness of various alternative improvements to the street, county road, and state highway network (aided by use of the NFRMPO's computerized travel demand model). The alternatives included several potential solutions to Timnath's desire to avoid having increasing volumes of truck traffic use Harmony Road as a primary means of reaching I-25 from the east. At the conclusion of the study, there were essentially two main products:

- a map of the area that assigns "Through Truck Route" and "Local Truck Route" designations to existing roads and streets along with some new or improved connections; and,
- an informal commitment on the part of officials from three municipalities (Windsor, Severance, and Timnath) and Weld County to pursue some physical improvements and additions of directional signs to



Weld County Road 19 north of SH 392 so that it and a portion of Weld County Road 74 can eventually serve as an alternative truck route to State Highway 257 between Weld County Road 74 (Harmony Road) and SH 392. Signs in the three towns would:

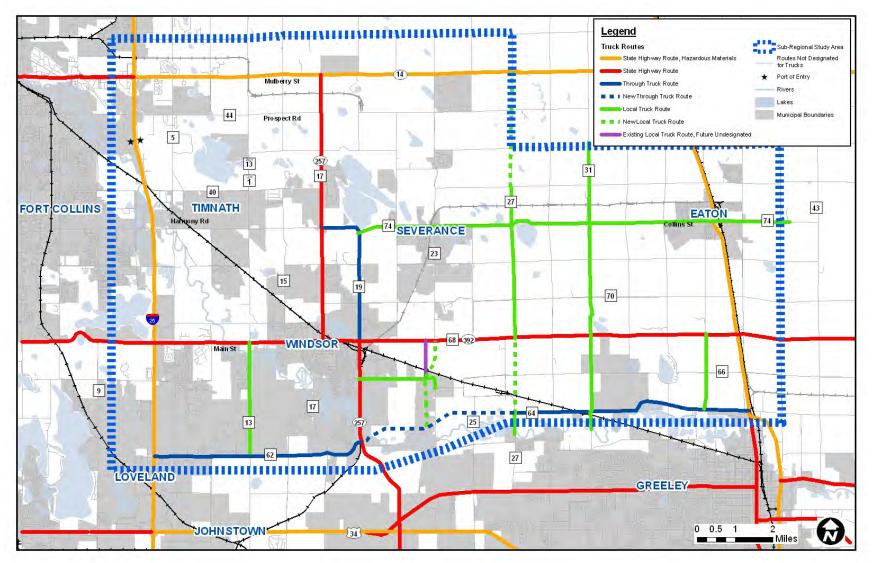
- alert truck traffic about city-wide restrictions of trucks in Timnath
- point out the ways for trucks to use the WCR 74/19 alternative route instead of SH 257/Main Street (SH 392) route through downtown Windsor.

The Truck Route designations are shown on the following page.

A third, less tangible product, has been the increased awareness of public officials and their staffs about the transportation challenges that lie ahead as more of the rural areas in this region urbanizes. One of the benefits of the study was the increased level of communications that came about as the staffs of the various communities discussed their common interests as well as their disagreements about the current and future transportation system.

CDOT staff participated in the technical group's deliberations and informed the local jurisdictions that any signs placed on State Highway right-of-way about designated truck routes or alternative truck routes could not be allowed until the alternative routes are improved enough to provide a level of service and safety for truck traffic that would be commensurate with typical State Highway conditions. CDOT does not want signs posted along State Highways to persuade truckers to divert to alternative routes that might not be as suitable as State Highway routes for reaching their destinations. The Colorado Department of Revenue staff provided technical assistance during the study and clarified the requirements for truck traffic to pass through the Port of Entry on I-25. Officials from the Town of Timnath reminded the group that Larimer County Road 5, which parallels I-25, had been used by some truckers in past years to circumvent the Port of Entry until the town passed its ordinance about weight limits, which restricts through truck traffic from coming through Timnath.





Truck Route Designation



I. INTRODUCTION

A. Study Area

The sub-regional study area is in the northeastern portion of the NFRMPO, as shown on **Figure 1**. The study area is generally east of I-25, south of SH 14, west of US 85, and north of Crossroads Boulevard/WCR 64. Jurisdictions within the study area include Larimer and Weld Counties, Eaton, Fort Collins, Greely, Loveland, Severance, Timnath, and Windsor. **Figure 2** shows the city limits and the growth management areas within the study area.

Regionally Significant Corridors in the Regional Transportation Plan

The North Front Range 2035 Regional Transportation Plan (RTP), approved in December 2007, defines corridors of regional significance. These Regionally Significant Corridors (RSCs) have been prioritized into three tiers, with Tier 1 corridors being of most importance to the region. Figure 3 illustrates the Regionally Significant Corridors within the sub-regional study area. Tier 1 corridors include I-25 (which includes parallel routes of LCR 5 and WCR 13) and US 34 (which includes a parallel route along Crossroads Boulevard and 'O' Street, with a future connection between the two). Tier 2 corridors include US 85, SH 14 and Prospect Road. Tier 3 corridors include SH 392 and Harmony Road, SH 257, and the Two Rivers Parkway Corridor (which includes 83rd Avenue, 65th Avenue and 35th Avenue). Corridor Visions for each of the Regionally Significant Corridors are included in the RTP and serve as a guide for future improvements to the corridors. In anticipation that the next version of the RTP will retain the concept of "regionally significant corridors" and extend them into the recent additions to the MPO boundary (including the Severance and Eaton areas), this study has assumed that US 85 between SH 392 and Weld

County Road 78 and Weld County Road 74 (Harmony Road) from Weld County Road 21 to Weld County Road 41 will both be considered RSCs.

Designation of SH 392 west of I-25

Through a recent approval by the State Transportation Commission, the regional significance of State Highway 392 was strengthened by extending the State Highway designation west of I-25 to U.S. Highway 287, following what were previously roads under the jurisdiction of Fort Collins and Larimer County (i.e. Carpenter Road/LCR 32). Consequently, there is now continuity as a state highway route all the way from U.S. 287 on the southern edge of Fort Collins east through Windsor (Main Street) and Lucerne (at U.S. Highway 85), eventually connecting to State Highway 14 at Briggsdale.

B. Recent Planning Efforts and Project Initiation

Planning efforts within the sub-regional study area have been completed over the past several years that led to the need for a cooperative effort between the jurisdictions within the sub-region. The following sections provide an overview of these and the initiation of this sub-regional study.

SH 392 Environmental Overview Study

An *Environmental Overview Study* (EOS) completed by CDOT in 2006 investigated the possibility of eventually providing an alternative route for through traffic on State Highway 392 through downtown Windsor. Several alternative routes had been studied—some to the north and some to the south of the existing Main Street route. Alternative routes included ones that involved roadways on new alignments, not just rerouting traffic to existing routes.



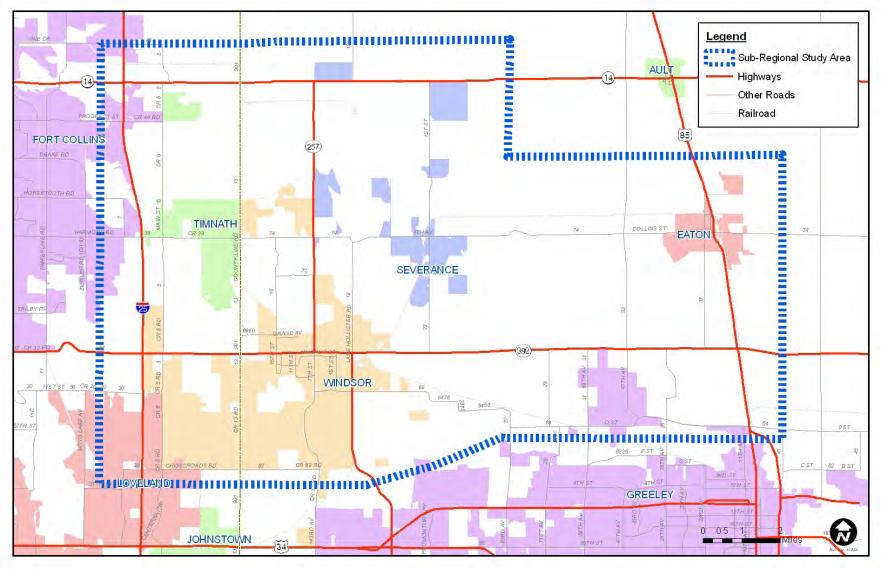


Figure 1. Study Area



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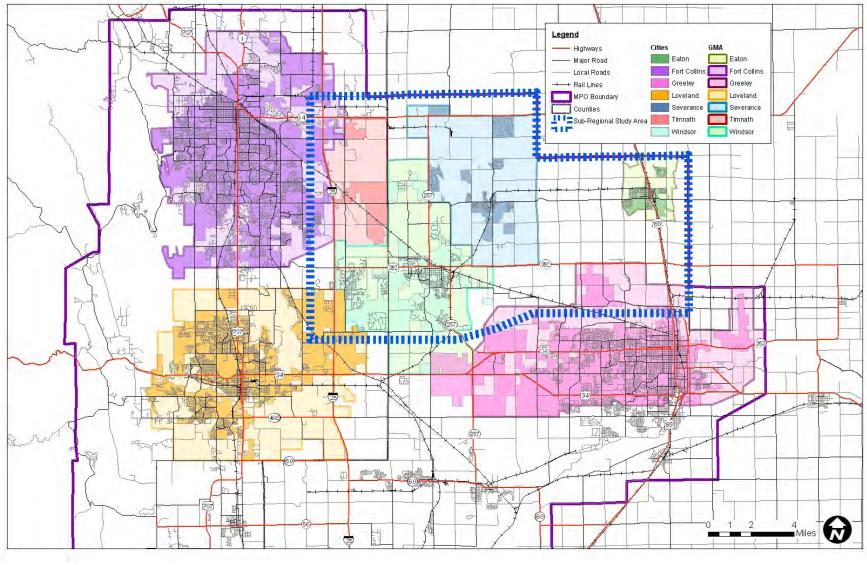


Figure 2. City Limits and Growth Management Areas



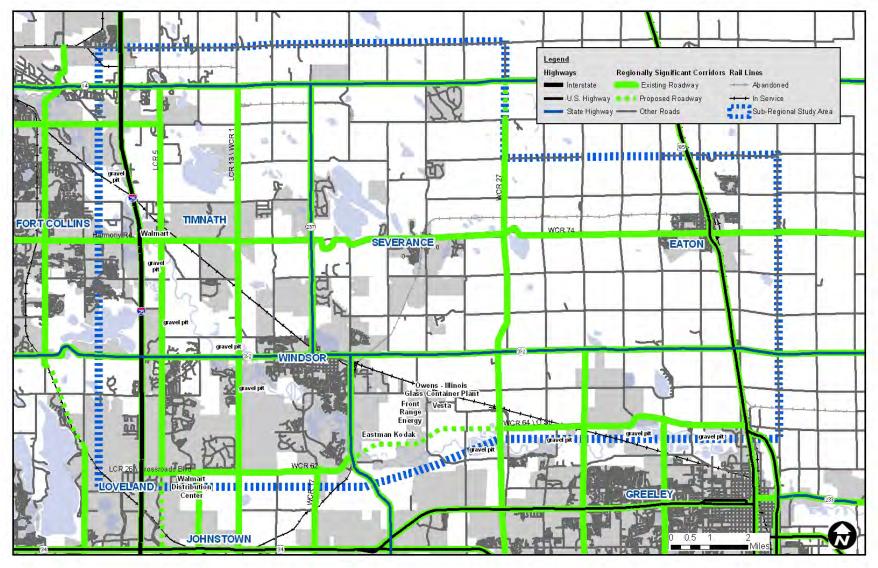


Figure 3. Regionally Significant Corridors



The use of Main Street by increasing volumes of heavy, multiple-unit trucks continues to be a concern of the Windsor community. In a July 2006 meeting of the Windsor Town Board and Planning Commission, one of the comments was that "Growth in all traffic through downtown is a concern." During this meeting, "...more than one alternative route" had been contemplated. Those included Weld County Road 74 and a State Highway 392 bypass.

Travel demand modeling of bypasses or alternative routes had been performed during the course of studies by CDOT and the Town of Windsor prior to this Sub-Regional Study. Discussions that a State Highway 392 bypass was forecasted to divert about 5,000 vehicles per day away from downtown Windsor prompted comments to the effect that, "The by-pass [that had been analyzed as part of the Environmental Overview Study] won't work... We need to get a better handle on the demand between Greeley and Fort Collins."



All sizes of trucks pass through downtown Windsor on Main Street (State Highway 392). This is a view looking east that shows landscaping, sidewalks, angle parking and pedestrian crossings in the central business district.

Windsor's SH 392 Alternative Review

The Town of Windsor had taken action in the form of a *SH* 392 *Alternatives Review*, a locally-funded study during which several options were considered that had not been part of the EOS of SH 392. Several alternatives were developed and evaluated to supplement those that had been addressed in the SH 392 EOS:

- Crossroads Boulevard as a 4-Lane Arterial from I-25 to SH 257
- WCR 74 as a 4-Lane Arterial from I-25 to SH 257
- Both Crossroads and WCR 74 as 4-Lane Arterials from I-25 to SH 257 (including a variation in which Crossroads Boulevard would be connected to O Street in Greeley as a Principal Arterial)

The *SH 392 Alternatives Review* provided a table that summarized the effects of the various alternatives listed above on SH 392 (Main Street) traffic in Downtown Windsor. These alternatives were tested by using the travel demand model in conjunction with a common set of enhancements in and around Windsor for the "baseline" roadway network. These included upgrading WCR 19, WCR 74, Crossroads Boulevard and adding a new road as a Minor Arterial to provide continuity on WCR 70 across the north side of Windsor.

Having seen the results of this review, the Town Board's resolution, dated May 14, 2007, established Windsor's response to the recommendations from the EOS. Quoting the May 14, 2007 resolution:



- 1. The Board acknowledges the planning value of both the CDOT EOS and the Town commissioned State Highway 392 Alternatives Review prepared by Felsburg Holt & Ullevig.
- 2. Following consideration and analysis of the data contained in both the EOS and the State Highway 392 Alternative Review, the Town Board finds and determines that the best information now available dictates that the CDOT EOS plan for a 392 bypass north of Main Street should not receive further consideration, and that the Town's emphasis should be placed on other implementation strategies.

Implementation strategies from this review by Windsor are similar in nature to some of the alternatives tested during this Sub-Regional Study (see Chapter V).

Request from Timnath for Sub-Regional Study

The Town of Timnath, prior to Windsor's May 2007 resolution, had been anticipating that "other implementation strategies" would have the potential to shift truck traffic to other roads paralleling State Highway 392, one of which was Harmony Road/Weld County Road 74.

At the March 1, 2007 regular monthly meeting of the NFRMPO Council, which was held in Timnath, Donna Benson, Timnath's Mayor and MPO Council Representative, stated that the town's officials had identified transportation concerns which may warrant assistance from the MPO in developing more regional solutions. Specifically mentioned in the minutes of this meeting were:

- Transportation issues relating to Timnath's continued growth
- How Timnath was addressing these concerns in its community
- That similar problems were being experienced throughout the region
- The need to come together to identify long term solutions (and the importance of joint long term planning so that funding issues can be addressed as a region)

Other members of the Council concurred about the need for the NFRMPO to help in facilitating a process to bring together the regional entities involved and assist in identifying subregional concerns and long term transportation solutions to meet the expected growth, not only in the Timnath area but also other subareas within the MPO boundary. Thus, the Sub-Regional Study had been initiated as a way to involve surrounding communities in addressing various alternative routes for increased traffic, particularly for truck traffic.



This view of Main Street (LCR 5) looking south in Timnath is close to the center of the town. Timnath's town hall is visible at the next intersection.





Harmony Road connects the Town of Timnath with Interstate Highway 25. This view of some recent construction is looking easterly from the I-25 interchange. It is adjacent to a new Walmart store. The Cache la Poudre River bridge is just beyond the widened roadway. Visible less than a quarter of a mile beyond the bridge is the intersection with Larimer County Road 5 (Timnath's "Main Street").

C. Problem Statement

The following problem statement was developed early in the sub-regional planning process by the Technical Group in order to clearly define the priorities of the study:

Transportation issues in the northeastern portion of the North Front Range Transportation Planning Region need to be addressed by a multi-jurisdictional Sub-Regional Study facilitated and managed by the North Front Range MPO in the following order:

A. Address the current and forecasted levels of service for traffic flow in general and for truck traffic in particular, identifying what transportation improvements and routing of traffic might be the most effective and acceptable.

- B. Identify how improvements to the transportation system will be prioritized, how these will be funded, and in what time frames.
- C. Incorporate continuing land use changes and associated growth, identifying how land use planning and intergovernmental coordination may be the most helpful in addressing transportation problems within the study area.

Note: After a series of discussions and technical group meetings spanning approximately one year, the technical group reached a conclusion that addressing Items "B" and "C" of the Problem Statement should not be pursued through further facilitation by the NFRMPO. Consequently, any additional action on those and on Goals B and C described below would become the responsibility of individual local jurisdictions or would come about through collaborative efforts between neighboring jurisdictions, perhaps through intergovernmental agreements. (See Page 10 for further explanation.)

D. Goals

During the study process, the Technical Group anticipated that the results of the study would influence future updates of the North Front Range MPO's *Regional Transportation Plan* and *Transportation Improvement Program* as well as local transportation plans and programs. The three goals listed below were adopted by the Technical Group to guide the development of the Sub-Regional Study and the resulting report. The report was expected to show how any



recommendations resulting from the *Sub-Regional Study* have been addressed, or should be addressed in the future, within the context of the larger, ongoing region-wide planning processes carried out by the NFRMPO:

Goal A

Reach understanding and agreement among all local agencies within the *Sub-Regional Study Area* and the Colorado Department of Transportation about what can be expected in the future with regard to the anticipated volumes of traffic and levels of service on the roadway network. Determine the likely sources and destinations of growing traffic volumes. Grounded with these forecasts, identify ways to avoid undesirable consequences of increased traffic.

Goal B

Reach an understanding and agreement about what should be planned for the future in terms of improvements to the subregional area's transportation system—particularly addressing its street and road network. Planned improvements should be based primarily on their effectiveness. Agree on an array of options for the various governmental agencies to fund those transportation system improvements considered to be both regionally significant and reasonably affordable.

Goal C

Identify ways to minimize the detrimental effects increasing truck traffic would have on the sub-regional area's communities and the roadway network.



II. STUDY PROCESS

NFRMPO staff met individually during the summer of 2007 with municipal and county leaders in the sub-regional study area, and as a large group in September 2007. Subsequently, both the NFRMPO's Technical Advisory Committee (TAC) and the Council were briefed. Comments from the TAC led to the preparation of a problem statement (included in Chapter I) and it was presented at the Council briefing on October 4, 2007.

The Technical Group was composed of the planning and engineering staff representatives from the study area's municipalities, the two counties, and CDOT Region 4. This

aroup provided direction for the study by suggesting better, long-term ways for truck traffic to be accommodated across the study area, by explaining the goals and desires of their respective agencies with regard to transportation issues, and by responding to potential solutions generated by the NFRMPO staff, including travel demand modeling results for a number of road improvement scenarios. Eventually, it was the Technical Group that reached consensus on a proposed set of truck route designations and the descriptions of truck traffic characteristics to be linked

Technical Group:

Abra Geissler (Timnath) Amelia Tuttle (Severance) Bill Andrews (Greeley) Dave Klockeman (Loveland) **Dennis Wagner (Windsor) Diana Mattison (Timnath)** Don Cadwallader (Eaton) Fred Jones (Greeley) Gary Carsten (Eaton) Gloria Hice-Idler (CDOT) Greg Flebbe (Greeley) Janet Carter (Weld County) Joe Plummer (Windsor) John Holdren (Severance) Karen Schneiders (CDOT) Kathleen Bracke (Fort Collins) Kelly Arnold (Windsor) Mark Jackson (Fort Collins) Mark Peterson (Larimer County) Martina Wilkinson (Larimer County) Mike Ketterling (Severance) Myron Hora (CODT) Rebecca Davidson (Timnath) Roger A. Reisig (State Port of Entry) Wavne Howard (Weld County)

to those route designations. A chronology of meetings with the Technical Group and other events relating to the study is provided in **Appendix B**. MPO Support Staff: Arvilla Kircchoff (NFRMPO) Chris Sheil (NFRMPO) Shawn Monk (NFRMPO) Stan Elmquist (NFRMPO) Suzette Mallette (NFRMPO) Tia Raamot (NFRMPO)

The MPO staff eventually

prepared the main components of this report after facilitating the efforts of the Technical Group. Facilitation activities included issuing meeting notices, preparing written summaries of the meetings, and gathering a wide range of background information about truck route designations in other parts of the nation. It also included travel demand modeling of various scenarios and overseeing the consultant-assisted analyses and mapping of the modeling results.

A smaller group of staff members from local agencies (a subgroup from the Technical Group) met in November 2007 and brainstormed the kinds of roadway and intersection improvements that they had foreseen as potential ways of accommodating the growth in traffic across the study area. A number of different roadway improvements were marked on an aerial photo of the study area. Referring to this map, the MPO staff prepared a set of fourteen "scenarios" that represented various ways of making capacity improvements to the roadway system. The MPO staff circulated descriptions of these scenarios to the entire Technical Group for review and comment prior to running the travel demand model.

At a July 30, 2008 meeting, the Technical Group discussed and modified a set of draft goals for the Sub-Regional Study. At an August 20, 2008 meeting, the new version of the study's goals were accepted by the Technical Group (as documented in Chapter I).



As the Technical Group reviewed the results of the travel demand modeling and worked toward formulation of some potential near-term actions, there was a desire to see more clearly what some of the patterns of travel would be in the future in terms of the places within the sub-region to which truck traffic would be attracted. This led to a series of select link analyses for various roadway sections within the subregional study area. In a select link analysis, travel demand modelers gather and report information about the origins and destinations of all the traffic forecasted to use a particular segment (or "link") of a region-wide route.

Eventually a smaller number of potential roadway improvements, named "Alternative A" through "F," were the subject of discussion at a July 30, 2009 meeting of the study's Technical Group. Based on the results of modeling the fourteen "scenarios" and the select link analyses, these were the alternatives that appeared to have the best potential for accommodating truck traffic in ways that would be acceptable to the various communities. At that meeting, the group requested one more model run that would analyze a composite of Alternatives A through F, anticipating that such a model run would illustrate any synergistic effects attributable to providing substantial capacity improvements on a comprehensive, coordinated network as compared to addressing only one or two roadway improvements at a time. This alternative was called "Alternative G."

The results of this round of modeling were distributed electronically to the Technical Group and then discussed at an August 20, 2008 meeting. Representatives from Windsor, Severance, and Timnath reported that they had met a few days earlier about the direction of the study. They told the group about their desire to focus attention from that point forward on a proposed system of designated truck routes rather than to concentrate efforts on a set of long-term, specific roadway capacity improvements. (Had there been support for pursuing one set of specific roadway improvements, the next steps would have been to get planning-level cost estimates for them and to prepare some options on how to best to eventually fund the improvements.)

These communities convinced the group to support a concept of designating certain routes as either "primary" or "secondary" truck routes and to work toward identifying various short-term improvements that would make the designated routes suitable for increased truck usage. This was perceived as being a better use of available public sector resources (both in terms of money and staff time). By this course of action, local agencies would become responsible for eventually making the designated truck routes viable and effective. Each municipality and county would be expected to provide the necessary engineering and to apply their knowledge of potential funding mechanisms to the implementation rather than to have the MPO staff and its consultants take further action. In this way, prioritizing, selecting, funding and implementing the various improvements necessary for making a comprehensive truck route network effective would become a local agency responsibility.

The North Front Range MPO Council discussed the status of the Sub-Regional Study at its regular monthly meeting on November 4, 2008. By that time, the goals of the study enumerated above were re-focused on a set of truck route designations would become the main product of the Sub-Regional Study. Those designations would likely lead to some localized improvements on various routes to make them better suited for heavy truck traffic.



III. EXISTING CONDITIONS

The following information about the physical and cultural geography, the land uses, and traffic volumes of the subregional study area is offered as documentation of current characteristics. As in any study of transportation systems, the context presents both opportunities and constraints. In the case of the sub-regional study area, physical constraints of the topography and existing land uses generally do not pose any insurmountable hurdles to making improvements to the street and road system. This is in contrast to other parts of the state where mountainous topography, "built out" urban development, or large expanses of federal or state lands seriously limit options.

Figure 4, the Topography Map, indicates how the existing network of roads and railroads have been developed largely along the edges of section lines (square miles) or, in the case of railroad tracks, along travel desire lines (ones providing fairly direct connections between communities). Only in a few specific areas, did steeper topography, lakes or water courses (either streams or ditches) discourage the completion of a grid of county roads having one-mile spacing in both directions, from north to south and from west to east.

Figure 5, the Planned Land Uses map, highlights how much of the study area is currently planned for urban or suburban land use patterns and how the various employment-oriented land uses are situated in close proximity to either roads or railroads. "Very Low Density Residential" land uses are planned for areas within a few miles of existing cities and towns, with outlying areas remaining undeveloped. Planning has already been done by local jurisdictions to anticipate future transportation improvements in the form of Weld County's network of "Strategic Roadways," although it is unclear, due mainly to funding questions, how soon such a network would be improved to the standards being envisioned.

Figures 6 through 22 provide documentation of current (2005 and 2007) traffic volumes using some of the more heavily traveled roads and what may be important about the bar graphs is the way the volumes of truck traffic do not appear to change from segment to segment across the area as much as the total traffic does. The graphs show that total traffic volumes tend to be highest on segments nearest the southern and western edges of the study area; and those edges are closest to the largest urban areas (Loveland, Fort Collins and Greeley). The pattern of these higher volumes is probably influenced by how many workers within the study area are leaving the study area each day to work in one of the larger communities.

A. Physical and Cultural Geography

The study area contains rural/natural areas (predominately under cultivation or grazing), urbanizing areas, and historic town centers. Terrain is generally flat with some rolling hills, as shown in **Figure 4**. There are steeper slopes near the rivers and drainageways.



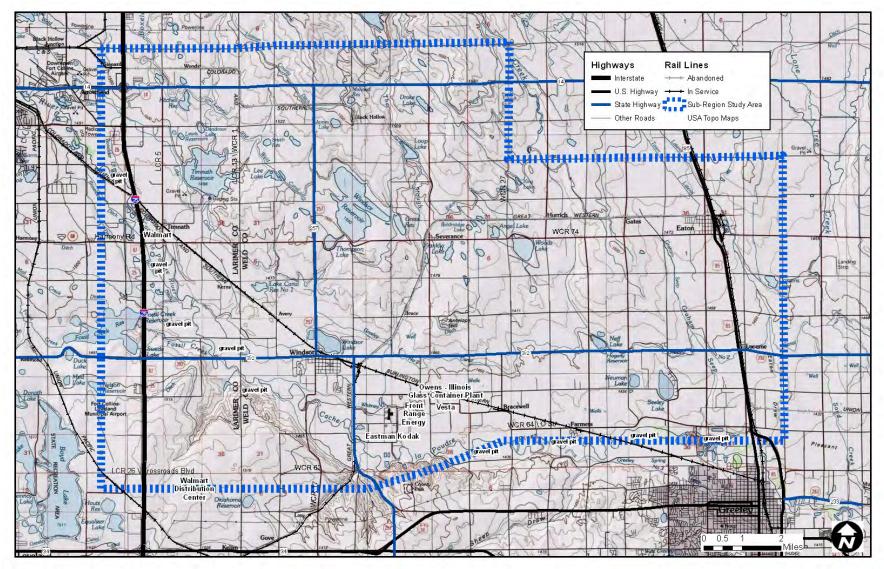


Figure 4. Topographic Map



Truck Traffic in the Northeastern Quadrant of the NFRMPO Region A North Front Range MPO Sub-Regional Study



Cache la Poudre River at Larimer County Road 5

The landscape is typical of the high plains bordering the foothills of the Rocky Mountains. With land having been divided in the late 1800s into square-mile sections and 36square-mile townships, the road network is a system that generally follows a grid pattern on the section lines except where the topography presents alignment challenges or where water bodies interrupt the continuity. The oldest portions of existing towns were generally divided into rectangular blocks with streets forming north-south and east-west grids. Newer subdivisions contain streets and roads that may follow circuitous land contours and, in some instances, were intentionally designed to discourage through traffic. These have few connections to the county road network.

Many of the farms and ranches in the area date to the late 1800s and prospered because of irrigation of crops and pasturelands. Large irrigation canals and intricate systems of lateral ditches distribute water via gravity flow. Some fields are irrigated by large pivot sprinkler systems, some of which draw water from wells rather than surface ditches or canals.



Farmsteads like this one near the intersection of Weld County Road 13 and State Highway 14 are numerous throughout the study area.

B. Land Uses



Recently developed residential communities east of Interstate 25 serve people who work in nearby Fort Collins and other places in the region.

Truck Traffic in the Northeastern Quadrant of the NFRMPO Region A North Front Range MPO Sub-Regional Study



The northeastern portion of the NFRMPO's planning area has experienced substantial residential, commercial, and industrial growth and development in recent years. Until the 1970s, the predominate land use and economic generator in this subregional study area was agriculture, with highly productive farms surrounding a number of small towns.



Eaton is a small town north of Greeley that has traditionally served agriculture. Silos visible in the right half of the photo had been associated with a sugar factory. New housing is developing on the southern and western edges of town.

The towns had been, and in many ways continue to be, economically linked with agriculture but during the 1970s the existence across north central Colorado of a strong, reliable workforce made it desirable for larger and more diversified industries to locate their facilities there. Perhaps the most notable example of this for the study area was 1969 opening of the manufacturing plant southeast of Windsor for the Eastman Kodak Company.



Eastman Kodak Company's manufacturing plant southeast of Windsor.

Comprehensive long-range planning by the various municipalities has resulted in a large proportion of the area bordered by Interstate 25, East Vine Drive/Weld CR 84, Weld CR 27 and State Highway 392 being envisioned as lowdensity or very low-density residential land uses in the future. Commercial uses are being planned at several locations along Harmony Road/Weld CR 74 and along SH 392, including a new Walmart store in Timnath immediately east of I-25 on Harmony Road. (Refer to Existing and Planned Land Use Map on **Figure 5.**)



Looking north from Harmony Road at Interstate 25 (left) and the Timnath Walmart Supercenter under construction in 2008 (right).



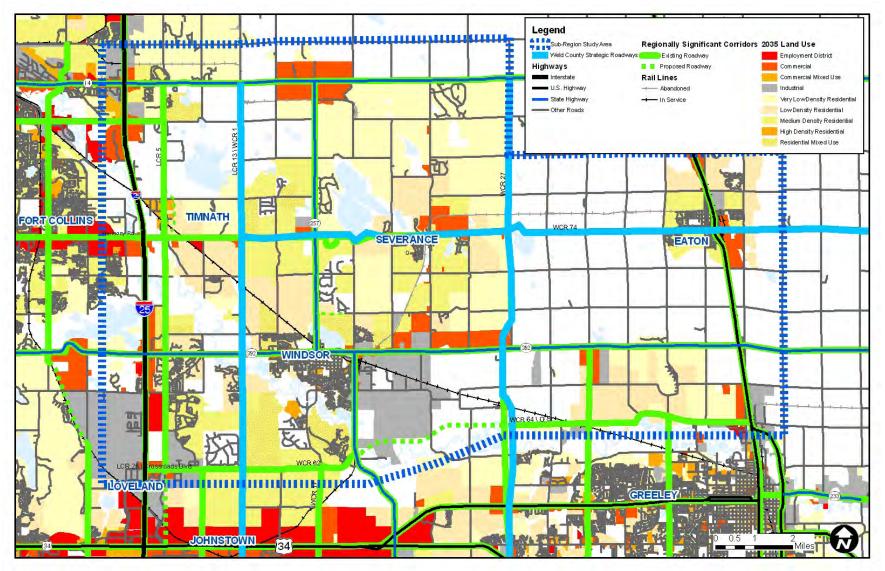


Figure 5. Planned Land Uses



To the east of the Eastman Kodak Company manufacturing plant, several new industrial facilities exist, are being expanded, or are under construction. (See "Assumptions about Land Use" below.) Several gravel pits are active in the area, mostly along the Cache la Poudre River.



Looking easterly from the southern edge of Windsor toward manufacturing plants of four major employers. Trees in the mid-ground line the Cache la Poudre River.

C. Traffic Volumes

The industrial/commercial developments noted above along with a wide range of new or expanding residential neighborhoods in various locations throughout the subregional study area are substantially changing the nature of traffic that is traveling the local roads and state highway system. During most of the past century, the state and county road system within the study area was mainly providing vehicular access to farmsteads, cropland, and rangeland.



Weld County Road 74 (Harmony Road) is a route that has traditionally served agriculture but is increasingly important to traffic from surrounding residential, commercial and industrial growth and development.

With the recent arrival of larger commercial and industrial facilities along with residential neighborhoods, growing traffic volumes are evident, especially truck traffic. Consequently, wear and tear on these roads is causing rapid deterioration--making it challenging and costly for local agencies and CDOT to adequately perform maintenance activities.



County roads experience deterioration at a faster rate when traffic volumes increase: Rutting in wheel tracks and poor shoulder conditions are evident in this view of Weld County Road 23 north of Severance.

Truck Traffic in the Northeastern Quadrant of the NFRMPO Region A North Front Range MPO Sub-Regional Study



Figure 6 shows current counts of traffic on the sub-regional area's road and highway system along with truck volume estimates at select locations. It is clear that trucks are generally making use of the State Highway routes but there are several instances where truck traffic volumes on the local road system currently exceed 400 vehicles per day, including:

- Weld CR 27 between the Greeley City Limits and Weld CR 64
- Weld CR 66 between the Windsor Town Limits and Weld CR 23
- Weld CR 74 (Harmony Road) between the Timnath Town Limits and Weld CR 15
- Weld CR 74 (Harmony Road) between the Windsor Town Limits and Weld CR 19

Traffic count data are provided in **Appendix C**.

Bar charts provided in Figures 7 through 11 show how traffic on various State Highway routes changes from west to east and from south to north. It is apparent from these charts that the volumes of truck traffic do not vary proportionately from segment-to-segment as much as the total traffic does. As one might expect, segments near industrial sites tend to have higher volumes of truck traffic than residential or agricultural areas. For example, the truck volumes on State Highway 392 east of the eastern junction of SH 257 are nearly as high as the segments immediately east of Interstate 25. Similarly, truck volumes on US 85 are highest at the northern edge of Greeley and then stay fairly constant going from SH 392 north through Eaton and Ault. It is important to consider, however, that these statistics are annualized averages; daily volumes of truck traffic can change substantially from one season to the next, particularly during the harvesting of crops.



Larimer County Road 5 is parallel to I-25 and this view is looking south toward central Timnath. In the 1990s, Timnath established for all of its streets a 7.5-ton weight limit (see sign in the photo). There is an exception for "local pick up and deliveries." Trucks, especially ones which may have exceeded limits for the Interstate highway system, had been bypassing the state's nearby Port of Entry on I-25 by using parallel roads like LCR 5.



Trucks travel State Highway 14 between Fort Collins (I-25) and Sterling (I-76).



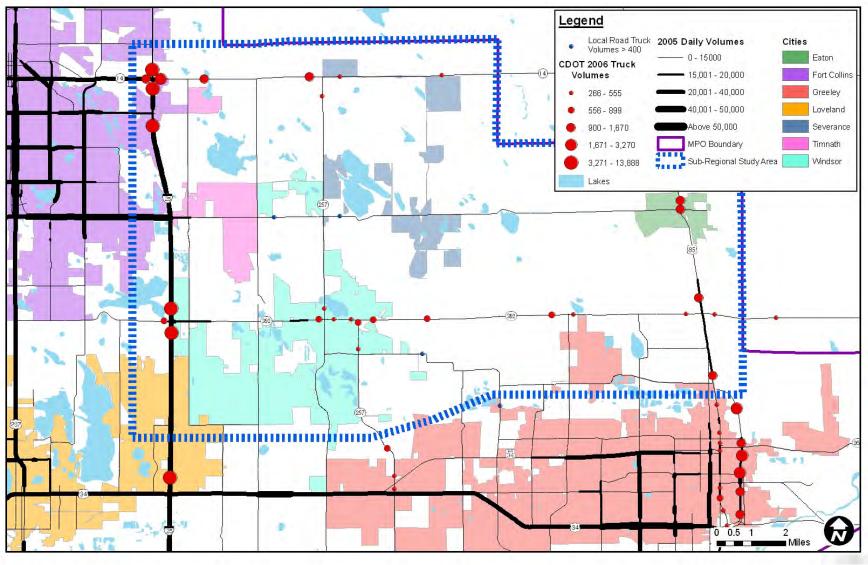


Figure 6. 2005 Daily Traffic Volumes



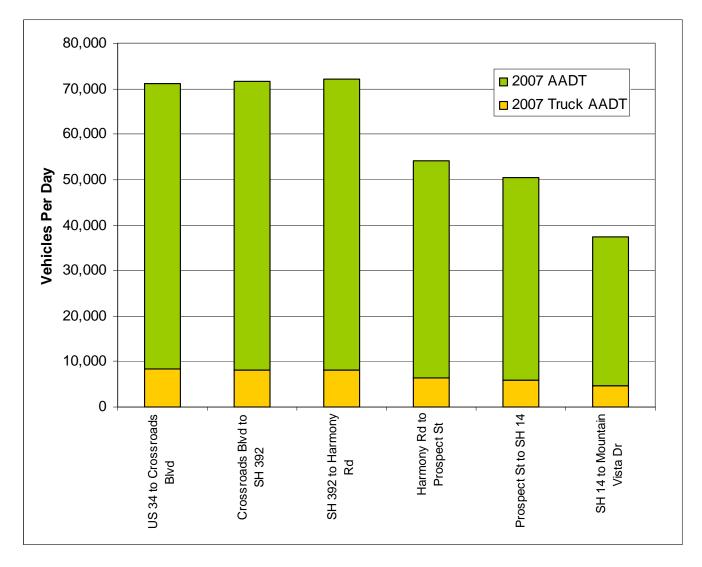
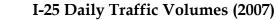


Figure 7.





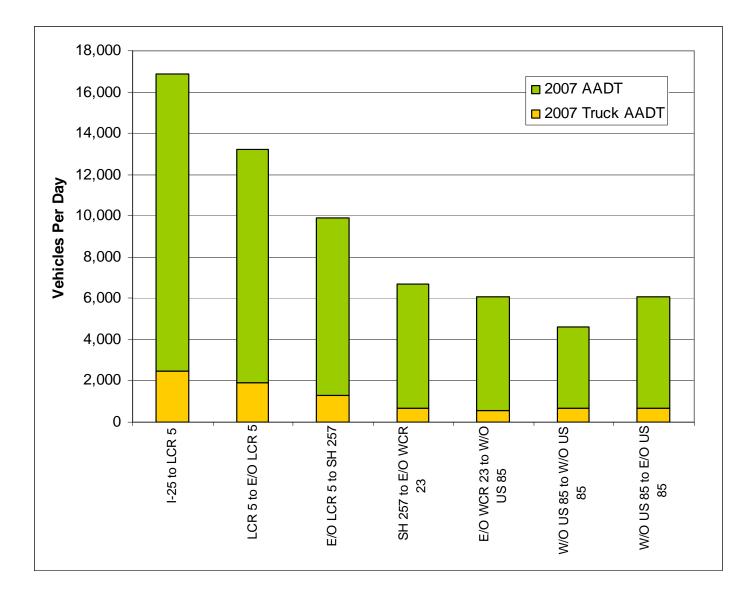
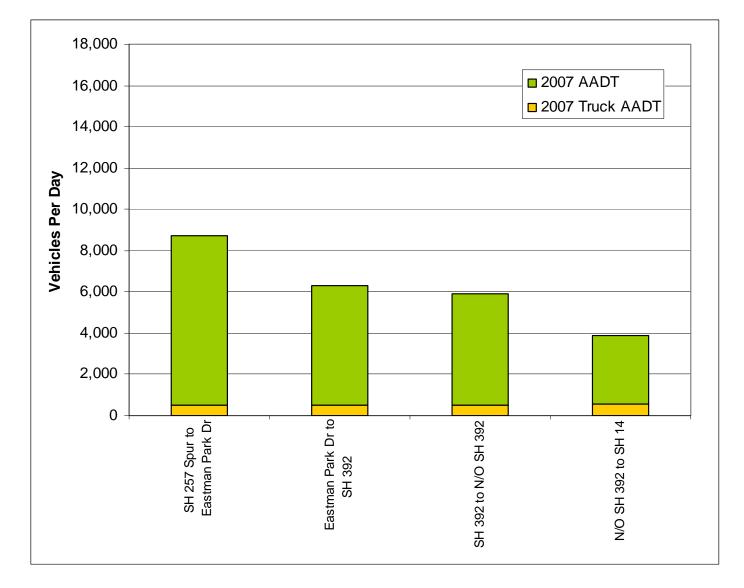
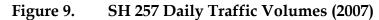


Figure 8. SH 14 (Mulberry) Daily Traffic Volumes (2007)









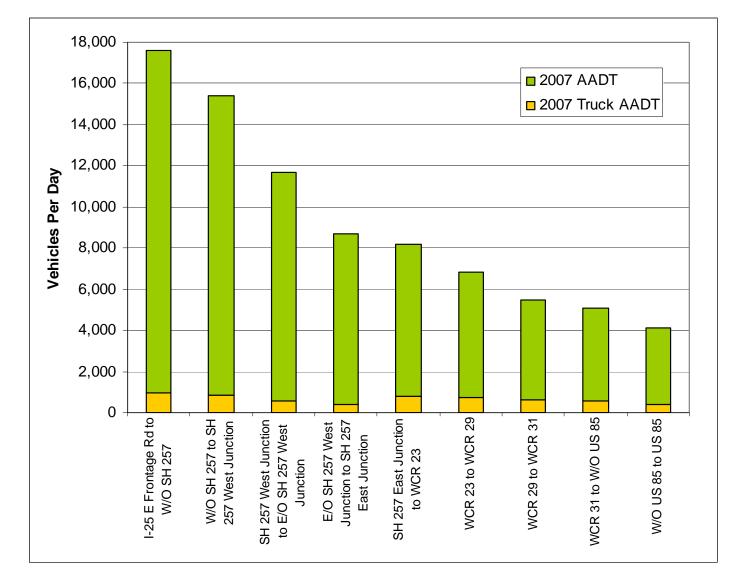


Figure 10. SH 392 Daily Traffic Volumes (2007)



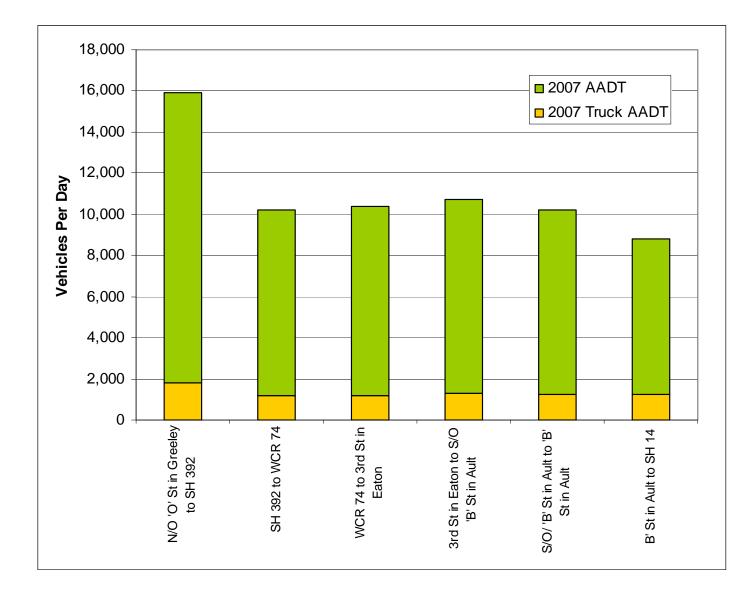


Figure 11. US 85 Daily Traffic Volumes (2007)



IV. FUTURE CONDITIONS

The following information about industrial, residential, and commercial growth and development is offered as documentation about the assumptions being made about future land uses in the study area. With the anticipated growth and development there is a correlating expectation of increased vehicular traffic, including truck traffic.

This chapter documents the anticipated spatial patterning of changes in land uses across the study area and it provides readers with pairs of maps showing where the origins of truck traffic are expected to expand. One can see in Figures 18 and 19 a substantial increase from 2005 to 2035 in the number of truck trips expected to be generated from traffic analysis zones to the south and east of Windsor.

This information was influential during the conceptualization of various alternatives for making improvements to the street and road system (see Chapter V, "Evaluation of Alternatives").

A. Traffic Growth Indicators Industrial

There are several industrial developments that are generating substantial volumes of traffic on the street, road, and highway network within the Sub-Regional Planning Area. Freight shipments to and from these industrial sites are made by both truck and rail--specifically, the Great Western Railway. **Table 1** lists thirteen of the more prominent industries in the Sub-Regional Study Area, their addresses and the number of employees. The location of these industries is shown on **Figure 12**.

The numbers of employees have a correlation with the number of trips associated with each company's facility. (The North Front Range MPO's Regional Travel Model generally assumes that about 1½ home-based work trips per day would be associated with each employee. It uses separate allocation factors for "Basic," "Retail," and "Service" categories of employment. Truck trip forecasts are adjusted for each of these categories and are separated into small/single unit trucks and large/combination trucks. The truck trip production rates are highest for "Basic" employment and lowest for "Service" employment.)

The numbers of employees listed in **Table 1** from 2009 are from a newer set of data than those used for this study's travel demand modeling. More detail about the prominent industries within the study area is provided in **Appendix D**.



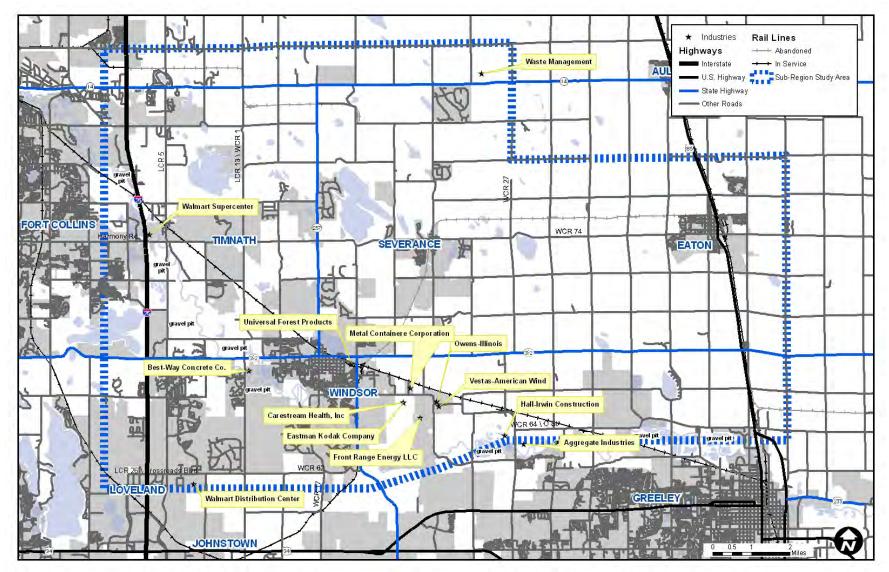


Figure 12. Prominent Industries



Table 1.Prominent Industries in the Study Area

Company Name	Location/Address	Number of Employees
Owens-Illinois	WCR 23 & WCR 64¾	207
Vestas-American Wind Tech	9351 Eastman Park Dr, Windsor	600 and growing
Eastman Kodak Company	9952 Eastman Park Dr, Windsor	753
Carestream Health, Inc.	(see Eastman Kodak Company)	638
Front Range Energy LLC	31000 WCR 23, Greeley	30
Universal Forest Products	15 East Walnut St, Windsor	143
Metal Container Corporation	12-1 18 th Ave, Windsor	105
Best-Way Concrete Co.	32744 WCR 13, Windsor	N/A
Hall-Irwin Construction	30279 WCR 27	9
Waste Management	40000 WCR 25, Ault	104
Aggregate Industries, Inc.	WCR 27 & WCR 64	N/A
Walmart Distribution Center	7504 E Crossroads Blvd., Loveland	655
Walmart Supercenter	4500 Weitzel St., Timnath	358

N/A = Information not available

Source of Employee Numbers: Quarterly Census of Employment and Labor, Bureau of Labor Statistics (3rd Quarter of 2009)



Owens-Illinois

Raw materials arrive at the Owens-Illinois glass manufacturing plant southeast of Windsor by rail (right). Trucks deliver bottles from here to the Budweiser brewery north of Fort Collins.



Vestas-American Wind Tech

Wind turbine blades await transport outside the recently constructed Vestas manufacturing plant southeast of Windsor. Trucks leave the plant via the Weld County Road system and Eastman Park Drive. Blades are sometimes shipped out via the Great Western Railway.



Eastman Kodak Company

Eastman Kodak Company southeast of Windsor on Eastman Park Drive has been a major Northern Colorado employer since the 1970s..





Front Range Energy LLC

A tanker truck leaves the Front Range Energy ethanol plant. Trucks access the plant via Eastman Park Drive and Great Western Drive (and Weld CR 23). This plant is located in the Great Western Industrial Park.



Metal Container Corporation

Metal Container Corporation's plant is located on Eastman Park Drive, directly north of Eastman Kodak. It supplies cans to the Budweiser brewery north of Fort Collins near I-25.



Waste Management

Trucks deliver solid waste to Waste Management's North Weld Sanitary Landfill at the intersection of State Highway 14 and Weld County Road 25 west of Ault.

Residential

The Sub-Regional Study Area is experiencing remarkable rates of residential growth and development driven mainly by its proximity to the three largest cities in the MPO Region: Fort Collins, Greeley and Loveland (refer to **Figure 5**, which shows the existing and planned land uses in the study area). A large percentage of residents living in the Sub-Regional Study Area leave it each day to reach jobs located in neighboring communities or in the larger cities of the metropolitan transportation planning area.

Figures 13 and 14 provide a visual indication of the anticipated growth in population between the present time (based on 2005) and the future (2035). These maps were developed based on the numbers of dwelling units and converted to population by using statistics about occupancy rates per dwelling unit in each Traffic Analysis Zone (TAZ) of the North Front Range MPO's travel demand model. The population within the sub-regional study area is expected to grow from approximately 35,000 in 2005 to approximately 81,000 in 2035.



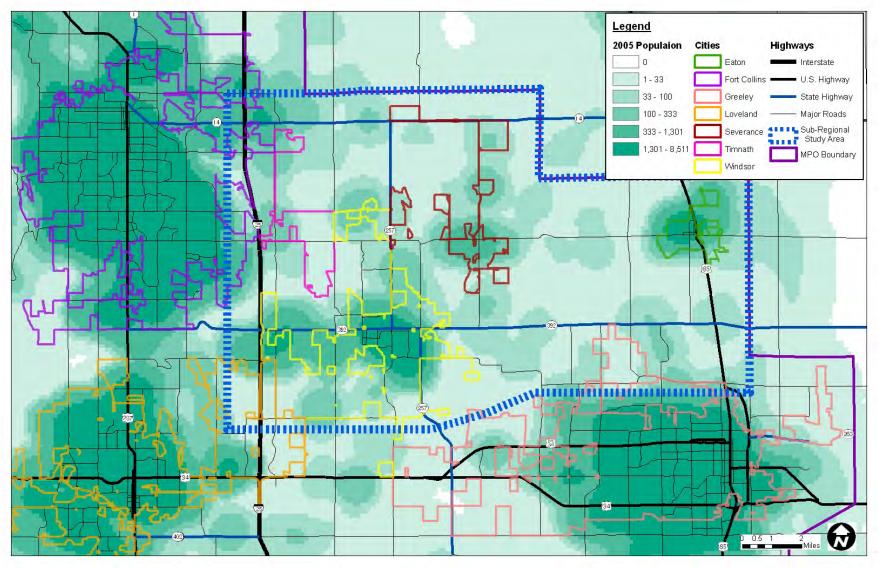


Figure 13. 2005 Population



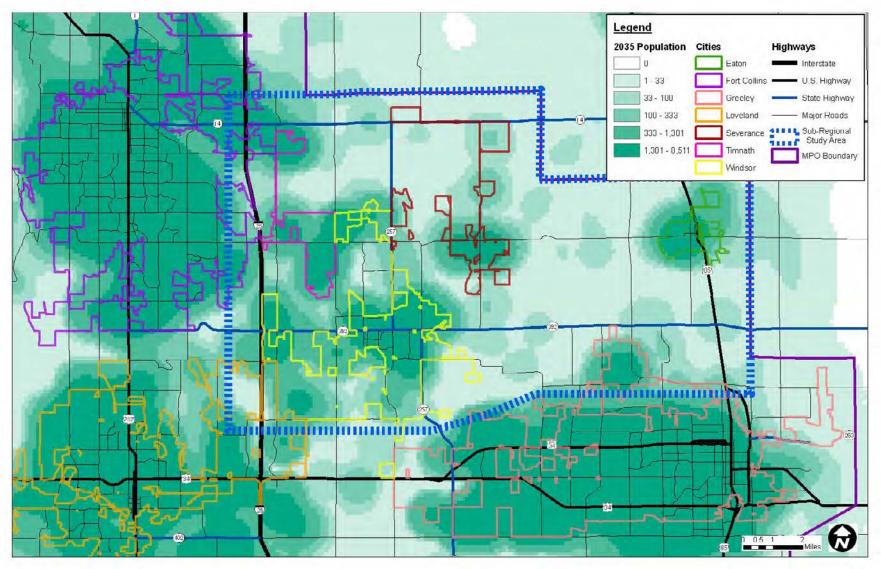


Figure 14. 2035 Population



Commercial

Conversations with local agencies were focused mainly on the effects of residential and industrial development in the Sub-Regional Study Area. However, there is recognition of increased commercial development, too, which offers the opportunity for household shopping and business-related procurement trips to the larger cities to become a lower proportion of all such trips in future years. One of the more significant examples of new commercial development is the Walmart store being located northeast of the Harmony Road and Interstate 25 interchange in Timnath. In other communities, recent arrivals of convenience stores and other small retail outlets are evident. As an example, new fast food outlets have recently opened in Eaton at the intersection of WCR 74 and US 85. Suppliers of agricultural supplies and equipment are prevalent in the area. Each town in the Sub-Regional study area has a business district but the sizes and numbers of retail outlets vary considerably.



A gas station/convenience store and a newer commercial development that includes fast food outlets (left) changed the characteristics of the Collins Street and U.S. 85 intersection in Eaton. This is a view looking west along Collins Street (Weld County Road 74) toward traffic signals at U.S. 85.

Windsor has the most prominent business district within the study area. Most of its commercial outlets are located along "Main Street," which is State Highway 392. This business district is roughly equidistant from "Old Town" Fort Collins and downtown Greeley. **Figures 15 and 16** provide a visual indication of the anticipated growth in employment between the present time (based on 2005) and the future (2035). These maps were developed based on the numbers of employees in each TAZ of the North Front Range MPO's travel demand model. The employment within the sub-regional study area is expected to grow from approximately 25,000 employees in 2005 to approximately 73,000 employees in 2035.

B. Travel Demand Modeling

The North Front Range MPO's computerized travel demand model was used for the study to forecast future traffic volumes on the roadway network throughout the study area. **Figure 17** displays the 2035 forecasted traffic and truck volumes in the study area. These traffic volumes represent the baseline condition; that is if no improvements beyond those that are included in the Fiscally Constrained Regional Transportation Plan were completed by 2035. Forecasts were prepared for 2035 to identify Levels of Service (LOS) on a scale of "A" for free-flow conditions to "F" for heavily congested conditions, which has been used to compare various improvement scenarios.

The model was used to better understand the origin of truck trips in the study area. The estimated number of daily truck trips originating in each TAZ is shown in on **Figures 18 and 19** for 2005 and 2035, respectively. In 2005, the highest concentration of trucks originate from several square miles surrounding the SH 257/SH 392 intersection. By 2035, truck traffic in the sub-region is expected to roughly double. Trucks are expected to originate from the southern portion of the study area as well as from locations in the northern portion of the study area which do not currently produce significant truck traffic. The travel demand model has been refined to take into



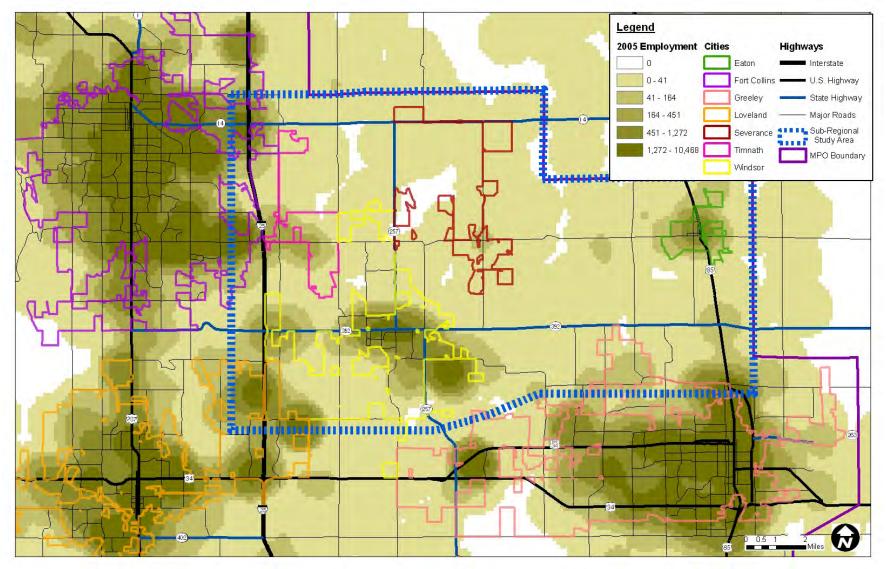


Figure 15. 2005 Employment



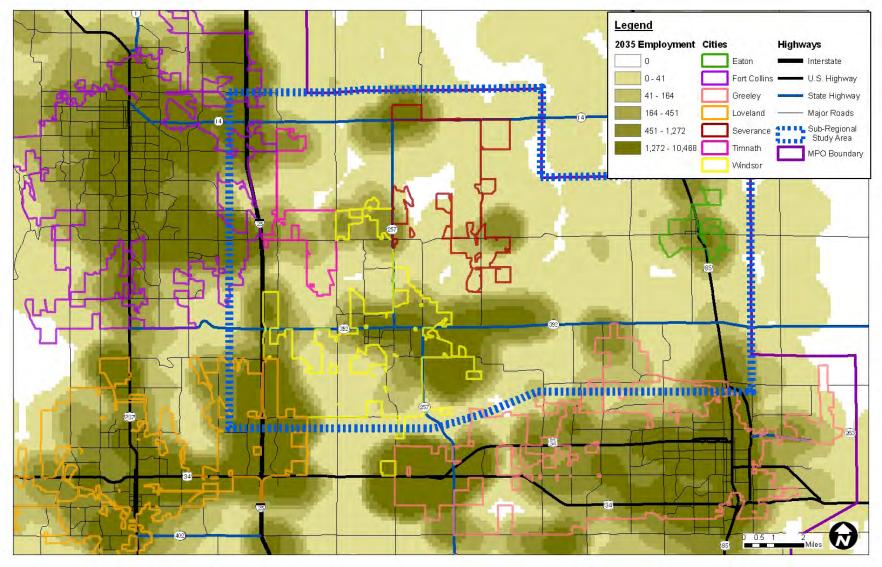


Figure 16. 2035 Employment



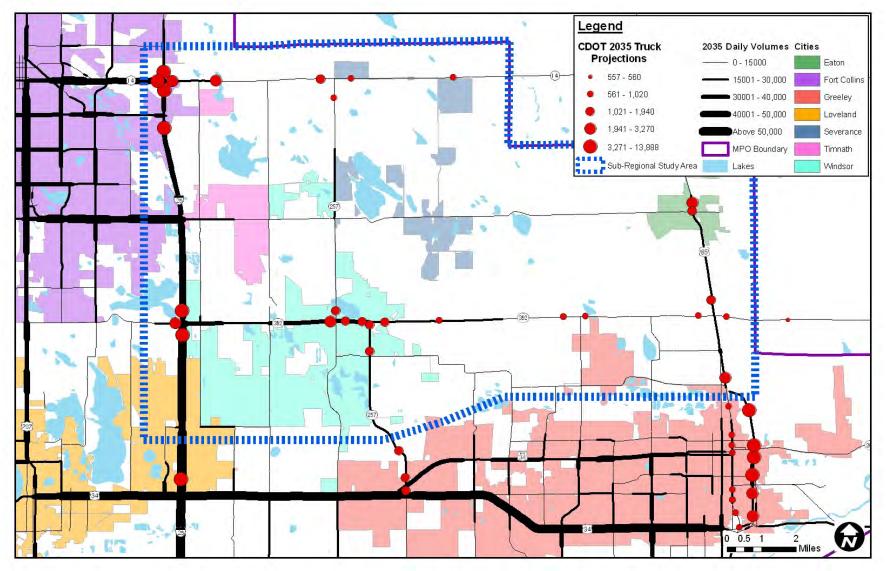


Figure 17. 2035 Daily Traffic Volumes



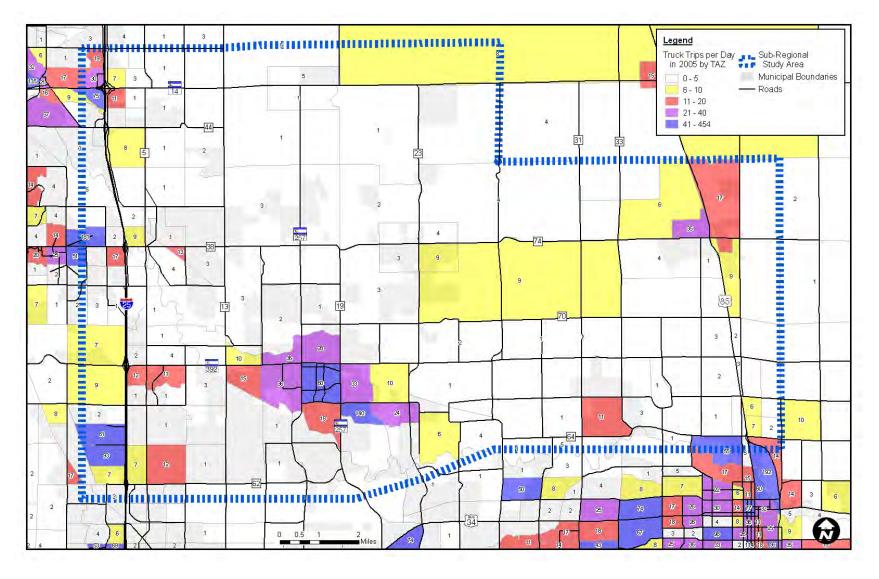


Figure 18. Origins of Trucks by TAZ for 2005



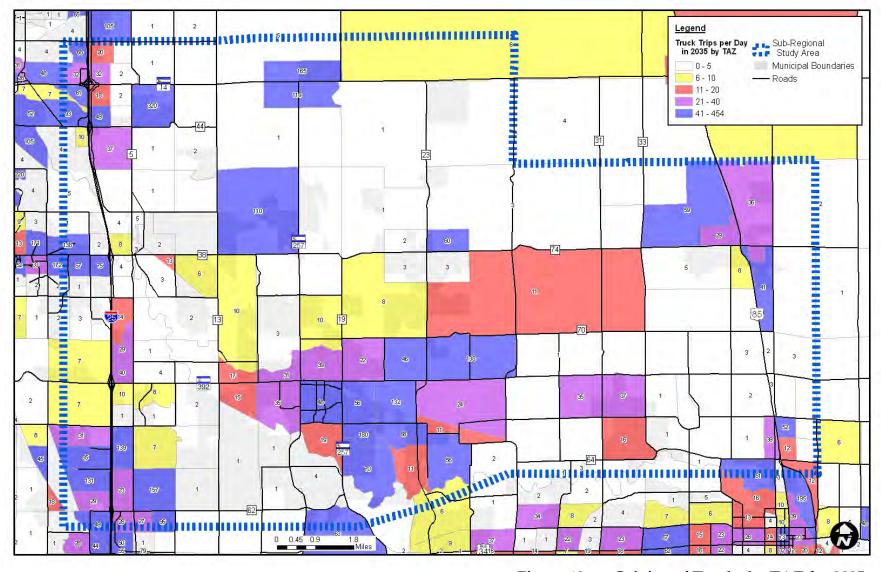


Figure 19. Origins of Trucks by TAZ for 2035



consideration current counts of truck traffic. Adjustments to the model that bring its predictions for current truck volumes closer to actual traffic counts are assumed to be applicable to future conditions and travel behaviors.

A select link analysis using the NFRMPO's travel demand model was performed in order to better understand the future truck travel patterns. The select link analysis examined the destinations of truck traffic using particular segments of the street and highway network within the Sub-Regional Study Area. The seven roadway segments (or "links") that were examined are listed below:

- State Highway 14 west of State Highway 257
- State Highway 257 south of State Highway 14
- Weld County Road 74 west of Weld County Road 23 (4th Street in Severance)
- Weld County Road 31 south of State Highway 14
- Harmony Road west of Larimer County Road 5
- State Highway 392 (Main Street in Windsor) in the Central Business District
- Crossroads Boulevard (Weld County Road 64) east of State Highway 257

Maps shown in **Figures 20 through 26** are color-coded to indicate the numbers of trucks at these locations that are forecasted (for the year 2035) to end their trips in various traffic analysis zones (see legend on each map). By looking at the destinations of truck traffic, one can get an indication of which routes in the network are likely to be important for truck traffic between their origins and destinations. For example, most of the trucks using Weld County Road 74 in Severance have destinations in either the Eaton area or to the northwest of the Weld County Road 74/State Highway 257 intersection. The segments of highway listed above were chosen for select link analyses because they are relevant to the concept of attempting to find a way to attract truck traffic away from the Main Street route through downtown Windsor. Of particular interest was whether an alternative route using a combination of Weld County Road 74 and Weld County Road 19 could be made attractive for truck traffic so that it would no longer need to use State Highway 257 through Windsor, including the portion on combined mileage with State Highway 392 (Main Street).

The local ordinance restricting truck traffic in Timnath makes it difficult to place very much confidence in a select link analysis for any place within the town limits; nevertheless, the results of an analysis of Harmony Road between Interstate 25 and Larimer County Road 5 are shown in **Figure 24**. Origins are predominately located along Harmony Road both to the east and to the west of Timnath.

Looking more closely at **Figures 20 and 21**, one can see that State Highway 14 just west of State Highway 257 carries truck trips originating in eastern Fort Collins in addition to those from the immediate area around the State Highway 257 intersection and from farther south along 257.

As might be expected, State Highway 257 just south of State Highway 14 has truck traffic from essentially the same, immediately adjacent areas as the nearby State Highway 14 link but eastern Fort Collins traffic is not substantial enough to be highlighted. On the other hand, a traffic analysis zone southeast of Windsor is contributing a noticeable amount of truck traffic.



Similarly, **Figure 22** shows truck traffic on Harmony Road in Severance being generated from northeastern Eaton, from within Severance and to the east of Timnath.

Figure 23 shows truck traffic on Weld County Road 31 just south of State Highway 14 being generated from the area along State Highway 14 on the north side of the State Highway 257 intersection.

Figure 25 shows truck traffic on Main Street in downtown Windsor being generated from several Traffic Analysis Zones in and around Windsor as well as ones north of Windsor along State Highway 257 and a couple of other places to the west on each side of Interstate 25.

Figure 26 shows truck traffic on Crossroads Boulevard to the southwest of Windsor being generated from several Traffic Analysis Zones in and around the southeastern areas of Windsor as well as ones on the northeast and northwest sides of the Interstate 25 and Crossroads Boulevard interchange (Loveland).



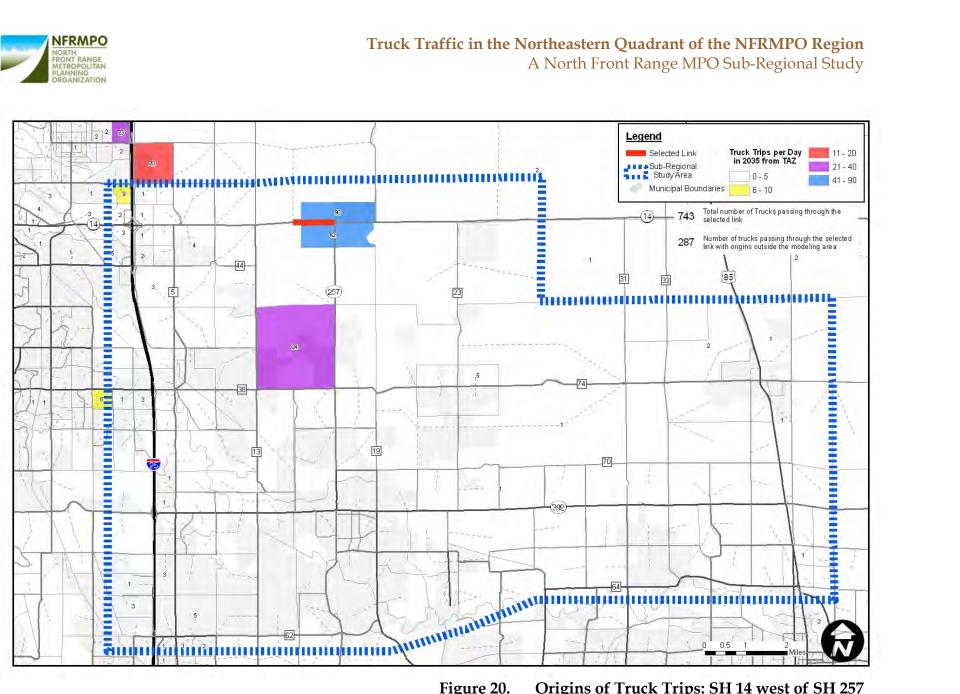


Figure 20. Origins of Truck Trips: SH 14 west of SH 257



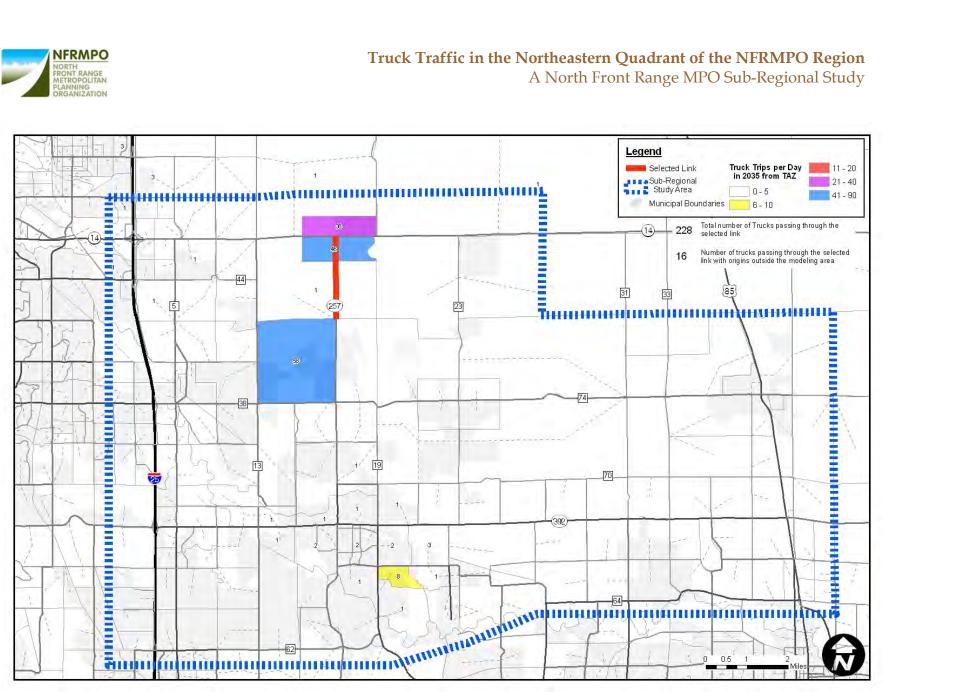


Figure 21. Origins of Truck Trips: SH 257 south of SH 14



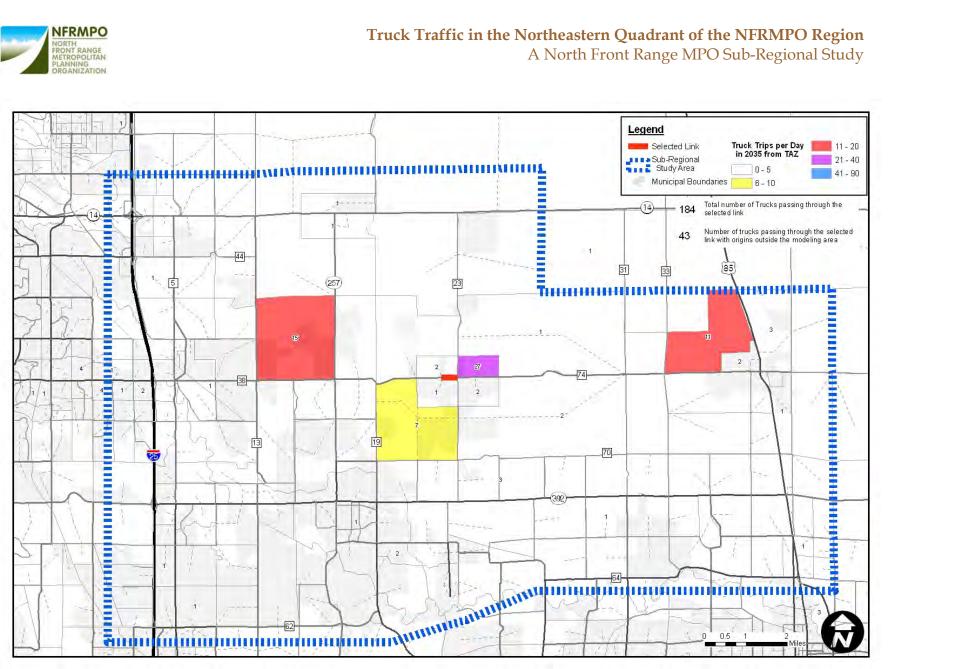


Figure 22. Origins of Truck Trips: Weld CR 74 (Severance)



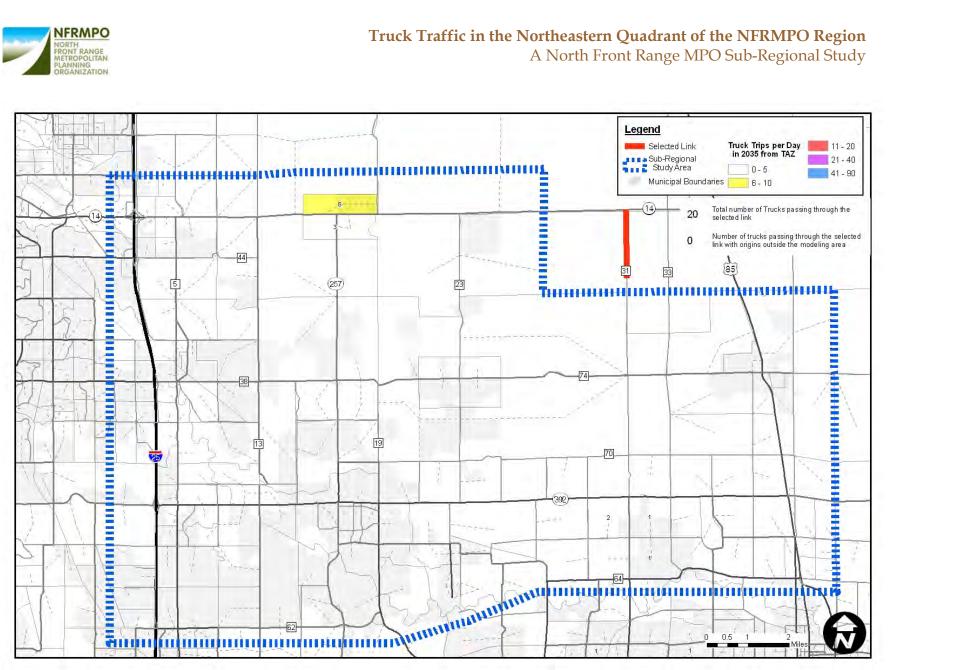


Figure 23. Origins of Truck Trips: Weld CR 31 south of SH 14



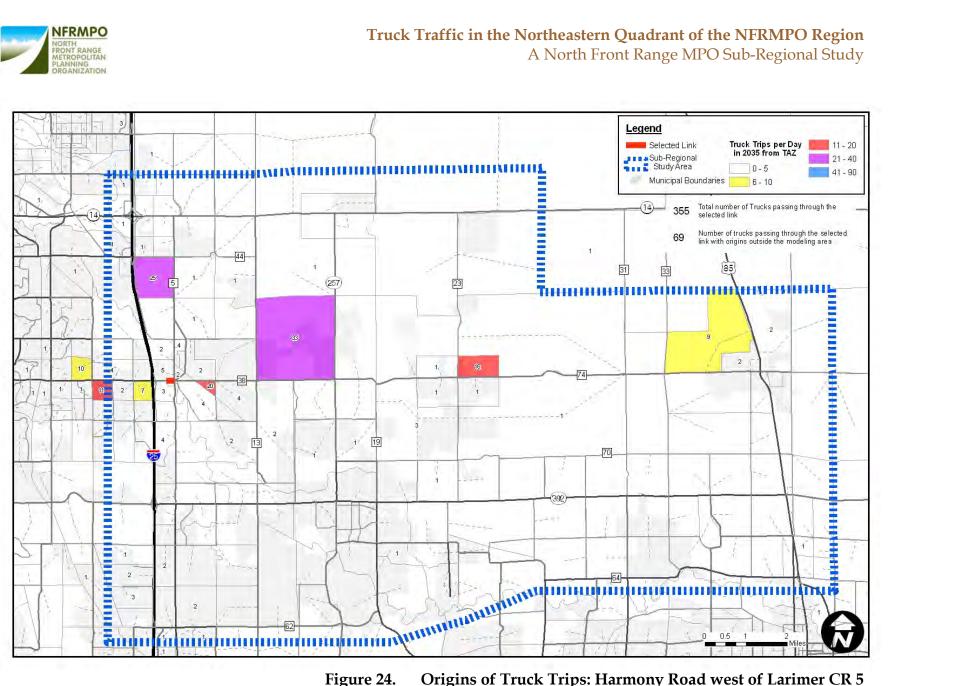


Figure 24. Origins of Truck Trips: Harmony Road west of Larimer CR 5



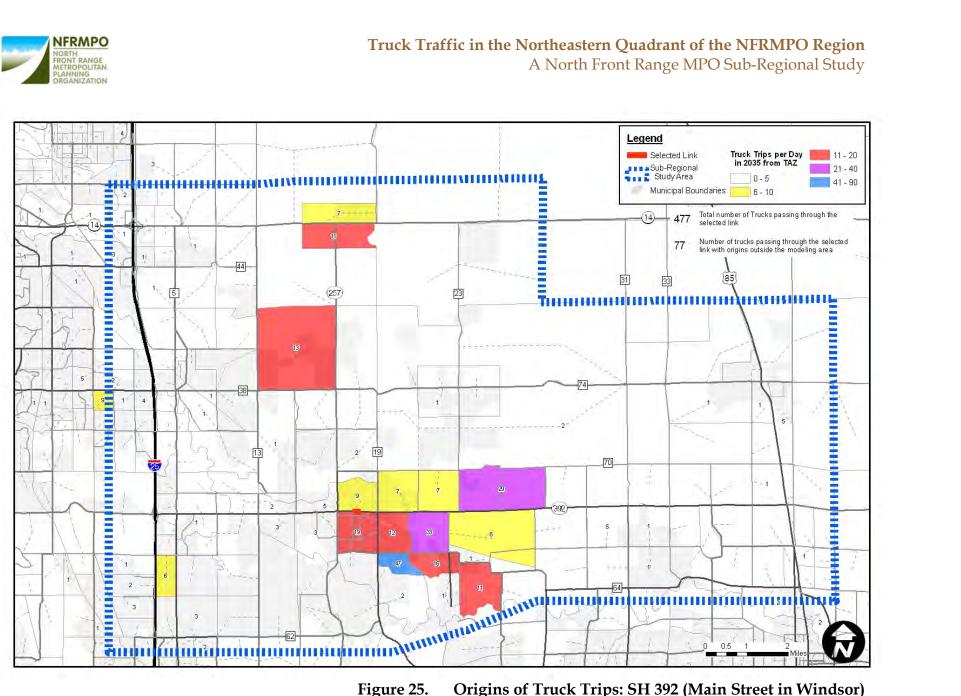


Figure 25. Origins of Truck Trips: SH 392 (Main Street in Windsor)



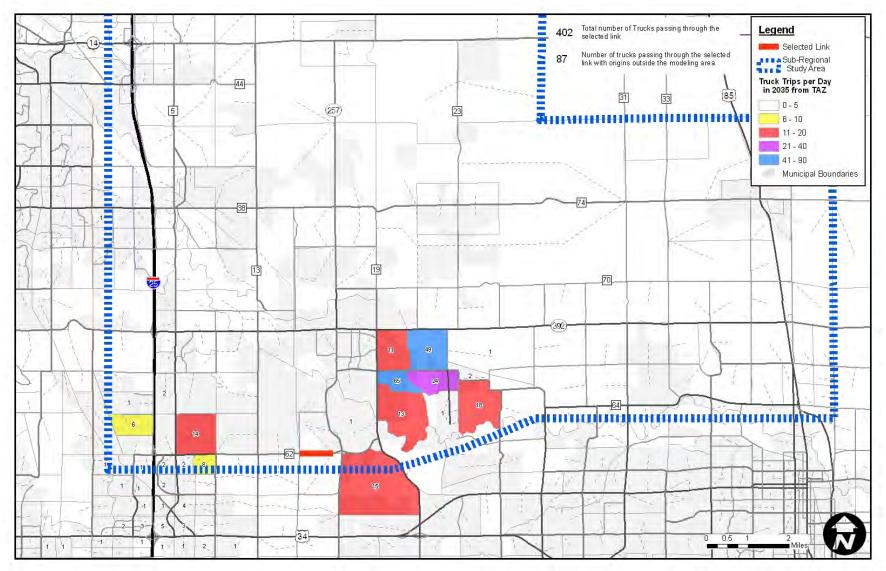


Figure 26. Origins of Truck Trips: Weld CR 62 (Crossroads Blvd)



V. EVALUATION OF ALTERNATIVES

A. Level One Evaluation

A series of fourteen roadway network scenarios (named "Scenarios I through XIV") were developed and analyzed using the travel demand model. In some instances, the scenarios drew concepts from existing local agency transportation master plans. The purpose of these scenarios was to test the effectiveness of particular sets of roadway modifications (capacity improvements) so that appropriate comparisons from one scenario to another could be made.

Several of the scenarios were devised with the objective for traffic to be attracted toward routes other than ones passing through downtown areas and business districts. Evaluating an increase in the number of lanes on some routes and improvements to the functionality (affecting travel speeds, in particular) on other routes was involved. For purposes of comparison, other scenarios tested what would happen if the capacity of the most direct routes would be increased, even if those changes might attract traffic to downtown areas.

As an example, in attempting to draw traffic away from Harmony Road in Timnath, some of the scenarios called for making portions of State Highways 14 and 257 into four-lane arterials (each of them only has two lanes currently). Descriptions of the various scenarios are provided in **Appendix E** of this report along with maps of the 2035 traffic assignments and resulting levels of service that were forecasted. **Table 2** summarizes the effectiveness of the original fourteen scenarios and indicates how some scenarios (or components of them) were being folded into a more refined list of alternatives that were named "Alternatives A through F" as part of the Level Two Evaluation. The traffic modeling of these scenarios indicated, as anticipated, that increasing the capacity on certain routes would prompt traffic to use different routes than what would be expected without any improvements to the roadway network. By comparing the maps in **Appendix E** for the various scenarios, one can get a sense of which scenarios are the most likely and which are the least likely to change travel patterns overall or at specific locations of interest.

As the results of traffic forecasts for the various scenarios were reviewed, there were some patterns that emerged indicating that improvements to north-south routes would be somewhat effective in helping truck traffic avoid Harmony Road in Timnath and Main Street (SH 392) in Windsor.

Another improvement that would be effective in attracting trucks away from Harmony Road through Timnath and from SH 392 through Windsor is the continuation of Crossroads Boulevard east of State Highway 257 onto a new alignment that would cross the Cache la Poudre River and connect to Greeley's 'O' Street.

In a cooperative effort led by Weld County, a specific route location has been studied and adopted by the various local agencies including the Town of Windsor and the City of Greeley. Preservation of this important connection between Crossroads Boulevard and 'O' Street is planned. With plans for this connection to be made sometime in the future as development occurs, there is an option for some truck traffic in the Sub-Regional Study Area to use it as an alternative to traveling through downtown Windsor on the SH 392/SH 257 (Main Street) route.



Table 2.Level One Scenario Evaluation Results

	Description of Improvements included in Scenario								
Scenario	Effects of scenario improvements on sub-regional study area travel patterns								
	Recommendations for inclusion in further Alternatives								
I	Extension of Harmony Road as a 4-lane from WCR 13 to SH 257								
	Attracts traffic to Harmony Rd								
	Diverts traffic away from Main St (SH 392) in Windsor for 1 mile W/O SH 257								
	Diverts traffic away from LCR1/WCR 13 between northern Windsor and Harmony Rd								
	Recommendation: Combine with a shortened version of Scenario X to form "Alternative E"								
	SH 14 as 4-Lane from I-25 to SH 257, Harmony Rd as 4-Lane from WCR 13 to SH 257, SH 257 as 4-Lane								
II	from SH 14 to SH 392, WCR 23 as 4-Lane from SH 392 to Eastman Park Dr &								
	• Attracts traffic to SH 14 (Mulberry St) between I-25 and SH 257								
·	Attracts traffic to WCR 23 for ½ mile immediately north of SH 392								
	Diverts traffic away from WCR 13 north and south of SH 14								
	Recommendation: Combine elements of this Scenario with elements of Scenario VII to form "Alternatives D1" and "D2"								
ш	Crossroads Blvd extension from WCR 17 to WCR 27/'O' St & Great Western Dr extension/upgrade from Crossroads Blvd to Eastman Park Dr (WCR 66)								
	• Attracts a substantial volume of traffic to Crossroads/'O' St, including portions both east and west of the extension on new alignment								
	 Diverts traffic away from Main St in Windsor/SH 392, Eastman Park Dr, WCR 15/17 N/O US 34, and US 34 Business Rt W/O WCR 27 								
	Attracts traffic to WCRs 27 and 31 N/O US 34 Business Rt								
	Recommendation: Retain main elements of this Scenario to form "Alternative B" (a variation is "Alternative F")								
IV	WCR 23/Great Western Dr extension from US 34 Business Route (10th St.) to WCR 64 ³ / ₄								
	Attracts traffic to most of SH 257 between Eastman Park Dr (WCR 66) and US 34 Business Rt								
	 Diverts traffic away from a short segment of Main St (SH 392) in Windsor and from a 1-mile segment of SH 392 between WCRs 23 and 25 								
	• Diverts traffic away from WCRs 23 and 25 between the US 34 Business Rt and WCR 641/2 / 643/4 (Eastman Park Dr)								
	Attracts traffic to US 34 Business Rt between Promontory and 71st Ave								
	Has very little, if any, effect on Harmony Rd traffic volumes								
	Recommendation: Retain elements of this Scenario to form "Alternative A"								



Scenario	 Description of Improvements included in Scenario Effects of scenario improvements on sub-regional study area travel patterns Recommendations for inclusion in further Alternatives 					
v	Great Western Dr from Great Western Industrial Park to Eastman Park Dr, realignment of WCR 23 north of Eastman Park Dr to connect into a new 4-way intersection with WCR 23 at SH 392 & WCR 23 upgraded to Minor Arterial from SH 392 to SH 14					
	Attracts traffic to WCR 23 between SH 392 and SH 14					
	Attracts traffic to a 1-mile segment of SH 392 between WCRs 23 and 25					
	• Diverts traffic from WCR 23 S/O Eastman Park Dr and from WCR 64¾ (Eastman Park Dr) immediately E/O WCR 23					
	Recommendation: Dismiss [attracts traffic into and through Severance; where traffic decreases would be desirable such as Main St in Windsor and Harmony Rd in Timnath, they are not substantial]					
VI	59th Ave/WCR 31 as Arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west					
	 Attracts traffic to WCR 31, especially between WCR 70 and Harmony Rd 					
	 Attracts traffic to WCR 70 between WCR 31 and US 85, and to Harmony Rd between LCR 5 and WCR 31 					
	Diverts traffic from WCR 33 between Harmony Rd and SH 14					
	 Diverts traffic from US 85 between Harmony and WCR 70 and from Harmony Rd between WCR 31 and US 85 					
	• Diverts traffic from Great Western Dr and Eastman Park Dr to the south and east of Great Western Industrial Park, and from SH 392 between WCR 17 to WCR 15					
	Recommendation: Dismiss [Although it diverts traffic from Eaton and SH 392 in Windsor, it substantially increases traffic on Harmony Rd through Timnath and Severance. It does not divert a significant amount of traffic away from areas where decreases would be desirable.]					
VII	WCR 19/WCR 70 as Arterial alternative to Main Street (SH 392)/SH 257 through Windsor, including widening of SH 14 and SH 257 from Windsor (WCR 70) to I-25 & widening of SH 257 from Eastman Park Dr to SH 392					
	 Attracts traffic to SH 14 between I-25 and SH 257 and to LCR 3 between SH 14 and LCR 48 					
	• Attracts traffic to WCR 19 N/O SH 392, to WCR 70 between SH 257 and WCR 19, and to a mile of SH 257 just N/O WCR 70					
	 Diverts traffic from WCR 23 S/O Eastman Park Dr and from WCR 64³/₄ immediately E/O WCR 23 					
	Has very little, if any, effect on Harmony Rd traffic volumes					
	Has very little, if any, effect on Main St (Windsor) traffic volumes					
	Recommendation: Combine with elements of Scenario II to form "Alternatives D1" and "D2;" "Alternative C" addresses SH 257 between US 34 and Windsor					



	Description of Improvements included in Scenario									
Scenario	 Effects of scenario improvements on sub-regional study area travel patterns 									
	Recommendations for inclusion in further Alternatives									
VIII	Two Rivers Pkwy as arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west									
	Attracts traffic to Harmony Rd between LCR 5 and WCR 31									
	Attracts traffic on 83rd St/Two Rivers Pkwy to SH 14. Also, attracts traffic to US 34 Business Rt (10th St) between 71st and 59th Aves									
	 Diverts traffic from WCR 31 (59th Ave) between 10th St and SH 392; also diverts traffic from SH 392 between WCR 31 and Two Rivers Pkwy 									
	 Diverts traffic from WCR 23 and from Eastman Park Dr to the south and east of Great Western Industrial Park 									
	 Diverts traffic from sections of SH 392 from WCR 19 to WCR 72 to SH 257 									
	Recommendation: Dismiss [Although traffic is decreased in Windsor, it is increased through Severance.]									
IX	95th Ave/WCR 25 as Arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west									
	 Attracts traffic to new 95th Ave/WCR 25 between US 34 Business Rt (10th St) and WCR 64½ 									
	 Attracts traffic to Harmony Rd between LCR 5 and WCR 31 									
	Attracts traffic to 10th St between 83rd and 77th Aves									
	 Diverts traffic from sections of SH 392 between WCR 15 and SH 257 and between WCRs 27 and 31 									
	• Diverts traffic from WCR 23 and from Eastman Park Dr (including WCR 64) to the south and east of Great Western Industrial Park									
	Diverts traffic from WCR 31 (59th Ave) between 'O' St and SH 392									
	Recommendation: Favor Scenario XIV over this one: reduce to that of a new road connecting 95th Ave from 10th St to the WCR 23 and Eastman Park Dr intersection; this forms "Alternative A"									
Х	Harmony Rd as a 4-lane Arterial from I-25 to US 85									
	Attracts traffic to Harmony Rd from LCR 5 to US 85									
	Diverts traffic from sections of SH 392 from WCR 19 to WCR 72 to SH 257									
	• Diverts traffic from Great Western Dr and Eastman Park Dr to the south and east of Great Western Industrial Park									
	Recommendation: Reduce length of widening and have Harmony remain as 2-lane where LOS would remain adequate; combine with Scenario I to form "Alternative E"									
XI	59th Ave/WCR 31 as Arterial from Greeley to SH 14 with SH 14 as a 4-lane Arterial from I-25 to US 85									
	Attracts traffic to 59th/WCR 31 between 'O' St/WCR 64 and SH 14, and to WCR 70 between WCR 31 and US 85									
	Attracts traffic to SH 14 from I-25 to US 85									
	 Diverts traffic from WCR 33 between Harmony Rd and SH 14; from Harmony Rd between WCR 31 and US 85; and from US 85 between WCR 70 and Harmony Rd 									



 Effects of scenario improvements on sub-regional study area travel patterns <i>Recommendations for inclusion in further Alternatives</i> Diverts traffic from Great Western Dr and Eastman Park Dr to the south and east of Great Western Industrial Park <i>Recommendation: Dismiss [Traffic volumes on SH 14 between SH 257 and US 85, and WCR 31 do not exhibit traffic volumes that</i> 					
Diverts traffic from Great Western Dr and Eastman Park Dr to the south and east of Great Western Industrial Park					
Recommendation: Dismiss [Traffic volumes on SH 14 between SH 257 and US 85, and WCR 31 do not exhibit traffic volumes that					
would require the addition of two more lanes on several portions that were proposed; affects Greeley traffic more than the goals of the					
Sub-Regional Study]					
59 th Ave/WCR 31 as Arterial from Greeley to SH 14					
Attracts traffic to WCR 31, especially between WCR 70 and Harmony Rd					
Attracts traffic to WCR 70 Between WCR 31 and US 85					
Diverts traffic from sections of WCR 19 from SH 392 to WCR 72 to SH 257					
Diverts traffic from Great Western Dr and Eastman Park Dr to the south and east of Great Western Industrial Park					
 Diverts traffic from WCR 33 between Harmony Rd and SH 14, from Harmony Rd between WCR 31 and US 85, and from Harmony Rd between WCR 70 and US 85 					
Recommendation: Dismiss [Traffic volumes on US 85, and WCR 31 do not exhibit traffic volumes that need more lanes; affects Eaton					
area traffic more than the overall goals of the Sub-Regional Study]					
Two Rivers Pkwy as Arterial from Greeley to SH 14					
• Attracts traffic on 83rd St/Two Rivers Pkwy to SH 14. Also, there is a slight increase in traffic between 71st and 59th Aves on 10th St					
Attracts traffic to SH 392 between WCR 23 and Two Rivers Pkwy					
Diverts traffic from Great Western Dr and Eastman Park Dr to the south and east of Great Western Industrial Park					
Diverts traffic from 71st Ave between 4th St and 10th St					
Diverts traffic from SH 392 between Two Rivers Pkwy and WCR 31					
Diverts traffic from WCR 31 between SH 392 and 10th Ave					
Recommendation: Dismiss [Scenario XIV more plausible]					
95 th Ave/WCR 25 as Arterial from Greeley to SH 14					
Attracts traffic to new 95th Ave/WCR 25 between 10th St and SH 14.					
Attracts traffic to SH 392 between WCR 23 and Two Rivers Pkwy					
 Diverts traffic from WCR 23 and from Eastman Park Dr to the south and east of Great Western Industrial Park 					
Diverts traffic from 'O' St between 83rd 71st Aves					
 Diverts traffic from 59th Ave WCR 31 between 'O' St and SH 392 and from SH 392 between WCRs 31 and 29 					
Recommendation: Retain for further evaluationessentially as "Alternative A"					



B. Level Two Scenario Evaluation

In a second round of modeling, a new set of scenarios, named Alternatives A through F, was analyzed which isolated and tested improvements for particular roadways or routes, oneby-one. Between Level One and Level Two, some screening occurred (see "Recommendations" associated with Level One Scenarios), which dismissed from further consideration some of the Level One scenarios that did not seem to be very effective. In the Level Two evaluations, there were two variations of Alternative D: one assuming improvements to the existing SH 257 route north of Windsor's Main Street (SH 392) and the other following an alternative route using Weld County Road 19 and Weld County Road 70. This set of model runs provided insight into what specific improvements would result in the largest changes in traffic volumes on given routes and on the routes within their area of influence.

From the second round of modeling, a composite of "Alternatives A through F", referred to as "Alternative G," was analyzed. This alternative focused on the kinds of continuous multi-route alternatives that appeared to be most beneficial in addressing the goals of the Sub-Regional Study and might be most effective. In some instances, the alternative drew concepts from existing local agency transportation master plans. The purpose of this scenario was to test the effectiveness of a particular set of roadway modifications so that appropriate comparisons could be made between what would be suggested as part of this study and alternatives that may have been previously studied by individual communities.

It was anticipated that a model run for Alternative G would illustrate synergistic effects attributable to providing substantial capacity improvements on a comprehensive, coordinated network as compared to addressing only one or two roadway improvements at a time. Alternative G combined components from the earlier alternatives to provide a continuous truck route north-south in the SH 257 corridor between US 34 and SH 14 as well as the new east-west connector between Crossroads Boulevard and 'O' Street, skirting the south and southeast edges of the Windsor, as described in the Level One Evaluation. Maps of the modeling results for the Level Two alternatives ("Alternatives A through G") are provided in **Appendix E**. The appendix presents three maps for each alternative, which show:

- The future numbers of lanes assumed to be provided on various roads within and around the study area
- The traffic forecasts (thousands) and color-coded "Levels of Service" (LOSs) for 2035
- A graphic depiction of changes in traffic forecasts resulting from the difference between a "no action" condition and the "build" condition

As described in Chapter III: Study Process of this report, the focus of sub-regional study changed course after the completion of the travel demand modeling of the various alternatives. The focus of the study became the designation of truck routes in the sub-region.



VI. RECOMMENDATIONS

A. Truck Route Designations

A map showing the skeletal framework for a set of routes to be designated for use by all trucks regardless of origins and destinations was established, as shown on **Figure 27**. This set of routes was originally called, "Primary Truck Routes", but was later renamed as "Through Truck Routes." It includes the concept of a future WCR 74/WCR 19 alternative to SH 257/Main Street (Windsor) and schematically shows the future connection of Crossroads Boulevard to 'O' Street.

After establishing the Through Truck Routes within the subregion, designations of "Secondary Truck Routes" or "Local Truck Routes" were established.

The following definitions describe two levels of sub-regional truck route designations for the study area:

- Through Truck Routes serve any and all truck traffic with the likely exceptions of oversized loads and shipments of hazardous materials. Trucks having neither an origin nor a destination within the surrounding local jurisdiction are encouraged to use these routes. It was outside the scope of this study to determine if any of the "Through Truck Routes" should also be designated by the State of Colorado to be hazardous materials routes. The suitability of these routes for oversize loads was not analyzed either.
- Local Truck Routes are those that local agencies would prefer to serve truck traffic that regularly has origins or destinations within the sub-region. These routes are the preferred connections for reaching a "Through Truck Route." Trucks having an origin or

destination for the purpose of delivery, loading, or servicing within a local jurisdiction would use these routes on their way to or from a "Through Truck Route" in conjunction with the most direct non-designated route that serves their origin or destination.

Using the definitions noted above, the function of "Through Truck Routes" shown on a "Truck Route Designations" map (Figure 28) would be very similar to that of the State Highway System, which is typically open to most any truck traffic. (Many State Highway System routes have not been designated by the State to carry hazardous materials or oversize loads, however, and the same is true within the Study Area; only some portions of the State Highway system have been designated for the transportation of hazardous materials, and those are shown on Figure 28.) In addition to the State Highway system, the Through Truck Routes being recommended by this study include the WCR 74/WCR 19 alignment to have SH 257 traffic bypass downtown Windsor. Also included as Through Truck Route is the east-west, Crossroads/'O' Street connection, a portion of which has been planned but is not existing. "Local Truck Routes" would function as a system of collector routes and include all or portions of the following county roads within the sub-regional study area: WCR 13, WCR 27, WCR 31, WCR 37, WCR 66, Eastman Park Drive, and WCR 74. New Local Truck Routes are planned along the WCR 23 alignment between the 'O' Street extension and SH 392, as well as along the WCR 27 alignment south of SH 392 and north of WCR 76.



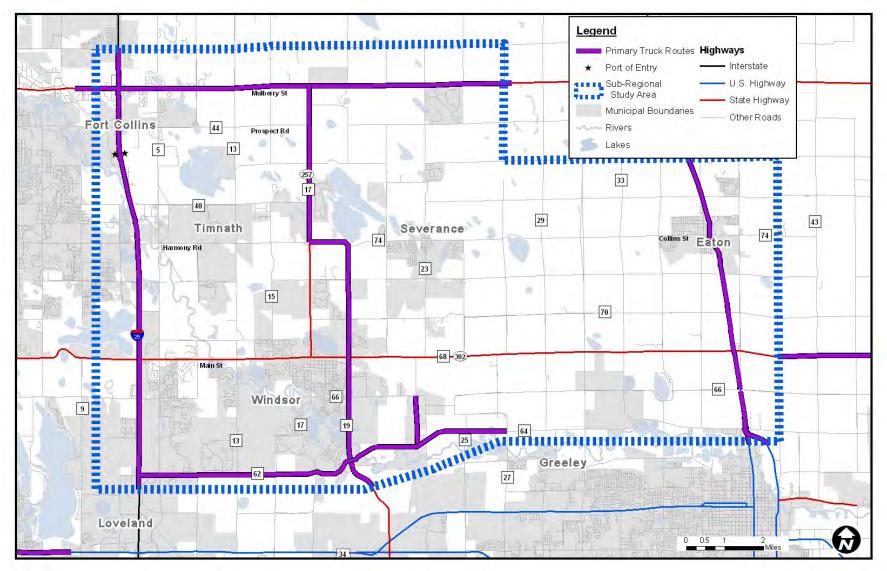


Figure 27. Through Truck Routes



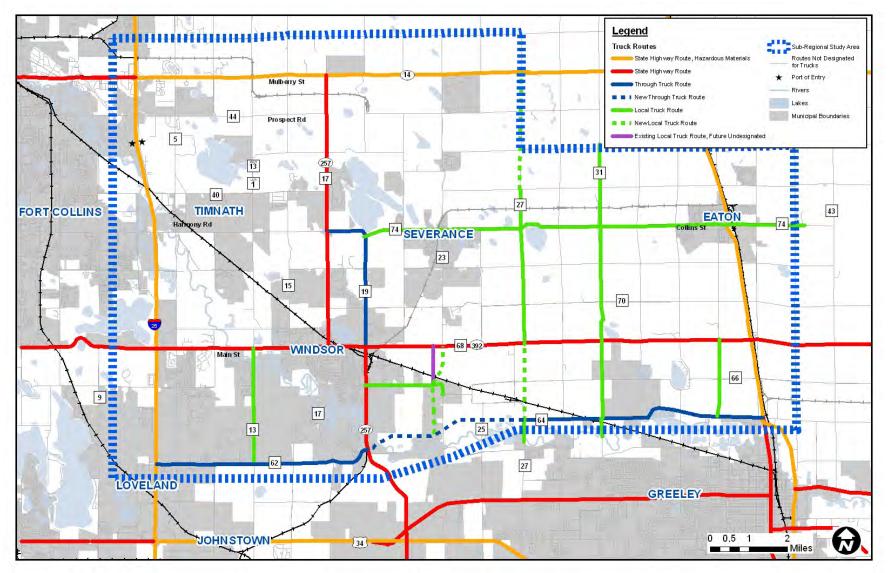


Figure 28. Truck Route Designations



B. Next Steps

Members of the Technical Group will need to pursue with their respective managers and elected officials adoption of a sub-region-wide truck route network. Subsequently, there need to be **local efforts to make any necessary improvements to the designated routes**. This report and the data included in its appendices are anticipated to be of help in taking those steps.

Financial assistance in the near term on improvements to the truck route network from federal and state sources was discussed but viewed as unlikely, considering the currently anticipated stream of revenues for CDOT and the MPO planning area. Part the discussion on this topic was about how the results of this study will be used in subsequent Regional Transportation Plans and Transportation Improvement Programs of the NFRMPO.

Appendix F contains a table that is an excerpt of the current NFRMPO Transportation Improvement Program (TIP). This excerpt lists recent and upcoming projects that are associated with the Sub-Regional Study Area. Approximately thirty projects have been programmed within the Study Area and a few others are listed in the "Illustrative Projects" section of the TIP. (Illustrative projects are ones that have been prioritized but cannot be programmed as part of the fiscally constrained portion of the TIP without new sources of funding being made available to the region. For example, new economic stimulus legislation similar to the 2009 American Recovery and Reinvestment Act of the federal government would change the forecasts of reasonably anticipated revenues available for transportation improvements.) CDOT Region 4 sent a letter to Timnath, Windsor, Severance and Weld County on the subject of **redirecting truck traffic away from a State Highway route** (see copy in **Appendix G**). It offered guidance and asked the following questions of the towns and the county (based on opinions CDOT has on file from the office of the Colorado Attorney General):

- Is there a clear, demonstrative need for an alternative truck route?
- What is your plan for public involvement and obtaining a resolution for the proposed truck route?
- Will a new facility (that is, an alternative route designated for use by what has traditionally been State Highway traffic) have the same, or similar, service level as the existing route, thereby meeting the expectations of the highway user in terms of width of travel lanes, shoulders, sight distance, etc.?
- What are your plans to fund maintenance activities, who will be responsible, and what is the standard of maintenance service that will be provided?
- What agreements will you have in place prior to signing the route?

Answers to these questions are sought by CDOT before it will post signs along State Highway routes about designated truck routes. In terms of rerouting trucks away from State Highways, the signs to be introduced, if and when allowed, would encourage, not require, use of an "alternate/truck route" (e.g., the WCR 74/WCR 19 alternative route).

At an October 2, 2008 meeting of the study's technical group, Mr. Roger Reisig of the Fort Collins Port of Entry, Colorado Department of Revenue, explained and clarified the requirements for certain portions of area-wide truck traffic to



pass through the Port of Entry on I-25, which is located between the Harmony Road and Prospect Road interchanges (see Figure 28, the "Truck Route Designations" map on Page 53). He also briefed the group on the technical and legal aspects of the Department's enforcement responsibilities as they relate to the routing of truck traffic. A couple of noteworthy suggestions he brought to the group were:

- To pay special attention to truck traffic hauling hazardous materials: the State Patrol is involved in changes to any hazardous materials route designations.
- As any new designations or restrictions go into effect regarding truck routes, it would be desirable to have the improvements to designated routes include wide paved areas suitable for the Port of Entry's/Department of Revenue's enforcement units to set up roadside checkpoints (including portable scales to check truck weights).

Reviewing the listings of projects in the **NFRMPO 2008-2013 Transportation Improvement Program**, it is apparent that a substantial amount of roadway construction activity has occurred or will soon be occurring within the Sub-Regional Study Area.

It is anticipated by this study that project sponsors, when designing the upcoming projects and any other future improvements to the road network, will pay particular attention to routes designated as truck routes, as shown on the "Truck Route Designations Map." Traffic projections and corresponding axle loadings for the pavement design on these routes should take into account the expectation that higher volumes of truck traffic might occur in the future than would otherwise be the case without this study's recommended truck route designations.

Motorists should be expecting project sponsors to design roadways for better and safer accommodation of truck traffic than other existing roads in terms of:

- turning radii and other roadway geometry, such as shoulder widths
- acceleration and deceleration lanes at intersections
- vertical grades
- curvature and sight distances
- pavement conditions (both in terms of smoothness and strength/durability)
- bridge dimensions and load bearing capacities

There should also be appropriate signing placed at strategic locations and intersections to reinforce the choices drivers need to make in order for them to stay on designated truck routes.

These stipulations about signs along State Highway routes were based on precedent-setting examples and legal opinions developed from CDOT's experiences in other parts of the state. These stipulations will need to be heeded as the Town of Windsor, the Town of Severance, and Weld County pursue some informal commitments to draw truck traffic onto the Weld County Road 74/WCR 19 alternative route instead of continuing to use State Highway 257 (Main Street) through downtown Windsor (see the "Truck Route Designations" section on Page 51). The stipulations might also affect the ability of the Town of Timnath to place signs on State Highway routes that would redirect truck traffic away from Harmony Road and other Timnath streets as it would leave State Highway routes, such as Interstate 25, State Highway 257 and State Highway 14.



APPENDIX A NFRMPO STRATEGIC ACTION PLAN



NFRMPO Strategic Action Plan

The North Front Range Metropolitan Planning Organization (NFRMPO) adopted a Strategic Action Plan in March of 2004. Its purpose was to provide policy guidance to the organization over the subsequent six to ten years and to set the overall direction for the MPO. This action plan established long range goals for the organization, which are stated in terms of both "Value Statements" and "Propositions." Along with each of several Value Statements and Propositions, the plan outlines multiple "Key Strategies" and "Action Steps."

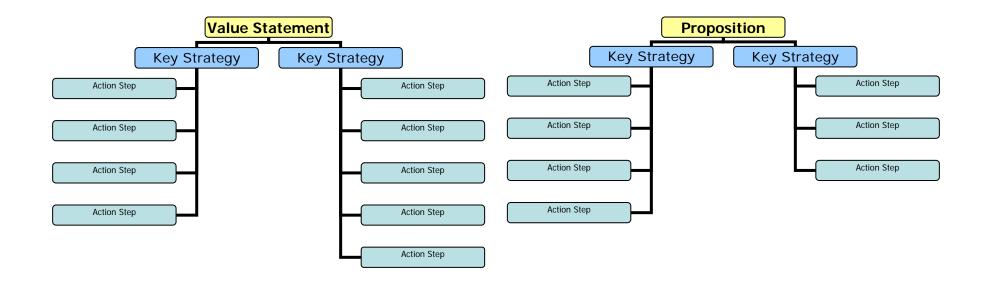
The various "Value Statements" address quality functioning of the MPO organization, its officers, and its staff. Collectively, they serve as a "compass" by which the long-term activities and actions of the MPO are guided.

The following diagram shows typical relationships in the Long-Range Strategic Action Plan between Value Statements and Propositions.

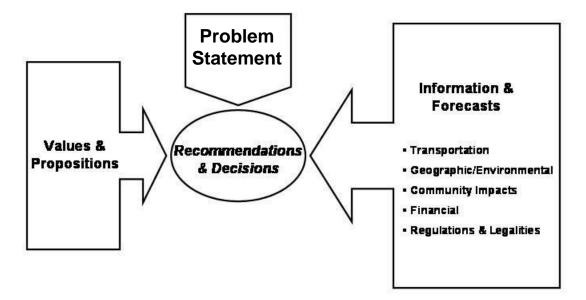




Key Strategies are associated with each value statement and each proposition. Most Key Strategies have more than one Action Step associated with them.







Decisions: Merging Regional Values with Information & Forecasts

Value Statements

While all of the "Value Statements" are guiding the planning activities associated with the Sub-Regional Study that has been addressed in this report, those noted below were of particular relevance. Comments and/or examples of the relevance and applicability of each value statement to the Sub-Regional Study are provided immediately after each (*italicized*) statement:



Value Statement B

We strive to create a sense of shared responsibility and ownership for regional transportation/congestion problems and a shared sense of pride in the development of solutions to those problems.

As is typical of the NFRMPO planning area, the road and street network serving the Sub-Regional Study Area (see **Figure 1**) is administered and maintained by a combination of state and local agencies. The Colorado Department of Transportation, two counties and roughly seven municipalities share responsibilities within this study area for the road and street network. In addition to the street and road network, a railroad (primarily the Great Western Railroad) provides freight service to the area.

Value Statement C

We address regional transportation/congestion issues by working together, recognizing that the collective objectives of the North Front Range MPO may at times take precedence over the local objectives of individual member entities.

The area for this Sub-Regional Study contains approximately 176 square miles of land. Lengths of streets and roads functionally classified as collectors, arterials, expressways, and freeways within the study area total 470 centerline miles and 1,156 lane miles. (Roads and streets that are functionally classified as "Local" are not counted in these totals.)

	Collectors		Arterials		Expressways		Freeways	
	Lane-Miles	Centerline Miles	Lane-Miles	Centerline Miles	Lane-Miles	Centerline Miles	Lane-Miles	Centerline Miles
State Highways			85.6	40.0	6.2	1.5	54.4	13.6
County Roads	225.8	112.9	169.9	70.5				
Municipal Streets	375.9	188.0	218.8	39.3	19.7	4.4		
TOTAL	601.7	300.9	474.3	149.8	25.9	5.9	54.4	13.6

Looking at these roadway functional classifications, there are implications that many of the trips being served are ones crossing from one governmental entity to a neighboring one, and sometimes through more than one other entity. The lane-miles and centerline miles shown for "Freeways" are all associated with Interstate 25.



Given the history of development in this area, the various towns and cities in the study area have all continued to co-exist as compared to consolidating into one or two larger municipalities. Consequently, the average number of centerline miles associated with each street or road being administered by any one municipality or county will be relatively short compared to that of urban areas elsewhere in which a single city grew and developed concentrically. For example, a trip from US 85 in Eaton to I-25 (about 15 miles long) will start in Eaton, pass through unincorporated portions of Weld County, and also cross through Severance and Timnath. This kind of trip illustrates the importance of addressing transportation from a perspective of regional, not just local, travel.

Value Statement D

We seek to form partnerships between member entities and between the public and private sectors to plan and implement transportation/congestion solutions.

Various forms of partnerships may eventually be involved in planning and implementing what is recommended in this report.

An informal partnership was generated when the study was initiated: Representatives of the various municipalities, the counties, and the Colorado Department of Transportation met on multiple occasions, with these events having been facilitated by the NFRMPO. One of the disappointments encountered early by participants in the study process was the suspension of efforts to establish a Regional Transportation Authority (RTA) for the North Front Range planning area. This proposal had offered the possibility that revenues from a region-wide, transportation-specific, funding mechanism would become available for projects region-wide after a vote in November 2007. A portion of the revenues would have been used for improvements and maintenance of the street and road system. This RTA proposal also would have established a region-wide transit system.

Given the financial limitations at the state, regional and local level, the recommendations from this study were focused on solutions that could be implemented quickly or would be affordable through inter-agency cooperation.

Value Statement E

We actively engage the governing bodies of the member entities and the general public in the transportation planning efforts of the North Front Range MPO.

Initial meetings about this study were arranged by the MPO staff to include both elected officials and their key staff members.

Value Statement F

We establish policies and prioritize needs based on valid data and use objective, fair and consistent processes.



The North Front Range MPO's geographic information system is being improved periodically with additional and updated data. As such, it is one of the region's best sources for preparing a variety of transportation-related maps and reports. The land use data (both current and forecasted) that is being maintained is a key source of input for computerized long-range travel demand modeling.

The North Front Range Regional Travel Model was refined during this study using area-specific details. Consequently, this study was able to test various alternative actions for their influence on area-wide mobility and traffic congestion. By maintaining this type of geographic information on a region-wide, multi-jurisdictional basis, the MPO staff can help ensure that tendencies toward bias in the analyses of transportation issues are substantially reduced.

Factual information, such as traffic volume counts, was gathered from various reports that had been developed by individual local agencies. Mapping of industrial and commercial land uses was based on information from the U.S. Census' North American Industry Classification System (NAICS) and from clerk and recorder reports addressing both Larimer and Weld Counties. Traffic volume information about the State Highway system was obtained from the Colorado Department of Transportation.

Propositions

"Propositions" are guiding the planning activities associated with the Sub-Regional Study. They influence the activities in ways that are similar to "Value Statements." The following are of particular relevance:

Proposition 1: Integration of Land Use and Transportation

Counties, Cities & Towns in the MPO have land use policies and patterns that support and are supported by efficient and cost-effective local and regional transportation systems.

Land use patterns that have emerged over many years within the Sub-Regional Study Area have resulted in some concentrations of industrial facilities southeast of Windsor. The street and road network serving this area has only been improved at a few, selected locations for purposes of accommodating increased traffic. Consequently, if further development occurs without making improvements to the network, the cumulative effect will be heavier volumes of traffic network-wide and it will be experiencing increasing safety and mobility deficiencies.

Alternative actions have been analyzed so that the most efficient and cost-effective sets of improvements are being recommended (in Chapter VI).

Proposition 6: The Role of the MPO

There is a clear understanding of what the "regional" transportation system consists of, and of what transportation/congestion improvements are planned for the future.



While this study has concentrated on mobility and safety issues in only a portion of the NFRMPO's planning region, the "subregional" area that was studied is one in which transportation solutions would be best conceived, analyzed, and evaluated/prioritized through a multi-disciplinary, multi-jurisdictional effort. The facilitation efforts of the MPO's staff were intentionally directed toward work on those issues for which solutions were likely to involve more than one governmental entity (or were not likely to be easily solved by a single governmental entity).



APPENDIX B CHRONOLOGY OF EVENTS

Event Date	Meeting Place	Participants (each meeting included MPO staff)	<u>Topics</u>	Accomplishments
July-August 2007	Various Local Agency Offices and Conference Rooms	 Elected officials Senior staff of local agencies CDOT staff 	 Expectations and goals for the Sub-Regional Study First involvement of Severance and Eaton in a North Front Range study process 	Acquaintance with local issues and sensitivities about truck traffic
August 2, 2007	Greeley Family FunPlex	NFRMPO Council & attendees	 MPO Council was briefed on: Stan Elmquist being assigned MPO Study Facilitator Visits by Cliff Davidson & Elmquist to local agencies Study Area map was presented 	MPO Council was informed about start-up of the study process and encouraged to support involvement of member entities' staffs
September 6, 2007	Berthoud Community Center	NFRMPO Council, visitors	MPO Council was briefed	September 10 Meeting was noted as an opportunity for issues and the study's focus to be defined
September 10, 2007	Poudre Valley REA in Windsor	Local agency senior managers and staffs	 Reviewed: demographic and local agency land use plan information traffic volumes on various roads potential ranges and types of solutions 	 Generally agreed on the broad, general nature of transportation issues in the sub-regional area Realized lack of consensus about the scope, scale and approach for the proposed study: Should it be quick, to the point and promote short-term actions? Or should this be more of a

Event Date	Meeting Place	Participants (each meeting included MPO staff)	<u>Topics</u>	<u>Accomplishments</u>
				comprehensive approach to transportation planning— looking at inter-relationships with growth, funding and land use decision making?
September 19, 2007	NFRMPO Large Conference Room	Technical Advisory Committee (TAC) of the MPO	• Sub-Area Planning Study briefing	 Acquainted the TAC with the objectives of the Study Purpose of the study was questioned: TAC asked for a written Problem Statement
November 7, 2007	NFRMPO Large Conference Room	Staff representatives from CDOT R4, Timnath, Windsor, Severance, Counties, (aka the "Small Group")	 Discussed the 'Problem Statement' for the Sub- Regional Study Brainstormed various roadway system improvements needed for truck traffic; reviewing a number of suggestions received 9-10-07 Shared experiences with respective local agency councils and boards about origins of difficulties between entities 	 Aerial photo map was marked by attendees to show MPO staff the problem locations and ideas for solutions (formed basis for 14 scenarios that were subsequently modeled) Truck traffic connections across the study area generally envisioned Timnath's ordinances restricting truck traffic within city limits were discussed Agreed to a briefing of the MPO's TAC about the activities of this study
March 19, 2008	NFRMPO Large Conference Room	TAC of the MPO	• Sub Regional Planning Study briefing	Progress report about modeling work having continuedwith local agency reviews of 14 scenarios of roadway network alternatives

Event Date	Meeting Place	Participants (each meeting included MPO staff)	<u>Topics</u>	Accomplishments
July 30, 2008	Windsor Town Hall	Local agency technical staffs (aka the "Technical Group"), FHU staff	• Modeling results were reviewed about individual components of the 14 scenarios that were originally modeled	 Feedback and some revisions of the Problem Statement were finalized Modeling of a combination of long-term improvements was proposed that would draw elements from the best features of Alternatives "A" through "F."
August 20, 2008	Poudre Valley REA	Local agency technical staffs (aka the "Sub-Regional Study's Technical Group"), FHU staff	 Model results for Alternative "G" were ready for review Conclusions of discussions between Timnath, Windsor, Severance, and Weld County were that the Sub-Regional Study is unwieldly; focus needs to change: immediate ways to improve routes for trucks should be given attention 	 Discussion was focused on some primary truck routes that would be suitable for immediate improvements through cooperative efforts of local agencies. Concepts of primary and secondary truck route designations for the study area were proposed and discussed A Weld CR 74/Weld CR 19 alternative route for trucks had support as a primary route
October 2, 2008	NFRMPO Large Conference Room	Sub-Regional Study's Technical Group	 Reviewed proposed map of "Primary" and "Secondary" truck route designations Heard and discussed truck regulations and input from Roger Reisig, 	Agreed to have a truck route designation map presented to the TAC

Event Date	Meeting Place	Participants (each meeting included MPO staff)	Topics	Accomplishments
October 15, 2008	NFRMPO Large Conference Room	NFRMPO TAC	 from the Fort Collins Port of Entry "Primary" and "Secondary" truck route map was presented and discussed CDOT's concerns were discussed about placement of signs in State Highway right-of- way telling truck drivers to use designated truck routes—that is, alternatives to State Highway routes need to be made safe and suitable for trucks before redirecting traffic to them Study process reviewed 	 Just prior to this meeting, at Timnath's request, the MPO staff had removed from the draft truck route designation map the "Secondary Truck Route" designation of Harmony Road between I-25 and SH 257 Agreed that definitions of "Primary" and "Secondary" truck routes needed to be clarified; there were hopes that Timnath could accept a "Secondary" designation if its definition could be adjusted The MPO's role involving intergovernmental agreements (IGAs) for multi-jurisdictional projects that would improve and manage designated truck routes was clarified to be limited to providing background information and analyses from the sub-regional study, not to promote, craft and put in place IGAs Individual agreements between
1107CHIDEI 0, 2000		visitors	 A proposed primary 	 Individual agreements between local jurisdictions about short-

Event Date	Meeting Place	Participants (each meeting included MPO staff)	<u>Topics</u>	<u>Accomplishments</u>
			 truck route network for study area was presented composed of State Highway routes and a few important local road connections By this time, Weld County, Greeley and Windsor had agreed about a route location for a future "Crossroads to 'O' Street" connection. 	 term improvements for truck routes were envisioned Study results were shown as supporting a future "Crossroads to 'O' Street" connection and the rerouting of SH 257's truck traffic north of SH 392 to a combination of WCRs 74 and 19.
February 3, 2009	NFRMPO Large Conference Room	Staff representatives from the Small Group	 Changes to the legend of the truck route designations map were requested Seeking input from trucking industry was discussed Discussion was focused on potential improvements to a Harmony Road/WCR 19 route as an alternative to SH 257 north of Windsor 	 Open house meeting with trucking companies and industrial representatives was to be a "next step" Harmony Road west of I-25 as a Through Truck Route was dropped from the truck route designation map at the request of the City of Fort Collins staff NFRMPO staff was requested to develop a trucking company invitation list for the open house (noted above)
April 22, 2009	Severance Town Hall	Staff representatives from the Small Group	• Reviewed the previous meeting's direction for an open house to be held, to which the general	• Products of the study (primarily the map of truck routes to be designated) will be documented in a study report; draft report was

Event Date	Meeting Place	Participants (each meeting included MPO staff)	Topics	Accomplishments
			 public and trucking company representatives would be invited MPO staff distributed a list of over ninety trucking companies potentially traveling within or across the study area 	 to be circulated as soon as possible to the technical group for review and comment; once edited, the final report would be sent to the NFRMPO Council fro acceptance. Holding an areawide open house meeting, to which trucking companies and the general public would be invited, was tabled. Instead, a public involvement process would be anticipated on an as-needed basis and each local agency would make arrangements, project-by- project.(for example, there might need to be a meeting prior to individual roadway improvement projects) NFRMPO staff was requested to finish a draft sub-regional study report, including in it the truck route designation map, and distribute it to technical group participants for their reviews and comments
June 17, 2009	NFRMPO Large Conference Room	NFRMPO TAC	• TAC Report on the status of the study	 TAC was briefed on conclusions from the April 22, 2009 meeting; i.e. public involvement at the planning level will be postponed

E	vent Date	Meeting Place	Participants (each meeting included MPO staff)	<u>Topics</u>	Accomplishments
					 at this time Public involvement will occur during the project development phase (for such projects as improvements to WCR 19)

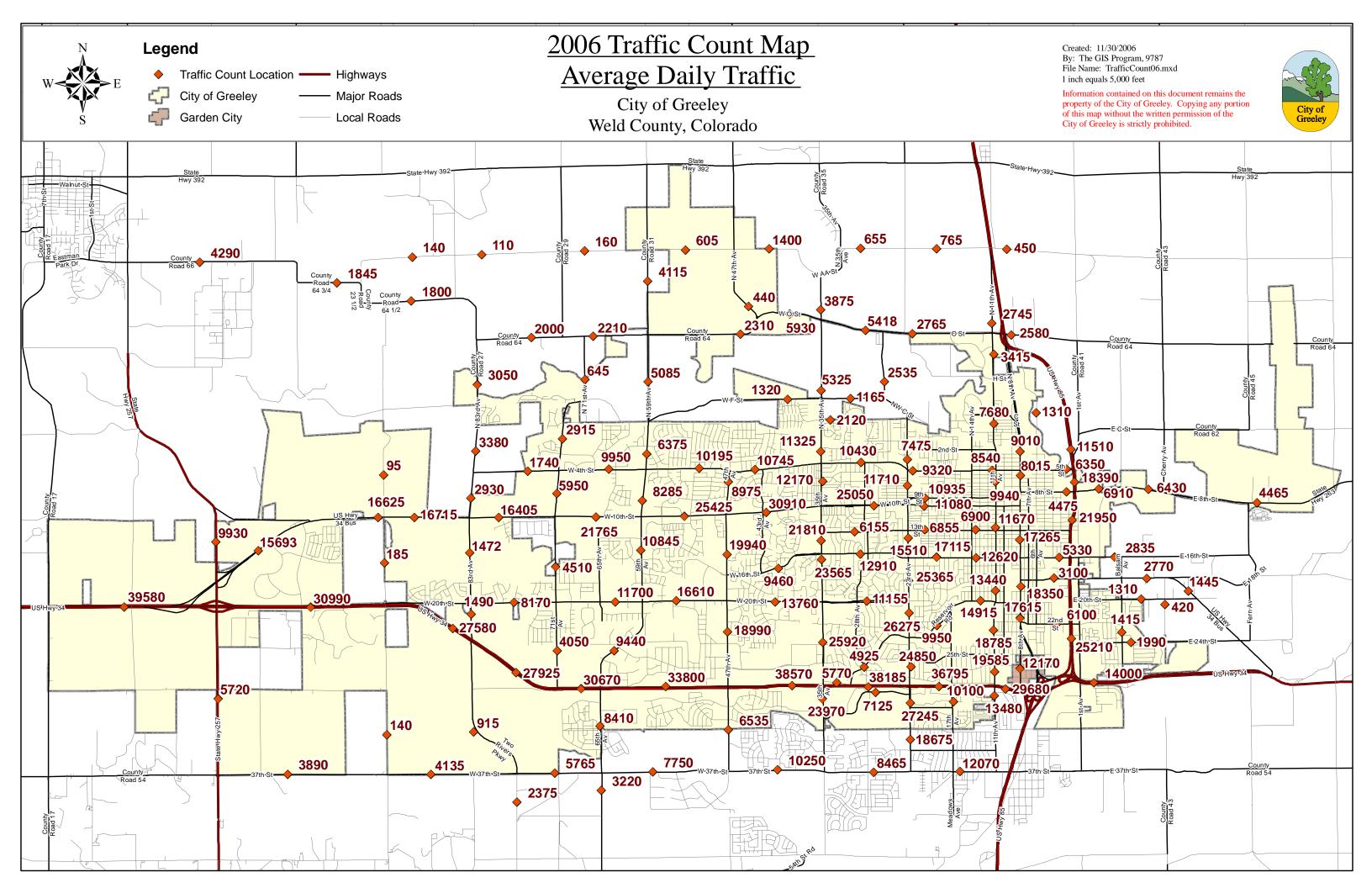


APPENDIX C TR

TRAFFIC COUNTS

2007 Traffic Count Data

Road #	From	То	Date 1	AADT 1	Truck %
13	68.5	Timnath CL	10/4/2007	332	17
13	Hwy 14	84	7/26/2007	208	19
15	74	76	4/17/2007	719	2
19	70	72	4/17/2007	3926	5
19	72	74	9/7/2007	3351	11
23	SH 392	70	10/3/2007	1598	11
25	72	74	10/4/2007	155	14
27	Greeley CL	64 (O St)	9/27/2007	2929	15
27	66	Hwy 392	9/7/2007	802	18
66	23.75	27	10/4/2007	209	19
70	19	21	4/17/2007	136	3
70	23	end of pavement	10/3/2007	335	8
72	HWY 257	19	4/17/2007	1040	11
74	Timnath CL	15	10/4/2007	8900	6
74	Windsor CL	19	9/6/2007	6300	8
74	19	Severance Cl	9/7/2007	4420	7
74	25	27	10/4/2007	2096	10
76	13	13.5	4/18/2007	247	3



CR23 S/O CR76
Site Code: 3

NB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	5	2	0	0	0	0	0	0	0	0	0	0	7
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
06:00	0	20	7	2	1	1	1	1	0	0	0	0	0	33
07:00	0	30	17	0	4	1	0	0	1	0	0	0	0	53
08:00	0	24	9	0	8	1	0	2	1	0	0	0	0	45
09:00	0	16	3	0	5	2	0	1	1	0	0	0	0	28
10:00	0	13	12	0	7	0	0	0	0	0	0	0	0	32
11:00	0	18	8	1	8	1	0	0	3	0	0	0	0	39
12 PM	0	19	8	0	2	1	0	1	0	0	0	0	0	31
13:00	0	12	15	1	6	0	0	1	0	0	0	0	0	35
14:00	0	15	8	1	5	0	0	2	0	0	0	0	0	31
15:00	0	21	8	1	5	0	0	0	0	0	0	0	0	35
16:00	0	33	17	0	7	0	0	1	1	0	0	0	0	59
17:00	0	24	24	0	8	0	0	1	2	0	0	0	0	59
18:00	0	29	6	0	2	0	0	1	0	0	0	0	0	38
19:00	0	23	4	0	4	0	0	0	0	0	0	0	0	31
20:00	0	14	13	0	2	0	0	0	0	0	0	0	0	29
21:00	0	16	3	0	1	0	0	0	0	0	0	0	0	20
22:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Day Total	0	348	168	6	76	7	1	11	10	0	0	0	0	627
Percent	0.0%	55.5%	26.8%	1.0%	12.1%	1.1%	0.2%	1.8%	1.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	06:00	08:00	09:00	06:00	08:00	11:00					07:00
Vol.		30	17	2	8	2	1	2	3					53
PM Peak		16:00	17:00	13:00	17:00	12:00		14:00	17:00					16:00
Vol.		33	24	1	8	1		2	2					59

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NB

CR23 S/O CR76
Site Code: 3

Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:00	0	6	4	0	1	0	0	0	0	0	0	0	0	11
06:00	0	22	7	1	0	0	0	0	0	0	0	0	0	30
07:00	0	40	16	0	7	0	0	0	1	0	0	0	0	64
08:00	0	30	8	0	1	0	0	1	2	0	0	0	0	42
09:00	0	13	9	0	2	1	0	0	1	0	0	0	0	26
10:00	0	7	6	1	8	3	0	0	1	1	0	0	0	27
11:00	0	14	14	1	10	2	0	0	0	0	0	0	0	41
12 PM	0	15	7	0	5	2	0	0	1	0	0	0	0	30
13:00	0	14	10	0	7	0	0	1	2	0	0	0	0	34
14:00	0	21	5	1	2	1	0	0	0	0	0	0	0	30
15:00	1	31	12	1	6	1	0	1	1	0	0	0	0	54
16:00	0	29	16	0	5	0	0	1	0	0	0	0	0	51
17:00	0	36	18	0	10	1	0	0	0	0	0	0	0	65
18:00	0	26	8	0	4	0	0	0	1	0	0	0	0	39
19:00	0	11	9	0	6	0	0	0	0	0	0	0	0	26
20:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
21:00	0	15	7	0	3	0	0	0	0	0	0	0	0	25
22:00	0	14	2	0	4	0	0	0	0	0	0	0	0	20
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	1	359	162	5	81	11	0	4	11	1	0	0	0	635
Percent	0.2%	56.5%	25.5%	0.8%	12.8%	1.7%	0.0%	0.6%	1.7%	0.2%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	06:00	11:00	10:00		08:00	08:00	10:00				07:00
Vol.		40	16	1	10	3		1	2	1				64
PM Peak	15:00	17:00	17:00	14:00	17:00	12:00		13:00	13:00					17:00
Vol.	1	36	18	1	10	2		1	2					65

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NB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:00	0	5	3	0	1	0	0	0	0	0	0	0	0	9
06:00	0	20	8	1	4	0	0	0	0	0	0	0	0	33
07:00	0	42	9	0	5	2	0	1	0	0	0	0	0	59
08:00	0	21	16	0	5	2	0	2	0	0	0	0	0	46
09:00	0	21	12	0	3	1	0	0	1	1	0	0	0	39
10:00	0	18	11	0	5	0	0	1	0	0	0	0	0	35
11:00	0	19	10	0	4	0	0	3	1	0	0	0	0	37
12 PM	0	17	10	0	3	1	0	0	0	0	0	0	0	31
13:00	0	18	15	0	4	2	0	2	1	0	0	0	0	42
14:00	0	19	12	0	2	1	0	0	0	0	0	0	0	34
15:00	0	23	14	1	9	0	0	2	0	0	0	0	0	49
16:00	0	35	13	0	5	1	0	0	1	0	0	0	0	55
17:00	0	40	21	0	10	1	0	0	0	0	0	0	0	72
18:00	0	21	11	0	5	0	0	0	0	0	0	0	0	37
19:00	0	12	7	0	2	0	0	0	1	0	0	0	0	22
20:00	0	12	8	0	1	0	0	0	0	0	0	0	0	21
21:00	0	15	3	0	0	0	0	0	0	0	0	0	0	18
22:00	0	11	1	0	1	0	0	0	0	0	0	0	0	13
23:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Day	0	375	184	3	69	11	0	11	6	1	0	0	0	660
Total														
Percent	0.0%	56.8%	27.9%	0.5%	10.5%	1.7%	0.0%	1.7%	0.9%	0.2%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00	06:00	07:00	07:00		11:00	04:00	09:00				07:00
Vol.		42	16	1	5	2		3	1	1				59
PM Peak		17:00	17:00	15:00	17:00	13:00		13:00	13:00					17:00
Vol.		40	21	1	10	2		2	1					72
Grand														
Total	1	1082	514	14	226	29	1	26	27	2	0	0	0	1922
Percent	0.1%	56.3%	26.7%	0.7%	11.8%	1.5%	0.1%	1.4%	1.4%	0.1%	0.0%	0.0%	0.0%	
Feiceni	0.170	00.070	20.170	0.770	11.070	1.370	0.170	1.470	1.470	U. 170	0.0%	0.0%	0.0%	

Page 4 CR23 S/O CR76

SB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
05:00	0	12	2	0	3	0	0	0	2	0	0	0	0	19
06:00	0	16	6	0	6	1	0	0	0	0	0	0	0	29
07:00	0	44	16	2	12	0	0	1	0	0	0	0	0	75
08:00	0	18	13	0	10	3	0	1	1	0	0	0	0	46
09:00	0	16	13	0	6	0	0	0	0	0	0	0	0	35
10:00	0	17	11	0	4	1	0	1	0	0	0	0	0	34
11:00	0	17	6	0	5	2	0	1	1	0	0	0	0	32
12 PM	0	22	8	0	5	1	0	0	2	0	0	0	0	38
13:00	0	16	6	0	6	0	0	0	1	0	0	0	0	29
14:00	0	17	11	0	4	1	0	1	0	0	0	0	0	34
15:00	0	25	11	0	3	1	0	2	0	0	0	0	0	42
16:00	0	24	21	0	8	1	0	0	2	0	0	0	0	56
17:00	0	41	12	0	1	0	0	0	1	0	0	0	0	55
18:00	0	18	10	0	1	0	0	0	1	0	0	0	0	30
19:00	0	12	2	0	2	0	0	0	0	0	0	0	0	16
20:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
21:00	0	7	0	0	1	0	0	0	0	0	0	0	0	8
22:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
23:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
Day	0	342	156	2	79	11	0	7	11	0	0	0	0	608
Total										-				000
Percent	0.0%	56.3%	25.7%	0.3%	13.0%	1.8%	0.0%	1.2%	1.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	07:00	07:00	08:00		07:00	05:00					07:00
Vol.		44	16	2	12	3		1	2					75
PM Peak		17:00	16:00		16:00	12:00		15:00	12:00					16:00
Vol.		41	21		8	1		2	2					56

CR23 S/O CR76
Site Code: 3

SB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	0	1	0	1	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	0	5	4	0	3	0	0	0	1	0	0	0	0	13
06:00	0	16	9	0	8	1	0	1	0	0	0	0	0	35
07:00	0	40	18	2	2	0	0	2	0	0	0	0	0	64
08:00	0	38	13	0	5	1	0	0	1	0	0	0	0	58
09:00	0	19	10	0	2	0	0	1	0	0	0	0	0	32
10:00	2	16	13	0	8	3	0	0	1	0	0	0	0	43
11:00	0	17	12	1	9	1	0	2	1	0	0	0	0	43
12 PM	0	17	8	1	4	2	0	0	0	0	0	0	0	32
13:00	0	15	9	0	4	1	0	1	1	0	0	0	0	31
14:00	0	16	13	1	3	1	0	2	0	0	0	0	0	36
15:00	0	26	10	1	8	1	0	1	2	0	0	0	0	49
16:00	0	37	18	0	1	0	0	1	0	0	0	0	0	57
17:00	0	43	14	0	7	0	0	0	0	0	0	0	0	64
18:00	0	23	9	0	6	0	0	1	0	0	0	0	0	39
19:00	0	9	9	0	0	0	0	0	2	0	0	0	0	20
20:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
21:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Day Total	2	348	178	6	71	11	0	12	9	0	0	0	0	637
Percent	0.3%	54.6%	27.9%	0.9%	11.1%	1.7%	0.0%	1.9%	1.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	11:00	10:00		07:00	05:00					07:00
Vol.	2	40	18	2	9	3		2	1					64
PM Peak		17:00	16:00	12:00	15:00	12:00		14:00	15:00					17:00
Vol.		43	18	1	8	2		2	2					64

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P
CR23 S/O

Site Code: 3

SB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
05:00	0	5	4	0	3	0	0	0	1	0	0	0	0	13
06:00	0	16	9	0	6	0	0	0	0	0	0	0	0	31
07:00	0	39	15	2	5	1	0	0	1	0	0	0	0	63
08:00	0	27	18	0	3	0	0	0	0	0	0	0	0	48
09:00	0	16	17	0	8	1	0	2	0	0	0	0	0	44
10:00	0	24	14	0	5	1	0	2	0	0	0	0	0	46
11:00	0	22	11	1	4	0	0	1	0	1	0	0	0	40
12 PM	0	15	12	0	3	1	0	1	2	0	0	0	0	34
13:00	0	18	7	0	7	0	0	0	1	1	0	0	0	34
14:00	0	21	11	0	3	2	0	2	0	0	0	0	0	39
15:00	0	22	16	1	4	0	0	2	2	0	0	0	0	47
16:00	0	22	23	0	8	0	0	1	1	0	0	0	0	55
17:00	2	43	10	0	5	1	0	0	0	0	0	0	0	61
18:00	0	20	7	0	4	0	0	0	1	0	0	0	0	32
19:00	0	11	4	0	2	0	0	0	0	0	0	0	0	17
20:00	0	7	4	0	2	0	0	0	1	0	0	0	0	14
21:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
22:00	0	5	1	0	2	0	0	0	0	0	0	0	0	8
23:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Day Total	2	348	186	4	76	7	0	11	10	2	0	0	0	646
Percent	0.3%	53.9%	28.8%	0.6%	11.8%	1.1%	0.0%	1.7%	1.5%	0.3%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00	07:00	09:00	07:00		09:00	05:00	11:00				07:00
Vol.		39	18	2	8	1		2	1	1				63
PM Peak	17:00	17:00	16:00	15:00	16:00	14:00		14:00	12:00	13:00				17:00
Vol.	2	43	23	1	8	2		2	2	1				61
_														
Grand	4	1038	520	12	226	29	0	30	30	2	0	0	0	1891
Total											-	-		
Percent	0.2%	54.9%	27.5%	0.6%	12.0%	1.5%	0.0%	1.6%	1.6%	0.1%	0.0%	0.0%	0.0%	

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CR23 S/O CR72
Site Code: 4

NB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	3	2	0	1	0	0	0	0	0	0	0	0	6
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7
05:00	0	2	2	0	3	0	0	0	0	0	0	0	0	7
06:00	0	13	5	1	1	1	0	0	0	0	0	0	0	21
07:00	0	12	17	2	11	2	0	2	0	0	0	0	0	46
08:00	0	15	7	0	10	1	0	2	1	0	0	0	0	36
09:00	0	5	10	3	8	2	0	0	1	0	0	0	0	29
10:00	0	5	14	0	10	0	0	2	1	0	0	0	0	32
11:00	0	15	12	0	11	0	0	1	1	0	0	0	0	40
12 PM	0	5	9	0	8	0	0	1	0	0	0	0	0	23
13:00	0	8	8	1	9	0	0	1	0	0	0	0	0	27
14:00	0	12	12	0	9	0	0	1	0	0	0	0	0	34
15:00	0	16	20	1	10	0	0	0	0	0	0	0	0	47
16:00	0	29	21	1	20	1	0	1	1	0	0	0	0	74
17:00	0	37	27	0	17	0	0	2	0	0	0	0	0	83
18:00	0	25	27	1	8	0	0	1	0	0	0	0	0	62
19:00	0	19	14	0	4	0	0	0	0	0	0	0	0	37
20:00	0	22	14	0	7	0	0	0	0	0	0	0	0	43
21:00	0	13	9	0	4	0	0	0	0	0	0	0	0	26
22:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
23:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
Day	0	281	235	10	151	7	0	14	6	0	0	0	0	704
Total														
Percent	0.0%	39.9%	33.4%	1.4%	21.4%	1.0%	0.0%	2.0%	0.9%	0.0%	0.0%	0.0%	0.0%	07:00
AM Peak		08:00	07:00 17	09:00	07:00	07:00		07:00	04:00					07:00
Vol. PM Peak		15		3	<u>11</u> 16:00	<u>2</u> 16:00		17:00	16:00					46 17:00
		17:00	17:00	13:00 1		10:00		17:00	16:00					
Vol.		37	27	1	20	1		2	1					83

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Page 2 CR23 S/O CR72
Site Code: 4

NB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	2	1	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7
05:00	1	3	3	0	2	0	0	0	0	0	0	0	0	9
06:00	0	11	5	0	3	0	0	0	0	0	0	0	0	19
07:00	0	14	15	2	8	0	0	0	1	0	0	0	0	40
08:00	0	14	12	0	8	1	0	1	1	0	0	0	0	37
09:00	0	7	10	1	7	3	0	1	0	0	0	0	0	29
10:00	0	2	7	2	3	4	0	2	0	1	0	0	0	21
11:00	0	8	15	1	10	3	0	1	0	0	0	0	0	38
12 PM	0	9	17	1	7	1	0	1	0	0	0	0	0	36
13:00	0	14	11	0	8	2	0	0	2	0	0	0	0	37
14:00	0	14	13	1	5	2	0	1	0	0	0	0	0	36
15:00	1	27	27	1	13	2	0	3	1	0	0	0	0	75
16:00	0	27	20	3	19	0	0	1	0	0	0	0	0	70
17:00	0	38	34	0	11	0	0	0	1	0	0	0	0	84
18:00	0	28	19	0	11	0	0	0	0	0	0	0	0	58
19:00	0	19	12	0	8	0	0	0	0	0	0	0	0	39
20:00	0	8	9	0	3	0	0	0	0	0	0	0	0	20
21:00	0	10	7	0	5	0	0	0	0	0	0	0	0	22
22:00	0	10	10	1	4	0	0	0	0	0	0	0	0	25
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Day Total	2	273	250	13	135	18	0	11	7	1	0	0	0	710
Percent	0.3%	38.5%	35.2%	1.8%	19.0%	2.5%	0.0%	1.5%	1.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	0.3 %	07:00	07:00	07:00	11:00	10:00	0.070	10:00	04:00	10:00	0.070	0.070	0.070	07:00
Vol.	1	14	15	2	10	4		2	1	10.00				40
PM Peak	15:00	17:00	17:00	16:00	16:00	13:00		15:00	13:00	I				17:00
Vol.	13.00	38	34	3	10.00	2		3	2					84
v 01.	1	50	04	5	13	2		5	2					04

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NB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
03:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
04:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4
05:00	0	2	2	0	2	0	0	0	0	0	0	0	0	6
06:00	0	12	3	0	2	0	0	1	0	0	0	0	0	18
07:00	0	12	15	2	7	3	0	2	0	1	0	0	0	42
08:00	0	13	14	1	13	1	0	2	0	0	0	0	0	44
09:00	0	4	15	1	9	2	0	0	0	1	0	0	0	32
10:00	0	4	10	1	7	2	0	1	1	0	0	0	0	26
11:00	0	12	13	2	11	4	0	1	0	0	0	0	0	43
12 PM	0	13	10	0	9	2	0	0	0	0	0	0	0	34
13:00	0	8	14	0	7	3	0	2	0	0	0	0	0	34
14:00	0	11	23	0	11	1	0	0	0	0	0	0	0	46
15:00	0	21	21	1	12	2	0	2	0	0	0	0	0	59
16:00	0	26	28	4	19	0	0	0	0	0	0	0	0	77
17:00	0	36	31	0	15	0	0	0	0	0	0	0	0	82
18:00	0	30	20	0	15	0	0	1	0	0	0	0	0	66
19:00	0	16	9	1	9	0	0	0	0	0	0	0	0	35
20:00	0	16	9	0	5	0	0	0	0	0	0	0	0	30
21:00	0	17	3	0	4	0	0	0	0	0	0	0	0	24
22:00	0	8	3	0	2	0	0	0	0	0	0	0	0	13
23:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
Day Total	0	272	249	13	160	20	0	12	2	2	0	0	0	730
Percent	0.0%	37.3%	34.1%	1.8%	21.9%	2.7%	0.0%	1.6%	0.3%	0.3%	0.0%	0.0%	0.0%	
AM Peak	0.070	08:00	07:00	07:00	08:00	11:00	0.070	07:00	04:00	07:00	0.070	0.070	0.070	08:00
Vol.		13	15	2	13	4		2	1	1				44
PM Peak		17:00	17:00	16:00	16:00	13:00		13:00						17:00
Vol.		36	31	4	19	3		2						82
Grand	2	826	734	36	446	45	0	37	15	3	0	0	0	2144
Total											-	-	-	۲144 ۲
Percent	0.1%	38.5%	34.2%	1.7%	20.8%	2.1%	0.0%	1.7%	0.7%	0.1%	0.0%	0.0%	0.0%	

CR23 S/O CR72
Site Code: 4

SB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
05:00	0	14	7	0	0	0	0	1	1	0	0	0	0	23
06:00	0	45	18	0	2	1	0	0	0	0	0	0	0	66
07:00	0	65	10	1	6	1	0	1	1	0	0	0	0	85
08:00	1	38	18	0	2	2	0	2	0	0	0	0	0	63
09:00	0	24	19	0	2	0	0	0	0	0	0	0	0	45
10:00	0	14	8	0	1	1	0	1	0	0	0	0	0	25
11:00	0	23	7	0	0	2	0	1	0	0	0	0	0	33
12 PM	0	24	7	0	4	0	0	0	1	0	0	0	0	36
13:00	0	29	8	0	2	0	0	0	0	0	0	0	0	39
14:00	0	18	13	0	5	1	0	0	0	1	0	0	0	38
15:00	0	29	15	1	4	0	0	1	0	0	0	0	0	50
16:00	0	30	15	0	3	0	0	1	1	0	0	0	0	50
17:00	0	38	17	0	1	0	0	0	0	0	0	0	0	56
18:00	0	32	13	0	1	0	0	0	0	0	0	0	0	46
19:00	0	15	2	0	1	0	0	0	0	0	0	0	0	18
20:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
21:00	0	5	3	0	2	0	0	0	0	0	0	0	0	10
22:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Day Total	1	470	185	2	36	8	0	8	4	1	0	0	0	715
Percent	0.1%	65.7%	25.9%	0.3%	5.0%	1.1%	0.0%	1.1%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	09:00	07:00	07:00	08:00		08:00	05:00					07:00
Vol.	1	65	19	1	6	2		2	1					85
PM Peak		17:00	17:00	15:00	14:00	14:00		15:00	12:00	14:00				17:00
Vol.		38	17	1	5	1		1	1	1				56

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CR23 S/O CR72
Site Code: 4

SB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
05:00	0	14	7	0	1	1	0	0	1	0	0	0	0	24
06:00	0	35	18	0	2	1	0	1	1	0	0	0	0	58
07:00	0	75	16	1	3	1	0	0	0	0	0	0	0	96
08:00	0	44	15	0	4	2	0	0	0	0	0	0	0	65
09:00	0	19	10	0	0	3	0	0	0	0	0	0	0	32
10:00	0	14	9	0	3	2	0	2	1	1	0	0	0	32
11:00	0	19	8	1	4	3	0	1	2	1	0	0	0	39
12 PM	0	25	13	0	2	2	0	1	0	0	0	0	0	43
13:00	0	19	16	0	0	2	0	0	1	0	0	0	0	38
14:00	0	22	9	1	3	2	0	1	0	0	0	0	0	38
15:00	1	41	8	1	2	2	0	0	2	0	0	0	0	57
16:00	0	29	20	0	4	0	0	0	0	0	0	0	0	53
17:00	1	46	15	0	3	0	1	1	0	0	0	0	0	67
18:00	1	30	8	0	1	0	0	0	0	0	0	0	0	40
19:00	0	17	7	0	0	0	0	0	1	0	0	0	0	25
20:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
21:00	0	8	4	0	0	1	0	0	1	0	0	0	0	14
22:00	0	5	4	0	0	0	0	0	0	0	0	0	0	9
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Day Total	3	476	190	4	33	22	1	7	10	2	0	0	0	748
Percent	0.4%	63.6%	25.4%	0.5%	4.4%	2.9%	0.1%	0.9%	1.3%	0.3%	0.0%	0.0%	0.0%	
AM Peak		07:00	06:00	07:00	08:00	09:00		10:00	11:00	10:00				07:00
Vol.		75	18	1	4	3		2	2	1				96
PM Peak	15:00	17:00	16:00	14:00	16:00	12:00	17:00	12:00	15:00					17:00
Vol.	1	46	20	1	4	2	1	1	2					67

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CR23 S/O CR72

SB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	12	6	0	1	0	0	0	1	0	0	0	0	20
06:00	0	38	19	0	1	0	0	0	2	0	0	0	0	60
07:00	0	62	8	1	8	1	0	1	1	1	0	0	0	83
08:00	0	43	20	0	0	1	0	0	0	0	0	0	0	64
09:00	0	18	14	0	5	1	0	2	0	0	0	0	0	40
10:00	0	17	11	0	2	3	0	2	0	0	0	0	0	35
11:00	1	17	10	0	0	2	0	0	0	0	0	0	0	30
12 PM	0	19	16	0	6	4	0	0	1	0	0	0	0	46
13:00	0	23	15	0	2	2	0	1	1	0	0	0	0	44
14:00	0	26	12	0	1	3	0	1	0	0	0	0	0	43
15:00	0	28	17	1	3	2	0	4	1	0	0	0	0	56
16:00	0	23	21	0	4	1	0	0	1	0	0	0	0	50
17:00	0	27	14	0	4	0	0	0	0	0	0	0	0	45
18:00	0	37	8	0	2	0	0	1	0	0	0	0	0	48
19:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
20:00	0	7	10	0	1	0	0	0	0	0	0	0	0	18
21:00	0	13	2	0	1	0	0	0	0	0	0	0	0	16
22:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Day	1	438	206	2	41	20	0	12	8	1	0	0	0	729
Total Percent	0.1%	60.1%	28.3%	0.3%	5.6%	2.7%	0.0%	1.6%	1.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	07:00	07:00	10:00	0.070	09:00	06:00	07:00	0.070	0.070	0.070	07:00
Vol.	1	62	20	1	8	3		2	2	1				83
PM Peak	I	18:00	16:00	15:00	12:00	12:00		15:00	12:00	•				15:00
Vol.		37	21	1	6	4		4	1					56
Grand	5	1384	581	8	110	50	1	27	22	4	0	0	0	2192
Total							-				-			2152
Percent	0.2%	63.1%	26.5%	0.4%	5.0%	2.3%	0.0%	1.2%	1.0%	0.2%	0.0%	0.0%	0.0%	

Page 1 CR74 E/O CR25
Site Code: 1

EB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	3	1	1	0	1	0	0	0	0	0	0	0	6
01:00	0	1	0	1	0	1	0	0	1	0	0	0	0	4
02:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
03:00	0	3	1	0	0	1	0	0	1	0	0	0	0	6
04:00	0	13	3	1	2	2	0	0	1	0	0	0	0	22
05:00	0	25	6	0	3	0	0	0	0	0	0	0	0	34
06:00	0	62	15	2	8	1	0	0	2	0	0	0	0	90
07:00	0	126	31	1	16	0	0	0	0	0	0	0	0	174
08:00	0	82	20	1	10	0	0	0	0	0	0	0	0	113
09:00	0	24	15	2	10	2	0	0	0	0	0	0	0	53
10:00	0	24	22	2	6	0	0	1	0	0	0	0	0	55
11:00	0	23	17	0	6	0	0	0	0	0	0	0	0	46
12 PM	0	27	20	0	3	0	0	1	1	0	0	0	0	52
13:00	0	29	10	1	7	0	0	1	0	0	0	0	0	48
14:00	0	45	23	1	5	2	0	0	0	0	0	0	0	76
15:00	0	31	23	0	11	0	0	1	2	0	0	0	0	68
16:00	0	50	30	1	9	1	0	1	0	0	1	0	0	93
17:00	3	74	18	1	4	0	0	0	0	0	0	0	0	100
18:00	2	56	15	0	0	0	0	0	0	0	1	1	0	75
19:00	0	55	14	0	7	0	0	0	0	0	1	0	0	77
20:00	0	36	9	0	5	0	0	0	2	0	0	0	0	52
21:00	0	42	11	0	5	0	0	0	0	0	1	0	0	59
22:00	0	16	4	0	2	0	0	0	1	0	1	0	0	24
23:00	0	13	3	0	2	0	0	0	0	0	0	0	0	18
Day	5	861	311	15	121	12	0	5	11	0	5	1	0	1347
Total			00.40/				0.00/		0.00/	0.00/		0.40/		
Percent	0.4%	63.9%	23.1%	1.1%	9.0%	0.9%	0.0%	0.4%	0.8%	0.0%	0.4%	0.1%	0.0%	07.00
AM Peak		07:00 126	07:00 31	06:00	07:00 16	04:00		10:00	06:00					07:00 174
Vol. PM Peak	17:00		16:00	12:00	15:00	2		12:00	15:00		16:00	10.00		174
		17:00 74	30	13:00		14:00		12:00	15:00		16:00	18:00		17:00
Vol.	3	74	30	1	11	2		1	2		1	1		100

CR74 E/O CR25
Site Code: 1

EB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	2	1	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
04:00	0	12	3	0	2	0	0	0	0	0	0	0	0	17
05:00	0	35	9	0	4	2	0	0	0	0	0	0	0	50
06:00	0	92	23	0	12	0	0	1	0	0	0	0	0	128
07:00	0	168	42	0	21	0	0	0	0	0	0	0	0	231
08:00	0	108	27	0	14	0	0	1	1	0	0	0	0	151
09:00	0	82	21	0	10	0	0	1	0	0	0	0	0	114
10:00	0	70	17	0	9	2	0	0	0	0	0	0	0	98
11:00	0	78	19	0	10	0	0	1	0	0	0	0	0	108
12 PM	0	77	19	0	10	1	0	1	0	0	0	0	0	108
13:00	0	75	19	1	9	0	0	0	0	0	0	0	0	104
14:00	0	87	22	1	11	0	0	0	0	0	0	0	0	121
15:00	0	106	26	0	13	0	0	0	0	0	0	0	0	145
16:00	0	118	30	0	15	2	0	0	0	0	0	0	0	165
17:00	0	136	34	2	17	0	0	1	0	0	0	0	0	190
18:00	0	90	22	1	11	0	0	0	0	0	0	0	0	124
19:00	0	41	10	1	5	0	0	1	1	0	0	0	0	59
20:00	0	40	10	0	5	0	0	1	0	0	0	0	0	56
21:00	0	29	7	0	4	2	0	0	0	0	0	0	0	42
22:00	0	22	6	1	3	0	0	1	0	0	0	0	0	33
23:00	0	8	2	1	1	1	0	1	0	0	0	0	0	14
Day Total	0	1484	370	8	187	10	0	10	2	0	0	0	0	2071
Percent	0.0%	71.7%	17.9%	0.4%	9.0%	0.5%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00		07:00	05:00		06:00	08:00					07:00
Vol.		168	42		21	2		1	1					231
PM Peak		17:00	17:00	17:00	17:00	16:00		12:00	19:00					17:00
Vol.		136	34	2	17	2		1	1					190

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EB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	5	1	1	1	0	0	0	0	0	0	0	0	8
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	5	1	2	1	0	0	0	0	0	0	0	0	9
03:00	0	4	1	1	1	0	0	0	0	0	0	0	0	7
04:00	0	11	3	0	1	0	0	0	0	0	0	0	0	15
05:00	0	36	9	0	5	2	0	0	0	0	0	0	0	52
06:00	0	72	18	1	9	0	0	1	0	0	0	0	0	101
07:00	0	126	31	2	16	0	0	0	0	0	0	0	0	175
08:00	0	82	21	1	10	0	0	1	1	0	0	0	0	116
09:00	0	82	20	1	10	0	0	1	0	0	0	0	0	114
10:00	0	74	19	0	9	2	0	0	0	0	0	0	0	104
11:00	0	80	20	1	10	0	0	1	0	0	0	0	0	112
12 PM	0	73	18	1	9	1	0	1	0	0	0	0	0	103
13:00	0	84	21	1	11	0	0	0	0	0	0	0	0	117
14:00	0	90	22	0	11	0	0	0	0	0	0	0	0	123
15:00	0	115	29	1	14	0	0	0	0	0	0	0	0	159
16:00	0	132	33	1	17	0	0	0	0	0	0	0	0	183
17:00	0	130	32	1	16	0	0	0	0	0	0	0	0	179
18:00	0	81	20	1	10	0	0	0	0	0	0	0	0	112
19:00	0	31	8	1	4	0	0	0	0	0	0	0	0	44
20:00	0	33	8	0	4	0	0	0	0	1	0	0	0	46
21:00	0	34	9	0	4	0	0	0	0	0	0	0	0	47
22:00	0	18	5	12	2	2	0	0	2	0	0	0	0	41
23:00	0	6	2	0	1	1	0	0	0	0	0	0	0	10
Day	0	1406	351	29	176	8	0	5	3	1	0	0	0	1979
Total Percent	0.0%	71.0%	17.7%	1.5%	8.9%	0.4%	0.0%	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak	0.076	07:00	07:00	02:00	07:00	05:00	0.070	06:00	0.278	0.176	0.076	0.070	0.078	07:00
Vol.		126	31	02.00	16	2		1	00.00					175
PM Peak		16:00	16:00	22:00	16:00	22:00		12:00	22:00	20:00				16:00
Vol.		132	33	12	17	22.00		12.00	22.00	1				183
Grand Total	5	3751	1032	52	484	30	0	20	16	1	5	1	0	5397
Percent	0.1%	69.5%	19.1%	1.0%	9.0%	0.6%	0.0%	0.4%	0.3%	0.0%	0.1%	0.0%	0.0%	

CR74 E/O
0.4

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WB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	7	2	0	1	0	0	0	0	0	0	0	0	10
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	12	2	0	1	0	0	0	0	0	0	0	0	15
06:00	0	37	14	0	2	0	0	0	0	0	0	0	0	53
07:00	0	80	38	0	10	0	0	0	0	0	0	0	0	128
08:00	0	134	74	2	13	0	0	1	1	0	0	0	0	225
09:00	2	34	28	0	7	0	0	0	0	0	0	0	0	71
10:00	0	46	14	1	6	0	0	0	1	0	0	0	0	68
11:00	0	46	16	0	10	1	0	1	1	0	0	0	0	75
12 PM	0	44	24	1	6	0	0	0	0	0	0	0	0	75
13:00	0	44	19	1	16	0	0	0	0	0	0	0	0	80
14:00	2	46	22	1	6	1	0	2	0	0	0	0	0	80
15:00	0	62	36	1	14	0	0	0	0	0	0	0	0	113
16:00	1	86	38	0	7	1	0	2	0	0	0	0	0	135
17:00	10	86	35	0	10	1	0	1	0	0	0	0	0	143
18:00	1	95	65	0	10	1	0	0	0	0	0	0	0	172
19:00	0	71	35	0	5	1	0	0	0	0	0	0	0	112
20:00	0	44	30	0	1	0	0	0	0	0	0	0	0	75
21:00	0	26	10	0	2	0	0	0	0	0	0	0	0	38
22:00	0	20	12	0	2	0	0	0	0	0	0	0	0	34
23:00	0	20	10	0	1	0	0	0	0	0	0	0	0	31
Day	16	1047	526	7	130	6	0	7	3	0	0	0	0	1742
Total														
Percent	0.9%	60.1%	30.2%	0.4%	7.5%	0.3%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	08:00	08:00	11:00		08:00	08:00					08:00
Vol.	2	134	74	2	13	1		1	1					225
PM Peak	17:00	18:00	18:00	12:00	13:00	14:00		14:00						18:00
Vol.	10	95	65	1	16	1		2						172

CR74 E/O CR25
Site Code: 1

WB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	5	Ô	1	1	0	0	0	0	0	0	0	0	7
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
05:00	0	8	2	0	1	0	0	0	0	0	0	0	0	11
06:00	0	34	20	0	5	0	0	0	0	0	0	0	0	59
07:00	0	89	43	0	10	1	0	1	0	0	0	0	0	144
08:00	1	124	71	2	16	1	0	2	0	0	0	0	0	217
09:00	0	82	46	0	10	0	0	0	0	0	0	0	0	138
10:00	0	49	38	0	7	0	0	2	1	0	0	0	0	97
11:00	1	53	20	1	7	0	0	1	0	0	0	0	0	83
12 PM	0	43	26	1	8	1	0	0	0	0	0	0	0	79
13:00	0	44	24	1	5	1	0	2	0	0	0	0	0	77
14:00	0	37	24	1	6	0	0	2	0	0	0	0	0	70
15:00	0	41	28	1	7	1	0	0	0	0	0	0	0	78
16:00	0	42	37	1	10	0	0	1	0	0	0	0	0	91
17:00	0	56	36	1	8	1	0	2	0	0	0	0	0	104
18:00	1	70	49	0	7	0	0	1	0	0	0	0	0	128
19:00	0	52	35	0	7	1	0	0	0	0	0	0	0	95
20:00	0	38	12	0	2	0	0	0	0	0	0	0	0	52
21:00	0	20	7	0	1	0	0	0	0	0	0	0	0	28
22:00	0	20	5	0	0	0	0	0	0	0	0	0	0	25
23:00	0	10	5	0	1	0	0	0	0	0	0	0	0	16
Day	3	928	530	10	120	7	0	14	1	0	0	0	0	1613
Total									•					1010
Percent	0.2%	57.5%	32.9%	0.6%	7.4%	0.4%	0.0%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	08:00	08:00	07:00		08:00	10:00					08:00
Vol.	1	124	71	2	16	1		2	1					217
PM Peak	18:00	18:00	18:00	12:00	16:00	12:00		13:00						18:00
Vol.	1	70	49	1	10	1		2						128

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WB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	6	1	0	1	0	0	0	0	0	0	0	0	8
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
05:00	0	12	2	0	1	0	0	0	0	0	0	0	0	15
06:00	0	43	20	0	5	0	0	0	0	0	0	0	0	68
07:00	0	89	41	0	12	0	0	0	0	0	0	0	0	142
08:00	2	137	77	1	14	0	0	1	0	0	0	0	0	232
09:00	1	88	52	1	10	0	0	2	1	0	0	0	0	155
10:00	1	62	41	1	6	0	0	1	0	0	0	0	0	112
11:00	2	46	31	2	7	0	0	1	0	0	0	0	0	89
12 PM	0	43	26	0	6	1	1	1	0	0	0	0	0	78
13:00	0	42	34	5	5	1	0	1	1	0	0	0	0	89
14:00	0	44	23	1	6	0	0	2	0	0	0	0	0	76
15:00	0	42	34	2	8	0	0	1	1	0	0	0	0	88
16:00	0	46	37	2	6	0	0	1	0	0	0	0	0	92
17:00	2	66	30	1	7	1	0	1	1	0	0	0	0	109
18:00	0	66	36	1	7	1	0	2	0	0	0	0	0	113
19:00	1	55	19	0	6	0	0	0	0	0	0	0	0	81
20:00	0	37	10	0	2	0	0	1	0	0	0	0	0	50
21:00	0	14	13	0	1	0	0	0	0	0	0	0	0	28
22:00	0	14	5	0	2	1	0	1	0	0	0	0	0	23
23:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
Day	9	971	537	17	114	5	1	16	4	0	0	0	0	1674
Total														1074
Percent	0.5%	58.0%	32.1%	1.0%	6.8%	0.3%	0.1%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	11:00	08:00			09:00	09:00					08:00
Vol.	2	137	77	2	14			2	1					232
PM Peak	17:00	17:00	16:00	13:00	15:00	12:00	12:00	14:00	13:00					18:00
Vol.	2	66	37	5	8	1	1	2	1					113
One a l														
Grand	28	2946	1593	34	364	18	1	37	8	0	0	0	0	5029
Total							0.00/			0.00/	0.00/	0.00/	0.00/	
Percent	0.6%	58.6%	31.7%	0.7%	7.2%	0.4%	0.0%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	

			Page	1
CR74	W/O	FOX	RIDG	Е

EB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	20	4	1	1	0	0	0	0	0	0	0	0	26
01:00	0	10	4	0	0	0	0	0	0	0	0	0	0	14
02:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
03:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
06:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
07:00	0	26	6	1	1	0	0	1	0	1	0	0	0	36
08:00	0	59	31	1	5	1	0	0	0	0	0	0	0	97
09:00	0	59	37	1	7	0	0	1	0	0	0	0	0	105
10:00	2	59	25	2	8	2	0	0	0	0	0	0	0	98
11:00	0	44	31	0	8	1	0	0	1	0	0	0	0	85
12 PM	1	51	13	1	6	1	0	0	0	0	0	0	0	73
13:00	0	76	28	1	5	0	0	1	0	0	0	0	0	111
14:00	0	63	20	1	7	1	0	2	0	0	0	0	0	94
15:00	1	78	31	1	7	0	0	1	1	0	0	0	0	120
16:00	2	112	45	3	10	0	0	1	0	0	0	0	0	173
17:00	1	154	59	0	11	0	0	2	0	0	0	0	0	227
18:00	1	212	62	0	18	0	0	1	0	1	0	0	0	295
19:00	0	149	45	0	14	1	0	0	0	0	0	0	0	209
20:00	0	105	23	0	3	0	0	0	0	0	0	0	0	131
21:00	0	69	15	0	5	0	0	0	0	0	0	0	0	89
22:00	0	74	7	0	5	0	0	0	0	0	0	0	0	86
23:00	0	32	4	0	1	0	0	0	1	0	0	0	0	38
Day Total	8	1472	495	13	122	7	0	10	3	2	0	0	0	2132
Percent	0.4%	69.0%	23.2%	0.6%	5.7%	0.3%	0.0%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	09:00	10:00	10:00	10:00		07:00	11:00	07:00				09:00
Vol.	2	59	37	2	8	2		1	1	1				105
PM Peak	16:00	18:00	18:00	16:00	18:00	12:00		14:00	15:00	18:00				18:00
Vol.	2	212	62	3	18	1		2	1	1				295

			Page	2
CR74	W/O	FOX	RIDG	Е

EB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	12	2	0	0	0	0	0	0	0	0	0	0	14
01:00	0	9	3	0	1	0	0	0	0	0	0	0	0	13
02:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
06:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
07:00	0	26	8	1	0	0	0	1	0	0	0	0	0	36
08:00	1	53	18	2	5	1	0	0	1	0	0	0	0	81
09:00	0	55	28	0	6	0	0	1	0	0	0	0	0	90
10:00	0	59	23	0	8	0	0	0	0	0	0	0	0	90
11:00	0	48	16	2	9	1	0	1	1	0	0	0	0	78
12 PM	0	46	26	0	4	3	0	0	0	0	0	0	0	79
13:00	0	51	31	1	8	0	0	1	0	0	0	0	0	92
14:00	1	84	17	0	5	0	0	1	0	0	0	0	0	108
15:00	1	69	28	1	2	0	0	1	0	0	0	0	0	102
16:00	0	129	45	2	14	0	0	2	0	0	0	0	0	192
17:00	0	145	50	0	14	0	0	0	0	0	0	0	0	209
18:00	1	201	46	0	21	1	0	0	0	0	0	0	0	270
19:00	1	182	38	0	6	0	0	0	0	0	0	0	0	227
20:00	1	91	25	0	11	0	0	0	0	0	0	0	0	128
21:00	0	75	31	0	3	0	0	0	0	0	0	0	0	109
22:00	1	66	13	0	6	0	0	1	0	0	0	0	0	87
23:00	1	45	10	0	3	0	0	0	0	0	0	0	0	59
Day Total	8	1460	463	9	126	6	0	9	2	0	0	0	0	2083
Percent	0.4%	70.1%	22.2%	0.4%	6.0%	0.3%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	10:00	09:00	08:00	11:00	08:00		07:00	08:00					09:00
Vol.	1	59	28	2	9	1		1	1					90
PM Peak	14:00	18:00	17:00	16:00	18:00	12:00		16:00						18:00
Vol.	1	201	50	2	21	3		2						270

			Page) 3
CR74	W/O	FOX	RID	ЭΕ

Site Code: 2

EB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	15	2	0	0	0	0	0	0	0	0	0	0	17
01:00	0	16	2	0	1	0	0	0	0	0	0	0	0	19
02:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
06:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
07:00	0	22	7	1	1	0	0	0	0	0	0	0	0	31
08:00	2	55	23	2	2	1	0	0	0	0	0	0	0	85
09:00	1	63	35	0	2	3	0	1	1	0	0	0	0	106
10:00	0	34	21	2	4	0	0	0	0	0	0	0	0	61
11:00	1	41	12	0	6	2	0	2	0	0	0	0	0	64
12 PM	1	64	18	0	5	3	0	2	0	0	0	0	0	93
13:00	1	70	24	0	14	2	0	2	0	0	0	0	0	113
14:00	0	84	37	0	9	1	0	1	2	0	0	0	0	134
15:00	1	88	31	1	5	1	0	2	0	0	0	0	0	129
16:00	0	123	48	2	14	1	0	1	1	0	0	0	0	190
17:00	1	176	54	0	11	3	0	1	0	0	0	0	0	246
18:00	1	220	59	0	16	1	0	0	0	0	0	0	0	297
19:00	1	154	42	0	8	0	0	0	0	0	0	0	0	205
20:00	0	97	21	0	6	0	0	1	0	0	0	0	0	125
21:00	0	82	18	0	7	0	0	0	0	0	0	0	0	107
22:00	0	68	8	0	1	0	0	0	0	0	0	0	0	77
23:00	0	35	6	0	4	0	0	0	0	0	0	0	0	45
Day Total	10	1531	472	8	117	18	0	13	4	0	0	0	0	2173
Percent	0.5%	70.5%	21.7%	0.4%	5.4%	0.8%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	09:00	09:00	08:00	11:00	09:00		11:00	09:00					09:00
Vol.	2	63	35	2	6	3		2	1					106
PM Peak	12:00	18:00	18:00	16:00	18:00	12:00		12:00	14:00					18:00
Vol.	1	220	59	2	16	3		2	2					297
Grand Total	26	4463	1430	30	365	31	0	32	9	2	0	0	0	6388
Percent	0.4%	69.9%	22.4%	0.5%	5.7%	0.5%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	

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		Page	4
CR74 W/O	FOX	RIDG	Е

WB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/23/07	0	9	3	0	1	0	0	0	0	0	0	0	0	13
01:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	15	4	0	2	0	0	0	0	0	0	0	0	21
06:00	0	49	18	0	4	0	0	0	0	0	0	0	0	71
07:00	0	106	51	0	14	0	0	0	0	0	0	0	0	171
08:00	0	250	98	3	17	0	0	2	1	0	0	0	0	371
09:00	0	126	59	1	11	0	0	6	1	1	0	0	0	205
10:00	1	61	36	0	8	0	0	1	0	0	0	0	0	107
11:00	0	61	30	2	9	0	0	2	1	0	0	0	0	105
12 PM	0	69	23	1	7	2	0	2	0	0	0	0	0	104
13:00	0	53	34	3	8	0	0	2	0	0	0	0	0	100
14:00	0	55	32	2	10	1	0	2	0	0	0	0	0	102
15:00	1	45	36	3	5	0	0	3	0	0	0	0	0	93
16:00	1	68	21	1	11	1	0	1	0	0	0	0	0	104
17:00	1	76	40	4	13	2	0	2	0	0	0	0	0	138
18:00	1	82	56	0	9	1	0	0	0	0	0	0	0	149
19:00	0	61	30	0	4	1	0	0	0	0	0	0	0	96
20:00	0	39	26	0	2	0	0	0	0	0	0	0	0	67
21:00	0	23	9	0	2	0	0	0	0	0	0	0	0	34
22:00	0	17	10	0	2	0	0	0	0	0	0	0	0	29
23:00	0	17	9	0	2	0	0	0	0	0	0	0	0	28
Day	5	1294	627	20	141	8	0	23	3	1	0	0	0	2122
Total							0.00/			0.00/	0.00/			
Percent	0.2%	61.0%	29.5%	0.9%	6.6%	0.4%	0.0%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	00.00
AM Peak	10:00	08:00	08:00	08:00	08:00			09:00	08:00	09:00				08:00
Vol.	15,00	250	98	3	17	12:00		6	1	1				371
PM Peak	15:00	18:00	18:00	17:00	17:00	12:00		15:00						18:00
Vol.	1	82	56	4	13	2		3						149

		Page 5
CR74 W/O	FOX	RIDGE

WB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/24/07	0	5	0	1	1	0	0	0	0	0	0	0	0	7
01:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	7	1	0	1	0	0	0	0	0	0	0	0	9
05:00	0	11	4	0	1	0	0	0	0	0	0	0	0	16
06:00	0	44	26	0	5	0	0	0	0	0	0	0	0	75
07:00	0	116	56	0	14	1	0	1	0	0	0	0	0	188
08:00	2	237	92	3	21	1	0	3	0	0	0	0	0	359
09:00	0	107	61	0	13	0	0	0	0	0	0	0	0	181
10:00	0	64	51	0	10	0	0	3	1	0	0	0	0	129
11:00	1	69	27	2	9	0	0	2	0	0	0	0	0	110
12 PM	0	57	33	1	11	2	0	0	0	0	0	0	0	104
13:00	0	58	31	2	6	2	0	3	0	0	0	0	0	102
14:00	0	49	31	1	8	0	0	3	0	0	0	0	0	92
15:00	0	53	36	1	9	2	0	0	0	0	0	0	0	101
16:00	0	55	48	1	14	0	0	1	0	0	0	0	0	119
17:00	0	73	47	2	11	1	0	4	0	0	0	0	0	138
18:00	1	91	63	0	9	0	0	2	0	0	0	0	0	166
19:00	0	67	46	0	9	1	0	0	0	0	0	0	0	123
20:00	0	51	15	0	3	0	0	0	0	0	0	0	0	69
21:00	0	27	10	0	1	0	0	0	0	0	0	0	0	38
22:00	0	26	5	0	0	0	0	0	0	0	0	0	0	31
23:00	0	13	5	0	1	0	0	0	0	0	0	0	0	19
Day Total	4	1288	690	14	157	10	0	22	1	0	0	0	0	2186
Percent	0.2%	58.9%	31.6%	0.6%	7.2%	0.5%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	08:00	08:00	07:00		08:00	10:00					08:00
Vol.	2	237	92	3	21	1		3	1					359
PM Peak	18:00	18:00	18:00	13:00	16:00	12:00		17:00						18:00
Vol.	1	91	63	2	14	2		4						166

		Page	6
CR74 W/O	FOX	RIDG	Е

WB														
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
01/25/07	0	8	1	0	1	0	0	0	0	0	0	0	0	10
01:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
05:00	0	15	4	0	2	0	0	0	0	0	0	0	0	21
06:00	0	57	26	0	6	0	0	0	0	0	0	0	0	89
07:00	0	117	52	0	15	0	0	0	0	0	0	0	0	184
08:00	3	254	100	2	18	0	0	1	0	0	0	0	0	378
09:00	1	115	68	1	14	0	0	3	1	0	0	0	0	203
10:00	1	81	52	2	7	0	0	1	0	0	0	0	0	144
11:00	3	60	42	3	10	0	0	2	0	0	0	0	0	120
12 PM	0	57	34	0	8	2	1	2	0	0	0	0	0	104
13:00	0	55	43	5	6	2	0	1	1	0	0	0	0	113
14:00	0	58	30	1	8	0	0	3	0	0	0	0	0	100
15:00	0	54	44	3	12	0	0	1	1	0	0	0	0	115
16:00	0	60	48	3	7	0	0	1	0	0	0	0	0	119
17:00	4	86	40	2	10	1	0	1	1	0	0	0	0	145
18:00	0	86	47	1	9	2	0	3	0	0	0	0	0	148
19:00	1	71	25	0	7	0	0	0	0	0	0	0	0	104
20:00	0	49	14	0	3	0	0	1	0	0	0	0	0	67
21:00	0	19	16	0	1	0	0	0	0	0	0	0	0	36
22:00	0	19	5	0	3	1	0	2	0	0	0	0	0	30
23:00	0	13	4	0	1	0	0	0	0	0	0	0	0	18
Day	13	1345	699	23	149	8	1	22	4	0	0	0	0	2264
Total Percent	0.6%	59.4%	30.9%	1.0%	6.6%	0.4%	0.0%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	0.0%	08:00	08:00	11:00	08:00	0.4 /0	0.076	09:00	0.2 %	0.076	0.0 %	0.076	0.0 %	08:00
Vol.	3	254	100	3	18			09.00 3	09.00					378
PM Peak	17:00	17:00	16:00	13:00	15:00	12:00	12:00	14:00	13:00					18:00
Vol.	4	86	48	5	13.00	12.00	12.00	3	13.00					148
v 01.	-	00	40	0	12	2	1	0						140
Grand	00	000 -	0040			00		07	<u> </u>	,	<u> </u>	ĉ	<u> </u>	0570
Total	22	3927	2016	57	447	26	1	67	8	1	0	0	0	6572
Percent	0.3%	59.8%	30.7%	0.9%	6.8%	0.4%	0.0%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Stan Elmquist

From: Jerry Steinbar [jsteinbar@co.weld.co.us]

Sent: Friday, November 30, 2007 10:17 AM

To: Stan Elmquist

Subject: FW: 2007 truck percentages for Windsor and surrounding area

Hi Stan,

Here is the combined data from 2006 and 2007. I also want you to have Jerry Steinbar's e-mail address; he is now the traffic count technician. Please let us know if you need further information. Thanks,

Amy Burry Utility Coodinator Jerry Steinbar Traffic Division

Road #	From	То	Date 1	AADT 1	Truck %
13	68.5	Timnath CL	10/4/2007	332	17
13	Hwy 14	84	7/26/2007	208	19
13	76	78	8/18/2006	303	21
15	74	76	4/17/2007	719	2
19	70	72	4/17/2007	3926	5
19	72	74	9/7/2007	3351	11
23	66	sh392	9/15/2006	545	24
23	SH 392	70	10/3/2007	1598	11
25	72	74	10/4/2007	155	14
27	Greeley CL	64 (O St)	9/27/2007	2929	15
27	66	Hwy 392	9/7/2007	802	18
27	74	76	7/14/2006	111	21
29	70	72	7/14/2006	175	22
31	74	76	4/18/2007	1097	9
64.75	23	23.75	9/15/2006	2308	11
66	Windsor CL	23	9/15/2006	2780	15
66	23.75	27	10/4/2007	209	19
66(AA St.)	35	37	3/29/2007	1004	10
70	19	21	4/17/2007	136	3
70	21	23	11/16/2006	86	21
70	23	end of pavement	10/3/2007	335	8
72	HWY 257	19	4/17/2007	1040	11
72	37	SH 85	2/21/2006	50	15
74	Timnath CL	15	10/4/2007	8900	6
74	Windsor CL	19	9/6/2007	6300	8

L	74	19	Severance Cl	9/7/2007	4420	7
	74	25	27	10/4/2007	2096	10
	76	13	13.5	4/18/2007	247	3
	76	15	17	4/13/2006	187	24
	76	23	27	8/25/2006	145	13
	80	35	SH 85	7/14/2006	49	11

-----Original Message-----From: Amy Burry Sent: Friday, November 30, 2007 9:36 AM To: Jerry Steinbar Subject: FW: 2007 truck percentages for Windsor and surrounding area

Amy Burry

Utility Coordinator

Weld County Public Works

(970)304-6496 ext. 3764

From: Stan Elmquist [mailto:SElmquist@nfrmpo.org]
Sent: Tuesday, November 20, 2007 11:28 AM
To: Amy Burry
Cc: Drew Scheltinga
Subject: RE: 2007 truck percentages for Windsor and surrounding area

Hi Amy,

I appreciated receiving the map and table of data that you sent several days ago.

On the topic of your offer of "further assistance," I'm wondering if Weld County's truck traffic data (or data regarding all traffic) includes anything the might be readily available regarding the county roads between WCR 29 and US 85 and between SH 14 and 'O' Street (Greeley). If so, it would be valuable for making some potential refinements to the North Front Range MPO's (computerized) traffic projection model. One of the routes being discussed during the "Sub-Regional Study" (Windsor/Timnath/Severance/Eaton and surrounding area) is WCR 31, which has a considerable number of trash trucks using it each day between Greeley and the landfill on SH 14, for example.

Page 3 of 4

If you have questions about this request, please do not hesitate to contact me! Thank you.

Stan

From: Stan Elmquist Sent: Friday, November 09, 2007 10:21 AM To: 'Amy Burry' Cc: Drew Scheltinga Subject: RE: 2007 truck percentages for Windsor and surrounding area Thanks very much, Amy! We'll be making use of this. I'll take a closer look before asking for any further assistance; I'll appreciate your help. Stan Elmquist Transportation Planner North Front Range MPO 419 Canyon Avenue Suite 300 Fort Collins, CO 80524 (970) 416-2309 selmquist@nfrmpo.org <mailto:selmquist@nfrmpo.org>

From: Amy Burry [mailto:aburry@co.weld.co.us]
Sent: Friday, November 09, 2007 8:54 AM
To: Stan Elmquist
Cc: Drew Scheltinga
Subject: 2007 truck percentages for Windsor and surrounding area

Stan,

Attached, is a map of the roads I had truck percentage data for, and a copy of the dates and AADT's.

I hope this is helpful. Please let me know if I can be of further assistance.

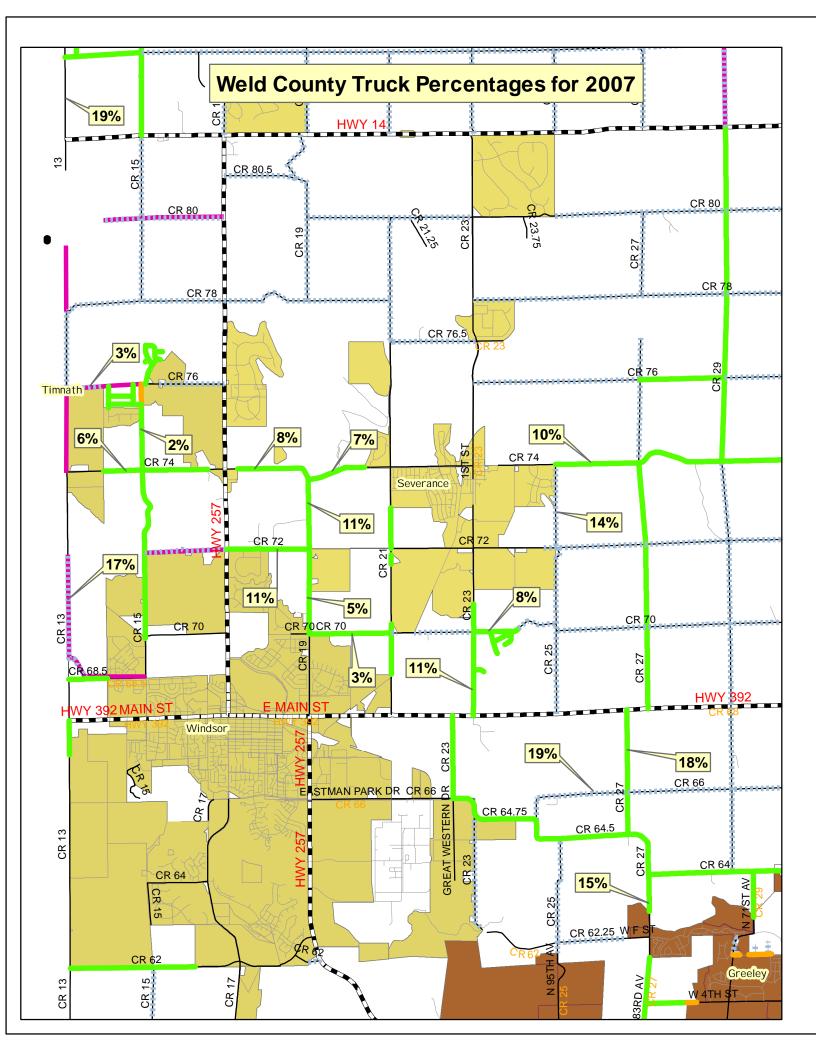
Thank you,

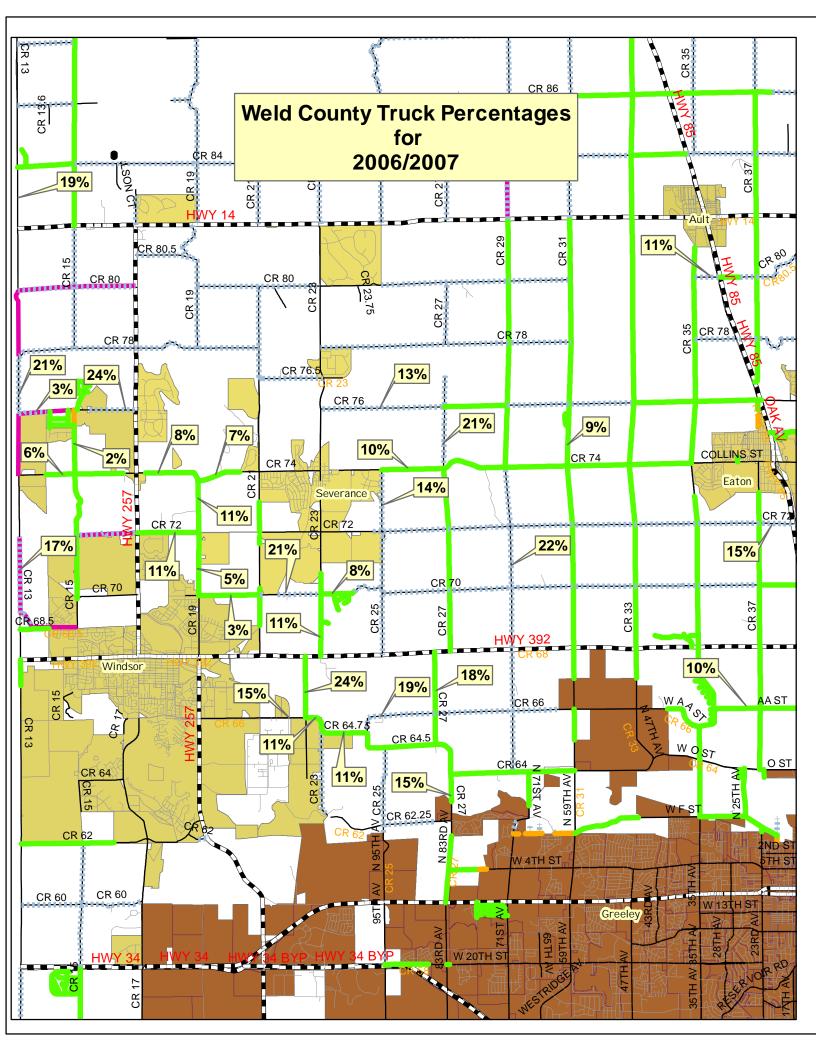
Amy Burry

Weld County Public Works

Traffic Division

(970)304-6496 ext. 3789







APPENDIX D MAJOR INDUSTRIES IN THE STUDY AREA



Major Industries in the Study Area

Owens-Illinois

Colorado BIZ magazine (July 2004) carried a news article about the Owens-Illinois (Brockway Glass Container Inc.) glass factory being built adjacent to Windsor. The article said that the factory, as planned, would be costing \$120 million. It also said:

Officials broke ground on the plant in early June (2004). Broe (referring to Pat Broe of Broe Industries, parent company of OmniTrax and the Great Western Railway) purchased the land, serviced by his OmniTrax's Great Western Railway, and then sold it to the Toledo, Ohio-based glass behemoth, according to Ron Klaphake, president and CEO Greeley/Weld Economic Development. The plant, when completed probably in the next 12 to 15 months, will produce 1,000 tons of glass per day or 1 billion bottles a year for Anheuser-Busch, adds Klaphake. The raw materials for that glass— sand, soda ash and limestone—will be brought in by rail, he adds.

--ColoradoBIZ, July 2004

According to the company's web site, this was "the world's most modern glass manufacturing facility (when it opened) in 2005. It was the first new glass container manufacturing facility built in North America in 25 years." It is one of nineteen glass container plants operated by the company in the United States.

The <u>Economic Profile: 2008</u>, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development, indicated that this plant currently employs 150 people.

Location: Intersection of WCR 23 & WCR 64¾ southeast of Windsor

Vestas-American Wind Tech





Hoover's, Inc. provides comprehensive company, industry, and market intelligence that informs business interests and investors. According to the Hoover's Inc. website,

Vestas Wind Systems and its subsidiaries manufacture and distribute wind turbines used to produce electricity. Its turbines can produce from 850kW to 3MW, and Vestas has installed more than 33,500 worldwide. It makes models capable of operating on land and offshore. The company also offers installation, repair, and maintenance services. Vestas, which began manufacturing wind turbines in 1979, currently operates through 13 units.

According to the Vestas company's web site as of November 2007, it had installed more than 9,300 wind turbines in the USA and approximately one-third of the turbines operating worldwide. At the time the construction of the plant near Windsor was announced (March 2007), the company said it would have a production capacity of approximately 1,200 blades per year and the factory would employ around 400 people. There has been a subsequent announcement (November 2007) about expanding the plant's capacity and increasing employment to approximately 600 people. This level of employment was also indicated in the Economic Profile: 2008, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development.

Location: 9351 Eastman Park Dr, Windsor

Eastman Kodak Company

According to the Hoover's website:

The Eastman Kodak Company has retouched its image from a leading maker of photographic film to a provider of imaging technology products and services to the photographic and graphic communications markets. The company has restructured itself to focus less on sales of film and more on sales of digital cameras and imaging systems for consumers and professionals... The firm also has long-term plans to sell ink jet printers and flat-panel displays.

The <u>Economic Profile: 2008</u>, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development, indicated that this plant currently employs 900 people.

Location: 9952 Eastman Park Dr, Windsor



Carestream Health, Inc.

The Eastman Kodak Company (NYSE:EK) announced in January 2007 that it would sell its Health Group to Onex Healthcare Holdings, Inc., a subsidiary of Onex Corporation (TSX: OCX), in a move that will sharpen Kodak's strategic focus on consumer and professional imaging and the graphic communications industry.

With nearly \$2.5 billion in annual sales, Carestream Health is one of the world's leading health imaging and IT solutions companies, offering a comprehensive suite of traditional and digital solutions to customers of medical, dental, molecular imaging systems and non-destructive testing.

The <u>Economic Profile: 2008</u>, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development, indicated that this plant currently employs 750 people.

Front Range Energy LLC

According to its website, Front Range Energy began ethanol production in June 2006. The company's plant was anticipated to be processing approximately 40 million gallons of ethanol and 396,000 tons of wet distiller's grain annually.

According to the web site of the National Corn Growers Association (NCGA), this was initially envisioned as a \$54 million plant that would have about 32 employees with annual revenue expected to exceed \$65 million. The <u>Economic Profile: 2008</u>, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development, indicated that this plant currently employs 35 people.

Location: 31000 County Road 23, Greeley

Universal Forest Products

According to its website, Universal Forest Products is the leading producer of pressure-treated wood and North America's largest manufacturer of engineered roof systems for manufactured housing and site-built construction. The company is America's leading buyer of solid-sawn lumber and the largest customer of North America's largest mills.



The <u>Economic Profile: 2008</u>, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development, indicated that this plant currently employs 180 people.

Location: 15 East Walnut St., Windsor

Metal Container Corporation

According to Hoover's website, Metal Container Corporation is a subsidiary of Anheuser-Busch's packaging segment and makes cans and lids for Anheuser-Busch Companies. It also supplies the US soft-drink container market. Hanson Natural's Monster Energy drinks are a major soft-drink customer. MCC makes more than 25 billion cans and 28 billion lids annually. Hoover's indicates that the company operates eight can and three lid manufacturing facilities throughout the US. The company's web site says that it supplies more than 60 percent of Anheuser-Busch's domestic beer cans and 75 percent of its domestic lids. Other customers include Pepsi and Coca-Cola.

The <u>Economic Profile: 2008</u>, produced by Northern Colorado Business Report Inc. on behalf of the Northern Colorado Economic Development Corp. and Upstate Colorado Economic Development, indicated that this plant employs 112 people.

Location: 1201 18th Avenue, Windsor

Best-Way Concrete Co.

According to its website, Bestway Concrete has supplied ready-mixed concrete to Northern Colorado residential, commercial, and municipal projects. The company is locally owned and operated. The plant in Windsor is one of the company's six that are located throughout Northern Colorado.

Location: 32744 County Road 13, Windsor

Hall-Irwin Construction

According to its website, Hall-Irwin Construction provides residential, commercial, public sector, and industrial construction and development services to the growing markets along the front range of Colorado and Wyoming. It has both construction and



aggregate mining divisions. It supplies gravel, landscaping materials and services to some of the state's largest commercial builders, including sand, pipe bedding material, road base, construction aggregates, and fill material.

Location: 30279 Weld County Rd. 27

Waste Management

Waste Management (WM) operates more than 300 active landfill disposal sites nationwide, one of which is located in northern Colorado, according to its web site. The North Weld Sanitary Landfill (NWSL) is owned and operated by Waste Management. NWSL consists of 170 permitted acres surrounded by 320 additional acres of buffer property owned by WM. The projected life span of NWSL, anticipating continued population growth in the surrounding region, is approximately 30 years. The North Weld Sanitary Landfill (NWSL) disposes of municipal wastes for northern Colorado communities and industrial wastes for customers in northern Colorado, Wyoming, Nebraska, and the Dakotas. NWSL accepts a wide variety of non-hazardous industrial wastes from various points along the northern Front Range, including nonhazardous waste disposal services.

Location: 40000 County Road 25, Ault, CO

Aggregate Industries, Inc. – Ready Mix Concrete Division (Camas Colorado)

The web site for Aggregate Industries says that it "manufactures and sells readymix concrete in each of our regional markets. Readymix concrete is a versatile construction material produced by combining crushed rock or gravel aggregate, sand, Portland cement and water. This common material is used in a variety of construction projects including; home foundations, stores, offices, streets, runways, bridges, sidewalks, and many other facilities used in our daily lives. Delivery of readymix concrete from our plant locations to the construction site is accomplished with our growing fleet of mixer trucks guided by sophisticated dispatching systems. Efficient delivery is critical with this perishable product, as it begins to harden shortly after being mixed."

Location: WCR 27 & WCR 64



APPENDIX E

ALTERNATIVES TESTED IN TRAVEL DEMAND MODEL



Alternatives Tested with Computerized Travel Demand Model

Suggestions from the technical committee were used by the NFRMPO staff to develop and test a range of different roadway network "scenarios" that were perceived as changes to the existing and planned system which might be beneficial.

In some instances, the scenarios drew concepts from existing, local agency transportation master plans. The purpose of these scenarios was to test the effectiveness of particular sets of roadway modifications so that appropriate (i.e. "apples-to-apples") comparisons could be made with scenarios that were suggested as part of this study.

In the descriptions below, the following abbreviations are used:

Larimer County Road:	LCR
Weld County Road:	WCR
State Highway:	SH
United States Highway:	US

In addition, for named highways:

For the following routes:	This report will use:
LCR 38/WCR 74/Collins Street:	Harmony Road
US 34 Business Route:	10 th Street (within western Greeley)
Mulberry Street:	SH 14 (east of I-25)

Roadway Modifications Common to All Scenarios

The adopted 2035 Regional Transportation Plan for the North Front Range MPO served as the starting point for the modeling of scenarios. Modeling of the various scenarios was performed for three different time frames (or "horizon years"):

- 2005 (which is treated as the "existing" condition in terms of dwelling unit and employment assumptions for the various transportation analysis zones used by the modeling process)
- 2025 (which addresses a set of "mid-term" land use assumptions)
- 2035 (which addresses a set of "long-term" land use assumptions)

Land use assumptions were kept the same for the various scenarios. In other words, the model runs were intended to examine what would happen to travel patterns if the only variables for each horizon year would be changes to the roadway network. In reality, one could reasonably expect that *some amount* of change in the intensity of land uses surrounding a travel corridor would occur because



of changes to the roadway network, but quantifying such changes would require a more complex analysis than was included in the scope and budget for the Sub-Regional Study.

The following table compares the roadway network assumptions that were part of the MPO's adopted Regional Transportation Plan (RTP) with the set being used for the Sub-Regional Study. The latter were common to the model runs for all scenarios. These changes were ones that were considered "commitments" for improvements by one or more local agencies, based on their capital improvements programs or their long-range plans at the time of the Sub-Regional Study. (Decisions establishing these as commitments had generally been made subsequent to the analyses performed during the preparation of the MPO's 2035 Regional Transportation Plan.)

Road/Street	From:	To:	Adopted RTP	Sub-Regional Study
Harmony Road	I-25	LCR 1/WCR 13	2-lane Minor Arterial	4-lane Minor Arterial in 2025 & 2035
Alternative Route parallel to Main Street	Harmony Rd.	North of downtown Timnath	Not anticipated in network	2-lane Minor Arterial in 2025 4-lane Minor Arterial in 2035
WCR 23	WCR 62	WCR 64¾	2-lane Collector crossing Poudre River	2-lane Collector NOT crossing the Poudre River

In addition to the changes in assumptions noted above, networks for all scenarios included Great Western Drive—either as a twolane Collector or as a two-lane Minor Arterial—which had not previously been included in the regional network. Great Western Drive is a north-south street to the west of WCR 23 and it currently serves the Front Range Energy ethanol plant. It is intended to serve a number of the Great Western Industrial Park's other sites in the future. Its northern terminus is at Eastman Park Drive.

Scenario I

Scenario I tested the anticipated effect on traffic patterns that would result from expanding Harmony Road from two to four lanes as a Minor Arterial between Larimer County Road 1/WCR 13 and SH 257. In this scenario, Great Western Drive would have the capacity of a two-lane Collector Street in both 2025 and 2035.

Recognizing that increased traffic on Harmony Road in future years may eventually exceed its current capacity, the concept of testing this scenario was to see if even more traffic would be attracted to use Harmony Road because of widening it and, if so, which roads would experience a decrease in traffic.



Scenario II

Scenario II included the same set of improvements for Harmony Road as Scenario I and tested the anticipated effect on traffic patterns that would result from expanding portions of both SHs 14 and 257 prior to 2035. SH 14 would be expanded from a two-lane to a four-lane Minor Arterial between I-25 and SH 257. SH 257 would be expanded from a two-lane Major Arterial into a four-lane Minor Arterial between SH 392 in Windsor and SH 14. In the vicinity where WCR 23 currently intersects with SH 392, there are two off-set "T" intersections. This scenario would replace those with a single four-way intersection, making it easier for north-south Weld Count Road 23 traffic to cross SH 392. Eastman Park Drive, WCR 23 (north of Eastman Park Drive), and Great Western Drive would form a four-legged intersection. In this scenario, Great Western Drive south of Eastman Park Drive would have the capacity of a two-lane Collector Street in 2025 and of a two-lane Minor Arterial Street in 2035.

The concept of testing this scenario was to see whether more traffic would be attracted to SHs 14 and 257 by widening them and, if so, how much of that traffic would be drawn away from Harmony Road, from SH 392 and from any other roads. This scenario was also intended to show whether an easier, more continuous connection of WCR 23/Great Western Drive between Eastman Park Drive and WCR 23 immediately north of SH 392 would attract traffic away from SH 257.

Scenario III

Scenario III tested the effect on traffic patterns from extending Crossroads Boulevard in Loveland eastward to a connection with Greeley's 'O' Street (WCR 64). Currently there is a gap between Crossroads Boulevard and 'O' Street, Consequently, making this connection would require an entirely new roadway (assumed to be a two-lane Minor Arterial). The Scenario anticipated that this new road would be completed prior to 2025 between SH 257 and WCR 27 (83rd Avenue in Greeley). It would remain the same in 2035 as what was assumed for 2025. This scenario would involve changing Crossroads Boulevard (WCR 62) between WCR 17 and SH 257 from a two-lane Collector to a two-lane Minor Arterial prior to 2025, and then changing it from a *two-lane* Minor Arterial to a *four-lane* Minor Arterial prior to 2035. In this scenario, Great Western Drive between its connection to the future "Crossroads Boulevard" and Eastman Park Drive would have the capacity of a two-lane Collector Street in both 2025 and 2035.

The concept of testing this scenario was to see if a new, continuous east-west arterial paralleling both US 34 (10th Street in Greeley) and SH 392 would attract traffic associated mainly with the industrial park southeast of Windsor away from SH 392, Harmony Road (WCR 74), US 34, or some combination of the these routes.

Scenario IV

Scenario IV tested the effect on traffic patterns from adding a new road between West 10th Street in Greeley and WCR 62 following a north-south orientation that would generally align with WCR 23. Farther north, this route would cross the Cache la Poudre River (requiring a new bridge) and tie directly into the future Great Western Drive. This new route, including Great Western Drive, would



have the capacity of a two-lane Minor Arterial. In this scenario, an upgrade of Crossroads Boulevard (WCR 62) from "Collector" to "Minor Arterial" between WCR 17 and SH 257 was included but not an extension of Crossroads farther to the east on new alignment.

The concept of testing this scenario was to see if a new, continuous north-south arterial between SH 257 and WCR 25 would attract traffic associated mainly with the industrial park southeast of Windsor away from either SH 257 or WCR 27 (which aligns with Greeley's 83rd Avenue). Although WCR 25 currently extends north of West 10th Street and runs parallel to both SH 257 and WCR 27, it does not go far enough north to connect directly with SH 392, as do SH 257 and WCR 27. This scenario was expected to show if industrial park traffic would be attracted to a new, north-south arterial and might favor a US 34 Business Route connection to I-25 over the use of interchanges farther to the north on I-25 like the ones at Crossroads Boulevard, SH 392 or SH 14.

Scenario V

Scenario V tested the effect on traffic patterns of upgrading WCR 23 between the industrial park southeast of Windsor and SH 14. Currently, WCR 23 has the capacity of a two-lane Collector between SH 392 and SH 14. In this scenario, it would be changed into a Minor Arterial but it would continue to have only two lanes. In the vicinity where WCR 23 currently intersects with SH 392, there are two off-set "T" intersections and this scenario would replace those with a single four-way intersection, making it easier for north-south traffic to cross SH 392. On the north side of Eastman Park Drive, WCR 23 would be realigned to form a four-legged intersection with Great Western Drive. In this scenario, Great Western Drive south of Eastman Park Drive would have the capacity of a two-lane Collector Street in 2025 and of a two-lane Minor Arterial Street in 2035.

The concept of testing this scenario was to see if an improved, realigned north-south arterial between SH 257 and WCR 25 would encourage traffic associated mainly with the industrial park southeast of Windsor to use SH 14 as a connection to I-25. This would be an alternative to using either the SH 392 or Harmony Road interchanges to connect with I-25.

Scenario VI

Scenario VI tested the effect on traffic patterns of upgrading a portion of WCR 31 between Greeley and SH 14 to the capacity of a four-lane Minor Arterial and widening Harmony Road (WCR 74) to a similar capacity between WCRs 13 and 31. In this scenario, Great Western Drive would be added to the network as a two-lane Collector south of an intersection with Eastman Park Drive but it would not connect with other roads south of the industrial park.

The concept of testing this scenario was to see if an improved, continuous north-south arterial connecting Greeley to SH 14, coupled with widening of Harmony Road (WCR 74) from two to four lanes between WCR 31 would attract traffic away from the SH 392/SH 257 routes through Windsor. It was also to see if this set of changes would attract traffic away from WCR 23 where it passes through



Severance. With the North Weld land fill located just to the west of WCR 27 along SH 14, WCR 31 is a convenient north-south route for trucks hauling trash to it from the Greeley area.

Scenario VII

Scenario VII tested the effect on traffic patterns of upgrading both SHs 14 and 257 between the I-25/Mulberry Street interchange and Windsor. However, in this case, as contrasted with Scenario II, four-laning of SH 257 was a mile shorter, running between WCR 70 and SH 14, not all the way from SH 392 to SH 14. This scenario included WCR 70 between SH 257 and WCR 19 as a two-lane Minor Arterial. It also included WCR 19 between SH 392 and WCR 70 as a two-lane Minor Arterial (instead of Collector) in 2025 and as a four-lane Minor Arterial in 2035. Unlike Scenario II, this alternative did not include widening of Harmony Road from two to four lanes as a Minor Arterial between WCR 13 and SH 257.

The concept of testing this scenario was to see if traffic in downtown Windsor on SH 392 could be attracted to an alternative route utilizing WCRs 19 and 70. It also was intended to avoid making Harmony Road more attractive west of SH 257 by leaving it as a two-lane Minor Arterial as compared to Scenario II's testing of Harmony Road as a four-lane Minor arterial on that same segment. Similar to Scenario II, however, the concept was to see whether more traffic would be attracted to SHs 14 and 257 by widening them and to see how much traffic would be drawn away from Harmony Road by this scenario.

Scenario VIII

Scenario VIII tested the effect on traffic patterns of upgrading the Two Rivers Parkway route between Greeley and SH 14 and widening Harmony Road (WCR 74) between WCR 13 and Two Rivers Parkway. Two Rivers Parkway generally follows the route of WCR 27 north of Greeley. It is one of seven "Strategic" corridors identified by Weld County as priorities for being improved using funds from a county-wide impact fee on development (see Chapter ?, Page ?).

The concept of testing this scenario was to see how much traffic between I-25 and Greeley might be attracted to the Two Rivers Parkway and Harmony Road routes if they would be upgraded from their current conditions. A possible benefit of upgrading these routes would be to divert traffic away from the SH 392 route through downtown Windsor. On the other hand, both Timnath and Severance would experience impacts if more traffic would be attracted to Harmony Road.

Scenario IX

Scenario IX was similar to Scenario VIII in the way that it tested the effect on traffic patterns of upgrading the north-south Two Rivers Parkway route and widening Harmony Road (WCR 74) between WCRs 13 and 27. The difference between these two scenarios was



between 10th Street in Greeley and WCR 64½: Scenario IX tested upgrading of WCRs 25 (95th Avenue in Greeley) and 64½ instead of WCR 27 (83rd Avenue in Greeley) in Scenario VIII. North of WCR 64½, Scenarios VIII and IX were identical. In this scenario, Great Western Drive would be added to the network as a two-lane Collector south of an intersection with Eastman Park Drive but it would not connect with other roads south of the industrial park.

The concept of testing this scenario was to see if there would be a difference in utilization of a north-south connector to the Two Rivers Parkway route using WCR 25 instead of WCR 27, as was tested in Scenario VIII. This scenario was based on the consideration that traffic between Greeley and the industrial park southeast of Windsor might find a connection to 10th Street farther to the west to be more attractive.

Scenario X

Scenario X tested the anticipated effect on traffic patterns that would result from expanding Harmony Road from two to four lanes (as a Minor Arterial) between Larimer County Road 1/WCR 13 and US 85. In this scenario, Great Western Drive would be added to the network as a two-lane Collector south of an intersection with Eastman Park Drive but it would not connect with other roads south of the industrial park.

This scenario recognized that increased traffic on Harmony Road in future years may eventually exceed its current capacity and that substantial amounts of traffic using it now and in the future are related to Eaton. The concept of testing this scenario was to see if even more traffic would be attracted to use Harmony Road than in Scenario II. This would be attributable to widening Harmony Road all the way between WCR 13 and US 85. Testing this scenario would show which roads would see a decrease in traffic if volumes would increase on Harmony Road. The only difference between Scenario X and Scenario II was the longer length of widening on Harmony Road: the portion east of SH 257 over to US 85.

Scenario XI

Scenario XI tested the effect on traffic patterns of upgrading a portion of WCR 31 between Greeley and SH 14 to the capacity of a four-lane Minor Arterial and widening SH 14 to a similar capacity between Interstate 25 and US 85. In this scenario, Great Western Drive would be added to the network as a two-lane Collector south of an intersection with Eastman Park Drive but it would not connect with other roads south of the industrial park.

The concept of testing this scenario was to see if an improved, continuous north-south arterial connecting Greeley to SH 14, coupled with widening of SH 14 from two to four lanes between Fort Collins and Ault would attract traffic away from the either the SH 392/SH 257 routes through Windsor or Harmony Road through Severance. It was also to see if this set of changes would attract traffic away



from WCR 23 where it passes through Severance. With the North Weld land fill located just to the west of WCR 27 along SH 14, WCR 31 is a convenient north-south route for trucks hauling trash to it from the Greeley area.

Scenario XII

Scenario XII was similar to Scenario VI, with the only difference being the lack of widening from two to four lanes on Harmony Road between WCRs 13 and 27.

The concept of testing this scenario was to see what effect, if any, the widening of Harmony Road in Scenario VI had when its eastern terminus would be an intersection with an improved, continuous north-south arterial like WCR 27. This scenario was to see, in particular, how the widening of Harmony Road would affect traffic volumes on either or both of the SH 392 and SH 257 routes through Windsor, or on Harmony Road itself through Severance when connected to an improved WCR 27. It was also to see how much traffic, if any, would be diverted away from WCR 23 where it passes through Severance when a route parallel to WCR 23 would be improved.

Scenario XIII

Scenario XIII was similar to Scenario VIII, with the only difference being the lack of widening on Harmony Road between WCRs 13 and 31.

The concept of testing this scenario was to isolate what effect, if any, the widening of Harmony Road in Scenario VIII had when its eastern terminus would be an intersection with an improved, continuous north-south arterial like WCR 31. This scenario was to see, in particular, how the widening of Harmony Road would affect traffic volumes on either or both of the SH 392 and SH 257 routes through Windsor, or from Harmony Road itself through Severance when connected to an improved WCR 31. It was also to see how much traffic, if any, would be diverted away from WCR 23 where it passes through Severance. Comparing the results from this scenario to those of Scenario XII was to show the effect of moving similar sets of improvements from one north-south route to another when the routes are parallel and two miles apart.

Scenario XIV

Scenario XIV was similar to Scenario IX, with the only difference being the lack of widening on Harmony Road between WCRs 13 and 27.

The concept of testing this scenario was mainly to isolate what effect, if any, the widening of Harmony Road in Scenario IX had when its eastern terminus would be an intersection with an improved, continuous north-south arterial like WCR 27. With this scenario



being so similar to Scenario XIII, the main differences in results would be attributable to the improvements assumed for WCR 25 between West 10th Street in Greeley (US 34 Business Route) and WCR 64½ instead of improvements on WCR 27 south of WCR 64½.

Findings from Travel Demand Modeling of 14 Scenarios

Using 2035 assumptions about dwelling units and employment, the travel demand model was used to illustrate levels of service (LOS) and changes in traffic utilization of the roadway network. Model results for the fourteen scenarios and a "base case" were analyzed.

From these modeling results, another range of alternatives was prepared using some of the most effective elements of the first fourteen scenarios. Maps showing levels of service and changes in traffic utilization of the roadway network for "Alternatives A through G" (with variations of some of these) are included on the last 24 pages of this appendix.



Scenario

IFRMPO Sub-Regional Study

RANGE POTENTIAL HIGHWAY IMPROVEMENTS TO BE INCLUDED IN VARIOUS MODEL RUNS

2008 Version (used in 4/29/08 Model Runs)

- Ι New LCR 5 through Timnath (alternative to Main Street) & extension of Harmony Road as a 4-lane from WCR 13 to SH 257
- п SH 14 as 4-Lane from I-25 to SH 257, Harmony Road as 4-Lane from WCR 13 to SH 257, SH 257 as 4-Lane from SH 14 to SH 392, WCR 23 as 4-Lane from SH 392 to Eastman Park Drive & upgrade of Great Western Drive from Collector to Minor
- Crossroads Blvd extension from WCR 17 to WCR 27/'O' St & Great Western Drive extension/upgrade from Crossroads Blvd to Eastman Park Dr (WCR 66) III
- WCR 23/Great Western Drive extension from US 34 Business Route (10th St.) to WCR 64 ¼ with a Crossroads Blvd extension (Arterial) to SH 257 IV
- Great Western Drive from Great Western Industrial Park to Eastman Park Drive, realignment of WCR 23 north of Eastman Park Drive to connect into a new 4-way intersection with WCR 23 at SH 392 & WCR 23 upgraded to Minor Arterial from SH 392 to SH 14 V
- 59th Ave/WCR 31 as Arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west VI
- WCR 19/WCR 70 as Arterial alternative to Main Street (SH 392)/SH 257 through Windsor, including widening of SH 14 and SH 257 from Windsor (WCR 70) to I-25 & widening of SH 257 from Eastman Park Drive to SH 392 VII
- VIII Two Rivers Parkway as arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west
- IX 95th Ave/WCR 25 as arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west
- Х Harmony Rd as a 4-lane Arterial from I-25 to US 85
- 59th Ave/WCR 31 as arterial from Greeley to SH 14 with SH 14 as a 4-lane Arterial from I-25 to US 85 XI
- XII 59th Ave/WCR 31 as Arterial from Greeley to SH 14
- XIII Two Rivers Parkway as arterial from Greeley to SH 14
- XIV 95th Ave/WCR 25 as arterial from Greeley to SH 14
- Modified Base Year Zero

							2005						Ir	ntermedia	te Year	r (2025)					2035						s	
					Current Mode	el Network	(1	Updated Model Net	twork	Zero (new base		Current Model Netw	vork		Updated Model N	Network	(Current Model Net	twork		Updated Model N	etwork				3	
Segment	ROAD/STREET	From:	To:	# of Lanes	Facility Type	An	ea Type	# of Lanes	Facility Type	Area Type	year)	# of Lanes	Facility Type	Area Type	# of Lanes	Facility Type	Area Type	# of Lanes	Facility Type	Area Type	# of Lanes		Area Type	I	ш	IV V	VI	١
1	Harmony Road	I-25	Poudre River	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Suburban	4	NC	NC	2	Minor Arterial	Suburban	4	NC	NC	0	0 0	0 0	0	(
2	Harmony Road	Poudre River	LCR 5 (Main St.)	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Suburban	4	NC	NC	2	Minor Arterial	Suburban	4	NC	NC	0	0 0	00	0	(
3	Harmony Road	LCR 5	LCR 1/WCR 13	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Suburban	4	NC	NC	2	Minor Arterial	Suburban	4	NC	NC	0	0 0	00	0	(
4	Harmony Road	LCR 1/WCR 13	SH 257	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	4	NC	NC	2	Minor Arterial	Suburban	4	NC	NC	•			•	
5	Harmony Road	SH 257	WCR 27	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	4	NC	NC	2	Minor Arterial	Rural	4	NC	NC				•	-
6	Harmony Road	WCR 27	WCR 31	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial	Rural	4	NC	NC		_		•	-
7	Harmony Road	WCR 31	WCR 33	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial	Rural	4	NC	NC					-
8	Harmony Road	WCR 33	US 85	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Suburban	NC	NC	NC	2	Minor Arterial	Suburban	4	NC	NC			_		-
9	Timnath Pkwy	N/O Harmony	S/O Prospect Rd.		(Does not	NA	NA	NC	NC	NC			(Does not currently		2	Minor Arterial	NC		(Does not		4	Minor Arterial	NC	0		00	0	
10	WCR 19	SH 392	WCR 70	2	currently exist) Collector	1	Rural	NC	NC	NC		2	exist) Collector	Rural	2	Minor Arterial	NC	2	currently exist) Collector	Urban	4	Minor Arterial	NC	0				-
11	WCR 70	SH 257	WCR 19		(Does not	NA	NA		NC	NC			(Does not currently		2	Minor Arterial	NC		(Does not		2	Minor Arterial	NC		_		+	-
12	WCR 23	Eastman Park Dr.	SH 392	2	currently exist) Collector	1	Rural	NC	NC	NC		2	exist) Collector	Rural	NC	NC	NC	2	currently exist) Collector	Urban	2	NC	NC		_	_		
			WCR 62	-		NA	NA		NC	NC		-				NC	NC						NC		•	•		_
13	WCR 23	10 th St./US 34 Business Rt	WCR 02		(Does not currently exist)	INA	NA		NC	NC			(Does not currently exist)			NC	NC		(Does not currently exist)		2	Minor Arterial (New connector)	NC			•		
14	WCR 23	N/O Poudre River	WCR 64 3/4	2	Collector	1	Rural	NC	Collector (adjust south terminus)	NC	•	2	Collector	Suburban	NC	Collector (adjust south terminus)	NC	2	Collector	Suburban	NC	Collector (adjust south terminus)	NC	0	0 0	0 0	0	(
15	Great Western Drive extension	WCR 62	Crossroads Blvd		(Does not currently exist)	NA	NA		NC	NC			(Does not currently exist)			NC	NC		(Does not currently exist)		2	Minor Arterial (New connector)	NC			•		
16	Great Western Drive	Crossroads Blvd	Eastman Park Dr		Not in model network	NA	NA		NC	NC			Not in model network		2	Collector	NC		Not in model network		NC	Minor Arterial	NC		• •	• •		
17	Great Western Drive	Crossroads Blvd	Eastman Park Dr		Not in model network	NA	NA		NC	NC			Not in model network		2	Collector	NC		Not in model network		2	Collector	NC	•			•	•
18	WCR 23	SH 392	WCR 70	2	Collector	1	Rural	NC	NC	NC		2	Collector	Rural	NC	NC	NC	2	Collector	Urban	2	Minor Arterial	NC			•	\square	
19	WCR 23	WCR 70	WCR 74	2	Collector	1	Rural	NC	NC	NC		2	Collector	Rural	NC	NC	NC	2	Collector	Suburban	2	Minor Arterial	NC			•	\square	
20	WCR 23	WCR 74	SH 14	2	Collector	1	Rural	NC	NC	NC		2	Collector	Rural	NC	NC	NC	2	Collector	Rural	2	Minor Arterial	NC			•		-
21	WCR 62	Great Western Drive	95th Ave/WCR 25	2	Collector	1	Rural	NC	Collector (adjust west terminus?)	NC	•	2	Collector	Suburban	NC	Collector (adjust west terminus?)	NC	2	Collector	Suburban	NC	NC from updated 2005 & 2020	NC			•	\square	

LEGEND_

○ = Changes common to all Scenarios

NC = No changes compared to currently adopted model

E = Changes needed for each Scenario

= Changed from Jan. 08 version based on feedback received

Sce	enario	o							
VI	VIII	IX	х	XI	XII	XIII	XIV	Sponsor (if I.D.'d):	Notes
0	0	0	0	0	0	0	0	Timnath	Related to Wal-Mart's arrival
0	0	0	0	0	0	0	0	Timnath	Related to Wal-Mart's arrival; new bridge but lacks median (for sake of economy)
0	0	0	0	0	0	0	0	Timnath	
	•	•	•						
	•	•	•						
			•						
			•						
			•						
0	0	0	0	0	0	0	0	Developer/ Timnath	
•									Window is abouting this as a true lang was down.
									Windsor is showing this as a two-lane roadway in it's plans
								Weld County(?) or developer	Re-align and pave for trucks; number of lanes matches links to north and south of it.
									Requires new bridge at Poudre River; route would be approximately half way between WCR 25 and SH 257
0	0	0	0	0	0	0	0		Existing system does not cross Poudre River
•	•	•	•	•	•	•	•		
									Existing system does not cross Cache la Poudre River; either Great Western Dr or WCR 62 would bridge the river (future)



Scenario

VFRMPO Sub-Regional Study

ANGE POTENTIAL HIGHWAY IMPROVEMENTS TO BE INCLUDED IN VARIOUS MODEL RUNS

2008 Version (used in 4/29/08 Model Runs)

- I New LCR 5 through Timnath (alternative to Main Street) & extension of Harmony Road as a 4-lane from WCR 13 to SH 257
- п SH 14 as 4-Lane from I-25 to SH 257, Harmony Road as 4-Lane from WCR 13 to SH 257, SH 257 as 4-Lane from SH 14 to SH 392, WCR 23 as 4-Lane from SH 392 to Eastman Park Drive & upgrade of Great Western Drive from Collector to Minor
- III Crossroads Blvd extension from WCR 17 to WCR 27/'O' St & Great Western Drive extension/upgrade from Crossroads Blvd to Eastman Park Dr (WCR 66)
- WCR 23/Great Western Drive extension from US 34 Business Route (10th St.) to WCR 64 ¾ with a Crossroads Blvd extension (Arterial) to SH 257 IV
- Great Western Drive from Great Western Industrial Park to Eastman Park Drive, realignment of WCR 23 north of Eastman Park Drive to connect into a new 4-way intersection with WCR 23 at SH 392 & WCR 23 upgraded to Minor Arterial from SH 392 to SH 14 v
- 59th Ave/WCR 31 as Arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west VI
- VII WCR 19/WCR 70 as Arterial alternative to Main Street (SH 392)/SH 257 through Windsor, including widening of SH 14 and SH 257 from Windsor (WCR 70) to I-25 & widening of SH 257 from Eastman Park Drive to SH 392
- VIII Two Rivers Parkway as arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west
- IX 95th Ave/WCR 25 as arterial from Greeley to SH 14 with extension of Harmony Rd east of WCR 13 as a 4-lane Arterial to meet it from the west
- Х Harmony Rd as a 4-lane Arterial from I-25 to US 85
- 59th Ave/WCR 31 as arterial from Greeley to SH 14 with SH 14 as a 4-lane Arterial from I-25 to US 85 XI
- XII 59th Ave/WCR 31 as Arterial from Greeley to SH 14
- XIII Two Rivers Parkway as arterial from Greeley to SH 14
- XIV 95th Ave/WCR 25 as arterial from Greeley to SH 14
- Modified Base Year Zero

				200/					2005 Interm						te Year	e Year (2025) 2035									-					
					Current Mode	el Networ		Updated Model Network			Zero (new base		Current Model Netv		1	Updated Model N	Network	(urrent Model Net		1	Updated Model	Network		S	cenario				
Segment F	ROAD/STREET	From:	To:	# of Lanes	Facility Type	A	rea Type	# of Lanes	Facility Type		year)	# of Lanes	Facility Type	Area Type	# of Lanes	Facility Type	Area Type	# of Lanes	Facility Type	Area Type	# of Lanes	Facility Type	Area Type	I II III IV	V VI	VII VIII	IX X XI	XII XIII XJ	V Sponsor (if I.D.')	i): Notes
22 (Crossroads Blvd	WCR 17	SH 257	2	Collector	1	Rural	NC	NC	NC		2	Collector	Rural	2	Minor Arterial	NC	2	Collector	Rural	4	Minor Arterial	NC	• •						
23	Crossroads Blvd	SH 257	WCR 23 [or Great Western Drive]		(Does not currently exist)	NA	NA		NC	NC			NC		2	Minor Arterial	NC		(Does not currently exist)		2	Minor Arterial	NC	•						New connector
24 0	Crossroads Blvd	WCR 23 [or Great Western Drive]	WCR 27/'O' Street		(Does not currently exist)	NA	NA		NC	NC			NC		2	Minor Arterial	NC		(Does not currently exist)		2	Minor Arterial	NC	•						New connector
25 5	9th Ave/WCR 31	10 th St./US 34 Business Rt	4th Street	2	Major Arterial	2	Suburban	NC	NC	NC		2	Major Arterial	Suburban	4	Minor Arterial	NC	2	Major Arterial	Suburban	4	Minor Arterial	NC		•		•	•		When will this be 4-laned? Before 2025 or between 2025 and 2035?
26 5	9th Ave/WCR 31	4th Street	'O' Street	2	Major Arterial	1	Rural	NC	NC	NC		2	Major Arterial	Rural	NC	NC	NC	2	Major Arterial	Suburban	4	Minor Arterial	NC		•		•	•		
27 5	9th Ave/WCR 31	O' Street	SH 392	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial	Suburban	4	NC	NC		•		•	•		
		SH 392	SH 14	2	Collector	1	Rural	NC	NC	NC		2	Collector	Rural	NC	NC	NC	2	Collector	Rural	2	Minor Arterial	NC				•	•		Not to be 4-lane north of SH 392 but upgraded to Minor Arterial
29 8		I-25	SH 257	2	Minor Arterial	2	Suburban	NC	NC	NC		2	Minor Arterial	Suburban	NC	NC	NC	2	Minor Arterial	Suburban	4	NC	NC			•	•			
30 S		SH 257	WCR 19	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial		4	NC	NC				•			
31 8		WCR 19 WCR 31	WCR 31	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial	Rural	4	NC	NC				•		_	
32 S 33 S		WCR 31	WCR 33 US 85	2	Minor Arterial Minor Arterial	2	Rural	NC	NC	NC		2	Minor Arterial Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial Minor Arterial	Rural	4	NC	NC				•		_	
34 8		SH 392	WCR 70	2	Major Arterial	2	Suburban	NC	NC	NC		2	Major Arterial	Urban	NC	NC	NC	2	Major Arterial	Urban	4	Minor Arterial	NC				•			
35 8		WCR 70	SH 14	2	Major Arterial	1	Rural	NC	NC	NC		2	5	Rural	NC	NC	NC	2	Major Arterial		4	Minor Arterial	NC	•		-				
36 8	SH 257	Eastman Park Dr.	SH 392	2	Major Arterial	3	Urban	NC	NC	NC		2	Major Arterial	Urban	NC	NC	NC	2	Major Arterial	Urban	4	Minor Arterial	NC	•		•				
37 9	5 th Ave/WCR 25	10 th St./US 34	WCR 62	2	Minor Arterial	1	Rural	NC	Collector	NC		2	Minor Arterial	Suburban	NC	NC	NC	2	Minor Arterial	Suburban	2	Major Arterial	NC			-	•			
38 9	5 th Ave/WCR 25	Business Rt WCR 62	WCR 64 1/2	2	Minor Arterial	1	Rural	NC	Collector	NC	•	2	Minor Arterial	Rural	NC	NC	NC	2	Minor Arterial	Suburban	2	Major Arterial	NC				•			
39 V	WCR 64 1/2	95th Ave/WCR 25	WCR 27	2	Minor Arterial	1	Rural	NC	NC	NC		2	Minor Arterial	Rural	2	Major Arterial	NC	2	Minor Arterial	Suburban	2	Major Arterial	NC				•	•		
	WCR 27 (Two Rivers Pkwy)	10 th St./US 34 Business Rt	'O' Street/WCR 64	2	Major Arterial	1	Rural	NC	NC	NC		2	Major Arterial	Rural			NC	2	Major Arterial	Suburban	4	NC	NC			•		•		
41 V	WCR 27 (Two Rivers Pkwy)		SH 392	2	Collector	1	Rural	NC	NC	NC		2	Collector	Rural			NC	2	Collector	Suburban	2	Major Arterial	NC			•	•	•		
	WCR 27 (Two Rivers Pkwy)	SH 392	New intersection with WCR 27		(Does not currently exist)	NA	NA		NC	NC			(Does not currently exist)				NC		(Does not currently exist)		2	Major Arterial	NC				•	•		
F	WCR 27 (Two Rivers Pkwy)	with WCR 27	1/2 N/O WCR 76		Not in model network	NA	NA	2	Collector	NC	•		Not in model network				NC		Not in model network		2	Major Arterial	NC			•	•	• •		
	WCR 27 (Two Rivers Pkwy)	1/2 N/O WCR 76	SH 14		Not in model network	NA	NA	2	Collector	NC	•		Not in model network				NC		Not in model network		2	Major Arterial	NC				•	•		

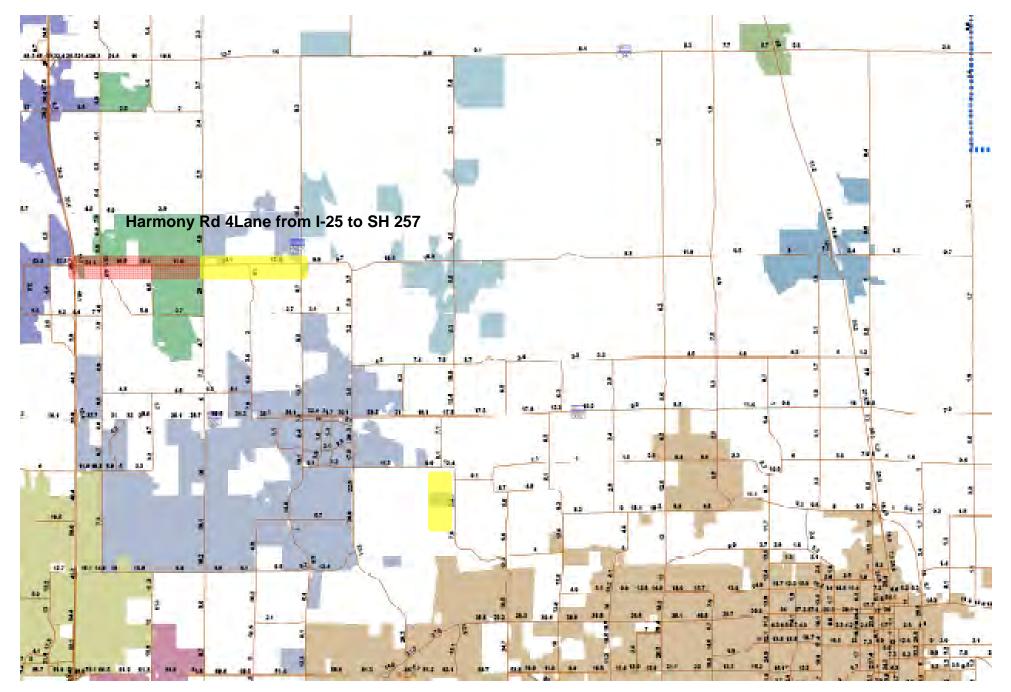
LEGEND_

○ = Changes common to all Scenarios

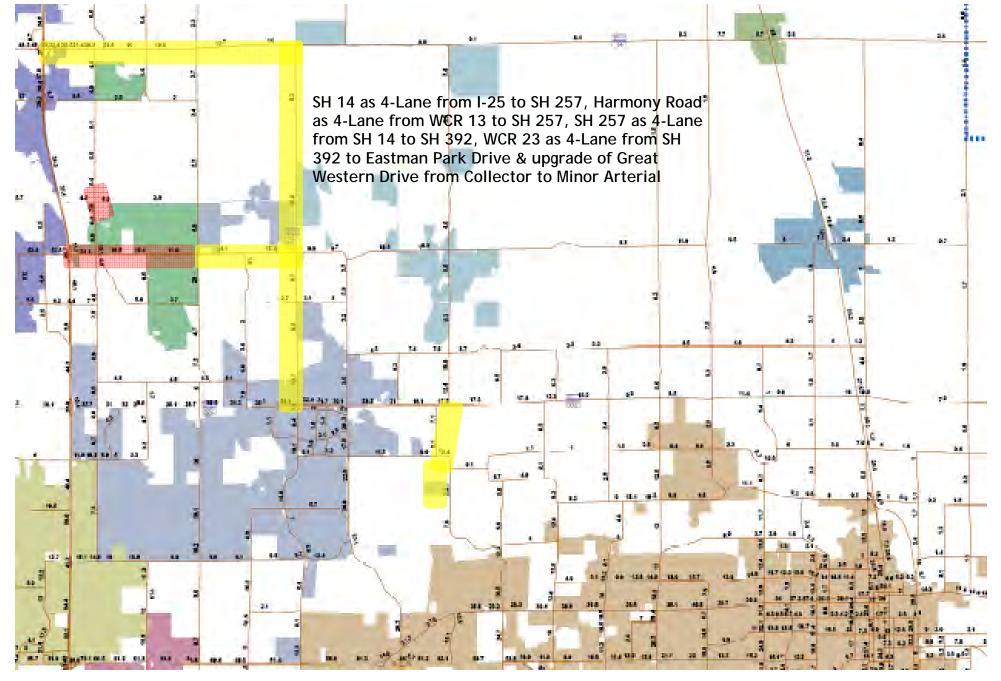
NC = No changes compared to currently adopted model

E = Changes needed for each Scenario

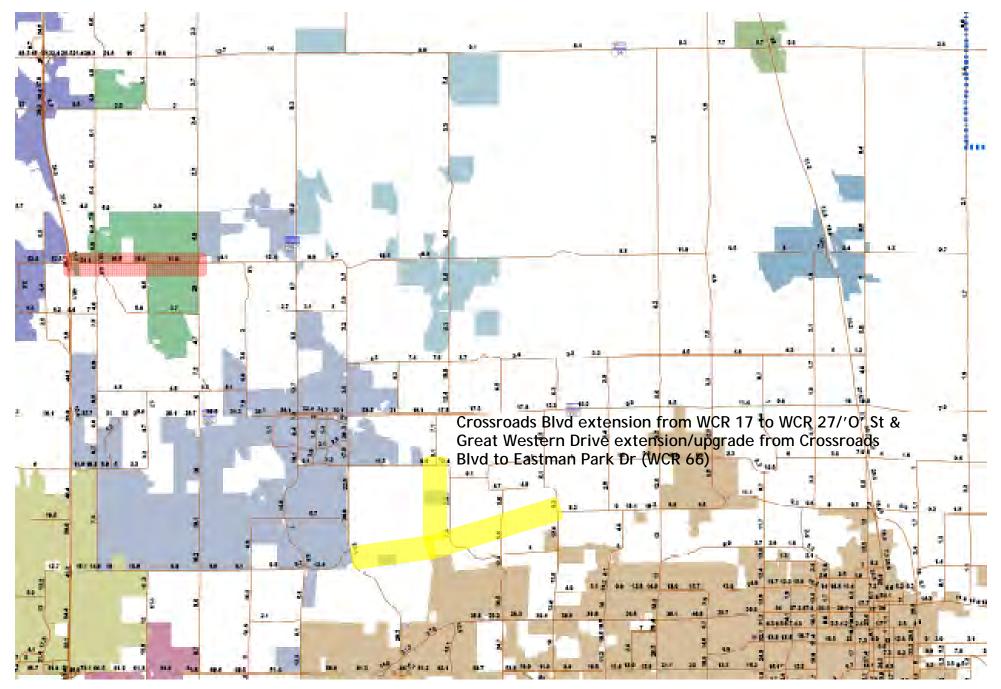
= Changed from Jan. 08 version based on feedback received



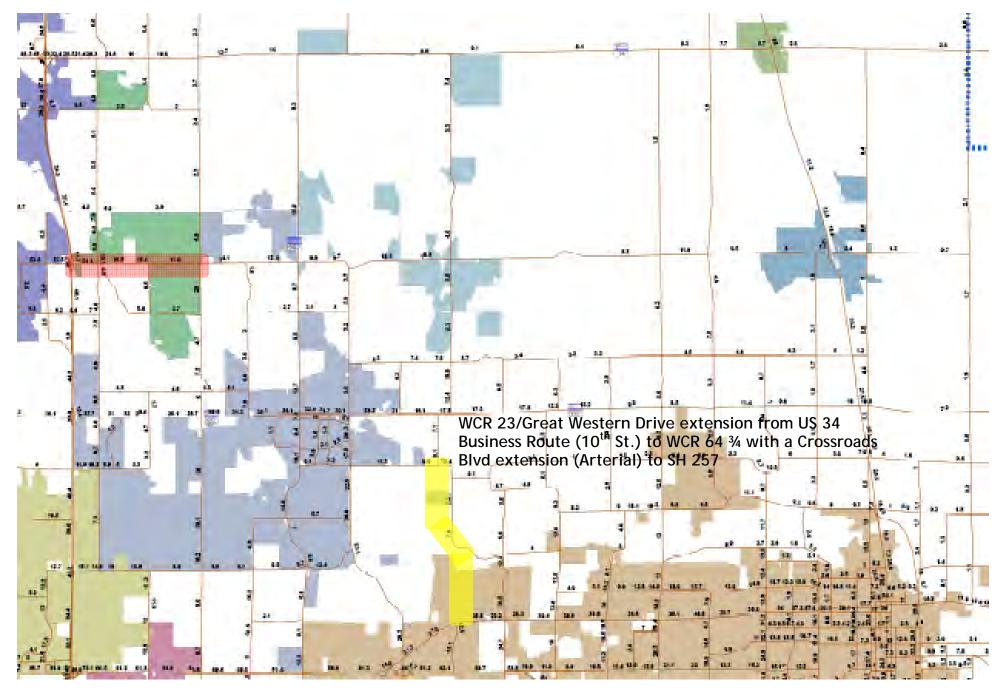
Scenario I



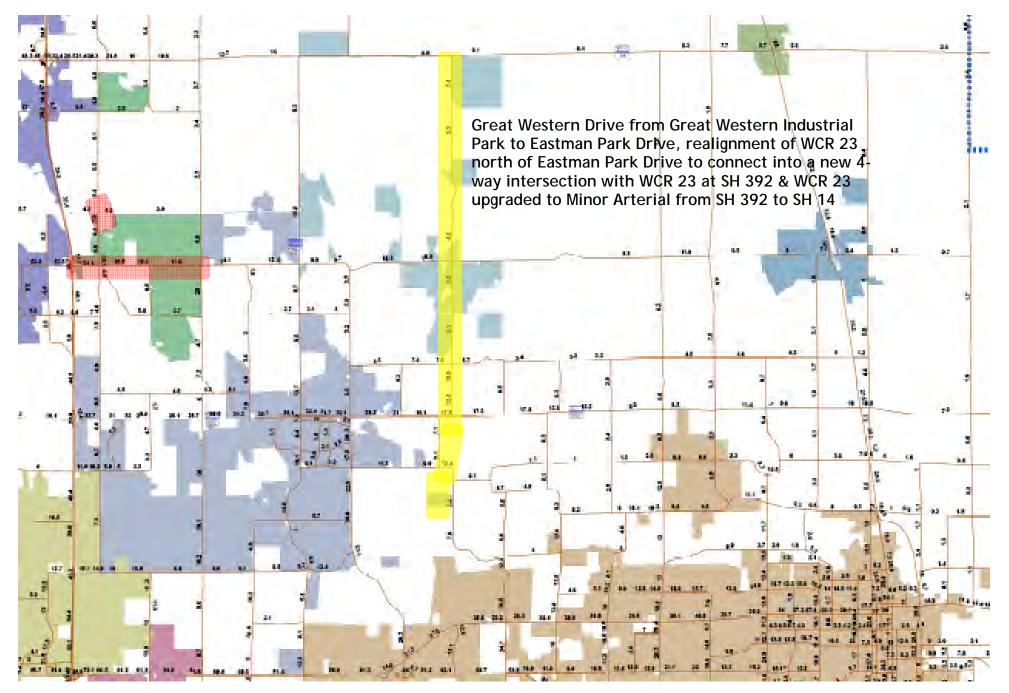
Scenario II



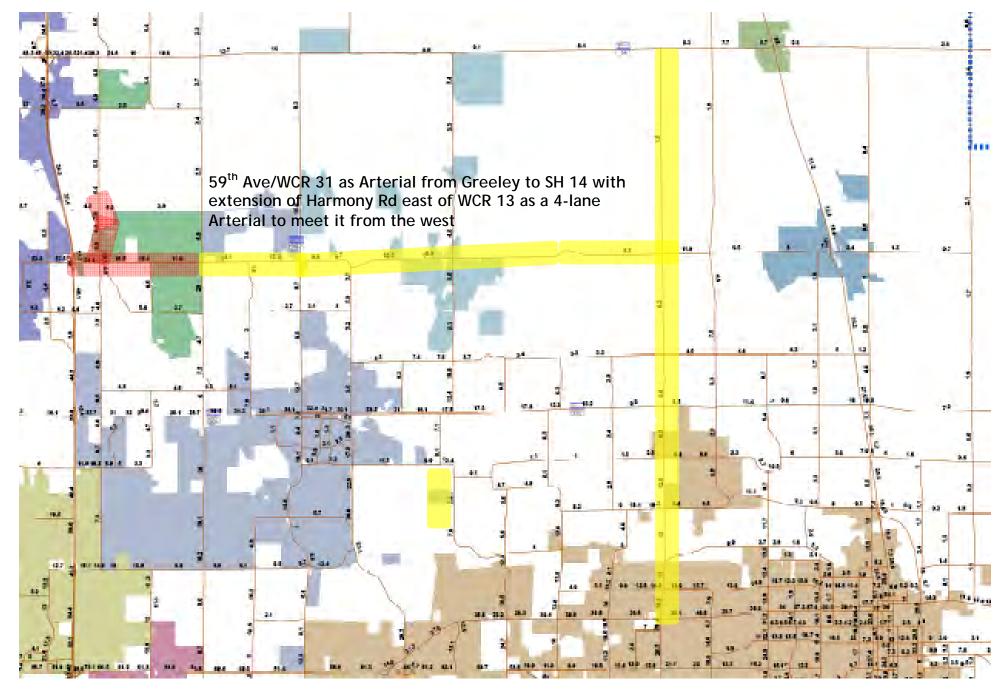
Scenario III



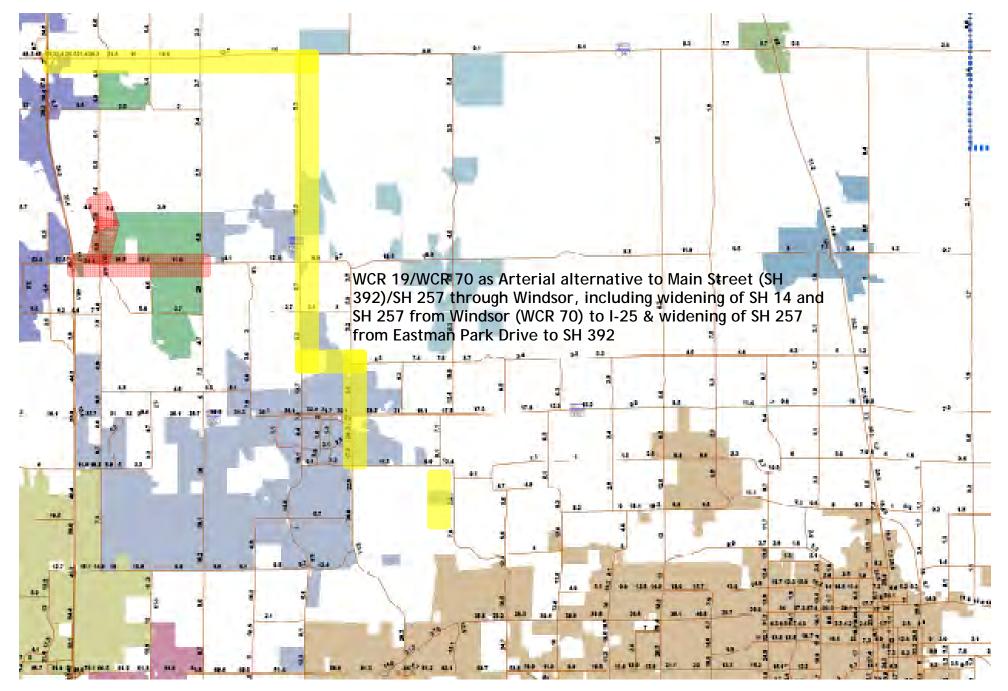
Scenario IV



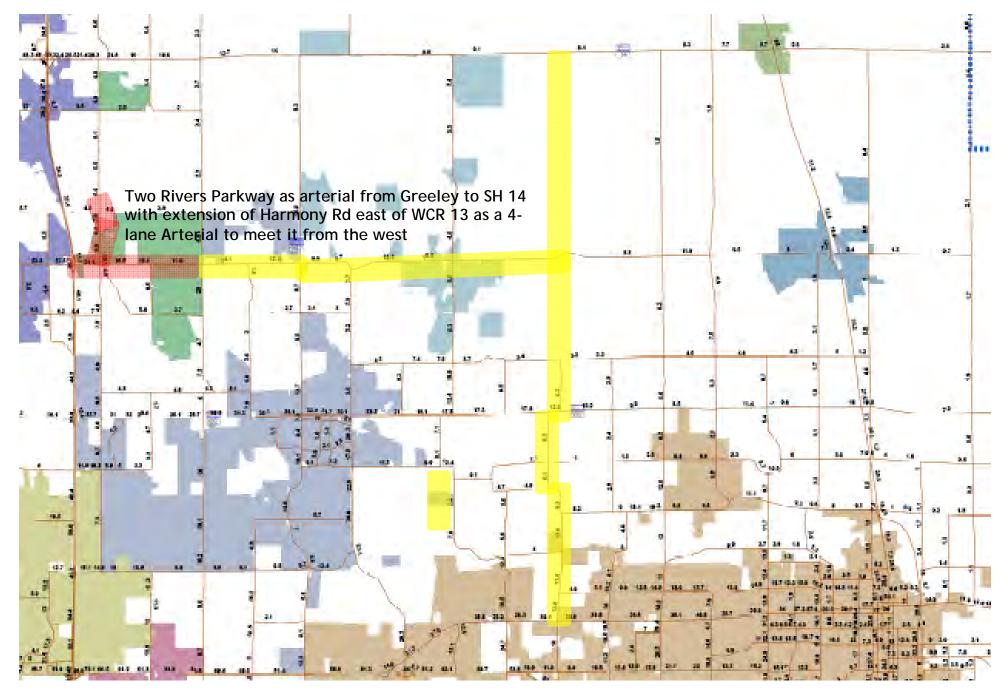
Scenario V



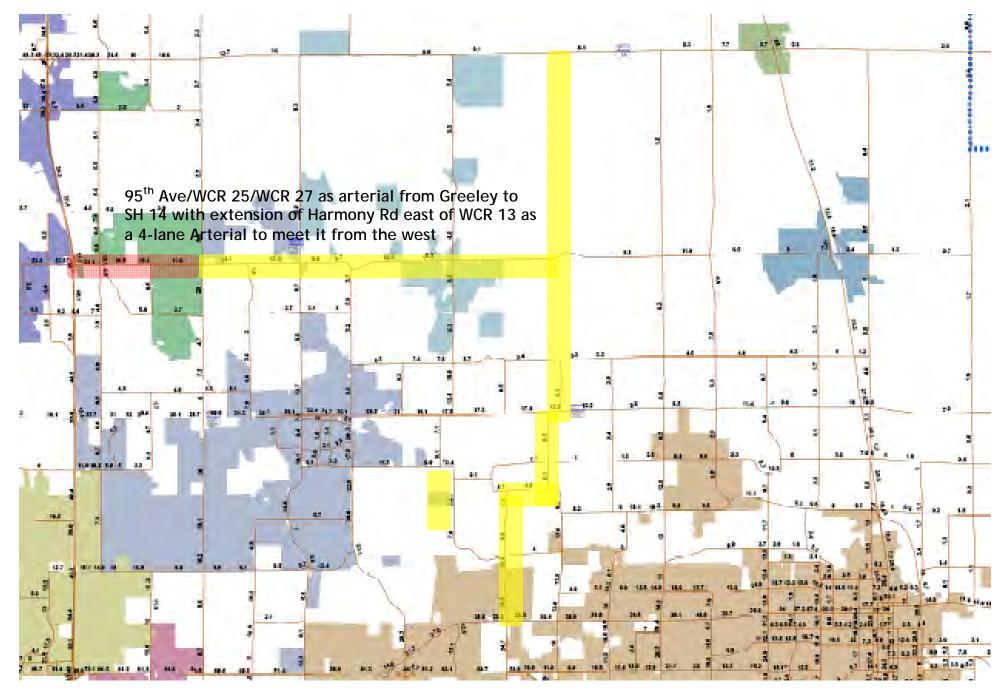
Scenario VI



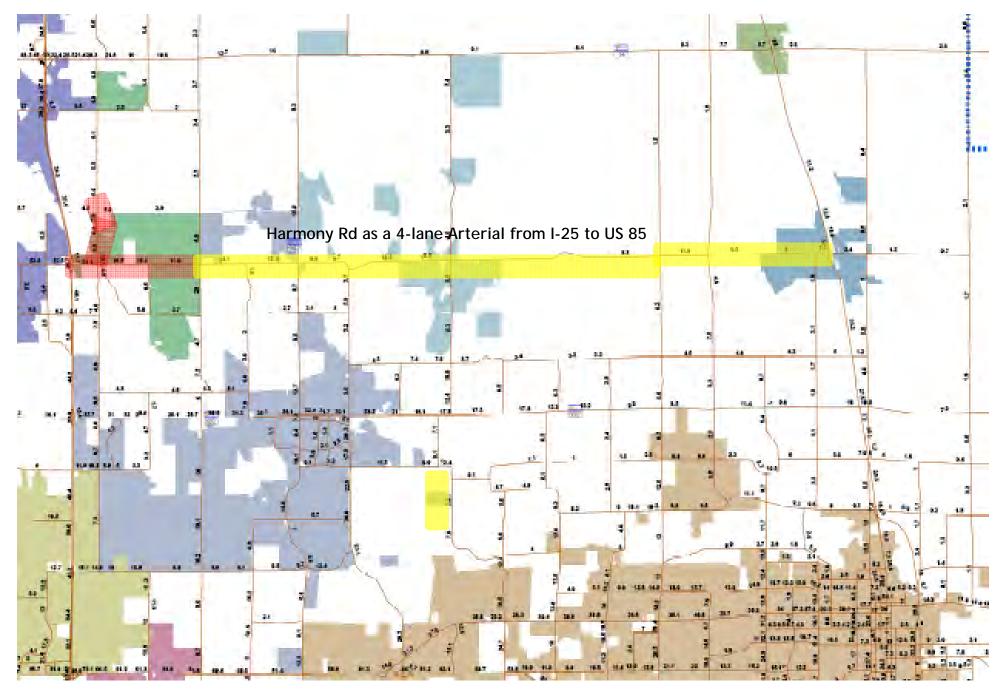
Scenario VII



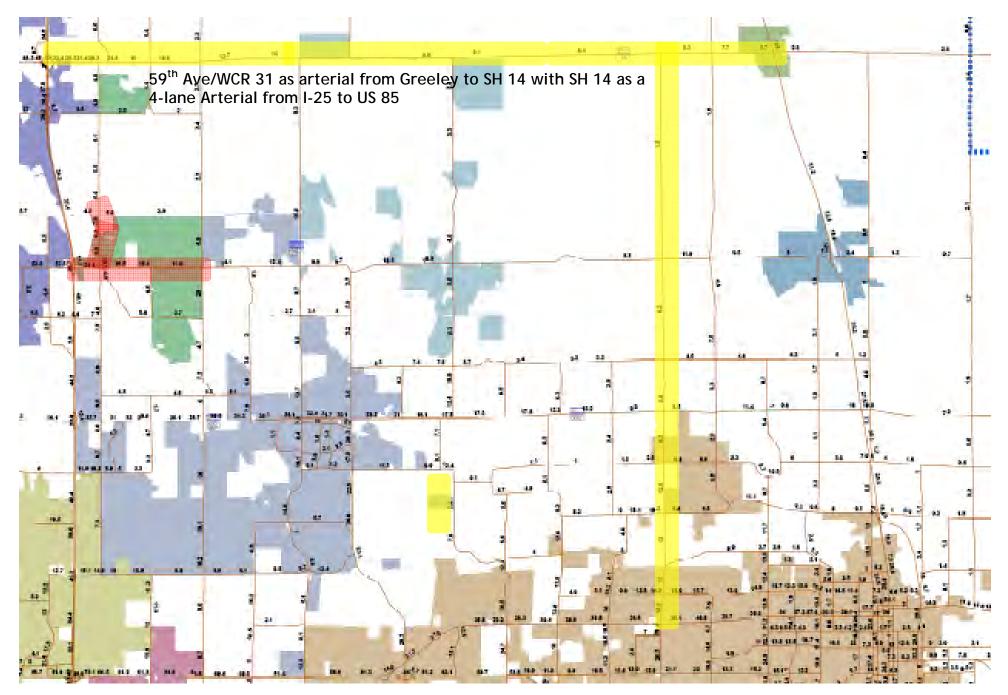
Scenario VIII



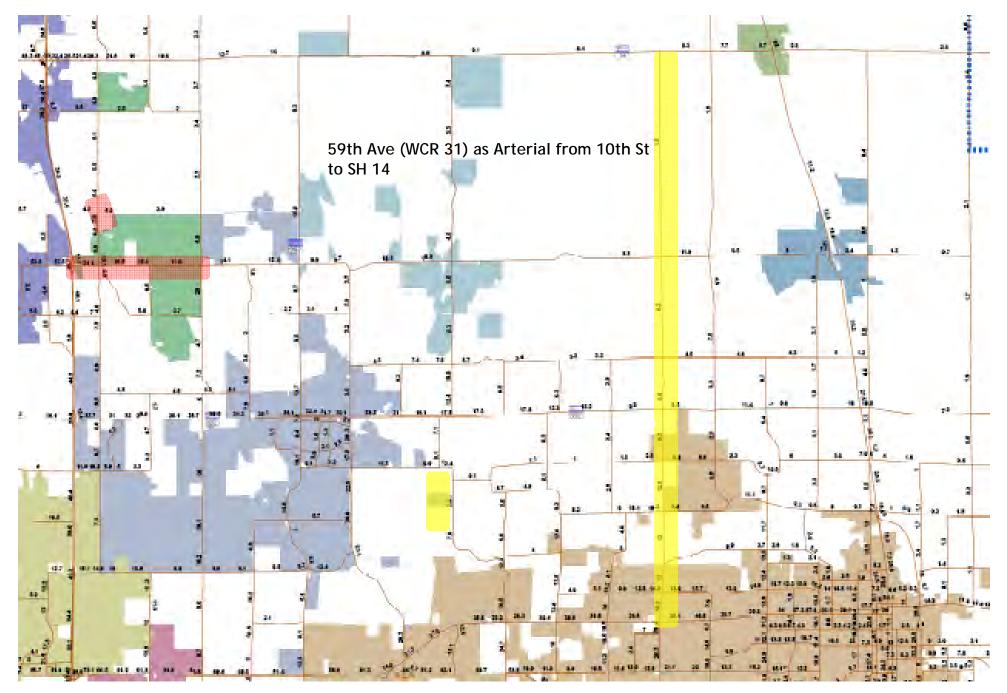
Scenario IX



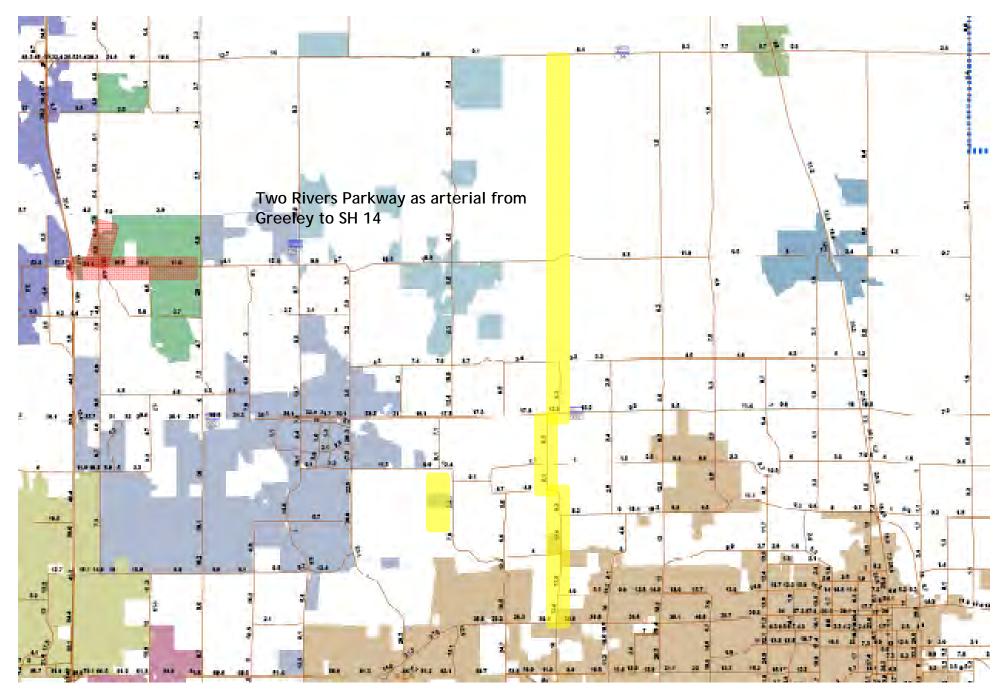
Scenario X



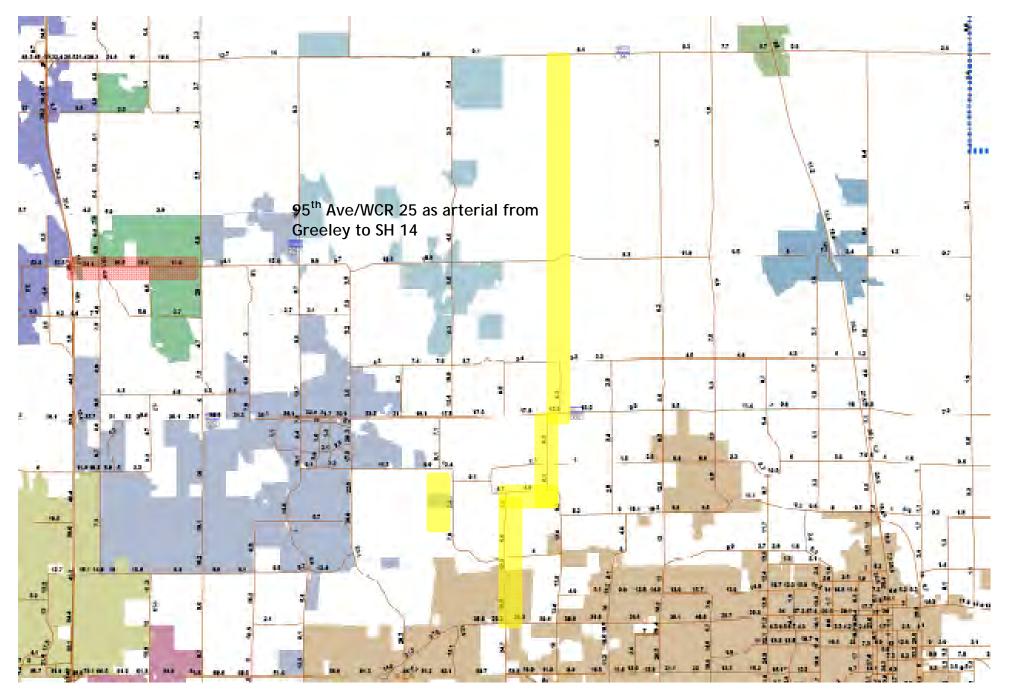
Scenario XI



Scenario XII



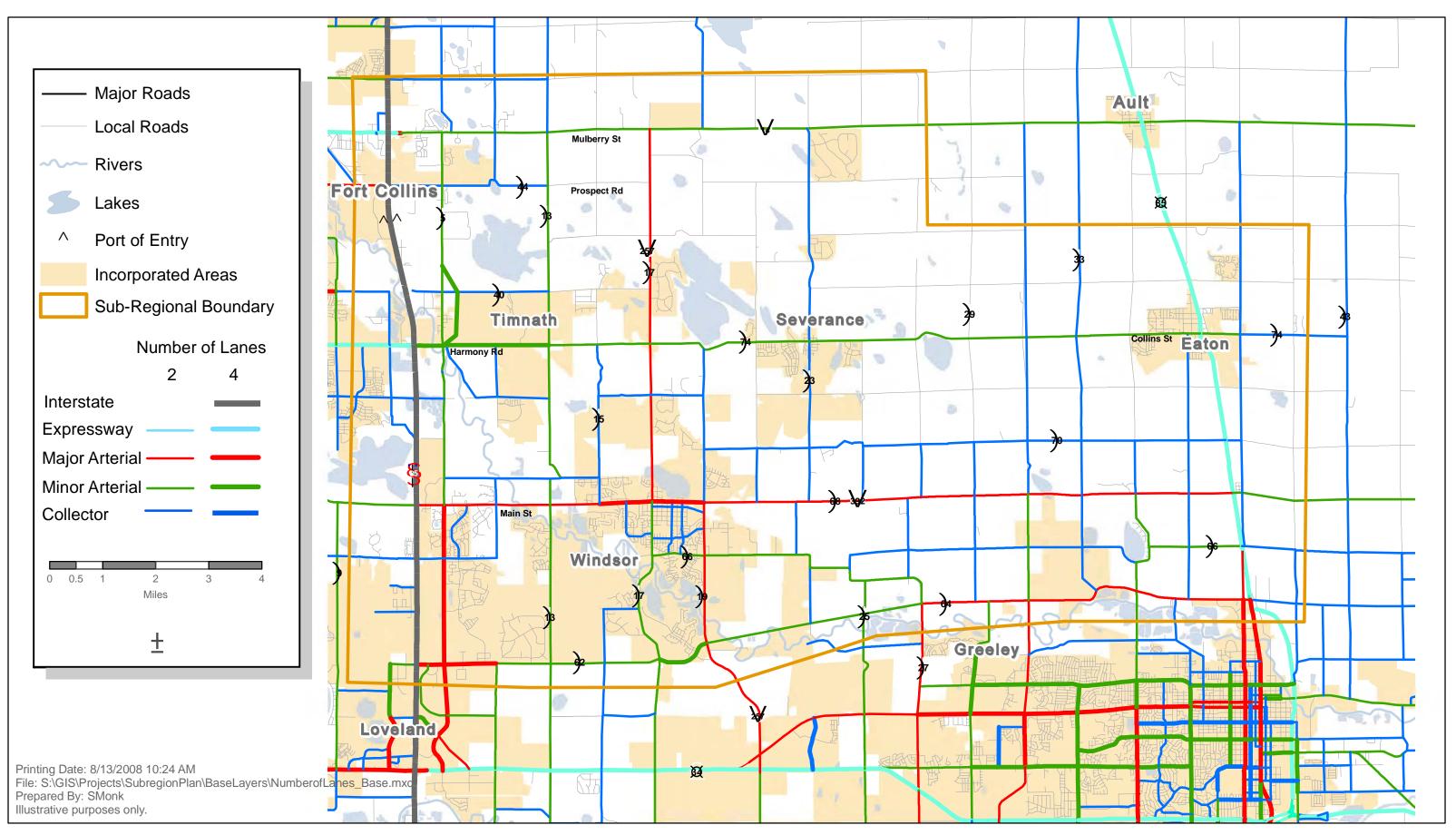
Scenario XIII



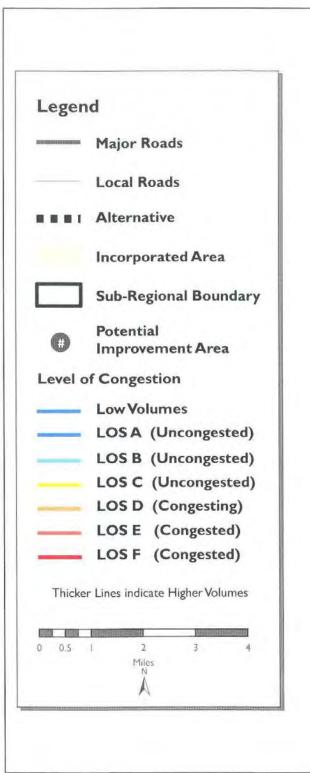
Scenario XIV

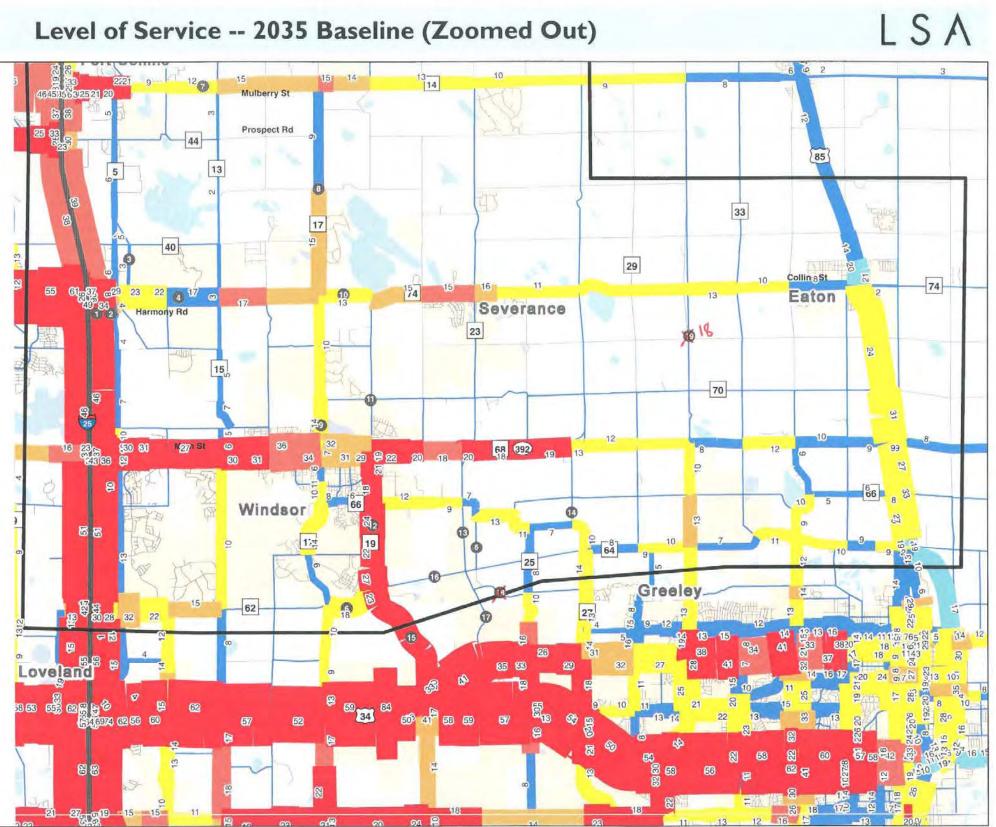


Base (No Alternatives Mapped) Number of Lanes in 2035



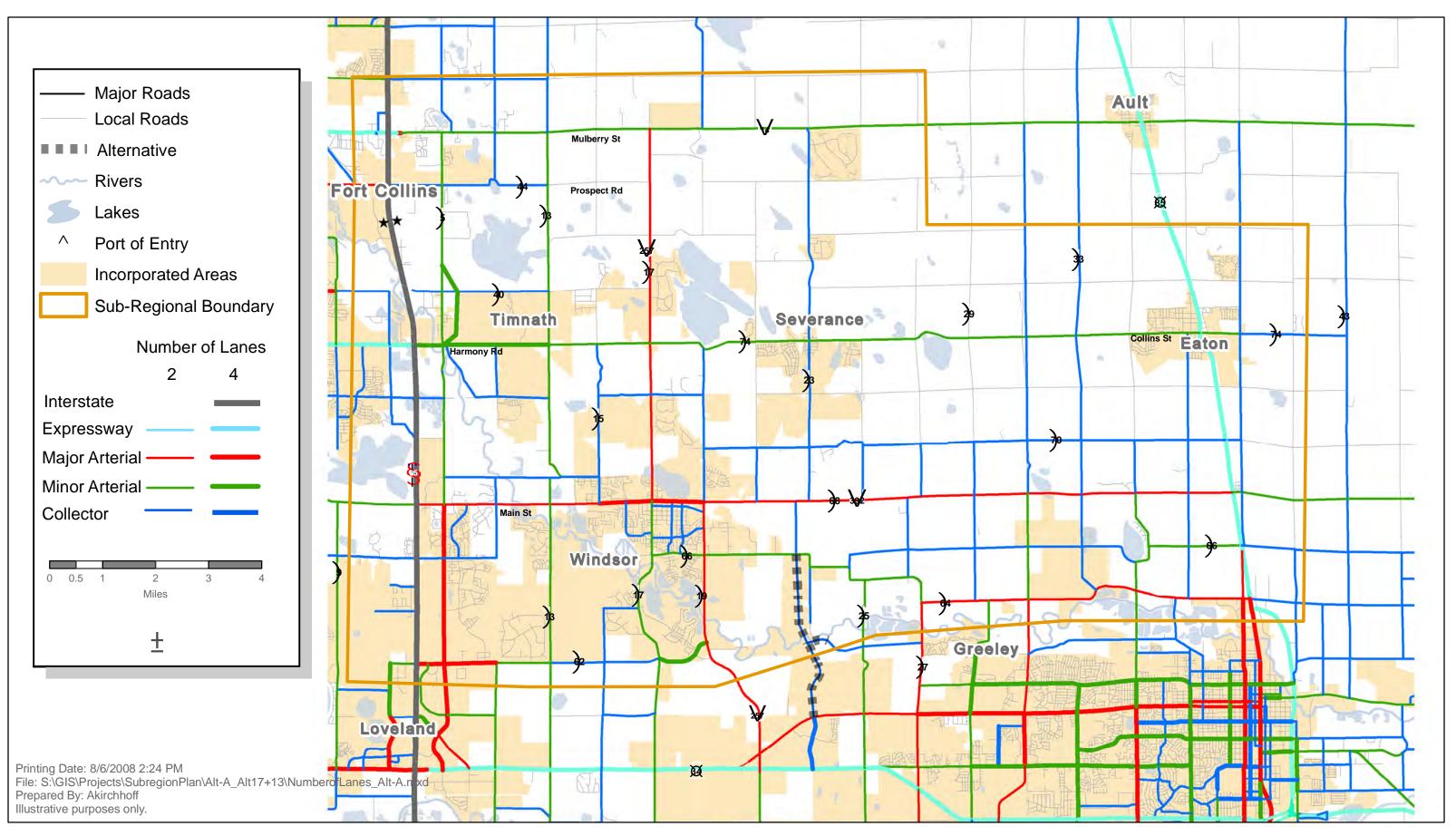






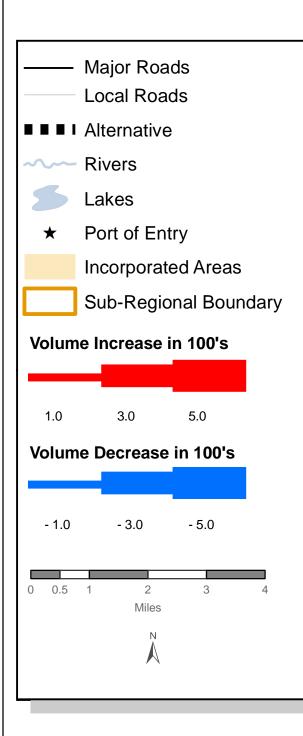


Alternative A (Connect Great Western Dr to US Highway 34) Number of Lanes in 2035

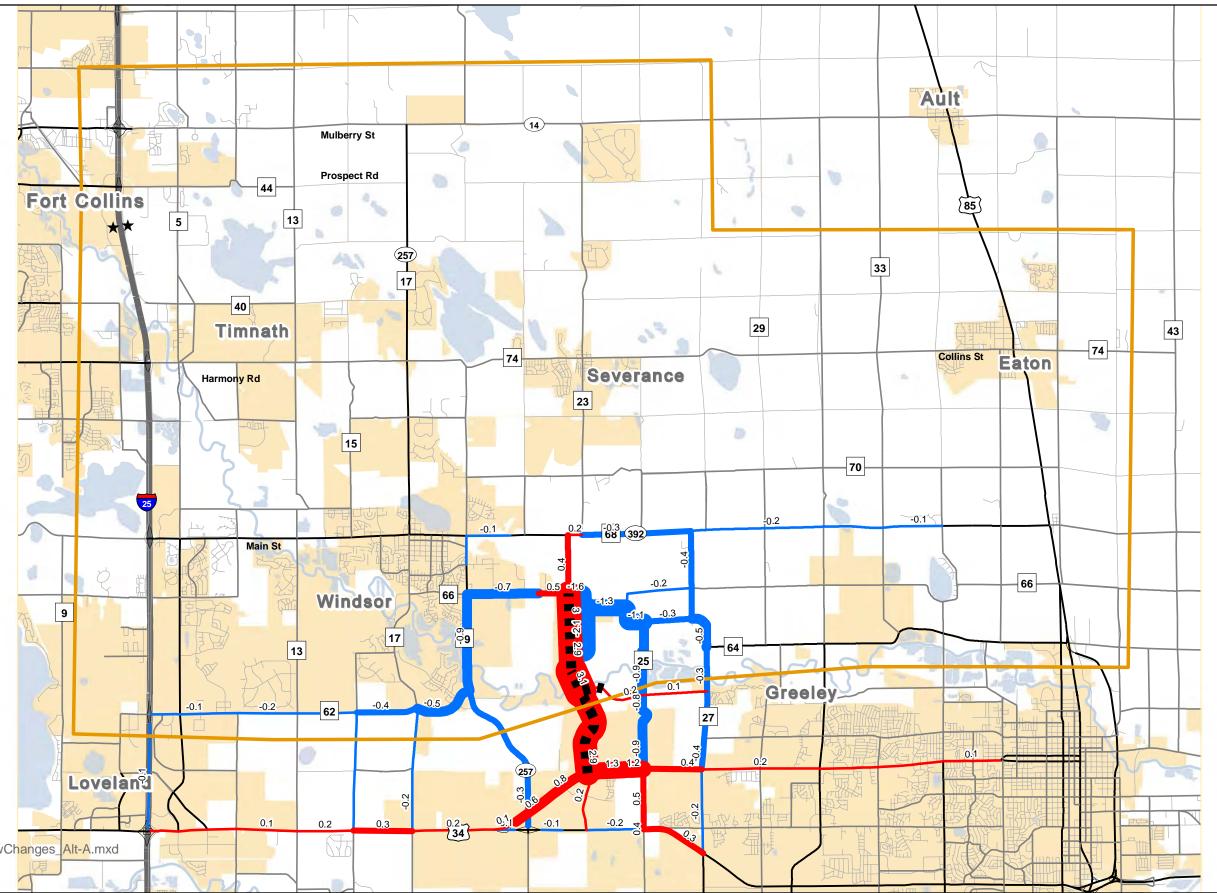




Alternative A (Connect Great Western Dr to US 34) Truck Volume Changes from 2035 Base

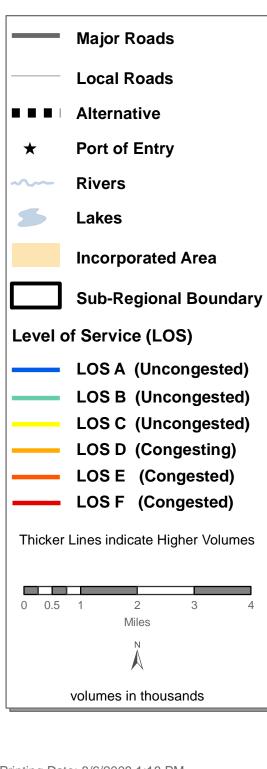


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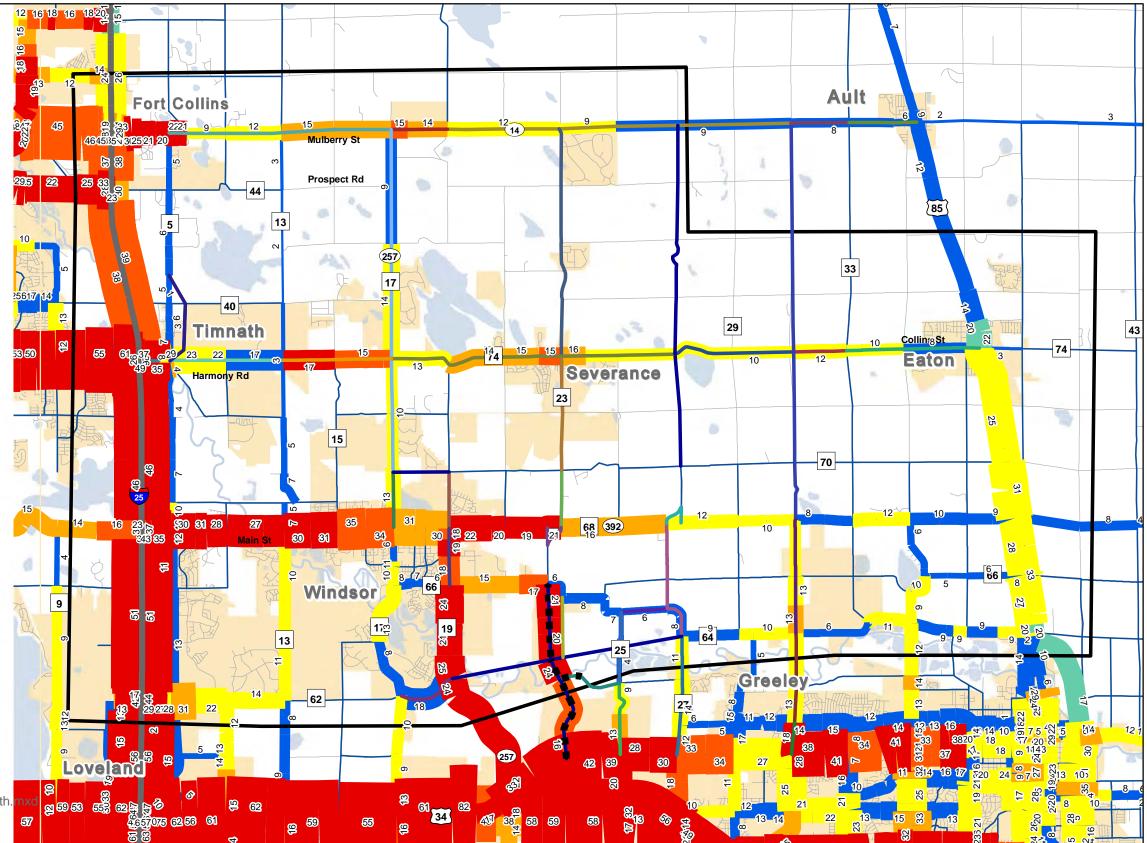




Alternative A (Connect Great Western Dr to US Highway 34) **2035 Level of Service**

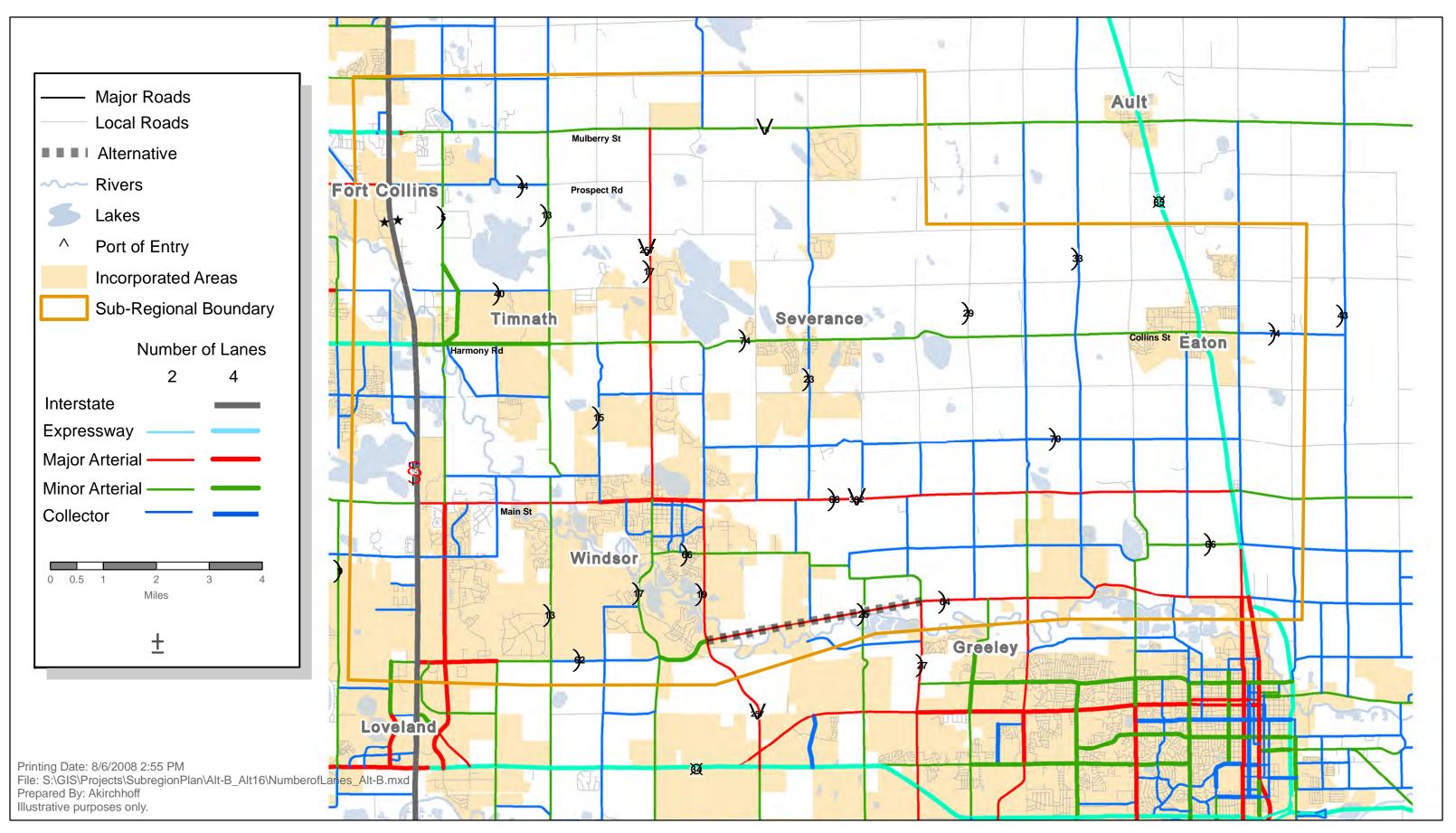


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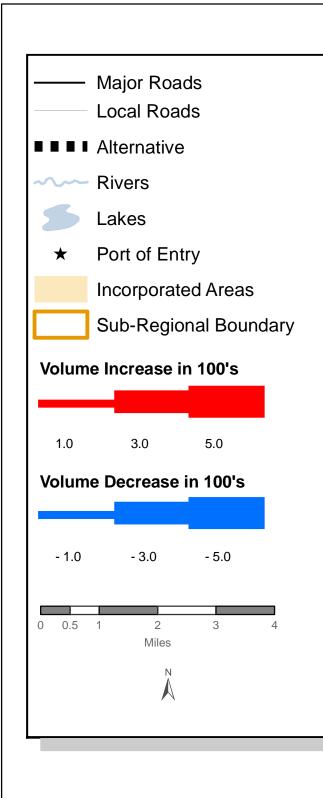


Alternative B (Connect Crossroads to 'O' St) Number of Lanes in 2035

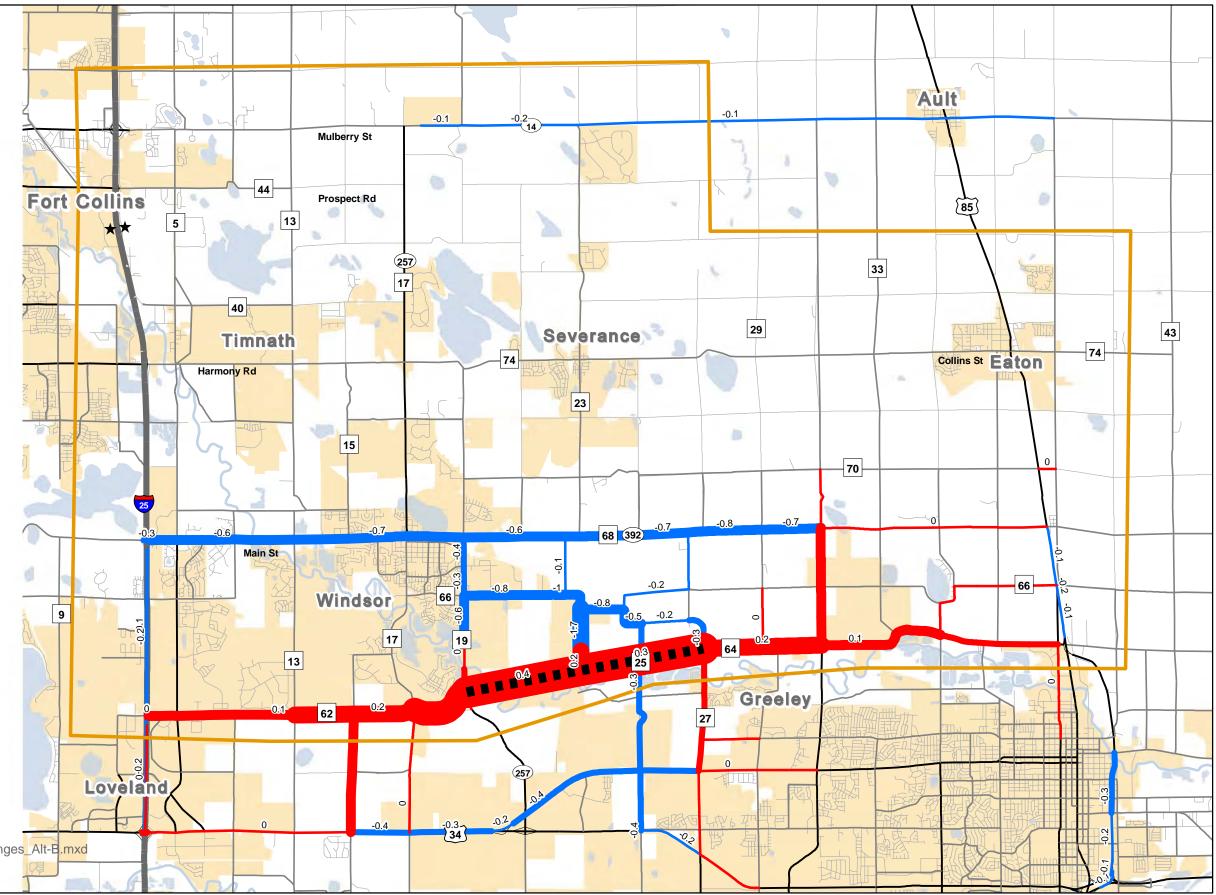




Alternative B (Connect Crossroads to 'O' St) Truck Volume Changes from 2035 Base

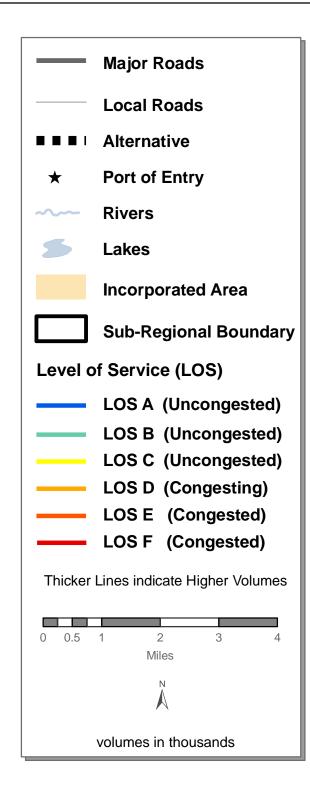


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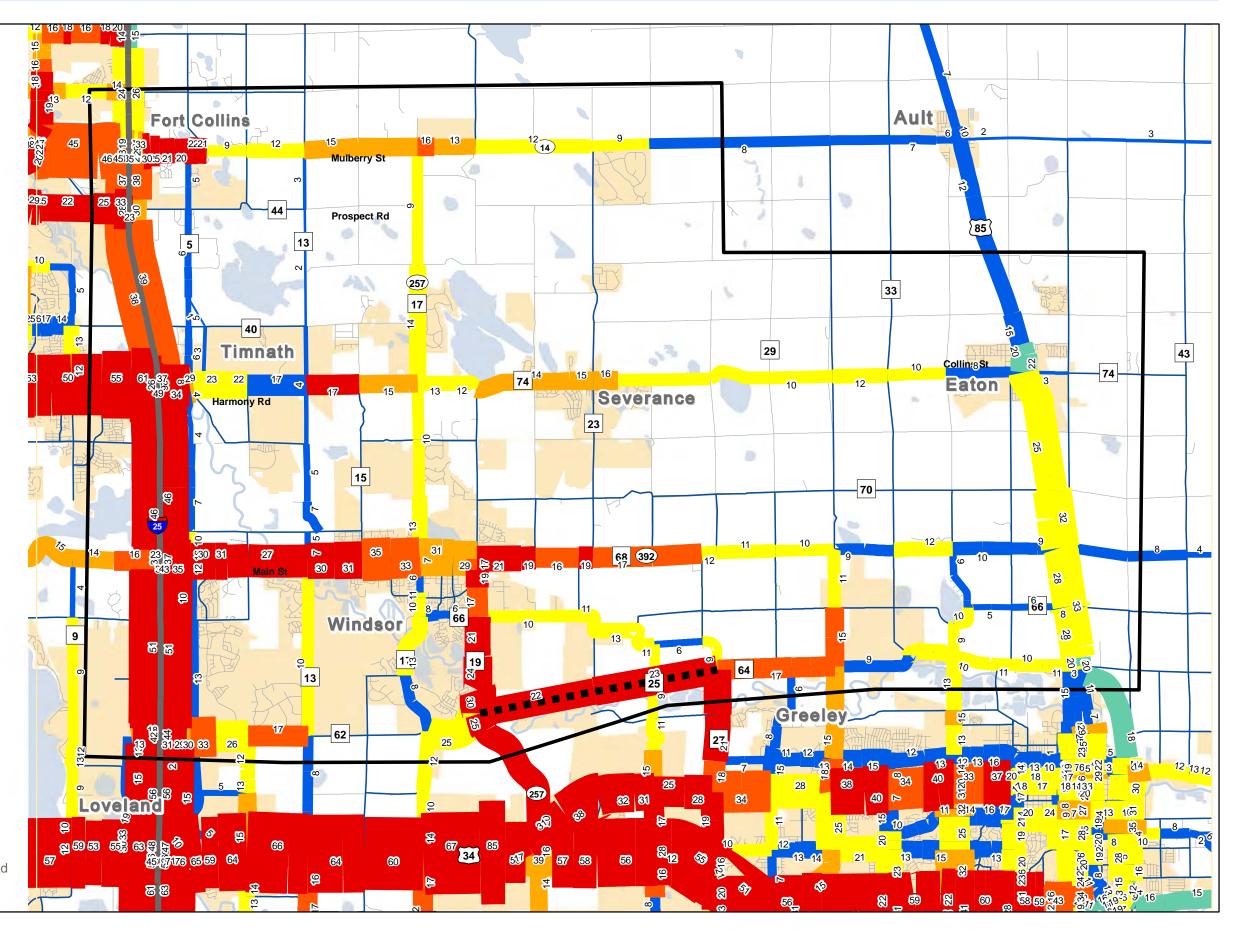




Alternative B (Connect Crossroads to 'O' St) 2035 Level of Service

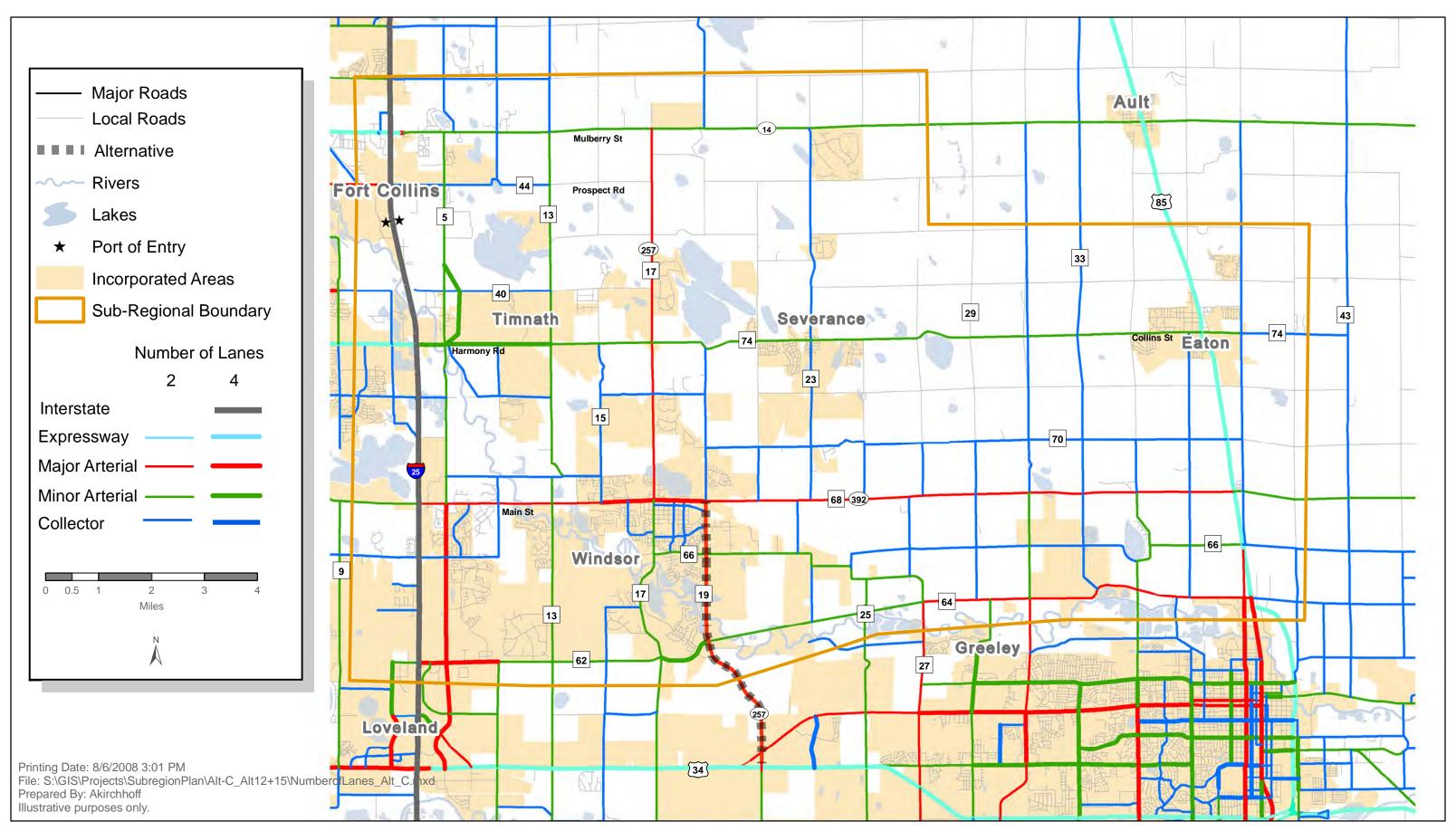


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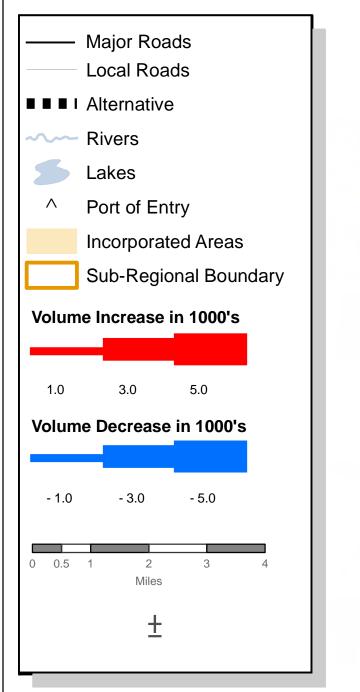


Alternative C (Widen State Highway 257) Number of Lanes in 2035

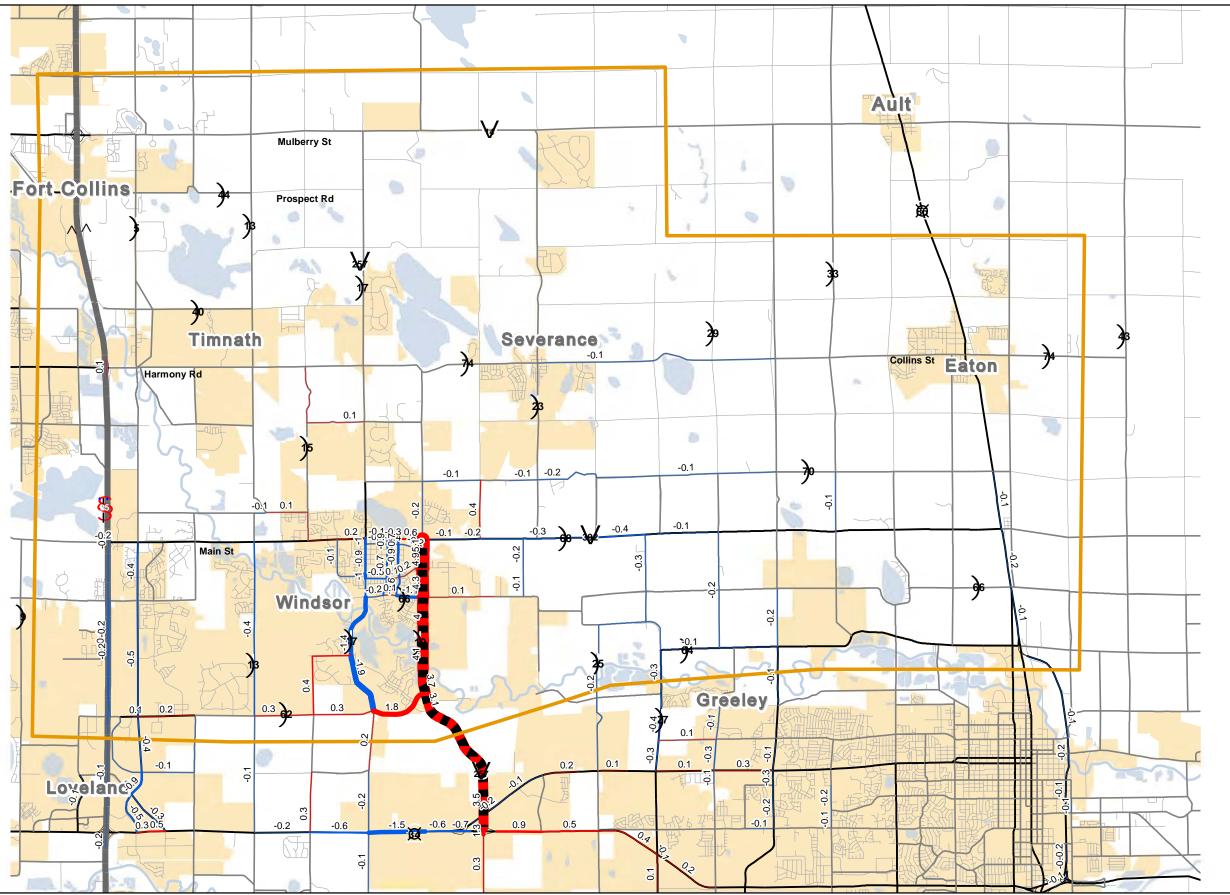




Alternative C (Widen State Highway 257) Traffic Volume Changes from 2035 Base

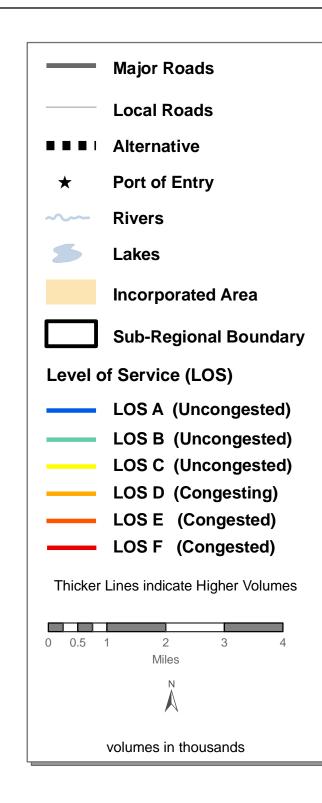


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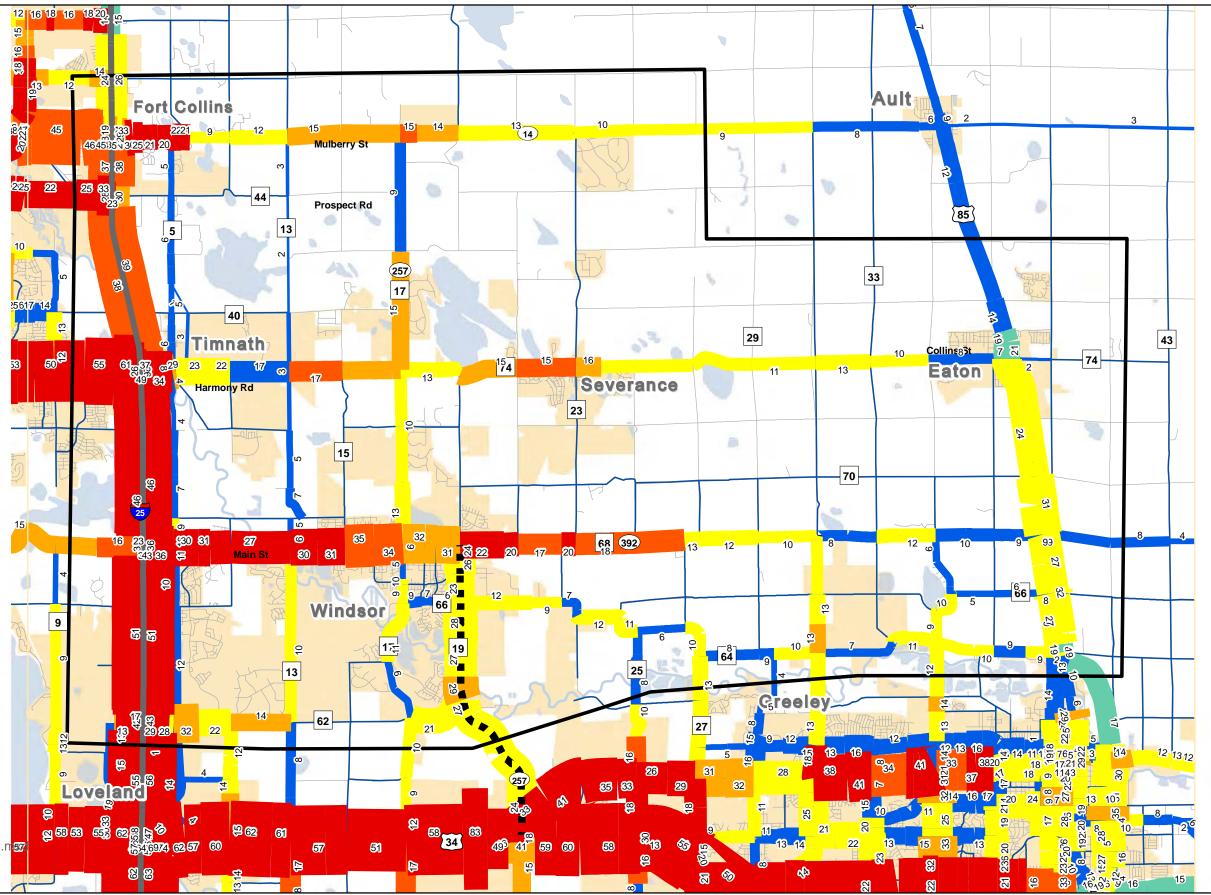




Alternative C (Widen State Highway 257) 2035 Level of Service

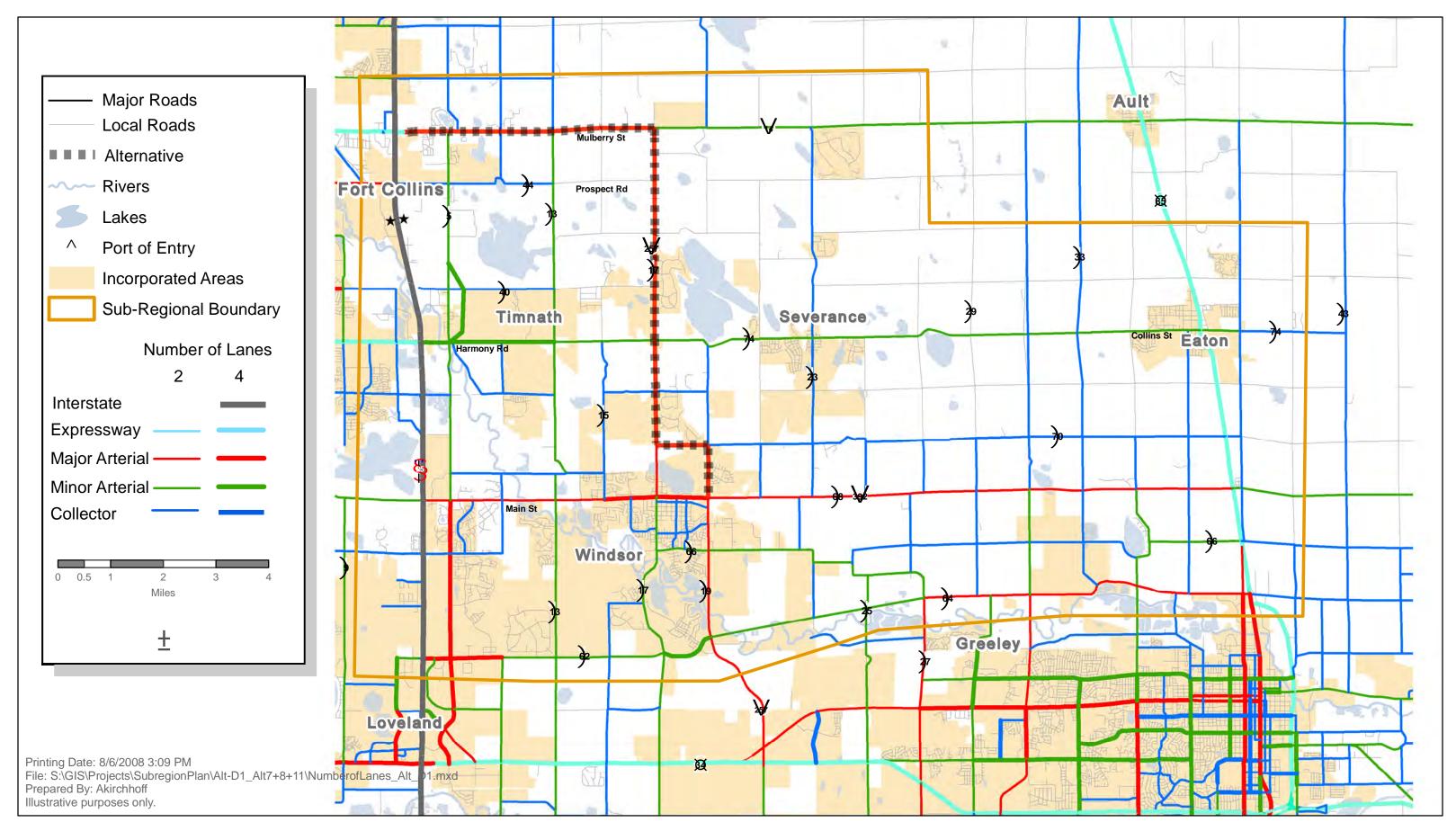


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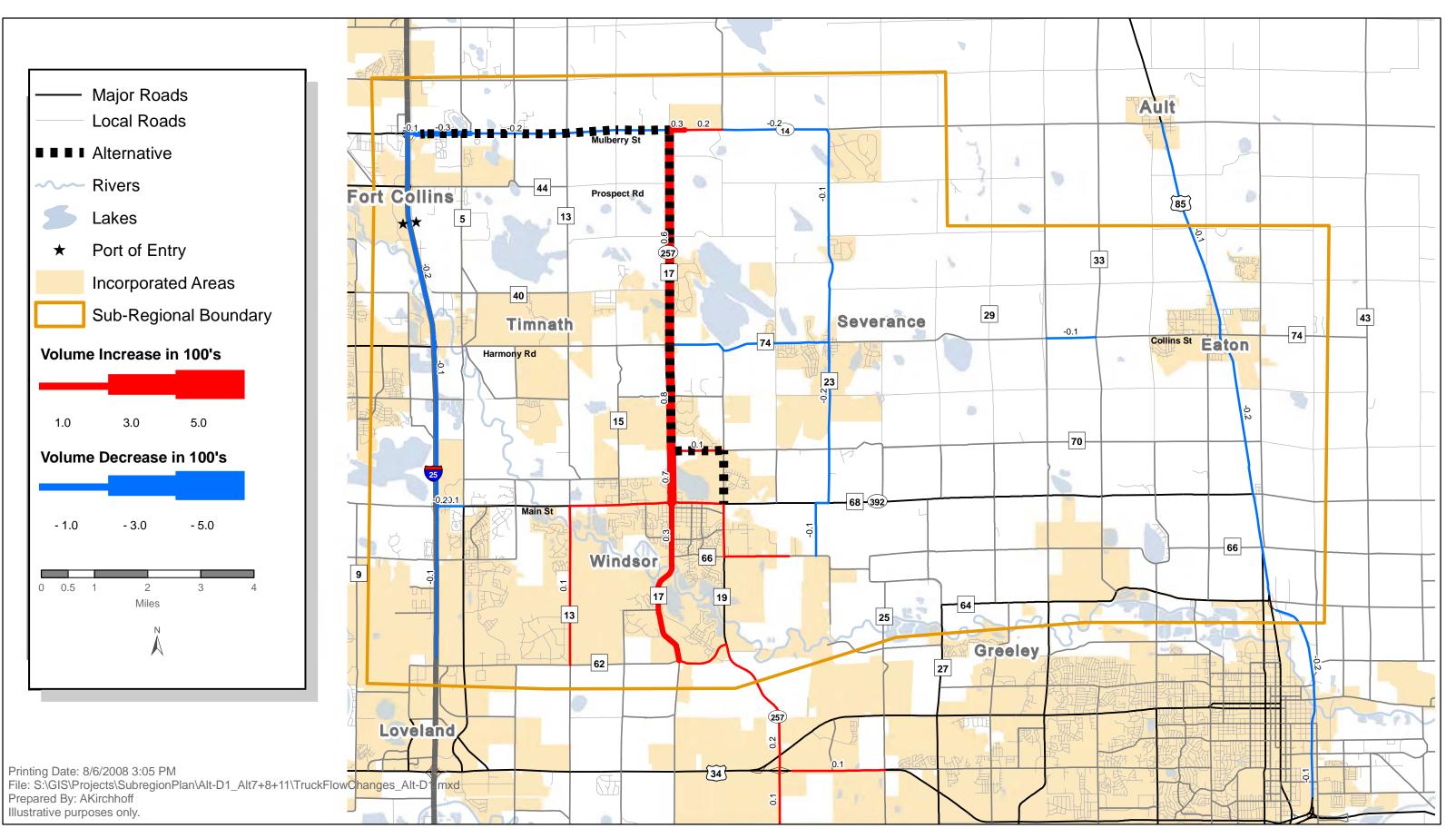


Alternative D1 (Change SH-14 to SH-257 to WCR-70 to WCR-19 to Major Arterial and Widen to 4 Lanes) Number of Lanes in 2035



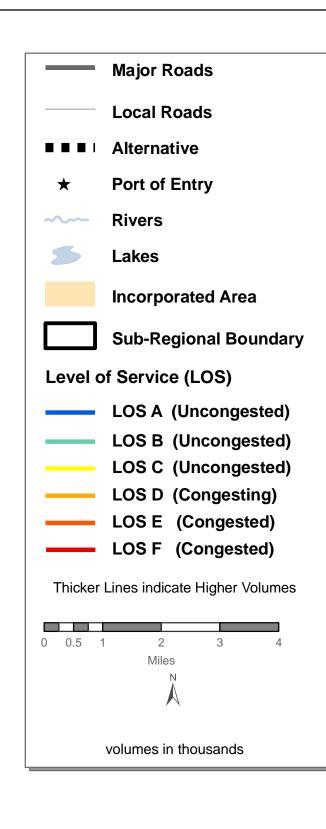


Alternative D1 (14/257/70/19) Truck Volume Changes from 2035 Base

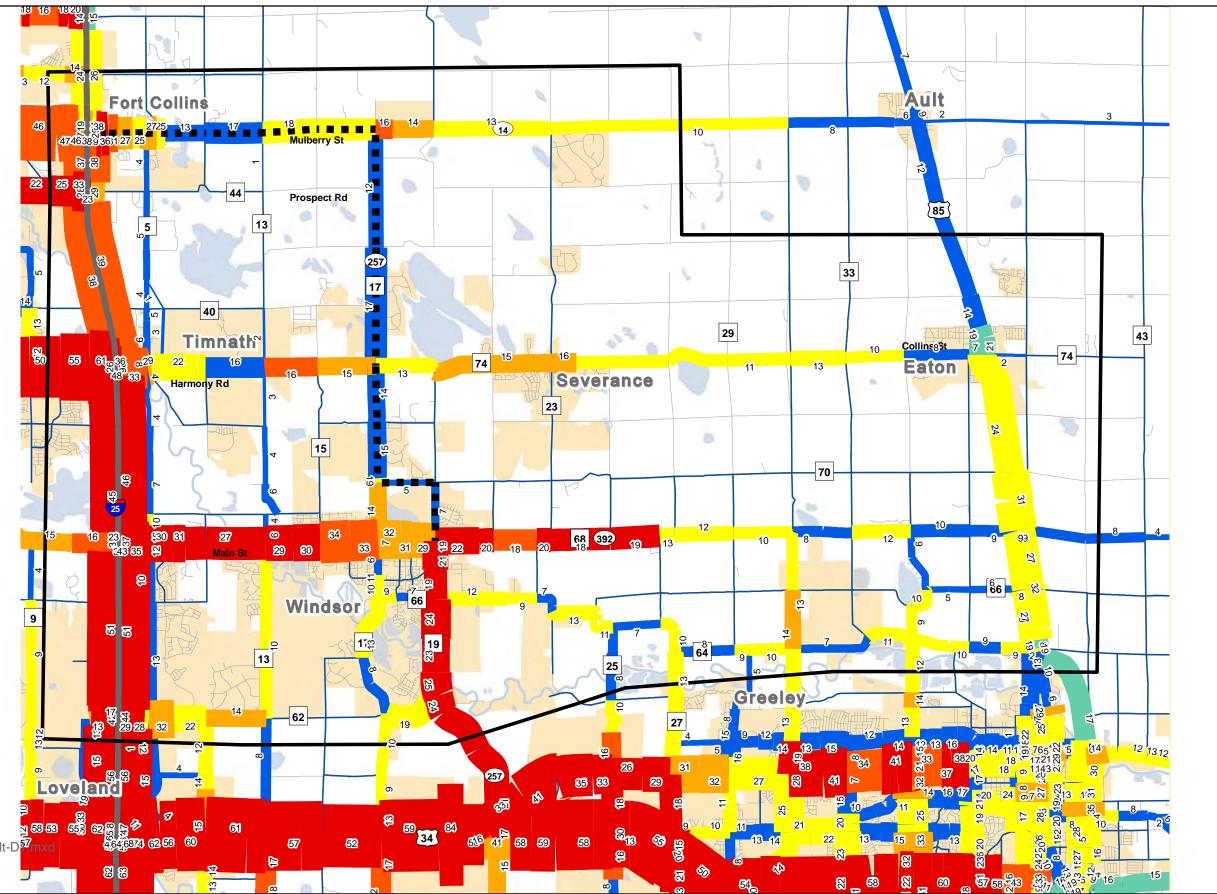




Alternative D1(14/257/70/19) 2035 Level of Service

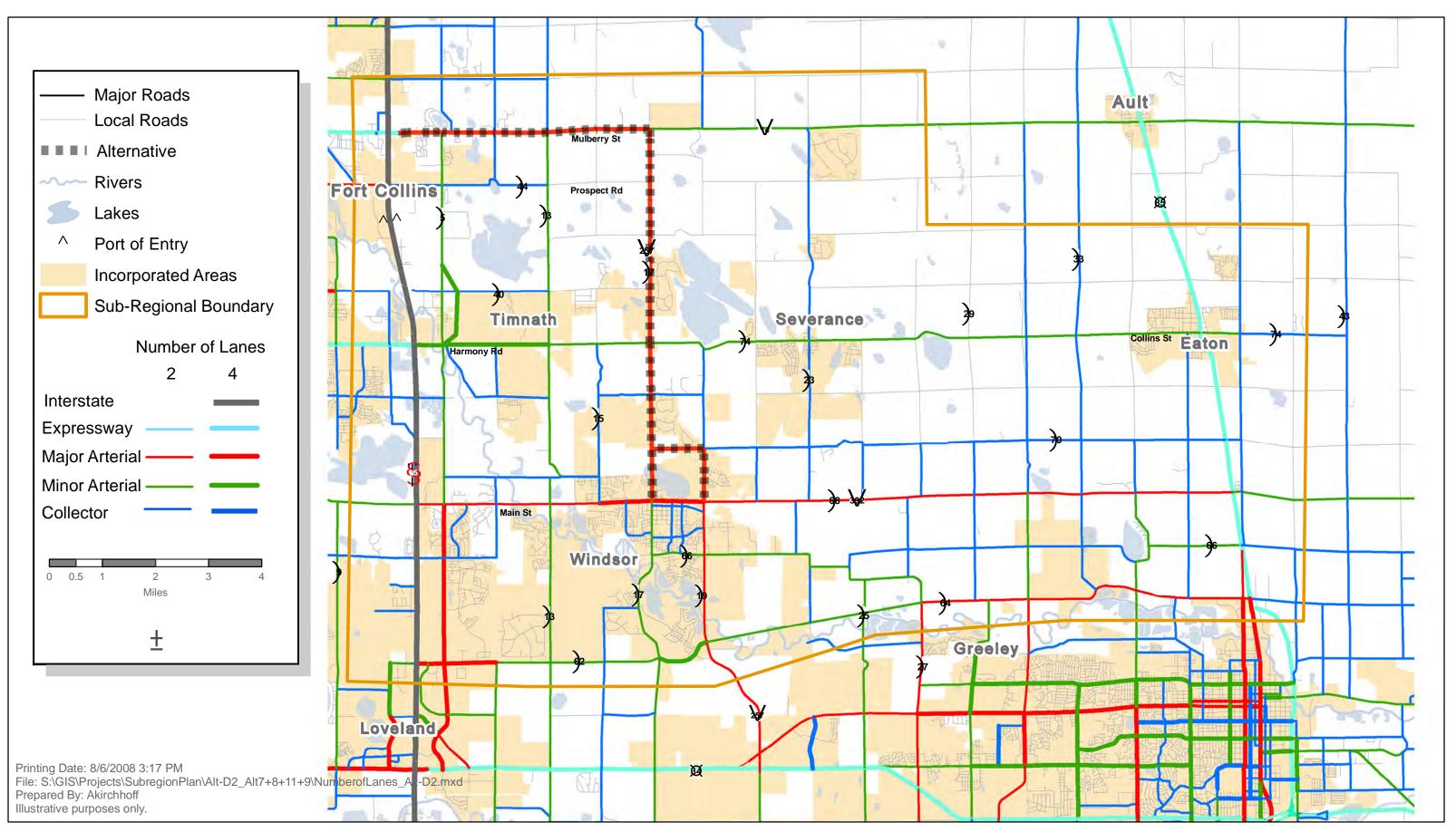


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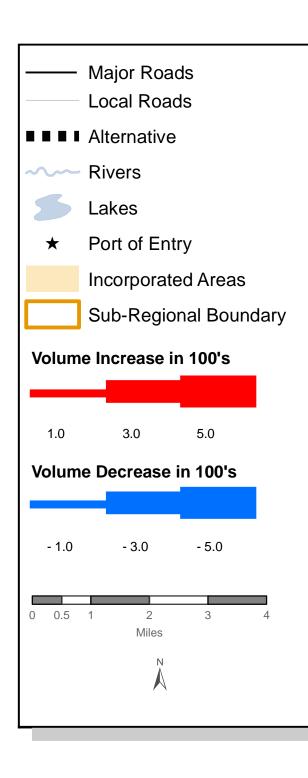


Alternative D2 (Widen State Highways 14 & 257) Number of Lanes in 2035

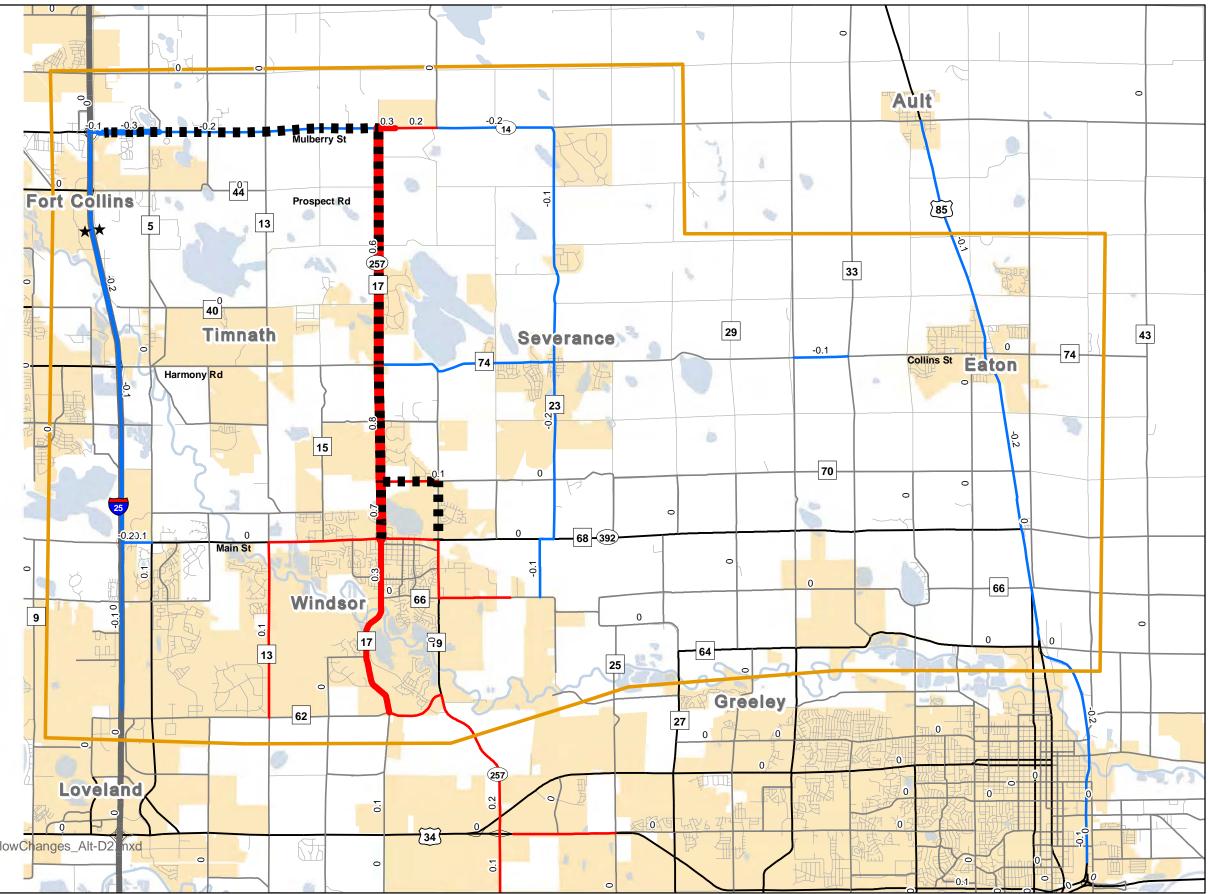




Alternative D2 (Widen State Highways 14 & 257) Truck Volume Changes from 2035 Base

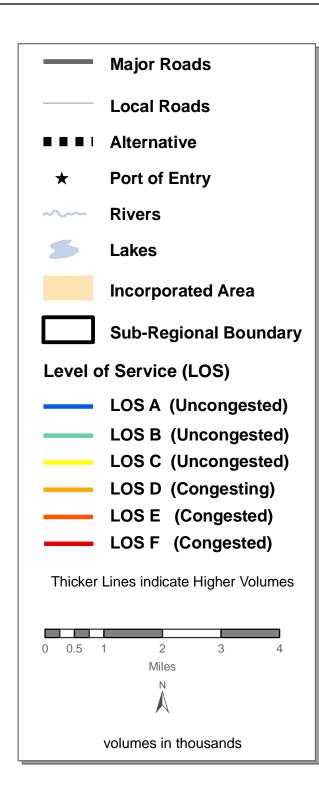


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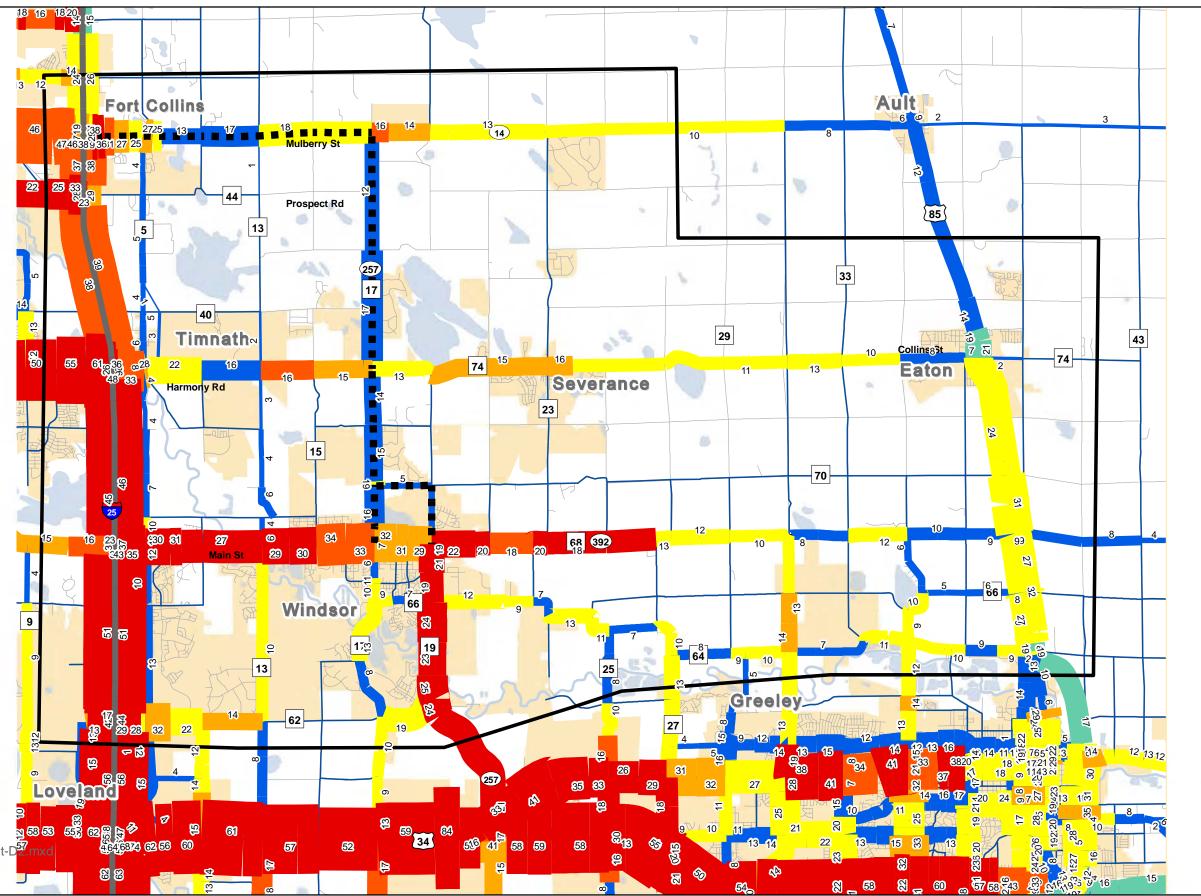




Alternative D2 (Widen State Highways 14 & 257) 2035 Level of Service

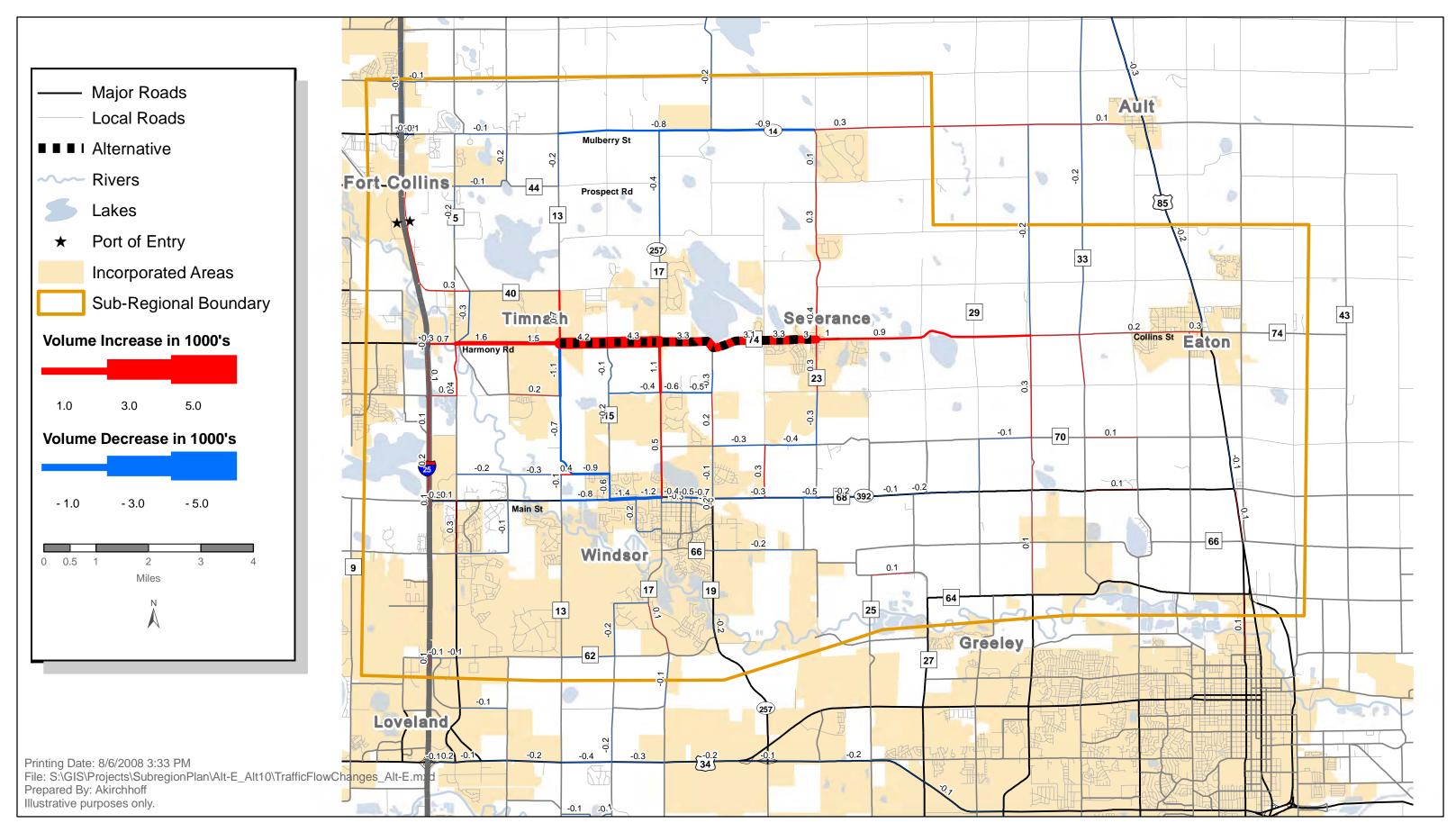


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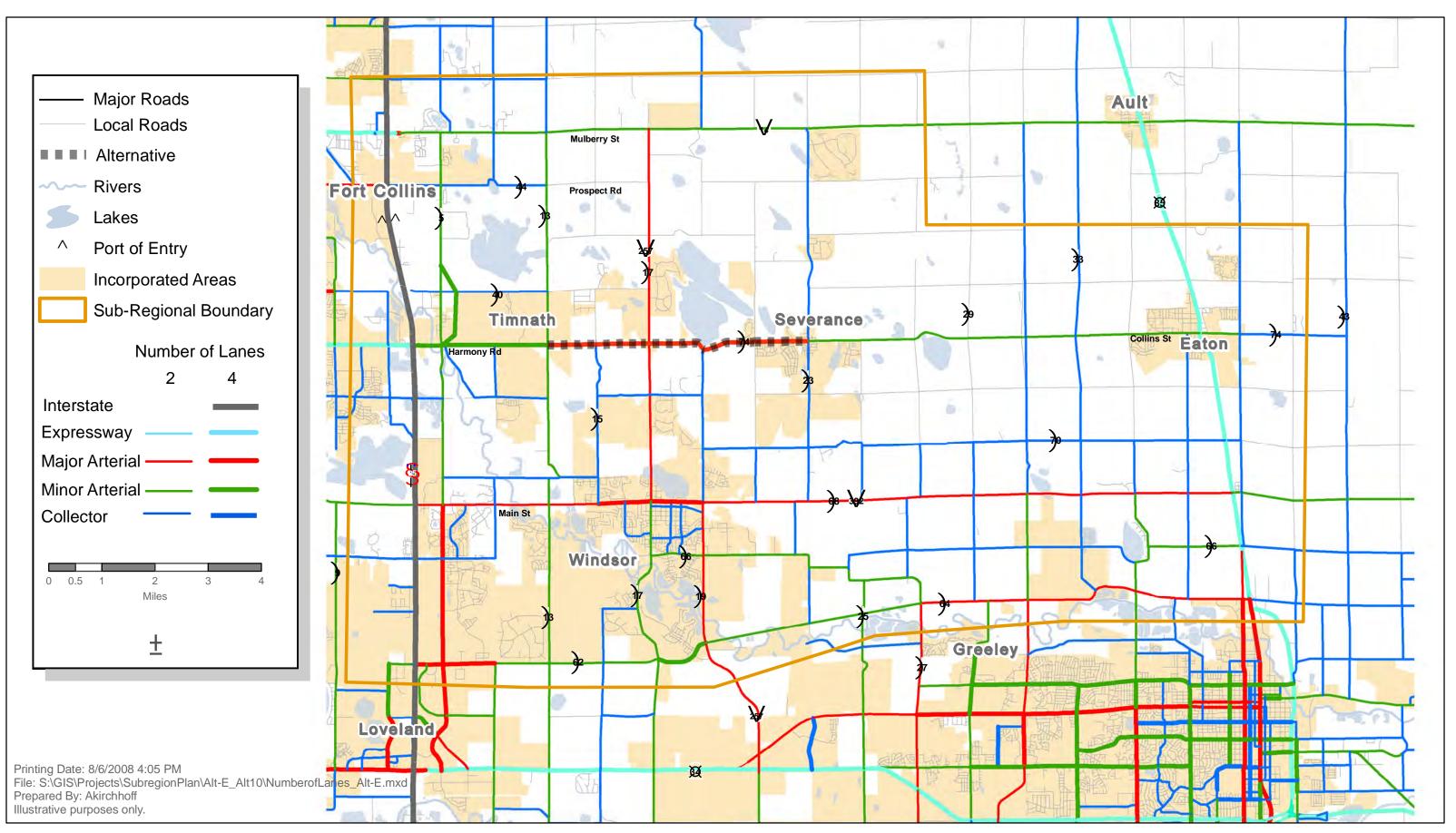


Alternative E (Harmony Rd 4-lane E to SH 257) Traffic Volume Changes from 2035 Base



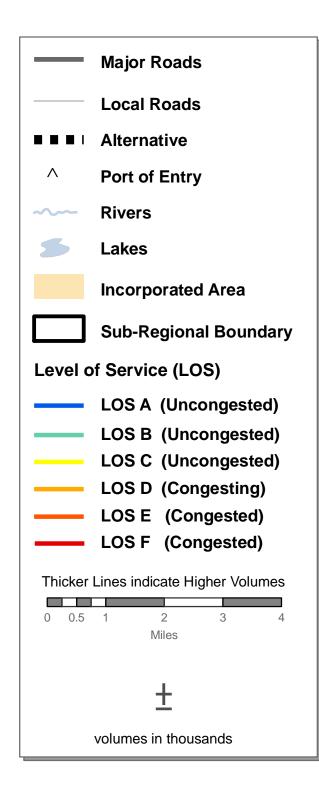


Alternative E (Harmony Rd 4-lane E to SH 257) Number of Lanes in 2035

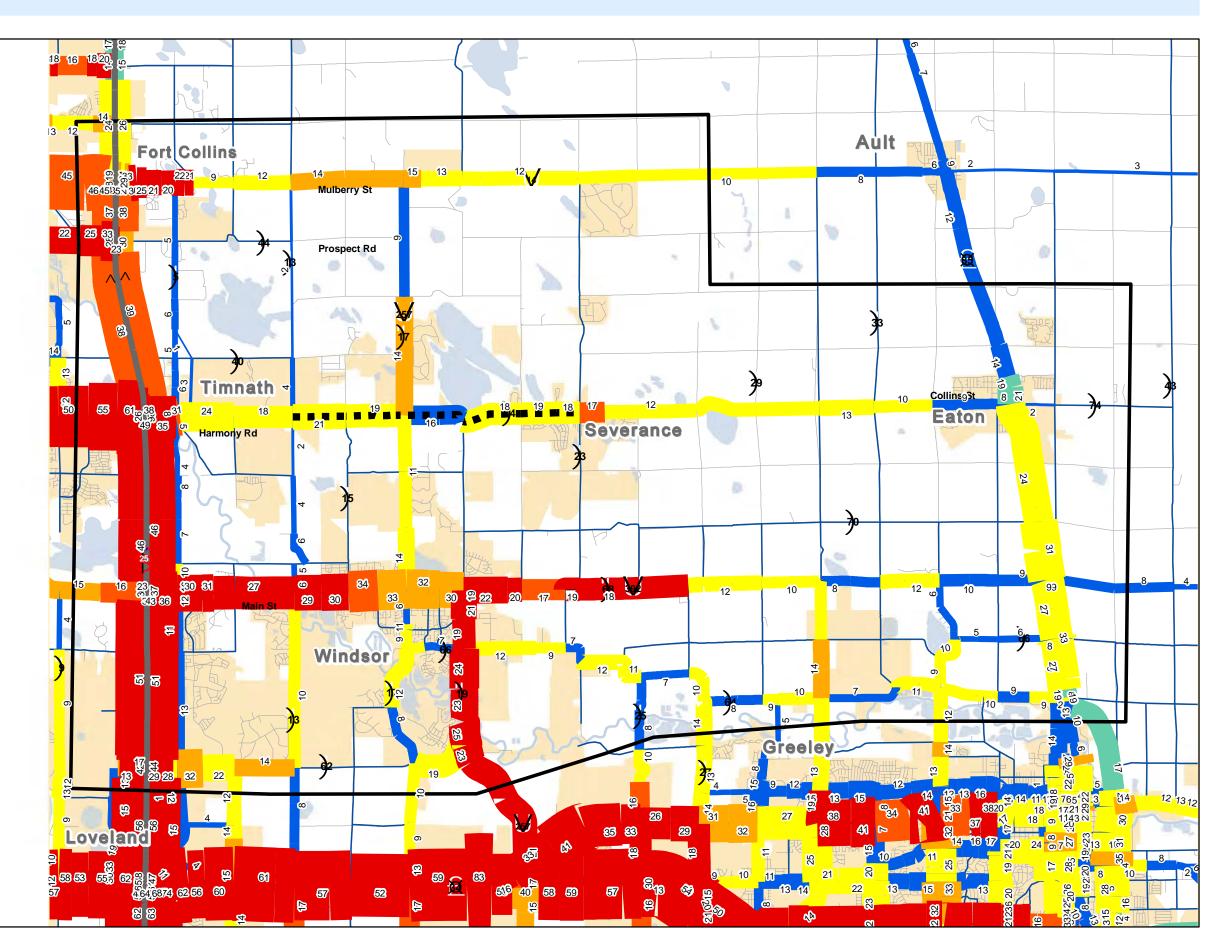




Alternative E(Harmony Rd 4-lane E to WCR 23) 2035 Level of Service

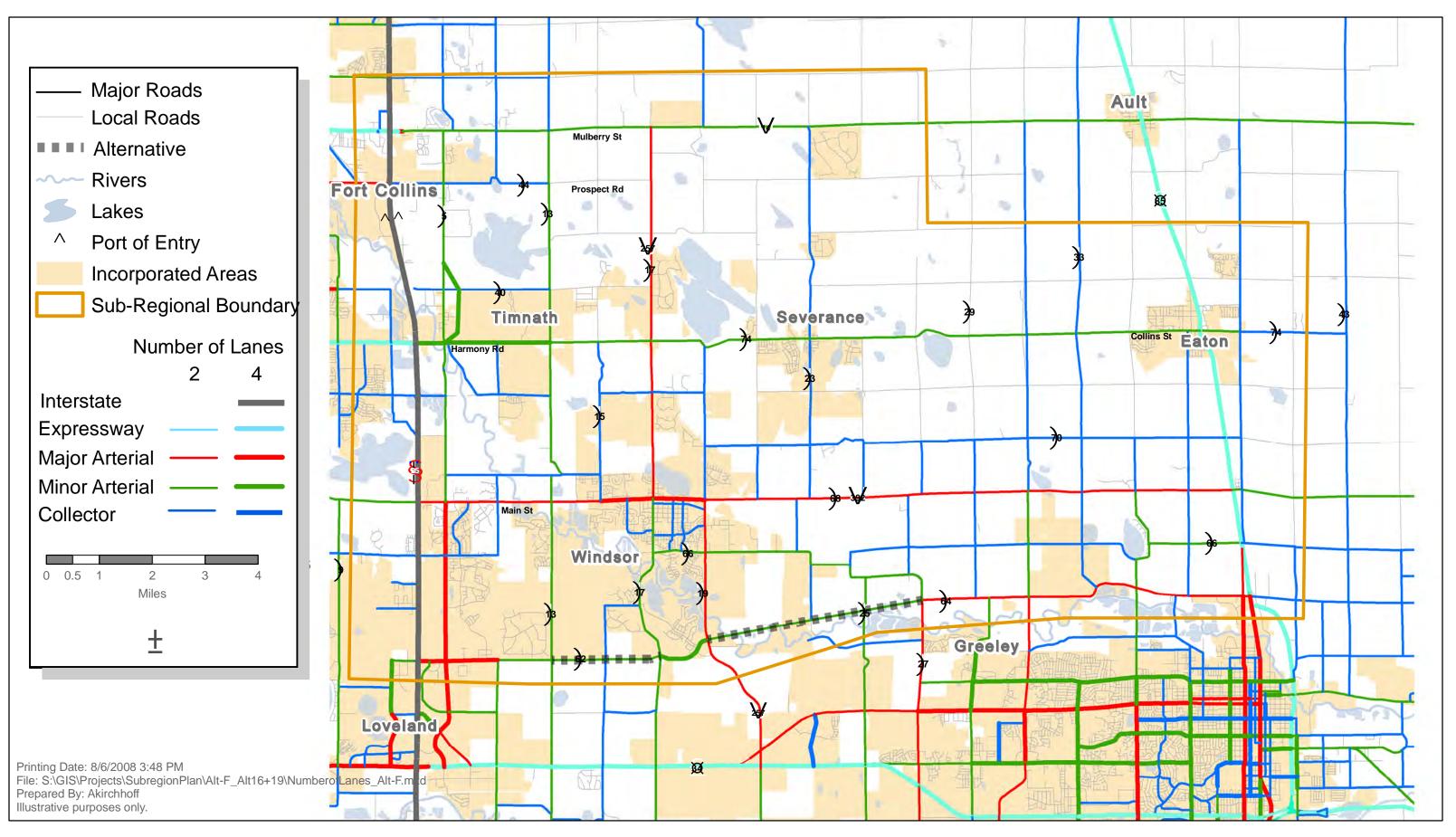


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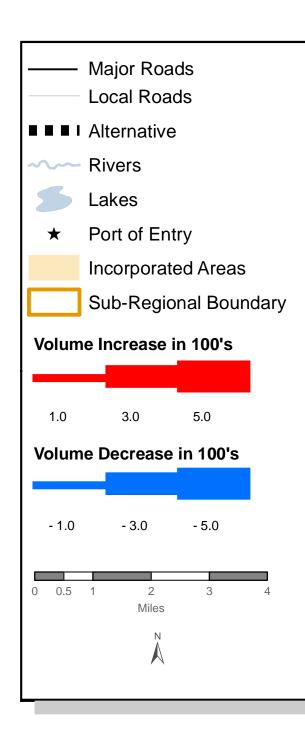


Alternative F (Widen Crossroads & Connect to 'O' St) Number of Lanes in 2035

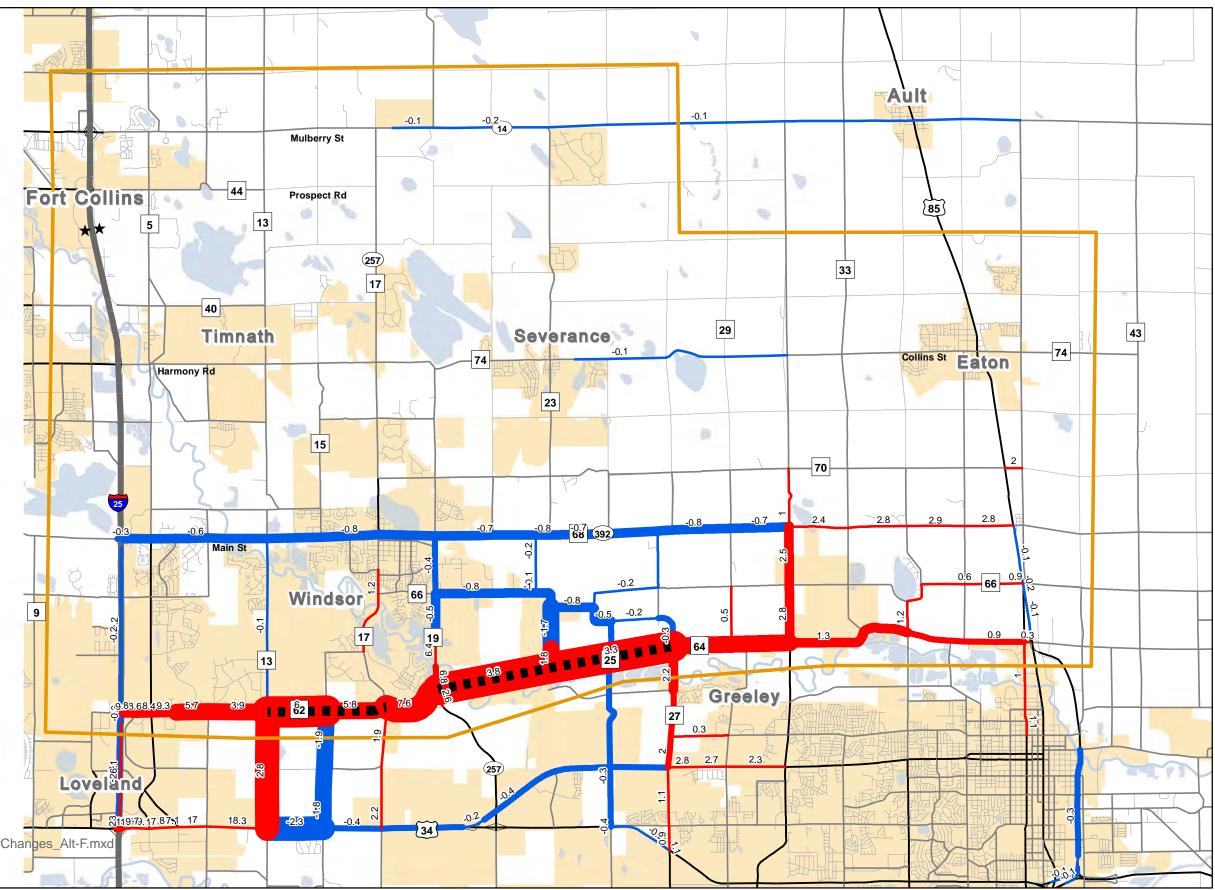




Alternative F (Widen Crossroads & Connect to 'O' St) **Truck Volume Changes from 2035 Base**



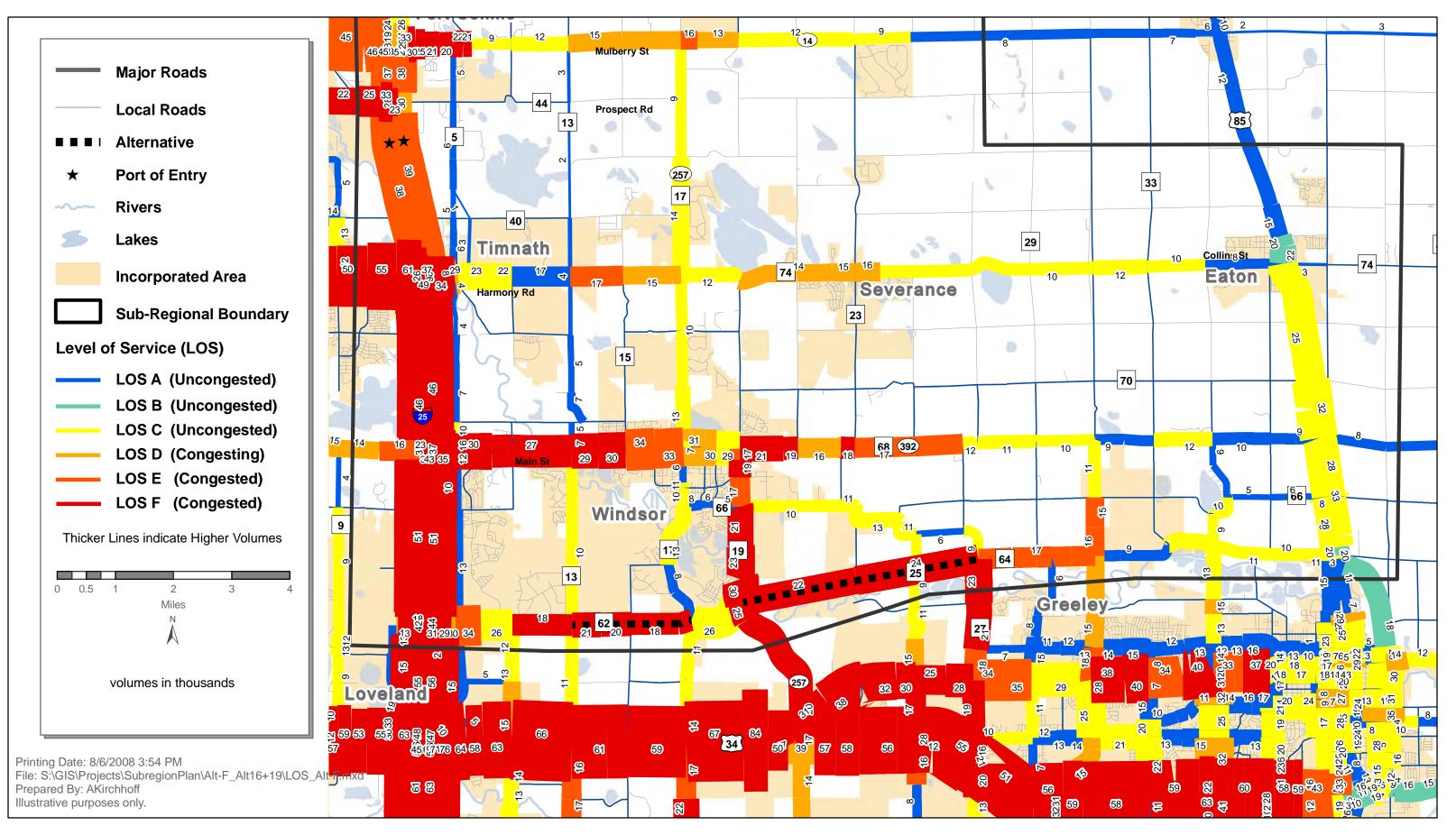
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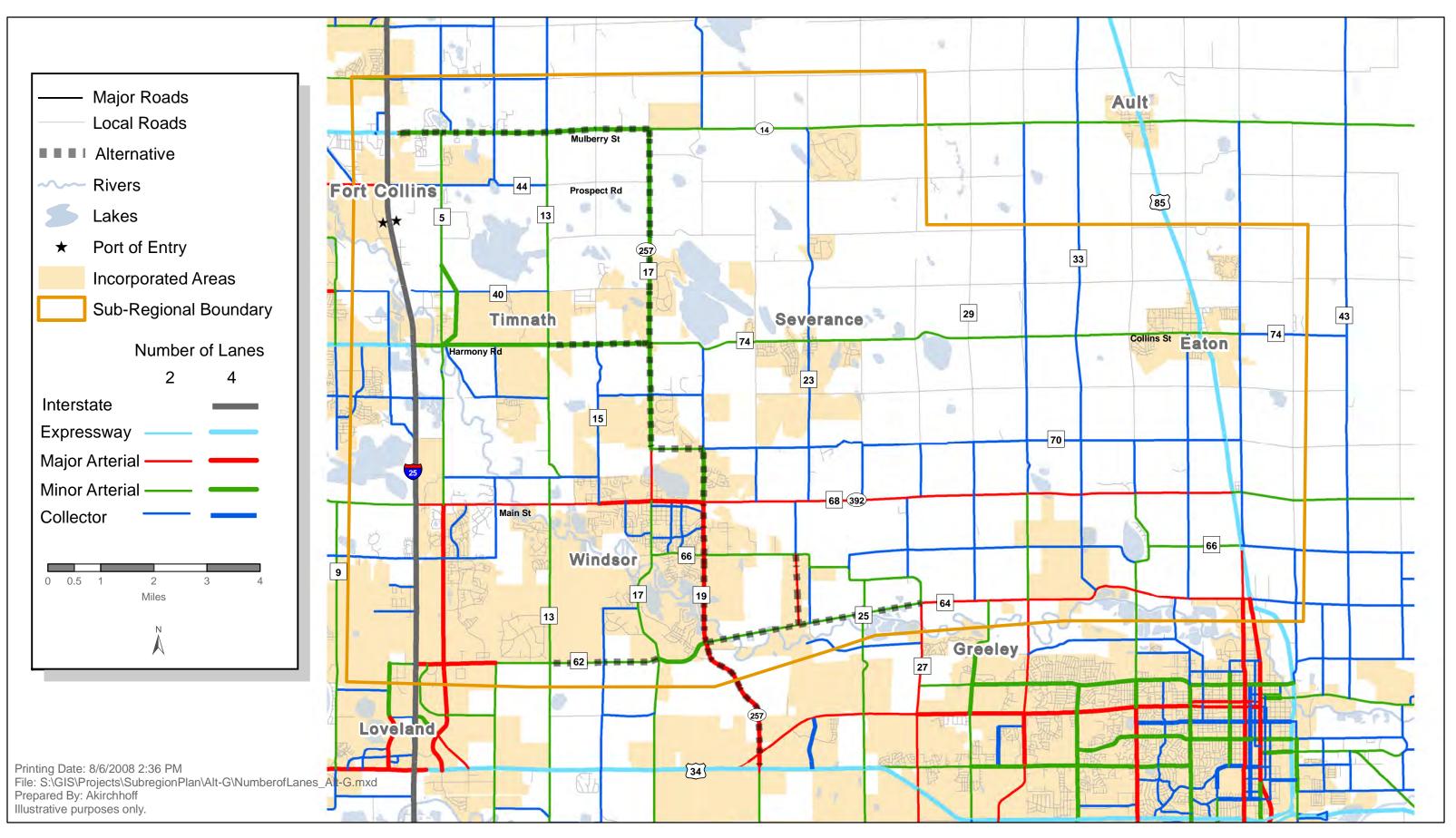
Alternative F (Widen Crossroads & Connect to 'O' St) **2035 Level of Service**





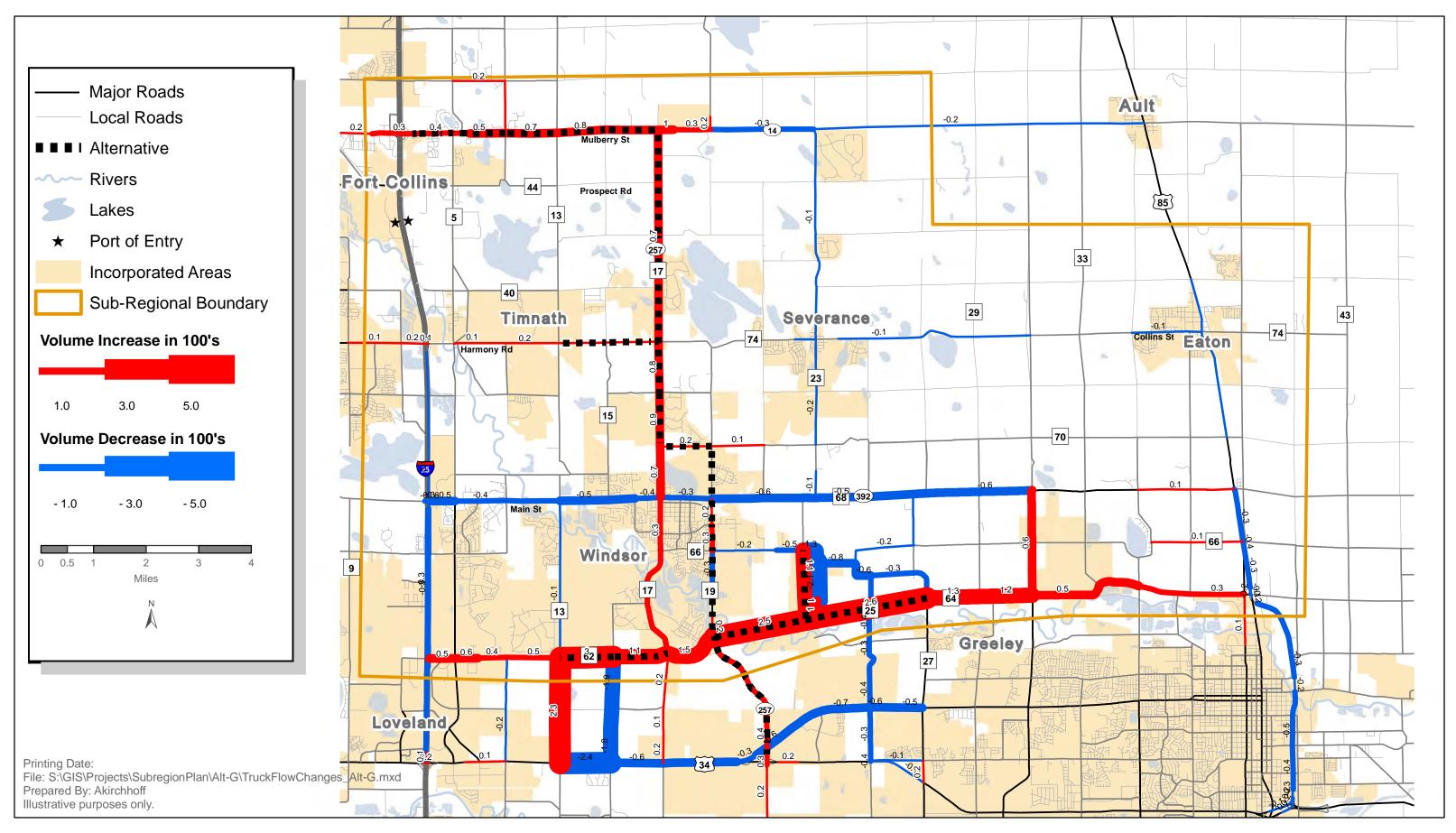


Alternative G (Combo: Portions of A, C, D1, E & F) Number of Lanes in 2035



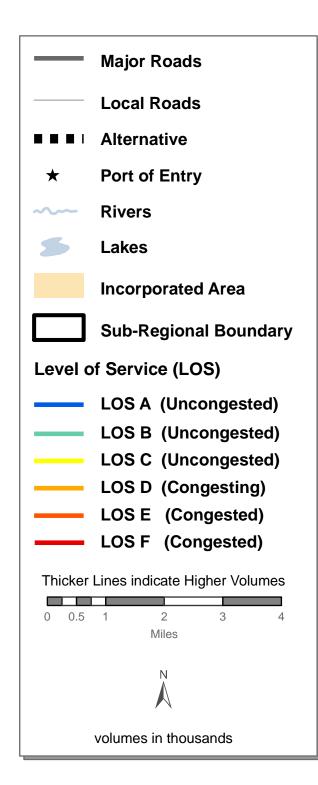


Alternative G (Combo: Portions of A, C, D1, E & F) Truck Volume Changes from 2035 Base

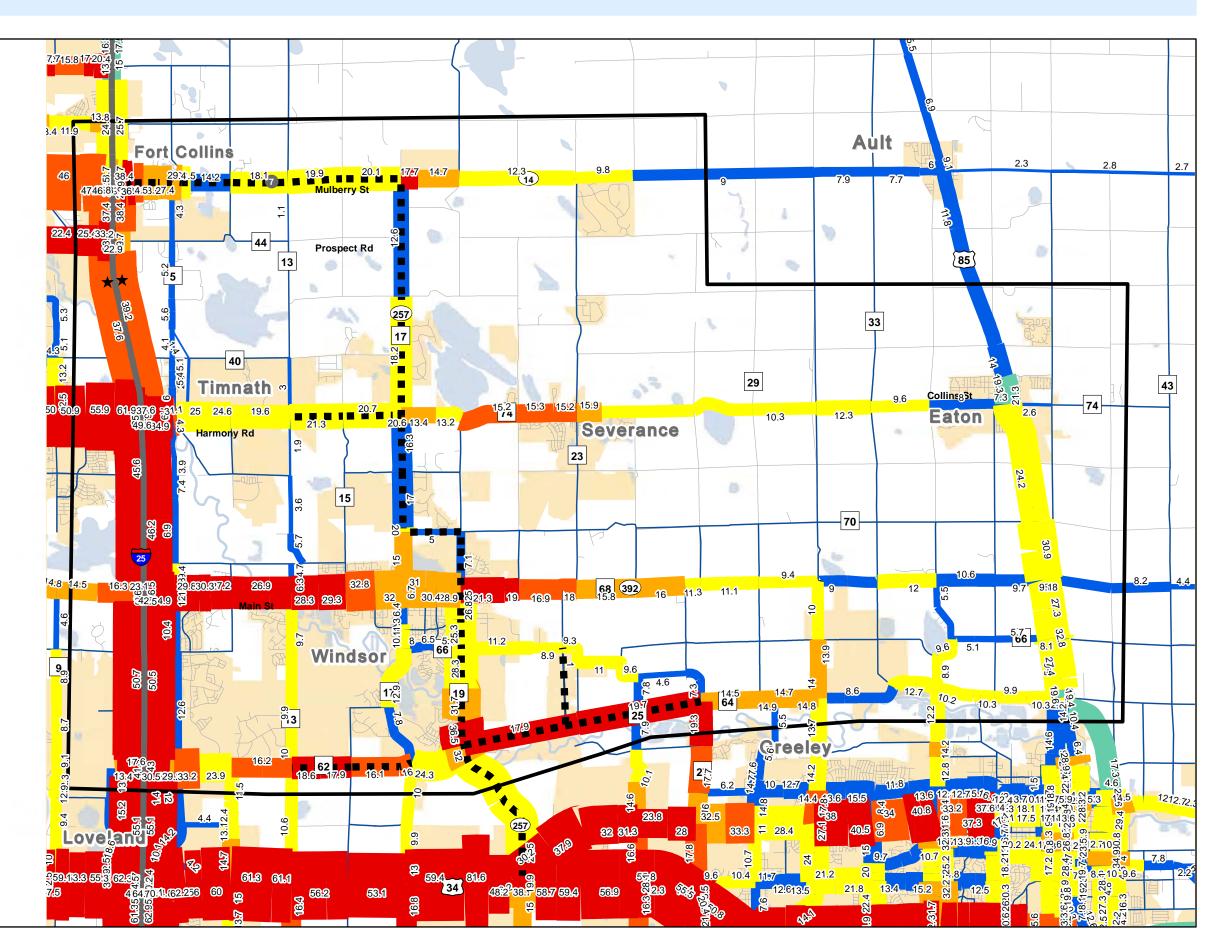




Alternative G (Combo: Portions of A, C, D1, E & F) 2035 Level of Service



Printing Date: 8/7/2008 File: S:\GIS\Projects\SubregionPlan\Alt-G\LOS_Alt-G.mxd Prepared By: AKirchhoff Illustrative purposes only.



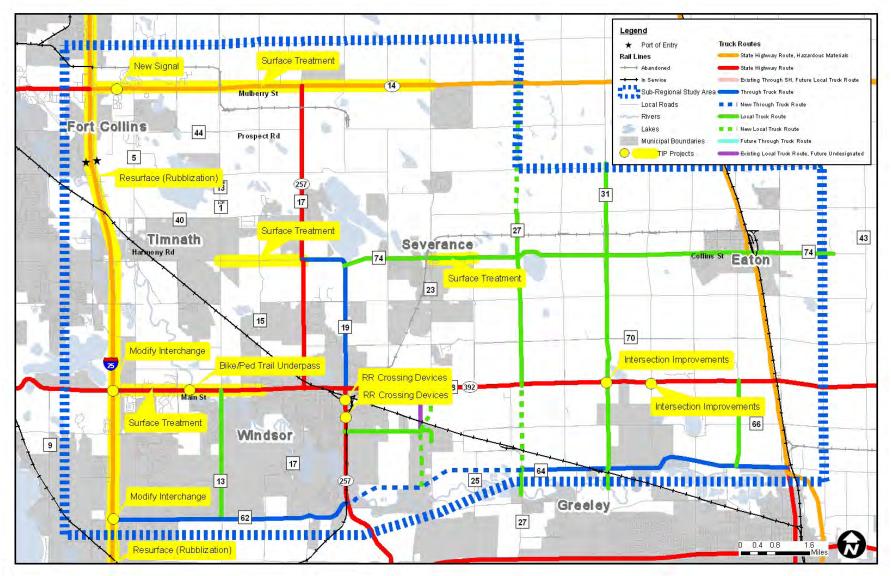


APPENDIX F

SUB-REGIONAL STUDY AREA PROJECTS LISTED IN THE NFRMPO 2008-2013 TIP



APPENDIX F North Front Range MPO Sub-Regional Study: Truck Traffic in the Northeastern Quadrant of the Region



Truck Route Designations with TIP Projects



APPENDIX G

COLORADO DEPARTMENT OF TRANSPORTATION REGION 4 LETTER TO LOCAL AGENCIES

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION Region Four

1420 2nd Street Greeley, CO 80631 (970) 350-2153 Fax (970) 350-2178



Kelly Arnold, Town Manager Town of Windsor Becky Davidson, Town Manager Town of Timnath John Holdren, Town Administrator Town of Severance Wayne Howard, County Engineer Weld County

September 15, 2008

Dear Sirs and Madam:

I had a follow-up meeting with Bob Garcia, Inessa Zisman and Gloria Hice-Idler regarding the proposal to sign a truck route as discussed at the Sub-Regional Study meeting on August 20th. We discussed other locations around the state where similar proposals have been put forth, how CDOT responded to the request, and the legality of truck route signing. In our research, we found an Attorney General's memo that proves guidance, and outlines the information needed as part of the decision-making process.

In order for R4 **to continue the discussion** of an alternative truck route, we need the following information. (Italicized text is from the memo.)

 The authority to designate and sign a truck route to encourage an alternate route does seem to exist. The question then becomes what elements should be considered in either designating or signing for such routes? First, one should look at what problem exists that is in need of a solution, and if an alternate solution might serve the public better. Is there a clear, demonstrative need for an alternative truck route?

Once the alternate route has been confirmed as the appropriate solution, safety, operations, maintenance and public acceptance of the alternate route are areas that should be considered before signing is approved.

- 2. The public acceptance could be satisfied by the Entities' adoption of an ordinance designating the alternate truck route. The adoption processes normally allows public input, and would allow discussion related to impacts to the community and businesses to be aired. What is your plan for public involvement and obtaining a resolution for the proposed truck route?
- 3. Operations and safety would need to be considered based on design standards of the alternate route since historical data of the increased truck use would not exist. Areas of

concern would include pavement structure, height and width restrictions, railroad crossings, lane widths, intersection design/operations (turning radius and other geometric design issues), and the existence of appropriate traffic control and intersection design standards at points where the alternate route departs from and returns to the state routes. We will look at is the level of service provided by the new facility. Does it have the same, or similar, service level as the existing route, thereby meeting the expectations of the highway user in terms of width of travel lanes, shoulders, sight distance, etc?

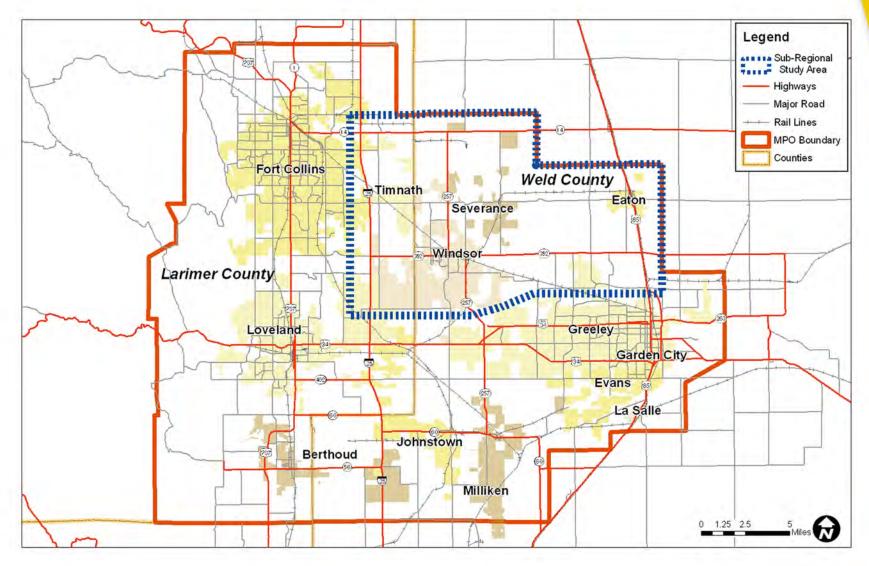
- 4. Maintenance of the alternate route would also be of interest. Snow removal and other maintenance activities should be at or above the level expected on the state route. What are your plans to fund maintenance activities, who will be responsible, and what is the standard of maintenance service that will be provided?
- Because this facility crosses multiple jurisdictions, agreements between the four entities regarding the use of, and continued maintenance of the proposed route should be in place.
 What agreements will you have in place prior to signing the route?

That an optional alternate route that did not offer an advantage to the highway users it is intended to serve will not be utilized. Establishing such a route would only serve to disappoint the people expecting a change to their situation, casting those involved in implementing the program in a bad light.

CDOT will not require trucks to leave the State Highway system and take this route. In this case, a green-on-white sign with a message "ALTERNATE/TRUCK ROUTE / arrow" could possibly be used to encourage use of a designated truck route and be within the requirements of the MUTCD. This type of sign would only encourage the use of the route, not require it.

We would be happy to meet with you individually, or as a group, to discuss this matter. We want to work with you to meet your needs, while meeting the needs of the users of the state highway system. Please call me if you have any questions.

Myron Hora R4 Planning and Environmental Manager



North Front Range MPO

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